

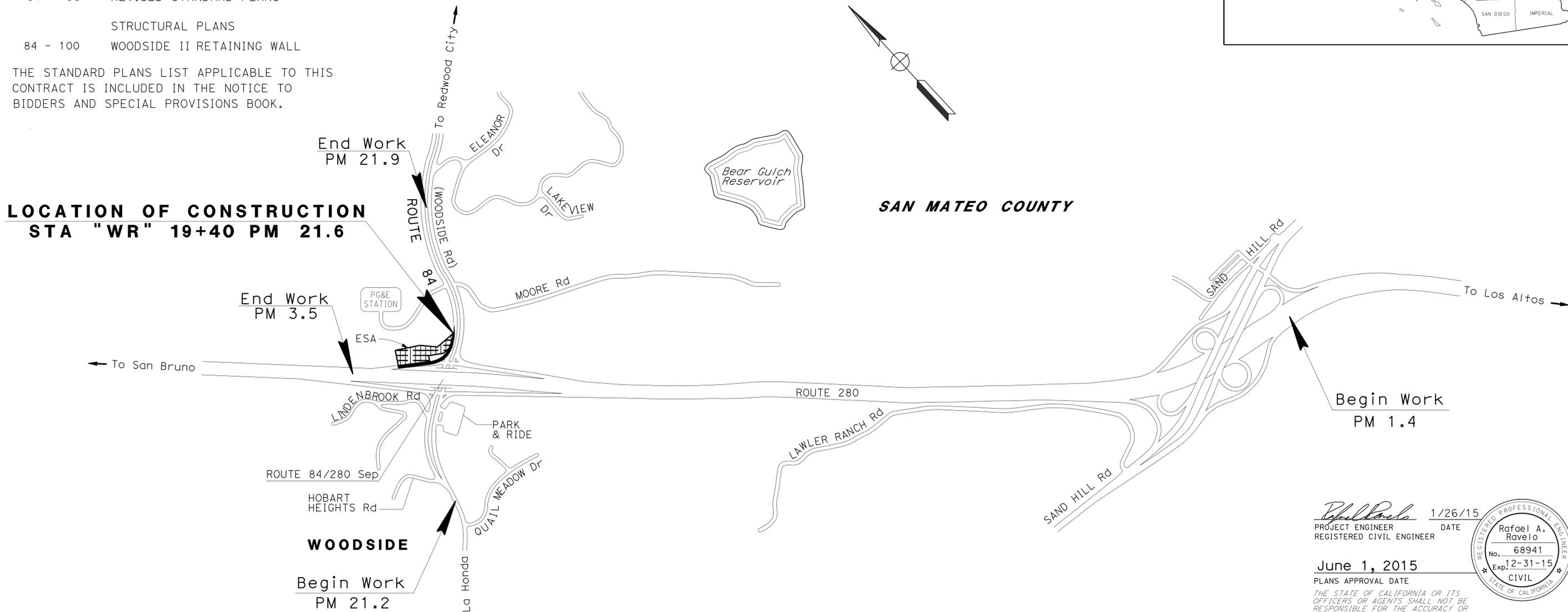
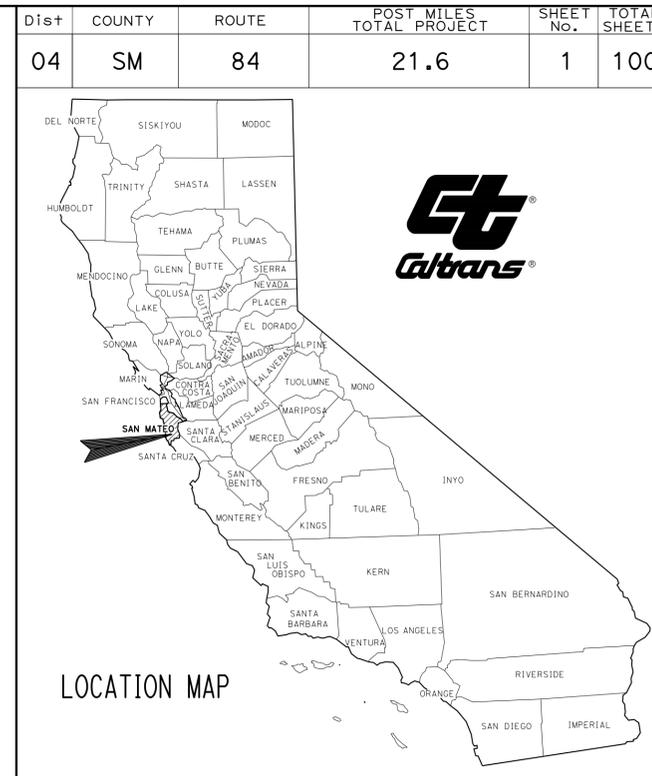
INDEX OF PLANS

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4	LAYOUT
5 - 7	CONSTRUCTION DETAILS
8	TEMPORARY WATER POLLUTION CONTROL PLAN
9	CONTOUR GRADING
10 - 15	DRAINAGE PLAN, PROFILES, DETAILS AND QUANTITIES
16 - 18	UTILITY PLAN AND DETAILS
19 - 22	CONSTRUCTION AREA SIGNS
23 - 26	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN AND QUANTITIES
27 - 28	PAVEMENT DELINEATION PLAN AND QUANTITIES
29 - 30	SIGN PLAN AND QUANTITIES
31	SUMMARY OF QUANTITIES
32	PLANT REMOVAL PLAN
33 - 36	IRRIGATION SPRINKLER SCHEDULE, PLAN, DETAILS AND QUANTITIES
37 - 38	PLANT LEGEND AND PLANTING PLAN
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STRUCTURAL PLANS	
84 - 100	WOODSIDE II RETAINING WALL

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

STATE OF CALIFORNIA **ACNHP-P084(044)E**
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SAN MATEO COUNTY
IN WOODSIDE
AT ROUTE 84/280 SEPARATION

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER
MOHAMMAD SULEIMAN
 DESIGN MANAGER
JAIME GUTIERREZ

1/26/15
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
June 1, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



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

CONTRACT No.	04-4G6404
PROJECT ID	0412000622

DATE PLOTTED => 29-JUN-2015
 TIME PLOTTED => 1:31:18
 01-26-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	2	100

<i>Rafael Ravelo</i>	1/26/15
REGISTERED CIVIL ENGINEER	DATE
6-1-15	
PLANS APPROVAL DATE	

Rafael A. Ravelo	
No. 68941	
Exp. 2-31-15	
CIVIL	

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

NOTES:

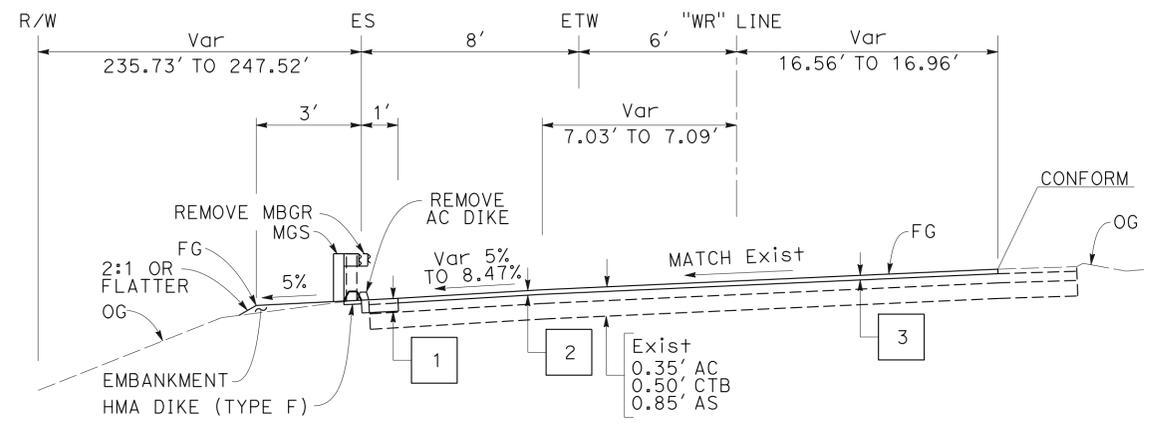
- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SEE CONSTRUCTION DETAIL SHEETS FOR PAVEMENT ELEVATION DETAILS.
- FOR LIMITS OF CONCRETE BARRIER, MIDWEST GUARDRAIL AND HMA DIKE, SEE LAYOUT AND QUANTITY SHEETS.
- SEE STRUCTURE PLANS FOR LOCATION AND DETAILS OF RETAINING WALL, CONCRETE BARRIER SLAB AND CONCRETE BARRIER TYPE 736 MODIFIED.

TYPICAL PAVEMENT STRUCTURE SECTIONS

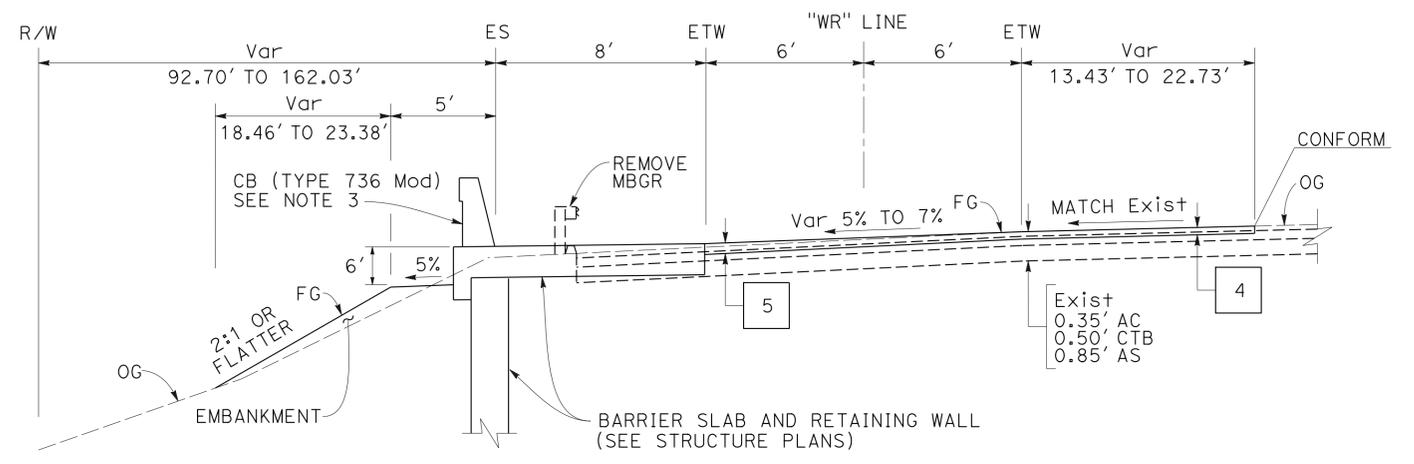
- | | |
|---|---|
| 1 | 0.30' HMA (TYPE A)
GEOSYNTHETIC PAVEMENT INTERLAYER (PAVING GRID)
0.40' HMA (TYPE A) |
| 2 | 0.15' COLD PLANE AC
0.15' & Var HMA (TYPE A) |
| 3 | 0.15' COLD PLANE AC
0.15' HMA (TYPE A) |
| 4 | 0.40' COLD PLANE AC
0.30' HMA (TYPE A)
GEOSYNTHETIC PAVEMENT INTERLAYER (PAVING GRID)
0.10' HMA (TYPE A) |
| 5 | 0.40' COLD PLANE AC
0.30' & Var HMA (TYPE A)
GEOSYNTHETIC PAVEMENT INTERLAYER (PAVING GRID)
0.10' HMA (TYPE A) |

ABBREVIATION:

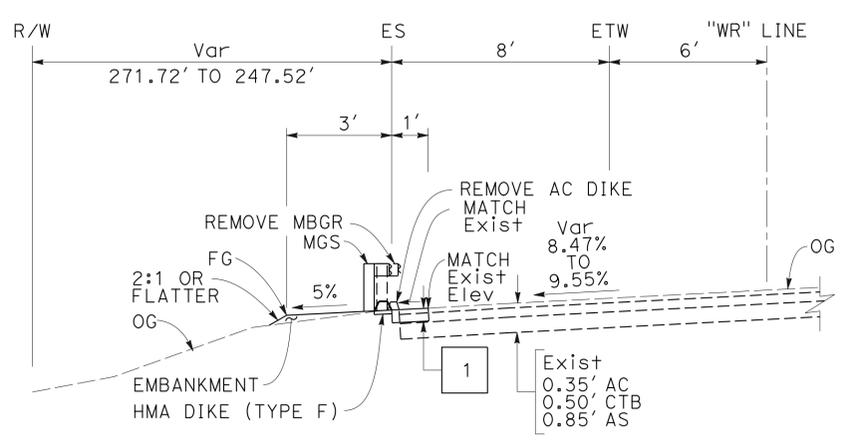
& AND



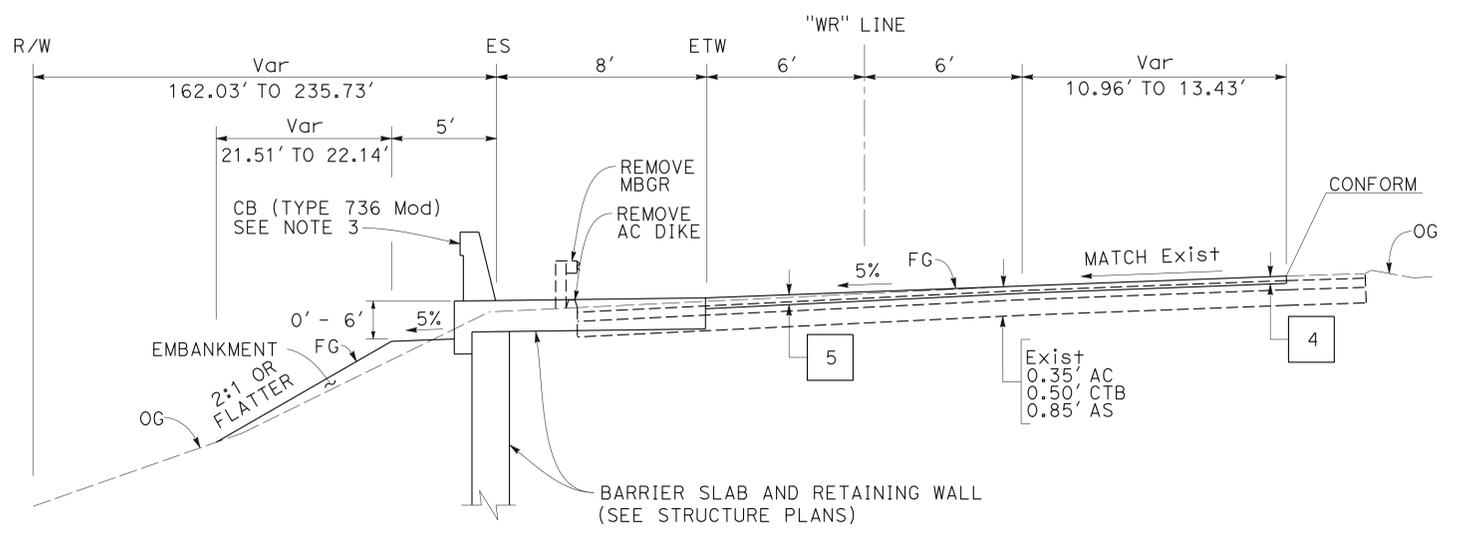
"WR" 15+90 TO 16+09



"WR" 17+27.74 TO 19+40.58



"WR" 14+92 TO 15+90



"WR" 16+09 TO 17+27.74

ROUTE 84

TYPICAL CROSS SECTIONS
NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 Raf Rafael Ravelo
 Anna Ureta
 Jaime Gutierrez
 RR
 1/26/15

LAST REVISION DATE PLOTTED => 29-JUN-2015
 01-26-15 TIME PLOTTED => 13:18

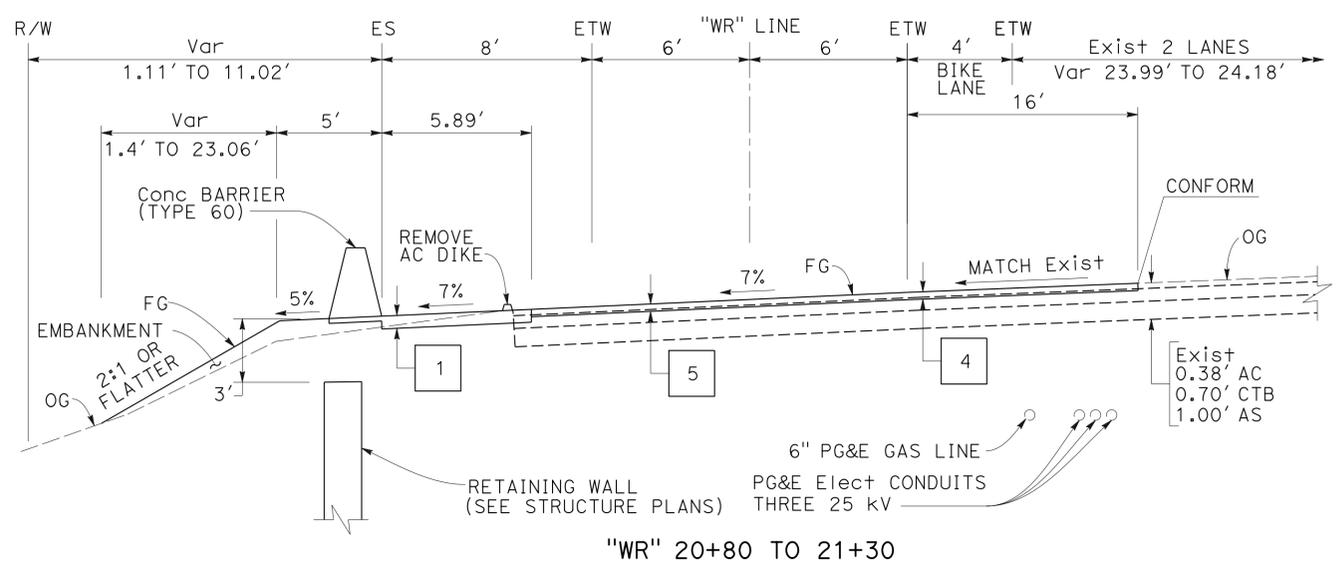
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	3	100

Rafael Ravelo 1/26/15
 REGISTERED CIVIL ENGINEER DATE
 No. 68941
 Exp. 12-31-15
 CIVIL
 STATE OF CALIFORNIA

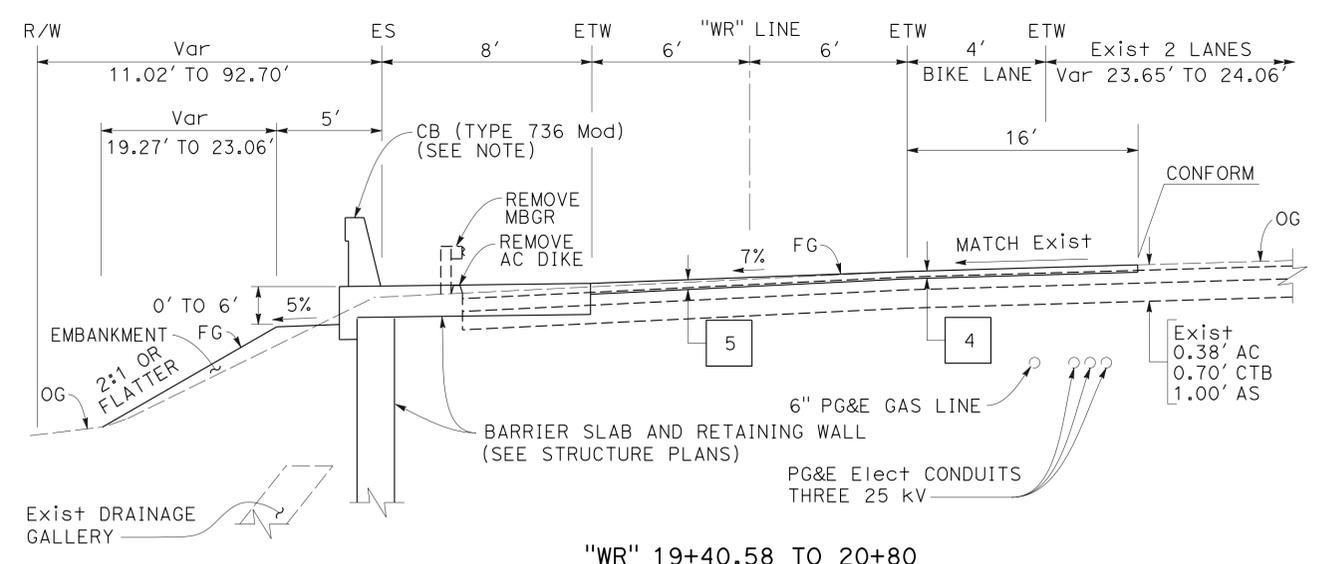
6-1-15
 PLANS APPROVAL DATE

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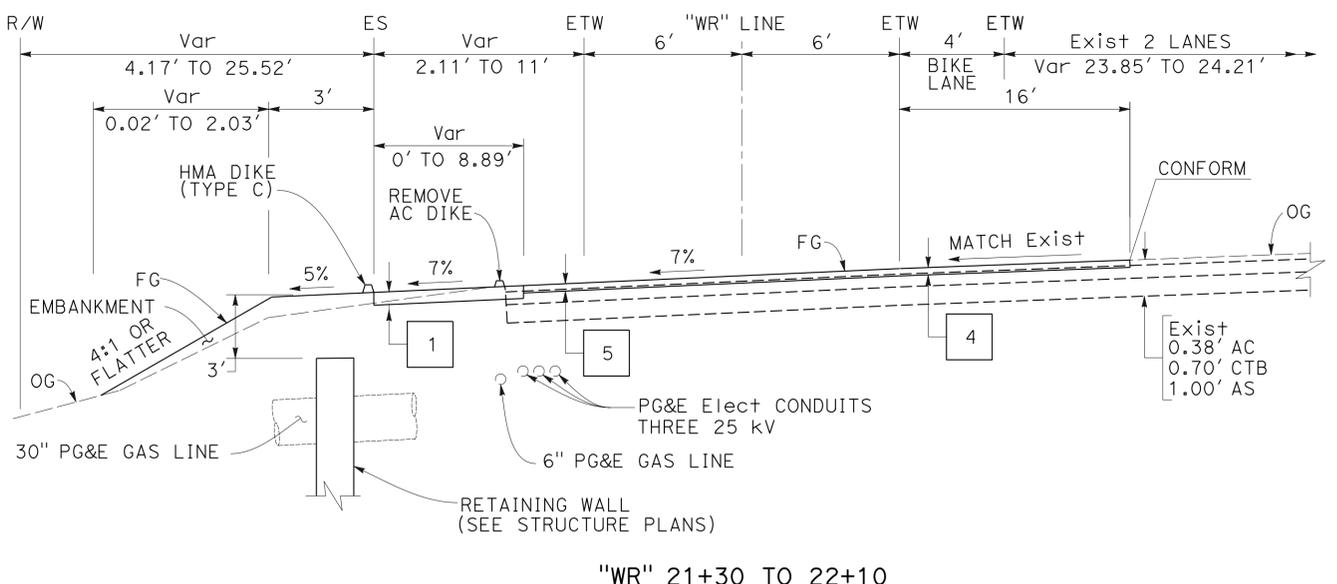
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
 CHECKED BY: ANNA URETA
 REVISED BY: RAFAEL RAVELO
 DATE REVISED: 1/26/15
 RR



"WR" 20+80 TO 21+30



"WR" 19+40.58 TO 20+80



"WR" 21+30 TO 22+10

ROUTE 84

TYPICAL CROSS SECTIONS
NO SCALE

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
 CALCULATED/DESIGNED BY: ANNA URETA
 CHECKED BY: ANNA URETA
 REVISED BY: RAFAEL RAVELO
 DATE REVISED: 1/26/15
 RR: 1/26/15

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 "COORDINATE VALUES SHOWN ARE
 CCS 1983 ZONE 3".

- NOTES:**
- ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988.
 - SEE STRUCTURE PLAN FOR WALL LOCATION AND DETAILS.
 - ALL CONCRETE BARRIER AND DIKE LOCATIONS ARE CALLED TO BOTTOM FACE.
 - SEE C-SHEETS FOR ESA AND TEMPORARY FENCE LOCATIONS.

ABBREVIATIONS:
 AT&T AMERICAN TELEPHONE AND TELEGRAPH
 PG&E PACIFIC GAS AND ELECTRIC

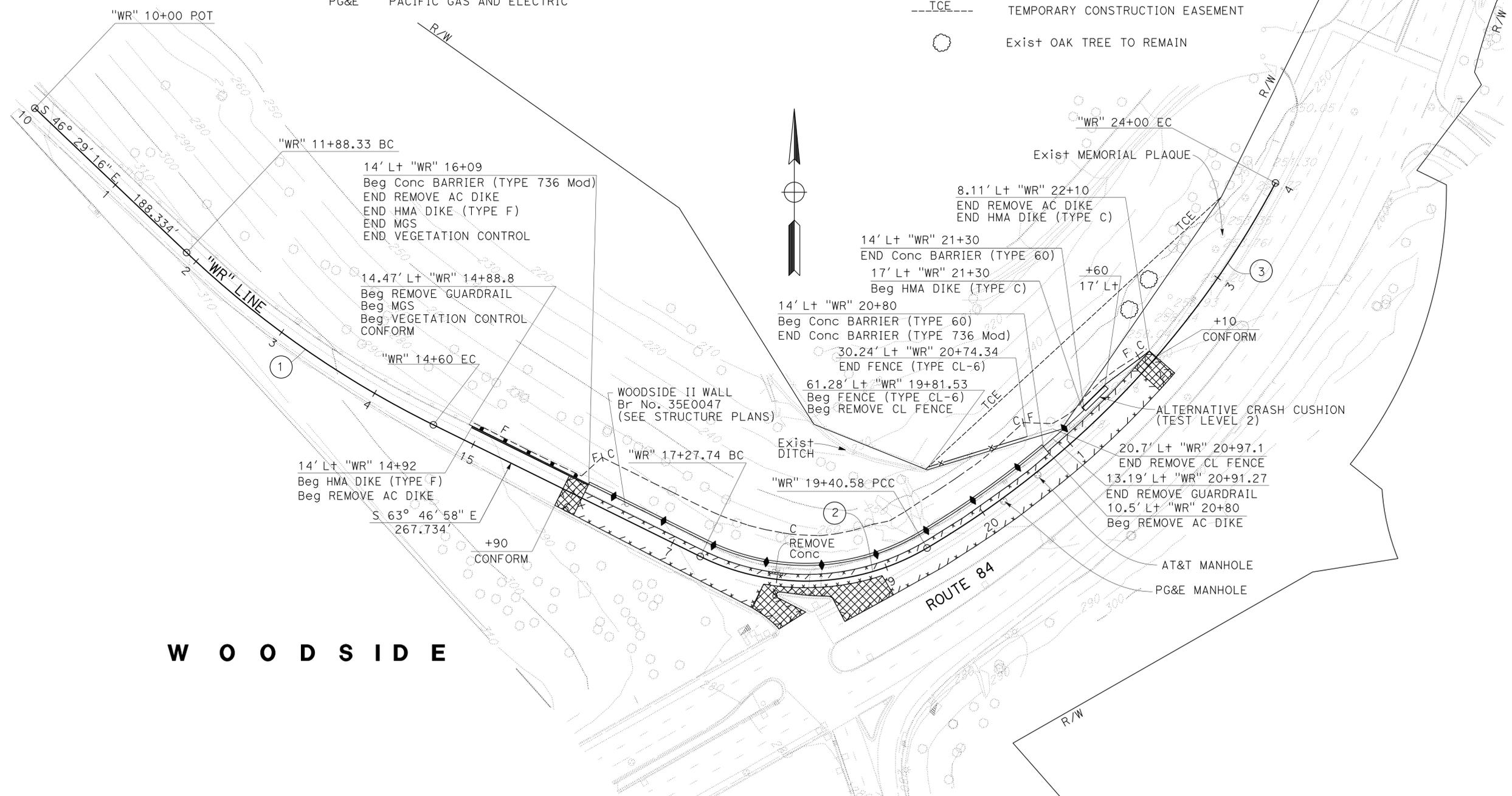
- LEGEND:**
- [Cross-hatched box] 0.15' COLD PLANE AC PAVEMENT
 - [Box with 'x's] 0.40' COLD PLANE AC PAVEMENT
 - [Diagonal lines box] HMA (TYPE A) SURFACING
 - (No.) CURVE DATA NUMBER
 - TCE--- TEMPORARY CONSTRUCTION EASEMENT
 - (Circle with tree) Exist OAK TREE TO REMAIN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	4	100

1/26/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

Rafael A. Ravelo
 No. 68941
 Exp. 12-31-15
 CIVIL
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA

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



WOODSIDE

CURVE DATA

No. Ⓣ	R	Δ	T	L	N-COORDINATE	E-COORDINATE
1	900'	17° 17' 42"	136.876'	271.670'	1986866.506	6055857.970
2	215'	56° 43' 13"	116.057'	212.841'	1986133.697	6055795.544
3	834'	31° 33' 44"	235.701'	459.421'	1986667.028	6055481.350

LAYOUT
 SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	5	100

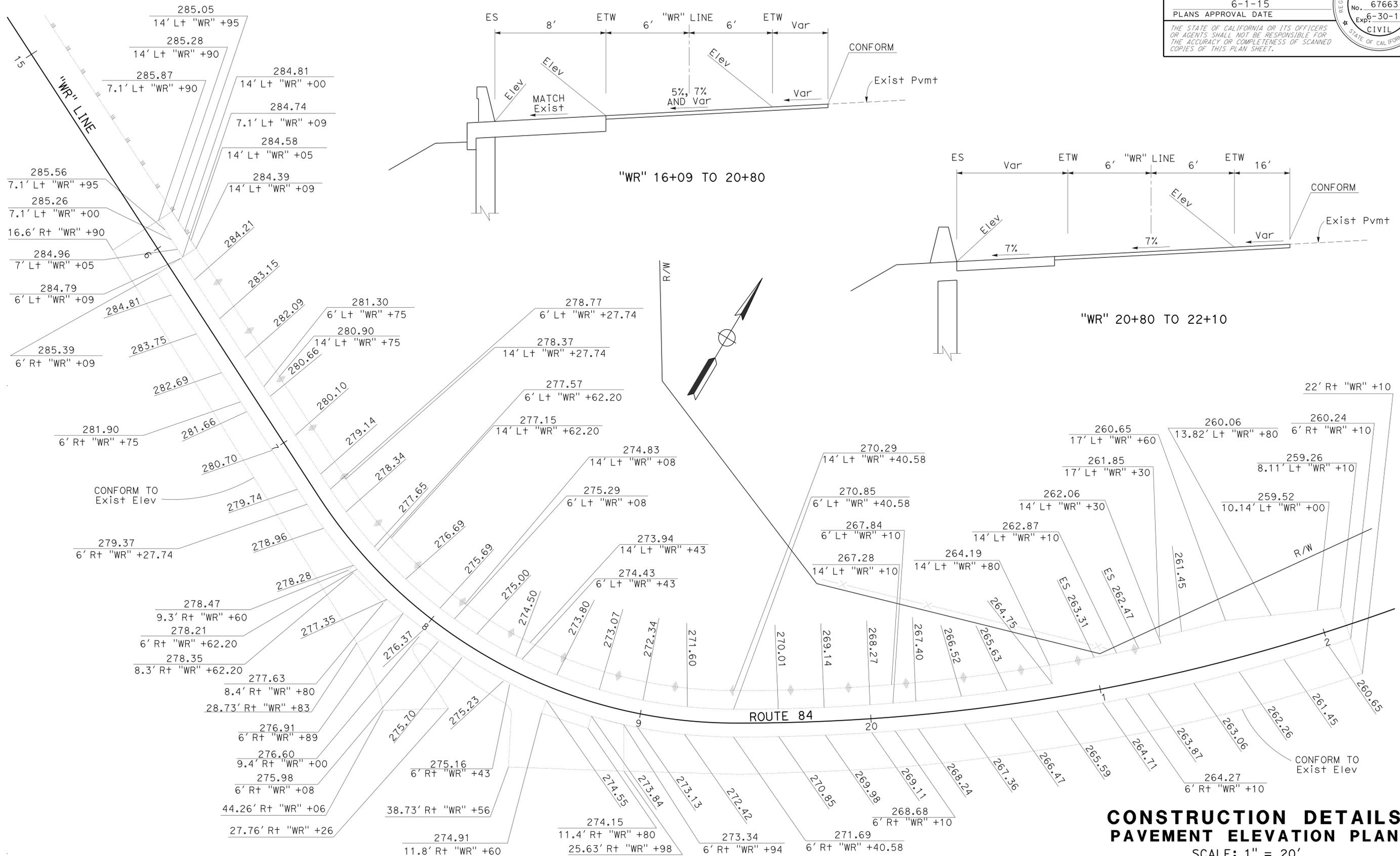
<i>Anna G. Ureta</i>		1/23/15
REGISTERED CIVIL ENGINEER	DATE	
6-1-15		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER	Anna G. Ureta
No. 67663	
Exp. 6-30-15	
CIVIL	

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

NOTES:
1. ALL ELEVATIONS ARE 20' APART UNLESS OTHERWISE NOTED.
2. ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988.



**CONSTRUCTION DETAILS
PAVEMENT ELEVATION PLAN**
SCALE: 1" = 20'

APPROVED FOR PAVEMENT ELEVATION WORK ONLY

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
CALCULATED/DESIGNED BY: ANNA URETA
CHECKED BY: RAFAEL RAVELO
REVISED BY: RR
DATE REVISED: 1/26/15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR
 JAIME GUTTEREZ

CALCULATED/DESIGNED BY
 CHECKED BY

RAFAEL RAVELO
 MARISOL MARIN

REVISED BY
 DATE REVISED

RR
 1/26/15

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

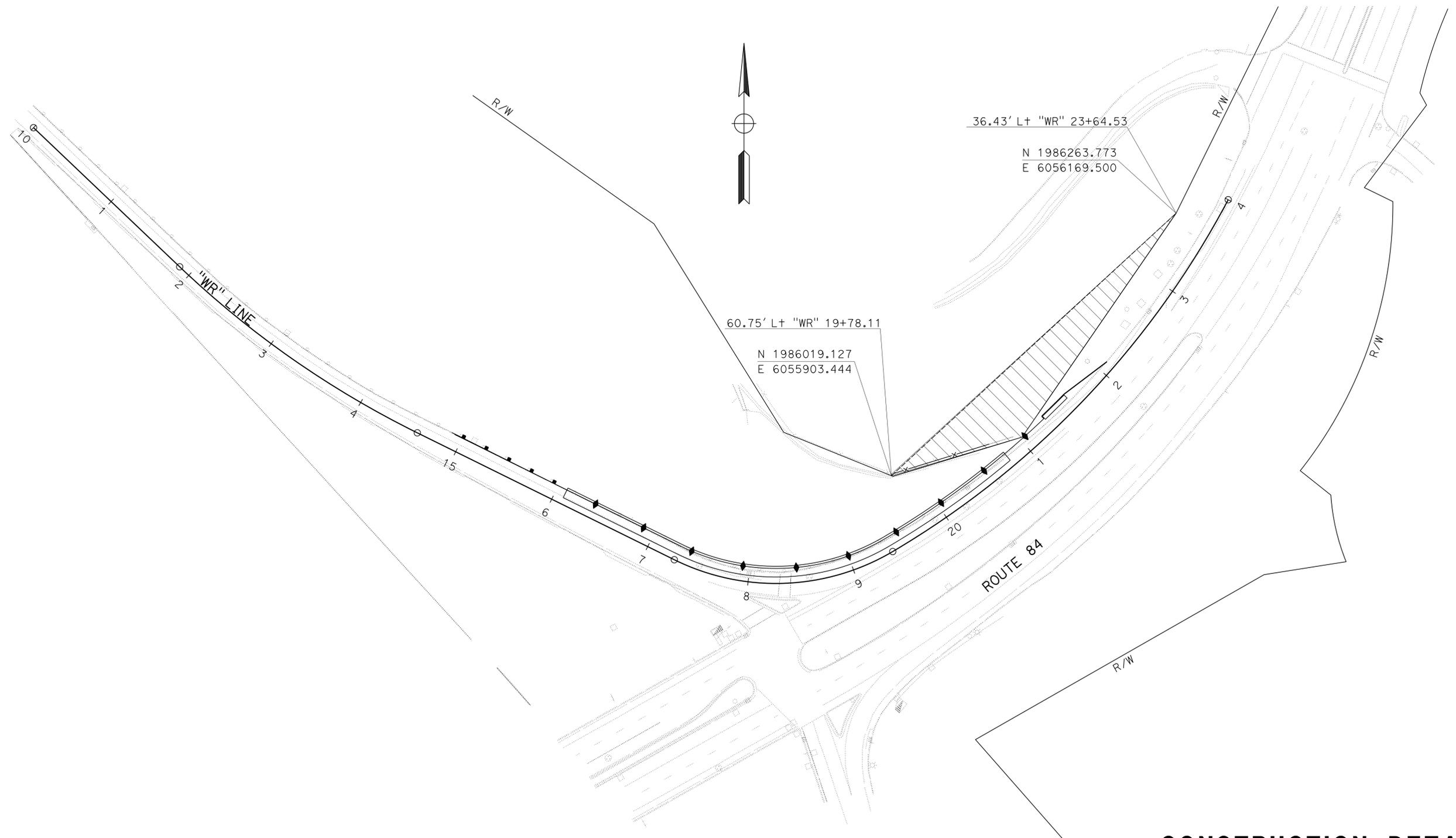
LEGEND:

 TEMPORARY CONSTRUCTION EASEMENT

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	6	100

 1/26/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE


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CONSTRUCTION DETAILS
TEMPORARY CONSTRUCTION EASEMENT
 SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR: JAIME GUTTEREZ
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 RAFAEL RAVELO
 MARISOL MARIN
 REVISED BY: [blank]
 DATE REVISED: [blank]
 RR
 1/26/15

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

NOTE:
 1. PLACE TEMPORARY FENCE (TYPE ESA)
 AT 10' RADIUS AWAY FROM TREE TRUNK.

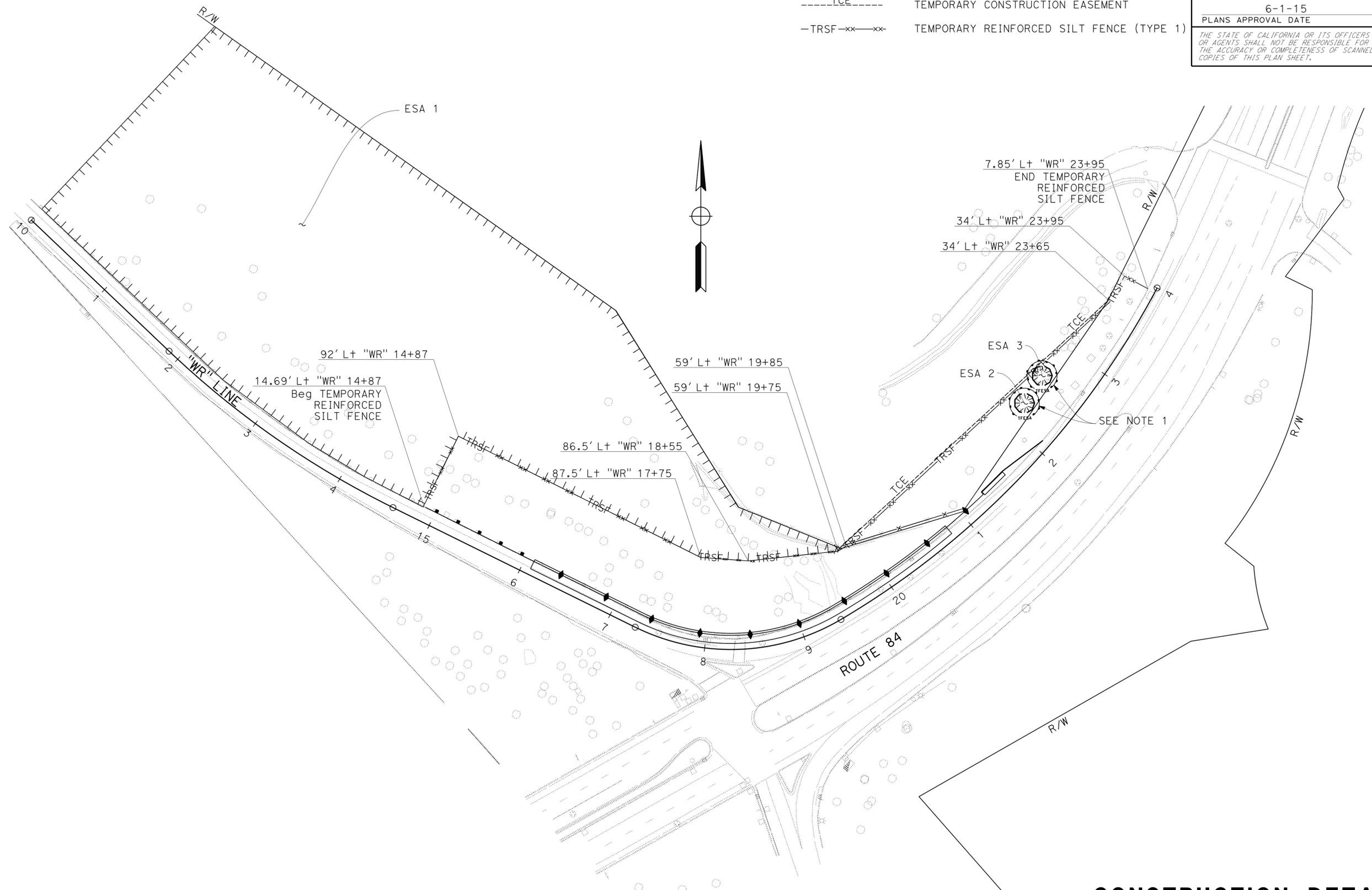
LEGEND:
 ----- ESA
 ----- TCE
 -TRSF--xx--xx- TEMPORARY REINFORCED SILT FENCE (TYPE 1)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	7	100

1/26/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Rafael A. Ravelo
 No. 68941
 Exp. 12-31-15
 CIVIL
 STATE OF CALIFORNIA

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 COPIES OF THIS PLAN SHEET.



CONSTRUCTION DETAILS
ENVIRONMENTALLY SENSITIVE AREA
 SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans WATER QUALITY
 FUNCTIONAL SUPERVISOR: KAMRAN NAKHJIRI
 JENG TSAI
 KAMRAN NAKHJIRI
 DESIGNED BY: JENG TSAI
 CHECKED BY: KAMRAN NAKHJIRI
 REVISED BY: JENG TSAI
 DATE REVISED: 9/22/14
 JT
 9/22/14

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

NOTES:
 1. FOR LOCATION OF TEMPORARY FENCE, SEE C-SHEETS.

LEGEND:

-  DEWATERING AND NON-STORM WATER DISCHARGE CONTROL
-  TEMPORARY REINFORCED SILT FENCE (TYPE 1)
-  TEMPORARY CONSTRUCTION EASEMENT
-  TEMPORARY HYDRAULIC MULCH
-  ESA

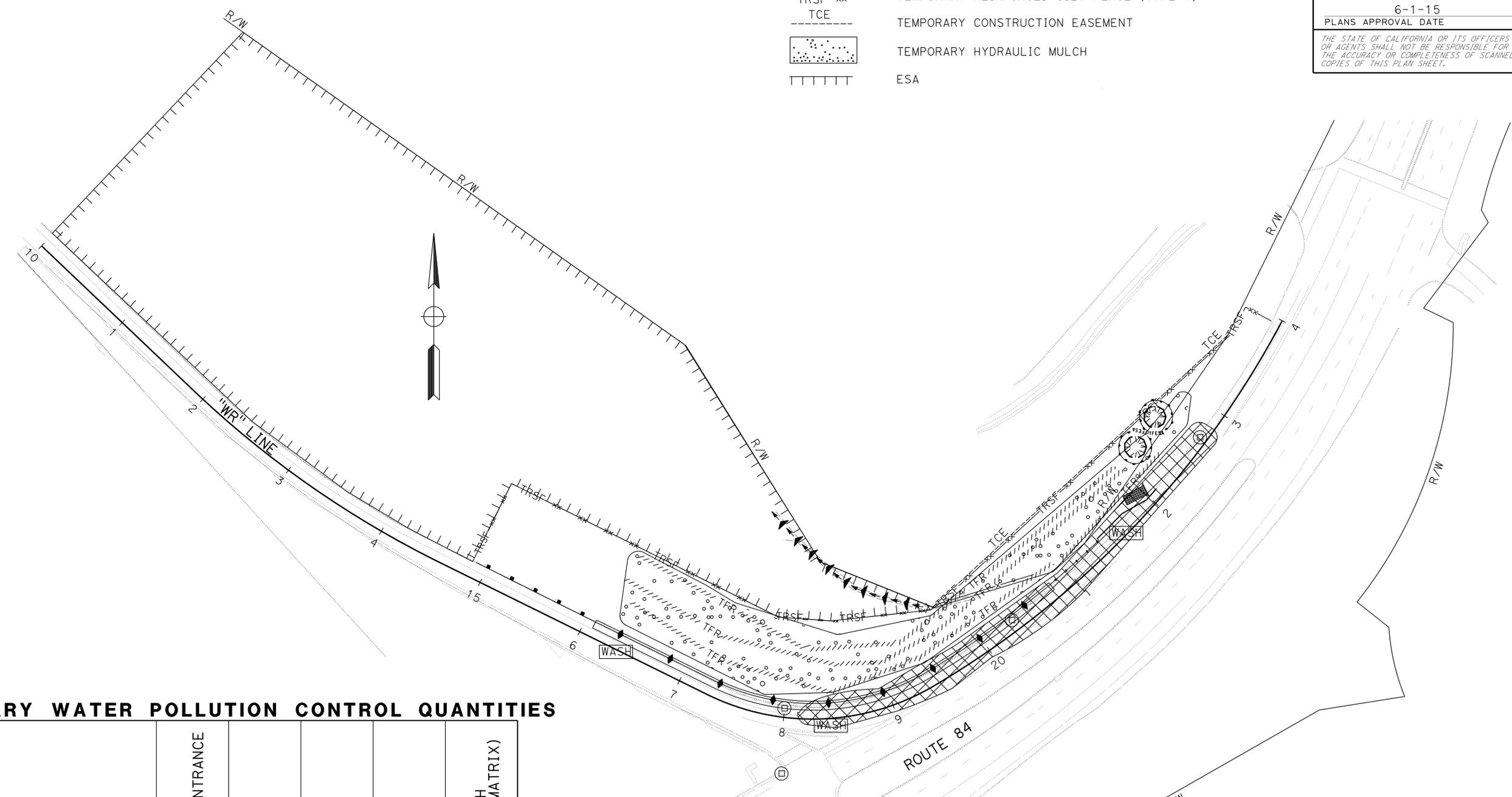
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	8	100

Jeng G. Tsai
 REGISTERED CIVIL ENGINEER
 No. 62753
 Exp. 6-30-16
 CIVIL

9-22-14
 DATE

6-1-15
 PLANS APPROVAL DATE

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TEMPORARY WATER POLLUTION CONTROL QUANTITIES

LOCATION	TEMPORARY CONSTRUCTION ENTRANCE		TEMPORARY FIBER ROLLS		TEMPORARY CHECK DAM	TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)
	EA	LF	LF	SQYD		
"WR" 22+00	1					
WPC-1		4	1750	170		3650
TOTAL	1	4	1750	170		3650

TEMPORARY WATER POLLUTION CONTROL PLAN
 NO SCALE

APPROVED FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

WPC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR
 JAIME GUTIERREZ

CALCULATED-DESIGNED BY
 CHECKED BY

RAFAEL RAVELO
 ANNA URETA

REVISED BY
 DATE REVISED

RR
 1/26/15

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

LEGEND:

---TCE--- TEMPORARY CONSTRUCTION EASEMENT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	9	100

Rafael Ravelo 1/26/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE
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CONTOUR GRADING
 SCALE: 1" = 20'

APPROVED FOR CONTOUR GRADING WORK ONLY

G-1

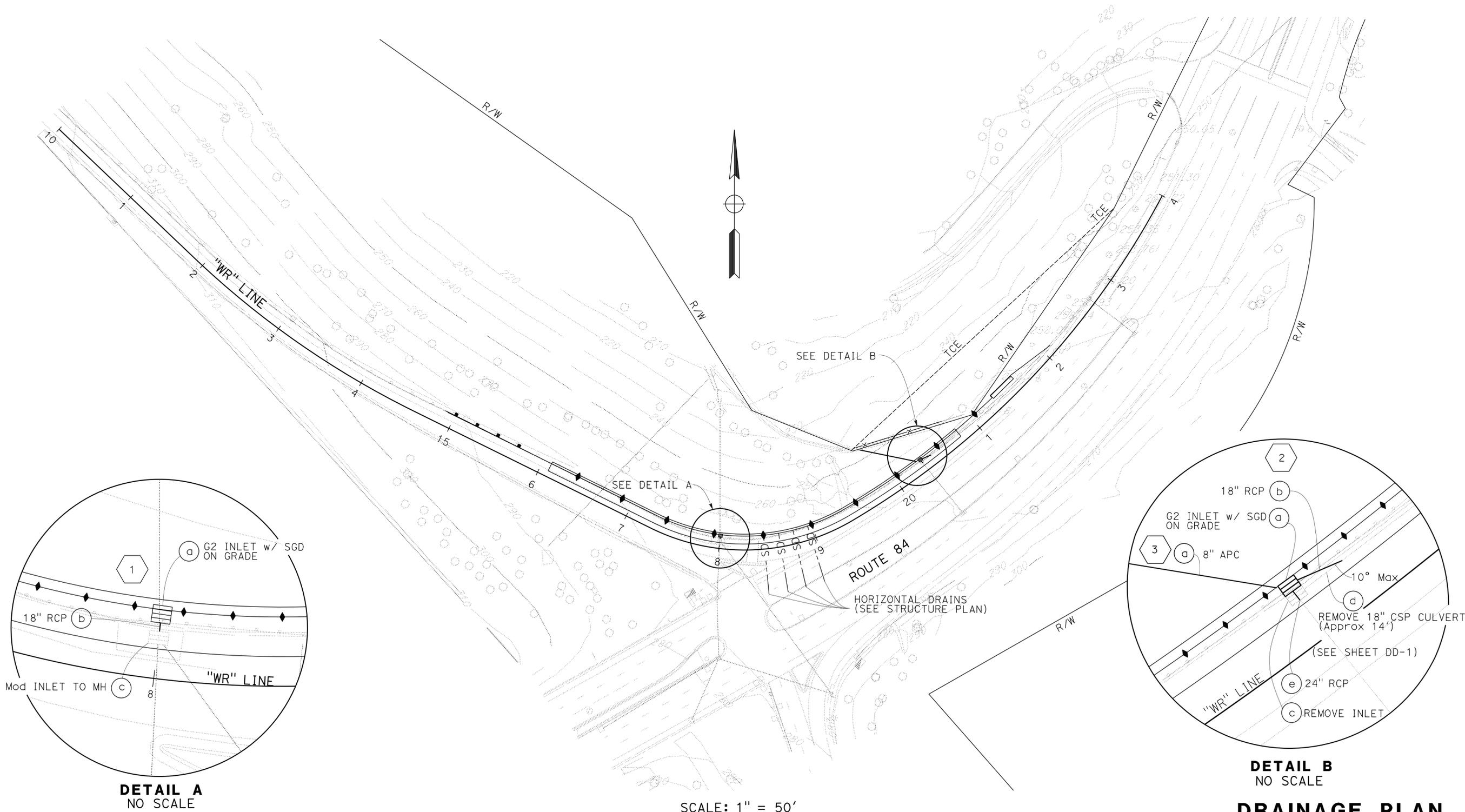
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	DIXON LAU	PO TIN LEUNG	1/26/15
HYDRAULICS	CHECKED BY	DESIGNED BY	
	DIXON LAU	DIXON LAU	

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

- NOTES:**
- EXISTING DRAINAGE LOCATIONS ARE APPROXIMATE ONLY. VERIFY LOCATION AND ELEVATION BEFORE MODIFYING EXISTING DRAINAGE SYSTEM.
 - CONTRACTOR TO VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING.

ABBREVIATIONS:
SGD STANDARD GUTTER DEPRESSION
w/ WITH

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	10	100
			REGISTERED CIVIL ENGINEER	DATE	
			Po-Tin Leung	1/26/15	
			No. 67632		
			Exp. 6-30-15		
			CIVIL		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



APPROVED FOR DRAINAGE WORK ONLY

DRAINAGE PLAN
SCALE: AS SHOWN

D-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR
 JAIME GUTTEREZ

REVISOR
 MARISOL MARIN

DATE
 1/23/15

REVISION
 280

DATE REVISOR
 1/23/15

DATE REVISOR
 280

DATE REVISOR
 275

DATE REVISOR
 270

DATE REVISOR
 265

DATE REVISOR
 270

DATE REVISOR
 265

DATE REVISOR
 260

DESIGNED BY
 RAFAEL RAVELO

CHECKED BY

NOTE:
 1. TOP OF GRATE ELEVATIONS INCLUDE INLET DEPRESSION

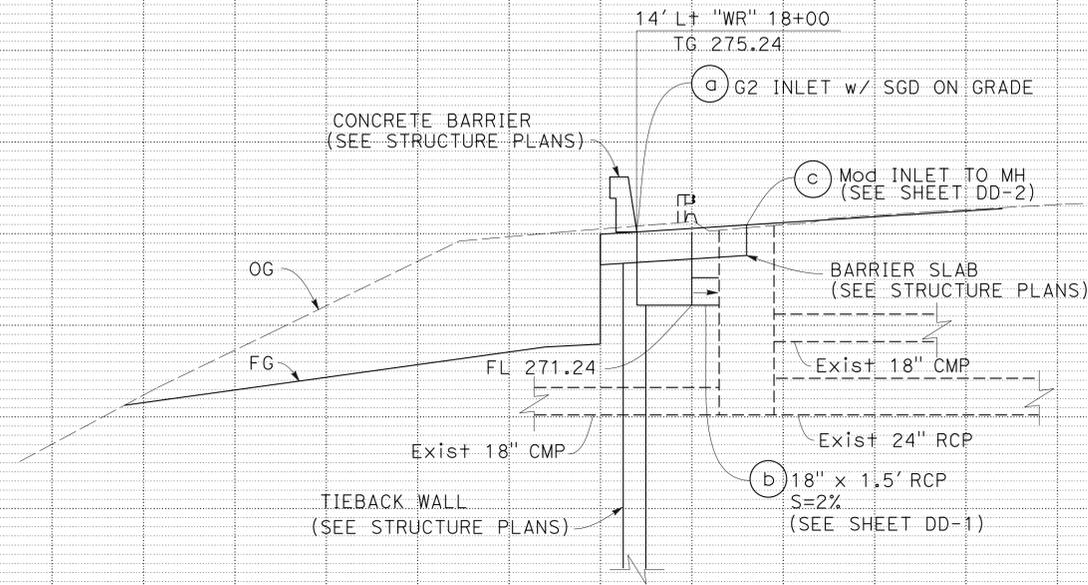
ABBREVIATIONS:
 S SLOPE
 SGD STANDARD GUTTER DEPRESSION
 TG TOP OF GRATE
 w/ WITH

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	11	100

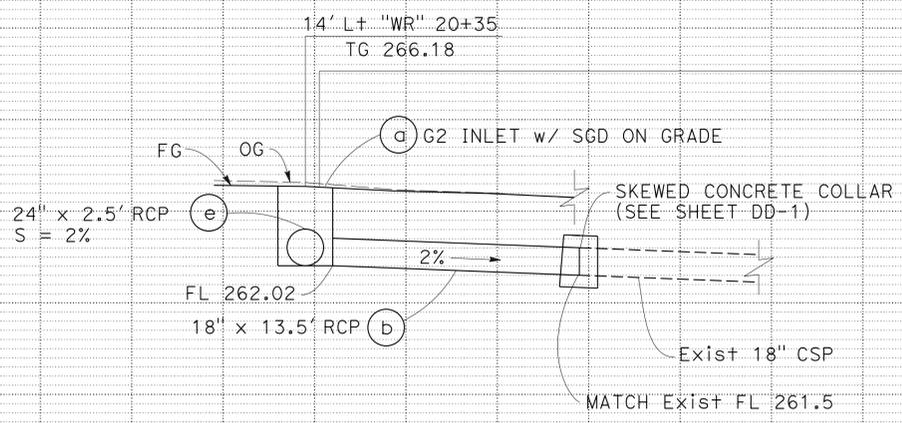
Marisol E. Marin 1/23/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

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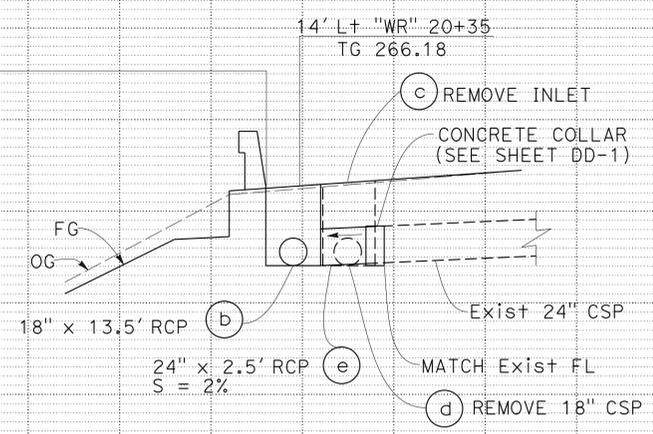
REGISTERED PROFESSIONAL ENGINEER
 No. 64950
 Exp. 6-30-15
 CIVIL
 STATE OF CALIFORNIA



DRAINAGE SYSTEM No. 1



DRAINAGE SYSTEM No. 2



DRAINAGE PROFILES
 SCALE: Horiz 1" = 5'
 Vert 1" = 5'
DP-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

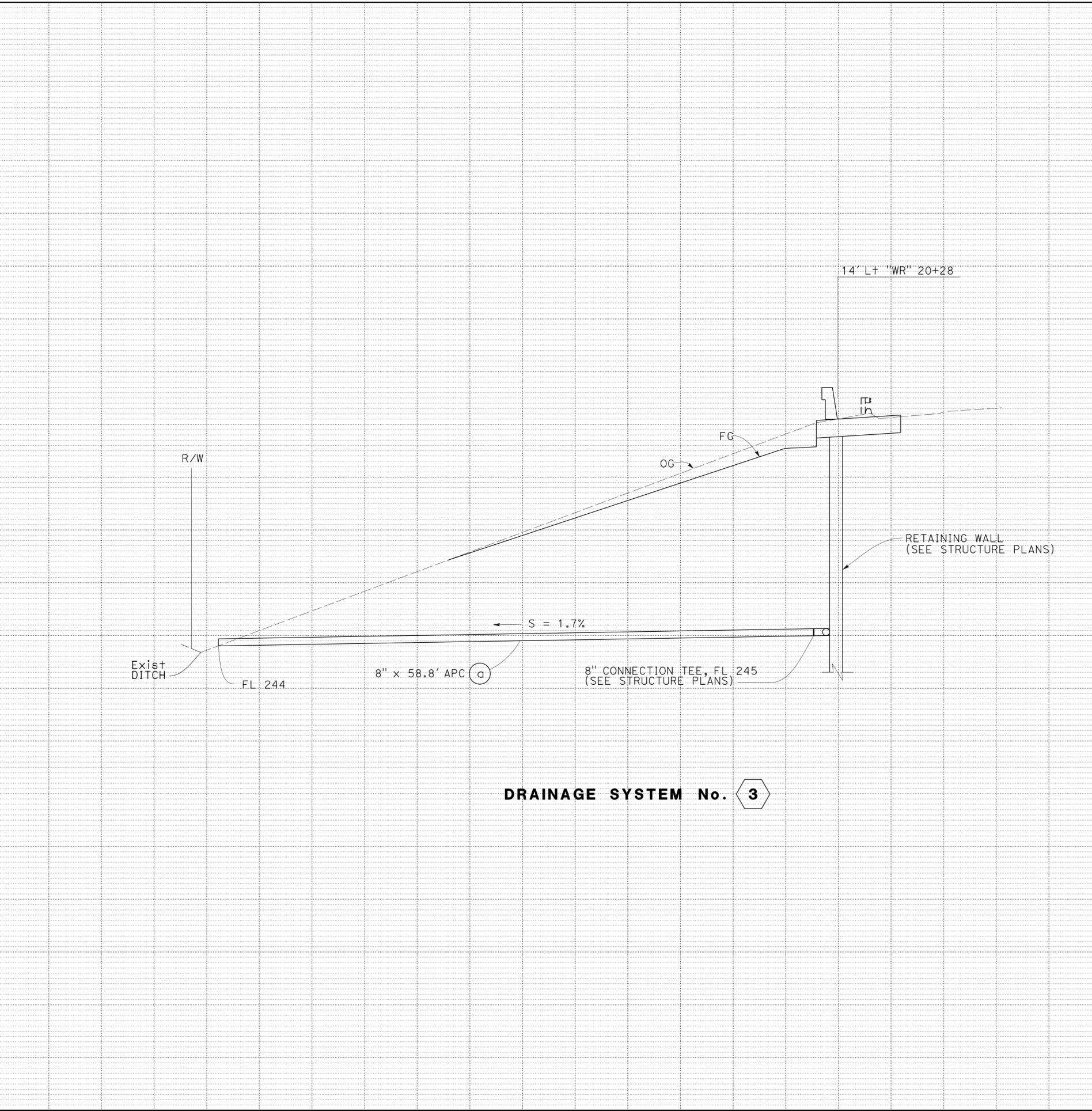
FUNCTIONAL SUPERVISOR
 JAIME GUTIERREZ

CALCULATED/DESIGNED BY
 CHECKED BY

MARISOL MARIN
 RAFAEL RAVELO

REVISOR BY
 DATE REVISED

MM
 1/23/15



DRAINAGE SYSTEM No. 3

DRAINAGE PROFILES

SCALE: Horiz 1" = 5'
 Vert 1" = 5'

DP-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	12	100

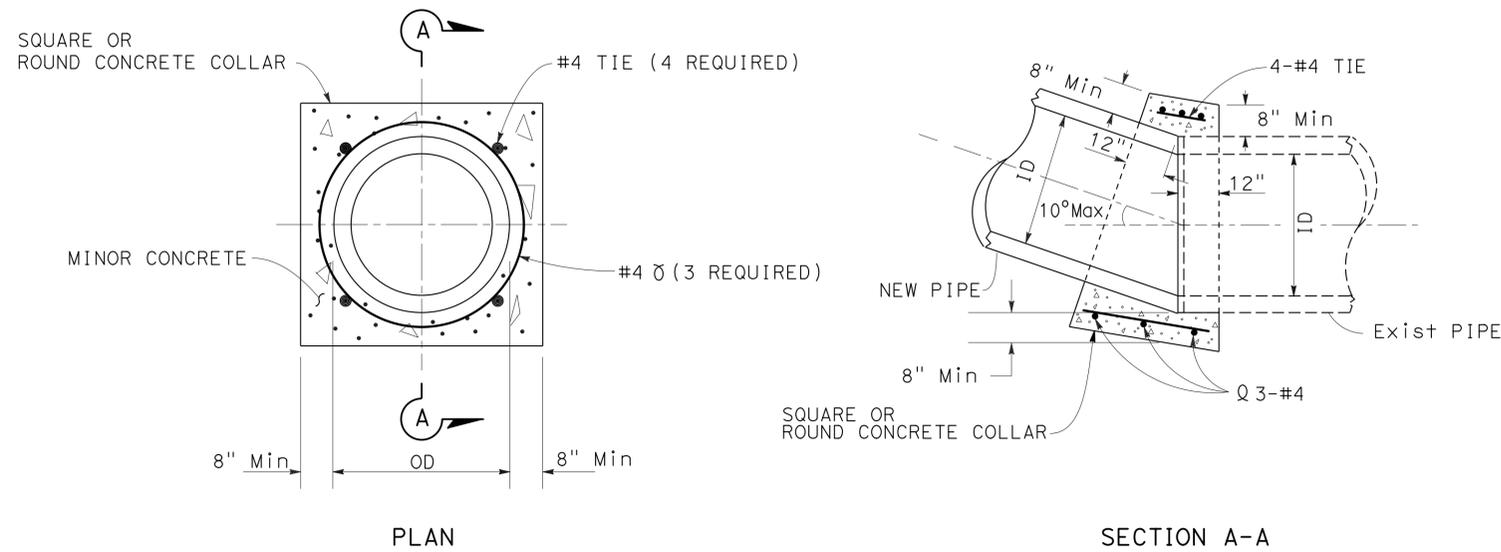
Marisol E. Marin 1/27/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Marisol E. Marin
 No. 64950
 Exp. 6-30-15
 CIVIL
 STATE OF CALIFORNIA

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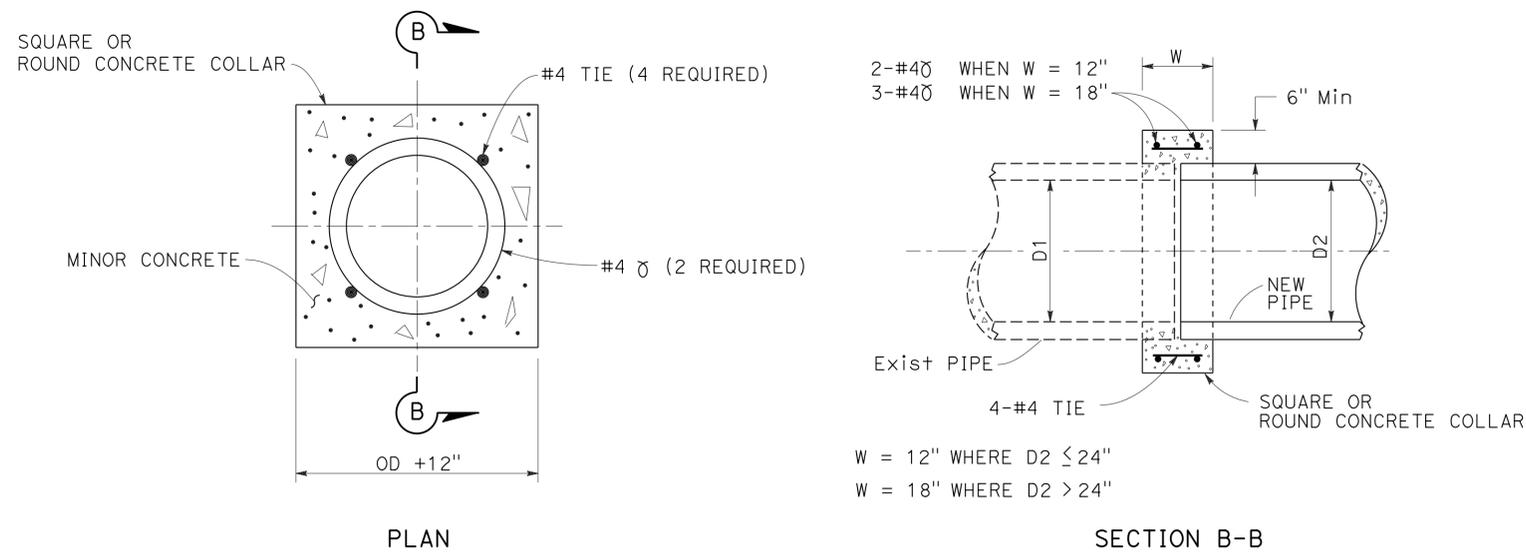
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	13	100
 REGISTERED CIVIL ENGINEER DATE 1/26/15					
PLANS APPROVAL DATE 6-1-15					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 HYDRAULICS
 FUNCTIONAL SUPERVISOR DIXON LAU
 PO TIN LEUNG DIXON LAU
 PL 1/26/15
 REVISIONS: 1/26/15
 CALCULATED/DESIGNED BY: PO TIN LEUNG
 CHECKED BY: DIXON LAU
 BORDER LAST REVISED 7/2/2010
 USERNAME => s114360
 DGN FILE => 04120006221c001.dgn
 RELATIVE BORDER SCALE IS IN INCHES
 UNIT 0742
 PROJECT NUMBER & PHASE 04120006221
 DD-1



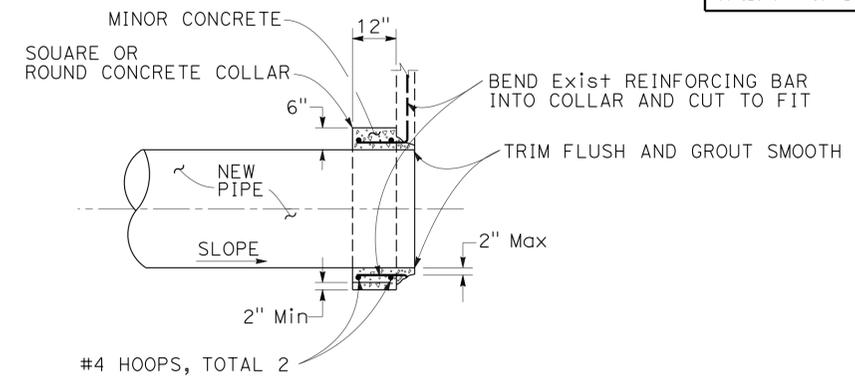
SKewed CONCRETE COLLAR DETAIL

2 (b)



CONCRETE COLLAR

2 (e)

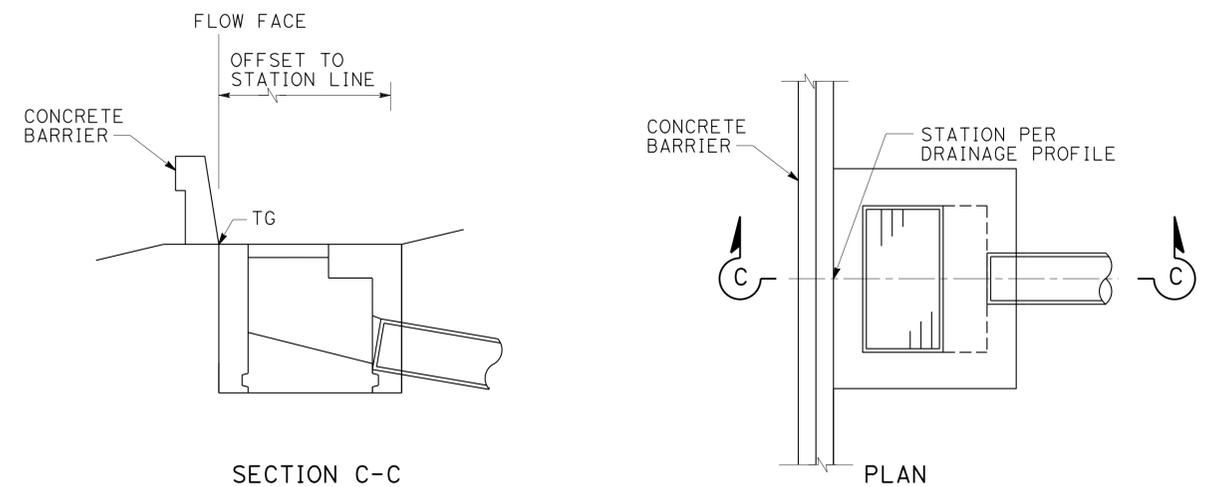


PIPE CONNECTION TO EXISTING INLET

1 (b)

NOTES:

- CUT REINFORCEMENT ON ALTERNATE SIDES AND BEND INTO COLLAR.
- IF THERE ARE NO EXISTING REINFORCING BARS, THEN USE 6 #4 DOWELS, SPACED EVENLY AROUND NEW PIPE, AND DRILL AND GROUT INTO EXISTING INLET WALLS 6".



