Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	1	64

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

ACSTP-ER-19C1(004)E

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

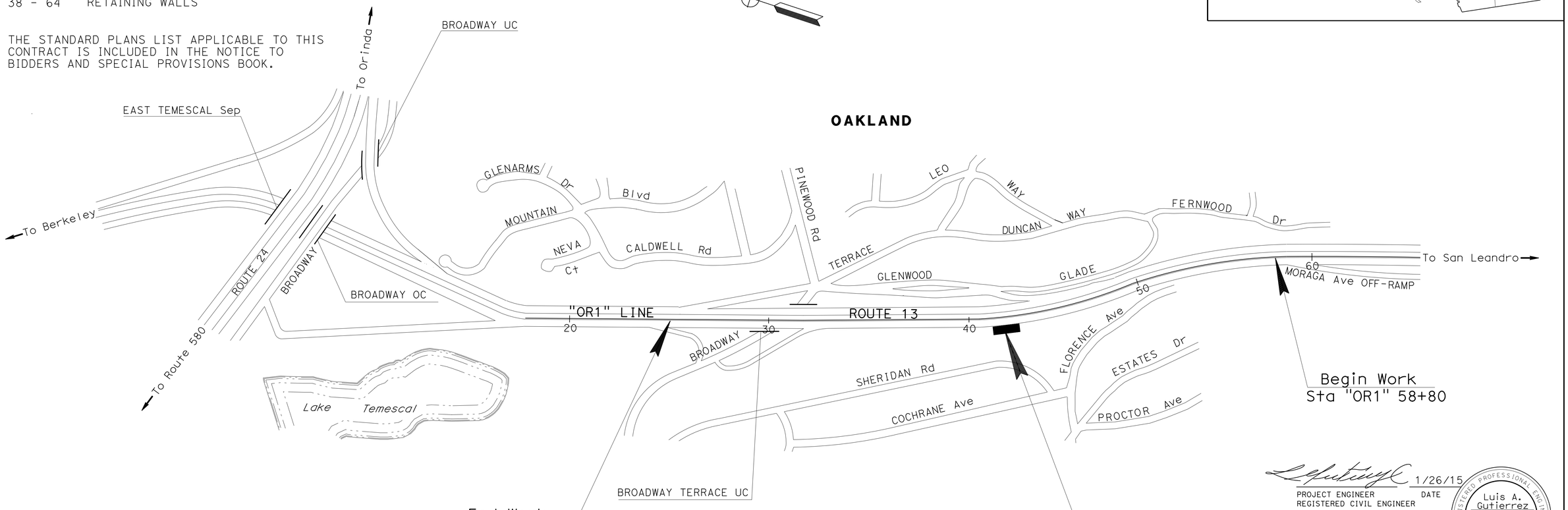
IN ALAMEDA COUNTY
IN OAKLAND
0.3 MILE SOUTH OF BROADWAY TERRACE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS

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

LOCATION MAP



LOCATION OF CONSTRUCTION
STA "OR1" 42+96 PM 8.8

NO SCALE

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

PROJECT MANAGER: ROBERT NAVARRO

DESIGN MANAGER: SOTERO ANGELES

1/26/15
PROJECT ENGINEER — DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — Luis A. Gutierrez — No. 49131 — Exp. 9-30-16 — CIVIL — STATE OF CALIFORNIA

April 27, 2015
PLANS APPROVAL DATE

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

CONTRACT No.	04-2G8304
PROJECT ID	0412000007

LAST REVISION 01-21-15 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:02

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	2	64

REGISTERED CIVIL ENGINEER — DATE 1/26/15

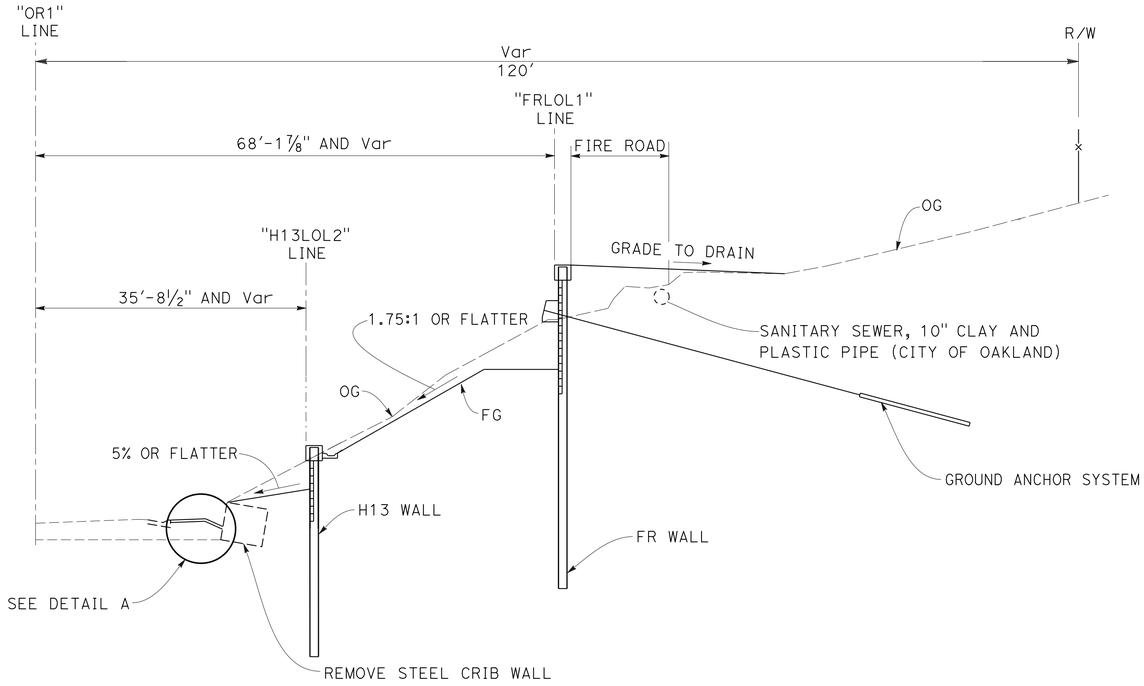
Luis A. Gutierrez No. 49131 Exp. 9-30-16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-27-15
PLANS APPROVAL DATE

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

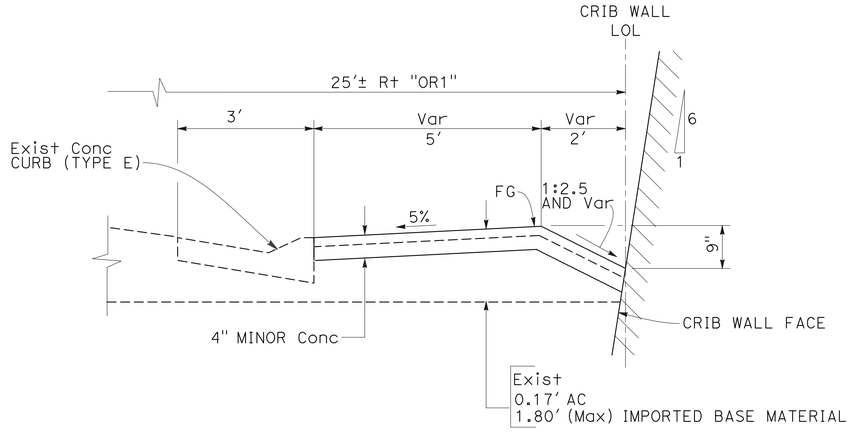
NOTES:

1. SEE STRUCTURE PLANS FOR RETAINING WALLS AND STEEL CRIB WALL.
2. UNDERGROUND DRAINAGE SYSTEM AND ARCHITECTURAL TREATMENT NOT SHOWN, SEE STRUCTURE PLANS.



"OR1" 42+00 TO 42+84

ROUTE 13



DETAIL A

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN
FUNCTIONAL SUPERVISOR: SOTERO ANGELES
CALCULATED-DESIGNED BY: LUIS GUITIERREZ
CHECKED BY: AARON WANG
REVISED BY: LG — DATE REVISED: 1/26/15

LAST REVISION — DATE PLOTTED => 12-AUG-2015 — TIME PLOTTED => 08:02 — 03-26-15

BORDER LAST REVISED 7/2/2010 | USERNAME => s129144 | DGN FILE => 0412000007ca001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0735 | PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	3	64

REGISTERED CIVIL ENGINEER — DATE 1/26/15

Luis A. Gutierrez No. 49131 Exp. 9-30-16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-27-15
PLANS APPROVAL DATE

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

NOTES:

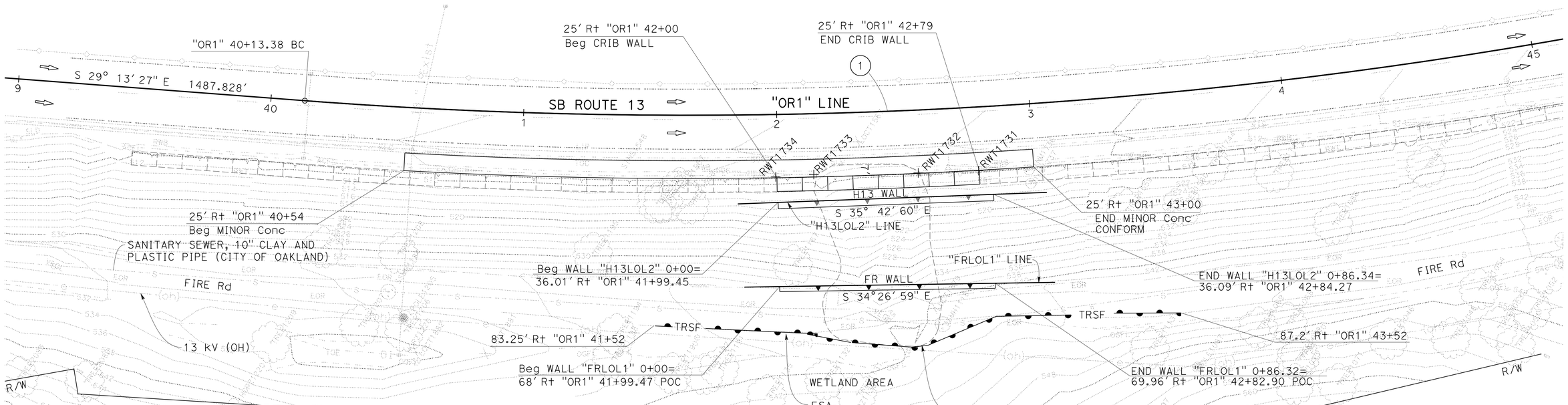
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

NOTES:

1. FOR EXACT STATIONING, SEE STRUCTURE PLANS.
2. THE LOCATION OF TRSF SHALL BE AGREED UPON BETWEEN THE CONTRACTOR AND THE RESIDENT ENGINEER.
3. LOCATION OF UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR.

ABBREVIATION:

TRSF TEMPORARY REINFORCED SILT FENCE



EXISTING CRIBWALL ELEVATION DATA

LOCATION	RWT1731	RWT1732	RWT1733	RWT1734
"OR1" Sta	42+78.07	42+54.69	42+13.24	41+96.73
"OR1" OFFSET	25.51	25.31	25.02	25.27
Elev	509.76	509.71	508.74	508.58

CURVE DATA

No. ⊕	R	Δ	T	L
1	2000'	17° 13' 59"	303.06'	601.55'

LAYOUT

SCALE: 1'' = 20'

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN
FUNCTIONAL SUPERVISOR: SOTERO ANGELES
CALCULATED-DESIGNED BY: LUIS GUITIERREZ
CHECKED BY: AARON WANG
REVISED BY: LG — DATE REVISED: 12/26/14
LAST REVISION | DATE PLOTTED => 12-AUG-2015 | TIME PLOTTED => 08:02
03-26-15

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 0412000007ea001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0735
PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	4	64

1/14/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

Ganga D. Tripathi
No. 78447
Exp. 9-30-15
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.

NOTE:

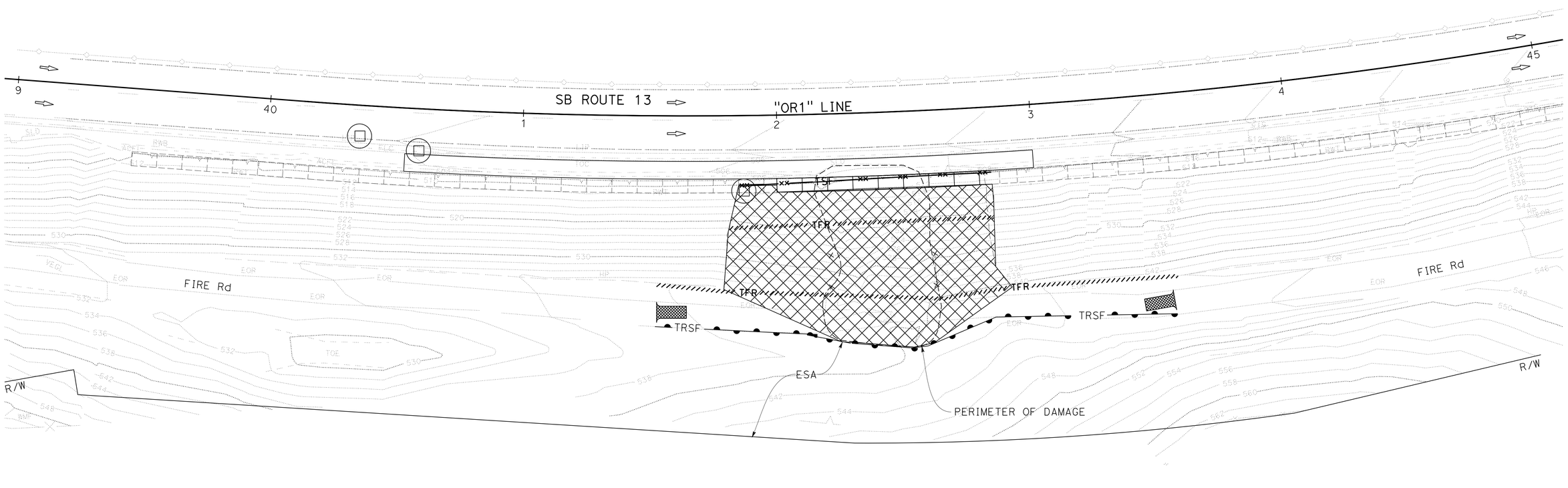
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND:

TEMPORARY HYDRAULIC MULCH (BFM)

ABBREVIATION:

TRSF TEMPORARY REINFORCED SILT FENCE



TEMPORARY WATER POLLUTION CONTROL QUANTITIES

ITEM	UNIT	STATION	QUANTITY
TEMPORARY DRAINAGE INLET PROTECTION	EA	AS SHOWN IN THE PLAN	3
TEMPORARY FIBER ROLL	LF	AS SHOWN IN THE PLAN	800
TEMPORARY REINFORCED SILT FENCE	LF	AS SHOWN IN THE PLAN	250
TEMPORARY HYDRAULIC MULCH (BFM)	SQYD	AS SHOWN IN THE PLAN	4200
TEMPORARY CONSTRUCTION ENTRANCE	EA	AS SHOWN IN THE PLAN	2

APPROVED FOR WATER POLLUTION CONTROL WORK ONLY

TEMPORARY WATER POLLUTION CONTROL PLAN

SCALE: 1'' = 20'

WPC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® WATER QUALITY
SENIOR LANDSCAPE ARCHITECT KAMRAN NAKHJIRI
CALCULATED-DESIGNED BY GANGA TRIPATHI
CHECKED BY KAMRAN NAKHJIRI
REVISED BY GT
DATE REVISED 10/9/14

LAST REVISION 10-09-14
DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:02

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 0412000007gb001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0786
PROJECT NUMBER & PHASE 04120000071

NOTE:

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

ABBREVIATION:

TRSF Temp REINFORCED SILT FENCE

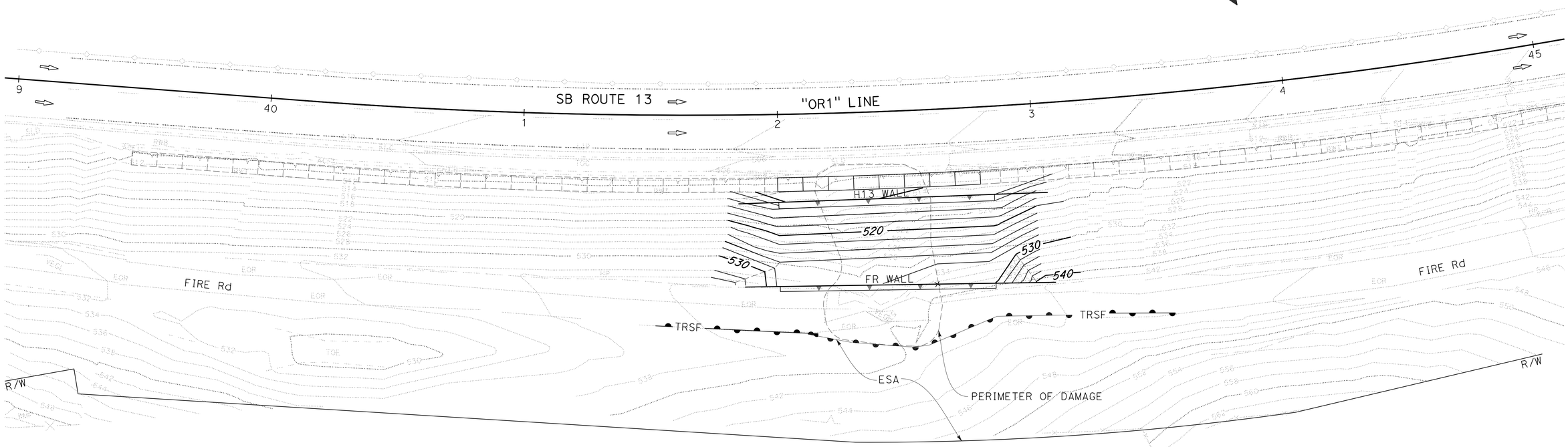
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	5	64

2/11/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Chuan-Ping Wang
No. 70080
Exp 9-30-16
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.



CONTOUR GRADING

SCALE: 1" = 20'

APPROVED FOR CONTOUR GRADING WORK ONLY

G-1

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
LUIS GUITIERREZ	AARON WANG	LG	12/26/14

FUNCTIONAL SUPERVISOR: SOTERO ANGELES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION 02-11-15
DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:02

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 0412000007hq001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0735
PROJECT NUMBER & PHASE 04120000071

NOTE:

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

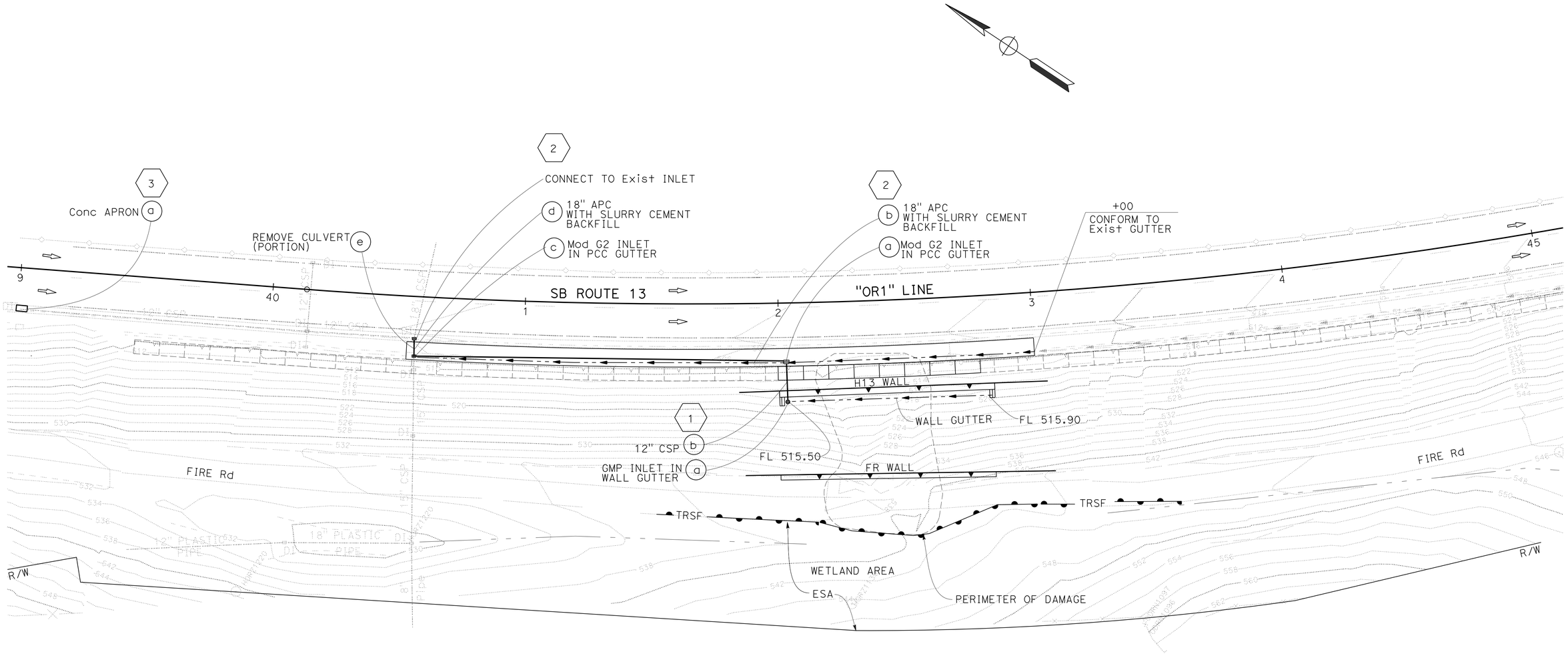
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	6	64

Craig M Tomimatsu 1/23/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Craig M. Tomimatsu
No. 43072
Exp 3-31-16
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.



DRAINAGE PLAN

SCALE: 1" = 20'

D-1

APPROVED FOR DRAINAGE WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
HYDRAULICS
FUNCTIONAL SUPERVISOR: JOSEPH PETERSON
CALCULATED-DESIGNED BY: CRAIG TOMIMATSU
CHECKED BY: LUIS GUTIERREZ
REVISED BY: CT
DATE REVISED: 12/26/14

LAST REVISION | DATE PLOTTED => 12-AUG-2015
03-23-15 | TIME PLOTTED => 08:02

BORDER LAST REVISED 7/2/2010 | USERNAME => s129144 | DGN FILE => 04120000071a001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0735 | PROJECT NUMBER & PHASE 04120000071

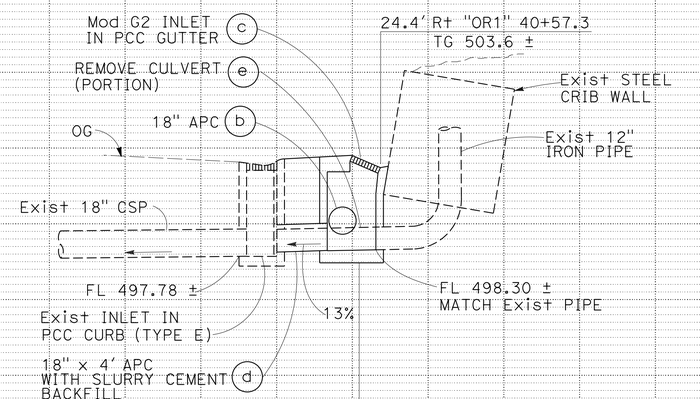
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	7	64

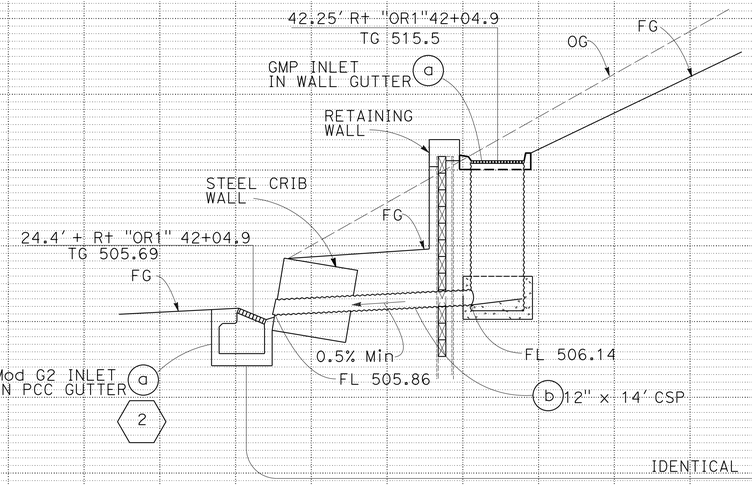
Craig M Tomimatsu 1/23/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

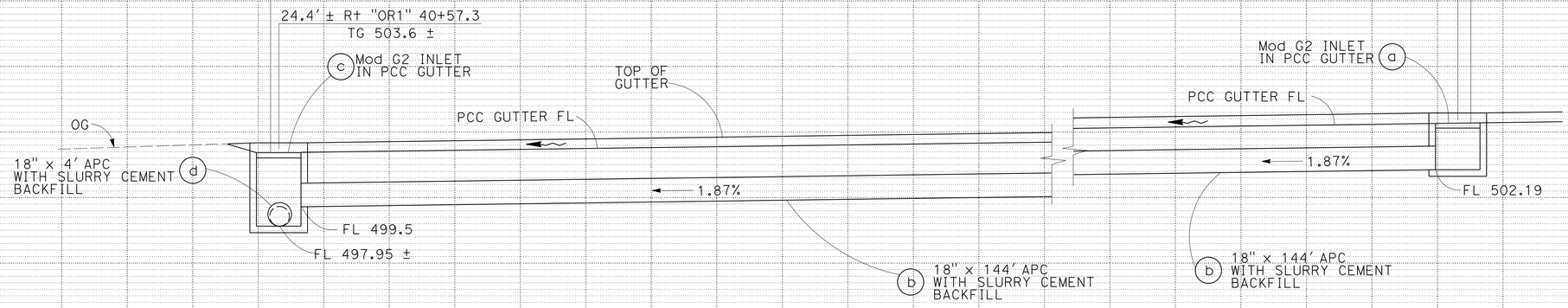
REGISTERED PROFESSIONAL ENGINEER — Craig M. Tomimatsu No. 43072 Exp 3-31-16 CIVIL — STATE OF CALIFORNIA

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.





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®
HYDRAULICS
FUNCTIONAL SUPERVISOR: JOSEPH PETERSON
CALCULATED-DESIGNED BY: CRAIG TOMIMATSU
CHECKED BY: LUIS GUTIERREZ
REVISED BY: CT
DATE REVISED: 12/26/14

LAST REVISION DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:02
03-15-15

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 04120000071ib001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0735
PROJECT NUMBER & PHASE 04120000071

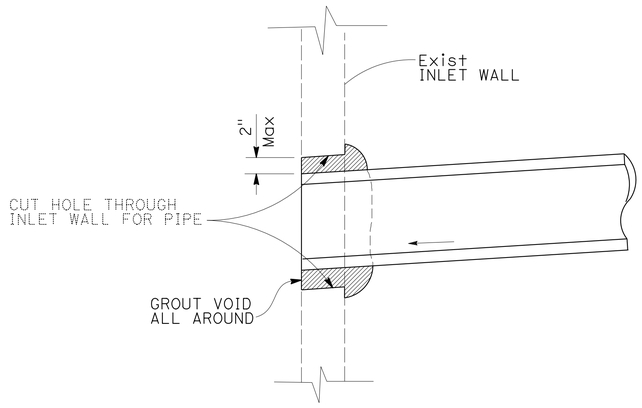
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	8	64

Craig M Tomimatsu 1/23/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

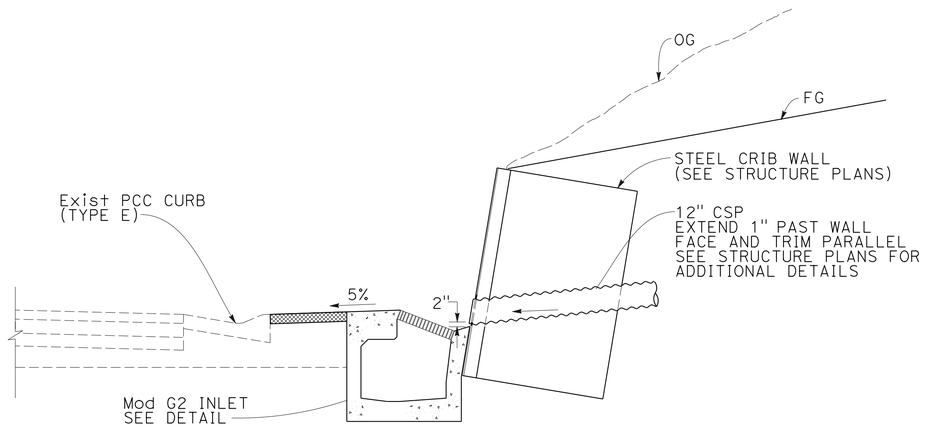
REGISTERED PROFESSIONAL ENGINEER
Craig M. Tomimatsu
No. 43072
Exp 3-31-16
CIVIL
STATE OF CALIFORNIA

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.

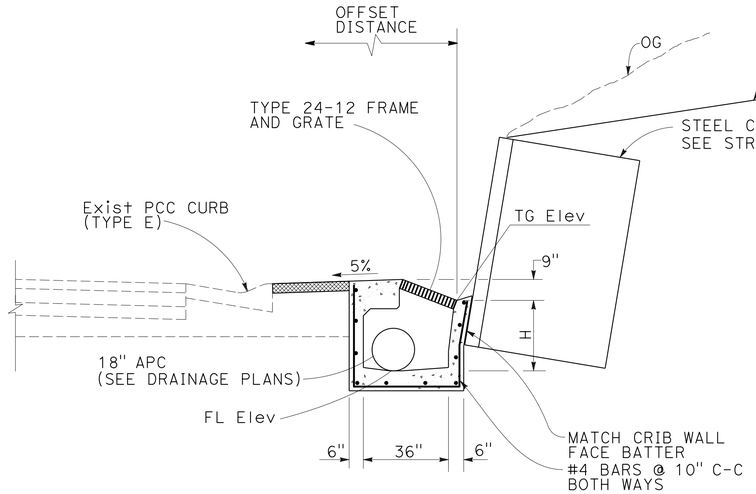


PIPE CONNECTION TO EXISTING INLET

2 d



WALL DRAIN OUTLET DETAIL



MODIFIED G2 INLET IN PCC GUTTER

2 a c

NOTE:
FOR G2 INLET DIMENSIONS AND DETAILS NOT SHOWN, SEE Std PLAN D73

DRAINAGE DETAILS

NO SCALE

DD-1

REVISED BY	DATE REVISED
CT	12/23/14

CALCULATED-DESIGNED BY: CRAIG TOMIMATSU
CHECKED BY: LUIS GUTIERREZ
FUNCTIONAL SUPERVISOR: JOSEPH PETERSON

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
HYDRAULICS

LAST REVISION 03-23-15 | DATE PLOTTED => 12-AUG-2015 | TIME PLOTTED => 08:02

BORDER LAST REVISED 7/2/2010 | USERNAME => s129144 | DGN FILE => 0412000007ic001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0735 | PROJECT NUMBER & PHASE 04120000071

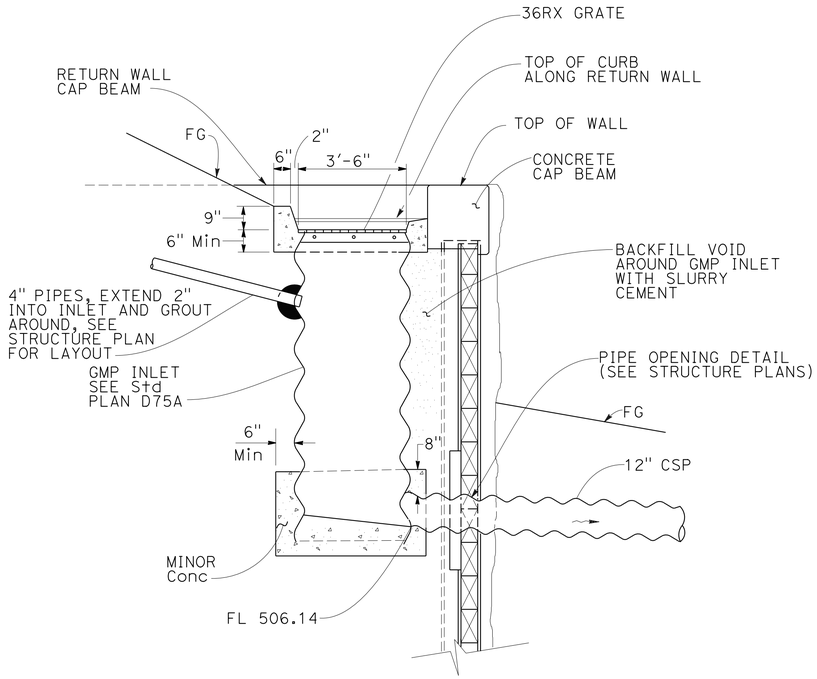
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	9	64

Craig M Tomimatsu 1/23/15
REGISTERED CIVIL ENGINEER DATE

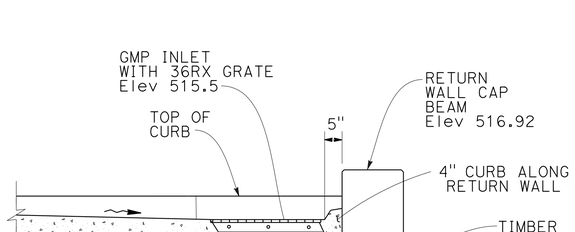
4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Craig M. Tomimatsu
No. 43072
Exp 3-31-16
CIVIL
STATE OF CALIFORNIA

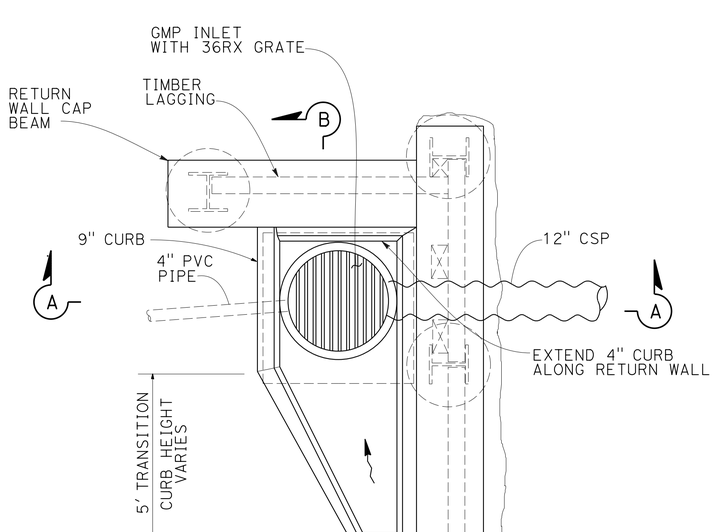
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



SECTION A-A



SECTION B-B



GMP INLET IN WALL GUTTER

DRAINAGE DETAILS

NO SCALE

DD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
HYDRAULICS

CALCULATED-DESIGNED BY: CRAIG TOMIMATSU
CHECKED BY: LUIS GUTIERREZ
FUNCTIONAL SUPERVISOR: JOSEPH PETERSON

REVISED BY	DATE REVISED
CT	12/26/14

LAST REVISION: DATE PLOTTED => 12-AUG-2015; TIME PLOTTED => 08:02
03-23-15

BORDER LAST REVISED 7/2/2010

USERNAME => s129144
DGN FILE => 04120000007ic002.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0735

PROJECT NUMBER & PHASE 04120000071

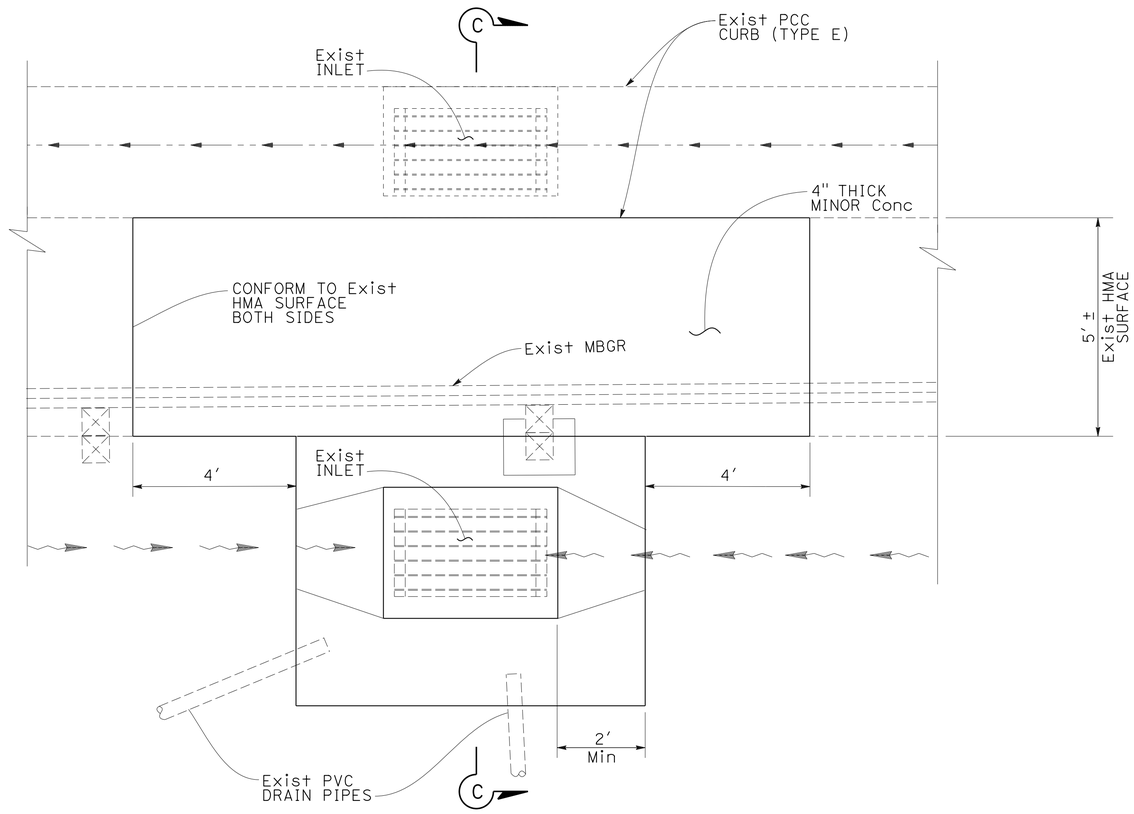
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	10	64

Craig M Tomimatsu 3/3/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

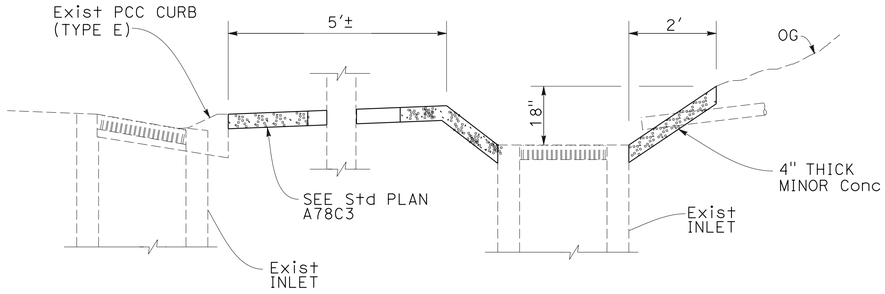
REGISTERED PROFESSIONAL ENGINEER
Craig M. Tomimatsu
No. 43072
Exp 3-31-16
CIVIL
STATE OF CALIFORNIA

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.



CONCRETE APRON

3 a



SECTION C-C

DRAINAGE DETAILS

NO SCALE

DD-3

CALCULATED-DESIGNED BY			
CHECKED BY	CT	12/26/14	
CRAIG TOMIMATSU	REVISED BY	DATE REVISED	
LUIS GUTIERREZ			
FUNCTIONAL SUPERVISOR			
JOSEPH PETERSON			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
HYDRAULICS

LAST REVISION DATE PLOTTED => 12-AUG-2015
03-03-15 TIME PLOTTED => 08:02

BORDER LAST REVISED 7/2/2010 | USERNAME => s129144 | DGN FILE => 0412000007ic003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0735 | PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	11	64

Craig M Tomimatsu 1/23/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Craig M. Tomimatsu
No. 43072
Exp 3-31-16
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.

NOTES:

1. ALLOWABLE ALTERNATIVE PIPE CULVERTS ARE RCP AND SMOOTH INTERIOR WALLED PLASTIC PIPE.
2. CORRUGATED STEEL PIPE IS FABRICATED FROM ZINC COATED STEEL SHEET.

