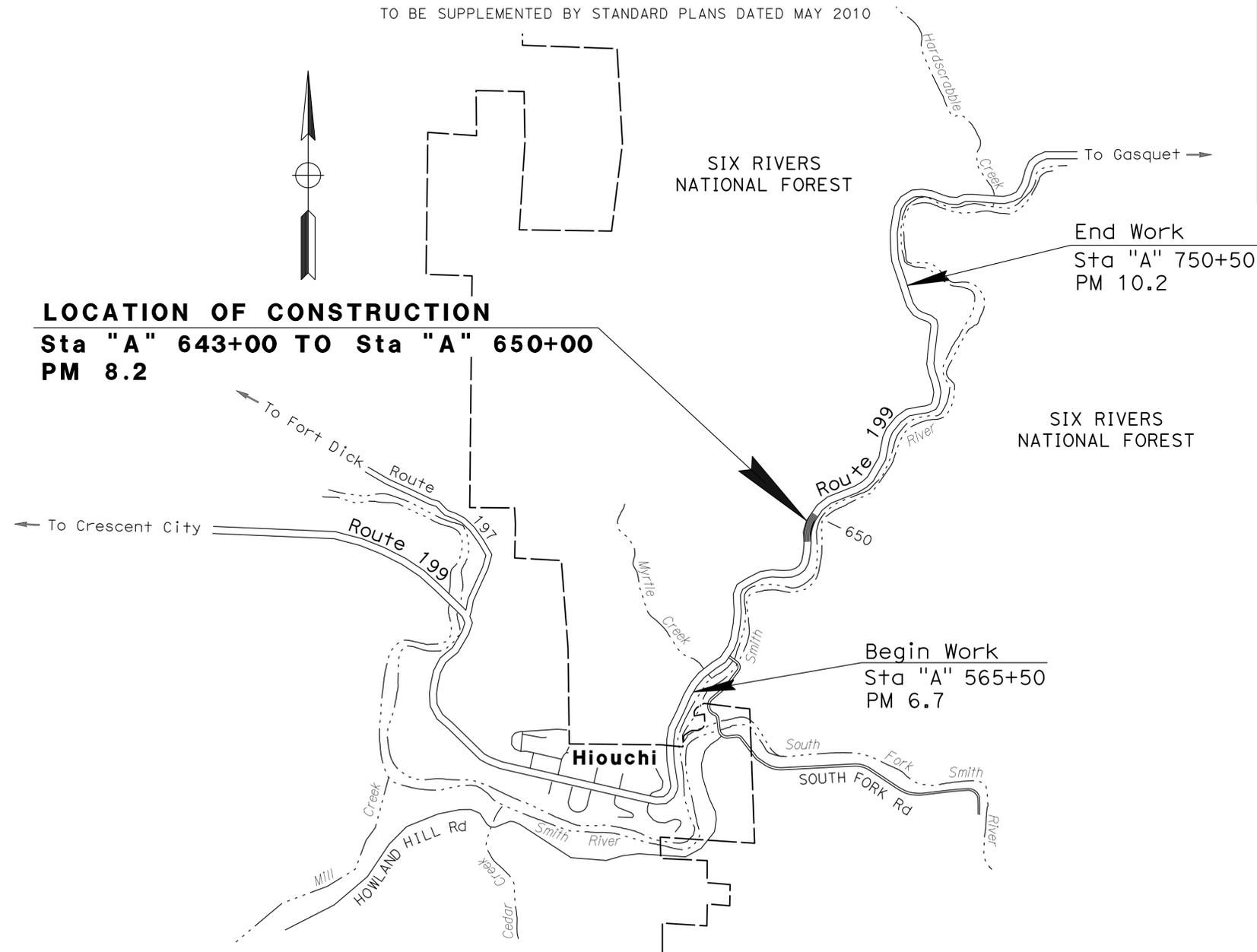
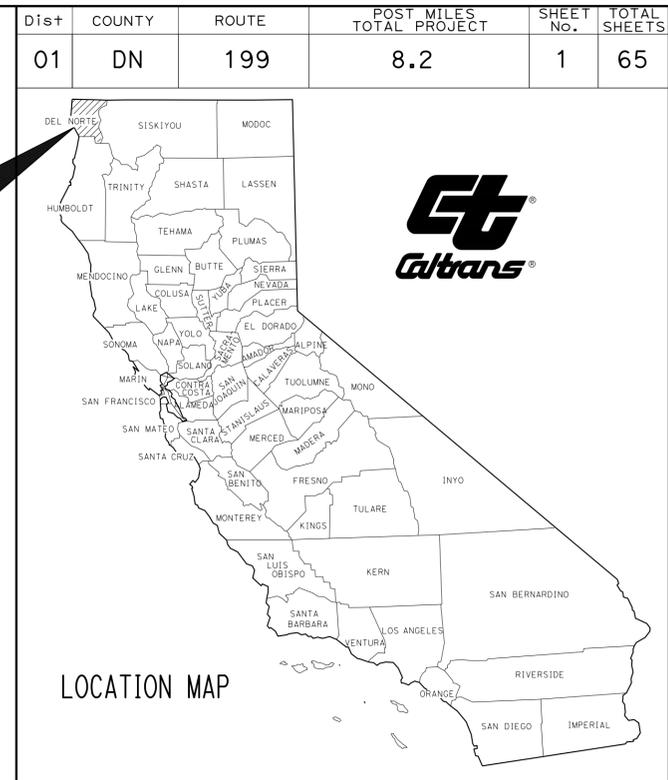


INDEX OF PLANS	
SHEET No	DESCRIPTION
1	TITLE AND LOCATION MAP
2-4	TYPICAL CROSS SECTIONS
5	LAYOUTS
6	CONSTRUCTION DETAILS
7	CONSTRUCTION AREA SIGNS
8-9	TRAFFIC HANDLING PLANS, DETAILS AND QUANTITIES
10	SUMMARY OF QUANTITIES
11-12	EROSION CONTROL PLANS, DETAILS AND QUANTITIES
13-16	SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS PLANS AND DETAILS
17-43	REVISED STANDARD PLANS
STRUCTURE PLANS	
44-65	SMITH RIVER CANYON SIDEHILL VIADUCT

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

STATE OF CALIFORNIA ACHSNH-P199(034)E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN DEL NORTE COUNTY
NEAR HIOUCHI
AT 1 MILE NORTH OF SOUTH FORK ROAD



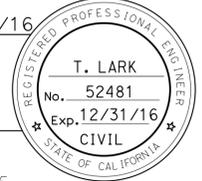
PROJECT MANAGER
TROY ARSENEAU

DESIGN ENGINEER
L. R. ASHLEY

T. Lark 03/16/16
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER

March 14, 2016
 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.



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

NO SCALE

DATE PLOTTED => 18-AUG-2016 TIME PLOTTED => 11:10

NOTES:

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATIONS ARE SHOWN ON THE SUPERELEVATION DIAGRAMS.
- FOR LOCATIONS OF GUARDRAIL, SEE LAYOUT AND SUMMARY OF QUANTITY SHEETS.

ABBREVIATIONS:

- SR = SUPERELEVATION RATE
 HMA-O = HOT MIX ASPHALT-OPEN GRADED (OPEN GRADED FRICTION COURSE)

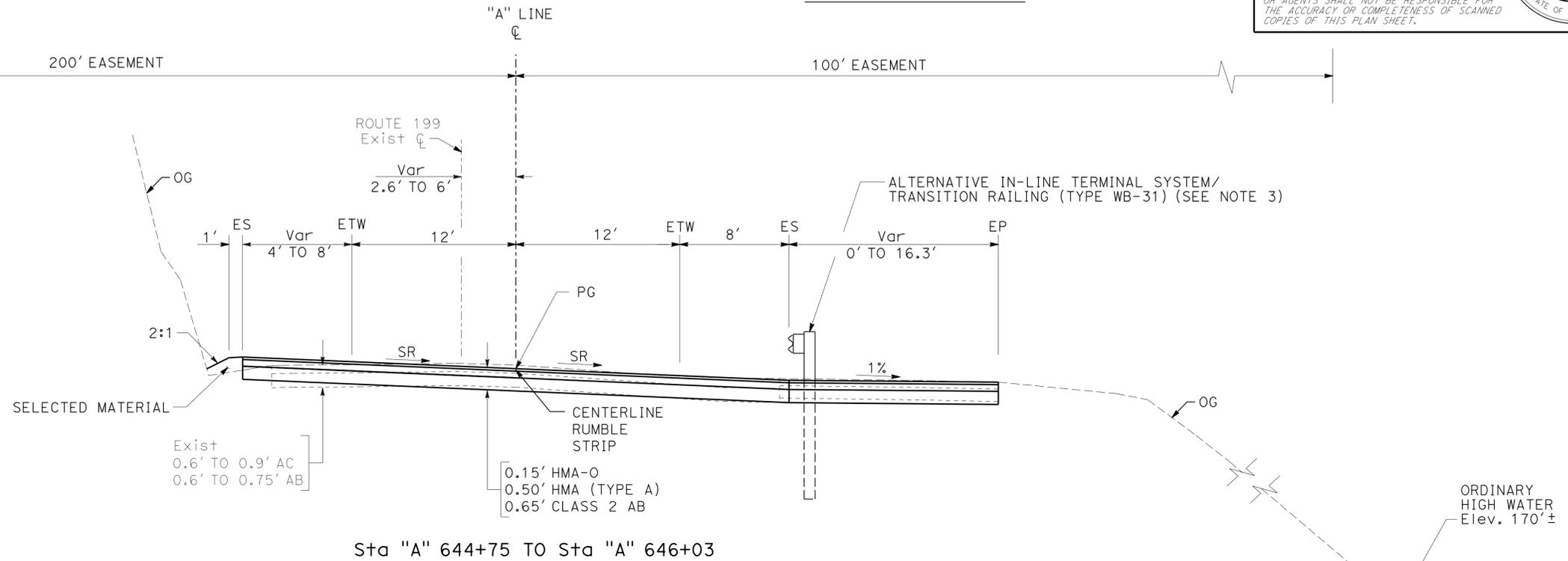
DESIGN DESIGNATION

ADT (2018)	4,390	D	60%
ADT (2038)	5,420	T	12%
DHV	620	V	55 mph
ESAL	2,424,000	TI ₂₀	10.0

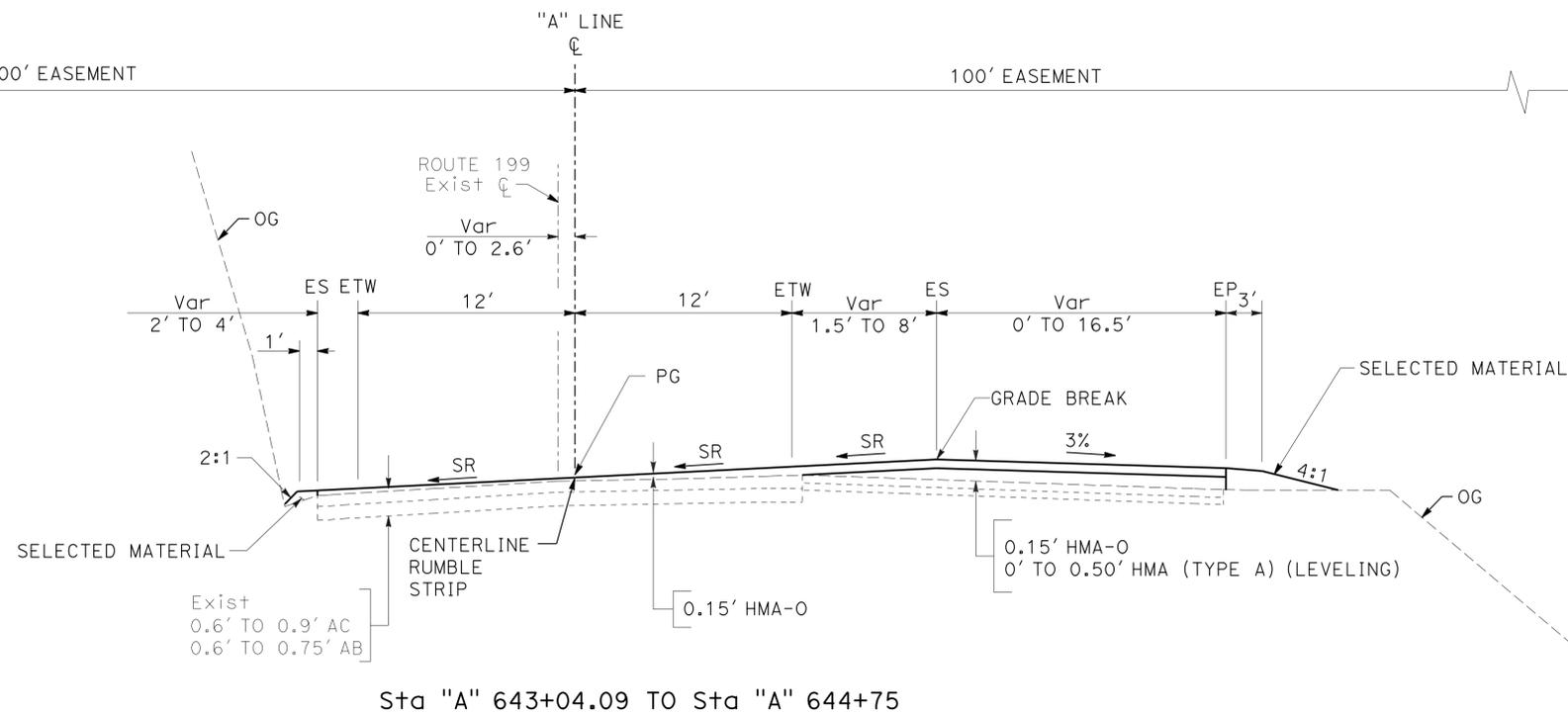
PAVEMENT CLIMATE REGION: NORTH COAST

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	2	65

REGISTERED CIVIL ENGINEER DATE 03/16/16
 T. LARK No. 52481 Exp. 2/31/16
 CIVIL
 March 14, 2016
 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.



Sta "A" 644+75 TO Sta "A" 646+03



Sta "A" 643+04.09 TO Sta "A" 644+75

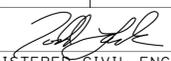
TYPICAL CROSS SECTIONS X-1

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans®
 DESIGN
 L.R. ASHLEY
 TODD LARK
 BIJAN SAMRAD
 REVISIONS: [Table with columns for REVISION BY and DATE]

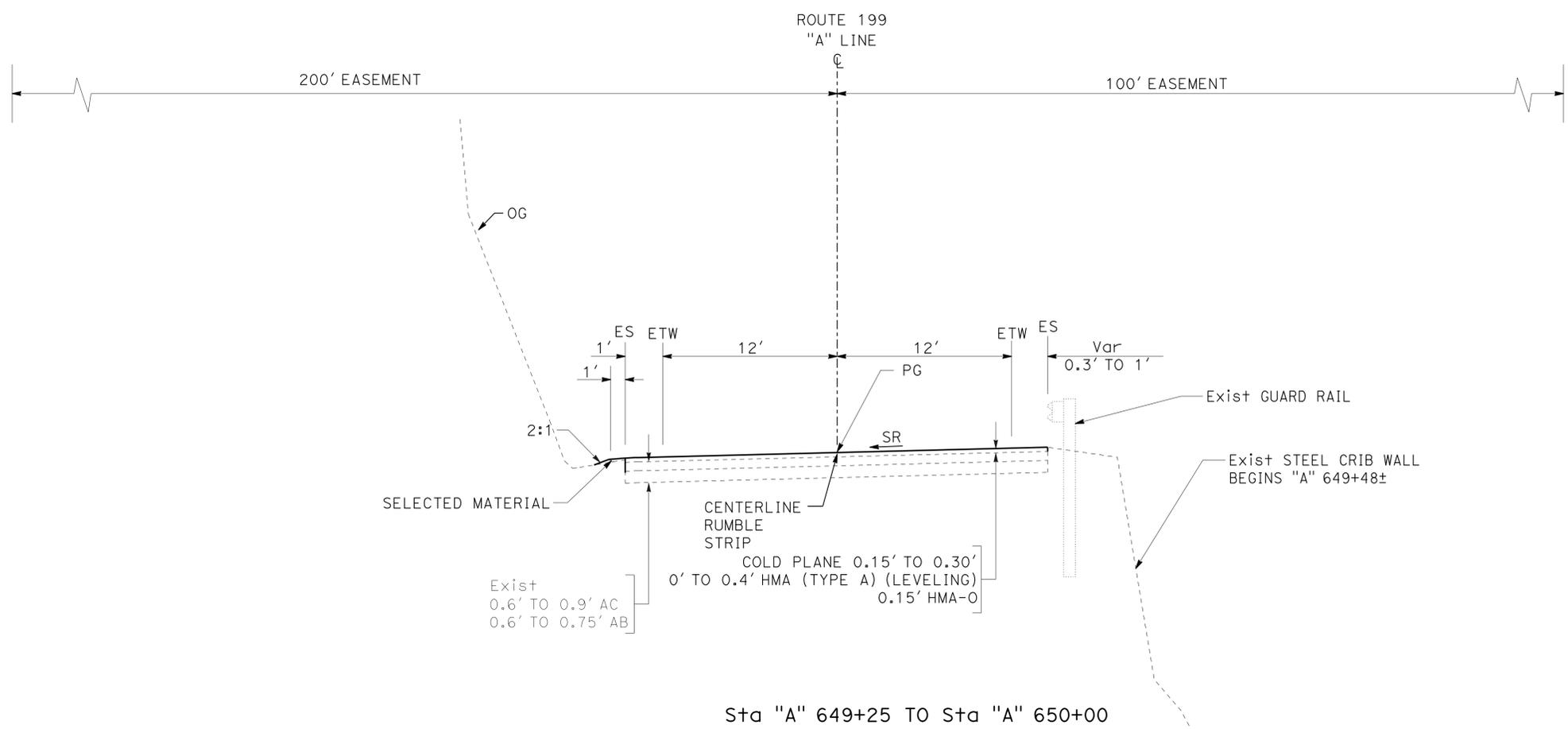
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	4	65

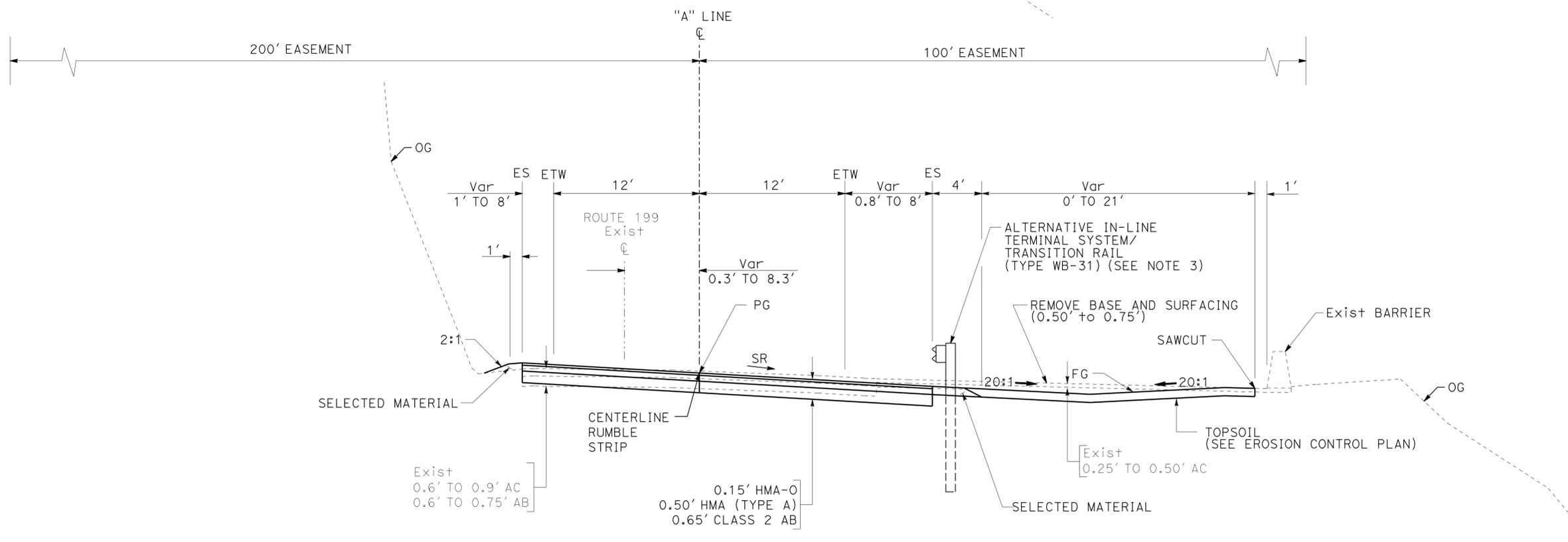
 REGISTERED CIVIL ENGINEER DATE 03/16/16	
March 14, 2016 PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER No. 52481 Exp. 12/31/16 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.



Sta "A" 649+25 TO Sta "A" 650+00



Sta "A" 648+24.5 TO Sta "A" 649+25

TYPICAL CROSS SECTIONS
X-3

NO SCALE

P:\PROJ\01\08260\drat\ing\01-08260\01-082601\01120001501ca003.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 Caltrans®
 L.R. ASHLEY
 TODD LARK
 BIJAN SAMRAD
 REVISOR BY DATE
 CHECKED BY
 DESIGNED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Et Caltrans
 FUNCTIONAL SUPERVISOR: L.R. ASHLEY
 DESIGN
 CALCULATED/DESIGNED BY: TODD LARK
 CHECKED BY: BIJAN SAMRAD
 REVISIONS: REVISOR: TODD LARK, DATE: 03/16/16
 REVISOR: BIJAN SAMRAD, DATE: 03/16/16

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- ALL ELEVATIONS ARE BASED ON NAVD 1988.

LEGEND:

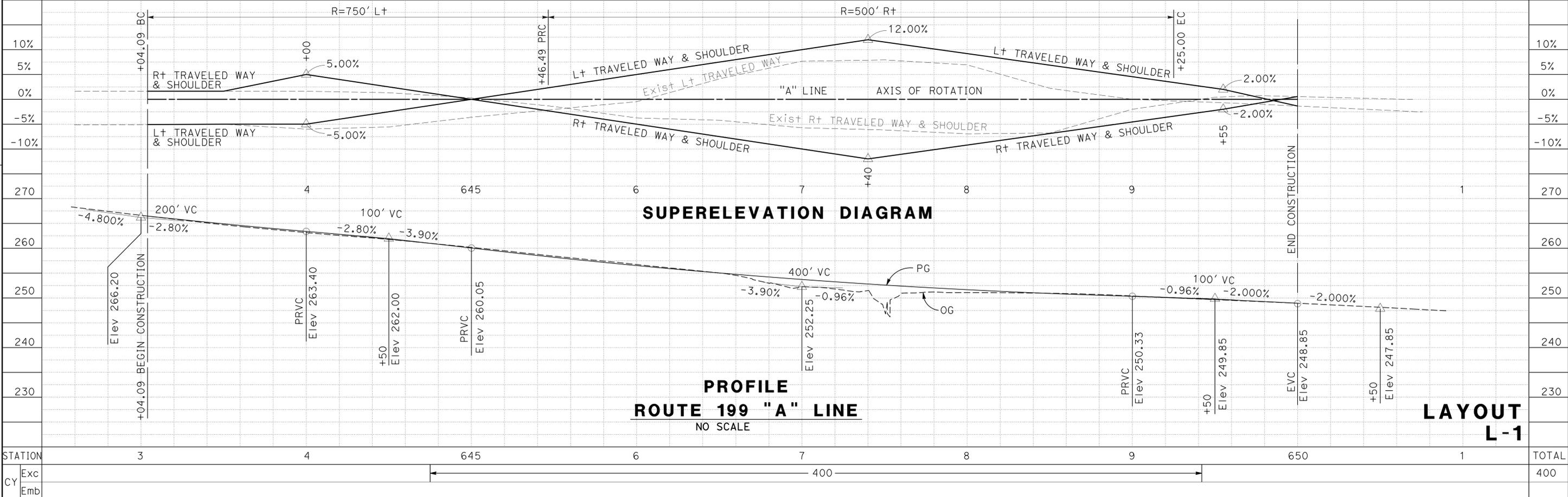
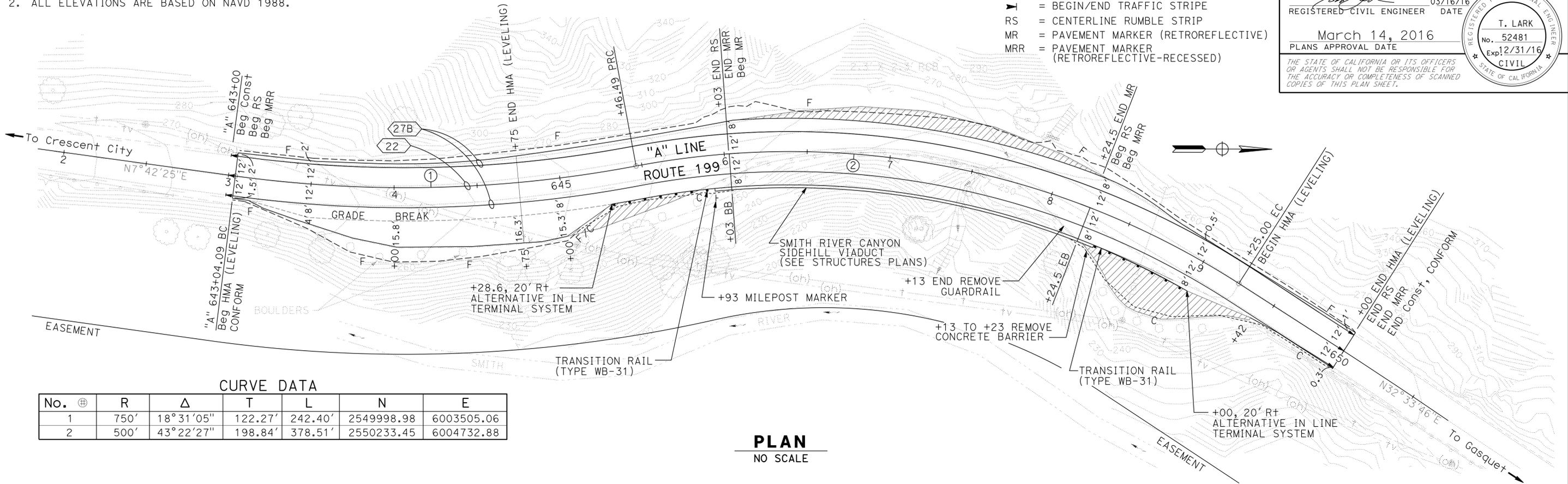
- = REMOVE BASE AND SURFACING
- = TRAFFIC STRIPE DETAIL No.
- = BEGIN/END TRAFFIC STRIPE
- RS = CENTERLINE RUMBLE STRIP
- MR = PAVEMENT MARKER (RETROREFLECTIVE)
- MRR = PAVEMENT MARKER (RETROREFLECTIVE-RECESSED)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	5	65

REGISTERED CIVIL ENGINEER T. LARK
 No. 52481
 Exp. 12/31/16
 CIVIL

03/16/16 DATE
 March 14, 2016 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.



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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 L.R. ASHLEY
 L.R. ASHLEY
 TODD LARK
 TODD LARK
 BIJAN SAMRAD
 BIJAN SAMRAD
 REVISOR
 REVISOR
 DATE
 DATE
 REVISION
 REVISION
 DATE
 DATE

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

TYPE	SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS
A	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	108" x 42"	2 - 6" x 6"	2
B	ROAD WORK AHEAD	36" x 36"	WOOD POLE	2
C	BIKES MAY USE FULL LANE	30" x 30"	1 - 4" x 6"	2
D	ONE LANE ROAD AHEAD	36" x 36"	WOOD POLE	2
E	SIGNAL AHEAD SYMBOL	36" x 36"	WOOD POLE	2
F	STOP HERE ON RED	24" x 36"	1 - 4" x 6"	2
G	REVERSE CURVE SIGN	36" x 36"	1 - 4" x 6"	1
H	END ROAD WORK	36" x 18"	1 - 4" x 4"	2

NOTES:

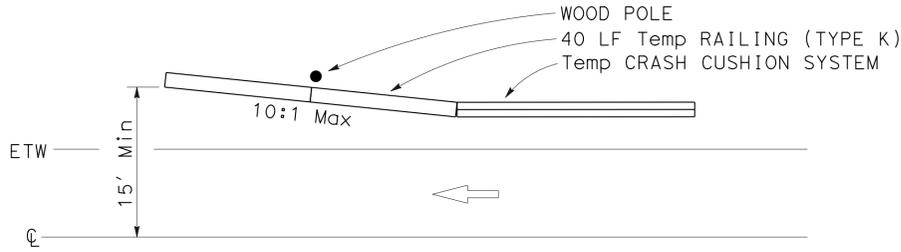
- EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
- (CA) DESIGNATES CALIFORNIA SIGN CODES.
- SEE SHEET TH-1 FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
- FOR SIGNS WITH FLASHING BEACON, PLACE SIGN ON WOOD POLE. (SEE ELECTRICAL PLANS)

LEGEND:

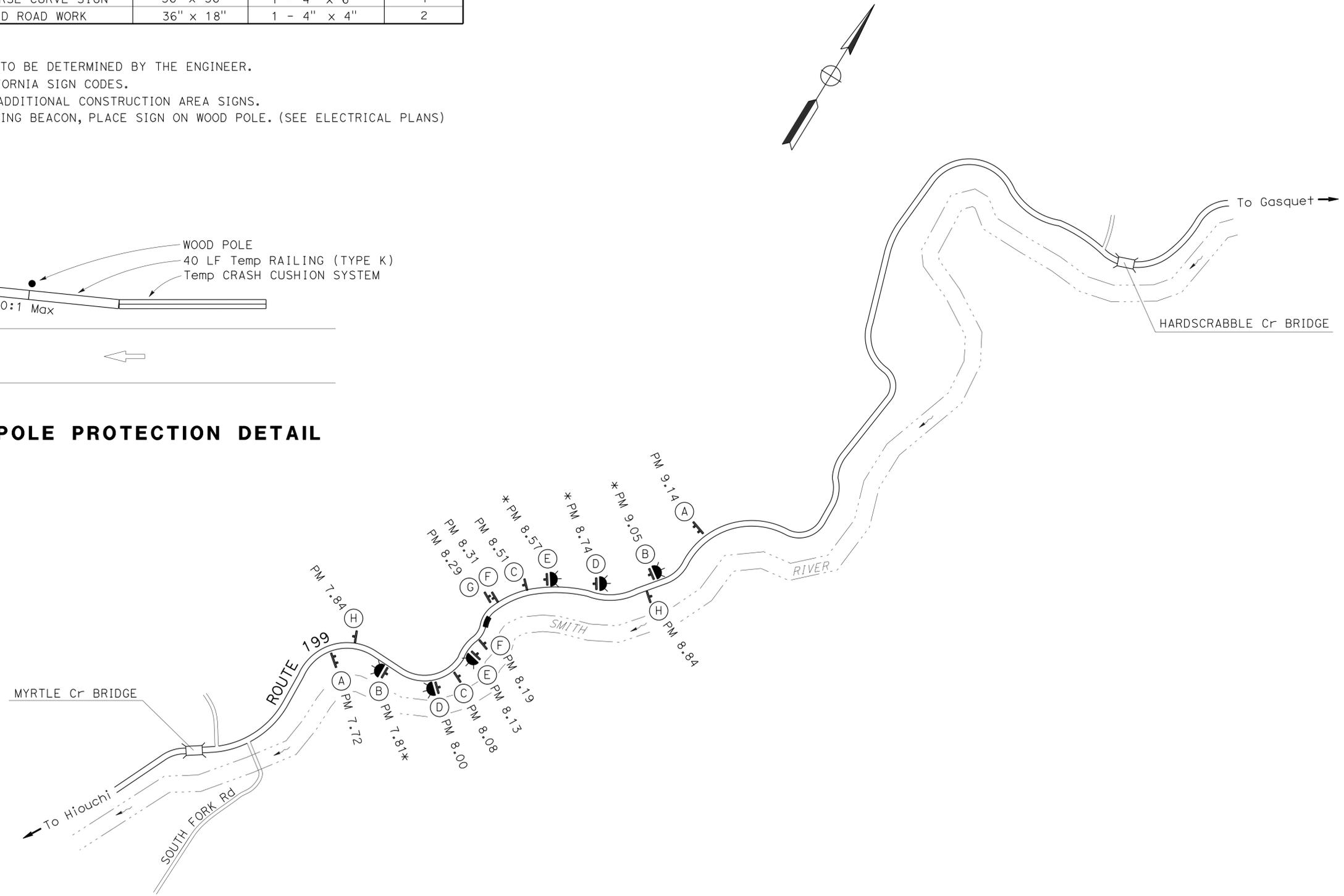
-  FLASHING BEACON (SEE ELECTRICAL PLANS)
- * WOOD POLE REQUIRES PROTECTION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	7	65

REGISTERED CIVIL ENGINEER DATE 03/16/16
 T. LARK
 No. 52481
 Exp! 2/31/16
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER
 March 14, 2016
 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.



WOOD POLE PROTECTION DETAIL



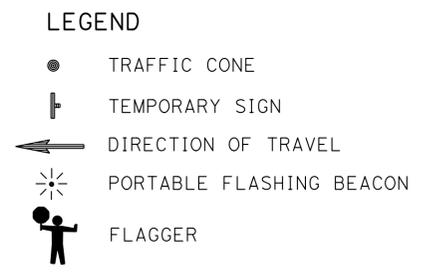
CONSTRUCTION AREA SIGNS CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

NO SCALE

P:\PROJ\01\08260\dratf\ing\01-08260\01-082601\01120001501md002.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC OPS
 FUNCTIONAL SUPERVISOR RICHARD MULLEN
 CALCULATED/DESIGNED BY CHECKED BY TROY A. ARSENEAU
 SHERI M. RODRIGUEZ
 REVISED BY DATE REVISED
 SHERI M. RODRIGUEZ

- NOTES:**
- CALIFORNIA CODES ARE DESIGNATED BY (CA). OTHERWISE, FEDERAL (MUTCD) CODES ARE SHOWN.
 - ALL SIGNS SHALL HAVE A BLACK LEGEND ON FLUORESCENT ORANGE BACKGROUND AND SHALL BE EQUIPPED WITH AT LEAST TWO 16" x 16" ORANGE FLAGS FOR DAYTIME CLOSURE OR FLASHING BEACONS FOR LANE CLOSURE DURING HOURS OF DARKNESS.
 - ALL CONES USED FOR LANE CLOSURES DURING THE HOURS OF DARKNESS SHALL BE FITTED WITH RETROREFLECTIVE BANDS OR SLEEVES.
 - WHEN A PILOT CAR IS USED, PLACE A C37 (CA) SIGN AT ALL INTERSECTIONS WITHIN TRAFFIC CONTROL AREA. WHERE VEHICULAR TRAFFIC CAN NOT EFFECTIVELY SELF-REGULATE, AT LEAST ONE FLAGGER SHALL BE USED AT EACH INTERSECTION WITHIN THE TRAFFIC CONTROL AREA.
 - FLAGGER SHOULD STAND IN A CONSPICUOUS PLACE, FACING TRAFFIC AT ALL TIMES, BE VISIBLE TO APPROACHING TRAFFIC AS WELL AS APPROACHING VEHICLES AFTER THE FIRST VEHICLE HAS STOPPED.
 - ADDITIONAL ADVANCE FLAGGERS ARE REQUIRED DURING HOURS OF DAYLIGHT. A FULL MATRIC PCMS IN PLACE OF EACH ADVANCE FLAGGER REQUIRED DURING HOURS OF DARKNESS.
 - WHEN FLAGGER IS NOT VISIBLE FROM THIS LOCATION PLACE A C29 (CA) SIGN BELOW THE C9A (CA) SIGN.



SIGN PANEL SIZE (MINIMUM)

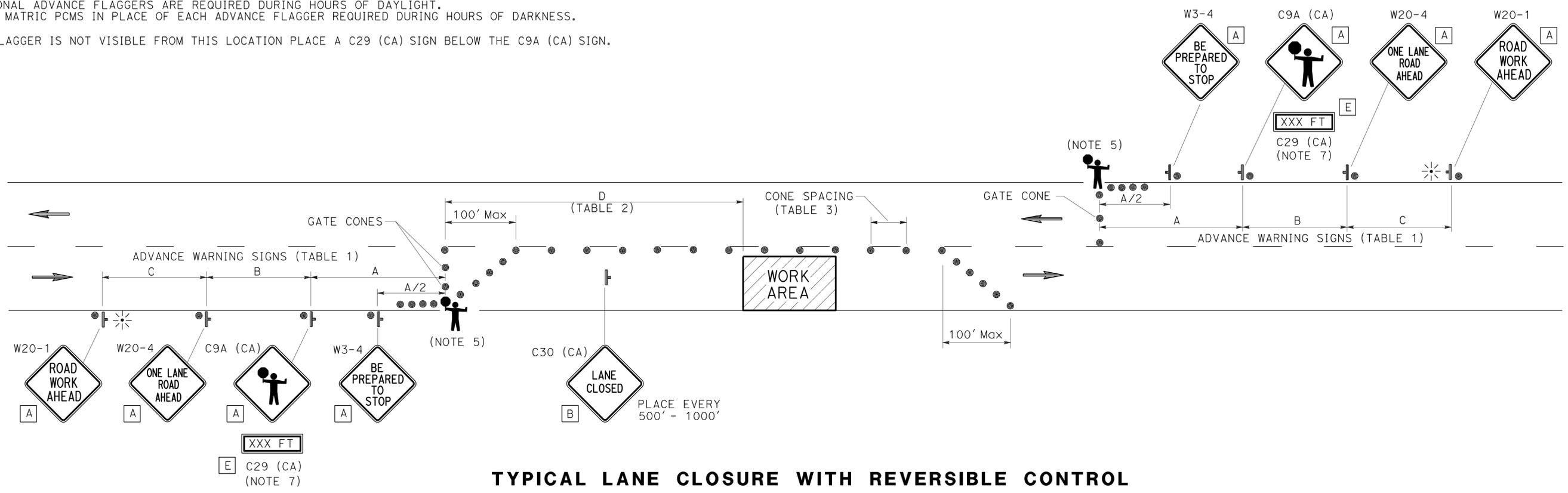
A	48" x 48" - SPEED OF 45 mph OR MORE 36" x 36" - SPEED LESS THAN 45 mph
B	30" x 30"
C	UNUSED
D	UNUSED
E	20" x 7"

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	9	65

Sheri M. Rodriguez 11-13-15
 REGISTERED CIVIL ENGINEER DATE
 March 14, 2016
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 SHERI M. RODRIGUEZ
 No. C66861
 Exp. 9-30-16
 CIVIL
 STATE OF CALIFORNIA



TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TABLE 1
ADVANCE WARNING SIGN SPACING

ROAD TYPE	Min A	Min B	Min C
	ft		
URBAN (25 mph OR LESS)	100	100	100
URBAN (30 mph TO 40 mph)	250	250	250
URBAN (MORE THAN 40 mph)	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

TABLE 2
BUFFER SPACE

APPROACH SPEED	Min D	DOWNGRADE Min D		
		-3%*	-6%*	-9%*
mph	ft			
25 & BELOW	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

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

TABLE 3
Max CONE SPACING

POSTED SPEED	TAPER	TANGENT	CONFLICT*
			ft
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	55	110	27
60	60	120	30
65	65	130	32

* USE WHERE THERE IS A CONFLICT BETWEEN EXISTING PAVEMENT MARKINGS AND CHANNELIZERS.

APPROVED FOR TRAFFIC HANDLING WORK ONLY

NO SCALE

TRAFFIC HANDLING PLAN TH-2

(N) = NOT A PAY ITEM, FOR INFORMATION ONLY

ROADWAY

LOCATION (STATION)		COLD PLANE AC PAVEMENT	REMOVE BASE AND SURFACING	ROADWAY EXCAVATION	CLASS 2 AGGREGATE BASE (CY)	HMA (TYPE A)	HOT MIX ASPHALT OPEN GRADED (OPEN GRADED FRICTION COURSE)	HMA (LEVELING)	TACK COAT	SELECTED MATERIAL (N)	REMARKS
FROM	TO	SQYD	CY	CY	CY	TON	TON	TON	TON	CY	
"A" 643+04	"A" 644+75	90					75	200	0.5	55	
"A" 644+75	"A" 649+25			400	340	520	140		0.9	90	
"A" 645+00 R+	"A" 645+90 R+		15								
"A" 645+10 L+	"A" 648+25 L+		45								
"A" 648+25 R+	"A" 649+42 R+		50								
"A" 649+25	"A" 650+00	220					20	22	0.1	5	OGFC OVERLAY
TOTAL		310	110	400	340	520	235	222	1.5	150	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	10	65

03/16/16
 REGISTERED CIVIL ENGINEER DATE
 T. LARK
 No. 52481
 Exp! 2/31/16
 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.

TRAFFIC HANDLING AND TEMPORARY PAVEMENT DELINEATION

LOCATION (STATION)		DETAIL No.	(N) DETAIL LENGTH	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	TEMPORARY TRAFFIC STRIPE (PAINT)	REMOVE PAVEMENT MARKER	TEMPORARY PAVEMENT MARKING (PAINT)	REMOVE PAINTED PAVEMENT MARKING	TEMPORARY RAILING (TYPE K)	TEMPORARY CRASH CUSHION SYSTEM	CHANNELIZER (SURFACE MOUNTED)	REMARKS
FROM	TO			LF	LF	EA	SQFT	SQFT	LF	EA	EA	
"A" 643+50	"A" 644+50					54					10	
"A" 644+50	"A" 650+00	22	550	1100								
"A" 644+50 R+							12	12				LIMIT LINE
"A" 645+00	"A" 649+30	27B	430		430							
"A" 644+87	"A" 648+97								340	2		
"A" 649+75 L+							12	12				LIMIT LINE
FROM CONSTRUCTION AREA SIGNS									160	4		WOOD POLE PROTECTION
TOTAL				1100	430	54	24	24	500	6	10	

PAVEMENT DELINEATION

LOCATION (STATION)		DETAIL No.	(N) DETAIL LENGTH	4" THERMOPLASTIC TRAFFIC STRIPE		CENTERLINE RUMBLE STRIP	PAVEMENT MARKER (RETROREFLECTIVE-RECESSED)	PAVEMENT MARKER (RETROREFLECTIVE)
FROM	TO			YELLOW	WHITE	STA	TYPE D	EA
"A" 643+00	"A" 646+03	22, 27B	303	606	606	3		24
"A" 646+03	"A" 648+24.5	22, 27B	222	444	444			18
"A" 648+24.5	"A" 650+00	22, 27B	175	350	350	2		14
SUB TOTAL				1400	1400	5		38
TOTAL				2800		5		18

MILEPOST MARKER

LOCATION (STATION)	L+/R+	CODE	SIGN MESSAGE	PANEL SIZE	MILEPOST MARKER
					EA
"A" 645+93	R+	G11-6 (CA)	DN 199 8.20	12" x 24"	1
TOTAL					1

TEMPORARY BMP'S

LOCATION (STATION)		TEMPORARY Const ENTRANCE	TEMPORARY REINFORCED SILT FENCE	TEMPORARY FIBER ROLL	TEMPORARY GRAVEL BAG BERM	REMARKS
FROM	TO	EA	LF	LF	LF	
"A" 632+00		1				PM 7.9 OPTIONAL AREA FOR CONTRACTOR'S USE
"A" 628+30	"A" 628+30			60		PM 7.9 OPTIONAL AREA FOR CONTRACTOR'S USE
"A" 629+00	"A" 631+50			260		PM 7.9 OPTIONAL AREA FOR CONTRACTOR'S USE
"A" 645+65	"A" 648+43		278			DOWNSLOPE OF VIADUCT CONSTRUCTION AREA
"A" 647+50	"A" 647+50		40			ADJACENT TO STREAM, ABOVE OHWM
"A" 647+60	"A" 647+60		40			ADJACENT TO STREAM, ABOVE OHWM
"A" 647+75	"A" 647+75				18	ALONG DITCH NEXT TO HEADWALL
"A" 648+00	"A" 648+00				14	ALONG DITCH NEXT TO HEADWALL
TOTAL		1	358	320	32	

GUARDRAIL

LOCATION (STATION)		L+/R+	REMOVE GUARDRAIL	REMOVE CONCRETE BARRIER	TREATED WOOD WASTE	TRANSITION RAILING (TYPE WB-31)	ALTERNATIVE IN-LINE TERMINAL SYSTEM
FROM	TO		LF	LF	LB	EA	EA
"A" 645+78		R+				1	1
"A" 648+49		R+				1	1
"A" 645+85	"A" 648+13	R+	250		1200		
"A" 648+13	"A" 648+23	R+		20			
TOTAL			250	20	1200	2	2

SUMMARY OF QUANTITIES Q-1

P:\PROJ\01\08260\graff\ing\01-08260\01-082601\01120001501pa001.dgn



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	11	65

Laura Lazzarotto
 LICENSED LANDSCAPE ARCHITECT
 March 14, 2016
 PLANS APPROVAL DATE

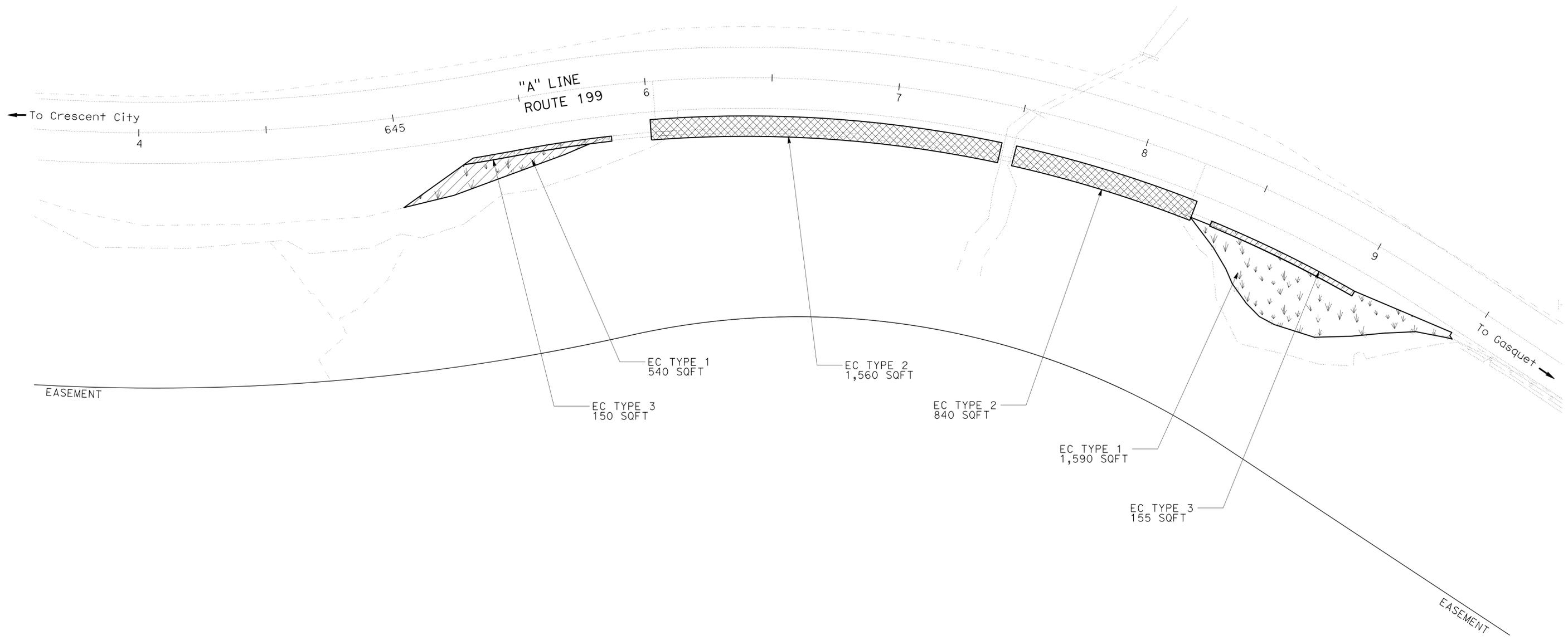
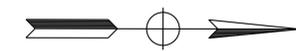
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NOTE:

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

LEGEND:

- EROSION CONTROL TYPE 1
- EROSION CONTROL TYPE 2
- EROSION CONTROL TYPE 3



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE
 FUNCTIONAL SUPERVISOR: TIM BOESE
 CALCULATED/DESIGNED BY: LOGAN MOORE
 CHECKED BY: LAURA LAZZAROTTO
 REVISED BY: [] DATE REVISED: []

APPROVED FOR EROSION CONTROL WORK ONLY

SCALE: 1"=20'

**EROSION CONTROL PLAN
 EC-1**



EROSION CONTROL QUANTITIES

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	12	65

Laura Lazzarotto
LICENSED LANDSCAPE ARCHITECT

March 14, 2016
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.



