

INDEX OF PLANS

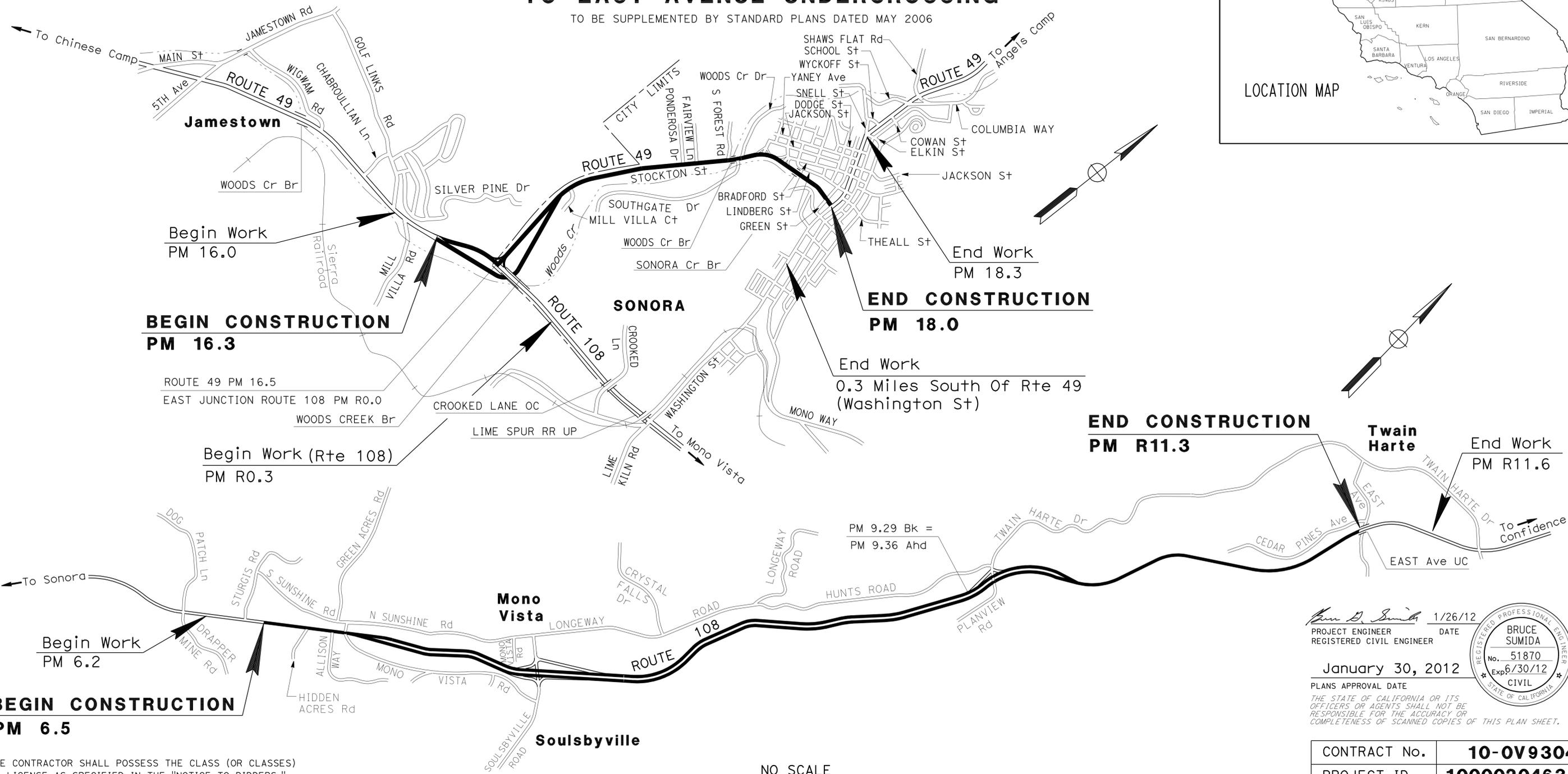
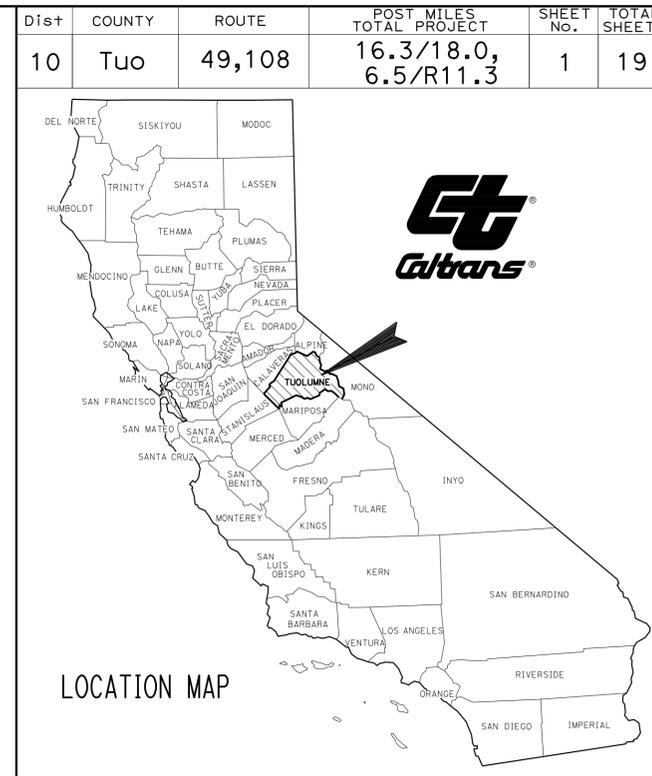
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	TYPICAL CROSS SECTIONS
4	CONSTRUCTION DETAILS
5	CONSTRUCTION AREA SIGNS
6-8	SUMMARY OF QUANTITIES
9-10	MODIFY SIGNAL
11-17	REVISED STANDARD PLANS
18-19	NEW STANDARD PLANS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

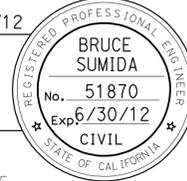
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN TUOLUMNE COUNTY
IN AND NEAR SONORA ON ROUTE 49 FROM 0.2 MILE NORTH OF
MILL VILLA ROAD TO WASHINGTON STREET
AND AT AND NEAR MONO VISTA ON ROUTE 108
FROM 0.2 MILE WEST OF HIDDEN ACRES ROAD
TO EAST AVENUE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER
ALVIN MANGINDIN
DESIGN ENGINEER
ALVIN MANGINDIN

Bruce Sumida 1/26/12
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER



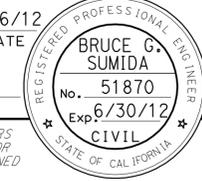
January 30, 2012
PLANS APPROVAL DATE

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

CONTRACT No.	10-0V9304
PROJECT ID	1000020463

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

NO SCALE

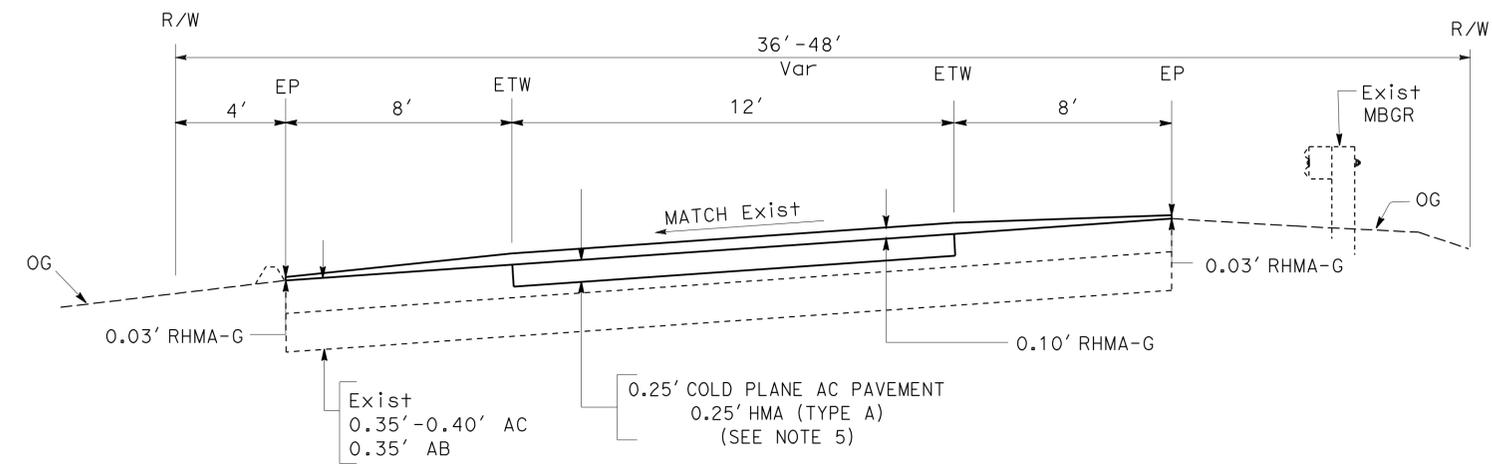
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	2	19
			1/26/12	DATE	
REGISTERED CIVIL ENGINEER			PLANS APPROVAL DATE		
			1/30/12		
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

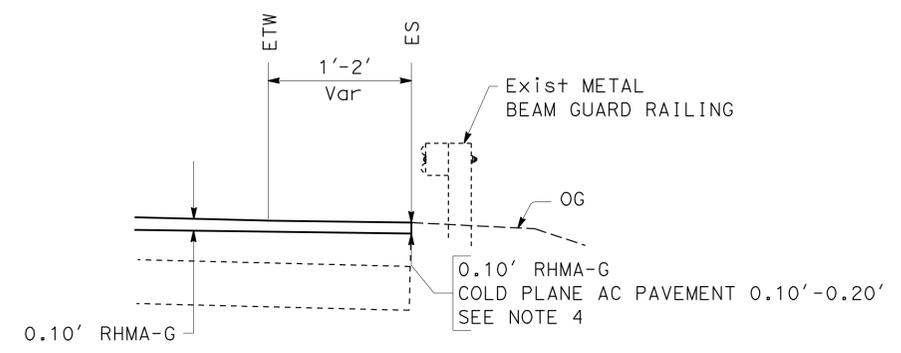
1. DIMENSIONS OF PAVEMENT (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
4. FOR COLD PLANE AC PAVEMENT DIMENSIONS AND LOCATIONS, SEE SUMMARY OF QUANTITIES.

ABBREVIATION

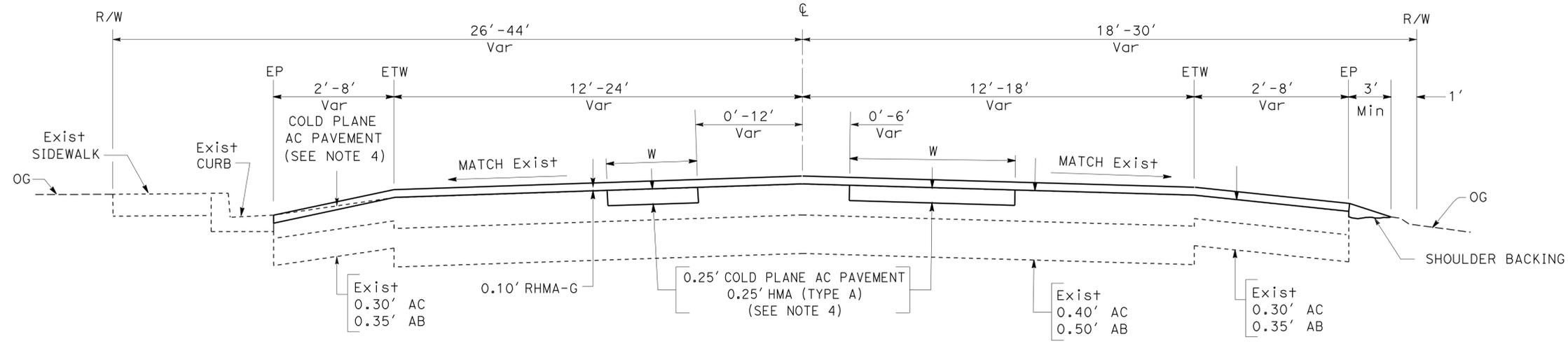
RHMA-G - RUBBERIZED HOT MIX ASPHALT (GAP GRADED)