INLET AT CONCRETE BARRIER

DRAINAGE DETAILS
NO SCALE

DD-1

LAST REVISION | DATE PLOTTED => 29-JUN-2015
 01-26-15 | TIME PLOTTED => 1:3:18

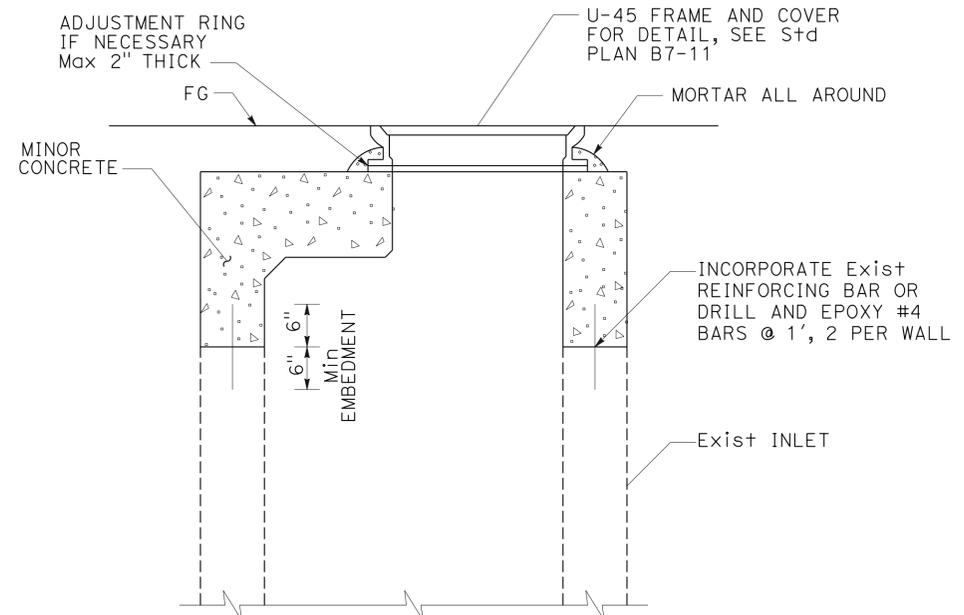
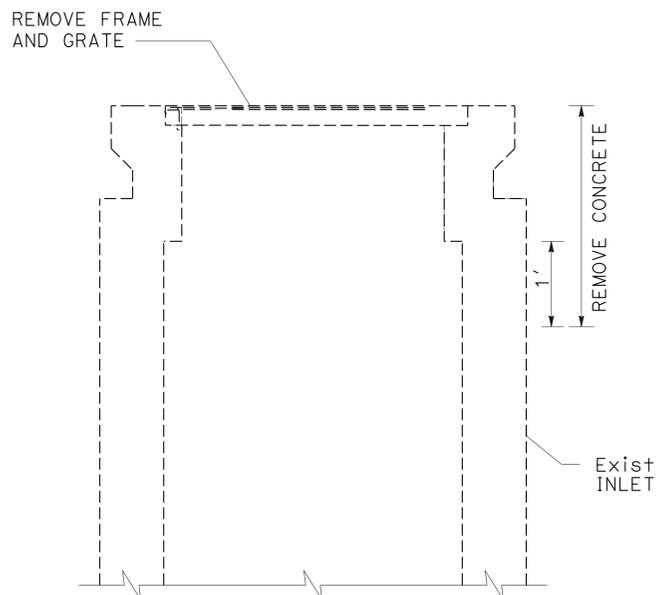
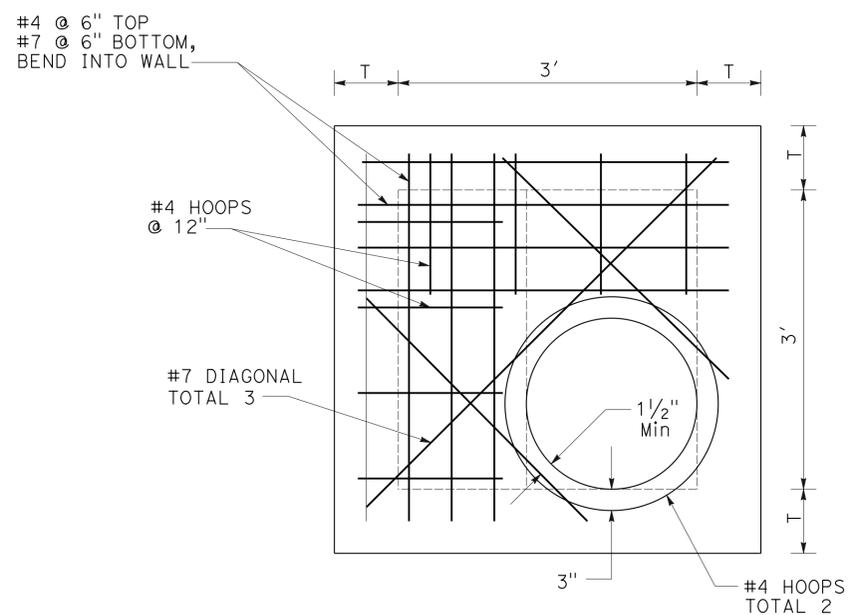
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	14	100

REGISTERED CIVIL ENGINEER: Po-Tin Leung
 DATE: 1/26/15
 No. 67632
 Exp. 6-30-15
 CIVIL

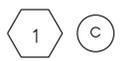
PLANS APPROVAL DATE: 6-1-15

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:**
- EXISTING PAVEMENT TO BE SAWCUT PRIOR TO MODIFYING INLET TO MANHOLE.
 - FOR DETAILS NOT SHOWN, SEE STANDARD PLAN RSP D73 - TYPE G2 INLET.
 - "T" IS THE EXISTING WALL THICKNESS.



EXISTING CONDITION
 MODIFY INLET TO MANHOLE
 MODIFIED CONDITION



DRAINAGE DETAILS
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR
 JAIME GUTTEREZ

CALCULATED/DESIGNED BY
 CHECKED BY

MARISOL MARIN
 RAFAEL RAVELO

REVISOR BY
 DATE REVISED

MM
 1/23/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	15	100

Marisol E. Marin 1/23/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

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

APC ALLOWABLE PIPE MATERIAL

DESIGNATION	PLASTIC PIPE	
	SIZE	TYPE
8" APC	8"	SMOOTH INTERIOR

DRAINAGE QUANTITIES

DRAINAGE SYSTEM No.	DRAINAGE UNIT	FRAME, GRATE AND COVER (N)		CONCRETE COLLAR (N)	MISCELLANEOUS IRON AND STEEL	MINOR CONCRETE (GUTTER DEPRESSION)	MINOR CONCRETE (MINOR STRUCTURE)	PIPE JOINT CLASSIFICATION (N)	18" RCP	24" RCP	8" APC	REMOVE INLET	REMOVE CULVERT	MODIFY INLET TO MANHOLE	MAXIMUM COVER (N)	HEIGHT OF INLET (N)	DESCRIPTION	STATION LIMITS	DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	
		EA	LB																			CY
1	a	1	1	239	1.15	1.57		S	1.5							4	G2 INLET w/ SGD ON GRADE 18" RCP	14.7' Lt "WR" 18+00	D-1	1	a	
	b			435										1			3	MODIFY INLET TO MANHOLE	8.7' Lt "WR" 18+00			b
	c	1																				c
2	a	1	1	239	1.15	1.61		S	13.5							4.33	G2 INLET w/ SGD ON GRADE 18" RCP	14.7' Lt "WR" 20+35	D-1	2	a	
	b											1				2.8	REMOVE INLET	9.5' Lt "WR" 20+35				b
	c												14					REMOVE 18" CSP CULVERT	9.5' Lt "WR" 20+35			c
	d																	24" RCP				d
	e		1					S	2.5							2.4						e
3	a										58.8							8" PLASTIC PIPE (SMOOTH INTERIOR)		D-2	3	a
SHEET TOTAL		2	1	3	913	2.3	3.18		15	2.5	58.8	1	14	1	8.2	8.33			SHEET TOTAL			

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

DRAINAGE QUANTITIES

DQ-1

LAST REVISION | DATE PLOTTED => 29-JUN-2015 | TIME PLOTTED => 13:18
 01-23-15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR	BOB ZANDIPOUR
DESIGNED BY	C. HONG WONG
CHECKED BY	THOMAS HOKTICHEU
REVISIONS	HW 1/23/15

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

ABBREVIATIONS:
 AT&T
 PG&E
 SMC

UTILITIES
 GAS
 ELECTRIC
 WATER
 SEWER
 FIBER OPTIC
 FIBER OPTIC

LEGEND:
 ---g---g---
 ---e---e---
 ---w---w---
 ---s---s---
 ---tc---tc---
 ---tv---tv---

OWNERSHIP
 PACIFIC GAS AND ELECTRIC
 PACIFIC GAS AND ELECTRIC
 AMERICAN WATER COMPANY, AND CALTRANS
 SAN MATEO COUNTY
 AMERICAN TELEPHONE AND TELEGRAPH
 COMCAST, MCI AND VERIZON

POSITIVE LOCATION NUMBER

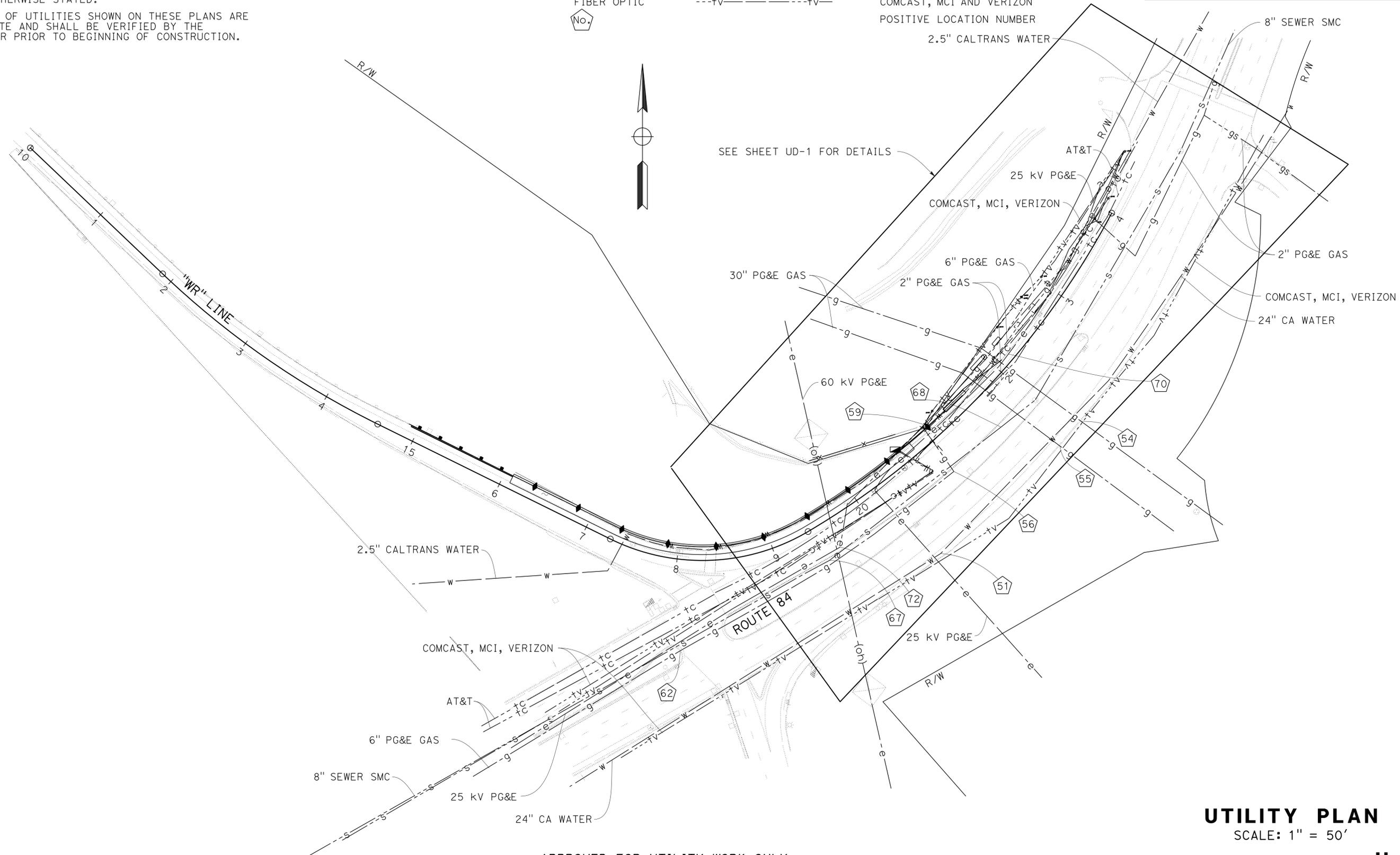
NOTES:
 1. ELEVATION SHOWN REFER TO TOP OF PIPE OR CONDUIT, UNLESS OTHERWISE STATED.
 2. LOCATIONS OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	16	100

1/23/15
 REGISTERED CIVIL ENGINEER DATE
 Cheuk Hong Wong
 No. 60145
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER

6-1-15
 PLANS APPROVAL DATE

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



APPROVED FOR UTILITY WORK ONLY

UTILITY PLAN
 SCALE: 1" = 50'

U-1

LAST REVISION DATE PLOTTED => 29-JUN-2015 01-26-15 TIME PLOTTED => 13:18

POSITIVE LOCATION INFORMATION

No.	NORTHING	EASTING	TOP OF PIPE ELEVATION	METHOD	TYPE
1	1986304.149	6056206.130	246.93	POTHOLING	25KV PG&E ELECTRIC
3	1986268.377	6056193.444	248.70	POTHOLING	25KV PG&E ELECTRIC
5	1986210.603	6056145.412	251.14	POTHOLING	CATV FOC
7	1986219.056	6056170.181	251.09	POTHOLING	25KV PG&E ELECTRIC
8	1986306.255	6056215.648	247.75	POTHOLING	25KV PG&E ELECTRIC
10	1986239.066	6056173.967	248.26	POTHOLING	25KV PG&E ELECTRIC
12	1986111.850	6056063.637	252.69	POTHOLING	30" PG&E GAS
13	1986090.495	6056054.843	254.24	POTHOLING	6" PG&E GAS
14	1986187.601	6056150.694	254.39	POTHOLING	CATV FOC
17	1986340.300	6056230.616	247.05	POTHOLING	25KV PG&E ELECTRIC
18	1986268.979	6056203.756	248.88	POTHOLING	6" PG&E GAS
20	1986152.100	6056108.143	254.75	POTHOLING	6" PG&E GAS
22	1986210.982	6056145.295	250.87	POTHOLING	CATV FOC
23	1986056.544	6056023.509	259.18	POTHOLING	CATV FOC
24	1986204.685	6056157.032	250.41	POTHOLING	6' PG&E GAS
26	1986193.820	6056135.501	251.79	POTHOLING	6" PG&E GAS
27	1986165.368	6056125.569	252.93	POTHOLING	6" PG&E GAS
28	1986070.623	6056035.900	255.40	POTHOLING	6" PG&E GAS
30	1986137.352	6056083.412	247.54	POTHOLING	30" PG&E GAS
31	1986207.743	6056146.198	251.34	POTHOLING	6' PG&E GAS
32	1986146.856	6056112.169	255.00	POTHOLING	2" PG&E GAS
33	1986056.456	6056022.847	255.02	POTHOLING	6" PG&E GAS
34	1986218.485	6056171.220	251.00	POTHOLING	CATV FOC
35	1986189.968	6056124.950	253.19	POTHOLING	CATV FOC
36	1986159.103	6056099.628	255.39	POTHOLING	CATV FOC
37	1986093.077	6056051.108	257.01	POTHOLING	CATV FOC
38	1986072.824	6056032.526	257.70	POTHOLING	CATV FOC
40	1986339.880	6056231.769	248.67	POTHOLING	CATV FOC
44	1986158.841	6056100.036	255.46	POTHOLING	CATV FOC
45	1986092.913	6056051.336	257.09	POTHOLING	CATV FOC
46	1986072.540	6056032.868	257.82	POTHOLING	CATV FOC
47	1986056.160	6056023.659	259.26	POTHOLING	CATV FOC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	18	100

W. J. M. P. 1/23/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

Cheuk Hong Wong
 No. 60145
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

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

POSITIVE LOCATION INFORMATION

No.	NORTHING	EASTING	TOP OF PIPE ELEVATION	METHOD	TYPE
51	1985925.859	6056041.634	268.87	POTHOLING	24' CA WATER
54	1986061.931	6056186.646	261.16	POTHOLING	30" PG&E GAS
55	1986036.493	6056164.758	257.48	POTHOLING	30' PG&E GAS
59	1986055.670	6056032.402	259.96	POTHOLING	25KV PG&E ELECTRIC
62	1985825.832	6055772.829	274.54	POTHOLING	6" PG&E GAS
67	1985918.800	6055926.845	266.94	PROBE (INVERT ELEV)	8" SMC SEWER
68	1986056.074	6056103.952	257.92	PROBE (INVERT ELEV)	8" SMC SEWER
70	1986131.245	6056111.544	258.26	POTHOLING	25KV PG&E ELECTRIC
72	1985932.489	6055937.839	269.62	ELECTRONIC DETECTION	25KV PG&E ELECTRIC

UTILITY DETAILS
UD-2

LAST REVISION: DATE PLOTTED => 29-JUN-2015
 01-23-15 TIME PLOTTED => 13:18

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG
 TRAFFIC

NOTES:

1. EXACT LOCATION AND POSITION OF SIGNS WILL BE DETERMINED BY THE ENGINEER.
2. CONSTRUCTION AREA SIGNS ON SHEET CS-3 TO BE COVERED WHEN NOT IN USE.

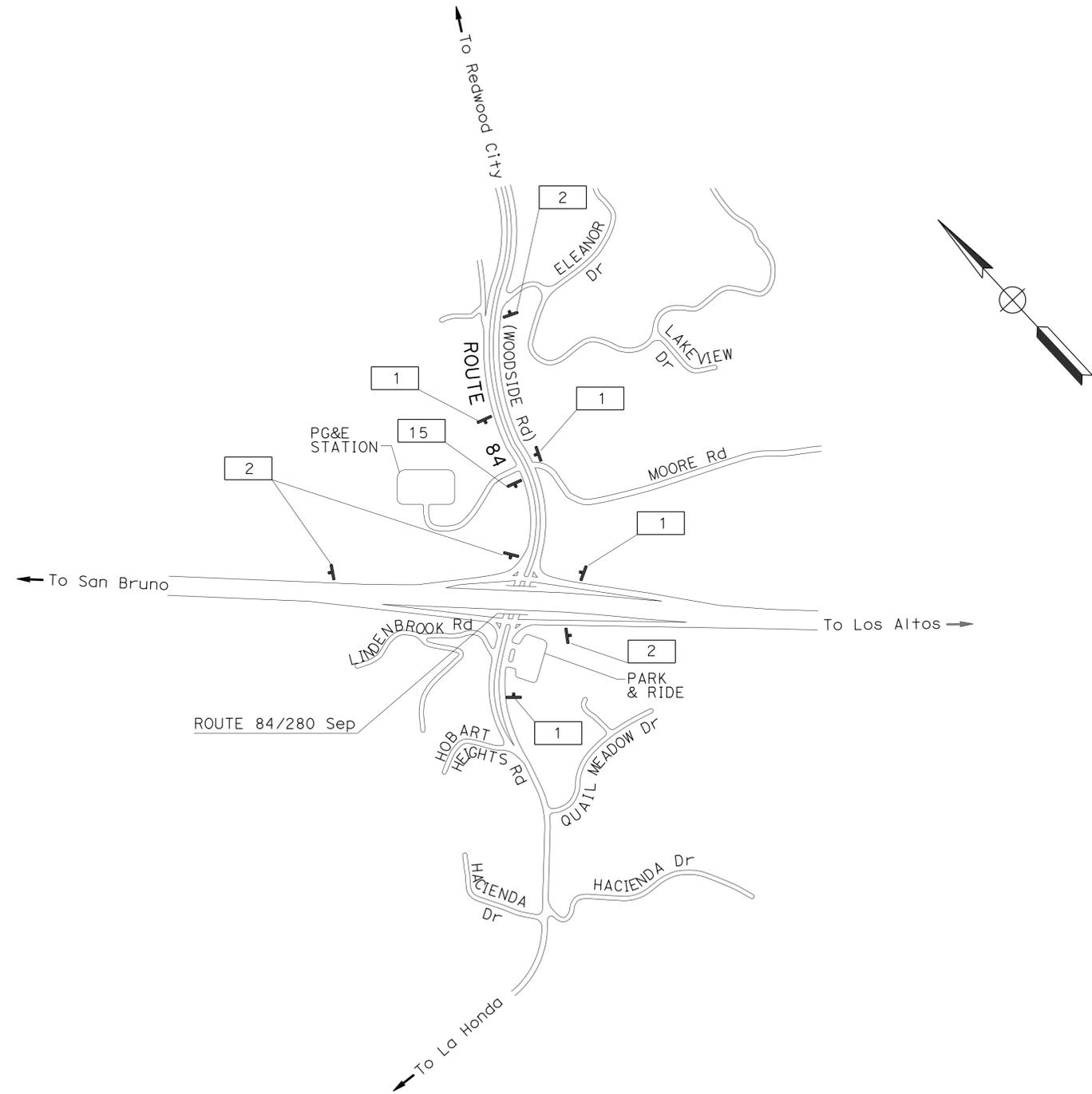
LEGEND:

No. CONSTRUCTION AREA SIGN NUMBER

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	19	100

1/22/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Jerilyn L. Struven
 No. 49964
 Exp. 2-31-16
 CIVIL
 STATE OF CALIFORNIA



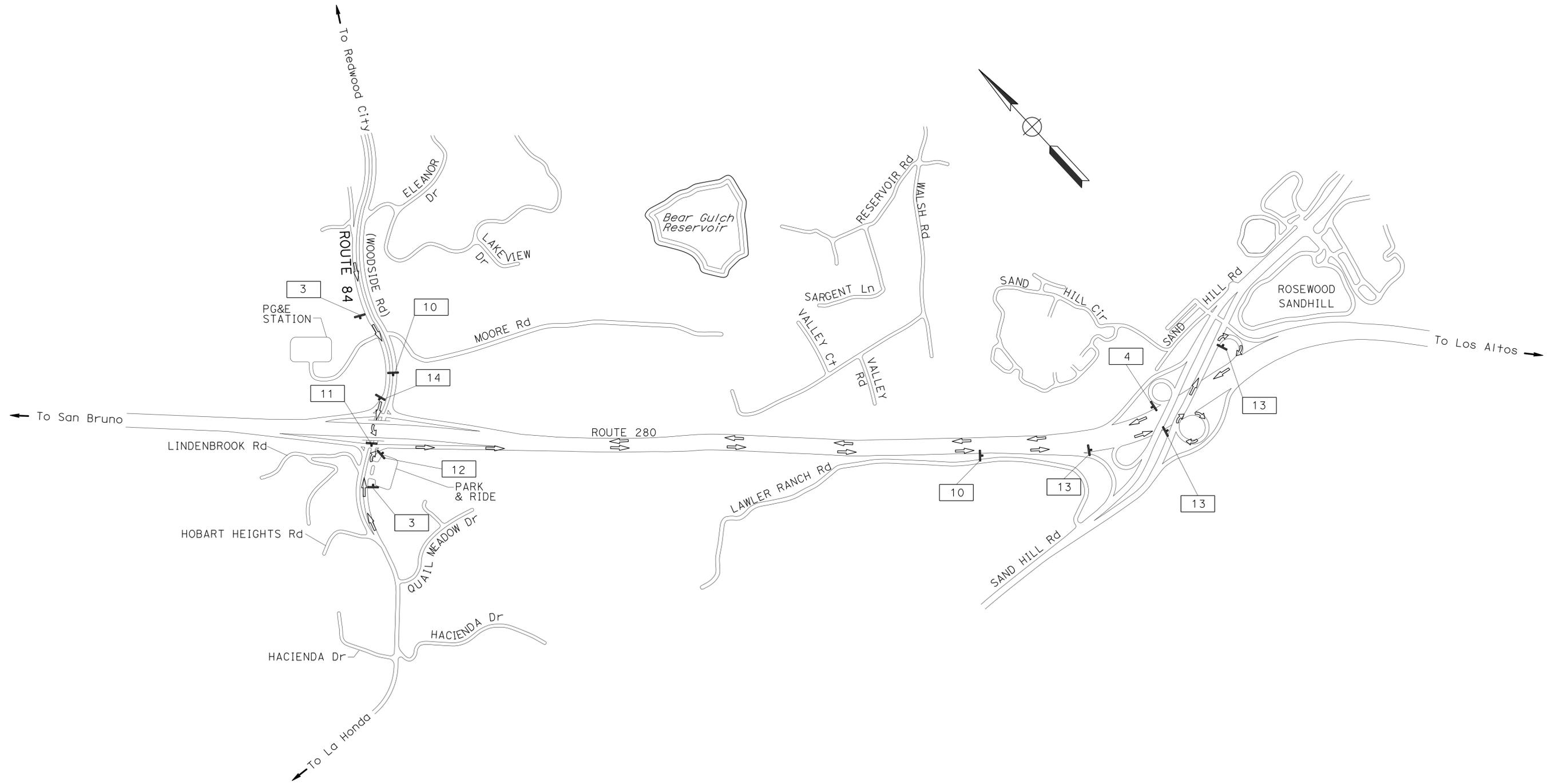
CONSTRUCTION AREA SIGNS
 NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG	CALCULATED/DESIGNED BY	STEPHEN LAU	REVISOR	SL
	TRAFFIC		CHECKED BY	JERILYN L. STRUVEN	DATE REVISED	1/22/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	20	100
<i>Jerilyn L. Struven</i> REGISTERED CIVIL ENGINEER			DATE	1/22/15	
PLANS APPROVAL DATE			6-1-15		
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. 49964 Exp. 2-31-16 CIVIL STATE OF CALIFORNIA					



**CONSTRUCTION AREA SIGNS
TRUCK DETOUR**
NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR LEGEND, SEE SHEET CS-1

CS-2

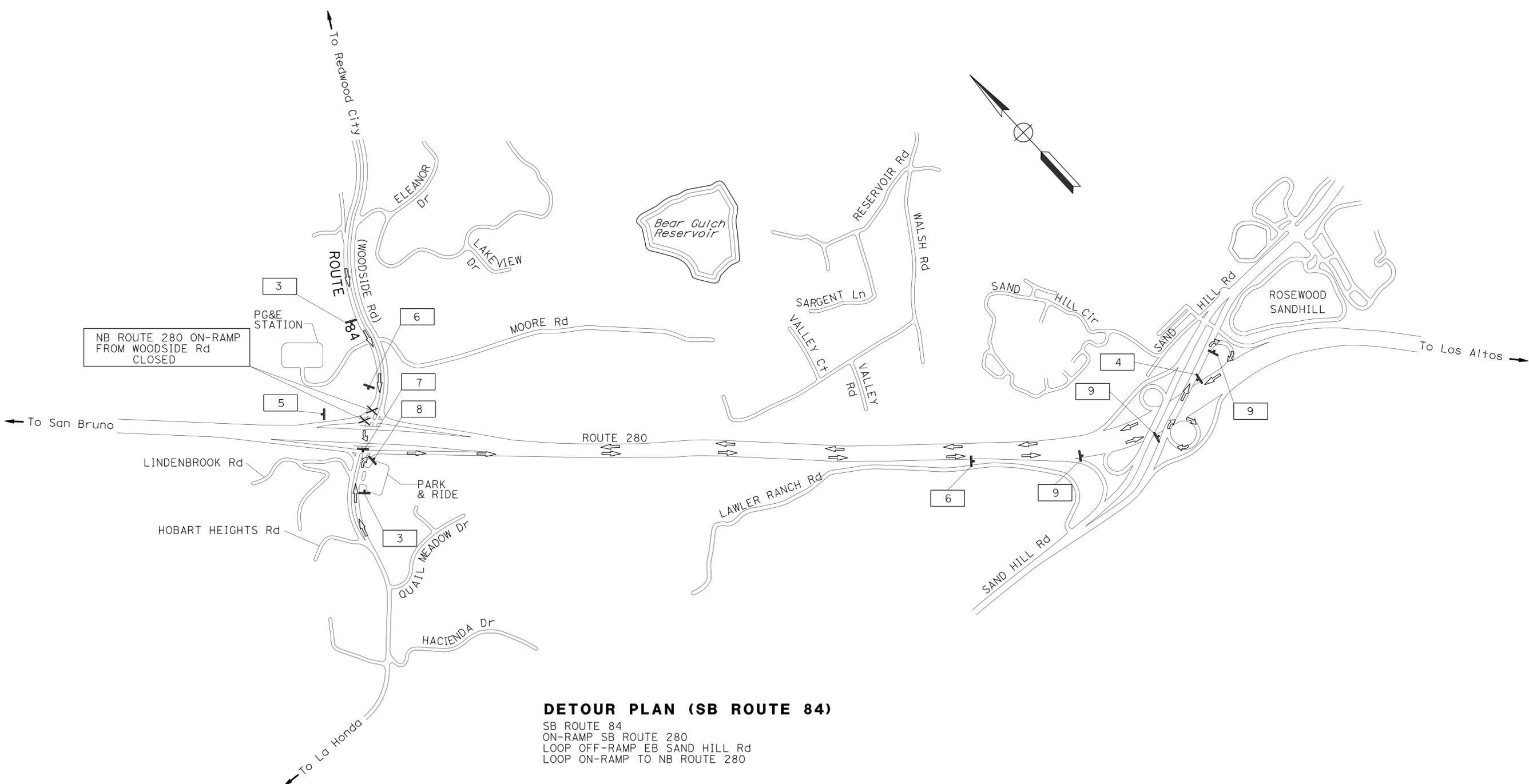


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	21	100

Jerilyn L. Struven 1/22/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Jerilyn L. Struven
 No. 49964
 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.



DETOUR PLAN (SB ROUTE 84)

- SB ROUTE 84
- ON-RAMP SB ROUTE 280
- LOOP OFF-RAMP EB SAND HILL Rd
- LOOP ON-RAMP TO NB ROUTE 280

DETOUR PLAN (NB ROUTE 84)

- NB ROUTE 84
- ON-RAMP SB ROUTE 280
- LOOP OFF-RAMP EB SAND HILL Rd
- LOOP ON-RAMP TO NB ROUTE 280

**CONSTRUCTION AREA SIGNS
RAMP CLOSURE DETOUR**

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR LEGEND, SEE SHEET CS-1

CS-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	ROLAND AU-YEUNG	STEPHEN LAU	1/22/15
TRAFFIC		JERILYN L. STRUVEN	
		REVISOR	DATE
		SL	1/22/15

LAST REVISION DATE PLOTTED => 29-JUN-2015
 01-22-15 TIME PLOTTED => 13:18

SL
1/22/15

REVISOR BY
STEPHEN LAU

DATE REVISOR
1/22/15

CHECKED BY
JERILYN L. STRUVEN

FUNCTIONAL SUPERVISOR
ROLAND AU-YEUNG

DESIGNED BY
STEPHEN LAU

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	22	100

Jerilyn L. Struven 1/22/15
 REGISTERED CIVIL ENGINEER DATE
 No. 49964
 Exp. 2-31-16
 CIVIL
 PLANS APPROVAL DATE 6-1-15
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
1	W20-1		48" x 48"	ROAD WORK AHEAD	(ONE) 4" x 4"	4
2	G20-2		48" x 36"	END ROAD WORK	(ONE) 4" x 4"	4
3	W20-2		48" x 48"	DETOUR AHEAD	(ONE) 4" x 4"	4
4	M4-8a		36" x 18"	END DETOUR	(ONE) 4" x 4"	2
5		SC6-4(CA)	48" x 60"	RAMP CLOSED (DATE & TIME)	(ONE) 6" x 6"	1
6		SC9(↑)(CA)	48" x 18"	FWY DETOUR (STRAIGHT ARROW)	(ONE) 4" x 6"	2
	M3-1		21" x 9"	NORTH		
	M1-1(280)		30" x 25"	ROUTE SHIELD (280)		
7	M4-10(L+)		48" x 18"	DETOUR (LEFT)	(ONE) 4" x 6"	1
	M3-1		21" x 9"	NORTH		
	M1-1(280)		30" x 25"	ROUTE SHIELD (280)		
8	M4-10(R+)		48" x 18"	DETOUR (RIGHT)	(ONE) 4" x 6"	1
	M3-1		21" x 9"	NORTH		
	M1-1(280)		30" x 25"	ROUTE SHIELD (280)		
9	M4-8		25" x 24"	DETOUR	(ONE) 4" x 6"	3
	M3-1		21" x 9"	NORTH		
	M1-1(280)		30" x 25"	ROUTE SHIELD (280)		
	M6-2(↗)		21" x 15"	DETOUR (DIAGONAL ARROW)		

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

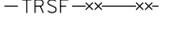
SIGN No.	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
10		SC9(↑)(CA)	48" x 18"	FWY DETOUR (STRAIGHT ARROW)	(ONE) 4" x 6"	2
	M4-4		24" x 12"	TRUCK		
	M3-1		21" x 9"	NORTH		
	M1-1(280)		30" x 25"	ROUTE SHIELD (280)		
11	M4-10(L+)		48" x 18"	DETOUR (LEFT)	(ONE) 4" x 6"	1
	M4-4		24" x 12"	TRUCK		
	M3-1		21" x 9"	NORTH		
	M1-1(280)		30" x 25"	ROUTE SHIELD (280)		
12	M4-10(R+)		48" x 18"	DETOUR (LEFT)	(ONE) 4" x 6"	1
	M4-4		24" x 12"	TRUCK		
	M3-1		21" x 9"	NORTH		
	M1-1(280)		30" x 25"	ROUTE SHIELD (280)		
13	M4-8		25" x 24"	DETOUR	(ONE) 4" x 6"	3
	M4-4		24" x 12"	TRUCK		
	M3-1		21" x 9"	NORTH		
	M1-1(280)		30" x 25"	ROUTE SHIELD (280)		
	M6-2(↗)		21" x 15"	DETOUR (DIAGONAL ARROW)		
14	R5-2	R20D-4(CA)	30" x 30"	NO TRUCK	(ONE) 4" x 6"	1
		R20D-4(CA)	30" x 15"	OVER 40 FT LONG		
15		W11-1	30" x 30"	BICYCLE SYMBOL	(ONE) 4" x 4"	1

CONSTRUCTION AREA SIGNS
CS-4

LAST REVISION DATE PLOTTED => 29-JUN-2015 01-22-15 TIME PLOTTED => 13:18

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

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

- LEGEND:**
-  CONSTRUCT THIS STAGE
 -  TEMPORARY CONSTRUCTION EASEMENT
 -  BEGIN/END PAVEMENT DELINEATION DETAIL
 -  CHANNELIZER (SURFACE MOUNTED)
 -  CHANGE OF PAVEMENT DELINEATION DETAIL
 -  ESA
 -  TEMPORARY REINFORCED SILT FENCE (TYPE 1)

- NOTES:**
- ALL TEMPORARY RAILING (TYPE K) CALLED TO THE CENTER OF RAILING.
 - FOR CONSTRUCTION AREA SIGNS, SEE CS-SHEETS.
 - EXACT LOCATION OF CHANNELIZERS TO BE DETERMINED BY THE ENGINEER.
 - FOR TEMPORARY FENCE LOCATIONS, SEE C-SHEETS.

- CONSTRUCTION**
- INSTALL TEMPORARY REINFORCED SILT FENCE AND TEMPORARY FENCE (TYPE ESA).
 - INSTALL TEMPORARY TRAFFIC SCREEN, TEMPORARY RAILING AND TEMPORARY CRASH CUSHION.
 - PLACE TEMPORARY PAVEMENT DELINEATION AND CHANNELIZERS.
 - INSTALL LIGHTING (TEMPORARY).

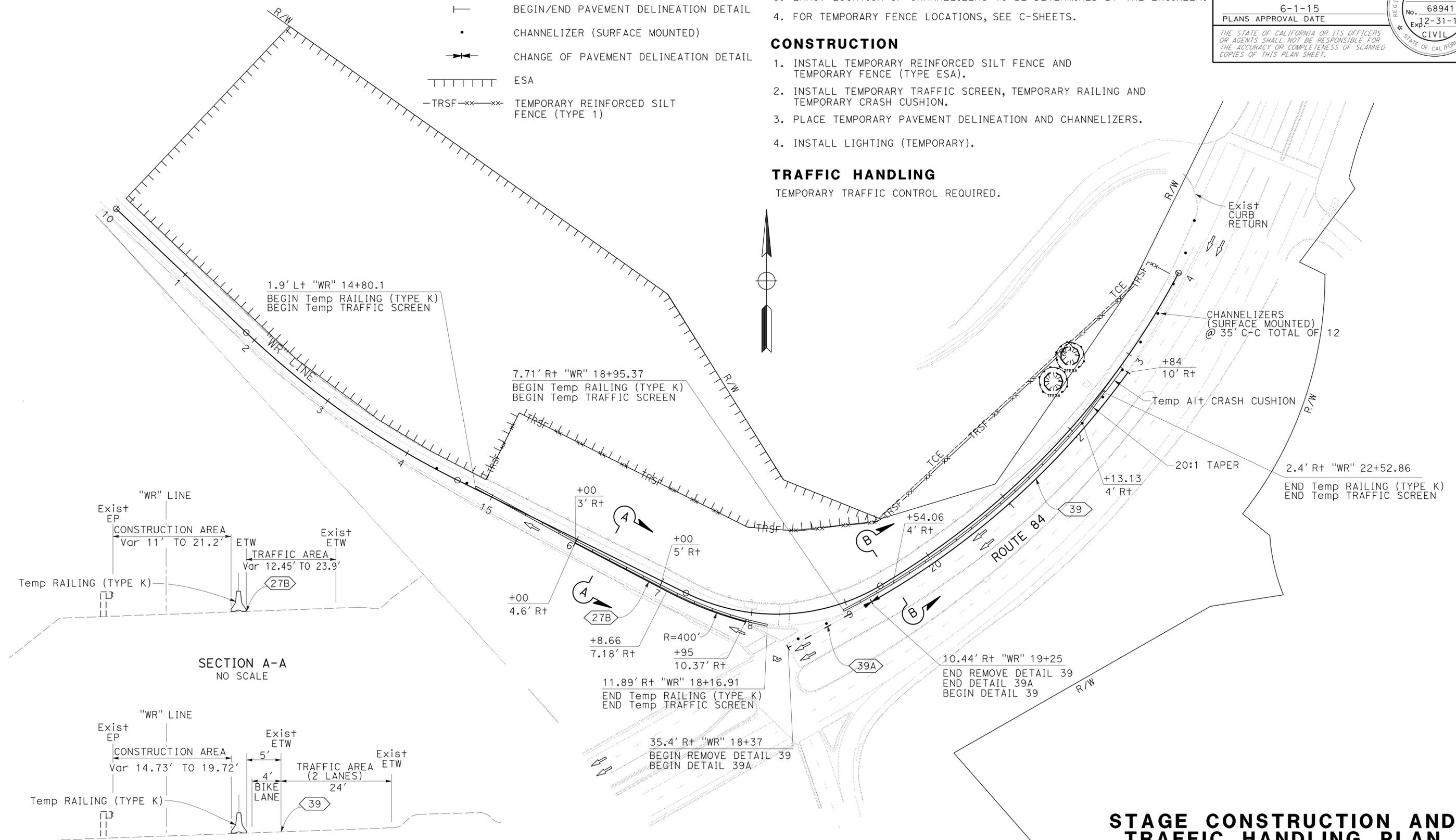
TRAFFIC HANDLING
 TEMPORARY TRAFFIC CONTROL REQUIRED.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	23	100

1/26/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Rafael A. Ravelo
 No. 68941
 Exp. 12-31-15
 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.



SECTION A-A
 NO SCALE

SECTION B-B
 NO SCALE

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN
STAGE 1 - PHASE 1
 SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SC-1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	24	100

<i>Rafael A. Ravelo</i>	1/26/15
REGISTERED CIVIL ENGINEER	DATE
6-1-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
Rafael A. Ravelo
No. 68941
Exp. 12-31-15
CIVIL
STATE OF CALIFORNIA

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

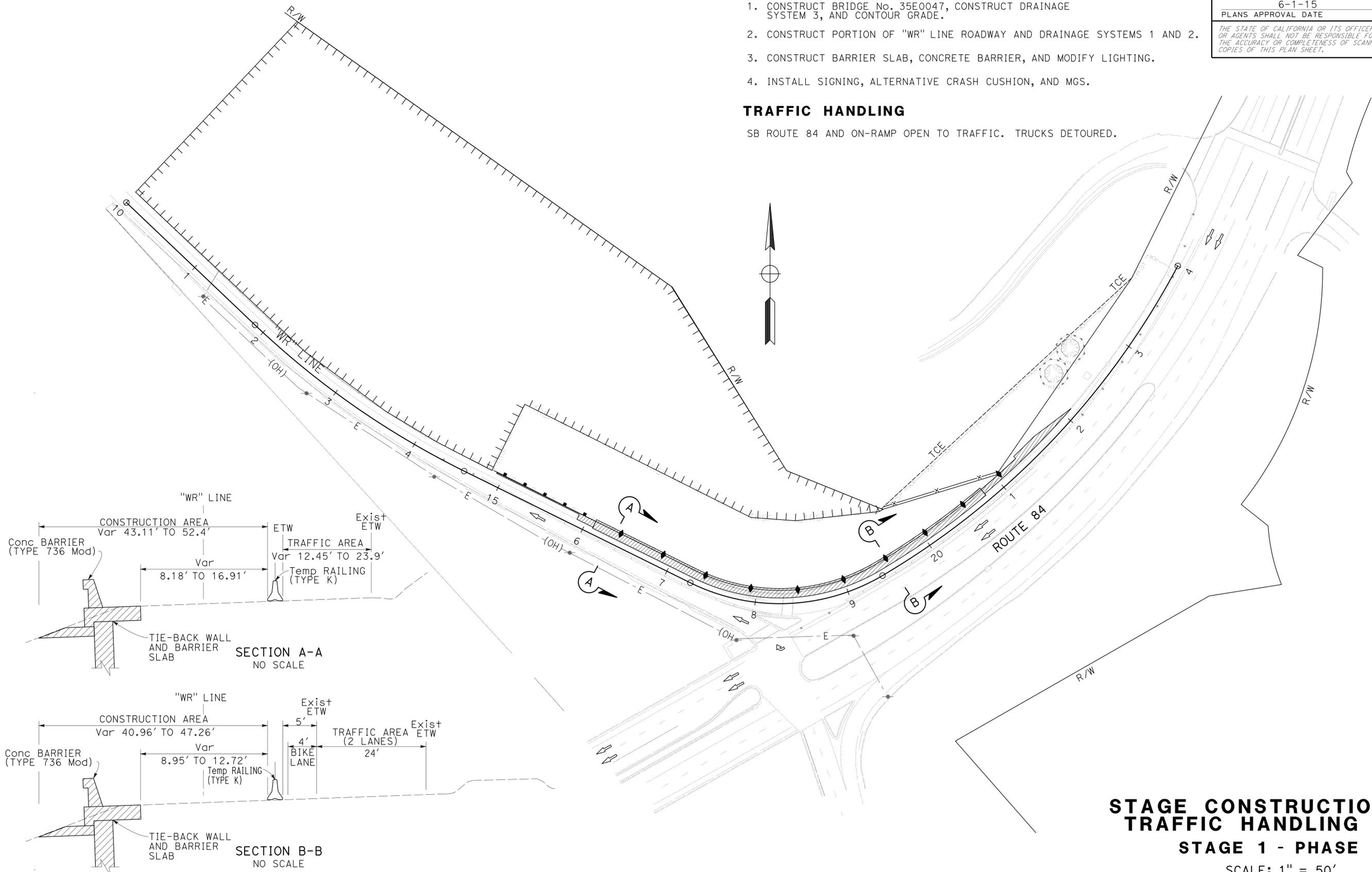
NOTE:
FOR CONSTRUCTION AREA SIGNS, SEE CS-SHEETS.

CONSTRUCTION

1. CONSTRUCT BRIDGE No. 35E0047, CONSTRUCT DRAINAGE SYSTEM 3, AND CONTOUR GRADE.
2. CONSTRUCT PORTION OF "WR" LINE ROADWAY AND DRAINAGE SYSTEMS 1 AND 2.
3. CONSTRUCT BARRIER SLAB, CONCRETE BARRIER, AND MODIFY LIGHTING.
4. INSTALL SIGNING, ALTERNATIVE CRASH CUSHION, AND MGS.

TRAFFIC HANDLING

SB ROUTE 84 AND ON-RAMP OPEN TO TRAFFIC. TRUCKS DETOURED.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1 - PHASE 2

SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

SC-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	JAIMIE GUTIERREZ
CALCULATED/DESIGNED BY	RAFAEL RAVELO
CHECKED BY	ANNA URETA
REVISOR	RR
DATE REVISED	1/26/15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
 CALCULATED/DESIGNED BY: RAFAEL RAVELO
 CHECKED BY: ANNA URETA
 REVISED BY: RR
 DATE REVISED: 1/26/15

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

NOTE:
 FOR CONSTRUCTION AREA SIGNS, SEE CS-SHEETS.

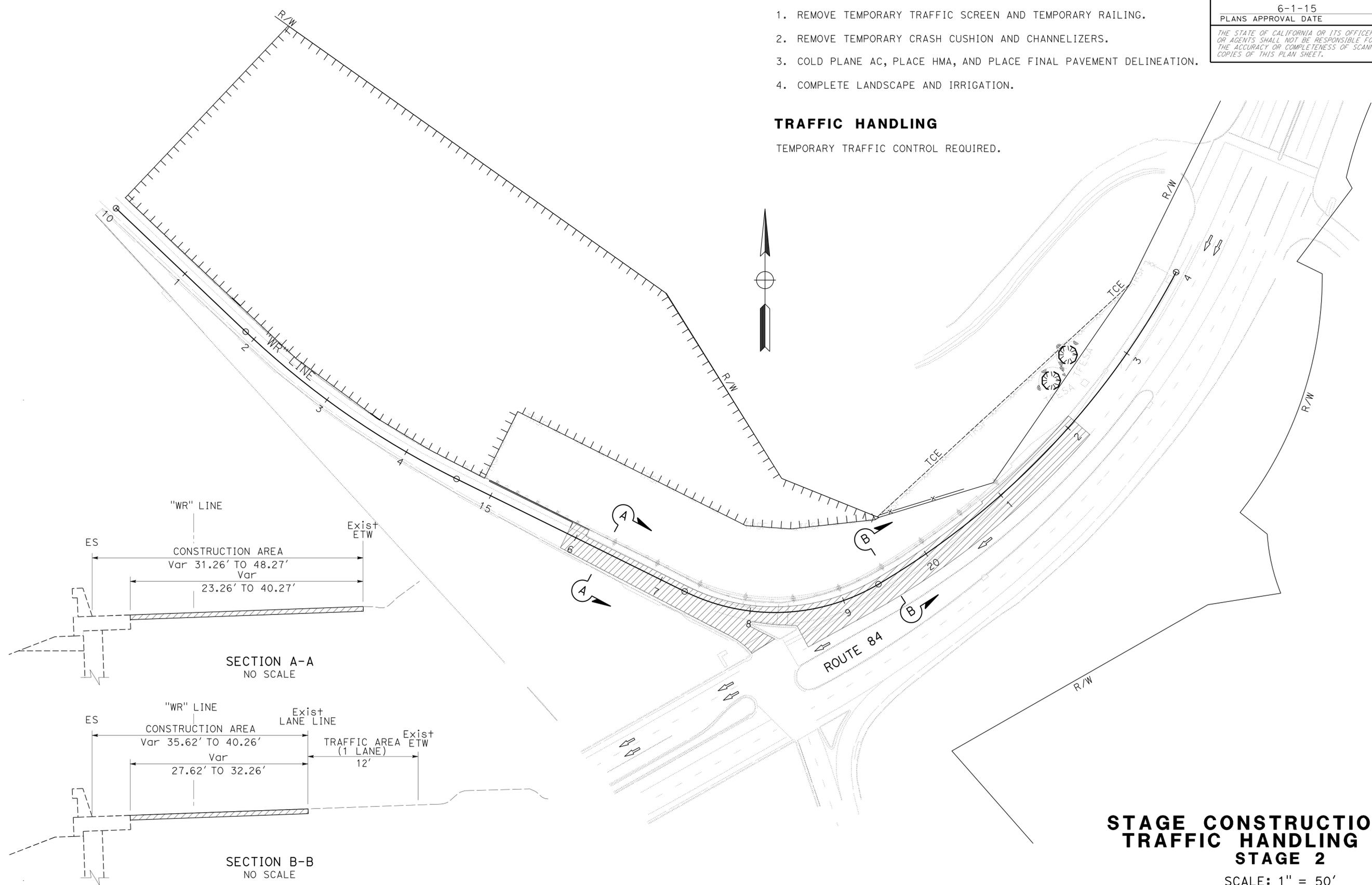
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	25	100

1/26/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Rafael A. Ravelo
 No. 68941
 Exp. 12-31-15
 CIVIL
 STATE OF CALIFORNIA

- CONSTRUCTION**
1. REMOVE TEMPORARY TRAFFIC SCREEN AND TEMPORARY RAILING.
 2. REMOVE TEMPORARY CRASH CUSHION AND CHANNELIZERS.
 3. COLD PLANE AC, PLACE HMA, AND PLACE FINAL PAVEMENT DELINEATION.
 4. COMPLETE LANDSCAPE AND IRRIGATION.

TRAFFIC HANDLING
 TEMPORARY TRAFFIC CONTROL REQUIRED.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN
STAGE 2
 SCALE: 1" = 50'

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

SC-3

LAST REVISION | DATE PLOTTED => 29-JUN-2015
 01-26-15 TIME PLOTTED => 13:19

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	26	100

Rodrigo Puente 2/5/15
REGISTERED CIVIL ENGINEER DATE

6-1-15
PLANS APPROVAL DATE

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

TEMPORARY PAVEMENT DELINEATION

SHEET No.	STAGE CONSTRUCTION	STATION	DETAIL No.	TEMPORARY TRAFFIC STRIPE (PAINT)		
				4" WHITE	6" WHITE	6" WHITE (BROKEN 8-4)
SC-1	STAGE 1 - PHASE 1	R+ "WR" 18+37 TO 19+25	39A			100
		R+ "WR" 16+00 TO 18+17	27B	198		
		R+ "WR" 19+25 TO 22+84	39		364	
SUBTOTAL				198	364	100
TOTAL					662	

REMOVE THERMOPLASTIC TRAFFIC STRIPE

SHEET No.	STAGE CONSTRUCTION	STATION	DETAIL No.	REMOVE THERMOPLASTIC TRAFFIC STRIPE
				6" WHITE SOLID
SC-1	STAGE 1 - PHASE 1	R+ "WR" 18+37 TO 19+25	39	100
		TOTAL		

TEMPORARY RAILING (TYPE K)

SHEET No.	STAGE CONSTRUCTION	STATION	TEMPORARY RAILING (TYPE K)
			LF
SC-1	STAGE 1 - PHASE 1	L+ "WR" 14+80 TO R+ "WR" 18+17	340
		R+ "WR" 18+95 TO 22+53	360
TOTAL			700

TEMPORARY TRAFFIC SCREEN

SHEET No.	STAGE CONSTRUCTION	STATION	TEMPORARY TRAFFIC SCREEN
			LF
SC-1	STAGE 1 - PHASE 1	L+ "WR" 14+80 TO R+ "WR" 18+17	340
		R+ "WR" 18+95 TO 22+53	360
TOTAL			700

TEMPORARY ALTERNATIVE CRASH CUSHION

SHEET No.	STAGE CONSTRUCTION	STATION	TEMPORARY ALTERNATIVE CRASH CUSHION
			EA
SC-1	STAGE 1 - PHASE 1	R+ "WR" 22+53	1
TOTAL			1

CHANNELIZERS (SURFACE MOUNTED)

SHEET No.	STAGE CONSTRUCTION	STATION	CHANNELIZER (SURFACE MOUNTED)
			EA
SC-1	STAGE 1 - PHASE 1	R+ "WR" 22+13.3 TO L+ 24+56	12
TOTAL			12

TEMPORARY FENCE (TYPE ESA)

SHEET No.	STAGE CONSTRUCTION	STATION	TEMPORARY FENCE (TYPE ESA)
			LF
SC-1	STAGE 1 - PHASE 1	L+ "WR" 22+27	63
SC-1	STAGE 1 - PHASE 1	L+ "WR" 22+61	63
TOTAL			126

TEMPORARY REINFORCED SILT FENCE

SHEET No.	STAGE CONSTRUCTION	STATION	TEMPORARY REINFORCED SILT FENCE (TYPE 1)
			LF
SC-1	STAGE 1 - PHASE 1	L+ "WR" 14+87 TO 23+95	950
TOTAL			950

STAGE CONSTRUCTION QUANTITIES

SCQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
 CALCULATED/DESIGNED BY: RAFAEL RAVELO
 CHECKED BY: RODRIGO PUENTE
 REVISED BY: RP
 DATE REVISED: 2/4/15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG
 CALCULATED/DESIGNED BY: KATIE YIM
 REVISOR: ROBIN BOK-JONE PON
 DATE: 1/22/15
 RP

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

- NOTES:**
1. DIMENSIONS ARE TO ETW FOR EDGE LINES AND CL FOR OTHERS.
 2. EXACT DELINEATOR LOCATIONS TO BE DETERMINED BY THE ENGINEER.
 3. CROSSWALK MARKINGS SHALL BE BASIC PER RSP A24F USING 1' MARKING WITH 11' CLEAR WIDTH BETWEEN LINES.

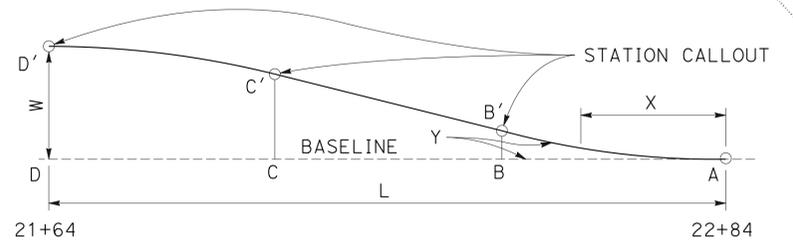
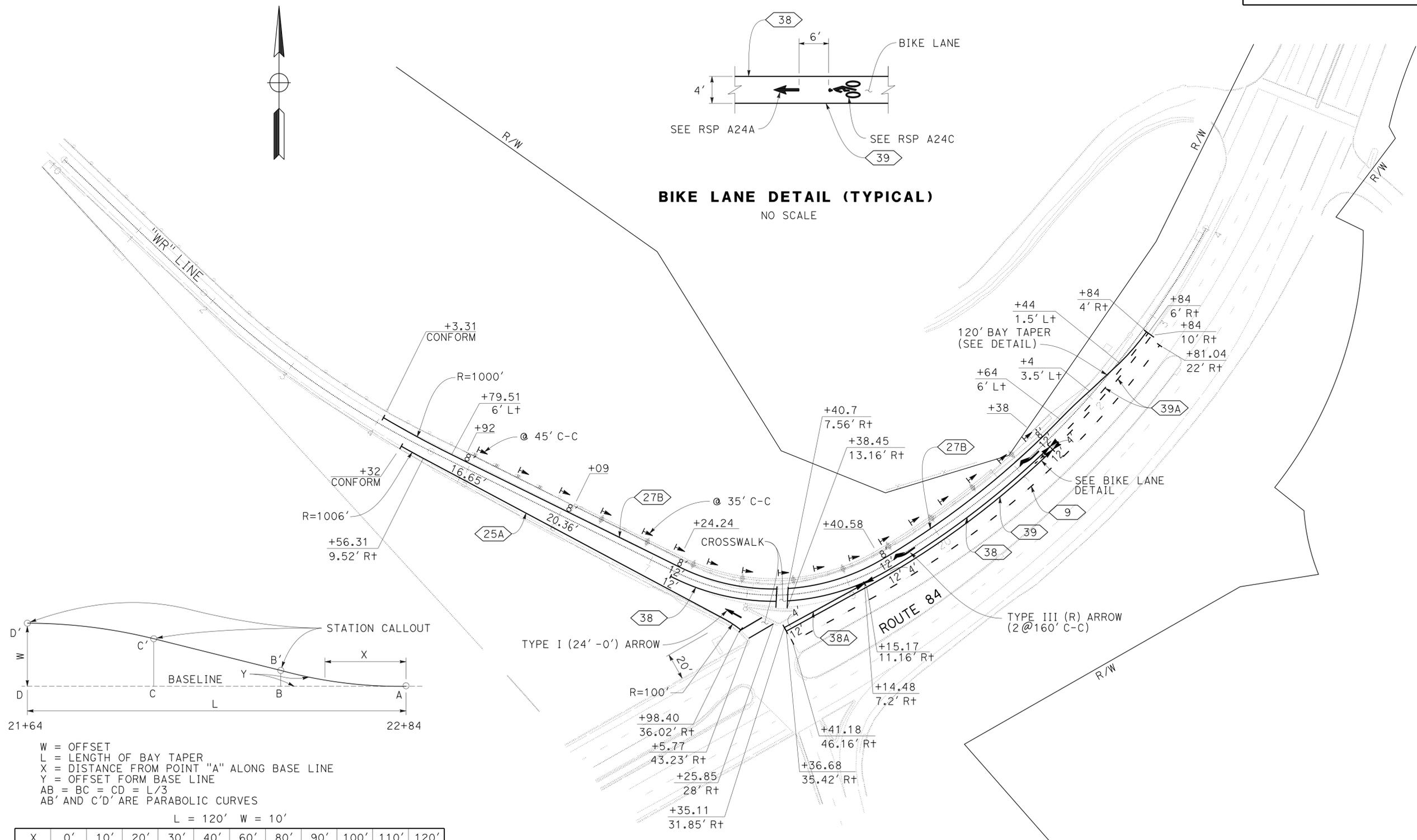
- LEGEND:**
- CHANGE OF PAVEMENT DELINEATION DETAIL
 - BEGIN/END PAVEMENT DELINEATION DETAIL
 - ▶ DELINEATOR (CLASS 1)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	27	100

REGISTERED CIVIL ENGINEER: Robin B. Pon
 No. 57558
 Exp. 12-31-15
 CIVIL

DATE: 1/22/15
 PLANS APPROVAL DATE: 6-1-15

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.



X	0'	10'	20'	30'	40'	60'	80'	90'	100'	110'	120'
Y	0'	0.16'	0.62'	1.41'	2.5'	5'	7.5'	8.59'	9.38'	9.84'	10'

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN
 SCALE: 1" = 50'

PD-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	28	100

Rodrigo Puente 2/5/15
 REGISTERED CIVIL ENGINEER DATE

6-1-15
 PLANS APPROVAL DATE

Rodrigo Puente
 No. 58612
 Exp. 2-31-16
 CIVIL

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

TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS

STATION LIMITS OR LOCATION	DETAIL No. OR PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE						THERMOPLASTIC PAVEMENT MARKING	PAVEMENT MARKER		DELINEATOR (CLASS 1)
		4" YELLOW	4" WHITE	4" WHITE (BROKEN 17-7)	6" WHITE	6" WHITE (BROKEN 8-4)	8" WHITE		RETROREFLECTIVE		
									SQFT	EA	
L+ "WR" 14+03 TO R+ 22+84	27B		862								
R+ "WR" 14+32 TO 17+98	25A	378							17		
R+ "WR" 17+24 TO 21+38	38							18			
R+ "WR" 21+38 TO 22+84	39A					295					
R+ "WR" 17+98 TO L+ 18+41	CROSSWALK MARKINGS						95				
R+ "WR" 18+35 TO 19+40	38A										
R+ "WR" 18+36 TO 21+38	39				316						
R+ "WR" 18+41 TO 22+81	9							11			
"WR" 17+92	TYPE I (24') ARROW			466			31				
"WR" 19+55 AND 21+15	TYPE III (R) ARROW						84				
R+ "WR" 21+22	BIKE LANE DETAIL						10.5				
L+ "WR" 14+92 TO 21+38	DELINEATORS									17	
SUBTOTAL		378	862	466	316	295	527	220.5	29	17	17
TOTAL		1240		466	316	295	527	220.5	46		17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: JAIME GUTIERREZ
 CALCULATED/DESIGNED BY: RODRIGO PUENTE
 CHECKED BY: RAFAEL RAVELO
 REVISED BY: RP
 DATE REVISED: 2/4/15

**PAVEMENT DELINEATION
 QUANTITIES
 PDQ-1**

LAST REVISION | DATE PLOTTED => 29-JUN-2015
 02-05-15 | TIME PLOTTED => 13:19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans	FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG	CALCULATED-DESIGNED BY	STEPHEN LAU	REVISOR	SL
	DEPARTMENT OF TRANSPORTATION	TRAFFIC	CHECKED BY	JERILYN L. STRUVEN	DATE REVISED	1/22/15

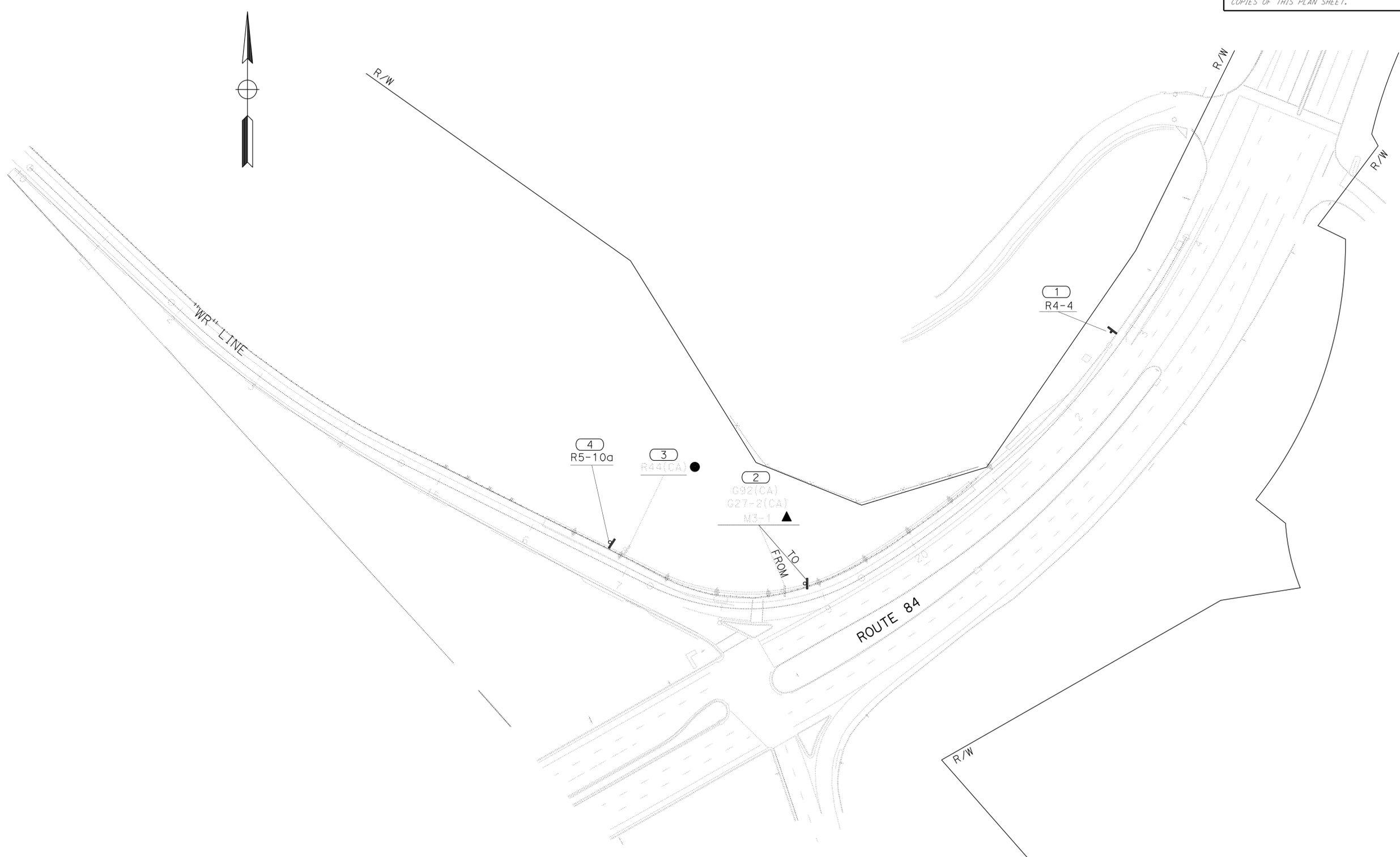
NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

- NOTES:**
- FEDERAL SIGN CODES ARE SHOWN UNLESS DESIGNATED BY (CA) WHICH INDICATES A CALIFORNIA SIGN CODE.
 - EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.

- LEGEND:**
- ▲ RELOCATE ROADSIDE SIGNS
 - REMOVE ROADSIDE SIGN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	29	100

Jerilyn L. Struven 1/22/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



SIGN PLAN
NO SCALE

APPROVED FOR SIGN WORK ONLY

S-1

LAST REVISION DATE PLOTTED => 29-JUN-2015 01-22-15 TIME PLOTTED => 13:19

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	30	100

Jerilyn L. Struven 1/22/15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE
 No. 49964
 Exp. 3-31-16
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN CODE	SIGN PANEL SIZE	WOOD POST SIZE AND LENGTH	REMOVE ROADSIDE SIGN	ROADSIDE SIGN		RELOCATE ROADSIDE SIGN	REMARKS
				4" x 6"		ONE POST	SSBM		
S-1	1	R4	30" x 36"	14.5'		1			
	2	G92(CA)						1	MOUNT ON ELECTROLIER
		G27-2(CA)							
	3	M3-1							
4	R44(CA)				1				
		R5-10a	30" x 36"				1		MOUNT ON ELECTROLIER
TOTAL						1	1	1	1

SIGN PANEL SUMMARY

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE	AREA	SINGLE FACED	BACKGROUND		LEGEND		PROTECTIVE OVERLAY	FURNISH SINGLE SHEET ALUMINUM (0.063") UNFRAMED
						SHEETING COLOR (N)	RETROREFLECTIVE ASTM TYPE (N)	SHEETING COLOR (N)	RETROREFLECTIVE ASTM TYPE		SQFT
S-1	1	R4-4	30" x 36"	7.5	X	WHITE	III	BLACK		X	7.5
	2	R5-10a	30" x 36"	7.5	X	WHITE	III	BLACK		X	7.5
TOTAL				15.0							15.0

SIGN QUANTITIES

SQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	31	100

Rodrigo Puente 2/5/15
REGISTERED CIVIL ENGINEER DATE

6-1-15
PLANS APPROVAL DATE

Rodrigo Puente
No. 58612
Exp. 2-31-16
CIVIL
STATE OF CALIFORNIA

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ROADWAY QUANTITIES

STATION	COLD PLANE ASPHALT CONCRETE PAVEMENT	HOT MIX ASPHALT (TYPE A)	TACK COAT	PAVING ASPHALT (BINDER GEOSYNTHETIC PAVEMENT INTERLAYER)	GEOSYNTHETIC PAVEMENT INTERLATER (PAVING GRID)
	SQYD	TON			SQYD
"WR" 15+90 TO 22+10	1918				
"WR" 14+92 TO 22+10		557.6	0.7	1.7	1615
SUBTOTAL FROM DIKE		2.3			
TOTAL	1918	559.9	0.7	1.7	1615

EARTHWORK

STATION	ROADWAY EXCAVATION	EMBANKMENT (N)
	CY	
"WR" 14+92 TO 22+10	927.4	24
TOTAL	927.4	24

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

ALTERNATIVE CRASH CUSHION

STATION	EA
L+ "WR" 21+30	1

REMOVE CHAIN LINK FENCE

STATION	LF
L+ "WR" 19+81.53 TO 20+97.1	117

VEGETATION CONTROL (MINOR CONCRETE)

SHEET No.	STATION	LF
L-1	L+ "WR" 14+88.8 TO 16+09	56
TOTAL		56

REMOVE ASPHALT CONCRETE DIKE

STATION	LF
L+ "WR" 14+92 TO 16+09	117
L+ "WR" 20+80 TO 22+10	128
TOTAL	245

PLACE HOT MIX ASPHALT DIKE

STATION	TYPE C (N)		TYPE F (N)	
	LF	TON	LF	TON
L+ "WR" 14+92 TO 16+09			117	1.6
L+ "WR" 21+30 TO 22+10	83	0.7		
TOTAL	83	0.7	117	1.6

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

REMOVE GUARDRAIL

STATION	LF
"WR" 14+88.8 TO 20+91	590

MIDWEST GUARDRAIL SYSTEM (WOOD POST)

STATION	MGS	MGS TRANSITION (N)
	LF	
L+ "WR" 14+88.8 TO 16+09	121	28.1

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

CHAIN LINK FENCE (TYPE CL-6)

STATION	LF
L+ "WR" 19+81.53 TO 20+74.34	93

CONCRETE BARRIER (TYPE 60)

STATION	LF
L+ "WR" 20+80 TO 21+30	49

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 Jaime Gutierrez
 FUNCTIONAL SUPERVISOR
 Checked by
 Rafael Ravelo
 Rodrigo Puente
 Revised by
 RP
 Date Revised
 2/4/15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 SCOTT BOTTARI
 REVISOR
 SB
 3/19/15

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

**TREE REMOVAL SUMMARY (N)
 (ROADSIDE CLEARING)**

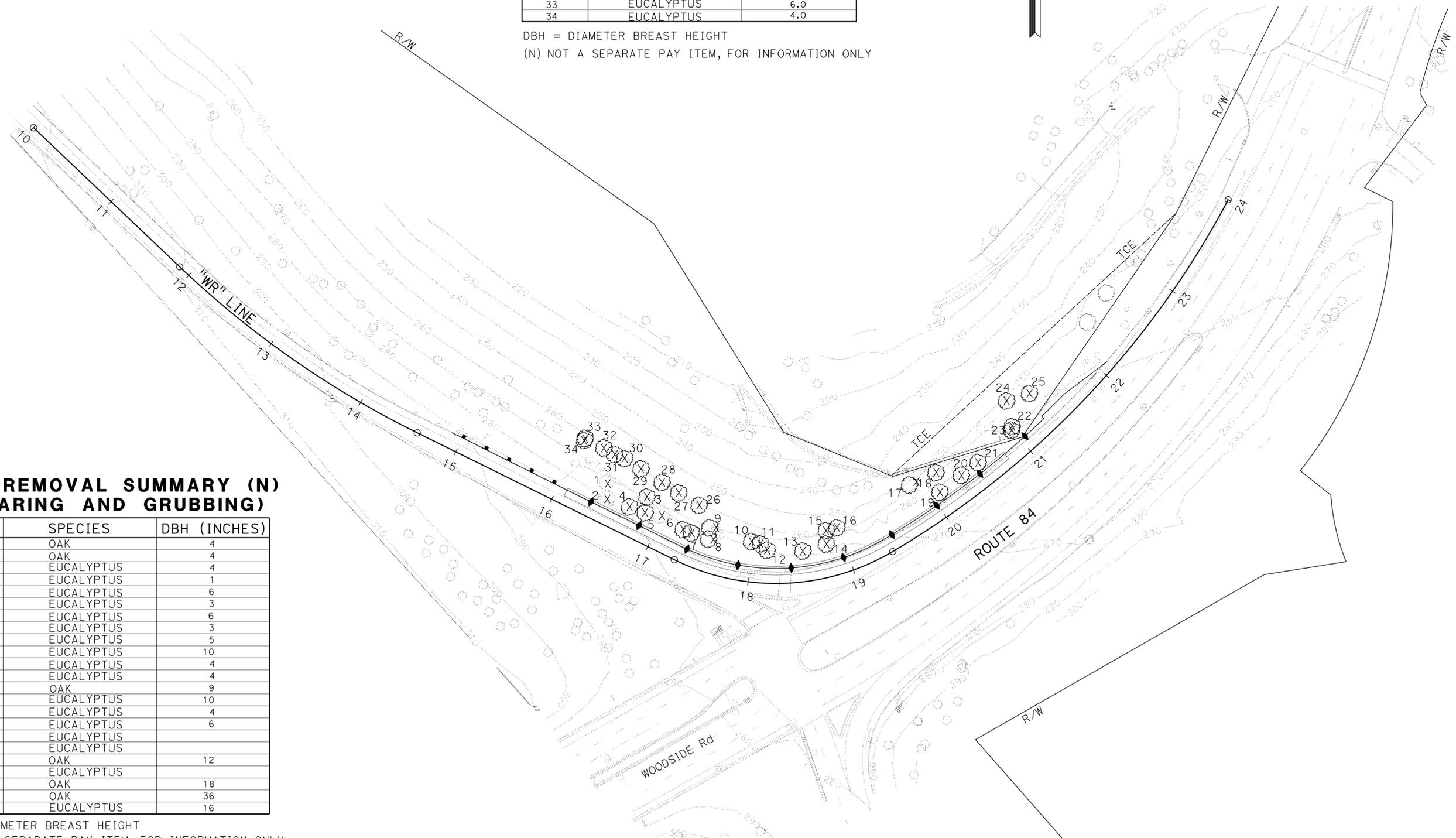
No.	SPECIES	DBH (INCHES)
24	EUCALYPTUS	5.0
25	EUCALYPTUS	4.0
26	EUCALYPTUS	3.0
27	EUCALYPTUS	4.0
28	EUCALYPTUS	5.0
29	EUCALYPTUS	8.0
30	EUCALYPTUS	8.0
31	EUCALYPTUS	6.0
32	EUCALYPTUS	4.0
33	EUCALYPTUS	6.0
34	EUCALYPTUS	4.0

DBH = DIAMETER BREST HEIGHT
 (N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	32	100


 LICENSED LANDSCAPE ARCHITECT
 6-1-15
 PLANS APPROVAL DATE

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



**TREE REMOVAL SUMMARY (N)
 (CLEARING AND GRUBBING)**

No.	SPECIES	DBH (INCHES)
1	OAK	4
2	OAK	4
3	EUCALYPTUS	4
4	EUCALYPTUS	1
5	EUCALYPTUS	6
6	EUCALYPTUS	3
7	EUCALYPTUS	6
8	EUCALYPTUS	3
9	EUCALYPTUS	5
10	EUCALYPTUS	10
11	EUCALYPTUS	4
12	EUCALYPTUS	4
13	OAK	9
14	EUCALYPTUS	10
15	EUCALYPTUS	4
16	EUCALYPTUS	6
17	EUCALYPTUS	
18	EUCALYPTUS	
19	OAK	12
20	EUCALYPTUS	
21	OAK	18
22	OAK	36
23	EUCALYPTUS	16

DBH = DIAMETER BREST HEIGHT
 (N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

APPROVED FOR PLANT REMOVAL WORK ONLY

PLANT REMOVAL PLAN
 SCALE: 1" = 50'

PR-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	33	100

Don Batta
 LICENSED LANDSCAPE ARCHITECT

6-1-15
 PLANS APPROVAL DATE

04-30-17
 Renewal Date
 3-19-15
 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.

