

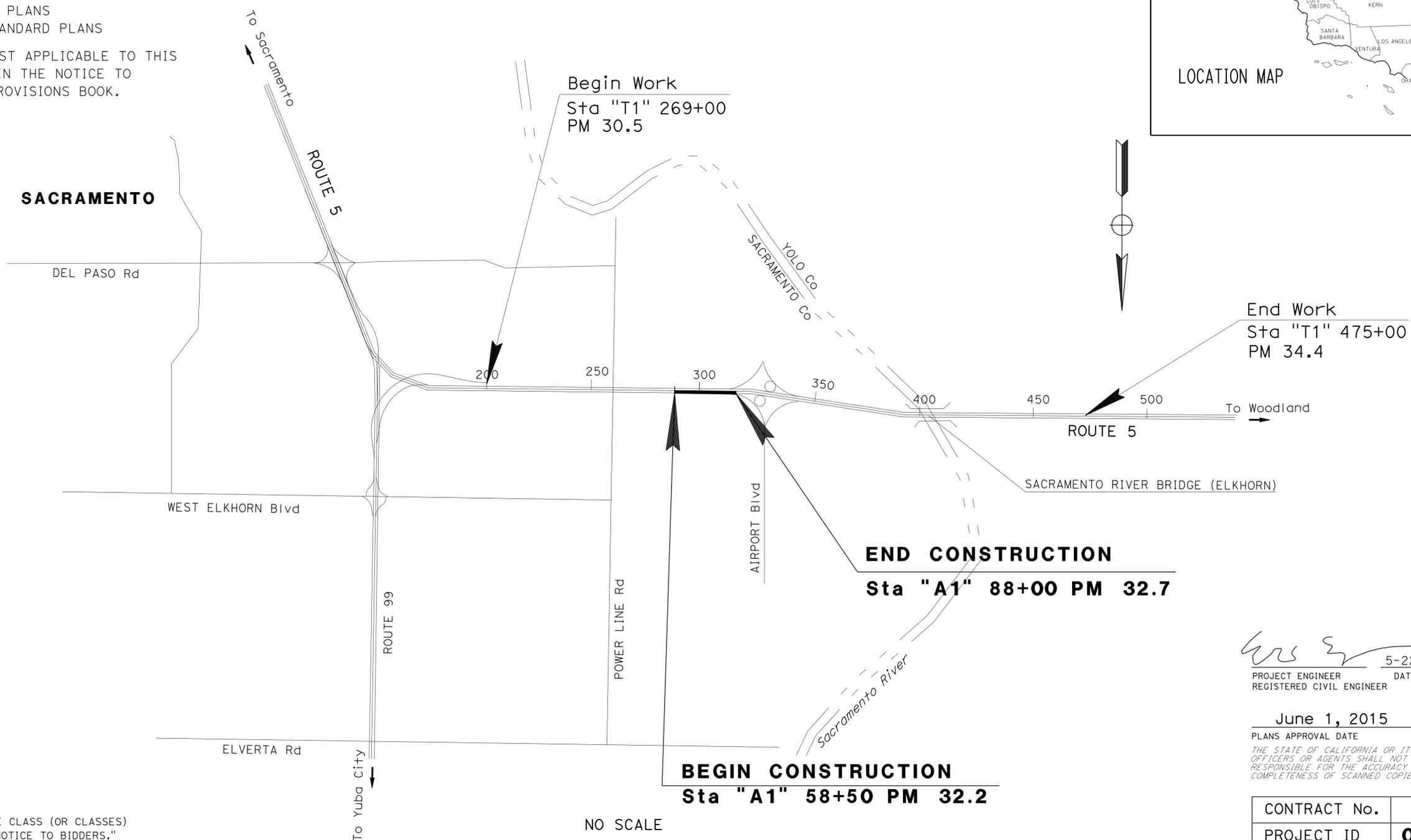
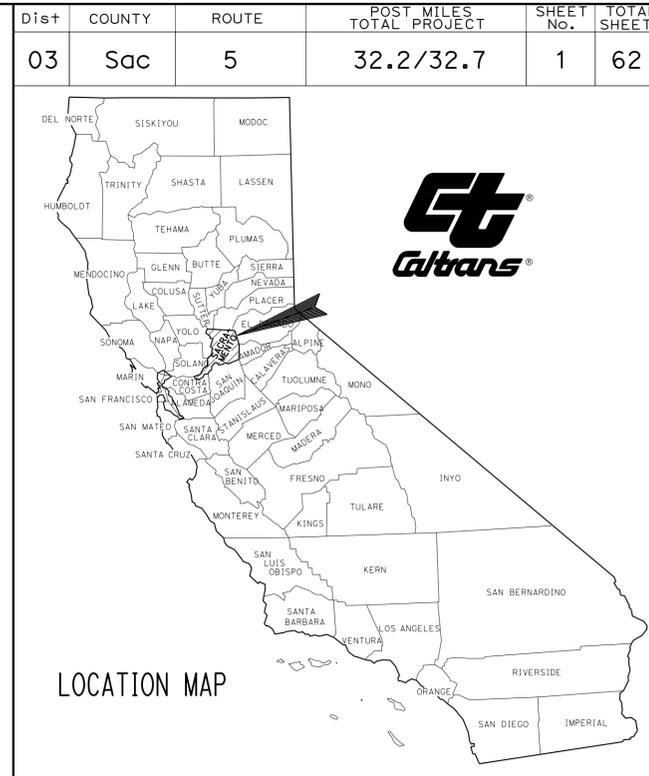
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-4	LAYOUT
5-8	CONSTRUCTION DETAILS
9-10	DRAINAGE PROFILE
11	CONSTRUCTION AREA SIGNS
12-13	STAGE CONSTRUCTION
14-16	TRAFFIC HANDLING PLANS AND QUANTITIES
17-18	PAVEMENT DELINEATION AND SIGN PLAN
19	PAVEMENT DELINEATION QUANTITIES
20-22	SIGN DETAILS
23	SPECIAL DESIGN SIGNS
24-25	SIGN QUANTITIES
26	SUMMARY OF QUANTITIES
27	EROSION CONTROL DETAILS
28-36	ELECTRICAL PLANS
37-62	REVISED STANDARD PLANS

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

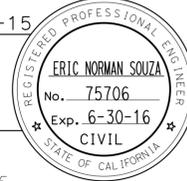
STATE OF CALIFORNIA **ACIMNHP-0056(344)**
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SACRAMENTO COUNTY
NEAR SACRAMENTO
FROM 0.3 MILE WEST OF POWERLINE ROAD
TO 0.1 MILE EAST OF AIRPORT BOULEVARD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER NAJED DAKAK
DESIGN MANAGER STEPHEN WRIGHT

5-22-15
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
June 1, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CONTRACT No.	03-2F6304
PROJECT ID	0313000316

DATE PLOTTED => 03-SEP-2015 TIME PLOTTED => 15:42

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	3	62

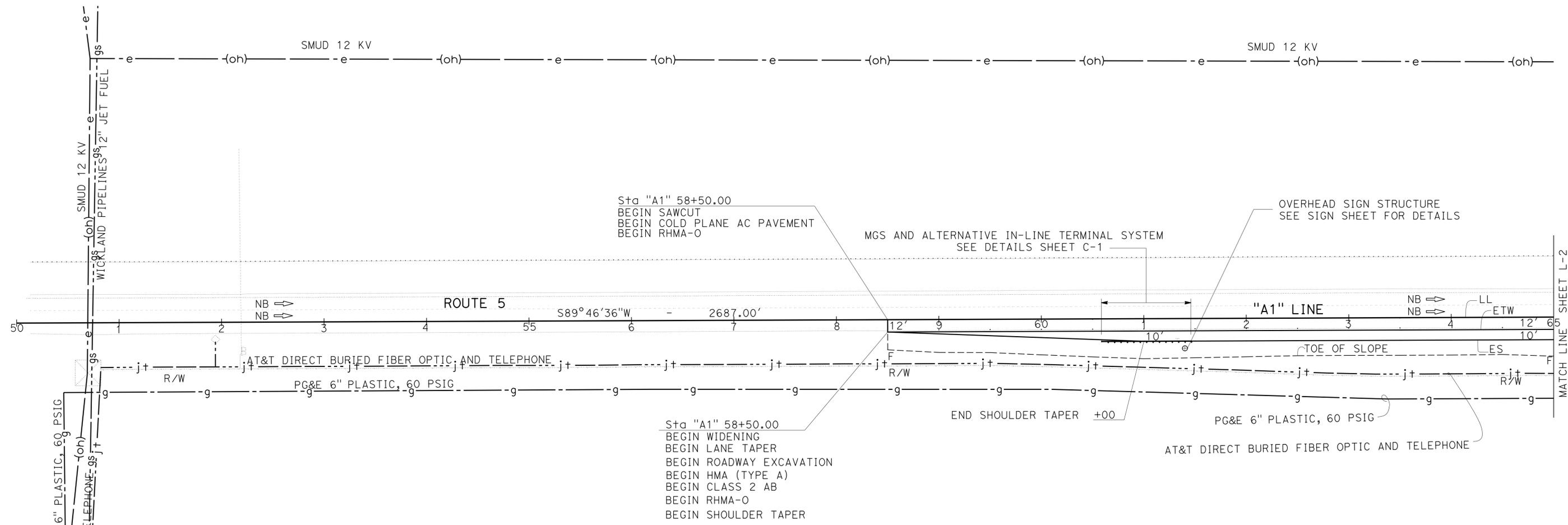
5-22-15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE
 ERIC NORMAN SOUZA
 No. 75706
 Exp. 6-30-16
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- NOT ALL UTILITIES OUTSIDE OF THE STATE RIGHT OF WAY ARE SHOWN.
- UTILITY OWNERSHIP:
 ELECTRIC - SACRAMENTO MUNICIPAL UTILITY DISTRICT (SMUD)
 FIBER OPTICS - AMERICAN TELEPHONE AND TELEGRAPH (AT&T)
 JET FUEL - WICKLAND PIPELINES
 GAS - PACIFIC GAS & ELECTRIC (PG&E)
 TELEPHONE - AMERICAN TELEPHONE AND TELEGRAPH (AT&T)
- SB ROUTE 5 NOT SHOWN.

ABBREVIATIONS

LL LANE LINE



LAYOUT
 SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: STEPHEN WRIGHT
 CALCULATED/DESIGNED BY: A.G. CHIN
 CHECKED BY: ERIC SOUZA
 REVISIONS: (Grid of X's)

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. NOT ALL UTILITIES OUTSIDE OF THE STATE RIGHT OF WAY ARE SHOWN.
3. SOUTHBOUND ROUTE 5 NOT SHOWN.

CURVE DATA

No.	⊕	R	Δ	T	L
1		700'	04°58'06"	30.37'	60.70'

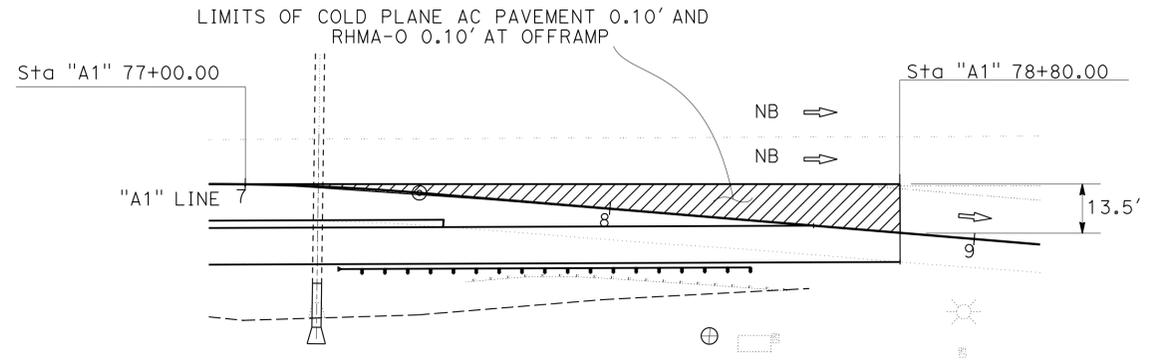
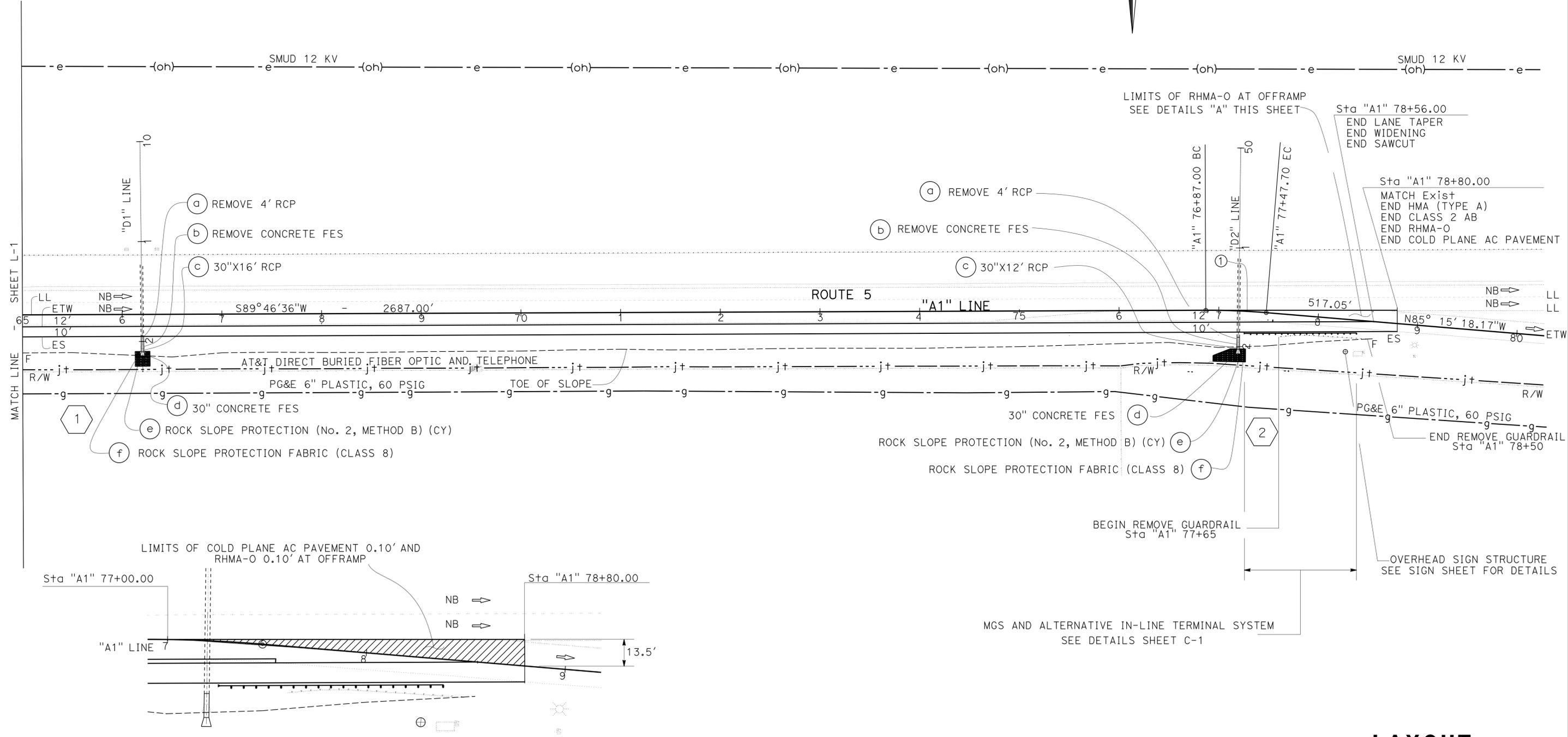
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	4	62

5-22-15
 REGISTERED CIVIL ENGINEER DATE

6-1-15
 PLANS APPROVAL DATE

ERIC NORMAN SOUZA
 No. 75706
 Exp. 6-30-16
 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.

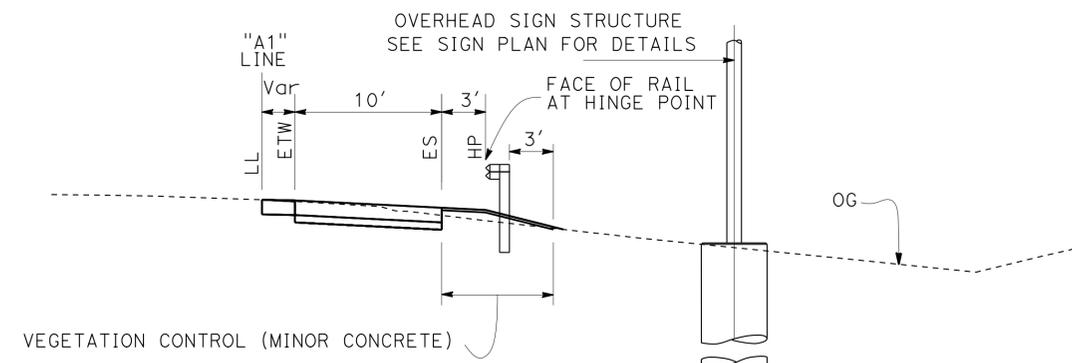


DETAIL "A"
 NO SCALE

LAYOUT
 SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: STEPHEN WRIGHT
 CALCULATED/DESIGNED BY: A.G. CHIN
 CHECKED BY: ERIC SOUZA
 REVISED BY: DATE
 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

NOTE: FOR DETAILS NOT SHOWN SEE STANDARD PLANS.



ABBREVIATIONS

LL LANE LINE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	5	62

5-22-15
 REGISTERED CIVIL ENGINEER DATE

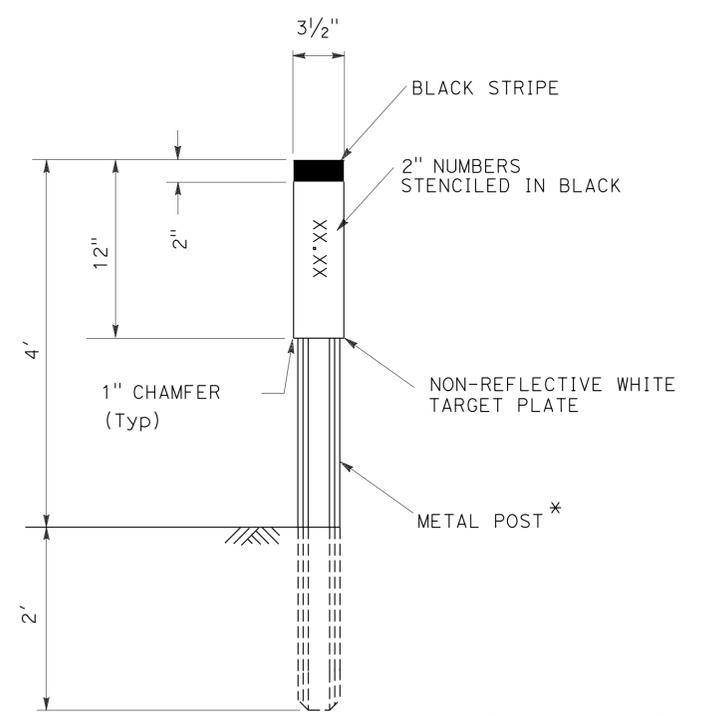
6-1-15
 PLANS APPROVAL DATE

ERIC NORMAN SOUZA
 No. 75706
 Exp. 6-30-16
 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.

MARKER (CULVERT) STENCILED NUMBERS

DRAINAGE SYSTEM No.	Sta	POST MILE
1	"A1" 66+20 Rt	32.22
2	"A1" 77+20 Rt	32.47



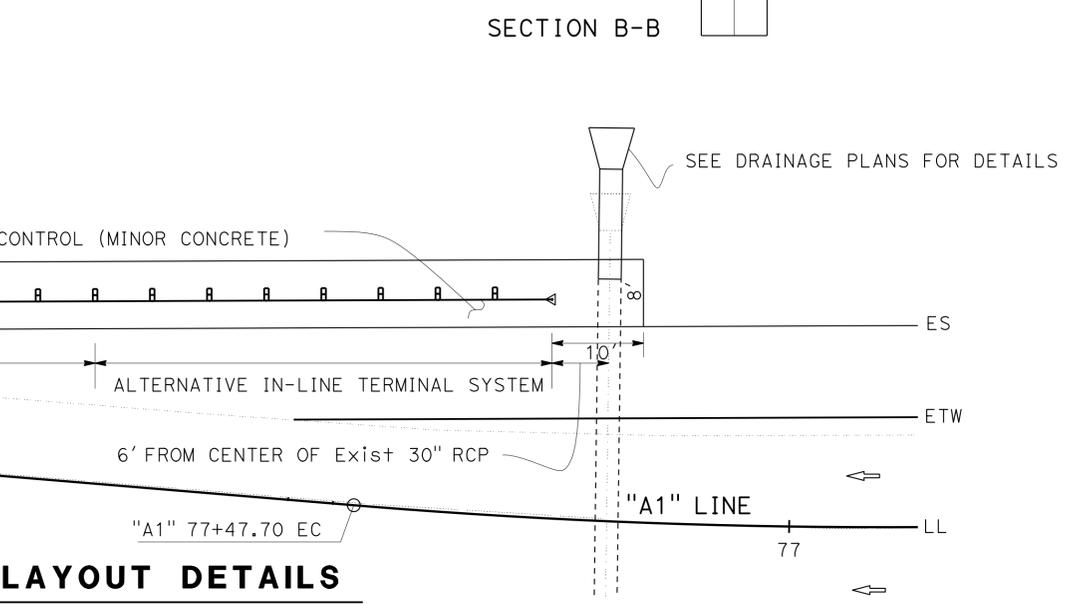
* SEE Std PLAN A73B FOR METAL POST DETAILS

MARKER (CULVERT)

MARKER (CULVERT) NOTES:

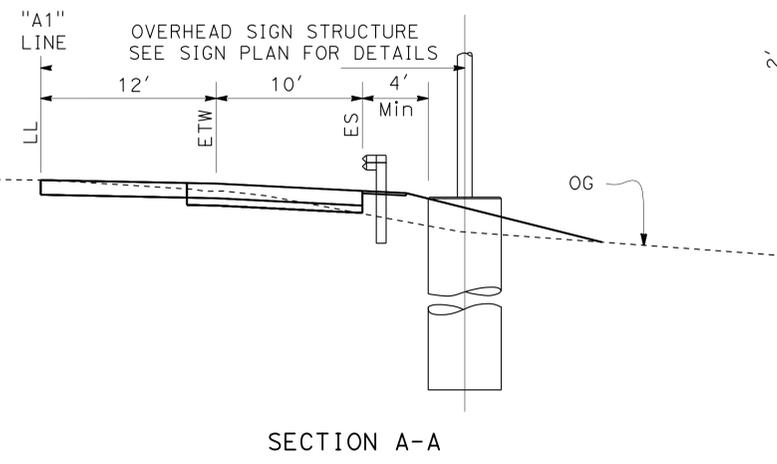
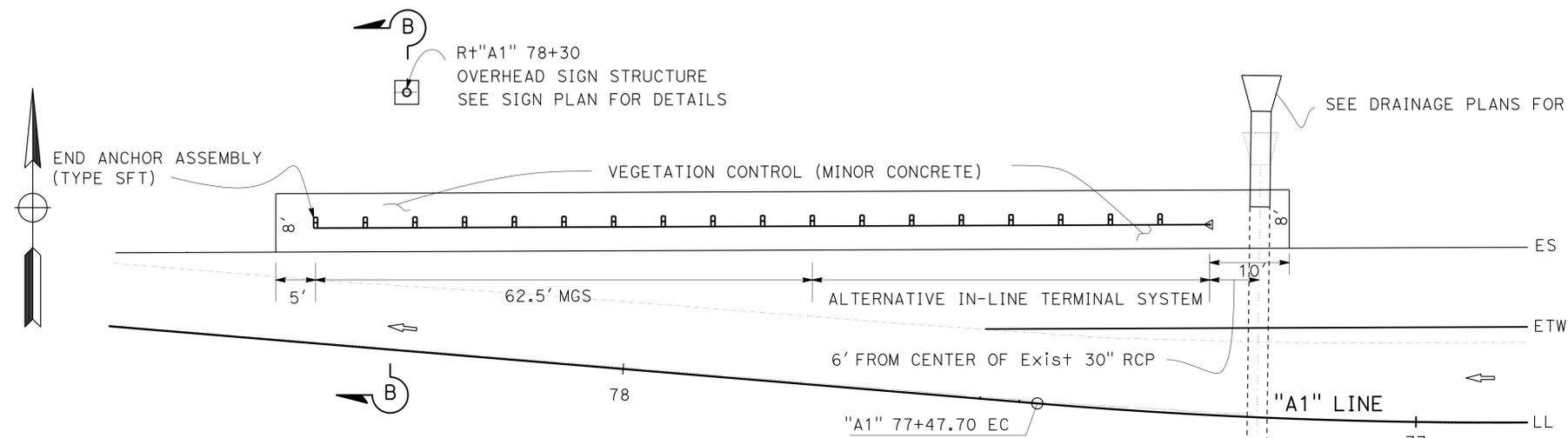
1. PLACE MINIMUM 2' FROM EDGE OF PAVEMENT.
2. EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.

CONSTRUCTION DETAILS
 NO SCALE



MGS LAYOUT DETAILS

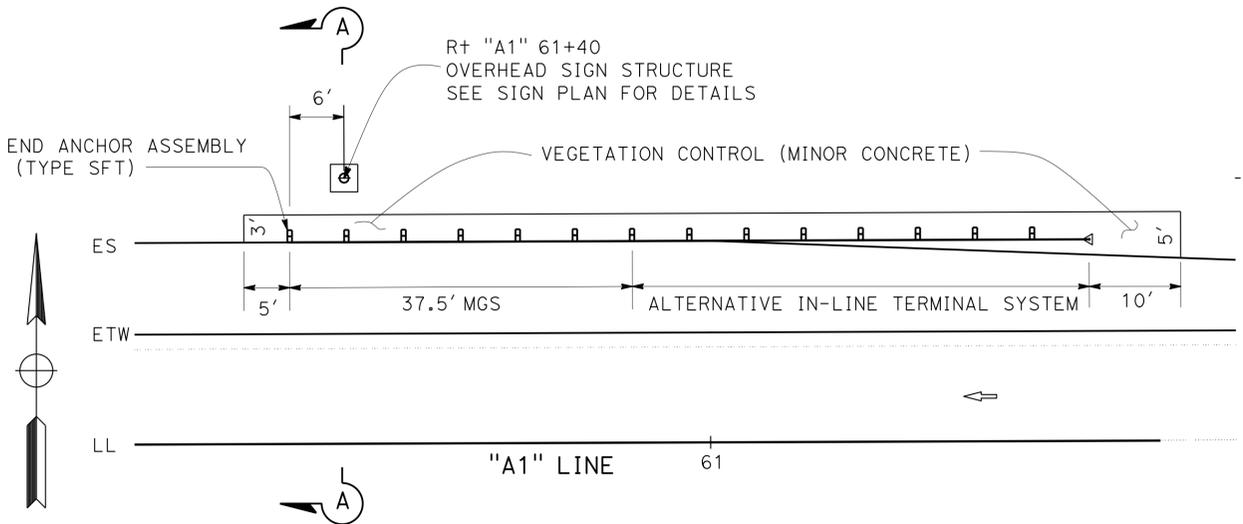
Rt "A1" 75+96.5 TO 77+24



SECTION A-A

MGS LAYOUT DETAILS

Rt "A1" 60+54.25 TO 61+56.75



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	6	62

5-22-15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

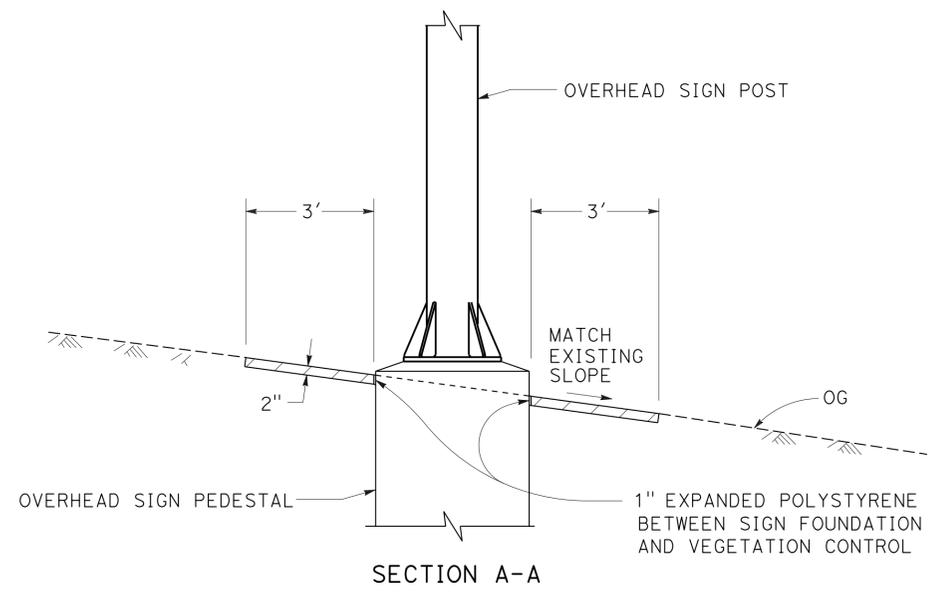
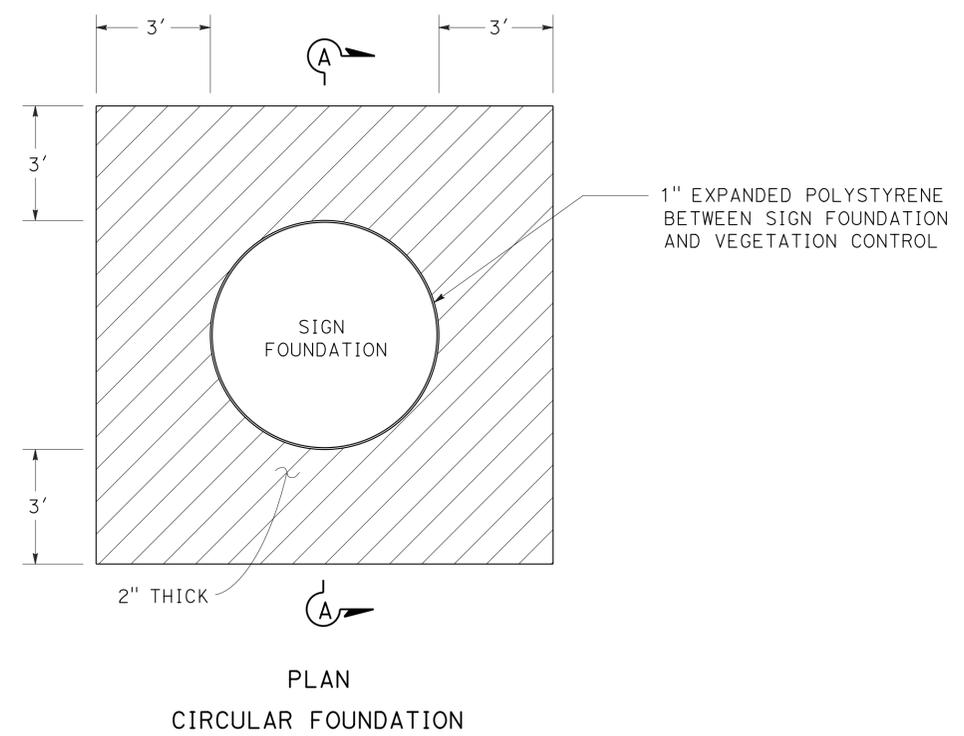
ERIC NORMAN SOUZA
 No. 75706
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

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.

NOTE: FOR DETAILS NOT SHOWN SEE STANDARD PLANS.

LEGEND

 VEGETATION CONTROL (MINOR CONCRETE)

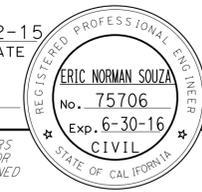


VEGETATION CONTROL (MINOR CONCRETE) AT OVERHEAD SIGN PEDESTAL

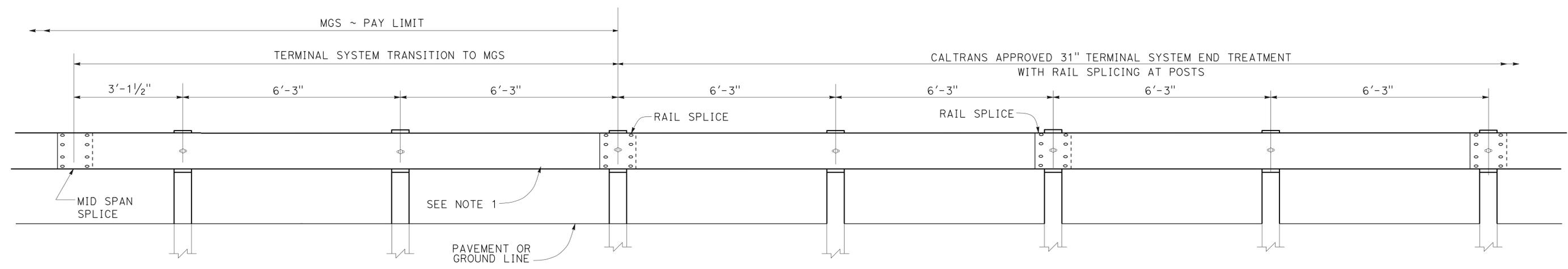
Rt "A1" 61+40 AND Rt "A1" 78+30

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC
 FUNCTIONAL SUPERVISOR: STEPHEN WRIGHT
 A.G. CHIN
 ERIC SOUZA
 REVISIONS: (empty table)
 REVISIONS: (empty table)
 REVISIONS: (empty table)

CONSTRUCTION DETAILS
NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	7	62
 REGISTERED CIVIL ENGINEER			5-22-15 DATE		
PLANS APPROVAL DATE 6-1-15					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTE: 1. USE 15'-7 1/2" LENGTH RAIL.



TRANSITION DETAIL FOR 31" TERMINAL SYSTEM END TREATMENT WITH RAIL SPLICING AT POSTS TO MIDWEST GUARDRAIL SYSTEM

CONSTRUCTION DETAILS
NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

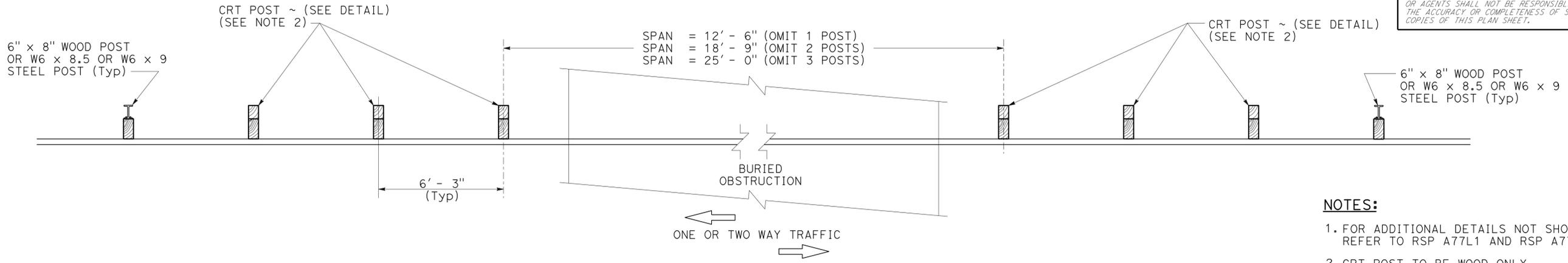
 FUNCTIONAL SUPERVISOR: STEPHEN WRIGHT
 CALCULATED/DESIGNED BY: A.G. CHIN
 CHECKED BY: ERIC SOUZA
 REVISED BY: [blank]
 DATE REVISED: [blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	8	62

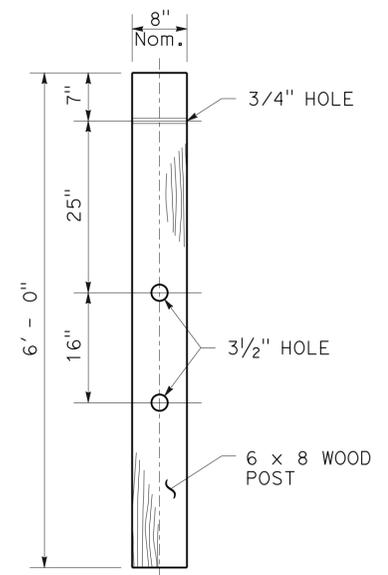
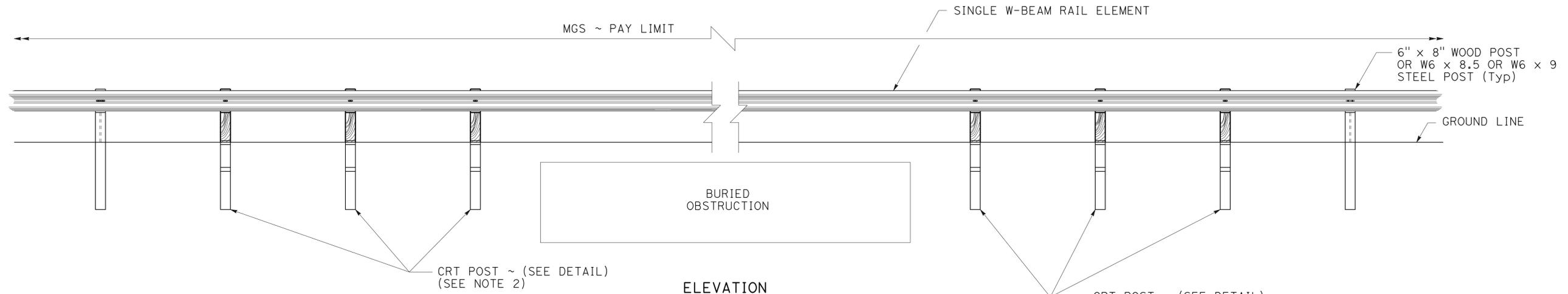
5-22-15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 ERIC NORMAN SOUZA
 No. 75706
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

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



- NOTES:**
1. FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN, REFER TO RSP A77L1 AND RSP A77L2.
 2. CRT POST TO BE WOOD ONLY.



