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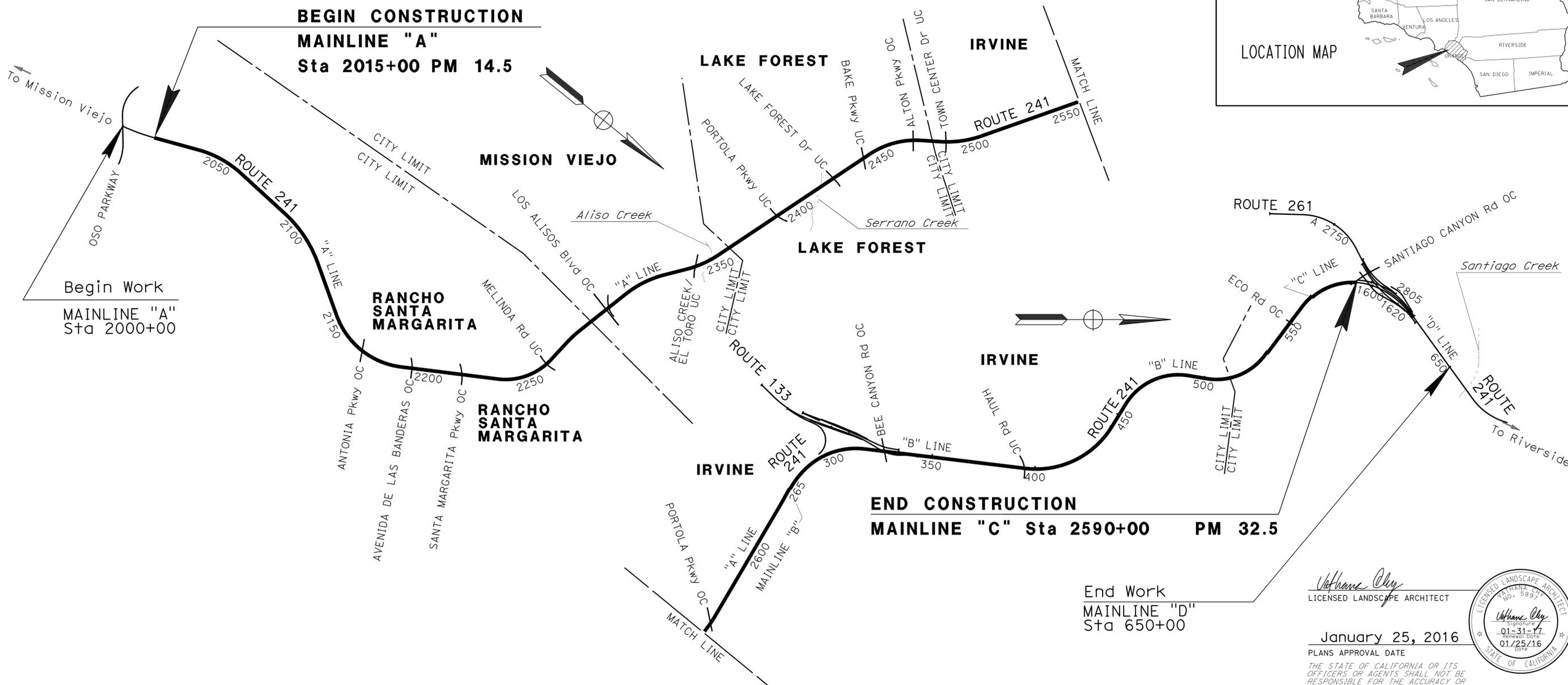
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA **ACSTP-P241(005)E**  
 DEPARTMENT OF TRANSPORTATION  
**PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY**  
**IN ORANGE COUNTY**  
**IN IRVINE, LAKE FOREST, MISSION VIEJO, AND RANCHO SANTA MARGARITA**  
**FROM OSO PARKWAY TO SANTIAGO CANYON ROAD OVERCROSSING**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	1	54

LOCATION MAP



PROJECT MANAGER ERIC DICKSON	DESIGN MANAGER ERIC DICKSON
---------------------------------	--------------------------------

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

NO SCALE



USERNAME => s127956  
DGN FILE => 1212000105cab001.dgn

UNIT 3014 PROJECT NUMBER & PHASE 12120001051

LICENSED LANDSCAPE ARCHITECT  
**January 25, 2016**  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



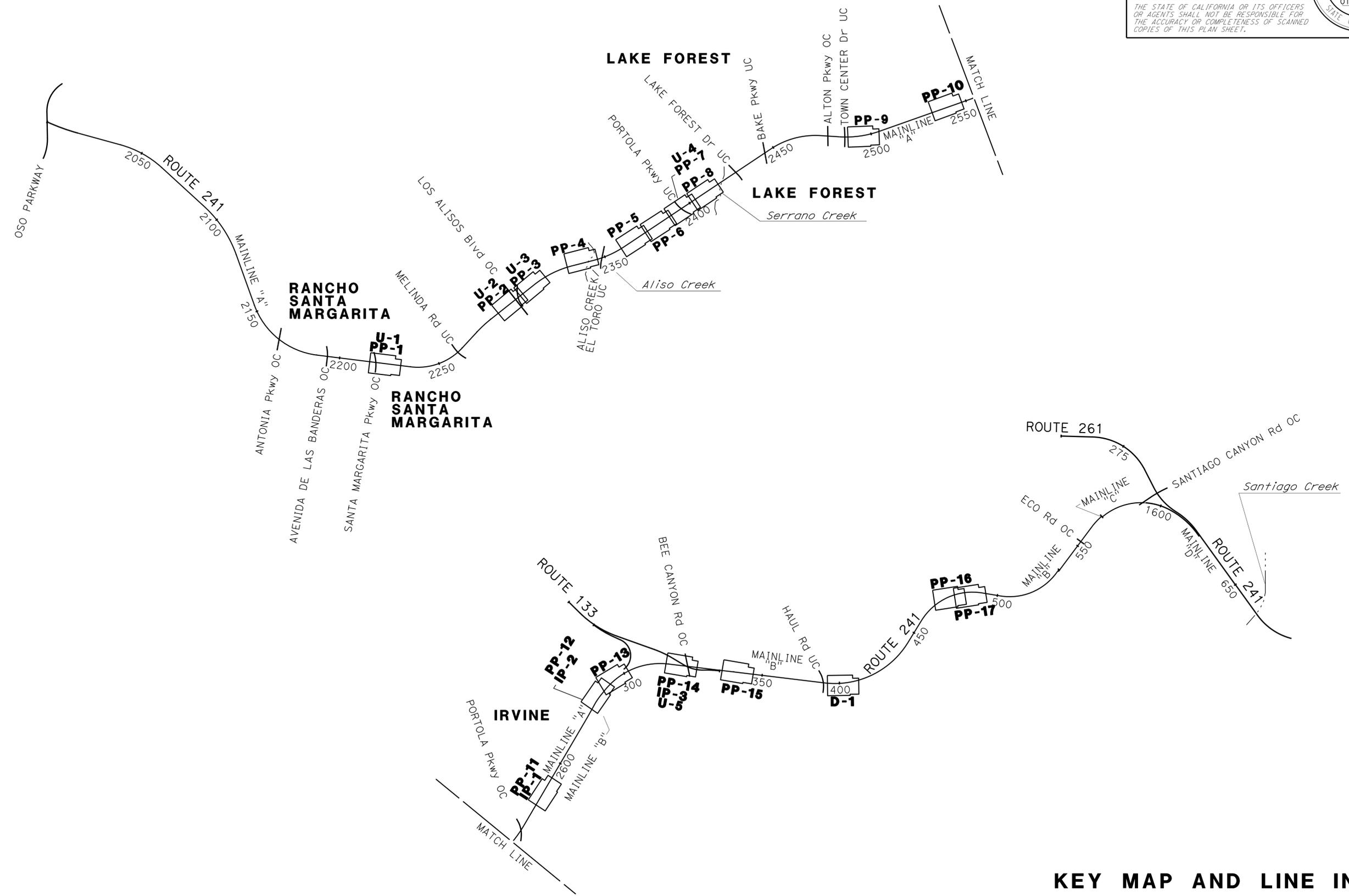
CONTRACT No.	<b>12-OJ6604</b>
PROJECT ID	<b>1212000105</b>

DATE PLOTTED => 26-APR-2016 TIME PLOTTED => 1:34:47

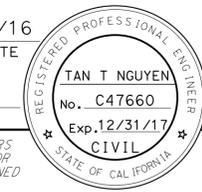
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT: ERIC DICKSON  
 CALCULATED/DESIGNED BY: ERIC DICKSON  
 CHECKED BY: VATHANA CHY  
 LONDON MARES  
 VATHANA CHY  
 REVISED BY: [ ]  
 DATE REVISED: [ ]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	2	54

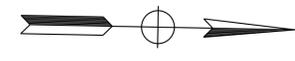
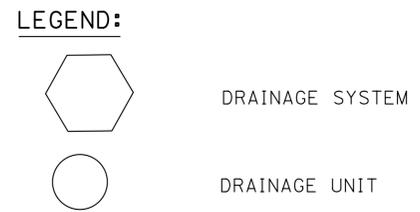
*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 01/25/16  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



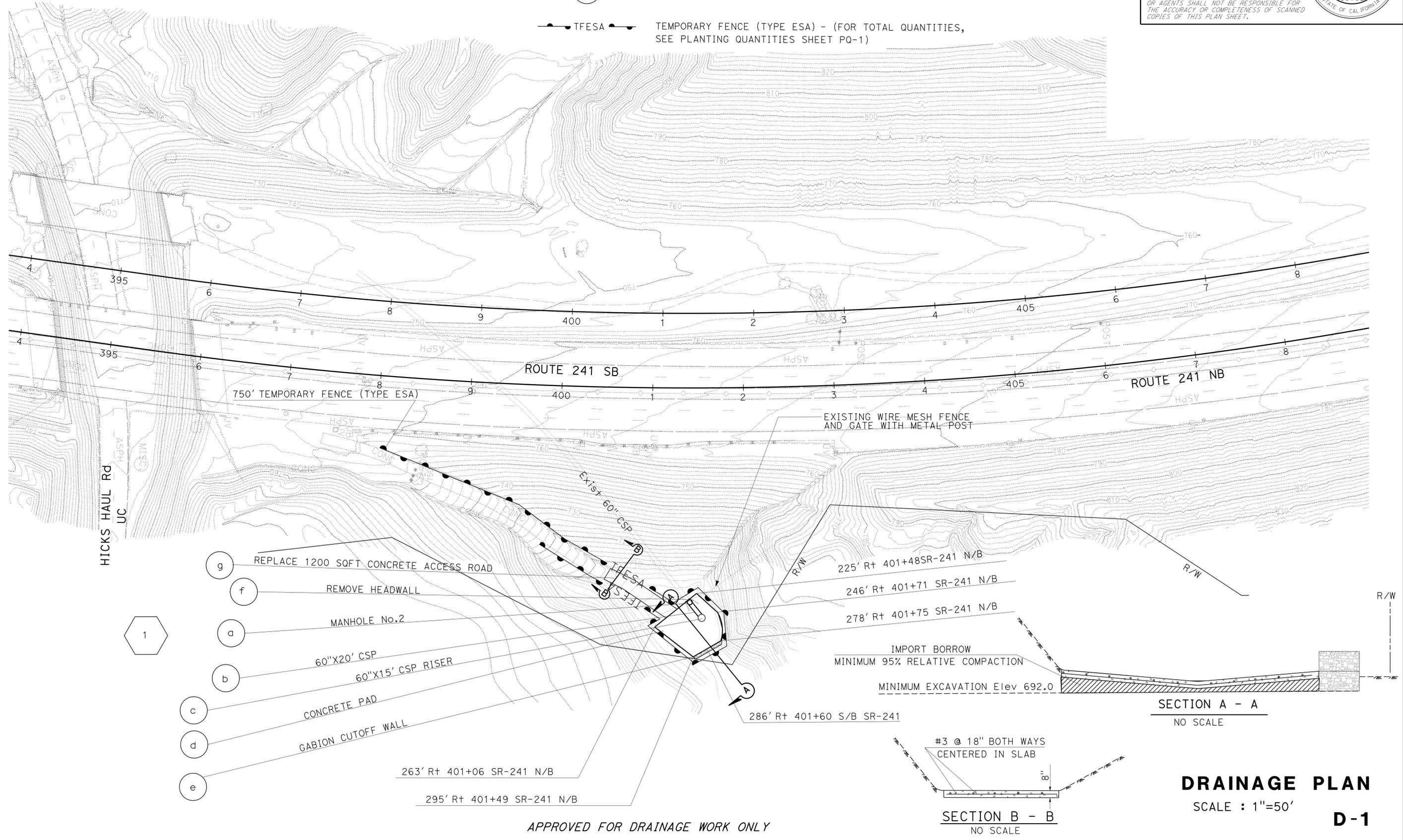
**KEY MAP AND LINE INDEX**  
 NO SCALE  
**K-1**

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	3	54
 REGISTERED CIVIL ENGINEER			01/25/16 DATE		
01/25/16 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR BY
<b>Caltrans</b>	MAJID GHABOOSI	TAN T NGUYEN	TAN T NGUYEN
HYDRAULICS		CHECKED BY	DATE REVISED

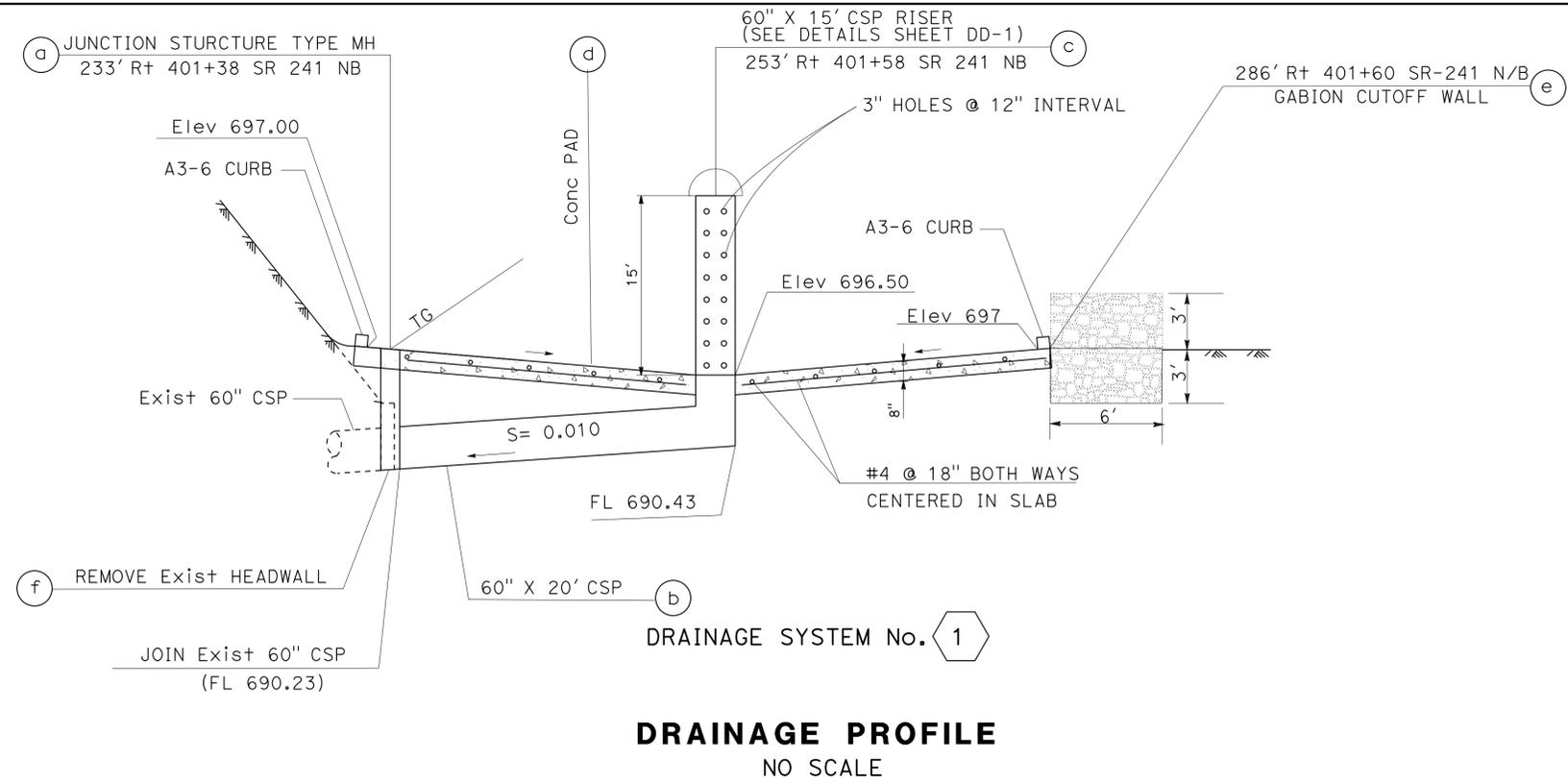


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	4	54

01/25/16  
 REGISTERED CIVIL ENGINEER DATE  
 01/25/16  
 PLANS APPROVAL DATE

TAN T NGUYEN  
 No. C. 47660  
 Exp. 12/30/17  
 CIVIL

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



**DRAINAGE PROFILE**  
NO SCALE

**DRAINAGE QUANTITIES**

**NOTES:**  
 (N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY  
 (Q) SEE PQ-2 FOR TOTAL QUANTITY

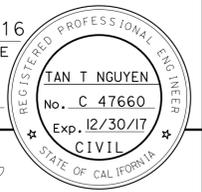
**ABBREVIATIONS:**  
 S STANDARD JOINT TYPE

DRAINAGE SHEET No.	DRAINAGE SYSTEM NUMBER	DRAINAGE UNIT	MINOR CONCRETE (DRIVEWAY)	MISCELLANEOUS IRON AND STEEL	MANHOLE FRAME AND COVER (N)	MINOR CONCRETE (MINOR STRUCTURE)	60" CORRUGATED STEEL PIPE	60" CORRUGATED STEEL PIPE RISER	GABION BASKET	REMOVE HEADWALL	IMPORT BORROW	ROADWAY EXCAVATION	REMOVE CONCRETE	BAR REINFORCING STEEL	PIPE JOINT CLASSIFICATION	"V" OR "H" (N)	Max COVER (N)	DESCRIPTION	STATION	DRAINAGE UNIT	DRAINAGE SYSTEM NUMBER	DRAINAGE SHEET No.		
			CY	LB		CY	LF	LF	CY	EA	CY	CY	CY	LB		FT	FT							
D-1	1	a		435	1	6.0										6		MANHOLE No. 2	233' R+ 401+38 SR-241 NB	a	1	D-1		
		b					20								S	1	1	60" X 20' CSP		b				
		c						15							S			60" X 10' CSP RISER	253' R+ 401+58 SR-241 NB	c				
		d	75.4								440	220		2916					CONCRETE PAD	50' R+ 37+96 RAMP "C"			d	
		e								47										GABION CUTOFF WALL				e
		f									1									REMOVE HEADWALL			233' R+ 401+38 SR-241 NB	f
		g	29.6											29.6	1030					REPLACE 1200 SQFT CONCRETE ACCESS ROAD			293' R+ 400+54 SR-241 NB TO 330' R+ 401+12 SR-241 NB	g
GRAND TOTAL			105	435	1	6.0	20	15	47	1	440	220 (Q)	29.6	3946										

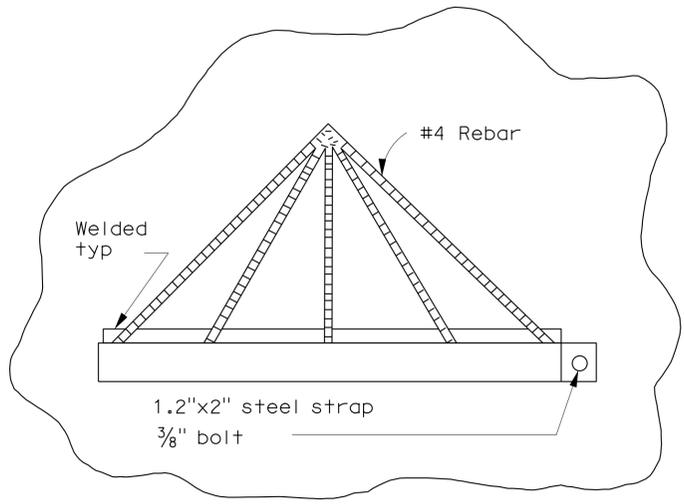
**DRAINAGE PROFILES AND QUANTITIES**  
**DP-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: MAJID GHABOOSI  
 REVISIONS: TAN T NGUYEN, DATE: 01/25/16  
 REVISIONS: TAN T NGUYEN, DATE: 01/25/16  
 CALCULATED/DESIGNED BY: TAN T NGUYEN  
 CHECKED BY:

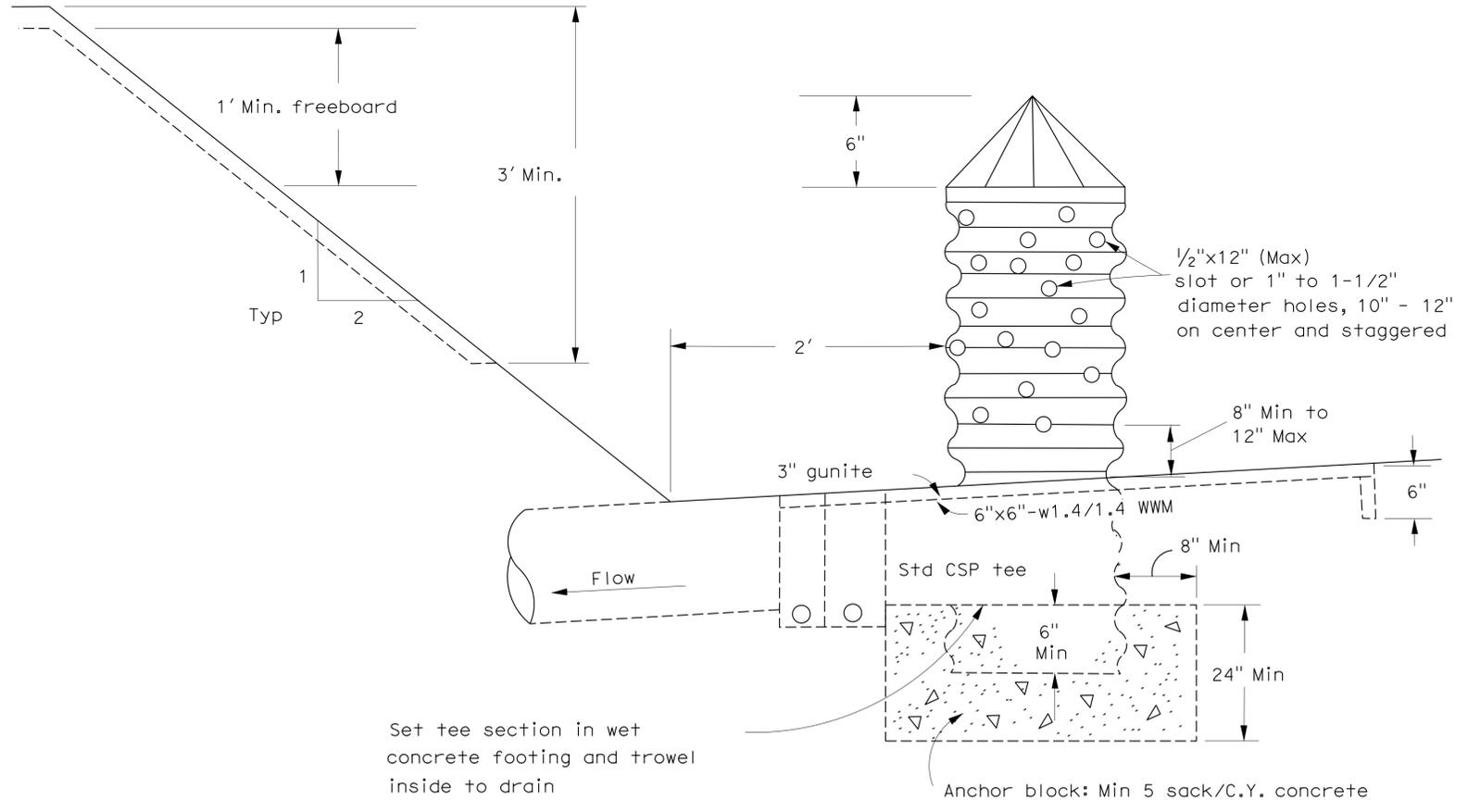
Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	5	54
			01/25/16		
REGISTERED CIVIL ENGINEER			DATE		
			01/25/16		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
<b>Caltrans</b>	MAJID GHABOOSI	TAN T NGUYEN	TAN T NGUYEN	
HYDRAULICS				



**GRATE ASSEMBLY DETAIL**



**DRAIN PIPE & RISER**

NO SCALE

APPROVED FOR DRAINAGE WORK ONLY

**DRAINAGE DETAILS DD-1**

LAST REVISION DATE PLOTTED => 28-APR-2016 02-12-15 TIME PLOTTED => 13:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	6	54

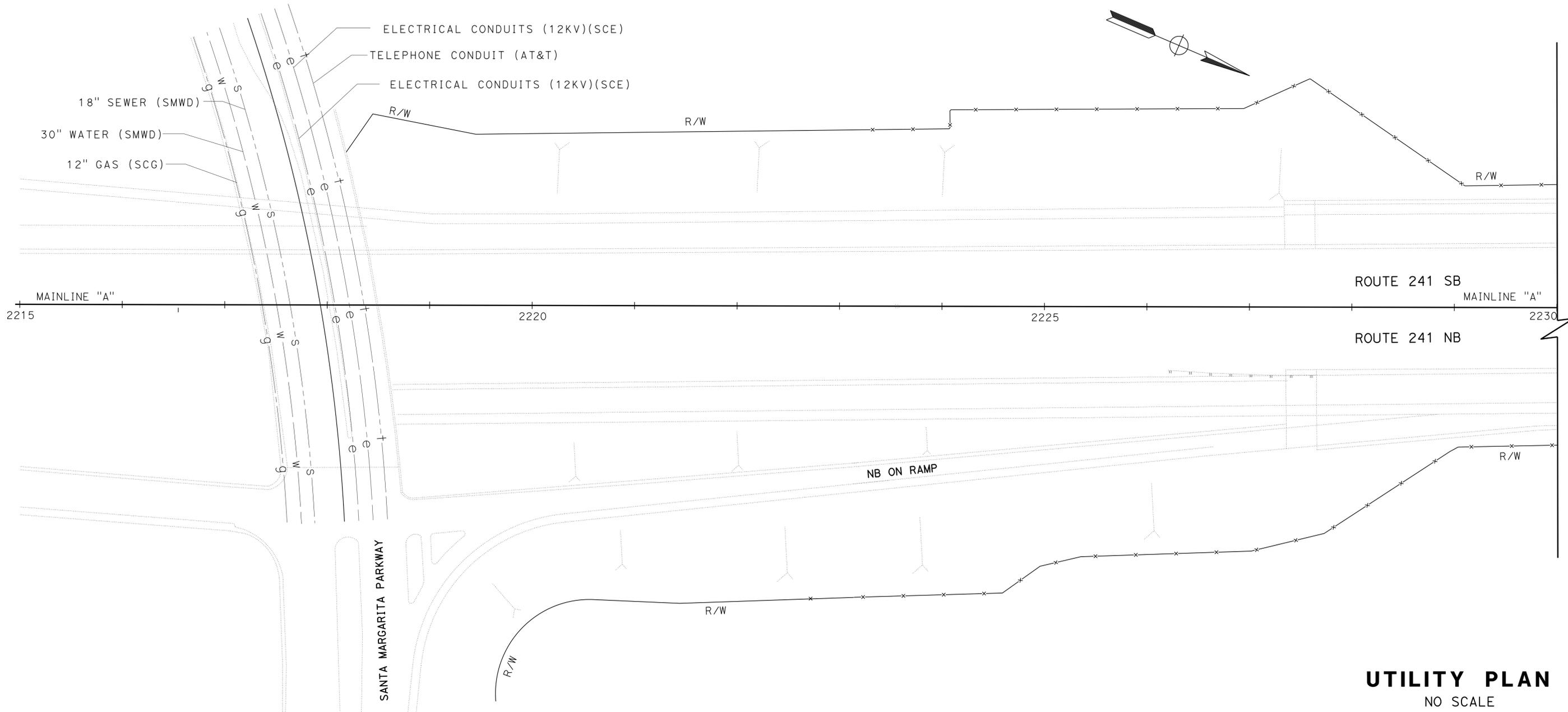
Kevin D. Pham 01/25/16  
 REGISTERED CIVIL ENGINEER DATE  
 01/25/16  
 PLANS APPROVAL DATE

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

**NOTE:**

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- LOCATIONS OF EXISTING UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
- EXISTING UTILITY FACILITIES NOT SHOWN SHALL REMAIN IN PLACE.
- UTILITY OWNERSHIP:  
 GAS - SOUTHERN CALIFORNIA GAS (SCG)  
 ELECTRICITY - SOUTHERN CALIFORNIA EDISON (SCE)  
 TELEPHONE - AMERICAN TELEPHONE & TELEGRAPH (AT&T)  
 WATER - SANTA MARGARITA WATER DISTRICT (SMWD)  
 IRVINE RANCH WATER DISTRICT (IRWD)  
 METROPOLITAN WATER DISTRICT (MWD)  
 SEWER - SANTA MARGARITA WATER DISTRICT (SMWD)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** UTILITY ENGINEERING  
 FUNCTIONAL SUPERVISOR: CHRISTOPHER LE  
 CALCULATED/DESIGNED BY: MINH PHAM  
 CHECKED BY: KEVIN PHAM  
 REVISED BY: DATE REVISION



**UTILITY PLAN**  
NO SCALE  
**U-1**

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

LAST REVISION DATE PLOTTED => 28-APR-2016  
 09-23-15 TIME PLOTTED => 13:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	7	54

