STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

STP-P273(010)E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	1	29

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN SHASTA COUNTY IN AND NEAR REDDING FROM SPRING CREEK BRIDGE TO 0.1 MILE SOUTH OF CANYON ROAD

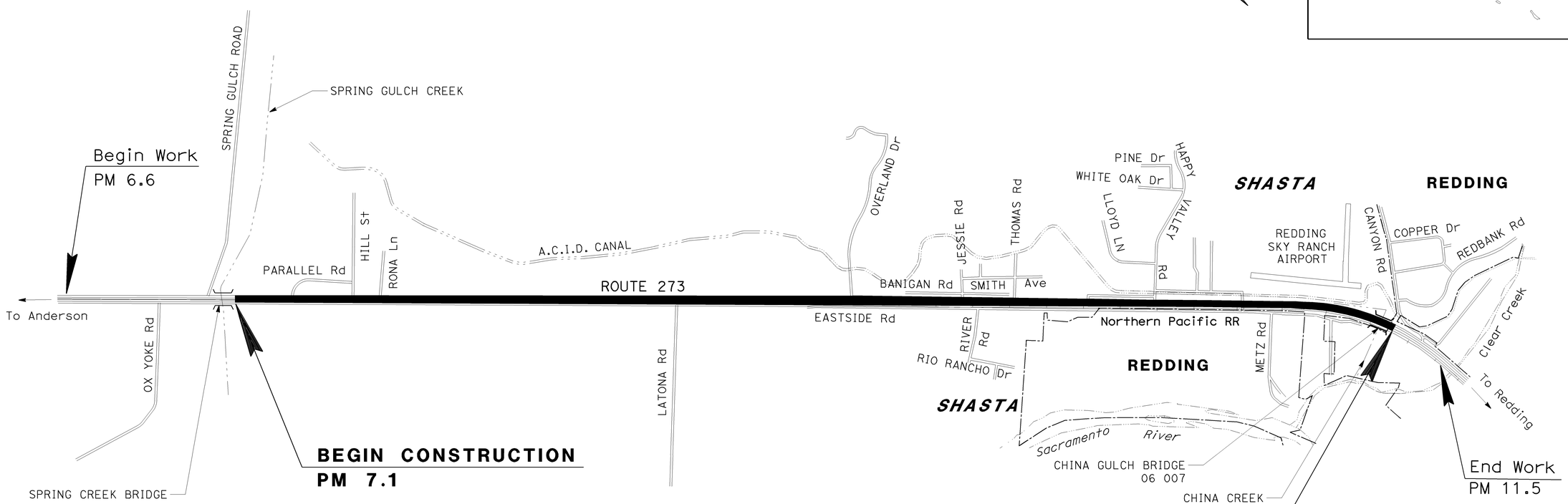
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-4	TYPICAL CROSS SECTIONS
5-7	CONSTRUCTION DETAILS
8-9	CONSTRUCTION AREA SIGNS
10	PAVEMENT DELINEATION DETAILS
11-12	PAVEMENT DELINEATION QUANTITIES
13-15	SUMMARY OF QUANTITIES
16-18	ELECTRICAL
19-29	REVISED STANDARD PLANS

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

LOCATION MAP



Michael J. Mogen 02-26-10
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

February 26, 2010
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MIKE MOGEN
No. C67018
Exp. 09-30-12
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.

PROJECT MANAGER: SEAN SHEPARD
DESIGN ENGINEER: JULIE CASEY

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

NO SCALE

CONTRACT No.	02-2E8404
PROJECT ID	0200000607

LAST REVISION 09-08-10 | DATE PLOTTED => 08-SEP-2010 | TIME PLOTTED => 11:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	2	29

REGISTERED CIVIL ENGINEER 02-26-10 DATE

02-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MIKE MOGEN No. C 67018 Exp. 09-30-12 CIVIL STATE OF CALIFORNIA

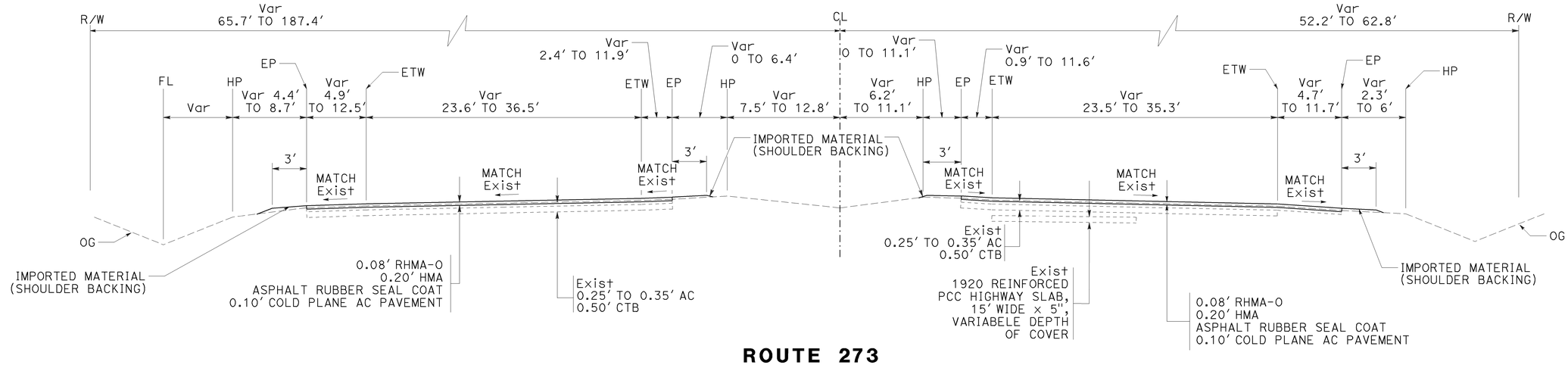
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATIONS AS SHOWN OR AS DETERMINED BY THE ENGINEER.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
4. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

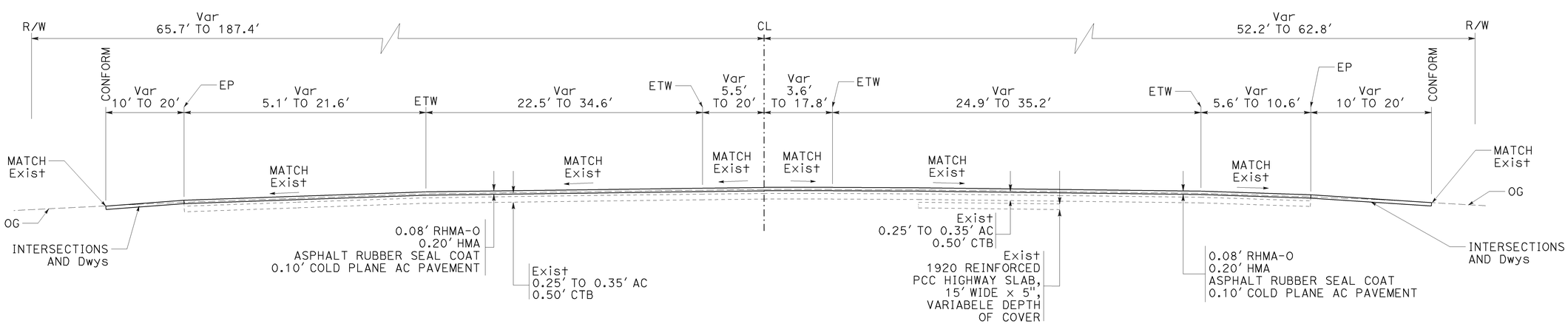
ABBREVIATIONS:

RHMA-O RUBBERIZED HOT MIX ASPHALT (TYPE OPEN GRADED)



ROUTE 273

PM 7.10 TO 7.20	PM 8.63 TO 8.75	PM 9.81 TO 10.00
PM 7.27 TO 7.51	PM 8.79 TO 8.93	PM 10.02 TO 10.34
PM 7.57 TO 7.86	PM 8.97 TO 9.27	PM 10.38 TO 10.50
PM 7.89 TO 8.31	PM 9.30 TO 9.42	PM 10.62 TO 10.72
PM 8.34 TO 8.59	PM 9.46 TO 9.78	PM 10.75 TO 10.86



ROUTE 273

PM 7.24 TO 7.25	PM 8.75 TO 8.77	PM 10.00 TO 10.02
PM 7.52 TO 7.56	PM 8.94 TO 8.96	PM 10.35 TO 10.37
PM 7.87 TO 7.88	PM 9.28 TO 9.29	PM 10.73 TO 10.74
PM 8.32 TO 8.33	PM 9.43 TO 9.44	
PM 8.60 TO 8.62	PM 9.79 TO 9.80	

TYPICAL CROSS SECTIONS

NO SCALE

X-1

REVISED BY | DATE REVISED
DANIEL FISHER | MIKE MOGEN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: JULIE CASEY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

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LAST REVISION 02-26-10 | DATE PLOTTED => 08-SEP-2010 | TIME PLOTTED => 11:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	3	29

REGISTERED CIVIL ENGINEER 02-26-10 DATE

02-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MIKE MOGEN No. C 67018 Exp. 09-30-12 CIVIL STATE OF CALIFORNIA

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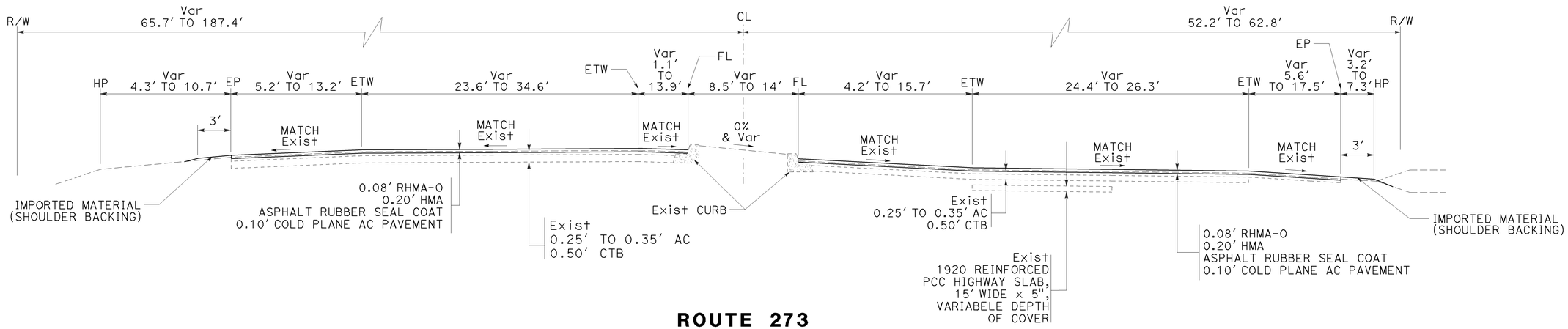
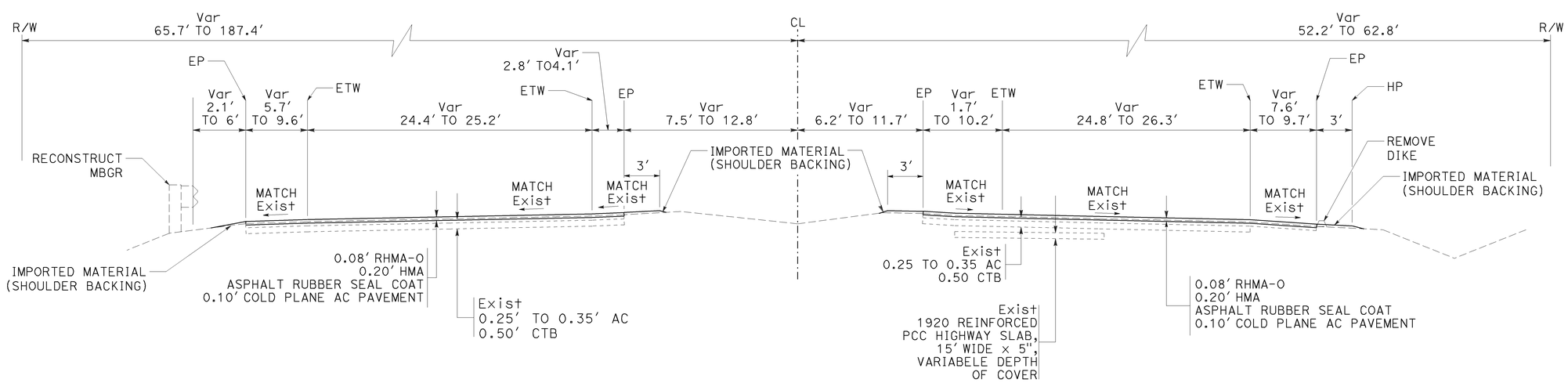


ROUTE 273

PM 7.20 TO 7.24	PM 7.88 TO 7.89	PM 8.74 TO 8.75	PM 9.29 TO 9.30	PM 10.30 TO 10.35
PM 7.25 TO 7.27	PM 8.31 TO 8.32	PM 8.77 TO 8.79	PM 9.42 TO 9.43	PM 10.37 TO 10.38
PM 7.51 TO 7.52	PM 8.33 TO 8.34	PM 8.93 TO 8.94	PM 9.44 TO 9.46	PM 10.72 TO 10.73
PM 7.56 TO 7.57	PM 8.59 TO 8.60	PM 8.96 TO 8.97	PM 9.78 TO 9.79	PM 10.74 TO 10.75
PM 7.86 TO 7.87	PM 8.62 TO 8.63	PM 9.27 TO 9.28	PM 9.80 TO 9.81	



ROUTE 273

PM 10.86 TO 11.00

TYPICAL CROSS SECTIONS

NO SCALE

X-2

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	4	29

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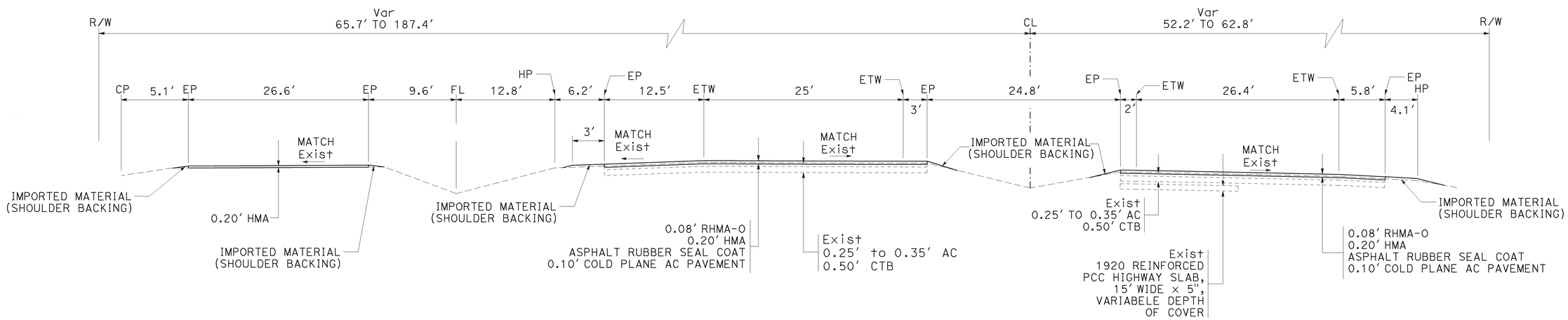

ROUTE 273
PM 10.50 TO 10.62

TYPICAL CROSS SECTIONS

NO SCALE

X-3

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	5	29

REGISTERED CIVIL ENGINEER 02-26-10 DATE

02-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MIKE MOGEN No. C 67018 Exp. 09-30-12 CIVIL STATE OF CALIFORNIA

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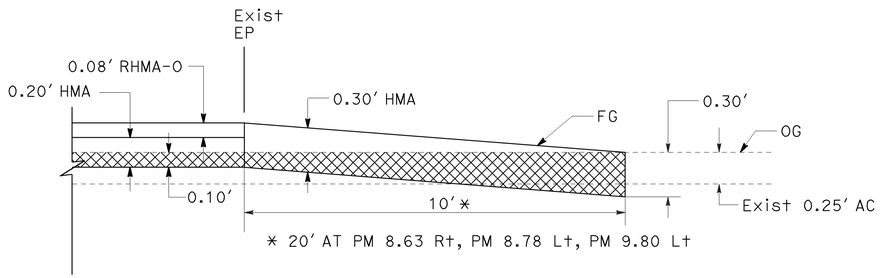
LEGEND:

COLD PLANE AC PAVEMENT (VARIABLE 0.10′ TO 0.30′)