SPRINKLER SCHEDULE

SYMBOL	DESCRIPTION	SPRAY PATTERN	OPERATING PRESSURE (psi)	PRESSURE COMPENSATING	PLUS/MINUS 5% ②					SPRINKLER ASSEMBLY										REMARKS	
					DISCHARGE		RADIUS (ft)	WIDTH x LENGTH (ft)	FLOW SHUTOFF DEVICE	TYPE	RISER			POP-UP			TREE WELL				
					GALLONS PER MINUTE (GPM)	GALLONS PER HOUR (GPH)					MATERIAL	SIZE (IPS INCH)	HEIGHT (INCH)	SWING JOINT (TYPE)	TYPE	SIZE (IPS INCH)		INLET CONNECTION (NPT INCH)	SPRINKLER PROTECTOR (TYPE)		HEIGHT (INCH)
○	BUBBLER	-	30	X	.25	-	-	-	V	X	-	1/2"	-	-	-	-	-	-	-	CONTINUOUS FLUSHING ⑥	

APPLICABLE WHEN CIRCLED BELOW:

- 1 - SEE SPECIAL PROVISIONS.
- ② - IF A PRESSURE COMPENSATING DEVICE IS SPECIFIED, THE DISCHARGE AND RADII SHOWN REFLECT ITS USE.
- 3 - VINYL-COATED CAST IRON HOUSING.
- 4 - SWING JOINTS REQUIRED ADJACENT TO SHOULDERS, CURBS, SIDEWALKS, AND DIKES.
- 5 - UNLESS OTHERWISE SHOWN ON PLANS.
- ⑥ - SEE NOTE

ABBREVIATION:

X IN BOX DENOTES REQUIREMENT

NOTE:

1. INSTALL RISER ASSEMBLY (TYPE V) SPRINKLERS WITH EMITTERS ON UPHILL SIDE OF PLANT BASINS.

IRRIGATION SPRINKLER SCHEDULE ISS-1



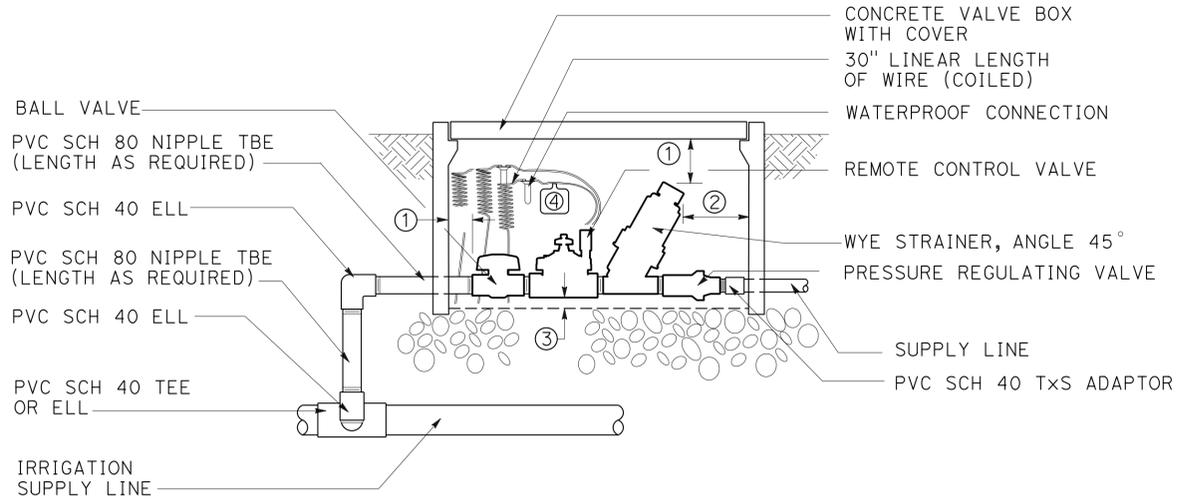
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	35	100

Scott Bottari
 LICENSED LANDSCAPE ARCHITECT
 6-1-15
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
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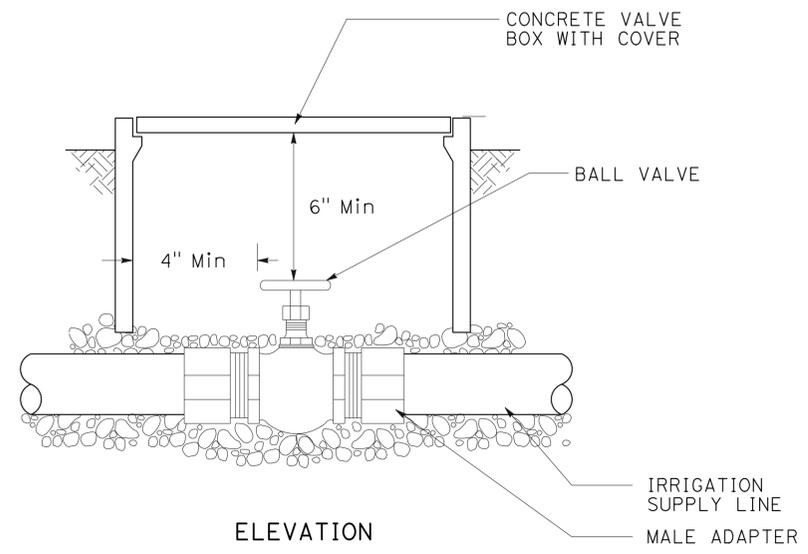
LICENSED LANDSCAPE ARCHITECT
Scott Bottari
 04-30-17
 Renewal Date
 3-19-15
 Date
 STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - LANDSCAPE ARCHITECTURE
 SCOTT BOTTARI
 SENIOR LANDSCAPE ARCHITECT
 KIMBERLY WHITE
 REVISOR
 DATE
 3/19/15
 SB

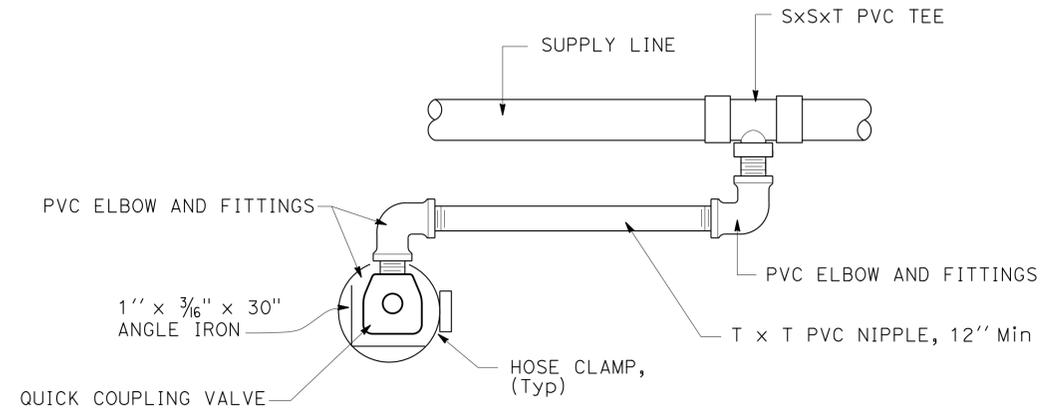


**ELEVATION
DRIP VALVE ASSEMBLY**

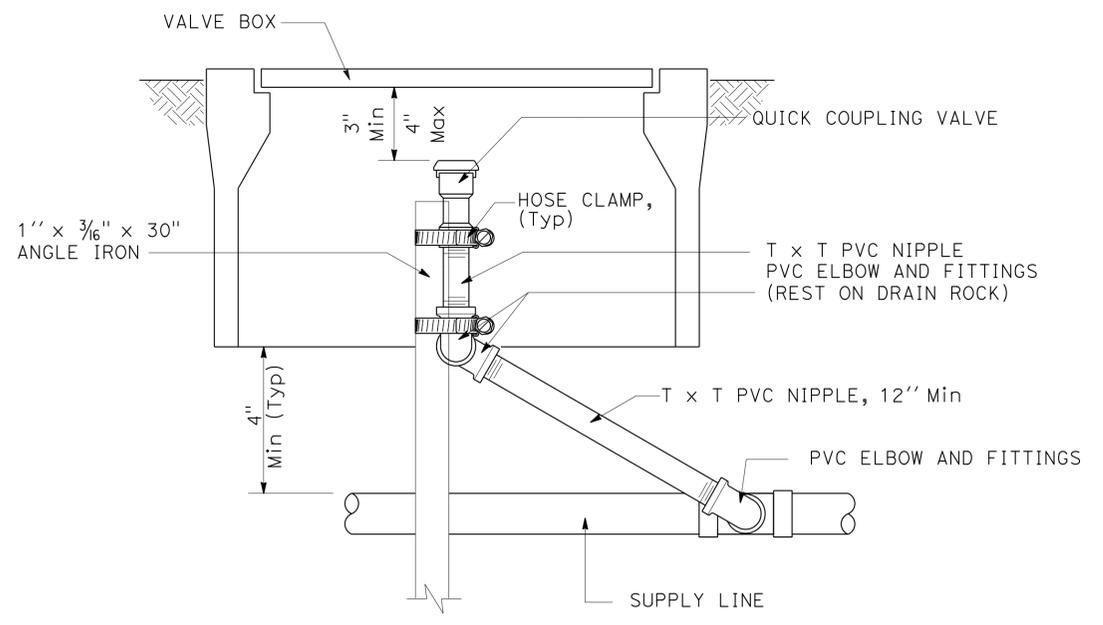
- NOTE:
- 2" TO 4" MINIMUM CLEARANCE ON ALL SIDES.
 - 6" MINIMUM CLEARANCE.
 - 2" CLEARANCE.
 - VALVE ID TAG (MATCH No. ON PLANS) OR RECYCLED WATER WARNING TAG (AS SPECIFIED).
 - BALL VALVE, WYE STRAINER AND PRESSURE REGULATOR MUST BE THE SAME SIZE AS THE REMOTE CONTROL VALVE, UNLESS OTHERWISE NOTED.



**ELEVATION
BALL VALVE**



PLAN



**ELEVATION
QUICK COUPLING VALVE
IN THE VALVE BOX**

IRRIGATION DETAILS
NO SCALE
ID-1

PLANTING LEGEND

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (INCH)		BASIN TYPE	SOIL AMENDMENT ①		IRON SULFATE ①	COMMERCIAL FERTILIZER ①		BASIN MULCH ②		STAKING	PLANTING LIMITS						REMARKS	
							Dia	DEPTH		TYPE	RATE		RATE	PLANTING	PLT ESTB	TYPE		CY	MINIMUM DISTANCE (ft) FROM			ON CENTER (ft)			
																			ETW	Pvmt	FENCE		WALL		PAVED DITCH
B	1		<u>AESCULUS CALIFORNICA</u>	CALIFORNIA BUCKEYE	No. 5	5	36	24	II	C	1.5 CF	--	8 OZ	4 OZ	TT	0.06	④	30	--	20	20	10	10	⑦	TREE ⑨
	2		<u>QUERCUS AGRIFOLIA</u>	COAST LIVE OAK	No. 5	14	36	24	II	C	1.5 CF	--	8 OZ	4 OZ	TT	0.06	④	30	--	20	20	10	10	⑦ ⑬	TREE ⑨ ⑬
I	3		<u>HETEROMELES ARBUTIFOLIA</u>	TOYON	No. 1	20	18	18	II	C	0.5 CF	--	3 OZ	2 OZ	TT	0.06	--	20	--	10	10	8	8	⑦	SHRUB

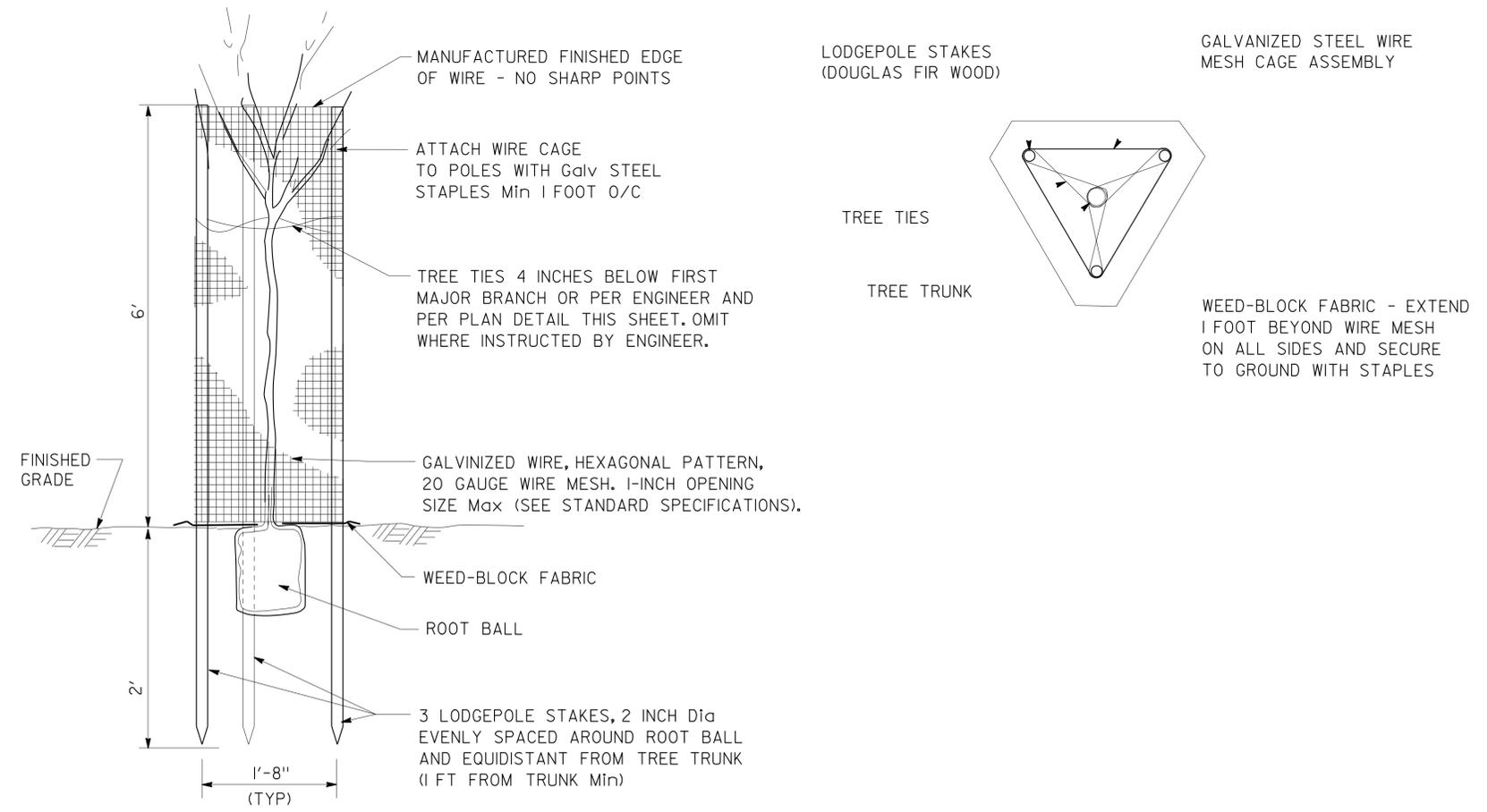
APPLICABLE WHEN CIRCLED:

- ① - QUANTITIES SHOWN ARE "PER PLANT" UNLESS SHOWN AS SQFT OR SQYD APPLICATION RATES
- ② - BASIN MULCH IN MULCH AREAS IS INCLUDED WITH MULCH QUANTITIES SHOWN ON PLANTING PLAN
- 3 - SUFFICIENT TO RECEIVE ROOT BALL AND AMENDMENTS IF REQUIRED
- ④ - SEE DETAIL
- 5 - SEE SPECIAL PROVISIONS
- 6 - SEE STANDARD SPECIFICATIONS
- ⑦ - AS SHOWN ON PLANS
- 8 - UNLESS OTHERWISE SHOWN ON PLANS
- ⑨ - FOLIAGE PROTECTOR REQUIRED
- 10 - ROOT PROTECTOR REQUIRED
- 11 - 4" POT
- 12 - 4" SQUARE, 10" DEEP
- ⑬ - 30' MINIMUM HORIZONTAL DISTANCE, BETWEEN NEW TREES AND OVERHEAD PG&E UTILITY LINE (SEE PLANTING AND UTILITY PLANS).

- C - COMPOST
- N - NITROLIZED FIR BARK
- V - VERMICULITE
- P - PERLITE
- TB - TREE BARK
- WC - WOOD CHIP
- SB - SHREDDED BARK
- TT - TREE TRIMMING

UNDERLINED PORTIONS OF BOTANICAL NAME INDICATE ABBREVIATIONS USED ON PLANTING PLANS.

 - EXISTING LARGE OAK TREES. PROTECT & PRESERVE WITH TFESA (SEE C-SHEETS).



FOLIAGE PROTECTOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - LANDSCAPE ARCHITECTURE
 SCOTT BOTTARI
 KIMBERLY WHITE
 KIMBERLY WHITE
 SB
 3/19/15
 REVISOR BY DATE
 CALCULATED/DESIGNED BY
 CHECKED BY
 SENIOR LANDSCAPE ARCHITECT
 KIMBERLY WHITE
 DEPARTMENT OF TRANSPORTATION - LANDSCAPE ARCHITECTURE
 KIMBERLY WHITE
 SB
 3/19/15

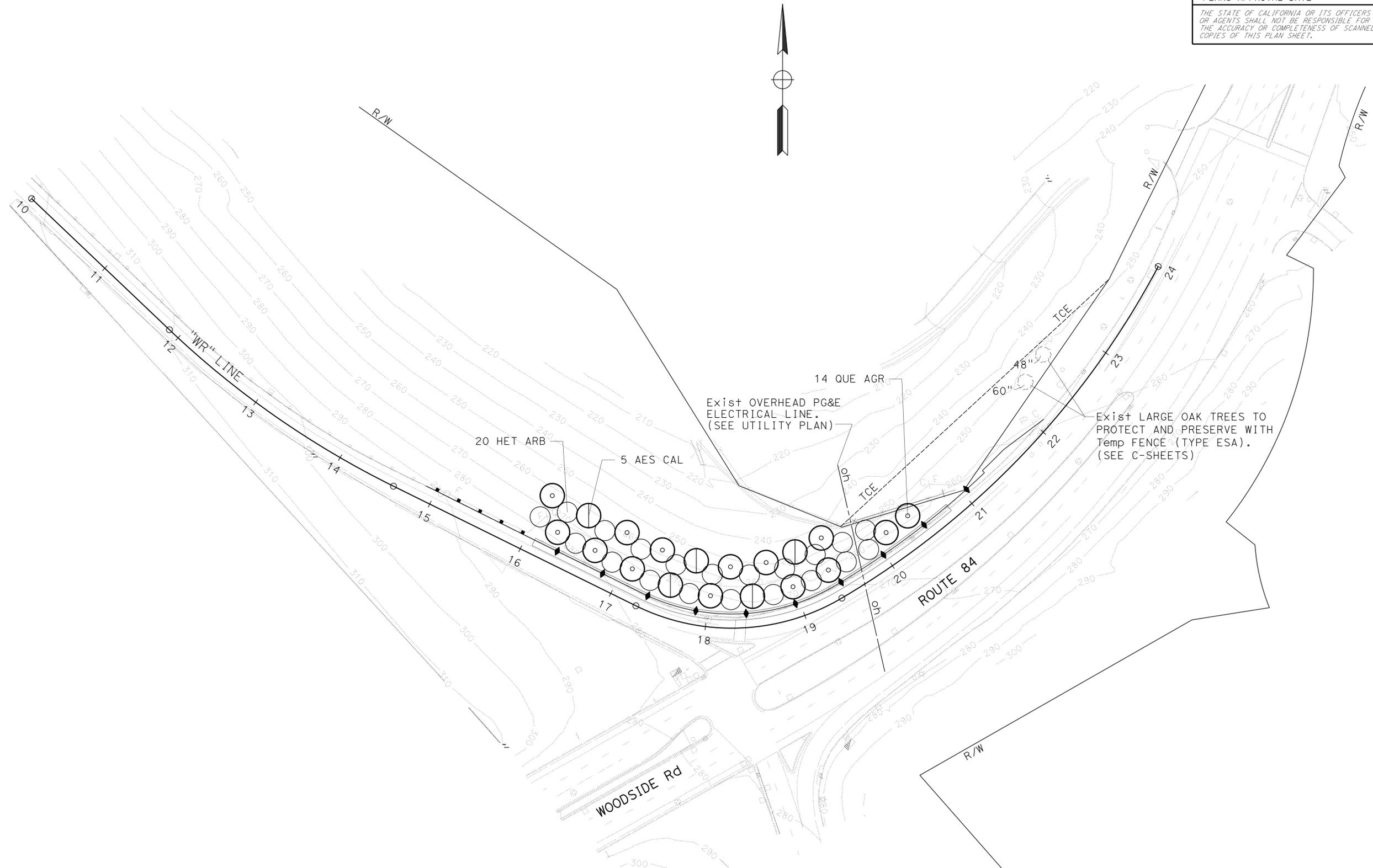
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE

CALCULATED-DESIGNED BY	SCOTT BOTTARI	REVISOR	SB
CHECKED BY	KIMBERLY WHITE	DATE	3/19/15
SENIOR LANDSCAPE ARCHITECT	KIMBERLY WHITE		

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	38	100

Scott Bottari
 LICENSED LANDSCAPE ARCHITECT
 6-1-15
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



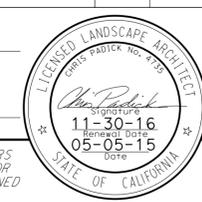
PLANTING PLAN
 SCALE: 1" = 50'

PP-1

APPROVED FOR PLANTING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans WATER QUALITY
 SENIOR LANDSCAPE ARCHITECT DAVID YAM
 CALCULATED/DESIGNED BY CHECKED BY
 CHRIS PADICK ALEX McDONALD
 REVISED BY DATE REVISED
 CP 5/5/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	39	100


 LICENSED LANDSCAPE ARCHITECT
 6-1-15
 PLANS APPROVAL DATE

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

EROSION CONTROL TYPE 1

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	DEPTH
		DESCRIPTION	TYPE		
STEP 1	COMPOST	COMPOST	MEDIUM	260 CY/ACRE	
STEP 2	INCORPORATE MATERIALS	COMPOST			6"
STEP 3	HYDROSEED	SEED	MIX 1	64 LB/ACRE	
		FIBER	WOOD	2000 LB/ACRE	
STEP 4	HYDROMULCH	FIBER	WOOD	2000 LB/ACRE	
		TACKIFIER	PSYLLIUM	200 LB/ACRE	

FIBER ROLLS

SEQUENCE	ITEM	MATERIAL		REMARKS
		DESCRIPTION	TYPE	
	FIBER ROLLS MUST BE INSTALLED AFTER COMPOST AND BEFORE HYDROSEEDING	FIBER ROLLS	FIBER ROLL	TYPE 2 FIBER ROLL INSTALLATION
			TYPE B 8" TO 10" Dia	

SEED MIX TYPE 1

SEED	BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
MIX 1	ACHILLEA MILLEFOLIUM ¹ (WESTERN YARROW)	56	7
	BROMUS CARINATUS ¹ (CALIFORNIA BROME)	75	9
	ELYMUS GLAUCUS, BERKELEY ¹ (BLUE WILD RYE, BERKELEY)	56	10
	HORDEUM BRACHYANTHERUM ¹ (MEADOW BARLEY)	53	10
	NASSELLA CERNUA (NODDING NEEDLEGRASS)	46	8
	NASSELLA PULCHRA (PURPLE NEEDLEGRASS)	53	10
	TRIFOLIUM WILDENOVII (TOMCAT CLOVER)	53	5
	VULPIA MICROSTACHYS (SMALL FESCUE)	53	5
TOTALS			64

¹ SEED PRODUCED IN CALIFORNIA ONLY.

EROSION CONTROL LEGEND ECL-1

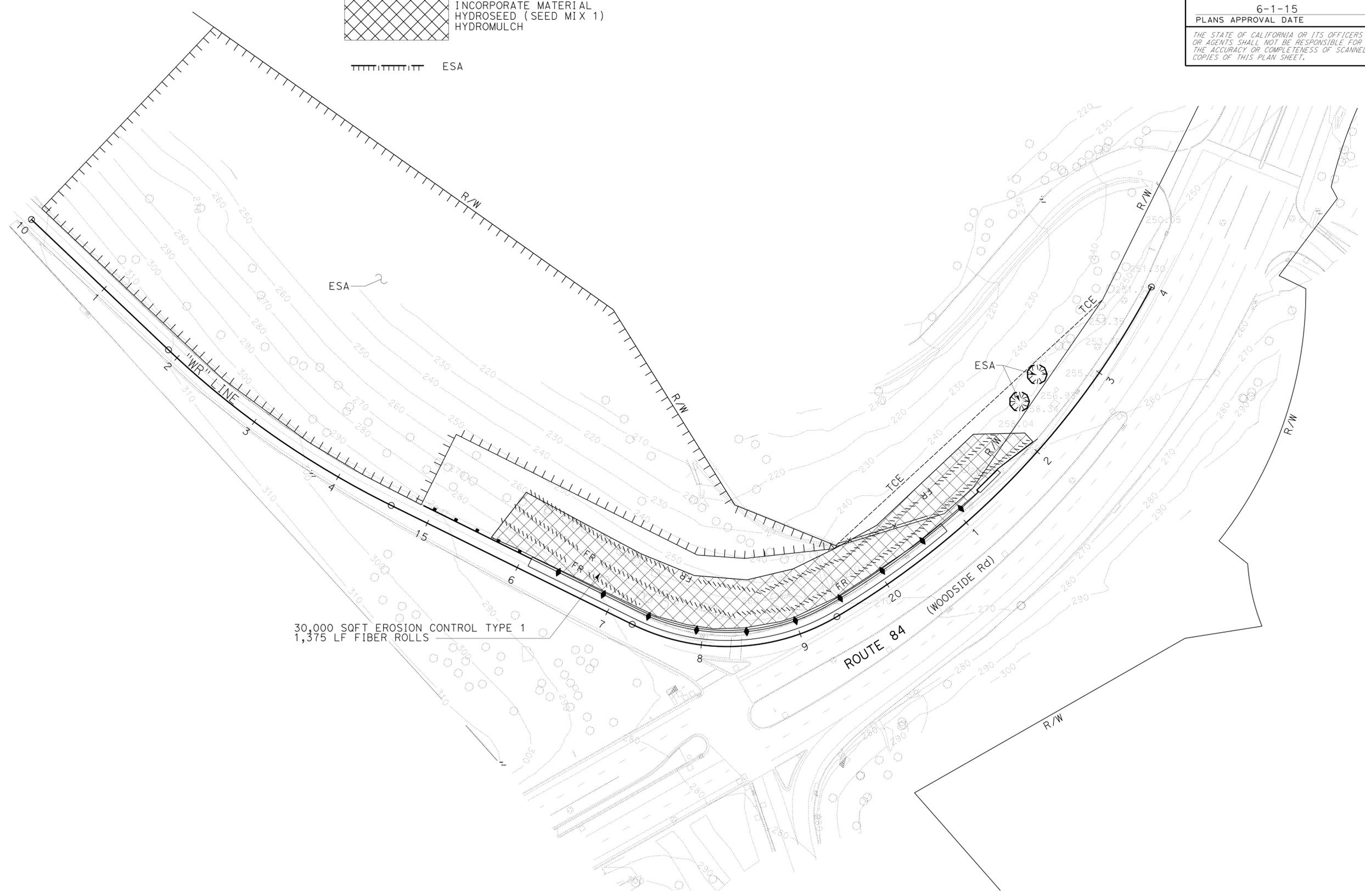
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans WATER QUALITY
 SENIOR LANDSCAPE ARCHITECT DAVID YAM
 CHECKED BY
 DESIGNED BY CHRIS PADICK
 ALEX McDONALD
 REVISIONS: CP 5/5/15
 DATE REVISED

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

LEGEND:
 EROSION CONTROL TYPE 1
 COMPOST INCORPORATE MATERIAL HYDROSEED (SEED MIX 1) HYDROMULCH
 ESA

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	40	100

Chris Padick
 LICENSED LANDSCAPE ARCHITECT
 6-1-15
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	41	100

Chris Padick
 LICENSED LANDSCAPE ARCHITECT

6-1-15
 PLANS APPROVAL DATE

11-30-16
 05-05-15

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans WATER QUALITY

SENIOR LANDSCAPE ARCHITECT
 DAVID YAM

CALCULATED/DESIGNED BY
 CHECKED BY

CHRIS PADICK
 ALEX McDONALD

REVISED BY
 DATE REVISED

CP
 5/5/15

EROSION CONTROL QUANTITIES

SHEET No.	STATION	HYDROSEED	HYDROMULCH	COMPOST	INCORPORATE MATERIAL	FIBER ROLL
		SQFT				LF
EC-1	"WR" 15+80 TO 22+20	30,000	30,000	30,000	30,000	1,375
	TOTAL	30,000	30,000	30,000	30,000	1,375

**EROSION CONTROL QUANTITIES
 ECQ-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 ELECTRICAL

FUNCTIONAL SUPERVISOR: BEHZAD GOLEIMHAMMADI
 CALCULATED/DESIGNED BY: MICHELLE CHAN
 CHECKED BY: KENNETH XU
 REVISIONS: MC 1/23/15

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

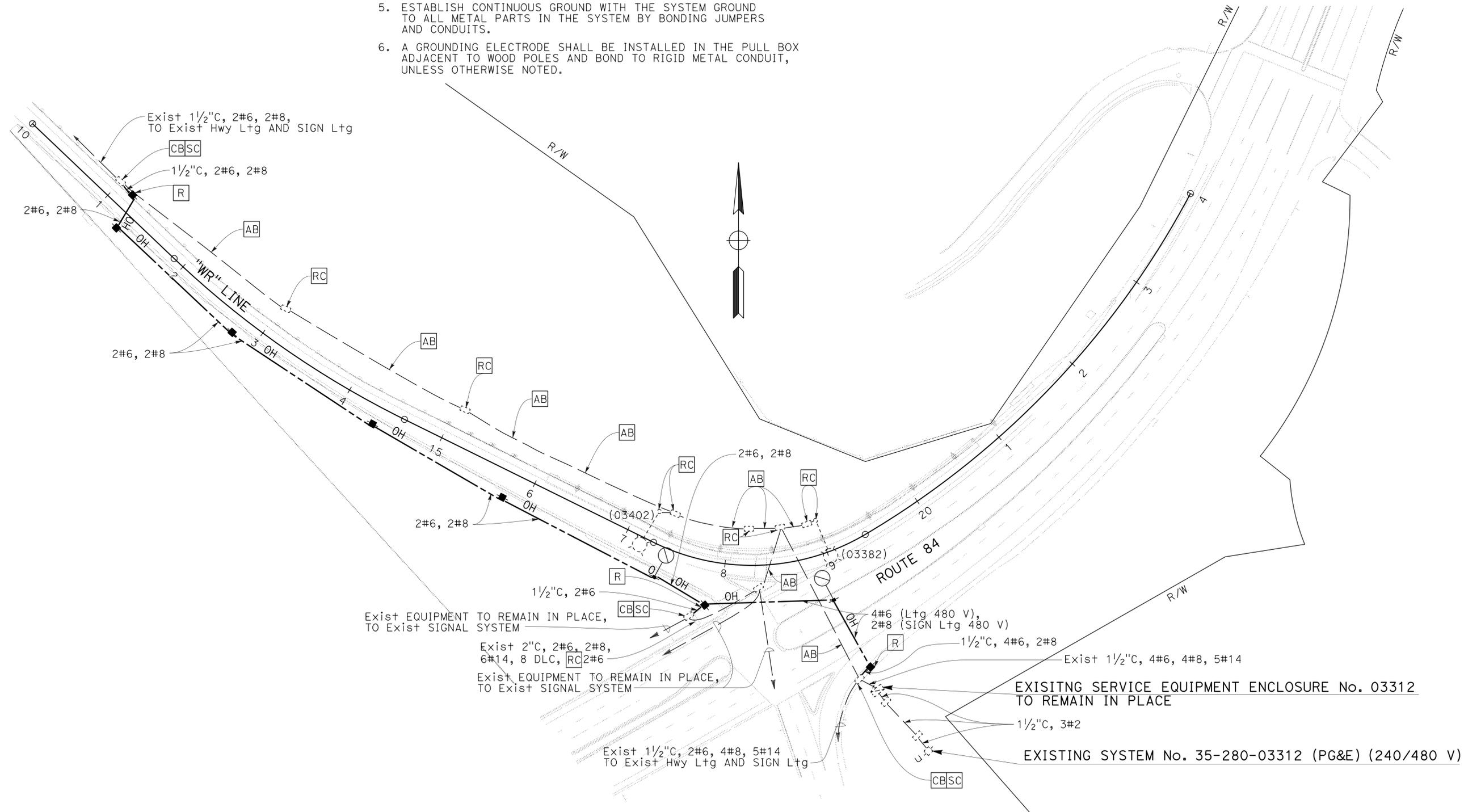
- NOTES: (FOR THIS SHEET ONLY)**
1. THE LOWEST SAG POINT OF THE MESSENGER WIRE SHALL BE 25' MINIMUM CLEARANCE FROM FINISHED GRADE/ROADWAY.
 2. OVERHEAD CONDUCTORS SHALL BE TIED ON MESSENGER WIRE AT EVERY 3' MAXIMUM WITH SELF-CLINGING NYLON TIES.
 3. OVERHEAD ENTRANCE CONDUIT FITTING SHALL BE INSTALLED IN SUCH A WAY SO THAT RAINWATER SHALL NOT SEEP INTO THE ELECTRICAL EQUIPMENT THROUGH THE ENTRANCE FITTING. FORM A DRIP LOOP AT THE ENTRANCE FITTING.
 4. PROVIDE GUY WIRE, GUY GUARDS AND ANCHOR AS REQUIRED. POLE GUY SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
 5. ESTABLISH CONTINUOUS GROUND WITH THE SYSTEM GROUND TO ALL METAL PARTS IN THE SYSTEM BY BONDING JUMPERS AND CONDUITS.
 6. A GROUNDING ELECTRODE SHALL BE INSTALLED IN THE PULL BOX ADJACENT TO WOOD POLES AND BOND TO RIGID METAL CONDUIT, UNLESS OTHERWISE NOTED.

LEGEND

NEW Exist
 ■ □
 □ TEMPORARY WOOD POLE, SEE SES SHEETS FOR DETAILS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	42	100

Kenneth Y. Xu 1/23/15
 REGISTERED ELECTRICAL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



LIGHTING (TEMPORARY)
 SCALE: 1" = 50'

APPROVED FOR ELECTRICAL WORK ONLY

E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 ELECTRICAL

FUNCTIONAL SUPERVISOR: BEHZAD GOLEIMHAMMADI
 CHECKED BY: MICHELLE CHAN
 REVISIONS: MC 1/23/15
 DESIGNED BY: KENNETH XU
 DATE REVISED: 1/23/15

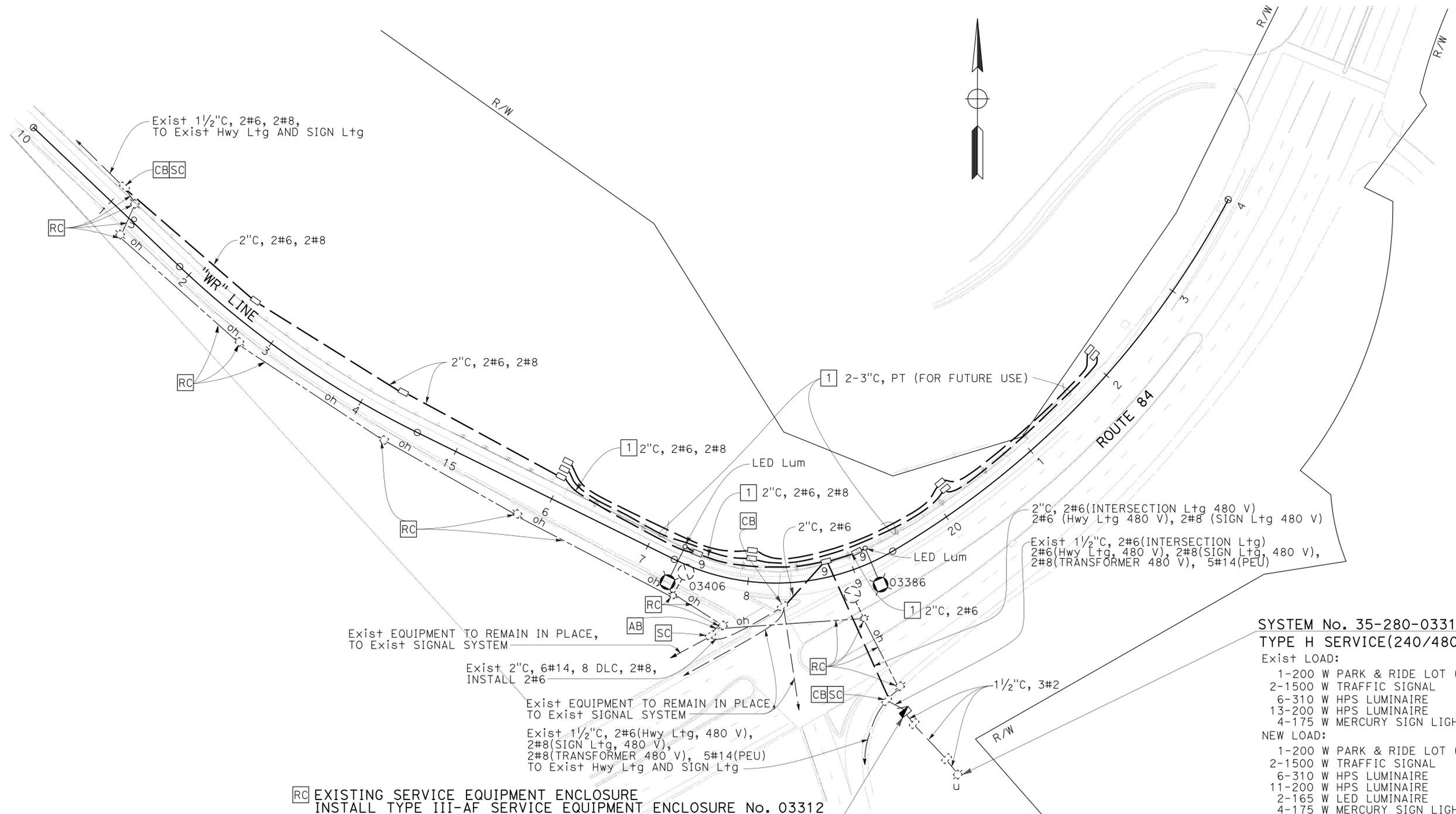
NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

NOTE: (FOR THIS SHEET ONLY)
 1 INSTALL CONDUIT INSIDE THE CONCRETE BARRIER,
 SEE STRUCTURE PLAN FOR DETAILS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	43	100

REGISTERED ELECTRICAL ENGINEER: Kenneth Y. Xu
 DATE: 1/23/15
 PLANS APPROVAL DATE: 6-1-15
 No. 15219
 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.



EXISTING SERVICE EQUIPMENT ENCLOSURE
 INSTALL TYPE III-AF SERVICE EQUIPMENT ENCLOSURE No. 03312

C+id 04352800003312, TOU

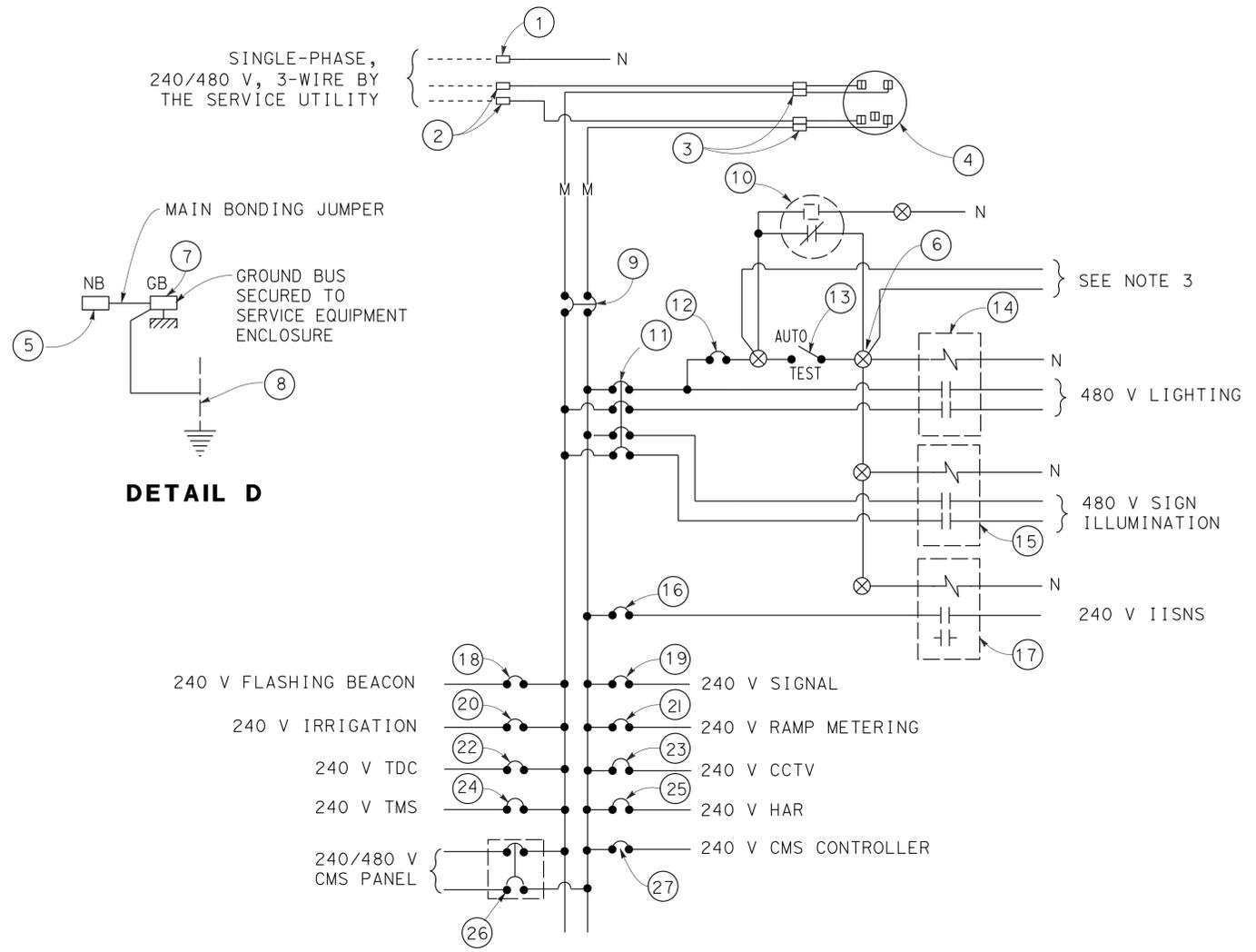
PROVIDE EQUIPMENT ITEM Nos. ① TO ⑮, ⑰, MARK AS "INTERSECTION Ltg", ⑰, ⑲, ⑳ MARK AS "TRANSFORMER", PER SERVICE WIRING DIAGRAM ON Sht E-3, DOOR SHALL FACE NORTH.

SYSTEM No. 35-280-03312 (PG&E)
 TYPE H SERVICE(240/480 V)
 Exist LOAD:
 1-200 W PARK & RIDE LOT (TIMER)
 2-1500 W TRAFFIC SIGNAL
 6-310 W HPS LUMINAIRE
 13-200 W HPS LUMINAIRE
 4-175 W MERCURY SIGN LIGHTING
 NEW LOAD:
 1-200 W PARK & RIDE LOT (TIMER)
 2-1500 W TRAFFIC SIGNAL
 6-310 W HPS LUMINAIRE
 11-200 W HPS LUMINAIRE
 2-165 W LED LUMINAIRE
 4-175 W MERCURY SIGN LIGHTING

MODIFY LIGHTING
 SCALE: 1" = 50'

APPROVED FOR ELECTRICAL WORK ONLY

- NOTES:**
- VOLTAGE RATINGS OF SERVICE EQUIPMENT SHALL CONFORM TO THE SERVICE VOLTAGES INDICATED ON THE PLANS.
 - UNLESS OTHERWISE INDICATED ON THE PLANS, SERVICE EQUIPMENT ITEMS SHALL BE PROVIDED FOR EACH SERVICE EQUIPMENT ENCLOSURE AS SHOWN.
 - CONNECT TO REMOTE TEST SWITCH MOUNTED ON SIGN POST OR STRUCTURE WHEN REQUIRED.
 - ITEM Nos. ① AND ⑤ SHALL BE ISOLATED FROM THE CABINET.
 - METER SOCKETS SHALL MEET SERVICE UTILITY REQUIREMENTS.
 - THE LANDING LUG SHALL BE SUITABLE FOR MULTIPLE CONDUCTORS.
 - PHOTOELECTRIC CONTROL SHALL BE TYPE II.
 - SERVICE UTILITY WILL INSTALL THE TIME-OF-USE METER IF APPLICABLE.
 - UNLESS OTHERWISE NOTED, THE MAXIMUM NUMBER OF SINGLE-POLE CIRCUIT BREAKER SPACES IN THE ENCLOSURE IS FOURTEEN.
 - SEE STANDARD PLAN ES-2D FOR OTHER DETAILS.



**240/480 V SERVICE WIRING DIAGRAM (TYPICAL)
DETAIL C**

TYPE III-A SERVICE EQUIPMENT ENCLOSURE LEGEND (240/480 V)

ITEM No.	COMPONENT	NAMEPLATE DESCRIPTION	ITEM No.	COMPONENT	NAMEPLATE DESCRIPTION
①	NEUTRAL LUG		⑮	30 A, 2P, NO CONTACTOR	
②	LANDING LUG		⑯	15 A, 240 V, 1P, CB	IISNS
③	TEST BYPASS FACILITY		⑰	30 A, 2P, NO CONTACTOR	
④	METER SOCKET AND SUPPORT		⑱	15 A, 240 V, 1P, CB	FLASHING BEACON
⑤	NEUTRAL BUS		⑲	50 A, 240 V, 1P, CB	SIGNALS
⑥	TERMINAL BLOCK		⑳	20 A, 240 V, 1P, CB	IRRIGATION
⑦	GROUND BUS		㉑	30 A, 240 V, 1P, CB	RAMP METERING
⑧	GROUNDING ELECTRODE		㉒	20 A, 240 V, 1P, CB	TELEPHONE DEMARCATION CABINET
⑨	100 A, 480 V, 2P, CB	MAIN BREAKER	㉓	30 A, 240 V, 1P, CB	CCTV
⑩	PHOTOELECTRIC UNIT (NOTE 7)		㉔	30 A, 240 V, 1P, CB	TMS
⑪	30 A, 480 V, 4P, CB	LIGHTING AND SIGN ILLUMINATION	㉕	30 A, 240 V, 1P, CB	HAR
⑫	15 A, 240 V, 1P, CB	LIGHTING AND SIGN ILLUMINATION CONTROL	㉖	30 A, 480 V, 2P, CB	CMS PANEL
⑬	15 A, 240 V, 1P, TEST SWITCH	TEST SWITCH	㉗	30 A, 240 V, 1P, CB	CMS CONTROLLER
⑭	60 A, 2P, NO CONTACTOR				

**ELECTRICAL DETAILS
(SERVICE EQUIPMENT ENCLOSURE
AND TYPICAL WIRING DIAGRAM,
TYPE III-A SERIES)
NO SCALE**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 ELECTRICAL
 FUNCTIONAL SUPERVISOR: BEHZAD GOLEMOHAMMADI
 CHECKED BY: MICHELLE CHAN, KENNETH XU
 REVISIONS: 1/23/15
 MC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	45	100

Kenneth Y. Xu 1/23/15
 REGISTERED ELECTRICAL ENGINEER DATE

6-1-15
 PLANS APPROVAL DATE

Kenneth Y. Xu
 No. 15219
 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.

LIGHTING (TEMPORARY)

SHEET No.	CONDUIT (N)		CONDUCTOR (N)		CB	SC	TEMPORARY WOOD POLE (N)	TEMPORARY WOOD POLE WITH LUMINAIRE (N)
	1 1/2"		#6	#8				
	LF		EA					
E-1	20		2400	1900	3	3	7	2

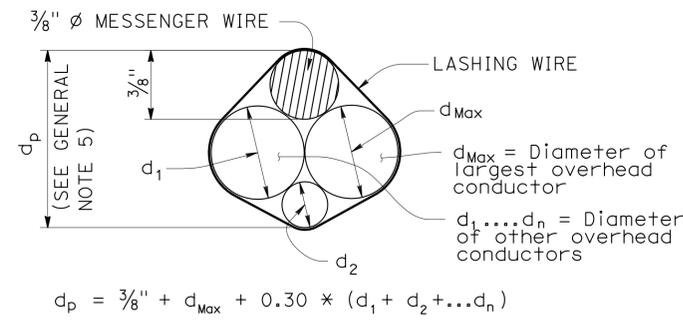
(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

MODIFY LIGHTING

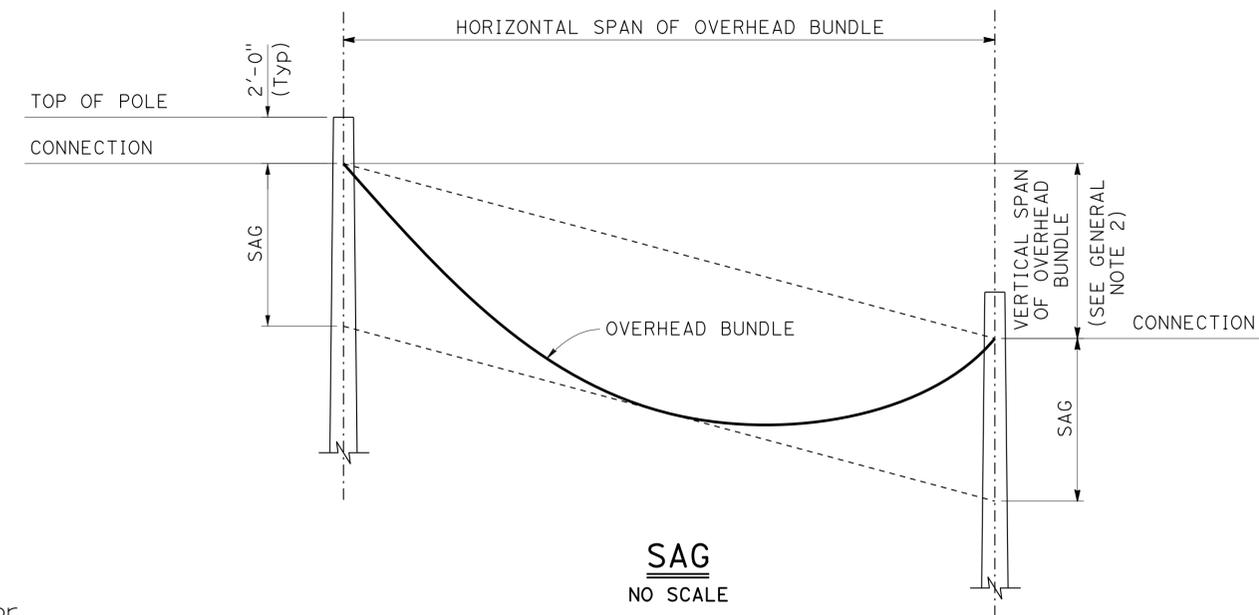
SHEET No.	CONDUIT (N)		CONDUCTOR (N)		CB	SC	PULL BOX (N)		TYPE 21 STANDARD (N)
	2"	3"	#6	#8			#5	#9	
	LF		EA						
E-2	1100	1200	2400	1900	3	3	11	3	2

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

ELECTRICAL QUANTITIES



PROJECTED DEPTH OF OVERHEAD BUNDLE, (d_p)



Design: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Fifth Edition (LTS-5).

GROUP LOAD COMBINATIONS:

- I Dead Load
- II Dead Load + Wind Load
- III Dead Load + 0.5 (Wind Load) + Ice Load
- IV Fatigue: Not used

LOADING:

Wind Loading: 100 mph (3-second gust)
 Wind Recurrence Interval: 10 years
 Combined height, exposure, and elevated terrain factor = 1.05
 (Exposure C, structure is not located on or over the top half of a ridge, hill, or escarpment)

Ice Loading: 3.0 psf on surfaces, 0.60 in radial thickness of ice at a unit weight of 60 pcf on overhead bundles

BASIC DESIGN VALUES:

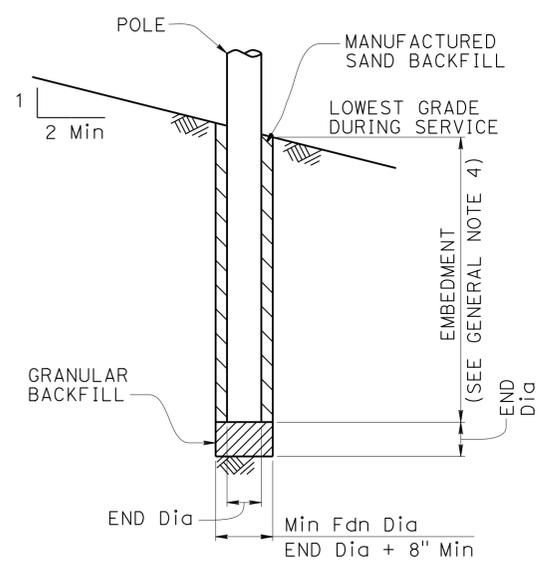
Timber Poles: $F_b = 1850$ psi
 $F_v = 110$ psi
 $F_{cp} = 230$ psi
 $F_c = 950$ psi
 $E = 1500 \times 10^3$ psi

DESIGN WIRE BREAKING STRENGTHS:

ASTM A475, Utilities Grade, 7 strand modified by termination efficiency factor of 0.8

FOUNDATION DESIGN NOTES:

- Pole embedment depth design is based on Broms' approximate procedure as described in Article 13.6 of AASHTO LTS-5.
- Embedment depth is calculated based on following soil parameters:
 Cohesive Soil:
 Shear strength of soil $c = 1500$ psf.
 Cohesionless Soil:
 $\phi = 30$ deg, $\gamma = 120$ pcf.
 Soil assumed to be unsaturated.
- An overload factor of 2.0 and an undercapacity factor of 0.7 were used for safety factor of 2.86.
- Allowable vertical bearing pressure at the end bearing of poles is 3000 psf at 6 feet or more embedment.
- Guy wire anchor minimum allowable tension capacity, "Qa" = 8,900 lbs.



POLE FOUNDATION

GENERAL NOTES:

- The messenger wire and any combination of overhead conductors must not exceed either a self weight of 3.0 lb/ft or the maximum d in the pole selection tables.
- The maximum vertical span is 10% of the horizontal span.
- For poles with adjacent unbalanced horizontal spans, the shortest horizontal span must be at least 50% of the largest horizontal span.
- Add 2'-0" for slopes above 1V:4H.
- For a pole supporting multiple spans, calculate d_p for each span and use the largest value.
- Do not exceed the attachments shown.

DIAMETERS AND SELF WEIGHT OF OVERHEAD CONDUCTORS		
CONDUCTOR OR CABLE TYPE	DIAMETER d (in)	WEIGHT w (plf)
3 CONDUCTOR SIGNAL CABLE (3CSC)	0.400	0.0980
5 CONDUCTOR SIGNAL CABLE (5CSC)	0.500	0.1560
9 CONDUCTOR SIGNAL CABLE (9CSC)	0.650	0.2760
12 CONDUCTOR SIGNAL CABLE (12CSC)	0.800	0.3970
28 CONDUCTOR SIGNAL CABLE (28CSC)	0.900	0.6490
1-#14	0.166	0.0235
1-#12	0.185	0.0330
1-#10	0.210	0.0476
1-#8	0.271	0.0774
1-#6	0.310	0.1130
1-#4	0.359	0.1690
1-#3	0.388	0.2080
1-#2	0.420	0.2560
1-#1	0.498	0.3340
6-CONDUCTOR SIGNAL INTERCONNECT CABLE (SIC)	0.350	0.0860
12-CONDUCTOR SIGNAL INTERCONNECT CABLE (SIC)	0.500	0.1440
DETECTOR LEAD-IN CABLE (DLC)	0.310	0.0440
12 to 48-STRAND FIBER OPTIC CABLE (48FOC)	0.424	0.0600
72-STRAND FIBER OPTIC CABLE (72FOC)	0.484	0.0770
96-STRAND FIBER OPTIC CABLE (96FOC)	0.535	0.1050
144-STRAND FIBER OPTIC CABLE (144FOC)	0.670	0.1890
$\frac{3}{8}$ " ϕ MESSENGER WIRE	0.375	0.2730

NO SCALE

WOODSIDE II RETAINING WALL
TEMPORARY WOOD POLES
GENERAL NOTES

STANDARD DRAWING	
FILE NO. xs18-010	APPROVAL DATE July 2014

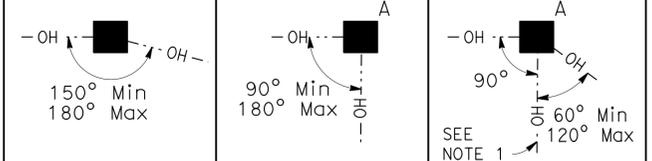
STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 35E0047
	POST MILE 21.6

POLE SELECTION TABLE

LEGEND

- Wood Pole No Attachments
- ^A Wood Pole with Attachments
- OH- Overhead Bundle

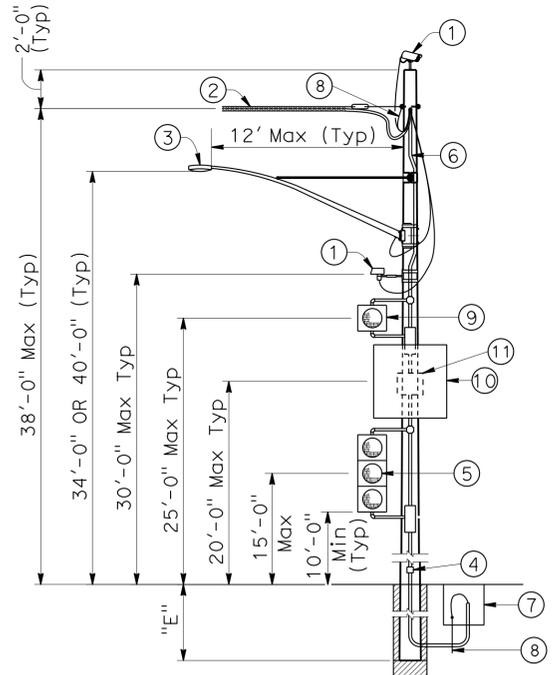
OVERHEAD BUNDLE HORIZONTAL SPAN (Max)	MAXIMUM d _p	CASE 1N				CASE 2N				CASE 3N				CASE 4N				CASE 5N
		1"	1.5"	2.0"	2.5"	1"	1.5"	2.0"	2.5"	1.0"	1.5"	2.0"	2.5"	1"	1.5"	2.0"	2.5"	
50'	MINIMUM POLE CLASS	H-1	H-2	H-2	H-2	4	3	2	1	H-2	H-2	H-3	H-3	H-4	H-4	H-4	H-5	CLASS 1 E = 10'
	POLE EMBEDMENT (E)	11'				10'				11'				12'				
100'	MINIMUM POLE CLASS	H-2	H-3	H-4	H-5	1	H-1	H-2	H-3	H-4	H-5	H-5	H-6	H-5	H-5	H-6		
	POLE EMBEDMENT (E)	12'				11'				12'				12'				
150'	MINIMUM POLE CLASS	H-4	H-5	H-6		H-1	H-2	H-3	H-5	H-6				H-6				
	POLE EMBEDMENT (E)	12'				12'				12'				12'				
200'	MINIMUM POLE CLASS	H-5	H-6			H-2	H-3	H-5										
	POLE EMBEDMENT (E)	12'				12'												



- ① CCTV camera assembly or vehicle detection system
- ② Overhead bundle consisting of a 3/8" ø messenger wire, overhead conductors, and lashing wire
- ③ Luminaire with mast arm
- ④ Pedestrian push button assembly or accessible push button assembly
- ⑤ Signal face with 3 indications or single sheet sign panel (10 SQFT Max)
- ⑥ Riser with weather head as required
- ⑦ Pull box as required
- ⑧ Grounding as required
- ⑨ Single flashing beacon or single sheet sign panel (4 SQFT Max)
- ⑩ Single sheet sign panel (4' x 4' Max) or signal face with 3 indications
- ⑪ Flashing beacon control assembly
- ⑫ NEMA 3R enclosure, 26"(W) x 56"(H) x 12"(D) Max dimensions. Max weight including batteries, 450 lbs
- ⑬ 25' SQFT Max total photovoltaic panels mounted as shown as required
- ⑭ 2-12" flashing beacons

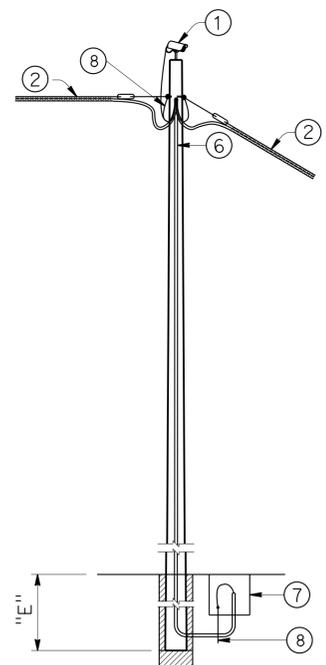
NOTES:

1. In addition to other restrictions on maximum horizontal span, this horizontal span must not exceed 100'.
2. Cases 1N, 3N and 4N may substitute the attachments shown in Case 5N if the photovoltaic panel is not included.
3. For Case 1N without an overhead bundle (item ②) use minimum pole class H-1 with E=11'.

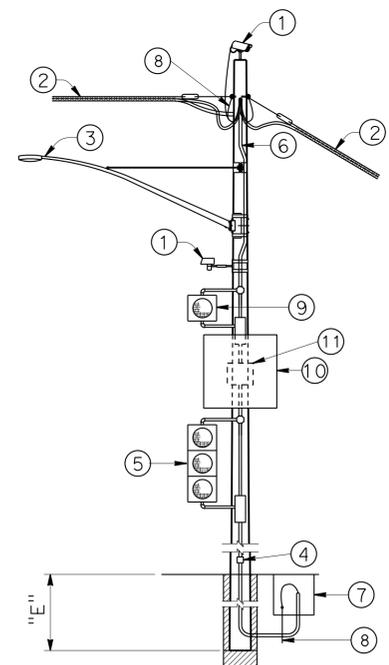


**CASE 1N
POLE AT DEAD END
WITH ATTACHMENTS**

SEE NOTE 2

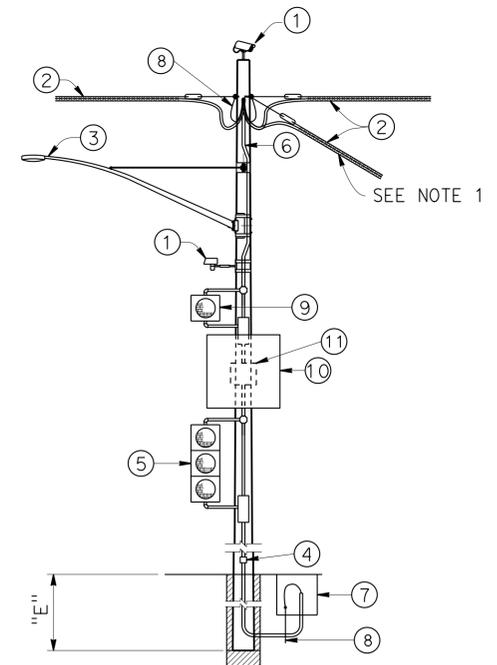


**CASE 2N
POLE AT TANGENT
WITHOUT ATTACHMENTS**



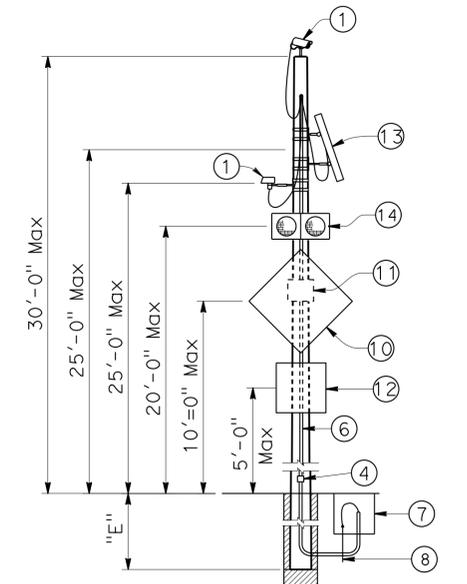
**CASE 3N
POLE AT TANGENT OR CORNER
WITH ATTACHMENTS**

SEE NOTE 2



**CASE 4N
POLE AT JUNCTION
WITH ATTACHMENTS**

SEE NOTE 2



**CASE 5N
POLE WITHOUT OVERHEAD BUNDLE
WITH ATTACHMENTS**

NO SCALE

STANDARD DRAWING

FILE NO. **xs18-020**

APPROVAL DATE July 2014

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

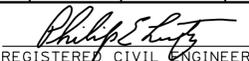
DIVISION OF ENGINEERING SERVICES

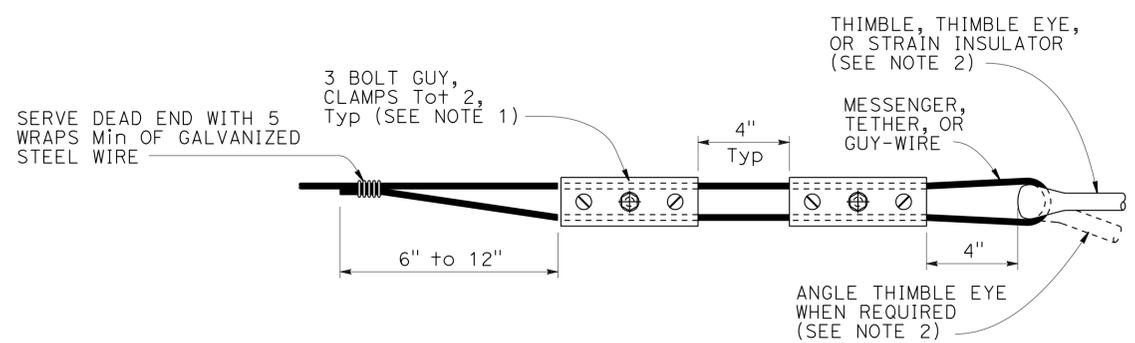
BRIDGE NO. 35E0047
POST MILE 21.6

WOODSIDE II RETAINING WALL

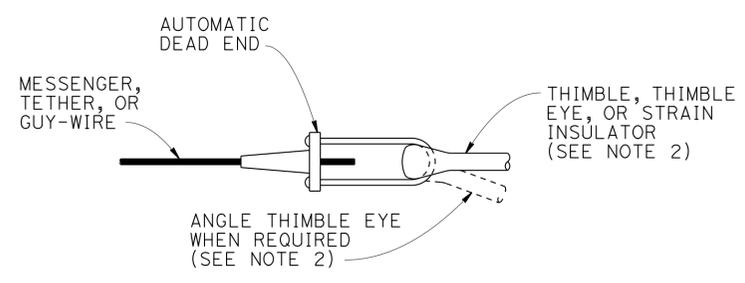
TEMPORARY WOOD POLES

NON-GUYED - NO SIGNALS ON SPANS

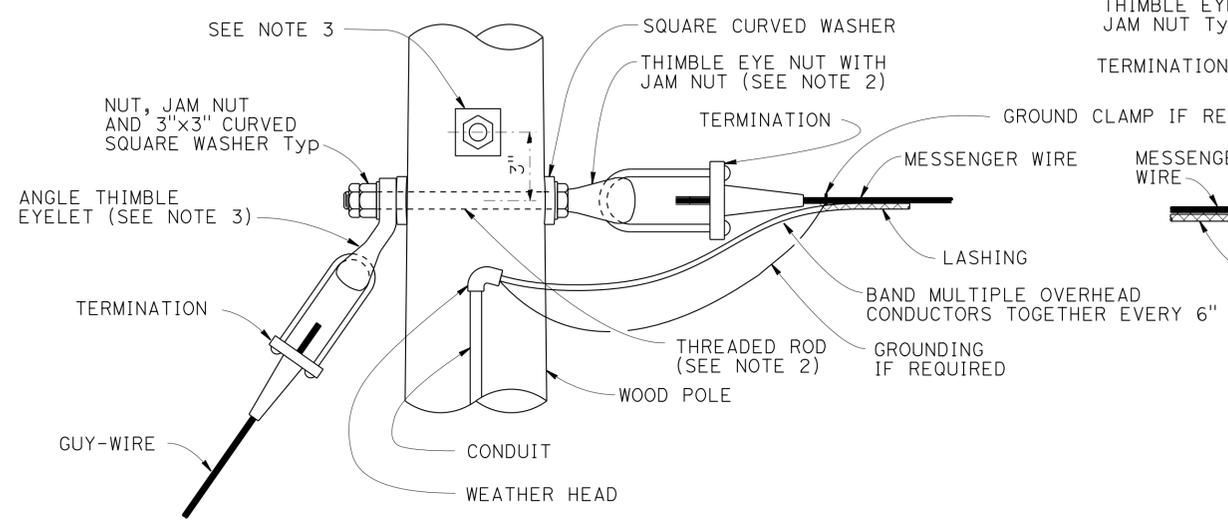
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	48	100
 REGISTERED CIVIL ENGINEER			9-26-14	DATE	
PLANS APPROVAL DATE 6-1-15					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					
					



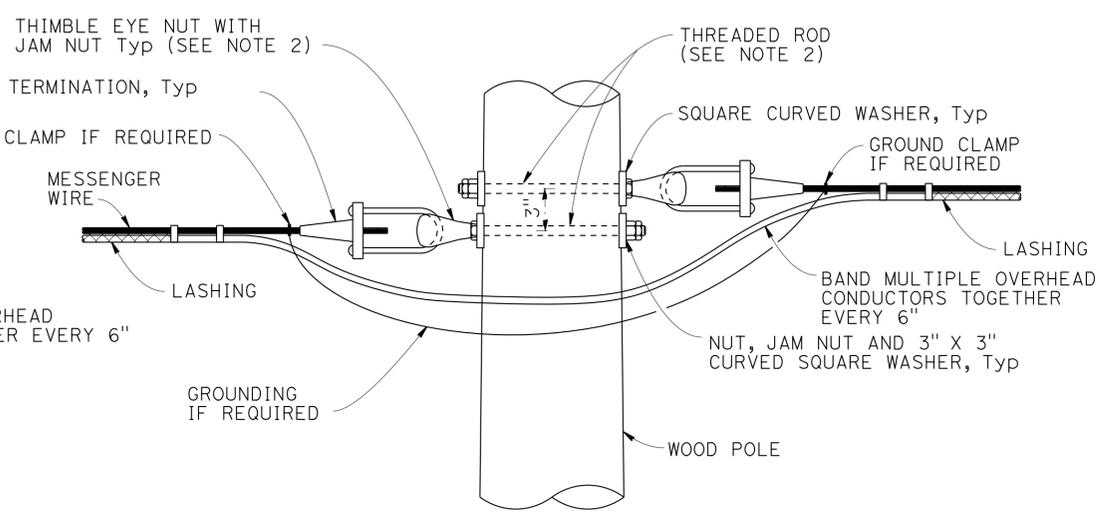
ALTERNATIVE TERMINATION OF MESSENGER WIRES USING GUY CLAMPS



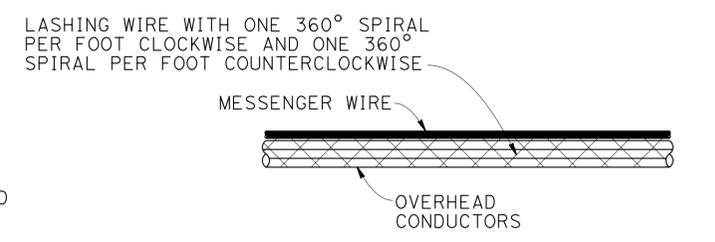
TERMINATION OF WIRES USING AUTOMATIC DEAD END



POLE AT DEAD END WITH GUY-WIRE CONNECTION

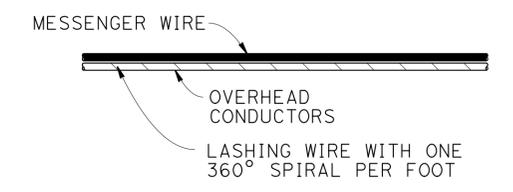


POLE AT TANGENT OR CORNER CONNECTION



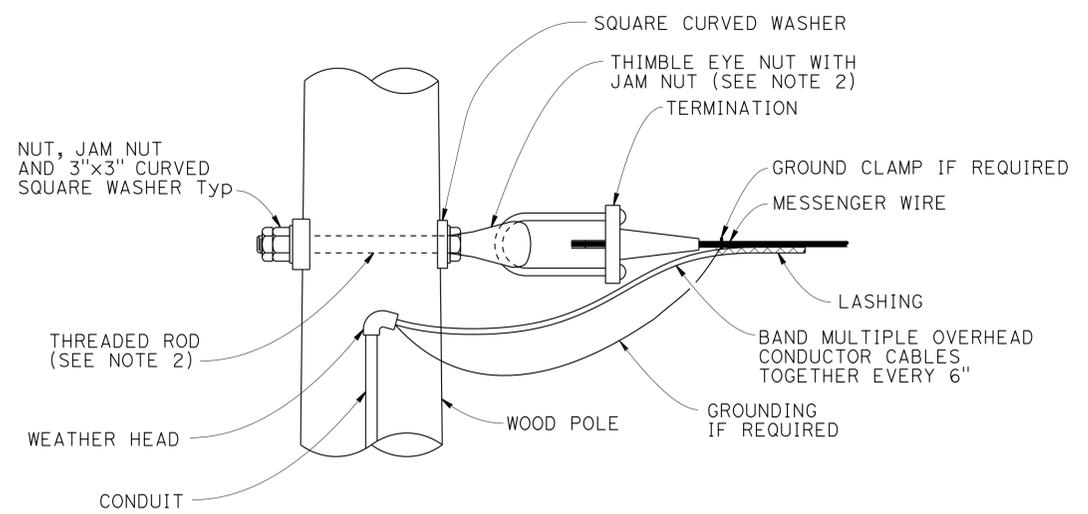
DOUBLE LASHING DETAIL

USE IF d_p IS GREATER THAN 1/2"

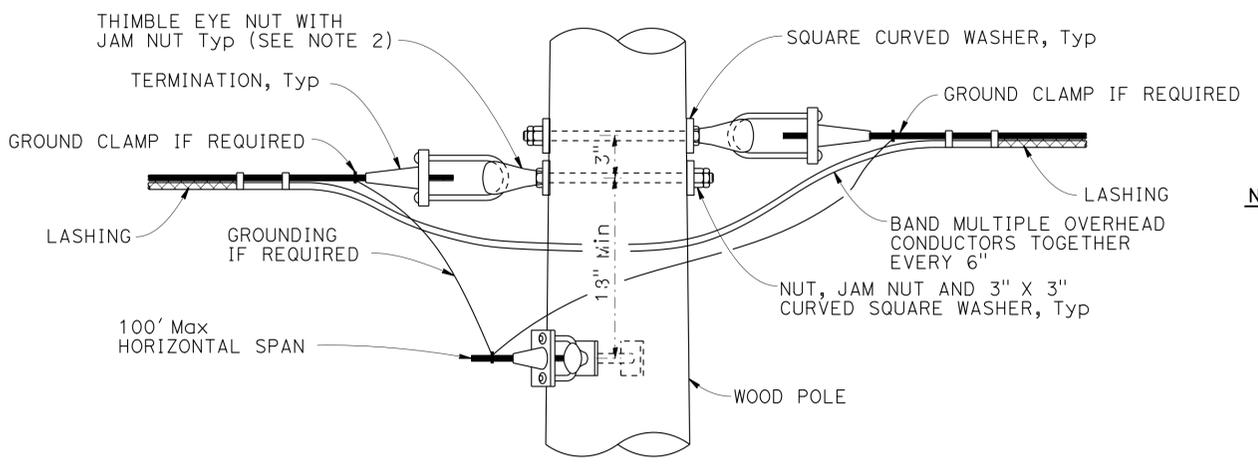


TYPICAL LASHING DETAIL

USE IF d_p IS 1/2" OR LESS



POLE AT DEAD END CONNECTION



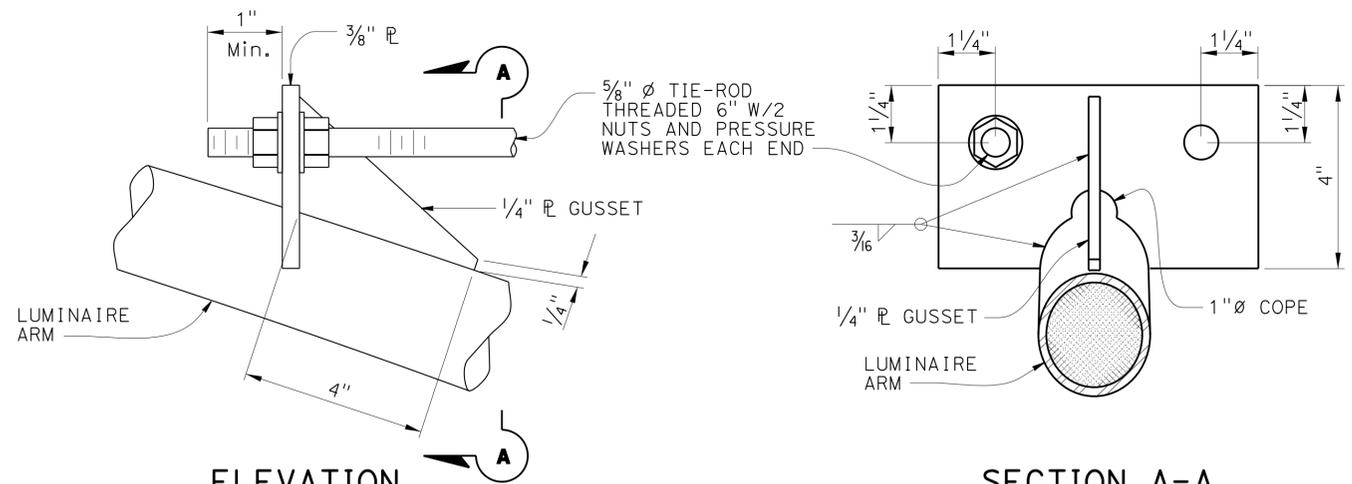
POLE AT JUNCTION CONNECTION

NO SCALE

NOTES:

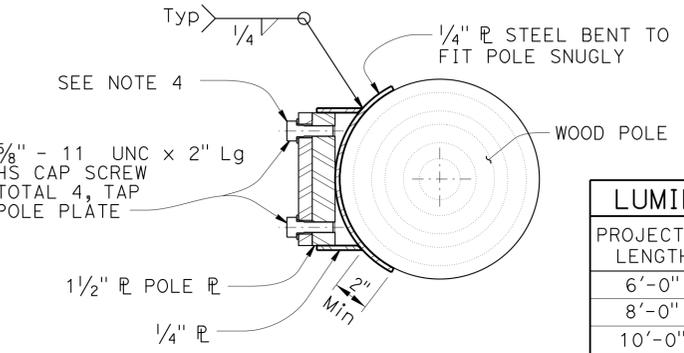
1. For guy wires use 3 clamps.
2. Use 5/8" ϕ except 3/4" ϕ at guyed wires
3. Install additional angle thimble eyelet at poles with two guy wires.

