

INDEX OF PLANS

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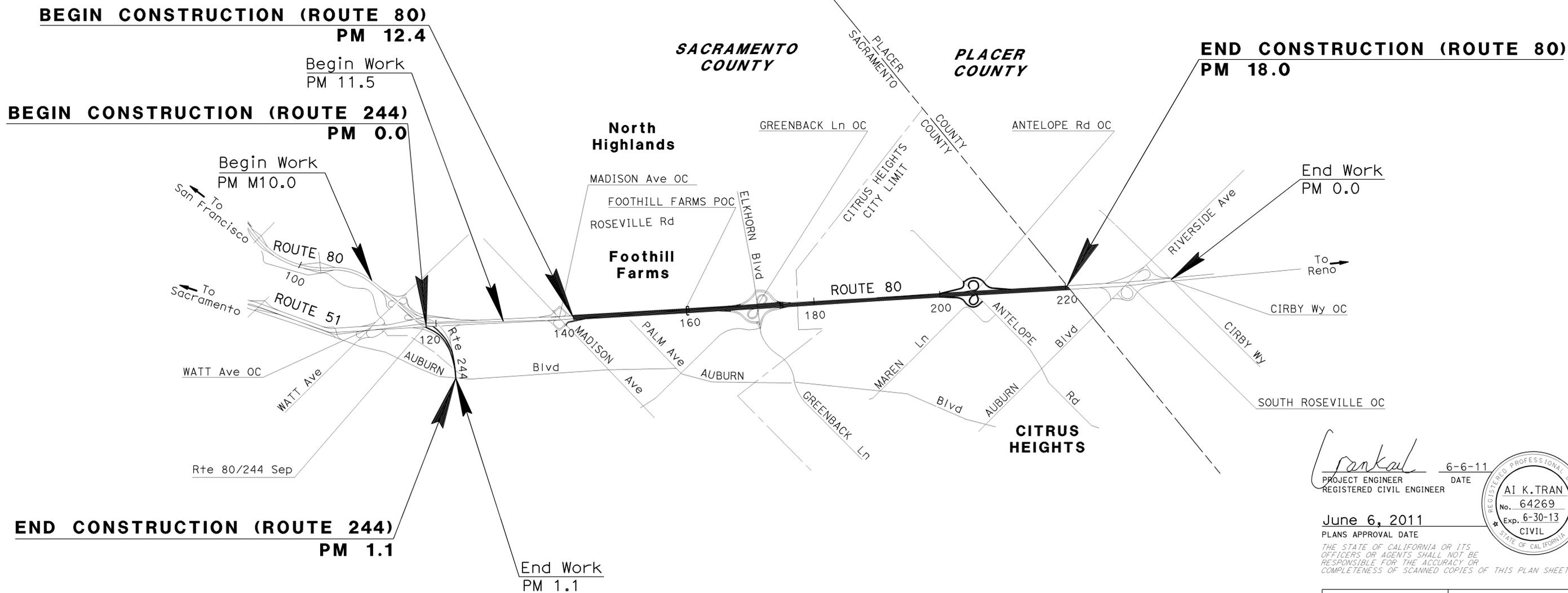
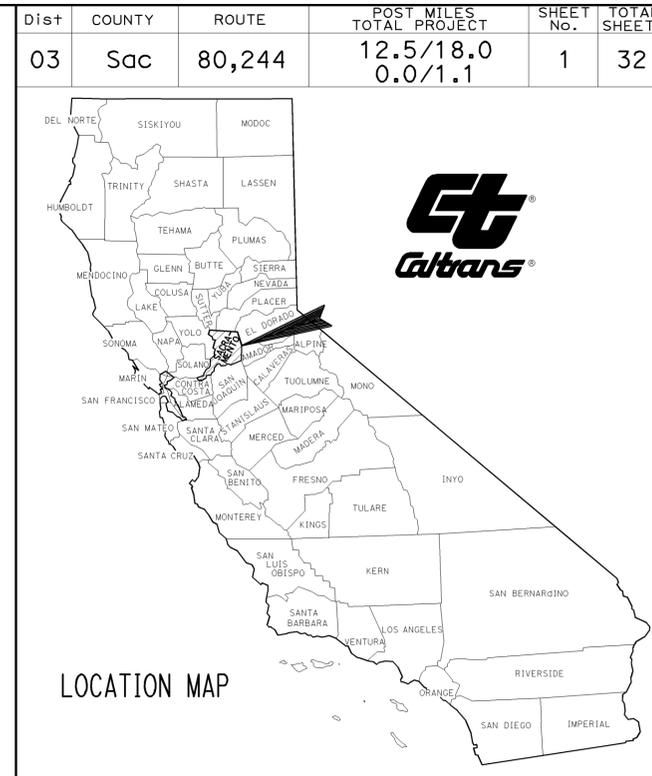
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

IM-0803(241)E

PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY  
IN SACRAMENTO COUNTY  
IN AND NEAR CITRUS HEIGHTS ON ROUTE 80  
BETWEEN MADISON AVENUE OVERCROSSING AND  
0.3 MILES WEST OF SOUTH ROSEVILLE OVERCROSSING  
AND ON ROUTE 244  
BETWEEN WATT AVENUE  
OVERCROSSING AND AUBURN BOULEVARD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



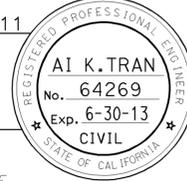
NO SCALE

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

*Frankal* 6-6-11  
PROJECT ENGINEER DATE  
REGISTERED CIVIL ENGINEER

June 6, 2011  
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.	03-2F0404
PROJECT ID	0300020451

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	2	32

*Frankal* 6-6-11  
 REGISTERED CIVIL ENGINEER DATE  
 6-6-11  
 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.

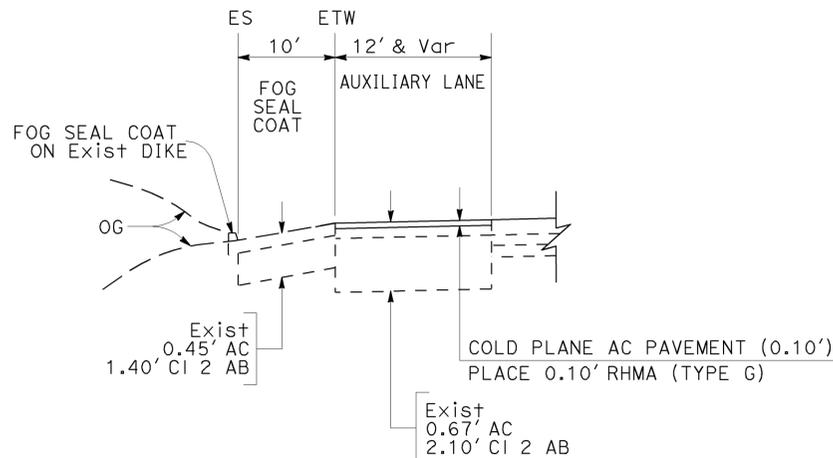
REGISTERED PROFESSIONAL ENGINEER  
**AI K. TRAN**  
 No. 64269  
 Exp. 6-30-13  
 CIVIL  
 STATE OF CALIFORNIA

**NOTES:**

- DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- FOR COMPLETE RIGHT OF WAY, SEE RIGHT OF WAY RECORDS AT DISTRICT OFFICE.
- CROSS SLOPES VARY, MATCH EXISTING.
- NO WORK SHALL BE PERFORMED ON BRIDGE DECK AND APPROACH/DEPARTURE SLABS, SEE SHEET C-5 FOR DETAILS.
- SEE SUMMARY OF QUANTITY SHEETS AND CONSTRUCTION DEATAIL SHEETS FOR MORE DETAILS.

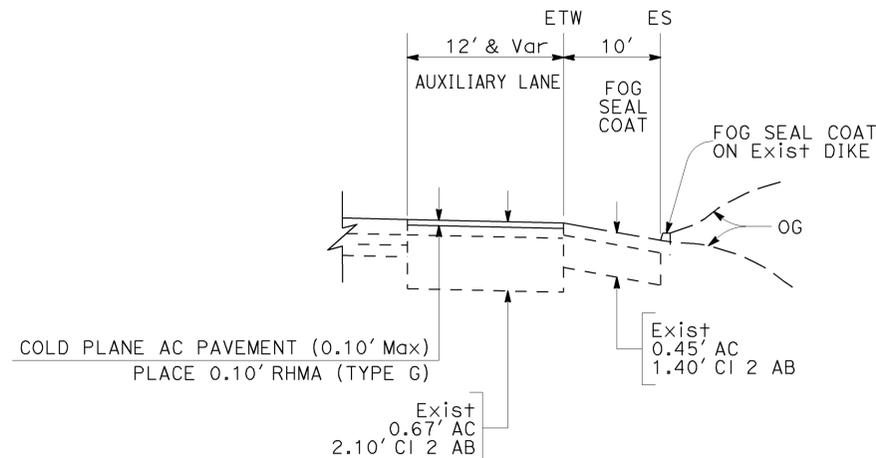
**ABBREVIATIONS**

WIM - WEIGHT IN MOTION



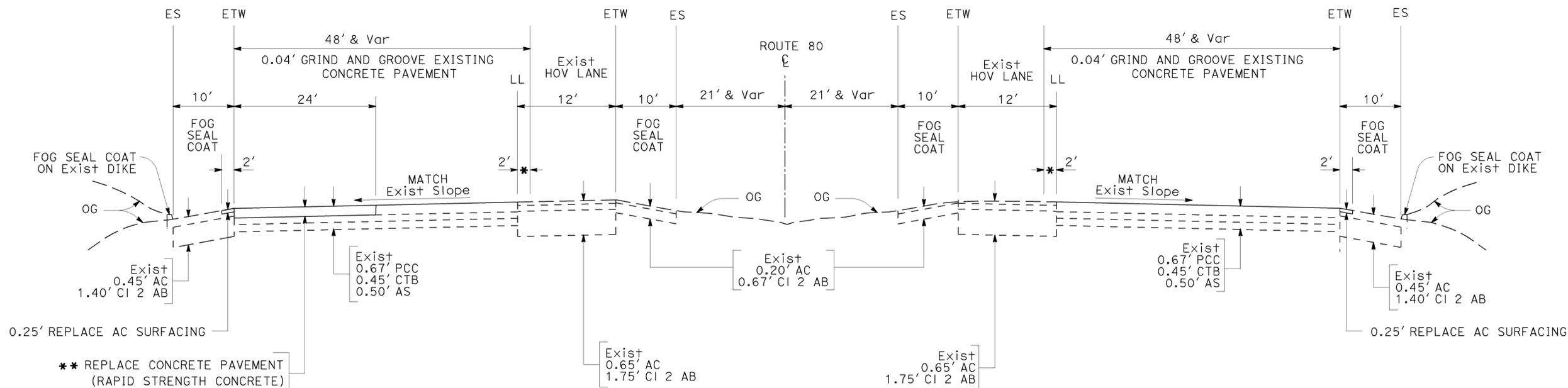
**AUXILIARY LANE**

PM 13.929 TO 14.200  
 PM 14.335 TO 14.428  
 PM 14.710 TO 15.043  
 PM 16.170 TO 16.458  
 PM 16.502 TO 16.631



**AUXILIARY LANE**

PM 12.790 TO 13.097  
 PM 13.785 TO 14.277  
 PM 14.447 TO 14.570  
 PM 16.285 TO 16.450  
 PM 16.754 TO 16.875



**WESTBOUND**

PM 12.91 TO 18.00

**ROUTE 80**

**EASTBOUND**

PM 12.79 TO 17.56

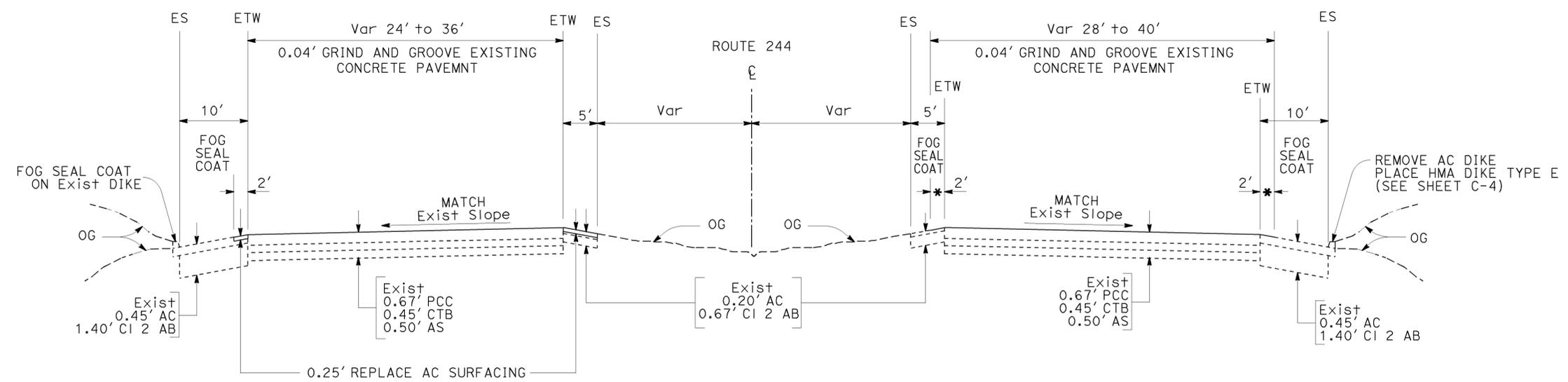
\* "DAYLIGHT GRIND INTO AC PAVEMENT", SEE SHEET C-5 FOR DETAILS.  
 \*\* SEE QUANTITY SHEET FOR MORE DETAIL.

**TYPICAL CROSS SECTIONS**

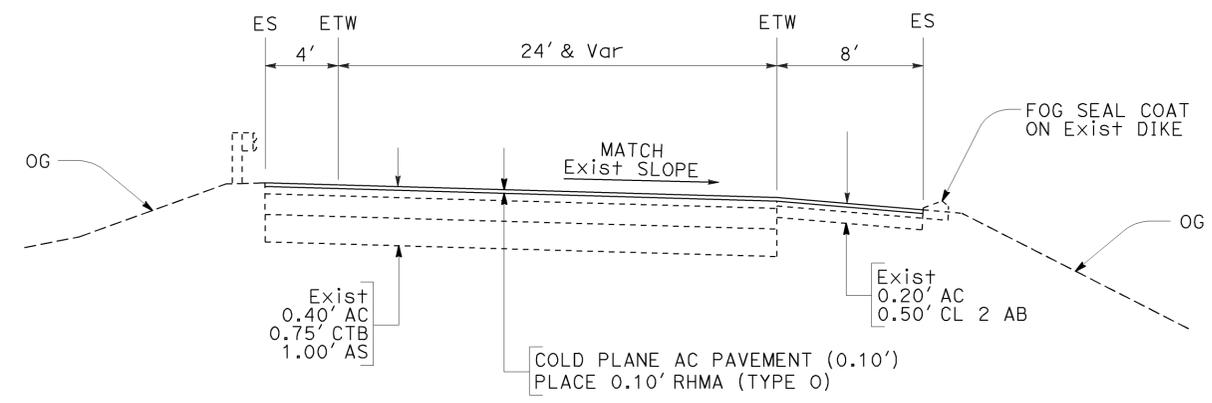
NO SCALE

**X-1**

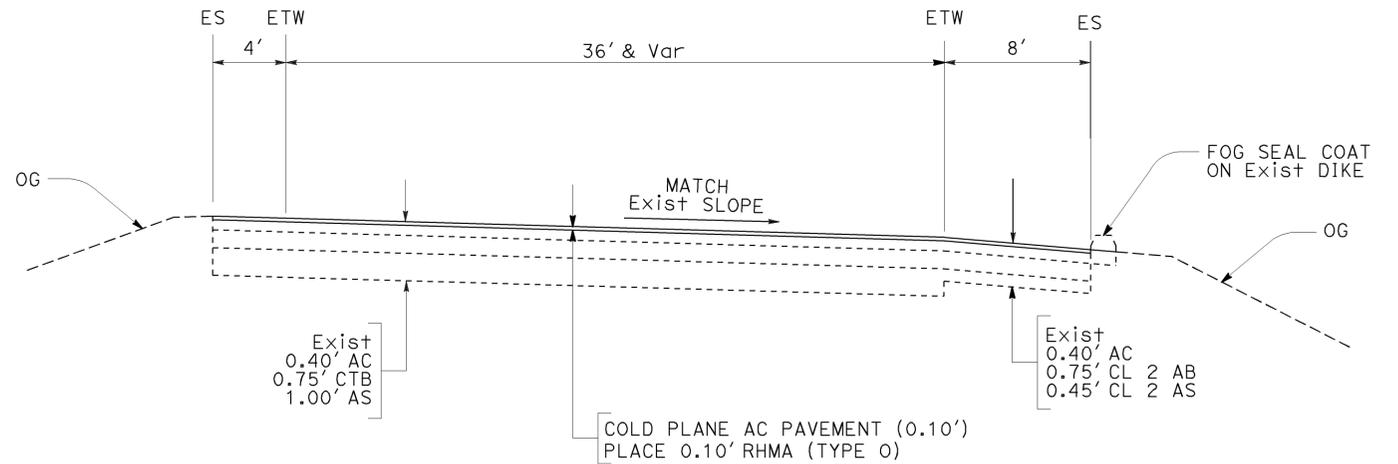
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	3	32
			6-6-11 REGISTERED CIVIL ENGINEER DATE 6-6-11 PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