REPLACE ASPHALT CONCRETE SURFACING

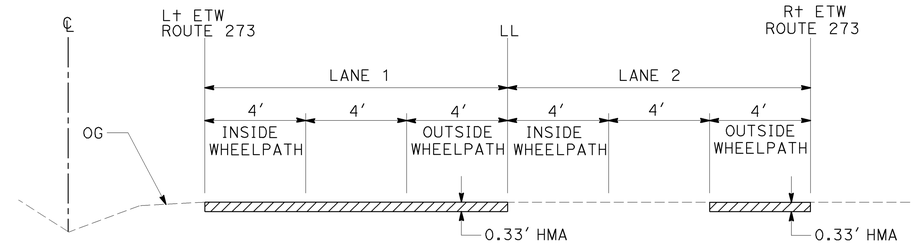
ABBREVIATIONS:

LL	LANE LINE
RHMA-O	RUBBERIZED HOT MIX ASPHALT (TYPE OPEN GRADED)
LOG	LIP OF GUTTER



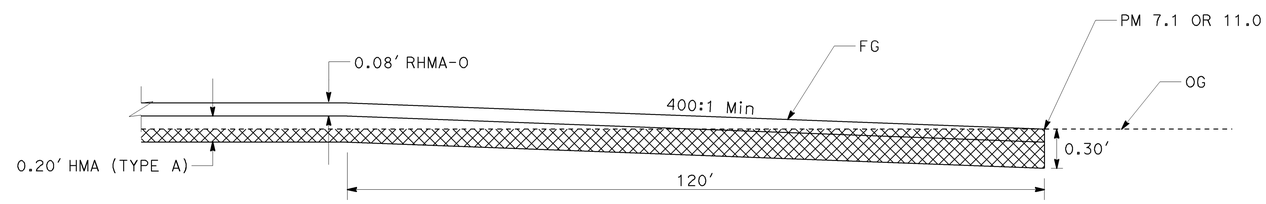
ROAD CONNECTION CONFORM
DRIVEWAY CONFORM

PM 7.27 Rt & Lt	PM 7.55 Lt	PM 7.58 Rt
PM 7.67 Lt	PM 7.90 Rt	PM 8.17 Lt
PM 8.19 Lt	PM 8.27 Lt	PM 8.63 Lt
PM 8.78 Lt	PM 8.96 Lt	PM 9.07 Lt
PM 9.23 Lt	PM 9.36 Lt	PM 9.44 Lt
PM 9.48 Lt	PM 9.56 Lt	PM 9.66 Lt
PM 10.37 Lt & Rt	PM 10.75 Lt	



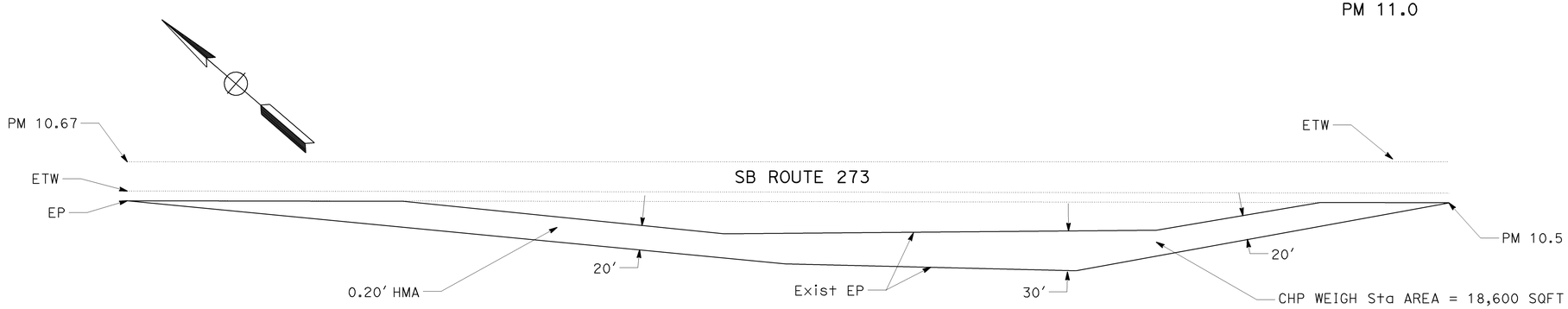
REPLACE ASPHALT CONCRETE SURFACING

PM 7.1 TO 11.0



MAINLINE CONFORM

PM 7.1
PM 11.0



CHP WEIGH STATION PAVING

PM 10.5 Lt TO 10.67 Lt

CONSTRUCTION DETAILS

NO SCALE

C-1

REVISED BY	DATE REVISED

DANIEL FISHER	MIKE MOGEN
CALCULATED-DESIGNED BY	CHECKED BY

FUNCTIONAL SUPERVISOR: JULIE CASEY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® **DESIGN**

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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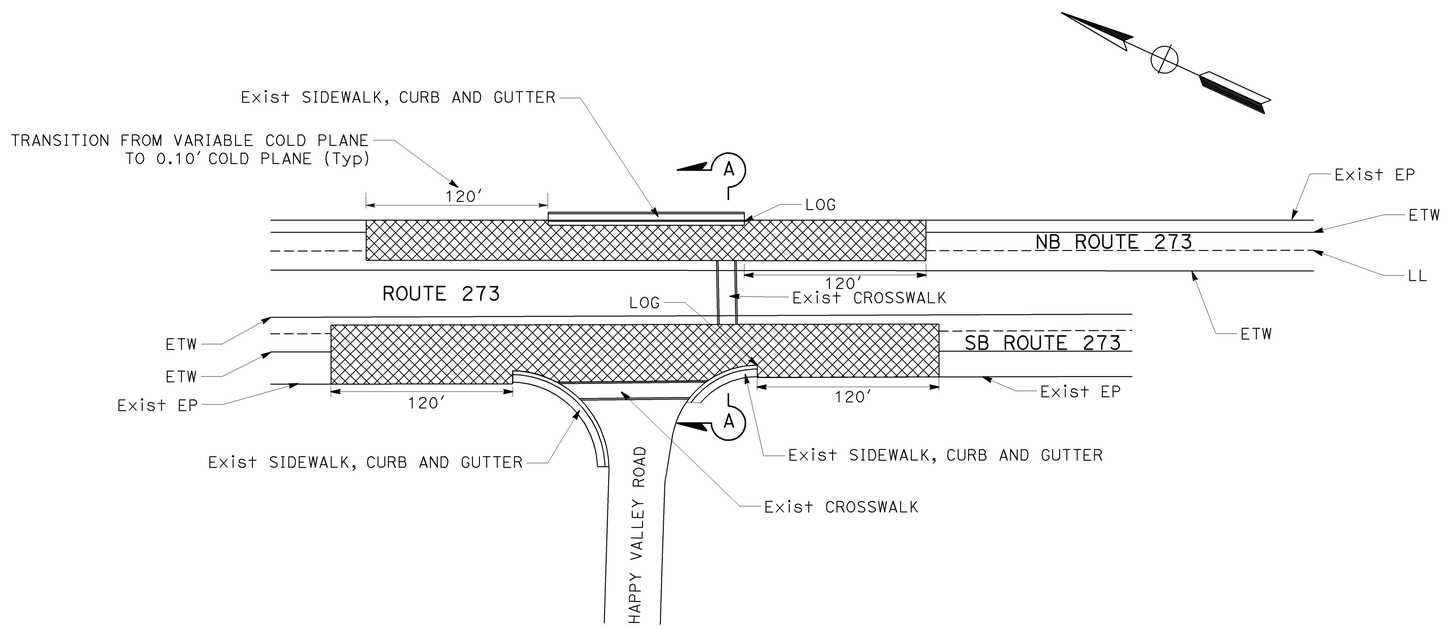
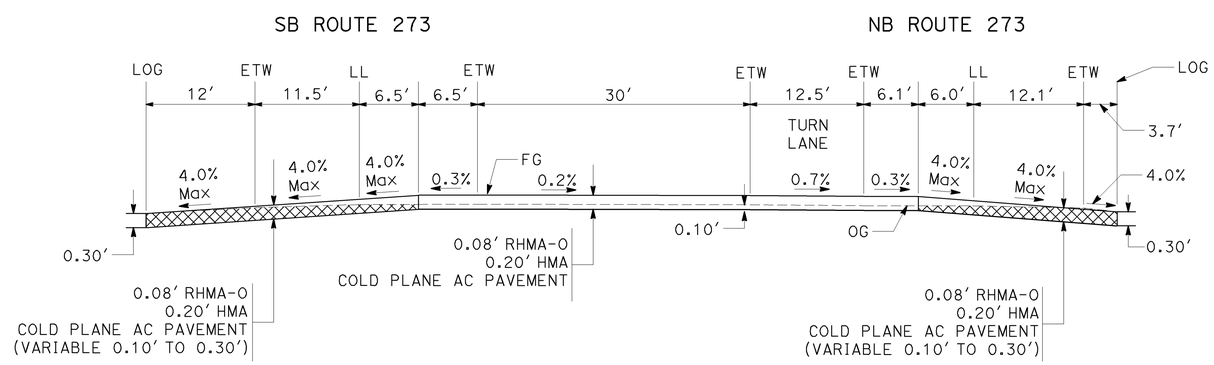


ROUTE 273 AND HAPPY VALLEY INTERSECTION



DETAIL A-A

CONSTRUCTION DETAILS

NO SCALE

C-2

REVISED BY	DATE REVISED

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DANIEL FISHER	MIKE MOGEN

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	7	29

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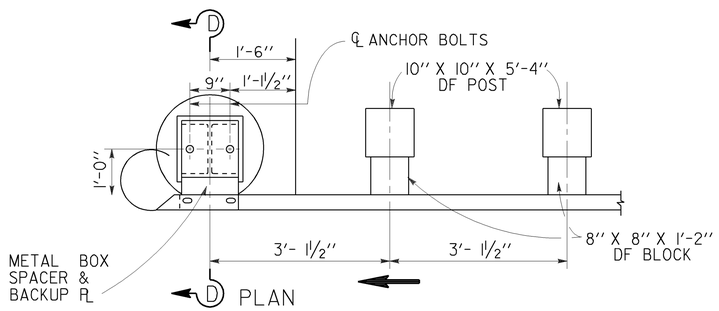
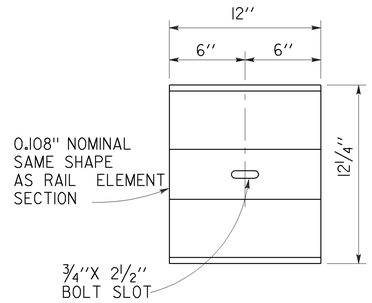
NOTE:

1. DIRECTION OF TRAFFIC INDICATED BY →
2. WHERE 10" X 10" DF POSTS AND 8" X 8" DF BLOCKS ARE SHOWN, W6 X 15 STEEL POST AND TUBULAR STEEL 6" X 6" X 1'-2" (0.1875" THICK) BLOCKS MAY BE SPECIFIED WHERE APPLICABLE.

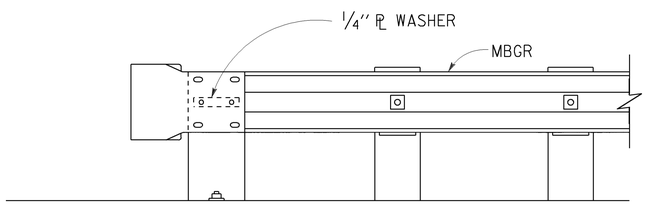


PLAN



BACK-UP PLATE

FOR USE BETWEEN GUARD RAIL ELEMENT AND METAL BOX SPACER



ELEVATION

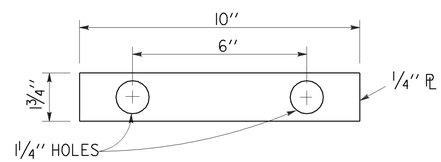
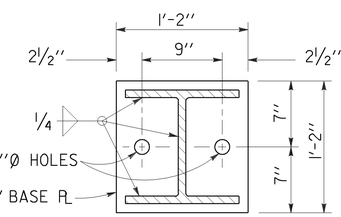
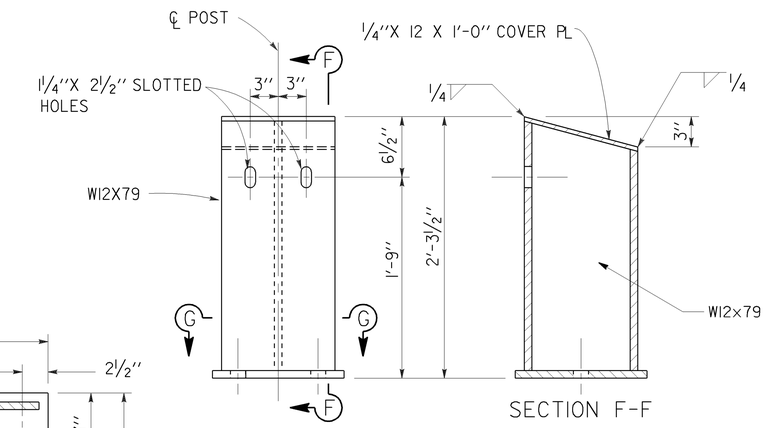


PLATE WASHER



SECTION G-G

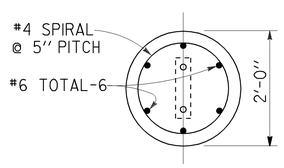


ANCHOR POST ASSEMBLY

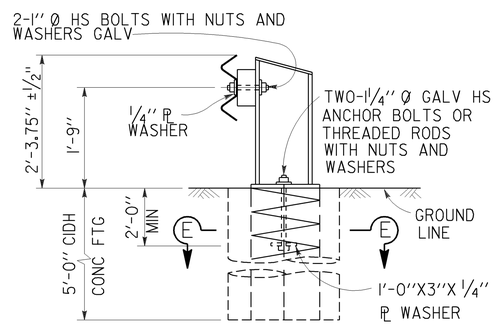
SECTION F-F

ANCHOR POST DETAILS

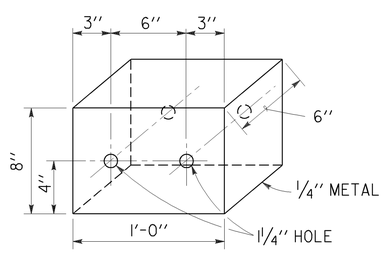
(FOR CONNECTION DETAIL B)



SECTION E-E



SECTION D-D



METAL BOX SPACER

PLACE 1¼"X 5¼" PIPE SPACERS ON 1" BOLTS PASSING THROUGH BOX INTERIOR

CONSTRUCTION DETAILS
GUARD RAIL DETAILS

NO SCALE

C-3

REVISED BY	DATE REVISED
DANIEL FISHER	MIKE MOGEN
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02	Sha	273	7.1/11.0	8	29

REGISTERED CIVIL ENGINEER 02-26-10 DATE

02-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MIKE MOGEN No. C 67018 Exp. 09-30-12 CIVIL STATE OF CALIFORNIA

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NOTES:

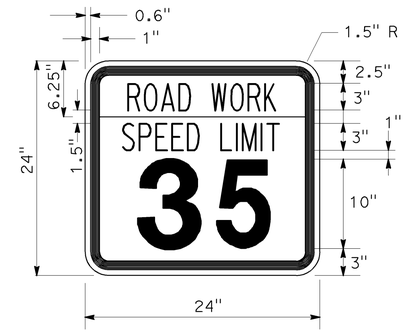
1. EXACT LOCATION OF ALL SIGNS TO BE DETERMINED BY THE ENGINEER.
2. SIGNS (E) AND (F) TO BE USED ONLY WHEN TRAFFIC IS SUBJECT TO A COLD PLANED OR CHIP SEALED SURFACE.