STANDARD DRAWING		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. 35E0047		WOODSIDE II RETAINING WALL	
FILE NO. xs18-080-1	APPROVAL DATE July 2014					POST MILE 21.6		TEMPORARY WOOD POLES	
								DETAILS No. 1	
DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11))		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3594 PROJECT NUMBER & PHASE: 0412000622		CONTRACT NO.: 04-466401		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
		0 1 2 3						REVISION DATES 6-22-14 9-26-14	
								SHEET OF X X	



ELEVATION
SECTION A-A
DETAIL A
TIE-ROD AT LUMINAIRE ARM
 NO SCALE

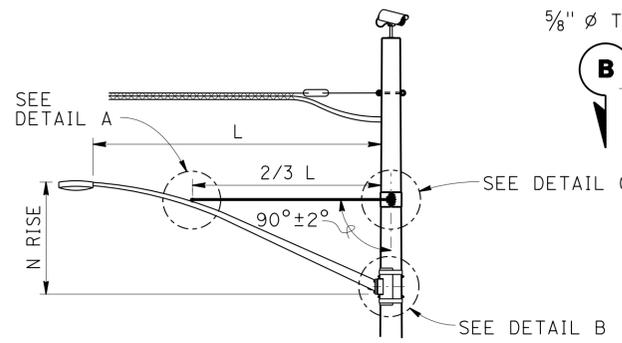
- NOTES:**
- Luminaire mast arms must be in compliance with Standard Plan ES-6D with noted modifications.
 - Verify pole dimensions at tie-rod attachment height. Fabricate 8" flat bar with "L" dimension to maintain an open gap between flanges in finished installation.
 - Not all screw heads and bolt heads are shown for clarity.
 - Mast arm not shown for clarity.



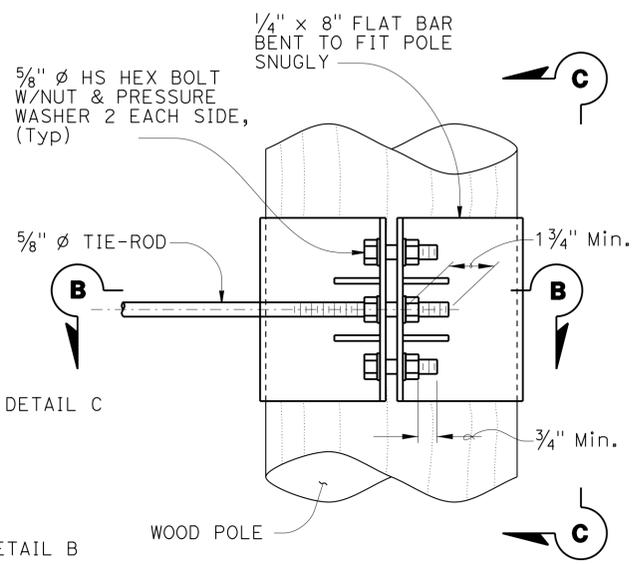
LUMINAIRE MAST ARM DATA

PROJECTED LENGTH	N RISE	Min OD AT POLE	NOMINAL THICKNESS
6'-0"	2'-0"±	3/4"	0.1196"
8'-0"	2'-6"±	3/2"	
10'-0"	3'-3"±	3 7/8"	
12'-0"	4'-3"±	3 7/8"	

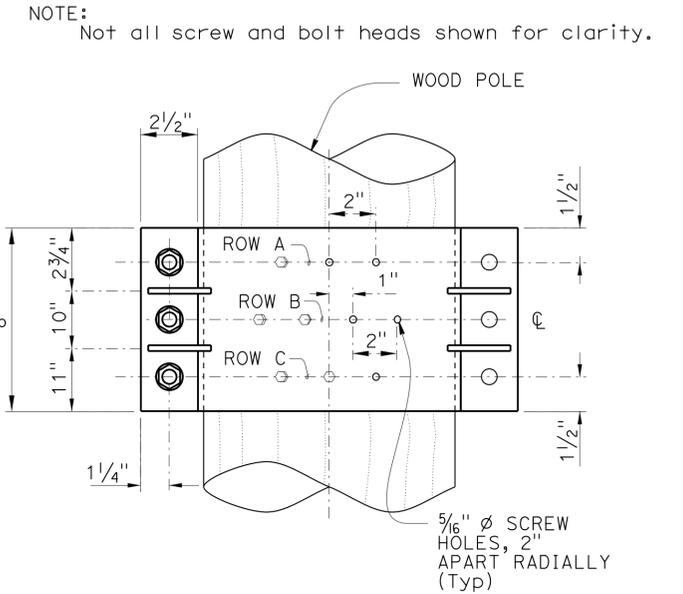
SECTION E-E



LUMINAIRE MAST ARM

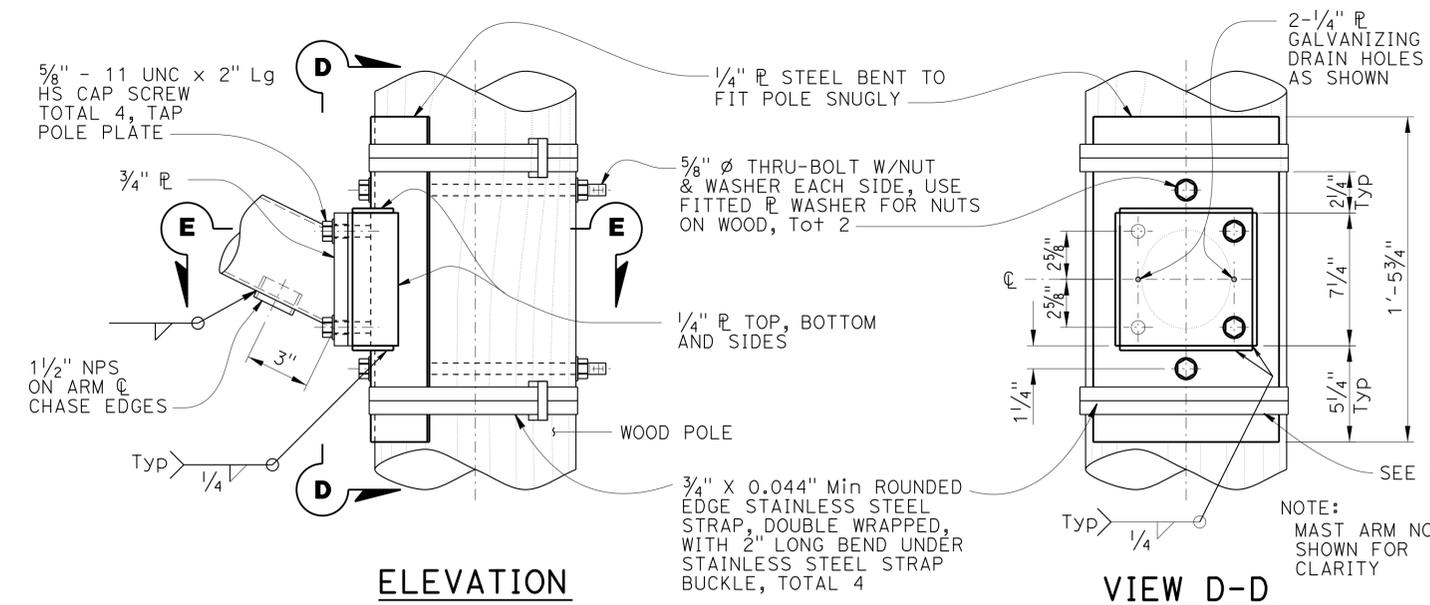


ELEVATION

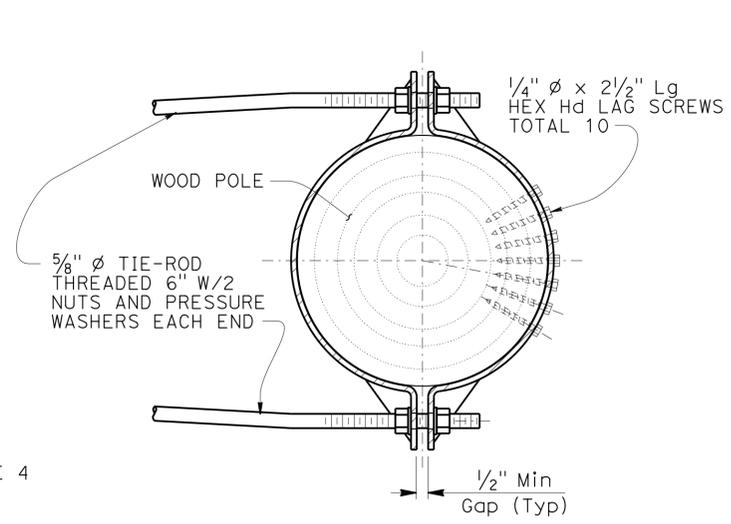


VIEW C-C

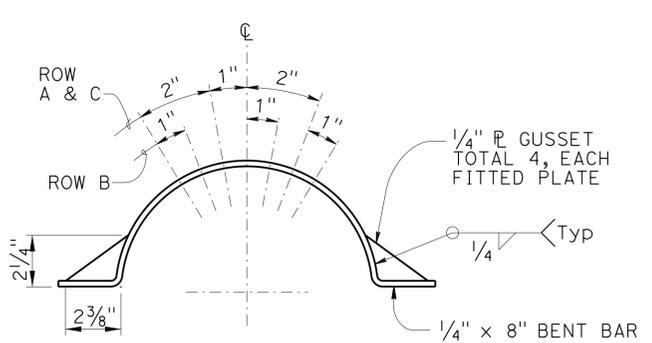
NOTE: Not all screw and bolt heads shown for clarity.



ELEVATION
VIEW D-D
DETAIL B
ARM CONNECTION DETAILS
 NO SCALE

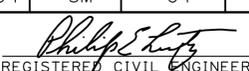
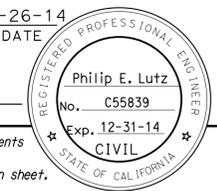


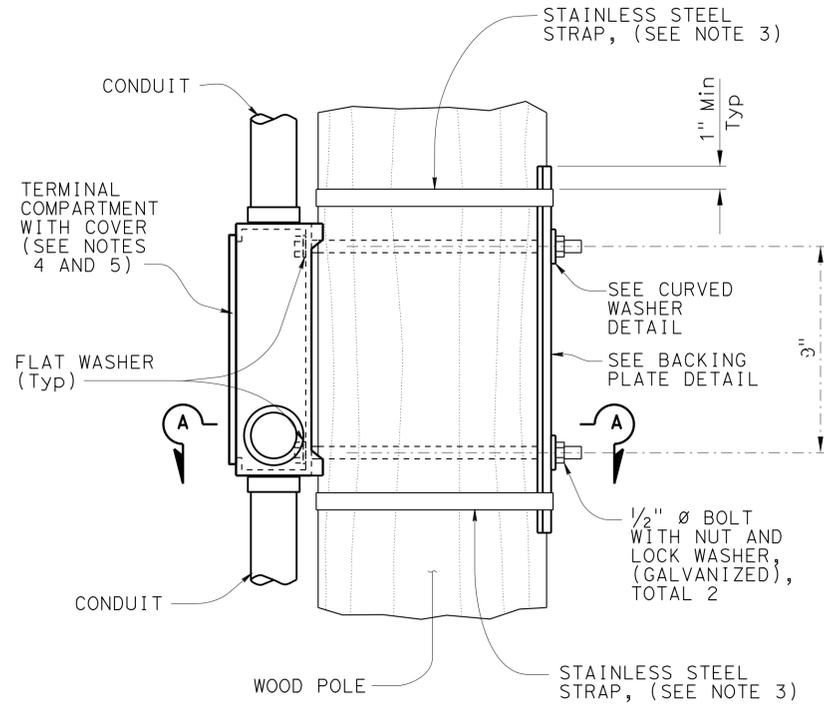
SECTION B-B



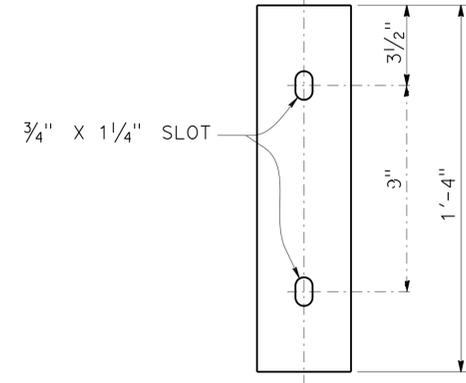
DETAIL C
TIE-ROD AT POLE
 NO SCALE

LAG SCREW AND GUSSET PLATE LAYOUT

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	50	100
 REGISTERED CIVIL ENGINEER			9-26-14	DATE	
PLANS APPROVAL DATE 6-1-15					
					
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ELEVATION

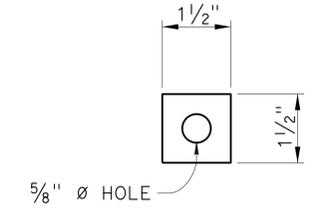


ELEVATION

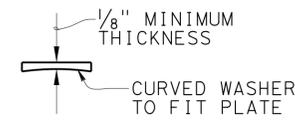


PLAN

BACKING PLATE DETAIL



ELEVATION

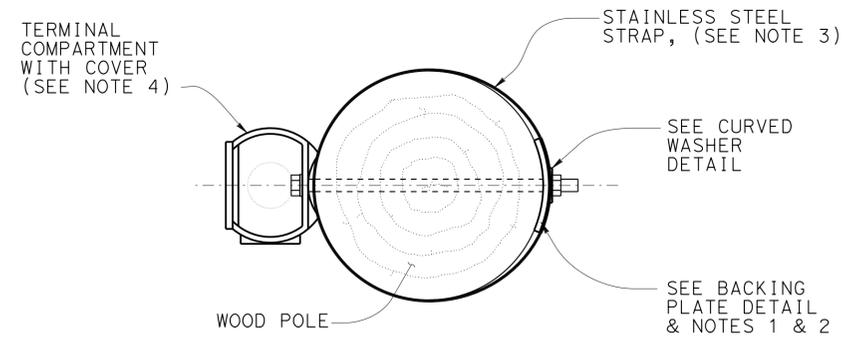


PLAN

CURVED WASHER DETAIL

NOTES:

1. Verify pole dimensions at terminal compartment for fabrication of backing plate and curved washer.
2. Backing plate to be galvanized after fabrication.
3. 3/4" x 0.044" minimum, rounded edge stainless steel straps, double wrapped with 2" long bend under stainless steel strap buckle.
4. For miscellaneous details for signal mounting not shown see Standard Plan ES-4D.
5. If the terminal compartment has a cable entry guide on the rear face, remove the cable entry guide to a level that will not interfere with the wood post. Close any unused cable entry locations with raintight cap.



SECTION A-A

SIDE MOUNTING
TERMINAL COMPARTMENT

NO SCALE

STANDARD DRAWING		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. 35E0047		WOODSIDE II RETAINING WALL TEMPORARY WOOD POLES DETAILS No. 4	
FILE NO. xs18-080-4	APPROVAL DATE July 2014					POST MILE 21.6			
DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11))		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3594 PROJECT NUMBER & PHASE: 0412000622		CONTRACT NO.: 04-4G6401		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
		0 1 2 3				REVISION DATES		SHEET OF	
						6-22-14 9-26-14		X X	

USERNAME => s114360 DATE PLOTTED => 29-JUN-2015 TIME PLOTTED => 13:19

	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	
Obir	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	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	
PL, PL	PLATE	
P/L	PROPERTY LINE	
PM	POST MILE, TIME FROM NOON TO MIDNIGHT	
PN	PAVING NOTCH	
POC	POINT OF HORIZONTAL CURVE	
POT	POINT OF TANGENT	
POVC	POINT OF VERTICAL CURVE	
PP	PIPE PILE, PLASTIC PIPE, POWER POLE	
PPL	PREFORMED PERMEABLE LINER	
PPP	PERFORATED PLASTIC PIPE	
PRC	POINT OF REVERSE CURVE	
PRF	PAVEMENT REINFORCING FABRIC	
PRVC	POINT OF REVERSE VERTICAL CURVE	
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES	
PS, P/S	PRESTRESSED	
PSP	PERFORATED STEEL PIPE	
PT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
Pvmt	PAVEMENT	
	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	
SL	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	
TeI	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
04	SM	84	21.6	51	100

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Grace M. Tsushima
 No. C49814
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 6-1-15

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

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
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

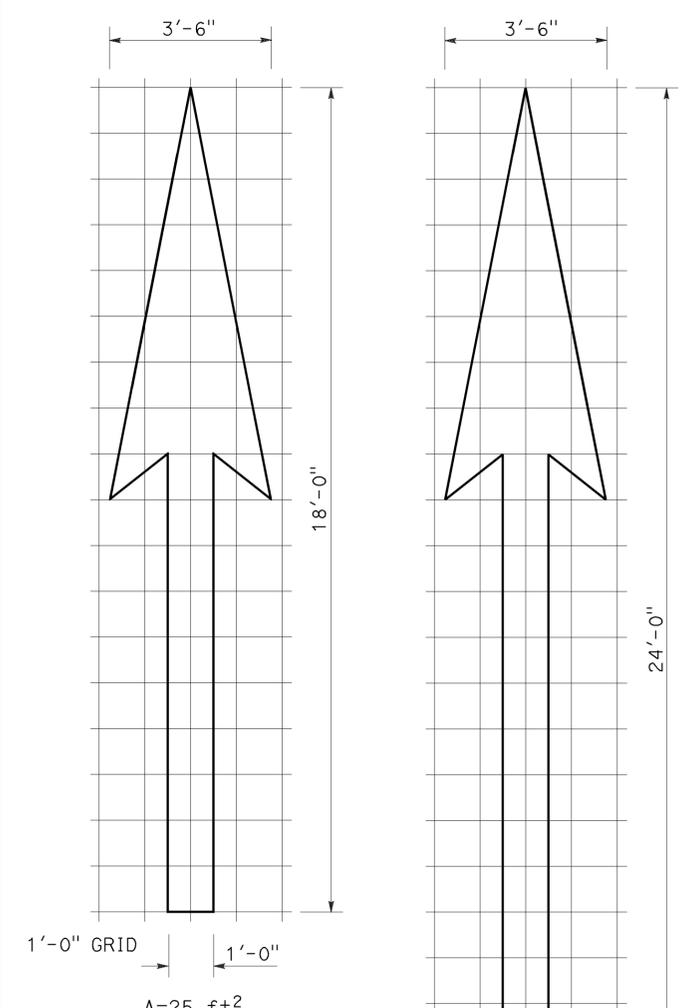
2010 REVISED STANDARD PLAN RSP A10B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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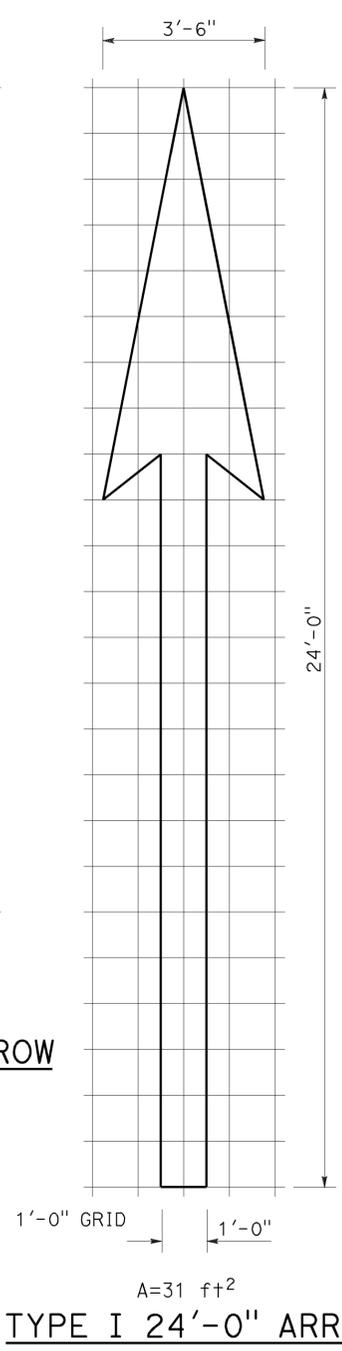
Robert L. McLaughlin
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

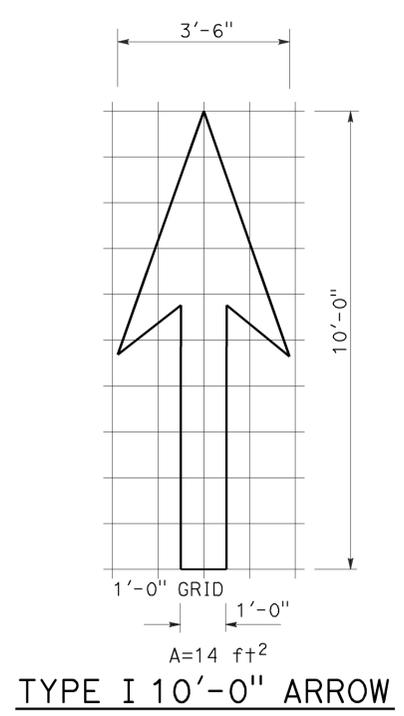
TO ACCOMPANY PLANS DATED 6-1-15



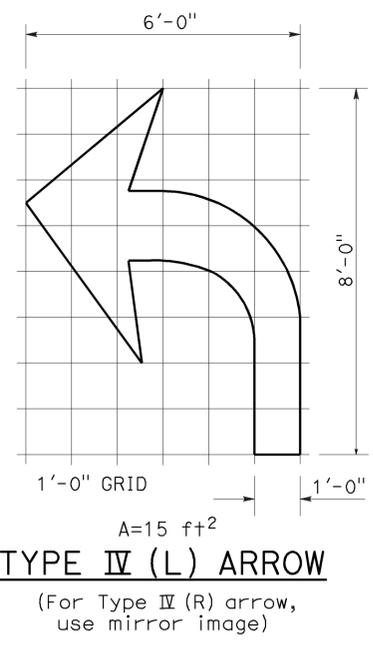
TYPE I 18'-0" ARROW



TYPE I 24'-0" ARROW

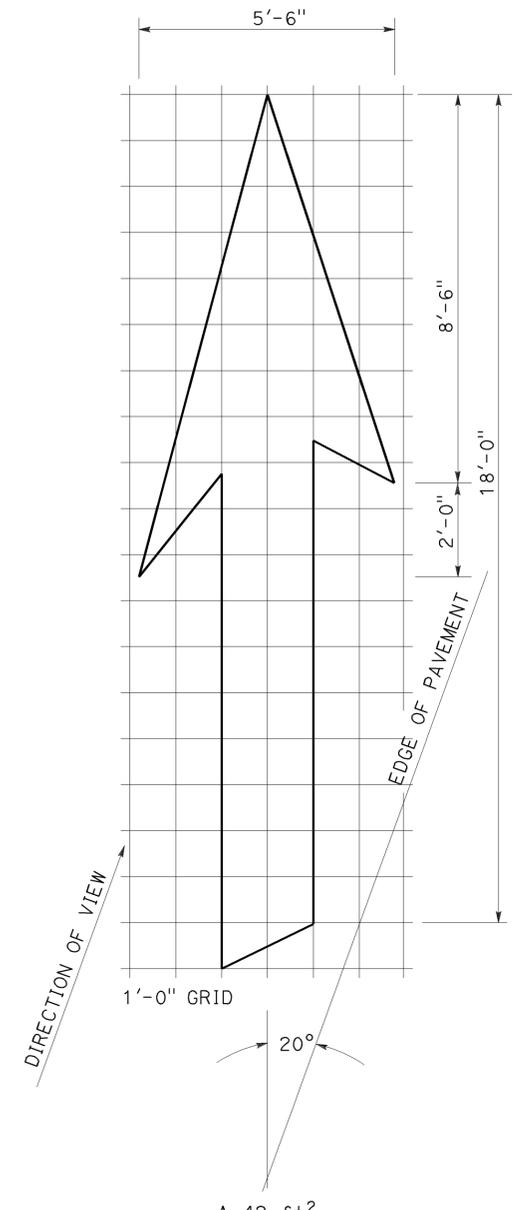


TYPE I 10'-0" ARROW



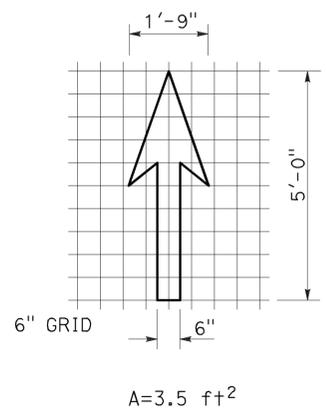
TYPE IV (L) ARROW

(For Type IV (R) arrow, use mirror image)

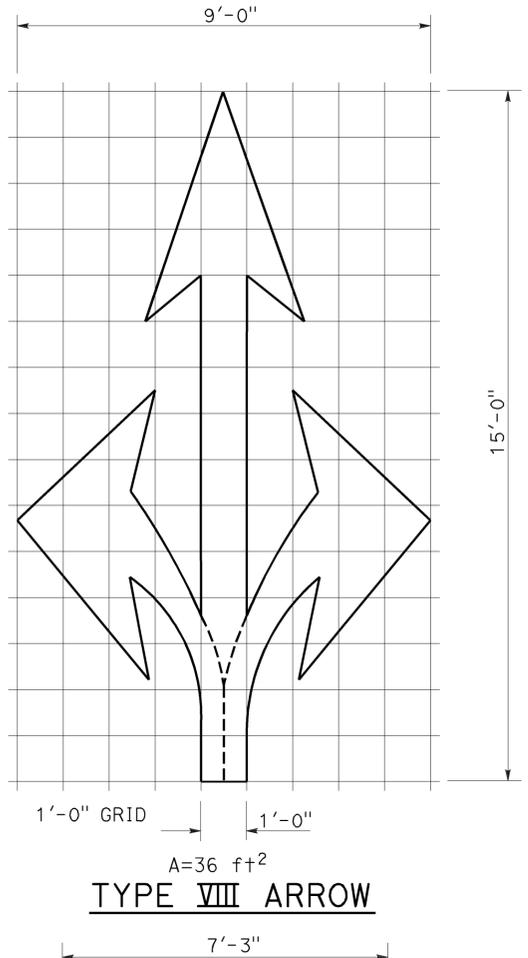


TYPE VI ARROW

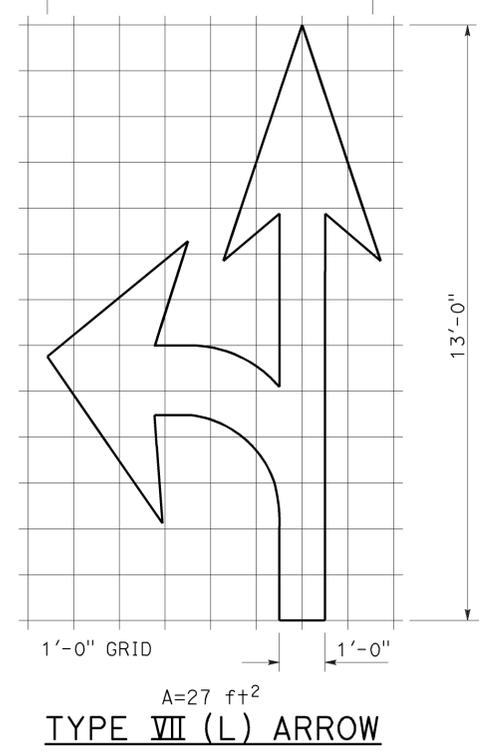
Right lane drop arrow
(For left lane, use mirror image)



BIKE LANE ARROW

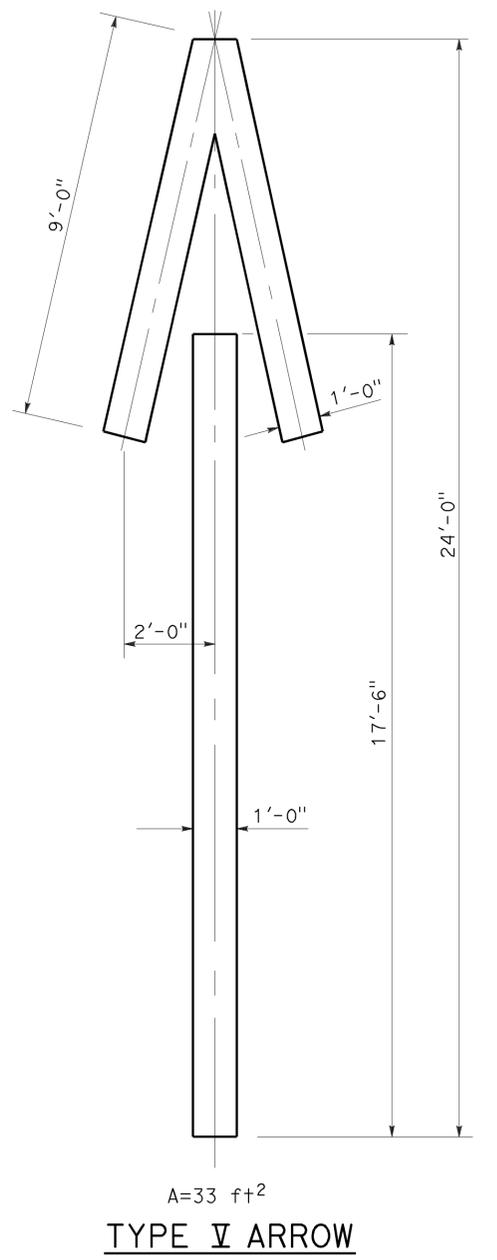


TYPE VIII ARROW



TYPE VII (L) ARROW

(For Type VII (R) arrow, use mirror image)



TYPE V ARROW

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS
ARROWS**
NO SCALE

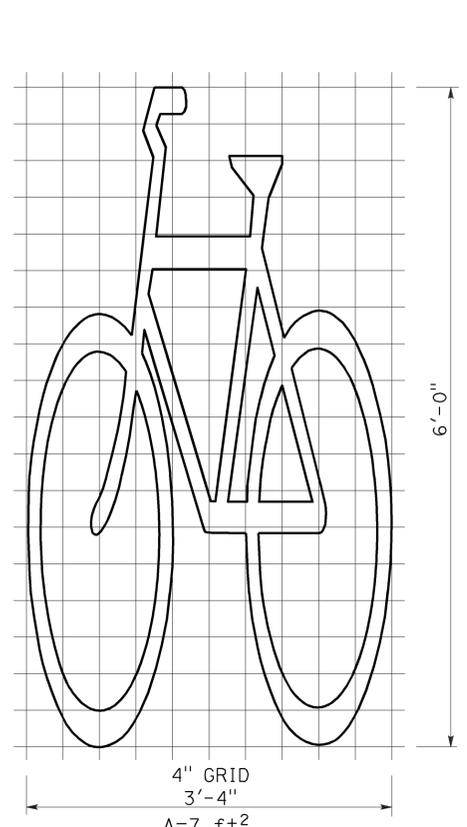
RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A
DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A24A

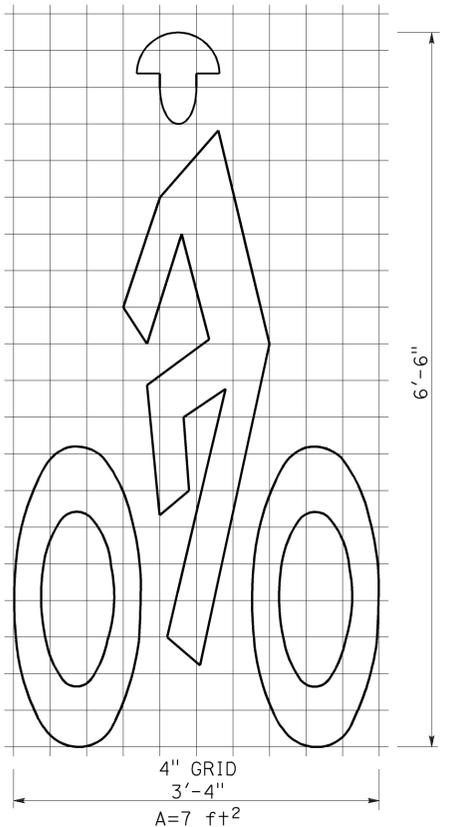
NOTE:
Minor variations in dimensions may be accepted by the Engineer.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	53	100

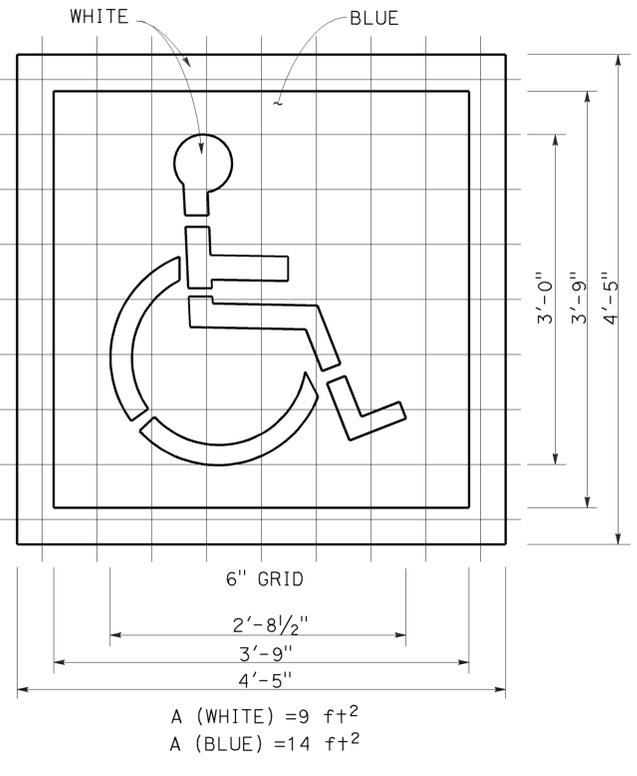
Robert L. McLaughlin
 REGISTERED CIVIL ENGINEER
 October 19, 2012
 PLANS APPROVAL DATE
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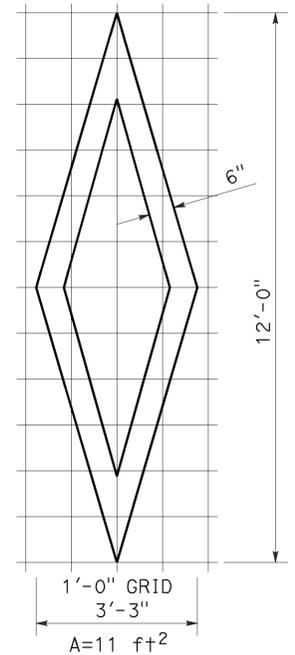
**BIKE LANE SYMBOL
WITHOUT PERSON**



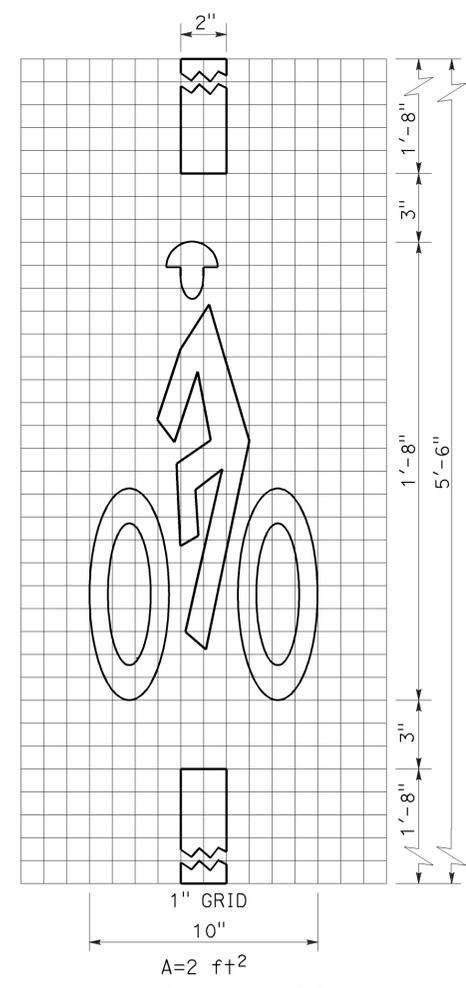
**BIKE LANE SYMBOL
WITH PERSON**



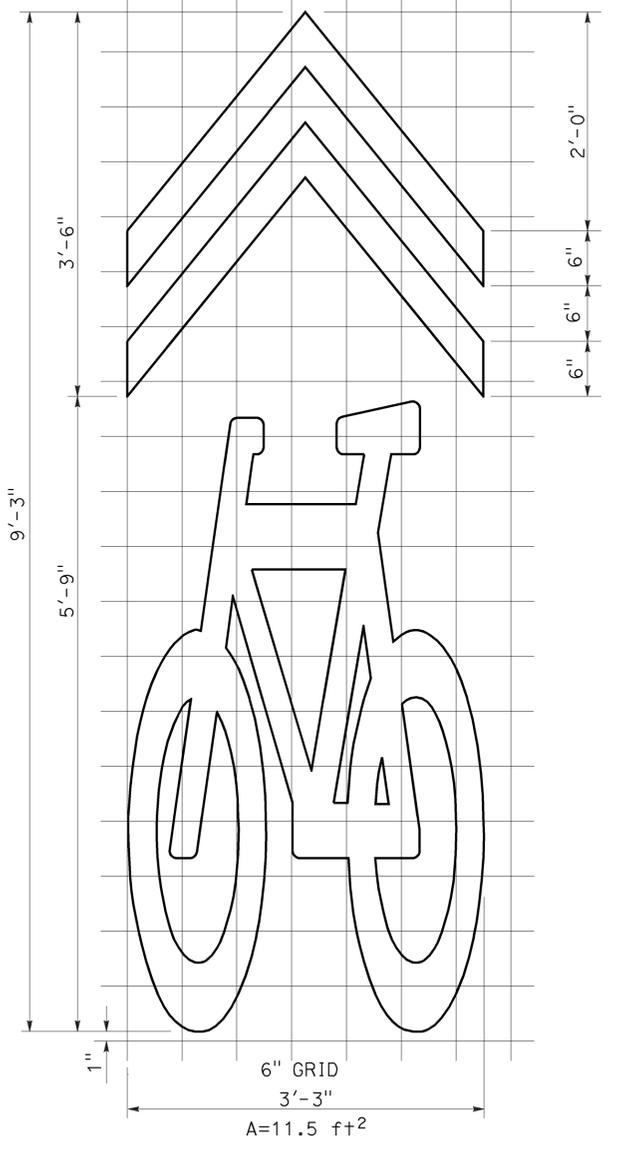
**INTERNATIONAL SYMBOL
OF ACCESSIBILITY (ISA) MARKING**



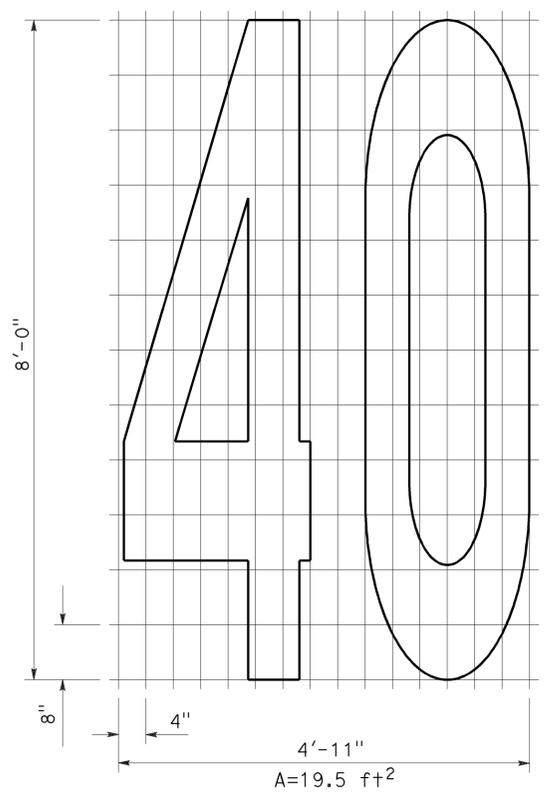
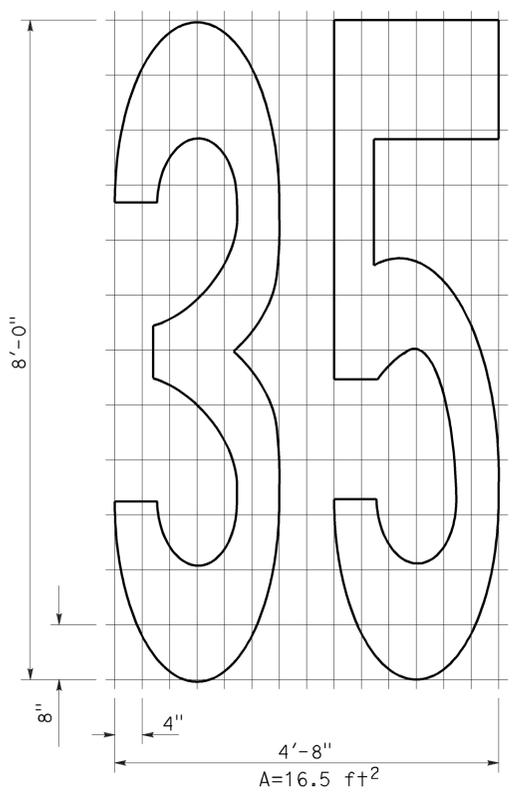
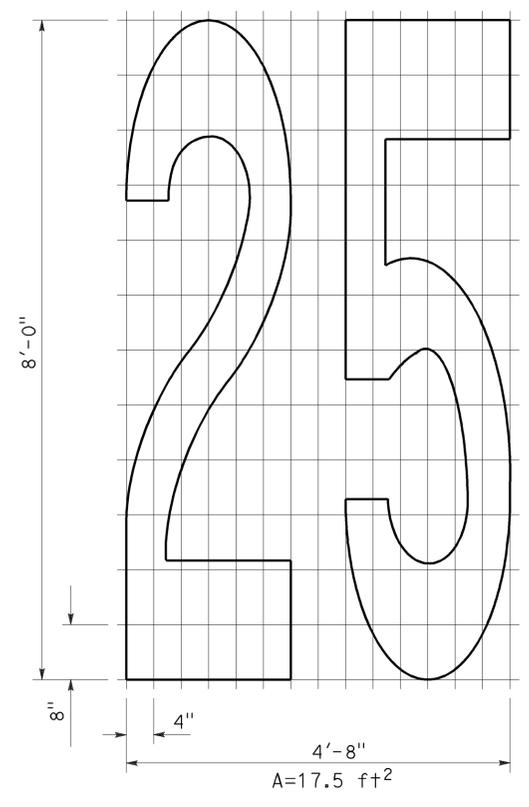
DIAMOND SYMBOL



**BICYCLE LOOP
DETECTOR SYMBOL**



SHARED ROADWAY BICYCLE MARKING



NUMERALS

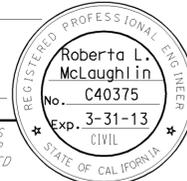
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
 SYMBOLS AND NUMERALS**
 NO SCALE

RSP A24C DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN A24C DATED MAY 20, 2011 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24C

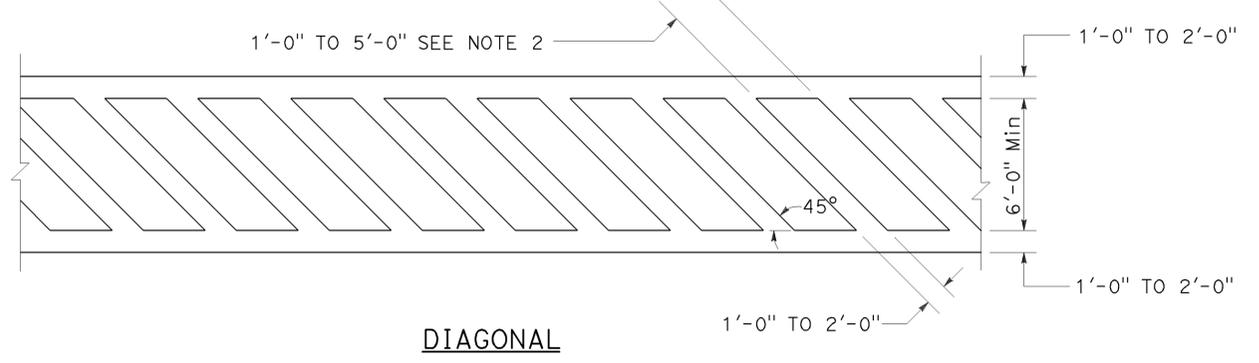
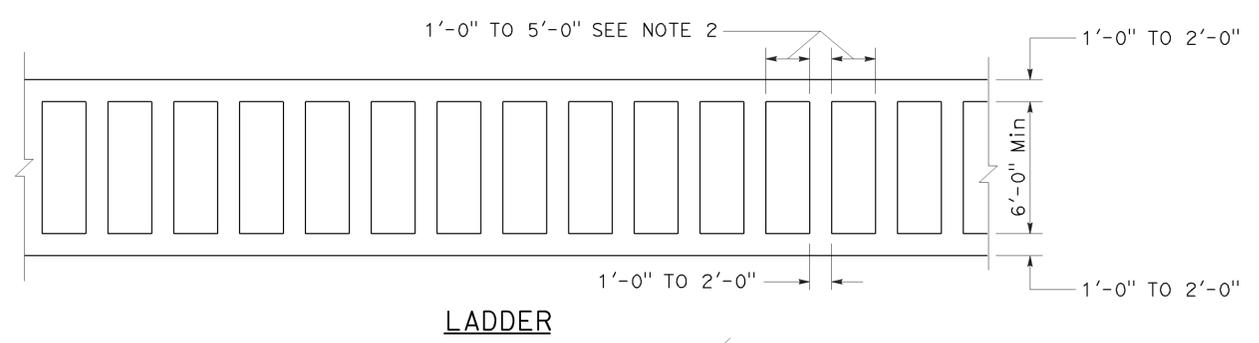
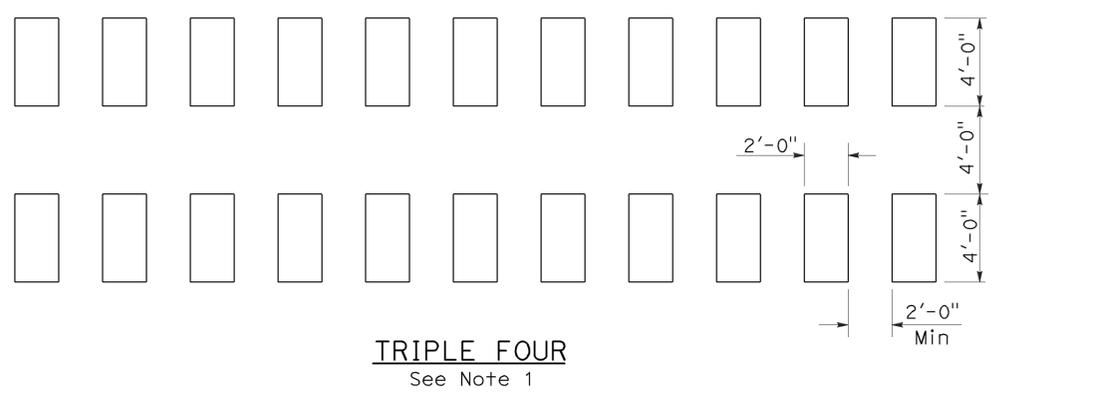
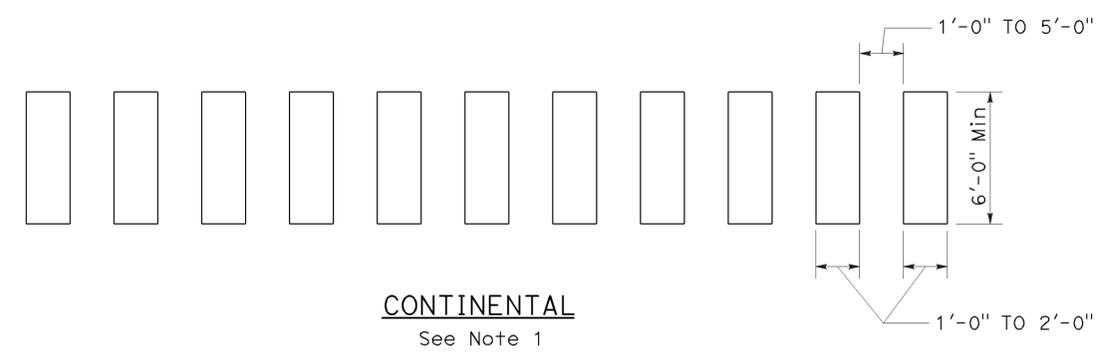
2010 REVISED STANDARD PLAN RSP A24C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	54	100

 REGISTERED CIVIL ENGINEER		
July 20, 2012 PLANS APPROVAL DATE		
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TO ACCOMPANY PLANS DATED 6-1-15

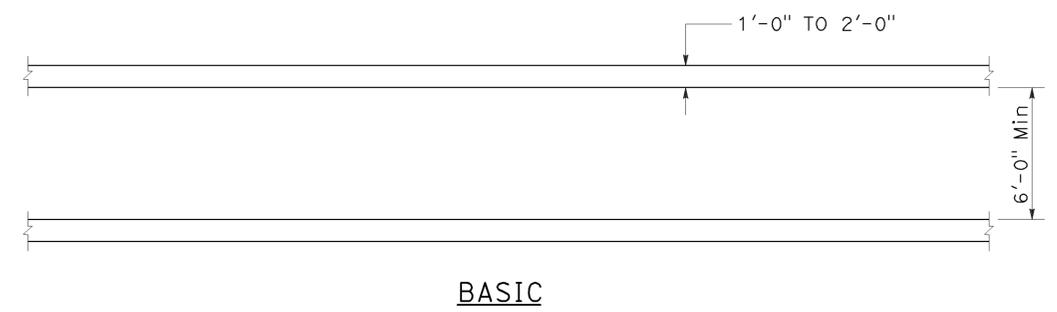
2010 REVISED STANDARD PLAN RSP A24F



HIGHER VISIBILITY CROSSWALKS

NOTES:

1. Spaces between markings should be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except for those near schools must be yellow.



BASIC

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
CROSSWALKS**

NO SCALE
RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE
STANDARD PLANS BOOK DATED 2010.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	55	100

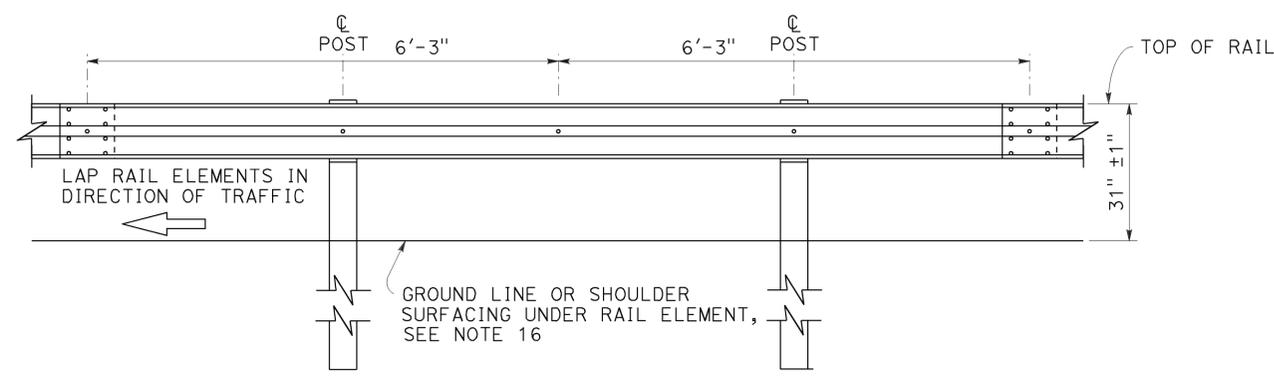
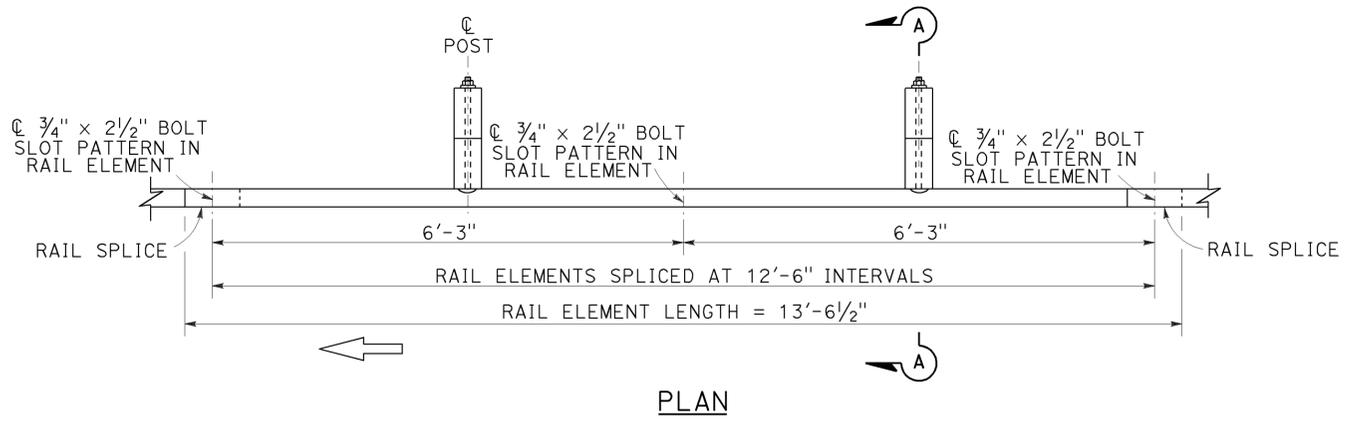
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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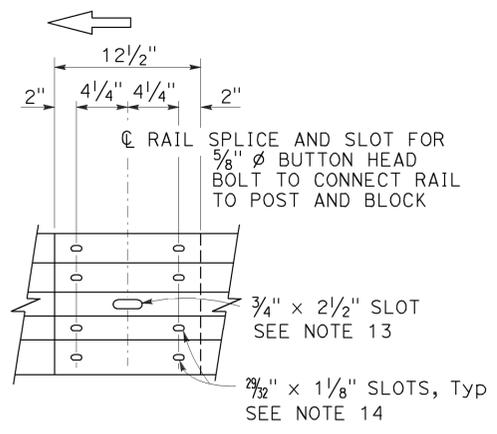
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 6-1-15



ELEVATION

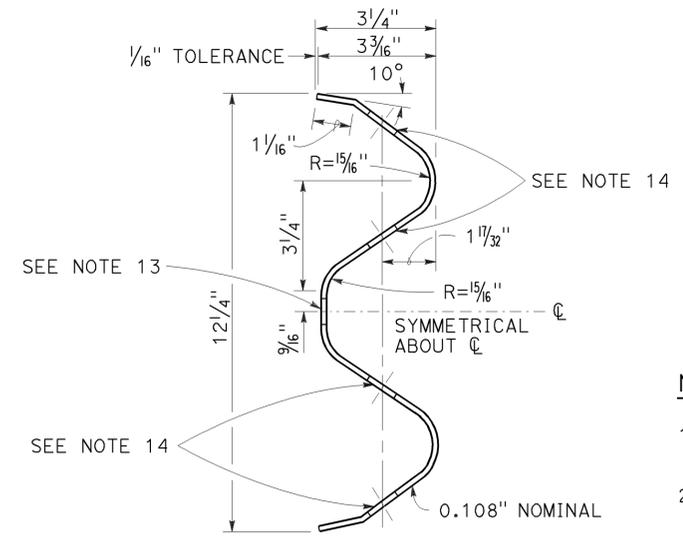
MIDWEST GUARDRAIL SYSTEM WITH WOOD POST AND BLOCKS



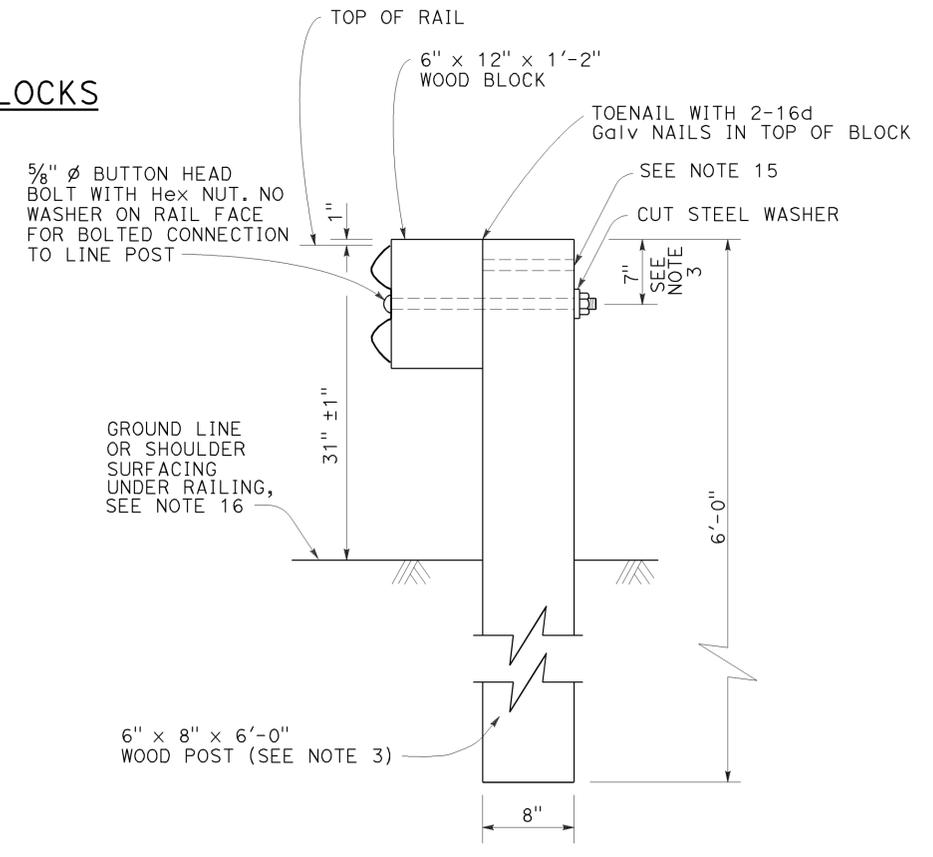
ELEVATION

RAIL ELEMENT SPLICE DETAIL

- Connect the over lapped end of the rail elements with $\frac{5}{8}$ " ϕ \times $1\frac{3}{8}$ " button head oval shoulder splice bolts inserted into the $\frac{29}{32}$ " \times $1\frac{1}{8}$ " slots and bolted together with $\frac{5}{8}$ " ϕ recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



SECTION THRU RAIL ELEMENT



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

See Note 4

NOTES:

- For details of steel post installations, see Revised Standard Plan RSP A77L2.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of wood posts and wood blocks used to construct MGS, see Revised Standard Plan RSP A77N1.
- For additional installation details, see Revised Standard Plan RSP A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77Q and A77R Series of Standard Plans.
- If railing is connected to terminal system end treatment, use 31" height terminal system end treatment.
- For MGS end anchor details, see Revised Standard Plans RSP A77S1 and RSP A77T2.
- For details of MGS transition to bridge railing, see Revised Standard Plan RSP A77U4.
- For additional details of MGS connection to bridge railing, see Revised Standard Plans RSP A77U1, RSP A77U2 and RSP A77V1.
- For MGS connection details to abutments and walls, see Revised Standard Plan RSP A77U3.
- For typical MGS delineation and dike positioning details, see Revised Standard Plan RSP A77N4.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Additional hole in uppermost portion of line post is for potential future adjustments of railing height. See Revised Standard Plan RSP A77N1.
- Install posts in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(WOOD POST WITH
WOOD BLOCK)**

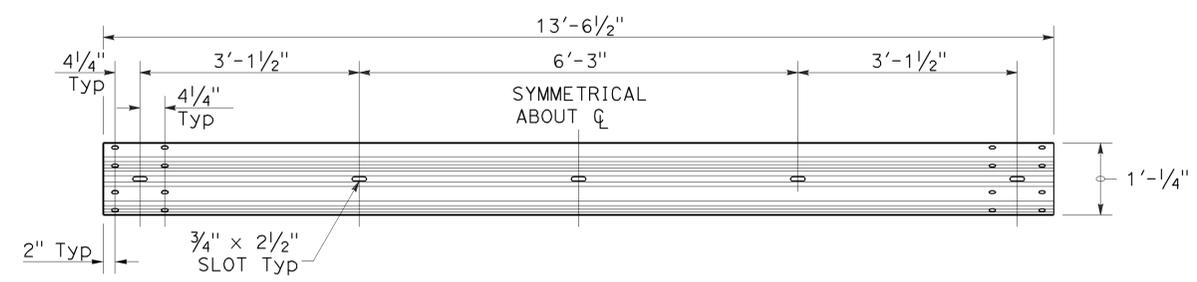
NO SCALE

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

REVISED STANDARD PLAN RSP A77L1

2010 REVISED STANDARD PLAN RSP A77L1

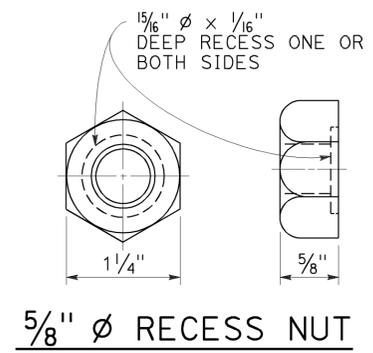
TO ACCOMPANY PLANS DATED 6-1-15



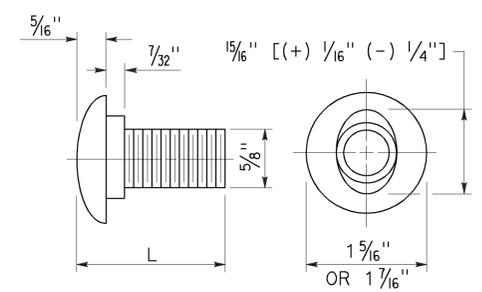
TYPICAL RAIL ELEMENT

NOTE:

