Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	27.6/28.2	3	139

Fred Faizi 11-04-09
REGISTERED CIVIL ENGINEER DATE

2-16-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER F. FAIZI No. C47267 Exp. 12/31/11 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.

1

NOTE:

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

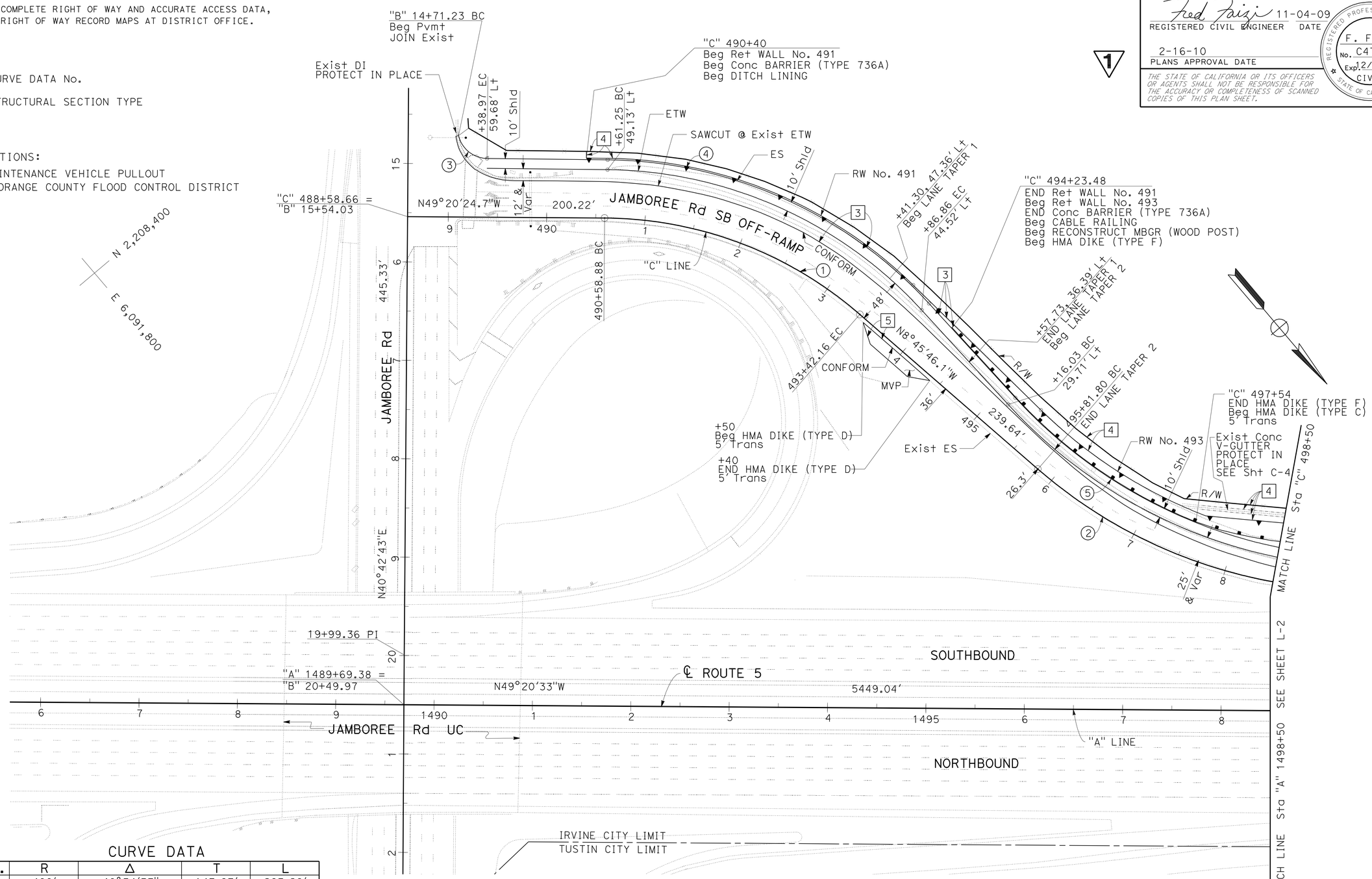
LEGEND:

○ CURVE DATA No.