LEGEND:

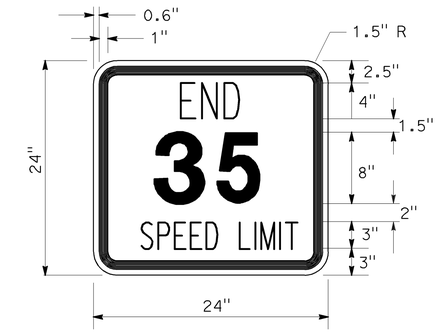
PORTABLE CHANGEABLE MESSAGE SIGN

CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

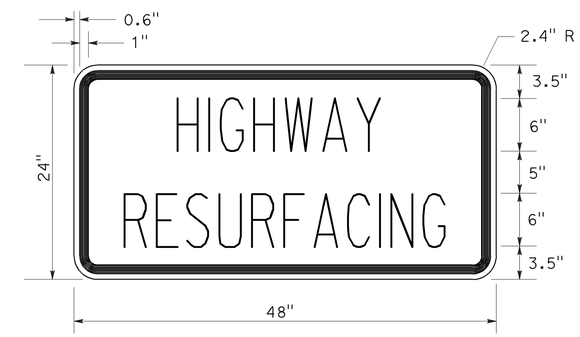
TYPE	CODE	PANEL SIZE	SIGN MESSAGE	No. AND SIZE OF POSTS	No. OF SIGNS
(A)	W20-1 C23B	48" x 48" 48" x 24"	ROAD WORK AHEAD HIGHWAY RESURFACING	1 - 4" x 6"	2
(B)	C20-2	60" x 24"	END ROAD WORK	1 - 4" x 4"	2
(C)	W20-1	48" x 48"	ROAD WORK AHEAD	1 - 4" x 6"	5
(D)	G20-2	48" x 18"	END ROAD WORK	1 - 4" x 4"	5
(E)	W8-7 (CA) C17 FRONT	30" x 30" 24" x 24"	LOOSE GRAVEL ROAD WORK SPEED LIMIT	1 - 4" x 6"	7
(F)	C17 BACK	24" x 24"	END SPEED LIMIT	1 - 4" x 4"	7
				TOTAL	28



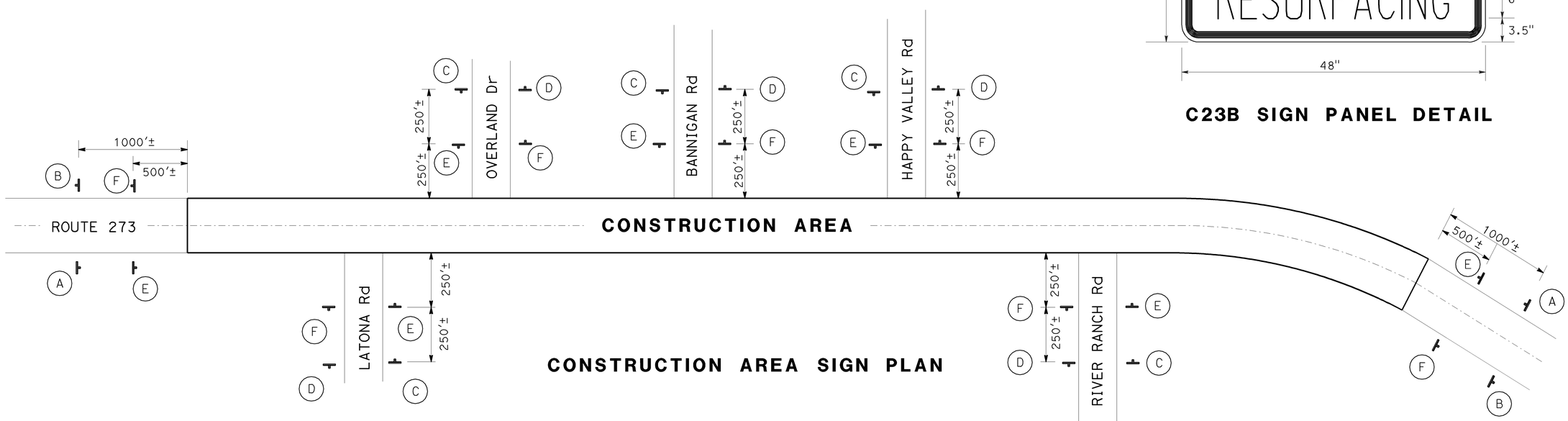
C17 FRONT SIGN PANEL DETAIL



C17 BACK SIGN PANEL DETAIL



C23B SIGN PANEL DETAIL



CONSTRUCTION AREA SIGN PLAN

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

REVISED BY | DATE REVISED

DANIEL FISHER | MIKE MOGEN

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: JULIE CASEY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DESIGN

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BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s123119 | DGN FILE => 22e8401a001.dgn | CU 03 246 | EA 2E8401

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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02-26-10
PLANS APPROVAL DATE

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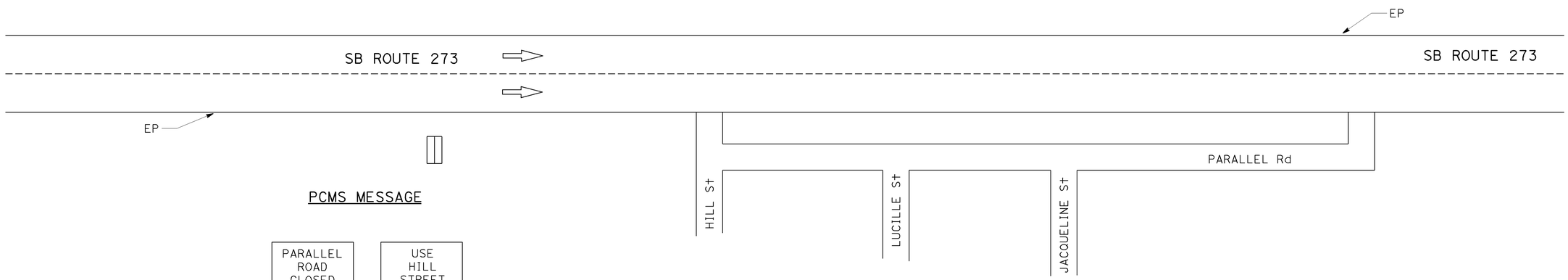
NOTE:

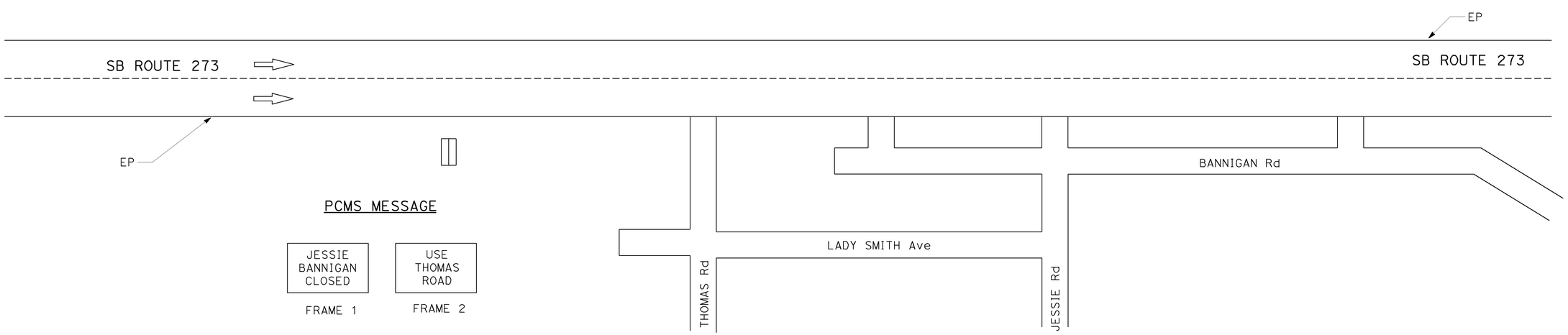
1. EXACT LOCATION OF ALL SIGNS TO BE DETERMINED BY THE ENGINEER.

ABBREVIATIONS;

PCMS PORTABLE CHANGEABLE MESSAGE SIGN



PARALLEL ROAD DETOUR



JESSIE ROAD DETOUR

THOMAS Rd AND NORTH BANNIGAN Rd SHALL REMAIN OPEN WHEN JESSIE Rd AND SOUTH BANNIGAN Rd ARE CLOSED.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-2

REVISED BY | DATE REVISED
DANIEL FISHER | MIKE MOGEN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
JULIE CASEY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 02-26-10 | DATE PLOTTED => 08-SEP-2010 TIME PLOTTED => 11:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	10	29

REGISTERED CIVIL ENGINEER 02-26-10 DATE

02-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MIKE MOGEN No. C 67018 Exp. 09-30-12 CIVIL STATE OF CALIFORNIA

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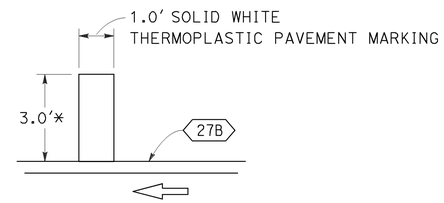
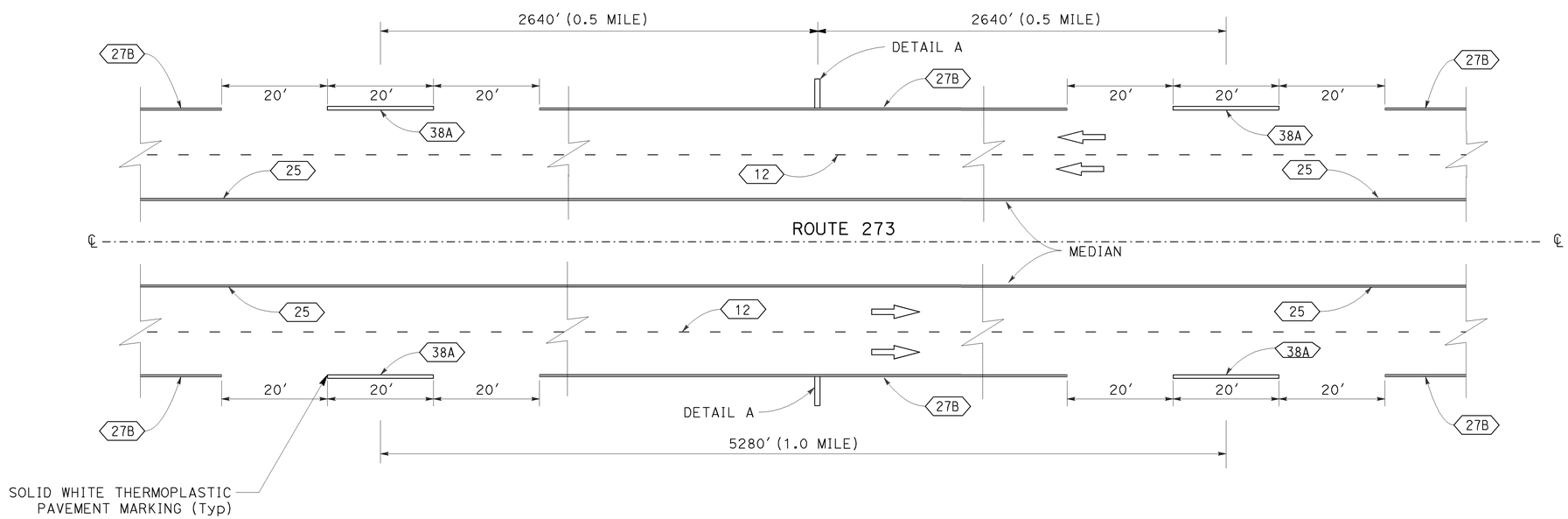
LEGEND:

⇨ DIRECTION OF TRAFFIC



DETAIL A

* ACTUAL LENGTH MAY VARY
DUE TO PAVEMENT WIDTH



TYPICAL HALF MILE AND MILE POST STRIPE

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	DANIEL FISHER
CHECKED BY	MIKE MOGEN
FUNCTIONAL SUPERVISOR	JULIE CASEY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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THERMOPLASTIC PAVEMENT MARKING

PM	Lt	Mid	Rt	EA	SQFT	REMARKS
7.22			X	2	62.0	TYPE I 24'-0" ARROW
7.25			X	2	62.0	TYPE I 24'-0" ARROW
7.27	X			1	31.5	LIMIT LINE
7.27	X			1	22.0	STOP
7.27			X	1	51.3	LIMIT LINE
7.27			X	1	22.0	STOP
7.28	X			2	62.0	TYPE I 24'-0" ARROW
7.29	X			1	42.0	TYPE III (R) ARROW
7.30	X			1	126.0	RAILROAD CROSSING SYMBOL
7.31	X			2	62.0	TYPE I 24'-0" ARROW
7.32	X			1	42.0	TYPE III (L) ARROW
7.50				2	6.0	HALF MILE POST STRIPE (NB\SB)
7.525			X	2	62.0	TYPE I 24'-0" ARROW
7.538			X	1	42.0	TYPE III (L) ARROW
7.547			X	2	62.0	TYPE I 24'-0" ARROW
7.55	X			1	39.0	LIMIT LINE
7.55	X			1	22.0	STOP
7.554			X	1	42.0	TYPE III (R) ARROW
7.58			X	1	44.8	LIMIT LINE
7.58			X	1	22.0	STOP
7.584	X			1	42.0	TYPE III (R) ARROW
7.59	X			2	62.0	TYPE I 24'-0" ARROW
7.61	X			2	62.0	TYPE I 24'-0" ARROW
7.61	X			1	126.0	RAILROAD CROSSING SYMBOL
7.65	X			1	42.0	TYPE III (L) ARROW
7.87			X	2	62.0	TYPE I 24'-0" ARROW
7.88			X	1	42.0	TYPE III (L) ARROW
7.89			X	2	62.0	TYPE I 24'-0" ARROW
7.90			X	1	26.4	LIMIT LINE
7.90			X	1	22.0	STOP
7.91	X			2	62.0	TYPE I 24'-0" ARROW
7.92	X			1	42.0	TYPE III (L) ARROW
7.94	X			2	62.0	TYPE I 24'-0" ARROW
8.00				2	26.7	MILE POST STRIPE (NB\SB)
8.31			X	2	62.0	TYPE I 24'-0" ARROW
8.33			X	1	42.0	TYPE III (L) ARROW
8.34			X	2	62.0	TYPE I 24'-0" ARROW
8.35	X			2	62.0	TYPE I 24'-0" ARROW
8.36	X			1	42.0	TYPE III (L) ARROW
8.38	X			2	62.0	TYPE I 24'-0" ARROW
8.50				2	6.0	HALF MILE POST STRIPE (NB\SB)
8.56			X	1	42.0	TYPE III (R) ARROW
8.58			X	2	62.0	TYPE I 24'-0" ARROW
8.59			X	1	112.0	RAILROAD CROSSING SYMBOL
8.60			X	1	42.0	TYPE III (L) ARROW
8.607			X	2	62.0	TYPE I 24'-0" ARROW
8.614			X	1	42.0	TYPE III (R) ARROW
8.614		X		1	227.0	PAINTED ISLAND
8.63			X	1	46.9	LIMIT LINE
8.63			X	1	22.0	STOP
8.64		X		1	190.0	PAINTED ISLAND
8.65	X			2	62.0	TYPE I 24'-0" ARROW
8.68	X			1	118.0	RAILROAD CROSSING SYMBOL
8.67	X			2	62.0	TYPE I 24'-0" ARROW
8.70	X			1	42.0	TYPE III (L) ARROW
8.74			X	2	62.0	TYPE I 24'-0" ARROW
8.74			X	1	42.0	TYPE III (L) ARROW
8.76			X	2	62.0	TYPE I 24'-0" ARROW
8.77	X			1	32.8	LIMIT LINE
8.77	X			1	22.0	STOP
SUBTOTAL					3358.4	

THERMOPLASTIC PAVEMENT MARKING

PM	Lt	Mid	Rt	EA	SQFT	REMARKS
8.79	X			2	62.0	TYPE I 24'-0" ARROW
8.80	X			1	42.0	TYPE III (R) ARROW
8.81	X			1	42.0	TYPE III (L) ARROW
8.82	X			2	62.0	TYPE I 24'-0" ARROW
8.93			X	2	62.0	TYPE I 24'-0" ARROW
8.95			X	1	42.0	TYPE III (L) ARROW
8.96			X	2	62.0	TYPE I 24'-0" ARROW
8.98	X			2	62.0	TYPE I 24'-0" ARROW
8.99	X			1	42.0	TYPE III (L) ARROW
9.00	X			2	62.0	TYPE I 24'-0" ARROW
9.00				2	26.7	MILE POST MARK (NB/SB)
9.06	X			1	31.0	LIMIT LINE
9.06	X			1	22.0	STOP
9.08	X			2	62.0	TYPE I 24'-0" ARROW
9.10	X			2	62.0	TYPE I 24'-0" ARROW
9.23	X			1	27.2	LIMIT LINE
9.23	X			1	22.0	STOP
9.24	X			2	62.0	TYPE I 24'-0" ARROW
9.26	X			2	62.0	TYPE I 24'-0" ARROW
9.26			X	2	62.0	TYPE I 24'-0" ARROW
9.27			X	1	42.0	TYPE III (L) ARROW
9.28			X	2	62.0	TYPE I 24'-0" ARROW
9.29		X		1	367.0	PAINTED ISLAND
9.30		X		1	236.0	PAINTED ISLAND
9.30	X			1	41.0	LIMIT LINE
9.30	X			1	22.0	STOP
9.31	X			2	62.0	TYPE I 24'-0" ARROW
9.33	X			2	62.0	TYPE I 24'-0" ARROW
9.33	X			1	42.0	TYPE III (R) ARROW
9.40			X	2	62.0	TYPE I 24'-0" ARROW
9.42			X	1	42.0	TYPE III (L) ARROW
9.43			X	2	62.0	TYPE I 24'-0" ARROW
9.44	X			1	24.5	LIMIT LINE
9.44	X			1	22.0	STOP
9.45	X			2	62.0	TYPE I 24'-0" ARROW
9.46	X			1	42.0	TYPE III (L) ARROW
9.47	X			2	62.0	TYPE I 24'-0" ARROW
9.50				2	6.0	HALF MILE POST STRIPE (NB/SB)
9.51	X			1	42.0	TYPE III (R) ARROW
9.77			X	2	62.0	TYPE I 24'-0" ARROW
9.787			X	1	42.0	TYPE III (L) ARROW
9.79			X	2	62.0	TYPE I 24'-0" ARROW
9.80	X			1	51.5	LIMIT LINE
9.80	X			2	44.0	STOP
9.81	X			1	260.0	PAINTED ISLAND
9.82	X			2	62.0	TYPE I 24'-0" ARROW
9.83			X	2	64.0	SIGNAL
9.841			X	2	62.0	AHEAD
9.838	X			2	62.0	TYPE I 24'-0" ARROW
9.96			X	1	42.0	TYPE III (L) ARROW
9.96			X	2	62.0	TYPE I 24'-0" ARROW
9.99			X	1	42.0	TYPE III (L) ARROW
9.99			X	2	62.0	TYPE I 24'-0" ARROW
10.00				2	26.7	MILE POST MARK (NB/SB)
10.01		X		1	178.3	CROSSWALK (SR 273)
10.02	X			1	166.0	CROSSWALK (HAPPY VALLEY RD)
10.03	X			1	40.0	LIMIT LINE
10.04	X			2	62.0	TYPE I 24'-0" ARROW
10.04	X			1	42.0	TYPE III (R) ARROW
10.08	X			2	62.0	TYPE I 24'-0" ARROW
SUBTOTAL					3897.9	