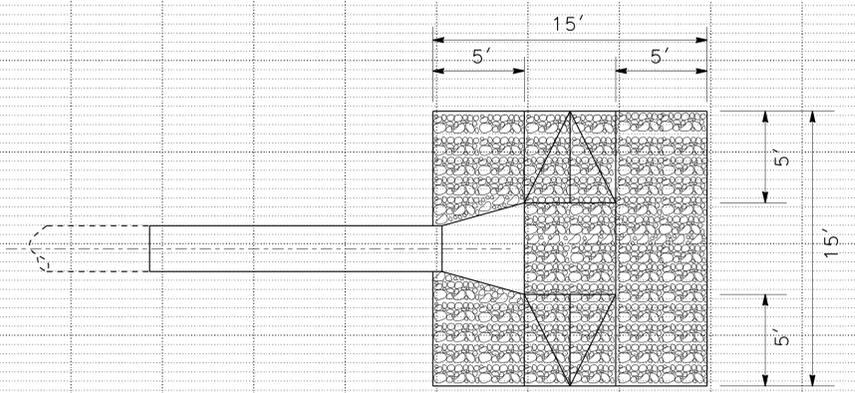
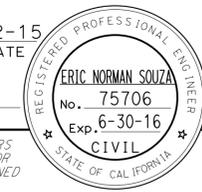
**CONTROLLED RELEASING
TERMINAL (CRT) POST DETAIL**

CONSTRUCTION DETAILS
NO SCALE

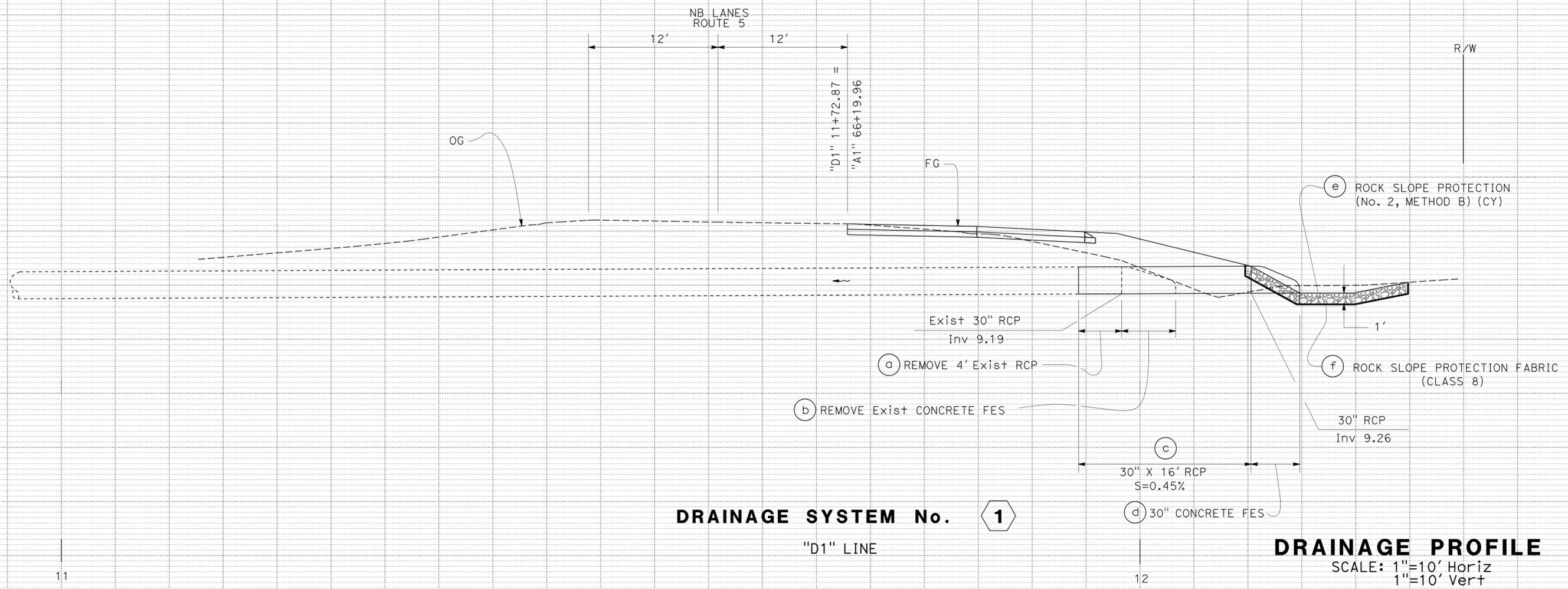
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	TRAFFIC
FUNCTIONAL SUPERVISOR	STEPHEN WRIGHT
CALCULATED/DESIGNED BY	CHECKED BY
A.G. CHIN	ERIC SOUZA
REVISOR	DATE
REVISOR	DATE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: STEPHEN WRIGHT
 TRAFFIC
 CALCULATED/DESIGNED BY: A.G. CHIN
 CHECKED BY: ERIC SOUZA
 REVISIONS: REVISOR: DATE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	9	62
			5-22-15	REGISTERED CIVIL ENGINEER DATE	
			6-1-15	PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



ROCK SLOPE PROTECTION PLAN DETAIL
 NO SCALE

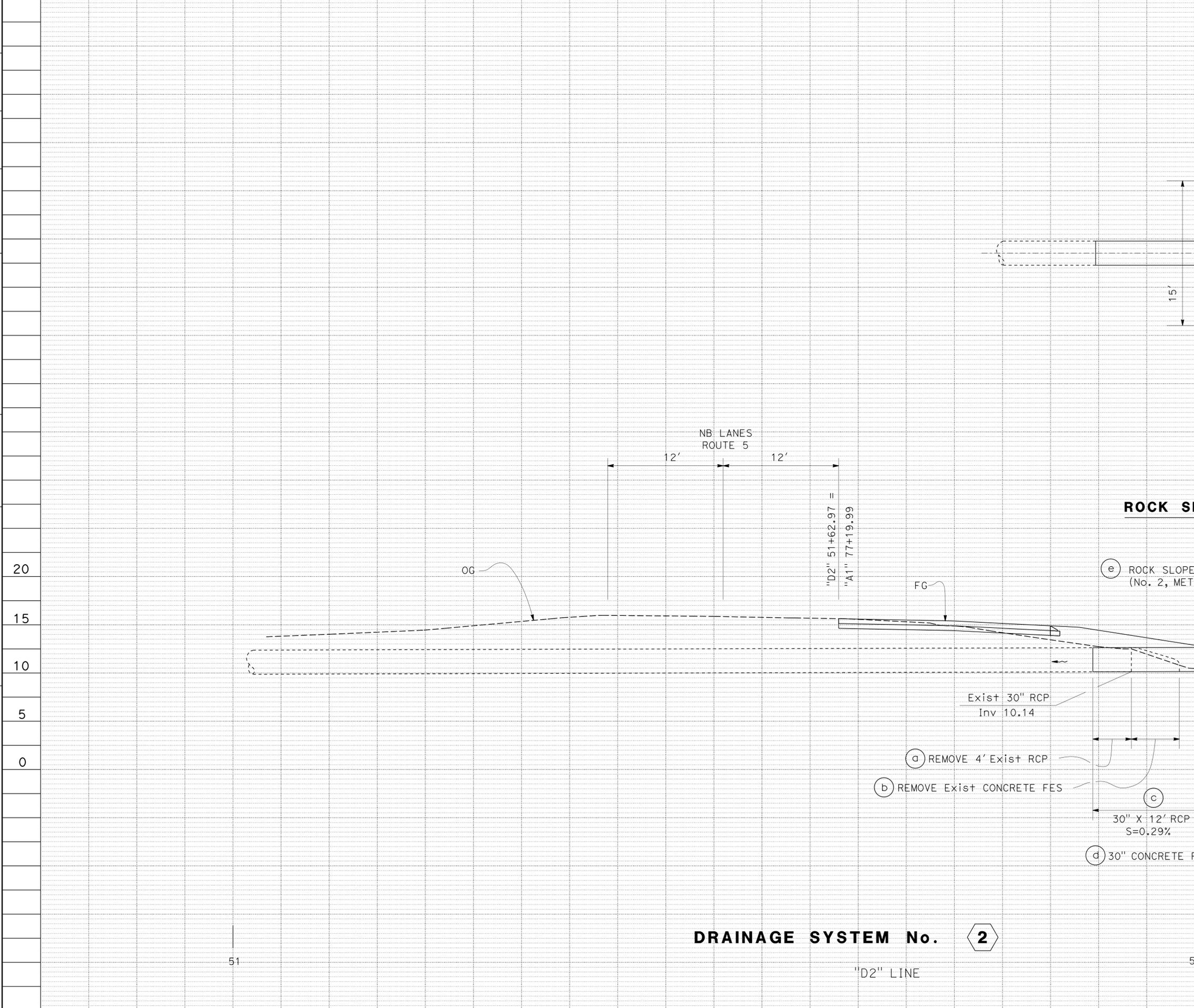


DRAINAGE SYSTEM No. 1

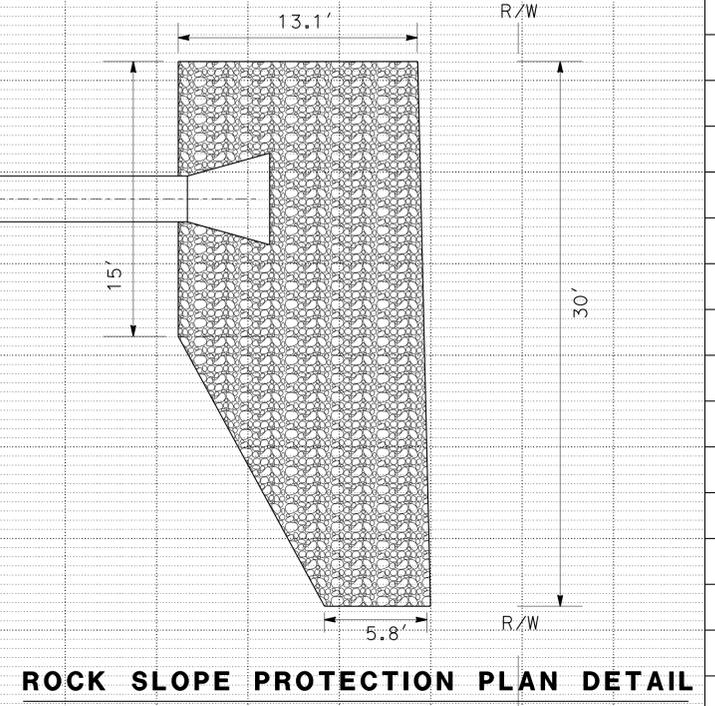
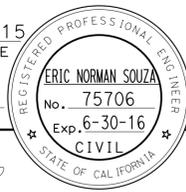
DRAINAGE PROFILE
 SCALE: 1"=10' Horiz
 1"=10' Vert

DP-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR
 TRAFFIC
 A.G. CHIN
 ERIC SOUZA
 REVISIONS



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	10	62
			5-22-15	REGISTERED CIVIL ENGINEER DATE	
			6-1-15	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.					



DRAINAGE SYSTEM No. **2**

DRAINAGE PROFILE
 SCALE: 1"=10' Horiz
 1"=10' Vert
DP-2

LAST REVISION DATE PLOTTED => 03-SEP-2015 10-27-14 TIME PLOTTED => 15:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	11	62

Kris M. Albers 6-1-15
REGISTERED CIVIL ENGINEER DATE

6-1-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

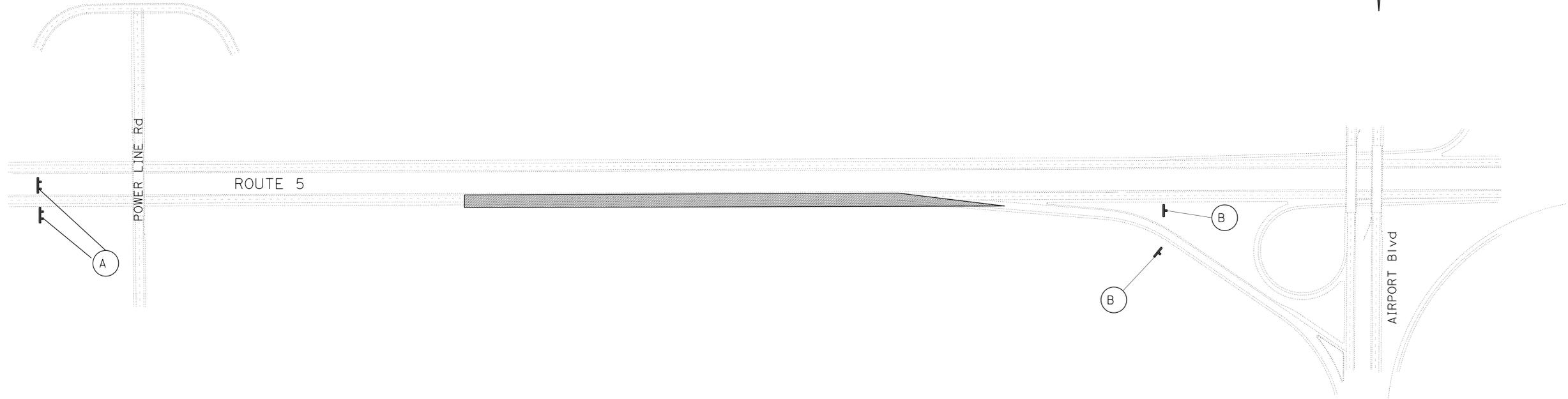
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
(A)	W20-1	60" x 60"	ROAD WORK AHEAD	2 - 4" x 6"	2
(B)	C14<CA>	48" x 24"	END ROAD WORK	1 - 4" x 6"	2

NOTES:

- EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
- ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS A CALIFORNIA SIGN CODE.
- <CA> = CALIFORNIA SIGN CODE.
- FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE TRAFFIC HANDLING PLAN.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC
NARAYAN SELWAL
CALCULATED/DESIGNED BY
CHECKED BY
KRIS ALBERS
CHUCK COOK
REVISED BY
DATE REVISED

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS
NO SCALE
CS-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	12	62
			5-22-15	REGISTERED CIVIL ENGINEER DATE	
			6-1-15	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.					



NOTES:

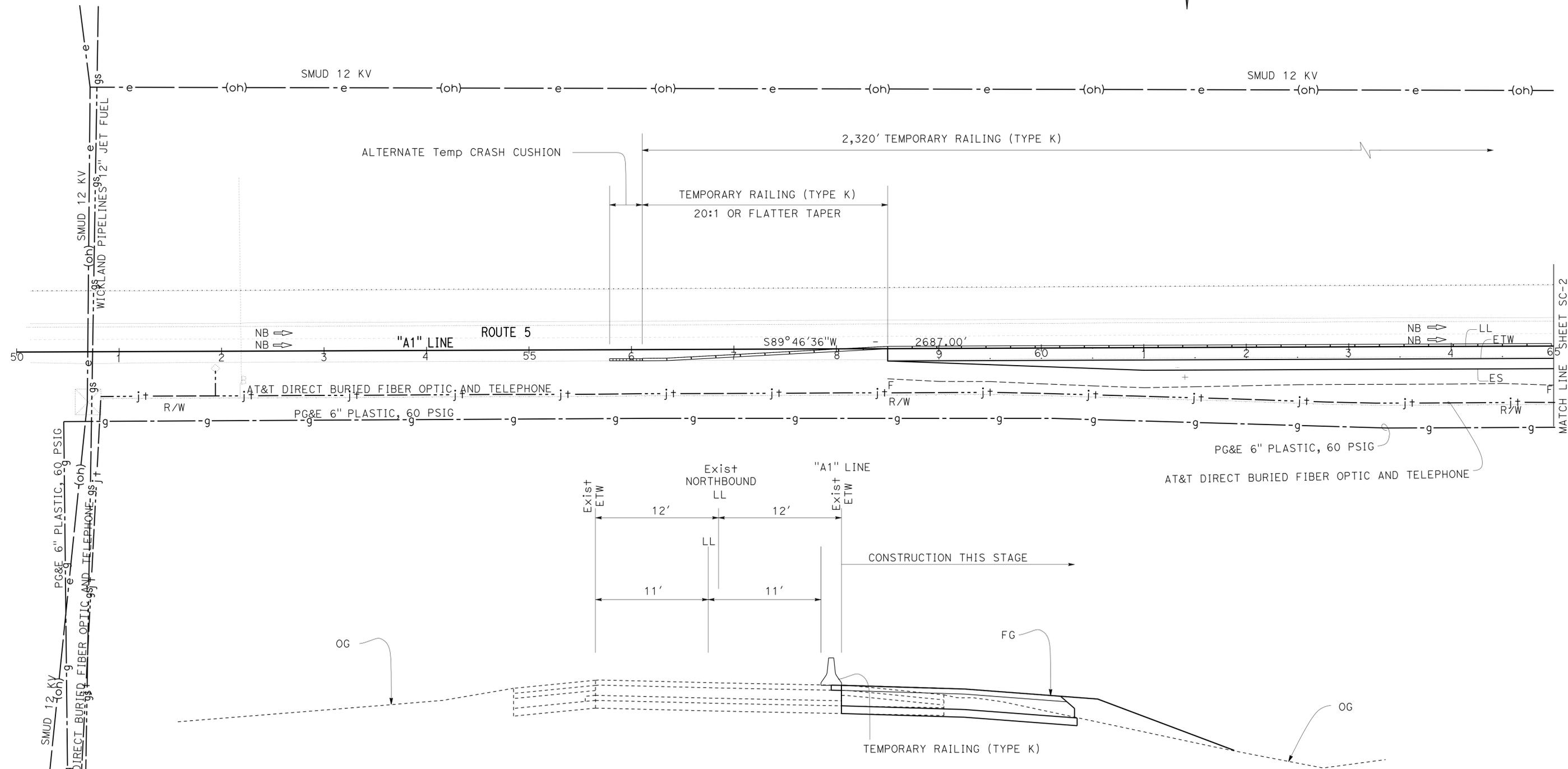
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- NOT ALL UTILITIES OUTSIDE OF THE STATE RIGHT OF WAY ARE SHOWN.
- UTILITY OWNERSHIP:
ELECTRIC - SACRAMENTO MUNICIPAL UTILITY DISTRICT (SMUD)
FIBER OPTICS - AMERICAN TELEPHONE AND TELEGRAPH (AT&T)
JET FUEL - WICKLAND PIPELINES
GAS - PACIFIC GAS & ELECTRIC (PG&E)
TELEPHONE - AMERICAN TELEPHONE AND TELEGRAPH (AT&T)
- SB ROUTE 5 NOT SHOWN.
- FOR DETAILS NOT SHOWN SEE STANDARD PLANS T3A AND T3B.
- FOR EXISTING AND NEW STRUCTURAL SECTION, SEE TYPICAL SECTIONS.

ABBREVIATIONS

LL LANE LINE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	STEPHEN WRIGHT	ERIC SOUZA	A.G. CHIN
TRAFFIC		CHECKED BY	DATE REVISED



STAGING TYPICAL SECTION

STAGE CONSTRUCTION

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

SCALE: 1"=50'

SC-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	13	62

<i>[Signature]</i>	5-22-15
REGISTERED CIVIL ENGINEER	DATE
6-1-15	
PLANS APPROVAL DATE	

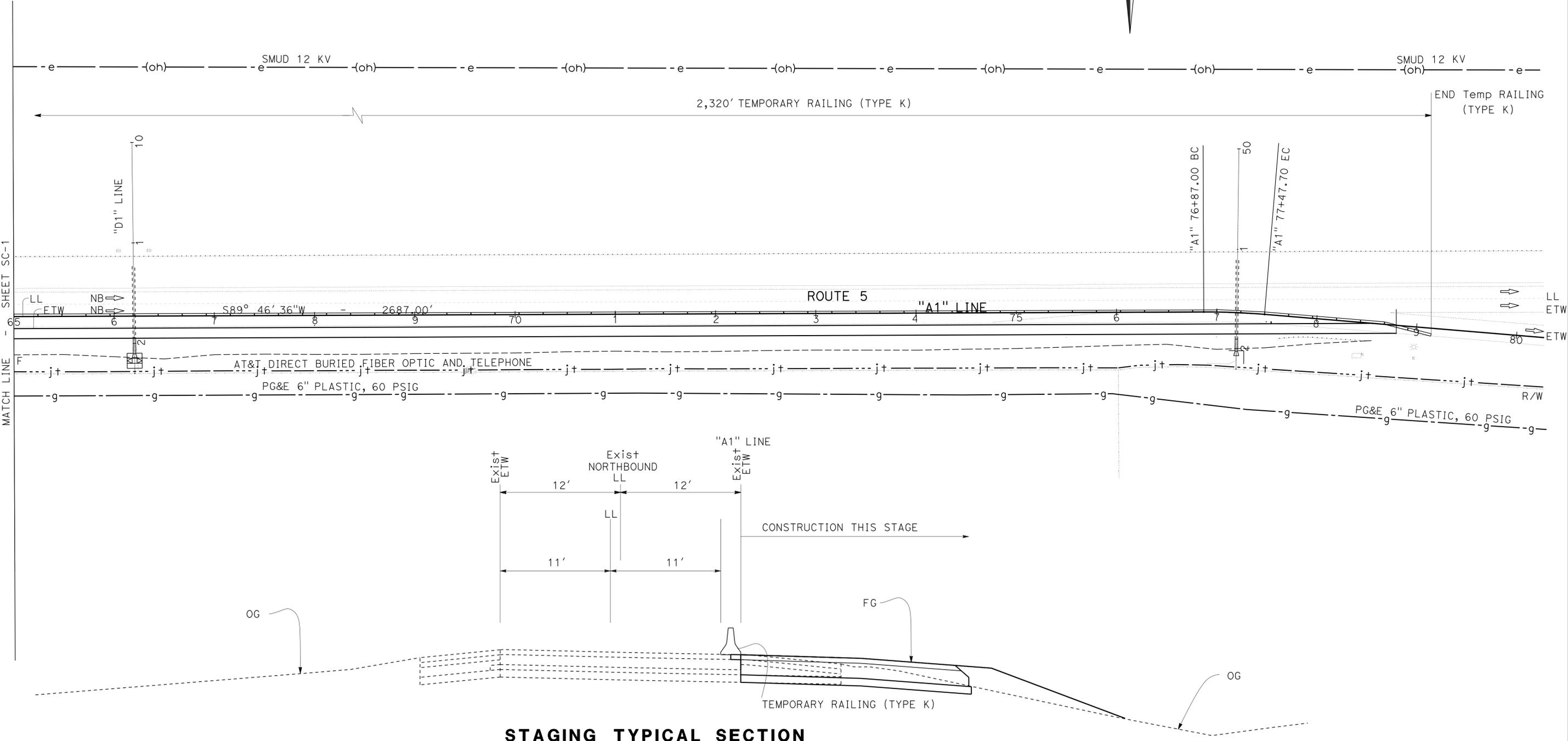
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. NOT ALL UTILITIES OUTSIDE OF THE STATE RIGHT OF WAY ARE SHOWN.
3. SOUTHBOUND ROUTE 5 NOT SHOWN.
4. FOR DETAILS NOT SHOWN SEE STANDARD PLANS T3A AND T3B.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: STEPHEN WRIGHT
 CALCULATED/DESIGNED BY: A.G. CHIN
 CHECKED BY: ERIC SOUZA
 REVISIONS: (None shown)



STAGING TYPICAL SECTION

STAGE CONSTRUCTION
 SCALE: 1"=50'

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

LAST REVISION: DATE PLOTTED => 03-SEP-2015 11-07-14 TIME PLOTTED => 15:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	14	62

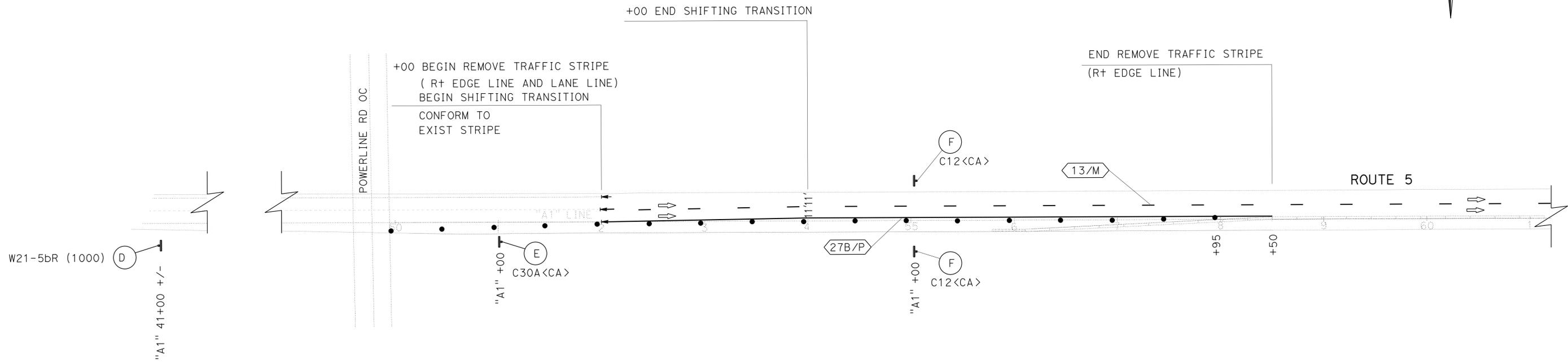
<i>Kris M. Albers</i>		6-1-15
REGISTERED CIVIL ENGINEER	DATE	
6-1-15		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER	KRIS M. ALBERS
No.	49986
Exp.	6-30-17
CIVIL	

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

LEGEND

- | | | | |
|---------------|---|------|-------------------------------|
| ← | LIMIT OF STRIPING PATTERN | (X) | CONSTRUCTION AREA SIGN LETTER |
| ⬡ No./P | PAVEMENT DELINEATION DETAIL NUMBER
P=PAINT; M = MARKER | <CA> | CALIFORNIA SIGN CODE |
| PAINT MARKERS | TEMPORARY TRAFFIC STRIPE (PAINT)
TEMPORARY PAVEMENT MARKER | ⇒ | DIRECTION OF TRAVEL |
| • | CHANNELIZER (SURFACE MOUNTED) | | |



NOTES:

1. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
2. CHANNELIZERS (SURFACE MOUNTED) SHALL BE INSTALLED ON 50 FOOT CENTERS.

TRAFFIC HANDLING PLAN

SCALE: 1"=50'

TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	NARAYAN SELWAL	KRIS ALBERS	
	CHECKED BY	CHUCK COOK	
	DESIGNED BY		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	16	62

Kris M. Albers 6-1-15
REGISTERED CIVIL ENGINEER DATE

6-1-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No. 49986
Exp. 6-30-17
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.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
D	W21-5bR(1000)		48" x 48"	RIGHT SHOULDER CLOSED 1000 FT	1 - 6" x 6"	1
E		C30A<CA>	48" x 48"	SHOULDER CLOSED	1 - 6" x 6"	1
F		C12<CA>	48" x 48"	NARROW LANES	1 - 6" x 6"	2

NOTES:

1. EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE CONSTRUCTION AREA SIGNS PLAN.

CHANNELIZER SURFACE MOUNTED

LOCATION		EACH
STAGE 1	Sta "A" 49+95 TO "A" 57+95	17
Total		17

REMOVE THERMOPLASTIC TRAFFIC STRIPE (WATER BLASTING)

	LOCATION	DIRECTION	LANE LINE (LF)	R+ EDGELINE (LF)
STAGE 1	Sta "A1" 52+00 TO "A1" 80+00	FWBT	2800	
	Sta "A1" 52+00 TO "A1" 58+50	FWBT		650
SUBTOTAL			2800	650
TOTAL			3450	

TEMPORARY TRAFFIC STRIPE (PAINT)

STAGE	LOCATION	DIRECTION	DETAIL 27B (LF)
Stage 1	Sta "A1" 52+00 TO "A1" 58+50	FWBT	650
TOTAL			650

REMOVE PAINTED TRAFFIC STRIPE (WATER BLASTING)

STAGE	LOCATION	DIRECTION	R+ EDGELINE (LF)
STAGE 1	Sta "A1" 52+00 TO "A1" 58+50	FWBT	650
TOTAL			650

TEMPORARY PAVEMENT MARKER

STAGE	DETAIL NUMBER	RETROREFLECTIVE		NON- REFLECTIVE	STAGE TOTAL
		TYPE C	TYPE G	TYPE A	
		EACH	EACH	EACH	
1	13,14	4	57	238	299
TOTAL					299

TRAFFIC HANDLING QUANTITIES

THQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: NARAYAN SELWAL
 CALCULATED/DESIGNED BY: KRIS ALBERS
 CHECKED BY: CHUCK COOK
 REVISED BY: DATE
 REVISIONS:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	17	62

<i>Kris M. Albers</i>	6-1-15
REGISTERED CIVIL ENGINEER	DATE
6-1-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-17
CIVIL

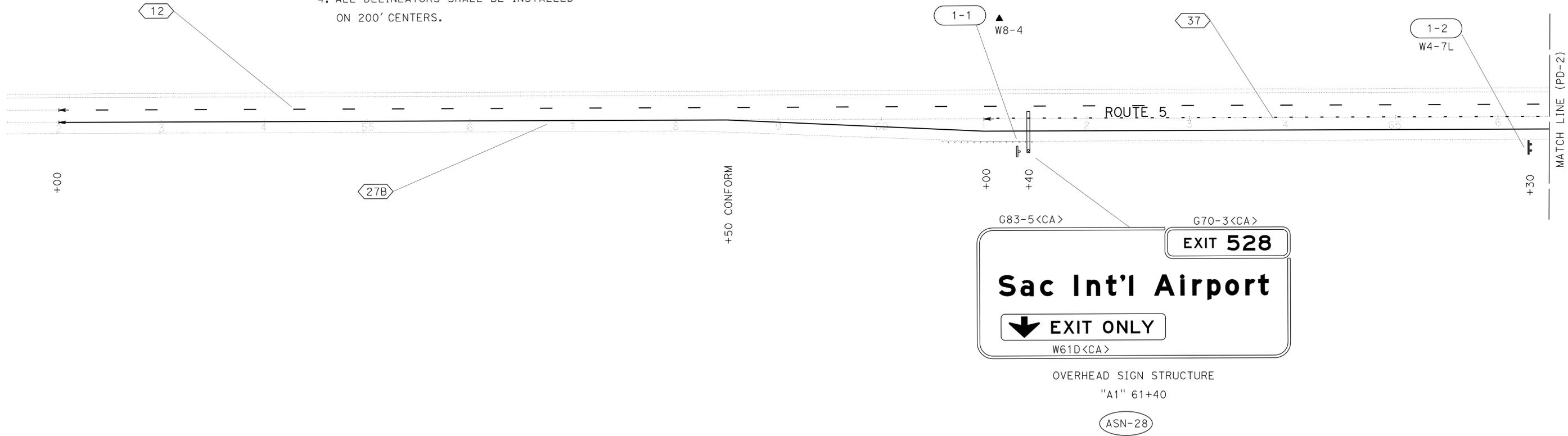
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

- | | | | |
|-------|------------------------------------|-----------|--------------------------------|
| ↑ | LIMIT OF STRIPING PATTERN | (Sht-No.) | ROADSIDE SIGN NUMBER |
| ↔ | CHANGE IN STRIPING PATTERN | (No.) | OVERHEAD SIGN NUMBER |
| (No.) | PAVEMENT DELINEATION DETAIL NUMBER | (No.) | REMOVE OVERHEAD SIGN STRUCTURE |
| ▲ | DELINEATOR (CLASS 1) | <CA> | CALIFORNIA SIGN CODE |
| | | ▲ | RESET ROADSIDE SIGN |

NOTE:

1. ALL LANES SHALL BE 12' WIDE.
2. ALL EXISTING SIGNS NOT SHOWN FOR REMOVAL, OR RESETTING SHALL REMAIN IN PLACE.
3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
4. ALL DELINEATORS SHALL BE INSTALLED ON 200' CENTERS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	NARAYAN SELWAL	KRIS ALBERS	
TRAFFIC	CHECKED BY	CHUCK COOK	
	DESIGNED BY		

PAVEMENT DELINEATION AND SIGN PLAN

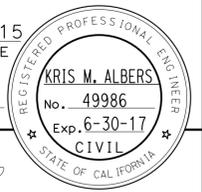
SCALE: 1"=50'

PD-1

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

LAST REVISION | DATE PLOTTED => 03-SEP-2015
 02-20-15 | TIME PLOTTED => 15:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	18	62
Kris M. Albers			6-1-15		
REGISTERED CIVIL ENGINEER			DATE		
6-1-15					
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



OVERHEAD SIGN STRUCTURE

"A1" 78+30

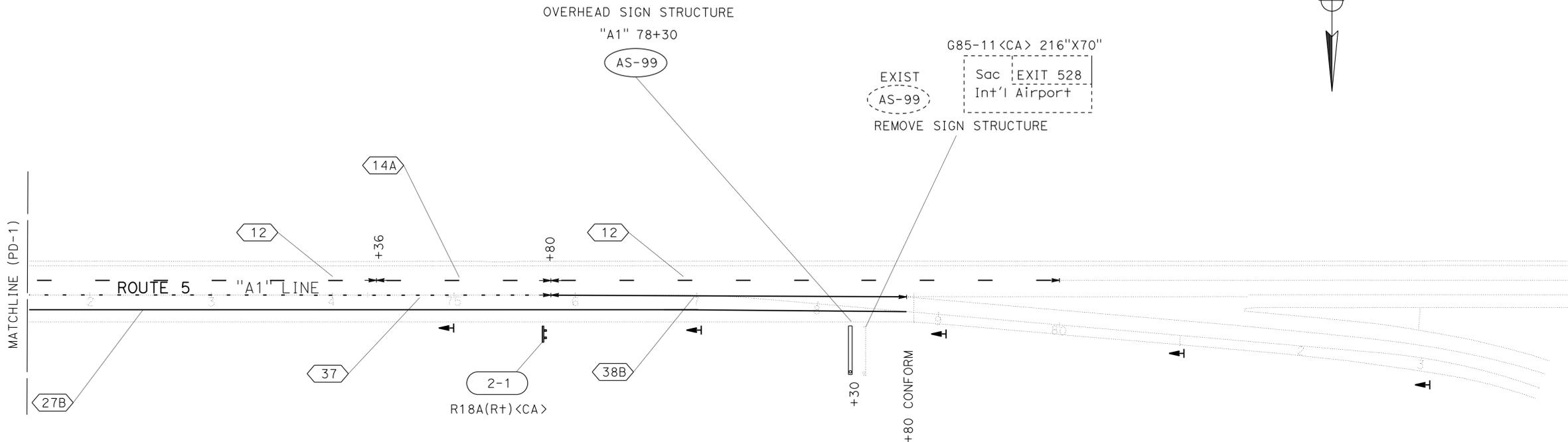
AS-99

G85-11 <CA> 216"X70"

EXIST
AS-99

Sac EXIT 528
Int'l Airport

REMOVE SIGN STRUCTURE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	NARAYAN SELWAL	CHUCK COOK	KRIS ALBERS
TRAFFIC		CHECKED BY	DATE REVISOR

**PAVEMENT DELINEATION
AND SIGN PLAN**

SCALE: 1"=50'

PD-2

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	19	62

Kris M. Albers 6-1-15
REGISTERED CIVIL ENGINEER DATE

6-1-15
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.

PAVEMENT MARKER (RETROREFLECTIVE)

DETAIL NUMBER	TYPE G EA	TYPE C EA
12	60	
14A		4
37	95	8
38B	28	
SUBTOTAL	183	12
TOTAL	195	

8" THERMOPLASTIC TRAFFIC STRIPE

DETAIL NUMBER	LINEAR FEET
38B	307
TOTAL	307

4" THERMOPLASTIC TRAFFIC STRIPE

DETAIL NUMBER	LINEAR FEET
27B	2680
TOTAL	2680

DELINEATOR (CLASS 1)

	TYPE F-1 (EACH)
TOTAL	5

4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36-12)

DETAIL NUMBER	LINEAR FEET
12	2800
14A	144
TOTAL	2944

8" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12-3)

DETAIL NUMBER	LINEAR FEET
37	1473
TOTAL	1473

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
FUNCTIONAL SUPERVISOR: NARAYAN SELWAL
CALCULATED/DESIGNED BY: KRIS ALBERS
CHECKED BY: CHUCK COOK
REVISED BY: DATE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	20	62

<i>Kris M. Albers</i>	6-1-15
REGISTERED CIVIL ENGINEER	DATE
6-1-15	
PLANS APPROVAL DATE	

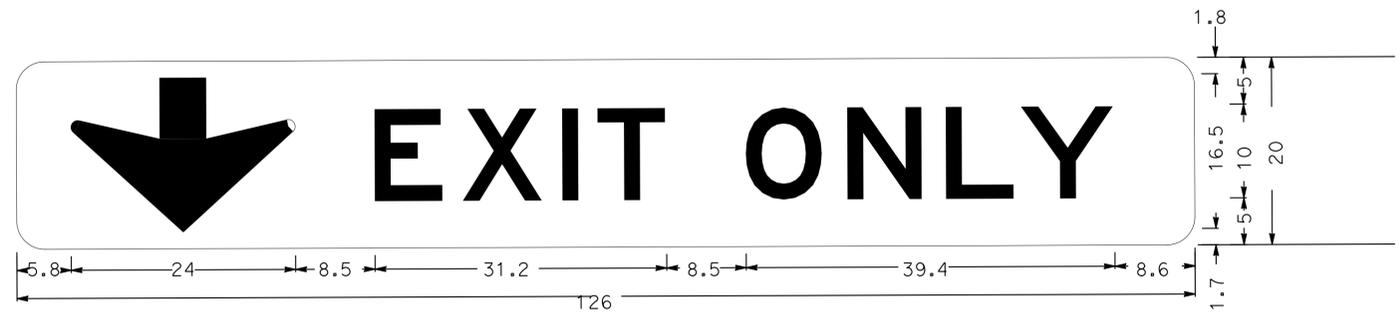
REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 6-30-17
CIVIL

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.



2" BORDER WITH 12" RADIUS
 "Sac Int'l Airport" E MOD

G83-5<CA>
 ASN-28



3.0" RADIUS, NO BORDER, YELLOW;
 DOWN ARROW 16.0" 270{ BLACK; [EXIT] BLACK E; [ONLY] Black E;



2" BORDER WITH 12" RADIUS
 "Sac Int'l Airport" E MOD
 Arrow-16"CAP-1LINE - 25" 45

G85-11<CA>
 AS-99

NOTE: ALL SIGN DIMENSIONS ARE IN INCHES

APPROVED FOR SIGN WORK ONLY

SIGN DETAILS

NO SCALE

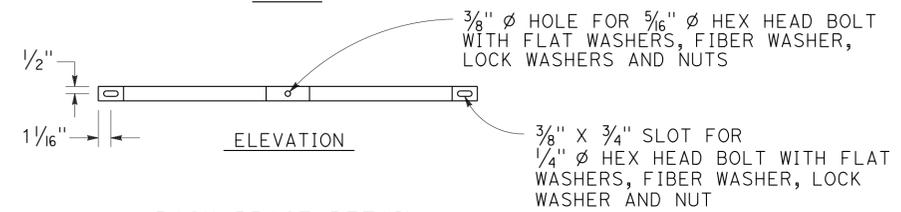
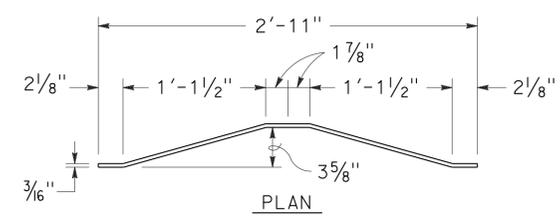
SD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: NARAYAN SELWAL
 REVISIONS: KRIS ALBERS, CHUCK COOK, REVISOR, DATE

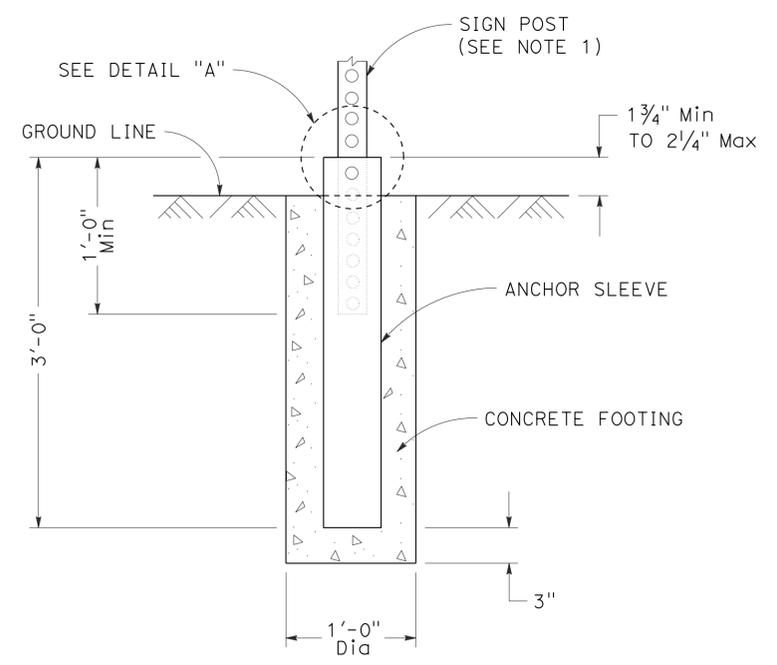
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	22	62
Kris M. Albers			6-1-15	DATE	
REGISTERED CIVIL ENGINEER			PLANS APPROVAL DATE		
No. 49986			6-1-15		
Exp. 6-30-17			CIVIL		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

NOTES:

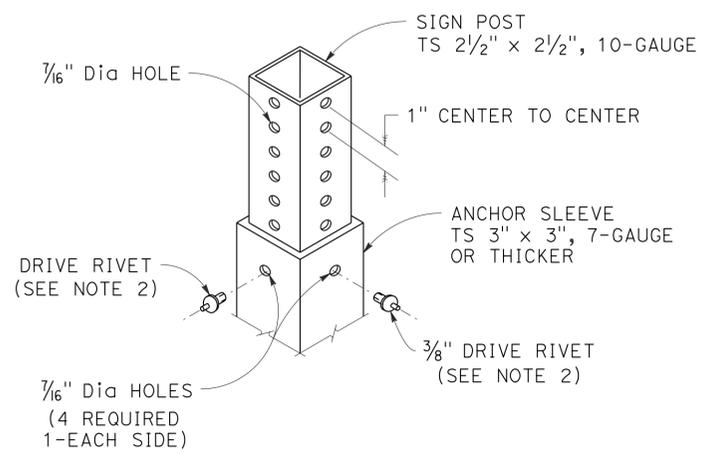
1. THE SIGN POST SHALL HAVE 7/16" DIAMETER PERFORATIONS 1" ON CENTER ON ALL FOUR SIDES FOR THE FULL LENGTH.
2. USE TWO DRIVE RIVETS TO FASTEN ASSEMBLED SIGN AND SIGN POST INTO ANCHOR SLEEVE. INSTALL DRIVE RIVETS INTO THE SIDES FACING TRAFFIC.
3. ALL METAL SIGN POSTS AND ANCHOR SLEEVES SHALL BE GALVANIZED.
4. ALL ANCHOR SLEEVES SHALL BE EMBEDDED IN PCC.
5. BALANCED SINGLE POST INSTALLATIONS OF SINGLE SHEET ALUMINUM PANEL SIGNS REQUIRE BACK BRACES WHEN 2'-10" OR MORE IN LENGTH.
6. WOOD BLOCK SPACERS ARE NOT REQUIRED FOR SIGNS MOUNTED ON METAL POSTS.
7. ATTACH RECTANGULAR SIGN PANEL TO SIGN POST WITH BOLTS AT TOP AND BOTTOM. CENTER MAY BE ATTACHED WITH EITHER BOLT OR 3/8" DRIVE RIVET.
8. ATTACH DIAMOND SIGN PANEL TO SIGN POST WITH BOLT AT CENTER. TOP AND BOTTOM MAY BE ATTACHED WITH EITHER BOLTS OR 3/8" DRIVE RIVETS.
9. FOR DETAILS NOT SHOWN, SEE STANDARD PLANS RS1 AND RS2.