**INTERSECTION BYPASS
EAST JUNCTION ROUTE 108**



**PM 17.55
METAL BEAM GUARD RAILING**



**PM 16.3/18.0
ROUTE 49**

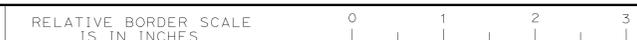
TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
 CALCULATED/DESIGNED BY: THOA HUYNH
 CHECKED BY: BRUCE SUMIDA
 REVISOR: BS
 DATE REVISED: 01/30/12
 BORDER LAST REVISED 7/2/2010

USERNAME => s123936
DGN FILE => a0v930ca001.dgn



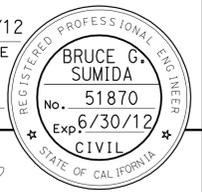
UNIT 2593

PROJECT NUMBER & PHASE

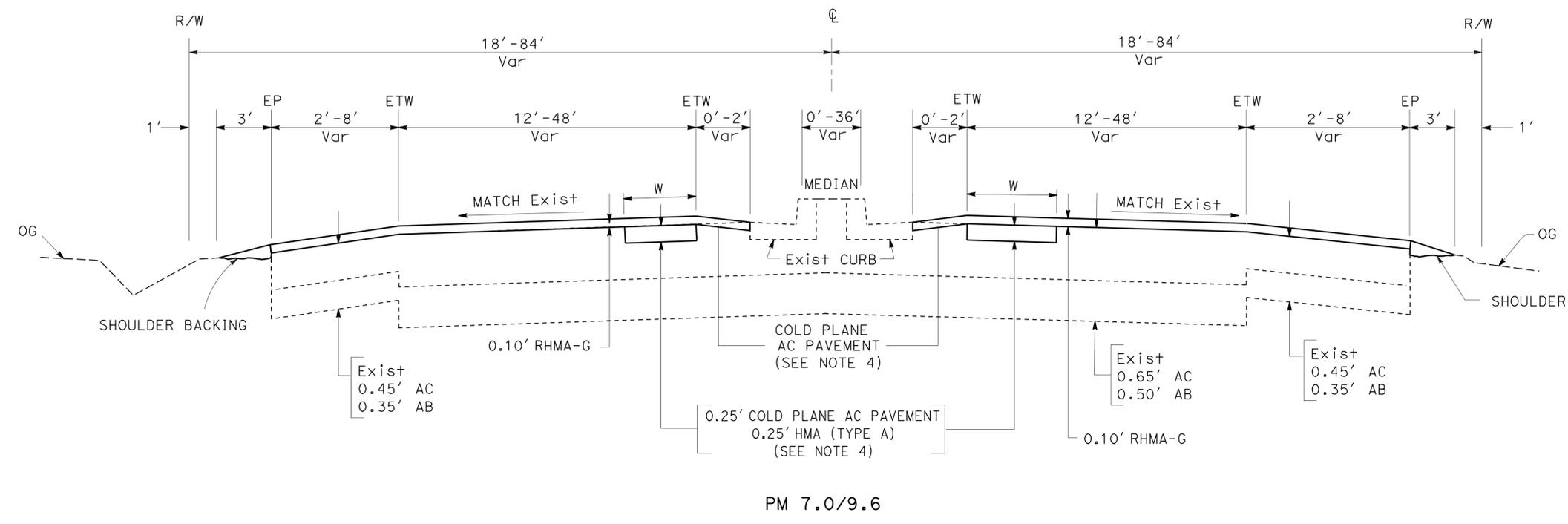
10000204631

LAST REVISION | DATE PLOTTED => 02-FEB-2012
 00-00-00 | TIME PLOTTED => 09:45

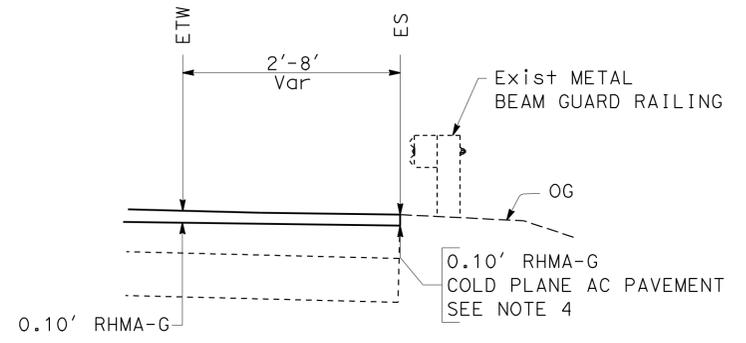
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	3	19
			1/26/12		
REGISTERED CIVIL ENGINEER			DATE		
			1/30/12		
			PLANS APPROVAL DATE		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



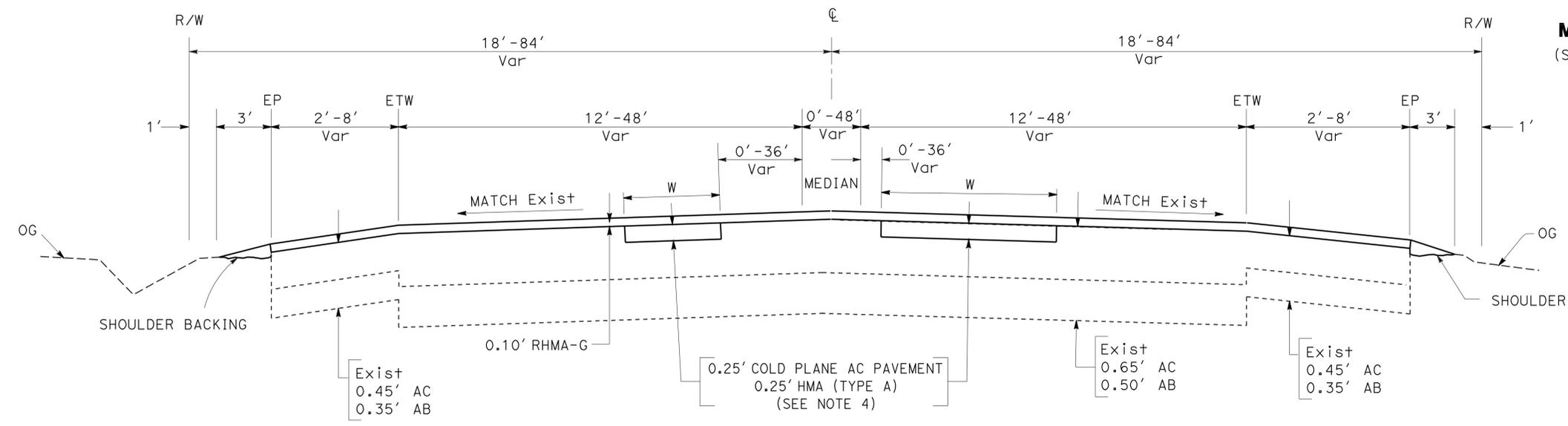
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
 CALCULATED/DESIGNED BY: THOA HUYNH
 CHECKED BY: THOA HUYNH
 REVISIONS: BS 01/30/12
 REVISOR: BRUCE SUMIDA
 DATE REVISED: 01/30/12



PM 7.0/9.6



METAL BEAM GUARD RAILING
(SEE SUMMARY OF QUANTITIES FOR LOCATIONS)



PM 6.5/7.0
PM 9.6/R11.3

ROUTE 108

TYPICAL CROSS SECTIONS
NO SCALE
X-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	4	19

<i>Bruce G. Sumida</i>	1/26/12
REGISTERED CIVIL ENGINEER	DATE
1/30/12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	BRUCE G. SUMIDA
No. 51870	
Exp. 6/30/12	
CIVIL	

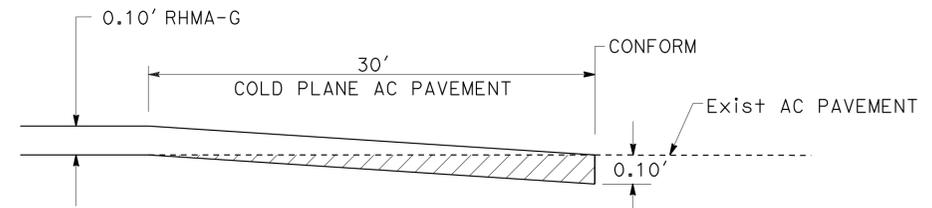
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

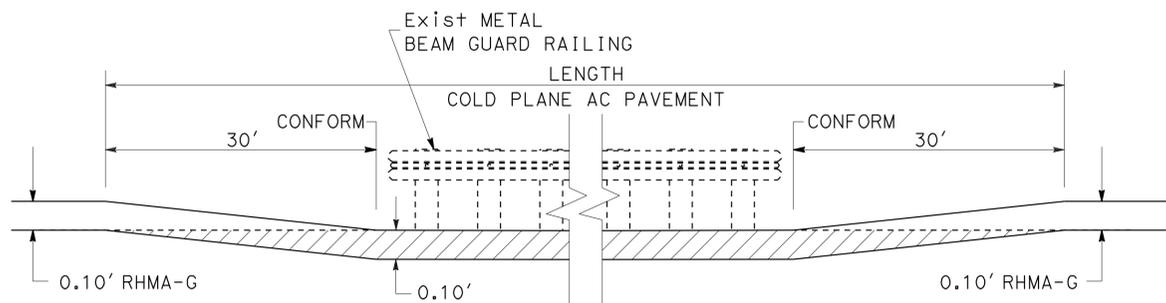
- COLD PLANE AC PAVEMENT
- COLD PLANE AC PAVEMENT HMA (TYPE A)
- HMA (TYPE A)
- PLACE HMA (MISC AREA)

ABBREVIATION

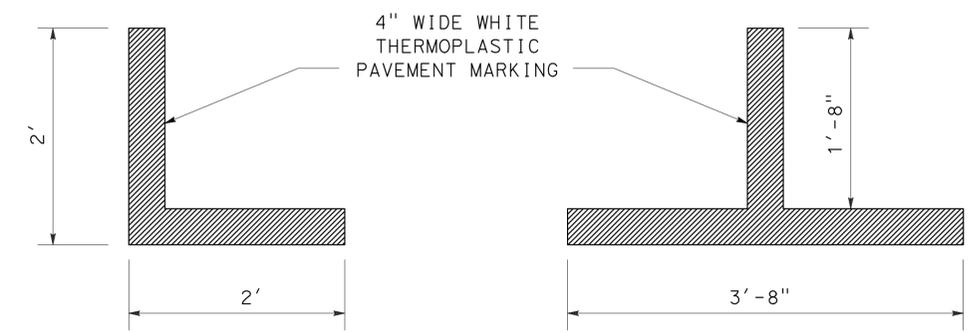
RHMA-G - RUBBERIZED HOT MIX ASPHALT (GAP GRADED)



CONFORM TAPER AT EXISTING AC PAVEMENT



CONFORM TAPER AT METAL BEAM GUARD RAIL



Rte 49-PM 16.3 TO 18.0
PARKING STALL MARKING

PUBLIC ROAD INTERSECTIONS

ROUTE	PM	SIDE	ROAD NAME	L	W
49	16.85	R+	MILL VILLA Ct	31'	52'
	17.31	L+	PONDEROSA Dr	24'	45'
	17.35	L+	FAIRVIEW Ln	30'	52'
	17.48	L+	S FOREST Rd	33'	28'
	17.48	R+	S FOREST Rd	23'	35'
	17.48	R+	S FOREST Rd	29'	26'
	17.61	L+	SOLINSKI St	33'	56'
	17.71	L+	BRADFORD St	25'	89'
	17.94	L+	GREEN St	34'	30'
108	6.86	R+	N SUNSHINE Rd	29'	69'
	6.86	L+	MONO VISTA Rd	26'	60'
	7.51	L+	SOULSBYVILLE Rd	19'	40'
	7.51	R+	SOULSBYVILLE Rd	20'	38'
	R9.54	R+	COUNTY DUMP Rd	10'	28'

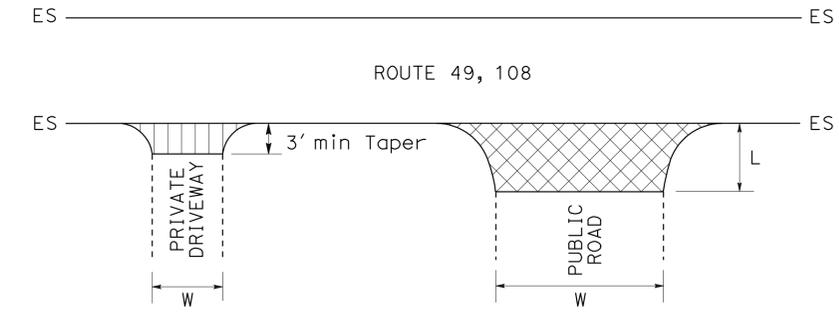
PRIVATE DRIVEWAY INTERSECTIONS

ROUTE	PM	SIDE	W
108	6.74	R+	70'
	6.94	R+	90'

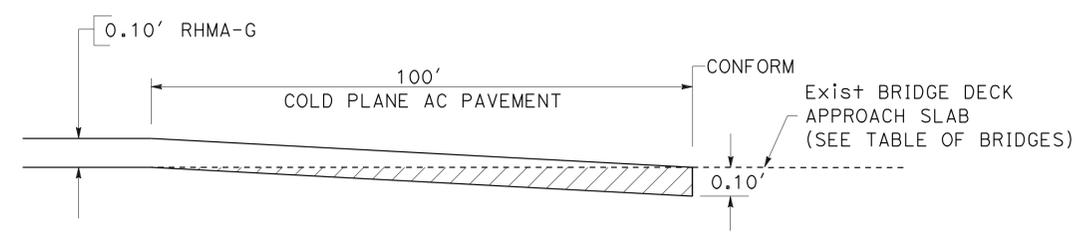
PRIVATE DRIVEWAY WIDTHS AND LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS AND WIDTHS SHALL BE DETERMINED BY THE ENGINEER.