Kevin D. Pham	01/25/16
REGISTERED CIVIL ENGINEER	DATE
01/25/16	
PLANS APPROVAL DATE	

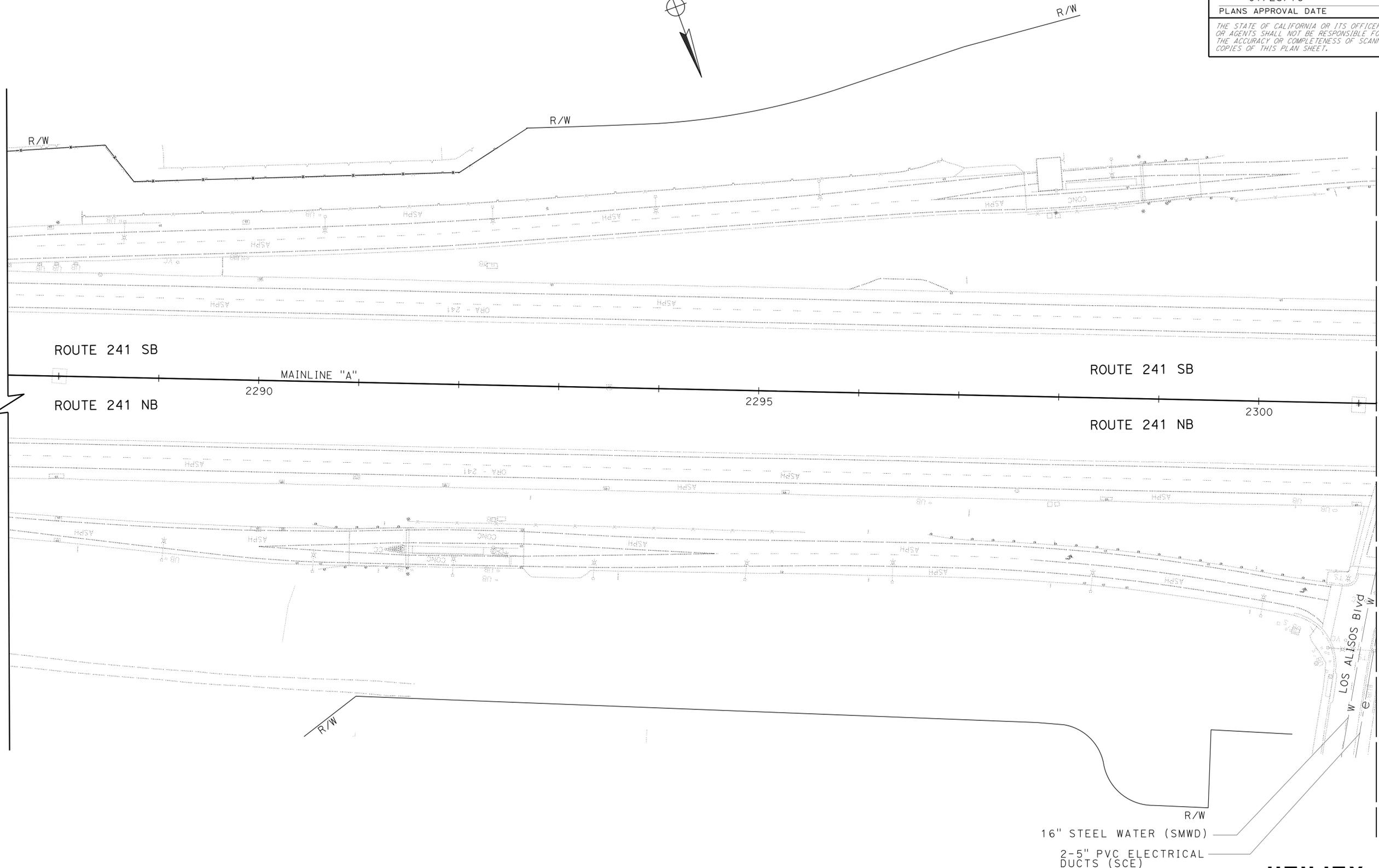
  

REGISTERED PROFESSIONAL ENGINEER
KEVIN D PHAM
No. C61965
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

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

**NOTE:**

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MATCH LINE SEE SHEET U-3

**UTILITY PLAN**  
NO SCALE

**U-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	MINH PHAM	REVISED BY
<b>Caltrans</b> UTILITY ENGINEERING	CHRISTOPHER LE	CHECKED BY	KEVIN PHAM	DATE REVISED

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	8	54

Kevin D. Pham	01/25/16
REGISTERED CIVIL ENGINEER	DATE
01/25/16	
PLANS APPROVAL DATE	

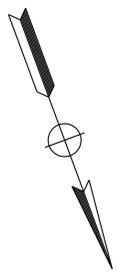
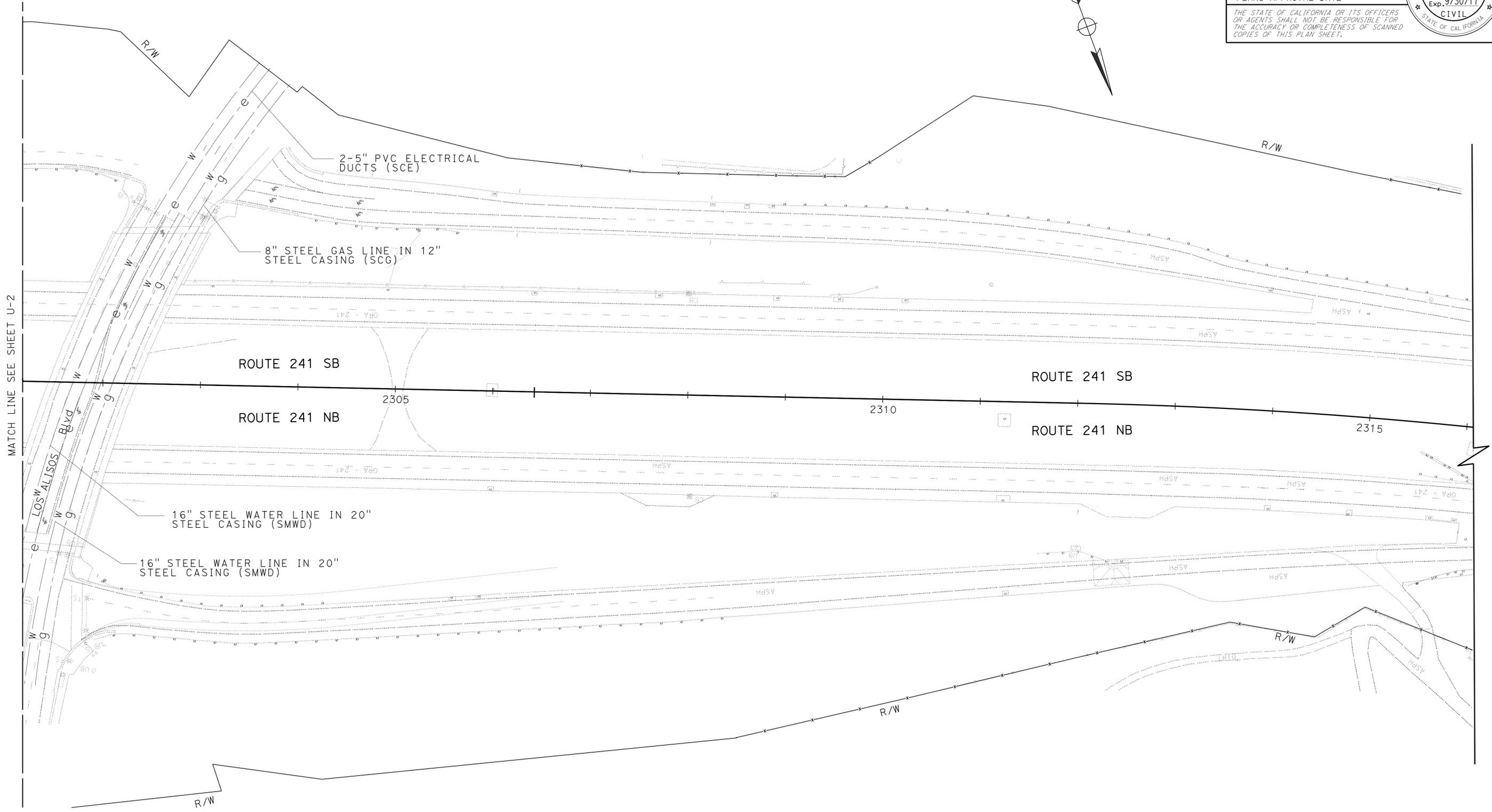
  

REGISTERED PROFESSIONAL ENGINEER
KEVIN D PHAM
No. C61965
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

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

**NOTE:**

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR BY
<b>Caltrans</b> UTILITY ENGINEERING	CHRISTOPHER LE	CHECKED BY	DATE REVISED
		MINH PHAM	
		KEVIN PHAM	

**UTILITY PLAN**  
NO SCALE

**U-3**

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

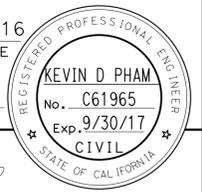
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	9	54

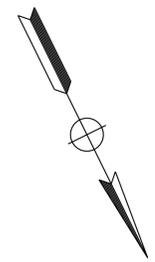
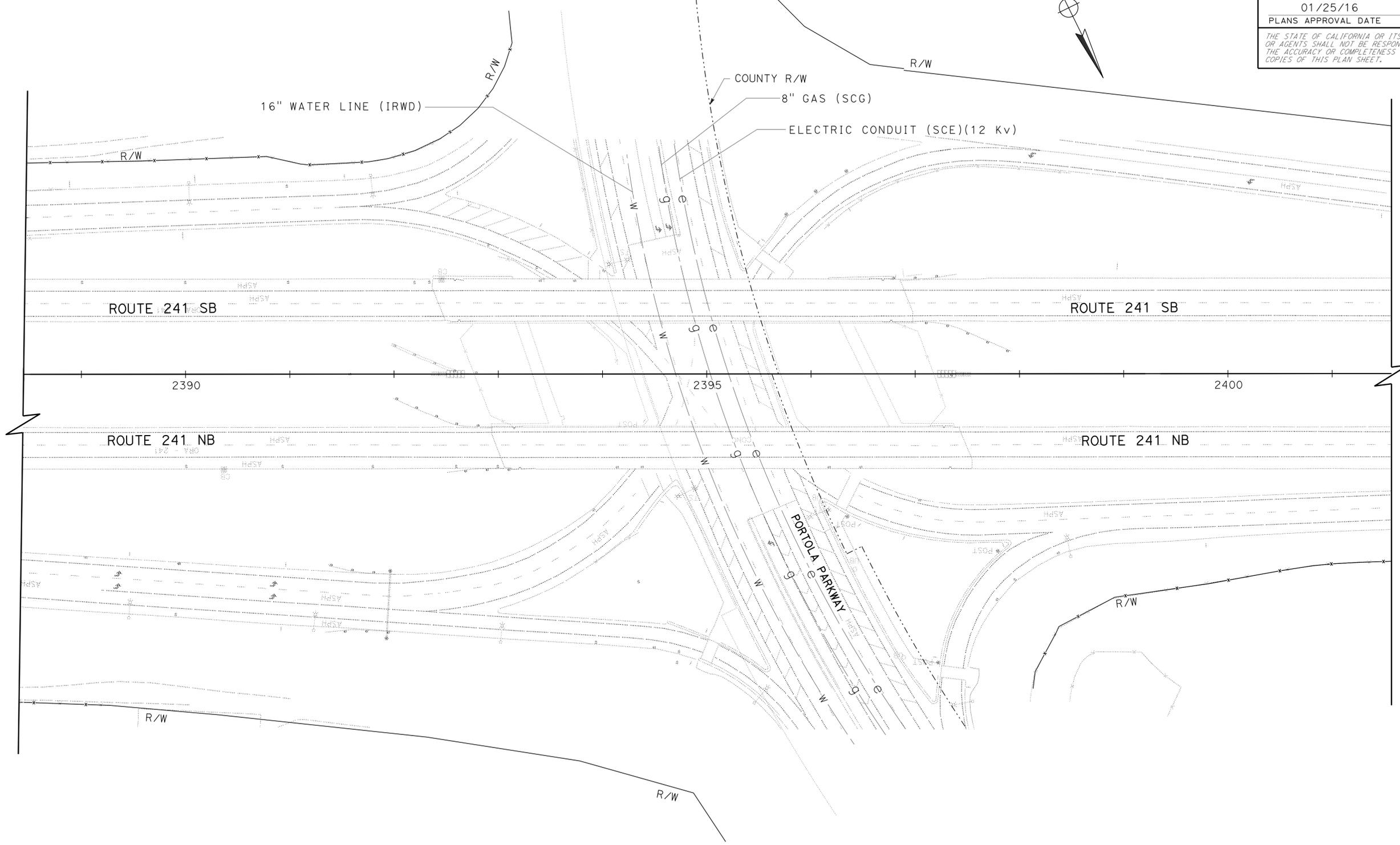
<i>Kevin D. Pham</i>	01/25/16
REGISTERED CIVIL ENGINEER	DATE
01/25/16	
PLANS APPROVAL DATE	

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



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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	MINH PHAM	REVISED BY
<b>Caltrans</b> UTILITY ENGINEERING	CHRISTOPHER LE	CHECKED BY	KEVIN PHAM	DATE REVISED

**UTILITY PLAN**  
NO SCALE

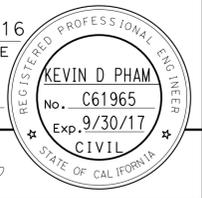
THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

**U-4**

LAST REVISION | DATE PLOTTED => 28-APR-2016  
09-23-15 | TIME PLOTTED => 13:48

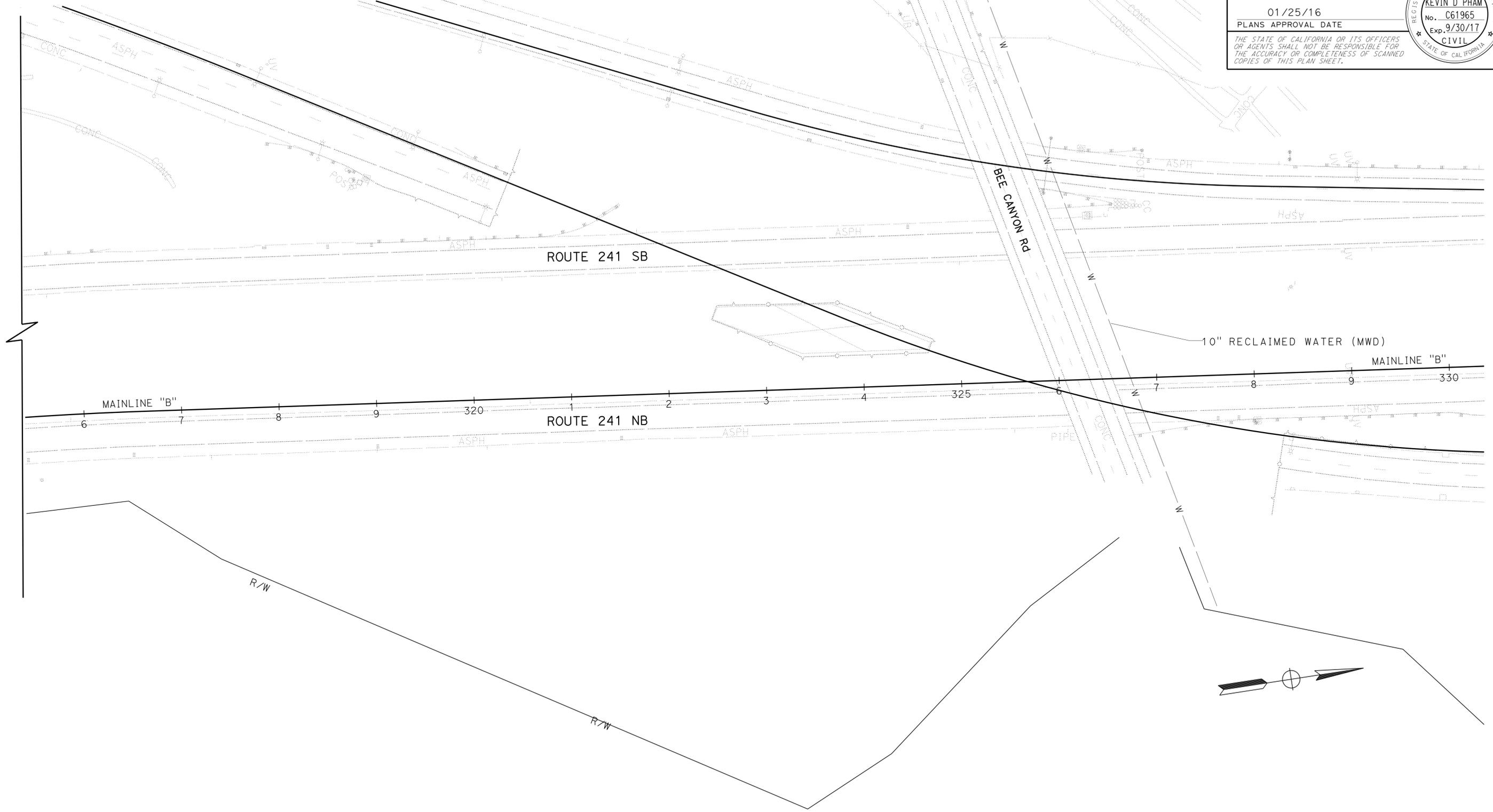
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	10	54

Kevin D. Pham 01/25/16  
 REGISTERED CIVIL ENGINEER DATE  
 01/25/16  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**NOTE:**

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>Caltrans</b> UTILITY ENGINEERING	CHRISTOPHER LE	MINH PHAM	
		KEVIN PHAM	

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

**UTILITY PLAN**  
SCALE: 1"=50'

**U-5**

LAST REVISION | DATE PLOTTED => 28-APR-2016  
 09-23-15 | TIME PLOTTED => 13:48

# STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	241	14.5/32.5	11	54

**NOTE:**

Location of construction area signs are approximate. Exact locations will be determined by the engineer.

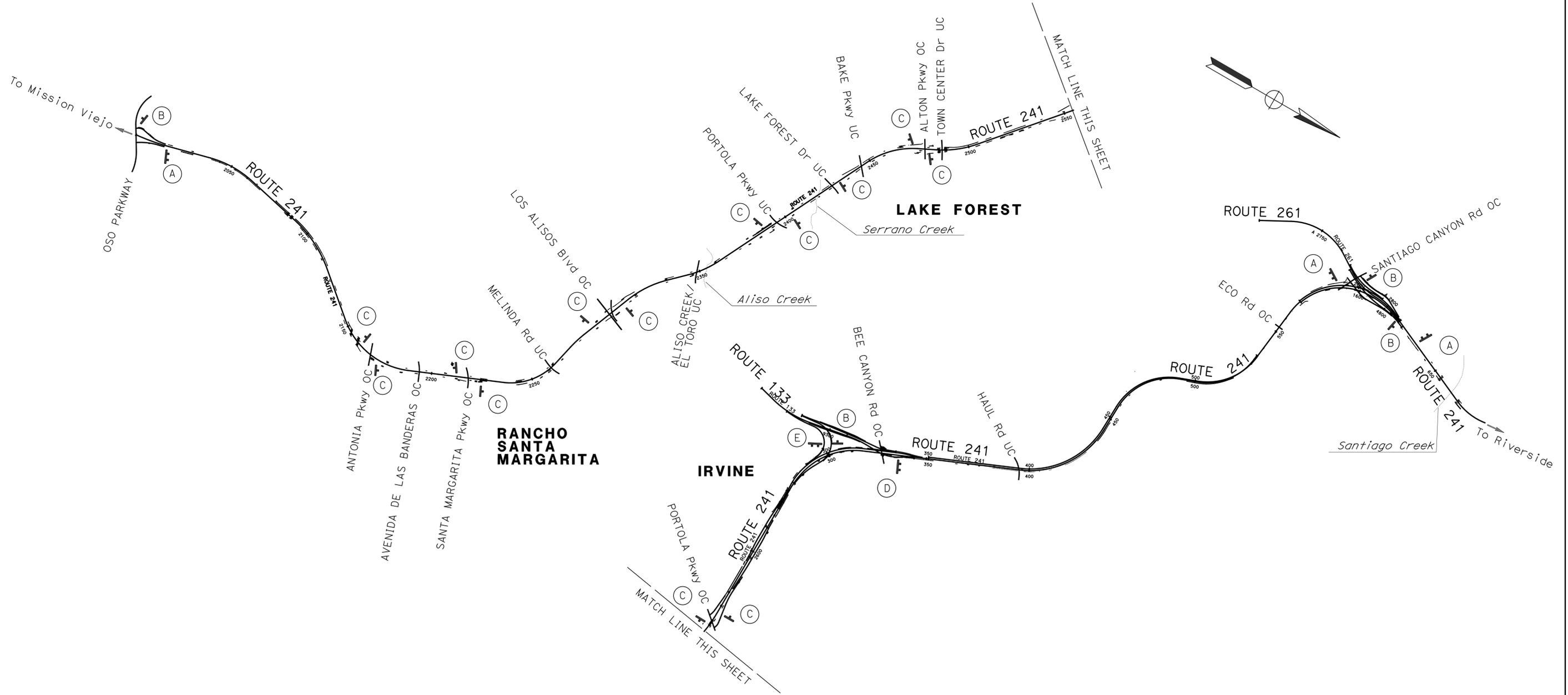
SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
A	G20-1		60" x 36"	ROAD WORK NEXT 18 MILES	2 - 4" x 6"	3
B	G20-2		36" x 18"	END ROAD WORK	1 - 4" x 4"	4
C	W20-1		48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	13
D	G20-1		60" x 36"	ROAD WORK NEXT 5 MILES	2 - 4" x 6"	1
E	G20-1		60" x 36"	ROAD WORK NEXT 13 MILES	2 - 4" x 6"	1

*Bang Q. Hua* 01/25/16  
 REGISTERED CIVIL ENGINEER DATE

01/25/16  
 PLANS APPROVAL DATE

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
Caltrans	KAMRAN MAZHAR	BANG HUA	BANG HUA
TRAFFIC DESIGN	CHECKED BY	DATE	REVISION



## CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

**CS-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN  
 FUNCTIONAL SUPERVISOR: MILI LIM STAMATION  
 CALCULATED/DESIGNED BY: JOSEPH LEE  
 CHECKED BY: JOSEPH LEE  
 REVISED BY: NYCHOLE KHONG  
 DATE REVISED: 08-01-15  
 JOSEPH LEE  
 08-01-15

**NOTES:**

1. LOCATIONS OF CONSTRUCTION AREA SIGNS (DETOUR) AND PCMS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. EXACT MESSAGE TO BE DISPLAYED ON THE PCMS SHALL BE AS SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.

**LEGEND:**

- DIRECTION OF TRAVEL
- ⊥ CONSTRUCTION AREA SIGN, 1-POST
- PCMS-1 PORTABLE CHANGEABLE MESSAGE SIGN
- X CONSTRUCTION AREA SIGN No. (DETOUR)
- ▬ RAMP CLOSURE

**CLOSURE #1:**

1. NB ROUTE 241 PORTOLA Pkwy (22) OFF-RAMP RIGHT EXIT

**DETOUR:**

1. TAKE PORTOLA Pkwy OFF-RAMP LEFT EXIT, TURN RIGHT AT THE INTERSECTION

**CLOSURE #2:**

2. NB ROUTE 241 PORTOLA Pkwy (IRVINE) (25) OFF-RAMP

**DETOUR:**

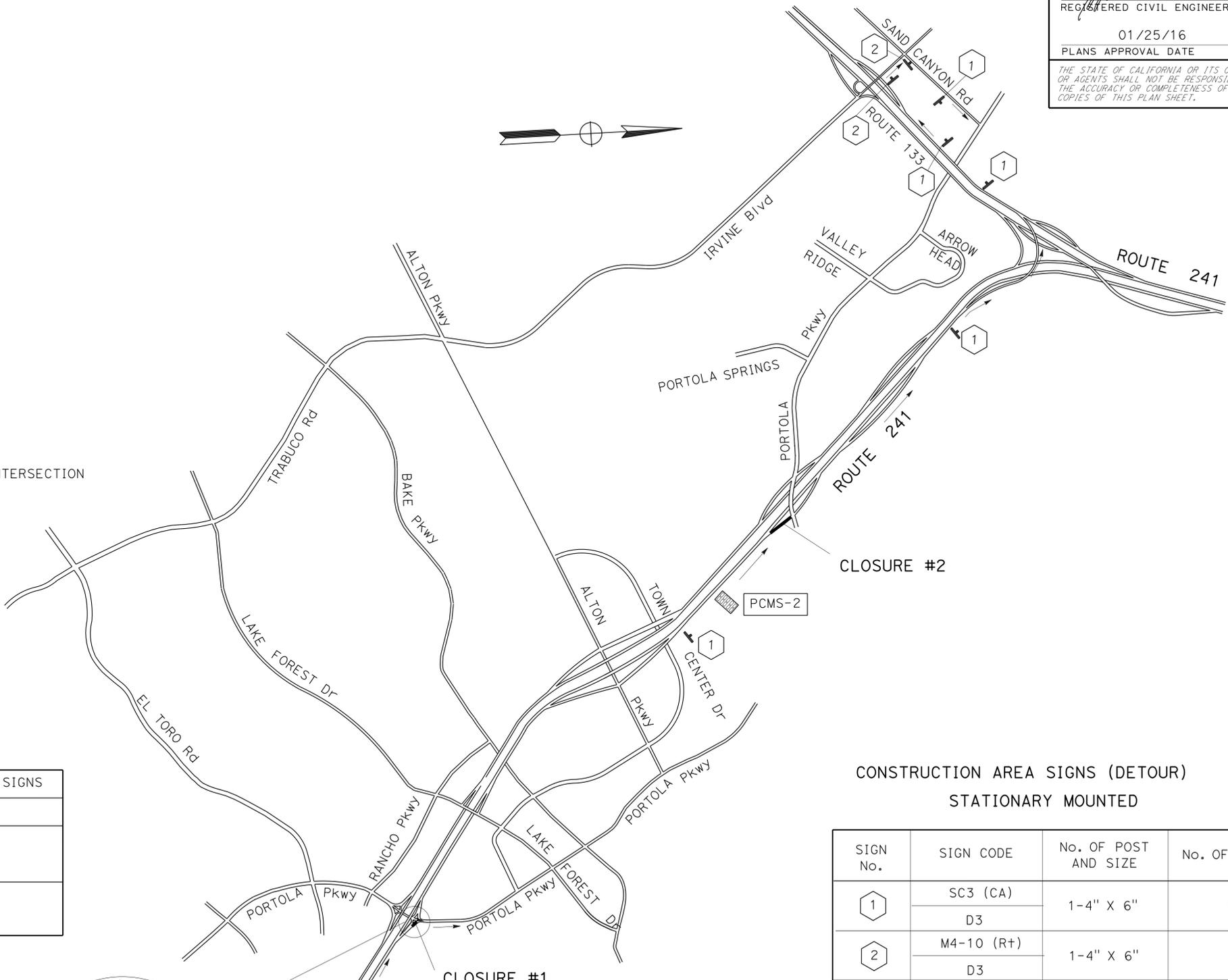
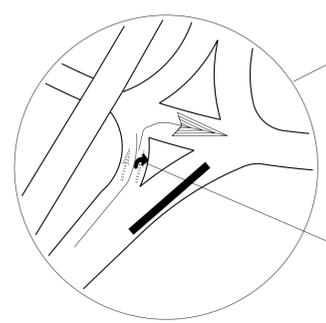
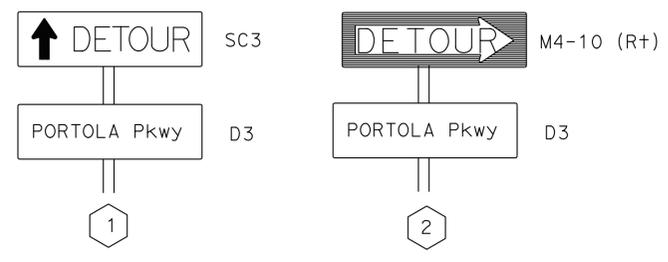
2. TAKE SOUTHBOUND 133, EXIT IRVINE Blvd, RIGHT ON IRVINE Blvd, RIGHT ON SAND CANYON Ave.

**PORTABLE CHANGEABLE MESSAGE SIGN**

PCMS No.	MESSAGE		No. OF SIGNS
	1ST FRAME	2ND FRAME	
PCMS-1	PORTOLA Pkwy RIGHT EXIT CLOSED	USE LEFT EXIT	1
PCMS-2	PORTOLA Pkwy EXIT CLOSED	USE SB ROUTE 133 IRVINE Blvd EXIT	1

**CONSTRUCTION AREA SIGNS (DETOUR) STATIONARY MOUNTED**

SIGN No.	SIGN CODE	No. OF POST AND SIZE	No. OF SIGNS
1	SC3 (CA)	1-4" X 6"	6
	D3		
2	M4-10 (R+)	1-4" X 6"	2
	D3		



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	12	54

01/25/16  
 REGISTERED CIVIL ENGINEER DATE  
 01/25/16  
 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  
 JOSEPH LEE  
 No. C39058  
 Exp. 06/30/17  
 CIVIL  
 STATE OF CALIFORNIA

APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN**  
(DETOUR)  
NO SCALE

**TH-1**

LAST REVISION: DATE PLOTTED => 28-APR-2016  
 08-01-15 TIME PLOTTED => 13:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	13	54

*John Oly*  
LICENSSED LANDSCAPE ARCHITECT

1/25/16  
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT  
No. 5897  
*John Oly*  
Signature  
01-31-17  
Renewal Date  
01/25/16  
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.

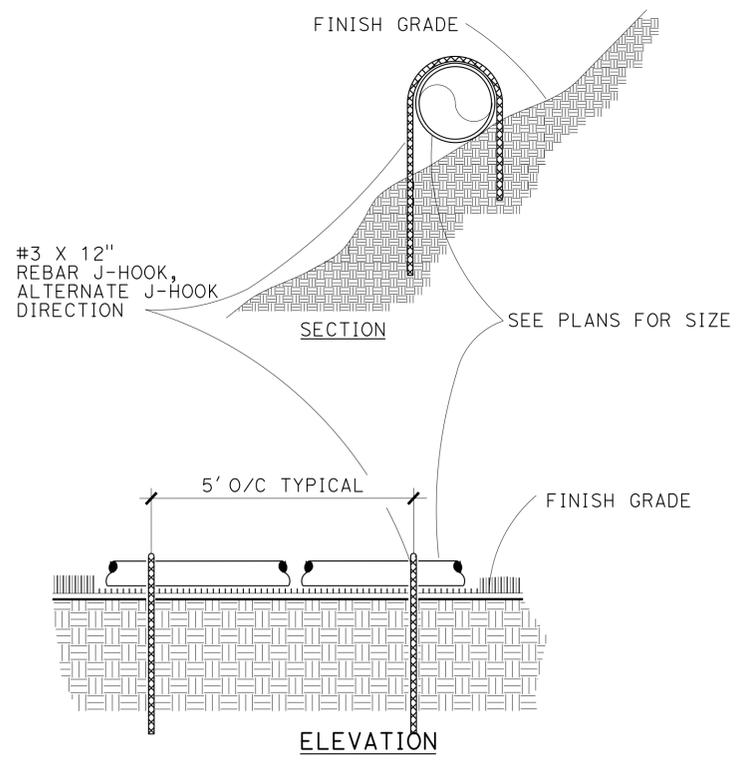
### IRRIGATION SPRINKLER SCHEDULE

SYMBOL	DESCRIPTION	SPRAY PATTERN	RADIUS (ft)	WIDTH X LENGTH (ft)	PLUS/MINUS 5% ②		DISCHARGE	OPERATING PRESSURE (psi)	PRESSURE COMPENSATING	FLOW SHUTOFF DEVICE	SPRINKLER ASSEMBLY						DESCRIPTION/REMARKS	
					GALLONS PER MINUTE (GPM)	GALLONS PER HOUR (GPH)					RISER		POP-UP		TREE WELL			
											MATERIAL	HEIGHT (INCH)	HEIGHT (INCH)	SPRINKLER PROTECTOR (TYPE)				
					TYPE	PLASTIC					GALVANIZED	FLOW SHUTOFF DEVICE	HEIGHT (INCH)	TYPE	HEIGHT (INCH)	HEIGHT (INCH)		
□	RISER SPRINKLER ASSEMBLY	SST/EST	--	4x30	0.66-1.21	--	30	X	X	III	X	--	X	12	--	--	--	--

**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 - VINYL-COATED CAST IRON HOUSING.
- 4 - SWING JOINTS REQUIRED ADJACENT TO SHOULDERS, CURBS, SIDEWALKS, AND DIKES.
- 5 - UNLESS OTHERWISE SHOWN ON PLANS.