ABBREVIATIONS:

S STANDARD
W WATERTIGHT

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	REMOVE CULVERT (LF)	12" CORRUGATED STEEL PIPE (0.079" THICK) (LF)	18" APC (LF)	MINOR CONCRETE (MINOR STRUCTURE) (CY)	MINOR CONCRETE (CY)	CULVERT SLURRY CEMENT BACKFILL (CY)	36" CORRUGATED STEEL PIPE INLET (0.109" THICK) (LF)	(N) FRAMES AND GRATES TYPE 24-12 (EA)	(N) FRAMES AND GRATES TYPE 36RX (EA)	MISCELLANEOUS IRON AND STEEL (LB)	ROADWAY EXCAVATION (CY)	PIPE JOINT CLASSIFICATION	HEIGHT OF INLET (N) (FT)	DESCRIPTION	STATION	DRAINAGE SYSTEM No.	DRAINAGE UNIT
D-1	1	a				1.0			9.86		1	215			9.36	GMP INLET IN WALL GUTTER	42.25′ Rt "OR1" 42+04.9	1	a
↓	↓	b		14										S,W		12" CSP	Rt "OR1" 42+04.9	↓	b
D-1	2	a				1.60				1		326			3.50	Mod G2 INLET IN PCC GUTTER	24.4′± Rt "OR1" 42+04.9	2	a
		b			144			41.4						S,W		18" APC WITH SLURRY CEMENT BACKFILL	Rt "OR1" 42+04.9 TO Rt 40+57.3		b
		c				2.10				1		326			5.30	Mod G2 INLET IN PCC GUTTER	24.4′± Rt "OR1" 40+57.3		c
		d			4			1.3						S,W		18" APC WITH SLURRY CEMENT BACKFILL	Rt "OR1" 40+57.3		d
↓	↓	e	7													REMOVE CULVERT (PORTION)	24′± Rt "OR1" 40+57.3	↓	e
D-1	3	a					1.20						1.0			Conc APRON	23′ Rt "OR1" 40+15.5	3	a
SHEET TOTAL			7	14	148	4.70	1.20	42.7	10	2	1	867	1.0						

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

CALCULATED-DESIGNED BY: CRAIG TOMIMATSU
CHECKED BY: LUIS GUTIERREZ
REVISED BY: CT
DATE REVISED: 12/26/14
FUNCTIONAL SUPERVISOR: JOSEPH PETERSON

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® HYDRAULICS

LAST REVISION: DATE PLOTTED => 12-AUG-2015
03-23-15 TIME PLOTTED => 08:02

DRAINAGE QUANTITIES DQ-1

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 04120000071id001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0735
PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	12	64

REGISTERED CIVIL ENGINEER — DATE 1/26/15

PLANS APPROVAL DATE 4-27-15

Luis A. Gutierrez No. 49131 Exp. 9-30-16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

NOTE:

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

NOTE:

1. LOCATION OF UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR.

LEGEND:

UTILITIES

SEWER

POWER LINE

EXISTING UTILITIES

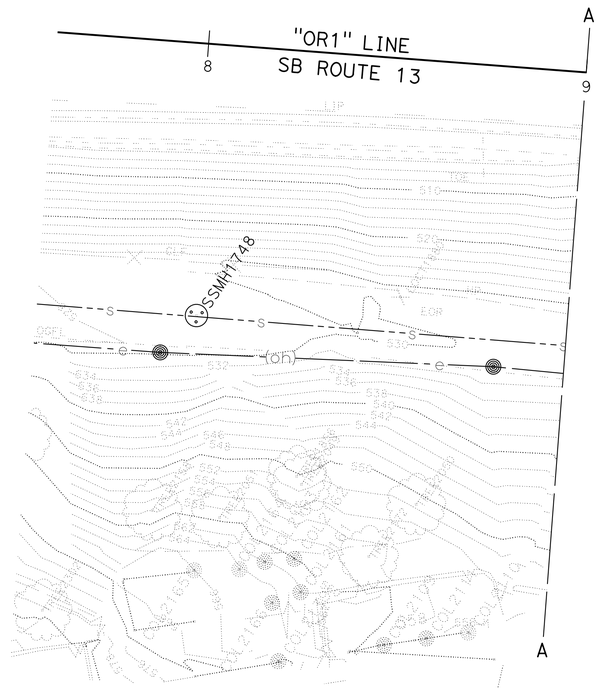
--s--s--

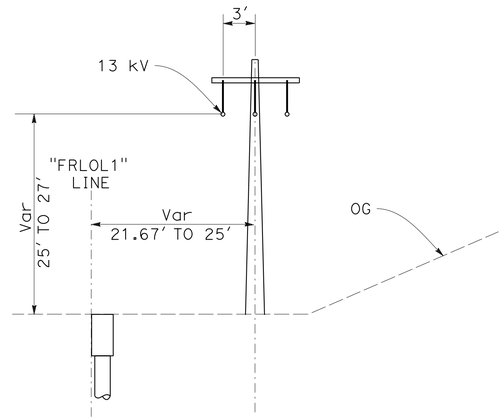
-(oh)--e--

OWNERSHIP

CITY OF OAKLAND

PACIFIC GAS AND ELECTRIC

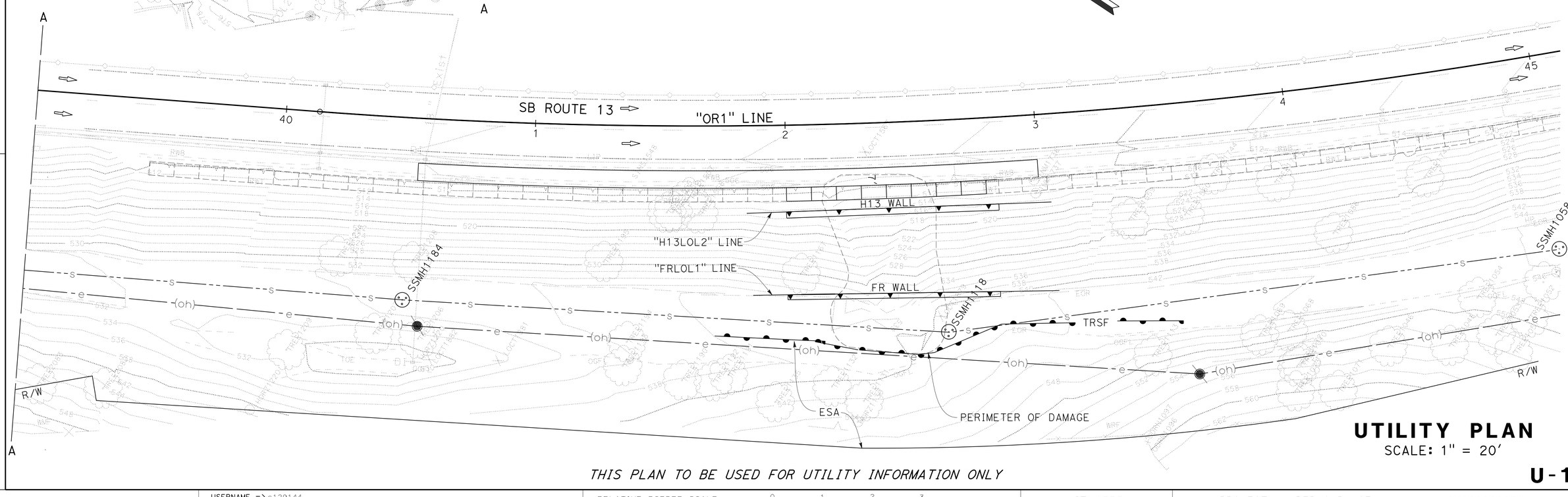




"OR1" 42+00 TO 42+80
NO SCALE

SANITARY SEWER DATA

SURVEY DATA			MANHOLE DATA	
SURVEY POINT	"OR1" Sta	"OR1" OFFSET	COVER Elev	FL Elev
SSMH1748	38+02.23	71.80'	529.177	524.68
SSMH1184	40+50.64	73.11'	534.571	526.07
SSMH1118	42+61.62	84.97'	540.658	536.76
SSMH1058	44+99.01	78.16'	546.546	542.65



UTILITY PLAN

SCALE: 1" = 20'

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

U-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

FUNCTIONAL SUPERVISOR: SOTERO ANGELES

CALCULATED-DESIGNED BY: LG

CHECKED BY: LUIS GUITIERREZ

REVISED BY: AARON WANG

DATE REVISED: 12/26/14

LAST REVISION DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:02
03-26-15

BORDER LAST REVISED 7/2/2010

USERNAME => s129144
DGN FILE => 0412000007ka001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0735

PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	13	64

Jerilyn L. Struven 1/20/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jerilyn L. Struven
No. 49964
Exp. 12-31-16
CIVIL
STATE OF CALIFORNIA

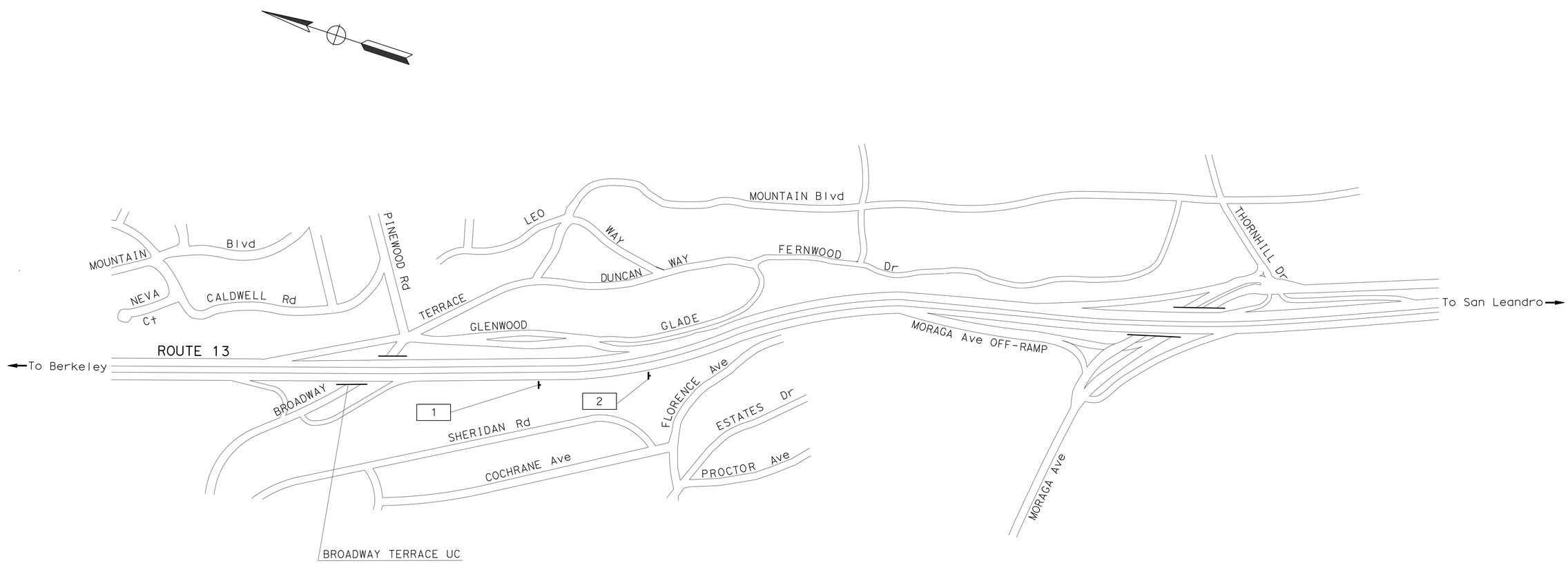
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS TO BE DETERMINED BY THE ENGINEER.

LEGEND:

No. CONSTRUCTION AREA SIGN NUMBER



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

CALCULATED-DESIGNED BY: SHARI TALAI
CHECKED BY: JERILYN L. STRUVEN
REVISED BY: ST
DATE REVISED: 12/26/14
FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

LAST REVISION DATE PLOTTED => 12-AUG-2015
01-20-15 TIME PLOTTED => 08:03

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 04120000071a001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0735
PROJECT NUMBER & PHASE 04120000071

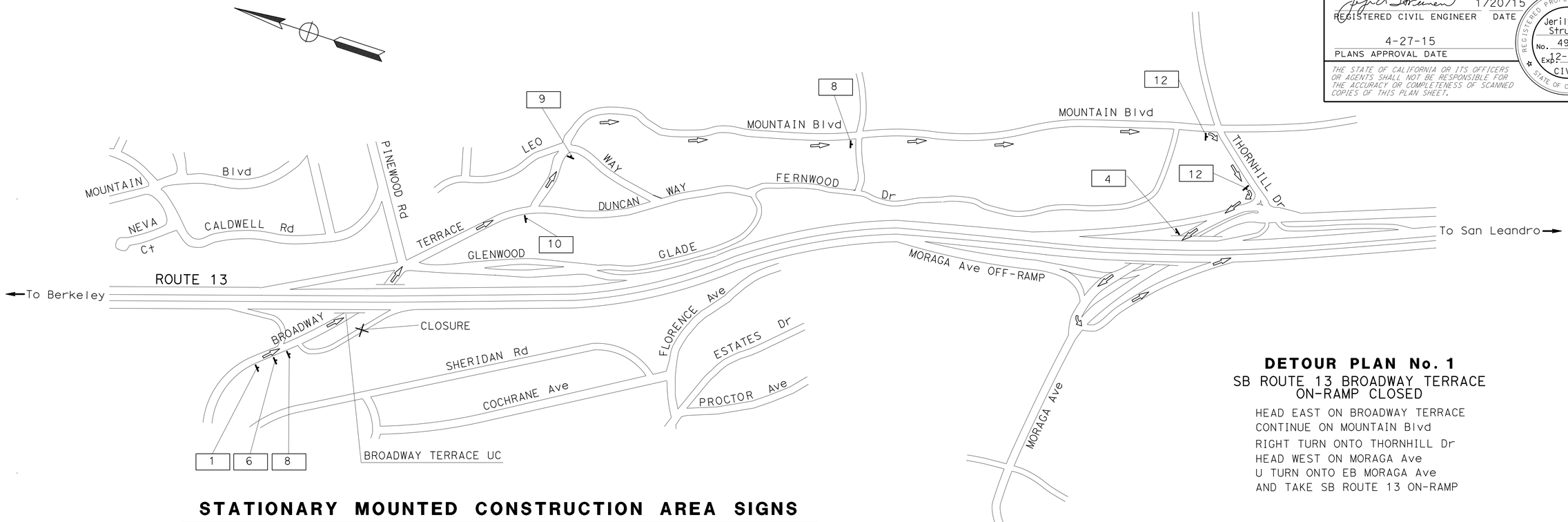
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	14	64

REGISTERED CIVIL ENGINEER — 1/20/15 DATE

Jerilyn L. Struven, No. 49964, Exp. 12-31-16, CIVIL, REGISTERED PROFESSIONAL ENGINEER, STATE OF CALIFORNIA

4-27-15
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.



DETOUR PLAN No. 1

SB ROUTE 13 BROADWAY TERRACE ON-RAMP CLOSED

HEAD EAST ON BROADWAY TERRACE
CONTINUE ON MOUNTAIN Blvd
RIGHT TURN ONTO THORNHILL Dr
HEAD WEST ON MORAGA Ave
U TURN ONTO EB MORAGA Ave
AND TAKE SB ROUTE 13 ON-RAMP

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	MUTCD CODE	MESSAGE	PANEL SIZE	NUMBER OF POSTS AND SIZE	No. OF SIGNS
1	W20-1	ROAD WORK AHEAD	48" x 48"	1 - 4" x 6"	2
2	W20-2	END ROAD WORK	36" x 18"	1 - 4" x 4"	1
4	W20-2	END ROAD WORK	36" x 18"	1 - 4" x 4"	1
6	W20-2	DETOUR AHEAD	48" x 48"	1 - 4" x 6"	1
8	SC-3(↑)	DETOUR (STRAIGHT AHEAD ARROW)	48" x 18"	1 - 4" x 6"	2
	G28-2(13)	ROUTE SHIELD 13	24" x 25"		
	M3-3	SOUTH	21" x 9"		
9	M4-10(R†)	DETOUR (RIGHT)	48" x 18"	1 - 4" x 6"	1
	G28-2(13)	ROUTE SHIELD 13	24" x 25"		
	M3-3	SOUTH	21" x 9"		
10	M4-10(L†)	DETOUR (LEFT)	48" x 18"	1 - 4" x 6"	1
	G28-2(13)	ROUTE SHIELD 13	24" x 25"		
	M3-3	SOUTH	21" x 9"		
12	M4-8	DETOUR	21" x 9"	1 - 4" x 6"	2
	G28-2(13)	ROUTE SHIELD 13	24" x 25"		
	M3-3	SOUTH	21" x 9"		
	M6-2(↗)	DETOUR (DIAGONAL ARROW)	21" x 15"		
TOTAL					11

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTE AND LEGEND, SEE SHEET CS-1

CONSTRUCTION AREA SIGNS

NO SCALE

CS-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC
Caltrans®
FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG
CALCULATED-DESIGNED BY: SHARI TALAI
CHECKED BY: JERILYN L. STRUVEN
REVISED BY: ST
DATE REVISED: 12/26/14

LAST REVISION — DATE PLOTTED => 12-AUG-2015 | TIME PLOTTED => 08:03
01-20-15

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 04120000071a002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0735
PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	15	64

REGISTERED CIVIL ENGINEER — 1/26/15 DATE

PLANS APPROVAL DATE — 4-27-15

Luis A. Gutierrez No. 49131 Exp 9-30-16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

NOTE:

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

LEGEND:

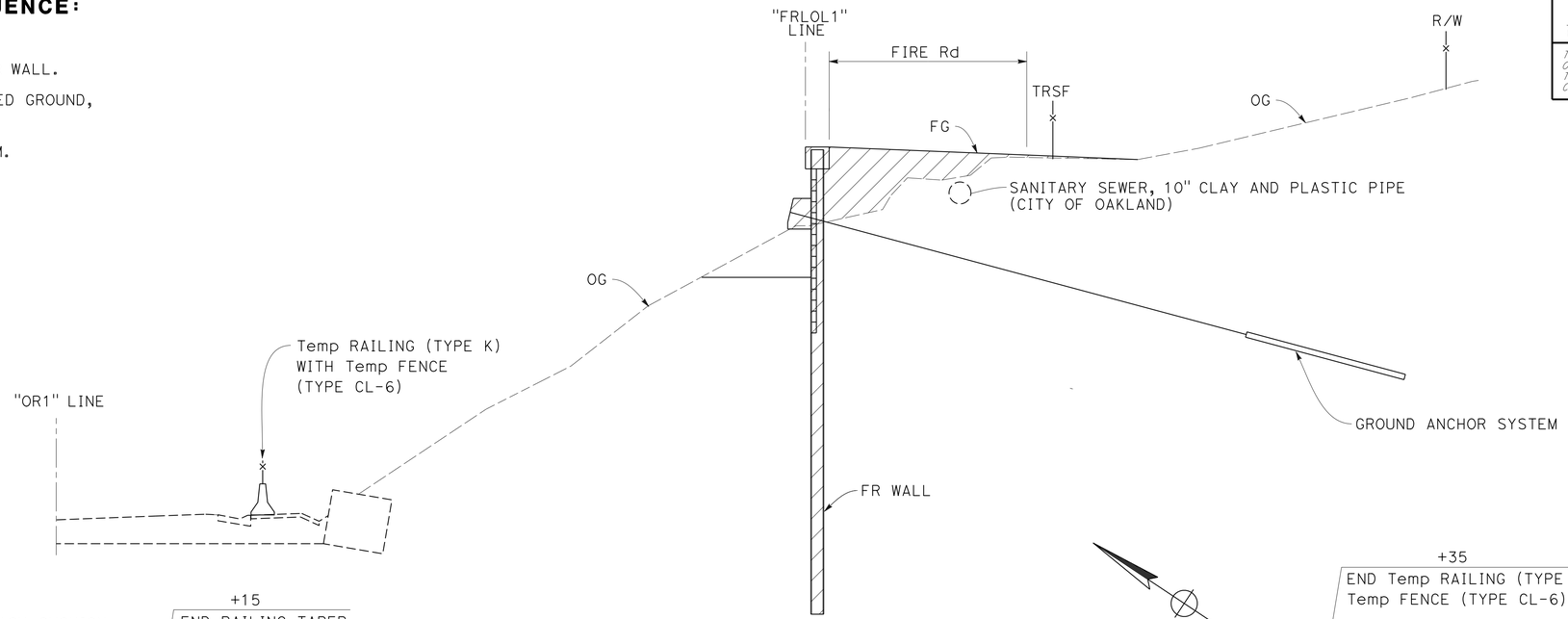
CONSTRUCT THIS STAGE

ABBREVIATION:

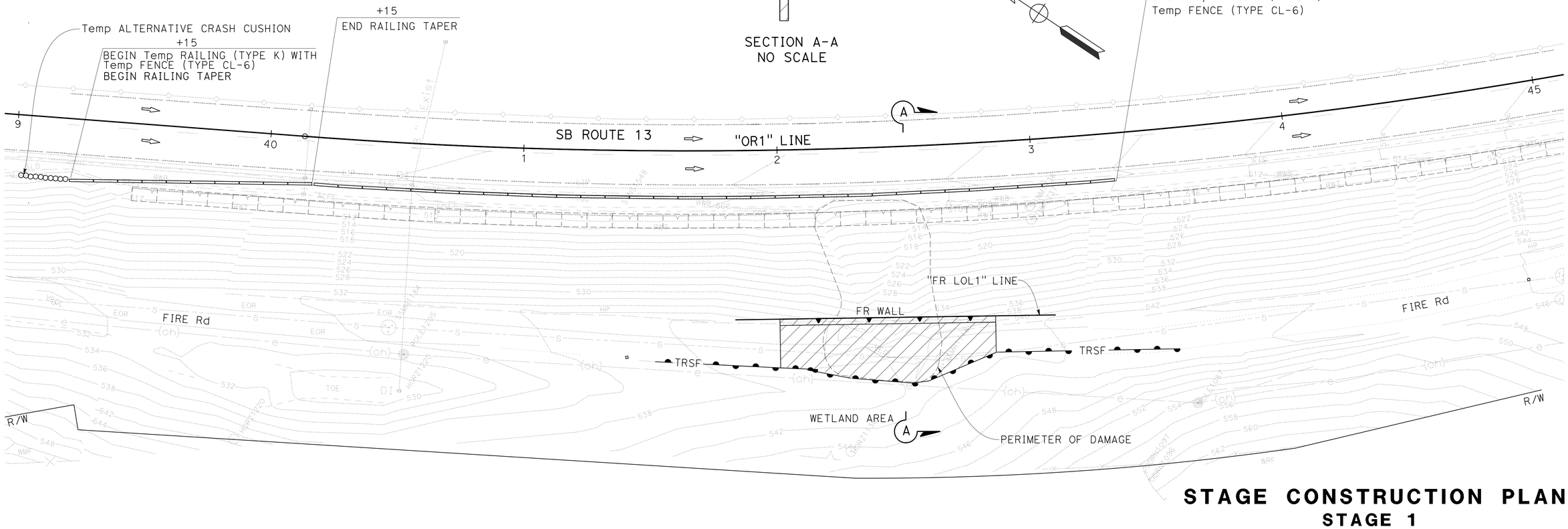
TRSF TEMPORARY REINFORCED SILT FENCE

CONSTRUCTION SEQUENCE:

1. INSTALL TRSF.
2. SOLDIER PILE STRUCTURE OF FR WALL.
3. PLACE BACKFILL OVER COLLAPSED GROUND, RESTORE FIRE ROAD SURFACE.
4. INSTALL GROUND ANCHOR SYSTEM.



SECTION A-A
NO SCALE



STAGE CONSTRUCTION PLAN

STAGE 1

SCALE: 1" = 20'

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

SC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

FUNCTIONAL SUPERVISOR: SOTERO ANGELES

CALCULATED-DESIGNED BY: LUIS GUITIERREZ

CHECKED BY: AARON WANG

REVISED BY: LG — DATE REVISED: 12/26/14

LAST REVISION — DATE PLOTTED => 12-AUG-2015 — TIME PLOTTED => 08:03 — 03-26-15

BORDER LAST REVISED 7/2/2010

USERNAME => s129144
DGN FILE => 0412000007ma001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0735

PROJECT NUMBER & PHASE 04120000071

NOTE:

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

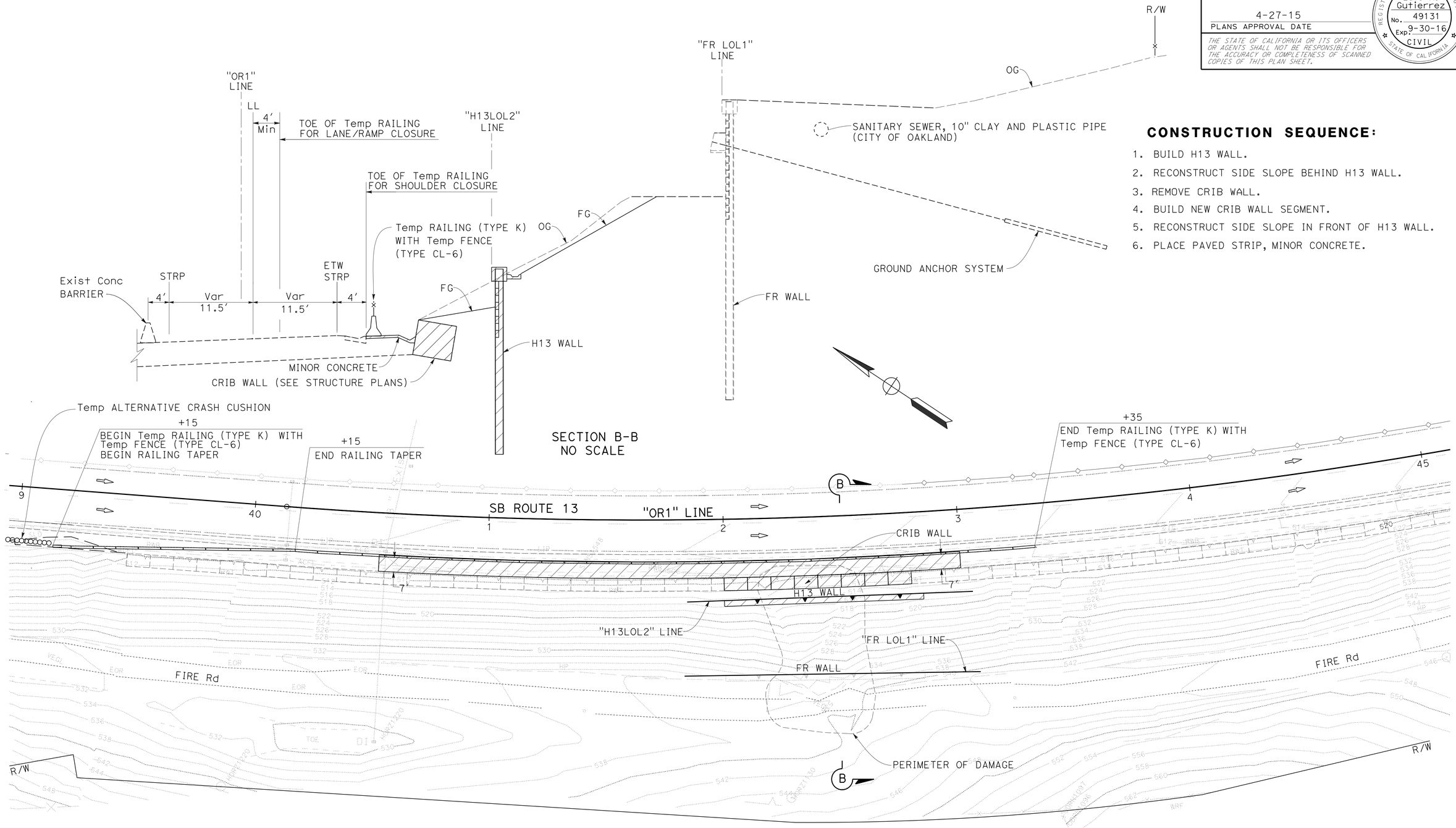
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	16	64

REGISTERED CIVIL ENGINEER — DATE: 1/26/15

4-27-15
PLANS APPROVAL DATE

Registered Professional Engineer — Luis A. Gutierrez — No. 49131 — Exp. 9-30-16 — 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.



CONSTRUCTION SEQUENCE:

1. BUILD H13 WALL.
2. RECONSTRUCT SIDE SLOPE BEHIND H13 WALL.
3. REMOVE CRIB WALL.
4. BUILD NEW CRIB WALL SEGMENT.
5. RECONSTRUCT SIDE SLOPE IN FRONT OF H13 WALL.
6. PLACE PAVED STRIP, MINOR CONCRETE.

STAGE CONSTRUCTION PLAN

STAGE 2

SCALE: 1" = 20'

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

FOR ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

SC-2

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
LUIS GUITIERREZ	AARON WANG	LG	12/26/14

FUNCTIONAL SUPERVISOR: SOTERO ANGELES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

Caltrans

LAST REVISION — DATE PLOTTED => 12-AUG-2015 — TIME PLOTTED => 08:03 — 03-26-15

BORDER LAST REVISED 7/2/2010 | USERNAME => s129144 | DGN FILE => 0412000007ma002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0735 | PROJECT NUMBER & PHASE 04120000071

NOTE:

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

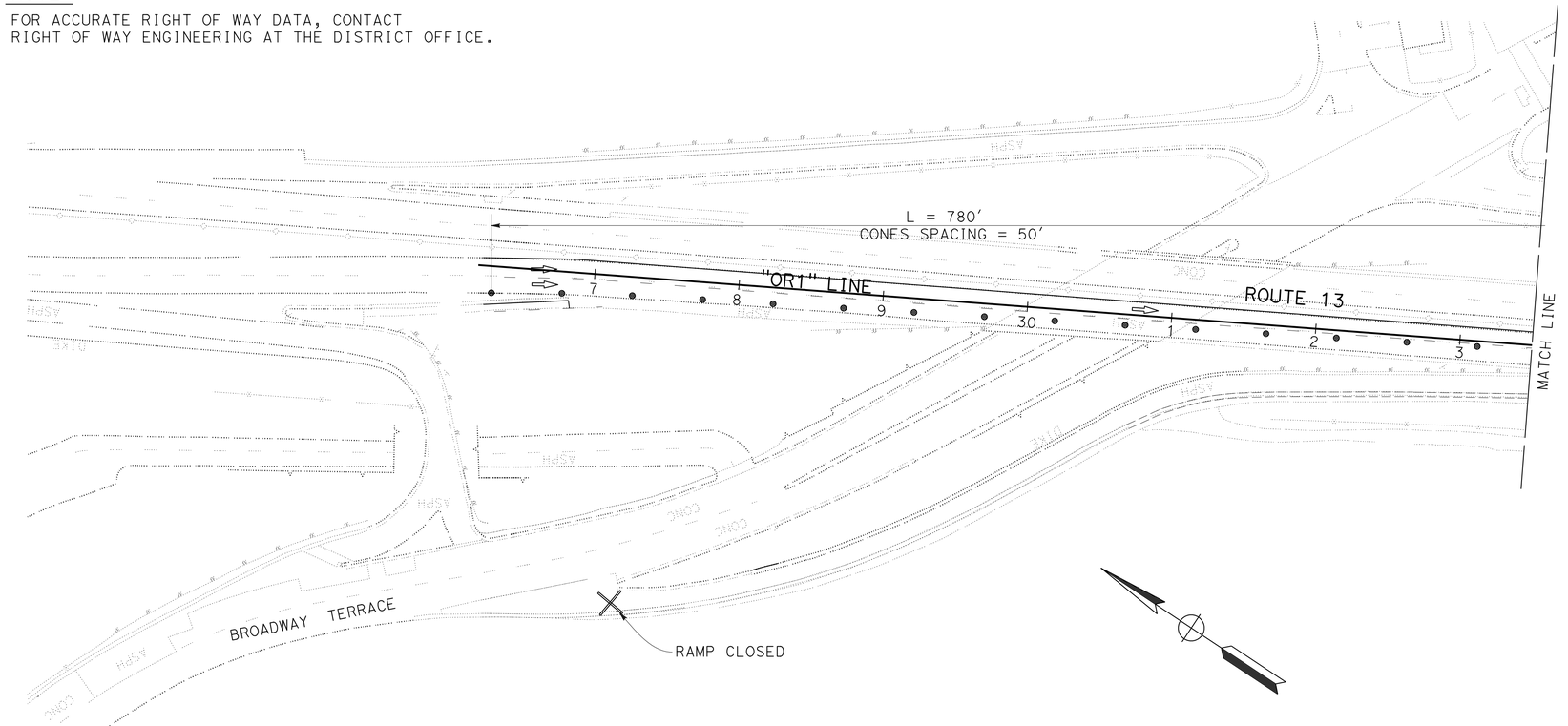
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	17	64

REGISTERED CIVIL ENGINEER — DATE: 1/26/15

Luis A. Gutierrez, No. 49131, Exp. 9-30-16, CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-27-15
PLANS APPROVAL DATE

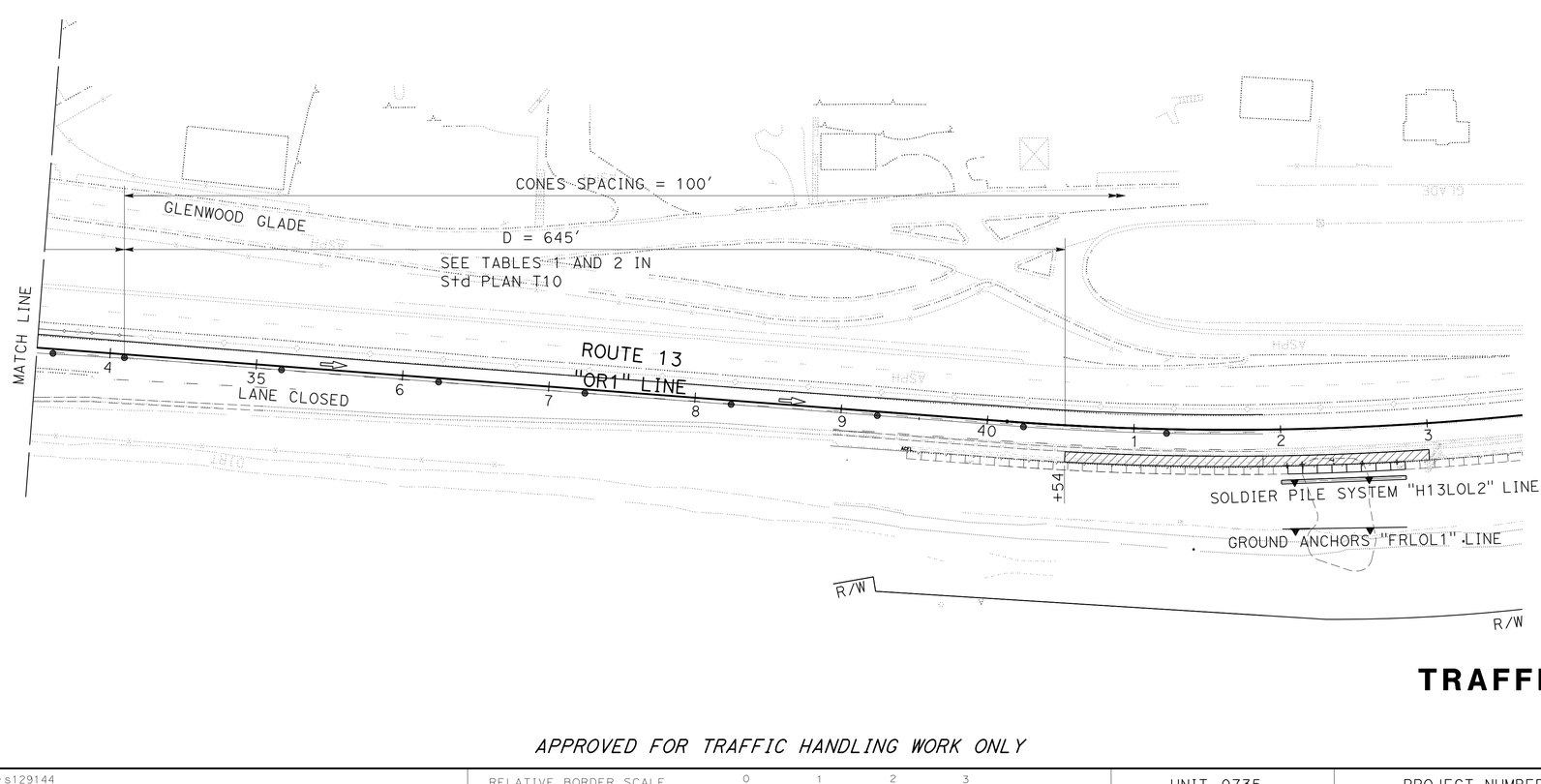
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



LEGEND:

CONSTRUCT THIS STAGE

TRAFFIC CONES



TRAFFIC HANDLING PLAN

SCALE: 1" = 50'

TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: SOTERO ANGELES
CALCULATED-DESIGNED BY: LUIS GUITIERREZ
CHECKED BY: AARON WANG
REVISED BY: LG
DATE REVISED: 12/26/14

LAST REVISION | DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:03
03-18-14

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 0412000007md001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0735
PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	18	64

1/26/15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Luis A. Gutierrez
No. 49131
Exp. 9-30-16
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.

ROADWAY QUANTITIES

SHEET No.	STATION	DIRECTION	MINOR CONCRETE	ROADWAY EXCAVATION	FIRE ROAD BACKFILL (N)
			CY		
X-1	68' Rt "OR1" 42+38 TO 42+68	SB			60
L-1	25' Rt "OR1" 40+54 TO 43+00	SB	23.8		
G-1	"OR1" 41+75 TO 43+18	SB		519	
DQ-1			1.2	1	
TOTAL			25	520	60

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

TEMPORARY QUANTITIES

SHEET No.	STATION	DIRECTION	TEMPORARY RAILING (TYPE K)	TEMPORARY ALTERNATIVE CRASH CUSHION	TEMPORARY REINFORCED SILT FENCE	TEMPORARY FENCE (TYPE CL-6)	TEMPORARY CONSTRUCTION ENTRANCE
			LF	EA	LF		EA
L-1	30.5' Rt "OR1" 41+52 TO 43+52	SB			210		
SC-1	220' Rt "OR1" 37+18	SB					1
SC-1	"OR1" 39+15 TO 43+35	SB	420	1		420	
SC-2	25' Rt "OR1" 42+00 TO 42+79	SB					1
TOTAL			420	1	210	420	2

SUMMARY OF QUANTITIES

Q-1

REVISED BY	LG
DATE REVISED	12/26/14
LUIS GUITIERREZ	
AARON WANG	
CALCULATED-DESIGNED BY	
CHECKED BY	
FUNCTIONAL SUPERVISOR	SOTERO ANGELES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 01-26-15
DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:03

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	19	64

LICENSED LANDSCAPE ARCHITECT

4-27-15
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — LYDIA C. MAC NO. 3055 — Signature — 2-29-16 Renewal Date — 2-19-15 Date — 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.

