

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	1	57

STATE OF CALIFORNIA **ACNHP-X029(116)E**
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN KERN COUNTY IN AND NEAR BAKERSFIELD AT
VARIOUS LOCATIONS



INDEX OF PLANS

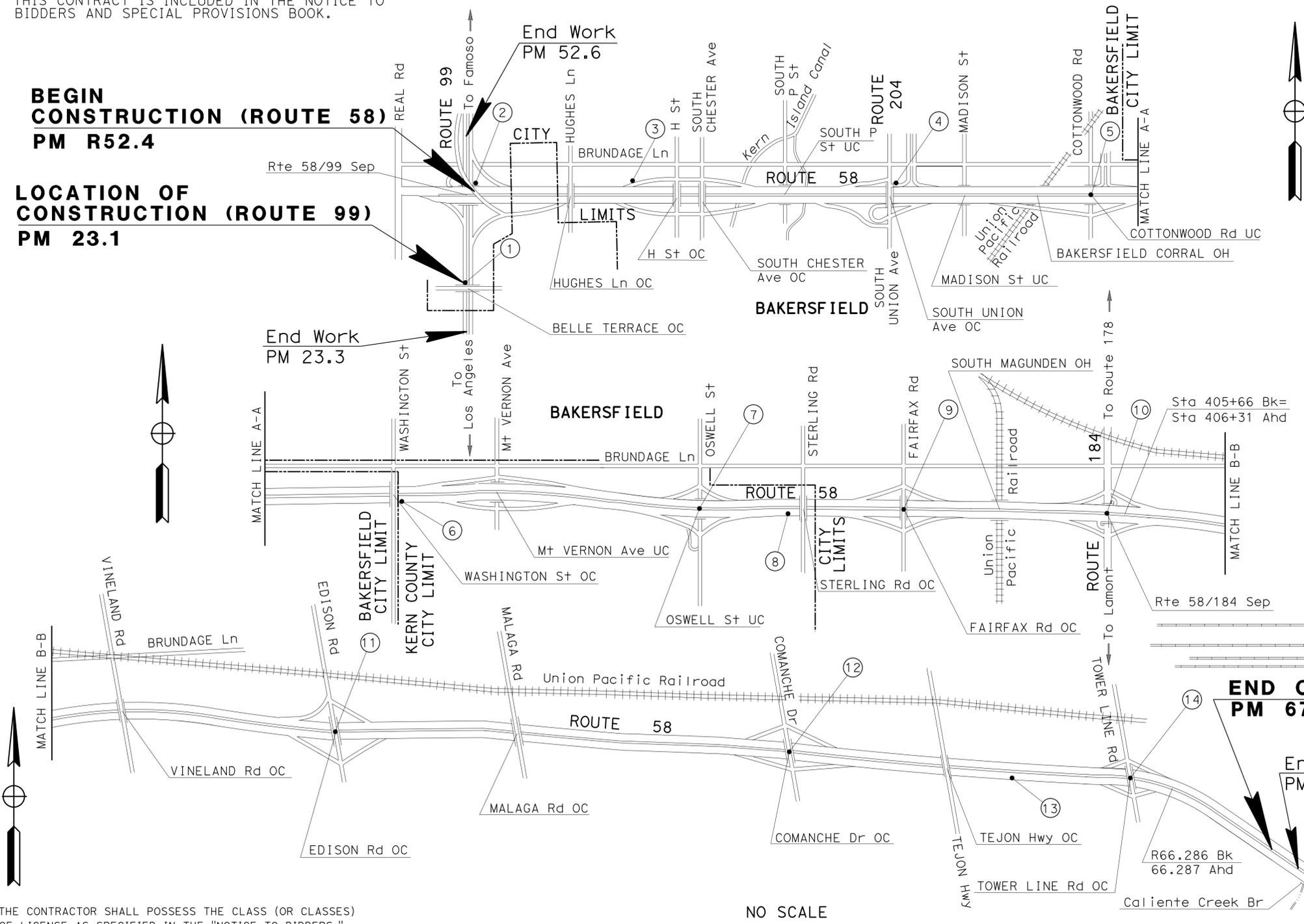
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	CONSTRUCTION AREA SIGNS
3-9	EROSION CONTROL LEGEND, PLAN AND QUANTITIES
10-33	ELECTRICAL SYSTEMS, DETAILS, AND QUANTITIES
34-43	REVISED STANDARD PLANS

STRUCTURE PLANS

44-57	ELECTRICAL STRUCTURE PLANS
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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



LOCATIONS OF CONSTRUCTION

No.	ROUTE	DIRECTION	POST MILE	DESCRIPTION
①	99	SB	23.2	PUMPING PLANT NORTH OF BELLE TERRACE OC
②	58	WB	R52.4	PUMPING PLANT WEST OF ON RAMP TO ROUTE 99
③	58	WB	R53.4	PUMPING PLANT SOUTH H St OC (ROUTE 204)
④	58	WB	R54.4	PUMPING PLANT SOUTH UNION OC
⑤	58	WB/EB	R55.3	COTTONWOOD Rd
⑥	58	EB	R55.9	PUMPING PLANT WASHINGTON St OC
⑦	58	WB/EB	R57.4	OSWELL St
⑧	58	EB	R57.9	PUMPING PLANT STERLING Rd OC
⑨	58	WB/EB	R58.4	FAIRFAX Rd
⑩	58	WB/EB	R59.4	ROUTE 184
⑪	58	WB/EB	R61.5	EDISON Rd
⑫	58	WB/EB	R63.5	COMANCHE Rd
⑬	58	EB	R64.8	CHANGEABLE MESSAGE SIGN
⑭	58	WB/EB	R65.6	TOWER LINE Rd

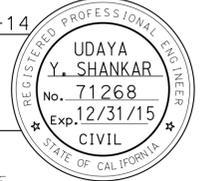
PROJECT MANAGER
MEHRAN AKHAVAN

DESIGN ENGINEER
GURBHAY BRAR

Udaya Y. Shankar 06-23-14
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER

June 23, 2014
 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.	06-0Q5804
PROJECT ID	0613000305

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

NO SCALE

DATE PLOTTED => 25-AUG-2014
 TIME PLOTTED => 16:05
 LAST REVISION 06-23-14

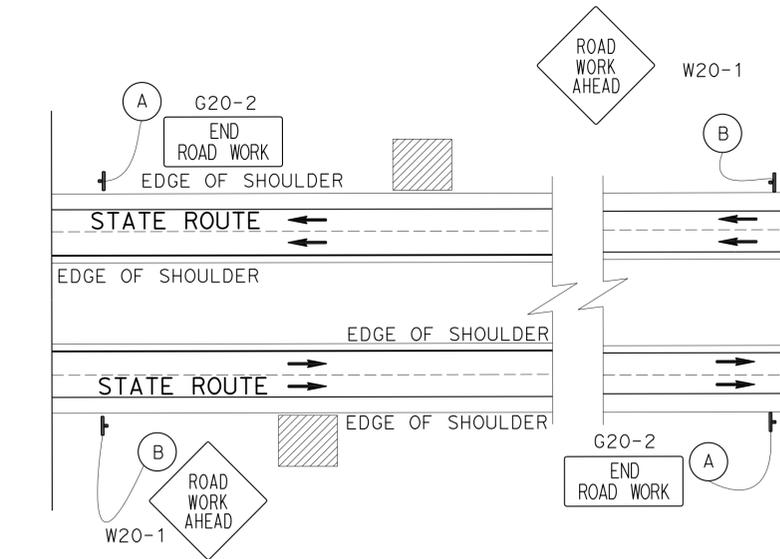
NOTE:
EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND:
 CONSTRUCTION AREA

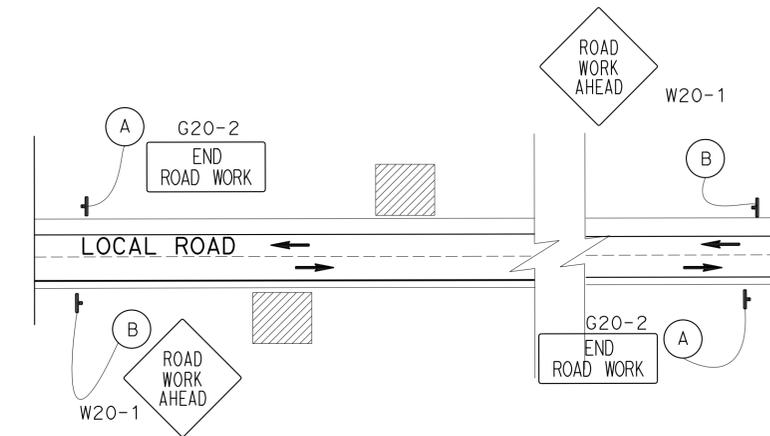
CONSTRUCTION AREA SIGNS (PORTABLE)

SIGN No.	SIGN CODE	PANEL SIZE (in X in)	SIGN MESSAGE	No. OF SIGNS
(A)	G20-2	48" x 24"	END ROAD WORK	100
(B)	W20-1	48" x 48"	ROAD WORK AHEAD	100

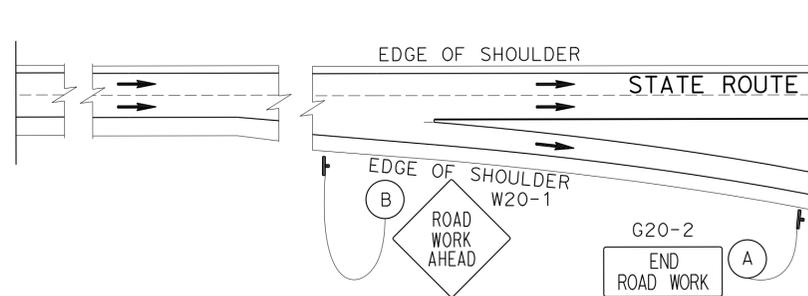
NOTE: LOCATIONS OF CONSTRUCTION AREA SIGNS (PORTABLE) SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



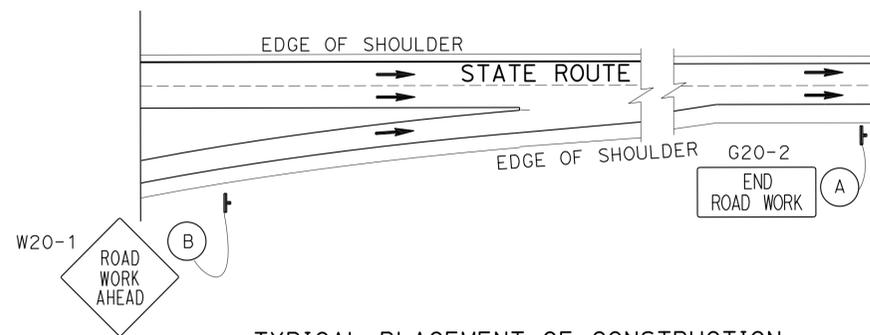
TYPICAL PLACEMENT OF CONSTRUCTION AREA SIGNS (PORTABLE) DURING LANE AND SHOULDER CLOSURE



TYPICAL PLACEMENT OF CONSTRUCTION AREA SIGNS (PORTABLE) ON LOCAL ROAD



TYPICAL PLACEMENT OF CONSTRUCTION AREA SIGNS (PORTABLE) AT OFF RAMP/CONNECTOR



TYPICAL PLACEMENT OF CONSTRUCTION AREA SIGNS (PORTABLE) AT ON RAMP/CONNECTOR

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGNS WORK ONLY

SANDY LE
 HASSAN M. TAHA
 MOHAMMED OATAMI

REVISIONS: DATE PLOTTED => 25-JUL-2014
 TIME PLOTTED => 12:49

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 BRAD COLE
 CALCULATED-DESIGNED BY
 CHECKED BY
 KEVIN GALLO
 RAYMOND SEGURA
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	3	57

LICENSED LANDSCAPE ARCHITECT
 6-23-14
 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.

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
VULPIA MICROSTACHYS (THREE WEEKS FESCUE)	60	25.00

EROSION CONTROL (DRY SEED)

ITEM	MATERIAL		APPLICATION RATE
	DESCRIPTION	TYPE	
EROSION CONTROL (DRY SEED)	SEED	MIX	25.00 LB/ACRE

EROSION CONTROL QUANTITIES

SHEET	ROUTE	LOCATION	HYDROSEED
			SQFT
EC-1	ROUTE 58	WB OFF-RAMP TO FAIRFAX Rd	3,430
EC-2	ROUTE 58	WB OFF-RAMP TO FAIRFAX	1,580
EC-3	ROUTE 58	EB OFF-RAMP TO ROUTE 184	310
EC-4	ROUTE 58	EB OFF-RAMP TO EDISON Rd	970
EC-5	ROUTE 58	WB ON-RAMP FROM COMANCHE Dr	1,060
EC-6	ROUTE 58	WB OFF-RAMP TO TOWER LINE Rd	840
TOTAL			8,190

EROSION CONTROL LEGEND AND QUANTITIES
ECL-1

APPROVED FOR EROSION CONTROL WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	4	57
 LICENSED LANDSCAPE ARCHITECT					
6-23-14 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>					

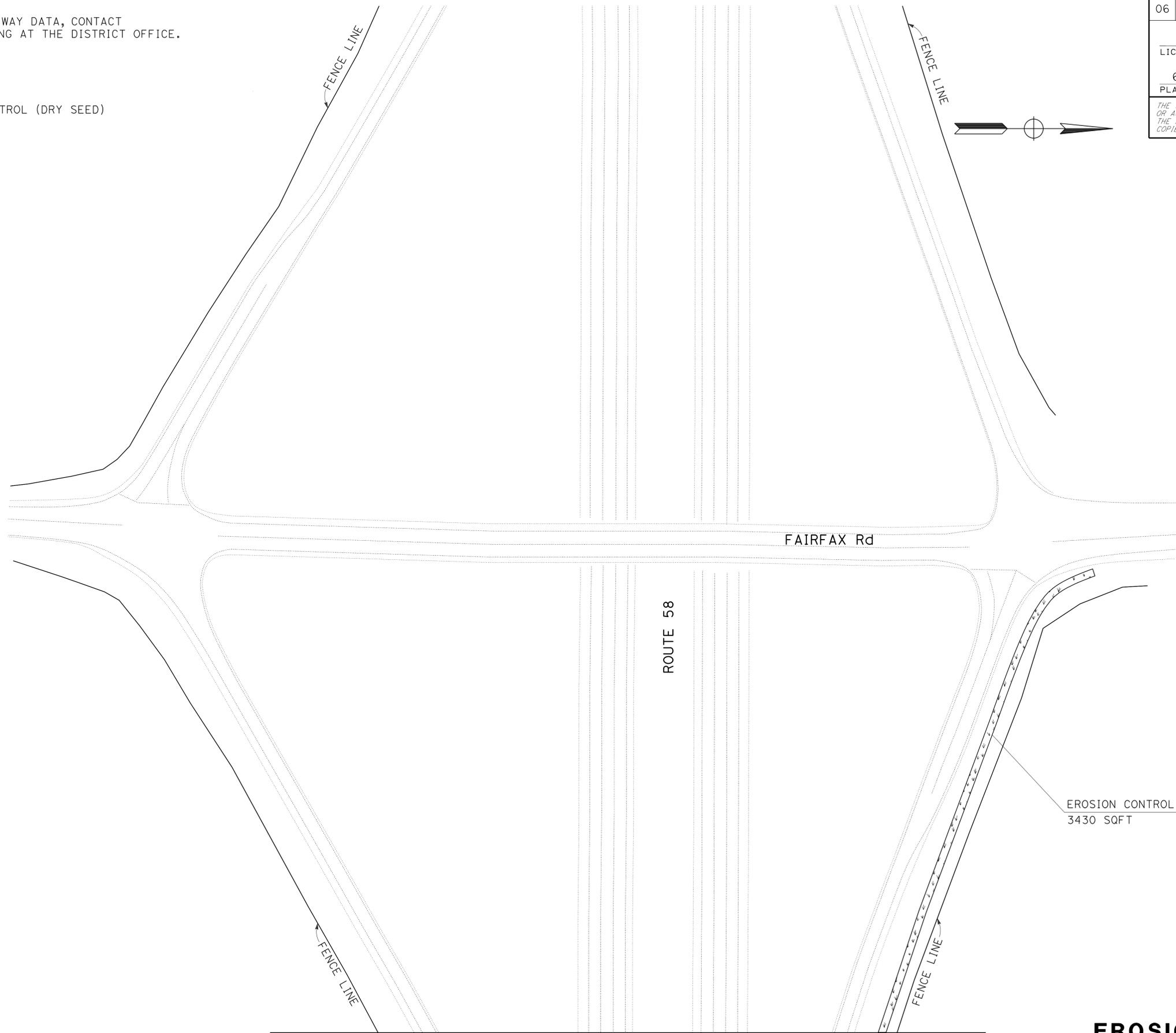
NOTE:

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

LEGEND:



EROSION CONTROL (DRY SEED)



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED-DESIGNED BY	KEVIN GALLO	REVISED BY	
Caltrans LANDSCAPE ARCHITECTURE	BRAD COLE	CHECKED BY	RAYMOND SEGURA	DATE REVISED	

APPROVED FOR EROSION CONTROL WORK ONLY

**EROSION CONTROL PLAN
EC-1**

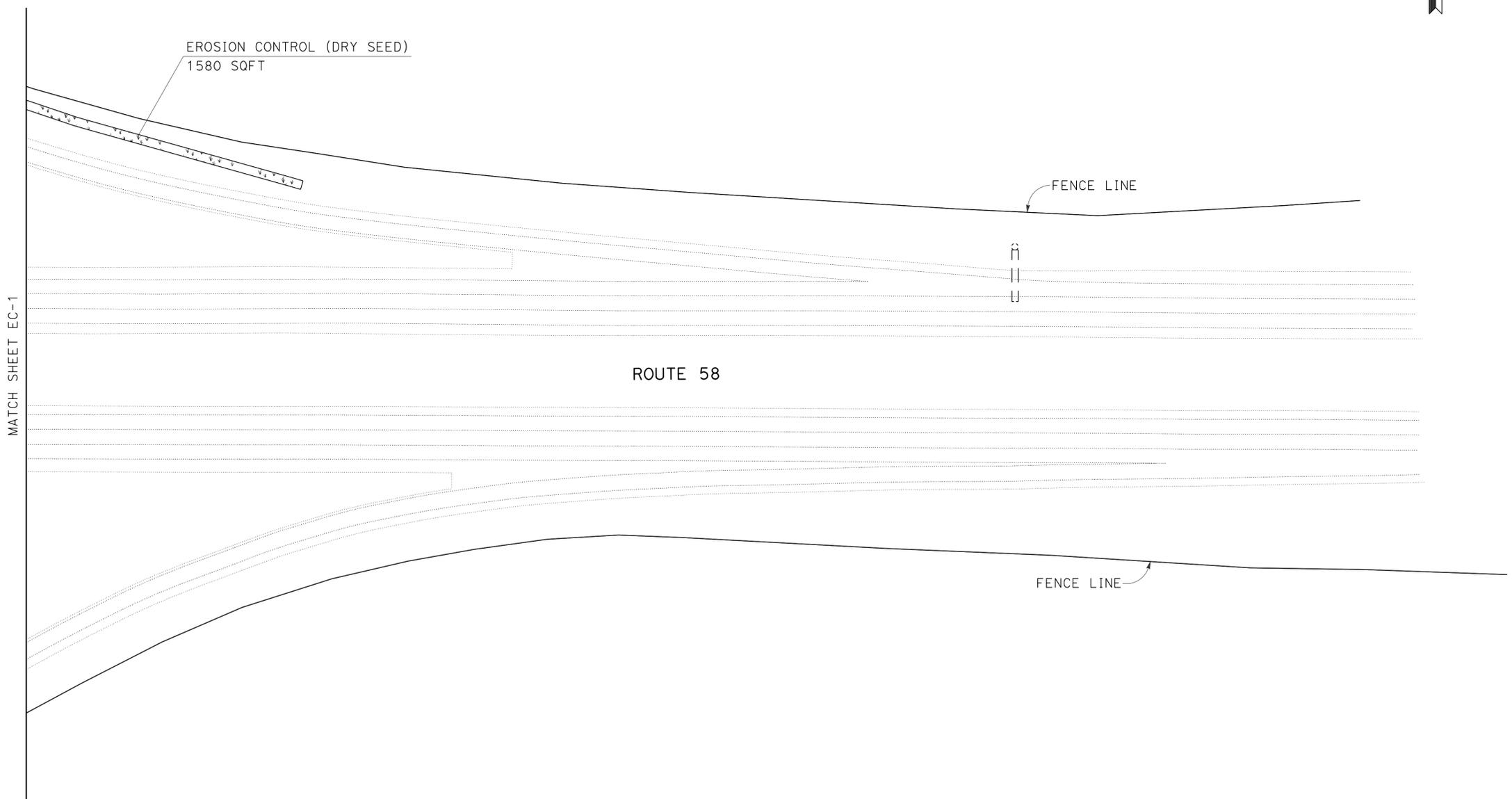


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	5	57
 LICENSED LANDSCAPE ARCHITECT 6-23-14 PLANS APPROVAL DATE <small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
					

NOTE:

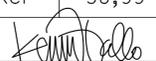
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED-DESIGNED BY	REVISOR	DATE
Et Galtans LANDSCAPE ARCHITECTURE	BRAD COLE	CHECKED BY	KEVIN GALLO	
			RAYMOND SEGURA	



EROSION CONTROL PLAN EC-2

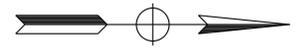
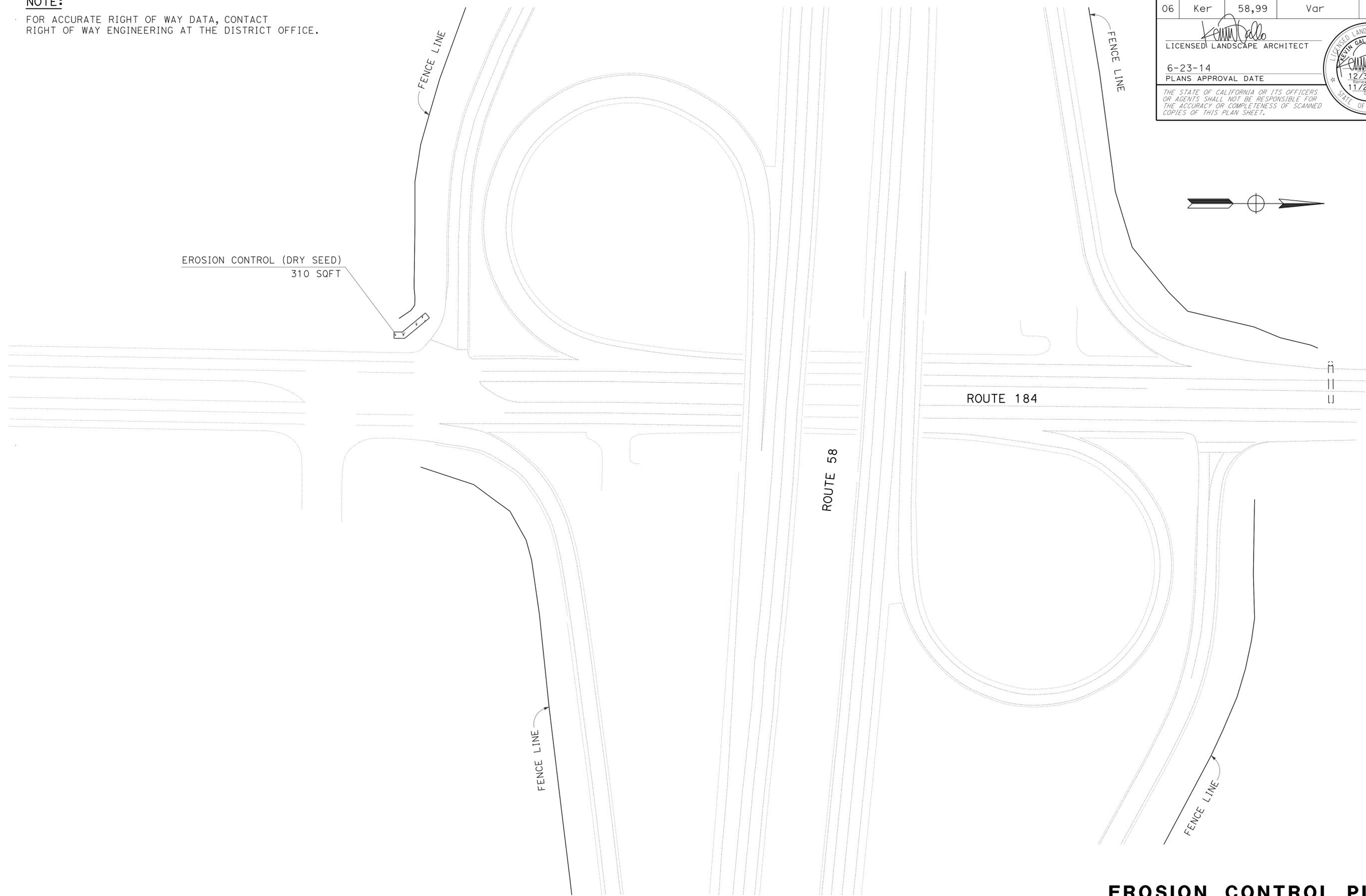
APPROVED FOR EROSION CONTROL WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	6	57
 LICENSED LANDSCAPE ARCHITECT					
6-23-14 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.

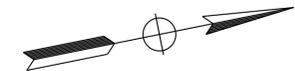
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED- DESIGNED BY	REVISED BY
Et <i>Caltrans</i> LANDSCAPE ARCHITECTURE	BRAD COLE	CHECKED BY	DATE REVISED
		RAYMOND SEGURA	
		KEVIN GALLO	



APPROVED FOR EROSION CONTROL WORK ONLY

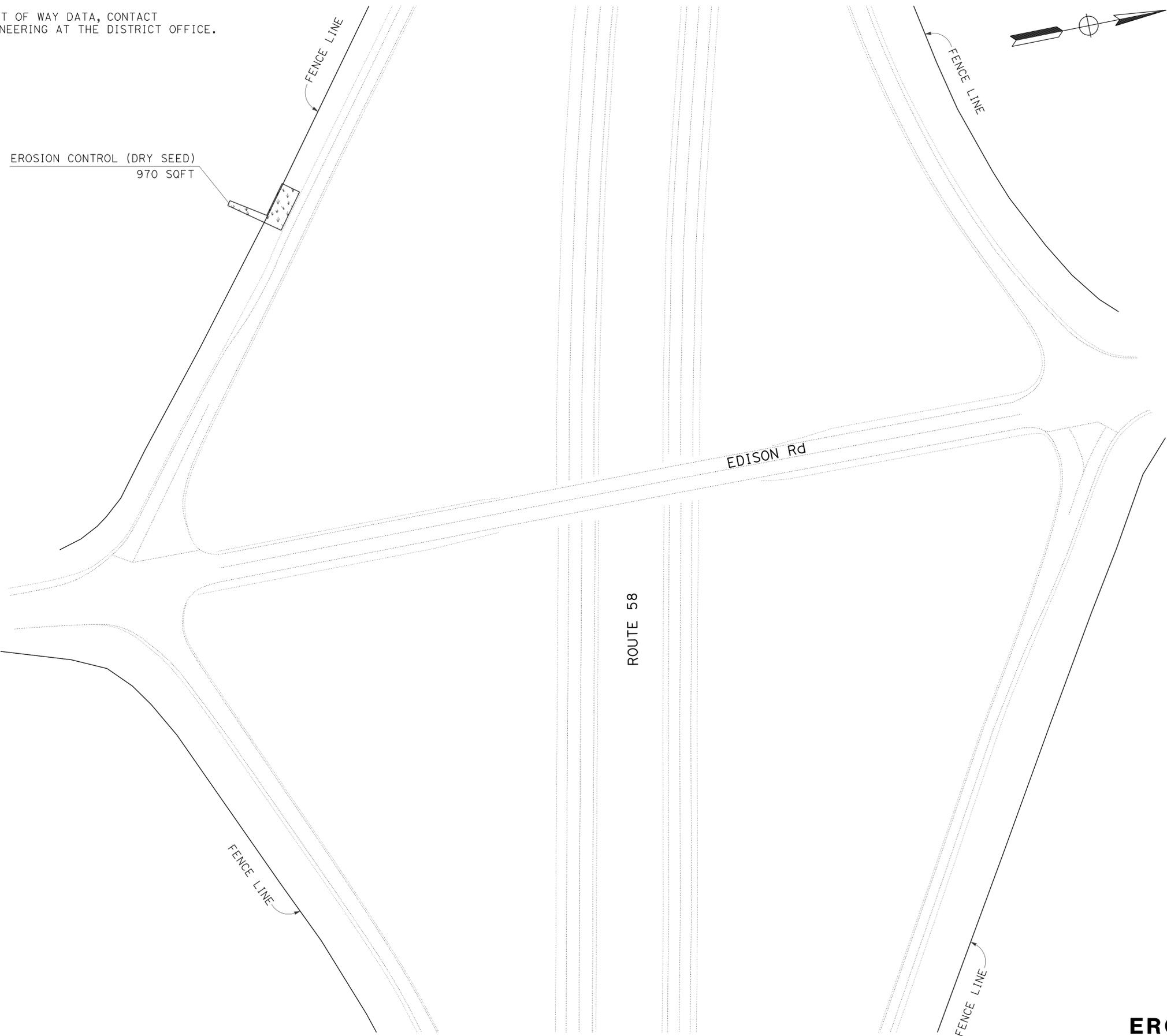
**EROSION CONTROL PLAN
EC-3**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	7	57
 LICENSED LANDSCAPE ARCHITECT					
6-23-14 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.



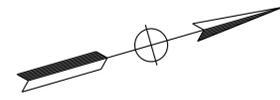
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED- DESIGNED BY	REVISED BY
Caltrans LANDSCAPE ARCHITECTURE	BRAD COLE	CHECKED BY	DATE REVISED
			KEVIN GALLO
			RAYMOND SEGURA

APPROVED FOR EROSION CONTROL WORK ONLY

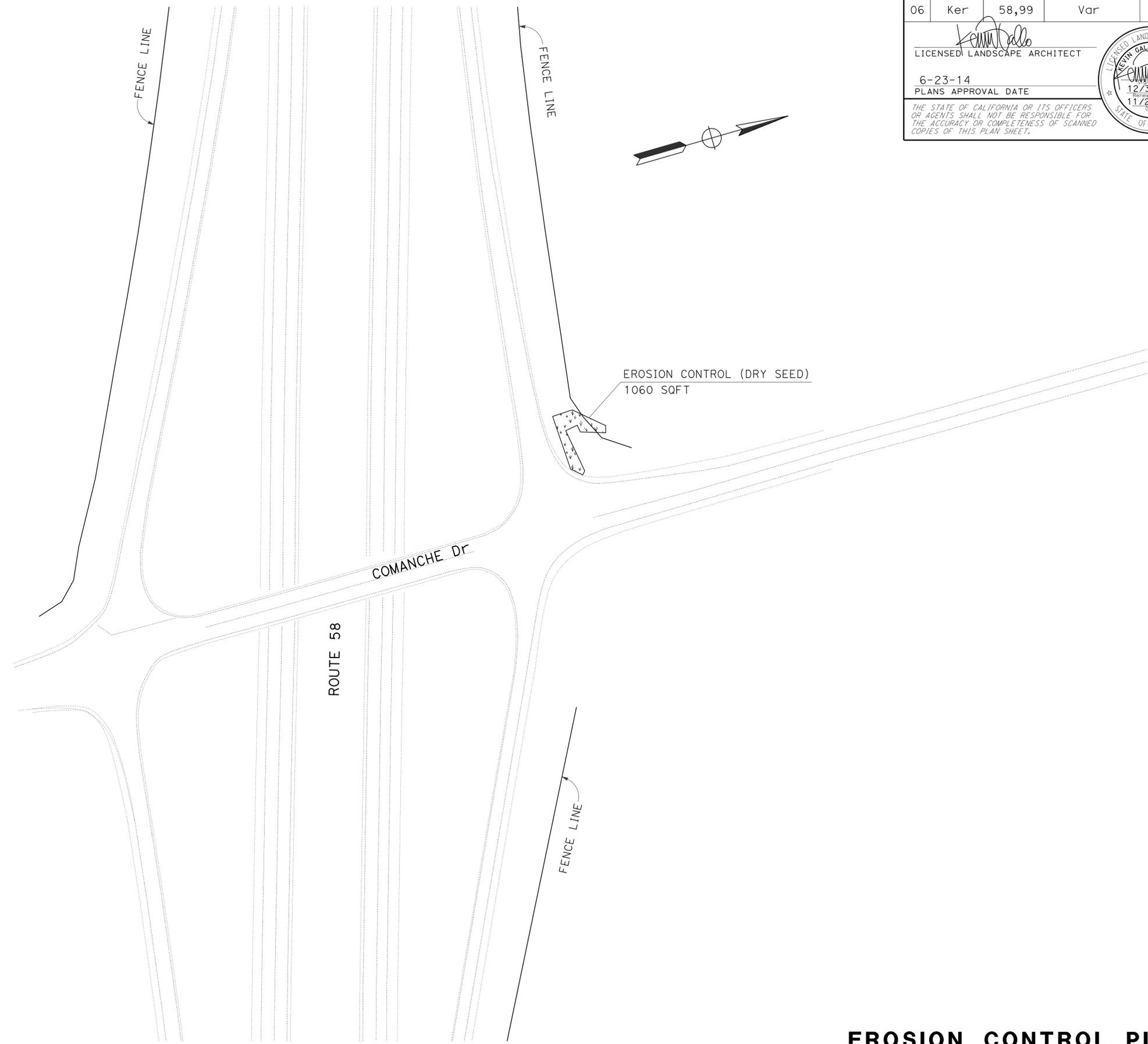
**EROSION CONTROL PLAN
EC-4**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	8	57
 LICENSED LANDSCAPE ARCHITECT					
6-23-14 PLANS APPROVAL DATE					
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NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED-DESIGNED BY	REVISED BY
Caltrans LANDSCAPE ARCHITECTURE	BRAD COLE	CHECKED BY	DATE REVISED
			KEVIN GALLO
			RAYMOND SEGURA

APPROVED FOR EROSION CONTROL WORK ONLY

EROSION CONTROL PLAN EC-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 PAUL MATOS
 DANIEL T VO
 REVISOR: PAUL MATOS
 DATE: 6-23-14
 DESIGNED BY: [blank]
 CHECKED BY: [blank]

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

LEGEND: (FOR SHEETS E-1 AND E-2 ONLY)

- RC** Exist PB. INSTALL PB AS SHOWN ON DETAIL A SHEET E-22.
- RS** Exist 310 W HPS Lum. INSTALL ROADWAY 2 LED Lum AND PEU.
- RS** Exist TYPE SC2 CONTROL AND 2-MV SIGN Ltg FIXTURES. INSTALL TYPE LC3 CONTROL AND 2-ISL SIGN Ltg FIXTURES.
- RS** Exist 240/480 V TYPE A SERVICE AND 1-B POLE.
- INSTALL TAMPER RESISTANT PB COVER AND CONCRETE COLLAR AS SHOWN ON DETAIL C SHEET E-22.
- RS** Exist 200 W HPS Lum. INSTALL ROADWAY 1 LED Lum and PEU.
- INSTALL HASP AND LOCK ON Exist SERVICE EQUIPMENT ENCLOSURE, SEE DETAIL B ON SHEET E-22.

