INDEX OF PLANS

SHEET No. DESCRIPTION

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	LAYOUTS
3-4	CONSTRUCTION DETAILS AND QUANTITIES
5	UTILITY PLANS
6	CONSTRUCTION AREA SIGNS
7	PAVEMENT DELINEATION AND SIGN PLAN
8	PAVEMENT DELINEATION, SIGN DETAILS AND QUANTITIES
9-12	ELECTRICAL PLANS
13-32	REVISED AND NEW STANDARD PLANS

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

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN KERN COUNTY
IN RIDGECREST FROM NORMA STREET TO WEST DRUMMOND AVENUE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	1	32

LOCATION MAP

NO SCALE

PROJECT MANAGER: STEVE MILTON

DESIGN ENGINEER: THANH NGUYEN

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

01-29-10
PROJECT ENGINEER — DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — HARPREET BINNING — No. 68470 — Exp. 9/30/11 — CIVIL — STATE OF CALIFORNIA

March 1, 2010
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. **06-0K4704**

LAST REVISION 01-29-10

DATE PLOTTED => 04-MAR-2010
TIME PLOTTED => 14:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	2	32

REGISTERED CIVIL ENGINEER — DATE: 01-29-10

PLANS APPROVAL DATE: 3-1-10

REGISTERED PROFESSIONAL ENGINEER — HARPREET BINNING — No. 68470 — Exp. 9/30/11 — CIVIL — STATE OF CALIFORNIA

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

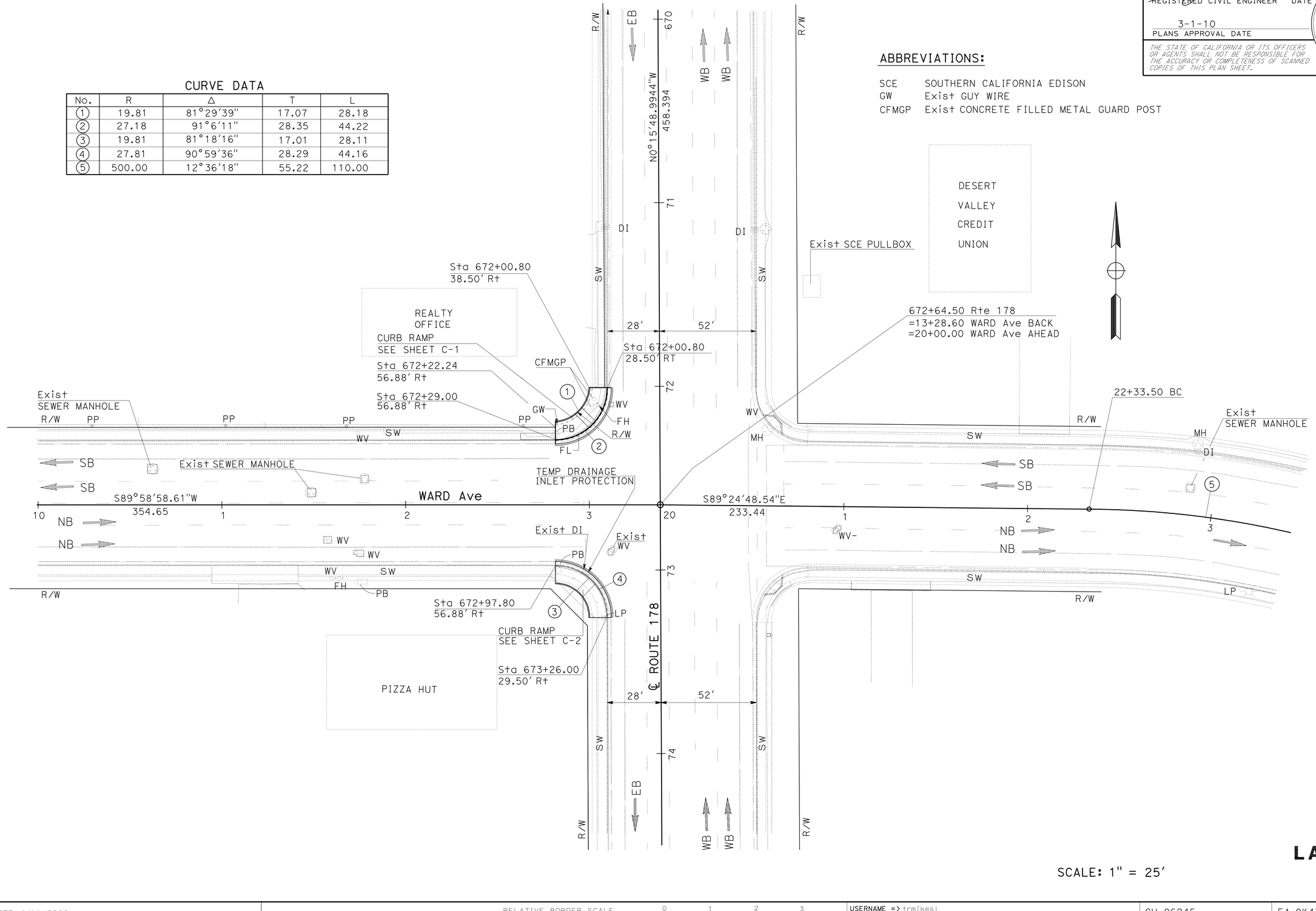
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA

No.	R	Δ	T	L
①	19.81	81°29'39"	17.07	28.18
②	27.18	91°6'11"	28.35	44.22
③	19.81	81°18'16"	17.01	28.11
④	27.81	90°59'36"	28.29	44.16
⑤	500.00	12°36'18"	55.22	110.00

ABBREVIATIONS:

SCE SOUTHERN CALIFORNIA EDISON
GW Exist GUY WIRE
CFMGP Exist CONCRETE FILLED METAL GUARD POST



SCALE: 1" = 25'

LAYOUT
L-1

OHANNES BEDROSSIAN — CALCULATED-DESIGNED BY
HARPREET BINNING — CHECKED BY
REVISED BY — DATE REVISED
THANH NGUYEN — FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION DATE PLOTTED => 09-MAR-2010
01-28-10 TIME PLOTTED => 10:47

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmikesl
DGN FILE => 60k470ea001.dgn
CU 06245
EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	3	32

REGISTERED CIVIL ENGINEER — 01-29-10 DATE

HARPREET BINNING No. 68470 Exp. 9/30/11 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

3-1-10
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.

CURVE DATA

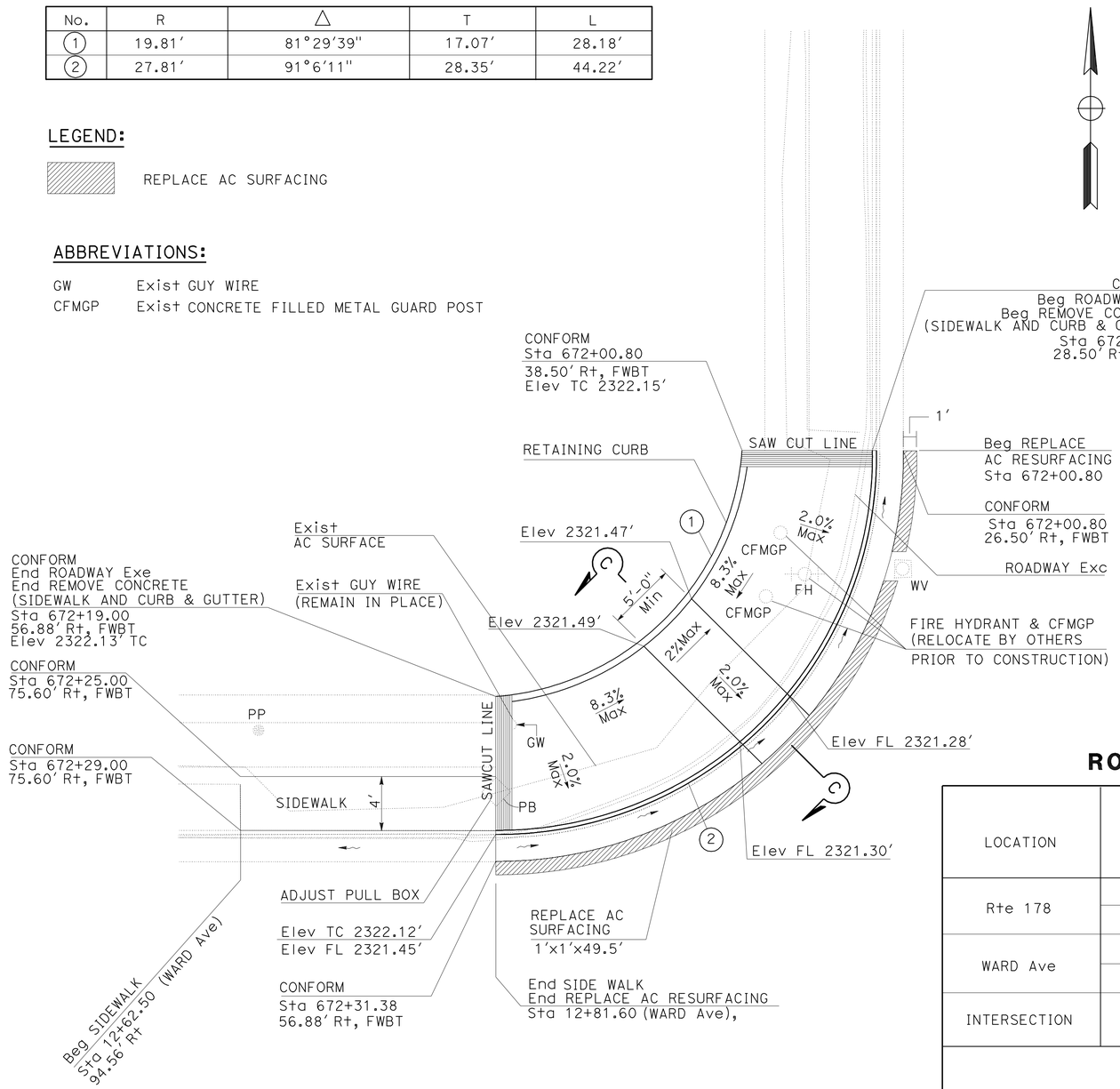
No.	R	△	T	L
(1)	19.81′	81°29′39"	17.07′	28.18′
(2)	27.81′	91°6′11"	28.35′	44.22′

LEGEND:

REPLACE AC SURFACING

ABBREVIATIONS:

GW	Exist GUY WIRE
CFMGP	Exist CONCRETE FILLED METAL GUARD POST



NW CORNER CURB RAMP CASE "C"

TEMPORARY DRAINAGE INLET PROTECTION

LOCATION	EA
SW CORNER CURB RAMP	1
TOTAL	1

REMOVE CONCRETE

LOCATION	CURB & GUTTER		SIDEWALK
	LF (N)	CY	CY
SW CORNER CURB RAMP	48′	3	13
NW CORNER CURB RAMP	48′	3	
SUBTOTAL		6	13
TOTAL		19	

CURB RAMP AND REPLACE AC SURFACING QUANTITIES

LOCATION	MINOR CONCRETE (CURB, SIDEWALK AND CURB RAMP)	REPLACE AC SURFACING
	CY	CY
NW CORNER CURB RAMP	6.5	1.9
SW CORNER CURB RAMP	5.8	1.9
TOTAL	12.3	3.8

ROADWAY EXCAVATION

LOCATION	CY
NW CORNER CURB RAMP	16
TOTAL	16

ADJUST

LOCATION	EA
NW CORNER CURB RAMP	1
SW CORNER CURB RAMP	1
TOTAL	2

ROADWAY QUANTITIES

LOCATION	FROM	TO	ASPHALT EMULSION (FOG SEAL COAT)
			TON
Rte 178	Sta 669+92.00	Sta 672+27.50	1.64
	Sta 673+02.00	Sta 675+62.00	
WARD Ave	Sta 7+70.00	Sta 13+07.40	3.49
	Sta 20+55.25	Sta 26+50.00	
INTERSECTION	Sta 672+27.50 Rte 178	Sta 673+02.00 Rte 178	0.45
		TOTAL	5.58

CONSTRUCTION DETAILS AND QUANTITIES

SCALE: 1" = 5′

C-1

REVISED BY | DATE REVISED
OHANNES BEDROSSIAN | HARPREET BINNING
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: THANH NGUYEN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION DATE PLOTTED => 04-MAR-2010
01-28-10 TIME PLOTTED => 14:15

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trlenard | DGN FILE => 60k470ga001.dgn | CU 06245 | EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	4	32

REGISTERED CIVIL ENGINEER — DATE: 01-29-10

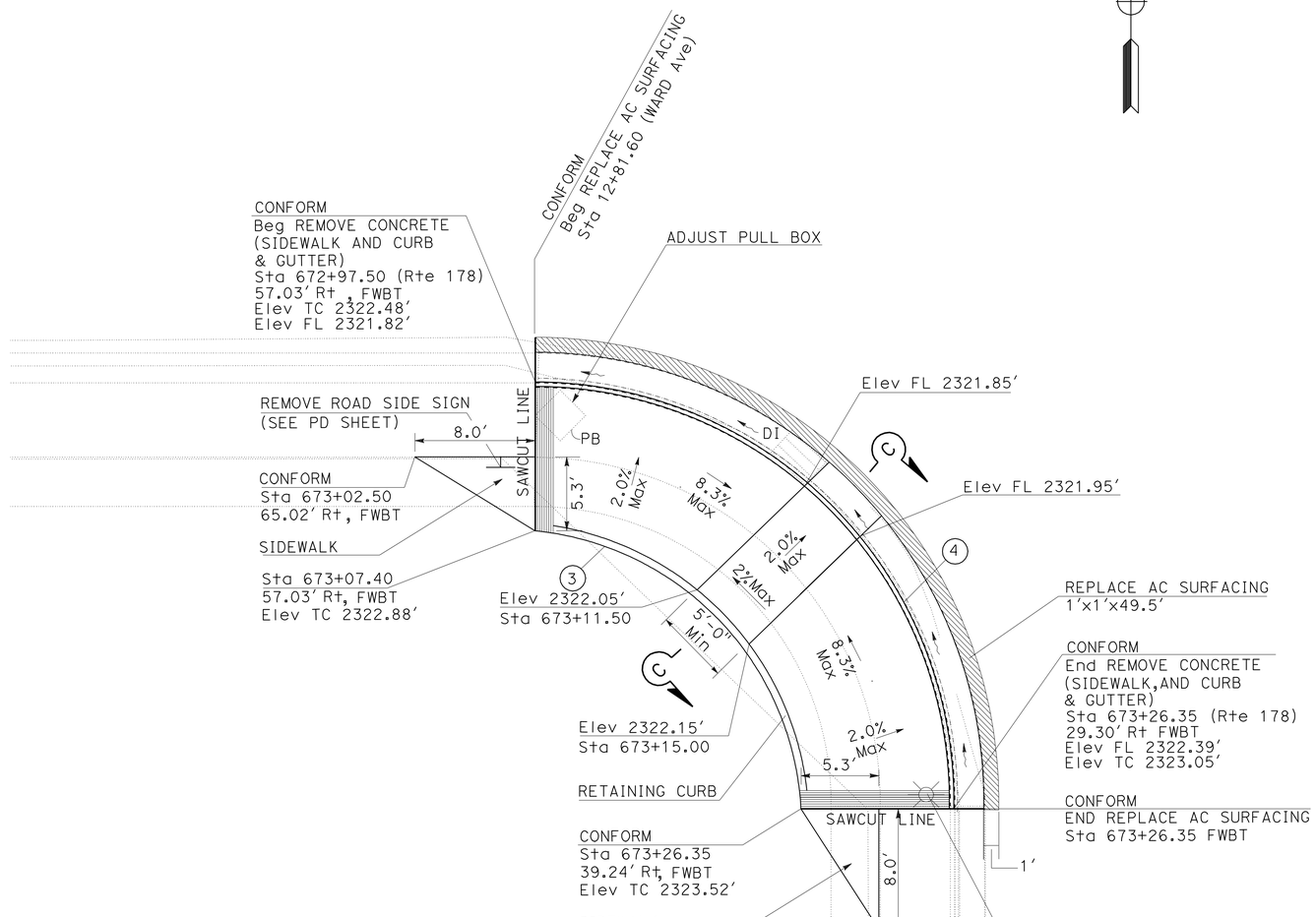
HARPREET BINNING No. 68470 Exp. 9/30/11 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE: 3-1-10

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.