IRRIGATION SPRINKLER SCHEDULE

SYMBOL	ITEM DESCRIPTION	SPRINKLER TYPE	SPRAY PATTERN	OPERATING PRESSURE (psi)	PRESSURE COMPENSATING	PLUS/MINUS 5% ②				MATERIAL	INLET CONNECTION (NPT INCH)	POSITIVE-LOCKING Adj ARC STOP IMPACT	BACKSPLASH PREV. IMPACT	DIFFUSER PIN	DISTANCE CONTROL FLAP	Adj DISCHARGE	FLOW SHUTOFF DEVICE	CHECK VALVE	RISER						POP-UP			TREE WELL		REMARKS
						DISCHARGE		RADIUS (ft)	WIDTH x LENGTH (ft)										ASSEMBLY (TYPE)	MATERIAL		SIZE (IPS INCH)	HEIGHT (INCH)	SWING JOINT (TYPE)	ASSEMBLY (TYPE)	HEIGHT (INCH)	SPRINLKER PROTECTOR (TYPE) ④	HEIGHT (INCH)	SWING JOINT (TYPE)	
						GALLONS PER MINUTE (GPM)	GALLONS PER HOUR (GPH)													PLASTIC	GALVANIZED									
○	RISER SPRINKLER ASSEMBLY	FB	-	40	X	1.0	-	-	-	PL	½	-	-	-	-	-	-	-	V	X	-	½	-	-	-	-	-	-	-	⑦
■	RISER SPRINKLER ASSEMBLY	FB	-	40	X	0.5	-	-	-	PL	½	-	-	-	-	-	-	-	V	X	-	½	-	-	-	-	-	-	-	⑦

X IN BOX DENOTES REQUIREMENT

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 - ARC STOP MUST BE FITTED WITH A NUT AND BOLT
4 - VINYL-COATED CAST IRON HOUSING.
5 - SPRINKLER PROTECTORS REQUIRED ADJACENT TO SHOULDERS, CURBS, SIDEWALKS, AND DIKES.
6 - UNLESS OTHERWISE SHOWN ON PLANS.
⑦ - INSTALL ON UPHILL SIDE OF PLANT BASIN
8 - INSTALL TWO SPRINKLERS PER PLANT. LOCATE ON OPPOSITE SIDES OF ROOTBALL
9 - INSTALL AT LOWEST POINT OF PLANT BASIN
10 - BUILT-IN CHECK VALVE
11 - EXTERNAL CHECK VALVE
12 - IN-LINE EMITTER SPACING __" ON CENTER
13 - LENGTH AS NECESSARY BETWEEN SWING JOINT AND POP-UP INLET

SPRINKLER TYPE ABBREVIATIONS

DE - DRIP EMITTER
FB - FLOOD BUBBLER
GD - GEAR DRIVEN ROTOR
ID - IN -LINE DRIP EMITTER
IM - IMPACT
MS - MICRO SPRAY
SP - SPRAY

IRRIGATION SPRINKLER SCHEDULE
ISS-1

	MO	RC	MO	REVISED BY	MICHAEL OGURO	CALCULATED-DESIGNED BY
	4/24/15	3/24/15	1/9/15	DATE REVISED	LYDIA MAC	CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE
SENIOR LANDSCAPE ARCHITECT
KIMBERLY WHITE

LAST REVISION 04-24-15
DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:03

BORDER LAST REVISED 7/2/2010
USERNAME => s129144
DGN FILE => 04120000007sm001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0790
PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	20	64

LICENSED LANDSCAPE ARCHITECT

4-27-15
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — LYDIA C. MAC No. 3055 — Signature — 2-29-16 Renewal Date — 2-19-15 Date — STATE OF CALIFORNIA

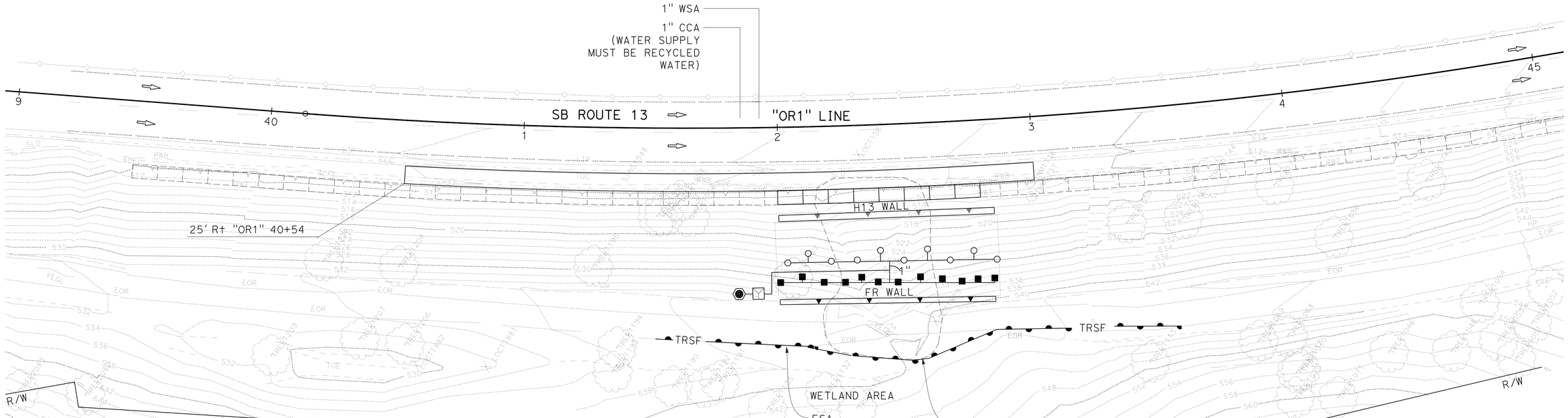
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

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

IRRIGATION NOTES:

1. PLASTIC PIPE SUPPLY LINE (LATERAL) ARE ¾" (SCH 40) PVC, UNLESS OTHERWISE NOTED.
2. PLASTIC PIPE SUPPLY LINE (MAIN) ARE 1¼" (SCH 40) PVC, UNLESS OTHERWISE NOTED.
3. ALL IRRIGATION FACILITIES MUST BE IDENTIFIED FOR RECYCLED WATER USE.



IRRIGATION PLAN

SCALE: 1" = 20' **IP-1**

APPROVED FOR IRRIGATION WORK ONLY

MO	MO	MO	MO
4/22/15	4/21/15	4/21/15	
REVISED BY			
DATE REVISED			
MICHAEL OGURO			
LYDIA MAC			
CALCULATED-DESIGNED BY			
CHECKED BY			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE
SENIOR LANDSCAPE ARCHITECT
KIMBERLY WHITE

LAST REVISION: DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:03
04-24-15

BORDER LAST REVISED 7/2/2010 | USERNAME => s129144 DGN FILE => 0412000007sp001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0790 | PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	21	64

LICENSED LANDSCAPE ARCHITECT

4-27-15

PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — LYDIA C. MAC NO. 3055 — Signature — 2-29-16 Renewal Date — 2-19-15 Date — STATE OF CALIFORNIA

IRRIGATION QUANTITIES

SUBTOTALS PER SHEET / SHEET NUMBER	VALVES AND ASSEMBLIES		IRRIGATION SUPPLY LINE			SPRINKLER ASSEMBLY
	CCA	WSA	PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)			RISER
	1"	1"	¾"	1"	1¼"	BUBBLER
	EA		LF			EA
IP-1	1	1	203	3	66	22
TOTAL	1	1	203	3	66	22

IRRIGATION QUANTITIES

IQ-1

MO	RC	MO	REVISED BY	MICHAEL OGURO	CALCULATED-DESIGNED BY
4/24/15	3/24/15	1/9/15	DATE REVISED	LYDIA MAC	CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT

KIMBERLY WHITE

LAST REVISION 4-24-15

DATE PLOTTED => 12-AUG-2015

TIME PLOTTED => 08:03

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	22	64

LICENSED LANDSCAPE ARCHITECT

4-27-15
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.

LICENSED LANDSCAPE ARCHITECT
LYDIA C. MAC No. 3658
Signature
2-29-16
Renewal Date
2-19-15
Date
STATE OF CALIFORNIA

PLANTING LEGEND

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (INCH)		BASIN TYPE	SOIL AMENDMENT ①		IRON SULFATE	COMMERCIAL FERTILIZER ①		BASIN MULCH		STAKING	PLANTING LIMITS							REMARKS
																		MINIMUM DISTANCE (ft) FROM						ON	
							Dia	DEPTH		TYPE	RATE	RATE	PLANTING	PLT ESTB	TYPE	CY		ETW	Pvmt	FENCE	WALL	PAVED DITCH	EARTH DITCH	CENTER (ft)	
I	1		ARCTOSTAPHYLOS DENSIFLORA 'HOWARD MCMINN'	MCMINN MANZANITA	POT	6	18"	24"	II	C	0.02 CY	-	0.2 LB	0.2 LB	TB	0.06	-	-	6	5	5	6	8	6.75	⑨ 4"X4"X14" DEEP
	2		HETEROMELES ARBUTIFOLIA	TOYON	POT	6	18"	24"	II	C	0.02 CY	-	0.2 LB	0.2 LB	TB	0.06	-	-	15	5	5	10	12	8.8	⑨ 4"X4"X14" DEEP
	3		QUERCUS AGRIFOLIA	COAST LIVE OAK	POT	6	18"	24"	II	C	0.02 CY	-	0.2 LB	0.2 LB	TB	0.06	-	30	-	14	14	15	17	10	⑨ 4"X4"X14" DEEP
	4		QUERCUS LOBATA	VALLEY OAK	POT	4	18"	24"	II	C	0.02 CY	-	0.2 LB	0.2 LB	TB	0.06	-	30	-	14	14	20	22	10	⑨ 4"X4"X14" DEEP

APPLICABLE WHEN CIRCLED:

① - QUANTITIES SHOWN ARE "PER PLANT" UNLESS SHOWN AS SQFT OR SQYD APPLICATION RATES
2 - BASIN MULCH 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 - ROOT BARRIER REQUIRED
12 - STATE-FURNISHED

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

REVISED BY	DATE REVISED
MO	4/23/15
RC	3/24/15
MO	1/9/15

CALCULATED-DESIGNED BY: MICHAEL OGURO
CHECKED BY: LYDIA MAC
SENIOR LANDSCAPE ARCHITECT: KIMBERLY WHITE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE

PLANT LEGEND
PL-1

LAST REVISION: DATE PLOTTED => 12-AUG-2015
04-25-15 TIME PLOTTED => 08:03

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	23	64

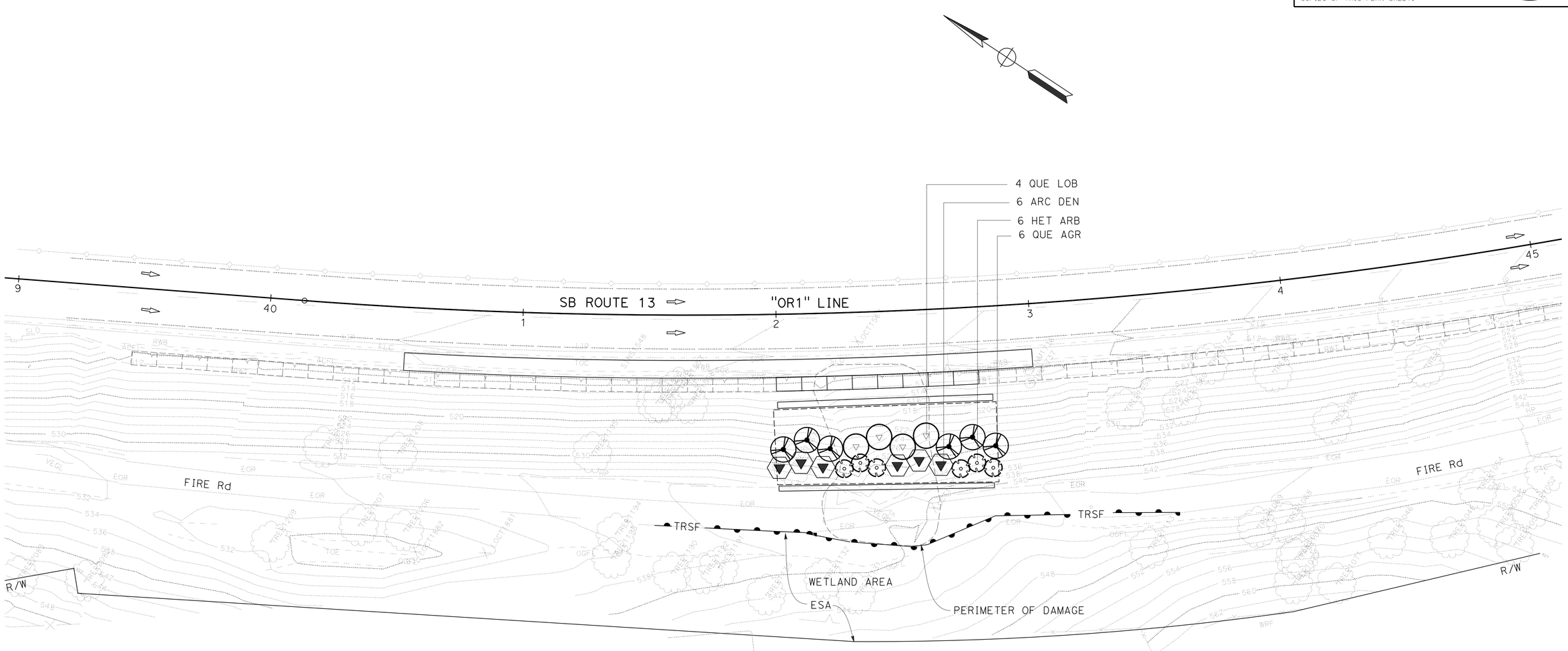
LICENSED LANDSCAPE ARCHITECT

4-27-15
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
LYDIA C. MAC No. 6035
Signature
2-29-16
Renewal Date
2-19-15
Date
STATE OF CALIFORNIA

NOTES:

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



APPROVED FOR PLANTING WORK ONLY

PLANTING PLAN

SCALE: 1" = 20' **PP-1**

MO	4/24/15	MICHAEL OGURO	CALCULATED-DESIGNED BY	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MO	4/23/15	LYDIA MAC	CHECKED BY	Caltrans® LANDSCAPE ARCHITECTURE
RC	3/24/15	KIMBERLY WHITE	SENIOR LANDSCAPE ARCHITECT	
REVISED BY	DATE REVISED			

LAST REVISION 04-24-15 | DATE PLOTTED => 12-AUG-2015 | TIME PLOTTED => 08:03

BORDER LAST REVISED 7/2/2010 | USERNAME => s129144 | DGN FILE => 0412000007su001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0790 | PROJECT NUMBER & PHASE 04120000071

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	24	64

LICENSED LANDSCAPE ARCHITECT

4-27-15
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
LYDIA C. MAC No. 3055
Signature
2-29-16
Renewal Date
2-19-15
Date
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.

PLANTING QUANTITIES

TYPE	UNIT	QUANTITY	IRON SULFATE	SOIL AMENDMENT	COMMERCIAL FERTILIZER		WOOD MULCH②	STAKES (N)	FOLIAGE PROTECTOR	ROOT PROTECTOR	TIME-RELEASE WATER ASSEMBLY
					PACKET	SLOW RELEASE					
			LB	CY	EA	LB	CY	EA			
PLANT (GROUP I)	EA	22	-	0.5	-	4.4	1.4	-	22	-	-
TOTAL		22	-	0.5	-	4.4	1.4	-	22	-	-

②- BASIN MULCH WITHIN WOOD MULCH AREAS IS INCLUDED WITH WOOD MULCH AREA QUANTITIES

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

REVISED BY	MO	MO	RC	MO
DATE REVISED	1/9/15		3/24/15	5/24/15

CALCULATED-DESIGNED BY: MICHAEL OGURO
CHECKED BY: LYDIA MAC

SENIOR LANDSCAPE ARCHITECT: KIMBERLY WHITE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE

PLANTING QUANTITIES
PQ-1

LAST REVISION 04-24-15
DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:03

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	25	64

LICENSED LANDSCAPE ARCHITECT

4-27-15
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
DAVID WARREN YAM No. 5749
Signature
11-30-15
Renewal Date
3-26-15
Date
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.

FIBER ROLLS

ITEM	MATERIAL		REMARKS
	DESCRIPTION	TYPE	
FIBER ROLLS	FIBER ROLL	TYPE B 8" TO 10" Dia	TYPE 1 FIBER ROLL INSTALLATION

EROSION CONTROL (TYPE 1)

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	FIBER ROLLS	FIBER ROLL	TYPE B 8" TO 10" Dia	
STEP 2	HYDROSEED	SEED	MIX 1	57.4 LB/ACRE
		FIBER	COMBINATION	2000 LB/ACRE
STEP 3	HYDROMULCH	FIBER	COMBINATION	2000 LB/ACRE
		TACKIFIER	GUAR	200 LB/ACRE

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
NASSELLA PULCHRA (PURPLE NEEDLEGRASS)	35	12
ELYMUS GLAUCUS, BERKELEY 1 (BLUE WILD RYE, BERKELEY)	40	12
HORDEUM BRACHYANTHERUM (MEADOW BARLEY)	40	10
LUPINUS BICOLOR (PYGMY-LEAF LUPINE)	40	6
LOTUS PURSHIANUS (PURSHINGS LOTUS)	40	3
VULPIA MICROSTACHYS (THREE WEEKS FESCUE)	45	6
BACCHARIS PILULARIS (COYOTE BUSH)	15	0.1
ERIOGONUM FASCICULATUM (CALIFORNIA BUCKWHEAT)	20	1
ESCHSCHOLZIA CALIFORNICA (CALIFORNIA POPPY)	35	1.5
ERIOPHYLLUM CONFERTIFLORUM (GOLDEN YARROW)	30	2
ACHILLEA MILLEFOLIUM (WHITE YARROW)	25	0.8
ARTEMISIA CALIFORNICA (CALIFORNIA SAGEBRUSH)	25	1
SALVIA MELLIFERA (BLACK SAGE)	20	2

[1] SEED PRODUCED IN CALIFORNIA ONLY.

EROSION CONTROL QUANTITIES

SHEET No.	DESCRIPTION	HYDROSEED	HYDROMULCH	FIBER ROLLS	MOVE-IN/MOVE-OUT (EROSION CONTROL)
		SQFT		LF	EA
EC-1	EROSION CONTROL (TYPE 1)	9000	9000		
	FIBER ROLLS			4670	
	MOVE-IN/MOVE-OUT (EROSION CONTROL)				2
TOTAL		9000	9000	4670	

EROSION CONTROL LEGEND AND QUANTITIES

ECL-1

REVISED BY	DATE REVISED
CT	3/26/15

CALCULATED-DESIGNED BY: CALIE TSUI
CHECKED BY: DAVID YAM

SENIOR LANDSCAPE ARCHITECT: DAVID W. YAM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® WATER QUALITY

LAST REVISION: DATE PLOTTED => 12-AUG-2015
11-12-14 TIME PLOTTED => 08:03

BORDER LAST REVISED 7/2/2010

USERNAME => s129144
DGN FILE => 0412000007tc001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0792

PROJECT NUMBER & PHASE 04120000071

NOTE:

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

LEGEND:

EROSION CONTROL (TYPE 1)

FIBER ROLLS

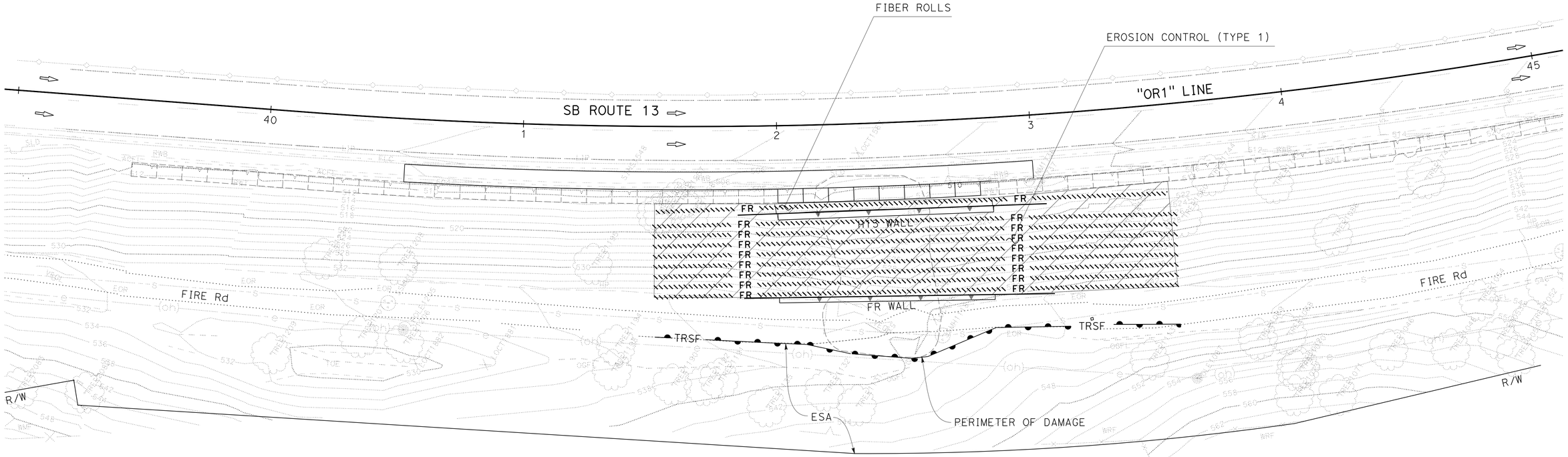
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	26	64

LICENSED LANDSCAPE ARCHITECT

4-27-15
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
DAVID WARREN YAM No. 3788
Signature
11-30-15
Renewal Date
03-26-15
Date
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.



APPROVED FOR EROSION CONTROL WORK ONLY

EROSION CONTROL PLAN

SCALE: 1" = 20'

EC-1

REVISED BY	CT
DATE REVISED	3/26/15
CALCULATED-DESIGNED BY	CALIE TSUI
CHECKED BY	DAVID YAM

SENIOR LANDSCAPE ARCHITECT
DAVID W. YAM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
WATER QUALITY

LAST REVISION
DATE PLOTTED => 12-AUG-2015
TIME PLOTTED => 08:03
11-12-14

BORDER LAST REVISED 7/2/2010

USERNAME => s129144
DGN FILE => 0412000007te001.dgn

RELATIVE BORDER SCALE IS IN INCHES
0 1 2 3

UNIT 0792

PROJECT NUMBER & PHASE 04120000071

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
Mtl	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

Oblr	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 Mtl	PERMEABLE MATERIAL

P continued

PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
Pkwy	PARKWAY
℄,PL	PLATE
P/L	PROPERTY LINE
PM	POST MILE, TIME FROM NOON TO MIDNIGHT
PN	PAVING NOTCH
POC	POINT OF HORIZONTAL CURVE
POT	POINT OF TANGENT
POVC	POINT OF VERTICAL CURVE
PP	PIPE PILE, PLASTIC PIPE, POWER POLE
PPL	PREFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PRC	POINT OF REVERSE CURVE
PRF	PAVEMENT REINFORCING FABRIC
PRVC	POINT OF REVERSE VERTICAL CURVE
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES
PS, P/S	PRESTRESSED
PSP	PERFORATED STEEL PIPE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
Pvmt	PAVEMENT

Q

Qty	QUANTITY

R

R	RADIUS
R & D	REMOVE AND DISPOSE
R & S	REMOVE AND SALVAGE
R/C	RATE OF CHANGE
RCA	REINFORCED CONCRETE ARCH
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
Rd	ROAD
Reinf	REINFORCED, REINFORCEMENT, REINFORCING
Rel	RELOCATE
Repl	REPLACEMENT
Ret	RETAINING
Rev	REVISED, REVISION
Rdwy	ROADWAY
RHMA	RUBBERIZED HOT MIX ASPHALT
Riv	RIVER
RM	ROAD-MIXED
RP	RADIUS POINT, REFERENCE POINT
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN
Rt	RIGHT
Rte	ROUTE
RW	REDWOOD, RETAINING WALL
R/W	RIGHT OF WAY
Rwy	RAILWAY

S

S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND, SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
℄	STATION LINE
SM	SELECTED MATERIAL
Spec	SPECIAL, SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE
SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
St	STREET
Sta	STATION
STBB	SINGLE THRIE BEAM BARRIER
Std	STANDARD
Str	STRUCTURE
Surf	SURFACING
SW	SIDEWALK, SOUND WALL
Swr	SEWER
Sym	SYMMETRICAL
S4S	SURFACE 4 SIDES

T

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

T continued

TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL
Typ	TYPICAL

U

UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS

V

V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME

W

W	WEST, WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE

X

X Sec	CROSS SECTION
Xing	CROSSING

Y

Yr	YEAR
Yrs	YEARS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	27	64

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

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 4-27-15

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

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ABBREVIATIONS (SHEET 2 OF 2)

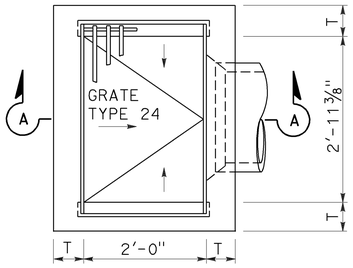
NO SCALE

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

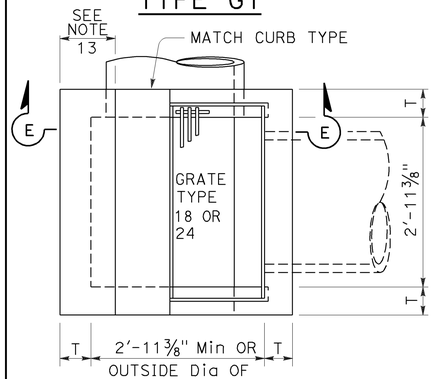
REVISED STANDARD PLAN RSP A10B

2010 REVISED STANDARD PLAN RSP A10B

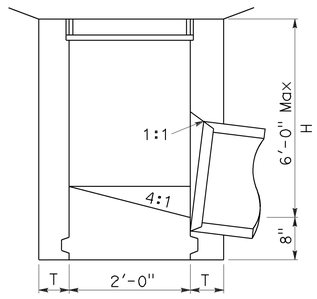
6-7-13



TYPE G1

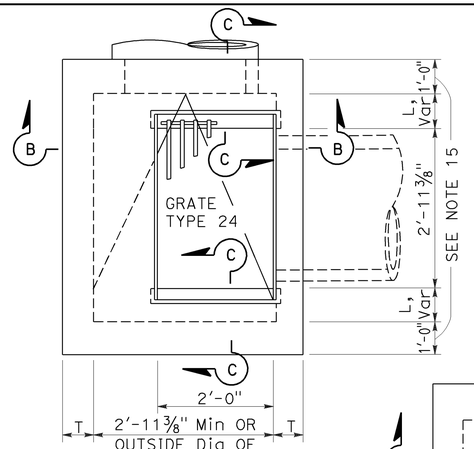


TYPE G4

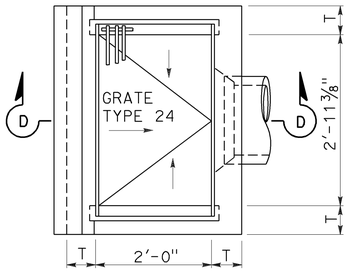


SECTION A-A

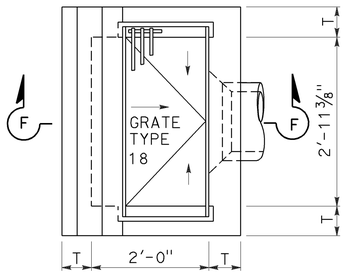
SECTION E-E



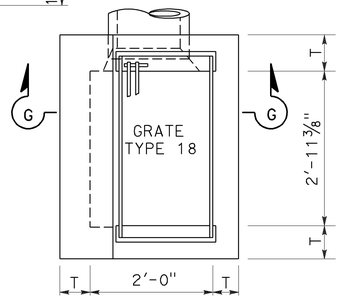
TYPE G2



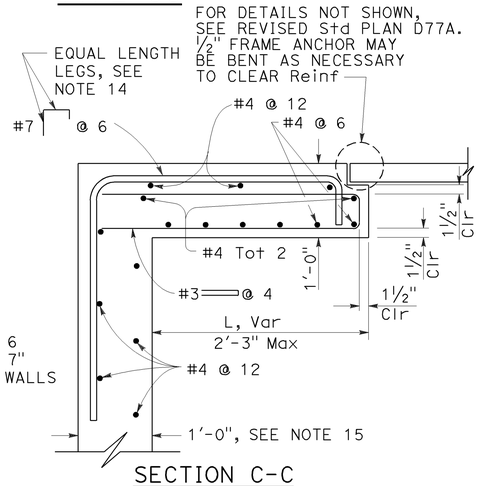
TYPE G3



TYPE G5

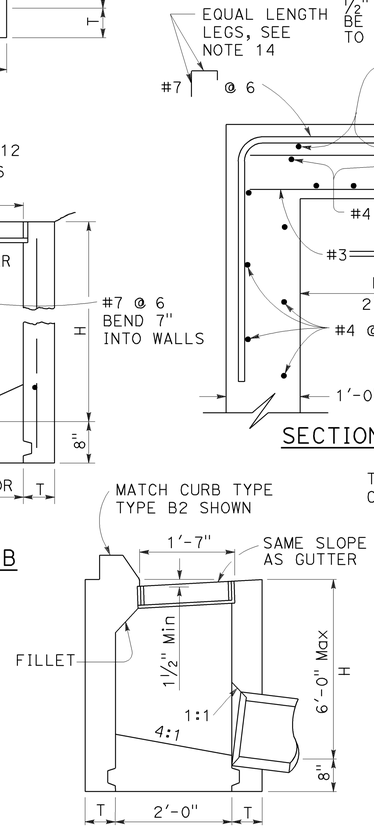


TYPE G6

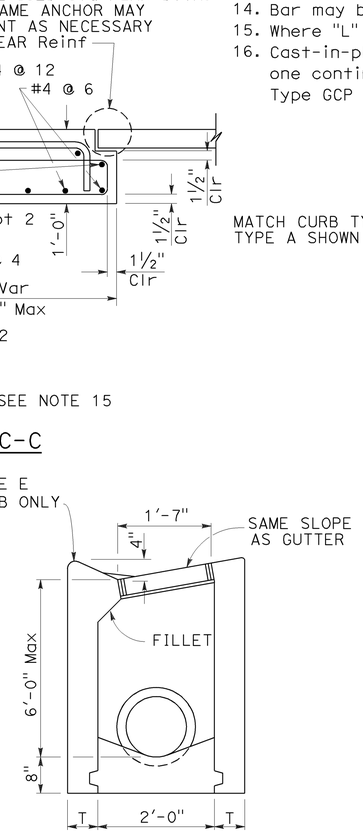


SECTION C-C

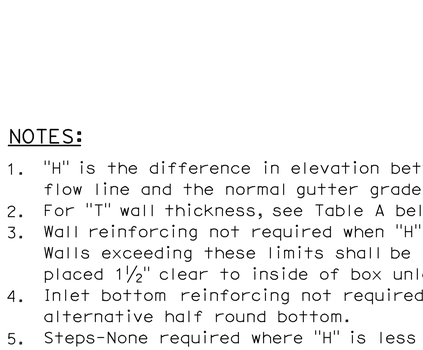
SECTION B-B



SECTION F-F



SECTION G-G



SECTION D-D

TO ACCOMPANY PLANS DATED 4-27-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	28	64

Glenn DeCou
REGISTERED CIVIL ENGINEER

October 19, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Glenn DeCou
No. C34547
Exp. 9-30-13
CIVIL
STATE OF CALIFORNIA

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

NOTES:

1. "H" is the difference in elevation between the outlet pipe flow line and the normal gutter grade line undepressed.
2. For "T" wall thickness, see Table A below.
3. 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 1½" clear to inside of box unless otherwise shown.
4. Inlet bottom reinforcing not required. See Standard Plan D74C for alternative reinforced bottom and alternative half round bottom.
5. 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.
6. Details shown apply to both metal and concrete pipe.
7. Pipe(s) can be placed in any wall.
8. Curb section shall match adjacent curb.
9. Basin floors shall have wood trowel finish and a minimum slope of 12:3 from all directions toward outlet pipe.
10. Set inlet so that grate bars are parallel to direction of principal surface flow.
11. See Revised Standard Plans D77A and D77B for grate and frame details and weights of miscellaneous iron and steel.
12. See Standard Plan D78A for gutter depression details.
13. This dimenison will vary with different grates, curbs types, box width and wall thickness.
14. Bar may be rotated as necessary to clear opening. Where "L" is 6" or less, bar may be omitted.
15. Where "L" is 6" or less, wall thickness shall be as shown in Table A.
16. 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

2010 REVISED STANDARD PLAN RSP D73

7-19-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	29	64

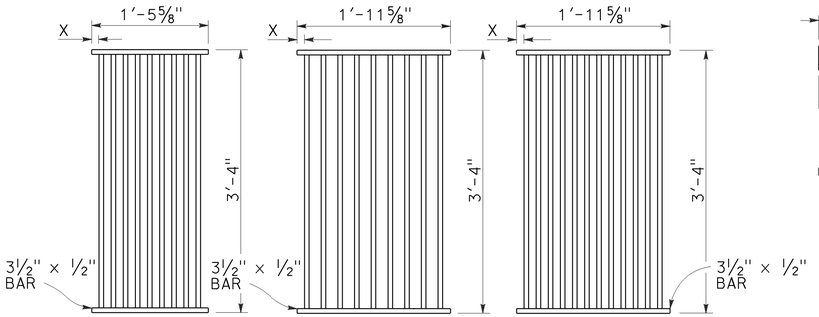
Raymond Don Tsztoo
REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

Raymond Don Tsztoo No. C37332 Exp. 6-30-14 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.

TO ACCOMPANY PLANS DATED 4-27-15



TYPE 18-9

1⅜" Clear spacing. Use within the roadbed on highways where bicycles and pedestrians are excluded.

TYPE 24-9

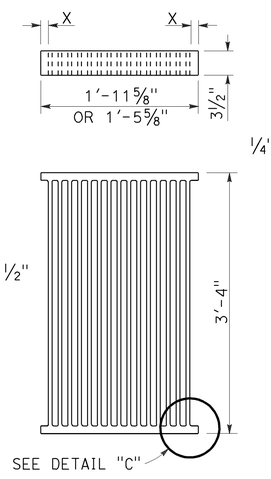
2" Clear spacing. Use in locations off the roadbed on all types of highways.

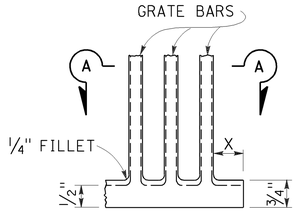
TYPE 24-12

1⅜" Clear spacing. Use within the roadbed on highways where bicycles and pedestrians are excluded.

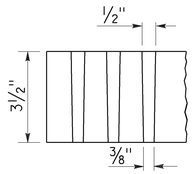
RECTANGULAR GRATE DETAILS

(See table below)

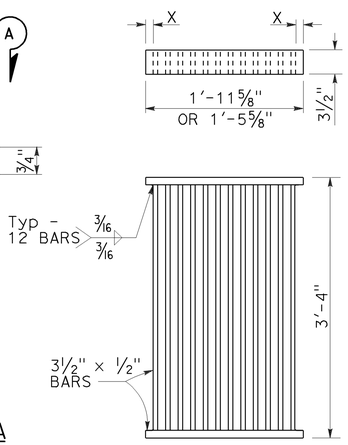




DETAIL "C"

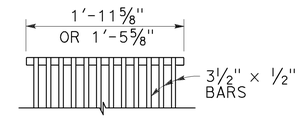


SECTION A-A

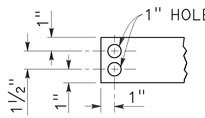


ALTERNATIVE CAST DUCTILE IRON GRATE OR CAST CARBON STEEL GRATE

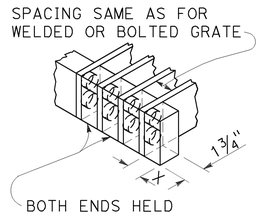
ALTERNATIVE WELDED GRATE



CAST END BLOCK



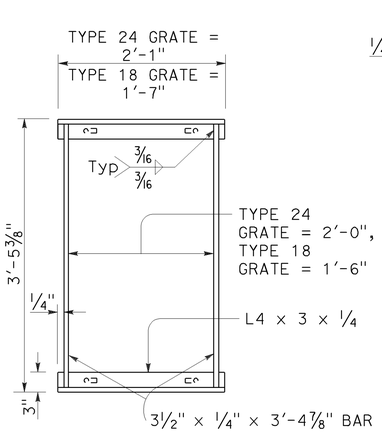
END OF BAR



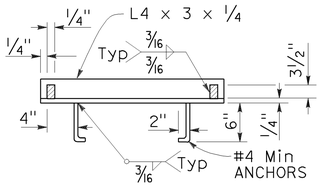
ALTERNATIVE CAST DUCTILE IRON OR CAST CARBON STEEL END BLOCK GRATE

NOTES:

1. Grate type numbers refer to approximate width of grate in inches and number of bars, respectively.
2. Contractor has the option of using cast ductile iron, cast carbon steel, welded, bolted, or cast end block grate.
3. Rounded top of bars optional on all grates.
4. Pipe inlets with a grate shall be placed so that bars parallel direction of principle surface flow.
5. Complete joint penetration butt welds may be substituted for the fillet welds on all anchors.
6. Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.
7. Grate and frame weights are based on welded grates (weights of face angles, steps, protection bars, etc. are not included).
8. Connect chain to grate and frame only at locations shown on the plans. When chain is required, do not use cast ductile iron grates.

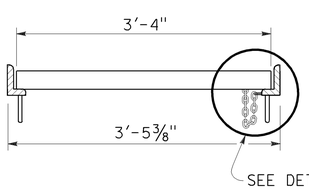


TYPICAL FRAME



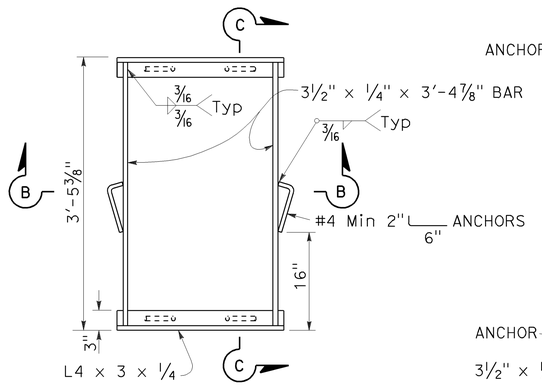
CROSS SECTION

(Thru frame)

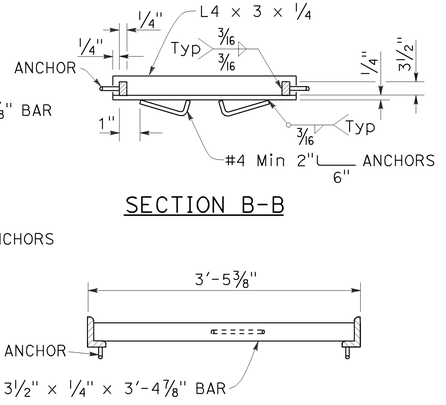


LONGITUDINAL SECTION

(Thru frame and grate)



TYPICAL FRAME



SECTION B-B

SECTION C-C

ALTERNATIVE ANCHOR FOR RECTANGULAR FRAME

(For details not shown, See Rectangular Frame Details)

RECTANGULAR FRAME DETAILS

(For all rectangular grates)

GRATE BAR SPACING TABLE

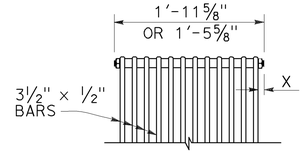
TYPE	No. OF BARS	CLEAR BAR SPACING	X
18-9	9	1⅜"	1 1/16"
24-9	9	2"	1 9/16"
24-12	12	1⅜"	1¼"

INLET TYPE	COVER TYPE	WEIGHT LB
OS	PLATE	174
OL-7	PLATE	170
OL-10	PLATE	170
OL-14	PLATE	170
OL-21	PLATE	170
OCP	PLATE	112
OCPI	PLATE	112
OCPI	REDWOOD	42
OMP	PLATE	177
OMPI	PLATE	177

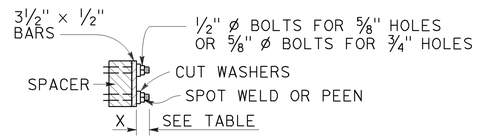
INLET TYPE	GRATE TYPE	No. OF GRATES	WEIGHT LB
GDO	24-12	2	634
GOL-7	24-12	1	326
GOL-10	24-12	1	326
GO,G1,G2,G3,G4 (TYPE 24)	24-9	1	263
	24-12	1	326
G4 (TYPE 18),G5,G6	18-9	1	249
GT1	18-9	2	498
GT2	18-9	2	498
GT3	24-12	2	652
GT4	24-12	2	652
TRASH RACK			22
GRATE CHAIN			3

BASIS FOR Misc IRON & STEEL FINAL PAY WEIGHTS FOR DRAINAGE INLETS

(See Note 7)

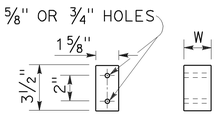


BOLTED END BLOCK

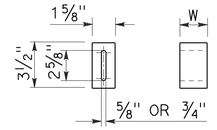


BOLTING DETAIL

ALTERNATIVE BOLTED GRATE

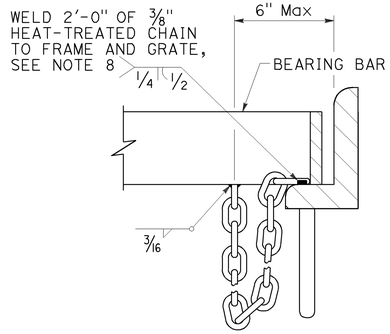


BAR SPACER



ALTERNATIVE SPACER

W = 1⅜" or 2"



DETAIL "D"

(Steel grates only)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

GRATE DETAILS No. 1

NO SCALE

RSP D77A DATED APRIL 19, 2013 SUPERSEDES RSP D77A DATED JULY 20, 2012 AND STANDARD PLAN D77A DATED MAY 20, 2011 - PAGE 164 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP D77A

2010 REVISED STANDARD PLAN RSP D77A

4-4-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	30	64

Raymond Don Tsztoo
REGISTERED CIVIL ENGINEER

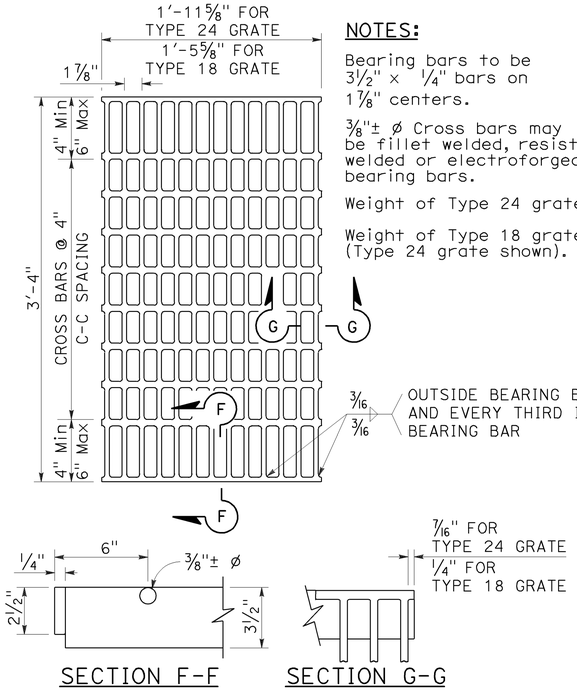
April 19, 2013
PLANS APPROVAL DATE

Raymond Don Tsztoo No. C37332 Exp. 6-30-14 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.