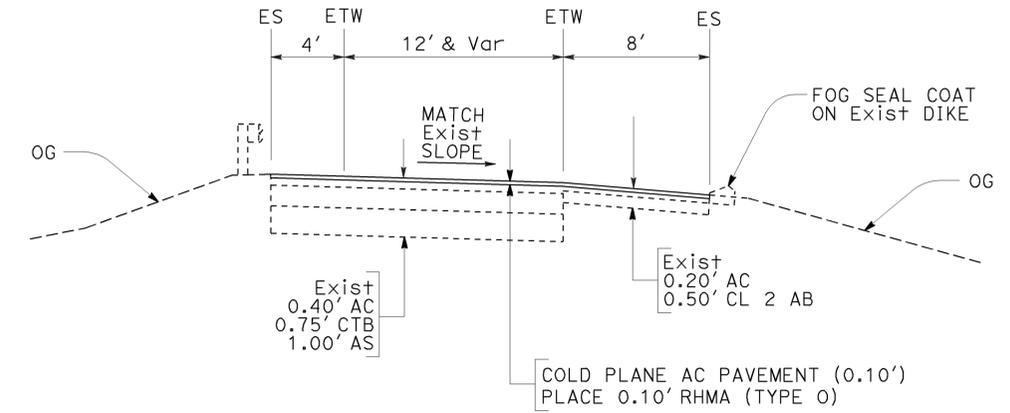
**ROUTE 244**  
PM 0.0 TO 1.08



**ANTELOPE ROAD WESTBOUND ON RAMP**  
**ANTELOPE ROAD WESTBOUND LOOP ON RAMP**



**ANTELOPE ROAD EASTBOUND OFF RAMP**  
**ANTELOPE ROAD WESTBOUND OFF RAMP**



**ANTELOPE ROAD EASTBOUND LOOP ON RAMP**

**TYPICAL CROSS SECTIONS**

NO SCALE

**X-2**

REVISOR: AI K. TRAN  
 CALCULATED/DESIGNED BY: LAURIE LAMMERT  
 CHECKED BY:  
 FUNCTIONAL SUPERVISOR:  
 DEPARTMENT OF TRANSPORTATION  
 TRAFFIC DESIGN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	4	32

<i>Frankal</i>	6-6-11
REGISTERED CIVIL ENGINEER	DATE
6-6-11	
PLANS APPROVAL DATE	

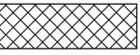
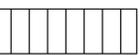
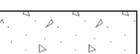
REGISTERED PROFESSIONAL ENGINEER
AI K. TRAN
No. 64269
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

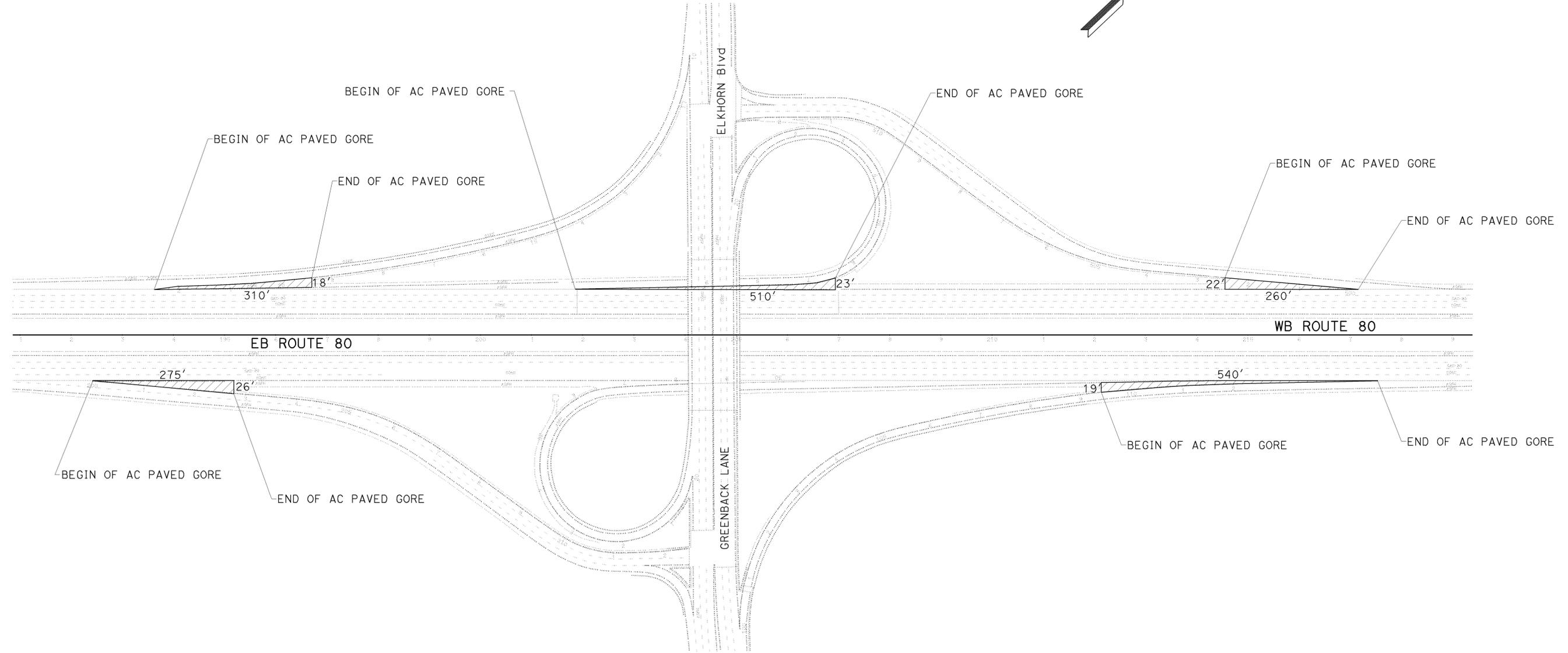
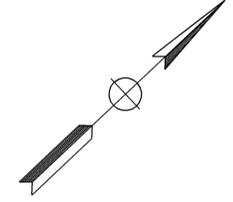
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- CONFORM LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

**LEGEND:**

-  COLD PLANE ASPHALT CONCRETE PAVEMENT (0.10')  
0.10' RHMA (TYPE G)
-  COLD PLANE ASPHALT CONCRETE PAVEMENT (0.10')  
0.10' RHMAC (TYPE O)
-  CRACK TREATMENT
-  0.04' GRIND EXISTING CONCRETE PAVEMENT
-  REPLACE CONCRETE PAVEMENT  
(RAPID STRENGTH CONCRETE)



**ROUTE 80 AND GREENBACK LANE INTERCHANGE**

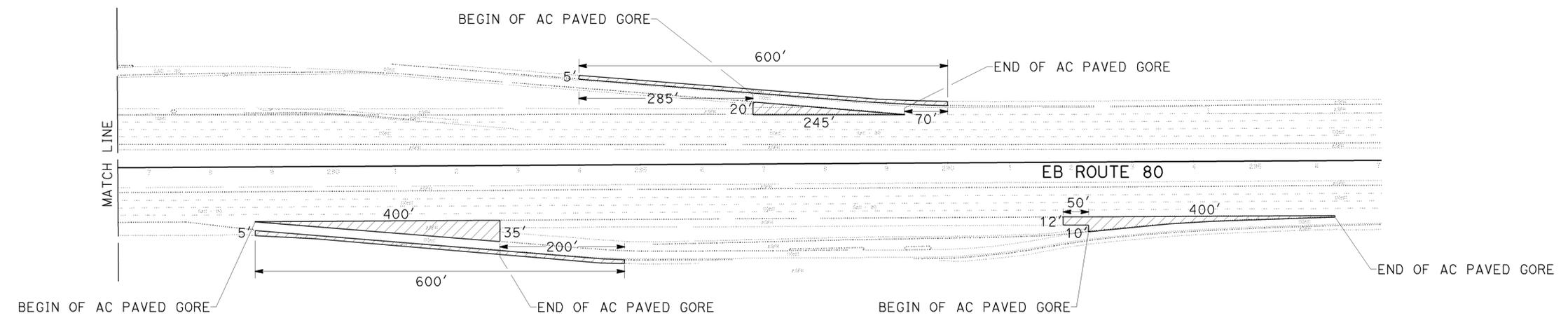
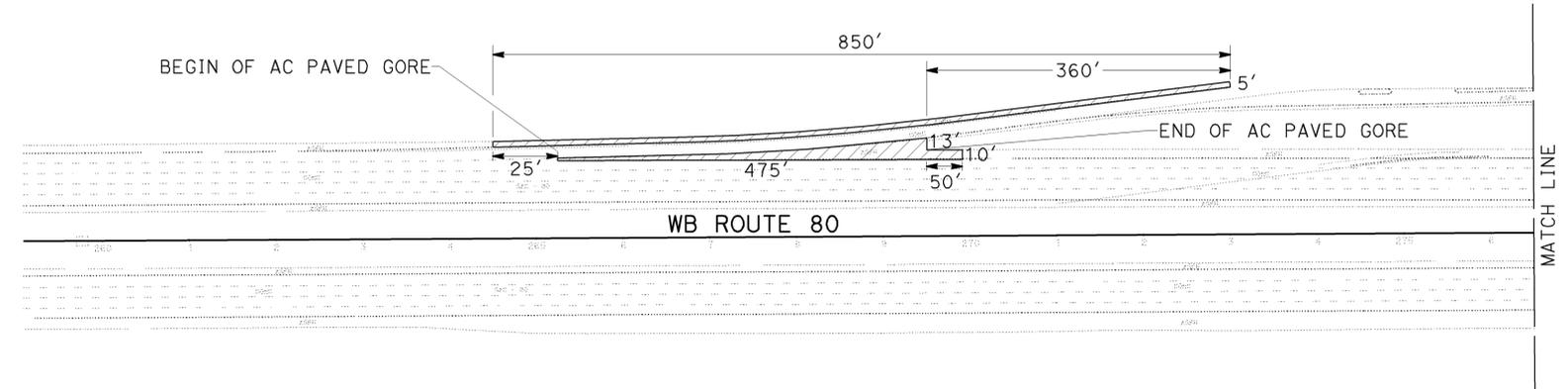
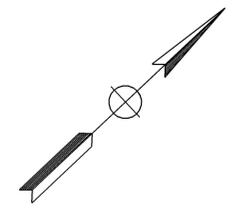
**CONSTRUCTION DETAILS**

NO SCALE

**C-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
<b>Caltrans</b> TRAFFIC DESIGN
FUNCTIONAL SUPERVISOR LAURIE LAMMERT
CALCULATED/DESIGNED BY CHECKED BY
AI K. TRAN
REVISOR BY DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	5	32
			6-6-11	DATE	
REGISTERED CIVIL ENGINEER			DATE		
6-6-11			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>					



**ANTELOPE WEIGH STATIONS**

**CONSTRUCTION DETAILS**

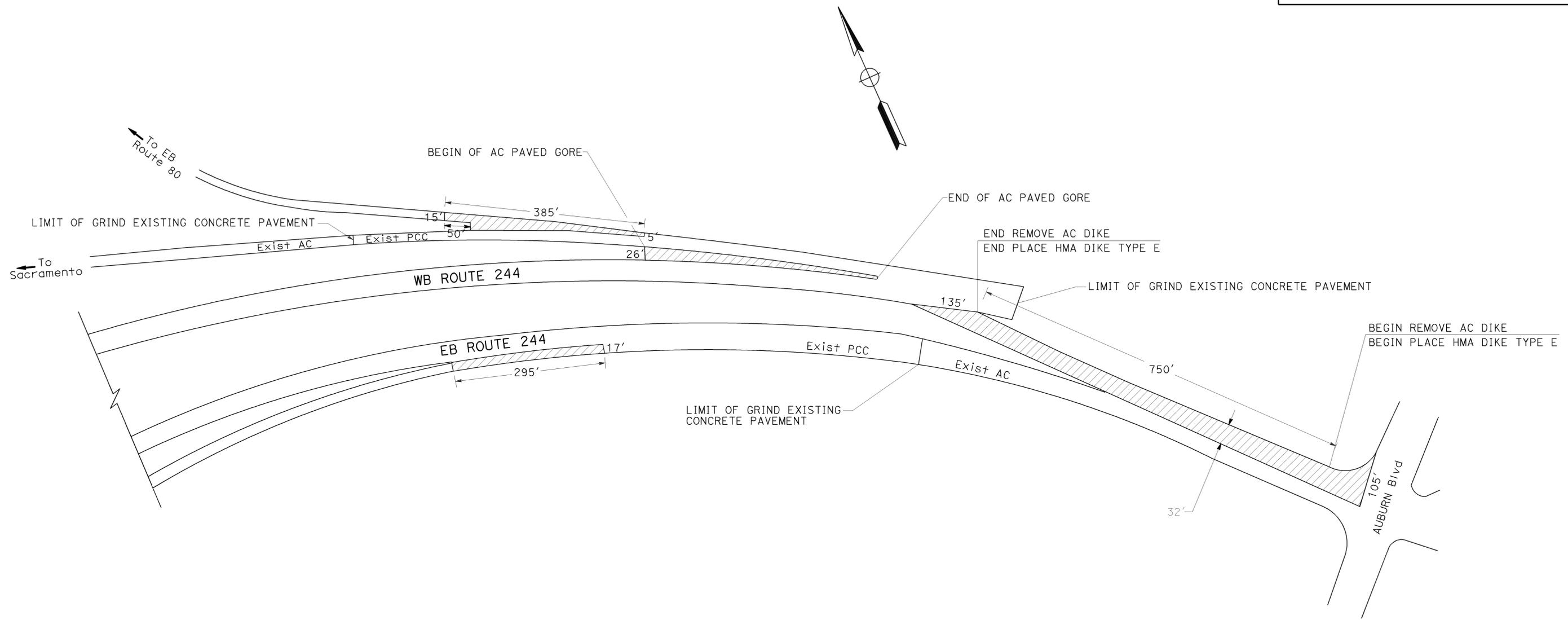
NO SCALE

**C-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>Caltrans</b>	LAURIE LAMMERT	AI K. TRAN	
TRAFFIC DESIGN			
	CALCULATED/DESIGNED BY	CHECKED BY	



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	7	32
<i>Frankal</i> REGISTERED CIVIL ENGINEER			6-6-11 DATE		
6-6-11 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>					



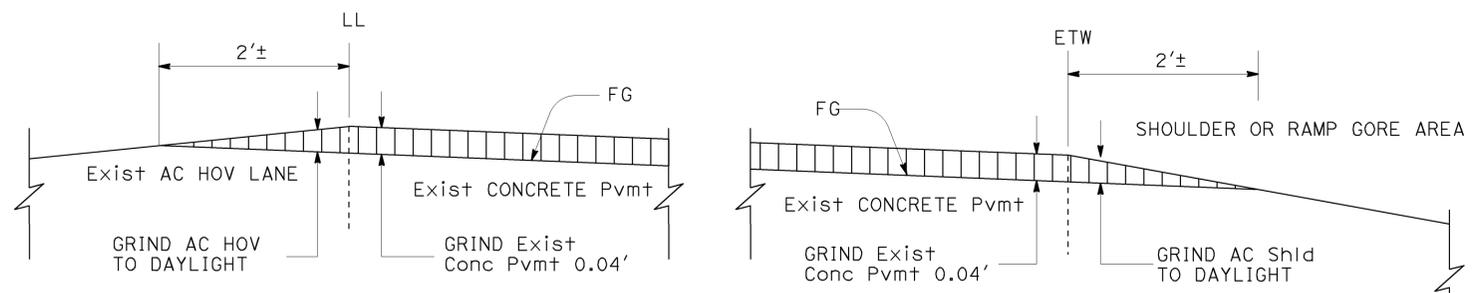
**ROUTE 244**

**CONSTRUCTION DETAILS**  
NO SCALE **C-4**

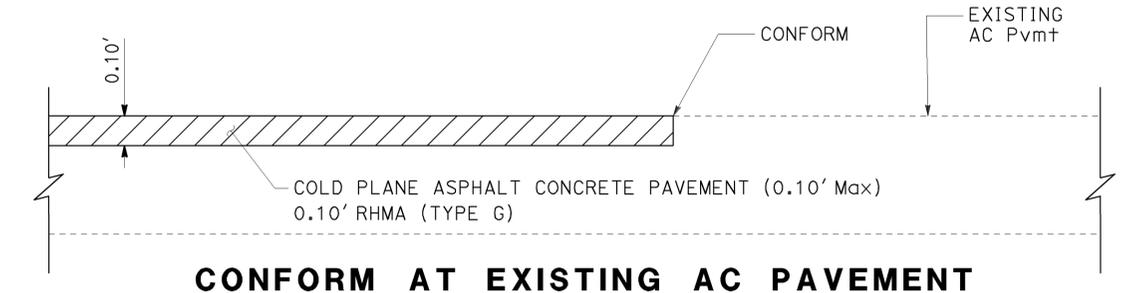
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
<b>Caltrans</b> TRAFFIC DESIGN	LAURIE LAMMERT	AI K. TRAN	DATE
			REVISOR
			DATE

LAST REVISION | DATE PLOTTED => 04-AUG-2011  
00-00-00 TIME PLOTTED => 12:45

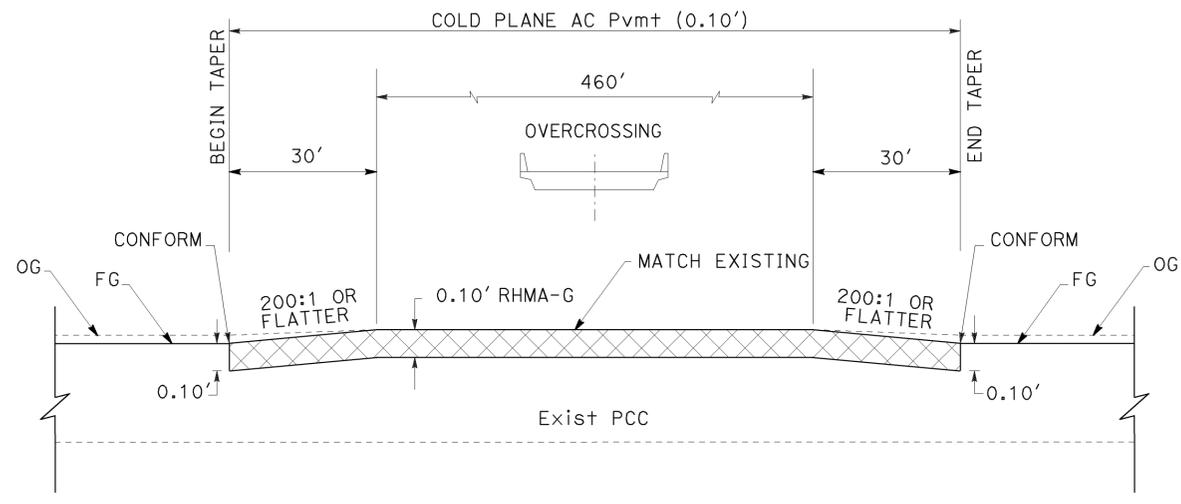
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	8	32
			6-6-11 REGISTERED CIVIL ENGINEER DATE 6-6-11 PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



