Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	1	424

ACNHP-P132(050)E

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN SAN JOAQUIN COUNTY
NEAR VERNALIS
FROM 0.4 MILE EAST OF ROUTE 580
TO STANISLAUS COUNTY LINE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS

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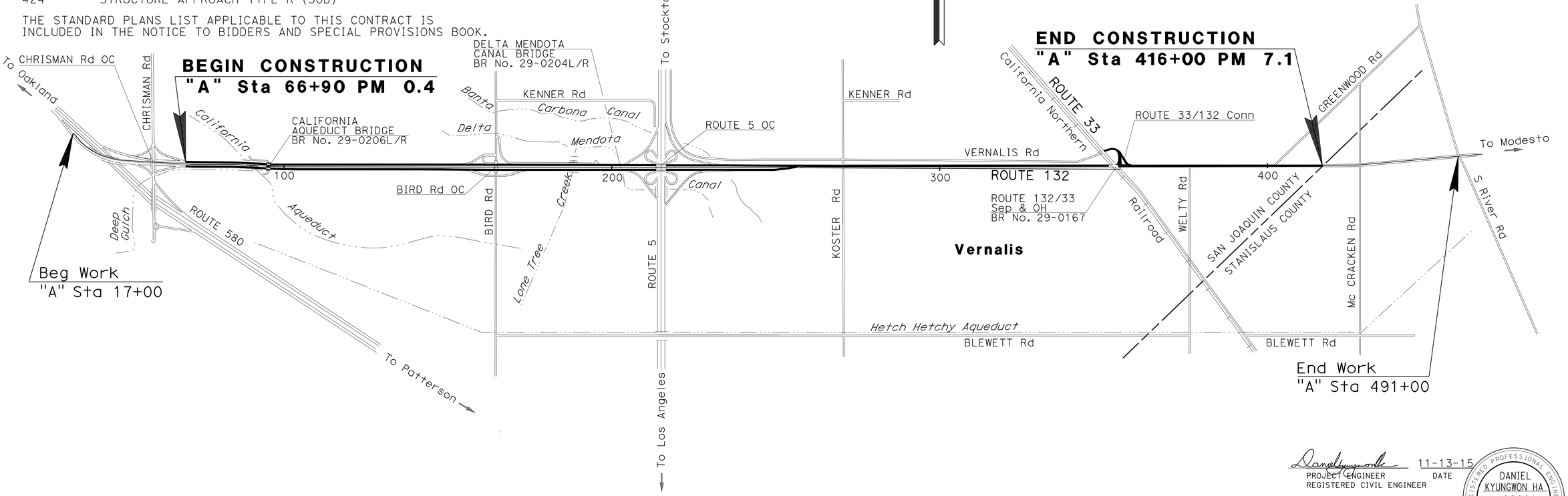
423	CONCRETE BARRIER TRANSITION TYPE 2
424	STRUCTURE APPROACH TYPE R (30D)

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

LOCATION MAP



1 REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016

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

NO SCALE

PROJECT MANAGER: IORZUA AKUVA

DESIGN ENGINEER: NICHOLAS CHAN

11-13-15
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

DANIEL KYUNGWON HA
No. 62601
Exp. 6-30-16
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

DECEMBER 14, 2015
PLANS APPROVAL DATE

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

CONTRACT No.	10-0G8204
PROJECT ID	1013000073

LAST REVISION 11-18-15 DATE PLOTTED => 02-MAY-2016 TIME PLOTTED => 15:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	44	424

REGISTERED CIVIL ENGINEER 11-13-15 DATE

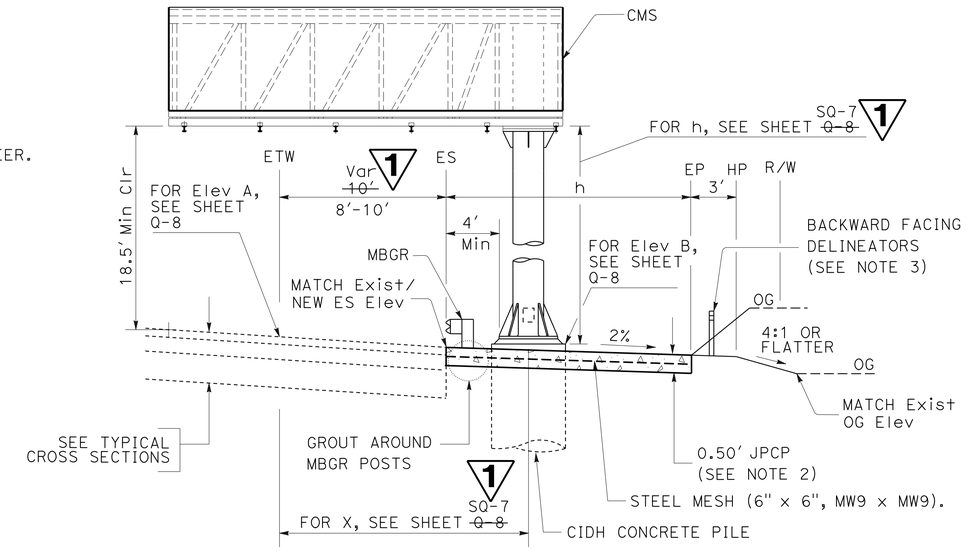
12-14-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DANIEL KYUNGWON HA No. 62601 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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

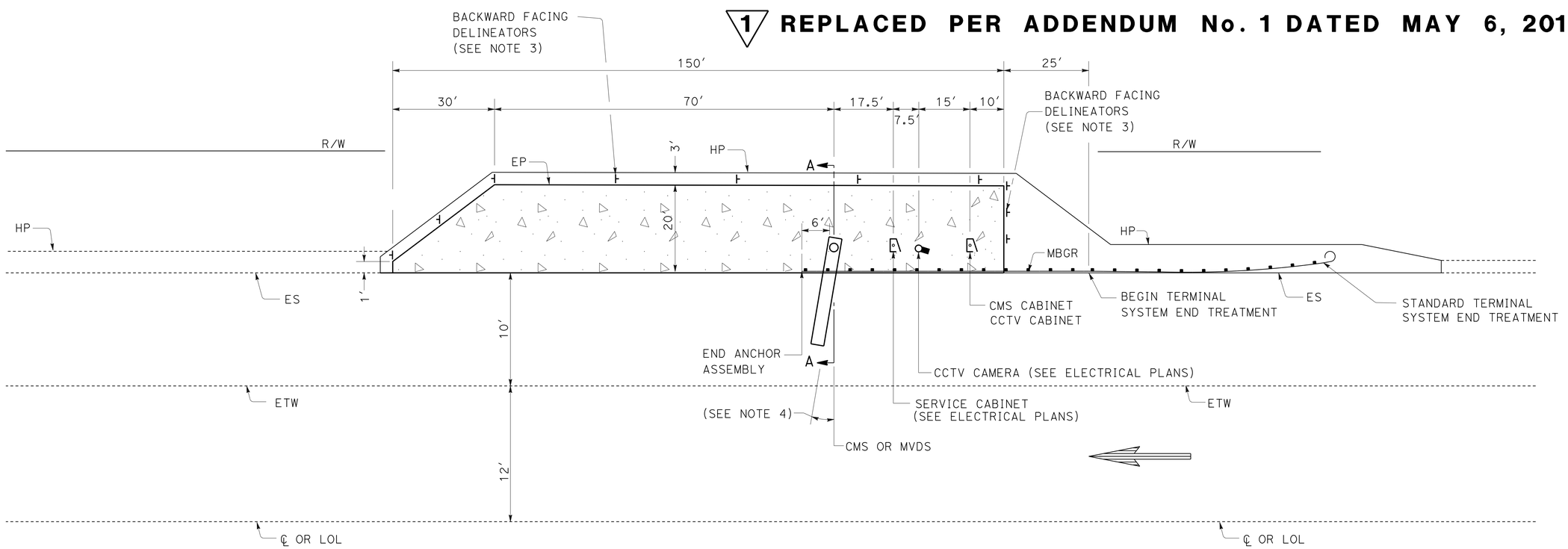
NOTES (THIS SHEET ONLY):