□ STRUCTURAL SECTION TYPE

ABBREVIATIONS:

MVP MAINTENANCE VEHICLE PULLOUT
OCFCD ORANGE COUNTY FLOOD CONTROL DISTRICT



CURVE DATA

No.	R	Δ	T	L
1	400'	40°34'37"	147.87'	283.28'
2	500'	35°42'37"	161.06'	311.63'
3	30'	76°22'10"	23.60'	39.99'
4	450'	46°51'28"	195.01'	368.03'
5	500'	42°21'37"	197.61'	377.06'

1 REVISED PER ADDENDUM No. 1 DATED JANUARY 20, 2011

LAYOUT

SCALE: 1" = 50'

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR: MATTHEW CUGINI
CALCULATED-DESIGNED BY: FRED FAIZI
CHECKED BY: FRED FAIZI
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 20-JAN-2011
TIME PLOTTED => 09:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	27.6/28.2	49	139

Fred Faizi 11-04-09
REGISTERED CIVIL ENGINEER DATE

2-16-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER F. FAIZI No. C47267 Exp. 12/31/11 CIVIL STATE OF CALIFORNIA

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1

ROADWAY

SHEET No.	STATION	RUBBERIZED HMA (GAP GRADED)	HOT MIX ASPHALT (TYPE A)	ATPB	CLASS 2 AGGREGATE BASE	PLACE HMA DIKE (TYPE C)	PLACE HMA DIKE (TYPE D)	PLACE HMA DIKE (TYPE F)	MINOR CONCRETE (DITCH LINING)	DITCH EXCAVATION	ROADWAY EXCAVATION	ROADWAY EMBANKMENT (N)
		TON	TON	CY	CY	LF	LF	LF	CY	CY	CY	CY
L - 1	"C" 489+00 TO 498+50	131.3	656.4		1207.1							
	"C" 493+45 TO 494+55	6.0	30.5		56.0							
	"C" 494+23.48 TO 497+54		4.1					321				
	"C" 497+54 TO 498+50		0.7			88						
	"C" 493+50 TO 494+40		5.2				90					
	"C" 489+40 TO 498+50										1000	506
	"C" 490+40 TO 498+50								91	91		
L - 2	"C" 498+50 TO 499+24.40		0.5			71						
	"C" 499+24.4 TO 500+14.4		5.2				90					
	"C" 499+20 TO 500+40								34	34		
	"C" 498+50 TO 500+67	33.6	168		308.87							
	"C" 499+20 TO 500+15	5.7	28.3		52							
	"C" 501+96+20 TO "A" 1511+50	152.2	817	106.31	1422							
	"C" 498+50 TO "A" 1511+50										1717	1144
	"C" 502+12.33 TO "A" 1511+50								151	151		
L - 3	"A" 1511+50 TO 1520+50	132.8	701	86.61	1225.3							
	"A" 1522+10 TO 1523+00	5.6	28.3		51.93							
	"A" 1511+50 TO 1518+20								112.3	112.3	1450	21
	"A" 1518+20 TO 1518+70		0.7					50				
	"A" 1518+70 TO 1519+10		0.3			40						
	"D" 22+20.55 TO 23+10.40		5.2				90					
TOTAL		467	2453.7	193	4323	199	270	371	388	388	4167	1671