SHEET NUMBER	STATION "A" LINE	DESCRIPTION	HYDROSEED	HYDROMULCH	STRAW	EROSION CONTROL (BONDED FIBER MATRIX) (SQFT)	WOOD MULCH	INCORPORATE MATERIALS	IMPORTED TOPSOIL (CY)	PURE LIVE SEED (N)
			SQFT	SQFT	SQFT	SQFT	CY	SQFT	CY	LBS
SHEET EC-1	645+76 TO 649+42 R+	EC TYPE 1	2,130	2,130	2,130	-	-	2,130	23.6	7.15
SHEET EC-1	645+76 TO 649+42 R+	EC TYPE 2	-	-	-	2,400	-	-	-	7.59
SHEET EC-1	645+10 TO 649+21 R+	EC TYPE 3	-	-	-	-	2.9	-	-	-
TOTAL			2,130	2,130	2,130	2,400	2.9	2,130	23.6	14.74

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

EROSION CONTROL TYPE 1

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	REMARKS
		DESCRIPTION	TYPE		
STEP 1	SELECTED MATERIAL	IMPORTED TOPSOIL		540 CY/ACRE	
STEP 2	INCORPORATE MATERIALS	COMPOST	MEDIUM	270 CY/ACRE	INCORPORATE TO 12 INCHES
STEP 3	HYDROSEED	SEED	SEED MIX 1	146 LB/ACRE	
		FIBER	WOOD	1,100 LB/ACRE	
		COMPOST	MEDIUM	270 CY/ACRE	
STEP 4	STRAW	STRAW	WHEAT &/OR BARLEY	3 TON/ACRE	
STEP 5	HYDROMULCH	FIBER	WOOD	1,100 LB/ACRE	
		TACKIFIER	PSYLLIUM	140 LB/ACRE	
		COMPOST	MEDIUM	270 CY/ACRE	

SEED MIX 1

SEED	BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
MIX 1	ACHILLEA MILLEFOLIUM ¹ (WHITE YARROW)	45	2
	BACCHARIS PILULARIS CONSANGUINEA ¹ (COYOTE BRUSH)	50	1
	BROMUS CARINATUS ¹ (CALIFORNIA BROME)	85	20
	ELYMUS GLAUCUS 'BERKELEY' ¹ (BLUE WILDRIE, BERKELEY)	65	25
	ESCHSCHOLZIA CALIFORNICA ¹ (CALIFORNIA POPPY)	80	4
	FESTUCA CALIFORNICA ¹ (CALIFORNIA FESCUE)	75	20
	HORDEUM VULGARE (COMMON BARLEY)	75	70
	LUPINUS BICOLOR ¹ (MINIATURE LUPINE)	65	4

¹ SEED PRODUCED IN CALIFORNIA ONLY

EROSION CONTROL TYPE 2

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	REMARKS
		DESCRIPTION	TYPE		
STEP 1	EROSION CONTROL (BONDED FIBER MATRIX)	SEED	SEED MIX 2	138 LB/ACRE	APPLICATION RATE IS FOR FIBER & TACKIFIER COMBINED
		FIBER		1,000 LB/ACRE	
		TACKIFIER			
STEP 2	EROSION CONTROL (BONDED FIBER MATRIX)	FIBER		3,500 LB/ACRE	
		TACKIFIER			

SEED MIX 2

SEED	BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
MIX 2	ACHILLEA MILLEFOLIUM ¹ (WHITE YARROW)	45	2
	BACCHARIS PILULARIS CONSANGUINEA ¹ (COYOTE BRUSH)	50	1
	BROMUS CARINATUS ¹ (CALIFORNIA BROME)	85	20
	ELYMUS GLAUCUS 'BERKELEY' ¹ (BLUE WILDRIE, BERKELEY)	65	25
	FESTUCA CALIFORNICA ¹ (CALIFORNIA FESCUE)	75	20
	HORDEUM VULGARE (COMMON BARLEY)	75	70

¹ SEED PRODUCED IN CALIFORNIA ONLY

EROSION CONTROL TYPE 3

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	WOOD MULCH	TREE BARK	MEDIUM	403 CY/ACRE

EROSION CONTROL QUANTITIES

ECQ-1

APPROVED FOR EROSION CONTROL WORK ONLY

NO SCALE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 LANDSCAPE
 FUNCTIONAL SUPERVISOR
 TIM BOESE
 CALCULATED/DESIGNED BY
 CHECKED BY
 LOGAN MOORE
 LAURA LAZZAROTTO
 REVISED BY
 DATE REVISED

LAST REVISION DATE PLOTTED => 18-AUG-2016
 02-29-16 TIME PLOTTED => 11:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	13	65

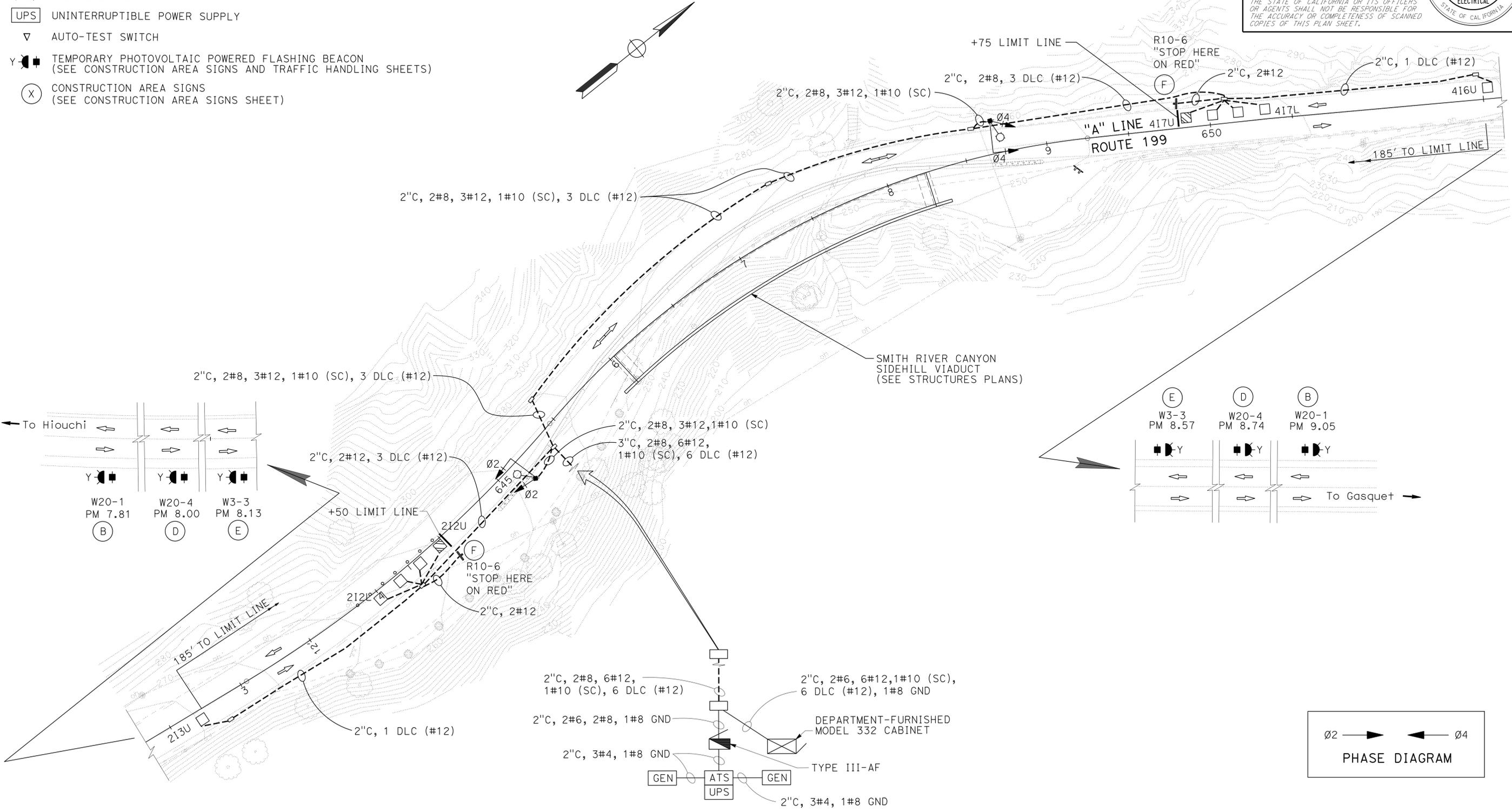
Brian T. Finck 03/16/16
 REGISTERED ELECTRICAL ENGINEER DATE
 March 14, 2016
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 BRIAN T. FINCK
 No. 17756
 Exp. 6-30-16
 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.

- LEGEND:**
- ATS AUTOMATIC TRANSFER SWITCH
 - C CONTACTOR
 - GEN GENERATOR
 - (SC) SIGNAL COMMON
 - UPS UNINTERRUPTIBLE POWER SUPPLY
 - ▽ AUTO-TEST SWITCH
 - Y-■ TEMPORARY PHOTOVOLTAIC POWERED FLASHING BEACON (SEE CONSTRUCTION AREA SIGNS AND TRAFFIC HANDLING SHEETS)
 - (X) CONSTRUCTION AREA SIGNS (SEE CONSTRUCTION AREA SIGNS SHEET)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 ELECTRICAL
 FUNCTIONAL SUPERVISOR JOHN CARSON
 CALCULATED/DESIGNED BY TODD LARK
 CHECKED BY
 REVISIONS:
 REVISED BY BRIAN FINCK
 DATE REVISED
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 USERNAME => s132662
 DGN FILE => 01120001501ua001.dgn
 BORDER LAST REVISED 7/2/2010
 RELATIVE BORDER SCALE 15" IN INCHES
 UNIT 0345
 PROJECT NUMBER & PHASE 01120001501



TEMPORARY SIGNAL SYSTEM
E-1

APPROVED FOR ELECTRICAL WORK ONLY

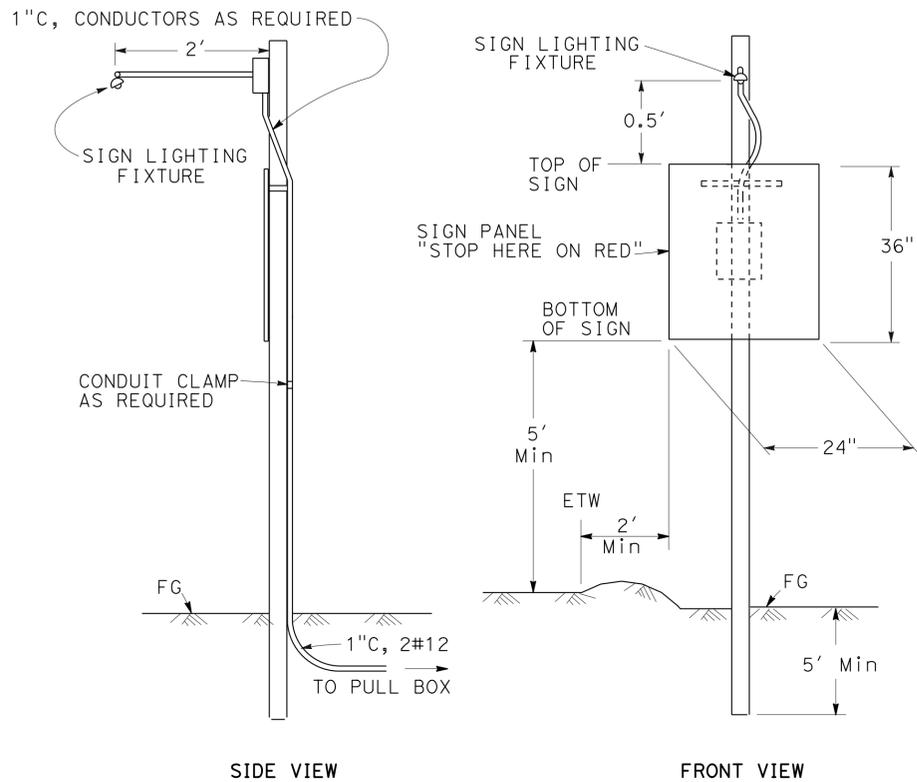
NO SCALE



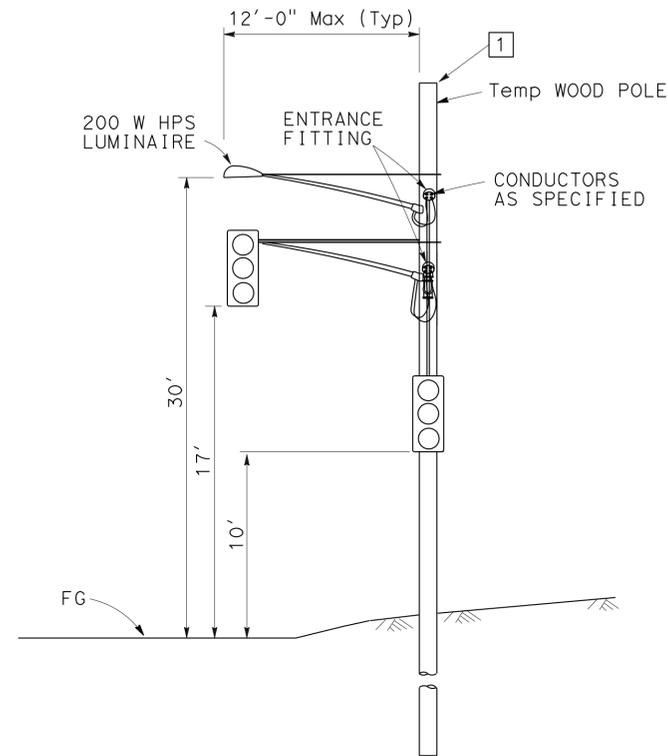
LAST REVISION DATE PLOTTED => 18-AUG-2016
 02-29-16 TIME PLOTTED => 11:12

LEGEND:

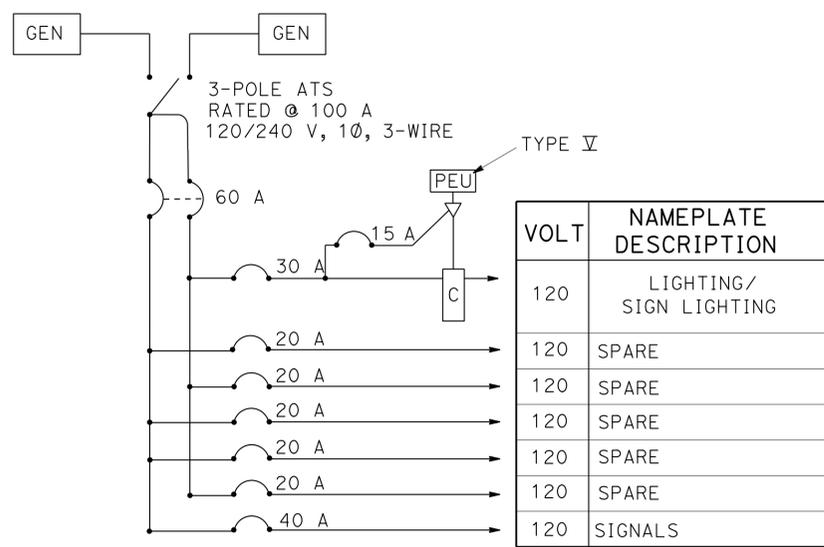
- 1 WOOD POLES SHALL BE LOCATED OUTSIDE THE CLEAR RECOVERY ZONE OR PROTECTED IN PLACE.



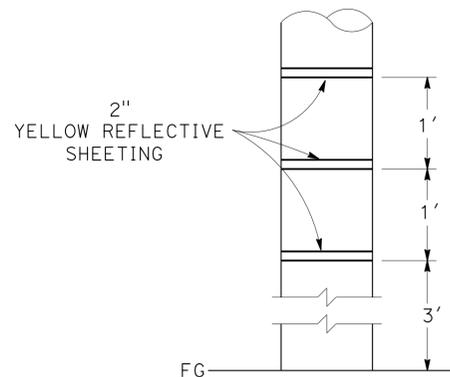
TYPICAL SIGN ILLUMINATION



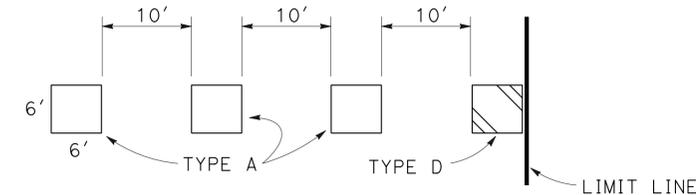
TEMPORARY TRAFFIC SIGNAL



SERVICE WIRING DIAGRAM
 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE



REFLECTIVE MARKING FOR WOOD POLE



TYPICAL LOOP DETAIL

ELECTRICAL DETAILS E-2

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

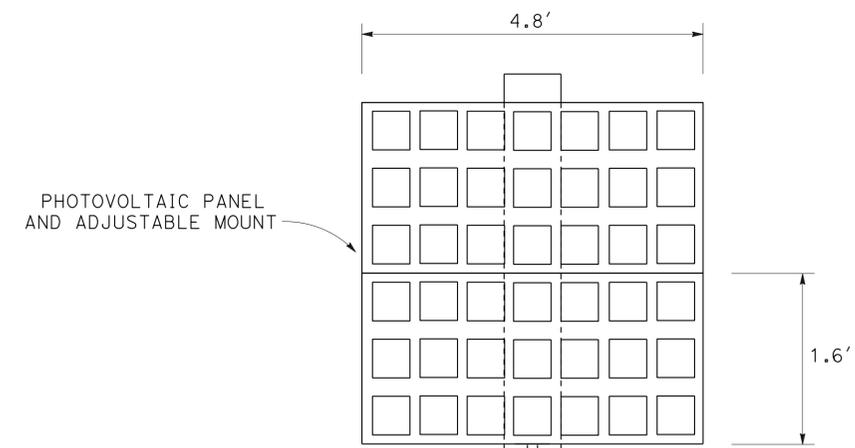
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	15	65

Brian T. Finck 03/16/16
REGISTERED ELECTRICAL ENGINEER DATE

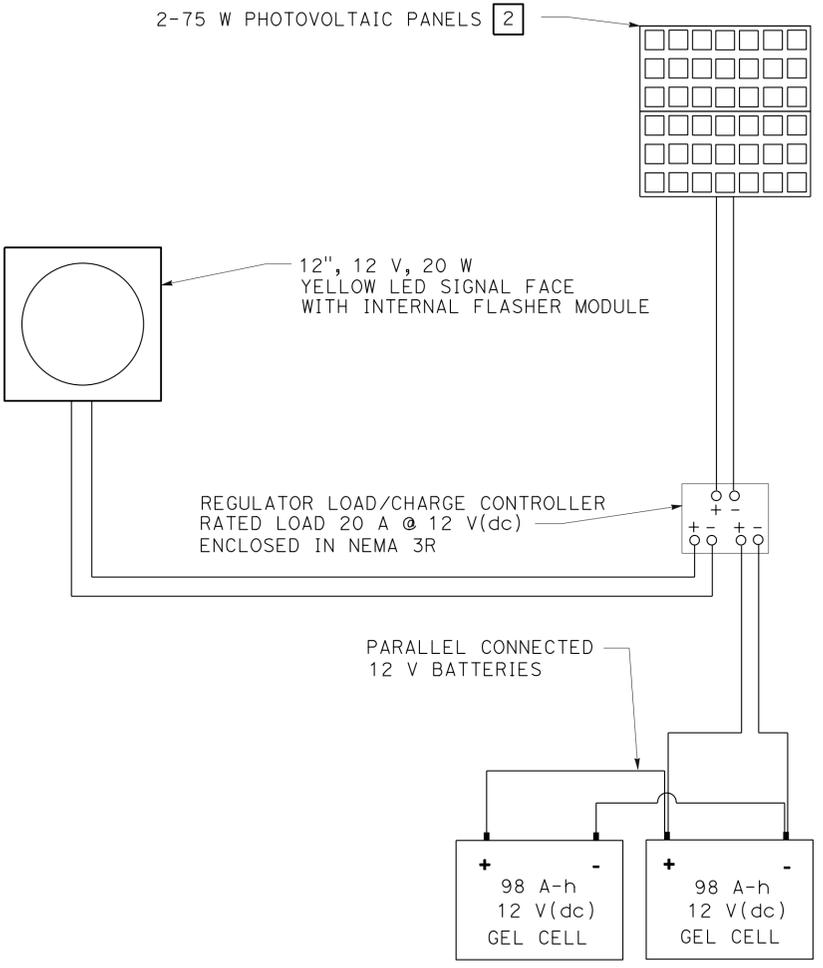
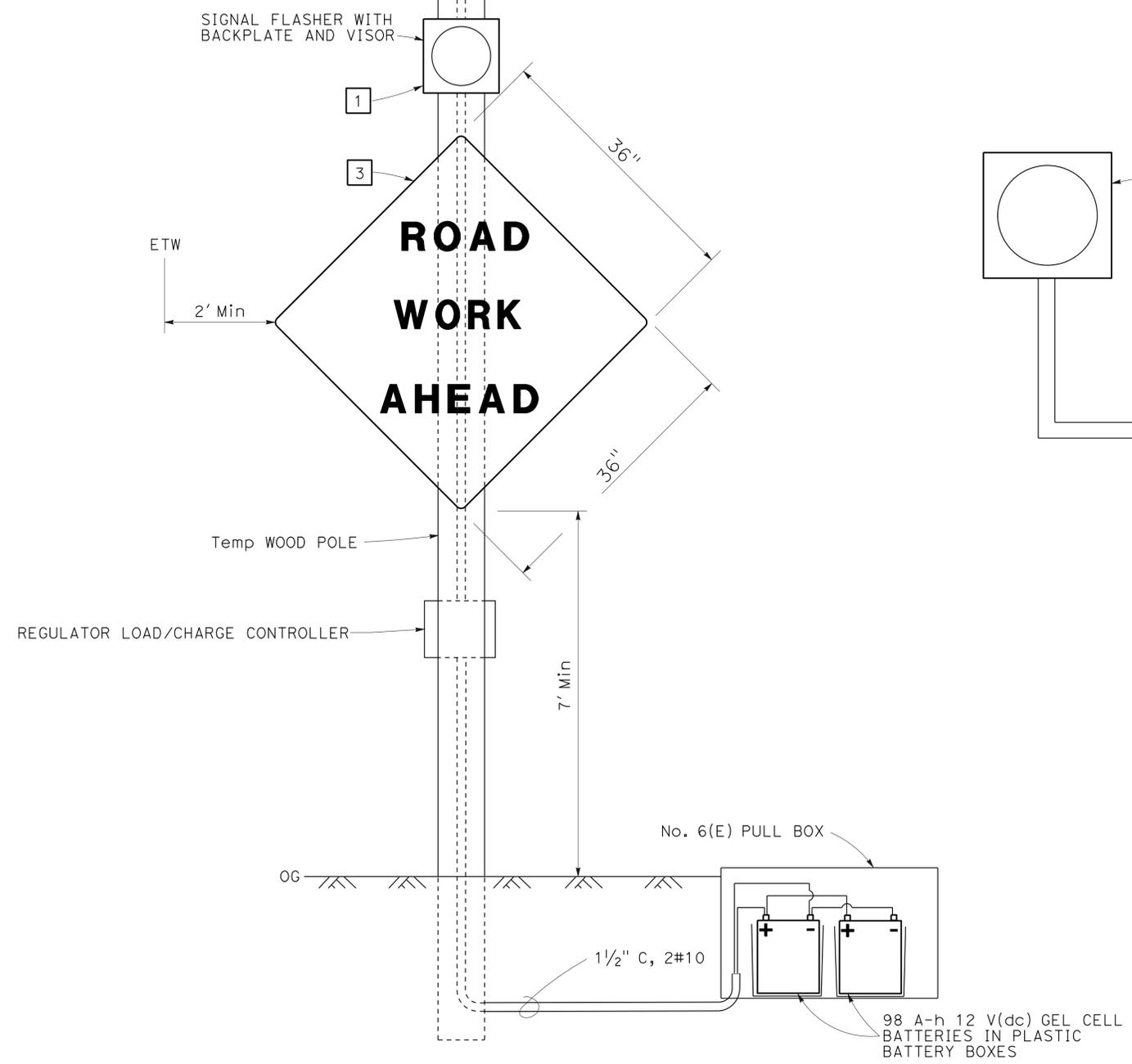
March 14, 2016
PLANS APPROVAL DATE

BRIAN T. FINCK
No. 17756
Exp. 6-30-16
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.



- LEGEND:**
- A-h = AMPERE HOUR
- 1 A VISOR SHALL BE INSTALLED ON EACH FLASHER HEAD TO SHIELD THE LENS FROM DIRECT EXPOSURE OF SOLAR RADIATION.
 - 2 THIS UNIT SHALL BE LOCATED IN AN UNSHADED AREA. WOOD POLE WITH PHOTOVOLTAIC PANELS SHALL BE LOCATED OUTSIDE THE CLEAR RECOVERY ZONE OR PROTECTED IN PLACE.
 - 3 SEE SHEET CS-1 FOR SIGNS (B), (D) & (E)



CONNECTION DIAGRAM

TEMPORARY FLASHING BEACON (PHOTOVOLTAIC POWERED)

ELECTRICAL DETAILS E-3

P:\PROJ\01\08260\dratf\ing\01-08260\01-082601\01120001501\ua003.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL
 FUNCTIONAL SUPERVISOR JOHN CARSON
 CALCULATED/DESIGNED BY CHECKED BY
 BRIAN FINCK TODD LARK
 REVISED BY DATE REVISED
 USERNAME => s132662
 DGN FILE => 01120001501ua003.dgn
 BORDER LAST REVISED 7/2/2010

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE



LAST REVISION DATE PLOTTED => 18-AUG-2016
 02-29-16 TIME PLOTTED => 11:12

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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL
 FUNCTIONAL SUPERVISOR JOHN CARSON
 CALCULATED/DESIGNED BY
 CHECKED BY
 BRIAN FINCK
 TODD LARK
 REVISED BY
 DATE REVISED

NOTES:

1. THE QUANTITIES ON THIS SHEET ARE NOT SEPARATE PAY ITEMS AND ARE FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	16	65

Brian T. Finck 03/16/16
 REGISTERED ELECTRICAL ENGINEER DATE
 March 14, 2016
 PLANS APPROVAL DATE

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TEMPORARY SIGNAL SYSTEM

SHEET NUMBER	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF	EA	EA	
E-1	8	1000	2	9	6	4	2	2	2	8	2300	100	50	1500	700	700	1800	1	1
	WOOD POLE	2" CONDUIT TYPE 3	GENERATOR	#5 PULL BOX	#6 PULL BOX	3 SECTION SIGNAL HEAD	SIGN LIGHTING FIXTURE	200 W HPS LUMINAIRE	TYPE D LOOP	TYPE A LOOP	DLC	#4 CONDUCTORS	#6 CONDUCTORS	#8 CONDUCTORS	#8 CONDUCTORS (G)	#10 CONDUCTORS	#12 CONDUCTORS	MODEL 332L CABINET FOUNDATION	UPS

**ELECTRICAL QUANTITIES
E-4**

	M	
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	
	N	
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	
	O	
ObIrr	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	
	P	
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	

	P continued	
PG	PROFILE GRADE	
PI	POINT OF INTERSECTION	
PJP	PARTIAL JOINT PENETRATION	
Pkwy	PARKWAY	
P,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	
	Q	
Qty	QUANTITY	
	R	
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	

	S	
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	
§	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	
	T	
T	SEMI-TANGENT	
Tan	TANGENT	
TBB	THRIE BEAM BARRIER	
Tbr	TIMBER	
TC	TOP OF CURB	
TCB	TRAFFIC CONTROL BOX	
TCE	TEMPORARY CONSTRUCTION EASEMENT	
Tel	TELEPHONE	
Temp	TEMPORARY	
TG	TOP OF GRADE	
Tot	TOTAL	
TP	TELEPHONE POLE	
TPB	TREATED PERMEABLE BASE	
TPM	TREATED PERMEABLE MATERIAL	
Trans	TRANSITION	

	T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	U
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	V
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	W
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	X
X Sec	CROSS SECTION	
Xing	CROSSING	Y
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	17	65

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 Grace M. Tsushima
 No. 1049814
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED March 14, 2016

UNIT OF MEASUREMENT SYMBOLS:

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

TABLE A	
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:

TABLE B	
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
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kip	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

P:\PROJ\01\08260\Drawings\01-08260\01-08260\01120001501va001.dgn

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	18	65

Chris A. Risdien
 CERTIFIED ENGINEERING GEOLOGIST

October 30, 2015
 PLANS APPROVAL DATE

REGISTERED GEOLOGIST
 CHRIS A. RISDIEN
 No. 2541
 Exp. 9-30-17
 STATE OF CALIFORNIA

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CEMENTATION	
DESCRIPTION	CRITERIA
WEAK	CRUMBLES OR BREAKS WITH HANDLING OR LITTLE FINGER PRESSURE.
MODERATE	CRUMBLES OR BREAKS WITH CONSIDERABLE FINGER PRESSURE.
STRONG	WILL NOT CRUMBLE OR BREAK WITH FINGER PRESSURE.

ABBREVIATION:

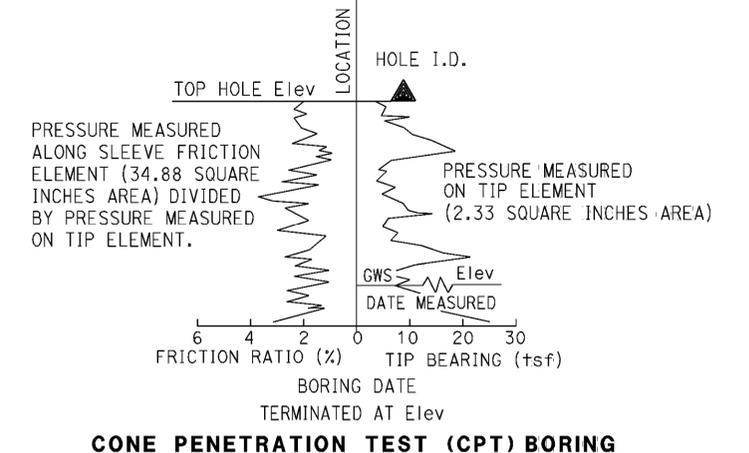
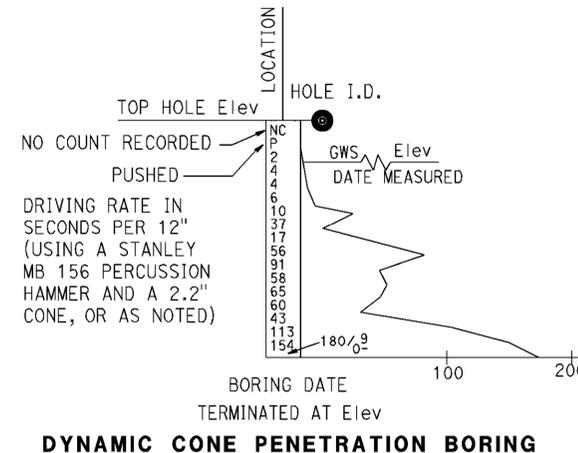
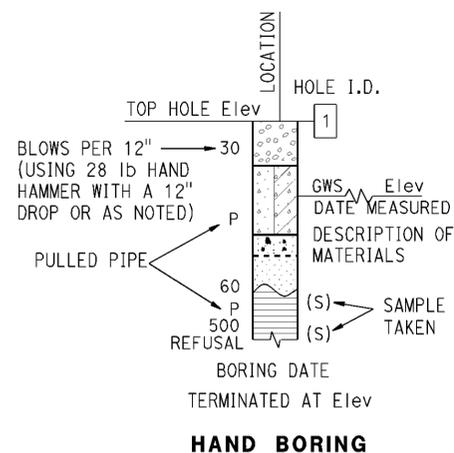
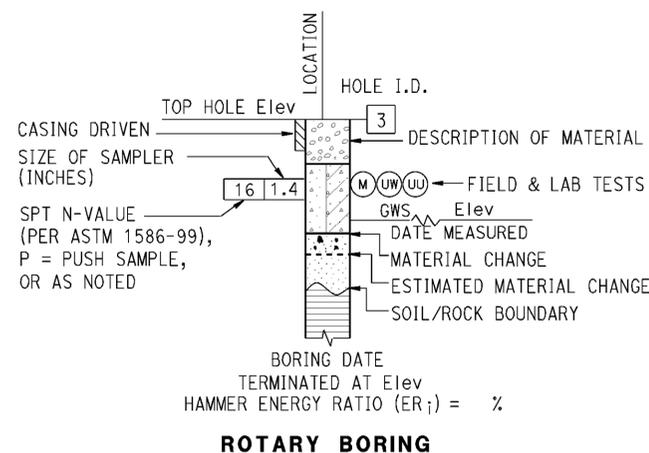
GWS = Ground Water Surface

TO ACCOMPANY PLANS DATED March 14, 2016

BOREHOLE IDENTIFICATION		
SYMBOL	HOLE TYPE	DESCRIPTION
	A	AUGER BORING (HOLLOW OR SOLID STEM BUCKET)
	R	ROTARY DRILLED BORING (CONVENTIONAL)
	RW	ROTARY DRILLED WITH SELF-CASING WIRE-LINE
	RC	ROTARY CORE WITH CONTINUOUSLY-SAMPLED, SELF-CASING WIRE-LINE
	P	ROTARY PERCUSSION BORING (AIR)
	R	ROTARY DRILLED DIAMOND CORE
	RC	ROTARY DRILLED DIAMOND CORE, CONTINUOUSLY SAMPLED
	HD	HAND DRIVEN (1-INCH SOIL TUBE)
	HA	HAND AUGER
	D	DYNAMIC CONE PENETRATION BORING
	CPT	CONE PENETRATION TEST (ASTM D 5778)
	O	OTHER (NOTE ON LOTB)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
DESCRIPTION	SHEAR STRENGTH (tsf)	POCKET PENETROMETER MEASUREMENT, PP, (tsf)	TORVANE MEASUREMENT, TV, (tsf)	VANE SHEAR MEASUREMENT, VS, (tsf)
VERY SOFT	LESS THAN 0.12	LESS THAN 0.25	LESS THAN 0.12	LESS THAN 0.12
SOFT	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
MEDIUM STIFF	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
STIFF	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
VERY STIFF	1 - 2	2 - 4	1 - 2	1 - 2
HARD	GREATER THAN 2	GREATER THAN 4	GREATER THAN 2	GREATER THAN 2



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LEGEND - SOIL
(SHEET 1 OF 2)
 NO SCALE

RSP A10F DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN A10F DATED MAY 20, 2011 - PAGE 6 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A10F

2010 REVISED STANDARD PLAN RSP A10F

DATE PLOTTED => 18-AUG-2016
 TIME PLOTTED => 11:13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	19	65


 CERTIFIED ENGINEERING GEOLOGIST
 October 30, 2015
 PLANS APPROVAL DATE


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GROUP SYMBOLS AND NAMES			
GRAPHIC/SYMBOL	GROUP NAMES	GRAPHIC/SYMBOL	GROUP NAMES
	GW WELL-GRADED GRAVEL		CL LEAN CLAY
	GW WELL-GRADED GRAVEL WITH SAND		CL LEAN CLAY WITH SAND
	GP POORLY-GRADED GRAVEL		CL LEAN CLAY WITH GRAVEL
	GP POORLY-GRADED GRAVEL WITH SAND		CL SANDY LEAN CLAY
	GW-GM WELL-GRADED GRAVEL WITH SILT		CL-ML SILTY CLAY
	GW-GM WELL-GRADED GRAVEL WITH SILT AND SAND		CL-ML SILTY CLAY WITH SAND
	GW-GC WELL-GRADED GRAVEL WITH CLAY (OR SILTY CLAY)		CL-ML SANDY SILTY CLAY
	GW-GC WELL-GRADED GRAVEL WITH CLAY AND SAND (OR SILTY CLAY AND SAND)		CL-ML SANDY SILTY CLAY WITH GRAVEL
	GP-GM POORLY-GRADED GRAVEL WITH SILT		ML SILTY CLAY WITH GRAVEL
	GP-GM POORLY-GRADED GRAVEL WITH SILT AND SAND		ML SANDY SILT
	GP-GC POORLY-GRADED GRAVEL WITH CLAY (OR SILTY CLAY)		ML SANDY SILT WITH GRAVEL
	GP-GC POORLY-GRADED GRAVEL WITH CLAY AND SAND (OR SILTY CLAY AND SAND)		ML GRAVELLY SILT
	GM SILTY GRAVEL		ML GRAVELLY SILT WITH SAND
	GM SILTY GRAVEL WITH SAND		OL ORGANIC LEAN CLAY
	GC CLAYEY GRAVEL		OL ORGANIC LEAN CLAY WITH SAND
	GC CLAYEY GRAVEL WITH SAND		OL ORGANIC LEAN CLAY WITH GRAVEL
	GC-GM SILTY, CLAYEY GRAVEL		OL SANDY ORGANIC LEAN CLAY
	GC-GM SILTY, CLAYEY GRAVEL WITH SAND		OL SANDY ORGANIC LEAN CLAY WITH GRAVEL
	SW WELL-GRADED SAND		OL GRAVELLY ORGANIC LEAN CLAY
	SW WELL-GRADED SAND WITH GRAVEL		OL GRAVELLY ORGANIC LEAN CLAY WITH SAND
	SP POORLY-GRADED SAND		OL ORGANIC SILT
	SP POORLY-GRADED SAND WITH GRAVEL		OL ORGANIC SILT WITH SAND
	SW-SM WELL-GRADED SAND WITH SILT		OL ORGANIC SILT WITH GRAVEL
	SW-SM WELL-GRADED SAND WITH SILT AND GRAVEL		OL SANDY ORGANIC SILT
	SW-SC WELL-GRADED SAND WITH CLAY (OR SILTY CLAY)		OL SANDY ORGANIC SILT WITH GRAVEL
	SW-SC WELL-GRADED SAND WITH CLAY AND GRAVEL (OR SILTY CLAY AND GRAVEL)		OL GRAVELLY ORGANIC SILT
	SP-SM POORLY-GRADED SAND WITH SILT		OL GRAVELLY ORGANIC SILT WITH SAND
	SP-SM POORLY-GRADED SAND WITH SILT AND GRAVEL		CH FAT CLAY
	SP-SC POORLY-GRADED SAND WITH CLAY (OR SILTY CLAY)		CH FAT CLAY WITH SAND
	SP-SC POORLY-GRADED SAND WITH CLAY AND GRAVEL (OR SILTY CLAY AND GRAVEL)		CH FAT CLAY WITH GRAVEL
	SM SILTY SAND		CH SANDY FAT CLAY
	SM SILTY SAND WITH GRAVEL		CH SANDY FAT CLAY WITH GRAVEL
	SC CLAYEY SAND		CH GRAVELLY FAT CLAY
	SC CLAYEY SAND WITH GRAVEL		CH GRAVELLY FAT CLAY WITH SAND
	SC-SM SILTY, CLAYEY SAND		MH ELASTIC SILT
	SC-SM SILTY, CLAYEY SAND WITH GRAVEL		MH ELASTIC SILT WITH SAND
	PT PEAT		MH ELASTIC SILT WITH GRAVEL
	PT COBBLES COBBLES AND BOULDERS BOULDERS		MH SANDY ELASTIC SILT
			MH SANDY ELASTIC SILT WITH GRAVEL
			MH GRAVELLY ELASTIC SILT
			MH GRAVELLY ELASTIC SILT WITH SAND
			OH ORGANIC FAT CLAY
			OH ORGANIC FAT CLAY WITH SAND
			OH ORGANIC FAT CLAY WITH GRAVEL
			OH SANDY ORGANIC FAT CLAY
			OH SANDY ORGANIC FAT CLAY WITH GRAVEL
			OH GRAVELLY ORGANIC FAT CLAY
			OH GRAVELLY ORGANIC FAT CLAY WITH SAND
			OH ORGANIC ELASTIC SILT
			OH ORGANIC ELASTIC SILT WITH SAND
			OH ORGANIC ELASTIC SILT WITH GRAVEL
			OH SANDY ORGANIC ELASTIC SILT
			OH SANDY ORGANIC ELASTIC SILT WITH GRAVEL
			OH GRAVELLY ORGANIC ELASTIC SILT
			OH GRAVELLY ORGANIC ELASTIC SILT WITH SAND
			OL/OH ORGANIC SOIL
			OL/OH ORGANIC SOIL WITH SAND
			OL/OH ORGANIC SOIL WITH GRAVEL
			OL/OH SANDY ORGANIC SOIL
			OL/OH SANDY ORGANIC SOIL WITH GRAVEL
			OL/OH GRAVELLY ORGANIC SOIL
			OL/OH GRAVELLY ORGANIC SOIL WITH SAND

FIELD AND LABORATORY TESTING	
(C)	CONSOLIDATION (ASTM D2435)
(CL)	COLLAPSE POTENTIAL (ASTM D4546)
(CP)	COMPACTION CURVE (CTM 216)
(CR)	CORROSIIVITY TESTING (CTM 643, CTM 422, CTM 417)
(CU)	CONSOLIDATED UNDRAINED TRIAXIAL (ASTM D4767)
(DS)	DIRECT SHEAR (ASTM D3080)
(EI)	EXPANSION INDEX (ASTM D4829)
(M)	MOISTURE CONTENT (ASTM D2216)
(OC)	ORGANIC CONTENT-% (ASTM D2974)
(P)	PERMEABILITY (CTM 220)
(PA)	PARTICLE SIZE ANALYSIS (ASTM D422)
(PI)	PLASTICITY INDEX (AASHTO T 90) LIQUID LIMIT (AASHTO T 89)
(PL)	POINT LOAD INDEX (ASTM D5731)
(PM)	PRESSURE METER
(R)	R-VALUE (CTM 301)
(SE)	SAND EQUIVALENT (CTM 217)
(SG)	SPECIFIC GRAVITY (AASHTO T 100)
(SL)	SHRINKAGE LIMIT (ASTM D4943)
(SW)	SWELL POTENTIAL (ASTM D4546)
(UC)	UNCONFINED COMPRESSION-SOIL (ASTM D2166)
(UU)	UNCONFINED COMPRESSION-ROCK (ASTM D7012 - METHOD C)
(UU)	UNCONSOLIDATED UNDRAINED TRIAXIAL (ASTM D2850)
(UW)	UNIT WEIGHT (ASTM D7263 - METHOD B)

APPARENT DENSITY OF COHESIONLESS SOILS	
DESCRIPTION	SPT N ₆₀ (BLOWS / 12 INCHES)
VERY LOOSE	0 - 5
LOOSE	5 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	GREATER THAN 50

MOISTURE	
DESCRIPTION	CRITERIA
DRY	NO DISCERNABLE MOISTURE
MOIST	MOISTURE PRESENT, BUT NO FREE WATER
WET	VISIBLE FREE WATER

PERCENT OR PROPORTION OF SOILS	
DESCRIPTION	CRITERIA
TRACE	PARTICLES ARE PRESENT BUT ESTIMATED TO BE LESS THAN 5%
FEW	5% - 10%
LITTLE	15% - 25%
SOME	30% - 45%
MOSTLY	50% - 100%

PARTICLE SIZE		
DESCRIPTION	SIZE	
BOULDER	GREATER THAN 12"	
COBBLE	3" - 12"	
GRAVEL	COARSE	3/4" - 3"
	FINE	1/5" - 3/4"
SAND	COARSE	1/16" - 1/5"
	MEDIUM	1/64" - 1/16"
	FINE	1/300" - 1/64"
SILT AND CLAY	LESS THAN 1/300"	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
LEGEND - SOIL
(SHEET 2 OF 2)
NO SCALE

RSP A10G DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN A10G DATED MAY 20, 2011 - PAGE 7 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A10G

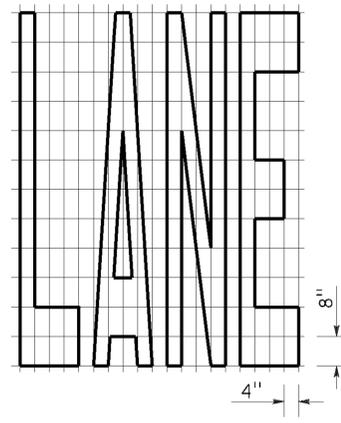
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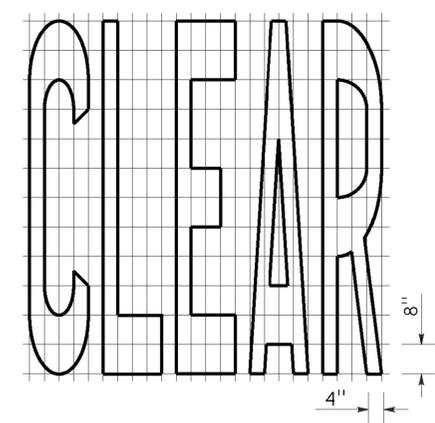
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	20	65

Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 July 20, 2012
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

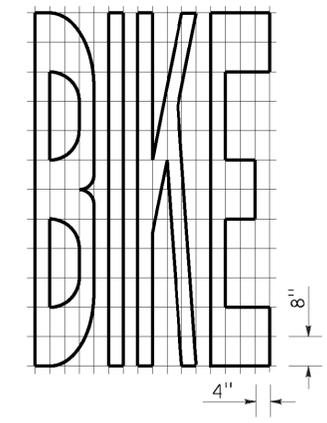
TO ACCOMPANY PLANS DATED March 14, 2016



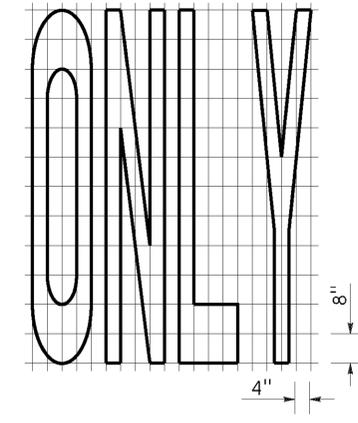
A=24 ft²



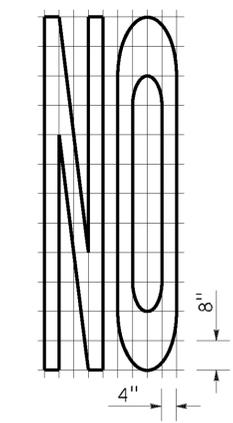
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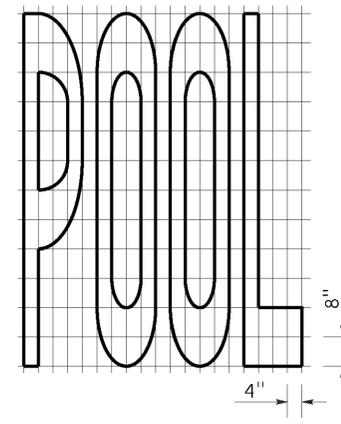
A=21 ft²



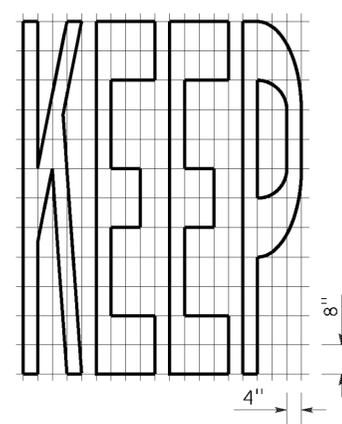
A=22 ft²



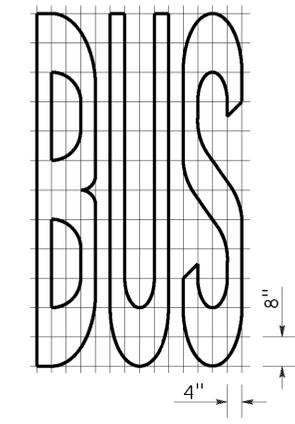
A=14 ft²



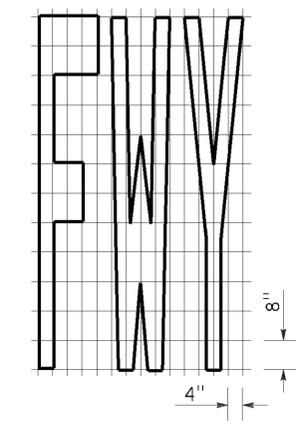
A=23 ft²



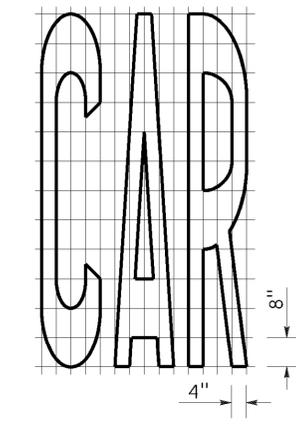
A=24 ft²



A=20 ft²

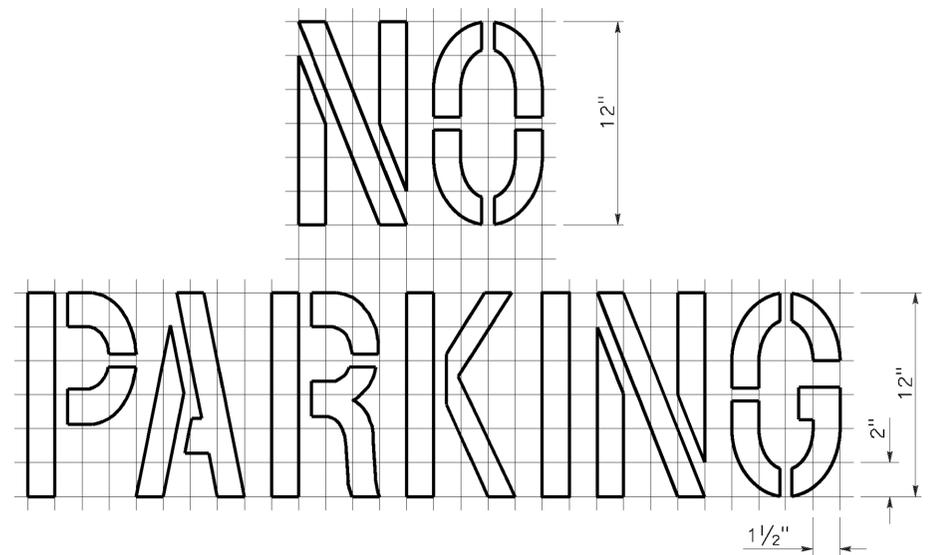


A=16 ft²

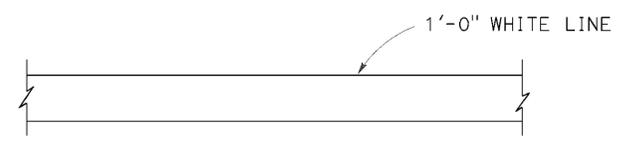


A=17 ft²

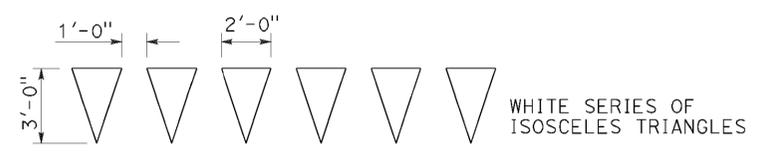
WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE
DIRECTION OF TRAVEL

NOTES:

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES**

NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24E

2010 REVISED STANDARD PLAN RSP A24E

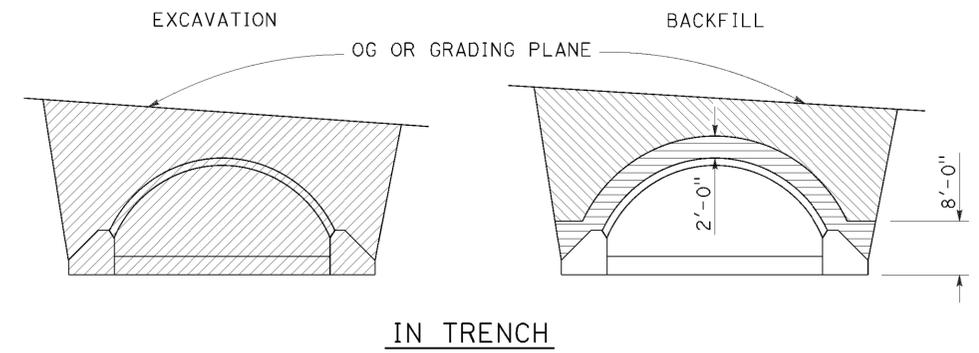
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	21	65

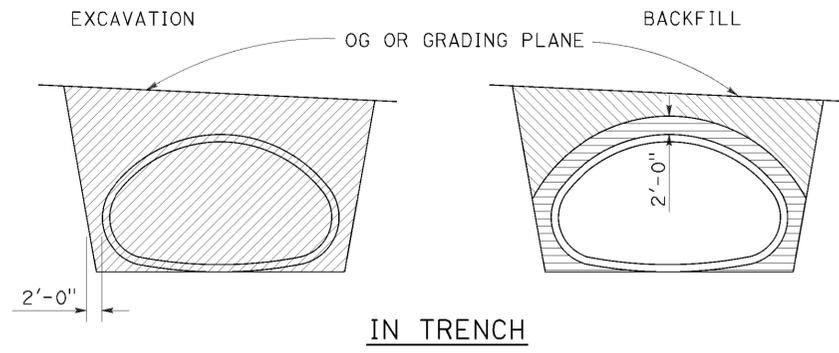
REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Carl M. Duan
 No. C59976
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

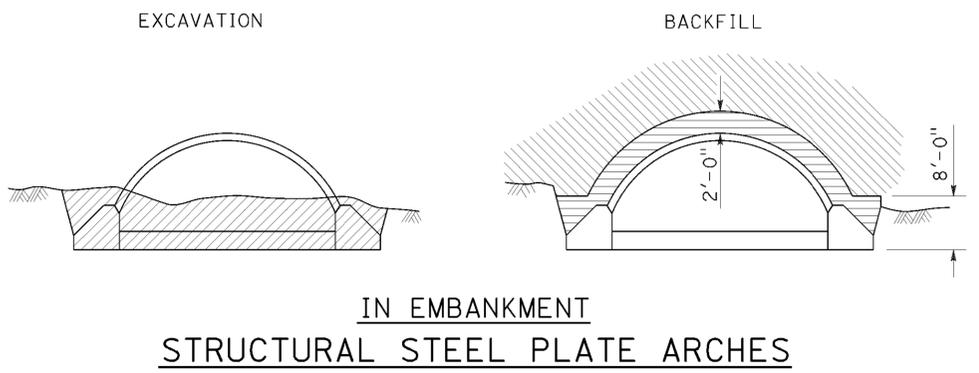
TO ACCOMPANY PLANS DATED March 14, 2016



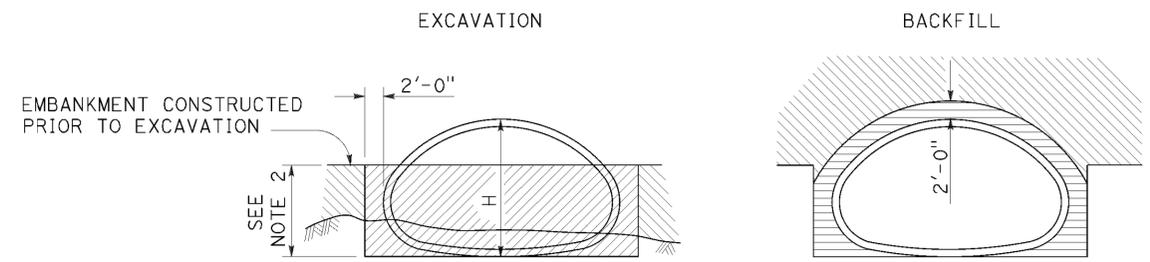
IN TRENCH



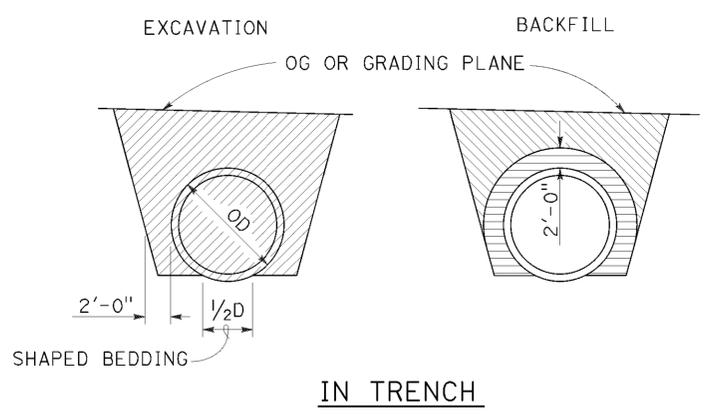
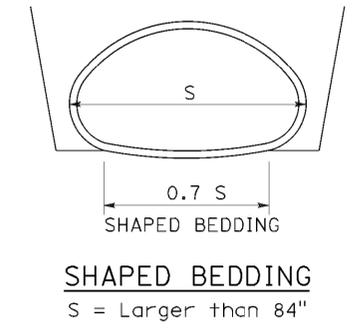
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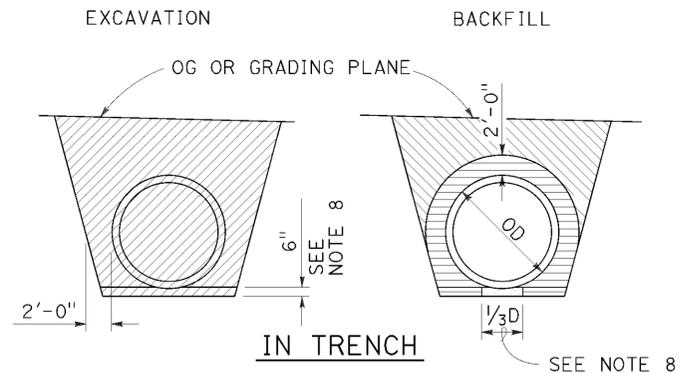
IN EMBANKMENT
STRUCTURAL STEEL PLATE ARCHES



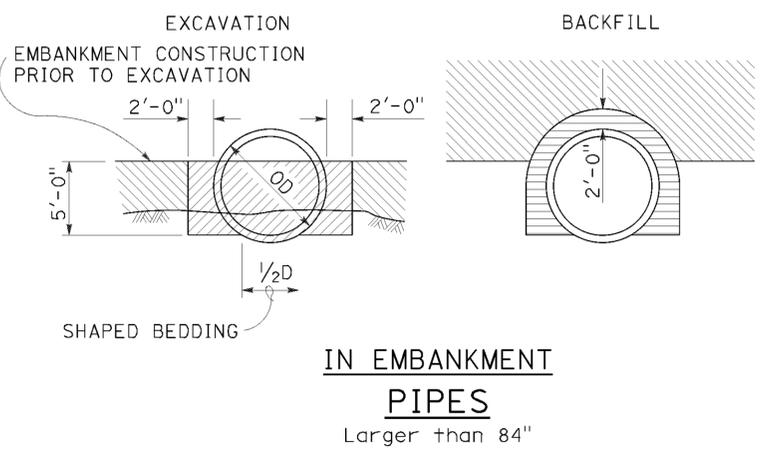
IN EMBANKMENT
STRUCTURAL STEEL PLATE PIPE ARCHES
AND VEHICULAR UNDERCROSSING



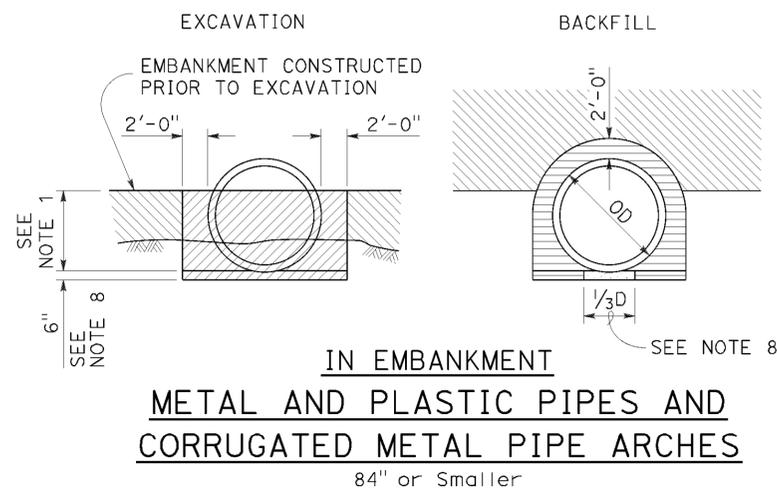
IN TRENCH



IN TRENCH



IN EMBANKMENT
PIPES
Larger than 84"



IN EMBANKMENT
METAL AND PLASTIC PIPES AND
CORRUGATED METAL PIPE ARCHES
84" or Smaller

NOTES:

1. PIPES: 30" minimum for diameters up to and including 42" then 2/3 diameter but no more than 60" required. CORRUGATED METAL PIPE ARCHES: 30" maximum.
2. 2/3 H up to 60" maximum.
3. Slope or shore excavation sides as necessary.
4. Backfill shall be placed full width of excavation except as noted.
5. Diagrams do not apply to overside drains.
6. Dimensions shown are minimum.
7. Construction strutting of structural steel plate pipe, arches and vehicular undercrossing to be used when shown on the project plans. When shown, see Standard Plan D88A for strutting requirements.
8. Excavation below pipe and 80% relative compaction requirements for plastic pipes only.
9. D is the inside diameter (ID) of the pipe.