TO ACCOMPANY PLANS DATED 4-27-15

2010 REVISED STANDARD PLAN RSP D77B



NOTES:

Bearing bars to be 3½" × ¼" bars on 1⅞" centers.

⅜"± ø Cross bars may be fillet welded, resistance welded or electroforged to bearing bars.

Weight of Type 24 grate = 141 LBS.

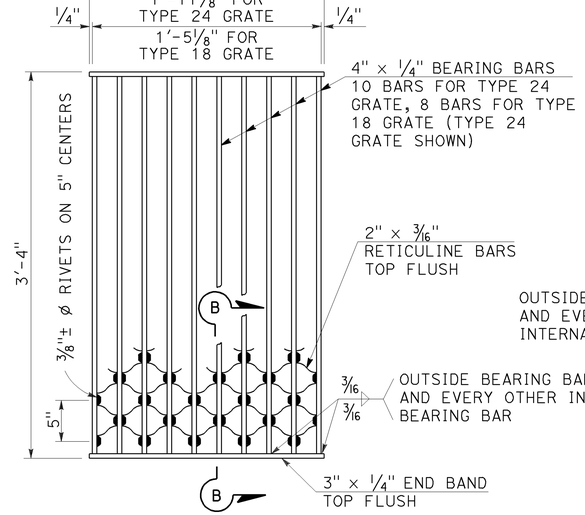
Weight of Type 18 grate = 107 LBS. (Type 24 grate shown).

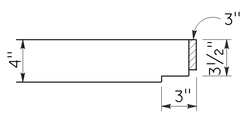
SECTION F-F

SECTION G-G

TYPE 18-10 AND 24-13 GRATE

(Welded Steel)





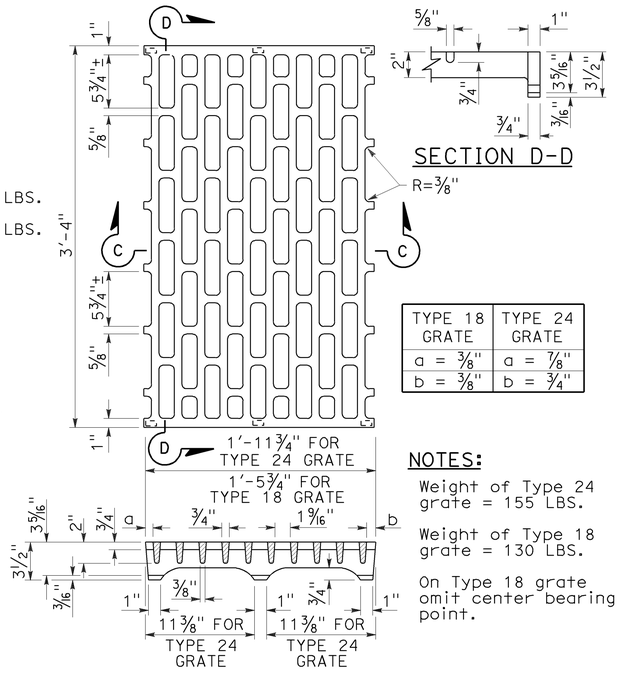
SECTION B-B

NOTES:

Weight of Type 24 grate = 182 LBS.
Weight of Type 18 grate = 145 LBS.

TYPE 18-8S AND 24-10S GRATE

(Welded Steel) Reticuline type



SECTION C-C

SECTION D-D

TYPE 18 GRATE	TYPE 24 GRATE
a = ⅜"	a = ⅞"
b = ¾"	b = ¾"

NOTES:

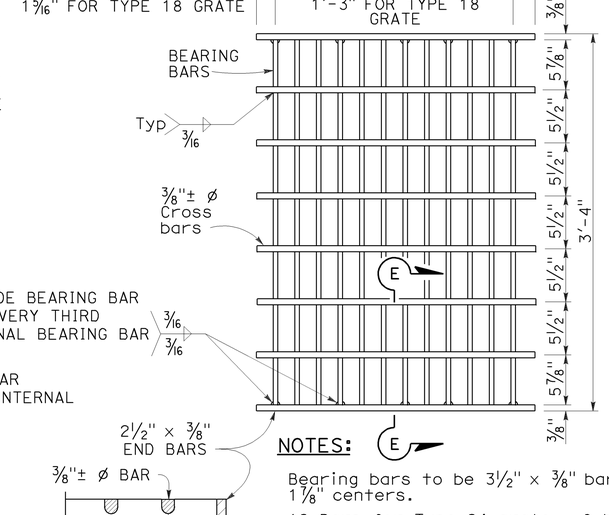
Weight of Type 24 grate = 155 LBS.

Weight of Type 18 grate = 130 LBS.

On Type 18 grate omit center bearing point.

TYPE 18-8C AND 24-10C GRATE

(Cast ductile iron)



SECTION E-E

NOTES:

Bearing bars to be 3½" × ⅜" bars on 1⅛" centers.

12 Bars for Type 24 grate - 9 bars for Type 18 grates. (Type 24 grate shown).

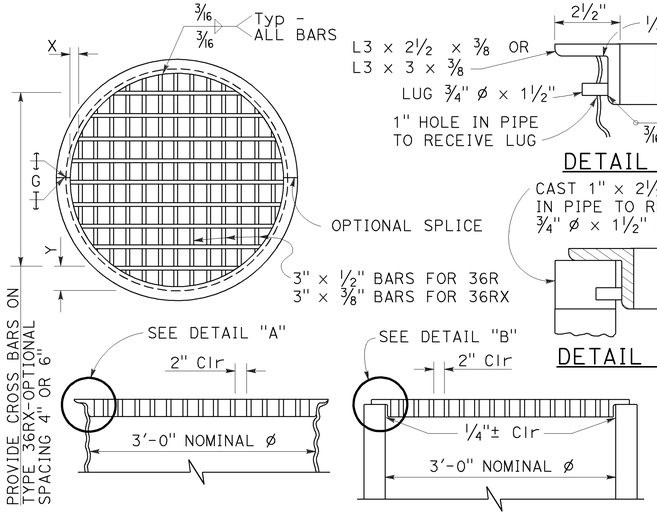
Weight of Type 24 grate = 192 LBS.

Weight of Type 18 grate = 145 LBS.

⅜"± ø Cross bars may be fillet welded, resistance welded or electroforged to bearing bars.

TYPE 18-9X AND 24-12X GRATE

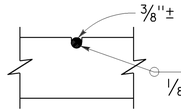
(Welded Steel)



DETAIL "A"

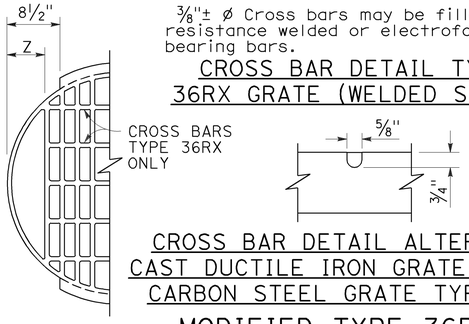
DETAIL "B"

TYPE 36R AND 36RX GRATE DETAILS



⅜"± ø Cross bars may be fillet welded, resistance welded or electroforged to bearing bars.

CROSS BAR DETAIL TYPE 36RX GRATE (WELDED STEEL)



CROSS BAR DETAIL ALTERNATIVE CAST DUCTILE IRON GRATE OR CAST CARBON STEEL GRATE TYPE 36RX

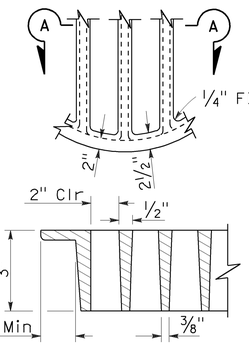
MODIFIED TYPE 36R AND 36RX GRATE FOR ODI INLET

NOTES:

1. When alternative grates are allowed - Final pay based on alternative with the lesser weight.
2. Use frame shown on Standard Plan D74A, D74B or RSP D77A as appropriate.
3. When Type 24-10S, 24-12X or 24-13 grates are used with GDO Inlets, a ¼" × 3½" × 3'-4⅞" steel bar shall be welded across the center of inlet frame to separate the individual grates.
4. See Revised Standard Plan RSP D77A for connecting chain to welded grate and frame. When chain is required, do not use cast ductile iron grate.

GRATE BAR SPACING TABLE

TYPE	No. OF BARS	CLEAR BAR SPACING	X	Y		Z
				4" SPACING	6" SPACING	
36R	13	2"	2⅛"	-	-	-
36RX (STEEL)	15	2"	9/16"	3¾"	5¾"	-
36RX (CAST)	13	2"	2⅛"	3¾"	5¾"	-
36R Mod	12	2"	2⅛"	-	-	5"
36RX Mod (STEEL)	13	2"	9/16"	3¾"	5¾"	5 11/16"
36RX Mod (CAST)	12	2"	2⅛"	3¾"	5¾"	5"



SECTION A-A

ALTERNATIVE CAST DUCTILE IRON GRATE OR CAST CARBON STEEL GRATE TYPE 36R AND 36RX

BASIS FOR Misc IRON AND STEEL FINAL PAY WEIGHTS FOR DRAINAGE INLETS

INLET TYPE	GRATE TYPE	No. OF GRATES	WEIGHT LB
GDO (SEE NOTE 4)	24-10C	2	391
	24-10S	2	456
	24-12X	2	473
	24-13	2	374
G0,G0L,G1,G2, G3,G4 (TYPE 24)	24-10C	1	202
	24-10S	1	229
	24-12X	1	239
	24-13	1	188
G4 (TYPE 18) G5,G6	18-8S	1	187
	18-9X	1	187
	18-10	1	149
GT1,GT2	18-8S	2	374
	18-9X	2	374
	18-10	2	298
GT3,GT4	24-10C	2	404
	24-10S	2	458
	24-12X	2	478
	24-13	2	376
ODI	36RX (Mod)	1	196
GMP,GCP,GCPI	36RX	1	215
ODI	36R (Mod)	1	220
GMP,GCP,GCPI	36R	1	236
TRASH RACK			22
GRATE CHAIN			3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

GRATE DETAILS No. 2

NO SCALE

RSP D77B DATED APRIL 19, 2013 SUPERSEDES RSP D77B DATED JULY 20, 2012 AND STANDARD PLAN D77B DATED MAY 20, 2011 - PAGE 165 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP D77B

4-4-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	31	64

LICENSED LANDSCAPE ARCHITECT

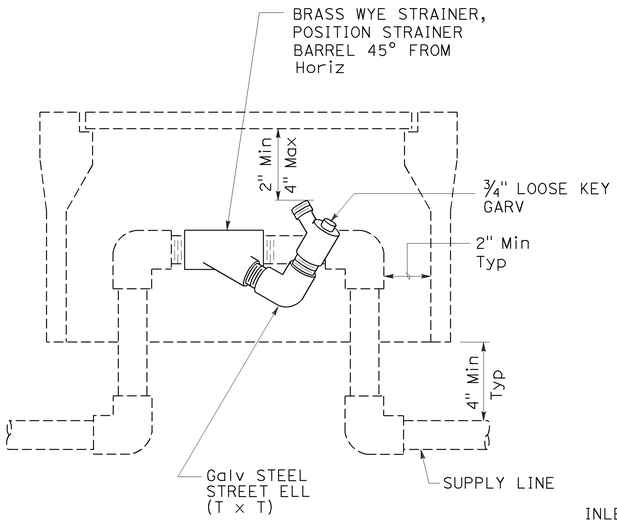
July 19, 2013
PLANS APPROVAL DATE

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.

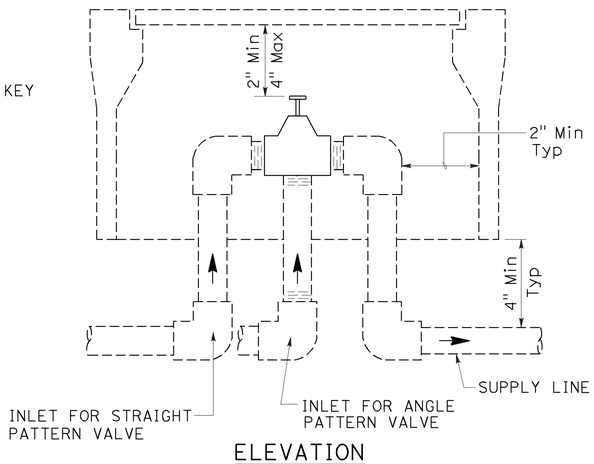
Gregory A. Balzer — LICENSED LANDSCAPE ARCHITECT — 00 Expires 2-28-15 — Renewal Date 7-19-13 — Date — STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 4-27-15

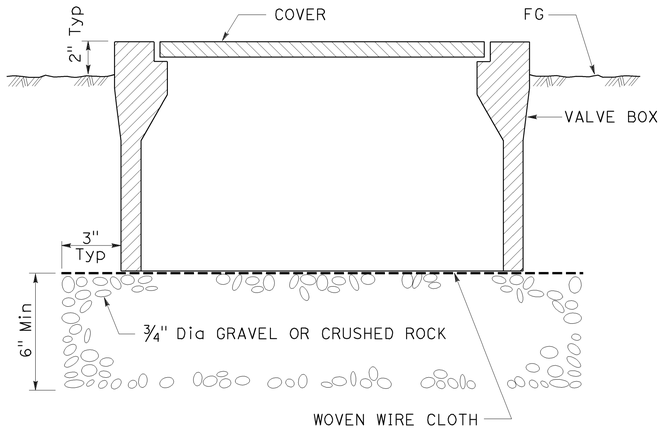
2010 REVISED STANDARD PLAN RSP H7



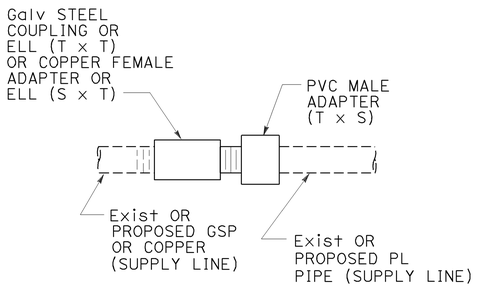
ELEVATION
WYE STRAINER ASSEMBLY



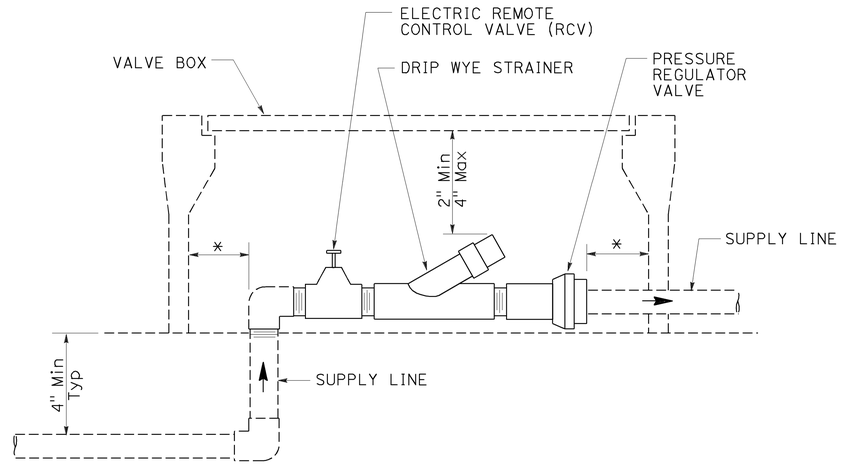
ELEVATION
VALVE



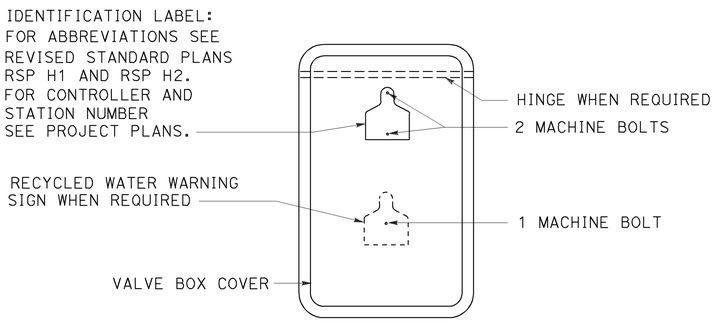
SECTION
VALVE BOX



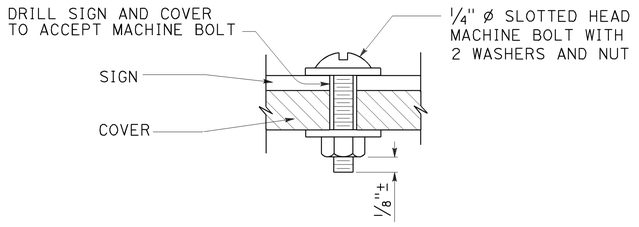
GALVANIZED OR COPPER PIPE CONNECTION TO PLASTIC PIPE



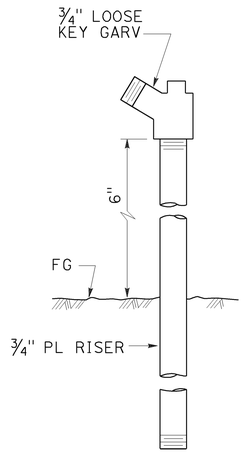
ELEVATION
DRIP VALVE ASSEMBLY



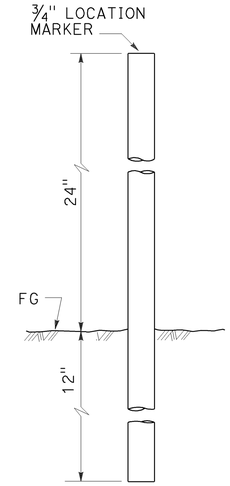
PLAN



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

6-20-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	32	64

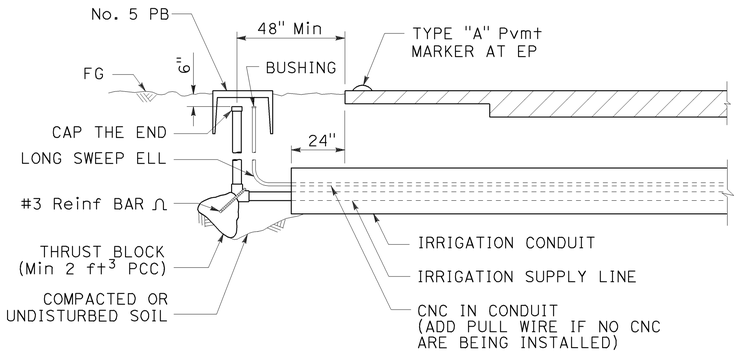
LICENSED LANDSCAPE ARCHITECT

July 19, 2013
PLANS APPROVAL DATE

Gregory A. Balzer 2576 — 10-31-14 Date — 2-28-15 Renewal Date — 7-19-13 Date — LICENSED LANDSCAPE ARCHITECT — 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.

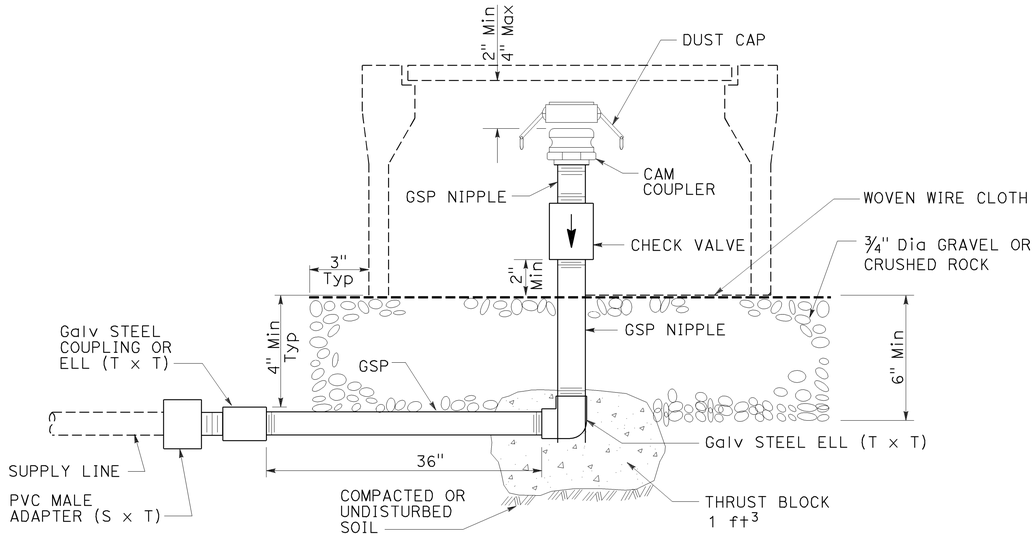
TO ACCOMPANY PLANS DATED 4-27-15



SECTION

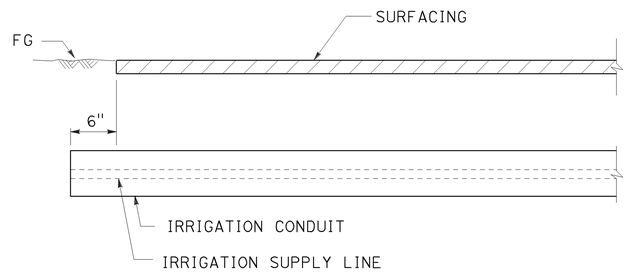
IRRIGATION CONDUIT

UNDER TRAVELED WAY



ELEVATION

CAM COUPLER ASSEMBLY



SECTION

IRRIGATION CONDUIT

UNDER SIDEWALKS, DRIVEWAYS AND PATHS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

LANDSCAPE DETAILS

NO SCALE

RSP H9 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H9
DATED MAY 20, 2011 - PAGE 226 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H9

2010 REVISED STANDARD PLAN RSP H9

6-28-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	33	64

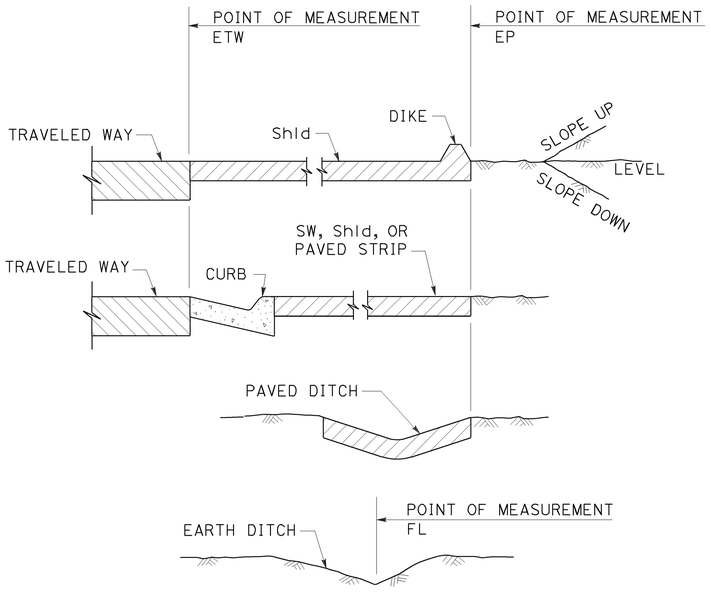
Gregory A Balzer
LICENSED LANDSCAPE ARCHITECT

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.

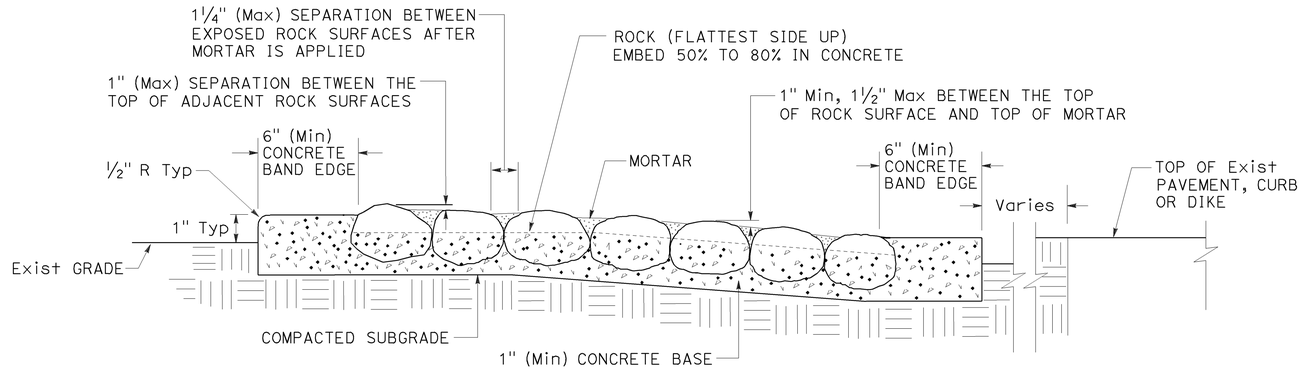
LICENSED LANDSCAPE ARCHITECT — Gregory A. Balzer 2576 — 10-31-13 Date — 2-28-15 Renewal Date — 7-19-13 Date — STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 4-27-15



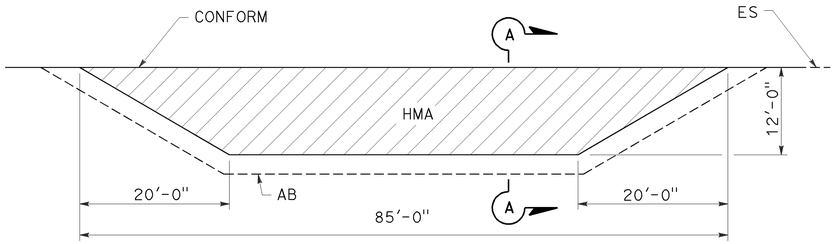
SECTION

POINTS OF MEASUREMENT

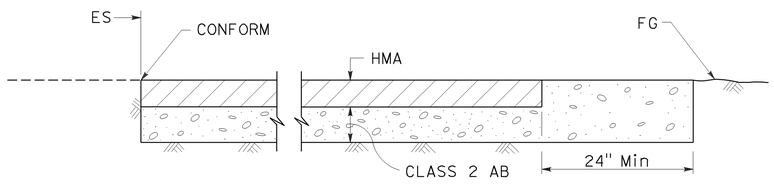


SECTION

ROCK BLANKET



PLAN



SECTION A-A

MAINTENANCE VEHICLE PULLOUT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

LANDSCAPE DETAILS

NO SCALE

RSP H9A DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H9A

2010 REVISED STANDARD PLAN RSP H9A

6-21-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	34	64

REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Gurinderpal Bhullar
No. C48815
Exp. 9-30-14
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.

TO ACCOMPANY PLANS DATED 4-27-15

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		
					X	Y	Z **
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	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%
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 recommmended distances.

2010 REVISED STANDARD PLAN RSP T9

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

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

REVISED STANDARD PLAN RSP T9

4-30-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	35	64

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 4-27-15

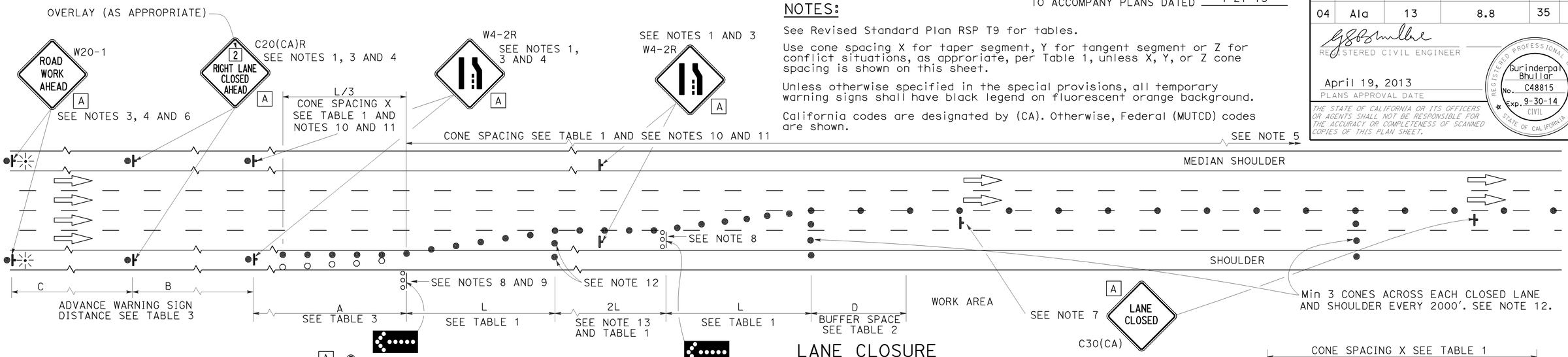
NOTES:

See Revised Standard Plan RSP T9 for tables.

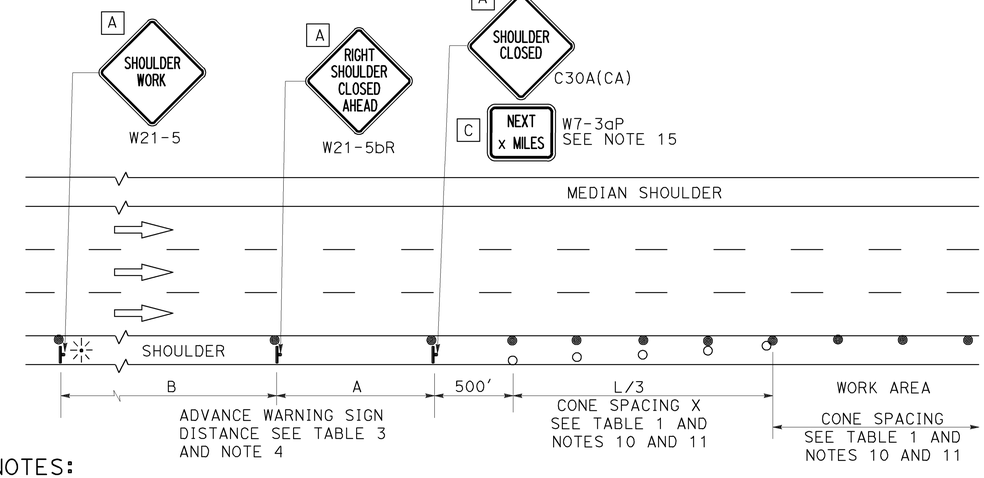
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

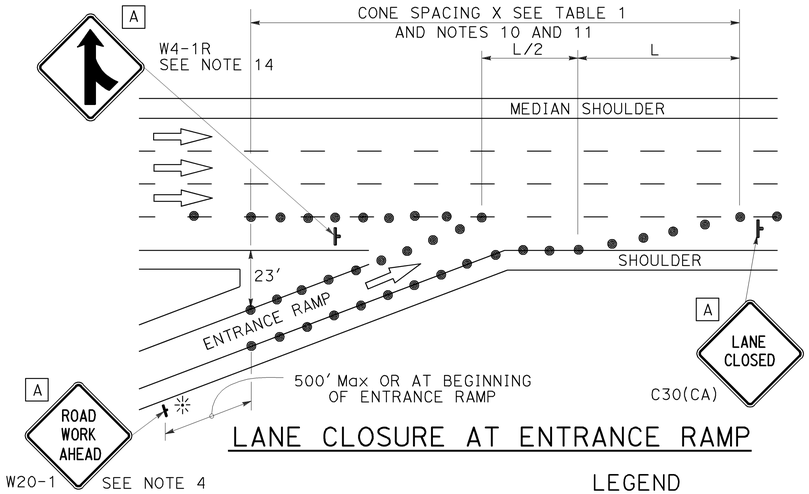
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



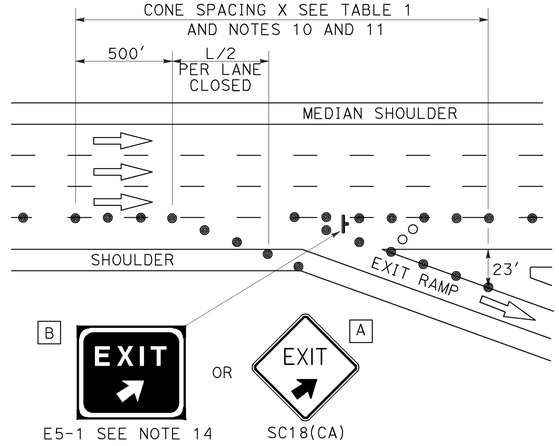
LANE CLOSURE



SHOULDER CLOSURE



LANE CLOSURE AT ENTRANCE RAMP



LANE CLOSURE AT EXIT RAMP

NOTES:

1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
   a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
   b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
15. A W7-3aP "NEXT___MILES" plaque must be used if theshoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

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

SIGN PANEL SIZE (Min)

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

12-18-12

TO ACCOMPANY PLANS DATED 4-27-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	36	64

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

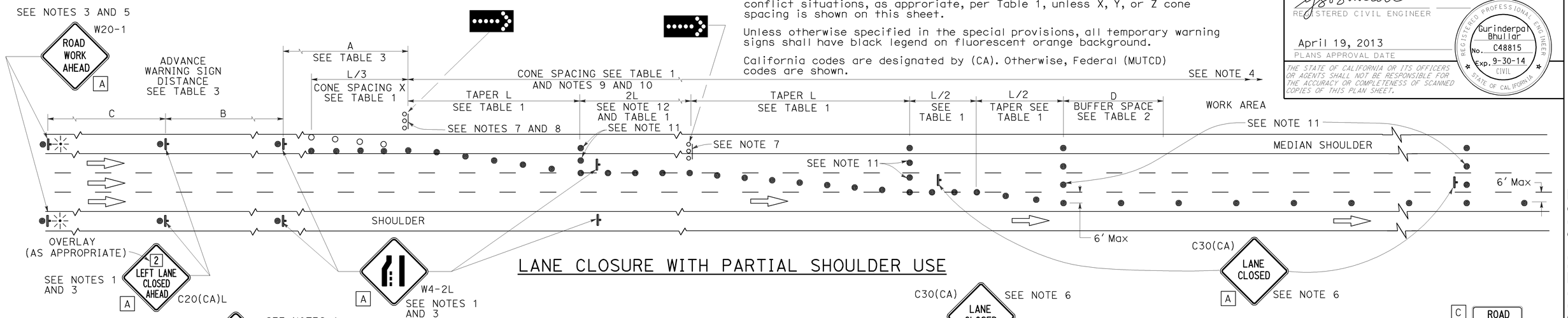
REGISTERED PROFESSIONAL ENGINEER — Gurinderpal Bhullar — No. C48815 — Exp. 9-30-14 CIVIL — STATE OF CALIFORNIA

NOTES: See Revised Standard Plan RSP T9 for tables.

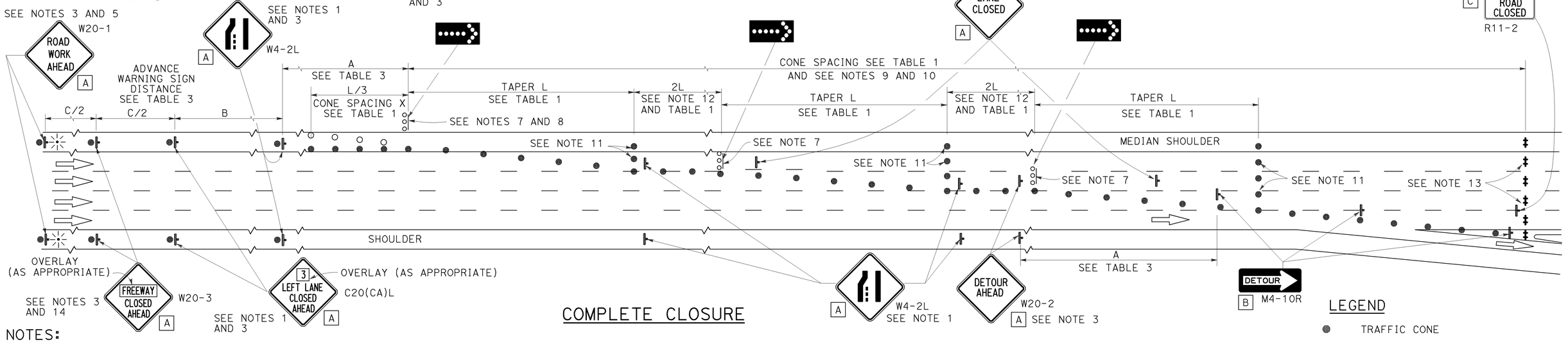
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.