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

REMOVAL

SHEET No.	STATION	REMOVE PAVEMENT (N)	REMOVE AC DIKE (N)	REMOVE METAL BEAM GUARD RAILING (N)	REMOVE TERMINAL SYSTEM (TYPE SRT) (N)	REMOVE CONCRETE (CURB AND GUTTER)	REMOVE CONCRETE (MISCELLANEOUS)
		SQFT	LF	LF	EA	LF	CY
C - 1	"C" 489+51 TO 498+50	322					
	"C" 494+71.5 TO 500+66.5		595				
	"C" 489+50 TO 490+31			81			
	"B" 14+71.23 TO "C" 489+66.63					78	
	"C" 489+20 AND "C" 489+24						2
	"C" 489+66.7 TO 490+27.6			61			
	"C" 490+27.6 AND "C" 490+31				2		
	"C" 497+50						1
C- 2	"C" 498+50 TO 500+67	149					
	"C" 501.96+50 TO "A" 1511+50	846					
	"C" 501+92 TO "A" 1519+92		689				
	"C" 501+92 TO "A" 1519+55.9			653			
	"A" 1508+45				1		
C- 3	"A" 1511+50 TO "A" 1520+50	801					
	"A" 1516+19.4 TO "A" 1516+83.23			64			
	"A" 1516+83				1		
TOTAL		2118	1284	859	4	78	3

SUMMARY OF QUANTITIES

1 REVISED PER ADDENDUM No. 1 DATED JANUARY 20, 2011

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
FUNCTIONAL SUPERVISOR MATTHEW CUGINI
CALCULATED-DESIGNED BY FRED FAIZI
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 20-JAN-2011
TIME PLOTTED => 09:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	27.6/28.2	50	139

Fred Faizi 11-04-09
REGISTERED CIVIL ENGINEER DATE

2-16-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER F. FAIZI No. C47267 Exp. 12/31/11 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.

1

METAL BEAM GUARD RAILING

SHEET No.	STATION	RECONTRUCT MBGR (WOOD POST)	RECONSTRUCT TERMINAL SYSTEM (TYPE SRT) (N)	TRANSITION RAILING (TYPE WB)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	GUARD RAILING DELINEATOR
		LF	EA	EA	EA	EA
L - 1	"C" 494+23.48 TO 498+50	409			1	16
L - 2	"C" 498+50 TO 500+16	166			1	8
L - 3	"A" 1518+20 TO 1518+45			1		2
	"A" 1518+45 TO 1518+70	25				2
	"A" 1518+70		1			2
TOTAL		600	1	1	2	30

WATER POLLUTION CONTROL

STATION	TEMPORARY SILT FENCE	TEMPORARY DRAINAGE INLET PROTECTION	STREET SWEEPING	TEMPORARY CONCRETE WASHOUT (PORTABLE)	TEMPORARY CONSTRUCTION ENTRANCE	TEMPORARY SOIL BINDER
	LF	EA	LS	LS	EA	SQYD
"C" 489+00 TO 498+50	940	2			1	1372
"C" 498+50 TO "A" 1511+50	1100	3				525
"A" 1511+50 TO 1520+50	900	2			1	6052
"C" 489+00 TO "A" 1520+50			1	1		
TOTAL	2940	7	1	1	2	7949

RETAINING WALL

WALL No.	SHEET No.	STATION	STRUCTURE EXCAVATION (Ret WALL)	STRUCTURE BACKFILL (Ret WALL)	STRUCTURAL CONCRETE (Ret WALL)	PERVIOUS BACKFILL MATERIAL (Ret WALL)	BAR REINFORCING STEEL (Ret WALL)	MINOR CONCRETE (GUTTER)	CABLE RAILING	CONCRETE BARRIER (TYPE 736A)	CONCRETE BARRIER (TYPE 736 Mod)	60" CIDH CONCRETE PILING	FRACTURED RIB TEXTURE
			CY	CY	CY	CY	LB	LF	LF	LF	LF	LF	SQFT
491	R-1	"C" 490+90 TO "C" 494+23.48	609	591	242	35	17829			426			2620
493	R-2, R-3	"C" 494+23.48 TO "C" 500+40	1094	1269	445	65	33271	587	586				4000
503	R-4, R-5, R-6	"C" 502+12.33 TO "A" 1518+20	2434	1805	773	30	63527			1586			5440
503	R-4	"A" 1503+39.55 TO "A" 1503+55.55					7826				16	35	
TOTAL			4139	3665	1460	130	122453	587	586	2012	16	35	12060