1. SEE SHEETS C-6,7 FOR VEGETATION CONTROL.
2. IF NEW SHOULDER IS CONSTRUCTED, USE THE SAME STRUCTURAL SECTION MATERIALS AND THICKNESS FOR MVP.
3. BACKWARD FACING DELINEATORS TO BE CLASS 1 FLEXIBLE POST (WHITE), AT 25′ SPACING. INSTALL 3 DELINEATORS AT EACH END OF MVP.
4. CMS TO BE INSTALLED AT 2° ANGLE OR PER THE APPROVAL OF AN ENGINEER.



SECTION A-A

1 **REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016**



CHANGEABLE MESSAGE SIGN (CMS) AND MAINTENANCE VEHICLE PULLOUT (MVP)

TYPICAL DETAILS

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN

FUNCTIONAL SUPERVISOR: NICHOLAS CHAN
CALCULATED-DESIGNED BY: TRIGONIO LEYVA
CHECKED BY: DANIEL HA
REVISED BY
DATE REVISED

LAST REVISION 11-18-15 DATE PLOTTED => 02-MAY-2016 TIME PLOTTED => 15:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	129	424

REGISTERED CIVIL ENGINEER 11-13-15 DATE

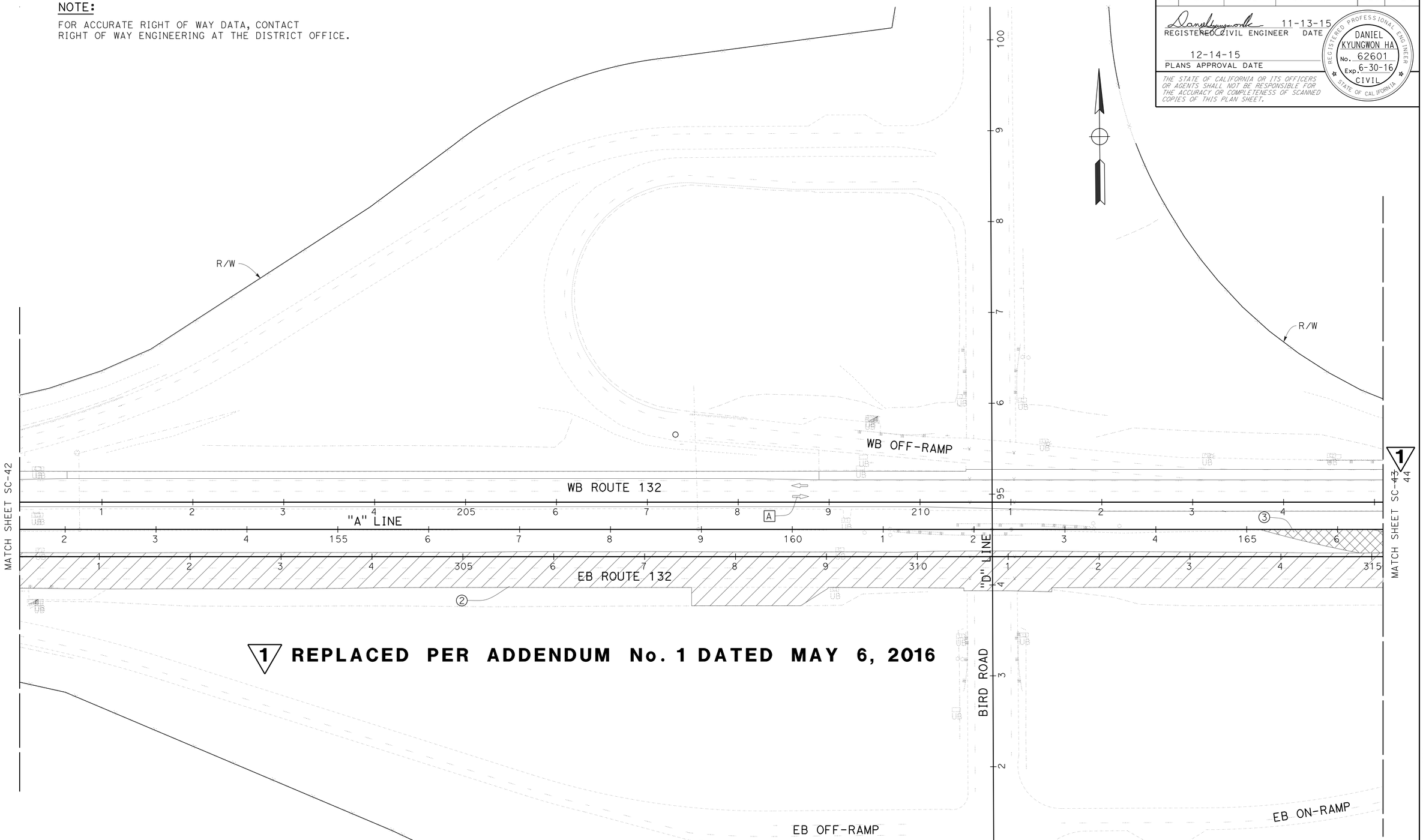
12-14-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DANIEL KYUNGWON HA No. 62601 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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

NOTE:

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



STAGE CONSTRUCTION

(STAGE 4)

SC-43

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

06-DESIGN

Caltrans

FUNCTIONAL SUPERVISOR: NICHOLAS CHAN

CALCULATED-DESIGNED BY: INDERPAL GILL

CHECKED BY: DANIEL HA

REVISED BY

DATE REVISED

LAST REVISION 07-27-15

DATE PLOTTED => 02-MAY-2016

TIME PLOTTED => 15:40

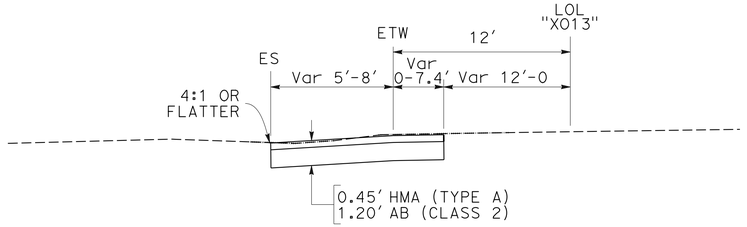
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	232	424

