

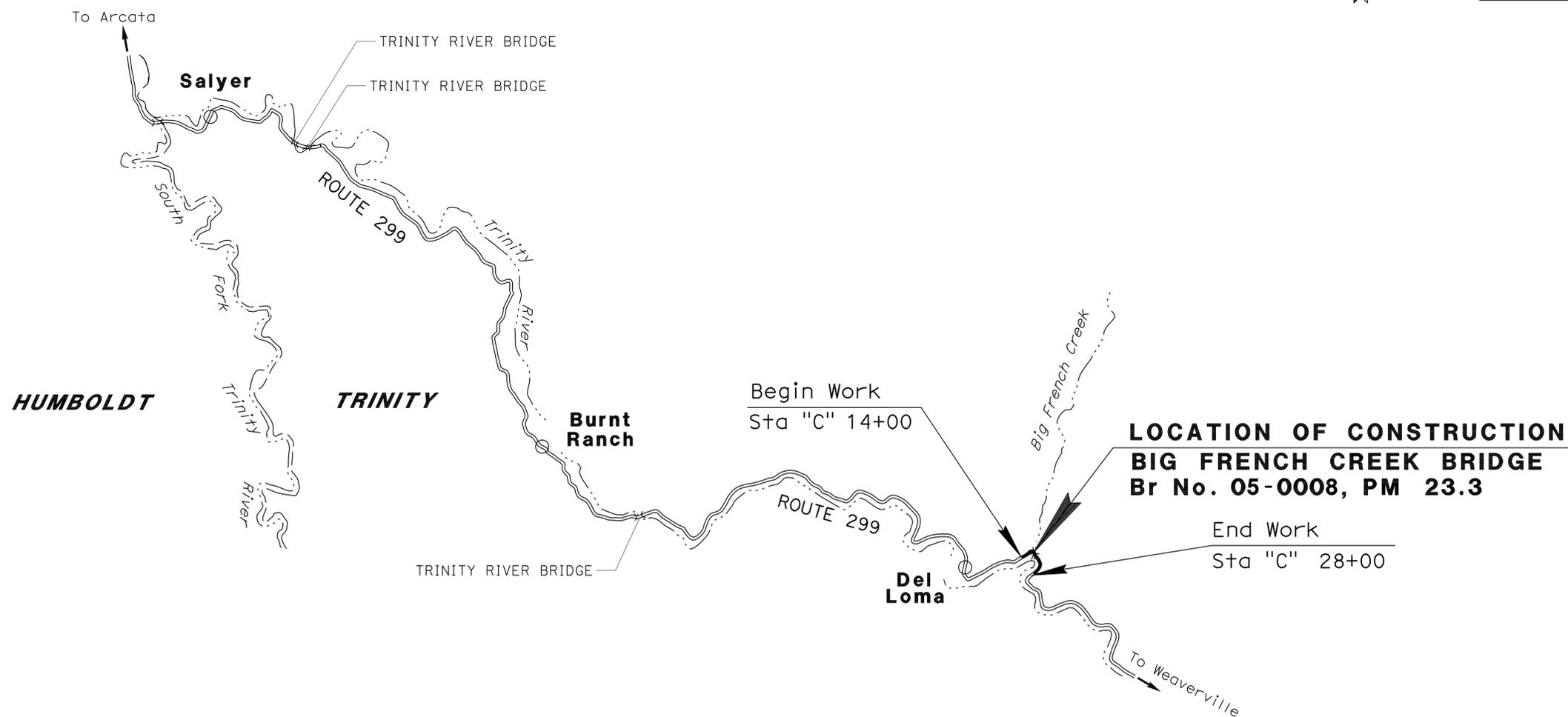
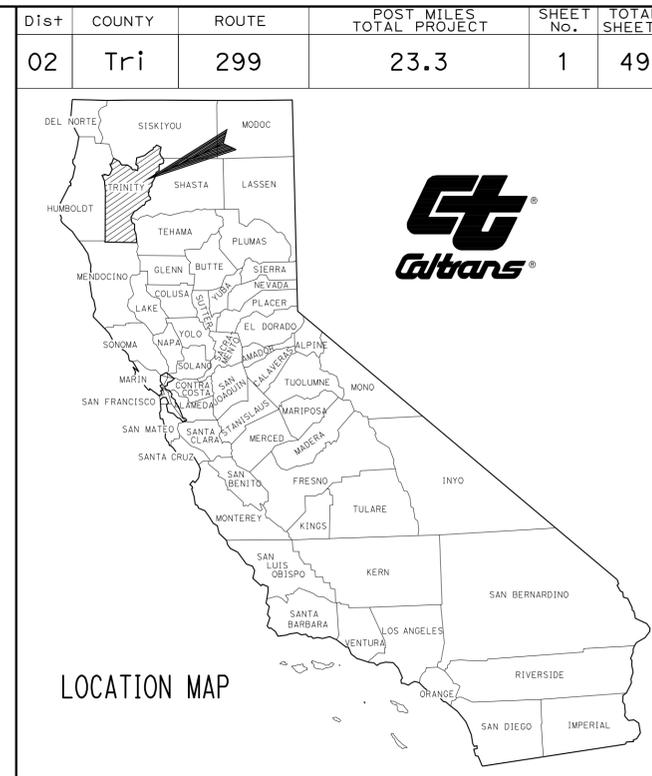
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3	LAYOUTS
4-7	CONSTRUCTION DETAILS
8	EROSION CONTROL PLAN
9	CONSTRUCTION AREA SIGNS
10-11	STAGE CONSTRUCTION PLANS AND TRAFFIC HANDLING PLANS
12	PAVEMENT DELINEATION PLAN AND SIGN PLAN
13-14	SIGN DETAILS AND QUANTITIES
15	SUMMARY OF QUANTITIES
16-20	ELECTRICAL PLANS
21-46	REVISED AND NEW STANDARD PLANS
STRUCTURE PLANS	
47-49	BIG FRENCH CREEK Br No. 05-0008

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

STATE OF CALIFORNIA ACNH-P299(168)E  
**DEPARTMENT OF TRANSPORTATION**  
**PROJECT PLANS FOR CONSTRUCTION ON**  
**STATE HIGHWAY**  
**IN TRINITY COUNTY NEAR DEL LOMA**  
**AT BIG FRENCH CREEK BRIDGE**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER  
 STEVE ROGERS  
 DESIGN ENGINEER  
 APOLINARIO VIVIT

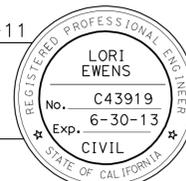
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

*Lori Ewens* 09-15-11  
 PROJECT ENGINEER DATE  
 REGISTERED CIVIL ENGINEER

December 19, 2011  
 PLANS APPROVAL DATE

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



CONTRACT No.	<b>02-374304</b>
PROJECT ID	<b>0200000280</b>

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	2	49

<i>Lori Ewens</i> 09-15-11	
REGISTERED CIVIL ENGINEER	DATE
12-19-11	
PLANS APPROVAL DATE	

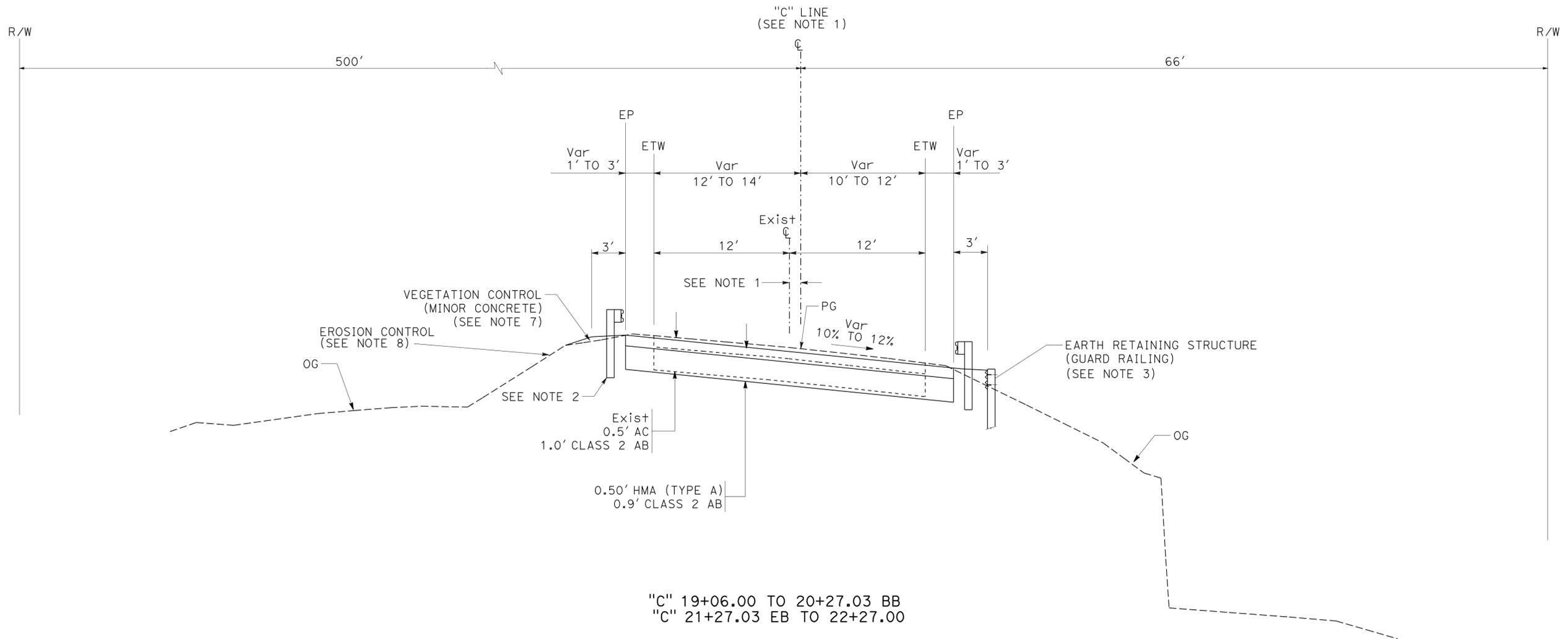
  

REGISTERED PROFESSIONAL ENGINEER	LORI EWENS
No. C43919	Exp. 6-30-13
CIVIL	

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

**NOTES:**

- DISTANCE BETWEEN "C" LINE AND EXISTING (PAINTED) CENTERLINE ON ROADWAY: VARIES 0' TO 2'  
ON STRUCTURE: 0'
- SEE LAYOUT PLAN FOR LOCATIONS OF MBGR.
- SEE LAYOUT PLAN FOR LOCATIONS OF EARTH RETAINING STRUCTURE.
- NEW ROADWAY SURFACE TO MATCH EXISTING ROADWAY SURFACE AT 19+06 AND 22+27.00.
- NEW ROADWAY SURFACE TO MATCH POLYESTER CONCRETE SURFACE ON BRIDGE AT BB AND EB.
- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- VEGETATION CONTROL (MINOR CONCRETE) AT ALL MBGR LOCATIONS.
- SEE EROSION CONTROL PLAN FOR LOCATIONS OF EROSION CONTROL.



"C" 19+06.00 TO 20+27.03 BB  
"C" 21+27.03 EB TO 22+27.00

**TYPICAL CROSS SECTIONS**  
NO SCALE  
**X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
DESIGN  
FUNCTIONAL SUPERVISOR: APOLINARIO VIVIT  
CALCULATED/DESIGNED BY: LORI EWENS  
CHECKED BY: ROD ESTES  
REVISOR: LORI EWENS  
DATE: 12-19-11  
REVISION: 09-15-11  
DATE PLOTTED: 22-DEC-2011  
TIME PLOTTED: 08:12

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

**NOTES:**

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. REMOVE EXISTING MBGR.
3. MBGR INSTALLATION AT ENDS OF CONCRETE BARRIER RAIL (TYPE 736 Mod):
  - 3A STBB TRANSITION RAILING (TYPE STB), INTERMEDIATE ANCHOR ASSEMBLY (Mod TYPE SFT) (SEE Const DETAILS), 50' STBB (WOOD POST) (SHOP BENT 25' RADIUS), 12.5' STBB (WOOD POST), STBB END ANCHOR ASSEMBLY (TYPE SFT) USE CONNECTION DETAIL 2A ON S+d PLAN A78F2.
  - 3B MBGR TRANSITION (TYPE WB), 62.5' MBGR (WOOD POST) (USE DETAIL B, S+d PLAN A77C3), ALTERNATIVE FLARED TERMINAL SYSTEM USE CONNECTION DETAIL AA ON S+d PLAN A77J2.
  - 3C MBGR TRANSITION (TYPE WB), 50' MBGR (WOOD POST), ALTERNATIVE FLARED TERMINAL SYSTEM USE CONNECTION DETAIL AA ON S+d PLAN A77J2.
  - 3D MBGR TRANSITION (TYPE WB), 100' MBGR (WOOD POST) (USE DETAIL B, S+d PLAN A77C3), ALTERNATIVE FLARED TERMINAL SYSTEM END TREATMENT USE CONNECTION DETAIL CC ON S+d PLAN A77J2.
4. GALVANIZED MBGR SURFACES VISABLE FROM THE ROADWAY, RIVER OR CREEK SHALL BE STAINED.
5. PLACE GUARD RAILING DELINEATOR AT APPROACH END OF GUARD RAIL AND PLACE SECOND DELINEATOR 50' SPACING ALONG MBGR.
6. CONTRACT VEGETATION CONTROL (MINOR CONCRETE) AT ALL MBGR LOCATIONS. SEE CONSTRUCTION DETAILS AND STANDARD PLANS.

**LEGEND:**

- DRAINAGE SYSTEM No.
- DRAINAGE UNIT
- FLOW DIRECTION

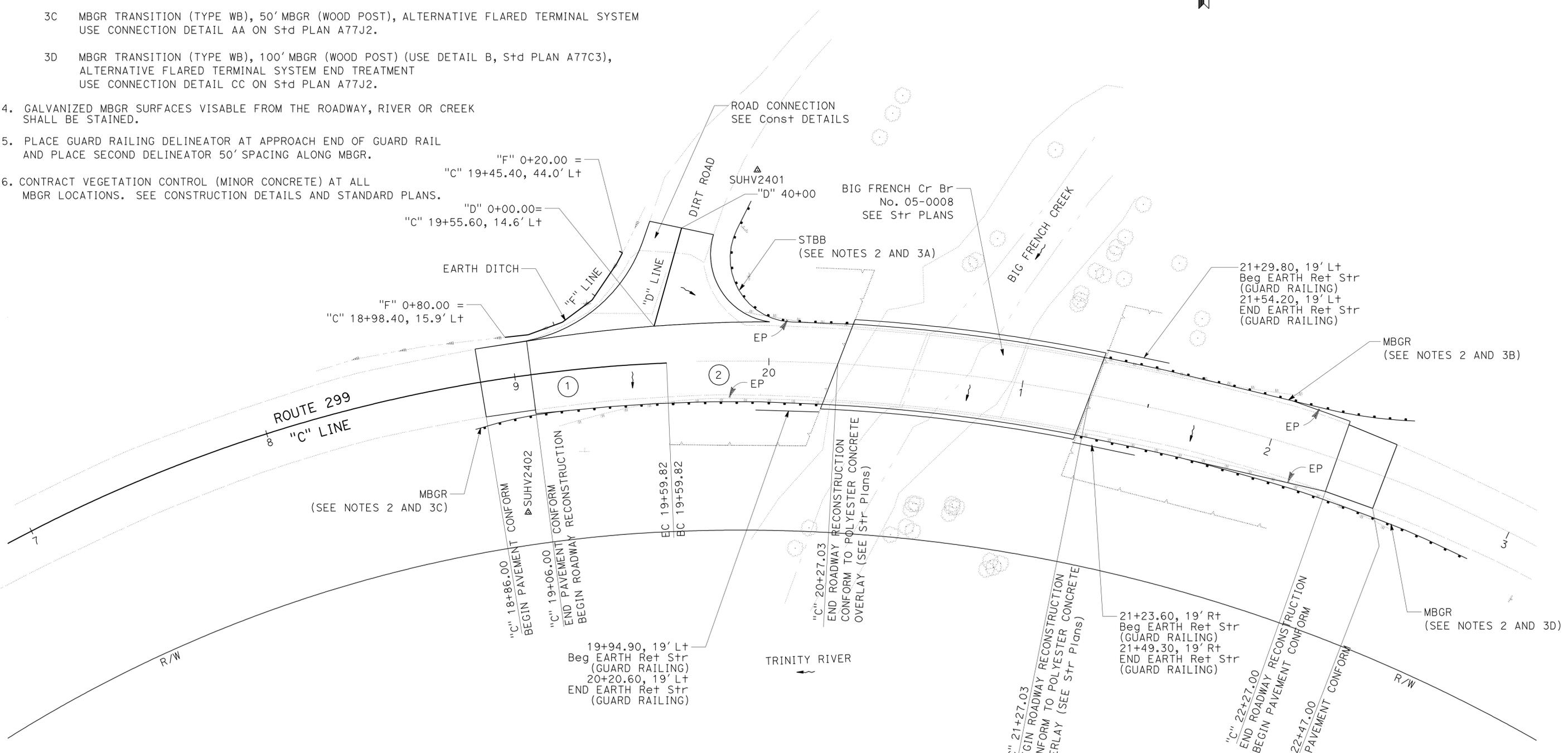
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	3	49

San Ewens 09-15-11  
 REGISTERED CIVIL ENGINEER DATE

12-19-11  
 PLANS APPROVAL DATE

LORI EWENS  
 No. C43919  
 Exp. 6-30-13  
 CIVIL

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**BENCHMARKS**

No.	"C" STATION	OFFSET	ELEVATION
SUHV2401	19+94.83	74.94' Lt	1148.44'
SUHV2402	18+97.51	53.19' Rt	1141.20'

**CURVE DATA**

No.	R	Δ	T	L
①	600'	36°52'30"	200.03'	386.15'
②	700'	53°01'00"	349.13'	647.72'

**LAYOUT**  
 SCALE: 1" = 20'

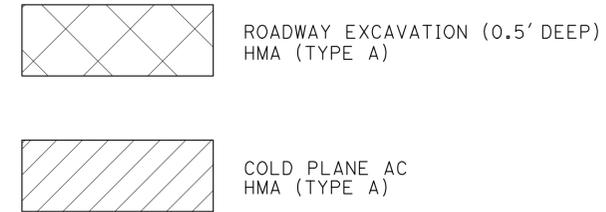
**L-1**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DESIGN  
 Caltrans  
 FUNCTIONAL SUPERVISOR: APOLINARIO VIVIT  
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]  
 LORI EMENS  
 ROD ESTES  
 REVISIONS: [blank]  
 REVISIONS: [blank]  
 REVISIONS: [blank]

- NOTES:**
- CONFORM TO HMA PAVEMENT ELEVATION AT EP.
  - CONFORM TO DIRT ROAD ELEVATION.

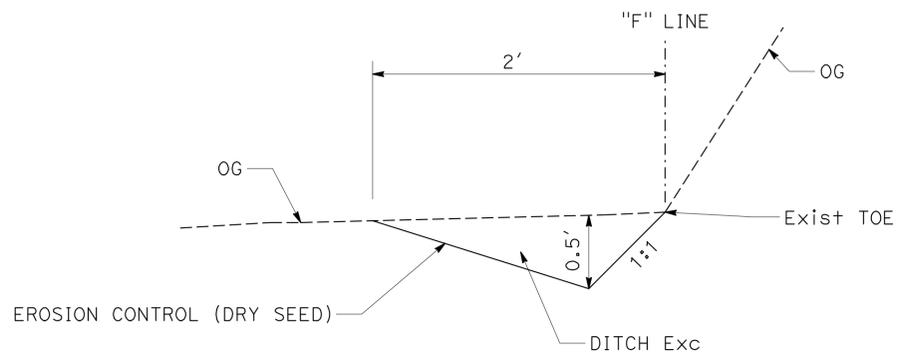
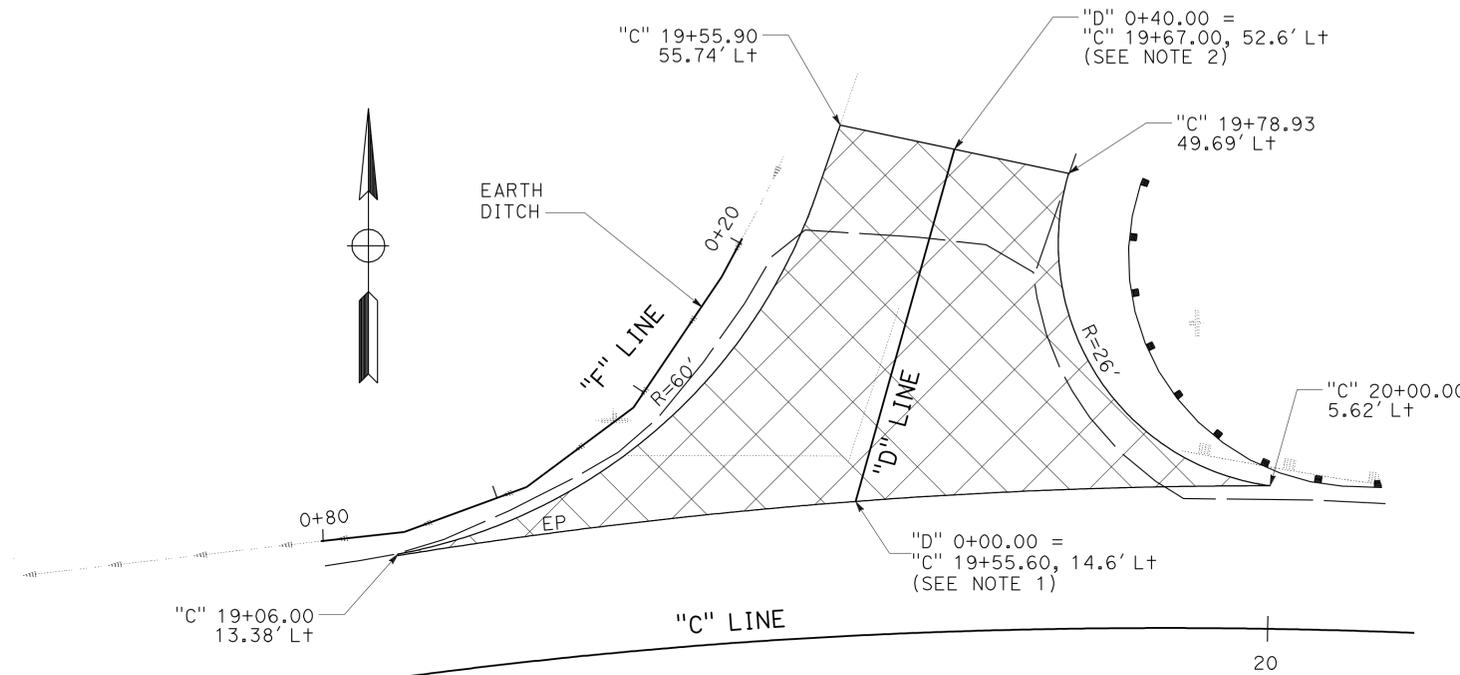
**LEGEND:**



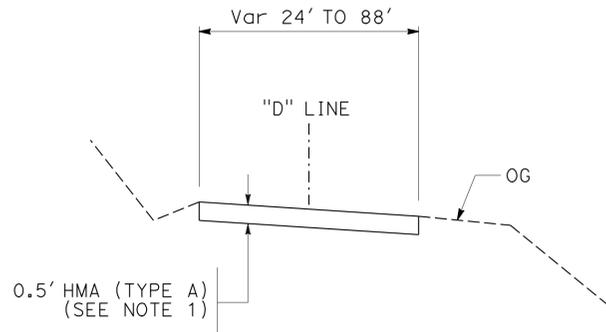
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	5	49

Lori Ewens 09-15-11  
 REGISTERED CIVIL ENGINEER DATE  
 12-19-11  
 PLANS APPROVAL DATE  
 No. C43919  
 Exp. 6-30-13  
 CIVIL  
 STATE OF CALIFORNIA

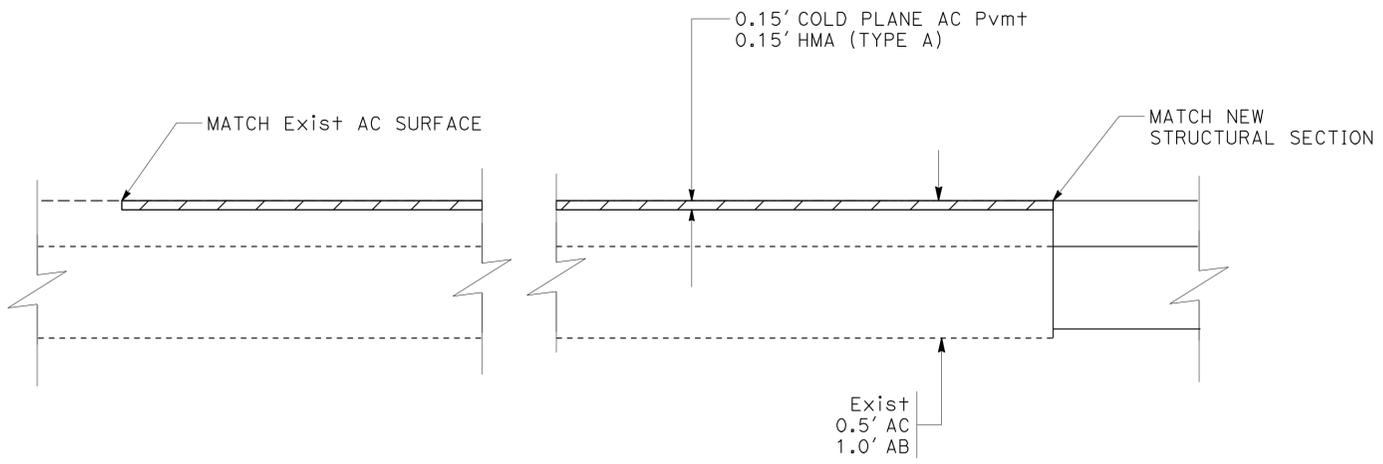
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**EARTH DITCH**



**TYPICAL SECTION ROAD CONNECTION**



**PAVEMENT CONFORM**

"C" 18+86.00 TO 19+06.00  
 "C" 22+27.00 TO 22+47.00

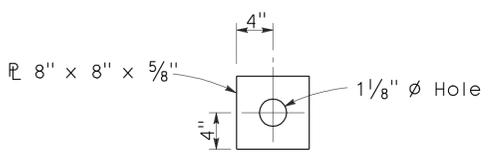
**CONSTRUCTION DETAILS**  
NO SCALE  
C-2

LAST REVISION: [blank] DATE PLOTTED => 27-DEC-2011 TIME PLOTTED => 11:11

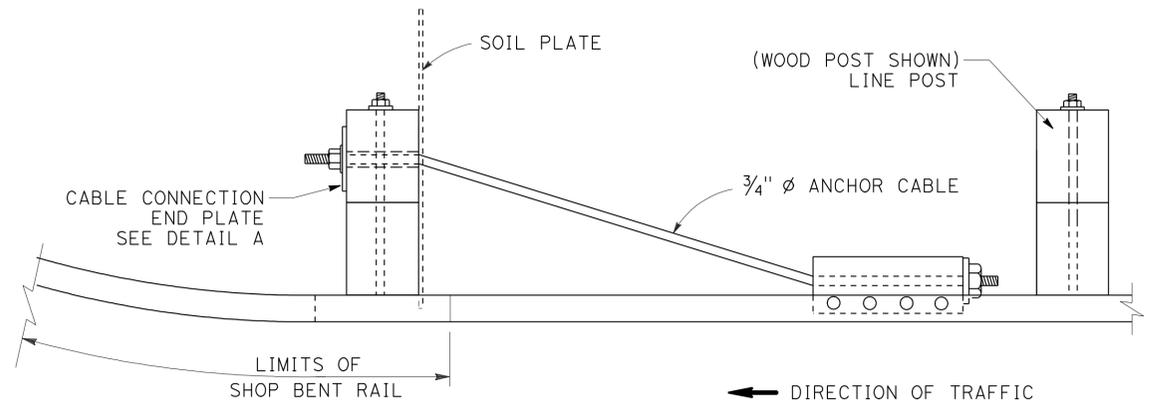
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	6	49
<i>Lori Ewens</i> 09-15-11 REGISTERED CIVIL ENGINEER DATE					
12-19-11 PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
REGISTERED PROFESSIONAL ENGINEER LORI EWENS No. C43919 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA					

**NOTES:**

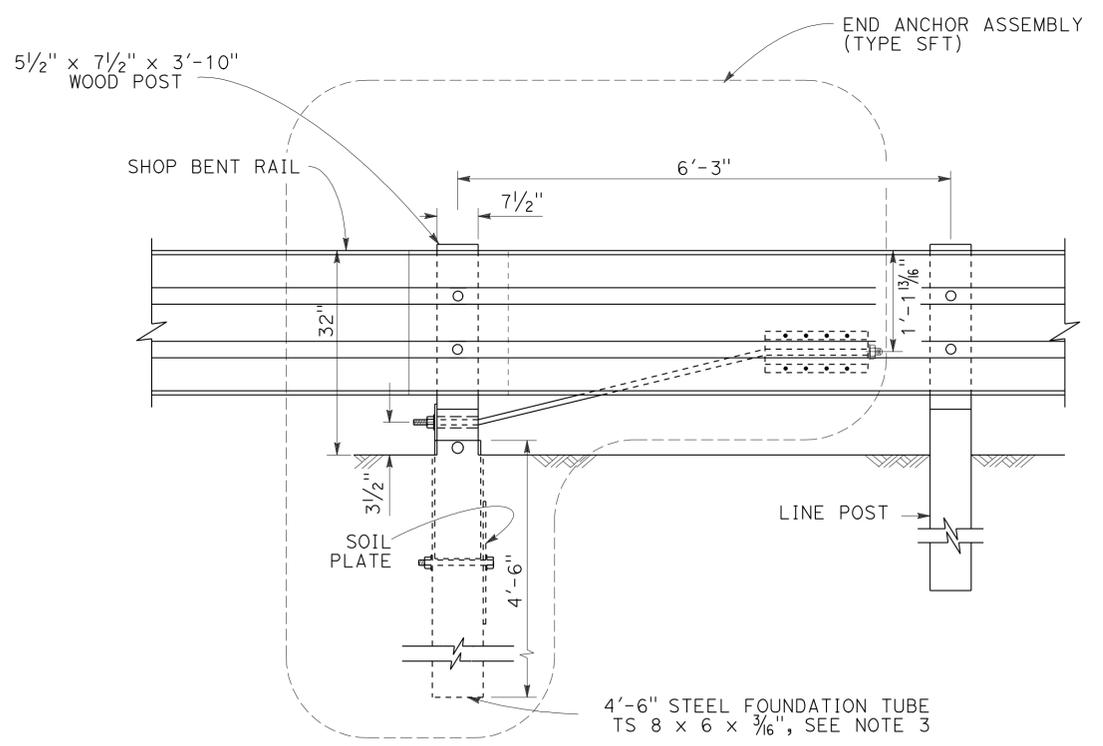
1. GALVANIZED MBGR SURFACES VISABLE FROM THE ROADWAY, RIVER OR CREEK SHALL BE STAINED.
2. FOR DETAILS OF THE ANCHOR PLATE AND 3/4" CABLE, SEE STANDARD PLAN A77H3.
3. A 6'-0" LENGTH STEEL FOUNDATION TUBE, TS 8 x 16 x 3/16, WITHOUT A SOIL PLATE, MAY BE FURNISHED AND INSTALLED IN PLACE OF THE 4'-6" LENGTH STEEL FOUNDATION TUBE AND SOIL PLATE SHOWN. MINIMUM EMBEDMENT OF THE 6'-0" LENGTH TUBE SHALL BE 5'-9". A 5/8" Dia HEX HEAD BOLT AND NUT SHALL BE INSTALLED IN THE HOLE IN THE 6'-0" LENGTH TUBE TO KEEP THE WOOD POST FROM DROPPING INTO THE TUBE.
4. FOR DETAILS NOT SHOWN, SEE STANDARD PLAN A77H1.



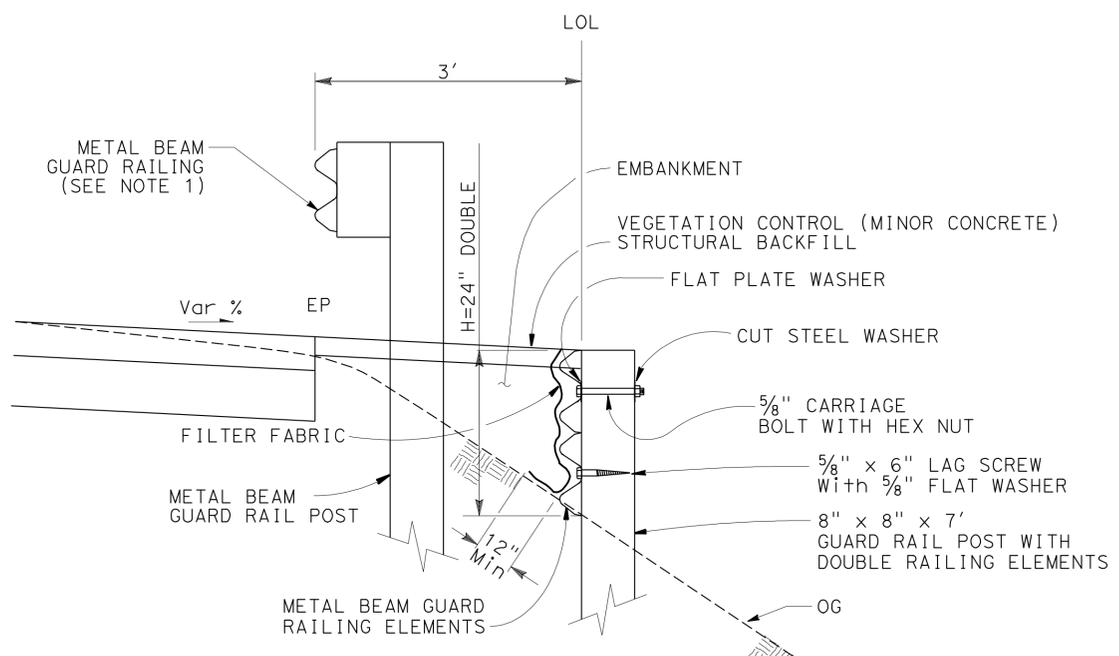
**DETAIL A**  
CABLE CONNECTION END PLATE



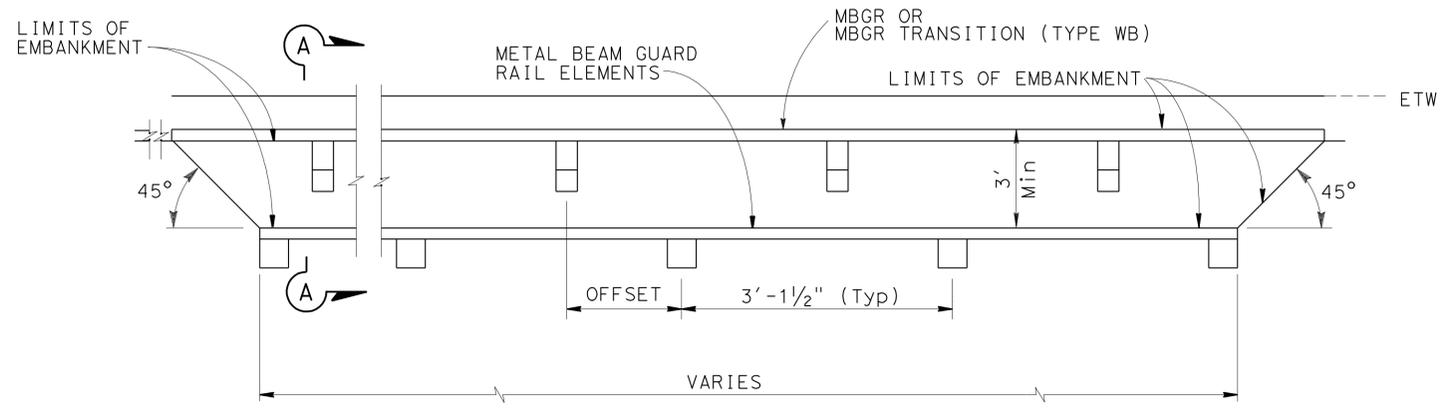
**PLAN**



**ELEVATION**  
**INTERMEDIATE ANCHOR ASSEMBLY (MOD TYPE SFT)**  
**FOR SINGLE THREE BEAM BARRIER**  
(SEE NOTES 2 THRU 4)



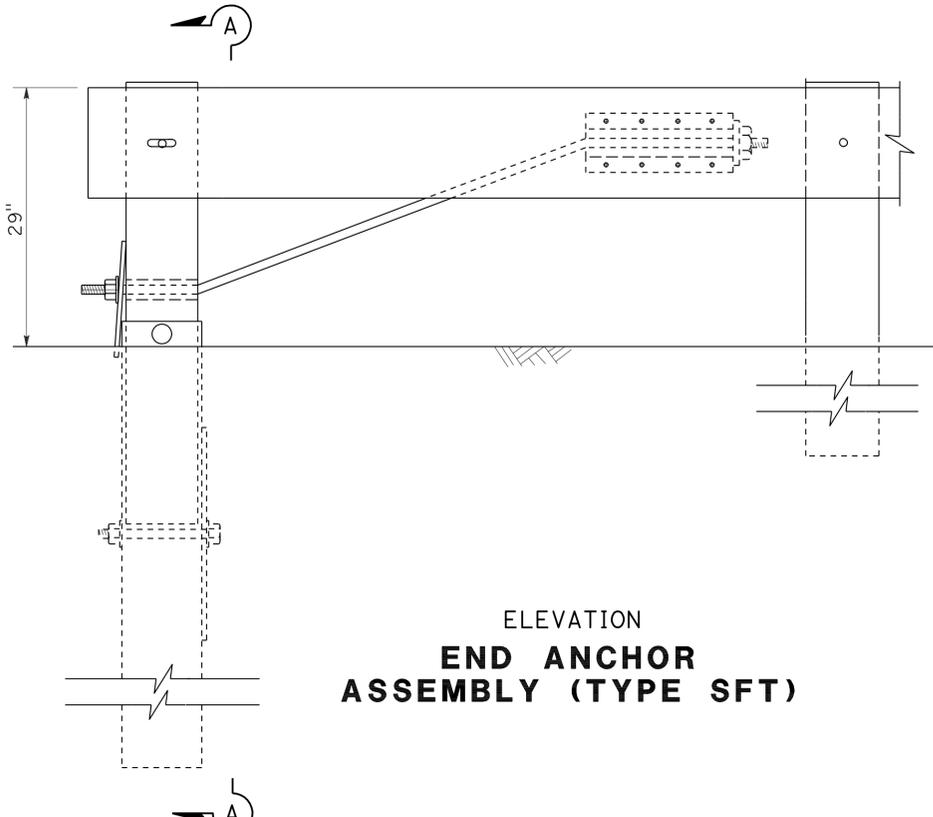
**SECTION A-A**



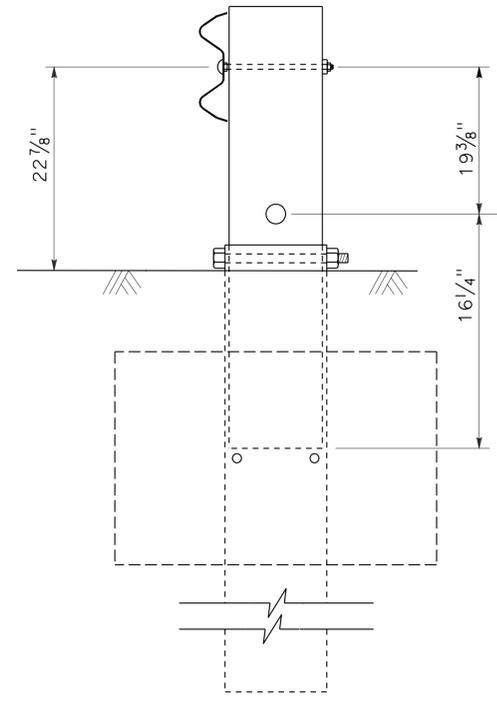
**PLAN**  
**EARTH RETAINING STRUCTURE (GUARD RAILING)**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DESIGN  
 LORI EWENS  
 ROD ESTES  
 APOLINARIO VIVIT  
 APOLINARIO VIVIT  
 APOLINARIO VIVIT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	7	49
<i>Lori Ewens</i> 09-15-11 REGISTERED CIVIL ENGINEER DATE					
12-19-11 PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
REGISTERED PROFESSIONAL ENGINEER <b>LORI EWENS</b> No. C43919 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA					



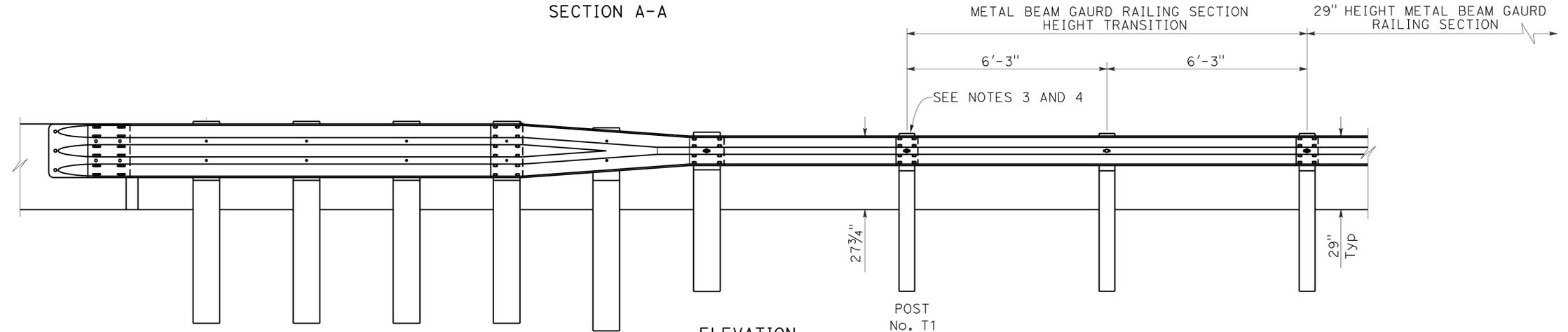
ELEVATION  
**END ANCHOR  
 ASSEMBLY (TYPE SFT)**



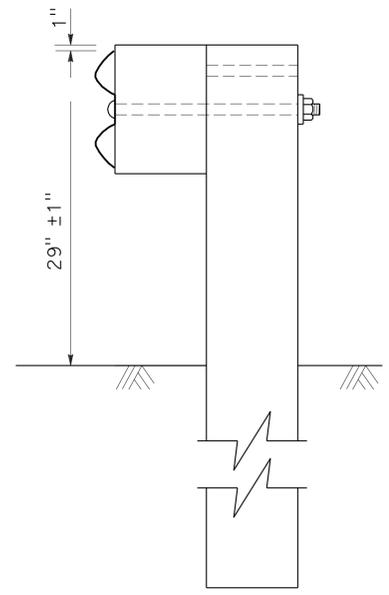
SECTION A-A

**NOTES:**

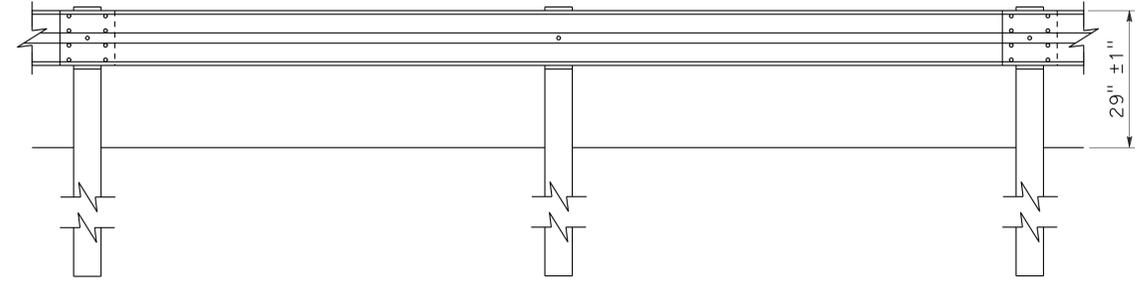
1. FOR DETAILS NOT SHOWN SEE STANDARD PLANS A77A1, A77H1, A77J4.
2. TO CONNECT RAILING TO TERMINAL SYSTEM END TREATMENT, TRANSITION THE TOP OF RAILING HEIGHT AT A RATIO OF 120:1 TO TERMINAL SYSTEM END TREATMENT HEIGHT, PLUS ONE 12'-6" STANDARD RAILING SECTION AT THE TRANSITIONED HEIGHT FOR A HORIZONTAL CONNECTION TO THE END TREATMENT.
3. RAILING CONNECTED TO TRANSITION RAILING (TYPE WB) WILL BE EITHER STANDARD RAILING SECTION OF METAL BEAR GUARD RAILING WITH HEIGHT TRANSITION RATION OF 120:1 OR AN APPROVED CALTRANS END TREATMENT ATTACHED TO POST No. T1.
4. CONFORM 29" RAILING SECTION HEIGHT TO 2'-3 3/4" AT POST No. T1 USING HEIGHT TRANSITION RATIO OF 120:1.