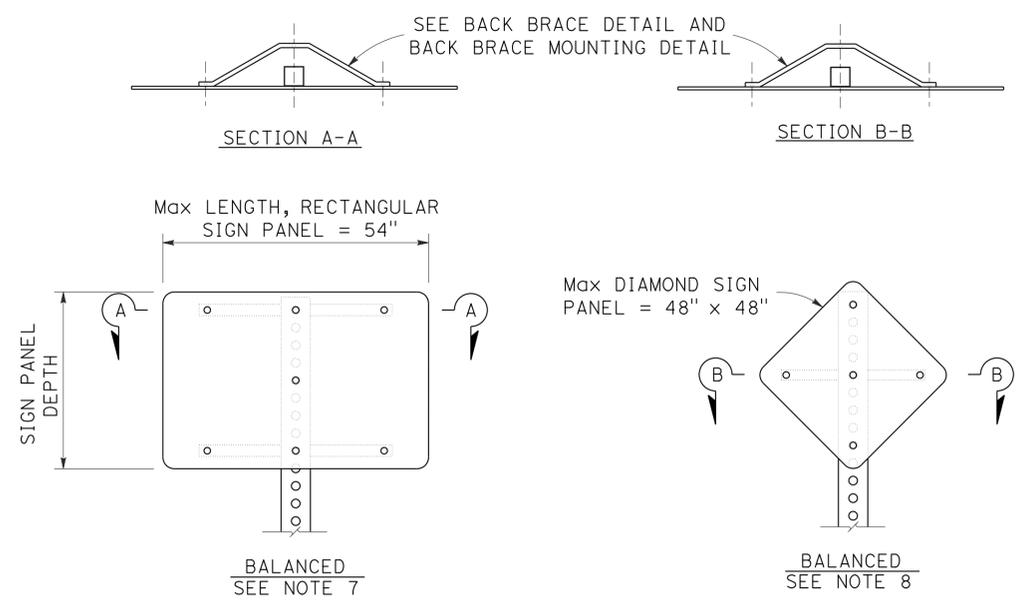
BACK BRACE DETAIL
SEE NOTE 5



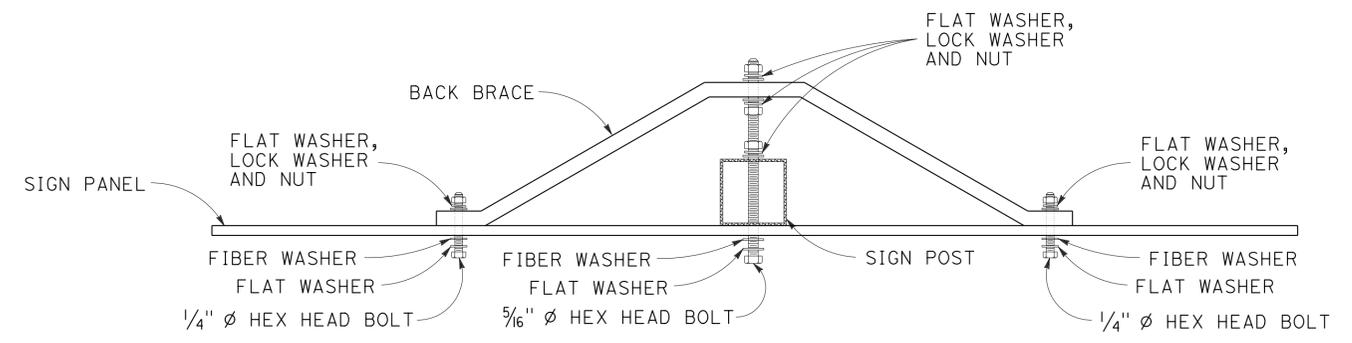
ANCHOR SLEEVE DETAIL



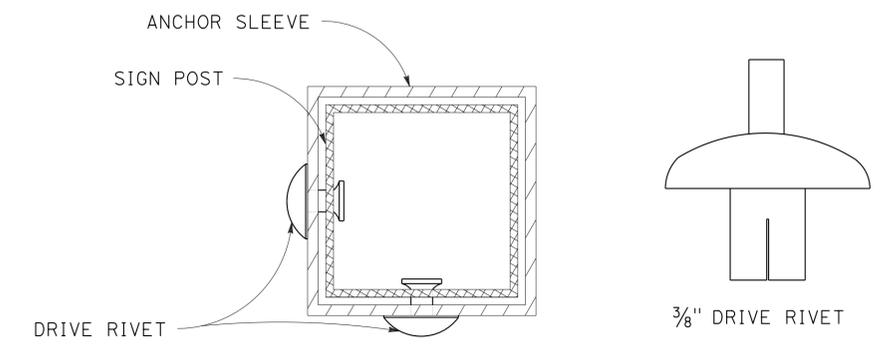
DETAIL "A"



SINGLE POST INSTALLATION



BACK BRACE MOUNTING DETAIL
SEE NOTES 6, 7 AND 8



FASTENER DETAIL

SIGN DETAILS

SD-3

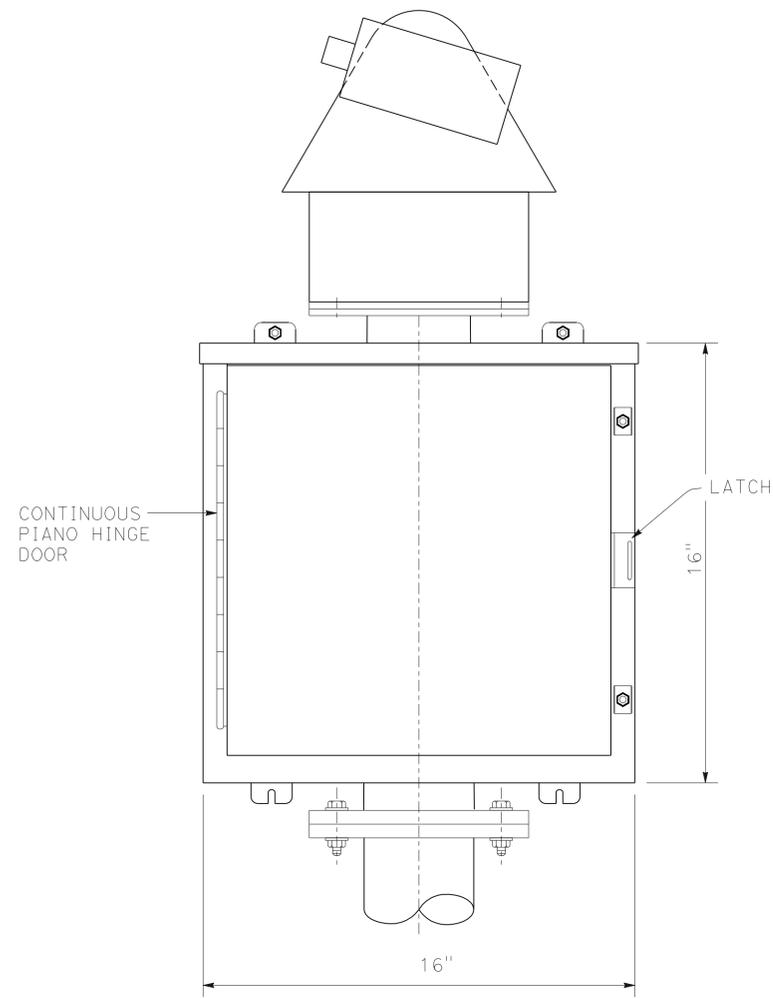
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: NARAYAN SELWAL
 REVISIONS: KRIS ALBERS, CHUCK COOK, REVISOR, DATE REVISOR

APPROVED FOR SIGN WORK ONLY

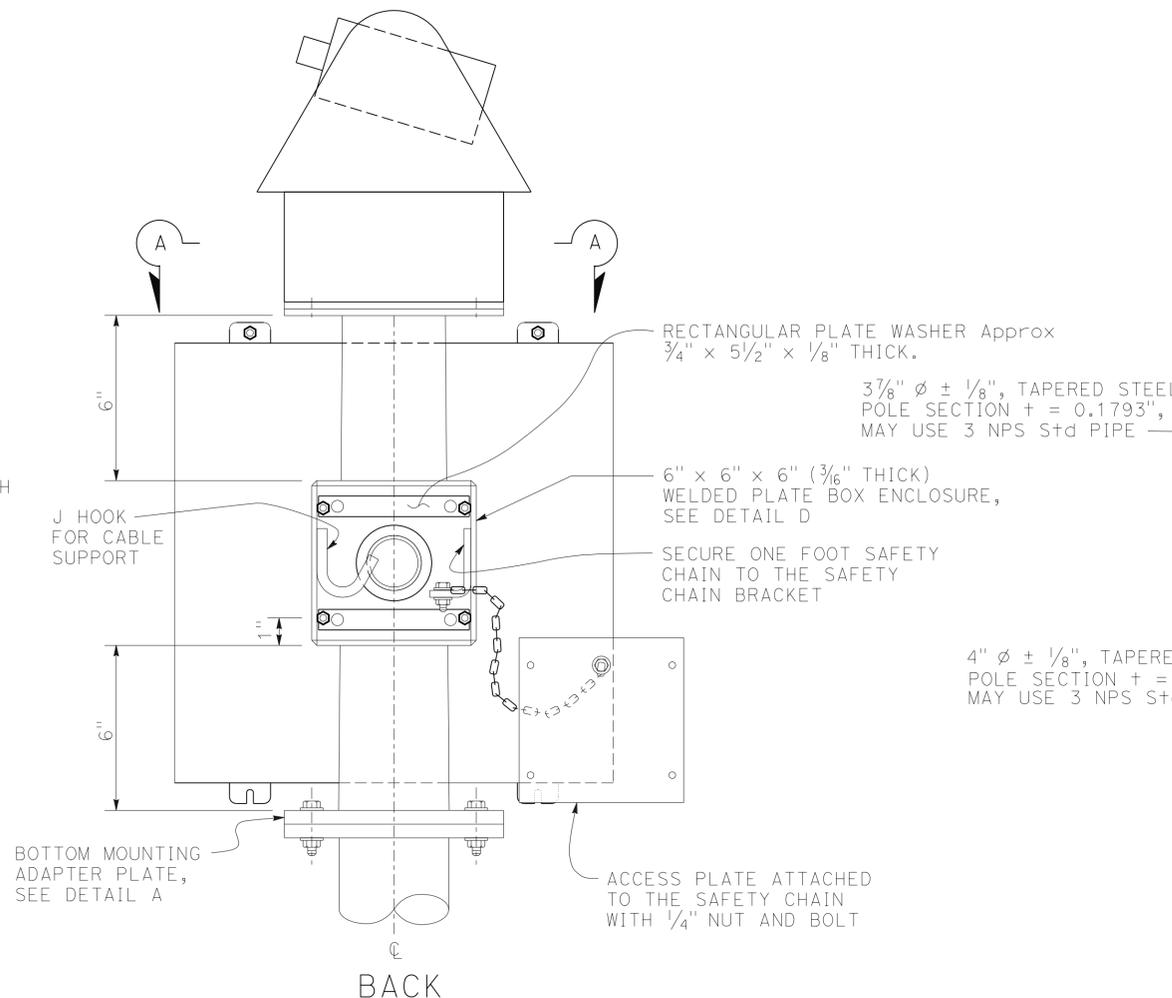
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Sac	5	32.2/32.7	23	62

Jeffrey B Woody 5/18/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE
 No. C41260
 Exp. 3/31/17
 CIVIL
 STATE OF CALIFORNIA

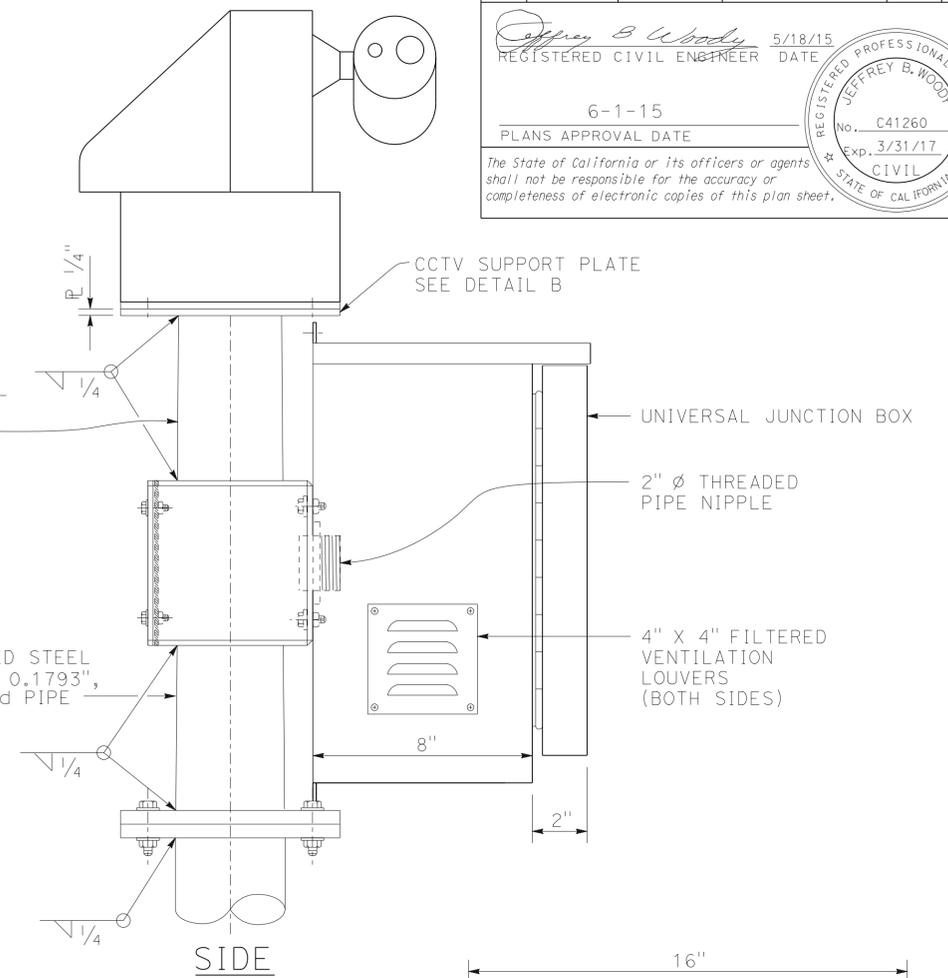
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



FRONT

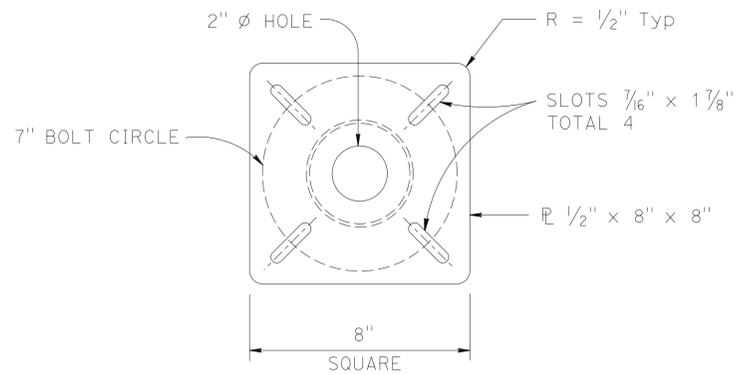


BACK



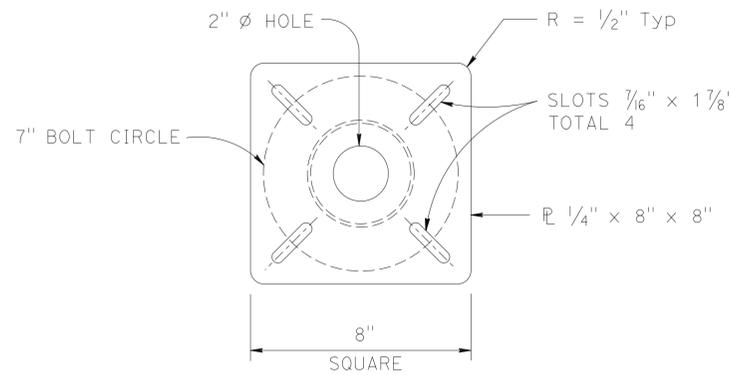
SIDE

CLOSED CIRCUIT TELEVISION MOUNTING ADAPTER



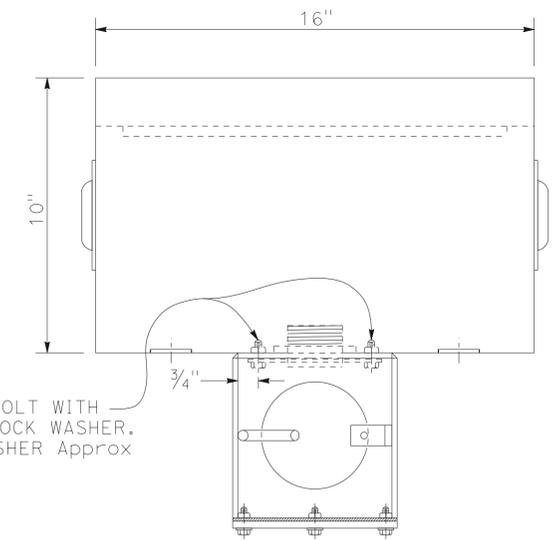
DETAIL A

BOTTOM MOUNTING ADAPTER PLATE



DETAIL B

CCTV SUPPORT PLATE



SECTION A-A

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

BRANCH CHIEF **JEFF WOODY**

DESIGN	BY	CHECKED
	JEFF WOODY	ELISEO LOPEZ
DETAILS	BY	CHECKED
	M. CLEVERLEY	JEFF WOODY
QUANTITIES	BY	CHECKED
	X	X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGNS BRANCH **A**

NO SCALE

BRIDGE NO.	X
POST MILE	32.2/32.7

CLOSED CIRCUIT TELEVISION
MOUNTING ADAPTER

SES-1

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

UNIT: 3619

PROJECT NUMBER & PHASE: 0313000316-1

CONTRACT NO.: 03-2F6304

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES

SHEET OF

X X

FILE => /2015/03-2F6301/03-2F6301_ses-1

USERNAME => s130875 DATE PLOTTED => 03-SEP-2015 TIME PLOTTED => 15:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	24	62

Kris M. Albers 6-1-15
REGISTERED CIVIL ENGINEER DATE

6-1-15
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.

ROADSIDE SIGN QUANTITIES

SIGN NUMBER (SHT-No.)	SIGN CODE	PANEL SIZE	"C" DIM IN FEET	POST SIZE AND LENGTH	ROADSIDE SIGN	RESET ROADSIDE SIGN
		INCHES		4"x6"	TWO POST EA	EA
1-1	W8-4					1
1-2	W4-7L	60 X 60	7	20	1	
2-1	R18A(R+)<CA>	66 X 48	7	16	1	
TOTAL					2	1

NOTES:

- EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.
- POST LENGTHS GIVEN ARE APPROXIMATE.
- "C" DIM = VERTICAL CLEARANCE EP TO BOTTOM OF SIGN PANEL.
- ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS A CALIFORNIA SIGN CODE.
- <CA> = CALIFORNIA SIGN CODE.

OVERHEAD SIGN QUANTITIES

SIGN NUMBER	SHEET NUMBER	FURNISH SIGN STRUCTURE (TRUSS)	INSTALL SIGN STRUCTURE (TRUSS)	54" CIDH CONCRETE PILE (SIGN FOUNDATION)	60" CIDH CONCRETE PILE (SIGN FOUNDATION)	REMOVE SIGN STRUCTURE
		LB	LB	LF	LF	EA
ASN-28	PD-1	14,894	14,894		22	
AS-99(EXIST)	PD-2					1
AS-99	PD-2	11,961	11,961	19		
	TOTAL	26,855	26,855	19	22	1

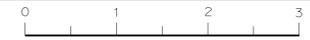
NOTES:

- OVERHEAD SIGN PANELS SHALL BE LAMINATED PANELS - TYPE A.

SIGN QUANTITIES

SQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: NARAYAN SELWAL
 CALCULATED/DESIGNED BY: KRIS ALBERS
 CHECKED BY: CHUCK COOK
 REVISED BY: DATE
 REVISIONS:



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	25	62

Kris M. Albers 6-1-15
REGISTERED CIVIL ENGINEER DATE

6-1-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Kris M. Albers
No. 49986
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

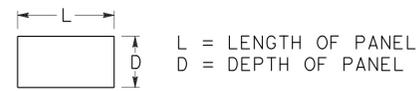
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

SIGN PANEL QUANTITIES

SIGN CODE	SIGN MESSAGE/DESCRIPTION	PANEL SIZE L x D	PANEL AREA	NUMBER OF PANELS	BACKGROUND SHEETING COLOR	LEGEND SHEETING COLOR	PROTECTIVE-OVERLAY FILM (PREMIUM)	RETROREFLECTIVE SHEETING (TYPE XI)	FURNISH SINGLE SHEET ALUMINUM SIGN FOR RETROREFLECTIVE SHEETING (TYPE XI)		FURNISH LAMINATED PANEL SIGN (1"-TYPE A) FOR RETROREFLECTIVE SHEETING (TYPE XI)
									FRAMED	FRAMED	
									0.080"	0.063"	
								SQFT	SQFT	SQFT	SQFT
W4-7L	"THRU TRAFFIC MERGE LEFT"	60 X 60	25	1	FY	BLACK	X	25	25		
R18A(RT)<CA>	"RIGHT LANE MUST EXIT"	66 X 48	22	1	WHITE	BLACK	X			22	
G83-5<CA>	SEE NOTE 8	240 X 100	166.67	1	GREEN	WHITE	X	166.67			166.67
G85-11<CA>	SEE NOTE 8	240 X 100	166.67	1	GREEN	WHITE	X	166.67			166.67
TOTAL								358.34	25	22	333.34

NOTES:

- ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS A CALIFORNIA SIGN CODE.
- <CA> = CALIFORNIA SIGN CODE.
- FY = FLUORESCENT YELLOW.
- ALL SIGN PANEL BACKGROUND SHEETING, WITH THE EXCEPTION OF WHITE, SHALL BE RETROREFLECTIVE ASTM TYPE XI.
- ALL WHITE SIGN PANEL BACKGROUND SHEETING SHALL BE RETROREFLECTIVE ASTM TYPE VIII.
- ALL SIGN PANEL LEGEND SHEETING, WITH THE EXCEPTION OF BLACK, SHALL BE RETROREFLECTIVE ASTM TYPE XI.
- ALL BLACK SIGN PANEL LEGEND SHEETING SHALL BE NON-REFLECTIVE.
- FOR "SIGN MESSAGE/DESCRIPTION" INFORMATION, SEE SIGN PLANS AND SIGN DETAILS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: NARAYAN SELWAL
 CALCULATED/DESIGNED BY: KRIS ALBERS
 CHECKED BY: CHUCK COOK
 REVISED BY: [] DATE: []
 REVISIONS: []

APPROVED FOR SIGN WORK ONLY

SIGN QUANTITIES

SQ-2

ROADWAY QUANTITIES

LOCATION	ROADWAY EXCAVATION		(N)	HOT MIX ASPHALT (TYPE A)		COLD PLANE AC PAVEMENT		RUBBERIZED HMA - OPEN GRADED (OGFC)		CLASS 2 AB	MIDWEST GUARD SYSTEM		END ANCHOR ASSEMBLY (TYPE SFT)		ALTERNATIVE IN-LINE TERMINAL SYSTEM		REMOVE GUARDRAIL		(N)	VEGETATION CONTROL (MINOR CONCRETE)		TACK COAT		
	CY	TON		SQYD	TON	CY	LF	EA	EA		LF	EA	SQYD	TON	(N)	(N)								
																	TON	TON						
"A1" 58+50.00 TO "A1" 78+80.00	1,900	1,000	4,300	330	23	410	900																7	
"A1" 77+65 TO "A1" 78+50														100	2									
"A1" 61+40											37.5	1	1									46	8	
"A1" 78+30											62.5	1	1									114	7	
SUBTOTAL	1,900	1,000	4,300	330	23	410	900				100	2	2	100	2							160	15	7
TOTAL	1,900	1,000	4,300	330		433	900				100	2	2	100								175		7

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

SAFETY EDGE

LOCATION	SAFETY EDGE (N)
SHEET	STATION
L-1	"A1" 58+50 TO "A1" 65+00
L-2	"A1" 65+00 TO "A1" 78+80
TOTAL	2,030

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

MARKER (CULVERT)

DRAINAGE SYSTEM No.	MARKER (CULVERT)	LOCATION
	EA	
1	1	"A1" 66+20
2	1	"A1" 77+20
TOTAL	2	

STAGING QUANTITIES

STAGING SHEET	Temp RAILING (TYPE K)	ALTERNATIVE Temp CRASH CUSHION
	LF	EA
SC-1	900	1
SC-2	1,420	
TOTAL	2,320	1

STORM WATER QUANTITIES

	Temp HYDRAULIC MULCH (BONDED FIBER MATRIX)	TREATED WOOD WASTE
	SQYD	LB
TOTAL	2,200	700

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	REMOVE CULVERT (LF)	REMOVE CONCRETE FES	30" RCP	30" CONCRETE FES	ROCK SLOPE PROTECTION (No. 2, METHOD B) (CY)	ROCK SLOPE PROTECTION FABRIC (CLASS 8)
			LF	EA	LF	EA	CY	SQYD
DP-1	1	a	4					
		b		1				
		c			16			
		d				1		
		e					8.5	
		f						32
DP-2	2	a	4					
		b		1				
		c			12			
		d				1		
		e					12.0	
		f						62
TOTAL			8	2	28	2	20.5	94

SUMMARY OF QUANTITIES

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	26	62

5-22-15
 REGISTERED CIVIL ENGINEER DATE

6-1-15
 PLANS APPROVAL DATE

ERIC NORMAN SOUZA
 No. 75706
 Exp. 6-30-16
 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.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	27	62

5-27-15
 LICENSED LANDSCAPE ARCHITECT
 6-1-15
 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.

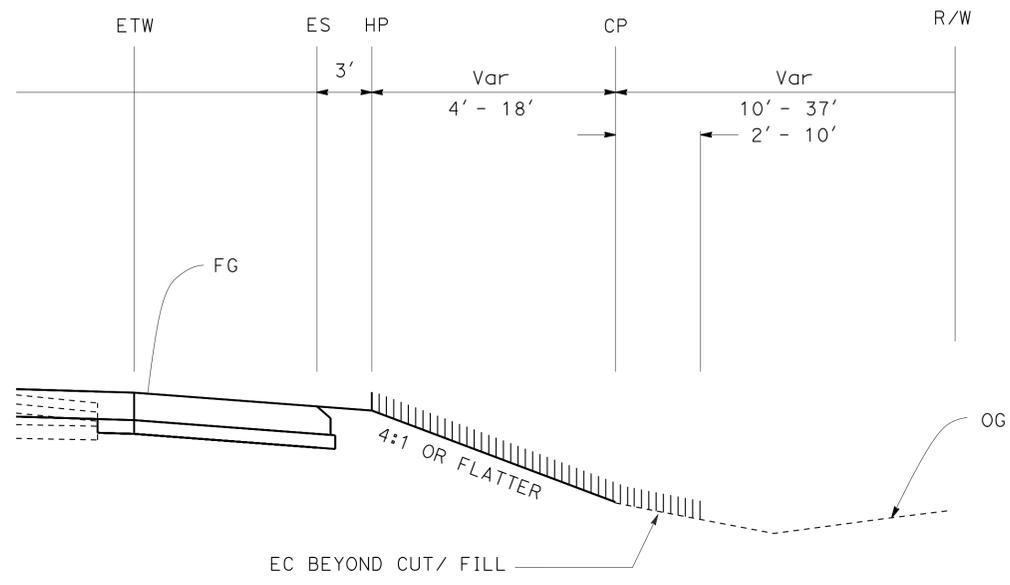
EROSION CONTROL

SEQUENCE	ITEM DESCRIPTION	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	EROSION CONTROL (BONDED FIBER MATRIX)	TACKIFIER	BONDED FIBER MATERIX	500 LB/ ACRE
		SEED	MIX	38 LB/ ACRE
		FERTILIZER	ORGANIC	1800 LB/ ACRE
STEP 2	EROSION CONTROL (BONDED FIBER MATRIX)	TACKIFIER	BONDED FIBER MATERIX	3500 LB/ ACRE

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
ACHILLEA MILLIFOLIUM ¹ (WHITE YARROW)	60	1.5
BROMUS CARINATUS ¹ (CALIFORNIA BROME)	60	10
ELYMUS GLAUCUS ¹ (BLUE WILD RYE)	60	8
ESCHOLZIA CALIFORNICA ¹ (CALIFORNIA POPPY)	60	2.5
HORDEUM BRACHYANTHERUM VAR ¹ (CALIFORNIA BARLEY PROSTATE)	60	8
LEYMUS TRITICOIDES ¹ CREEPING WILD RYE	50	5
LUPINUS BICOLOR LINDL ¹ (BICOLOR LUPINUS)	60	2.5
TOTAL		37.5

¹ SEED PRODUCED INLAND NORTHERN CALIFORNIA BELOW 2000' ELEVATION ONLY.



SECTION EROSION CONTROL DETAIL

"A1" 58+50.00 to "A1" 78+80.00

EROSION CONTROL QUANTITY

LOCATION	DESCRIPTION	SQFT
"A1" 58+50.00 to "A1" 78+80.00	EROSION CONTROL (BONDED FIBER MATRIX)	34,369
TOTAL		34,369

EROSION CONTROL DETAILS

NO SCALE **ECD-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 J. DONOHUE
 T. CHRIS JOHNSON
 T. CHRIS JOHNSON
 T. CHRIS JOHNSON

LAST REVISION DATE PLOTTED => 03-SEP-2015 00-00-00 TIME PLOTTED => 15:42

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
 DAVID A. GAMBOA

JAMIE KOJAK
 NORMAN YE

REVISOR BY
 DATE

REVISOR BY
 DATE

NOTE:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- FOR TRAFFIC RATED PULL BOX INSTALLATION SEE DETAIL SHEET E-8.

LEGEND (THIS SHEET ONLY):

- 1 Exist 2"C, 2#6 (Hwy LIGHTING), 2#10 (SIGN ILLUMINATION), RC 2#10 (SIGN ILLUMINATION).

ABBREVIATIONS:

- VMS VARIABLE MESSAGE SIGN
- AL ALUMINUM

SYMBOLS:

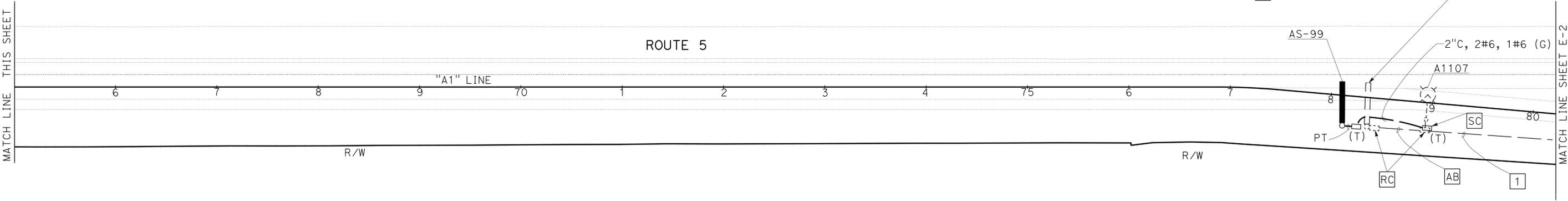
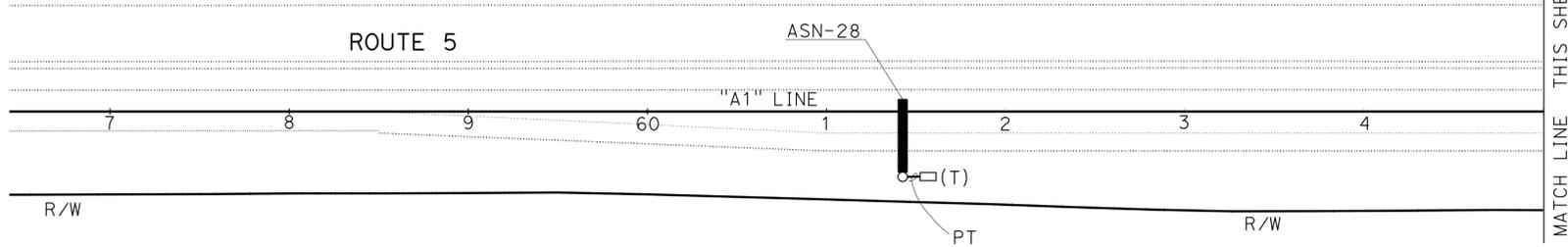
- [VMS] EXISTING VARIABLE MESSAGE SIGN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	28	62

Norman Ye 5-21-15
 REGISTERED ELECTRICAL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 NORMAN YE
 No. E16913
 Exp. 6-30-15
 ELECTRICAL
 STATE OF CALIFORNIA

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



RC ALL ELECTRICAL EQUIPMENT

AS-99
 2"C, 2#6, 1#6 (G)
 A1107

MODIFY LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

E-1

APPROVED FOR ELECTRICAL WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	29	62

<i>Normanye</i>		5-21-15
REGISTERED ELECTRICAL ENGINEER	DATE	
6-1-15		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER No. E16913 Exp. 6-30-15 ELECTRICAL STATE OF CALIFORNIA	
---	--

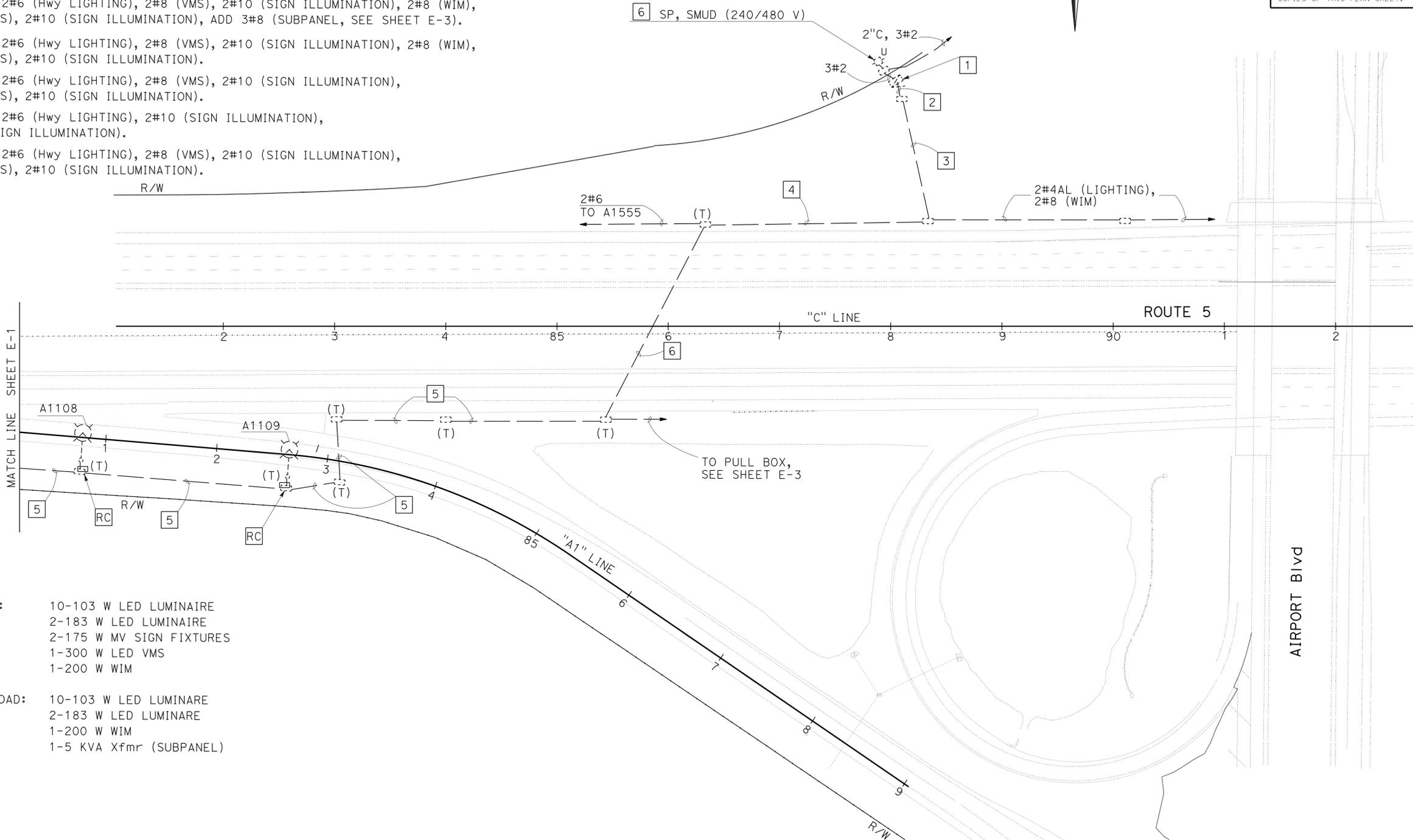
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND (THIS SHEET ONLY):

- 1 Exist TYPE III -AR SERVICE EQUIPMENT ENCLOSURE Ctid No. 03240050032680, SEE SHEET E-5 FOR SERVICE WIRING DIAGRAM.
- 2 Exist 2"C, 2#6 (Hwy LIGHTING), 2#8 (VMS), 2#10 (SIGN ILLUMINATION), 2#8 (WIM), RC 2#8 (VMS), 2#10 (SIGN ILLUMINATION), ADD 3#8 (SUBPANEL, SEE SHEET E-3).
- 3 Exist 2"C, 2#6 (Hwy LIGHTING), 2#8 (VMS), 2#10 (SIGN ILLUMINATION), 2#8 (WIM), RC 2#8 (VMS), 2#10 (SIGN ILLUMINATION).
- 4 Exist 2"C, 2#6 (Hwy LIGHTING), 2#8 (VMS), 2#10 (SIGN ILLUMINATION), RC 2#8 (VMS), 2#10 (SIGN ILLUMINATION).
- 5 Exist 2"C, 2#6 (Hwy LIGHTING), 2#10 (SIGN ILLUMINATION), RC 2#10 (SIGN ILLUMINATION).
- 6 Exist 3"C, 2#6 (Hwy LIGHTING), 2#8 (VMS), 2#10 (SIGN ILLUMINATION), RC 2#8 (VMS), 2#10 (SIGN ILLUMINATION).