REGISTERED CIVIL ENGINEER 11-13-15 DATE

12-14-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DANIEL KYUNGWON HA No. 62601 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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



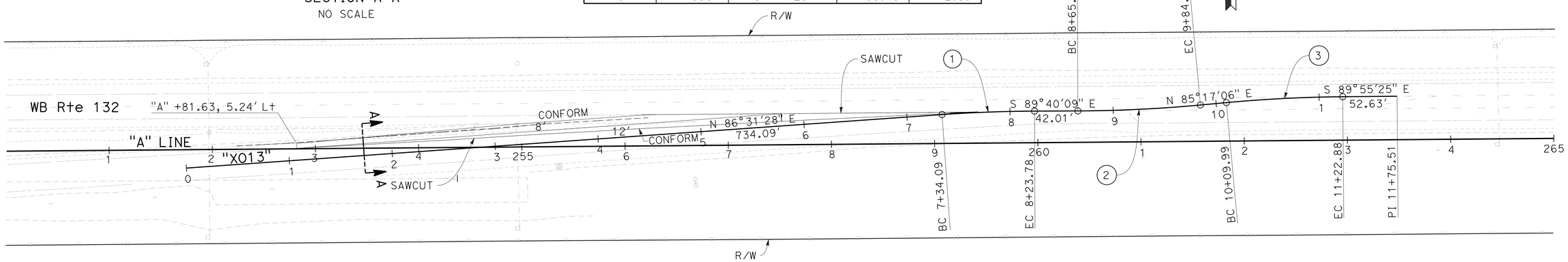
SECTION A-A
NO SCALE

NOTE:

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

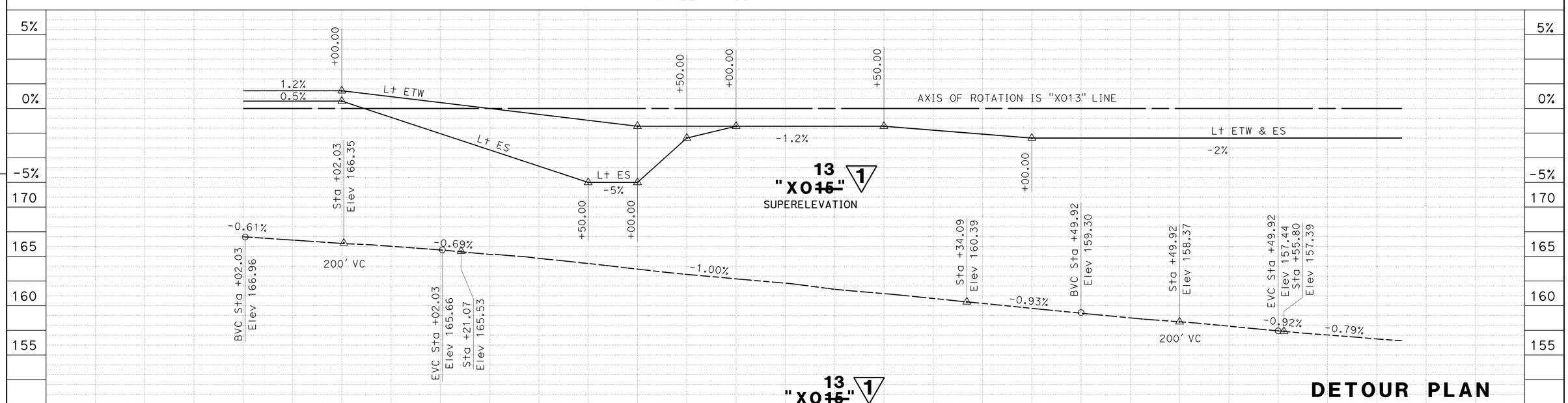
CURVE DATA

No. (X)	R	Δ	T	L
1	1350'	03°48'23"	44.86'	89.69'
2	1350'	05°02'45"	59.48'	118.89'
3	1350'	04°47'29"	56.48'	112.89'



1 REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016

SCALE: 1"=50'



DETOUR PLAN
DE-9

SCALE: Horiz 1"=50'
Vert 1"=5'

REVISED BY	DATE REVISED
TRIGONIO LEYVA	DANIEL HA
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	NICHOLAS CHAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
06-DESIGN
Caltrans

LAST REVISION 10-18-15 | DATE PLOTTED => 02-MAY-2016 | TIME PLOTTED => 15:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	275	424

REGISTERED CIVIL ENGINEER 11-13-15 DATE

12-14-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DANIEL KYUNGWON HA No. 62601 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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

MIDWEST GUARDRAIL SYSTEM

STATION FROM	STATION TO	SIDE	MGS	DOUBLE MGS (WOOD POST)	ALTERNATIVE IN-LINE TERMINAL SYSTEM	ALTERNATIVE FLARED ~~END~~ TERMINAL SYSTEM 1	END ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB-31)	REMOVE GUARDRAIL	ALTERNATIVE CRASH CUSHION SYSTEM	RUBBER MAT	TREATED WOOD WASTE
			LF	LF	EA	EA	EA	EA	LF	EA	SQYD	LB
"EB" Sta 227+52.95	"EB" Sta 228+27.95	Rt	75	-	1	-	1	-	78	-	55	987
"EB" Sta 236+13.25	"EB" Sta 236+38.25	Rt	-	-	1	-	-	1	107	-	33	1,354
"EB" Sta 235+93.48		MEDIAN	25	187.5	-	-	-	1	161	1	295	2,037
"WB" Sta 130+43.06	"WB" Sta 131+30.56	Lt	87.5	-	1	-	1	-	-	-	60	-
"WB" Sta 137+34.83	"WB" Sta 137+59.83	Lt	-	-	1	-	-	1	114	-	33	1,443
"WB" Sta 137+79.26		MEDIAN	25	175	-	-	-	1	162	1	310	2,050
"WB" Sta 143+59.23	"WB" Sta 143+84.23	Lt	25	-	-	-	1	-	-	-	11	-
"WB" Sta 144+30.90	"WB" Sta 144+55.90	Lt	-	-	1	-	-	1	105	-	33	1,329
"A" Sta 95+35.88		MEDIAN	37.5	25	-	-	1	-	-	1	68	-
"A" Sta 95+56.96		MEDIAN	37.5	25	-	-	1	-	157	1	68	1,987
"EB" Sta 241+27.98	"EB" Sta 243+59.23	Rt	231.3	-	1	-	-	1	194	-	131	2,455
"EB" Sta 244+30.90	"EB" Sta 244+55.90	Rt	25	-	-	-	1	-	-	-	11	-
"WB" Sta 162+09.68	"WB" Sta 182+23.50	Lt	2014	-	1	-	1	-	2,050	-	917	25,933
"WB" Sta 190+05.57	"WB" Sta 190+93.05	Lt	87.5	-	1	-	1	-	-	-	60	-
"EB" Sta 293+00.21	"EB" Sta 293+75.21	Rt	75	-	1	-	1	-	90	-	55	1,139
"EB" Sta 299+81.05	"EB" Sta 300+56.05	Rt	75	-	-	1	1	-	90	-	60	1,139
"EB" Sta 307+20.20	"EB" Sta 308+07.70	Rt	87.5	-	-	1	1	-	90	-	59	1,139
"A" Sta 161+88.94		MEDIAN	81.3	50	-	-	1	-	150	1	68	1,898
"A" Sta 162+51.02		MEDIAN	81.3	25	-	-	1	-	150	1	68	1,898
"EB" Sta 319+65.45	"EB" Sta 320+40.45	Rt	75	-	-	1	1	-	90	-	55	1,139
"EB" Sta 348+07.43		MEDIAN	25	150	-	-	-	1	405	1	170	5,124
"WB" Sta 250+41.60		MEDIAN	25	150	-	-	-	1	119	1	185	1,506
"A" Sta 213+53.99		MEDIAN	25	225	-	-	1	-	-	1	274	-
"A" Sta 215+70.05		MEDIAN	25	225	-	-	1	-	560	1	274	7,084
"A" Sta 229+08.88		MEDIAN	37.5	25	-	-	1	-	-	1	68	-
"A" Sta 229+29.97		MEDIAN	37.5	25	-	-	1	-	157	1	68	1,987
"WB" Sta 347+14.61	"WB" Sta 348+02.11	Rt	87.5	-	1	-	1	-	-	-	60	-
"WB" Sta 348+66.28	"WB" Sta 349+53.78	Lt	87.5	-	1	-	1	-	-	-	60	-
"WB" Sta 398+84.59	"WB" Sta 399+09.59	Rt	-	-	1	-	-	1	109	-	33	1,379
"WB" Sta 398+46.14	"WB" Sta 398+71.14	Lt	-	-	1	-	-	1	103	-	33	1,303
"WB" Sta 403+07.27	"WB" Sta 403+32.27	Rt	-	-	1	-	-	1	100	-	33	1,265
"WB" Sta 402+68.75	"WB" Sta 402+93.75	Lt	-	-	1	-	-	1	101	-	33	1,278
FROM SHEET SQ-6			-	-	-	-	-	-	-	-	-	7,760
TOTAL			3495.4	1287.5	15	3	20	12	5,442	12	3,741	76,613