LANE CLOSURE WITH PARTIAL SHOULDER USE



COMPLETE CLOSURE

NOTES:

1. Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
4. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
5. 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.
6. Place a C30(CA) sign every 2000' throughout length of lane closure.
7. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
8. 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.
9. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
10. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
11. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
12. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
13. A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
14. When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

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

LEGEND

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURES ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10A

2010 REVISED STANDARD PLAN RSP T10A

12-18-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	37	64

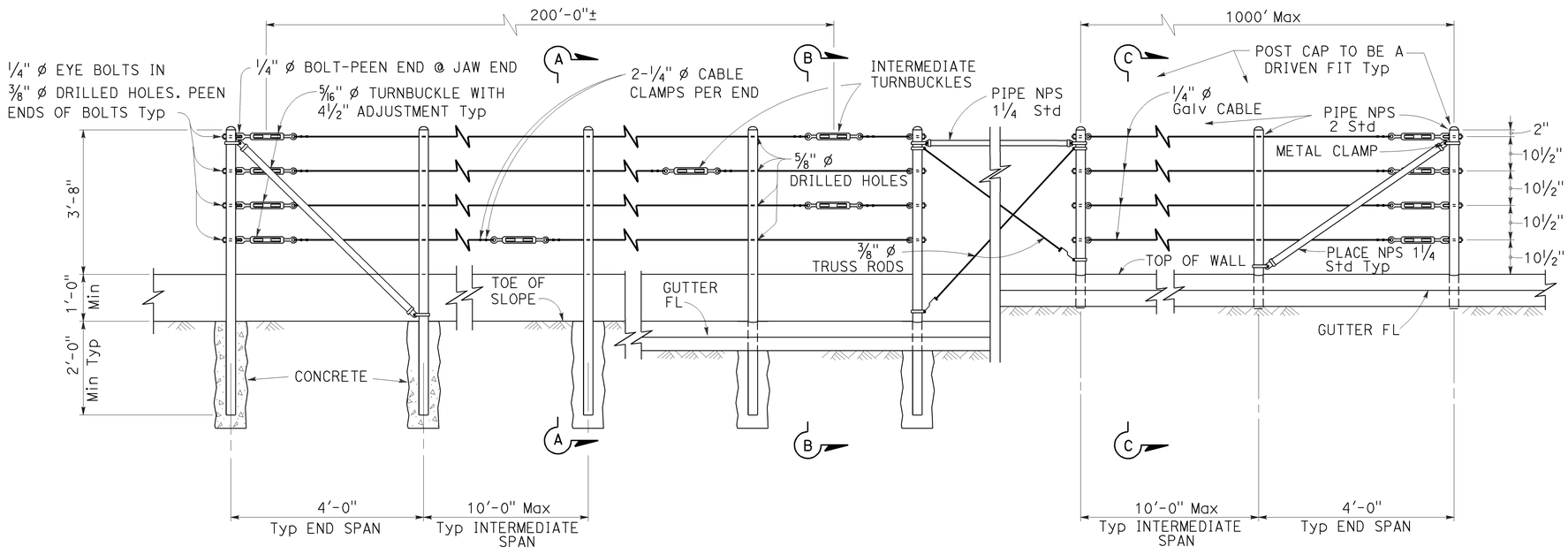
REGISTERED CIVIL ENGINEER

October 21, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Tillat Satter
No. C42892
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 4-27-15

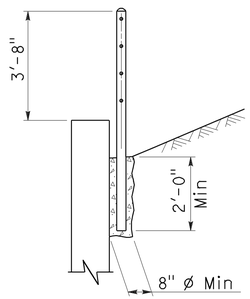


EXISTING WALL (WITHOUT GUTTER)
Existing

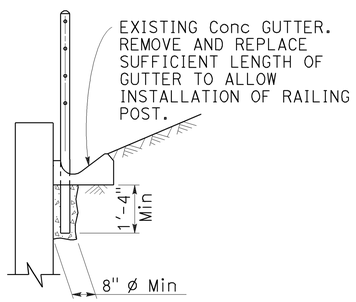
RETAINING WALL (WITH GUTTER)
Existing

RETAINING WALL (WITH GUTTER)
New construction

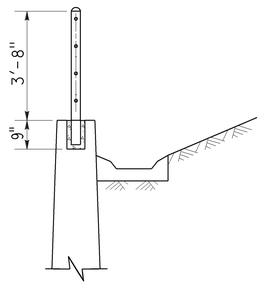
ELEVATION



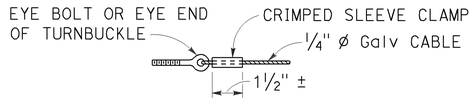
SECTION A-A
Existing



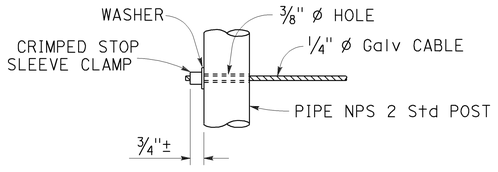
SECTION B-B
Existing



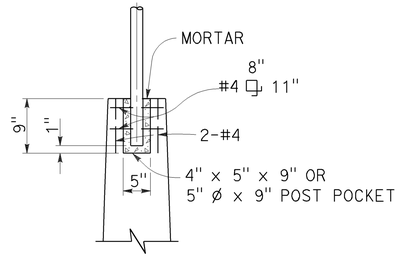
SECTION C-C
New construction



ALTERNATIVE CABLE CONNECTION



ALTERNATIVE DEAD END ANCHORAGE



POST POCKET

NOTES:

1. Maximum distance between turnbuckles shall be 200'-0"±.
2. Intermediate turnbuckles to be placed in adjacent spans.
3. Cable shall not be spliced between intermediate turnbuckles and end posts.
4. Posts to be vertical.
5. Alignment of holes in posts may vary to conform to slope of top of retaining wall.
6. The Contractor shall verify all dependent dimensions in the field before ordering or fabricating any material.
7. Line posts shall be braced horizontally and trussed diagonally in both directions at intervals not to exceed 1000'.
8. Post pockets to be centered in top of wall.
9. Typical end spans, braced in both directions, shall be constructed at changes in line where the angle of deflection is 15° or more.
10. Provide thimbles at all cable loops.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CABLE RAILING

NO SCALE

RSP B11-47 DATED OCTOBER 21, 2011 SUPERSEDES STANDARD PLAN B11-47 DATED MAY 20, 2011 - PAGE 293 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B11-47

2010 REVISED STANDARD PLAN RSP B11-47

9-14-11

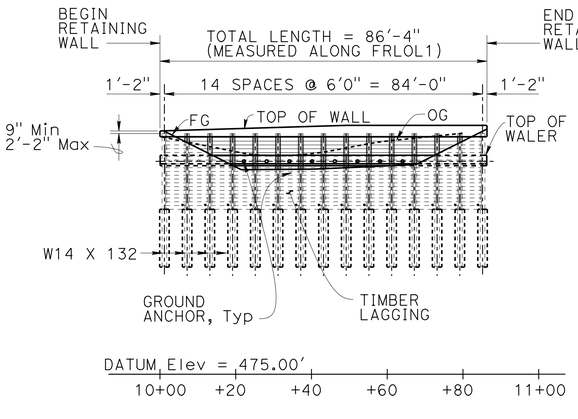
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	38	64

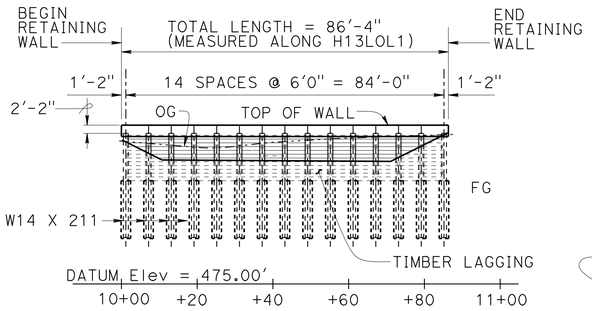
Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti No. C64626 Exp. 6-30-15 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.

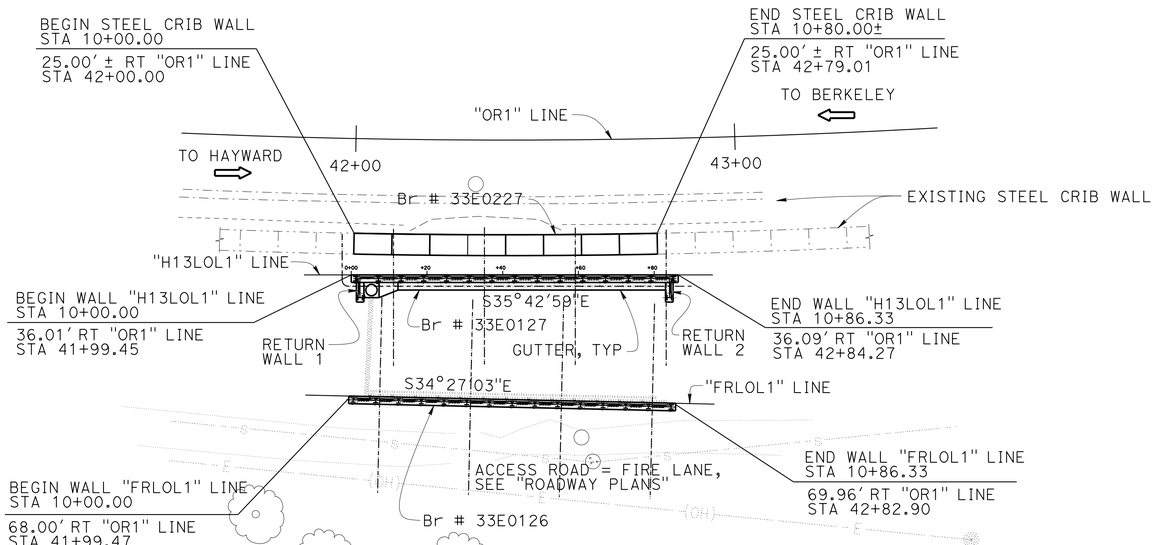




Note: Aesthetic Treatment, Cable Railing, and Chain Link Railing not shown.

FR WALL MIRRORED ELEVATION
1" = 20'
(BR # 33E0126)

H13 WALL MIRRORED ELEVATION
1" = 20'
(BR # 33E0127)



PLAN
1" = 20'

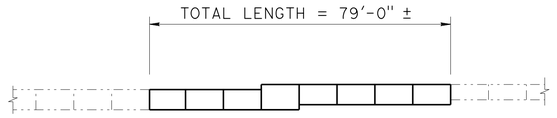
LEGEND:

DENOTES EXISTING

DENOTES NEW

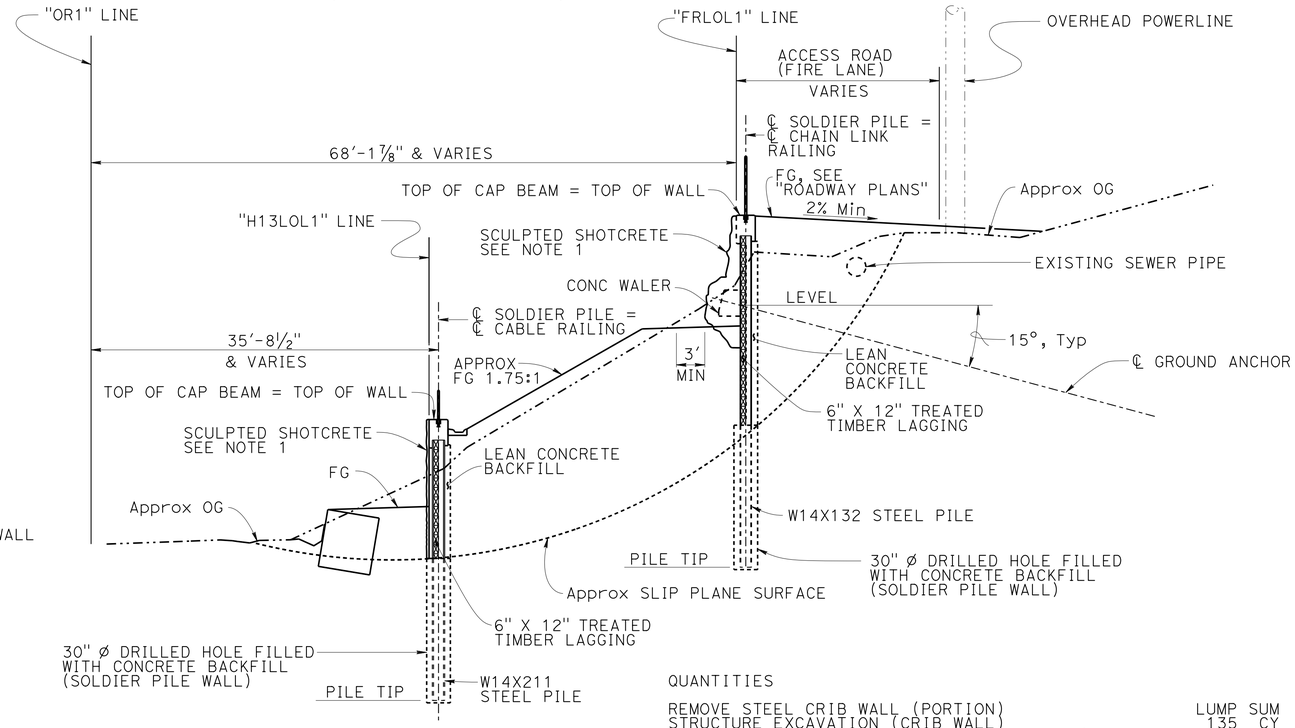
NOTES:

1. Shotcrete rock face treatment, see "SCULPTED SHOTCRETE DETAILS" sheets.
2. For Drainage Details, see "WALL DRAIN DETAILS" sheets.



DATUM Elev = 475.00'

STEEL CRIB WALL DEVELOPED ELEVATION
1" = 20'
(BR # 33E0227)



TYPICAL SECTION
⅛" = 1'-0"
B11-47

QUANTITIES

REMOVE STEEL CRIB WALL (PORTION)	LUMP	SUM
STRUCTURE EXCAVATION (CRIB WALL)	135	CY
STRUCTURE EXCAVATION (SOLDIER PILE WALL)	458	CY
STRUCTURE BACKFILL (CRIB WALL)	129	CY
STRUCTURE BACKFILL (SOLDIER PILE WALL)	311	CY
CONCRETE BACKFILL (SOLDIER PILE WALL)	87	CY
LEAN CONCRETE BACKFILL	98	CY
GROUND ANCHOR (SUBHORIZONTAL)	14	EA
STEEL CRIB WALL	481	SQFT
STEEL SOLDIER PILE (W 14 X 132)	525	LF
STEEL SOLDIER PILE (W 14 X 211)	468	LF
30" DRILLED HOLE	1,014	LF
STRUCTURAL CONCRETE, RETAINING WALL	51	CY
BAR REINFORCING STEEL (RETAINING WALL)	17,596	LB
SCULPTED SHOTCRETE	1,553	SQFT
STRUCTURAL SHOTCRETE	77	CY
TIMBER LAGGING	15	MFBM
CLEAN AND PAINT STEEL SOLDIER PILING	LUMP	SUM
PREPARE AND STAIN SHOTCRETE	1,553	SQFT
ANTI-GRAFFITI COATING	1,553	SQFT
GEOCOMPOSITE DRAIN	626	SQFT
FURNISH AND INSTALL DRAIN PIPE (HORIZONTAL DRAIN)	476	LF
DRILL HOLE (HORIZONTAL DRAIN)	350	LF
MINOR CONCRETE (GUTTER) (LF)	85	LF
CHAIN LINK RAILING (MODIFIED)	86	LF
CABLE RAILING (MODIFIED)	86	LF

Gordon Danke
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Rosa Candiotti	John Railey
DETAILS	David Elliott	John Railey
QUANTITIES	John Railey	Evan Franciliso

LOAD & RESISTANCE FACTOR DESIGN — LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE

	BY	CHECKED
LAYOUT	John Railey	Rosa Candiotti
SPECIFICATIONS	Dave Klein	PLANS AND SPECS COMPARED: Dave Klein

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. VARIES
POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS
GENERAL PLAN

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
1-29-15	2-23-15	3-3-14	12-2-14	1	27

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.09-01-10)

FILE => 33e-a-gp-sheet.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	39	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

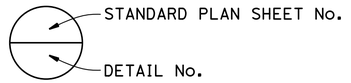
REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti — No. C64626 — Exp. 6-30-15 — CIVIL — STATE OF CALIFORNIA

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.

INDEX TO PLANS

STANDARD PLANS DATED 2010

	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)
	A10F	LEGEND - SOIL (SHEET 1 OF 2)
	A10G	LEGEND - SOIL (SHEET 1 OF 2)
	A10H	LEGEND - ROCK
	B3-6	RETAINING WALL DETAILS NO. 2
	B11-7	CHAIN LINK RAILING
RSP -	B11-47	CABLE RAILING



FR WALL - PILE DATA AND GROUND ANCHOR TABLE

STATION ALONG FRLOL LINE	PILE NO.	TOP OF PILE ELEVATION (Ft)	TOP OF WALL ELEVATION (Ft)	BOTTOM OF PILE ELEVATION (Ft)	BOTTOM OF LAGGING ELEVATION (Ft)	PILE SECTION	GROUND ANCHORS	
							FDL (kips)	UNBONDED LENGTH (Ft)
10+01.18	1	538.52	539.25	503.52	518.52	W14X132	100	30
10+07.18	2	538.52	539.42	503.52	518.52	W14X132	100	30
10+13.18	3	538.52	539.59	503.52	518.52	W14X132	100	30
10+19.17	4	538.52	539.75	503.52	518.52	W14X132	100	30
10+25.17	5	538.52	539.92	503.52	518.52	W14X132	100	30
10+31.17	6	538.52	540.09	503.52	518.52	W14X132	100	30
10+37.17	7	538.52	540.25	503.52	518.52	W14X132	100	30
10+43.17	8	538.52	540.43	503.52	518.52	W14X132	100	30
10+49.17	9	538.52	540.69	503.52	518.52	W14X132	100	30
10+55.17	10	538.52	540.69	503.52	518.52	W14X132	100	30
10+61.17	11	538.52	540.69	503.52	518.52	W14X132	100	30
10+67.17	12	538.52	540.69	503.52	518.52	W14X132	100	30
10+73.16	13	538.52	540.69	503.52	518.52	W14X132	100	30
10+79.16	14	538.52	540.69	503.52	518.52	W14X132	100	30
10+85.16	15	538.52	540.69	503.52	518.52	W14X132	100	30

H13 WALL - PILE DATA TABLE

STATION ALONG H13LOL LINE	PILE NO.	TOP OF PILE ELEVATION (Ft)	TOP OF WALL ELEVATION (Ft)	BOTTOM OF PILE ELEVATION (Ft)	BOTTOM OF LAGGING ELEVATION (Ft)	PILE SECTION
10+01.16	1	514.75	516.92	487.25	502.25	W14X211
10+07.16	2	514.75	516.92	487.25	502.25	W14X211
10+13.16	3	514.75	516.92	487.25	502.25	W14X211
10+15.16	4	514.75	516.92	487.25	502.25	W14X211
10+25.16	5	514.75	516.92	487.25	502.25	W14X211
10+31.16	6	514.75	516.92	487.25	502.25	W14X211
10+37.16	7	514.75	516.92	487.25	502.25	W14X211
10+43.16	8	514.75	516.92	487.25	502.25	W14X211
10+49.15	9	514.75	516.92	487.25	502.25	W14X211
10+55.15	10	514.75	516.92	487.25	502.25	W14X211
10+61.15	11	514.75	516.92	487.25	502.25	W14X211
10+67.15	12	514.75	516.92	487.25	502.25	W14X211
10+73.15	13	514.75	516.92	487.25	502.25	W14X211
10+79.15	14	514.75	516.92	487.25	502.25	W14X211
10+85.15	15	514.75	516.92	487.25	502.25	W14X211

	BY	CHECKED
DESIGN	Rosa Candiotti	John Railey
DETAILS	David Elliott	John Railey
QUANTITIES	John Railey	Evan Franciliso

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. VARIES
POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS
INDEX TO PLANS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
7-14-14	9-3-14	12-8-14	1-21-15	2	27

FILE => 33e-a-itp-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

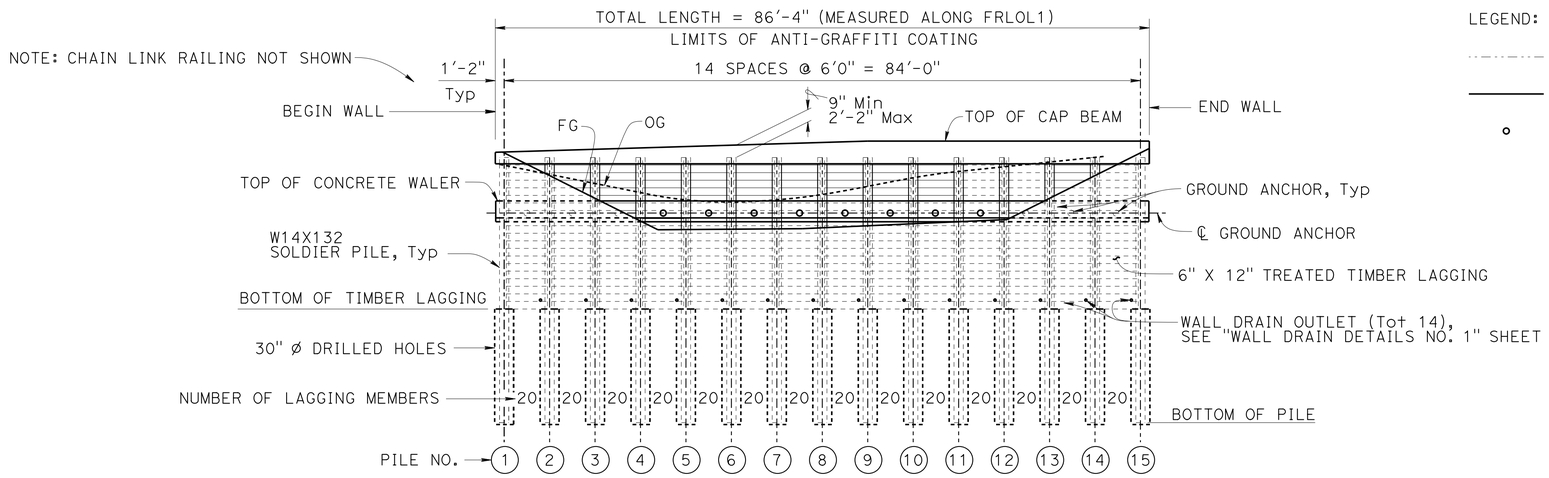
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	40	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti No. C64626 Exp. 6-30-15 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.



LEGEND:

- DENOTES EXISTING STRUCTURE
- DENOTES NEW STRUCTURE
- o DENOTES GROUND ANCHOR (SUBHORIZONTAL)

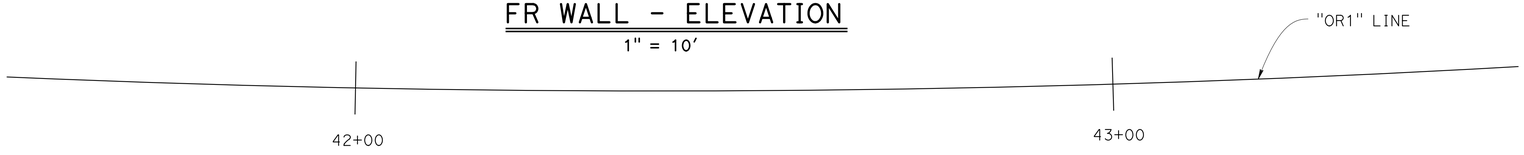
NOTE:

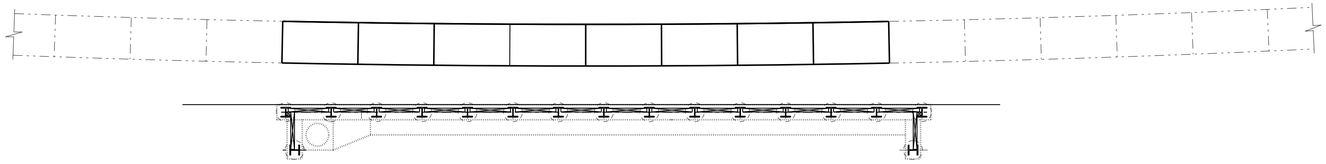
1. Sculpted Shotcrete not shown, see "SCULPTED SHOTCRETE LAYOUT NO. 1" sheet.
2. For additional details, see "SOLDIER PILE WALL WITH WALERS DETAILS NO. 1", "SOLDIER PILE WALL WITH WALERS DETAILS NO. 2", "WALL DETAILS", and "GROUND ANCHOR DETAILS" sheets.

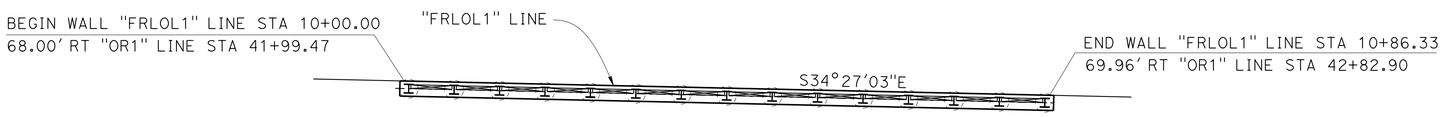
DATUM Elev = 475.00'

FR WALL - ELEVATION

1" = 10'







NOTE: FRLOL1 = BR. NO. 33E0126

FR WALL - PLAN

1" = 10'

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8
QUANTITIES	BY John Railey	CHECKED Evan Franciliso			

BROADWAY TERRACE RETAINING WALLS
STRUCTURE PLAN NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
9-9-14	10-2-14	1-28-15	2-23-15	3	27

FILE => 33e-c-sp1-sheet.dgn

USERNAME => s129154 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

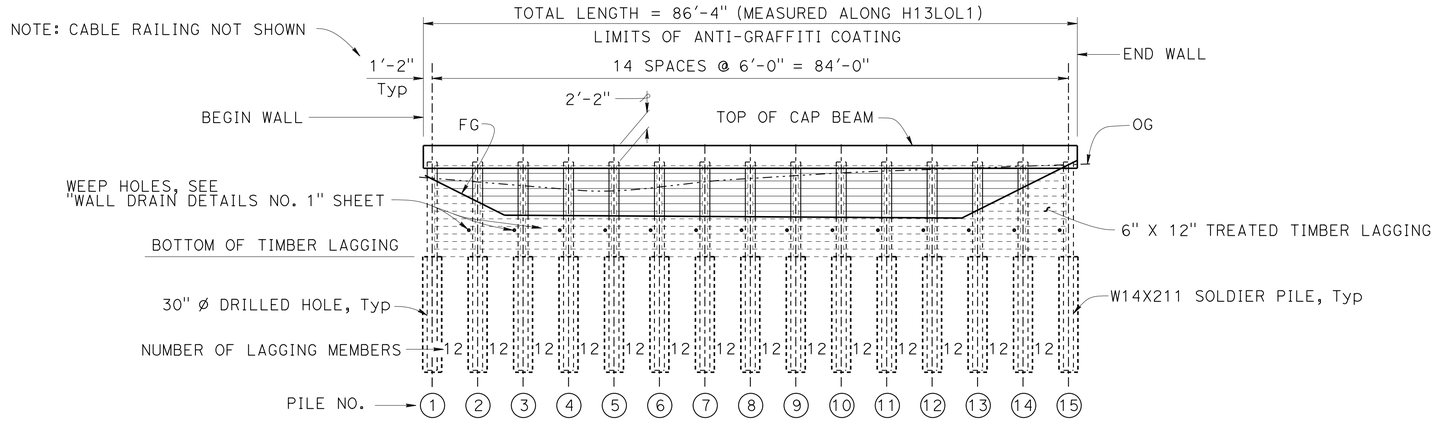
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	41	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

Rosa Candiotti No. C64626 Exp. 6-30-15 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.



H13 WALL - ELEVATION

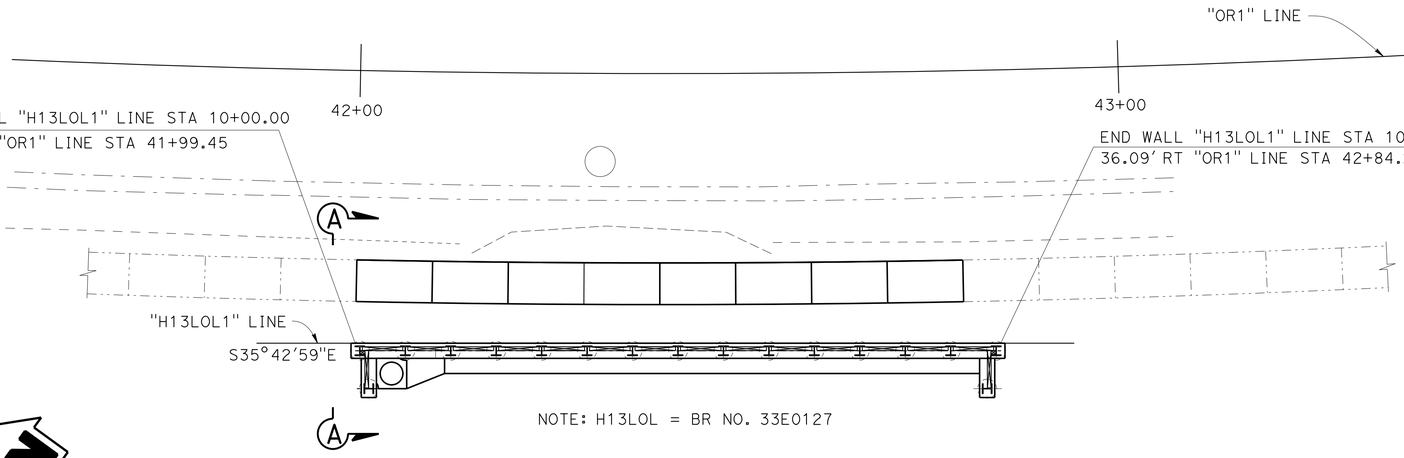
1" = 10'

LEGEND:

- DENOTES EXISTING STRUCTURE
- DENOTES NEW STRUCTURE

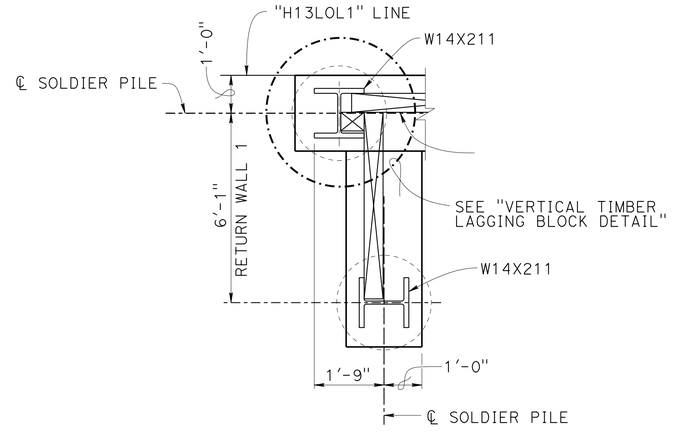
NOTES:

1. Sculpted Shotcrete not shown, see "SCULPTED SHOTCRETE LAYOUT NO. 1" sheet.
2. For Section A-A, see "SOLDIER PILE WALL WITHOUT WALER DETAILS NO. 1" sheet.
3. For additional details, see "SOLDIER PILE WALL WITHOUT WALERS DETAILS", and "WALL DETAILS" sheets.



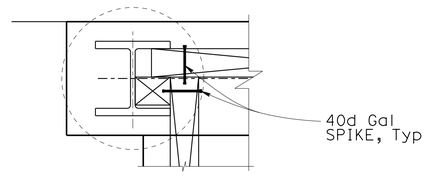
H13 WALL - PLAN

1" = 10'



CORNER DETAIL

½" = 1'-0"



VERTICAL TIMBER LAGGING BLOCK DETAIL

¾" = 1'-0"

NOTE:

Corner detail shown for Return Wall 1, Return Wall 2 similar

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0127	BROADWAY TERRACE RETAINING WALLS	
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8	STRUCTURE PLAN NO. 2	
QUANTITIES	BY John Railey	CHECKED Evan Franciliso					

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594 PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-8-14	12-4-14	1-30-15	2-23-15	4	27

FILE => 33e-c-sp2-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

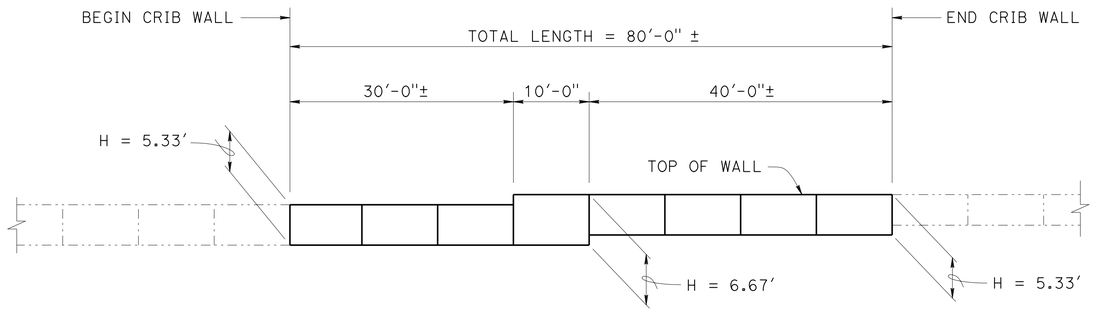
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	42	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti No. C64626 Exp. 6-30-15 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.



LEGEND:

DENOTES EXISTING STRUCTURE

DENOTES NEW STRUCTURE

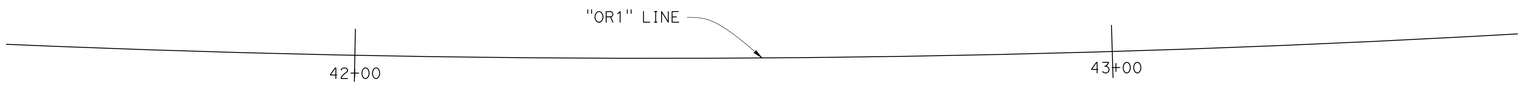
DENOTES LIMITS OF REMOVE STEEL CRIB WALL (PORTION) AND CONSTRUCT NEW STEEL CRIB WALL

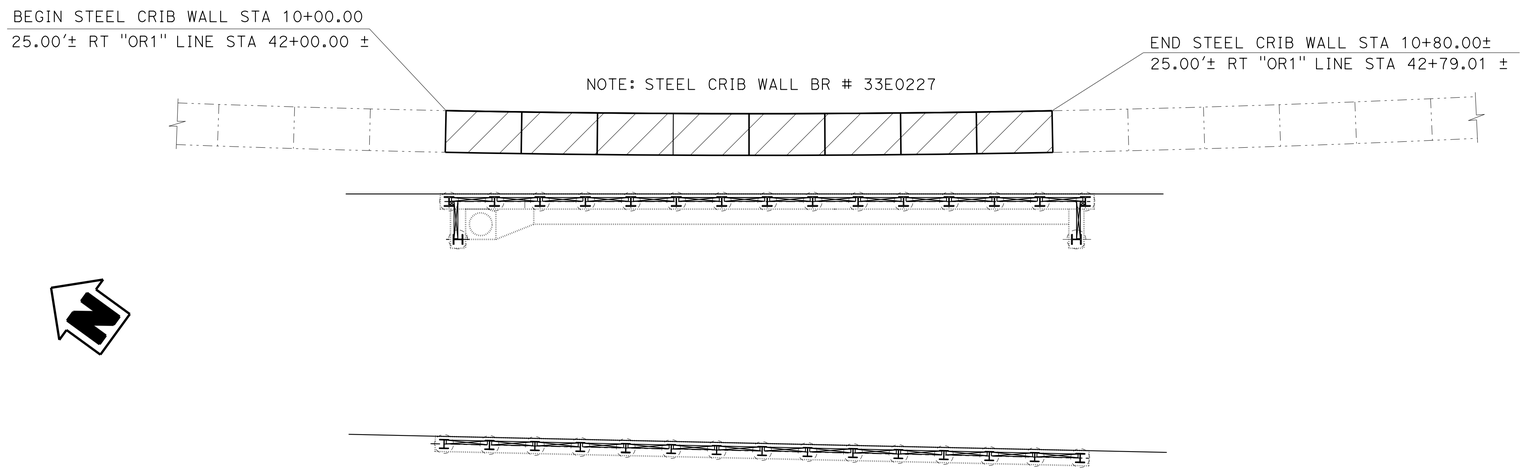
NOTES:

1. For additional details, see "STEEL CRIB WALL DETAILS" sheets.

STEEL CRIB WALL - ELEVATION

1" = 10'





STEEL CRIB WALL - PLAN

1" = 10'

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0227	BROADWAY TERRACE RETAINING WALLS STRUCTURE PLAN NO. 3		
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8			
QUANTITIES	BY John Railey	CHECKED Evan Franciliso						

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
2-23-15	7-8-14	7-23-14	12-5-14	5	27

FILE => 33e-c-sp3-sheet.dgn

USERNAME => s129154 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

CURVE DATA

No.	R	Δ	T	L
Ⓐ	2000.00	17°13'59"	303.06	601.55

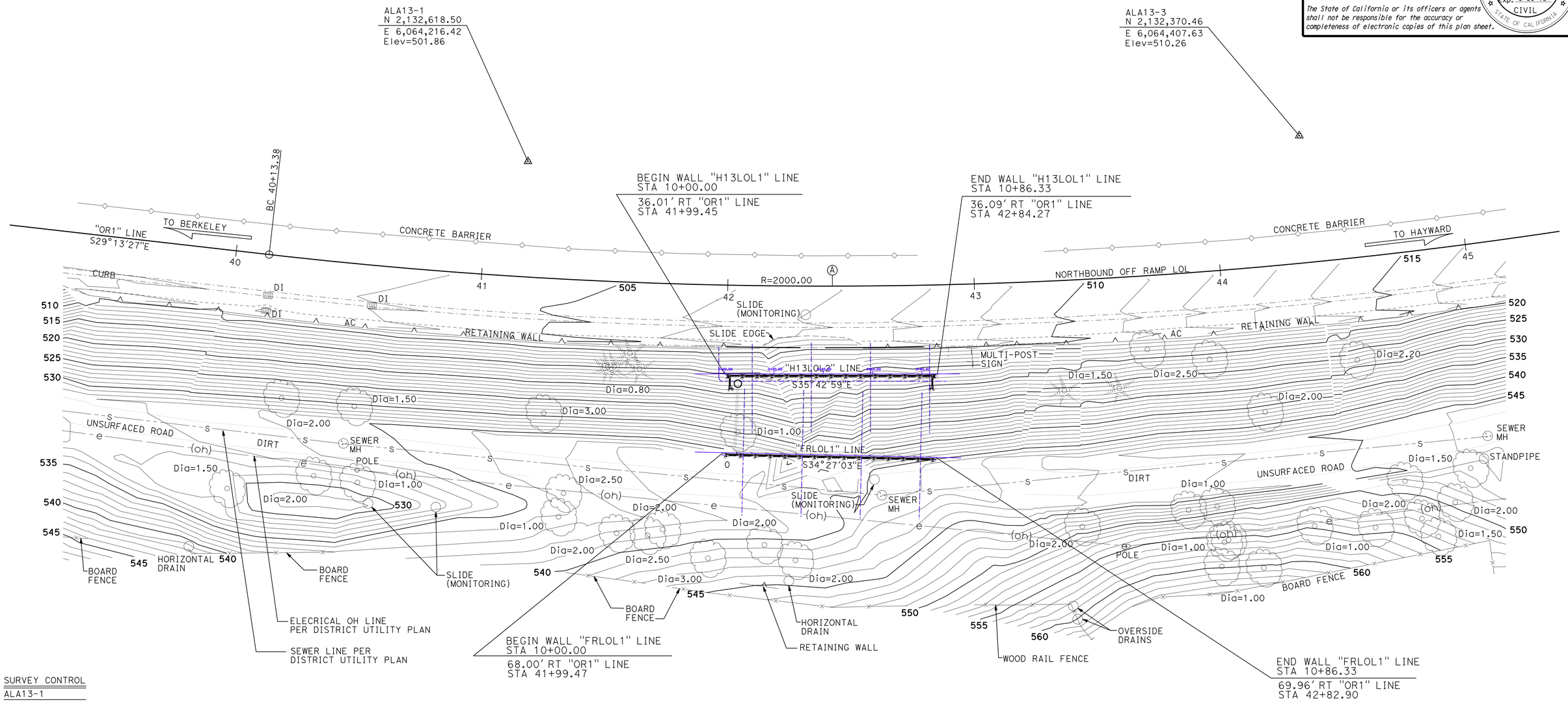
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	43	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti No. C64626 Exp. 6-30-15 CIVIL — STATE OF CALIFORNIA

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



SURVEY CONTROL

ALA13-1

SET COTTON SPINDLE
46.86 FT Lt. "OR1" LINE
Sta. 41+15.91
N 2,132,618.50
E 6,064,216.42
Elev = 501.86

ALA13-3

SET SURVEY MARKER SPIKE
51.58 FT Lt. "OR1" LINE
Sta. 44+37.31
N 2,132,370.46
E 6,064,407.63
Elev = 510.26

PRELIMINARY INVESTIGATION SECTION

SCALE 1"=20'	VERT.DATUM NAVD88	PHOTOGRAMMETRY AS OF: X			
	HORZ.DATUM NAD83 (1991.35)	SURVEYED	BY DISTRICT	CHECKED	BY D. IVY 04/2013
	ALIGNMENT TIES Dist TRAVERSE SHEET	DRAFTED	BY T. ZOLNIKOV 04/2013	CHECKED	BY L. LEW 04/2013

DESIGN	BY Rosa Candiotti	CHECKED John Railey
DETAILS	BY David Elliott	CHECKED John Railey
QUANTITIES	BY John Railey	CHECKED Evan Franciliso

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 33E0126 33E0127
POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS
FOUNDATION PLAN

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3646
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-8-14	12-2-14	2-23-15	4-16-15	6	27

FILE => 33e-e-fp.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

NOTES:

1. Concrete walers may be poured to face of lagging.
2. For "SECTION D-D" and "SECTION E-E", see "SOLDIER PILE WALL WITH WALERS-DETAILS NO. 2" sheet.
3. Bearing plates may be recessed or on face of concrete waler.
4. For Sculpted Shotcrete see, "SCULPTED SHOTCRETE LAYOUT NO. 1", "SCULPTED SHOTCRETE LAYOUT NO. 2", "SCULPTED SHOTCRETE DETAILS NO. 1" and "SCULPTED SHOTCRETE DETAILS NO. 2" sheets.
5. For drainage, see "WALL DRAIN DETAILS" sheets.