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

1 REVISED PER ADDENDUM No. 1 DATED JANUARY 20, 2011

SUMMARY OF QUANTITIES
Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN
FUNCTIONAL SUPERVISOR MATTHEW CUGINI
CALCULATED-DESIGNED BY FRED FAIZI
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 20-JAN-2011 | TIME PLOTTED => 09:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	27.6/28.2	68	139

Ronald Wong 11-04-09
LICENSED LANDSCAPE ARCHITECT

2-16-10
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT RONALD WONG 1538 Signature 1-31-10 Renewal date 11-04-09 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.

1

PLANT LIST AND PLANTING SPECIFICATIONS

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (INCH) Dia	HOLE SIZE (INCH) DEPTH	BASIN TYPE	IRON SULFATE	SOIL AMEND 1	COMMERCIAL FERTILIZER 1 PLANTING	COMMERCIAL FERTILIZER 1 PLT ESTB	BASIN MULCH	STAKING	PLANTING LIMITS MINIMUM DISTANCE (Ft) FROM TRVD WAY	PVMT	FENCE	WALL	PAVED DITCH	EARTH DITCH	ON CENTER (Ft)	REMARKS
A	1	⊙	RHAPHIOLEPIS INDICA 'ENCHANTRESS'	INDIA HAWTHORN	No. 1	36	12	12	II	-	0.4 CF	0.13 LB	0.13 LB	0.4 CF	-	-	6	5	5	-	-	5.0	SHRUB
B	2	✇	LEPTOSPERMUM SCOPARIUM 'RUBY GLOW'	NEW ZEALAND TEA TREE	No. 5	32	16	16	II	-	0.7 CF	0.25 LB	0.25 LB	0.7 CF	-	-	10	10	10	-	-	12	SHRUB
U	3	⊙	CERCIS OCCIDENTALIS	WESTERN REDBUD	No. 15	17	24	24	II	-	2.0 CF	0.75 LB	0.50 LB	2.0 CF	-	-	10	8	8	-	-	4	SHRUB

APPLICABLE WHEN CIRCLED:

1 - Quantities shown are "per plant" unless shown as SQFT or SQYD application rates.
2 - Sufficient to receive root ball.
3 - Does not apply to mulch areas.
4 - As shown on plans.
5 - Unless otherwise shown on plans.
6 - See detail.
7 - See Special Provisions.

NOTE:

Underlined portions of botanical name indicate abbreviations used on Planting Plans.

ABBREVIATIONS

AMEND — amendment
B & B — balled and burlapped
Dia — diameter
EA — each
lb — pound
oz. — ounce
Ft — foot/feet
SQFT — square feet
CF — cubic feet
Max — maximum
Min — minimum
NCN — no common name
No. — number
Pkt — packet
PLT ESTB — plant establishment
Pvmt — pavement
R/W — right of way
SF — state furnished
TRVD — traveled

CONSTRUCTION LEGEND

MULCH

1 REVISED PER ADDENDUM No. 1 DATED JANUARY 20, 2011

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

PLANT LIST

PL-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT: ERIC DICKSON
CALCULATED-DESIGNED BY: KEN CHAN
CHECKED BY: I-HONG SUN
REVISED BY: KC
DATE REVISED: 05-26-09