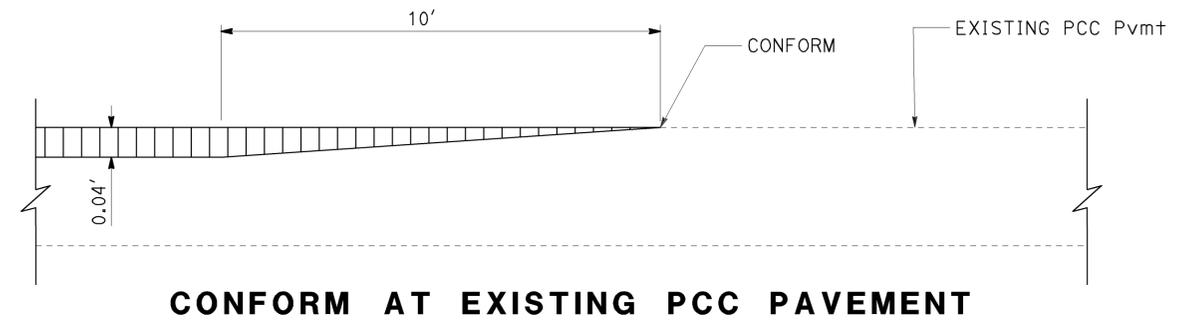
**DAYLIGHT GRIND INTO AC PAVEMENT**  
(EASTBOUND SHOWN - WESTBOUND SIMILAR)



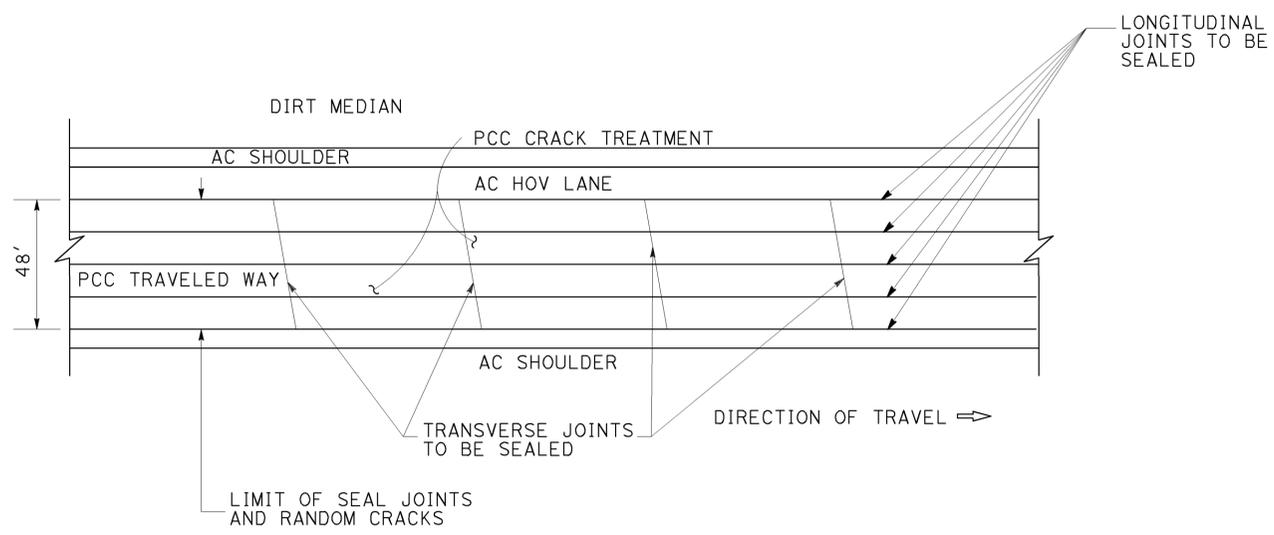
**CONFORM AT EXISTING AC PAVEMENT**



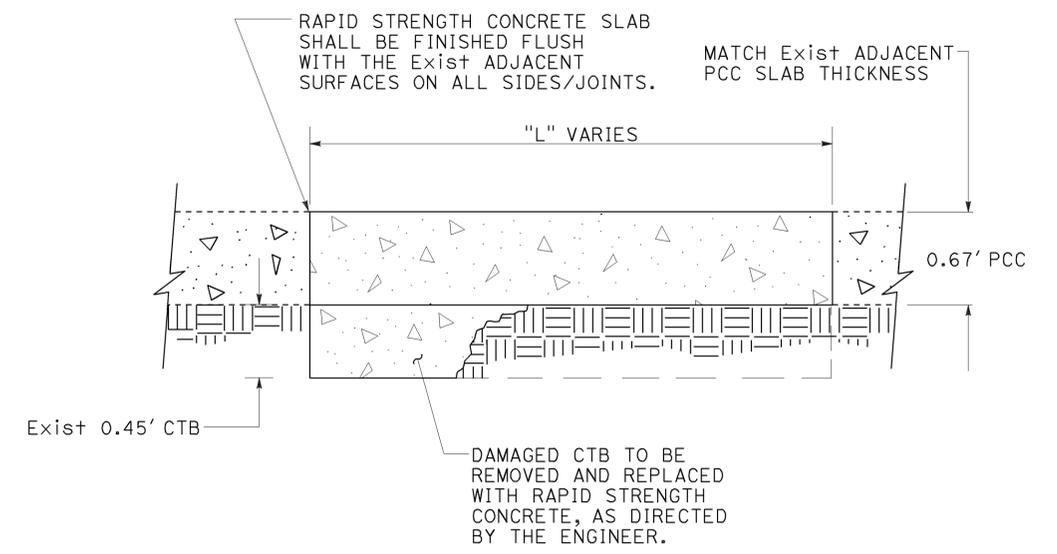
**CONFORM AT GREENBACK LANE AND ANTELOPE ROAD OVERCROSSING**



**CONFORM AT EXISTING PCC PAVEMENT**



**SEAL JOINT AND RANDOM CRACK DETAIL**



**TYPICAL PCC SLAB REPLACEMENT DETAIL**

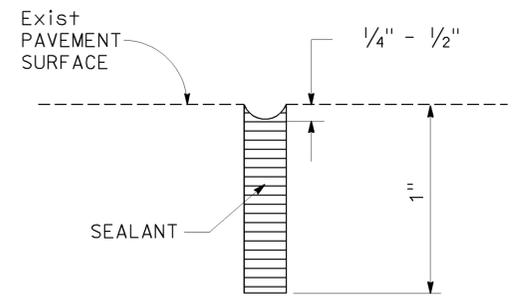
**CONSTRUCTION DETAILS**

NO SCALE

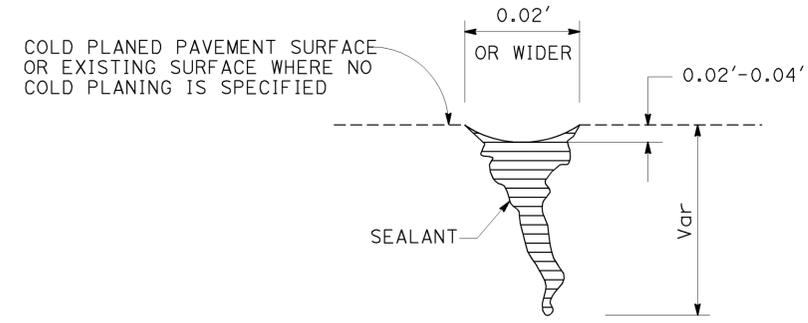
**C-5**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Caltrans  
 FUNCTIONAL SUPERVISOR: LAURIE LAMMERT  
 CALCULATED/DESIGNED BY: AI K. TRAN  
 CHECKED BY:  
 REVISOR: AI K. TRAN  
 DATE: 6-6-11  
 REVISION: 00-00-00  
 DATE PLOTTED: 04-AUG-2011  
 TIME PLOTTED: 12:45

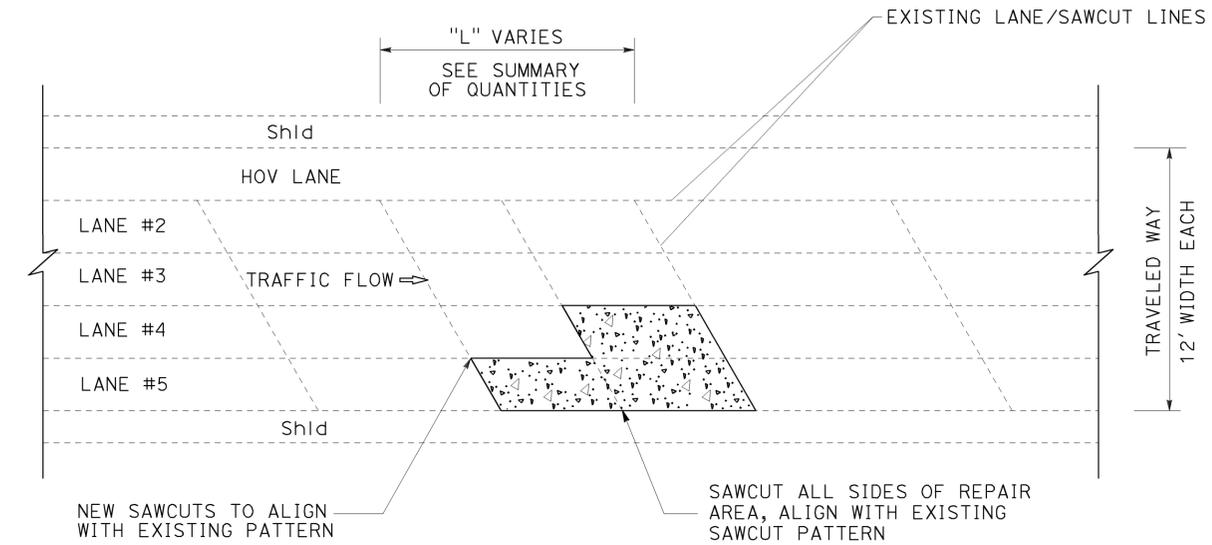
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	9	32
<i>Frankal</i> REGISTERED CIVIL ENGINEER DATE 6-6-11			AI K. TRAN No. 64269 Exp. 6-30-13 CIVIL		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



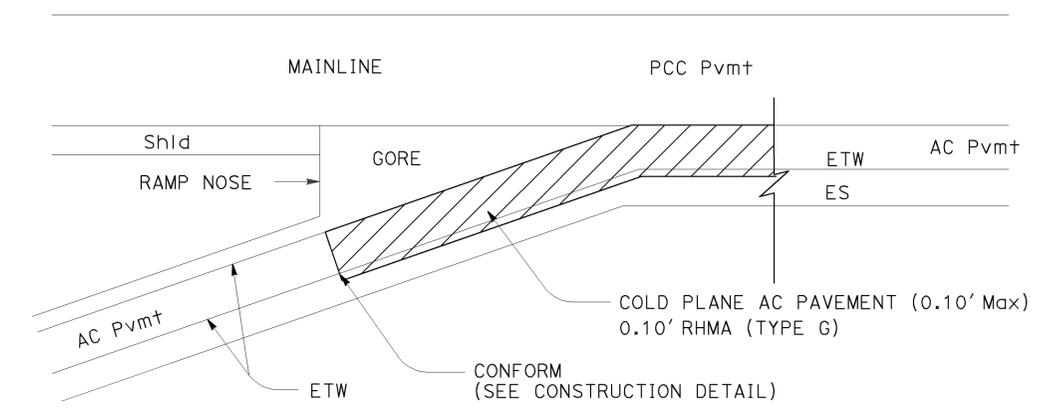
**SEAL JOINT (EXISTING CONCRETE PAVEMENT)**



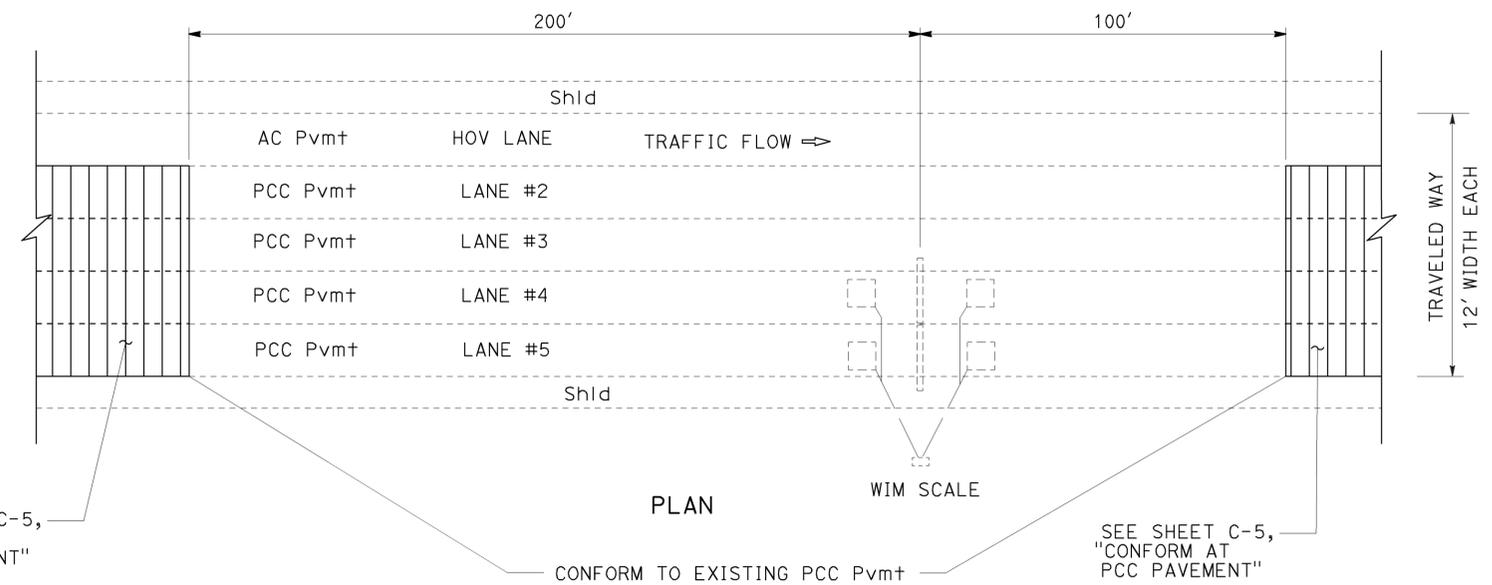
**CRACKS TREATMENT DETAIL**



**REPLACE CONCRETE PAVEMENT**

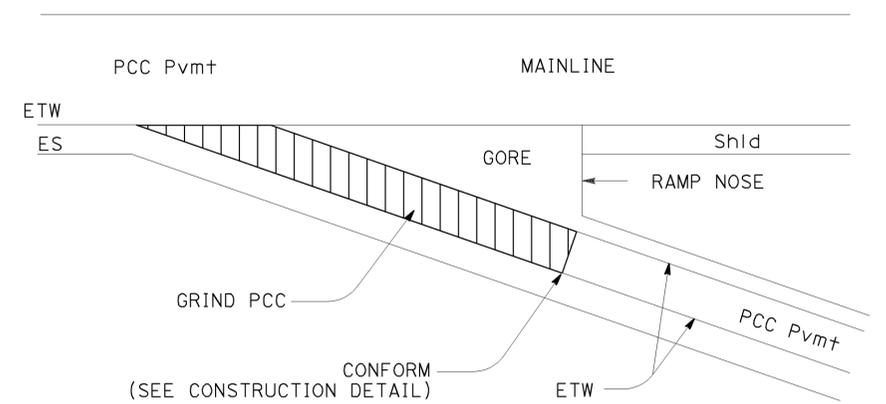


**AC RAMP - LIMITS OF WORK**  
(ON RAMP SHOWN - OFF RAMP SIMILAR)



**CONFORM AT ROUTE 80 WIM SCALE**

EB-80 WIM SCALE AT PM 15.1  
WB-80 WIM SCALE AT PM 17.1



**PCC RAMP - LIMITS OF WORK**  
(OFF RAMP SHOWN - ON RAMP SIMILAR)

**CONSTRUCTION DETAILS**

NO SCALE

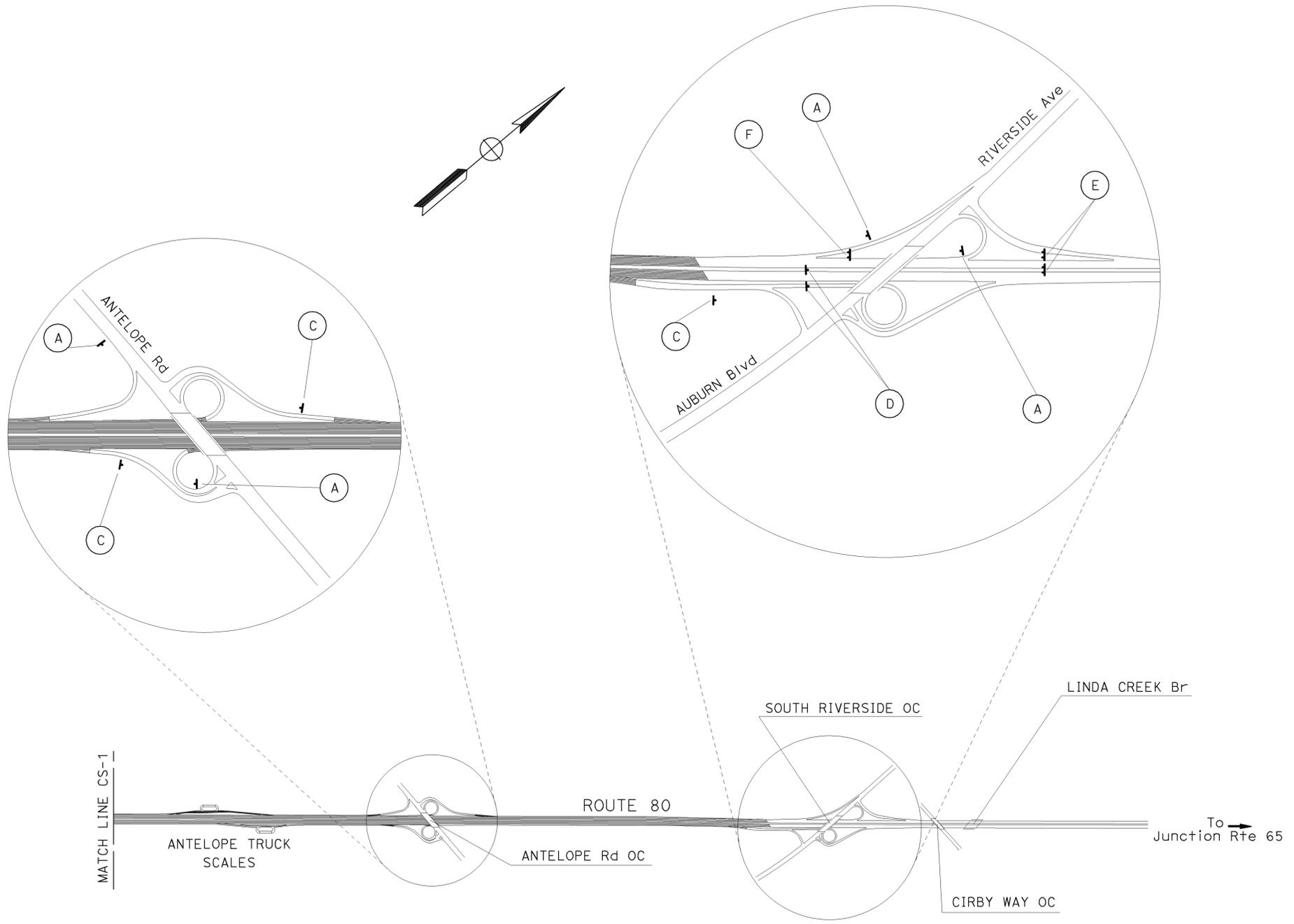
**C-6**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Functional Supervisor: LAURIE LAMMERT  
 Traffic Design  
 Designer: AI K. TRAN  
 Checked By: [Blank]  
 Calculated/Designed By: [Blank]  
 Revised By: [Blank]  
 Date Revised: [Blank]