- 6 Exist load:
 - 10-103 W LED LUMINAIRE
 - 2-183 W LED LUMINAIRE
 - 2-175 W MV SIGN FIXTURES
 - 1-300 W LED VMS
 - 1-200 W WIM
- MODIFIED LOAD:
 - 10-103 W LED LUMINAIRE
 - 2-183 W LED LUMINAIRE
 - 1-200 W WIM
 - 1-5 KVA Xfmr (SUBPANEL)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
Caltrans ELECTRICAL DESIGN	DAVID A. GAMBOA	CHECKED BY	JAMIE KOJAK
			NORMAN YE

MODIFY LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

E-2

APPROVED FOR ELECTRICAL WORK ONLY



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	30	62

<i>Normanye</i>		5-21-15
REGISTERED ELECTRICAL ENGINEER	DATE	
6-1-15		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER
NORMAN YE
No. E16913
Exp. 6-30-15
ELECTRICAL
STATE OF CALIFORNIA

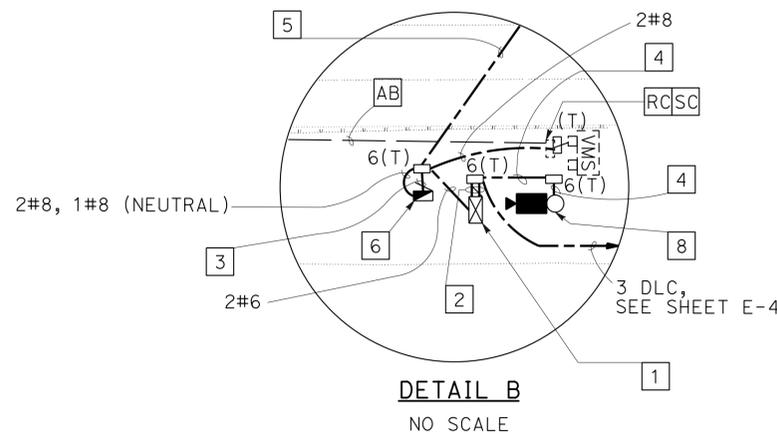
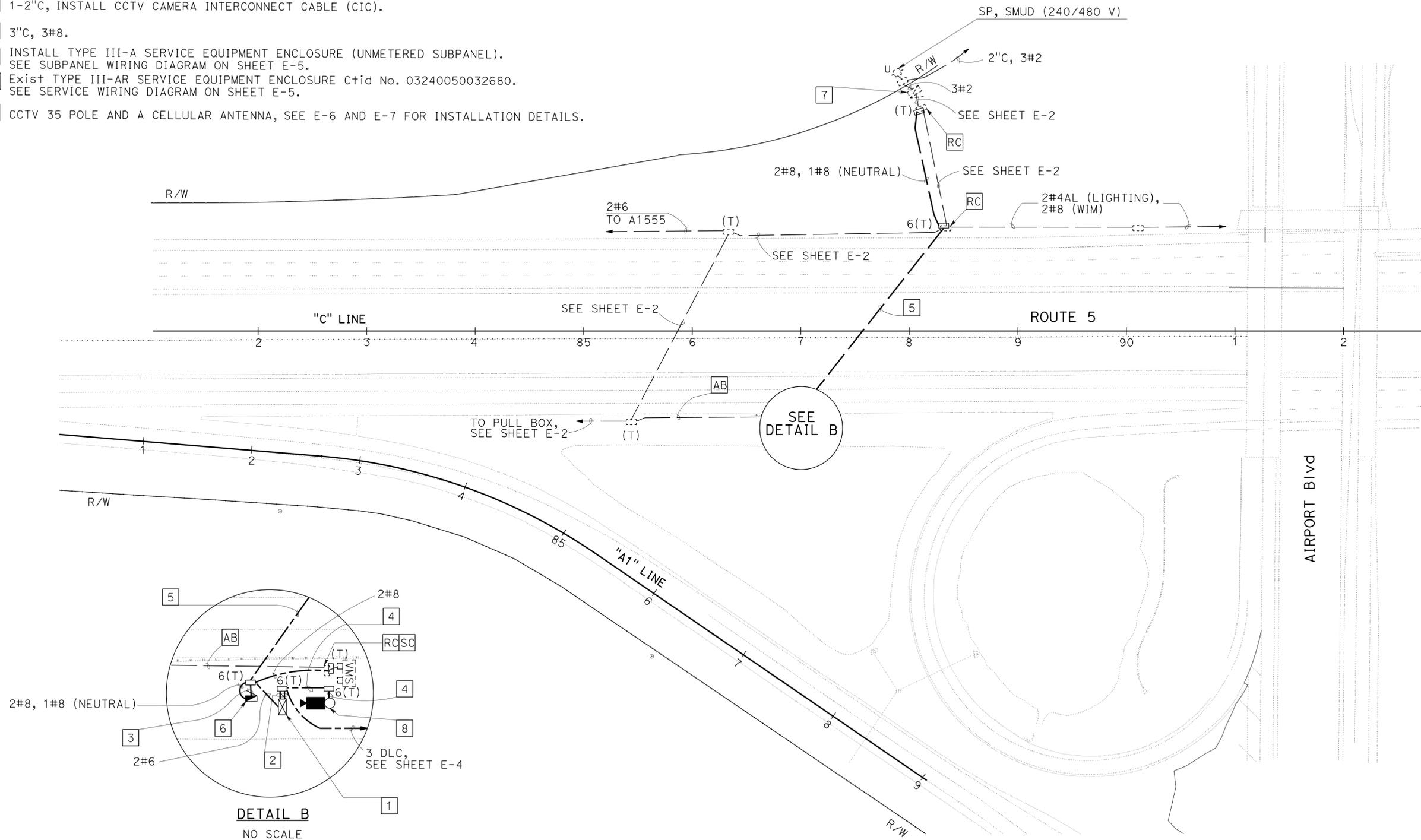
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND (THIS SHEET ONLY):

- 1 INSTALL TYPE 334L CABINET, INSTALL CELLULAR ANTENNA ON TOP OF 334L CABINET. SEE SHEET E-7 FOR DETAILS.
- 2 2-3"C, 1-CCTV CAMERA INTERCONNECT CABLE (CIC), 3 DLC.
- 3 2"C, 2#8 (VMS), 2#6 (334L CABINET).
- 4 1-2"C, INSTALL CCTV CAMERA INTERCONNECT CABLE (CIC).
- 5 3"C, 3#8.
- 6 INSTALL TYPE III-A SERVICE EQUIPMENT ENCLOSURE (UNMETERED SUBPANEL). SEE SUBPANEL WIRING DIAGRAM ON SHEET E-5.
- 7 Exist TYPE III-AR SERVICE EQUIPMENT ENCLOSURE Ctid No. 03240050032680. SEE SERVICE WIRING DIAGRAM ON SHEET E-5.
- 8 CCTV 35 POLE AND A CELLULAR ANTENNA, SEE E-6 AND E-7 FOR INSTALLATION DETAILS.



CLOSED CIRCUIT TELEVISION SYSTEM

SCALE: 1" = 50'

E-3

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR
Caltrans ELECTRICAL DESIGN	DAVID A. GAMBOA	JAMIE KOJAK
	CHECKED BY	DATE
		NORMAN YE

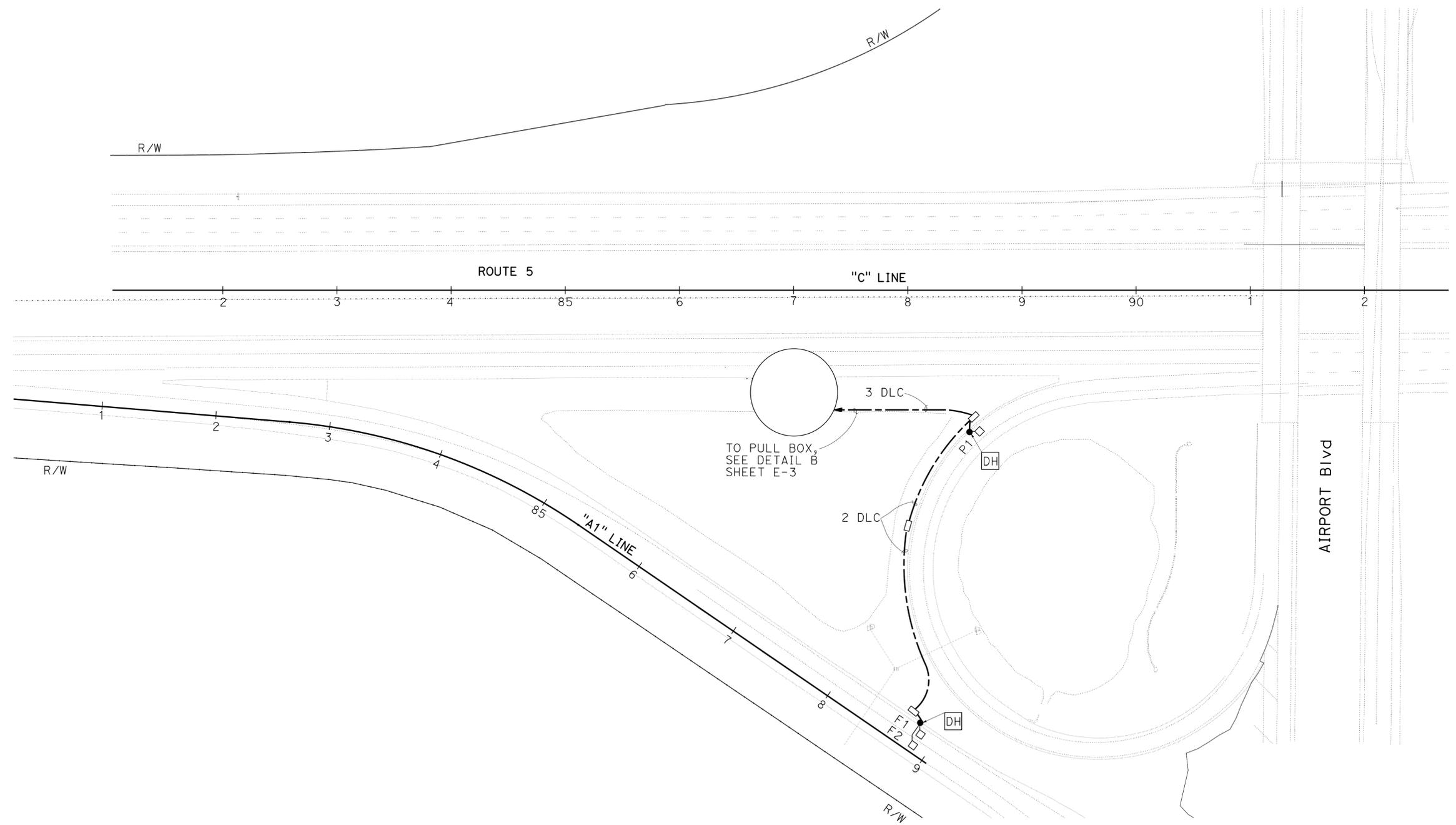
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	31	62

<i>Normanye</i>		5-21-15
REGISTERED ELECTRICAL ENGINEER	DATE	
6-1-15		
PLANS APPROVAL DATE		

NORMAN YE	
No. E16913	
Exp. 6-30-15	
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.

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



TRAFFIC MONITORING STATION (COUNT)
SCALE: 1"=50'

APPROVED FOR ELECTRICAL WORK ONLY

E-4

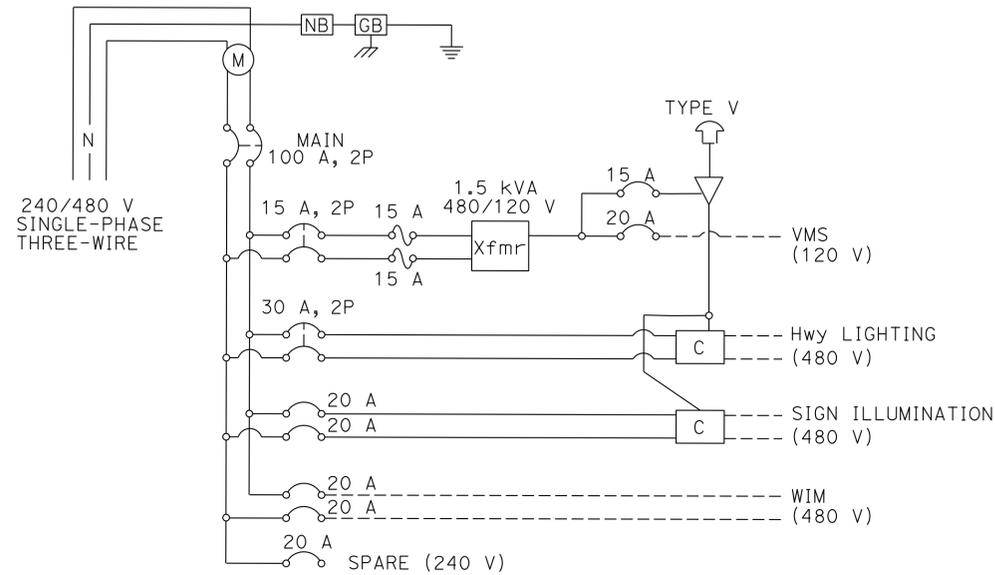
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans ELECTRICAL DESIGN	DAVID A. GAMBOA	CHECKED BY	DATE
		JAMIE KOJAK	
		NORMAN YE	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	32	62

Norman Ye 5-21-15
 REGISTERED ELECTRICAL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

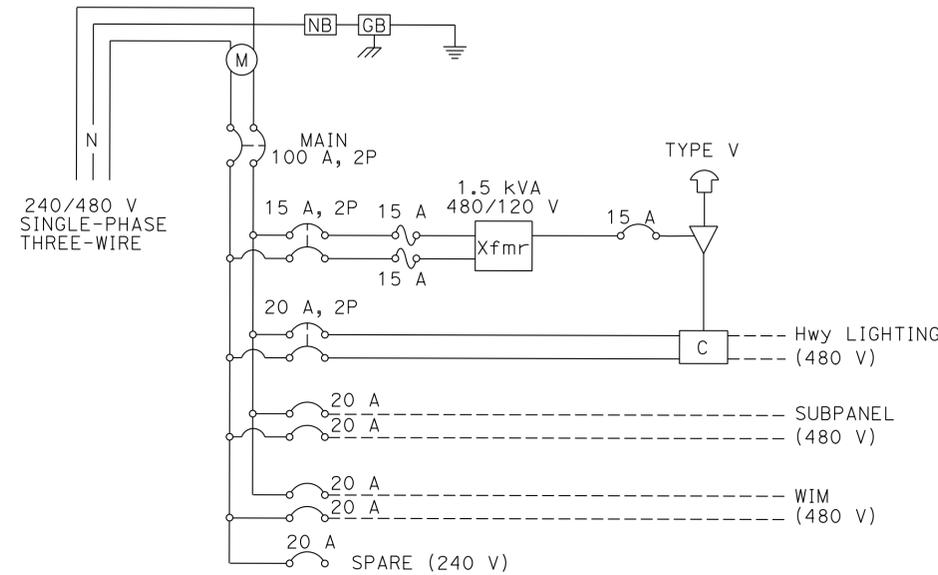
REGISTERED PROFESSIONAL ENGINEER
 No. E16913
 Exp. 6-30-15
 ELECTRICAL
 STATE OF CALIFORNIA

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



EXISTING SERVICE WIRING DIAGRAM

Ctid No. 03240050032680

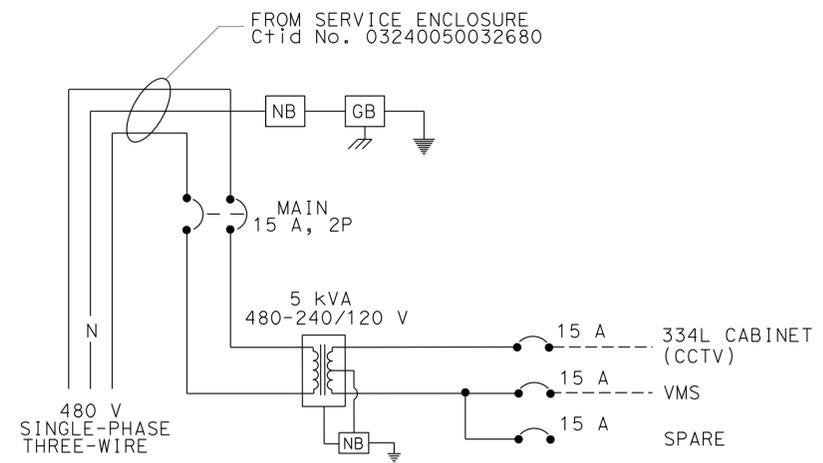


MODIFIED SERVICE WIRING DIAGRAM

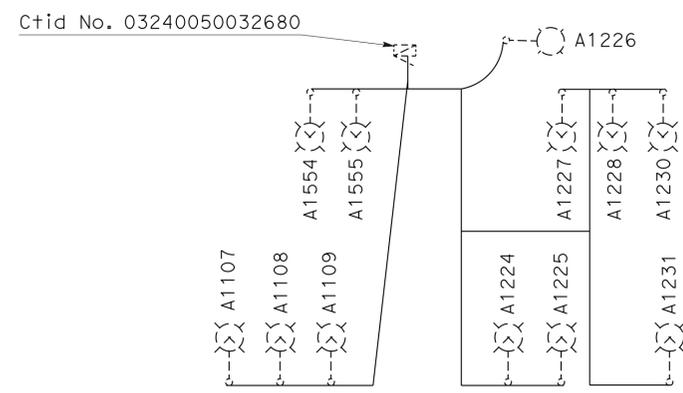
Ctid No. 03240050032680

WIRING DIAGRAM LEGEND:

- C CONTACTOR (LIGHTING)
- AUTO TEST SWITCH
- M METER SOCKET
- PHOTOELECTRIC UNIT
- FUSE
- GB GROUND BUS
- NB NEUTRAL BUS



SUBPANEL WIRING DIAGRAM



EXISTING LIGHTING CIRCUIT DIAGRAM

MODIFY LIGHTING AND SIGN ILLUMINATION

NO SCALE

APPROVED FOR ELECTRICAL WORK ONLY

E-5

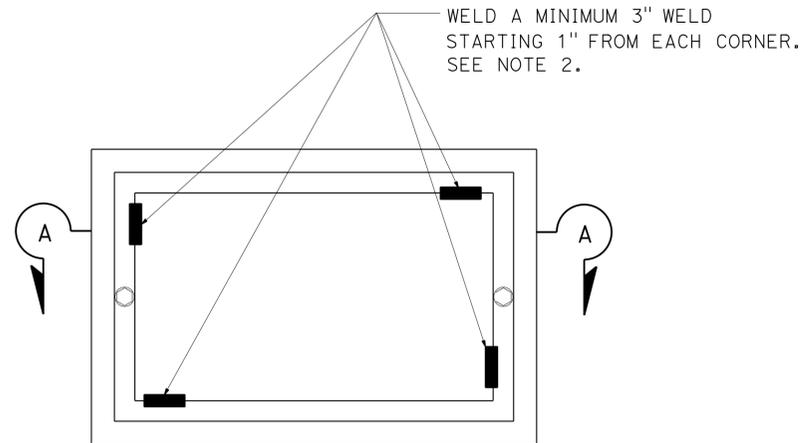
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: DAVID A. GAMBOA
 DESIGNED BY: JAMIE KOJAK
 CHECKED BY: NORMAN YE
 REVISIONS: (None listed)
 REVISOR: (None listed)
 DATE: (None listed)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.8	35	62

<i>Norman Ye</i>	5-21-15
REGISTERED ELECTRICAL ENGINEER	DATE
6-1-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
NORMAN YE
No. E16913
Exp. 6-30-15
ELECTRICAL
STATE OF CALIFORNIA

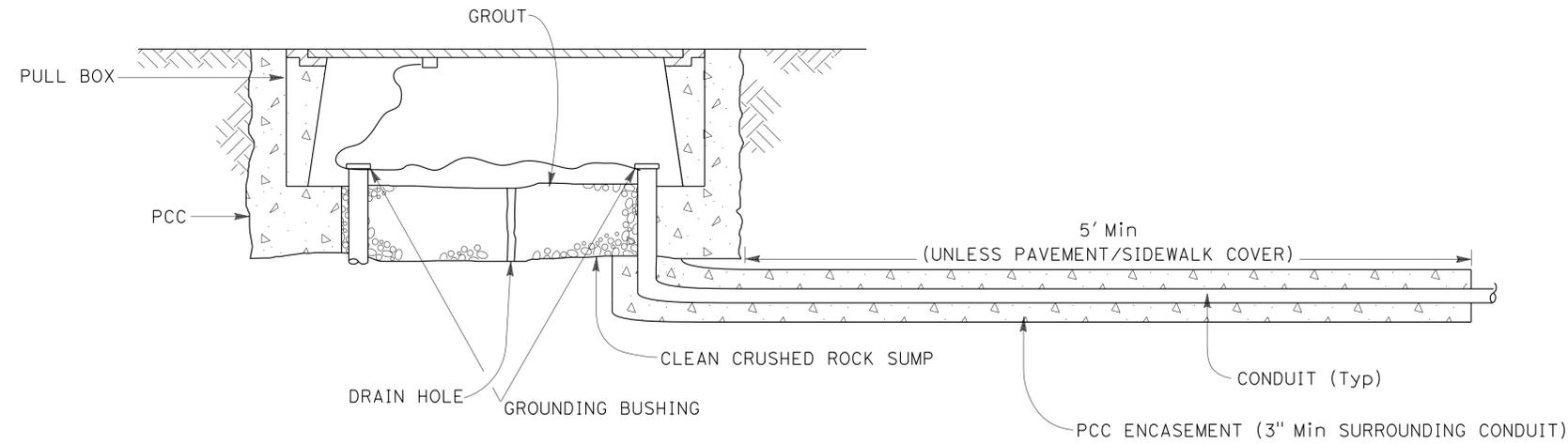
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



TOP VIEW

NOTES ON PULL BOXES:

1. FOR ADDITIONAL DETAILS, SEE REVISED STANDARD PLAN RSP ES-8B.
2. WELDING SHALL COMPLY WITH REQUIREMENTS IN STANDARD SPECIFICATION SECTION 75.
3. A PULL BOX FOR A POST OR A POLE STANDARD MUST BE LOCATED WITHIN 5 FEET OF THE STANDARD.



SECTION A-A

TRAFFIC PULL BOX

ELECTRICAL DETAIL
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE
Caltrans	DAVID A. GAMBOA	JAMIE KOJAK	NORMAN YE	
ELECTRICAL DESIGN				

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
 DAVID A. GAMBOA

CALCULATED/DESIGNED BY
 CHECKED BY

JAMIE KOJAK
 NORMAN YE

REVISED BY
 DATE REVISED

NOTE:
 ITEMS SHOWN IN THE TABLES ARE NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	36	62

Norman Ye 5-21-15
 REGISTERED ELECTRICAL ENGINEER DATE
 6-1-15
 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.

CLOSED CIRCUIT TELEVISION SYSTEM

SHEET No.	PULL BOX No. 6(T)	PULL BOX No. 5(T)	CONDUCTOR #6	CONDUCTOR #6 (G)	CONDUCTOR #8	1/2" CONDUIT TYPE 3	2" CONDUIT TYPE 3	3" CONDUIT TYPE 3	TYPE III-A SERVICE ENCLOSURE	TYPE 334L CABINET	CCTV 35 POLE	CCTV SYSTEM
E-3	EA 4	EA 2	LF 30	LF 15	LF 1110	LF 160	LF 50	LF 150	EA 1	EA 1	EA 1	EA 1

MODIFY LIGHTING AND SIGN ILLUMINATION

SHEET No.	PULL BOX No. 5(T)	CONDUCTOR #6	CONDUCTOR #6 (G)	2" CONDUIT TYPE 3
E-1	EA 3	LF 170	LF 85	LF 85
E-2	EA 2			

TRAFFIC MONITORING STATION (COUNT)

SHEET No.	HAND HOLE	TYPE A LOOP	PULL BOX No. 5	TYPE B DLC	1/2" CONDUIT TYPE 3
E-4	EA 2	EA 3	EA 3	LF 1100	LF 350

ELECTRICAL QUANTITIES

LAST REVISION | DATE PLOTTED => 03-SEP-2015
 04-22-15 TIME PLOTTED => 15:43

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	37	62

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
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.

TO ACCOMPANY PLANS DATED 6-1-15

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
∅	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A10B

	<u>M</u>
Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED, MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD RAILING
MR	MOVEMENT RATING
MSE	MECHANICALLY STABILIZED EMBANKMENT
Mt	MOUNTAIN, MOUNT
MtI	MATERIAL
MVP	MAINTENANCE VEHICLE PULLOUT
	<u>N</u>
N	NORTH
NB	NORTHBOUND
No.	NUMBER (MUST HAVE PERIOD)
Nos.	NUMBERS (MUST HAVE PERIOD)
NPS	NOMINAL PIPE SIZE
NS	NEAR SIDE
NSP	NEW STANDARD PLAN
NTS	NOT TO SCALE
	<u>O</u>
Obir	OBLITERATE
OC	OVERCROSSING
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OGAC	OPEN GRADED ASPHALT CONCRETE
OGFC	OPEN GRADED FRICTION COURSE
OH	OVERHEAD
OHWM	ORDINARY HIGH WATER MARK
O-O	OUT TO OUT
Opp	OPPOSITE
OSD	OVERSIDE DRAIN
	<u>P</u>
p	PAGE
PAP	PERFORATED ALUMINUM PIPE
PB	PULL BOX
PC	POINT OF CURVATURE, PRECAST
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PEC	PERMIT TO ENTER AND CONSTRUCT
Ped	PEDESTRIAN
Ped OC	PEDESTRIAN OVERCROSSING
Ped UC	PEDESTRIAN UNDERCROSSING
Perm MtI	PERMEABLE MATERIAL

	<u>P continued</u>
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
Pkwy	PARKWAY
PL, PL	PLATE
P/L	PROPERTY LINE
PM	POST MILE, TIME FROM NOON TO MIDNIGHT
PN	PAVING NOTCH
POC	POINT OF HORIZONTAL CURVE
POT	POINT OF TANGENT
POVC	POINT OF VERTICAL CURVE
PP	PIPE PILE, PLASTIC PIPE, POWER POLE
PPL	PREFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PRC	POINT OF REVERSE CURVE
PRF	PAVEMENT REINFORCING FABRIC
PRVC	POINT OF REVERSE VERTICAL CURVE
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES
PS, P/S	PRESTRESSED
PSP	PERFORATED STEEL PIPE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
Pvmt	PAVEMENT
	<u>Q</u>
Qty	QUANTITY
	<u>R</u>
R	RADIUS
R & D	REMOVE AND DISPOSE
R & S	REMOVE AND SALVAGE
R/C	RATE OF CHANGE
RCA	REINFORCED CONCRETE ARCH
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
Rd	ROAD
Reinf	REINFORCED, REINFORCEMENT, REINFORCING
Rel	RELOCATE
Repl	REPLACEMENT
Ret	RETAINING
Rev	REVISED, REVISION
Rdwy	ROADWAY
RHMA	RUBBERIZED HOT MIX ASPHALT
Riv	RIVER
RM	ROAD-MIXED
RP	RADIUS POINT, REFERENCE POINT
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN
Rt	RIGHT
Rte	ROUTE
RW	REDWOOD, RETAINING WALL
R/W	RIGHT OF WAY
Rwy	RAILWAY

	<u>S</u>
S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND, SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
ℒ	STATION LINE
SM	SELECTED MATERIAL
Spec	SPECIAL, SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE
SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
St	STREET
Sta	STATION
STBB	SINGLE THRIE BEAM BARRIER
Std	STANDARD
Str	STRUCTURE
Surf	SURFACING
SW	SIDEWALK, SOUND WALL
Swr	SEWER
Sym	SYMMETRICAL
S4S	SURFACE 4 SIDES
	<u>T</u>
T	SEMI-TANGENT
Tan	TANGENT
TBB	THRIE BEAM BARRIER
Tbr	TIMBER
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TCE	TEMPORARY CONSTRUCTION EASEMENT
TeI	TELEPHONE
Temp	TEMPORARY
TG	TOP OF GRADE
Tot	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

	<u>T continued</u>
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL
Typ	TYPICAL
	<u>U</u>
UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
	<u>V</u>
V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME
	<u>W</u>
W	WEST, WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE
	<u>X</u>
X Sec	CROSS SECTION
Xing	CROSSING
	<u>Y</u>
Yr	YEAR
Yrs	YEARS

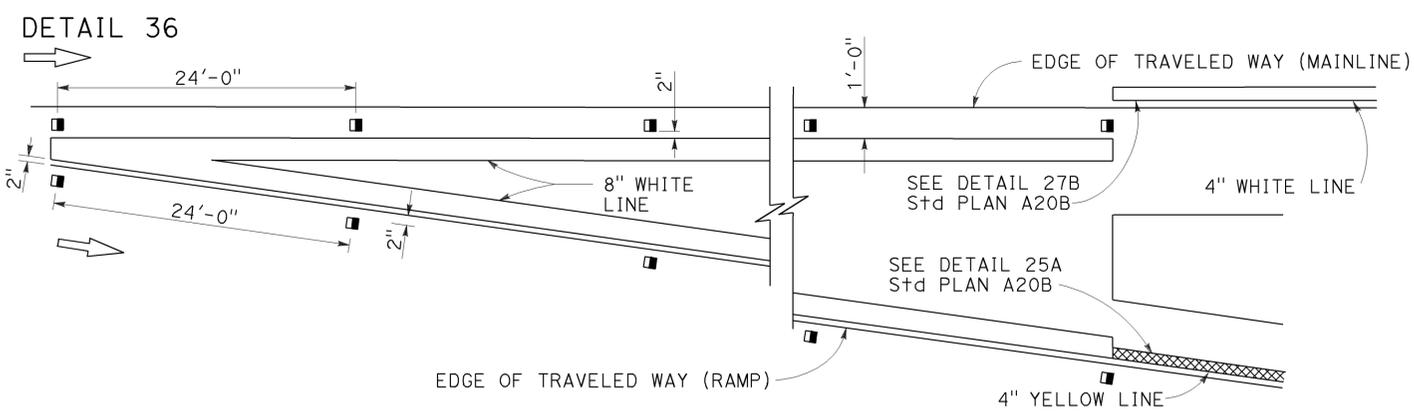
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	38	62

REGISTERED CIVIL ENGINEER
 Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-15
 CIVIL
 STATE OF CALIFORNIA

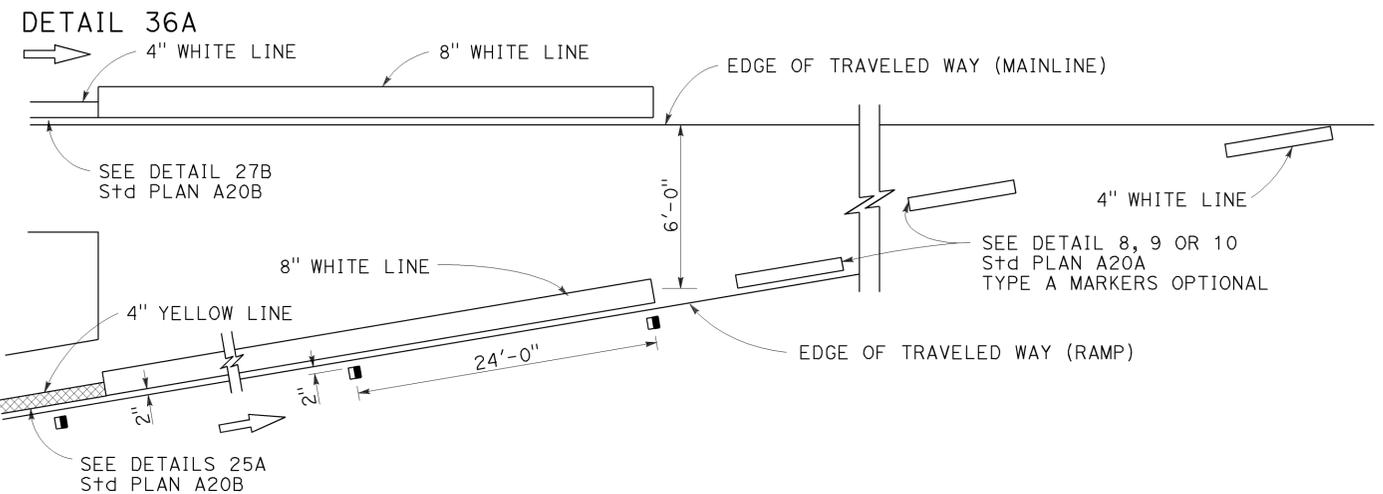
July 19, 2013
 PLANS APPROVAL DATE

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.

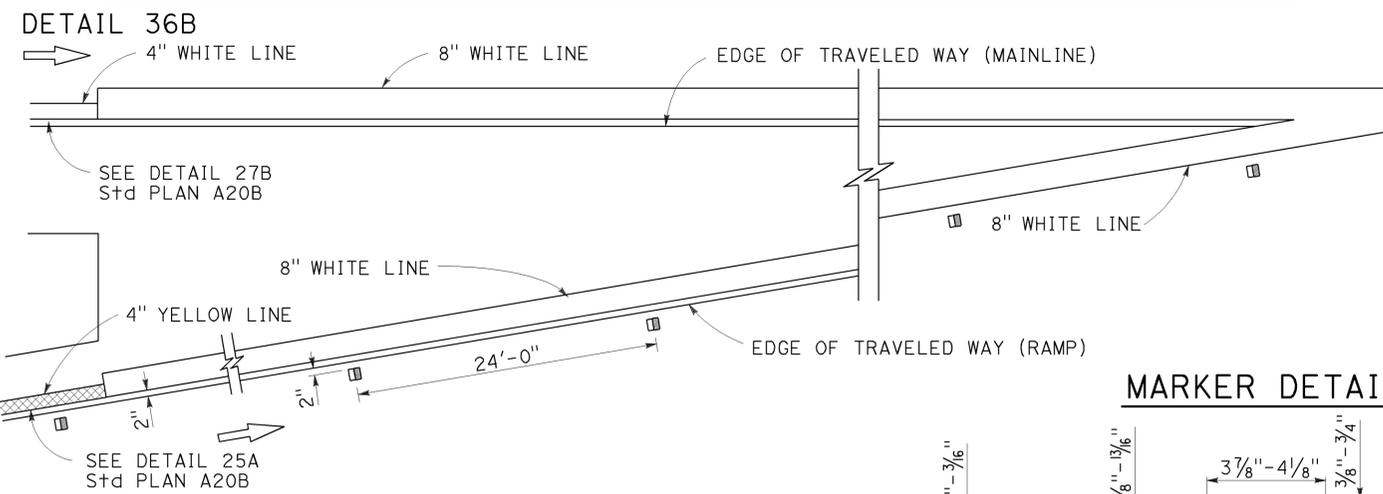
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

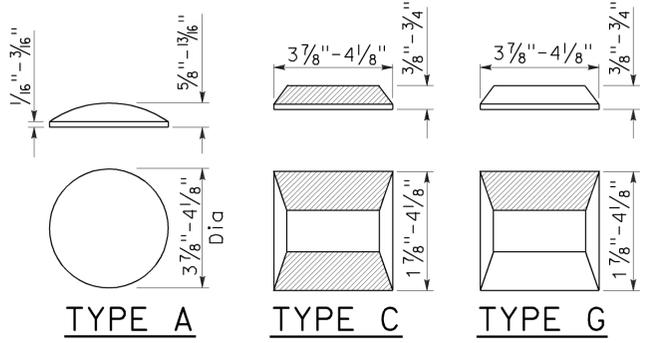


ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

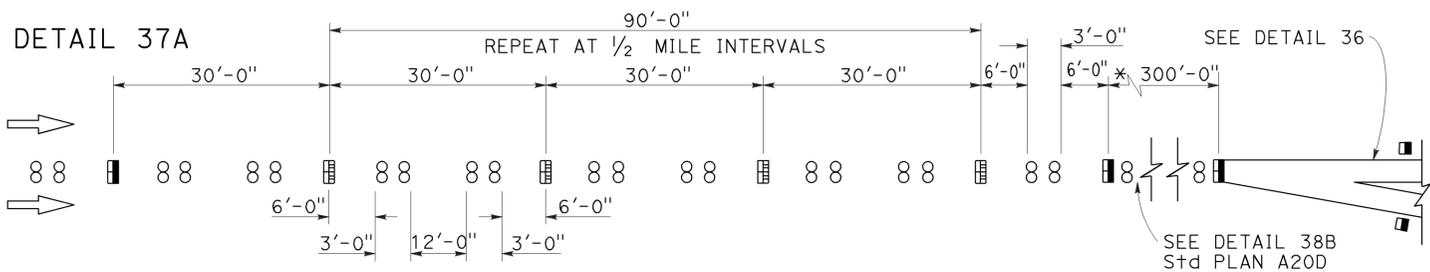
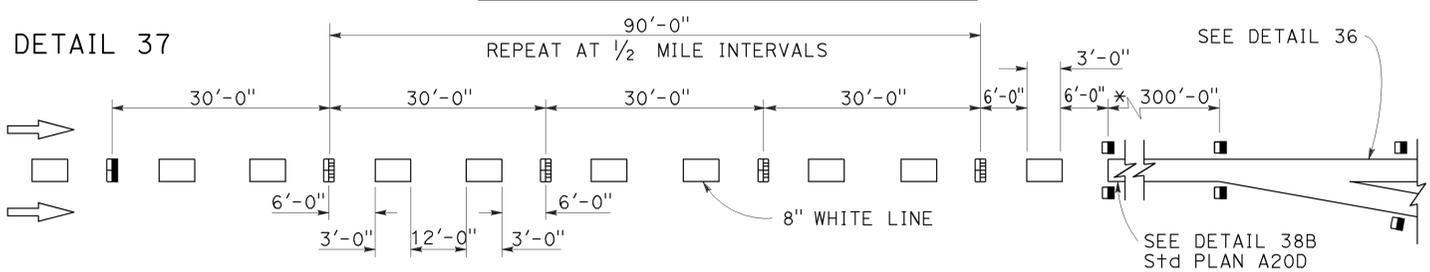


MARKER DETAILS

- LEGEND:**
- MARKERS
- TYPE A WHITE NON-REFLECTIVE
 - ◻ TYPE C RED-CLEAR RETROREFLECTIVE
 - TYPE G ONE-WAY CLEAR RETROREFLECTIVE

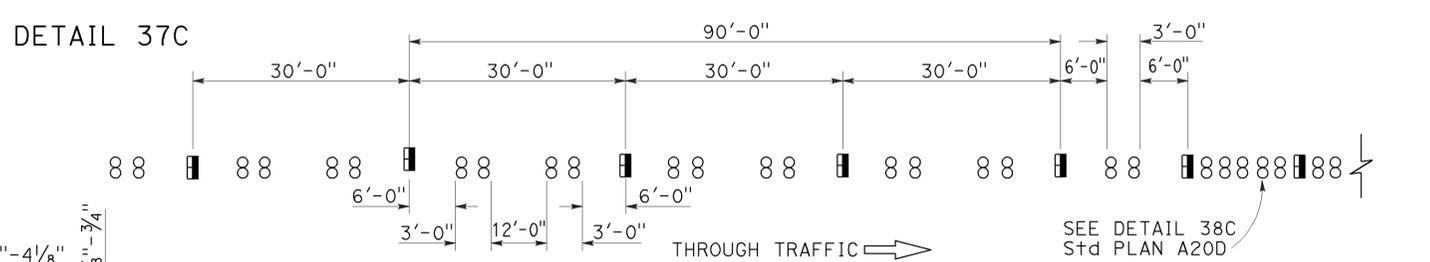
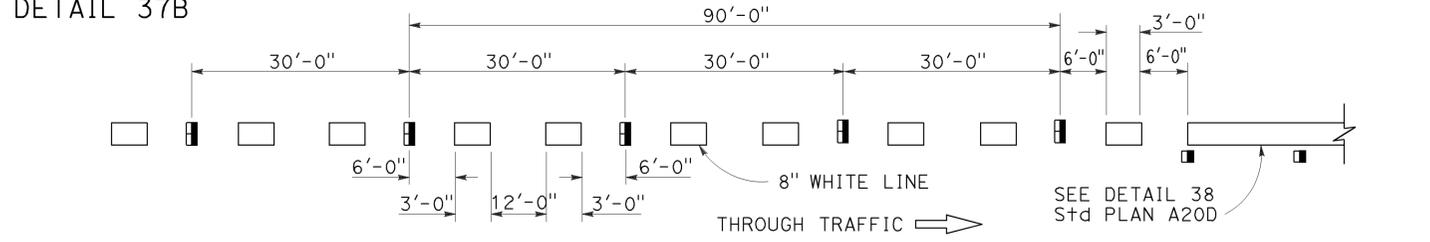


LANE DROP AT EXIT RAMPS



* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

RSP A20C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A20C DATED MAY 20, 2011 - PAGE 11 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A20C

2010 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	39	62

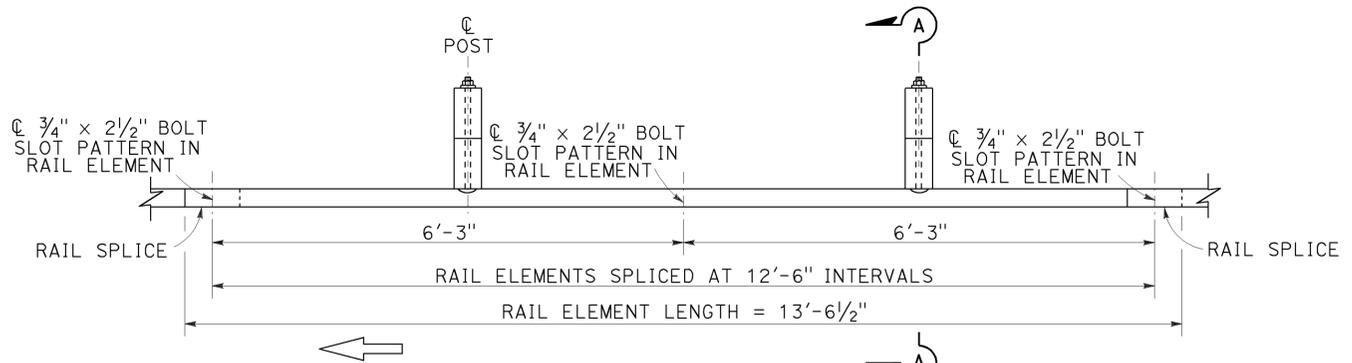
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

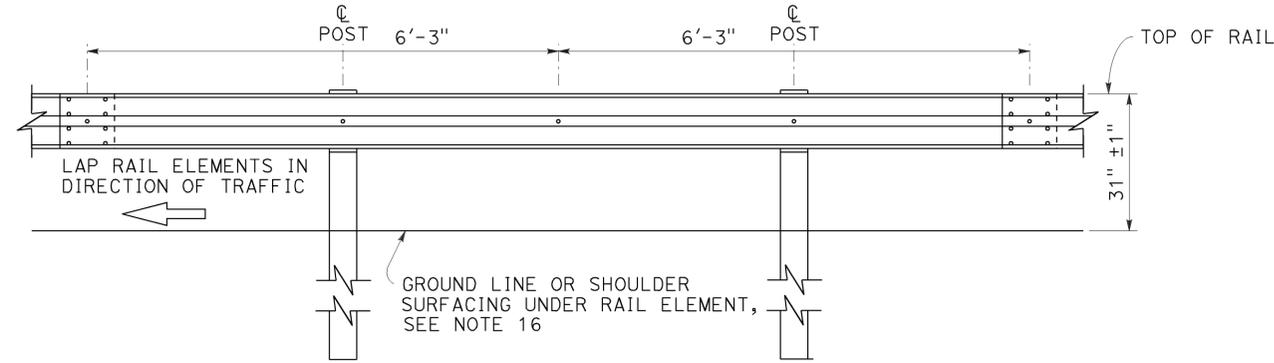
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 6-1-15

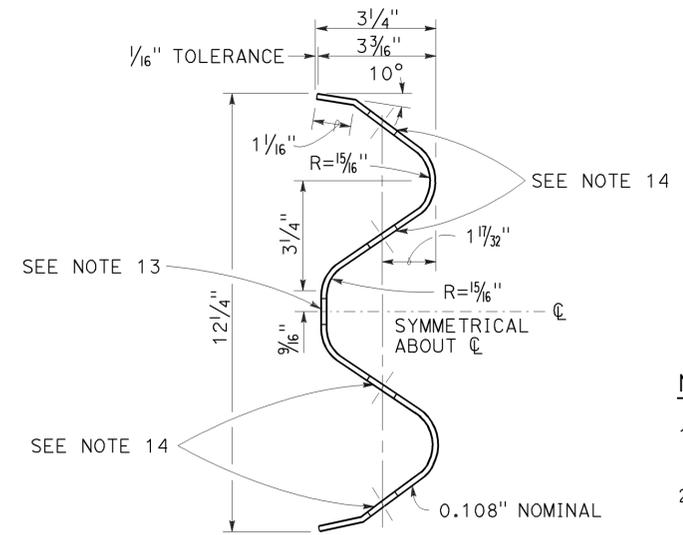


PLAN



ELEVATION

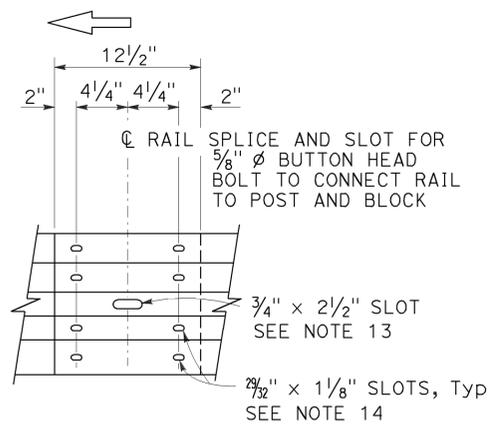
MIDWEST GUARDRAIL SYSTEM WITH WOOD POST AND BLOCKS



SECTION THRU RAIL ELEMENT

NOTES:

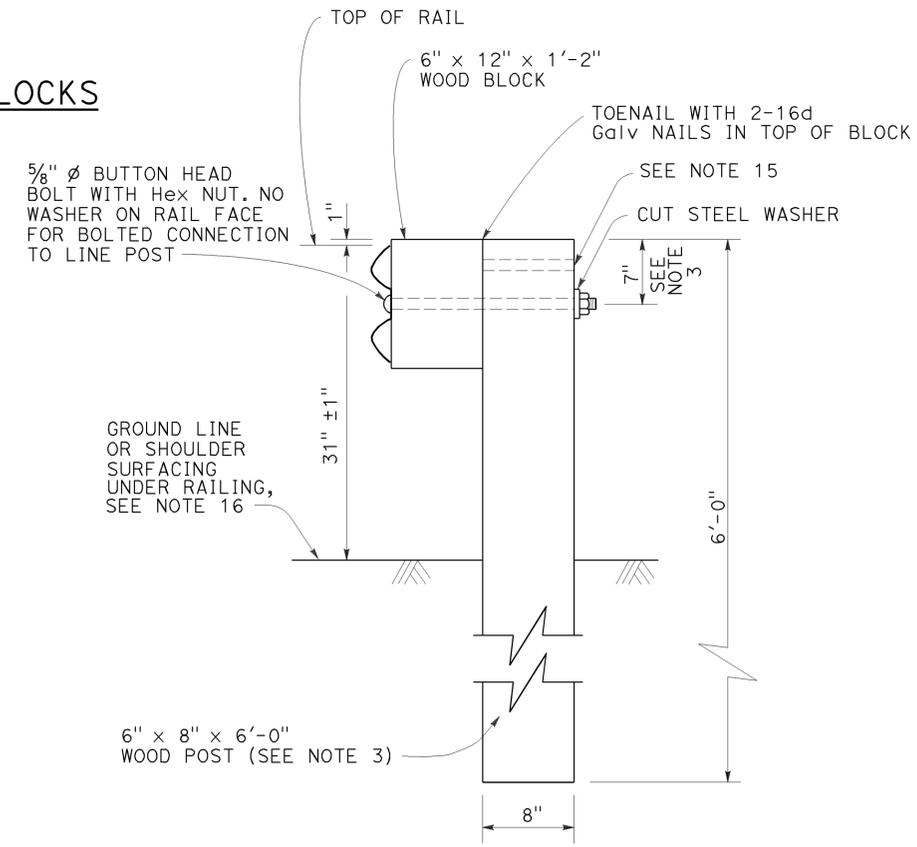
- For details of steel post installations, see Revised Standard Plan RSP A77L2.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of wood posts and wood blocks used to construct MGS, see Revised Standard Plan RSP A77N1.
- For additional installation details, see Revised Standard Plan RSP A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77Q and A77R Series of Standard Plans.
- If railing is connected to terminal system end treatment, use 31" height terminal system end treatment.
- For MGS end anchor details, see Revised Standard Plans RSP A77S1 and RSP A77T2.
- For details of MGS transition to bridge railing, see Revised Standard Plan RSP A77U4.
- For additional details of MGS connection to bridge railing, see Revised Standard Plans RSP A77U1, RSP A77U2 and RSP A77V1.
- For MGS connection details to abutments and walls, see Revised Standard Plan RSP A77U3.
- For typical MGS delineation and dike positioning details, see Revised Standard Plan RSP A77N4.
- 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 Revised Standard Plan RSP A77N1.
- Install posts in soil.