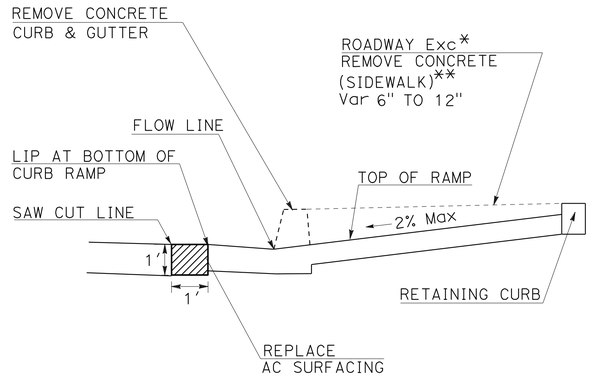
CURVE DATA

No.	R	Δ	T	L
(3)	19.81′	81°18′16"	17.01′	28.11′
(4)	27.81′	90°59′36"	28.29′	44.16′



SW CORNER
CURB RAMP CASE "C"

SCALE: 1" = 5′



*: AT NW CORNER
**: AT SW CORNER

TYPICAL CURB RAMP
SECTION C-C

NO SCALE

CONSTRUCTION DETAILS
C-2

REVISED BY | DATE REVISED
OHANNES BEDROSSIAN | HARPREET BINNING
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: THANH NGUYEN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION | DATE PLOTTED => 04-MAR-2010
01-28-10 | TIME PLOTTED => 14:15

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trlenard | DGN FILE => 60k470ga002.dgn | CU 06245 | EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	5	32

REGISTERED CIVIL ENGINEER — DATE: 01-29-10

PLANS APPROVAL DATE: 3-1-10

REGISTERED PROFESSIONAL ENGINEER — HARPREET BINNING — No. 68470 — Exp. 9/30/11 — CIVIL — STATE OF CALIFORNIA

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

POTHOLE LOCATION TABLE

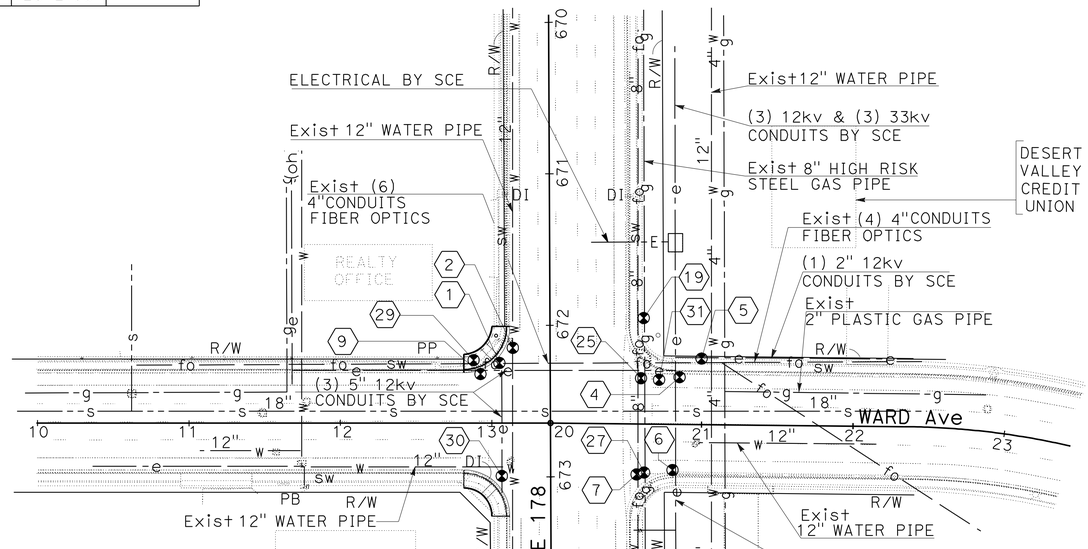
X	UTILITY	NORTHING	EASTING	UTILITY Elev	DEPTH
1	FO-VERIZON	780,624.91	2,098,339.15	2320.31	
2	Water-IWWD	780,635.49	2,098,347.75	2320.31	
4	Elec-SCE	780,615.69	2,098,457.95	2315.44	
5	FO-VERIZON	780,627.97	2,098,472.80	2316.60	0.75′
6	Elec-SCE	780,553.26	2,098,454.95	2318.06	
7	FO-VERIZON	780,552.83	2,098,431.02	2317.10	4.00′
9	Elec-SCE	780,617.56	2,098,326.47	2321.14	4.00′
19	Gas-PGE	780,654.59	2,098,434.35	2317.30	0.67′
25	Gas-PGE	780,614.12	2,098,433.72	2317.82	0.67′
27	Gas-PGE	780,552.81	2,098,434.47	2317.83	0.67′
29	FO-VERIZON	780,626.36	2,098,322.57	2319.06	4.17′
30	Elec-SCE	780,550.39	2,098,340.72	2318.12	
31	Elec-SCE	780,613.95	2,098,444.45	2312.85	

ABBREVIATIONS:

SCE-	SOUTHERN CALIFORNIA EDISON
FO-	Exist FIBER OPTIC
GW-	Exist GUY WIRE
CFMGP-	Exist CONCRETE FILLED METAL GUARD POST
IWWD-	INDIAN WELLS WATER DISTRICT
PGE-	PACIFIC GAS & ELECTRIC

LEGEND — OWNERSHIP

-e- -(oh)	SOUTHERN CALIFORNIA EDISON
-e- -e-	SOUTHERN CALIFORNIA EDISON
fo fo	VERIZON
-g- -g-	PACIFIC GAS & ELECTRIC
--s-- --s	CITY OF RIDGECREST
w w	INDIAN WELLS WATER DISTRICT



SCALE: 1" = 50′

UTILITY PLAN
U-1

THIS PLAN IS ACCURATE FOR UTILITY INFORMATION ONLY.

OHANNES BEDROSSIAN — REVISED BY
HARPREET BINNING — DATE REVISED
CALCULATED-DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR: THANH NGUYEN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION 01-28-10 | DATE PLOTTED => 04-MAR-2010 | TIME PLOTTED => 14:15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	6	32

Hassan Taha 01-28-10
REGISTERED CIVIL ENGINEER DATE

3-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
No. 60130
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

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

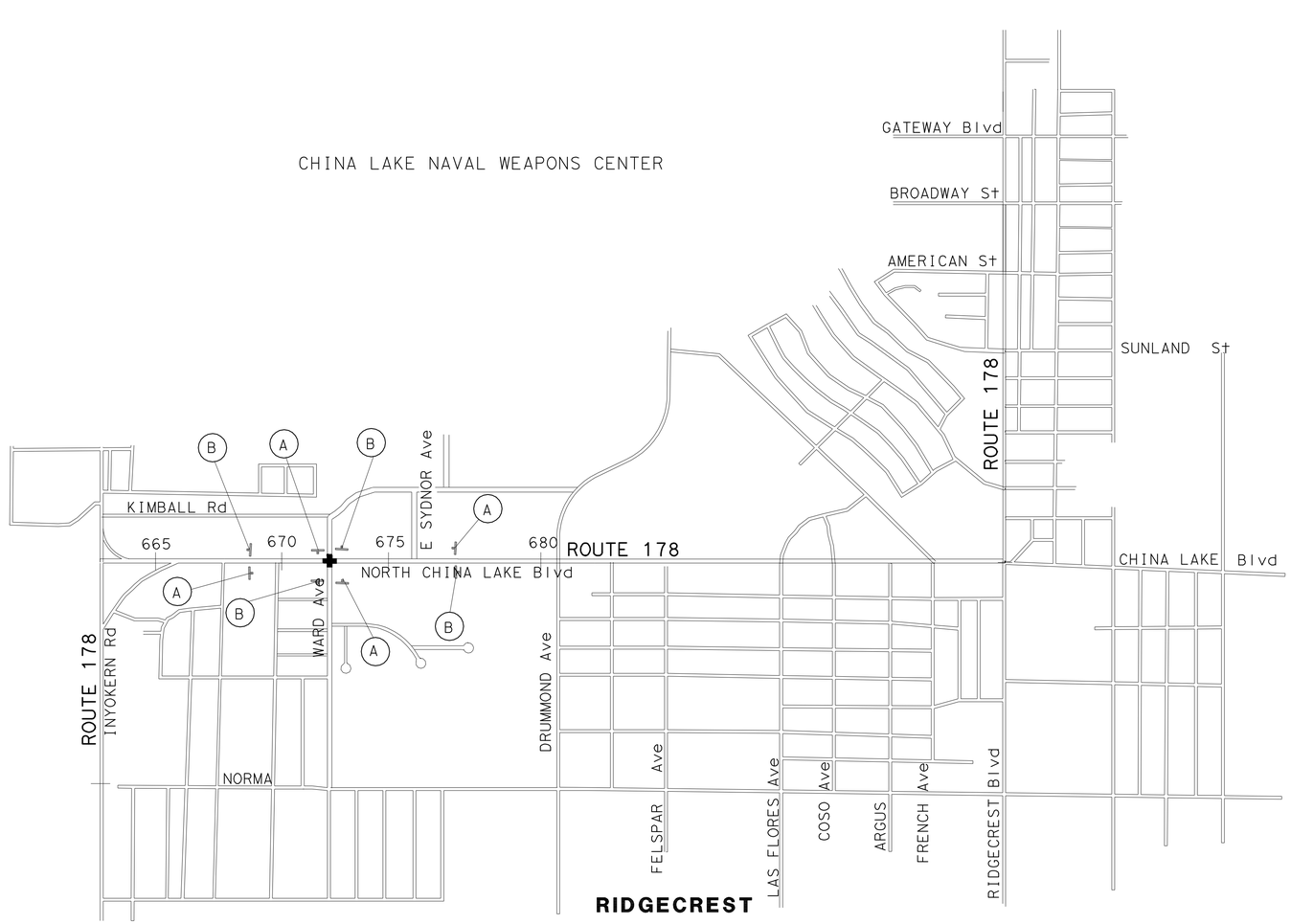
NOTE:

LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE
EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE	No. OF SIGNS
(A)	W20-1	ROAD WORK AHEAD	48" x 48"	1 - 6" x 6"	4
(B)	G20-2	END ROAD WORK	36" x 18"	1 - 4" x 4"	4

CHINA LAKE NAVAL WEAPONS CENTER



CHINA LAKE NAVAL WEAPONS CENTER

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: MOHAMMED OATAMI
CALCULATED-DESIGNED BY: VANIK POGOSYAN
CHECKED BY: HASSAN TAHA
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 04-MAR-2010
TIME PLOTTED => 14:15
01-28-10

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 60k4701a001.dgn

CU 06386

EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	7	32

Hassan Taha 01-28-10
REGISTERED CIVIL ENGINEER DATE

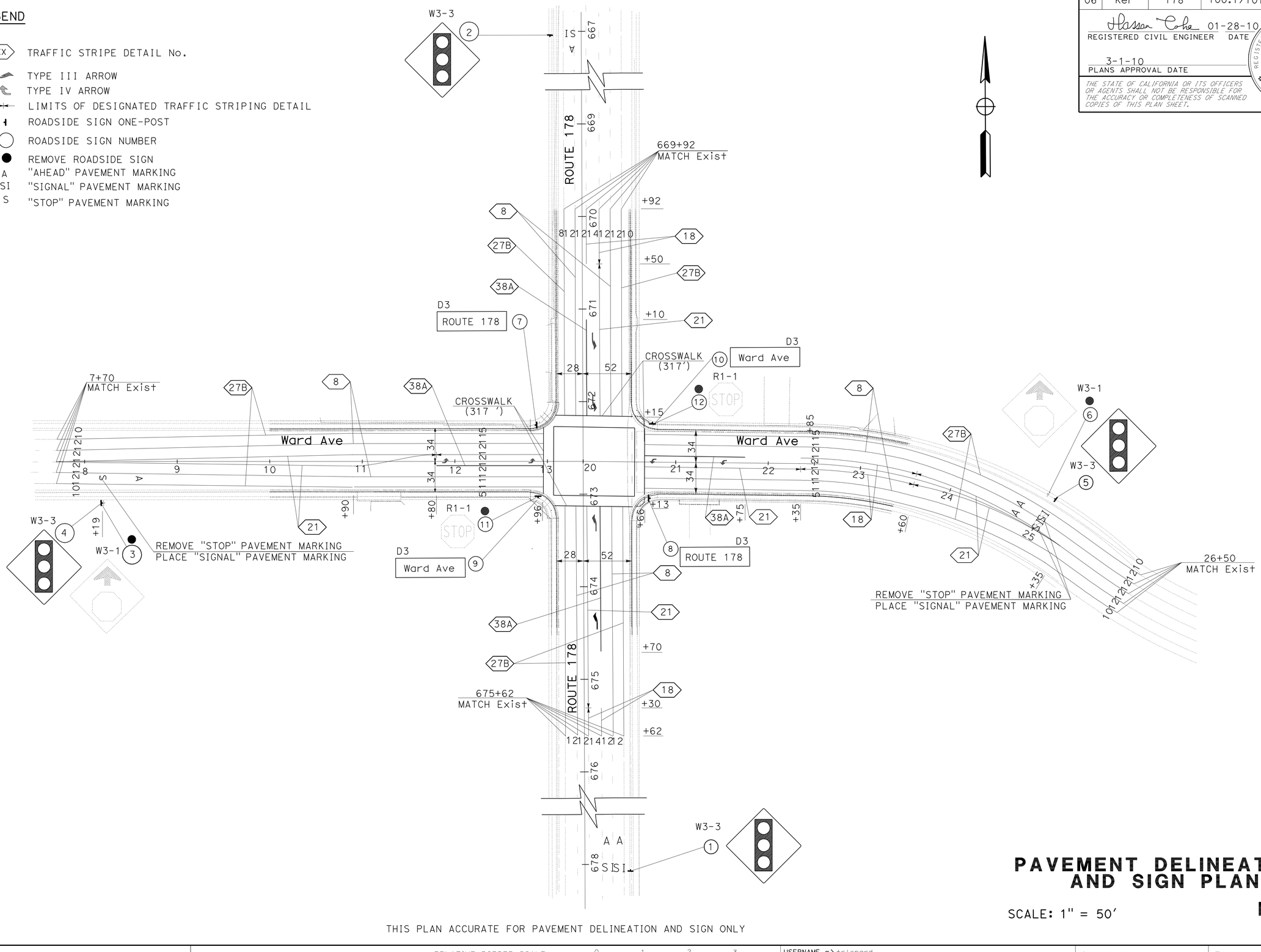
3-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
No. 60130
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

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

LEGEND

- XX — TRAFFIC STRIPE DETAIL No.
- TYPE III ARROW
- TYPE IV ARROW
- LIMITS OF DESIGNATED TRAFFIC STRIPING DETAIL
- ROADSIDE SIGN ONE-POST
- ROADSIDE SIGN NUMBER
- REMOVE ROADSIDE SIGN
- A "AHEAD" PAVEMENT MARKING
- SI "SIGNAL" PAVEMENT MARKING
- S "STOP" PAVEMENT MARKING



THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN ONLY

PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1" = 50'

PD-1

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: VANIK POGOSYAN
CHECKED BY: HASSAN TAHA
FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

LAST REVISION | DATE PLOTTED => 04-MAR-2010
01-28-10 | TIME PLOTTED => 14:15

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 60k470na001.dgn

CU 06386

EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	8	32

Hassan Taha 01-28-10
REGISTERED CIVIL ENGINEER DATE

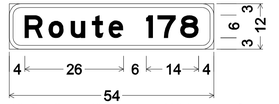
HASSAN M. TAHA No. 60130 Exp. 06/30/10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

3-1-10
PLANS APPROVAL DATE

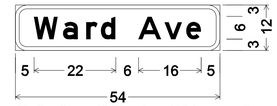
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PAVEMENT DELINEATION QUANTITIES