LEGEND

	STRUCTURE EXCAVATION (CULVERT)		ROADWAY EMBANKMENT
	STRUCTURE BACKFILL (CULVERT) 95% RELATIVE COMPACTION		STRUCTURE BACKFILL (CULVERT) 80% RELATIVE COMPACTION

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**EXCAVATION AND BACKFILL
METAL AND PLASTIC CULVERTS**
NO SCALE

RSP A62F DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN A62F DATED MAY 20, 2011 - PAGE 26 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A62F

2010 REVISED STANDARD PLAN RSP A62F

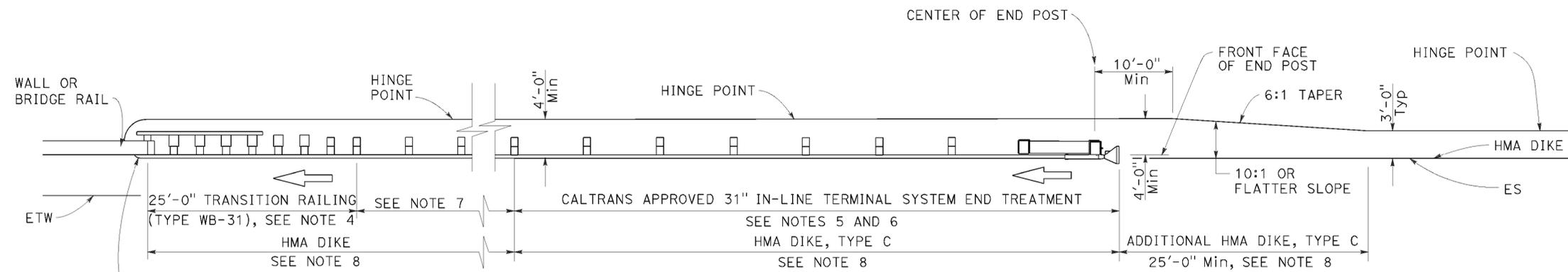
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	22	65

August 14, 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.

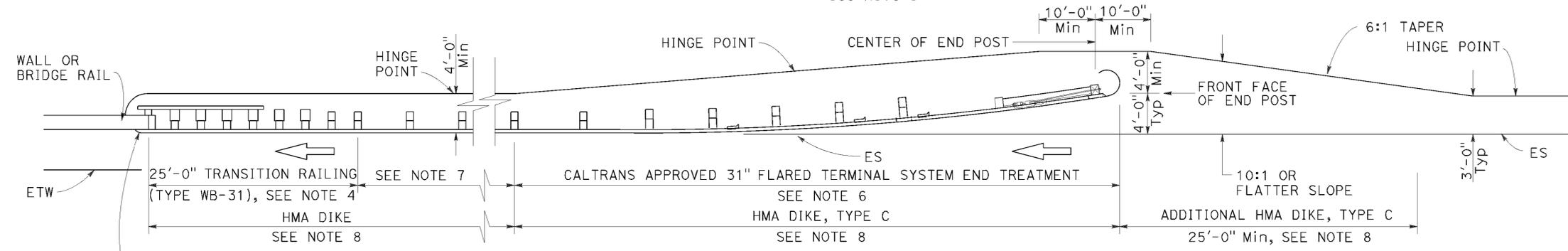


TO ACCOMPANY PLANS DATED March 14, 2016



TYPE 12A LAYOUT

(MGS installation at structure approach with 31" In-line end treatment at traffic approach end of railing)
See Note 9



TYPE 12B LAYOUT

(MGS installation at structure approach with 31" Flared end treatment at traffic approach end of railing)
See Note 9

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 plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 12" x 1'-2" wood blocks where applicable and when specified.
- For Transition Railing (Type WB-31) details for Types 12A and 12B Layouts, see Revised Standard Plan RSP A77U4.
- 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 end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes, or other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatment. A 12.5 degree angle of departure can be drawn on the Project Plans from the edge of traveled way through the outer most point of the fixed object to determine the additional length of railing needed.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77N4 for dike positioning details.
- Type 12A or Type 12B Layouts are typically used:
 - To the right of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
 - To the left of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
 - To the right of approaching traffic at the end of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
 - To the right of approaching traffic at the end of the structure on multilane freeways or expressways with decked median on the bridge.
- See Revised Standard Plan RSP A77Q3 for typical layout used left of approaching traffic at the ends of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
- For additional details of typical connections to bridge rail, see Connection Detail AA on Revised Standard Plans RSP A77U1 and RSP A77U2 and Connection Detail FF on Revised Standard Plans RSP A77V1 and RSP A77V2.
- For additional details of a typical connection to walls or abutments, see Revised Standard Plan RSP A77U3.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**MIDWEST GUARDRAIL SYSTEM
TYPICAL LAYOUTS FOR
STRUCTURE APPROACH**
NO SCALE

RSP A77Q1 DATED AUGUST 14, 2015 SUPERSEDES RSP A77Q1 DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.
REVISED STANDARD PLAN RSP A77Q1

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2010 REVISED STANDARD PLAN RSP A77Q1

DATE PLOTTED => 16-AUG-2016
TIME PLOTTED => 11:14

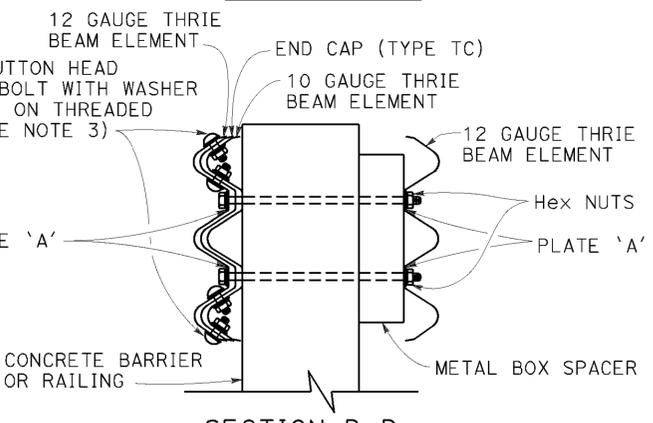
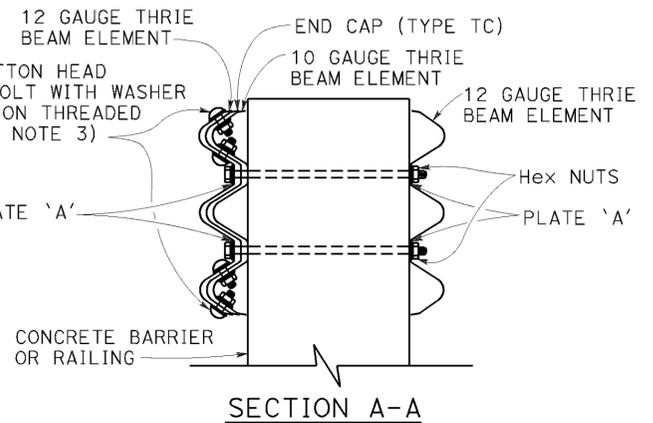
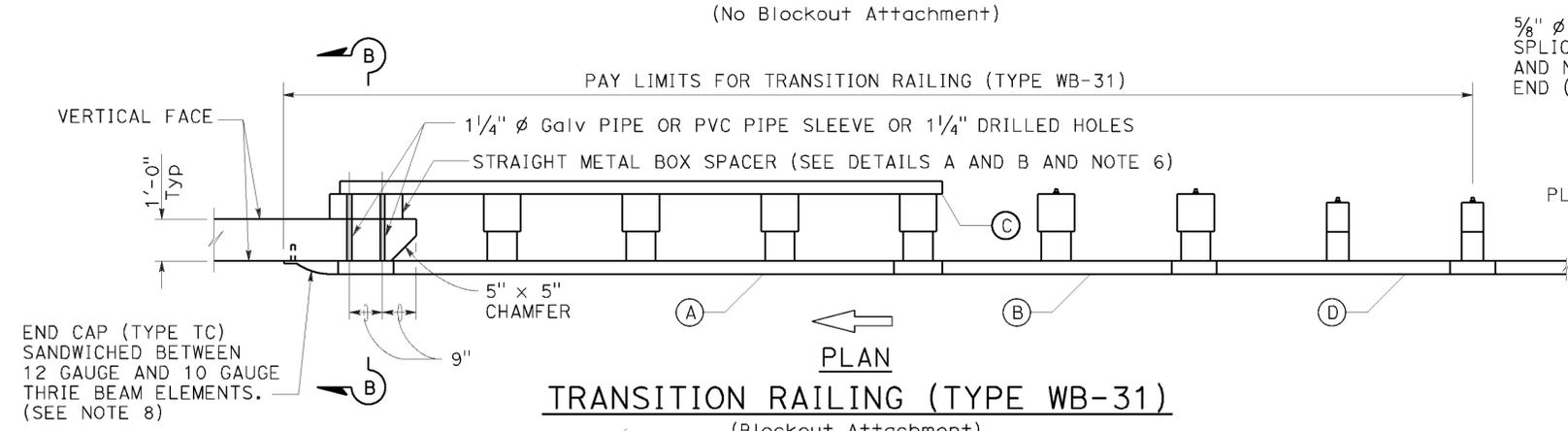
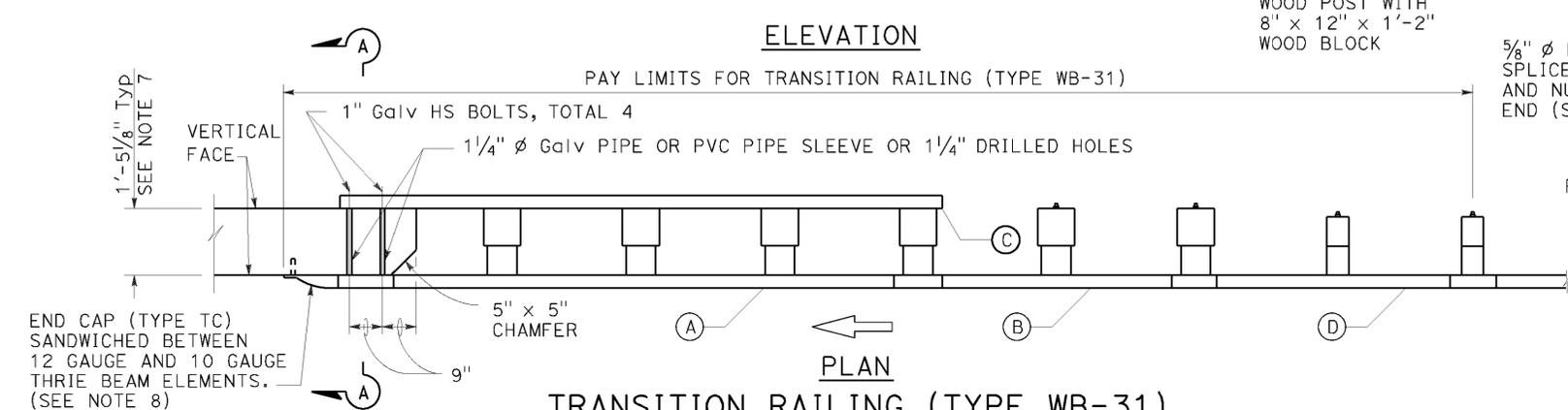
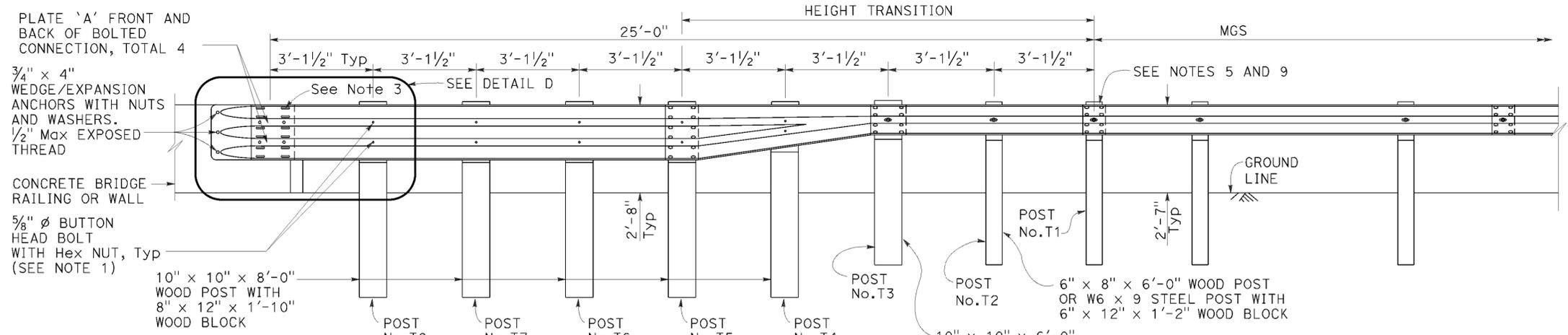
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	23	65

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

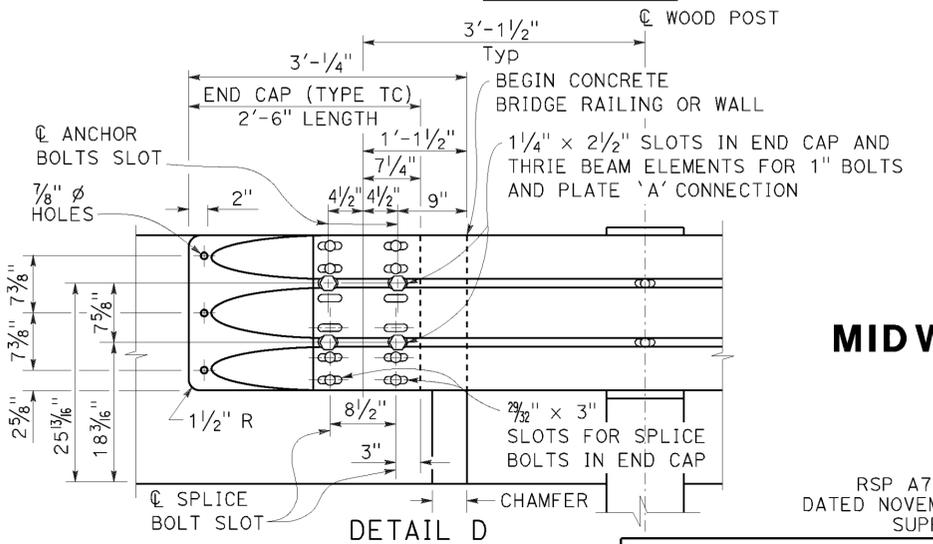
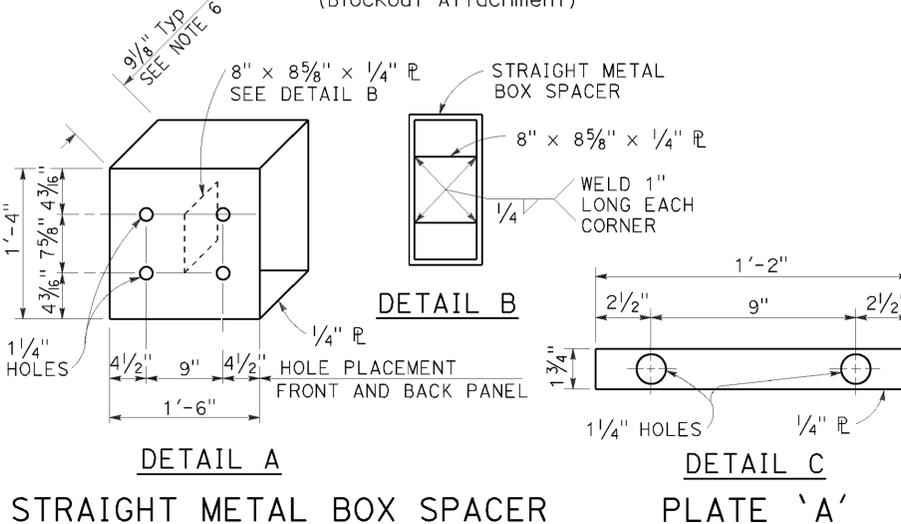
January 23, 2015
PLANS APPROVAL DATE

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.

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



- LEGEND:**
- (A) NESTED THRIE BEAM ELEMENTS (ONE 12 GAUGE ELEMENT NESTED OVER ONE 10 GAUGE ELEMENT).
 - (B) ONE ASYMMETRICAL 10 GAUGE "W" BEAM TO THRIE BEAM ELEMENT.
 - (C) ONE 12 GAUGE THRIE BEAM ELEMENT.
 - (D) ONE 10 GAUGE "W" BEAM RAIL ELEMENT (7'-3 1/2" LENGTH)
- 10 GAUGE = 0.138" THICK
12 GAUGE = 0.108" THICK



- NOTES:** TO ACCOMPANY PLANS DATED March 14, 2016
1. Use 5/8" ø Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
 2. The nested rail elements, end cap, and 'W' beam to thrie beam element may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
 3. Exterior splice bolt holes for rail element splices at Post No. T5 and the connection to the concrete barrier or railing shall be the standard 3/8" x 1 1/8" slot size. Interior splice bolt holes at these locations may be increased up to 1/4" ø. Only the top 4 and the bottom 4 splice bolts with washers and nuts are required for rail splices at Post No. T5 and the connection to the concrete barrier or railing.
 4. The top elevation of Posts No. T2 through No. T7 shall not project more than 1" above the top elevation of the rail element.
 5. Typically, the railing connected to Transition Railing (Type WB-31) will be either standard railing section of MGS with height transition ratio of 150:1 or a Caltrans approved 31" end treatment attached to Post No. T1.
 6. The depth of the metal box spacer varies from the 9/8" to 1 1/2" and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 21 1/8". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1 1/2", metal plates similar to Plate 'A' are to be used as spacers.
 7. Where the width of the concrete railing or wall is greater than 17 1/8", wood blocks are to be used to fill the space created between the backside of Posts No. T5 through No. T8 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
 8. End cap may be installed over 12 gauge and 10 gauge thrie beam elements where transition railing is installed on the departure end of bridge railing.
 9. Conform standard railing section height to 31" at Post No. T1 using height transition ratio of 150:1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TRANSITION RAILING
(TYPE WB-31)**

NO SCALE
RSP A77U4 DATED JANUARY 23, 2015 SUPERSEDES RSP A77U4
DATED NOVEMBER 15, 2013 AND RSP A77U4 DATED JULY 19, 2013 THAT
SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77U4

2010 REVISED STANDARD PLAN RSP A77U4

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	24	65

Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 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 March 14, 2016

A

AB AGGREGATE BASE
 ABS ACRYLONITRILE-BUTADIENE-STYRENE
 AC ASPHALT CONCRETE
 ACC ARMOR-CLAD CONDUCTORS
 Adj ADJACENT/ADJUSTABLE
 AIC AUXILIARY IRRIGATION CONTROLLER
 Alt ALTERNATIVE
 AMEND AMENDMENT
 ARV AIR RELEASE VALVE
 AUTO AUTOMATIC
 AUX AUXILIARY
 AVB ATMOSPHERIC VACUUM BREAKER

B

B&B BALLED AND BURLAPPED
 B/B BRASS/BRONZE
 B/B/PL BRASS/BRONZE/PLASTIC
 B/PL BRASS/PLASTIC
 BFM BONDED FIBER MATRIX
 Bit Ctd BITUMINOUS COATED
 BP BOOSTER PUMP
 BPA BACKFLOW PREVENTER ASSEMBLY
 BPE BACKFLOW PREVENTER ENCLOSURE
 BV BALL VALVE

C

C CONDUIT
 CAP CORRUGATED ALUMINUM PIPE
 CARV COMBINATION AIR RELEASE VALVE
 CB COUPLING BAND
 CCA CAM COUPLER ASSEMBLY
 CEC CONTROLLER ENCLOSURE CABINET
 CHDPE CORRUGATED HIGH DENSITY POLYETHYLENE
 CL CHAIN LINK
 CNC CONTROL AND NEUTRAL CONDUCTORS
 Conc CONCRETE
 CP COPPER PIPE
 CS COMPOST SOCK
 CSP CORRUGATED STEEL PIPE
 CST CENTER STRIP
 CV CHECK VALVE

D

Dia DIAMETER
 DIP DUCTILE IRON PIPE
 DIT DRIP IRRIGATION TUBING
 DG DECOMPOSED GRANITE
 DN DIAMETER NOMINAL
 DVA DRIP VALVE ASSEMBLY

E

EC EROSION CONTROL
 ECTC EROSION CONTROL TECHNOLOGY COUNCIL
 Elect ELECTRIC/ELECTRICAL
 Elev ELEVATION
 ELL ELBOW
 ENCL ENCLOSURE
 EP EDGE OF PAVEMENT
 ES EDGE OF SHOULDER
 EST END STRIP
 ESTB ESTABLISHMENT
 ETW EDGE OF TRAVELED WAY

F

F FULL CIRCLE
 F/P FULL/PART CIRCLE
 FCV FLOW CONTROL VALVE
 FERT FERTILIZER
 FG FINISHED GRADE
 FH FLEXIBLE HOSE
 FIPT FEMALE IRON PIPE THREAD
 FIS FERTILIZER INJECTOR SYSTEM
 FL FLOW LINE
 FR FIBER ROLL
 FS FLOW SENSOR
 FSC FLOW SENSOR CABLE
 FV FLUSH VALVE

G

Galv GALVANIZED
 GARV GARDEN VALVE
 GARVA GARDEN VALVE ASSEMBLY
 GM GRAVEL MULCH
 GPH GALLONS PER HOUR
 GPM GALLONS PER MINUTE
 GSP GALVANIZED STEEL PIPE
 GV GATE VALVE

H

H HALF CIRCLE
 HDPE HIGH DENSITY POLYETHYLENE
 HP HORSEPOWER/HINGE POINT
 HPL HIGH PRESSURE LINE
 Hwy HIGHWAY

I

IC IRRIGATION CONTROLLER
 ICC IRRIGATION CONTROLLER(S)
 IN CONTROLLER ENCLOSURE CABINET
 ID INSIDE DIAMETER
 IFS IRRIGATION FILTRATION SYSTEM
 IPS IRON PIPE SIZE
 IPT IRON PIPE THREAD
 Irr IRRIGATION

L

L LENGTH

M

Max MAXIMUM
 MBGR METAL BEAM GUARD RAILING
 MCV MANUAL CONTROL VALVE
 MIC MASTER IRRIGATION CONTROLLER
 Min MINIMUM
 MIPT MALE IRON PIPE THREAD
 Misc MISCELLANEOUS
 MtI MATERIAL
 MVP MAINTENANCE VEHICLE PULLOUT

N

NCN NO COMMON NAME
 NL NOZZLE LINE
 No. NUMBER
 NPT NATIONAL PIPE THREAD

O

O/C ON CENTER
 OD OUTSIDE DIAMETER
 OL OVERLAP

P

P PART CIRCLE
 PB PULL BOX
 PCC PORTLAND CEMENT CONCRETE
 PE POLYETHYLENE
 Pkt PACKET
 PL PLASTIC
 PLS PURE LIVE SEED
 PLT PLANT/PLANTING
 PLT ESTB PLANT ESTABLISHMENT
 PM POST MILE
 PR PRESSURE RATED
 PRLV PRESSURE RELIEF VALVE
 PRV PRESSURE REGULATING VALVE
 PVC POLYVINYL CHLORIDE
 PvmT PAVEMENT

Q

Q QUARTER CIRCLE
 QCV QUICK COUPLING VALVE

R

R RADIUS
 RCP REINFORCED CONCRETE PIPE
 RCV REMOTE CONTROL VALVE
 RCVM REMOTE CONTROL VALVE (MASTER)
 RCVMF REMOTE CONTROL VALVE (MASTER) W/FLOW SENSOR
 RCVP REMOTE CONTROL VALVE W/PRESSURE REGULATOR
 RCW RECYCLED WATER
 RECP ROLLED EROSION CONTROL PRODUCT
 REQ REQUIRED
 RICS REMOTE IRRIGATION CONTROL SYSTEM
 R/W RIGHT OF WAY

S

S SLIP
 SCH SCHEDULE
 SF STATE-FURNISHED
 Shld SHOULDER
 Sq SQUARE
 SST SIDE STRIP
 Sta STATION
 Std STANDARD
 SW SIDEWALK/SOUND WALL

T

T THIRD CIRCLE/THREAD
 TLS TRUCK LOADING STANDPIPE
 TQ THREE QUARTER CIRCLE
 TRM TURF REINFORCEMENT MAT
 TT TWO-THIRDS CIRCLE
 TWSA TREE WELL SPRINKLER ASSEMBLY
 Typ TYPICAL

U

UG UNDERGROUND

W

W WIDTH
 W/ WITH
 WM WATER METER
 WS WYE STRAINER
 WSA WYE STRAINER ASSEMBLY
 WSP WELDED STEEL PIPE
 WWM WELDED WIRE MESH

NOTE:
 For additional abbreviations,
 see Standard Plans A10A and A10B.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**LANDSCAPE AND
 EROSION CONTROL ABBREVIATIONS**
 NO SCALE

RSP H1 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H1
 DATED MAY 20, 2011 - PAGE 218 OF THE STANDARD PLANS BOOK DATED 2010.

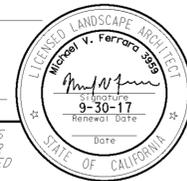
REVISED STANDARD PLAN RSP H1

2010 REVISED STANDARD PLAN RSP H1

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	25	65

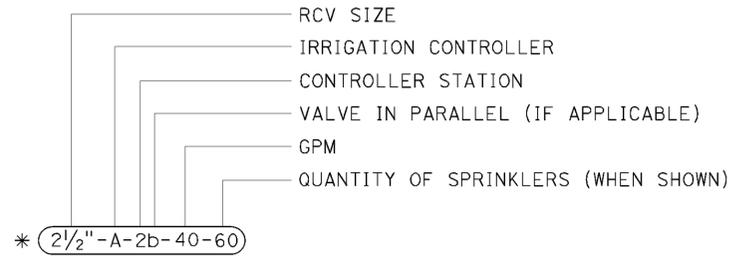

 LICENSED LANDSCAPE ARCHITECT
 July 15, 2016
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



TO ACCOMPANY PLANS DATED March 14, 2016

EXISTING	NEW	ITEM DESCRIPTION
		WATER METER (WM)
		BACKFLOW PREVENTER ASSEMBLY (BPA)
		BACKFLOW PREVENTER ENCLOSURE (BPE)
		BOOSTER PUMP (BP)
		TRUCK LOADING STANDPIPE (TLS)
		FLOW SENSOR (FS)
		MASTER IRRIGATION CONTROLLER (MIC)
		AUXILIARY IRRIGATION CONTROLLER (AIC)
		IRRIGATION CONTROLLER (IC) IRRIGATION CONTROLLER (IC) (BATTERY) IRRIGATION CONTROLLER (IC) (SOLAR) IRRIGATION CONTROLLER (IC) (TWO WIRE)
		IRRIGATION CONTROLLER(S) IN CONTROLLER ENCLOSURE CABINET (ICC)
		ARMOR-CLAD CONDUCTORS (ACC)
		CONTROL AND NEUTRAL CONDUCTORS (CNC)
		IRRIGATION CONDUIT
		IRRIGATION SLEEVE
		DUCTILE IRON PIPE (SUPPLY LINE) (MAIN) (DIP)
		GALVANIZED STEEL PIPE (SUPPLY LINE) (MAIN) (GSP)
		GALVANIZED STEEL PIPE (SUPPLY LINE) (LATERAL) (GSP)
		PLASTIC PIPE (SUPPLY LINE) (MAIN)
		PLASTIC PIPE (SUPPLY LINE) (LATERAL)
		COPPER PIPE (SUPPLY LINE)
		DRIP IRRIGATION TUBING
		REMOTE CONTROL VALVE (RCV) REMOTE CONTROL VALVE (MASTER) (RCVM) REMOTE CONTROL VALVE (MASTER) W/FLOW METER (RCVMF)
		REMOTE CONTROL VALVE W/PRESSURE REGULATOR (RCVP)
		EXISTING MANUAL CONTROL VALVE (MCV)
		DRIP VALVE ASSEMBLY (DVA)
		WYE STRAINER ASSEMBLY (WSA)

EXISTING	NEW	ITEM DESCRIPTION
		GATE VALVE (GV)
		BALL VALVE (BV)
		QUICK COUPLING VALVE (QCV)
		CAM COUPLER ASSEMBLY (CCA)
		GARDEN VALVE ASSEMBLY (GARVA)
		PRESSURE REGULATING VALVE (PRV)
		PRESSURE RELIEF VALVE (PRLV)
		FLOW CONTROL VALVE (FCV)
		COMBINATION AIR RELEASE VALVE (CARV)
		CHECK VALVE (CV)
		FLUSH VALVE (FV)
		EXISTING NOZZLE LINE W/TURNING UNION
		EXISTING IRRIGATION SYSTEM
		EXISTING IRRIGATION SYSTEM TO BE REMOVED
		CHAIN LINK GATE
		QUICK COUPLING VALVE W/SPRINKLER PROTECTOR
		SPRINKLER W/SPRINKLER PROTECTOR
		CONNECT TO EXISTING SYSTEM
		CAP
		CAP EXISTING
		FIBER ROLL
		COMPOST SOCK



VALVE CODE

* VALVE CODES FOR EXISTING VALVES ARE SHOWN IN A DASHED ENCLOSURE.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**LANDSCAPE AND EROSION
CONTROL SYMBOLS**
NO SCALE

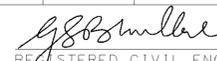
RSP H2 DATED JULY 15, 2016 SUPERSEDES RSP H2 DATED NOVEMBER 15, 2013 AND RSP H2 DATED JULY 19, 2013 AND STANDARD PLAN H2 DATED MAY 20, 2011 - PAGE 219 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H2

2010 REVISED STANDARD PLAN RSP H2

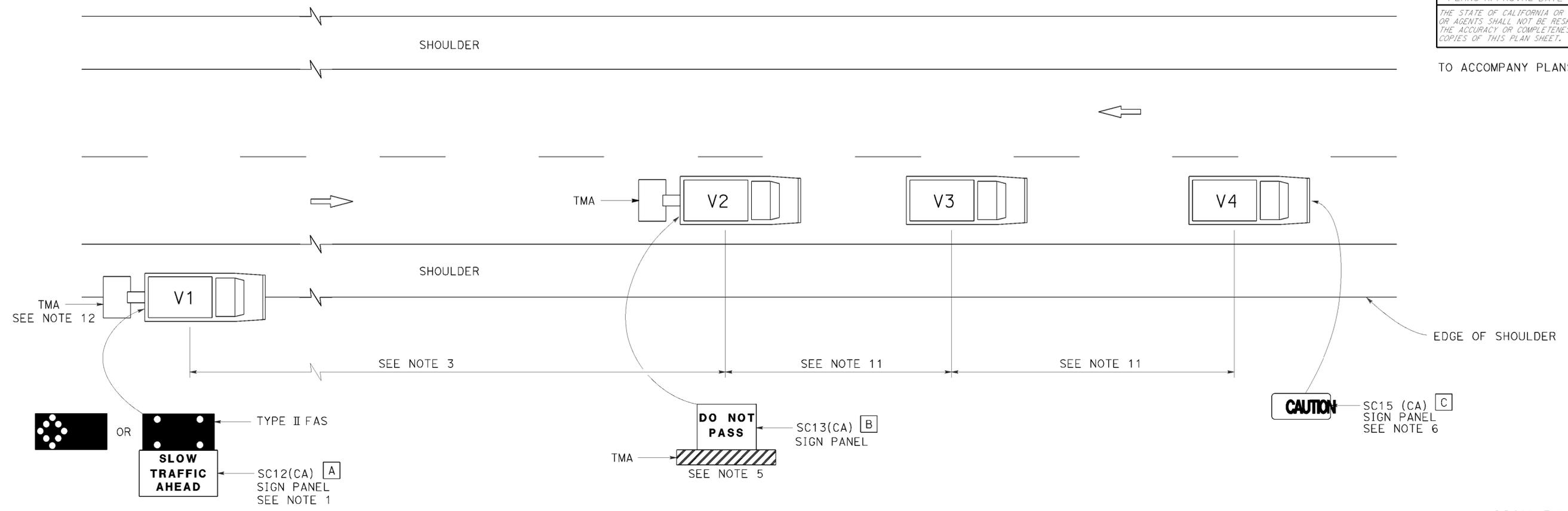
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	26	65


 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.

TO ACCOMPANY PLANS DATED March 14, 2016



NOTES:

1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. 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.
5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.
7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
9. 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.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. 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.

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- V4 SIGN VEHICLE
- TMA TRUCK-MOUNTED ATTENUATOR
-  FLASHING ARROW SIGN (FAS) IN FLASHING CAUTION MODE
-  FLASHING ARROW SIGN (FAS) IN ALTERNATING DIAMOND CAUTION

SIGN PANEL SIZE (Min)

- A** 72" x 42"
- B** 54" x 42"
- C** 54" x 24"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
FOR MOVING LANE CLOSURE
ON TWO LANE HIGHWAYS**
NO SCALE

RSP T17 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN IT17
DATED MAY 20, 2011 - PAGE 245 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T17

2010 REVISED STANDARD PLAN RSP T17

DATE PLOTTED => 18-AUG-2016
TIME PLOTTED => 1:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	27	65

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
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.

TO ACCOMPANY PLANS DATED March 14, 2016

SOFFIT AND WALL-MOUNTED LUMINAIRES

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

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL	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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-1A DATED JULY 19, 2013 AND STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1A

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

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

MISCELLANEOUS ELECTROLIERS

- | NEW | EXISTING | |
|-----|----------|---|
| | | LUMINAIRE ON WOOD POLE |
| | | NON-STANDARD ELECTROLIER (SEE PROJECT LEGEND) |
| | | CITY ELECTROLIER |
| | | ELECTROLIER FOUNDATION (FUTURE INSTALLATION) |

NOTES:

- 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 |

2010 REVISED STANDARD PLAN RSP ES-1A

DATE PLOTTED => 16-AUG-2016
TIME PLOTTED => 11:15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	28	65

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED March 14, 2016

CONDUIT

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

SIGNAL EQUIPMENT

NEW	EXISTING	
		PEDESTRIAN SIGNAL 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)
		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

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

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

SIGNAL EQUIPMENT Cont

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

NOTES:

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

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 OCTOBER 30, 2015 SUPERSEDES RSP ES-1B DATED JULY 19, 2013 AND 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

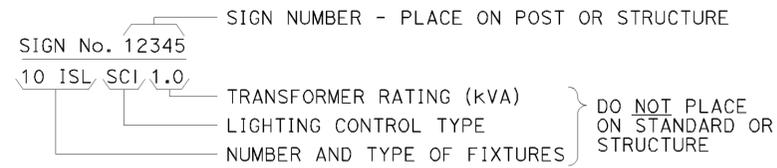
P:\PROJ\01\08260\01-08260\01-08260\01120001501va012.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	29	65

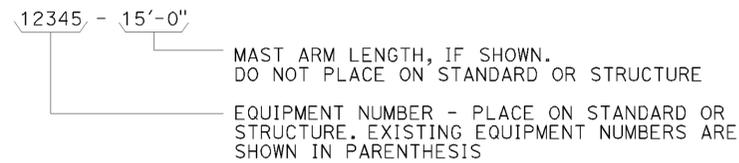
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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EQUIPMENT IDENTIFICATION

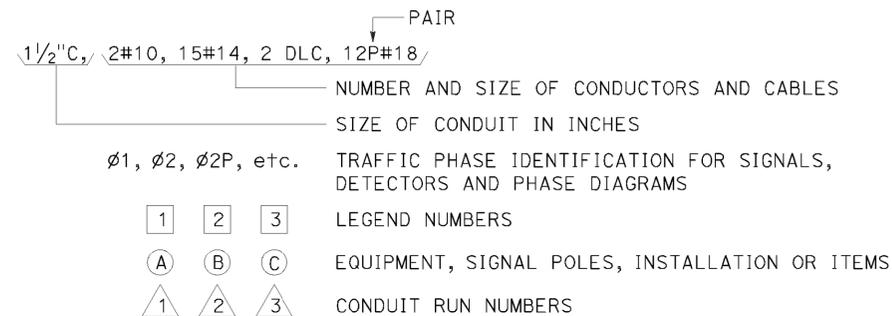
ILLUMINATED SIGN IDENTIFICATION NUMBER:



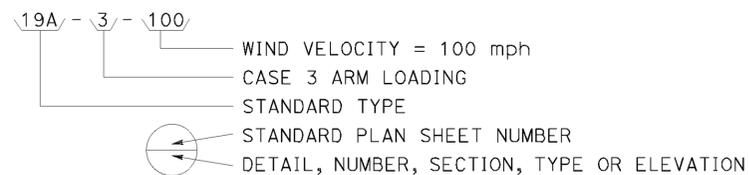
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



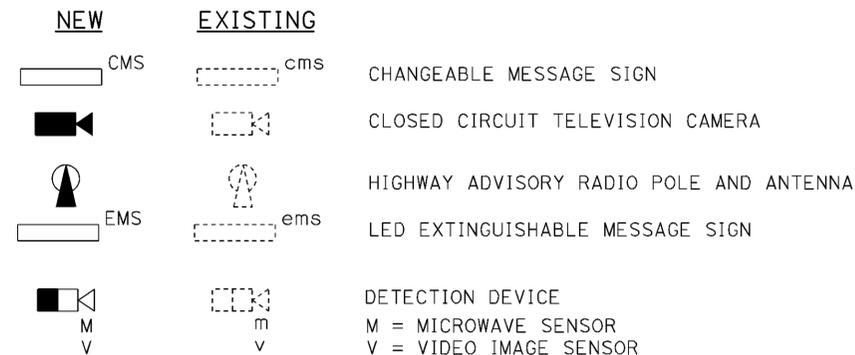
CONDUIT AND CONDUCTOR IDENTIFICATION:



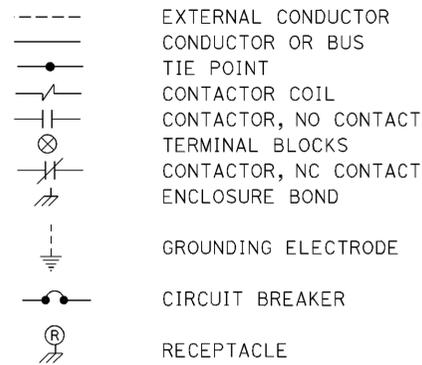
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



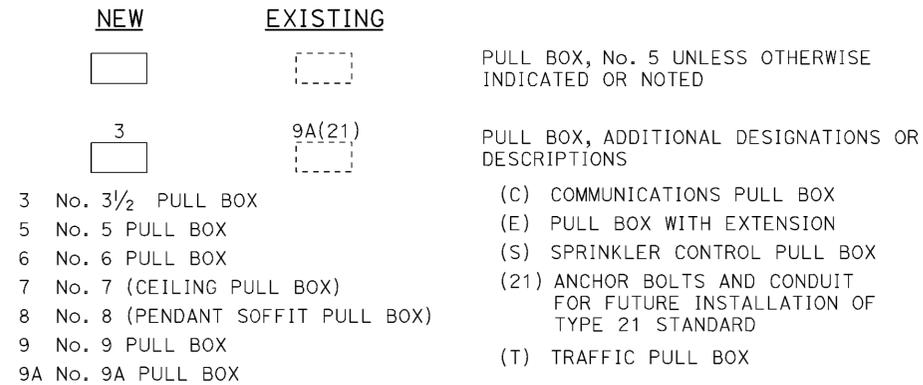
MISCELLANEOUS EQUIPMENT



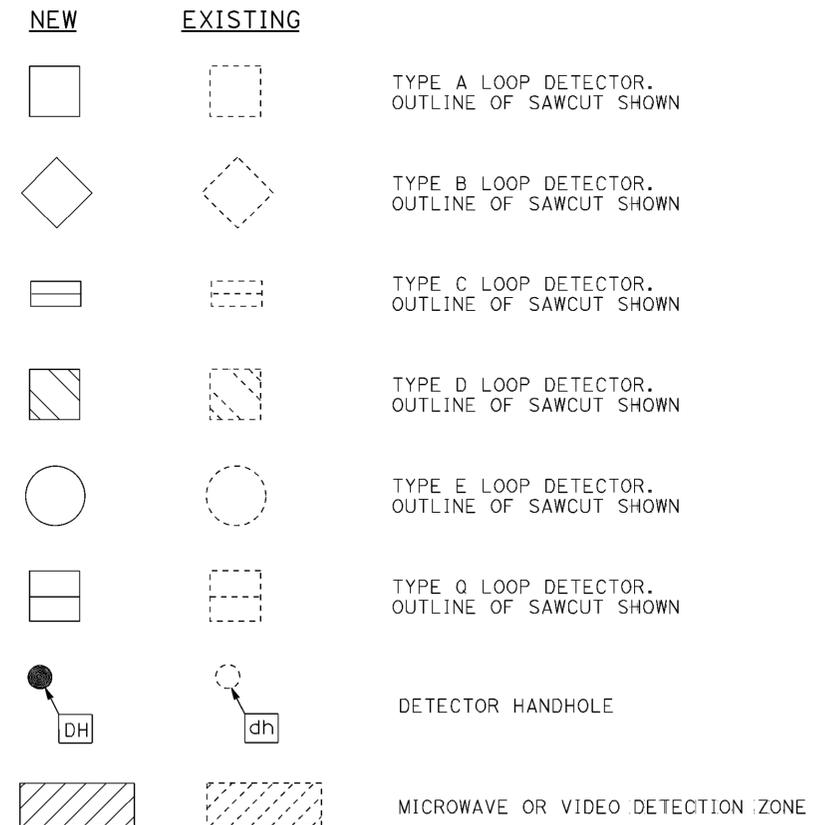
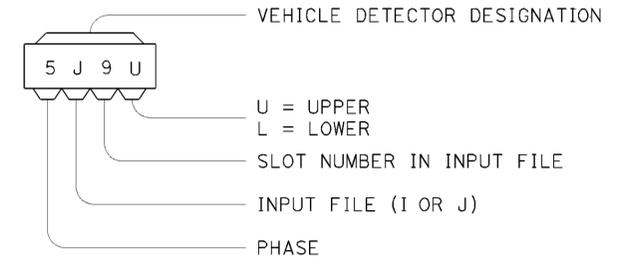
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-1C DATED JULY 19, 2013 AND STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

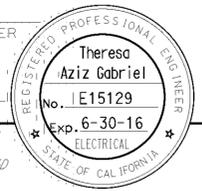
REVISED STANDARD PLAN RSP ES-1C

2010 REVISED STANDARD PLAN RSP ES-1C

DATE PLOTTED => 18-AUG-2016
TIME PLOTTED => 11:15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	DN	199	8.2	30	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE



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TO ACCOMPANY PLANS DATED March 14, 2016

NOTES:

1. The plan shows the approximate location of devices within the enclosure. Components may be rearranged, however, the "working" clearances within the service equipment enclosure shall be maintained.
2. In unpaved areas a raised portland cement concrete pad 2'-0" x 4" x width of foundation shall be constructed in front of new service equipment enclosure installation. Pad shall be set to elevation of foundation.
3. Plug-in circuit breakers may be mounted in the vertical or horizontal position. Cable-in/cable-out circuit breakers shall be mounted in the vertical position.
4. Type III-AF and Type III-BF service equipment enclosures shall have the meter viewing windows located on the front side of the service equipment enclosures.
5. Type III-AR and Type III-BR service equipment enclosure shall be similarly constructed as Type III-AF and Type III-BF respectively, except the meter viewing windows shall be located on the back side of the service equipment enclosures.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SERVICE EQUIPMENT ENCLOSURE
 NOTES TYPE III SERIES)**
 NO SCALE