8 Exist 120/240 V, 1Ø, 3-WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:
 CtId No. 06500580055242L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
40	240	2	LIGHTING	YES	IV
40	240	2	HIGHWAY LIGHTING	YES	IV
15	120	1	LIGHTING CONTROL	YES	-
20	120	1	ICC	YES	-
30	240	2	SOFFIT LIGHTING	YES	V
15	240	2	SIGN ILLUMINATION *	YES	-
20	120	1	SPARE	YES	-
-	-	2	SPACE	-	-

* ADD CB AND NAMEPLATE

CtId No. 06500580055242T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
50	120	1	TRAFFIC SIGNAL	YES	-
20	120	1	TDC	YES	-
20	120	1	SPARE	YES	-
-	-	2	SPACE	-	-

ABBREVIATIONS:

PG&E PACIFIC GAS AND ELECTRIC
 TR TAMPER RESISTANT

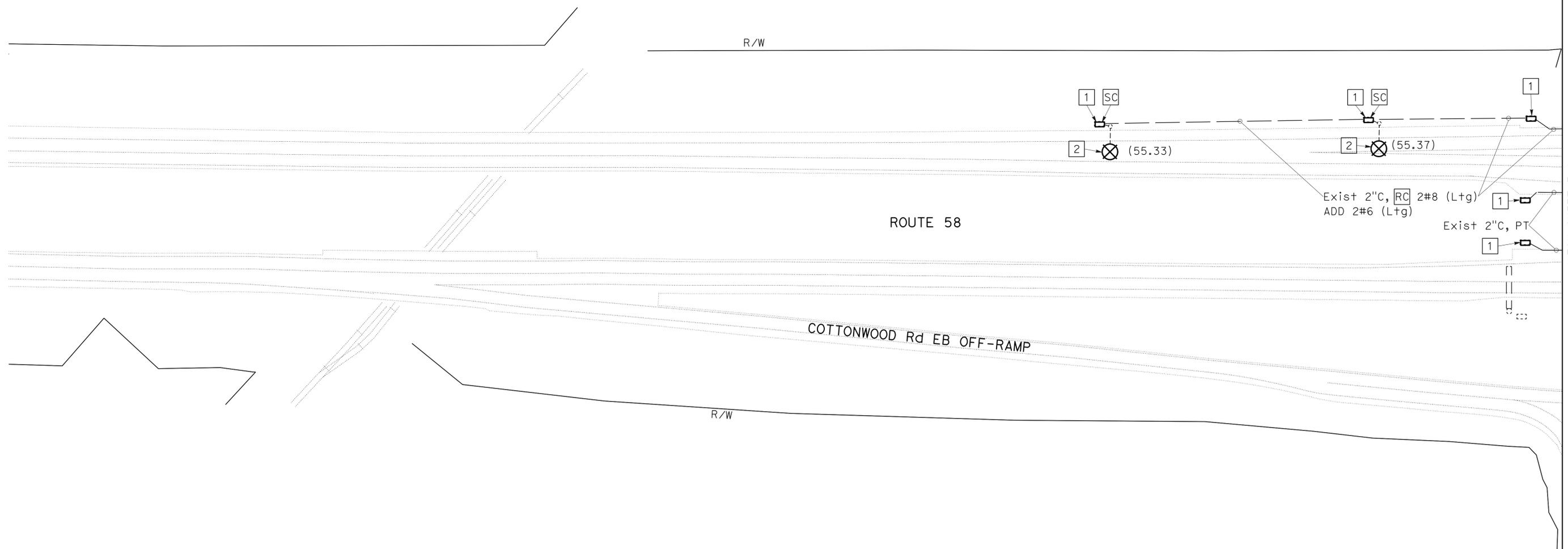


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	10	57

6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL

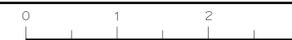
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1" = 50'

ELECTRICAL SYSTEMS E-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	11	57

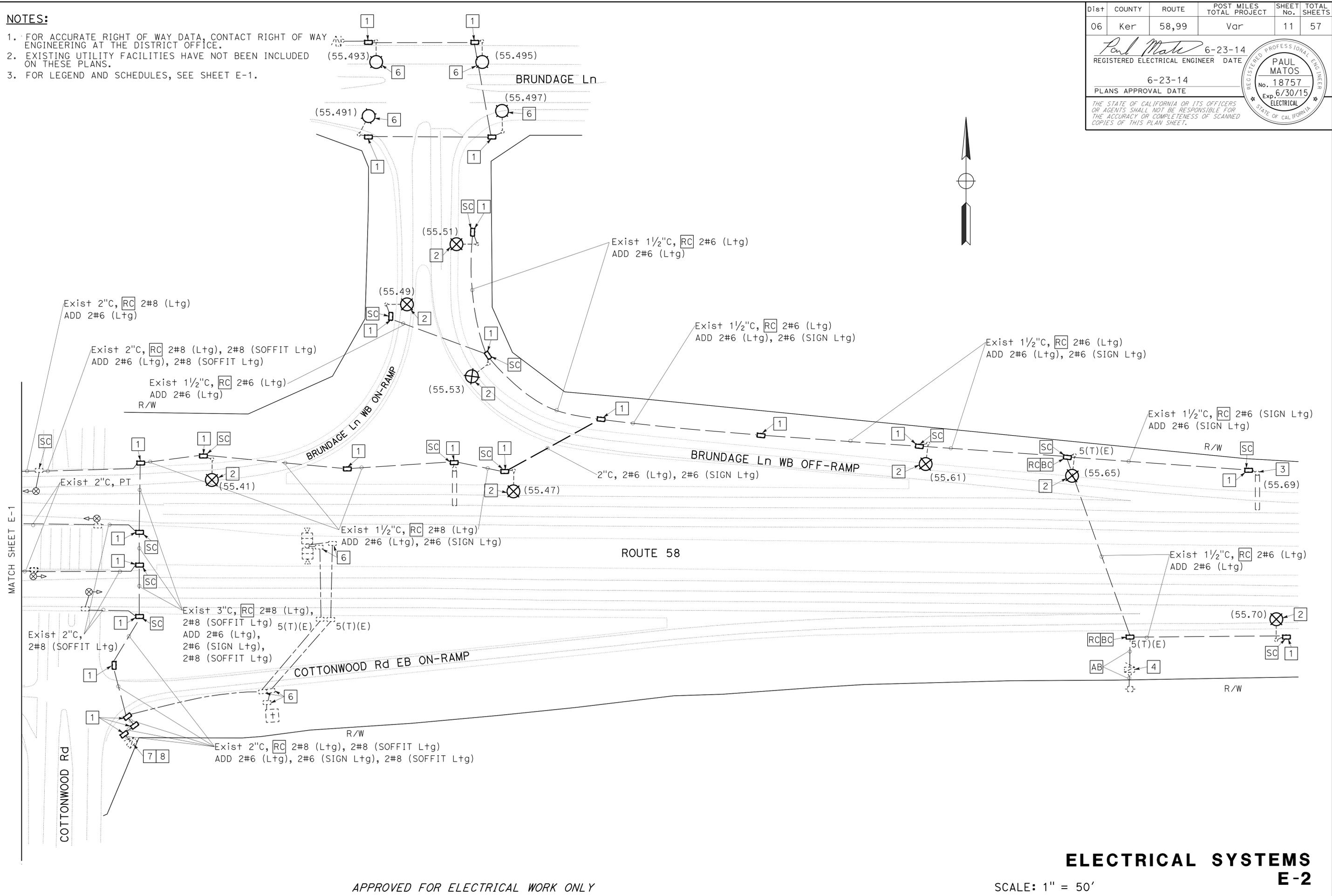
<i>Paul Matos</i>	6-23-14
REGISTERED ELECTRICAL ENGINEER	DATE
6-23-14	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
No. 18757
Exp. 6/30/15
ELECTRICAL
STATE OF CALIFORNIA

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NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.
- FOR LEGEND AND SCHEDULES, SEE SHEET E-1.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Electrical DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: DANIEL T VO
 CHECKED BY: PAUL MATOS
 REVISED BY: DANIEL T VO
 DATE REVISED:

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS E-2
 SCALE: 1" = 50'

LAST REVISION: DATE PLOTTED => 25-JUL-2014 TIME PLOTTED => 12:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	12	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

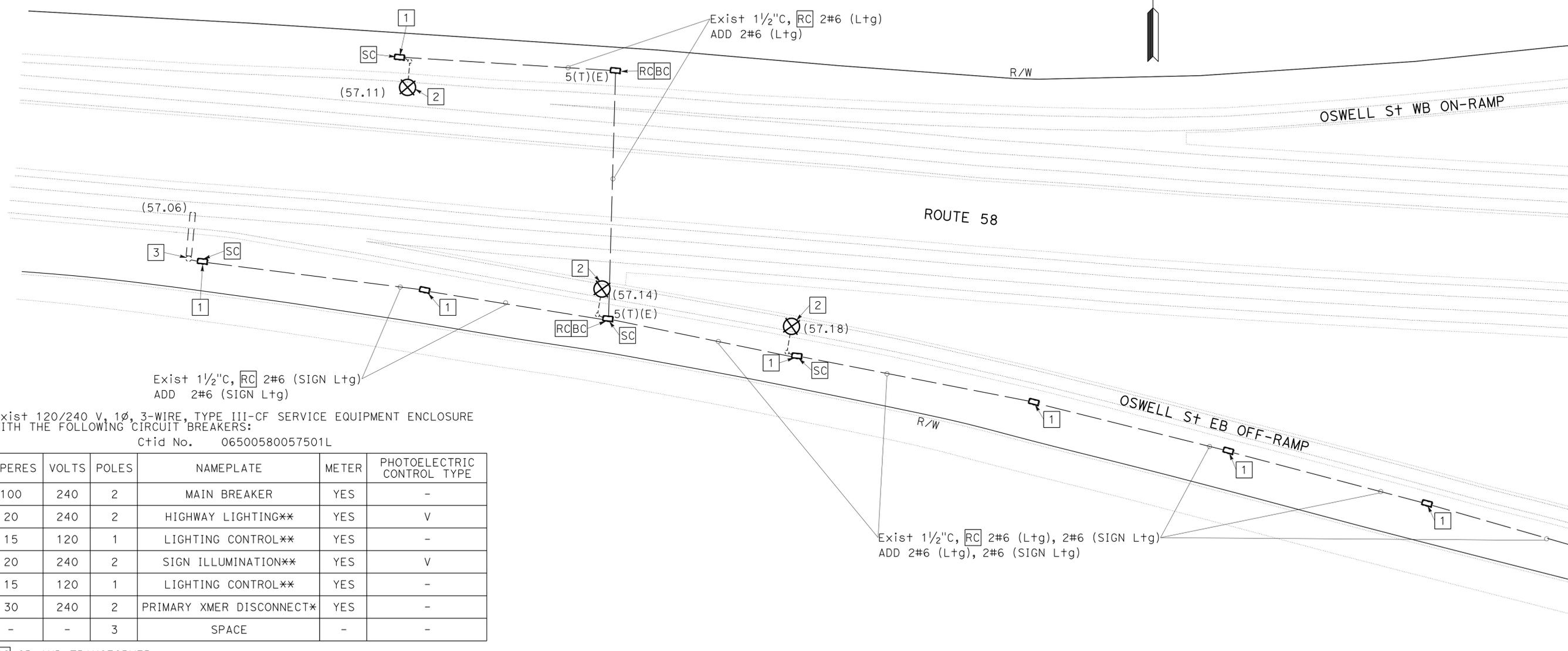
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LEGEND: (FOR SHEETS E-3, E-4, AND E-5 ONLY)

- | | | | |
|------|--|---|---|
| 1 RC | Exist PB. INSTALL PB AS SHOWN ON DETAIL A SHEET E-22. | 5 | INSTALL TAMPER RESISTANT PB COVER AND CONCRETE COLLAR AS SHOWN ON DETAIL C SHEET E-22. |
| 2 RS | Exist 310 W HPS Lum. INSTALL ROADWAY 2 LED Lum. | 6 | RS Exist 200 W HPS Lum. INSTALL ROADWAY 1 LED Lum. |
| 3 RS | Exist TYPE SC3 CONTROL AND 2-MV SIGN Ltg FIXTURES. INSTALL TYPE SC2 CONTROL AND 2-ISL SIGN Ltg FIXTURES. | 7 | INSTALL HASP AND LOCK ON Exist SERVICE EQUIPMENT ENCLOSURE, SEE DETAIL B ON SHEET E-22. |



4 Exist 120/240 V, 1Ø, 3-WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:
 Ctid No. 06500580057501L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
20	240	2	HIGHWAY LIGHTING**	YES	V
15	120	1	LIGHTING CONTROL**	YES	-
20	240	2	SIGN ILLUMINATION**	YES	V
15	120	1	LIGHTING CONTROL**	YES	-
30	240	2	PRIMARY XMER DISCONNECT*	YES	-
-	-	3	SPACE	-	-

* RS CB AND TRANSFORMER
 ** Exist CB POWERED FROM TRANSFORMER SECONDARY. REWIRE CB TO BE POWERED DIRECTLY FROM MAIN CB.
 Ctid No. 06500580057501T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
50	120	1	TRAFFIC SIGNAL	YES	-
20	120	1	TDC	YES	-
15	120	1	FLASHING BEACON	YES	-
-	-	3	SPACE	-	-

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1" = 50'

**ELECTRICAL SYSTEMS
E-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: PAUL MATOS
 CHECKED BY: DANIEL T VO
 REVISED BY: PAUL MATOS
 DATE REVISED:

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR	ALI BAKHDOUD
CALCULATED-DESIGNED BY	CHECKED BY
PAUL MATOS	DANIEL T VO
REVISED BY	DATE REVISED

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.
- FOR LEGEND AND SCHEDULES, SEE SHEET E-3.

MATCH SHEET E-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	13	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 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.

Exist 1 1/2"C, RC 2#6 (Ltg), 2#6 (SIGN Ltg)
 ADD 2#6 (Ltg), 2#6 (SIGN Ltg)

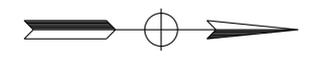
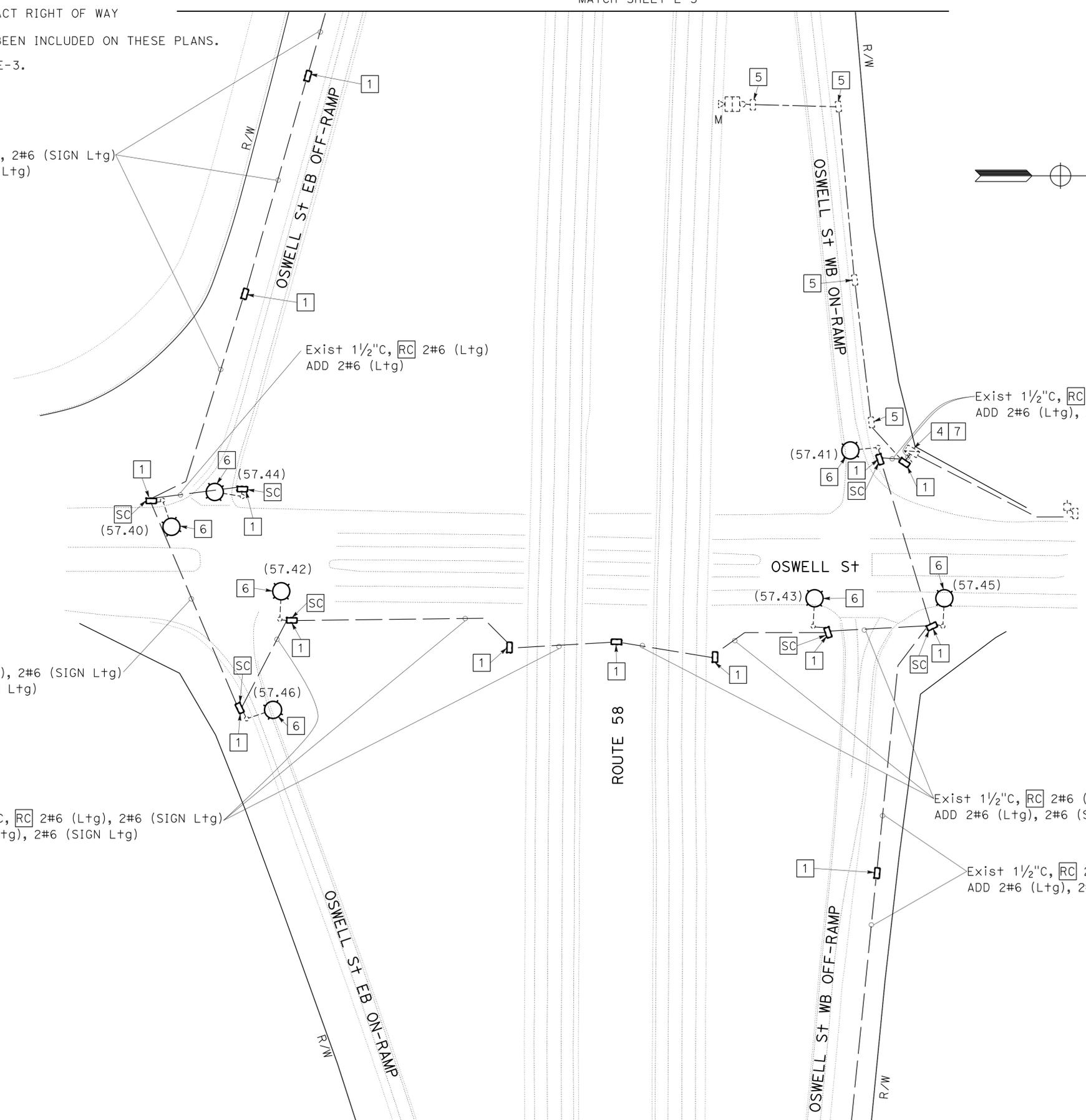
Exist 1 1/2"C, RC 2#6 (Ltg)
 ADD 2#6 (Ltg)

Exist 1 1/2"C, RC 2#6 (Ltg), 2#6 (SIGN Ltg)
 ADD 2#6 (Ltg), 2#6 (SIGN Ltg)

Exist 1 1/2"C, RC 2#6 (Ltg), 2#6 (SIGN Ltg)
 ADD 2#6 (Ltg), 2#6 (SIGN Ltg)

Exist 1 1/2"C, RC 2#6 (Ltg), 2#6 (SIGN Ltg)
 ADD 2#6 (Ltg), 2#6 (SIGN Ltg)

Exist 1 1/2"C, RC 2#6 (Ltg), 2#6 (SIGN Ltg)
 ADD 2#6 (Ltg), 2#6 (SIGN Ltg)



APPROVED FOR ELECTRICAL WORK ONLY

MATCH SHEET E-5

ELECTRICAL SYSTEMS
E-4

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	14	57

<i>Paul Matos</i>	6-23-14
REGISTERED ELECTRICAL ENGINEER	DATE
6-23-14	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
No. 18757
Exp. 6/30/15
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:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.
- FOR LEGEND AND SCHEDULES, SEE SHEET E-3.



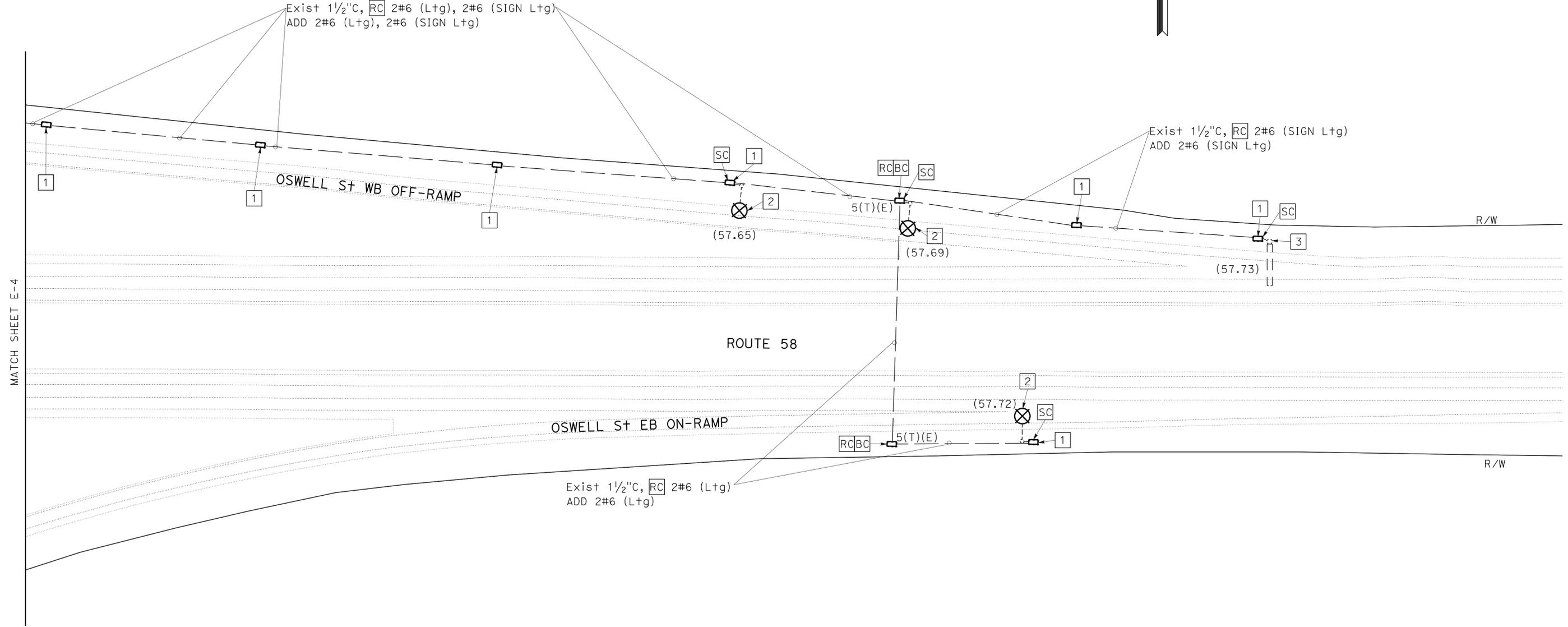
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
 ALI BAKHDOUD

CALCULATED-DESIGNED BY
 CHECKED BY

PAUL MATOS
 DANIEL T VO

REVISED BY
 DATE REVISED



APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-5

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	15	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

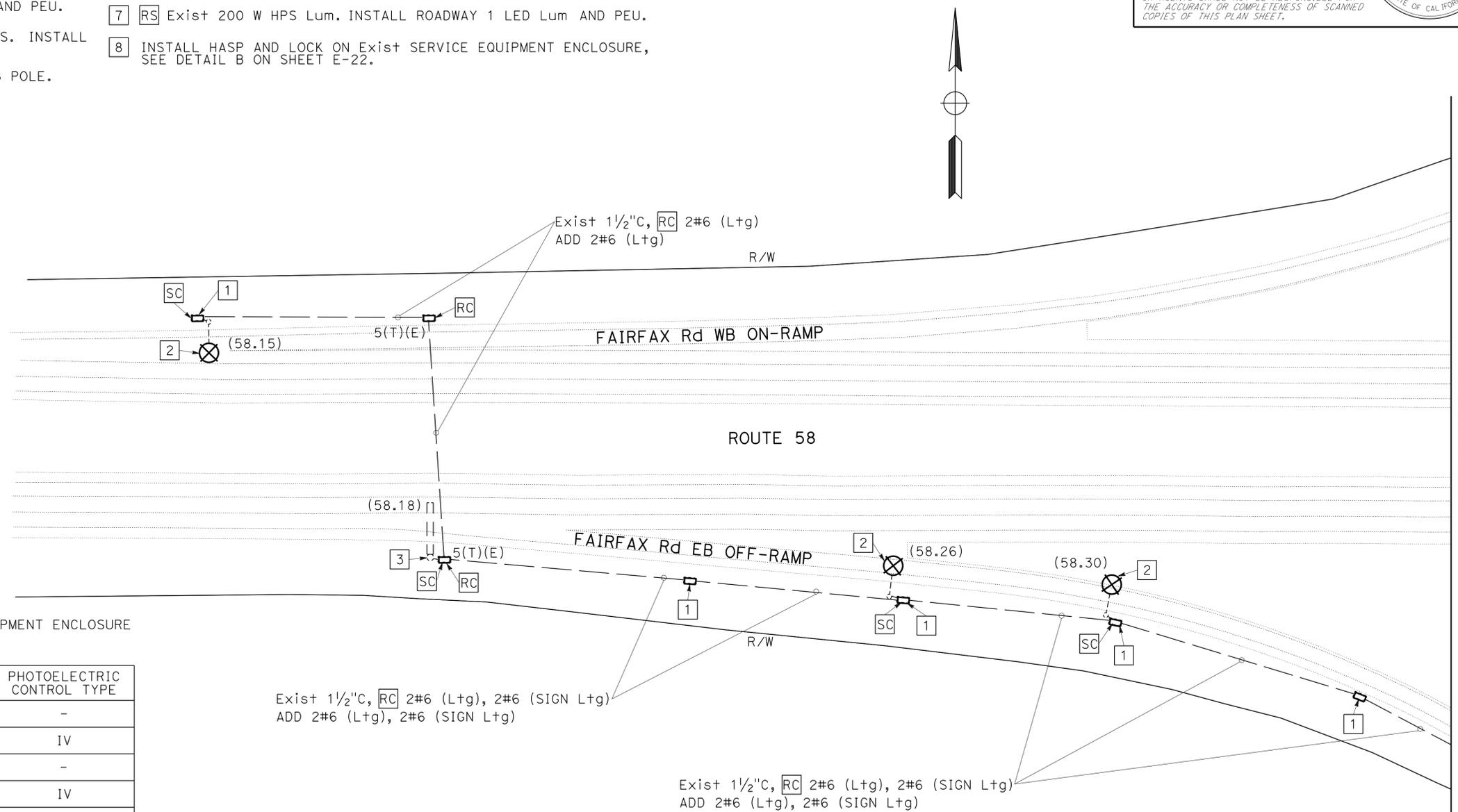
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NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

LEGEND: (FOR SHEETS E-6, E-7, AND E-8 ONLY)

- | | |
|--|---|
| <ol style="list-style-type: none"> RC Exist PB. INSTALL PB AS SHOWN ON DETAIL A SHEET E-22. RS Exist 310 W HPS Lum. INSTALL ROADWAY 2 LED Lum AND PEU. RS Exist TYPE SC3 CONTROL AND 2-MV SIGN Ltg FIXTURES. INSTALL TYPE LC3 CONTROL AND 2-ISL SIGN Ltg FIXTURES. RS Exist 240/480 V TYPE A SERVICE ENCLOSURE AND 1-B POLE. | <ol style="list-style-type: none"> INSTALL TAMPER RESISTANT PB COVER AND CONCRETE COLLAR AS SHOWN ON DETAIL C SHEET E-22. RS Exist 200 W HPS Lum. INSTALL ROADWAY 1 LED Lum AND PEU. INSTALL HASP AND LOCK ON Exist SERVICE EQUIPMENT ENCLOSURE, SEE DETAIL B ON SHEET E-22. |
|--|---|



5 Exist 120/240 V, 1Ø, 3-WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:
 C+id No. 06500580058258L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
20	240	2	HIGHWAY LIGHTING*	YES	IV
20	240	2	SIGN ILLUMINATION*	YES	-
40	240	2	LIGHTING	YES	IV
-	-	1	SPACE	-	-

* ADD CB AND NAMEPLATE

C+id No. 06500580058258T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
60	120	1	TRAFFIC SIGNAL	YES	-
20	240	2	SPARE	YES	-
20	120	1	SPARE	YES	-
-	-	6	SPACE	-	-

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: PAUL MATOS
 CHECKED BY: DANIEL T VO
 REVISIONS: PAUL MATOS, DANIEL T VO, DATE, REVISIONS

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS E-6

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	17	57

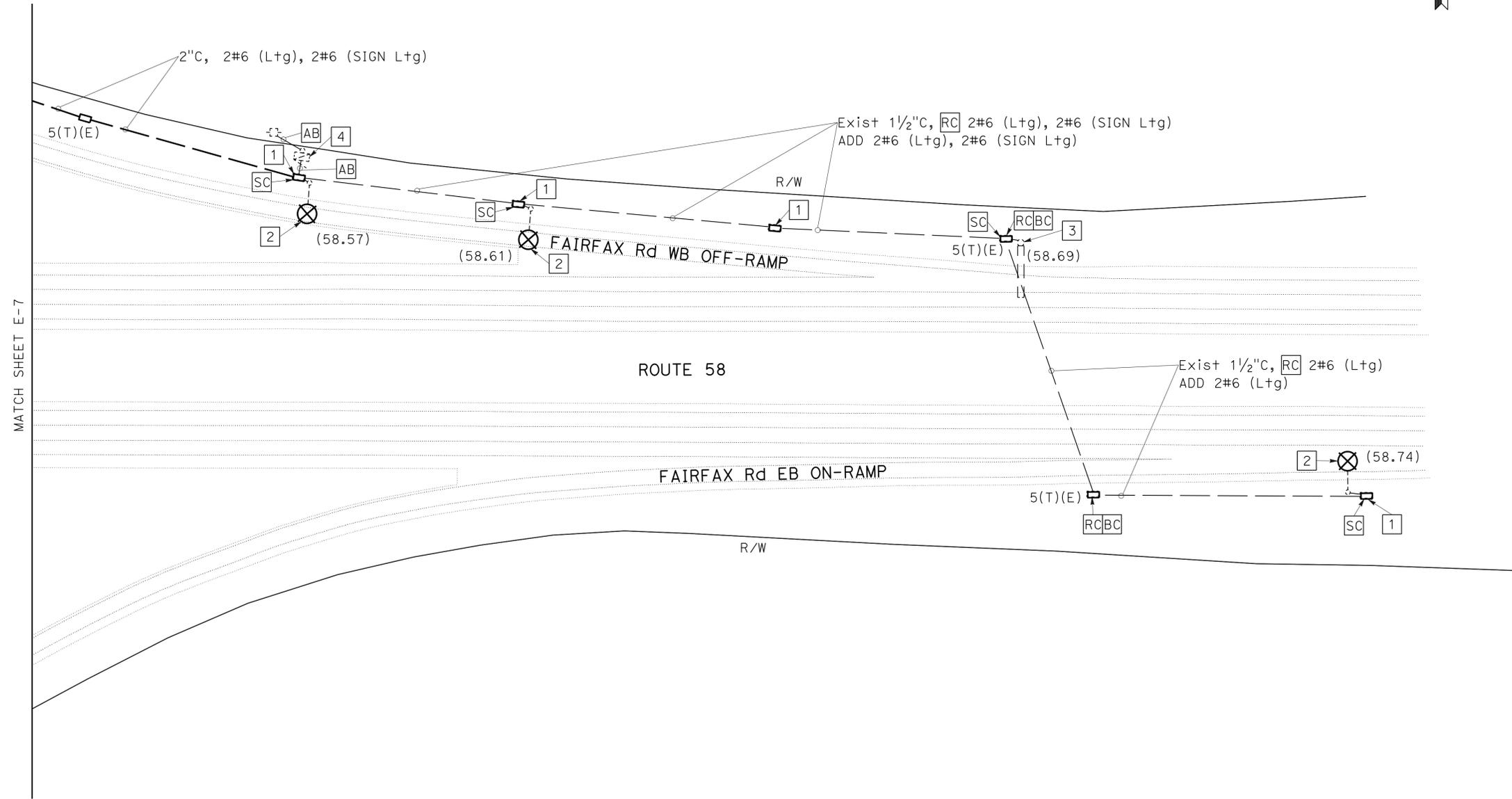
<i>Paul Matos</i>	6-23-14
REGISTERED ELECTRICAL ENGINEER	DATE
6-23-14	
PLANS APPROVAL DATE	

PAUL MATOS
No. 18757
Exp. 6/30/15
ELECTRICAL

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NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.
- FOR LEGEND AND SCHEDULES, SEE SHEET E-6.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	PAUL MATOS	REVISOR
Caltrans ELECTRICAL DESIGN	ALT BAKHDOUD	DANIEL T VO	DATE
			REVISED BY
			DATE
			REVISOR
			DATE
			REVISOR
			DATE
			REVISOR
			DATE
			REVISOR
			DATE

MATCH SHEET E-7

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-8

SCALE: 1" = 50'

LAST REVISION DATE PLOTTED => 25-JUL-2014 06-20-14 TIME PLOTTED => 12:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	18	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 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.

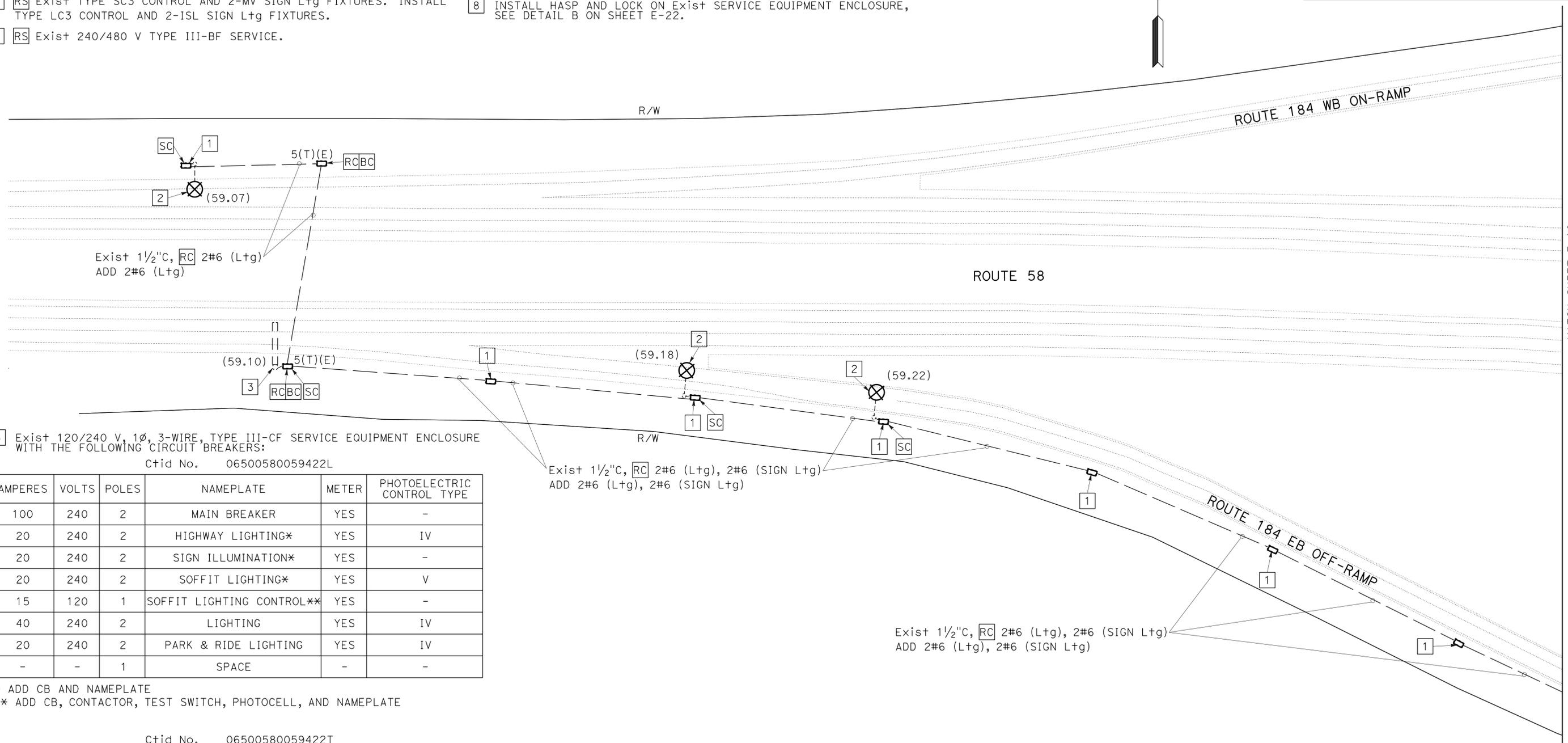
REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

LEGEND: (FOR SHEETS E-9, E-10, AND E-11 ONLY)

- | | |
|---|--|
| <p>1 RC Exist PB. INSTALL PB AS SHOWN ON DETAIL A SHEET E-22.</p> <p>2 RS Exist 310 W HPS Lum. INSTALL ROADWAY 2 LED Lum AND PEU.</p> <p>3 RS Exist TYPE SC3 CONTROL AND 2-MV SIGN Ltg FIXTURES. INSTALL TYPE LC3 CONTROL AND 2-ISL SIGN Ltg FIXTURES.</p> <p>4 RS Exist 240/480 V TYPE III-BF SERVICE.</p> | <p>6 INSTALL TAMPER RESISTANT PB COVER AND CONCRETE COLLAR AS SHOWN ON DETAIL C SHEET E-22.</p> <p>7 RS Exist 200 W HPS Lum. INSTALL ROADWAY 1 LED Lum AND PEU.</p> <p>8 INSTALL HASP AND LOCK ON Exist SERVICE EQUIPMENT ENCLOSURE, SEE DETAIL B ON SHEET E-22.</p> |
|---|--|



5 Exist 120/240 V, 1Ø, 3-WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:
 Ctid No. 06500580059422L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
20	240	2	HIGHWAY LIGHTING*	YES	IV
20	240	2	SIGN ILLUMINATION*	YES	-
20	240	2	SOFFIT LIGHTING*	YES	V
15	120	1	SOFFIT LIGHTING CONTROL**	YES	-
40	240	2	LIGHTING	YES	IV
20	240	2	PARK & RIDE LIGHTING	YES	IV
-	-	1	SPACE	-	-

* ADD CB AND NAMEPLATE
 ** ADD CB, CONTACTOR, TEST SWITCH, PHOTOCELL, AND NAMEPLATE

Ctid No. 06500580059422T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
60	120	1	TRAFFIC SIGNAL	YES	-
20	120	1	FLASHING BEACON	YES	-
20	120	1	SPARE*	YES	-
-	-	6	SPACE	-	-

* CHANGE NAMEPLATE TO MVDS

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-9
 SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Electrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: PAUL MATOS
 CHECKED BY: DANIEL T VO
 REVISED BY: PAUL MATOS
 DATE REVISED:

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 DESIGNED BY: DANIEL T VO
 CHECKED BY: PAUL MATOS
 REVISIONS: (Grids 1-8)

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
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- FOR LEGEND AND SCHEDULES, SEE SHEET E-9.