ELEVATION  
**TRANSITION RAILING (TYPE WB)**



**TYPICAL WOOD LINE  
 POST INSTALLATION**



ELEVATION  
**METAL BEAM GUARD RAILING  
 WITH WOOD POST AND BLOCKS**  
 (SEE NOTE 1)

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DESIGN  
 Caltrans®  
 FUNCTIONAL SUPERVISOR: APOLINARIO VIVIT  
 CALCULATED/DESIGNED BY: LORI EWENS  
 CHECKED BY: ROD ESTES  
 REVISOR: LORI EWENS  
 DATE: 09-15-11  
 REVISION: 09-15-11  
 USERNAME => s119571  
 DGN FILE => 237430ga004.dgn  
 BORDER LAST REVISED 7/2/2010  
 P:\proj\102\37430\_plans\pse\237430ga004.dgn



LAST REVISION DATE PLOTTED => 21-DEC-2011  
 09-15-11 TIME PLOTTED => 14:45

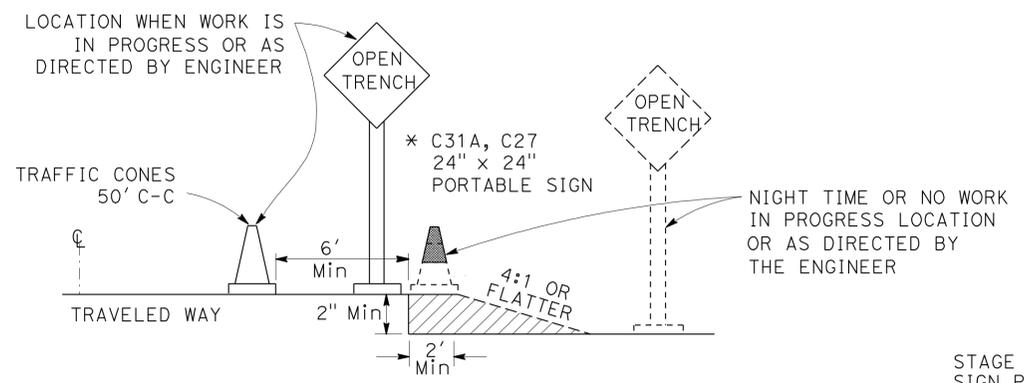


**NOTES:**

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. CALIFORNIA CODES ARE DESIGNATED BY (CA), OTHERWISE FEDERAL CODES ARE SHOWN.
3. ALL SIGNS SHALL BE BLACK ON ORANGE EXCEPT R4-1 AND R10-6.
4. SEE ELECTRICAL SHEETS FOR TEMPORARY SIGNAL SYSTEM.
5. SIGNS TYPICAL SPACING 500'±.

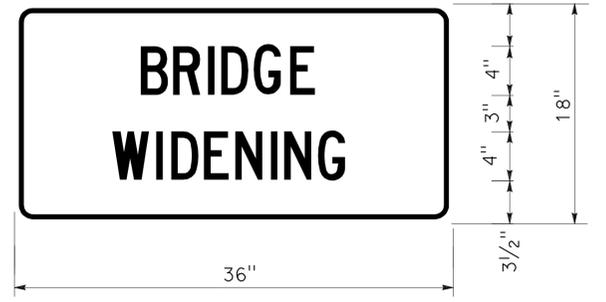
**LEGEND:**

- ROADSIDE SIGN (ONE POST)
- DIRECTION OF TRAVEL
- FLASHING BEACON



**OPEN TRENCH SIGNING AND MARKING**

\* THE OPEN TRENCH AREA ALTERNATE C27 (OPEN TRENCH) AND C31A (NO SHOULDER) SIGNS PLACE AT 500' INTERVALS THROUGH



**SIGN DETAIL**

1.5" RADIUS, 0.4" BORDER, 0.4" INDENT, BLACK ON ORANGE; [BRIDGE] C; [WIDENING] C;

STAGE 2 SIGN PLACEMENT

STAGE 1 SIGN PLACEMENT

**CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)**

NUMBER	TYPE	MESSAGE	POST (EACH)	No. OF SIGNS	PANEL SIZE	REMARKS
①	W20-1	ROAD WORK AHEAD	1- 4" x 6"	2	48" x 48"	
	C23B(CA)	BRIDGE WIDENING			36" x 18"	
②	W20-4	ONE LANE ROAD AHEAD	1- 4" x 6"	2	48" x 48"	
	R4-1	DO NOT PASS			24" x 30"	
③	W3-3	SIGNAL AHEAD SYMBOL SIGN		1	48" x 48"	FLASHING BEACON MOUNTED ON POST
	W34A(CA)	500 FEET AHEAD		1	48" x 36"	
④	R10-6	STOP HERE ON RED	1- 4" x 6"	2	24" x 36"	
⑤	G20-2	END ROAD WORK	1- 4" x 4"	2	36" x 18"	
⑥	W1-4R	REVERSE CURVE SYMBOL SIGN	1- 4" x 6"	2	48" x 48"	
⑦	W3-3	SIGNAL AHEAD SYMBOL SIGN	1- 4" x 6"	1	48" x 48"	

**CONSTRUCTION AREA SIGNS**  
NO SCALE  
**CS-1**

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGNS ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DESIGN  
 APOLINARIO VIVIT  
 FUNCTIONAL SUPERVISOR  
 APOLINARIO VIVIT  
 CHECKED BY  
 LORI EWENS  
 ROD ESTES  
 REVISOR  
 DATE REVISOR  
 DATE REVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR: APOLINARIO VIVIT  
 ROD ESTES  
 LORI EWENS  
 REVISIONS: REVISIONS BY DATE

**NOTE:**

1. TRAFFIC HANDLING SHOWN ON PLANS IS FOR WORK ON STRUCTURE AND MBGR. OTHER WORK SHALL BE PERFORMED UNDER ONE-WAY TRAFFIC CONTROL PER STD PLAN T13.

**LEGEND:**

- DIRECTION OF TRAFFIC
- TEMPORARY RAILING (TYPE K)
- CHANNELIZER (SURFACE MOUNTED) 25' C-C SPACING
- CONSTRUCT THIS STAGE
- TYPE III BARRICADE
- TEMPORARY CRASH CUSHION MODULE (ARRAY 'TS14')

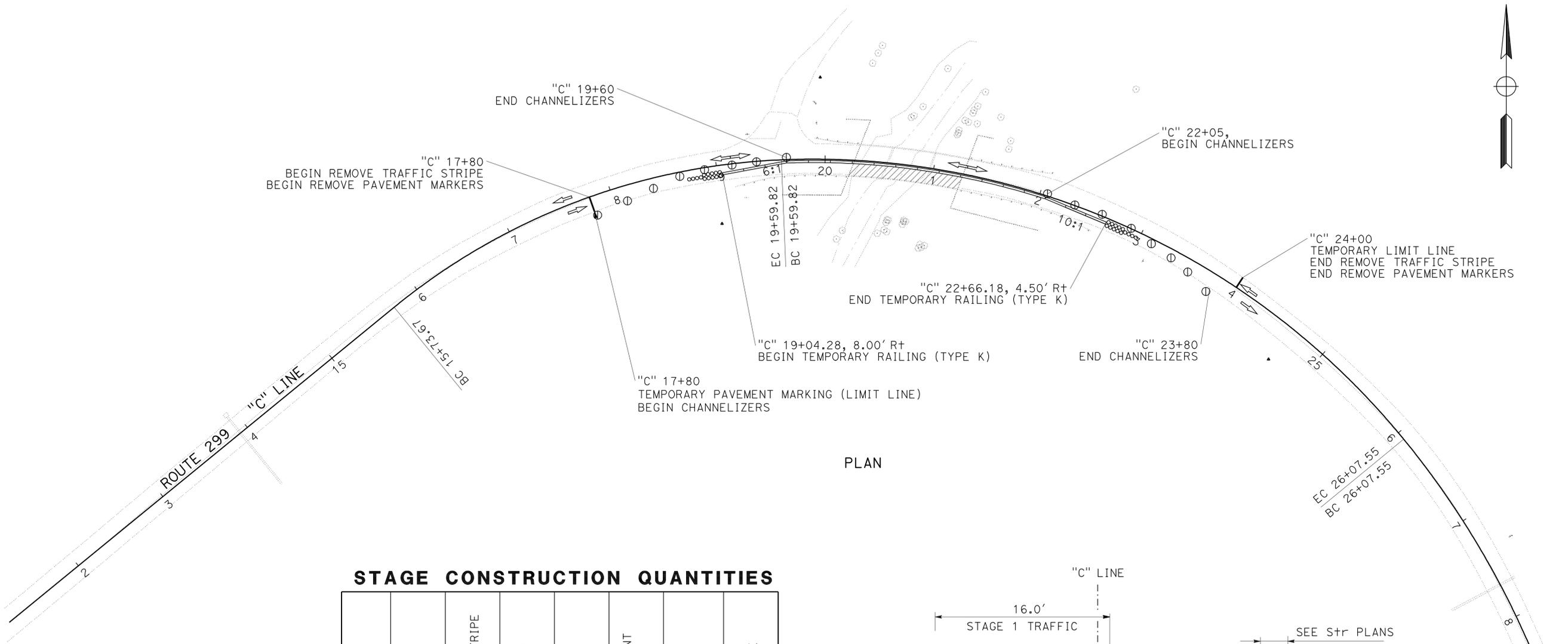
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	10	49

San Ewens 09-15-11  
 REGISTERED CIVIL ENGINEER DATE

12-19-11  
 PLANS APPROVAL DATE

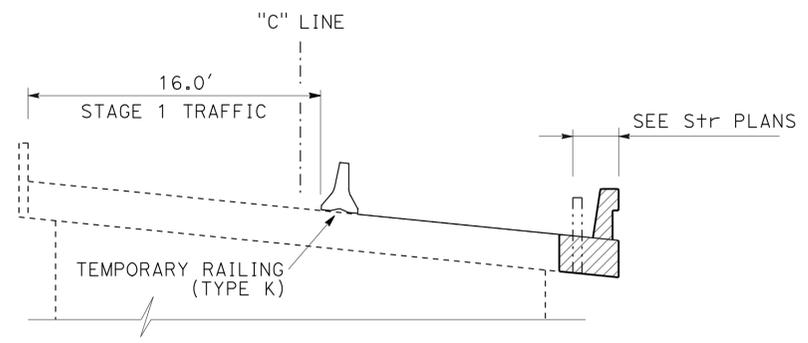
LORI EWENS  
 No. C43919  
 Exp. 6-30-13  
 CIVIL

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



**STAGE CONSTRUCTION QUANTITIES**

STAGE	REMOVE PAVEMENT MARKER	REMOVE TRAFFIC STRIPE	TEMPORARY RAILING (TYPE K)	TEMPORARY CRASH CUSHION MODULE	TEMPORARY PAVEMENT MARKING (TAPE) (LIMIT LINE)	CHANNELIZERS (SURFACE MOUNTED)	TYPE III BARRICADE
	EA	LF	LF	EA	SF	EA	EA
1	38	620	360	28	24	16	
2			240	14		10	2
<b>TOTAL</b>	38	620	600	42	24	26	2



TYPICAL SECTION  
 "C" 20+27.03 TO 21+27.03

**STAGE 1  
 STAGE CONSTRUCTION AND  
 TRAFFIC HANDLING PLAN**

SCALE: 1" = 50'

**SC-1**

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING ONLY

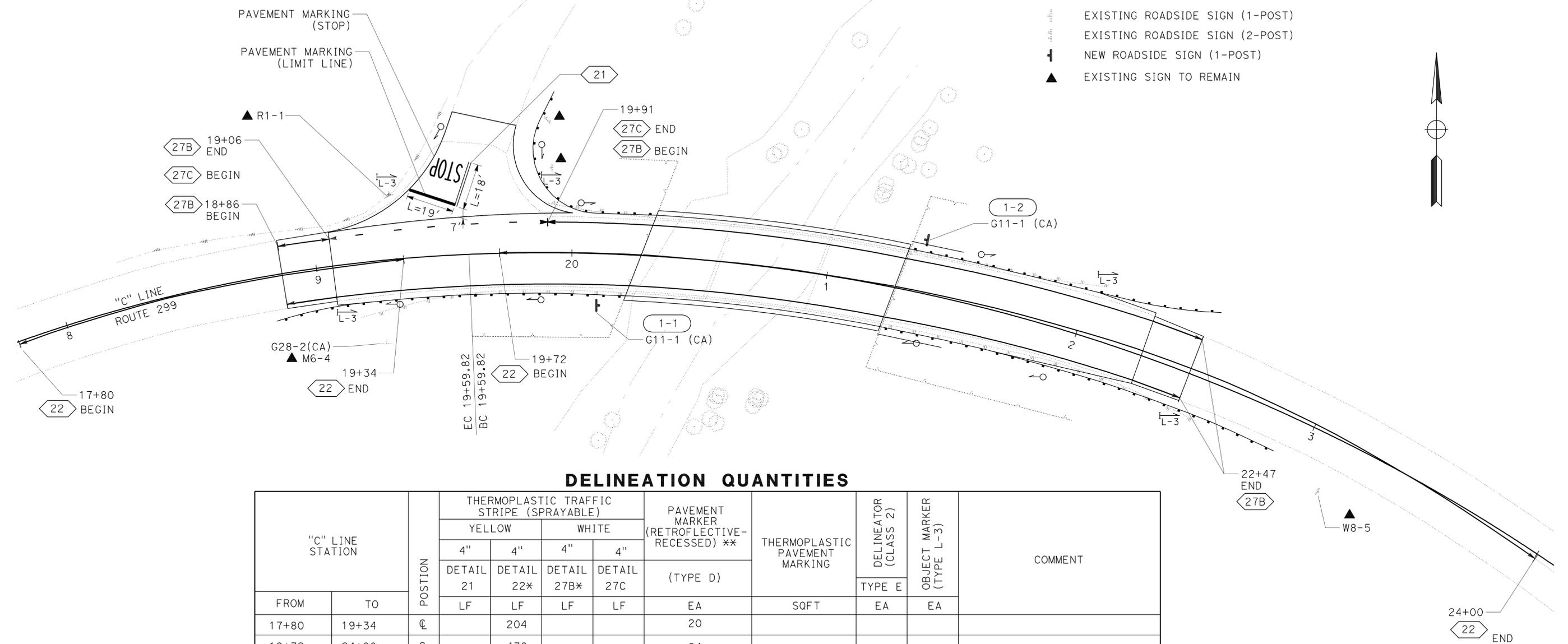


**NOTE:**

1. PAVEMENT DELINEATION TO MATCH LOCATION OF EXISTING PAVEMENT DELINEATION "C" LINE REPRESENTS THE CONSTRUCTION REFERENCE LINE.

**LEGEND:**

- ▶ BEGIN/END TRAFFIC STRIPE
- ⊕ STRIPE CHANGE LOCATION
- L-3 OBJECT MARKER (TYPE L)
- DELINEATOR (TYPE E)
- ⬡ DETAIL NUMBER
- X-X ROADSIDE SIGN
- EXISTING ROADSIDE SIGN (1-POST)
- EXISTING ROADSIDE SIGN (2-POST)
- ↑ NEW ROADSIDE SIGN (1-POST)
- ▲ EXISTING SIGN TO REMAIN



**DELINEATION QUANTITIES**

"C" LINE STATION		POSITION	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)				PAVEMENT MARKER (RETROFLECTIVE-RECESSED) ** (TYPE D)	THERMOPLASTIC PAVEMENT MARKING	DELINEATOR (CLASS 2) TYPE E	OBJECT MARKER (TYPE L-3)	COMMENT
			YELLOW		WHITE						
			4" DETAIL 21	4" DETAIL 22*	4" DETAIL 27B*	4" DETAIL 27C					
FROM	TO					EA	SOFT	EA	EA		
17+80	19+34	℄		204		20					
19+72	24+00	℄		478		24					
18+86	19+06	L+			70						
18+86	22+47	R+			461						
19+06	19+91	L+				85					
19+91	22+47	L+			306						
19+55.5	-	L+	18								
19+33.3	22+55.5	L+					19			LIMIT LINE	
19+46.6	19+58.9	L+					22			PAVEMENT MARKING "STOP"	
<b>SUB-TOTAL</b>			18	682	837	85	44	41	8	5	
<b>TOTAL</b>					1622		44	41	8	5	

\* INCLUDES 50' OVERLAP AT EACH MATCH EXISTING STRIPE LOCATION  
 \*\* NO PAVEMENT MARKERS TO BE PLACED ON BRIDGE DECK

**PAVEMENT DELINEATION AND SIGN PLAN**

SCALE: 1" = 20'

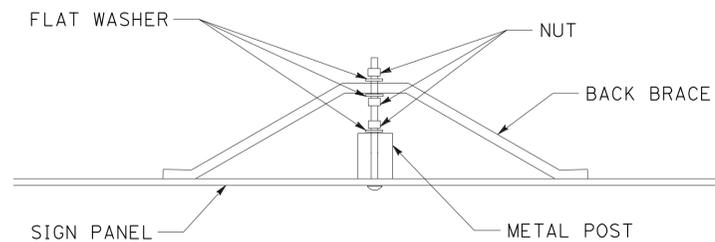
**PD-1**

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

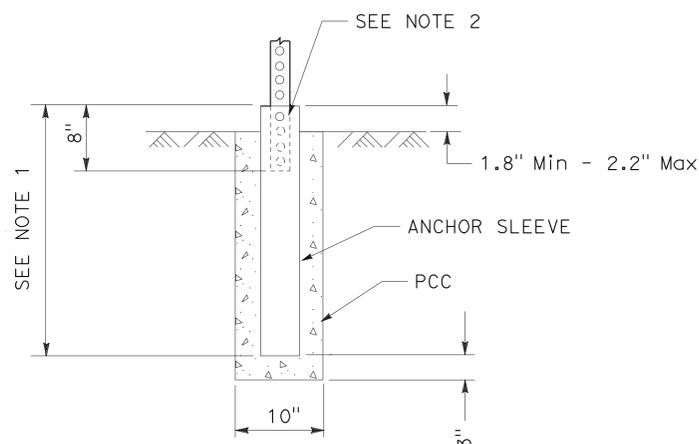
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DESIGN  
 FUNCTIONAL SUPERVISOR: APOLINARIO VIVIT  
 CALCULATED/DESIGNED BY: [blank]  
 CHECKED BY: [blank]  
 ROD ESTES  
 LORI EWENS  
 REVISED BY: [blank]  
 DATE REVISED: [blank]

NOTES:

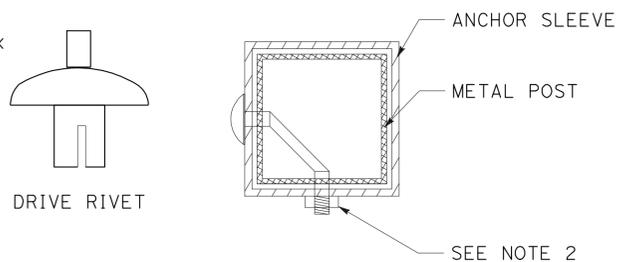
- USE A 2 1/4" Sq TUBE x 30" LONG, 3/16" THICK ANCHOR FOR 2" POSTS.  
USE A 3" Sq TUBE x 3' LONG, 3/16" THICK ANCHOR FOR 2-1/2" POSTS.
- USE A 5/16" CORNER BOLT OR TWO DRIVE RIVETS TO FASTEN ASSEMBLED SIGN AND POST INTO ANCHOR. INSTALL CORNER BOLT OR DRIVE RIVETS INTO THE SIDES FACING TRAFFIC.
- REMOVE EXISTING AC OR PCC, DRIVE ANCHOR SLEEVE INTO SOIL AND RECAP WITH LIKE MATERIAL, MATCHING EXISTING THICKNESS.
- 2" POSTS ARE TO BE 1/8" THICK, PERFORATIONS OF 7/16" IN DIAMETER ARE 1" ON CENTER ON ALL SIDES, LENGTHS ARE 10' AND 12'.
- 2-1/2" POSTS ARE TO BE 1/8" THICK, PERFORATIONS OF 7/16" IN DIAMETER ARE 1" ON CENTER ON ALL SIDES, 2-1/2" POSTS ARE 12' AND 14' IN LENGTH.
- FOR DETAILS NOT SHOWN, REFER TO THE STANDARD PLANS.
- 2-1/2" POSTS SHALL BE USED IN SIDEWALK AND HIGH PEDESTRIAN USE PLACEMENTS.
- ALL ANCHOR SLEEVES SHALL BE EMBEDDED IN PCC, EXCEPT FOR INSTALLATIONS IN PAVEMENTS OR SIDEWALKS, OR IN ROCKY SOIL CONDITIONS WHERE APPROVED BY THE ENGINEER.



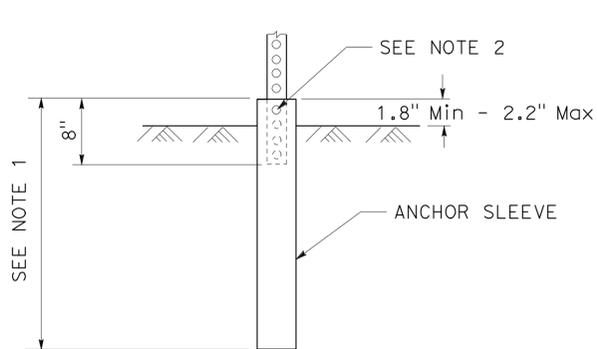
BACK BRACE MOUNTING DETAIL



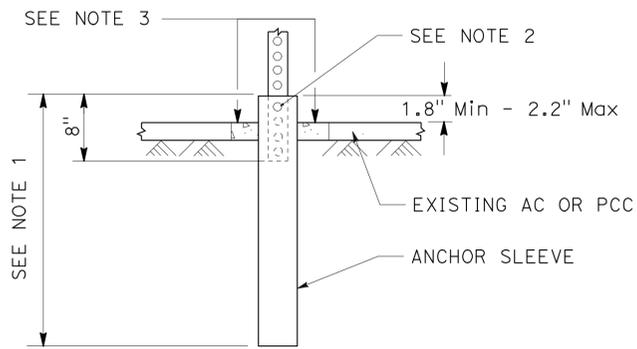
INSTALLATION IN SOIL (PCC)  
(SEE NOTE 8)



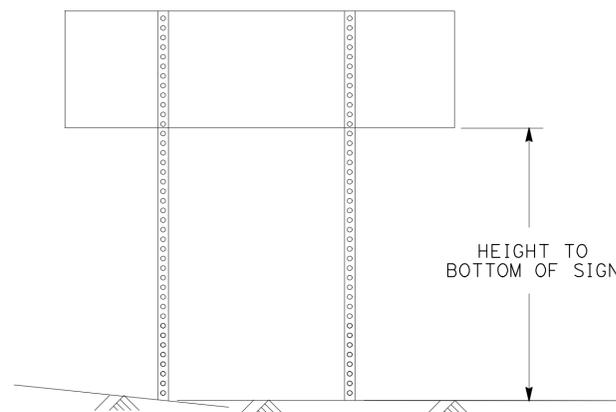
FASTENER DETAILS



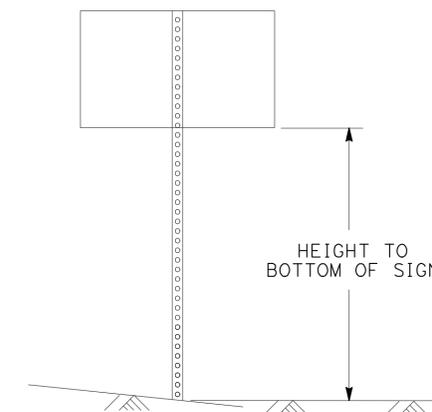
INSTALLATION IN SOIL (DRIVEN)



INSTALLATION IN EXISTING AC OR PCC



TWO POSTS INSTALLATION  
(POST SIZE, SEE CHART BELOW)



SINGLE POST INSTALLATION  
(POST SIZE, SEE CHART BELOW)

Max Sq Ft OF SIGN

POST SIZE	2"	18	16	14	12	10	8
POST SIZE	2.5"	35	32	28	24	21	21
		60"	72"	84"	96"	108"	120"

HEIGHT TO BOTTOM OF SIGN  
DOUBLE POST GROUND SIGNS  
70 MPH WIND SPEED

Max Sq Ft OF SIGN

POST SIZE	2"	10.5	10	8.7	7.4	6.2	5
POST SIZE	2.5"	16	16	16	16	12	12
		60"	72"	84"	96"	108"	120"

HEIGHT TO BOTTOM OF SIGN  
SINGLE POST GROUND SIGNS  
70 MPH WIND SPEED

METAL SIGN POST DETAIL

METAL SIGN POST INSTALLATION DETAILS

SIGN DETAILS  
SD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DESIGN  
 APOLINARIO VIVIT  
 FRANK RIVAS  
 LORI EWENS  
 REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	14	49

*Lori Evens* 10-28-11  
 REGISTERED CIVIL ENGINEER DATE  
 12-19-11  
 PLANS APPROVAL DATE

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

**NOTE:**

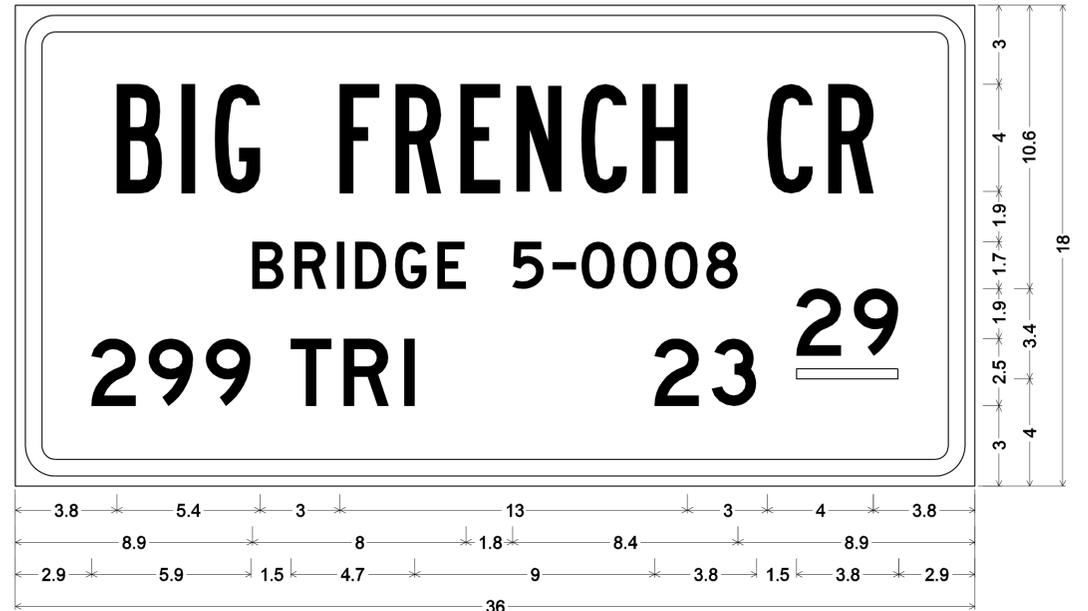
1. CALIFORNIA SIGN CODES ARE DESIGNATED BY (CA), OTHERWISE FEDERAL MUTCD SIGN CODES ARE SHOWN.

**ABBREVIATIONS:**

L LENGTH OF SIGN  
D DEPTH OF SIGN

**ROADSIDE SIGNS**

SIGN No.	SIGN CODE	SIGN SIZE L x D (In x In)	POST SIZE & LENGTH (ft) (N)	ROADSIDE SIGN 1-POST (ea)
			METAL POST (2.5" x 2.5")	
1-1	G11-1(CA)	36 x 18	6	1
1-2	G11-1(CA)	36 x 18	6	1
TOTAL				2



1.5" Radius, 0.6" Border, 0.4" Indent, Black on White;  
[BIG FRENCH CR] B; [BRIDGE 5-0008] D; [299 TRI] D; [23 29] D;

**CONTRACTOR FURNISHED SIGN PANEL**

SIGN No.	SIGN CODE	SIGN SIZE L x D (In x In)	SINGLE FACED	SIGN FACING MATERIAL				SIGN PANEL SUBSTRATE MATERIAL (SQFT)		DESCRIPTION (REMARKS)
				BACKGROUND		LEGEND		ROADSIDE	UNFRAMED ALUMINUM	
				SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SINGLE-SHEET		
1-1	G11-1(CA)	36 x 18	X	WHITE	II	BLACK	II	4.5	BIG FRENCH CR, BRIDGE 5-0008, 299 TRI 23.29	
1-2	G11-1(CA)	36 x 18	X	WHITE	II	BLACK	II	4.5	BIG FRENCH CR, BRIDGE 5-0008, 299 TRI 23.29	
TOTAL (SQFT)								9		

**SIGN DETAILS AND QUANTITIES SD-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DESIGN  
 Caltrans  
 FUNCTIONAL SUPERVISOR: APOLINARIO VIVIT  
 CALCULATED/DESIGNED BY: FRANK RIVAS  
 CHECKED BY: LORI EWENS  
 REVISED BY: DATE REVISED



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	16	49

ART	
REGISTERED ELECTRICAL ENGINEER	DATE 09-15-11
12-19-11	
PLANS APPROVAL DATE	

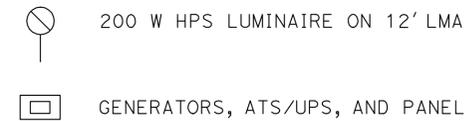
A.P. ROBLES	
No. E15293	
Exp. 3-31-13	
ELECTRICAL	

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 (THIS SHEET):**

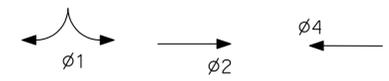
- 1 WOOD POLE WITH FLASHING BEACON, AND LOCKABLE NEMA 3R ENCLOSURE WITH 15 A DISCONNECT.
  - 2 WOOD POLE TO CARRY MESSENGER CABLE AND CONDUCTORS.
  - 3 WOOD POLE WITH SIGNAL AND LIGHTING. SIGNAL FACE AT 17'.
  - 4 WOOD POLE WITH SIGNAL. SIGNAL FACE AT 10'.
  - 5 MESSENGER CABLE, 2#12 (FB), 1#12 G.
  - 6 MESSENGER CABLE, 2#12 (FB), 1#12 G, 1 DLC.
  - 7 MESSENGER CABLE, 2#12 (FB), 1#12 G, 2 DLC.
  - 8 MESSENGER CABLE, 2#12 (FB), 1#12 G, 4 DLC.
  - 9 MESSENGER CABLE, 2#12 (FB), 3#14 (SIGNALS), 1#10 N, 1#12 G, 2#8 (LTG), 6 DLC.
  - 10 MESSENGER CABLE, 2#12 (FB), 6#14 (SIGNALS), 1#10 N, 1#12 G, 2#8 (LTG), 6 DLC.
  - 11 2"C, 2#12 (FB), 9#14 (SIGNALS), 1#10 N, 1#12 G, 2#8 (LTG), 10 DLC.
  - 12 2-3"C, 2#6 (Cab), 1#6 G, 9#14 (SIGNALS), 1#10 N, 10 DLC.
  - 13 MESSENGER CABLE, 2#12 (FB), 9#14 (SIGNALS), 1#10 N, 1#12 G, 2#8 (LTG), 10 DLC.
  - 14 MESSENGER CABLE 3#14 (SIGNALS), 1#10 N, 1#12 G, 2 DLC.
15. LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
16. FOR WOOD POLE AND EQUIPMENT INSTALLATION, SEE SES SHEETS.