1 REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016

TEMPORARY WATER POLLUTION CONTROL

LOCATIONS ** STATION FROM	LOCATIONS ** STATION TO	TEMPORARY FIBER ROLL	DRAINAGE ~~TEMPORARY DRAIN~~ INLET PROTECTION 1 (TYPE 3B)	TEMPORARY CHECK DAM (TYPE 2)	TEMPORARY HYDRAULIC MULCH	TEMPORARY SOIL BINDER	TEMPORARY SILT FENCE	TEMPORARY STRAW BALE BARRIER	TEMPORARY CONSTRUCTION ENTRANCE	TEMPORARY CONSTRUCTION ROADWAY	TEMPORARY GRAVEL BAG BERM
		LF	EA	LF	SQYD	SQYD	LF	LF	EA	SQYD	LF
"A" 66+90.00	"A" 87+13.70	7,655	4	180	10,546	10,546	403	3,628	10	10,000	4,031
"A" 89+27.50	"A" 199+26.55	22,000	14	860	48,453	48,453					
"A" 202+01.14	"A" 400+38.09	22,560	6	680	39,862	39,862					
TOTAL		52,215	24	1,720	98,861	98,861	403	3,628	10	10,000	4,031

** EXACT LOCATION TO BE DETERMINED BY THE ENGINEER

CONCRETE BARRIER

STATION	DIRECTION	CONCRETE BARRIER (TYPE 60SD)
		LF
"WB" Sta 143+84.23 TO Sta 144+30.90	WB	46.7
"EB" Sta 243+84.23 TO Sta 244+30.90	EB	46.7
	TOTAL	93.4

SUMMARY OF QUANTITIES
Q-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN

FUNCTIONAL SUPERVISOR: NICHOLAS CHAN
CALCULATED-DESIGNED BY: TRIGONIO LEYVA
CHECKED BY: DANIEL HA
REVISED BY
DATE REVISED

LAST REVISION 11-21-15
DATE PLOTTED => 02-MAY-2016
TIME PLOTTED => 15:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	276	424

REGISTERED CIVIL ENGINEER 11-13-15 DATE

12-14-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DANIEL KYUNGWON HA No. 62601 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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

NOTES:

1. THE LENGTH OF PANELS AND PAVEMENT QUANTITY APPROXIMATE ONLY, EXACT TO BE DETERMINED IN THE FIELD.
2. REUSE GRATE AT DRAINAGE INLET APRON.

ISLANDS (Conn Rte 132/33) AND GORE

DESCRIPTION 1	MINOR CONCRETE (CURB)* (TYPE D-4)		MINOR CONCRETE (TEXTURED PAVING) (BROOM FINISH)	(STAMPED BRICK PATTERN)	HMA DIKE (TYPE E)*	CLASS 2 AGGREGATE BASE**	ROADWAY EXCAVATION**	REMOVE AC DIKE*	HOT MIX ASPHALT (TYPE A)**	RUBBERISED HOT MIX ASPHALT (GAP GRADED)**
	LF (N)	CY	CY	CY	LF	CY	CY	LF	TON	TON
RAISED ISLAND, Rte 132/33 Conn, SEE SHEET C-8 DETAIL A	463	18.9	11	43		32	106			
RAISED ISLAND, Rte 132/33 Conn, SEE SHEET C-8 DETAIL B	128	5.2	3	5		5	16	128		
RAISED ISLAND, Rte 132/33 Conn, SEE SHEET C-8 DETAIL C	290	11.8	11	14	800	8	24	1090		
GORE, Rte 132, SEE SHEET C-9 DETAIL D			13	43		43	158		116	17
TOTAL		35.9	143		800	88	304	1218	116	17

INDIVIDUAL SLAB REPLACEMENT

WESTBOUND SJ-132 LANE WIDTH = 12'						Rdwy Exc **
SLAB No.	LOCATION	LENGTH OF PANEL (N)	(RSC)	LANE		
	PM	LF	CY	WB	EB	CY
1	5.80	130	77.4	X	X	77.4
2	5.24	50.6	15.1	X		15.1
3	5.21	25.1	7.5	X		7.5
4	5.09	17	5.1	X		5.1
5	5.09	18	5.4	X		5.4
6	5.05	12	3.6	X		3.6
7	5.04	17	5.1	X		5.1
8	5.02	17	5.1	X		5.1
9	4.83	20	6.0	X		6.0
10	4.45	18	5.4	X		5.4
11	4.44	26	7.7	X		7.7
		TOTAL	143.4			143.4