THERMOPLASTIC PAVEMENT MARKING

PM	Lt	Mid	Rt	EA	SQFT	REMARKS
10.09	X			1	42.0	TYPE III (R) ARROW
10.17	X			2	62.0	AHEAD
10.18	X			2	64.0	SIGNAL
10.32			X	1	42.0	TYPE III (R) ARROW
10.34			X	2	62.0	TYPE I 24'-0" ARROW
10.346			X	1	114.0	RAILROAD CROSSING SYMBOL
10.35			X	1	42.0	TYPE III (L) ARROW
10.36			X	2	62.0	TYPE I 24'-0" ARROW
10.37			X	1	43.2	LIMIT LINE
10.37			X	1	22.0	STOP
10.37	X			1	29.8	LIMIT LINE
10.37	X			1	22.0	STOP
10.38	X			2	62.0	TYPE I 24'-0" ARROW
10.406	X			2	62.0	TYPE I 24'-0" ARROW
10.415	X			1	42.0	TYPE III (R) ARROW
10.42	X			1	42.0	TYPE III (L) ARROW
10.50				2	6.0	HALF MILE POST STRIPE (NB/SB)
10.71			X	2	62.0	TYPE I 24'-0" ARROW
10.73			X	1	42.0	TYPE III (L) ARROW
10.734			X	2	62.0	TYPE I 24'-0" ARROW
10.74	X			1	34.8	LIMIT LINE
10.74	X			1	22.0	STOP
10.76	X			2	62.0	TYPE I 24'-0" ARROW
10.77	X			1	42.0	TYPE III (L) ARROW
10.78	X			2	62.0	TYPE I 24'-0" ARROW
10.80	X			1	42.0	TYPE III (R) ARROW
SUBTOTAL					1251.8	
TOTAL					8508.1	

PAVEMENT DELINEATION QUANTITIES

PDQ-1

REVISED BY | DATE REVISED
DANIEL FISHER | MIKE MOGEN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: JULIE CASEY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

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LAST REVISION 02-26-10 | DATE PLOTTED => 08-SEP-2010 | TIME PLOTTED => 11:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	12	29

REGISTERED CIVIL ENGINEER 02-26-10 DATE

02-26-10
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PAVEMENT DELINEATION QUANTITIES

POST MILE	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)							PAVEMENT MARKERS (RETROREFLECTIVE)				
								TYPE D		TYPE H		TYPE G
	DETAIL 12	DETAIL 22	DETAIL 25	DETAIL 27	DETAIL 27B	DETAIL 27C	DETAIL 38	DETAIL 22	DETAIL 38	DETAIL 25	DETAIL 27	DETAIL 12
	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA
SUBTOTAL	39,914	144	34,399	3692	39,519	4359	8797	14	411	747	94	843
TOTAL	130,824							2109				

PAVEMENT DELINEATION QUANTITIES

PDQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: JULIE CASEY
CALCULATED-DESIGNED BY: DANIEL FISHER
CHECKED BY: MIKE MOGEN
REVISED BY
DATE REVISED

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NOTE:

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

RUBBERIZED HOT MIX ASPHALT (OPEN GRADED)

LOCATION	POST MILE	LEFT/RIGHT	DEPTH (LF)	MASS (TON)	REMARKS
ROUTE 273	7.1 TO 11		0.08	1020	OVERLAY
			TOTAL	1020	

HOT MIX ASPHALT

LOCATION	POST MILE	LEFT/RIGHT	(N) DEPTH (LF)	MASS (TON)	REMARKS
ROUTE 273	7.1 TO 11		0.3	25,000.0	OVERLAY
PARALLEL Rd	7.27	LEFT	0.3	21.4	CONFORM
PARALLEL Rd	7.27	RIGHT	0.3	22.5	CONFORM
HILL St	7.55	LEFT	0.3	19.1	CONFORM
HILL St	7.58	RIGHT	0.3	22.5	CONFORM
RONA Ln	7.67	LEFT	0.3	6.1	CONFORM
TURN LANE	7.90	RIGHT	0.3	28.1	CONFORM
DRIVEWAY	8.17	LEFT	0.3	6.8	CONFORM
DRIVEWAY	8.19	LEFT	0.3	7.7	CONFORM
DRIVEWAY	8.27	LEFT	0.3	7.2	CONFORM
AMEN St	8.63	LEFT	0.3	10.1	CONFORM
LATONA Rd	8.63	RIGHT	0.3	34.7	CONFORM
OVERLAND Dr	8.78	LEFT	0.3	38.3	CONFORM
DRIVEWAY	8.96	LEFT	0.3	4.7	CONFORM
DRIVEWAY	9.07	LEFT	0.3	12.4	CONFORM
JESSIE Rd	9.23	LEFT	0.3	10.1	CONFORM
BANNIGAN Rd	9.30	LEFT	0.3	15.1	CONFORM
THOMAS Rd	9.44	LEFT	0.3	11.3	CONFORM
DRIVEWAY	9.48	LEFT	0.3	11.9	CONFORM
DRIVEWAY	9.56	LEFT	0.3	12.6	CONFORM
VIC HANNON Dwy	9.66	LEFT	0.3	12.6	CONFORM
MIDWAY MARKET	9.80	LEFT	0.3	54.0	CONFORM
HAPPY VALLEY Rd	10.01	LEFT	0.3	31.5	CONFORM
WHITEHOUSE Dr	10.37	LEFT	0.3	10.1	CONFORM
WHITEHOUSE Dr	10.37	RIGHT	0.3	22.5	CONFORM
DRIVEWAY	10.75	LEFT	0.3	11.3	CONFORM
CHP WEIGH Sta	10.5/10.67	LEFT	0.2	279.0	OVERLAY
			TOTAL	25,723.6	

SUMMARY OF QUANTITIES

Q-1

REVISED BY | DATE REVISED
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CALCULATED-DESIGNED BY | CHECKED BY
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COLD PLANE AC PAVEMENT

FROM		TO		DIRECTION	AREA (SQYD)	REMARKS
LOCATION	POST MILE	LOCATION	POST MILE			
SOUTHERN CONFORM	7.14	PARALLEL Rd	7.26	SB	2931.8	ROADWAY SURFACE
SOUTHERN CONFORM	7.14	PARALLEL Rd	7.26	NB	2741.6	ROADWAY SURFACE
PARALLEL Rd	7.26	PARALLEL Rd	7.27	INTERSECTION	767.7	ROADWAY SURFACE
PARALLEL Rd	7.27	HILL St	7.55	SB	6671.0	ROADWAY SURFACE
PARALLEL Rd	7.27	HILL St	7.55	NB	6571.1	ROADWAY SURFACE
HILL St	7.55	HILL St	7.59	INTERSECTION	2314.7	ROADWAY SURFACE
HILL St	7.59	TURN LANE	7.90	SB	6948.6	ROADWAY SURFACE
HILL St	7.59	TURN LANE	7.90	NB	7098.3	ROADWAY SURFACE
TURN LANE	7.90	TURN LANE	7.91	INTERSECTION	571.4	ROADWAY SURFACE
TURN LANE	7.91	TURN LANE	8.34	SB	8074.6	ROADWAY SURFACE
TURN LANE	7.91	TURN LANE	8.34	NB	10,013.1	ROADWAY SURFACE
TURN LANE	8.34	TURN LANE	8.35	INTERSECTION	593.5	ROADWAY SURFACE
TURN LANE	8.35	AMEN St	8.62	SB	6050.9	ROADWAY SURFACE
TURN LANE	8.35	AMEN St	8.62	NB	5800.3	ROADWAY SURFACE
AMEN St	8.62	AMEN St	8.64	INTERSECTION	1147.3	ROADWAY SURFACE
AMEN St	8.64	OVERLAND Rd	8.77	SB	3088.9	ROADWAY SURFACE
AMEN St	8.64	OVERLAND Rd	8.77	NB	3440.4	ROADWAY SURFACE
OVERLAND Rd	8.77	OVERLAND Rd	8.81	INTERSECTION	2282.8	ROADWAY SURFACE
OVERLAND Rd	8.81	TURN LANE	8.96	SB	3736.6	ROADWAY SURFACE
OVERLAND Rd	8.81	TURN LANE	8.96	NB	3300.5	ROADWAY SURFACE
TURN LANE	8.96	TURN LANE	8.97	INTERSECTION	623.6	ROADWAY SURFACE
TURN LANE	8.97	BANNIGAN Rd	9.29	SB	7077.7	ROADWAY SURFACE
TURN LANE	8.97	BANNIGAN Rd	9.29	NB	6504.1	ROADWAY SURFACE
BANNIGAN Rd	9.29	BANNIGAN Rd	9.30	INTERSECTION	502.7	ROADWAY SURFACE
BANNIGAN Rd	9.30	THOMAS Rd	9.43	SB	3130.2	ROADWAY SURFACE
BANNIGAN Rd	9.30	THOMAS Rd	9.43	NB	3010.9	ROADWAY SURFACE
THOMAS Rd	9.43	THOMAS Rd	9.44	INTERSECTION	595.4	ROADWAY SURFACE
THOMAS Rd	9.44	MIDWAY MARKET	9.80	SB	7184.4	ROADWAY SURFACE
THOMAS Rd	9.44	MIDWAY MARKET	9.80	NB	7214.8	ROADWAY SURFACE
MIDWAY MARKET	9.80	MIDWAY MARKET	9.81	INTERSECTION	765.5	ROADWAY SURFACE
MIDWAY MARKET	9.81	HAPPY VALLEY Rd	10.00	SB	4508.8	ROADWAY SURFACE
MIDWAY MARKET	9.81	HAPPY VALLEY Rd	10.00	NB	4932.2	ROADWAY SURFACE
HAPPY VALLEY Rd	10.00	HAPPY VALLEY Rd	10.03	INTERSECTION	1454.3	ROADWAY SURFACE
HAPPY VALLEY Rd	10.03	WHITEHOUSE Dr	10.37	SB	7330.6	ROADWAY SURFACE
HAPPY VALLEY Rd	10.03	WHITEHOUSE Dr	10.37	NB	7576.5	ROADWAY SURFACE
WHITEHOUSE Dr	10.37	WHITEHOUSE Dr	10.38	INTERSECTION	645.2	ROADWAY SURFACE
WHITEHOUSE Dr	10.38	TURN LANE	10.74	SB	9338.7	ROADWAY SURFACE
WHITEHOUSE Rd	10.38	TURN LANE	10.74	NB	8150.1	ROADWAY SURFACE
TURN LANE	10.74	TURN LANE	10.75	INTERSECTION	668.4	ROADWAY SURFACE
TURN LANE	10.75	NORTHERN CONFORM	11.00	SB	6554.1	ROADWAY SURFACE
TURN LANE	10.75	NORTHERN CONFORM	11.00	NB	5682.8	ROADWAY SURFACE
				SUBTOTAL	177,596.1	

COLD PLANE AC PAVEMENT CONTINUED

LOCATION	POST MILE	LEFT/RIGHT	AREA (SQYD)	REMARKS
PARALLEL Rd	7.27	LEFT	105.6	ROAD CONNECTION CONFORM
PARALLEL Rd	7.27	RIGHT	111.1	ROAD CONNECTION CONFORM
HILL St	7.55	LEFT	94.4	ROAD CONNECTION CONFORM
HILL St	7.58	RIGHT	111.1	ROAD CONNECTION CONFORM
RONA Ln	7.67	LEFT	30.0	ROAD CONNECTION CONFORM
DRIVEWAY	7.90	RIGHT	138.9	DRIVEWAY CONFORM
DRIVEWAY	8.17	LEFT	33.3	DRIVEWAY CONFORM
DRIVEWAY	8.19	LEFT	37.8	DRIVEWAY CONFORM
DRIVEWAY	8.27	LEFT	35.6	DRIVEWAY CONFORM
AMEN St	8.63	LEFT	50.0	ROAD CONNECTION CONFORM
LATONA Rd	8.63	RIGHT	171.1	ROAD CONNECTION CONFORM
OVERLAND Dd	8.78	LEFT	188.9	ROAD CONNECTION CONFORM
DRIVEWAY	8.96	LEFT	23.3	DRIVEWAY CONFORM
DRIVEWAY	9.07	LEFT	61.1	DRIVEWAY CONFORM
JESSIE Rd	9.23	LEFT	50.0	ROAD CONNECTION CONFORM
BANNIGAN Rd	9.30	LEFT	74.4	ROAD CONNECTION CONFORM
THOMAS Rd	9.44	LEFT	55.6	ROAD CONNECTION CONFORM
DRIVEWAY	9.48	LEFT	58.9	DRIVEWAY CONFORM
DRIVEWAY	9.56	LEFT	62.2	DRIVEWAY CONFORM
VIC HANNON Dwy	9.66	LEFT	62.2	DRIVEWAY CONFORM
MIDWAY MARKET	9.80	LEFT	266.7	DRIVEWAY CONFORM
WHITEHOUSE Dr	10.37	LEFT	50.0	ROAD CONNECTION CONFORM
RIVER RANCH Rd	10.37	RIGHT	111.1	ROAD CONNECTION CONFORM
DRIVEWAY	10.75	LEFT	55.6	DRIVEWAY CONFORM
		SUBTOTAL	2038.9	
		TOTAL	179,635.0	

SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: JULIE CASEY
CALCULATED-DESIGNED BY: DANIEL FISHER
CHECKED BY: MIKE MOGEN
REVISED BY
DATE REVISED

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LAST REVISION 02-26-10 | DATE PLOTTED => 08-SEP-2010 | TIME PLOTTED => 11:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	15	29

REGISTERED CIVIL ENGINEER 02-26-10 DATE

02-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MIKE MOGEN No. C 67018 Exp. 09-30-12 CIVIL STATE OF CALIFORNIA

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NOTE:

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

REPLACE ASPHALT CONCRETE SURFACING

PM	NB/SB	LANE	WHEEL PATH	(N) LENGTH LF	(N) WIDTH LF	(N) DEPTH LF	VOLUME CY
10.90	SB	2	INSIDE	100	4	0.33	4.9
10.86	SB	2	OUTSIDE	150	4	0.33	7.4
10.82	SB	2	INSIDE	100	4	0.33	4.9
10.74	SB	2	BOTH	100	12	0.33	14.7
10.71	SB	2	OUTSIDE	100	4	0.33	4.9
10.70	SB	2	INSIDE	100	4	0.33	4.9
10.60	SB	2	INSIDE	100	4	0.33	4.9
10.50	SB	2	INSIDE	200	4	0.33	9.8
9.84	SB	2	OUTSIDE	100	4	0.33	4.9
9.83	SB	2	BOTH	100	12	0.33	14.7
9.69	SB	2	OUTSIDE	160	4	0.33	7.9
9.55	SB	2	BOTH	100	12	0.33	14.7
9.54	SB	2	INSIDE	100	4	0.33	4.9
9.44	SB	2	BOTH	300	12	0.33	44.0
9.31	SB	2	OUTSIDE	100	4	0.33	4.9
9.07	SB	2	OUTSIDE	100	4	0.33	4.9
8.83	SB	2	BOTH	500	12	0.33	73.5
8.70	SB	2	BOTH	1600	12	0.33	234.7
7.64	SB	2	BOTH	300	12	0.33	44.0
7.34	SB	2	OUTSIDE	100	4	0.33	4.9
8.07	NB	1	BOTH	200	12	0.33	29.5
8.45	NB	2	OUTSIDE	100	4	0.33	4.9
8.97	NB	2	OUTSIDE	100	4	0.33	4.9
9.15	NB	2	BOTH	200	12	0.33	29.5
9.44	NB	2	BOTH	500	12	0.33	73.5
9.58	NB	2	OUTSIDE	100	4	0.33	4.9
9.83	NB	2	OUTSIDE	500	4	0.33	24.5
10.00	NB	1	OUTSIDE	100	4	0.33	4.9
						TOTAL	690.8