LAST REVISION 01-15-09 | DATE PLOTTED => 20-JAN-2011 | TIME PLOTTED => 09:28

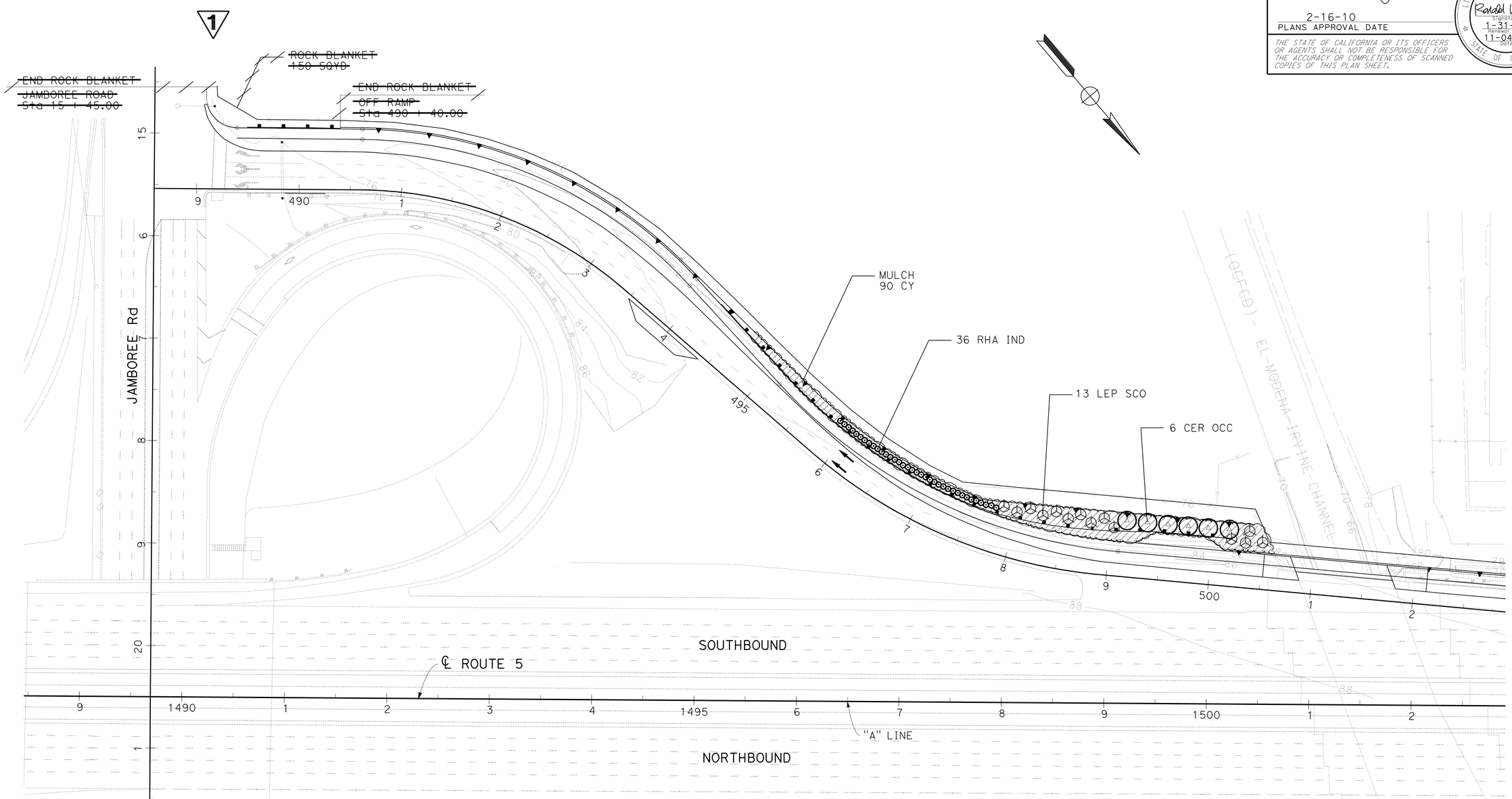
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	27.6/28.2	69	139

Ronald Wong 11-04-09
LICENSED LANDSCAPE ARCHITECT

2-16-10
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT RONALD WONG 1538 Signature 1-31-10 Renewal Date 11-04-09 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.