**LEGEND:**

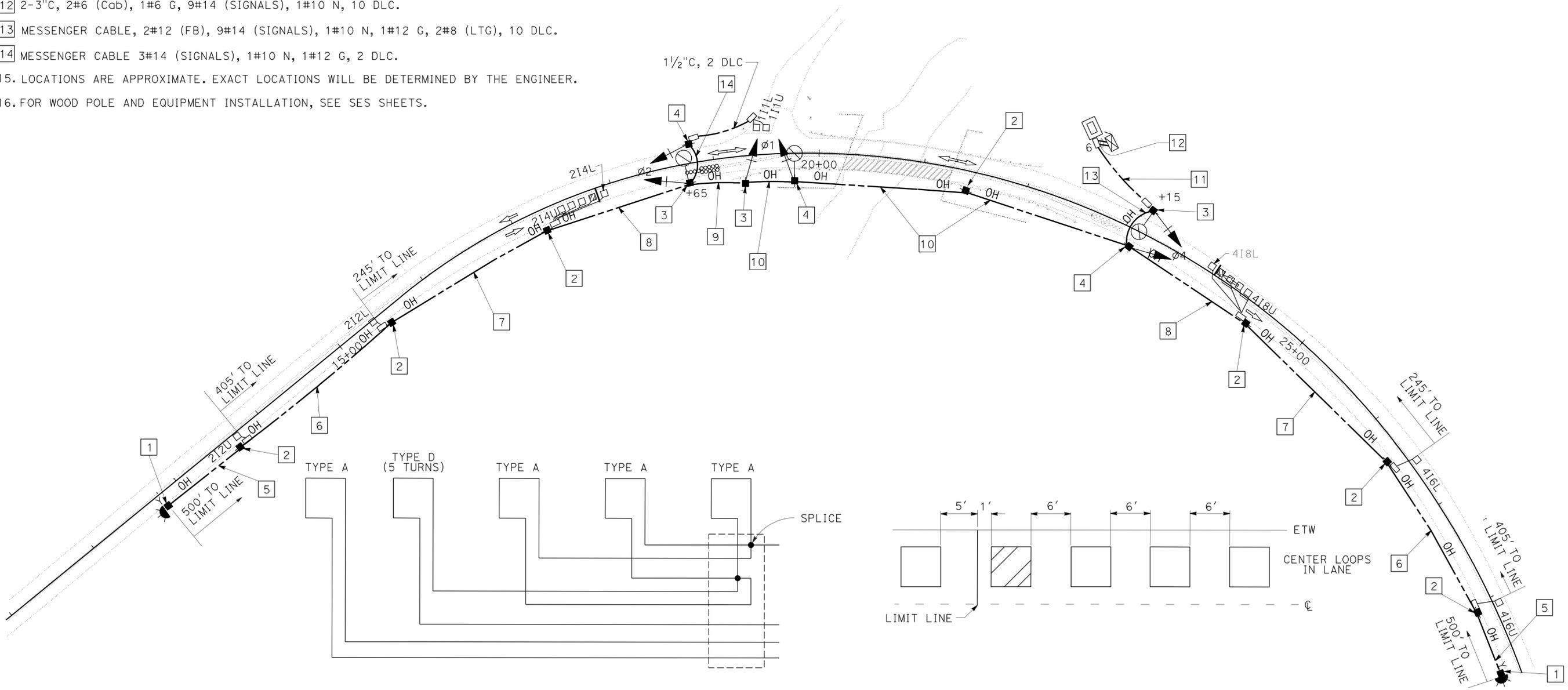


**ABBREVIATIONS:**

ATS AUTOMATIC TRANSFER SWITCH  
 Cab CABINET  
 UPS UNINTERRUPTABLE POWER SUPPLY



**PHASE DIAGRAM**



**TYPE D/TYPE A LOOP ARRAY**

NO SCALE

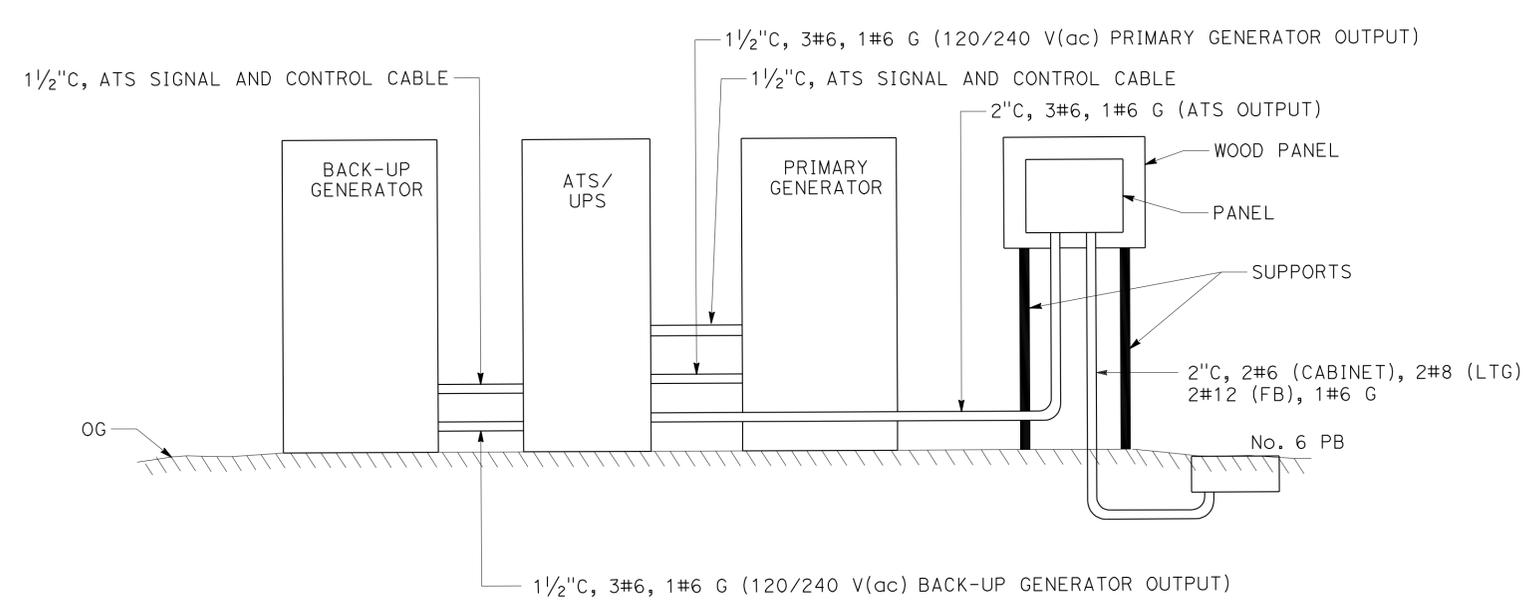
**TEMPORARY SIGNAL SYSTEM**

SCALE: 1" = 50'

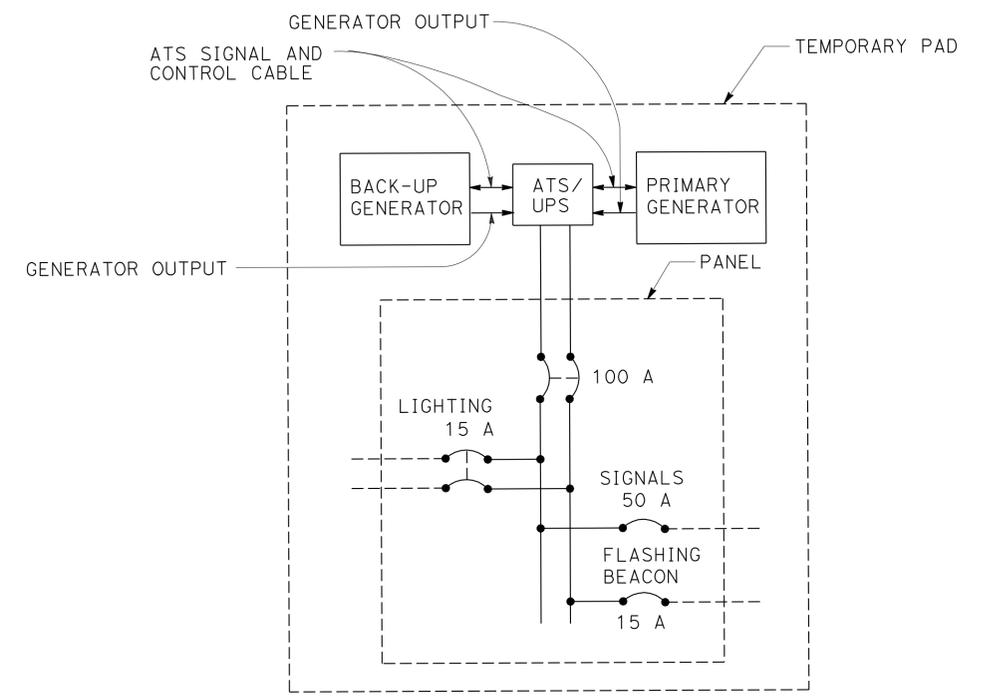
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICAL DESIGN  
 ARTURO ROBLES  
 JIM HANNIGAN  
 ROB STINGER  
 09-15-11 DATE PLOTTED => 29-DEC-2011  
 10:43 AM TIME PLOTTED => 10:43 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	17	49
<b>ART</b>		09-15-11			
		REGISTERED ELECTRICAL ENGINEER DATE			
		12-19-11			
		PLANS APPROVAL DATE			
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



**ATS AND GENERATORS**



**WIRING DIAGRAM**

**TEMPORARY SIGNAL SYSTEM  
(DETAILS)**

NO SCALE

**E-2**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Electrical DESIGN**  
 FUNCTIONAL SUPERVISOR: ROB STINGER  
 ARTURO ROBLES  
 JIM HANNIGAN  
 REVISIONS: REVISED BY, DATE REVISED  
 CALCULATED/DESIGNED BY, CHECKED BY  
 USERNAME => s121614  
 DGN FILE => 237430ua003.dgn  
 BORDER LAST REVISED 7/2/2010  
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UNIT 0147

PROJECT NUMBER & PHASE

02000002801

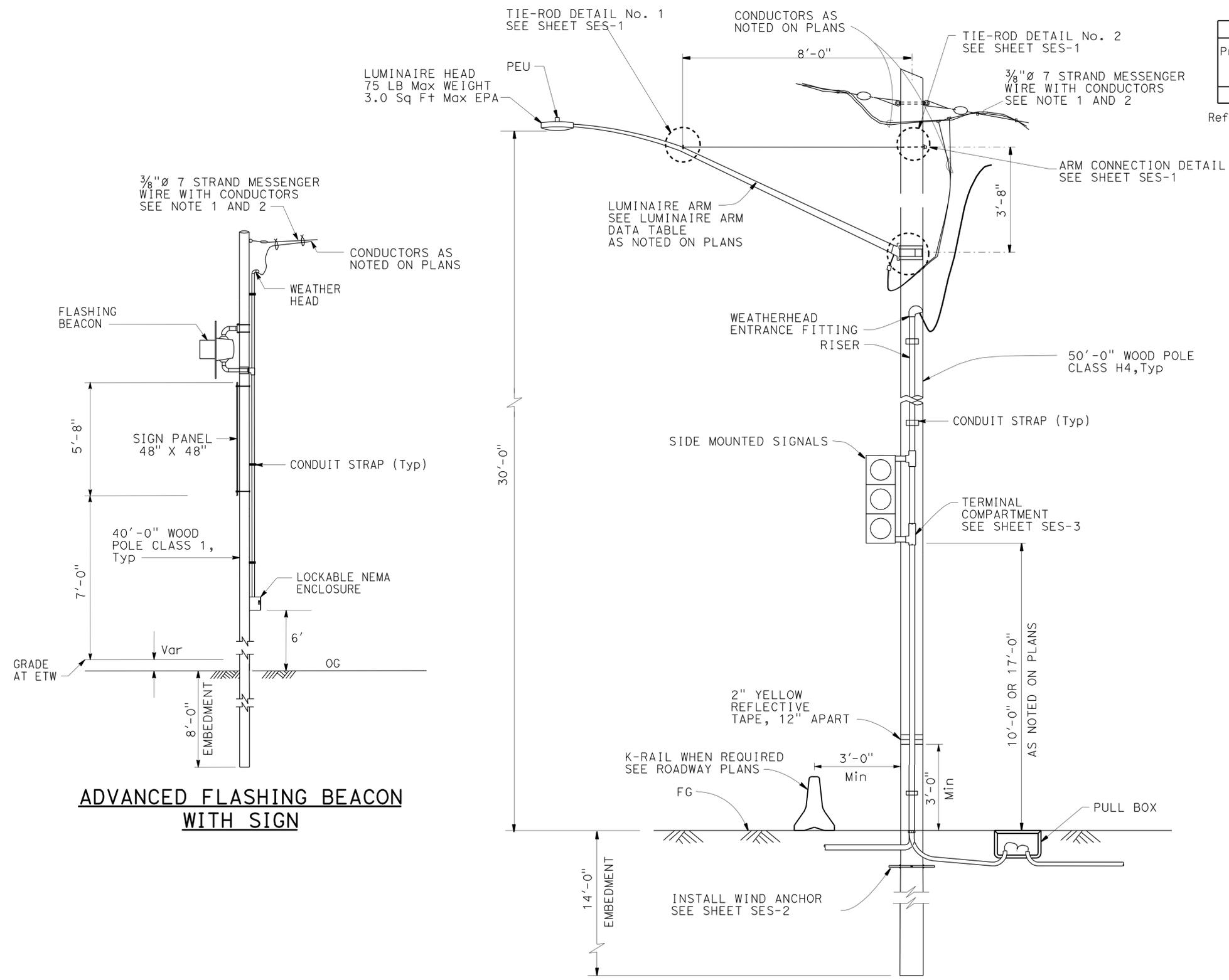
LAST REVISION | DATE PLOTTED => 22-DEC-2011  
 09-15-11 | TIME PLOTTED => 08:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	18	49

*Victor O. Lopez* 8/12/11  
 REGISTERED CIVIL ENGINEER DATE  
 12-19-11  
 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.

LUMINAIRE ARM DATA			
Projected Length	N Rise	Min OD At Pole	Thickness
12'-0"	4'-3"	3/8"	0.1196"

Refer to ES-6D for Luminaire arm details



**GENERAL NOTES:**

**SPECIFICATIONS**

Design: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals dated 2001.

**LOADING**

Wind Loadings: 85 MPH

**UNIT STRESSES**

Timber Poles: Fb = 1850 Tapered treated round pole  
Fv = 110 psi ASTM D2899 Standard

**TREATMENT**

E = 1500 x 10<sup>3</sup> psi

To conform with Section 86 Standard Specifications

**SPECIFICATIONS**

Caltrans Standard Specifications May 2006  
ANSI Wood Poles  
Utility Grade Wires

**NOTES:**

- All overhead cables shall be slack spanned with 25'-0" minimum overhead clearance (Unless otherwise noted).
- Conductors shall be suspended from span-wire as follows:  
A) Main run 3/8" span-wire with 4.5% sag and 1/4" tether wire with 2% sag where required. No spare conductors allowed except as noted.
- Overhead line construction not specifically covered here shall conform to the provisions of General Order No. 95 of Public Utilities Commission.
- When noted on plans, wood poles shall be stabilized using guy wires, breast blocks or rakes at each dead end, corner, drop or line deviation more than 15° from straight line. The direction of the guy shall counteract the resultant of unbalanced force applied to pole. Where space or conflict prevent guy installation, a diagonal brace shall be used. The brace shall be wood and shall be connected to the pole by means to satisfy structural and electrical requirements. The direction of the brace shall counteract the resultant of unbalanced horizontal force of 6000 pounds (Min) applied to the pole, per detail A.
- When noted on plans, guy wires shall be attached to pole as nearly as practical to the center of conductors load, or 3'-0" Max otherwise, See Note 4.
- All attachments shall be mounted with stainless steel straps or other manufacturers methods without drilling holes in pole, except as shown. Drilling through pole will require the Engineer's approval.
- Foundation design is based on AASHTO 2001 article 13.6 Broms' approximate procedure assuming a cohesionless material. The angle of internal friction used is 30° and unit weight of soil used is 120 lb/ft<sup>3</sup>. The Contractor to verify actual soil condition.
- If pole is located on a steep slope add 2 feet extra for embedment.
- See Sheets SES-2 and SES-3 for additional details.
- For details not shown, see "2006 STANDARD PLANS" and "2006 REVISED STANDARD PLANS"
- All temporary poles support OH Conductors. Attach luminaire arm and/or combination of attachments as specified at locations where indicated on Electrical Sheets.
- Attachments shown on pole apply as noted on Plans.
- For Electrical details not shown refer to Electrical plan sheets.

**TYPICAL WOOD POLE SUPPORT WITH LUMINAIRE**

NO SCALE

NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

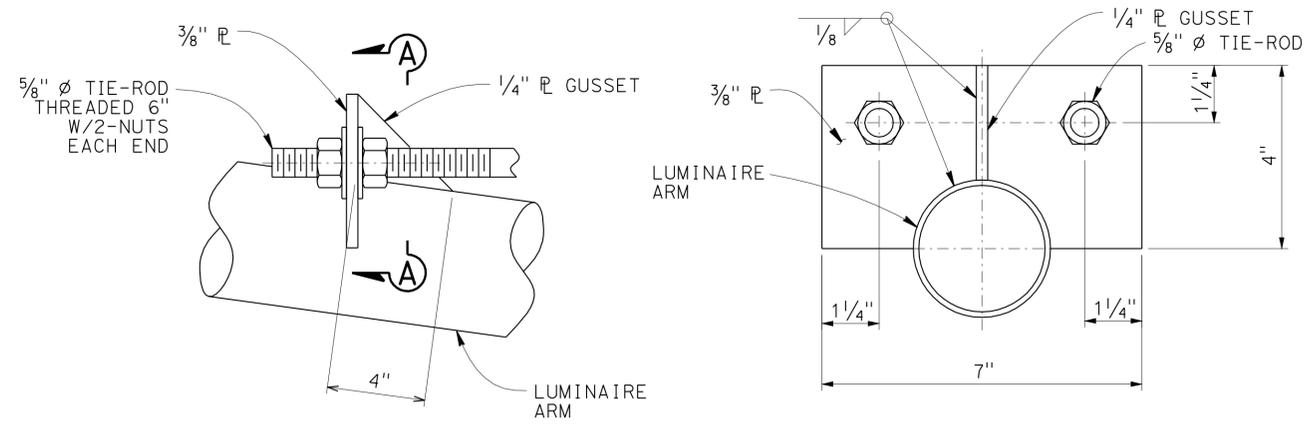
BRANCH CHIEF <u>JAMES SAGAR</u>	DESIGN	BY V LOPEZ	CHECKED N KANEPATHIPILLAI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH B</b>	BRIDGE NO.	N/A	<b>TEMPORARY WOOD POLE SIGNAL &amp; LIGHTING</b>	<b>SES-1</b>
	DETAILS	BY B EDWARDS	CHECKED N KANEPATHIPILLAI			POST MILE	23.3		
	QUANTITIES	BY X	CHECKED X						

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3  
 UNIT: X PROJECT NUMBER & PHASE: 0200000280-1 CONTRACT NO.: 02-374301  
 DISREGARD PRINTS BEARING EARLIER REVISION DATES

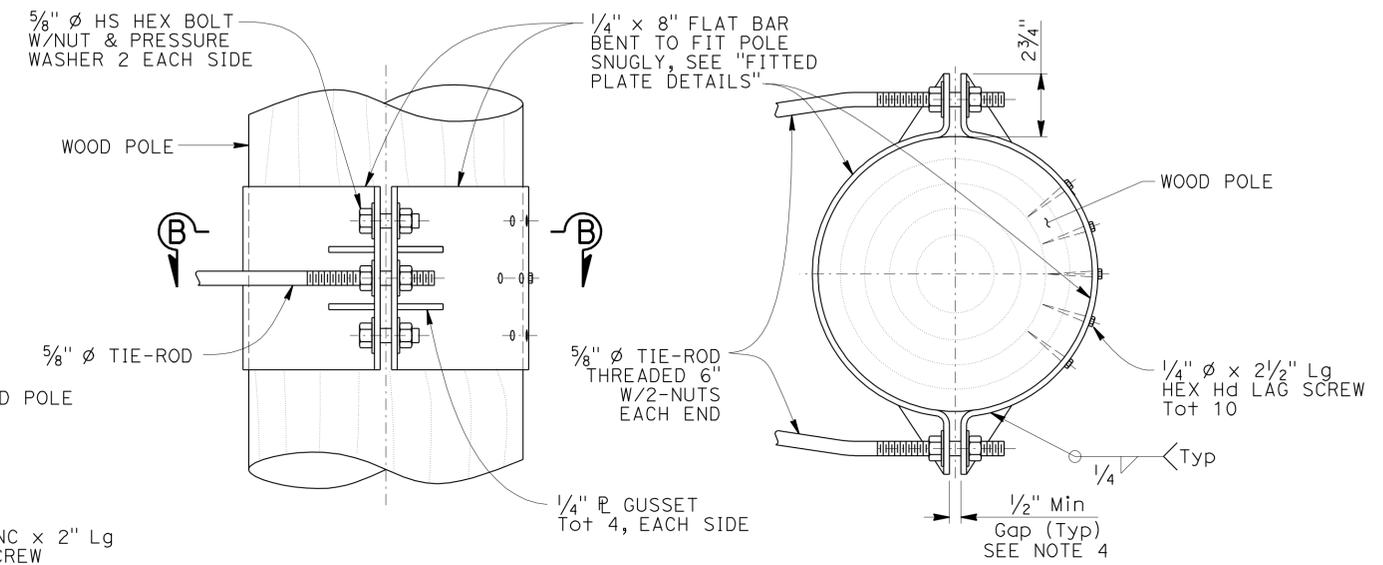
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	19	49
<i>Victor O. Lopez</i> REGISTERED CIVIL ENGINEER DATE 8/26/11			No. <b>C61373</b> Exp. <b>6/30/13</b> CIVIL STATE OF CALIFORNIA		
12-19-11 PLANS APPROVAL DATE					
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**NOTES:**

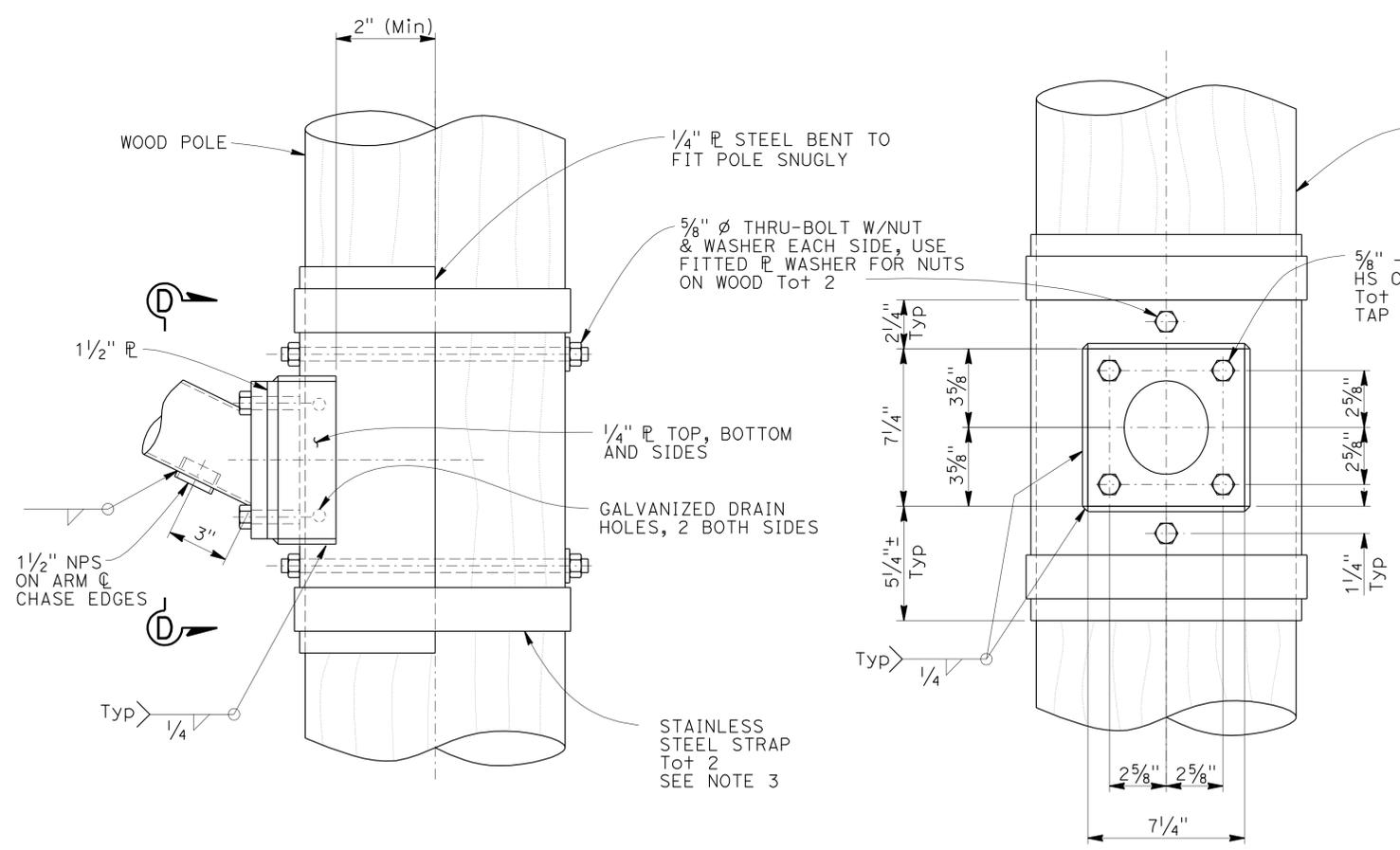
- All hardware and steel shall be galvanized after fabrication.
- Arm base connection details shall be in compliance with Standard Plans Detail Sheet ES-6D with noted modifications.
- 2,000 lb Min capacity strap system shall be used for top and bottom of plate.
- The Contractor shall verify pole dimensions at Tie-Rod attachment height. Fabricate 8" flat bar with "L" Dimension to maintain an open gap between encasement in finished installation.



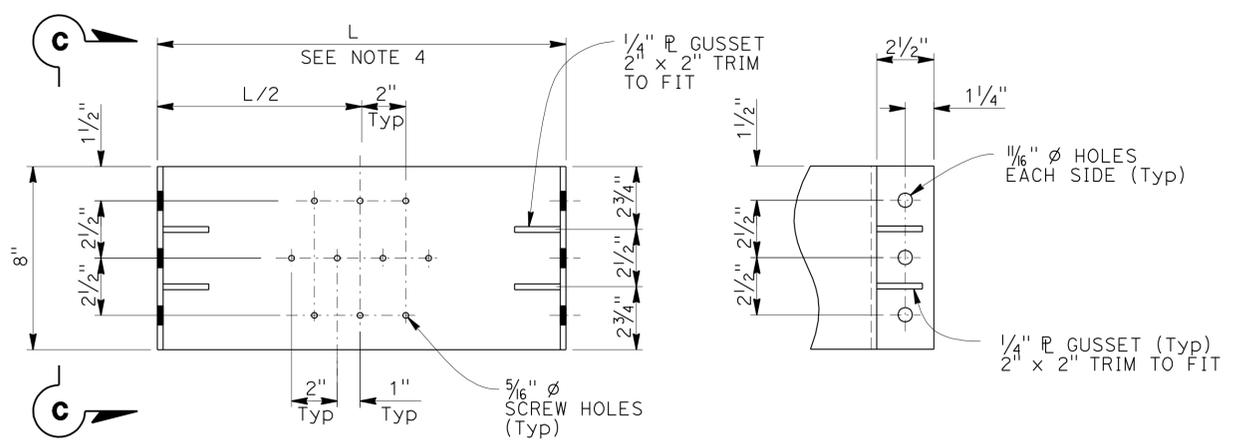
**ELEVATION SECTION A-A**  
**TIE-ROD DETAIL No. 1**



**ELEVATION SECTION B-B**  
**TIE-ROD DETAIL No. 2**



**ELEVATION VIEW D-D**  
**ARM CONNECTION DETAILS**

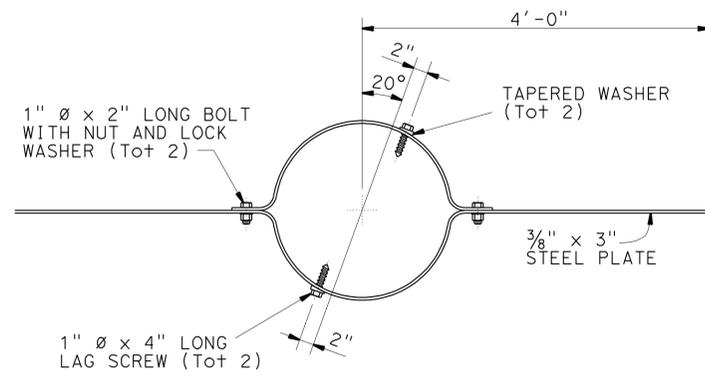


**ELEVATION SECTION C-C**  
**FITTED PLATE DETAILS**  
 Note: 2 Required (1 w/screw holes, 1 without)

NOTE:  
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

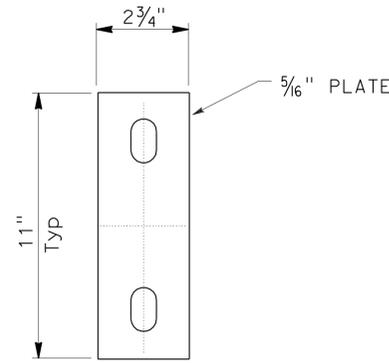
BRANCH CHIEF <u>JAMES SAGAR</u>	DESIGN	BY V LOPEZ	CHECKED N KANEPATHIPILLAI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH B</b>	BRIDGE NO.	N/A	<b>TEMPORARY WOOD POLE          DETAILS NO. 1</b>	<b>SES-2</b>
	DETAILS	BY B EDWARDS	CHECKED N KANEPATHIPILLAI			POST MILE	23.3		
	QUANTITIES	BY X	CHECKED X			UNIT: 3619 PROJECT NUMBER & PHASE: 0200000280-1	CONTRACT NO.: 02-374301		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3									

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	20	49
			8/12/11		
			REGISTERED CIVIL ENGINEER		
			PLANS APPROVAL DATE		
			12-19-11		
<small>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.</small>					

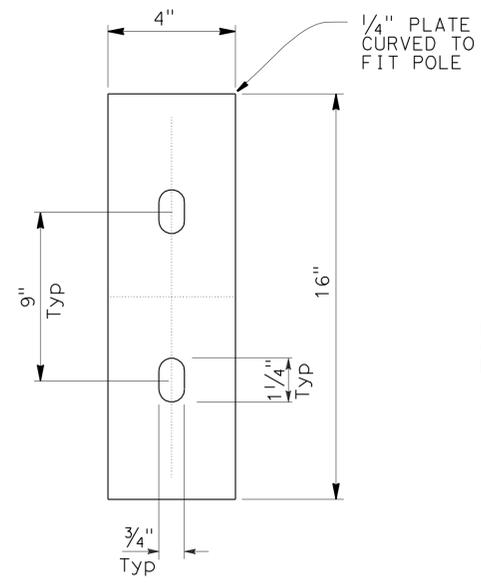


**WIND ANCHOR**

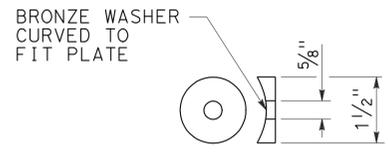
To be installed perpendicular to mast arms and 2'-0" Min below grade



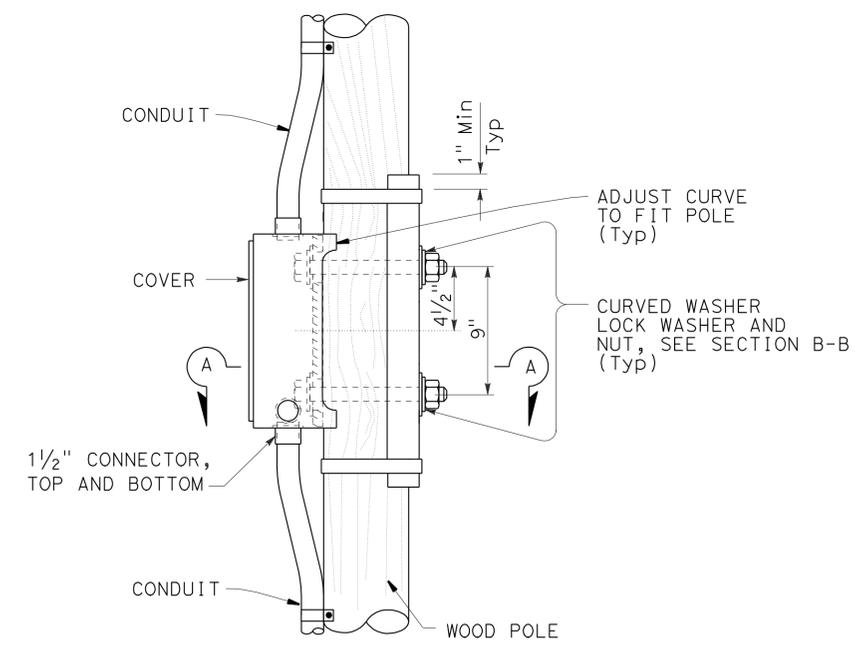
**COMPARTMENT PLATE (Mod)**



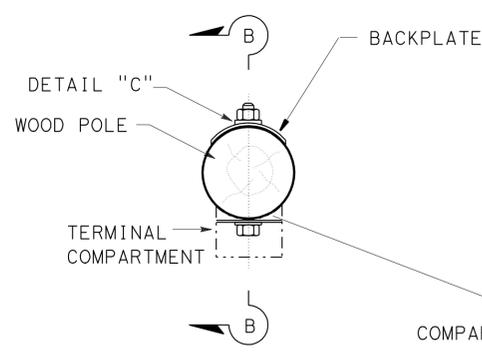
**BACK PLATE**



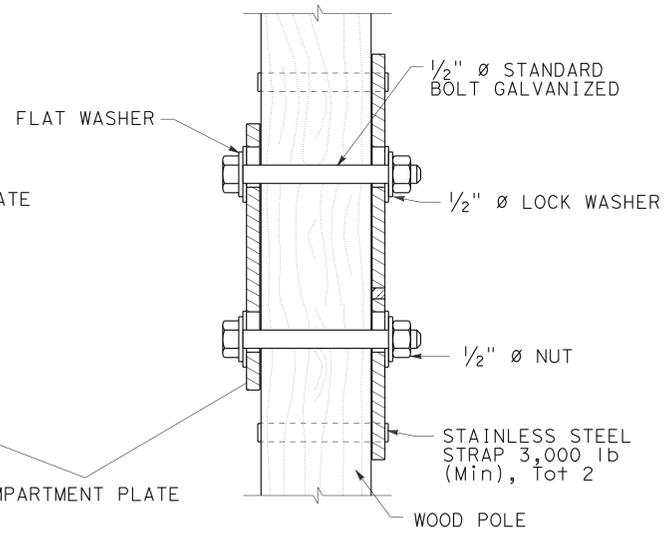
**DETAIL "C"**



**SIDE MOUNTING  
TERMINAL COMPARTMENT**



**SECTION A-A**



**SECTION B-B**

**SIGNAL HEADS AND MOUNTINGS**  
For Details Not Shown See RSP ES-4D Sheet

NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NO SCALE

BRANCH CHIEF JAMES SAGAR	DESIGN	BY V LOPEZ	CHECKED N KANEPATHIDILLAI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH B	BRIDGE NO.	N/A	TEMPORARY WOOD POLE DETAILS NO. 2	SES-3	
	DETAILS	BY B EDWARDS	CHECKED N KANEPATHIDILLAI			POST MILE				23.3
	QUANTITIES	BY X	CHECKED X							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3619 PROJECT NUMBER & PHASE: 0200000280-1	CONTRACT NO.: 02-374301	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 3 OF 3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	21	49

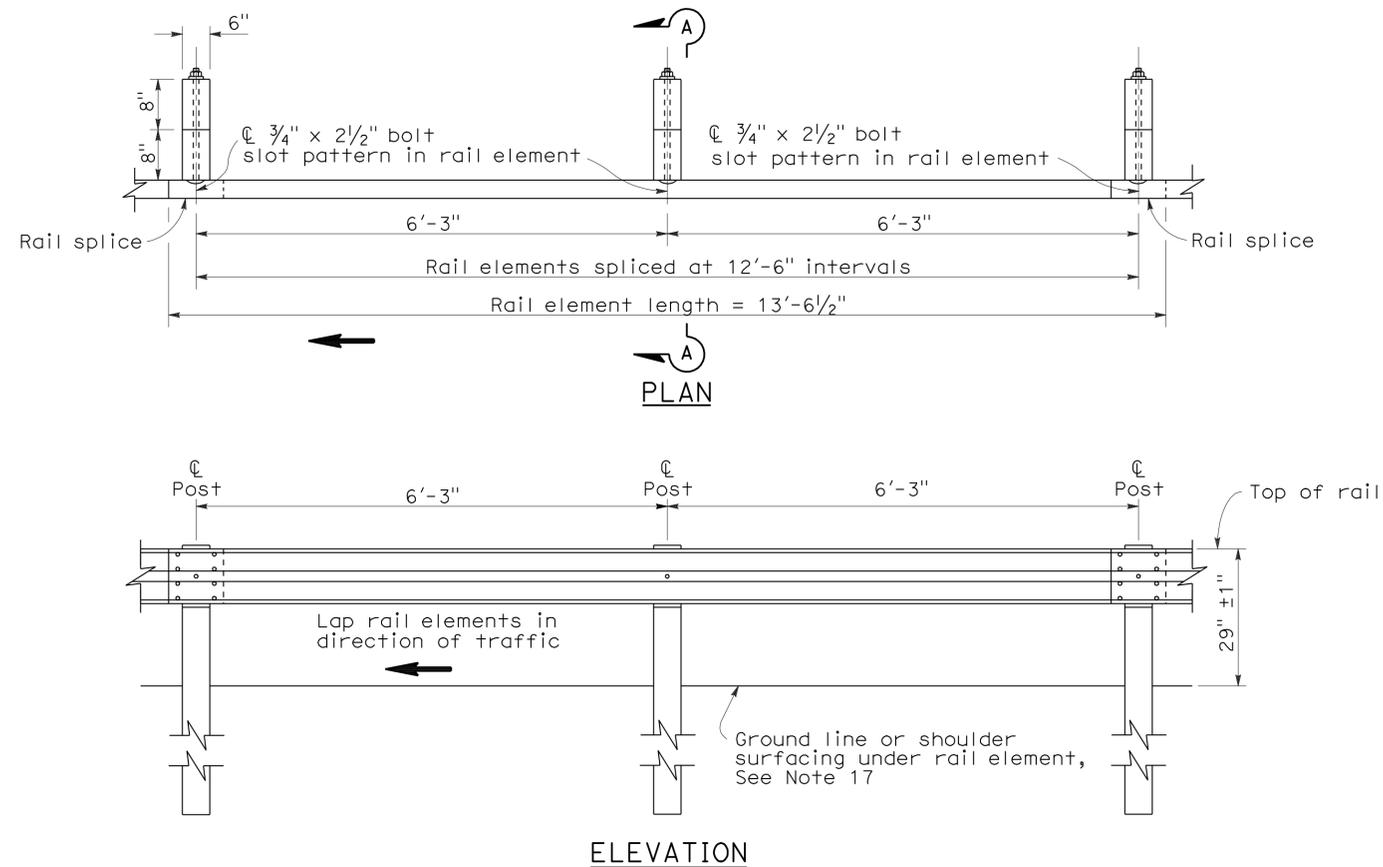
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

May 20, 2011  
PLANS APPROVAL DATE

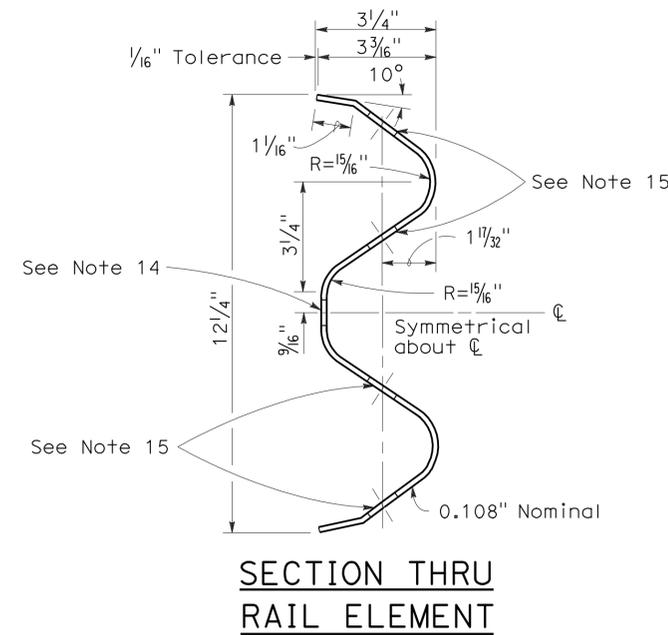
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

To accompany plans dated 12-19-11

2006 REVISED STANDARD PLAN RSP A77A1

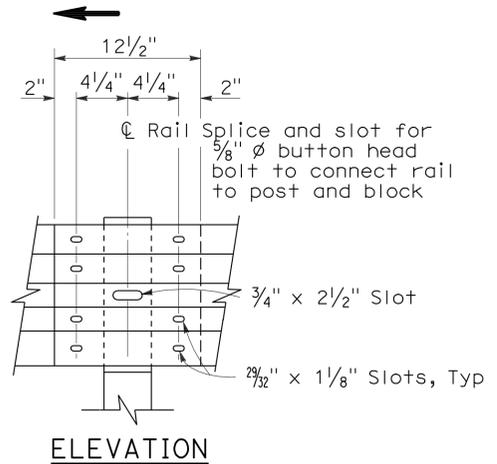


**METAL BEAM GUARD RAILING WITH WOOD POST AND BLOCKS**



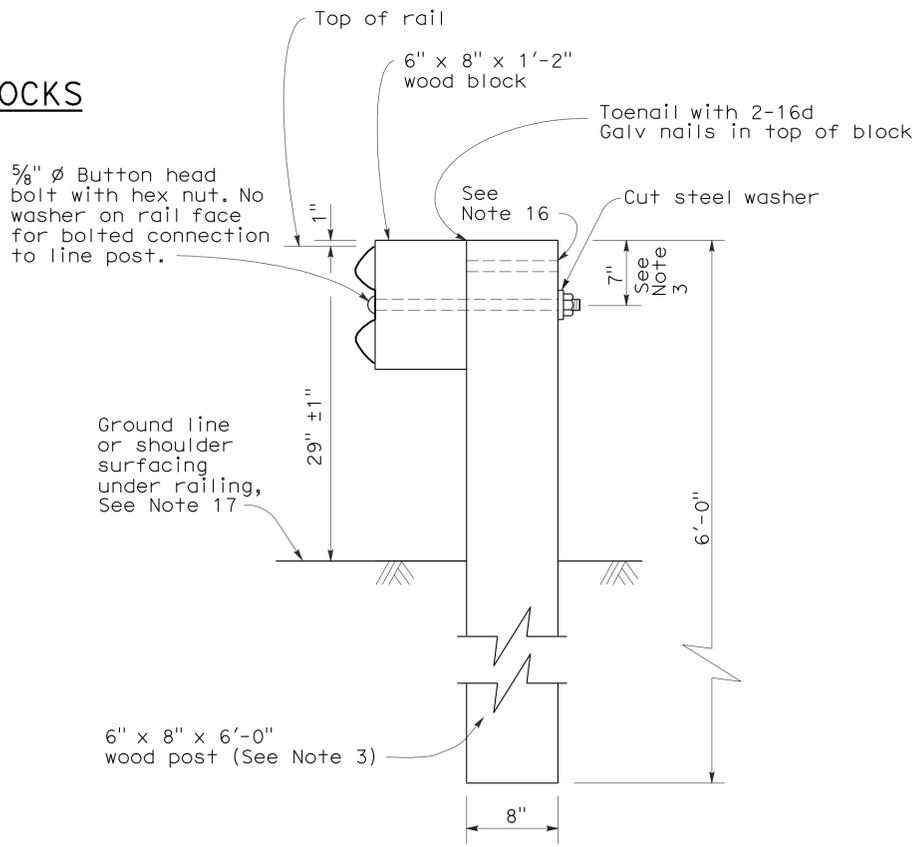
**NOTES:**

- For details of steel post installations, see Standard Plan A77A2.
- For details of standard hardware used to construct guard railing, see Standard Plan A77B1.
- For details of wood posts and wood blocks used to construct guard railing, see Standard Plan A77C1.
- For additional installation details, see Standard Plan A77C3.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- For guard railing typical layouts, see the A77E, A77F and A77G Series of Standard Plans.
- For terminal system end treatment details, see the A77L Series of Standard Plans. To connect railing to terminal system end treatment, transition the top of railing height at a ratio of 120:1 to terminal system end treatment height plus one 12'-6" standard railing section at the transitioned height for a horizontal connection to the end treatment.
- For guard railing end anchor details, see Standard Plans A77H1 and A77I2.
- For details of guard railing transition to bridge railing, see Standard Plan A77J4.
- For additional details of guard railing connection to bridge railings, see Standard Plans A77J1, A77J2 and A77K1.
- For guard railing connection details to abutments and walls, see Standard Plan A77J3.
- Direction of adjacent traffic indicated by →.
- For typical guard railing delineation and dike positioning details, see Standard Plan A77C4.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Additional hole in uppermost portion of line post is for potential future adjustments of railing height. See Standard Plan A77C1.
- Install posts in soil.