ROADWAY ITEMS

POST MILE/LOCATION	TACK COAT	IMPORTED MATERIAL (SHOULDER BACKING)	REMOVE AC DIKE
	TON	TON	LF
PM 10.37 Rt AT RIVER RANCH ROAD			62
PM 10.38 Rt AT RIVER RANCH ROAD			50
PM 10.37 AT WHITEHOUSE ROAD			23
PM 10.38 AT WHITEHOUSE ROAD			50
PM 10.82 Rt TO 10.95 Rt			690
PM 7.1 TO 11.0 FOR OVERLAY AND CONFORMS	360	6500	
CHP WEIGH STATION	1	100	
TOTAL	361	6600	875

ASPHALT RUBBER SEAL COAT

LOCATION	SCREENINGS (HOT APPLIED)	ASPHALT RUBBER BINDER	SAND COVER	ASPHALT EMULSION (FOG SEAL COAT)
	TON	TON	TON	TON
PM 7.1/11.0 EP TO EP	2300	500	205	78
TOTAL	2300	500	205	78

NOTE: ASPHALT RUBBER SEAL COAT IS TO BE PLACED ON MILLED ROADWAY SURFACE PRIOR TO PLACING THE HMA OVERLAY. DO NOT PLACE ON DRIVEWAY OR INTERSECTION CONFORMS

METAL BEAM GUARD RAILING

POST MILE	Rt/Lt	REMOVE METAL BEAM GAURD RAILING	RECONSTRUCT METAL BEAM GAURD RAILING	ALTERNATIVE FLARED TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	COMMENTS
		LF	LF	EA	EA	
NB 8.62	Rt	15		1		REMOVE Exist TERMINAL SYSTEM AND REPLACE WITH NEW SYSTEM.
SB 10.8	Lt				1	REMOVE Exist END ANCHOR ASSEMBLY AND REPLACE WITH NEW SYSTEM.
SB 10.8/11.0	Lt		580			RECONSTRUCT AND REPLACE Exist 6"x6" WOOD POSTS WITH METAL POSTS. CONFORM TO BURIED END ANCHOR ON NORTH END.
NB 8.62	Rt		65			RECONSTRUCT Exist RAIL WITH METAL POSTS. RECONSTRUCT Exist TERMINAL SYSTEM (*) WITH METAL POSTS.
	TOTAL	15	645	1	1	

(*) SEE SHEET C-3 FOR GAURD RAIL DETAILS

SUMMARY OF QUANTITIES

Q-3

REVISED BY | DATE REVISED
DANIEL FISHER | MIKE MOGEN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: JULIE CASEY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

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LAST REVISION 02-26-10 | DATE PLOTTED => 08-SEP-2010 | TIME PLOTTED => 11:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	16	29

ART 02-26-10
REGISTERED ELECTRICAL ENGINEER

02-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER A.P. ROBLES No. E15293 Exp. 3-31-11 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.

NOTE:

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED

NOTES (THIS SHEET):

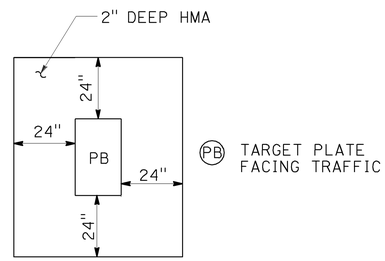
1. Exist CONDUIT, REMOVE Exist LOOP CONDUCTORS. ADD LOOP CONDUCTORS FOR NEW LOOPS.
2. COIL 10′ OF NEW LOOP CONDUCTORS IN PULL BOX.
3. EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.

LEGEND:

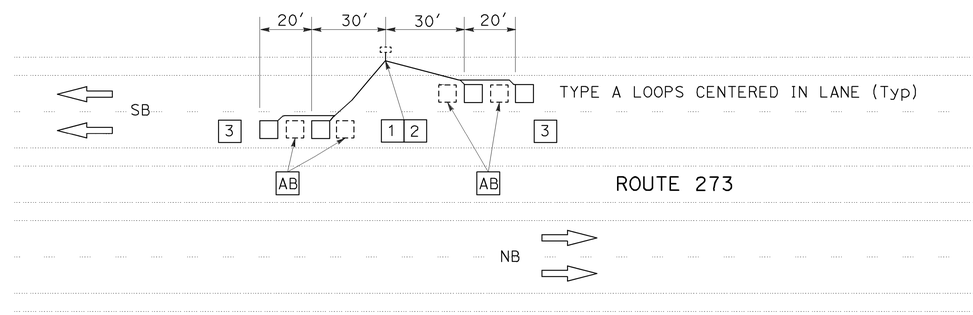
(PB) OBJECT MARKER (TYPE PB) AND PULL BOX PAVING

(pb) Exist OBJECT MARKER (TYPE PB)

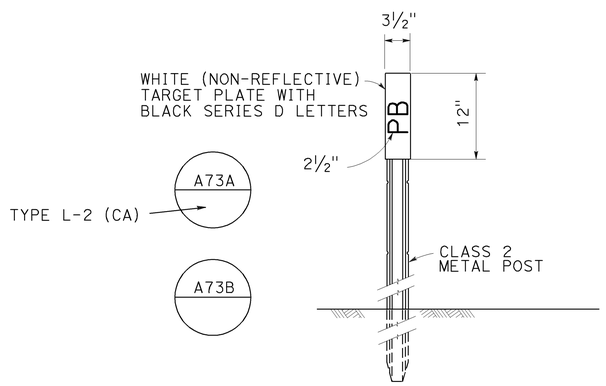
⇨ DIRECTION OF TRAVEL



PULL BOX PAVING
NO SCALE



TMS No. TEST
PM 8.00



NOTE: MARKERS SHALL COMPLY WITH TYPE L-2 MODIFIED WITH A SNOW POLE BRACKET. PLACE MARKER 2" OUTSIDE PULL BOX PAVING ON SIDE AWAY FROM TRAFFIC. SEE PULL BOX PAVING DETAIL.

OBJECT MARKER (TYPE PB)
NO SCALE

TRAFFIC MONITORING STATION

NO SCALE

E-1

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

REVISED BY | DATE REVISED
ARTURO ROBLES | KAREN CARMO
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: ROB STINGER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

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LAST REVISION 02-26-10 | DATE PLOTTED => 08-SEP-2010 | TIME PLOTTED => 11:36

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s123119 | DGN FILE => 22e840ua001.dgn | CU 02 365 | EA 2E8401

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	17	29

ART 02-26-10
REGISTERED ELECTRICAL ENGINEER

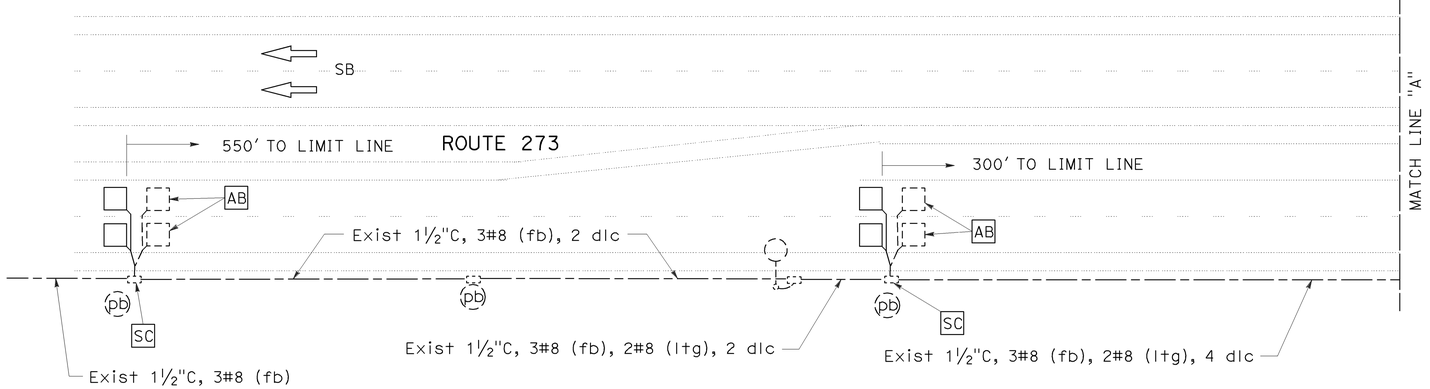
02-26-10
PLANS APPROVAL DATE

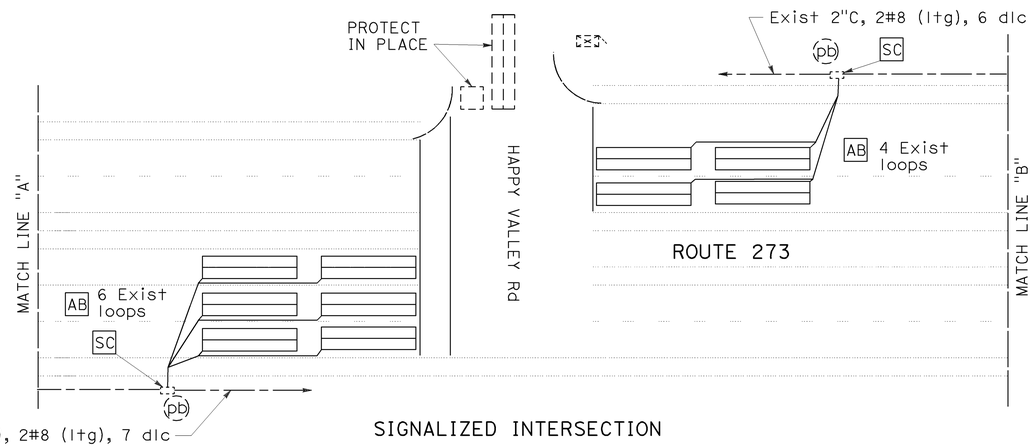
REGISTERED PROFESSIONAL ENGINEER A.P. ROBLES No. E15293 Exp. 3-31-11 ELECTRICAL STATE OF CALIFORNIA

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.

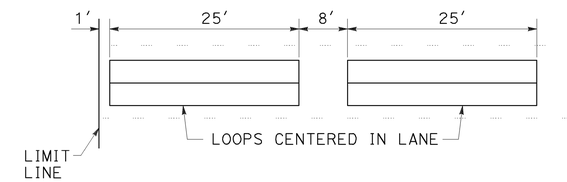
NOTE:

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED

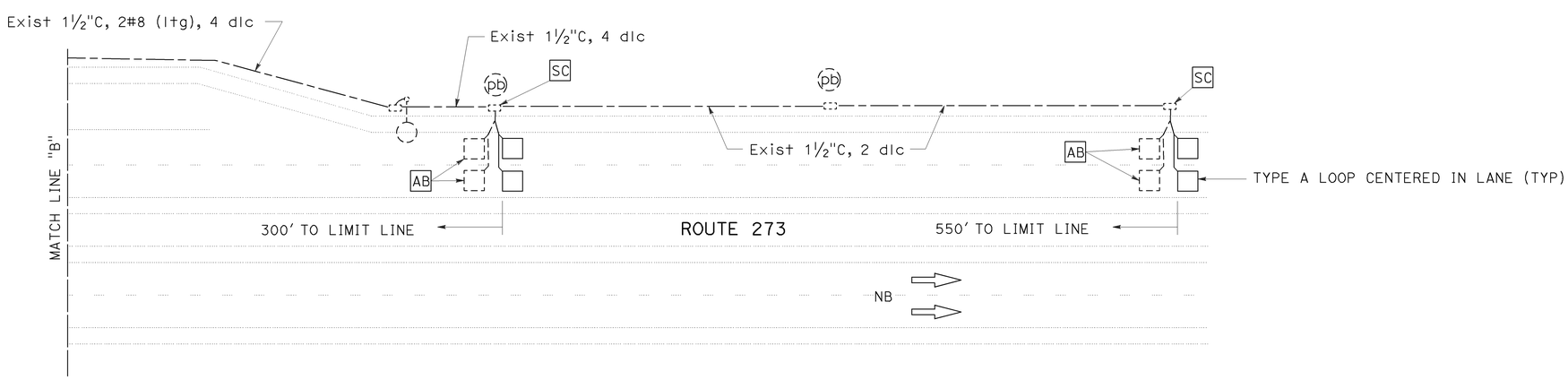




SIGNALIZED INTERSECTION
PM 9.99



TYPICAL TYPE C LOOP LAYOUT



INDUCTIVE LOOP DETECTOR

NO SCALE

E-2

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

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

FUNCTIONAL SUPERVISOR: ROB STINGER
CALCULATED-DESIGNED BY: ARTURO ROBLES
CHECKED BY: KAREN CARMO
REVISED BY / DATE REVISED

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LAST REVISION: DATE PLOTTED => 08-SEP-2010 TIME PLOTTED => 11:36
02-26-10

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s123119 DGN FILE => 22e840ua002.dgn | CU 02 365 | EA 2E8401

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	273	7.1/11.0	18	29

ART 02-26-10
REGISTERED ELECTRICAL ENGINEER

02-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER A.P. ROBLES No. E15293 Exp. 3-31-11 ELECTRICAL STATE OF CALIFORNIA

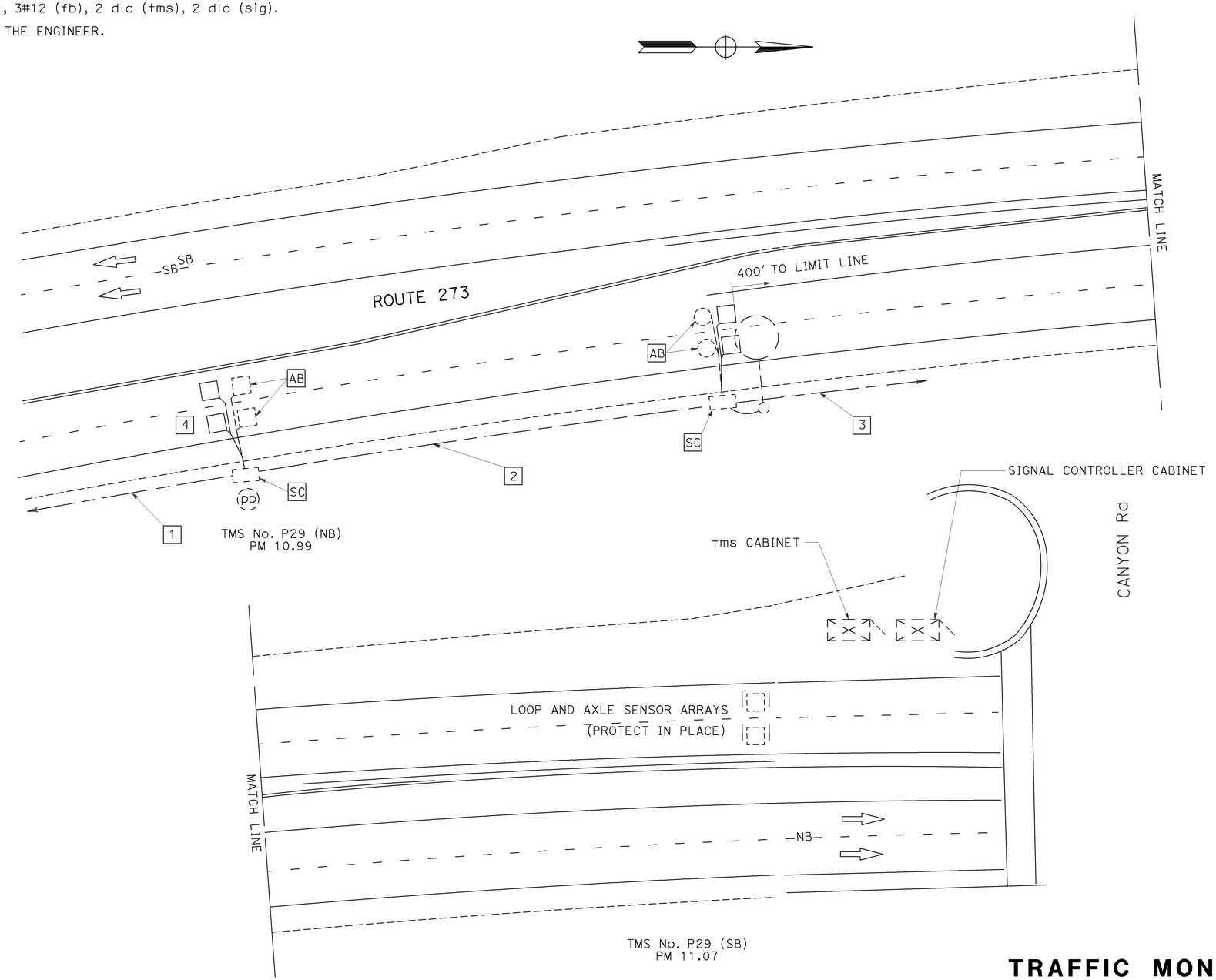
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

NOTE:

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED

NOTES THIS SHEET:

1 Exist 1½"C, 2#10 (SIGN Ltg), 3#12 (fb).
2 Exist 2"C, 2#10 (SIGN Ltg), 3#12 (fb), 2 dlc (tms).
3 Exist 2"C, 2#8 (Ltg), 2#10 (SIGN Ltg), 3#12 (fb), 2 dlc (tms), 2 dlc (sig).
4 EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.



THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

TRAFFIC MONITORING STATION INDUCTIVE LOOP DETECTOR

NO SCALE

E-3

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: ARTURO ROBLES
CHECKED BY: KAREN CARMO
FUNCTIONAL SUPERVISOR: ROB STINGER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

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LAST REVISION 02-26-10
DATE PLOTTED => 08-SEP-2010
TIME PLOTTED => 11:36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	19	29

REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Donald E. Howe No. C46402 Exp. 3-31-09 CIVIL STATE OF CALIFORNIA

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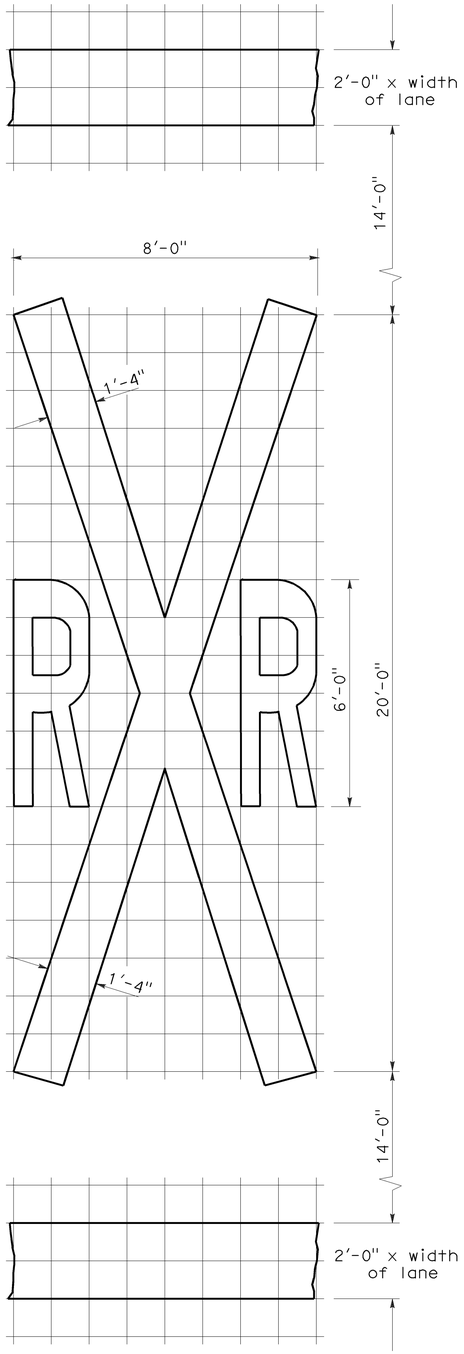
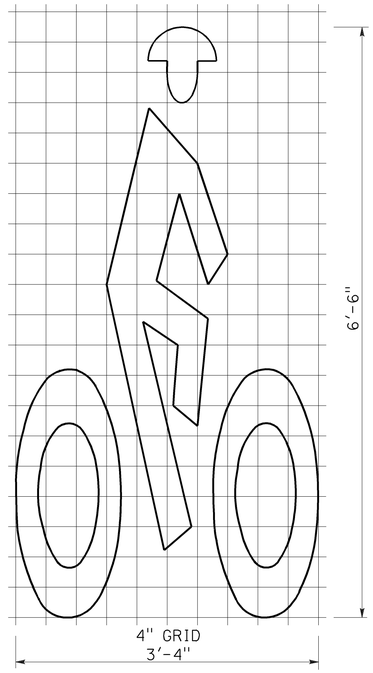
To accompany plans dated 02-26-10



1'-0" GRID
A=70 sq ft ✳

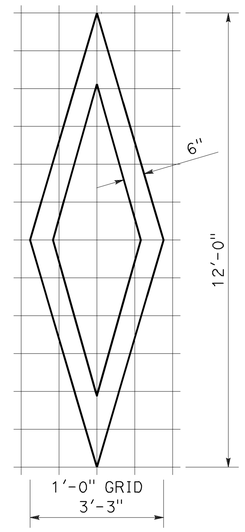
RAILROAD CROSSING SYMBOL

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



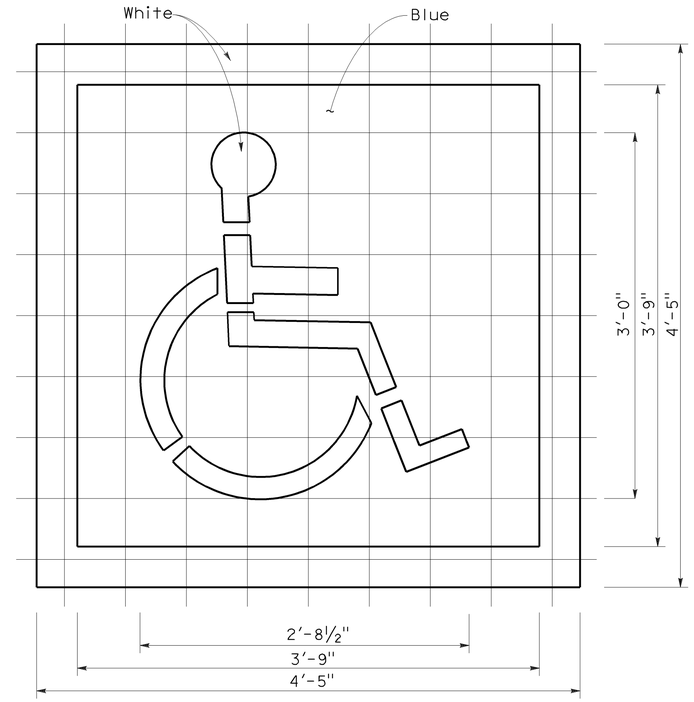
A=7 sq ft

BIKE LANE SYMBOL



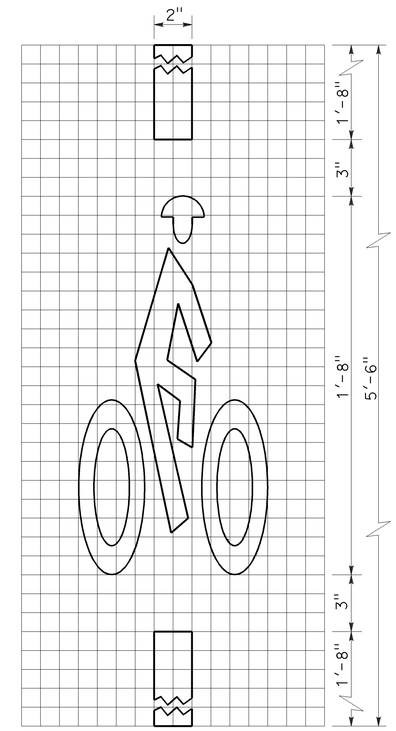
A=11 sq ft

DIAMOND SYMBOL



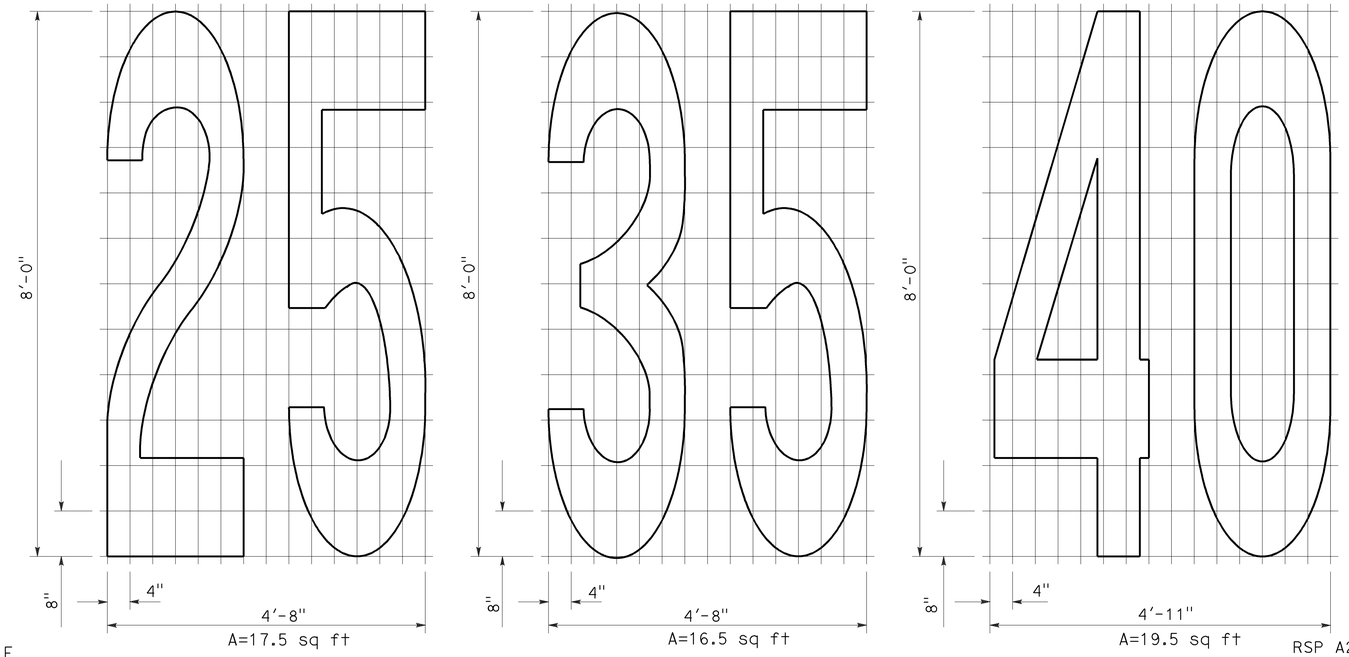
6" GRID
A (White) =9 sq ft
A (Blue) =14 sq ft

INTERNATIONAL SYMBOL OF ACCESSIBILITY MARKING



1" GRID
10"
A=2 sq ft

BICYCLE LOOP DETECTOR SYMBOL



A=17.5 sq ft
A=16.5 sq ft
A=19.5 sq ft

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

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

REVISED STANDARD PLAN RSP A24C

2006 REVISED STANDARD PLAN RSP A24C

5-27-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	20	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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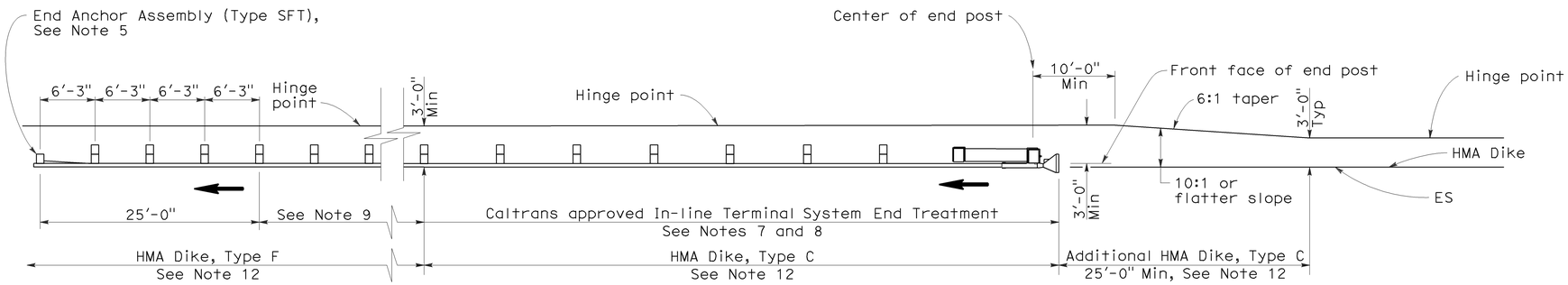
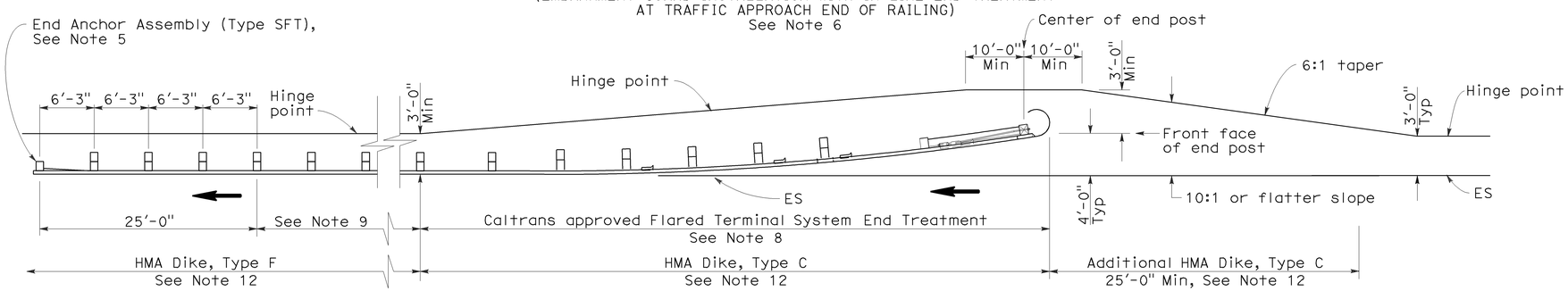
To accompany plans dated 02-26-10



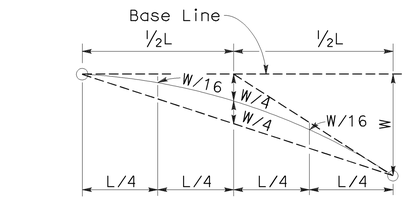
TYPE 11A LAYOUT

(EMBANKMENT GUARD INSTALLATION WITH IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6

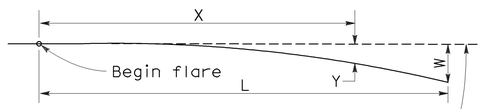


TYPE 11B LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6



TYPICAL PARABOLIC LAYOUT

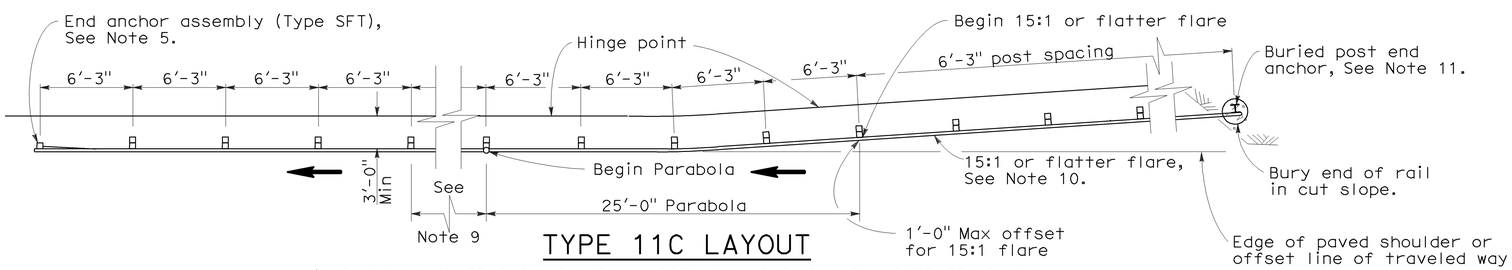


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

$$Y = \frac{WX^2}{L^2}$$

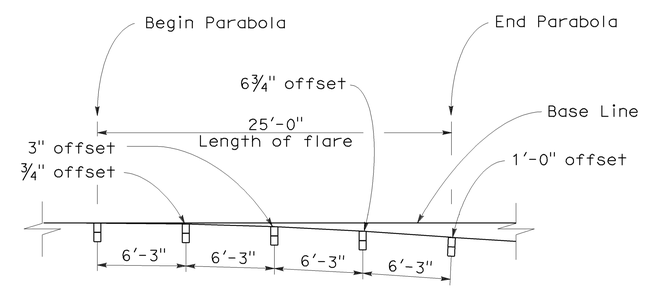
Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPE 11C LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 6 and 12