1 REVISED PER ADDENDUM No. 1 DATED JANUARY 20, 2011

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

PLANTING PLAN

SCALE 1" = 50'

PP-1

REVISED BY	DATE REVISED
KC	05-26-09

KEN CHAN — CALCULATED-DESIGNED BY
I-HONG SUN — CHECKED BY
SENIOR LANDSCAPE ARCHITECT: ERIC DICKSON

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
LANDSCAPE ARCHITECTURE

LAST REVISION 01-15-09 | DATE PLOTTED => 20-JAN-2011 | TIME PLOTTED => 09:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	27.6/28.2	83	139

REGISTERED ELECTRICAL ENGINEER 11-04-09 DATE

2-16-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER S. SHAHRIARI No. E 13485 Exp. 9/30/10 ELECTRICAL STATE OF CALIFORNIA

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

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

NOTES: (THIS SHEET)

1. EXISTING MODEL 170 CONTROLLER ASSEMBLY IN MODEL 332 CABINET TO REMAIN.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE TO REMAIN. METER ID No. 07-55-005-0-027.603
3. RC EXISTING 3-36" FLUORESCENT SIGN LIGHT FIXTURE AND TYPE SC2 SIGN CONTROL UNIT.
4. EXISTING 1½"C, 12 PAIR #19 sic, REMOVE Exist 12 pairs #19 sic. INSTALL 12 PAIR #19 SIC.
5. INSTALL 2"C, 12 PAIR #19 SIC.
6. INSTALL 4 ISL WITH TYPE SC2A SIGN CONTROL UNIT.
7. EXISTING 1½"C, 2 dlc. REMOVE 2 dlc. INSTALL 2 DLC.
8. AB EXISTING LOOPS WHERE NEW LOOPS ARE CUT.

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD			SIGNAL MOUNTING		PED	PPB *		HPS
	TYPE	SMA	LA	MAST ARM	POLE	MTG	Ø	ARROW	WATTS
A	19-2-70	30'	15'	MAS	SV-1-T	SP-1-T *	6 *	-	200
B	1-A	-	-	-	TV-2-T	-	-	-	-
C	18-2-70	30'	15'	MAS	SV-2-T	-	-	-	200
D	29-5-70	30'	-	MAS	SV-3-T	-	-	-	-
E	1-A *	-	-	-	-	TP-1-T *	6 *	-	-