**RAIL ELEMENT SPLICE DETAIL**

- Connect the overlapped end of the rail elements with 5/8"  $\phi$  x 1 3/8" button head oval shoulder splice bolts inserted into the 2 3/32" x 1 1/8" slots and bolted together with 5/8"  $\phi$  recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



**SECTION A-A  
TYPICAL WOOD LINE  
POST INSTALLATION**

See Note 4

**METAL BEAM GUARD RAILING  
STANDARD RAILING SECTION  
(WOOD POST WITH  
WOOD BLOCK)**

NO SCALE

RSP A77A1 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77A1  
DATED MAY 1, 2006 - PAGE 41 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77A1**

To accompany plans dated 12-19-11

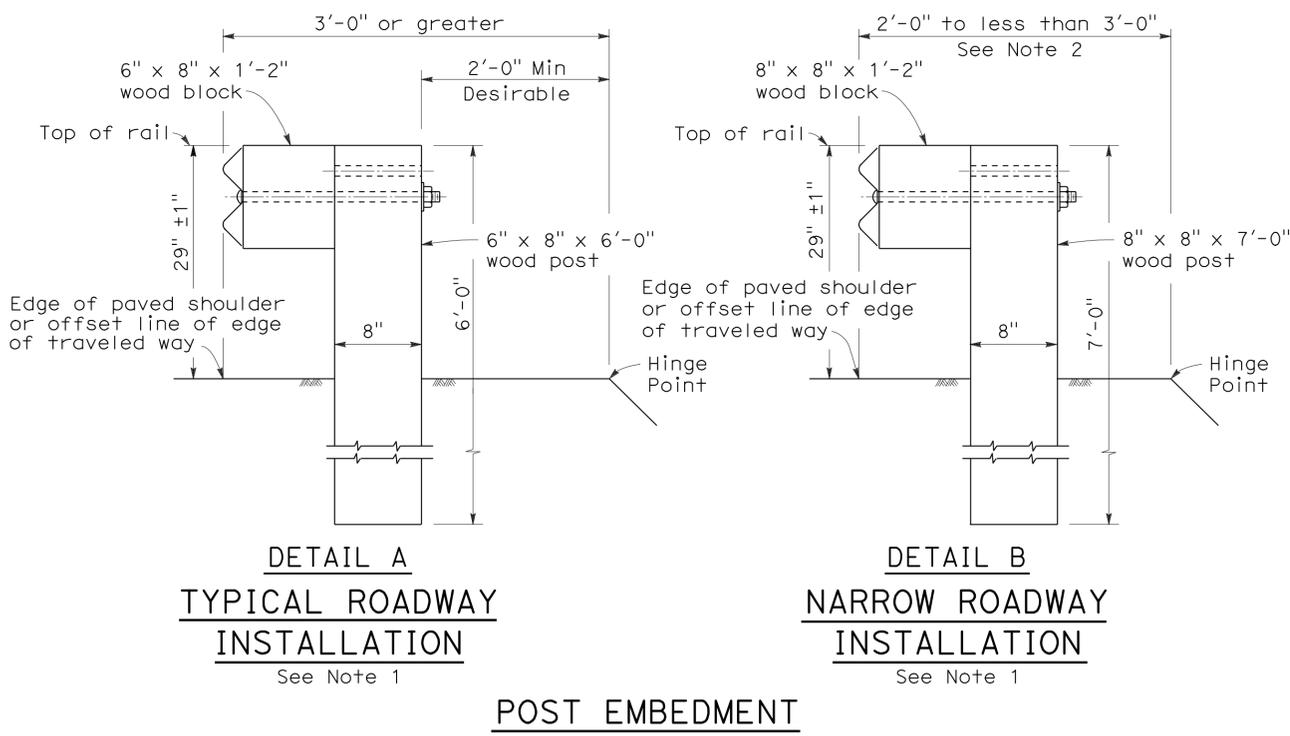
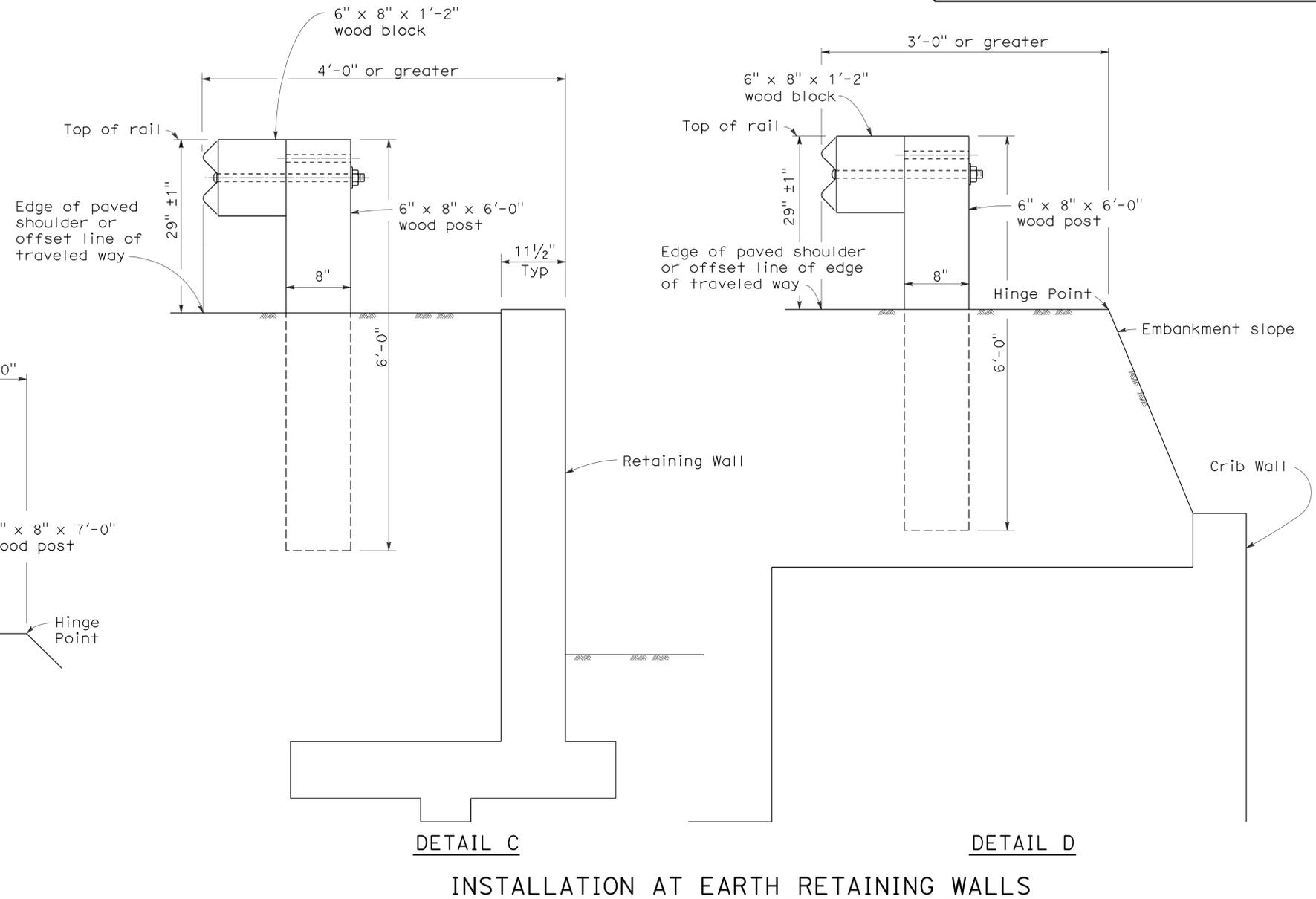
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	22	49

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

May 20, 2011  
PLANS APPROVAL DATE

*Randell D. Hiatt*  
No. C50200  
Exp. 6-30-11  
CIVIL  
STATE OF CALIFORNIA

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**NOTES:**

1. These installation details also applicable to steel line post installations. For Detail A, C, and D, where steel line post installations are constructed, W6 x 9 steel post, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For Detail B, where steel line post installations are constructed, W6 x 9 steel post, 7'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For additional installation details, see Standard Plans A77A1 and A77A2.
2. Where the distance between the face of the rail and the hinge point is less than 2'-0", see the Project Plans for special details.
3. For dike positioning with guard railing installations, see Standard Plan A77C4.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL LINE POST  
EMBEDMENT AND  
HINGE POINT OFFSET DETAILS**

NO SCALE

RSP A77C3 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77C3  
DATED MAY 1, 2006 - PAGE 46 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77C3**

2006 REVISED STANDARD PLAN RSP A77C3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	23	49

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

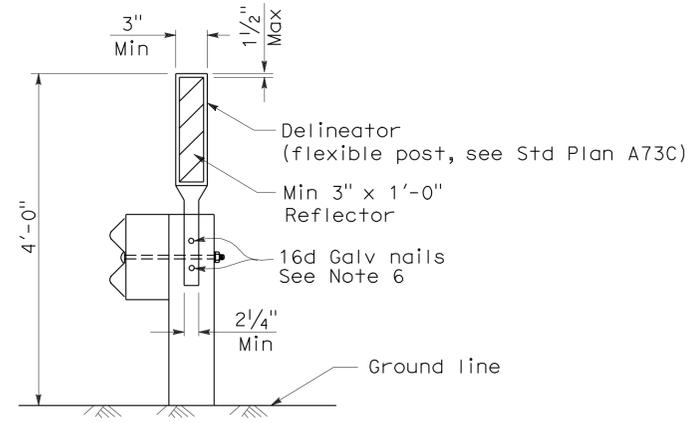
May 20, 2011  
PLANS APPROVAL DATE

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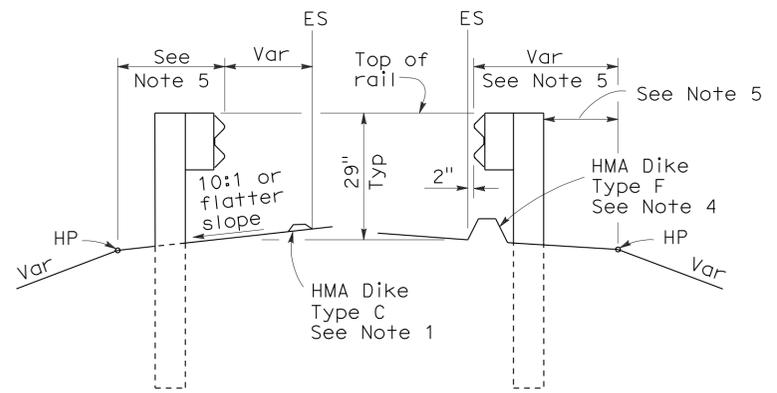
To accompany plans dated 12-19-11

**NOTES:**

1. When necessary to place dike in front of face of guard railing, only Type C dike may be used. For dike details, see Standard Plan A87B.
2. For standard railing post embedment, see Standard Plans A77C3.
3. Guard railing delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under guard railing, the maximum height of the dike or curb shall be 4". Mountable dike should not be used. For dike and curb details, see Standard Plans A87A and A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77C3.
6. For steel line posts, use 1/4" - 20 self-tapping screws in 0.22" diameter holes or 1/4" bolts in 3/32" diameter holes.



**GUARD RAILING DELINEATION**  
See Note 3



**DIKE POSITIONING**  
See Note 1

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL RAILING DELINEATION  
AND DIKE POSITIONING DETAILS**

NO SCALE

RSP A77C4 DATED MAY 20, 2011 SUPERSEDES RSP A77C4 DATED JUNE 6, 2008 AND STANDARD PLAN A77C4 DATED MAY 1, 2006 - PAGE 47 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77C4**

2006 REVISED STANDARD PLAN RSP A77C4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	24	49

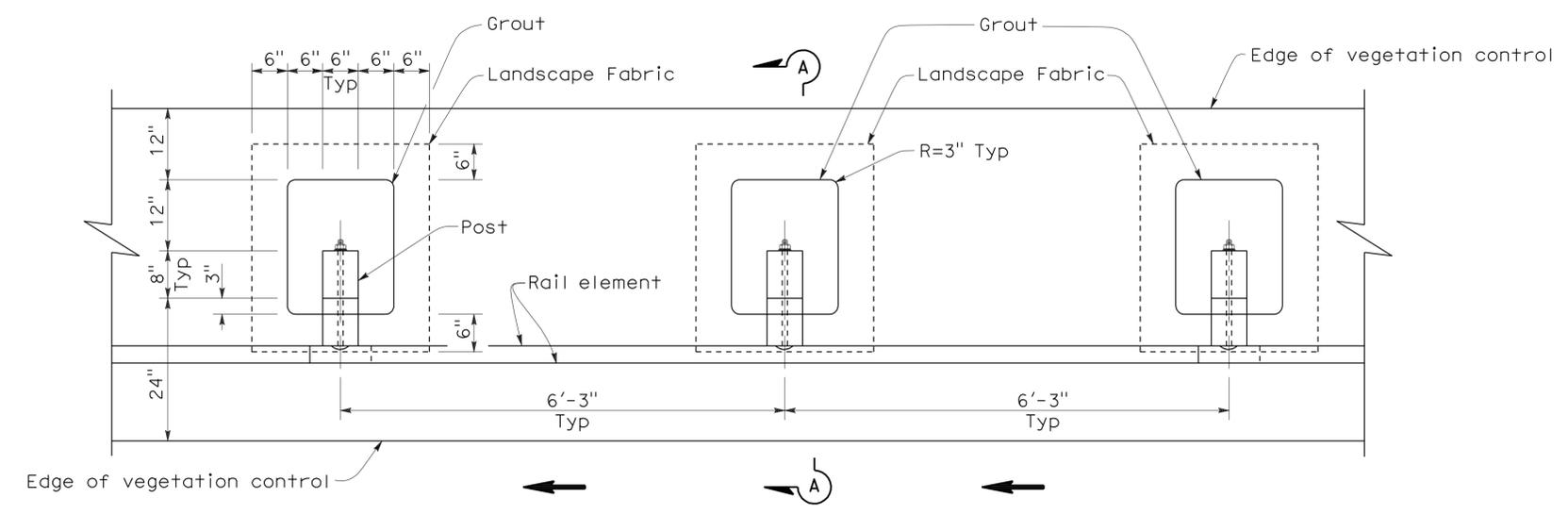
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

October 20, 2006  
PLANS APPROVAL DATE

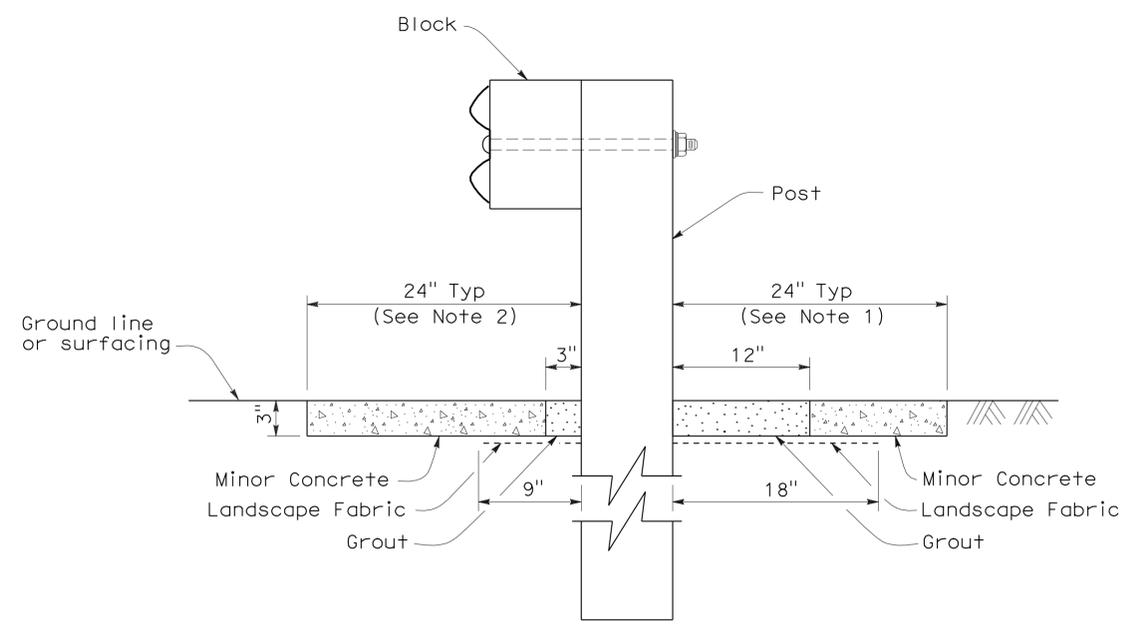
*Randell D. Hiatt*  
No. C50200  
Exp. 6-30-07  
CIVIL  
STATE OF CALIFORNIA

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To accompany plans dated 12-19-11



PLAN



SECTION A-A

NOTES:

1. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
3. Direction of adjacent traffic indicated by ← .

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
STANDARD RAILING SECTION**

NO SCALE

NSP A77C5 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

**NEW STANDARD PLAN NSP A77C5**

2006 NEW STANDARD PLAN NSP A77C5

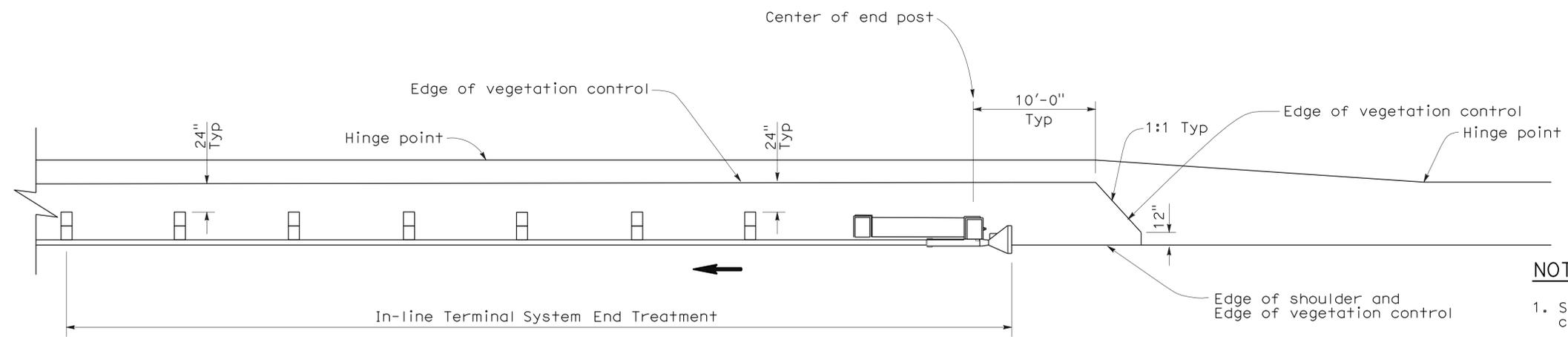
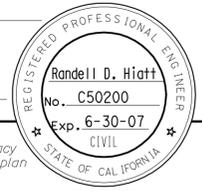
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	25	49

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

October 20, 2006  
PLANS APPROVAL DATE

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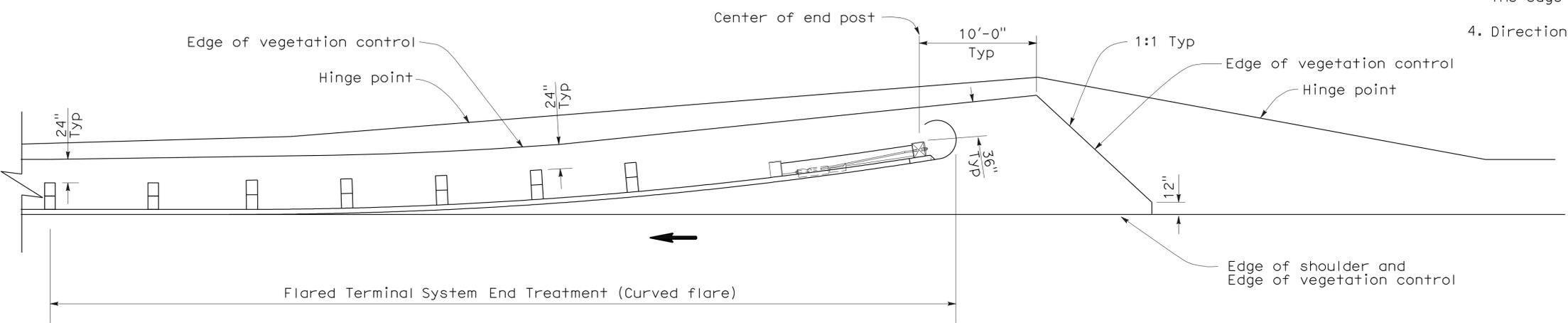
To accompany plans dated 12-19-11



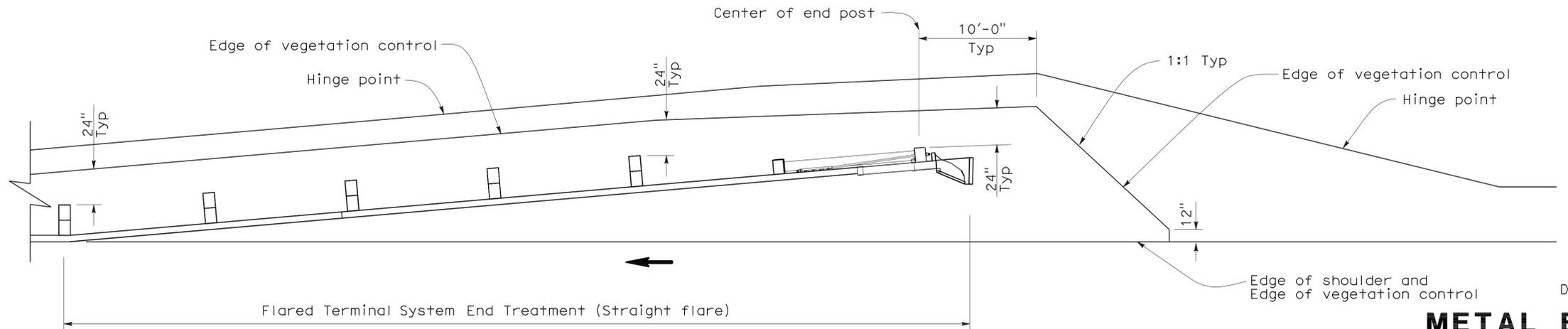
PLAN

**NOTES:**

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.



PLAN



PLAN

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
FOR TERMINAL SYSTEM END TREATMENTS**

NO SCALE  
NSP A77C6 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP A77C6

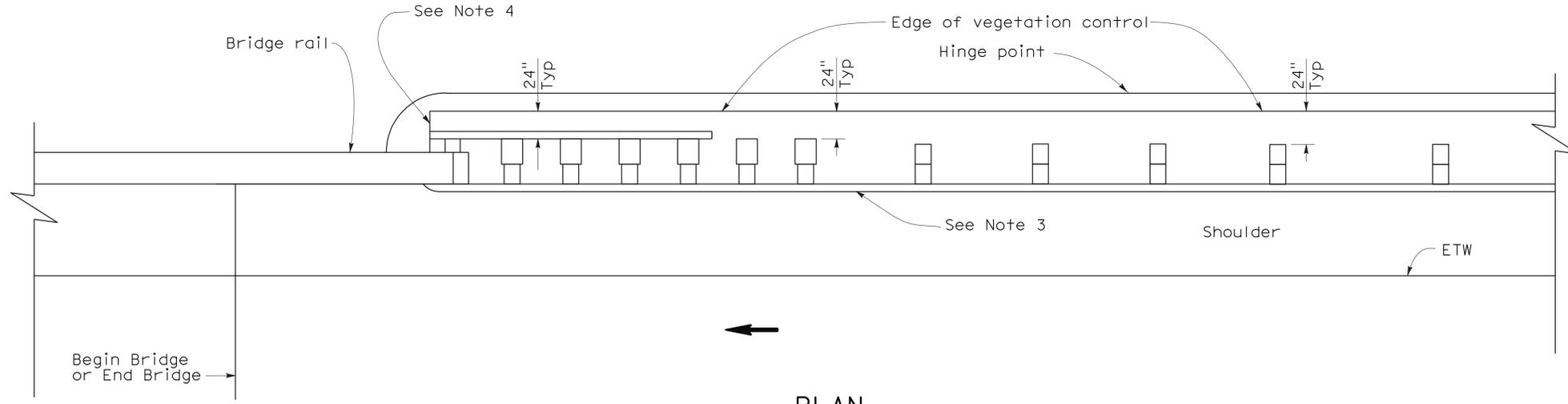
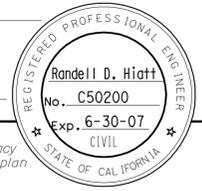
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	26	49

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

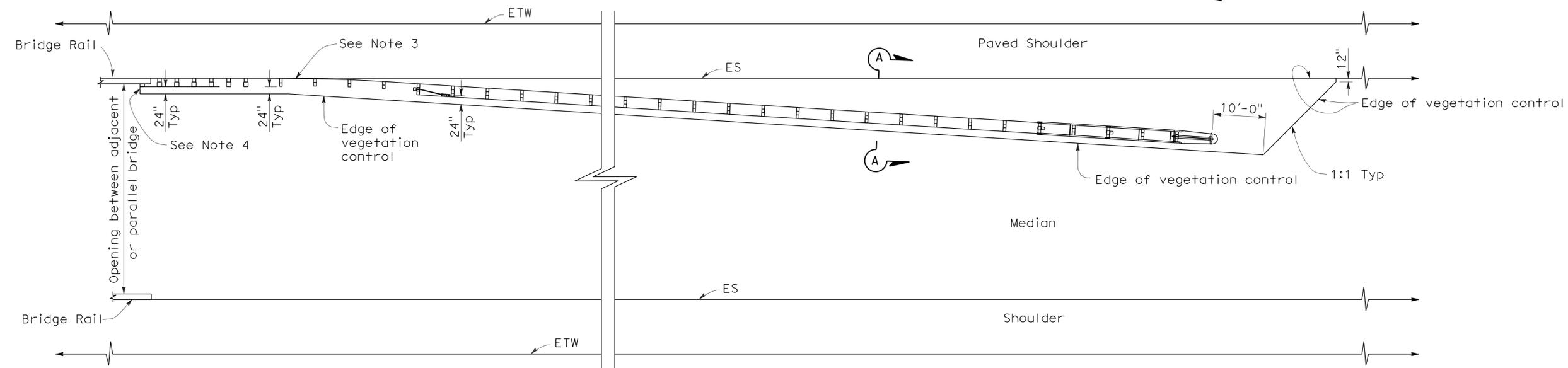
October 20, 2006  
PLANS APPROVAL DATE

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To accompany plans dated 12-19-11



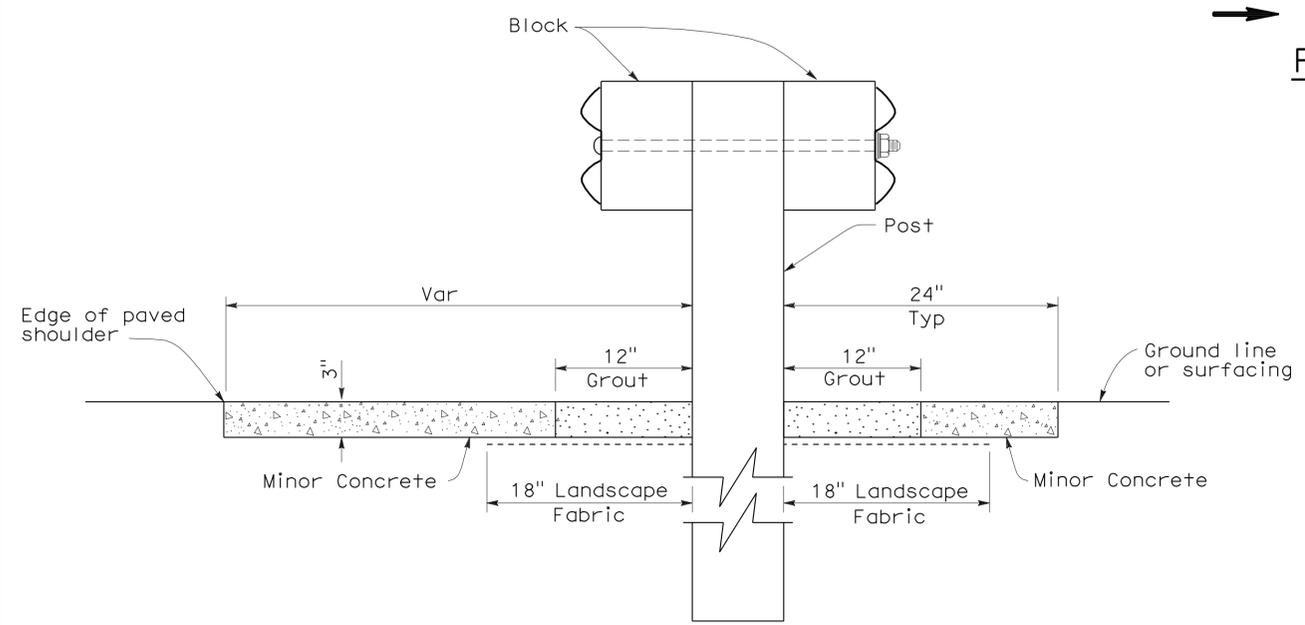
PLAN



PLAN

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. End vegetation control at end of backside rail element.
5. Direction of adjacent traffic indicated by ←.



SECTION A-A

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
AT STRUCTURE APPROACH  
AND DEPARTURE**

NO SCALE  
NSP A77C7 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP A77C7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	27	49

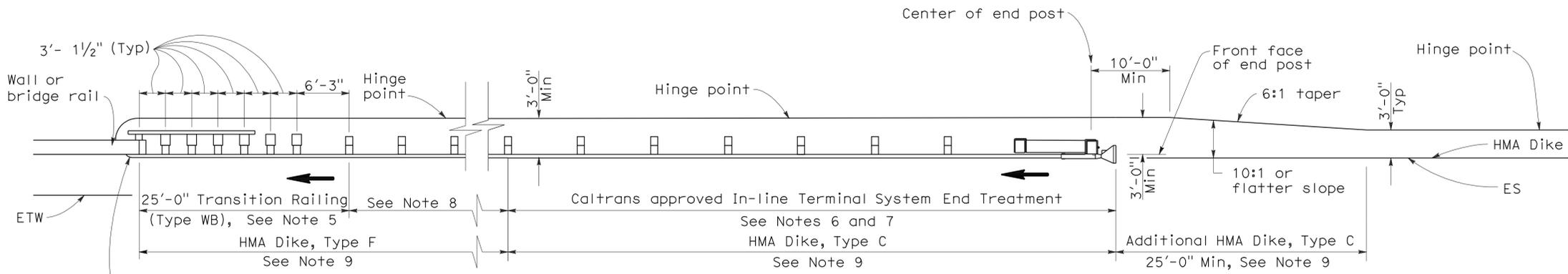
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

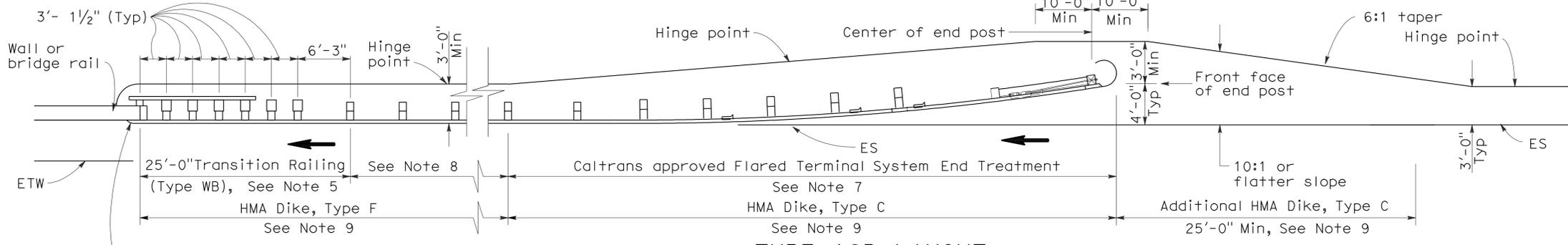
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To accompany plans dated 12-19-11



**TYPE 12A LAYOUT**

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 10



**TYPE 12B LAYOUT**

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 10

**NOTES:**

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- 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 posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by  $\rightarrow$ .
- For Transition Railing (Type WB) details for Types 12A and 12B Layouts, see Standard Plan A77J4.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes, or other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatment.

- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- Type 12A or Type 12B Layouts are typically used:
  - To the right of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
  - To the left of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
  - To the right of approaching traffic at the end of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
  - To the right of approaching traffic at the end of the structure on multilane freeways or expressways with decked median on the bridge.
- See Revised Standard Plan RSP A77F3 for typical layout used left of approaching traffic at the ends of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.

- For additional details of typical connections to bridge rail, see Connection Detail AA on Revised Standard Plans RSP A77J1 and RSP A77J2 and Connection Detail FF on Standard Plans A77K1 and A77K2.
- For additional details of a typical connection to walls or abutments, see Standard Plan A77J3.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL LAYOUTS FOR  
STRUCTURE APPROACH**

NO SCALE

RSP A77F1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F1  
DATED MAY 1, 2006 - PAGE 54 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77F1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	28	49

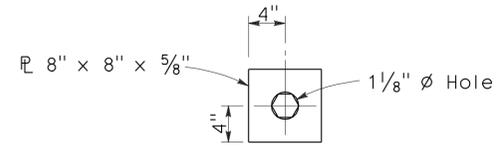
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

May 20, 2011  
PLANS APPROVAL DATE

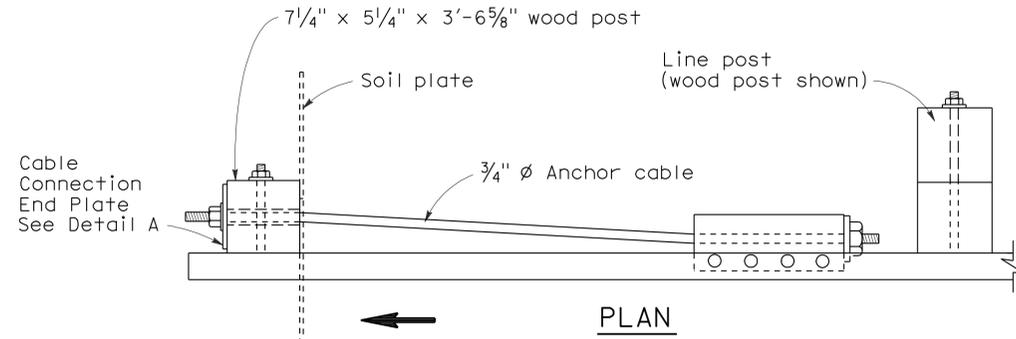
*Randell D. Hiatt*  
No. C50200  
Exp. 6-30-11  
CIVIL  
STATE OF CALIFORNIA

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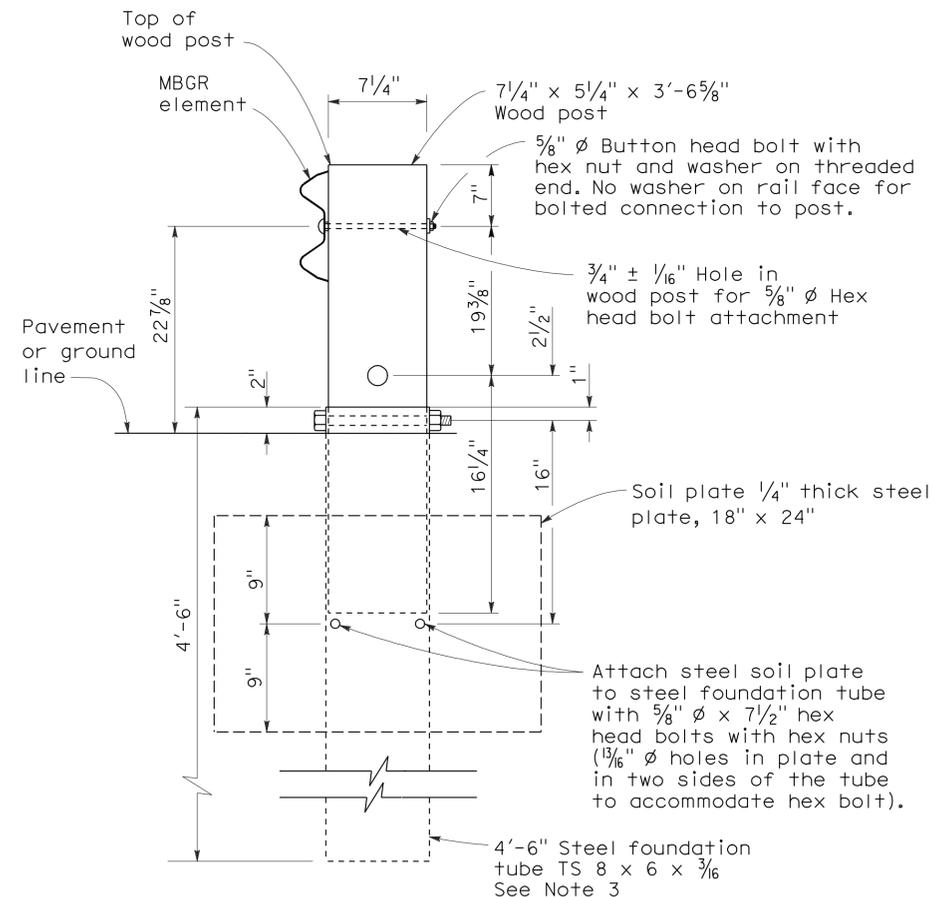
To accompany plans dated 12-19-11



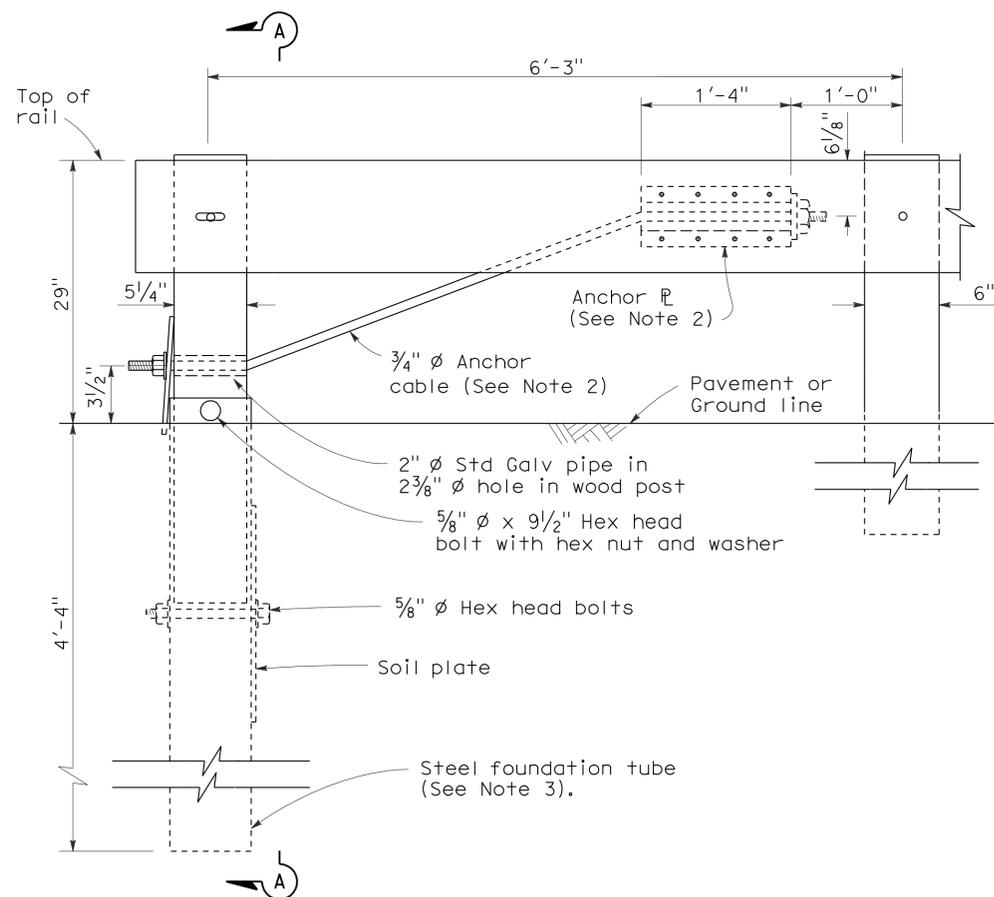
**DETAIL A**  
**CABLE CONNECTION**  
**END PLATE**