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



5/8" Ø RECESS NUT

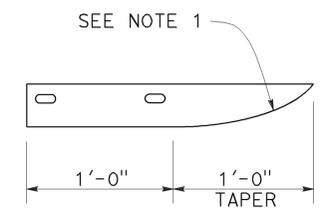


5/8" Ø BUTTON HEAD BOLT

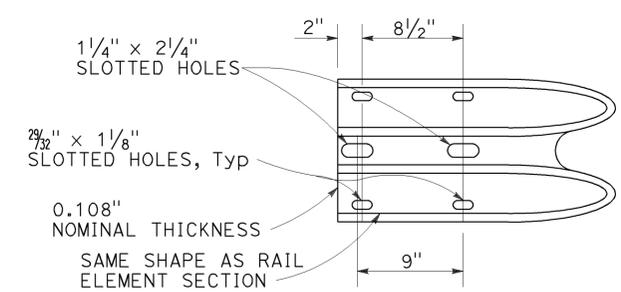
BUTTON HEAD BOLT

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

** For nested rail applications.



PLAN



**ELEVATION
END CAP
(TYPE A)**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STANDARD HARDWARE**

NO SCALE

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

REVISED STANDARD PLAN RSP A77M1

2010 REVISED STANDARD PLAN RSP A77M1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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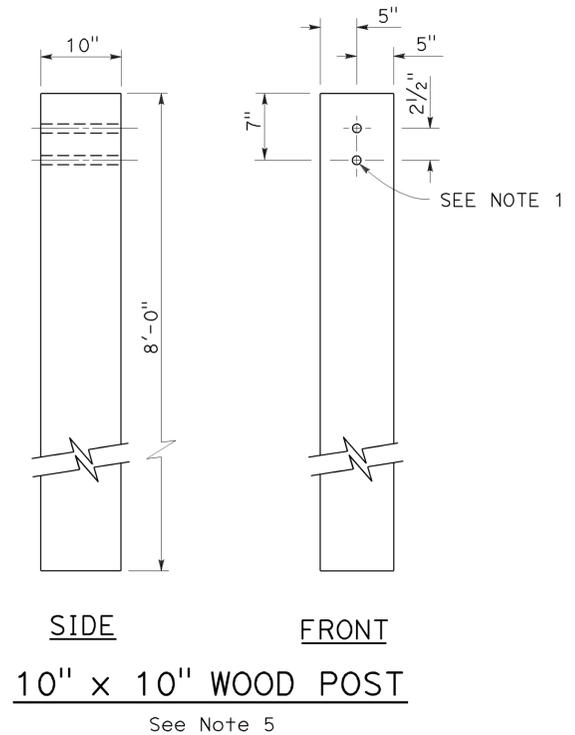
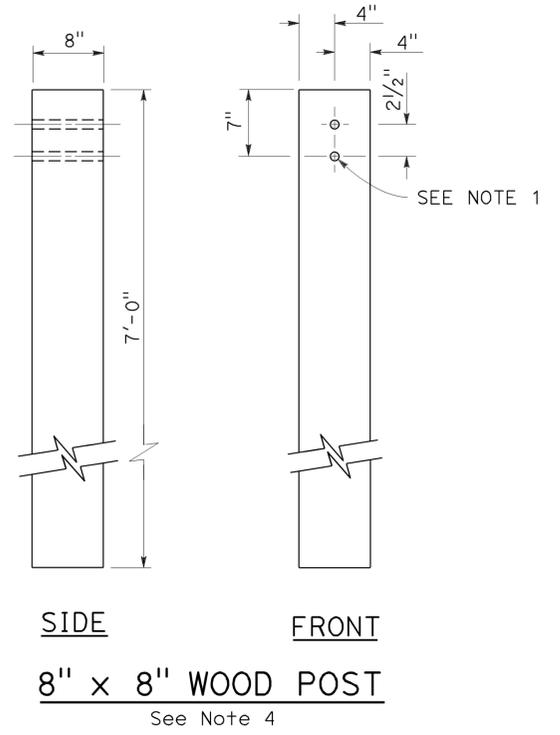
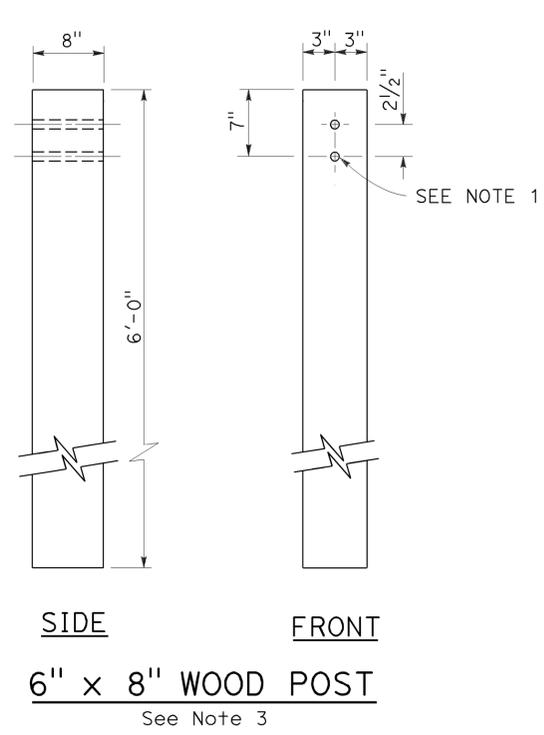
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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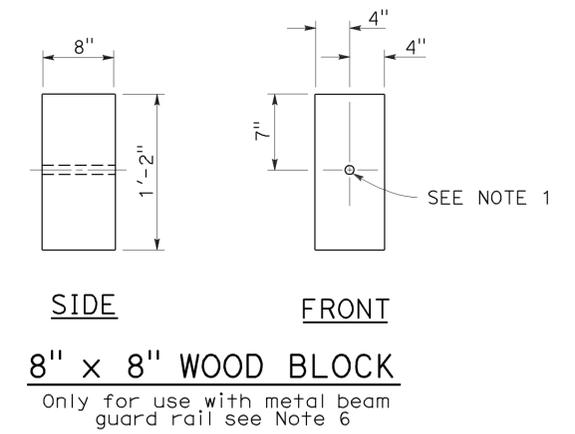
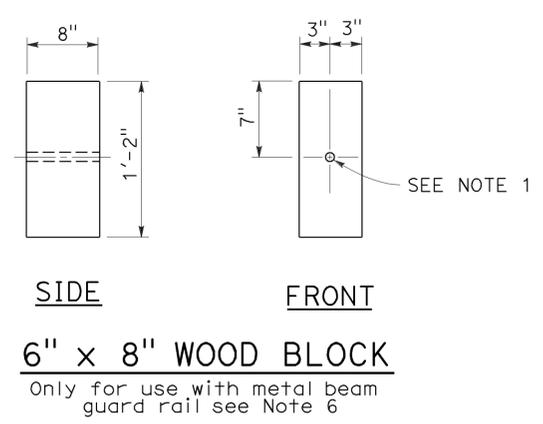
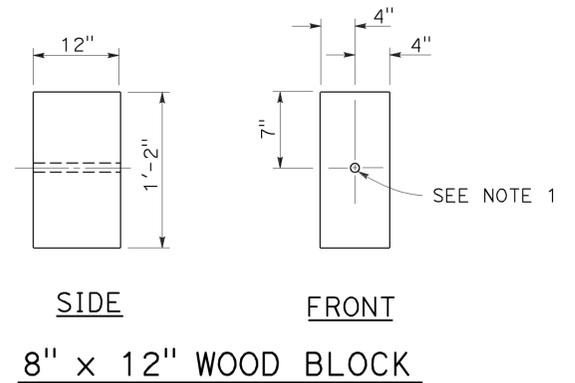
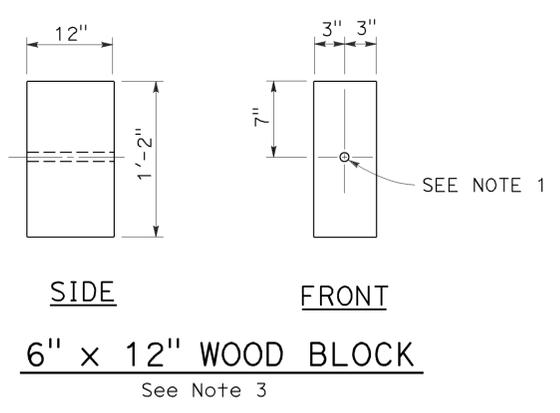
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 6-1-15



NOTES:

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



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP A77N1

2010 REVISED STANDARD PLAN RSP A77N1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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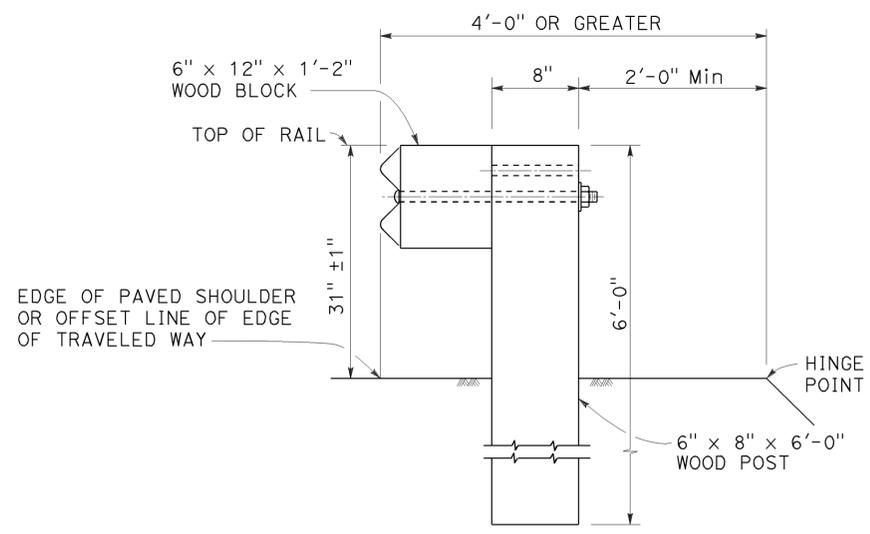
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

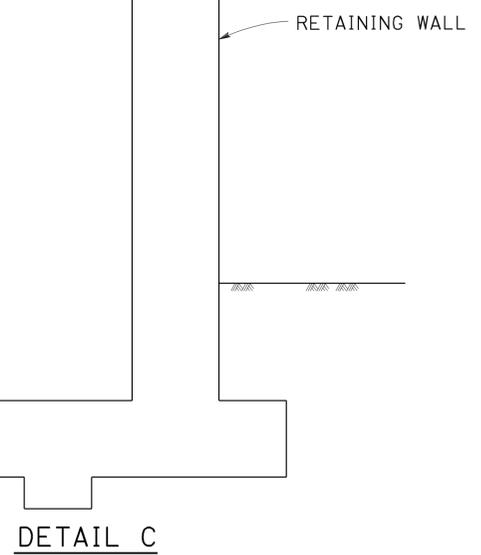
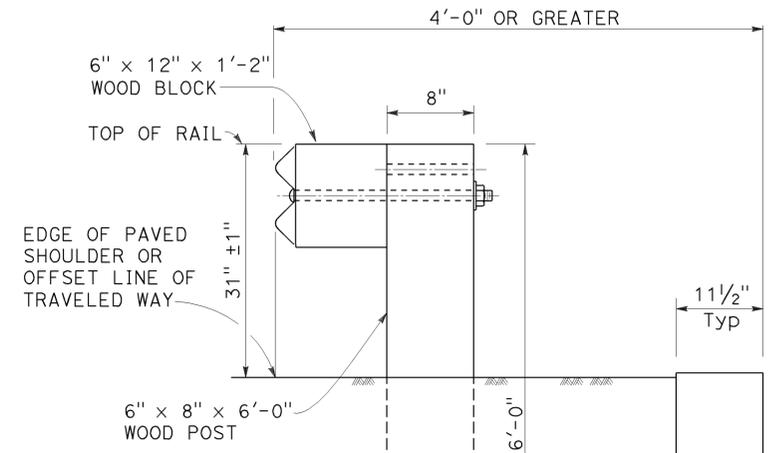
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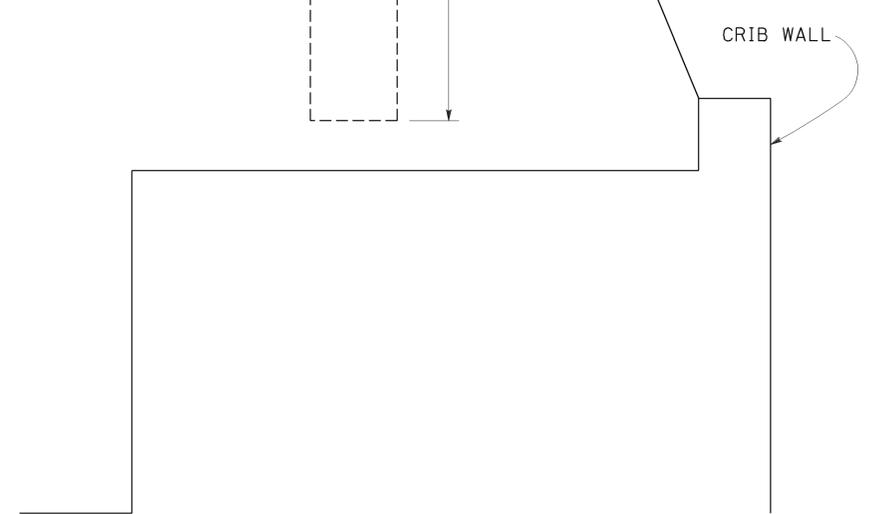
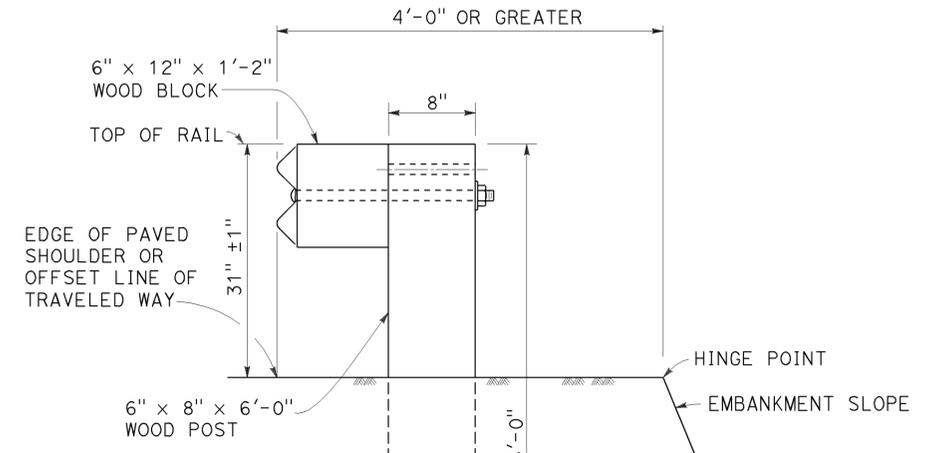
TO ACCOMPANY PLANS DATED 6-1-15



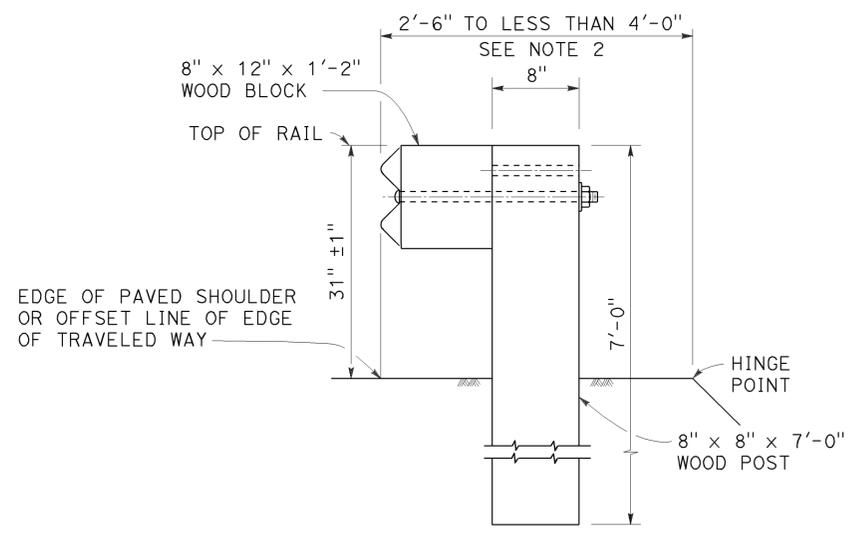
DETAIL A
TYPICAL ROADWAY
INSTALLATION
See Note 1



DETAIL C
INSTALLATION AT EARTH RETAINING WALLS



DETAIL D



DETAIL B
NARROW ROADWAY
INSTALLATION
See Note 1

POST EMBEDMENT

NOTES:

1. These installation details also applicable to steel line post installations. For Detail A, C, and D, where steel line post installations are constructed, W6 x 8.5 or W6 x 9 steel post, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For Detail B, where steel line post installations are constructed, W6 x 15 steel post, 8'-0" in length, with 8" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For additional installation details, see Revised Standard Plan RSP A77L1 and RSP A77L2.
2. Where the distance between the face of the rail and the hinge point is less than 2'-6", see the Project Plans for special details.
3. For dike positioning with MGS installations, see Revised Standard Plan RSP A77N4.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM
TYPICAL LINE POST
EMBEDMENT AND
HINGE POINT OFFSET DETAILS

NO SCALE

RSP A77N3 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77N3
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N3

2010 REVISED STANDARD PLAN RSP A77N3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	59	100

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

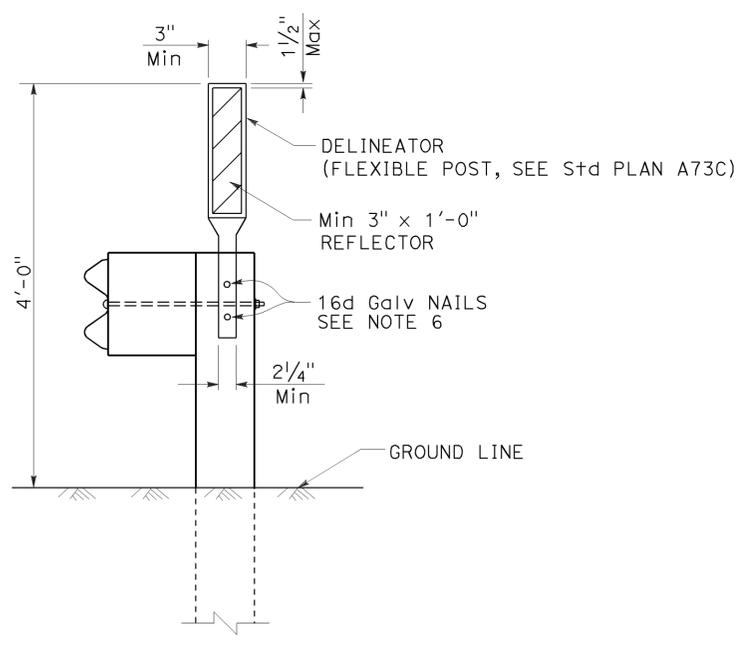
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

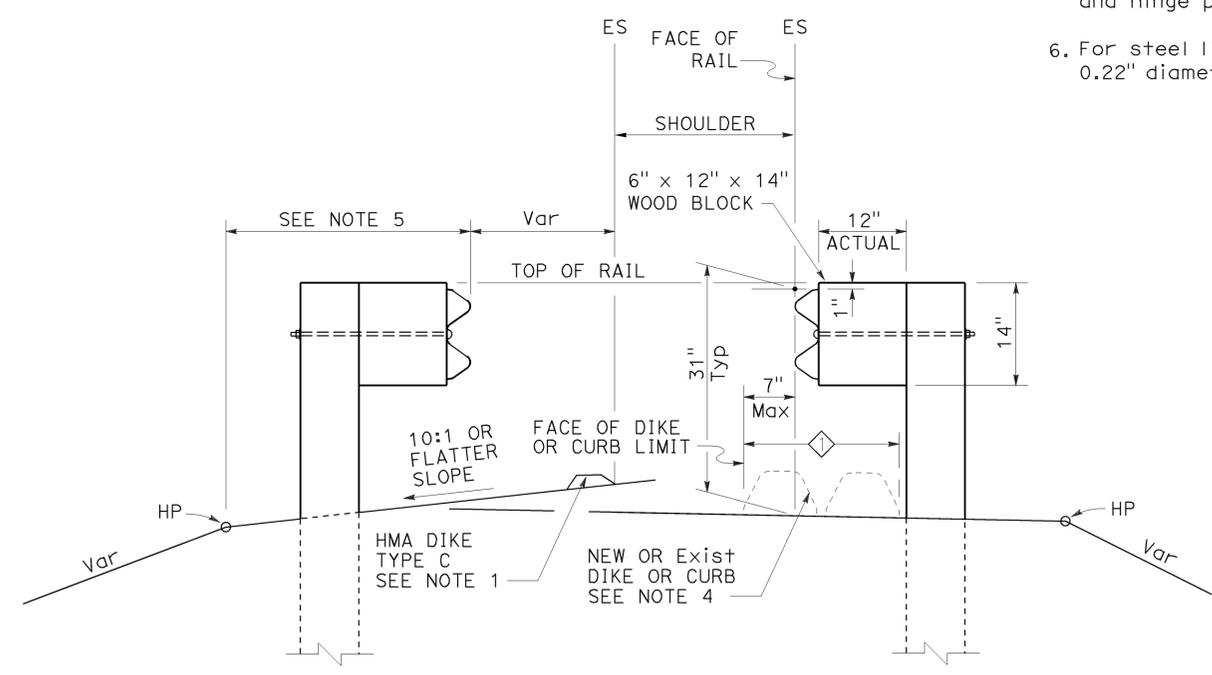
TO ACCOMPANY PLANS DATED 6-1-15

NOTES:

1. When necessary to place dike more than 7" in front of face of MGS, only Type C dike may be used. For dike details, see Revised Standard Plan RSP A87B.
2. For standard railing post embedment, see Revised Standard Plan RSP A77N3.
3. MGS delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under MGS, the maximum height of the dike or curb shall be 6". Mountable dike should not be used. For dike and curb details, see Revised Standard Plans RSP A87A and RSP A87B.
5. For details of typical distance between the face of rail and hinge point, see Revised Standard Plan RSP A77N3.
6. For steel line posts, use 1/4" - 20 self-tapping screws in 0.22" diameter holes or 1/4" bolts in 3/32" diameter holes.



MGS DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

◇ PERMISSIBLE DIKE OR CURB PLACEMENT AREA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL RAILING DELINEATION
AND DIKE POSITIONING DETAILS**
NO SCALE

RSP A77N4 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N4

2010 REVISED STANDARD PLAN RSP A77N4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	60	100

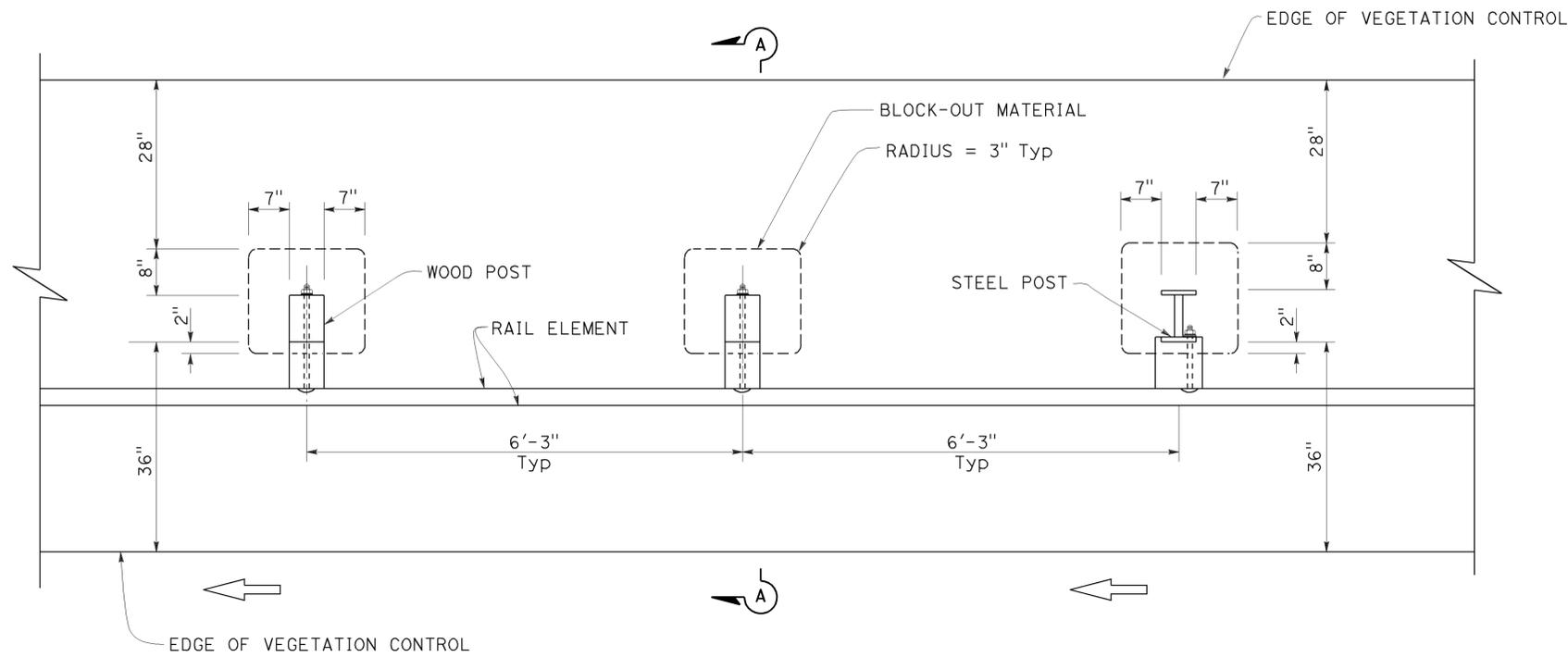
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
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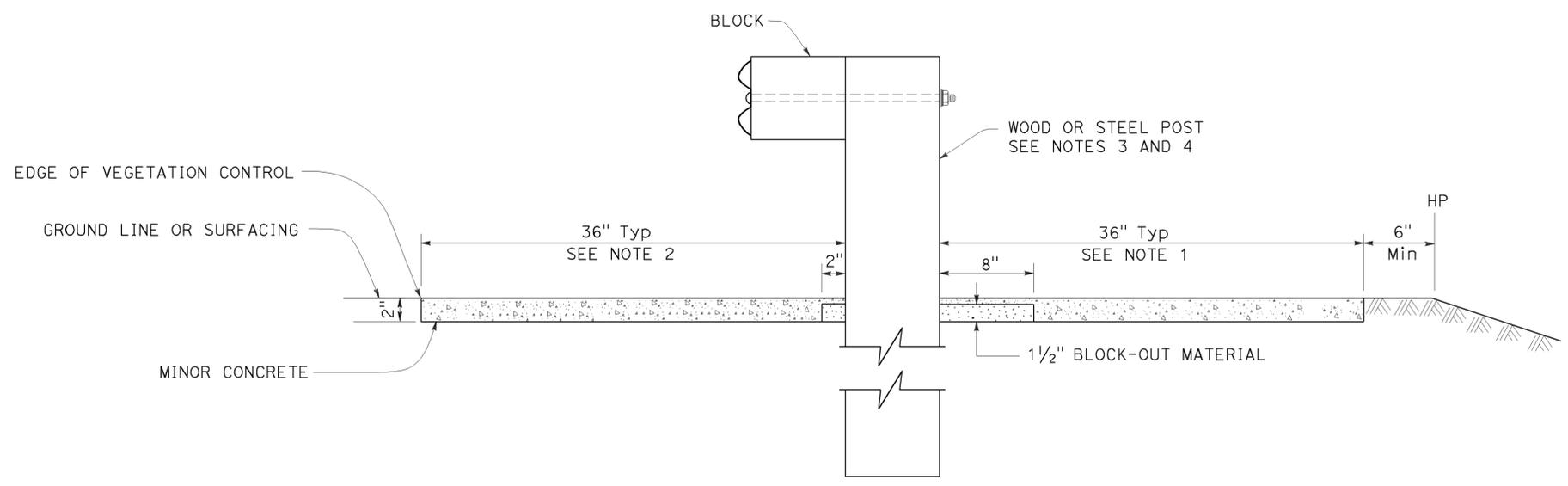
TO ACCOMPANY PLANS DATED 6-1-15



PLAN

NOTES:

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



SECTION A-A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP A77N5

2010 REVISED STANDARD PLAN RSP A77N5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	61	100

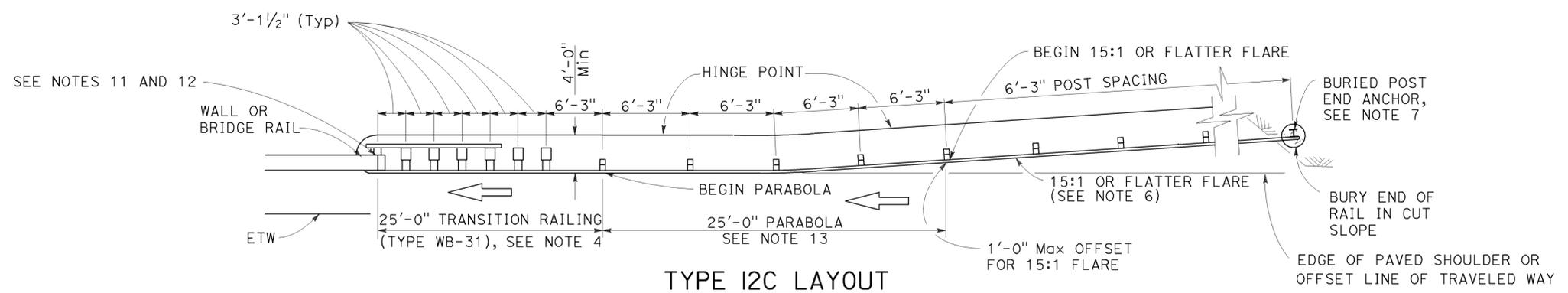
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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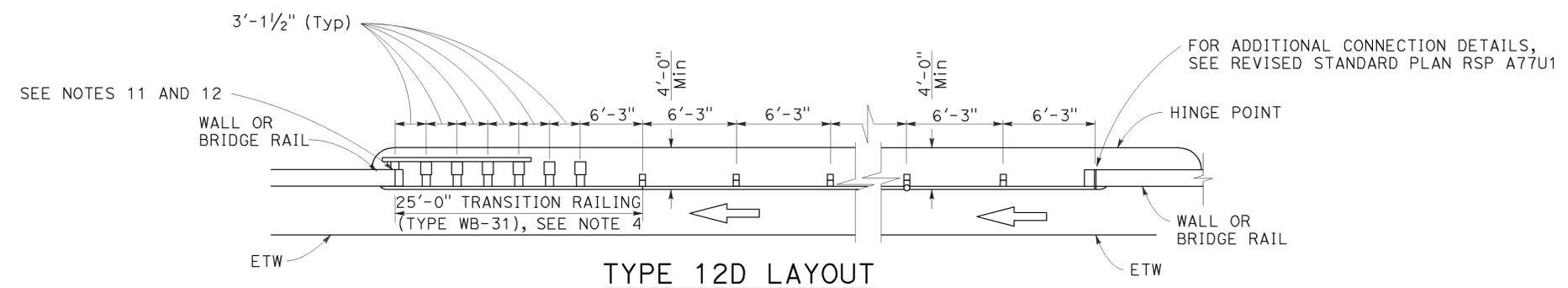
NO. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 6-1-15



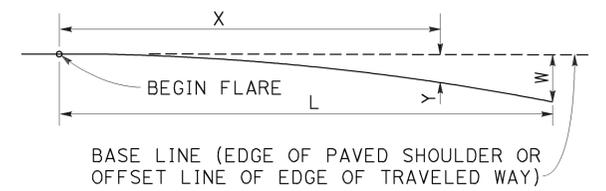
TYPE 12C LAYOUT

(MGS installation at structure approach with a Buried end anchor treatment at traffic approach end of railing)
See Notes 8 and 9



TYPE 12D LAYOUT

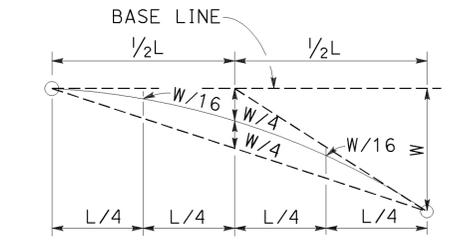
(Continuous MGS installation between structures)
See Notes 5 and 9



BASE LINE (EDGE OF PAVED SHOULDER OR OFFSET LINE OF EDGE OF TRAVELED WAY)

Y = OFFSET FROM BASE LINE
W = MAXIMUM OFFSET
X = DISTANCE ALONG BASE LINE
L = LENGTH OF FLARE

PARABOLIC FLARE OFFSETS



TYPICAL PARABOLIC LAYOUT

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" m 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 12C and 12D Layouts, see Revised Standard Plan RSP A77U4.
- Type 12D layout is typically used where continuous MGS is recommended between structures.
- The 15:1 or flatter flare for Type 12C Layout is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of MGS with the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 12C Layout, see Revised Standard Plan RSP A77T2.
- Where placement of dike is required with MGS installations, see Revised Standard Plan RSP A77N4 for dike positioning details.
- Type 12C Layout is typically used:
 - To the right of approaching traffic, at the end of the 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 each 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.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77P1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL LAYOUTS FOR
STRUCTURE APPROACH
AND BETWEEN STRUCTURES**

NO SCALE

RSP A77Q2 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77Q2

2010 REVISED STANDARD PLAN RSP A77Q2

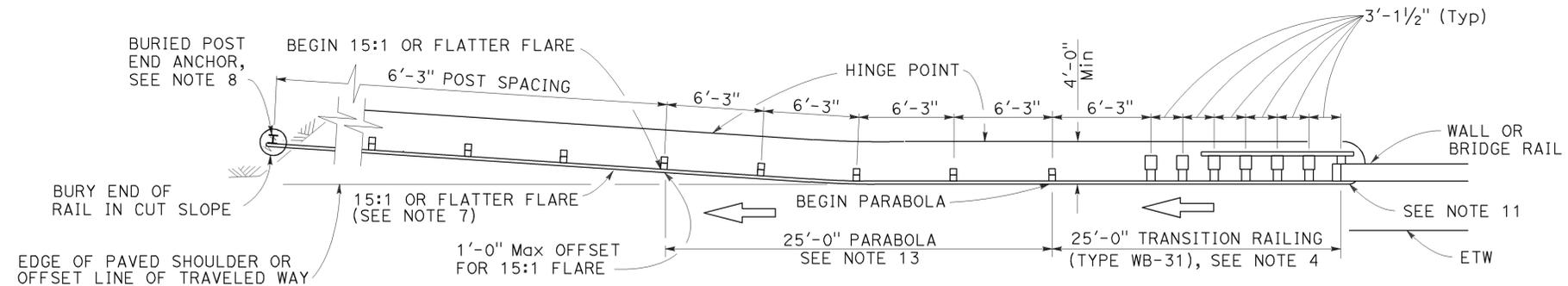
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	62	100

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

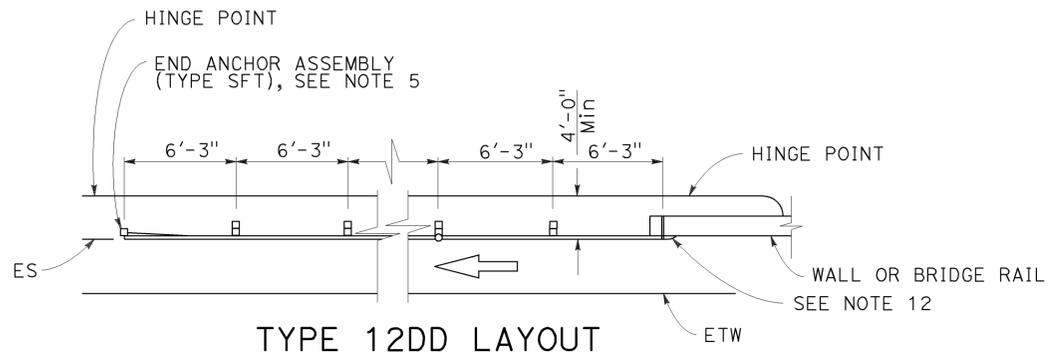
REGISTERED PROFESSIONAL ENGINEER
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Exp. 6-30-15
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STATE OF CALIFORNIA

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TYPE 12CC LAYOUT

(MGS installation at structure departure with a Buried end anchor treatment at trailing end of railing)
See Notes 9 and 10



TYPE 12DD LAYOUT

(MGS installation at structure departure With end anchor assembly at trailing end of railing)
See Notes 6 and 9

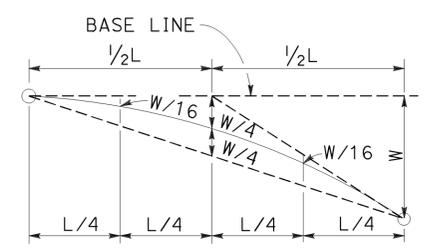


BASE LINE (EDGE OF PAVED SHOULDER OR OFFSET LINE OF EDGE OF TRAVELED WAY)

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

Y = OFFSET FROM BASE LINE
W = MAXIMUM OFFSET
X = DISTANCE ALONG BASE LINE
L = LENGTH OF FLARE

PARABOLIC FLARE OFFSETS



TYPICAL PARABOLIC LAYOUT

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.
- MSG post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 12" x 1'-2" wood blocks. W6 x 8.5 or W6 x 9 steel posts, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 12" x 1'-2" wood blocks where applicable and when specified.
- For Transition Railing (Type WB-31) details for Type 12CC Layout, see Revised Standard Plan RSP A77U4.
- For details of End Anchor Assembly (Type SFT) used with Type 12DD Layout, see Revised Standard Plan RSP A77S1.
- Type 12DD layout is typically used to the right of traffic departing a structure on two-way conventional highways where the roadbed width across the structure is equal to or greater than 40 feet and MGS is recommended (embankment height, side slopes, other fixed objects). Length of railing to be equal to multiples of 12'-6". For MGS connection details to bridge rail, see Revised Standard Plans RSP A77U1 and RSP A77V1. For MGS connection details to wall, see Revised Standard Plan RSP A77U3.
- The 15:1 or flatter flare for Type 12CC Layout is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of MGS within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 12CC Layout, see Revised Standard Plan RSP A77T2.
- Where placement of dike is required with MGS installations, see Revised Standard Plan RSP A77N4 for dike positioning details.
- Type 12CC Layout is typically used to the right of traffic departing a structure on two-way conventional highways where the roadbed width across the structure is less than 40 feet.
- For additional details of a typical connection to bridge rail for Layout Type 12CC, see Connection Detail CC on Revised Standard Plan RSP A77U2 and Connection Detail HH on Revised Standard Plan RSP A77V2.
- For additional details of a typical connection to bridge rail for Layout Type 12DD, see Connection Detail BB on Revised Standard Plan RSP A77U1 and Connection Detail GG on Revised Standard Plan RSP A77V1.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77P1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL LAYOUTS FOR
STRUCTURE DEPARTURE**

NO SCALE

RSP A77Q5 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77Q5

2010 REVISED STANDARD PLAN RSP A77Q5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	63	100

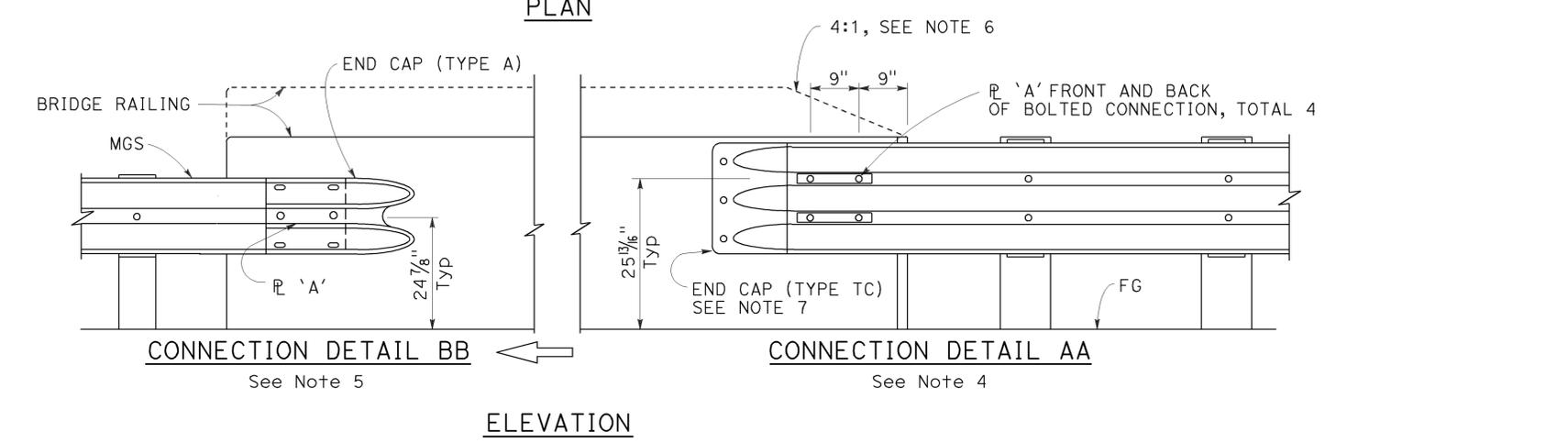
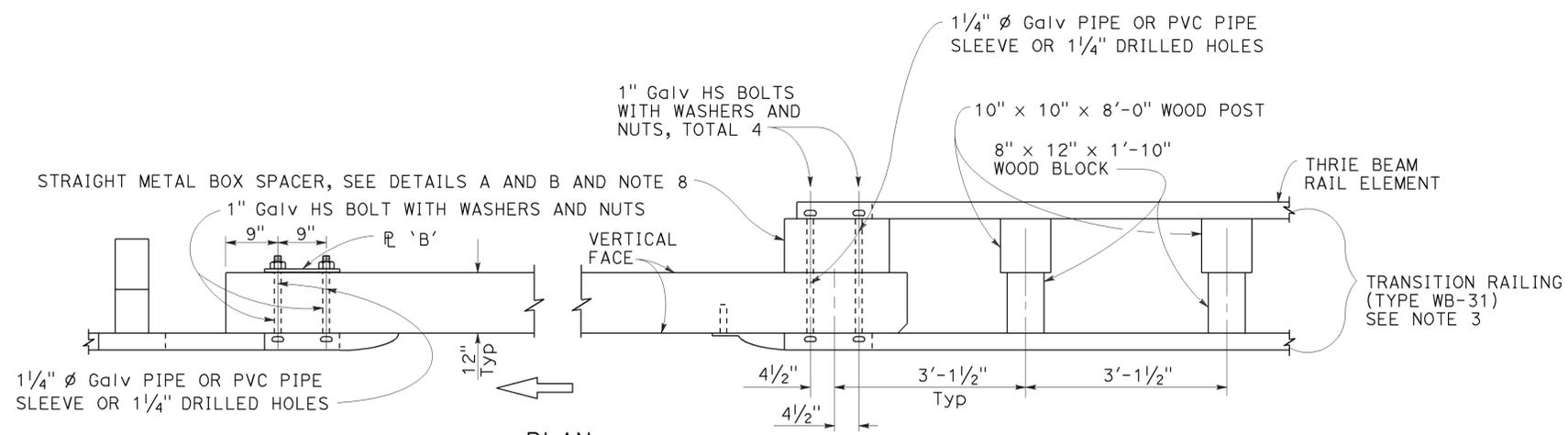
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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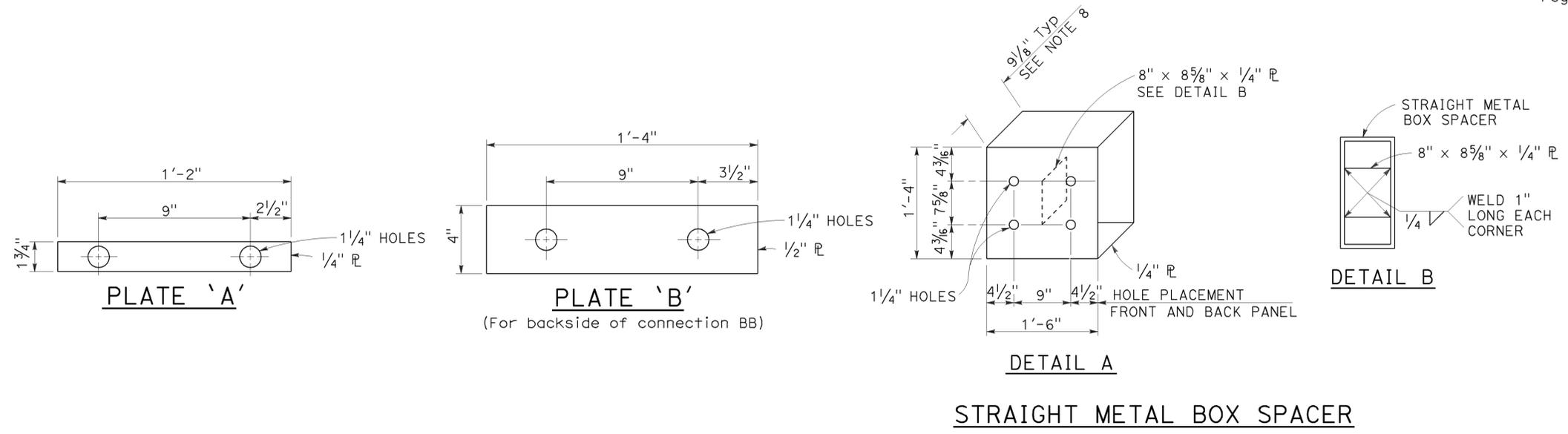
TO ACCOMPANY PLANS DATED 6-1-15



MIDWEST GUARDRAIL SYSTEM CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK

NOTES:

1. See Revised Standard Plan RSP A77U2 for additional connection details to bridges without sidewalks.
2. Additional details of posts, blocks and hardware are shown on Revised Standard Plans RSP A77M1, RSP A77N1 and RSP A77N2.
3. For additional details of Transition Railing (Type WB-31), see Revised Standard Plan RSP A77U4. Transition Railing (Type WB-31) transitions the 12 gauge MGS railing section to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
4. For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77Q1, Layout Types 12C and 12D on Revised Standard Plan RSP A77Q2, and Layout Type 12E on Revised Standard Plan RSP A77Q3.
5. For typical use of Connection Detail BB, see Layout Type 12D (structure departure railing connection) on Revised Standard Plan RSP A77Q2 and Layout Type 12DD on Revised Standard Plan RSP A77Q5.
6. Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail.
7. For details of End Cap (Type TC), see Revised Standard Plan RSP A77U4.
8. See Revised Standard Plan RSP A77U4 for additional details regarding depth dimension for straight metal box spacer.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
MIDWEST GUARDRAIL SYSTEM CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS
DETAILS No. 1
NO SCALE

RSP A77U1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77U1

2010 REVISED STANDARD PLAN RSP A77U1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	64	100

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

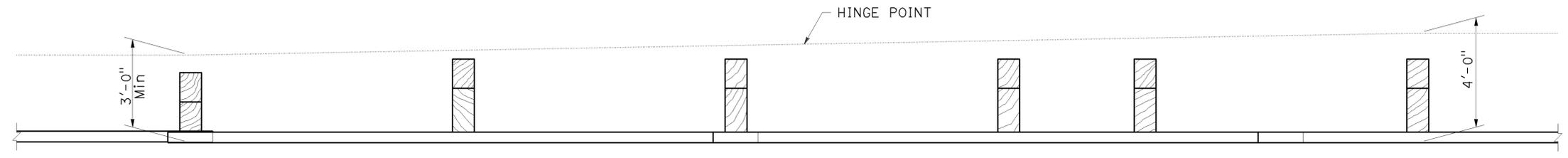
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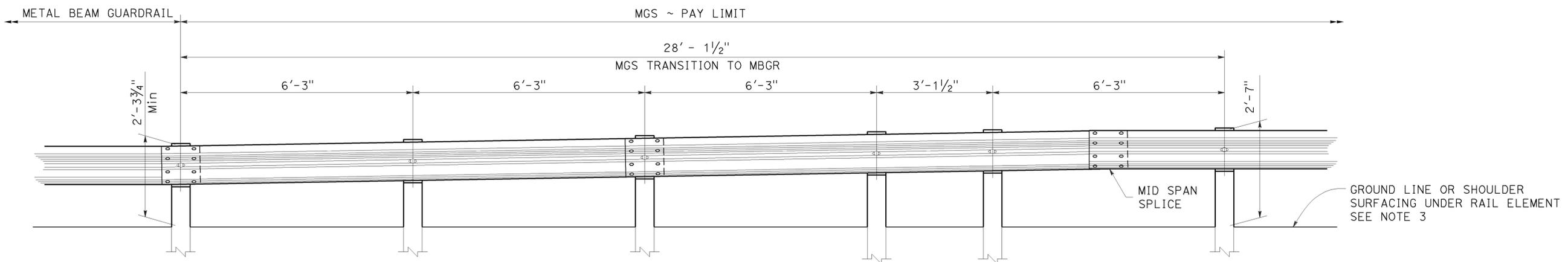
TO ACCOMPANY PLANS DATED 6-1-15

NOTES:

1. Refer to Revised Standard Plans RSP A77L1 and RSP A77L2 for component details for MGS not shown on this plan.
2. All posts for any standard barrier run shall be of the same type: Wood or Steel.
3. Install posts in soil.



PLAN



ELEVATION

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

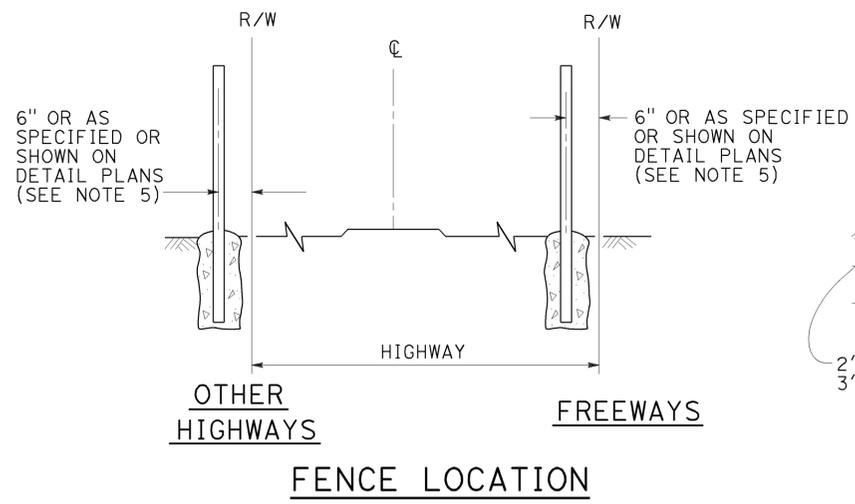
**MIDWEST GUARDRAIL SYSTEM
TRANSITION TO METAL BEAM GUARDRAIL**

NO SCALE

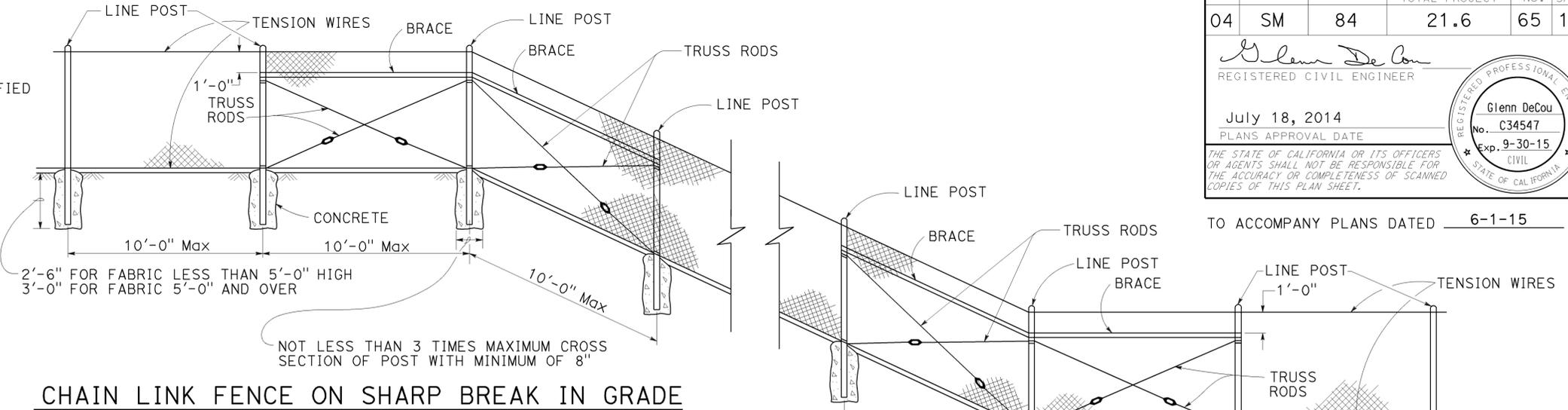
RSP A77U5 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77U5

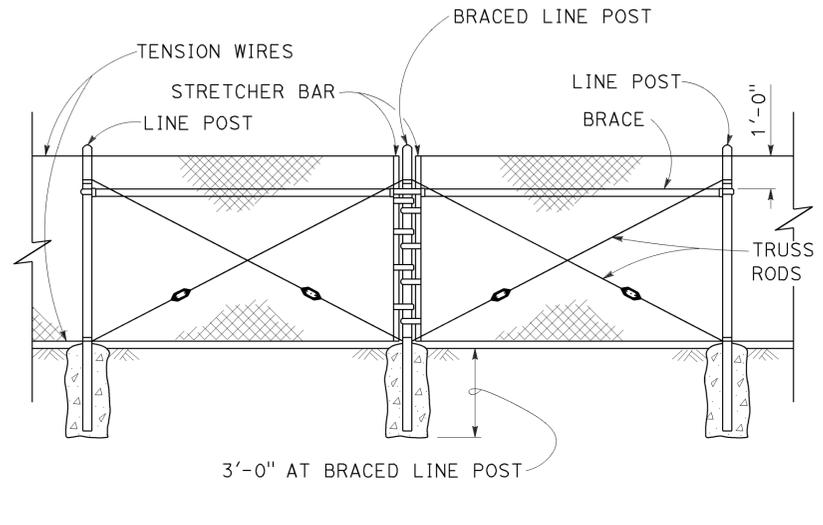
2010 REVISED STANDARD PLAN RSP A77U5



FENCE LOCATION

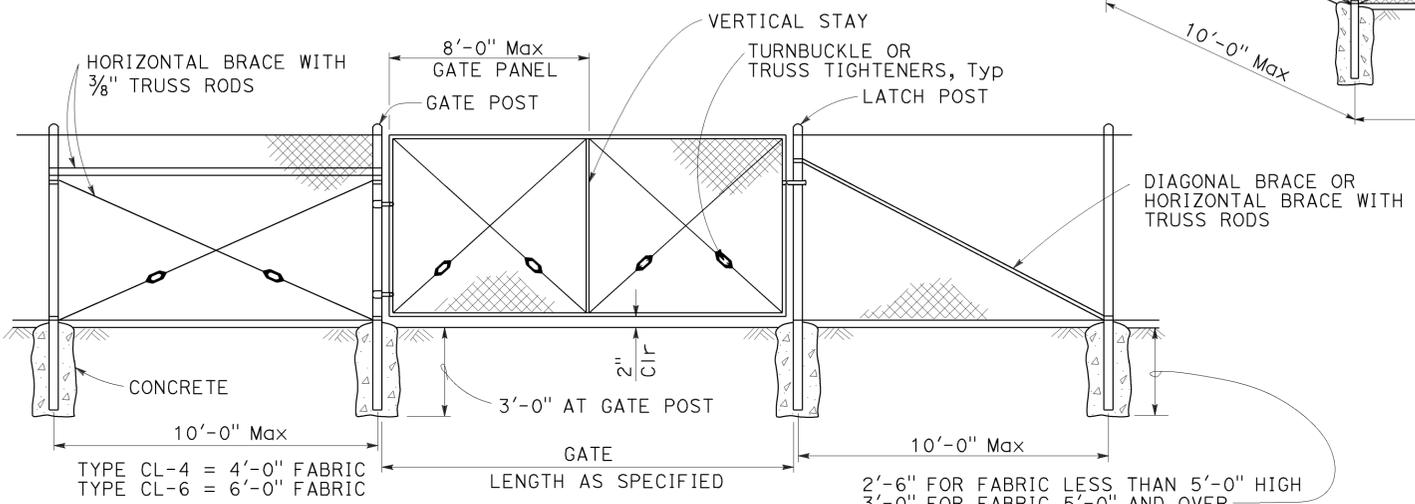


CHAIN LINK FENCE ON SHARP BREAK IN GRADE



BRACED LINE POST INSTALLATION

Braced line post at intervals not exceeding 1000'



CHAIN LINK GATE INSTALLATION

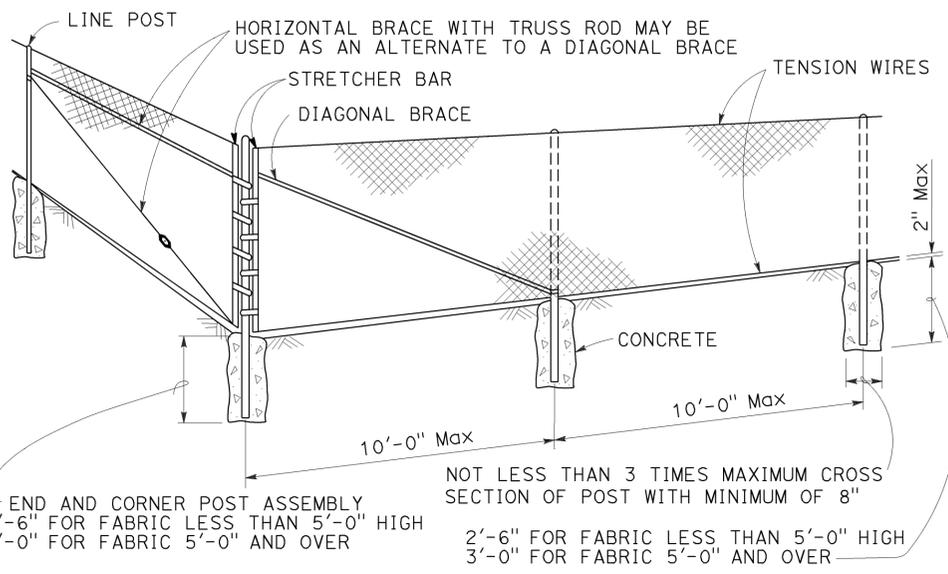
FENCE HEIGHT	GATE WIDTHS	ROUND OD PIPE	WEIGHT (lb/ft)
6'-0" AND LESS	UP THRU 6'-0"	2.875"	5.80
	OVER 6'-0" THRU 12'-0"	4.500"	10.80
	OVER 12'-0" THRU 18'-0"	5.563"	14.63
OVER 6'-0" TO 8'-0" Max	OVER 18'-0" TO 24'-0" Max	6.625"	18.99
	UP THRU 6'-0"	3.500"	7.58
	OVER 6'-0" THRU 12'-0"	5.563"	14.63
	OVER 12'-0" THRU 18'-0"	6.625"	18.99
	OVER 18'-0" TO 24'-0" Max	8.625"	28.58

Above post dimensions and weights are minimums. Larger sizes may be used upon approval.

NOTES:

- The table below shows minimum sized posts and braces complying with the specifications. Larger or heavier post and brace sizes may be used upon approval.
- Sections shown in the tables must also comply with the strength requirements and other provisions of the Specifications.
- Other sections which comply with the strength requirements and other provisions of the Specifications may be used upon approval.
- Options exercised shall be uniform on any one project.
- Offset to be 2'-0" at monument locations, measured at right angles to R/W lines. Taper to achieve offset to be at least 20'-0" long.
- See Revised Standard Plan RSP A85B for Brace, Stretcher Bar, and Truss Tightener Details.

FENCE HEIGHT	LINE POSTS				END, LATCH AND CORNER POSTS		BRACES			
	ROUND OD PIPE	WEIGHT (lb/ft)	ROLL FORMED		ROUND OD PIPE	WEIGHT (lb/ft)	ROUND OD PIPE	WEIGHT (lb/ft)	ROLL FORMED	
			SECTION	WEIGHT (lb/ft)					SECTION	WEIGHT (lb/ft)
6'-0" AND LESS	1.900"	2.72	1.875" x 1.625"	1.85	2.375"	3.65	1.66"	2.27	1.625" x 1.25"	1.35
OVER 6'-0" TO 8'-0" Max	2.375"	3.65	2.25" x 1.70"	2.78	2.875"	5.80	1.66"	2.27	1.625" x 1.25"	1.35



CORNER POST

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CHAIN LINK FENCE
NO SCALE

RSP A85 DATED JULY 18, 2014 SUPERSEDES STANDARD PLAN A85
DATED MAY 20, 2011 - PAGE 112 OF THE STANDARD PLANS BOOK DATED 2010.

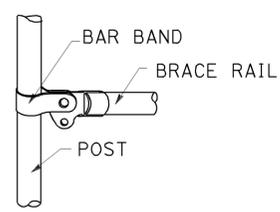
REVISED STANDARD PLAN RSP A85

2010 REVISED STANDARD PLAN RSP A85

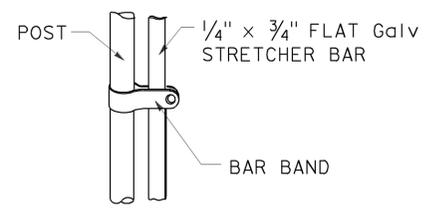
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	66	100

Glenn DeCou
 REGISTERED CIVIL ENGINEER
 October 19, 2012
 PLANS APPROVAL DATE
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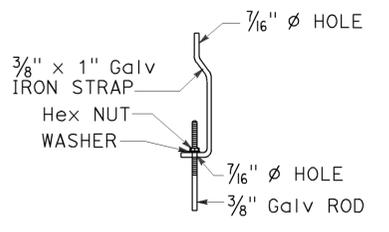
REGISTERED PROFESSIONAL ENGINEER
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BRACE RAIL



STRETCHER BAR

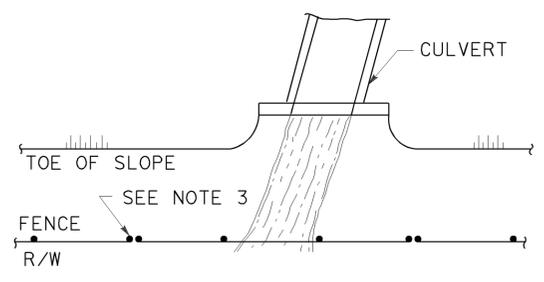


TRUSS TIGHTENER

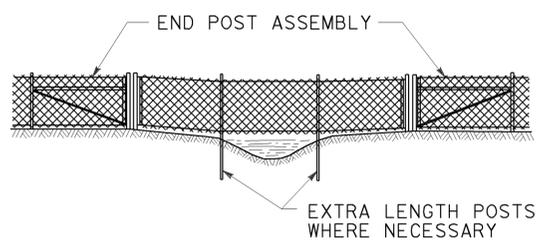
NOTES:

1. All material for abutment connection to be galvanized.
2. The chain link fabric shall be replaced by barbed wire strands at 12" maximum centers between the double posts.
3. When the width of the culvert makes it necessary to anchor a post to the top of the culvert, a cast iron shoe or other device approved by the Engineer shall be used.
4. Fencing over stream and around headwall may also use Barbed Wire or Wire Mesh fencing with either wood post or steel post installation.
5. See Standard Plan A85 for Chain Link fence dimensions. See Standard Plan A86 for Barbed Wire and Wire Mesh fence dimensions and for wood post and steel post installation.

TO ACCOMPANY PLANS DATED 6-1-15

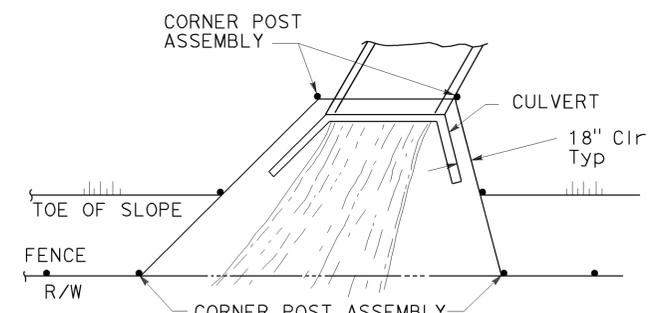


PLAN

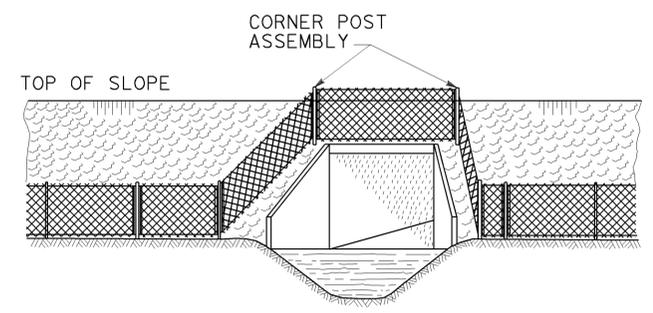


ELEVATION

INSTALLATION OVER STREAM



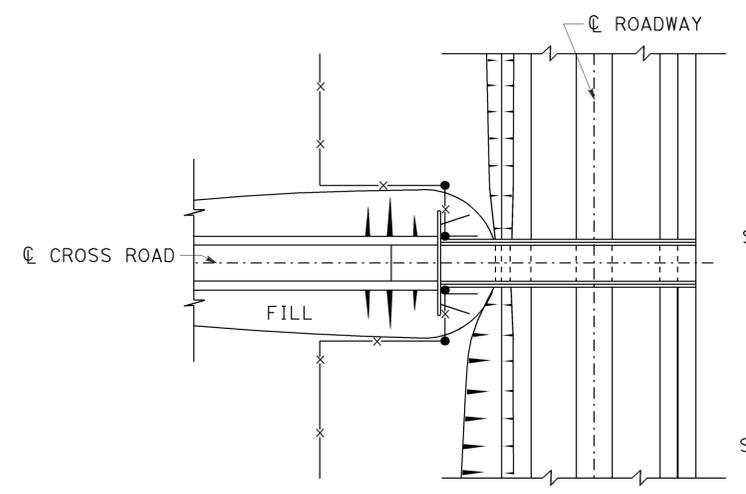
PLAN



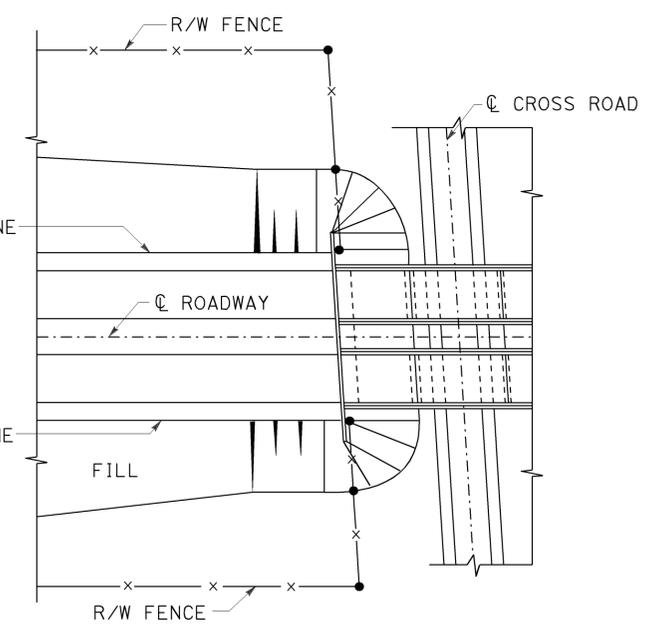
ELEVATION

INSTALLATION AROUND HEADWALL

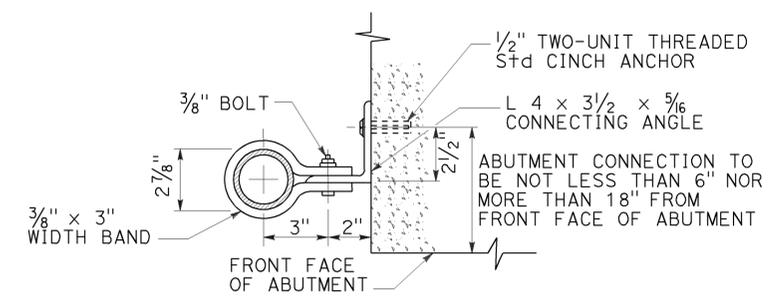
See Note 4



PLAN OF ROADWAY - OVERCROSSING



PLAN OF ROADWAY - UNDERCROSSING



ABUTMENT CONNECTION

TYPICAL INSTALLATION AT BRIDGES

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE DETAILS

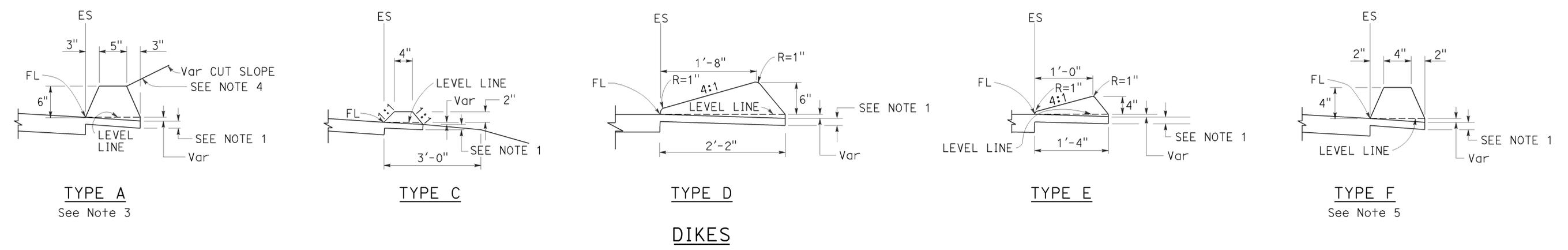
NO SCALE

RSP A85B DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN A85B DATED MAY 20, 2011 - PAGE 114 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A85B

2010 REVISED STANDARD PLAN RSP A85B

TO ACCOMPANY PLANS DATED 6-1-15



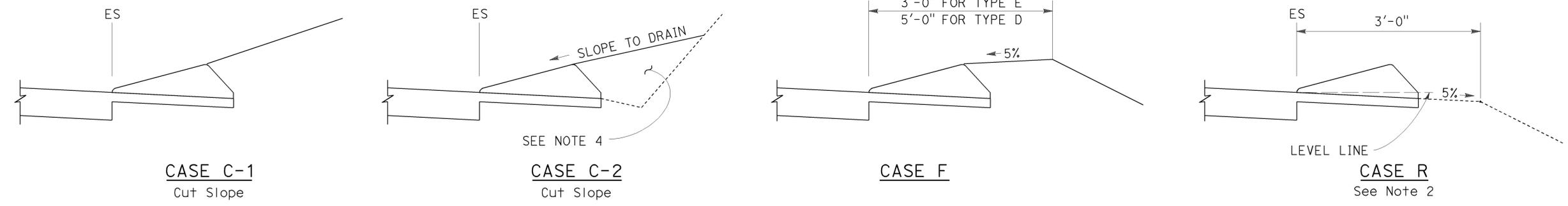
TYPE A
See Note 3

TYPE C

TYPE D

TYPE E

TYPE F
See Note 5



CASE C-1
Cut Slope

CASE C-2
Cut Slope

CASE F

CASE R
See Note 2

NOTES:

1. For HMA shoulders only, extend top layer of HMA placed on the shoulder under dike with no joint at the ES. For projects with OGFC shoulders, do not extend OGFC under dike. See project plans for modified dike detail.
2. Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
3. Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
4. Fill and compact with excavated material to top of dike.
5. Use Type F dike, where dike is required with guard railing installations. See Revised Standard Plan RSP A77N4 for dike positioning details.

DIKE QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A	0.0135
C	0.0038
D	0.0293
E	0.0130
F	0.0066

Quantities based on 5% cross slope.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HOT MIX ASPHALT DIKES
NO SCALE

RSP A87B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87B
DATED MAY 20, 2011 - PAGE 120 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A87B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	68	100

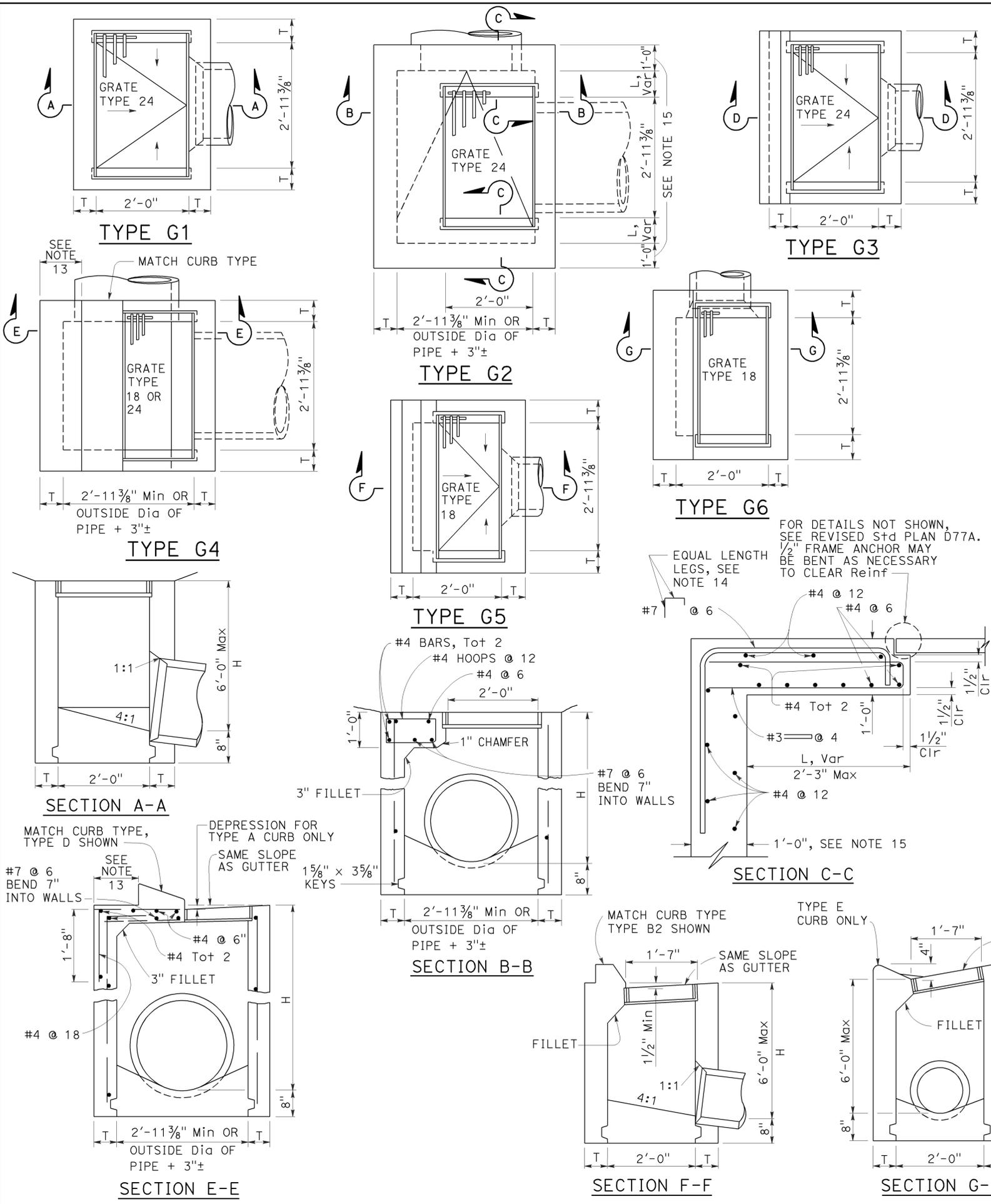
Glenn DeCou
REGISTERED CIVIL ENGINEER

October 19, 2012
PLANS APPROVAL DATE

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2010 REVISED STANDARD PLAN RSP D73



NOTES:

- "H" is the difference in elevation between the outlet pipe flow line and the normal gutter grade line undepressed.
- For "T" wall thickness, see Table A below.
- Wall reinforcing not required when "H" is 8'-0" or less and the unsupported width or length is 7'-0" or less. Walls exceeding these limits shall be reinforced with #4 bars @ 1'-6" ± centers placed 1 1/2" clear to inside of box unless otherwise shown.
- Inlet bottom reinforcing not required. See Standard Plan D74C for alternative reinforced bottom and alternative half round bottom.
- Steps-None required where "H" is less than 2'-6". Where "H" is 2'-6" or more, install steps with lowest rung 1'-0" above the floor and highest rung not more than 6" below top of inlet. The distance between steps shall not exceed 1'-0" and shall be uniform throughout the length of the wall. Place steps in the wall without an opening. Steps inserts may be substituted for the bar steps. Step inserts shall comply with State Industrial Safety requirements. See Standard Plan D74C for step details.
- Details shown apply to both metal and concrete pipe.
- Pipe(s) can be placed in any wall.
- Curb section shall match adjacent curb.
- Basin floors shall have wood trowel finish and a minimum slope of 12:3 from all directions toward outlet pipe.
- Set inlet so that grate bars are parallel to direction of principal surface flow.
- See Revised Standard Plans D77A and D77B for grate and frame details and weights of miscellaneous iron and steel.
- See Standard Plan D78A for gutter depression details.
- This dimension will vary with different grates, curbs types, box width and wall thickness.
- Bar may be rotated as necessary to clear opening. Where "L" is 6" or less, bar may be omitted.
- Where "L" is 6" or less, wall thickness shall be as shown in Table A.
- Cast-in-place inlets to be formed around all pipes/stubs intersecting the inlet, and concrete poured in one continuous operation. Precast inlets shall have mortared connections conforming to details for Type GCP Inlet shown on Standard Plan D75B. See Standard Specifications for mortar composition.