SHEET No.	LOCATION	DETAIL No.	PAINT TRAFFIC STRIPE (2-COAT) 4" YELLOW	4" WHITE	8" WHITE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE YELLOW PAINTED TRAFFIC STRIPE	THERMOPLASTIC PAVEMENT MARKING		REMOVE PAVEMENT MARKING
			LF	LF	LF	LF	LF	Description	SQFT	SQFT
PD-1	Sta 7+70 TO 12+96	27B		1052		1052		6-TYPE IV ARROW	90	
	Sta 7+70 TO 12+96	8		1052		307		4-TYPE III ARROW	168	
	Sta 7+70 TO 11+80	21	820				1640	8-CROSSWALK	634	
	Sta 11+80 TO 12+96	21	116				232	6-"SIGNAL"	192	
	Sta 11+80 TO 12+96	38A			116	232		6-"AHEAD"	186	
	Sta 20+66 TO 21+75	38A			109	218		2-"STOP"		44
	Sta 20+66 TO 22+35	21	169				338			
	Sta 20+66 TO 26+50	8		1168		340				
	Sta 20+66 TO 26+50	27B		1168		1168				
	Sta 22+35 TO 23+60	18	250				313			
	Sta 23+60 TO 25+35	21	175				350			
	Sta 23+60 TO 26+50	21	290				580			
	Sta 669+92 TO 672+15	8		446		130				
	Sta 669+92 TO 672+15	27B		446		446				
	Sta 669+92 TO 670+50	18	116				145			
	Sta 670+50 TO 672+15	21	165				330			
	Sta 671+10 TO 672+15	38A			105	210				
	Sta 673+13 TO 674+70	38A			157	314				
	Sta 673+13 TO 675+62	8		498		143				
	Sta 673+13 TO 675+62	27B		498		498				
	Sta 673+13 TO 675+30	21	217				436			
	Sta 675+30 TO 675+62	18	64				80			
	SUB TOTAL		2382	6328	487	5058	4444		1270	44
	TOTAL			9197		5058	4444		1270	44



3" Radius, 1" Border, White on Green;
[Route 178] E;



3" Radius, 1" Border, White on Green;
[Ward Ave] E;

NO SCALE

SIGN QUANTITIES

SHEET No.	SIGN (No.)	SIGN CODE	SIGN MESSAGE	No. OF POST AND SIZE	PANEL SIZE	BACKGROUND SHEETING COLOR	BACKGROUND RETROREFLECTIVITY ASTM TYPE	LEGEND SHEETING COLOR	LEGEND RETROREFLECTIVITY ASTM TYPE	STANDARD GRAFFITI FILM	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	ROADSIDE SIGN ONE POST	ROADSIDE SIGN (SSBM)*	REMOVE ROADSIDE SIGN
											SQFT	EA	EA	
PD-1	1	W3-3	SIGNAL AHEAD	1 - 4"x 6"	48" x 48"	YELLOW	III	R/G/B/Y	IV	X	16.00	1		
	2	W3-3	SIGNAL AHEAD	1 - 4"x 6"	48" x 48"	YELLOW	III	R/G/B/Y	IV	X	16.00	1		
	3	W3-1	STOP AHEAD											1
	4	W3-3	SIGNAL AHEAD	1 - 4"x 6"	48" x 48"	YELLOW	III	R/G/B/Y	IV	X	16.00	1		
	5	W3-3	SIGNAL AHEAD	1 - 4"x 6"	48" x 48"	YELLOW	III	R/G/B/Y	IV	X	16.00	1		
	6	W3-1	STOP AHEAD											1
	7	D3	ROUTE 178	ON MAST ARM	54" x 12"	GREEN	III	WHITE	IV	X	4.50		1	
	8	D3	ROUTE 178	ON MAST ARM	54" x 12"	GREEN	III	WHITE	IV	X	4.50		1	
	9	D3	Ward Ave	ON MAST ARM	54" x 12"	GREEN	III	WHITE	IV	X	4.50		1	
	10	D3	Ward Ave	ON MAST ARM	54" x 12"	GREEN	III	WHITE	IV	X	4.50		1	
	11	R1-1	STOP											1
	12	R1-1	STOP											1
										TOTAL	82.00	4		4

* NOT A SEPARATE PAY ITEM, See E-PLANS.

PAVEMENT DELINEATION, SIGN DETAILS AND QUANTITIES
PDQ-1

REVISED BY | DATE REVISED
VANIK POGOSYAN | HASSAN TAHA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

LAST REVISION | DATE PLOTTED => 04-MAR-2010
01-28-10 | TIME PLOTTED => 14:15

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trienard
DGN FILE => 60k470nc001.dgn

CU 06386

EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	9	32

Mona Attallah 01-29-10
REGISTERED ELECTRICAL ENGINEER DATE

3-1-10
PLANS APPROVAL DATE

MONA N. ATTALLAH No. 18407 Exp. 6/30/10 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

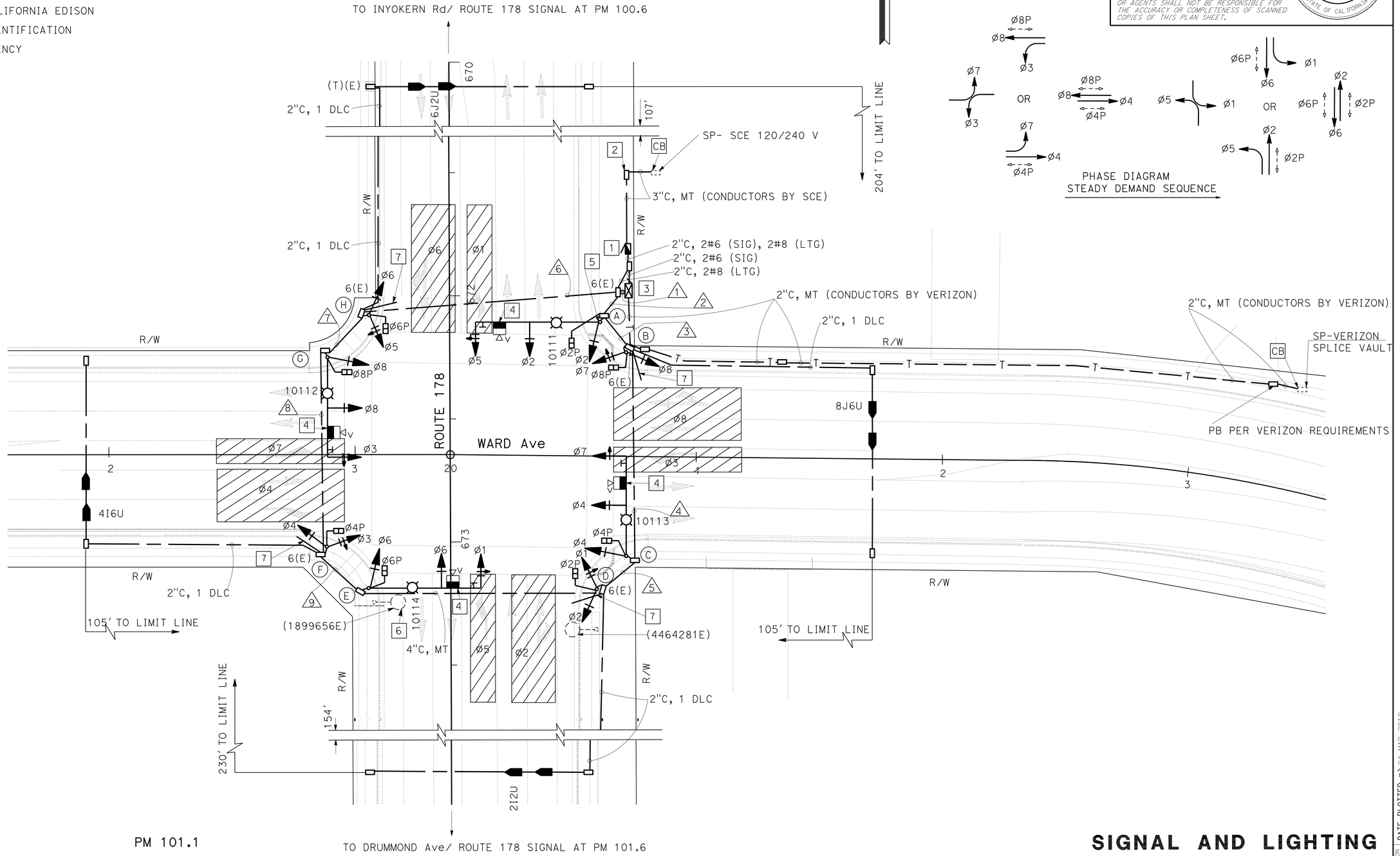
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR NOTES AND SCHEDULES, SEE SHEET E-2.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

ABBREVIATIONS: (SHEET E-1 TO E-4)

SCE	SOUTHERN CALIFORNIA EDISON
CTID	CALTRANS IDENTIFICATION
RF	RADIO FREQUENCY



SIGNAL AND LIGHTING

SCALE: 1" = 20'

E-1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

CALCULATED-DESIGNED BY	CHECKED BY	FUNCTIONAL SUPERVISOR	REVISED BY	DATE REVISED
MONA ATTALLAH	RAJPREET SINGH	ALI BAKHDOUD		

LAST REVISION | DATE PLOTTED => 04-MAR-2010
01-26-10 | TIME PLOTTED => 14:15

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 60k470ua001 .dgn

CU 06391

EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	10	32

REGISTERED ELECTRICAL ~~ENGINEER~~ DATE 01-29-10

MONA N. ATTALLAH No. 18407 Exp 6/30/10 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

3-1-10
PLANS APPROVAL DATE

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

NOTES: (FOR SHEET E-1 AND E-2)

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

CTID No. 06501780001011T

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

CTID No. 06501780001011L

AMPERES	VOLTS	POLES	NAME PLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	——
40	240	2	HIGHWAY LIGHTING	YES	IV
20	240	2	SPARE	YES	——
20	120	1	SPARE	YES	——
——	——	6	SPACE	YES	——

2 PULL BOX PER SCE REQUIREMENT.

3 STATE-FURNISHED MODEL 2070 CONTROLLER ASSEMBLY AND BATTERY BACKUP SYSTEM. INSTALL STATE-FURNISHED MODEM IN MODEL 332 CABINET.

4 VIDEO IMAGE SENSOR ASSEMBLY ON SIGNAL MAST ARM, SEE DETAIL A ON SHEET E-4.

5 INSTALL 2 YAGI DIRECTIONAL ANTENNAS TO COMMUNICATE WITH WIRELESS SYSTEMS AT INTERSECTIONS OF ROUTE 178/ DRUMMOND Ave AND ROUTE 178/ INYOKERN Rd. SEE DETAIL B ON SHEET E-4 FOR ANTENNA INSTALLATION.

6 THE CONTRACTOR SHALL COORDINATE WITH SCE FOR REMOVAL OF THE LIGHT POLE.

7 2"C CURB TERMINATION FOR FUTURE LOOPS.

8. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE			CONDUIT RUN NUMBER AND SIZE								
CABLE TYPE	POLE	PHASE	1 2-4"	2 4"	3 4"	4 4"	5 4"	6 4"	7 4"	8 4"	9 4"
VEH-PED 12CSC / PPB 3CSC	A	2,5,2P 8	1 1	1 1							
	B	7,8,8P 2	1 1	1 1	1 1						
	C	4,7,4P 2	1 1	1 1	1 1	1 1					
	D	1,2,2P 4	1 1	1 1	1 1	1 1	1 1				
	E	1,6,6P 4	1 1					1 1	1 1	1 1	1 1
	F	3,4,4P 6	1 1					1 1	1 1	1 1	
	G	3,8,8P 6	1 1					1 1	1 1		
	H	5,6,6P 8	1 1					1 1			
	TOTAL		8 8	4 4	3 3	2 2	1 1	4 4	3 3	2 2	1 1
AWG	CIRCUIT										
#8	LIGHTING			2	2	2		2	2	2	2
LOW LOSS RF CABLE			1	1							
VIDEO CABLE HARNESS	POLE	PHASE									
	A	5,2	1	1							
	C	4,7	1	1	1	1					
	E	6,1	1					1	1	1	1
	G	8,3	1					1	1		
	TOTAL		4	2	1	1	0	2	2	1	1
DLC	PHASE										
	Ø2 ADVANCE		1	1	1	1	1				
	Ø4 ADVANCE		1					1	1	1	
	Ø6 ADVANCE		1					1			
	Ø8 ADVANCE		1	1	1						
	TOTAL DLC		4	2	2	1	1	2	1	1	0

POLE AND EQUIPMENT SCHEDULE

STANDARD				VEH SIG MTG		PED SIG MTG	PPB		LED LUM (W)	SPECIAL REQUIREMENTS
No.	TYPE	SMA	LMA	MAST ARM	POLE		Ø	ARROW		
A	29-5-100	50′	15′	MAS MAS	SV-1-T	SP-1-T	8	←	165	F=22′, INSTALL D3 SIGN (WARD Ave) ON SMA. 5
B	1-A				TV-2-T	SP-1-T	2	→		
C	26-4-100	40′	12′	MAS MAS	SV-1-T	SP-1-T	2	←	165	F=20′, INSTALL D3 SIGN (ROUTE 178) ON SMA.
D	1-A				TV-2-T	SP-1-T	4	→		
E	26-4-100	45′	15′	MAS MAS	SV-1-T	SP-1-T	4	←	165	F=16′, INSTALL D3 SIGN (WARD Ave) ON SMA.
F	1-A				TV-2-T	SP-1-T	6	→		
G	26-4-100	40′	12′	MAS MAS	SV-1-T	SP-1-T	6	←	165	F=20′, INSTALL D3 SIGN (ROUTE 178) ON SMA.
H	1-A				TV-2-T	SP-1-T	8	→		

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SIGNAL AND LIGHTING

E-2

NO SCALE

REVISED BY | DATE REVISED
MONA ATTALLAH | RAJPREET SINGH
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

LAST REVISION 01-26-10
DATE PLOTTED => 09-MAR-2010
TIME PLOTTED => 10:48

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmikesl
DGN FILE => 60K470ug002 .dgn
CU 06391
EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	11	32

Mona Attallah 01-29-10
REGISTERED ELECTRICAL ENGINEER DATE

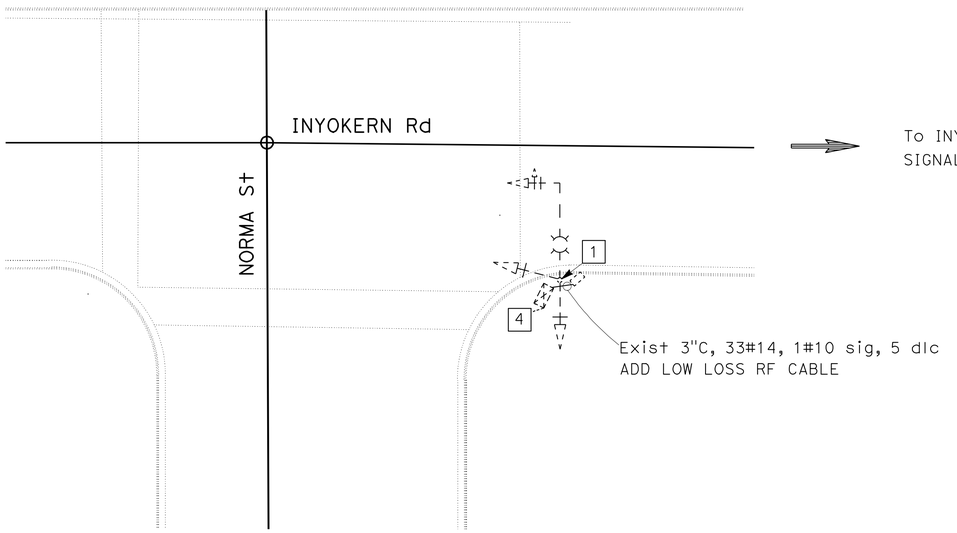
3-1-10
PLANS APPROVAL DATE

MONA N. ATTALLAH No. 18407 Exp 6/30/10 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