**PLAN**



**SECTION A-A**



**ELEVATION**  
**END ANCHOR**  
**ASSEMBLY (TYPE SFT)**  
See Note 1

**NOTES:**

1. See the A77E, A77F and A77G series of Standard Plans for typical use of End Anchor Assembly (Type SFT).
2. For details of the anchor plate and 3/4" cable, see Standard Plan A77H3.
3. A 6'-0" length steel foundation tube, TS 8 x 6 x 3/16, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 5/8" diameter hex head bolt and nut shall be installed in the hole in the 6'-0" length tube to keep the wood post from dropping into the tube.
4. Direction of traffic indicated by →.
5. Install line post, steel foundation tube and soil plate in soil.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL RAILING**  
**END ANCHOR ASSEMBLY**  
**(TYPE SFT)**

NO SCALE

RSP A77H1 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77H1  
DATED MAY 1, 2006 - PAGE 67 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77H1**

2006 REVISED STANDARD PLAN RSP A77H1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	29	49

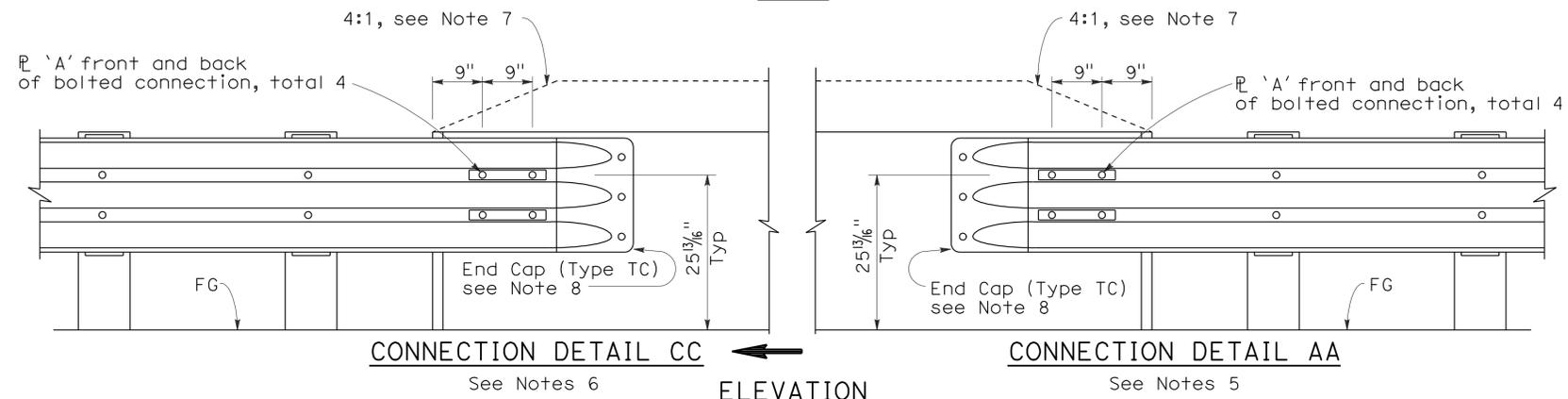
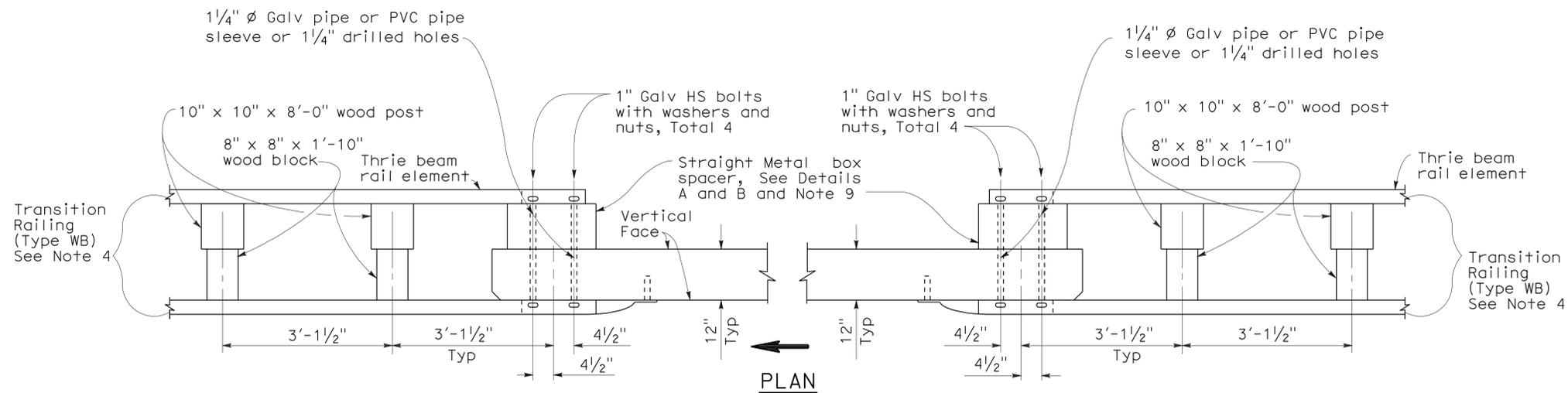
**Randell D. Hiatt**  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

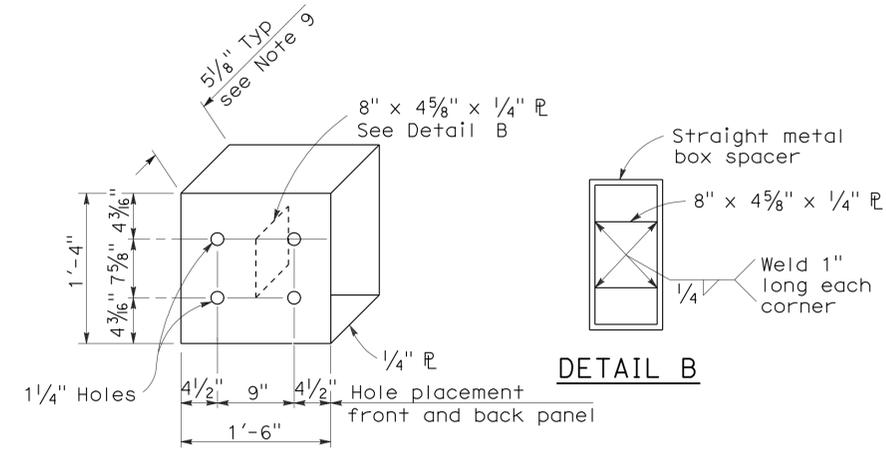
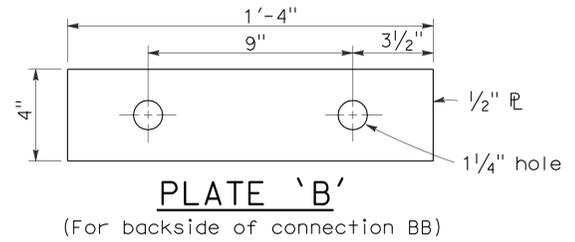
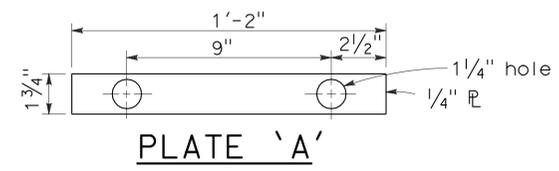
To accompany plans dated 12-19-11



**GUARD RAILING CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK**

**NOTES:**

- See Revised Standard Plan RSP A77J1 for additional connection details to bridges without sidewalks.
- Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
- Direction of adjacent traffic indicated by →.
- For additional details of Transition Railing (Type WB), see Standard Plan A77J4. Transition Railing (Type WB) transitions the 12 gage w-beam standard railing section of guard railing to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
- For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77F1, Layout Types 12C and 12D on Standard Plan A77F2, and Layout Type 12E on Revised Standard Plan RSP A77F3.
- For typical use of Connection Detail CC, see Layout Types 12AA and 12BB on Standard Plan A77F4 and Layout Type 12CC on Standard Plan A77F5.
- Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA and connection Detail CC, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam railing.
- For details of End Cap (Type TC), see Standard Plans A77J4.
- See Standard Plans A77J4 for additional details regarding depth dimension for straight metal box spacer.



**DETAIL A**  
**STRAIGHT METAL BOX SPACER**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS No.2**

NO SCALE  
RSP A77J2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77J2  
DATED MAY 1, 2006 - PAGE 73 OF THE STANDARD PLANS BOOK DATED MAY 2006.

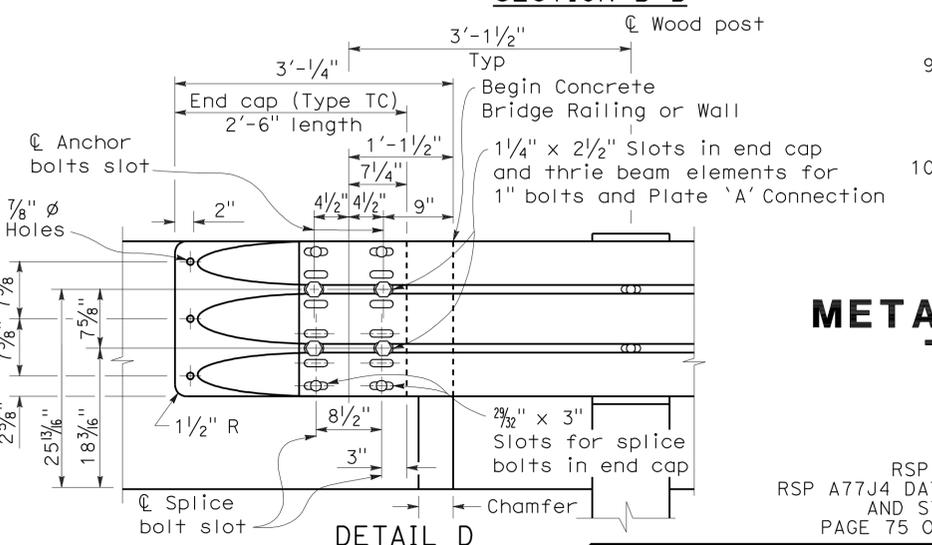
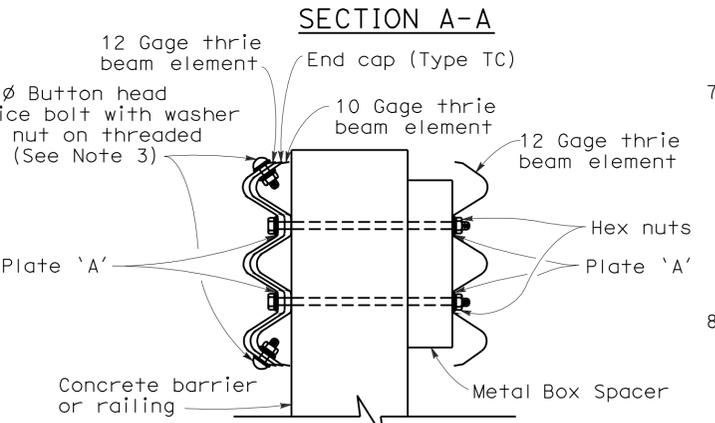
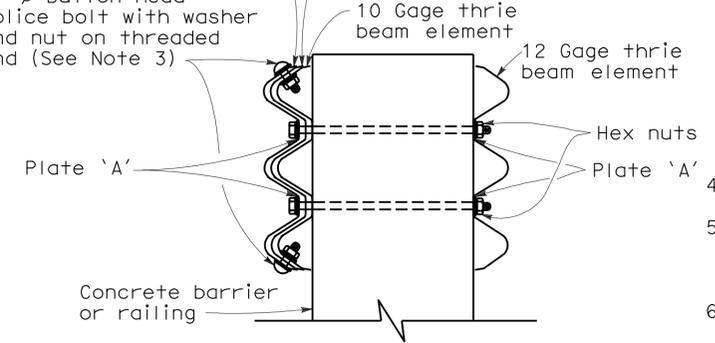
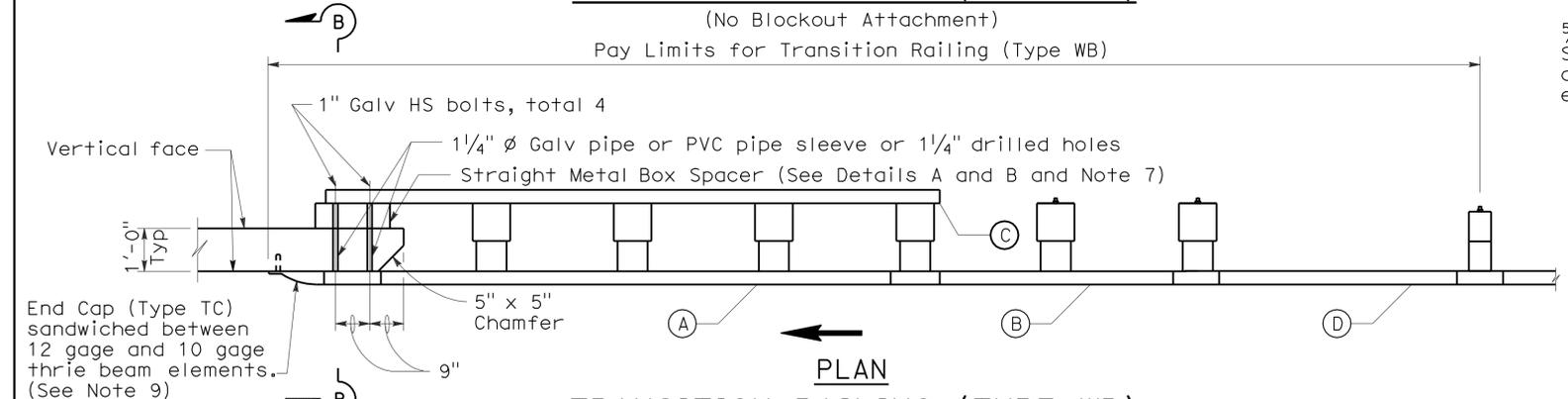
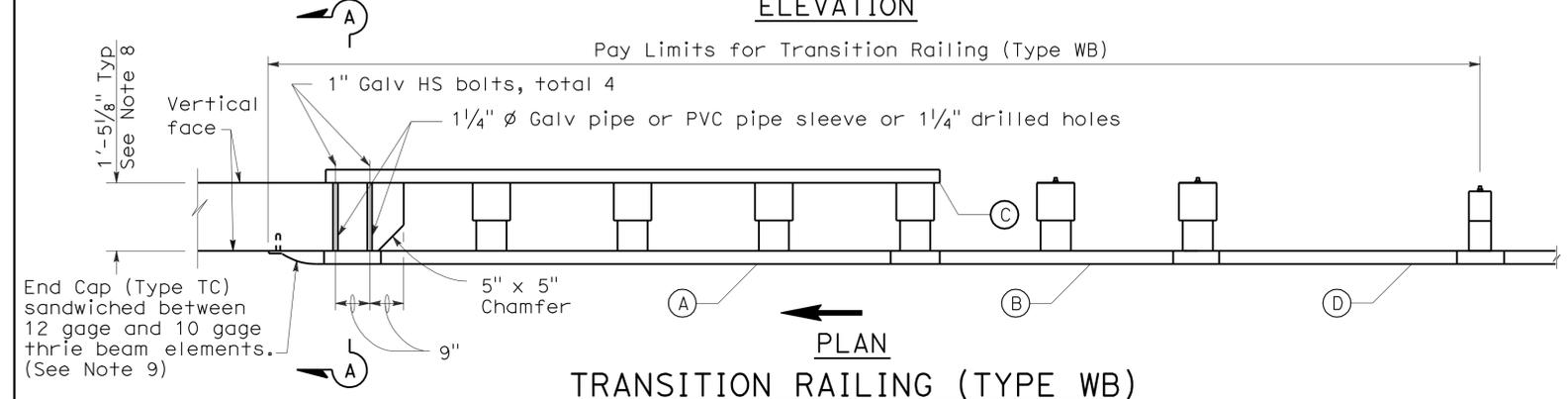
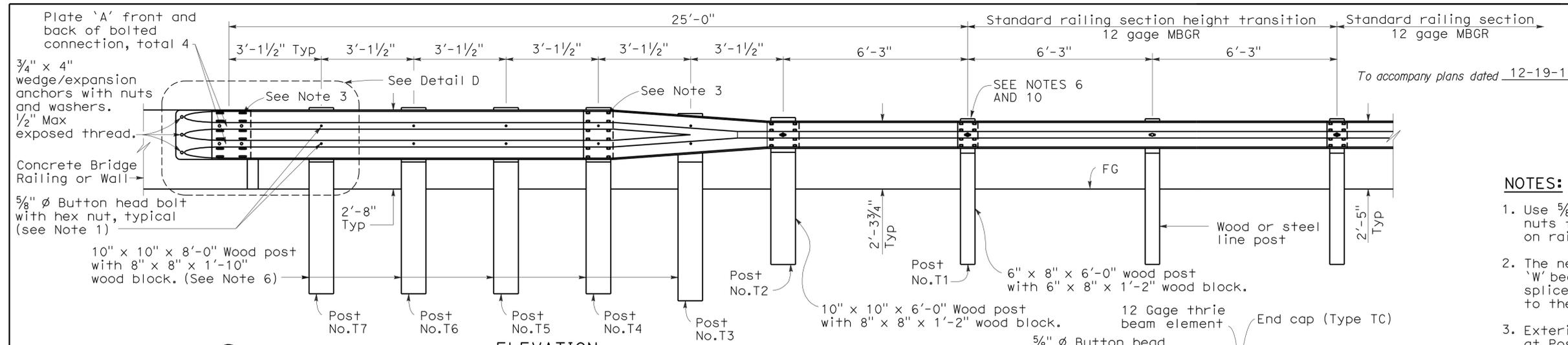
**REVISED STANDARD PLAN RSP A77J2**

2006 REVISED STANDARD PLAN RSP A77J2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	30	49

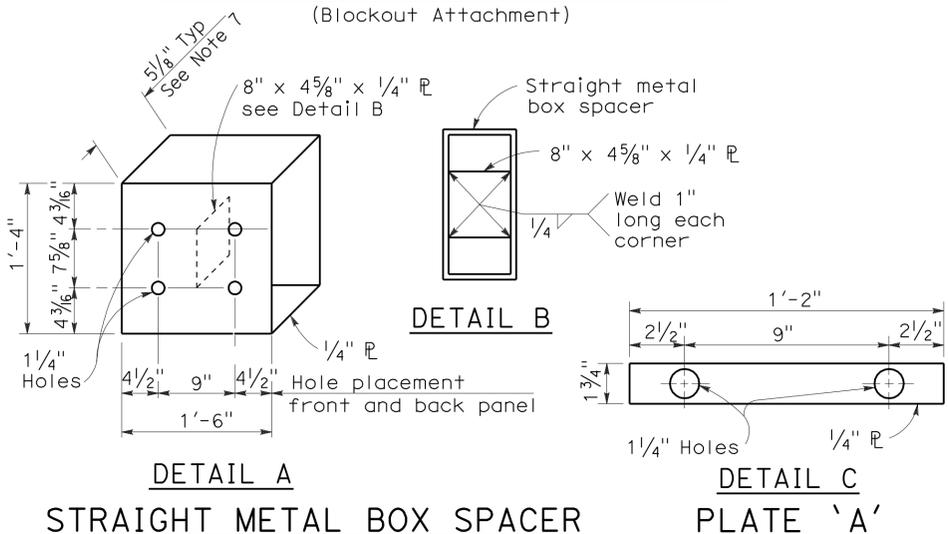
**Randell D. Hiatt**  
 REGISTERED CIVIL ENGINEER  
 No. C50200  
 Exp. 6-30-11  
 STATE OF CALIFORNIA

May 20, 2011  
 PLANS APPROVAL DATE  
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- NOTES:**
- Use 5/8"  $\phi$  Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
  - The nested rail elements, end cap, and "W" beam to thrie beam element may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
  - Exterior splice bolt holes for rail element splices at Post No. T4 and the connection to the concrete barrier or railing shall be the standard 7/32" x 1/8" slot size. Interior splice bolt holes at these locations may be increased up to 1/4"  $\phi$ . Only the top 2 and the bottom 2 splice bolts with washers and nuts are required for rail splices at Post No. T4 and the connection to the concrete barrier or railing.
  - Direction of adjacent traffic indicated by  $\rightarrow$ .
  - The top elevation of Posts No. T2 through No. T7 shall not project more than 1" above the top elevation of the rail element.
  - Typically, the railing connected to Transition Railing (Type WB) will be either standard railing section of metal beam guard railing with height transition ratio of 120:1 or an approved Caltrans end treatment attached to Post No. T1.
  - The depth of the metal box spacer varies from the 5/8" to 1/2" and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 17/8". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1/2", metal plates similar to Plate 'A' are to be used as spacers.
  - Where the width of the concrete railing or wall is greater than 17/8", wood blocks are to be used to fill the space created between the backside of Posts No. T4 through No. T7 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
  - End cap may be installed over 12 gage and 10 gage thrie beam elements where transition railing is installed on the departure end of bridge railing.
  - Conform standard railing section height to 2'-3 3/4" at Post No. T1 using height transition ratio of 120:1.

- LEGEND**
- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
  - (B) One 10 gage "W" beam to thrie beam element.
  - (C) One 12 gage thrie beam element.
  - (D) One 10 gage "W" beam rail element (7'-3 1/2" length)
- 10 gage = 0.135" thick  
 12 gage = 0.108" thick

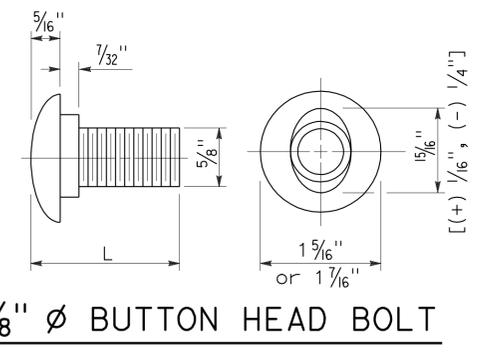
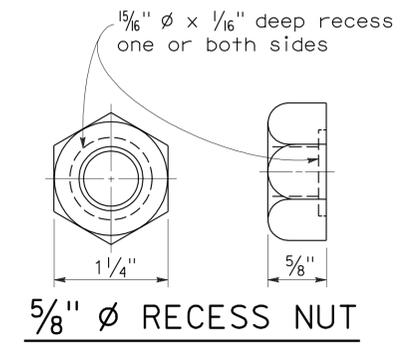
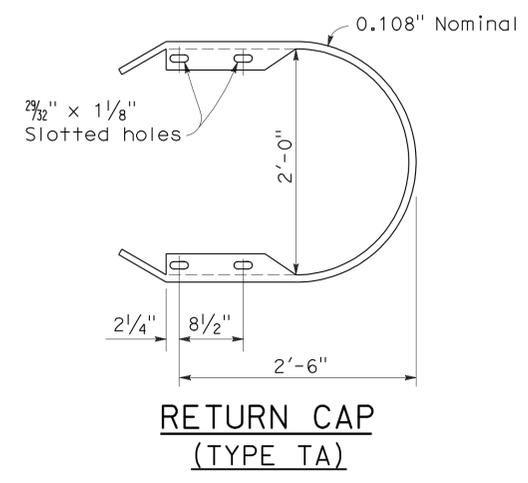


STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**METAL BEAM GUARD RAILING  
 TRANSITION RAILING  
 (TYPE WB)**  
 NO SCALE  
 RSP A77J4 DATED MAY 20, 2011 SUPERSEDES  
 RSP A77J4 DATED JUNE 5, 2009, RSP A77J4 DATED JUNE 6, 2008  
 AND STANDARD PLAN A77J4 DATED MAY 1, 2006 -  
 PAGE 75 OF THE STANDARD PLANS BOOK DATED MAY 2006.

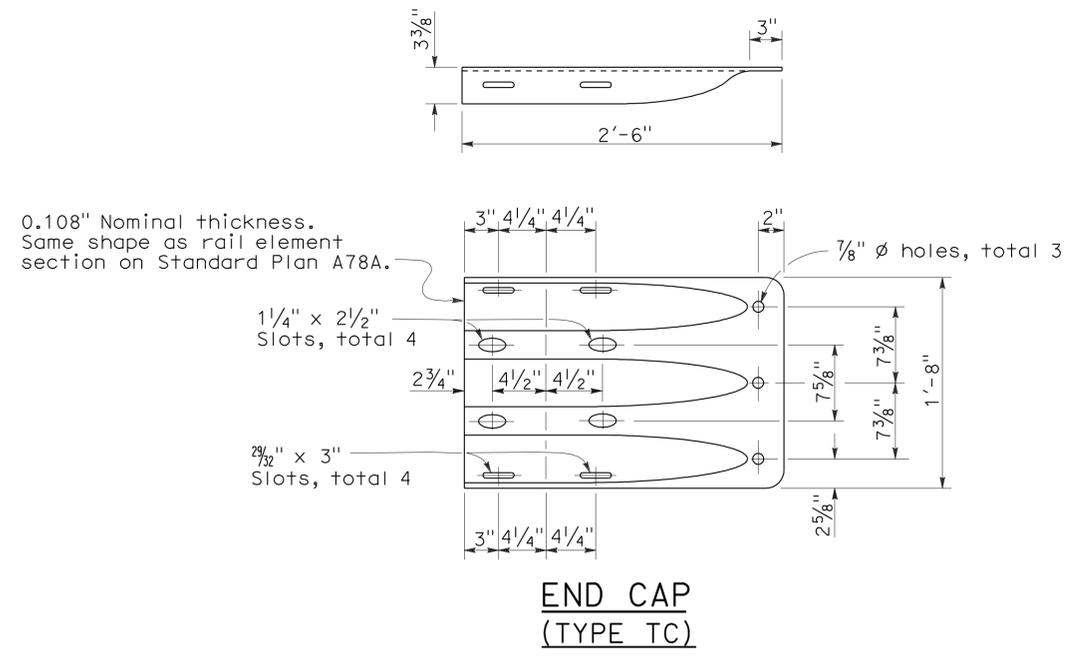
**REVISED STANDARD PLAN RSP A77J4**

2006 REVISED STANDARD PLAN RSP A77J4

To accompany plans dated 12-19-11



L	THREAD LENGTH
1 1/4"	full thread length
2"	full thread length
9/2"	4" Min thread length
18"	4" Min thread length



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**THRIE BEAM BARRIER  
STANDARD HARDWARE DETAILS**

NO SCALE

RSP A78C1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A78C1  
DATED MAY 1, 2006 - PAGE 85 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A78C1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	32	49

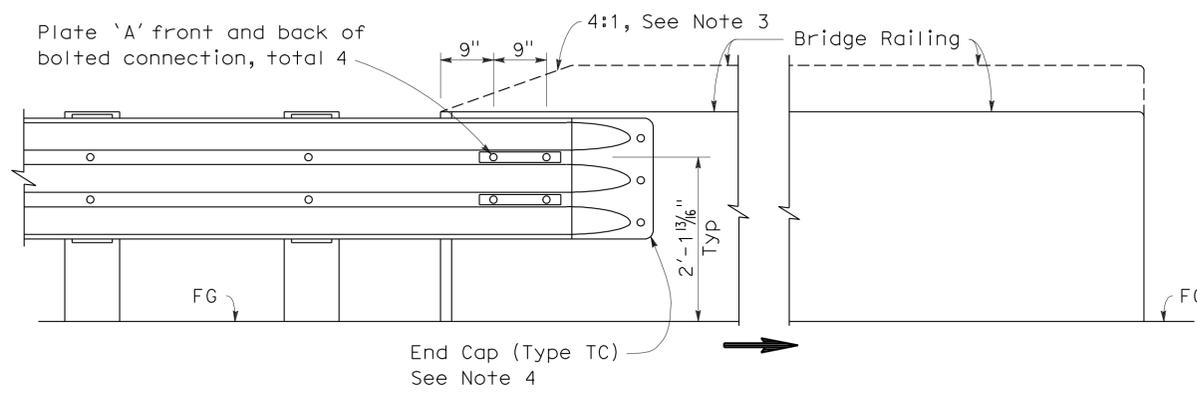
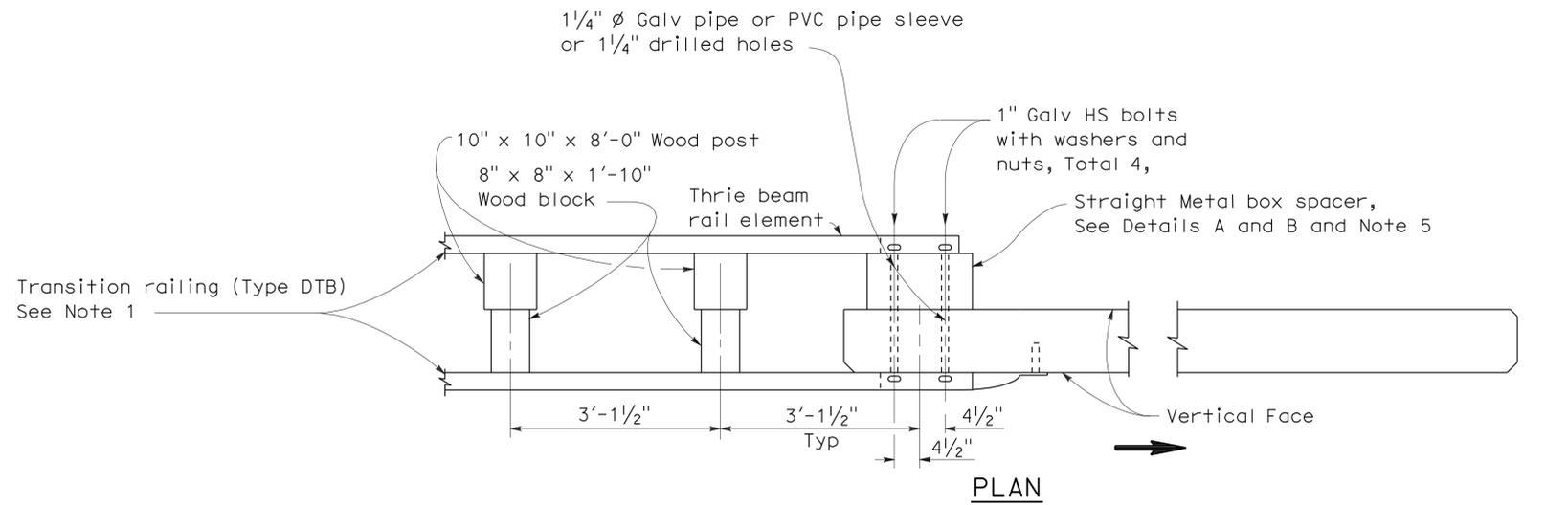
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

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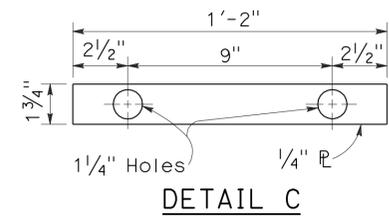
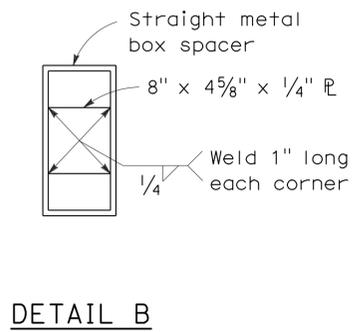
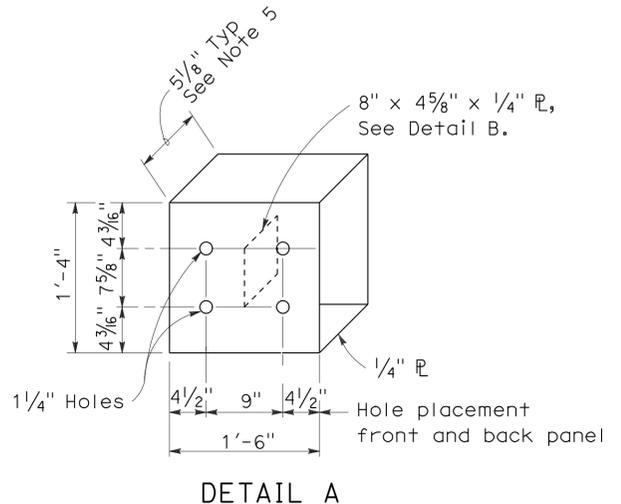


**CONNECTION DETAIL 1A**  
See Note 2

**DOUBLE THRIE BEAM BARRIER CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK**

**NOTES:**

- For additional details of Transition Railing (Type DTB), see Standard Plans A78K. Transition Railing (Type DTB) transitions the standard 12 gage double thrie beam barrier to a heavier gage double thrie beam railing section then to a heavier gage nested double thrie beam barrier section which then is connected to the concrete bridge railing.
- For typical use of Connection Detail 1A, see Type 25A Connection Layout on Revised Standard Plan RSP A78H.
- Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail 1A, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam railing.
- For details of End Cap (Type TC), see Standard Plan A78C1.
- See Standard Plan A78K for additional details regarding depth dimension for straight metal box spacer.
- Direction of adjacent traffic indicated by →.



**STRAIGHT METAL BOX SPACER**

**PLATE 'A'**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**DOUBLE THRIE BEAM BARRIER CONNECTION TO BRIDGE RAILINGS WITHOUT SIDEWALKS**

NO SCALE  
RSP A78F1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A78F1  
DATED MAY 1, 2006 - PAGE 92 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A78F1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	33	49

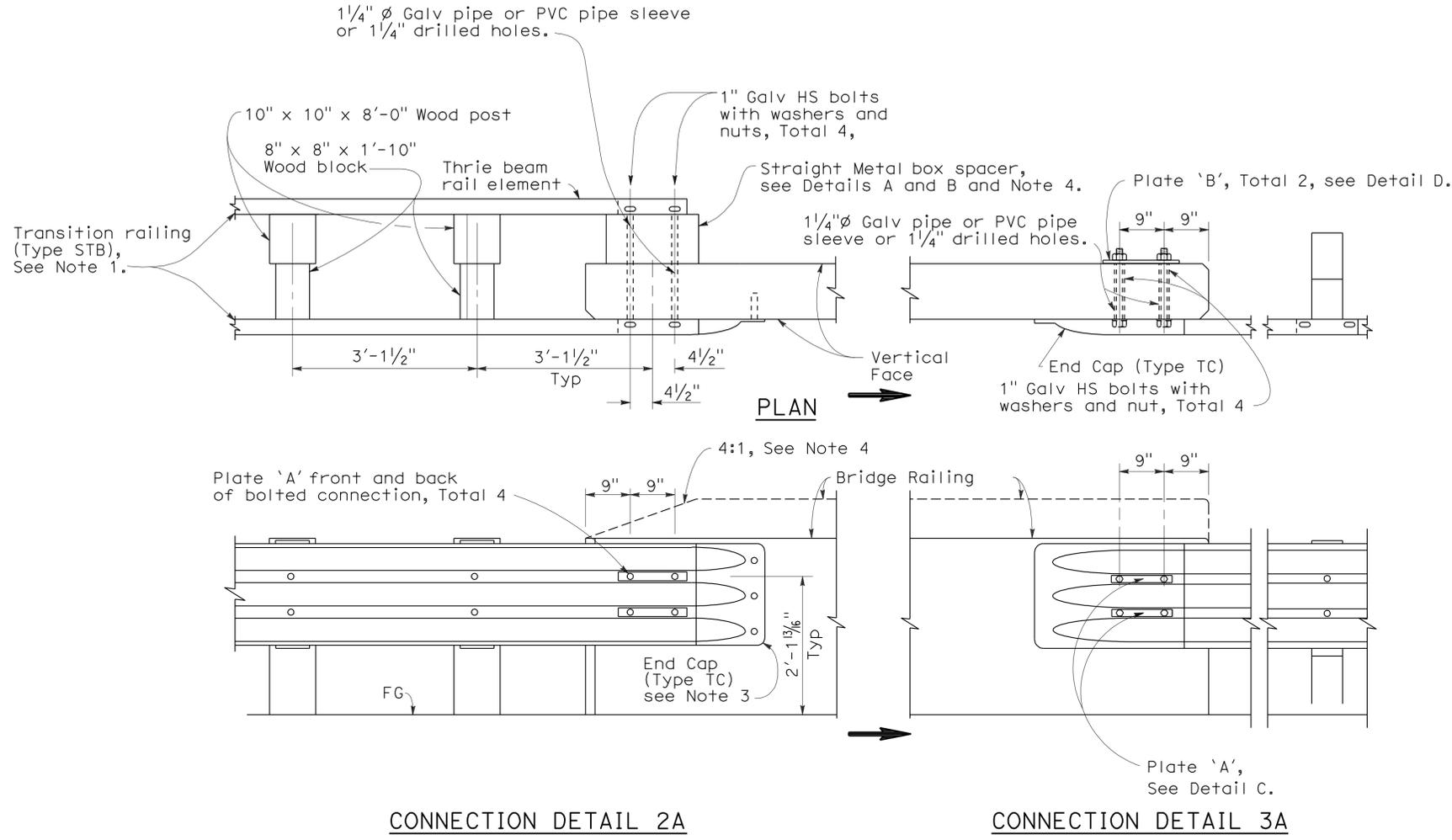
**Randell D. Hiatt**  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

To accompany plans dated 12-19-11



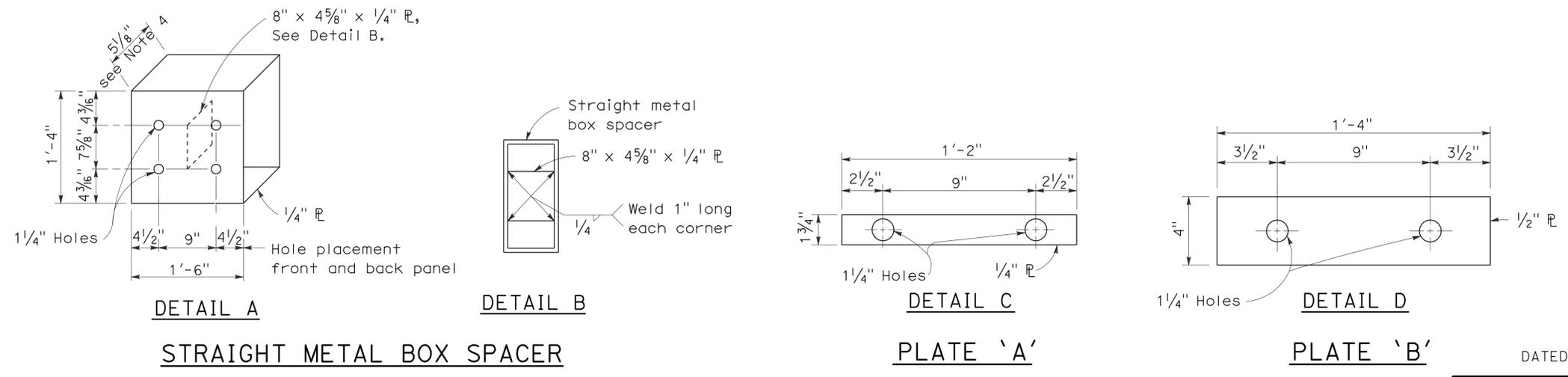
**NOTES:**

1. For additional details of Transition Railing (Type STB), see Standard Plans A78J. Transition Railing (Type STB) transitions the standard 12 gage single thrie beam barrier to a heavier gage single thrie beam railing section then to a heavier gage nested double thrie beam barrier section which then is connected to the concrete bridge railing.
2. Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail 2A, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam railing.
3. For details of End Cap (Type TC), see Standard Plan A78C1.
4. See Standard Plan A78J for additional details regarding depth dimension for straight metal box spacer.
5. Direction of adjacent traffic indicated by →.