TABLE A

TYPE	CONCRETE QUANTITIES					
	H=3'-0" TO 8'-0" (T=6")	H=8'-1" TO 20'-0" (T=8")	H=3'-0" (CY)	ADDITIONAL PCC PER FOOT (CY)	H=8'-1" (CY)	ADDITIONAL PCC PER FOOT (CY)
G-1	0.95	0.220	See Note A	SEE NOTE A		
G-2*	1.31	0.255	3.50	0.357		
G-3	1.03	0.220	See Note A	SEE NOTE A		
G-4* (TYPE 24)	1.27	0.255	3.48	0.357		
G-4* (TYPE 18)	1.30	0.255	3.50	0.357		
G-5	1.02	0.220	SEE NOTE A	SEE NOTE A		
G-6	1.04	0.220	SEE NOTE A	SEE NOTE A		

TABLE BASED ON 8" FLOOR SLAB. NO DEDUCTIONS ARE TO BE MADE TO THESE QUANTITIES BECAUSE OF PIPE OPENINGS, DIFFERENT FLOOR ALTERNATIVES OR DIFFERENT CURB TYPES. * QUANTITIES FOR TYPE G-2 AND G-4 INLETS BASED ON THE MINIMUM INTERIOR DIMENSIONS.

NOTE A:

Maximum allowable height 6'-0".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DRAINAGE INLETS
NO SCALE

RSP D73 DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN D73 DATED MAY 20, 2011 - PAGE 156 OF THE STANDARD PLANS BOOK DATED 2010.

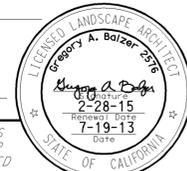
REVISED STANDARD PLAN RSP D73

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	70	100

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 6-1-15

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
 Pvm+ 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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	71	100

Gregory A. Balzer
LICENSED LANDSCAPE ARCHITECT

November 15, 2013
PLANS APPROVAL DATE

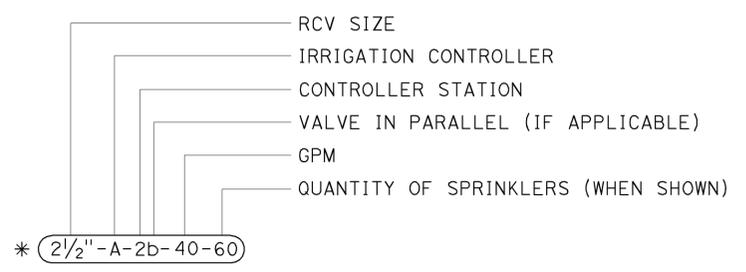
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LICENSED LANDSCAPE ARCHITECT
Gregory A. Balzer
2-28-15
11-15-13
DATE

TO ACCOMPANY PLANS DATED 6-1-15

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
		EXTEND IRRIGATION CONDUIT
		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.

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

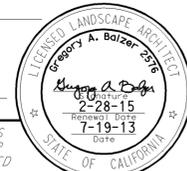
REVISED STANDARD PLAN RSP H2

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

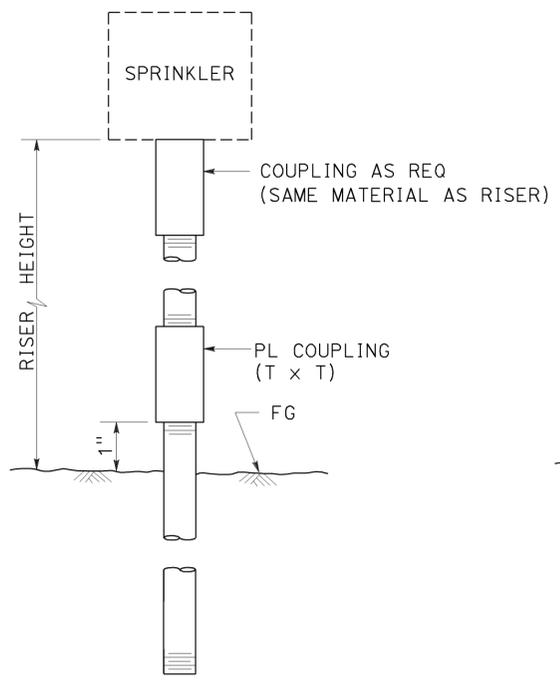
2010 REVISED STANDARD PLAN RSP H2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	72	100

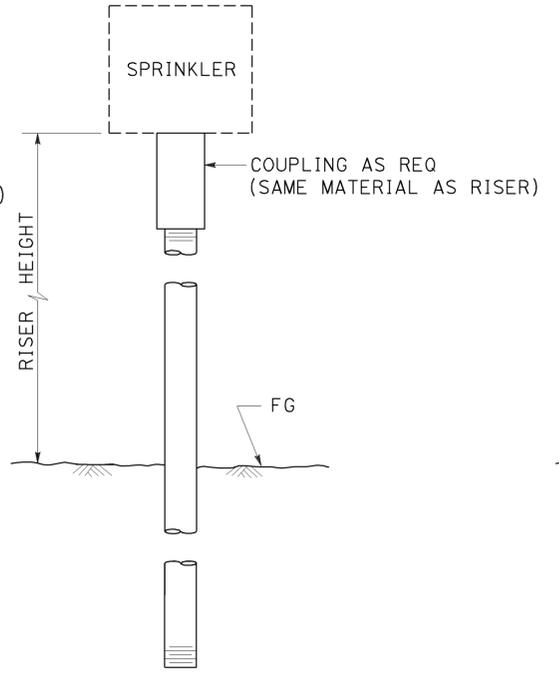
Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



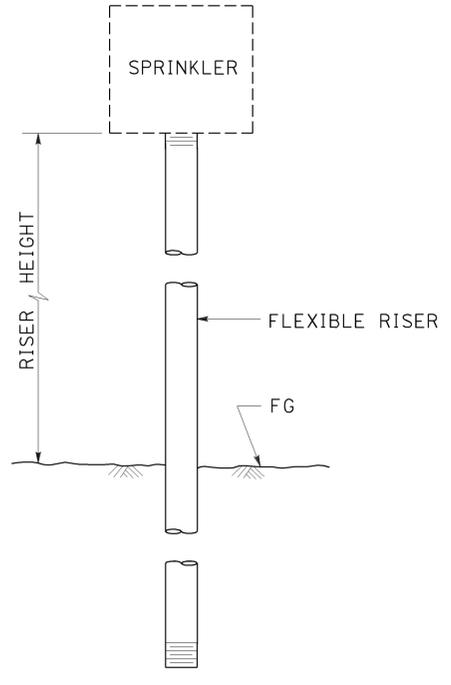
TO ACCOMPANY PLANS DATED 6-1-15



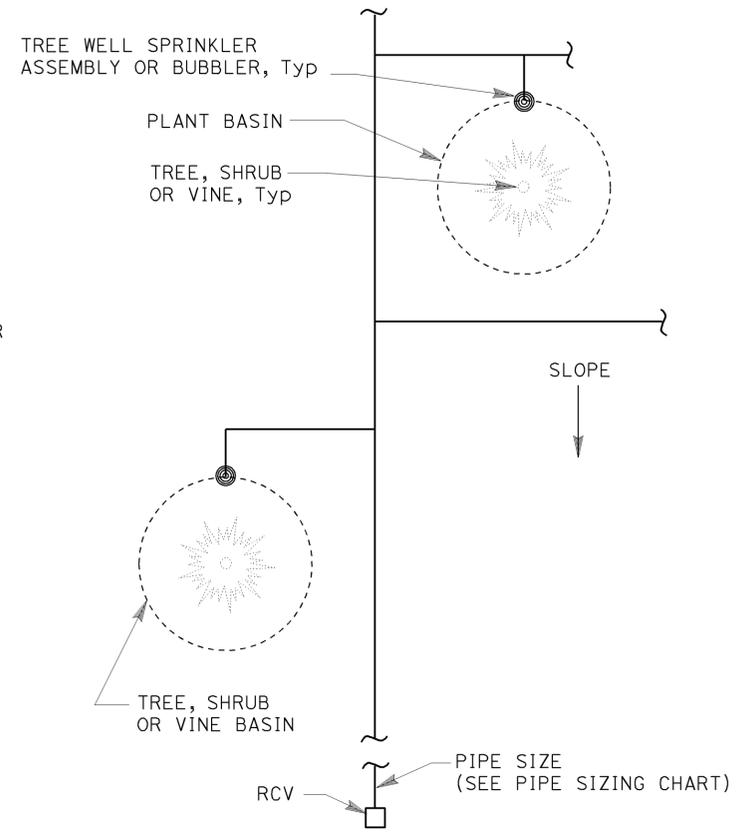
ELEVATION
RISER SPRINKLER ASSEMBLY TYPE I



ELEVATION
RISER SPRINKLER ASSEMBLY TYPE II



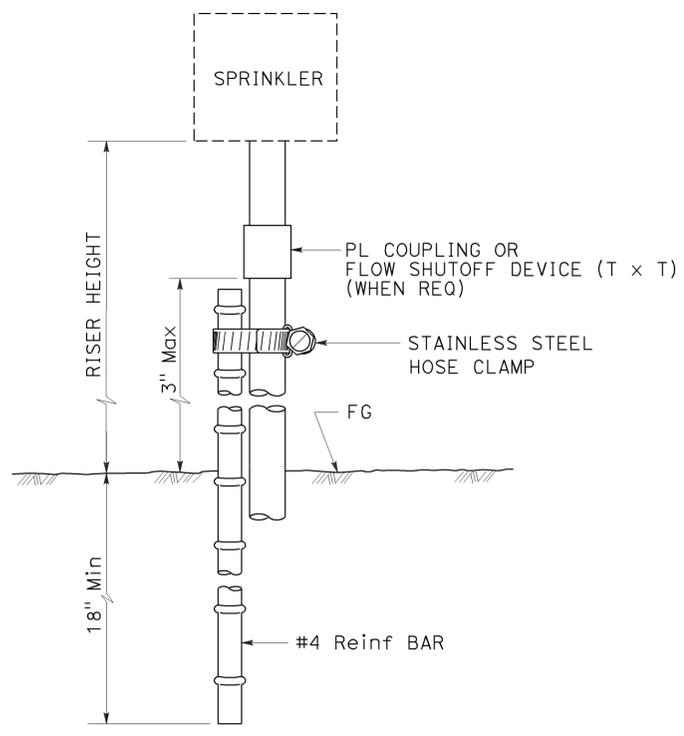
ELEVATION
RISER SPRINKLER ASSEMBLY TYPE III



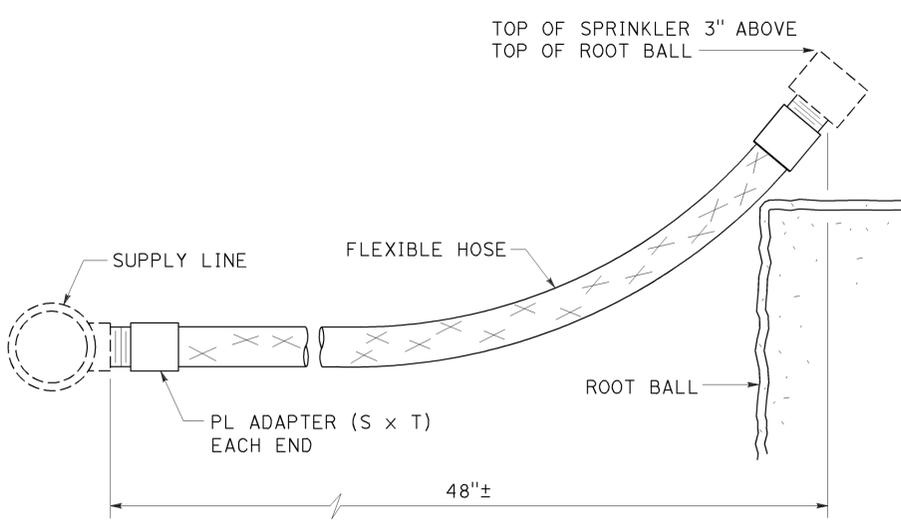
PLAN

NOTES:

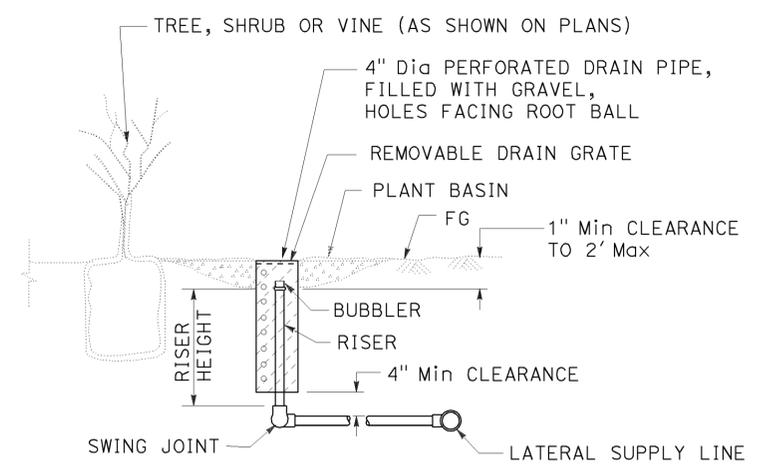
1. Install tree well sprinkler assembly on up-hill side of plant when on slope.
2. Install bubbler within basin.



ELEVATION
RISER SPRINKLER ASSEMBLY TYPE IV



ELEVATION
RISER SPRINKLER ASSEMBLY TYPE V



SECTION
TREE WELL SPRINKLER ASSEMBLY

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS
NO SCALE

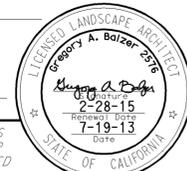
RSP H5 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H5 DATED MAY 20, 2011 - PAGE 222 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H5

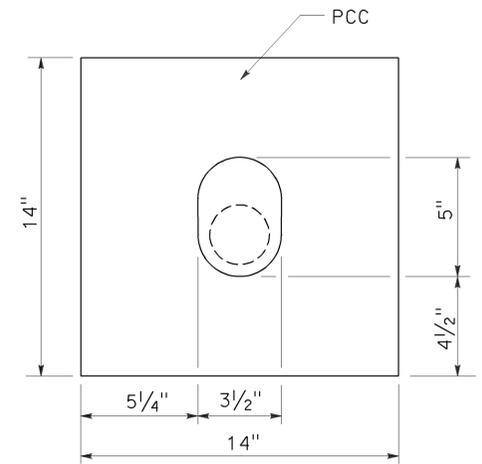
2010 REVISED STANDARD PLAN RSP H5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	73	100

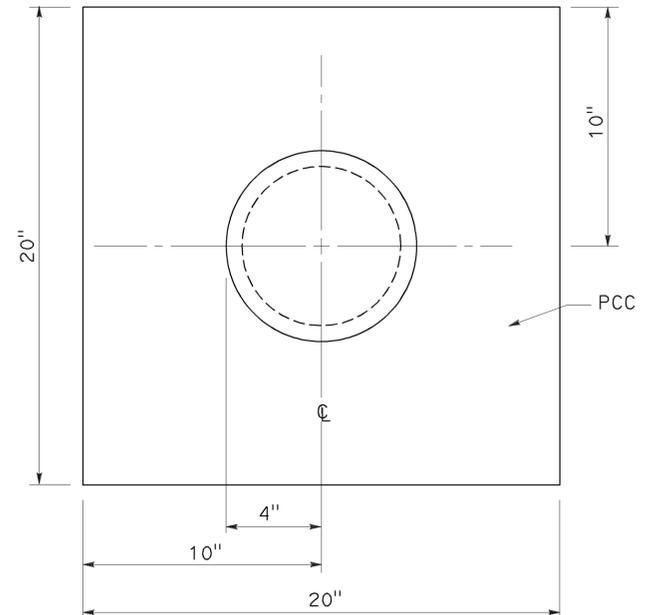
Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 July 19, 2013
 PLANS APPROVAL DATE
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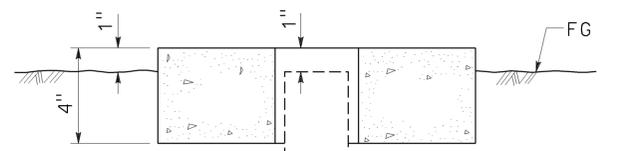
TO ACCOMPANY PLANS DATED 6-1-15



PLAN

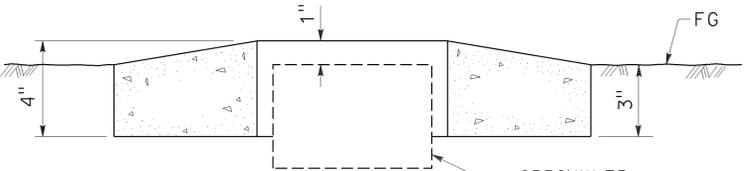


PLAN



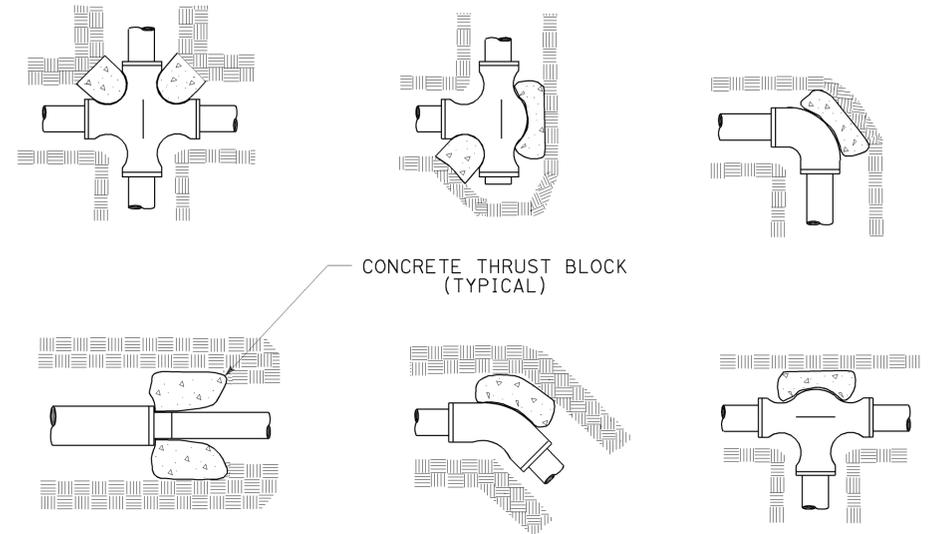
SECTION SPRINKLER OR QUICK COUPLING VALVE

SPRINKLER PROTECTOR TYPE I

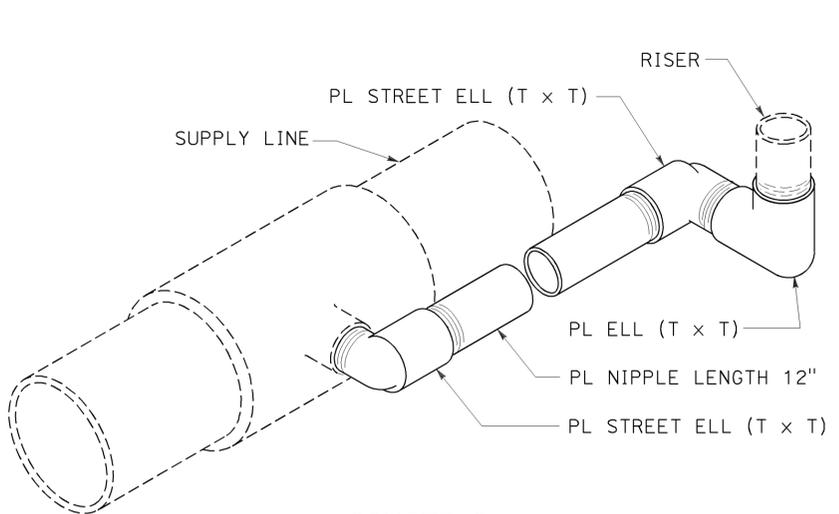


SECTION SPRINKLER

SPRINKLER PROTECTOR TYPE II

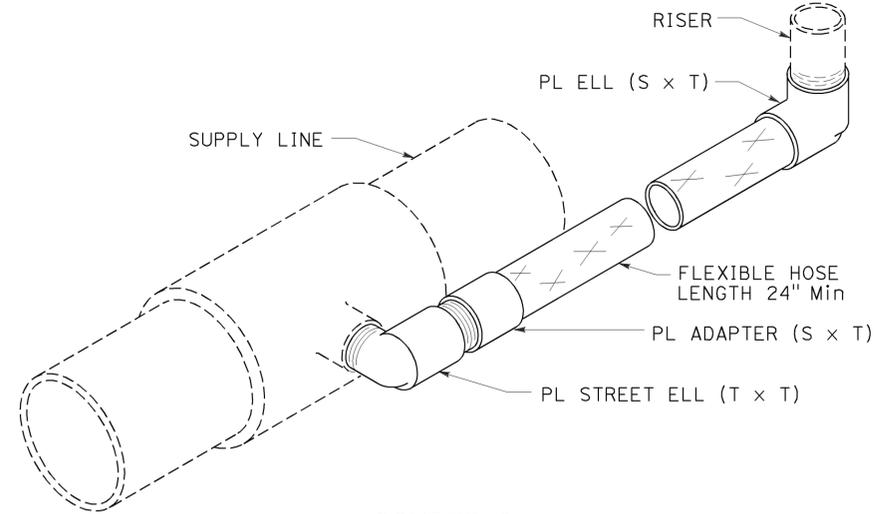


TYPICAL THRUST BLOCKS



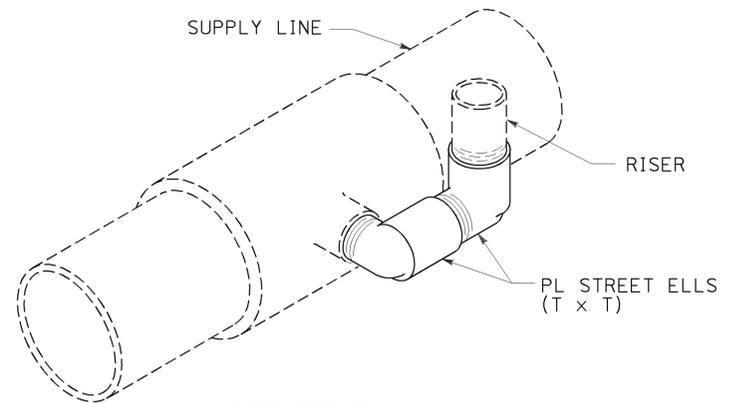
ISOMETRIC

POP-UP SPRINKLER ASSEMBLY TYPE I



ISOMETRIC

POP-UP SPRINKLER ASSEMBLY TYPE II



ISOMETRIC

POP-UP SPRINKLER ASSEMBLY TYPE III

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS

NO SCALE

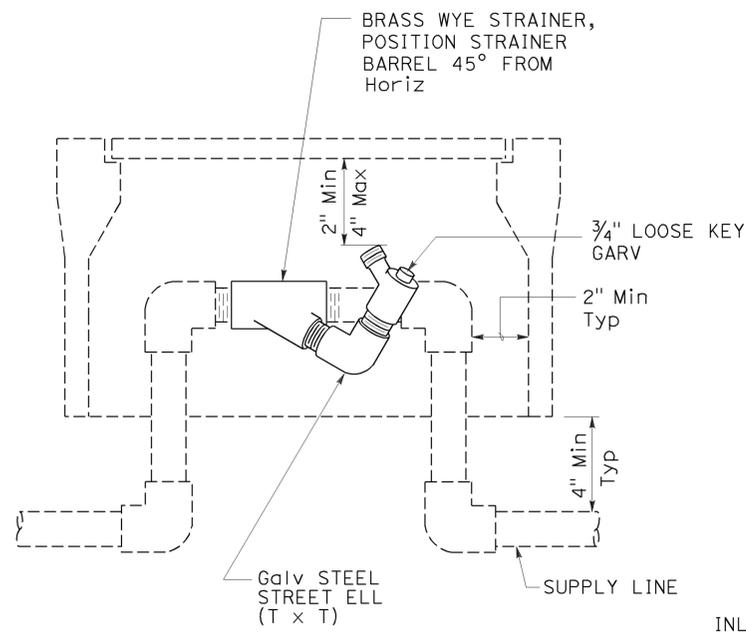
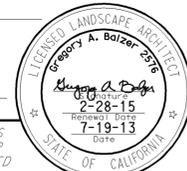
RSP H6 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H6 DATED MAY 20, 2011 - PAGE 223 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H6

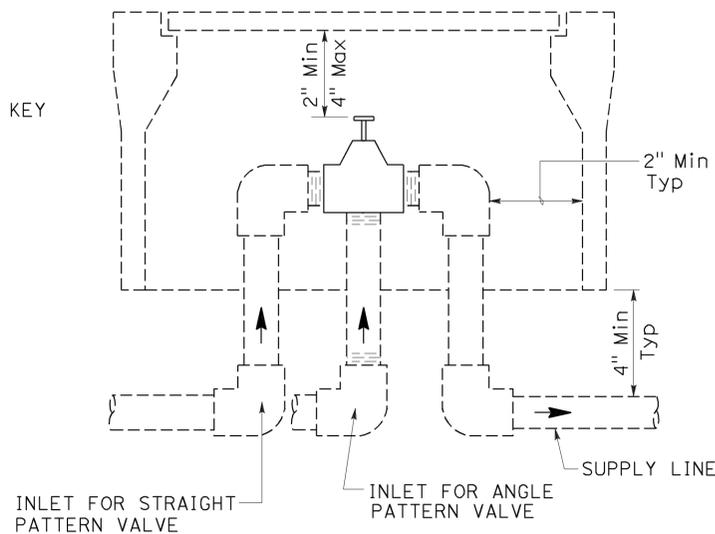
2010 REVISED STANDARD PLAN RSP H6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	74	100

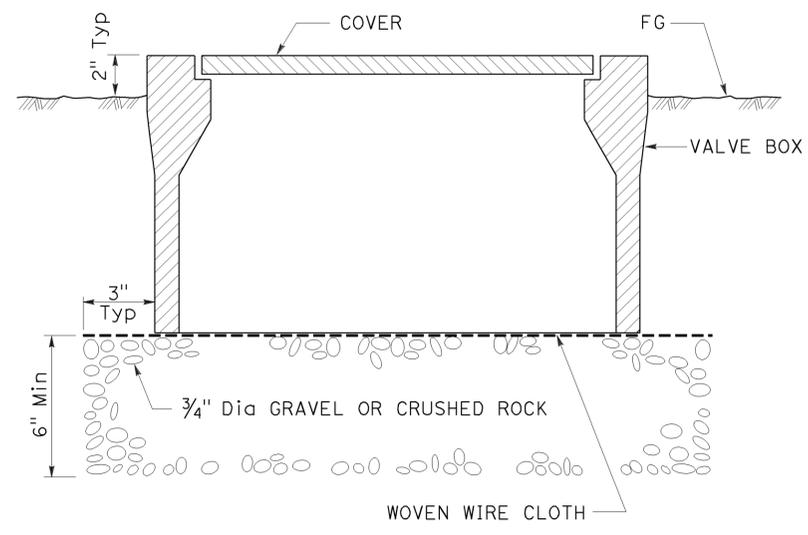
July 19, 2013
 PLANS APPROVAL DATE
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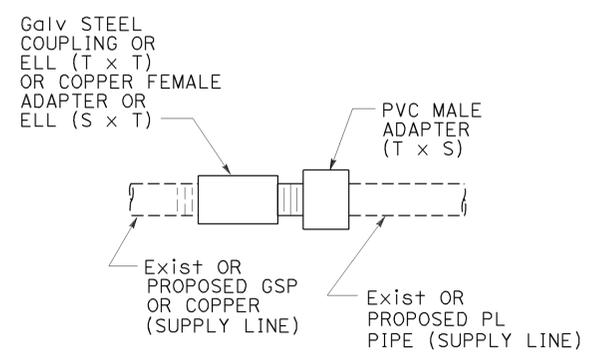
ELEVATION
WYE STRAINER ASSEMBLY



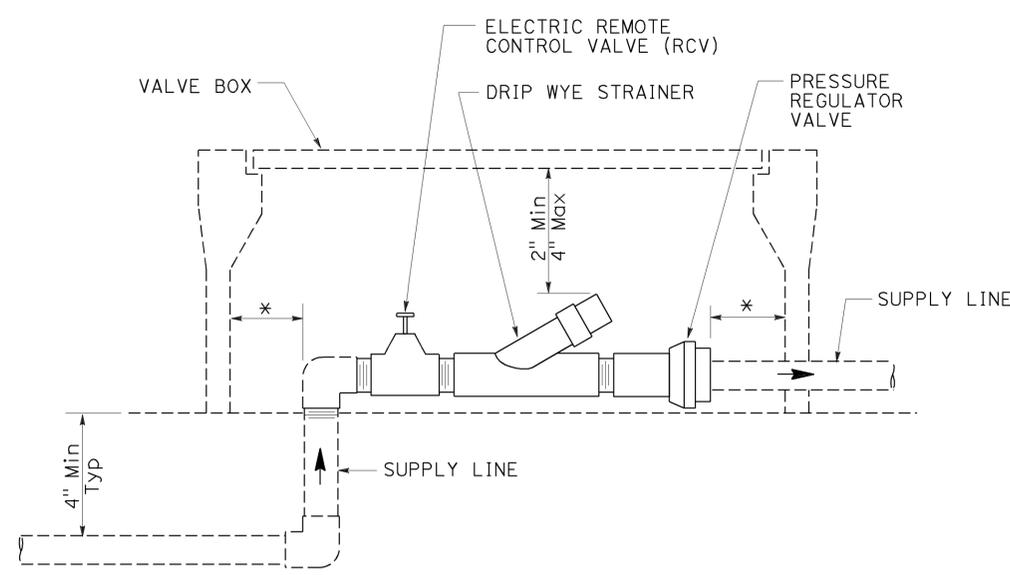
ELEVATION
VALVE



SECTION
VALVE BOX



GALVANIZED OR COPPER PIPE CONNECTION TO PLASTIC PIPE

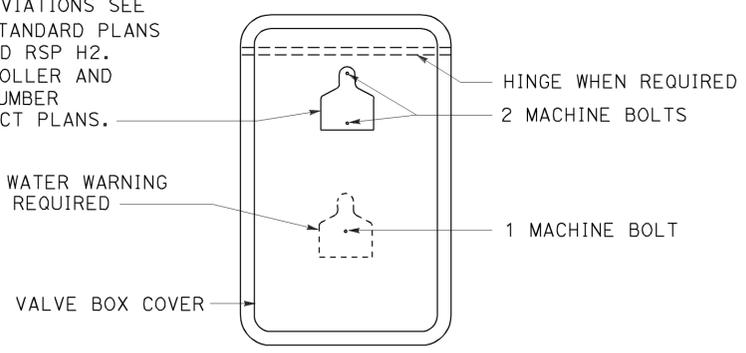


ELEVATION
DRIP VALVE ASSEMBLY

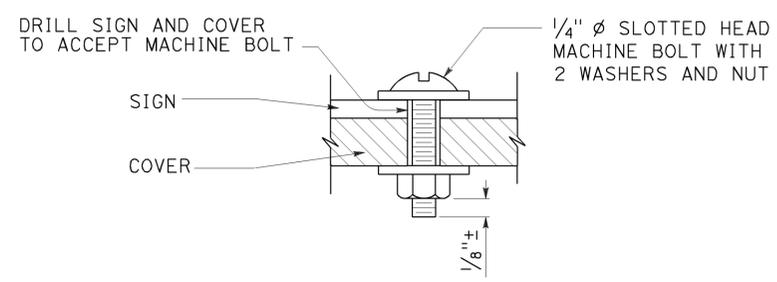
* 2" CLEARANCE ON ALL SIDES

IDENTIFICATION LABEL:
FOR ABBREVIATIONS SEE
REVISED STANDARD PLANS
RSP H1 AND RSP H2.
FOR CONTROLLER AND
STATION NUMBER
SEE PROJECT PLANS.

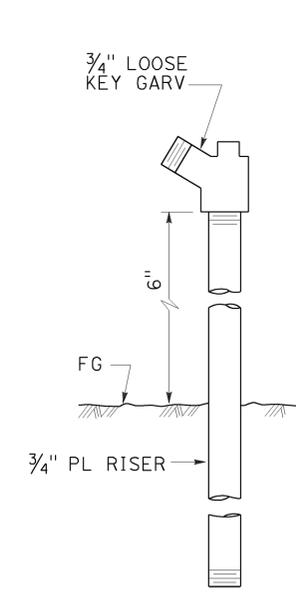
RECYCLED WATER WARNING
SIGN WHEN REQUIRED



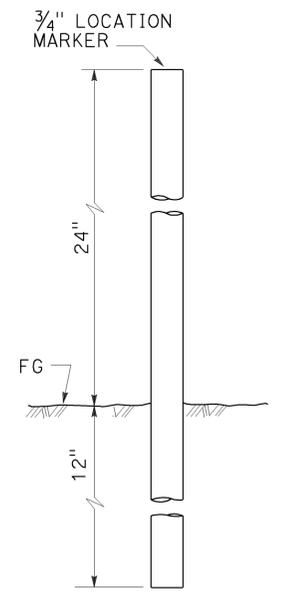
PLAN



SECTION
VALVE BOX IDENTIFICATION



ELEVATION
GARDEN VALVE ASSEMBLY



ELEVATION
LOCATION MARKER

GARDEN VALVE ASSEMBLY

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

LANDSCAPE DETAILS

NO SCALE

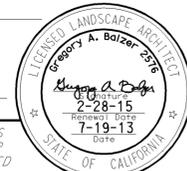
RSP H7 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H7
DATED MAY 20, 2011 - PAGE 224 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H7

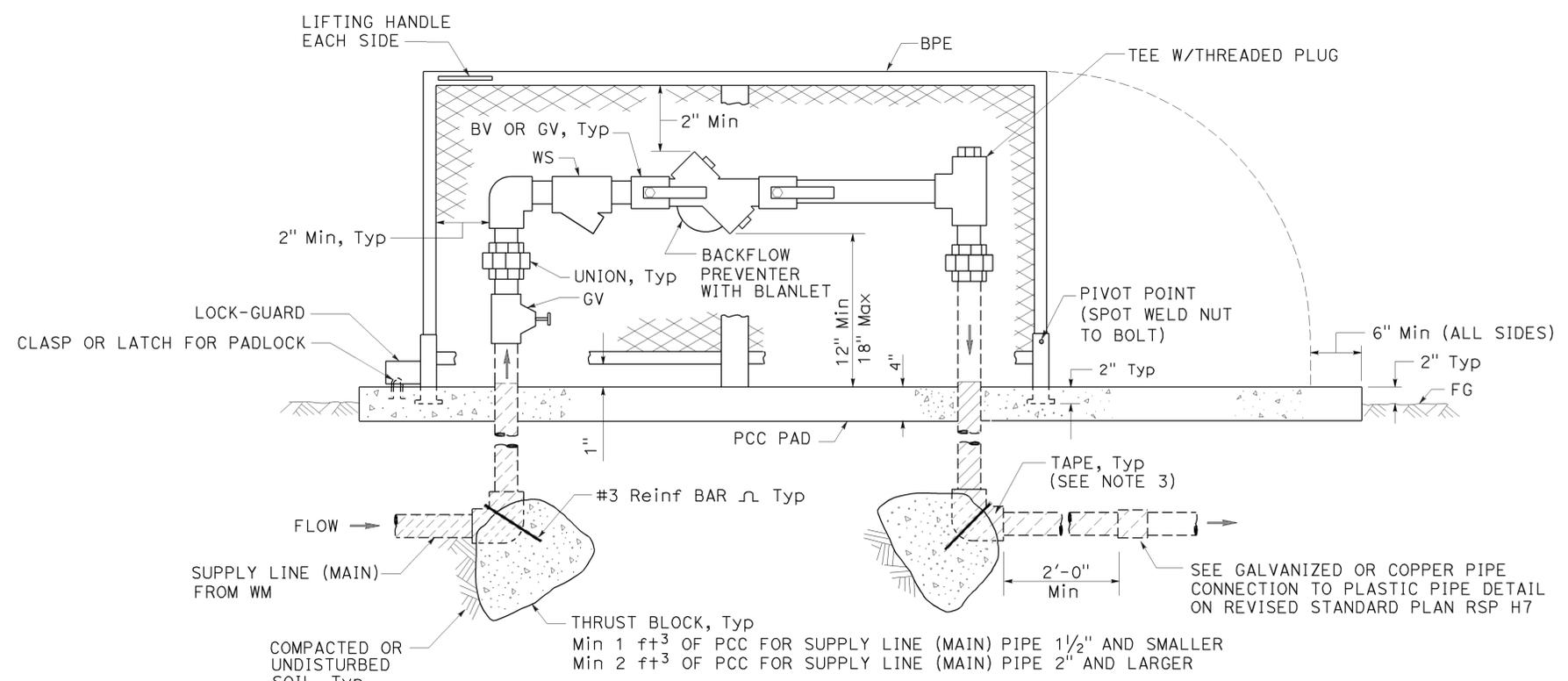
2010 REVISED STANDARD PLAN RSP H7

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	75	100

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.



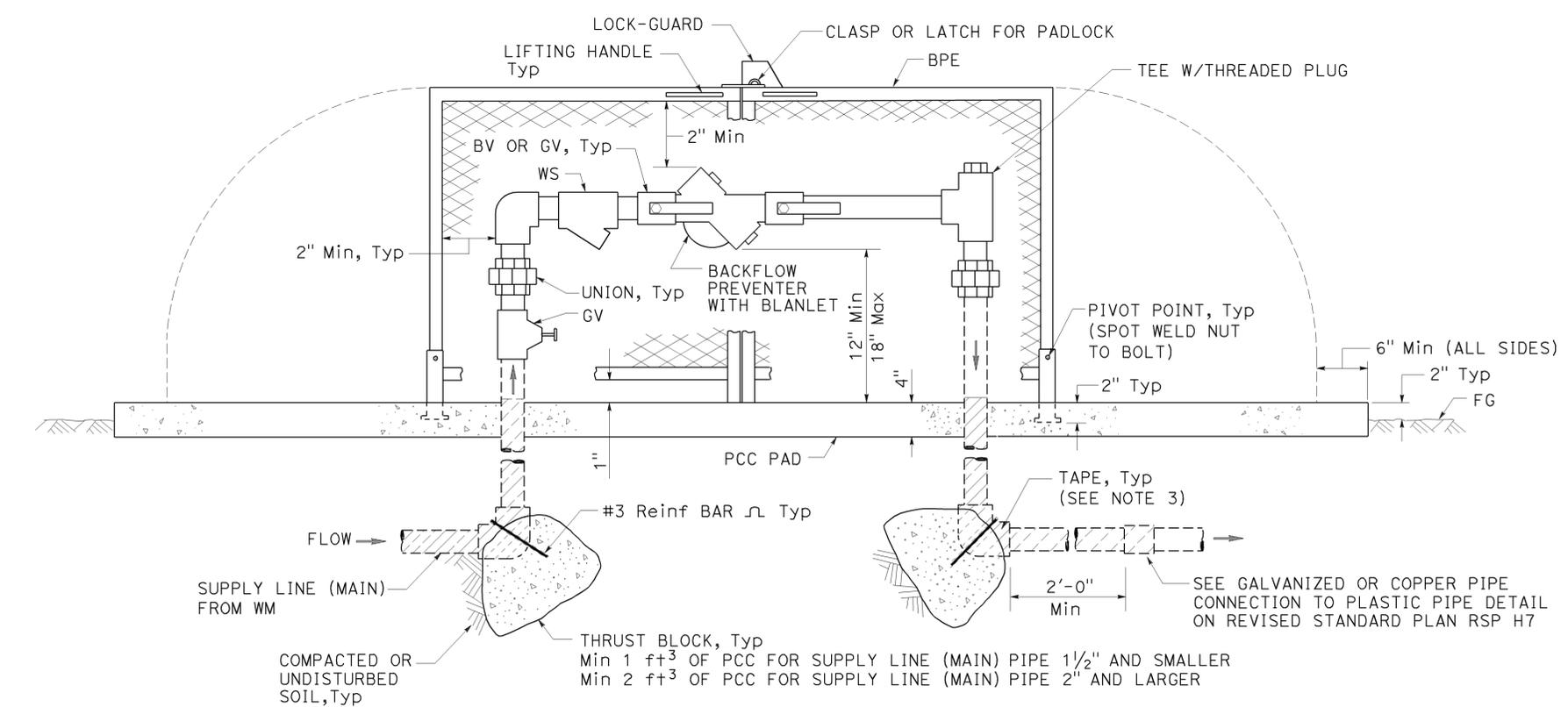
TO ACCOMPANY PLANS DATED 6-1-15



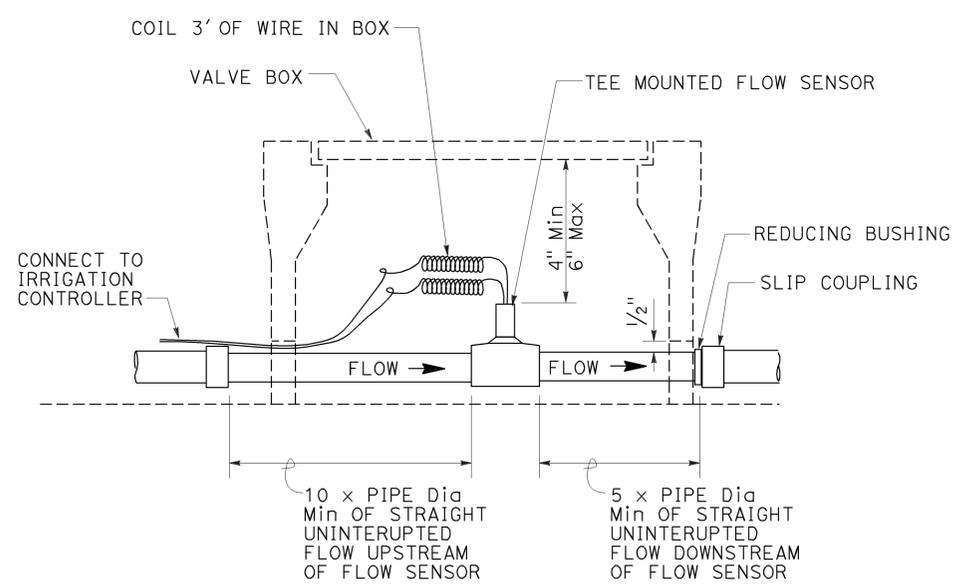
ELEVATION
BACKFLOW PREVENTER ASSEMBLY
 IN ONE PIECE ENCLOSURE

NOTES:

1. Wye strainer and fittings must be the same size as the backflow preventer shown on the plans.
2. Backflow preventer assembly manifold pipe must be the same pipe as the supply line (main) pipe to be installed from the water meter to the backflow preventer assembly.
3. All metal in contact with soil and Portland Cement Concrete must be wrapped with 2" wide plastic backed adhesive polyethylene tape 20 mil thick with 1/2" overlap.



ELEVATION
BACKFLOW PREVENTER ASSEMBLY
 IN TWO PIECE ENCLOSURE



SECTION
FLOW SENSOR

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS

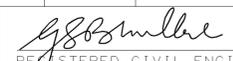
NO SCALE

RSP H8 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H8 DATED MAY 20, 2011 - PAGE 225 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H8

2010 REVISED STANDARD PLAN RSP H8

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	76	100


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE



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

TO ACCOMPANY PLANS DATED 6-1-15

TABLE 1

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

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

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

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

TABLE 2

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

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

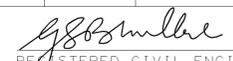
**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**

NO SCALE

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

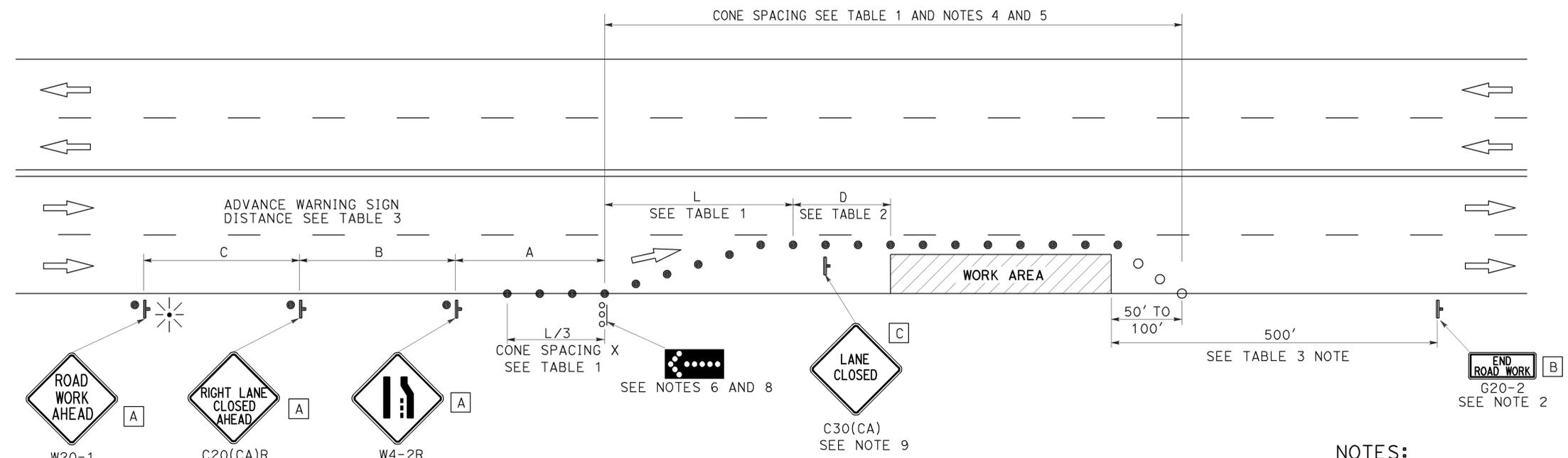
2010 REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	77	100


 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 6-1-15



TYPICAL LANE CLOSURE

NOTES:

See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

NOTES:

- Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Flashing arrow sign shall be either Type I or Type II.
- For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- ⌋ TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⊛ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 36" x 18"
- C 30" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

RSP T11 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T11
DATED MAY 20, 2011 - PAGE 239 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

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

LEGEND

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	78	100

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

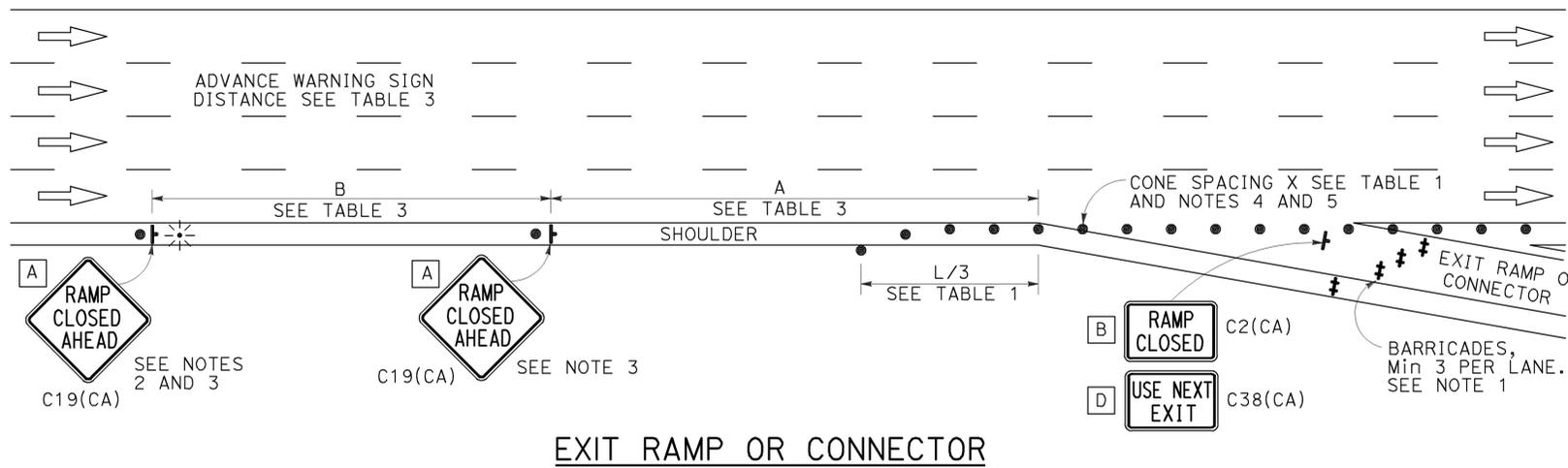
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

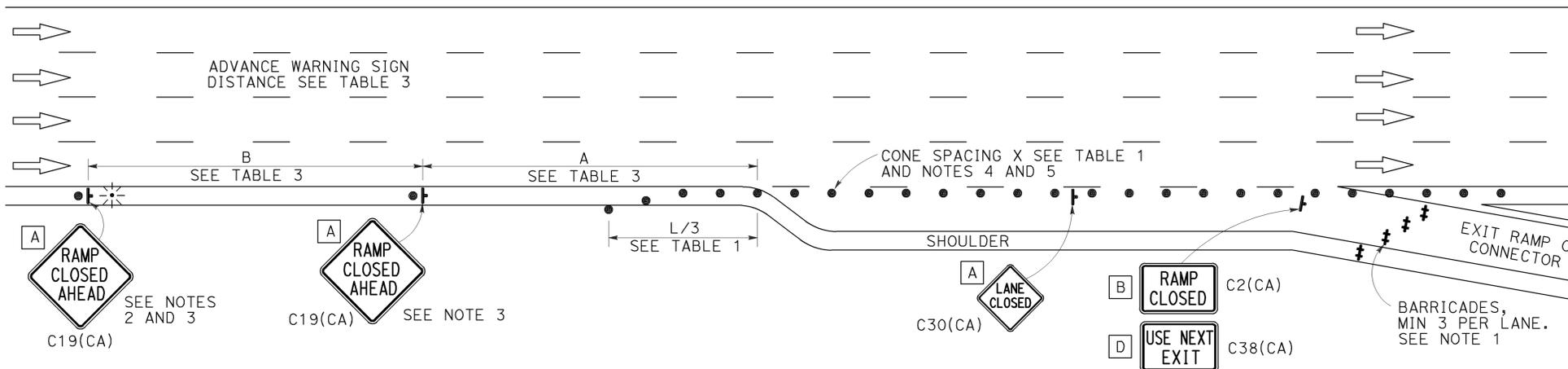
TO ACCOMPANY PLANS DATED 6-1-15

NOTES:

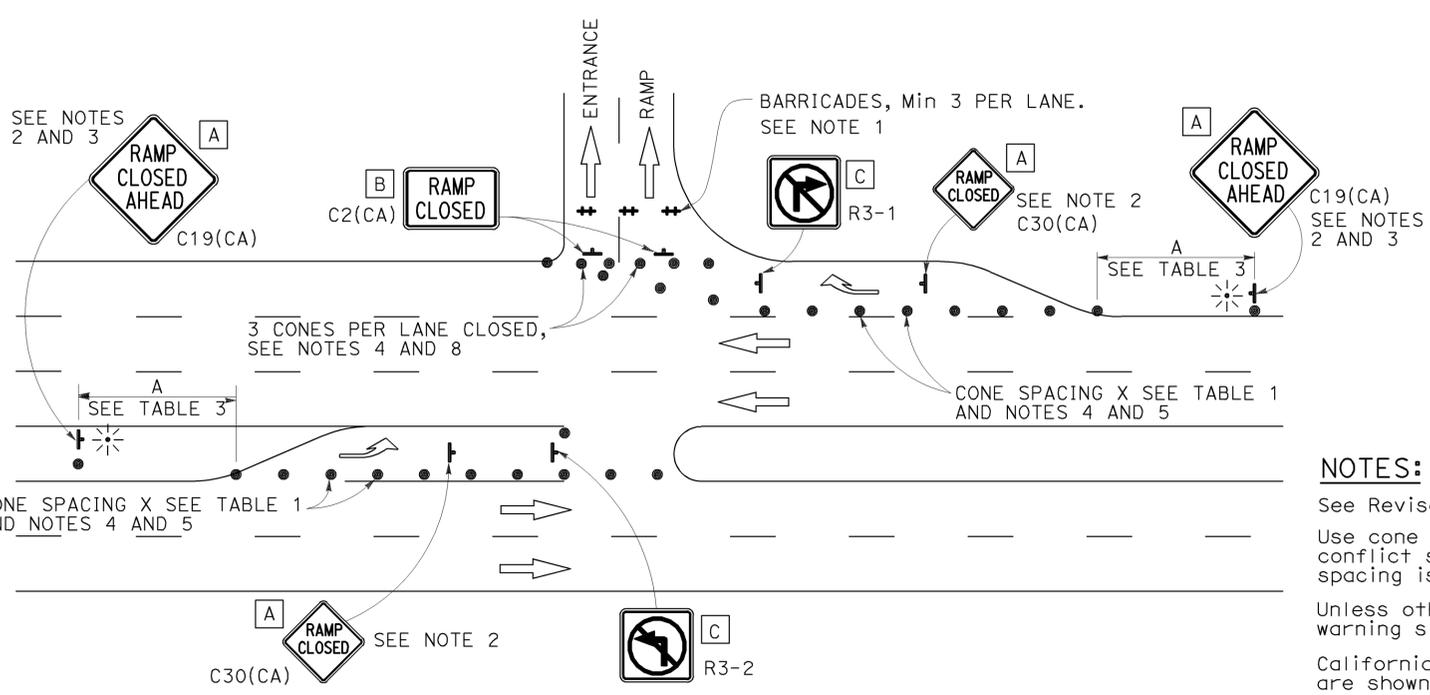
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed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



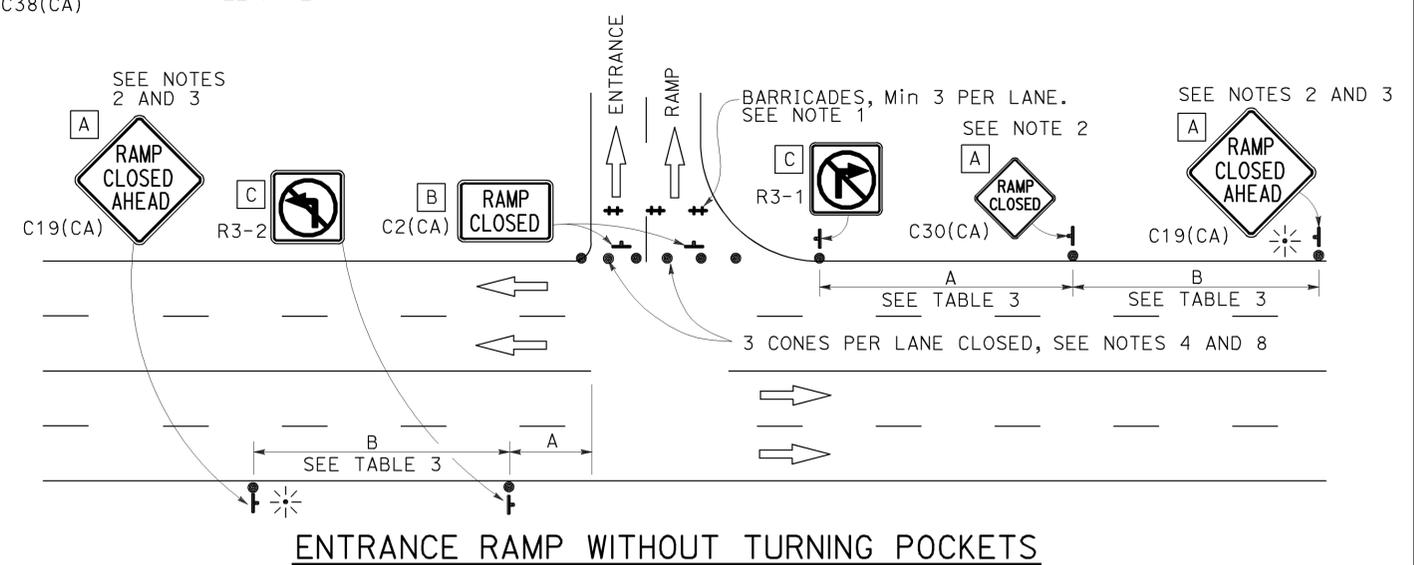
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

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

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

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

REVISED STANDARD PLAN RSP T14

2010 REVISED STANDARD PLAN RSP T14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	79	100

REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

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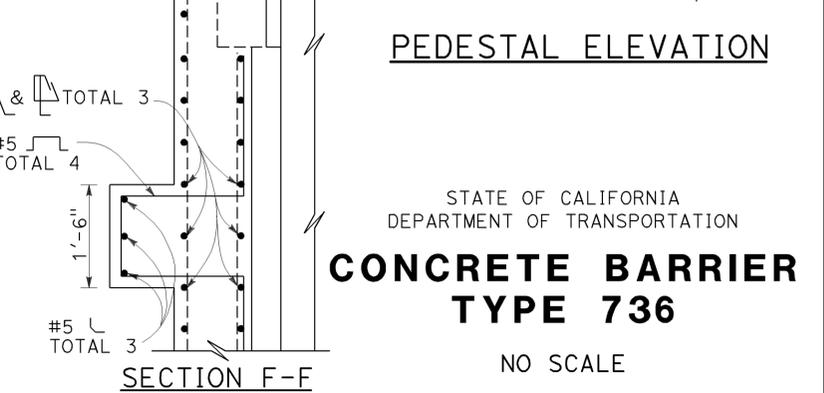
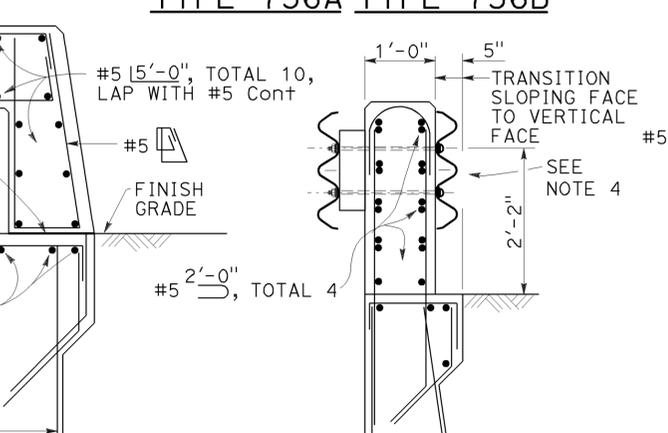
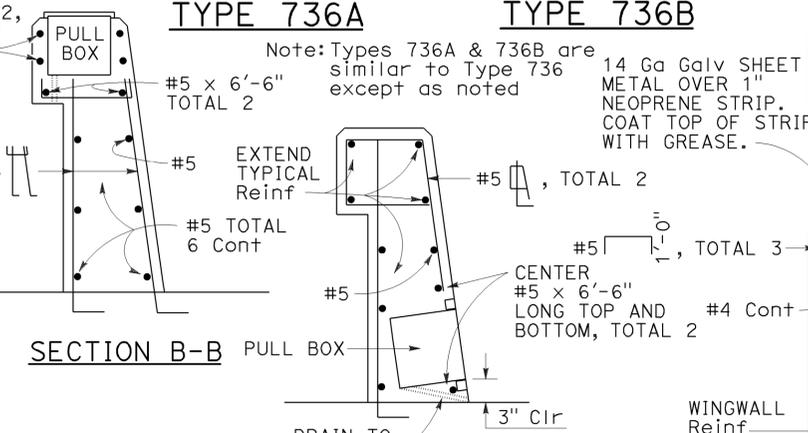
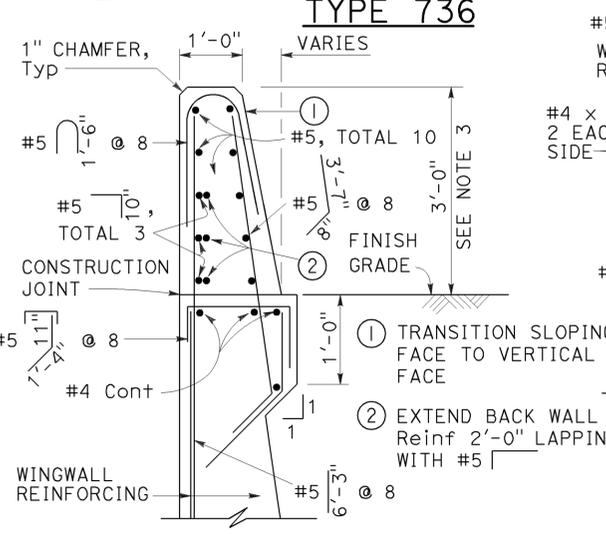
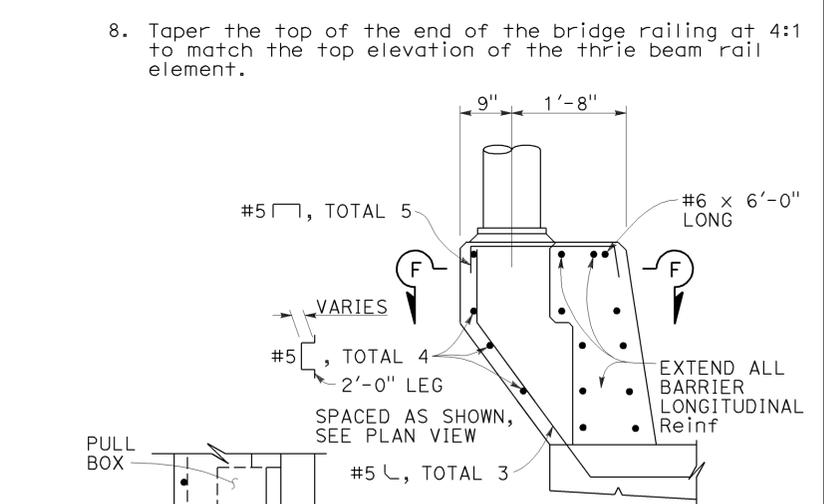
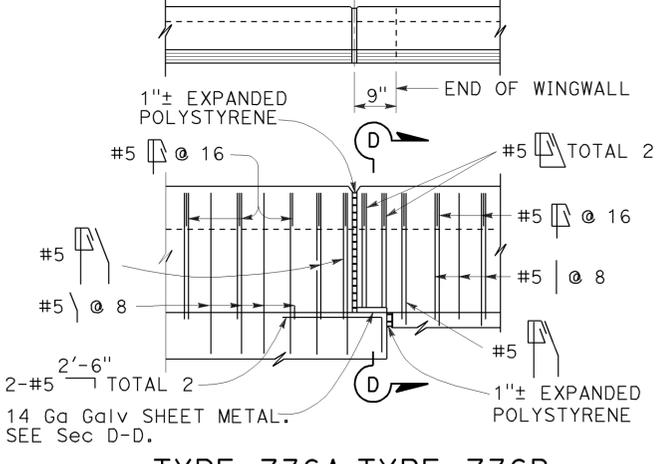
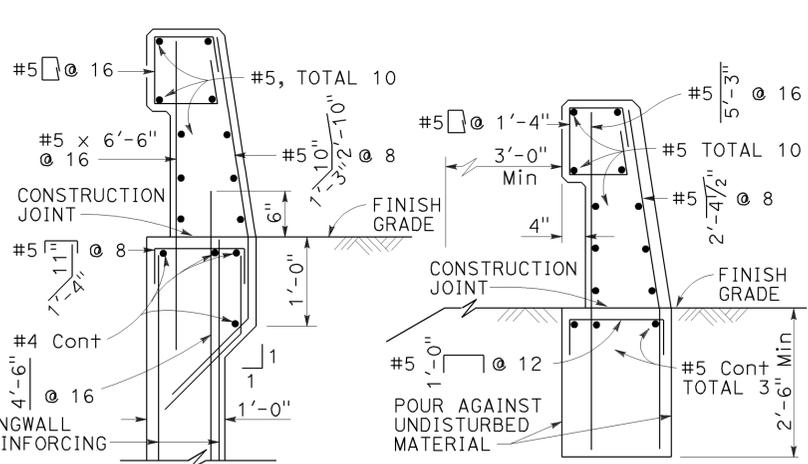
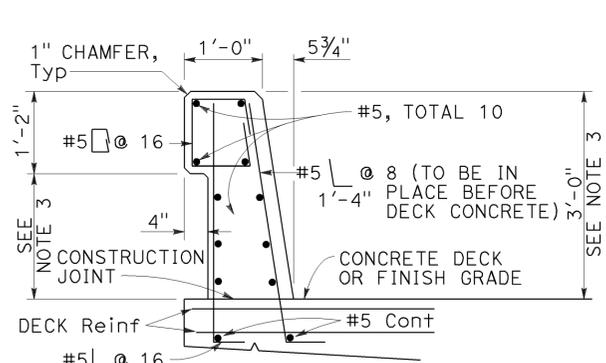
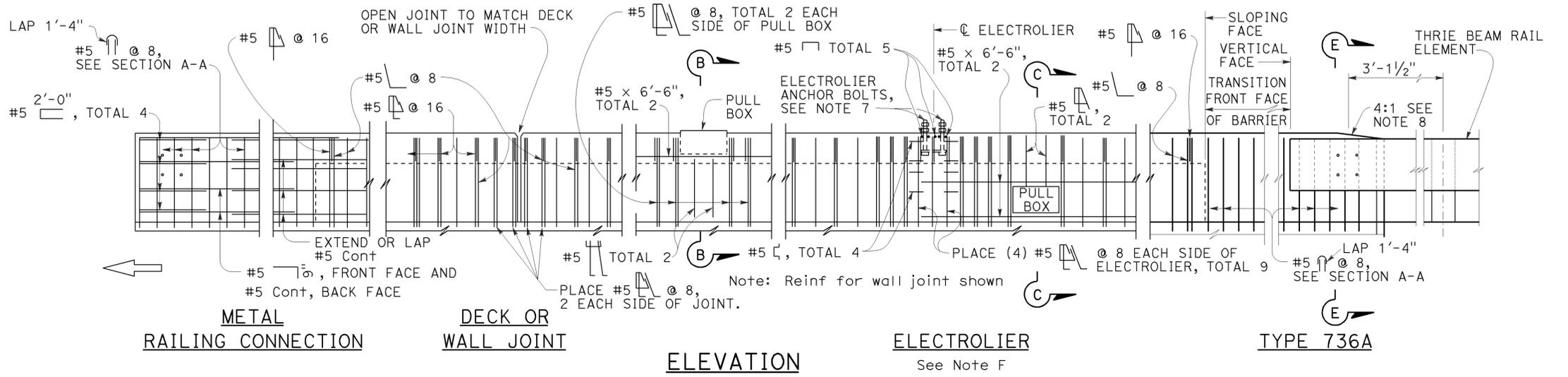
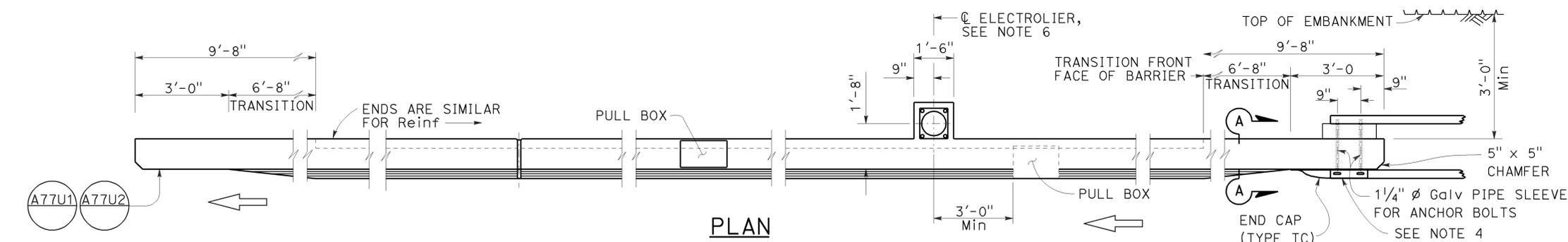
REGISTERED PROFESSIONAL ENGINEER
Tillett Satter
No. C42892
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 6-1-15

NOTES:

1. Walls are to be backfilled before barrier is placed.
2. Clearance to reinforcing steel in barrier to be 1", except as noted. Longitudinal reinforcement to stop at all expansion joints.
3. Dimensions may vary with roadway cross slope and with certain thickness of surfacing. See Project Plans.
4. For typical metal railing connection details not shown, see Revised Standard Plans RSP A77U1 and RSP A77U2.
5. See Standard Plans ES-9A, ES-9B, ES-9C, ES-9D and ES-9E for electrical details. The maximum number of conduits in the barrier is limited to two 2" conduits along with one 3" conduit. When a 3" conduit is used, it is restricted to the base of the barrier.
6. For electrolier mounting details, See Standard Plans ES-6A and ES-6B.
7. Minimum concrete edge distance, to the reinforcing shown, shall be maintained. Edge distance may be adjusted to accommodate increase in concrete cover for architectural treatment.
8. Taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail element.

2010 REVISED STANDARD PLAN RSP B11-56



SECTION A-A
Details shown for barrier anchorage to Type 736A. Anchorage for barrier Types 736 and 736B are similar to their respective details.

SECTION B-B
Note: Types 736A & 736B are similar to Type 736 except as noted.

SECTION D-D
14 Ga Galv SHEET METAL OVER 1" NEOPRENE STRIP. COAT TOP OF STRIP WITH GREASE.