TABLE OF BRIDGES

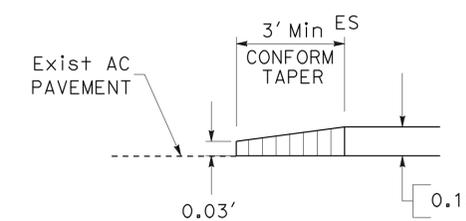
ROUTE	PM	BRIDGE NAME	BRIDGE No.
49	17.5	WOODS CREEK	32-006
	17.8	SONORA CREEK	32-007



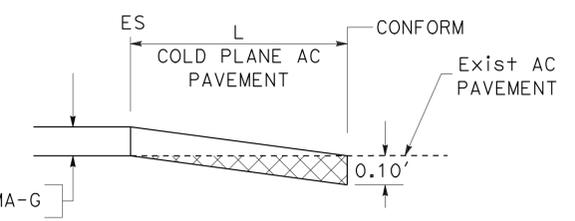
PAVING LIMITS AT PRIVATE DRIVEWAYS AND PUBLIC ROAD INTERSECTIONS
SEE PUBLIC ROAD AND PRIVATE DRIVEWAY INTERSECTIONS TABLES



CONFORM TAPER AT APPROACH/DEPARTURE BRIDGE DECK



PRIVATE DRIVEWAY CONFORM TAPER



PUBLIC ROAD CONFORM TAPER

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 BRUCE SUMIDA
 THOA HUYNH
 ALVIN MANGINDIN
 BS
 01/26/12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

BRUCE SUMIDA
THOA HUYNH
ALVIN MANGINDIN

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS	SIGN MESSAGE
(A)	W20-1	36" x 36"	1 - 4" x 6"	23	ROAD WORK AHEAD
(B)	G20-2	36" x 18"	1 - 4" x 4"	6	END ROAD WORK
(C)	G20-1	36" x 18"	1 - 4" x 4"	2	ROAD WORK NEXT 5 MILES

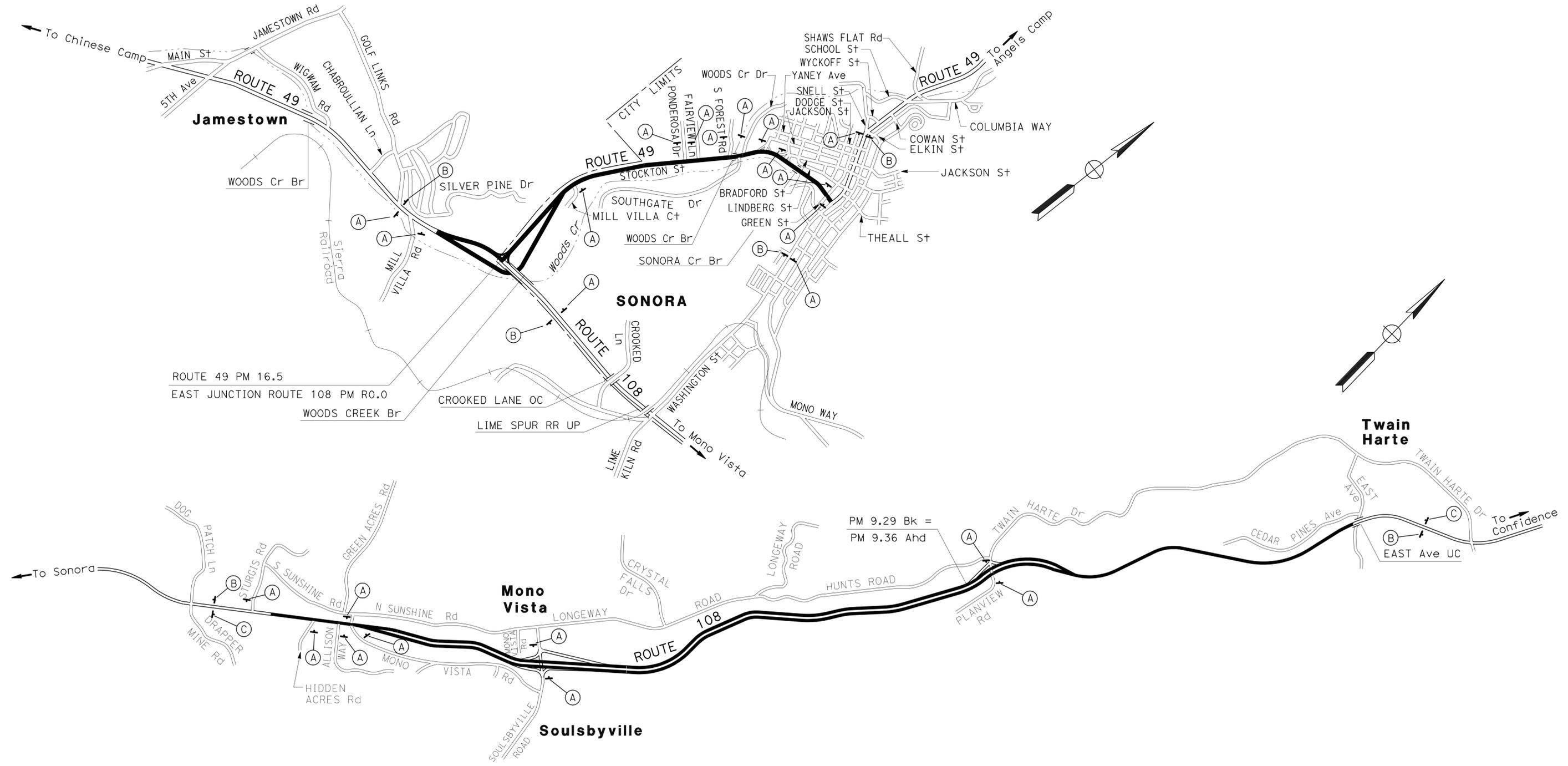
NOTE: EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	5	19

Bruce G. Sumida 1/26/12
 REGISTERED CIVIL ENGINEER DATE
 1/30/12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRUCE G. SUMIDA
 No. 51870
 Exp. 6/30/12
 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.



CONSTRUCTION AREA SIGNS
NO SCALE
CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

LAST REVISION DATE PLOTTED => 02-FEB-2012 00-00-00 TIME PLOTTED => 09:45

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR
 ALVIN MANGINDIN
 CALCULATED/DESIGNED BY
 CHECKED BY
 BRUCE SUMIDA
 THOA HUYNH
 REVISED BY
 DATE REVISED
 BS
 01/26/12

NOTES:

- * - TOTAL INCLUDED IN ROADWAY ITEMS TABLE.
- ** - INCLUDES ROUTE 108 END CONSTRUCTION CONFORM TAPER.
- (N) - NOT SEPARATE PAY ITEM, FOR INFORMATION ONLY.

ABBREVIATIONS

RHMA - RUBBERIZED HOT MIX ASPHALT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	6	19
			1/26/12		
			REGISTERED CIVIL ENGINEER	DATE	
			1/30/12	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>					

CONFORM TAPER

LOCATION	PM	LENGTH	WIDTH	COLD PLANE AC PAVEMENT	RHMA (GAP GRADED)	
				SQYD	TON	
ROUTE 49	Beg Const ROUTE 49	16.3	30	44	147	9.8
	BB WOODS CREEK Br	17.49	100	75	833	55.5
	EB WOODS CREEK Br	17.49	100	48	533	35.5
	BB SONORA CREEK Br	17.80	100	35	389	25.9
	EB SONORA CREEK Br	17.80	100	36	400	26.6
	END Const WASHINGTON St	18.00	30	57	190	12.7
ROUTE 108	Beg Const ROUTE 108	6.50	30	44	147	9.8
TOTAL				2639*	176*	

CONFORM TAPERS AT INTERSECTIONS

INTERSECTION	PM	SIDE	LENGTH	WIDTH	COLD PLANE AC PAVEMENT	HMA (TYPE A)	
					SQYD	TON	
ROUTE 49	MILL VILLA Ct	16.85	Rt	31'	52'	179	11.9
	PONDEROSA Dr	17.31	Lt	24'	45'	120	8.0
	FAIRVIEW Ln	17.35	Lt	30'	52'	173	11.5
	S FOREST Rd	17.48	Lt	33'	28'	103	6.8
	S FOREST Rd	17.48	Rt	23'	35'	89	6.0
	S FOREST Rd	17.48	Rt	29'	26'	84	5.6
	SOLINSKI St	17.61	Lt	33'	56'	205	13.7
	BRADFORD St	17.71	Lt	25'	89'	247	16.5
	GREEN St	17.94	Lt	34'	30'	113	7.5
	GREEN St	17.94	Rt	28'	24'	75	5.0
ROUTE 108	N SUNSHINE Rd	6.86	Rt	29'	69'	222	14.8
	MONO VISTA Rd	6.86	Lt	26'	60'	173	11.5
	SOULSBYVILLE Rd	7.51	Lt	19'	40'	84	5.6
	SOULSBYVILLE Rd	7.51	Rt	20'	38'	84	5.6
	COUNTY DUMP Rd	9.54	Rt	10'	28'	31	2.1
TOTAL					2500*	167*	

CONFORM TAPER AT MBGR

LOCATION	PM/PM	LENGTH	WIDTH	COLD PLANE AC PAVEMENT	RHMA (GAP GRADED)
				SQYD	TON
ROUTE 49	17.55/17.55	590'	38'	2491	165.9
ROUTE 108	7.18/7.18	380'	36'	1520	101.2
	7.49/7.49	140'	36'	560	37.3
	7.74/7.74	170'	34'	642	42.8
	8.25/8.25	490'	34'	1851	123.3
	8.50/8.50	750'	34'	2833	188.7
	R10.97/R10.97	380'	40'	1689	112.5
	** R11.26/R11.26	272'	40'	1209	100.6
TOTAL				12,795*	873*

CONFORM TAPERS AT CURB & GUTTER

LOCATION	LENGTH	WIDTH	COLD PLANE AC Pvmt	RHMA (GAP GRADED)		
			SQYD	TON		
ROUTE 49	Dir	PM / PM				
	NB	17.61/17.62	581'	13'	839	56
	NB	17.72/17.81	480'	40'	2135	142
	NB	17.89/18.00	586'	13'	847	56
	SB	17.17/17.37	1003'	13'	1449	97
	SB	17.61/17.72	581'	4'	258	17
ROUTE 108	SB	17.89/18.00	1019'	10'	1132	75
	EB	7.03/7.06	195'	50'	1085	72
	EB	7.61/7.68	391'	40'	1737	116
	EB	9.53/9.63	400'	40'	1778	118
	WB	7.30/7.06	195'	50'	1085	72
	WB	7.61/7.68	391'	40'	1737	116
TOTAL			16,428*	1093*		

**SUMMARY OF QUANTITIES
Q-1**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	7	19

Bruce G. Sumida 1/26/12
 REGISTERED CIVIL ENGINEER DATE
 1/30/12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRUCE G. SUMIDA
 No. 51870
 Exp. 6/30/12
 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.