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	11	32

REGISTERED CIVIL ENGINEER DATE 6-6-11  
 REGISTERED CIVIL ENGINEER No. 49233 Exp. 9-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
 6-6-11  
 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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CHUCK COOK	REVISOR
TRAFFIC	JOHN KEBER	JEFF JEWETT	DATE
Caltrans	CALCULATED/DESIGNED BY	CHUCK COOK	REVISOR
	CHECKED BY	JEFF JEWETT	DATE

**CONSTRUCTION  
AREA SIGNS**  
NO SCALE

**CS-2**

NOTE: THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	12	32

Jeffrey S Jewett 6-6-11  
 REGISTERED CIVIL ENGINEER DATE  
 6-6-11  
 PLANS APPROVAL DATE

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

**4" THERMOPLASTIC TRAFFIC STRIPE**

DETAIL NUMBER	LINEAR FEET
25	65,479
25A	2,690
27B	72,628
TOTAL	140,797

**8" THERMOPLASTIC TRAFFIC STRIPE  
(BROKEN 12-3)**

DETAIL NUMBER	LINEAR FEET
37	10,381
TOTAL	10,381

**4" THERMOPLASTIC TRAFFIC STRIPE  
(BROKEN 36-12)**

DETAIL NUMBER	LINEAR FEET
12	237,825
14A	8,928
TOTAL	246,753

**PAVEMENT MARKER**

DETAIL NUMBER	RETROREFLECTIVE		
	TYPE C	TYPE G	TYPE H
	EACH	EACH	EACH
9		147	
12		4,953	
14A	744		
25			1,365
25A			114
26			15
36		245	
36A		108	
36B		77	
37	48	567	
38		53	
38B		192	
SUBTOTAL	792	6,342	1,494
TOTAL		8,628	

**8" THERMOPLASTIC TRAFFIC STRIPE**

DETAIL NUMBER	LINEAR FEET
36	5,840
36A	2,556
36B	1,808
38	1,240
38B	2,267
TOTAL	13,711

**4" THERMOPLASTIC TRAFFIC STRIPE  
(BROKEN 17 - 7)**

DETAIL NUMBER	LINEAR FEET
9	6,982
TOTAL	6,982

**THERMOPLASTIC PAVEMENT MARKING**

DESCRIPTION	NUMBER	SQUARE FEET
TYPE VI ARROW	3	126
DIAMOND SYMBOL	111	1254
TOTAL		1,380

**PAVEMENT DELINEATION  
QUANTITIES**

**PDQ-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: JOHN KEBER  
 CHUCK COOK  
 REVISOR: JEFF JEWETT  
 CALCULATED/DESIGNED BY: CHECKED BY:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	13	32

*Frankal* 6-6-11  
 REGISTERED CIVIL ENGINEER DATE

6-6-11  
 PLANS APPROVAL DATE

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



**ROADWAY QUANTITIES**

ROUTE	NB or SB	PM	DESCRIPTION	COLD PLANE ASPHALT CONCRETE PAVEMENT	ASPHALTIC EMULSION (FOG SEAL COAT)	CRACK TREATMENT	REPLACE ASPHALT CONCRETE SURFACING	RUBBERIZED HOT MIX ASPHALT (OPEN GRADED)	RUBBERIZED HOT MIX ASPHALT (TYPE G)	TACK COAT	SEAL JOINT (EXISTING CONCRETE PAVEMENT)	GRIND EXISTING CONCRETE PAVEMENT	GRIND AND GROOVE EXISTING CONCRETE PAVEMENT	REMOVE ASPHALT CONCRETE DIKE	PLACE ASPHALT CONCRETE DIKE (TYPE E)
				(SQYD)	(TON)	(LNMI)	(CY)	(TON)	(TON)	(TON)	(LF)	(SQYD)	(SQYD)	(LF)	(LF)
80	EB	12.79 TO 17.56	MAINLINE		17.5	20.0	470				102,910	5,600	86,300		
	WB	12.91 TO 18.00	MAINLINE		18.5	13.0	500				64,150	6,000	141,050		
	EB	16.71 TO 16.81	COLD-PLANE AC PAVEMENT ON MAINLINE	2830					190	1.2					
	WB	14.41 TO 14.51	COLD-PLANE AC PAVEMENT ON MAINLINE	2830					190	1.2					
	EB	12.79 TO 17.56	COLD-PLANE AC ON GORES AND AUXILIARY LANES	11,140					755	4.6					
	WB	12.91 TO 18.00	COLD-PLANE AC ON GORES AND AUXILIARY LANES	12,340					835	5.1					
	EB	16.49 TO 16.86	EASTBOUND ON/OFF RAMPS	6620				445		2.8					
244	WB	16.49 TO 16.86	WESTBOUND ON/OFF RAMPS	5120				345	2.2						
	EB	0.00 TO 1.10	MAINLINE	560	3.5	3.0			40	0.2	14,640	1,670	14,200		
	WB	0.00 TO 1.10	MAINLINE	5450	1.5	2.0	380		390	2.3	9490		21,960	750	750
<b>TOTAL</b>				46,890	41.0	38.0	1,350	790	2,400	19.6	191,190	13,270	263,510	750	750

**SUMMARY OF QUANTITIES**

**Q-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR LAURIE LAMMERT  
 CALCULATED/DESIGNED BY CHECKED BY  
 AT K. TRAN  
 REVISED BY DATE REVISED

REVISOR: AI K. TRAN  
 REVISION: 6-6-11

DESIGNER: LAURIE LAMMERT  
 CHECKED BY: AI K. TRAN

FUNCTIONAL SUPERVISOR: LAURIE LAMMERT

DATE PLOTTED: 04-AUG-2011  
 TIME PLOTTED: 12:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	14	32

REGISTERED CIVIL ENGINEER: *AI K. TRAN* DATE: 6-6-11  
 PLANS APPROVAL DATE: 6-6-11

REGISTERED PROFESSIONAL ENGINEER  
 No. 64269  
 Exp. 6-30-13  
 CIVIL

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**REPLACE CONCRETE PAVEMENT (RAPID STRENGTH CONCRETE)**

DIRECTION	LOCATION		REPLACE CONCRETE PAVEMENT (RAPID STRENGTH CONCRETE)	
	BEGIN PM	LANE No.	LF (N)	CY
WB	17.19	#4,5 LANE	38	11.82
WB	17.13	#5 LANE	37	11.51
WB	17.12	#4 LANE	19	5.91
WB	17.10	#5 LANE	81	25.20
WB	17.08	#5 LANE	31	9.64
WB	17.06	#5 LANE	50	15.56
WB	17.02	#5 LANE	80	24.89
WB	16.99	#4,5 LANE	372	115.73
WB	16.88	#5 LANE	50	15.56
WB	16.86	#5 LANE	32	9.96
WB	16.82	#5 LANE	19	5.91
WB	16.81	#5 LANE	186	57.87
WB	16.77	#5 LANE	32	9.96
WB	16.75	#5 LANE	249	77.47
WB	16.68	#5 LANE	37	11.51
WB	16.61	#5 LANE	50	15.56
WB	16.56	#5 LANE	37	11.51
WB	16.55	#5 LANE	32	9.96
WB	16.41	#5 LANE	13	4.04
WB	14.64	#5 LANE	37	11.51
WB	14.59	#5 LANE	37	11.51
WB	14.55	#5 LANE	13	4.04
WB	14.35	#4,5 LANE	76	23.64
WB	14.28	#5 LANE	25	7.78
WB	14.09	#5 LANE	19	5.91
WB	14.08	#5 LANE	44	13.69
WB	14.07	#5 LANE	32	9.96
WB	14.05	#5 LANE	62	19.29
WB	13.99	#5 LANE	44	13.69
WB	13.78	#5 LANE	32	9.96
WB	13.70	#5 LANE	81	25.20
WB	13.56	#5 LANE	37	11.51
WB	13.24	#5 LANE	50	15.56
WB	13.21	#4,5 LANE	38	11.82
WB	13.19	#5 LANE	37	11.51
WB	12.99	#4 LANE	19	5.91
WB	12.96	#5 LANE	19	5.91
SUBTOTAL (1)			2147	668.00

(N) NOT PAID ITEM, FOR INFORMATION ONLY

**REPLACE CONCRETE PAVEMENT (RAPID STRENGTH CONCRETE) (Cont.)**

DIRECTION	LOCATION		REPLACE CONCRETE PAVEMENT (RAPID STRENGTH CONCRETE)	
	DESCRIPTION	WIDTH(FT)	LF (N)	CY
EB	EB ON-RAMP FROM WEIGH STATION	12	136	42.30
WB	WB ON-RAMP TO WEIGH STATION	12	60	18.67
WB	WB ON-RAMP FROM WEIGH STATION	12	196	61.00
SUBTOTAL (2)			392	122.00
SUBTOTAL (1)			2147	668.00
TOTAL			2539	790.00

**SUMMARY OF QUANTITIES**

**Q-2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	15	32

H. Golban 6-6-11  
 REGISTERED ELECT. ENGINEER DATE  
 6-6-11  
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
 HABIL GOLBAN  
 No. 17928  
 Exp. 09/30/12  
 ELECT.

### ELECTRICAL ELEMENTS SCHEDULE

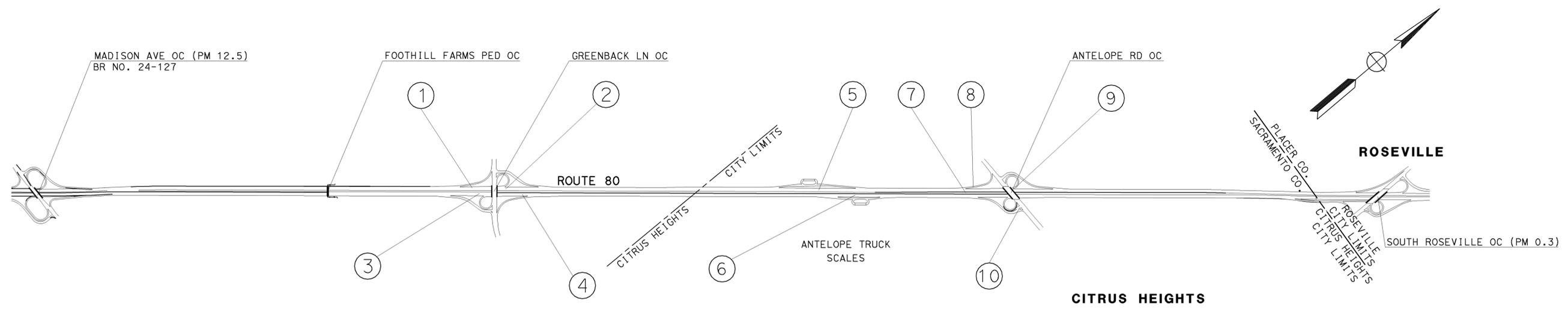
LOC	COUNTY/ROUTE		ELEMENT	COMMENTS
	Sac/80	PM		
①	14.33		MAIN LINE	REPLACE LOOPS SEE DETAIL "A" SHEET E-2
②	14.50		MAIN LINE	REPLACE LOOPS SEE DETAIL "A" SHEET E-2
③	14.41		MAIN LINE	REPLACE LOOPS SEE DETAIL "B" SHEET E-3
④	14.60		MAIN LINE	REPLACE LOOPS SEE DETAIL "B" SHEET E-3
⑤	15.90		WSBS	REPLACE LOOPS AND PIEZO SEE DETAIL "C" SHEET E-4
⑥	16.0		WSBS	REPLACE LOOPS AND PIEZO SEE DETAIL "D" SHEET E-5
⑦	16.48		TMS (COUNT)	REMOVE TMS SEE DETAIL "E" SHEET E-6
⑧	16.56		RAMP METERING	REPLACE LOOPS SEE DETAIL "F" SHEET E-7
⑨	16.73		RAMP METERING	REPLACE LOOPS SEE DETAIL "F" SHEET E-7
⑩	16.69		TRAFFIC SIGNAL	REPLACE LOOPS SEE DETAIL "E" SHEET E-6

#### LEGENDS:

- WSBS WEIGH STATION BYPASS SYSTEM
- WIM WEIGH-IN-MOTION
- TMS TRAFFIC MONITORING STATION
- stc Exist SCREENED TRANSMISSION CABLE
- STC SCREENED TRANSMISSION CABLE
- CS COUNT STATION

#### SYMBOLS:

- PIEZO DETECTOR
- Exist PIEZO DETECTOR
- Exist SOLID NEUTRAL BUS

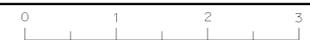


### ELECTRICAL LOCATIONS, LEGENDS AND SYMBOLS

NO SCALE

E-1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY



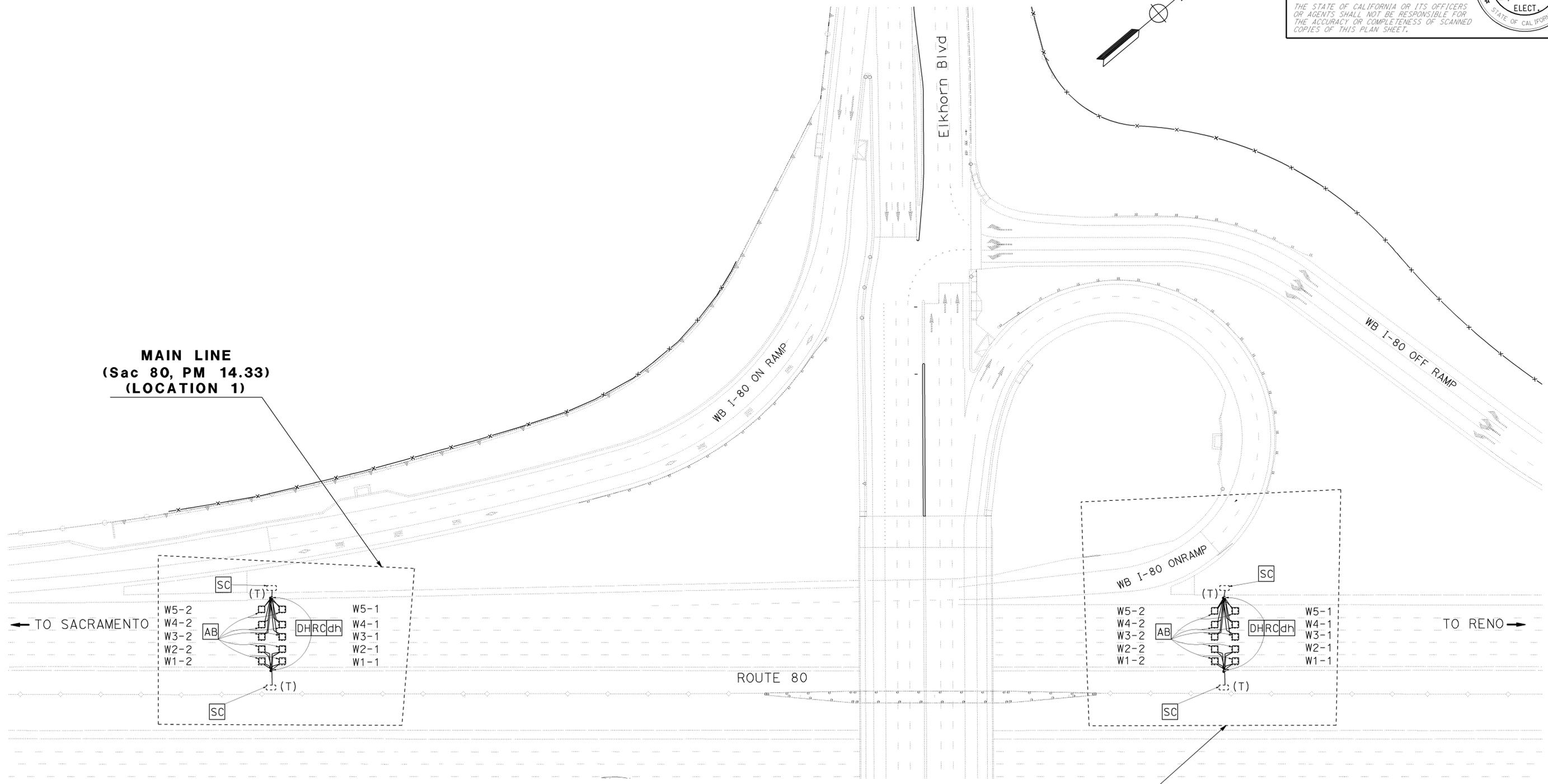
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	16	32

H. Golban 6-6-11  
 REGISTERED ELECT. ENGINEER DATE  
 6-6-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 HABIB GOLBAN  
 No. 17928  
 Exp. 09/30/12  
 ELECT.  
 STATE OF CALIFORNIA

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
OFFICE OF ELECTRICAL DESIGN	NELSON LEE	CHECKED BY	DATE REVISED
<b>Caltrans</b>		JAMIE KOJAK	HABIB GOLBAN