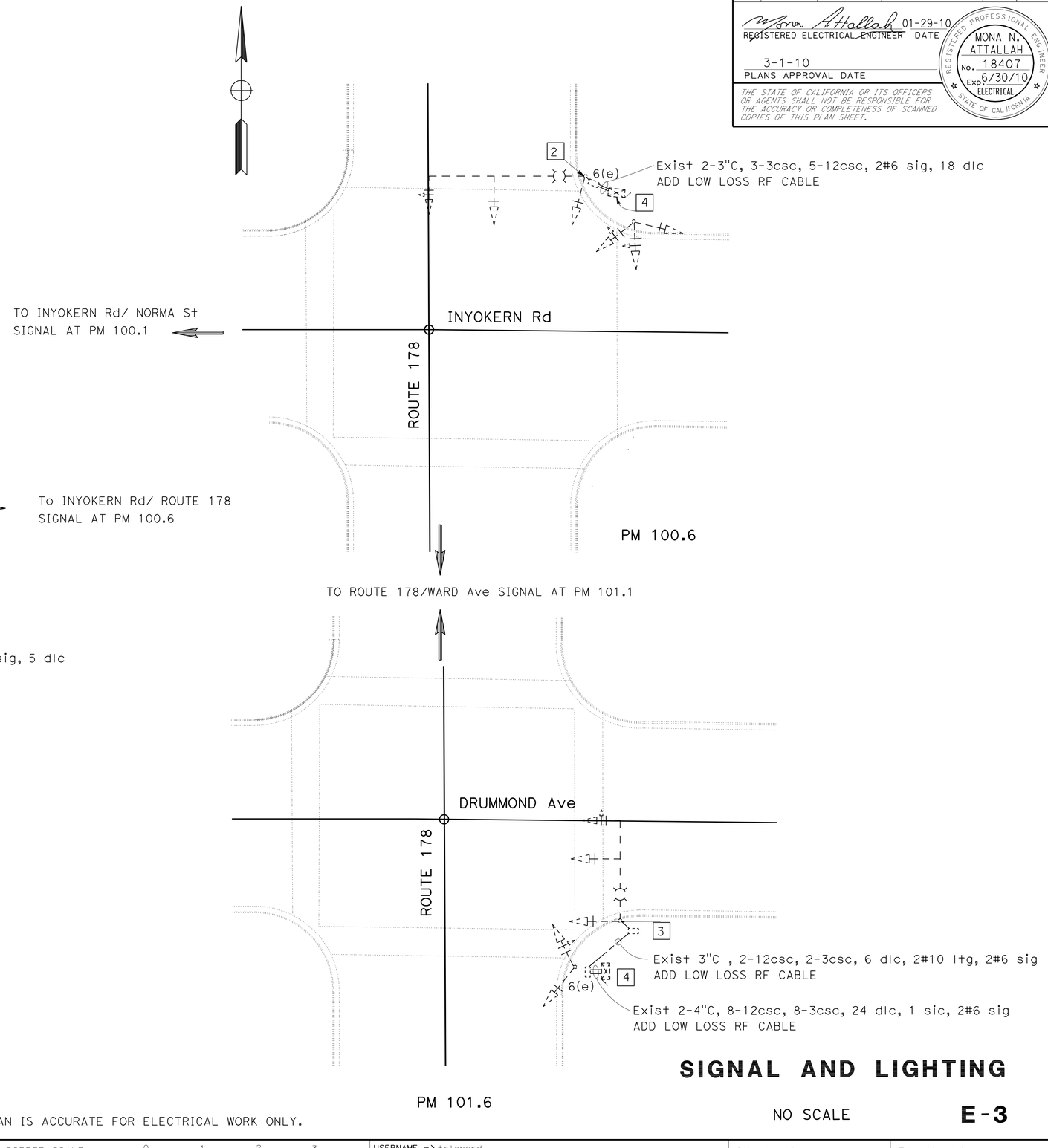
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES: (FOR THIS SHEET ONLY)

1. INSTALL YAGI DIRECTIONAL ANTENNA TO COMMUNICATE WITH WIRELESS SYSTEM AT INTERSECTION OF ROUTE 178/INYOKERN Rd. SEE DETAIL B ON SHEET E-4 FOR ANTENNA INSTALLATION.
2. INSTALL 2 YAGI DIRECTIONAL ANTENNAS TO COMMUNICATE WITH WIRELESS SYSTEMS AT INTERSECTIONS OF INYOKERN Rd/NORMA St AND ROUTE 178/WARD Ave. SEE DETAIL B ON SHEET E-4 FOR ANTENNA INSTALLATION.
3. INSTALL YAGI DIRECTIONAL ANTENNA TO COMMUNICATE WITH WIRELESS SYSTEM AT INTERSECTION OF ROUTE 178/WARD Ave. SEE DETAIL B ON SHEET E-4 FOR ANTENNA INSTALLATION.
4. Exist MODEL 170 CONTROLLER ASSEMBLY WITH BATTERY BACKUP SYSTEM. INSTALL STATE-FURNISHED MODEM IN MODEL 332 CABINET.
5. RIGHT OF WAY LIMITS ARE INDETERMINATE, AND ARE NOT SHOWN. THE CONTRACTOR MUST CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE FOR CONDITIONS OF USE PRIOR TO COMMENCING WORK.



PM 100.1



PM 101.6

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SIGNAL AND LIGHTING

NO SCALE

E-3

CALCULATED-DESIGNED BY: MONA ATTALLAH
CHECKED BY: RAJPREET SINGH
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
REVISED BY / DATE REVISED:

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

LAST REVISION DATE PLOTTED => 04-MAR-2010
TIME PLOTTED => 14:15
01-26-10

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 60k470ua003.dgn

CU 06391

EA 0K4701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	100.1/101.6	12	32

Mona Attallah 01-29-10
REGISTERED ELECTRICAL ENGINEER DATE

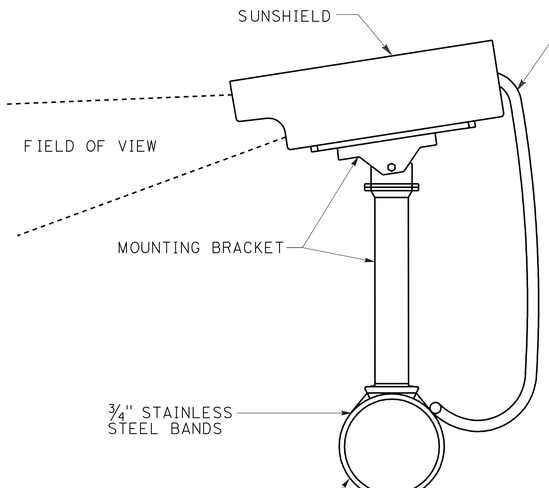
3-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MONA N. ATTALLAH
No. 18407
Exp 6/30/10
ELECTRICAL
STATE OF CALIFORNIA

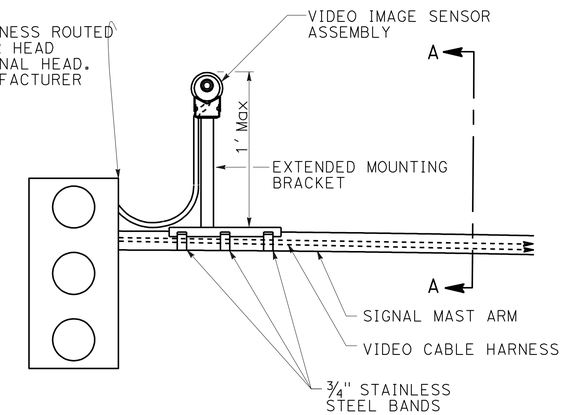
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES: (FOR THIS SHEET ONLY)

1. EXACT MOUNTING LOCATION OF VIDEO IMAGE SENSOR ASSEMBLY AND BRACKET SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
2. CABLES SHALL HAVE DRIP LOOPS AT ENTRANCE INTO SIGNAL POLE.
3. CABLES SHALL NOT BE TWISTED BETWEEN VIDEO IMAGE SENSOR ASSEMBLY AND CONTROLLER CABINET.

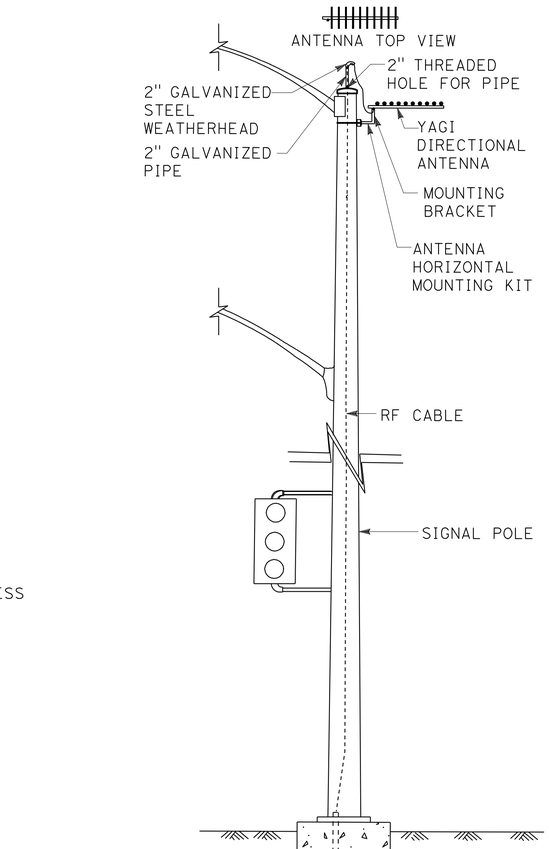


SECTION A-A



SIGNAL MAST ARM MOUNT

VIDEO IMAGE SENSOR ASSEMBLY MOUNTING DETAILS
DETAIL A



YAGI DIRECTIONAL ANTENNA INSTALLATION
WITH MOUNT
DETAIL B

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SIGNAL AND LIGHTING

E-4

NO SCALE

CALCULATED-DESIGNED BY: MONA ATTALLAH
CHECKED BY: RAJPREET SINGH
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
REVISED BY / DATE REVISED:

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

LAST REVISION 01-26-10
DATE PLOTTED => 04-MAR-2010
TIME PLOTTED => 14:15

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
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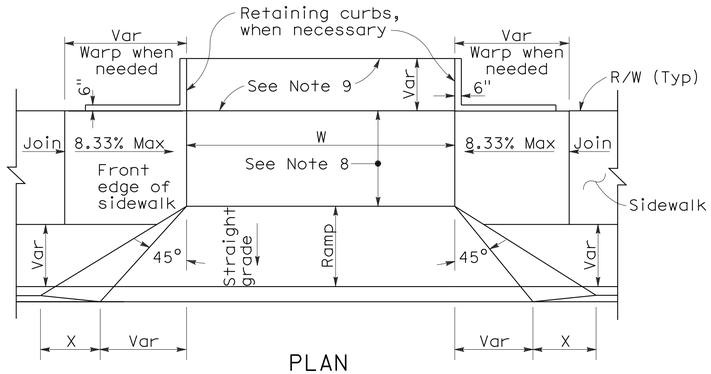
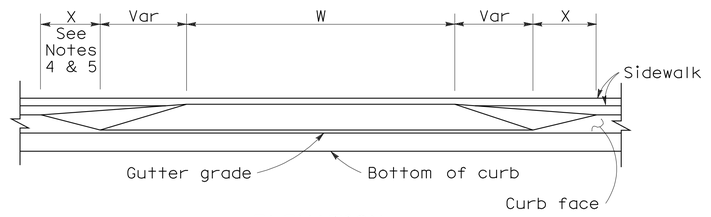
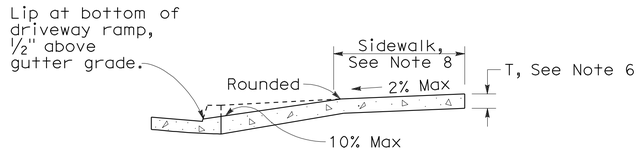
DGN FILE => 60k470ua004.dgn
CU 06391
EA 0K4701



PLAN

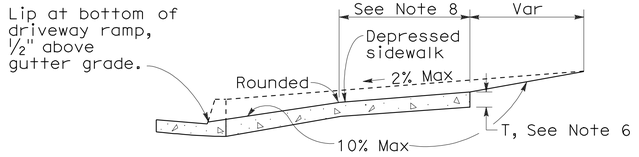


ELEVATION



CASE A

Typical driveway, sidewalk not depressed



CASE B

Driveway with depressed sidewalk

SECTIONS

CURB QUANTITIES

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	13	32

REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Michael Janzen — No. 44788 — Exp. 03-31-08 CIVIL — STATE OF CALIFORNIA

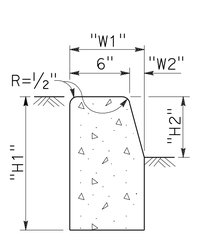
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 3-1-10

TABLE A

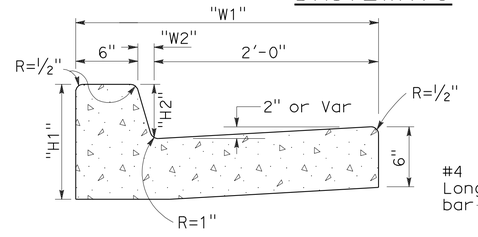
CURB TYPE	DIMENSIONS "H1"	"H2"	"W1"	"W2"
A1-6	1′-2"	6"	7½"	1½"
A1-8	1′-4"	8"	8"	2"
A2-6	1′-0"	6"	2′-7½"	1½"
A2-8	1′-2"	8"	2′-8"	2"
A3-6	6"	5"	7¼"	1¼"
A3-8	8"	7"	7¾"	1¾"
B1-4	1′-0"	4"	7½"	2½"
B1-6	1′-2"	6"	9"	4"
B2-4	10"	4"	2′-7½"	2½"
B2-6	1′-0"	6"	2′-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8½"	3½"
D-4	10"	4"	1′-6"	1′-1"
D-6	1′-0"	6"	2′-2"	1′-8"

DRIVEWAYS



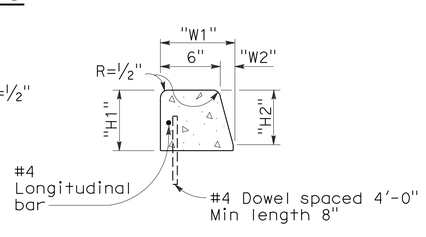
TYPE A1 CURBS

See Table A



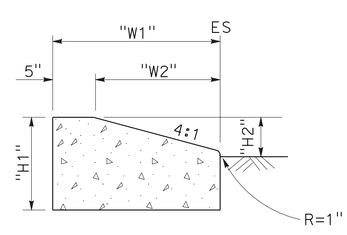
TYPE A2 CURBS

See Table A



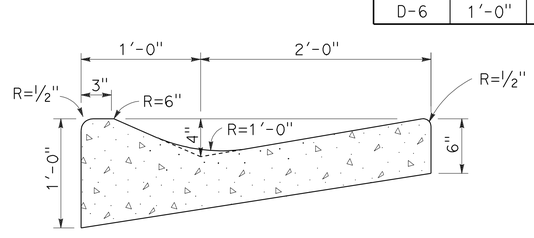
TYPE A3 CURBS

Superimposed on existing pavement
See Table A

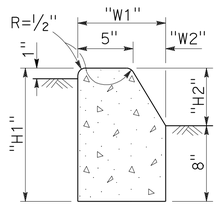


TYPE D CURBS

See Table A

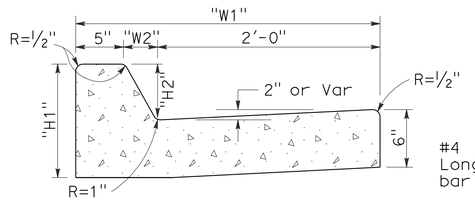


TYPE E CURB



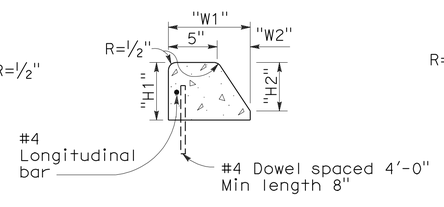
TYPE B1 CURBS

See Table A



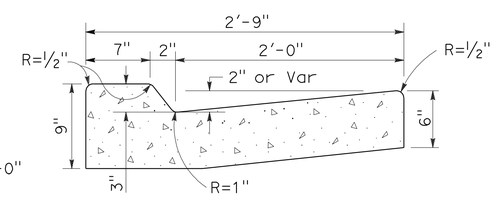
TYPE B2 CURBS

See Table A

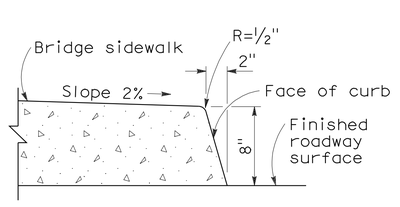


TYPE B3 CURBS

Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB

On Bridges

NOTES:

1. Case A driveway section typically applies.
2. Use Case B driveway section when ramp slopes would exceed 10% in Case A.
3. Use Case B driveway section when sidewalk cross slope would exceed 2% in Case A.
4. X=3′-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.