**CONNECTION DETAIL 2A**      **CONNECTION DETAIL 3A**

**ELEVATION**

**SINGLE THRIE BEAM BARRIER CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK**



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**SINGLE THRIE BEAM BARRIER CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS**

NO SCALE

RSP A78F2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A78F2 DATED MAY 1, 2006 - PAGE 93 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A78F2**

2006 REVISED STANDARD PLAN RSP A78F2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	34	49

**Randell D. Hiatt**  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

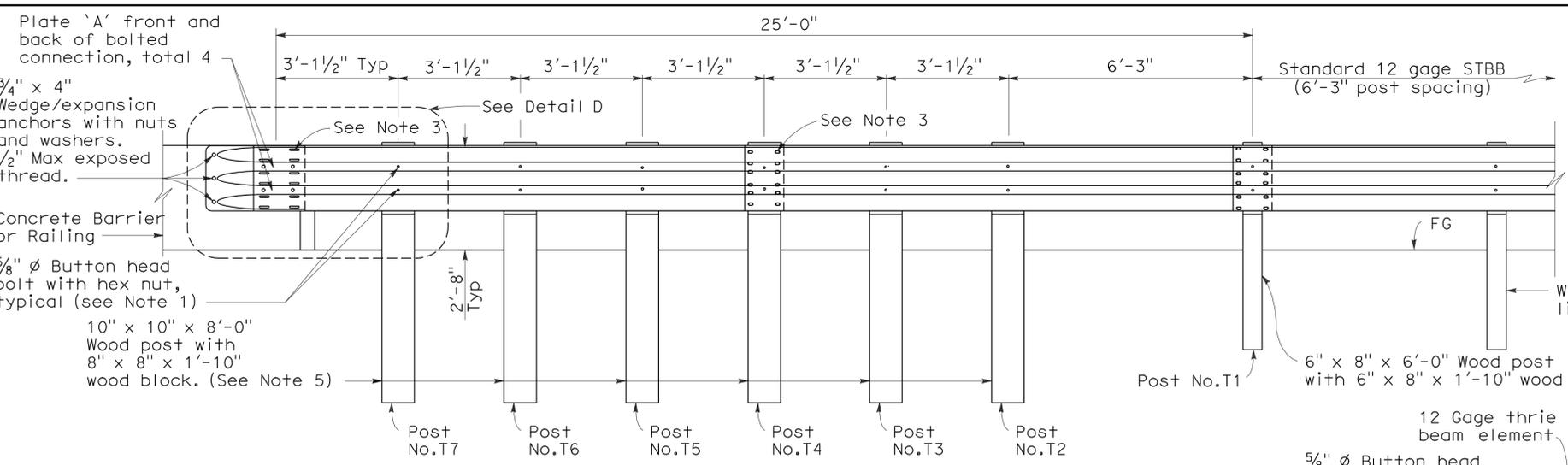
To accompany plans dated 12-19-11

**LEGEND**

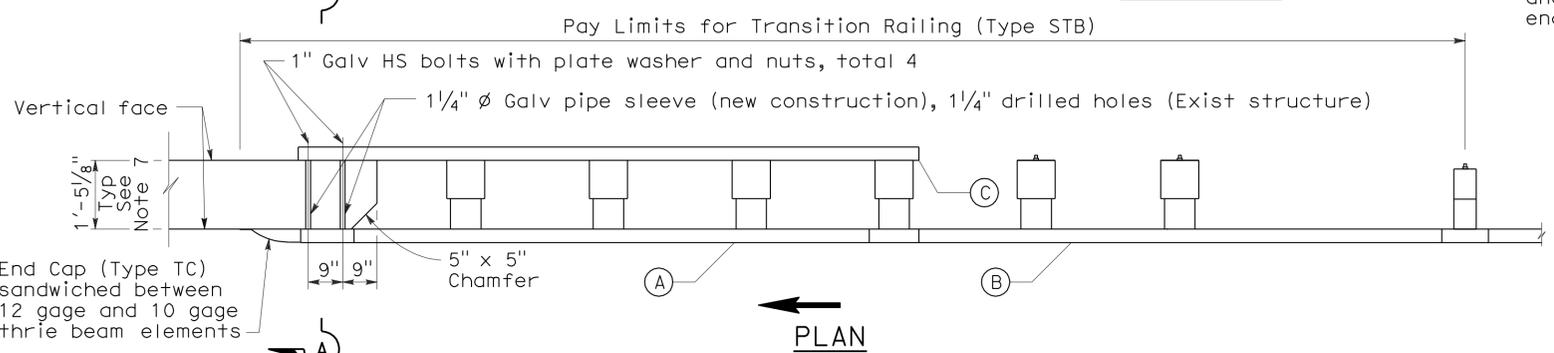
- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
  - (B) One 10 gage thrie beam element.
  - (C) One 12 gage thrie beam element.
- 10 gage = 0.135" thick  
12 gage = 0.108" thick

**NOTES:**

1. Use 5/8" ø Button head bolts and hex nuts for connection to posts. No washer on rail face for bolted connections to post.
2. The nested rail elements, end cap and single 10 gage thrie beam element, may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
3. Exterior splice bolt holes for rail element splices at Post No.T4 and the connection to the concrete barrier or railing shall be the standard 3/32" x 1 1/8" slot size. Interior splice bolt holes at these locations may be increased up to 1/4" ø. Only the top 2 and the bottom 2 splice bolts with washers and nuts are required for rail splices at Post No.T4 and the connection to the concrete barrier or railing.
4. Direction of adjacent traffic indicated by →.
5. The top elevation of Post Nos.T2 through T7 shall not project more than 1" above the top elevation of the rail element.
6. The depth of the metal box spacer varies from the 5/8" to 1 1/2" and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 17 1/8". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1 1/2" metal plates similar to Plate 'A' are to be used as spacers.
7. Where the width of the concrete railing or wall is greater than 17 1/8", wood blocks are to be used to fill the space created between the backside of Post No.4 through No.7 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
8. For details of End Cap (Type TC), see Revised Standard Plan RSP A78C1.

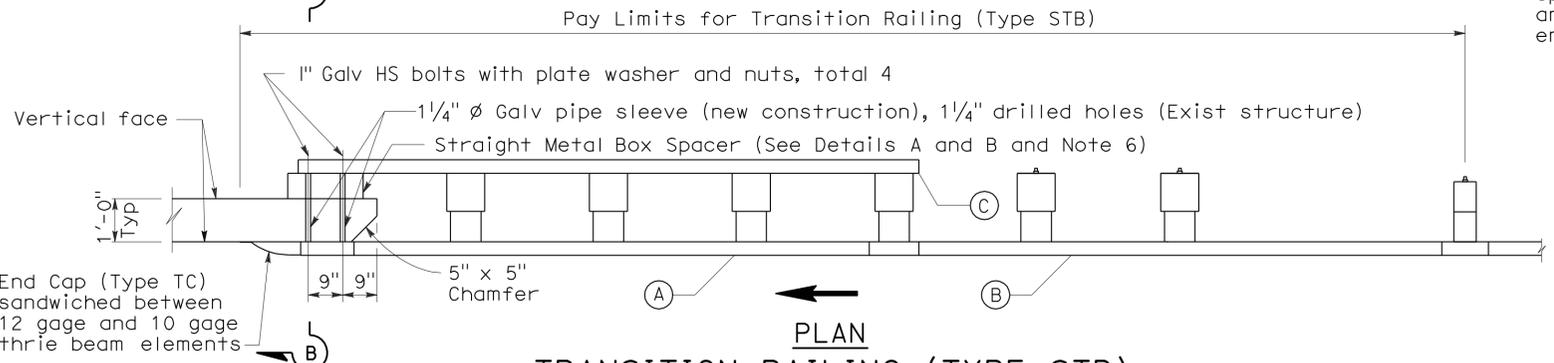


**ELEVATION**



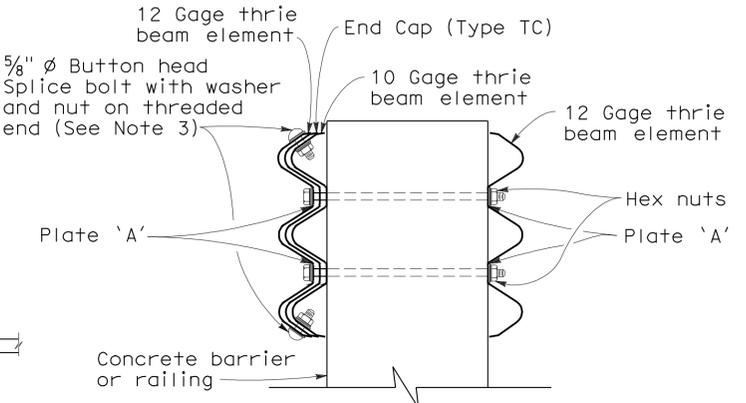
**TRANSITION RAILING (TYPE STB)**

(No Blockout Attachment)

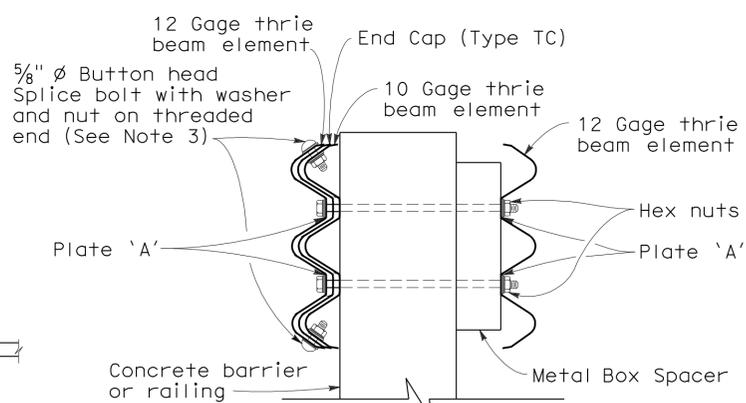


**TRANSITION RAILING (TYPE STB)**

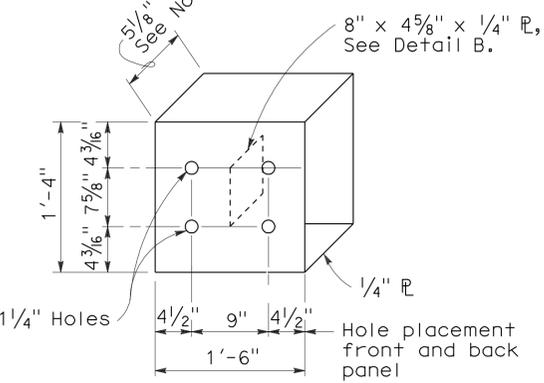
(Blockout Attachment)



**SECTION A-A**

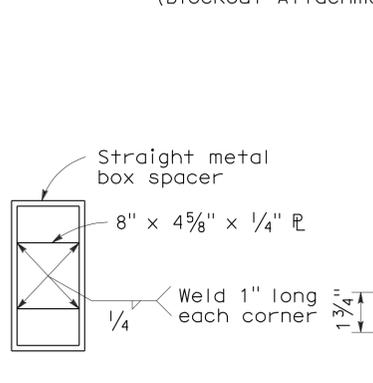


**SECTION B-B**

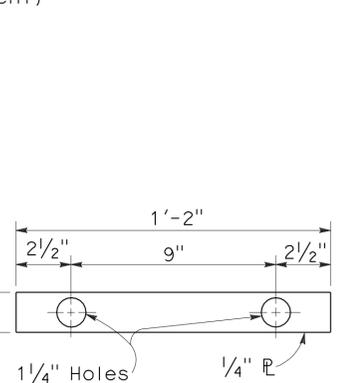


**DETAIL A**

**STRAIGHT METAL BOX SPACER**

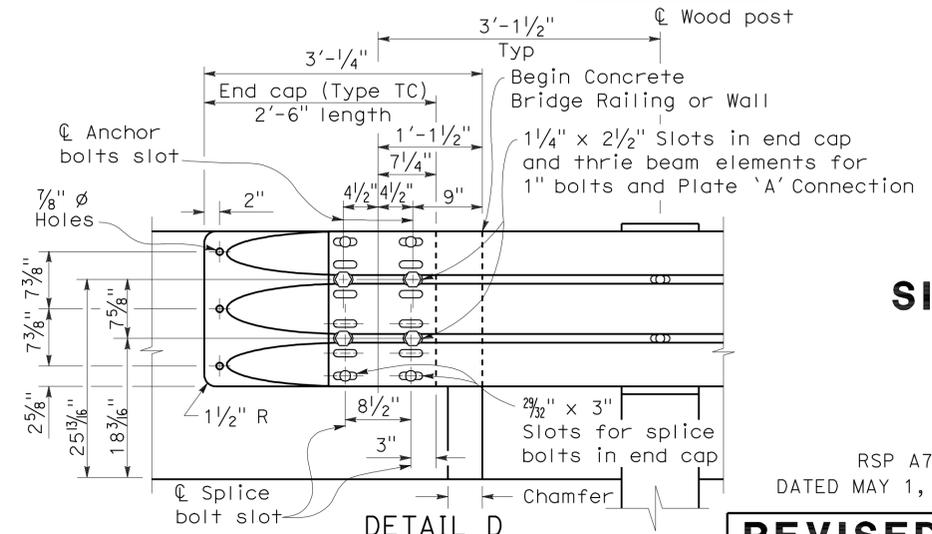


**DETAIL B**



**DETAIL C**

**PLATE 'A'**



**DETAIL D**

**SINGLE THRIE BEAM BARRIER TRANSITION RAILING (TYPE STB)**

NO SCALE

RSP A78J DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A78J DATED MAY 1, 2006 - PAGE 97 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A78J**

2006 REVISED STANDARD PLAN RSP A78J

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	35	49

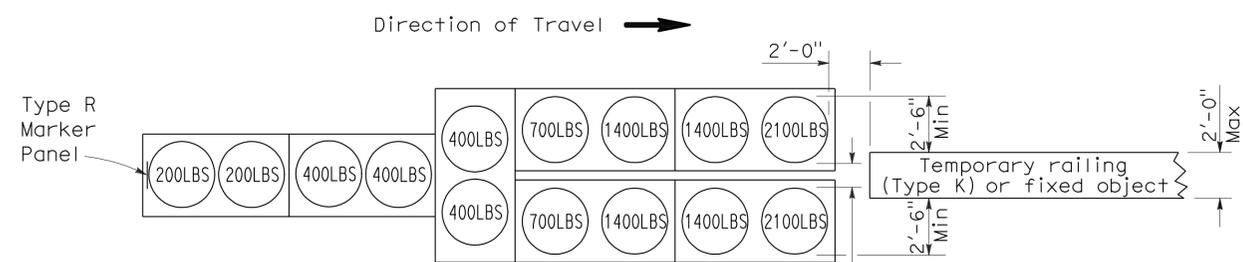
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

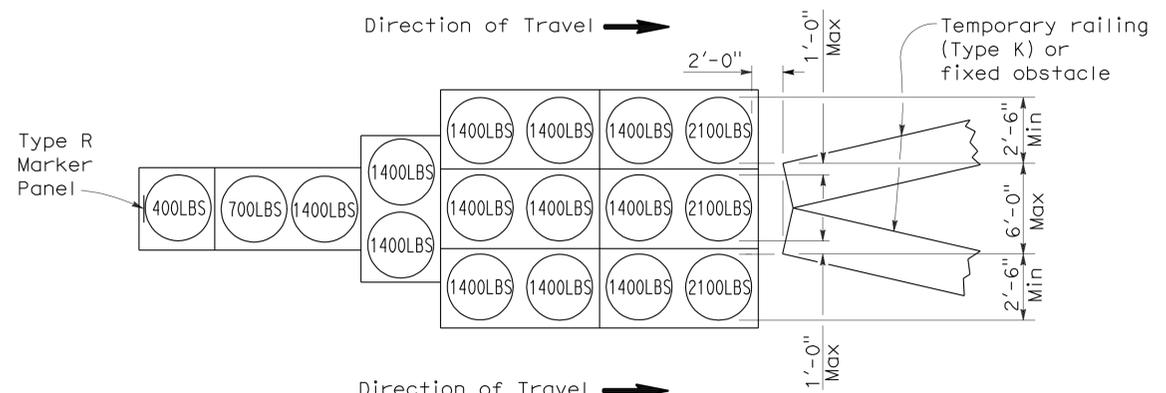
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To accompany plans dated 12-19-11



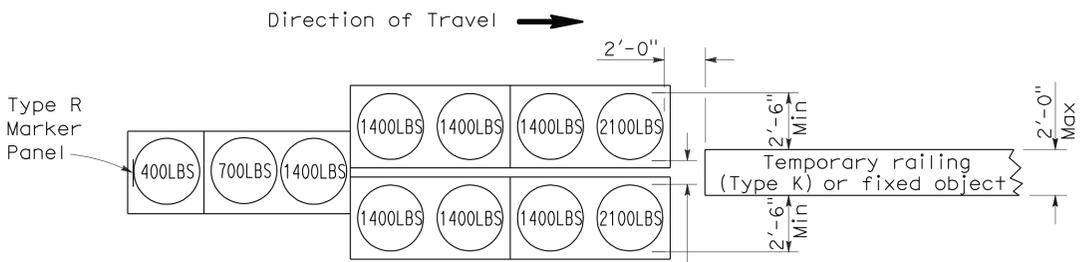
**ARRAY 'TU14'**

Approach speed 45 mph or more



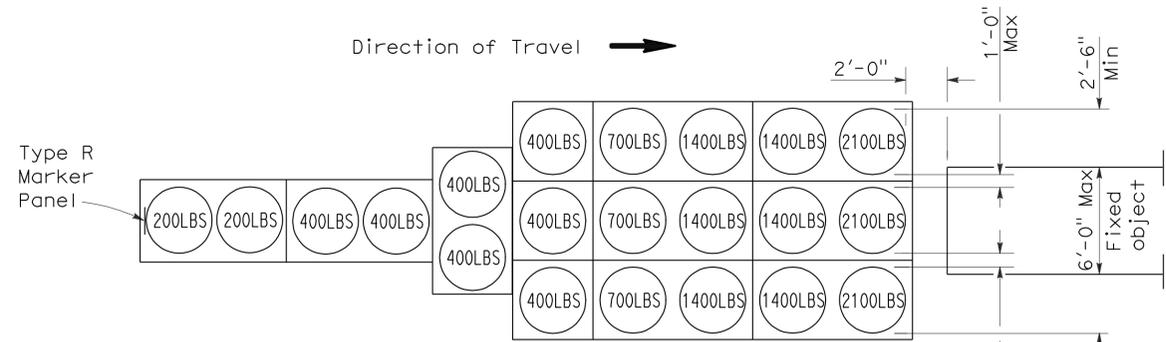
**ARRAY 'TU17'**

Approach speed less than 45 mph



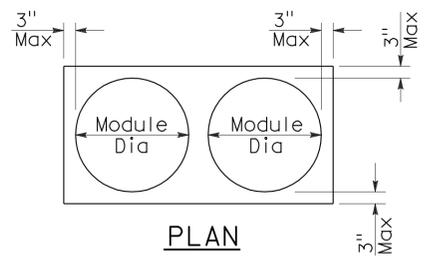
**ARRAY 'TU11'**

Approach speed less than 45 mph

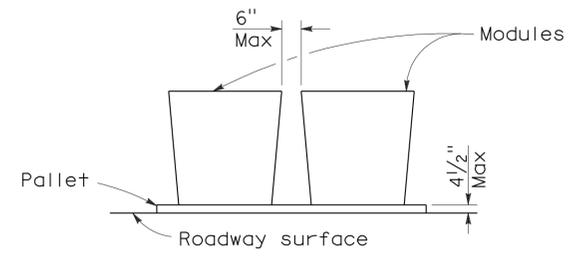


**ARRAY 'TU21'**

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

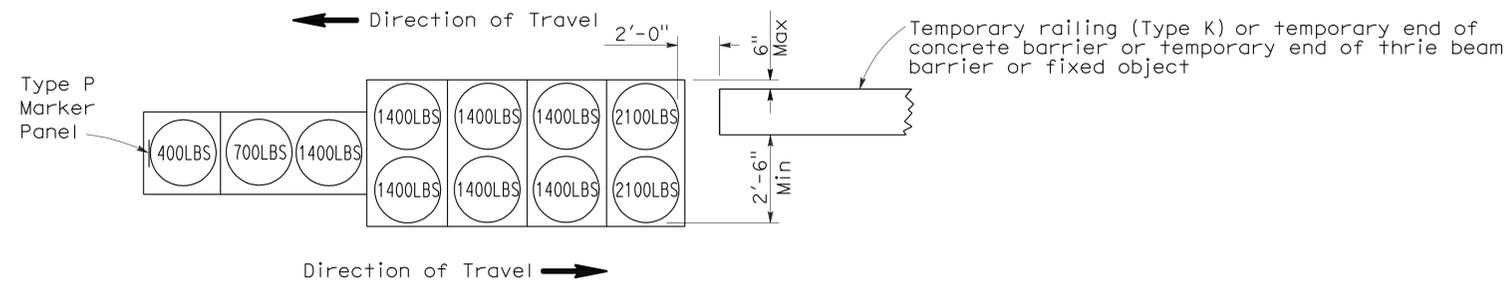
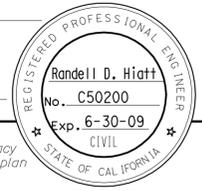
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	36	49

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

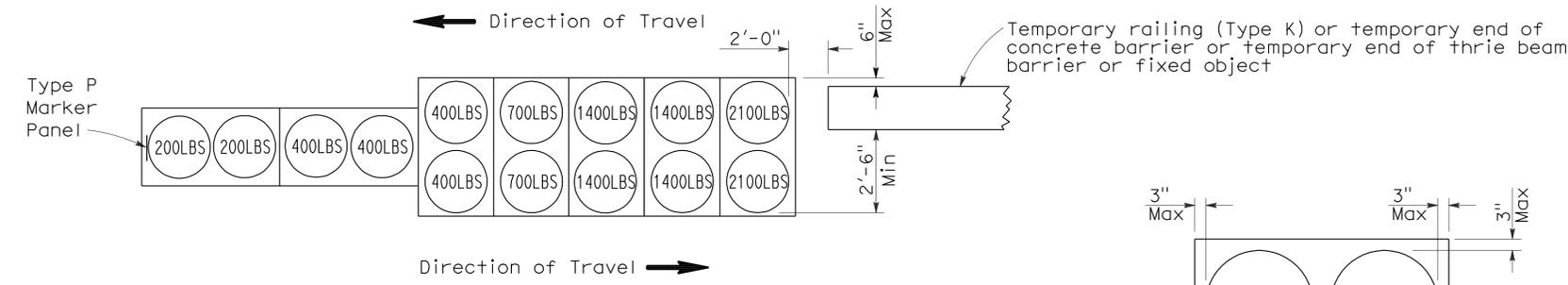
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

To accompany plans dated 12-19-11



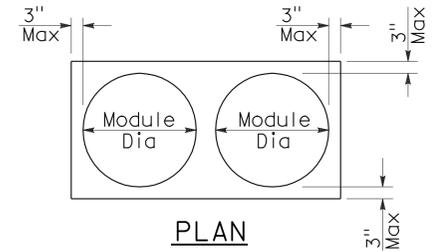
**ARRAY 'TB11'**

Approach speed less than 45 mph

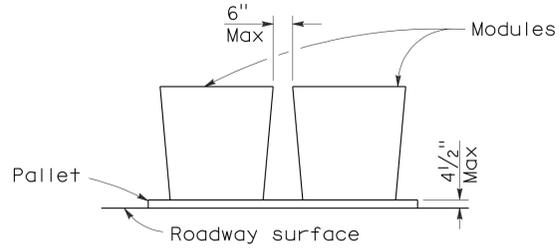


**ARRAY 'TB14'**

Approach speed 45 mph or more



PLAN



ELEVATION

**CRASH CUSHION PALLET DETAIL**

See Note 7

**NOTES:**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

**REVISED STANDARD PLAN RSP T1B**

2006 REVISED STANDARD PLAN RSP T1B

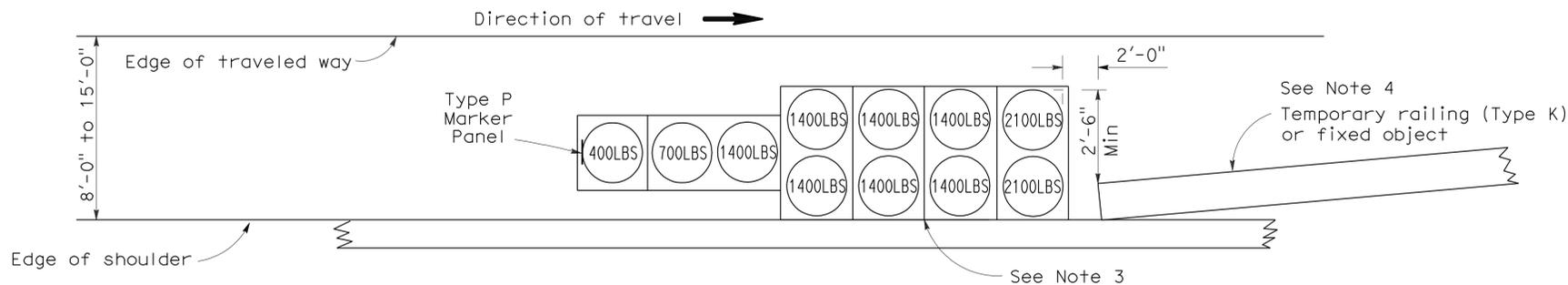
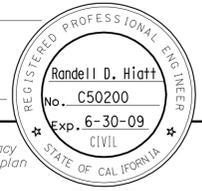
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	37	49

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

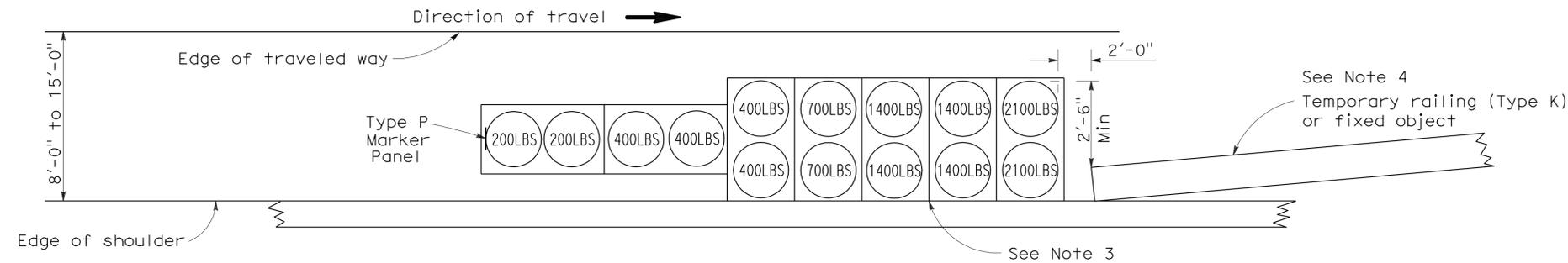
June 6, 2008  
PLANS APPROVAL DATE

*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.*

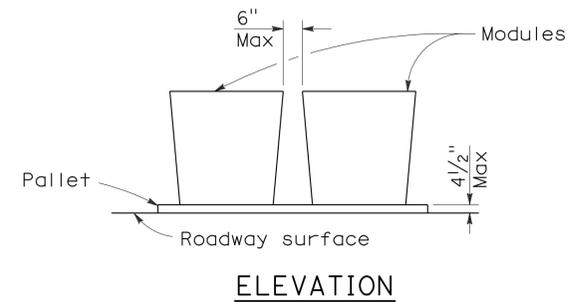
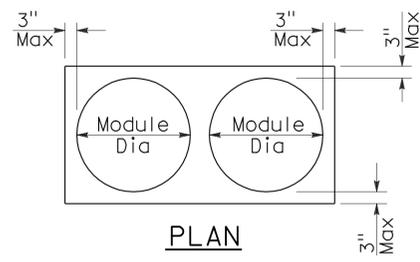
To accompany plans dated 12-19-11



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



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



**CRASH CUSHION PALLET DETAIL**  
See Note 11

**NOTES:**

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

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

NO SCALE  
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2  
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T2**

2006 REVISED STANDARD PLAN RSP T2

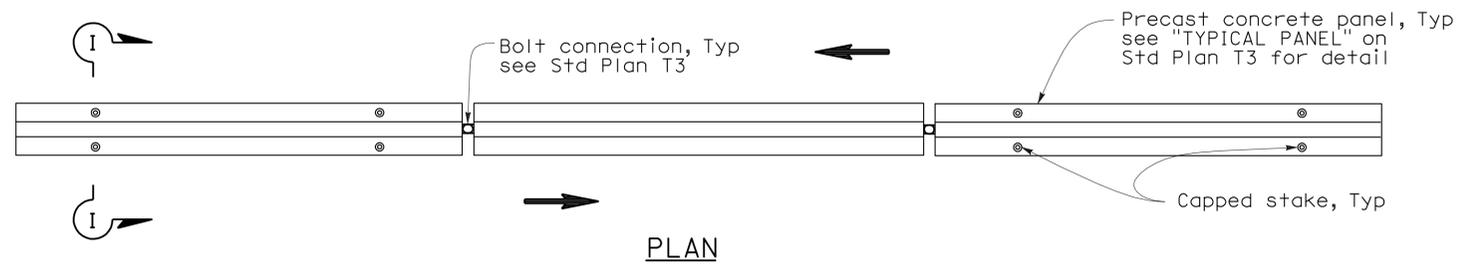
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	23.3	38	49

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

May 20, 2011  
PLANS APPROVAL DATE

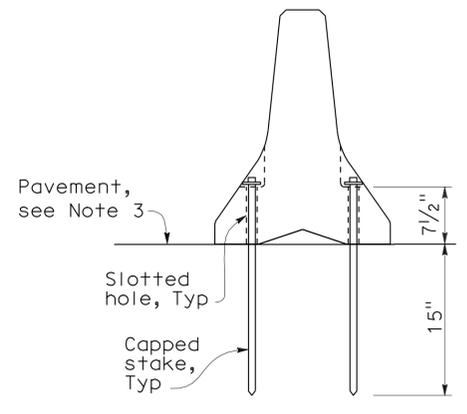
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

To accompany plans dated 12-19-11



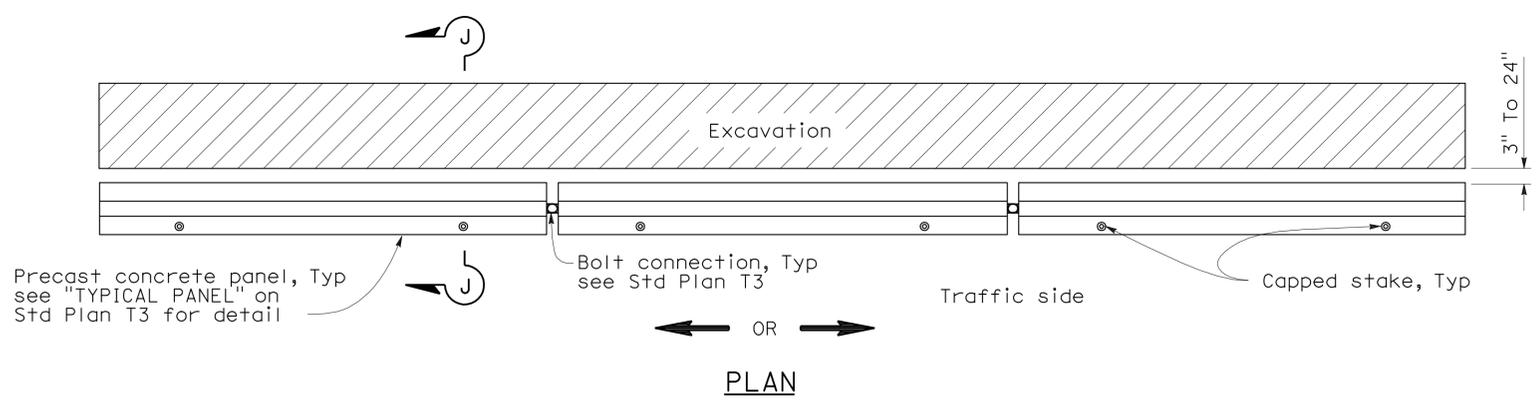
**RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC**

See Note 1



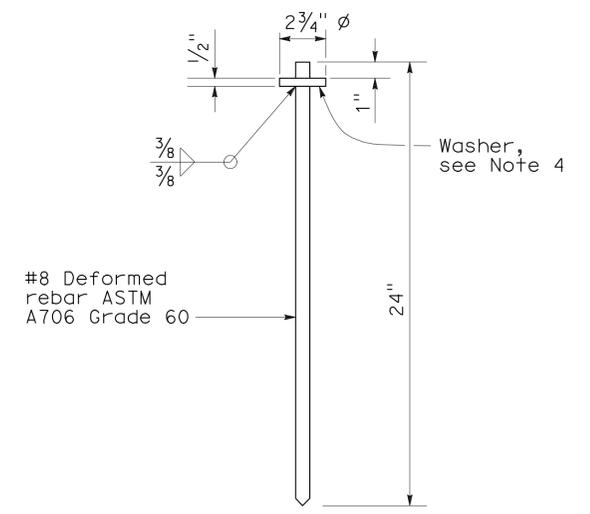
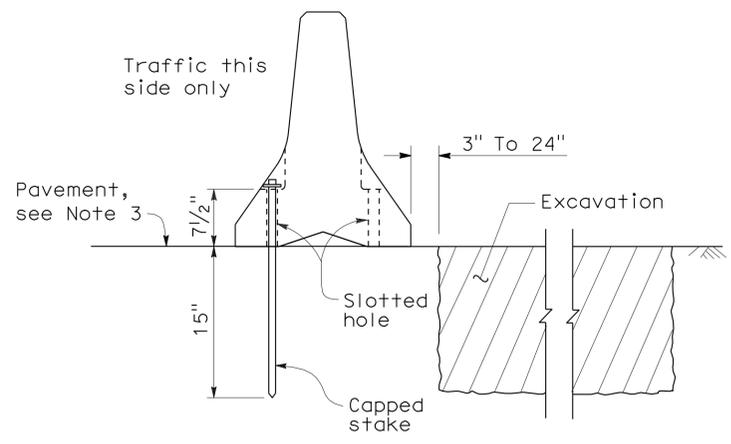
**NOTES:**

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)**

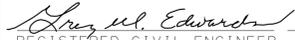
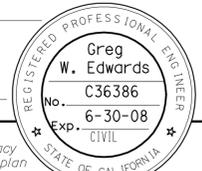
NO SCALE

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

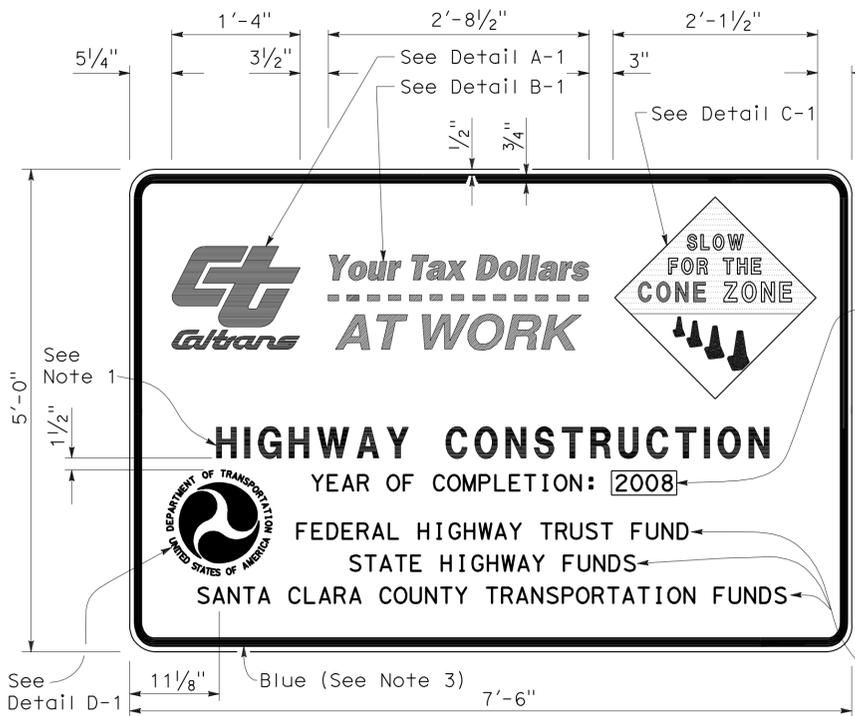
2006 NEW STANDARD PLAN NSP T3A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	39	49

 REGISTERED CIVIL ENGINEER		
November 17, 2006 PLANS APPROVAL DATE		
<small>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.</small>		

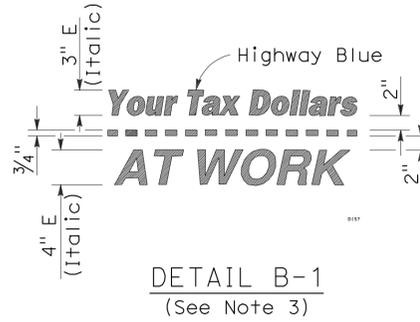
To accompany plans dated 12-19-11



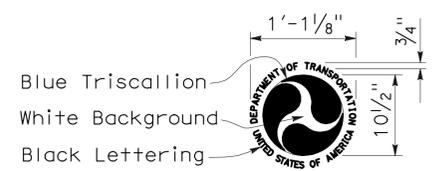
**TYPE 1**



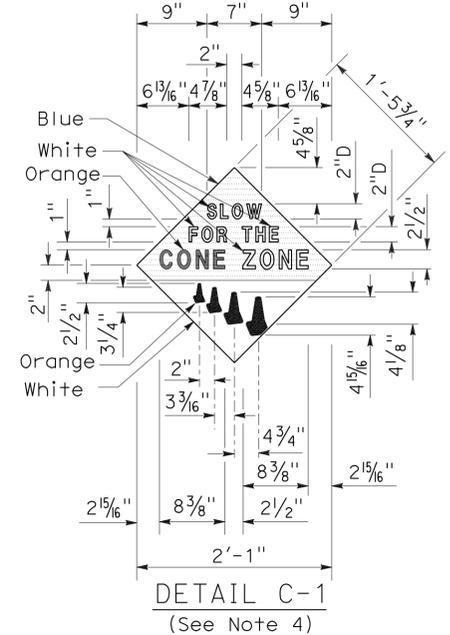
**DETAIL A-1**



**DETAIL B-1**  
(See Note 3)



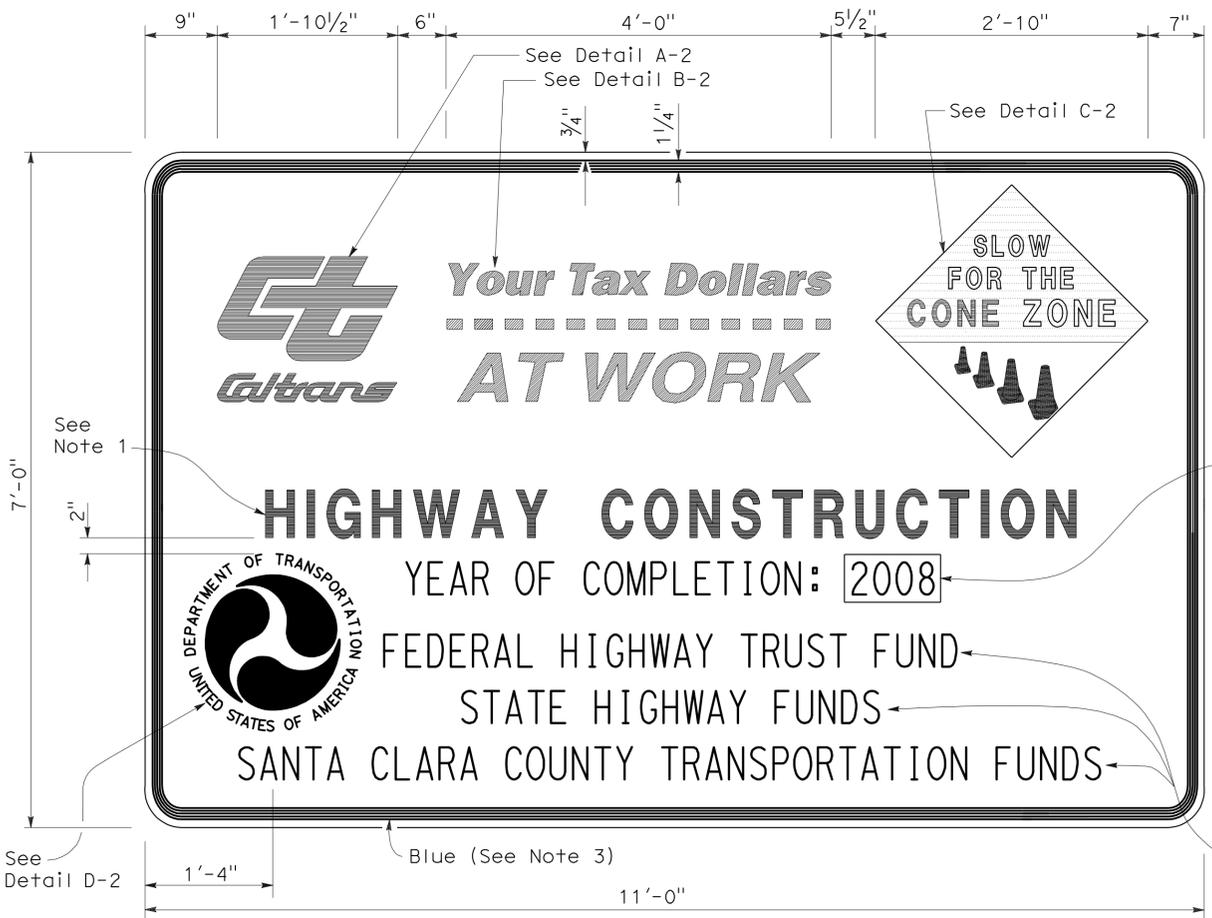
**DETAIL D-1**  
(See Note 6)



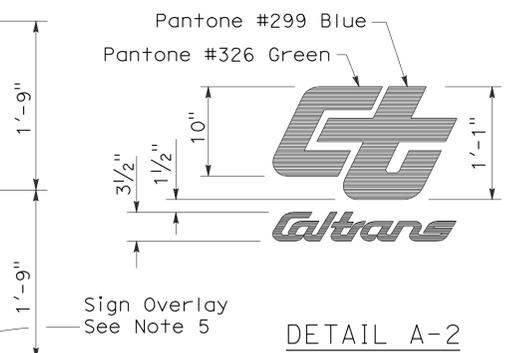
**DETAIL C-1**  
(See Note 4)

**NOTES:**

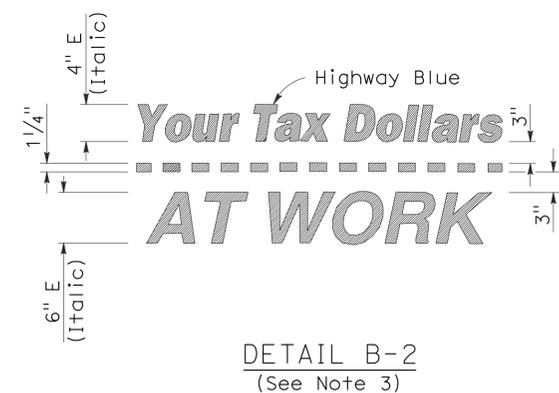
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the 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.