**DETAIL "A"**  
NO SCALE

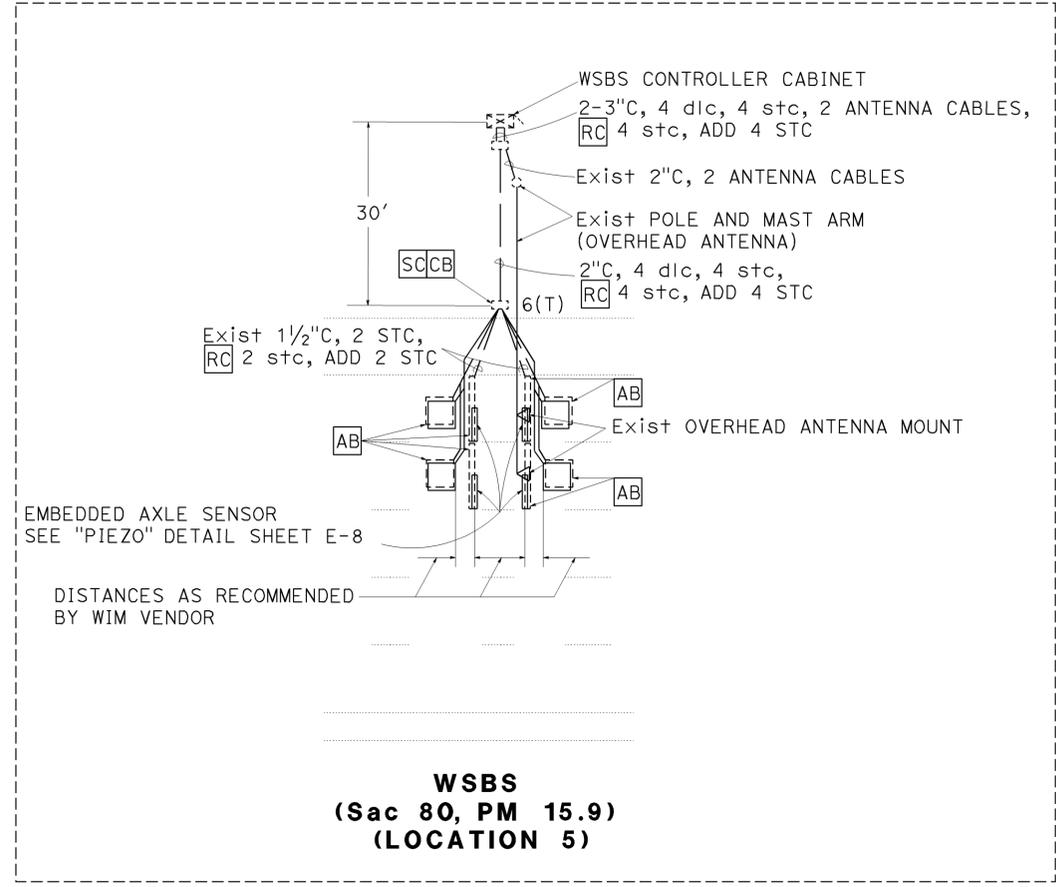
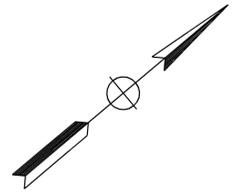
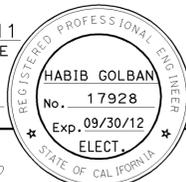
**REPLACE LOOP DETECTORS (LOCATIONS 1 AND 2)**  
NO SCALE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	18	32

6-6-11  
 REGISTERED ELECT. ENGINEER DATE  
 6-6-11  
 PLANS APPROVAL DATE

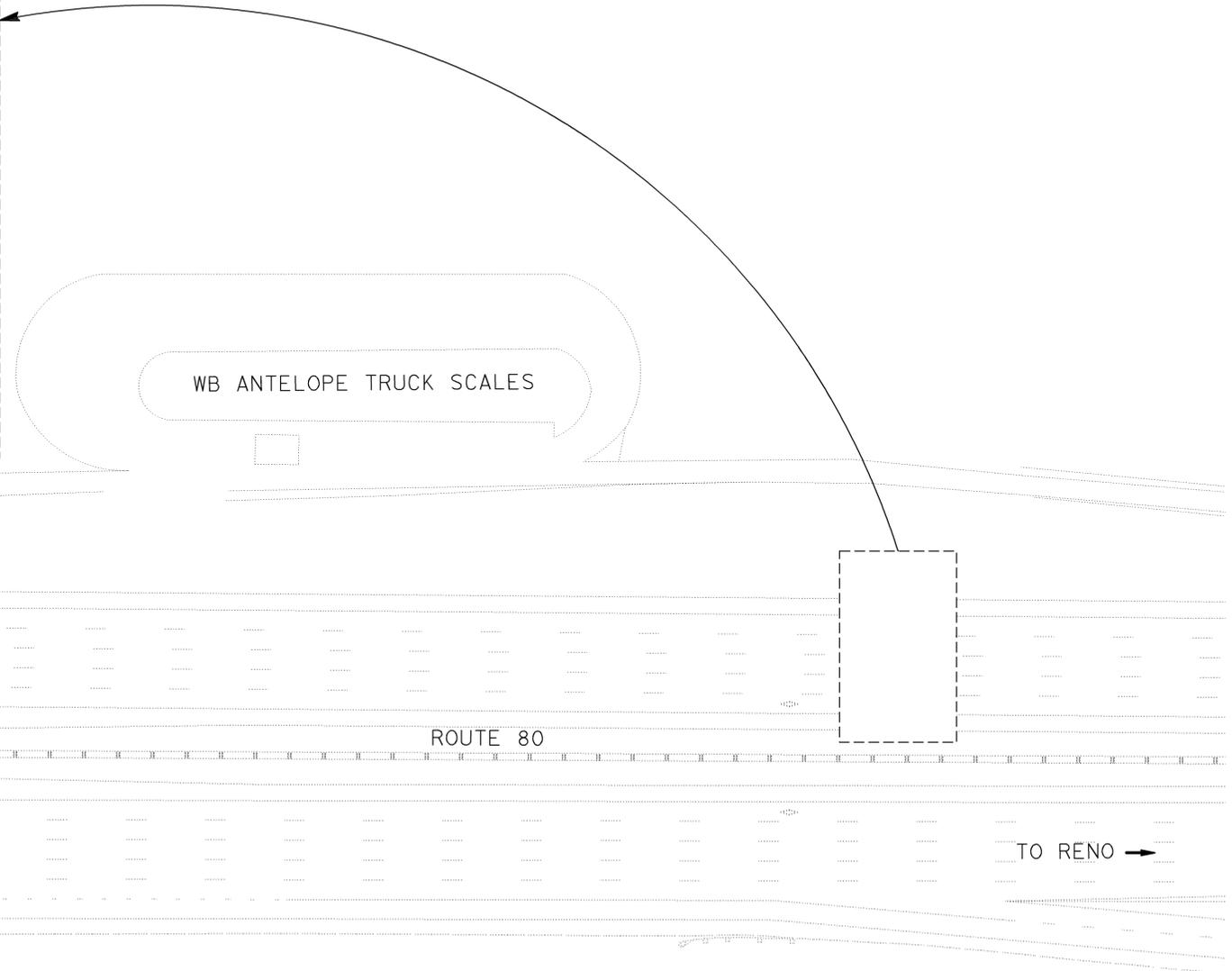
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EMBEDDED AXLE SENSOR  
SEE "PIEZO" DETAIL SHEET E-8

DISTANCES AS RECOMMENDED  
BY WIM VENDOR

**WSBS**  
**(Sac 80, PM 15.9)**  
**(LOCATION 5)**



**DETAIL "C"**  
NO SCALE

**MODIFY WEIGH STATION BYPASS SYSTEM**  
**(LOCATION 5)**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
<b>Caltrans</b>	NELSON LEE	JAMIE KOJAK	HABIB GOLBAN
OFFICE OF ELECTRICAL DESIGN	CHECKED BY	DATE	REVISED

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY



UNIT 0403

PROJECT NUMBER & PHASE

03000204511

BORDER LAST REVISED 7/2/2010

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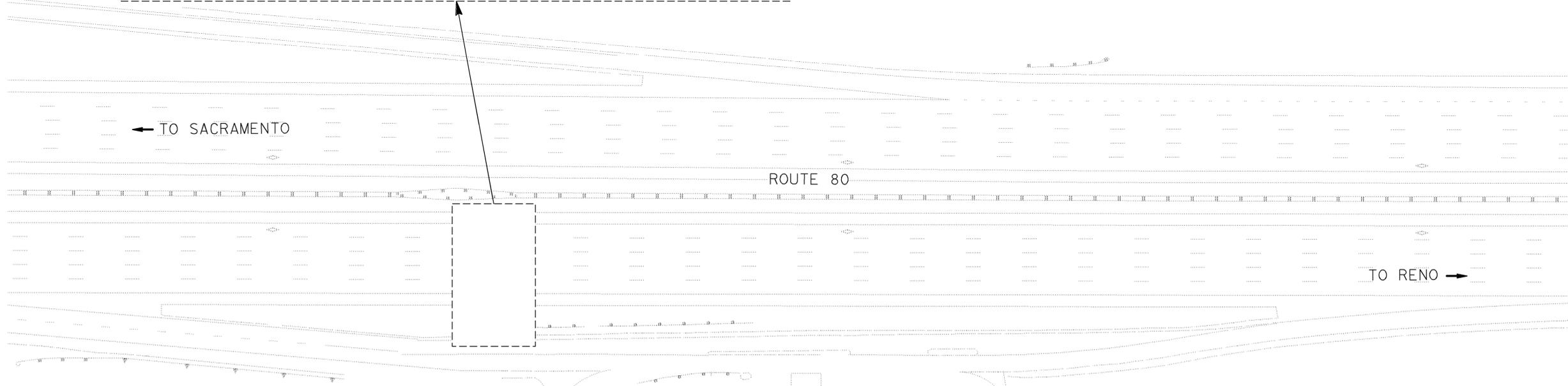
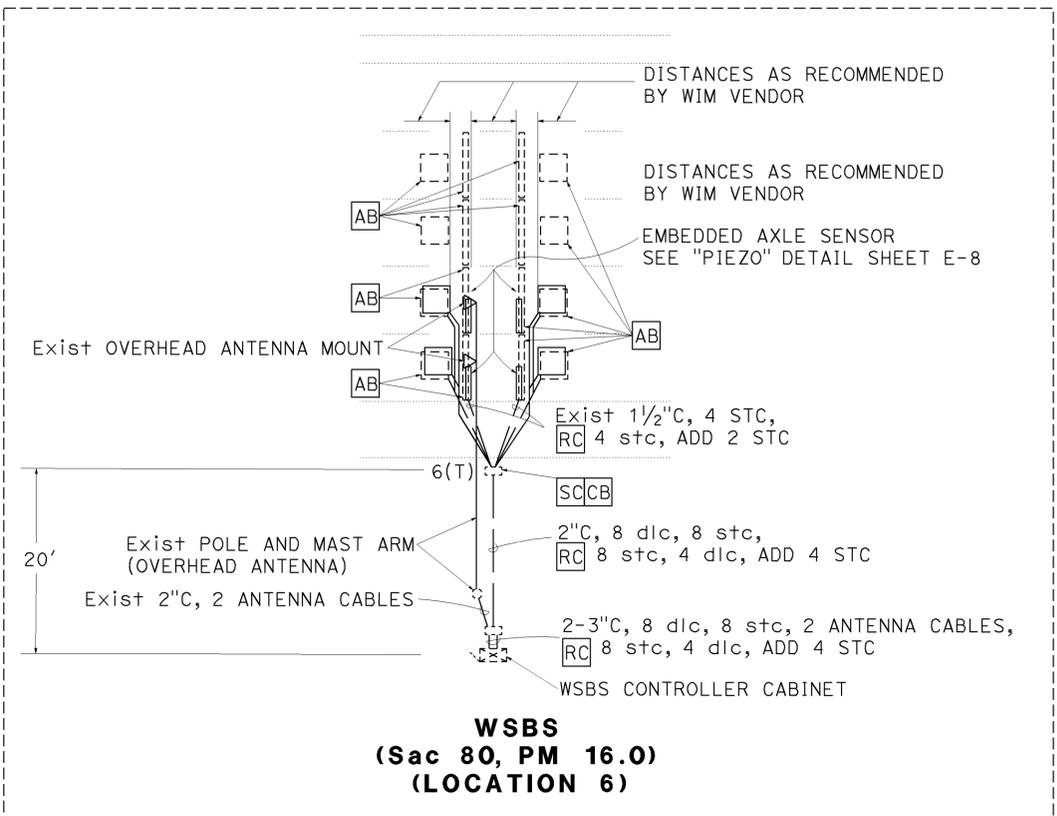
NO SCALE

LAST REVISION | DATE PLOTTED => 04-AUG-2011  
 03-07-11 | TIME PLOTTED => 12:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	19	32

H. Golban 6-6-11  
 REGISTERED ELECT. ENGINEER DATE  
 6-6-11  
 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  
**HABIB GOLBAN**  
 No. 17928  
 Exp. 09/30/12  
 ELECT.  
 STATE OF CALIFORNIA



**DETAIL "D"**  
NO SCALE

**MODIFY WEIGH STATION BYPASS SYSTEM  
(LOCATION 6)**

**E-5**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
<b>Caltrans</b>	NELSON LEE	JAMIE KOJAK	HABIB GOLBAN
OFFICE OF ELECTRICAL DESIGN	CHECKED BY	DATE	REVISION

USERNAME => s134507  
DGN FILE => 0300020451ua005.dgn



UNIT 0403

PROJECT NUMBER & PHASE

03000204511

BORDER LAST REVISED 7/2/2010

LAST REVISION | DATE PLOTTED => 04-AUG-2011  
 03-07-11 | TIME PLOTTED => 12:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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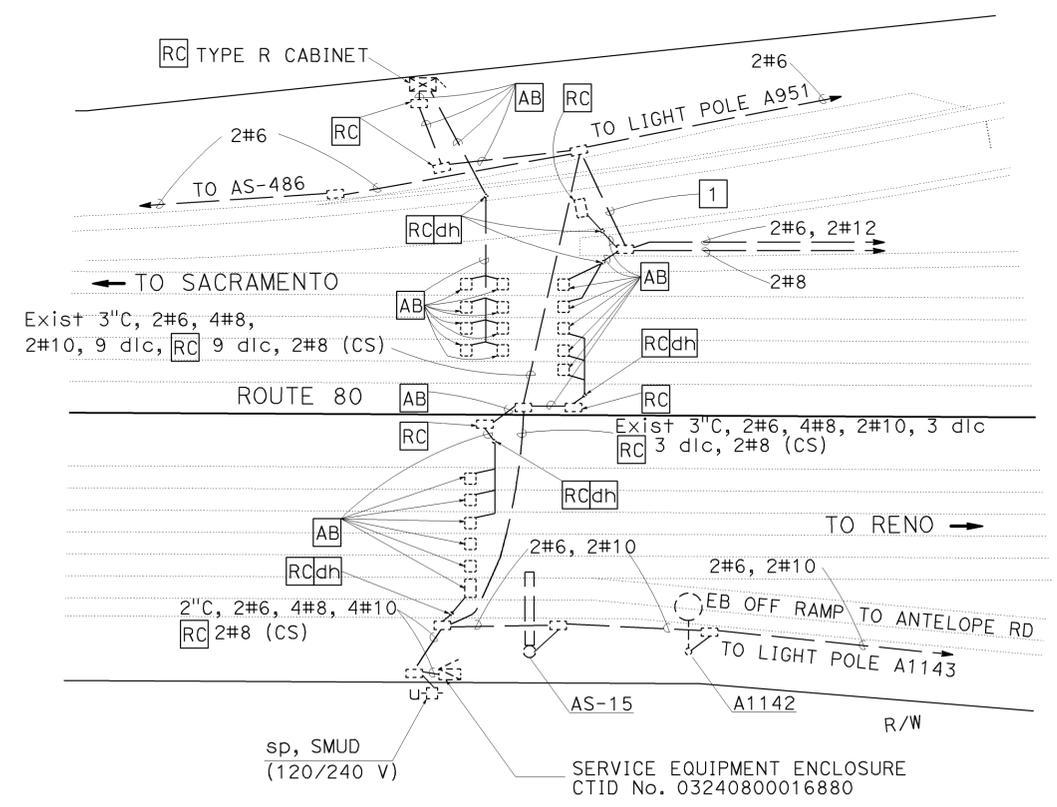
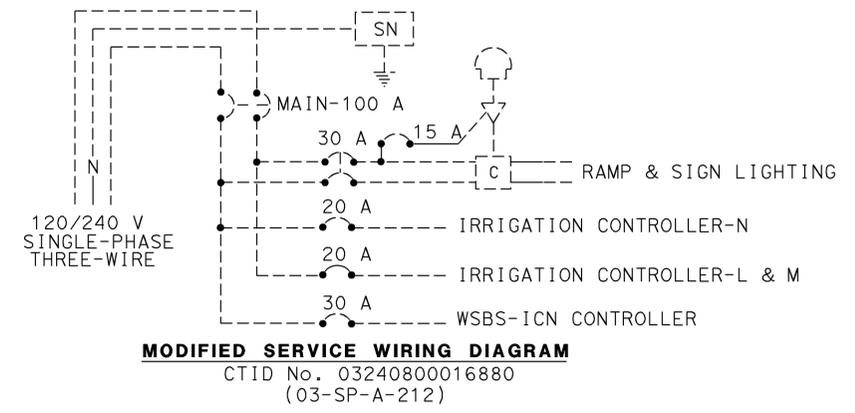
6-6-11  
 REGISTERED ELECT. ENGINEER DATE  
 6-6-11  
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
**HABIB GOLBAN**  
 No. 17928  
 Exp. 09/30/12  
 ELECT.