CURBS

5. X is a variable when sidewalk is located where wheelchairs may traverse the surface. Slopes shall not exceed 8.33%.
6. Sidewalk and ramp thickness "T" at driveway shall be 4" for residental and 6" for commercial.
7. Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5′-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
8. Minimum width of clear passageway for sidewalk shall be 4′-0".
9. Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
10. Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2′-0" of width.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURBS AND DRIVEWAYS

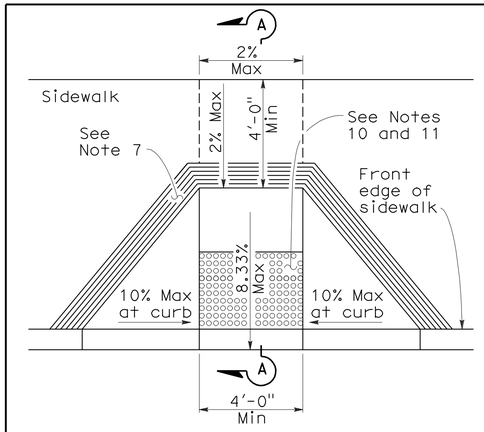
NO SCALE

RSP A87A DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN A87A
DATED MAY 1, 2006 - PAGE 113 OF THE STANDARD PLANS BOOK DATED MAY 2006.

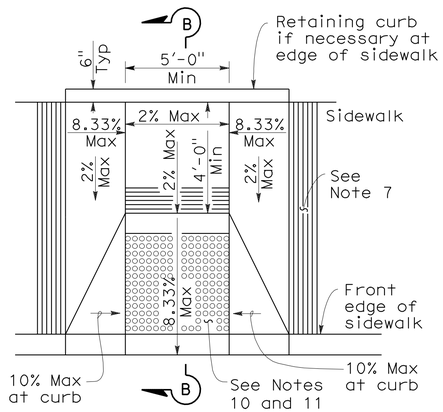
REVISED STANDARD PLAN RSP A87A

2006 REVISED STANDARD PLAN RSP A87A

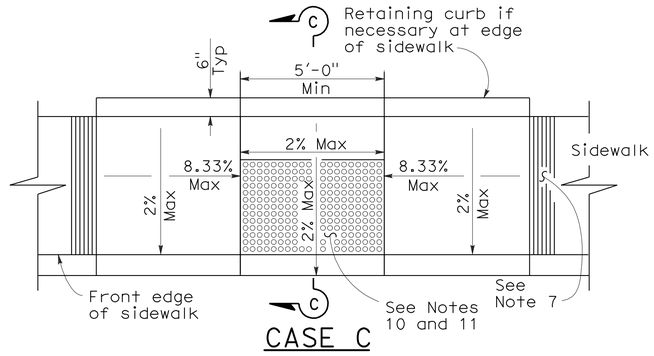
10-25-06



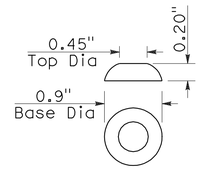
CASE A



CASE B



CASE C



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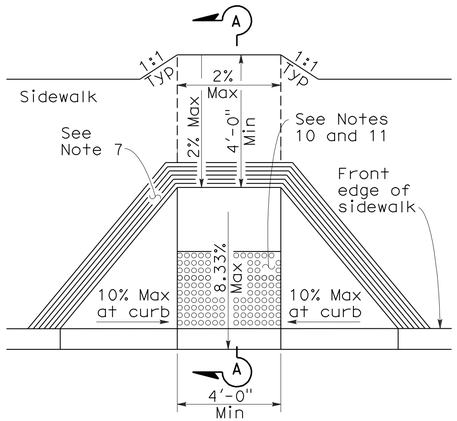
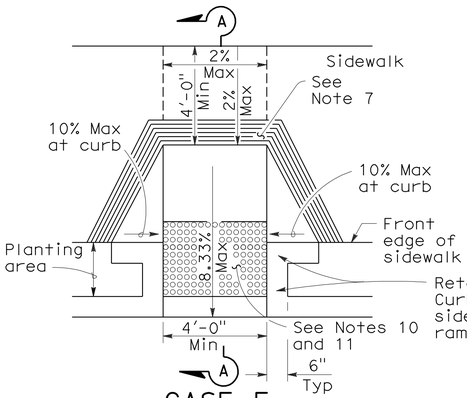
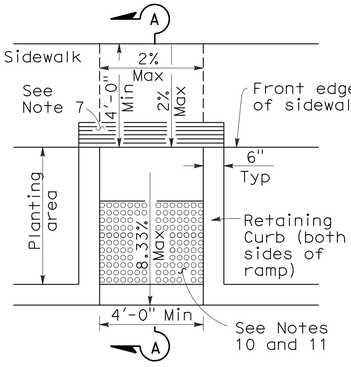


CASE D



CASE E



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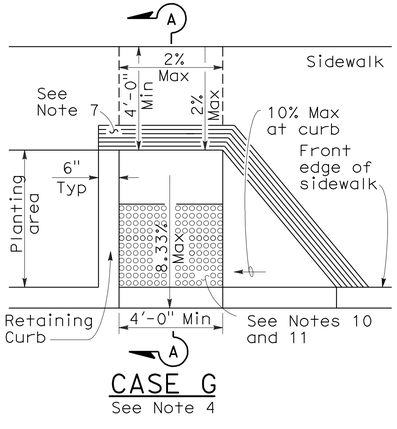
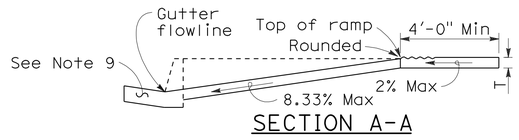
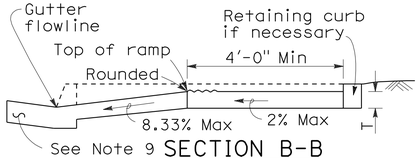


CASE G
See Note 4

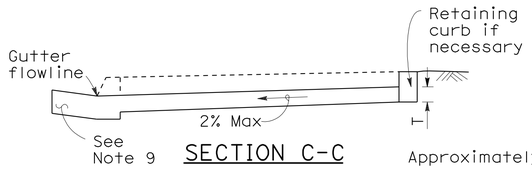


SECTION A-A

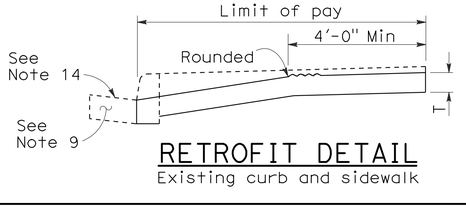


SECTION B-B

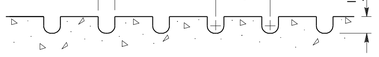
Depress entire sidewalk as required



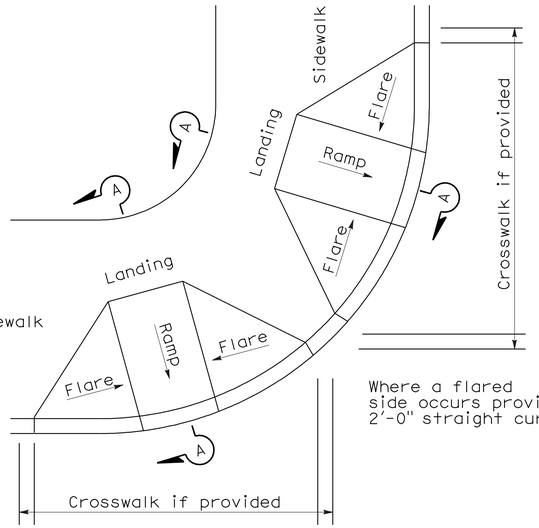
SECTION C-C



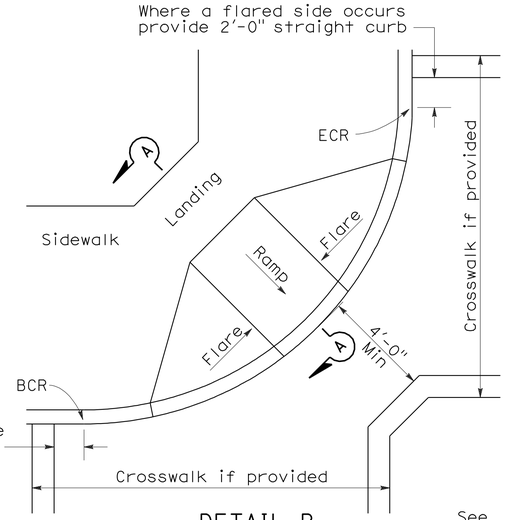
RETROFIT DETAIL
Existing curb and sidewalk



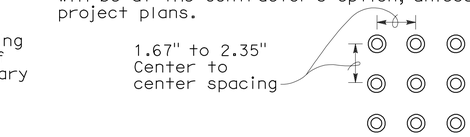
GROOVING DETAIL



DETAIL A
TYPICAL TWO-RAMP CORNER INSTALLATION
See Note 1



DETAIL B
TYPICAL ONE-RAMP CORNER INSTALLATION
See Notes 1 and 3



RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE
See Note 10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	14	32

H. David Cordova
REGISTERED CIVIL ENGINEER

September 1, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Hector David Cordova — No. C41957 — Exp. 3-31-08 CIVIL — STATE OF CALIFORNIA

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To accompany plans dated 3-1-10

NOTES:

1. As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
2. If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-0" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B, or C or may be widened as in Case D.
3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
4. As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
5. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-0".
6. Side slope of ramp flares vary uniformly from a maximum of 10% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
7. The curb ramp shall be outlined, as shown, with a 1'-0" wide border with 1/4" grooves approximately 3/4" on center. See grooving detail.
8. Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.
9. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 5 percent within 4'-0" of the top and bottom of the curb ramp.
10. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
11. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
12. Sidewalk and ramp thickness, "T", shall be 3½" minimum.
13. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
14. For retrofit conditions, removal and replacement of curb apron will be at the Contractor's option, unless otherwise shown on project plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS

NO SCALE

RSP A88A DATED SEPTEMBER 1, 2006 SUPERSEDES STANDARD PLAN A88A
DATED MAY 1, 2006 - PAGE 115 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A88A

2006 REVISED STANDARD PLAN RSP A88A

8-3-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	15	32

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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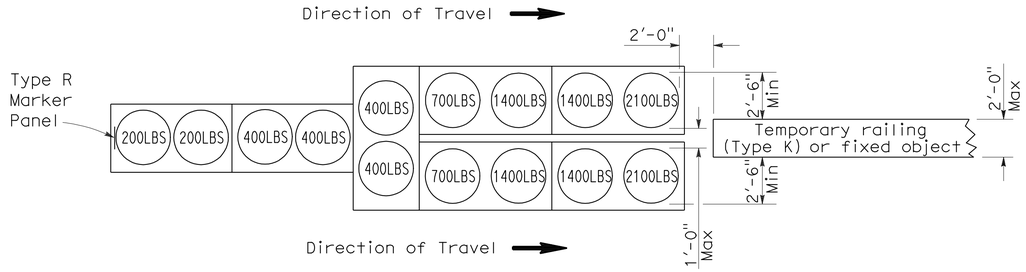
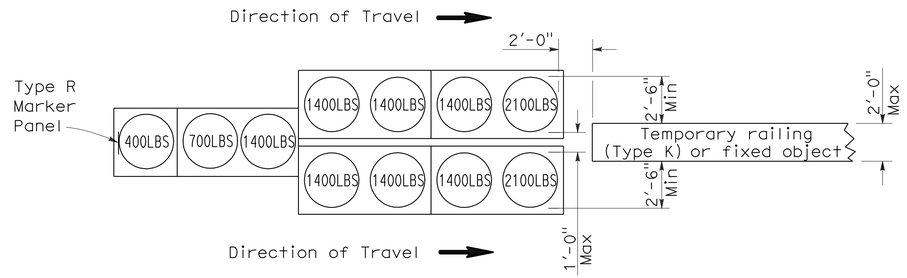
To accompany plans dated 3-1-10



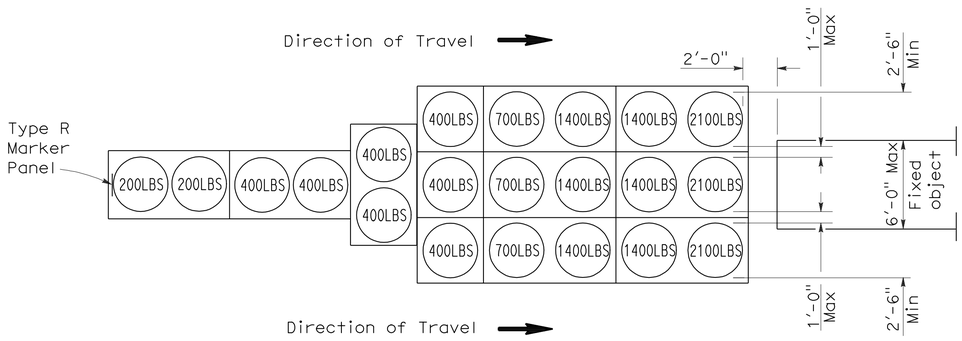
ARRAY 'TU14'

Approach speed 45 mph or more



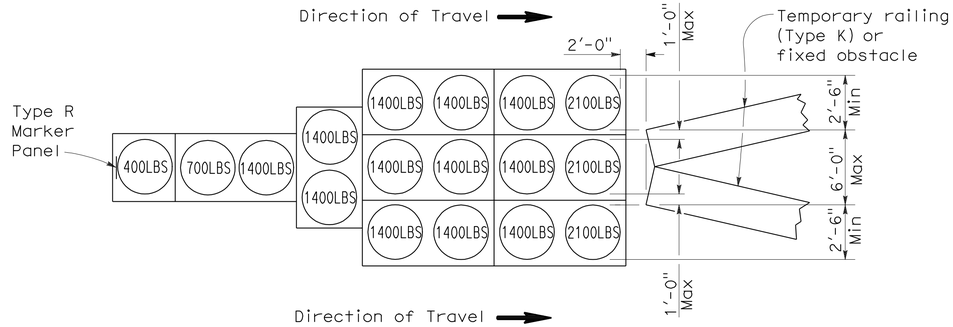
ARRAY 'TU11'

Approach speed less than 45 mph



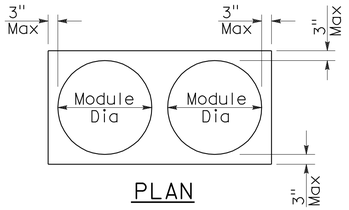
ARRAY 'TU21'

Approach speed 45 mph or more

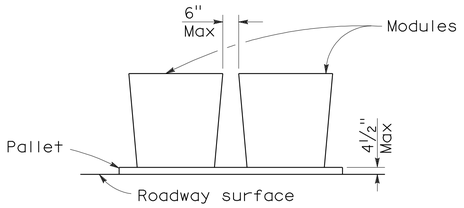


ARRAY 'TU17'

Approach speed less than 45 mph



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	16	32

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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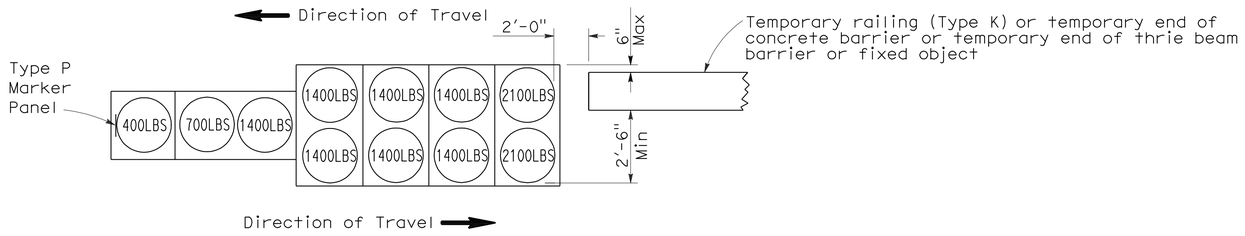
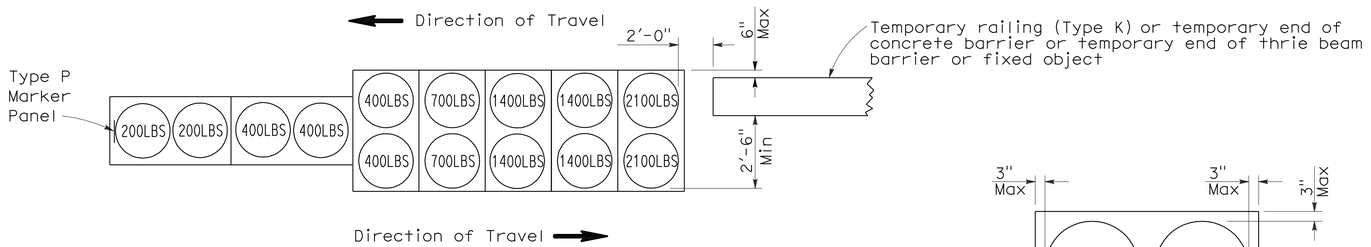
To accompany plans dated 3-1-10