DRAINAGE INLET APRON

LOCATION MEDIAN STATION	EA (N)	PLACE HMA*** (Misc AREA) (a) SQYD	HMA** (TYPE A) TON	ADJUST PIPE INLET TO GRADE EA
"A" LINE 80+00.00	1	14	1.82	1
"A" LINE 84+47.85	1	14	1.82	1
"A" LINE 94+26.44	1	14	1.82	-
"A" LINE 99+95.32	1	14	1.82	1
"A" LINE 109+81.34	1	14	1.82	1
"A" LINE 115+50.00	1	14	1.82	-
"A" LINE 120+88.00	1	14	1.82	-
"A" LINE 131+97.00	1	14	1.82	-
"A" LINE 142+96.00	1	14	1.82	-
"A" LINE 152+15.00	1	14	1.82	-
"A" LINE 158+96.00	1	14	1.82	-
"A" LINE 166+97.00	1	14	1.82	-
"A" LINE 175+55.00	1	14	1.82	-
"A" LINE 180+97.00	1	14	1.82	-
"A" LINE 183+97.00	1	14	1.82	-
"A" LINE 191+97.00	1	14	1.82	-
"A" LINE 209+97.00	1	14	1.82	1
"A" LINE 220+48.00	1	14	1.82	-
"A" LINE 230+97.00	1	14	1.81	-
"A" LINE 237+96.00	1	14	1.81	-
"A" LINE 243+47.00	1	14	1.81	1
"A" LINE 246+96.00	1	14	1.81	-
"A" LINE 251+97.00	1	-	-	1
"A" LINE 254+95.00	1	-	-	1
TOTAL		308	40	8

* INCLUDED IN ROADWAY QUANTITIES SUMMARY, SHEET Q-4
** INCLUDED IN ROADWAY QUANTITIES SUMMARY, SHEET Q-3
*** INCLUDED IN HMA OVERSIDE DRAIN, SHEET Q-4
(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
(a) INCLUDED IN HMA OVERSIDE DRAIN, SHEET Q-4

1 REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016

SUMMARY OF QUANTITIES
Q-6

REVISED BY | DATE REVISED
TRIGONIO LEYVA | DANIEL HA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: NICHOLAS CHAN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN

LAST REVISION 11-12-15 | DATE PLOTTED => 02-MAY-2016 | TIME PLOTTED => 15:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	277	424

REGISTERED CIVIL ENGINEER 11-13-15 DATE

12-14-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DANIEL KYUNGWON HA No. 62601 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA

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

RUMBLE STRIP

DIRECTION	LOCATION FROM	LOCATION TO	Conc Pvmt, GROUND-IN INDENTATIONS SHOULDER INSIDE Sta	Conc Pvmt SHOULDER OUTSIDE Sta	HMA, GROUND-IN INDENTATIONS SHOULDER INSIDE Sta	HMA SHOULDER OUTSIDE 1' WIDE Sta	HMA SHOULDER OUTSIDE 6" WIDE Sta	HMA CENTER LINE Sta
WB	"WB" 115+78.74	"WB" 129+62.26		13.84		1.10	1	
	"WB" 116+61.00	"WB" 134+94.43	18.33					
	"WB" 130+87.26	"WB" 134+81.13		3.94				
	"WB" 137+88.43	"WB" 187+90.87		50.02				
	"WB" 200+61.59	"WB" 208+88.92		8.27				
	"WB" 138+01.84	"WB" 247+86.00	109.84			1.60		
	"WB" 250+60.82	"WB" 304+78.89	54.18					
	"WB" 295+09.83	"WB" 307+99.21		12.89				
	"WB" 307+99.21	"WB" 315+44.32				7.45		
	"WB" 318+97.86	"WB" 347+72.29				28.74		
	"WB" 331+32.89	"WB" 398+71.00						67.38
	"WB" 349+22.29	"WB" 397+71.00				49.49		
	"WB" 403+04.68	"WB" 410+60.61				7.56		
	"A" 371+32.08	"A" 397+16.76						25.85
	"A" 371+32.08	"A" 398+57.75				30.47		
EB	"EB" 215+51.00	"EB" 235+74.64	20.24			1.10		
	"EB" 218+55.48	"EB" 235+88.04		17.33				
	"EB" 238+82.00	"EB" 258+79.81	19.98					
	"EB" 238+95.43	"EB" 258+79.81		19.84				
	"EB" 258+79.81	"EB" 322+45.10			63.65			
	"EB" 258+79.81	"EB" 293+34.17				34.54		
	"EB" 298+00.00	"EB" 300+22.39				2.22		
	"EB" 301+08.86	"EB" 307+51.70				6.43		
	"EB" 309+01.70	"EB" 320+00.37				10.99		
	"EB" 320+88.70	"EB" 322+45.10				1.56		
	"EB" 322+45.10	"EB" 347+88.84	25.44					
	"EB" 350+64.03	"EB" 394+28.34	43.64					
	"EB" 382+16.13	"EB" 400+37.43		18.21				
	"EB" 394+28.34	"EB" 404+83.68			10.55			
	"EB" 400+37.43	"EB" 409+62.84				9.25		
	"WB" 309+56.40	"WB" 314+90.15				5.34		
	"WB" 318+91.00	"WB" 347+46.11				28.55		
	"WB" 348+96.11	"WB" 387+25.30				38.29		
	"WB" 388+00.38	"WB" 398+71.00				10.91		
	"WB" 403+04.68	"WB" 412+09.92				9.05		
	"A" 363+90.63	"A" 374+90.14				11.00		
	"A" 377+06.58	"A" 399+86.23				22.80		
	"A" 399+86.23	"A" 416+00.00					17.42	
TOTAL			435.99		410.06			93.23

TAPERED EDGE

LOCATION FROM	LOCATION TO	SIDE (N) INSIDE LF	SIDE (N) OUTSIDE LF	JPCP* CY	RHMA* (GAP GRADED) TON	HMA* (TYPE A) TON
"WB" 150+21.00	"WB" 182+86.00	3265		83.9		
"WB" 250+21.00	"WB" 258+79.81	858.81		22.1		
"WB" 258+79.81	"WB" 293+34.17	3454.36			8.8	
"EB" 293+34.17	"EB" 322+45.10	2910.93				7.6
"EB" 261+41.19	"EB" 293+25.21		3184.02			8.2
"EB" 302+08.86	"EB" 306+70.20		461.34			1.2
"WB" 307+99.21	"WB" 315+44.32		745.11		1.9	
"EB" 309+56.40	"EB" 314+90.15		533.75		1.4	
"WB" 318+97.86	"WB" 327+56.73		858.87		2.2	
"EB" 318+91.00	"EB" 331+94.44		1303.44		3.3	
"EB" 338+72.88	"EB" 346+64.61		791.73		2.0	
"EB" 348+96.11	"EB" 359+53.31		1057.20		2.8	
"WB" 349+03.78	"WB" 359+57.36		1053.58		2.8	
"RTE33" 10+93.68	"CON2" 362+48.30		1585.00		4.0	
"CON1" 350+79.69	"CON1" 360+29.70		974.80		2.5	
"A" 367+50.00	"A" 374+31.77		681.77		1.7	
"WB" 370+29.20	"WB" 400+38.09		3008.89		7.7	
"A" 377+06.58	"A" 400+38.09		2331.51		5.9	
TOTAL				106.0	47.0	17.0

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

* INCLUDED IN ROADWAY QUANTITIES SUMMARY, SHEET Q-3

1 **REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016**

SUMMARY OF QUANTITIES
Q-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-DESIGN