(A) Limits of undercoat on all pile surfaces

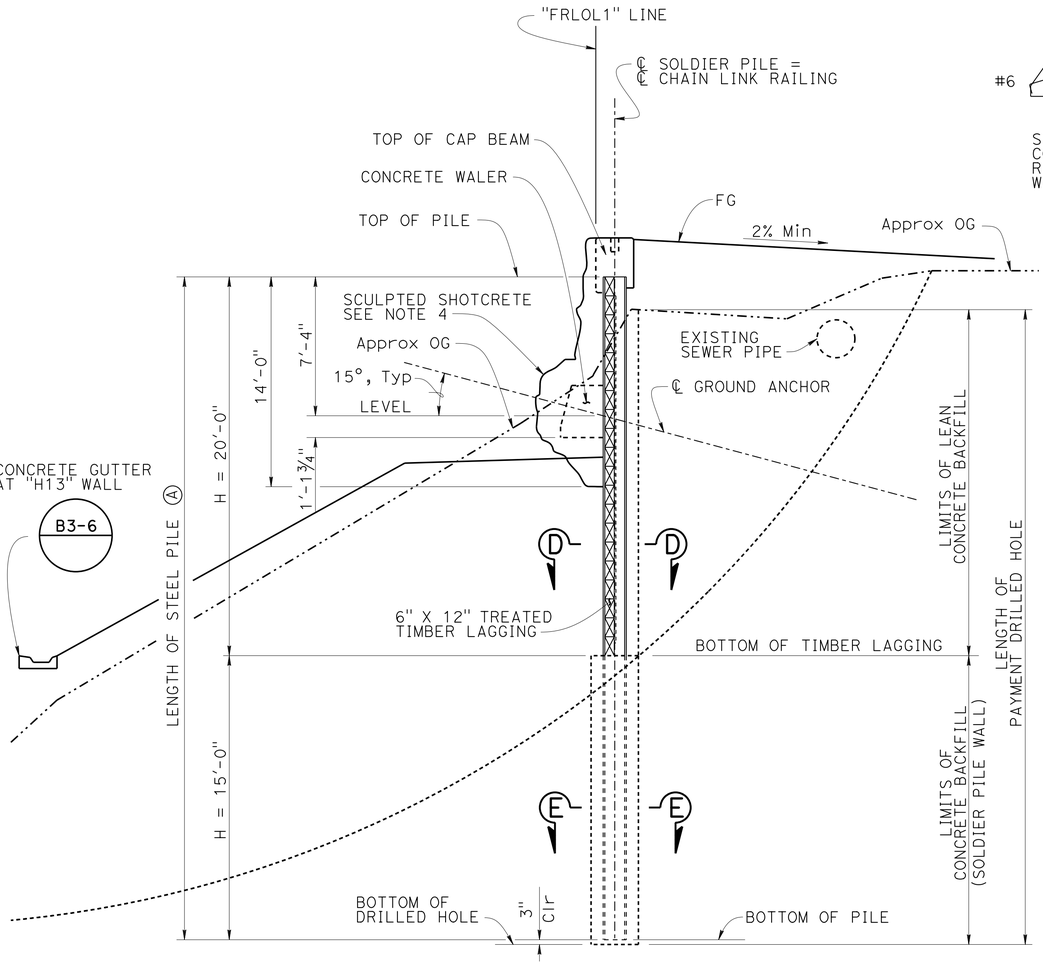
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	44	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti No. C64626 Exp. 6-30-15 CIVIL — STATE OF CALIFORNIA

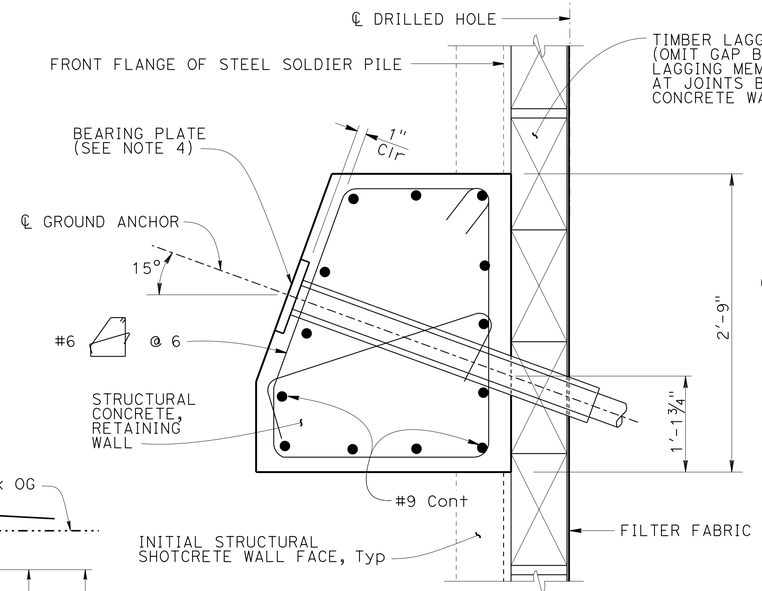
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



FR WALL - TYPICAL SECTION

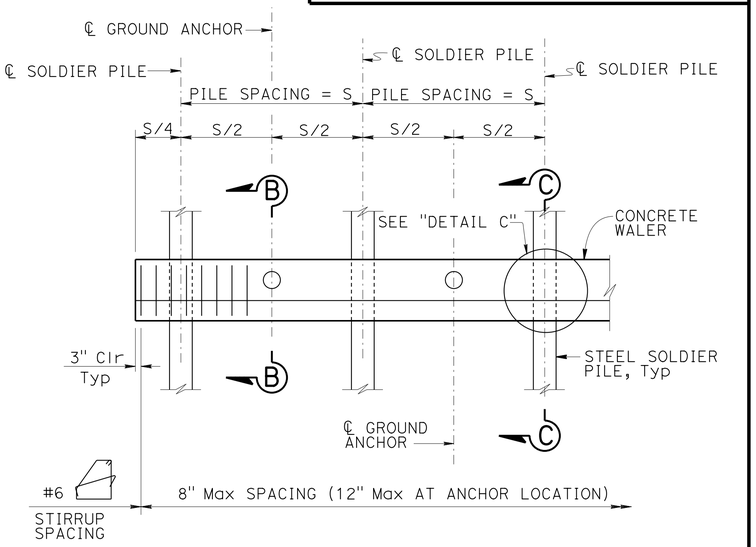
NO SCALE

(BR # 33E0126)



SECTION B-B

1½" = 1'-0"



NOTE: TIMBER LAGGING NOT SHOWN

WALER PART ELEVATION

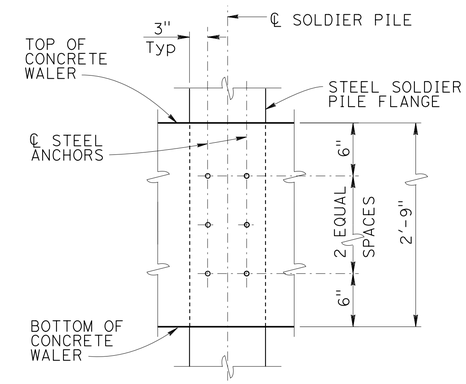
NO SCALE

NOTE:

For details not shown, see "SECTION B-B"

SECTION C-C

1½" = 1'-0"



DETAIL C

NO SCALE

	DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126 33E0127 POST MILE 8.8	BROADWAY TERRACE RETAINING WALLS	
	DETAILS	BY David Elliott	CHECKED John Railey				SOLDIER PILE WALL WITH WALERS DETAILS NO. 1	
	QUANTITIES	BY John Railey	CHECKED Evan Franciliso					

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

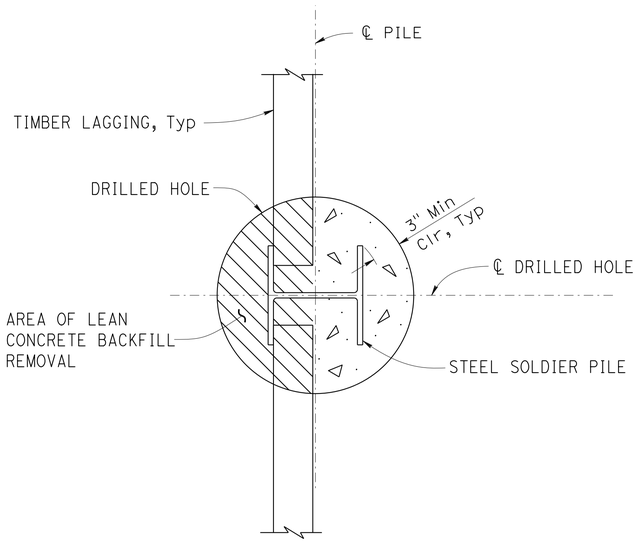
UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
7-17-14	9-9-14	1-21-15	7-8-15	7	27

FILE => 33e-g-spw_walers detail no. 1-sheet.dgn

USERNAME => 81291x4 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

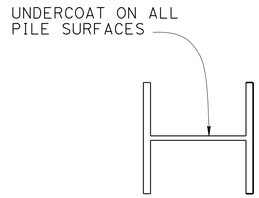


SECTION D-D

NO SCALE

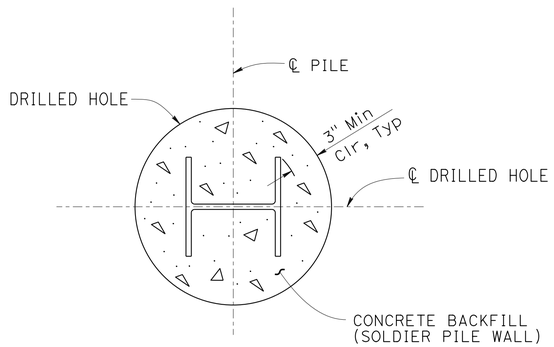
NOTE:

1. For location of Section C-C and Section D-D, see "SOLDIER PILE WALL WITH WALERS DETAILS NO. 1" sheet.



LIMITS OF CLEAN & PAINT STEEL SOLDIER PILE

NO SCALE



SECTION E-E

NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	45	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti No. C64626 Exp. 6-30-15 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.

GENERAL NOTES

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

LIVE LOAD: N/A

SOIL PARAMETERS: (For determination of Design Lateral Earth Pressures)
Backfill soil weight = 135 lb/ft^3
Friction Angle = 10° c = 350 psf
Bedrock Unit Weight = 135 lb/ft^3
Friction Angle = 35°

STEEL: SOLDIER PILES: ASTM A572/A, ASTM 572M Grade 50 Min, or ASTM A36/A36M

REINFORCED CONCRETE: f'c = 4000 psi
fy = 60 ksi

STRUCTURAL SHOTCRETE: f'c = 4000 psi
fy = 60 ksi

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 inches)

Steel = ASTM designation: A416 (High Strength Strands)

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

Steel = ASTM designation: A722 (High Strength Bars)

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

FDL = 100 Kips

FTL = 150 Kips

LL = 80 Kips

SEISMIC LOADING: Soil Profile: Class C
PGA: 0.75g K_h : 0.35g

	BY	CHECKED
DESIGN	Rosa Candiotti	John Railey
DETAILS	David Elliott	John Railey
QUANTITIES	John Railey	Evan Franciliso

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 33E0126 33E0127
POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS

SOLDIER PILE WALL WITH WALERS DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
9-9-14	12-5-14	1-21-15	6-8-14	8	27

FILE => 33e-g-spw_walers detail-no. 2-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	46	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti — No. C64626 — Exp. 6-30-15 — 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.

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 must be determined by the contractor

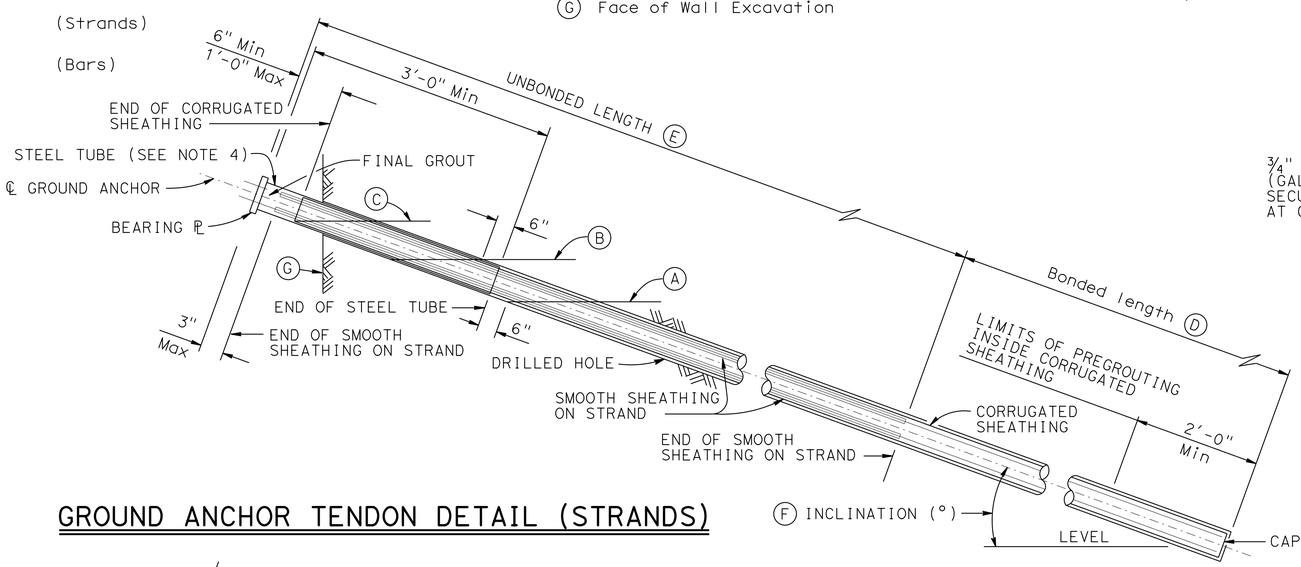
(E) For unbonded length, see PROJECT PLANS

(F) Inclination = 15°

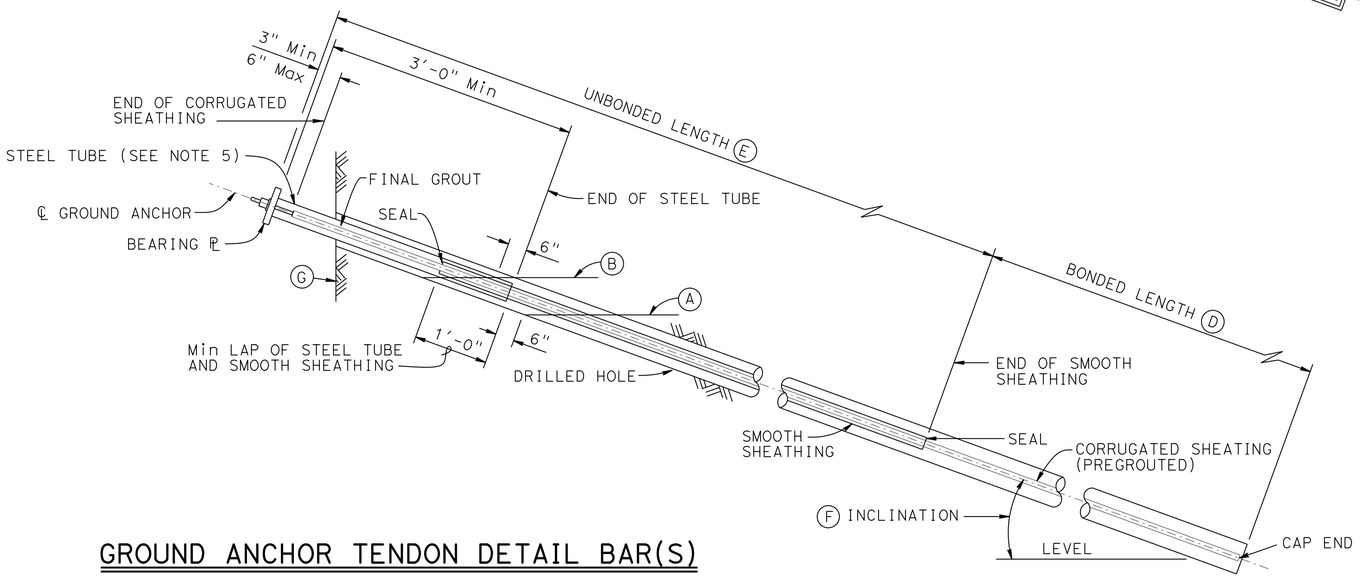
(G) Face of Wall Excavation

NOTES:

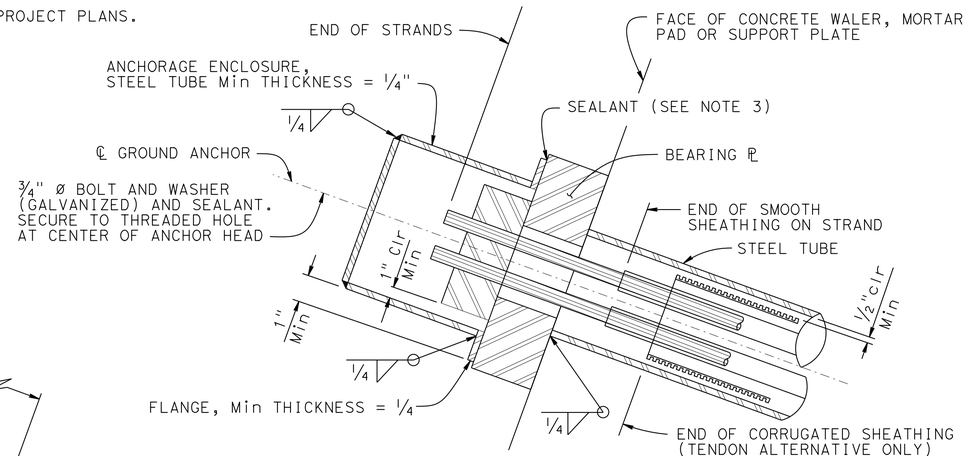
1. Anchorage enclosure must only be used when anchor head assembly is not enclosed in concrete.
2. Anchorage enclosure must have provisions to allow injecting grout at low end and venting at high end. Galvanize after fabrication.
3. Silicone sealant to cover full width of flange.
4. Steel tube (Min thickness = 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.



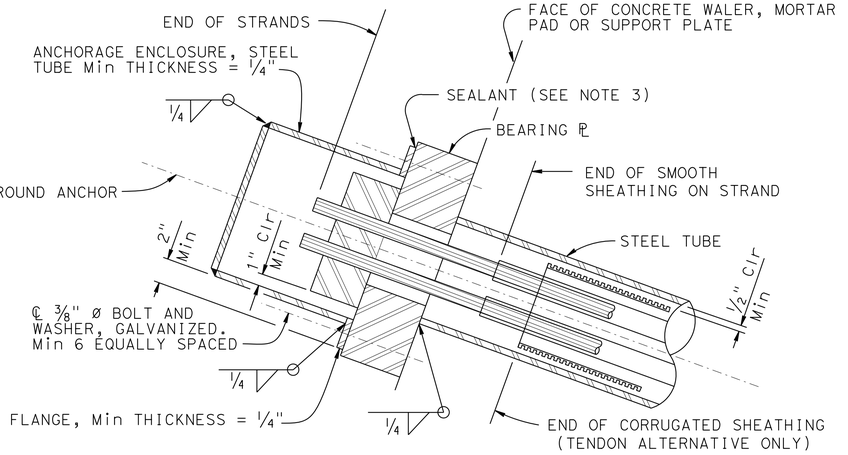
GROUND ANCHOR TENDON DETAIL (STRANDS)



GROUND ANCHOR TENDON DETAIL BAR(S)



ALTERNATIVE X



ALTERNATIVE Y

ANCHORAGE ENCLOSURE DETAILS

NO SCALE

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126	BROADWAY TERRACE RETAINING WALLS	
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8	GROUND ANCHOR DETAILS	
QUANTITIES	BY John Railey	CHECKED Evan Franciliso					

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
10-25-13	10-25-13	6-6-14	.....	9	27

FILE => 33e-h-ground anchor detail-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	47	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

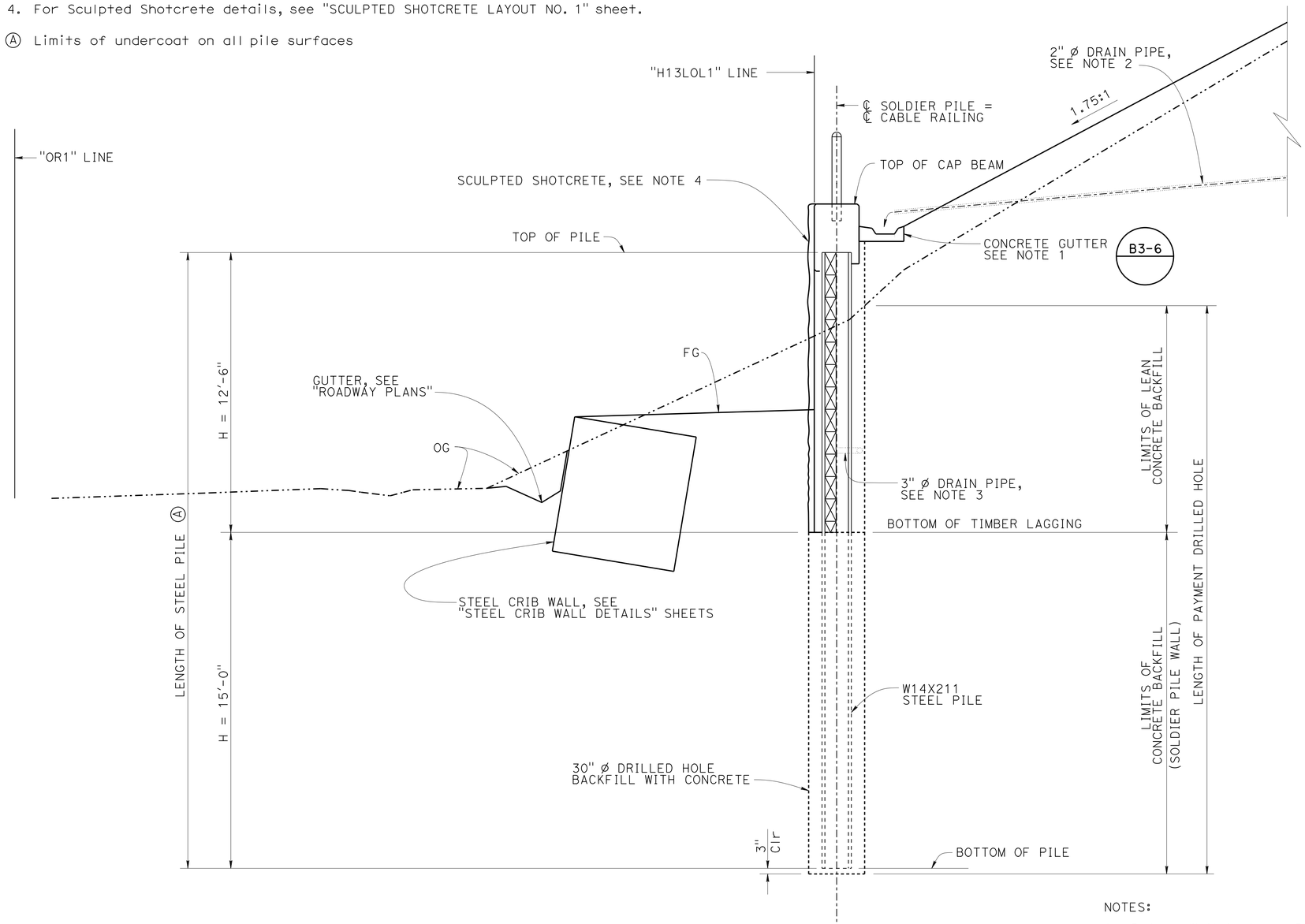
REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti — No. C64626 — Exp. 6-30-15 — CIVIL — STATE OF CALIFORNIA

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.

NOTES:

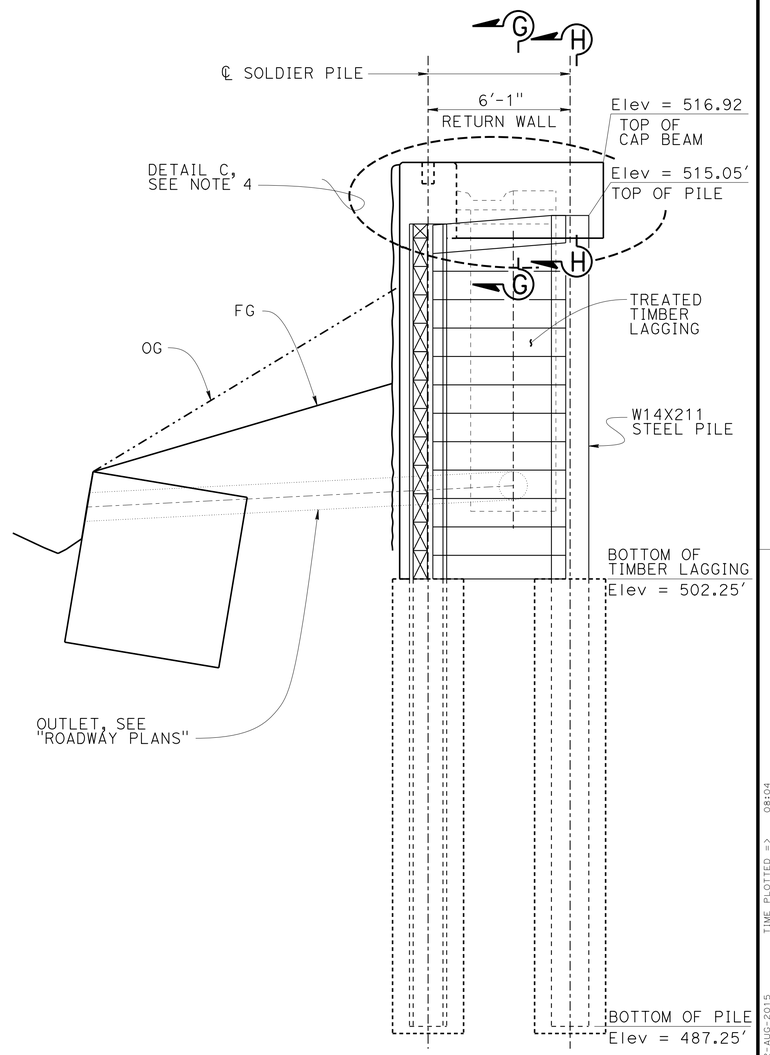
1. Limits of payment for concrete gutter from beginning to end wall. For continuation of gutter, see "ROADWAY PLANS".
2. Total number of drain pipes = 12, water discharges into concrete gutter from "FR WALL", see "STRUCTURE PLAN NO. 1" and "WALL DRAIN DETAILS" sheets.
3. Water discharges from "H13 Wall" drain into type GMP steel pipe inlet as shown on "WALL DRAIN DETAILS NO. 1" sheet.
4. For Sculpted Shotcrete details, see "SCULPTED SHOTCRETE LAYOUT NO. 1" sheet.

Ⓐ Limits of undercoat on all pile surfaces



H13 WALL - TYPICAL SECTION

3/8" = 1'-0"



SECTION A-A

3/8" = 1'-0"

NOTES:

1. Return Wall 1 shown, Return Wall 2 similar.
2. For location of "SECTION A-A", see "STRUCTURE PLAN NO. 2" sheet.
3. For location of "SECTION H-H (H13 WALL)" and "SECTION G-G", see "WALL DETAILS" sheet.
4. For location of "DETAIL C", see "WALL DETAILS" sheet.

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY David Elliott	CHECKED John Railey	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9
QUANTITIES	BY John Railey	CHECKED Evan Franciliso	BRIDGE NO. 33E0127 POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS

SOLDIER PILE WALL WITHOUT WALER DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
2-23-15	1-14-14	12-2-14	1-21-15	10	27

FILE => 33e-k-ts spw_wo_waler_det1-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

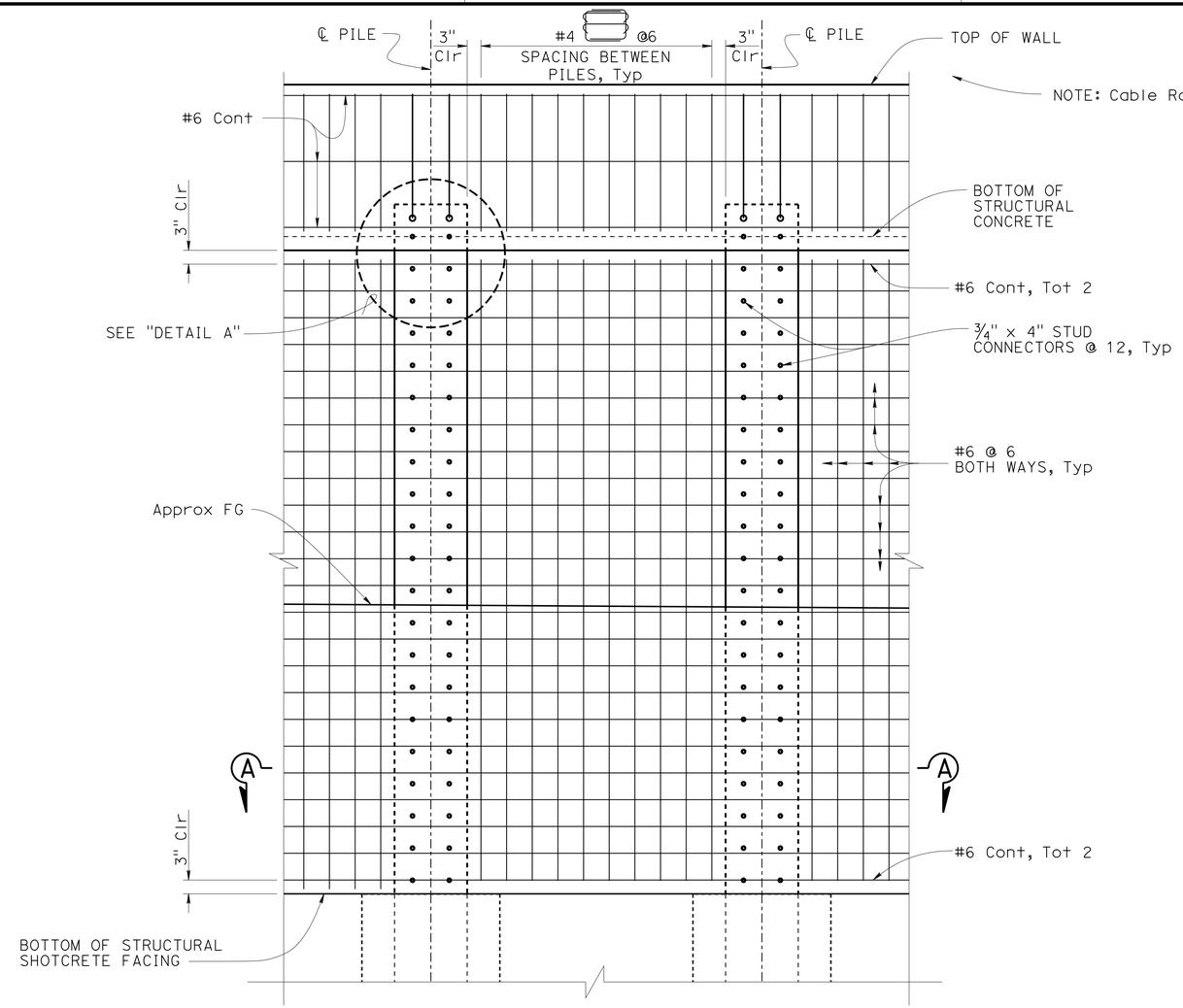
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	48	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

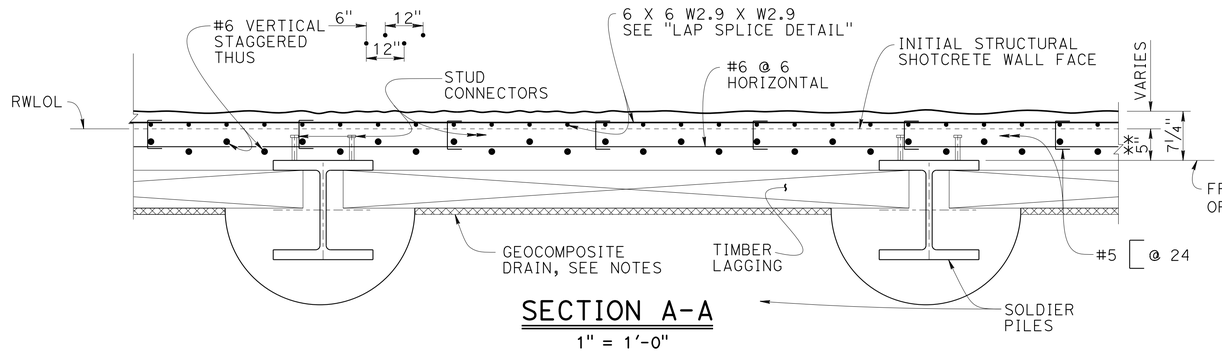
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti — No. C64626 — Exp. 6-30-15 — CIVIL — STATE OF CALIFORNIA



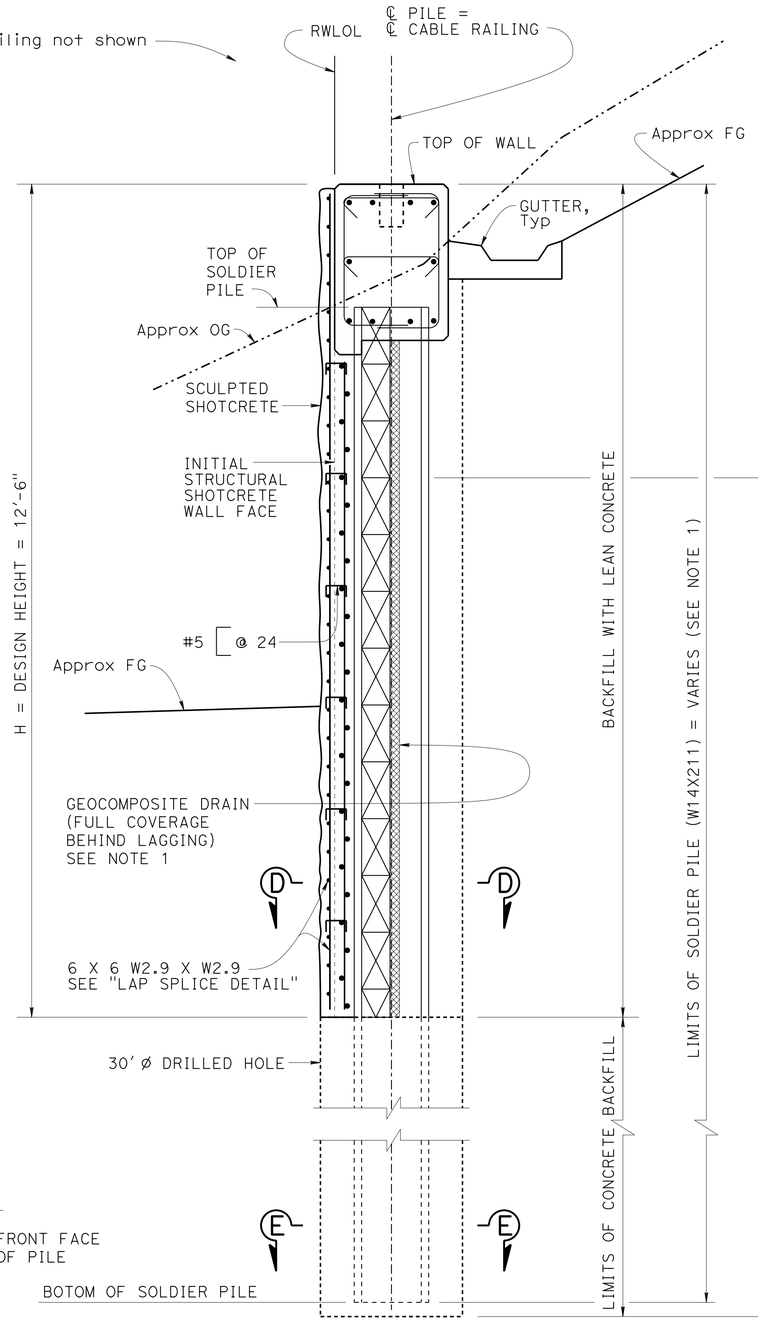
CONCRETE FACING REINFORCEMENT DETAIL

¾" = 1'-0"



SECTION A-A

1" = 1'-0"



TYPICAL SECTION

¾" = 1'-0"

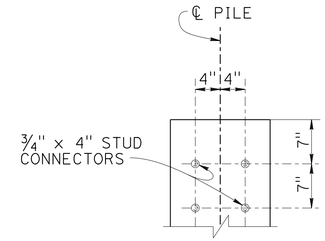
LEGEND:

* SCULPTED SHOTCRETE, see "SCULPTED SHOTCRETE DETAILS NO. 2" sheet

** STRUCTURAL SHOTCRETE

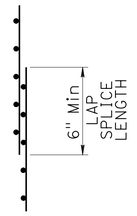
NOTES:

1. See "WALL DRAIN DETAILS NO. 4" sheet.
2. For "SECTION D-D" and "SECTION E-E", see "SOLDIER PILE WALL WITH WALERS DETAILS NO. 2" sheet.



DETAIL A

NO SCALE



LAP SPLICE DETAIL

NO SCALE

DESIGN	BY Rosa Candiotti	CHECKED John Railey	
DETAILS	BY David Elliott	CHECKED John Railey	
QUANTITIES	BY John Railey	CHECKED Evan Franciliso	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 33E0127
POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS

SOLDIER PILE WALL WITHOUT WALER DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
1-9-14	8-8-14	1-21-15	....	11	27

FILE => 33e-k-ts spw_wo_waler_det2-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

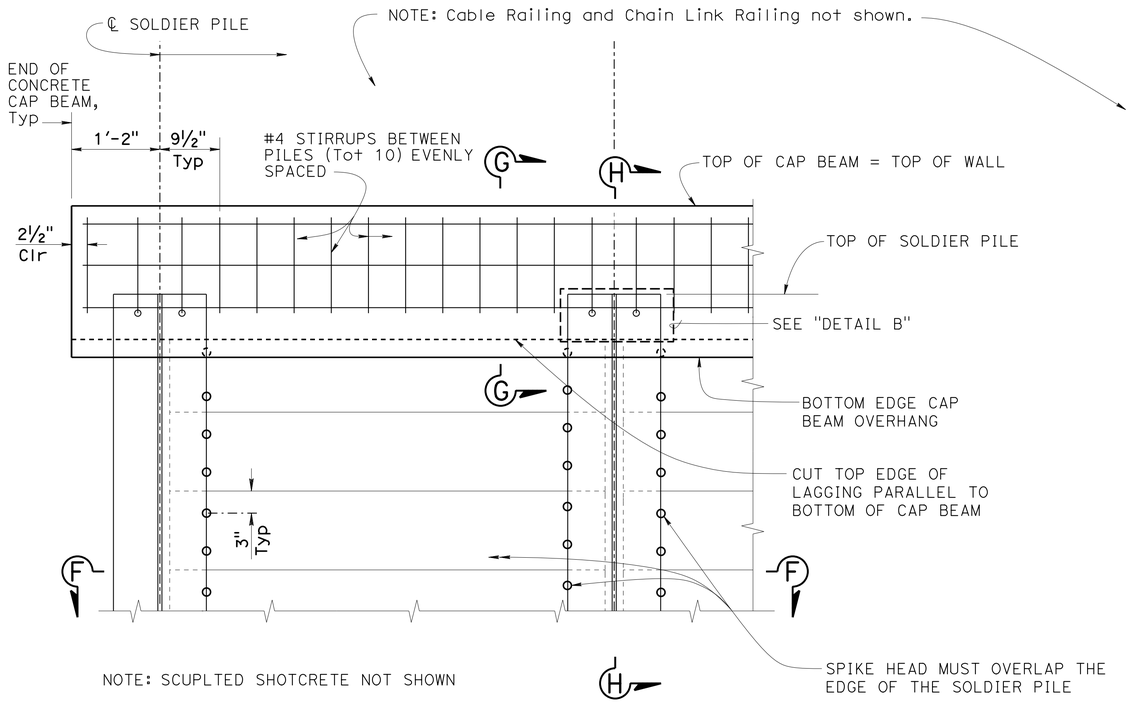
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	49	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
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 — Rosa Candiotti No. C64626 Exp. 6-30-15 CIVIL — STATE OF CALIFORNIA

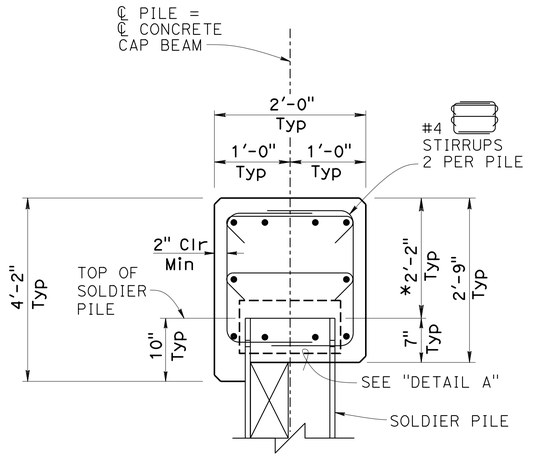


PART ELEVATION
NO SCALE

SECTION F-F
NO SCALE

NOTES:

1. No clipping of timber lagging corners allowed
2. Spikes must not be bent

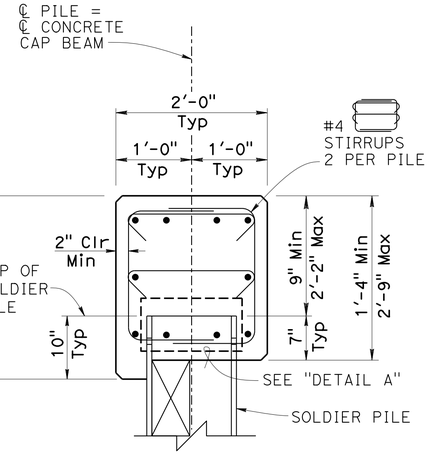


* DIMENSION VARIES FROM 1'-10½" TO 2'-2" AT CAP BEAM ON RETURN WALLS

SECTION H-H (H13 WALL)
1" = 1'-0"

NOTE:

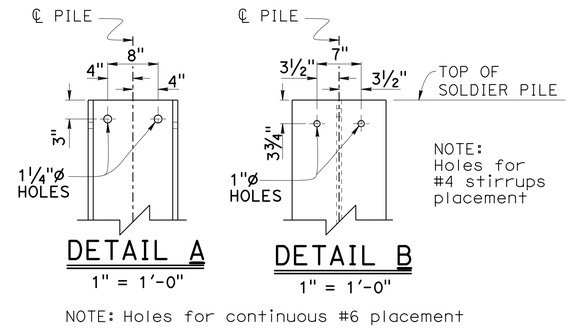
See "TOP OF WALL ELEVATION" ON "H13 WALL - PILE DATA TABLE" ON "INDEX TO PLANS" sheet.