**NOTES:**

- ALL PIPE AND FITTINGS INSTALLED ON GRADE TO BE ULTRAVIOLET-RESISTANT PVC SCHEDULE 40 BROWN PIPE
- SPRINKLER ASSEMBLY TO BE INSTALLED PLUMBING

**TEMPORARY IRRIGATION SYSTEMS (ON GRADE PIPE)**

NO SCALE

## IRRIGATION SPRINKLER SCHEDULE

**ISS-1**

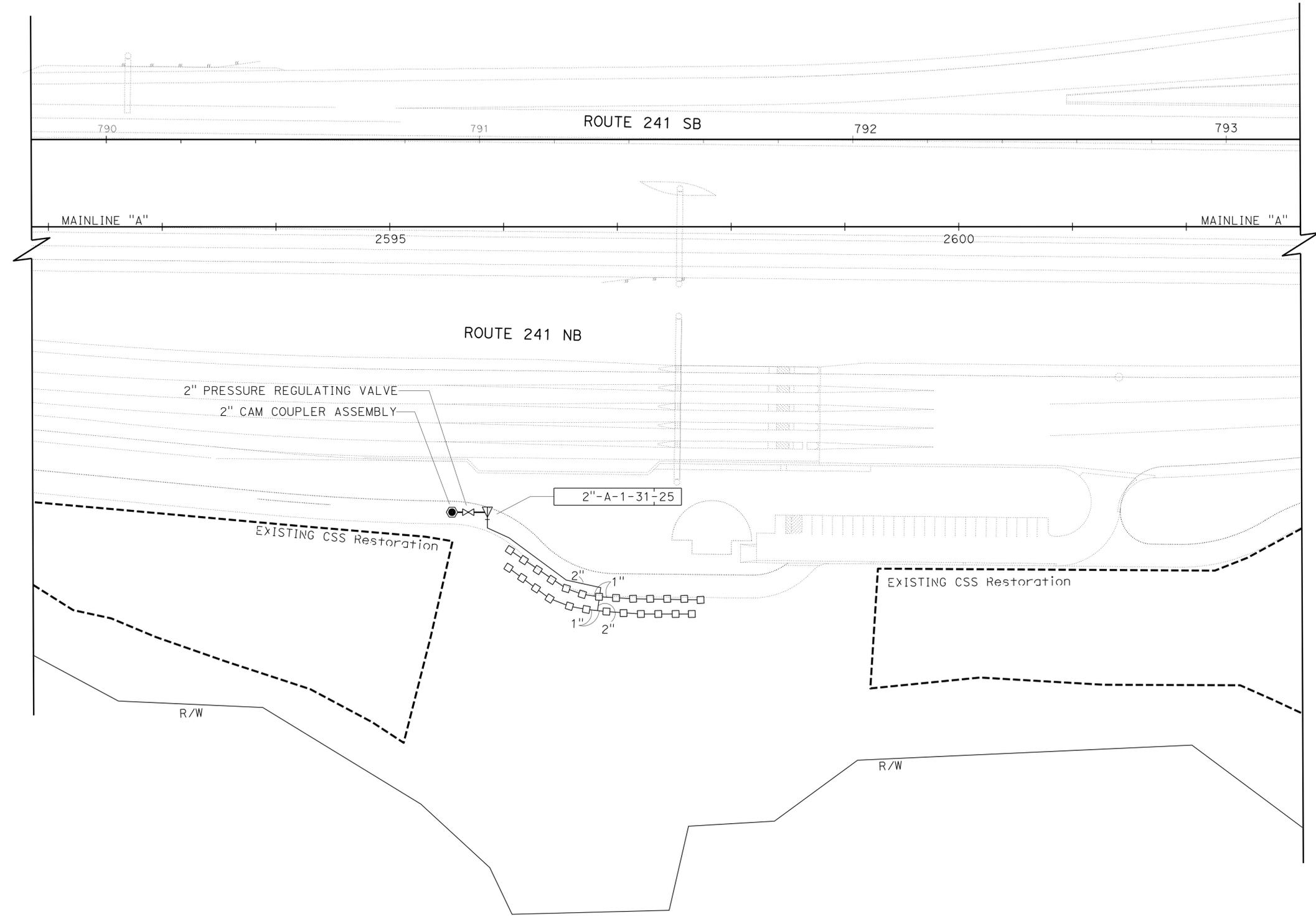
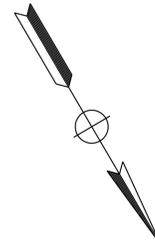
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT: ERIC DICKSON  
 CALCULATED/DESIGNED BY: LONDON MARES  
 CHECKED BY: VATHANA CHY  
 REVISED BY: [blank]  
 DATE REVISED: [blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	14	54

<i>Vathana Chy</i> LICENSED LANDSCAPE ARCHITECT	
1/25/16 PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>	

**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.  
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDON MARES	REVISOR	DATE
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	VATHANA CHY	DESIGNED BY	REVISION
SENIOR LANDSCAPE ARCHITECT	ERIC DICKSON	CHECKED BY	DATE

APPROVED FOR IRRIGATION WORK ONLY

**IRRIGATION PLAN**  
 SCALE : 1"=50'  
**IP-1**

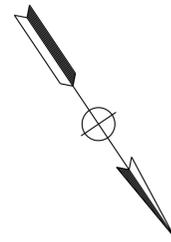
LAST REVISION | DATE PLOTTED => 28-APR-2016  
 01-05-16 TIME PLOTTED => 1:3:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	15	54

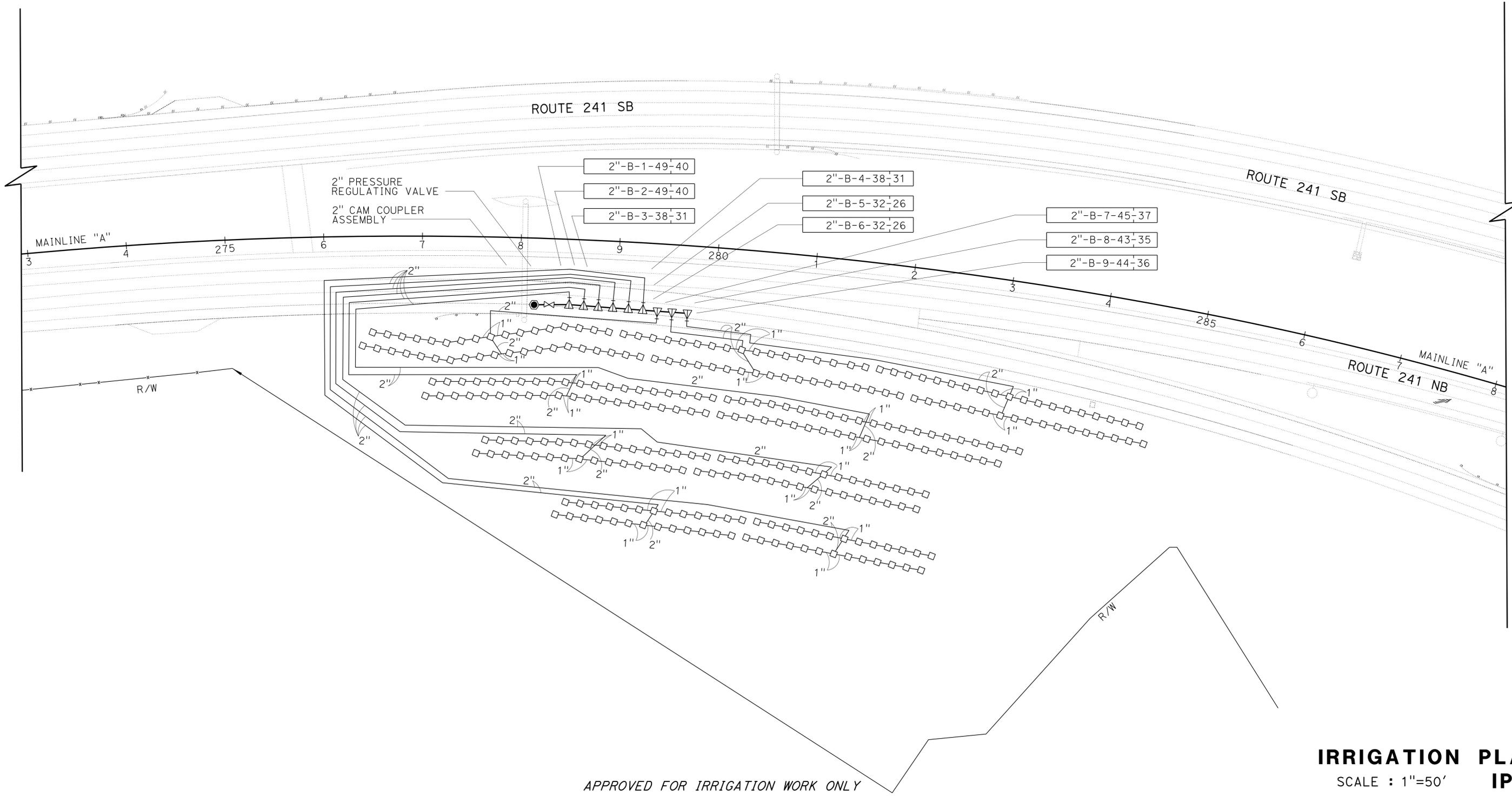
*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 Signature  
 01-31-17  
 Renewal Date  
 01/25/16  
 Date  
 STATE OF CALIFORNIA

1/25/16  
 PLANS APPROVAL DATE  
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REVISOR: LONDON MARES  
 CHECKED BY: VATHANA CHY  
 DESIGNED BY: ERIC DICKSON  
 ARCHITECT: LANDSCAPE ARCHITECT  
 SENIOR LANDSCAPE ARCHITECT  
 TRANSPORTATION ARCHITECTURE  
 DEPARTMENT OF TRANSPORTATION  
 CALIFORNIA  
 Caltrans



APPROVED FOR IRRIGATION WORK ONLY

**IRRIGATION PLAN**  
 SCALE : 1"=50'  
**IP-2**

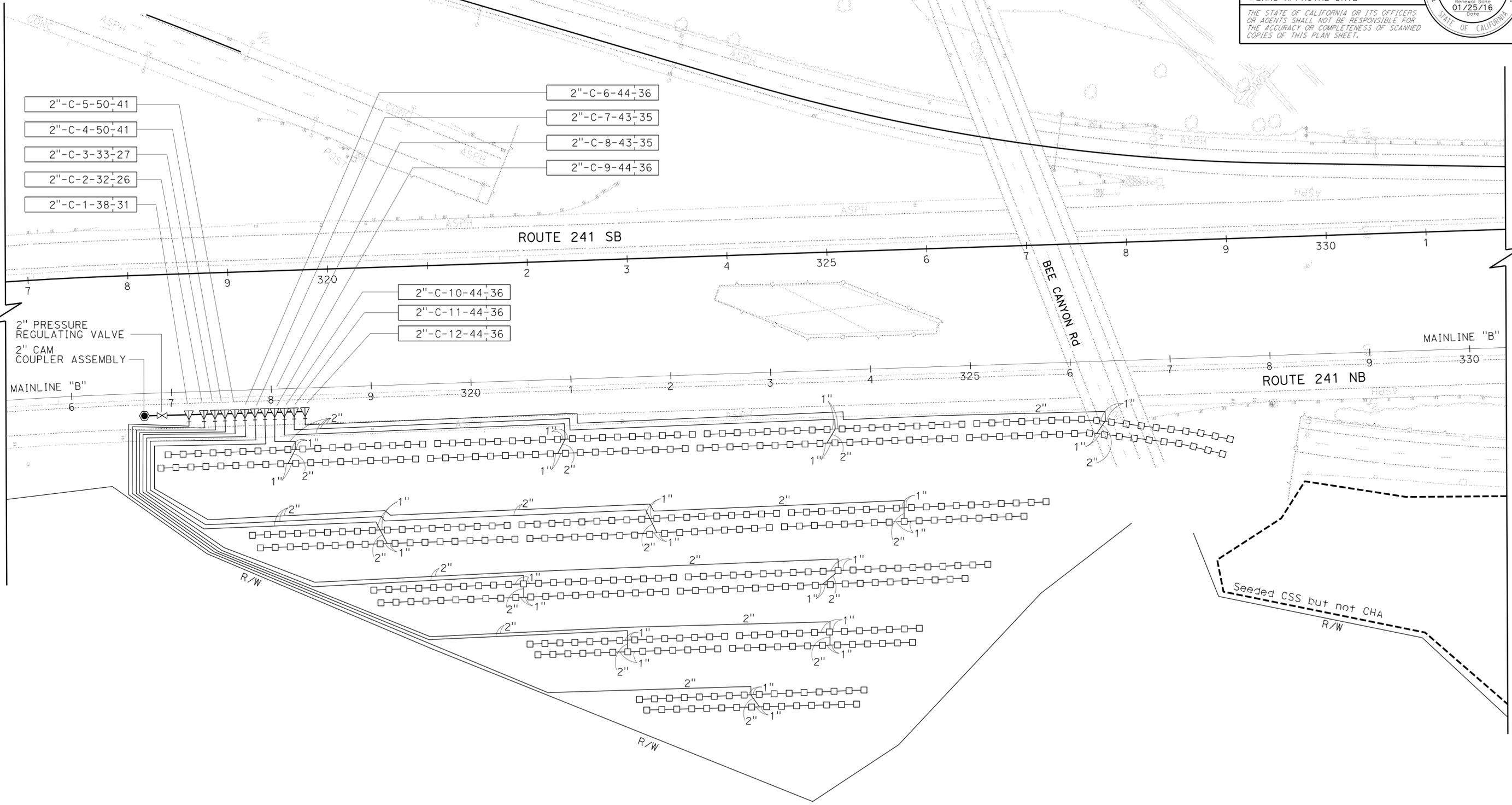
LAST REVISION | DATE PLOTTED => 28-APR-2016 | 01-05-16 | TIME PLOTTED => 1:3:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	16	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 Signature: *Vathana Chy*  
 01-31-17  
 Renewal Date: 01/25/16  
 Date: 1/25/16  
 PLANS APPROVAL DATE

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 LANDSCAPE ARCHITECTURE  
 LANDON MARES  
 VATHANA CHY  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON

APPROVED FOR IRRIGATION WORK ONLY

**IRRIGATION PLAN**  
 SCALE : 1"=50'  
**IP-3**

LAST REVISION DATE PLOTTED => 28-APR-2016  
 01-05-16 TIME PLOTTED => 1:3:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	17	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT

1/25/16  
 PLANS APPROVAL DATE

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**IRRIGATION QUANTITIES**

SUBTOTALS PER VALVE ON LATERAL SUPPLY SIDE OF CONTROL VALVE	CONTROLLER LETTER	VALVE NUMBER	SHEET NUMBER	CCA			PRV		BV		PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)		SPRINKLER ASSEMBLY
				1 1/2"	2"	2"	2"	1"	2"	RISER SPRINKLER ASSEMBLY			
				EA	EA	EA	EA	LF	LF		EA		
SUBTOTALS PER VALVE ON LATERAL SUPPLY SIDE OF CONTROL VALVE	A	1	--	--	--	--	--	--	400	150	--	25	
		2	--	--	--	--	--	--	650	830	--	40	
		3	--	--	--	--	--	--	600	910	--	31	
	B	4	--	--	--	--	--	--	400	720	--	31	
		5	--	--	--	--	--	--	400	1020	--	26	
		6	--	--	--	--	--	--	600	860	--	26	
		7	--	--	--	--	--	--	600	220	--	37	
		8	--	--	--	--	--	--	300	150	--	35	
		9	--	--	--	--	--	--	650	400	--	36	
		C	1	--	--	--	--	--	--	460	850	--	31
			2	--	--	--	--	--	--	400	710	--	26
			3	--	--	--	--	--	--	390	910	--	27
4	--		--	--	--	--	--	610	610	--	41		
5	--		--	--	--	--	--	620	930	--	41		
6	--		--	--	--	--	--	530	450	--	36		
SUBTOTALS PER SHEET ON MAIN SUPPLY SIDE OF CONTROL VALVE	7	--	--	--	--	--	--	530	720	--	35		
	8	--	--	--	--	--	--	520	980	--	35		
	9	--	--	--	--	--	--	540	80	--	36		
	10	--	--	--	--	--	--	540	340	--	36		
	11	--	--	--	--	--	--	530	600	--	36		
	12	--	--	--	--	--	--	540	860	--	36		
SUBTOTALS PER SHEET ON MAIN SUPPLY SIDE OF CONTROL VALVE	IP-1	--	--	1	1	1	--	--	10	--	--		
	IP-2	--	--	1	1	9	--	--	100	--	--		
	IP-3	--	--	1	1	12	--	--	100	--	--		
	--	--	--	--	--	--	--	--	--	--	--		
TOTAL	--	--	3	3	22	11,460	14,080	743					

**IRRIGATION QUANTITIES**

**IQ-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	18	54

*Afhame Oly*  
 LICENSED LANDSCAPE ARCHITECT  
 Signature: *Afhame Oly*  
 01-31-17  
 Renewal Date: 01/25/16  
 Date: \_\_\_\_\_  
 PLANS APPROVAL DATE: 1/25/16

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**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 - DEPARTMENT-FURNISHED
- ⑬ - EROSION CONTROL WILL RECEIVE ROADSIDE CLEARING

**ABBREVIATIONS:**

- S - SPHAGNUM PEAT MOSS
- N - NITROLIZED FIR BARK
- V - VERMICULITE
- P - PERLITE
- TB - TREE BARK
- WC - WOOD CHIP
- SB - SHREDDED BARK
- TT - TREE TRIMMING
- CSS - COASTAL SAGE SCRUB
- CHA - CRITICAL HABITAT AREA

**PLANTING LEGEND**

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (INCH)		BASIN TYPE	SOIL AMENDMENT ①		IRON SULFATE ①	ENDOMYCORRHIZAL INOCULUM ①		BASIN MULCH		STAKING	PLANTING LIMITS						REMARKS	
							Dia	DEPTH		TYPE	RATE	RATE	PLANTING	PLT ESTB	TYPE	CY		MINIMUM DISTANCE (ft) FROM ON							
																		ETW	Pvmt	FENCE	WALL	PAVED EARTH CENTER DITCH	DITCH		(ft)
M	1		NASSELLA <u>PULCHRA</u>	PURPLE NEEDLEGRASS	LINER ④	12,160	12	18	II	N	0.15 CF	—	1 OZ	—	SB	0.5 CF	—	—	5	—	5	3	3	0.5	SEE DETAIL

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

**LEGENDS:**

INERT MATERIAL AND PAVEMENT



WOOD MULCH - 3" DEPTH



GRAVEL MULCH (CELLULAR CONFINEMENT)

EROSION CONTROL LINEAR TREATMENT



FIBER ROLLS



COMPOST SOCK

MISCELLANEOUS



TEMPORARY FENCE (TYPE ESA)



PROTECT EXISTING PLANTS



OPERATE EXISTING IRRIGATION FACILITIES

EROSION CONTROL TREATMENT ⑬



EROSION CONTROL TYPE 1



EROSION CONTROL TYPE 2



EROSION CONTROL TYPE 3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - LANDSCAPE ARCHITECTURE  
 Eric Dickson  
 Senior Landscape Architect  
 Landon Mares  
 Vathana Chy  
 Calculated/Designed By  
 Checked By  
 Revised By  
 Date Revised

**PLANT LIST  
 PL-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	19	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE

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### SEED MIX 1 TABLE (GRASSES)

SEED	BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
MIX 1 ①②	AGROSTIS PALLENS	42%	2.0
	SEASHORE BENT GRASS		
	CAMISSONIOPSIS CHEIRANTHIFOLIA	45%	0.5
	BEACH SUNCUP		
	CLARKIA AMOENA	40%	1.0
	FAREWELL TO SPRING		
	DESCHAMPSIA CESPITOSA	40%	1.0
	TURFTED HAIRGRASS		
	DESCHAMPSIA ELONGATUM	42%	1.0
	SLENDER HAIRGRASS		
	ESCHCHOLZIA CALIFORNICA	40%	2.0
	CALIFORNIA POPPY		
	FESTUCA MICROSTACHYS	40%	6.0
	SMALL FESCUE		
	FESTUCA RUBRA 'MOLATE'	42%	6.0
	CREEPING RED FESCUE		
	LUPINIS BICOLOR	40%	0.5
	MINIATURE LUPINE		
	MELICA FRUTESCENS	39%	1.0
	WOODY MELICGRASS		
MELICA IMPERFECTA	33%	2.0	
SMALLFLOWER MELIC			
MIMULUS AURANTIACUS	37%	0.1	
STICKY MONKEY-FLOWER			
PHACELIA CAMPANULARIA	40%	2.0	
DESERT BELLS			
STIPA LEPIDA	35%	2.0	
FOOTHILL NEEDLEGRASS			
TOTAL			27.1

- ① SEED PRODUCED IN CALIFORNIA ONLY.
- ② SEED SOURCE FROM COASTAL REGION OF ORANGE COUNTY, SAN DIEGO COUNTY, AND LOS ANGELES COUNTY ONLY.

### SEED MIX 2 TABLE (NATIVES)

SEED	BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)	
MIX 1 ①②	ACMISPON GLABER BROUILLET	40%	4.0	
	AMBROSIA PSILOSTACHYA	20%	1.0	
	ARTEMISIA CALIFORNICA	30%	0.2	
	CRYPTANTHA INTERMEDIA	25%	0.1	
	ENCELIA CALIFORNICA	25%	1.0	
	ERIOGONUM FASCICULATUM	5%	1.0	
	ESCHSCHOLZIA CALIFORNICA	40%	1.5	
	ISOCOMA MENZIESII	20%	1.0	
	MALACOTHRIX SAXITALIS	20%	0.1	
	MIMULUS AURANTIACUS	35%	0.1	
	MUHLENBERGIA MICROSPERMA	30%	2.0	
	PHACELIA CICUTARIA	45%	0.5	
	SALVIA MELLIFERA	25%	1.5	
	TOTAL			14.0

- ① SEED PRODUCED IN CALIFORNIA ONLY.
- ② SEED SOURCE FROM COASTAL REGION OF ORANGE COUNTY, SAN DIEGO COUNTY, AND LOS ANGELES COUNTY ONLY.

### EROSION CONTROL TYPE 1

SEQUENCE	ITEM	MATERIAL ②		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	EROSION CONTROL (BONDED FIBER MATRIX)	MYCORRHIZAL INOCULUM	---	60 LBS/ACRE
		ORGANIC FERTILIZER	7-2-1	800 LBS/ACRE
		SOIL AMENDMENT	---	500 LBS/ACRE
		SEED	MIX 1	27.1 LB/ACRE
		FIBER	WOOD	3500 LB/ACRE
		TACKIFIER ①	---	

- ① PREPACKAGED WITH FIBER BY THE MANUFACTURER
- ② NOT A SEPARATE ITEM, INCLUDE WITH BONDED FIBER MATRIX

### EROSION CONTROL TYPE 2

SEQUENCE	ITEM	MATERIAL ②		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	EROSION CONTROL (BONDED FIBER MATRIX)	MYCORRHIZAL INOCULUM	---	60 LBS/ACRE
		ORGANIC FERTILIZER	7-2-1	800 LBS/ACRE
		SOIL AMENDMENT	---	500 LBS/ACRE
		SEED	MIX 2	14 LB/ACRE
		FIBER	WOOD	3500 LB/ACRE
		TACKIFIER ①	---	

- ① PREPACKAGED WITH FIBER BY THE MANUFACTURER
- ② NOT A SEPARATE ITEM, INCLUDE WITH BONDED FIBER MATRIX

### EROSION CONTROL TYPE 3

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	DEPTH
		DESCRIPTION	TYPE		
STEP 1	ROADWAY EXCAVATION	MINOR GRADING & TRACKWALK	---	---	6"
STEP 2	COMPOST	COMPOST	MEDIUM	135 CY/ACRE	1"
STEP 3	INCORPORATE MATERIALS	LOCAL TOPSOIL/COMPOST	---	---	3"
STEP 4	EROSION CONTROL (BONDED FIBER MATRIX)	SEED	MIX 2	14 LB/ACRE	---
		FIBER	WOOD	3500 LB/ACRE	
		TACKIFIER ①	---		
STEP 5	ROLLED EROSION CONTROL PRODUCT (NETTING)	COCONUT FIBER	TYPE A	---	---

- ① PREPACKAGED WITH FIBER BY THE MANUFACTURER

### COMPOST SOCK

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	REMARKS
		DESCRIPTION	TYPE		
COMPOST SOCKS MUST BE INSTALLED AFTER RECP (NETTING)	COMPOST SOCK	MESH TUBE	12" Dia	---	TYPE 2 COMPOST SOCK INSTALLATION
		SEED ①	MIX 1	27.1 LB/ 135 CY	

- ① NOT A SEPARATE PAY ITEM, INCLUDE WITH COMPOST SOCK

#### NOTE:

EROSION CONTROL APPLICATIONS WILL BE INSTALLED WITHIN 14 DAYS OF SOIL EXPOSURE.

## PLANT LIST PL-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT  
 LONDON MARES  
 VATHANA CHY  
 CHECKED BY  
 ERIC DICKSON  
 REVISOR BY  
 DATE REVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	20	54

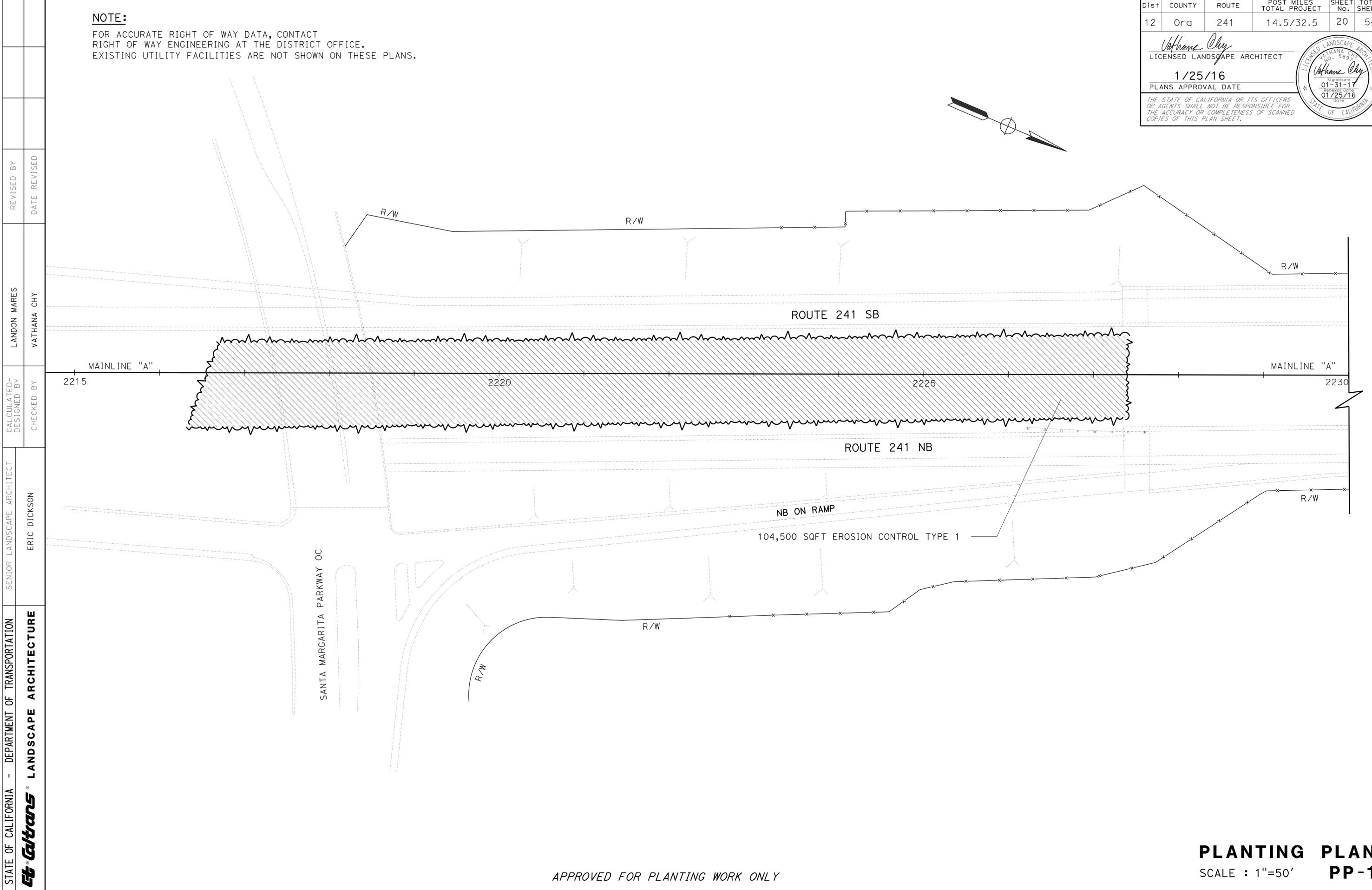
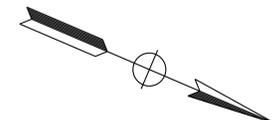
  

<i>Vathana Chy</i>	
LICENSED LANDSCAPE ARCHITECT	
1/25/16	
PLANS APPROVAL DATE	

<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>	
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	REVISOR	DATE
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	LONDON MARES	VATHANA CHY
	ERIC DICKSON	
SENIOR LANDSCAPE ARCHITECT	CALCULATED-DESIGNED BY	CHECKED BY

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-1**

LAST REVISION | DATE PLOTTED => 28-APR-2016  
 01-05-16 | TIME PLOTTED => 1:3:48

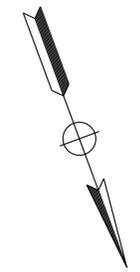
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	21	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE

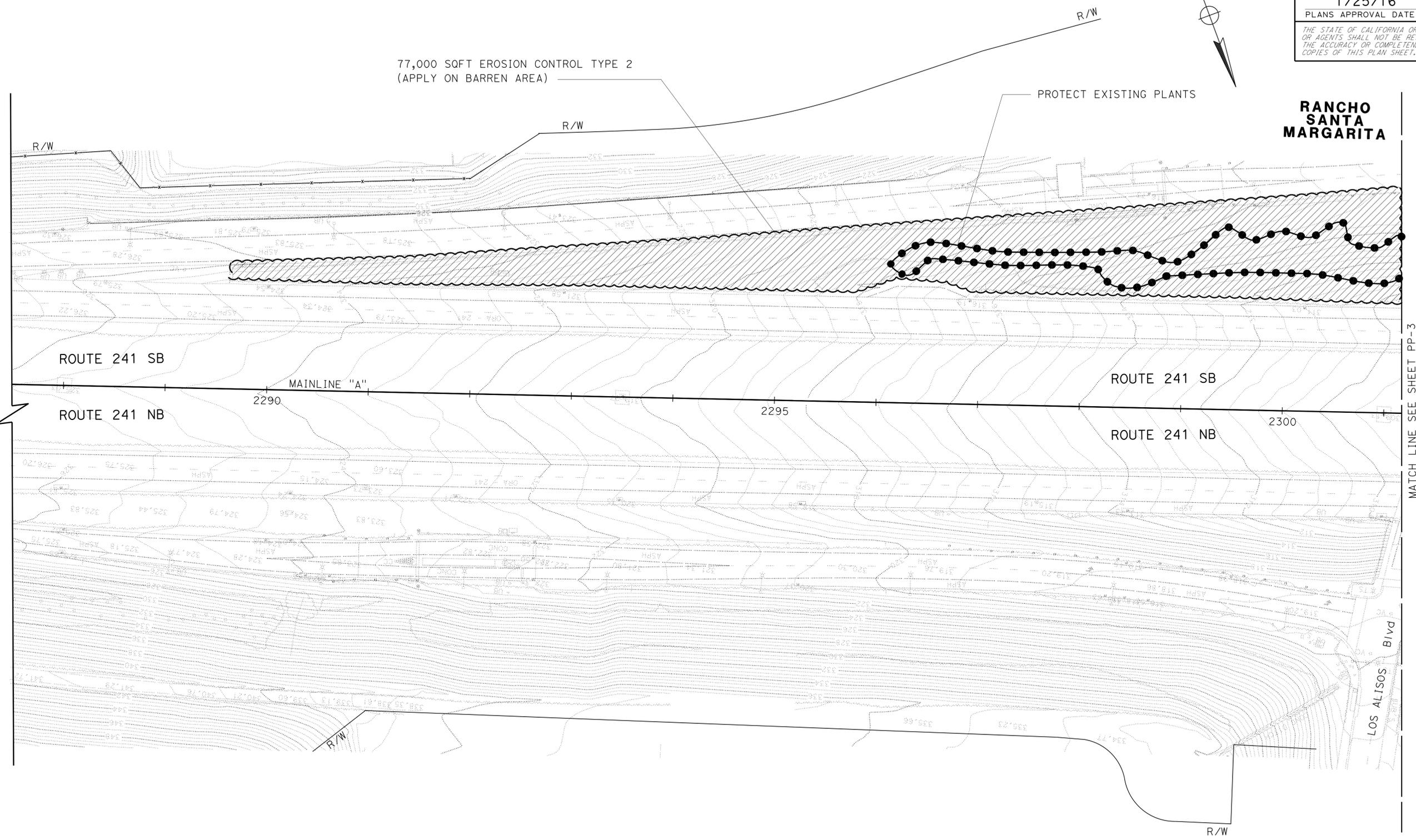
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LICENSED LANDSCAPE ARCHITECT  
 VATHANA CHY  
 No. 5897  
*Vathana Chy*  
 Signature  
 01-31-17  
 Renewal Date  
 01/25/16  
 Date  
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON  
 CHECKED BY  
 VATHANA CHY  
 LONDON MARES  
 REVISED BY  
 DATE REVISED



APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-2**

LAST REVISION  
 01-05-16  
 DATE PLOTTED => 28-APR-2016  
 TIME PLOTTED => 13:48

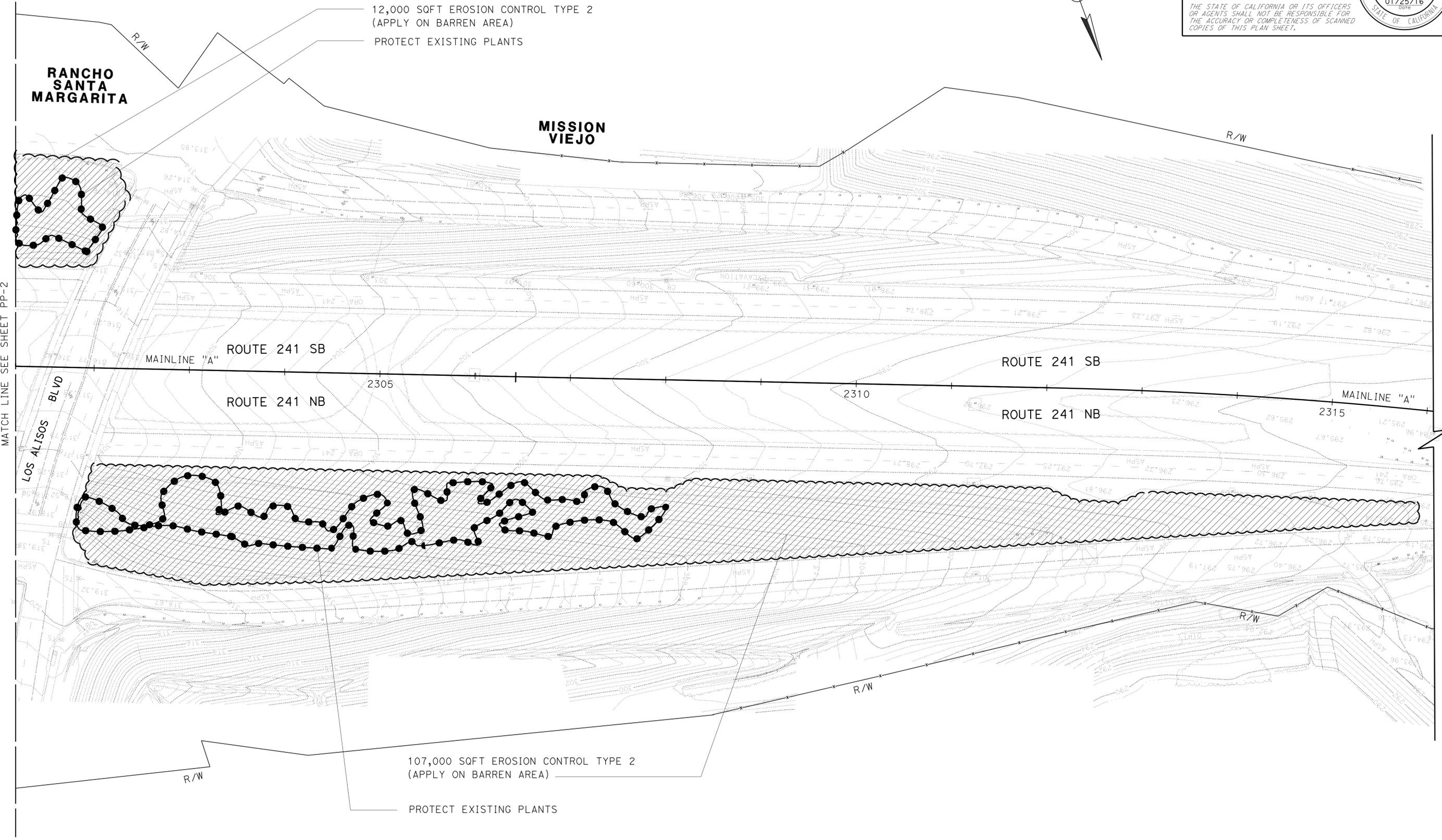
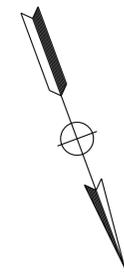
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	22	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
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LICENSED LANDSCAPE ARCHITECT  
 VATHANA CHY  
 No. 589  
 Signature: *Vathana Chy*  
 01-31-17  
 Renewal Date: 01/25/16  
 Date

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDSCAPE ARCHITECTURE	SENIOR LANDSCAPE ARCHITECT	CHECKED BY	DESIGNED BY	REVISOR	DATE
<b>Caltrans</b>	LANDSCAPE ARCHITECTURE	ERIC DICKSON	VATHANA CHY	LONDON MARES		

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-3**

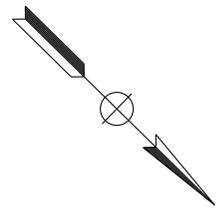
LAST REVISION DATE PLOTTED => 28-APR-2016  
 01-05-16 TIME PLOTTED => 13:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	23	54

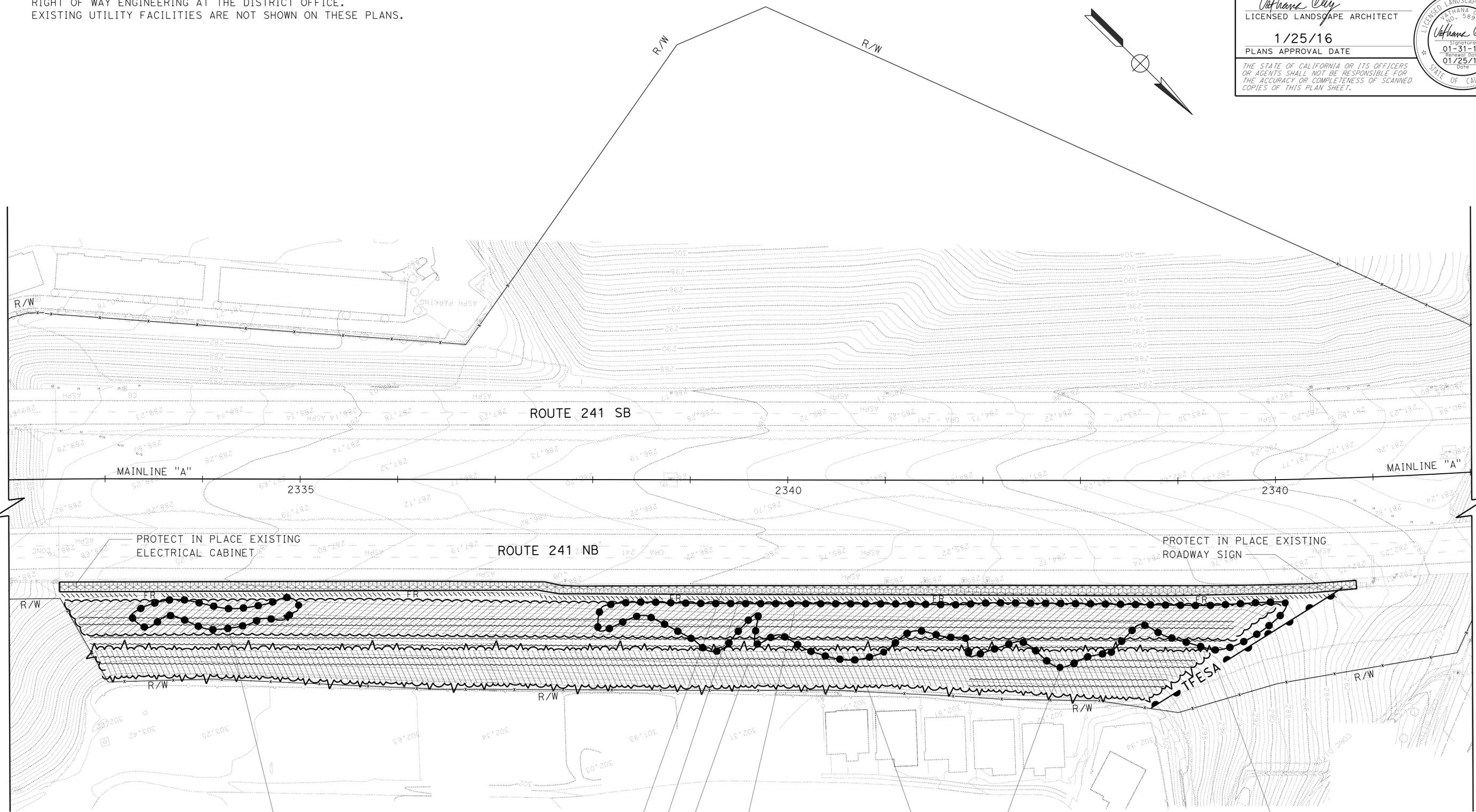
*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 Signature  
 01-31-17  
 Renewal Date  
 01/25/16  
 Date  
 STATE OF CALIFORNIA

1/25/16  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 VATHANA CHY  
 LONDON MARES  
 REVISED BY  
 DATE REVISED



- PROTECT EXISTING PLANTS
- 12,000 SQFT GRAVEL MULCH (CELLULAR CONFINEMENT)
- 1,400 F+ FIBER ROLL
- 4,000 F+ COMPOST SOCK
- 47,500 SQFT EROSION CONTROL TYPE 2 (APPLY ON BARREN AREA)
- 250 F+ TEMPORARY FENCE (TYPE ESA)
- PROTECT EXISTING PLANTS
- 46,000 SQFT EROSION CONTROL TYPE 1 (APPLY ON BARREN AREA)

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-4**

LAST REVISION | DATE PLOTTED => 28-APR-2016  
 01-05-16 TIME PLOTTED => 1:3:48

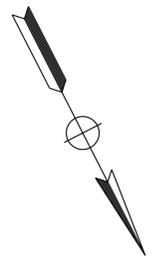
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	24	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 Signature: *Vathana Chy*  
 01-31-17  
 Renewal Date: 01/25/16  
 Date: 01/25/16

1/25/16  
PLANS APPROVAL DATE

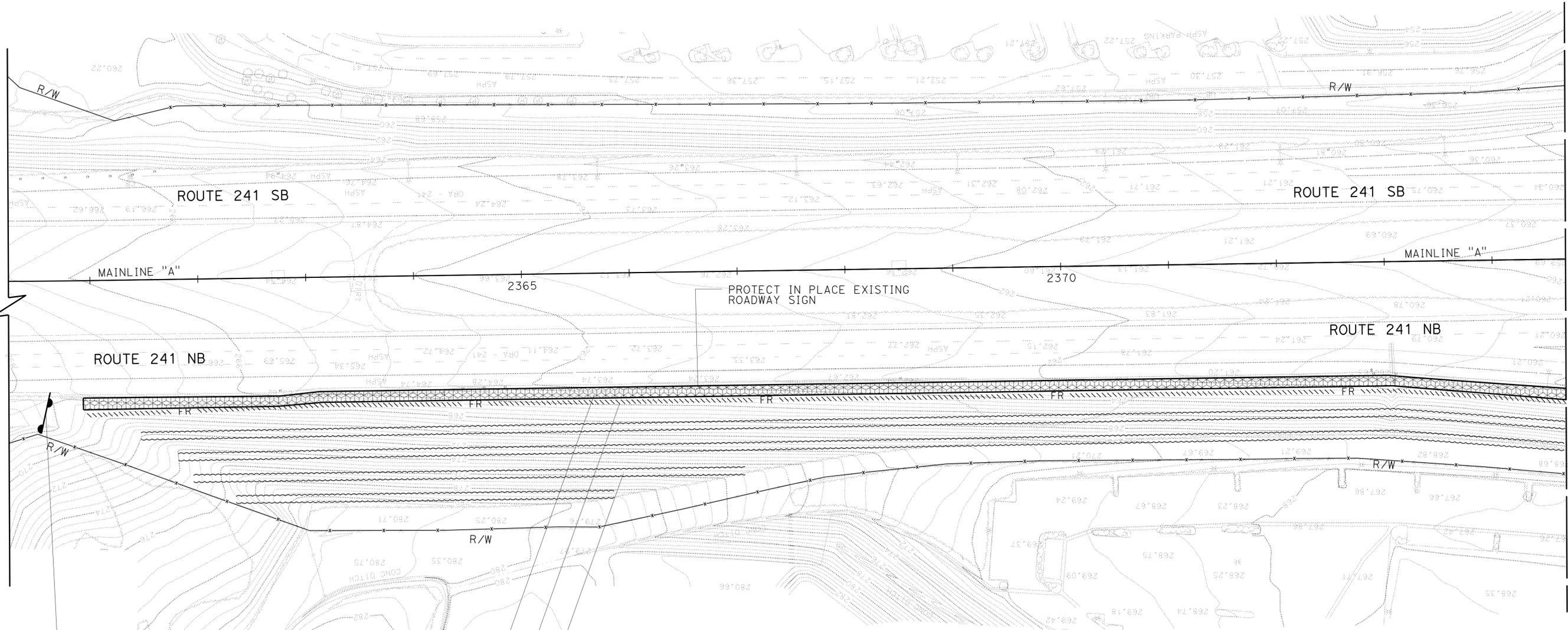
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTE:**  
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT: ERIC DICKSON  
 CALCULATED/DESIGNED BY: LONDON MARES  
 CHECKED BY: VATHANA CHY  
 REVISED BY: [ ] DATE: [ ]  
 REVISOR: [ ] DATE: [ ]



MATCH LINE SEE SHEET PP-6

- 40 F+ TEMPORARY FENCE (ESA)
- 12,300 SQFT GRAVEL MULCH (CELLULAR CONFINEMENT)
- 1,400 F+ FIBER ROLL
- 3,500 F+ COMPOST SOCK

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-5**

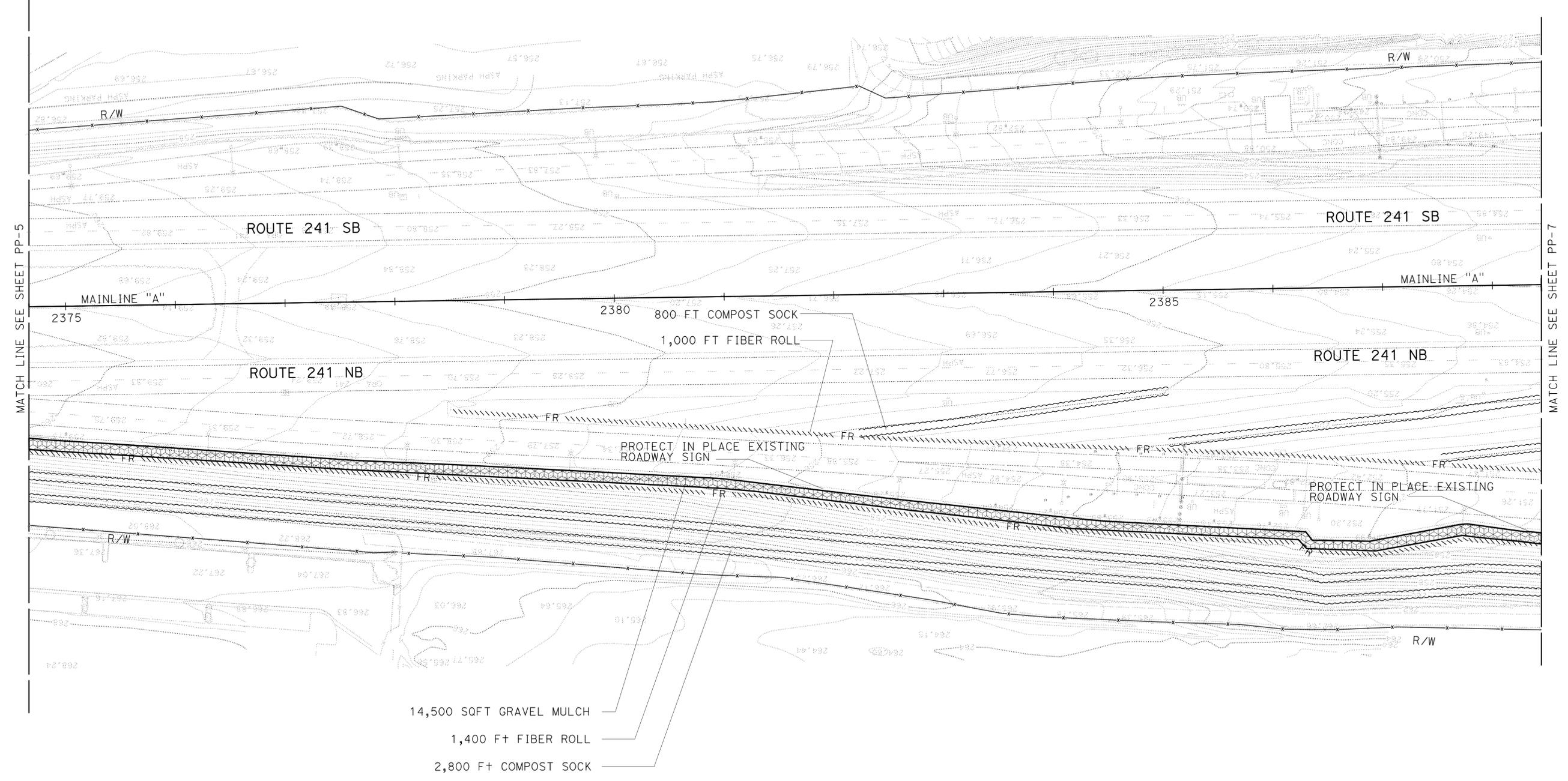
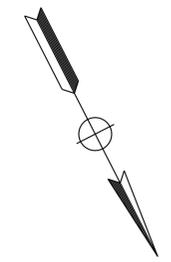
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	25	54

 LICENSED LANDSCAPE ARCHITECT		
1/25/16 PLANS APPROVAL DATE		

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 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDON MARES	REVISOR BY
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	VATHANA CHY	DATE REVISED
SENIOR LANDSCAPE ARCHITECT	ERIC DICKSON	CALCULATED/DESIGNED BY
		CHECKED BY

**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-6**

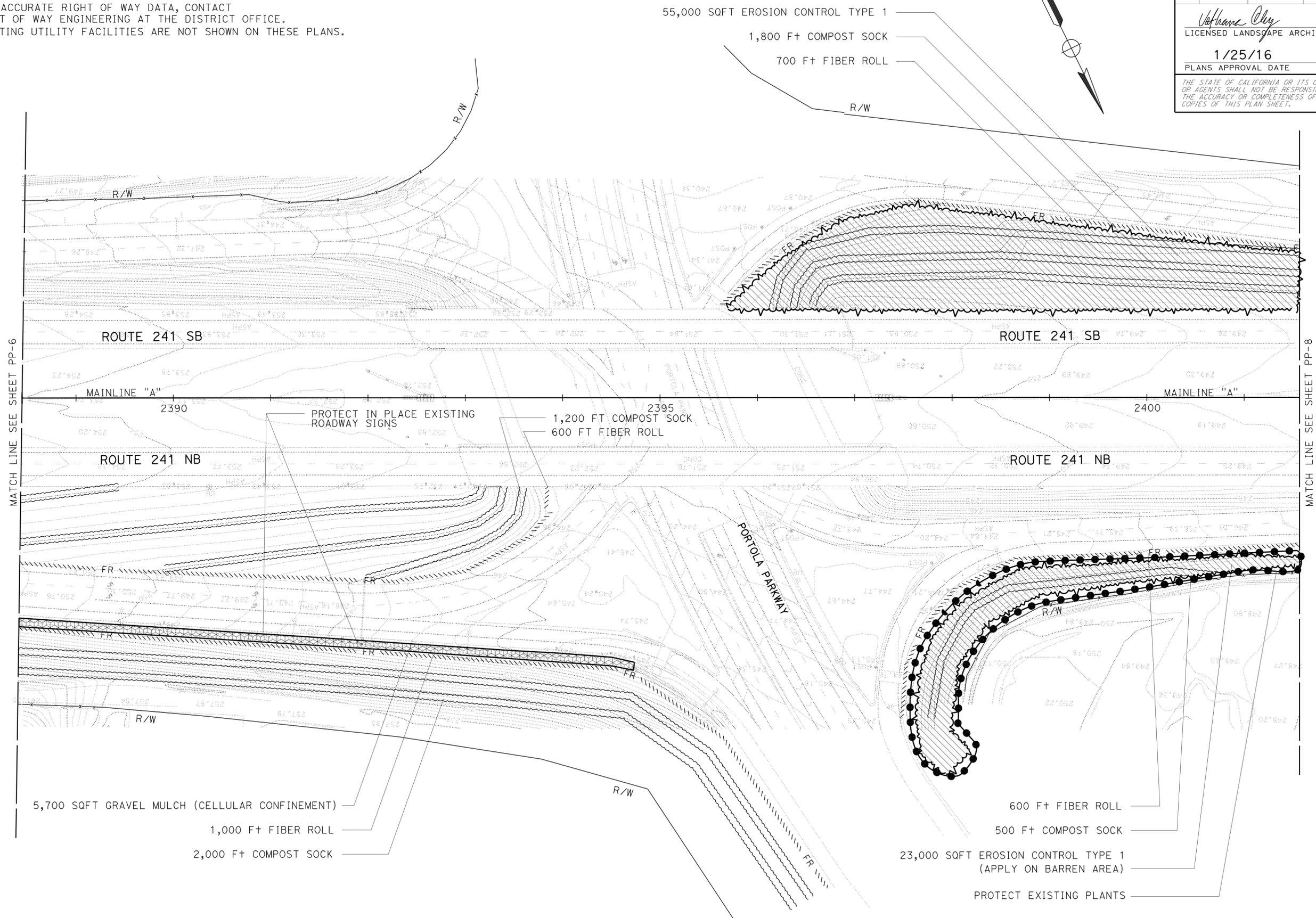
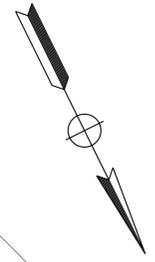
APPROVED FOR PLANTING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	26	54

<i>Vathana Chy</i> LICENSED LANDSCAPE ARCHITECT	
1/25/16 PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>	

**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.  
 EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



MATCH LINE SEE SHEET PP-6

MATCH LINE SEE SHEET PP-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDON MARES	REVISOR	DATE
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	VATHANA CHY		
SENIOR LANDSCAPE ARCHITECT	ERIC DICKSON	CALCULATED/DESIGNED BY	CHECKED BY

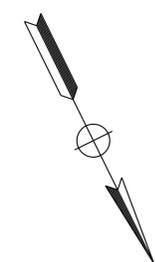
APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-7**

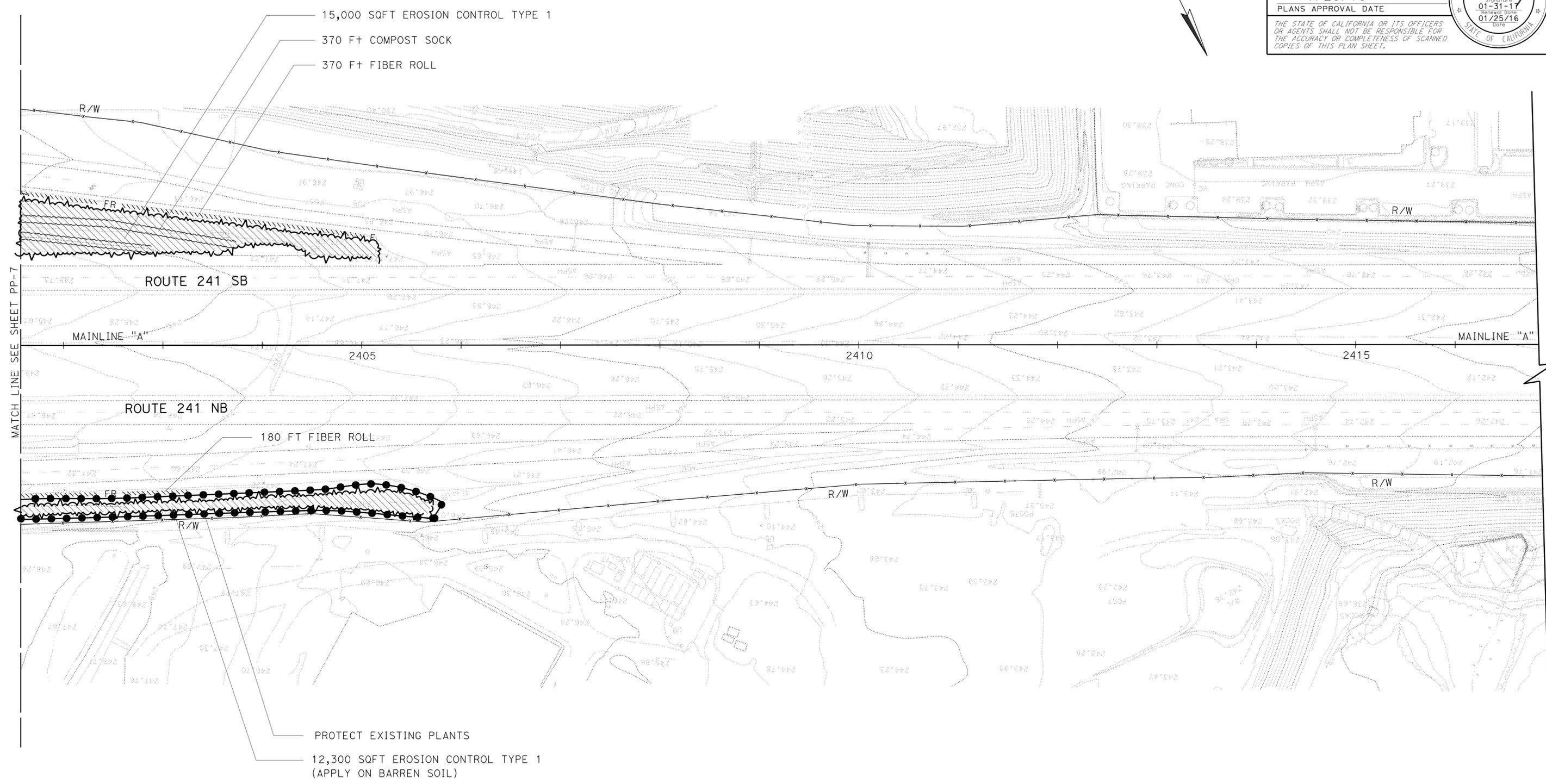
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	27	54

<i>Vathana Chy</i> LICENSED LANDSCAPE ARCHITECT	
1/25/16 PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>	



**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.  
 EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON

CALCULATED/DESIGNED BY  
 CHECKED BY

LANDON WARES  
 VATHANA CHY

REVISED BY  
 DATE REVISED

APPROVED FOR PLANTING WORK ONLY

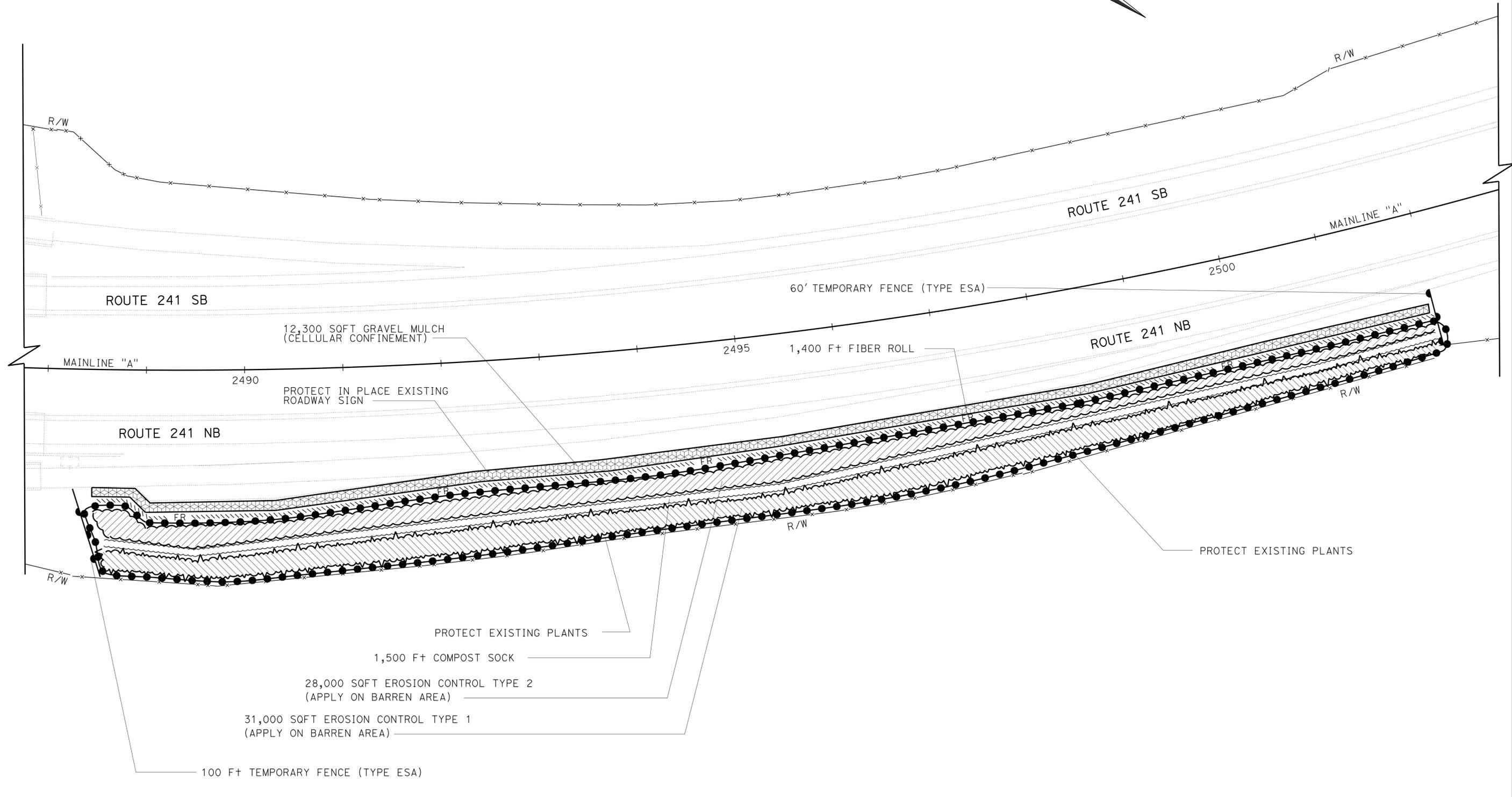
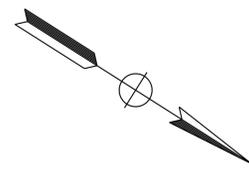
**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-8**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	28	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE