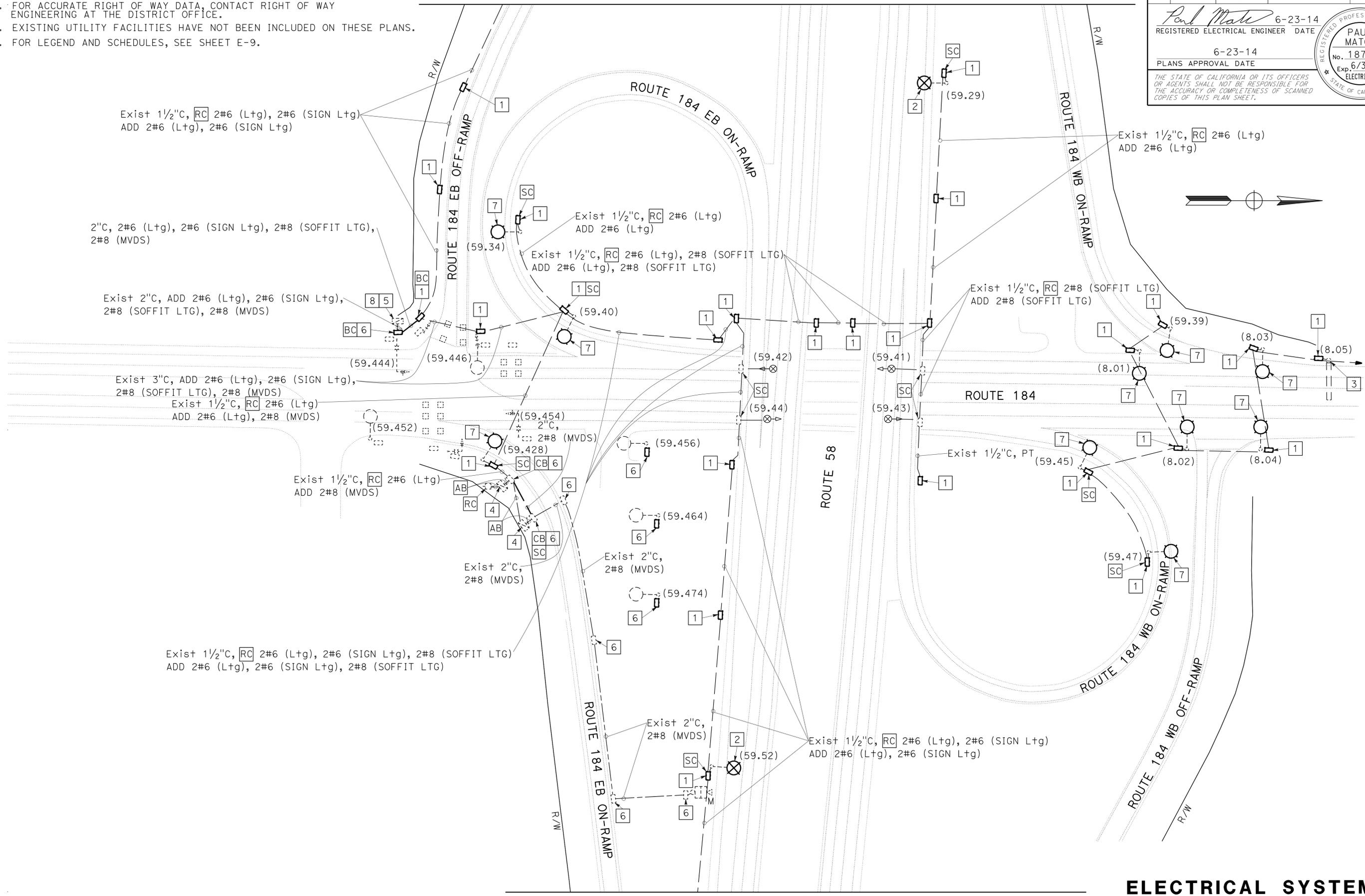
MATCH SHEET E-9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	19	57

6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL

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APPROVED FOR ELECTRICAL WORK ONLY

MATCH SHEET E-11

ELECTRICAL SYSTEMS
E-10

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	20	57

<i>Paul Matos</i>	6-23-14
REGISTERED ELECTRICAL ENGINEER	DATE
6-23-14	
PLANS APPROVAL DATE	

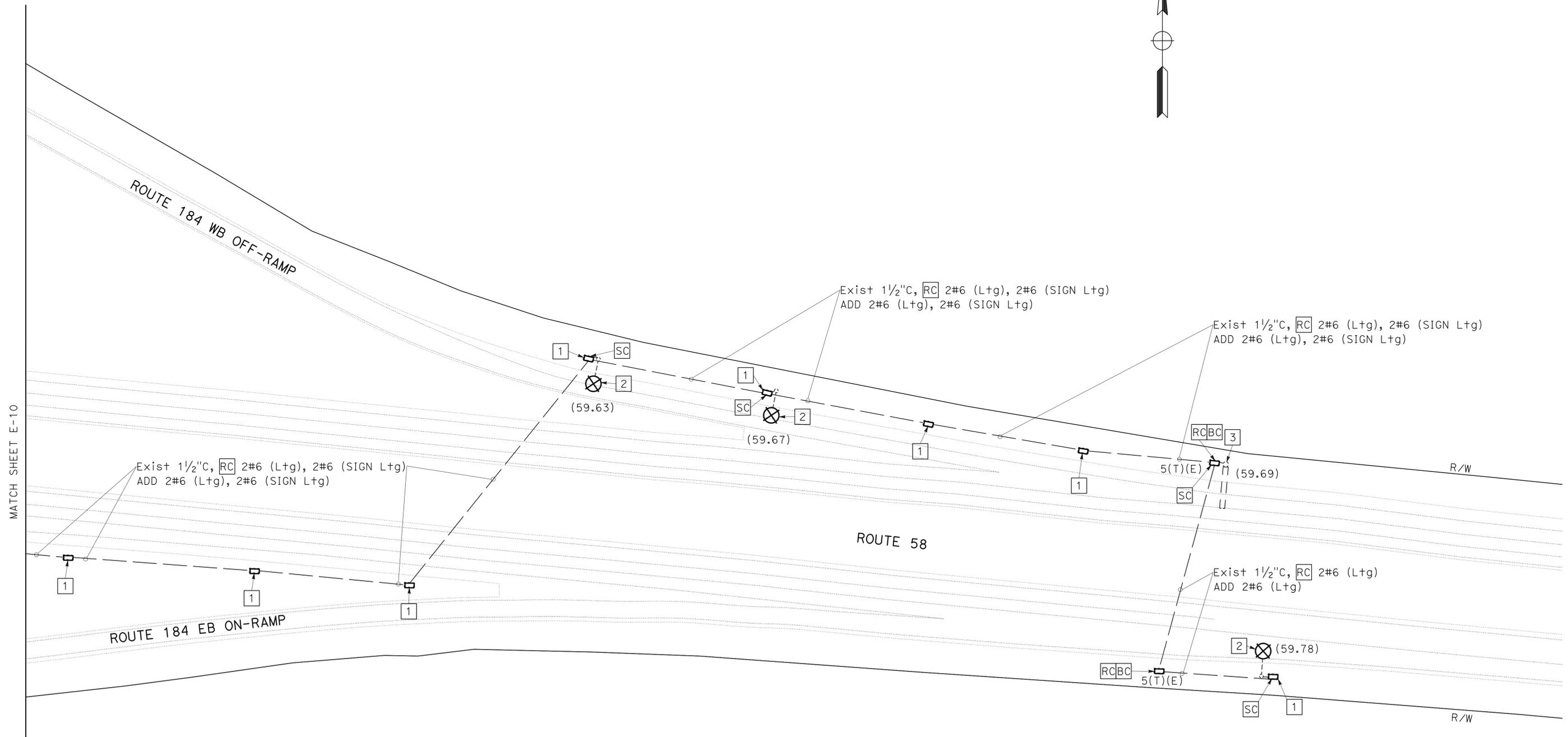
PAUL MATOS
No. 18757
Exp. 6/30/15
ELECTRICAL

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- FOR LEGEND AND SCHEDULES, SEE SHEET E-9.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans ELECTRICAL DESIGN	ALI BAKHDOUD	PAUL MATOS	
		DANIEL T VO	
		CHECKED BY	DATE
		DESIGNED BY	REVISOR



APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-11

SCALE: 1" = 50'

LAST REVISION DATE PLOTTED => 25-JUL-2014 06-20-14 TIME PLOTTED => 12:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	21	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

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NOTES:

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5 120/240 V, 1Ø, 3-WIRE, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

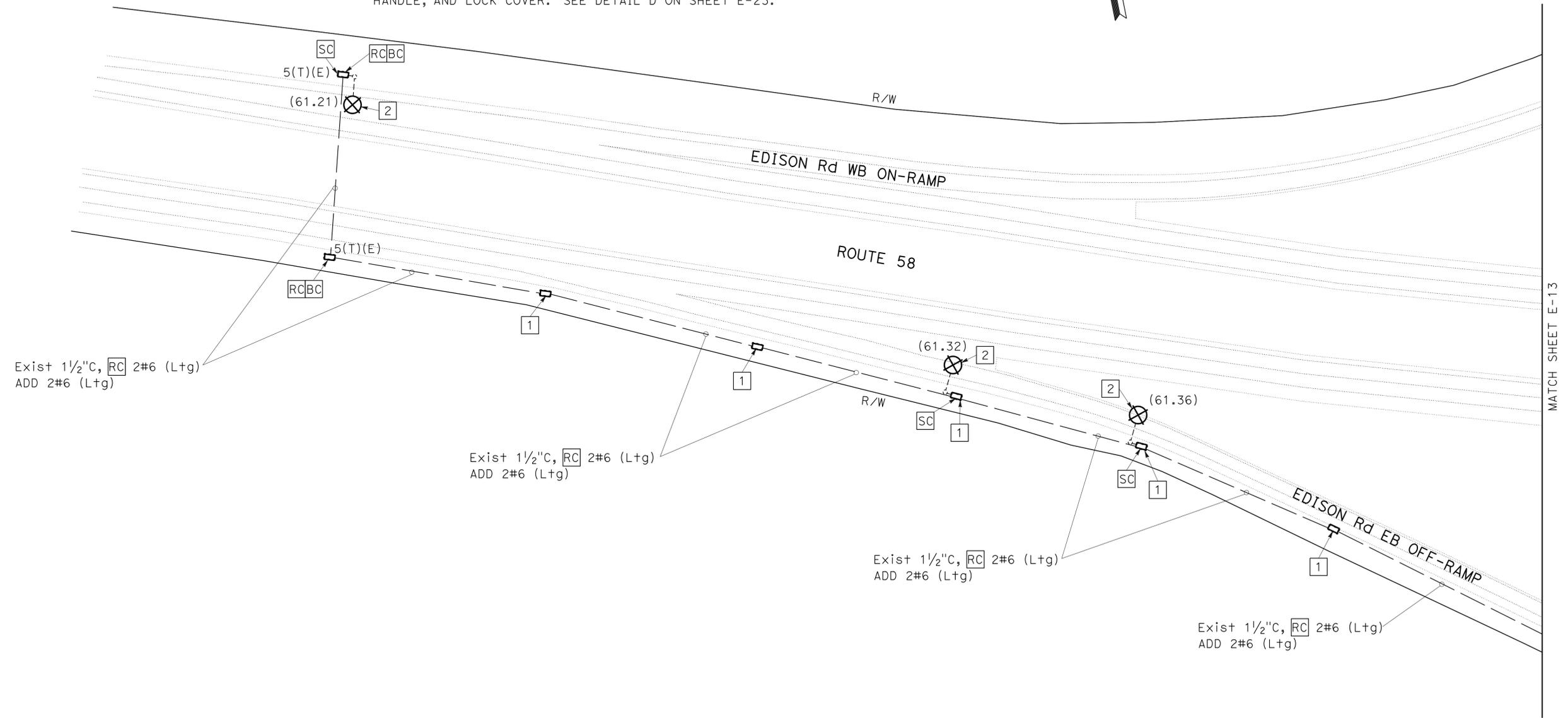
C+id No. 06500580061442L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
15	240	2	SIGN ILLUMINATION	YES	V
15	120	1	SIGN ILLUMINATION CONTROL	YES	-
15	240	2	HIGHWAY LIGHTING	YES	V
15	120	1	HIGHWAY LIGHTING CONTROL	YES	-
20	120	1	SPARE	YES	-
-	-	6	SPACE	-	-

LEGEND: (FOR SHEETS E-12, E-13, AND E-14 ONLY)

- RC Exist PB. INSTALL PB AS SHOWN ON DETAIL A SHEET E-22.
- RS Exist 310 W HPS Lum. INSTALL ROADWAY 2 LED Lum.
- PULL BOX PER PG&E REQUIREMENTS.
- RS Exist 240/480 V TYPE A SERVICE AND RC WOOD POLE.

6 SERVICE EQUIPMENT ENCLOSURE MUST BE PROVIDED WITH 3 POINT LATCH, HANDLE, AND LOCK COVER. SEE DETAIL D ON SHEET E-23.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: DANIEL T VO
 CHECKED BY: DANIEL T VO
 REVISIONS: PAUL MATOS
 REVISIONS: DANIEL T VO

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-12

SCALE: 1" = 50'

LAST REVISION DATE PLOTTED => 25-JUL-2014
 06-20-14 TIME PLOTTED => 12:50

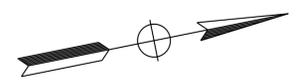
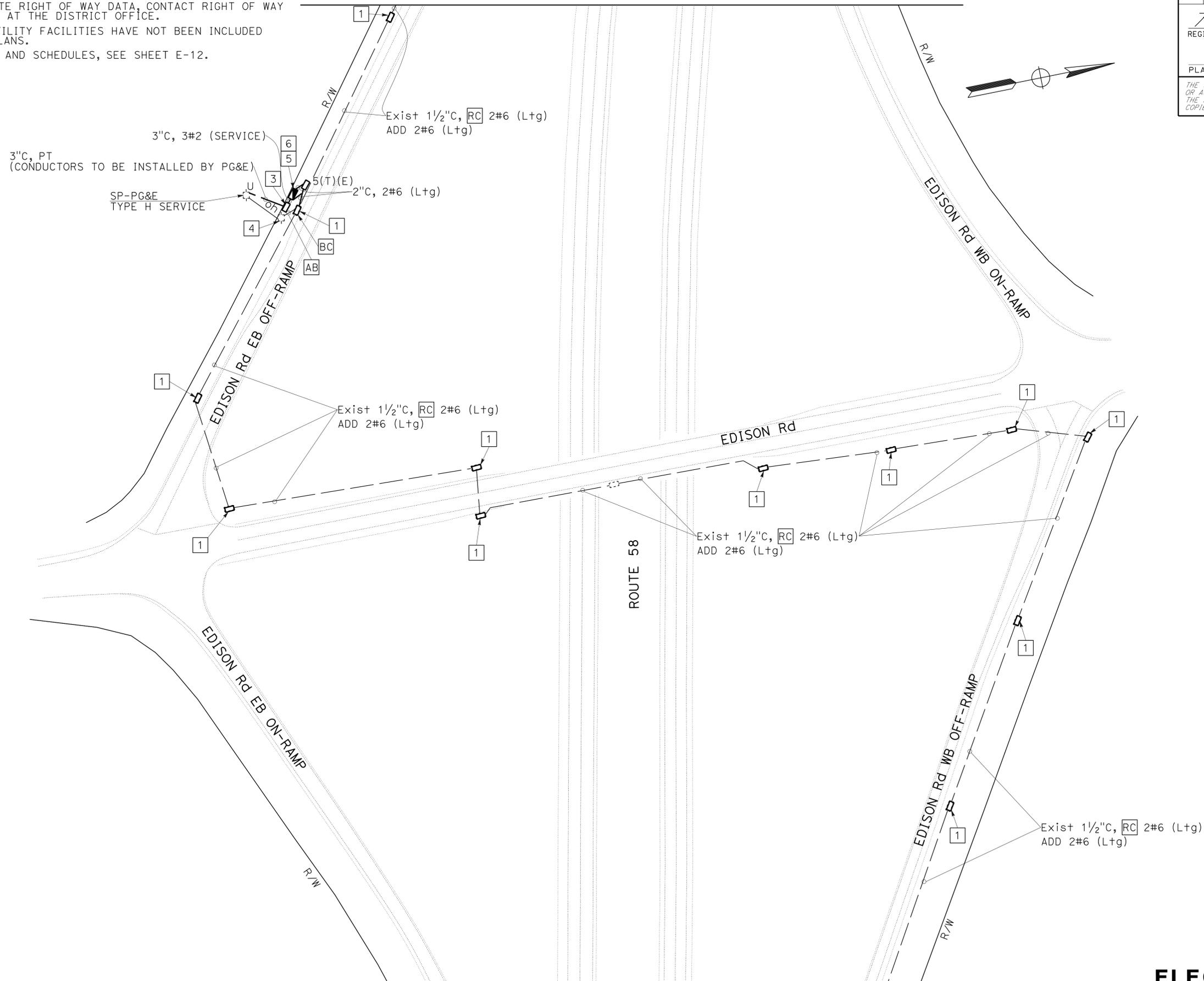
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR	ALI BAKHDOUD
DESIGNED BY	CHECKED BY
PAUL MATOS	DANIEL T VO
REVISOR	DATE

NOTES:

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- FOR LEGEND AND SCHEDULES, SEE SHEET E-12.

MATCH SHEET E-12



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	22	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

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MATCH SHEET E-14

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-13

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	24	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

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LEGEND: (FOR SHEETS E-15, E-16, AND E-17 ONLY)

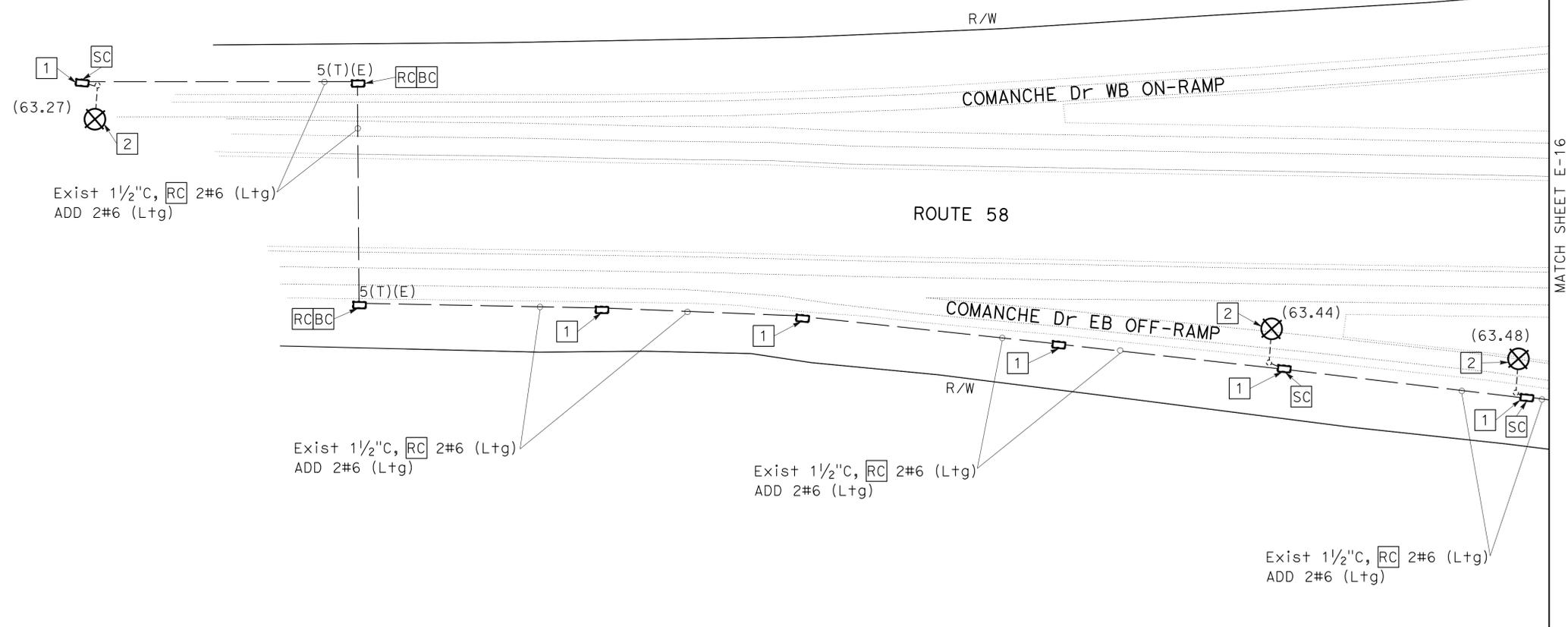
- RC** Exist PB. INSTALL PB AS SHOWN ON DETAIL A SHEET E-22.
- RS** Exist 310 W HPS Lum. INSTALL ROADWAY 2 LED Lum.
- PULL BOX PER PG&E REQUIREMENTS.
- RS** Exist 240/480 V TYPE A SERVICE AND **RC** WOOD POLE.

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

Ctid No. 06500580063551L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
15	240	2	SIGN ILLUMINATION	YES	V
15	120	1	SIGN ILLUMINATION CONTROL	YES	-
15	240	2	HIGHWAY LIGHTING	YES	V
15	120	1	HIGHWAY LIGHTING CONTROL	YES	-
20	120	1	SPARE	YES	-
-	-	6	SPACE	-	-

- SERVICE EQUIPMENT ENCLOSURE MUST BE PROVIDED WITH 3 POINT LATCH, HANDLE, AND LOCK COVER. SEE DETAIL D ON SHEET E-23.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 PAUL MATOS
 DANIEL T VO
 REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-15

SCALE: 1" = 50'

LAST REVISION | DATE PLOTTED => 25-JUL-2014 | 06-20-14 | TIME PLOTTED => 12:50

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR	ALI BAKHDOUD
CALCULATED-DESIGNED BY	CHECKED BY
PAUL MATOS	DANIEL T VO
REVISED BY	DATE REVISED

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
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- FOR LEGEND AND SCHEDULES, SEE SHEET E-15.

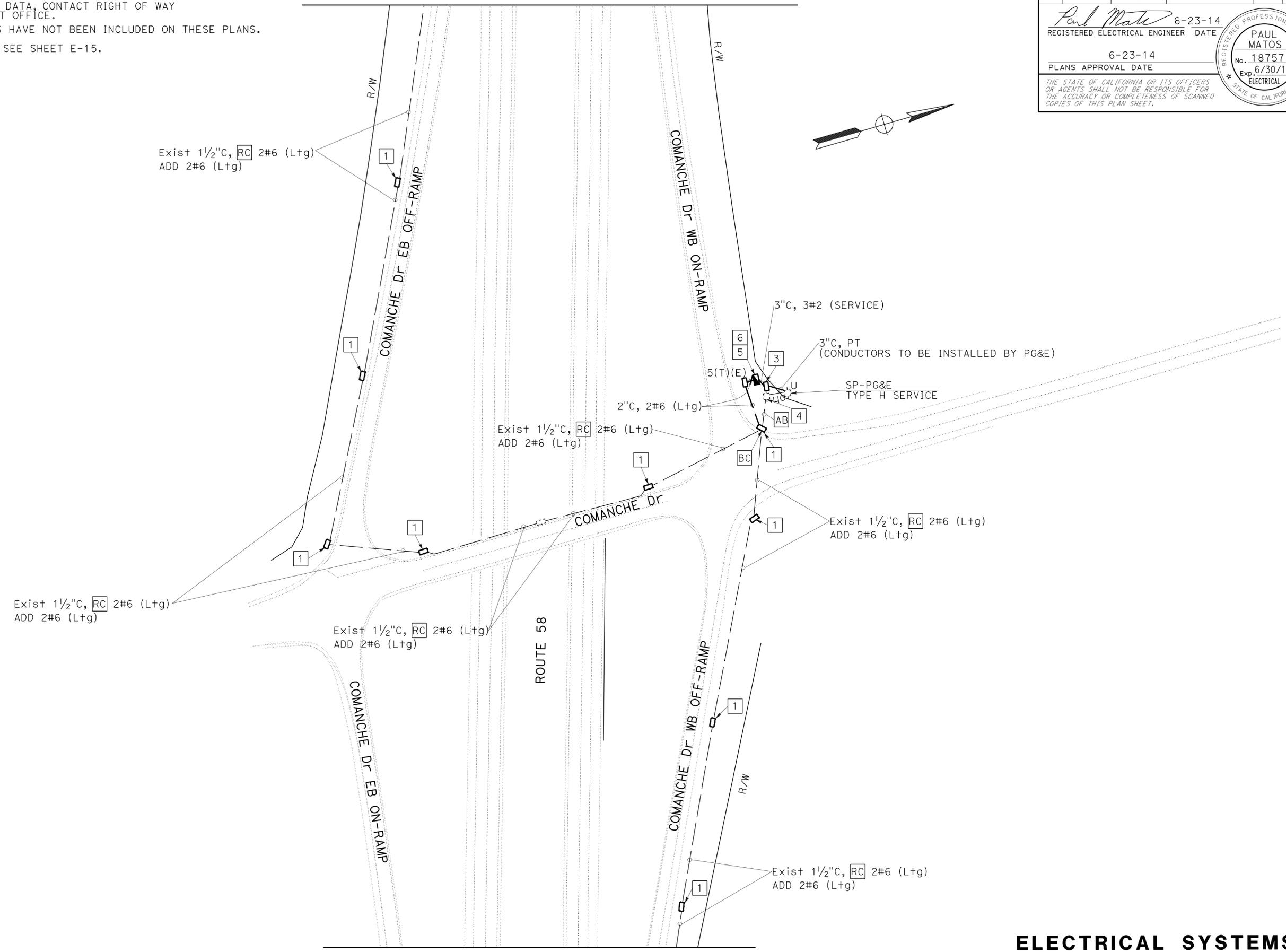
MATCH SHEET E-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	25	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

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MATCH SHEET E-17

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E - 16

SCALE: 1" = 50'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	26	57

<i>Paul Matos</i>	6-23-14
REGISTERED ELECTRICAL ENGINEER	DATE
6-23-14	
PLANS APPROVAL DATE	

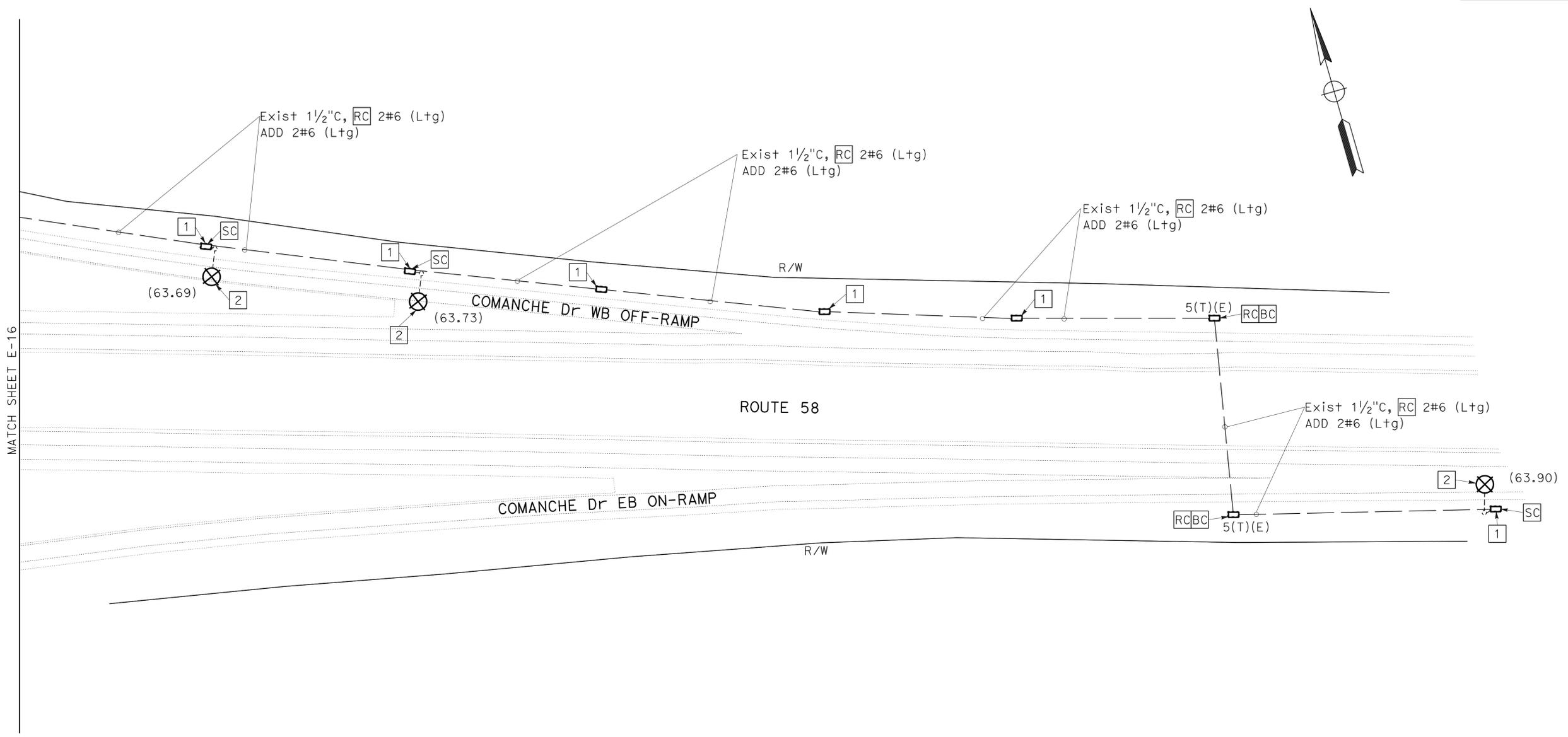
REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
No. 18757
Exp. 6/30/15
ELECTRICAL
STATE OF CALIFORNIA

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- FOR LEGEND AND SCHEDULES, SEE SHEET E-15.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Electrans ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR
ALT BAKHDOUD
CALCULATED-DESIGNED BY
CHECKED BY
PAUL MATOS
DANIEL T VO
REVISED BY
DATE REVISED



APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E - 17

SCALE: 1" = 50'

LAST REVISION DATE PLOTTED => 25-JUL-2014 TIME PLOTTED => 12:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	27	57

<i>Paul Matos</i>	6-23-14
REGISTERED ELECTRICAL ENGINEER	DATE
6-23-14	
PLANS APPROVAL DATE	

PAUL MATOS
No. 18757
Exp. 6/30/15
ELECTRICAL

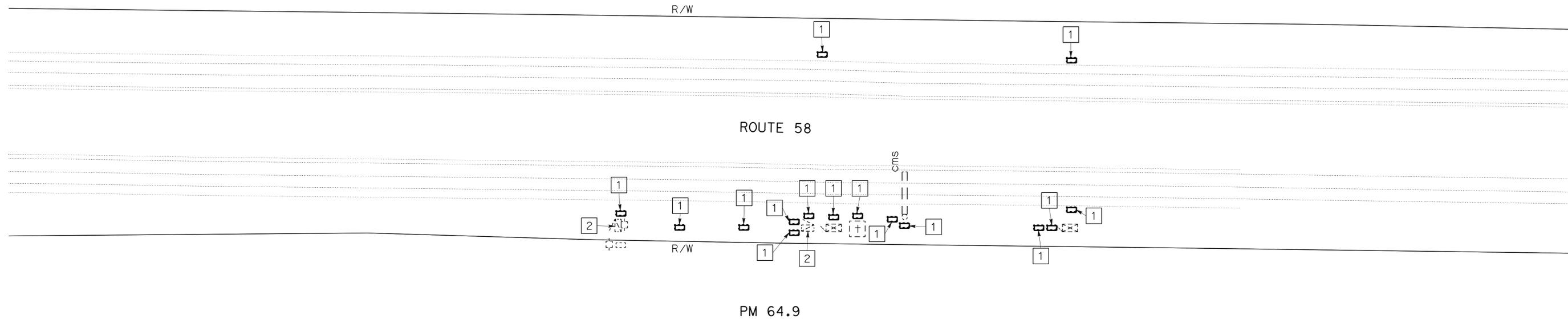
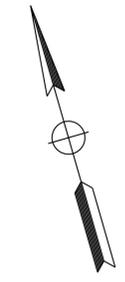
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NOTES:

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- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

LEGEND: (FOR THIS SHEET ONLY)

- Exist PB. INSTALL 5(T)(E) PB.
- INSTALL HASP AND LOCK ON Exist SERVICE EQUIPMENT ENCLOSURE, SEE DETAIL B ON SHEET E-22.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PAUL MATOS	REVISOR
Caltrans ELECTRICAL DESIGN	DANIEL T VO	DATE
FUNCTIONAL SUPERVISOR		REVISED BY
ALI BAKHDOUD		DATE
		REVISOR
		DATE
		REVISOR
		DATE

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-18

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	28	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

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- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

LEGEND: (FOR SHEETS E-19, E-20, AND E-21 ONLY)

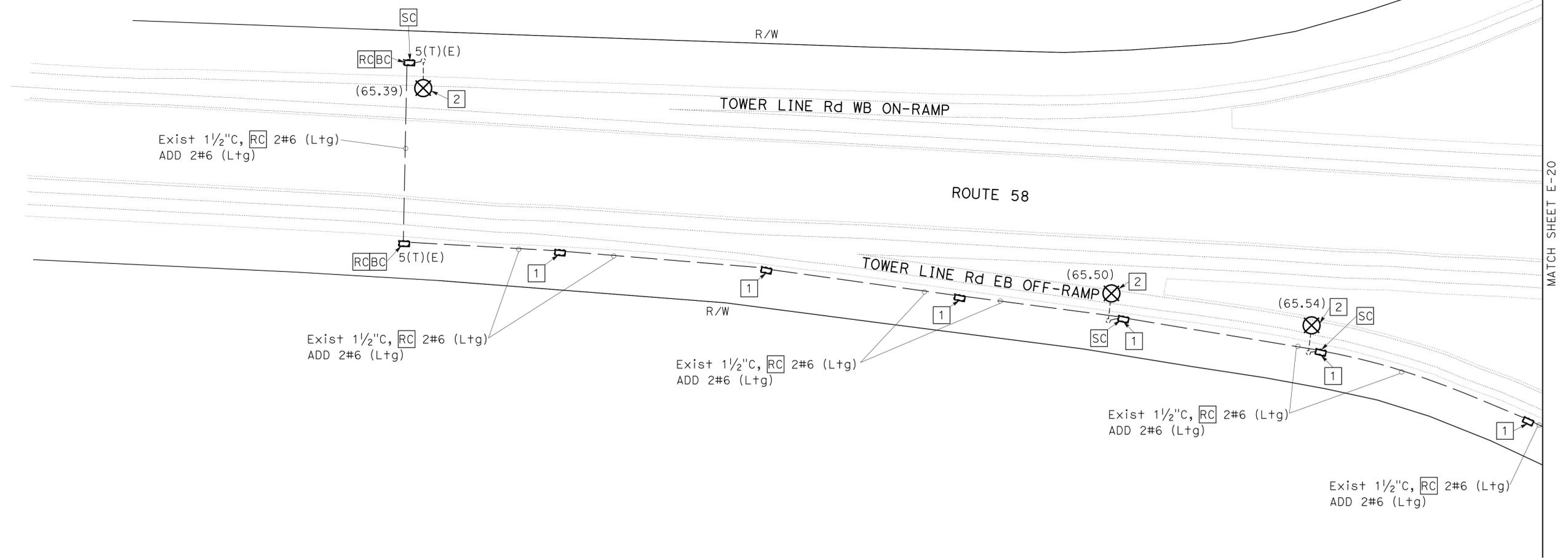
- RC** Exist PB. INSTALL PB AS SHOWN ON DETAIL A SHEET E-22.
- RS** Exist 310 W HPS Lum. INSTALL ROADWAY 2 LED Lum.
- PULL BOX PER PG&E REQUIREMENTS.
- RS** Exist 240/480 V TYPE A SERVICE AND **RC** WOOD POLE.

5 120/240 V, 1Ø, 3-WIRE, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

Ctid No. 06500580065691L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	-
15	240	2	SIGN ILLUMINATION	YES	V
15	120	1	SIGN ILLUMINATION CONTROL	YES	-
15	240	2	HIGHWAY LIGHTING	YES	V
15	120	1	HIGHWAY LIGHTING CONTROL	YES	-
20	120	1	SPARE	YES	-
-	-	6	SPACE	-	-

6 SERVICE EQUIPMENT ENCLOSURE MUST BE PROVIDED WITH 3 POINT LATCH, HANDLE, AND LOCK COVER. SEE DETAIL D ON SHEET E-23.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: PAUL MATOS
 CHECKED BY: DANIEL T VO
 REVISED BY: PAUL MATOS
 DATE REVISED: DANIEL T VO

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E - 19

SCALE: 1" = 50'

LAST REVISION DATE PLOTTED => 25-JUL-2014
 06-20-14 TIME PLOTTED => 12:50

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR	ALI BAKHDOUD
CALCULATED-DESIGNED BY	CHECKED BY
PAUL MATOS	DANIEL T VO
REVISED BY	DATE REVISED

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.
- FOR LEGEND AND SCHEDULES, SEE SHEET E-19.