SECTION H-H (FR WALL)
1" = 1'-0"

NOTE:

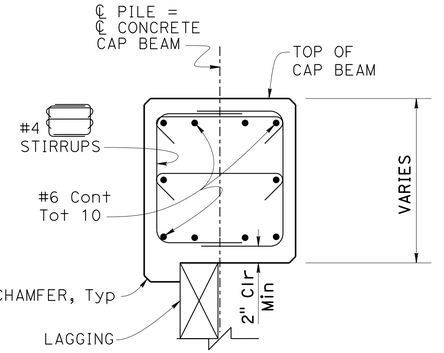
See "TOP OF WALL ELEVATION" ON "FR WALL - PILE DATA TABLE" ON "INDEX TO PLANS" sheet.



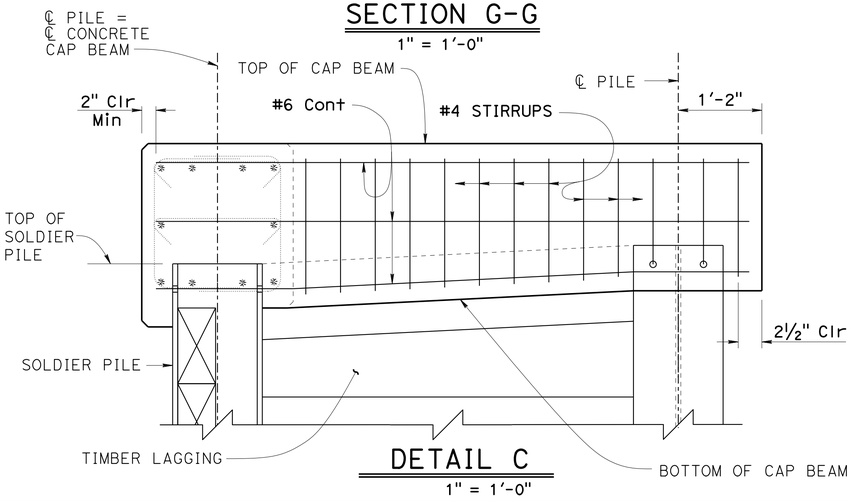
DETAIL A
1" = 1'-0"

DETAIL B
1" = 1'-0"

NOTE: Holes for continuous #6 placement



SECTION G-G
1" = 1'-0"



DETAIL C
1" = 1'-0"

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126 33E0127	BROADWAY TERRACE RETAINING WALLS
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8	WALL DETAILS
QUANTITIES	BY John Railey	CHECKED Evan Franciliso				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
7-8-14	7-17-14	1-28-15	2-23-15	12	27

FILE => 33e-r-wall detail-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

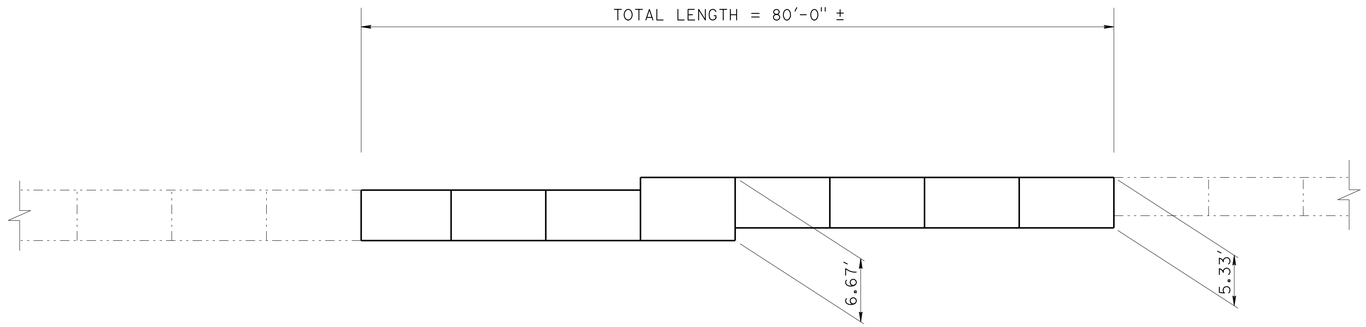
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	50	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Rosa Candiotti
No. C64626
Exp. 6-30-15
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.



DATUM Elev = 475.00'

STEEL CRIB WALL DEVELOPED ELEVATION

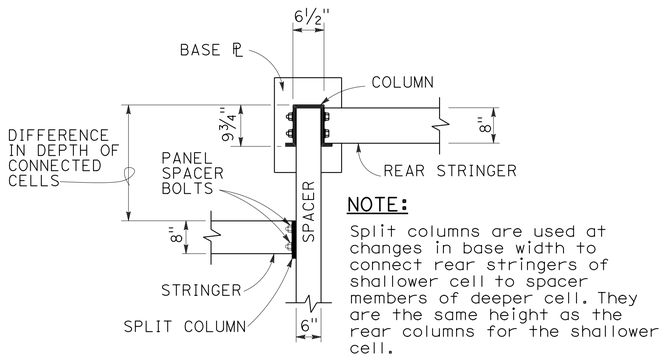
1/8" = 1'-0"

(BR # 33E0227)

NOTES:

1. For additional details, see "STEEL CRIB WALL DETAILS NO. 2", "STEEL CRIB WALL DETAILS NO. 3", and "STEEL CRIB WALL DETAILS NO. 4" sheets.

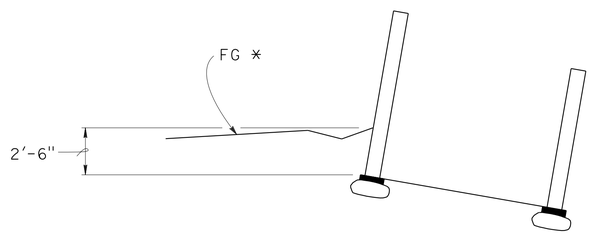
* Match existing OG



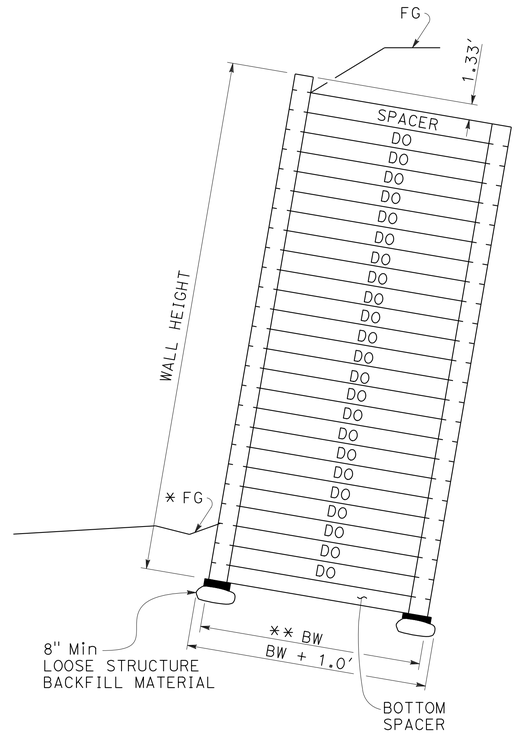
NOTE:

Split columns are used at changes in base width to connect rear stringers of shallower cell to spacer members of deeper cell. They are the same height as the rear columns for the shallower cell.

DETAIL
SPLIT COLUMN ATTACHMENT
NO SCALE



EMBEDMENT DETAIL
NO SCALE



** BW = 5'-6"

WALL SECTION
NO SCALE

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126 33E0127	BROADWAY TERRACE RETAINING WALLS	
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8	STEEL CRIB WALL DETAILS NO. 1	
QUANTITIES	BY John Railey	CHECKED Evan Franciliso					

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-3-15	6-13-14	7-8-14	12-2-14	13	27

FILE => 33e-r-wall df-steel crib wall det1-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	51	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti No. C64626 Exp. 6-30-15 CIVIL — STATE OF CALIFORNIA

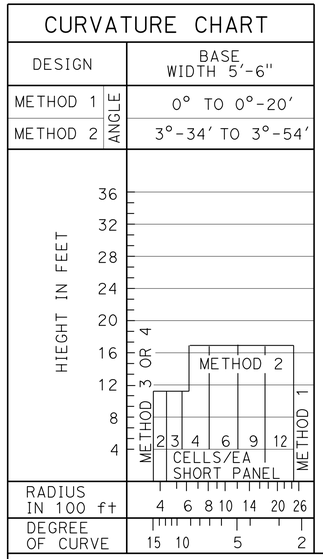
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

STRINGER MEMBERS REQUIRED PER CELL

STANDARD FOR STRAIGHT			SHORT IN FRONT			SHORT IN REAR		
WALL HEIGHT (ft)	0.064"	St'r St'f	St'd	SHORT	Sh't St'r St'f	St'd	SHORT	St'd St'r St'f
4.00	3	1	1	2	1	2	1	1
5.33	5	1	2	3	1	3	2	1
6.67	7	1	3	4	1	4	3	1
8.00	9	1	4	5	1	5	4	1
9.33	11	1	5	6	1	6	5	1
10.67	13	1	6	7	1	7	6	1
12.00	15	1	7	8	1	8	7	1
13.33	17	1	8	9	1	9	8	1
14.67	19	1	9	10	1	10	9	1
16.00	21	1	10	11	1	11	10	1
17.33	23	1	11	12	1	12	11	1
18.67	25	1	12	13	1	13	12	1
20.00	27	1	13	14	1	14	13	1
21.33	29	1	14	15	1	15	14	1
22.67	31	1	15	16	1	16	15	1
24.00	33	1	16	17	1	17	16	1
25.33	35	1	17	18	1	18	17	1
26.67	37	1	18	19	1	19	18	1
28.00	39	1	19	20	1	20	19	1
29.33	41	1	20	21	1	21	20	1
30.67	43	1	21	22	1	22	21	1
32.00	45	1	22	23	1	23	22	1
33.33	47	1	23	24	1	24	23	1
34.67	49	1	24	25	1	25	24	1
36.00	51	1	25	26	1	26	25	1

NOTE: This table applies only to stringers for both front and rear of a 5' length of wall.

CURVATURE CHART



EXAMPLE - To build an 8' high wall on a 2000' radius, use Method 1 with one set of short stringers in each group of 12 panel sections.

LEGEND

St'r = STRINGERS
St'f = STIFFENER
St'd = STANDARD
Sh't = SHORT LENGTH OF 4'-2¼"

OTHER MEMBERS REQUIRED PER CELL

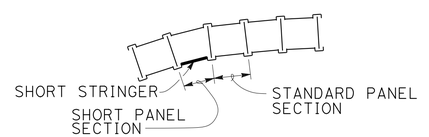
WALL HEIGHT	BEARING PLATE	FRONT COLUMN HEIGHT (ft)				REAR COLUMN HEIGHT (ft)				TOTAL COLUMN LENGTH (ft)	COLUMN SPLICE	COLUMN CAP	SPACERS (BY LENGTH)				BOTTOM SPACERS (BY LENGTH)				WALL HEIGHT (ft)
		1st LIFT	2nd LIFT	3rd LIFT	TOTAL HEIGHT	1st LIFT	2nd LIFT	3rd LIFT	TOTAL HEIGHT				7.4'	9.6'	11.8'	14.0'	7.4'	9.6'	11.8'	14.0'	
ft	16" x 22"																				
4.00	2	4.00			4.00	2.67			2.67	6.67		2	1	1	1		1	1	1		4.00
5.33	2	5.33			5.33	4.00			4.00	9.33		2	2	2	2		1	1	1		5.33
6.67	2	6.67			6.67	5.33			5.33	12.00		2	3	3	3		1	1	1		6.67
8.00	2	8.00			8.00	6.67			6.67	14.67		2	4	4	4		1	1	1		8.00
9.33	2	9.33			9.33	8.00			8.00	17.33		2	5	5	5		1	1	1		9.33
10.67	2	10.67			10.67	9.33			9.33	20.00		2	6	6	6		1	1	1		10.67
12.00	2	12.00			12.00	10.67			10.67	22.67		2	7	7	7		1	1	1		12.00
13.33	2	8.00	5.33		13.33	12.00			12.00	25.33	1	2	8	8	8		1	1	1		13.33
14.67	2	8.00	6.67		14.67	8.00	5.33		13.33	28.00	2	2	9	9	9		1	1	1		14.67
16.00	2	8.00	8.00		16.00	8.00	6.67		14.67	30.67	2	2	10	10	10	10	1	1	1	1	16.00
17.33	2	12.00	5.33		17.33	8.00	8.00		16.00	33.33	2	2	11	11	11	11	1	1	1	1	17.33
18.67	2	12.00	6.67		18.67	12.00	5.33		17.33	36.00	2	2	12	12	12	12	1	1	1	1	18.67
20.00	2	12.00	8.00		20.00	12.00	6.67		18.67	38.67	2	2	13	13	13	13	1	1	1	1	20.00
21.33	2	12.00	9.33		21.33	12.00	8.00		20.00	41.33	2	2	14	14	14	14	1	1	1	1	21.33
22.67	2	12.00	10.67		22.67	12.00	9.33		21.33	44.00	2	2	15	15	15	15	1	1	1	1	22.67
24.00	2	12.00	12.00		24.00	12.00	10.67		22.67	46.67	2	2	16	16	16	16	1	1	1	1	24.00
25.33	2	12.00	8.00	5.33	25.33	12.00	12.00		24.00	49.33	3	2	17	17	17	17	1	1	1	1	25.33
26.67	2	12.00	8.00	6.67	26.67	12.00	8.00	5.33	25.33	52.00	4	2		18	18	18		1	1	1	26.67
28.00	2	12.00	8.00	8.00	28.00	12.00	8.00	6.67	26.67	54.67	4	2		19	19	19		1	1	1	28.00
29.33	2	12.00	12.00	5.33	29.33	12.00	8.00	8.00	28.00	57.33	4	2		20	20	20		1	1	1	29.33
30.67	2	12.00	12.00	6.67	30.67	12.00	12.00	5.33	29.33	60.00	4	2		21	21	21		1	1	1	30.67
32.00	2	12.00	12.00	8.00	32.00	12.00	12.00	6.67	30.67	62.67	4	2		22	22	22		1	1	1	32.00
33.33	2	12.00	12.00	9.33	33.33	12.00	12.00	8.00	32.00	65.33	4	2		23	23	23		1	1	1	33.33
34.67	2	12.00	12.00	10.67	34.67	12.00	12.00	9.33	33.33	68.00	4	2		24	24	24		1	1	1	34.67
36.00	2	12.00	12.00	12.00	36.00	12.00	12.00	10.67	34.67	70.67	4	2			25	25			1	1	36.00

NOTE: This table applies only to standard panel sections for a 5' length of wall.

METHOD 1

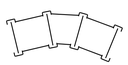
Use normal play in bolt holes of standard parts. Maximum deflection shown at top of table can be obtained at each column. Chart shows smallest radius which can be used for each design of wall.

METHOD 2



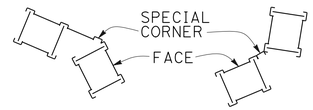
Use short stringer members (4'-2¼" face or rear) in addition to play in bolt holes. Curvature chart indicates number of cells in each group, including a modified cell, necessary to build a curved wall at a required height and radius.

METHOD 3



Use stringers field cut (with saber saw) and drilled to fit wall dimensions as it is assembled. Any radius can be fitted on any height of wall. Generally standard panels are used between field cut panels. With very short radii the spacing of the spacer member sections can be reduced so that two pieces can be cut from each stringer. This method is applicable to large single deflections.

METHOD 4



Use special shop fabricated corner connection pieces. Batter, height, angle, direction of turn, and base width determine the dimension limitations applicable on this method. Manufacturer should be contacted before detailing design for a specific turn. Rear stringers are omitted and it may be necessary to increase the base width of adjacent cells to provide needed stability. This method is an alternative for Method 3.

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY David Elliott	CHECKED John Railey	
QUANTITIES	BY John Railey	CHECKED Evan Franciliso	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 33E0126 33E0127
POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS
STEEL CRIB WALL DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
6-1-14	3-3-15	....	....	14	27

FILE => 33e-r-wall df-steel crib wall det2-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

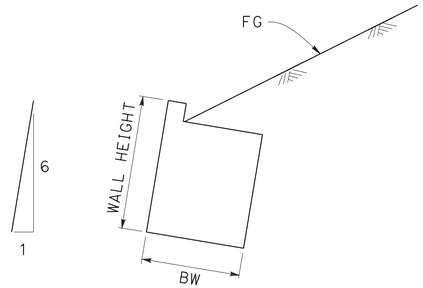
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	52	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Rosa Candiotti
No. C64626
Exp. 6-30-15
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.



DETAIL OF DESIGN LOADING CASE

NOTES:

1. DESIGN:

   AASHTO LRFD Bridge Design Specifications, 4th edition with the California Amendments.

2. FOUNDATION:

   Nominal soil bearing resistance, design lateral loads, settlement, and overall slope stability must be determined by analysis based on a foundation site investigation.

   Walls must not be founded in original ground having an allowable bearing resistance of less than 3.0 ksf. Consideration should be given to removal and replacement of unsuitable material with "Structure Backfill" material.

3. DRAINAGE:

   See "WALL DRAIN DETAILS NO.1" and "WALL DRAIN DETAILS NO. 2" sheets.

4. MATERIAL SPECIFICATIONS:

   Steel sheets:
   AASHTO M218
   45,000 psi Ultimate
   33,000 psi Yield
   @ 20% Elongation
   Bolts:
   ASTM A307 Grade A

LEGEND

BW - BASE WIDTH

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126 33E0127 POST MILE 8.8
DETAILS	BY David Elliott	CHECKED John Railey			
QUANTITIES	BY John Railey	CHECKED Evan Franciliso			

BROADWAY TERRACE RETAINING WALLS
STEEL CRIB WALL DETAILS NO. 3

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
6-13-14	6-13-14	9-30-14	3-3-15	15	27

FILE => 33e-r-wall df-steel crib wall det3-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

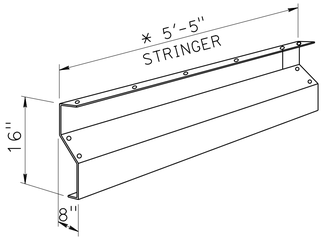
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	53	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

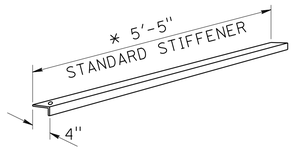
4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Rosa Candiotti
No. C64626
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

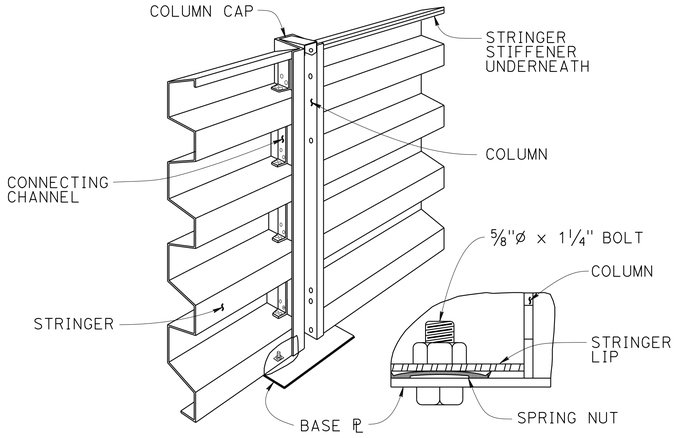
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



STRINGER-0.109"
NO SCALE

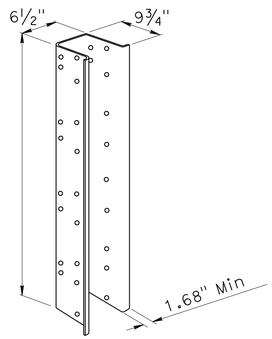


STRINGER STIFFENER-0.168"
NO SCALE

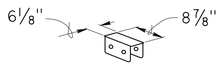


CRIB ASSEMBLY FRONT COLUMN
NO SCALE
NOTE: Rear Column Similar

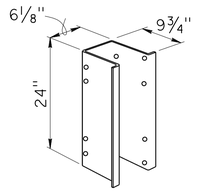
NOTE:
Before setting base plate, insert bolt and fasten with spring nut.



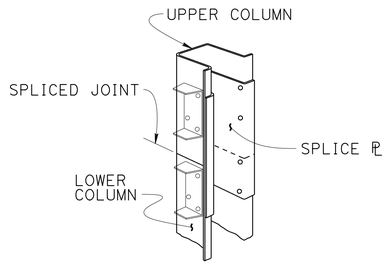
COLUMN-0.168"
NO SCALE



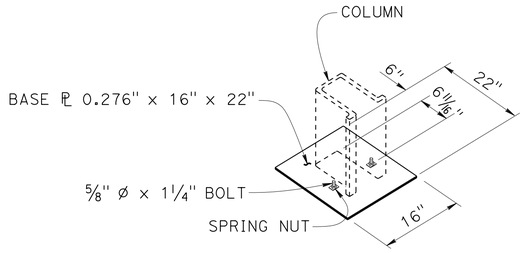
COLUMN CAP-0.109"
NO SCALE



COLUMN SPLICE PLATE-0.138"
NO SCALE



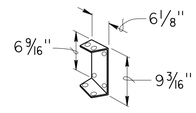
ASSEMBLY AT COLUMN SPLICE
NO SCALE



BASE PLATE ARRANGEMENT
NO SCALE

NOTES:

1. All Components of Facing Assembly must maintain plate thicknesses as shown. All other dimensions shall significantly match the existing Crib Wall dimensions.



CONNECTING CHANNEL-0.168"
NO SCALE

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126 33E0127
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8
QUANTITIES	BY John Railey	CHECKED Evan Franciliso			

BROADWAY TERRACE RETAINING WALLS
STEEL CRIB WALL DETAILS NO. 4

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES			SHEET	OF
7-8-14	----	6-18-14	6-19-14	16	27

FILE => 33e-r-wall df-steel crib wall det4-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

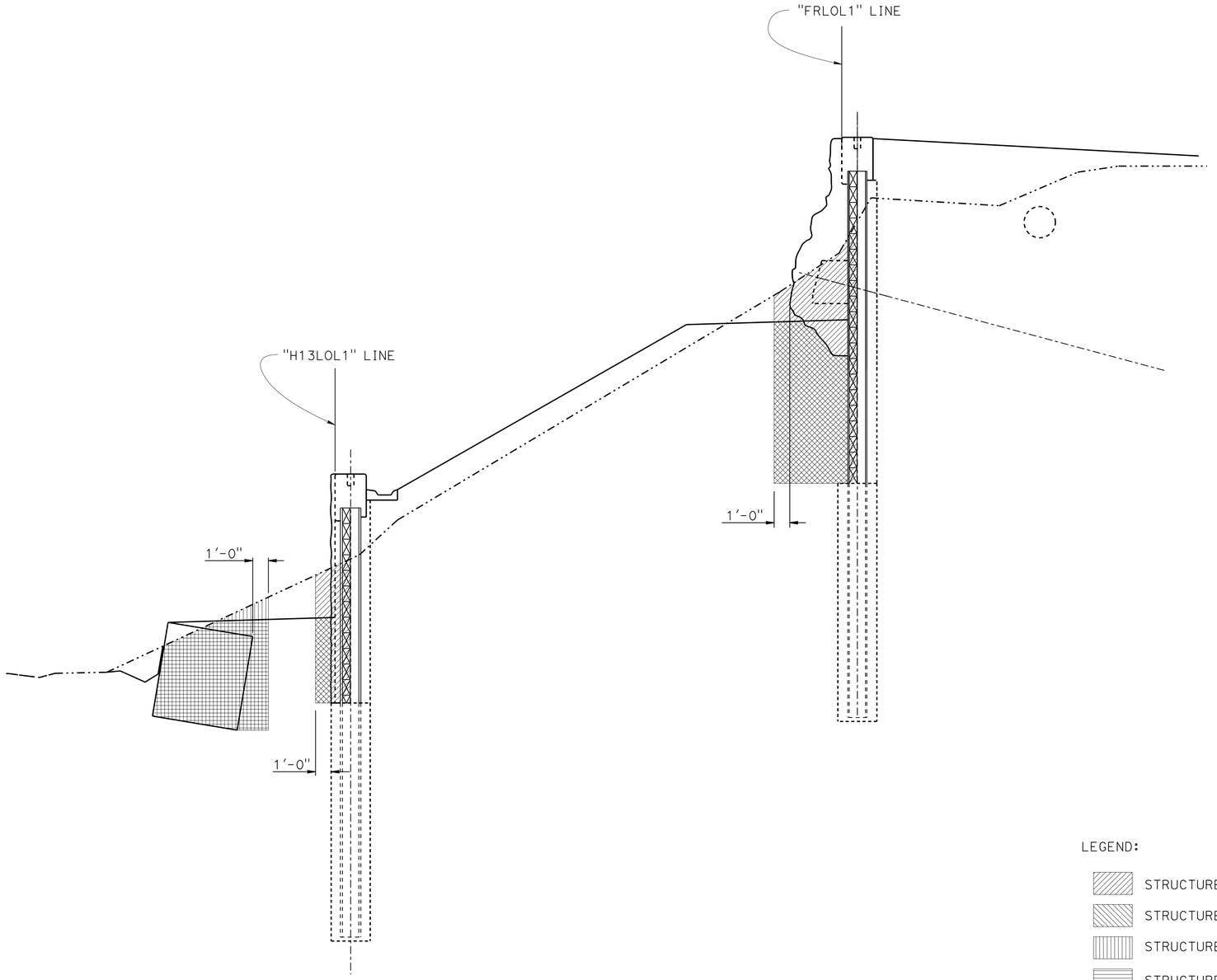
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	54	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Rosa Candiotti
No. C64626
Exp. 6-30-15
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.



LEGEND:

- STRUCTURE EXCAVATION (SOLDIER PILE WALL)
- STRUCTURE BACKFILL (SOLDIER PILE WALL)
- STRUCTURE EXCAVATION (CRIB WALL)
- STRUCTURE BACKFILL (CRIB WALL)

LIMITS OF EXCAVATION AND BACKFILL

1/4" = 1'-0"

	BY	CHECKED
DESIGN	Rosa Candiotti	John Railey
DETAILS	David Elliott	John Railey
QUANTITIES	John Railey	Evan Franciliso

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 33E0127
POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS
EXCAVATION AND BACKFILL DETAILS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
7-9-14	7-17-14	7-22-14	1-22-15	17	27

FILE => 33e-r-wall dg_excav_bkfill_det-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	55	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

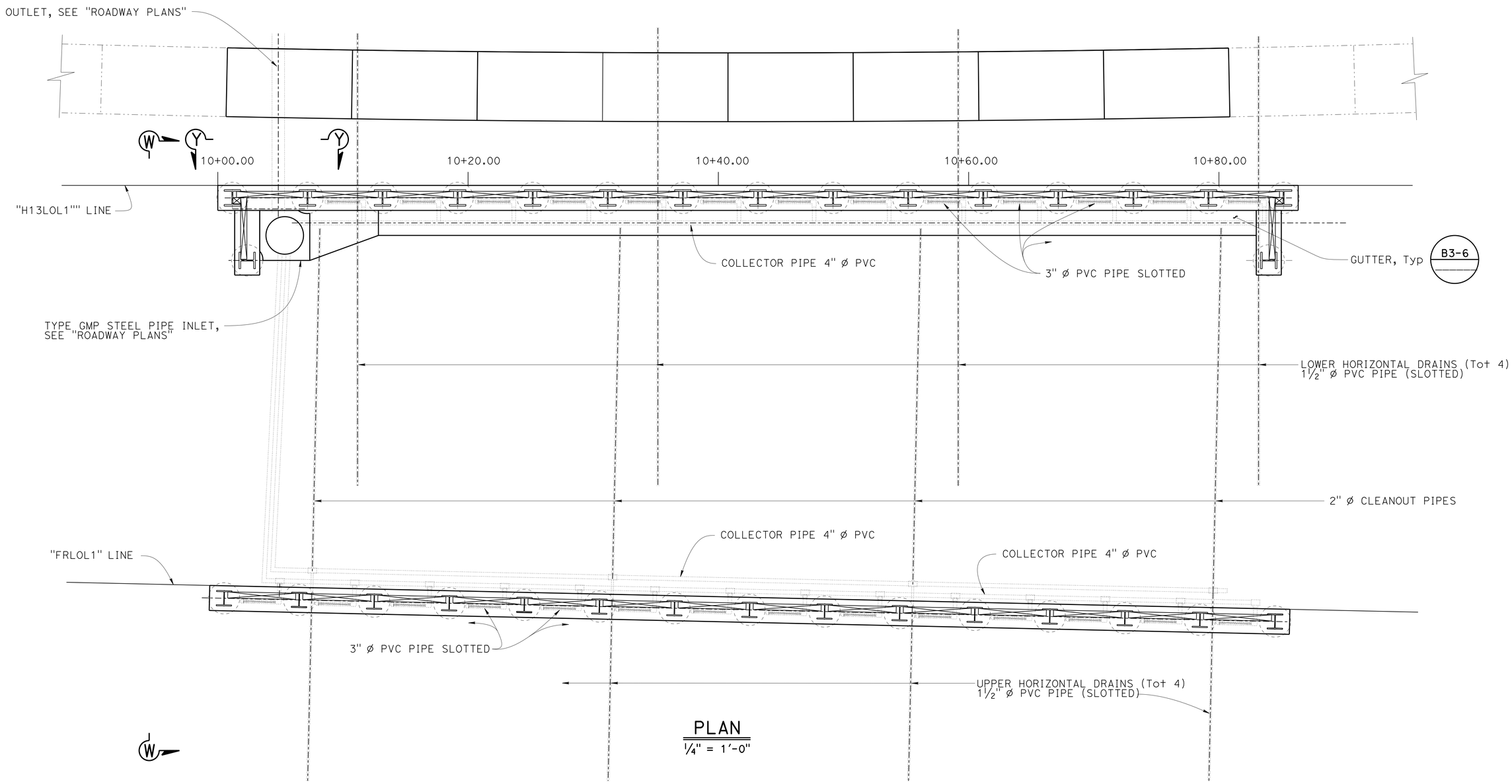
4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Rosa Candiotti
No. C64626
Exp. 6-30-15
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.

NOTES:

1. For "Section W-W", see "WALL DRAIN DETAILS NO. 2" sheet.
2. For "VIEW Y-Y", see "WALL DRAIN DETAILS NO. 2" sheet.



PLAN
¼" = 1'-0"

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. VARIES
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8
QUANTITIES	BY John Railey	CHECKED Evan Franciliso			

BROADWAY TERRACE RETAINING WALLS
WALL DRAIN DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
9-30-14	12-2-14	1-22-15	2-24-15	18	27

FILE => 33e-r-wall drain detail no. 1-sheet.dgn

DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:04
USERNAME => s129144

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	56	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

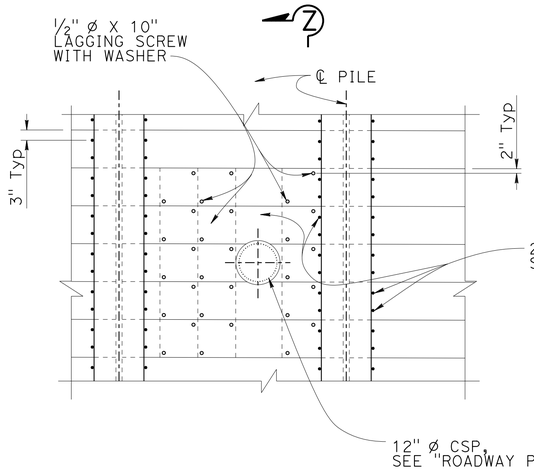
4-27-15
PLANS APPROVAL DATE

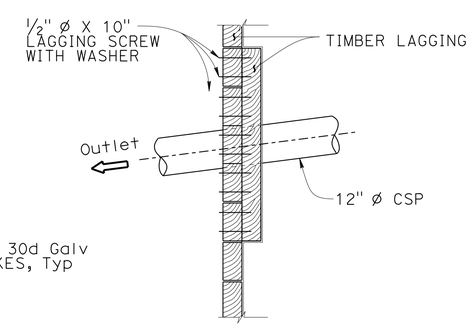
REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti, No. C64626, Exp. 6-30-15, CIVIL, STATE OF CALIFORNIA

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.

NOTES:

1. For location of "VIEW Y-Y", SEE "WALL DRAIN DETAILS NO. 1" sheet.





SECTION Z-Z
½" = 1'-0"

VIEW Y-Y
½" = 1'-0"

SECTION W-W
¼" = 1'-0"

DETAIL Z
¾" = 1'-0"

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. VARIES	BROADWAY TERRACE RETAINING WALLS
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8	WALL DRAIN DETAILS NO. 2
QUANTITIES	BY John Railey	CHECKED Evan Franciliso				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
7-8-14	9-10-14	1-22-15	2-24-15	19	27

FILE => 33e-r-wall drain detail no. 2-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05

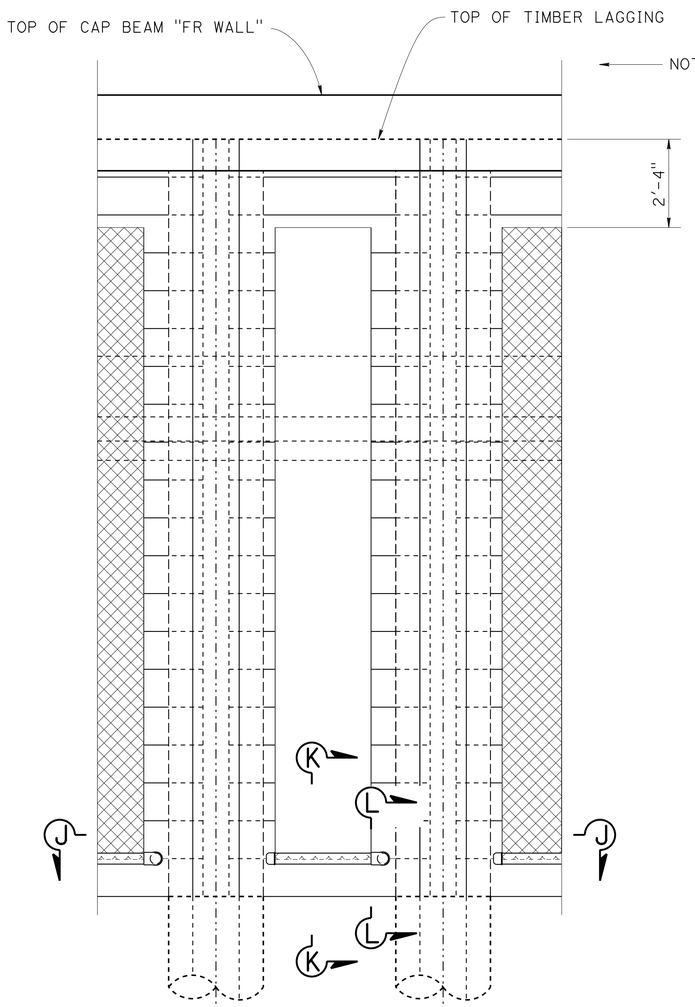
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	57	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

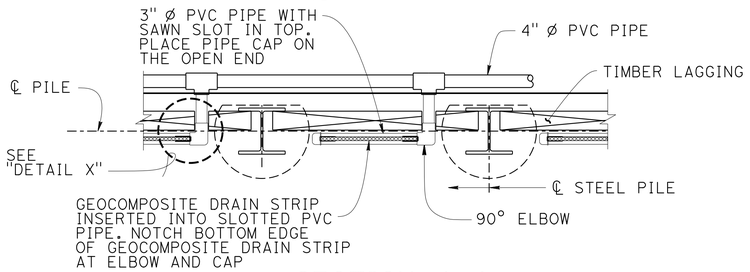
4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti — No. C64626 — Exp. 6-30-15 — CIVIL — STATE OF CALIFORNIA

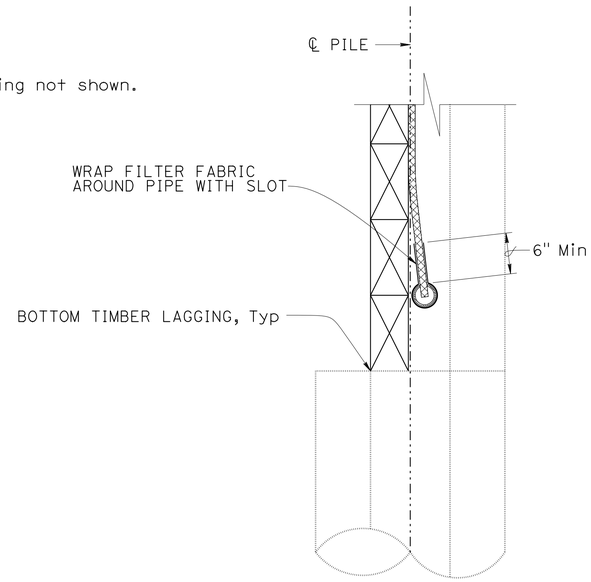
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



PART ELEVATION WALL DRAIN - FR WALL
½" = 1'-0"

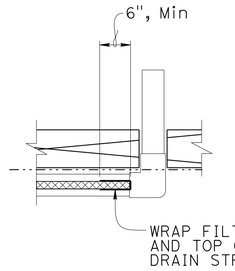


SECTION J-J
½" = 1'-0"



SECTION K-K
1' = 1'

SECTION L-L
1' = 1'



DETAIL X
1' = 1'

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. VARIES	BROADWAY TERRACE RETAINING WALLS	
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8	WALL DRAIN DETAILS NO. 3	
QUANTITIES	BY John Railey	CHECKED Evan Franciliso					

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
10-9-13	10-25-13	4-18-14	4-29-14	20	27

FILE => 33e-r-wall drain detail no. 3-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05

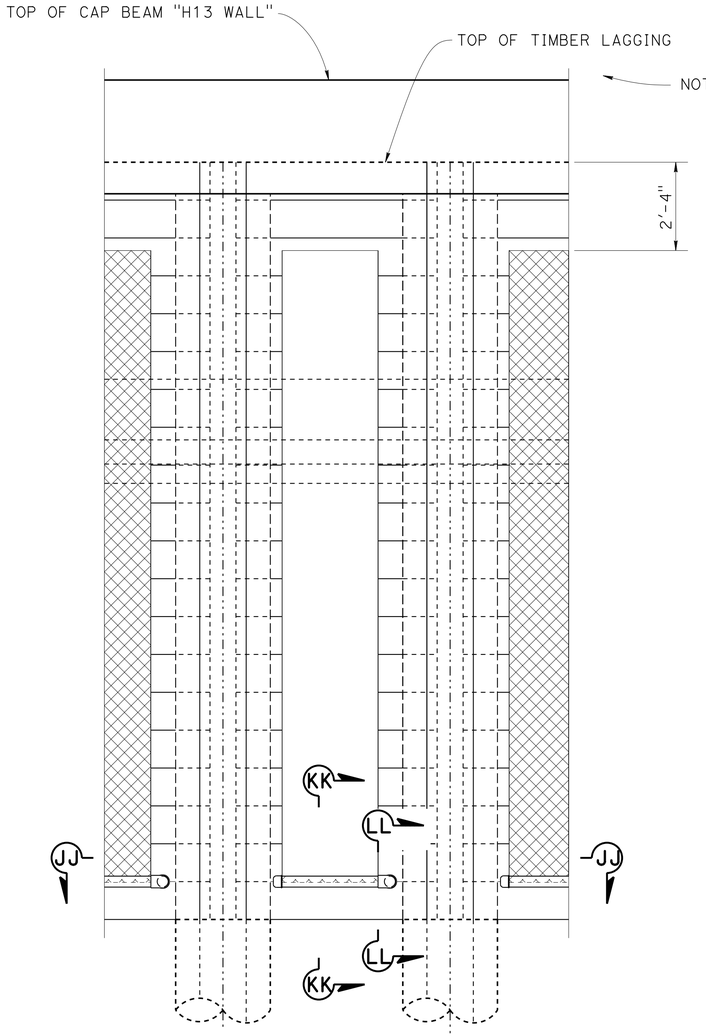
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	58	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

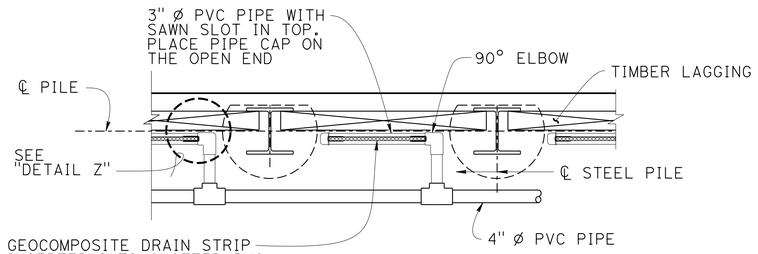
4-27-15
PLANS APPROVAL DATE

Rosa Candiotti No. C64626 Exp. 6-30-15 CIVIL
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

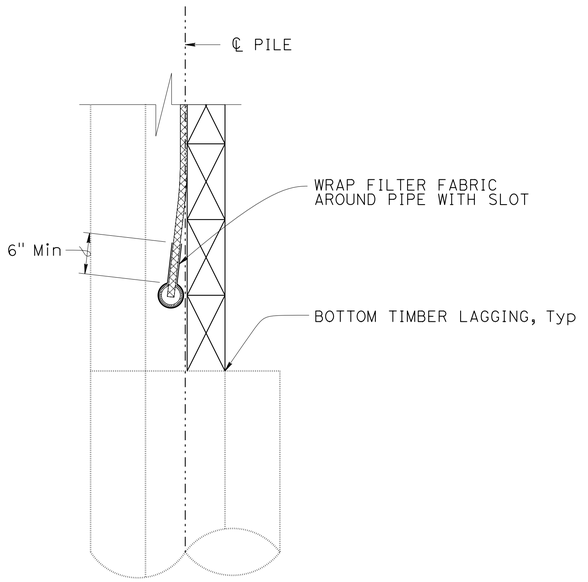
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



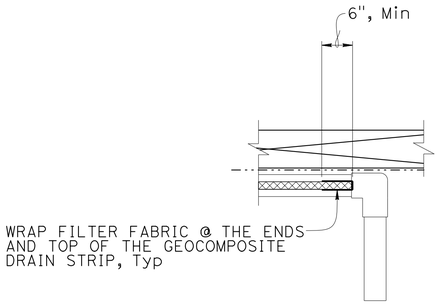
PART ELEVATION WALL DRAIN - H13 WALL
½" = 1'-0"



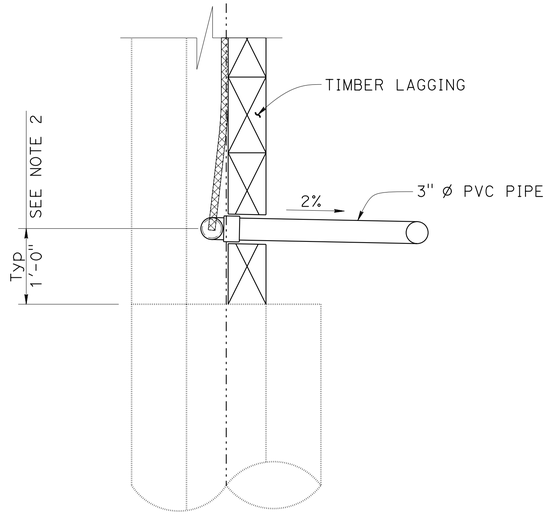
SECTION JJ-JJ
½" = 1'-0"



SECTION KK-KK
1' = 1'



DETAIL Z
1' = 1'



SECTION LL-LL
1' = 1'

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. VARIES	BROADWAY TERRACE RETAINING WALLS	
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8	WALL DRAIN DETAILS NO. 4	
QUANTITIES	BY John Railey	CHECKED Evan Franciliso					

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
1-22-15	10-28-13	4-18-14	4-28-14	21	27

FILE => 33e-r-wall drain detail no. 4-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05

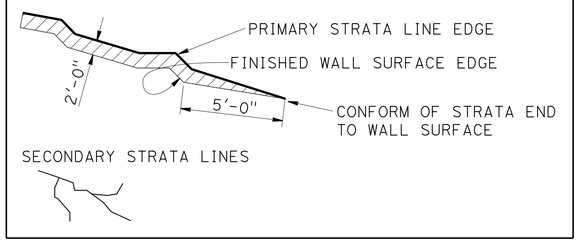
NOTES:

1. Primary Strata lines drawn on the front elevation are to be used as a guide for layout of Primary Strata line reinforcement. See "SCULPTED SHOTCRETE DETAILS" Sheet.
2. Secondary Strata lines drawn on the front elevation are to be used as a general guide. Strata lines must be sculpted to mimic local geology.
3. This sheet accurate for sculpted shotcrete only.
4. Sculpted shotcrete must be continuous throughout the face of the wall.
5. Additional shotcrete needed for carving the Primary Strata lines to be reinforced as shown on "SCULPTED SHOTCRETE DETAILS" sheet.
6. Primary Strata lines must be tapered into the top and bottom of wall.
7. Secondary Strata lines are not to exceed 2" amplitude.