ELEVATION

RAIL ELEMENT SPLICE DETAIL

- Connect the over lapped end of the rail elements with 5/8" ϕ 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" ϕ 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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(WOOD POST WITH
WOOD BLOCK)**

NO SCALE

RSP A77L1 DATED JULY 19, 2013 SUPPLEMENTS STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L1

2010 REVISED STANDARD PLAN RSP A77L1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	40	62

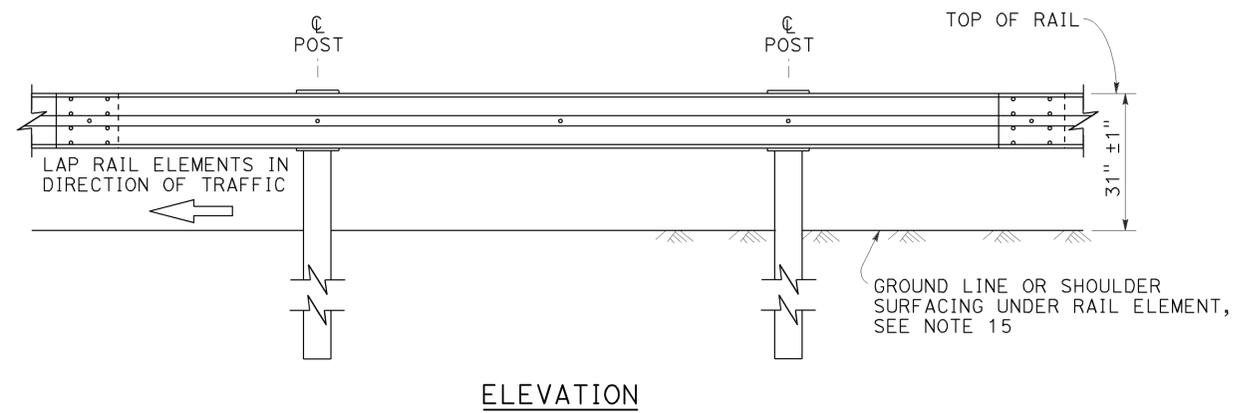
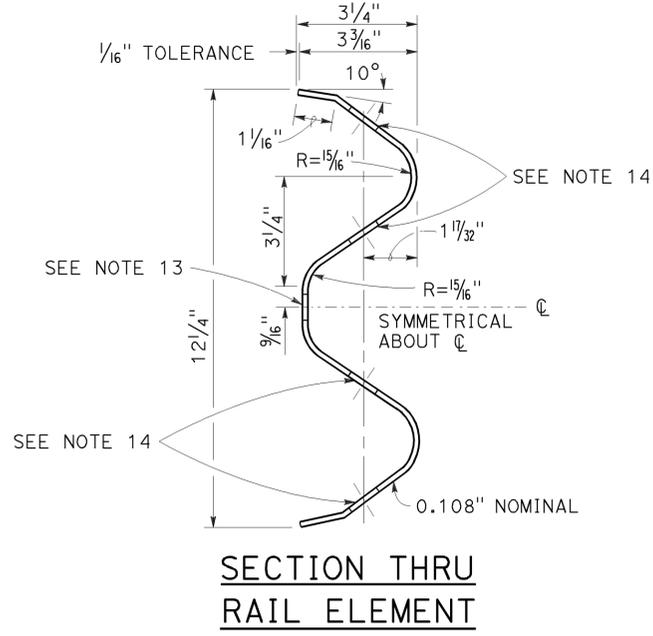
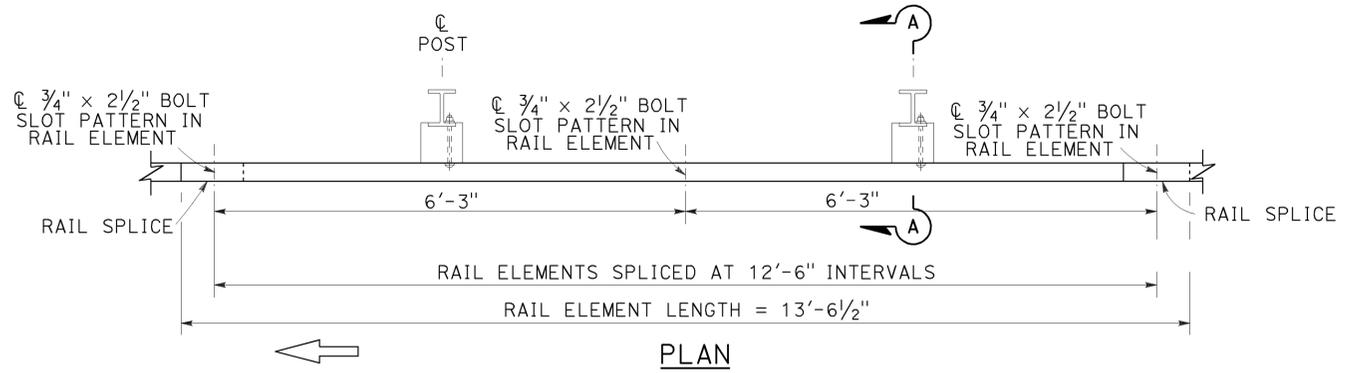
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

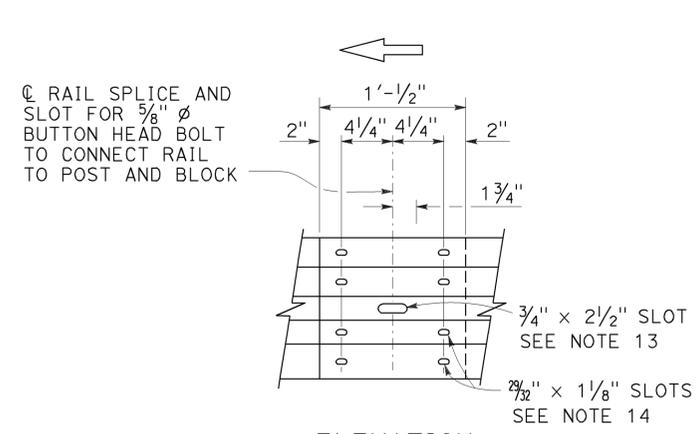
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 6-1-15

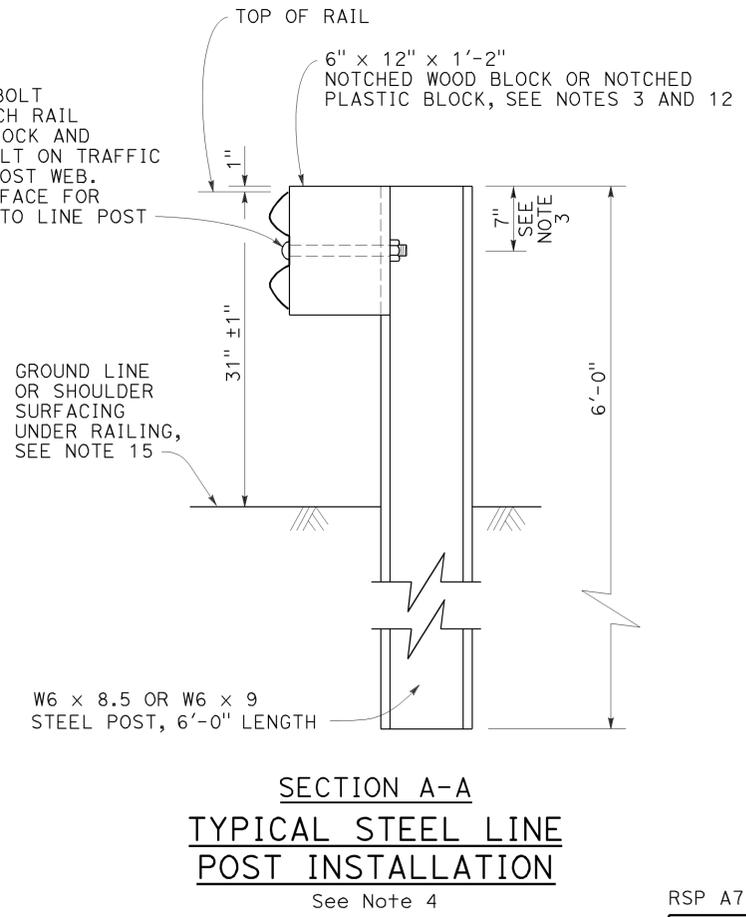
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA



MIDWEST GUARDRAIL SYSTEM WITH STEEL POSTS AND NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCKS



- Connect the overlapped end of the rail elements with 5/8" ø x 1 3/8" button head oval shoulder splice bolts inserted into the 7/32" x 1 1/8" slots and bolted together with 5/8" ø 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.



NOTES:

- For details of wood post installations, see Revised Standard Plan RSP A77L1.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of steel posts and notched wood blocks used to construct MGS, see Revised Standard Plan RSP A77N2.
- For additional installation details, see Revised Standard Plan RSP A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77Q and A77R Series of Standard Plans.
- If railing is connected to terminal system end treatment, use 31" height terminal system end treatment.
- For MGS end anchor details, see Revised Standard Plans RSP A77S1 and RSP A77T2.
- For details of MGS transition to bridge railing, see Revised Standard Plan RSP A77U4.
- For additional details of MGS connection to bridge railings, see Revised Standard Plans RSP A77U1, RSP A77U2 and RSP A77V1.
- For dike positioning and MGS delineation details, see Revised Standard Plan RSP A77N4.
- Notched face of block faces steel post.
- 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".
- Install posts in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(STEEL POST WITH NOTCHED
WOOD OR NOTCHED
RECYCLED PLASTIC BLOCK)**

NO SCALE

RSP A77L2 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L2

2010 REVISED STANDARD PLAN RSP A77L2

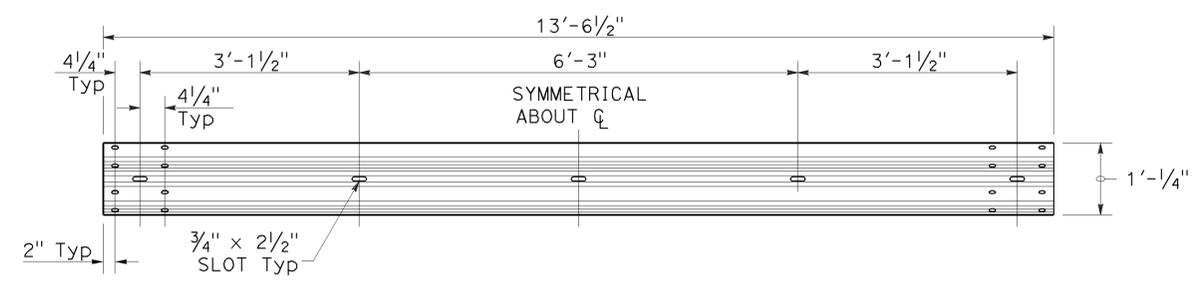
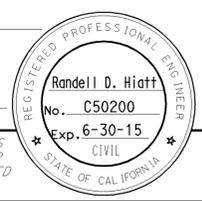
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	41	62

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
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.

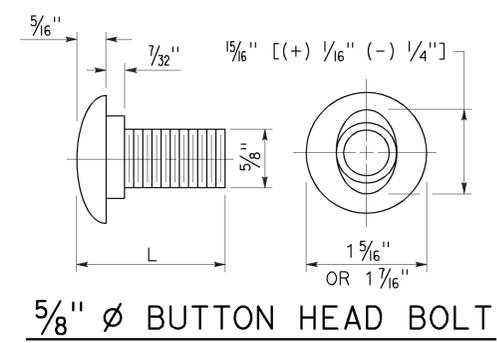
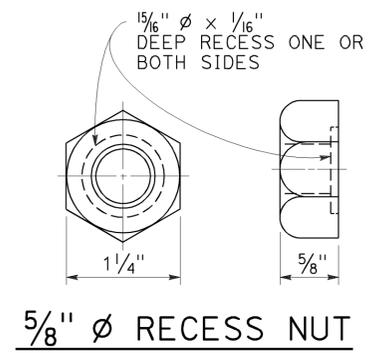
TO ACCOMPANY PLANS DATED 6-1-15



TYPICAL RAIL ELEMENT

NOTE:

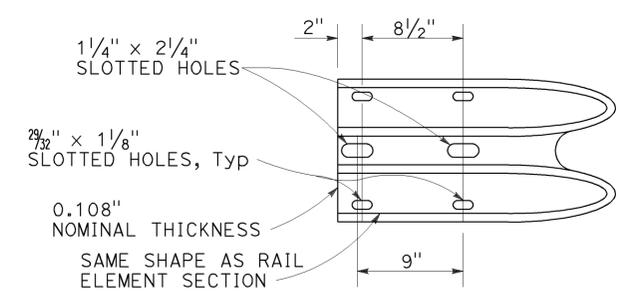
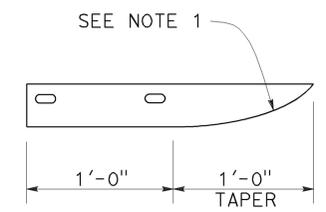
1. Slotted holes for splice bolts to overlap ends of rail element.



BUTTON HEAD BOLT

L	THREAD LENGTH
1 3/8"	FULL THREAD LENGTH
2"	FULL THREAD LENGTH
10"	4" Min THREAD LENGTH
18"	4" Min THREAD LENGTH
20"	4" Min THREAD LENGTH
22"	4" Min THREAD LENGTH
26"	4" Min THREAD LENGTH
36"	4" Min THREAD LENGTH
** 2 3/4"	2" Min THREAD LENGTH
** 19"	4" Min THREAD LENGTH

** For nested rail applications.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STANDARD HARDWARE**

NO SCALE

RSP A77M1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77M1

2010 REVISED STANDARD PLAN RSP A77M1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	42	62

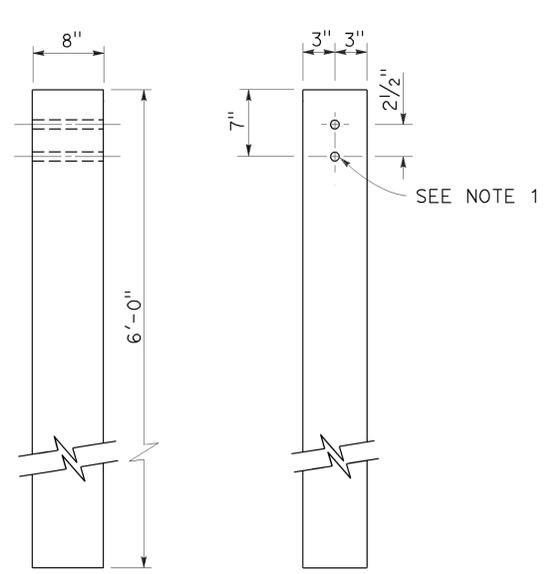
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

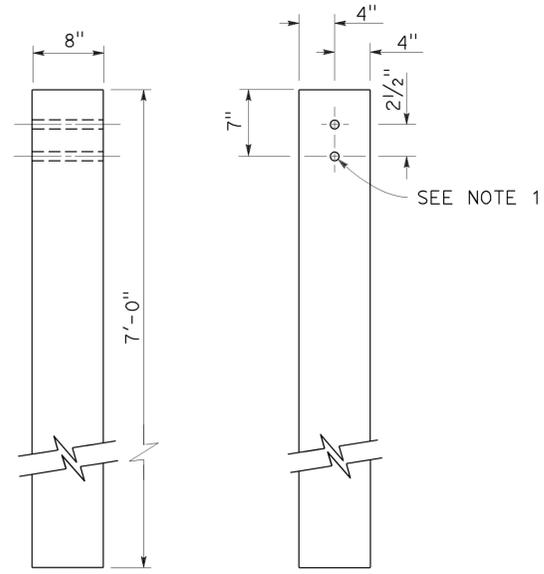
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

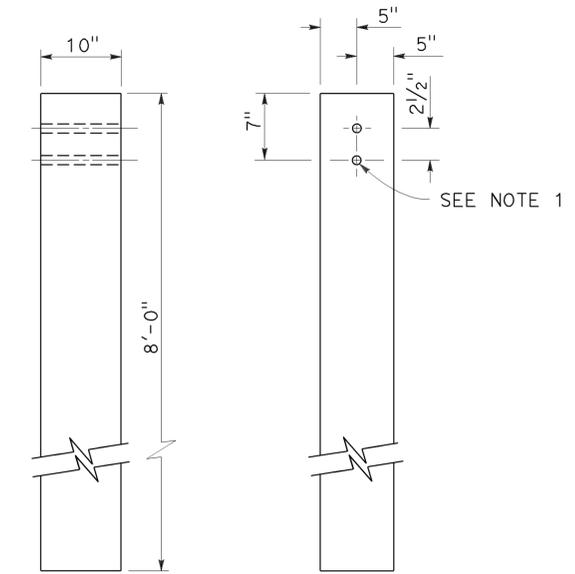
TO ACCOMPANY PLANS DATED 6-1-15



SIDE FRONT
6" x 8" WOOD POST
See Note 3



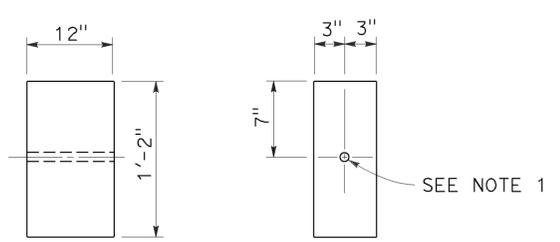
SIDE FRONT
8" x 8" WOOD POST
See Note 4



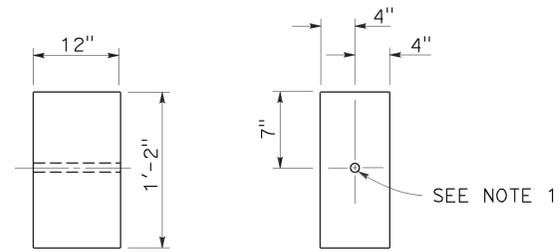
SIDE FRONT
10" x 10" WOOD POST
See Note 5

NOTES:

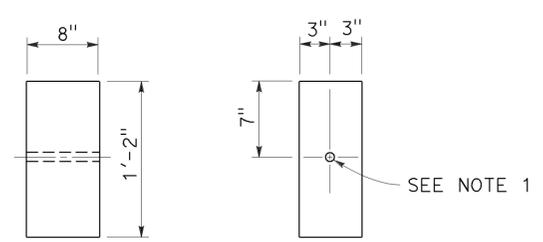
1. All holes in wood posts and blocks shall be 3/4" Dia ± 1/16".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post and 8" x 12" block combination is typically used where strengthened line post sections of MGS are warranted to shield fixed objects.
6. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" wood blocks.



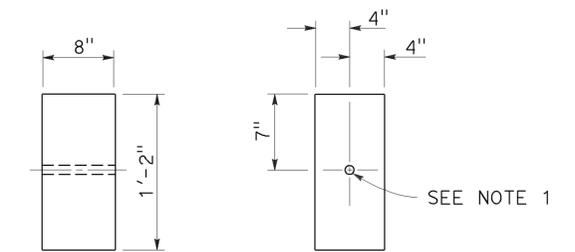
SIDE FRONT
6" x 12" WOOD BLOCK
See Note 3



SIDE FRONT
8" x 12" WOOD BLOCK



SIDE FRONT
6" x 8" WOOD BLOCK
Only for use with metal beam guard rail see Note 6



SIDE FRONT
8" x 8" WOOD BLOCK
Only for use with metal beam guard rail see Note 6

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**MIDWEST GUARDRAIL SYSTEM
WOOD POST AND
WOOD BLOCK DETAILS**

NO SCALE

RSP A77N1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N1

2010 REVISED STANDARD PLAN RSP A77N1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	43	62

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
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.

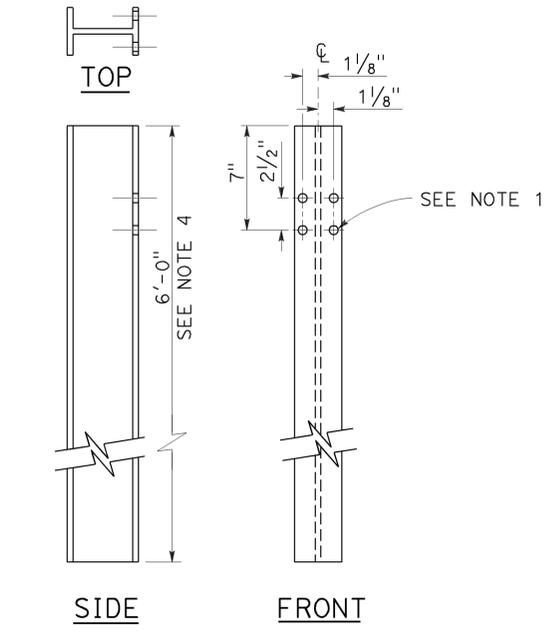
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 6-1-15

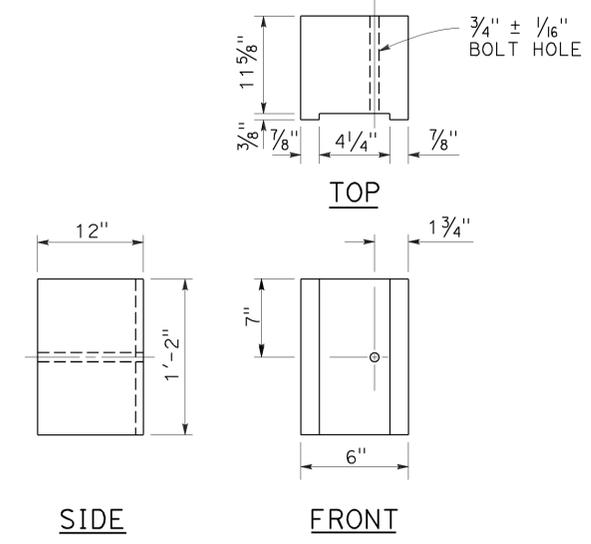
NOTES:

1. All holes in steel post shall be $\frac{13}{16}$ " Dia maximum.
2. Dimensions shown for wood block are nominal.
3. Notched face of block faces steel post.
4. 6'-0" length posts to be used for typical roadway installation. See Revised Standard Plan RSP A77N3.
5. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" notched wood blocks.
6. This post and 8" x 12" block combination to be used for line post sections of MGS on narrow roadways and where strengthened line post sections of MGS are warranted to shield fixed objects.

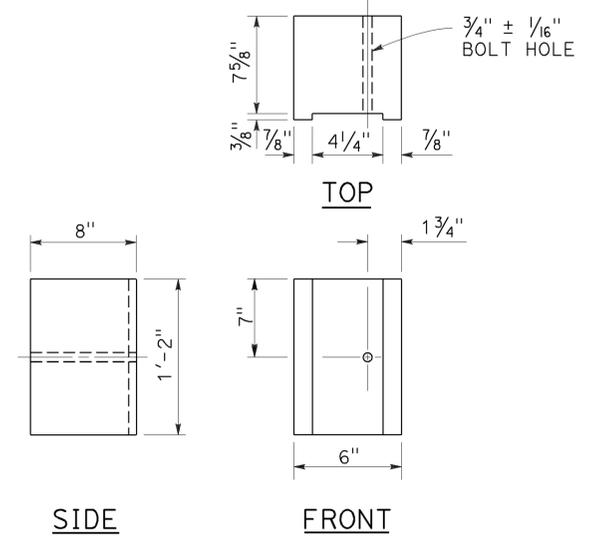
2010 REVISED STANDARD PLAN RSP A77N2



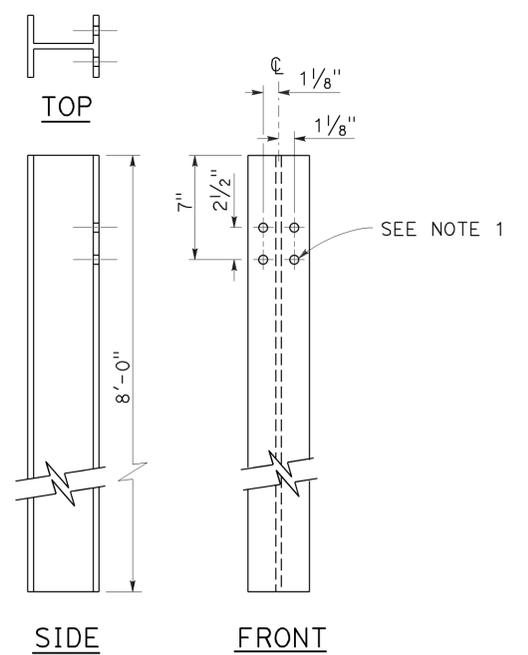
**W6 x 9 OR W6 x 8.5
STEEL POST**
See Note 4



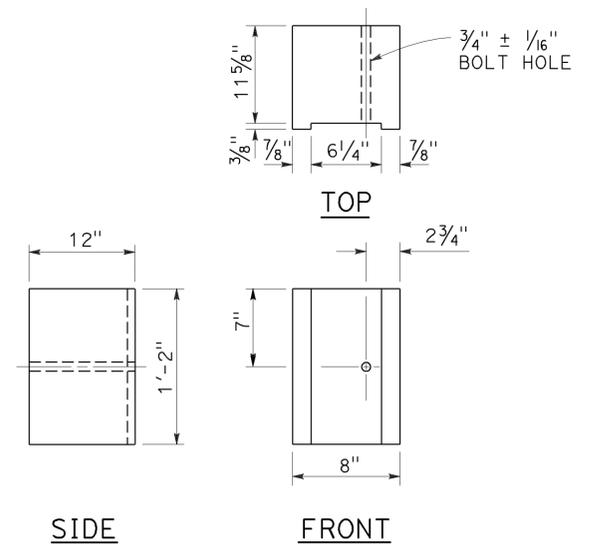
**6" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



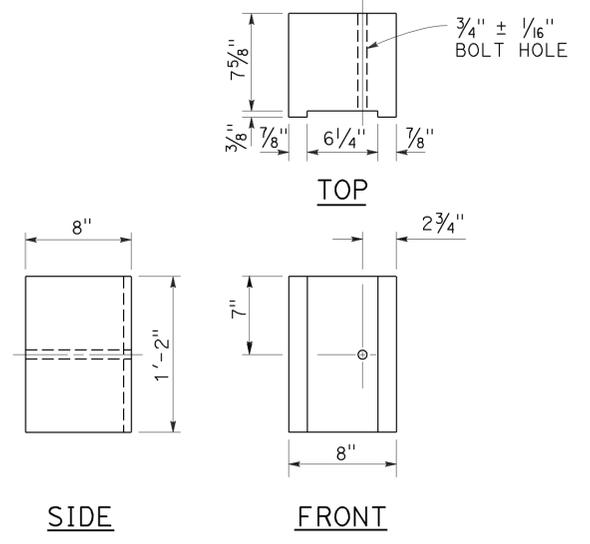
**6" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5



**W6 x 15
STEEL POST**
See Note 6



**8" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



**8" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STEEL POST AND
NOTCHED WOOD BLOCK DETAILS**

NO SCALE

RSP A77N2 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77N2
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	44	62

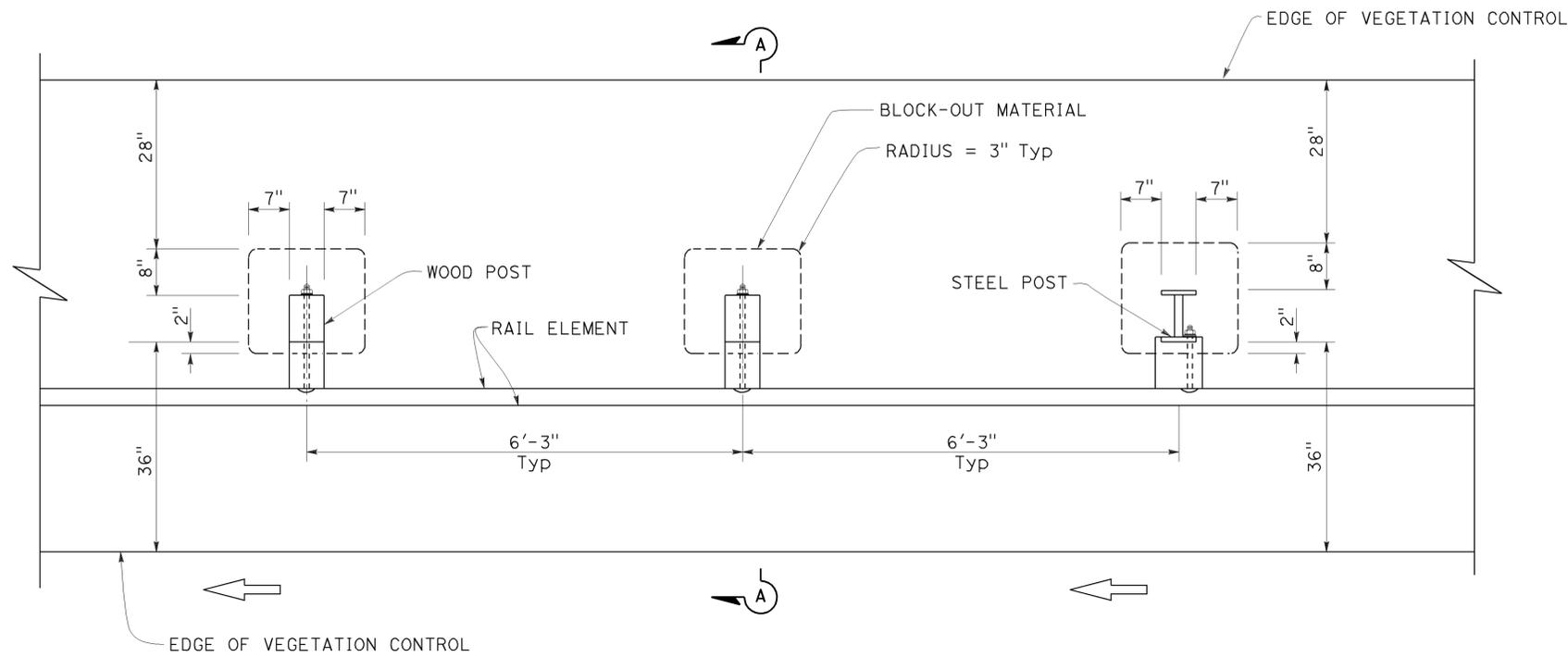
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
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
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

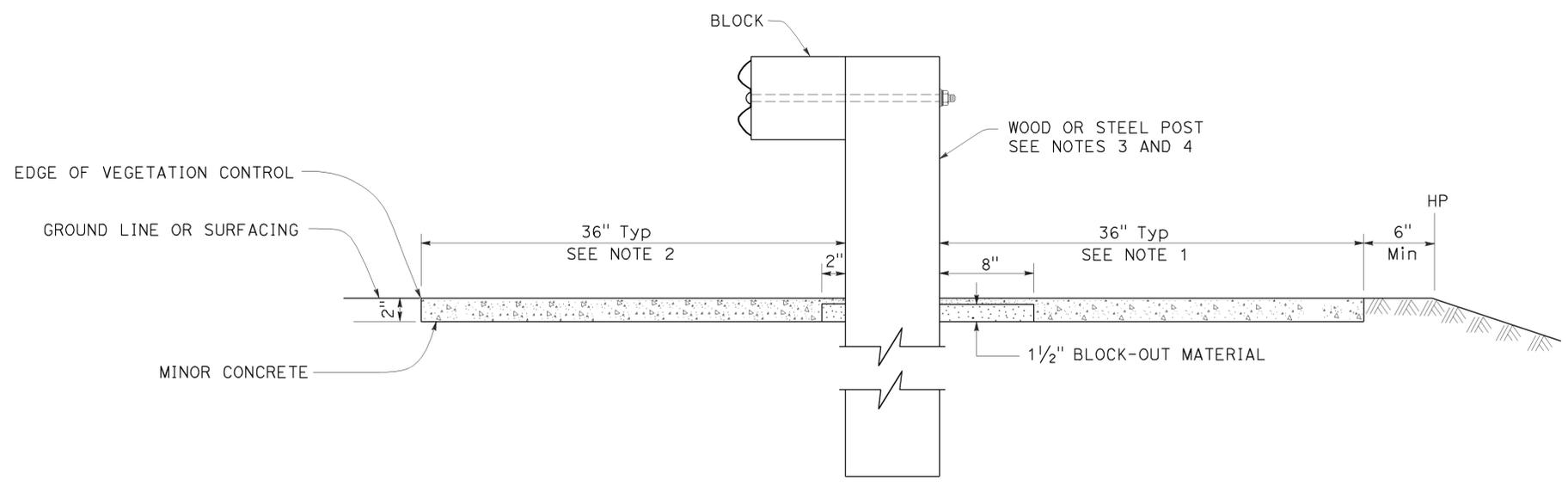
TO ACCOMPANY PLANS DATED 6-1-15



PLAN

NOTES:

1. Where the distance between back of post and hinge point is less than 42", construct vegetation control to 6" from hinge point while maintaining the 8" block-out at back of post. If the 8" block-out at back of post can not be maintained, construct vegetation control flush with the back edge of post.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 36" in front of the post, construct vegetation control to the edge of paved shoulder.
3. For wood post sizes, see Revised Standard Plan RSP A77N1.
4. For steel post sizes, see Revised Standard Plan RSP A77N2.
5. For details not shown, see Revised Standard Plans RSP A77L1 and RSP A77L2.