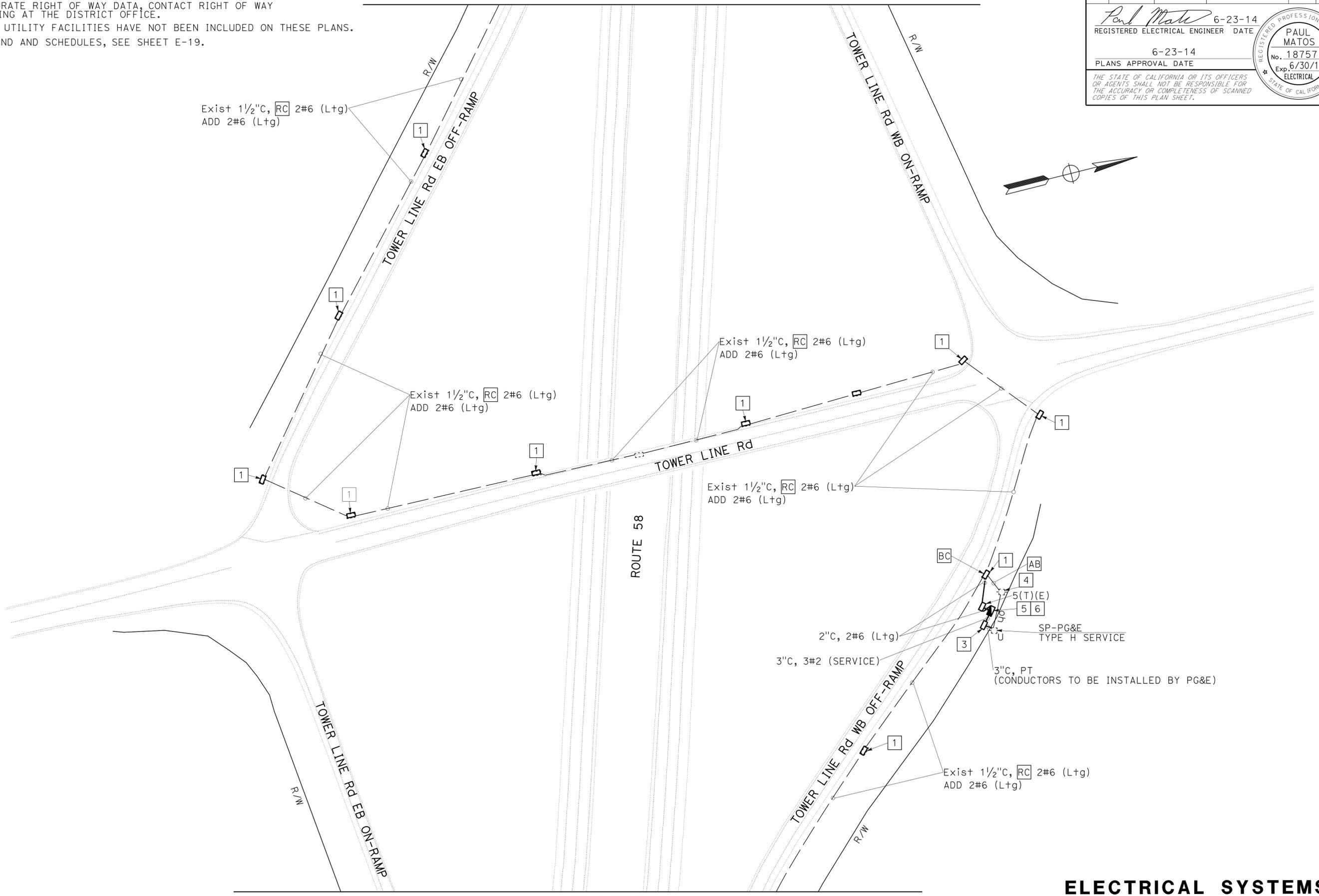
MATCH SHEET E-19

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	29	57

Paul Matos 6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 STATE OF CALIFORNIA

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MATCH SHEET E-21

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E-20

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	30	57

<i>Paul Matos</i>	6-23-14
REGISTERED ELECTRICAL ENGINEER	DATE
6-23-14	
PLANS APPROVAL DATE	

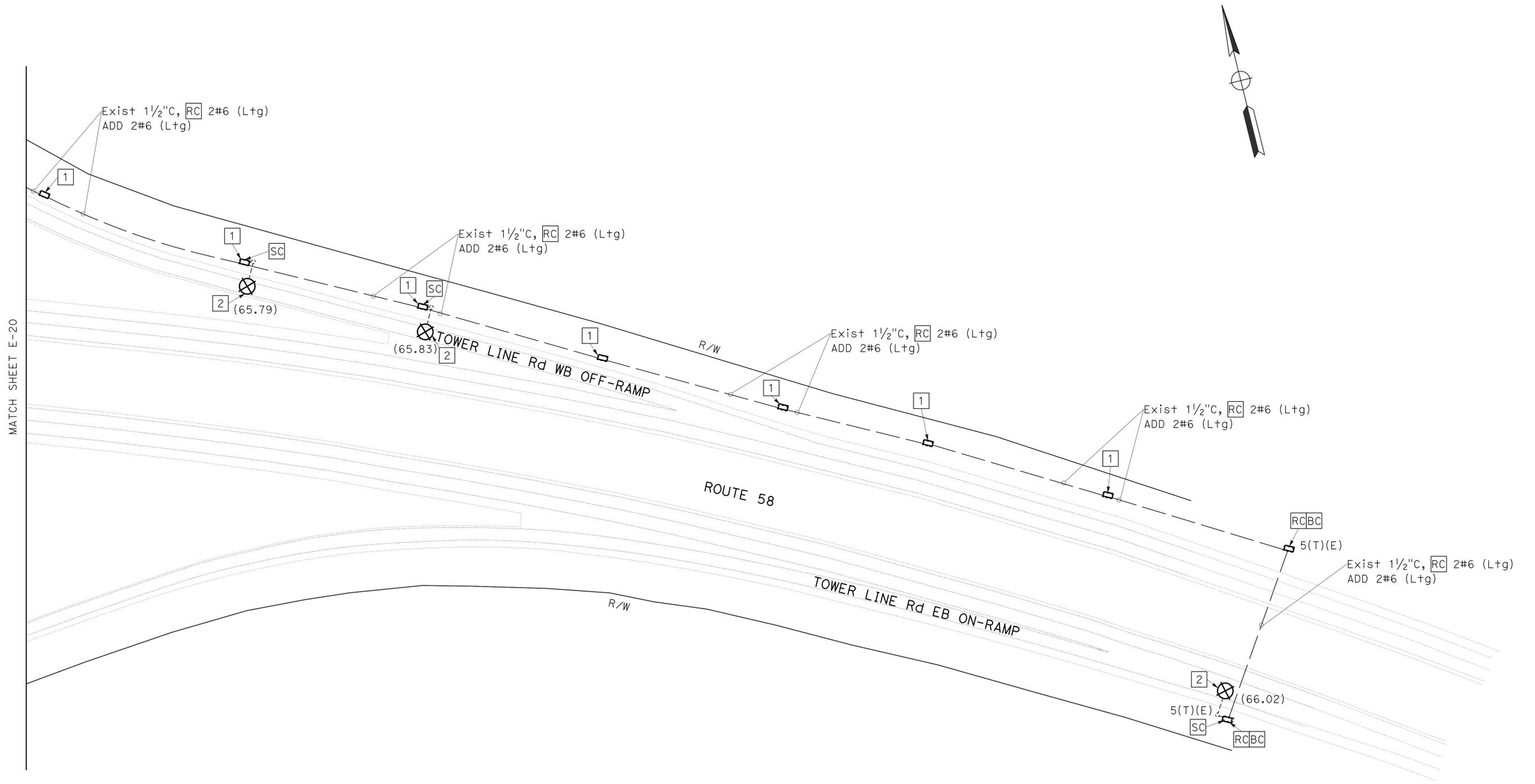
REGISTERED PROFESSIONAL ENGINEER
PAUL MATOS
No. 18757
Exp. 6/30/15
ELECTRICAL
STATE OF CALIFORNIA

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- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.
- FOR LEGEND AND SCHEDULES, SEE SHEET E-19.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: PAUL MATOS
 CHECKED BY: DANIEL T VO
 REVISED BY: PAUL MATOS
 DATE REVISED: DANIEL T VO



APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL SYSTEMS
E - 21
 SCALE: 1" = 50'

LAST REVISION: DATE PLOTTED => 25-JUL-2014 TIME PLOTTED => 12:50

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Electrans® ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: DANIEL T VO
 CHECKED BY: PAUL MATOS
 REVISED BY: PAUL MATOS
 DATE REVISION: 6-23-14

NOTES:

1. INSTALL FRONT AND SIDE HASP IN A MANNER SO THAT THE ENCLOSURE DOOR CAN OPEN AND CLOSE WITHOUT HINDRANCE.
2. SUBMIT INSTALLATION DETAILS FOR EACH SITE PRIOR TO INSTALLATION FOR APPROVAL BY THE ENGINEER.
3. PROVIDE AND INSTALL LOCKS AND ALL MOUNTING HARDWARE, SUCH AS HASP PLATES, CARRIAGE BOLTS, WASHERS AND LOCKING TYPE NUTS.
4. MODIFIED PB DETAILS. SEE STANDARD PLANS FOR DETAILS NOT SHOWN.
5. DETAIL B SHOWS TYPICAL INSTALLATION FOR A TYPE III-AF SERVICE EQUIPMENT ENCLOSURE. ADJUST MOUNTINGS AS NECESSARY TO FIT SERVICE EQUIPMENT ENCLOSURES.

LEGEND: (THIS SHEET ONLY)

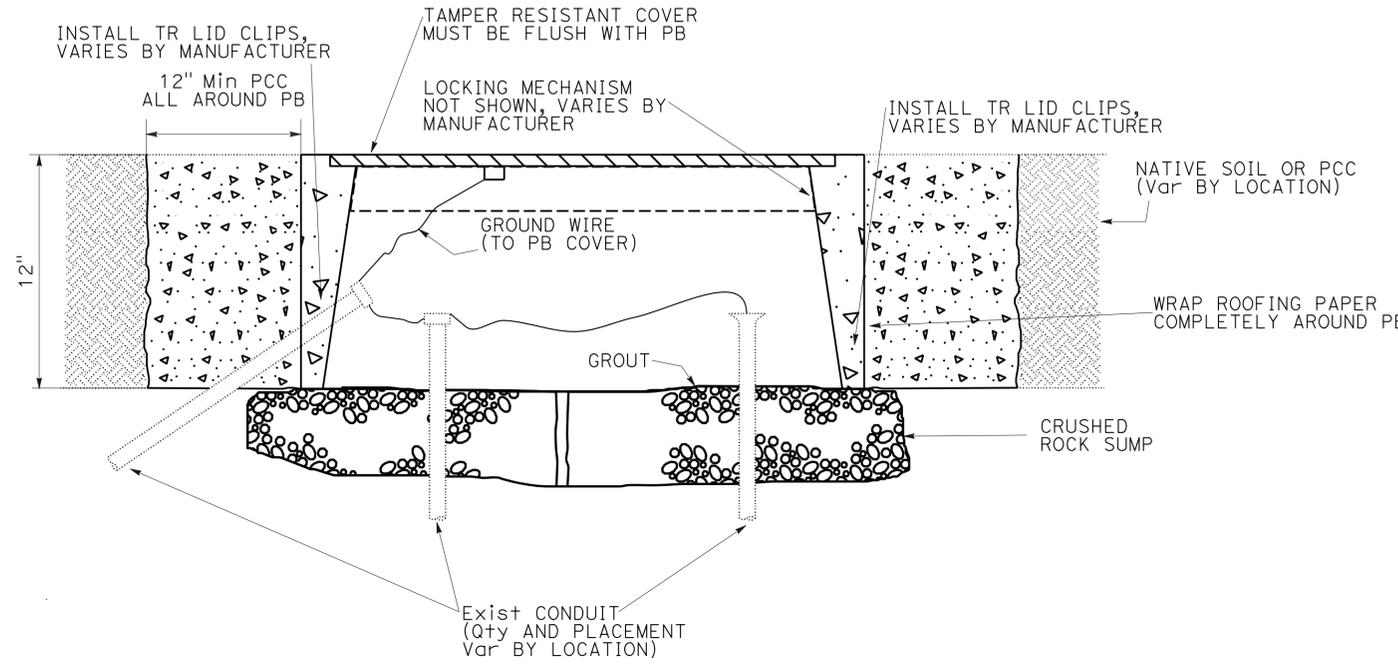
- 1 DIMENSIONS Min 3" DIAMETER TO SUIT LOCK.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	31	57

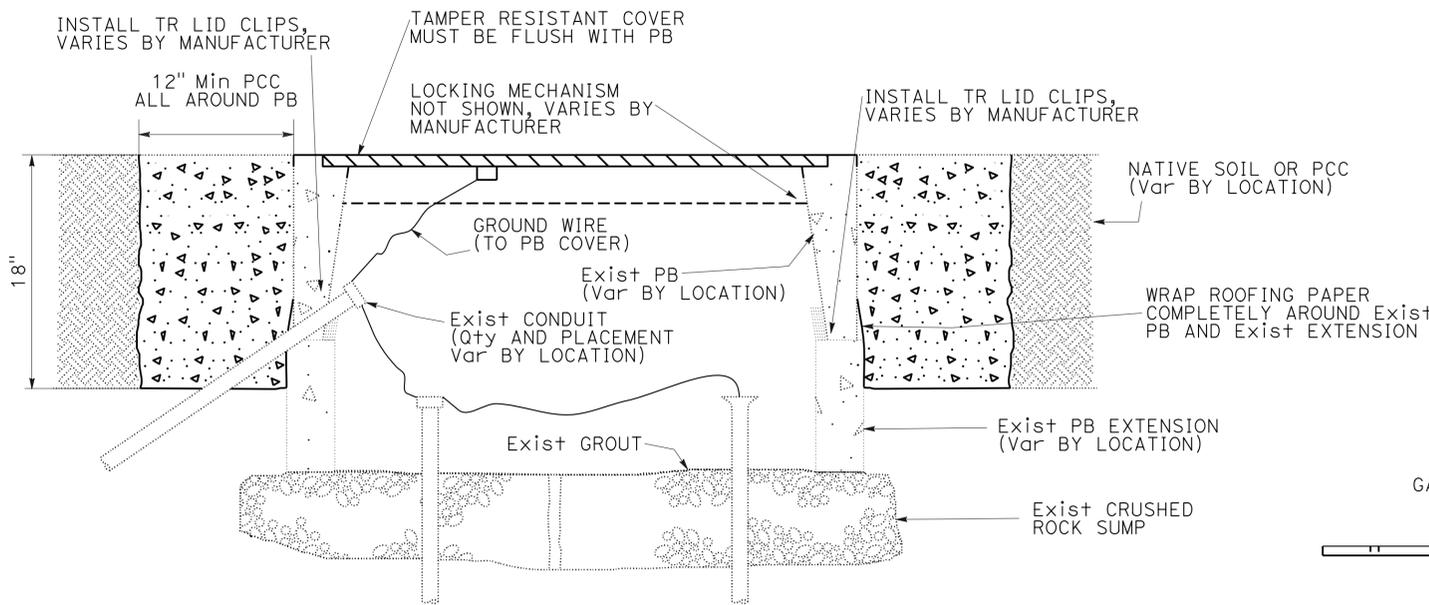
6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA

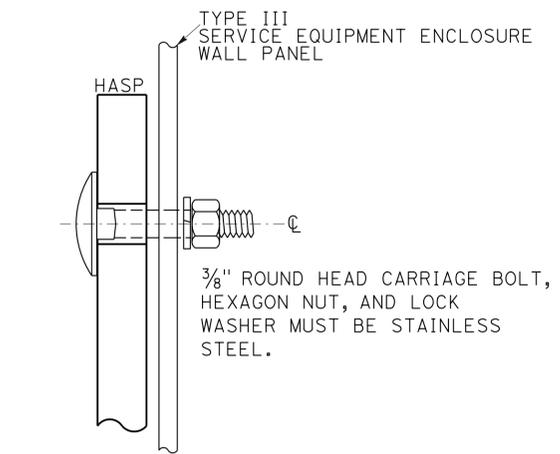
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



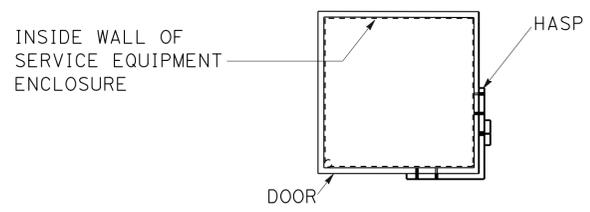
**TAMPER RESISTANT PB COVER AND PB
 DETAIL A**



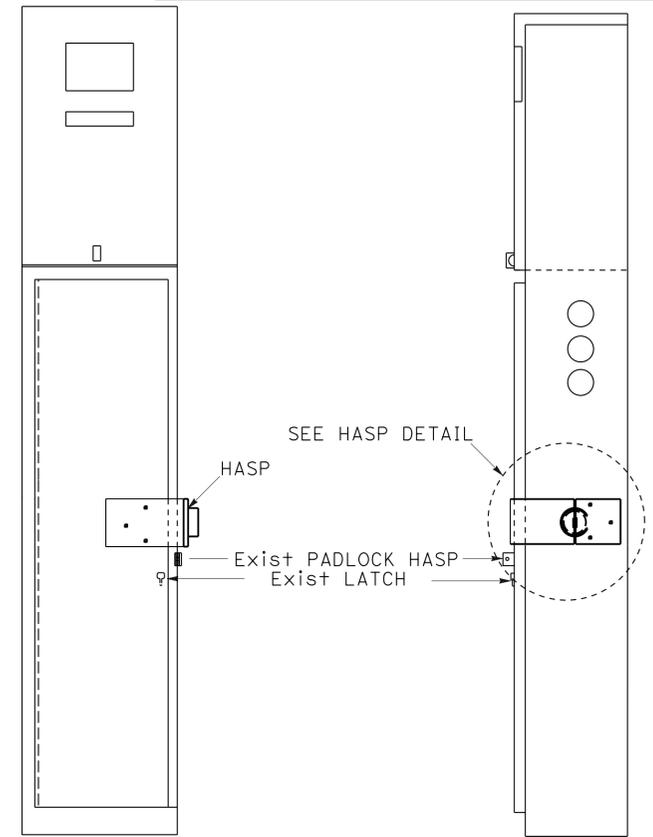
**TAMPER RESISTANT PB COVER ON EXISTING PB
 DETAIL C**



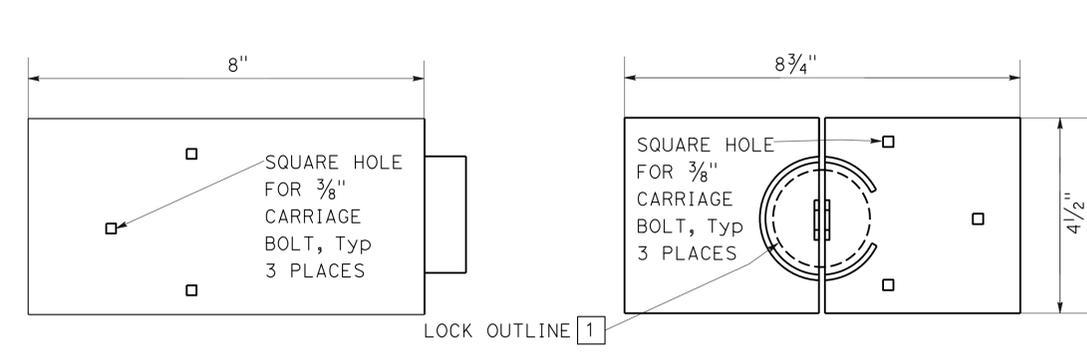
**SIDE VIEW
 HASP PLATE
 MOUNTING HARDWARE**



**TOP VIEW
 HASP DETAIL**

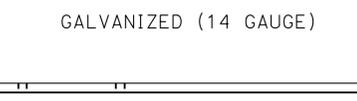


HASP ON EXIST SERVICE EQUIPMENT ENCLOSURE



**FRONT VIEW HASP DETAIL
 SIDE VIEW HASP DETAIL**

**SINGLE DOOR PADLOCK MOUNTING
 DETAIL B**

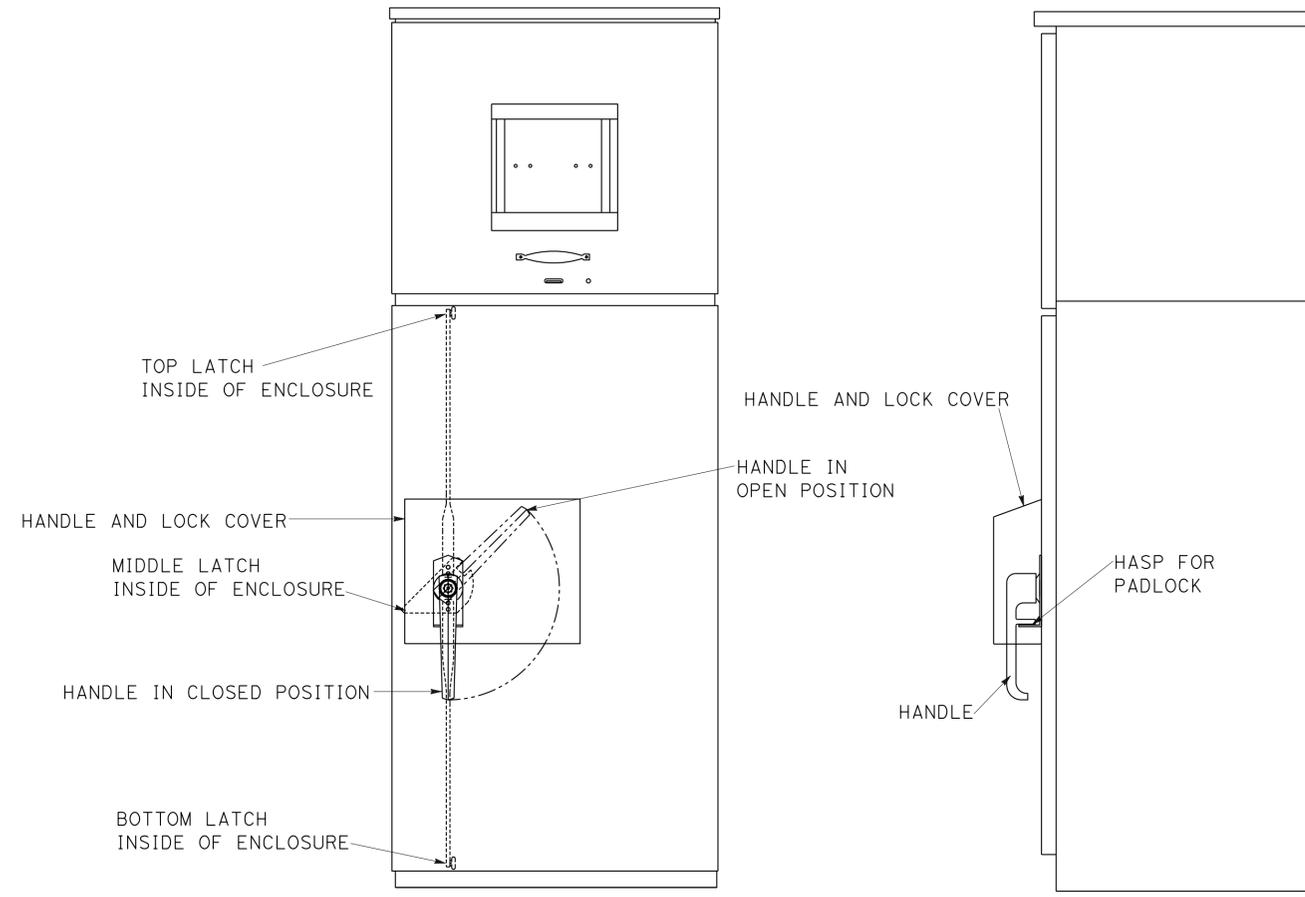


**ELECTRICAL DETAILS
 E-22**

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	32	57
<i>Paul Matos</i> 6-23-14 REGISTERED ELECTRICAL ENGINEER DATE			PAUL MATOS No. 18757 Exp. 6/30/15 ELECTRICAL STATE OF CALIFORNIA		
PLANS APPROVAL DATE 6-23-14					
<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:
SEE STANDARD PLANS FOR DETAILS NOT SHOWN.



TYPE III SERVICE EQUIPMENT ENCLOSURE 3 POINT LATCH, HANDLE, AND LOCK COVER
DETAIL D

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: DANIEL T VO
 CHECKED BY: PAUL MATOS
 REVISED BY: DANIEL T VO
 DATE REVISED:

ELECTRICAL DETAILS
E-23
NO SCALE

LAST REVISION | DATE PLOTTED => 25-JUL-2014
 06-20-14 | TIME PLOTTED => 12:50

NOTE:

ITEMS SHOWN IN TABLE ARE NOT A SEPERATE PAY ITEM, FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	33	57

6-23-14
 REGISTERED ELECTRICAL ENGINEER DATE

6-23-14
 PLANS APPROVAL DATE

PAUL MATOS
 No. 18757
 Exp. 6/30/15
 ELECTRICAL

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

ELECTRICAL SYSTEMS

SHEET No.	EA											FT								
	No. 5 PB WITH TR COVER AND CONCRETE COLLAR	No. 5(T)(E) PB	Exist No. 5(E) PB, ADD TR COVER AND CONCRETE COLLAR	PB PER PG&E REQUIREMENTS	TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH 3 POINT LOCK AND COVER	TYPE III-BF SERVICE EQUIPMENT ENCLOSURE FOUNDATION	HASP AND LOCK FOR Exist SERVICE ENCLOSURE	ROADWAY 1 LED Lum	ROADWAY 2 LED Lum	ISL SIGN Ltg FIXTURE	LIGHTING AND SIGN ILLUMINATION CONTROL	MODIFY EXISTING TYPE III SERVICE EQUIPMENT ENCLOSURE	No. 8 CONDUCTOR (G)	No. 8 CONDUCTOR	No. 6 CONDUCTOR	No. 2 CONDUCTOR	2" CONDUIT (TYPE 3)	2" CONDUIT (TYPE 1)	3" CONDUIT (TYPE 1)	PT
E-1	5											450		900						75
E-2	24	2	5			1	4	8	2	1	1	2850	1030	7800		120				120
E-3	7	2						3	2	1		1630		5620						
E-4	14		3			1	7				1	2180		8720						
E-5	7	2						3	2	1		1600		4790						
E-6	5	2						3	2	1		1340		4600						
E-7	15	2	3			1	3				1	2420		9680		500				320
E-8	4	3						3	2	1		1370		4660		200				
E-9	7	2						3	2	1		1740		6280						
E-10	25		7			1	10	2	2	1	1	5450	1250	8900		40				
E-11	8	2						3	2	1		1750		5970						
E-12	5	2						3				1320		2640						
E-13	12	1		1	1	1						2170		4340	100	30	20	20	20	40
E-14	5	2						3				1220		2440						
E-15	6	2						3				1250		2500						
E-16	9	1		1	1	1						1820		3640	100	50	20	20	20	30
E-17	6	2						3				1520		3040						
E-18		15					2													
E-19	6	2						3				1220		2440						
E-20	11	1		1	1	1						2140		4280	100	40	20	20	20	30
E-21	7	2						3				1460		2920						

**ELECTRICAL QUANTITIES
 E-24**

	M	
Maint	MAINTENANCE	
Max	MAXIMUM	
MB	METAL BEAM	
MBB	METAL BEAM BARRIER	
MBGR	METAL BEAM GUARD RAILING	
Med	MEDIAN	
MGS	MIDWEST GUARDRAIL SYSTEM	
MH	MANHOLE	
Min	MINIMUM	
Misc	MISCELLANEOUS	
Misc I & S	MISCELLANEOUS IRON AND STEEL	
Mkr	MARKER	
Mod	MODIFIED, MODIFY	
Mon	MONUMENT	
MP	METAL PLATE	
MPGR	METAL PLATE GUARD RAILING	
MR	MOVEMENT RATING	
MSE	MECHANICALLY STABILIZED EMBANKMENT	
Mt	MOUNTAIN, MOUNT	
MtI	MATERIAL	
MVP	MAINTENANCE VEHICLE PULLOUT	
	N	
N	NORTH	
NB	NORTHBOUND	
No.	NUMBER (MUST HAVE PERIOD)	
Nos.	NUMBERS (MUST HAVE PERIOD)	
NPS	NOMINAL PIPE SIZE	
NS	NEAR SIDE	
NSP	NEW STANDARD PLAN	
NTS	NOT TO SCALE	
	O	
Obir	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	P	
p	PAGE	
PAP	PERFORATED ALUMINUM PIPE	
PB	PULL BOX	
PC	POINT OF CURVATURE, PRECAST	
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN	
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE	
PCVC	POINT OF COMPOUND VERTICAL CURVE	
PEC	PERMIT TO ENTER AND CONSTRUCT	
Ped	PEDESTRIAN	
Ped OC	PEDESTRIAN OVERCROSSING	
Ped UC	PEDESTRIAN UNDERCROSSING	
Perm MtI	PERMEABLE MATERIAL	

	P continued	
PG	PROFILE GRADE	
PI	POINT OF INTERSECTION	
PJP	PARTIAL JOINT PENETRATION	
Pkwy	PARKWAY	
PL, PL	PLATE	
P/L	PROPERTY LINE	
PM	POST MILE, TIME FROM NOON TO MIDNIGHT	
PN	PAVING NOTCH	
POC	POINT OF HORIZONTAL CURVE	
POT	POINT OF TANGENT	
POVC	POINT OF VERTICAL CURVE	
PP	PIPE PILE, PLASTIC PIPE, POWER POLE	
PPL	PREFORMED PERMEABLE LINER	
PPP	PERFORATED PLASTIC PIPE	
PRC	POINT OF REVERSE CURVE	
PRF	PAVEMENT REINFORCING FABRIC	
PRVC	POINT OF REVERSE VERTICAL CURVE	
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES	
PS, P/S	PRESTRESSED	
PSP	PERFORATED STEEL PIPE	
PT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
Pvmt	PAVEMENT	
	Q	
Qty	QUANTITY	
	R	
R	RADIUS	
R & D	REMOVE AND DISPOSE	
R & S	REMOVE AND SALVAGE	
R/C	RATE OF CHANGE	
RCA	REINFORCED CONCRETE ARCH	
RCB	REINFORCED CONCRETE BOX	
RCP	REINFORCED CONCRETE PIPE	
RCPA	REINFORCED CONCRETE PIPE ARCH	
Rd	ROAD	
Reinf	REINFORCED, REINFORCEMENT, REINFORCING	
Rel	RELOCATE	
Repl	REPLACEMENT	
Ret	RETAINING	
Rev	REVISED, REVISION	
Rdwy	ROADWAY	
RHMA	RUBBERIZED HOT MIX ASPHALT	
Riv	RIVER	
RM	ROAD-MIXED	
RP	RADIUS POINT, REFERENCE POINT	
RR	RAILROAD	
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN	
Rt	RIGHT	
Rte	ROUTE	
RW	REDWOOD, RETAINING WALL	
R/W	RIGHT OF WAY	
Rwy	RAILWAY	

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

	T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	
	U	
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	
	V	
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
	W	
W	WEST, WIDTH	
WB	WESTBOUND	
WH	WEEP HOLE	
WM	WIRE MESH	
WS	WATER SURFACE	
WSP	WELDED STEEL PIPE	
Wt	WEIGHT	
WV	WATER VALVE	
WW	WINGWALL	
WWLOL	WINGWALL LAYOUT LINE	
	X	
X Sec	CROSS SECTION	
Xing	CROSSING	
	Y	
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	34	57

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 6-23-14

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

TABLE A

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
Ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

2010 REVISED STANDARD PLAN RSP A10B

TO ACCOMPANY PLANS DATED 6-23-14

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**
 NO SCALE

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

2010 REVISED STANDARD PLAN RSP T9

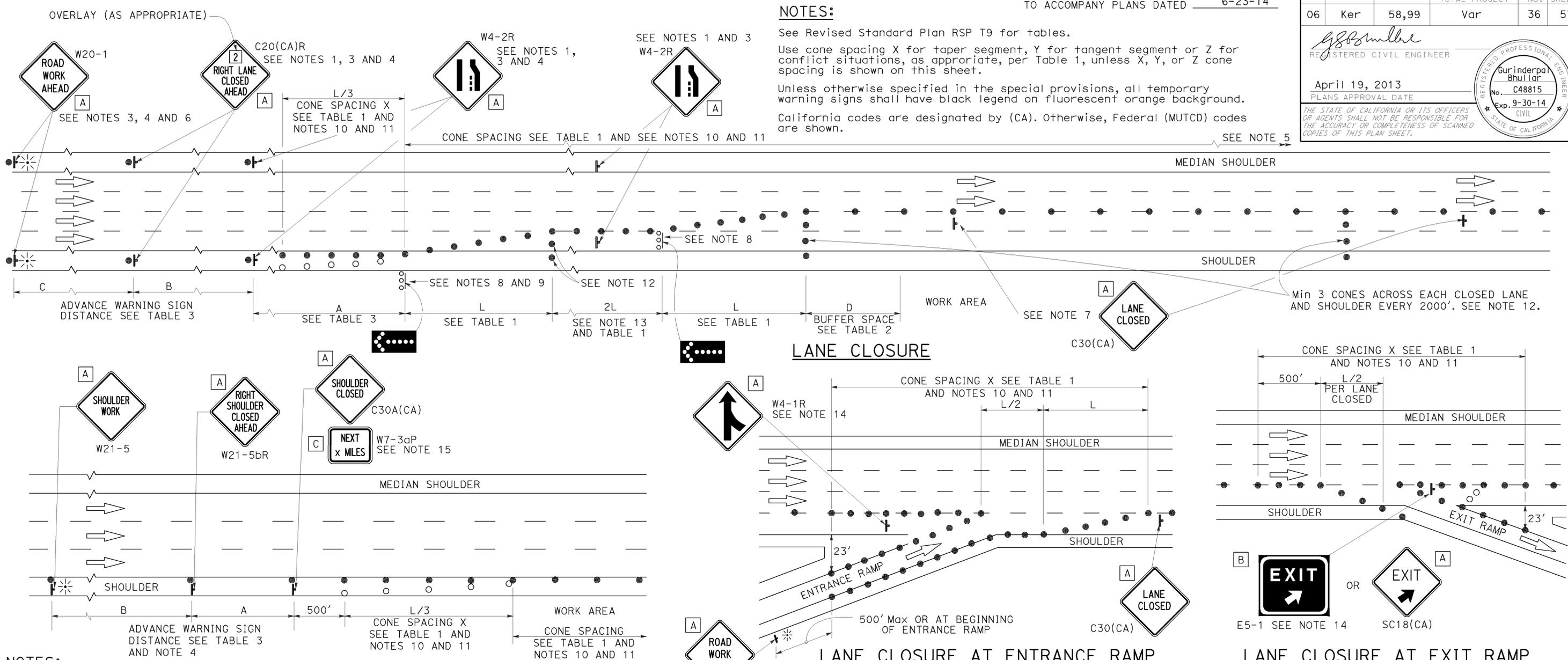
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	36	57

Registered Civil Engineer
 April 19, 2013
 PLANS APPROVAL DATE
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 6-23-14

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:

- 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.

LANE CLOSURE AT ENTRANCE RAMP

- 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"

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

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
06	Ker	58,99	Var	37	57

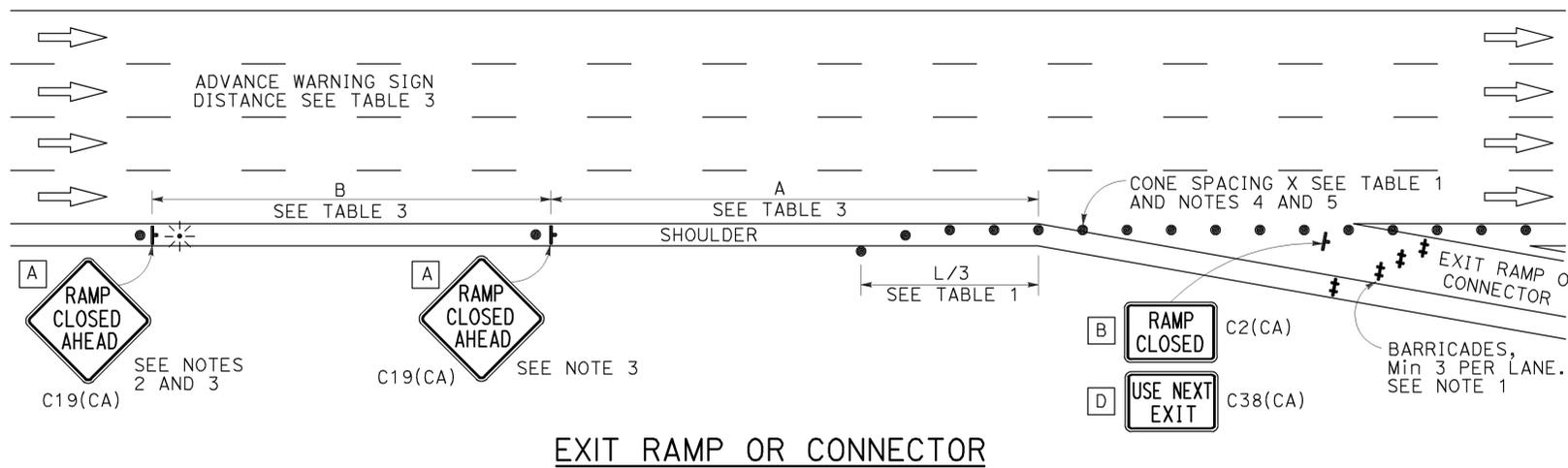
Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

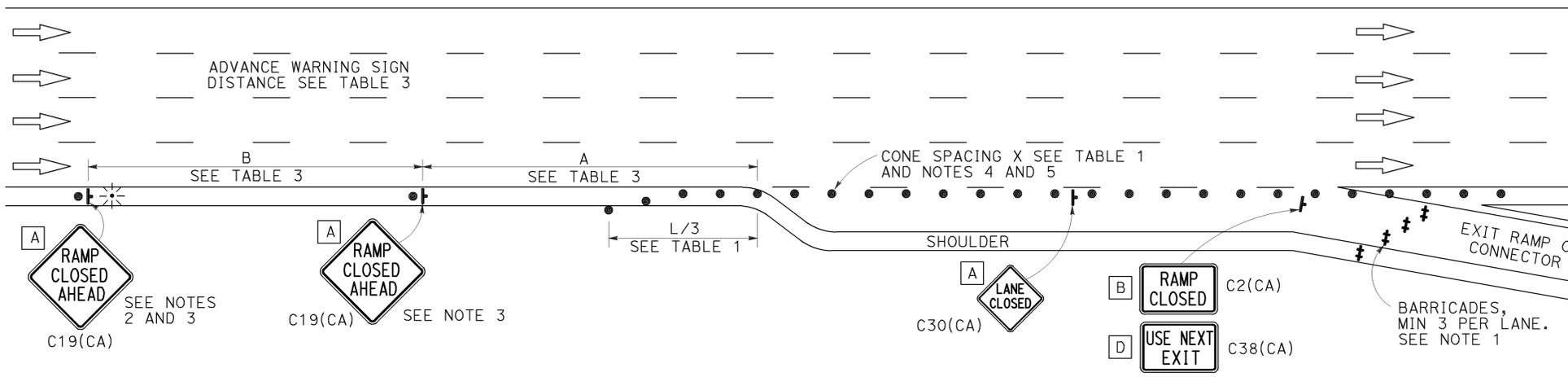
TO ACCOMPANY PLANS DATED 6-23-14

NOTES:

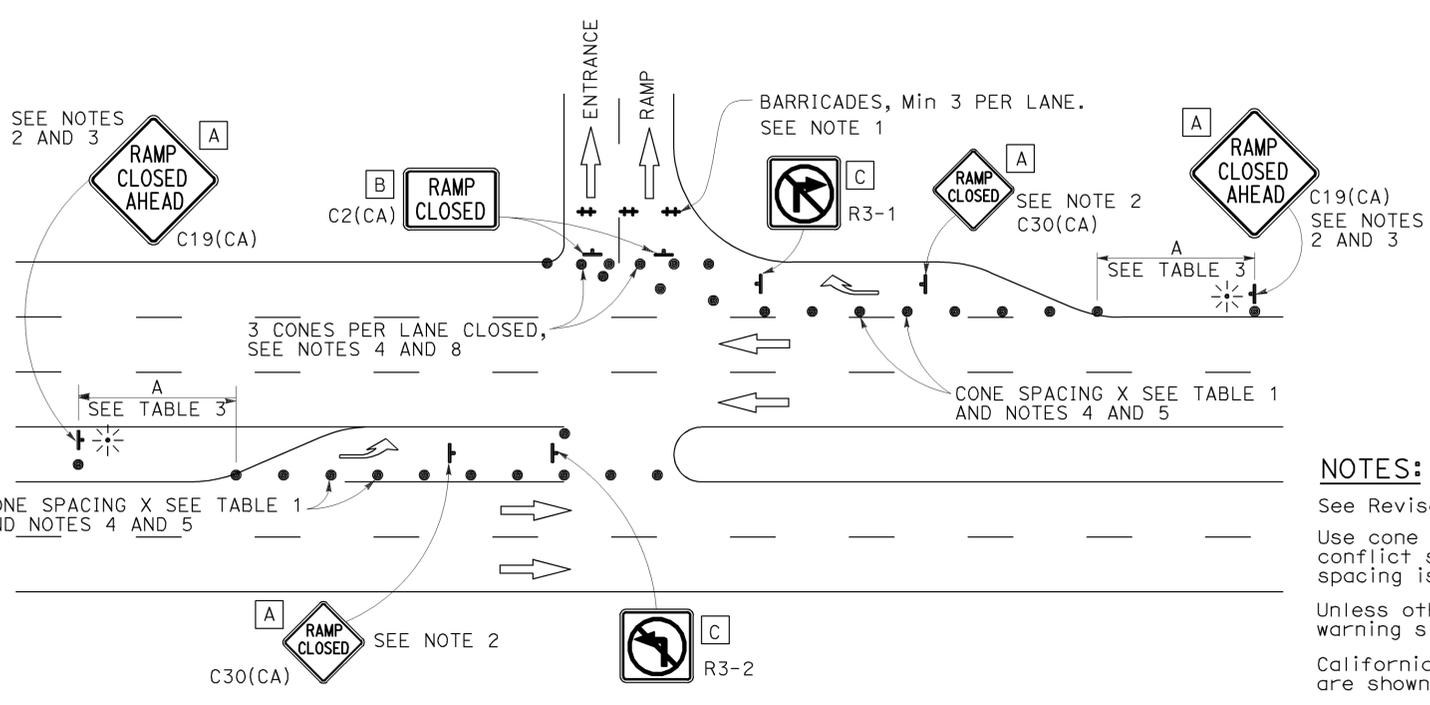
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed 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.