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 OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
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**NOTE:**  
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON  
 CHECKED BY  
 VATHANA CHY  
 LONDON MARES  
 REVISED BY  
 DATE REVISED

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50'  
**PP-9**

LAST REVISION DATE PLOTTED => 28-APR-2016  
 01-05-16 TIME PLOTTED => 13:48

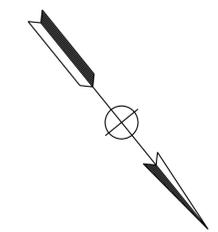
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	29	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 Signature  
 01-31-17  
 Renewal Date  
 01/25/16  
 Date  
 STATE OF CALIFORNIA

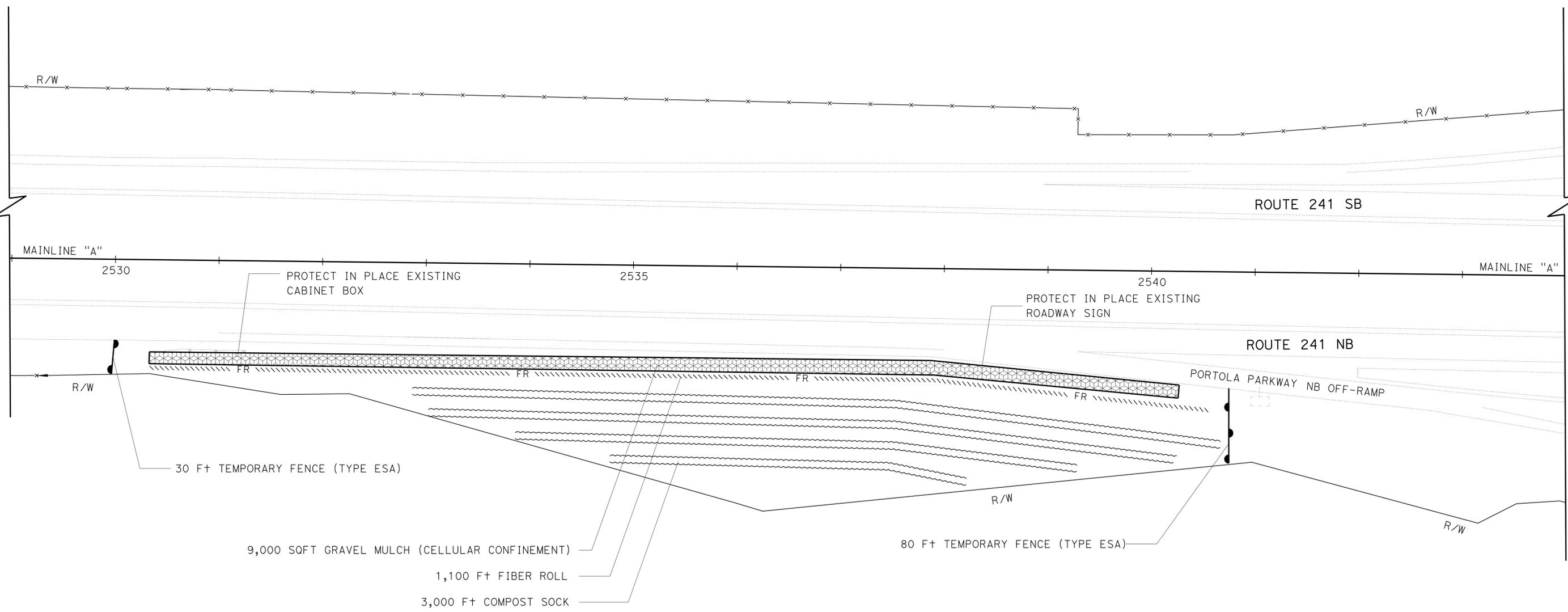
1/25/16  
 PLANS APPROVAL DATE

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

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 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.  
 EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 VATHANA CHY  
 LONDON MARES  
 REVISED BY  
 DATE  
 REVISED  
 DATE



APPROVED FOR PLANTING WORK ONLY

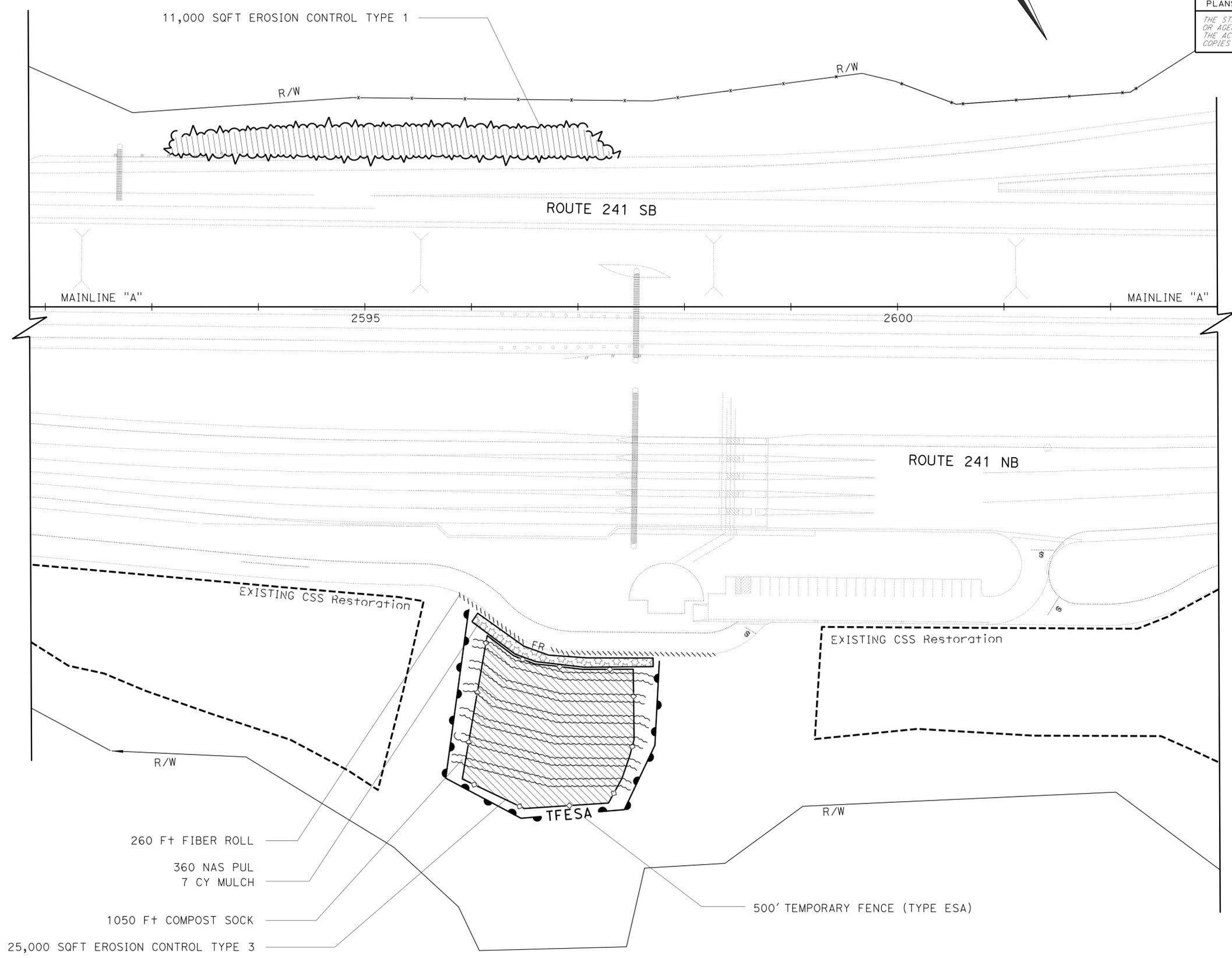
**PLANTING PLAN**  
 SCALE : 1"=50' **PP-10**

LAST REVISION DATE PLOTTED => 28-APR-2016  
 02-25-16 TIME PLOTTED => 1:3:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	30	54

*Vafhana Oly*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.  
 EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDON MARES	REVISOR	DATE
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	VATHANA CHY	BY	REVISED
SENIOR LANDSCAPE ARCHITECT	ERIC DICKSON	CHECKED BY	DESIGNED BY

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50' **PP-11**

LAST REVISION DATE PLOTTED => 28-APR-2016  
 02-25-16 TIME PLOTTED => 13:48

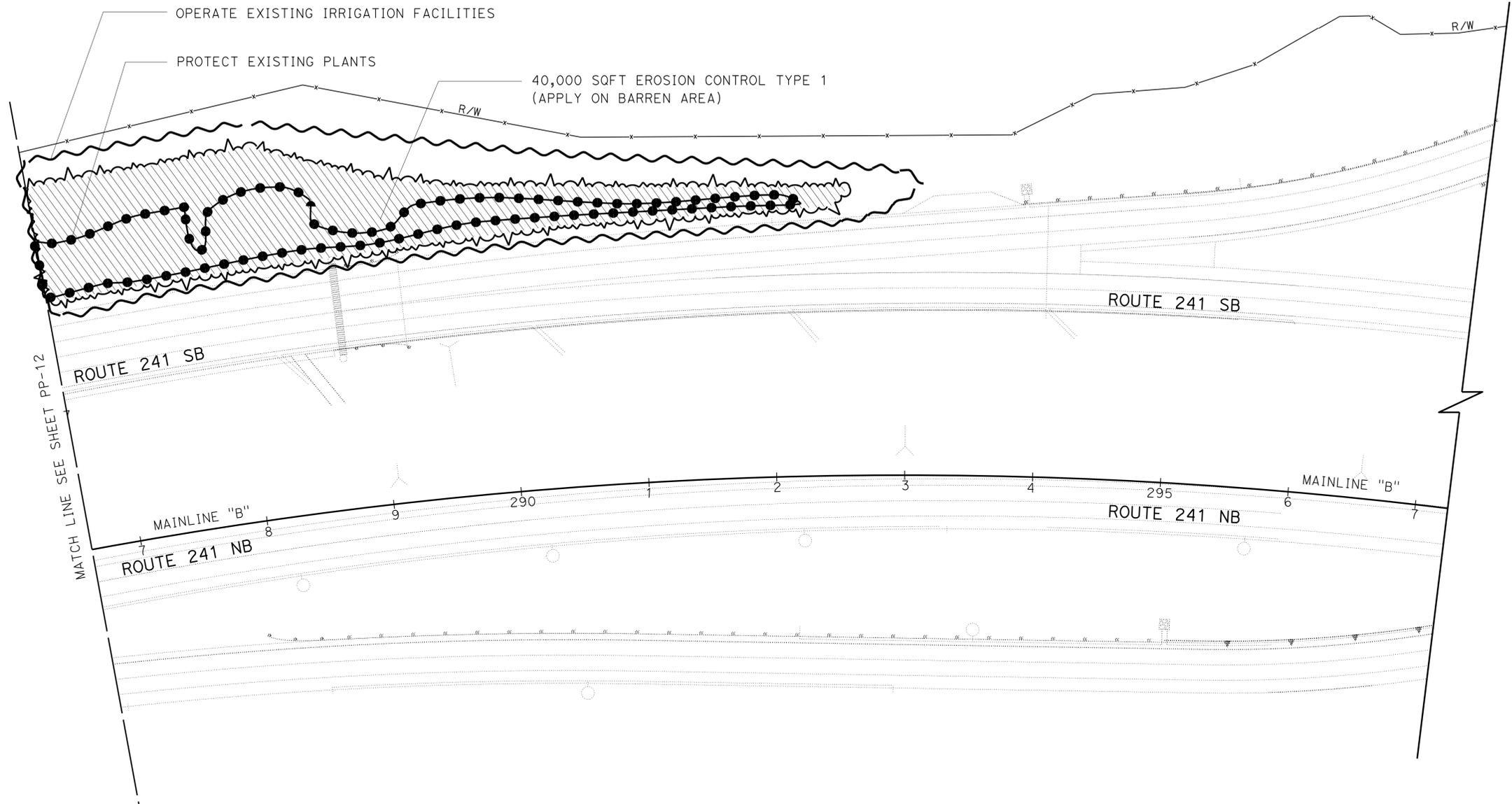
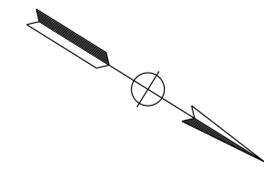


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	32	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE

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 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.  
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDON MARES	REVISOR	DATE
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	VATHANA CHY	DESIGNED BY	DATE
ERIC DICKSON	CHECKED BY	DESIGNED BY	DATE
SENIOR LANDSCAPE ARCHITECT		DESIGNED BY	DATE

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50' **PP-13**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	33	54

<i>Vathana Chy</i>	
LICENSED LANDSCAPE ARCHITECT	
1/25/16	
PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>	

**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE. EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



- 6,800 NAS PUL  
95 CY MULCH
- 9,000 SQFT GRAVEL MULCH (CELLULAR CONFINEMENT)
- 1,200 F+ FIBER ROLL
- 9,500 F+ COMPOST SOCK
- 198,000 SQFT EROSION CONTROL TYPE 3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT: ERIC DICKSON  
 CALCULATED/DESIGNED BY: [blank]  
 CHECKED BY: [blank]  
 LONDON MARES  
 VATHANA CHY  
 REVISED BY: [blank]  
 DATE REVISED: [blank]

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50' **PP-14**

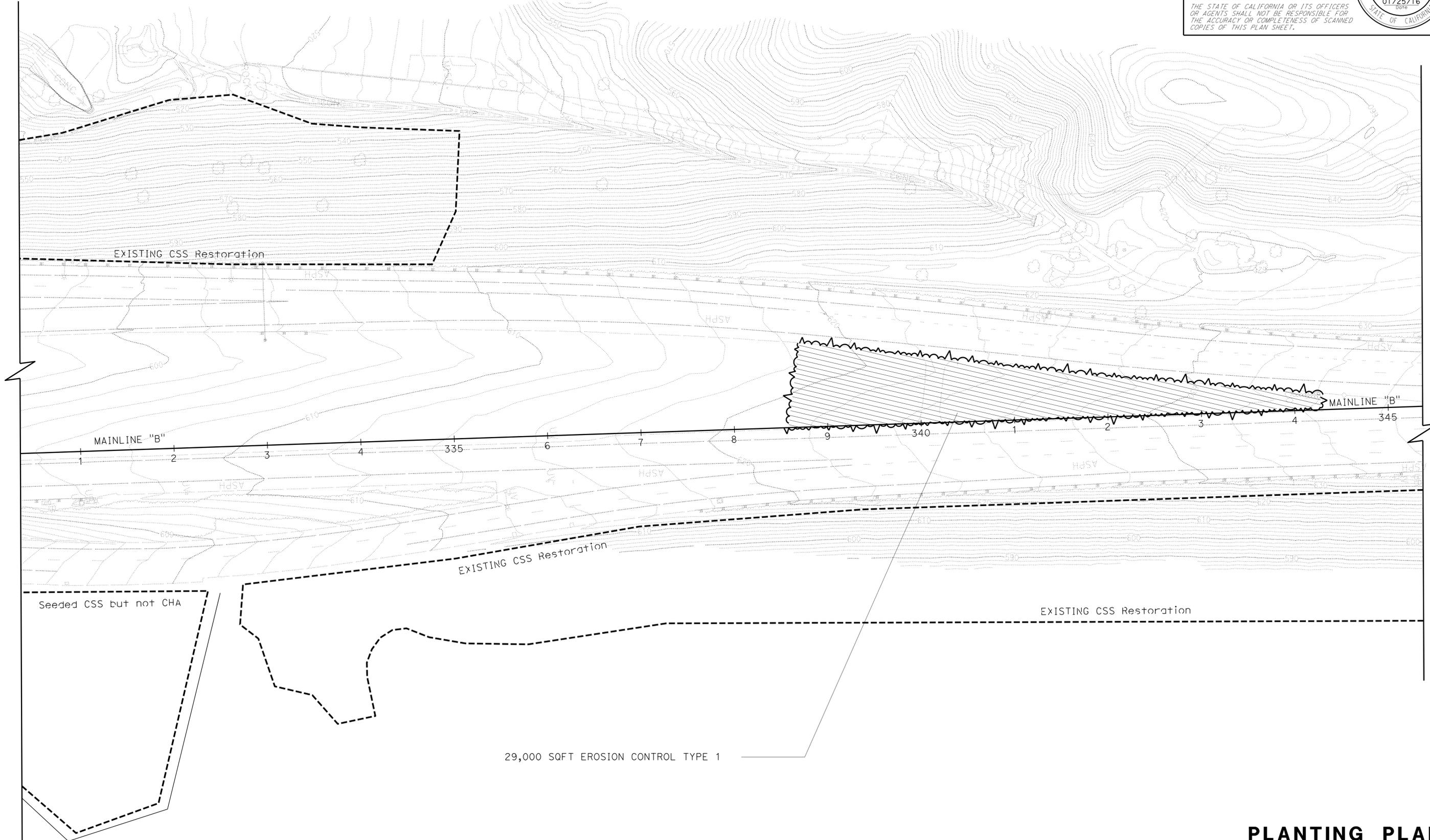
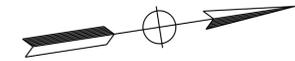
LAST REVISION:   
 DATE PLOTTED => 28-APR-2016   
 TIME PLOTTED => 1:3:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	34	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON

CALCULATED/DESIGNED BY  
 CHECKED BY

LANDON MARES  
 VATHANA CHY

REVISED BY  
 DATE REVISED

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50' **PP-15**

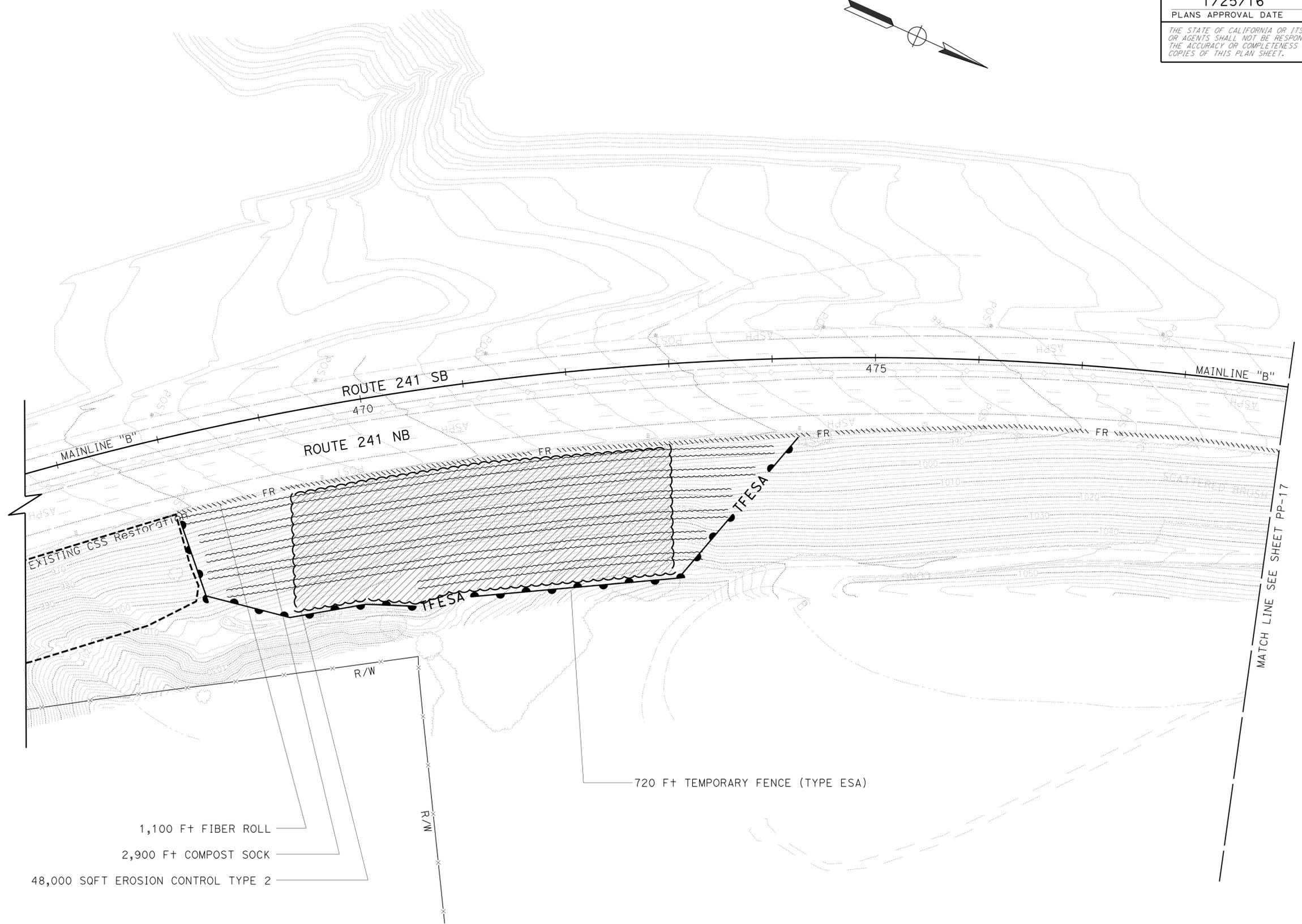
LAST REVISION DATE PLOTTED => 28-APR-2016 01-05-16 TIME PLOTTED => 13:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	35	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE

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**NOTE:**  
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 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.  
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- 1,100 FT+ FIBER ROLL
- 2,900 FT+ COMPOST SOCK
- 48,000 SQFT EROSION CONTROL TYPE 2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDSCAPE ARCHITECTURE	SENIOR LANDSCAPE ARCHITECT	CHECKED BY	DESIGNED BY	REVISOR	DATE
<b>Caltrans</b>	LANDSCAPE ARCHITECTURE	ERIC DICKSON	VATHANA CHY	LONDON MARES		

APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50' **PP-16**

LAST REVISION DATE PLOTTED => 28-APR-2016  
 01-05-16 TIME PLOTTED => 13:48

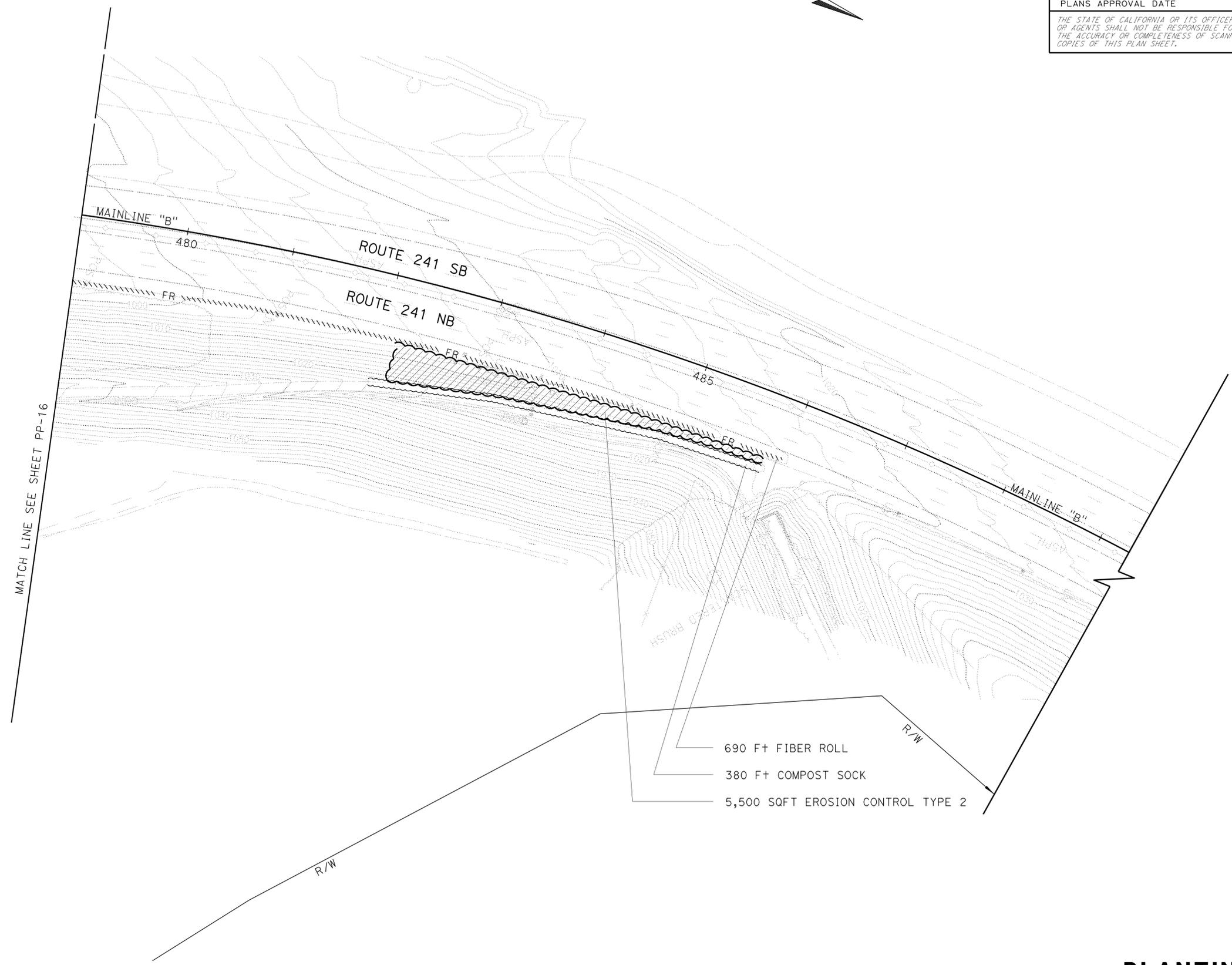
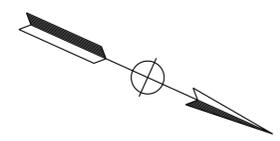
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	36	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 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  
 VATHANA CHY  
 No. 5897  
 Signature: *Vathana Chy*  
 01-31-17  
 Renewal Date: 01/25/16  
 Date

**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.  
 EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED- DESIGNED BY	LANDON MARES	REVISED BY
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	ERIC DICKSON	CHECKED BY	VATHANA CHY	DATE REVISED

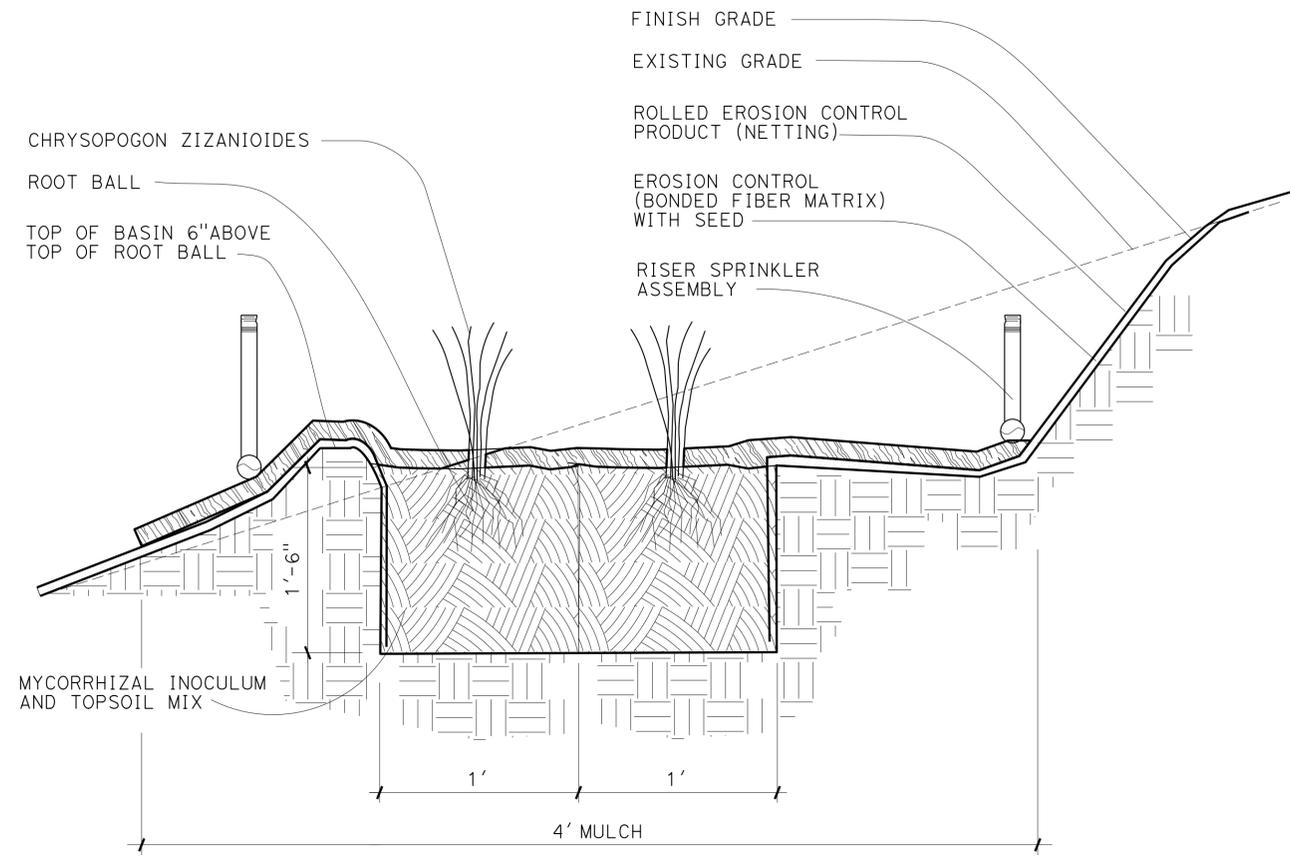
APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN**  
 SCALE : 1"=50' **PP-17**