DIGOUTS

LOCATION		LENGTH	WIDTH	COLD PLANE AC Pvm†	HMA (TYPE A)
ROUTE	PM			SQYD	TON
49 (NB)	16.30 - RAMP	140'	12'	187	31.1
	16.90	920'	12'	1227	204.2
	17.10	2100'	12'	2800	466.2
	17.70	825'	12'	1100	183.2
49 (SB)	16.90	175'	12'	233	38.9
	17.10	2100	12'	2800	466.2
	17.70	825'	12'	1100	183.2
108 (EB)	7.50	800'	12'	1067	177.6
	7.90	3180'	12'	4240	706.0
	8.80	630'	12'	840	139.9
	8.90	90'	4'	40	6.7
108 (WB)	7.10	1490'	4'	662	110.3
	7.15	210'	4'	93	15.5
	7.30	675'	12'	900	149.9
	7.40	280'	12'	373	62.2
	7.80	320'	12'	427	71.0
	8.45	200'	4'	89	14.8
	8.50	260'	4'	116	19.2
	8.60	580'	4'	258	42.9
	8.65	330'	12'	440	73.3
	8.90	600'	4'	267	44.4
9.0	826'	4'	367	61.1	
9.10	1145'	4'	509	84.7	
TOTAL				20,134*	3353*

EXACT LOCATION AND DIMENSIONS TO BE DETERMINED BY THE ENGINEER

ROADWAY ITEMS

LOCATION	RHMA (GAP GRADED)	HMA (TYPE A)	TACK COAT	SHOULDER BACKING	COLD PLANE AC PAVEMENT	PLACE HMA (MISC AREA)
	TON				SQYD	SQYD
Rte 49, PM 16.3/18.0	4074		24	98		
Rte 108, PM 6.5/R11.3	14,615		91	566		
DIGOUTS		3353	8.4		20,134	
CONFORM TAPERS AT INTERSECTIONS	176		1.1		2639	
CONFORM TAPERS AT MBGR	873		5.4		12,795	
CONFORM TAPERS AT CURB & GUTTER	1093		6.9		16,428	
DIKE		216	0.1			
DRIVEWAYS		3	0.1			54
TOTAL	20,831	3739	138.1	664	54,496	54

DIKE ITEMS

LOCATION			REMOVE AC DIKE	PLACE HMA DIKE (TYPE A)	PLACE HMA DIKE (TYPE E)	HMA (TYPE A)
ROUTE	PM/PM	SIDE	LF	LF	LF	TON
49	17.00/17.06	NB	317		317	43
108	10.77/10.90	EB	687	687		37
	9.06/9.25	WB	1004		1004	136
TOTAL			2008	687	1321	216*

SUMMARY OF QUANTITIES
Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
 CALCULATED/DESIGNED BY: THOA HUYNH
 CHECKED BY: BRUCE SUMIDA
 REVISED BY: BS
 DATE REVISED: 01/26/12

LAST REVISION | DATE PLOTTED => 02-FEB-2012
 00-00-00 | TIME PLOTTED => 09:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	8	19

Bruce G. Sumida 1/26/12
 REGISTERED CIVIL ENGINEER DATE
 1/30/12
 PLANS APPROVAL DATE

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

TRAFFIC MANAGEMENT SYSTEM ELEMENTS (EXISTING)

LOCATION	PM	DIR	LOCATION	TYPE
ROUTE 49	16.48	BOTH	SONORA, NORTH OF EAST Jct Rte 108	TMS
	16.48	BOTH	SONORA, SOUTH OF EAST Jct Rte 108	TMS
	17.94	ALL	STOCKTON STREET/NORTH WASHINGTON STREET	SIGNAL
ROUTE 108	6.96	EB	SUNSHINE DRIVE	EMS
	7.00	EB	SOULSBYVILLE Rd	CMS
	7.51	ALL	SOULSBYVILLE Rd	SIGNAL
	7.51	BOTH	EAST OF SOULSBYVILLE Rd	TMS
	7.51	BOTH	WEST OF SOULSBYVILLE Rd	TMS
	7.60	EB	SOULSBYVILLE Rd	HAR
	9.29	BOTH	WEST OF TWAIN HARTE Rd	TMS
9.40	WB	TWAIN HART Rd	EMS	

TRAFFIC MANAGEMENT SYSTEM ELEMENT LOCATIONS ARE APPROXIMATE

SHOULDER RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)

ROUTE	Dir	LOCATION	SIDE	STA
		PM 7.79 TO PM 8.97	R+	61.9
		PM 9.00 TO PM 9.58	R+	30.4
		PM 9.63 TO PM 9.82	R+	10.0
		PM 7.10 TO PM 7.55	L+	23.9
		PM 7.73 TO PM 9.50	L+	93.5
		PM 9.63 TO PM 9.73	L+	5.3
	WB	PM 6.87 TO PM 7.35	R+	25.3
		PM 7.49 TO PM 7.65	R+	8.4
		PM 7.77 TO PM 9.24	R+	77.6
		PM 9.40 TO PM 9.50	R+	5.3
		PM 9.60 TO PM 9.73	R+	6.9
		PM 7.53 TO PM 9.50	L+	104.0
			TOTAL	

RESET ROADSIDE SIGN

LOCATION	SIGN CODE	EA	
ROUTE 49	PM 16.45	R11/R11A	1
		R11/R11A	1
		POST MILE MARKER	1
		R1-1	1
		R1-1	1
ROUTE 108	EB - PM 6.92	R4-7/OM1-3	1
	WB - PM 9.77	R4-7/OM1-3	1
	EB - PM 10.46	R4-7/OM1-3	1
	MEDIAN - PM 10.50	MARKER	1
	MEDIAN - PM 10.61	MARKER	1
	MEDIAN - PM 10.78	MARKER	1
	WB - PM 10.85	R4-7/OM1-3	1
	TOTAL	13	

PAVEMENT DELINEATION ITEMS

LOCATION	REMOVE THERMOPLASTIC PAVEMENT MARKING	THERMOPLASTIC PAVEMENT MARKING														REMOVE THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)																	REMOVE PAVEMENT MARKER (N)	PAVEMENT MARKER (RETROREFLECTIVE)									
		PARKING STALL MARKING	KEEP CLEAR	SIGNAL	STOP AHEAD	PED XING	TYPE III (L) ARROW	TYPE III (R) ARROW	TYPE V ARROW	TYPE VI ARROW	LIMIT LINE	CROSSWALK	TRANSVERSE LINE	4" YELLOW								4" WHITE				8" WHITE				TYPE D	TYPE G	TYPE H												
														De+ 19	De+ 21		De+ 22	De+ 24	De+ 25	De+ 28	De+ 29	De+ 31	De+ 32	De+ 8	De+ 11	De+ 12	De+ 27B	De+ 27C	De+ 38				De+ 38A		EA	EA	EA	EA						
ROUTE 49	1590	18	24	24	264	31	36	42	336	42	99	126	246	202	100	3404	829	2904	4683	13,770	2500	7709	306	2476	6600	121	34,668	1489	77,201	310	1702	611	1235	18	392	28	552	32	72	36	105			
ROUTE 108	2993				192	110	186		630	126	1056	504	89			1222																												
SUBTOTAL	4583	18	24	24	192	374	217	36	42	966	168	1155	630	335	202	4626	829	2904	4683	13,770	2500	7709	306	2476	6600	121	34,668	1489	77,201	310	1702	611	1235	18	392	28	552	32	72	36	105			
TOTAL	4583								4583							4626																												

SUMMARY OF QUANTITIES
Q-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE
 FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
 CALCULATED/DESIGNED BY: THOA HUYNH
 CHECKED BY: THOA HUYNH
 REVISOR: BRUCE SUMIDA
 REVISION DATE: 01/26/12
 REVISION BY: BS
 REVISION DATE: 01/26/12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	ALVARO ARAICA	REVISOR BY	AA
Caltrans ELECTRICAL DESIGN	JASPAL SINGH	DATE REVISED	01/26/12
FUNCTIONAL SUPERVISOR	ALVARO ARAICA	CHECKED BY	ALVARO ARAICA
ALI BAKHOUD	JASPAL SINGH	DESIGNED BY	JASPAL SINGH

LEGEND: (FOR THIS SHEET ONLY)

- 1 Exist 120 V, 1Ø, 3-WIRE, TYPE A SERVICE.
- 2 Exist SIGNAL AND LIGHTING DETAILS NOT SHOWN.

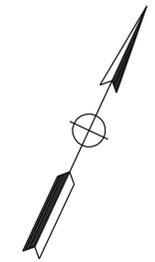
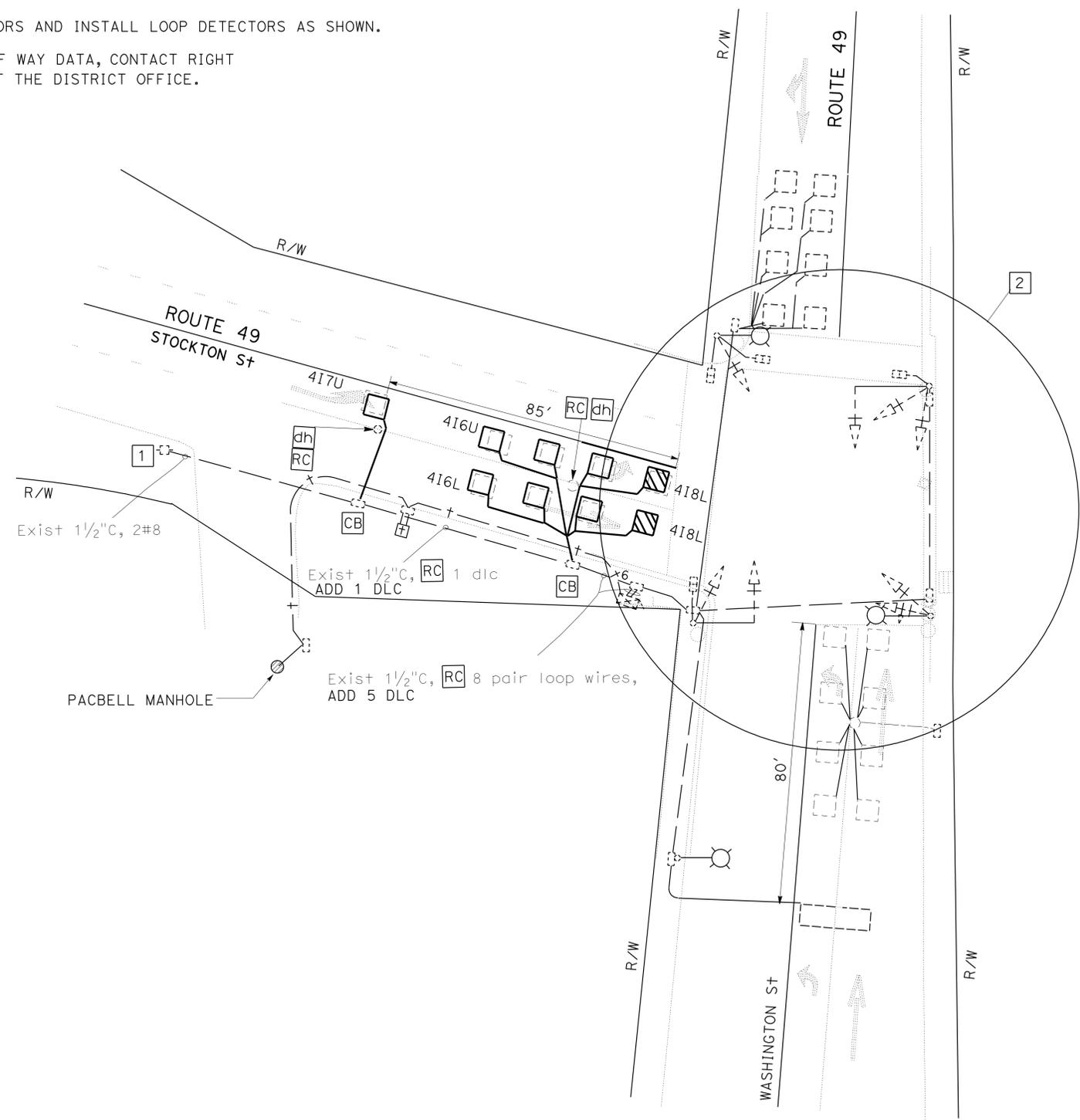
NOTES: (FOR THIS SHEET ONLY)

- 1. [AB] Exist LOOP DETECTORS AND INSTALL LOOP DETECTORS AS SHOWN.
- 2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	9	19
REGISTERED ELECTRICAL ENGINEER			DATE	1/27/12	
PLANS APPROVAL DATE			1/30/12		

REGISTERED PROFESSIONAL ENGINEER
ALVARO ARAICA
 No. 15558
 Exp. 12/31/13
 ELECTRICAL
 STATE OF CALIFORNIA

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



ROUTE 49

APPROVED FOR ELECTRICAL WORK ONLY

MODIFY SIGNAL

SCALE: 1" = 20'