SECTION A-A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL VEGETATION CONTROL
STANDARD RAILING SECTION**

NO SCALE

RSP A77N5 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N5

2010 REVISED STANDARD PLAN RSP A77N5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	45	62

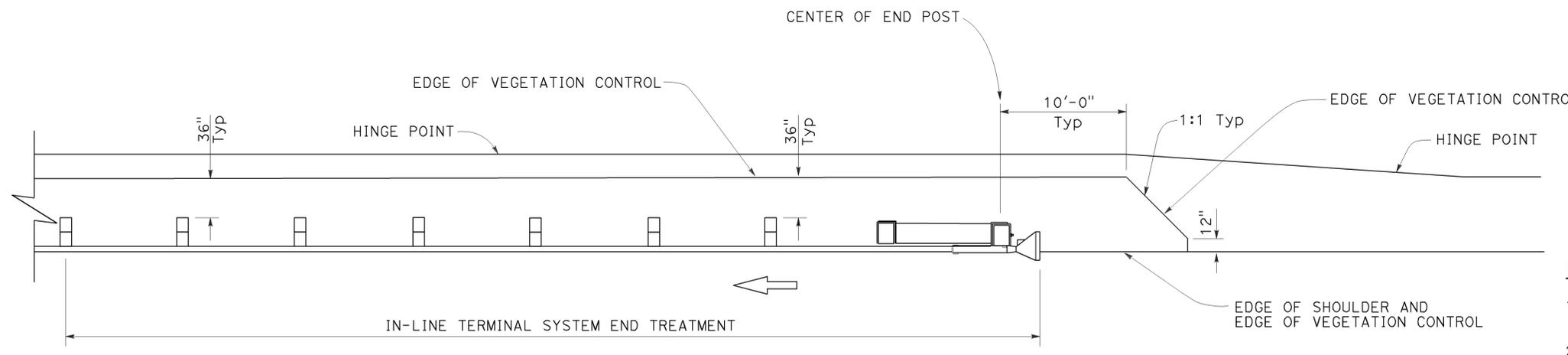
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
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
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

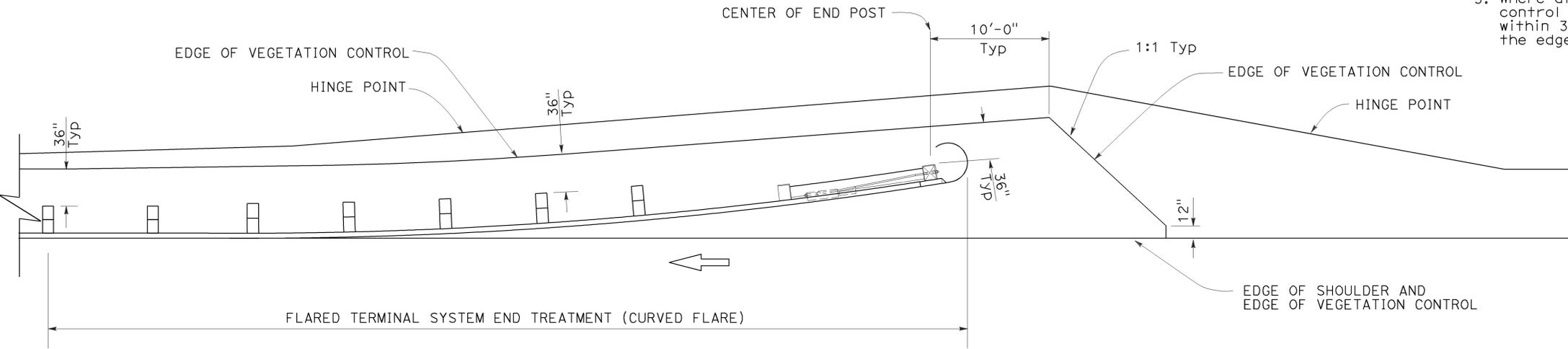
TO ACCOMPANY PLANS DATED 6-1-15



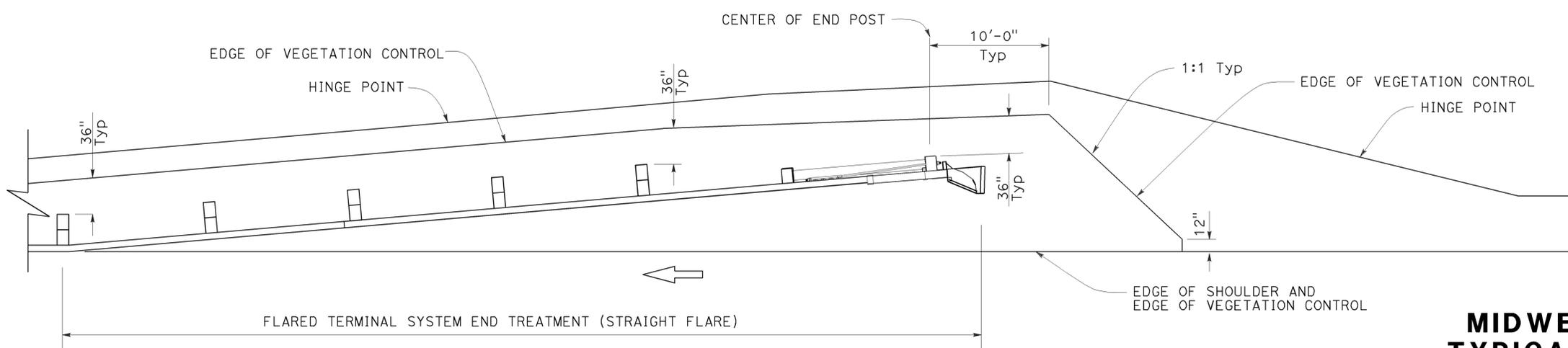
PLAN

NOTES:

1. See Revised Standard Plan RSP A77N5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 42", construct vegetation control to 6" from hinge point while maintaining the 8" block-out at back of post. If the 8" block-out at back of post can not be maintained, construct vegetation control flush with the back edge of post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 36" in front of the post, construct vegetation control to the edge of paved shoulder.



PLAN



PLAN

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL VEGETATION CONTROL
FOR TERMINAL SYSTEM END TREATMENTS**

NO SCALE

RSP A77N6 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N6

2010 REVISED STANDARD PLAN RSP A77N6

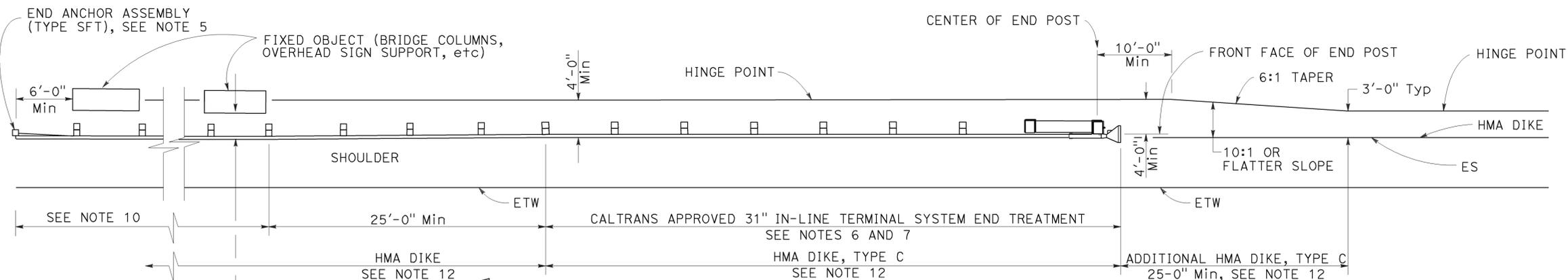
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	46	62

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

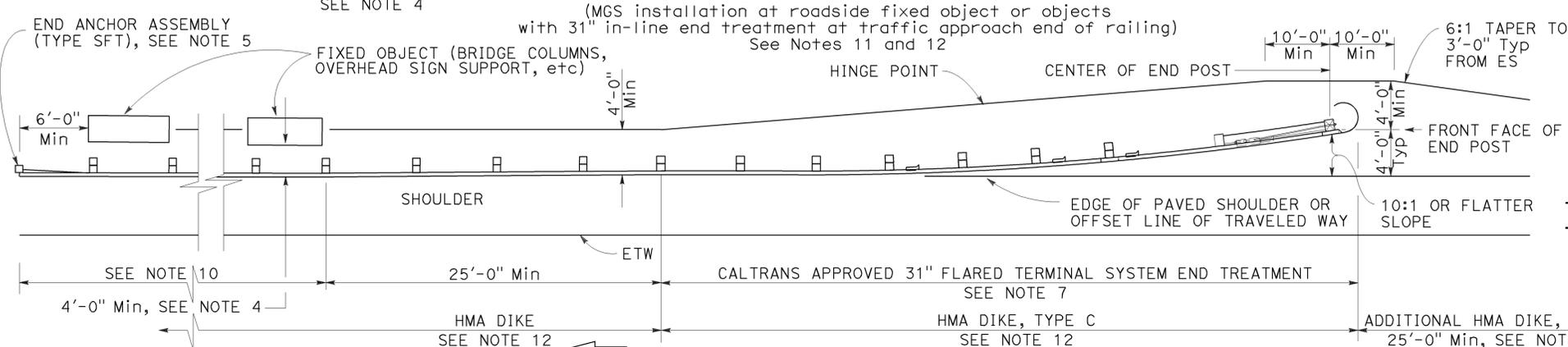
July 19, 2013
PLANS APPROVAL DATE

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.

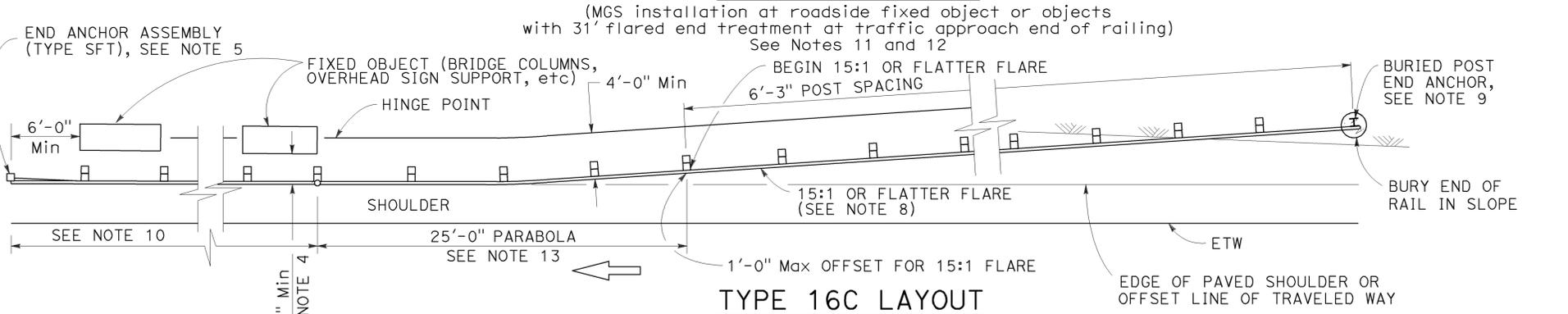
NO. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA



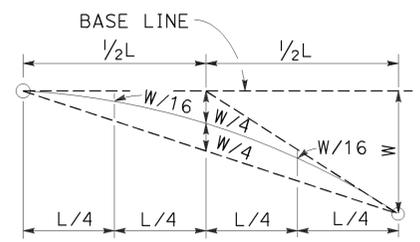
TYPE 16A LAYOUT



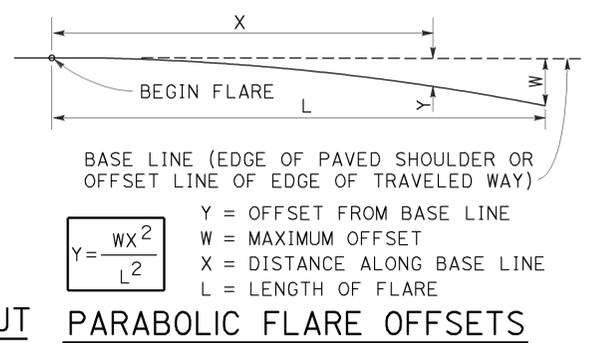
TYPE 16B LAYOUT



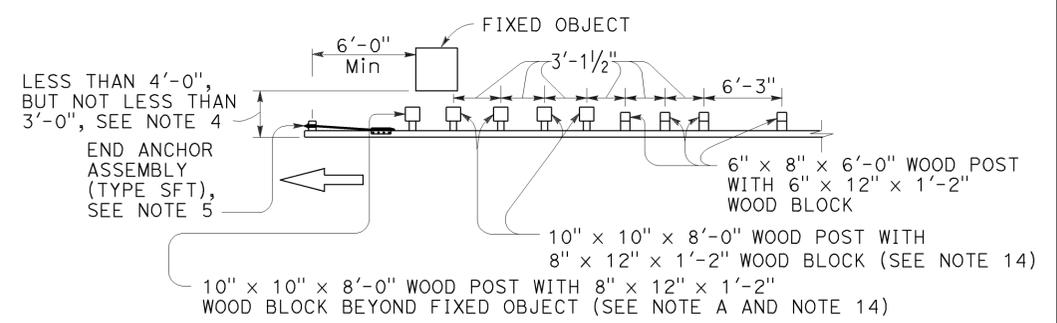
TYPE 16C LAYOUT



TYPICAL PARABOLIC LAYOUT



PARABOLIC FLARE OFFSETS



STRENGTHENED MIDWEST GUARDRAIL SYSTEM SECTIONS FOR FIXED OBJECT

NOTES:

- Line post, blocks and hardware to be used are shown on Revised Standard Plans RSP A77L1, RSP A77L2, RSP A77M1, RSP A77N1 and RSP A77N2.
- MGS 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 12" x 1'-2" wood blocks. W6 x 8.5 or W6 x 9 steel posts, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 12" x 1'-2" wood blocks where applicable and when specified.
- A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind MGS sections with post spacing of 6'-3". Construct MGS as shown in the detail "Strengthened Midwest Guardrail System Sections for Fixed Object" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 3'-0". Where the clearance is less than 3'-0", a concrete wall or barrier should be constructed to shield the fixed object(s).
- For End Anchor Assembly (Type SFT) details, see Revised Standard Plan RSP A77S1.
- 31" in-line terminal system end treatments are used where site conditions will not accommodate a 31" flared end treatment.
- The type of 31" terminal system to be used will be shown on the Project Plans.
- The 15:1 or flatter flare used with Type 16C Layout is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of MGS within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the Buried Post End Anchor used with Type 16C Layout, see Revised Standard Plan RSP A77T2.
- As site conditions dictate, construct additional MGS to shield fixed object(s). Additional MGS length equal to multiples of 12'-6". Post spacing at 6'-3" except as specified in Note 4.
- Layout Types 16A, 16B or 16C are typically used where MGS is recommended to shield roadside fixed object(s) and a crashworthy 31" end treatment is required for only one direction of traffic.
- Where placement of dike is required with MGS, see Revised Standard Plan RSP A77N4 for dike positioning details.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77P1.
- W6 x 15 steel post, 8'-0" in length, with 8" x 12" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 12" x 1'-2" wood block shown in the detail "Strengthened Midwest Guardrail System Sections for Fixed Object".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL LAYOUTS FOR
ROADSIDE FIXED OBJECTS**

NO SCALE

RSP A77R3 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77R3

2010 REVISED STANDARD PLAN RSP A77R3

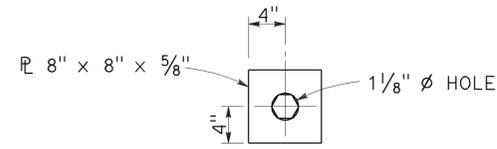
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	47	62

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

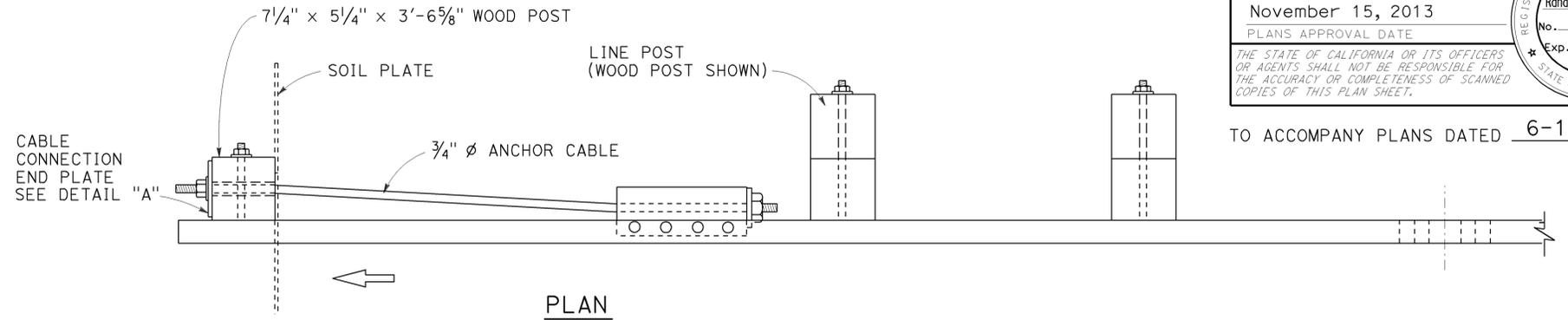
November 15, 2013
PLANS APPROVAL DATE

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.

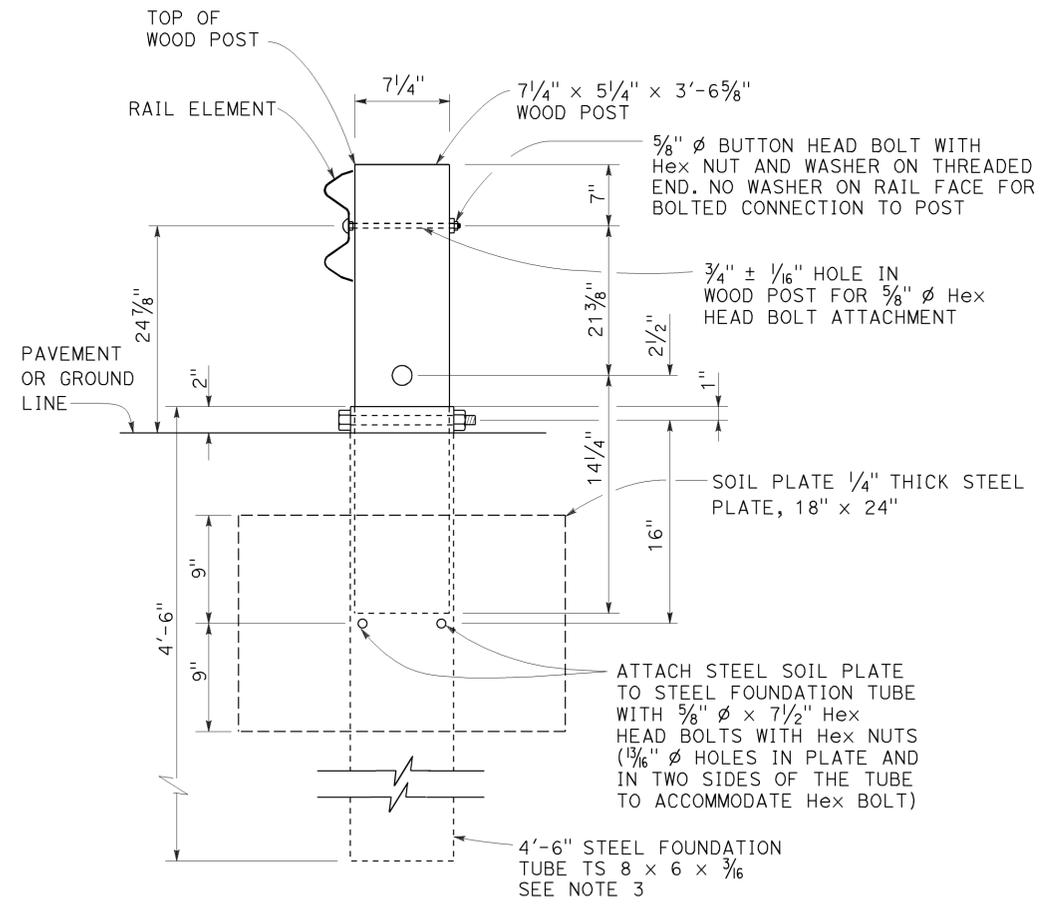
TO ACCOMPANY PLANS DATED 6-1-15



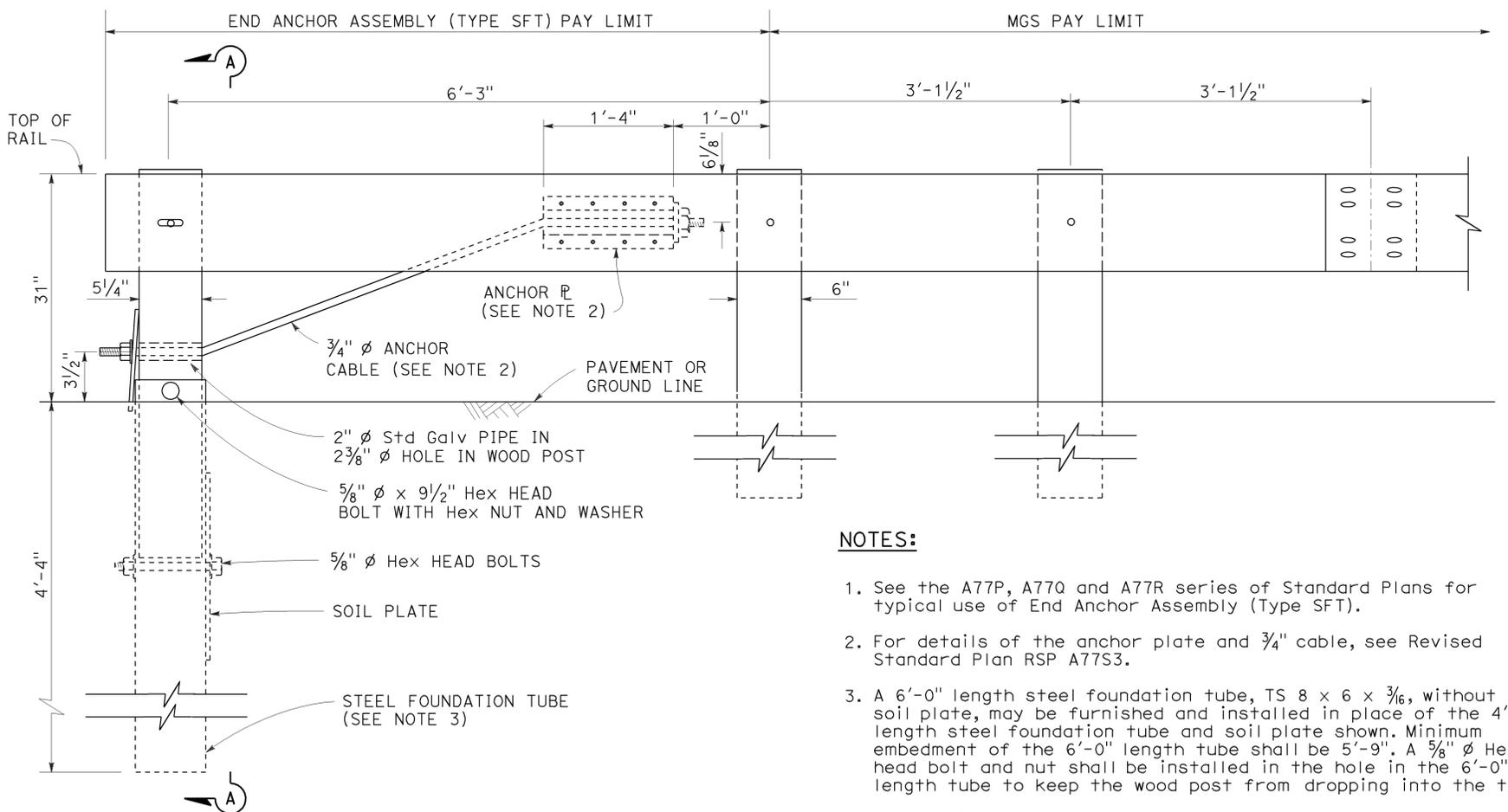
DETAIL "A"
CABLE CONNECTION
END PLATE



PLAN



SECTION A-A



ELEVATION

END ANCHOR
ASSEMBLY (TYPE SFT)
See Note 1

NOTES:

1. See the A77P, A77Q and A77R 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 Revised Standard Plan RSP A77S3.
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. Install line post, steel foundation tube and soil plate in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
MIDWEST GUARDRAIL SYSTEM
END ANCHOR ASSEMBLY
(TYPE SFT)

NO SCALE

RSP A77S1 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77S1
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77S1

2010 REVISED STANDARD PLAN RSP A77S1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	48	62

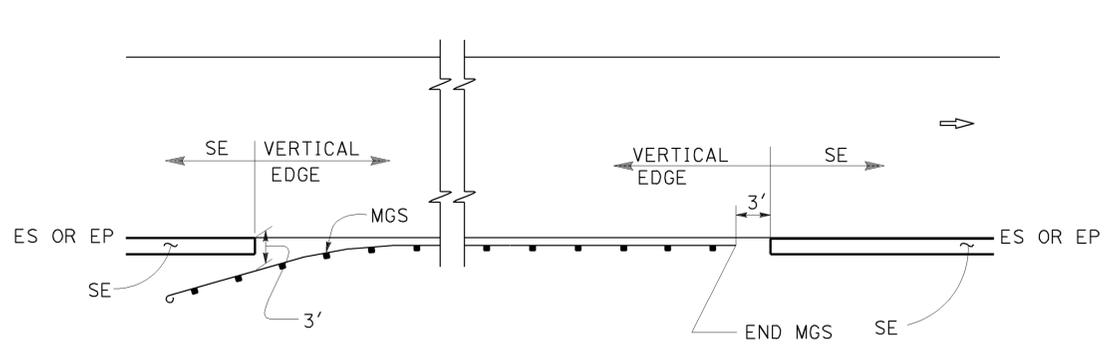
REGISTERED CIVIL ENGINEER
 November 15, 2013
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Cornelis M. Hakim
 No. C55610
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA

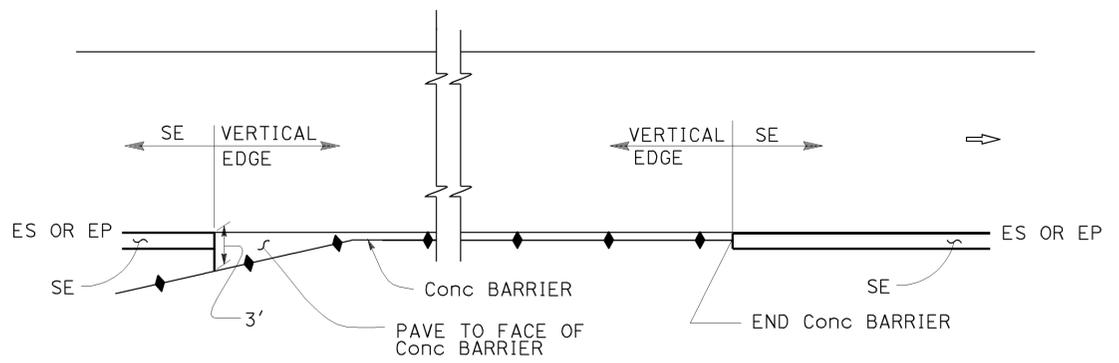
TO ACCOMPANY PLANS DATED 6-1-15

ABBREVIATIONS:

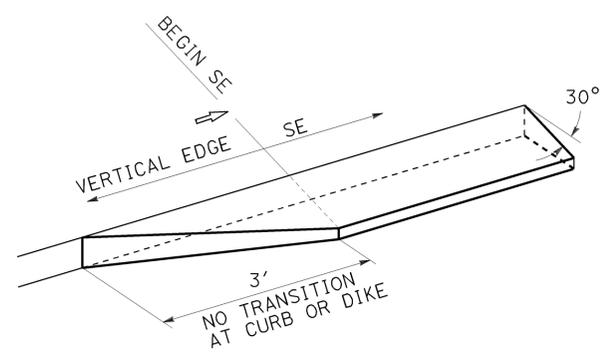
SE SAFETY EDGE



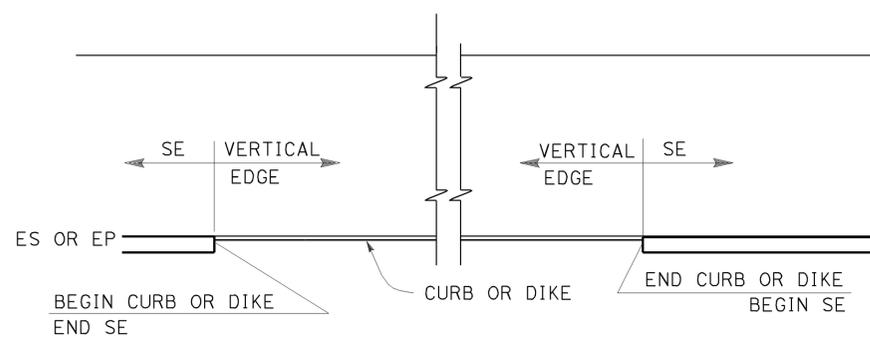
MGS



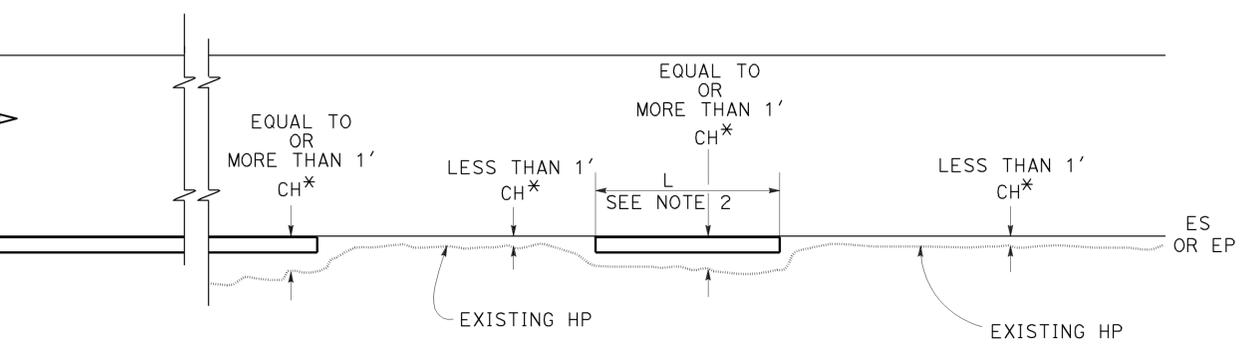
CONCRETE BARRIER



TRANSITION DETAIL FOR CONCRETE ONLY

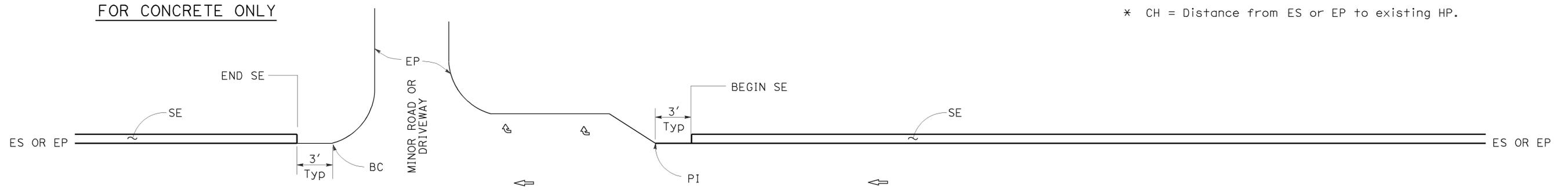


CURB OR DIKE



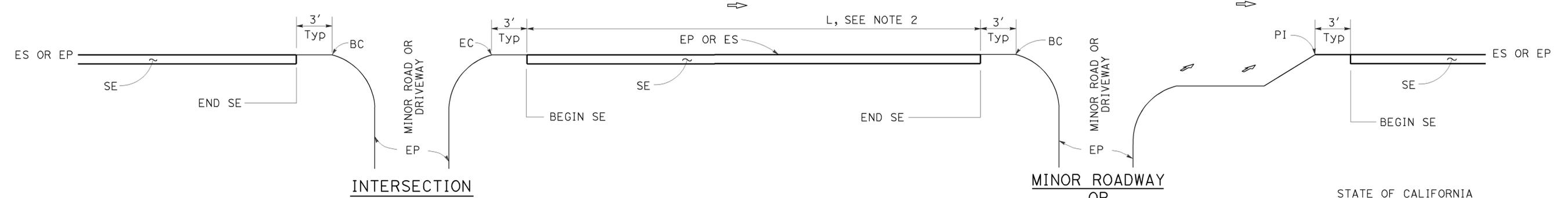
NARROW SIDE SLOPE

* CH = Distance from ES or EP to existing HP.



STATE ROUTE

STATE ROUTE



INTERSECTION

DRIVEWAY AND INTERSECTION

MINOR ROADWAY OR DRIVEWAY

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE TREATMENTS

NO SCALE

NOTES:

1. For details not shown, see Revised Standard Plans RSP P75 and RSP P76.
2. Safety edge is optional when L is less than 30'.

RSP P74 DATED NOVEMBER 15, 2013 SUPERSEDES RSP P74 DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P74

2010 REVISED STANDARD PLAN RSP P74

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	49	62

 REGISTERED CIVIL ENGINEER		
November 15, 2013 PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>		

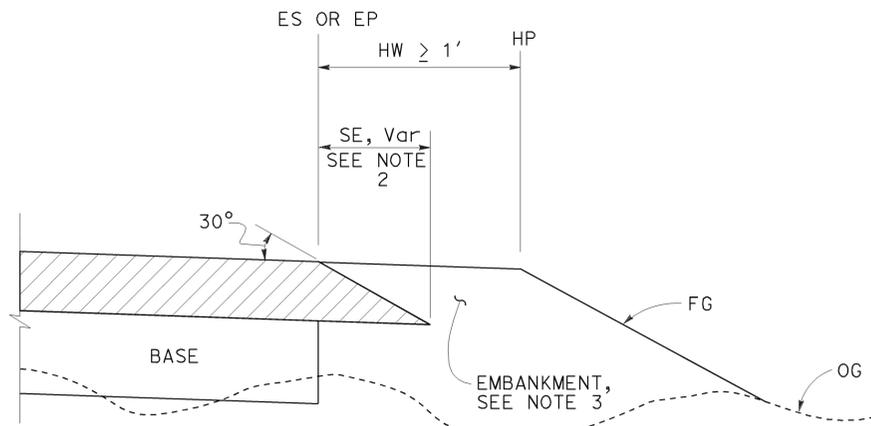
LEGEND:

-  HMA PAVEMENT
-  HMA OR CONCRETE PAVEMENT
-  CONCRETE PAVEMENT

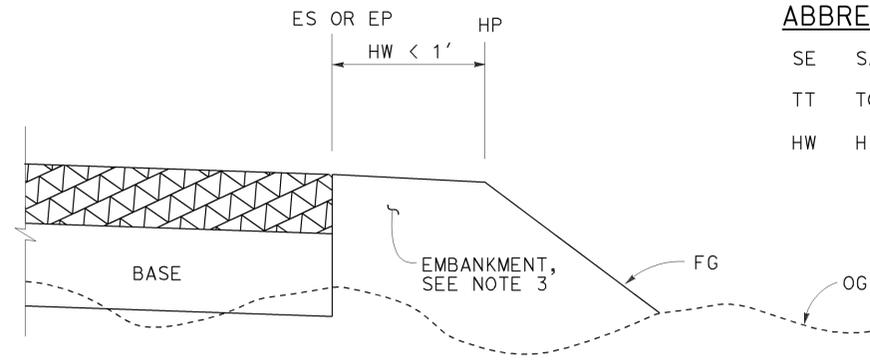
ABBREVIATIONS:

- SE SAFETY EDGE
- TT TOTAL THICKNESS OF SE
- HW HINGE WIDTH, DISTANCE FROM ES OR EP TO HP

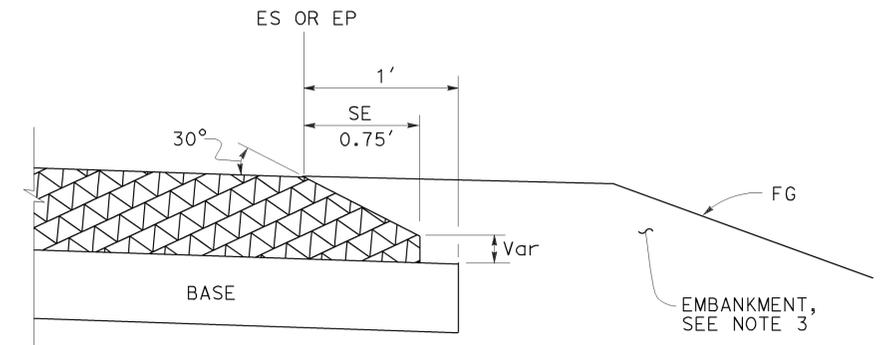
TO ACCOMPANY PLANS DATED 6-1-15



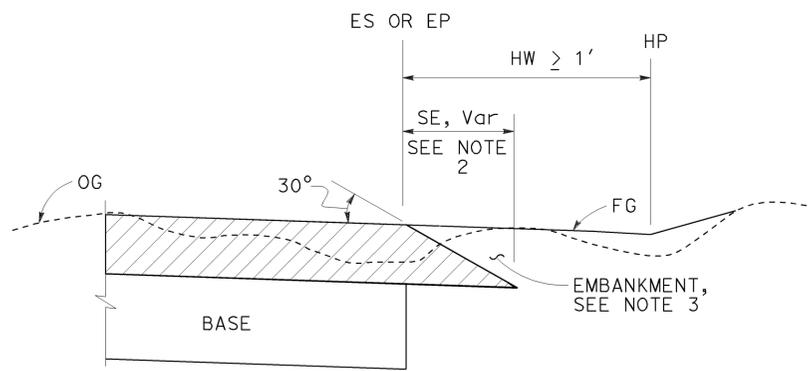
CASE K
Safety Edge - Fill Section, HW ≥ 1'



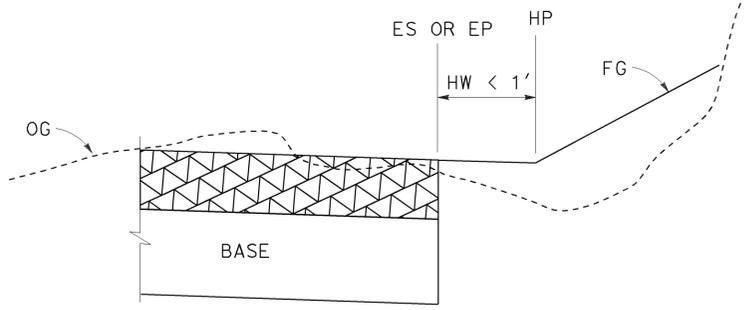
CASE L
Vertical Edge - Fill Section, HW < 1'



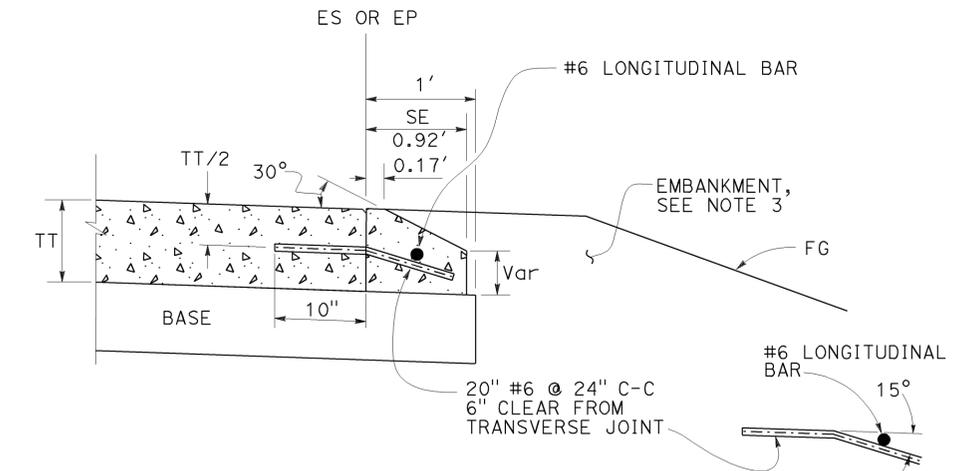
DETAIL "B"
For HMA pavement thickness more than 0.43' or concrete pavement



CASE M
Safety Edge - Cut Section, HW ≥ 1'



CASE N
Vertical Edge - Cut Section, HW < 1'



OPTIONAL DETAIL "B"
For concrete pavement
See Note 4

FILL SECTION

CUT SECTION

NOTES:

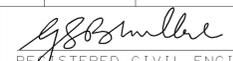
- For limits of safety edge and vertical edge treatments, see Revised Standard Plan RSP P74
- Details shown for HMA pavement thickness less than 0.43'. See Detail "B" for HMA pavement thickness more than 0.43' or concrete pavement.
- For locations and limits of embankment see project plans.
- Safety edge transverse joint must match pavement transverse joint. End of #6 longitudinal bar must be 2" ± 1/2" clear from transverse joint.
- Safety edge is not needed in the area of MGS, barrier, right turn lane and acceleration lane. See Revised Standard Plan RSP P74.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT EDGE TREATMENTS-
NEW CONSTRUCTION**
NO SCALE

RSP P76 DATED NOVEMBER 15, 2013 SUPERSEDES RSP P76 DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.
REVISED STANDARD PLAN RSP P76

2010 REVISED STANDARD PLAN RSP P76

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	50	62


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 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.

TO ACCOMPANY PLANS DATED 6-1-15

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	Z **		
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2/60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
 W = Width of offset in feet
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph
 ** - Longitudinal buffer space or flagger station spacing
 *** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T9

2010 REVISED STANDARD PLAN RSP T9

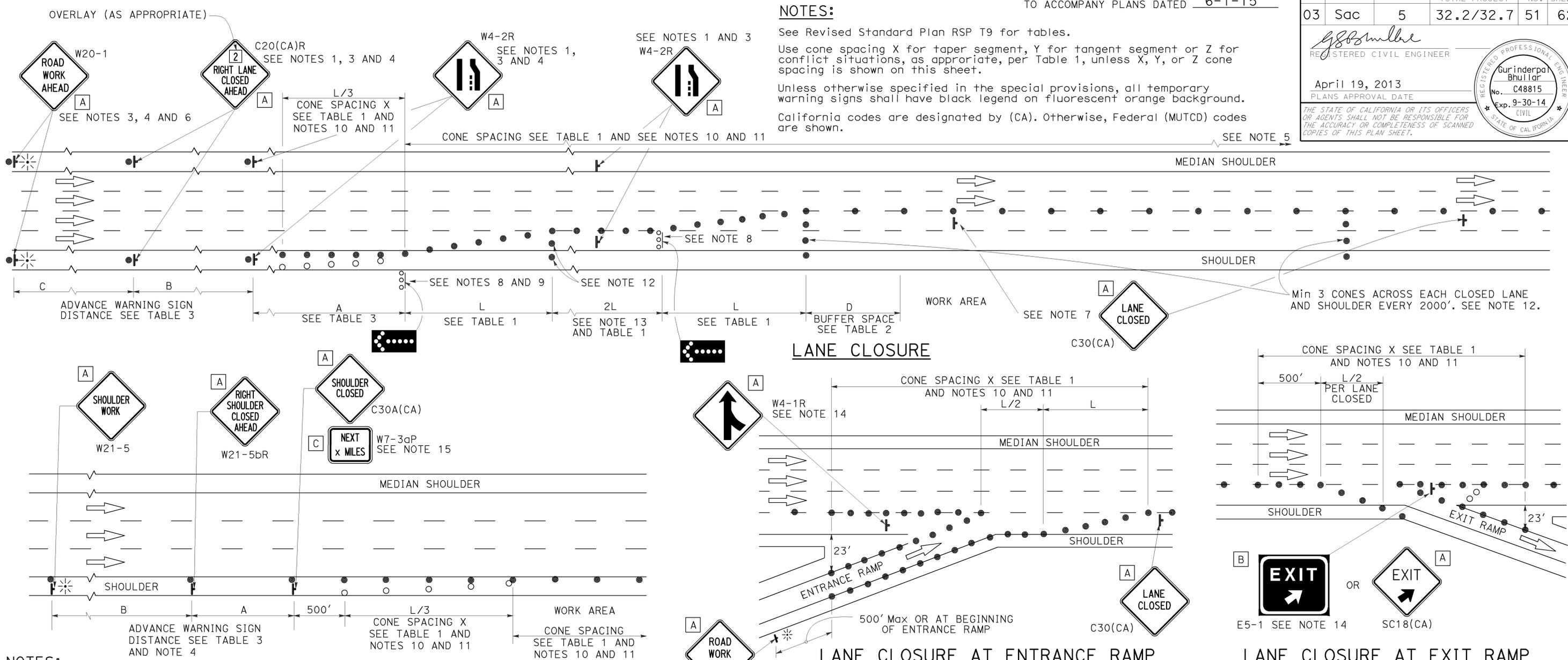
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	51	62

REGISTERED CIVIL ENGINEER
 April 19, 2013
 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.

Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL ENGINEER
 STATE OF CALIFORNIA

NOTES:

See Revised Standard Plan RSP T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
 California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



NOTES:

1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
 - a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

SHOULDER CLOSURE

6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA)L and W4-2L signs shall be used.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

LANE CLOSURE AT ENTRANCE RAMP

12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
15. A W7-3aP "NEXT _____ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⬢ FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

A	48" x 48"
B	72" x 60"
C	36" x 30"

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⚡ PORTABLE FLASHING BEACON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	52	62

Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

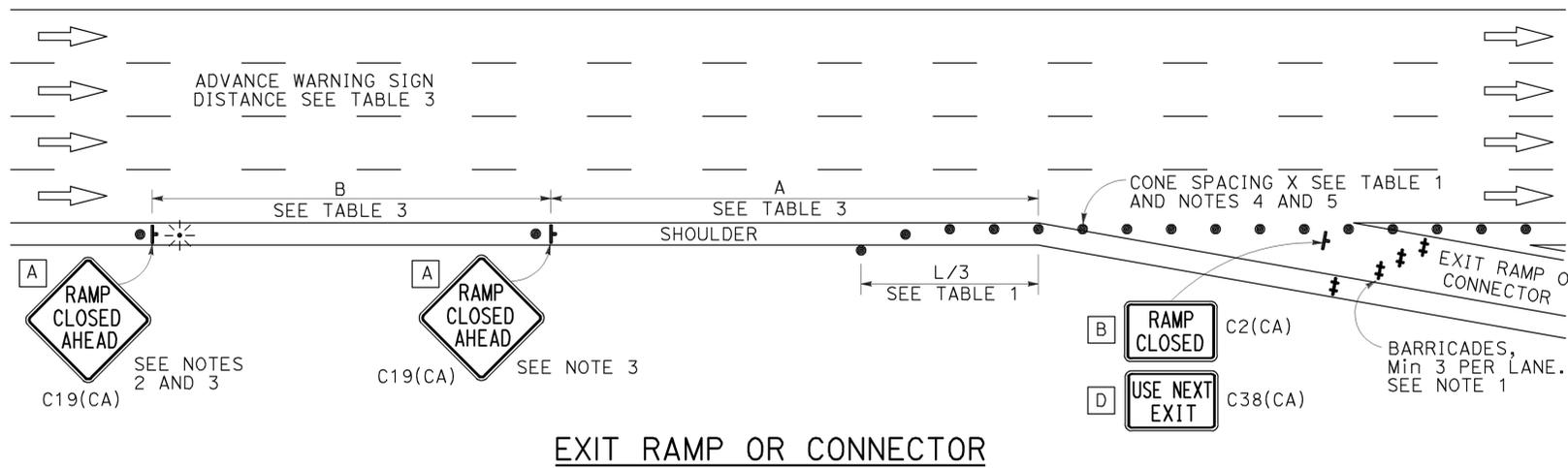
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

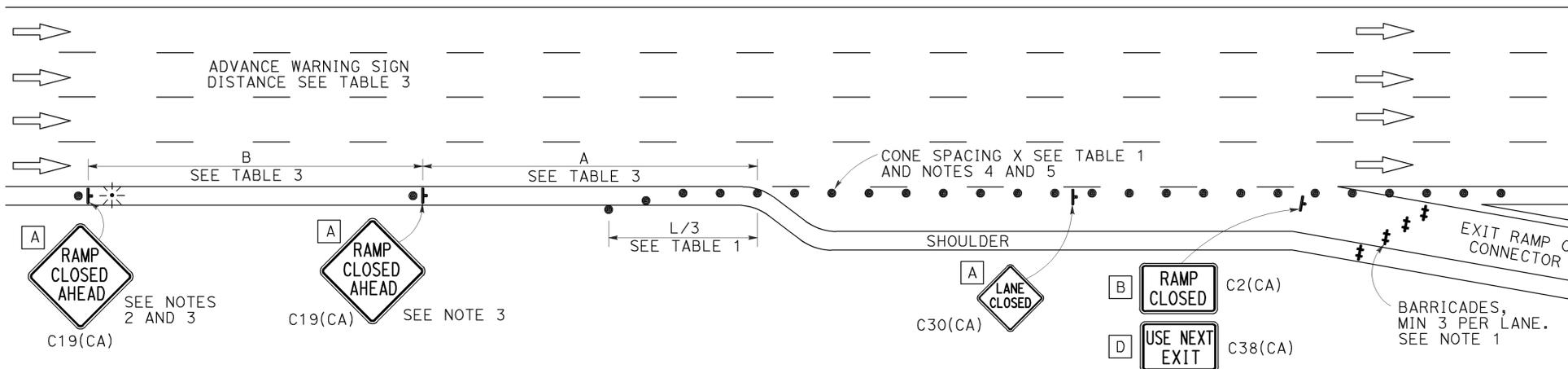
TO ACCOMPANY PLANS DATED 6-1-15

NOTES:

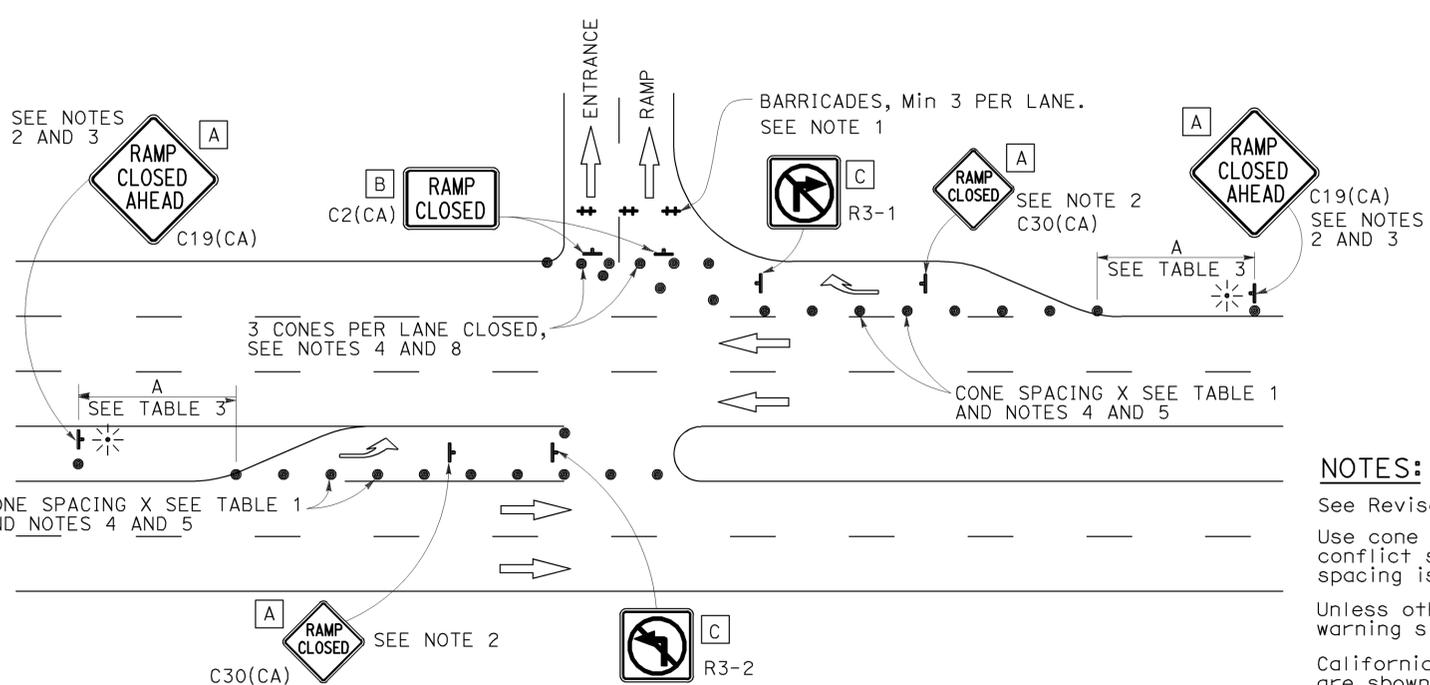
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
- Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
- All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
- At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
- The existing "EXIT" signs shall be covered during ramp closures.
- A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.



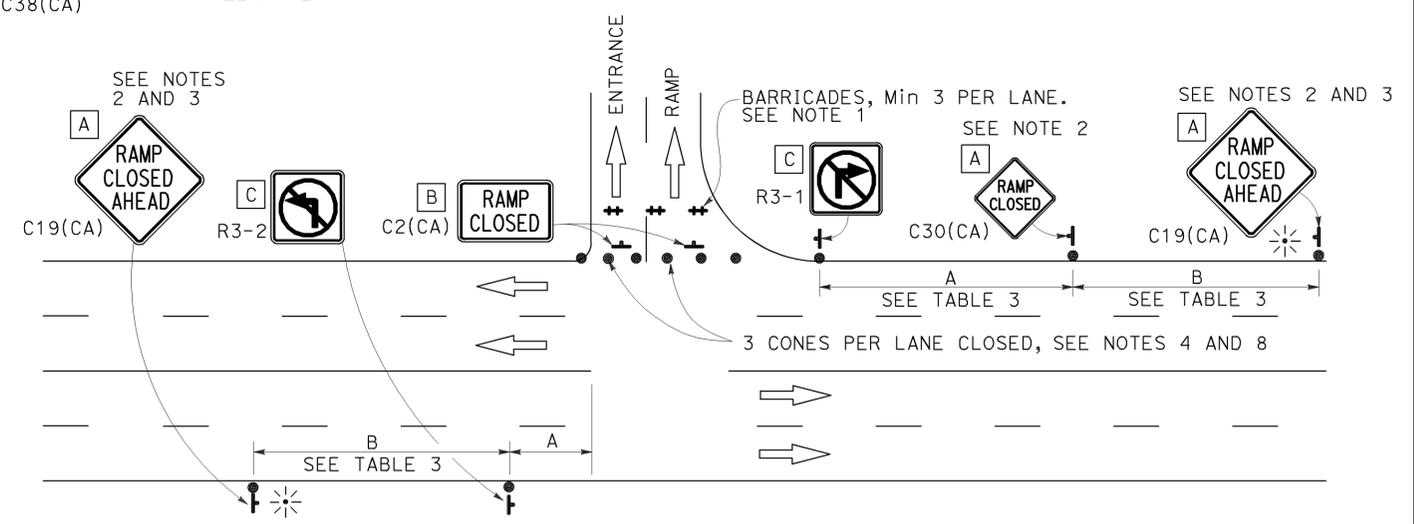
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

- See Revised Standard Plan RSP T9 for tables.
- Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
- Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
- California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURE**
 NO SCALE

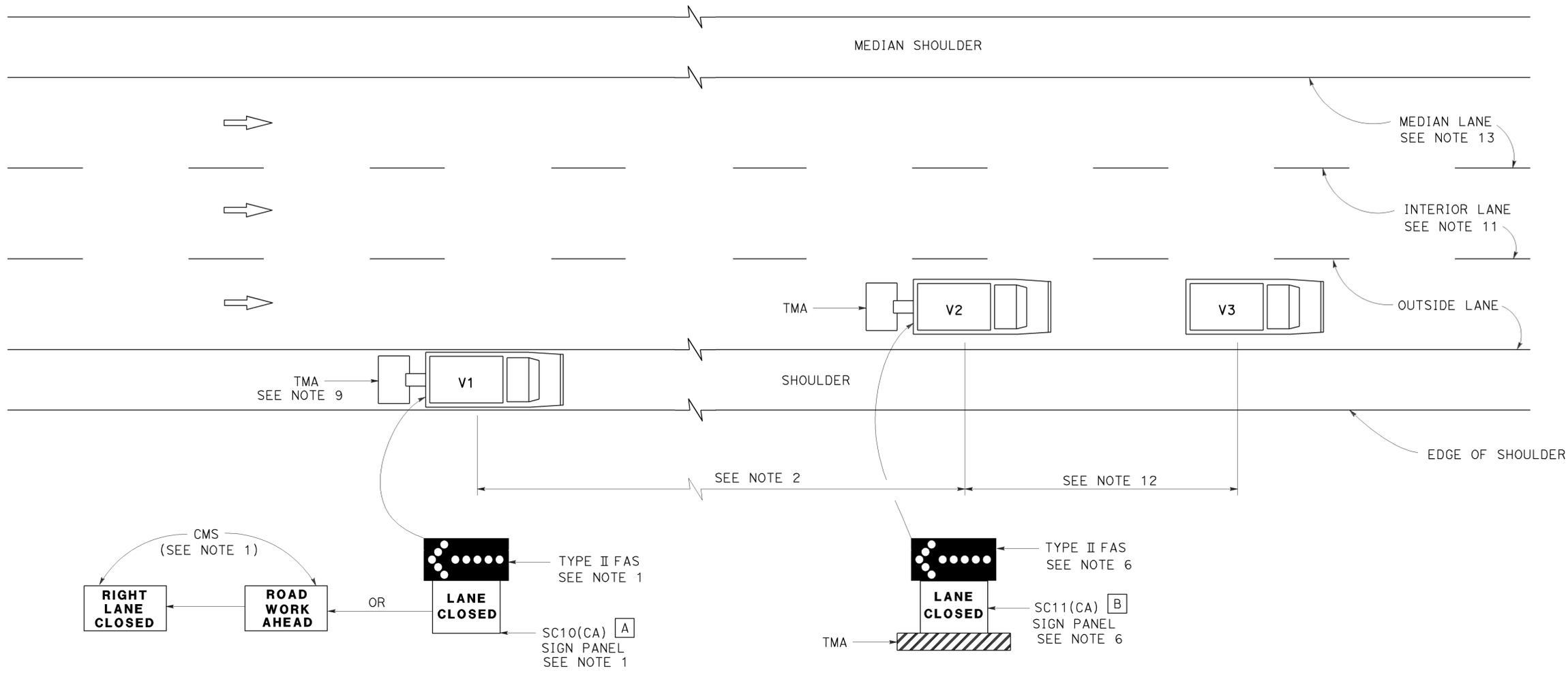
RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14
 DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T14

2010 REVISED STANDARD PLAN RSP T14



TO ACCOMPANY PLANS DATED 6-1-15



SIGN PANEL SIZE (Min)

- A 66" x 36"
- B 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
-  FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

**MOVING LANE CLOSURE ON MEDIAN LANE OR
OUTSIDE LANE OF MULTILANE HIGHWAYS**

NOTES:

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR MOVING LANE CLOSURE
ON MULTILANE HIGHWAYS**

NO SCALE

RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15
DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T15

2010 REVISED STANDARD PLAN RSP T15

INSTRUCTIONS TO FABRICATOR

PROJECT PLANS SHOW:

1. Sign structure location.
2. Length of structure frame.
3. Panel size and locations on structure.
4. Walkway length for two post signs.
5. Post type and height to bottom of frame.
6. Base plate elevation.
7. Footing elevation or location of pile foundation.
8. Photoelectric unit location if required.

REFER TO THE FOLLOWING STANDARD PLANS FOR DETAILS NOT SHOWN ON PROJECT PLANS:

Sheet No. SHEET NAME

- S1 Overhead Signs-Truss, Instructions and Examples
- S2 Overhead Signs-Truss, Single Post Type, Post Types II to IX
- S3 Overhead Signs-Truss, Single Post Type, Base Plate and Anchorage Details
- S4 Overhead Signs-Truss, Single Post Type, Structural Frame Members Details No. 1
- S5 Overhead Signs-Truss, Single Post Type, Structural Frame Members Details No. 2
- S6 Overhead Signs-Truss, Gusset Plate Details
- S8 Overhead Signs-Truss, Single Post Type, Round Pedestal Pile Foundation
- S9 Overhead Signs-Truss, Two Post Type, Post Types I-S through VII-S
- S10 Overhead Signs-Truss, Two Post Type, Base Plate and Anchorage Details
- S11 Overhead Signs-Truss, Two Post Type, Structural Frame Members
- S12 Overhead Signs-Truss, Structural Frame Details
- S13 Overhead Signs-Truss, Frame Juncture Details
- S15 Overhead Signs-Truss, Two Post Type, Round Pedestal Pile Foundation
- S16 Overhead Signs, Walkway Details No. 1
- S17 Overhead Signs, Walkway Details No. 2
- S17A Overhead Signs, Walkway Details No. 3
- S18 Overhead Signs, Walkway Safety Railing Details
- S19 Overhead Signs-Truss, Sign Mounting Details, Laminated Panel-Type A
- S20 Overhead Signs, Steel Frames, Removable Sign Panel Frames
- S21 Overhead Signs, Removable Sign Panel Frames, Mounting Details
- S22 Overhead Signs-Truss, Removable Sign Panel Frames, 9'-2" and 10'-0" Sign Panels

WALKWAY BRACKETS:

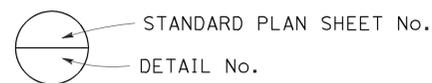
Space all walkway brackets maintaining uniform spacing where possible. Maximum spacing shall not exceed 5'-6".

LIGHTING FIXTURE SUPPORTS:

Where distance from walkway bracket to end of sign panel exceeds 1'-4", extend lighting fixture supports to next walkway bracket. See Example No. 2.

WALKWAY AND SAFETY RAILING:

Walkway to be continuous for entire length of frame for single post signs. For two post signs, see Project Plans. Safety railing to protect entire walkway, but continuous for no more than 11'-0" in one unit.



NOTES:

1. Signs are shown and dimensioned looking in the direction of traffic. Double faced signs are shown and dimensioned looking ahead along stationing.
2. Mandatory dimension limit.

GENERAL NOTES:

LOADING:

WIND LOADING:

Normal to face of sign: 40.3 psf on 100% Truss surface area (i.e. 100% panel coverage).

Transverse to face of sign: 20% of normal force.

WALKWAY LOADING:

Dead load +500 LB concentrated live load.

UNIT STRESSES:

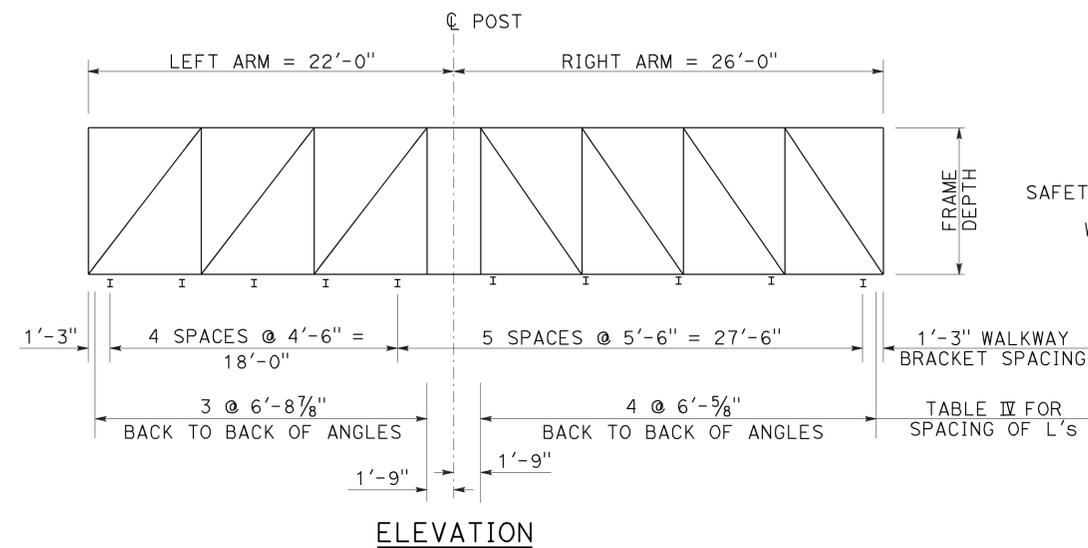
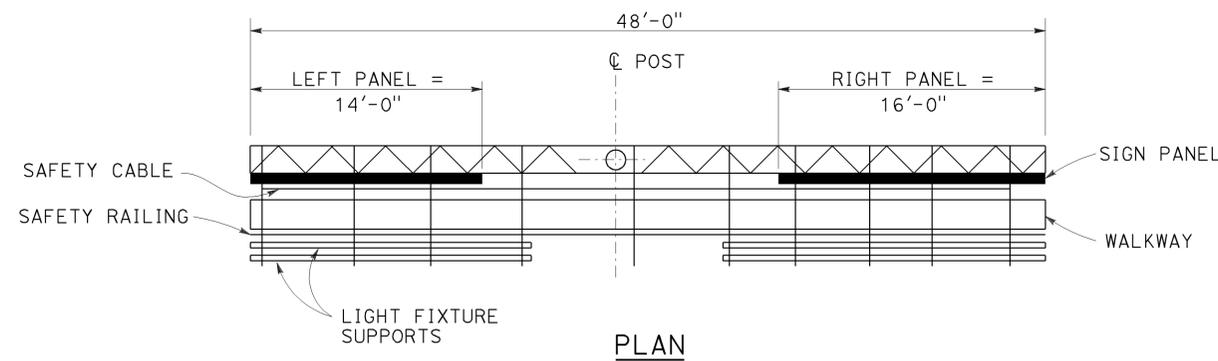
STRUCTURAL STEEL: $f_y = 36,000$ psi
 REINFORCED CONCRETE: $f_y = 60,000$ psi
 $f'_c = 3600$ psi
 FOOTING SOIL PRESSURE: 2.5 ksf (spread footing)

MINIMUM CLEARANCE

Vertical roadway clearance 18'-0" (bottom of walkway system)

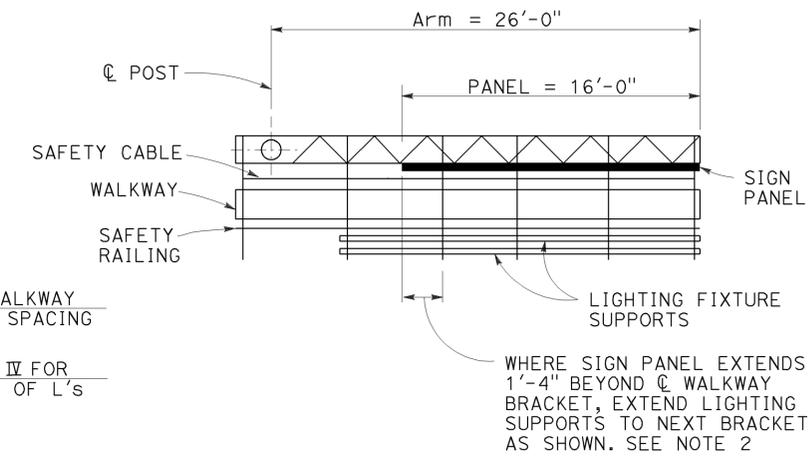
WELDING:

All welding continuous unless otherwise noted on the plans.



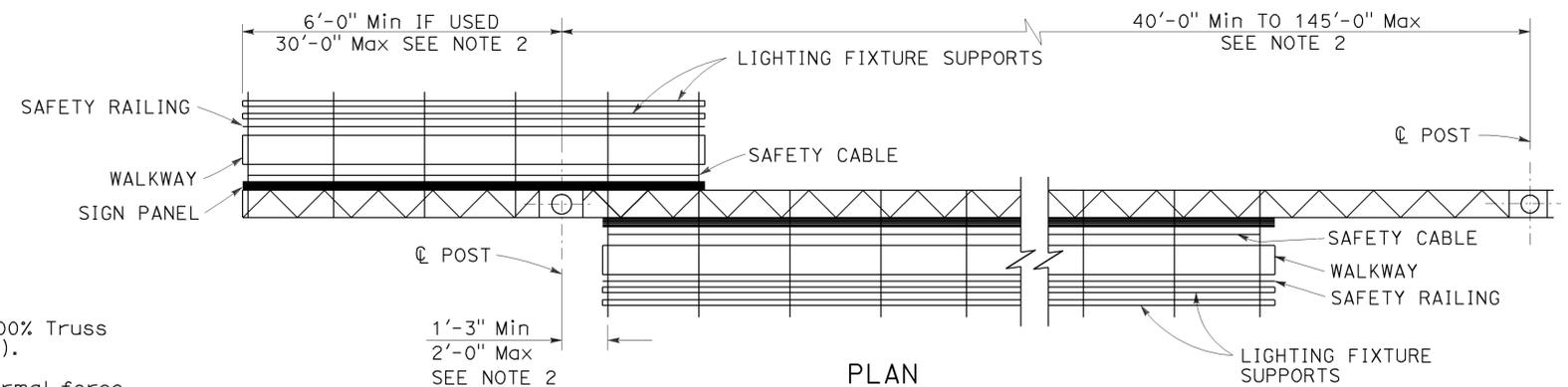
UNBALANCED SINGLE POST TYPE

Example No. 1



CANTILEVER SINGLE POST TYPE

Example No. 2



TWO POST TYPE WITH CANTILEVER (PART DOUBLE-FACED)

Example No. 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGNS-TRUSS INSTRUCTIONS AND EXAMPLES

NO SCALE

RSP S1 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN S1 DATED MAY 20, 2011 - PAGE 334 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP S1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	54	62

Stanley P. Johnson
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Stanley P. Johnson
No. C57793
Exp. 3-31-14
CIVIL ENGINEER
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.

TO ACCOMPANY PLANS DATED 6-1-15

2010 REVISED STANDARD PLAN RSP S1

TABLE XV

POST TYPE	PIPE		CAP PLATE SIZE FOR CHORD L's 5 x 5	CAP PLATE SIZE FOR CHORD L's 6 x 6	ROUND PEDESTAL				SQUARE PEDESTAL				SPREAD FOOTING								
	NPS	THICKNESS			PEDESTAL SIZE Dia	VERTICAL EQUALLY SPACED TOTAL	J-BARS BAR SIZE	SPIRAL BAR SIZE	PITCH	PEDESTAL SIZE SQUARE	VERTICAL EQUALLY SPACED TOTAL	J-BARS BAR SIZE	# OF BARS EA FACE	HOOP BAR SIZE	SPACING	(SEE NOTE 2)					
	REINFORCEMENT		WIDTH													LONGITUDINAL		FOOTING STIRRUPS			
														TOP	BOTTOM	TOP	BOTTOM				
II	14	1/2"	2'-0" x 2'-0" x 1"	2'-2" x 2'-2" x 1"	5'-3"	16	#10	#5	3 1/2"	5'-3"	16	#10	5	#5	3 1/2"	12'-0" x 14'-0" x 2'-6"	14-#6	14-#7	13-#9	13-#9	#5 @ 12
III	16		2'-2" x 2'-2" x 1"	2'-4" x 2'-4" x 1"												12'-0" x 14'-0" x 2'-6"	15-#6	15-#7			
IV	18		2'-4" x 2'-4" x 1"	2'-6" x 2'-6" x 1"												12'-0" x 14'-0" x 2'-6"	15-#6	15-#7			
V	20		2'-6" x 2'-6" x 1"	2'-8" x 2'-8" x 1"												13'-0" x 14'-0" x 2'-6"	15-#6	15-#7	14-#9	14-#9	
VI	24		2'-10" x 2'-10" x 1"	3'-0" x 3'-0" x 1"	5'-9"		#11			5'-9"		#11				13'-0" x 16'-0" x 2'-6"	17-#7	17-#7		14-#11	
VII	24	3/4"														13'-0" x 17'-0" x 2'-6"	18-#7	18-#7			
VIII	24	3/32"														13'-0" x 18'-0" x 2'-6"	19-#7	19-#7			
IX	24	3/32"														13'-0" x 18'-0" x 2'-6"	19-#7	19-#7			

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	55	62

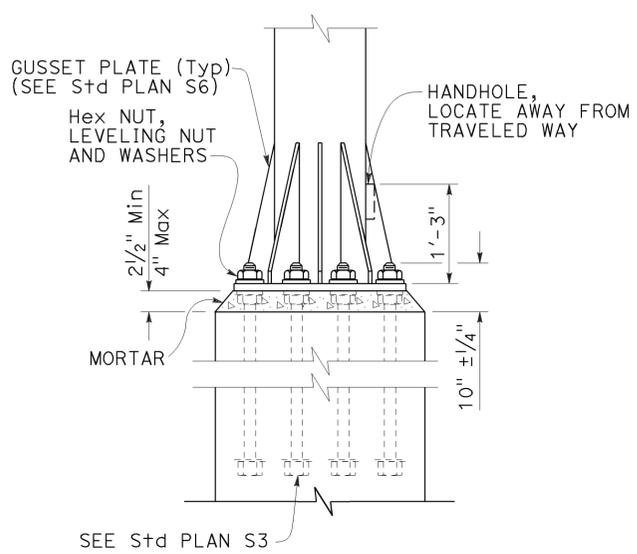
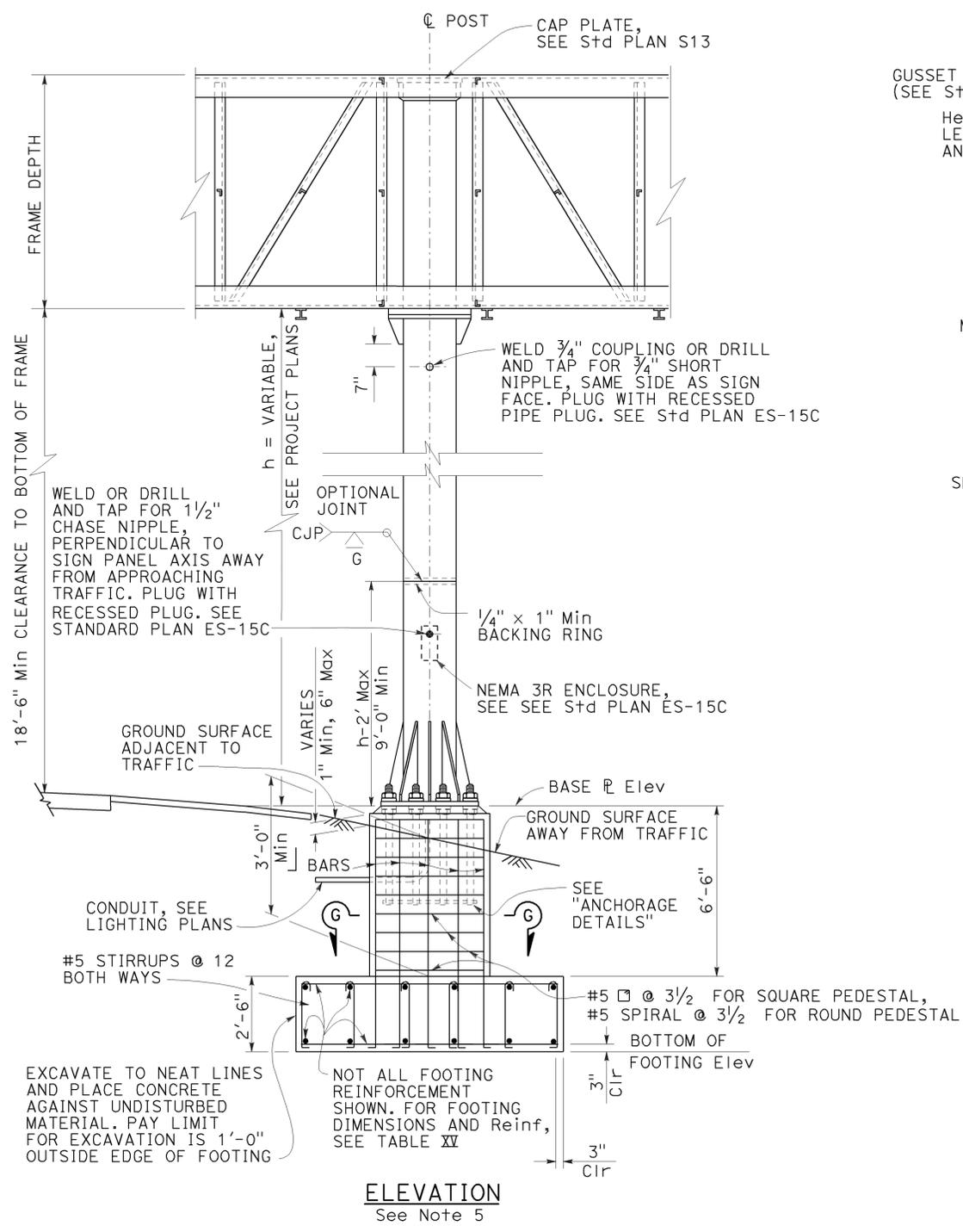
Stanley P. Johnson
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Stanley P. Johnson
REGISTERED PROFESSIONAL ENGINEER
No. C57793
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA

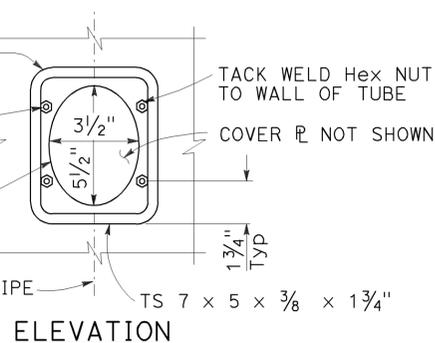
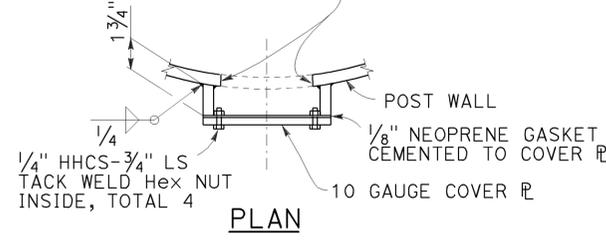
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 6-1-15



ELEVATION ANCHORAGE DETAILS

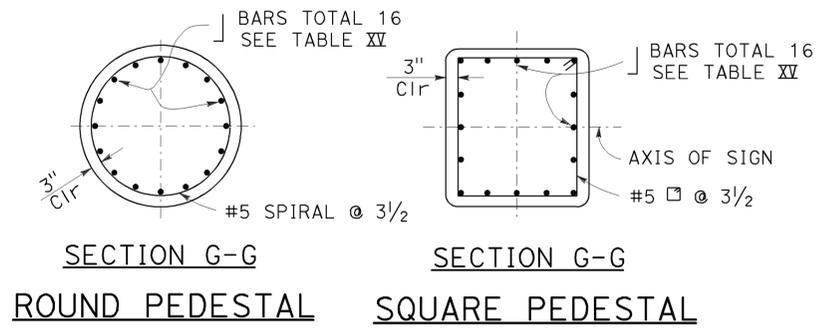
GRIND EDGES SMOOTH, ROUGHNESS OF EDGES NO GREATER THAN 1000 MICROINCHES



TYPICAL DETAILS OF HANDHOLE AND COVER

NOTES:

- For "General Notes", see Revised Standard Plan RSP S1.
- Longer side of footing (longitudinal) shall be normal to axis of sign.
- Backfill shall be in place prior to erection of post.
- Thread upper 10" of anchor bolts and galvanize upper 1'-0".
- Spread footing with square pedestal foundation shown, use Pile Foundation when shown on the Project Plans. For pile foundation details, see Standard Plan S8.
- Anchor plates may be retained with hexagon nut or formed head as alternatives to details shown.
- On single post sign structures, the post shall be raked out of plumb, with the use of the leveling nuts to make the bottom of the sign frame level.
- At final position of post all top and bottom nuts shall be tightened against base plate.
- When foundation is located on a steep slope with exposed face of concrete adjacent to traffic, see "Detail C" on Standard Plan S8, as applicable.
- Slope protection required when indicated on the Project Plans.