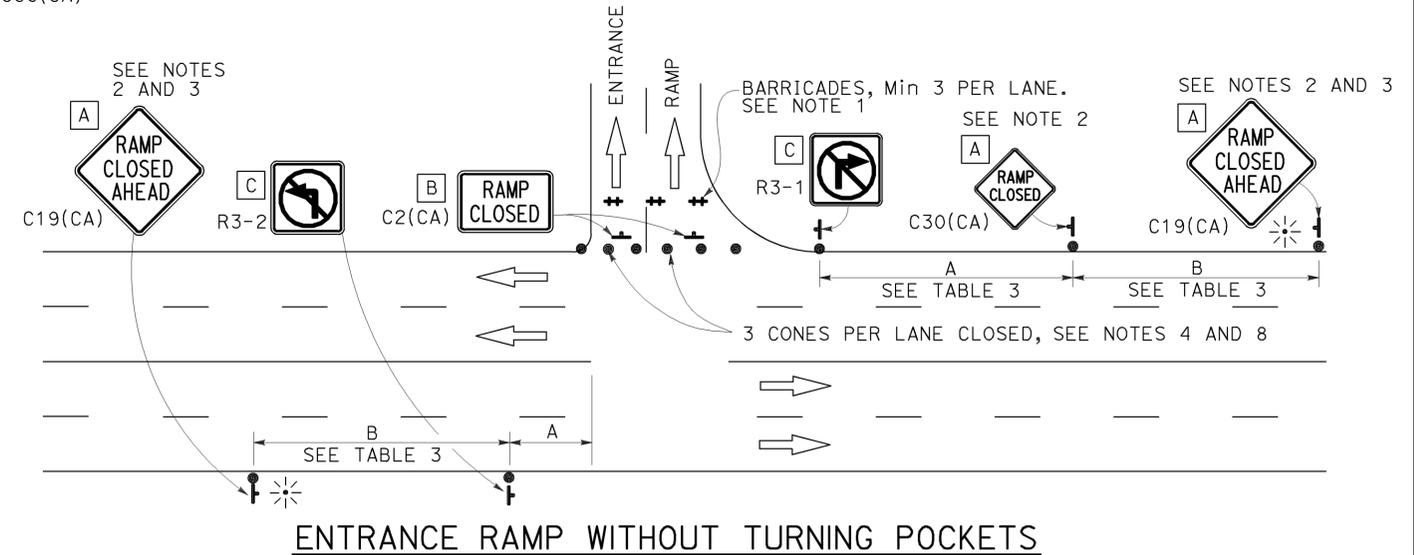
EXIT RAMP OR CONNECTOR



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

LEGEND:

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

ABBREVIATIONS

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	38	57

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 6-23-14

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

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

MISCELLANEOUS ELECTROLIERS

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

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

STANDARD ELECTROLIER

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	39	57

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 6-23-14

CONDUIT

NEW	EXISTING	
---	---	LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
---	---	TRAFFIC SIGNAL CONDUIT
---C---	---c---	COMMUNICATION CONDUIT
---T---	---t---	TELEPHONE CONDUIT
---F---	---f---	FIRE ALARM CONDUIT
---FO---	---fo---	FIBER OPTIC CONDUIT
---	---	CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

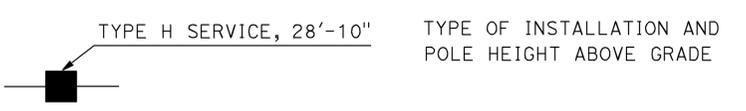
SIGNAL EQUIPMENT

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)
		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

SERVICE EQUIPMENT

NEW	EXISTING	
---OH---	---oh---	OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

POLE-MOUNTED SERVICE DESIGNATION



FLASHING BEACON

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

SIGNAL EQUIPMENT Cont

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.

ILLUMINATED OVERHEAD SIGN

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

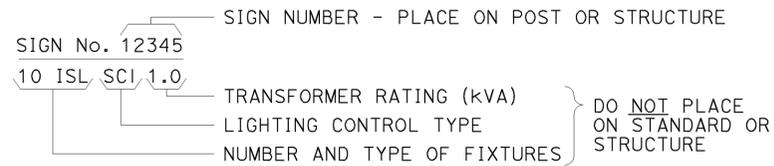
RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

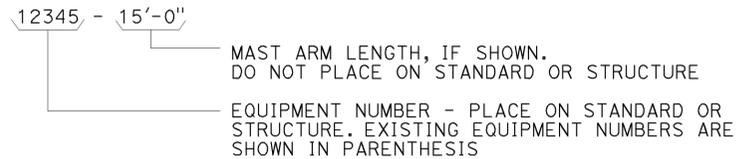
2010 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

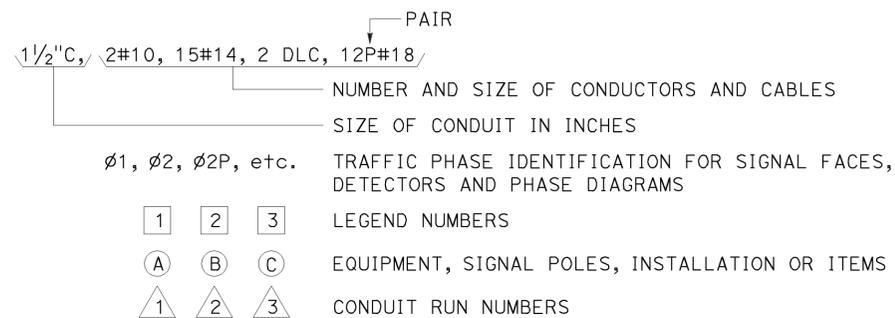
ILLUMINATED SIGN IDENTIFICATION NUMBER:



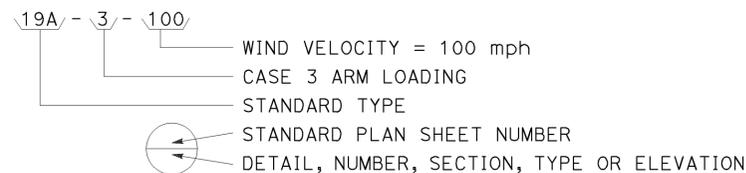
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



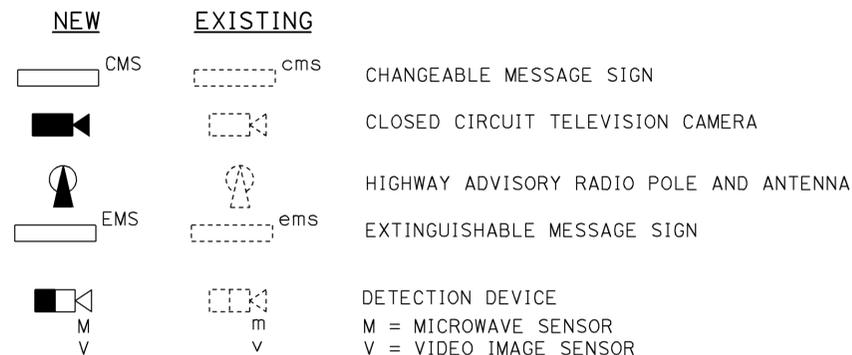
CONDUIT AND CONDUCTOR IDENTIFICATION:



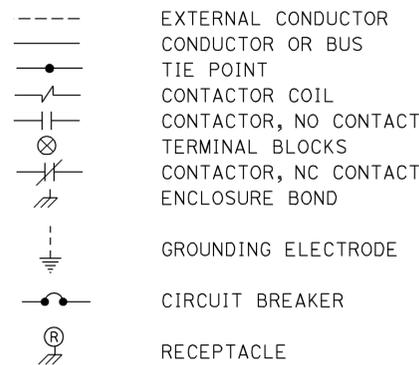
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



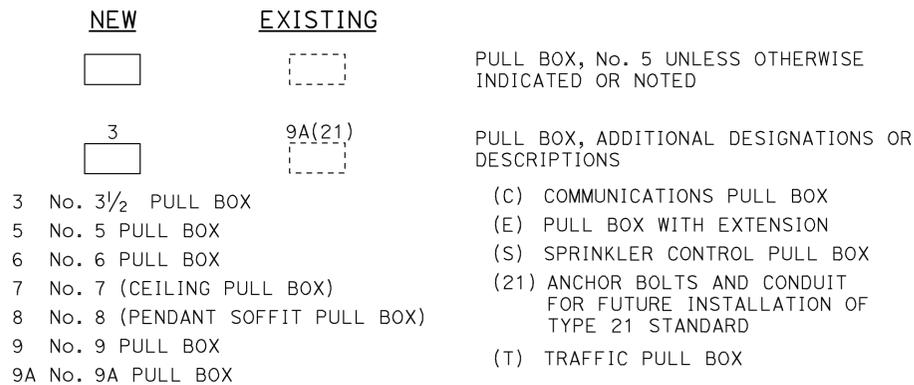
MISCELLANEOUS EQUIPMENT



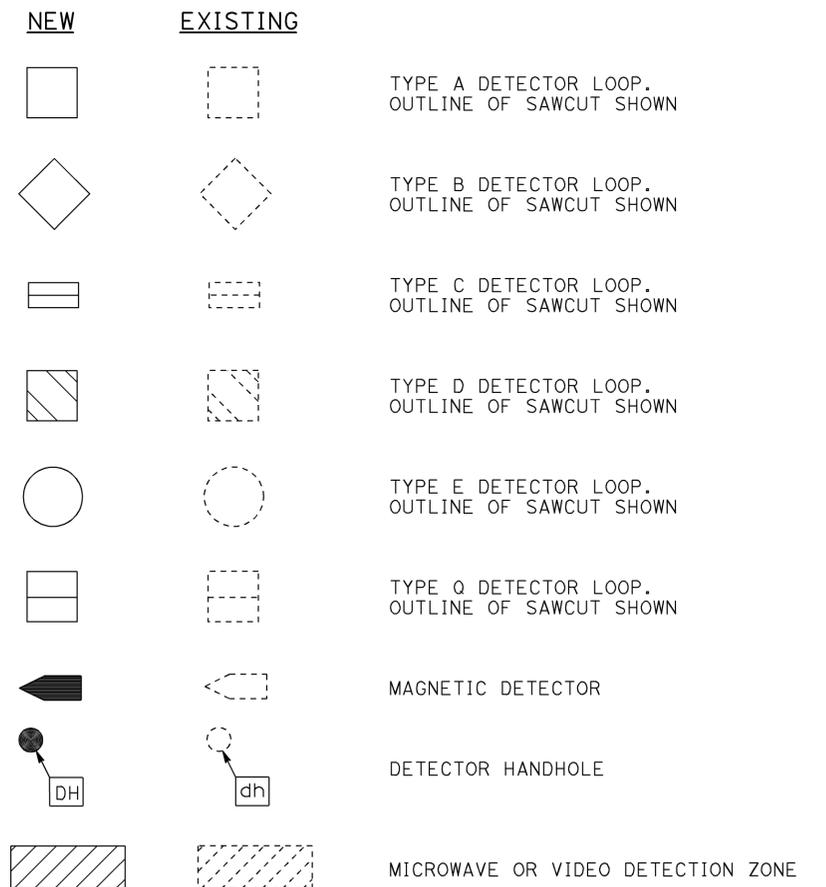
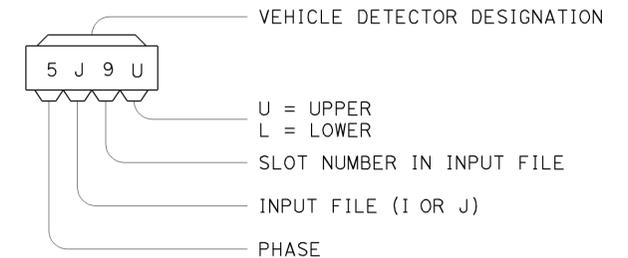
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

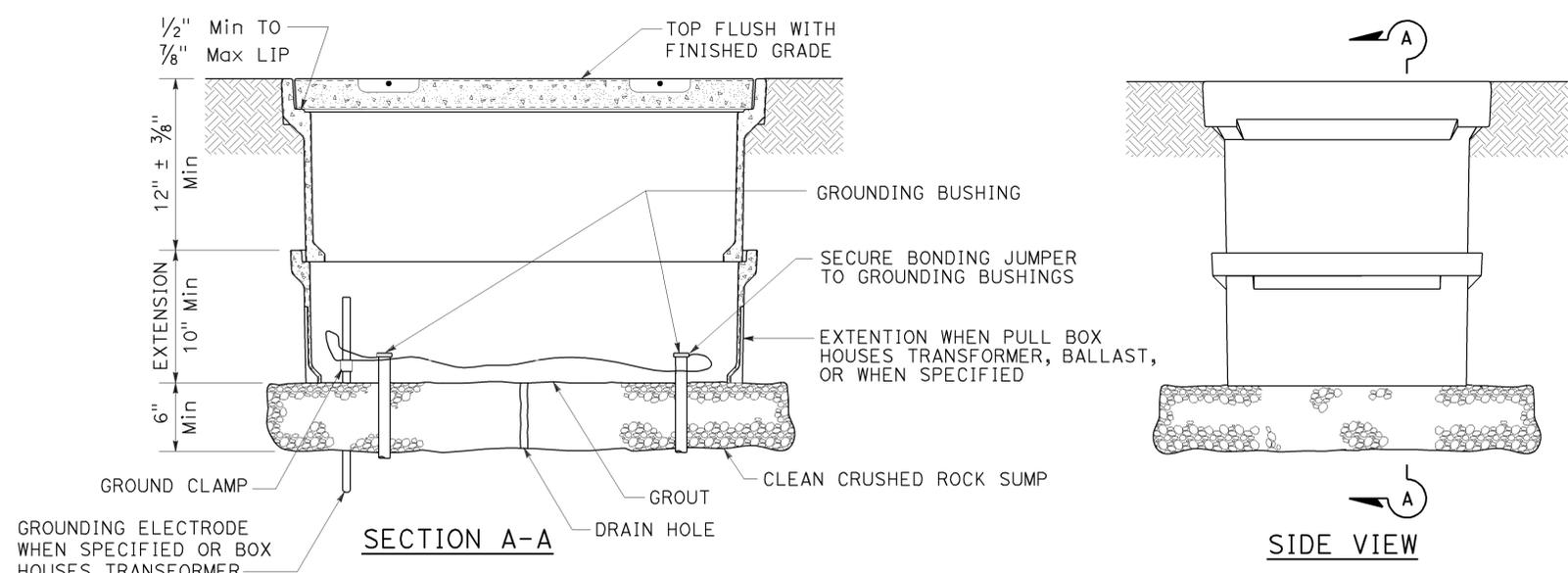
NO SCALE

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

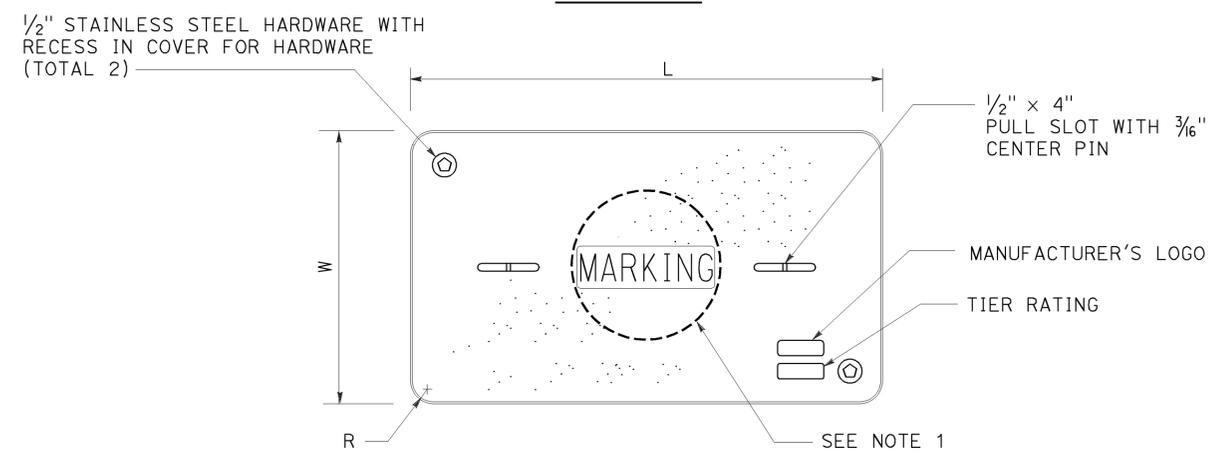
2010 REVISED STANDARD PLAN RSP ES-1C



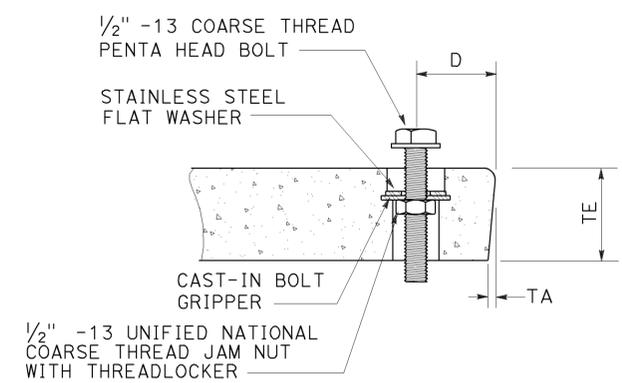
TO ACCOMPANY PLANS DATED 6-23-14



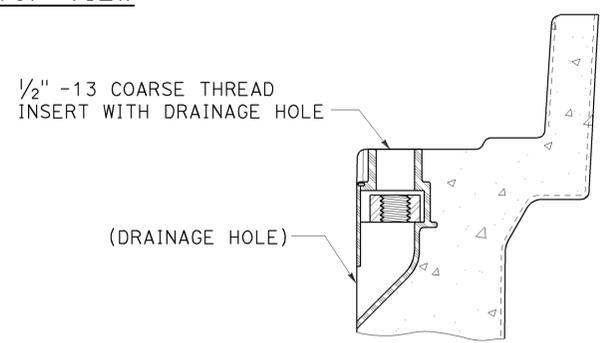
INSTALLATION DETAILS
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
OR SIMILAR



TYPICAL THREADED INSERT
OR SIMILAR

NOTES:

- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;
 - No. 3 1/2 pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5, 6, 9 or 9A pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATIONS" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communication line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8". Top outside radius of covers and pull boxes shall have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.
- All dimensions for the cover for non-traffic pull box are nominal values.

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

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

RSP ES-8A DATED JULY 19, 2013 SUPERSEDES RSP ES-8A DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-8A

2010 REVISED STANDARD PLAN RSP ES-8A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	42	57

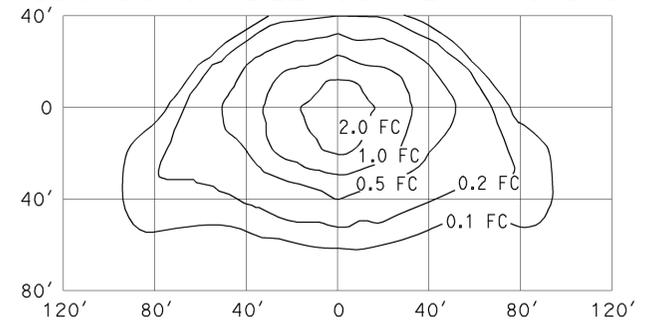
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

July 19, 2013
 PLANS APPROVAL DATE

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

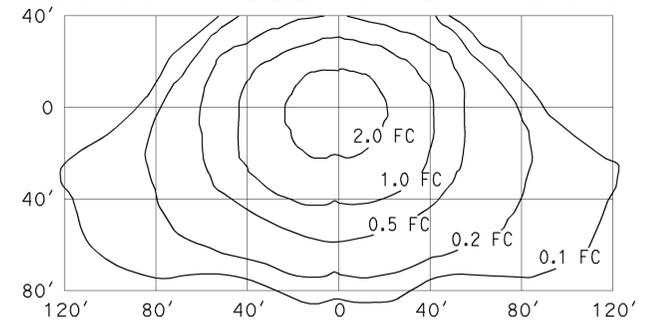
TO ACCOMPANY PLANS DATED 6-23-14

ISOFOOTCANDLE CURVE - MINIMUM



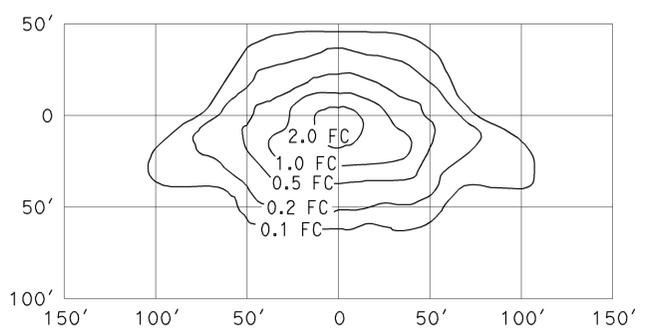
TYPE III MEDIUM CUTOFF
 Cutoff Luminaire
 34' Mounting Height
 Lamp operated at 22,000 lm
 200-W high pressure sodium lamp
 ANSI Designation S66

ISOFOOTCANDLE CURVE - MINIMUM



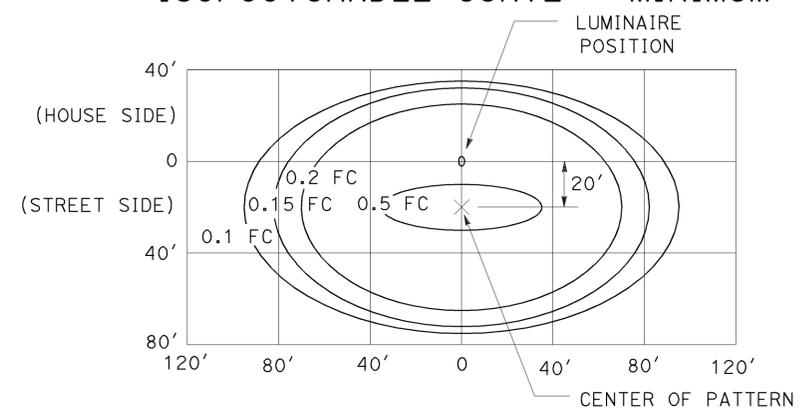
TYPE III MEDIUM CUTOFF
 Cutoff Luminaire
 40' Mounting Height
 Lamp operated at 37,000 lm
 310-W high pressure sodium lamp
 ANSI Designation S67

ISOFOOTCANDLE CURVE - MINIMUM



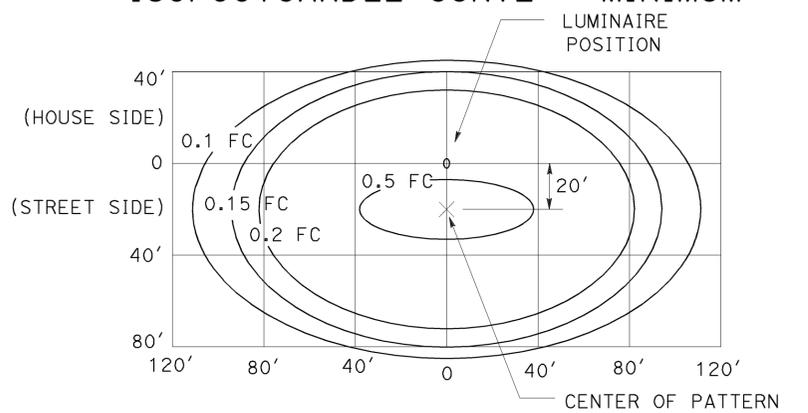
TYPE III MEDIUM CUTOFF
 Cutoff Luminaire
 30' Mounting Height
 Lamp operated at 16,000 lm
 150-W high pressure sodium lamp
 ANSI Designation S55

ISOFOOTCANDLE CURVE - MINIMUM



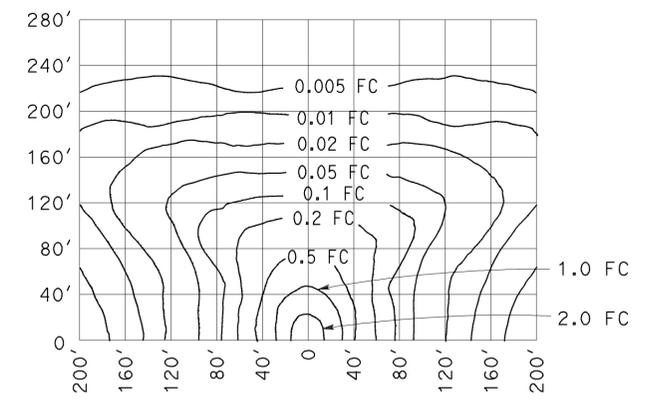
LED LUMINAIRE ROADWAY 1
 165-W at 34' Mounting Height

ISOFOOTCANDLE CURVE - MINIMUM



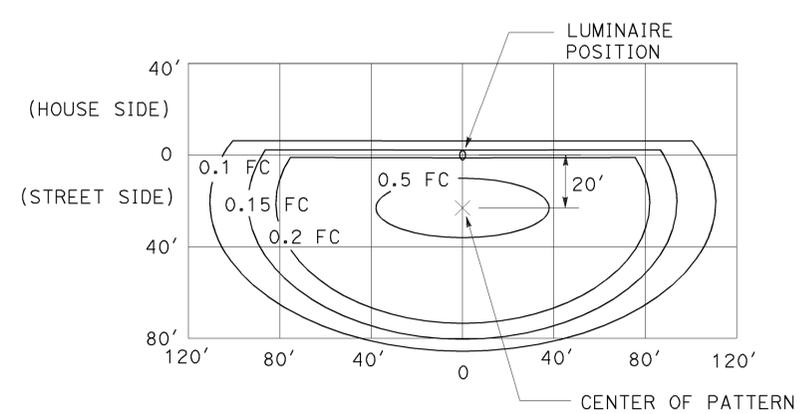
LED LUMINAIRE ROADWAY 2
 235-W at 40' Mounting Height

ISOFOOTCANDLE CURVE - MINIMUM



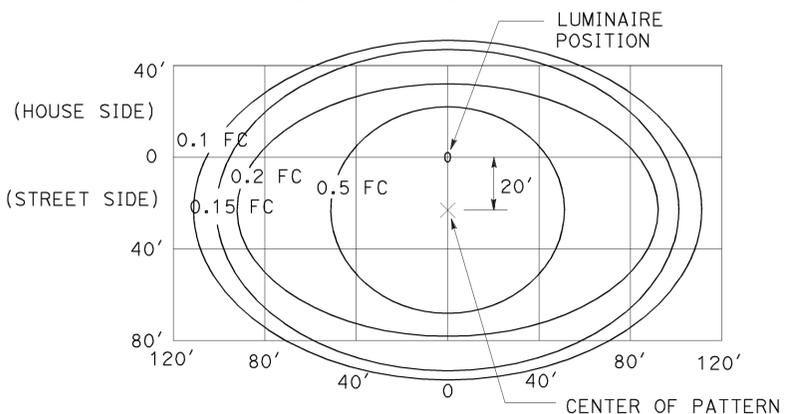
LOW PRESSURE SODIUM LUMINAIRE
 40' Mounting Height
 Lamp operated at 33,000 lm
 180-W low pressure sodium lamp

ISOFOOTCANDLE CURVE - MINIMUM



LED LUMINAIRE ROADWAY 3
 235-W at 40' Mounting Height
 with back side control

ISOFOOTCANDLE CURVE - MINIMUM



LED LUMINAIRE ROADWAY 4
 300-W at 40' Mounting Height

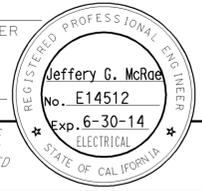
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (ISOFOOTCANDLE DIAGRAMS)**

NO SCALE
 RSP ES-10A DATED JULY 19, 2013 SUPERSEDES RSP ES-10A DATED JULY 20, 2012
 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-10A

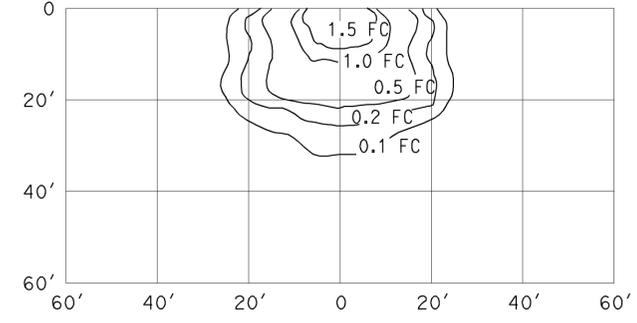
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58,99	Var	43	57

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 July 20, 2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



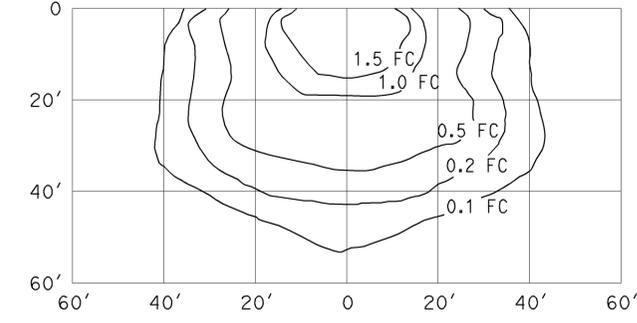
TO ACCOMPANY PLANS DATED 6-23-14

ISOFOOTCANDLE CURVE - MINIMUM



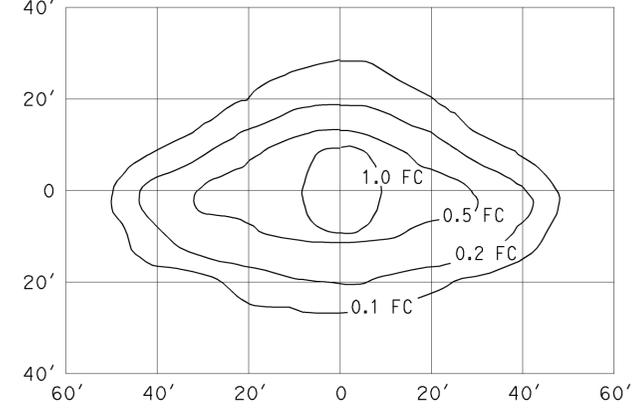
WALL LUMINAIRE
 15' Mounting Height
 Lamp operated at 5,800 lm
 70-W high pressure sodium lamp
 ANSI Designation S62

ISOFOOTCANDLE CURVE - MINIMUM



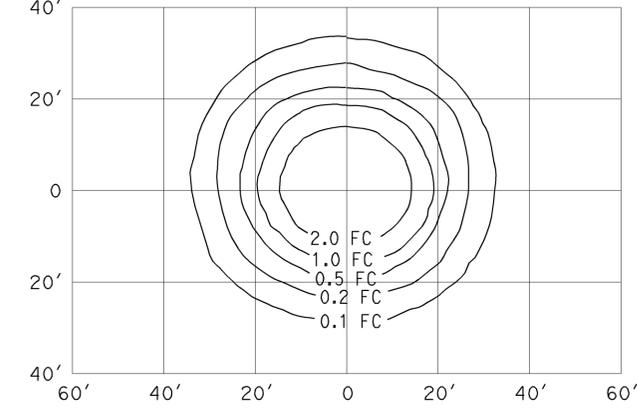
WALL LUMINAIRE
 15' Mounting Height
 Lamp operated at 9,500 lm
 100-W high pressure sodium lamp
 ANSI Designation S54

ISOFOOTCANDLE CURVE - MINIMUM



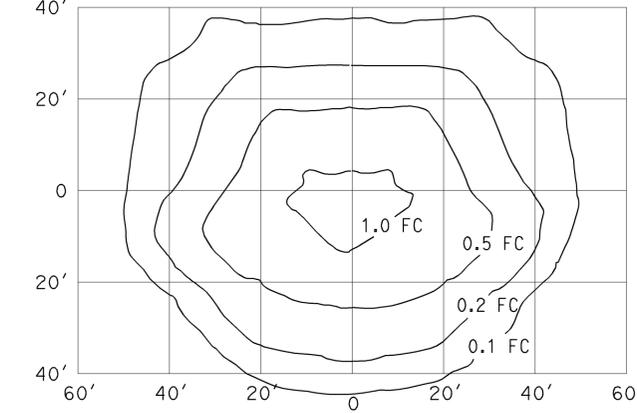
**PENDANT SOFFIT LUMINAIRE
 TYPE III SHORT**
 17' Mounting Height
 Lamp operated at 5,800 lm
 70-W high pressure sodium lamp
 ANSI Designation S62

ISOFOOTCANDLE CURVE - MINIMUM

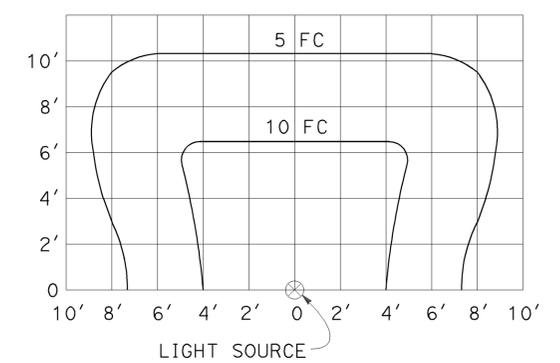


PENDANT SOFFIT LUMINAIRE
 17' Mounting Height
 Lamp operated at 5,800 lm
 70-W high pressure sodium lamp
 ANSI Designation S62

ISOFOOTCANDLE CURVE - MINIMUM



FLUSH SOFFIT LUMINAIRE
 17' Mounting Height
 Lamp operated at 5,800 lm
 70-W high pressure sodium lamp
 ANSI Designation S62



**SIGN LIGHTING FIXTURE
 ISOFOOTCANDLE DIAGRAM**

- NOTES:**
- Curves represent the minimum footcandle (FC) of initial illumination on a 10'-0" x 20'-0" panel.
 - The FC shown are with the fixture attached to the light fixture mounting channel which places the center of the source 4'-8" in front of panel and 1'-0" below the bottom edge.
 - Applicable lamp: 85-W fluorescent phosphor coated induction lamp.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (ISOFOOTCANDLE DIAGRAMS)**
 NO SCALE