E-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	10	19

REGISTERED ELECTRICAL ENGINEER DATE 1/27/12
 ALVARO ARAICA No. 15558 Exp. 12/31/13
 PLANS APPROVAL DATE 1/30/12

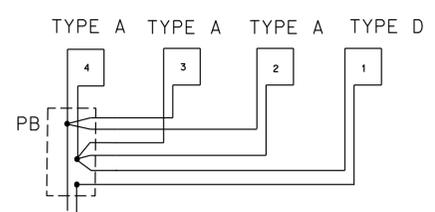
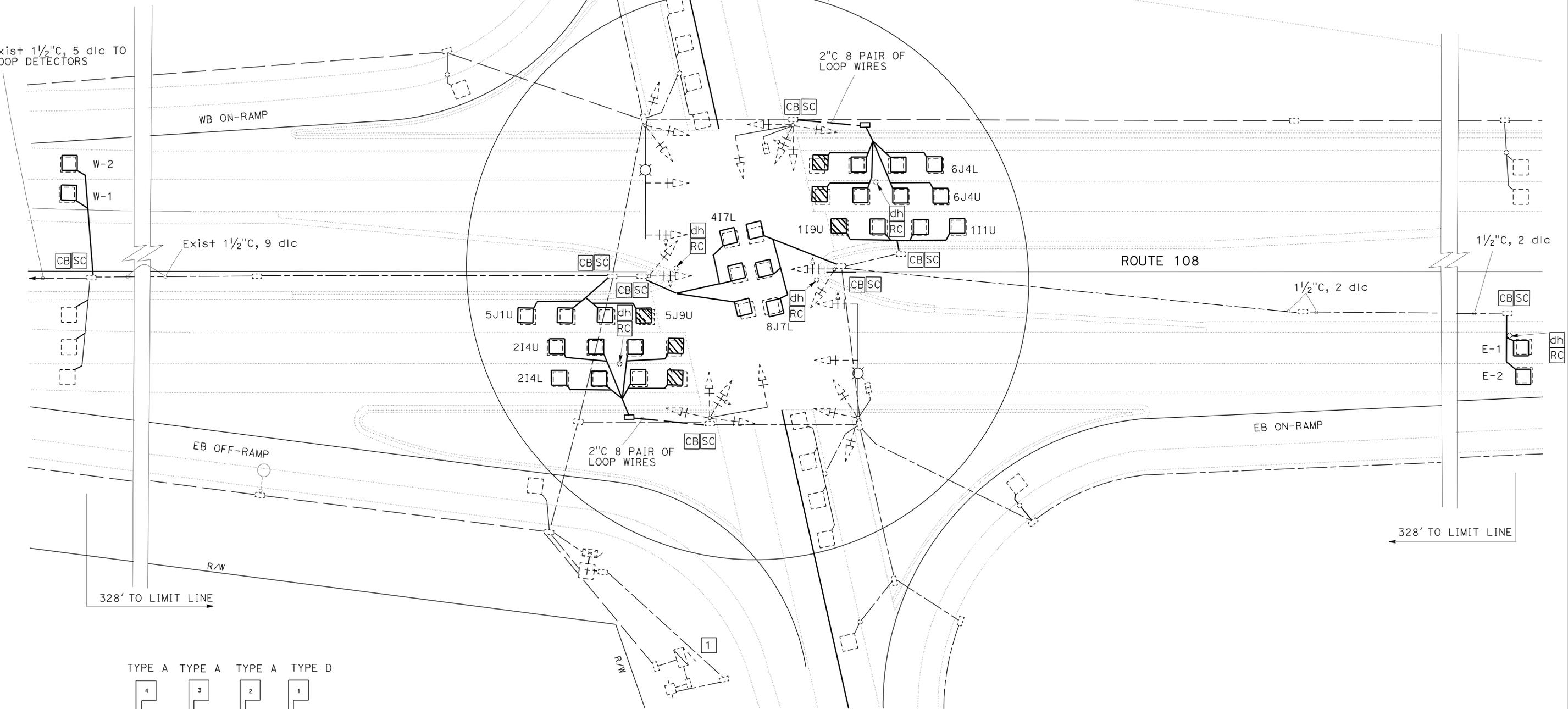
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND: (FOR THIS SHEET ONLY)

- 1 Exist 120/240 V, 1Ø, 3-WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE.
- 2 Exist SIGNAL AND LIGHTING DETAILS NOT SHOWN.

NOTES: (FOR THIS SHEET ONLY)

- 1. LOOP DETECTORS IN THRU LANE SHALL BE SPliced IN PB AS SHOWN IN DETAIL A ON THIS SHEET. TYPE D LOOP SHALL HAVE FIVE TURNS.
- 2. **AB** Exist LOOP DETECTORS AND INSTALL LOOP DETECTORS AS SHOWN.
- 3. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**TYPICAL LOOP CONNECTIONS
DETAIL A**

ROUTE 108

MODIFY SIGNAL
SCALE: 1" = 20'
E-2

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR ALI BAKHDOUD
 CALCULATED/DESIGNED BY JASPAL SINGH
 REVISOR AA
 DATE REVISED 01/26/12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	11	19

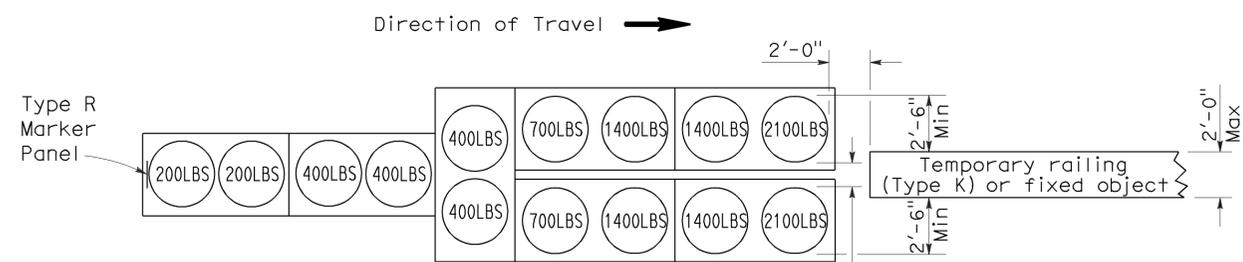
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

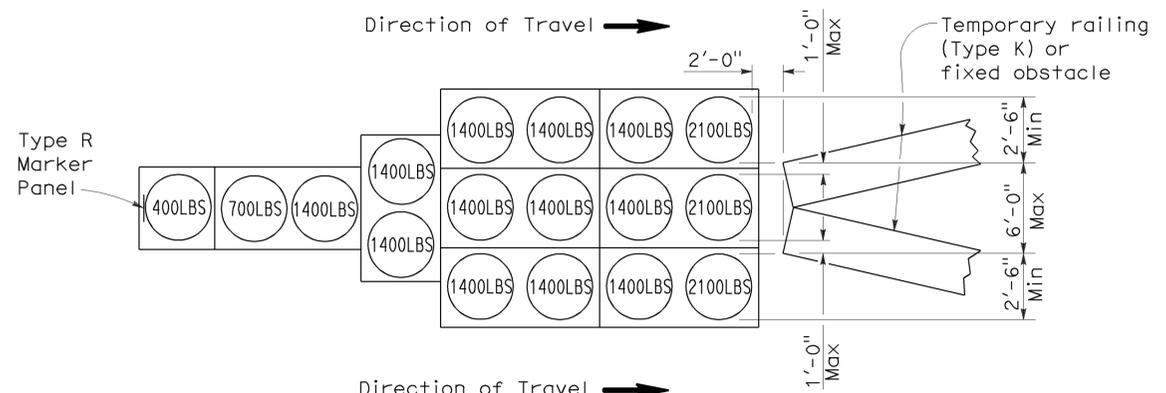
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 1/30/12



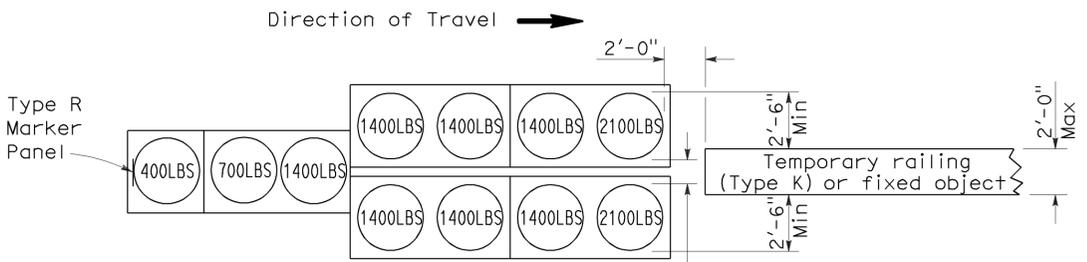
ARRAY 'TU14'

Approach speed 45 mph or more



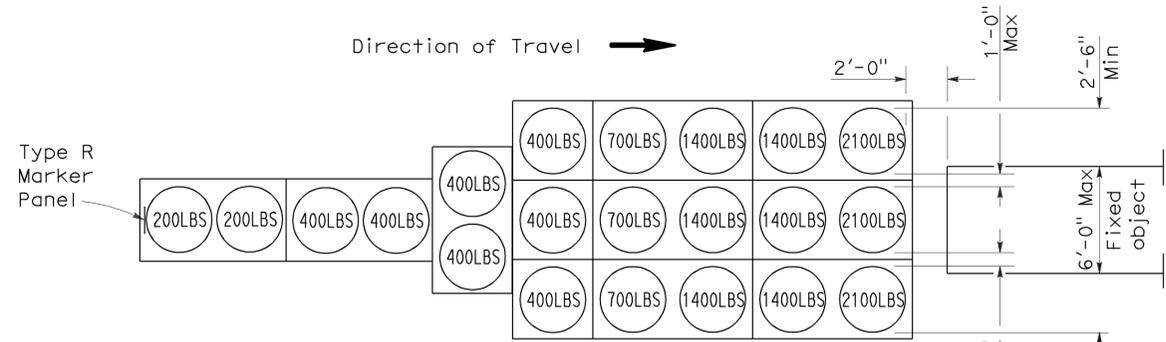
ARRAY 'TU17'

Approach speed less than 45 mph



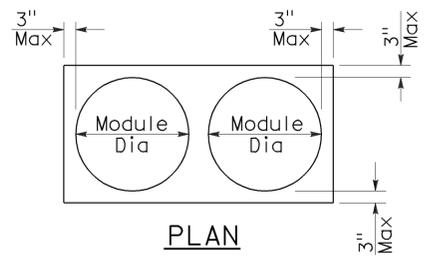
ARRAY 'TU11'

Approach speed less than 45 mph

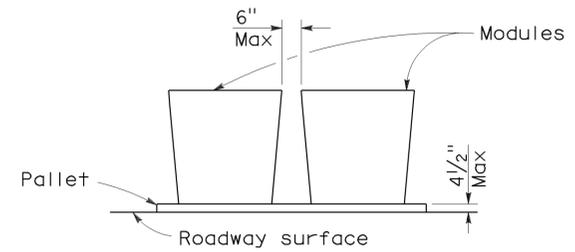


ARRAY 'TU21'

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

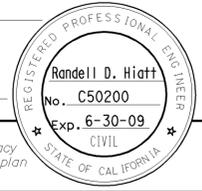
2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	12	19

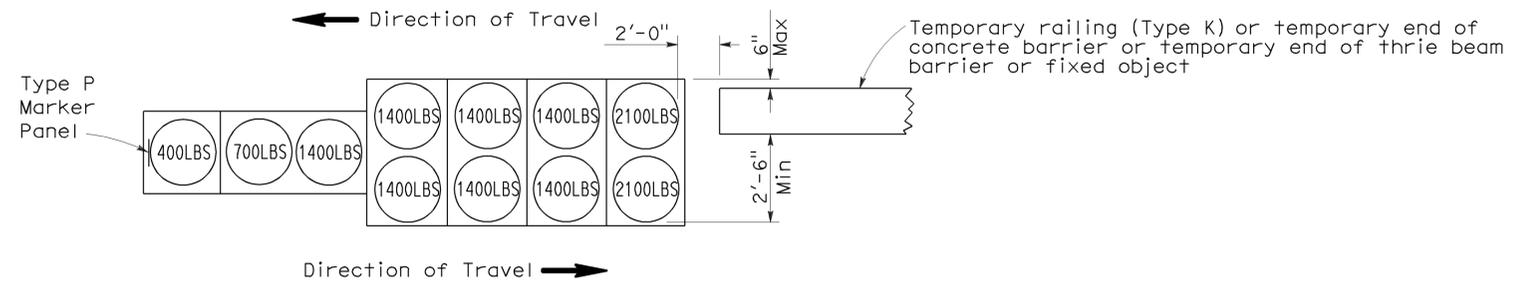
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