TYPICAL FLARE OFFSETS FOR 1 FOOT MAX END OFFSET

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1, and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or recycled plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ⟶.
5. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
6. Layout Types 11A, 11B or 11C are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for only one direction of traffic.
7. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
8. The type of terminal system end treatment to be used will be shown on the Project Plans.
9. Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
10. The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
11. For details of the buried post end anchor used with Type 11C Layout, see Standard Plan A77I2.
12. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR EMBANKMENTS

NO SCALE

RSP A77E1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E1 DATED MAY 1, 2006 - PAGE 48 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E1

2006 REVISED STANDARD PLAN RSP A77E1

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	21	29

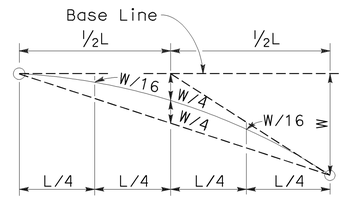
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

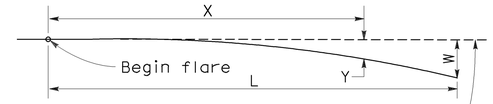
REGISTERED PROFESSIONAL ENGINEER Randell D. Hiatt No. C50200 Exp. 6-30-09 CIVIL STATE OF CALIFORNIA

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 02-26-10



TYPICAL PARABOLIC LAYOUT

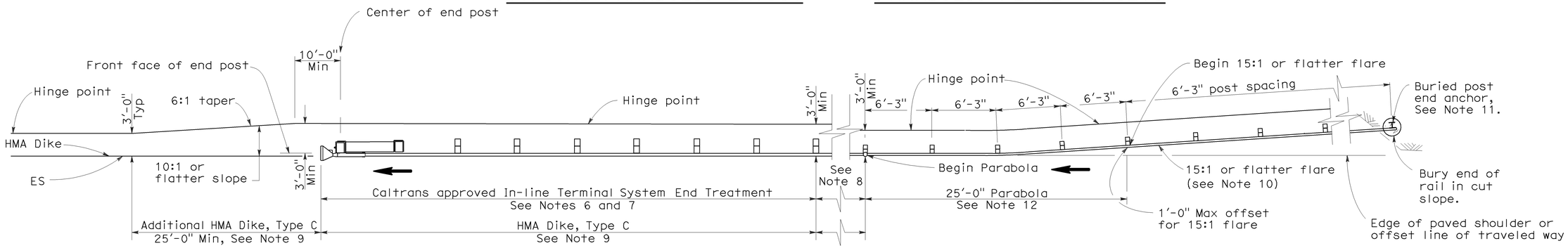


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

$$Y = \frac{WX^2}{L^2}$$

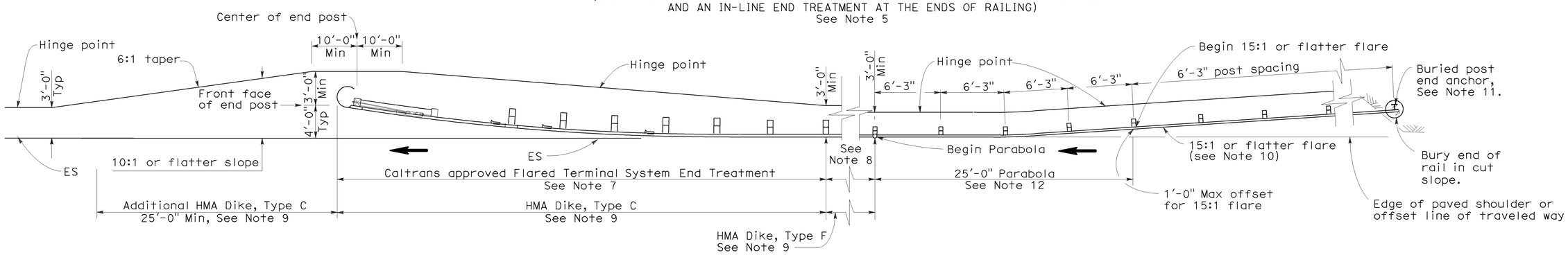
Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPE 11K LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH A BURIED END ANCHOR TREATMENT AND AN IN-LINE END TREATMENT AT THE ENDS OF RAILING)
See Note 5



TYPE 11L LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH A BURIED END ANCHOR TREATMENT AND A FLARED END TREATMENT AT THE ENDS OF RAILING)
See Note 5

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ⟶.
5. Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embamkment slopes and a crashworthy end treatment is required for both directions of traffic.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system end treatment to be used will be shown on the Project Plans.
8. Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
9. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
10. The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
11. For details of the buried post end anchor used with Type 11K and 11L Layouts, see Standard Plan A77I2.
12. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR EMBANKMENTS

NO SCALE

RSP A77E6 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E6
DATED MAY 1, 2006 - PAGE 53 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E6

2006 REVISED STANDARD PLAN RSP A77E6

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	22	29

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 02-26-10

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

NOTES:

1. 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.
2. Luminaires shall be the cutoff type, ANSI Type Ⅲ medium cutoff lighting distribution, unless otherwise specified.
3. 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

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
02	Sha	273	7.1/11.0	23	29

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 02-26-10

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 (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

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

POLE-MOUNTED SERVICE DESIGNATION

Type of installation

TYPE H SERVICE - 28'-10" ← Pole height above grade

ILLUMINATED OVERHEAD SIGN

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

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
PV	PV	Modifications of basic symbols: "L" indicates all non-arrow sections louvered "LG" indicates louvered 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
R	Y	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:

1. All signal sections shall be 12" unless shown otherwise.
2. Signal heads shall be provided with backplates unless shown otherwise.
3. 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

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	24	29

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 02-26-10

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345

10 ISL SCI 1.0

- Sign number - Place on post or structure
- Transformer rating (kVA)
- Lighting control type
- Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"

- Mast arm length, if shown. Do not place on standard or structure.
- Equipment number - Place on standard or structure. Existing equipment numbers are shown in parenthesis

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC

- Number and size of conductors and cables
- Size of conduit in inches

ø1, ø2, ø2P, etc.	Traffic phase identification for signal faces, detectors and phase diagrams
1 2 3	Project note numbers
A B C	Equipment description, installation or item numbers
1 2 3	Conduit run numbers

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100

- Wind velocity = 100 mph
- Case 3 arm loading
- Standard type
- Standard Plan sheet number
- Detail number or letter

MISCELLANEOUS EQUIPMENT

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

WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)

- External conductor
- Conductor or bus
- Tie point
- Contactor coil
- Contactor, Contact NO
- Terminal blocks
- Contactor, Contact NC
- Enclosure bond
- Grounding electrode
- Circuit breaker
- Receptacle

PULL BOXES

PROPOSED EXISTING

Pull box-No. 5 unless otherwise indicated or noted.

3 9A(21)

Pull box-Additional designations or descriptions

3 = No. 3½ pull box
5 = No. 5 pull box
6 = No. 6 pull box
7 = No. 7 (Ceiling pull box)
8 = No. 8 (Pendant soffit pull box)
9 = No. 9 pull box
9A = No. 9A pull box

(C) = Communications pull box
(E) = Pull box with extension
(S) = Sprinkler control pull box
(21) = Anchor bolts and conduit for future installation of Type 21 Standard
(T) = Traffic pull box

VEHICLE DETECTORS

5 J 9 U

- Vehicle detector designation
- U = Upper
  L = Lower
- Slot number in input file
- Input file (I or J)
- Phase

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
DH	dh	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.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	25	29

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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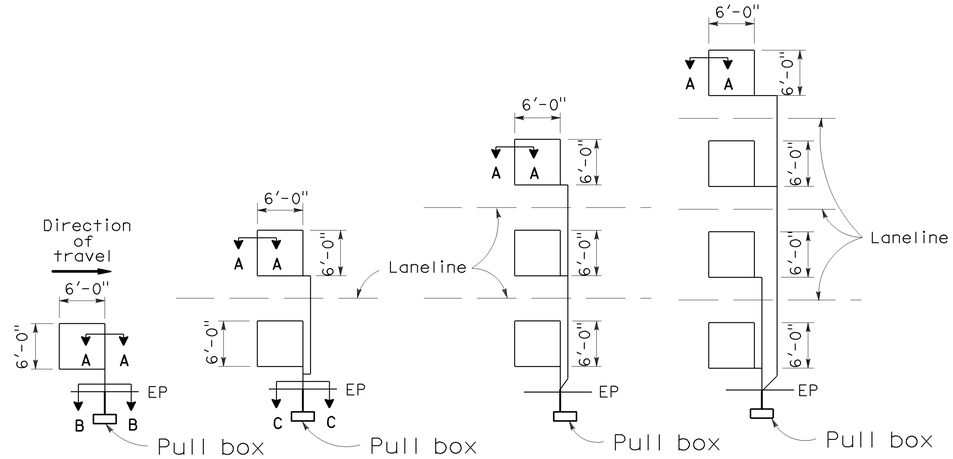
To accompany plans dated 02-26-10

LOOP INSTALLATION PROCEDURE

1. Loops shall be centered in lanes.
2. Saw slots in pavement for loop conductors as shown in details.
3. 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.
4. Bottom of saw slot shall be smooth with no sharp edges.
5. Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
6. Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
7. 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.
8. 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.
9. No more than 2 twisted pairs shall be installed in one sawed slot.
10. Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
11. 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.
12. Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
13. Fill slots as shown in details.
14. Splice loop conductors to lead-in-cable. Splices shall be soldered.
15. 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.
16. Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
17. Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
18. 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.

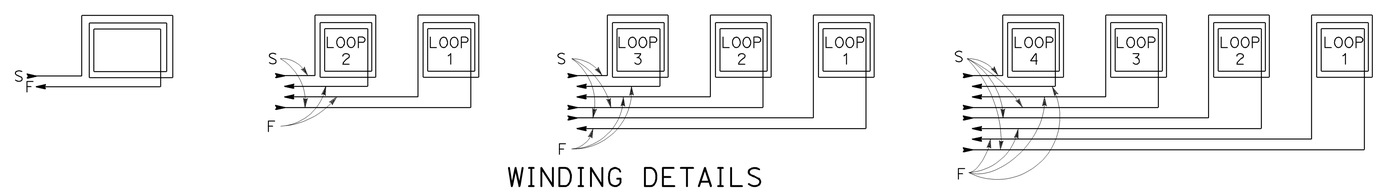


TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

SAWCUT DETAILS

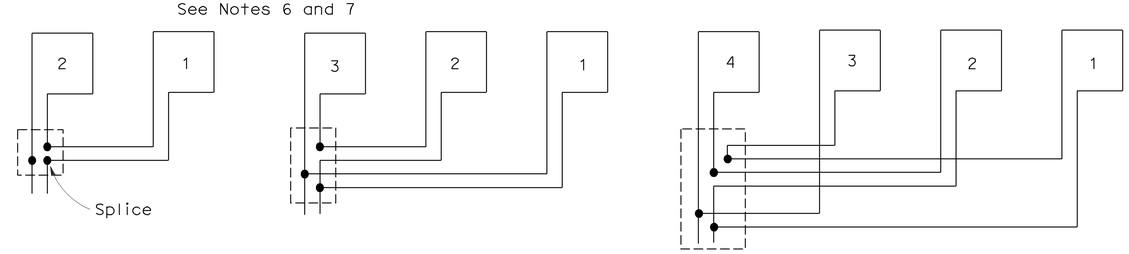
(Type A loop detector configurations illustrated)

1. 1A thru 4A = 1 Type A loop configuration in each lane.
2. 1B thru 4B = 1 Type B loop configuration in each lane.
3. 1C = 1 Type C loop configuration entering lanes as required.
4. 1D thru 4D = 1 Type D loop configuration in each lane.
5. 1E thru 4E = 1 Type E loop configuration in each lane.
6. 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)



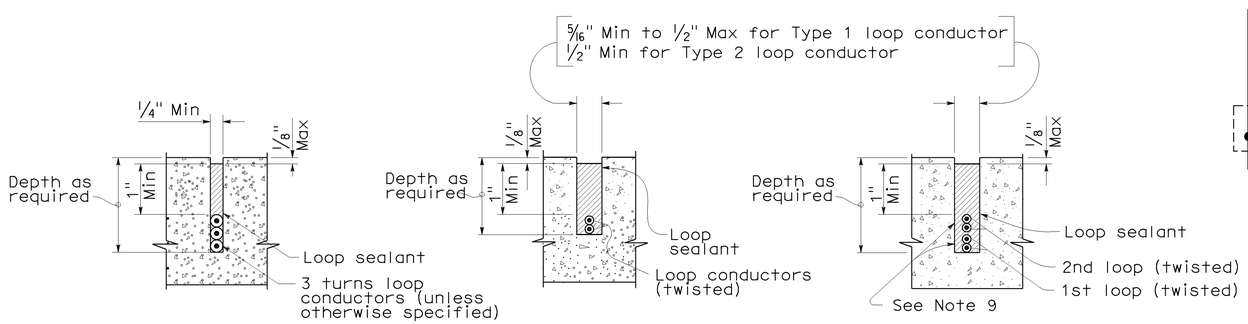
WINDING DETAILS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	26	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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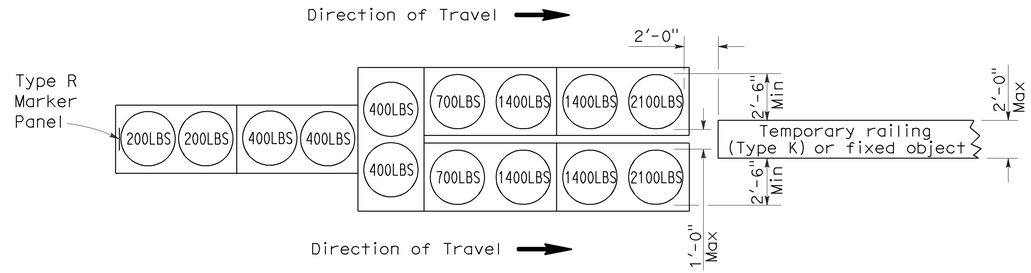
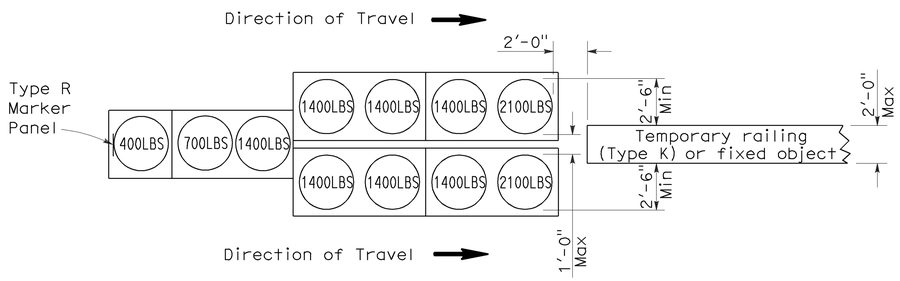


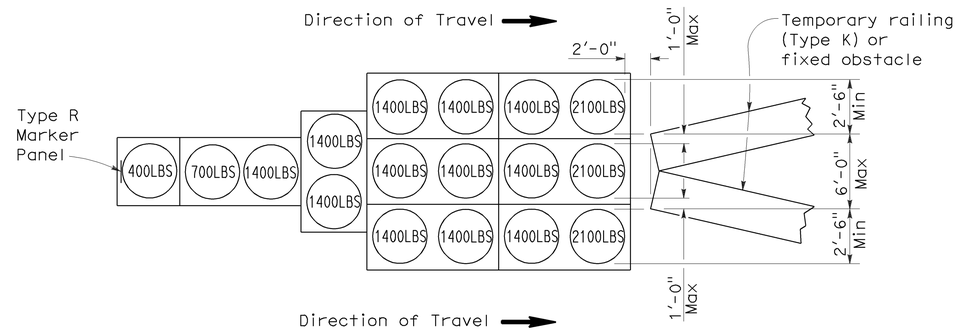
ARRAY 'TU14'