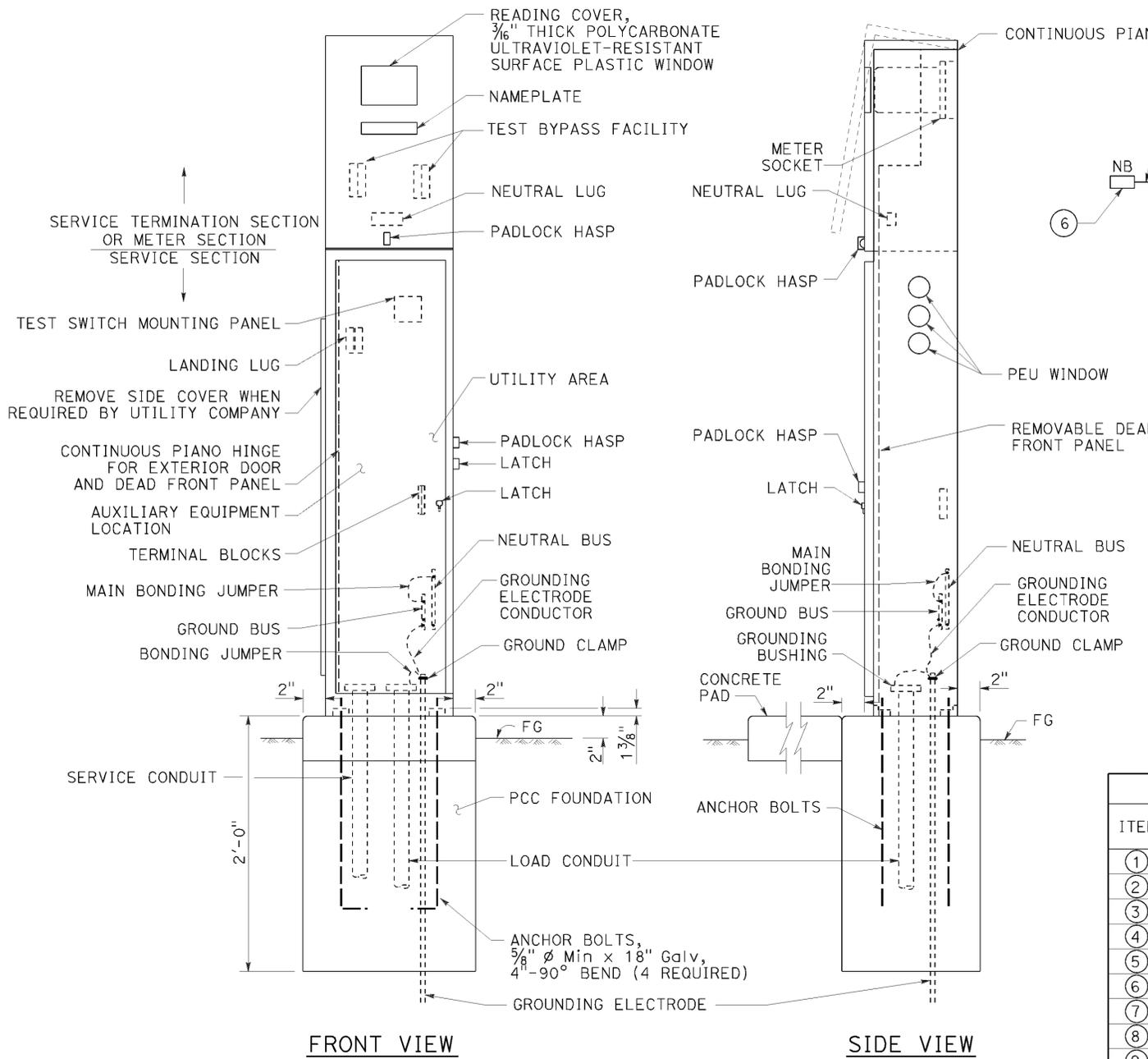
RSP ES-2C DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-2C DATED
 MAY 20, 2011 - PAGE 430 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-2C

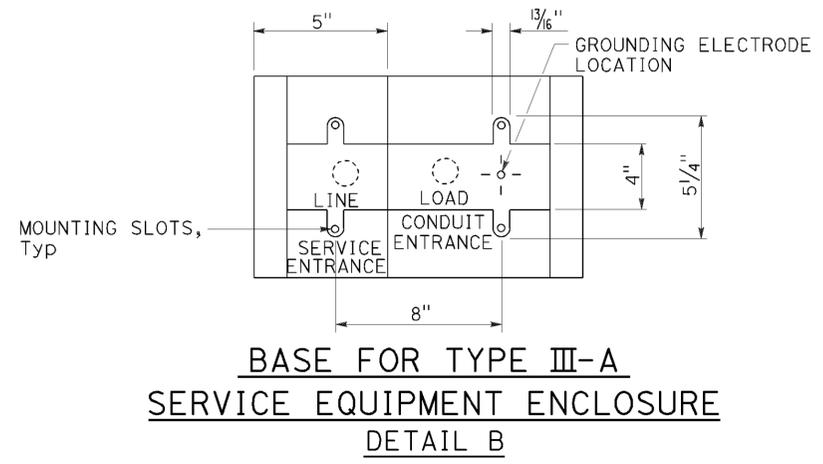
2010 REVISED STANDARD PLAN RSP ES-2C

DATE PLOTTED => 16-AUG-2016
 TIME PLOTTED => 11:15

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TYPE III-AF SERVICE EQUIPMENT ENCLOSURE (TYPICAL)
DETAIL A



DETAIL D

120/240 V SERVICE WIRING DIAGRAM (TYPICAL)
DETAIL C

TYPE III-A SERVICE EQUIPMENT ENCLOSURE LEGEND (120/240 V)

ITEM	COMPONENT	NAMEPLATE DESCRIPTION	ITEM	COMPONENT	NAMEPLATE DESCRIPTION
①	NEUTRAL LUG		⑭	30 A, 240 V, 2P, CB	SIGN ILLUMINATION
②	LANDING LUG		⑮	100 A, 240 V, 2P, CB	MAIN BREAKER
③	TEST BYPASS FACILITY		⑯	30 A, 240 V, 2P, CB	LIGHTING
④	METER SOCKET AND SUPPORT		⑰	50 A, 120 V, 1P, CB	SIGNALS
⑤	TERMINAL BLOCKS		⑱	30 A, 120 V, 1P, CB	RAMP METERING
⑥	NEUTRAL BUS		⑲	20 A, 120 V, 1P, CB	IRRIGATION
⑦	GROUND BUS		⑳	15 A, 120 V, 1P, CB	LIGHTING CONTROL
⑧	GROUNDING ELECTRODE		㉑	15 A, 1P, TEST SWITCH	IISNS TEST SWITCH
⑨	30 A, 2P, NO CONTACTOR	SIGN ILLUMINATION	㉒	15 A, 1P, TEST SWITCH	LIGHTING TEST SWITCH
⑩	PHOTOELECTRIC UNIT (NOTE 4)	PEU	㉓	60 A, 2P, NO CONTACTOR	LIGHTING
⑪	15 A, 1P, TEST SWITCH	SIGN ILLUMINATION TEST SWITCH	㉔	15 A, 120 V, 1P, CB	IISNS
⑫	15 A, 120 V, 1P, CB	SIGN ILLUMINATION CONTROL	㉕	30 A, 2P, NO CONTACTOR	IISNS
⑬	15 A, 120 V, 1P, CB	FLASHING BEACON	㉖	20 A, 120 V, 1P, CB	TELEPHONE DEMARCATON CABINET
			㉗	15 A, 120 V, 1P, CB	IISNS CONTROL

NOTES:

1. Unless otherwise indicated on the plans, service equipment items shall be provided for each service equipment enclosure as shown.
2. Connect to remote test switch mounted on lighting standards, sign post or structure when required.
3. Items ① and ⑥ shall be isolated from the service equipment enclosure.
4. Type I photoelectric control shall be used unless otherwise indicated on the plans.
5. Item ⑫, ⑳ and ㉗ shall be ganged operated CB.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(SERVICE EQUIPMENT ENCLOSURE
AND TYPICAL WIRING DIAGRAM,
TYPE III-A SERIES)**

NO SCALE

RSP ES-2D DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-2D DATED MAY 20, 2011 - PAGE 431 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-2D

2010 REVISED STANDARD PLAN RSP ES-2D

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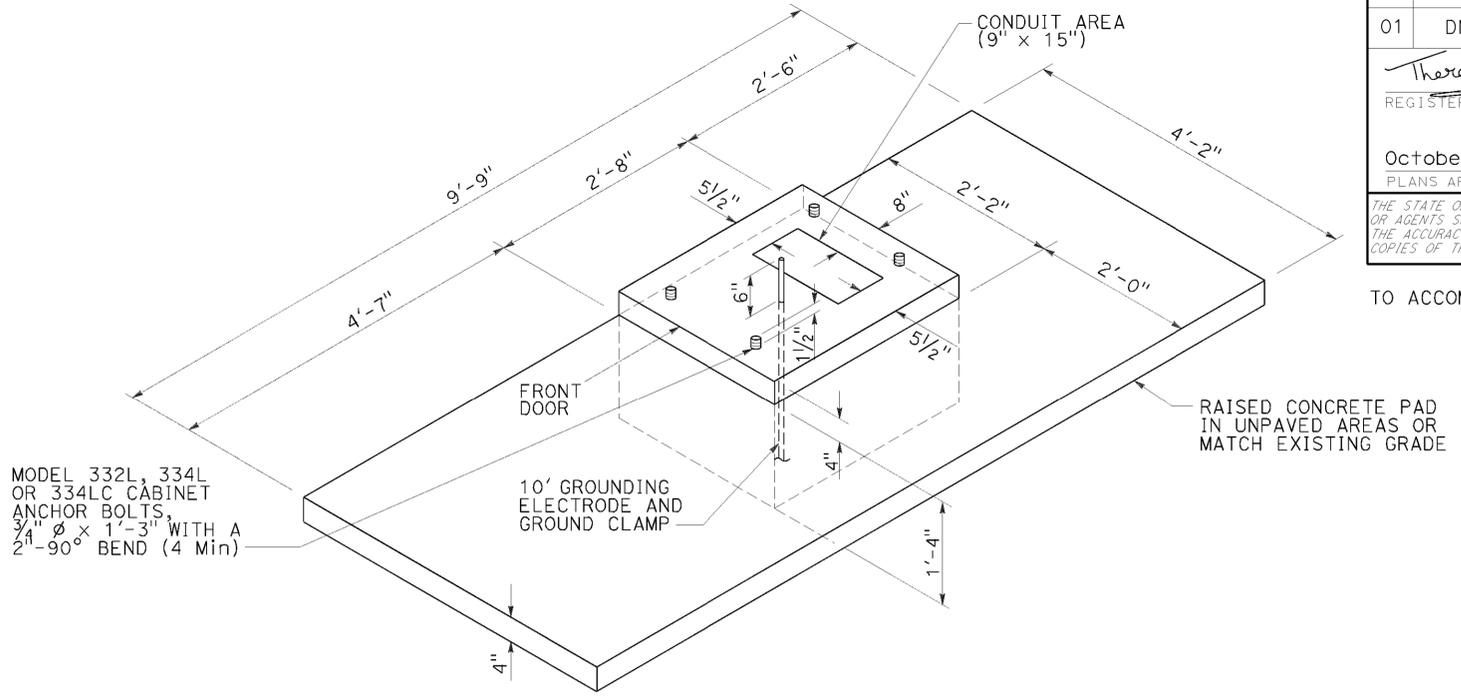
NOTES:

1. Foundation shall be located to provide 2'-0" minimum clearance between face of curb and any portion of cabinet.
2. Controller units, plug-mounted equipment, shelf-mounted equipment and wall-mounted equipment shall be located to permit safe and easy removal or replacement without removing any other piece of equipment.
3. Cabinet fan may be installed at an alternate location near the top of the cabinet when approved by the Engineer.
4. Where telephone interconnect is required, a minimum of 5" clear vertical space shall be provided inside the cabinet for the equipment.
5. Telephone interconnect conductors shall be enclosed in a 3/4" or larger conduit through the foundation. Type 4 conduit shall be used to separate telephone and power conductors in cabinets.

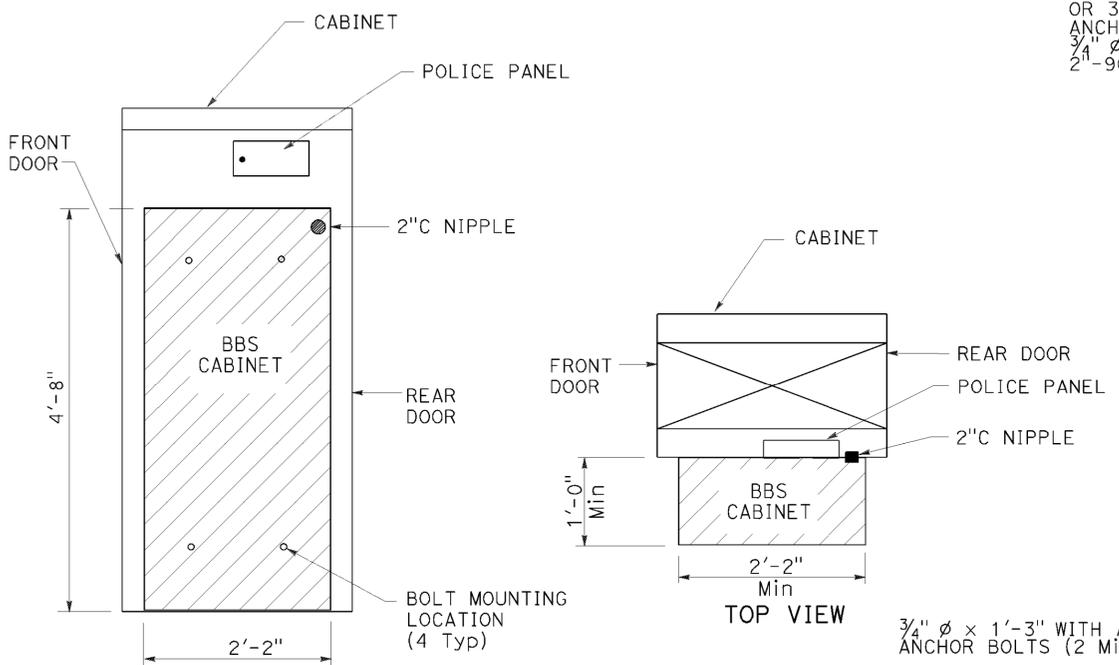
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	32	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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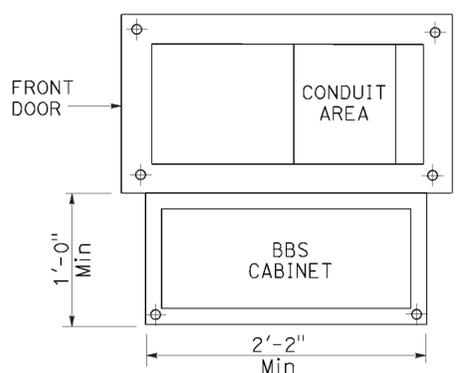
TO ACCOMPANY PLANS DATED March 14, 2016



FOUNDATION AND PAD DETAIL
 Model 332L, 334L and 334LC

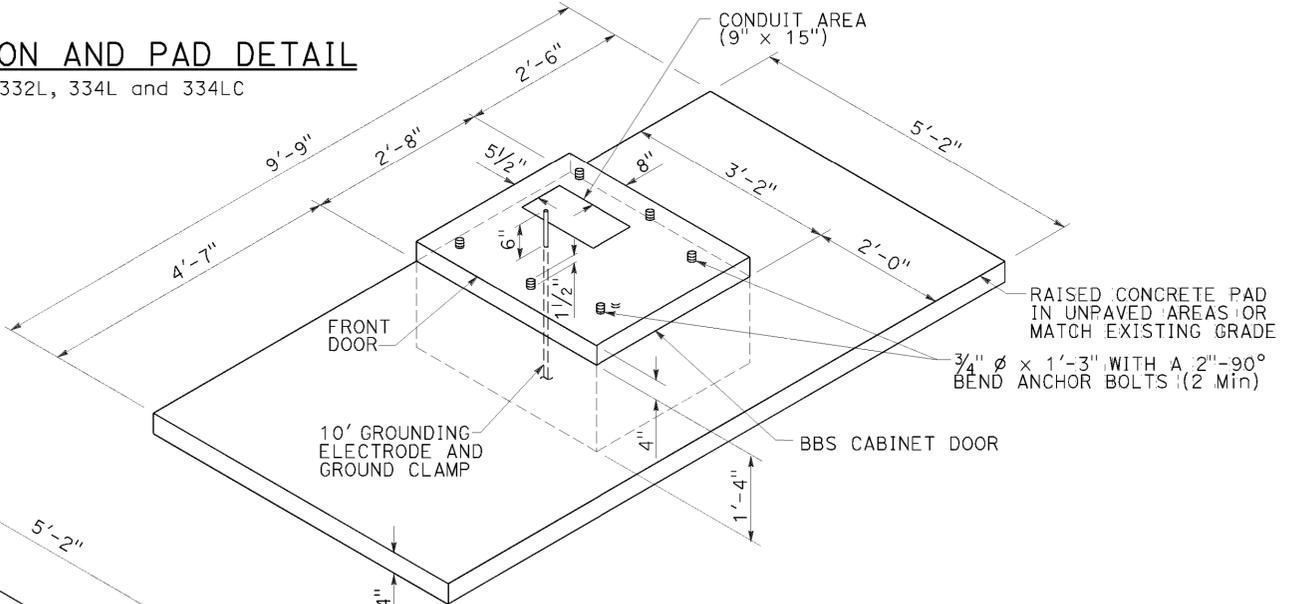


BBS CABINET MOUNTED TO THE MODEL 332L CABINET



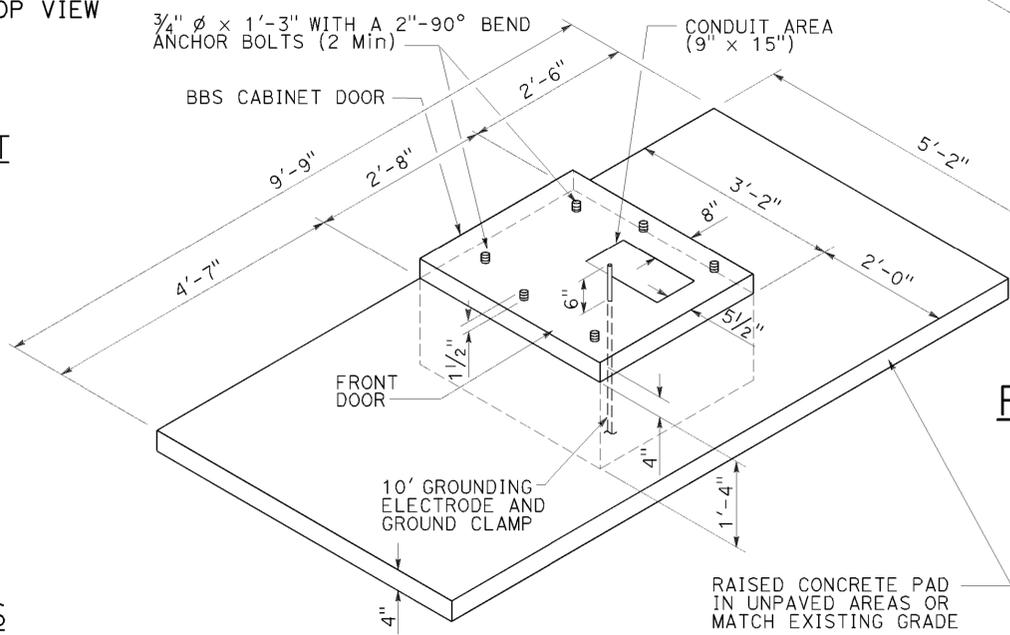
BASE PLAN FOR BBS MOUNTED TO THE MODEL 332L CABINET

(FOR DIMENSIONS AND DETAILS NOT SHOWN, SEE CABINET HOUSING DETAILS OF THE TRANSPORTATION ELECTRICAL EQUIPMENT SPECIFICATION (TEES))



RIGHT SIDE INSTALLATION
 DETAIL B

MODIFIED MODEL 332L CABINET
FOUNDATION DETAIL FOR BATTERY BACKUP SYSTEM



LEFT SIDE INSTALLATION
 DETAIL A

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(CONTROLLER CABINET
FOUNDATION AND PAD DETAILS)
 NO SCALE

RSP ES-3C DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-3C DATED MAY 20, 2011 - PAGE 437 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-3C

2010 REVISED STANDARD PLAN RSP ES-3C

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	33	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED March 14, 2016

PLAN VIEW OF OTHER SIDE MOUNTINGS

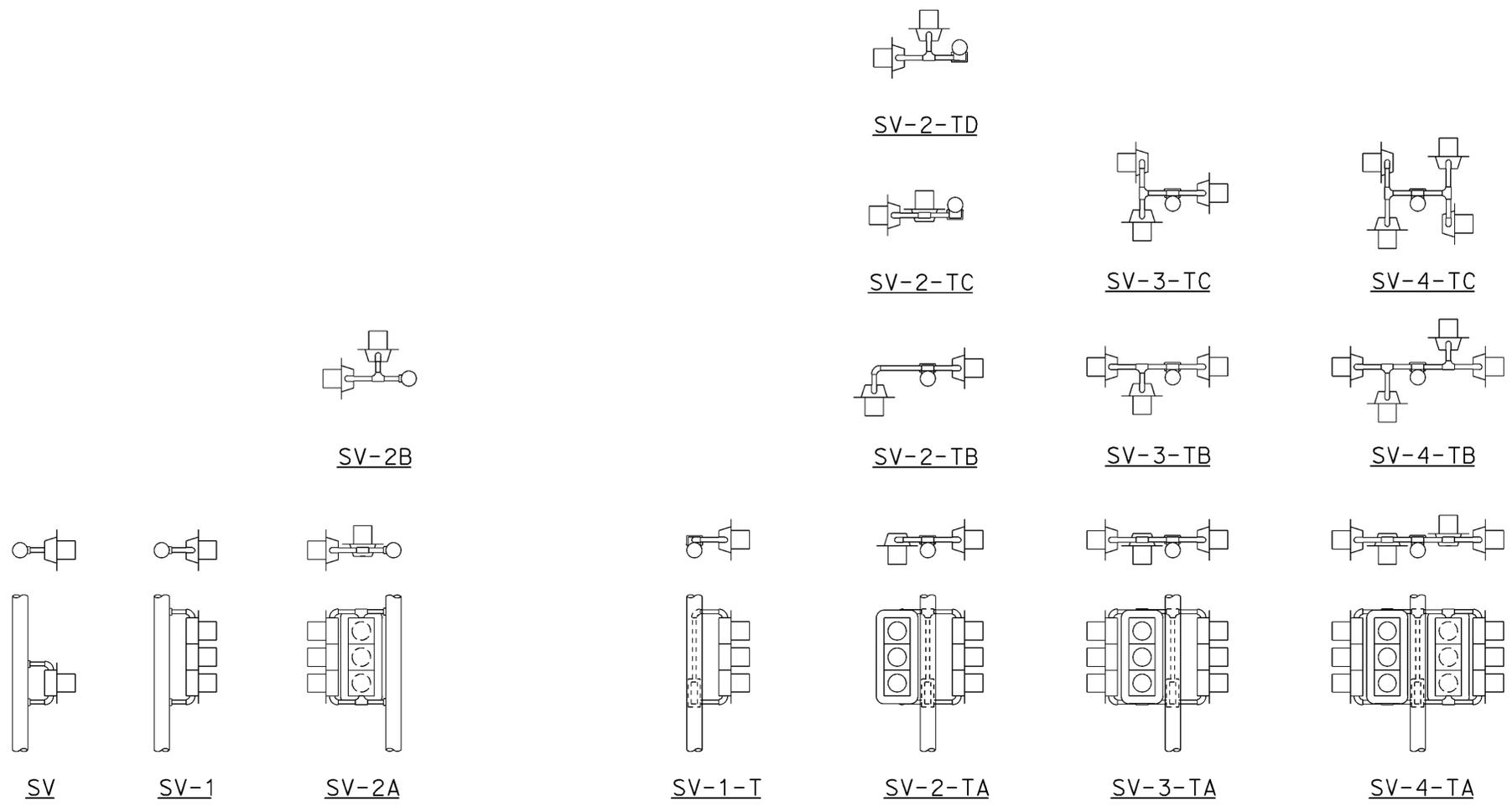
ABBREVIATIONS:

- SV SIDE MOUNTED SIGNAL HEADS
- T TERMINAL COMPARTMENT
- TV TOP MOUNTED SIGNAL HEADS
- 1, 2, 3, 4 NUMBER OF SIGNAL FACES (3 - SECTION, UNLESS OTHERWISE INDICATED)
- A, B, C, D CONFIGURATION OF SIGNALS

NOTES:

1. Mountings shall be oriented to provide maximum horizontal clearance to adjacent roadway.
2. Bracket arms shall be long enough to permit proper alignment of signals and backplate installation.
3. See Revised Standard Plans RSP ES-4D and RSP ES-4E for attachment fitting details.

PLAN VIEW OF TOP MOUNTINGS



SIDE MOUNTINGS

TOP MOUNTINGS

**ELECTRICAL SYSTEMS
(SIGNAL HEADS AND MOUNTINGS)**

NO SCALE

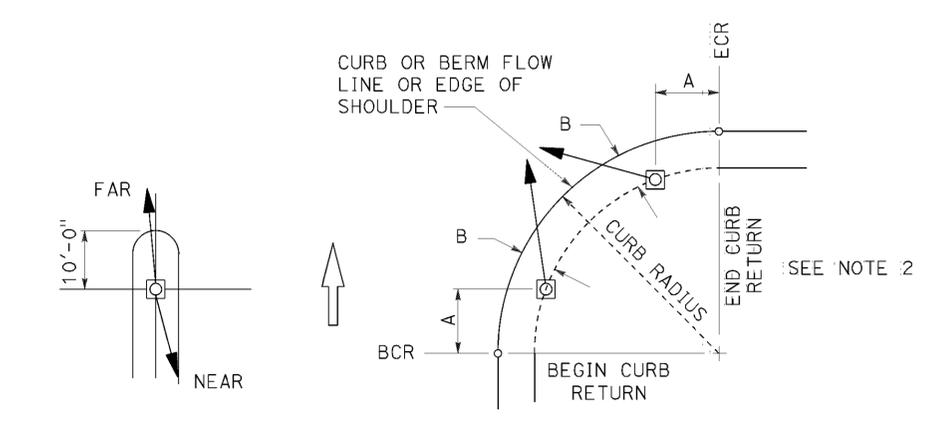
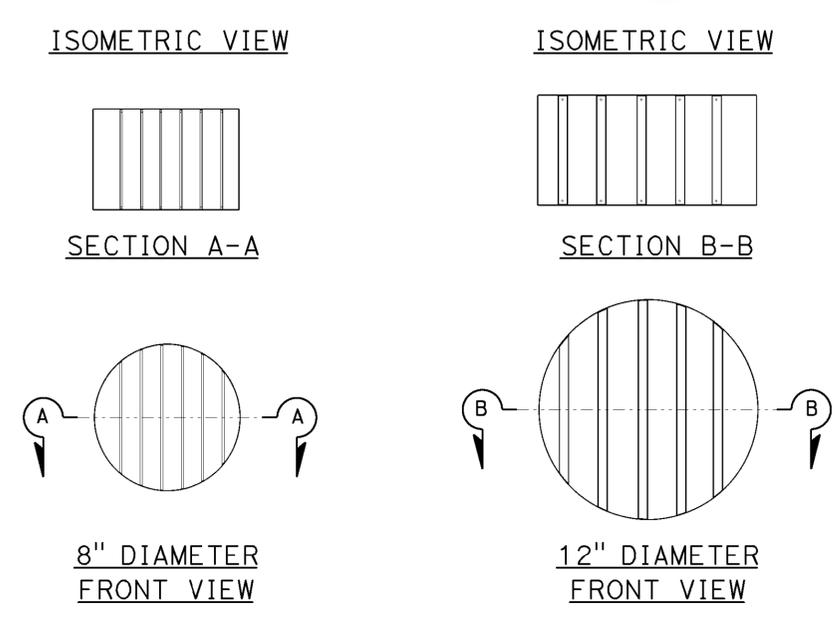
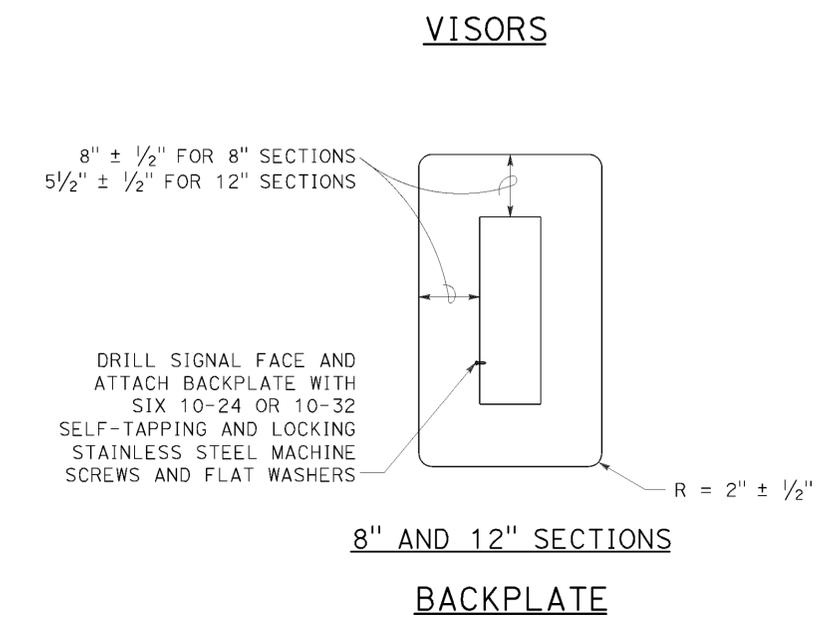
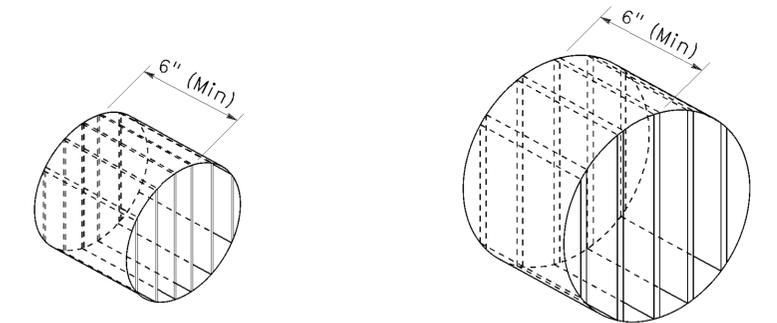
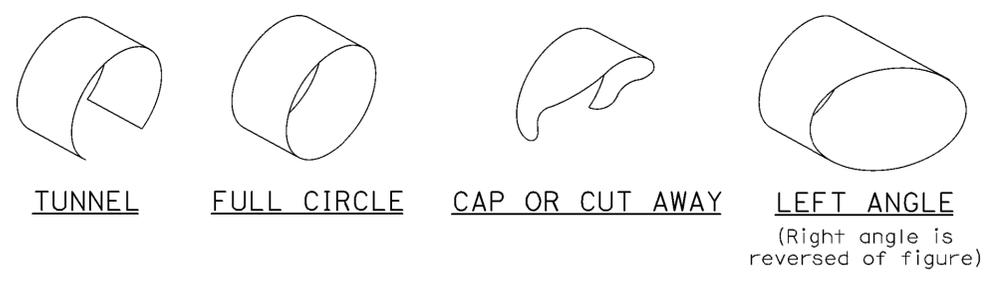
RSP ES-4A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-4A DATED JULY 19, 2013 AND STANDARD PLAN ES-4A DATED MAY 20, 2011 - PAGE 443 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	34	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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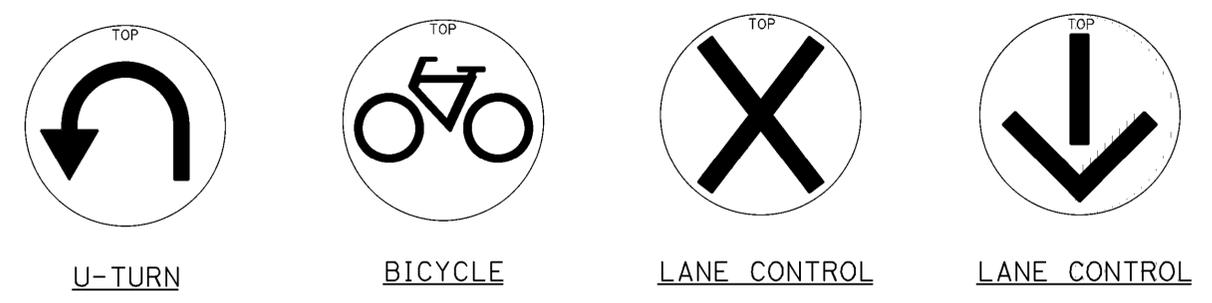
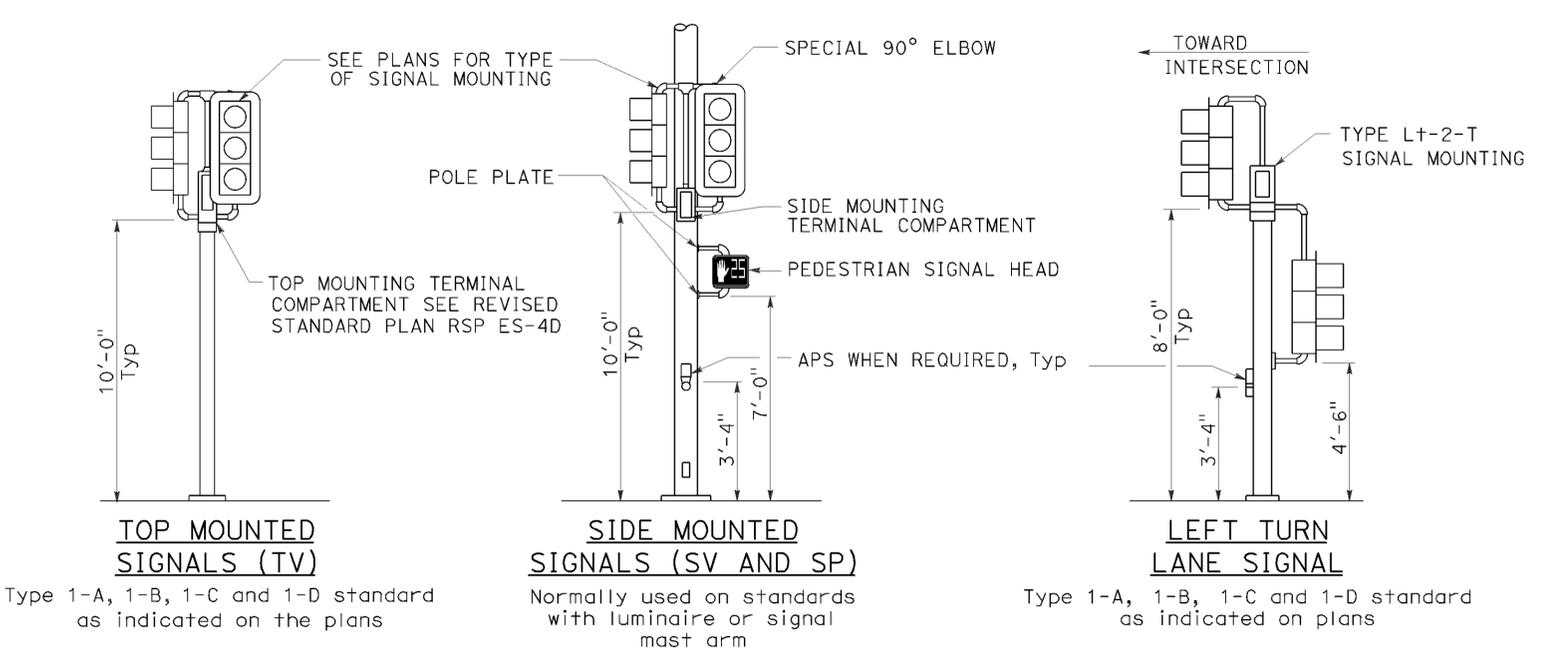
TO ACCOMPANY PLANS DATED March 14, 2016



- NOTES:**
1. Typical signal pole placement unless dimensioned on plans.
 2. For A and B dimensions, see Pole Schedule.

DIRECTIONAL LOUVER
 Directional louvers shall be oriented and secured in place with one plated brass machine screw and nut.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS



SIGNAL FACES

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)
 NO SCALE

RSP ES-4C DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-4C DATED JULY 19, 2013 AND STANDARD PLAN ES-4C DATED MAY 20, 2011 - PAGE 445 OF THE STANDARD PLANS BOOK DATED 2010.

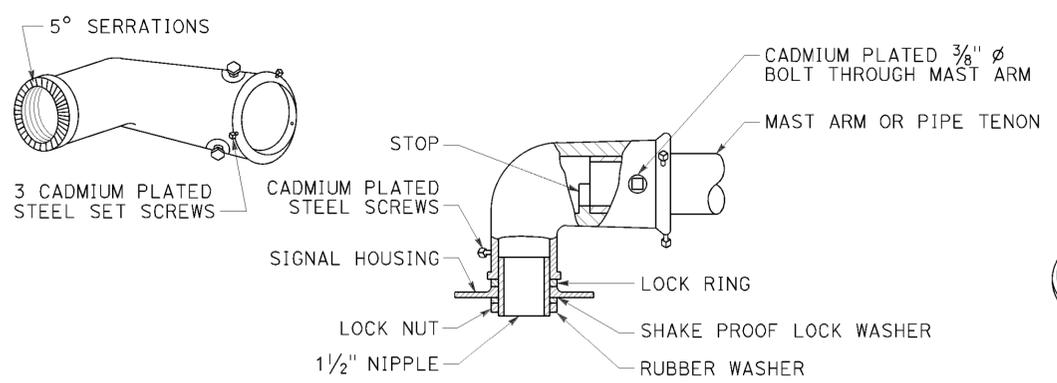
REVISED STANDARD PLAN RSP ES-4C

2010 REVISED STANDARD PLAN RSP ES-4C

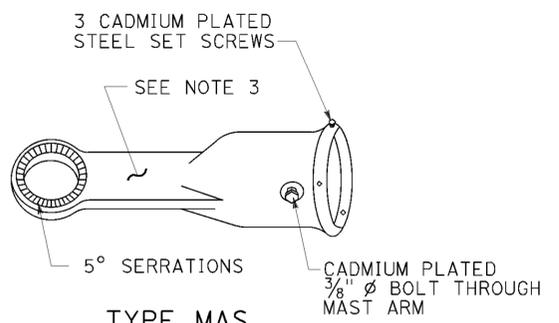
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	35	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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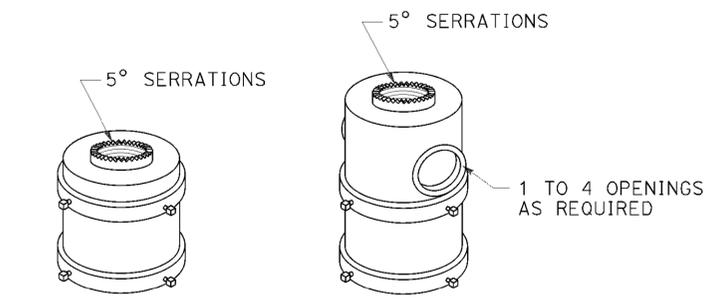
2010 REVISED STANDARD PLAN RSP ES-4D



TYPE MAT
MAST ARM MOUNTING
 For 2 NPS pipe, see Note 1.

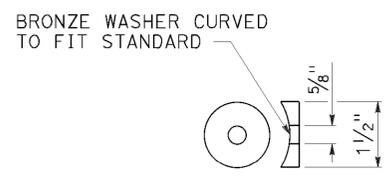


TYPE MAS
MAST ARM MOUNTING
 For 2 NPS pipe, see Note 1.

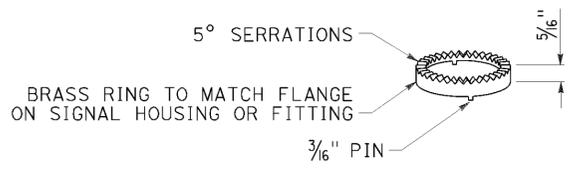


TOP MOUNTINGS
 For 4 NPS pipe, see Note 2.

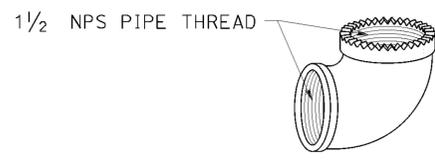
SIGNAL SLIP FITTERS



DETAIL C



LOCK RING
 Use where locking ring is not integral with signal housing or fitting.

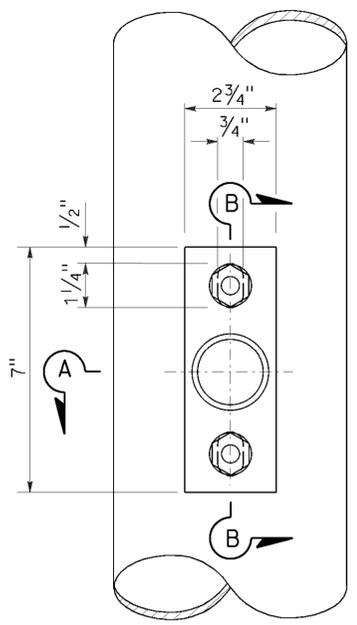


SPECIAL 90° ELBOW
 One for each signal head, except those with special slip fitter mounting

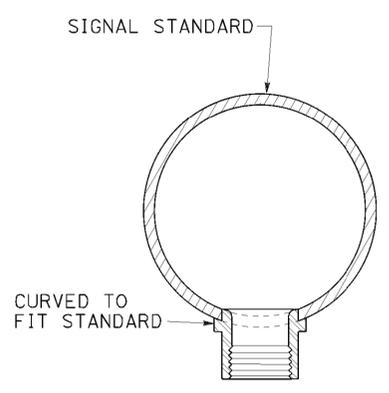
NOTES:

- After mast arm signal has been plumbed and secured, drill $\frac{1}{16}$ " hole through mast arm tenon in line with slip fitter hole. Place a cadmium plated $\frac{3}{8}$ " ϕ galvanized bolt with washer under bolt head through hole and secure with washer, nut, and locknut. Seal openings between mast arm mountings and mast arm with mastic.
- (A) Threaded top mounted slip fitter openings shall be $1\frac{1}{2}$ NPS.
 (B) Serrations in fittings shall match those on bottom of signal heads or in lock ring.
 (C) Top opening shall be offset when backplate is used.
- Wireway shall have a cross section area of 0.95 square inch minimum. Minimum width of $\frac{1}{2}$ ".

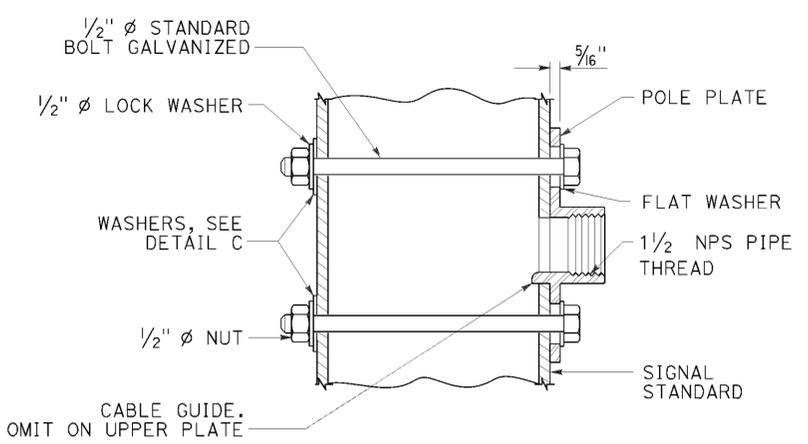
MISCELLANEOUS MOUNTING HARDWARE



TOP VIEW

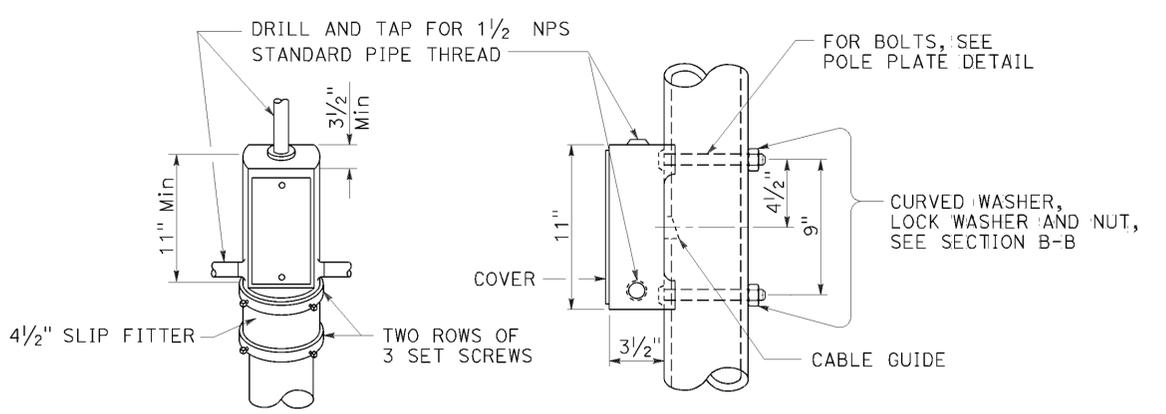


SECTION A-A



SECTION B-B

POLE PLATE FOR SIDE MOUNTED SIGNAL HEAD WITHOUT TERMINAL COMPARTMENT



TOP MOUNTING

SIDE MOUNTING

TERMINAL COMPARTMENT

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL HEAD MOUNTING)
 NO SCALE

RSP ES-4D DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-4D DATED MAY 20, 2011 - PAGE 446 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4D

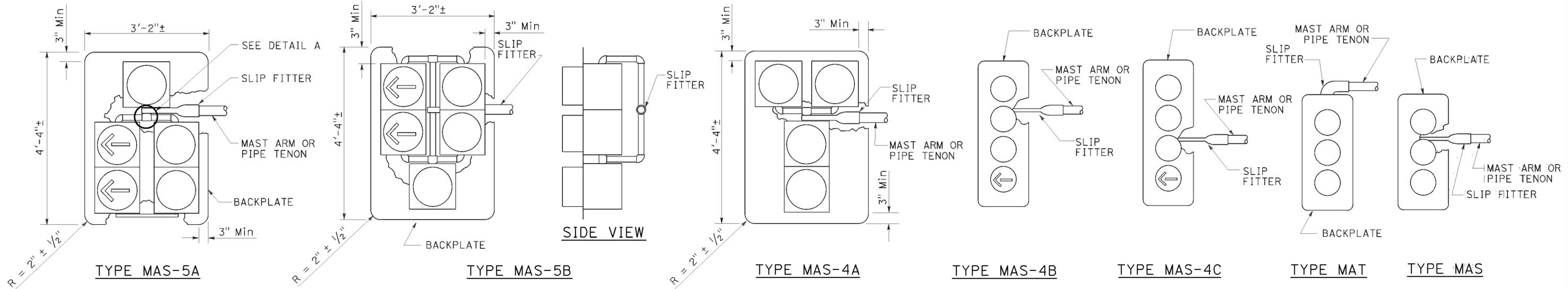
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	36	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE

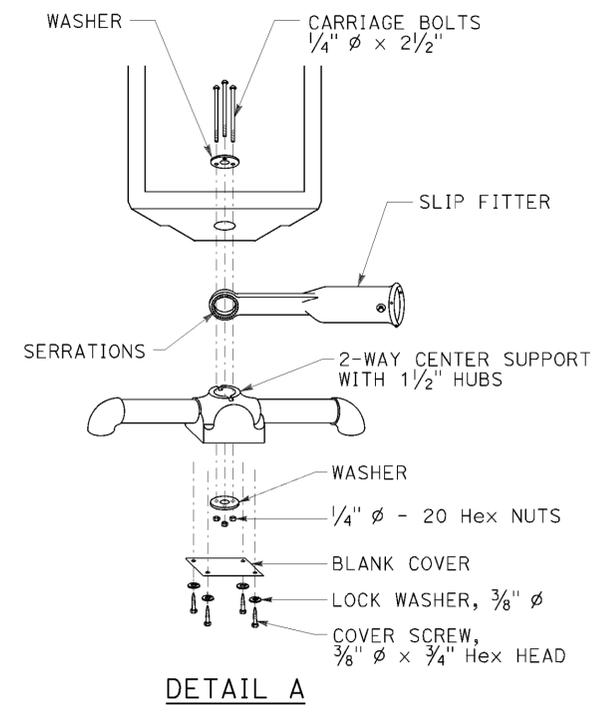
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REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. IE15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

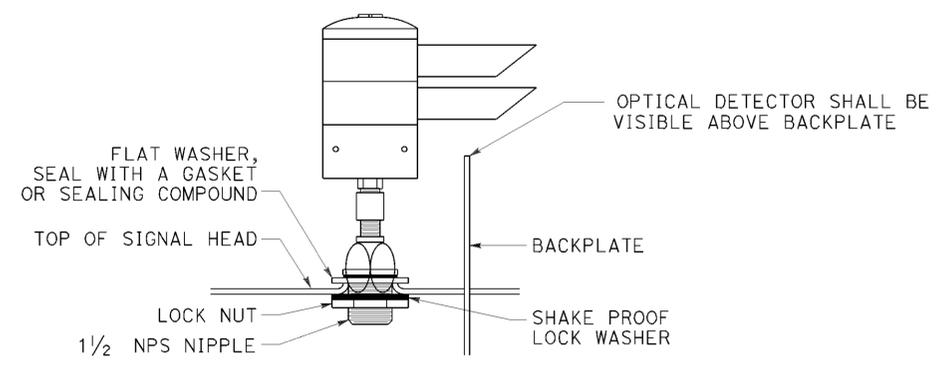
TO ACCOMPANY PLANS DATED March 14, 2016



MAST ARM MOUNTINGS



DETAIL A



OPTICAL DETECTOR MOUNTING FOR EMERGENCY VEHICLE DETECTION

DETAIL B

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (SIGNAL HEADS AND OPTICAL DETECTOR MOUNTING)
 NO SCALE

RSP ES-4E DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-4E DATED JULY 19, 2013 AND STANDARD PLAN ES-4E DATED MAY 20, 2011 - PAGE 447 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4E

2010 REVISED STANDARD PLAN RSP ES-4E

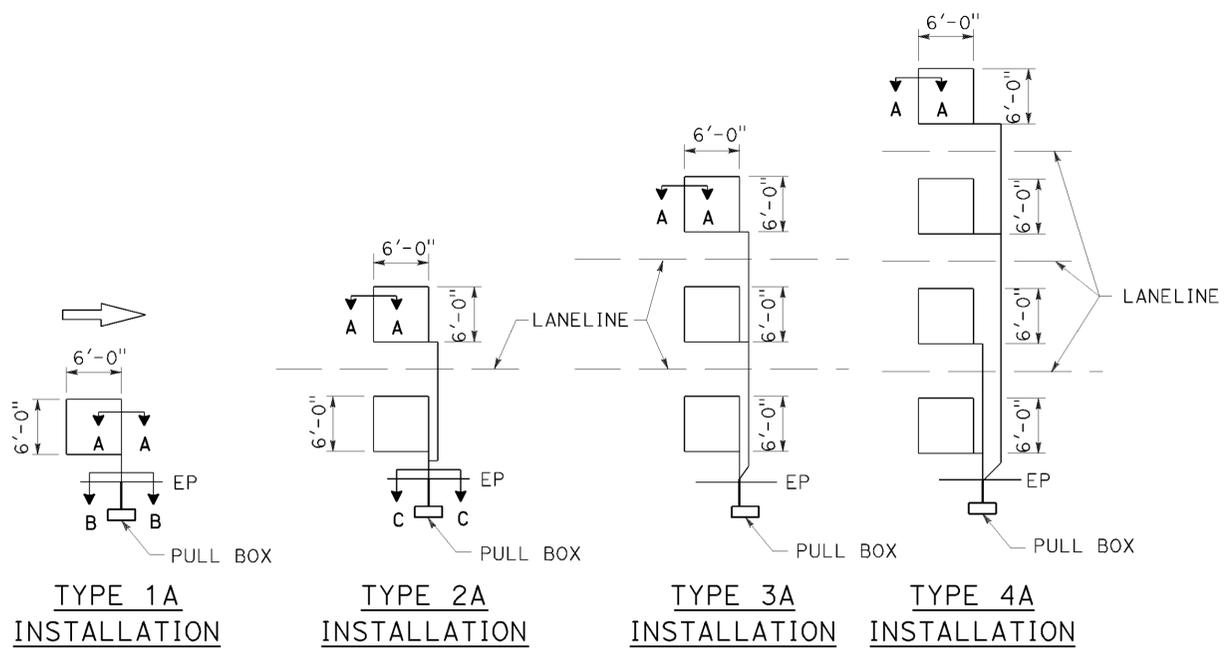
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	37	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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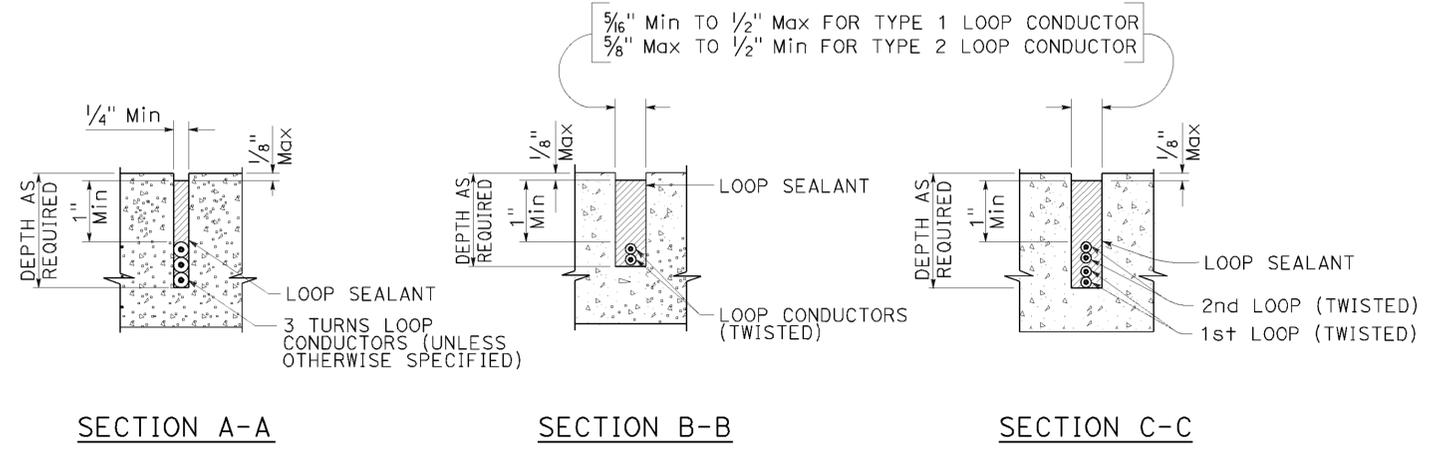


TO ACCOMPANY PLANS DATED March 14, 2016

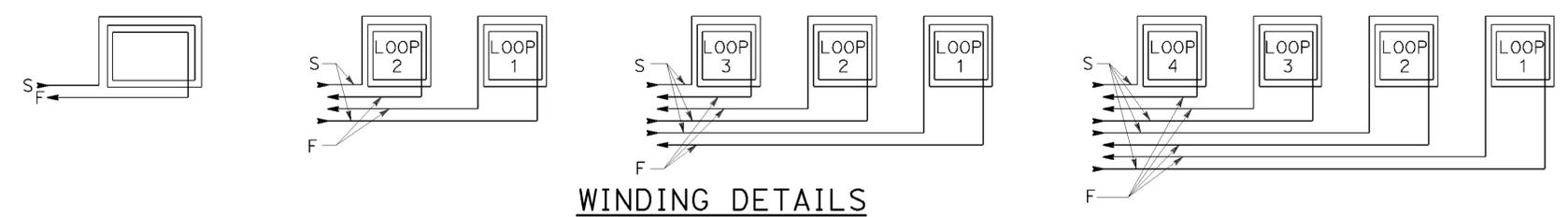


SAWCUT DETAILS

- Type A loop detector configurations illustrated
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans.