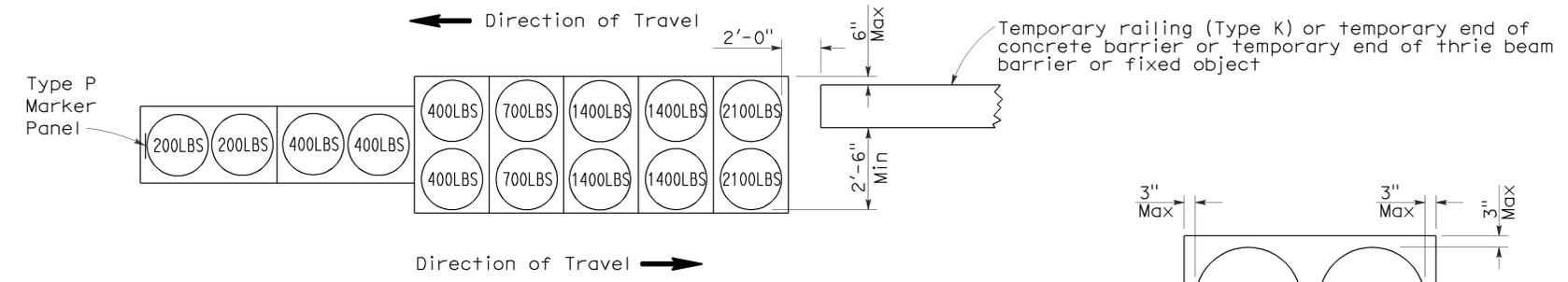


To accompany plans dated 1/30/12



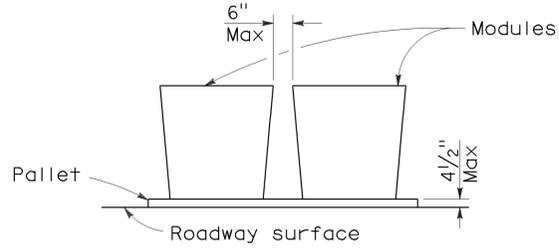
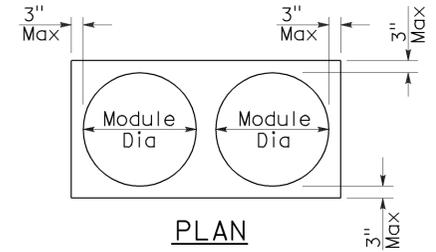
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



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

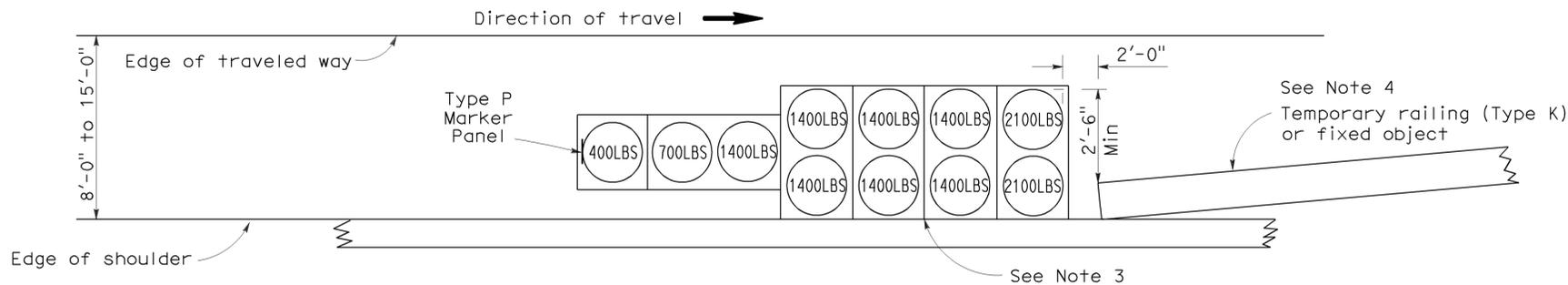
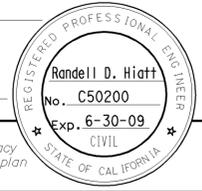
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	13	19

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

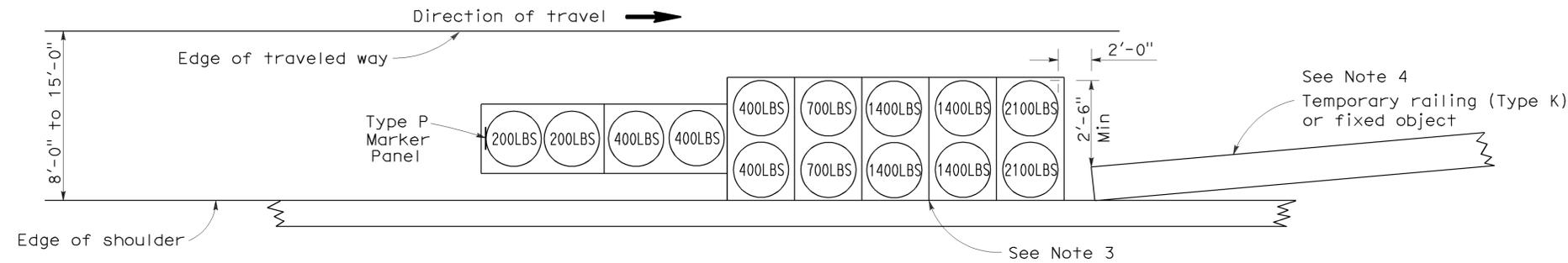
June 6, 2008
PLANS APPROVAL DATE

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

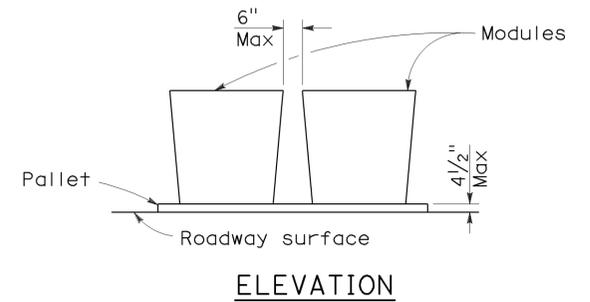
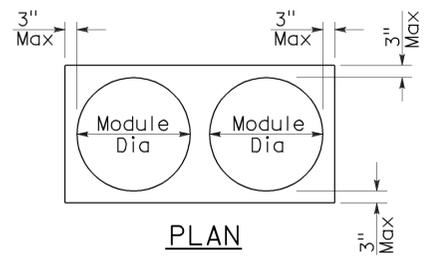
To accompany plans dated 1/30/12



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

- (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

ELECTROLIERS

STANDARD TYPES	Symbol	Description
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
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	14	19

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Jeffery G. McRae
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 1/30/12

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

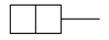
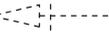
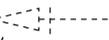
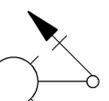
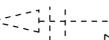
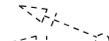
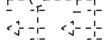
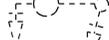
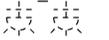
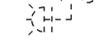
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	15	19

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
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.

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

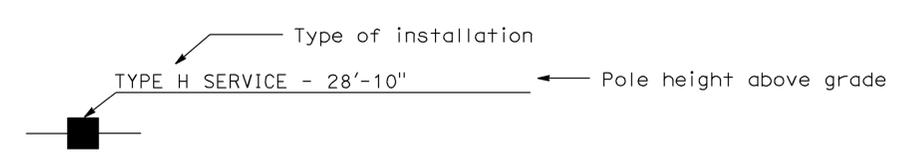
SIGNAL EQUIPMENT

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 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
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SERVICE EQUIPMENT

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

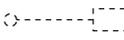
POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

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

SIGNAL EQUIPMENT Cont

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

NOTES:

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

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

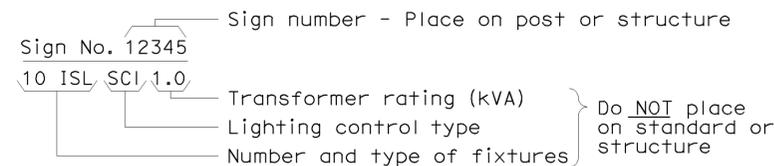
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

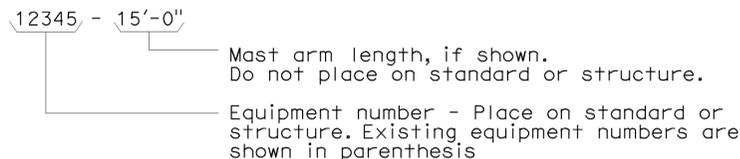
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

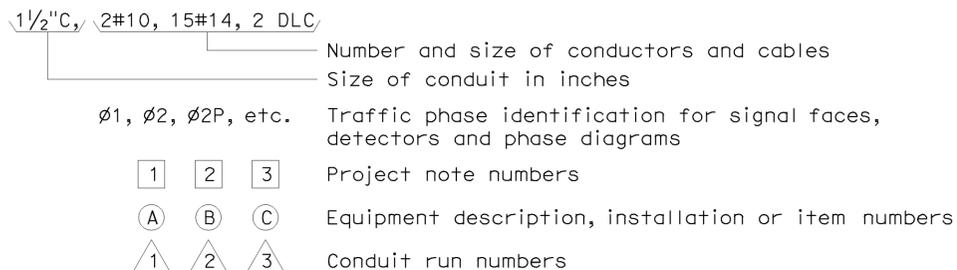
ILLUMINATED SIGN IDENTIFICATION NUMBER:



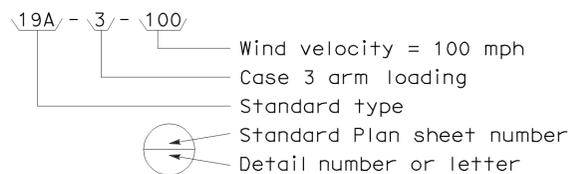
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



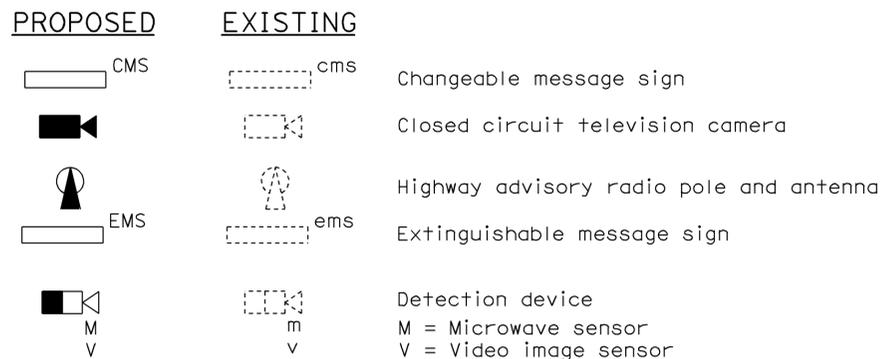
CONDUIT AND CONDUCTOR IDENTIFICATION:



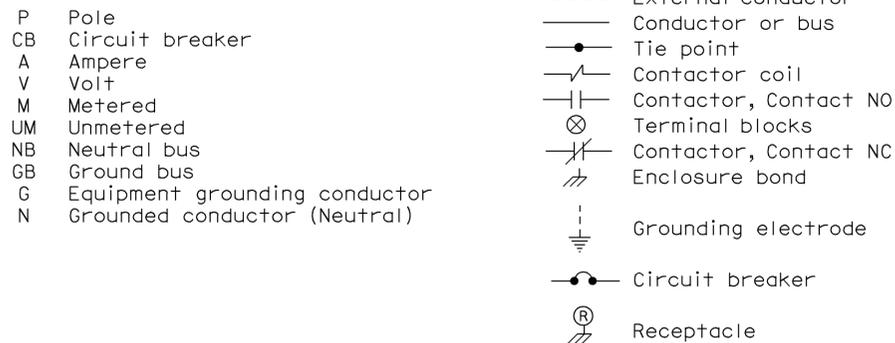
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