RSP ES-10B DATED JULY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-10B

GRAPHIC SYMBOLS FOR ELECTRICAL WIRING AND LAYOUT DIAGRAMS

SYMBOL	DESCRIPTION
	POLE-TOP ELECTROLIER
	POLE-ARM ELECTROLIER
CEILING	WALL
	SURFACE FLUORESCENT, METAL HALIDE, LED, OR SODIUM VAPOR FIXTURE
	RECESSED FLUORESCENT, METAL HALIDE, LED, OR SODIUM VAPOR FIXTURE
	EXIT LIGHT
	SURFACE OR PENDANT INDIVIDUAL FLUORESCENT OR LED FIXTURE
	RECESSED INDIVIDUAL FLUORESCENT OR LED FIXTURE
	SURFACE OR PENDANT CONTINUOUS ROW FLUORESCENT OR LED FIXTURES
NOTE:	A LOWER CASE LETTER NEAR GRAPHIC LIGHTING FIXTURE SYMBOL DENOTES THAT FIXTURE IS CONTROLLED BY A SIMILARLY MARKED SWITCH, AN ALPHA-NUMERIC SYMBOL NEAR GRAPHIC LIGHTING FIXTURE SYMBOL DENOTES FIXTURE TYPE, (I=INCANDESCENT, F=FLUORESCENT, MH=METAL HALIDE, H=HIGH PRESSURE SODIUM VAPOR, L=LED), DESIGN TYPE, NUMBER OF LAMPS AND WATTAGE.
EXAMPLE :	(4) F2-2x32
	BLANK OUTLET
	JUNCTION BOX
	DROP CORD
	SINGLE RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET (WITH GFCI)
	DUPLEX RECEPTACLE OUTLET, WEATHERPROOF (WITH GFCI)
	SINGLE, SPECIAL PURPOSE RECEPTACLE OUTLET
	DUPLEX, SPECIAL PURPOSE RECEPTACLE OUTLET
	RANGE OUTLET
	CLOCK HANGER RECEPTACLE
	FAN HANGER RECEPTACLE
	FLOOR SINGLE RECEPTACLE OUTLET
	FLOOR DUPLEX RECEPTACLE OUTLET
	FLOOR SPECIAL PURPOSE OUTLET
	FLOOR RADIO OUTLET
	FLOOR TELEPHONE OUTLET
	MULTI-FLOOR OUTLET, 2 OR MORE GANG
	MULTI-OUTLET ASSEMBLY
	SWITCH AND SINGLE RECEPTACLE
	SWITCH AND DUPLEX RECEPTACLE
	RADIO OUTLET
	COMMUNICATION OUTLET
	SOUND SYSTEM LOUD SPEAKER OUTLET
	RADIO OUTLET
	TELEVISION OUTLET
	MICROPHONE OUTLET
	APPROVED FOR ELECTRICAL WORK ONLY

SYMBOL	DESCRIPTION
S	SINGLE-POLE SWITCH
S2	DOUBLE-POLE SWITCH
S3	THREE-WAY SWITCH
S4	FOUR-WAY SWITCH
SD	AUTOMATIC DOOR
SK	KEY OPERATED SWITCH
SP	SWITCH AND PILOT LIGHT
SMC	MOMENTARY CONTACT SWITCH
SR	REMOTE CONTROL SWITCH
SWP	WEATHERPROOF SWITCH
SF	FAN SWITCH
SL	LIGHT SWITCH
SH	HEATER SWITCH
SVS	VARIABLE SPEED MOTOR CONTROL SWITCH
SCHLF	TWO TIMER SWITCHES, ONE SWITCH FOR LIGHT AND FAN AND ONE SWITCH FOR HEAT LAMP
S0	OCCUPANCY SENSOR WALL SWITCH, SINGLE LEVEL
S2	OCCUPANCY SENSOR WALL SWITCH, BILEVEL
SM	MOTION SENSOR SWITCH
ST	MANUAL MOTOR STARTING SWITCH, THERMAL OVERLOAD TYPE
SHP	MANUAL MOTOR STARTING SWITCH, WITHOUT OVERLOAD ELEMENT
TS	TIMER SWITCH
	PUSHBUTTON
	PUSHBUTTON STATION, NC, WITH LOCKING DEVICE FOR OPEN
	PUSHBUTTON STATION MOTOR CONTROL
	BUZZER
	BELL
	COMBINATION BELL-BUZZER
	PRESSURE SWITCH
	CONTROL RELAY
	FLOW SWITCH
	PHOTOELECTRIC UNIT
	HAND DRYER NOZZLE
	HAND DRYER
	FLUSH-MOUNTED PANELBOARD AND CABINET
	SURFACE-MOUNTED PANELBOARD AND CABINET
	LIGHTING PANEL
	POWER PANEL
	COMBINATION LIGHTING AND POWER
	MOTOR CONTROLLER
	DISCONNECT SWITCH
	CONDUIT CONCEALED IN CEILING OR WALL
	CONDUIT CONCEALED IN FLOOR
	CONDUIT EXPOSED
	CROSS-LINES INDICATE NUMBER OF #12 AWG CONDUCTORS. LONGER CROSS-LINE INDICATES 1#12 AWG (G) FOR EQUIPMENT GROUNDING CONDUCTOR. NO CROSS-LINE INDICATES 2#12 WITH 1#12 (G) UNLESS OTHERWISE NOTED. ALL CONDUIT 1/2" UNLESS OTHERWISE NOTED.
	HOMERUN TO PANELBOARD, ARROWS INDICATE NUMBER OF CIRCUITS, LETTER DENOTES PANELBOARD, NUMERAL DENOTES CIRCUIT

SYMBOL	DESCRIPTION
	SURFACE METAL RACEWAY
	CONDUCTOR INFO (PER CONDUIT) CONDUIT TYPE CONDUIT SIZE NUMBER OF CONDUITS (NO NUMBER INDICATES ONE CONDUIT)
	CONDUIT, RIGID STEEL, UNDERGROUND
	CONDUIT, POLYVINYL CHLORIDE, UNDERGROUND
	CONDUIT, FLEXIBLE
	CONDUIT, TURN UP
	CONDUIT, TURN DOWN
	CONDUIT SEAL, EXPLOSION-PROOF
	CONDUIT, EXPANSION JOINT
	ADAPTER, ONE TYPE CONDUIT TO ANOTHER
	POLE
	OCCUPANCY SENSOR
	OCCUPANCY SENSOR POWER PACK
	MANUAL PULL STATION
	AUDIO/VISUAL ALARM DEVICE
	HEAT DETECTOR
	SMOKE DETECTOR
	GLASS BREAK DISCRIMINATOR
	MAGNETIC CONTACT SWITCH-PEDESTRIAN DOOR
	MAGNETIC CONTACT SWITCH-VEHICLE DOOR
	KEYPAD FOR ALARM SYSTEM
	COMBINATION DETECTOR (MICROWAVE/PASSIVE INFRARED)
	PULL BOX-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	PULL BOX (TRAFFIC-RATED)-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	COMBINATION HEAT, LIGHT, AND FAN UNIT
	SECTION/ELEVATION LETTER
	SHEET NUMBER
	DETAIL NUMBER
	SHEET NUMBER

REMODEL WORK

SYMBOL	DESCRIPTION
	EXISTING FLUORESCENT FIXTURE-TO REMAIN
	EXISTING FLUORESCENT FIXTURE-REMOVE
	EXISTING INCANDESCENT FIXTURE-TO REMAIN
	EXISTING INCANDESCENT FIXTURE-REMOVE
	EXISTING OUTLET-TO REMAIN
	EXISTING RECEPTACLE OUTLET-TO REMAIN
	EXISTING RECEPTACLE OUTLET-REMOVE
	EXISTING CONDUIT AND CONDUCTORS-TO REMAIN UNLESS OTHERWISE NOTED
	EXISTING CONDUIT AND CONDUCTORS-REMOVE
	EXISTING SWITCH-TO REMAIN
	EXISTING SWITCH-REMOVE
	EXISTING JUNCTION BOX-TO REMAIN
	EXISTING JUNCTION BOX-REMOVE

GRAPHIC SYMBOLS FOR ELECTRICAL DIAGRAMS

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER, SINGLE-POLE
	CIRCUIT BREAKER, DOUBLE-POLE
	CIRCUIT BREAKER, THREE-POLE
	GFCI CIRCUIT BREAKER, WITH GROUND FAULT CIRCUIT INTERRUPTER
	CIRCUIT BREAKER, SINGLE-POLE, SWITCHED NEUTRAL
	CONTACT, NORMALLY OPEN
	CONTACT, NORMALLY CLOSED
	CONTACT, NORMALLY CLOSED, TIME DELAY CLOSING ON DE-ENERGIZING
	CONTACT, NORMALLY OPEN, TIME DELAY OPENING ON DE-ENERGIZING
	CONTACT, NORMALLY OPEN, TIME DELAY CLOSING ON ENERGIZING
	CONTACT, NORMALLY CLOSED, TIME DELAY OPENING ON ENERGIZING
	CONTACT, SINGLE-POLE, DOUBLE-THROW
	OPERATING COIL
	LIQUID LEVEL ACTUATED SWITCH, NORMALLY CLOSED
	LIQUID LEVEL ACTUATED SWITCH, NORMALLY OPEN
	PRESSURE ACTUATED SWITCH, NORMALLY CLOSED
	PRESSURE ACTUATED SWITCH, NORMALLY OPEN
	FLOW ACTUATED SWITCH, NORMALLY CLOSED
	FLOW ACTUATED SWITCH, NORMALLY OPEN
	TEMPERATURE ACTUATED SWITCH, NORMALLY CLOSED
	TEMPERATURE ACTUATED SWITCH, NORMALLY OPEN
	LIMIT SWITCH, NORMALLY CLOSED
	LIMIT SWITCH, NORMALLY OPEN
	PUSHBUTTON SWITCH, NORMALLY CLOSED
	PUSHBUTTON SWITCH, NORMALLY OPEN
	SWITCH, SINGLE-POLE
	SWITCH, SINGLE-POLE, DOUBLE-THROW
	SWITCH, DOUBLE-POLE
	SWITCH, DOUBLE-POLE, DOUBLE-THROW
	SWITCH, SINGLE-POLE, 3-POSITION
	THERMAL OVERLOAD
	FUSE
	RESISTOR
	VARIABLE RESISTOR
	TRANSFORMER WINDING
	GROUNDING ELECTRODE
	ENCLOSURE BOND
	PILOT LIGHT (A=AMBER, G=GREEN, R=RED)
	INDICATING LIGHT (A=AMBER, G=GREEN, R=RED)
	GENERATOR
	MOTOR
	FAN MOTOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	44	57

Jaswinder Sandhu 11-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Jaswinder Sandhu
 No. E 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

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DESIGN BY: Jaswinder Sandhu	CHECKED: Jaswinder Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. VARIOUS POST MILE	DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR	SHEET EEO-0
DETAILS BY: Ed D. Tapalla 10/13	CHECKED: Jaswinder Sandhu		UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 10-24-13	SHEET OF
QUANTITIES BY: Jaswinder Sandhu	CHECKED: Jaswinder Sandhu		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3	LEGEND		11-JUN-2014 15:28

TAEWW Imperial - CCSC Rev. 02/13

P:\dist_06\0613000305_var_pp_wire_theft\elec\ee0_00_legend.dgn

ABBREVIATIONS

A
 AC ALTERNATING CURRENT
 A/C AIR CONDITIONING UNIT
 ACS AIR COMPRESSOR STARTER
 AFCI ARC FAULT CIRCUIT INTERRUPTER
 AI ANALOG INPUT
 AL ALARM LIGHT
 AO ANALOG OUTPUT
 AR ALARM RESET
 AVC AIR VOLUME CONTROLLER

B
 BC BARE COPPER
 BD BUILDING DISCONNECT
 BP BOOSTER PUMP
 Brk BREAKER

C
 Cat CATEGORY
 CC CENTER CHANNEL LIGHT
 CD CONTROL DISCONNECT
 CIPCP CAST-IN-PLACE CONCRETE PIPE
 CM CENTER MARGIN LIGHT
 Conc CONCRETE
 CR CONTROL RELAY
 CSW CURRENT SWITCH

D
 DC DIRECT CURRENT
 DI DIGITAL INPUT
 DLC LOOP DETECTOR LEAD-IN CABLE
 DO DIGITAL OUTPUT
 DP DUPLEX PLUG RECEPTACLE
 DS DOOR SWITCH

E
 (E) EXISTING
 EB EASTBOUND
 EF EXHAUST FAN
 Elev ELEVATION
 EMS EXTINGUISHABLE MESSAGE SIGN
 EP EDGE OF PAVEMENT

F
 F FUSE
 FL FAILURE LIGHT
 FLA FLASHER
 Flex FLEXIBLE CONDUIT
 FLS FLOW SWITCH
 FR FAILURE RESET or FLAME RESISTANT
 FS FLOAT SWITCH

G
 G GROUND
 Ga GAGE
 Galv GALVANIZED
 GRS GALVANIZED RIGID STEEL

H
 hp HORSEPOWER

I
 IC IRRIGATION CONTROLLER
 ICC IRRIGATION CONTROLLER CABINET
 IR INDUCTION RELAY
 ISR INTRINSICALLY SAFE RELAY

J
 JB JUNCTION BOX

L
 L LIGHT or LENGTH
 LC LIGHTING CONTACTOR
 LCD LIQUID CRYSTAL DISPLAY
 LCP LIGHTING CONTROL PANEL
 LD LIGHT DISCONNECT
 LDCI LEAK DETECTOR CIRCUIT INTERRUPTER
 LL LIQUID LEVEL RELAY
 LLC LIQUID LEVEL CONTROLLER
 LP LIGHT PANEL
 LS LIGHT SWITCH
 LT LIGHT TRANSFORMER
 LTO LIGHT TRANSFORMER OVERLOAD

M
 MB MAIN BREAKER
 MC METALLIC CONDUIT
 MCP MOTOR CIRCUIT PROTECTOR
 MCC MOTOR CONTROL CENTER
 MD MOTOR DISCONNECT
 MH MOUNTING HEIGHT
 MSB MAIN SWITCHBOARD

N
 (N) NEW
 Nav NAVIGATIONAL LIGHTS
 NIC NOT IN CONTRACT
 NSW NEUTRAL SWITCHING BREAKER

O
 O/C ON CENTER
 OL OVERLOAD

P
 PB PULL BOX or PUSHBUTTON
 PCP PUMP CONTROL PANEL
 PD PUMP DISCONNECT
 PFR PHASE FAILURE RELAY
 PFRD PHASE FAILURE RELAY DISCONNECT
 PL PILOT LIGHT
 PS PRESSURE SWITCH
 PTS POWER TRANSFER SWITCH
 PV PHOTOVOLTAIC

R
 RCP REINFORCED CONCRETE PIPE
 RD RECEPTACLE DISCONNECT
 RES RESISTOR
 RMB RECIRCULATION AND LEACHFIELD MAIN
 RTB RADIO TERMINAL BOARD
 R/W RIGHT OF WAY

S
 S STARTER COIL
 Sch SCHEDULE
 SD SERVICE DISCONNECT
 Sec SECONDS
 SFR SEAL FAILURE RELAY
 SL SUMP LIGHT
 SPR STANDBY POWER RECEPTACLE
 Sq SQUARE
 SS SELECTOR SWITCH
 ST STARTER
 SV SOLENOID VALVE
 SWIM SLOW WEIGH-IN-MOTION

T
 TB TERMINAL BLOCK
 TC TELEPHONE CABLE
 TDR TIME DELAY RELAY
 TGLS TOGGLE SWITCH
 TL TUNNEL LIGHTING
 TM TIME METER
 TS TIMER SWITCH
 TSW TEST SWITCH
 TTB TELEPHONE TERMINAL BOARD

U
 UPS UNINTERRUPTIBLE POWER SUPPLY

W
 WLS WATER LEVEL SWITCH
 WP WEATHERPROOF
 WSMS WEIGH STATION MESSAGE SIGN

SYMBOLS

∠ ANGLE
 ° DEGREES
 Δ DELTA
 ∅ PHASE
 ± PLUS OR MINUS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	45	57

Jaswinder S Sandhu 11-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 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.

PROJECT NOTES

1. Separate grounded (Neutral) conductor must be used for each 120-volt circuit.
2. Homeruns to Panelboards must be installed as shown on the plans. Homeruns must not be combined.
3. A single insulated equipment grounding conductor, sized as required, must be installed in each conduit run.

STANDARD NOTES

[RLD] Relocated equipment.

STANDARD PLANS

Dated 2010

- RSP ES-1A
- RSP ES-1B
- RSP ES-1C
- ES-6A

APPROVED FOR ELECTRICAL WORK ONLY

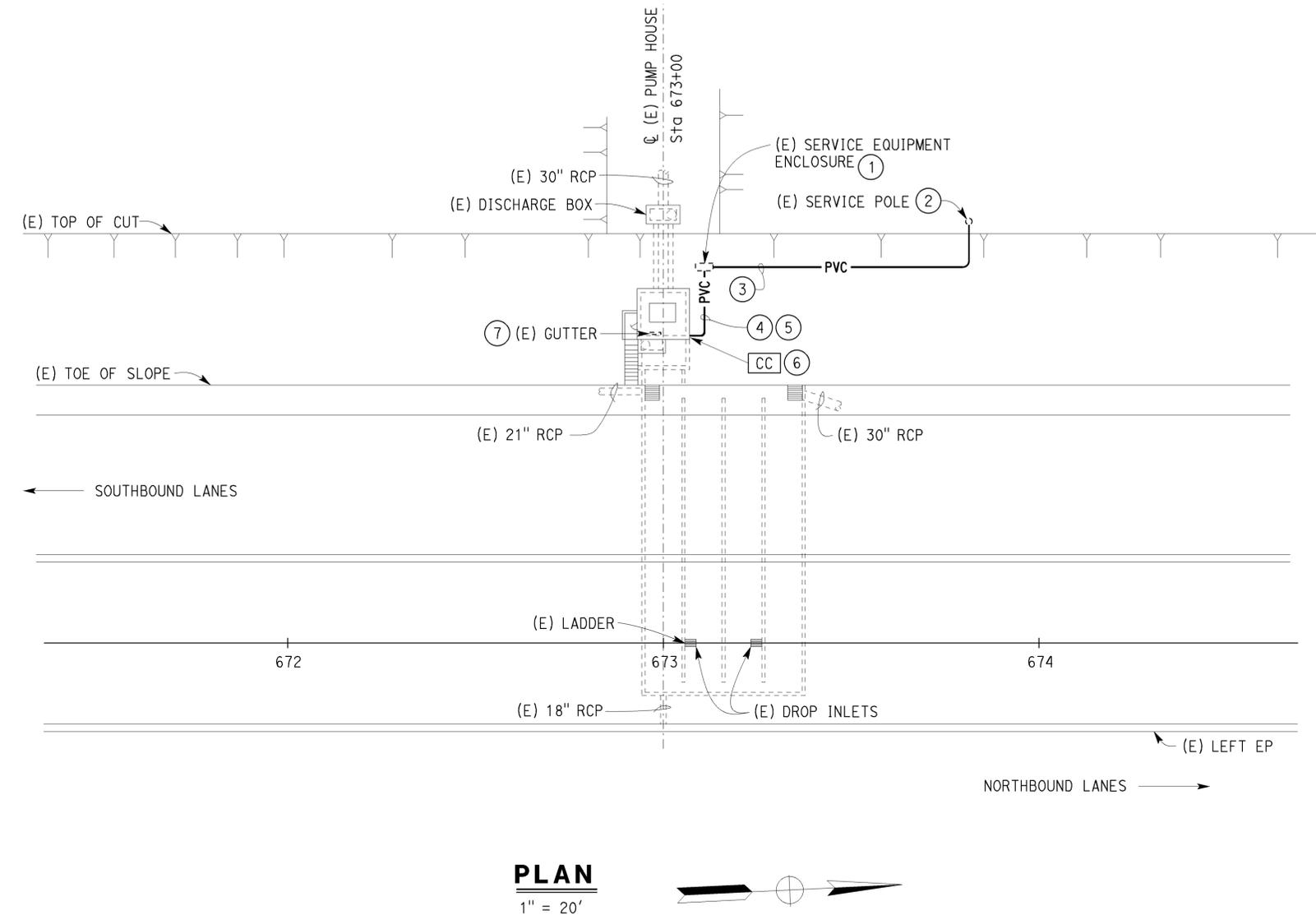
DESIGN	BY	Jaswinder Sandhu	CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR	SHEET			
	DETAILS	BY	Ed D. Tapalla 10/13			CHECKED		Jaswinder Sandhu	VARIOUS	EEO-1	
	QUANTITIES	BY	Jaswinder Sandhu			CHECKED			POST MILE		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	10-24-13	SHEET	OF

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	46	57

Jaswinder S Sandhu 11-07-13
REGISTERED ELECTRICAL ENGINEER DATE
6-23-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jaswinder Sandhu
No. E 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA

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PLAN
1" = 20'

GENERAL NOTES:

- A. Existing underground electrical conduits and conductors system as shown are diagrammatic and their location as shown is approximate only. Therefore, field verify exact location of existing underground facilities prior to the beginning of trenching and or removal work. The cost for pot holing and for locating existing underground utilities shall be considered to be paid for in the lump sum price and no additional cost will be paid.
- B. Not all electrical systems are shown on this plan.
- C. Remove existing concrete foundation for the existing service equipment's.

NOTES:

- ① Replace existing Service Equipment Enclosure with new 480-Volts, 200-Ampere, 3-phase and 4-wire Service Equipment Enclosure with 200-Ampere Main Service Disconnect. See sheet EE0-8 and EE0-9 for Details.
- ② Remove existing Service entrance conductors between existing Service Equipment Enclosure and existing Service pole. Remove exposed conduit and weatherhead and abandon underground conduit.
- ③ Install 4"C, PVC, 4#3/0 to the weatherhead. Perform the following at the existing Service pole:
 - Install conduit riser as required by PG&E Co.
 - Install weatherhead at conduit termination per PG&E Co.
 - Leave 10 feet of conductor length for PG&E to make splices or to terminate at existing transformer and at the pole.
- ④ Remove conductors between existing Service Equipment Enclosure and existing Power Switch (PS) inside the Pump-house. Intercept existing conduit inside the stairwell for reuse. Remove exposed portion of the conduit and abandon underground conduit.
- ⑤ Install 2"C, 3#3/0, 1#3/0G between existing Power Switch and new 200-Ampere Service Equipment Enclosure.
- ⑥ Connect new conduit to existing either inside the stairwell or underground outside as determined in the field. Core drill hole thru existing wall for conduit entry if required.
- ⑦ Splice new to existing conductors inside the existing gutter.

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN BY Jaswinder Sandhu CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 50-263W	DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR WORK LOCATION No. 1 SITE PLAN	SHEET EE0-2 OF
			POST MILE 23.2		
			BELLE TERRACE OC PUMPING PLANT		
DETAILS BY K. Andreasen/E. Tapalla CHECKED Jaswinder Sandhu	UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051		DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
QUANTITIES BY Jaswinder Sandhu CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		10-13 11-7-13		

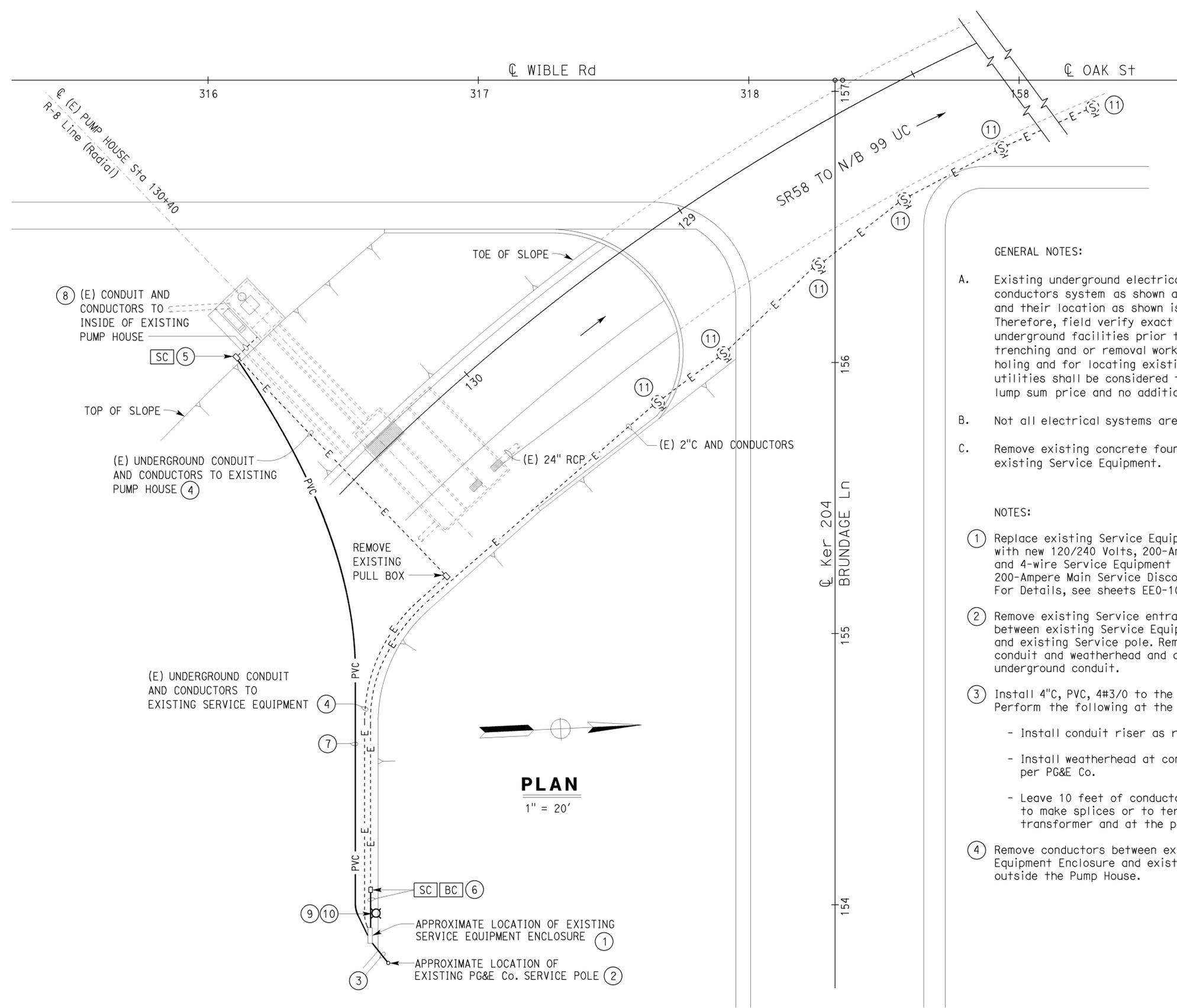
TAEWW Imperial - CCSC Rev. 02/13
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	47	57

Jaswinder S Sandhu 11-07-13
REGISTERED ELECTRICAL ENGINEER DATE
6-23-14
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
Jaswinder Sandhu
No. E 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA



GENERAL NOTES:

- A. Existing underground electrical conduits and conductors system as shown are diagrammatic and their location as shown is approximate only. Therefore, field verify exact location of existing underground facilities prior to the beginning of trenching and or removal work. The cost for pot holing and for locating existing underground utilities shall be considered to be paid for in the lump sum price and no additional cost will be paid.
- B. Not all electrical systems are shown on this plan.
- C. Remove existing concrete foundation for the existing Service Equipment.

NOTES:

- ① Replace existing Service Equipment Enclosure with new 120/240 Volts, 200-Ampere, 3-phase and 4-wire Service Equipment Enclosure with 200-Ampere Main Service Disconnect. For Details, see sheets EE0-10 and EE0-11.
- ② Remove existing Service entrance conductors between existing Service Equipment Enclosure and existing Service pole. Remove exposed conduit and weatherhead and abandon underground conduit.
- ③ Install 4"C, PVC, 4#3/0 to the weatherhead. Perform the following at the existing Service pole:
 - Install conduit riser as required by PG&E Co.
 - Install weatherhead at conduit termination per PG&E Co.
 - Leave 10 feet of conductor length for PG&E to make splices or to terminate at existing transformer and at the pole.
- ④ Remove conductors between existing Service Equipment Enclosure and existing pull box outside the Pump House.

- ⑤ Replace existing pull box with No. 6 traffic rated pull box and vandal proof cover. For Details, see sheet EE0-11.
- ⑥ Intercept existing conduit and conductors and install No. 5 traffic rated pull box with vandal proof cover. For Details, see sheet EE0-11. Perform the following:
 - Install 2"C, PVC, 4#6, 1#6G between No. 5 traffic rated pull box and new Service Equipment Enclosure.
 - Modify existing conduit and conductors and terminate inside the new pull box.
- ⑦ 4"C, 4#4/0, 1#4/0G. Install this conduit by utilizing only directional boring method. If required for ease of pulling conductors, install additional No. 6 traffic rated pull box in the shoulder as required. For Details, see sheet EE0-11.
- ⑧ Perform the following:
 - Rod out existing conduit to make room for adding new conductor.
 - Add 1#4/0 ground.
 - Install ground lug inside existing Power Switch and terminate 1#4/0 ground on it.
- ⑨ Install Type 15 Lighting Standard without a luminaire arm. For pole and foundation, see Standard Plan sheet ES-6A. Mount photoelectric unit with outdoor locking type receptacle on top of the pole facing north.
- ⑩ Install 1"C, PVC, 3#12, 1#12 ground between the pole and Service Equipment Enclosure.
- ⑪ Existing wall surface lighting fixture.

PLAN
1" = 20'

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN BY Jaswinder Sandhu CHECKED DETAILS BY Kathi Andreasen CHECKED Jaswinder Sandhu QUANTITIES BY Jaswinder Sandhu CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 50-432W	DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR		SHEET OF EE0-3
			POST MILE R52.4	ROUTE 99 NORTHBOUND TUNNEL PUMPING PLANT		
			WORK LOCATION No. 2 SITE PLAN			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

TAEWW Imperial - CCSC Rev. 02/13

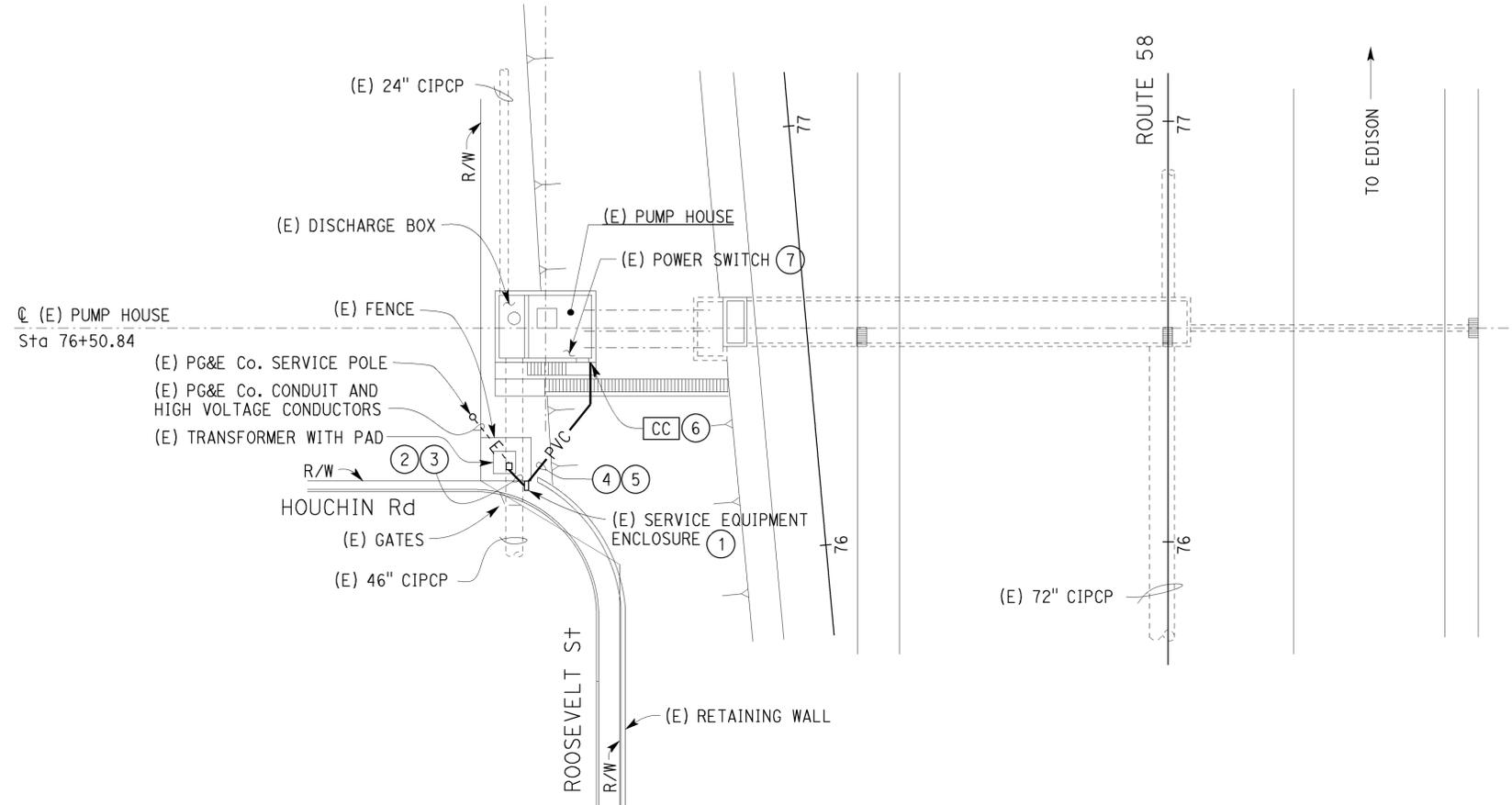
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	48	57

Jaswinder S Sandhu 11-07-13
REGISTERED ELECTRICAL ENGINEER DATE
6-23-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jaswinder Sandhu
No. E 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA

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PLAN
1" = 20'

- GENERAL NOTES:
- A. Existing underground electrical conduits and conductors system as shown are diagrammatic and their location as shown is approximate only. Therefore, field verify exact location of existing underground facilities prior to the beginning of trenching and or removal work. The cost for pot holing and for locating existing underground utilities shall be considered to be paid for in the lump sum price no additional cost will be paid.
 - B. Not all electrical systems are shown on this plan.
 - C. Remove existing concrete foundation for the existing Service Equipment.
- NOTES:
- ① Replace existing Service Equipment Enclosure with new 480 Volts, 200-Ampere, 3-phase and 4-wire Service Equipment Enclosure with 200-Ampere Main Service Disconnect. For Details, see sheet EE0-8 and EE0-9.
 - ② Remove existing Service entrance conductors between existing Service Equipment Enclosure and existing transformer. Remove exposed conduit and abandon underground conduit.
 - ③ Install 4"C, PVC, 4#4/0 between the existing transformer and new Service Equipment Enclosure. All work to be performed strictly per PG&E Co. requirements.
 - ④ Remove conductors between existing Service Equipment Enclosure and existing Power Switch (PS) inside the Pump-house. Intercept existing conduit inside the stairwell for reuse. Remove exposed portion of the conduit and abandon underground conduit.
 - ⑤ Install 2"C, 3#4/0, 1#4/0 ground between existing Power Switch and new 200-Ampere Service Equipment Enclosure.
 - ⑥ Connect new conduit to existing either inside the stairwell or underground outside as determined in the field. Core drill hole thru existing wall for conduit entry if required.
 - ⑦ Terminate conductors on the Power Switch and ground lug as required. Replace existing ground lug inside Power Switch if needed for terminating #4/0 ground conductor.

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN BY Jaswinder Sandhu CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR WORK LOCATION No. 3 SITE PLAN	SHEET		
			50-404W		SOUTH "H" STREET OC PUMPING PLANT	EE0-4	
			POST MILE				
DETAILS BY K. Andreasen/E. Tapalla CHECKED Jaswinder Sandhu	UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	10-21-13	11-7-13	SHEET	OF
QUANTITIES BY Jaswinder Sandhu CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3					

TAEWW Imperial - CCSC Rev. 02/13

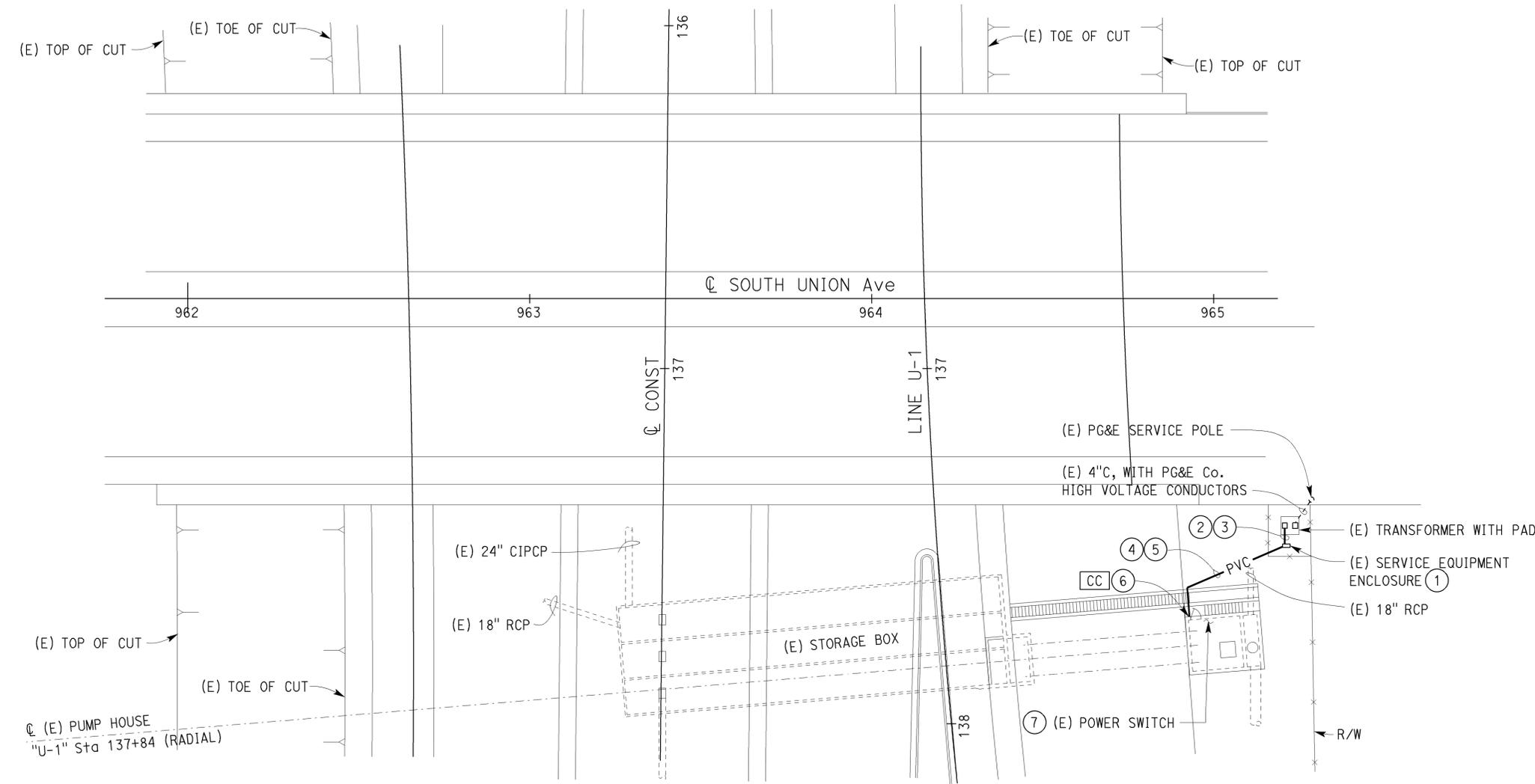
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	49	57

Jaswinder S Sandhu 11-07-13
REGISTERED ELECTRICAL ENGINEER DATE
6-23-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jaswinder Sandhu
No. E 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA

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GENERAL NOTES:

- A. Existing underground electrical conduits and conductors system as shown are diagrammatic and their location as shown is approximate only. Therefore, field verify exact location of existing underground facilities prior to the beginning of trenching and or removal work. The cost for pot holing and for locating existing underground utilities shall be considered to be paid for in the lump sum price and no additional cost will be paid.
- B. Not all electrical systems are shown on this plan.
- C. Remove existing concrete foundation for the existing Service Equipment.