FUNCTIONAL SUPERVISOR: NICHOLAS CHAN
CALCULATED-DESIGNED BY: TRIGONIO LEYVA
CHECKED BY: DANIEL HA
REVISED BY
DATE REVISED

LAST REVISION 05-11-15 | DATE PLOTTED => 02-MAY-2016 | TIME PLOTTED => 15:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	287	424

REGISTERED ELECTRICAL ENGINEER 12-11-15 DATE

12-14-15
PLANS APPROVAL DATE

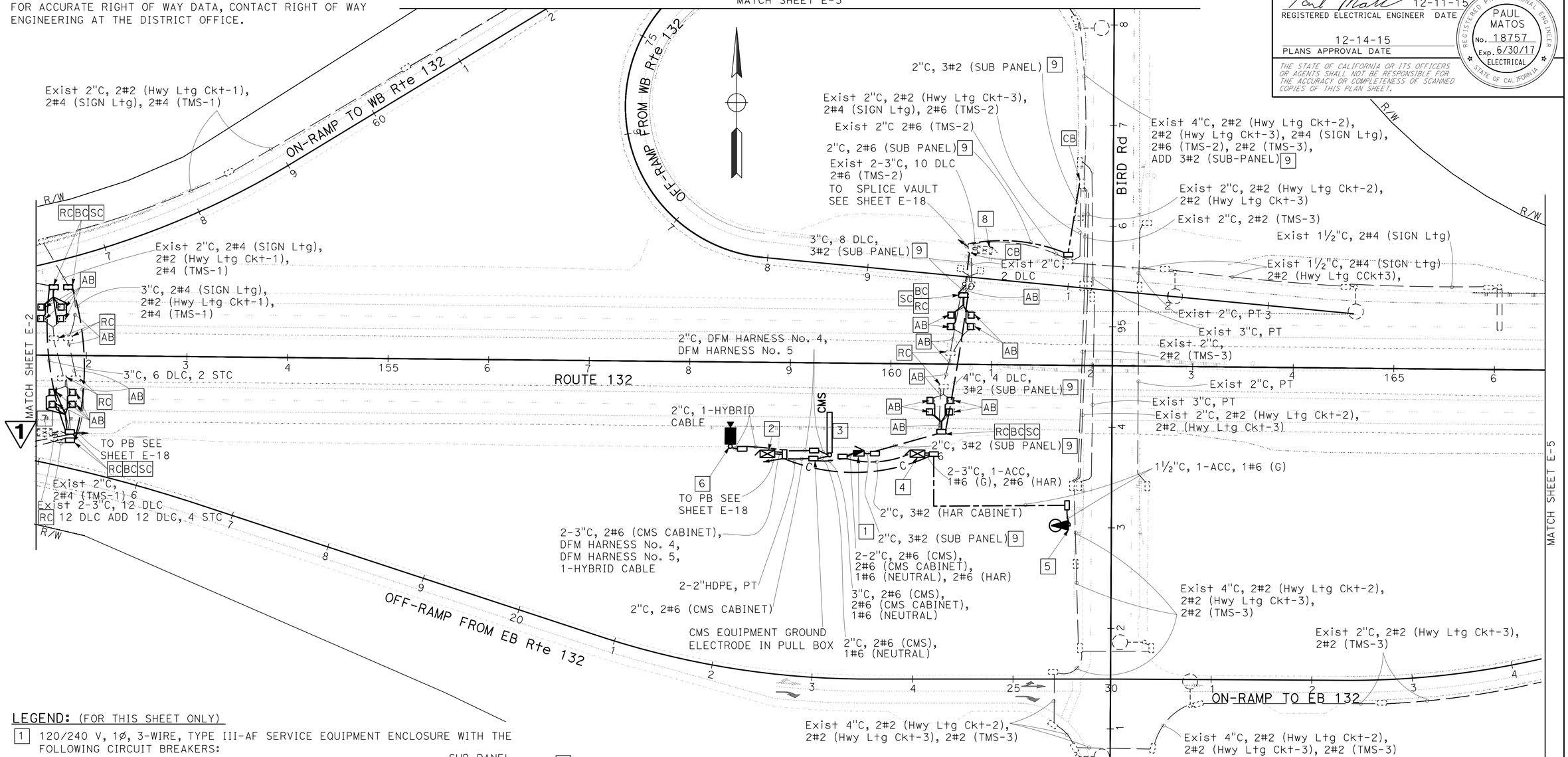
REGISTERED PROFESSIONAL ENGINEER PAUL MATOS No. 18757 Exp. 6/30/17 ELECTRICAL STATE OF CALIFORNIA

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.

NOTES:

1. ALL PULL BOXES MUST BE No. 5(T)(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

1 REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016



LEGEND: (FOR THIS SHEET ONLY)

1 120/240 V, 1ø, 3-WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

SUB-PANEL

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
60	240	2	MAIN BREAKER	-	-
30	120	1	CMS CABINET	-	-
30	240	2	CMS	-	-
30	120	1	HAR CABINET	-	-
40	240	2	SPARE	-	-
15	120	1	SPARE	-	-
-	-	6	SPACE	-	-

2 DEPARTMENT-FURNISHED MODEL 2070E CONTROLLER ASSEMBLY FOR CMS. INSTALL VIDEO ENCODER, CAMERA CONTROL UNIT, AND WIRELESS MODEM FOR CCTV

3 DEPARTMENT-FURNISHED MODEL 500 LED CMS.

4 MODEL 334L CABINET WITH HAR EQUIPMENT AND WIRELESS MODEM.

5 HIGH BAND ANTENNA ON WOOD POLE. SEE DETAILS ON SHEET E-35.

6 CCTV 40 POLE WITH CAMERA ASSEMBLY.

7 Exist MODEL 334L CABINET FOR TMS. ADD ATC AND WIRELESS MODEM.

8 Exist MODEL 334L CABINET FOR TMS.

9 USE COPPER CONDUCTORS

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS E-4

SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
CALCULATED-DESIGNED BY: GURVINDERJIT S. BAINS
CHECKED BY: PAUL MATOS
REVISED BY: GSB
DATE REVISED: 09-21-15

LAST REVISION 09-21-15
DATE PLOTTED => 02-MAY-2016
TIME PLOTTED => 15:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	321	424

1

Paul Matos 12-11-15
REGISTERED ELECTRICAL ENGINEER DATE

12-14-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PAUL MATOS No. 18757 Exp. 6/30/17 ELECTRICAL STATE OF CALIFORNIA