Approach speed 45 mph or more



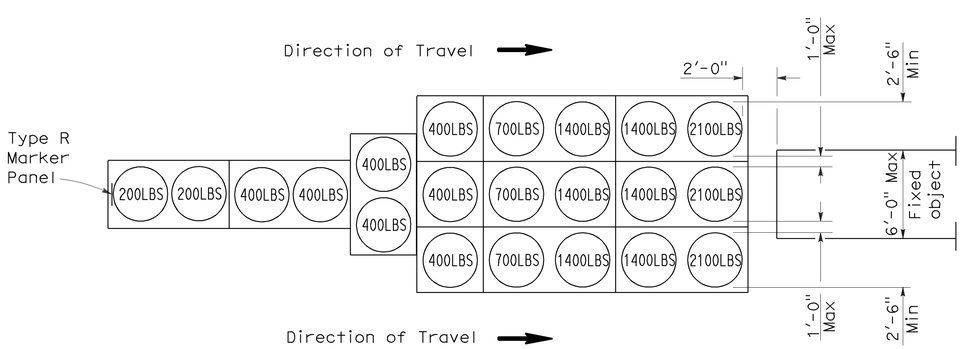
ARRAY 'TU11'

Approach speed less than 45 mph



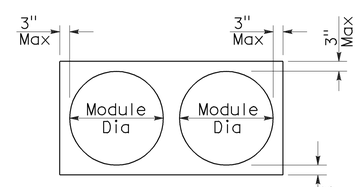
ARRAY 'TU17'

Approach speed less than 45 mph

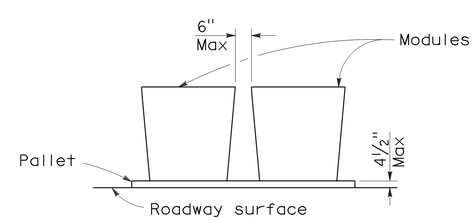


ARRAY 'TU21'

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 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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	27	29

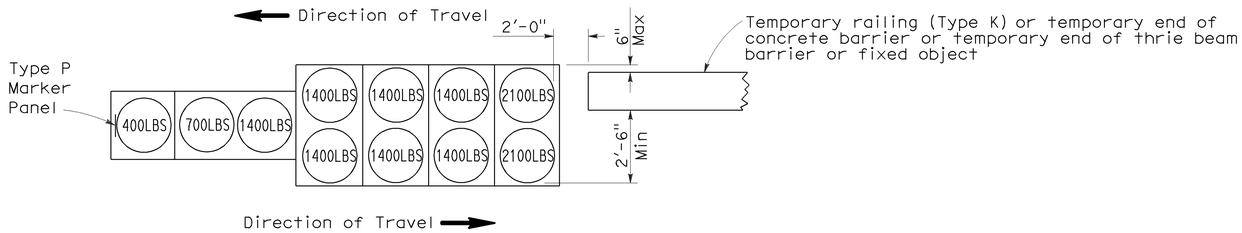
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

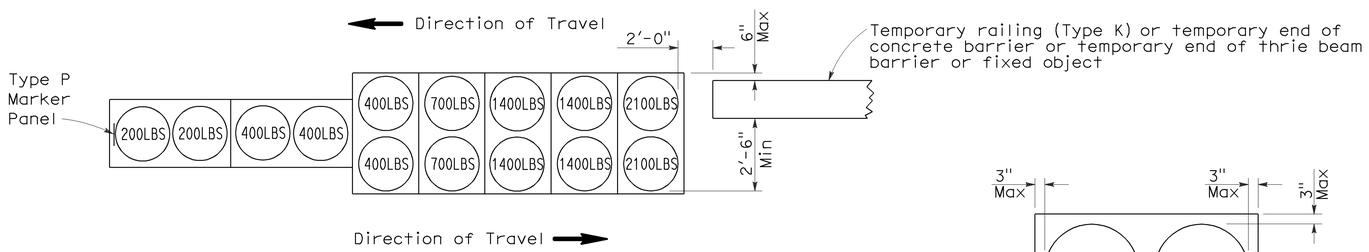
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 02-26-10



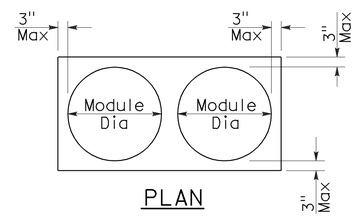
ARRAY 'TB11'

Approach speed less than 45 mph

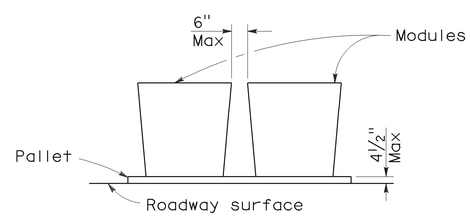


ARRAY 'TB14'

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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	28	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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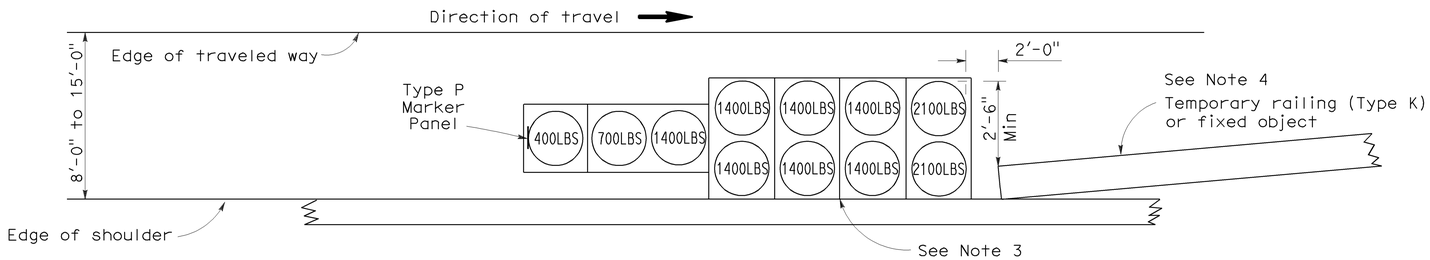
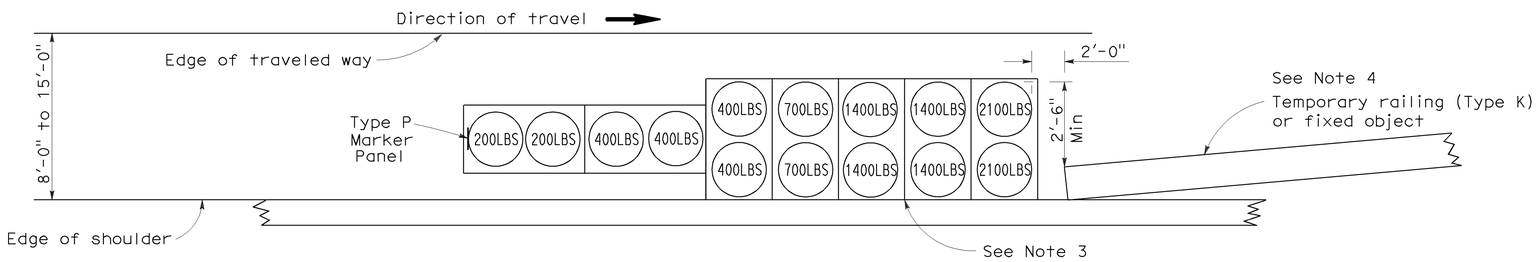
To accompany plans dated 02-26-10



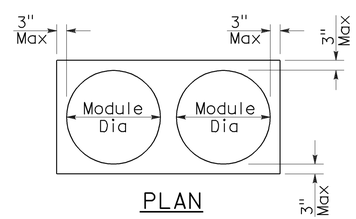
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

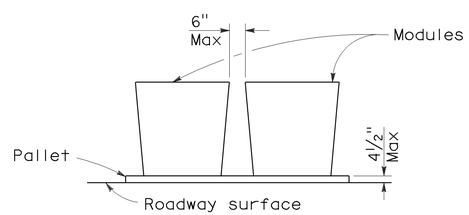


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

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. 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.
4. 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.
5. Temporary crash cushion arrays shall not encroach on the traveled way.
6. Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
7. Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
8. Refer to Standard Plan A73B for marker details.
9. 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.
10. Approach speeds indicated conform to NCHRP 350 Report criteria.
11. 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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	273	7.1/11.0	29	29

REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Greg W. Edwards — No. C36386 — Exp. 6-30-08 — CIVIL — STATE OF CALIFORNIA

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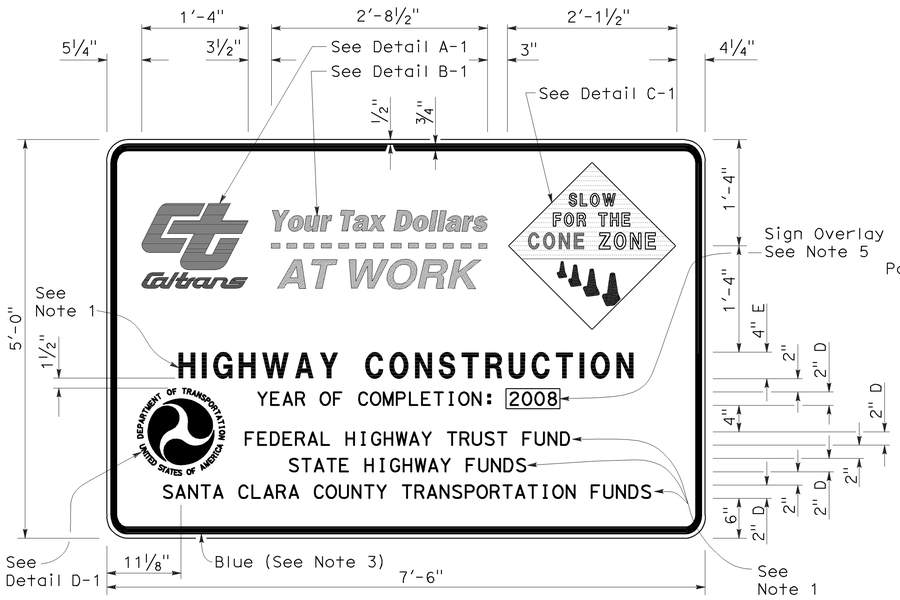
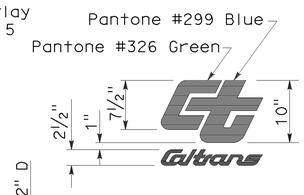
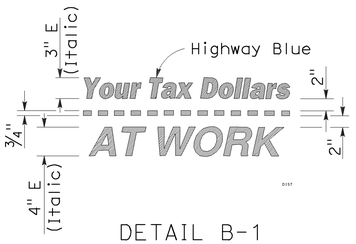
To accompany plans dated 02-26-10



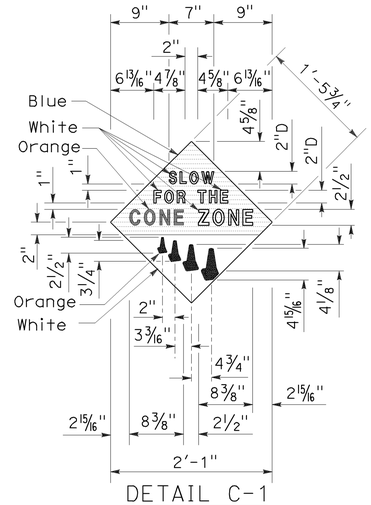
TYPE 1



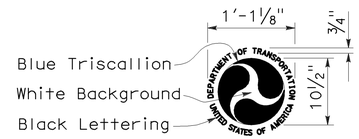
DETAIL A-1



DETAIL B-1
(See Note 3)



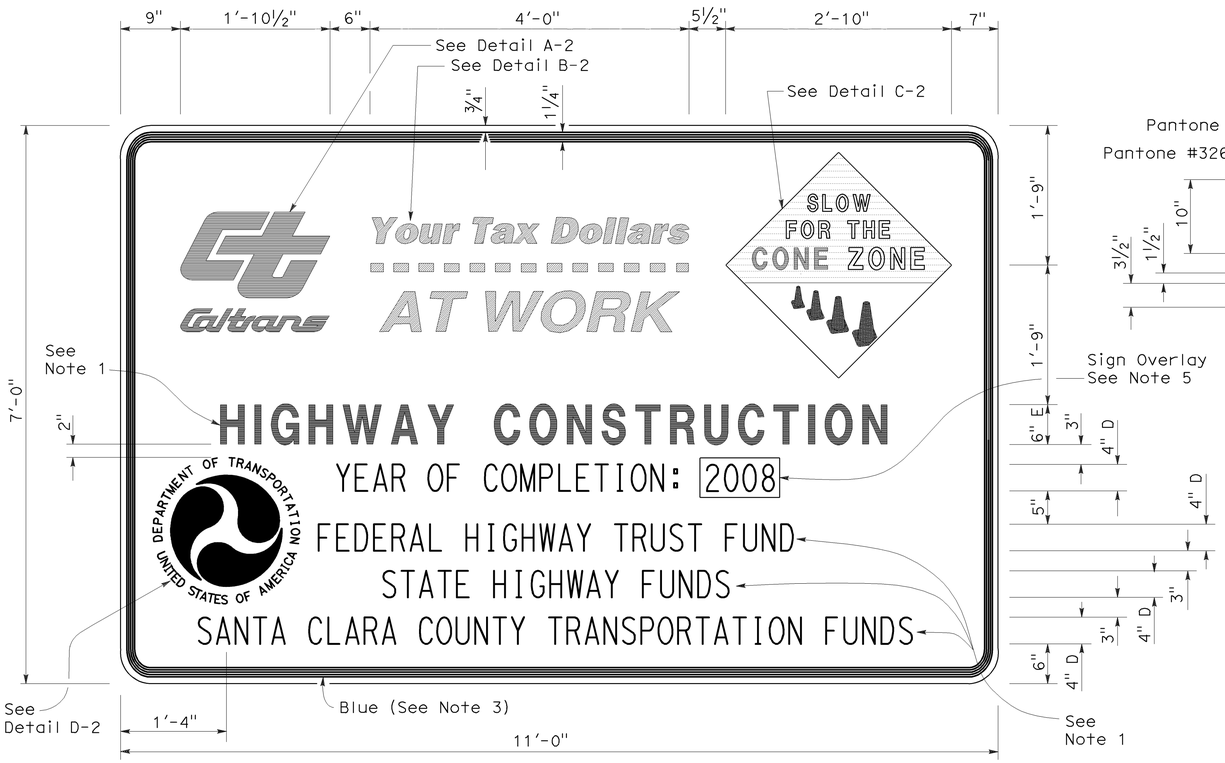
DETAIL C-1
(See Note 4)



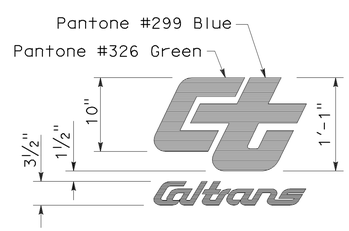
DETAIL D-1
(See Note 6)

NOTES:

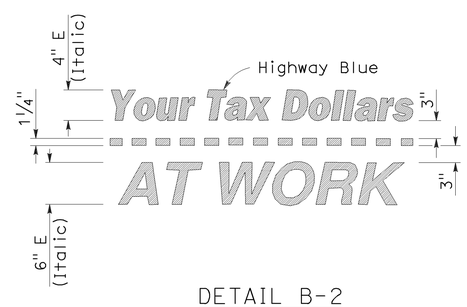
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



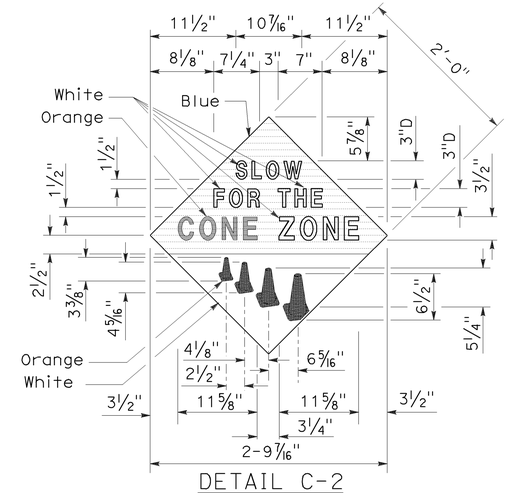
TYPE 2



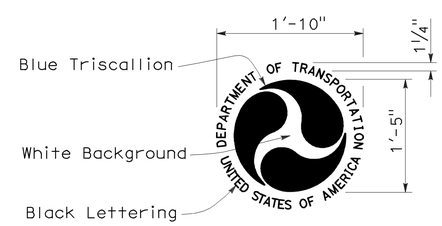
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL C-2
(See Note 4)



DETAIL D-2
(See Note 6)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

RSP T7 DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN T7
DATED MAY 1, 2006 - PAGE 217 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T7

2006 REVISED STANDARD PLAN RSP T7

9-7-06