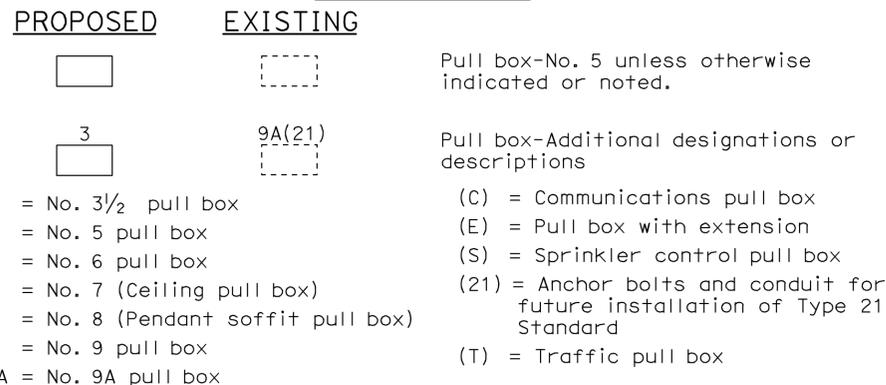
MISCELLANEOUS EQUIPMENT



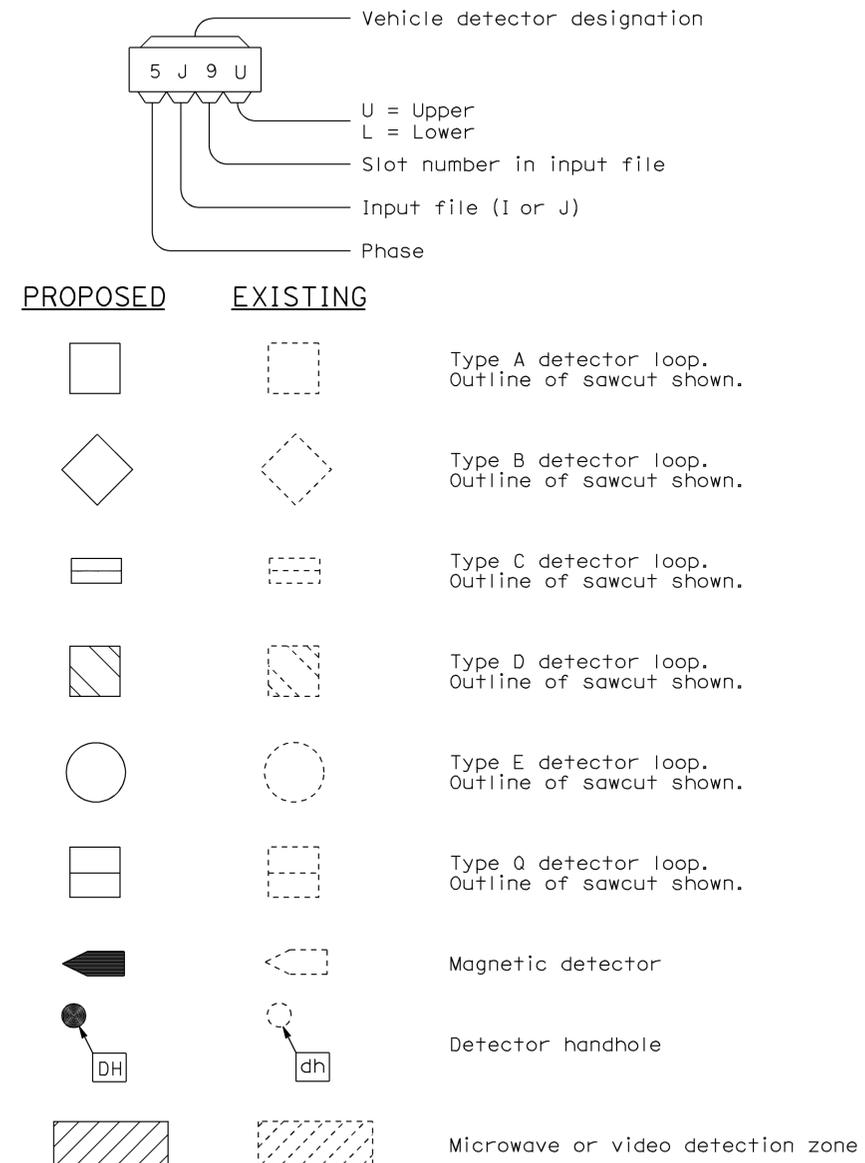
WIRING DIAGRAM LEGEND



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
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3'	17	19

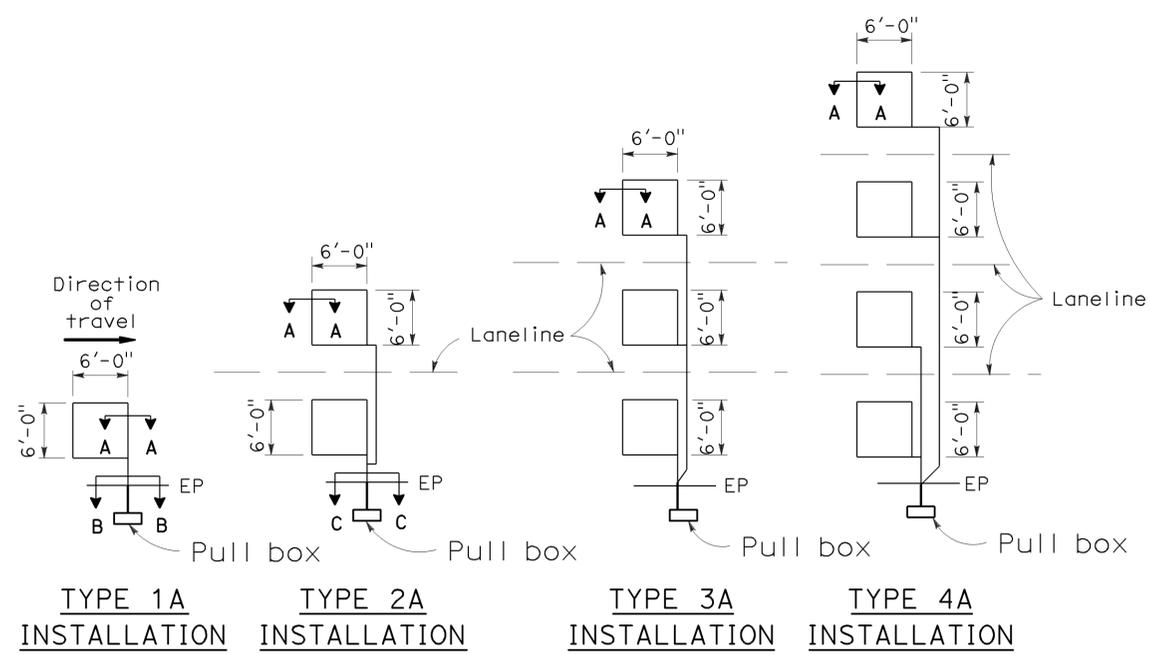
Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 1/30/12

2006 REVISED STANDARD PLAN RSP ES-5A

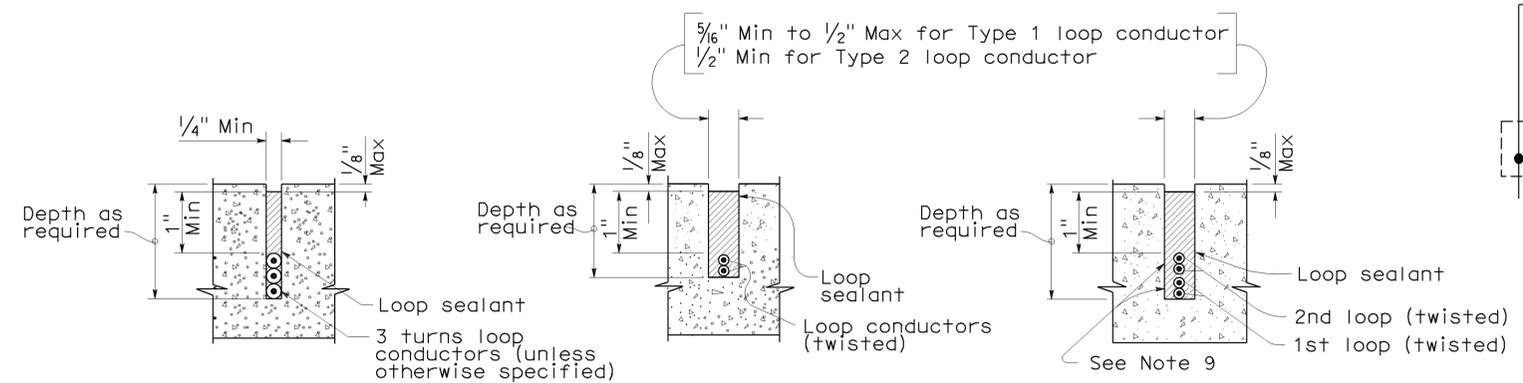
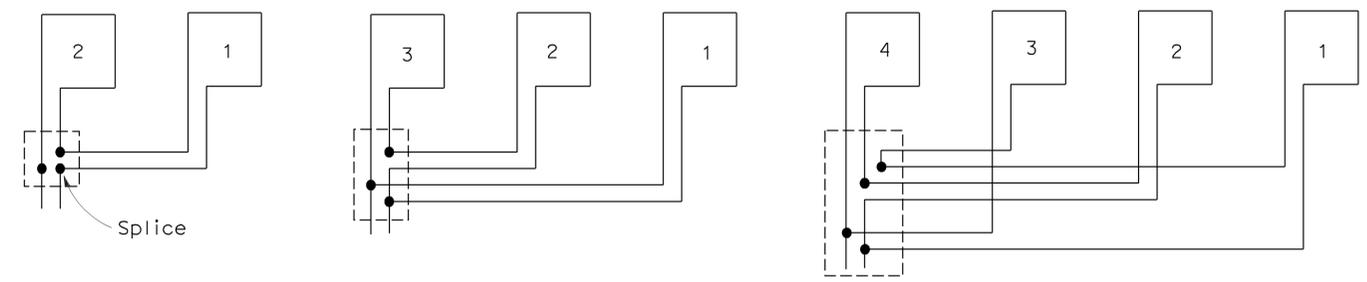
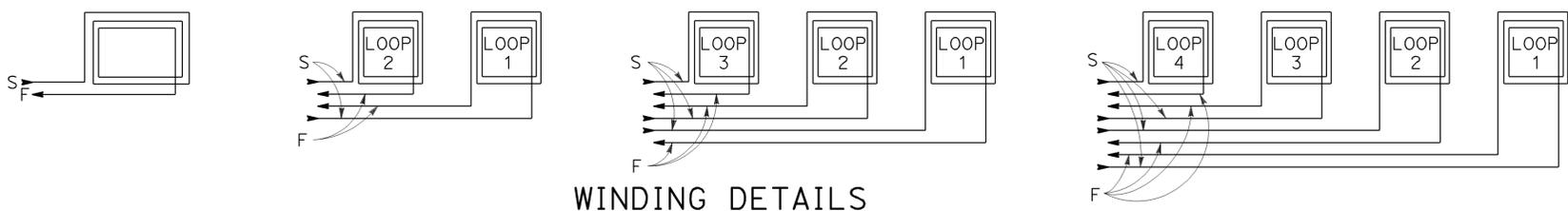
LOOP INSTALLATION PROCEDURE

- 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)



ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

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

REVISED STANDARD PLAN RSP ES-5A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3	18	19

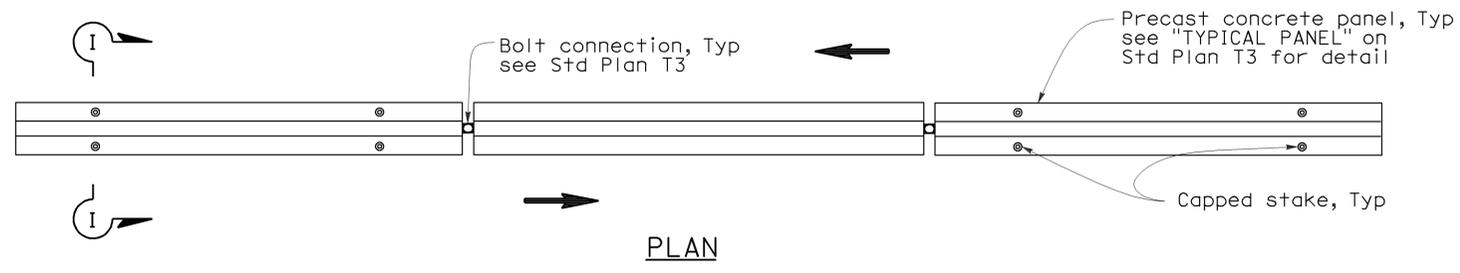
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