SECTION G-G ROUND PEDESTAL SQUARE PEDESTAL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**OVERHEAD SIGNS-TRUSS
SINGLE POST TYPE
POST TYPES II THROUGH IX**
NO SCALE

RSP S2 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN S2 DATED MAY 20, 2011 - PAGE 335 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP S2

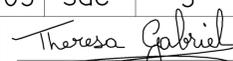
2010 REVISED STANDARD PLAN RSP S2

LEGEND:

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 TAPE
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
TSP	TELEPHONE SERVICE POINT

ABBREVIATIONS

APS	ACCESSIBLE PEDESTRIAN SIGNAL	M/M	MULTIPLE TO MULTIPLE TRANSFORMER
BBS	BATTERY BACKUP SYSTEM	Mtg	MOUNTING
BC	BOLT CIRCLE	MV	MERCURY VAPOR LIGHTING FIXTURE
BPB	BICYCLE PUSH BUTTON	MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
C	CONDUIT	N	NEUTRAL (GROUNDED CONDUCTOR)
CB	CIRCUIT BREAKER	NB	NEUTRAL BUS
CCTV	CLOSED CIRCUIT TELEVISION	NC	NORMALLY CLOSE
Ck+	CIRCUIT	NO	NORMALLY OPEN
CMS	CHANGEABLE MESSAGE SIGN	P	CIRCUIT BREAKER'S POLE
Ctid	CALTRANS IDENTIFICATION	PB	PULL BOX
Comm	COMMUNICATION	PBA	PUSH BUTTON ASSEMBLY
DLC	LOOP DETECTOR LEAD-IN CABLE	PEC	PHOTOELECTRIC CONTROL
EMS	EXTINGUISHABLE MESSAGE SIGN	Ped	PEDESTRIAN
EVUC	EMERGENCY VEHICLE UNIT CABLE	PEU	PHOTOELECTRIC UNIT
EVUD	EMERGENCY VEHICLE UNIT DETECTOR	PT	CONDUIT WITH PULL TAPE
FB	FLASHING BEACON	RE	RELOCATED EQUIPMENT
FBCA	FLASHING BEACON CONTROL ASSEMBLY	RM	RAMP METERING
FBS	FLASHING BEACON WITH SLIP BASE	RWIS	ROADSIDE WEATHER INFORMATION SYSTEM
FO	FIBER OPTIC	SB	SLIP BASE
G	EQUIPMENT GROUNDING CONDUCTOR	SIC	SIGNAL INTERCONNECT CABLE
GB	GROUND BUS	Sig	SIGNAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SMA	SIGNAL MAST ARM
HAR	HIGHWAY ADVISORY RADIO	SNS	STREET NAME SIGN
Hex	HEXAGONAL	SP	SERVICE POINT
HPS	HIGH PRESSURE SODIUM	TDC	TELEPHONE DEMARCATION CABINET
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN	TMS	TRAFFIC MONITORING STATION
ISL	INDUCTION SIGN LIGHTING	TOS	TRAFFIC OPERATIONS SYSTEM
LED	LIGHT EMITTING DIODE	Veh	VEHICLE
LMA	LUMINAIRE MAST ARM	VIVDS	VIDEO IMAGE VEHICLE DETECTION SYSTEM
LPS	LOW PRESSURE SODIUM	WIM	WEIGH-IN-MOTION
Ltg	LIGHTING	Xfmr	TRANSFORMER
Lum	LUMINAIRE		
M	METERED		
MAT	MAST ARM MOUNTING TOP ATTACHMENT		
MAS	MAST ARM MOUNTING SIDE ATTACHMENT		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	56	62
 REGISTERED ELECTRICAL ENGINEER Theresa Aziz Gabriel No. E15129 Exp. 6-30-14 ELECTRICAL STATE OF CALIFORNIA					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
PLANS APPROVAL DATE: July 19, 2013					

TO ACCOMPANY PLANS DATED 6-1-15

SOFFIT AND WALL MOUNTED LUMINAIRES

-  PENDANT, 70 W HPS UNLESS OTHERWISE SPECIFIED
-  FLUSH, 70 W HPS UNLESS OTHERWISE SPECIFIED
-  WALL SURFACE, 70 W HPS UNLESS OTHERWISE SPECIFIED
-  EXISTING SOFFIT OR WALL LUMINAIRE TO REMAIN UNMODIFIED
-  EXISTING SOFFIT OR WALL LUMINAIRE TO BE MODIFIED AS SPECIFIED

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

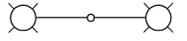
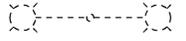
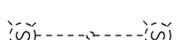
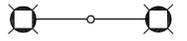
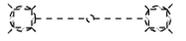
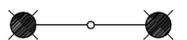
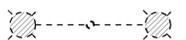
SYMBOL USED	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
V(dc)	VOLT (DIRECT CURRENT)
V(ac)	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
μ	MICRO
P	PICO
HZ	HERTZ

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

- NOTES:**
- HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
 - LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
 - Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

STANDARD ELECTROLIER

NEW	EXISTING	STANDARD TYPE
		15
		15D
		15 STRUCTURE
		15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

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

RSP ES-1A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	57	62

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE

Theresa
 Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 6-1-15

CONDUIT

SIGNAL EQUIPMENT

NEW	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 ATTACHED TO THE STRUCTURE OR SERVICE POLE

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)

SIGNAL EQUIPMENT Cont

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

SERVICE EQUIPMENT

NEW	EXISTING	
---OH---	---oh---	OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

NOTES:

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

POLE-MOUNTED SERVICE DESIGNATION

	TYPE H SERVICE, 28'-10"	TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE
--	-------------------------	--

FLASHING BEACON

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

ILLUMINATED OVERHEAD SIGN

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

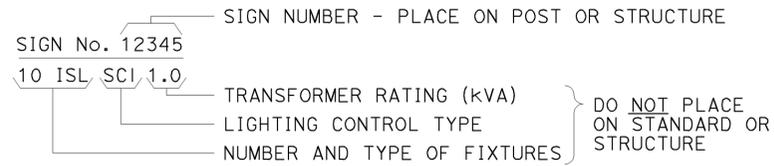
2010 REVISED STANDARD PLAN RSP ES-1B



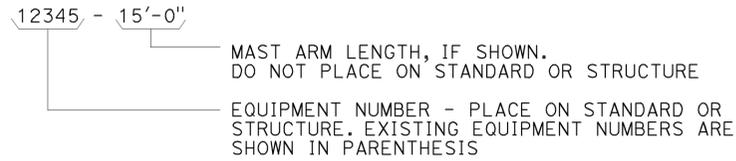
TO ACCOMPANY PLANS DATED 6-1-15

EQUIPMENT IDENTIFICATION

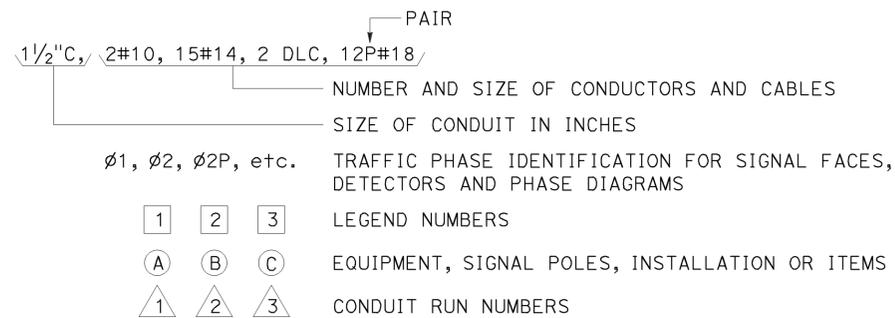
ILLUMINATED SIGN IDENTIFICATION NUMBER:



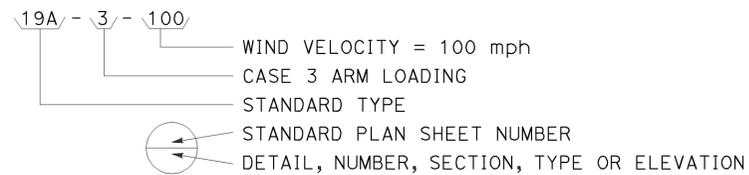
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



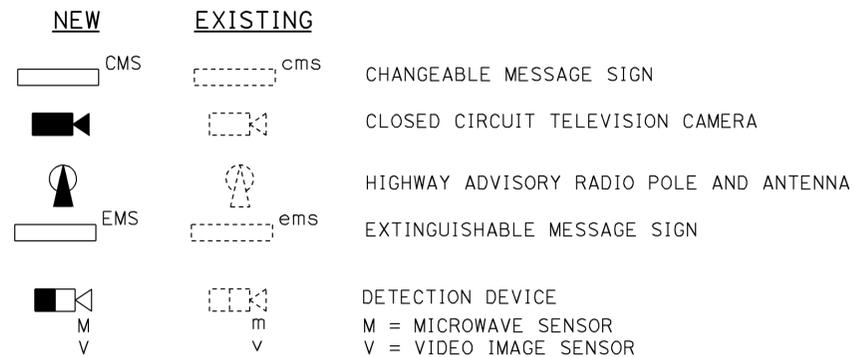
CONDUIT AND CONDUCTOR IDENTIFICATION:



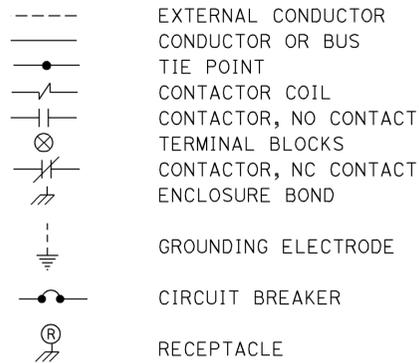
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



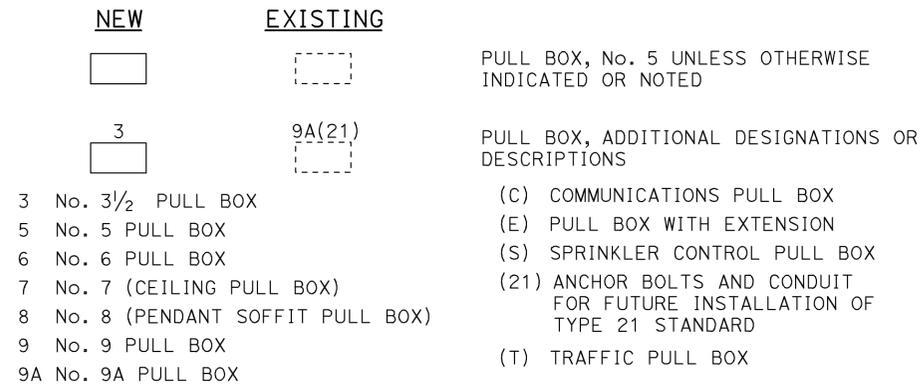
MISCELLANEOUS EQUIPMENT



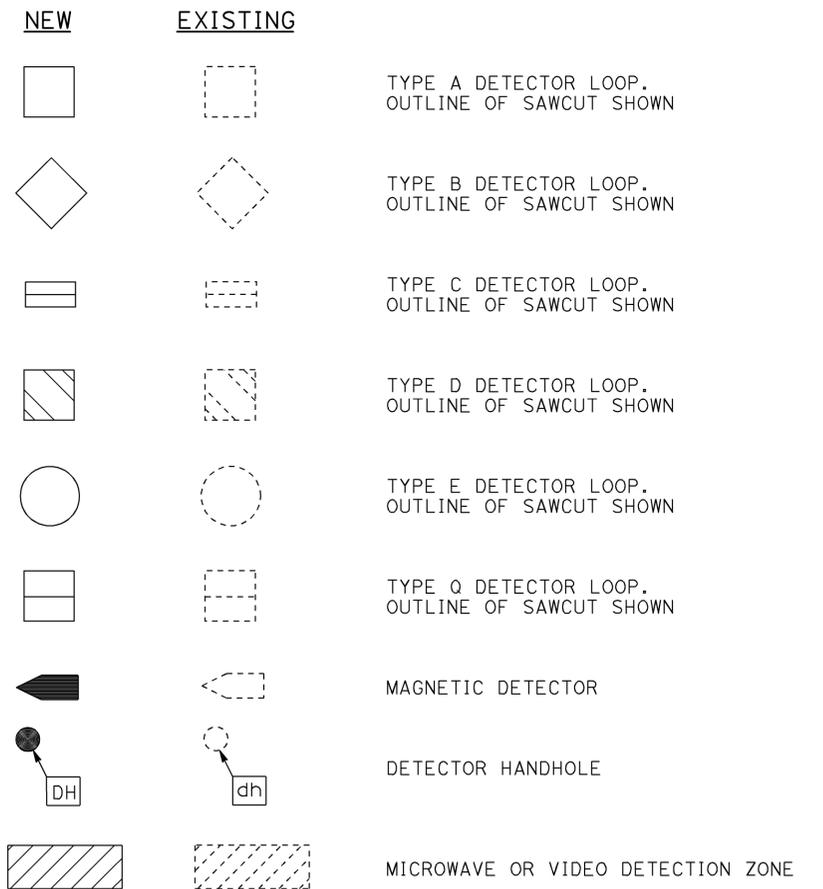
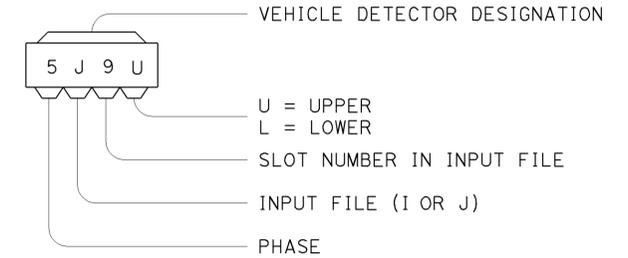
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-1C

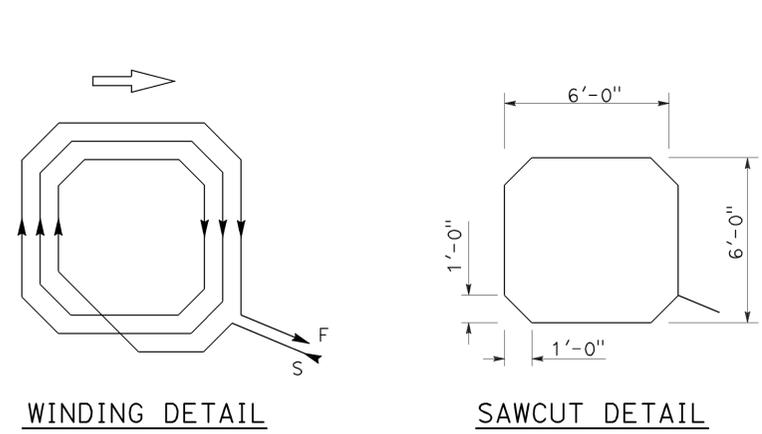
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	59	62

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE

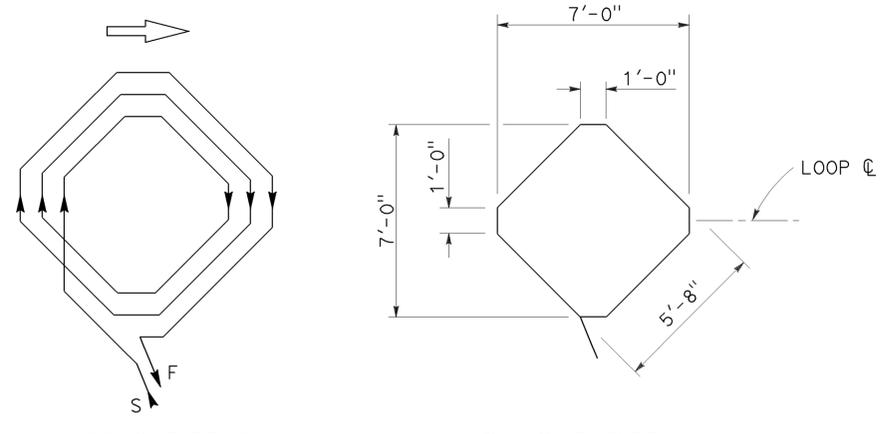
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

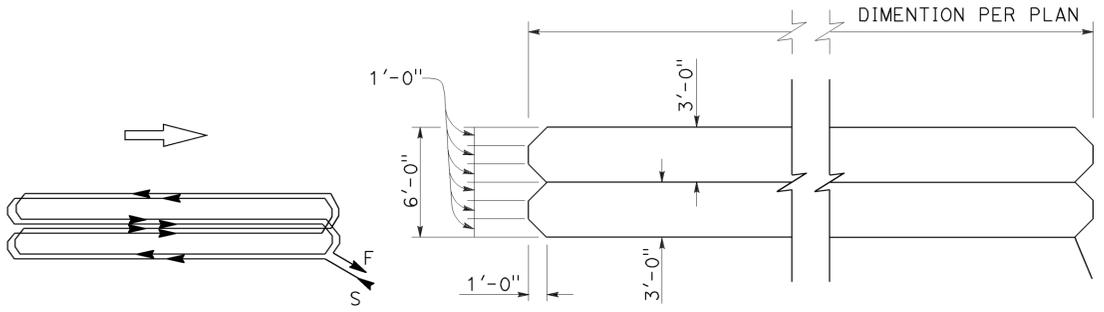
TO ACCOMPANY PLANS DATED 6-1-15



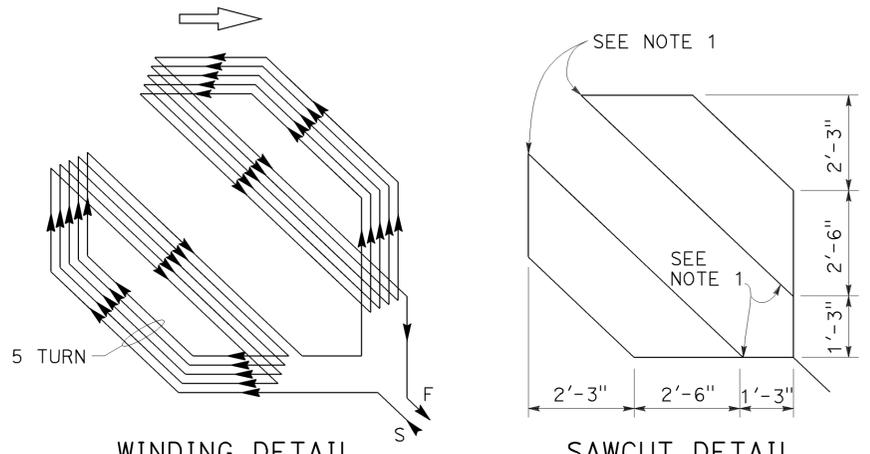
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



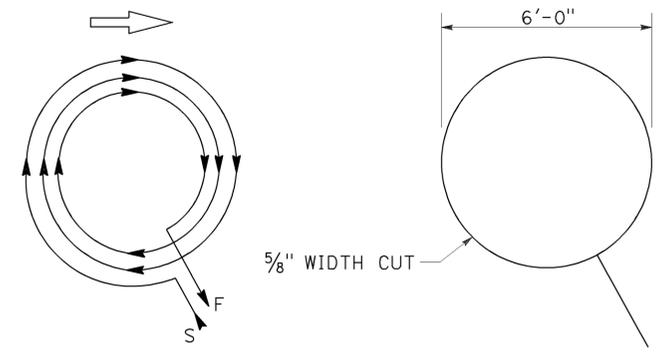
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



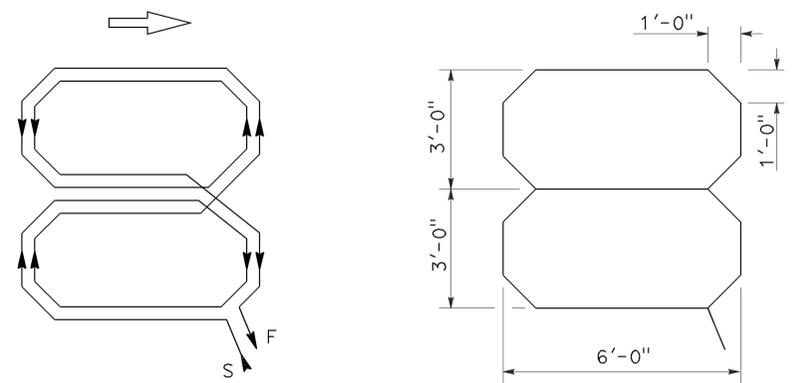
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



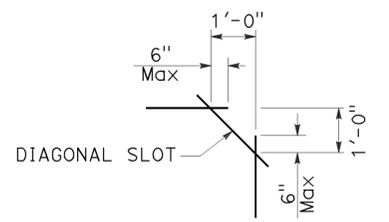
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



**PLAN VIEW OF
DIAGONAL SLOT
AT CORNERS**

- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
 2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(DETECTORS)**

NO SCALE

RSP ES-5B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5B
DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

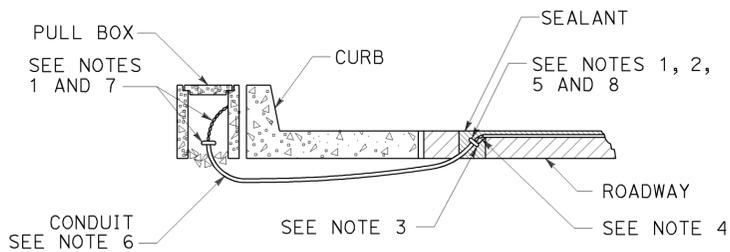
2010 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	60	62

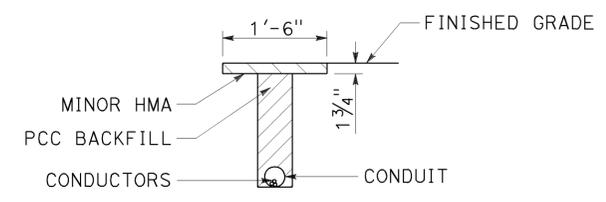
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 6-1-15

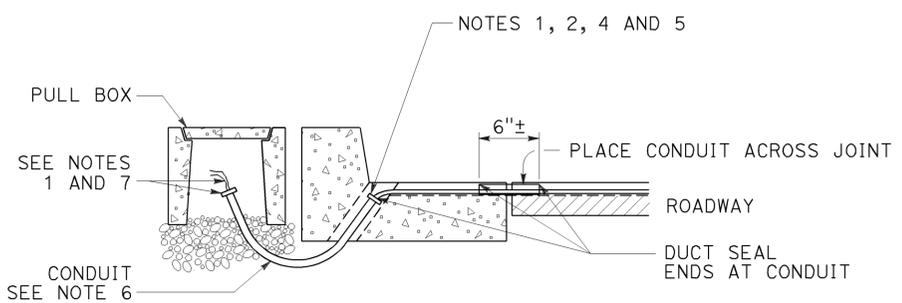


TYPE A
CURB TERMINATION DETAIL

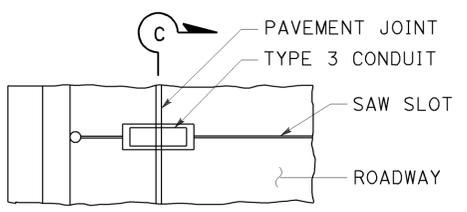


"T" TRENCH
DETAIL T

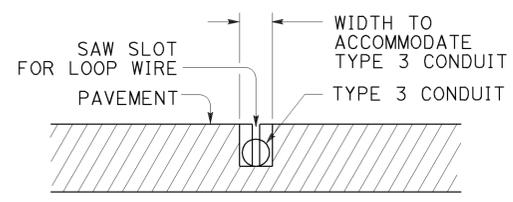
5/16" x 1 1/2" SCREW (BRASS, STAINLESS STEEL OR OTHER NON-CORRODING MATERIAL)



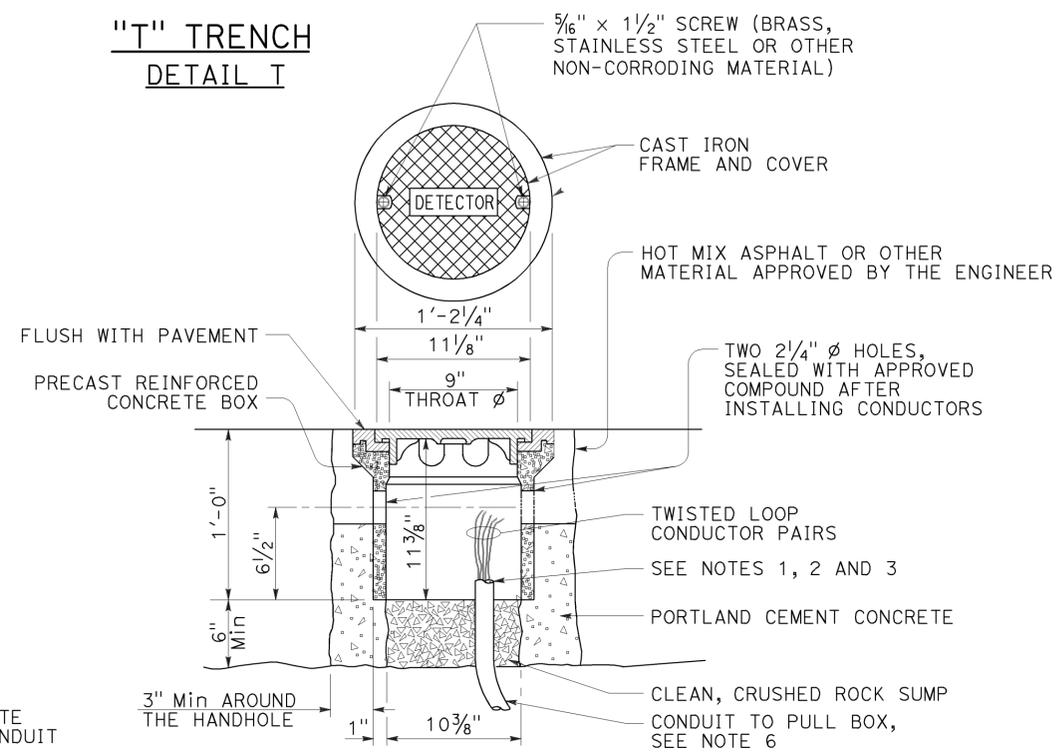
CROSS SECTION



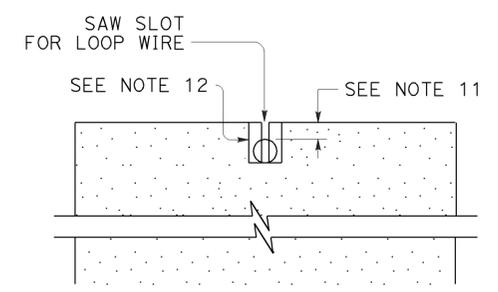
PLAN VIEW



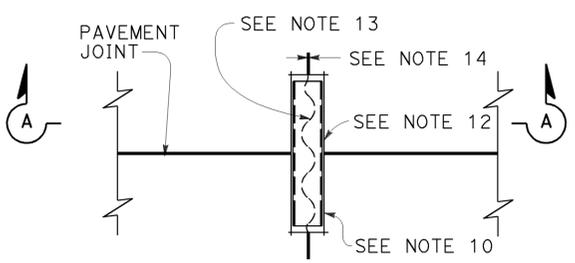
SECTION C-C



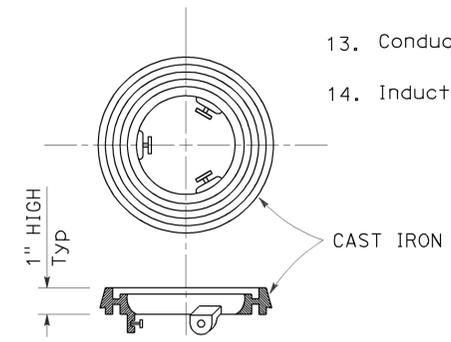
DETECTOR HANDHOLE DETAIL



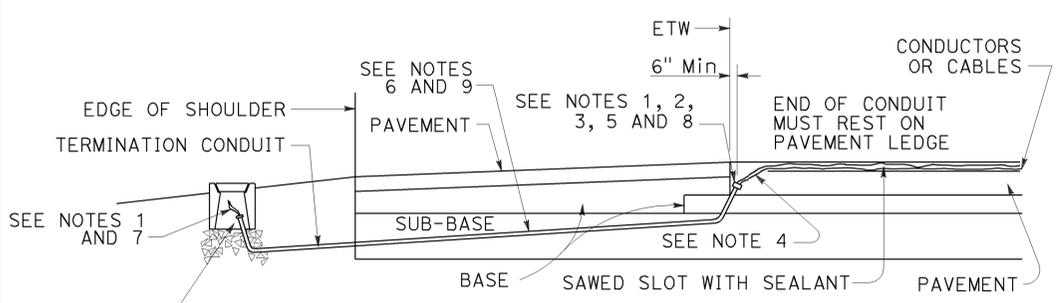
SECTION A-A



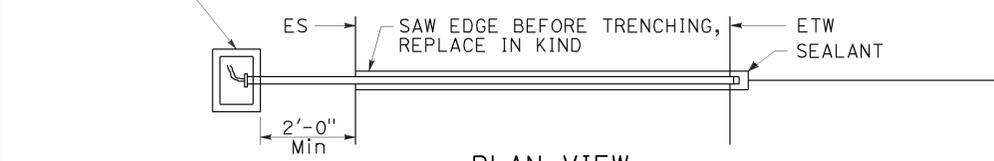
PLAN VIEW
TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT



LOCKING GRADE RING



CROSS SECTION



PLAN VIEW
SHOULDER TERMINATION DETAILS

NOTES:

- Bushing shall be used at end of conduit.
- Tape detector conductors or cables 3" each side of bushings.
- Install duct seal compound to each end of termination conduit before installing sealant.
- Round all sharp edges where detector conductors or cables have to pass.
- End of conduit shall be 3/8" below roadway surface.
- Conduit size Loop conductors
 1"C minimum 1 to 2 pairs
 1 1/2"C minimum 3 to 4 pairs
 2"C minimum 5 or more pairs
- Splice detector conductors or cables to detector lead-in-cable.
- Location of detector handhole when shown on plans.
- When the shoulder and traveled way are paved with the same material and there is no joint between them, the conduit shall extend only 2'-0" into the shoulder pavement.
- 3/4"C, Type 3 conduit 6" long minimum, plug both ends with duct compound to keep out sealant.
- 1/2" Minimum between top of conduit and pavement surface.
- Sawcut shall not exceed 1" in width and 1/8" longer than conduit to be installed.
- Conductors with 1/2" minimum slack inside conduit.
- Inductive loop detector saw slot.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(CURB TERMINATION
AND HANDHOLE)
NO SCALE

RSP ES-5D DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5D DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5D

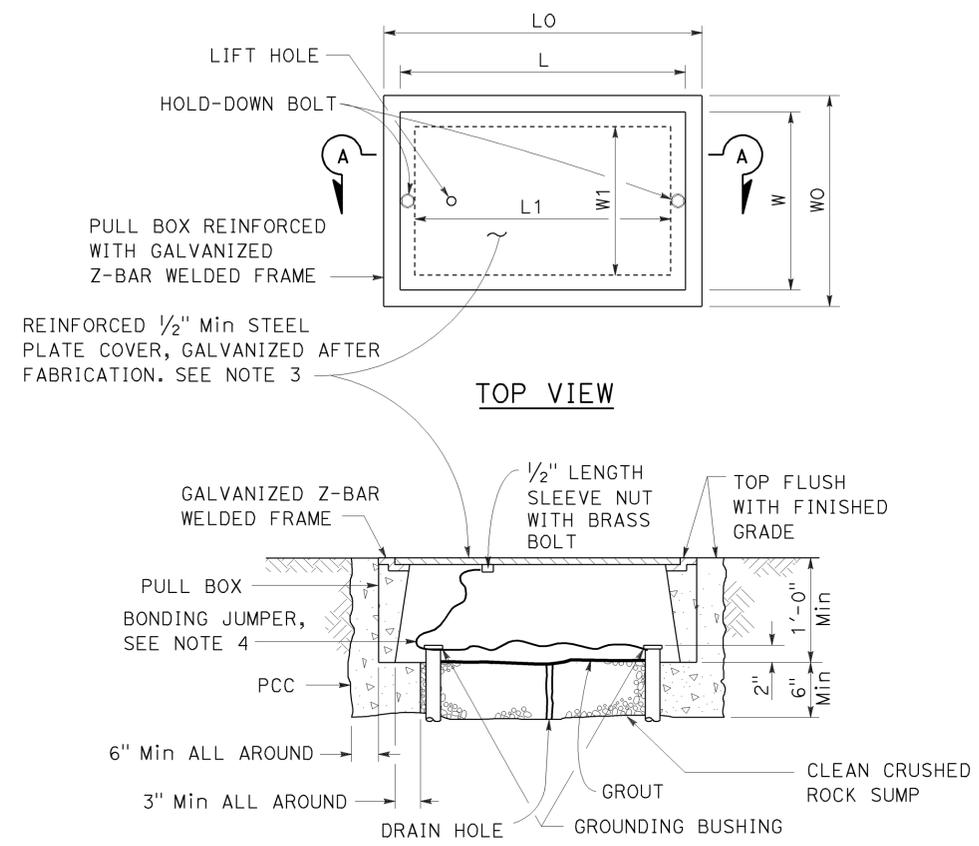
2010 REVISED STANDARD PLAN RSP ES-5D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Sac	5	32.2/32.7	61	62

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 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.

TO ACCOMPANY PLANS DATED 6-1-15



SECTION A-A
**No. 3 1/2(T), No. 5(T) AND
 No. 6(T) TRAFFIC PULL BOX**

NOTES:

- Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
- Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" Sprinkler control circuits, 50 V or less; "CALTRANS" On all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service.
 - No. 3 1/2(T) pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5(T) or 6(T) pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATION" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communications line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8".

PULL BOX	PULL BOX						COVER				
	MINIMUM * THICKNESS	MINIMUM DEPTH BOX AND EXTENSION	W0	L0	L1	W1	L **	W **	R	EDGE THICKNESS	EDGE TAPER
No. 3 1/2(T)	1 1/2"	1'-0"	1'-5"± 1"	1'-8 3/8"±	1'-2 1/2"±	10 5/8"± 1"	1'-8"±	1'-1 3/4"±	0"	1/2"	NONE
No. 5(T)	1 3/4"	1'-0"	1'-11 1/2"± 1"	2'-5 1/2"±	1'-7"±	1'-1"± 1"	2'-3"±	1'-4"±	0"	1/2"	NONE
No. 6(T)	2"	1'-0"	2'-6"± 1"	2'-11 1/2"±	1'-11 1/2"±	1'-5"± 1"	2'-9"±	1'-8"±	0"	1/2"	NONE

* EXCLUDING CONDUIT WEB ** TOP DIMENSION

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

RSP ES-8B DATED JULY 19, 2013 SUPERSEDES RSP ES-8B DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-8B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac	5	32.2/32.7	62	62

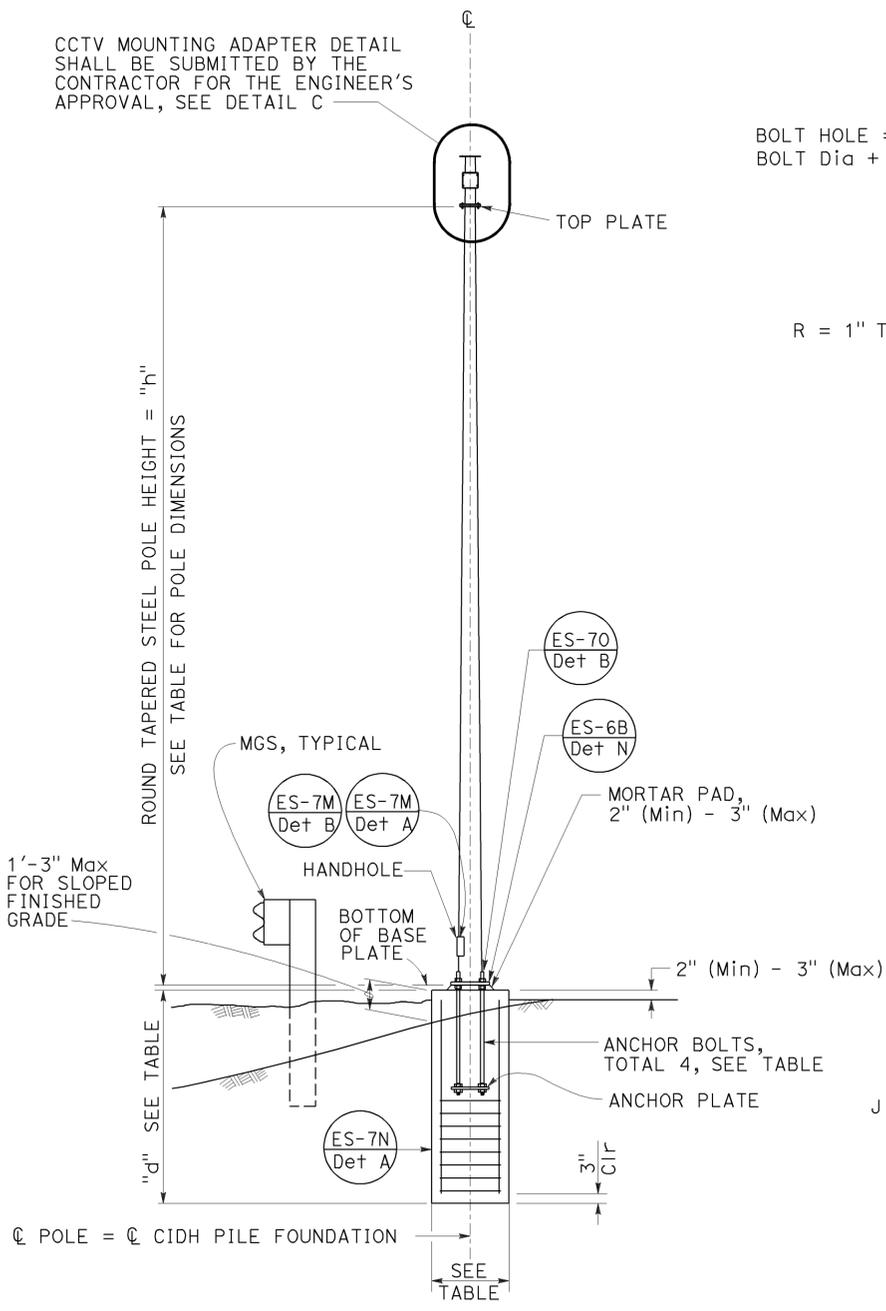
Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 November 15, 2013
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Stanley P. Johnson
 No. C57793
 Exp. 3-31-14
 CIVIL
 STATE OF CALIFORNIA

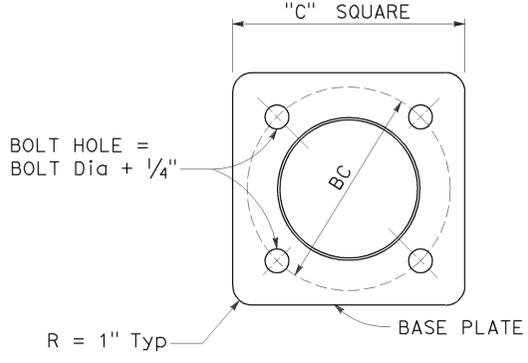
POLE TYPE	POLE DATA			BASE PLATE DATA				CIDH		
	HEIGHT "h"	Min OD		THICKNESS	"c"	THICKNESS	ANCHOR BOLT SIZE	BC = BOLT CIRCLE	Dia	"d"
		BASE	TOP							
CCTV 25	25'	7 ³ / ₈ "	3 ³ / ₄ "	0.1793"	1'-1"	1"	1/2" ϕ x 36"	11 ¹ / ₂ "	2'-6"	7'-0"
CCTV 30	30'	8"			1'-1 ¹ / ₂ "			1'-0"		7'-6"
CCTV 35	35'	8 ⁵ / ₈ "			1'-2"			1'-1"		8'-0"
CCTV 40	40'	9 ³ / ₈ "			1'-1 ¹ / ₂ "			1'-1 ¹ / ₂ "		8'-0"
CCTV 45	45'	10"			1'-3"			1'-2"		8'-6"

TO ACCOMPANY PLANS DATED 6-1-15

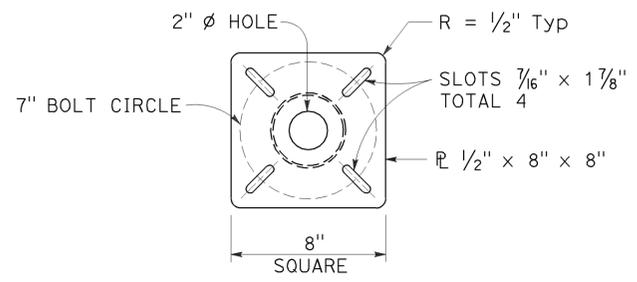
CCTV MOUNTING ADAPTER DETAIL SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE ENGINEER'S APPROVAL, SEE DETAIL C



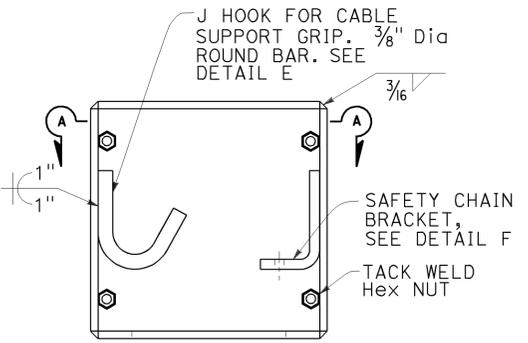
ELEVATION A



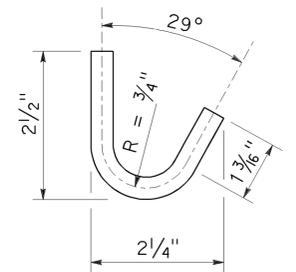
BASE PLATE
DETAIL A



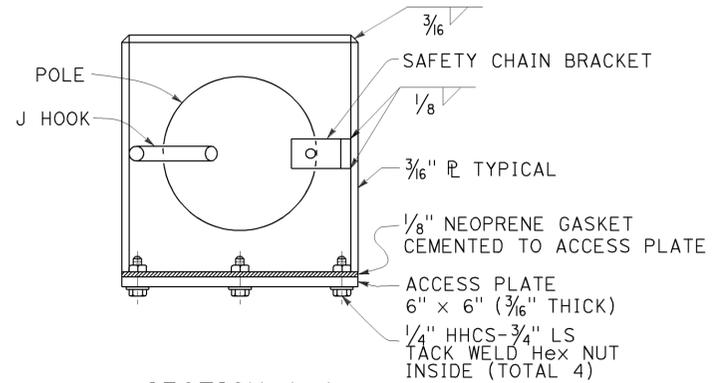
TOP PLATE
DETAIL B



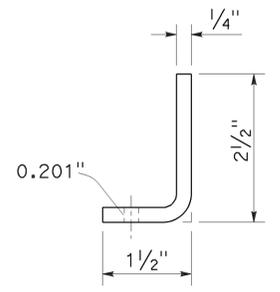
BOX ENCLOSURE
DETAIL D



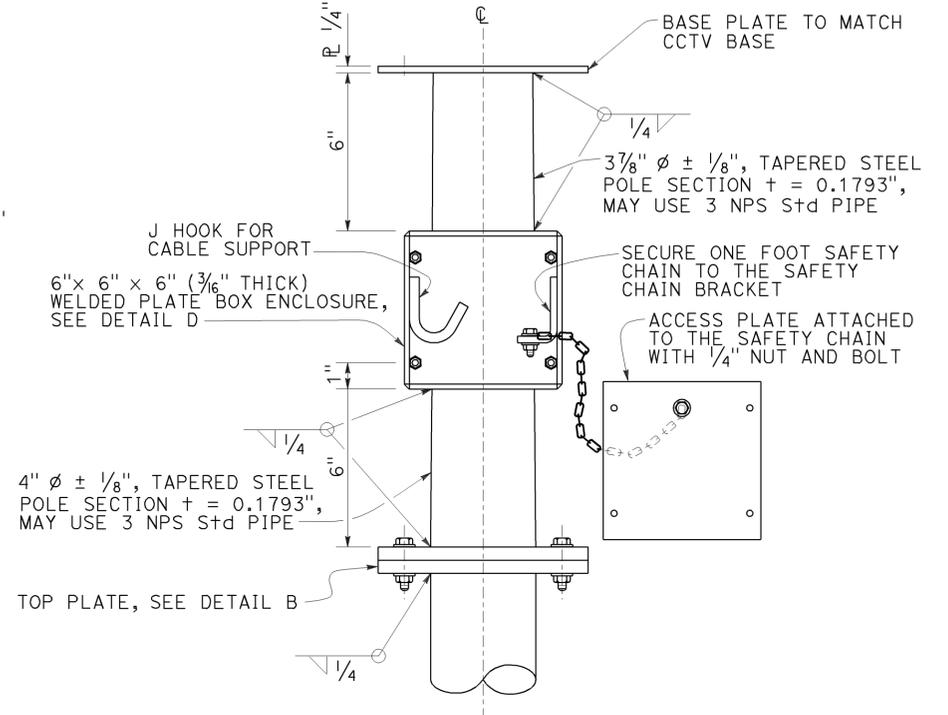
J HOOK
DETAIL E



SECTION A-A



SAFETY CHAIN BRACKET
DETAIL F



CLOSED CIRCUIT TELEVISION MOUNTING ADAPTER
DETAIL C

NOTES:

- The Contractor shall verify controlling field dimensions before ordering or fabricating any material.
- During pole installation, the post shall be raked as necessary with the use of leveling nuts to provide a plumb pole axis.
- Wind Loadings (3-second gust): 100 mph
- Unit Stresses (Structural Steel):
 - fy = 55,000 psi (tapered steel tube and anchor bolts)
 - fy = 50,000 psi (unless otherwise noted)
- Unit Stresses (Reinforced Concrete):
 - f'c = 3,625 psi
 - fy = 60,000 psi

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(CLOSED CIRCUIT TELEVISION,
25' TO 45' POLE)**
NO SCALE

RSP ES-16B DATED NOVEMBER 15, 2013 SUPERSEDES STANDARD PLAN ES-16B DATED MAY 20, 2011 - PAGE 501 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-16B

2010 REVISED STANDARD PLAN RSP ES-16B