SECTION F-F
NO SCALE

RSP B11-56 DATED NOVEMBER 15, 2013 SUPERSEDES RSP B11-56 DATED JULY 19, 2013 AND STANDARD PLAN B11-56 DATED MAY 20, 2011 - PAGE 298 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B11-56

LEGEND:

AB	ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
BC	INSTALL PULL BOX IN EXISTING CONDUIT RUN
BP	PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
CB	INSTALL CONDUIT INTO EXISTING PULL BOX
CC	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
CF	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
DH	DETECTOR HANDHOLE
FA	FOUNDATION TO BE ABANDONED
IS	INSTALL SIGN ON SIGNAL MAST ARM
NS	NO SLIP BASE ON STANDARD
PEC	PHOTOELECTRIC CONTROL
PEU	PHOTOELECTRIC UNIT
RC	EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
RE	REMOVE ELECTROLIER, FUSES AND BALLAST. TAPE ENDS OF CONDUCTORS
RL	RELOCATE EQUIPMENT
RR	REMOVE AND REUSE EQUIPMENT
RS	REMOVE AND SALVAGE EQUIPMENT
SC	SPLICE NEW TO EXISTING CONDUCTORS
SD	SERVICE DISCONNECT
TSP	TELEPHONE SERVICE POINT

ABBREVIATIONS

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	80	100

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 6-1-15

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

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

MISCELLANEOUS ELECTROLIERS

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

NOTES:

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

STANDARD ELECTROLIER

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

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

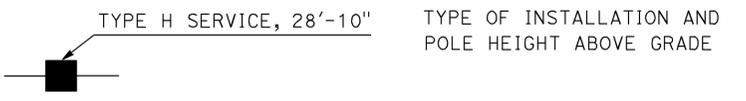
SIGNAL EQUIPMENT

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



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 SYSTEM

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

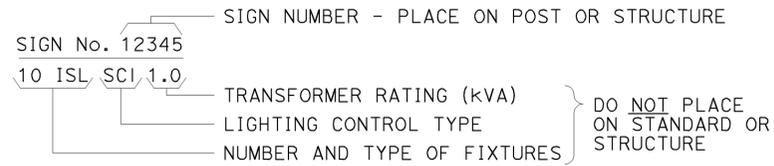
2010 REVISED STANDARD PLAN RSP ES-1B



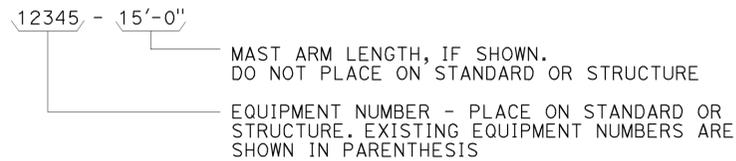
TO ACCOMPANY PLANS DATED 6-1-15

EQUIPMENT IDENTIFICATION

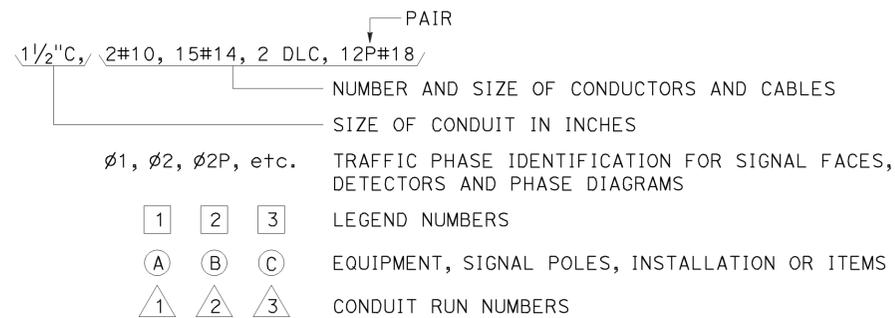
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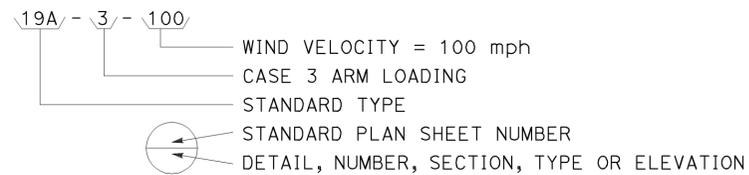
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



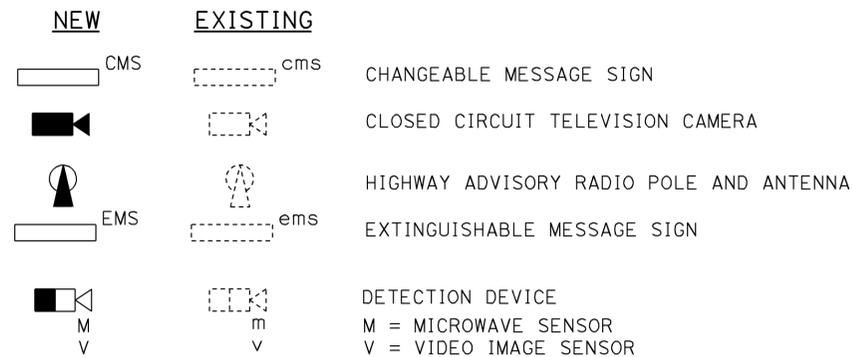
CONDUIT AND CONDUCTOR IDENTIFICATION:



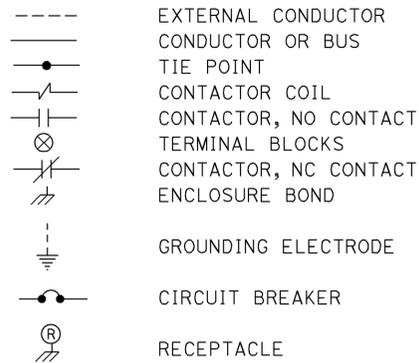
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



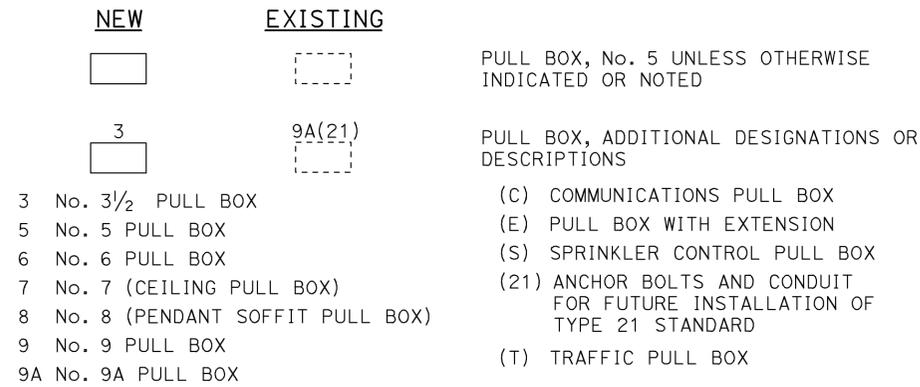
MISCELLANEOUS EQUIPMENT



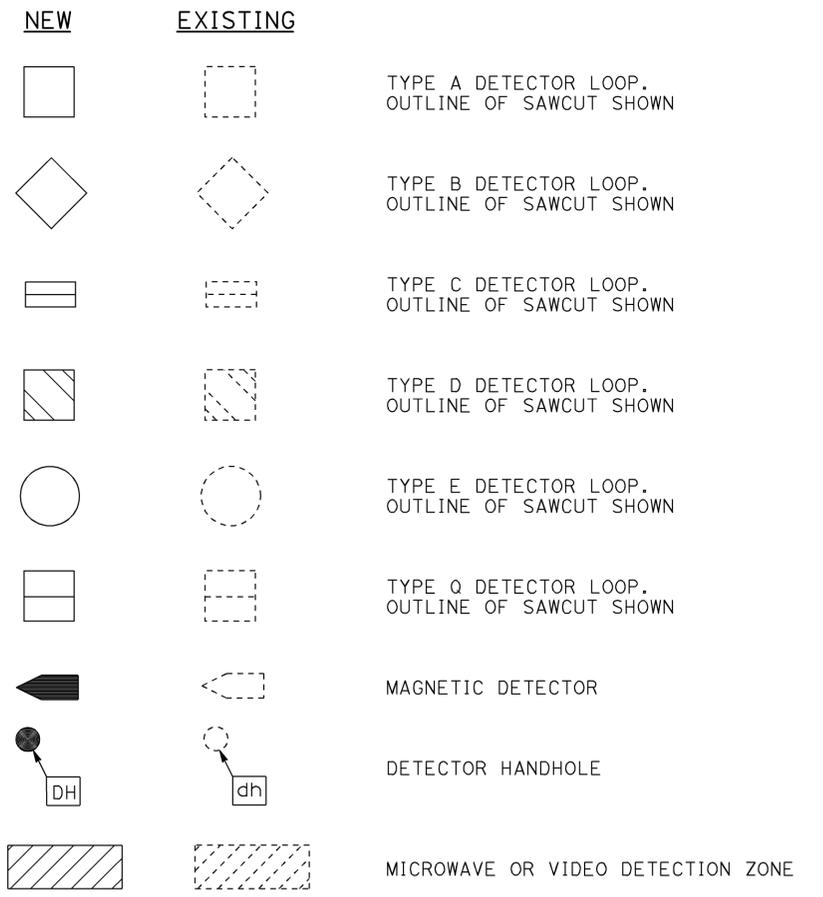
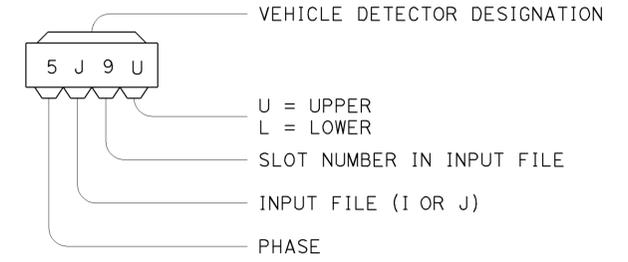
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

2010 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	84	21.6	83	100

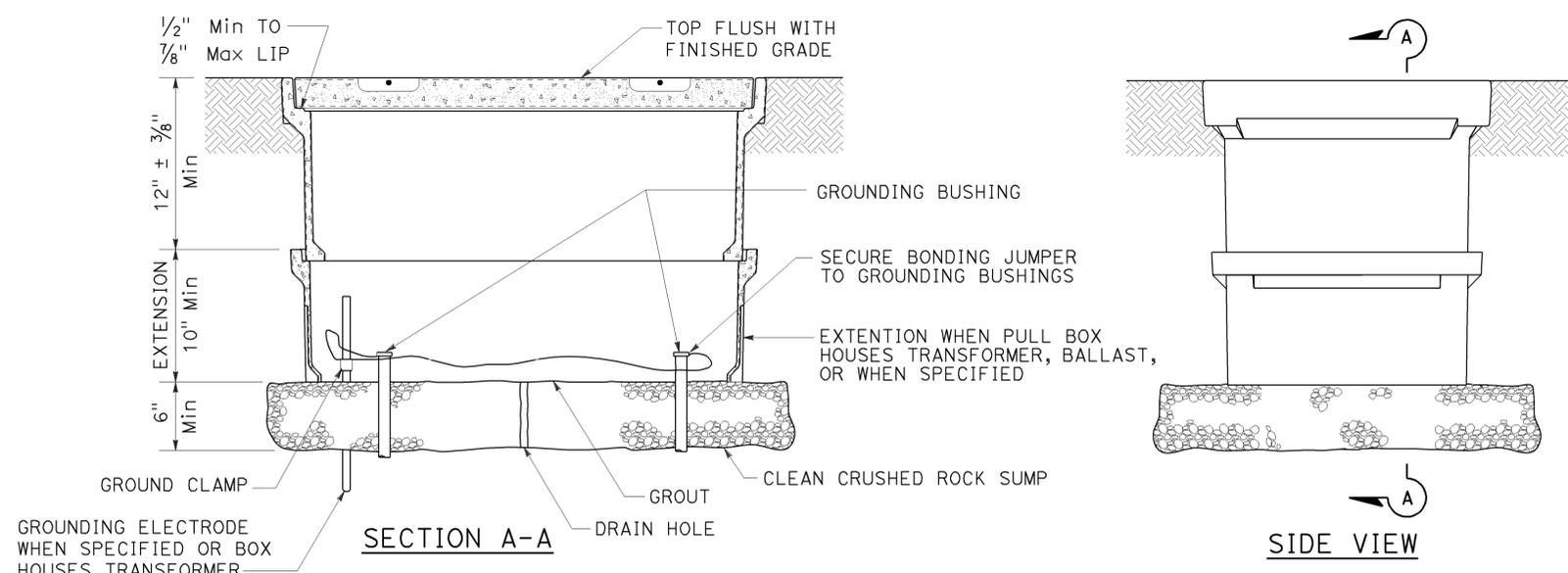
Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

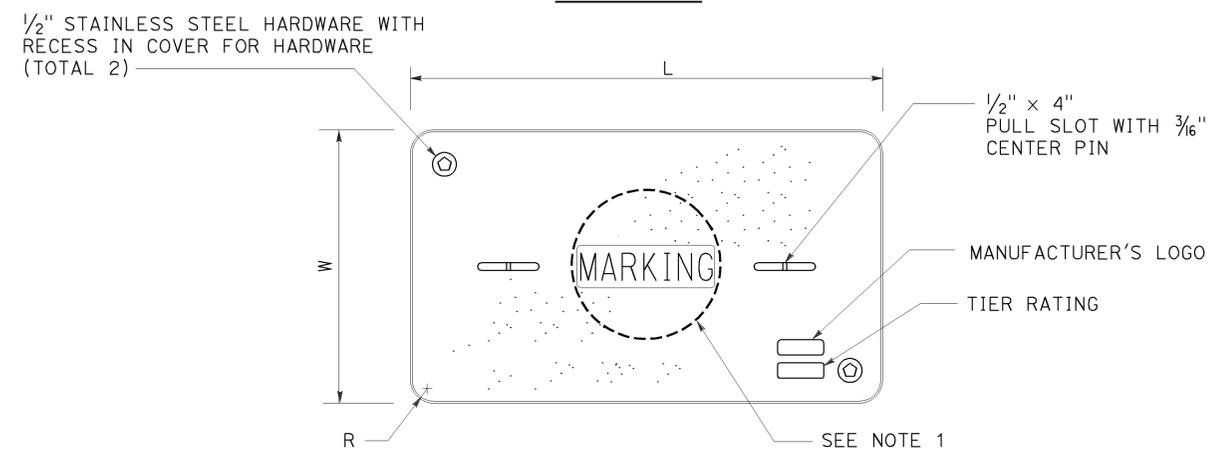
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

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

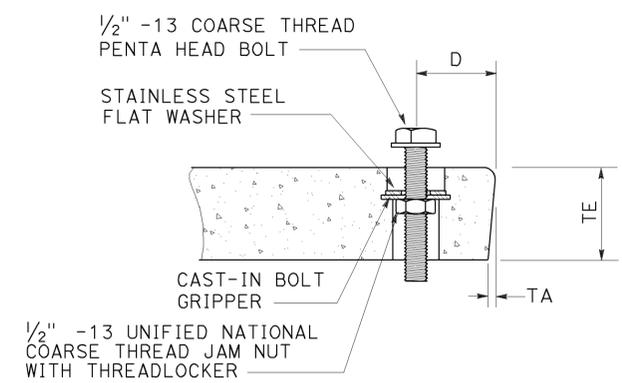
TO ACCOMPANY PLANS DATED 6-1-15



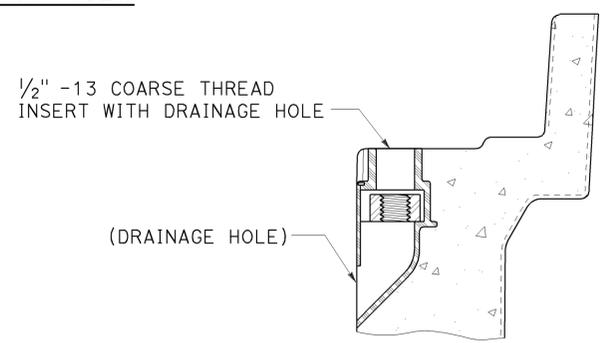
INSTALLATION DETAILS
DETAIL A



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.
- All dimensions for the cover for non-traffic pull box are nominal values.

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

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

RSP ES-8A DATED JULY 19, 2013 SUPERSEDES 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
04	SM	84	21.6	85	100

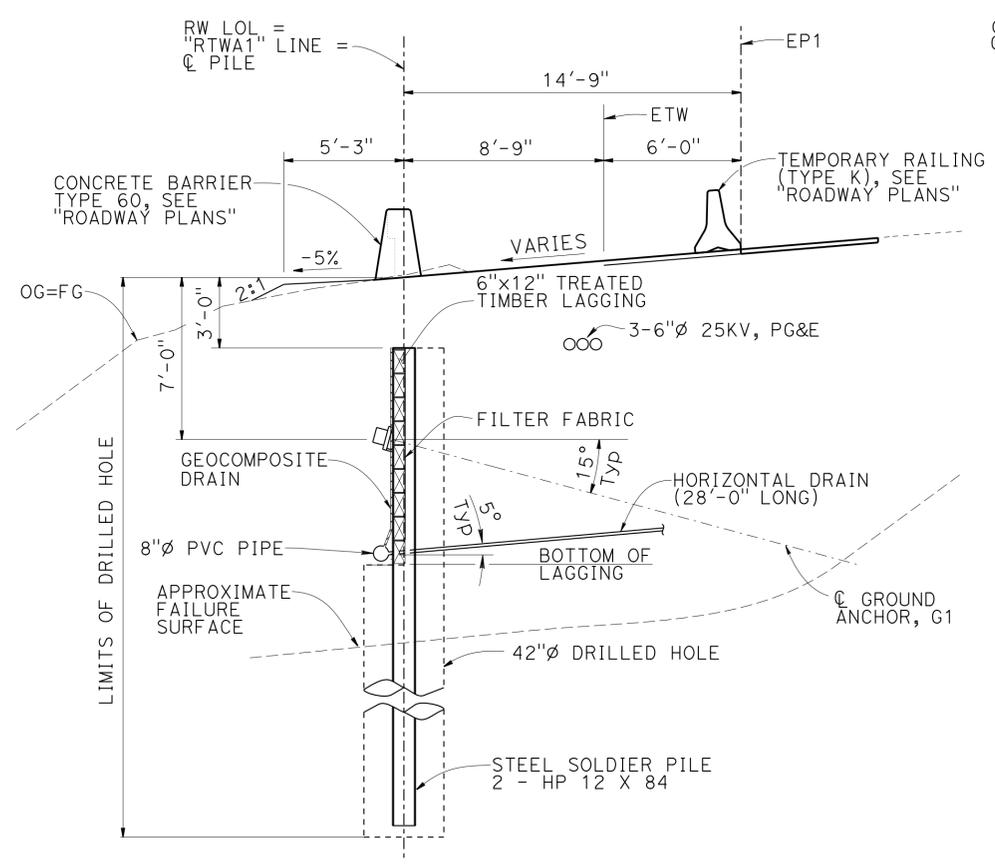
02-25-15
 REGISTERED CIVIL ENGINEER DATE
 6-1-15
 PLANS APPROVAL DATE

Philip E. Lutz
 REGISTERED PROFESSIONAL ENGINEER
 No. C55839
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA

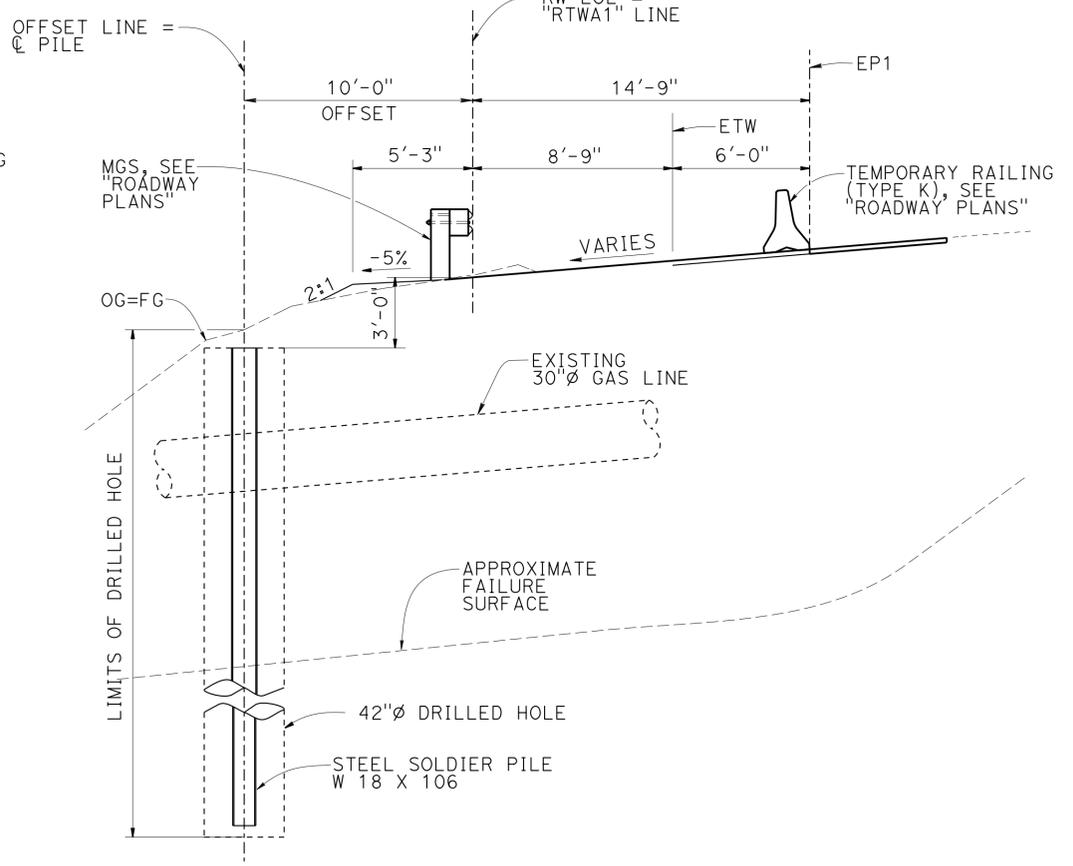
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

QUANTITIES

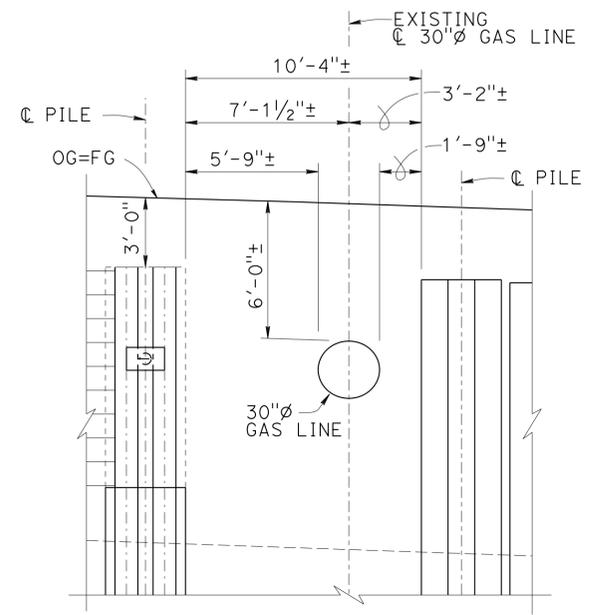
ABANDON DRAINAGE CLEANOUT	3	EA
DESTROY WELL	3	EA
STRUCTURE EXCAVATION (SOLDIER PILE WALL)	480	CY
STRUCTURE BACKFILL (SOLDIER PILE WALL)	317	CY
CONCRETE BACKFILL (SOLDIER PILE WALL)	695	CY
LEAN CONCRETE BACKFILL	344	CY
GROUND ANCHOR (SUBHORIZONTAL)	146	EA
STEEL SOLDIER PILE (2-HP 12 X 84)	2,571	LF
STEEL SOLDIER PILE (W 18 X 106)	336	LF
42" DRILLED HOLE	3,041	LF
STRUCTURAL CONCRETE, RETAINING WALL	9	CY
STRUCTURAL CONCRETE, BARRIER SLAB	288	CY
BAR REINFORCING STEEL (RETAINING WALL)	778	LB
TIMBER LAGGING	42	MFBM
CLEAN AND PAINT STEEL SOLDIER PILING	LUMP	SUM
PREPARE AND STAIN CONCRETE	127	SQFT
GEOCOMPOSITE DRAIN	5,468	SQFT
FURNISH AND INSTALL DRAIN PIPE (HORIZONTAL DRAIN)	1,844	LF
DRILL HOLE (HORIZONTAL DRAIN)	1,844	LF
TUBULAR BICYCLE RAILING	353	LF
CONCRETE BARRIER (TYPE 736 MODIFIED)	454	LF



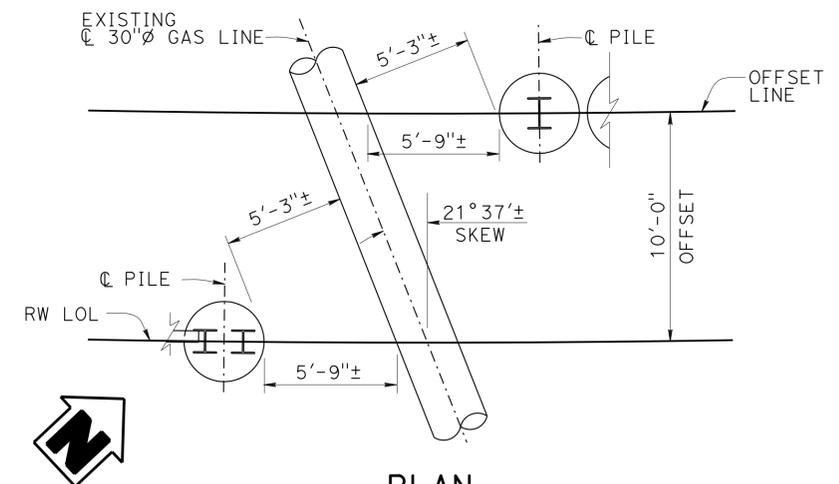
**TYPICAL SECTION
(SECTION B-B)**
1/4" = 1'-0"



**TYPICAL SECTION
(SECTION C-C)**
1/4" = 1'-0"



ELEVATION
1/4" = 1'-0"



PLAN
1/4" = 1'-0"

EXISTING 30"Ø GAS LINE OPENING DETAILS

- NOTES:
1. West gas line shown, East gas line similar.
 2. Expose 30"Ø gas lines prior to drilling pile shaft in order to ensure clearances are maintained.

Gordon Danke DESIGN ENGINEER	DESIGN	BY P. Lutz	CHECKED R. Candiotti	LOAD & RESISTANCE FACTOR DESIGN	BY P. Lutz	CHECKED R. Candiotti	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO.	35E0047	WOODSIDE II RETAINING WALL GENERAL PLAN NO. 2
	DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti	LAYOUT	BY P. Lutz	CHECKED R. Candiotti			POST MILE	21.6	
	QUANTITIES	BY P. Lutz	CHECKED R. Candiotti	SPECIFICATIONS	BY T. Chen	CHECKED P. Lutz			UNIT: 3594	PROJECT NUMBER & PHASE: 0412000622 1	

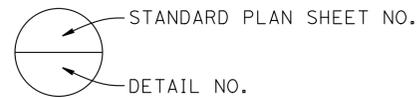
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3
 FILE => 35e0047-a-gp02.dgn

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN no. 1
2	GENERAL PLAN NO. 2
3	INDEX TO PLANS
4	SOLDIER PILE DATA TABLE
5	STRUCTURE PLAN NO. 1
6	STRUCTURE PLAN NO. 2
7	STRUCTURE PLAN NO. 3
8	FOUNDATION PLAN
9	WALL DETAILS NO. 1
10	WALL DETAILS NO. 2
11	WALL DETAILS NO. 3
12	DRAINAGE PLAN
13	SUBHORIZONTAL GROUND ANCHOR DETAILS
14	CONCRETE BARRIER SLAB DETAILS
15	TUBULAR BICYCLE RAILING DETAILS
16	LOG OF TEST BORINGS NO. 1 OF 2
17	LOG OF TEST BORINGS NO. 2 OF 2

STANDARD PLANS DATED MAY 2010

DETAIL	DESCRIPTION
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
RSP B11-56	CONCRETE BARRIER TYPE 736 (MOD)



GENERAL NOTES

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments.

LIVE LOAD: 240 psf equivalent to 2 feet soil weight

SOIL PARAMETERS: (For determination of Design Lateral Earth Pressures)
 Backfill soil weight = 130 lb/ft³
 Friction Angle = 20°, C = 350 psf
 Bedrock Unit Weight = 130 lb/ft³
 Friction Angle = 30°, C = 0 psf

SEISMIC LOADING: Uniform earth pressure = 16.32 H psf

STEEL SOLDIER PILES INCLUDING SUPPORT PLATES AND CLOSURE PLATES: Fy = 50 ksi

REINFORCED CONCRETE (FACIA): f'c = 4000 psi
 fy = 60 ksi
 n = 8

STRUCTURAL TIMBER: Treated Douglas Fir, Grade No.1 or better. Timber to be full sawn.

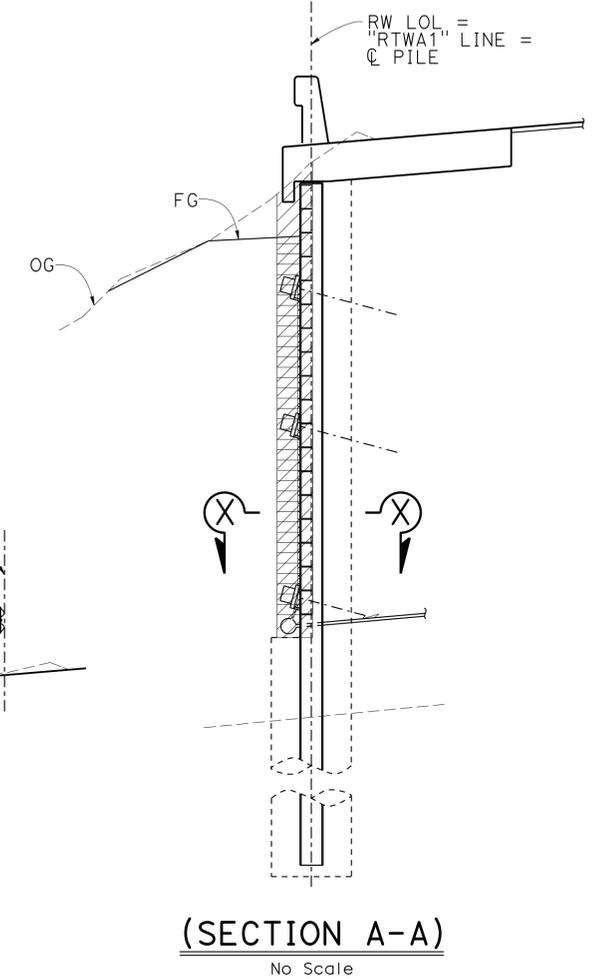
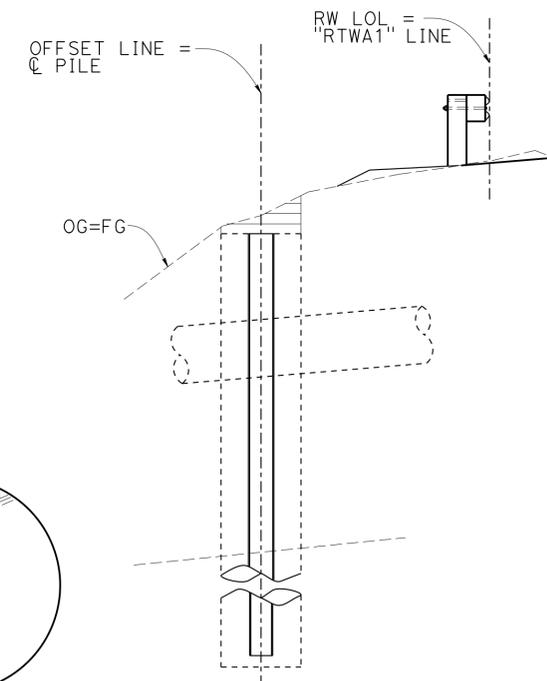
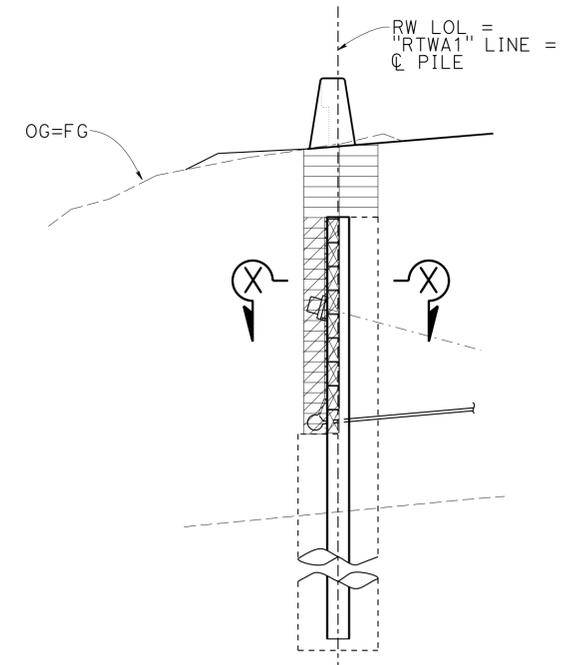
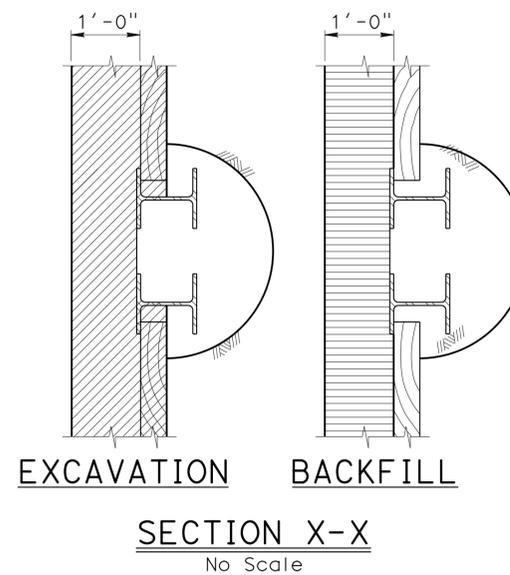
PRESTRESSING STEEL (GROUND ANCHORS):
 FDL= Factored Design Load on ground anchor (kips)
 FTL=Factored Test Load (kips)
 LL=Lock-Off Load (kips)
 fpu = Minimum ultimate tensile strength of ground anchor steel (ksi)
 As (Min) = Minimum cross sectional area of steel in ground anchor. (square inch)
 Steel = ASTM designation: A416 (HS Strands)

$$As (Min) = \frac{1.0 FTL}{0.75 fpu}$$

 Steel= ASTM designation: A722 (HS Bars)

$$As (Min) = \frac{1.0 FTL}{0.80 fpu}$$

 FDL= 101.5 Kips
 FTL= 132.0 Kips
 LL= 90.0 Kips



LEGEND:

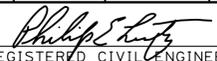
- Indicates Structure Excavation (Soldier Pile Wall)
- Indicates Structure Backfill (Soldier Pile Wall)

NOTE: For location of "SECTION A-A", "SECTION B-B", and "SECTION C-C", see "GENERAL PLAN NO.1" sheet.

LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL
No Scale

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">DESIGN</td> <td style="width: 30%;">BY P. Lutz</td> <td style="width: 30%;">CHECKED R. Candiotti</td> </tr> <tr> <td>DETAILS</td> <td>BY P. Lutz / C. Cancino</td> <td>CHECKED R. Candiotti</td> </tr> <tr> <td>QUANTITIES</td> <td>BY P. Lutz</td> <td>CHECKED R. Candiotti</td> </tr> </table>	DESIGN	BY P. Lutz	CHECKED R. Candiotti	DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti	QUANTITIES	BY P. Lutz	CHECKED R. Candiotti	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 35E0047 POST MILE 21.6	WOODSIDE II RETAINING WALL INDEX TO PLANS
DESIGN	BY P. Lutz	CHECKED R. Candiotti											
DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti											
QUANTITIES	BY P. Lutz	CHECKED R. Candiotti											
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3594 PROJECT NUMBER & PHASE: 0412000662 1	CONTRACT NO.: 04-466404	DISREGARD PRINTS BEARING EARLIER REVISION DATES									
		0 1 2 3	01-08-14 03-26-15	SHEET 3 OF 17									

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	87	100

 02-25-15
 REGISTERED CIVIL ENGINEER DATE

6-1-15
 PLANS APPROVAL DATE

Philip E. Lutz
 No. C55839
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA

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PILE DATA TABLE

PILE NUMBER	RW LOL STATION	OFFSET (FT)	TOP OF WALL ELEV. (FT)	TOP OF PILE ELEV. (FT)	PILE LENGTH (FT)	PILE SIZE (FT)	GROUND ANCHORS		
							G1 (KIP)	G2 (KIP)	G3 (KIP)
1	0+01.50	---	284.35	282.53	28.5	2 HP 12 X 84	---	---	---
2	0+10.50	---	283.80	281.98	32.5		---	---	---
3	0+19.50	---	283.32	281.50	36.0		101.5	---	---
4	0+28.50	---	282.85	281.03	41.0			101.5	---
5	0+37.50	---	282.37	280.55	45.0				---
6	0+46.50	---	281.89	280.07	45.0				101.5
7	0+55.50	---	281.42	279.60	45.0				
8	0+64.50	---	280.94	279.12	45.0				
9	0+73.50	---	280.50	278.68	45.0				
10	0+82.50	---	280.07	278.25	45.0				
11	0+91.50	---	279.64	277.82	45.0				
12	1+00.50	---	279.21	277.39	45.0				
13	1+09.50	---	278.77	276.95	45.0				
14	1+18.50	---	278.39	276.57	45.0				
15	1+27.50	---	278.00	276.18	45.0				
16	1+36.50	---	277.65	275.83	45.0				
17	1+45.50	---	277.29	275.47	45.0				
18	1+54.50	---	276.91	275.09	45.0				
19	1+63.50	---	276.42	274.60	45.0				
20	1+72.50	---	275.93	274.11	45.0				
21	1+81.50	---	275.44	273.62	45.0				
22	1+89.50	---	275.04	273.22	45.0				
23	1+98.50	---	274.65	272.83	45.0				
24	2+07.50	---	274.41	272.59	45.0				
25	2+16.50	---	274.16	272.34	45.0				
26	2+25.50	---	273.89	272.07	45.0				
27	2+34.50	---	273.56	271.74	45.0				
28	2+43.50	---	273.19	271.37	45.0				
29	2+52.50	---	272.83	271.01	45.0				
30	2+61.50	---	272.47	270.65	45.0				
31	2+70.50	---	272.11	270.29	45.0				
32	2+79.50	---	271.74	269.92	45.0				
33	2+88.50	---	271.38	269.56	45.0				
34	2+97.50	---	271.02	269.20	45.0				
35	3+06.50	---	270.66	268.84	45.0				
36	3+15.50	---	270.28	268.46	45.0				
37	3+24.50	---	269.91	268.09	45.0				
38	3+33.50	---	269.51	267.69	45.0				
39	3+42.50	---	269.11	267.29	45.0				
40	3+51.50	---	268.71	266.89	45.0	2 HP 12 X 84	101.5	101.5	101.5

NOTE: UNBONDED LENGTH = 55.0 FT FOR ALL GROUND ANCHORS

PILE DATA TABLE

PILE NUMBER	RW LOL STATION	OFFSET (FT)	TOP OF WALL ELEV. (FT)	TOP OF PILE ELEV. (FT)	PILE LENGTH (FT)	PILE SIZE (FT)	GROUND ANCHORS		
							G1 (KIP)	G2 (KIP)	G3 (KIP)
41	3+60.50	---	268.32	266.50	45.0	2 HP 12 X 84	101.5	101.5	101.5
42	3+69.50	---	267.92	266.10	45.0				
43	3+78.50	---	267.53	265.71	45.0				
44	3+87.50	---	267.12	265.30	45.0				
45	3+96.50	---	266.72	264.90	45.0				
46	4+05.50	---	266.32	264.50	45.0				
47	4+14.50	---	265.92	264.10	45.0				
48	4+23.50	---	265.51	263.69	41.0			101.5	---
49	4+32.50	---	265.11	263.29	36.0			---	---
50	4+41.50	---	264.70	262.88	36.0			---	---
51	4+50.50	---	264.30	262.48	35.0			---	---
52	4+59.50	---	263.90	260.90	35.0			---	---
53	4+68.50	---	263.51	260.51	35.0			---	---
54	4+77.50	---	263.10	260.10	35.0			---	---
55	4+86.50	---	262.71	259.71	35.0			---	---
56	4+95.50	---	262.34	259.34	35.0			---	---
57	5+04.50	---	261.95	258.95	35.0			---	---
58	5+13.50	---	261.54	258.54	35.0			---	---
59	5+22.50	---	261.18	258.18	35.0			---	---
60	5+31.50	---	260.81	257.81	35.0			---	---
61	5+40.50	---	260.44	257.44	35.0	2 HP 12 X 84	101.5	---	---
62	5+54.44	10.00 Lt.	259.36	256.36	42.0	W 18 X 106	---	---	---
63	5+58.32	10.00 Lt.	259.21	256.21	42.0		---	---	---
64	5+62.19	10.00 Lt.	259.06	256.06	42.0		---	---	---
65	5+66.07	10.00 Lt.	258.91	255.91	42.0		---	---	---
66	5+69.94	10.00 Lt.	258.76	255.76	42.0		---	---	---
67	5+88.07	10.00 Lt.	258.10	255.10	42.0		---	---	---
68	5+91.94	10.00 Lt.	257.95	254.95	42.0		---	---	---
69	5+95.82	10.00 Lt.	257.80	254.80	42.0	W 18 X 106	---	---	---

NOTES:

- Contractor shall field locate all utilities before drilling.
- For limits of clean and paint steel soldier piling, see "TYPICAL SECTION" on "WALL DETAILS NO. 1" sheet.
- For layout of Pile Number in Table and for number of timber lagging members, see "STRUCTURE PLAN NO. 1", "STRUCTURE PLAN NO. 2" & "STRUCTURE PLAN NO. 3" sheets.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY P. Lutz	CHECKED R. Candiotti	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO.	WOODSIDE II RETAINING WALL SOLDIER PILE DATA TABLE			
	DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti			35E0047				
	QUANTITIES	BY P. Lutz	CHECKED R. Candiotti			POST MILE 21.6				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					UNIT: 3594	PROJECT NUMBER & PHASE: 0412000662 1	CONTRACT NO.: 04-466404	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 4 OF 17

USERNAME => s114360 DATE PLOTTED => 29-JUN-2015 TIME PLOTTED => 1:32:21

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	84	21.6	89	100

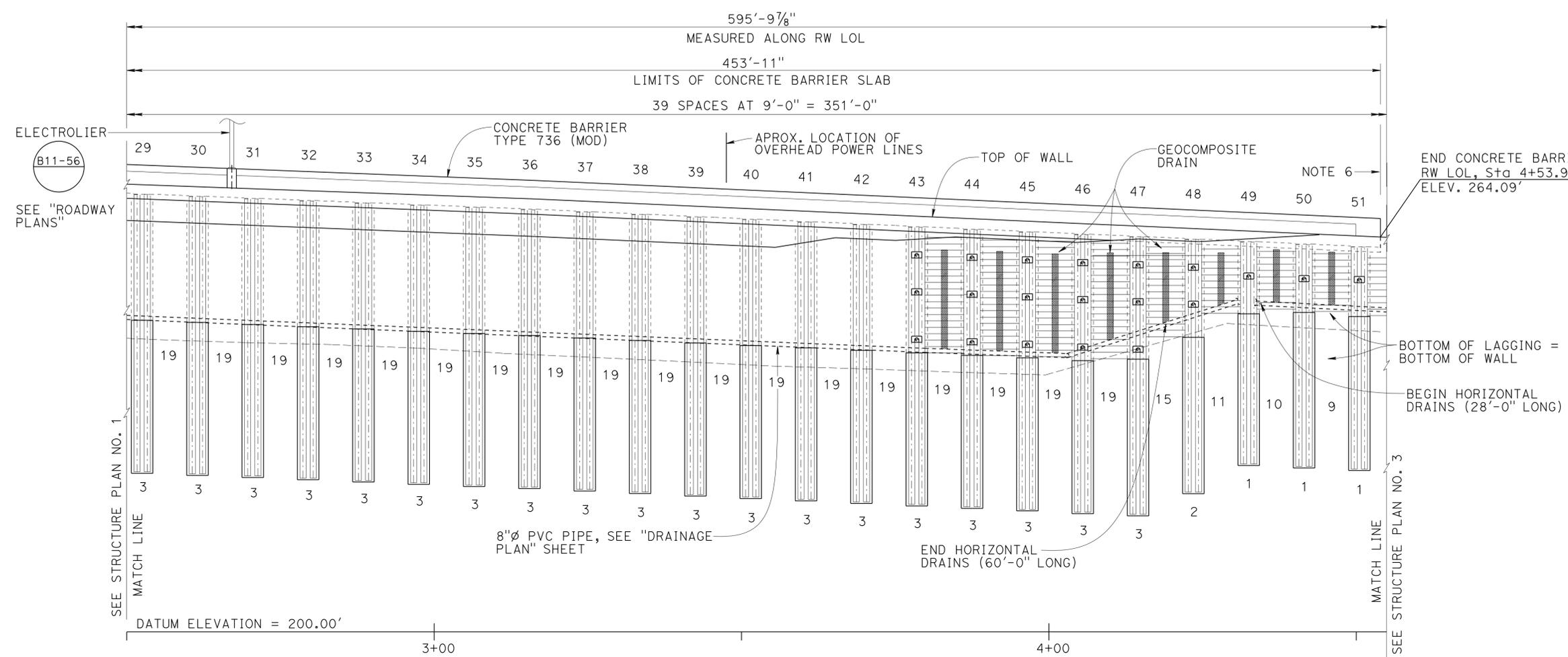
Philip E. Lutz 02-25-15
 REGISTERED CIVIL ENGINEER DATE

6-1-15
 PLANS APPROVAL DATE

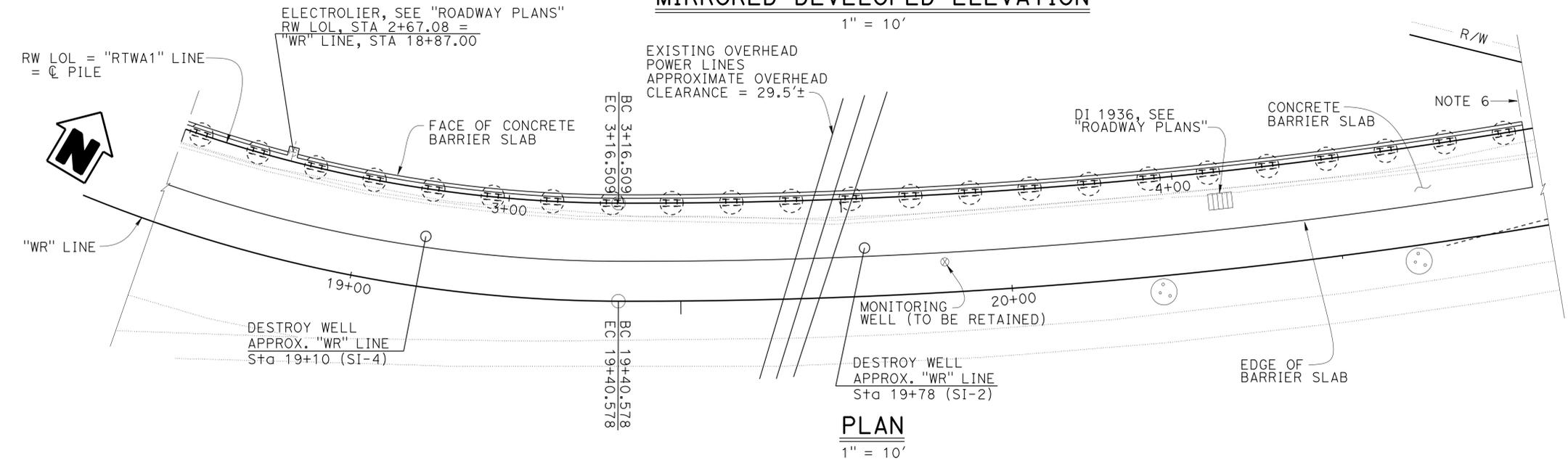
Philip E. Lutz
 No. C55839
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA

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MIRRORED DEVELOPED ELEVATION



- NOTES:
1. Timber lagging not all shown.
 2. Filter fabric and geocomposite drain not all shown.
 3. For horizontal drains, see "DRAINAGE PLAN" sheet.
 4. For pile length, pile size and pile type and other data not shown, see "PILE DATA TABLE" at "SOLDIER PILE DATA TABLE" sheet.
 5. Piles which are in the vicinity of the overhead power lines may be spliced / welded in order to avoid conflict with the overhead power lines. No splice welds to be made within 18" of Ground Anchors. Contractor may consider excavation to provide additional clearance for installation of these piles.
 6. End tubular bicycle railing (tubular bicycle railing not shown).

DESIGN	BY P. Lutz	CHECKED R. Candiotti
DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti
QUANTITIES	BY P. Lutz	CHECKED R. Candiotti

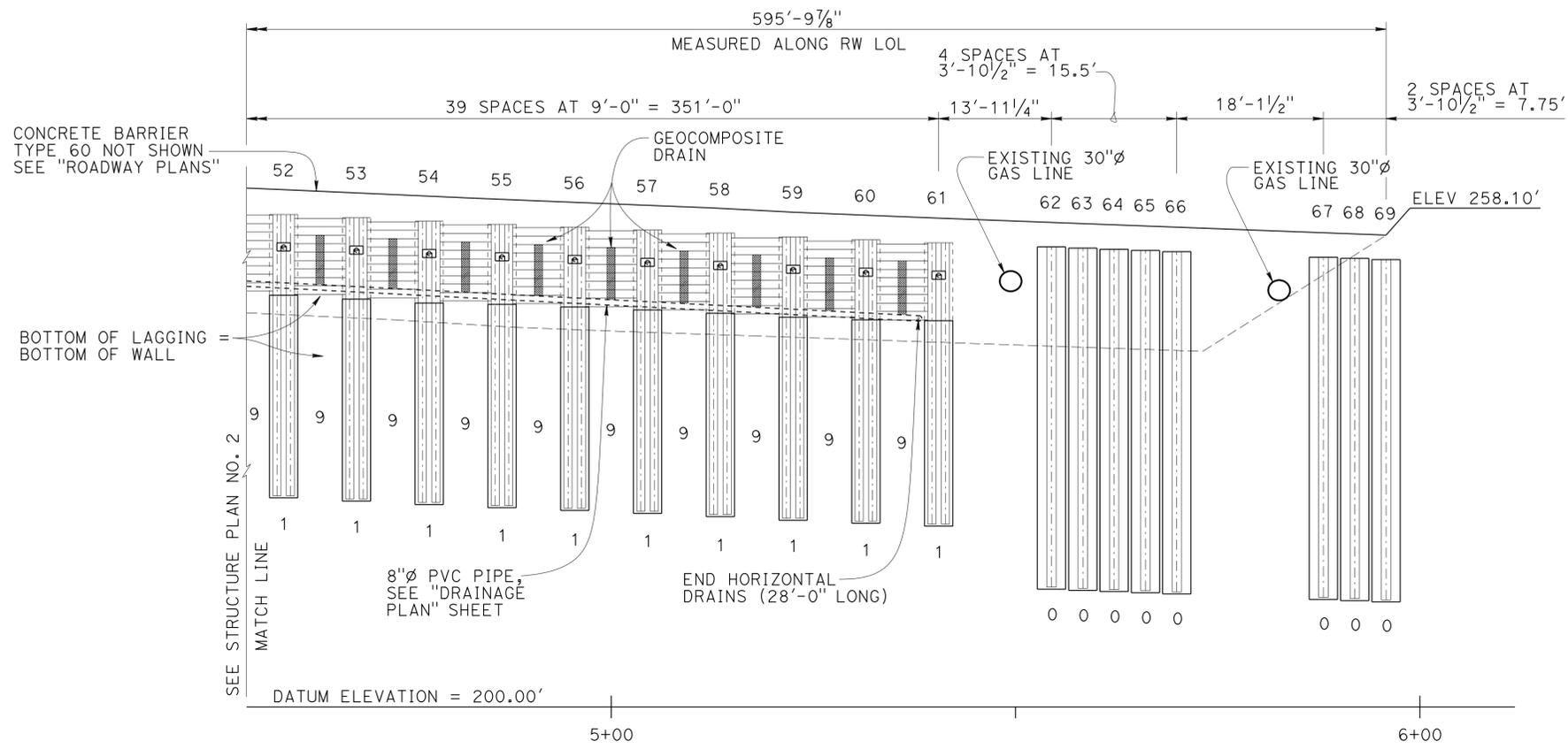
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO.	35E0047	WOODSIDE II RETAINING WALL
POST MILE	21.6	
STRUCTURE PLAN NO. 2		

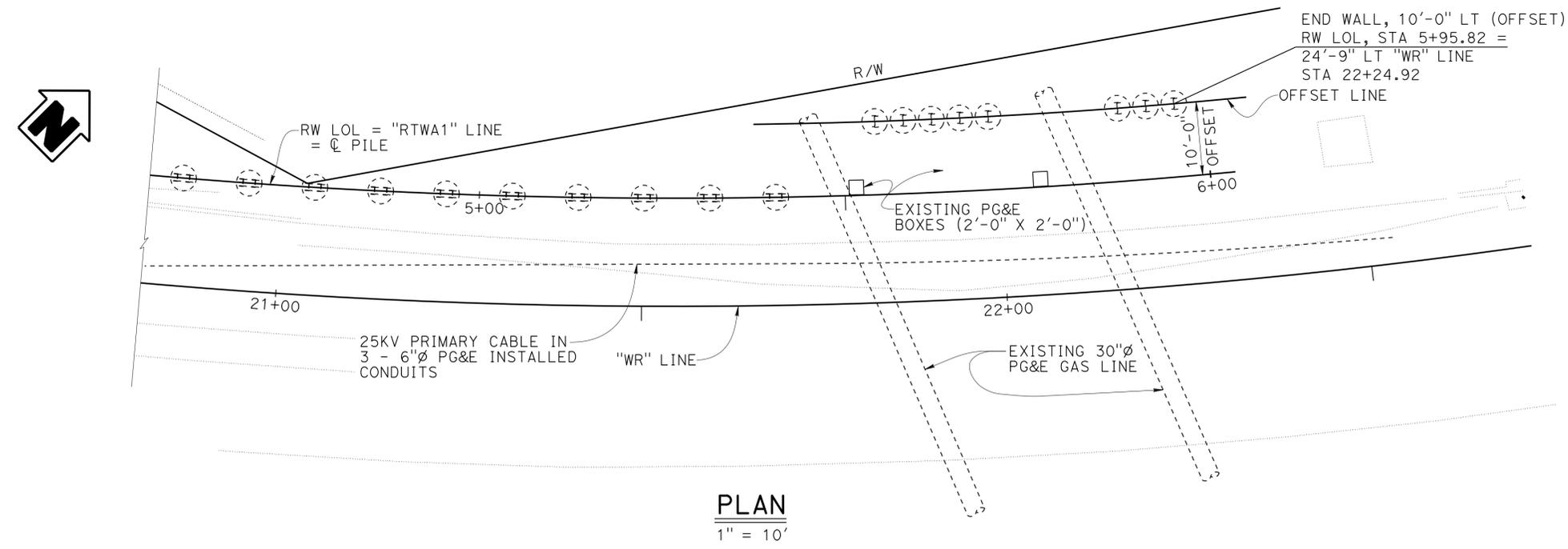
USERNAME => s114360 DATE PLOTTED => 29-JUN-2015 TIME PLOTTED => 13:21

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	84	21.6	90	100
			02-25-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
6-1-15			PLANS APPROVAL DATE		
Philip E. Lutz			REGISTERED PROFESSIONAL ENGINEER		
No. C55839			Exp. 12-31-16		
CIVIL			STATE OF CALIFORNIA		
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MIRRORED DEVELOPED ELEVATION
1" = 10'

- NOTES:
1. For horizontal drains, see "DRAINAGE PLAN" sheet.
 2. For pile length, pile size and pile type and other data not shown, see "PILE DATA TABLE" at "SOLDIER PILE DATA TABLE" sheet.



DESIGN	BY P. Lutz	CHECKED R. Candiotti
DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti
QUANTITIES	BY P. Lutz	CHECKED R. Candiotti

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO.	35E0047
POST MILE	21.6

WOODSIDE II RETAINING WALL
STRUCTURE PLAN NO. 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	84	21.6	91	100

REGISTERED CIVIL ENGINEER
 Philip E. Lutz
 No. C55839
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA

02-25-15
 DATE
 6-1-15
 PLANS APPROVAL DATE

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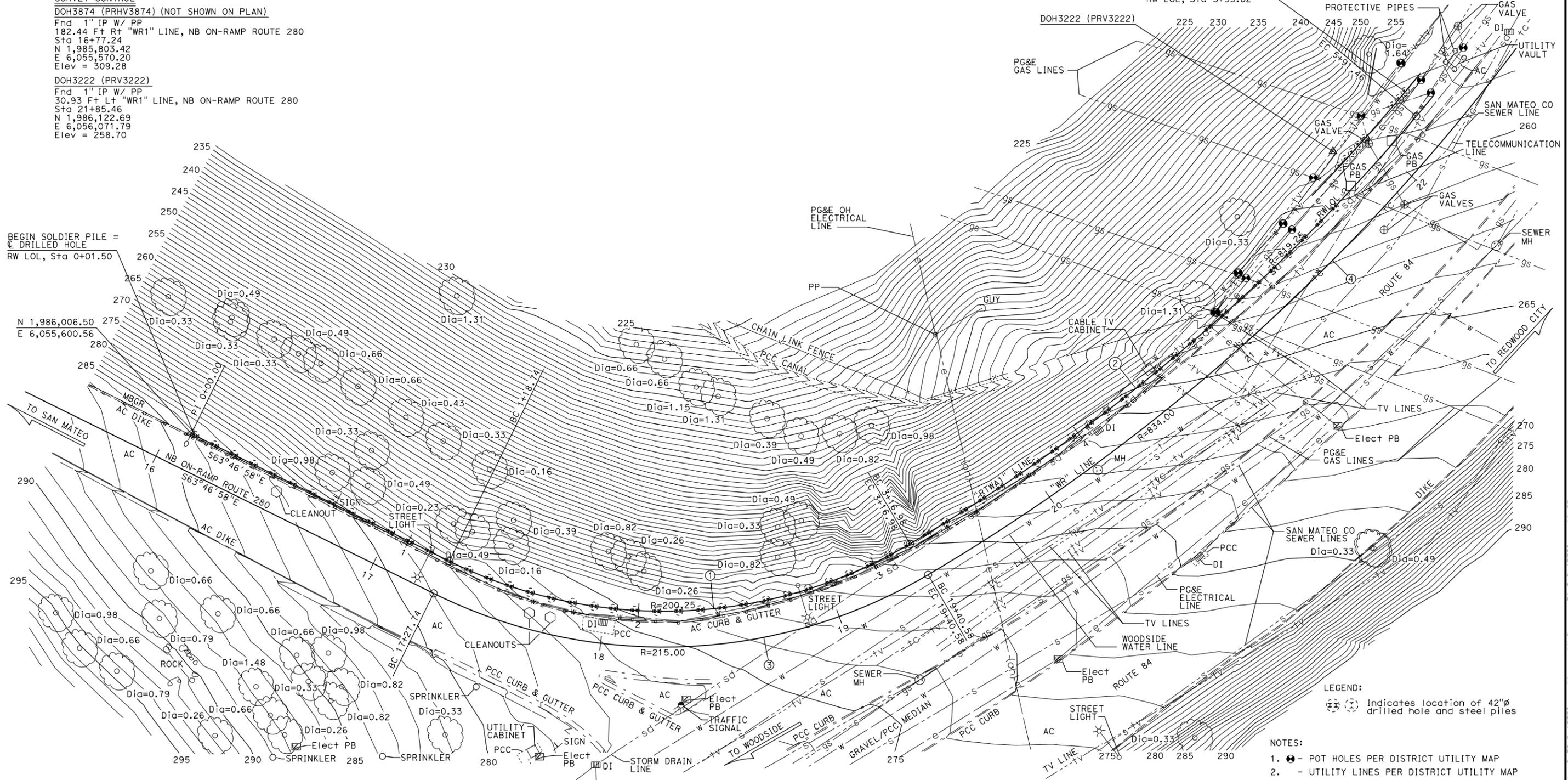


END SOLDIER PILE =
 C DRILLED HOLE
 10'-0" LT (OFFSET)
 RW LOL, Sta 5+95.82

CURVE DATA

No.	R	Δ	T	L
1	200.25	56°43'13"	108.09	198.24
2	819.25	19°11'46"	138.54	274.48
3	215.00	56°43'13"	116.06	212.84
4	834.00	31°33'44"	235.70	459.42

SURVEY CONTROL
 DOH3874 (PRHV3874) (NOT SHOWN ON PLAN)
 Fnd 1" IP W/ PP
 182.44 Ft R+ "WR1" LINE, NB ON-RAMP ROUTE 280
 Sta 16+77.24
 N 1,985,803.42
 E 6,055,570.20
 Elev = 309.28
 DOH3222 (PRV3222)
 Fnd 1" IP W/ PP
 30.93 Ft L+ "WR1" LINE, NB ON-RAMP ROUTE 280
 Sta 21+85.46
 N 1,986,122.69
 E 6,056,071.79
 Elev = 258.70



LEGEND:
 (Symbol) Indicates location of 42"Ø drilled hole and steel piles

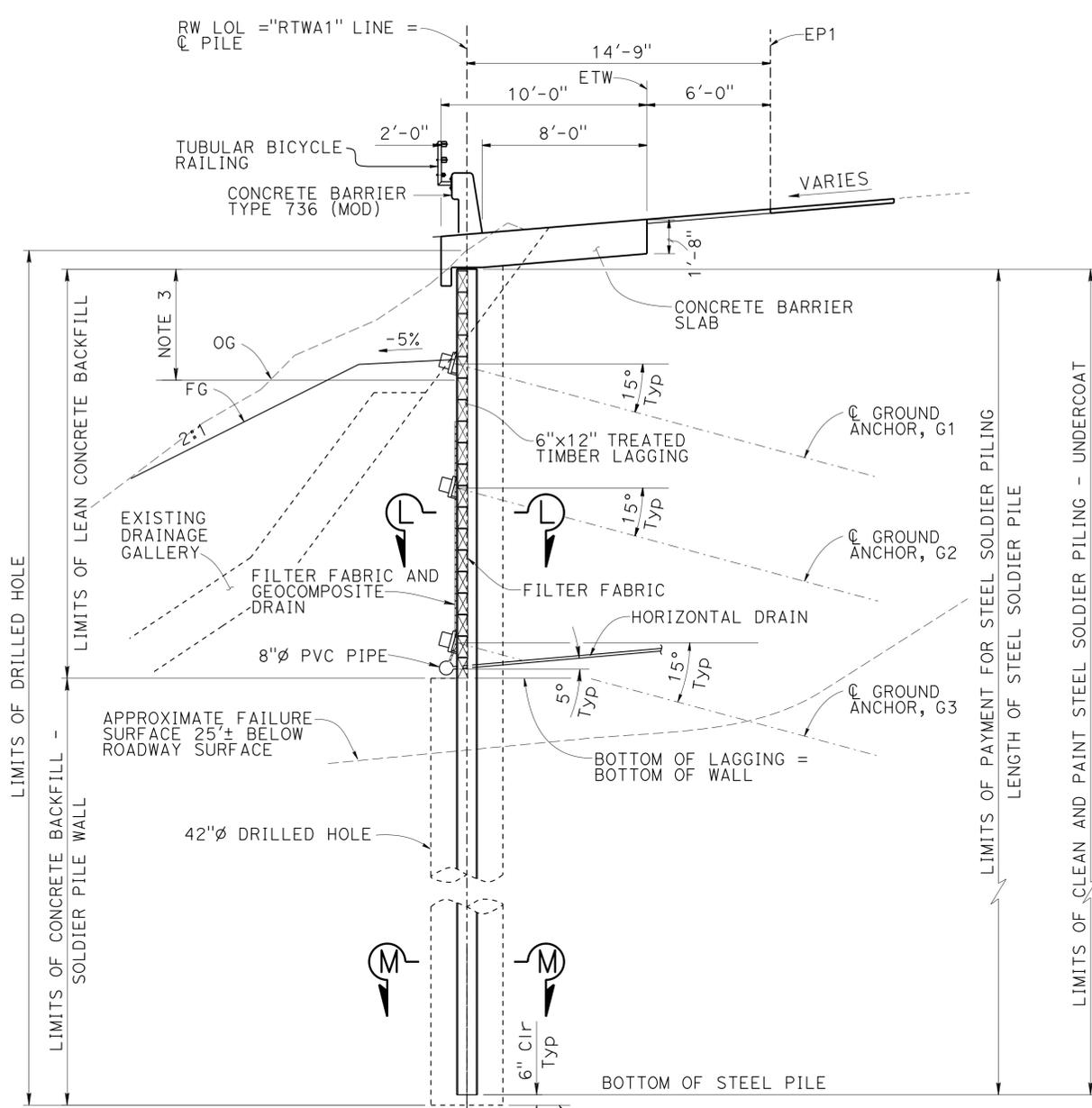
- NOTES:**
- (Symbol) - POT HOLES PER DISTRICT UTILITY MAP
 - (Symbol) - UTILITY LINES PER DISTRICT UTILITY MAP

PRELIMINARY INVESTIGATION SECTION				DESIGN BY P. Lutz	CHECKED R. Candiotti	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 35E0047	WOODSIDE II RETAINING WALL FOUNDATION PLAN	
SCALE VERT. DATUM NAVD88	PHOTOGRAMMETRY AS OF: X	DETAILS BY P. Lutz / C. Cancino	CHECKED R. Candiotti	POST MILE 21.60						
1"=20' HORIZ. DATUM NAD83 (1991.35)	SURVEYED BY DISTRICT	QUANTITIES BY P. Lutz	CHECKED R. Candiotti							
ALIGNMENT TIES Dist TRAVERSE SHEET	DRAFTED BY L. YOUNG 03/2014	CHECKED BY T. ZOLNIKOV 03/2014				UNIT: 3646	PROJECT NUMBER & PHASE: 0412000622 1	CONTRACT NO.: 04-466404	REVISION DATES	SHEET 8 OF 17
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	FILE => 35e0047-d-fp11.dgn	DISREGARD PRINTS BEARING EARLIER REVISION DATES	1/28/14	08/15/14 09/15/14

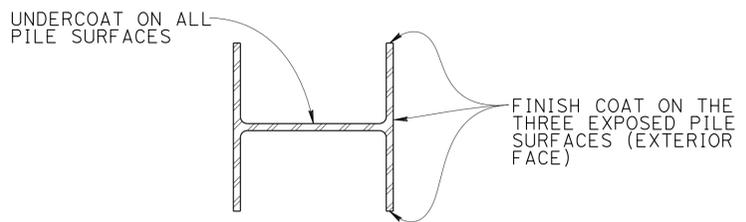
USERNAME => s114360 DATE PLOTTED => 02-JUN-2015 TIME PLOTTED => 09:15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	84	21.6	92	100

02-25-15
 REGISTERED CIVIL ENGINEER DATE
 Philip E. Lutz
 No. C55839
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA
 6-1-15
 PLANS APPROVAL DATE
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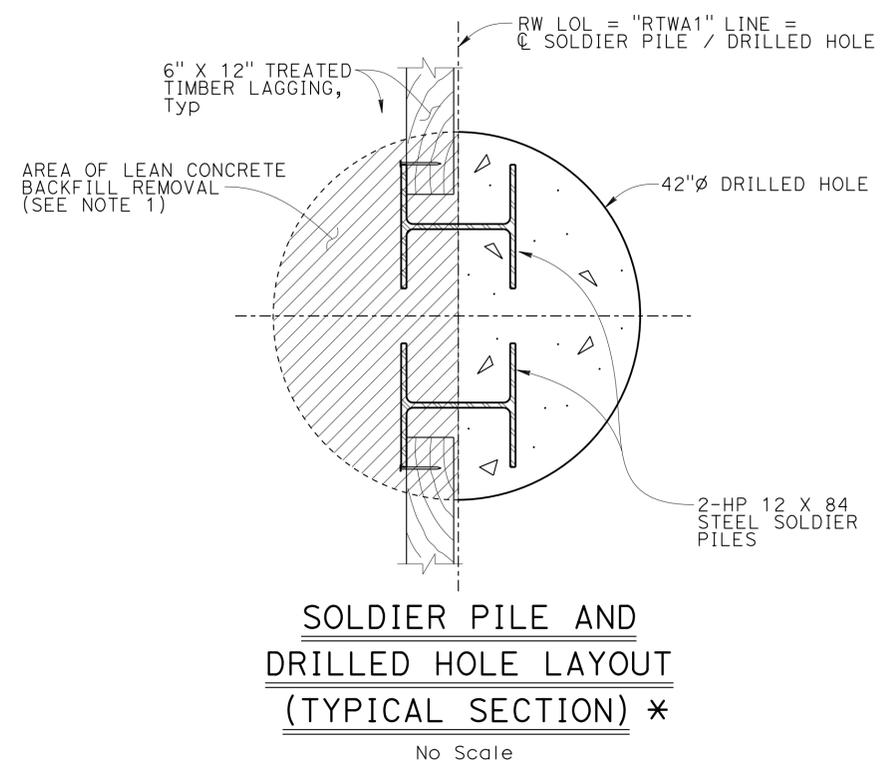
TYPICAL SECTION
 1/4" = 1'-0"



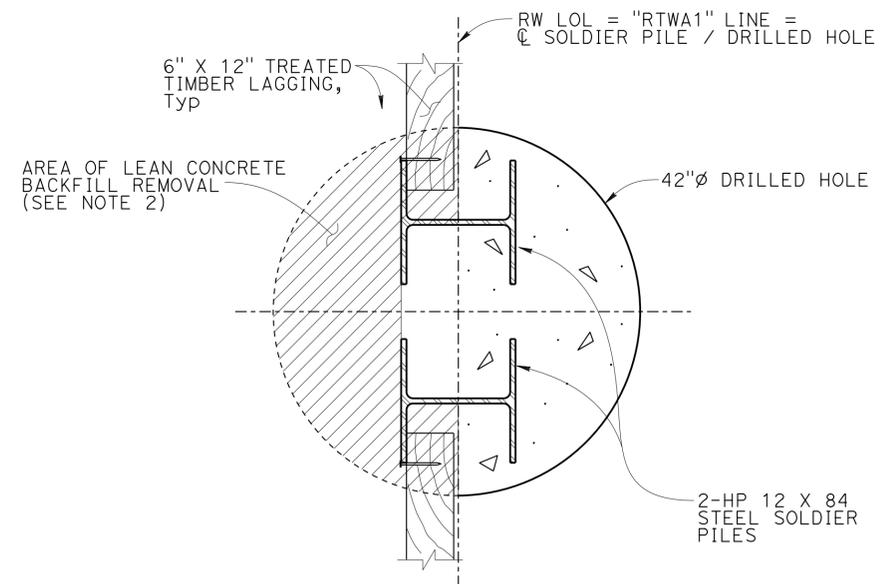
LIMITS OF CLEAN & PAINT STEEL SOLDIER PILE
 No Scale

- NOTES:
1. The limits start 1 foot depth below the exposed timber lagging up to the top.
 2. The limits start 1 foot depth below the exposed timber lagging up to the bottom of wall / lagging.
 3. Limits of CLEAN AND PAINT STEEL SOLDIER PILING - FINISH COAT, extends from 1'-0" below finish grade of bench to top of piling.

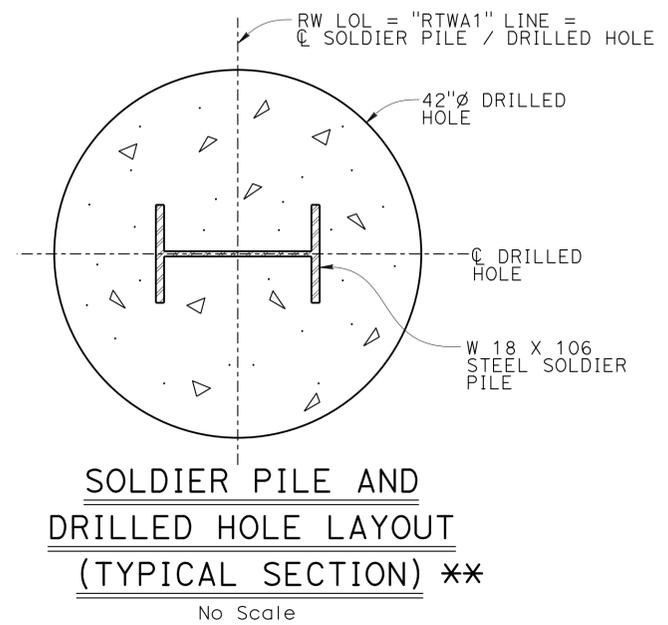
LEGEND:
 Denotes lean concrete removal
 Denotes lean concrete to remain



SOLDIER PILE AND DRILLED HOLE LAYOUT (TYPICAL SECTION) *
 No Scale

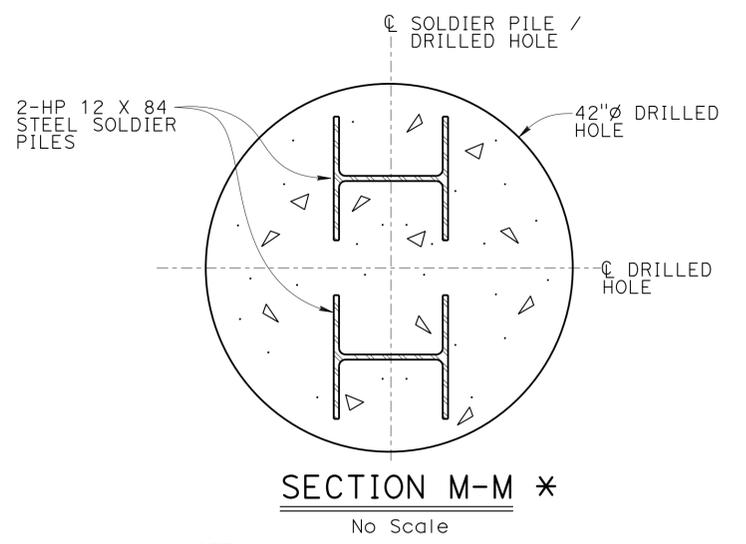


SECTION L-L *
 No Scale



SOLDIER PILE AND DRILLED HOLE LAYOUT (TYPICAL SECTION) **
 No Scale

NOTE:
 ** This section applies only to pile no. 62 to pile no. 69. From RW LOL, Sta 5+54.44 to Sta 5+95.82



SECTION M-M *
 No Scale

NOTE:
 * This section applies only to pile no. 1 to pile no. 61. From RW LOL, Sta 0+01.50 to Sta 5+40.50

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY P. Lutz	CHECKED R. Candiotti	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO.	35E0047	WOODSIDE II RETAINING WALL	
	DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti			POST MILE	21.6		WALL DETAILS NO. 1
	QUANTITIES	BY P. Lutz	CHECKED R. Candiotti			CONTRACT NO.:	04-466404		

UNIT: 3594
 PROJECT NUMBER & PHASE: 0412000622 1
 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 07-31-14, 09-02-14, 12-02-14
 SHEET 9 OF 17
 USERNAME => s114360 DATE PLOTTED => 29-JUN-2015 TIME PLOTTED => 13:21
 FILE => 35e0047-f-wde01.dgn

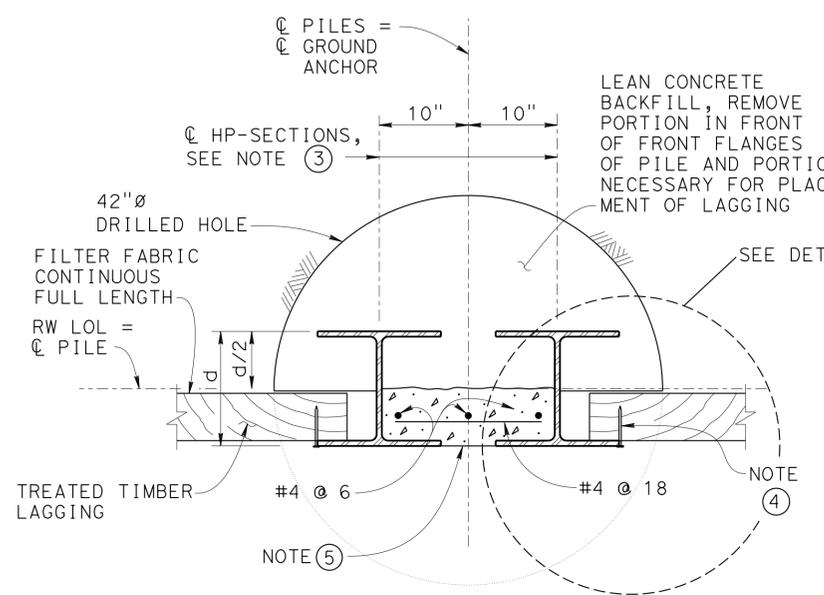
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	84	21.6	93	100

REGISTERED CIVIL ENGINEER DATE 02-25-15
 Philip E. Lutz
 No. C55839
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA
 PLANS APPROVAL DATE 6-1-15
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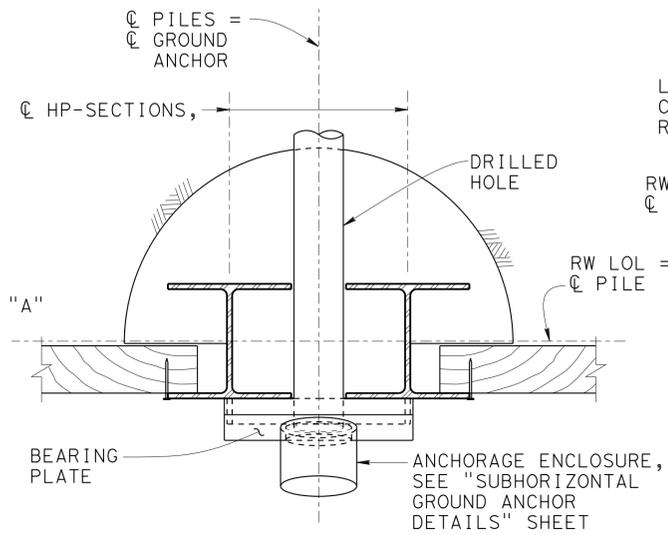
NOTES:

- Detail symmetrical about C Piles = C Tieback.
- $3/8"$ x $6"$ High Density Polyethylene (HDPE) shim between lagging members secured with $1/4"$ Dia galv commercial wire nails, Typ. Width of shim to match width of timber lagging.
- Provide sufficient number of stay plates between HP-Sections to maintain relative alignment during construction.
- $1/4"$ Dia $5"$ galvanized spikes, Typ.
- Concrete extends from top of pile to $1'-0"$ below finish grade of bench. Preparing stain enitre exposed concrete surface.