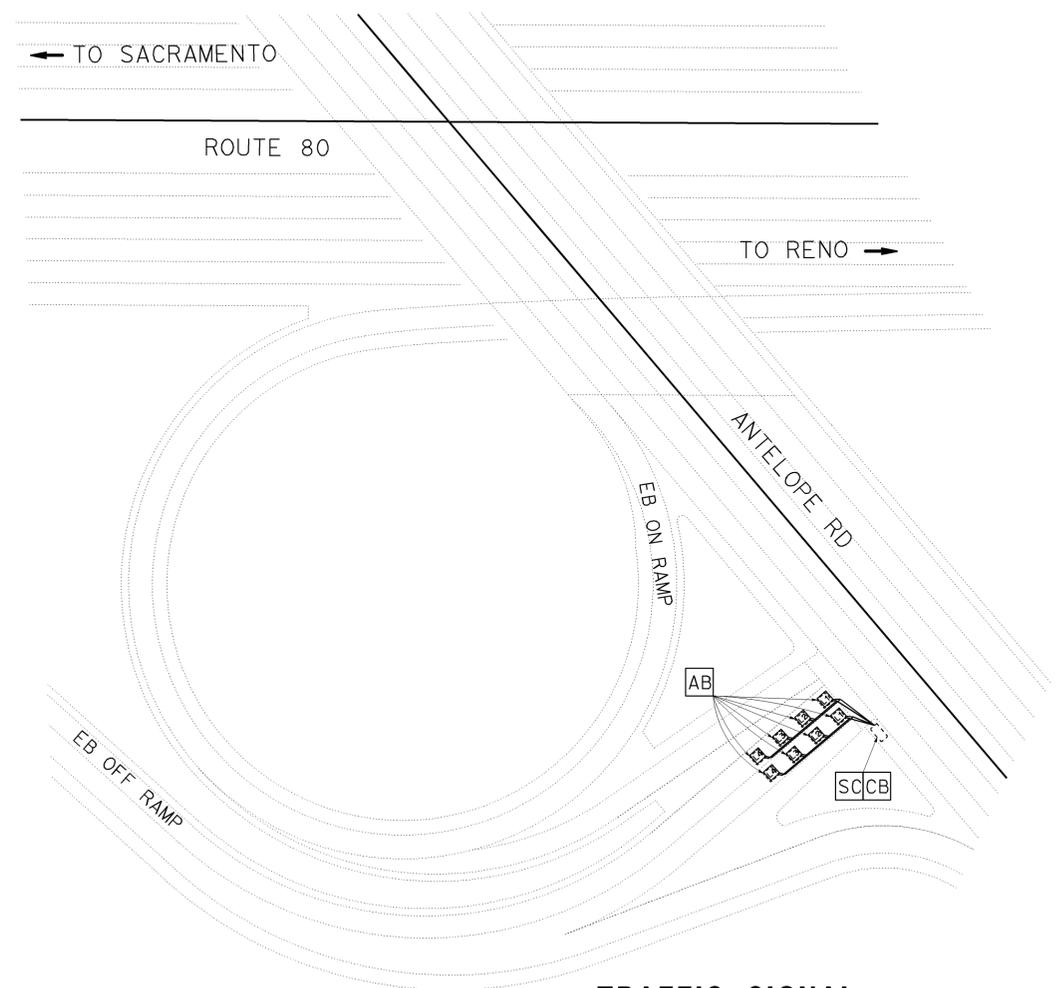
PROJECT NOTE: (THIS SHEET ONLY)

- 1 Exist 3"C, 2#6, 4#8, 2#10, 3 dlc  
RC 3 dlc



**TRAFFIC MONITORING STATION (COUNT)**  
 (Sac 80, PM 16.48)  
 (LOCATION 7)

**DETAIL "E"**  
 NO SCALE



**REPLACE LOOP DETECTORS**  
 (LOCATION 10)  
**REMOVE TRAFFIC MONITORING STATION (COUNT)**  
 (LOCATION 7)  
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - OFFICE OF ELECTRICAL DESIGN  
 Caltrans  
 FUNCTIONAL SUPERVISOR: NELSON LEE  
 CALCULATED/DESIGNED BY: JAMIE KOJAK  
 CHECKED BY: HABIB GOLBAN  
 REVISED BY: JAMIE KOJAK  
 DATE REVISION: HABIB GOLBAN



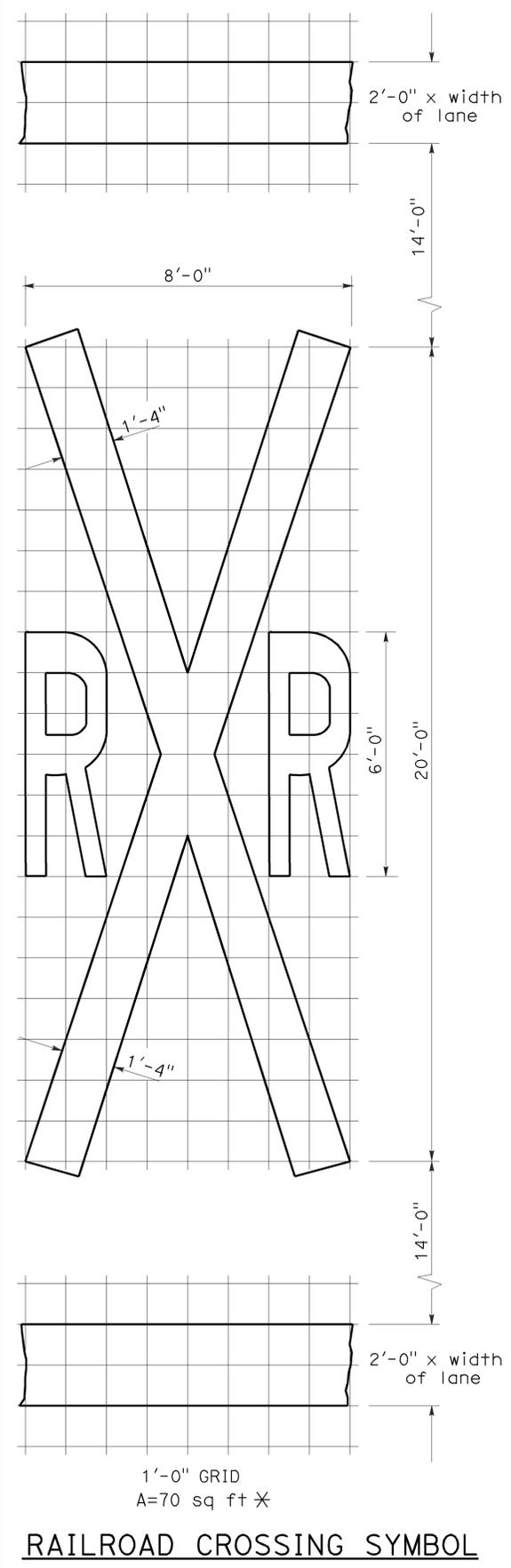


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	23	32

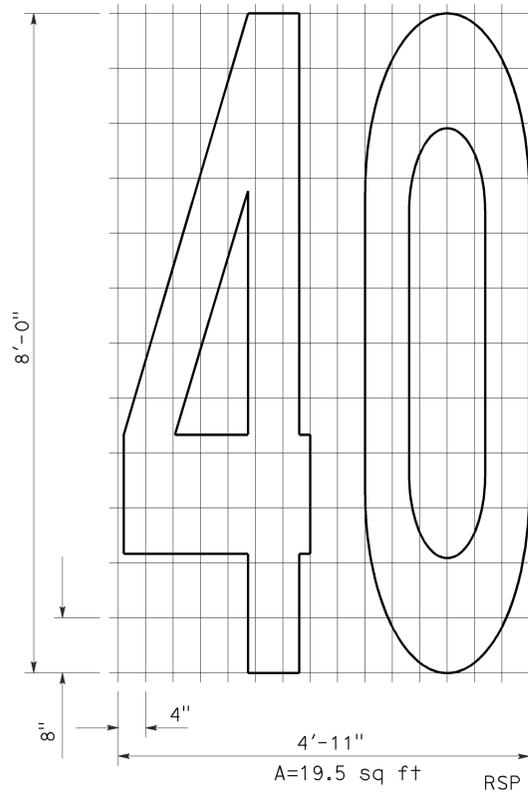
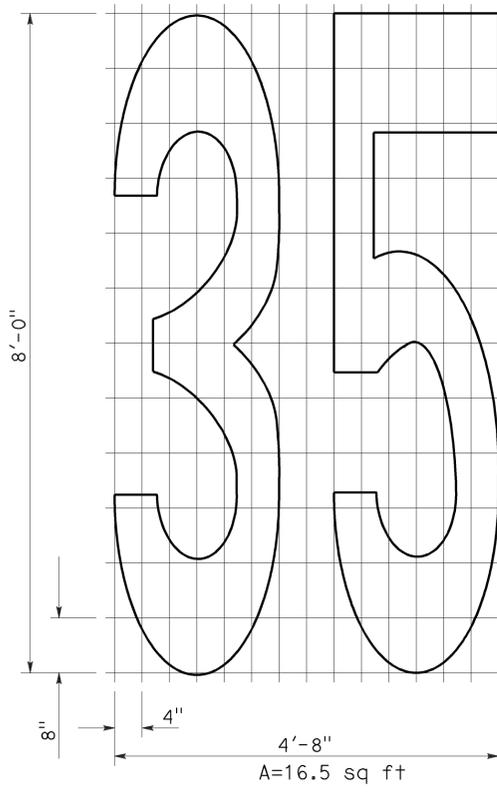
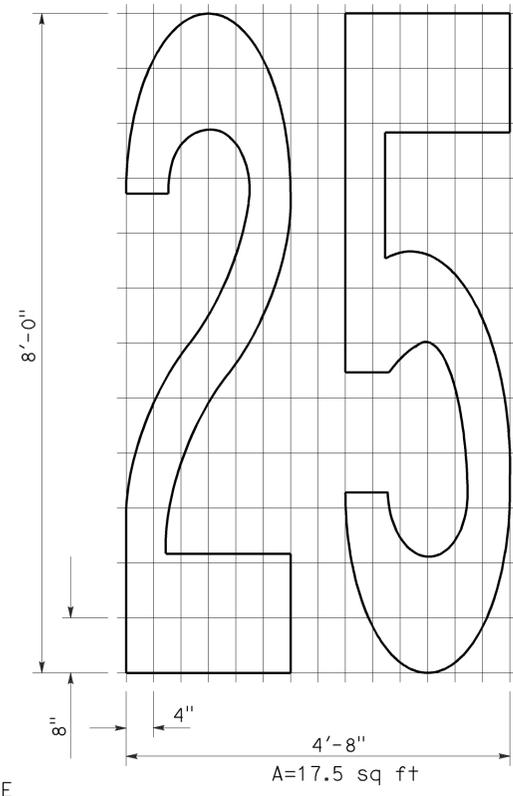
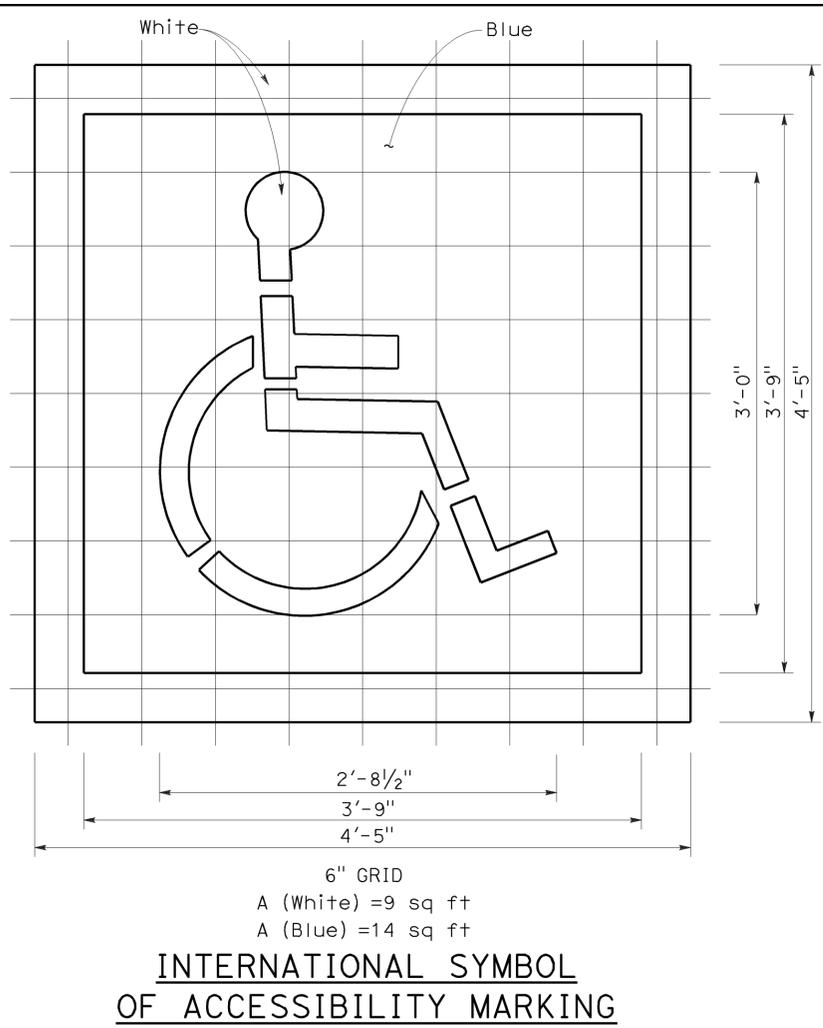
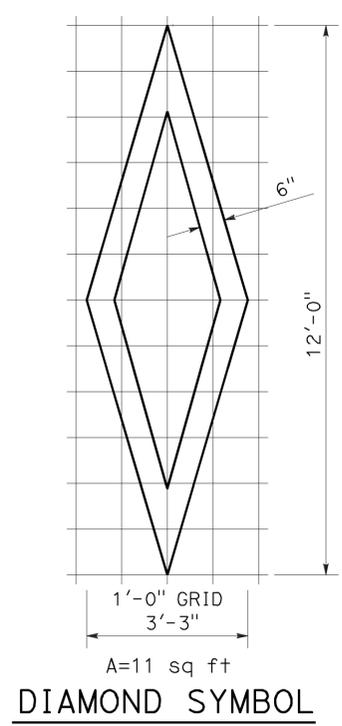
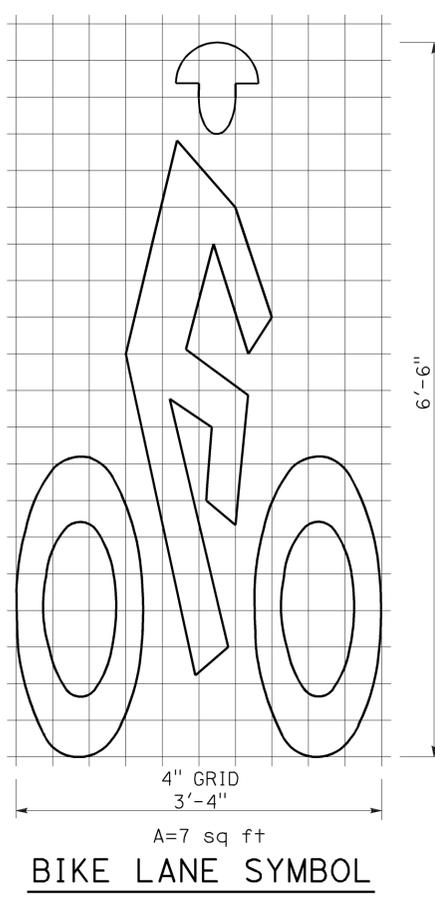
*Donald E. Howe*  
 REGISTERED CIVIL ENGINEER  
 June 6, 2008  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 Donald E. Howe  
 No. C46402  
 Exp. 3-31-09  
 CIVIL  
 STATE OF CALIFORNIA

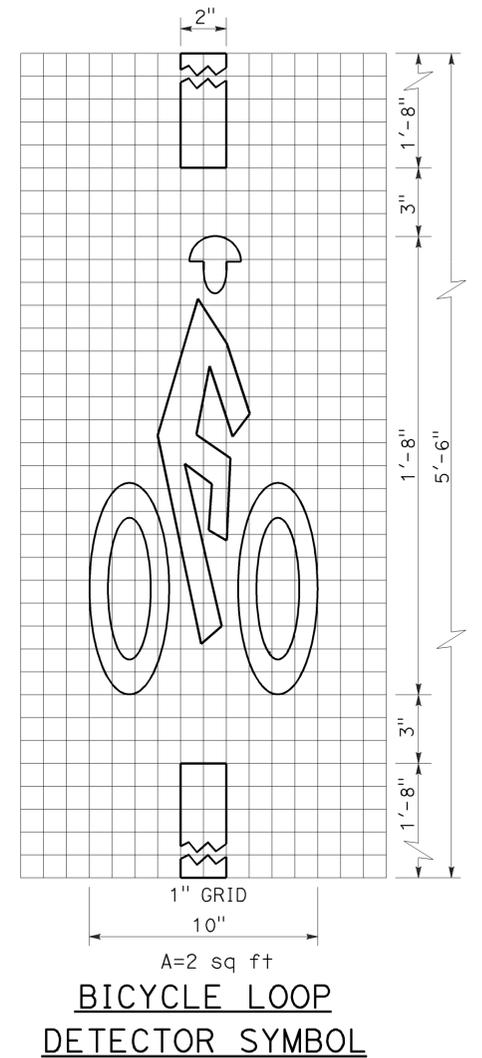
To accompany plans dated 6-6-11



\*70 sq ft DOES NOT INCLUDE THE 2'-0" x VARIABLE WIDTH TRANSVERSE LINES.



**NUMERALS**



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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS SYMBOLS AND NUMERALS**  
NO SCALE

2006 REVISED STANDARD PLAN RSP A24C

RSP A24C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A24C DATED MAY 1, 2006 - PAGE 11 OF THE STANDARD PLANS BOOK DATED MAY 2006.

# 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
03	Sac	80,244	12.5/18.0 0.0/1.1	24	32

*Jeffery G. McRae*  
REGISTERED ELECTRICAL ENGINEER

October 5, 2007  
PLANS APPROVAL DATE

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

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.