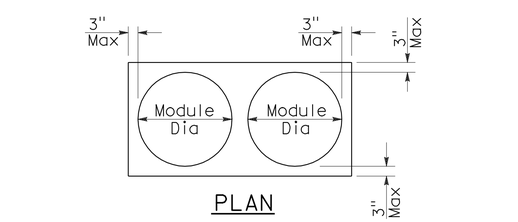
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	17	32

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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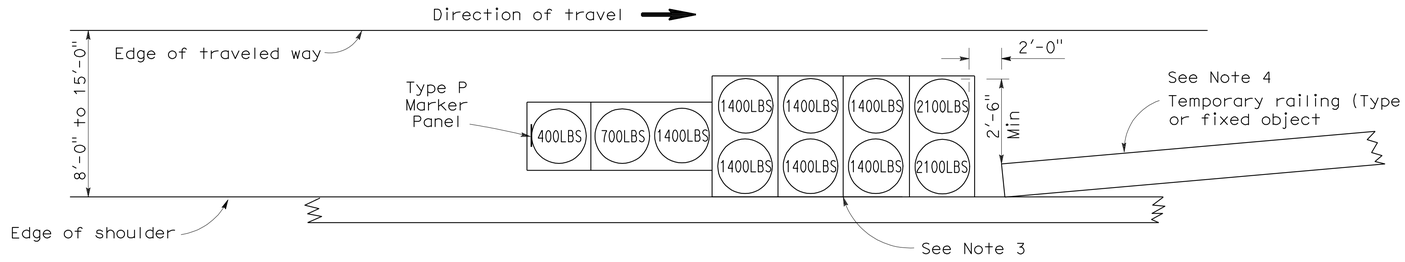
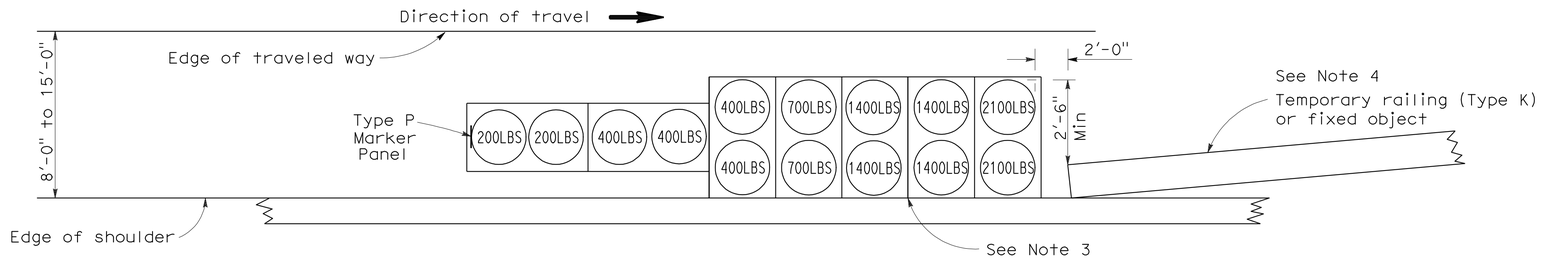
To accompany plans dated 3-1-10



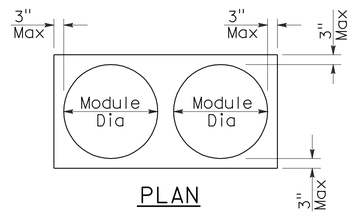
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

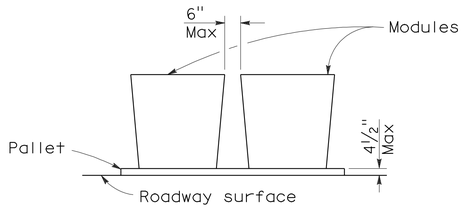


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
4. If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
5. Temporary crash cushion arrays shall not encroach on the traveled way.
6. Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
7. Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
8. Refer to Standard Plan A73B for marker details.
9. For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
10. Approach speeds indicated conform to NCHRP 350 Report criteria.
11. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	18	32

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS Approval DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3825 — Signature 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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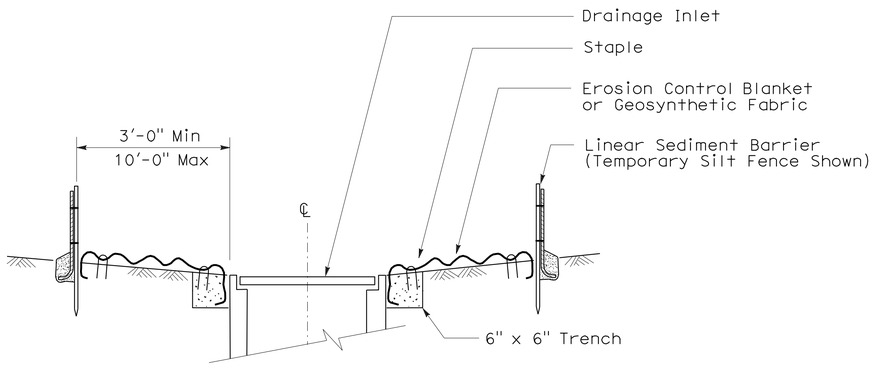
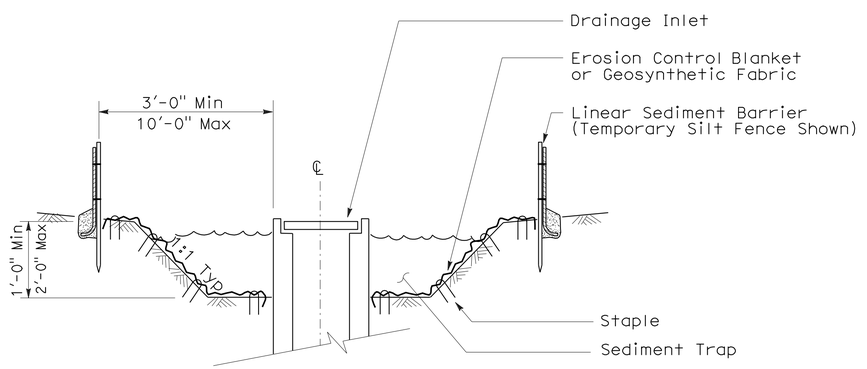
To accompany plans dated 3-1-10



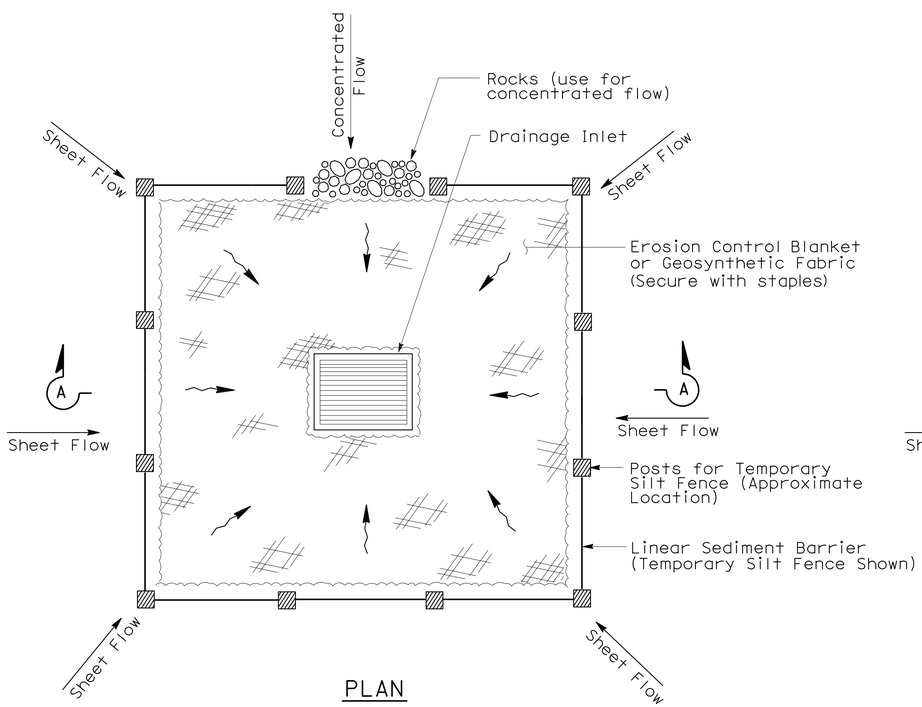
SECTION A-A



SECTION B-B

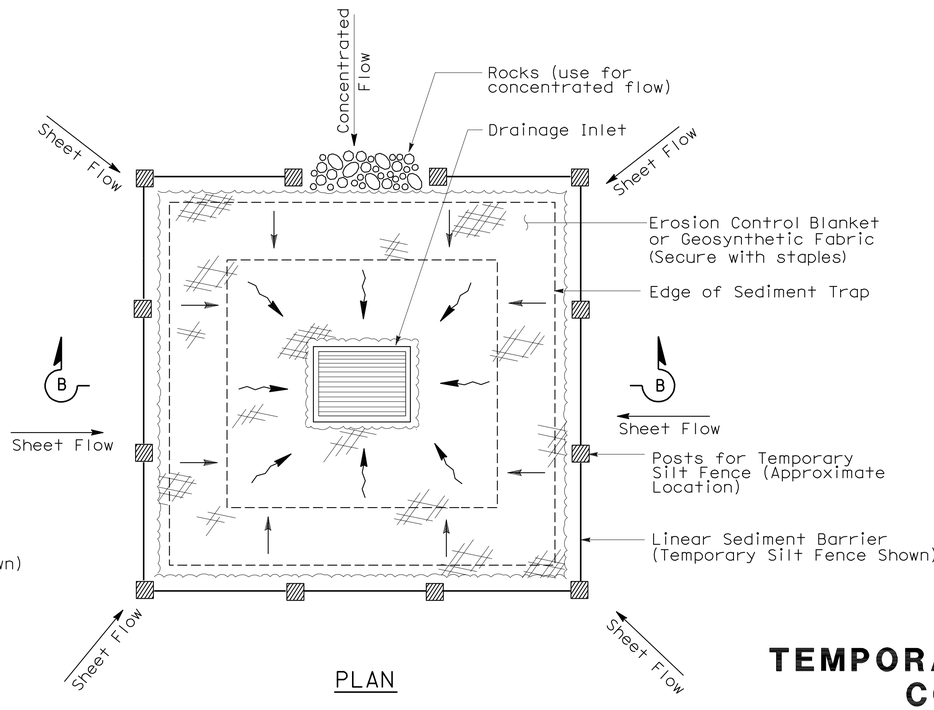
NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.



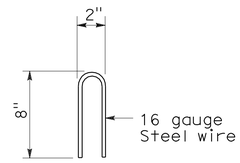
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

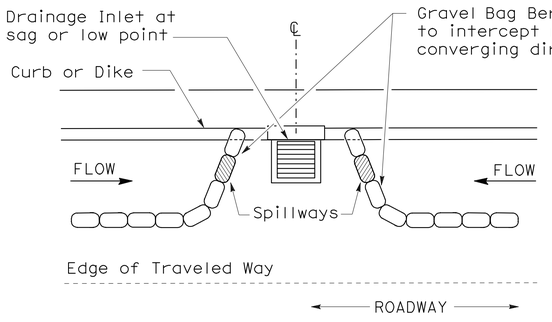
NO SCALE

NSP T61 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T61

2006 NEW STANDARD PLAN NSP T61

7-11-08



PLAN

CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)

GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100′	75′	50′	25′	12′

For slope of less than 1%, install barriers only if erosion/sediment is prevalent

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	19	32

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3825 — Signature 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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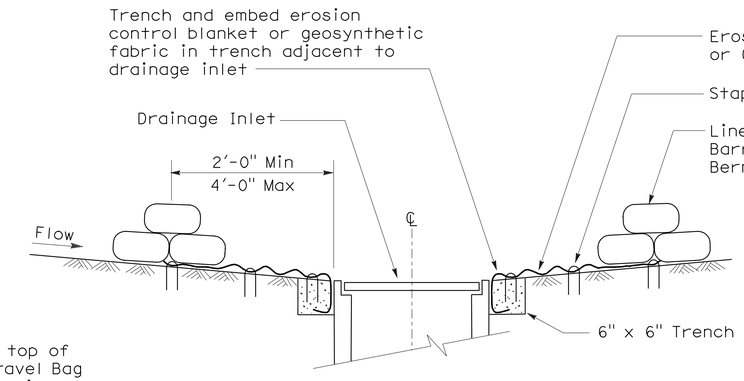
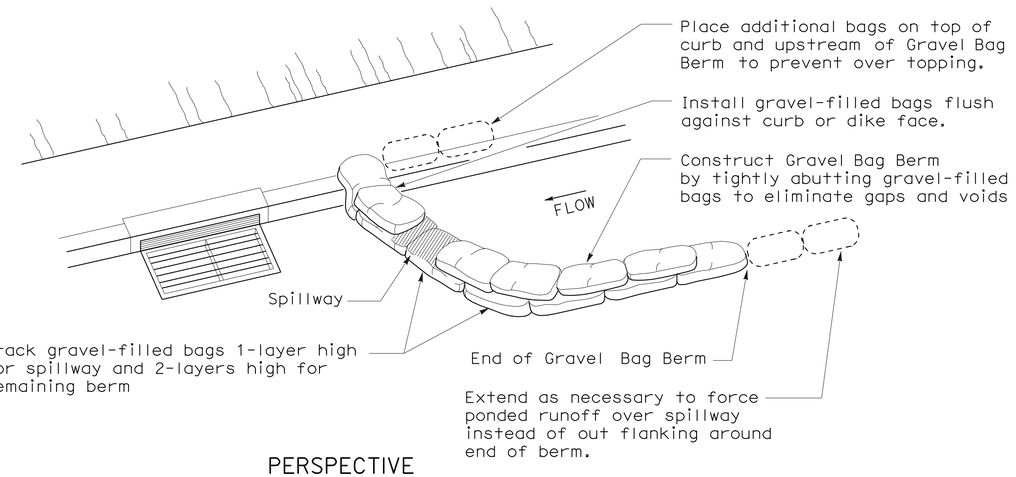
To accompany plans dated 3-1-10



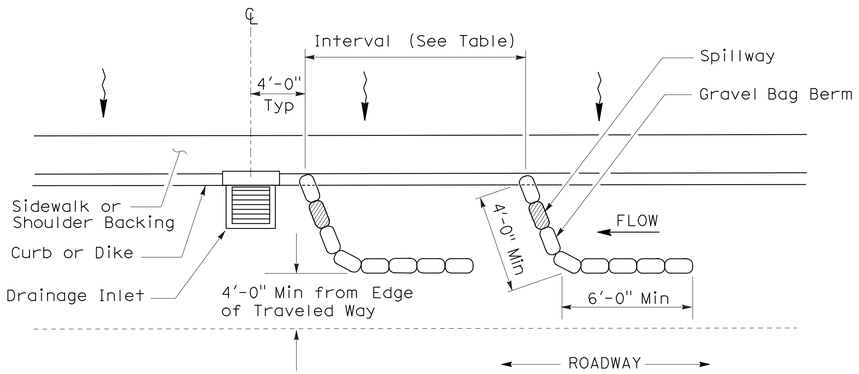
SECTION A-A

NOTES:

1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.