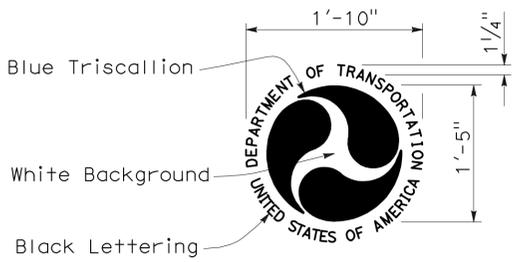
**TYPE 2**



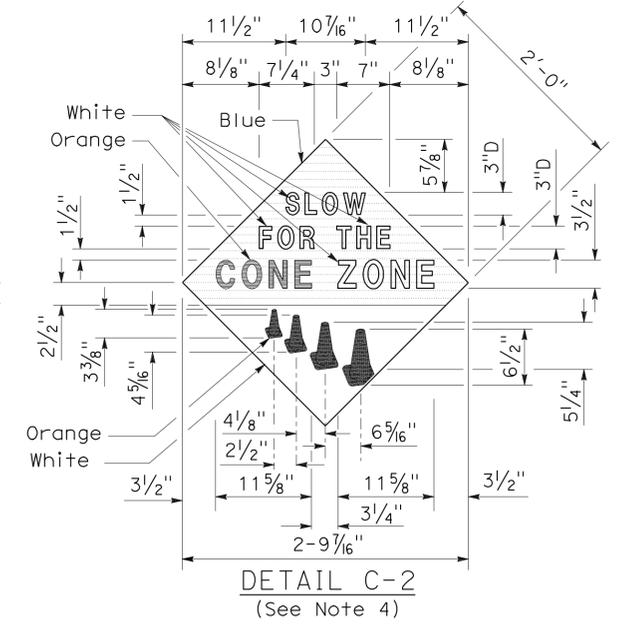
**DETAIL A-2**



**DETAIL B-2**  
(See Note 3)



**DETAIL D-2**  
(See Note 6)



**DETAIL C-2**  
(See Note 4)

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.

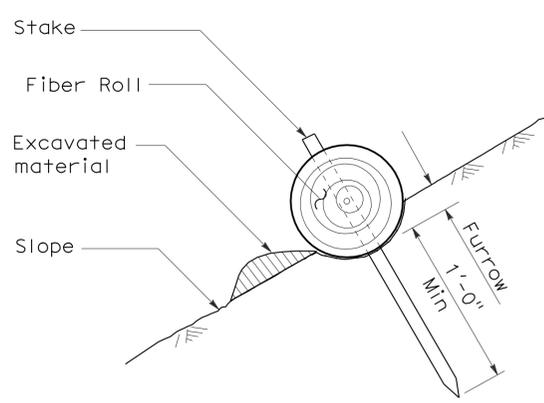
**REVISED STANDARD PLAN RSP T7**

2006 REVISED STANDARD PLAN RSP T7

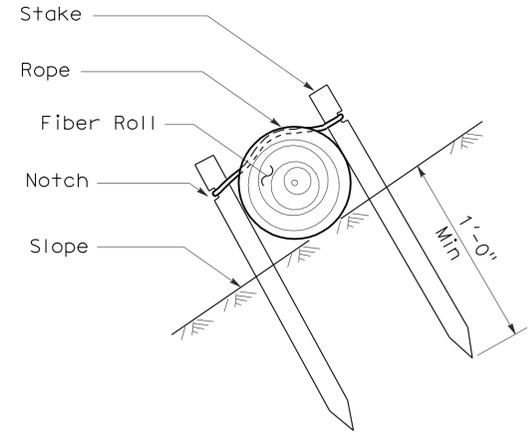
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	40	49

*Robert B. Schott*  
 LICENSED LANDSCAPE ARCHITECT  
 April 3, 2009  
 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.

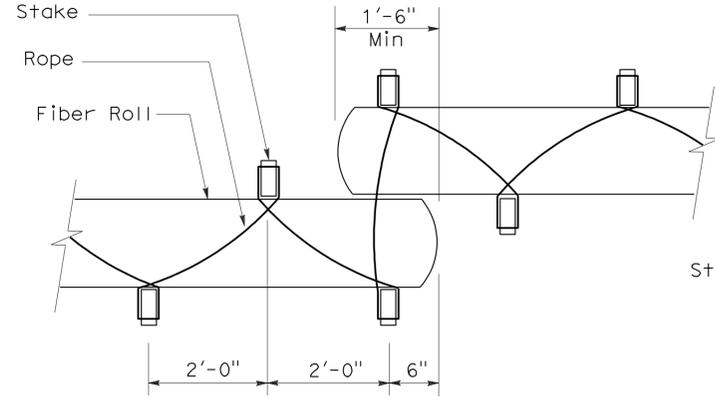
To accompany plans dated 12-19-11



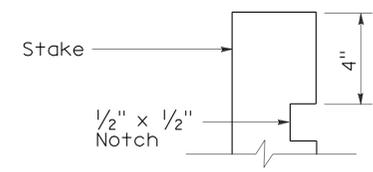
**SECTION**  
**TEMPORARY FIBER ROLL**  
**(TYPE 1)**



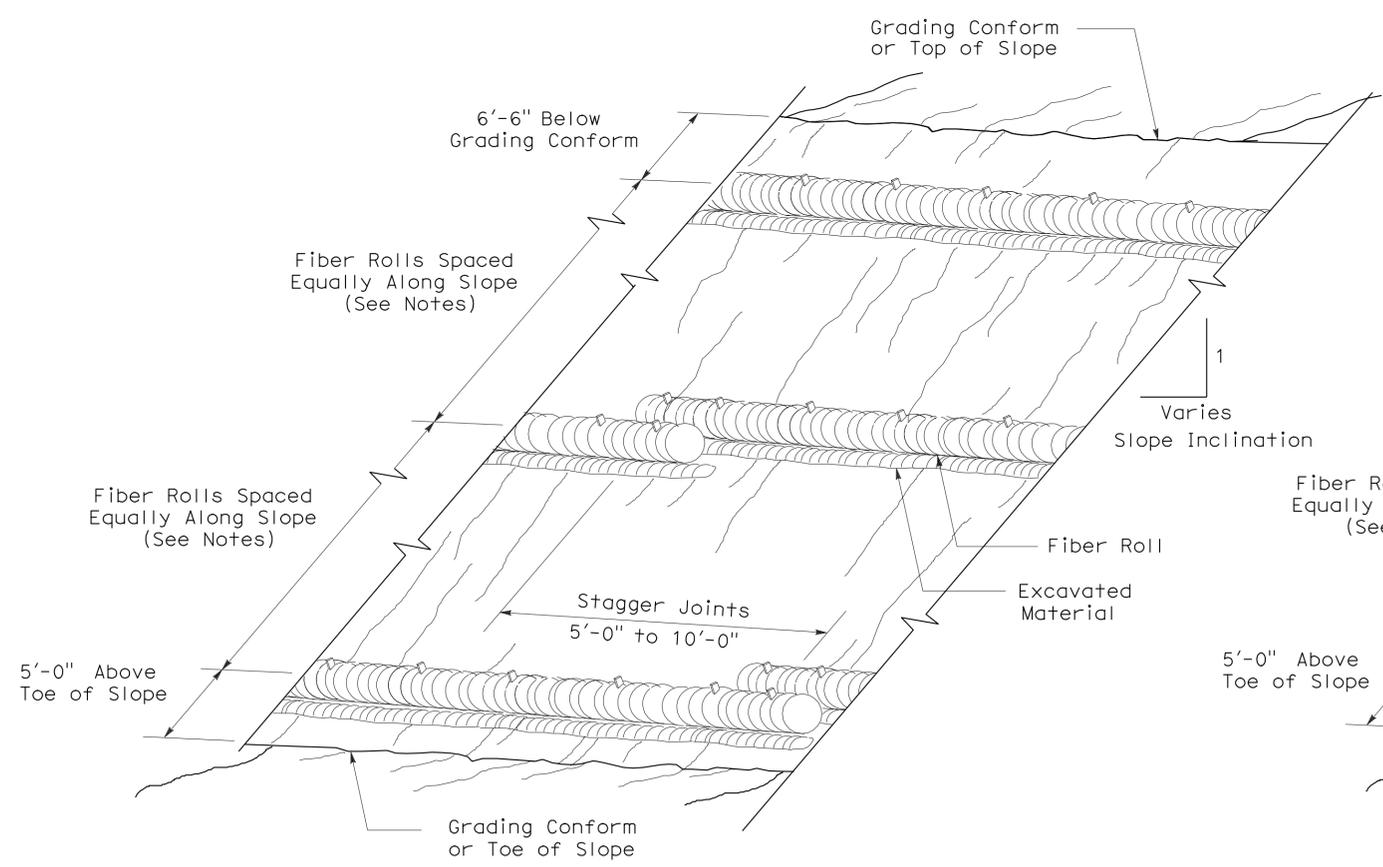
**SECTION**  
**TEMPORARY FIBER ROLL**  
**(TYPE 2)**



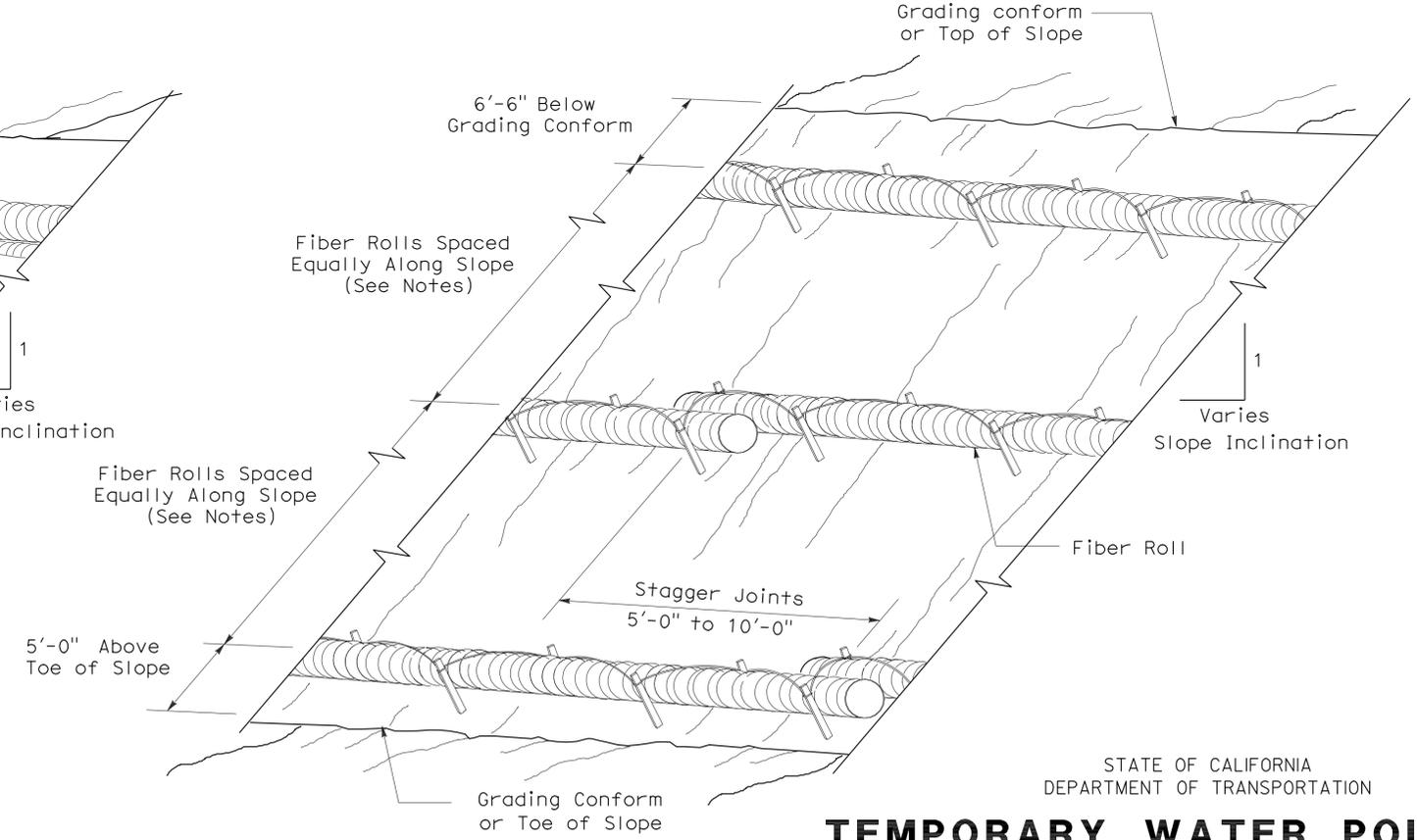
**PLAN**  
**ELEVATION**  
**STAKE NOTCH DETAIL**



- NOTES:**
1. Temporary fiber roll spacing varies depending upon slope inclination.
  2. Installations shown in the perspectives are for slope inclination of 10:1 and steeper.



**PERSPECTIVE**  
**TEMPORARY FIBER ROLL (TYPE 1)**



**PERSPECTIVE**  
**TEMPORARY FIBER ROLL (TYPE 2)**

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY FIBER ROLL)**

NO SCALE

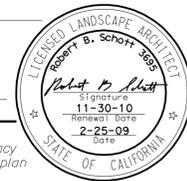
RSP T56 DATED APRIL 3, 2009 SUPERSEDES STANDARD PLAN T56 DATED MAY 1, 2006 - PAGE 232 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T56**

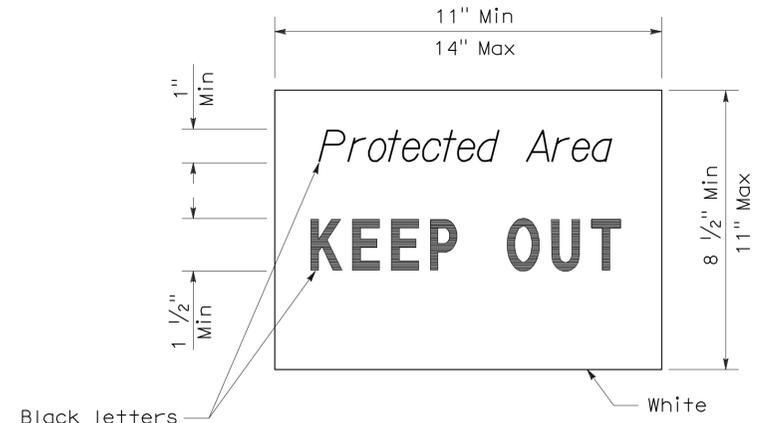
2006 REVISED STANDARD PLAN RSP T56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	41	49

*Robert B. Schott*  
 LICENSED LANDSCAPE ARCHITECT  
 April 3, 2009  
 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.



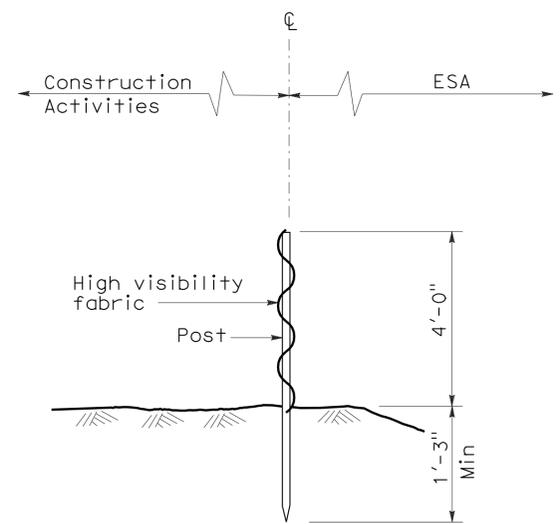
To accompany plans dated 12-19-11



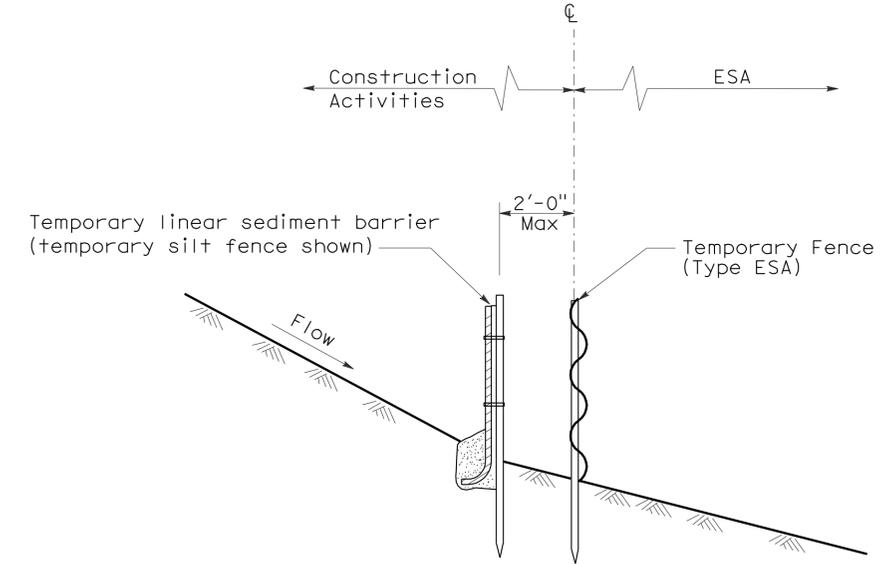
SIGN DETAIL

**NOTE:**

1. Temporary silt fence and temporary straw bale barrier shown for reference purposes only.

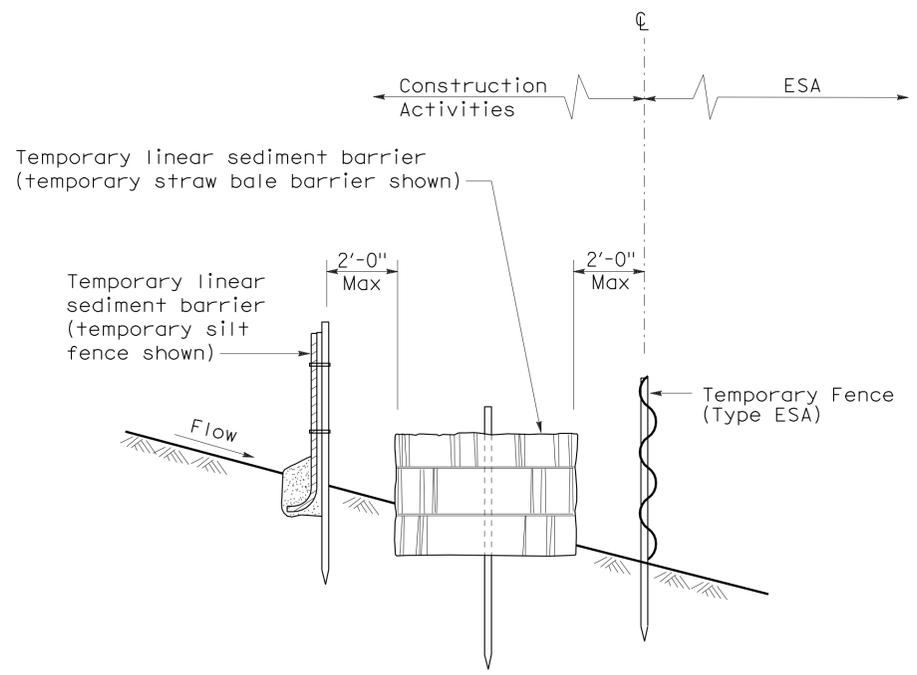


SECTION  
TEMPORARY FENCE (TYPE ESA)



SECTION  
PLACEMENT DETAIL  
FOR TEMPORARY LINEAR SEDIMENT BARRIER  
USED WITH TEMPORARY FENCE (TYPE ESA)

(See Note 1 )



SECTION  
PLACEMENT DETAIL  
FOR TEMPORARY SILT FENCE  
AND TEMPORARY STRAW BALE BARRIER  
USED WITH TEMPORARY FENCE (TYPE ESA)

(See Note 1 )

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

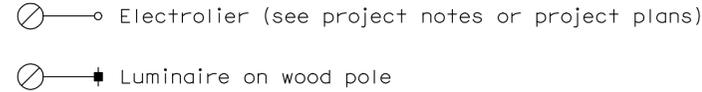
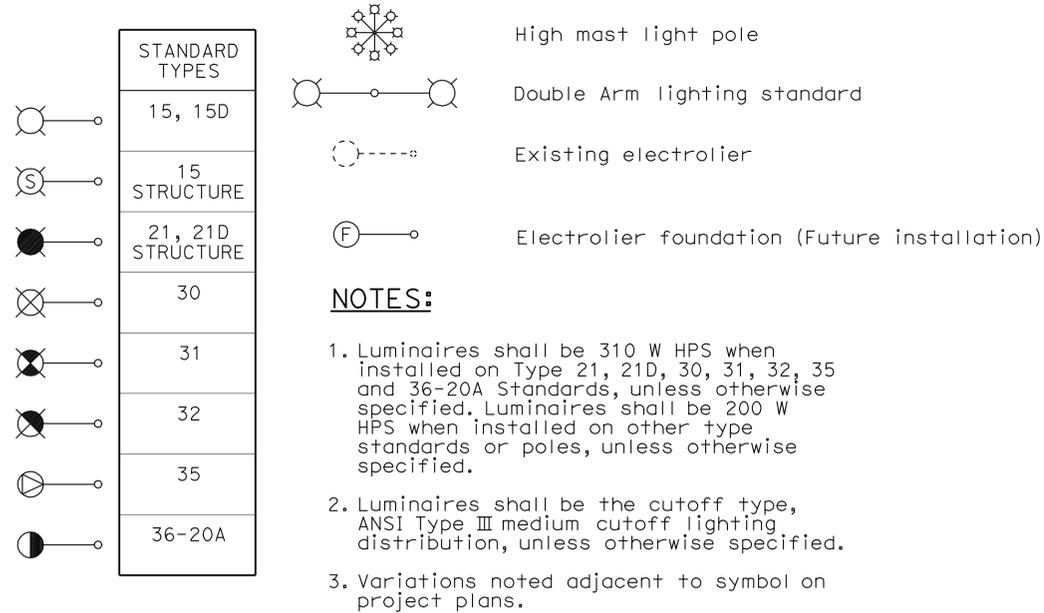
**TEMPORARY WATER POLLUTION CONTROL DETAILS**  
**[TEMPORARY FENCE (TYPE ESA)]**

NO SCALE

NSP T65 DATED APRIL 3, 2009 SUPPLEMENTS  
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T65

# ELECTROLIERS



## 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
02	Tri	299	23.3	42	49

*Jeffery G. McRae*  
REGISTERED ELECTRICAL ENGINEER

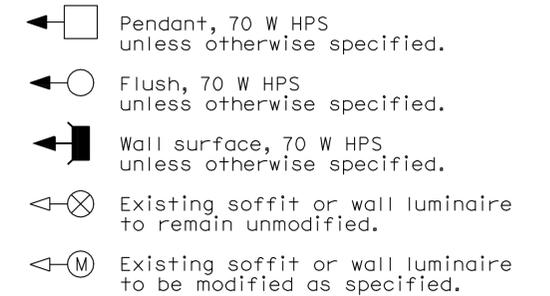
October 5, 2007  
PLANS APPROVAL DATE

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 12-19-11

## SOFFIT AND WALL MOUNTED LUMINAIRES



### 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	Tri	299	23.3	43	49

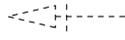
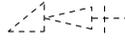
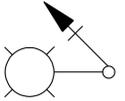
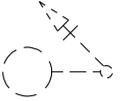
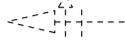
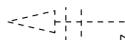
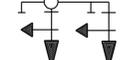
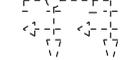
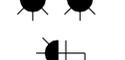
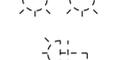
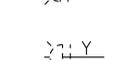
Jeffrey G. McRae  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
 Jeffrey G. McRae  
 No. E14512  
 Exp. 6-30-08  
 ELECTRICAL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER

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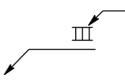
### CONDUIT

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

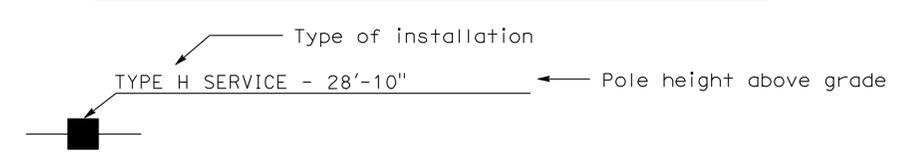
### SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" indicates all non-arrow sections 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

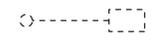
### POLE-MOUNTED SERVICE DESIGNATION



### 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:

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

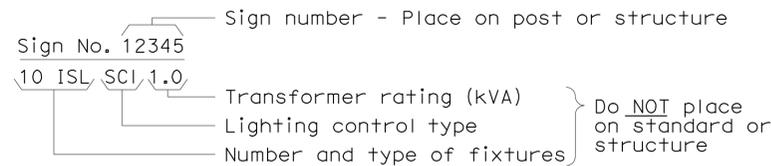
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

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

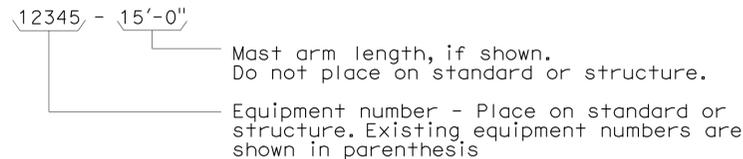
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

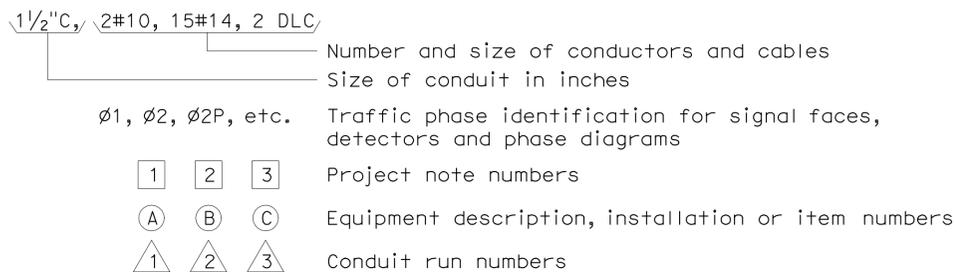
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



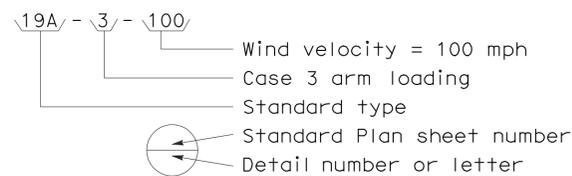
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



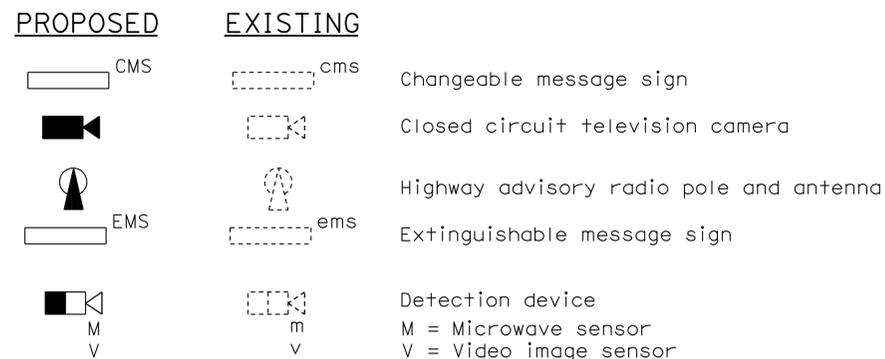
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



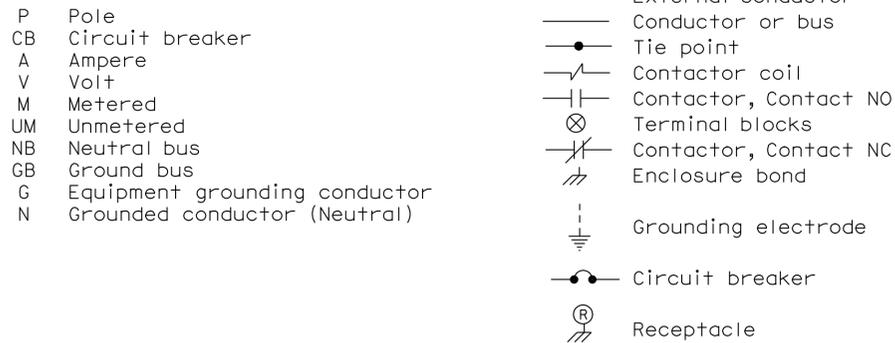
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



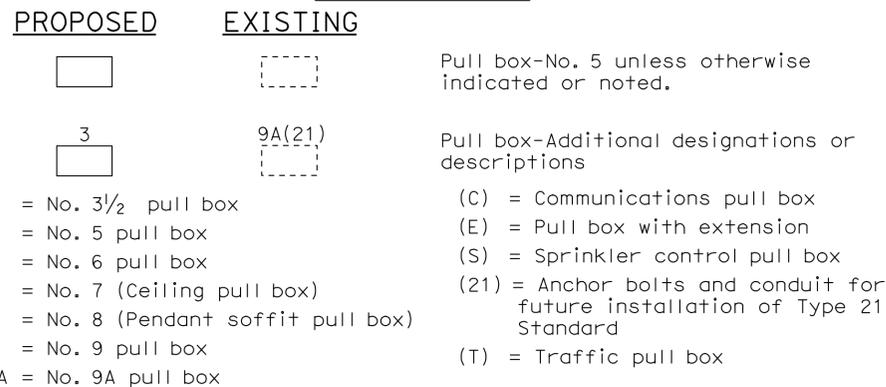
### MISCELLANEOUS EQUIPMENT



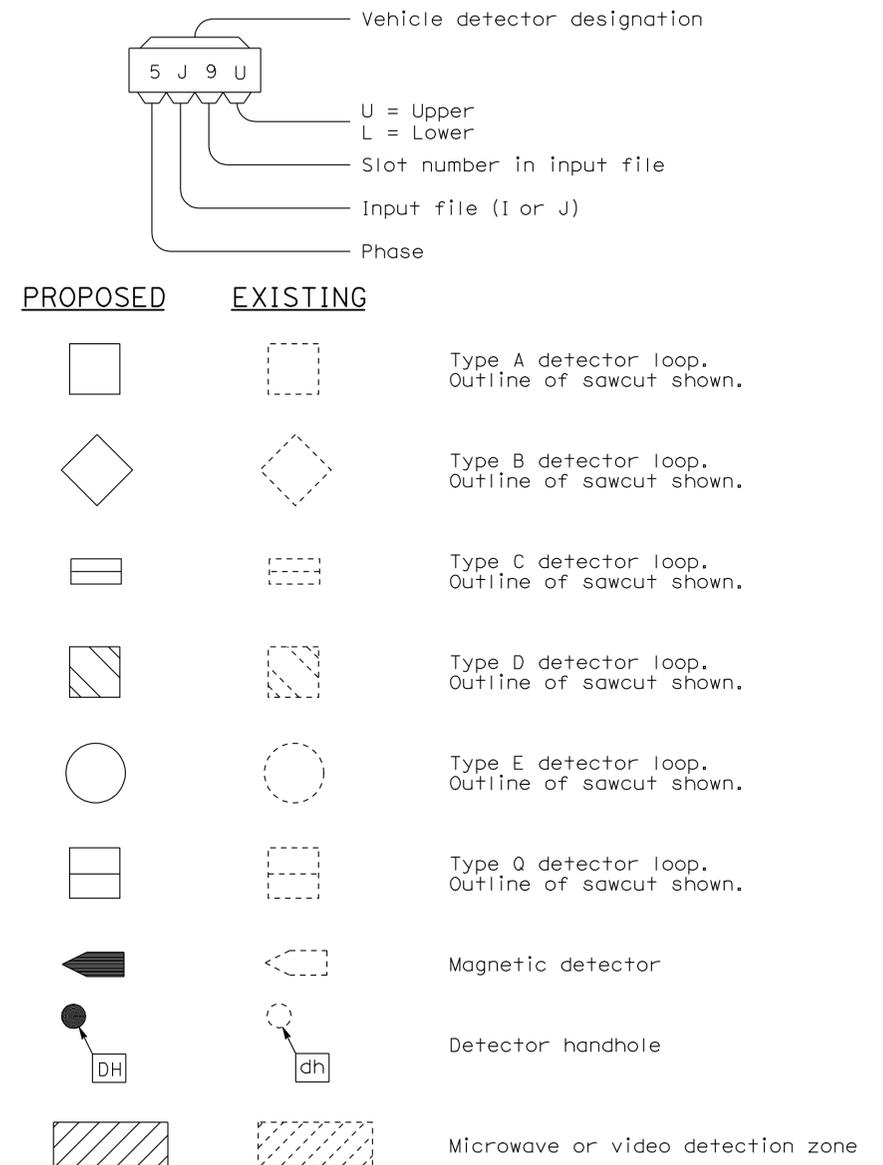
### WIRING DIAGRAM LEGEND



### 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**

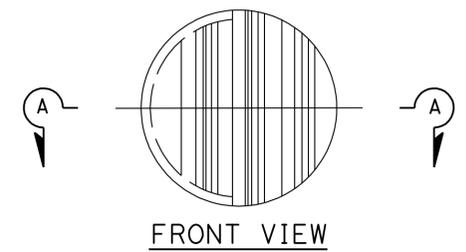
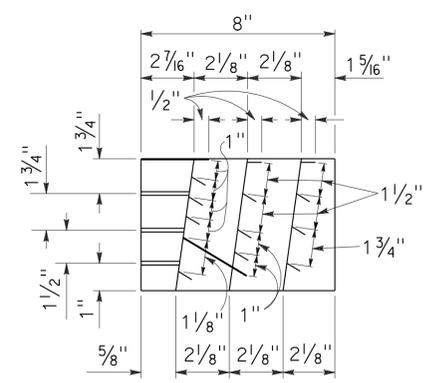
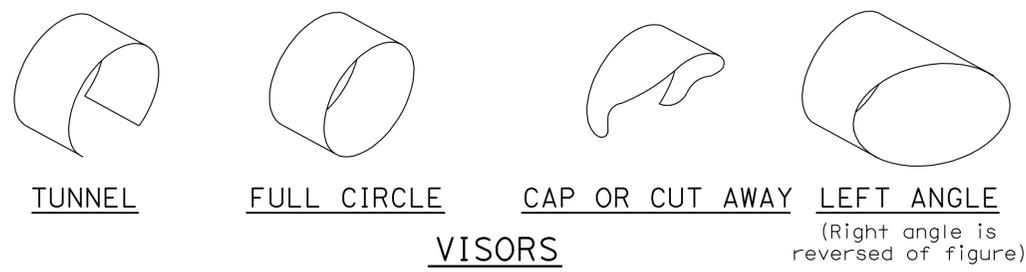
2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	45	49

Jeffrey B. McRae  
 REGISTERED ELECTRICAL ENGINEER  
 June 6, 2008  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 Jeffrey G. McRae  
 No. E14512  
 Exp. 6-30-10  
 ELECTRICAL  
 STATE OF CALIFORNIA

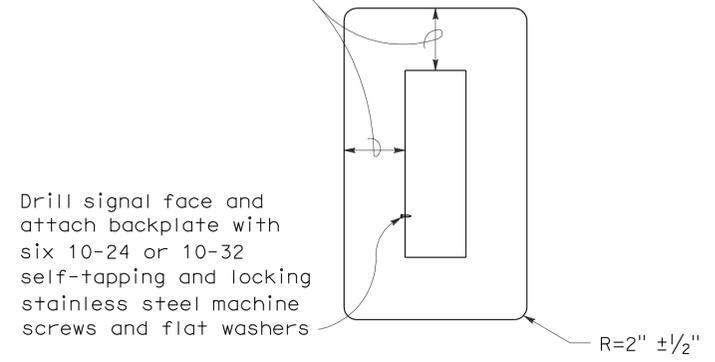
To accompany plans dated 12-19-11



**DIRECTIONAL LOUVER**

Directional louvers shall be oriented as directed by the Engineer and secured in place with one plated brass machine screw and nut.

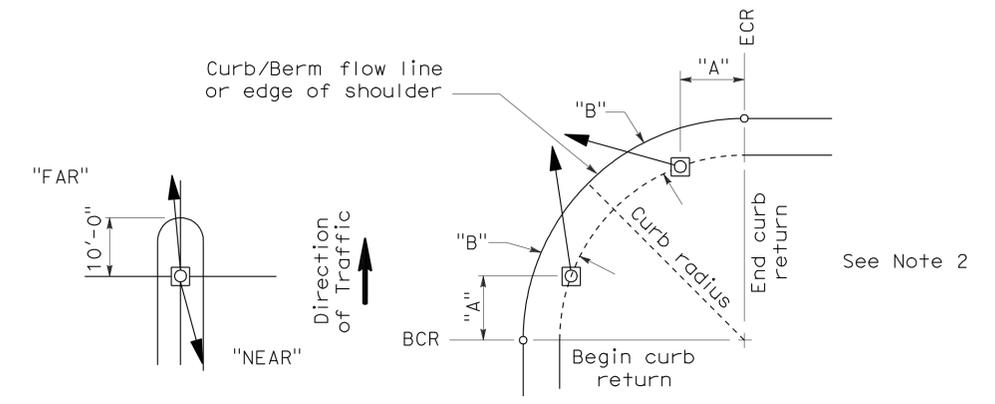
8" ± 1/2" for 8" sections  
 5 1/2" ± 1/2" for 12" sections



**8" AND 12" SECTIONS**

**BACKPLATE**

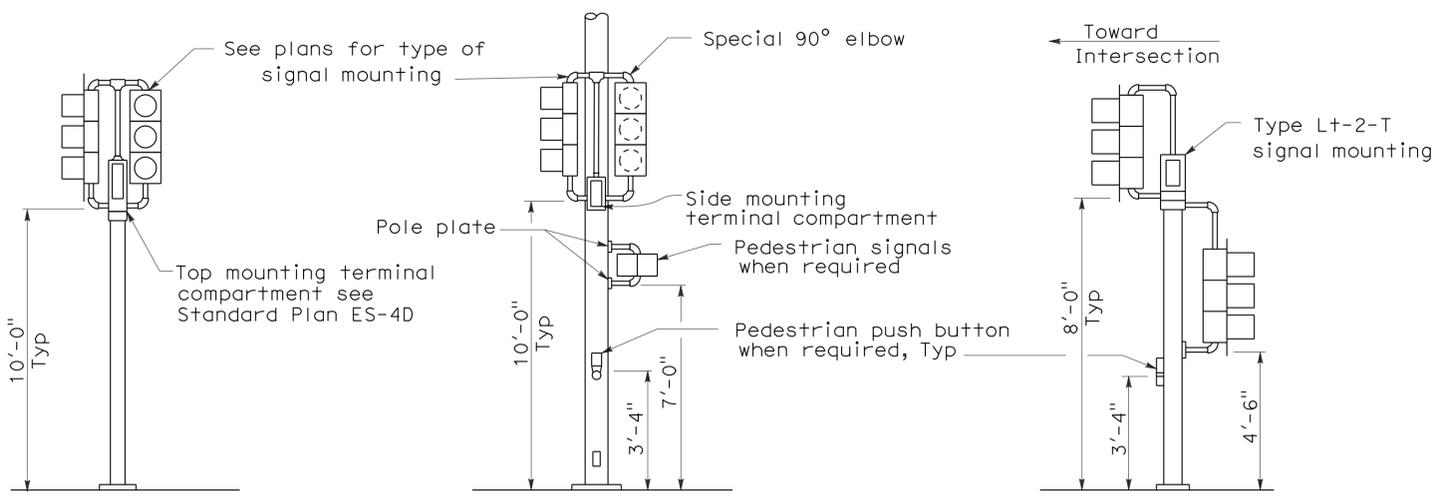
1/16" minimum thickness  
 3001-14 aluminum, or plastic when specified



**NOTES:**

1. Typical signal pole placement unless dimensioned on plans.
2. For "A" and "B" dimensions, see Pole Schedule, or as directed by the Engineer.

**SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS**



**TOP MOUNTED SIGNALS (TV)**

Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

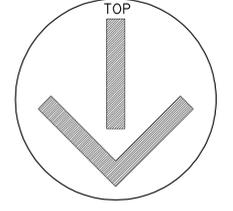
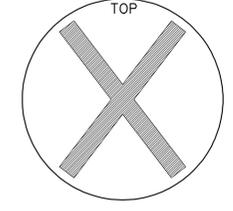
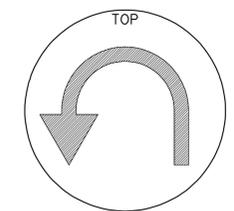
**SIDE MOUNTED SIGNALS (SV AND SP)**

Normally used on standards with luminaire or signal mast arm

**LEFT TURN LANE SIGNAL**

Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans

**TYPICAL SIGNAL INSTALLATIONS**



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)**

NO SCALE

RSP ES-4C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN ES-4C DATED MAY 1, 2006 - PAGE 420 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-4C**

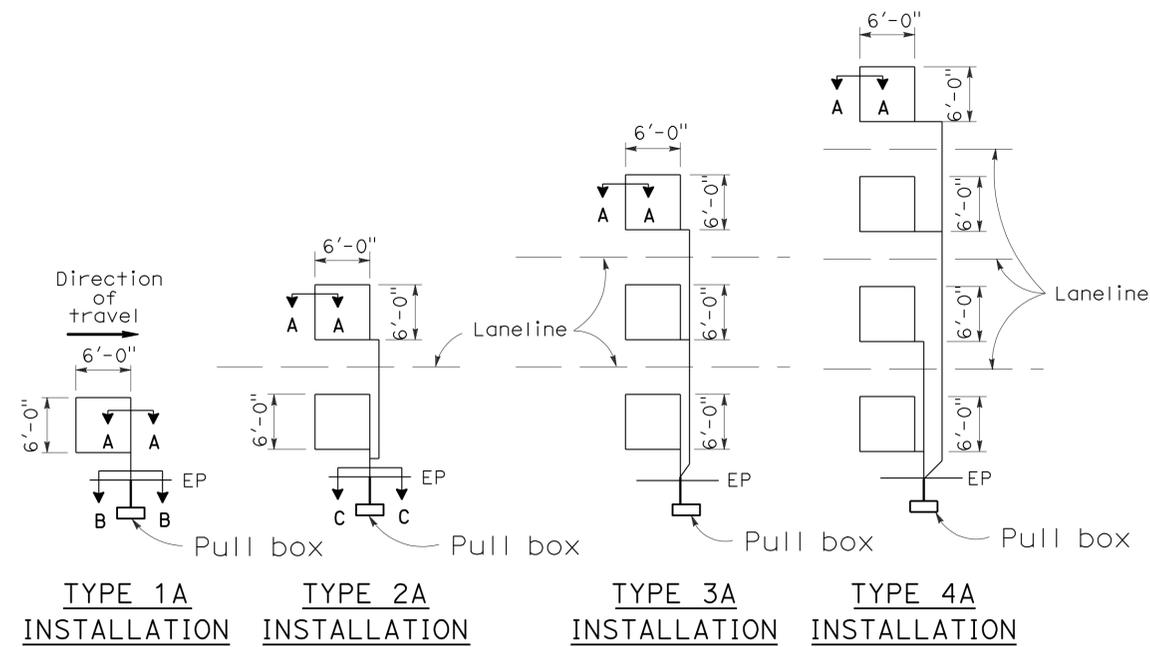
2006 REVISED STANDARD PLAN RSP ES-4C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	299	23.3	46	49

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

## LOOP INSTALLATION PROCEDURE

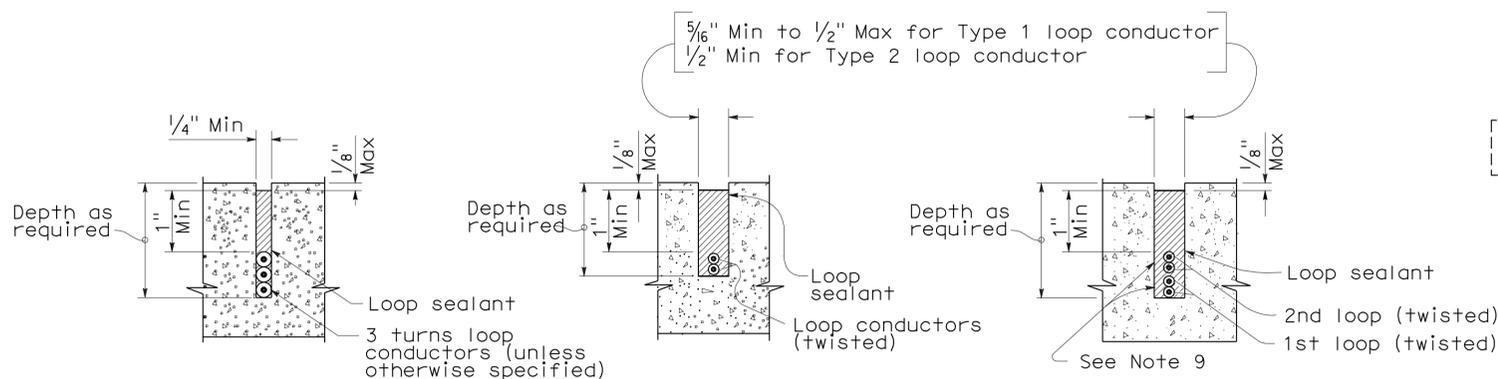
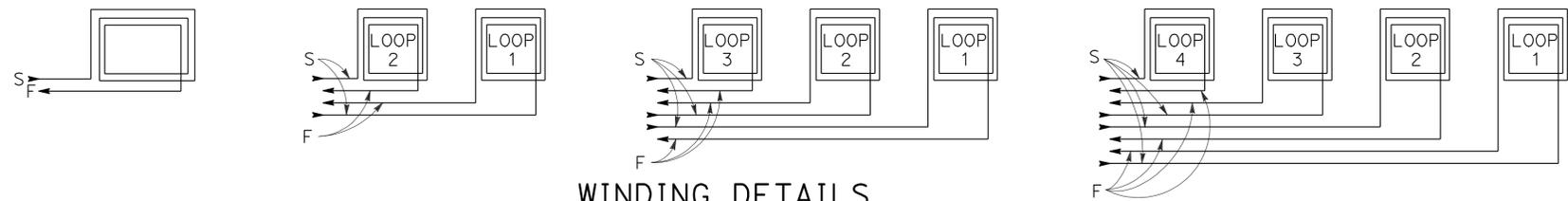
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no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



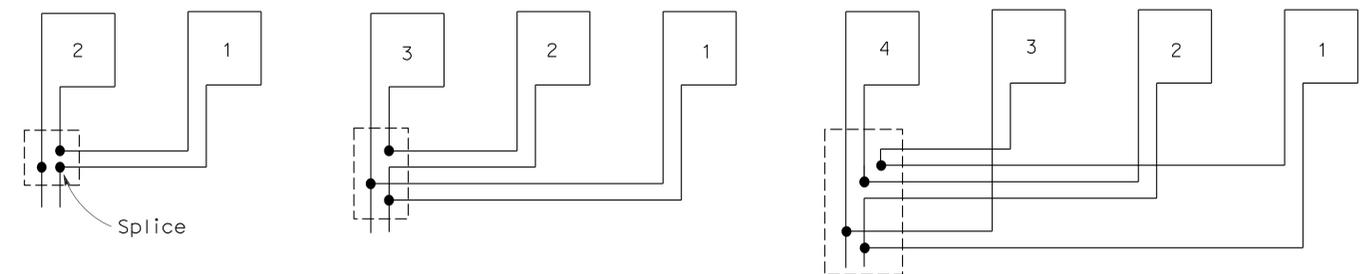
### SAWCUT DETAILS

(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)



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



## ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

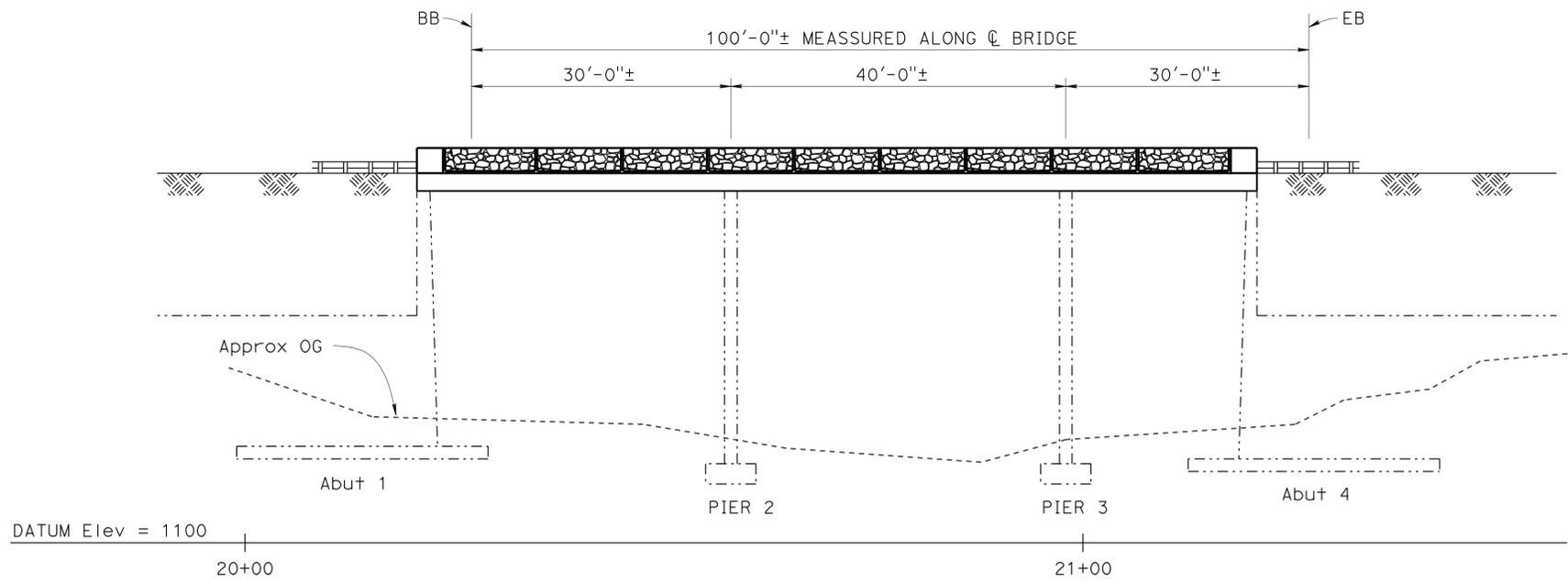
RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Tri	299	23.3	47	49

Jiffy So 06-17-11  
 REGISTERED CIVIL ENGINEER DATE  
 12-19-11  
 PLANS APPROVAL DATE  
 Jiffy Lee  
 No. 63599  
 Exp. 09-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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DATUM Elev = 1100

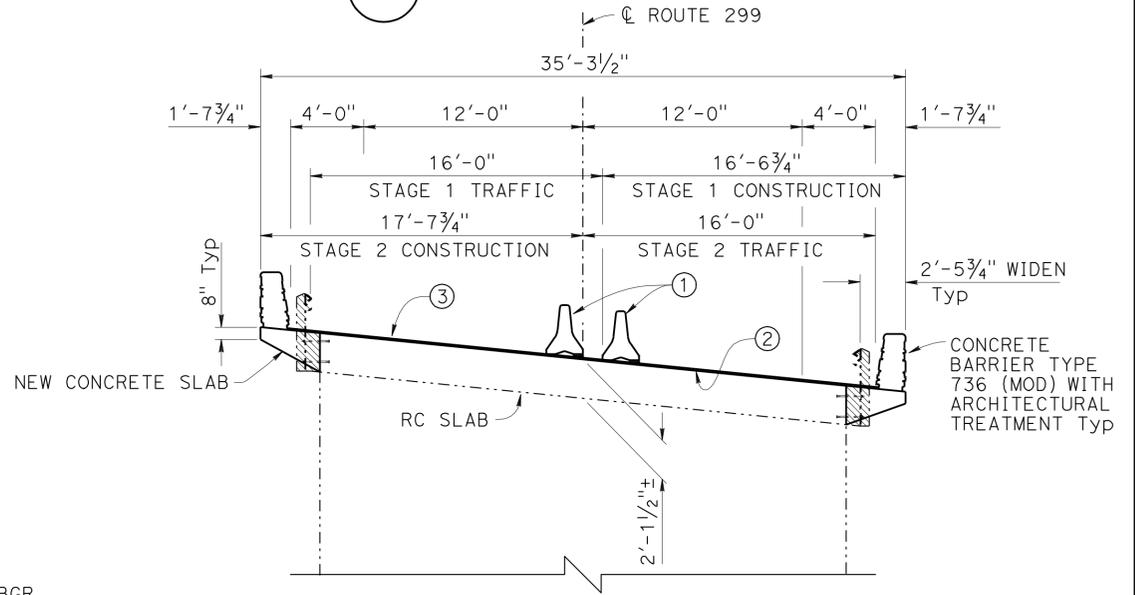
20+00 21+00

QUANTITIES

REMOVE ASPHALT CONCRETE SURFACING	3,033	SQFT
REMOVE UNSOUND CONCRETE	38	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	3,200	SQFT
BRIDGE REMOVAL (PORTION)	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE	33	CY
DRILL AND BOND DOWEL	424	LF
DRILL AND BOND DOWEL (CHEMICAL ADHESIVE)	202	EA
RAPID SETTING CONCRETE (PATCH)	38	CF
FURNISH POLYESTER CONCRETE OVERLAY	320	CF
PLACE POLYESTER CONCRETE OVERLAY	3,200	SQFT
BAR REINFORCING STEEL (EPOXY COATED) (BRIDGE)	7,300	LB
CONCRETE BARRIER (TYPE 736 MODIFIED)	200	LF

**ELEVATION**  
1" = 10'

- LEGEND:
- Indicates Existing Structure
  - Indicates New Structure
  - ▨ Indicates Limit of Remove Existing AC
  - ▩ Indicates Removed Existing Concrete and Railing - Bridge Removal (Portion)
- ① Temporary Railing (Type K), see "Road Plans"
  - ② Remove Existing 1" AC Overlay
  - ③ Prepare existing concrete deck surface, and furnish and place new 1" minimum depth polyester concrete overlay. Prior to placing new polyester concrete overlay, remove unsound concrete and patch with rapid setting concrete. For details see "Deck Overlay Detail" on "Details" sheet.
  - ④ Paint "Bridge No. 05-0008"
  - ⑤ Paint "Big French Creek Bridge"
  - ⑥  $\varnothing$  3" x 12" SCUPPER DRAIN **B7-8**



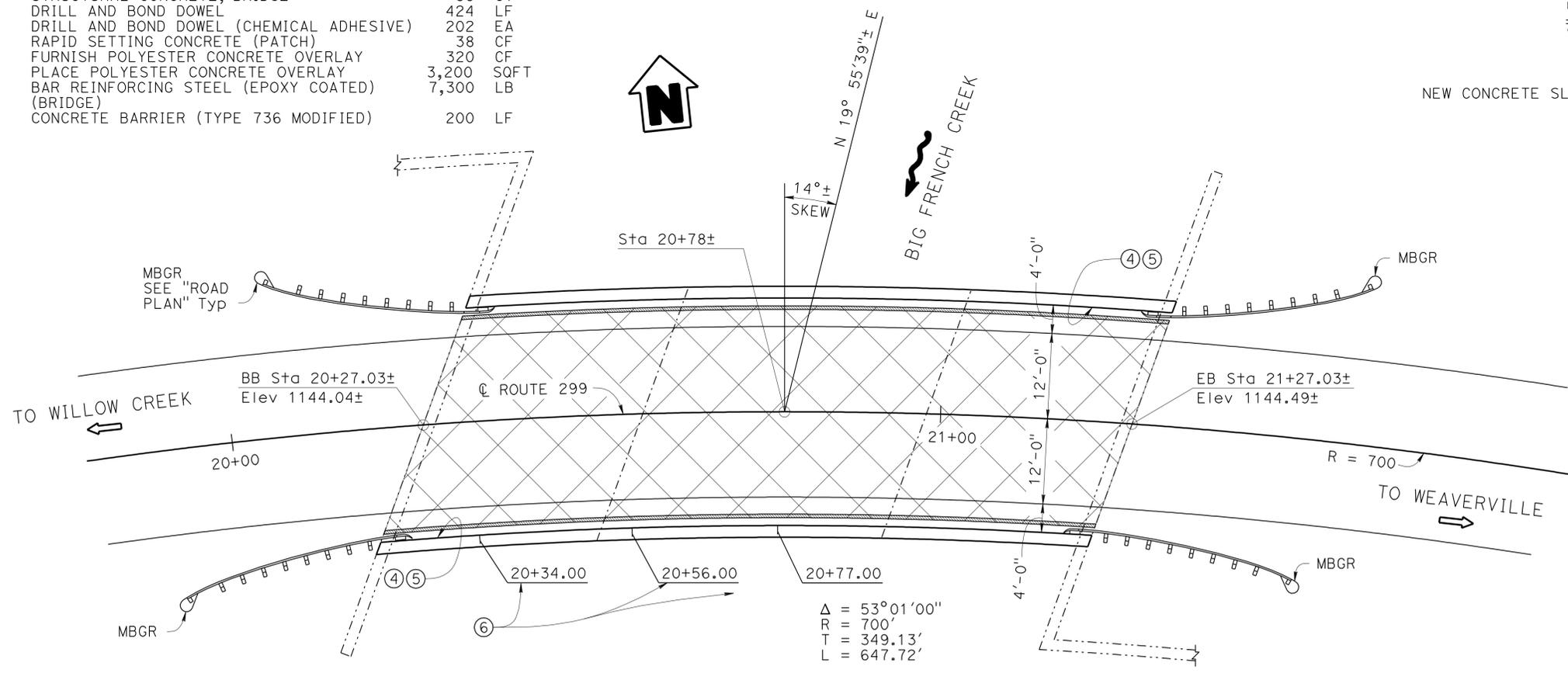
**TYPICAL SECTION**  
1" = 5'

**INDEX TO PLANS**

1. GENERAL PLAN
2. DETAILS
3. BARRIER ARCHITECTURAL DETAILS

**STANDARD PLANS DATED MAY 2006**

SHEET NO.	TITLE
A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
A78F1	DOUBLE THRIE BEAM BARRIER CONNECTION TO BRIDGE RAILINGS WITHOUT SIDEWALKS
A78F2	SINGLE THRIE BEAM BARRIER CONNECTION TO BRIDGE RAILINGS WITHOUT SIDEWALKS
B11-56	CONCRETE BARRIER TYPE 736
B7-8	DECK DRAINAGE DETAILS



**PLAN**  
1" = 10'

J. Setlberg  
DESIGN ENGINEER

DESIGN	BY J. Lee	CHECKED G. Slocum	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE
DETAILS	BY J. Yang	CHECKED G. Slocum	LAYOUT	BY J. Lee
QUANTITIES	BY J. Lee	CHECKED G. Slocum	SPECIFICATIONS	BY V. Renganathan

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH **2**

BRIDGE NO. 05-0008  
POST MILE 23.3

**BIG FRENCH CREEK BRIDGE**  
**BARRIER REPLACEMENT & WIDEN**  
**GENERAL PLAN**

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

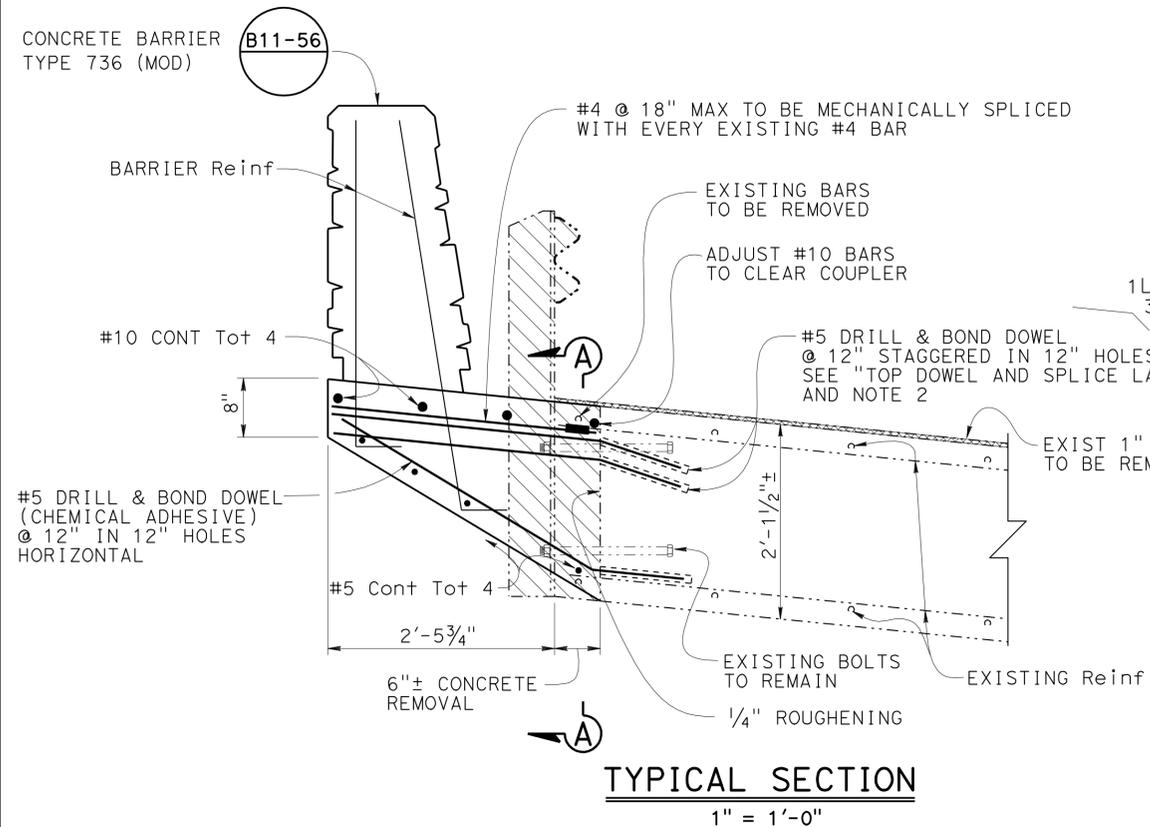


CU 02  
EA 374301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

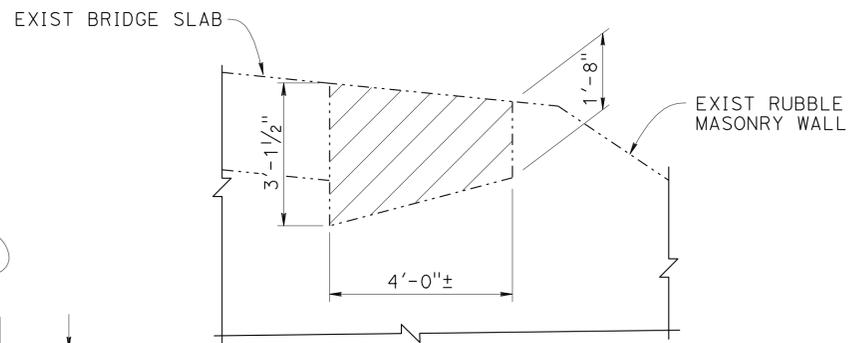
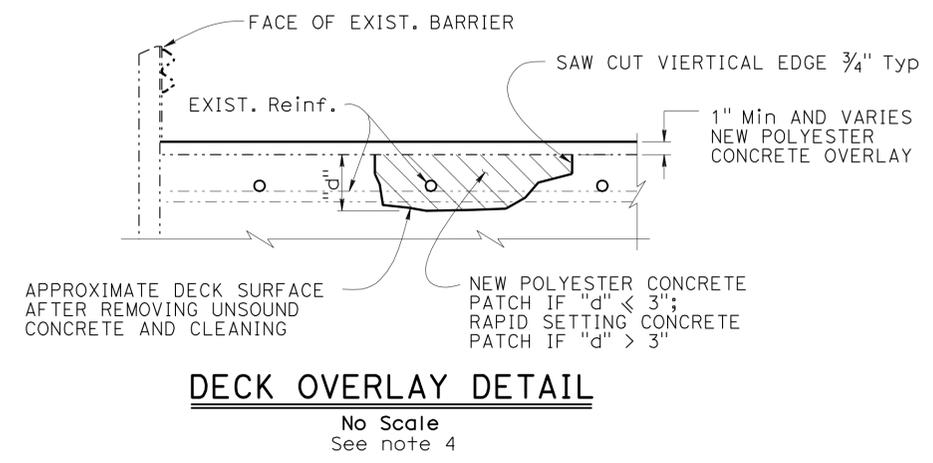
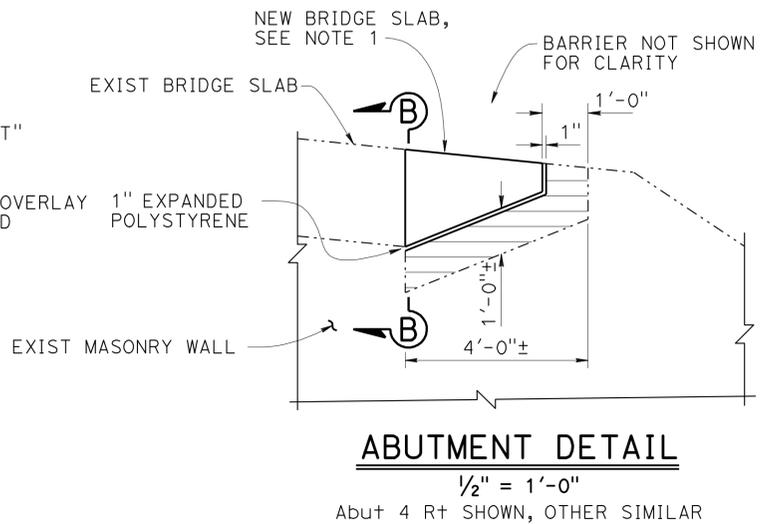
REVISION DATES	SHEET	OF
08-28-10 10-24-10 12-10-10 02-22-11 03-14-11 04-06-11 06-07-11 06-14-11 08-22-11 08-25-11	1	3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Tri	299	23.3	48	49
			06-14-11	DATE	
			12-19-11	DATE	
			REGISTERED CIVIL ENGINEER		
			No. 63599		
			Exp. 09-30-12		
			CIVIL		



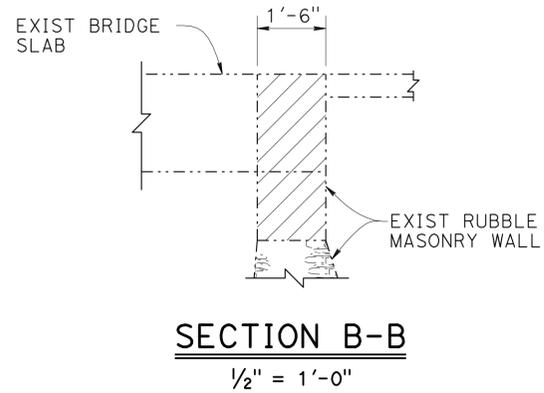
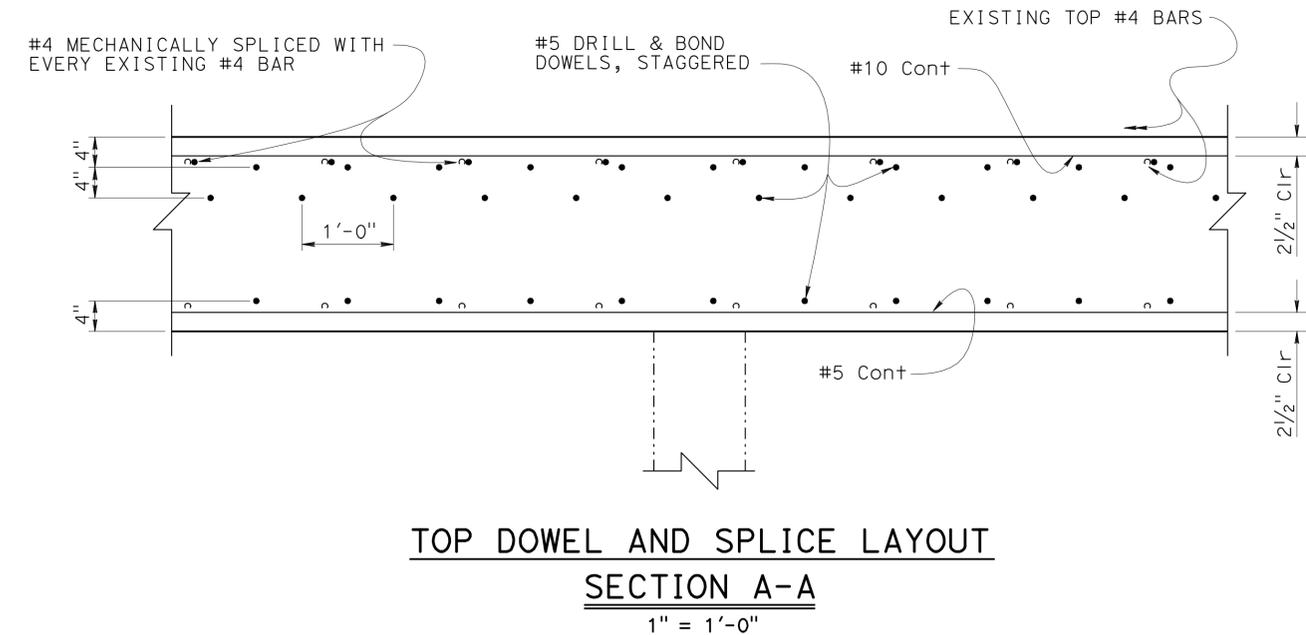
- NOTES:**
- For reinforcement, see "Typical Section"
  - Reduce dowel spacing to 8" at beginning and end of bridge for a distance of 5' at each location.
  - All reinforcement are epoxy-coated.
  - Locations of unsound concrete to be determined by the engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

- LEGEND:**
- Indicates existing structure
  - Indicates new structure
  - [Hatched] Remove existing concrete & railing -bridge removal (portion)
  - [Diagonal Hatched] Remove exist rubble masonry wall -bridge removal (portion)
  - [Horizontal Hatched] Structure concrete bridge
  - [Cross-hatched] Remove existing AC overlay



**DECK REPAIR TABLE**  
Remove unsound concrete and rapid setting concrete (patch)

BRIDGE NO.	APPROXIMATE DAMAGED %	APPROXIMATE DEPTH (IN)
05-0008	5%	3.0



**GENERAL NOTES (LOAD & RESISTANCE FACTOR DESIGN)**

- DESIGN:** AASHTO LRFD Bridge Design Specifications, 4th edition and the Caltrans Amendments, preface dated Dec 2008; except that RW, barrier, and railing details taken from Standard Plans March 2006 and earlier versions are designed using Bridge Design Specifications. ('96 AASHTO w/ Revisions by Caltrans)
- SEISMIC DESIGN:** Caltrans Seismic Design Criteria (SDC), Version 1.4 dated June 2006
- DEAD LOAD:** Includes 35 psf for future wearing surface.
- LIVE LOAD:** HL93 and P15 permit design load.
- REINFORCED CONCRETE:**  $f_y = 60$  ksi  
 $f'_c = 4.0$  ksi

DESIGN BY J. Lee CHECKED G. Slocum			<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 2</b>	BRIDGE NO.	05-0008	<b>BIG FRENCH CREEK BRIDGE</b> <b>BARRIER REPLACEMENT &amp; WIDEN</b> <b>DETAILS</b>
DETAILS BY J. Yang CHECKED G. Slocum					POST MILE	23.3	
QUANTITIES BY J. Lee CHECKED G. Slocum					REVISION DATES 10-18-10 12-02-10 03-14-11 03-18-11 04-06-11 05-02-11 06-07-11 06-14-11 08-23-11		

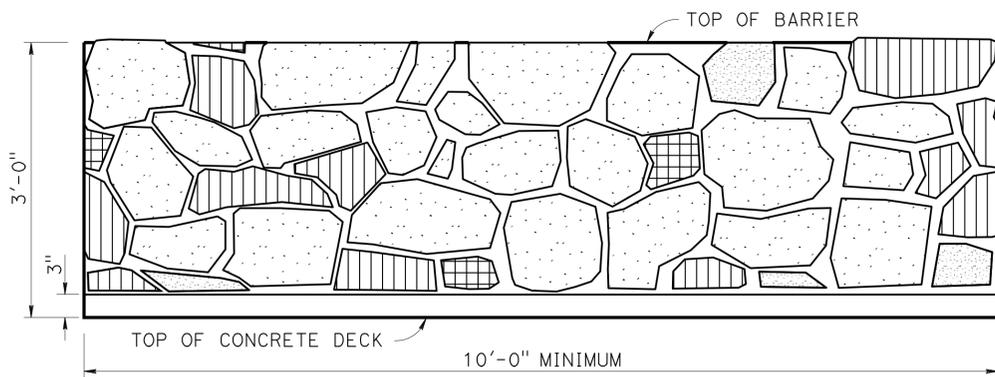
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

CU 02 EA 374301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

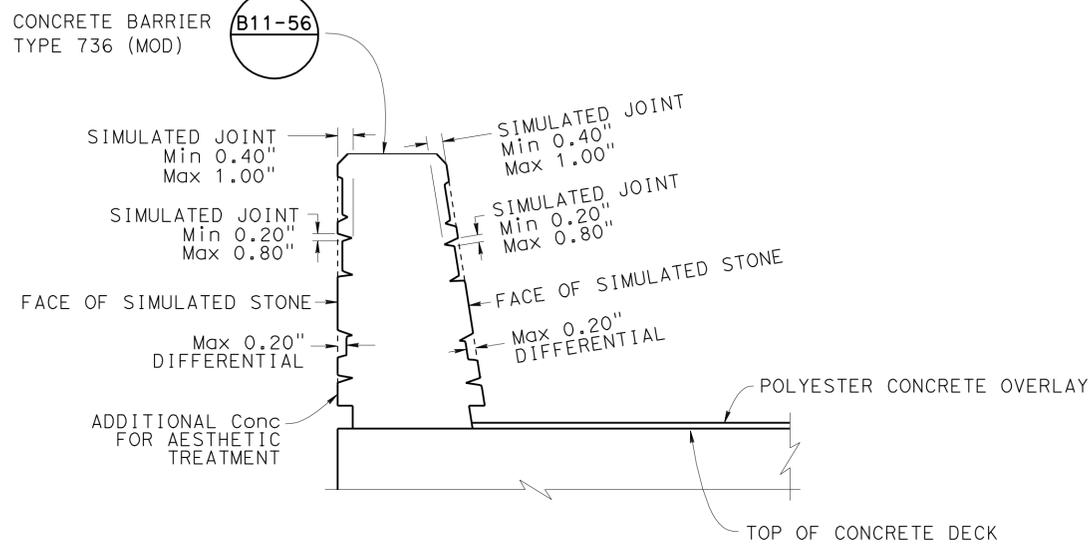
FILE => 05-0008-b-d+f01.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Tri	299	23.3	49	49
			06-14-11		
			REGISTERED CIVIL ENGINEER DATE		
			12-19-11		
			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.					

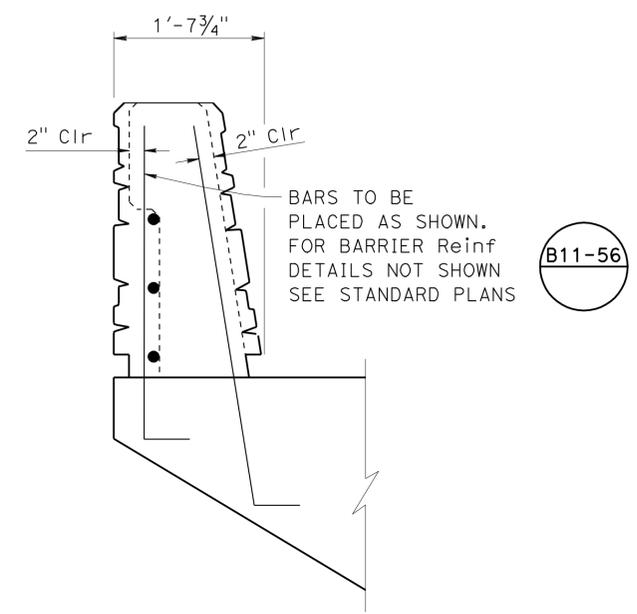


**REPEATING PATTERN**  
1" = 1'-0"

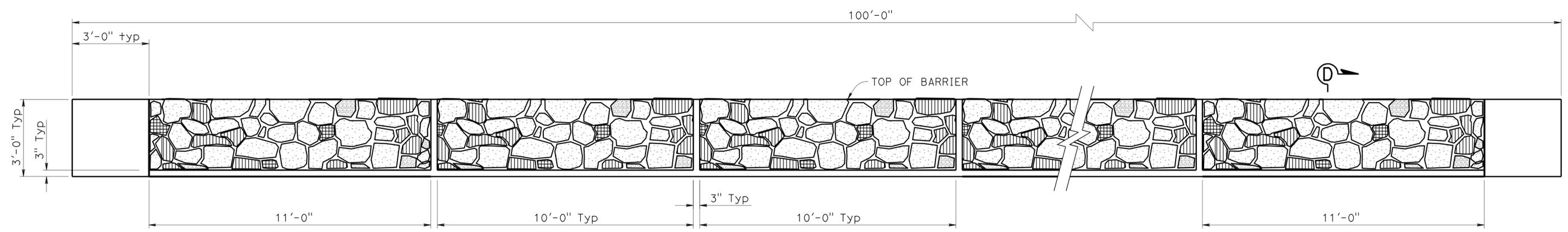
- LEGEND**
- COLORED CONCRETE (BARRIER) FEDERAL STANDARD 595C 26008 (DARK GREY)
  - 75% CONCRETE STAIN FEDERAL STANDARD 595C 26132 (DARK MEDIUM GRAY)
  - 20% CONCRETE STAIN FEDERAL STANDARD 595C 26231 (MEDIUM GRAY)
  - 2% CONCRETE STAIN FEDERAL STANDARD 595C 26493 (LIGHT GRAY)
  - 3% CONCRETE STAIN FEDERAL STANDARD 595C 30318 (TAN)
- THE BARRIER SHALL BE PREPARED AND STAINED CONCRETE TO MATCH THE FOLLOWING COLORS:



**SECTION D-D**  
1" = 1'-0"



**BARRIER REINFORCEMENT MODIFICATION**  
1" = 1'-0"



**BARRIER ELEVATION**  
1/2" = 1'-0"

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		FILE => 05-0008-c-arc01.dgn		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 3 OF 3	
DESIGN	BY J. Lee	CHECKED G. Slocum	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 05-0008 POST MILE 23.3		DESIGN BRANCH 2		BIG FRENCH CREEK BRIDGE BARRIER REPLACEMENT & WIDEN BARRIER ARCHITECTURAL DETAILS						
DETAILS	BY J. Yang	CHECKED G. Slocum													
QUANTITIES	BY J. Lee	CHECKED G. Slocum													

USERNAME => s109858 DATE PLOTTED => 21-DEC-2011 TIME PLOTTED => 14:59