To accompany plans dated 6-6-11

## 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
03	Sac	80,244	12.5/18.0 0.0/1.1	25	32

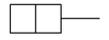
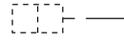
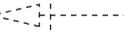
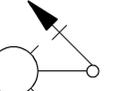
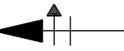
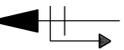
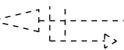
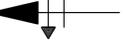
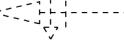
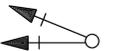
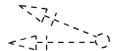
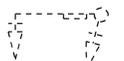
Jeffrey G. McRae  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
 Jeffrey G. McRae  
 No. E14512  
 Exp. 6-30-08  
 ELECTRICAL  
 STATE OF CALIFORNIA

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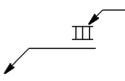
### CONDUIT

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

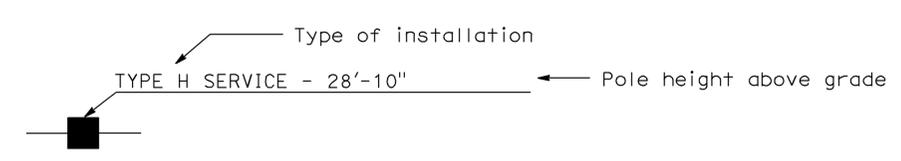
### SIGNAL EQUIPMENT

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

### SERVICE EQUIPMENT

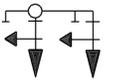
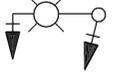
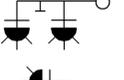
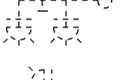
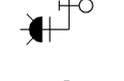
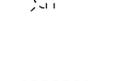
PROPOSED	EXISTING	
---OH---	---oh---	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

### POLE-MOUNTED SERVICE DESIGNATION

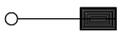


### ILLUMINATED OVERHEAD SIGN

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

		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

### 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

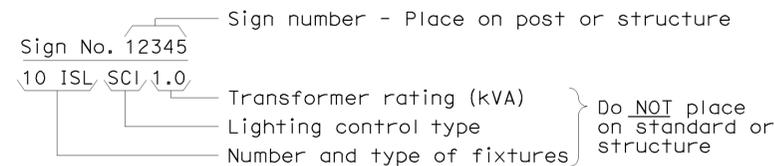
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1B**

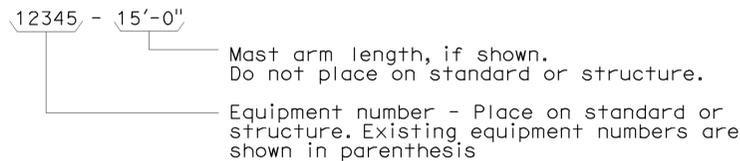
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

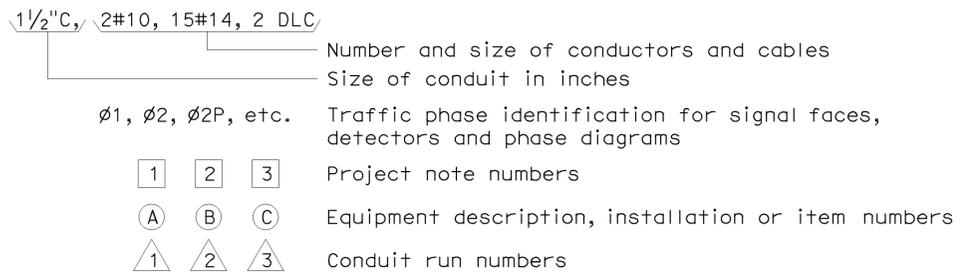
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



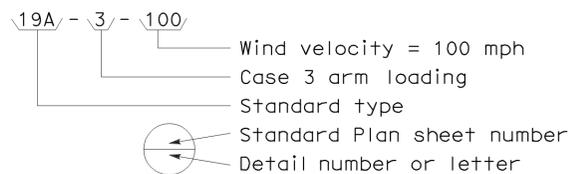
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



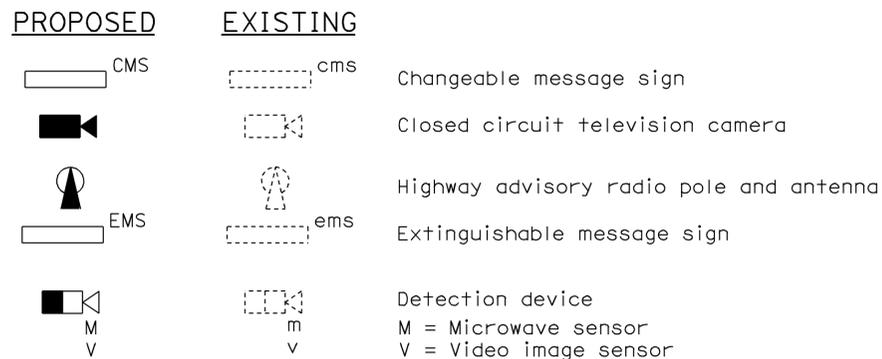
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



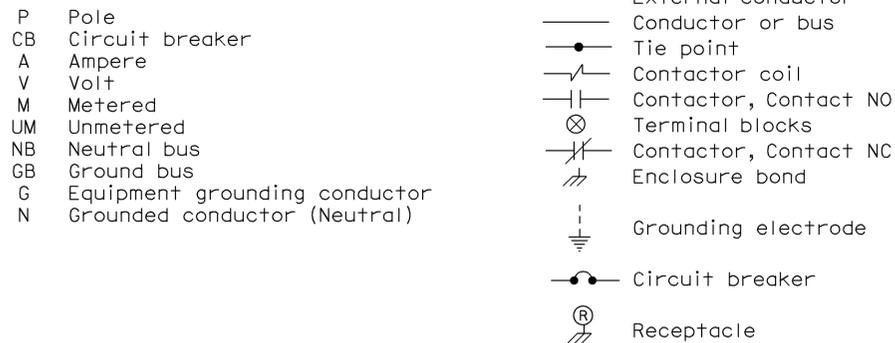
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



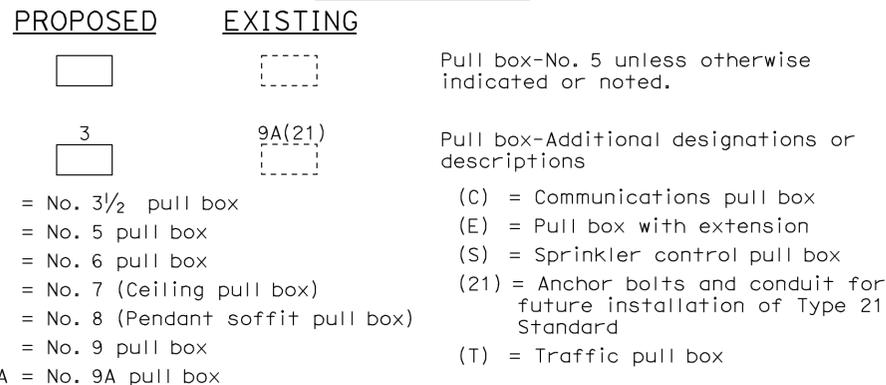
### MISCELLANEOUS EQUIPMENT



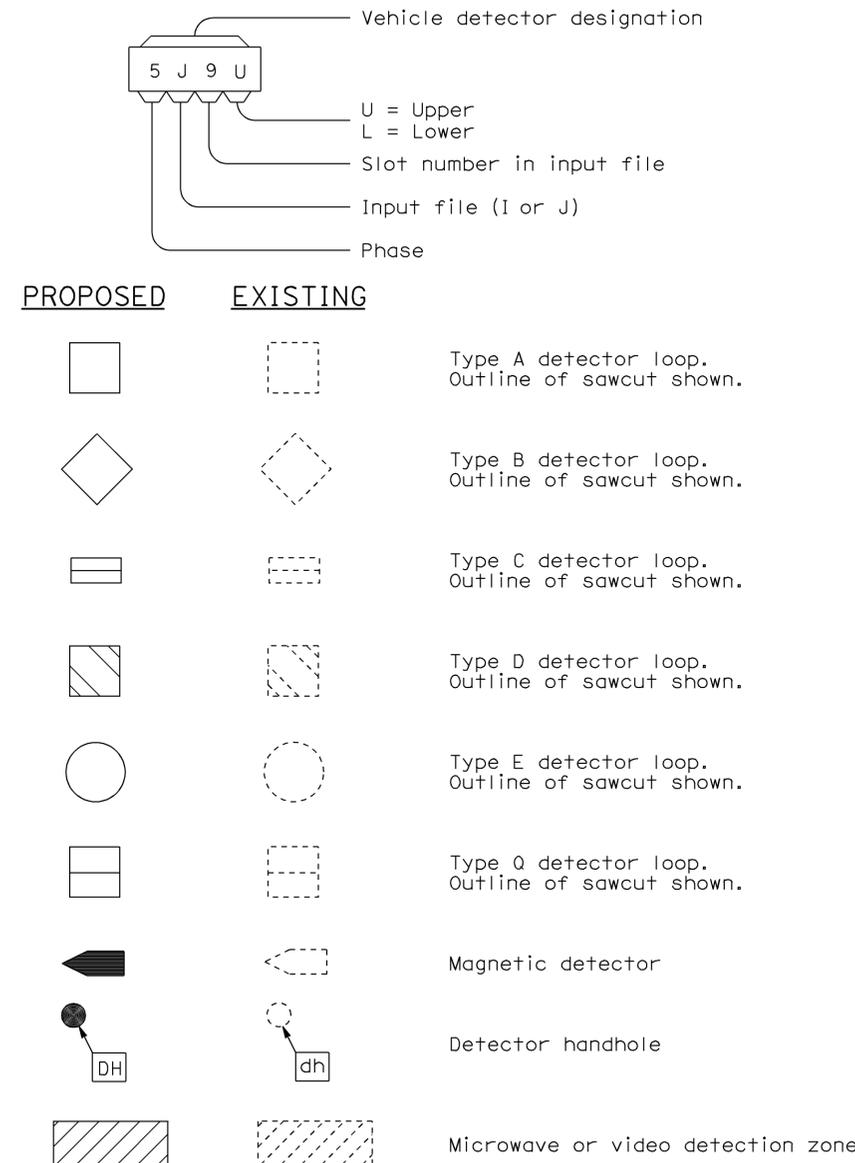
### WIRING DIAGRAM LEGEND



### PULL BOXES



### VEHICLE DETECTORS



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.

**REVISED STANDARD PLAN RSP ES-1C**

2006 REVISED STANDARD PLAN RSP ES-1C

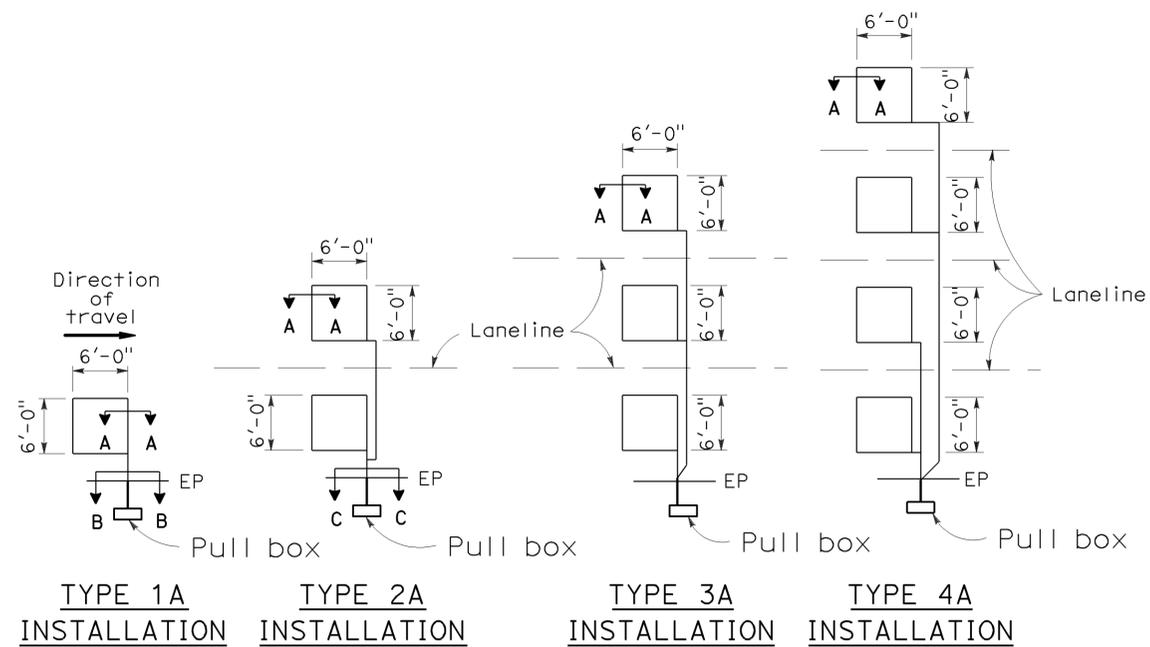
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	27	32

*Jeffery G. McRae*  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
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To accompany plans dated 6-6-11

## LOOP INSTALLATION PROCEDURE

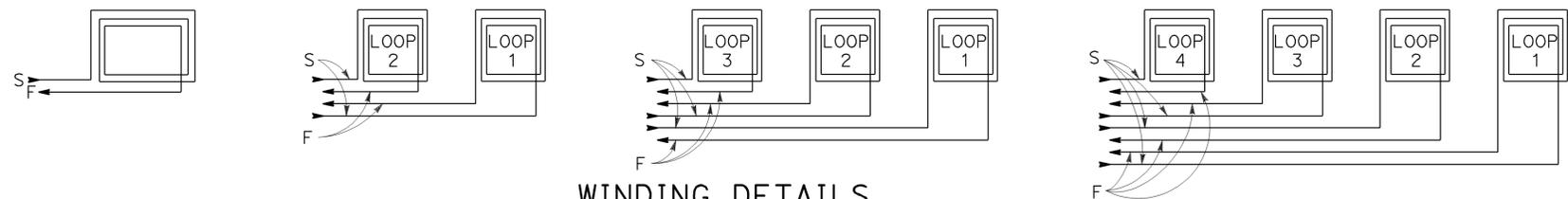
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no 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.



## SAWCUT DETAILS

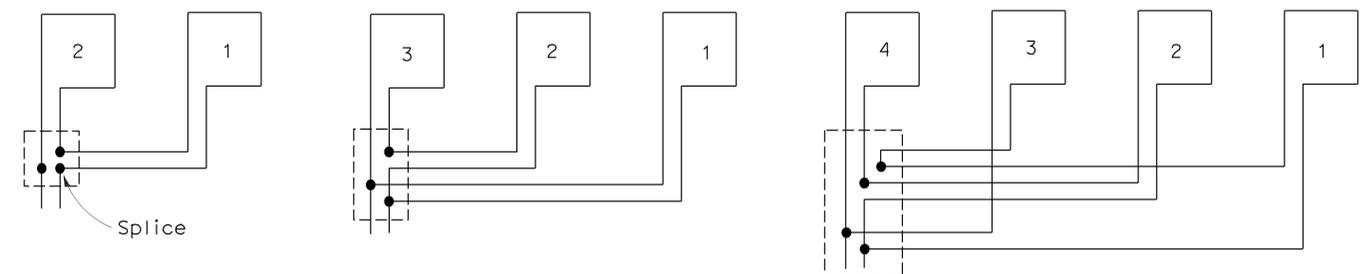
(Type A loop detector configurations illustrated)

- 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)



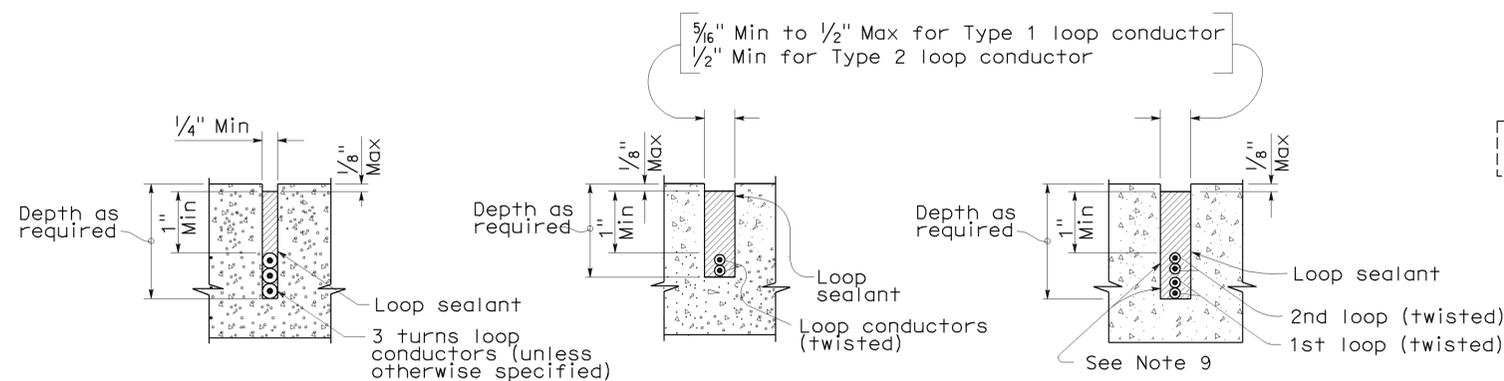
## WINDING DETAILS

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)

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**

2006 REVISED STANDARD PLAN RSP ES-5A

**NOTE:**

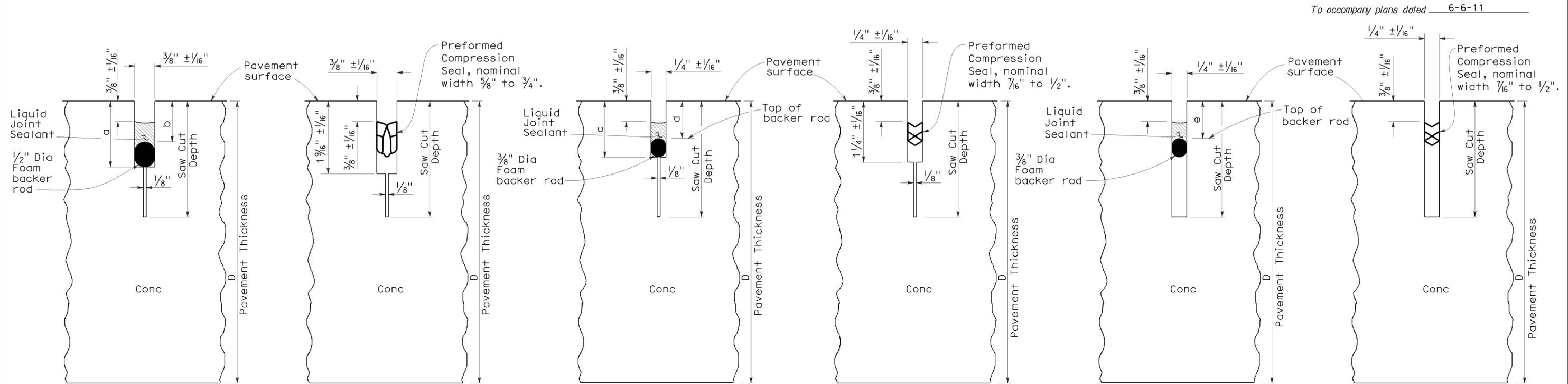
1. Tie bars, dowel bars, and reinforcement are not shown in joint seal details, see Revised Standard Plans RSP P1, RSP P3, RSP P10, RSP P35, RSP P45, or RSP P46 as applicable.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	28	32