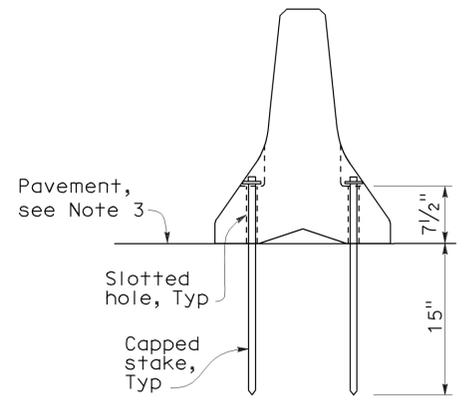
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



To accompany plans dated 1/30/12

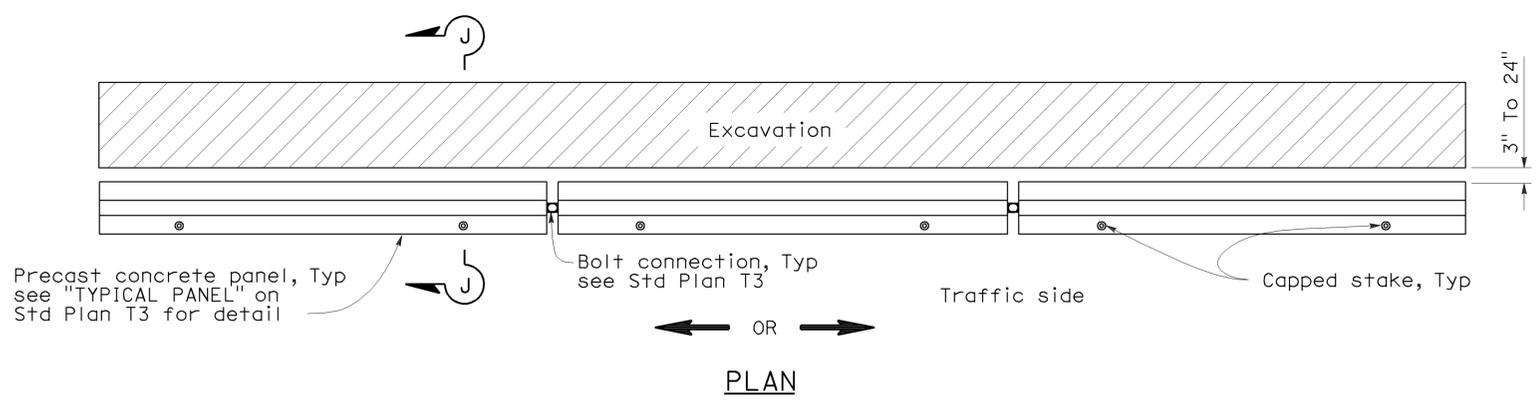


RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1

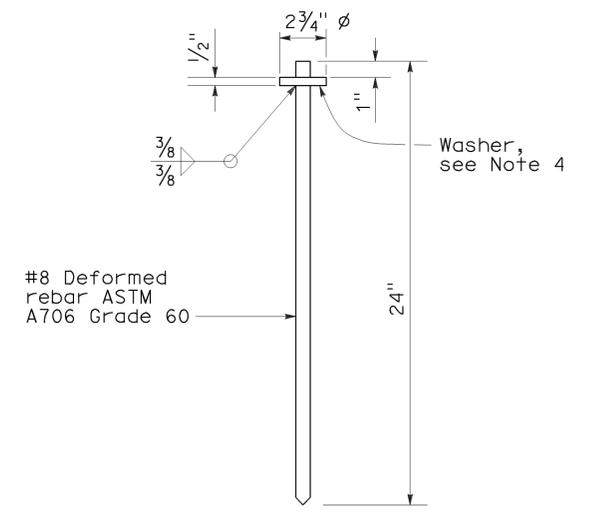
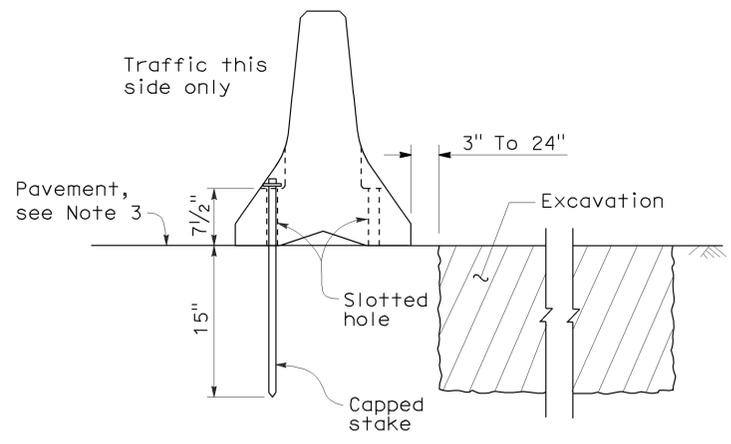


NOTES:

1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY RAILING
(TYPE K)**

NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A

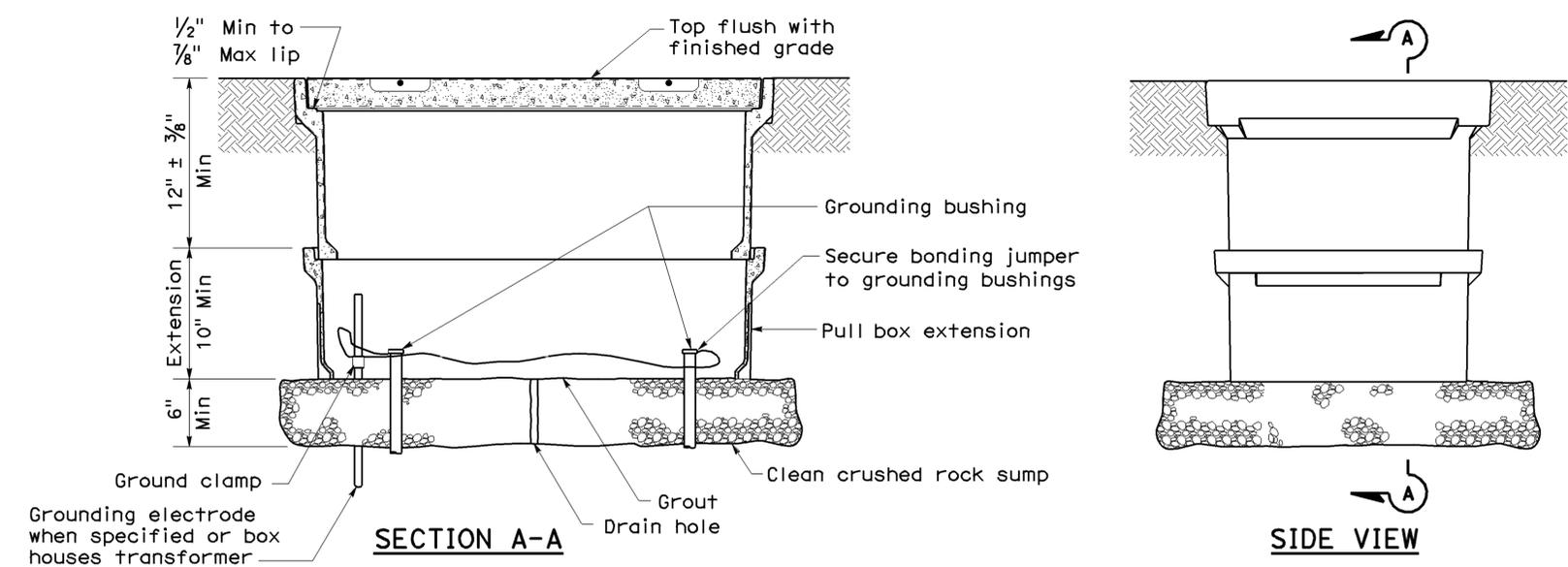
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Tuo	49, 108	16.3/18.0, 6.5/R11.3'	19	19

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 No. E14512
 Exp. 6-30-12
 ELECTRICAL
 STATE OF CALIFORNIA

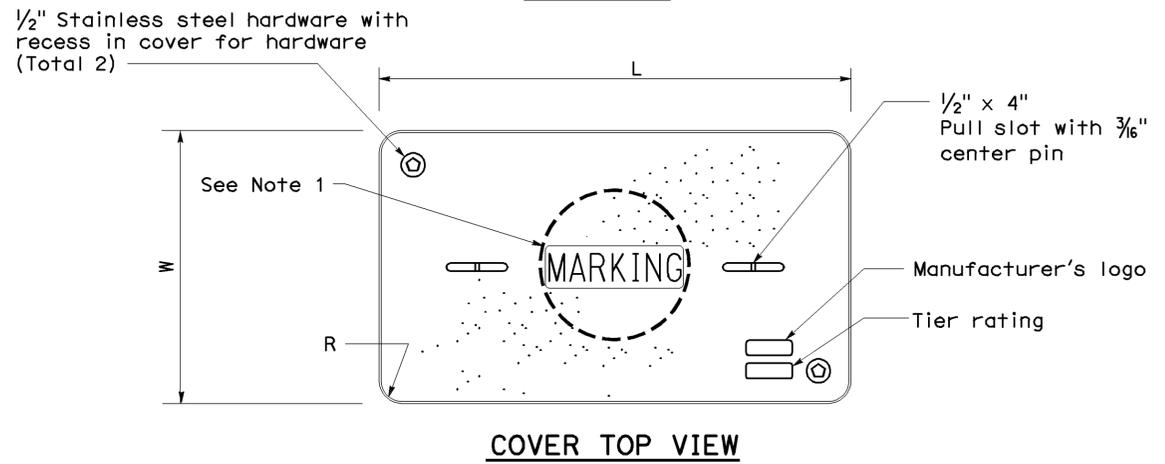
January 20, 2012
 PLANS APPROVAL DATE

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

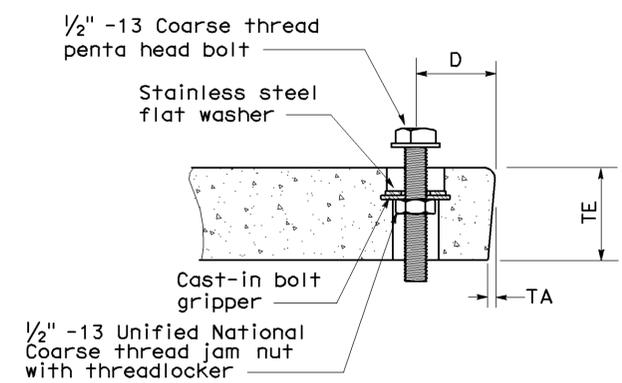
To accompany plans dated 1/30/12



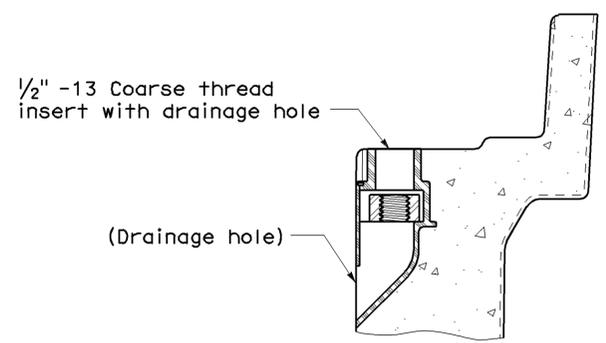
INSTALLATION DETAILS
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
(Or similar)



TYPICAL THREADED INSERT
(Or similar)

NOTES ON PULL BOXES:

- Pull box covers must be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;
 - No. 3/2 pull box.
 - "SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
 - "ST LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - No. 5, 6, 9 or 9A pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
 - "STREET LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - "STREET LIGHTING-HIGH VOLTAGE" - Street or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATIONS" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communication line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
- The nominal dimensions of the opening in which the cover sets must be the same as the cover dimensions (L and W) plus 1/8" or greater.
- Covers and boxes must be interchangeable with California Standard. When interchanged with a standard, the top surfaces must be flush within 1/8". Top outside radius of covers and pull boxes must have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.

DIMENSION TABLE										
PULL BOX	PULL BOX			COVER						
	Minimum Depth Box	Minimum Depth Extension	Maximum Weight	L	W	R	TE	TA	D	Maximum Weight
No. 3/2	12"	N/A	40 lb	1' - 3 3/8"	10 1/8"	1 3/8"	2"	1/8"	1 3/4"	30 lb
No. 5	12"	10"	55 lb	1' - 11 1/4"	1' - 1 3/4"	1 3/8"	2"	1/8"	1 3/4"	60 lb
No. 6	12"	10"	70 lb	2' - 6 1/2"	1' - 5 1/2"	1 3/8"	2"	1/8"	2"	85 lb

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(PULL BOX)
 NO SCALE

NSP ES-8A DATED JANUARY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP ES-8A