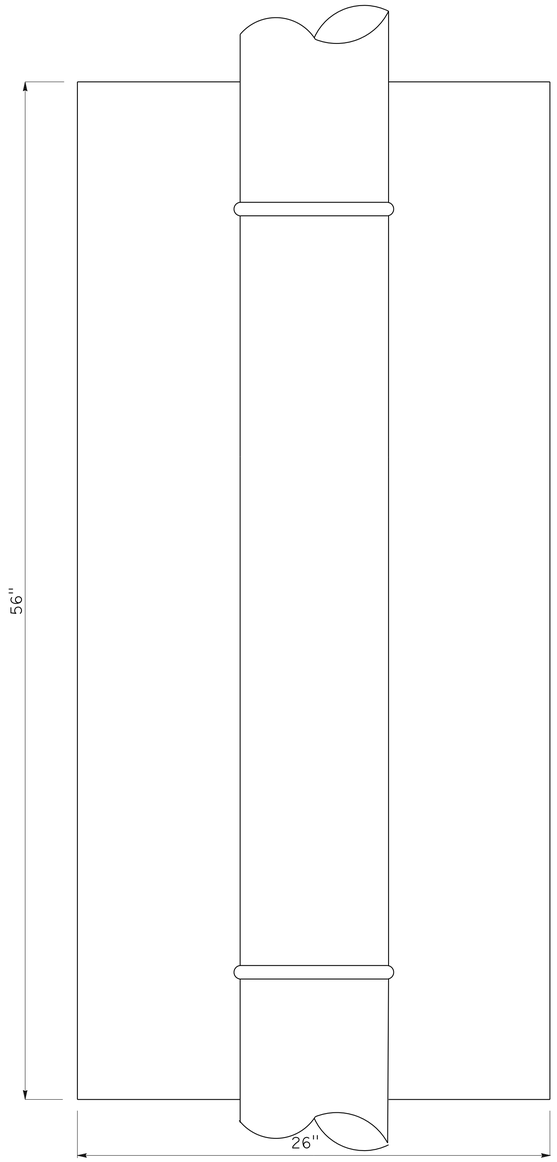
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGENDS:

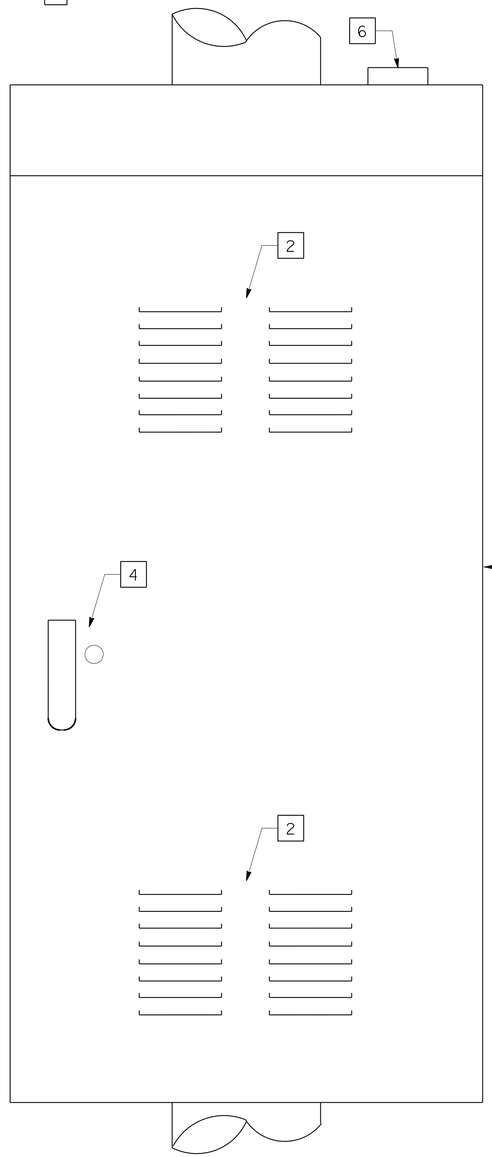
1. ALUMINUM SHELF REQUIRED TO PROVIDE SEPARATION OF THE EQUIPMENT AND BATTERY COMPARTMENTS. THE SHELF EDGE MUST EXTEND TO ALL FOUR ENCLOSURE WALLS. SPACES BETWEEN THE SHELF AND ENCLOSURE WALLS MUST BE SEALED.
2. FILTERED VENTILATION LOUVERS.
3. ALUMINUM SHELF REQUIRED FOR EQUIPMENT. 2" SPACE BETWEEN SHELF AND ENCLOSURE BACK WALL REQUIRED.
4. THREE POINT LOCKING SYSTEM MUST BE INTEGRATED WITH DOOR HANDLE. ROLLERS MUST BE USED IN CONJUNCTION WITH THE THREE POINT LOCKING SYSTEM.
5. DOOR HINGE.
6. ANTENNA.
7. BACK MOUNTING PLATE
8. ANTENNA CABLE.
9. DOOR HANDLE TO ENCLOSURE PADLOCK LATCH.
10. SEAL OPENING AROUND CONDUCTORS.

NOTE: (FOR THIS SHEET ONLY)

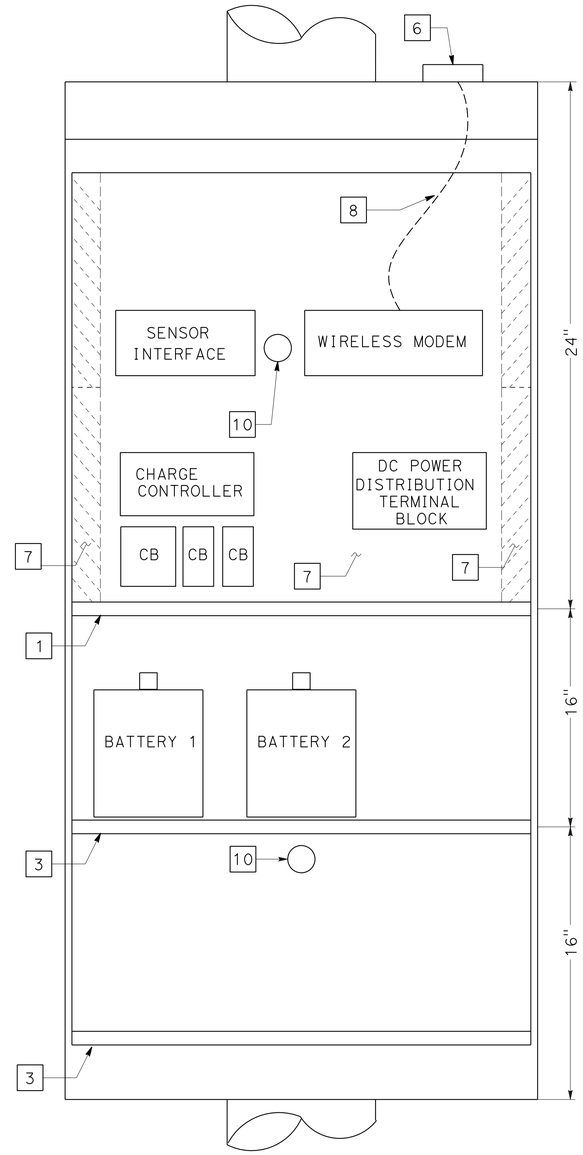
1. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIAL.