NOTES:

- ① Replace existing Service Equipment Enclosure with new 480 Volts, 200-Ampere, 3-phase and 4-wire Service Equipment Enclosure with 200-Ampere Main Service Disconnect. For details, see sheet EE0-8 and EE0-9.
- ② Remove existing Service entrance conductors between existing Service Equipment Enclosure and existing transformer. Remove exposed conduit and abandon underground conduit.
- ③ Install 4\"/>

PLAN
1" = 20'

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN BY Jaswinder Sandhu CHECKED	BY K. Andreasen/E. Tapalla CHECKED Jaswinder Sandhu	CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 50-406W	DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR SOUTH UNION AVENUE OC PUMPING PLANT WORK LOCATION No. 4 SITE PLAN	SHEET OF EE0-5
					POST MILE R54.4		
QUANTITIES BY Jaswinder Sandhu CHECKED			UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		

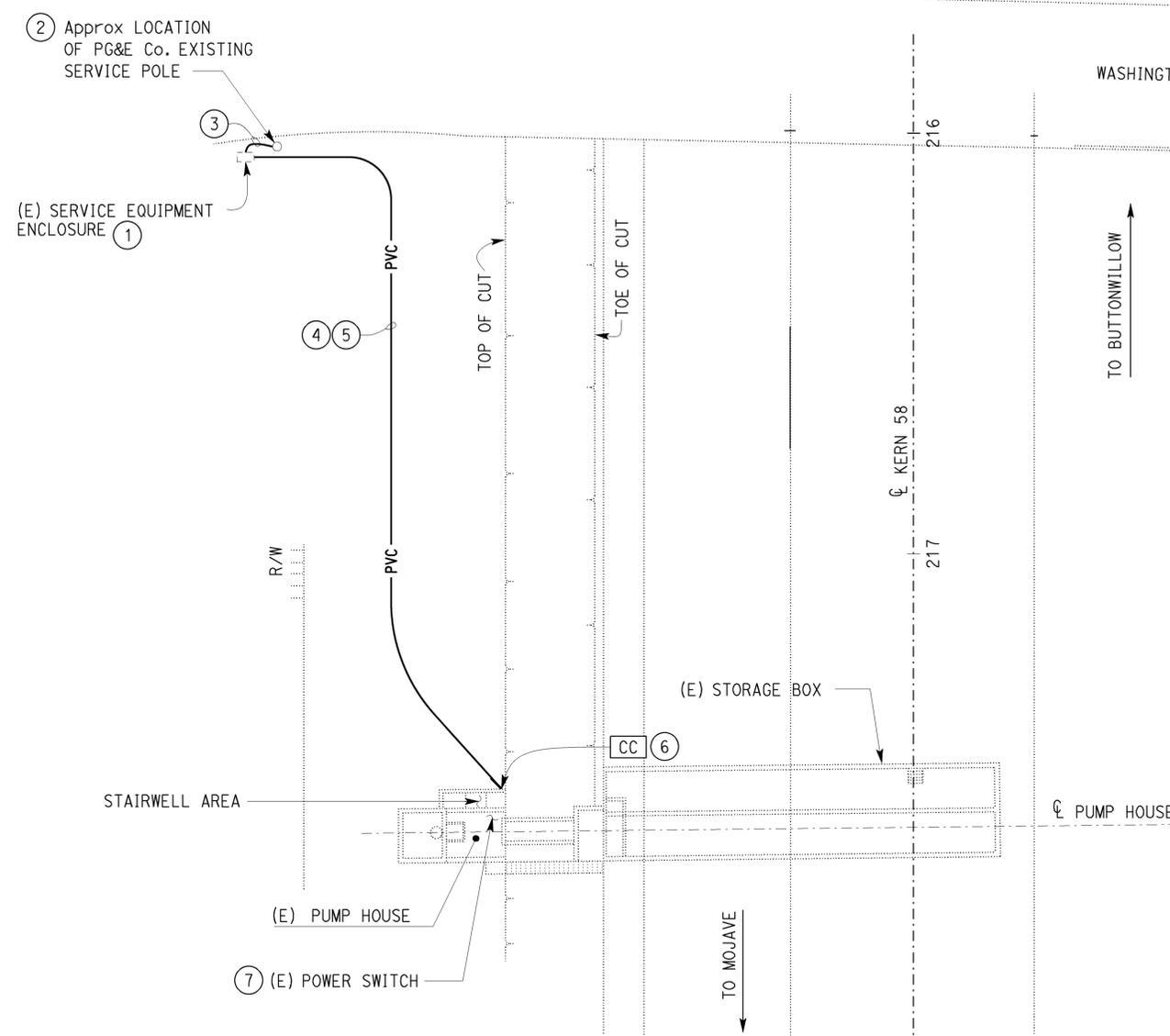
TAEWW Imperial - CCSC Rev. 02/13
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3
P:\dist_06\0613000305_var_pp_wire_theft\expedite\ee0_05_southunion.dgn

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	50	57

Jaswinder S Sandhu 11-07-13
REGISTERED ELECTRICAL ENGINEER DATE
6-23-14
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
Jaswinder Sandhu
No. E 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA



- GENERAL NOTES:
- Existing underground electrical conduits and conductors system as shown are diagrammatic and their location as shown is approximate only. Therefore, field verify exact location of existing underground facilities prior to the beginning of trenching and or removal work. The cost for pot holing and for locating existing underground utilities shall be considered to be paid for in the lump sum price and no additional cost will be paid.
 - Not all electrical systems are shown on this plan.
 - Remove existing concrete foundation for the existing Service Equipment.
- NOTES:
- Replace existing Service Equipment Enclosure with new 480 Volts, 200-Ampere, 3-phase and 4-wire Service Equipment Enclosure with 150-Ampere Main Service Disconnect. For Details, see sheets EE0-8 and EE0-9.
 - Remove existing Service entrance conductors between existing Service Equipment Enclosure and existing Service pole. Remove exposed conduit and weatherhead and abandon underground conduit.
 - Install 4" PVC, 4#3/0. Perform the following at the existing Service pole:
 - Install conduit riser as required by PG&E Co.
 - Install weatherhead at conduit termination per PG&E Co.
 - Leave 10 feet of conductor length for PG&E to make splices or to terminate at existing transformer and at the pole.
 - Remove conductors between existing Service Equipment Enclosure and existing Power Switch (PS) inside the Pump House. Intercept existing conduit outside the pump house for reuse. Remove exposed portion of the conduit where applicable and abandon underground conduit.
 - Install 2" PVC, 4#2/0, 1#2/0 ground between existing Power Switch and new 150-Ampere Service Equipment Enclosure. Install this conduit by utilizing only directional boring method. If required for ease of pulling conductors, install additional No. 6 traffic rated pull box in the shoulder as required.
 - Connect new conduit to existing conduit inside the Pump House. Core drill hole thru existing wall for conduit entry if required. Provide provision for water drainage in the conduit out in the stairwell area.
 - Terminate conductors on the Power Switch and ground bus as required. Replace existing ground lug inside Power Switch if needed for terminating #2/0 ground conductor.

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN BY Jaswinder Sandhu CHECKED	BY Ed D. Tapalla 10/13 CHECKED Jaswinder Sandhu	CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 50-391W	DISTRICT 06 VARIOUS PUMPING PLANT WASHINGTON ST OC PUMPNG PLANT WORK LOCATION No. 7 SITE PLAN	SHEET EE0-6
					POST MILE		
					DISREGARD PRINTS BEARING EARLIER REVISION DATES		
QUANTITIES BY Jaswinder Sandhu CHECKED			UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF		

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

TAEWW Imperial - CCSC Rev. 02/13

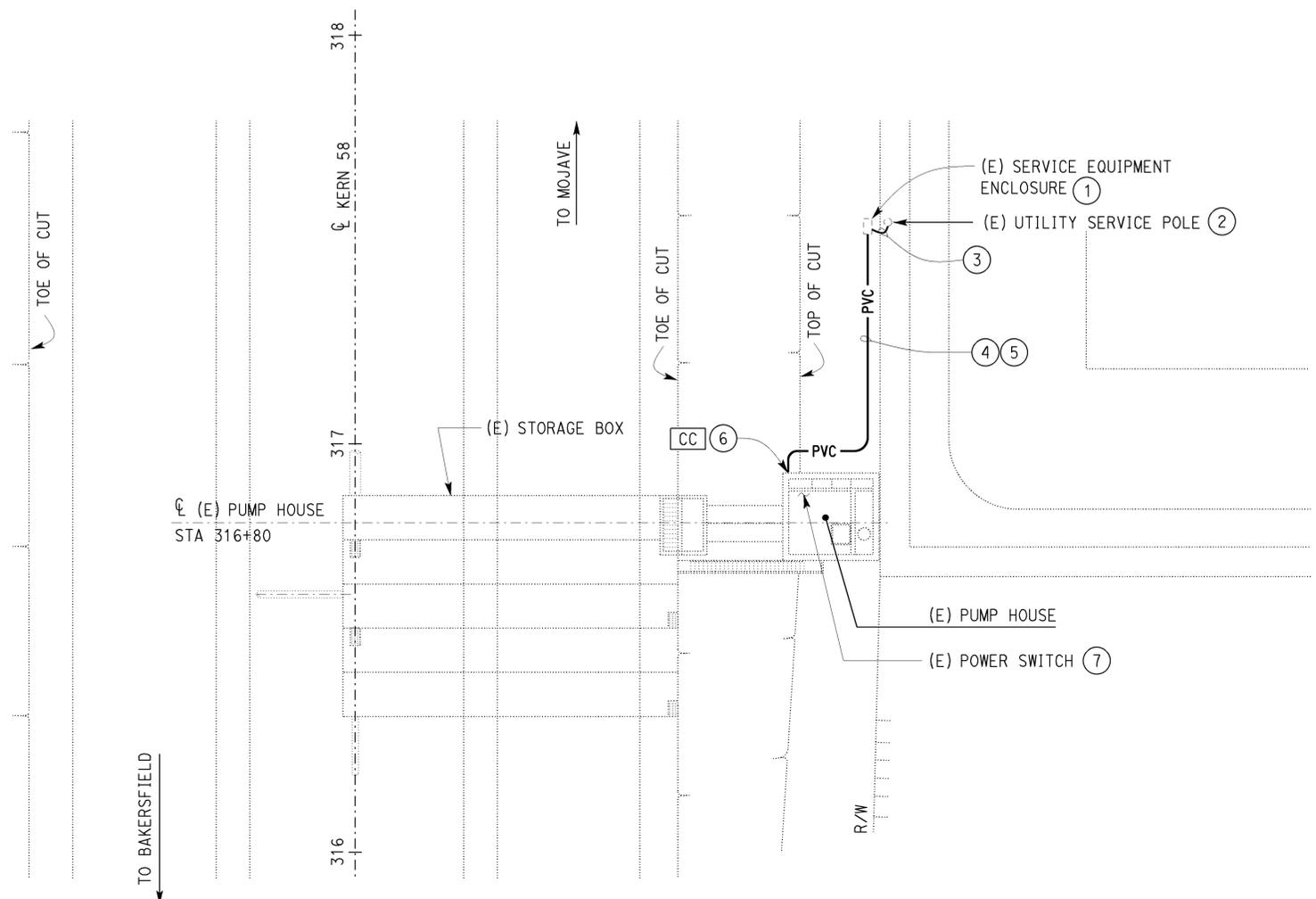
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	51	57

Jaswinder S Sandhu 11-07-13
REGISTERED ELECTRICAL ENGINEER DATE
6-23-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jaswinder Sandhu
No. E 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA

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PLAN
1" = 20'

GENERAL NOTES:

- A. Existing underground electrical conduits and conductors system as shown are diagrammatic and their location as shown is approximate only. Therefore, field verify exact location of existing underground facilities prior to the beginning of trenching and or removal work. The cost for pot holing and for locating existing underground utilities shall be considered to be paid for in the lump sum price and no additional cost will be paid.
- B. Not all electrical systems are shown on this plan.
- C. Remove existing concrete foundation for the existing Service Equipment.

NOTES:

- ① Replace existing Service Equipment Enclosure with new 480 Volts, 400-Ampere, 3-phase and 4-wire Service Equipment Enclosure with 300-Ampere Main Service Disconnect. For Details, see sheets EE0-8 and EE0-9.
- ② Remove existing Service entrance conductors between existing Service Equipment Enclosure and existing Service pole. Remove exposed conduit and weatherhead and abandon underground conduit.
- ③ Install 4"C, PVC, 4#350 kcmil. Perform the following at the existing Service pole:
 - Install conduit riser as required by PG&E Co.
 - Install weatherhead at conduit termination per PG&E Co.
 - Leave 10 feet of conductor length for PG&E to make splices or to terminate at existing transformer and at the pole.
- ④ Remove conductors between existing Service Equipment Enclosure and existing Power Switch (PS) inside the Pump House. Intercept existing conduit inside the stairwell for reuse. Remove exposed portion of the conduit and abandon underground conduit.
- ⑤ Install 3"C, 3#300 kcmil, 1#300 kcmil ground between existing Power Switch and new 300-Ampere Service Equipment Enclosure.
- ⑥ Connect new conduit to existing either inside the stairwell or underground outside as determined in the field. Core drill hole thru existing wall for conduit entry if required.
- ⑦ Terminate conductors on the Power Switch and ground bus as required. Replace existing ground lug inside Power Switch if needed for terminating #300 kcmil ground conductor.

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN	BY Jaswinder Sandhu	CHECKED
DETAILS	BY Ed D. Tapalla 10/13	CHECKED Jaswinder Sandhu
QUANTITIES	BY Jaswinder Sandhu	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE No. 50-394W
POST MILE

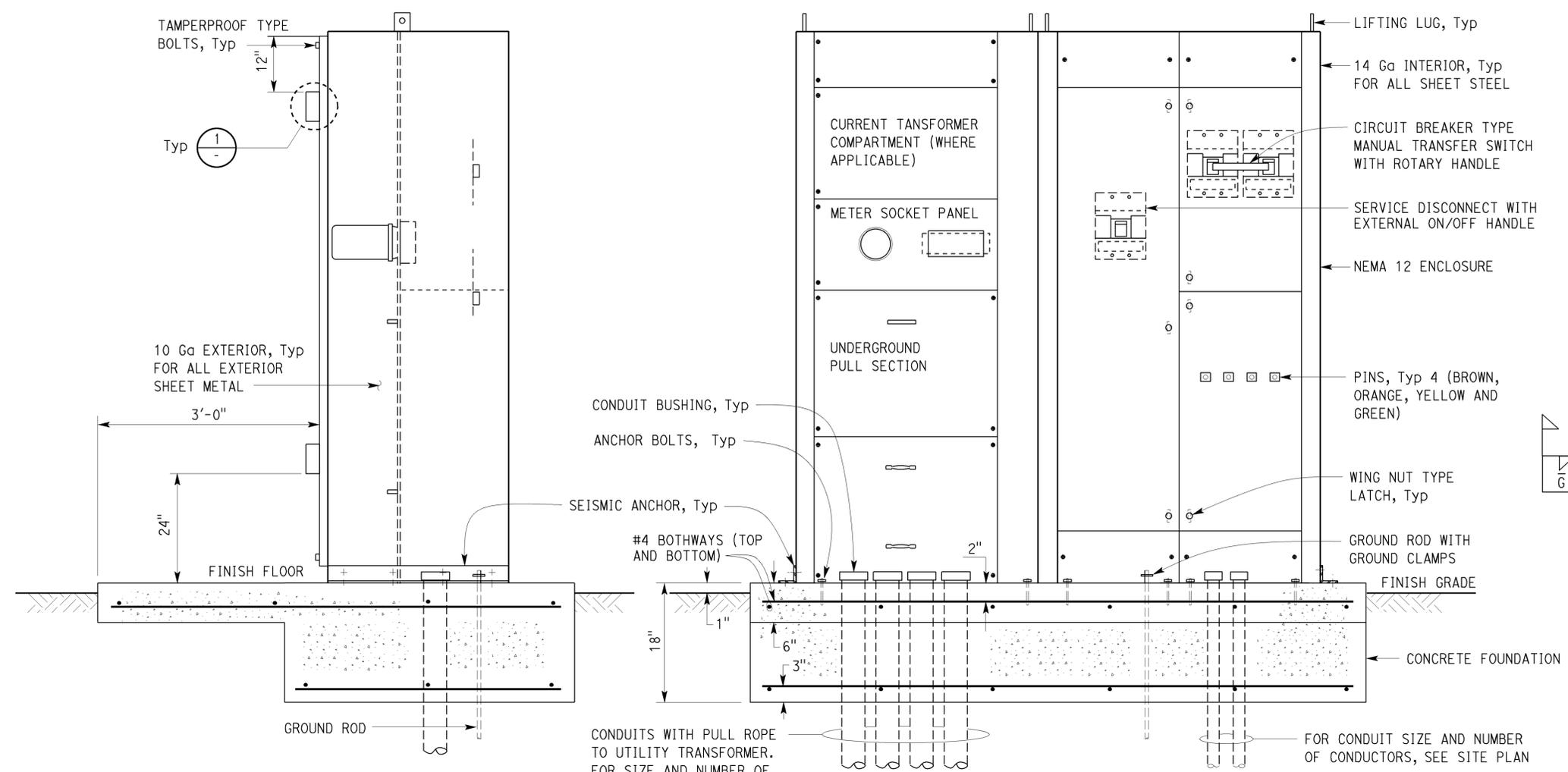
DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR
STERLING ROAD OC PUMPING PLANT
WORK LOCATION No. 9 SITE PLAN

SHEET **EE0-7** OF

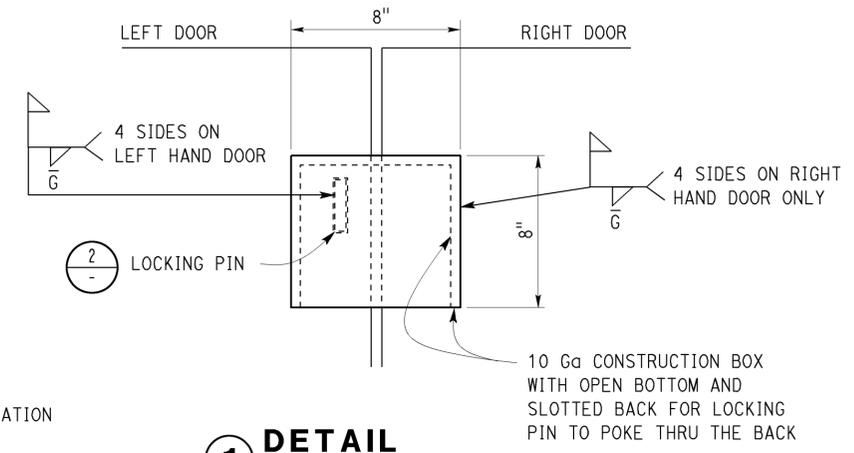
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	52	57

11-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 6-23-14
 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.

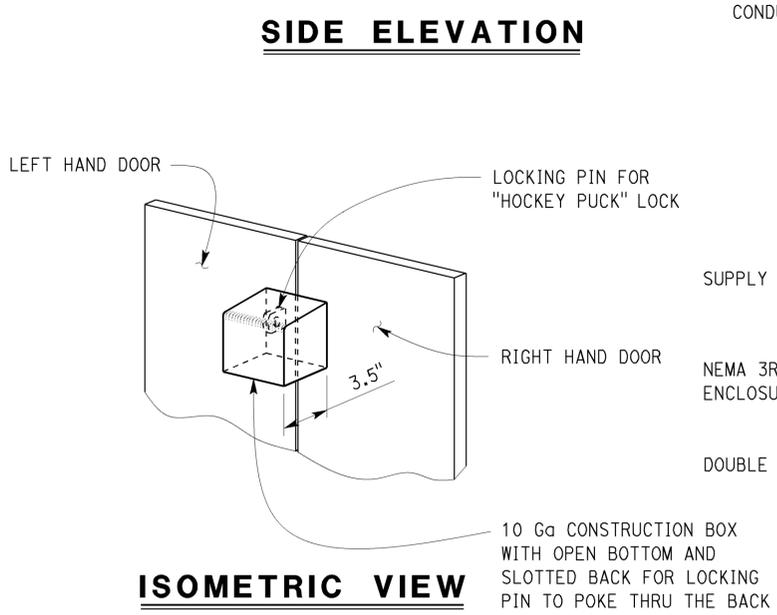
REGISTERED PROFESSIONAL ENGINEER
 Jaswinder Sandhu
 No. E 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA



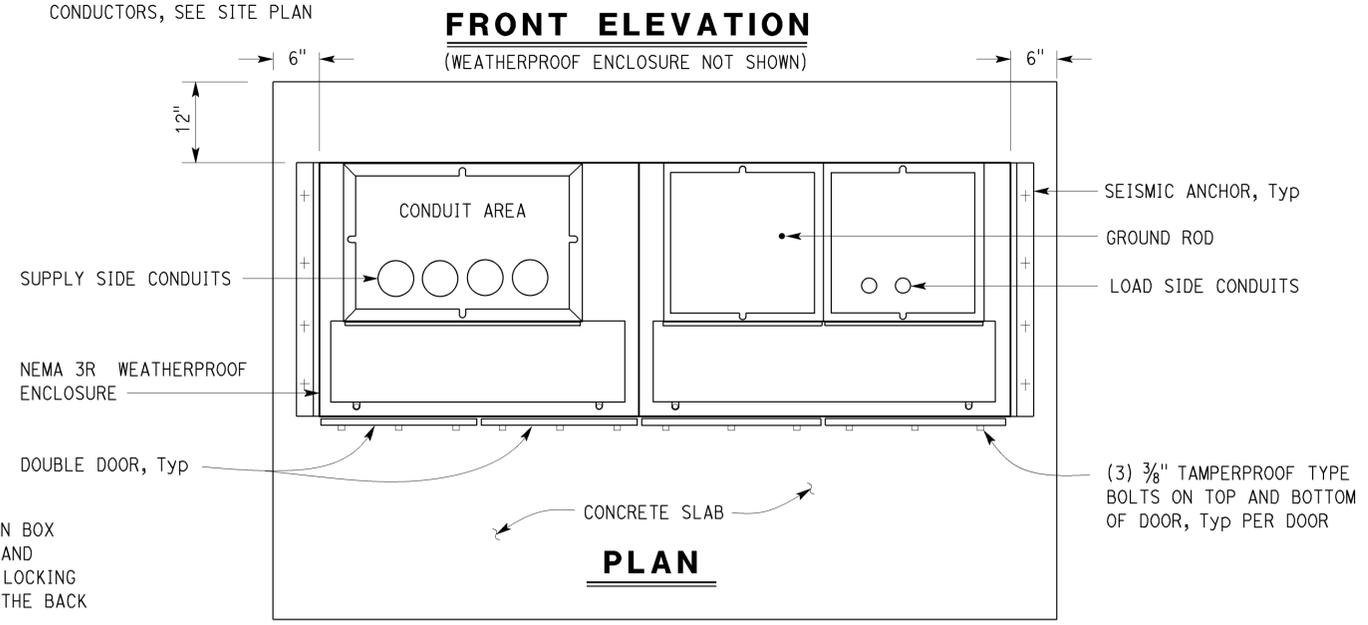
GENERAL NOTE:
For Warning Label, see Details 1 and 2 on sheet EE0-11.



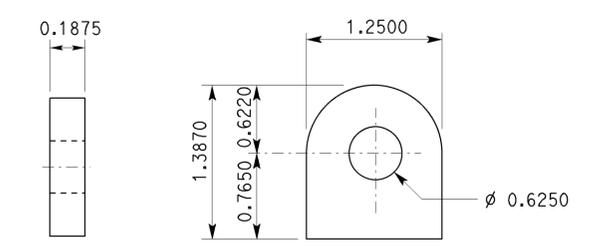
1 DETAIL
NO SCALE
(TYPICAL TOP AND BOTTOM)



ISOMETRIC VIEW



PLAN



PLAN SIDE VIEW

2 LOCKING PIN
NO SCALE
Dimensions shown in inches

A SERVICE EQUIPMENT ENCLOSURE
NO SCALE

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN	BY Jaswinder Sandhu	CHECKED
DETAILS	BY Ed D. Tapalla 10/13	CHECKED Jaswinder Sandhu
QUANTITIES	BY Jaswinder Sandhu	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE No. VARIOUS POST MILE
 DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR
 SERVICE EQUIPMENT ENLOSURE DETAILS No. 1

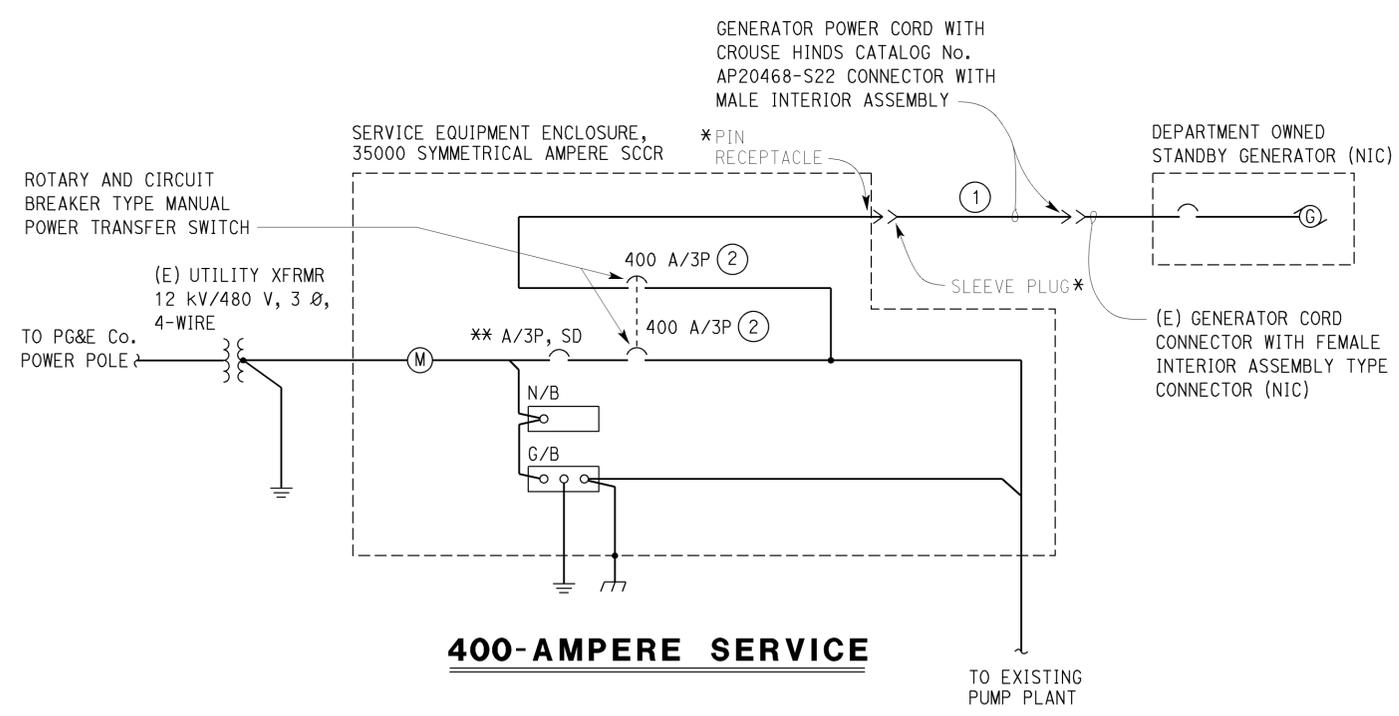
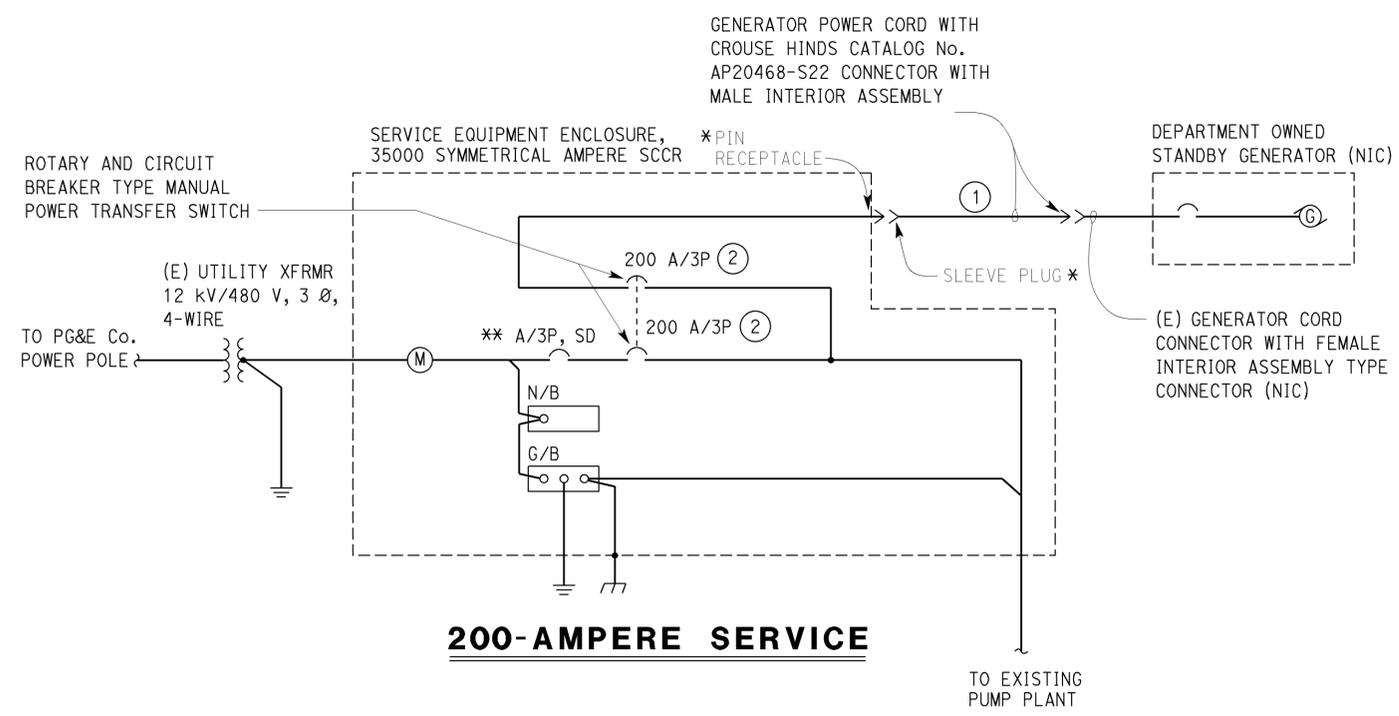
SHEET **EE0-8** OF

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	53	57

Jaswinder S Sandhu 11-07-13
REGISTERED ELECTRICAL ENGINEER DATE
6-23-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jaswinder Sandhu
No. E 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA

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SINGLE LINE DIAGRAM

* FOR PLUGGING THE DEPARTMENT OWNED STANDBY GENERATOR
** FOR FRAME AND TRIP RATING, SEE TABLE THIS SHEET

NOTES:

- Supply total of two power cords with the following characteristics:
 - Must be 10 feet long.
 - Must have 3#3/0, 1#3/0 ground conductors.
 - Each conductors of the cord must be strands conductors with MTW type insulation.
 - Conductors must be enclosed inside PVC jacket.
 - Must have male interior assembly type Crouse Hinds Catalog #AP20468-S22 connector at one end.
 - Must have 400 Ampere, 480 Volt, rated sleeve plug receptacle at the other end to match the pin receptacle within the Service Equipment.
- Mechanically interlocked and circuit breaker type manual transfer switch with externally operable Rotary type handle.
- See sheets EE0-10 and EE0-11 for Service Enclosure Equipment Details for this location.