* REMOVE EXISTING

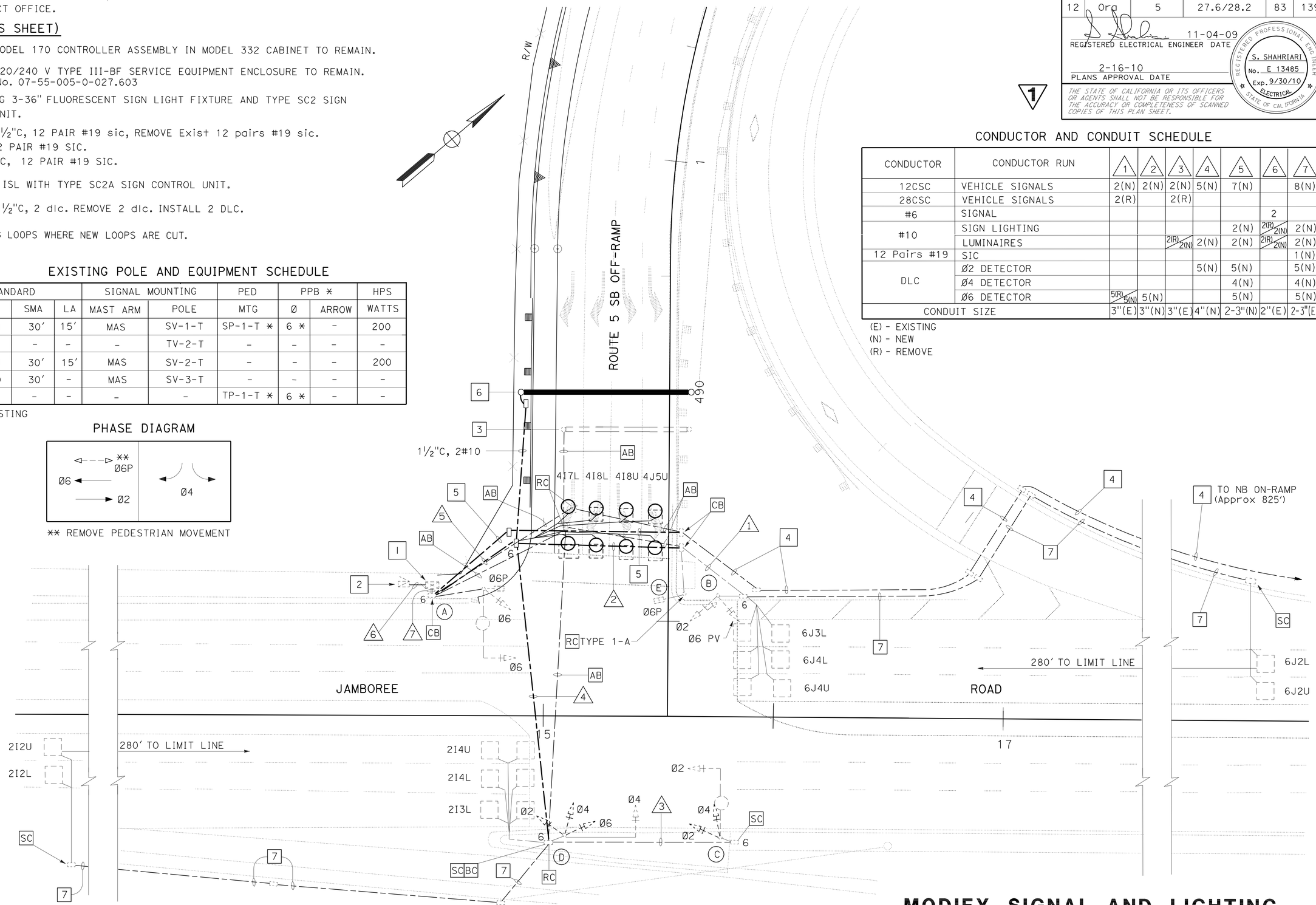
PHASE DIAGRAM

** REMOVE PEDESTRIAN MOVEMENT

CONDUCTOR AND CONDUIT SCHEDULE

CONDUCTOR	CONDUCTOR RUN	1	2	3	4	5	6	7
12CSC	VEHICLE SIGNALS	2(N)	2(N)	2(N)	5(N)	7(N)		8(N)
28CSC	VEHICLE SIGNALS	2(R)		2(R)				
#6	SIGNAL						2	
#10	SIGN LIGHTING					2(N)	2(R) / 2(N)	2(N)
	LUMINAIRES			2(R) / 2(N)	2(N)	2(N)	2(R) / 2(N)	2(N)
12 Pairs #19	SIC							1(N)
DLC	Ø2 DETECTOR				5(N)	5(N)		5(N)
	Ø4 DETECTOR					4(N)		4(N)
	Ø6 DETECTOR	5(R) / 5(N)	5(N)			5(N)		5(N)
CONDUIT SIZE		3"(E)	3"(N)	3"(E)	4"(N)	2-3"(N)	2"(E)	2-3"(E)

(E) - EXISTING
(N) - NEW
(R) - REMOVE



1 REVISED PER ADDENDUM No. 1 DATED JANUARY 20, 2011

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

MODIFY SIGNAL AND LIGHTING

SCALE: 1" = 20'

E-9

CALCULATED-DESIGNED BY	BARJESH SHARMA	REVISED BY	ACF
CHECKED BY	VANESSA TRUONG	DATE REVISED	10-20-09
FUNCTIONAL SUPERVISOR	SHAHRAM SHAHRIARI		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ELECTRICAL DESIGN

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