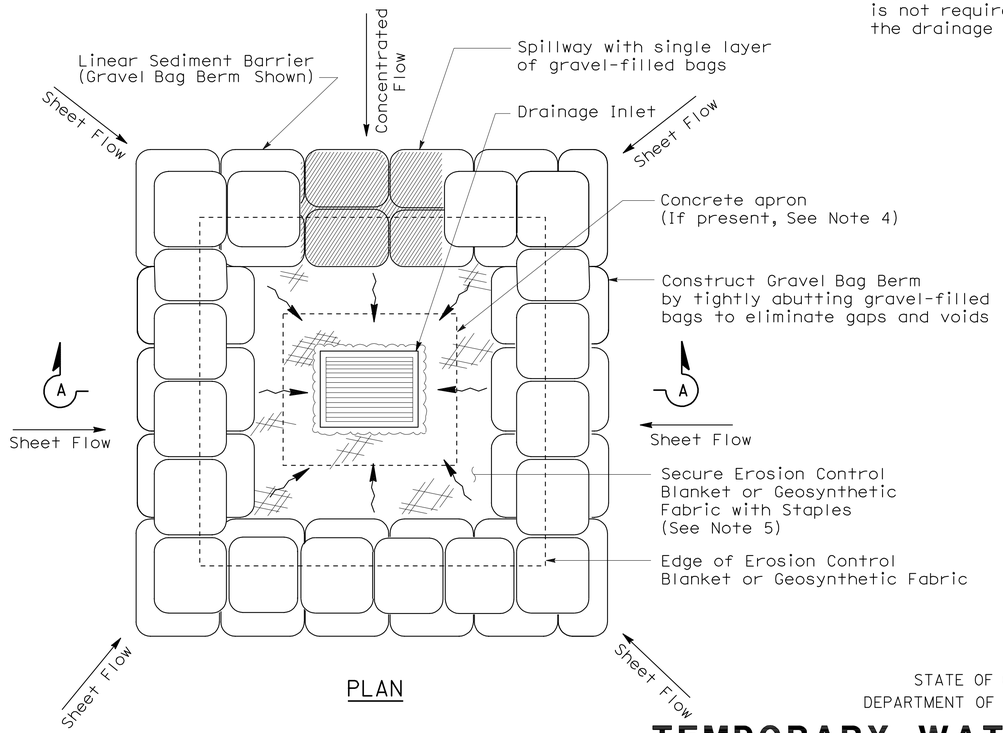


PERSPECTIVE



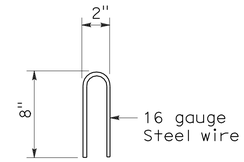
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3A) (GRAVEL BAG BERM)



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T62

2006 NEW STANDARD PLAN NSP T62

7-11-08

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50′	35′	30′	25′	20′
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6′	6′	6′	6′	6′

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	20	32

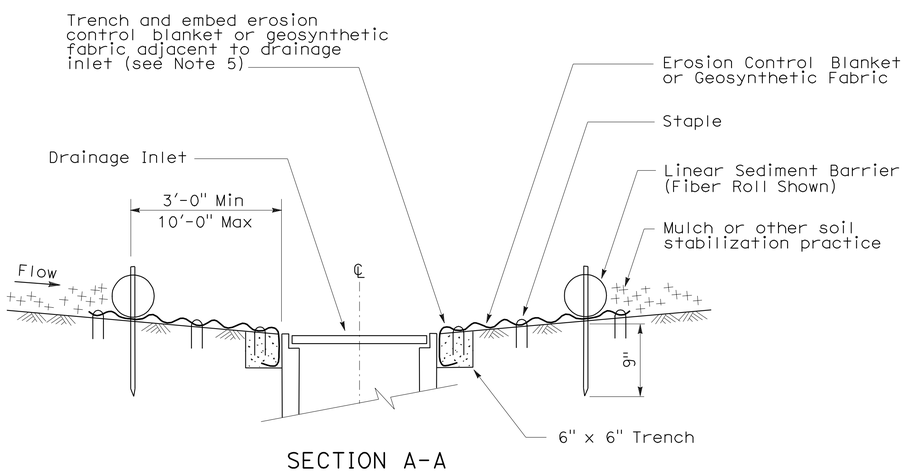
Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

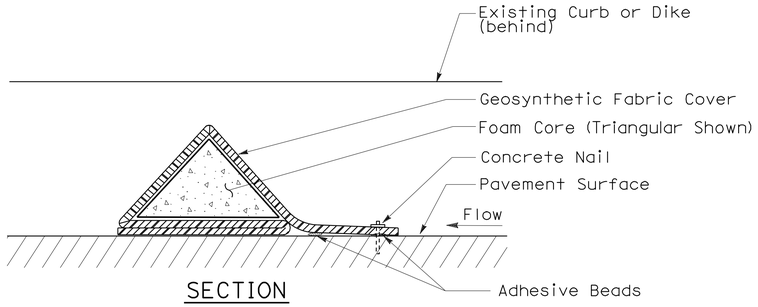
LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3825 — Signature 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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

To accompany plans dated 3-1-10



SECTION A-A

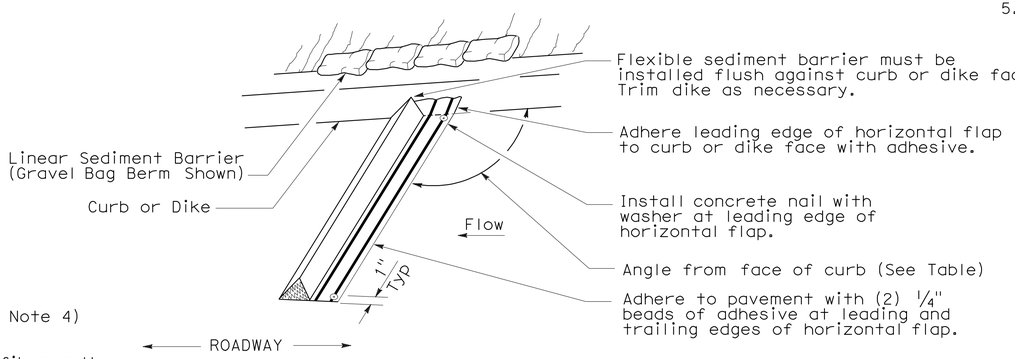


SECTION

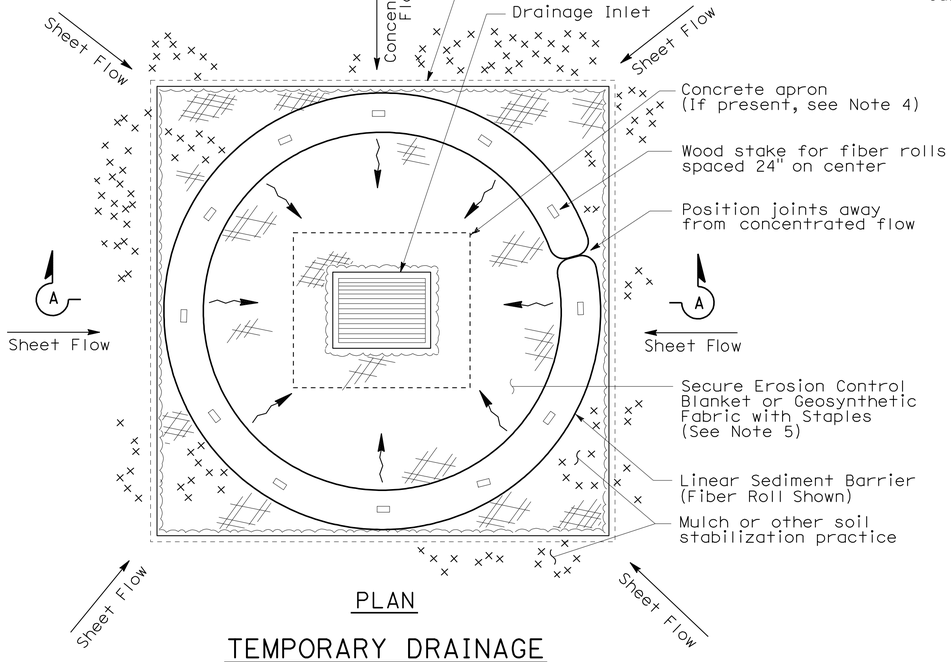
FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.

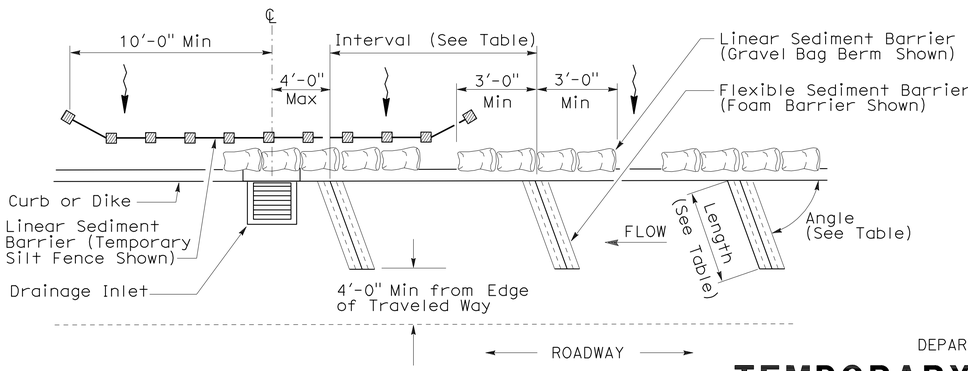


PERSPECTIVE



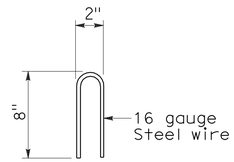
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4B) FLEXIBLE SEDIMENT BARRIER



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T63

2006 NEW STANDARD PLAN NSP T63

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	21	32

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3025 — Signature 11-04-08 Renewal Date 08-11-08 Date — STATE OF CALIFORNIA

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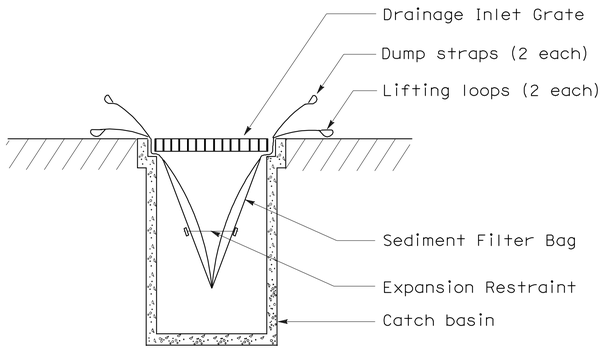
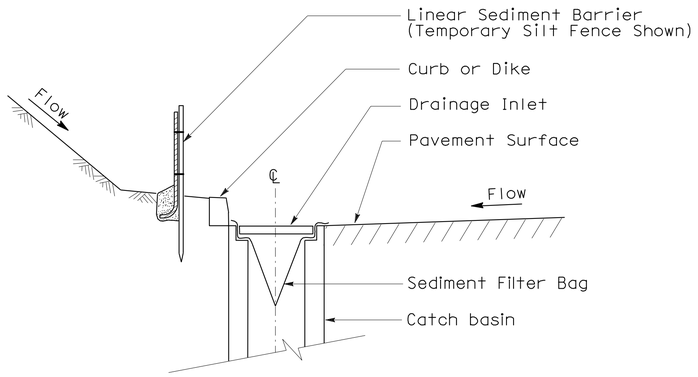
To accompany plans dated 3-1-10

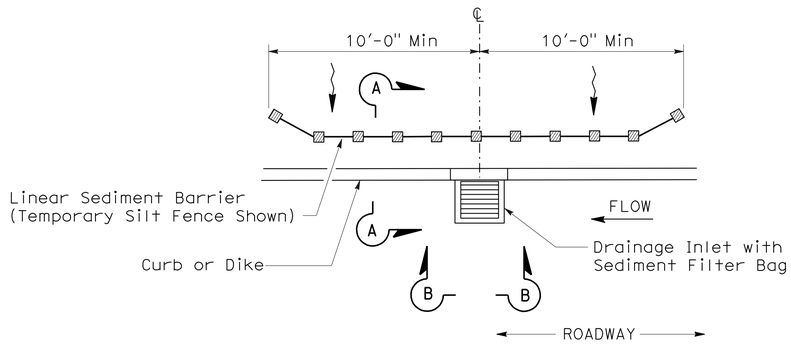


SECTION B-B

SEDIMENT FILTER BAG DETAIL

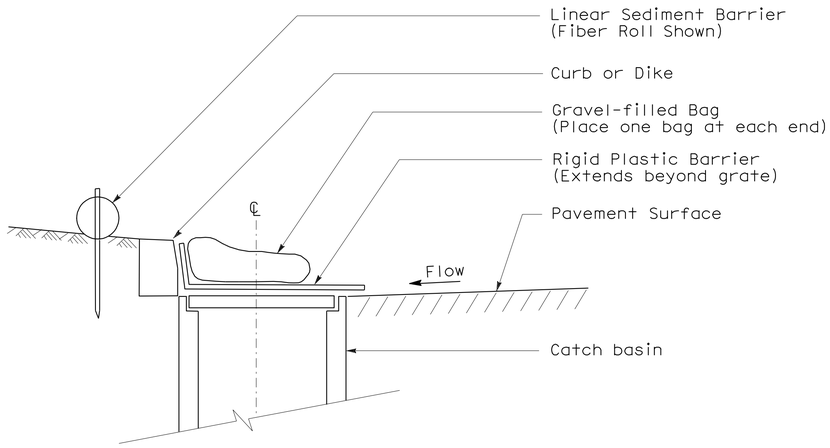


SECTION A-A



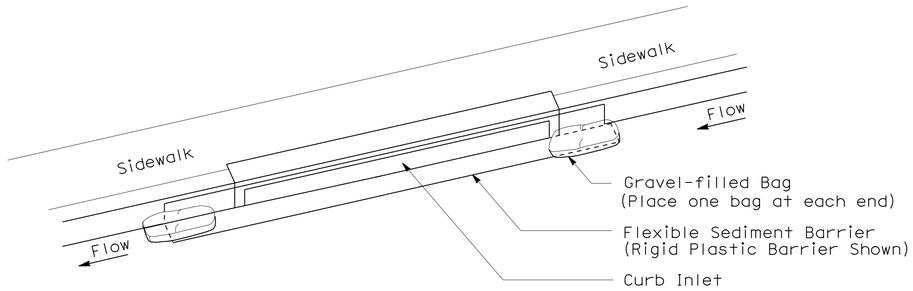
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 5) (SEDIMENT FILTER BAG)



SECTION

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 6A) (CATCH BASIN WITH GRATE)



PERSPECTIVE

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 6B) (CURB INLET WITHOUT GRATE)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	22	32

Jeffrey G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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

To accompany plans dated 3-1-10

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

NOTES:

1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
3. Variations noted adjacent to symbol on project plans.

Electrolier (see project notes or project plans)

Luminaire on wood pole

STANDARD NOTES:

- 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 wire or rope.
- 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.
- SF — Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP — Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED	EXISTING	
BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces,
MAS-4B	mas-4B	side attachment - 4 signal section
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces,
MAS-5B	mas-5B	side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

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.
- (M) Existing soffit or wall luminaire to be modified as specified.

NOTE:
Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A
DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	23	32

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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To accompany plans dated 3-1-10

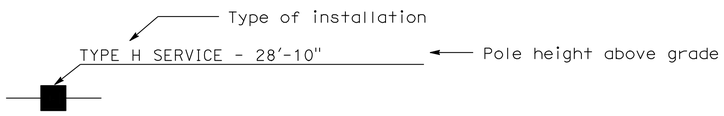
CONDUIT

PROPOSED	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 (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

PROPOSED	EXISTING	
OH	oh	Overhead lines
U	U	Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
III		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
T	t	Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
PV	PV	Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" Indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
R	Y	Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

1. All signal sections shall be 12" unless shown otherwise.
2. Signal heads shall be provided with backplates unless shown otherwise.
3. Signal indication shall be LED.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

2006 REVISED STANDARD PLAN RSP ES-1B

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	24	32

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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To accompany plans dated 3-1-10

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345
10 ISL SCI 1.0

- Sign number - Place on post or structure
- Transformer rating (kVA)
- Lighting control type
- Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"

- Mast arm length, if shown. Do not place on standard or structure.
- Equipment number - Place on standard or structure. Existing equipment numbers are shown in parenthesis

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC

- Number and size of conductors and cables
- Size of conduit in inches

Ø1, Ø2, Ø2P, etc.	Traffic phase identification for signal faces, detectors and phase diagrams
1 2 3	Project note numbers
A B C	Equipment description, installation or item numbers
1 2 3	Conduit run numbers

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100

- Wind velocity = 100 mph
- Case 3 arm loading
- Standard type
- Standard Plan sheet number
- Detail number or letter

MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
CMS	cms	Changeable message sign
		Closed circuit television camera
		Highway advisory radio pole and antenna
EMS	ems	Extinguishable message sign
M V	m v	Detection device M = Microwave sensor V = Video image sensor

WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)

- External conductor
- Conductor or bus
- Tie point
- Contactor coil
- Contactor, Contact NO
- Terminal blocks
- Contactor, Contact NC
- Enclosure bond
- Grounding electrode
- Circuit breaker
- Receptacle

PULL BOXES

PROPOSED	EXISTING
3	9A(21)

Pull box-No. 5 unless otherwise indicated or noted.