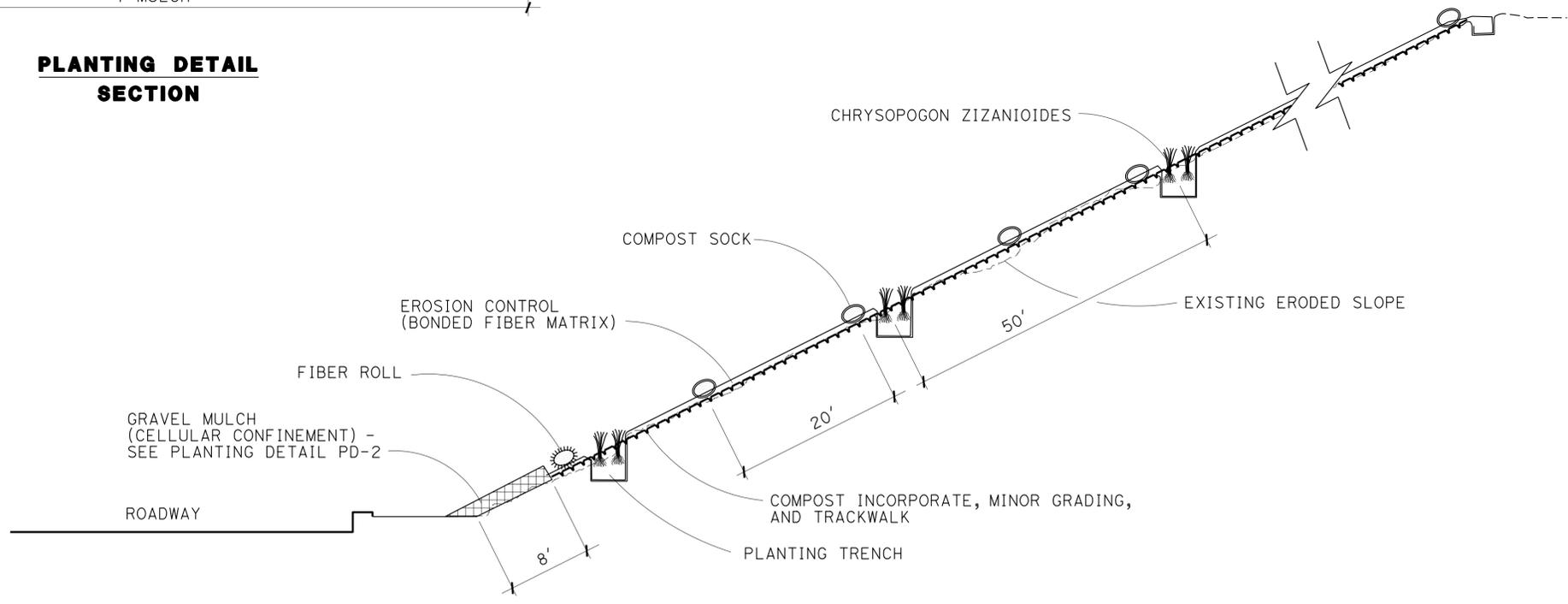
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	37	54

*Vathana Chy*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE

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**PLANTING DETAIL SECTION**



**EROSION CONTROL TYPE 3 APPLICATION SECTION**

**PLANTING DETAILS**  
 NO SCALE  
**PD-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

REVISOR BY  
 DATE

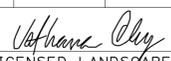
LONDON MARES  
 VATHANA CHY

CALCULATED-DESIGNED BY  
 CHECKED BY

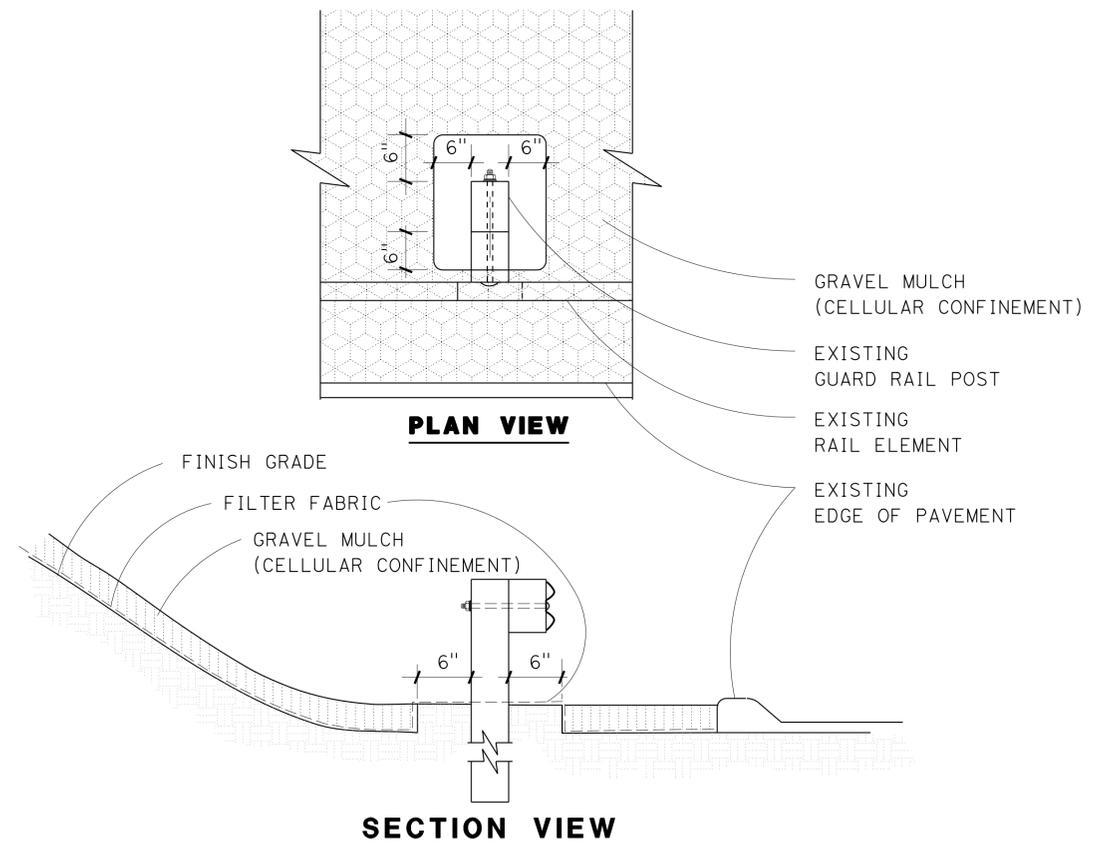
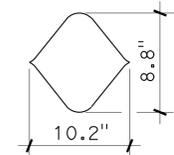
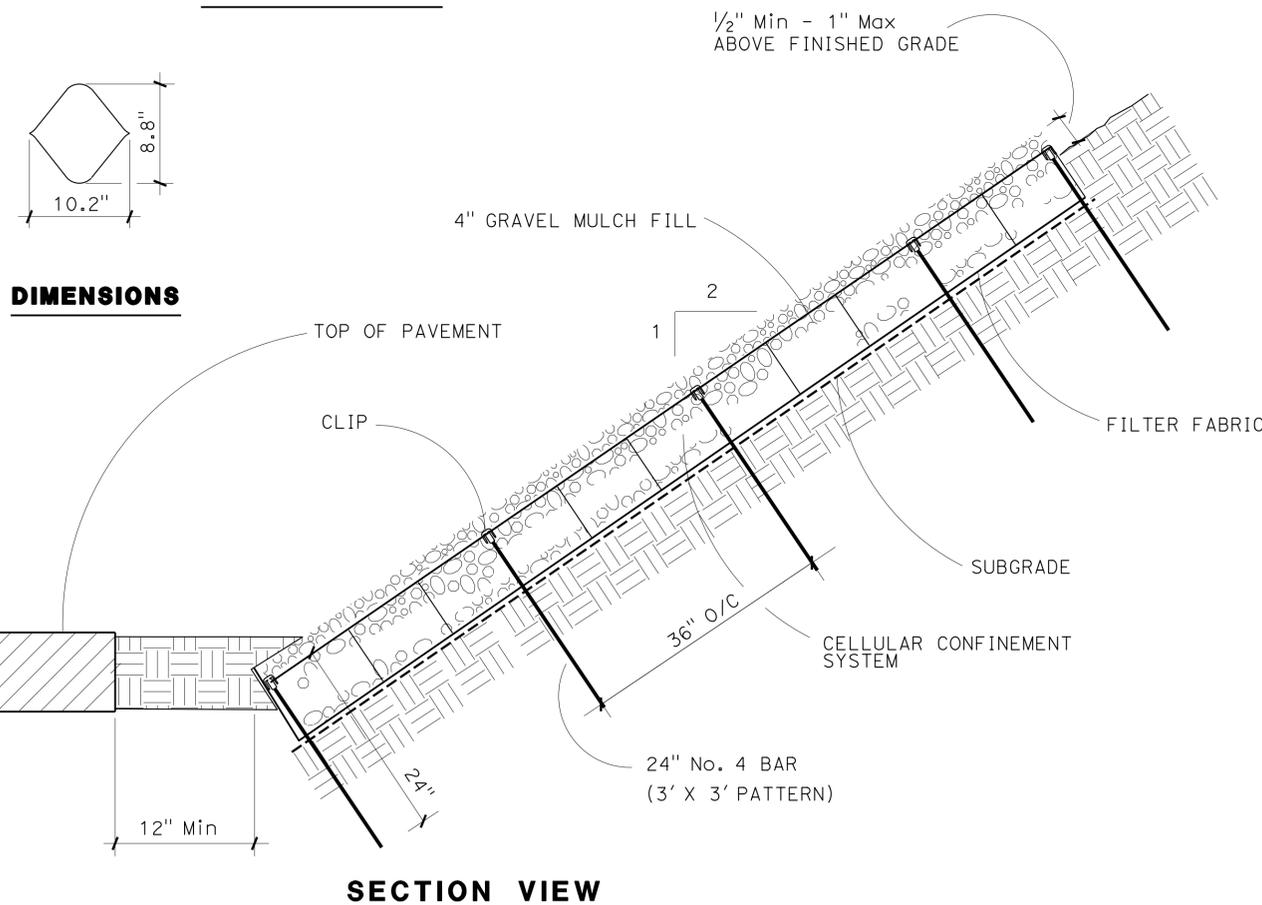
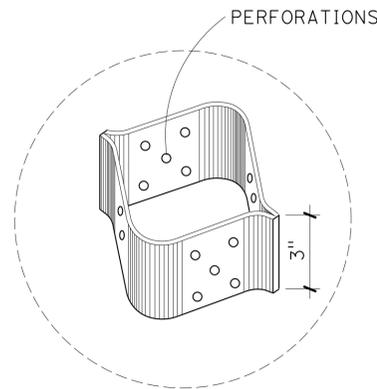
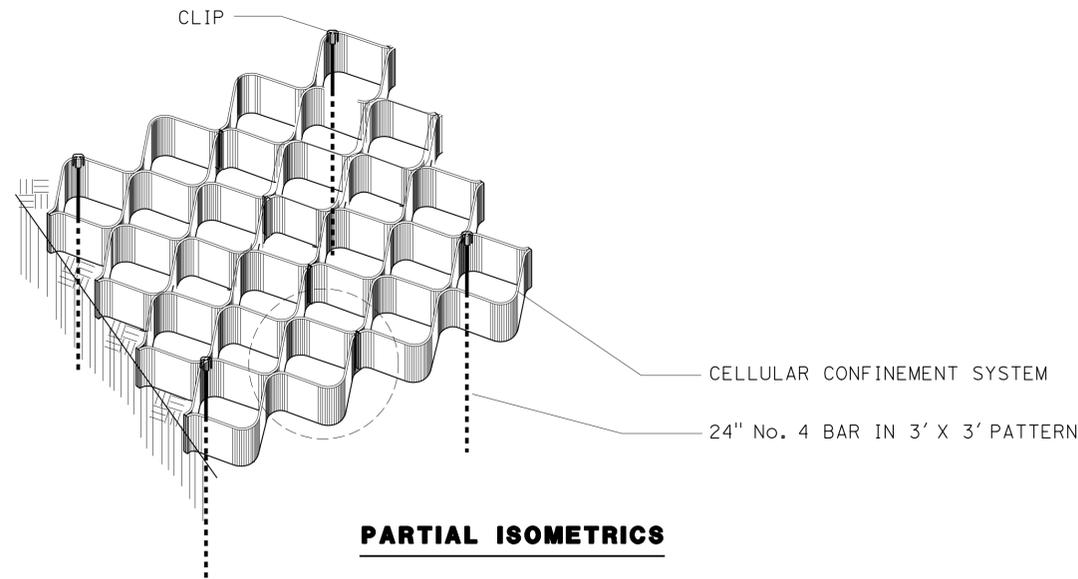
SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	38	54

 LICENSED LANDSCAPE ARCHITECT		
1/25/16 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.



**GRAVEL MULCH (CELLULAR CONFINEMENT)**  
**EXISTING GUARD RAIL CONDITION**

**GRAVEL MULCH (CELLULAR CONFINEMENT)**

**PLANTING DETAILS**  
 NO SCALE  
**PD-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 LANDSCAPE ARCHITECTURE  
 ERIC DICKSON  
 SENIOR LANDSCAPE ARCHITECT  
 CHECKED BY  
 CALCULATED/DESIGNED BY  
 LONDON MARES  
 VATHANA CHY  
 REVISED BY  
 DATE REVISD

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	39	54

*Vafans Oly*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 PLANS APPROVAL DATE

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

### TEMPORARY WATER POLLUTION CONTROL QUANTITIES

DESCRIPTION	UNIT	SHEET No.																	TOTAL	
		DI-1	PP-1	PP-2	PP-3	PP-4	PP-5	PP-6	PP-7	PP-8	PP-9	PP-10	PP-11	PP-12	PP-13	PP-14	PP-15	PP-16		PP-17
TEMPORARY GRAVEL BAG BERM	LF	—	125	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	125
TEMPORARY FIBER ROLL	LF	—	—	1,200	1,450	—	—	—	—	—	—	—	—	1150	700	—	—	—	—	4,500
TEMPORARY DRAINAGE INLET PROTECTION	EA	—	2	4	7	7	3	11	11	5	5	6	1	3	1	5	—	4	3	78
TEMPORARY REINFORCED SILT FENCE (TYPE 2)	LF	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	400
TEMPORARY CHECK DAM (TYPE 2)	LF	—	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100
TEMPORARY SLOPE DRAIN FLEX PIPE (12" PLASTIC PIPE DOWNDRAIN)	LF	110	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	110
TEMPORARY CONSTRUCTION ENTRANCE	EA	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—	—	3
TEMPORARY CONCRETE WASHOUT	EA	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1

### LANDSCAPE QUANTITIES

DESCRIPTION	UNIT	SHEET No.																	TOTAL	
		DI-1	PP-1	PP-2	PP-3	PP-4	PP-5	PP-6	PP-7	PP-8	PP-9	PP-10	PP-11	PP-12	PP-13	PP-14	PP-15	PP-16		PP-17
GRAVEL MULCH (CELLULAR CONFINEMENT)	SOFT	—	—	—	—	12,000	12,300	14,500	5,700	—	12,300	9,000	—	7,500	—	9,000	—	—	—	82,300
FIBER ROLLS	LF	—	—	—	—	1,400	1,400	2,400	2,900	370	1,400	1,100	260	1,160	—	1,200	—	1,100	690	15,380
COMPOST SOCKS	LF	—	—	—	—	4,000	3,500	3,600	5,500	370	1,500	3,000	1,050	4,500	—	9,500	—	2,900	380	39,800
TEMPORARY FENCE (TYPE ESA)	LF	750	—	—	—	250	40	—	—	—	160	110	500	1200	—	1420	—	720	—	5150

### PLANT QUANTITIES

ITEM	UNIT	QUANTITY
PLANT (GROUP M)	EA	12,160

### WOOD MULCH

TYPE	LOCATION		QUANTITY (CY)
	BASIN	SPREAD	
TREE BARK (N)	—	—	—
WOOD CHIP (N)	—	—	—
SHREDDED BARK (N)	225	172	397
TREE TRIMMING (N)	—	—	—
TOTAL			397

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

### FERTILIZER

TYPE	QUANTITY (LBS)
ENDOMYCORRHIZAL INOCULUM	760
TOTAL	760

### SOIL AMENDMENT

TYPE	QUANTITY (CY)
SPHAGNUM PEAT MOSS (N)	—
NITROLIZED FIR BARK (N)	68
VERMICULITE (N)	—
PERLITE (N)	—
TOTAL	68

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

### PLANTING QUANTITIES

PQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 LANDSCAPE ARCHITECT  
 LONDON MARES  
 VATHANA CHY  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 REVISOR BY  
 DATE REVISOR  
 ERIC DICKSON  
 LANDSCAPE ARCHITECT  
 VATHANA CHY  
 LICENSED LANDSCAPE ARCHITECT  
 01-31-17  
 01/25/16  
 STATE OF CALIFORNIA



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	40	54

*Afhame Oly*  
 LICENSED LANDSCAPE ARCHITECT  
 1/25/16  
 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
 ERIC DICKSON

CALCULATED/DESIGNED BY  
 CHECKED BY

LANDON MARES  
 VATHANA CHY

REVISER BY  
 DATE REVISED

**EROSION CONTROL QUANTITIES**

EROSION CONTROL TYPES	UNIT	SHEET No. PP-																	TOTAL	(N)	(N)	(N)	(N)	(N)	(N)	EROSION CONTROL (BONDED FIBER MATRIX)	ROADWAY EXCAVATION	COMPOST		INCORPORATE MATERIAL	ROLLED EROSION CONTROL PRODUCT (NETTING)									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		(LB)	(LB)	(LB)	(LB)	(LB)	(LB)			(SQFT)	(CY)			(SQFT)	(CY)	(SQFT)	(SQFT)					
TYPE 1	SQFT	104,500	--	--	46,000	--	--	78,000	27,300	31,000	--	11,000	70,900	40,000	--	29,000	--	--	437,700	602	8,026	5,016	272	--	35,113	437,700	--	--	--	--	--									
TYPE 2	SQFT	--	77,000	119,000	47,500	--	--	--	--	28,000	--	--	--	--	--	48,000	5,500	--	325,000	448	5,969	3,730	--	105	26,114	325,000	--	--	--	--	--									
TYPE 3	SQFT	--	--	--	--	--	--	--	--	--	--	25,000	93,000	--	198,000	--	--	--	316,000	--	--	--	--	102	25,390	316,000	5,852	316,000	980	316,000	316,000									
																		DRAINAGE QUANTITIES (FROM SHEET DP-1)		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	220	--	--	--	--
																		TOTAL QUANTITY		1,050	13,995	8,746	272	207	86,617	1,078,700	6,072	316,000	980	316,000	316,000	316,000								

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

**PLANTING QUANTITIES**  
**PQ-2**

LAST REVISION | DATE PLOTTED => 28-APR-2016  
 01-05-16 | TIME PLOTTED => 1:3:48

	<b>M</b>	
Maint	MAINTENANCE	
Max	MAXIMUM	
MB	METAL BEAM	
MBB	METAL BEAM BARRIER	
MBGR	METAL BEAM GUARD RAILING	
Med	MEDIAN	
MGS	MIDWEST GUARDRAIL SYSTEM	
MH	MANHOLE	
Min	MINIMUM	
Misc	MISCELLANEOUS	
Misc I & S	MISCELLANEOUS IRON AND STEEL	
Mkr	MARKER	
Mod	MODIFIED, MODIFY	
Mon	MONUMENT	
MP	METAL PLATE	
MPGR	METAL PLATE GUARD RAILING	
MR	MOVEMENT RATING	
MSE	MECHANICALLY STABILIZED EMBANKMENT	
Mt	MOUNTAIN, MOUNT	
MtI	MATERIAL	
MVP	MAINTENANCE VEHICLE PULLOUT	
	<b>N</b>	
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	
	<b>O</b>	
Obir	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	<b>P</b>	
p	PAGE	
PAP	PERFORATED ALUMINUM PIPE	
PB	PULL BOX	
PC	POINT OF CURVATURE, PRECAST	
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN	
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE	
PCVC	POINT OF COMPOUND VERTICAL CURVE	
PEC	PERMIT TO ENTER AND CONSTRUCT	
Ped	PEDESTRIAN	
Ped OC	PEDESTRIAN OVERCROSSING	
Ped UC	PEDESTRIAN UNDERCROSSING	
Perm MtI	PERMEABLE MATERIAL	

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

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

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	41	54



*Grace M. Tsushima*  
 REGISTERED CIVIL ENGINEER  
 July 19, 2013  
 PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 01/25/16

**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 <sup>3</sup> , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
∅	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

\* For use on a sign panel only

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS  
(SHEET 2 OF 2)**

NO SCALE

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

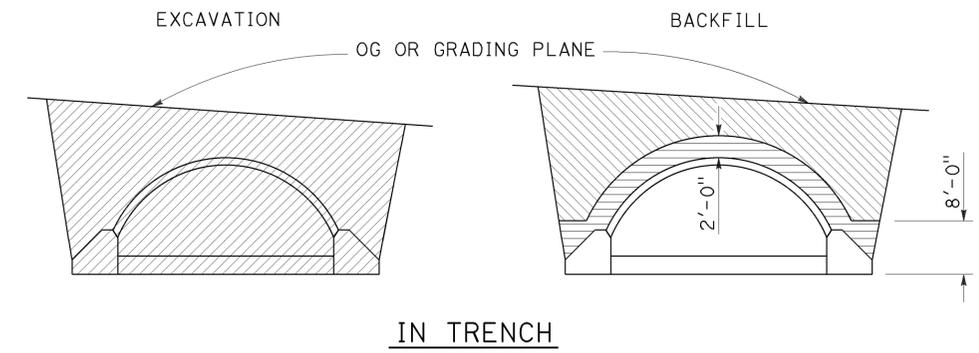
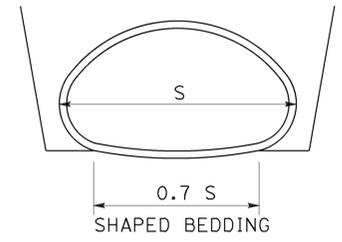
2010 REVISED STANDARD PLAN RSP A10B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	42	54

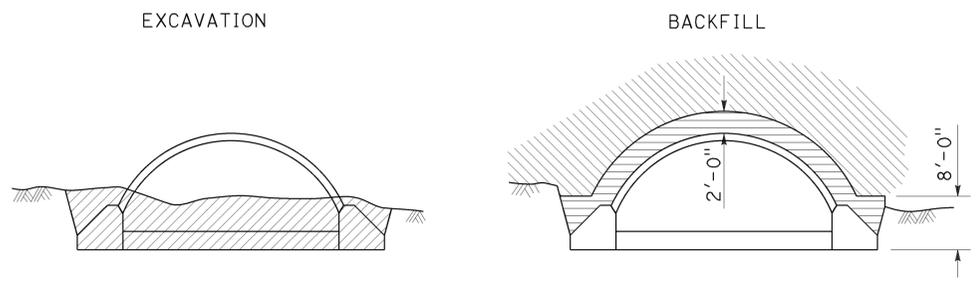
REGISTERED CIVIL ENGINEER  
 October 30, 2015  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

TO ACCOMPANY PLANS DATED 01/25/16

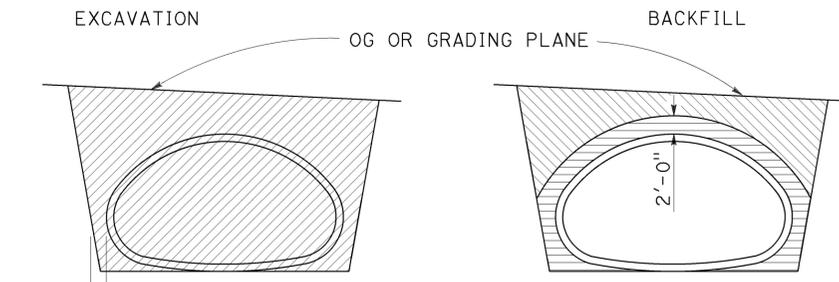


IN TRENCH

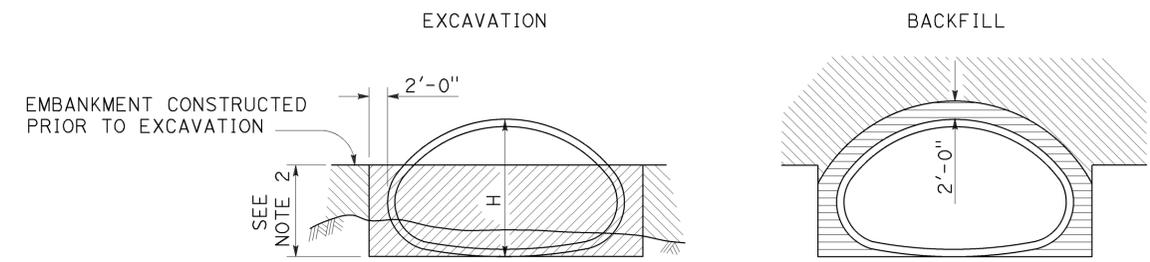


IN EMBANKMENT

**STRUCTURAL STEEL PLATE ARCHES**



IN TRENCH

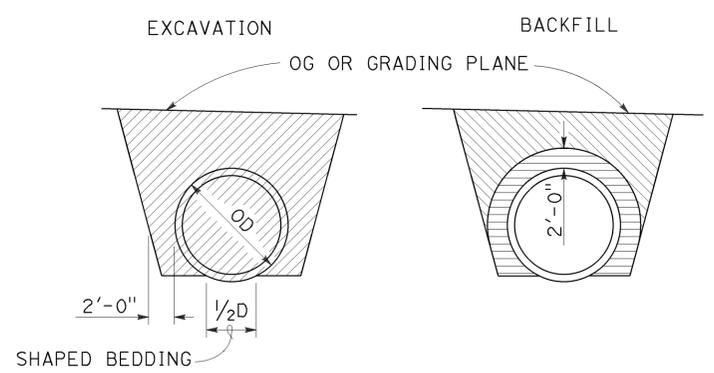


IN EMBANKMENT

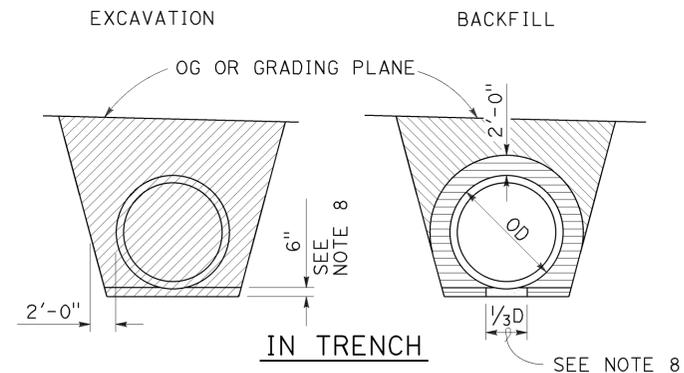
**STRUCTURAL STEEL PLATE PIPE ARCHES AND VEHICULAR UNDERCROSSING**

**NOTES:**

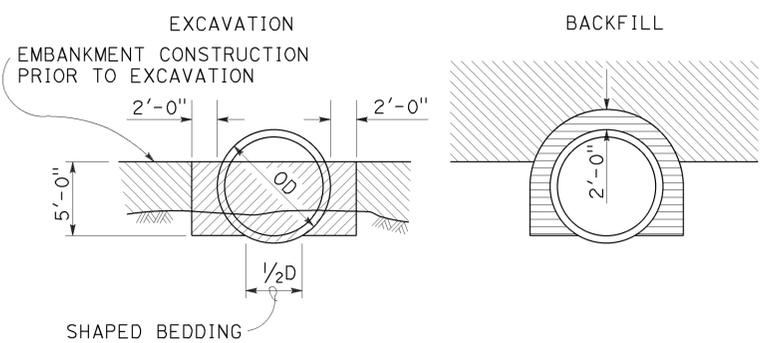
1. PIPES: 30" minimum for diameters up to and including 42" then  $\frac{2}{3}$  diameter but no more than 60" required. CORRUGATED METAL PIPE ARCHES: 30" maximum.
2.  $\frac{2}{3}$  H up to 60" maximum.
3. Slope or shore excavation sides as necessary.
4. Backfill shall be placed full width of excavation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



IN TRENCH

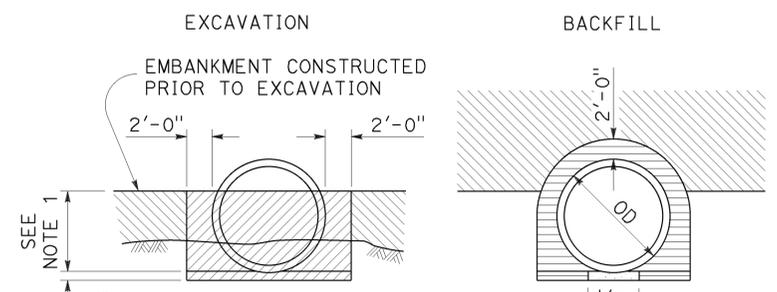


IN TRENCH



IN EMBANKMENT

**PIPES**  
Larger than 84"



IN EMBANKMENT

**METAL AND PLASTIC PIPES AND CORRUGATED METAL PIPE ARCHES**

84" or Smaller

**LEGEND**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**EXCAVATION AND BACKFILL METAL AND PLASTIC CULVERTS**

NO SCALE

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

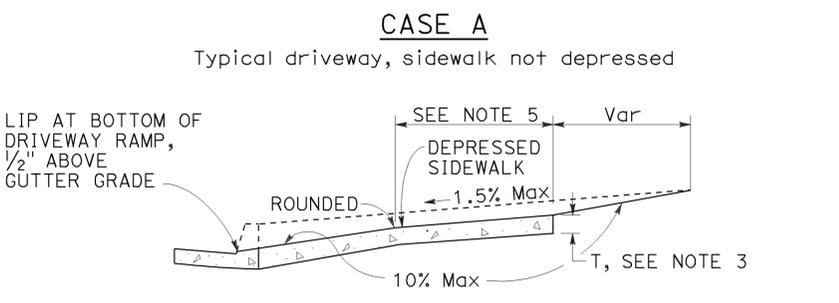
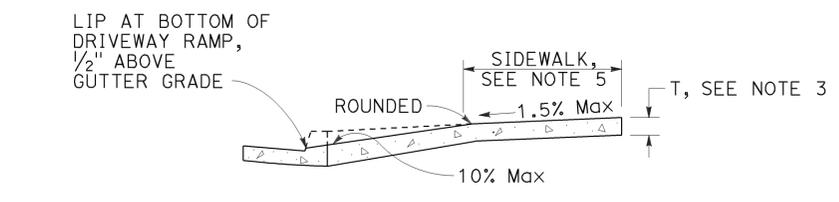
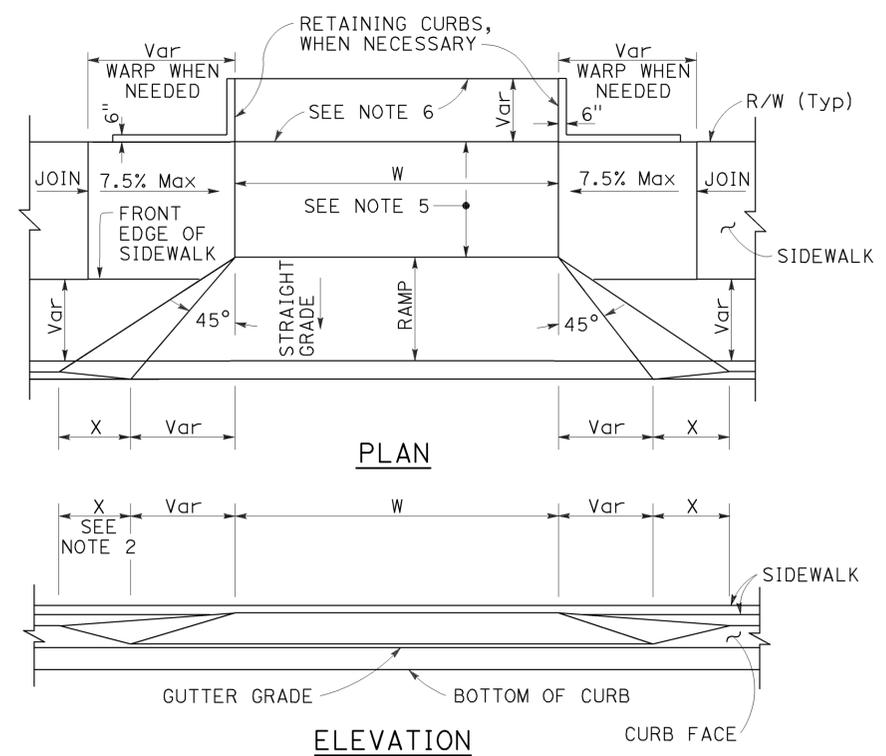
**REVISED STANDARD PLAN RSP A62F**