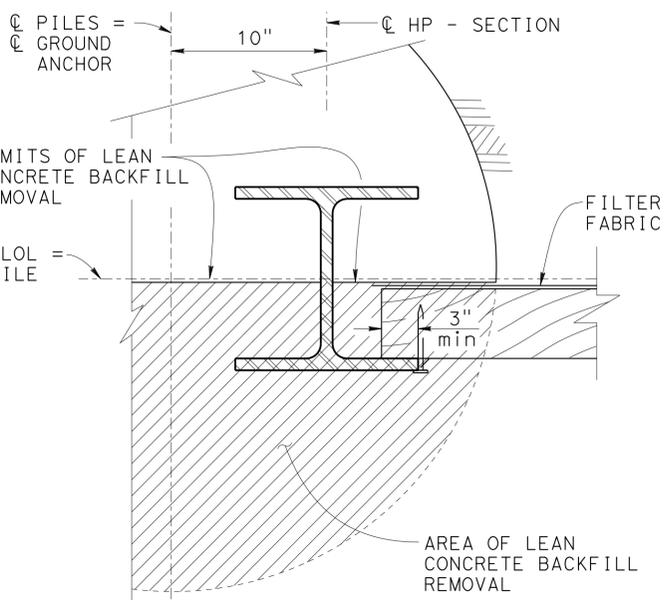
- NOTES:
- Stay plates shall be installed prior to placement of Steel Soldier Piles in drilled holes.
 - Design of support plates to be determined by contractor.
 - Support and Closure plates to receive same undercoat and finish coat treatment as Soldier Piles.



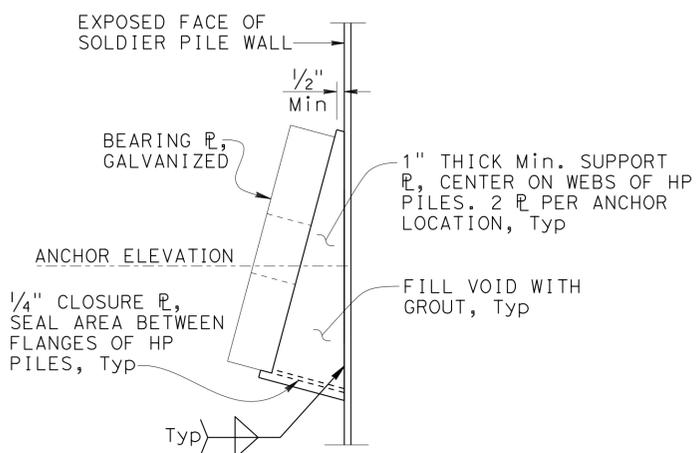
PILE SECTION BETWEEN GROUND ANCHOR
No Scale



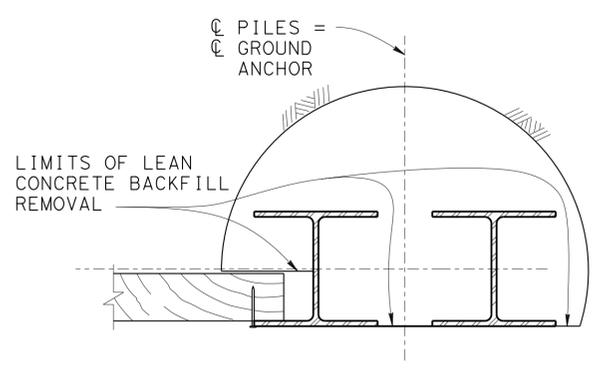
PILE SECTION AT GROUND ANCHOR
No Scale



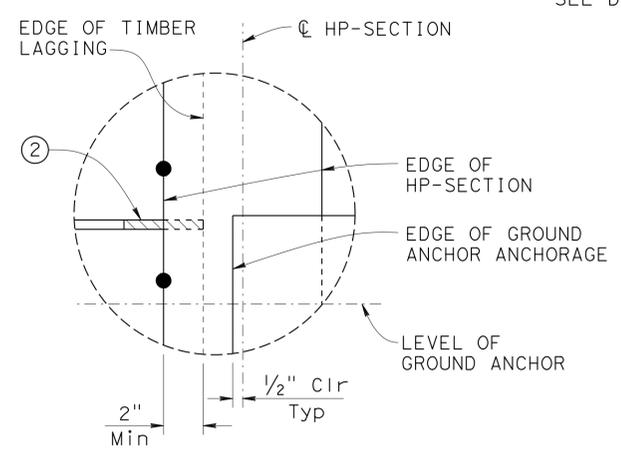
DETAIL "A"
No Scale



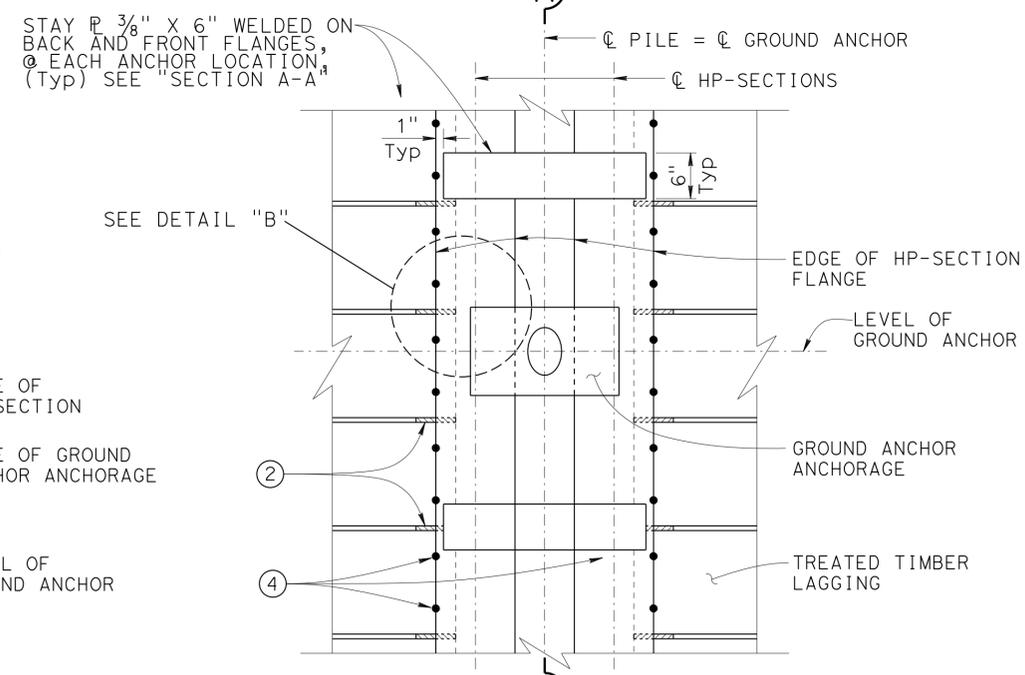
DETAIL "C"
No Scale



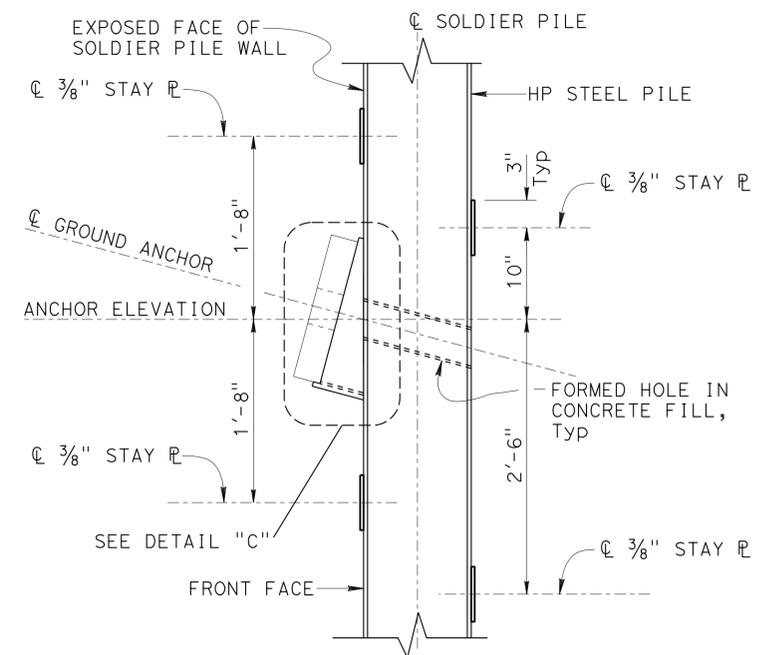
PILE SECTION AT BEGIN OR END WALL (TIMBER LAGGING)
No Scale



DETAIL "B"
No Scale



PART ELEVATION OF SOLDIER PILE
No Scale

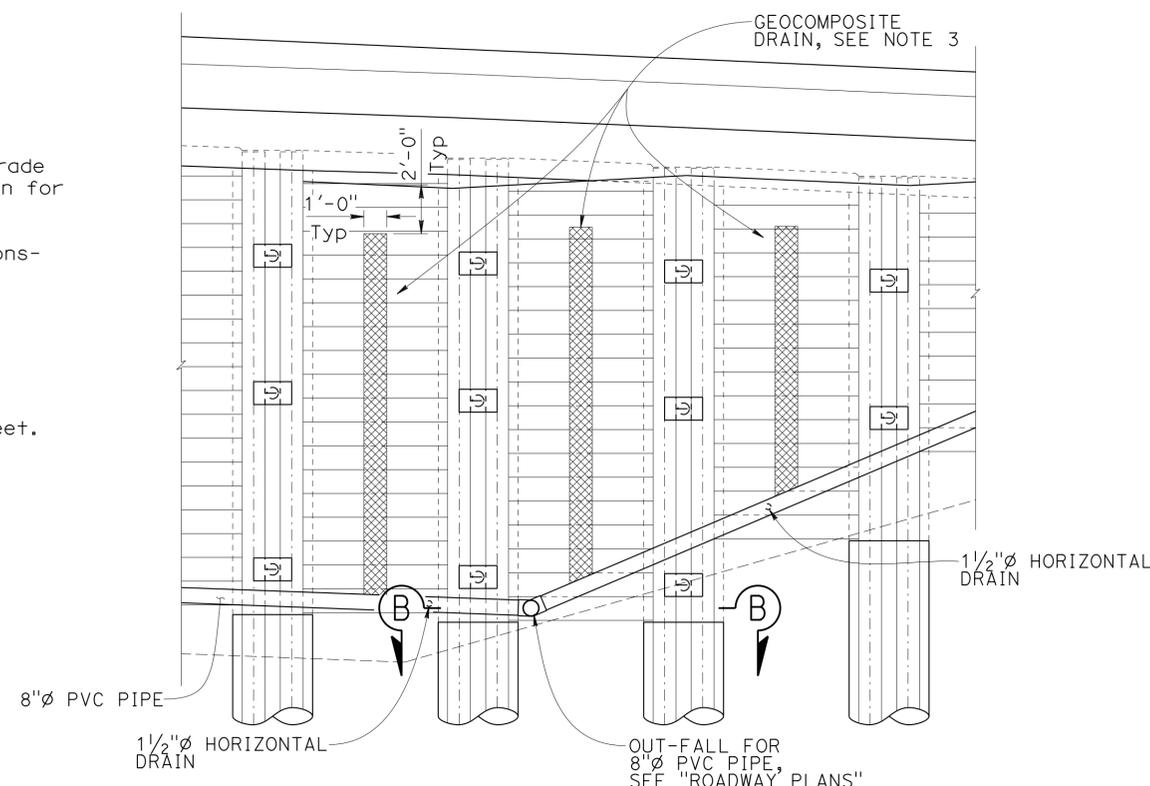


SECTION A-A
No Scale

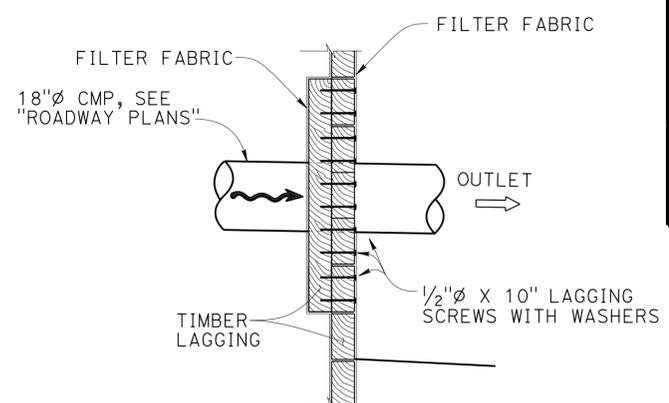
DESIGN	BY P. Lutz	CHECKED R. Candiotti	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO.	WOODSIDE II RETAINING WALL WALL DETAILS NO. 2
DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti			35E0047	
QUANTITIES	BY P. Lutz	CHECKED R. Candiotti			POST MILE 21.6	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	84	21.6	94	100
			02-25-15	DATE	
REGISTERED CIVIL ENGINEER			PLANS APPROVAL DATE		
6-1-15			REGISTERED PROFESSIONAL ENGINEER		
Philip E. Lutz			No. C55839		
Exp. 12-31-16			CIVIL		
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To get to the Caltrans web site, go to: http://www.dot.ca.gov					

- NOTES:
1. Earthwork shall conform to the slope or grade limits shown prior to start of construction for the ground anchors.
 2. Ground anchor at a soldier pile shall be constructed starting with level G1.
 3. Attach Geocomposite Drain with Hot Dip Galvanized Nails min 8d and as approved by the Engineer. Geocomposite Drain to be placed between lagging and filter fabric on front face of wall. For limits of Geocomposite Drain, see "DRAINAGE PLAN" sheet.
 4. For location of "SECTION D-D", see "DRAINAGE PLAN" sheet.

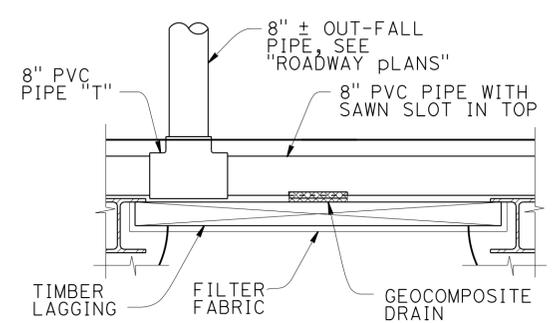


PART ELEVATION
1/4" = 1'-0"

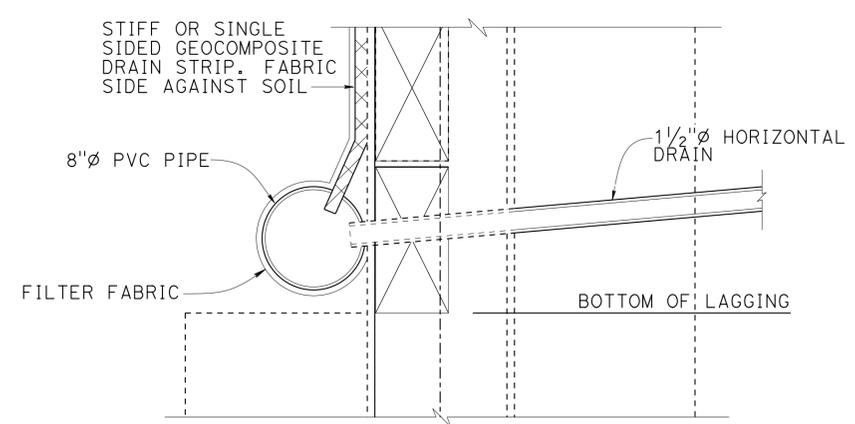


SECTION A-A
1/2" = 1'-0"

NOTE: For alignment and elevation of 18" Ø CMP, see "ROADWAY PLANS".

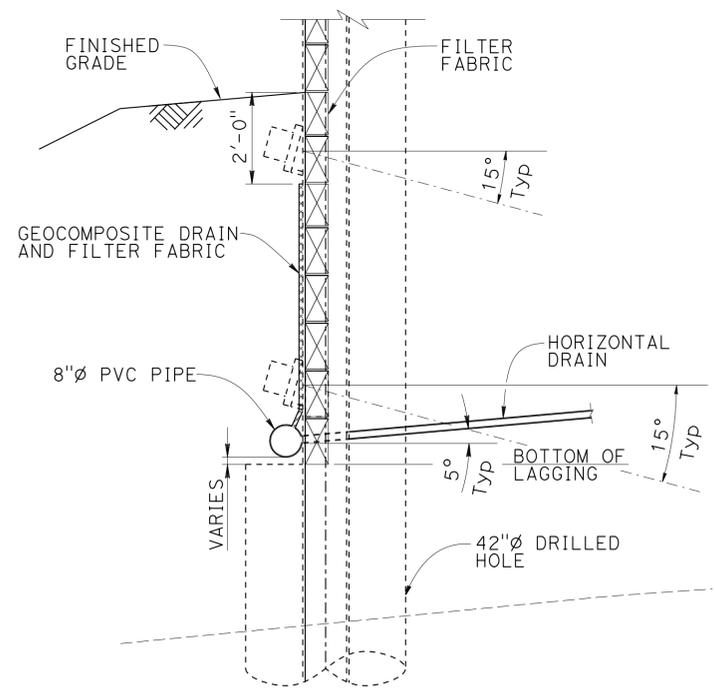


SECTION A-A
NO SCALE

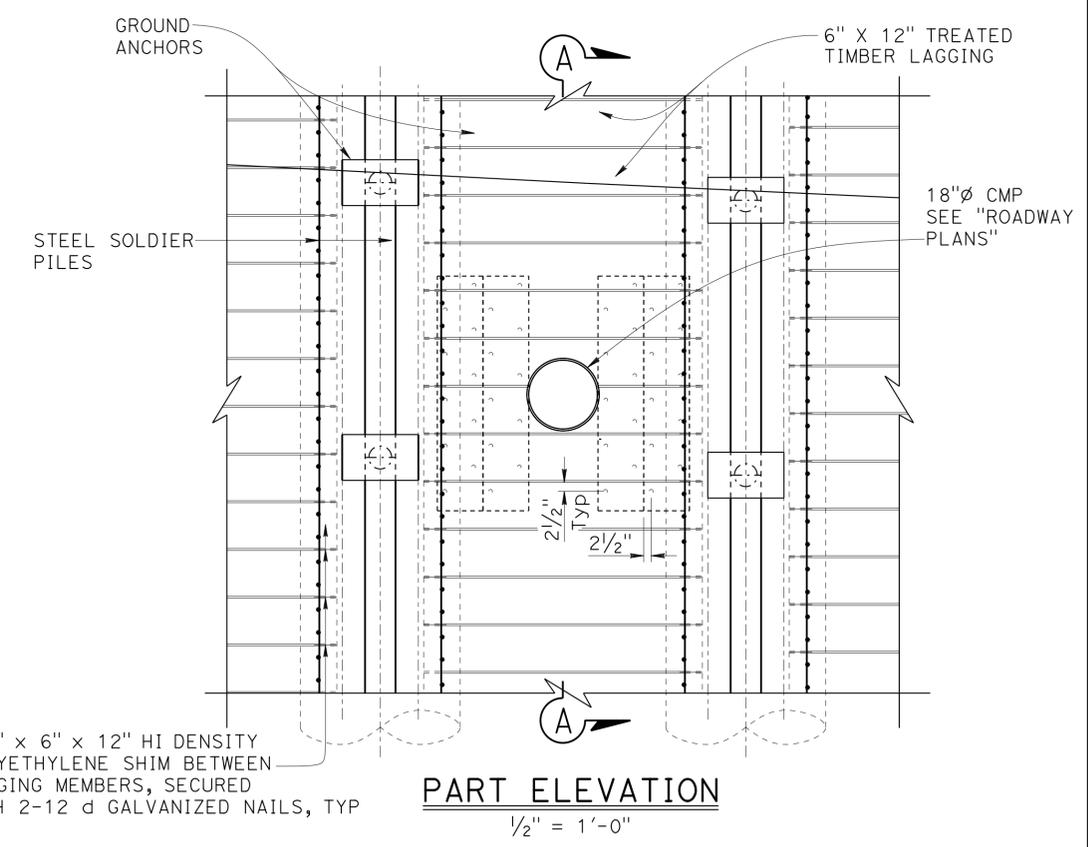


WALL DRAIN DETAIL AT GEOCOMPOSITE DRAIN AND HORIZONTAL DRAIN
No scale

NOTE: LOCATION OF GEOCOMPOSITE DRAIN AND 1 1/2" Ø HORIZONTAL DRAIN ARE TYPICALLY NOT CO-LOCATED, SEE "PART ELEVATION".



SECTION D-D DRAINAGE DETAIL
No Scale



PART ELEVATION
1/2" = 1'-0"

NOTE: For location of "SECTION D-D", see "DRAINAGE PLAN" sheet.

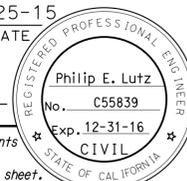
DESIGN	BY P. Lutz	CHECKED R. Candiotti
DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti
QUANTITIES	BY P. Lutz	CHECKED R. Candiotti

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

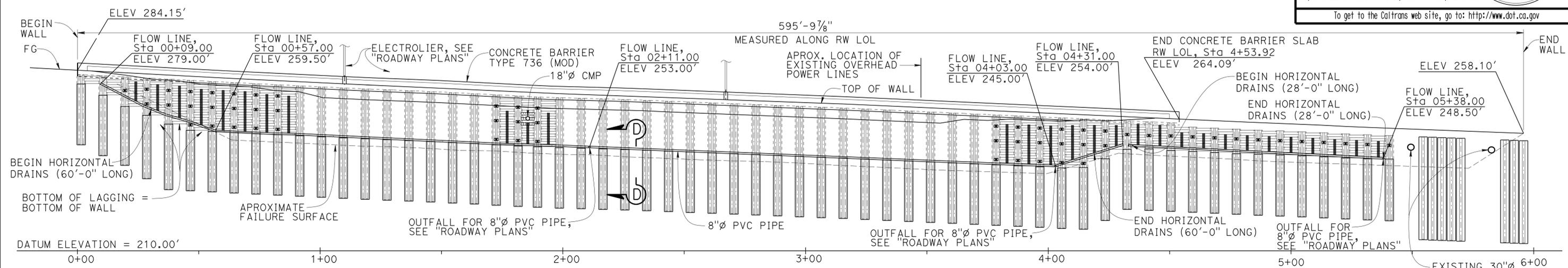
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO.	35E0047
POST MILE	21.6

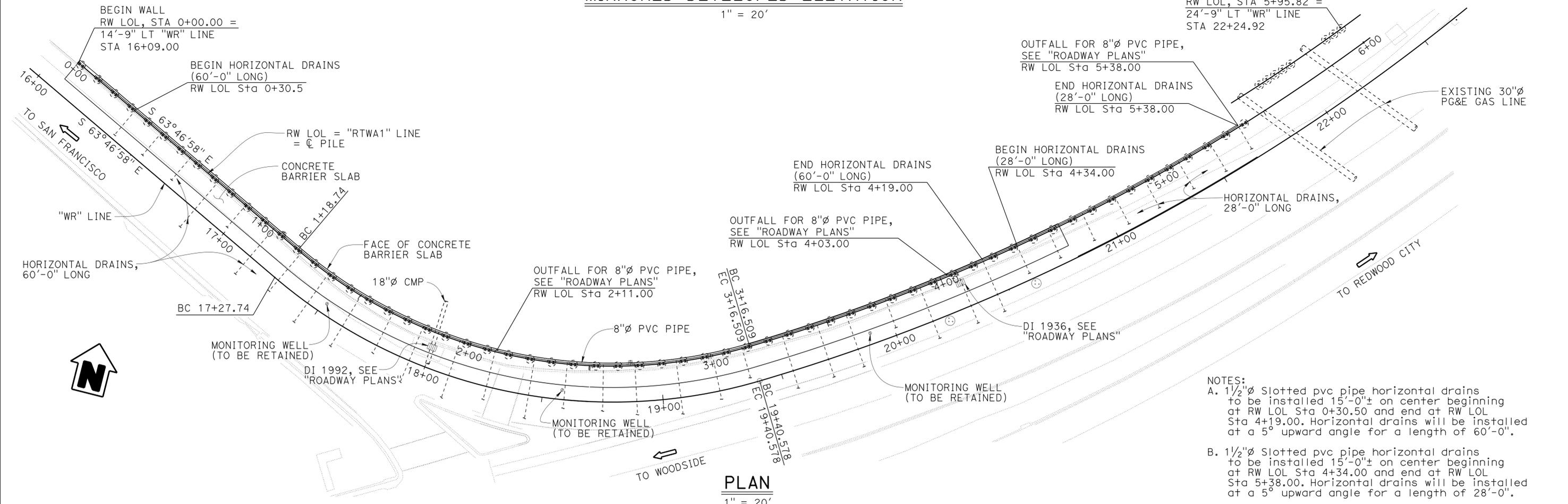
WOODSIDE II RETAINING WALL
WALL DETAILS NO. 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	84	21.6	95	100
 REGISTERED CIVIL ENGINEER DATE 02-25-15					
PLANS APPROVAL DATE 6-1-15					
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NOTES:
 1. Timber lagging not all shown.
 2. Filter fabric and geocomposite drain not all shown.
 3. For "SECTION D-D", see "DRAINAGE DETAIL" on "WALL DETAILS NO. 3" sheet.



MIRRORED DEVELOPED ELEVATION
 1" = 20'



PLAN
 1" = 20'

NOTES:
 A. 1 1/2"Ø Slotted pvc pipe horizontal drains to be installed 15'-0"± on center beginning at RW LOL Sta 0+30.50 and end at RW LOL Sta 4+19.00. Horizontal drains will be installed at a 5° upward angle for a length of 60'-0".
 B. 1 1/2"Ø Slotted pvc pipe horizontal drains to be installed 15'-0"± on center beginning at RW LOL Sta 4+34.00 and end at RW LOL Sta 5+38.00. Horizontal drains will be installed at a 5° upward angle for a length of 28'-0".

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY P. Lutz	CHECKED R. Candiotti	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO.	35E0047	WOODSIDE II RETAINING WALL DRAINAGE PLAN	
	DETAILS	BY P. Lutz / C. Cancino	CHECKED R. Candiotti			POST MILE	21.6		
	QUANTITIES	BY P. Lutz	CHECKED R. Candiotti						
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3594 PROJECT NUMBER & PHASE: 0412000622 1 CONTRACT NO.: 04-466404		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES: 08-18-14, 12-02-14, 09-18-14	SHEET 12 OF 17

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	96	100
 REGISTERED CIVIL ENGINEER			02-25-15	DATE	
PLANS APPROVAL DATE 6-1-15					
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GENERAL NOTES

DESIGN:
 AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments.

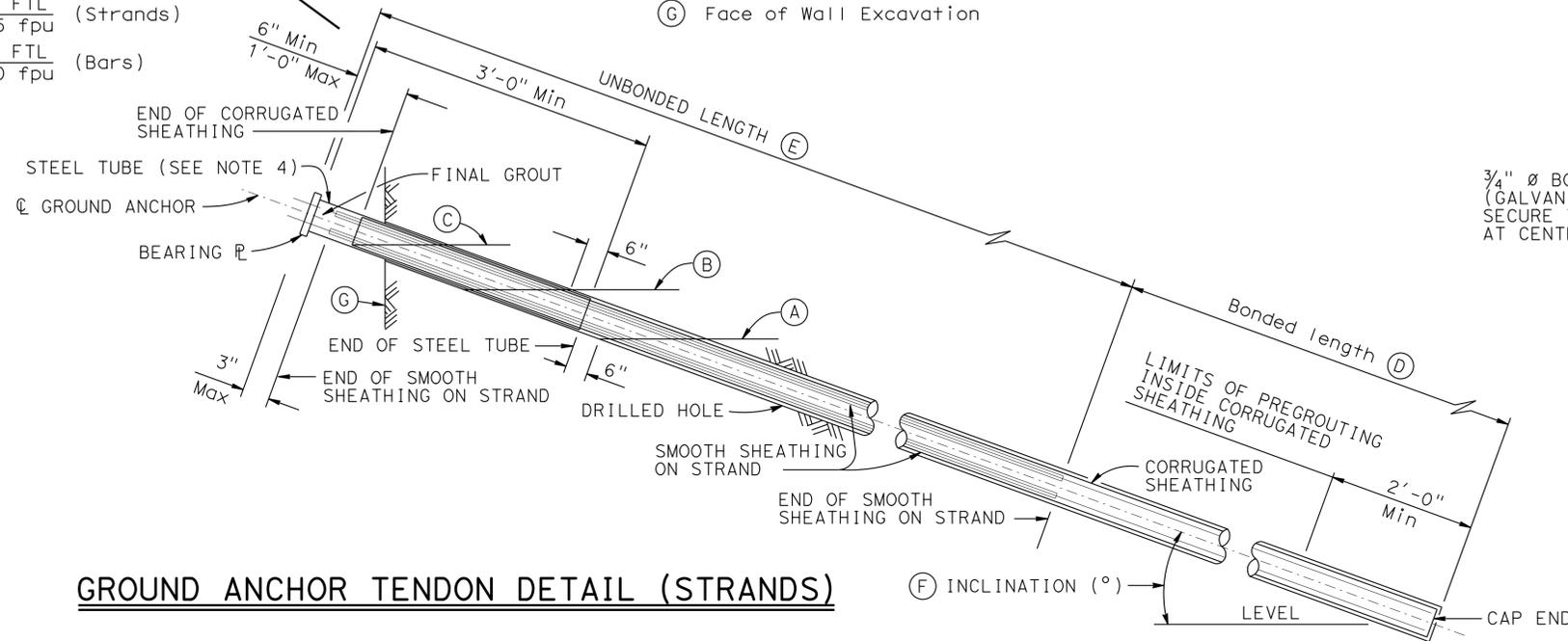
PRESTRESSING STEEL:
 Bars - ASTM Designation: A722 Type II (150 ksi)
 Strand Tendons-ASTM Designation: A416 (270 Ksi Low Relaxation steel)

FTL = Factored Test Load per anchor (Kips)
 fpu = Minimum tensile strength of prestressing steel
 As = Minimum cross sectional area of prestressing steel in ground anchor (square inch)

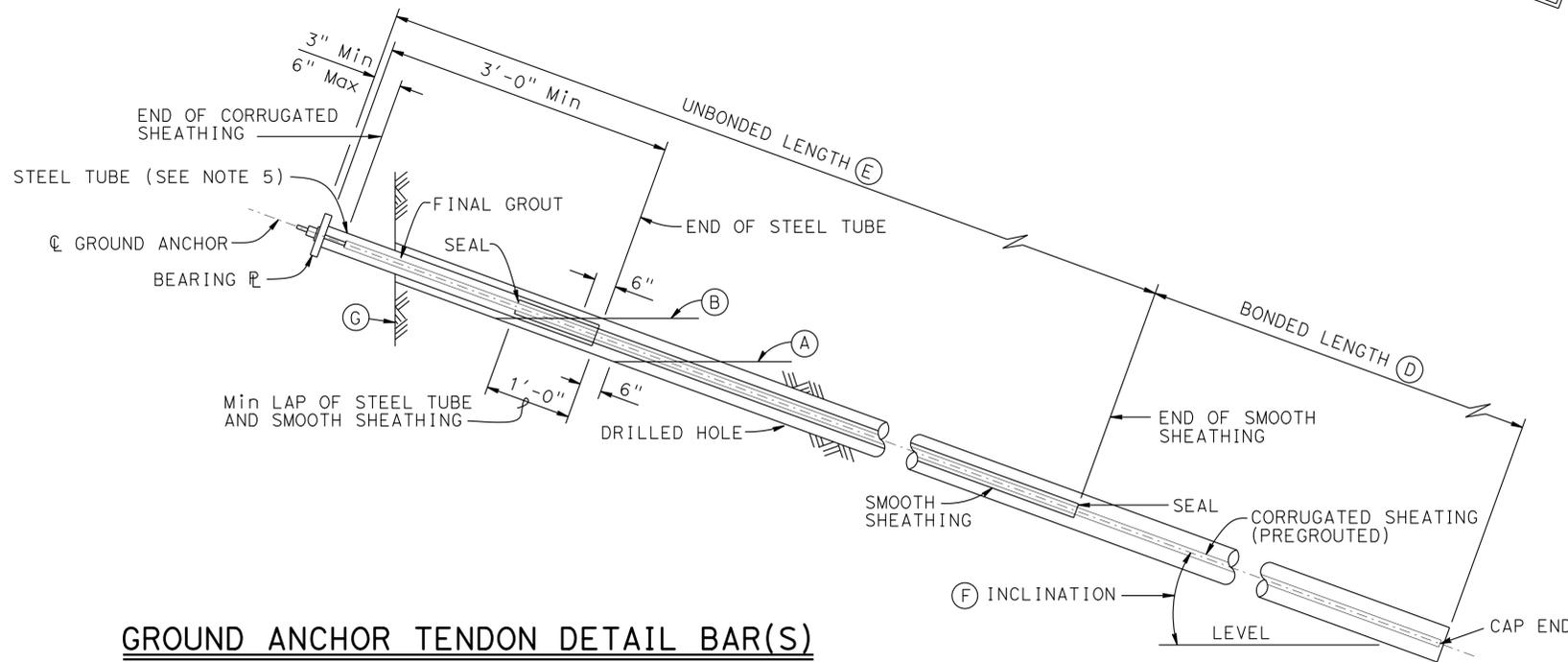
$As(Min) = \frac{1.0 FTL}{0.75 fpu}$ (Strands)
 $As(Min) = \frac{1.0 FTL}{0.80 fpu}$ (Bars)

- NOTES:
- (A) Level of initial grouting for drilled hole 6" in diameter or smaller
 - (B) Level of secondary grouting
 - (C) Level of initial grouting inside corrugated sheathing
 - (D) Bonded length shall be determined by the contractor
 - (E) For unbonded length, see PROJECT PLANS
 - (F) For inclination, see PROJECT PLANS
 - (G) Face of Wall Excavation

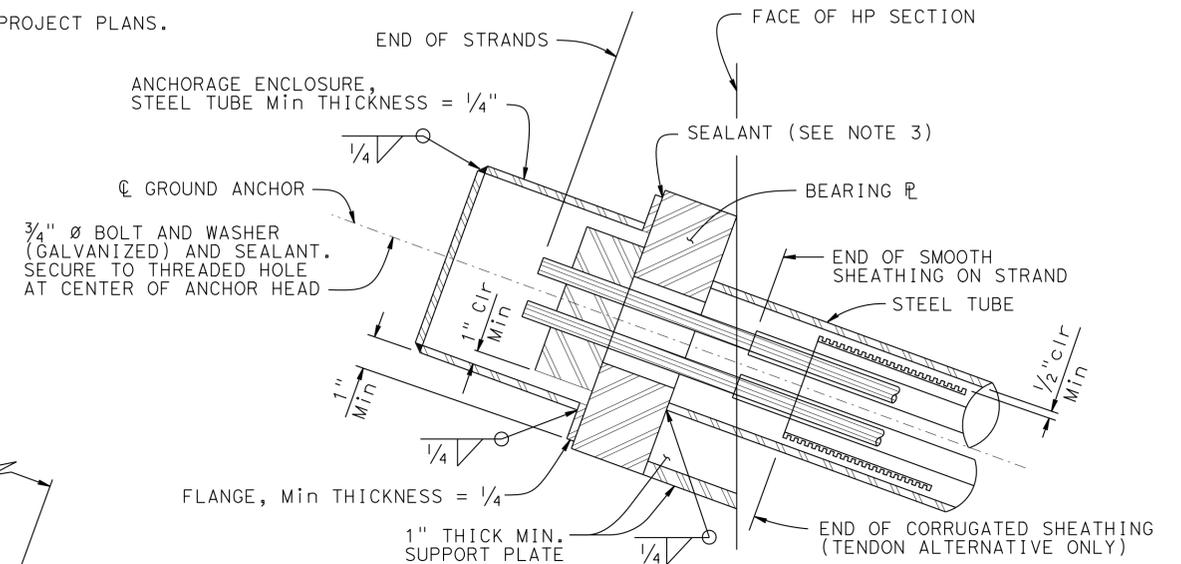
- NOTES:
1. Anchorage enclosure shall only be used when anchor head assembly is not enclosed in concrete.
 2. Anchorage enclosure shall have provisions to allow injecting grout at low end and venting at high end. Galvanize after fabrication.
 3. Silicone sealant to cover full width of flange.
 4. Steel tube (Min thickness = 1/4") welded to bearing plate. Galvanize assembly after fabrication
 5. Steel tube welded to bearing plate. Inside diameter of steel tube (Min thickness = 1/4") to be 1" greater than outside diameter of smooth sheathing.
 6. Galvanize assembly after fabrication.
 7. For other wall details, see PROJECT PLANS.



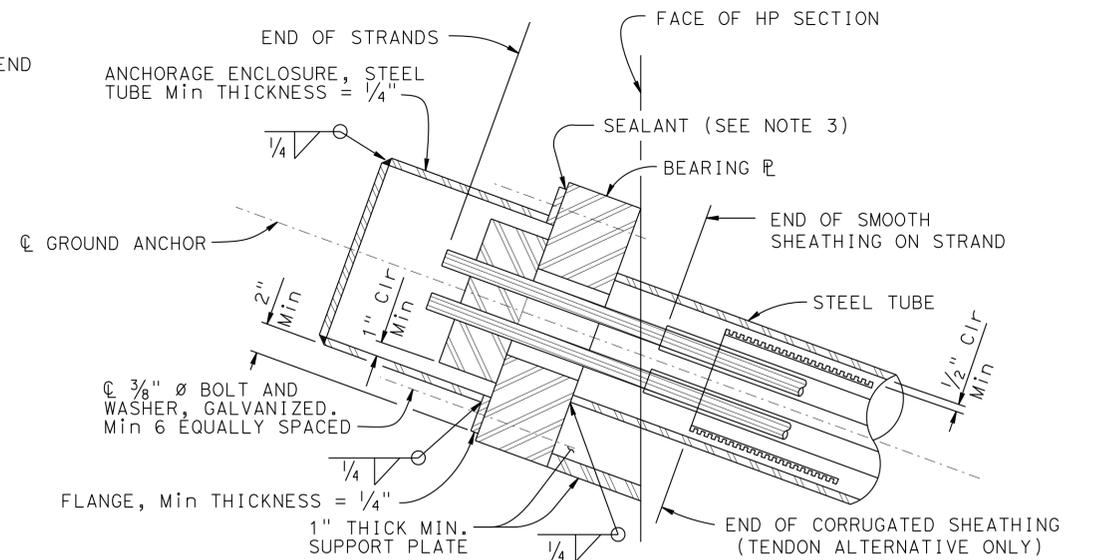
GROUND ANCHOR TENDON DETAIL (STRANDS)



GROUND ANCHOR TENDON DETAIL BAR(S)



ALTERNATIVE X



ALTERNATIVE Y

ANCHORAGE ENCLOSURE DETAILS

NO SCALE

- ① General Notes deleted
- ② Modified detail

STANDARD DRAWING	
FILE NO. xs12-040	APPROVAL DATE <u>January 2012</u>

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
DEPARTMENT OF TRANSPORTATION	

BRIDGE NO. 35E0047	WOODSIDE II RETAINING WALL
POST MILE 21.6	
SUB HORIZONTAL GROUND ANCHOR DETAILS	

DESIGN DATA

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments.

WS: 33 psf on sound wall

F_t : 54 kips on barrier

EQE: k_h = 0.2

k_v = 0.0

REINFORCED CONCRETE: f'c = 3600 psi

fy = 60 ksi

n = 8

NOTES:

1. Clearance to reinforcing steel in concrete barrier to be 1".
2. Not all barrier reinforcement shown.
3. No expansion joints in concrete barrier or barrier slab within wall limits.
4. Specific concrete barrier to be used is shown elsewhere in Project Plans.
5. Sound Wall not permitted on MSE walls unless supported by a CIDH pile foundation. (See "Mechanically Stabilized Embankment Detail No. 5" sheet).
6. Install cable railing or chain link railing when indicated in Project Plans. Refer to Standard Plans B11-7 and B11-47 for anchorage details to top of concrete barrier.
7. Minimum slab length: 40 ft

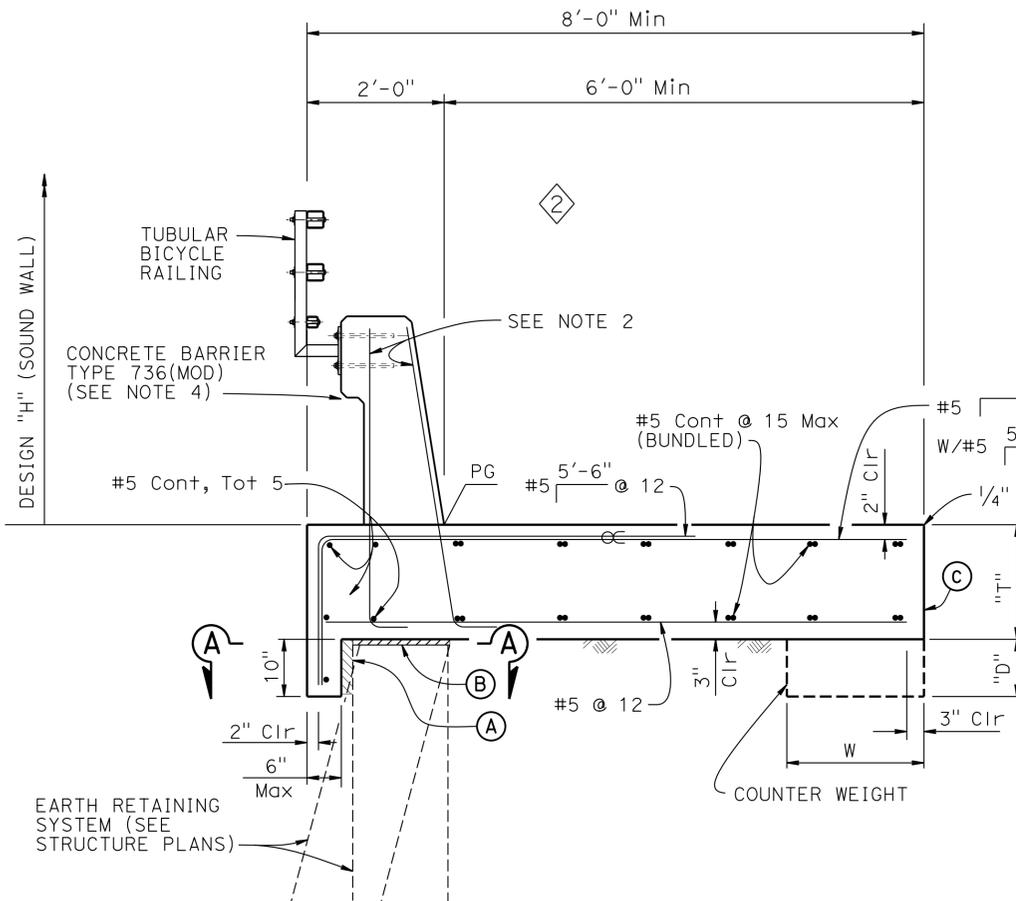
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	84	21.6	97	100

Philip E. Lutz
REGISTERED CIVIL ENGINEER DATE 02-25-15

6-1-15
PLANS APPROVAL DATE

Philip E. Lutz
No. C55839
Exp. 12-31-16
CIVIL
STATE OF CALIFORNIA

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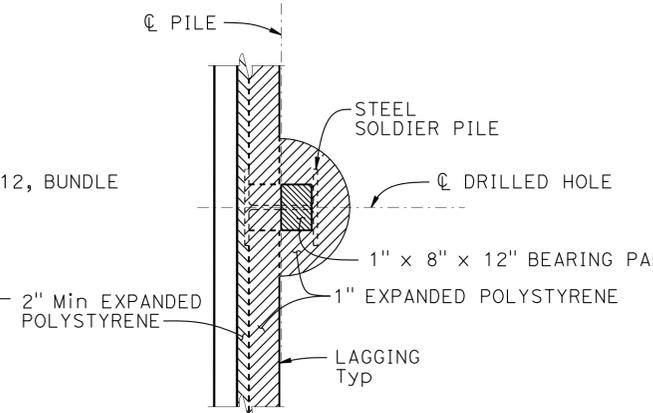


CONCRETE BARRIER SLAB

3/4" = 1'-0"

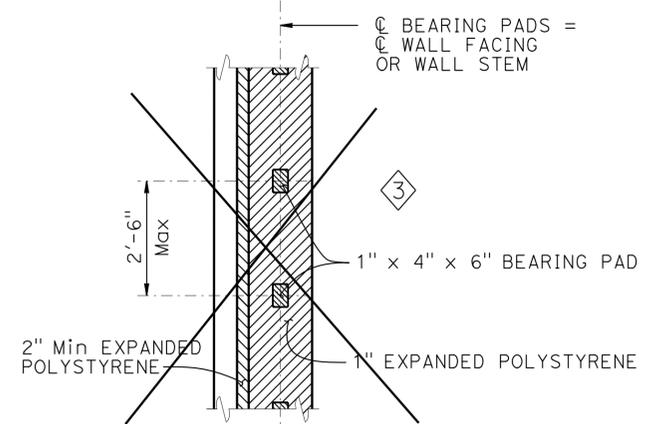
BARRIER SLAB DIMENSIONS

DESIGN "H" OF SOUND WALL	NO SW	12'-4"	14'-4"	16'-4"
BARRIER TYPE	732 736 742	736 S	736 S	736 S
T	1'-8"	1'-8"	2'-0"	2'-0"
W	N/A	N/A	N/A	2'-0"
D	N/A	N/A	N/A	0'-9"



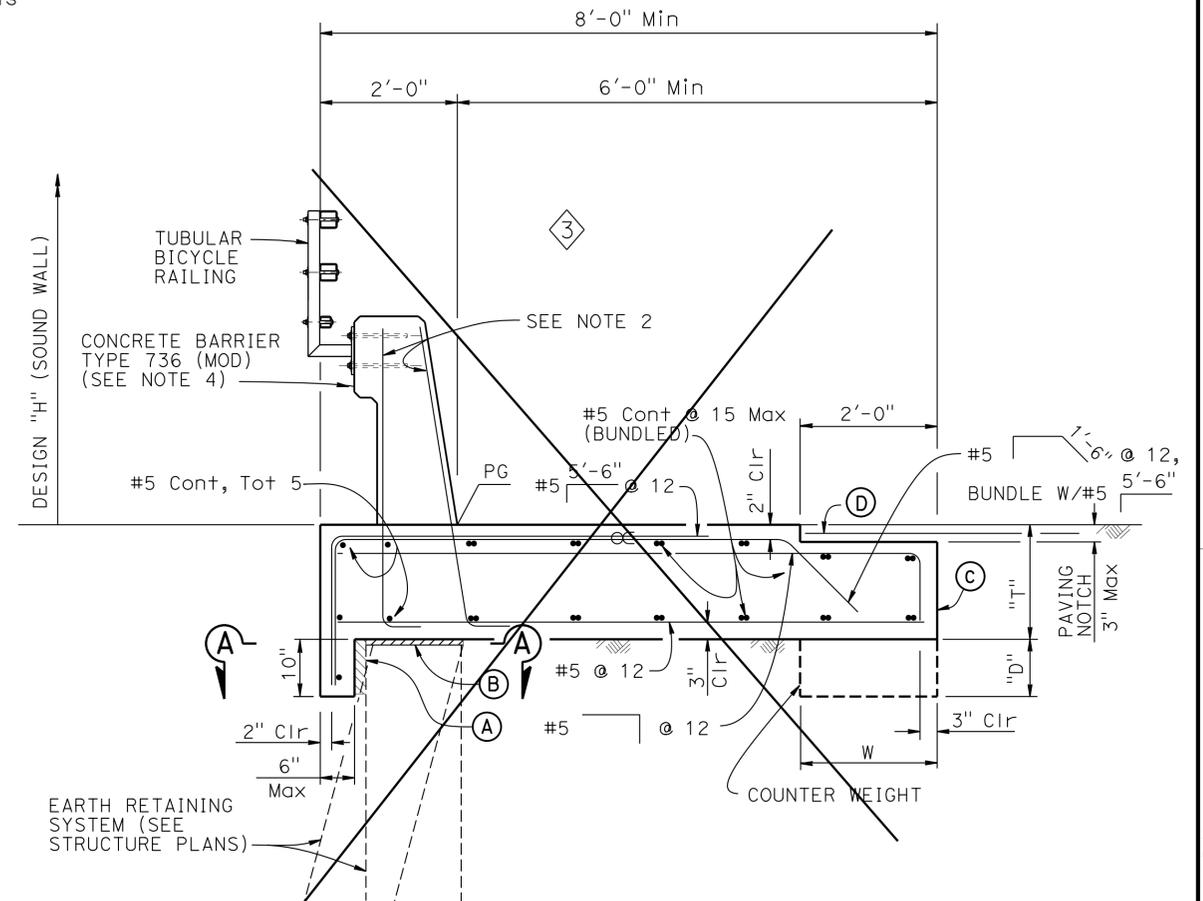
SECTION A-A

1/2" = 1'-0"
(For Soldier Pile Wall only)



SECTION A-A

1/2" = 1'-0"
(For all other Earth Retaining Systems)



CONCRETE BARRIER SLAB WITH PAVING NOTCH

3/4" = 1'-0"

NOTES:

- (A) 2" Min Expanded polystyrene
- (B) 1" Expanded Polystyrene on MSE and concrete stem walls, See "SECTION A-A" for Soldier Pile Walls
- (C) Contact joint
- (D) 4'-0" wide pavement reinforcing fabric
- ∞ Indicates bundled bars

REVISED STANDARD DRAWING

1 Barrier slab dimensions table deleted

3 Deleted Detail

2 Modified Detail

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 35E0047
POST MILE 21.6

WOODSIDE II RETAINING WALL
CONCRETE BARRIER SLAB DETAILS

FILE NO. xs12-090
APPROVAL DATE January 2012

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11))

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000622 1
CONTRACT NO.: 04-466404

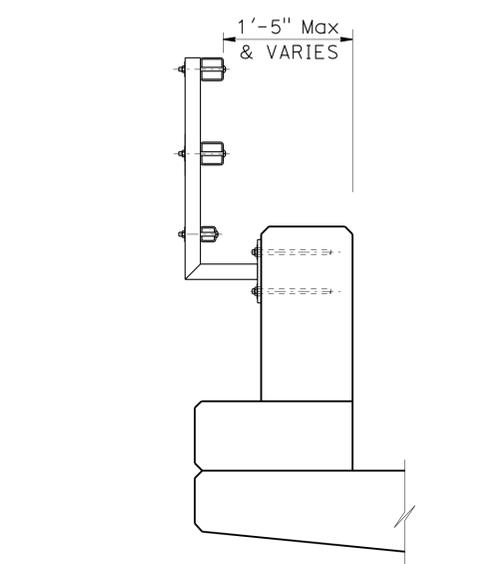
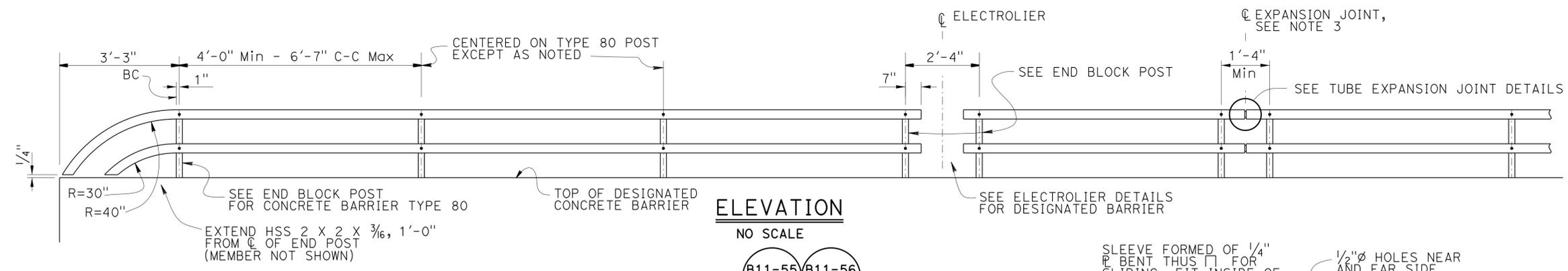
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET 14	OF 17
01/15/14	02/02/15	

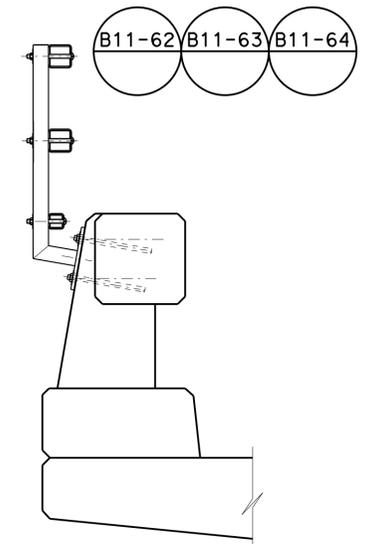
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USERNAME => s114360 DATE PLOTTED => 29-JUN-2015 TIME PLOTTED => 13:21

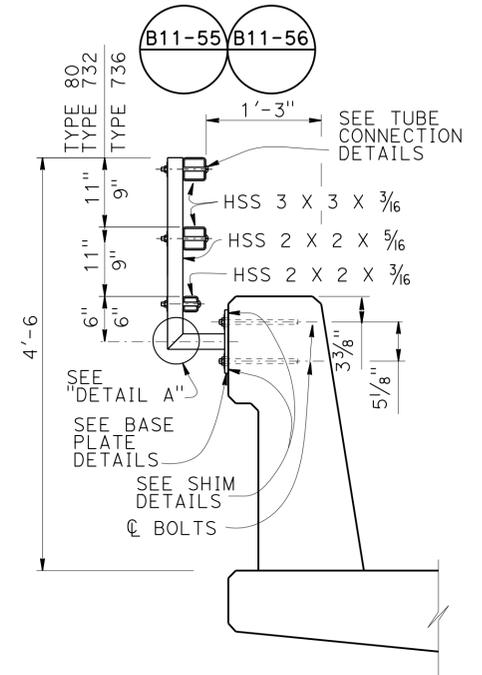
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04	SM	84	21.6	98	100
 REGISTERED CIVIL ENGINEER			02-25-15	DATE	
PLANS APPROVAL DATE 6-1-15					
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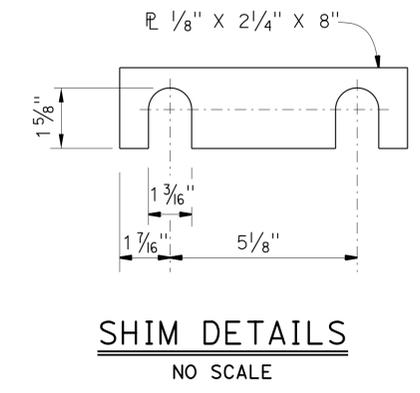
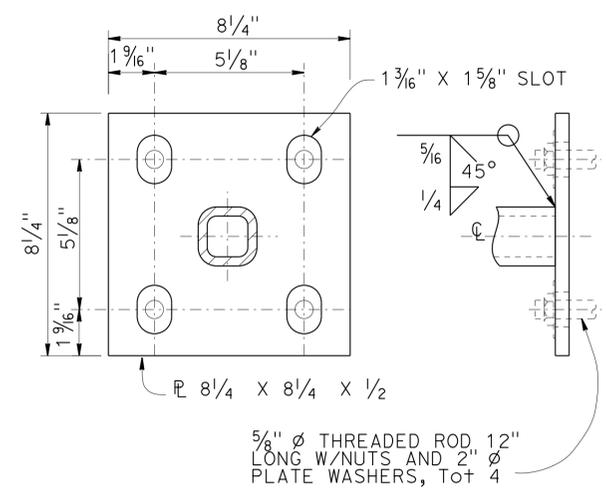
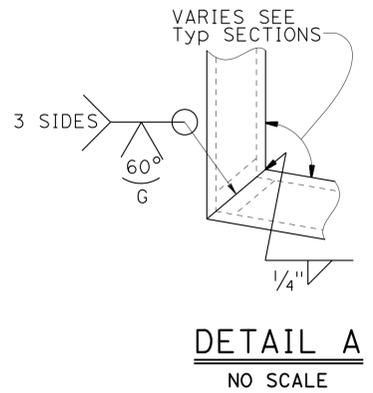
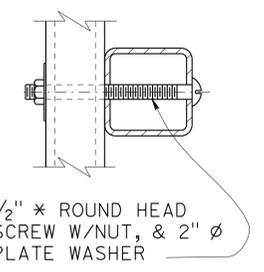
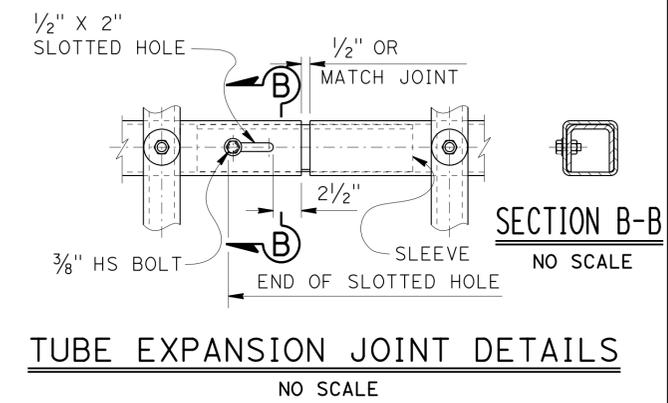
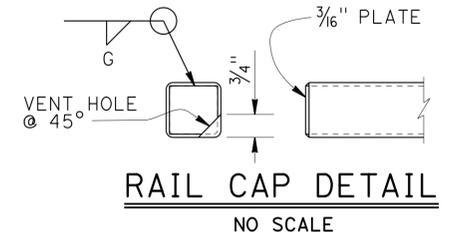
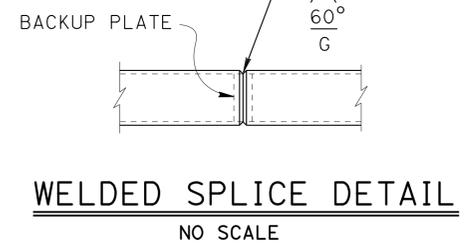
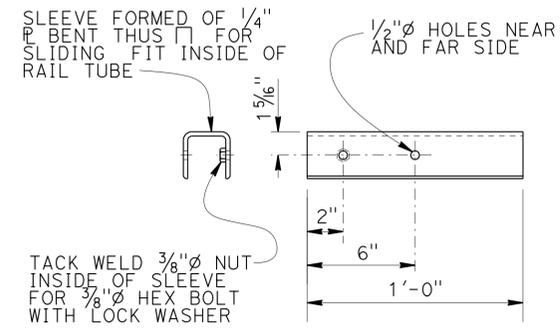
NOTE:
For details not shown, see "TYPE 732 OR 736"



NOTE:
For details not shown, see "TYPE 732 OR 736"



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



- 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.

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

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	
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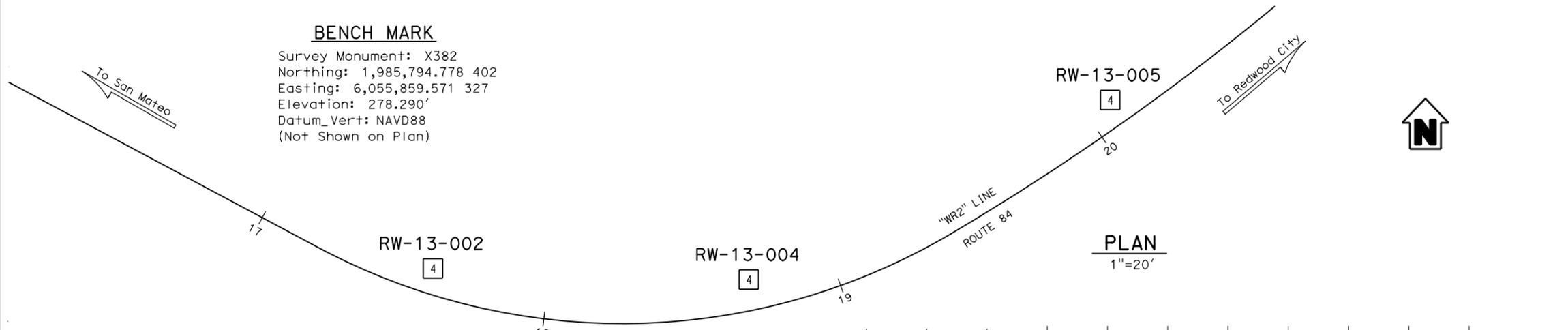
DIVISION OF ENGINEERING SERVICES	
BRIDGE NO. 35E0047	POST MILE 21.6

WOODSIDE II RETAINING WALL	
CONCRETE BARRIER TYPE 80, 732 & 736	
TUBULAR BICYCLE RAILING DETAILS	

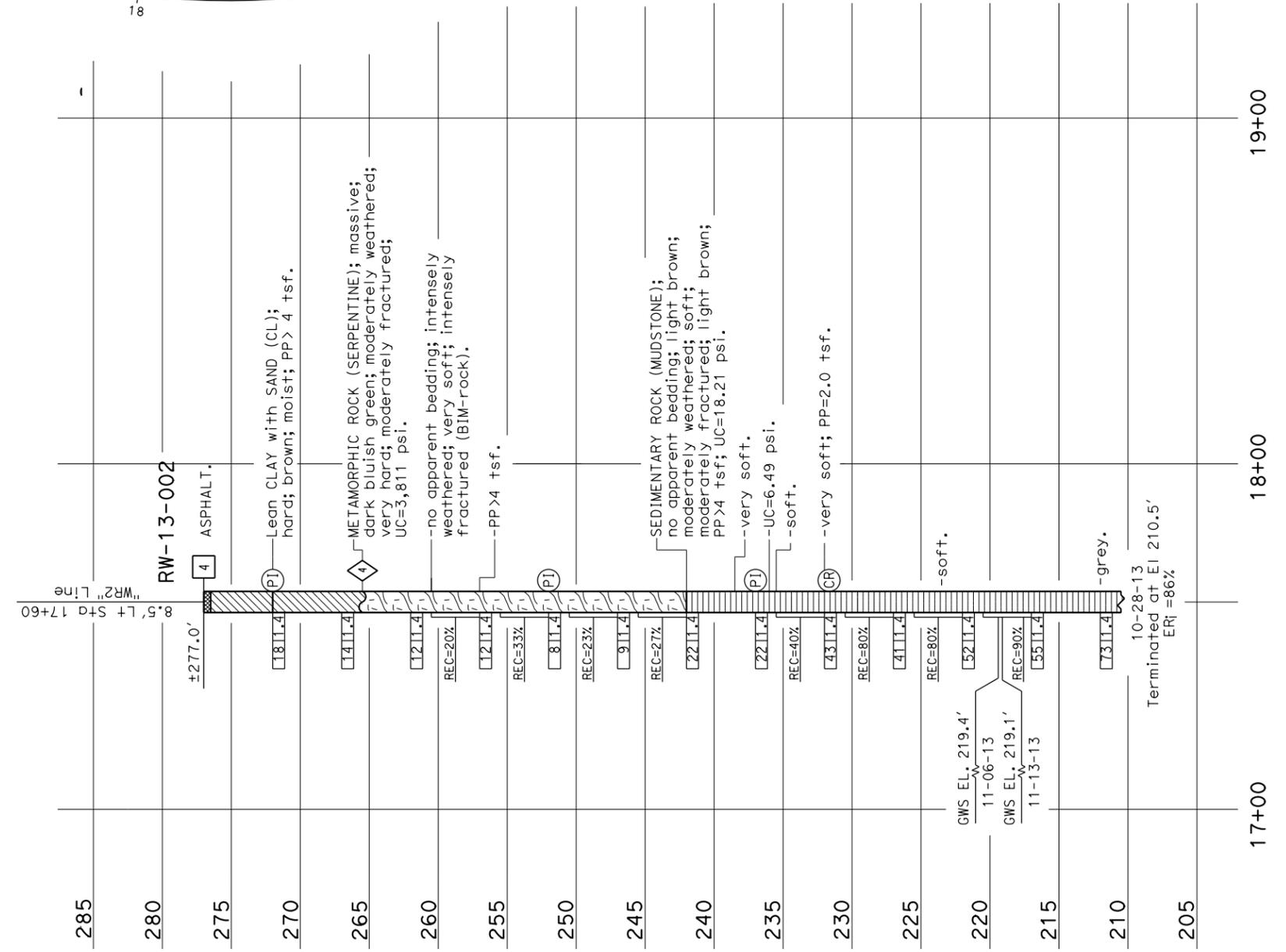
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04	SM	84	21.6	99	100
<i>John C. Moore</i> 07-14-14 REGISTERED CIVIL ENGINEER			No. C61792 Exp 6-30-15 CIVIL STATE OF CALIFORNIA		
PLANS APPROVAL DATE 6-1-15					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

BENCH MARK

Survey Monument: X382
 Northing: 1,985,794.778 402
 Easting: 6,055,859.571 327
 Elevation: 278.290'
 Datum_Vert: NAVD88
 (Not Shown on Plan)



PLAN
 1"=20'



PROFILE
 HOR. 1"=20'
 VER. 1"= 5'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		WOODSIDE II RETAINING WALL	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds 05/14		FIELD INVESTIGATION BY: J Moore		OFFICE OF GEOTECHNICAL		35E0047		LOG OF TEST BORINGS 1 of 2	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt				DESIGN BRANCH		POST MILES			
005 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000622,1 CONTRACT NO.: 04-4G6404		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
				0 1 2 3		FILE => 35e0047-k-1otb01.dgn		08-04-14		SHEET 16 OF 17	

USERNAME => s114360 DATE PLOTTED => 02-JUN-2015 TIME PLOTTED => 09:54

(For Boring Location See Plan, LOTB Sheet 1 of 2)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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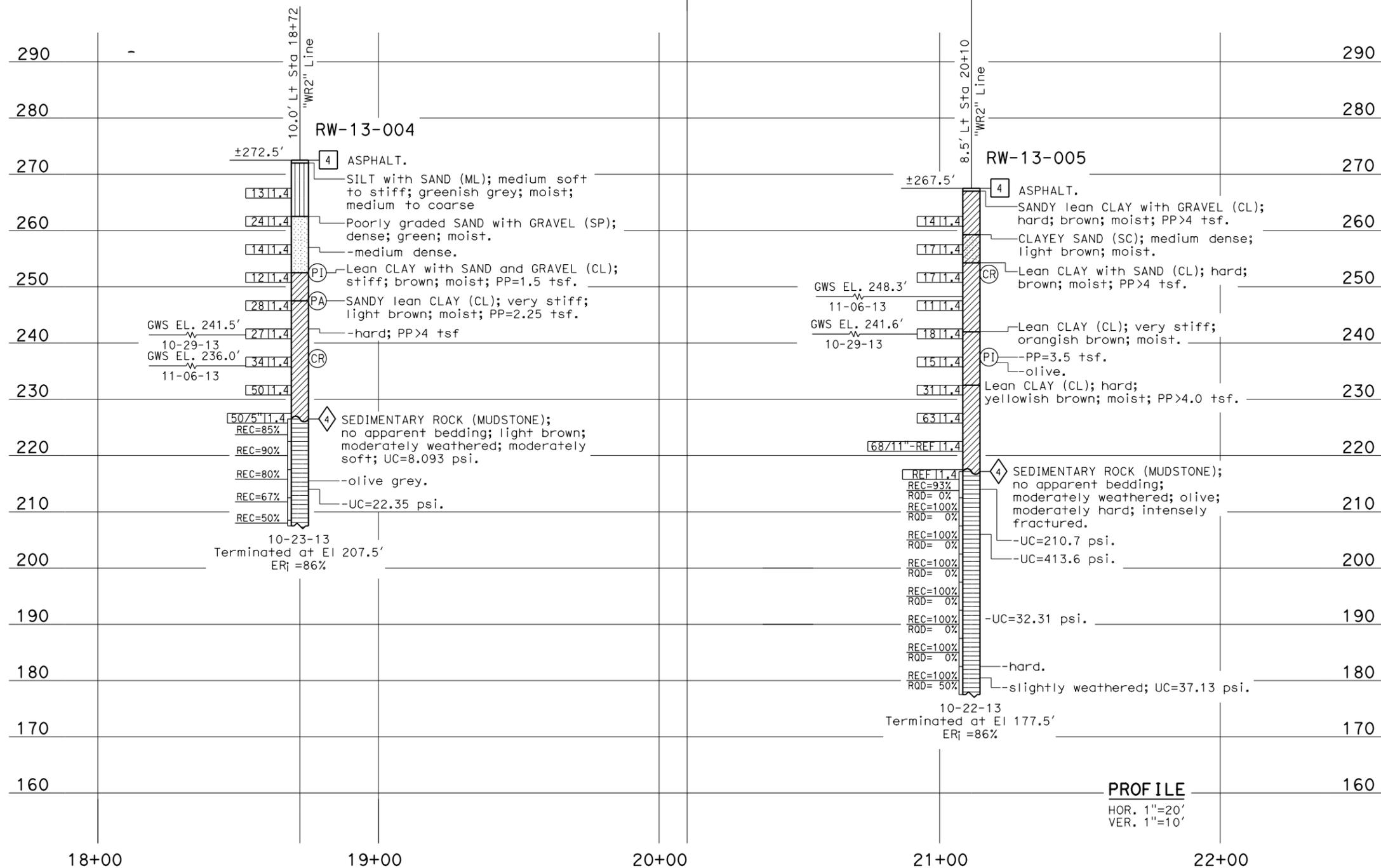
John C. Moore 07-14-14
 REGISTERED CIVIL ENGINEER

6-1-15
 PLANS APPROVAL DATE

John C. Moore
 No. C61792
 Exp. 6-30-15
 CIVIL
 STATE OF CALIFORNIA

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		WOODSIDE II RETAINING WALL	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds 05/14		FIELD INVESTIGATION BY: J Moore		OFFICE OF GEOTECHNICAL		35E0047		LOG OF TEST BORINGS 2 of 2	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt				DESIGN BRANCH		POST MILES			
								21.6			
005 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000622,1		CONTRACT NO.: 04-4G6404	
						DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET OF	
								08-04-14		17 17	

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