*William K. Farnbach*  
 REGISTERED CIVIL ENGINEER  
 No. C49042  
 Exp. 9-30-10  
 CIVIL  
 STATE OF CALIFORNIA

May 15, 2009  
 PLANS APPROVAL DATE

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**LIQUID SEALANT**

**COMPRESSION SEAL**

**LIQUID SEALANT**

**COMPRESSION SEAL**

**LIQUID SEALANT**

**COMPRESSION SEAL**

**TYPE A1**

**TYPE A2**

**TYPE B**

Transverse Contraction Joints

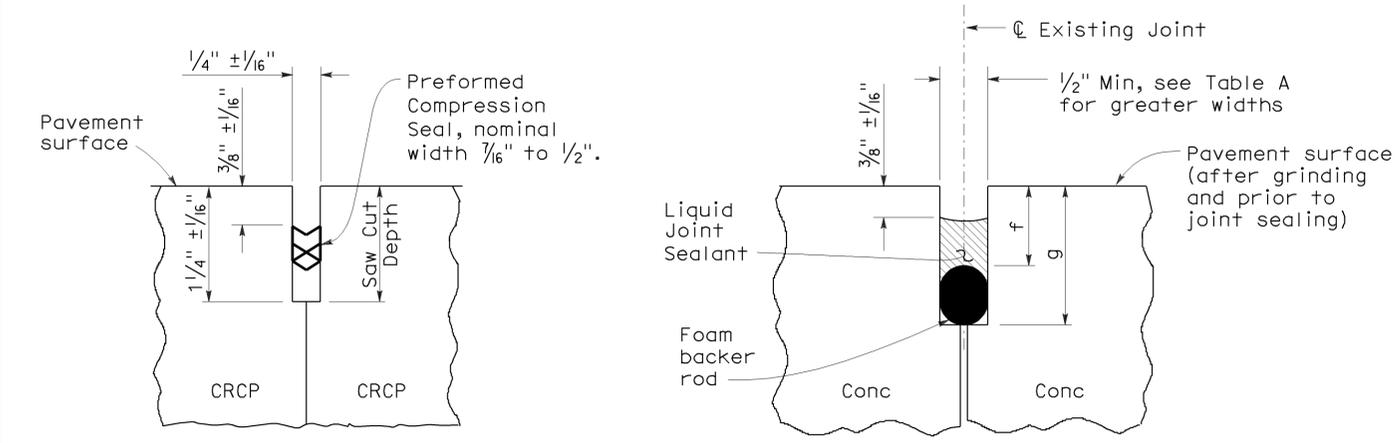
Longitudinal Contraction Joints

Longitudinal or Transverse Contraction Joint

To accompany plans dated 6-6-11

128

2006 REVISED STANDARD PLAN RSP P20



**COMPRESSION SEAL**

**LIQUID SEALANT**

**TYPE C**

**TYPE R**

Transverse and Longitudinal Construction Joints (For CRCP)

Retrofit Transverse and Longitudinal Joints

**LIQUID SEALANT RESERVOIR DEPTH**

LIQUID SEALANT MATERIAL	3/8" Joint Width Type A1		1/4" Joint Width Type A2		1/4" Joint Width Type B
	DIMENSION		DIMENSION		DIMENSION
	a	b	c	d	e
SILICONE	1" ± 1/16"	5/8" ± 1/16"	15/16" ± 1/16"	9/16" ± 1/16"	9/16" ± 1/16"
ASPHALT RUBBER	1 3/16" ± 1/16"	3/4" ± 1/16"	1 1/16" ± 1/16"	11/16" ± 1/16"	11/16" ± 1/16"

**TABLE A (TYPE R JOINT)**

Sawn Joint Width	Backer Rod Diameter ± 1/16"	DIMENSION "f"	DIMENSION "g"
1"	1 5/16"	7/8"	2 1/4"
7/8"	1 3/16"	13/16"	2"
3/4"	1"	3/4"	1 3/4"
5/8"	7/8"	11/16"	1 1/2"
1/2"	11/16"	5/8"	1 1/4"

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

RSP P20 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P20  
 DATED MAY 1, 2006 - PAGE 128 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP P20**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	29	32

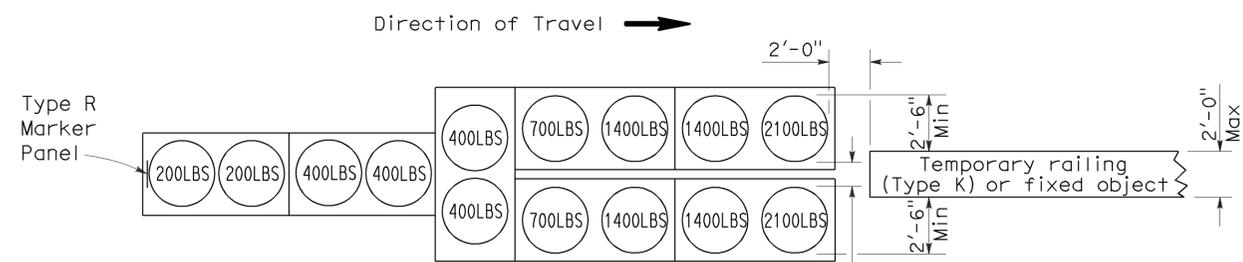
Randell D. Hiatt  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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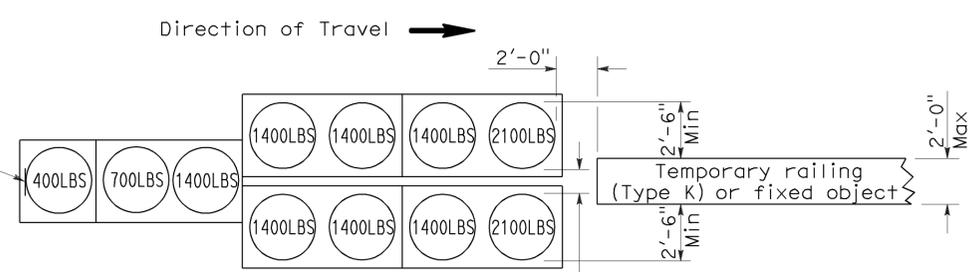
REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

To accompany plans dated 6-6-11



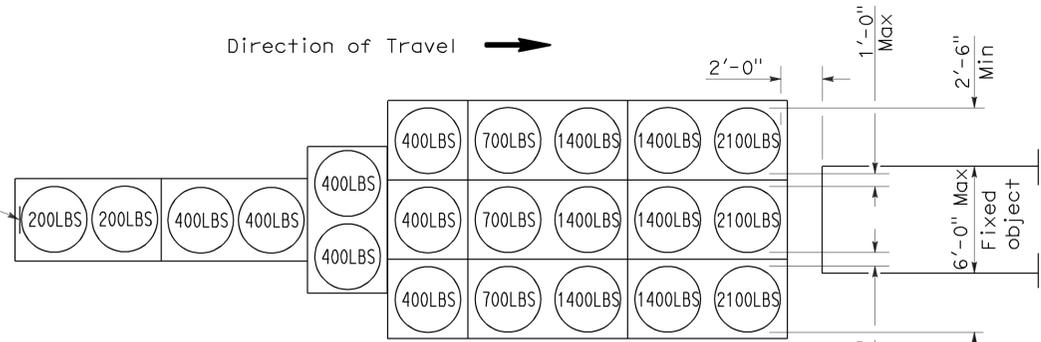
**ARRAY 'TU14'**

Approach speed 45 mph or more



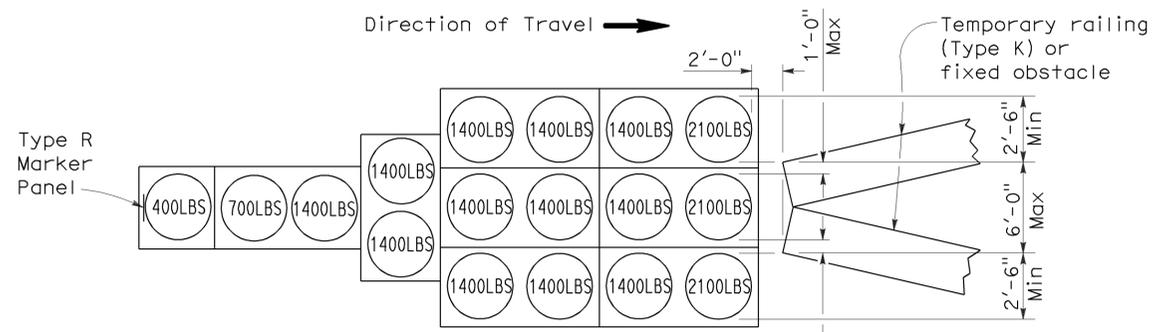
**ARRAY 'TU11'**

Approach speed less than 45 mph



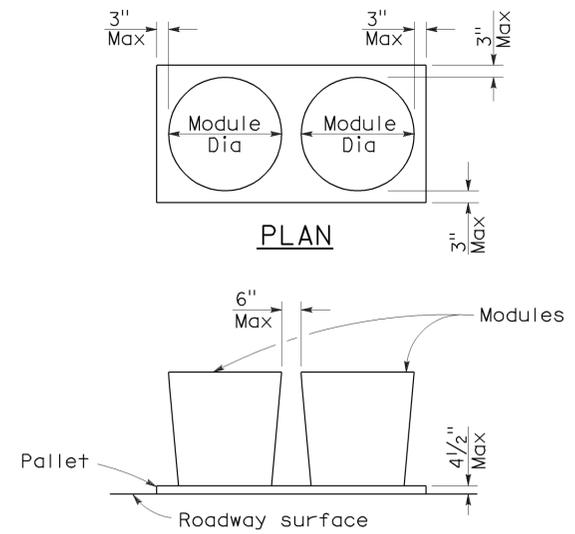
**ARRAY 'TU21'**

Approach speed 45 mph or more



**ARRAY 'TU17'**

Approach speed less than 45 mph



**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 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.

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
03	Sac	80,244	12.5/18.0 0.0/1.1	30	32

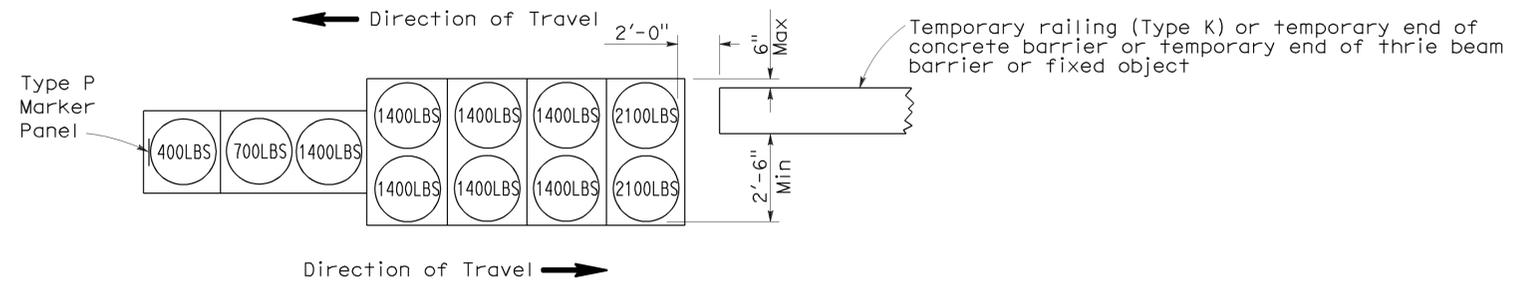
Randell D. Hiatt  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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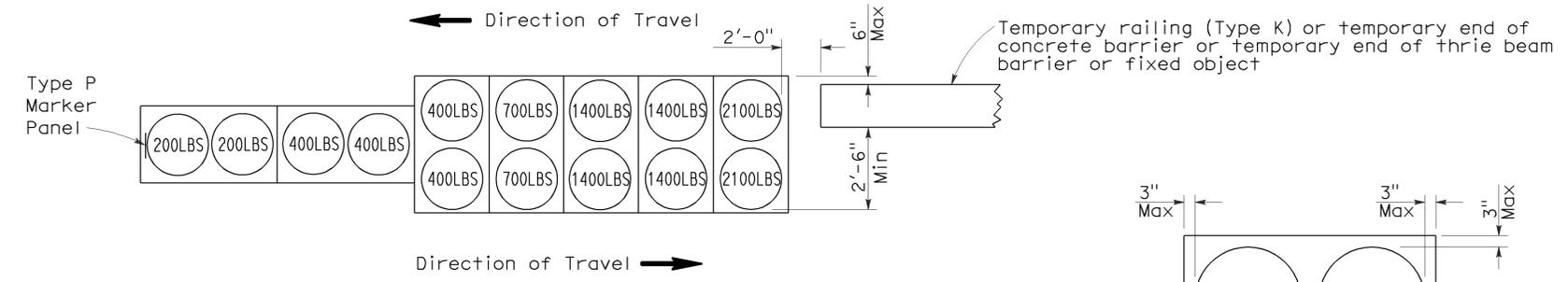
REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

To accompany plans dated 6-6-11



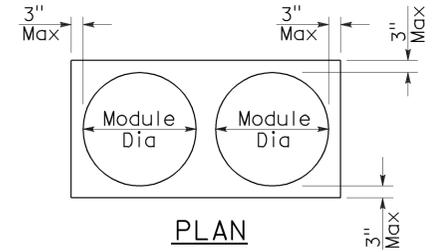
**ARRAY 'TB11'**

Approach speed less than 45 mph

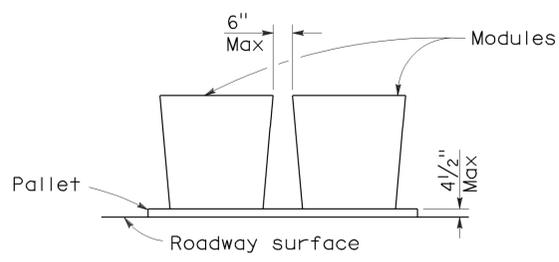


**ARRAY 'TB14'**

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

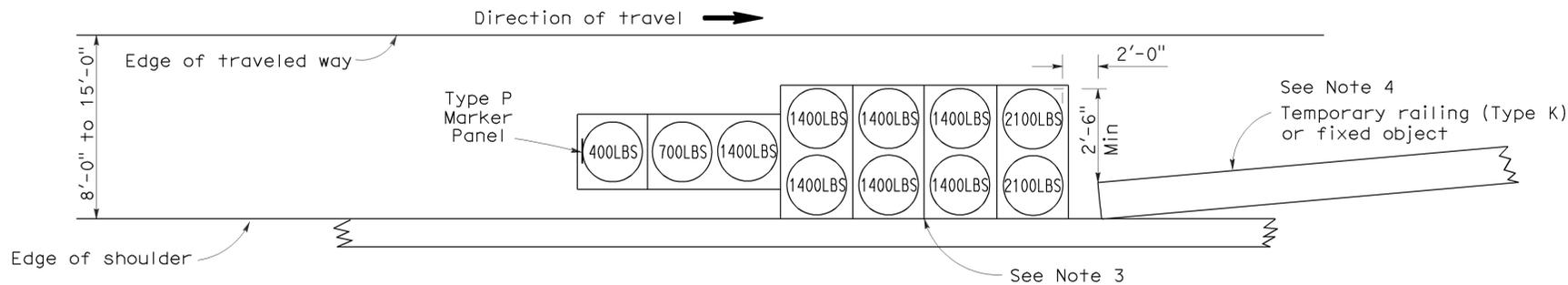
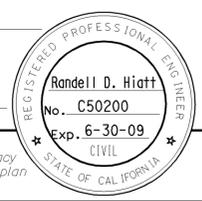
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Sac	80,244	12.5/18.0 0.0/1.1	31	32

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

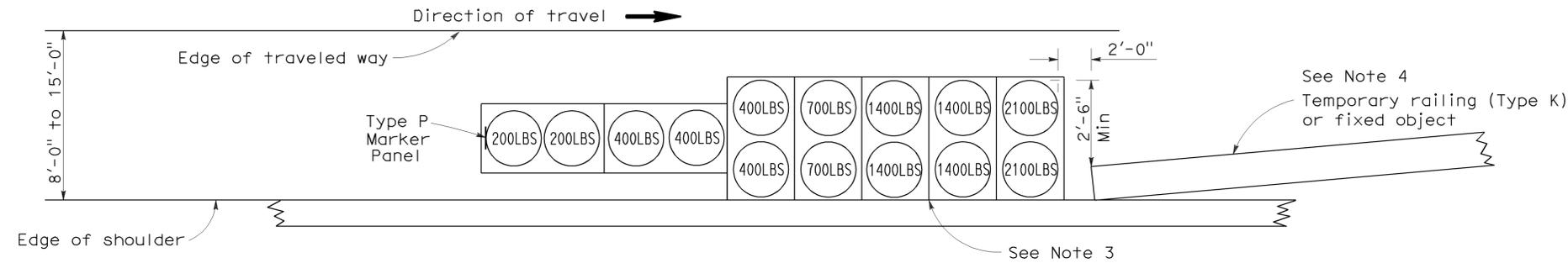
June 6, 2008  
PLANS APPROVAL DATE

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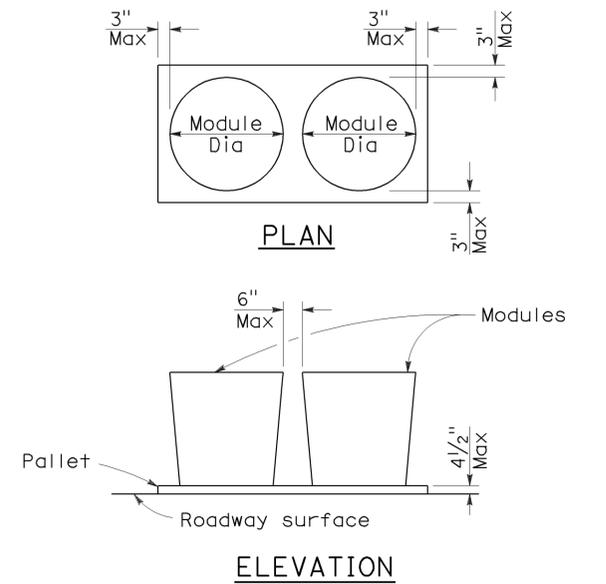
To accompany plans dated 6-6-11



**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:**

- (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.
- 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