LEGEND:

- - - - - - DENOTES EXISTING

PRIMARY STRATA LINES



SECONDARY STRATA LINES

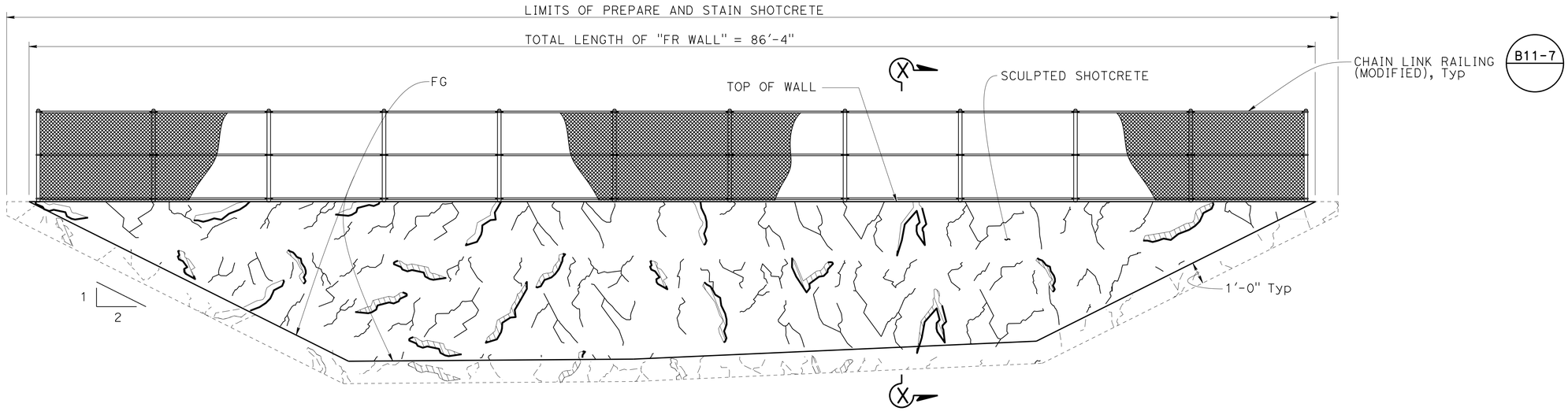
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	59	64

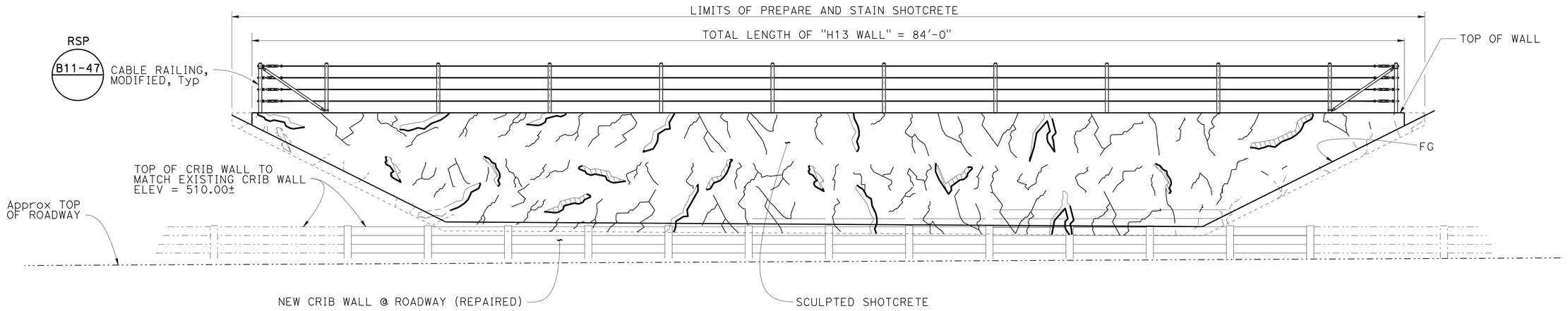
Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti — No. C64626 — Exp. 6-30-15 — 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.





MIRRORED ELEVATION

1/4" = 1'-0"

SCULPTED SHOTCRETE WALL SURFACE TREATMENT

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126 33E0127 POST MILE 8.8	BROADWAY TERRACE RETAINING WALLS
DETAILS	BY David Elliott	CHECKED John Railey				SCULPTED SHOTCRETE LAYOUT NO. 1
QUANTITIES	BY John Railey	CHECKED Evan Franciliso				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
6-10-14	7-9-14	1-22-15	4-28-15	22	27

FILE => 33e-s-ss layout no. 1-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05

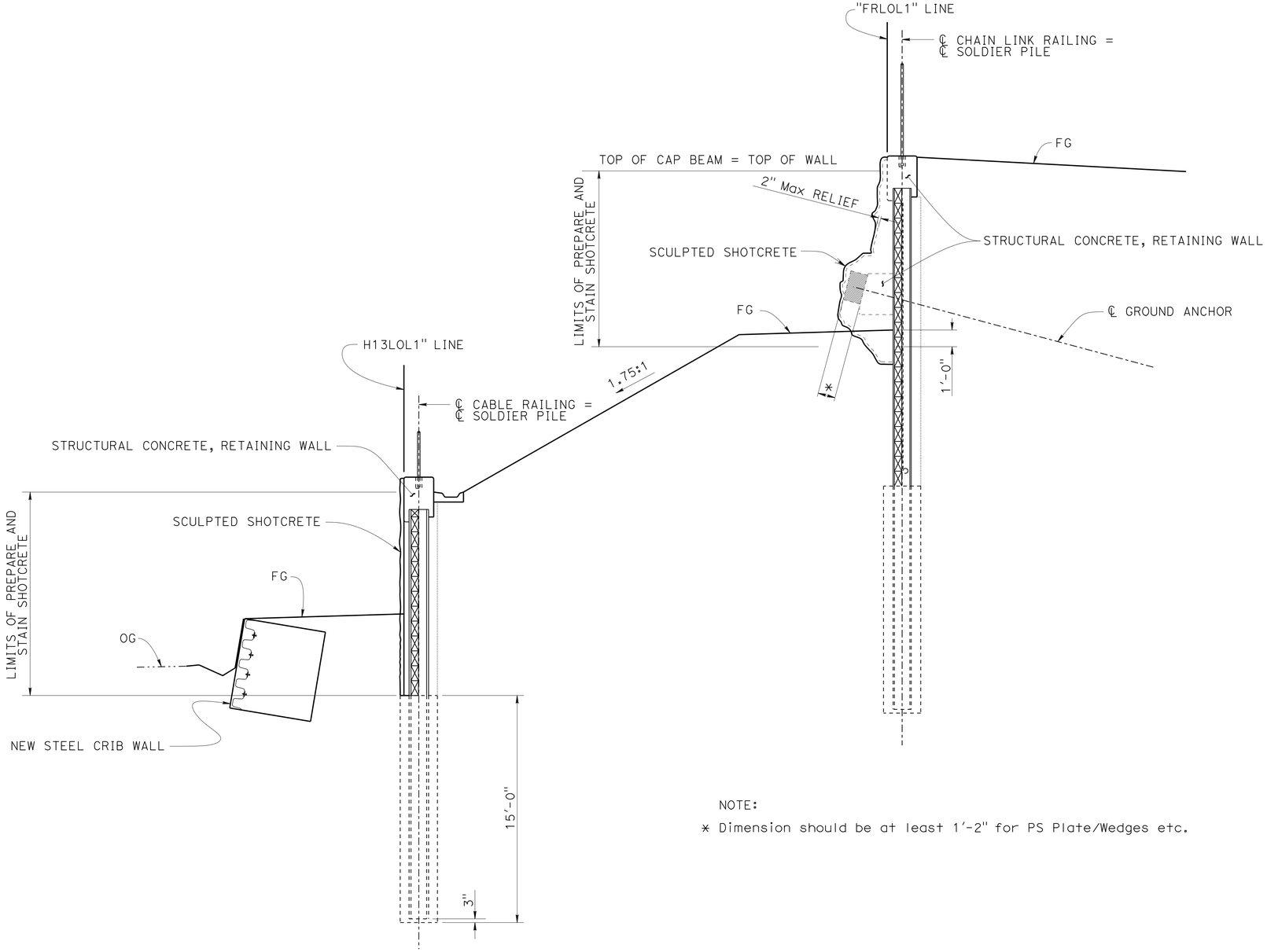
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	60	64

Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Rosa Candiotti
No. C64626
Exp. 6-30-15
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.



NOTE:

* Dimension should be at least 1'-2" for PS Plate/Wedges etc.

TYPICAL SECTION

1/4" = 1'-0"

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126 33E0127	BROADWAY TERRACE RETAINING WALLS
DETAILS	BY David Elliott	CHECKED John Railey			POST MILE 8.8	SCULPTED SHOTCRETE LAYOUT NO. 2
QUANTITIES	BY John Railey	CHECKED Evan Franciliso				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
1-22-15	4-13-14	6-18-14	9-18-14	23	27

FILE => 33e-s-ss layout no. 2-sheet.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	61	64

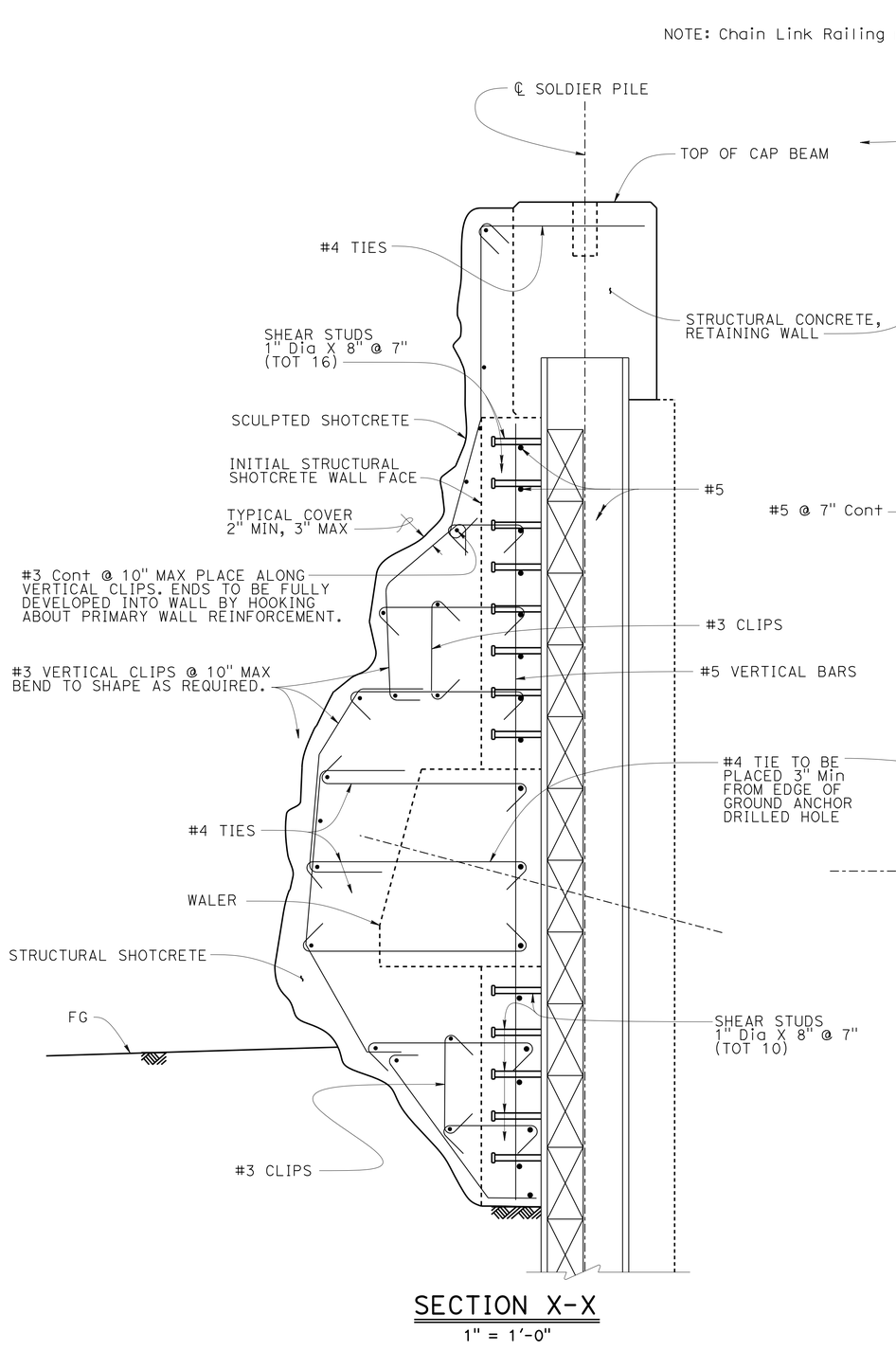
Rosa M Candiotti 1-28-15
REGISTERED CIVIL ENGINEER DATE

4-27-15
PLANS APPROVAL DATE

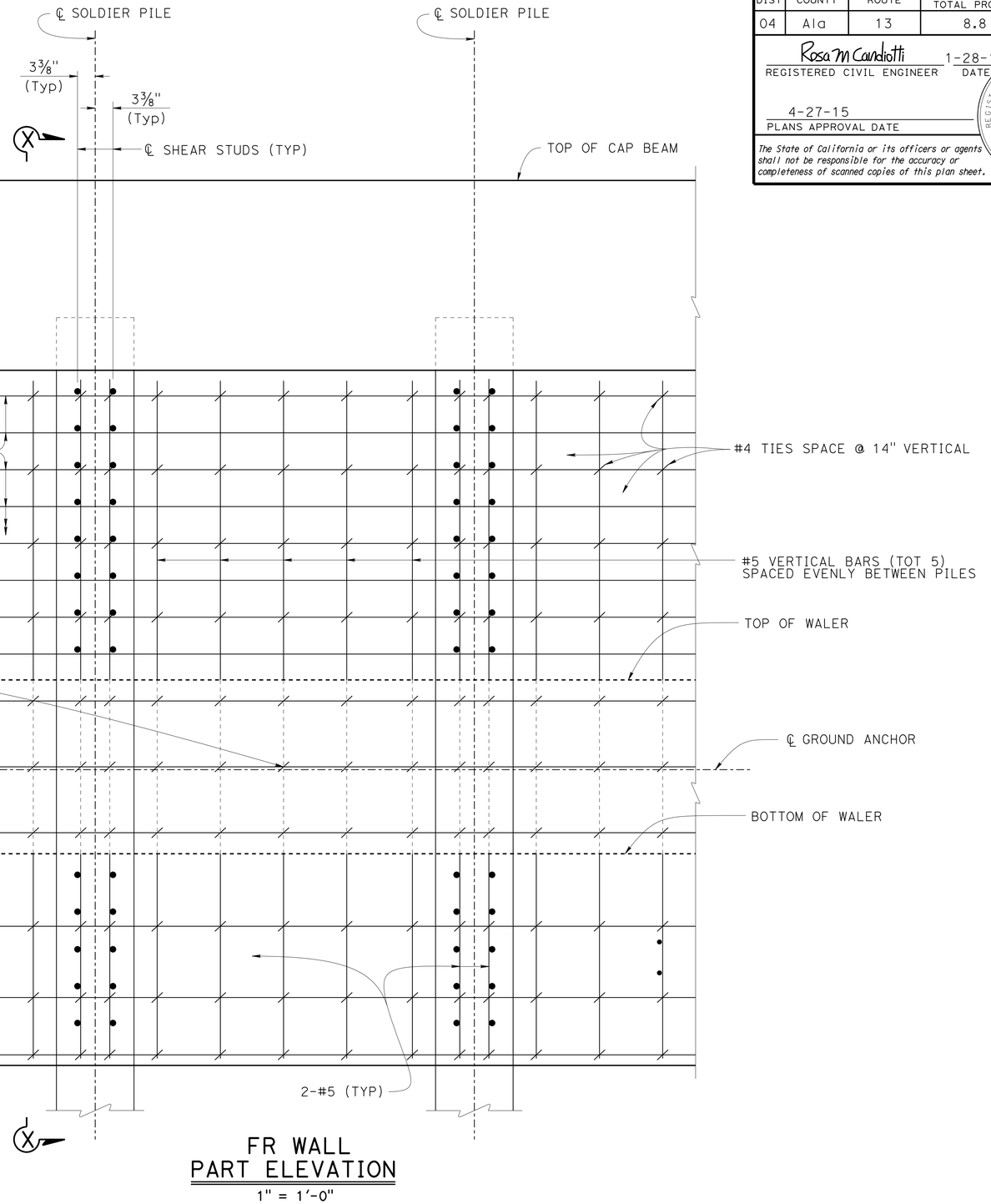
REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti — No. C64626 — Exp. 6-30-15 — CIVIL — STATE OF CALIFORNIA

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.

NOTE: Chain Link Railing not shown



SECTION X-X
1" = 1'-0"



FR WALL PART ELEVATION
1" = 1'-0"

	BY	CHECKED
DESIGN	Rosa Candiotti	John Railey
DETAILS	David Elliott	John Railey
QUANTITIES	John Railey	Evan Franciliso

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 33E0126 33E0127
POST MILE 8.8

BROADWAY TERRACE RETAINING WALLS
SCULPTED SHOTCRETE DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

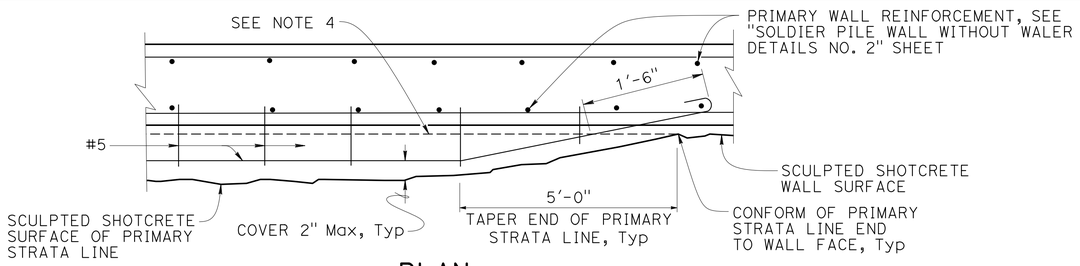
UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

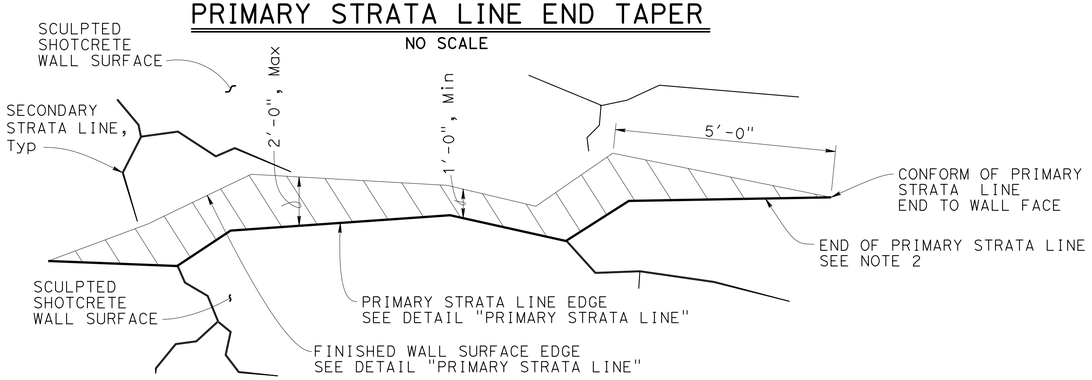
REVISION DATES				SHEET	OF
7-17-14	7-22-14	9-18-14	1-22-15	24	27

FILE => 33e-t-ss details no. 1-sheet.dgn

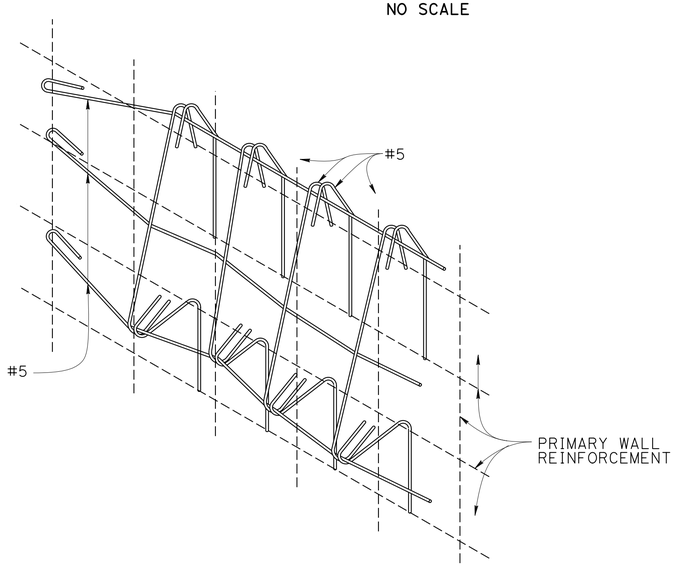
USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05



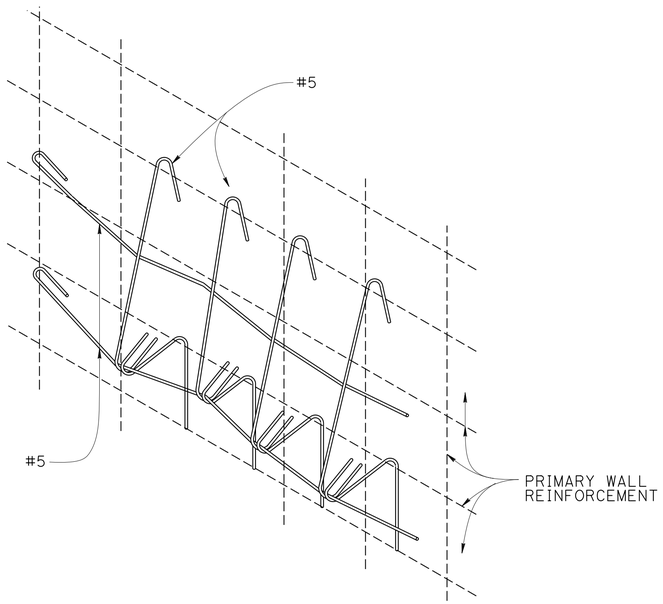
PLAN
PRIMARY STRATA LINE END TAPER
NO SCALE



ELEVATION
PRIMARY STRATA LINE TAPER
NO SCALE



DETAIL F
NO SCALE



DETAIL E
NO SCALE

NOTES:

1. Maximum 6" thick reinforced shotcrete zone for top of wall architectural treatment.
2. #5 continuous @ 12 must taper and embed into the wall to a minimum depth as shown on "PRIMARY STRATA LINE END TAPER" detail.
3. Angle of primary strata line across wall apron 15 degrees for cross slopes 0-10%, 45 degrees for cross slopes greater than 10%.
4. Face of structural concrete to which surface clearances are measured.

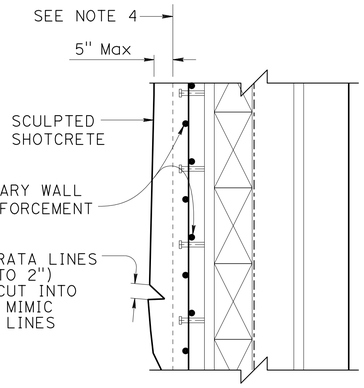
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	8.8	62	64

Rosa M Candiotti — 1-28-15
REGISTERED CIVIL ENGINEER — DATE

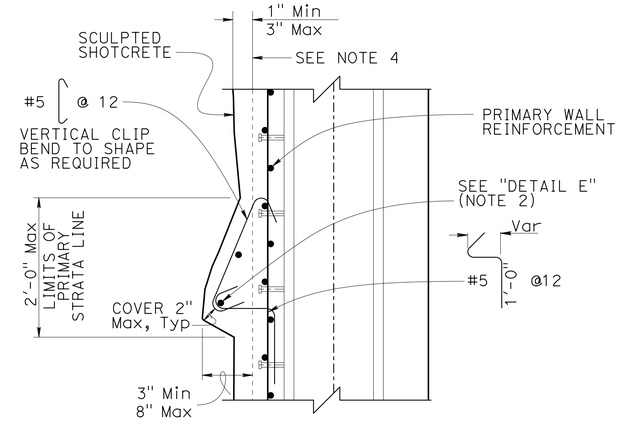
4-27-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Rosa Candiotti — No. C64626 — Exp. 6-30-15 — CIVIL — STATE OF CALIFORNIA

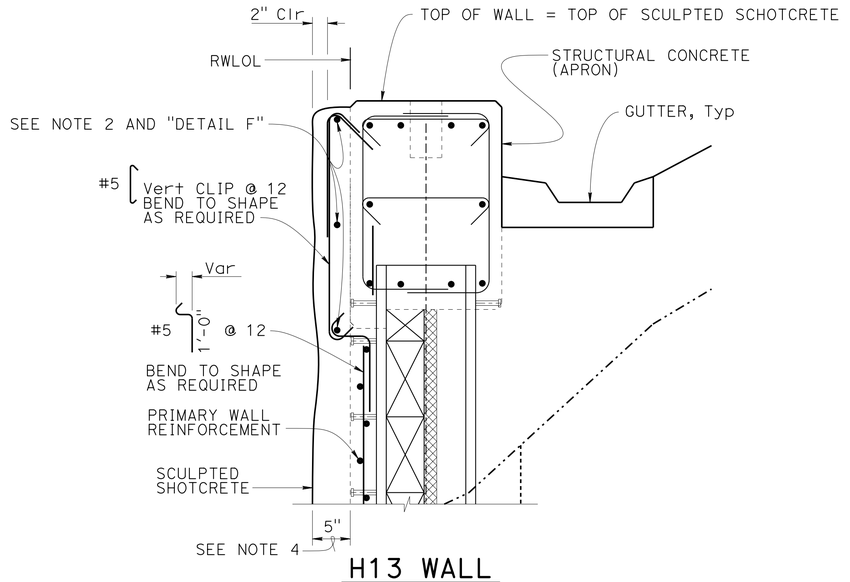
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



H13 WALL
SECONDARY STRATA LINE



H13 WALL
PRIMARY STRATA LINE



H13 WALL
PRIMARY STRATA AT TOP OF WALL
CROSS SECTIONS
1" = 1'-0"

DESIGN	BY Rosa Candiotti	CHECKED John Railey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 33E0126 33E0127 POST MILE 8.8
DETAILS	BY David Elliott	CHECKED John Railey			
QUANTITIES	BY John Railey	CHECKED Evan Franciliso			

BROADWAY TERRACE RETAINING WALLS
SCULPTED SHOTCRETE DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000007-1 CONTRACT NO.: 04-2G8304

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
7-18-14	7-22-14	9-18-14	1-22-15	25	27

FILE => 33e-t-ss details no. 2-sheet.dgn

USERNAME => 8129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	Ala	13	8.8	63	64

Ed Ortega Le — 08-17-12
REGISTERED CIVIL ENGINEER

4-27-15
PLANS APPROVAL DATE

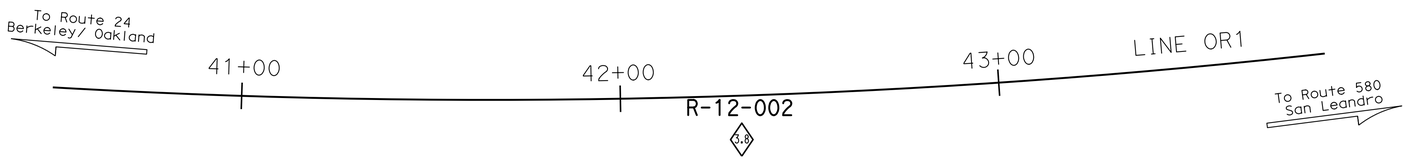
REGISTERED PROFESSIONAL ENGINEER — Eduardo Ortega — No. 41012 — Exp. 03-31-13 — CIVIL — STATE OF CALIFORNIA

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

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

BENCH MARK

MNTRB Elevation: 537.028
N: 2,132,528
E: 6,064,122
81.649 ft Rt Line OR1Sta 41+41.66
System: US state Plane 1983
Zone: California Aone 3 0403
Datum: NAD 1983 (Conus)



R-12-004
3.8

PLAN
1"=20'

GEOTECHNICAL SERVICES-DIVISION OF ENGINEERING SERVICES

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	8.80	1	2

Ed Ortega Le — 04-22-14
REGISTERED ENGINEER- CIVIL — DATE

BROADWAY TERRACE RETAINING WALLS

LOG OF TEST BORINGS 1 OF 2

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA.

CU: 04
EA: 2G8301

BRIDGE NO.

REGISTERED PROFESSIONAL ENGINEER — Eduardo Ortega — No. 41012 — Exp. 03-31-15 — CIVIL — STATE OF CALIFORNIA

CERTIFIED ENGINEERING GEOLOGIST

ENGINEERING SERVICES		GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF GEOTECHNICAL DESIGN BRANCH	BRIDGE NO.	S. OF BROADWAY TERRACE RETAINING WALLS
FUNCTIONAL SUPERVISOR	DRAWN BY: M. Reynolds 06/12	FIELD INVESTIGATION BY: D. Nesbitt, R. Nashed			POST MILES 8.8	LOG OF TEST BORINGS 1 of 2
NAME: M. Momenzadeh	CHECKED BY: E. Ortega					

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3660
PROJECT NUMBER & PHASE: 04120000070 CONTRACT NO.: 04-2G8300

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
08-21-12	06-18-13			26	27

FILE => 33e-z-lotb01.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	Ala	13	8.8	64	64

REGISTERED CIVIL ENGINEER 08-17-12

4-27-15
PLANS APPROVAL DATE

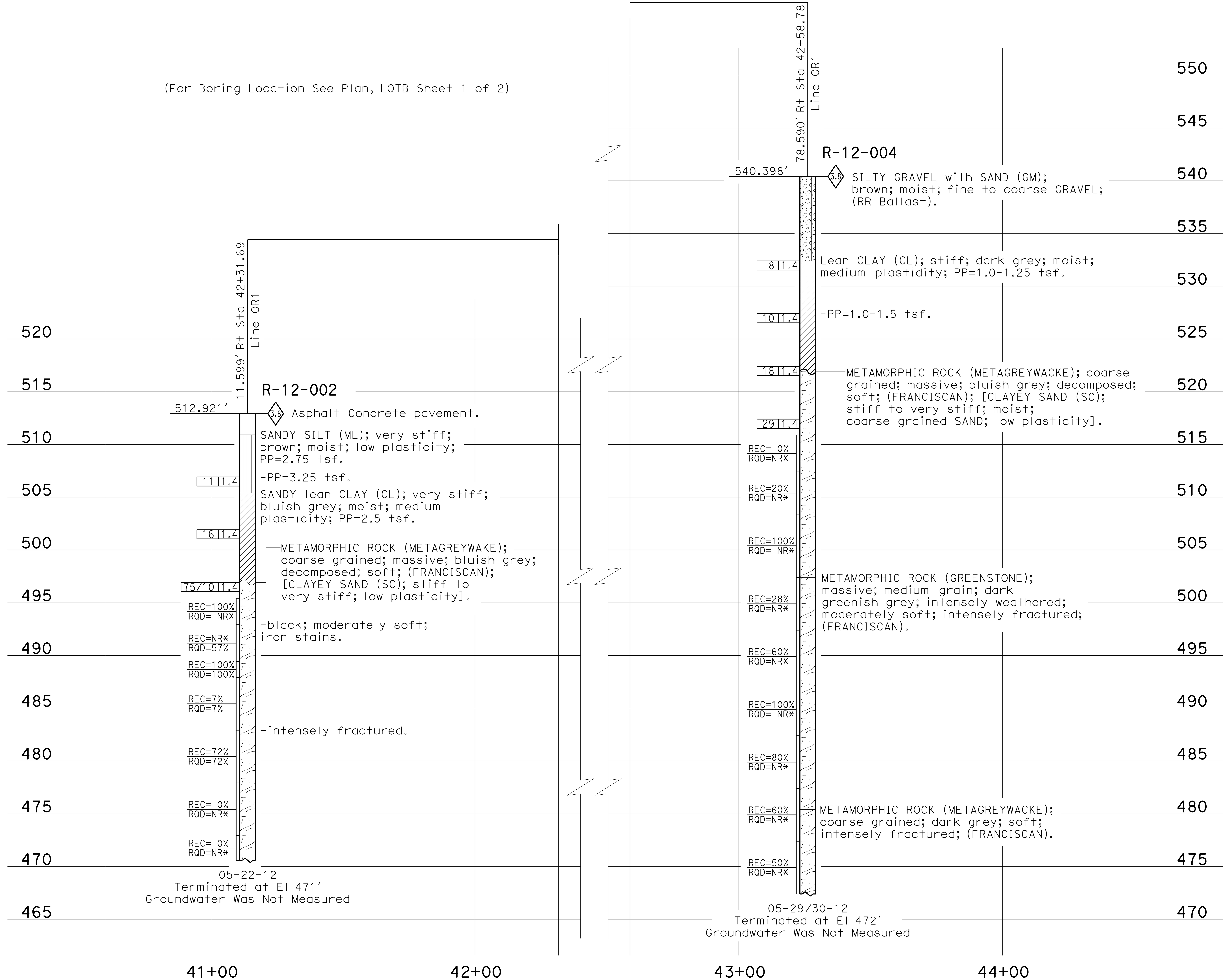
REGISTERED PROFESSIONAL ENGINEER Eduardo Ortega No. 41012 Exp. 03-31-13 CIVIL STATE OF CALIFORNIA

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

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

NOTE: 1. PP=unconfined compressive strength (tsf) as measured by pocket penetrometer.

2. *NR Not Recorded



REGISTERED PROFESSIONAL ENGINEER Eduardo Ortega No. 41012 Exp. 03-31-15 CIVIL STATE OF CALIFORNIA

CERTIFIED ENGINEERING GEOLOGIST

GEOTECHNICAL SERVICES-DIVISION OF ENGINEERING SERVICES

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	8.80	2	2

REGISTERED ENGINEER - CIVIL 04-22-14 DATE

BROADWAY TERRACE RETAINING WALLS
LOG OF TEST BORINGS 2 OF 2

BRIDGE NO.
CU: 04
EA: 2G8301

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA.

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

ENGINEERING SERVICES		GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF GEOTECHNICAL DESIGN BRANCH	BRIDGE NO. / POST MILES 8.8	S. OF BROADWAY TERRACE RETAINING WALLS LOG OF TEST BORINGS 2 of 2
FUNCTIONAL SUPERVISOR NAME: M. Momenzadeh	DRAWN BY: M. Reynolds 06/12 CHECKED BY: R. Nashed	FIELD INVESTIGATION BY: E. Ortega				

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3660
PROJECT NUMBER & PHASE: 04120000070 CONTRACT NO.: 04-2G8300

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES 08-21-12 06-18-13 SHEET 27 OF 27

FILE => 33e-z-lotb02.dgn

USERNAME => s129144 DATE PLOTTED => 12-AUG-2015 TIME PLOTTED => 08:05