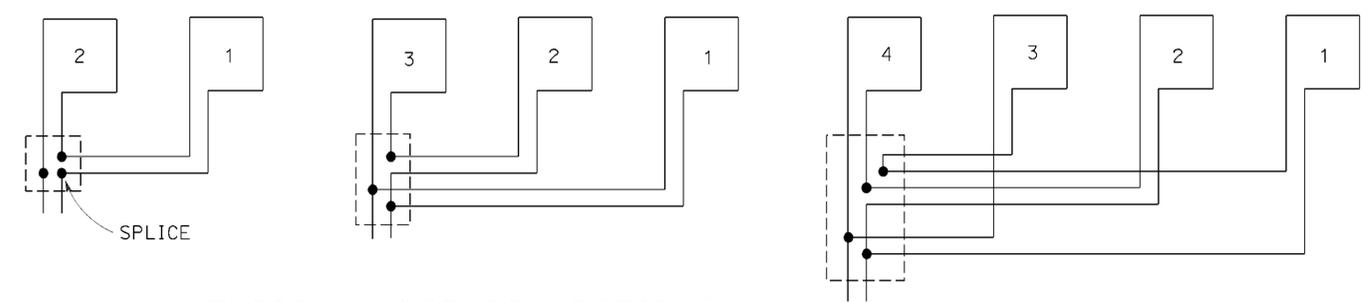


SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



WINDING DETAILS

ABBREVIATIONS:
 S - START
 F - FINISH



TYPICAL LOOP CONNECTIONS

Dashed lines represent the pull box

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LOOP DETECTORS)**
 NO SCALE

RSP ES-5A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-5A DATED MAY 20, 2011 - PAGE 448 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5A

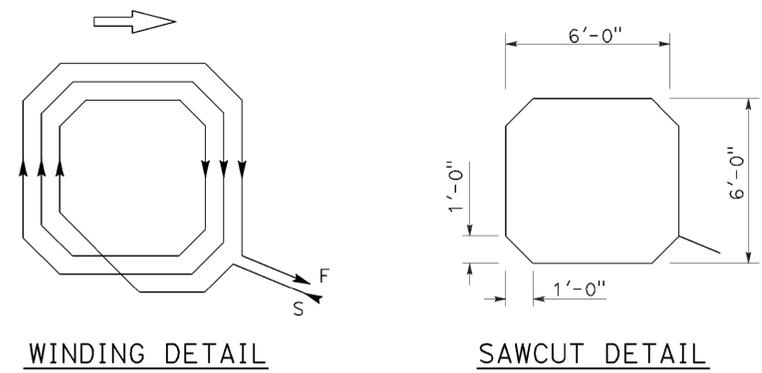
2010 REVISED STANDARD PLAN RSP ES-5A

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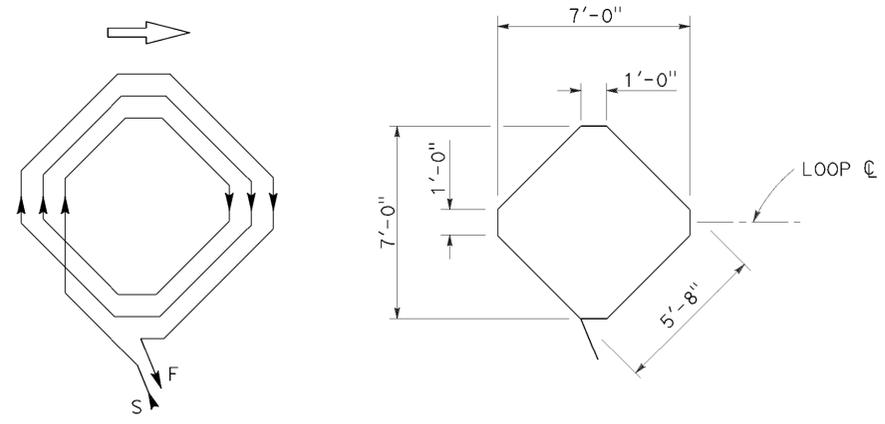
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	38	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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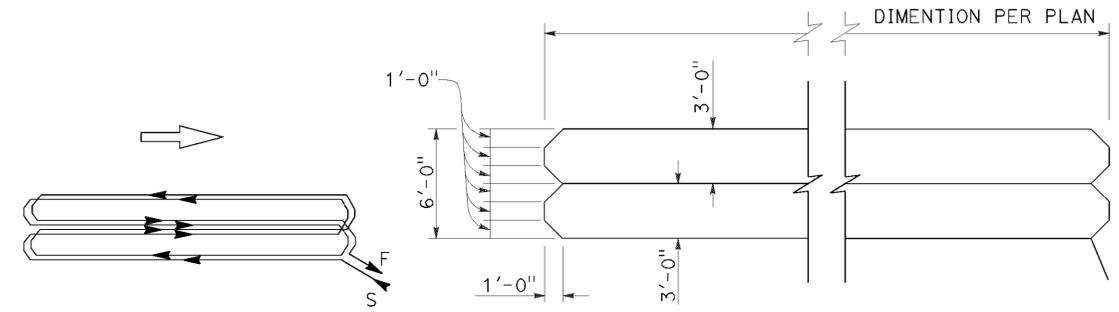
TO ACCOMPANY PLANS DATED March 14, 2016



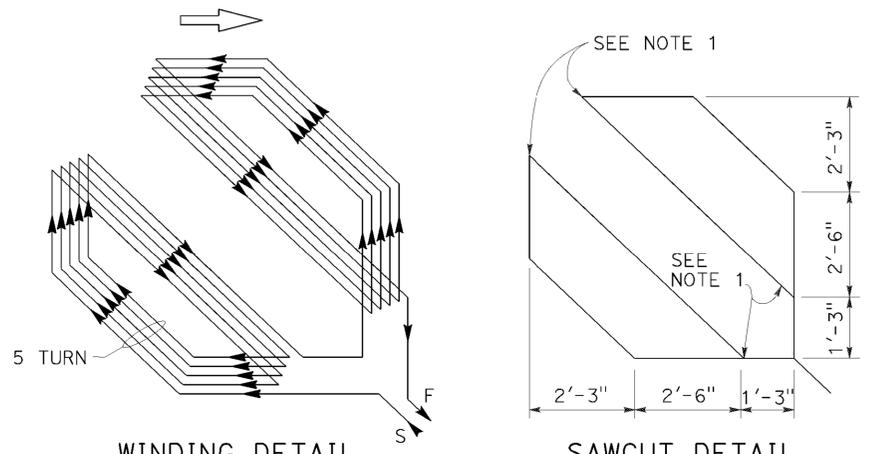
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



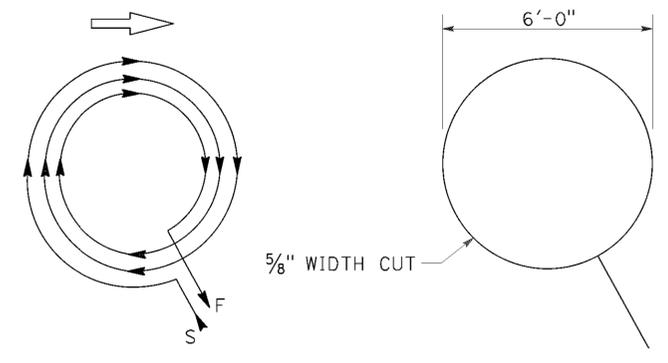
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



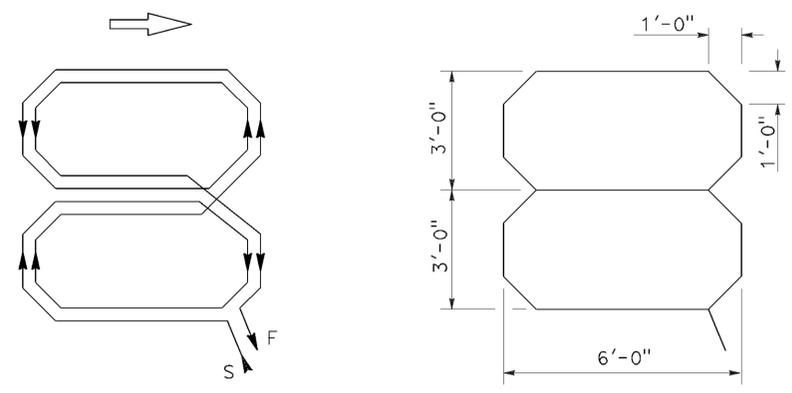
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



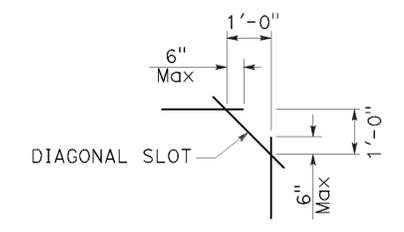
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



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.
 3. Use Type D loops for limit line detector installations in left turn and bicycle lanes.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (DETECTORS)
NO SCALE

RSP ES-5B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5B DATED JULY 19, 2013 AND STANDARD PLAN ES-5B DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5B

2010 REVISED STANDARD PLAN RSP ES-5B

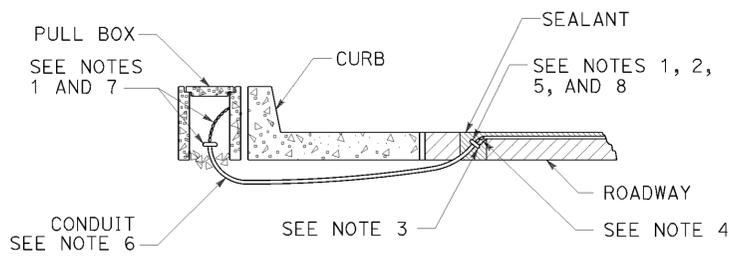
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	39	65

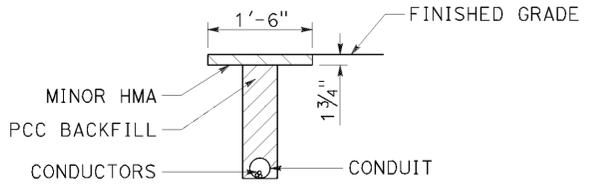
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 No. IE15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

October 30, 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.

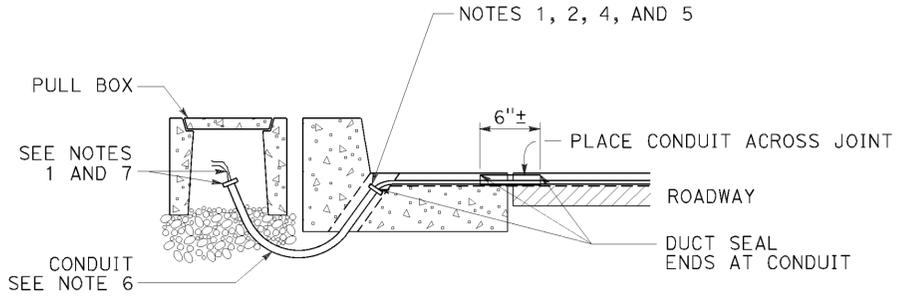
TO ACCOMPANY PLANS DATED March 14, 2016



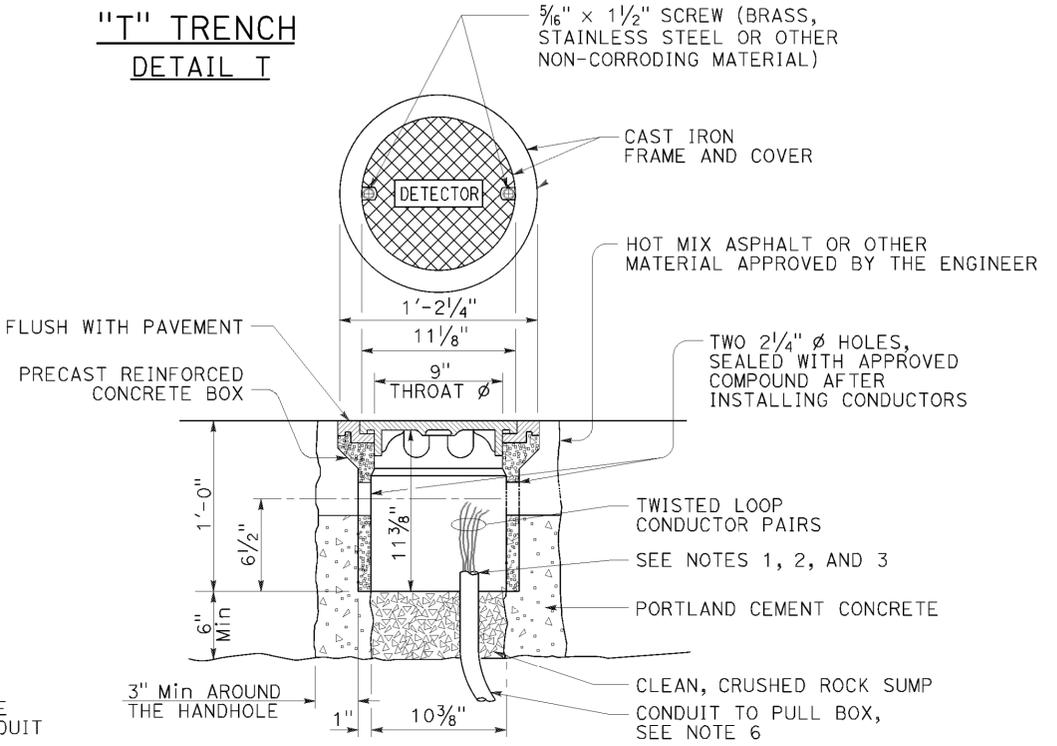
**TYPE A
CURB TERMINATION DETAIL**



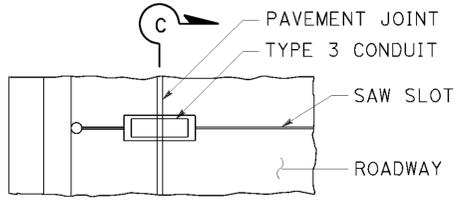
**"T" TRENCH
DETAIL T**



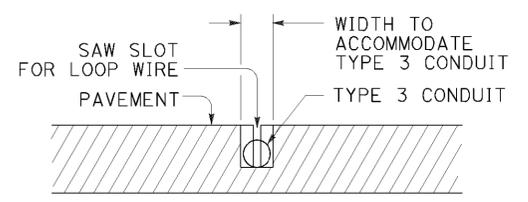
CROSS SECTION



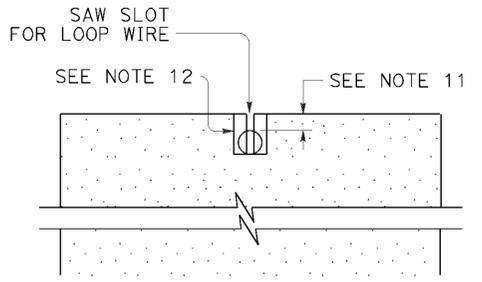
DETECTOR HANDHOLE DETAIL



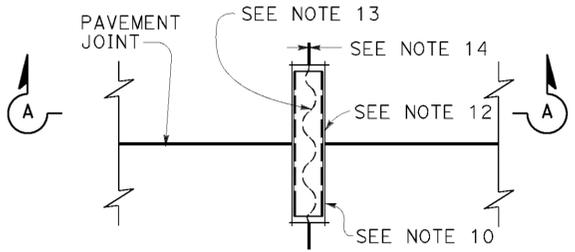
PLAN VIEW



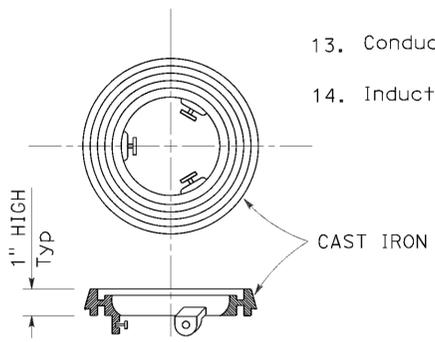
SECTION C-C



SECTION A-A



**PLAN VIEW
TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT**



LOCKING GRADE RING

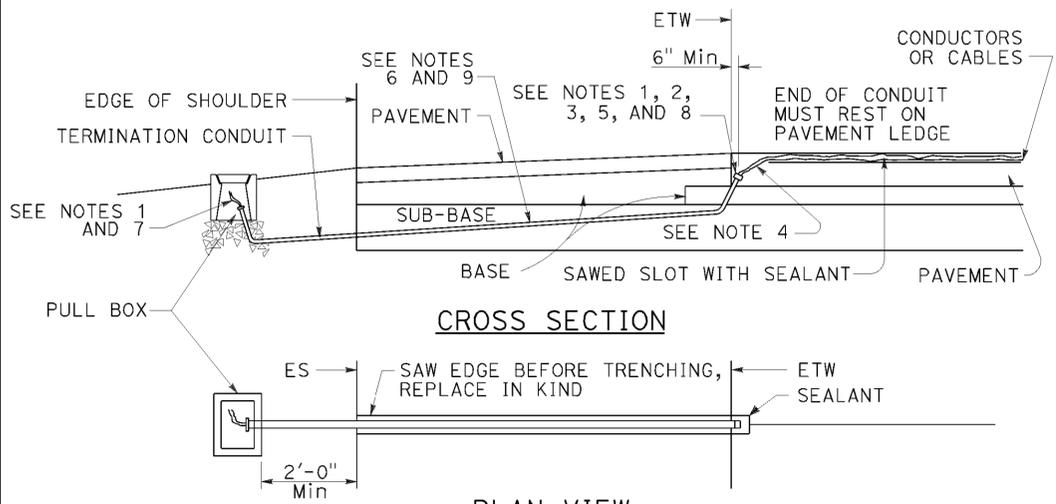
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(CURB AND SHOULDER TERMINATION,
TRENCH, AND HANDHOLE DETAILS)**

NO SCALE

RSP ES-5D DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5D DATED JULY 19, 2013 AND STANDARD PLAN ES-5D DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5D



**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.

2010 REVISED STANDARD PLAN RSP ES-5D

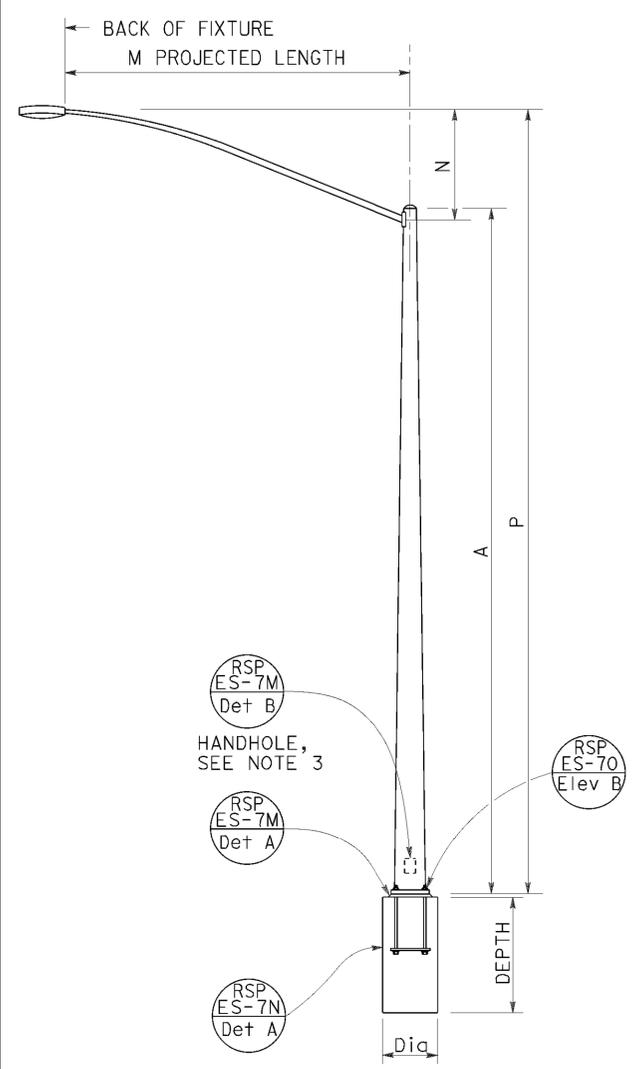
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	40	65

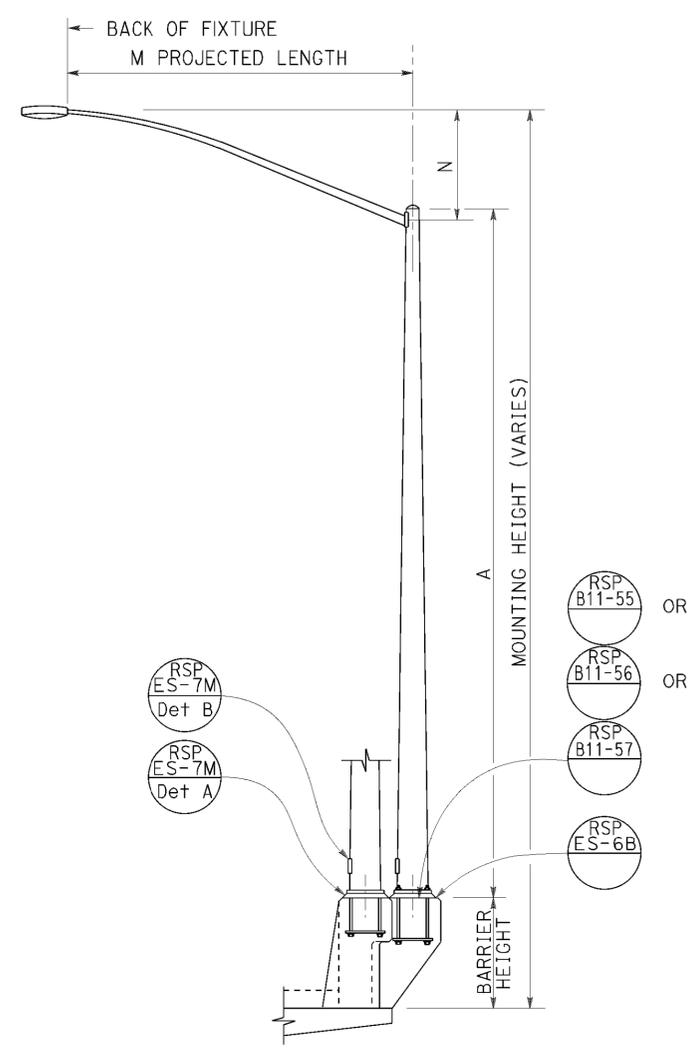
Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 July 15, 2016
 PLANS APPROVAL DATE
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Stanley P. Johnson
 REGISTERED PROFESSIONAL ENGINEER
 No. C57793
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA

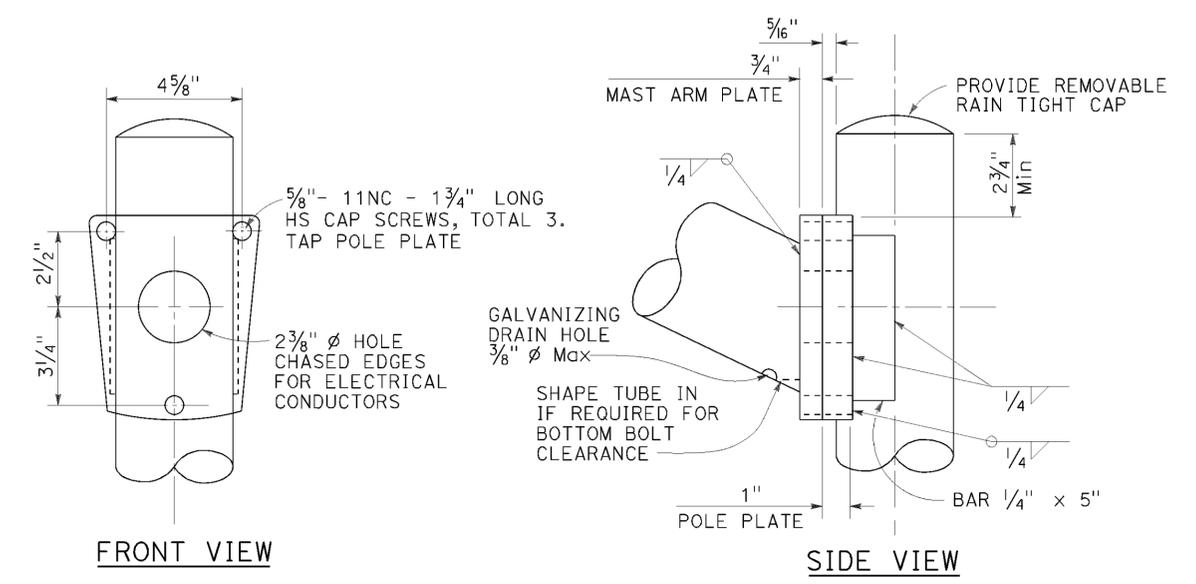
TO ACCOMPANY PLANS DATED March 14, 2016



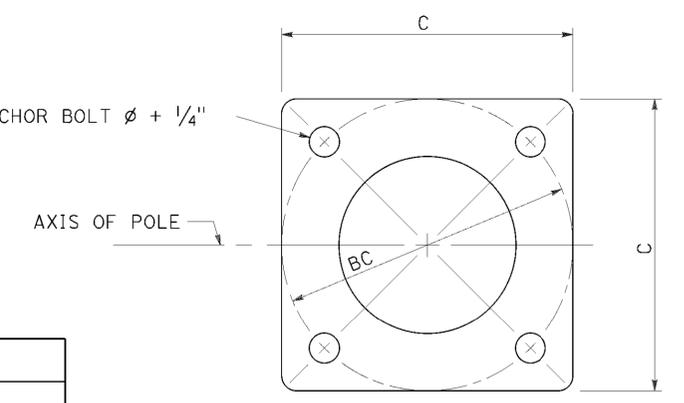
**TYPE 15 AND TYPE 21
ELEVATION A**



**TYPE 15 AND TYPE 21 BARRIER RAIL MOUNTED
ELEVATION B**



**LUMINAIRE MAST ARM CONNECTION
DETAIL R**



**BASE PLATE
DETAIL A**

POLE TYPE	POLE DATA			BASE PLATE DATA			CIDH PILE FOUNDATION		
	A HEIGHT	Min OD		C	BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE	Dia	DEPTH
		BASE	TOP						
15	30'-0"	8"	3 1/16"	1'-0"	1'-0"	1 1/2"	1" ø x 36" *	2'-6"	6'-0"
21	35'-0"	8 5/8"	3 3/16"	1'-0"	1'-0"	2"	1 1/4" ø x 36" *	2'-6"	7'-0"

* FOR BARRIER RAIL BOLTS, SEE REVISED STANDARD PLAN RSP ES-6B.

NOTES:

- Indicates mast arm length to be used unless otherwise noted on the plans.
- For Type 15-SB, use Type 15 standard with Type 30 slip base plate details, see Revised Standard Plan RSP ES-6F.
- Handhole shall be located on the downstream side of traffic.
- For additional notes and details, see Revised Standard Plans RSP ES-7M and RSP ES-7N.

LUMINAIRE MAST ARM DATA					
M PROJECTED LENGTH	N RISE	Min OD AT POLE	NOMINAL THICKNESS	P	
				TYPE 15	TYPE 21
6'-0"	2'-0"±	3 1/4"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3 1/2"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3 3/8"		32'-9"±	37'-9"±
12'-0"	4'-3"±	3 7/8"		33'-9"±	38'-9"±
15'-0"	4'-9"±	4 1/4"		34'-3"±	39'-3"±

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LIGHTING STANDARD,
 TYPES 15 AND 21)**
 NO SCALE

RSP ES-6A DATED JULY 15, 2016 SUPERSEDES RSP ES-6A
 DATED OCTOBER 30, 2015 AND STANDARD PLAN ES-6A DATED MAY 20, 2011 -
 PAGE 452 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-6A

2010 REVISED STANDARD PLAN RSP ES-6A

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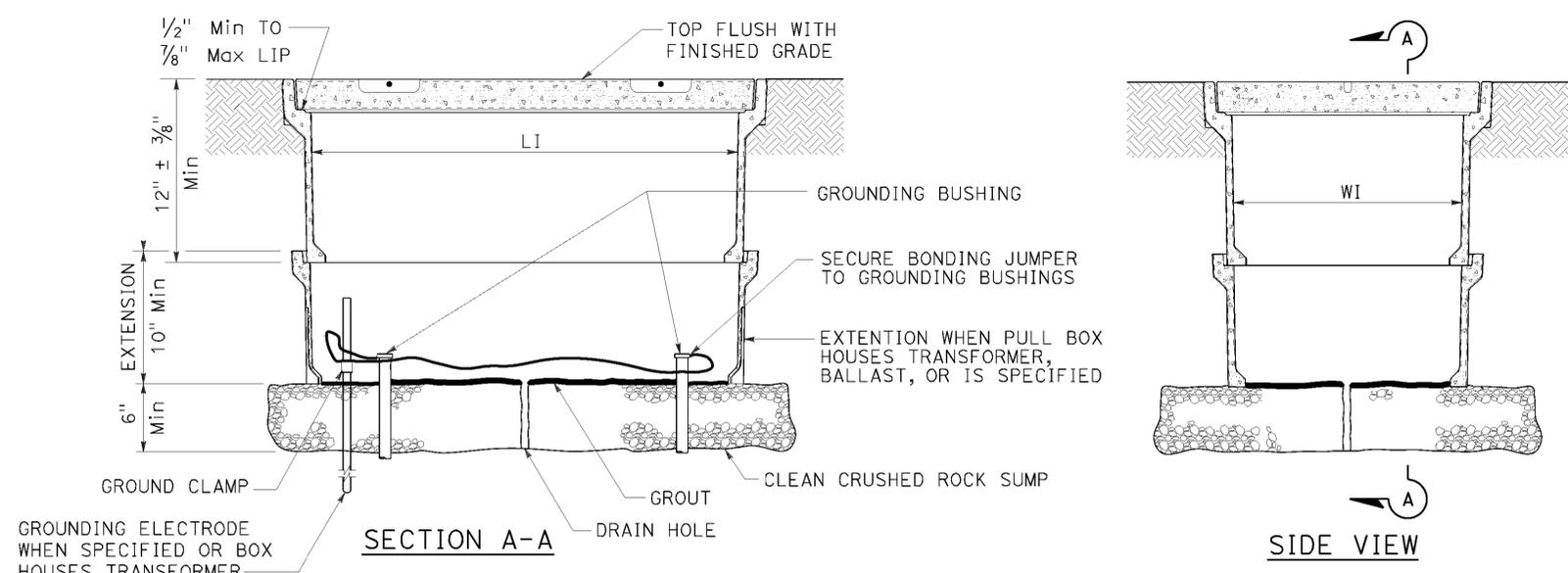
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	DN	199	8.2	41	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

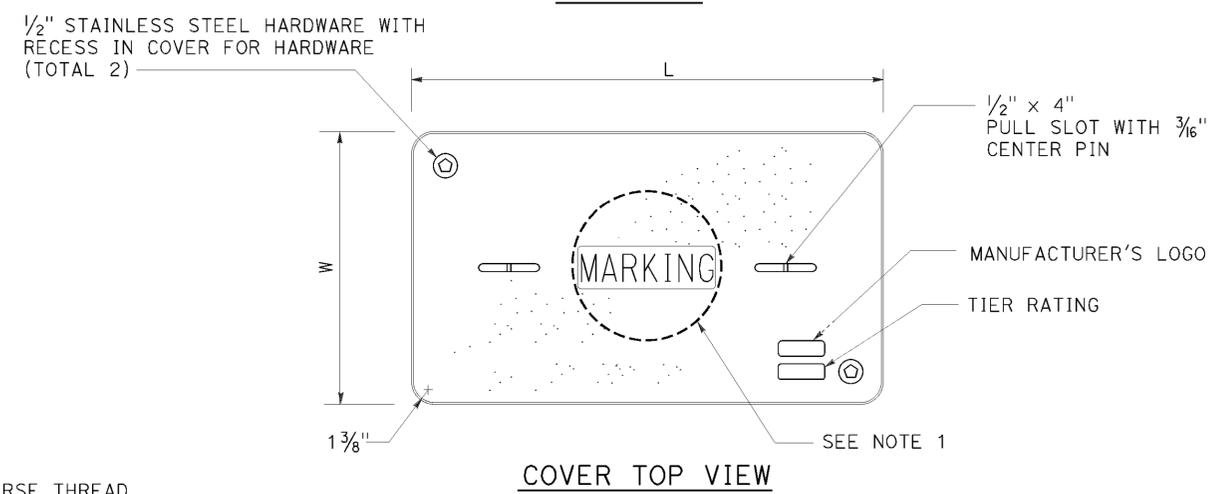
October 30, 2015
 PLANS APPROVAL DATE

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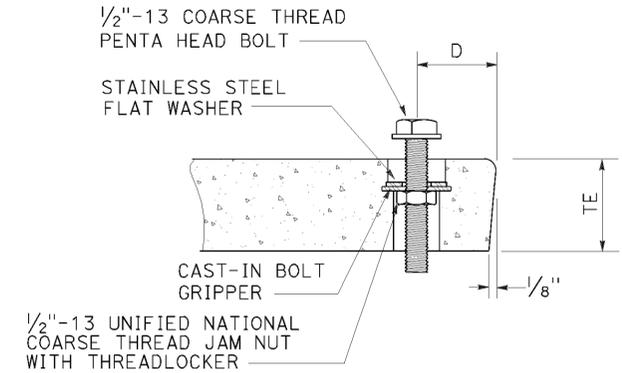
TO ACCOMPANY PLANS DATED March 14, 2016



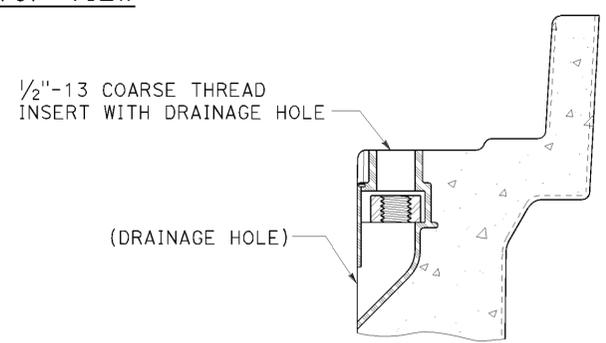
INSTALLATION DETAILS
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT OR SIMILAR



TYPICAL THREADED INSERT OR SIMILAR

NOTES:

- 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 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, 6, 9 or 9A 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.
 - "COMMUNICATIONS" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communication line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- 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". Top outside radius of covers and pull boxes shall have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.
- Dimensions for the cover for non-traffic pull box are nominal values.

PULL BOX	PULL BOX					COVER				
	MINIMUM DEPTH BOX	MINIMUM DEPTH EXTENSION	MINIMUM WEIGHT	LI Min	WI Min	TE	D	L	W	MINIMUM WEIGHT
No. 3 1/2	12"	N/A	40 lb	1' - 3"	9"	1 3/4"	1 3/4"	1'-3 1/4" - 1'-3 3/8"	10" - 10 1/8"	30 lb
No. 5	12"	10"	55 lb	1' - 8"	11"	2"	1 3/4"	1'-11 1/4"	1'-1 3/4"	60 lb
No. 6	12"	10"	70 lb	2' - 4 1/4"	1' - 3 1/4"	2"	2"	2'-6 1/2"	1'-5 1/2"	85 lb

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

RSP ES-8A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-8A DATED JULY 19, 2013 AND RSP ES-8A DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-8A

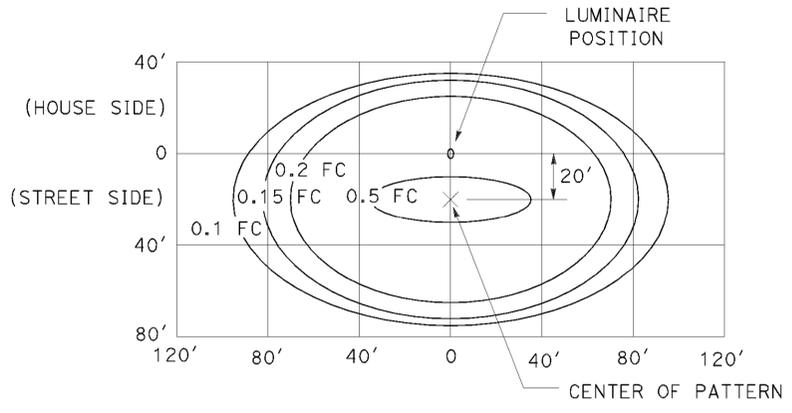
2010 REVISED STANDARD PLAN RSP ES-8A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	42	65

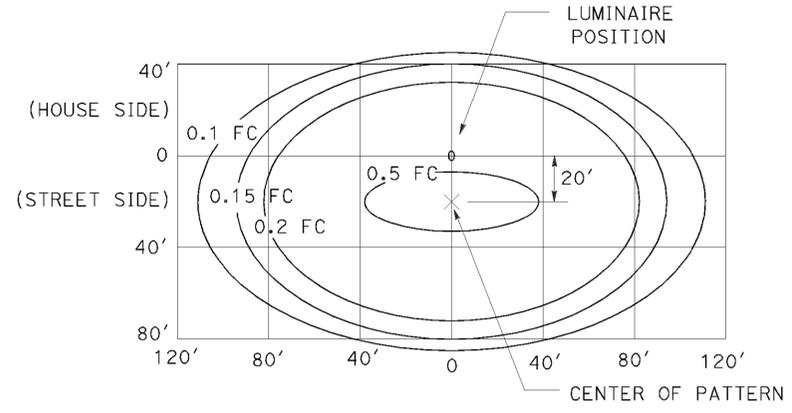
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED March 14, 2016

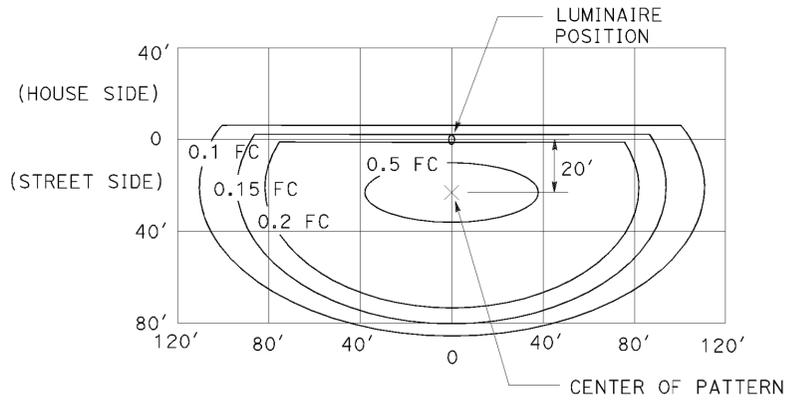
NOTE:
Curves represent the minimum footcandle (FC).



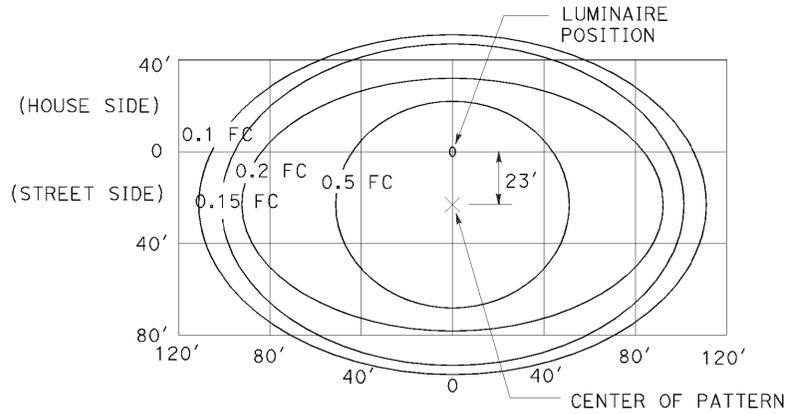
LED LUMINAIRE 165 W
34' Mounting Height



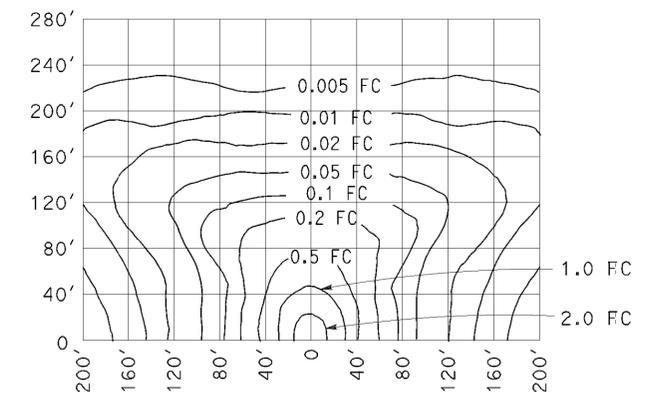
LED LUMINAIRE 235 W
40' Mounting Height



LED LUMINAIRE 235 W
40' Mounting Height
with back side control



LED LUMINAIRE 300 W
40' Mounting Height



LOW-PRESSURE SODIUM LUMINAIRE 180 W
40' Mounting Height
Lamp operated at 33,000 lm

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(ISOFOOTCANDLE CURVES)**

NO SCALE

RSP ES-10A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-10A DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-10A

2010 REVISED STANDARD PLAN RSP ES-10A

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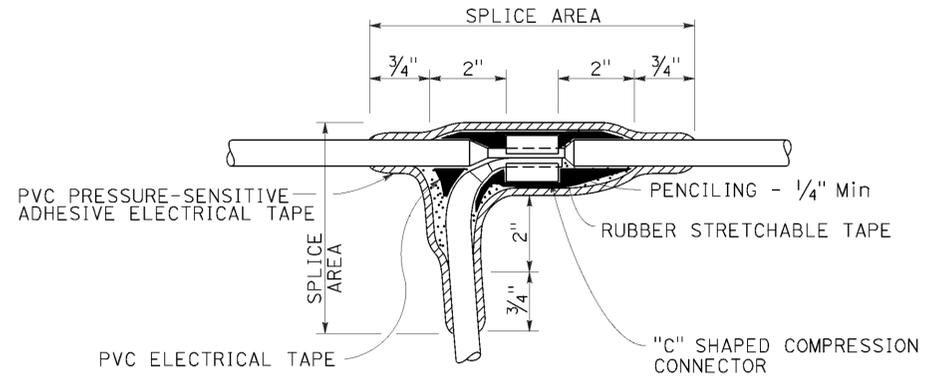
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	43	65

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

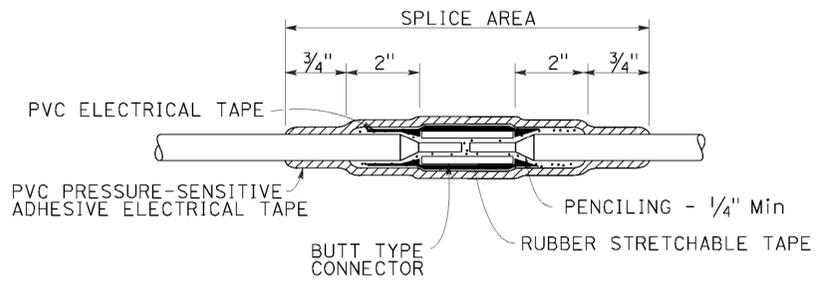
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TO ACCOMPANY PLANS DATED March 14, 2016



TYPE C SPLICE

See Note 3

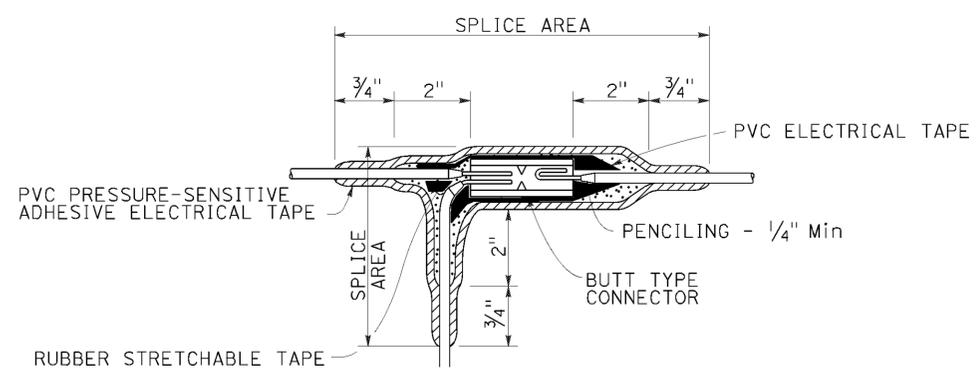


TYPE S SPLICE

See Note 4

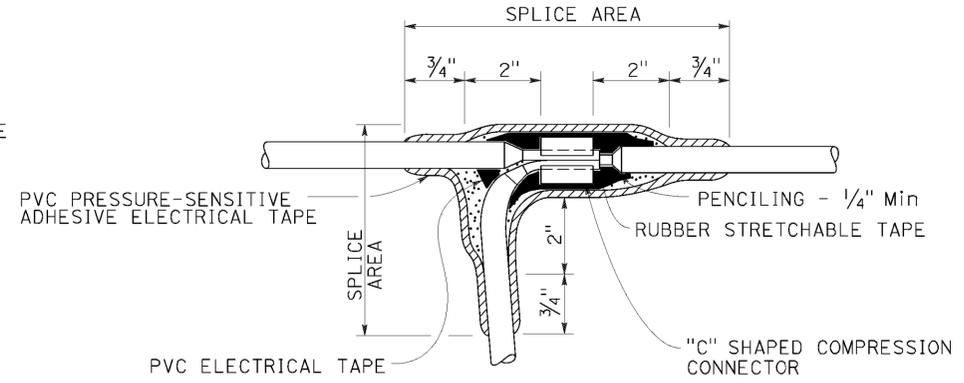
NOTES:

1. Dimensions are minimum.
2. Rubber tapes shall be rolled after application.
3. Between 1 free-end and 1 through conductor.
4. Between 2 free-end conductors.
5. Between 3 free-end conductors.