2010 REVISED STANDARD PLAN RSP A62F

TO ACCOMPANY PLANS DATED 01/25/16

**CURB QUANTITIES**

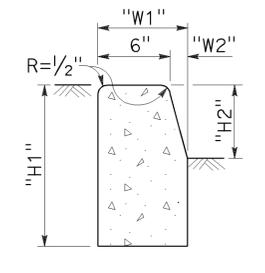
TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661



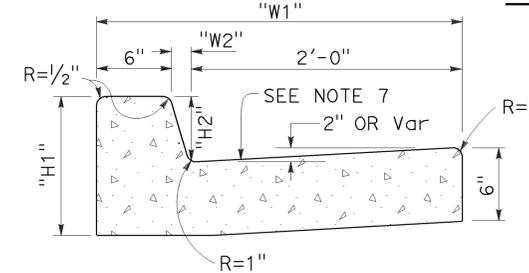
**TABLE A**

CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-9"

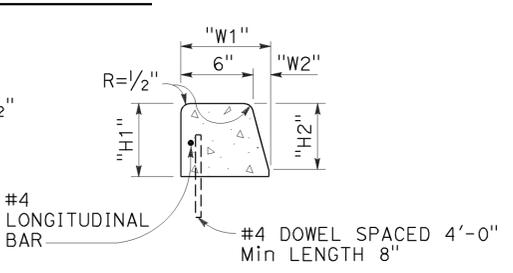
**DRIVEWAYS**



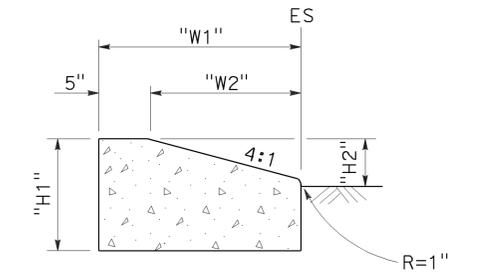
**TYPE A1 CURBS**  
See Table A



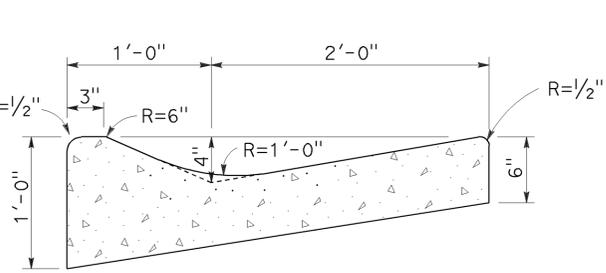
**TYPE A2 CURBS**  
See Table A



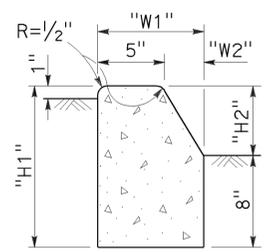
**TYPE A3 CURBS**  
Superimposed on existing pavement  
See Table A



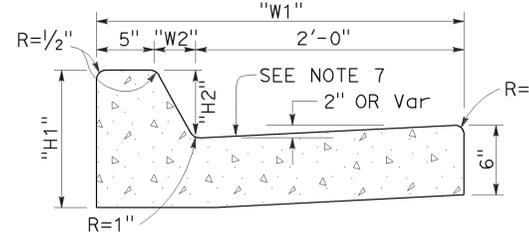
**TYPE D CURBS**  
See Table A



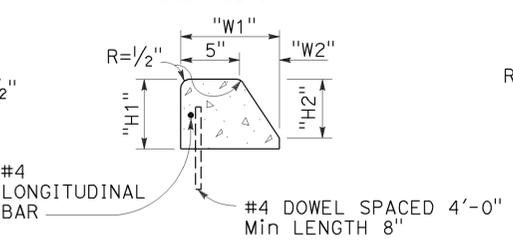
**TYPE E CURB**



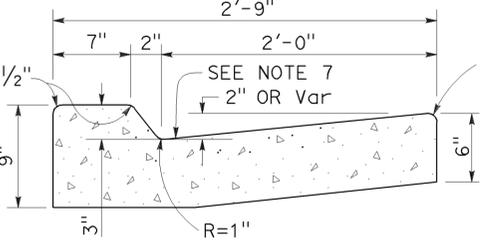
**TYPE B1 CURBS**  
See Table A



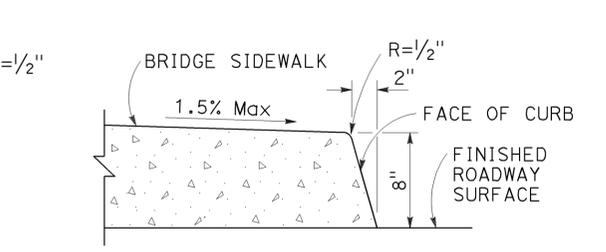
**TYPE B2 CURBS**  
See Table A



**TYPE B3 CURBS**  
Superimposed on existing pavement  
See Table A



**TYPE B4 CURBS**



**TYPE H CURB**  
On Bridges

**CURBS**

- NOTES:**
- Case A driveway section typically applies.
  - X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
  - Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
  - Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
  - Minimum width of clear passageway for sidewalk shall be 4'-2".
  - Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
  - Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

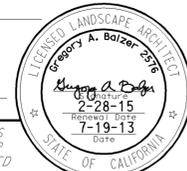
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CURBS AND DRIVEWAYS**  
 NO SCALE

2010 REVISED STANDARD PLAN RSP A87A

*Gregory A. Balzer*  
LICENSED LANDSCAPE ARCHITECT

July 19, 2013  
PLANS APPROVAL DATE

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



TO ACCOMPANY PLANS DATED 01/25/16

**A**

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

**B**

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

**C**

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

**D**

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

**E**

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

**F**

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

**G**

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

**H**

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

**I**

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

**L**

L LENGTH

**M**

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

**N**

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

**O**

O/C ON CENTER  
 OD OUTSIDE DIAMETER  
 OL OVERLAP

**P**

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

**Q**

Q QUARTER CIRCLE  
 QCV QUICK COUPLING VALVE

**R**

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

**S**

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

**T**

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

**U**

UG UNDERGROUND

**W**

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

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

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

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

**REVISED STANDARD PLAN RSP H1**

2010 REVISED STANDARD PLAN RSP H1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	45	54

*Gregory A. Balzer*  
LICENSED LANDSCAPE ARCHITECT

November 15, 2013  
PLANS APPROVAL DATE

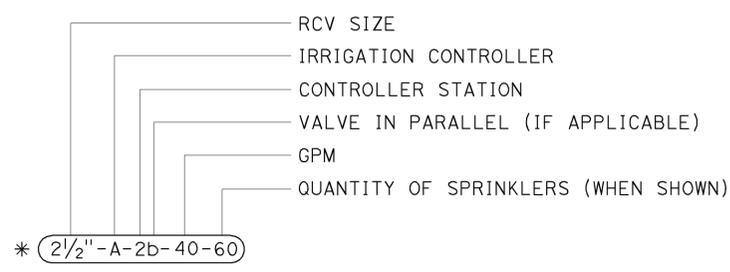
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TO ACCOMPANY PLANS DATED 01/25/16

2010 REVISED STANDARD PLAN RSP H2

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

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



**VALVE CODE**

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

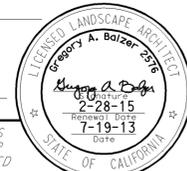
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**LANDSCAPE AND EROSION CONTROL SYMBOLS**  
NO SCALE

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

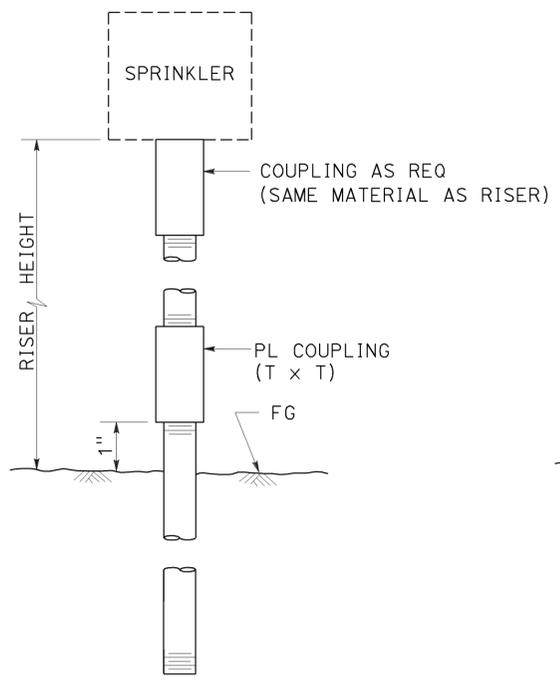
**REVISED STANDARD PLAN RSP H2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	46	54

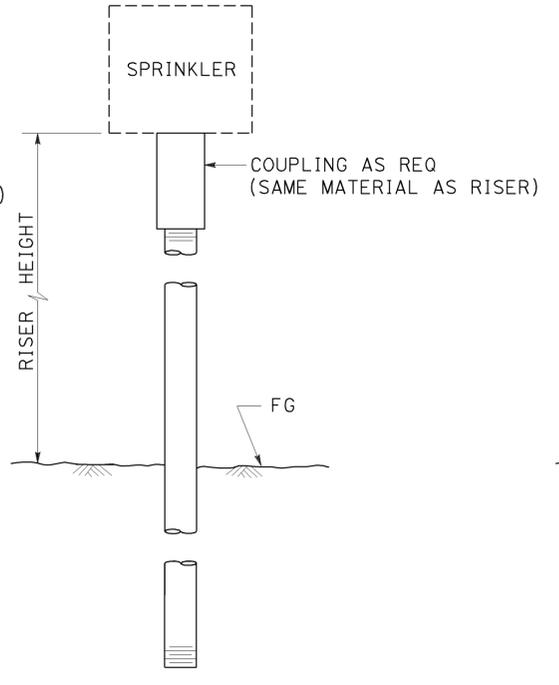
*Gregory A. Balzer*  
 LICENSED LANDSCAPE ARCHITECT  
 July 19, 2013  
 PLANS APPROVAL DATE  
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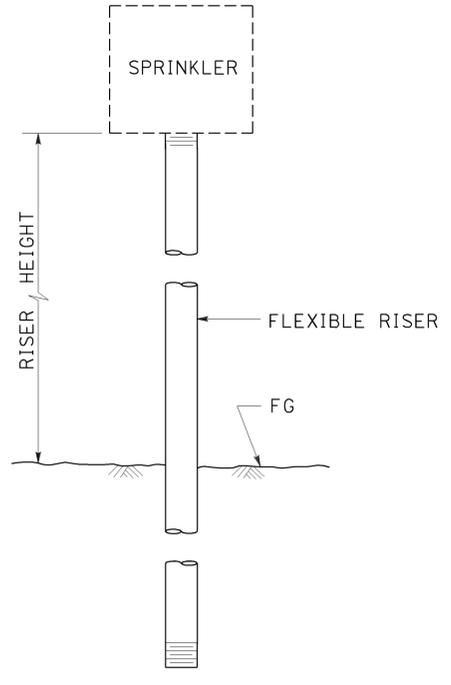
TO ACCOMPANY PLANS DATED 01/25/16



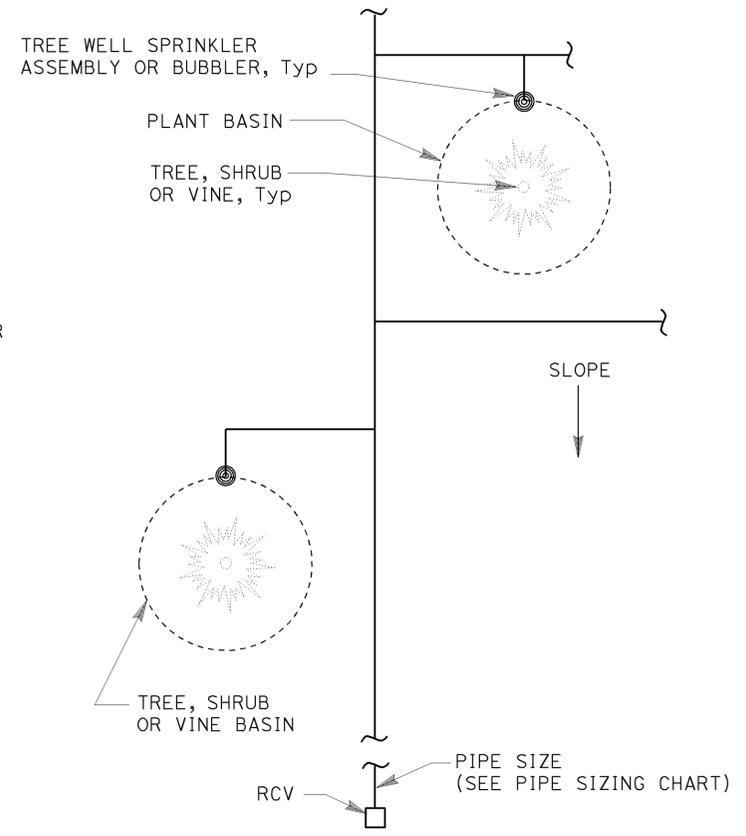
**ELEVATION**  
**RISER SPRINKLER ASSEMBLY TYPE I**



**ELEVATION**  
**RISER SPRINKLER ASSEMBLY TYPE II**



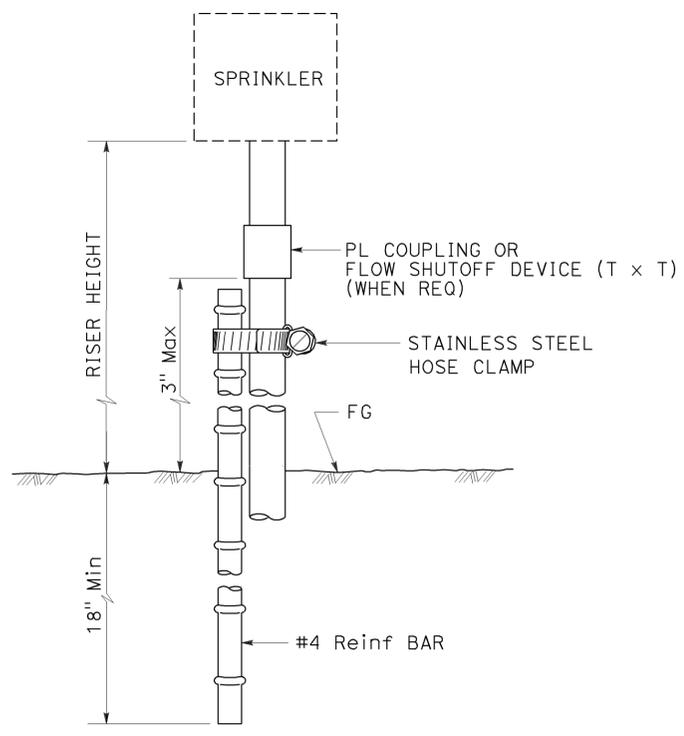
**ELEVATION**  
**RISER SPRINKLER ASSEMBLY TYPE III**



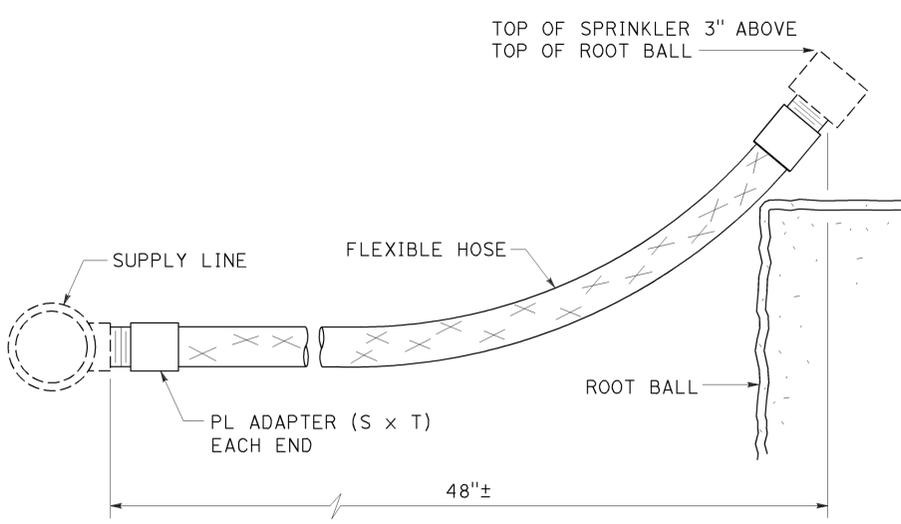
**PLAN**

**NOTES:**

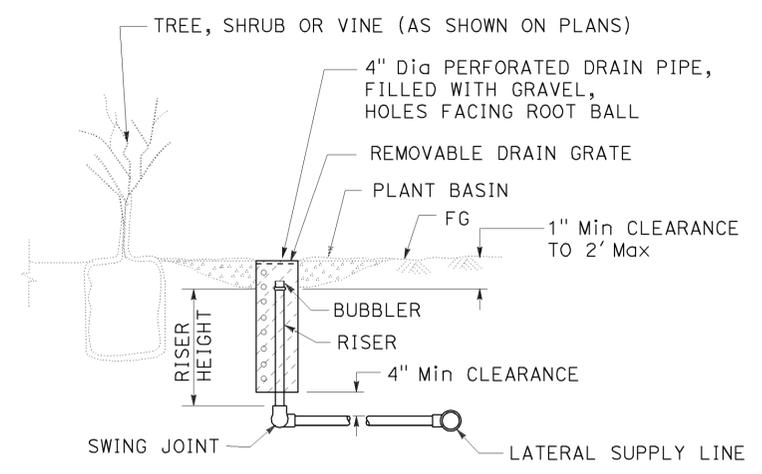
1. Install tree well sprinkler assembly on up-hill side of plant when on slope.
2. Install bubbler within basin.



**ELEVATION**  
**RISER SPRINKLER ASSEMBLY TYPE IV**



**ELEVATION**  
**RISER SPRINKLER ASSEMBLY TYPE V**



**SECTION**  
**TREE WELL SPRINKLER ASSEMBLY**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**LANDSCAPE DETAILS**

NO SCALE

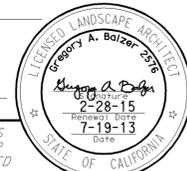
RSP H5 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H5 DATED MAY 20, 2011 - PAGE 222 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP H5**

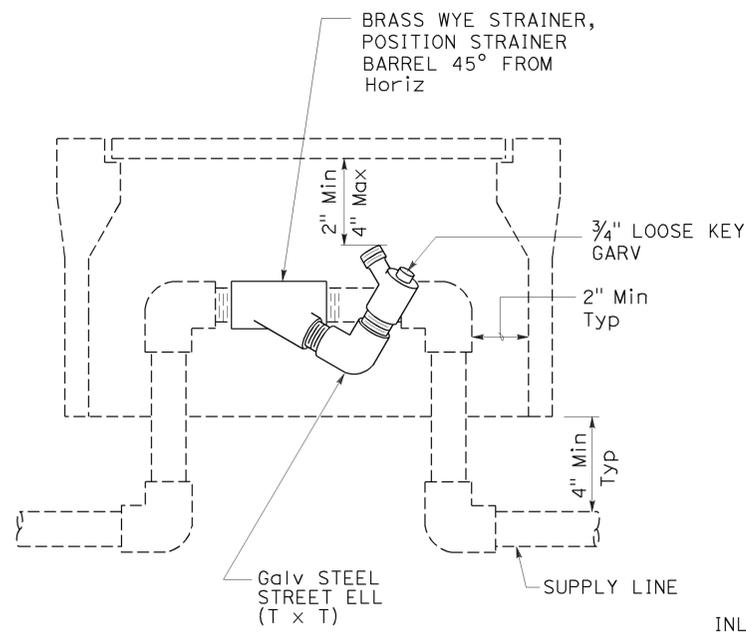
**2010 REVISED STANDARD PLAN RSP H5**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	47	54

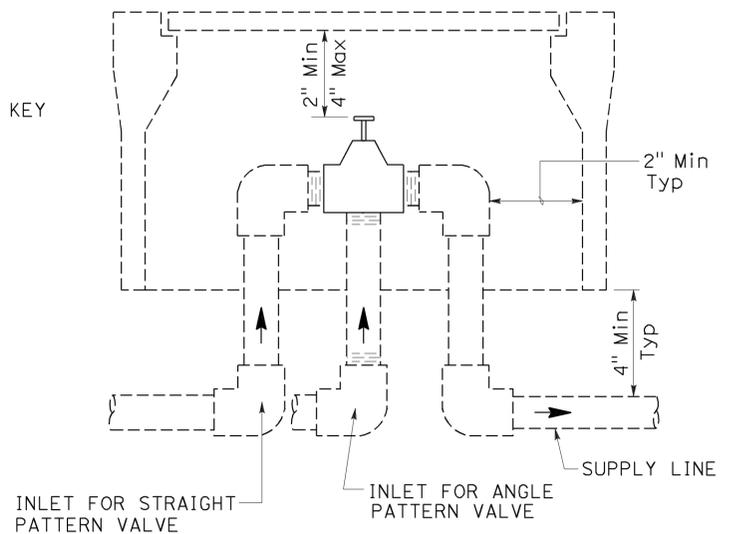
July 19, 2013  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



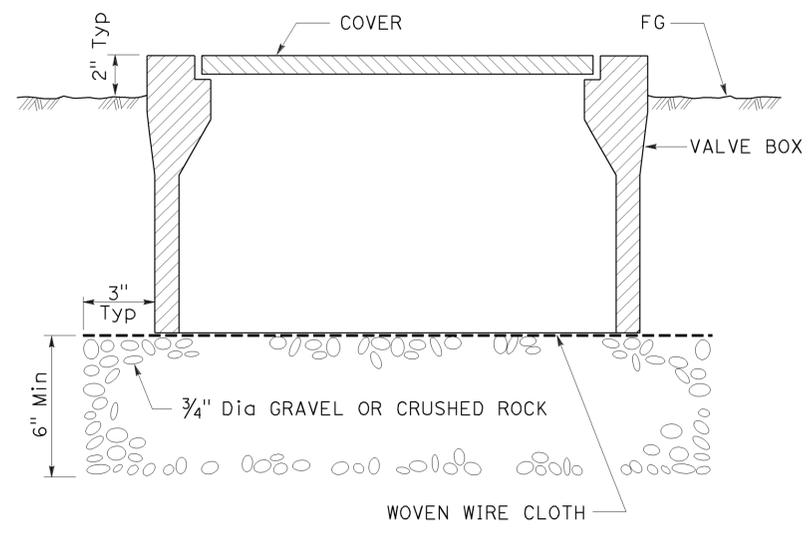
TO ACCOMPANY PLANS DATED 01/25/16



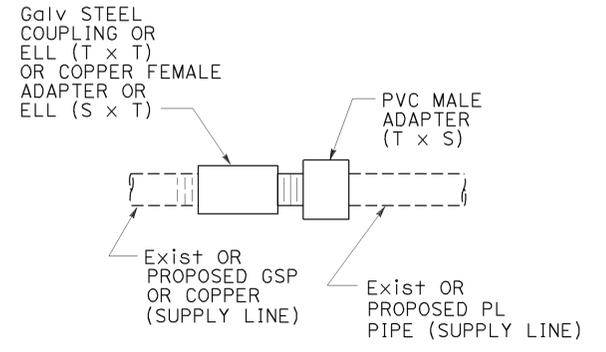
**ELEVATION**  
**WYE STRAINER ASSEMBLY**



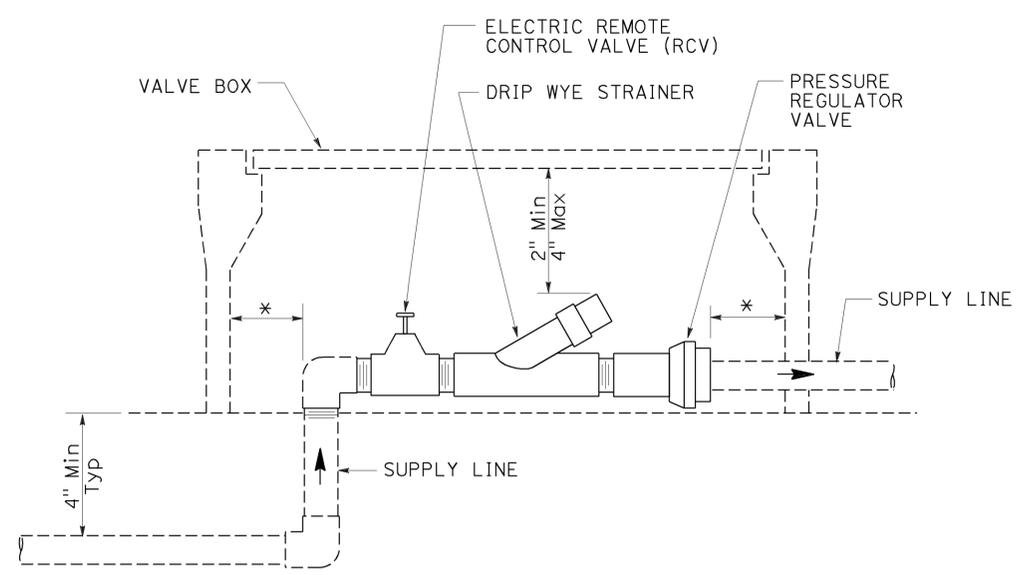
**ELEVATION**  
**VALVE**



**SECTION**  
**VALVE BOX**



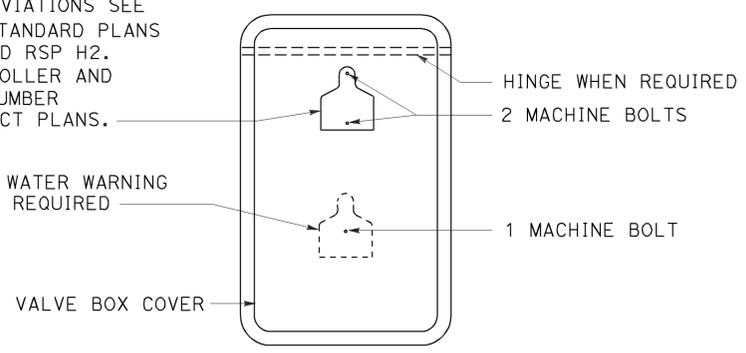
**GALVANIZED OR COPPER PIPE CONNECTION TO PLASTIC PIPE**



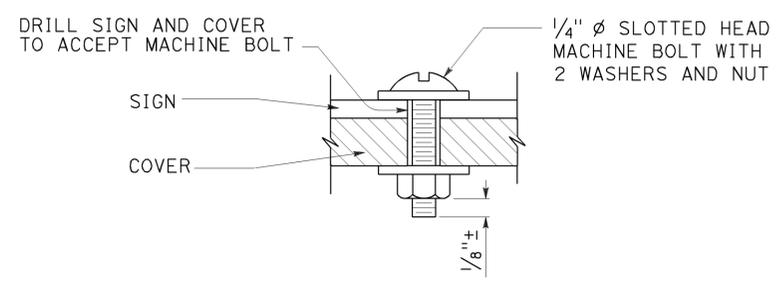
**ELEVATION**  
**DRIP VALVE ASSEMBLY**

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

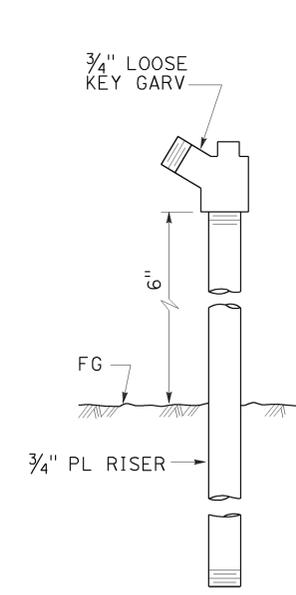
RECYCLED WATER WARNING  
SIGN WHEN REQUIRED



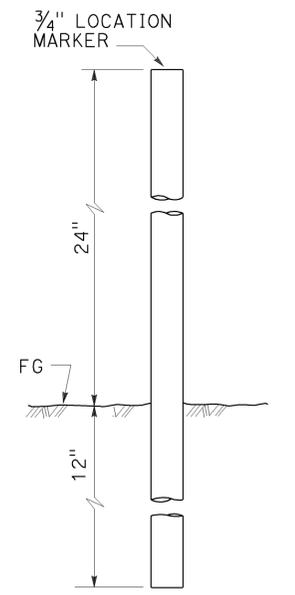
**PLAN**



**SECTION**  
**VALVE BOX IDENTIFICATION**



**ELEVATION**  
**GARDEN VALVE ASSEMBLY**



**ELEVATION**  
**LOCATION MARKER**

**GARDEN VALVE ASSEMBLY**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**LANDSCAPE DETAILS**

NO SCALE

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

**REVISED STANDARD PLAN RSP H7**

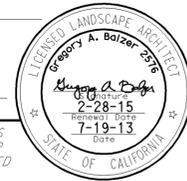
2010 REVISED STANDARD PLAN RSP H7

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	48	54

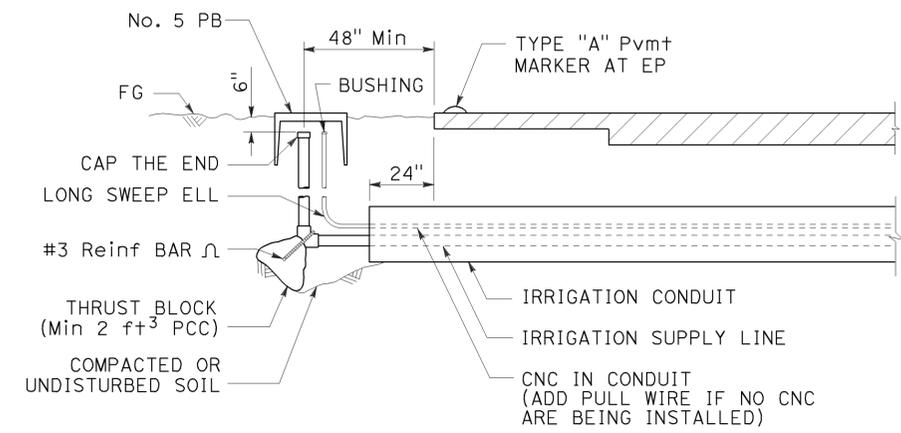
*Gregory A. Balzer*  
 LICENSED LANDSCAPE ARCHITECT