BACK VIEW

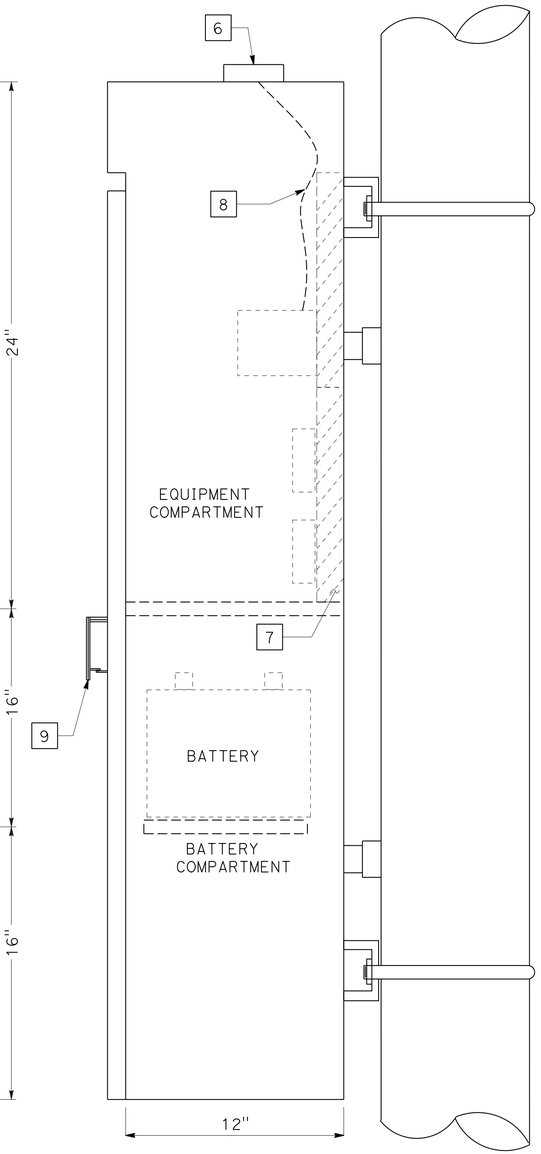


FRONT VIEW



DETAIL C FRONT VIEW (INTERIOR)

NEMA 3R ENCLOSURE



SIDE VIEW

1 **REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016**

ELECTRICAL DETAILS
E-38

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
CALCULATED-DESIGNED BY: GURVINDERJIT S. BAINS
CHECKED BY: PAUL MATOS
REVISED BY: GSB
DATE REVISED: 09-21-15

LAST REVISION DATE PLOTTED => 02-MAY-2016
TIME PLOTTED => 15:41
09-21-15

BORDER LAST REVISED 7/2/2010
USERNAME => s113541
DGN FILE => 1013000073ua038.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1515
PROJECT NUMBER & PHASE 10130000731

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	132	0.4/7.1	322	424

12-11-15
REGISTERED ELECTRICAL ENGINEER DATE

12-14-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PAUL MATOS No. 18757 Exp. 6/30/17 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.

NOTES:

1. QUANTITIES SHOWN IN THE TABLE ARE NOT SEPARATE PAY ITEMS, FOR INFORMATION ONLY. FOR COMPLETE ELECRICAL WORK, SEE ELECTRICAL PLAN SHEETS.

ELECTRICAL SYSTEMS

SHEET No.	No. 5(T)(E) PB	No. 6(T)(E) PB	UTILITY PB	DETECTOR LOOP, TYPE A	TYPE III-A SERVICE FOUNDATION	TYPE III-A SERVICE ENCLOSURE	WOOD POLE-45FT	MODEL 334L CABINET FOUNDATION	MODEL 334L CABINET	WIRELESS MODEM	CCTV 40 POLE	CAMERA ASSEMBLY	CAMERA CONTROL UNIT	VIDEO ENCODER UNIT	RWIS COMPLETE SYSTEM	HAR EQUIPMENT EXCLUDING WOOD POLE, EMS AND CONTROLLER CABINET	ATC	PIEZO AXLE SENSORS	2" CONDUIT (TYPE 1)	3" CONDUIT (TYPE 1)	2" CONDUIT (TYPE 3)	3" CONDUIT (TYPE 3)	4" CONDUIT (TYPE 3)	No. 6 CONDUCTOR (CU)	No. 2 CONDUCTOR (CU)	No. 6 CONDUCTOR (G) (CU)	No. 6 CONDUCTOR (AL)	No. 2 CONDUCTOR (AL)	DLC
	EA																		LF										
E-2	6	1	1	4	1	1		1		1	1	1	1	1					50	50	60	440					450	920	
E-3																									1800				
E-4	17	2		16	1	1	1	2	1	2	1	1	1	1		1	1	4	160	20	400	570	150						2250
E-5	2			10																		150							1250
E-7	3			8													1	4				660		800					2400
E-8	12	3	1		1	1		2		3	2	2	2	2	1				80	70	150	550					3200	50	
E-9	2			4													1	2			85	85					100		600
E-11	5	1	1	4	1	1		1	1	1	1	1	1	1			1	2	35	20	500	80				1000		100	160

COMMUNICATION CONDUIT

SHEET No.	SPLICE VAULT	3" CONDUIT (TYPE 3)	No. 6 CONDUCTOR (CU)	WARNING TAPE	TRACER WIRE	2" HDPE CONDUIT
	EA			LF		
E-12	2 *	1		960	960	1920
E-13	2			1050	1050	2100
E-14	1			1510	1510	3020
E-15	1			1415	1415	2830
E-16	1			1500	1500	3000
E-17	1			1540	1540	3040
E-18	2			2455	2455	4200
E-19	1			1710	1710	3420
E-20	1			1520	1525	3050
E-21	2			1505	1505	3010
E-22	1			1735	1735	3470
E-23	1	180	400	1525	1525	3050
E-24	1			1500	1500	3000
E-25	1			1500	1500	3000
E-26	1			1505	1505	3010
E-27	2			1895	1895	3500
E-28	1			1500	1500	3000
E-29	1			1505	1505	3010
E-30	1			1500	1500	3000
E-31	1			335	335	770

MODIFY LIGHTING

SHEET No.	No. 5(T)(E) PB	DETECTOR LOOP, TYPE A	STANDARD FOUNDATION TYPE 30	STANDARD TYPE 30	2" CONDUIT (TYPE 1)	2" CONDUIT (TYPE 3)	3" CONDUIT (TYPE 3)	No. 14 CONDUCTOR (CU)	No. 6 CONDUCTOR (AL)	No. 8 CONDUCTOR (G) (CU)	DLC	No. 6 CONDUCTOR (CU)
	EA				LF							
E-6	4						380		~~800~~ 1			800
E-10	7	2	3	3	30	400	400	300	2800	800	5200	

MICROWAVE VEHICLE DETECTION SYSYTEM

SHEET No.	No. 5(T)(E) PB	WIRELESS MODEM	MVDS SENSOR	PHOTOVOLTAIC PANEL	BATTERY	NEMA 3R ENCLOSURE	VDS 35 POLE	VDS 35 POLE FOUNDATION	2" CONDUIT (TYPE 1)
	EA								LF
E-1	1	1	1	2	2	1	1	1	10

1 REPLACED PER ADDENDUM No. 1 DATED MAY 6, 2016

ELECTRICAL QUANTITIES
E-39

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
CALCULATED-DESIGNED BY: GURVINDERJIT S. BAINS
CHECKED BY: PAUL MATOS
REVISED BY: GSB
DATE REVISED: 09-21-15

LAST REVISION 09-21-15 | DATE PLOTTED => 02-MAY-2016 | TIME PLOTTED => 15:41