TYPE ST SPLICE

See Note 5



TYPE T SPLICE

See Note 5

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SPLICING DETAILS)**

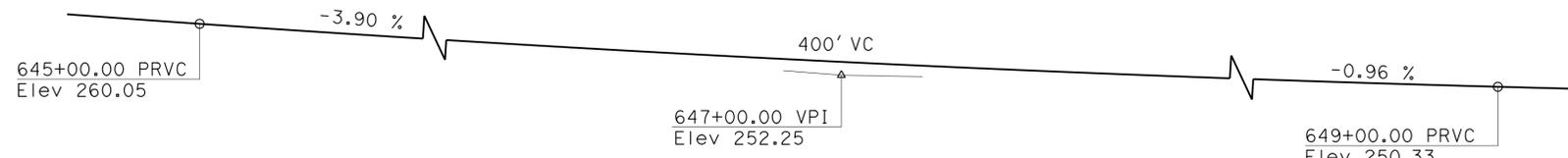
NO SCALE

RSP ES-13A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-13A DATED MAY 20, 2011 - PAGE 491 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-13A

2010 REVISED STANDARD PLAN RSP ES-13A

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PROFILE GRADE
NO SCALE

QUANTITIES

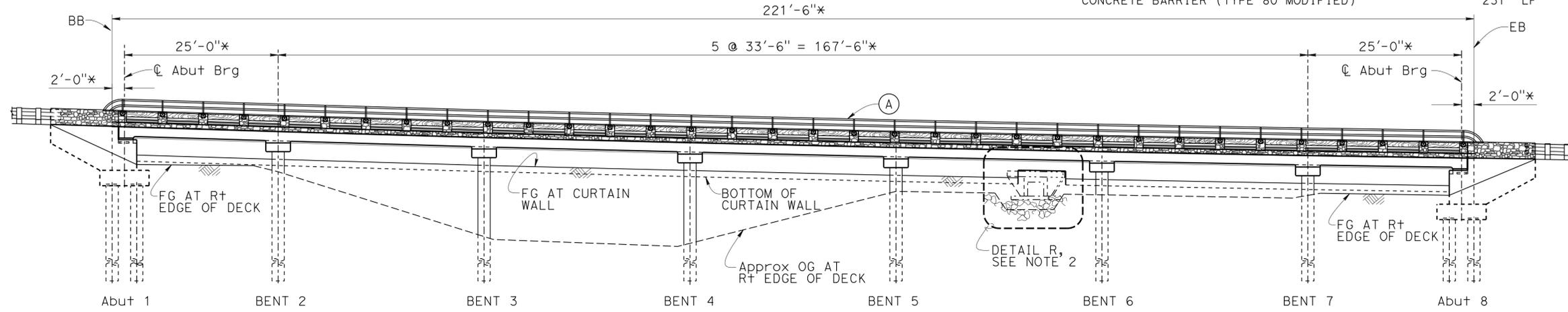
PREPARE CONCRETE BRIDGE DECK SURFACE	4,300	SQFT
FURNISH POLYESTER CONCRETE OVERLAY	430	CF
PLACE POLYESTER CONCRETE OVERLAY	4,300	SQFT
STRUCTURE EXCAVATION (BRIDGE)	363	CY
STRUCTURE EXCAVATION (TYPE D)	165	CY
STRUCTURE BACKFILL (BRIDGE)	93	CY
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	387	LF
STRUCTURAL CONCRETE, BRIDGE FOOTING	34	CY
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	262	CY
STRUCTURAL CONCRETE, BRIDGE	105	CY
JOINT SEAL (MR 1")	45	LF
BAR REINFORCING STEEL (BRIDGE)	56,878	LB
BAR REINFORCING STEEL (EPOXY COATED) (BRIDGE)	37,775	LB
HEADED BAR REINFORCEMENT	76	EA
STRUCTURAL STEEL (PIPE PIN)	1,925	LB
PREPARE AND STAIN CONCRETE	913	SQFT
MISCELLANEOUS METAL (BRIDGE)	54	LB
STONE VENEER	808	SQFT
TUBULAR BICYCLE RAILING	218	LF
CONCRETE BARRIER (TYPE 80 MODIFIED)	231	LF

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	44	65

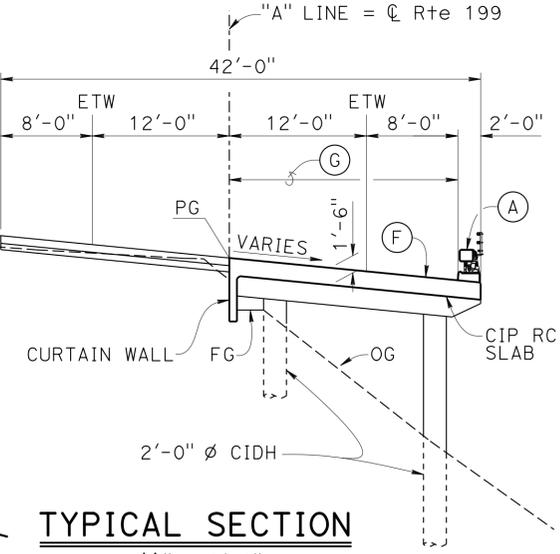
REGISTERED CIVIL ENGINEER: *G. Slocum*
DATE: 10-26-15
No. 44950
Exp. 3-31-18
CIVIL
STATE OF CALIFORNIA

March 14, 2016
PLANS APPROVAL DATE

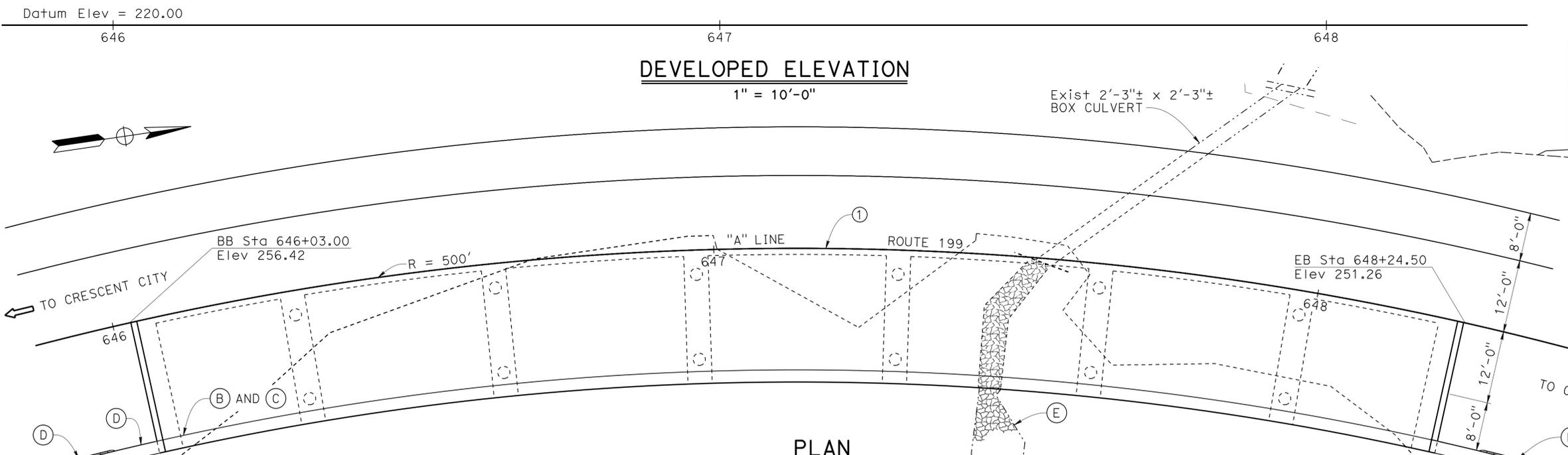
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DEVELOPED ELEVATION
1" = 10'-0"



TYPICAL SECTION
1/8" = 1'-0"



PLAN
1" = 10'-0"

No.	R	Δ	T	L	N	E
①	500'	44°03'33"	202.31'	384.49'	2550233.45	6004732.88

MANODE KODSUNTIE DESIGN ENGINEER	DESIGN	BY G.SLOCUM	CHECKED G.ZUNIGA	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 2	BRIDGE NO.	01-0081	SMITH RIVER CANYON SIDEHILL VIADUCT GENERAL PLAN	
	DETAILS	BY C.FIGUERRES	CHECKED G.ZUNIGA	LAYOUT	BY G.SLOCUM			CHECKED G.ZUNIGA	POST MILE		8.2
	QUANTITIES	BY G.SLOCUM	CHECKED G.ZUNIGA	SPECIFICATIONS	BY T.KERSHELL			PLANS AND SPECS COMPARED T.KERSHELL	CONTRACT NO.:		01-0B2601

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3577
PROJECT NUMBER & PHASE: 0112000150
CONTRACT NO.: 01-0B2601

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
3-26-14 7-22-15 1-28-16	1	22

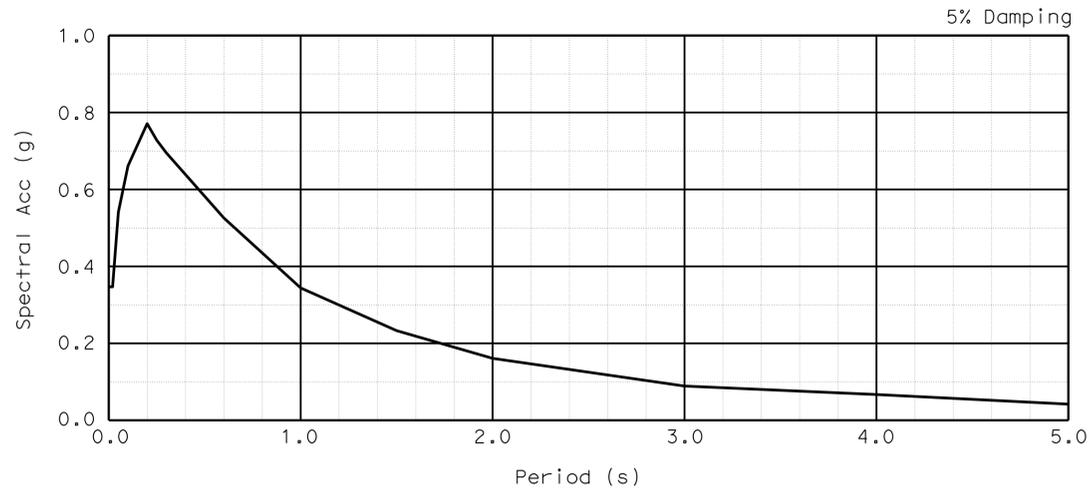
STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.09-01-10)
FILE => 01-0081-a-aggp01.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	45	65

10-26-15
 REGISTERED CIVIL ENGINEER DATE
March 14, 2016
 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.

GENERAL NOTES (LOAD AND RESISTANCE FACTOR DESIGN)

DESIGN: AASHTO LRFD Bridge Design Specifications, Sixth Edition and the California Amendments preface dated January 2014.
 SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.7, April 2013.
 DEAD LOAD: Includes 35 psf for wearing surface.
 LIVE LOADING: HL-93 and P-15 Permit Design Load.
 SEISMIC LOADING:
 FAULT: BIG LAGOON-BALD MOUNTAIN FAULT I.D. No. 9, $M_{max} = 7.5$
 CASCADIA SUBDUCTION ZONE FAULT ID No. 5, $M_{max} = 8.3$
 REINFORCED CONCRETE:
 $f_y = 60$ ksi
 $f'_c = 4.0$ ksi
 $n = 8$
 STRUCTURAL STEEL: $f_y = 50$ ksi



ACCELERATION RESPONSE SPECTRUM

INDEX TO PLANS

- GENERAL PLAN
- INDEX TO PLANS
- DECK CONTOURS
- FOUNDATION PLAN
- ABUTMENT 1 LAYOUT
- ABUTMENT DETAILS No. 1
- ABUTMENT DETAILS No. 2
- ABUTMENT DETAILS No. 3
- BENT 2, 5, 6, AND 7 DETAILS
- BENT 3 AND 4 DETAILS
- PIPE PIN DETAILS
- TYPICAL SECTION
- TOP DECK REINFORCEMENT
- BOTTOM DECK REINFORCEMENT
- CONCRETE BARRIER DETAILS TYPE 80 (MOD) No. 1
- CONCRETE BARRIER DETAILS TYPE 80 (MOD) No. 2
- TUBULAR BICYCLE RAILING DETAILS
- MISCELLANEOUS DETAILS
- LOG OF TEST BORINGS 1 OF 4
- LOG OF TEST BORINGS 2 OF 4
- LOG OF TEST BORINGS 3 OF 4
- LOG OF TEST BORINGS 4 OF 4

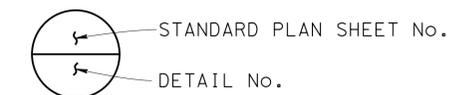
PILE DATA TABLE

SUPPORT LOCATION	PILE TYPE	NOMINAL RESISTANCE		CUT-OFF ELEVATION	ESTIMATED TOP OF BEDROCK ELEVATION	PILE		
		COMPRESSION	TENSION			DESIGN TIP ELEVATION	SPECIFIED TIP ELEVATION	
		kips				ft		
Abut 1	LEFT	2'-0" \emptyset CIDH Conc PILING	230	0	247.2	255.0	239 (a)	239
	RIGHT	2'-0" \emptyset CIDH Conc PILING	230	0	247.6	246.0	236 (a)	236
BENT 2	LEFT	2'-0" \emptyset CIDH Conc PILING	540	0	252.0	246.5	236 (a)	236
	RIGHT	2'-0" \emptyset CIDH Conc PILING	540	0	251.2	246.5	232 (a)	232
BENT 3	LEFT	2'-0" \emptyset CIDH Conc PILING	560	0	250.9	242.5	232 (a)	232
	RIGHT	2'-0" \emptyset CIDH Conc PILING	580	0	238.8	234.5	221 (a)	221
BENT 4	LEFT	2'-0" \emptyset CIDH Conc PILING	570	0	250.1	246.0	225 (a)	225
	RIGHT	2'-0" \emptyset CIDH Conc PILING	580	0	237.6	235.0	216 (a)	216
BENT 5	LEFT	2'-0" \emptyset CIDH Conc PILING	570	0	249.2	245.5	225 (a)	225
	RIGHT	2'-0" \emptyset CIDH Conc PILING	570	0	247.7	241.0	217 (a)	217
BENT 6	LEFT	2'-0" \emptyset CIDH Conc PILING	580	0	248.5	242.0	224 (a)	224
	RIGHT	2'-0" \emptyset CIDH Conc PILING	580	0	247.1	240.5	223 (a)	223
BENT 7	LEFT	2'-0" \emptyset CIDH Conc PILING	550	0	247.8	239.5	224 (a)	224
	RIGHT	2'-0" \emptyset CIDH Conc PILING	550	0	246.8	240.5	207 (a)	207
Abut 8	LEFT	2'-0" \emptyset CIDH Conc PILING	230	0	241.9	248.0	227 (a)	227
	RIGHT	2'-0" \emptyset CIDH Conc PILING	230	0	241.8	235.0	226 (a)	226

- NOTES:
- DESIGN TIP ELEVATIONS ARE CONTROLLED BY: (a) COMPRESSION, AND (b) LATERAL LOADS, RESPECTIVELY.
 - THE SPECIFIED TIP ELEVATIONS MUST NOT BE RAISED.

STANDARD PLANS 2010

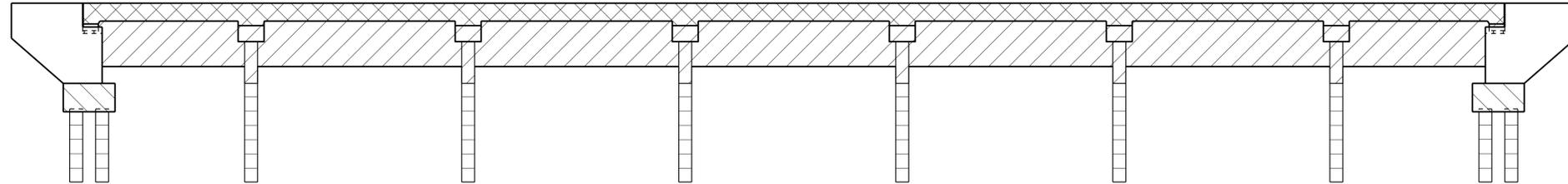
- A10A ABBREVIATIONS (SHEET 1 OF 2)
- RSP A10B ABBREVIATIONS (SHEET 2 OF 2)
- A10C LINES AND SYMBOLS
- A10D LINES AND SYMBOLS
- A10E LINES AND SYMBOLS
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
- B0-1 BRIDGE DETAILS
- B0-3 BRIDGE DETAILS
- B0-13 BRIDGE DETAILS
- B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- RSP B11-60 CONCRETE BARRIER TYPE 80
- B11-64 CONCRETE BARRIER TYPE 80SW



STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 2	BRIDGE NO.	01-0081	SMITH RIVER CANYON SIDEHILL VIADUCT INDEX TO PLANS
	DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA			POST MILE	8.2	
	QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE					

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3
 UNIT: 3577
 PROJECT NUMBER & PHASE: 0112000150
 CONTRACT NO.: 01-0B2601
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 7-22-15, 3-28-15, 4-27-15
 SHEET 2 OF 22

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	46	65
REGISTERED CIVIL ENGINEER <i>G. Slocum</i> 10-26-15 DATE			REGISTERED PROFESSIONAL ENGINEER G. SLOCUM No. 44950 Exp. 3-31-18 CIVIL STATE OF CALIFORNIA		
March 14, 2016 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>					



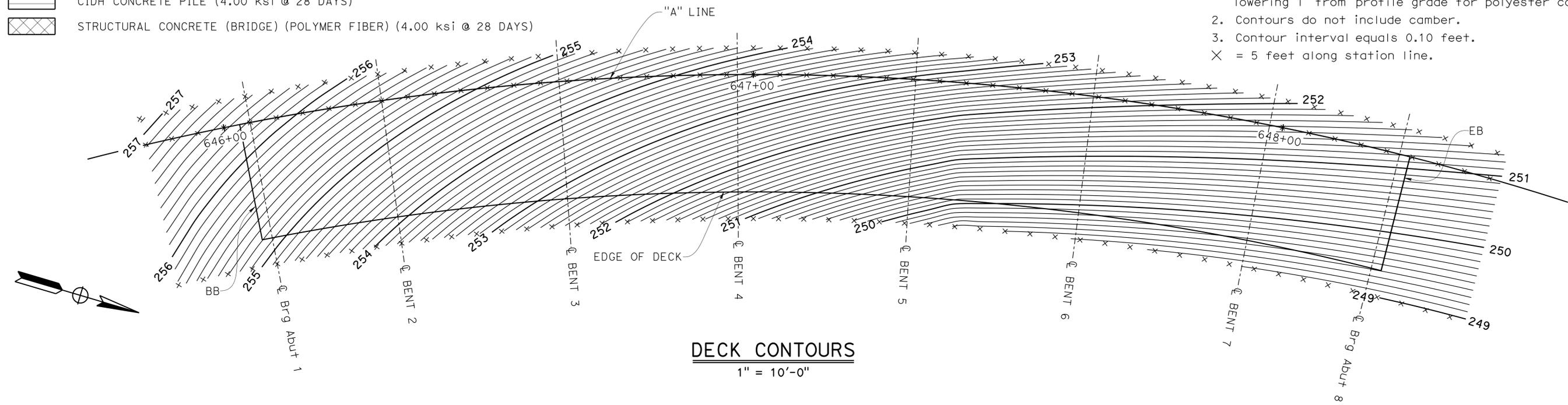
- STRUCTURAL CONCRETE, BRIDGE
- STRUCTURAL CONCRETE, BRIDGE FOOTING
- STRUCTURAL CONCRETE, BRIDGE (4.00 ksi @ 28 DAYS)
- CIDH CONCRETE PILE (4.00 ksi @ 28 DAYS)
- STRUCTURAL CONCRETE (BRIDGE) (POLYMER FIBER) (4.00 ksi @ 28 DAYS)

CONCRETE STRENGTH AND TYPE LIMITS

NO SCALE

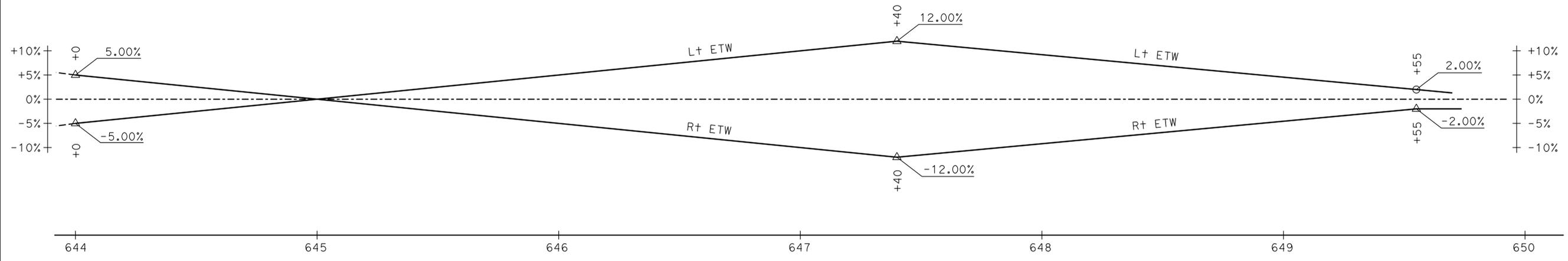
NOTES:

1. Contours are for top of concrete deck and have been adjusted by lowering 1" from profile grade for polyester concrete overlay.
 2. Contours do not include camber.
 3. Contour interval equals 0.10 feet.
- X = 5 feet along station line.



DECK CONTOURS

1" = 10'-0"



SUPERELEVATION DIAGRAM

NO SCALE

DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	01-0081
POST MILE	8.2

**SMITH RIVER CANYON SIDEHILL VIADUCT
DECK CONTOURS**

REVISION DATES	SHEET	OF
5-2-15 7-14-14 1-18-16	3	22

CURVE DATA

No.	R	Δ	T	L
1	750.00	18°31'05"	122.27	242.40
2	500.00	44°03'33"	202.31	384.49

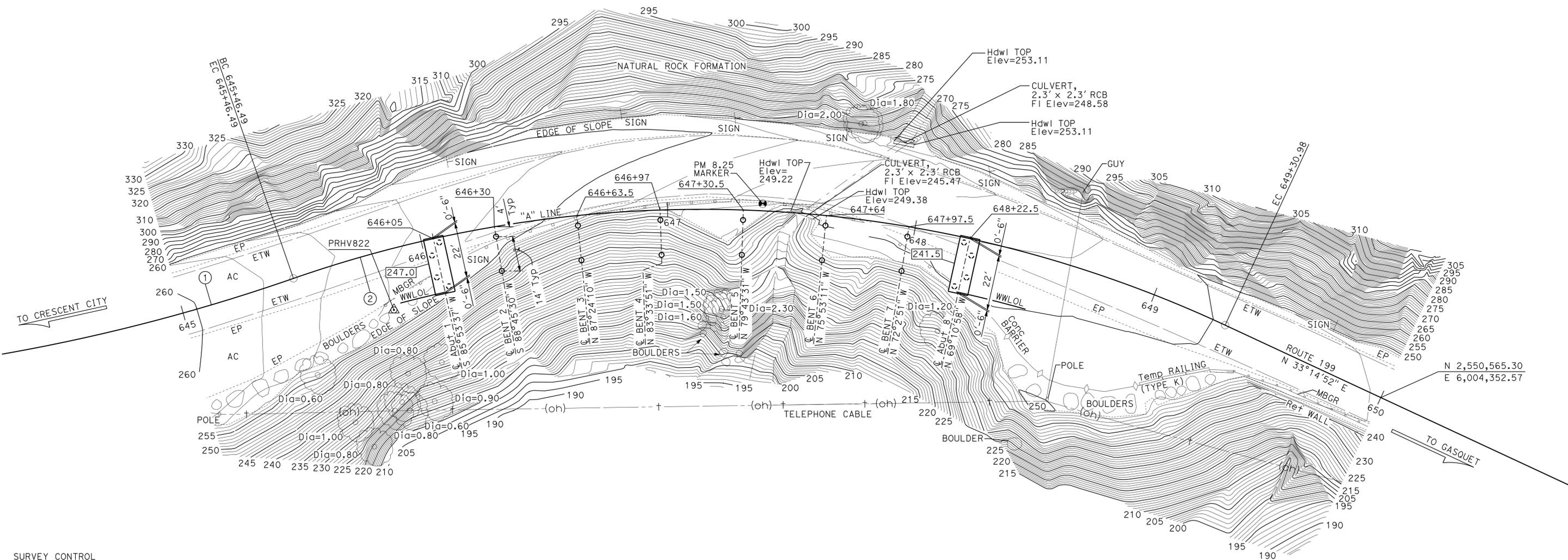
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	47	65

G. Slocum
 REGISTERED CIVIL ENGINEER DATE 10-26-15

March 14, 2016
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 G. SLOCUM
 No. 44950
 Exp. 3-31-16
 CIVIL
 STATE OF CALIFORNIA



SURVEY CONTROL

DN 199-8.12 (PRHV812) (NOT SHOWN ON PLAN)
 Fnd 3/4" Rebar
 18.32 Rt FROM "A" LINE
 Sta 645+82.25
 N 2,549,676.35
 E 6,004,236.73
 Elev = 276.03

DN 199-8.22 (PRHV822)
 Fnd 1" I.P.
 23.99 Rt FROM "A" LINE
 Sta 645+82.25
 N 2,550,177.80
 E 6,004,260.13
 Elev = 256.48

LEGEND:

○ Vertical Pile

□ Bottom of Footing Elevation

PRELIMINARY INVESTIGATION SECTION				DESIGN BY G. SLOCUM	CHECKED G. ZUNIGA	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 2	BRIDGE NO. 01-0081	SMITH RIVER CANYON SIDEHILL VIADUCT FOUNDATION PLAN
SCALE VERT.DATUM NAVD88	PHOTOGRAMMETRY AS OF: X	SURVEYED BY DISTRICT	CHECKED BY D. IVY 9/5/2014	DETAILS BY C. FIGUERRES	CHECKED G. SLOCUM			POST MILE 8.2	
1"=20'	HORIZ.DATUM NAD83 (2004.69)	DRAFTED BY L. YOUNG 9/2014	CHECKED BY S. SOU 9/5/2014	QUANTITIES BY G. ZUNIGA	CHECKED J. LEE				

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3646 PROJECT NUMBER & PHASE: 0112000150 0 CONTRACT NO.: 01-0B2601 DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET 4	OF 22
10-15-14	10-29-14	

FILE => 01-0081-e-fp101.dgn

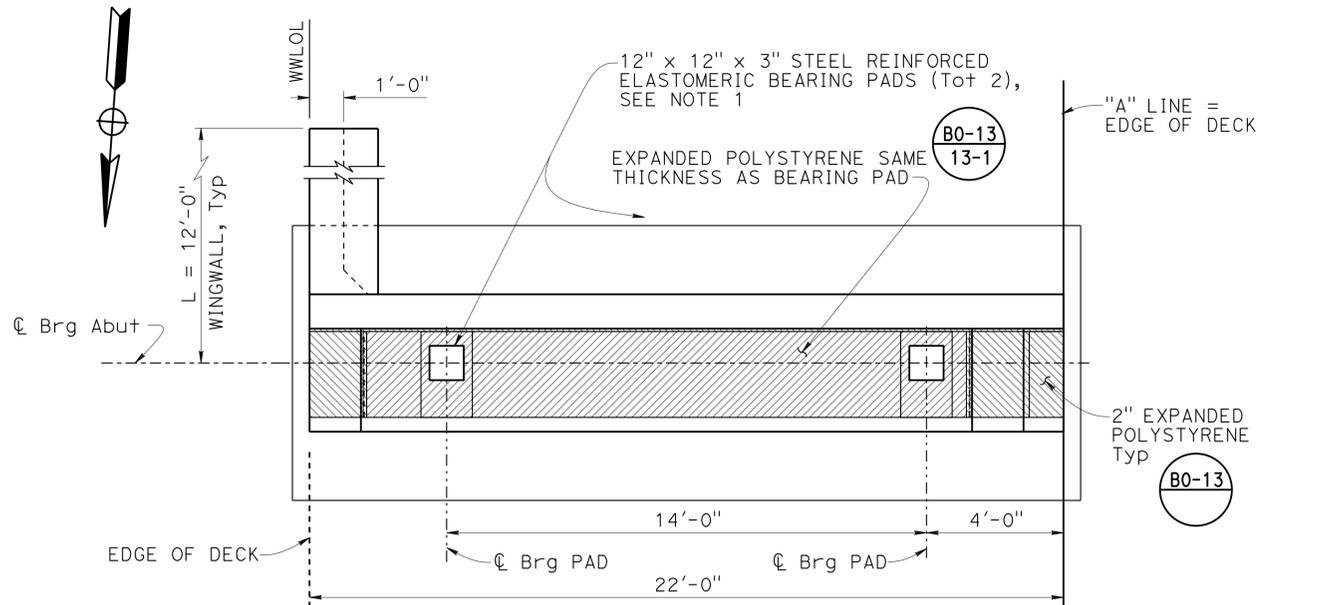
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	48	65

10-26-15
 REGISTERED CIVIL ENGINEER DATE
 G. SLOCUM
 No. 44950
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA

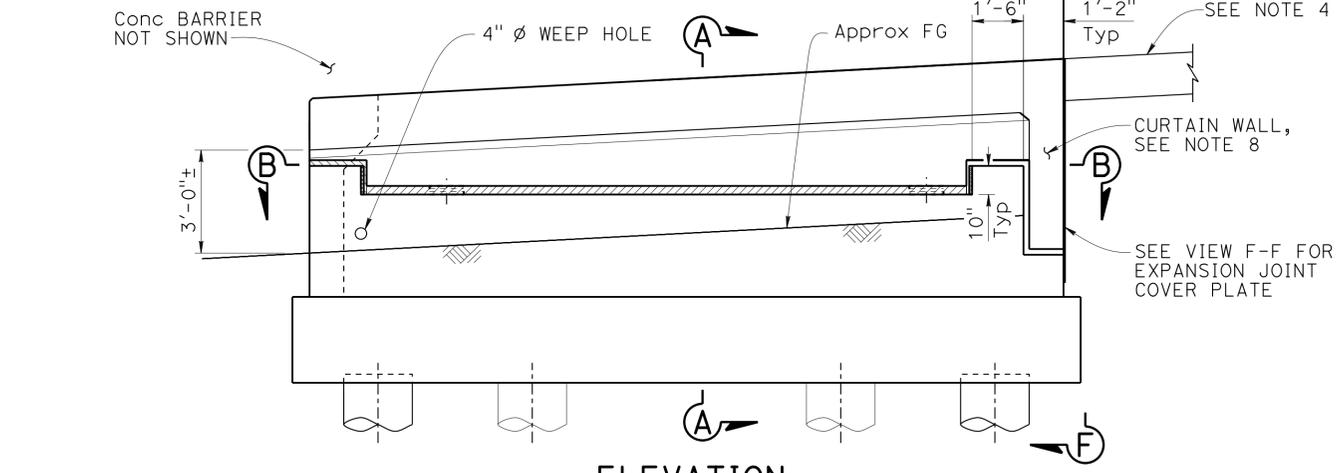
March 14, 2016
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

- NOTES:
1. Abutment 1 shown, Abutment 8 similar.
 2. For Abutment Shear Key reinforcement, see "ABUTMENT DETAILS No. 2" sheet.
 3. For Bearing Pad Detail and Backwall Base Detail, see "ABUTMENT DETAILS No. 3" sheet.
 4. For new Roadway, see "ROAD PLANS".
 5. For Section B-B, see "ABUTMENT DETAILS No. 2" sheet.
 6. For backwall horizontal reinforcement, see "ABUTMENT DETAILS No. 3" sheet.
 7. Superstructure reinforcement not shown for clarity.
 8. For Curtain Wall reinf, see "TYPICAL SECTION" sheet.
 9. Distribute reinf evenly over width of abutment seat.
 10. For VIEW F-F, see "ABUTMENT DETAILS No. 3" sheet.
 11. Excavation for Abutment 1 and 8 is structure excavation (Type D). For details not shown, see

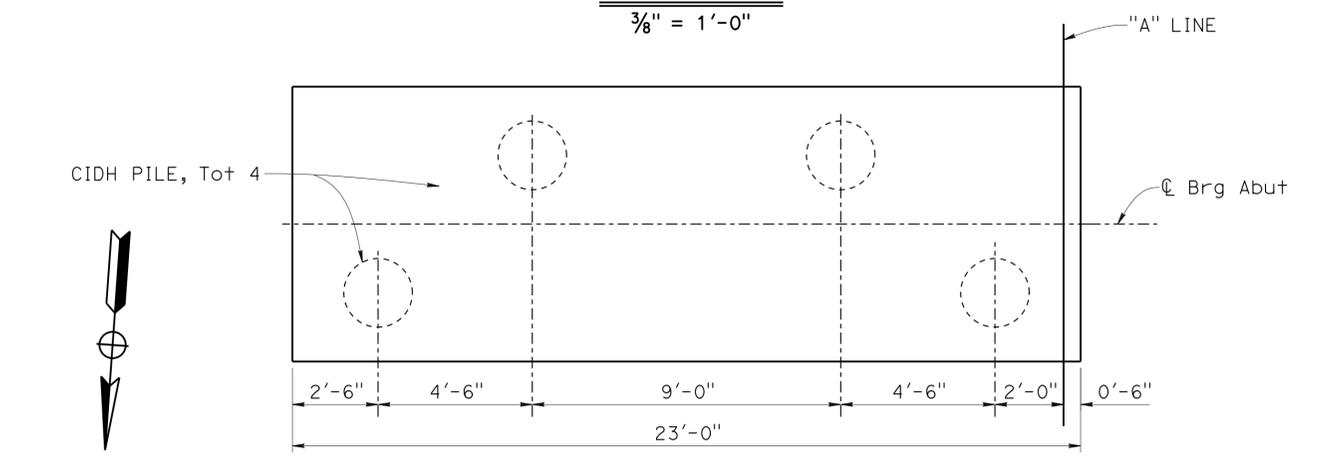
LEGEND:
 Headed bar reinforcement



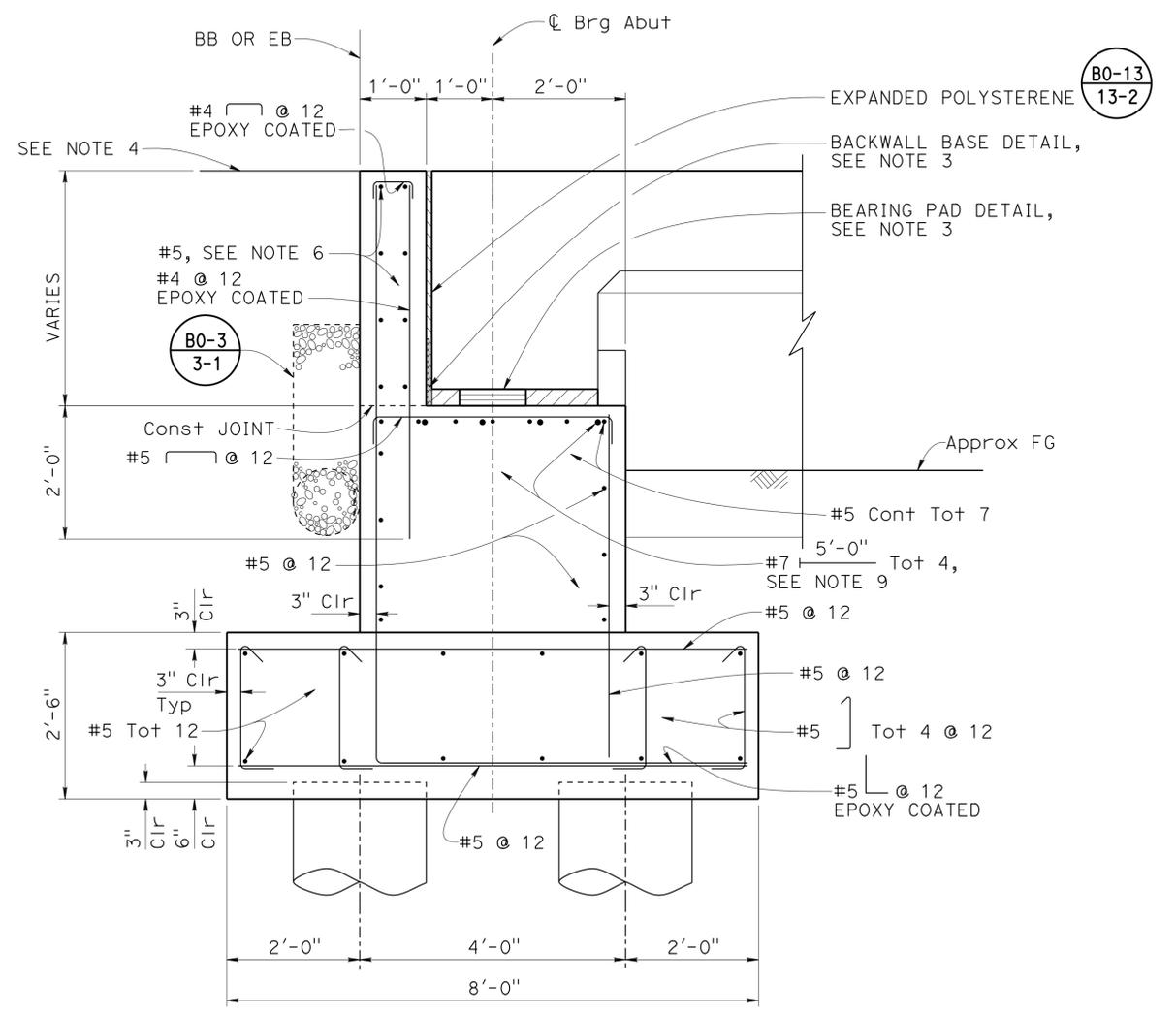
PLAN
 $\frac{3}{8}'' = 1'-0''$



ELEVATION
 $\frac{3}{8}'' = 1'-0''$



FOOTING PLAN
 $\frac{3}{8}'' = 1'-0''$



SECTION A-A
 $\frac{3}{4}'' = 1'-0''$

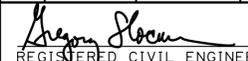
DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

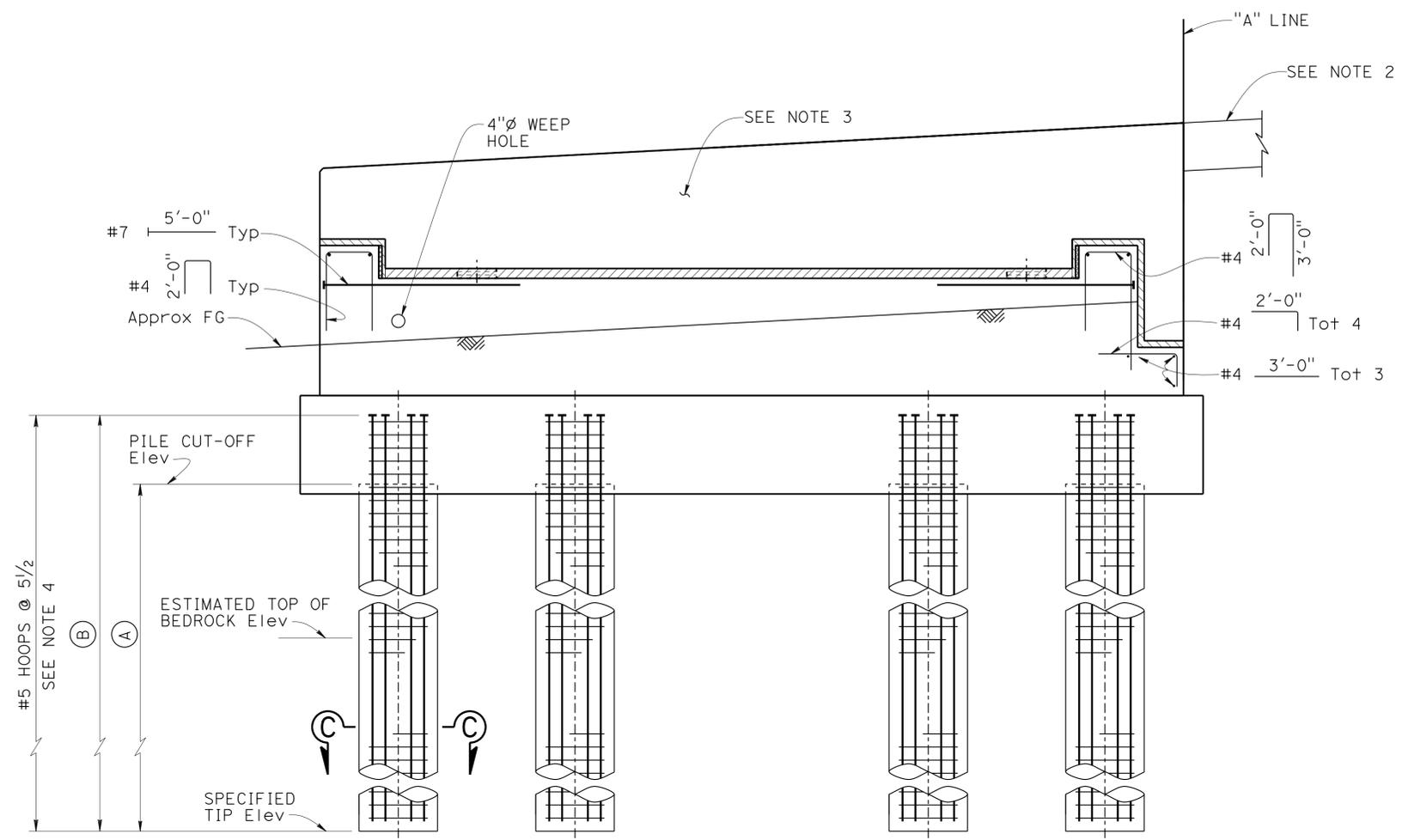
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 2

BRIDGE NO.	01-0081
POST MILE	8.2

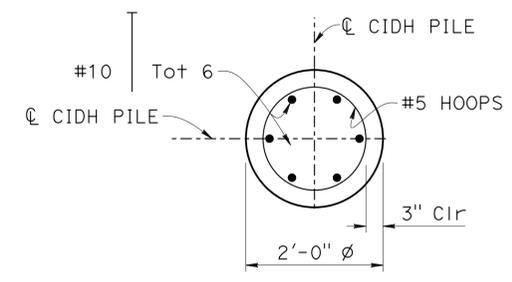
**SMITH RIVER CANYON SIDEHILL VIADUCT
 ABUTMENT 1 LAYOUT**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	49	65
 REGISTERED CIVIL ENGINEER			10-26-15	DATE	
March 14, 2016 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>					

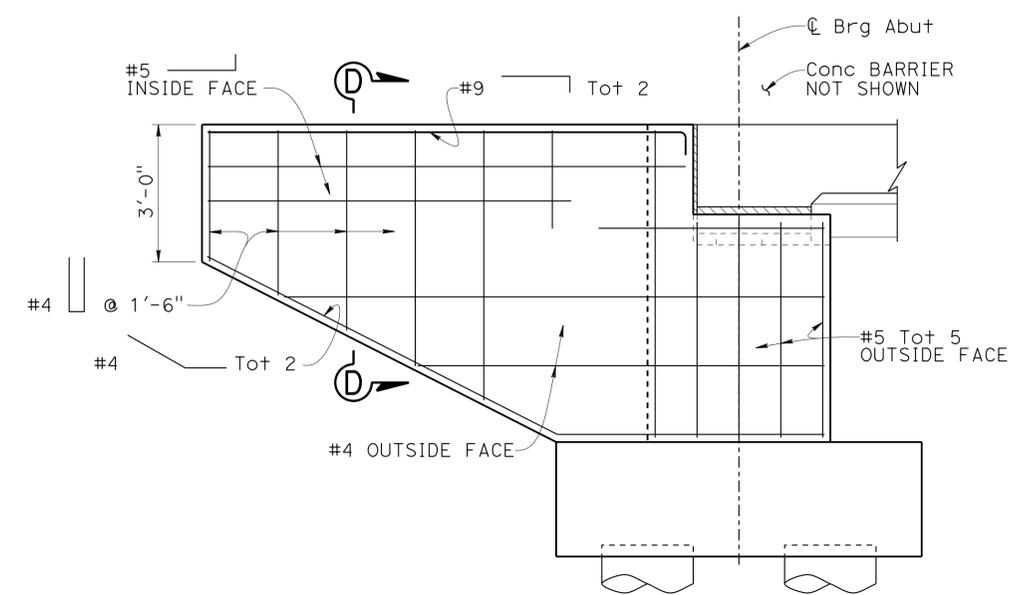


ELEVATION
1/2" = 1'-0"

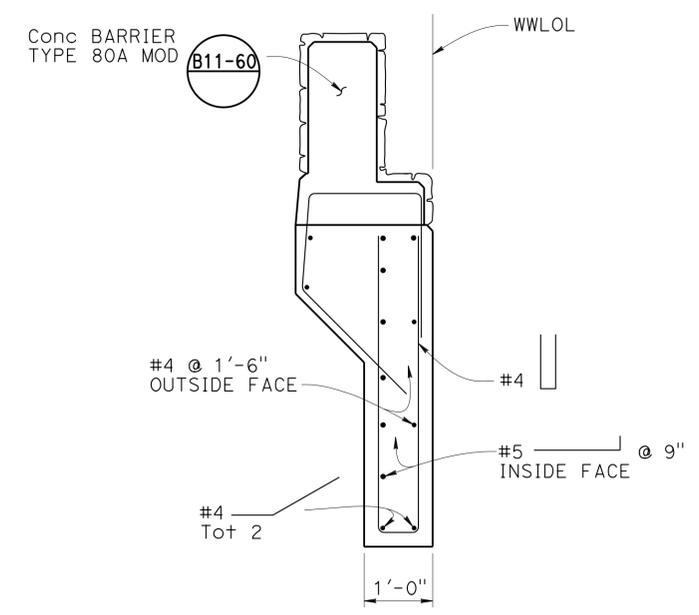
- NOTES:
- Abutment 1 shown, Abutment 8 similar.
 - For new Roadway, see "ROADWAY PLANS".
 - Superstructure reinf not shown for clarity.
 - All hoops must shall be ultimate butt spliced continuous.
 - For pile cutoff elevation, estimated top of bedrock elevation and specified tip elevation, see "PILE DATA TABLE" on "INDEX TO PLANS" sheet.
- (A) Limits of payment for 24" ϕ CIDH concrete pile.
 (B) No splices in main reinforcement.



TYPICAL ABUTMENT CIDH PILE
SECTION C-C
3/4" = 1'-0"



WINGWALL ELEVATION (B0-1)
1/2" = 1'-0"



SECTION D-D (B0-1)
3/4" = 1'-0"

DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 2

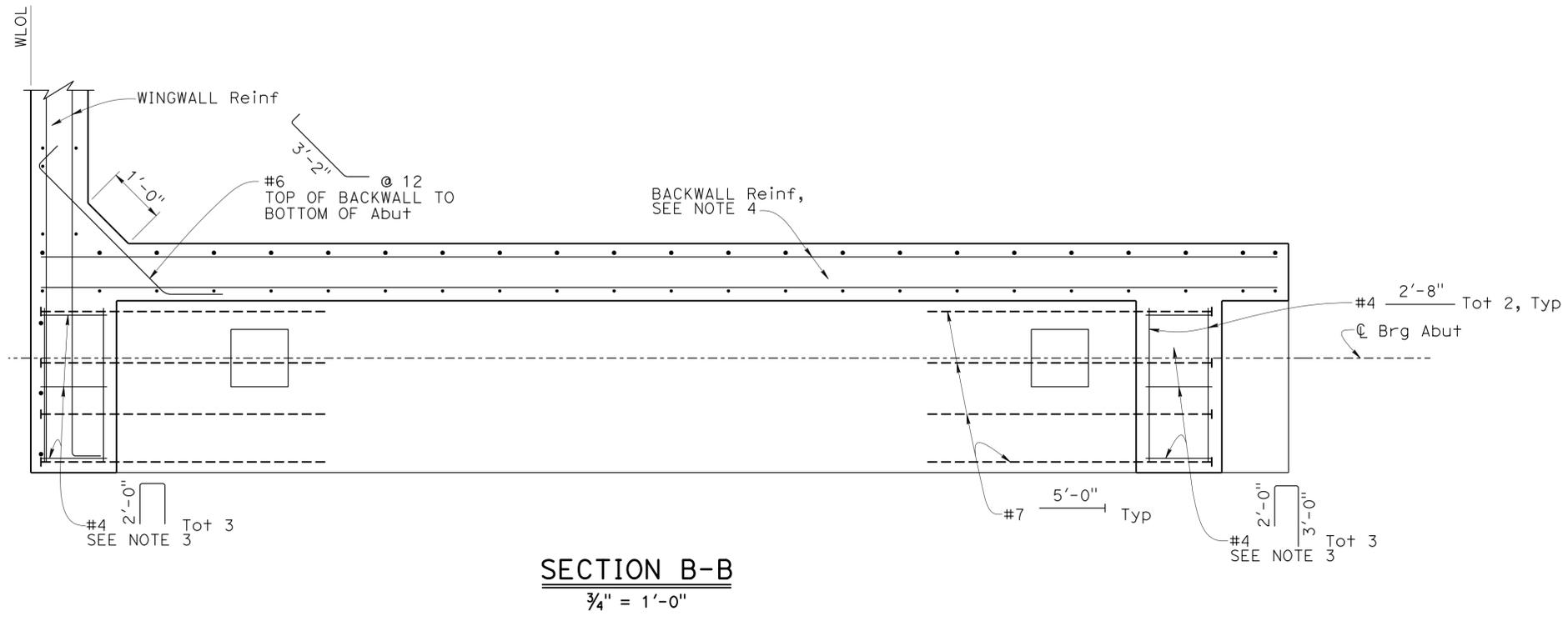
BRIDGE NO.	01-0081
POST MILE	8.2

SMITH RIVER CANYON SIDEHILL VIADUCT
ABUTMENT DETAILS No.1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	50	65

10-26-15
 REGISTERED CIVIL ENGINEER DATE
 March 14, 2016
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 G. SLOCUM
 No. 44950
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA

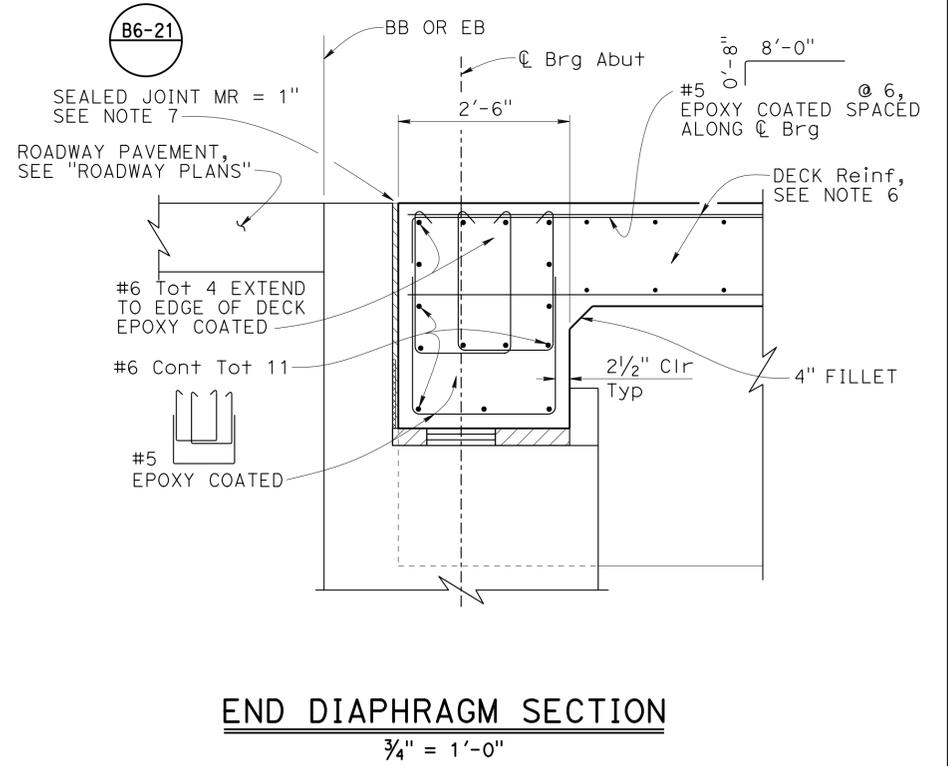
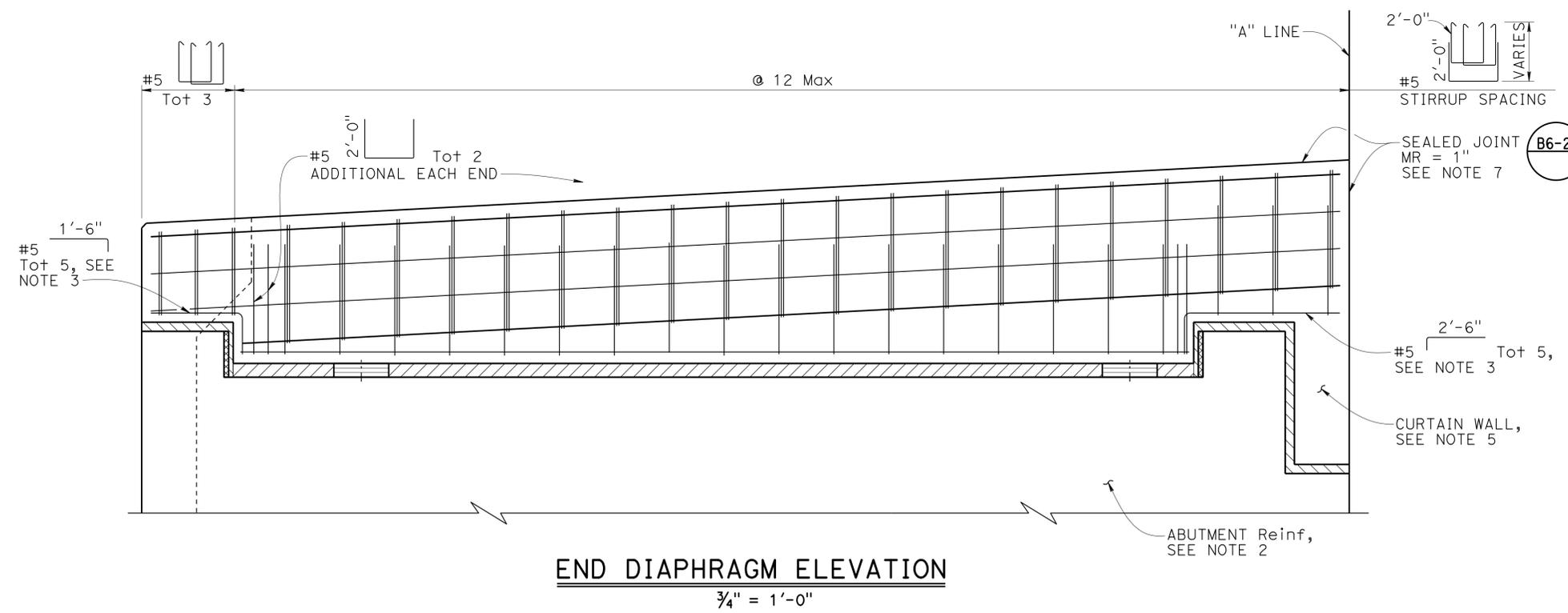


NOTES:

1. For location of Section B-B, see "ABUTMENT 1 LAYOUT" sheet.
2. For abutment reinf, see "ABUTMENT DETAILS No. 1" sheet.
3. Distribute reinf evenly over width of abutment seat.
4. For Backwall Horizontal Reinforcement, see "ABUTMENT DETAILS 3" sheet.
5. For curtain wall reinforcement, see "TYPICAL SECTION" sheet.
6. For deck reinforcement, see "TYPICAL SECTION" sheet.
7. Sealed joint to include vertical gap between curtain wall and abutment backwall.