LOCATION No.	LOCATION NAME	SERVICE VOLTAGE	SERVICE DISCONNECT		AIC SYMMETRICAL AMPERES
			FRAME SIZE	TRIP RATING	
1	BELLE TERRACE OVERCROSSING	480-VOLT, 3 Ø, 4-W	200	200	35000
2	ROUTE 99 NORTH-BOUND TUNNEL	240-VOLT, 3 Ø, 4-W	200	200	35000
3	SOUTH "H" ST OVERCROSSING	480-VOLT, 3 Ø, 4-W	200	200	35000
4	SOUTH UNION AVE OVERCROSSING	480-VOLT, 3 Ø, 4-W	200	200	35000
7	WASHINGTON ST OVERCROSSING	480-VOLT, 3 Ø, 4-W	200	150	35000
9	STERLING ROAD OVERCROSSING	480-VOLT, 3 Ø, 4-W	400	300	35000

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN	BY Jaswinder Sandhu	CHECKED
DETAILS	BY Ed D. Tapalla 10/13	CHECKED Jaswinder Sandhu
QUANTITIES	BY Jaswinder Sandhu	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE No. VARIOUS POST MILE

DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR
SERVICE EQUIPMENT SINGLE LINE DIAGRAM

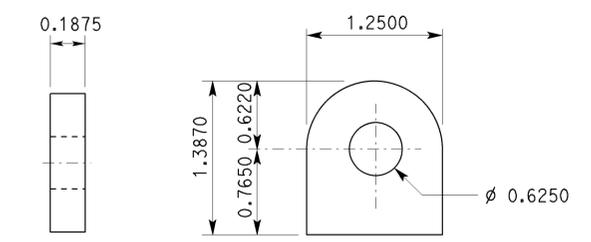
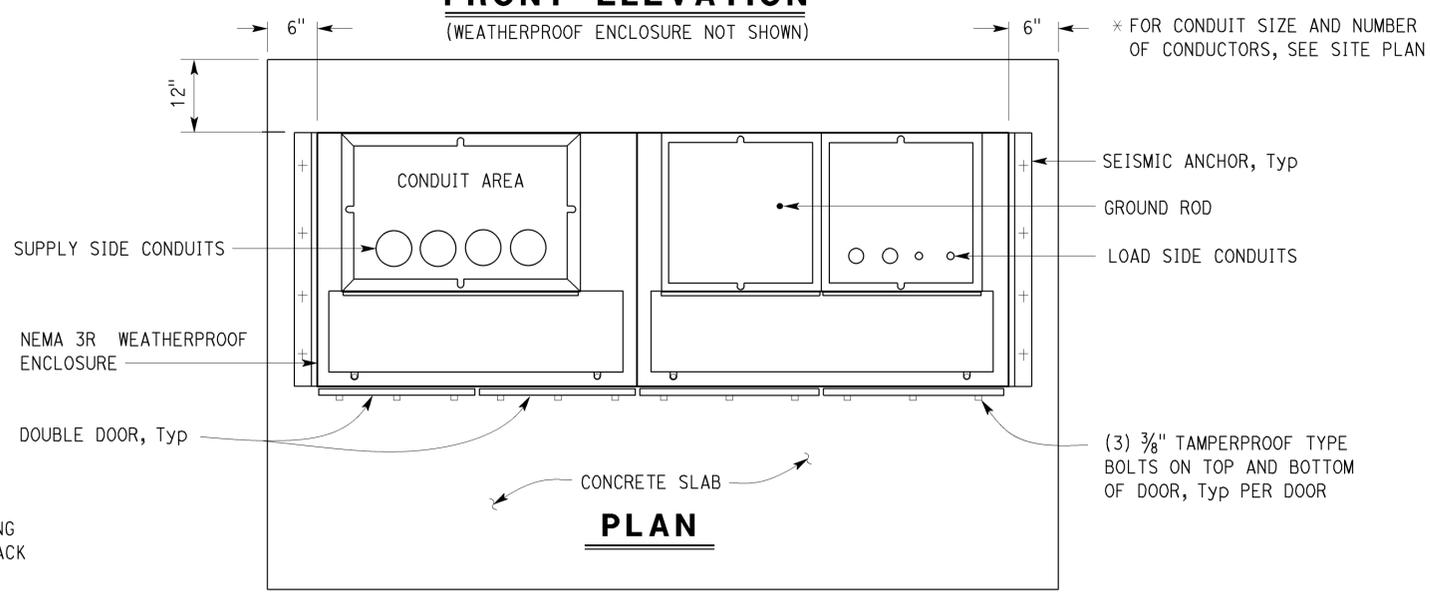
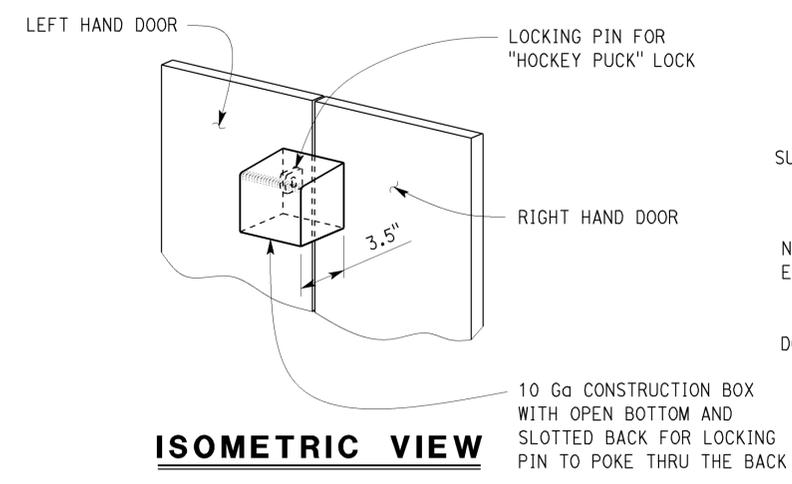
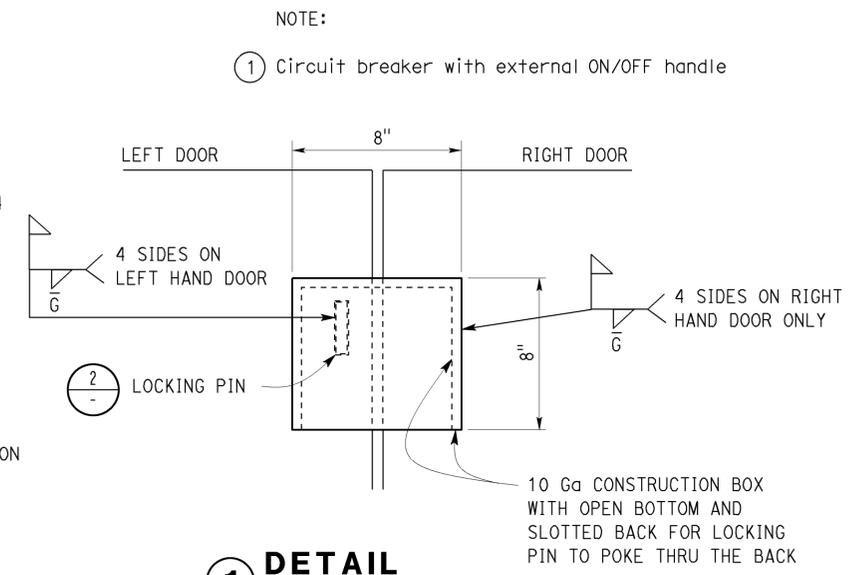
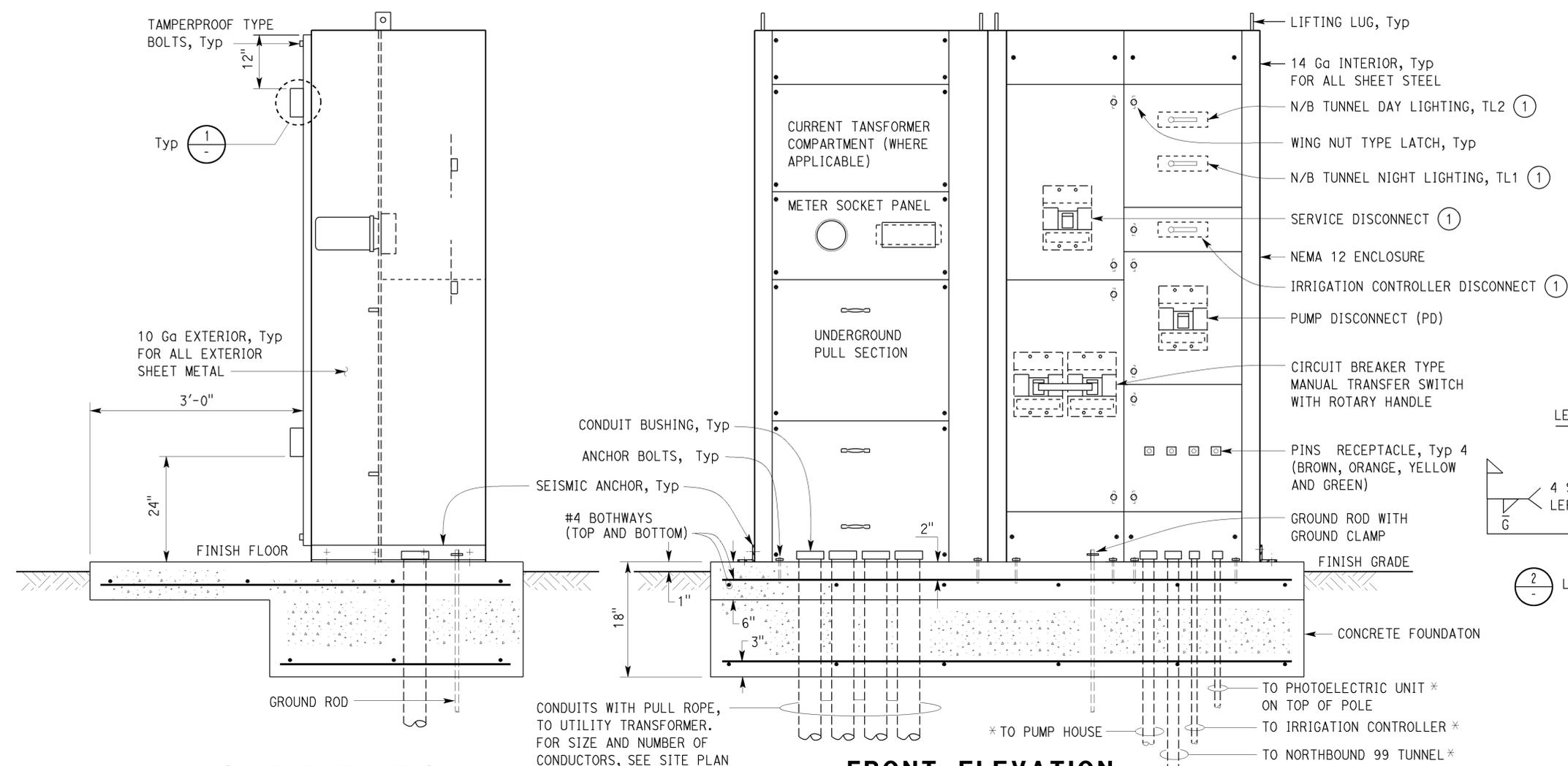
SHEET EEO-9 OF

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	54	57

Jaswinder S Sandhu 11-07-13
REGISTERED ELECTRICAL ENGINEER DATE
6-23-14
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jaswinder Sandhu
No. E 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA

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2 LOCKING PIN
NO SCALE
Dimensions shown in inches

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN BY Jaswinder Sandhu CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 50-432W POST MILE R52.4	DISTRICT 06 VARIOUS PUMPING PLANT WIRE THEFT REPAIR		SHEET EE0-10 OF
DETAILS BY Ed D. Tapalla 10/13 CHECKED Jaswinder Sandhu				ROUTE 99 NORTHBOUND TUNNEL PUMPING PLANT		SERVICE EQUIPMENT ENCLOSURE DETAILS No. 2
QUANTITIES BY Jaswinder Sandhu CHECKED					REVISION DATES (PRELIMINARY STAGE ONLY)	

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051

DISREGARD PRINTS BEARING EARLIER REVISION DATES: 10-21-13 6-11-14

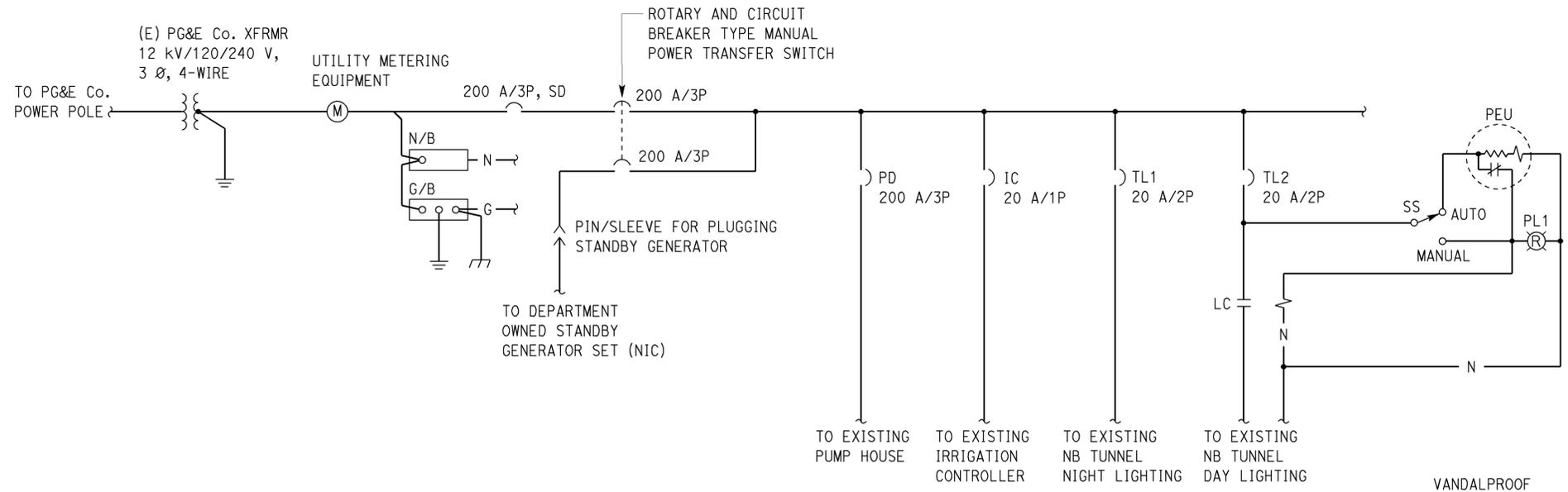
TAEWW Imperial - CCSC Rev. 02/13

P:\dist_06\0613000305_var_pp_wire_theft\elec\ee0_10_rte_99nb_serv_enclo.dgn

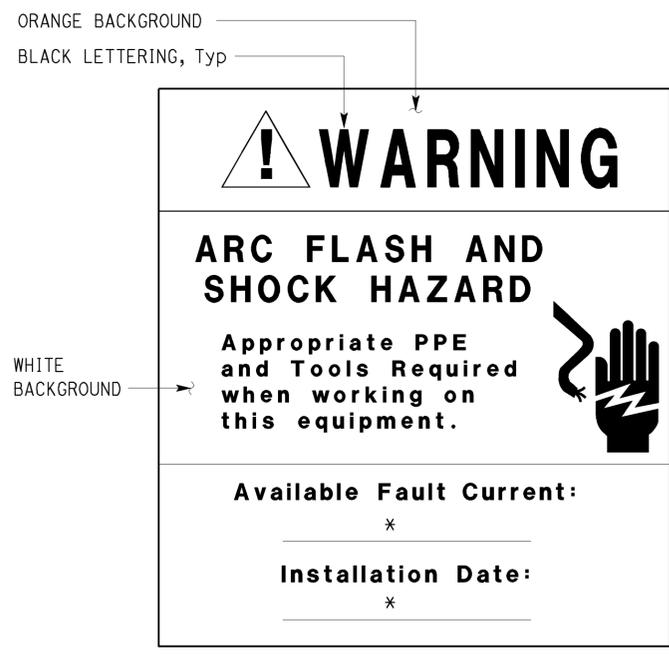
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	55	57

11-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 No. E 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

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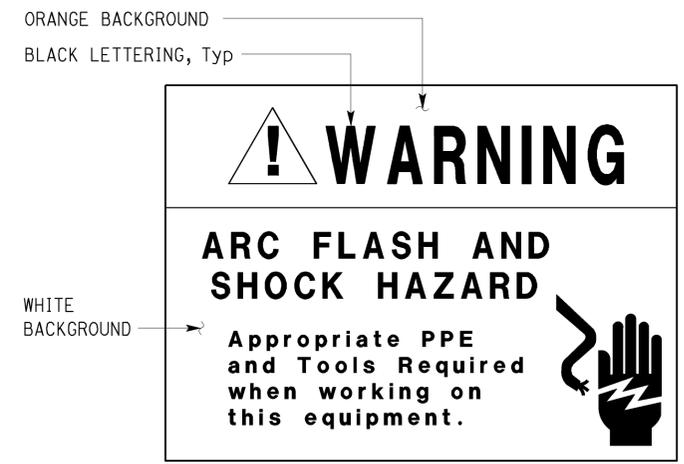
SINGLE LINE DIAGRAM



1 WARNING LABEL

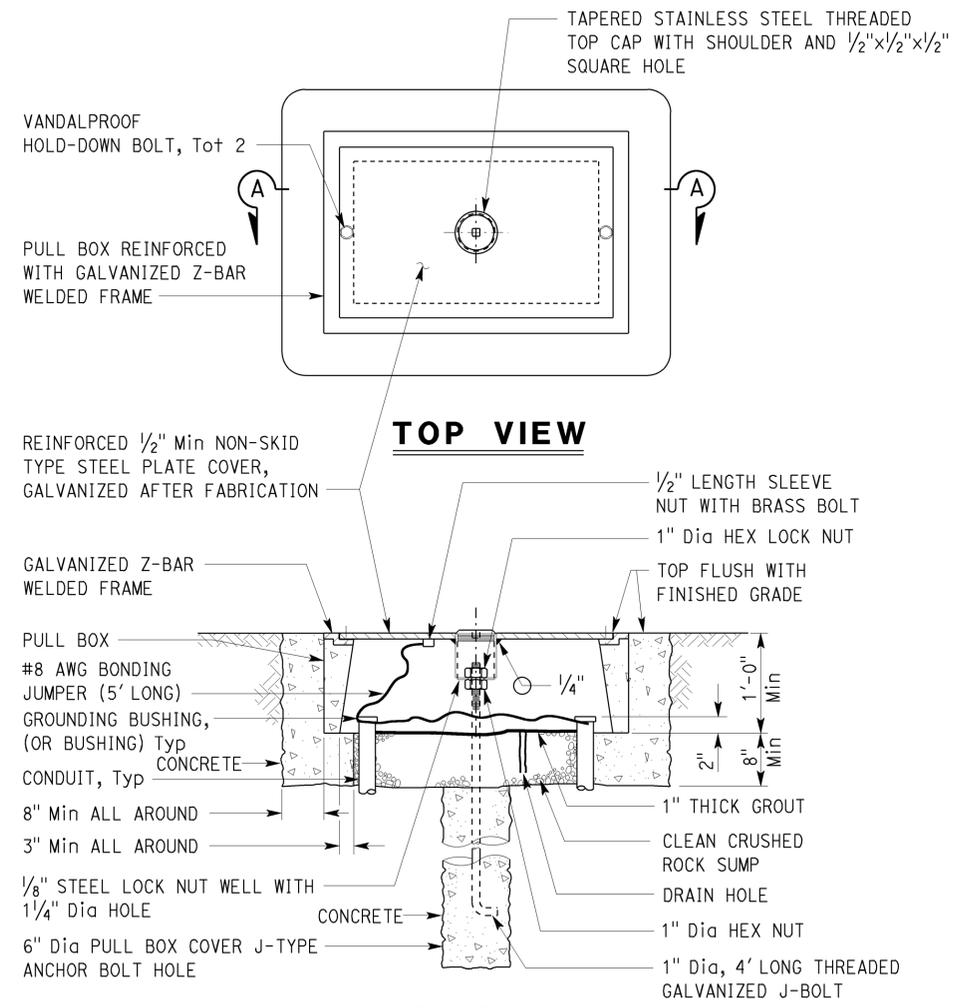
NOTE: All Service Equipment Enclosure and Service Disconnect Section must be legibly marked in the field with the available fault current to comply with NEC 110.24(A).

* The data will be provided by the Engineer to the Contractor after Utility Service related work is done by local Electric Utility Company.



2 WARNING LABEL

- NOTES:
- Provide total of 100 of these labels to the Engineer for field installation on existing pump plant electrical equipment.
 - Install this Warning Label at all Sections of the Service Equipment Enclosure.
 - Warning Label must be constructed with high degree of chemical abrasion, heat resistance and UL recognized material.



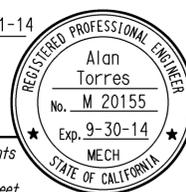
SECTION A-A

No. 5/No. 6 TRAFFIC RATED PULL BOX DETAIL

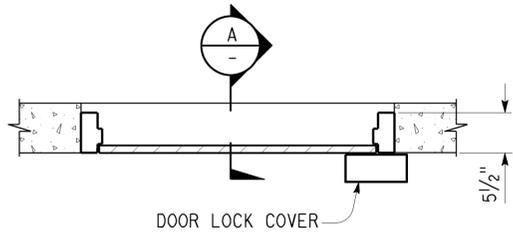
NO SCALE

APPROVED FOR ELECTRICAL WORK ONLY

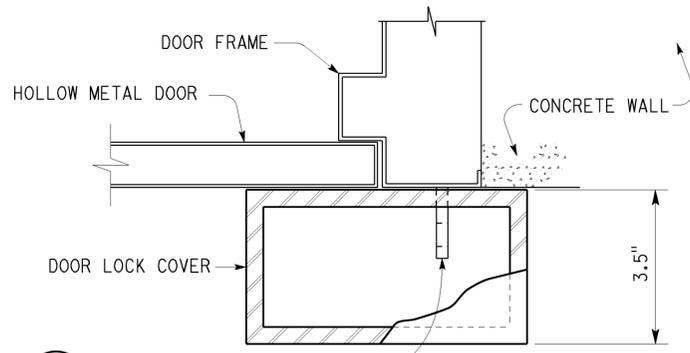
DESIGN	BY	Jaswinder Sandhu	CHECKED		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	DISTRICT 06 VARIOUS PUMPING PLANT		SHEET EE0-11	
	DETAILS	BY	Ed D. Tapalla 10/13	CHECKED			Jaswinder Sandhu	50-432W	WIRE THEFT REPAIR		
	QUANTITIES	BY	Jaswinder Sandhu	CHECKED				R52.4	SERVICE EQUIPMENT SINGLE LINE DIAGRAM AND DETAILS		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						0	1	2	3	REVISION DATES (PRELIMINARY STAGE ONLY)	
TAEWW Imperial - CCSC Rev. 02/13						UNIT: 3597 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051		DISREGARD PRINTS BEARING EARLIER REVISION DATES		10-29-13	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	56	57
 REGISTERED MECHANICAL ENGINEER			06-11-14	DATE	
6-23-14			PLANS APPROVAL DATE		
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****DETAILS ARE FOR LEFT HAND DOORS.
RIGHT HAND DOOR IS OPPOSITE.****

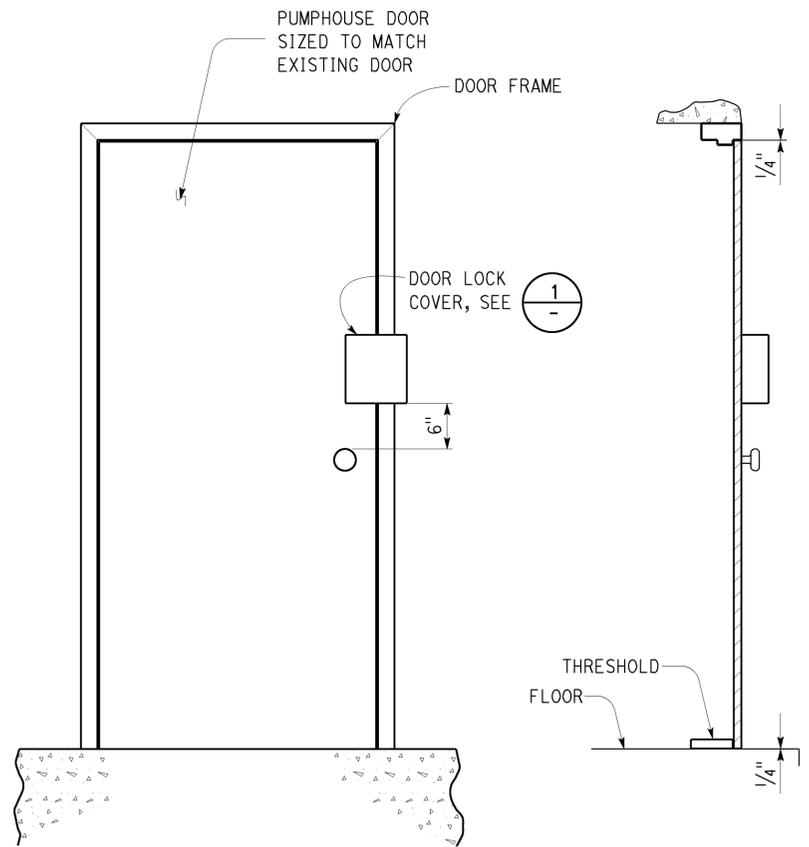


PLAN



B SECTION

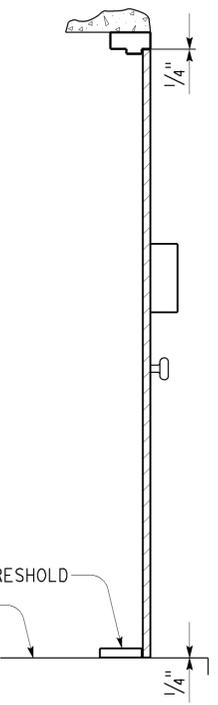
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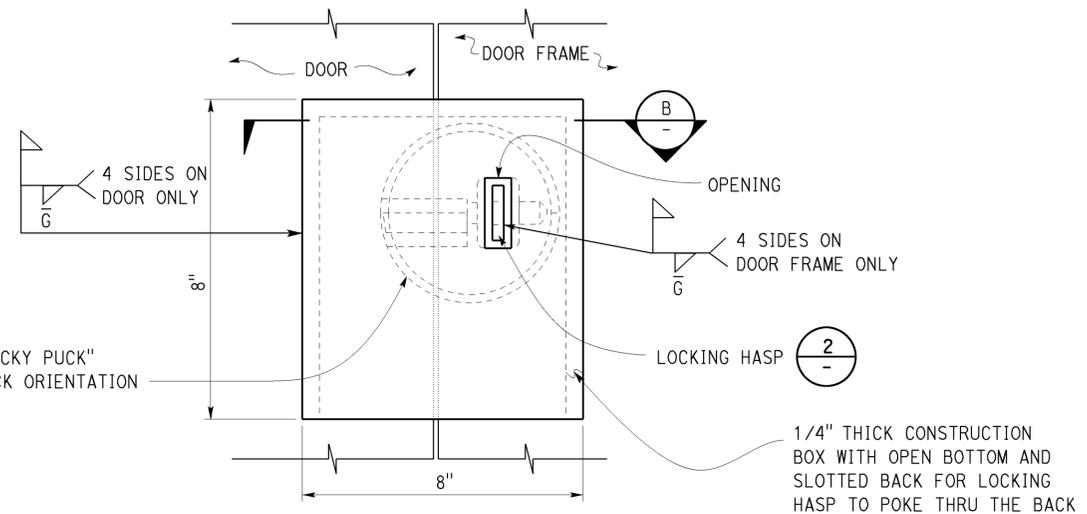
ELEVATION

PUMPHOUSE DOOR

No Scale

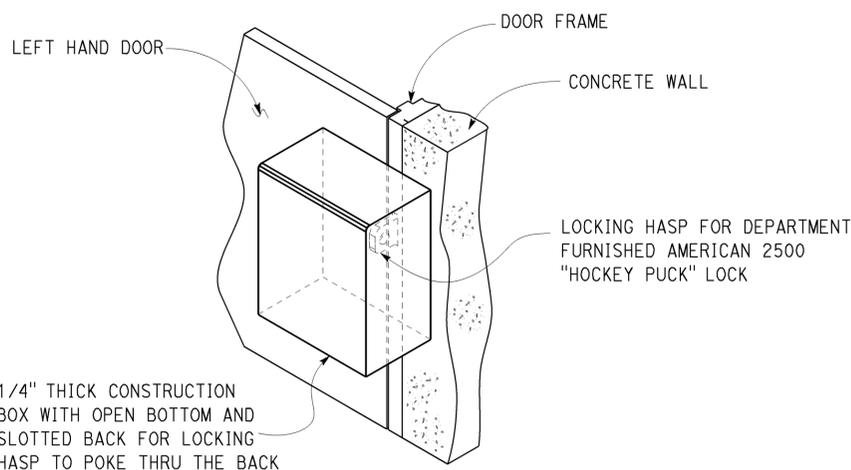


A SECTION



1 DOOR LOCK COVER DETAIL

NO SCALE

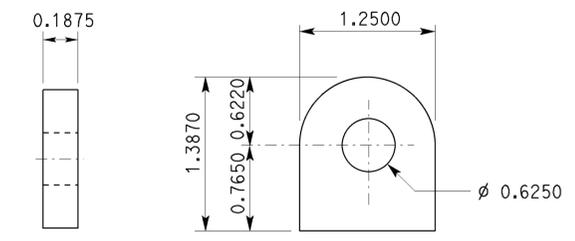


ISOMETRIC VIEW

1/4" THICK CONSTRUCTION BOX WITH OPEN BOTTOM AND SLOTTED BACK FOR LOCKING HASP TO POKE THRU THE BACK

NOTES:

- FABRICATE PUMP HOUSE DOORS AND FRAMES IN CONFORMANCE WITH ANSI/SDI A250.8 OR ANSI/NAAMM-HMMA 861.
- HINGES MUST COMPLY WITH ANSI/BHMA A156.1.
- GALVANNEALED STEEL SHEET MUST BE COMMERCIAL STEEL, TYPE B, COMPLYING WITH ASTM A 1008/A 1008M WITH AT LEAST AN A60 METALLIC COATING COMPLYING WITH ASTM A 653/A 653M.
- THE PUMP HOUSE DOOR CONSISTS OF THE DOOR AND DOOR HARDWARE. FURNISH THE FACTORY APPLIED FINISH COATING SYSTEM FOR EXTERIOR LOCATIONS.
- THE PUMP HOUSE DOORS MUST BE AT LEAST 1-3/4" THICK, FULL FLUSH, SEAMLESS HOLLOW METAL CONSTRUCTION. THE DOORS MUST COMPLY WITH ANSI/SDI A250.4, PHYSICAL ENDURANCE LEVEL A, AND THE FOLLOWING:
 - FABRICATE FACE SHEETS, VERTICAL STIFFENERS, AND TOP AND BOTTOM CHANNELS FROM 0.053" THICK GALVANNEALED STEEL SHEET.
 - FABRICATE THE STEEL-STIFFENED CORE USING VERTICAL STIFFENERS THAT EXTEND FULL DOOR HEIGHT. INSTALL STIFFENERS NO MORE THAN 6" APART AND SPOT WELD TO BOTH FACE SHEETS NO MORE THAN 5" ON CENTER. FILL SPACES BETWEEN STIFFENERS WITH GLASS-FIBER INSULATION OR MINERAL-FIBER INSULATION.
 - TOP AND BOTTOM CHANNELS MUST BE CONTINUOUS AND SPOT WELDED TO BOTH FACE SHEETS. THE TOP CHANNEL MUST BE FLUSH AND THE BOTTOM CHANNEL MUST BE INVERTED.
 - INCLUDE MOISTURE VENTS IN THE BOTTOM CHANNEL.



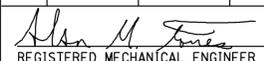
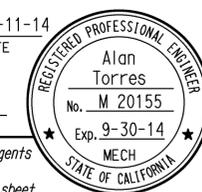
PLAN

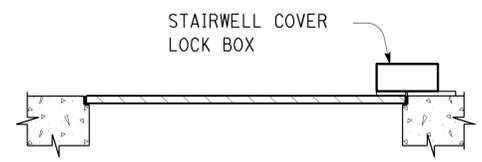
SIDE VIEW

2 LOCKING HASP

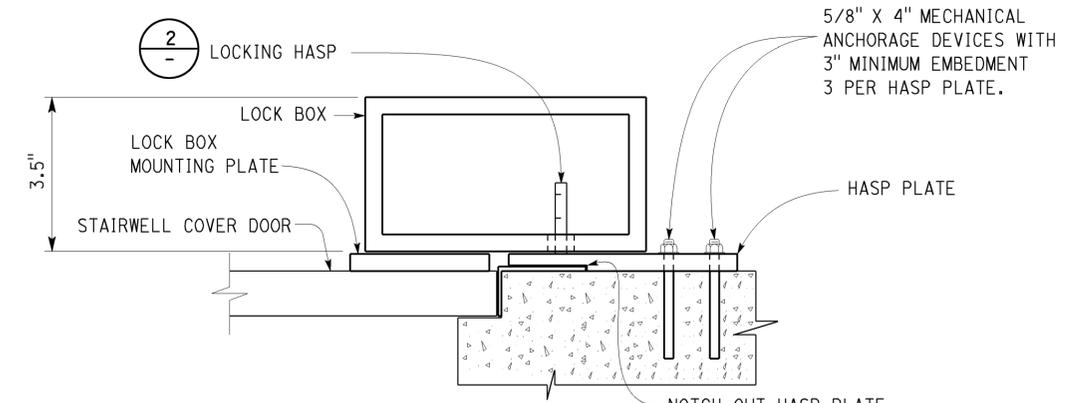
NO SCALE
Dimensions shown in inches

DESIGN	BY	KOU XIONG	CHECKED	ALAN TORRES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	BAKERSFIELD AREA PP DOOR UPGRADE		SHEET M-1	
	DETAILS	BY	KOU XIONG	CHECKED			ALAN TORRES	VARIOUS	X		PUMPHOUSE DOOR UPGRADE
	QUANTITIES	BY	KOU XIONG	CHECKED			ALAN TORRES	POST MILE	X		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT: 3618 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58, 99	Var	57	57
 REGISTERED MECHANICAL ENGINEER			06-11-14	DATE	
6-23-14 PLANS APPROVAL DATE					
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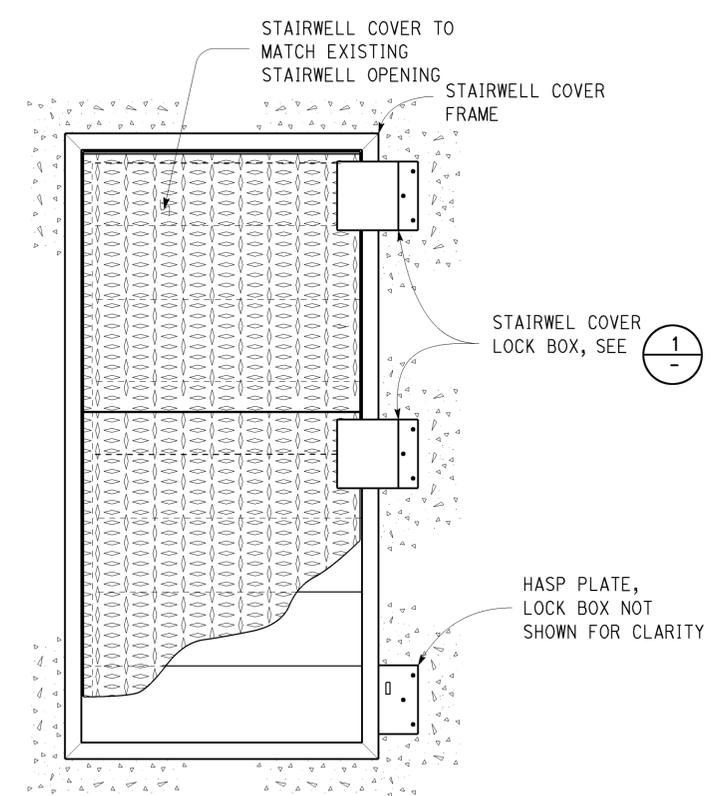


ELEVATION



SECTION B

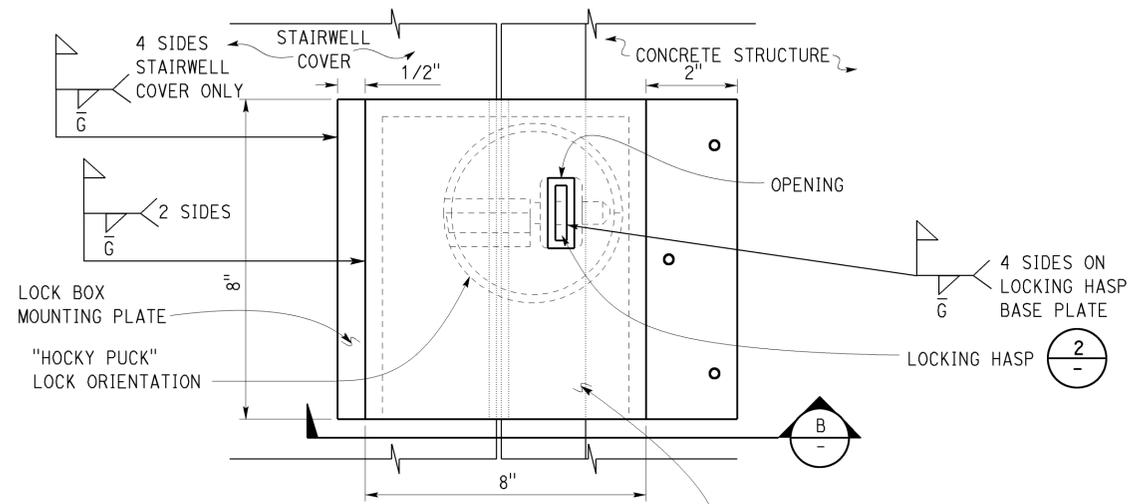
NO SCALE



PLAN

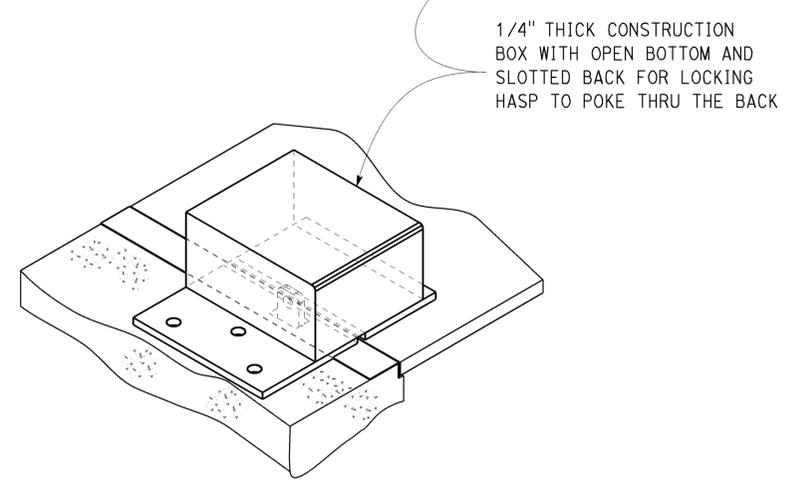
STAIRWELL COVER

No Scale



1 LOCK BOX DETAIL

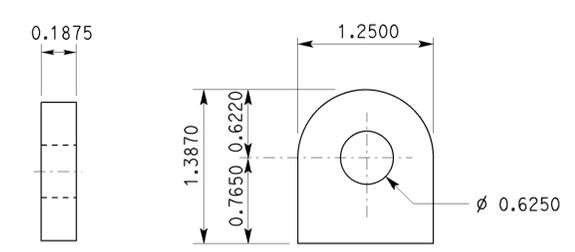
NO SCALE



ISOMETRIC VIEW

NOTES:

- The stairwell cover door must be "retrofit" type single leaf door sized to match existing stairwell opening. Door leaf must be 3/16" thick steel diamond plate reinforced for a 300 p.s.f. live load.
- The steel angle frame must have a horizontal flange with 9/16" diameter holes for bolting to the existing floor and an integral door seat on all four sides. The horizontal flange will have a beveled edge that slopes to the floor surface.
- The stairwell cover door must be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position.
- The door must have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A covered hasp for a hidden shackle pad lock must be supplied for security.
- The stairwell cover door must be equipped with stainless steel spring assisted lifting mechanism properly sized for the door weight and size.



PLAN

SIDE VIEW

2 LOCKING HASP

NO SCALE
Dimensions shown in inches

DESIGN	BY	KOU XIONG	CHECKED	ALAN TORRES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	BAKERSFIELD AREA PP DOOR UPGRADE		SHEET M-2	
	DETAILS	BY	KOU XIONG	CHECKED			ALAN TORRES	VARIOUS	X		STAIRWELL COVER UPGRADE
	QUANTITIES	BY	KOU XIONG	CHECKED			ALAN TORRES	VARIOUS	X		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT: 3618 CONTRACT No.: 005801 PROJECT NUMBER & PHASE: 06130003051	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	