July 19, 2013  
 PLANS APPROVAL DATE

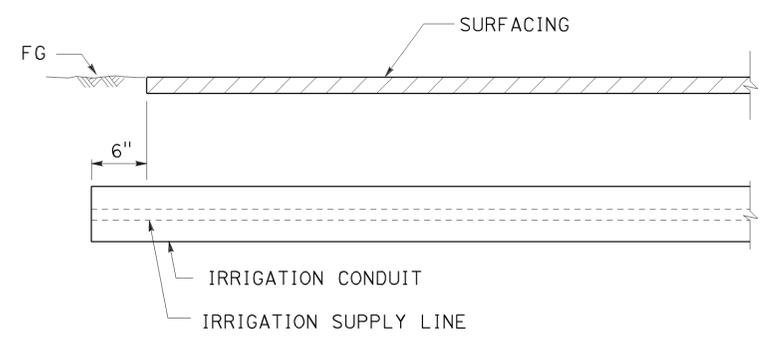
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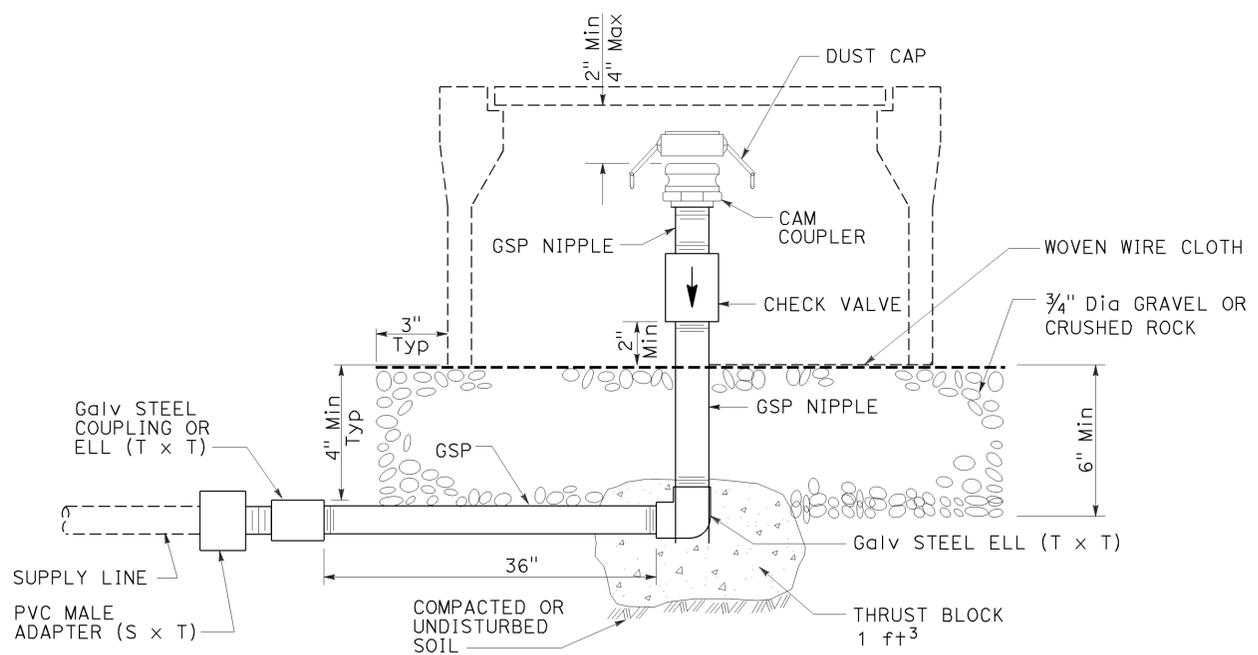
TO ACCOMPANY PLANS DATED 01/25/16



**SECTION**  
**IRRIGATION CONDUIT**  
UNDER TRAVELED WAY



**SECTION**  
**IRRIGATION CONDUIT**  
UNDER SIDEWALKS, DRIVEWAYS AND PATHS



**ELEVATION**  
**CAM COUPLER ASSEMBLY**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**LANDSCAPE DETAILS**  
NO SCALE

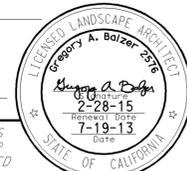
RSP H9 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H9  
DATED MAY 20, 2011 - PAGE 226 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP H9**

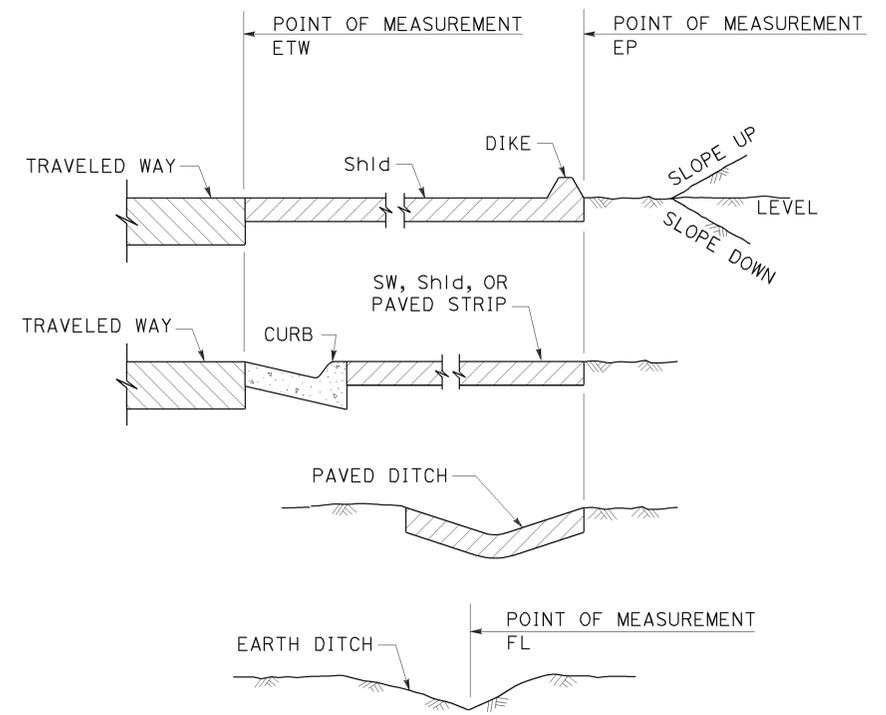
2010 REVISED STANDARD PLAN RSP H9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	49	54

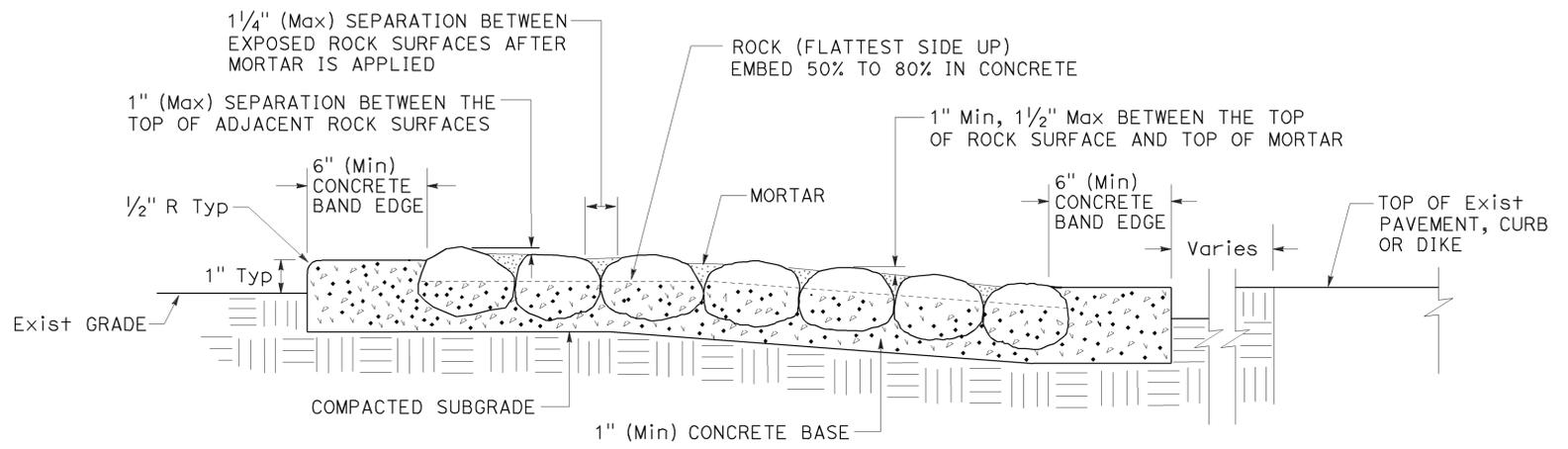
*Gregory A. Balzer*  
 LICENSED LANDSCAPE ARCHITECT  
 July 19, 2013  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



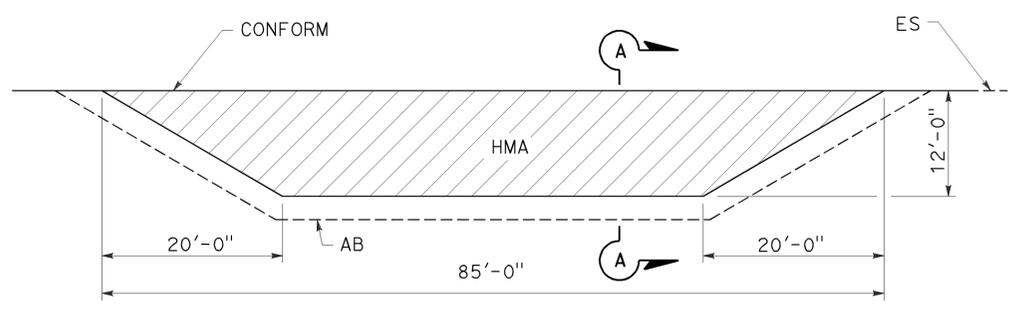
TO ACCOMPANY PLANS DATED 01/25/16



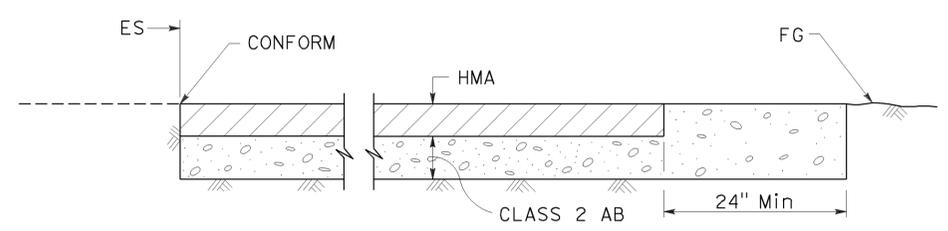
**SECTION  
POINTS OF MEASUREMENT**



**SECTION  
ROCK BLANKET**



**PLAN**



**SECTION A-A  
MAINTENANCE VEHICLE PULLOUT**

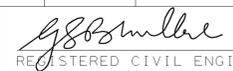
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**LANDSCAPE DETAILS**  
 NO SCALE

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

**REVISED STANDARD PLAN RSP H9A**

2010 REVISED STANDARD PLAN RSP H9A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	50	54

  
 REGISTERED CIVIL ENGINEER  
 July 19, 2013  
 PLANS APPROVAL DATE



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

TO ACCOMPANY PLANS DATED 01/25/16

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM TABLES  
 FOR LANE AND RAMP CLOSURES**

NO SCALE

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

**REVISED STANDARD PLAN RSP T9**

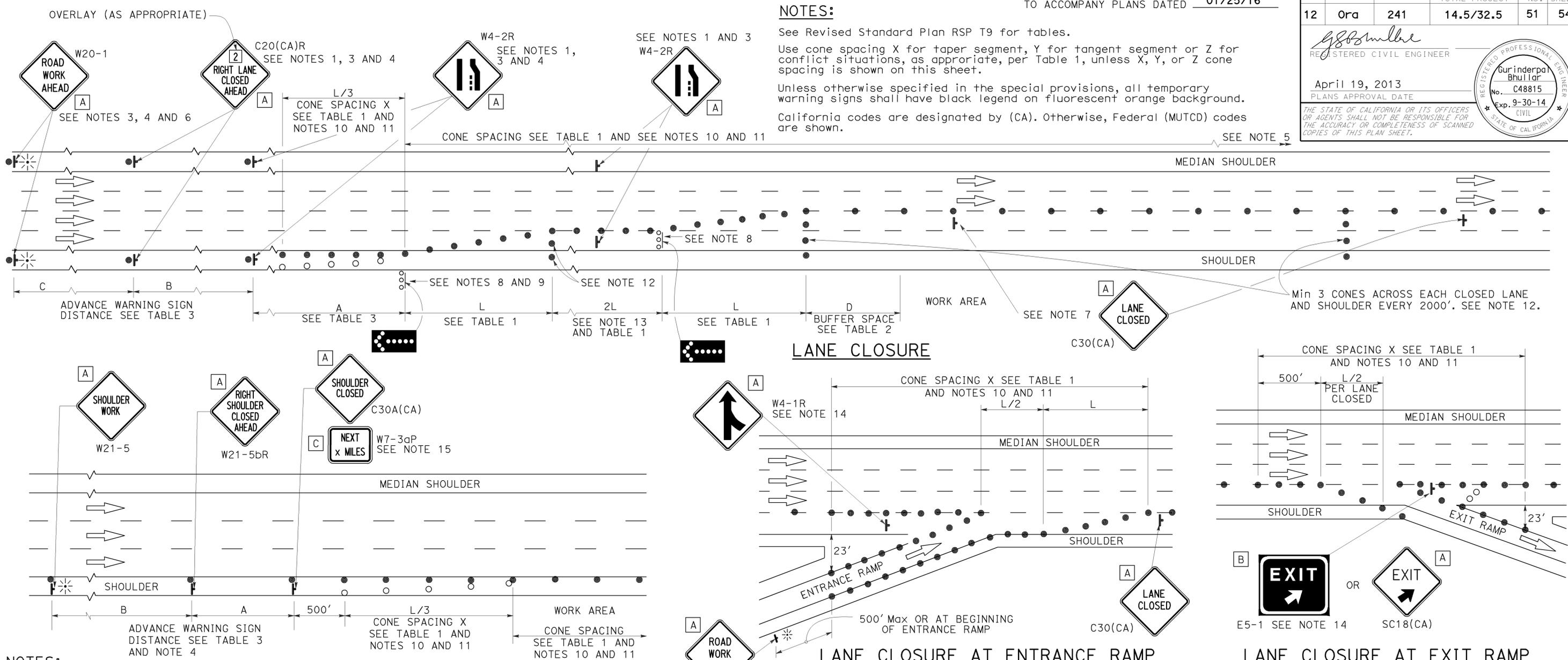
2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	51	54

REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

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

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- NOTES:**
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
  - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
  - Duplicate sign installations are not required:
    - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
    - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
  - 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.
  - A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
- 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) "NEXT x MILES" sign for the first advance warning sign.
  - Place a C30(CA) sign every 2000' throughout length of lane closure.
  - One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
  - 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.
  - All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
  - Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

- 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.
- 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.
- Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
- A W7-3aP "NEXT \_\_\_\_\_ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

**LEGEND**

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

**SIGN PANEL SIZE (Min)**

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

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	52	54

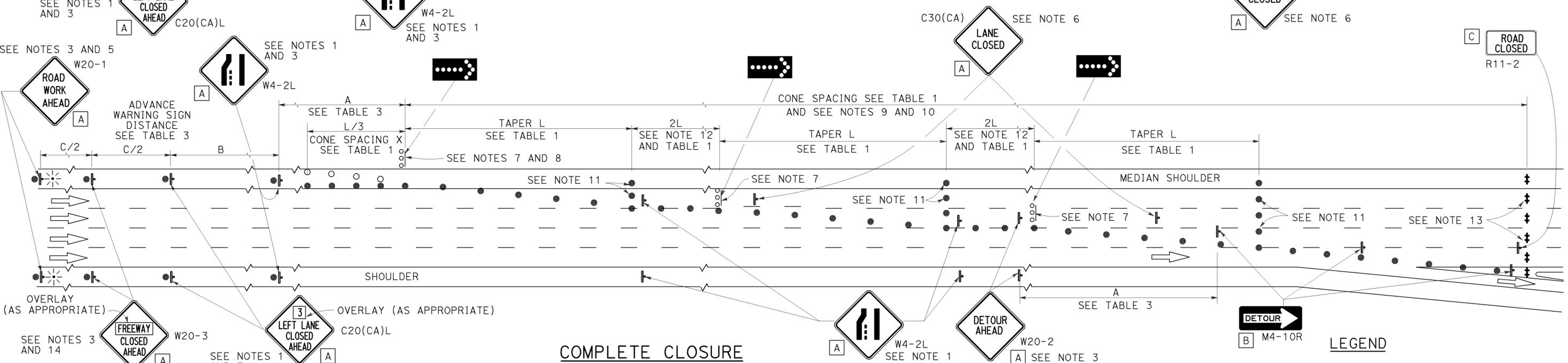
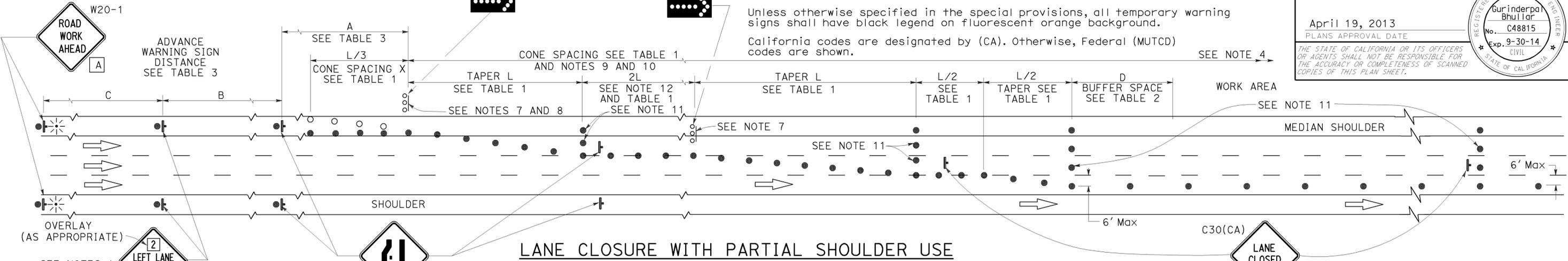
REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

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.

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

SEE NOTES 3 AND 5



- NOTES:**
- 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.
  - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
  - 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.
  - 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.
  - 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.
  - Place a C30(CA) sign every 2000' throughout length of lane closure.

- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- 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.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- 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.

- 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.
- 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.
- 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

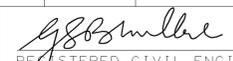
NO SCALE

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

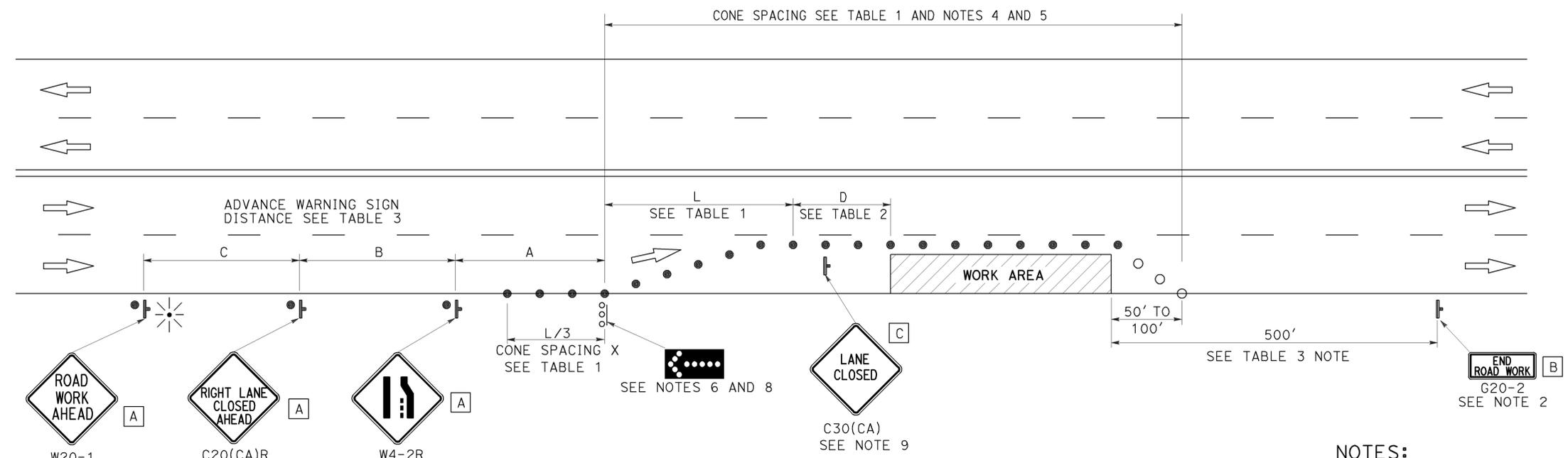
2010 REVISED STANDARD PLAN RSP T10A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	53	54

  
 REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 01/25/16



**TYPICAL LANE CLOSURE**

**NOTES:**

See Revised Standard Plan RSP T9 for tables.

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

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

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

**NOTES:**

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

**LEGEND**

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

**SIGN PANEL SIZE (Min)**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

**REVISED STANDARD PLAN RSP T11**

2010 REVISED STANDARD PLAN RSP T11

# TYPICAL RAMP CLOSURES

## SIGN PANEL SIZE (Min)

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

## LEGEND

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	241	14.5/32.5	54	54

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

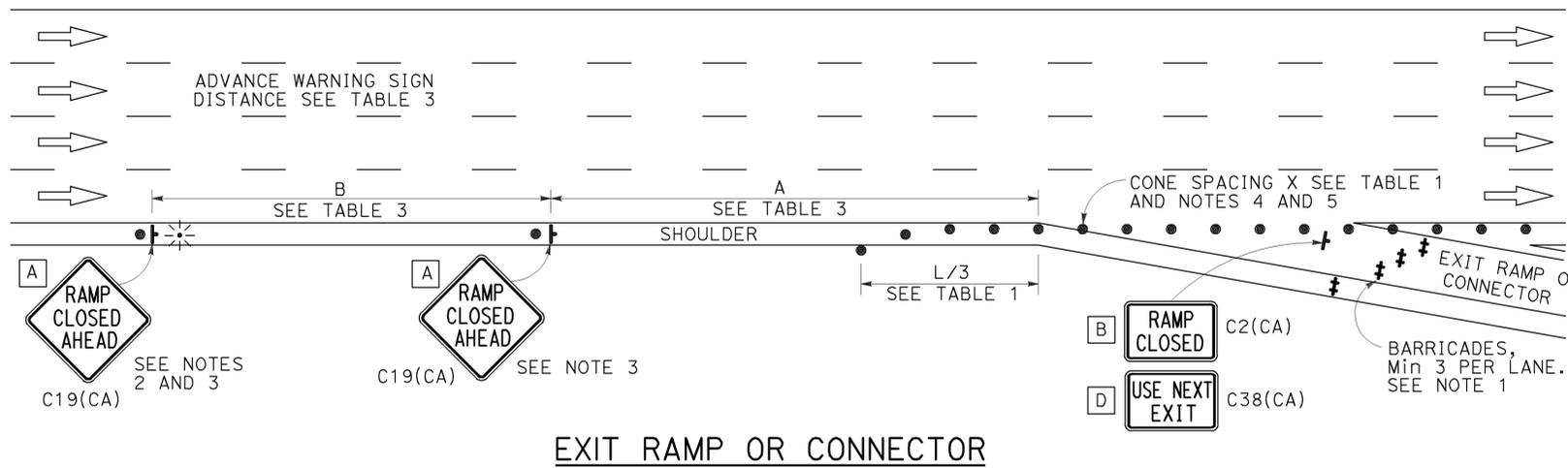
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

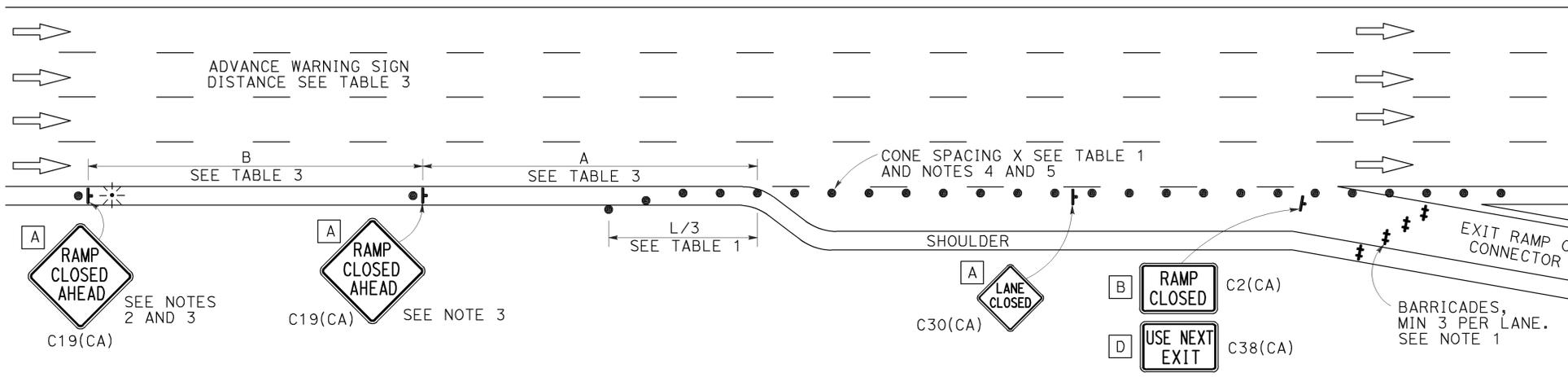
TO ACCOMPANY PLANS DATED 01/25/16

## NOTES:

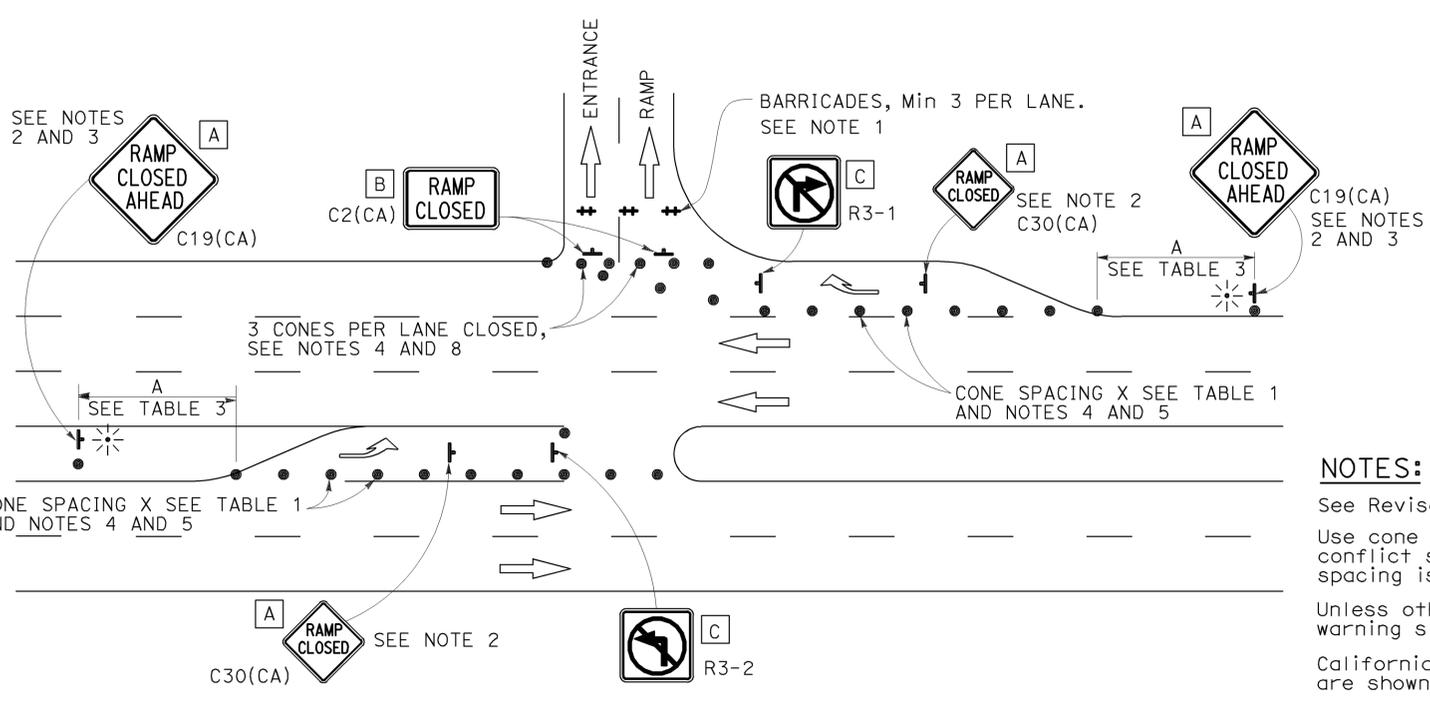
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed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



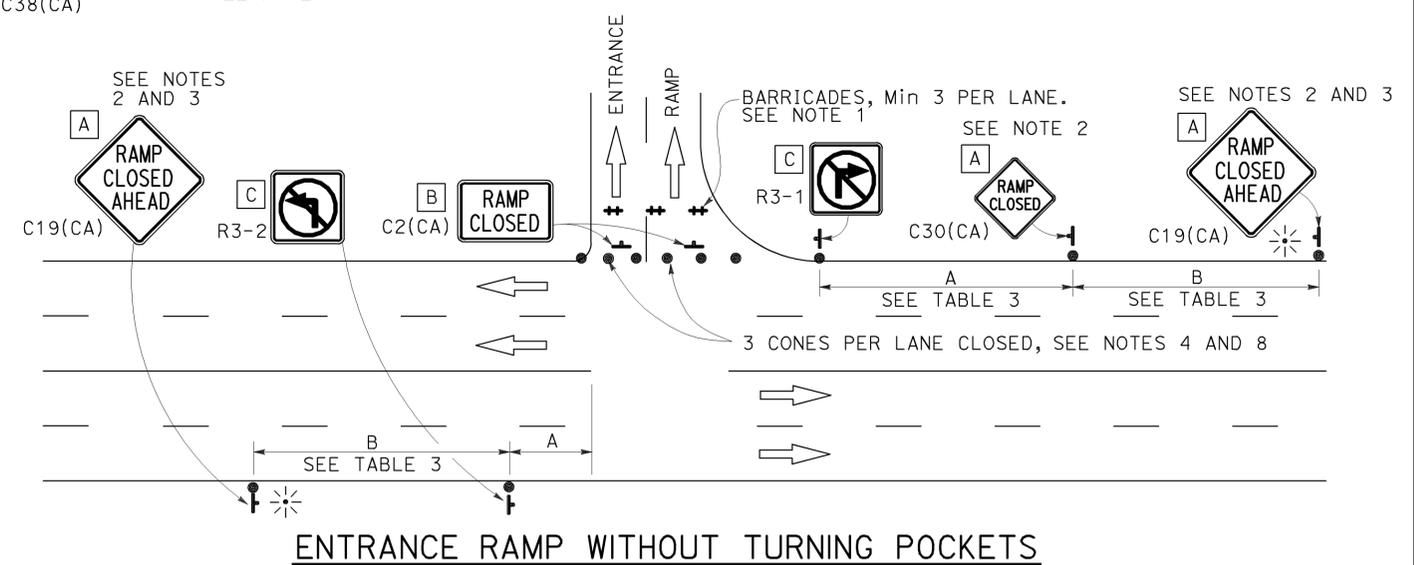
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

## NOTES:

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

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

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

2010 REVISED STANDARD PLAN RSP T14