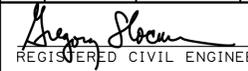
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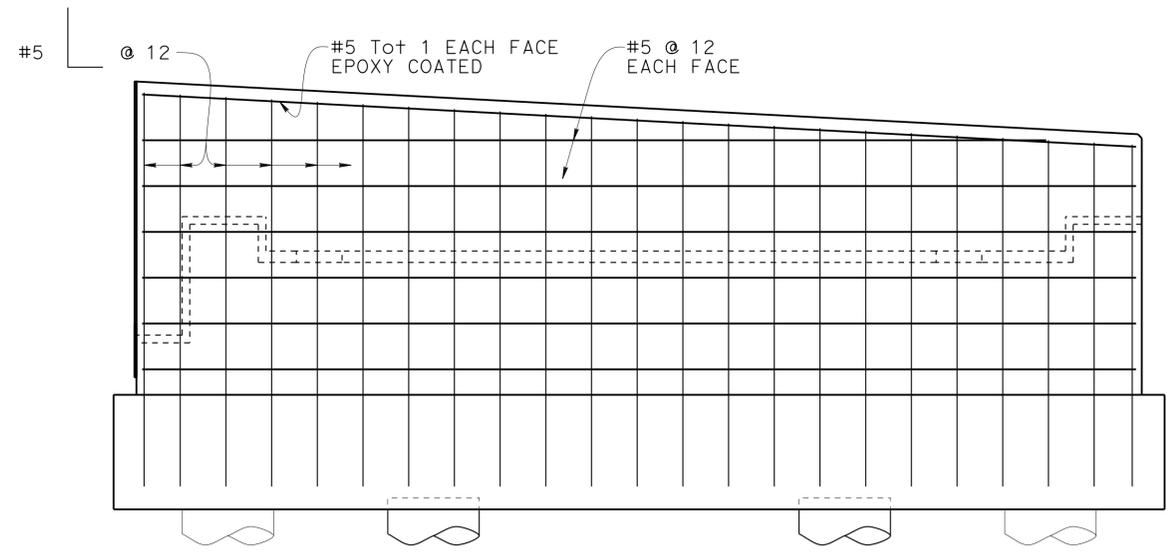
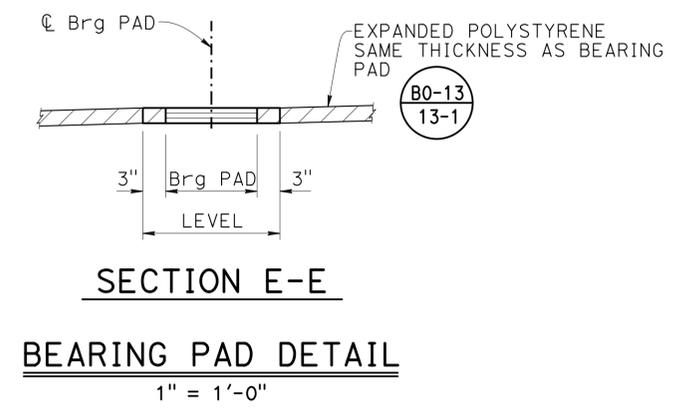
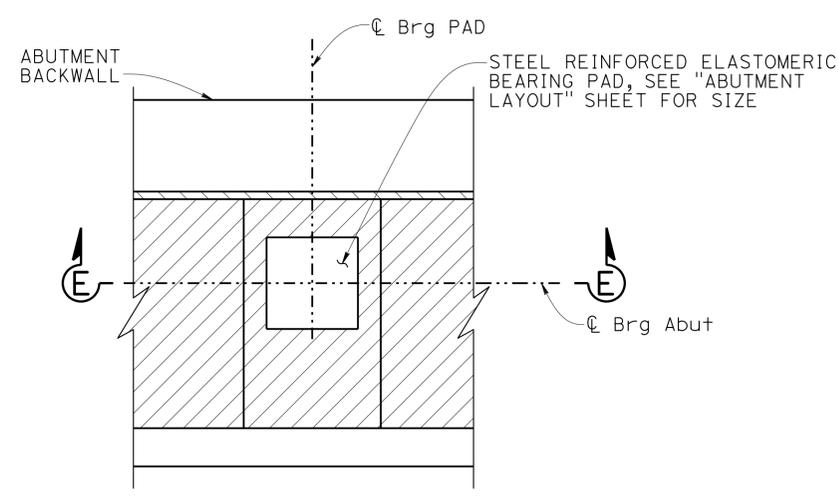
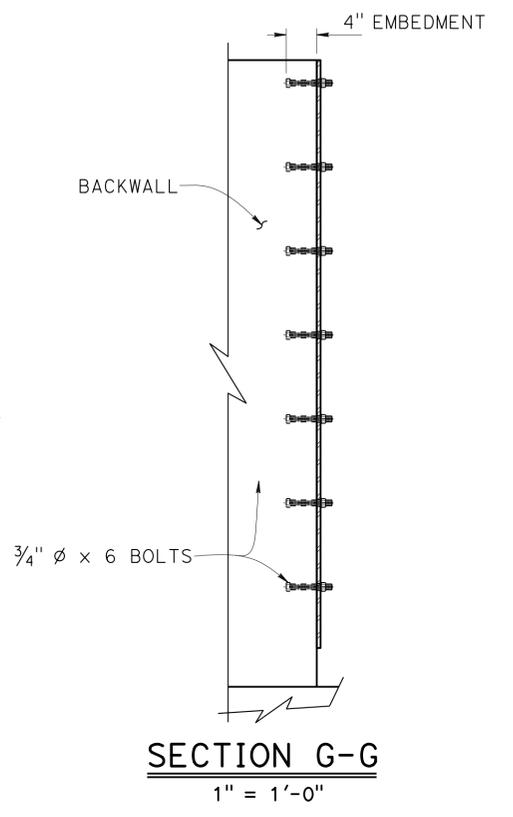
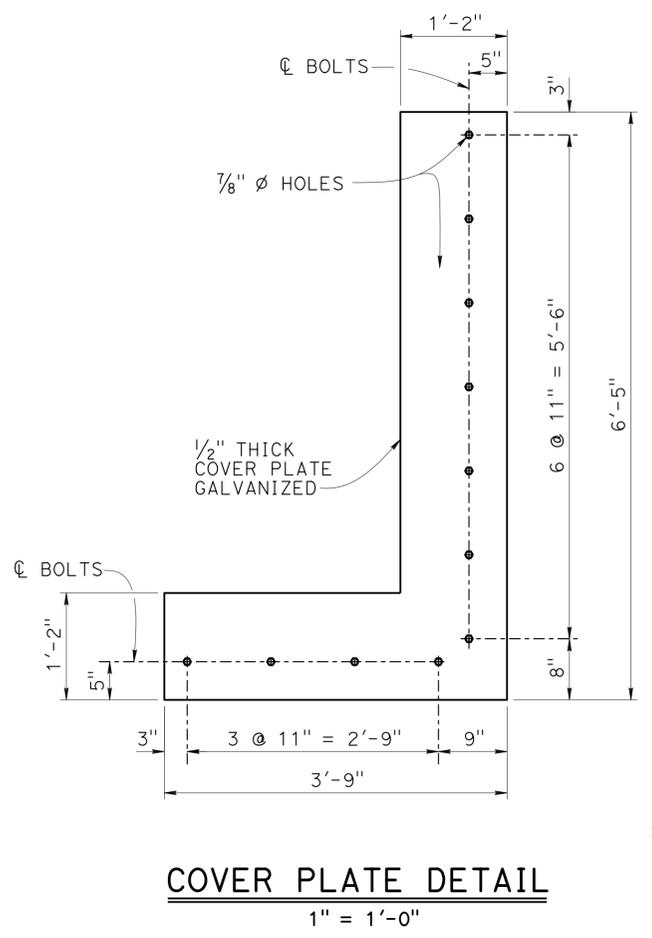
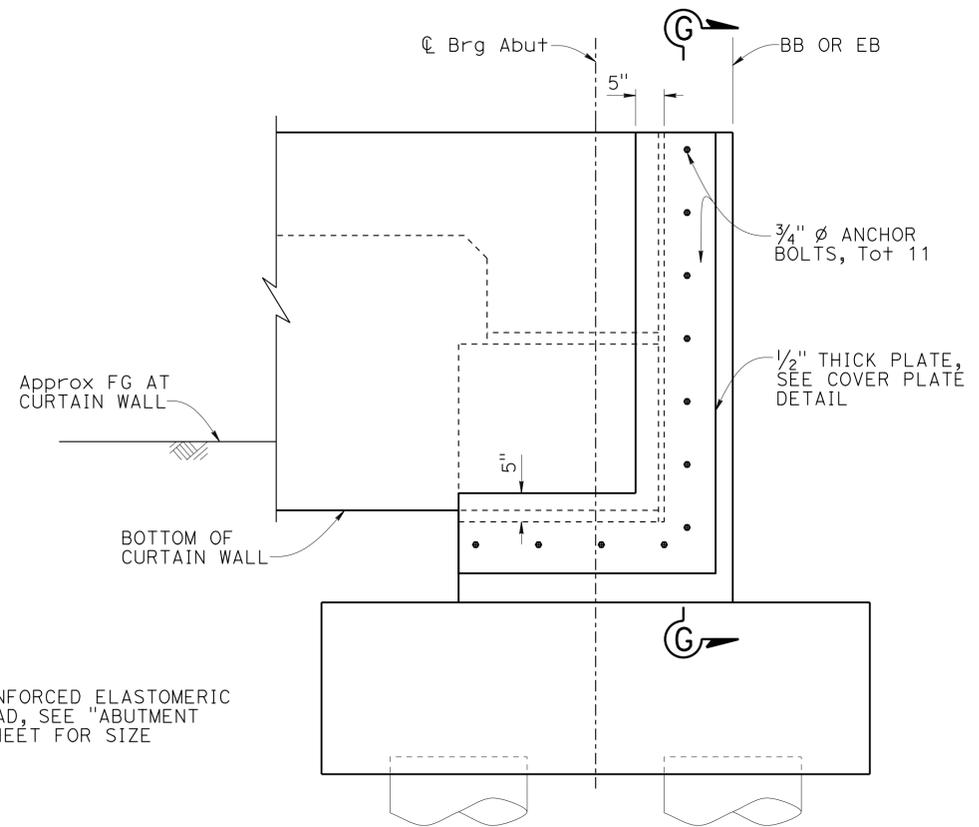
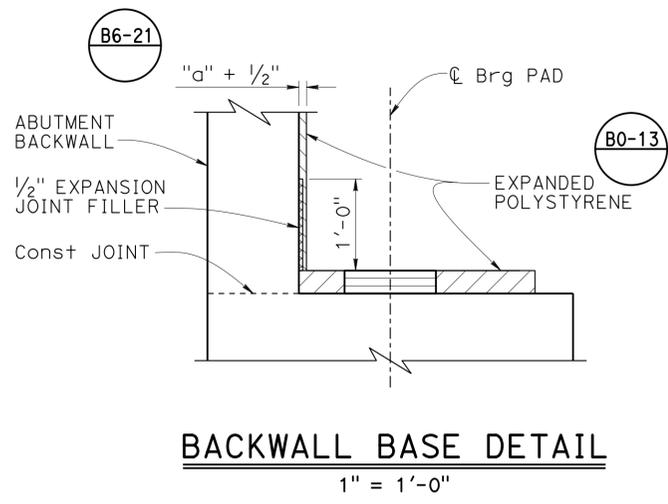
— Headed bar reinforcement



STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 2	BRIDGE NO.	01-0081	SMITH RIVER CANYON SIDEHILL VIADUCT ABUTMENT DETAILS No. 2
	DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA			POST MILE	8.2	
	QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE			UNIT: 3577	PROJECT NUMBER & PHASE: 0112000150	

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 FILE => 01-0081-F-g01d102.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	51	65
 REGISTERED CIVIL ENGINEER			10-26-15	DATE	
March 14, 2016 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>					



- NOTES:
1. Footing reinforcement not shown for clarity.
 2. For location of VIEW F-F, see "ABUTMENT 1 LAYOUT" sheet.

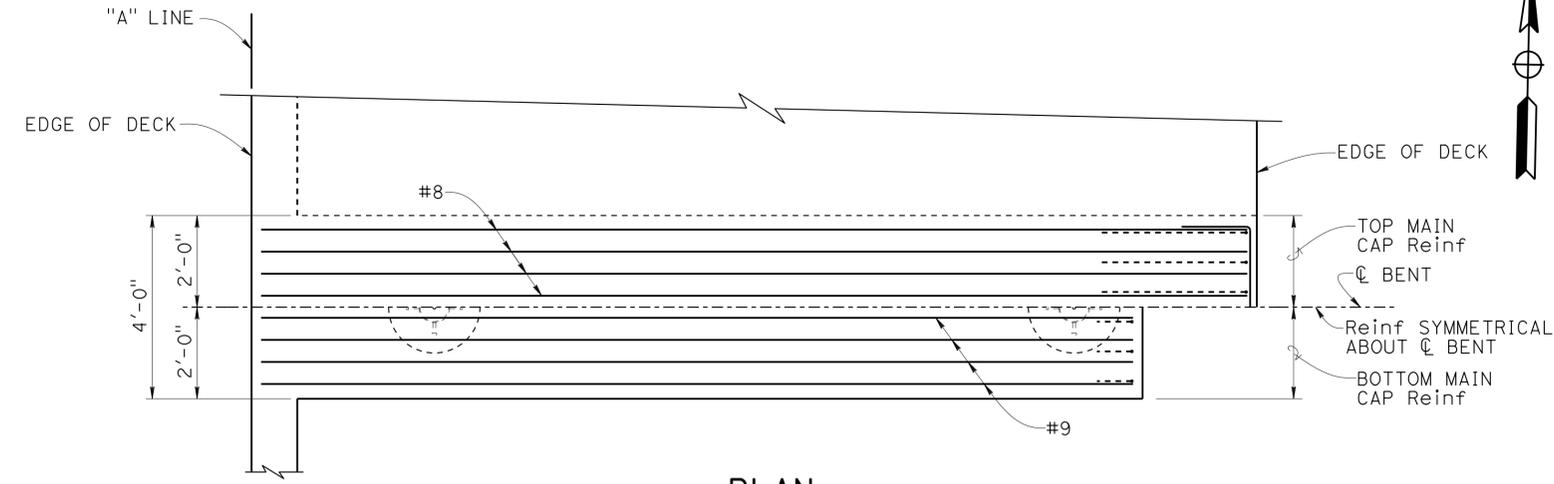
DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	01-0081
POST MILE	8.2

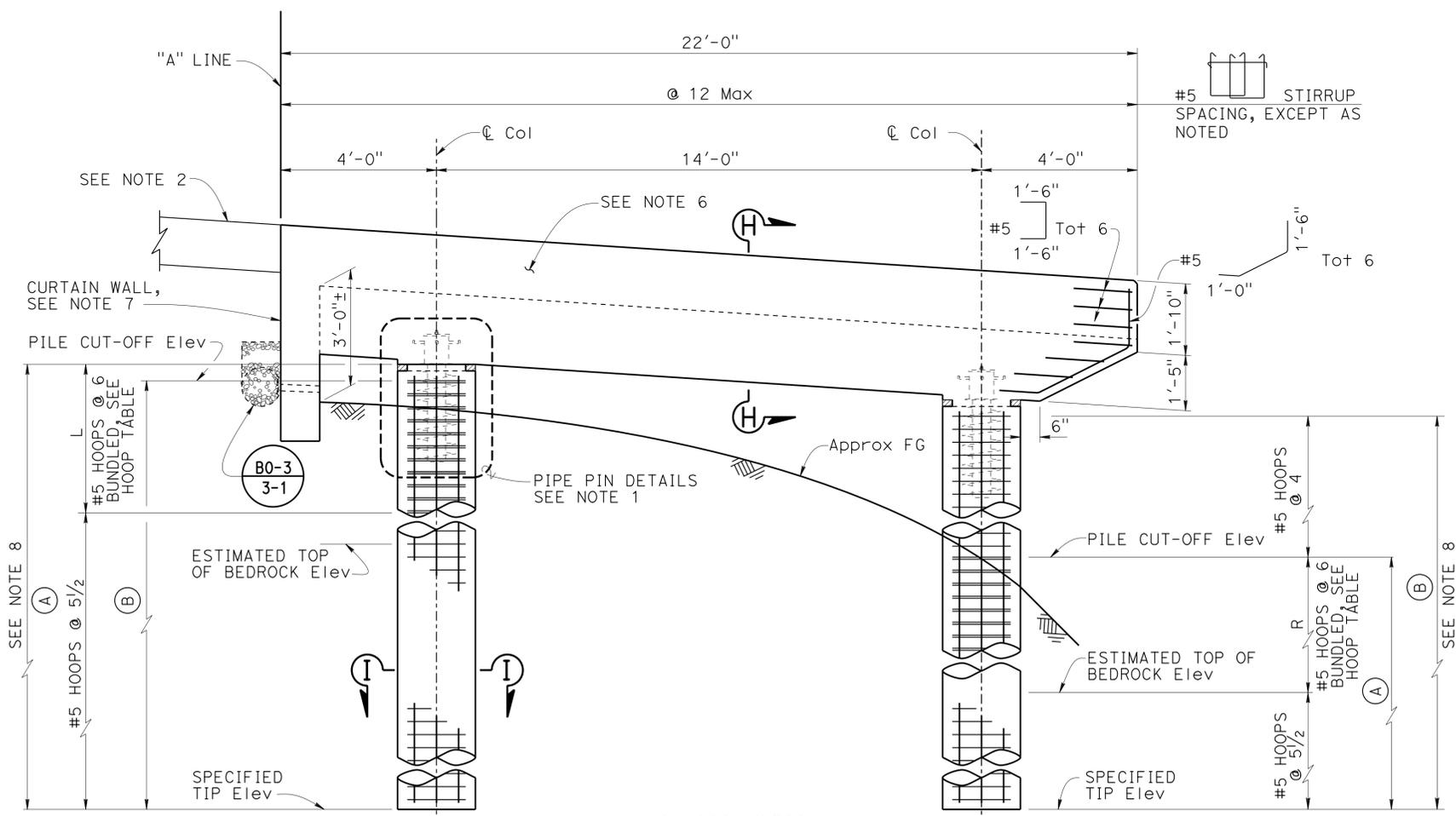
SMITH RIVER CANYON SIDEHILL VIADUCT
ABUTMENT DETAILS No. 3



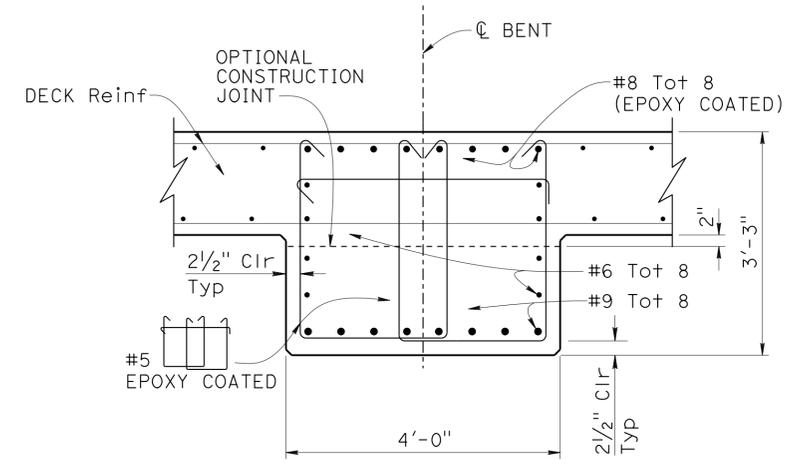
PLAN
1/2" = 1'-0"

- NOTES:
- For "PIPE PIN DETAILS", See "PIPE PIN DETAILS" sheet.
 - For new roadway, see "ROADWAY PLANS".
 - Splices not permitted in main cap bars.
 - For pile cut-off elevation, estimated top of bedrock elevation and specified tip elevation, see "PILE DATA TABLE" on "INDEX TO PLANS" sheet.
 - Alternate 135° hooks for ties.
 - Deck slab reinforcement not shown for clarity.
 - For curtain wall reinforcement, see "TYPICAL SECTION" sheet.
 - All hoops must be ultimate butt spliced continuous.
 - Bent 2 shown, Bents 5, 6 and 7 similar.
- (A) Limits of payment for 24" ø CIDH concrete pile.
 (B) No splices in main reinforcement.

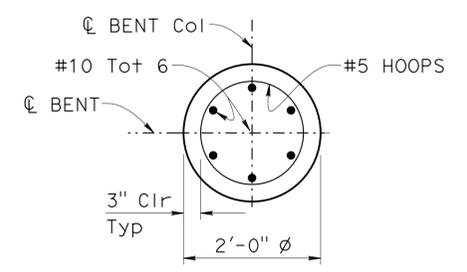
BENT No.	L (F+)	R (F+)
2	7	7
5	11	9
6	11	11
7	11	11



ELEVATION
1/2" = 1'-0"
SEE NOTE 9



SECTION H-H
3/4" = 1'-0"



TYPICAL BENT COLUMN/CIDH PILE
SECTION I-I
3/4" = 1'-0"

DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

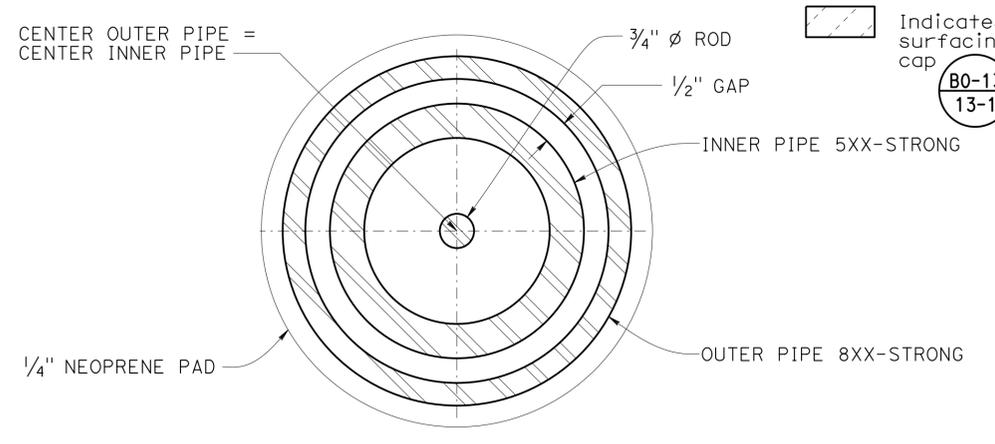
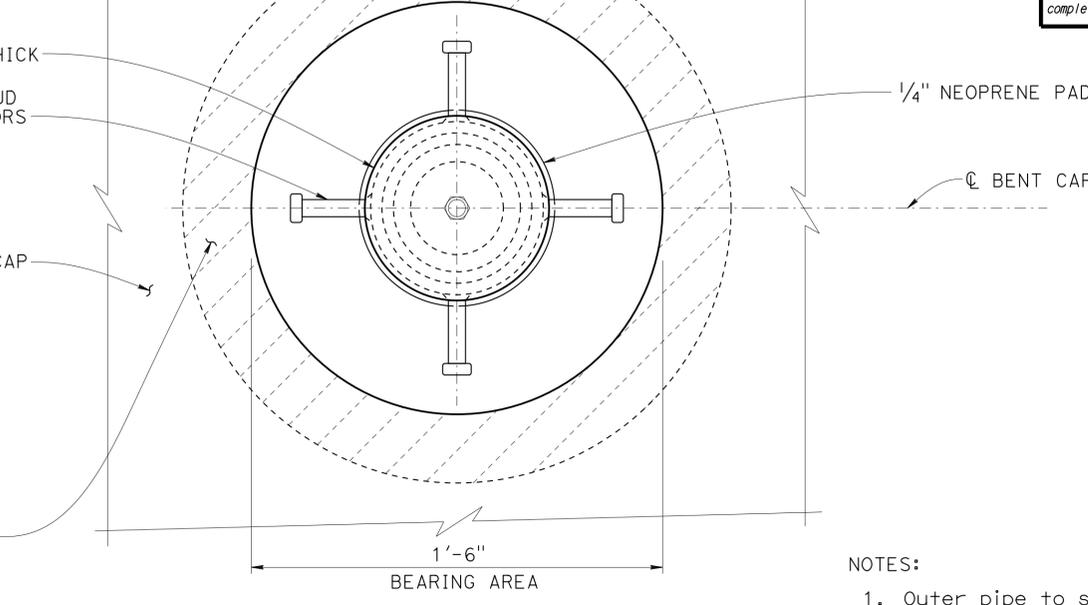
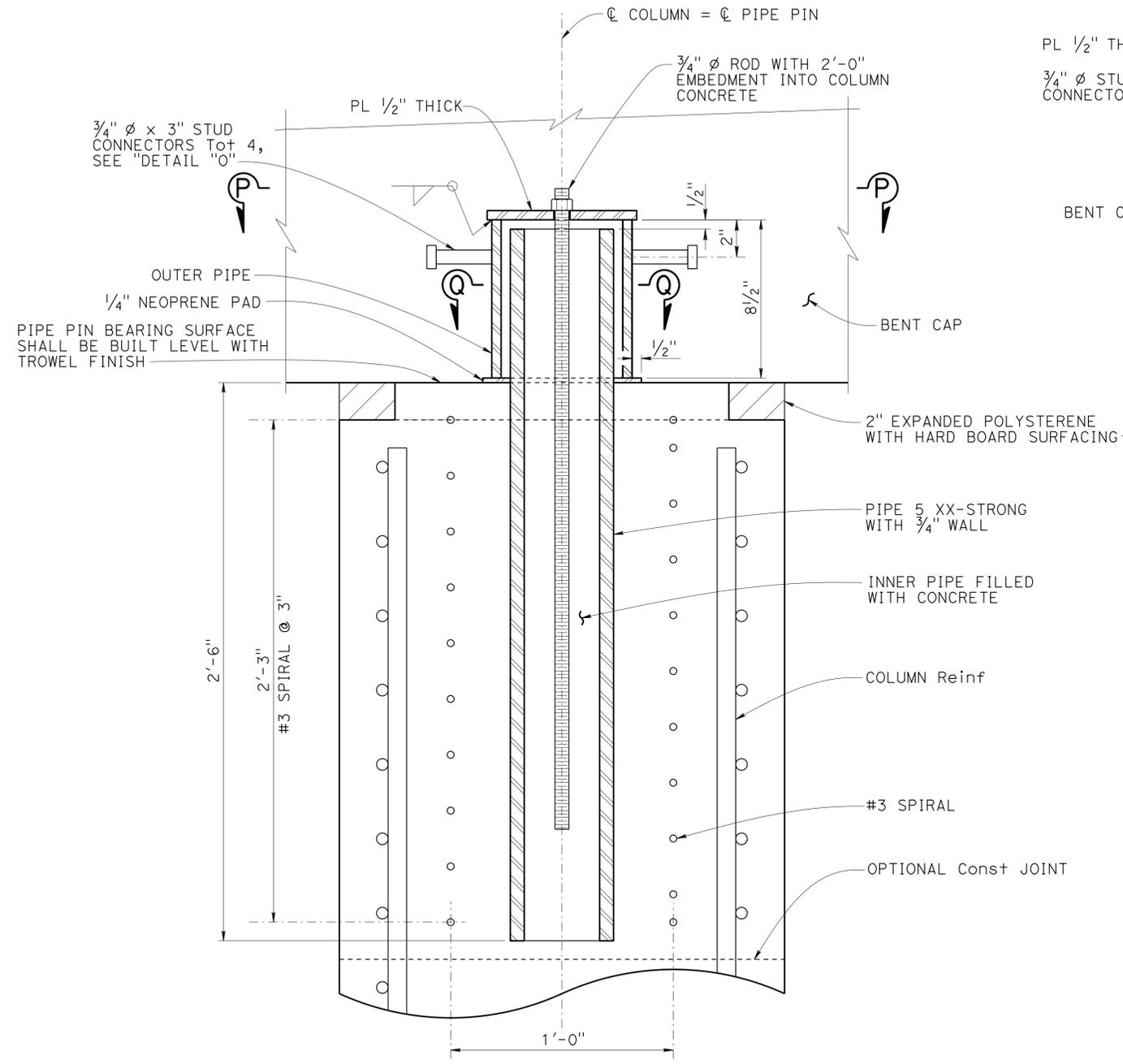
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 2

BRIDGE NO.	01-0081
POST MILE	8.2

SMITH RIVER CANYON SIDEHILL VIADUCT
BENTS 2, 5, 6 AND 7 DETAILS

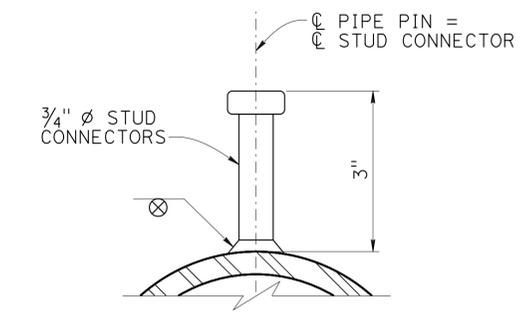
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	54	65

G. SLOCUM
 REGISTERED CIVIL ENGINEER
 DATE 10-26-15
 March 14, 2016
 PLANS APPROVAL DATE
 No. 44950
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA
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- NOTES:
- Outer pipe to seat tightly against 1/4" thick neoprene gasket placed on concrete around pipe pin.
 - Adjust spacing of main bent cap reinforcement to allow placement of pipe pin.
 - Details drawn showing level bent cap. Cap bearing surface may protrude below cap soffit when cap is not level.
 - Galvanize all pipe pin components, excluding inner spiral after fabrication

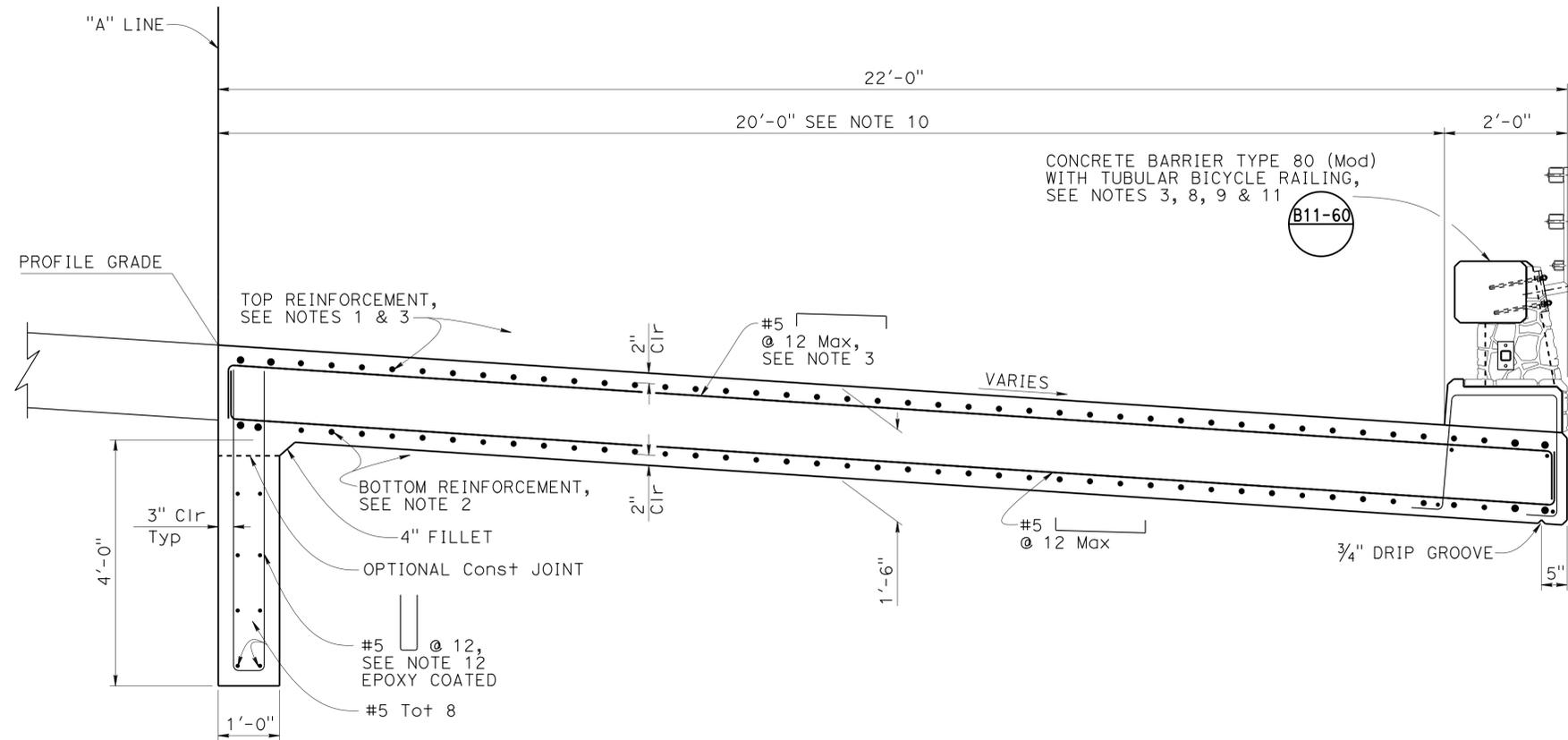
Indicates 2" expanded polystyrene with hard board surfacing to be removed after completion of bent cap.
 B0-13
 13-1



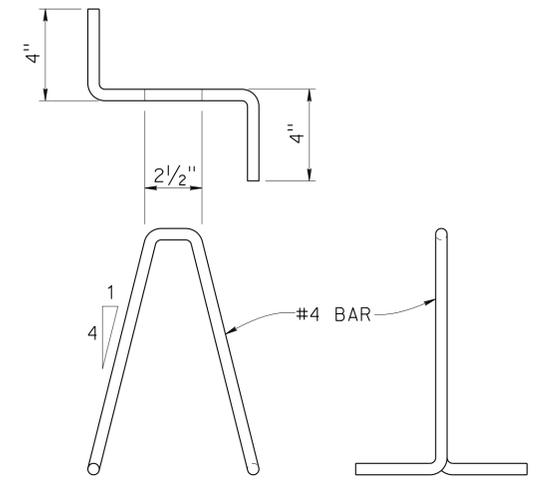
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 2	BRIDGE NO.	01-0081	SMITH RIVER CANYON SIDEHILL VIADUCT PIPE PIN DETAILS	
	DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA			POST MILE	8.2		
	QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE			CONTRACT NO.:	01-0B2601		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3577	PROJECT NUMBER & PHASE: 0112000150	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	SHEET 11 OF 22

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	55	65

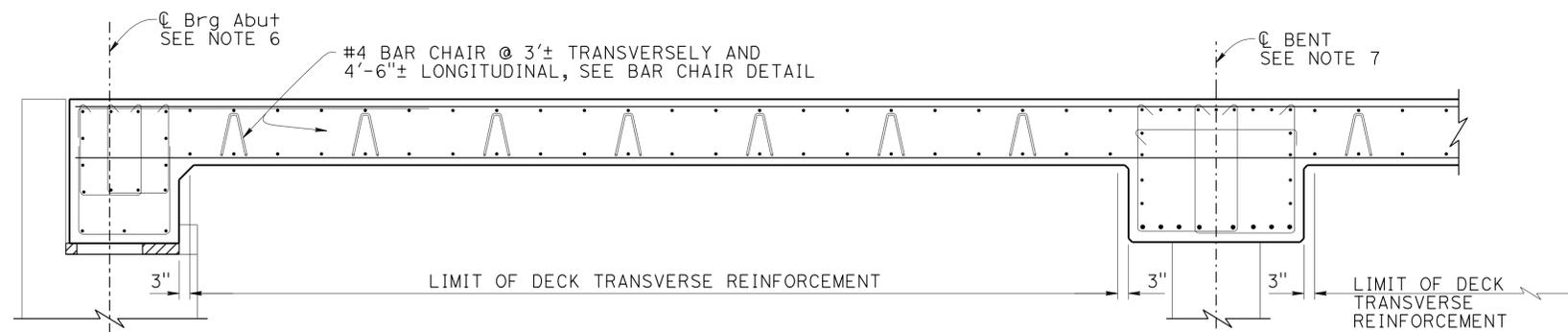
G. SLOCUM
 REGISTERED CIVIL ENGINEER
 DATE 10-26-15
 March 14, 2016
 PLANS APPROVAL DATE
 No. 44950
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA
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TYPICAL SECTION
3/4" = 1'-0"



BAR CHAIR DETAIL
3" = 1'-0"



LONGITUDINAL SECTION
1/2" = 1'-0"

NOTES:

- For slab top reinforcement, see "TOP DECK REINFORCEMENT" sheet.
- For slab bottom reinforcement, see "BOTTOM DECK REINFORCEMENT" sheet.
- All barrier and slab top mat reinforcement shall be epoxy coated.
- Transverse slab reinforcement shall be perpendicular to "A" Line.
- Spacing of all transverse bars is measured along "A" Line.
- For End Diaphragm reinforcement, see "ABUTMENT DETAILS No. 2" sheet.
- For bent cap reinforcement, see Bent Detail sheets.
- For inside and outside faces of barrier rail, see "ARCHITECTURAL TREATMENT" sheet.
- See "TUBULAR BICYCLE RAILING DETAILS" sheet.
- Prepare concrete bridge deck surface and place 1" polyester concrete overlay.
- For barrier rail reinforcement not shown, see **B11-60**.
- For curtain wall reinforcement at location of box culvert, see "MISCELLANEOUS DETAILS" sheet.

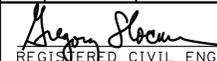
DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

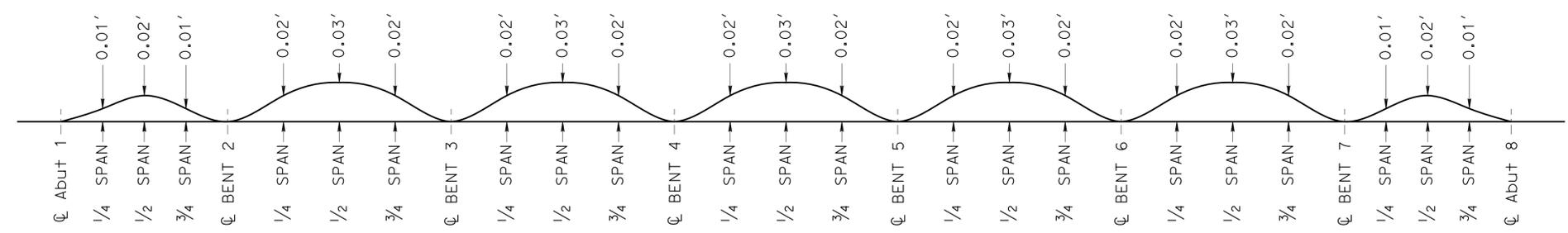
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

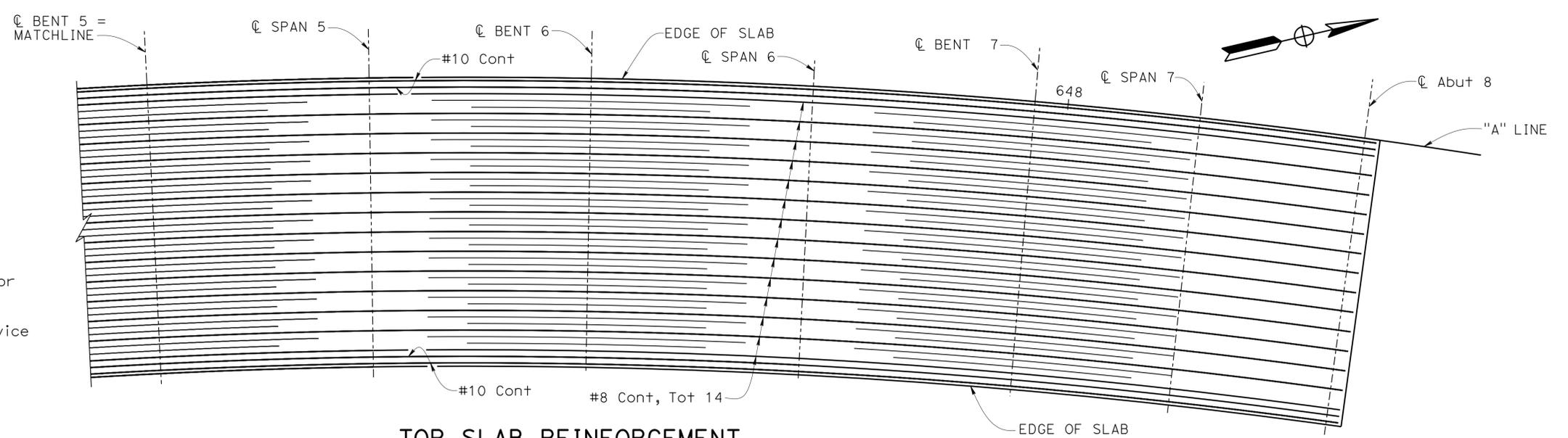
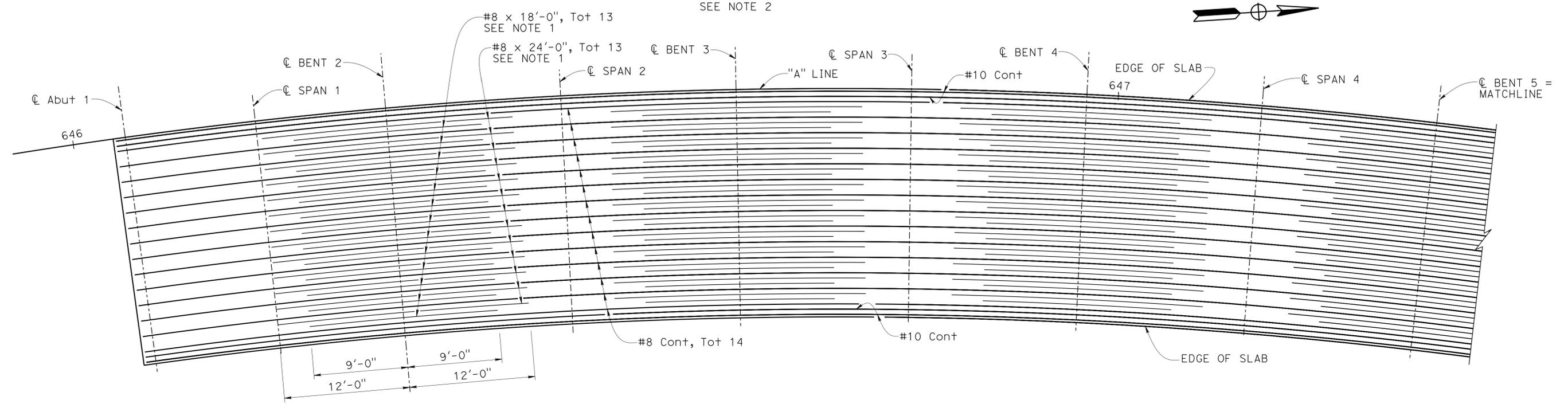
BRIDGE NO.	01-0081
POST MILE	8.2

SMITH RIVER CANYON SIDEHILL VIADUCT
TYPICAL SECTION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	56	65
 REGISTERED CIVIL ENGINEER			10-26-15	DATE	
March 14, 2016 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>					



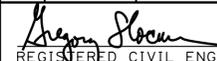
CAMBER DIAGRAM
NO SCALE
SEE NOTE 2



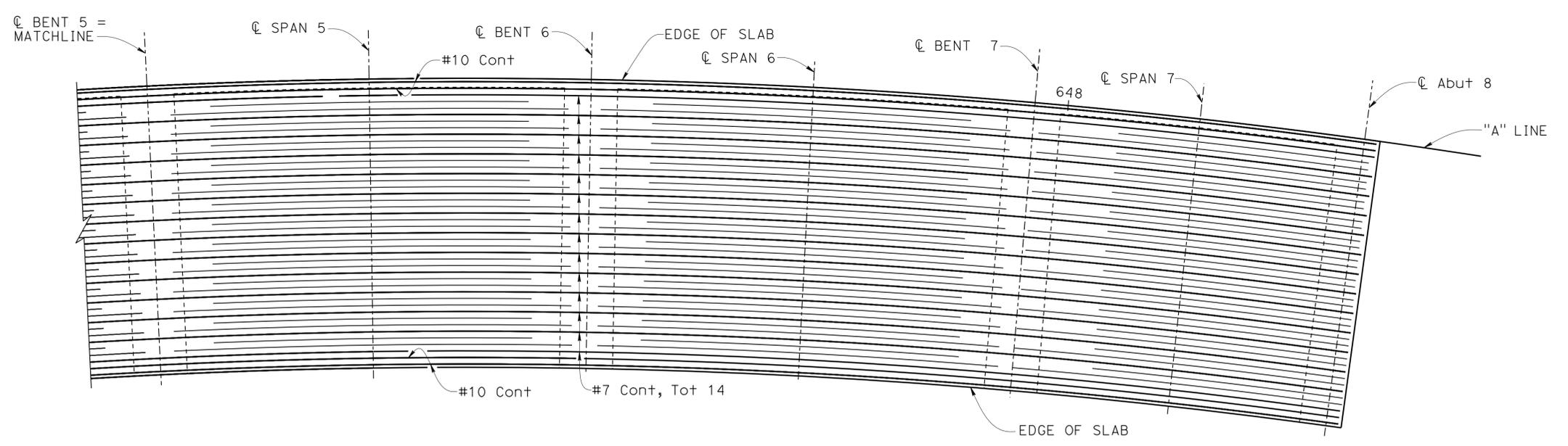
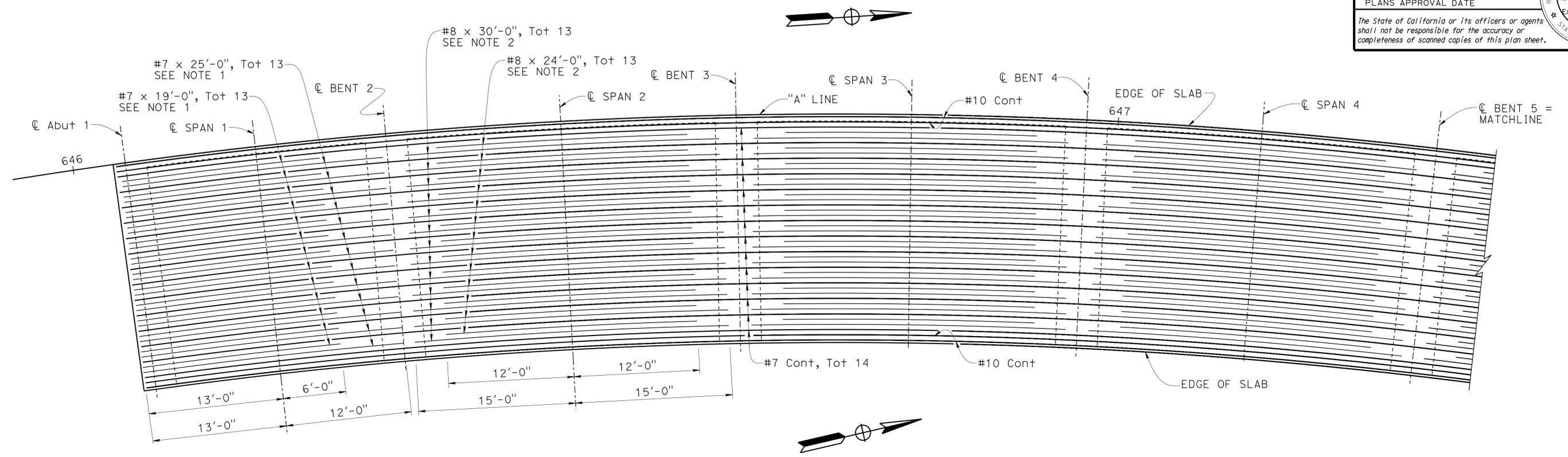
- NOTES:
- Slab reinforcement typical Bents 2 through 7.
 - Camber does not include allowance for falsework settlement.
 - Splices allowed only in continuous reinforcement and they must be service level

TOP SLAB REINFORCEMENT
1" = 5'-0"

DESIGN BY G. SLOCUM CHECKED G. ZUNIGA DETAILS BY C. FIGUERRES CHECKED G. ZUNIGA QUANTITIES BY G. ZUNIGA CHECKED J. LEE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 2	BRIDGE NO. 01-0081 POST MILE 8.2	SMITH RIVER CANYON SIDEHILL VIADUCT TOP DECK REINFORCEMENT	
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT: 3577 PROJECT NUMBER & PHASE: 0112000150	CONTRACT NO.: 01-0B2601	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES SHEET 13 OF 22
	<small>STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)</small>	<small>FILE => 01-0081-g-grf01.dgn</small>	<small>DATE PLOTTED => 19-AUG-2016</small>	<small>USERNAME => s132662</small>	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	57	65
 REGISTERED CIVIL ENGINEER			10-26-15 DATE		
March 14, 2016 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>					

- NOTES:
1. Slab reinforcement in Span 1 is similar to Span 7.
 2. Slab reinforcement typical Span 2 through Span 6.
 3. Splices allowed only in continuous reinforcement and they must be service level



BOTTOM SLAB REINFORCEMENT
1" = 5'-0"

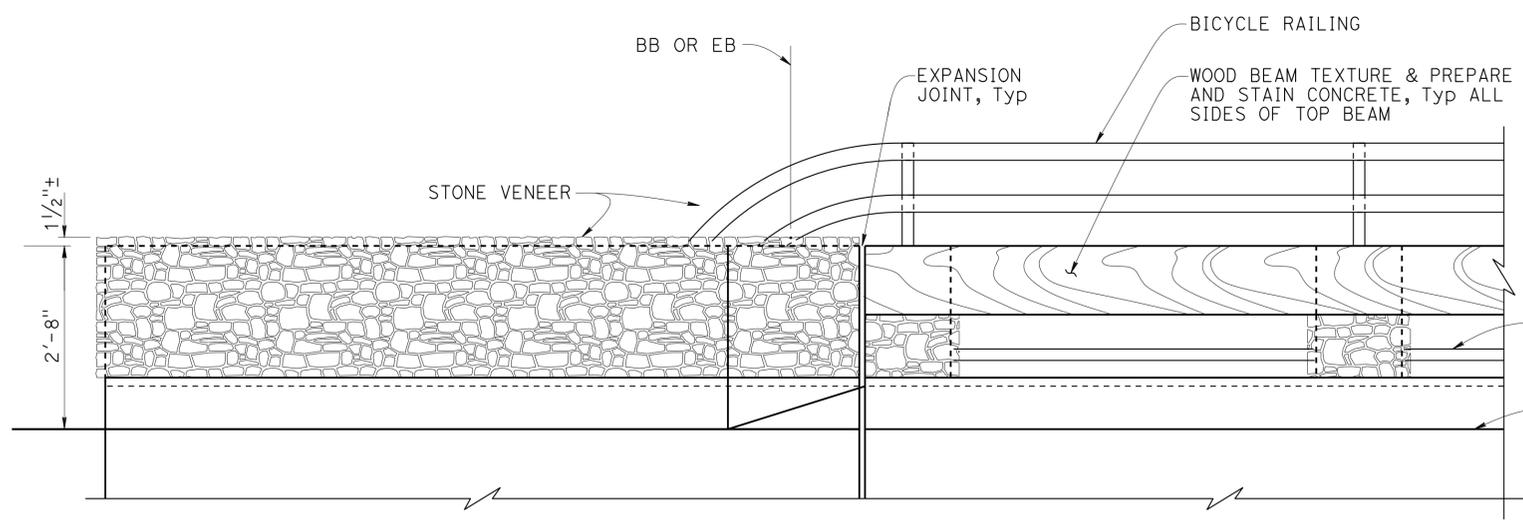
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 2	BRIDGE NO.	SMITH RIVER CANYON SIDEHILL VIADUCT BOTTOM DECK REINFORCEMENT
	DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA			01-0081	
	QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE			POST MILE 8.2	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3577 PROJECT NUMBER & PHASE: 0112000150	CONTRACT NO.: 01-0B2601	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
						REVISION DATES: 8-8-14, 9-8-14, 9-16-14	SHEET 14 OF 22

USERNAME => s13262 DATE PLOTTED => 19-AUG-2016 TIME PLOTTED => 09:53

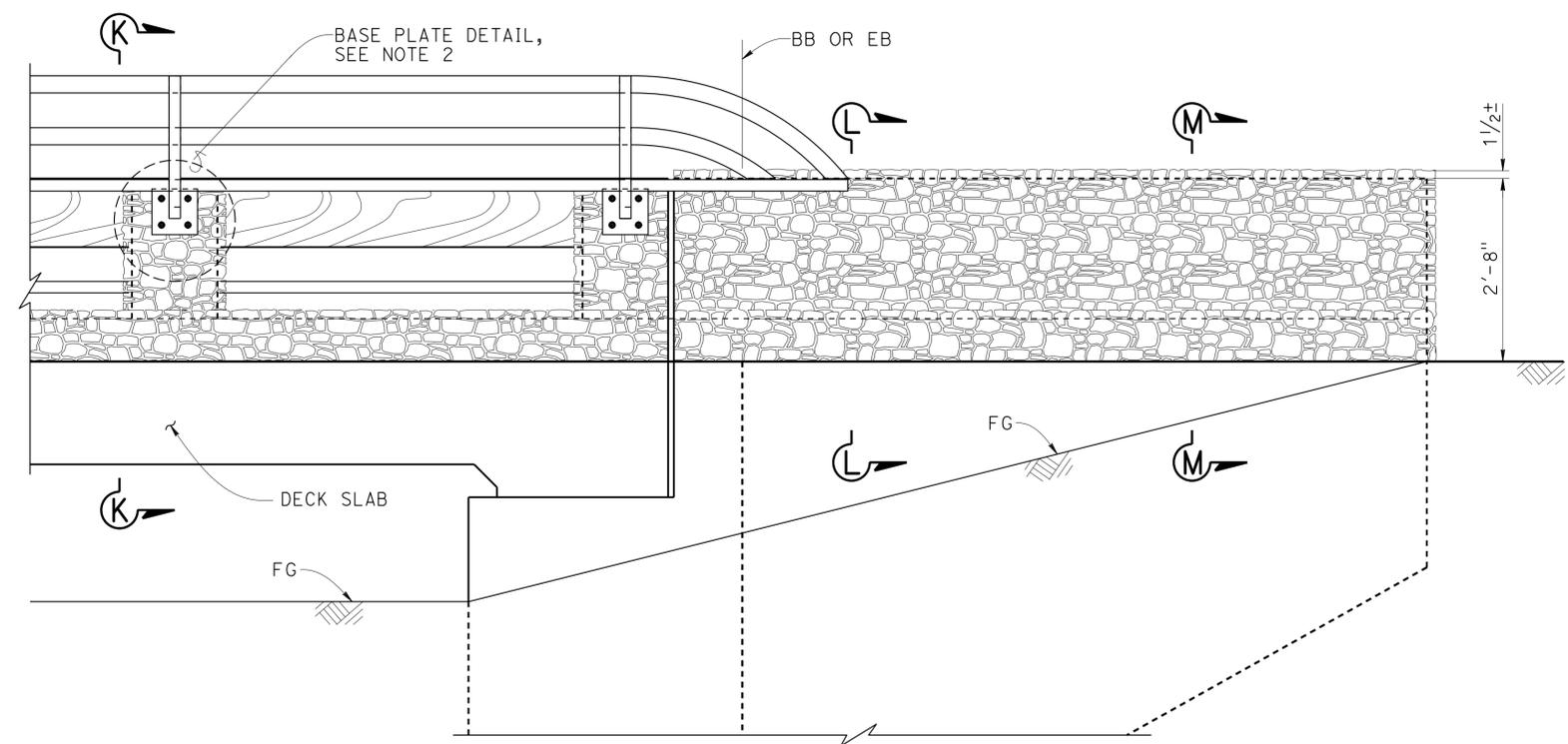
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	58	65

10-26-15
 REGISTERED CIVIL ENGINEER DATE
March 14, 2016
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 G. SLOCUM
 No. 44950
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA

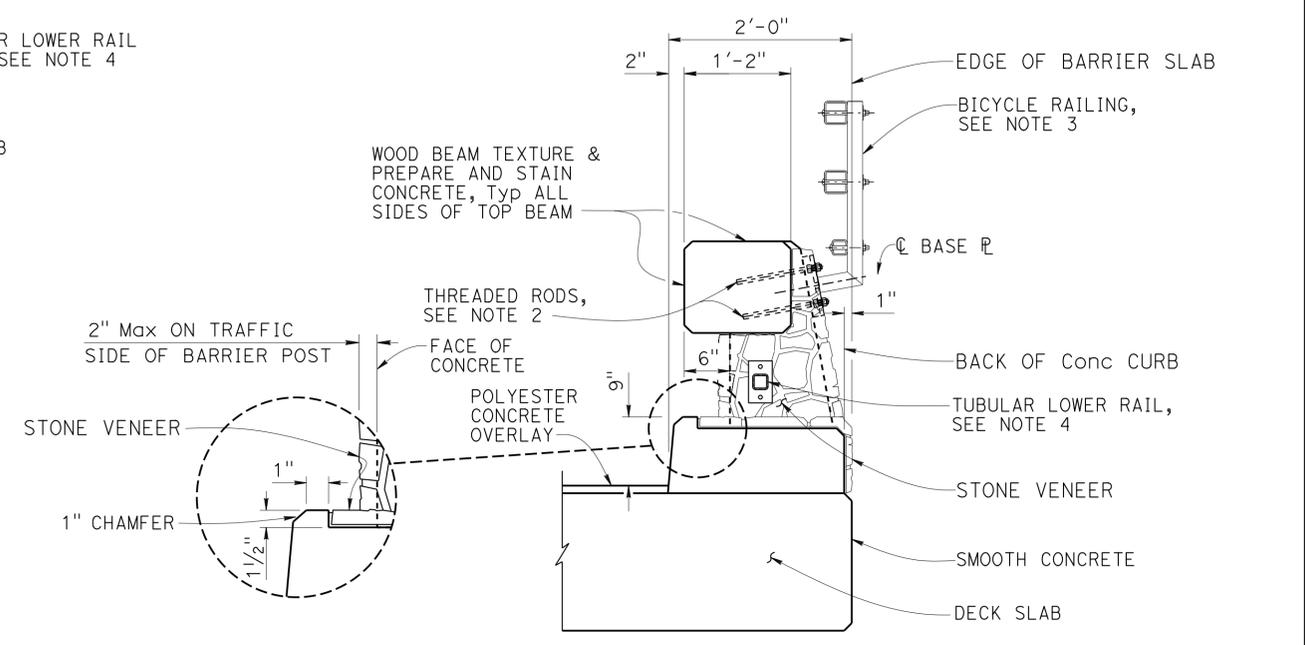


INTERIOR ELEVATION
3/4" = 1'-0"

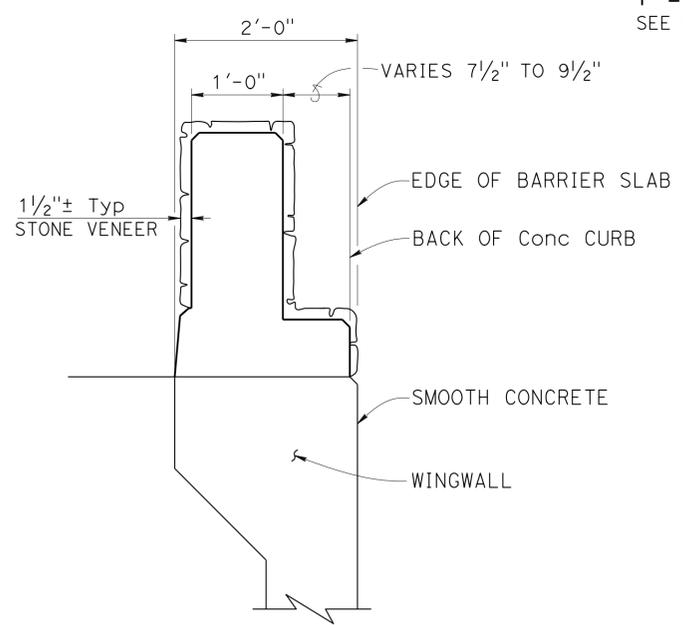


EXTERIOR ELEVATION
3/4" = 1'-0"

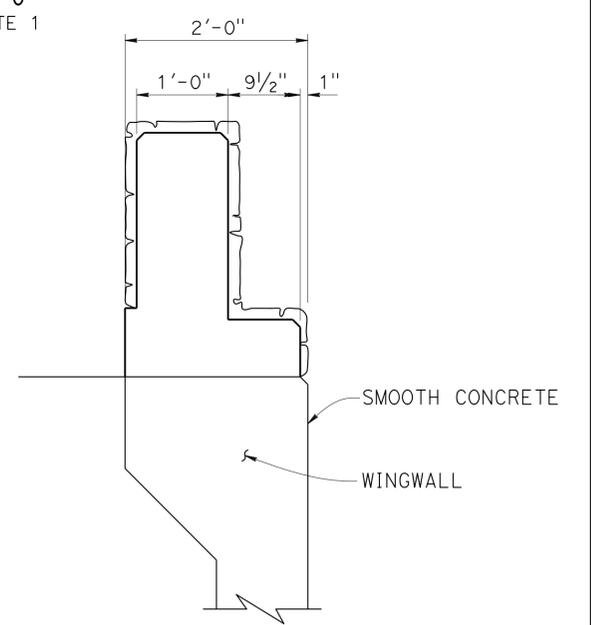
- NOTES:
- For details not shown, see revised standard plan **B11-60**.
 - For base plate and threaded rod details, see "CONCRETE BARRIER TYPE 80 (MOD) No. 2" sheet.
 - Bicycle railing to be painted. For details not shown, see "TUBULAR BICYCLE RAILING DETAILS" sheet.
 - For tubular railing connection details not shown, see **B11-64**.



SECTION K-K
1" = 1'-0"
SEE NOTE 1



SECTION L-L
1" = 1'-0"
SEE NOTE 1



SECTION M-M
1" = 1'-0"
SEE NOTE 1

DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	01-0081
POST MILE	8.2

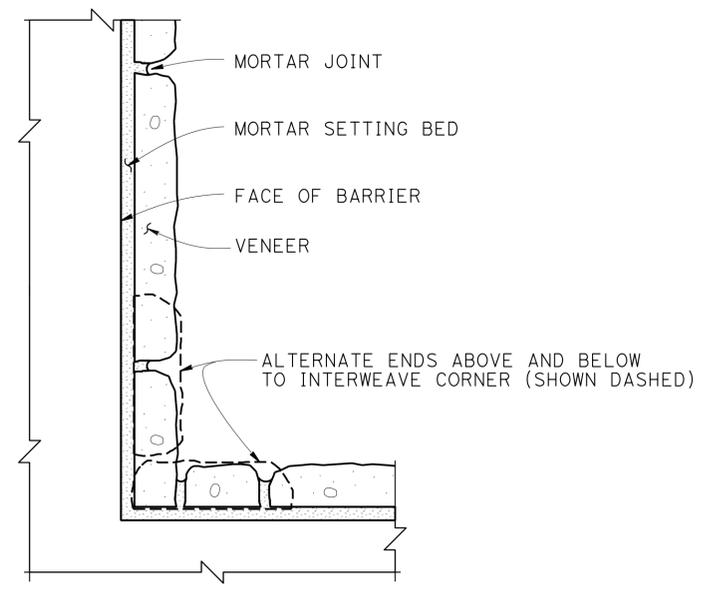
SMITH RIVER CANYON SIDEHILL VIADUCT
CONCRETE BARRIER TYPE 80 (MOD) No. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	59	65

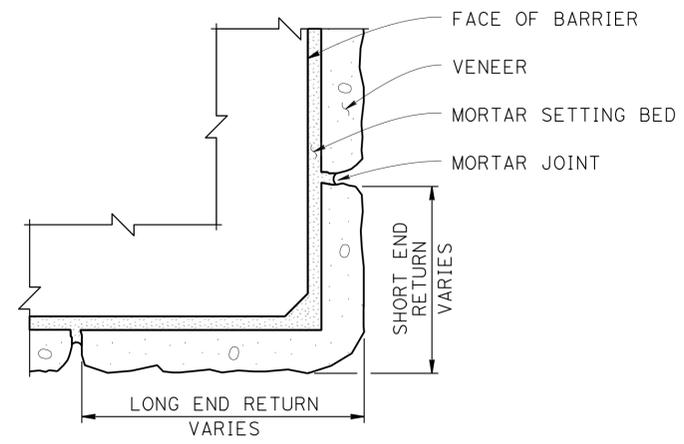
G. SLOCUM
 REGISTERED CIVIL ENGINEER
 DATE 10-26-15
 No. 44950
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA

March 14, 2016
 PLANS APPROVAL DATE

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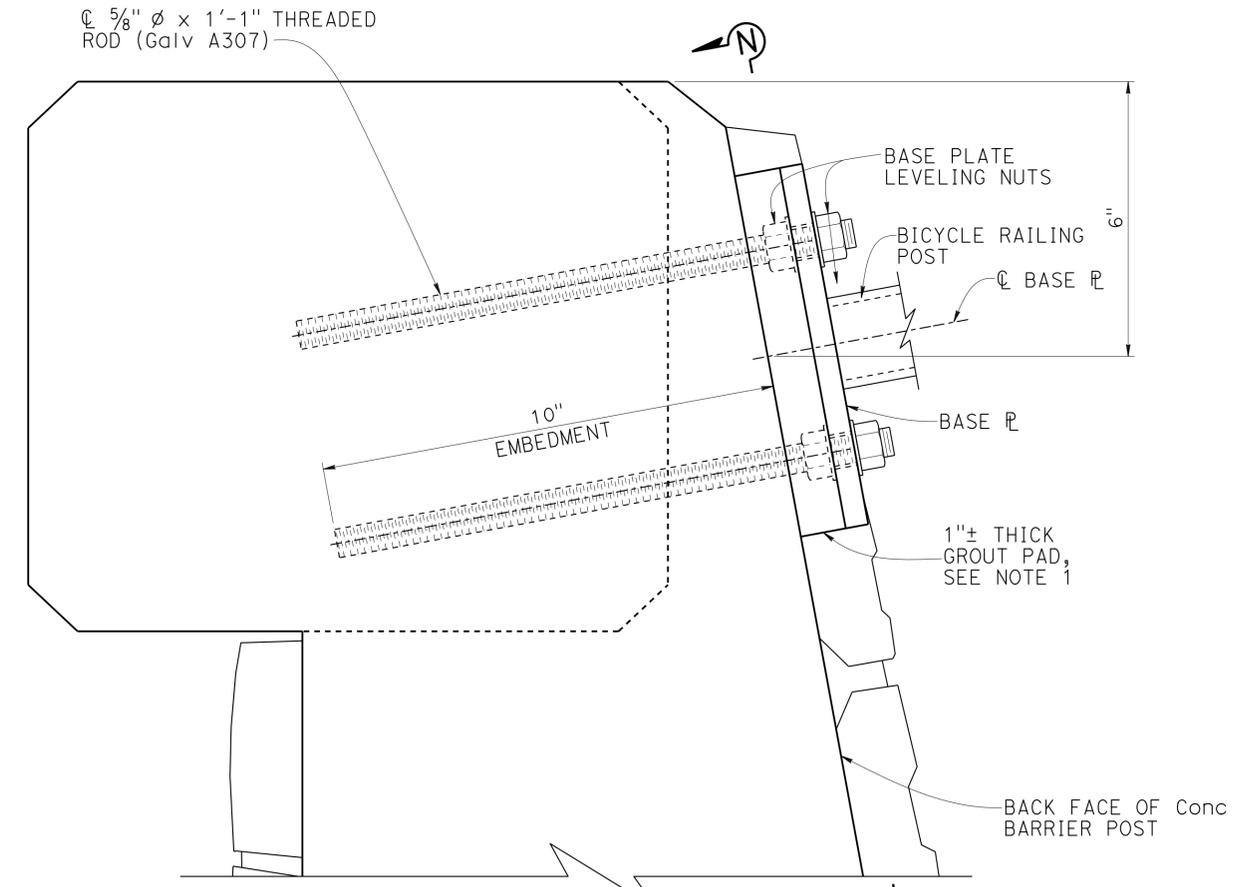
INSIDE CORNER DETAIL



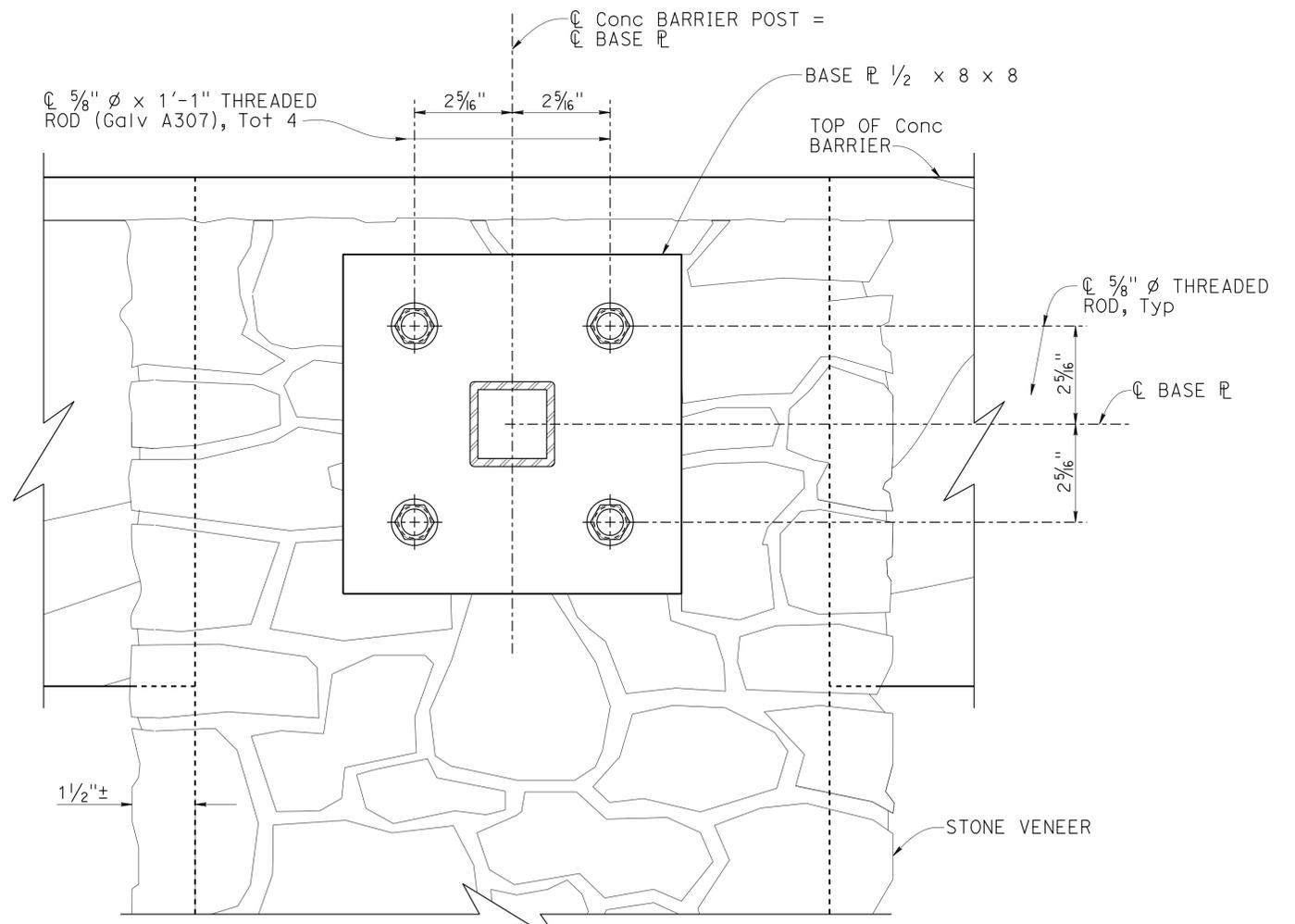
OUTSIDE CORNER DETAIL

NOTES:
 1. After final adjustment of base plate leveling nuts, the space behind the base plate must be filled with grout.
 2. Place stone veneer around grout pad.

MANUFACTURED STONE VENEER TEXTURE
 NO SCALE



BASE PLATE DETAIL
 6" = 1'-0"



SECTION N-N
 6" = 1'-0"

DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 2

BRIDGE NO.	01-0081
POST MILE	8.2

SMITH RIVER CANYON SIDEHILL VIADUCT
 CONCRETE BARRIER TYPE 80 (MOD) No. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	60	65

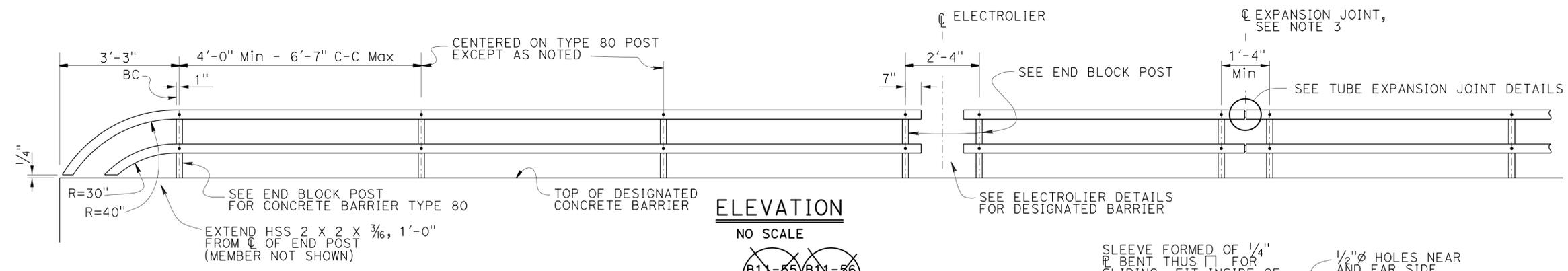
G. Slocum 10-26-15
REGISTERED CIVIL ENGINEER DATE

March 14, 2016
PLANS APPROVAL DATE

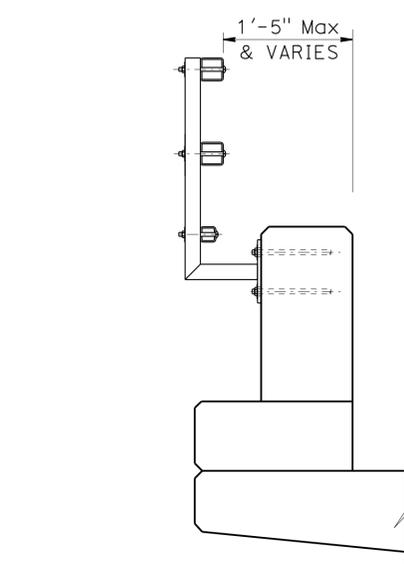
G. SLOCUM
No. 44950
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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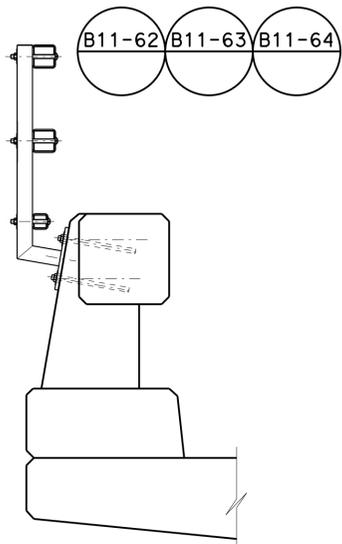
The structural components on this drawing have been designed by others. The Engineer of Record is responsible for the selection and proper application of the component design and any changes shown. The seal and signature of the Engineer responsible for the component design and the supporting documentation of these bridge components are available by contacting California Department of Transportation, Division of Engineering Services at 916-227-8704.



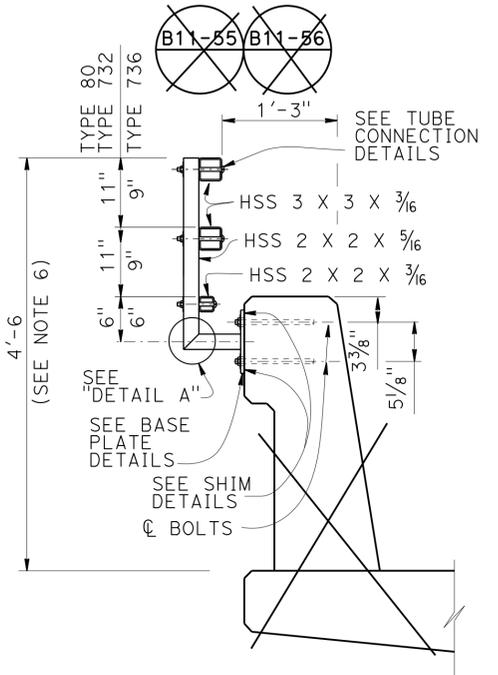
ELEVATION
NO SCALE



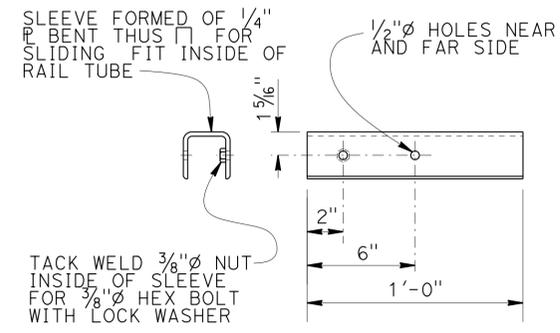
TYPE 80 END BLOCK POST
1" = 1'-0"



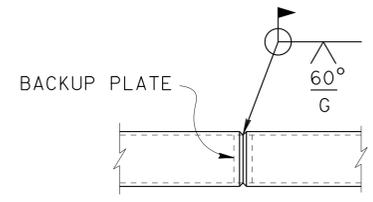
TYPE 80
1" = 1'-0"



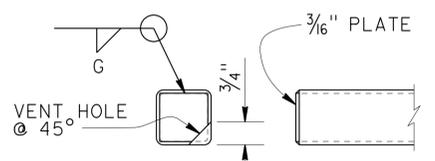
TYPE 732 OR 736
1" = 1'-0"



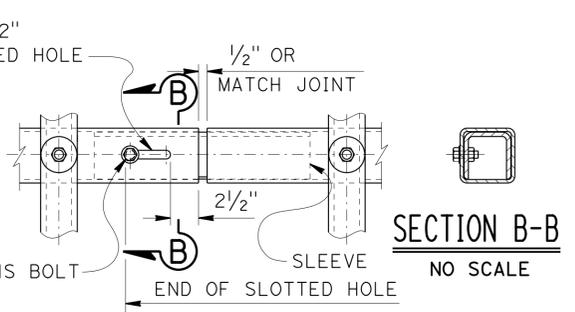
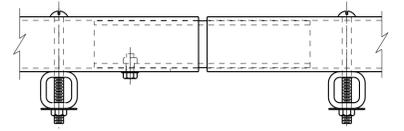
SLEEVE DETAIL
NO SCALE



WELDED SPLICE DETAIL
NO SCALE

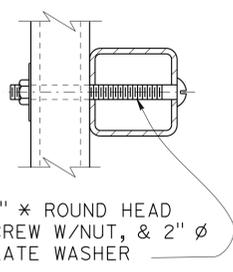


RAIL CAP DETAIL
NO SCALE

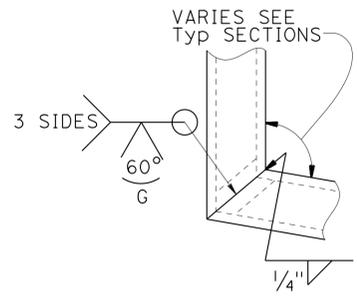


TUBE EXPANSION JOINT DETAILS
NO SCALE

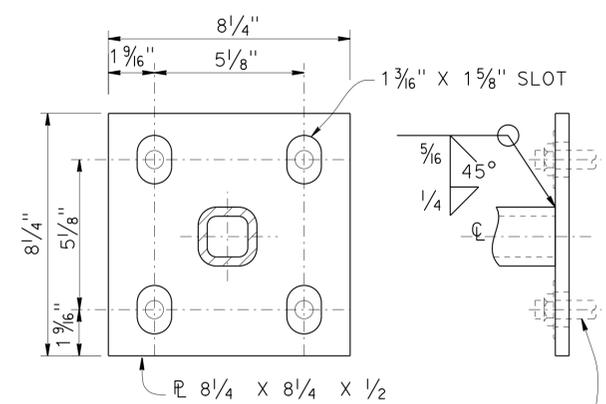
- NOTES:**
1. Post must be normal to railing.
 2. Rail tubes must be shop bent or fabricated to fit horizontal curve when radius is less than 950'.
 3. Tube expansion joints must be located in the tubes spanning deck or wall joints. Increase joint width in tubes to match expansion joint width and increase sleeve length correspondingly.
 4. Top rail tube must be continuous over not less than two posts except a short post spacing is permitted near deck or wall joints, electroliers, or other rail discontinuities as noted.
 5. See Project Plans for limits of tubular bicycle railing.
 6. Bicycle railing height measured from top of polyester concrete overlay.



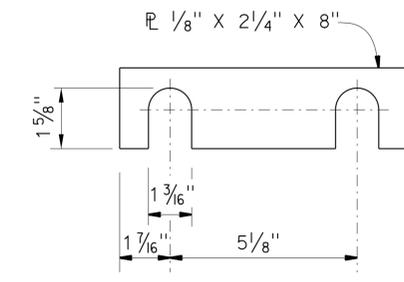
TUBE CONNECTION DETAIL
NO SCALE



DETAIL A
NO SCALE



BASE PLATE DETAIL
NO SCALE



SHIM DETAILS
NO SCALE

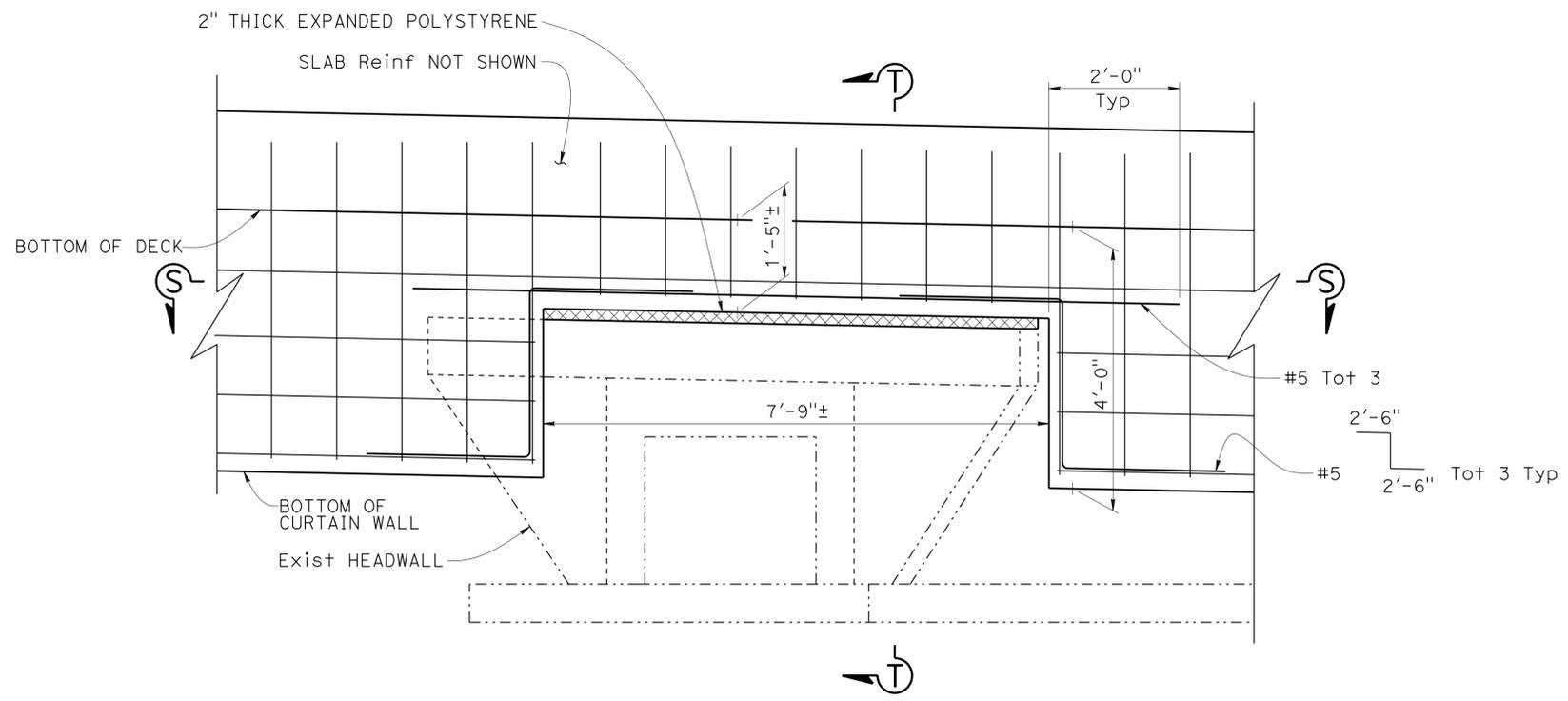
STANDARD DRAWING	NOTE ADDED
FILE NO. xs16-035	APPROVAL DATE <u>October 2014</u>

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 01-0081
	POST MILE 8.2

SMITH RIVER CANYON SIDEHILL VIADUCT
CONCRETE BARRIER TYPE 80, 732 & 736
TUBULAR BICYCLE RAILING DETAILS

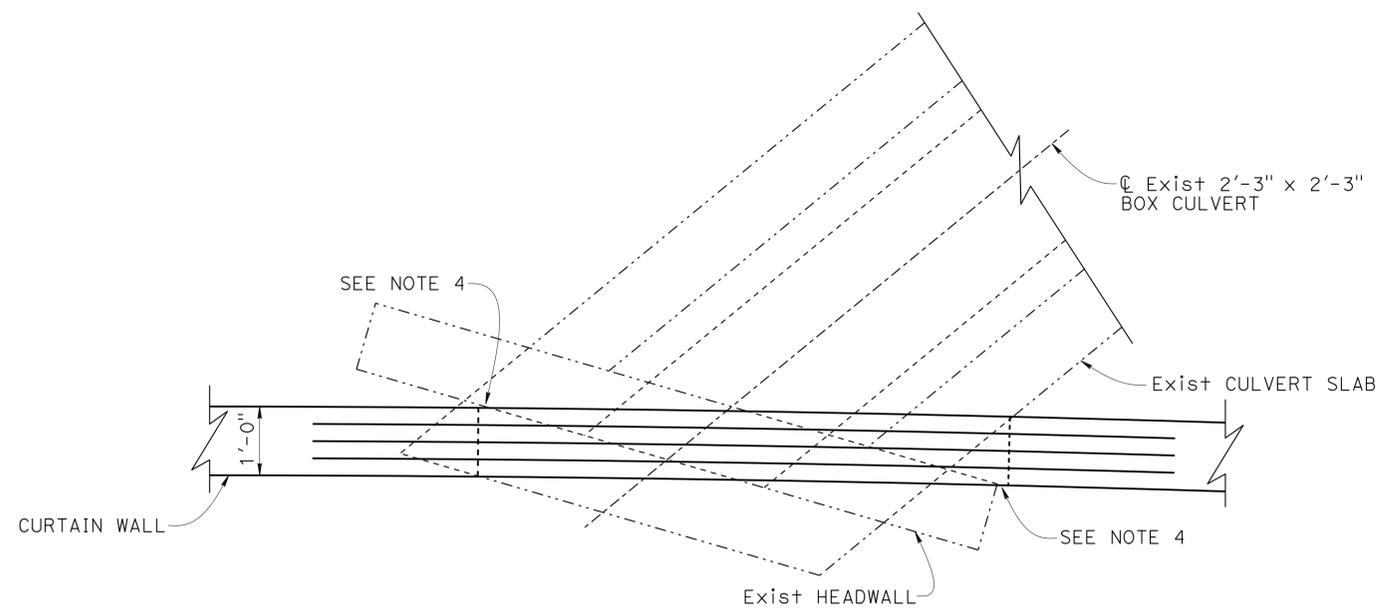
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	61	65

10-26-15
 REGISTERED CIVIL ENGINEER DATE
 March 14, 2016
 PLANS APPROVAL DATE
 G. SLOCUM
 No. 44950
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA
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CURTAIN WALL AT CULVERT HEADWALL

DETAIL R
 $\frac{3}{4}'' = 1'-0''$



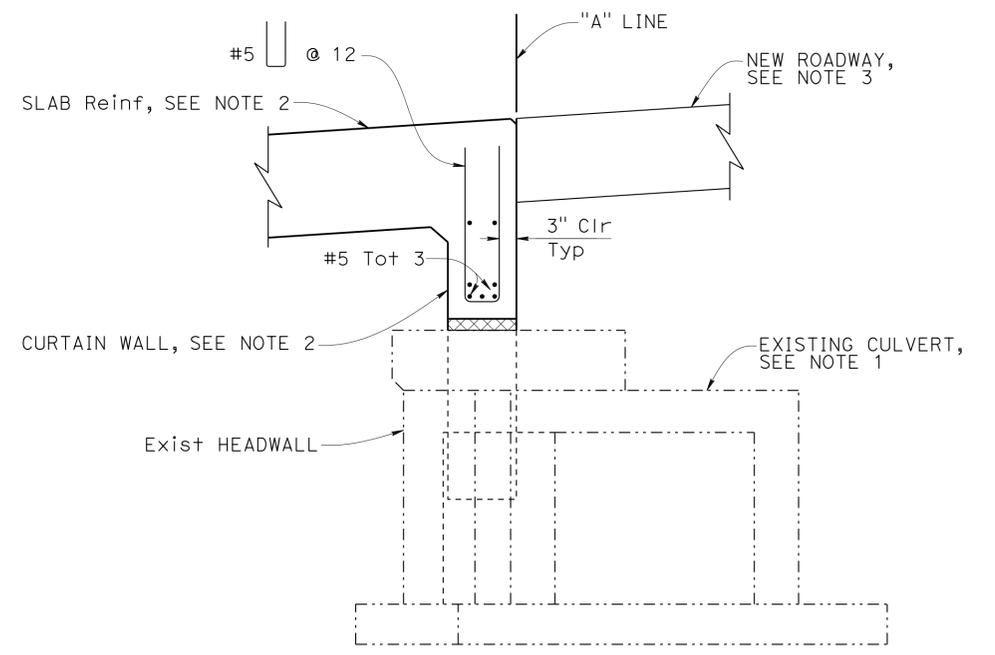
SECTION S-S
 $\frac{3}{4}'' = 1'-0''$

NOTES:

1. For existing culvert location, see "GENERAL PLAN" sheet.
2. For slab and curtain wall reinforcement, see "TYPICAL SECTION" sheet.
3. For new Roadway, see "ROAD PLANS".
4. Provide minimum 2" gap between curtain wall and existing culvert or headwall.
5. For location of Detail R, see "GENERAL PLAN" sheet.

LEGEND:

----- Indicates existing structure.



SECTION T-T
 $\frac{3}{4}'' = 1'-0''$

DESIGN	BY G. SLOCUM	CHECKED G. ZUNIGA
DETAILS	BY C. FIGUERRES	CHECKED G. ZUNIGA
QUANTITIES	BY G. ZUNIGA	CHECKED J. LEE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

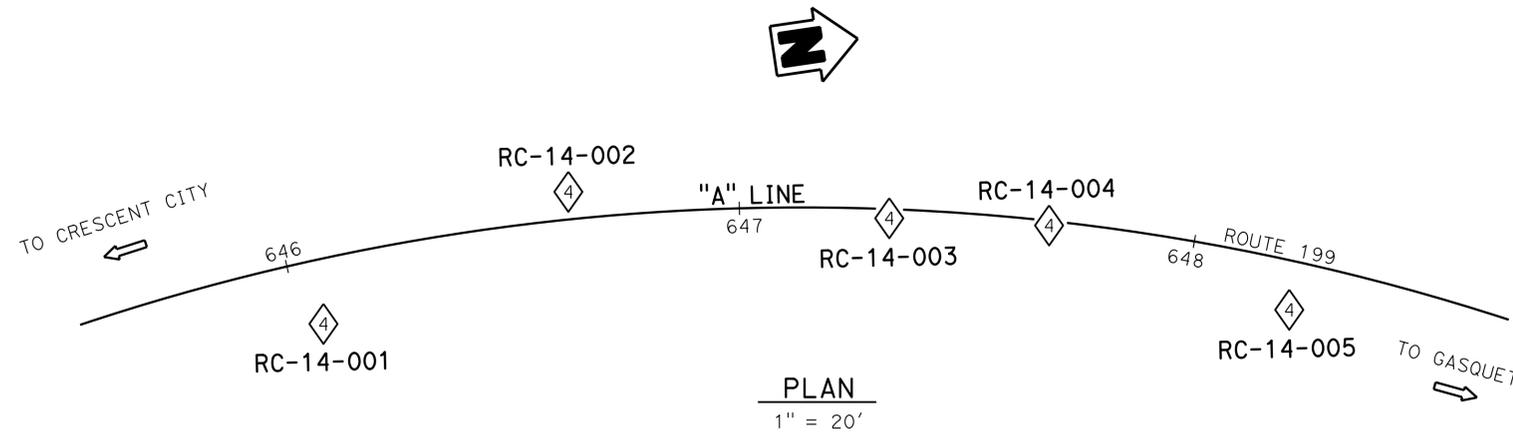
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 2

BRIDGE NO.	01-0081
POST MILE	8.2

SMITH RIVER CANYON SIDEHILL VIADUCT
 MISCELLANEOUS DETAILS

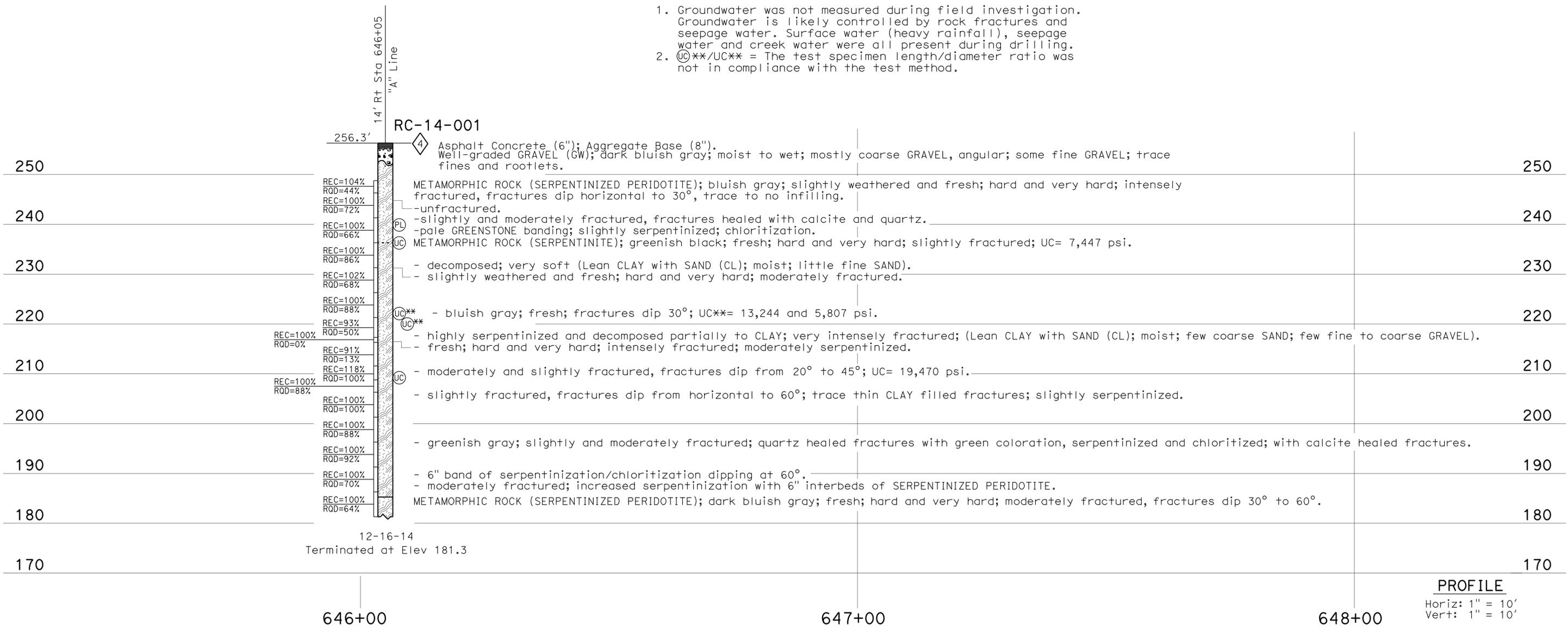
BENCH MARK

DN 199-8.22 (PRHV822)
 Fnd 1" I.P.
 23.99 Rt FROM "A1" LINE
 Sta 645+82.25
 N 2,550,177.80
 E 6,004,260.13
 Elev = 256.48'
 NAVD88



Notes:

1. Groundwater was not measured during field investigation. Groundwater is likely controlled by rock fractures and seepage water. Surface water (heavy rainfall), seepage water and creek water were all present during drilling.
2. @**/UC** = The test specimen length/diameter ratio was not in compliance with the test method.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	62	65

John L. Thorne
 REGISTERED CIVIL ENGINEER
 DATE 8-25-15

March 14, 2016
 PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST
 John L. Thorne
 No. 9113
 Exp. 6-30-16
 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.

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).
 See 2010 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		SMITH RIVER CANYON SIDEHILL VIADUCT	
FUNCTIONAL SUPERVISOR		DRAWN BY: I. G-Remmen		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 01-0081		LOG OF TEST BORINGS 1 OF 4	
NAME: R. Buehl		CHECKED BY: J. Martin		FIELD INVESTIGATION BY: J. Thorne		POST MILE 8.2			
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3650		PROJECT NUMBER & PHASE: 01120001501		CONTRACT NO.: 01-0B2601	
				0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES SHEET OF	
								06-16-15 08-24-15 08-25-15 19 22	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	DN	199	8.2	64	65

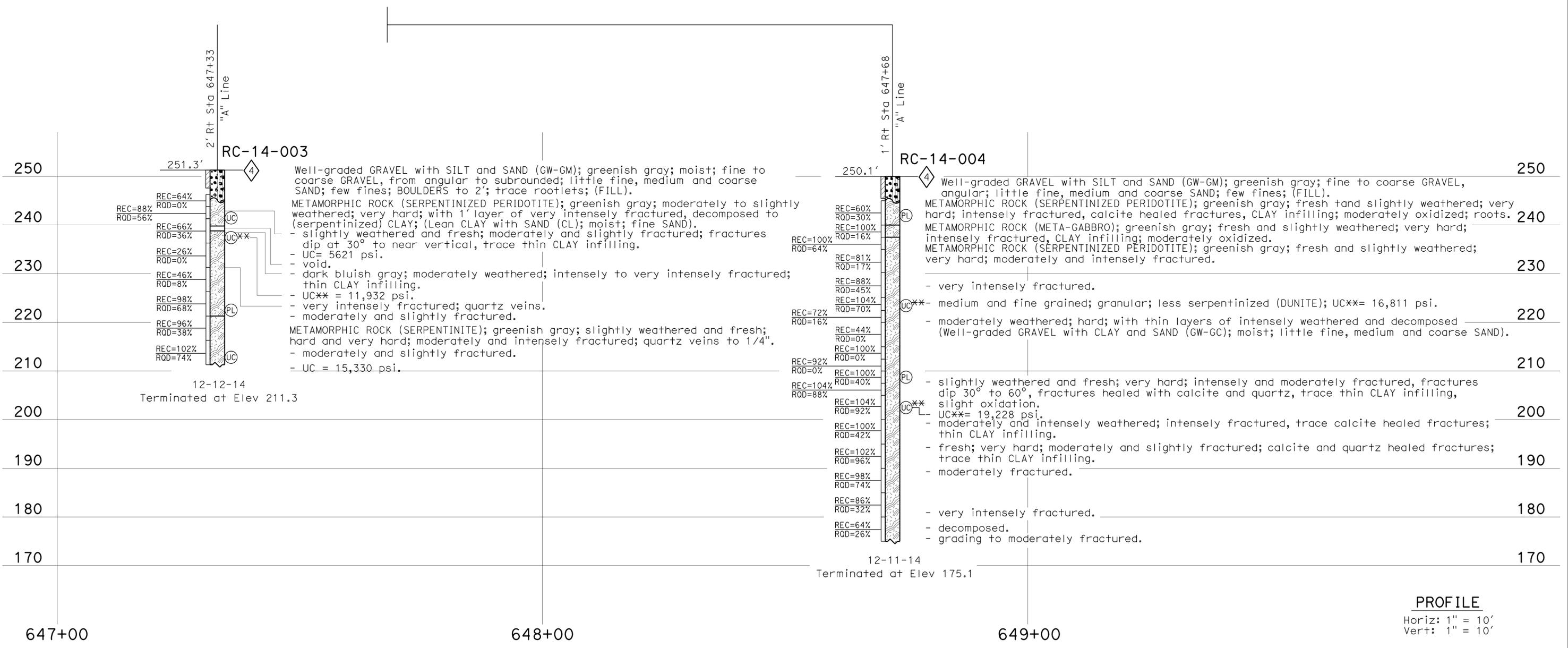
John L. Thorne
 REGISTERED CIVIL ENGINEER 8-25-15 DATE
 PROFESSIONAL GEOLOGIST
 John L. Thorne
 No. 9113
 Exp. 6-30-16
 STATE OF CALIFORNIA

March 14, 2016
 PLANS APPROVAL DATE

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FOR PLAN VIEW, SEE
 "LOG OF TEST BORINGS 1 OF 4"

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 See 2010 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.



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

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		SMITH RIVER CANYON SIDEHILL VIADUCT	
FUNCTIONAL SUPERVISOR		DRAWN BY: I. G-Remmen		FIELD INVESTIGATION BY:		DEPARTMENT OF TRANSPORTATION		01-0081		LOG OF TEST BORINGS 3 OF 4	
NAME: R. Buehl		CHECKED BY: J. Martin		J. Thorne		DESIGN BRANCH 2		POST MILE			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: 3650		8.2		CONTRACT NO.: 01-0B2601	
						PROJECT NUMBER & PHASE: 01120001501		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
										SHEET 21 OF 22	

USERNAME => s132662 DATE PLOTTED => 19-AUG-2016 TIME PLOTTED => 09:53