Pull box-Additional designations or descriptions

- (C) = Communications pull box
- (E) = Pull box with extension
- (S) = Sprinkler control pull box
- (21) = Anchor bolts and conduit for future installation of Type 21 Standard
- (T) = Traffic pull box

- 3 = No. 3½ pull box
- 5 = No. 5 pull box
- 6 = No. 6 pull box
- 7 = No. 7 (Ceiling pull box)
- 8 = No. 8 (Pendant soffit pull box)
- 9 = No. 9 pull box
- 9A = No. 9A pull box

VEHICLE DETECTORS

5 J 9 U

- Vehicle detector designation
- U = Upper, L = Lower
- Slot number in input file
- Input file (I or J)
- Phase

PROPOSED	EXISTING	
		Type A detector loop. Outline of sawcut shown.
		Type B detector loop. Outline of sawcut shown.
		Type C detector loop. Outline of sawcut shown.
		Type D detector loop. Outline of sawcut shown.
		Type E detector loop. Outline of sawcut shown.
		Type Q detector loop. Outline of sawcut shown.
		Magnetic detector
DH	dh	Detector handhole
		Microwave or video detection zone

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	25	32

Jeffrey G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

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

To accompany plans dated 3-1-10

NOTES-TYPE III SERVICE EQUIPMENT ENCLOSURES:

1. Service equipment enclosure and metering equipment shall meet the requirements of the service utility. The meter area shall have a sealable, lockable, weathertight cover that can be removed without the use of tools.

2. Service equipment enclosures shall be factory wired and conform to NEMA standards.

3. Dimensions of service equipment enclosures shall meet the requirements of the service utility.

4. The dead front panels on Type III service equipment enclosures shall have a continuous stainless steel or aluminum piano hinge. The panel in front of the breakers shall be secured with a latch or captive screws. No live parts shall be mounted on the dead front panel.

5. The exterior door shall have provisions for padlocking. The padlock hole shall be a minimum diameter of 7/16".

6. Enclosures housing transformers of more than one kVA shall have effective screened ventilation louver of not less than 50 square inches. Screen shall be stainless steel No. 304, with a No. 10 size mesh. Framed screen shall be secured with at least four bolts.

7. Fasteners on the exterior of the enclosure shall be vandal-resistant and shall not be removable from the exterior. Exterior screws, nuts, bolts and washers shall be stainless steel.

8. Landing lugs for incoming service conductors shall be compatible with either copper or aluminum conductors sized to suit the conductors shown on the plan. Landing lugs shall be copper or tin-plated aluminum. Neutral bus shall be rated for 125 A and be suitable for copper or aluminum conductors unless otherwise specified. The terminal shall include but not be limited to:

   a) Incoming terminals (landing lugs)
   b) Neutral lugs
   c) Solid neutral terminal strip

9. At least 6 standard single pole circuit breaker spaces, 3/4" nominal, shall be provided for branch circuits. Circuit breaker interiors shall be copper. Interiors of enclosure shall accept plug-in or cable-in/cable-out circuit breakers.

10. Control wiring shall be 600 V, 14 stranded machine tool wire. Where subject to flexing, 19 strand wire shall be used.

11. Main bus shall be rated for 125 A and shall be tin-plated copper.

12. A plastic laminated wiring diagram shall be provided with brass mounting eyelets and attached to the inside of the enclosure and the wiring diagram shall be affixed to the interior with a UL or ETL approved method.

13. An engraved phenolic nameplate on the dead front panel indicating the function of each circuit or device shall be installed with stainless steel rivets or stainless steel screws:

    a) Adjacent to the breaker or device with character size a minimum of 1/8".

    b) At the top of the exterior door panel indicating State system number, voltage level and number of phases with character size a minimum of 3/16".

14. The plan shows the approximate location of devices within the enclosure. Components may be rearranged, however, the "working" clearances within the service equipment enclosure shall be maintained.

15. In unpaved areas a raised portland cement concrete pad 2'-0" x 4" x width of foundation shall be constructed in front of new service equipment enclosure installation. Pad shall be set to elevation of foundation.

16. Foundation shall extend 2" minimum beyond edge of service equipment enclosure.

17. Internal bus, where shown, is typical only. Alternative design of proposed service equipment enclosure shall be submitted to the Engineer for approval.

18. Plug-in circuit breakers may be mounted in the vertical or horizontal position. Cable-in/cable-out circuit breakers shall be mounted in the vertical position.

19. Type III-AF and Type III-BF service equipment enclosures shall have the meter viewing windows located on the front side of the service equipment enclosures.

20. Type III-AR and Type III-BR service equipment enclosures shall be similarly constructed as Type III-AF and Type III-BF respectively, except the meter viewing windows shall be located on the back side of the service equipment enclosures.

21. Minimum clearance shall be required for front and back of service equipment enclosure per National Electrical Code, Article 110.26, "Spaces About Electric Equipment (600 Volts, Nominal, or Less)."

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SERVICE EQUIPMENT NOTES TYPE III SERIES)

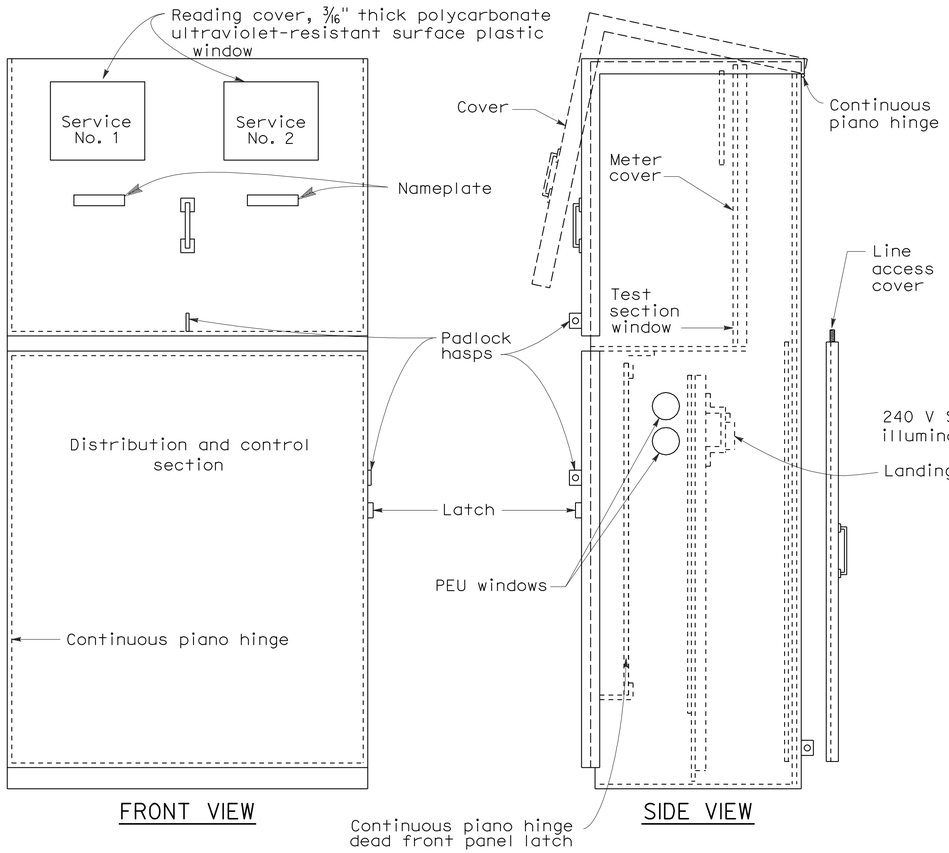
NO SCALE

RSP ES-2C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2C
DATED MAY 1, 2006 - PAGE 405 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-2C

2006 REVISED STANDARD PLAN RSP ES-2C

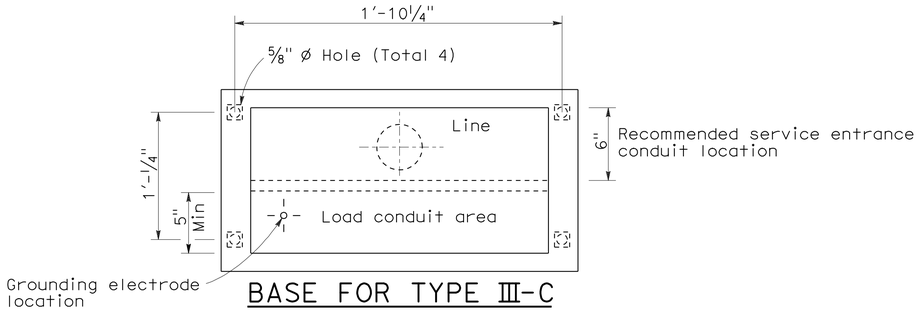
7-10-07



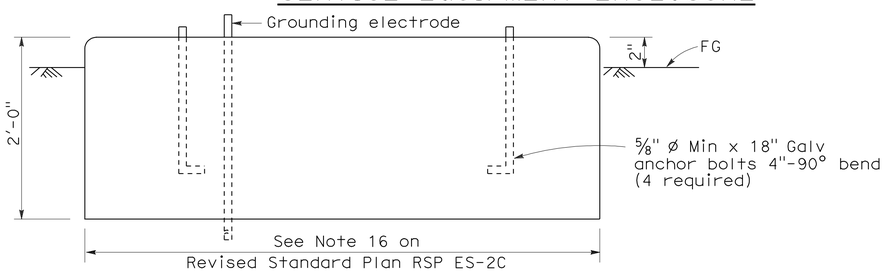
FRONT VIEW

SIDE VIEW

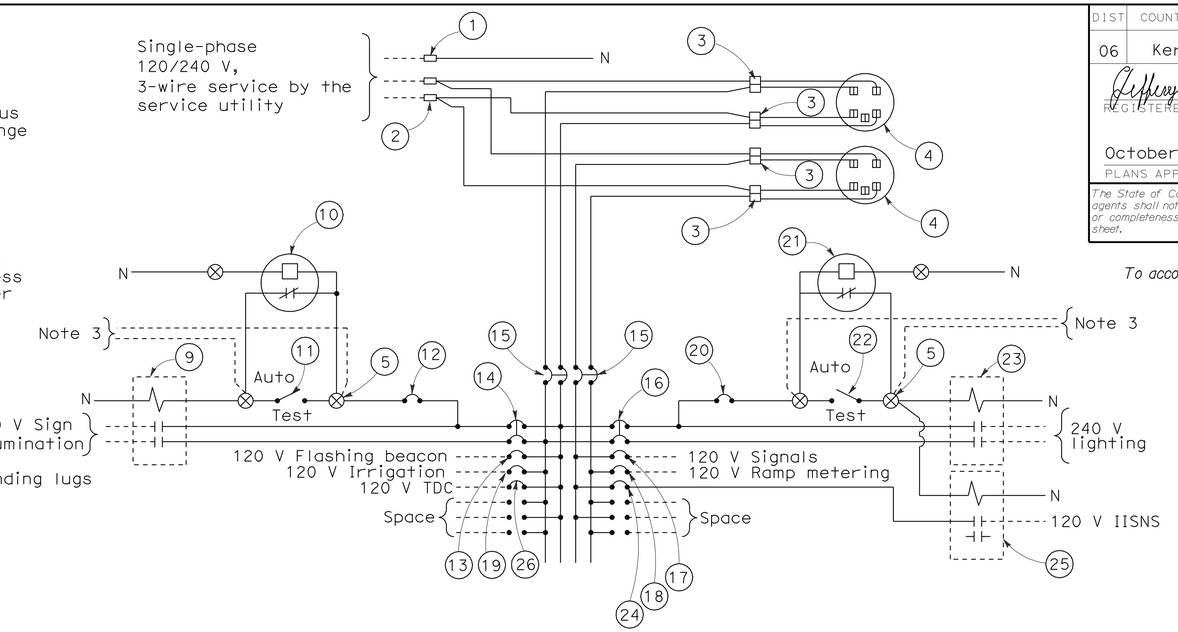
TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH PROVISIONS FOR TWO 100 A METERS (TYPICAL)



BASE FOR TYPE III-C SERVICE EQUIPMENT ENCLOSURE



FOUNDATION DETAIL



120/240 V SERVICE WIRING DIAGRAM (TYPICAL)

TYPE III-C SERVICE (120/240 V) EQUIPMENT LEGEND

ITEM No.	COMPONENT	NAME PLATE DESCRIPTION	ITEM No.	COMPONENT	NAME PLATE DESCRIPTION
(1)	Neutral lug		(14)	30 A, 240 V, 2P, CB	Sign Illumination
(2)	Landing lug (Note 6)		(15)	100 A, 240 V, 2P, CB	Main Breaker
(3)	Test bypass facility		(16)	30 A, 240 V, 2P, CB	Lighting
(4)	Meter socket and support		(17)	50 A, 120 V, 1P, CB	Signals
(5)	Terminal blocks		(18)	30 A, 120 V, 1P, CB	Ramp Metering
(6)	Neutral bus		(19)	20 A, 120 V, 1P, CB	Irrigation
(7)	Ground bus		(20)	15 A, 120 V, 1P, CB	Lighting Control
(8)	Grounding electrode		(21)	Photoelectric unit (Note 7)	
(9)	30 A, 2PNO, Contactor	Sign Illumination	(22)	15 A, 1P, Test switch	Lighting Control
(10)	Photoelectric unit (Note 7)		(23)	60 A, 2PNO Contactor	Lighting
(11)	15 A, 1P, Test switch	Sign Illumination Test Switch	(24)	15 A, 120 V, 1P, CB	IISNS
(12)	15 A, 120 V, 1P, CB	Sign Illumination Control	(25)	30 A, 2PNO Contactor	IISNS
(13)	15 A, 120 V, 1P, CB	Flashing Beacon	(26)	20 A, 120 V, 1P, CB	Telephone Demarcation Cabinet

NOTES: (FOR SERVICE EQUIPMENT ENCLOSURE)

1. Voltage ratings of service equipment shall conform to the service voltages indicated on the plans.
2. Unless otherwise indicated on the plans, service equipment items shall be provided for each service equipment enclosure as shown.
3. Connect to remote test switch mounted on lighting standards, sign post or structure when required.
4. Items No. (1) and (6) shall be isolated from the service equipment enclosure.
5. Meter sockets shall be 5 clip type.
6. The landing lug shall be suitable for multiple conductors.
7. Type V photoelectric control shall be used unless otherwise indicated on the plans.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	26	32

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

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

To accompany plans dated 3-1-10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SERVICE EQUIPMENT AND TYPICAL WIRING DIAGRAM TYPE III-C SERIES)

NO SCALE

RSP ES-2F DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2F DATED MAY 1, 2006 - PAGE 408 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-2F

2006 REVISED STANDARD PLAN RSP ES-2F

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	27	32

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-10 — ELECTRICAL — STATE OF CALIFORNIA

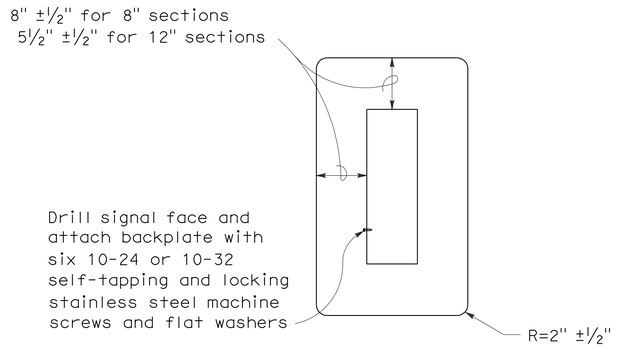
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 3-1-10

TUNNEL FULL CIRCLE CAP OR CUT AWAY LEFT ANGLE

(Right angle is reversed of figure)

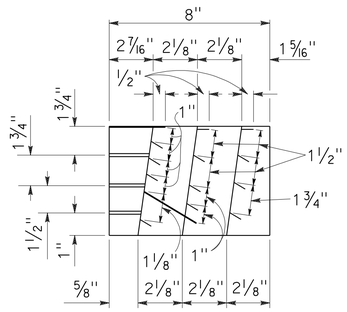
VISORS



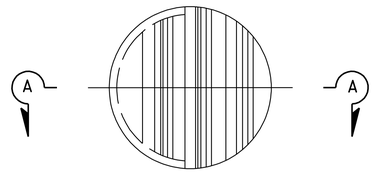
8" AND 12" SECTIONS

BACKPLATE

1/16" minimum thickness
3001-14 aluminum, or plastic when specified



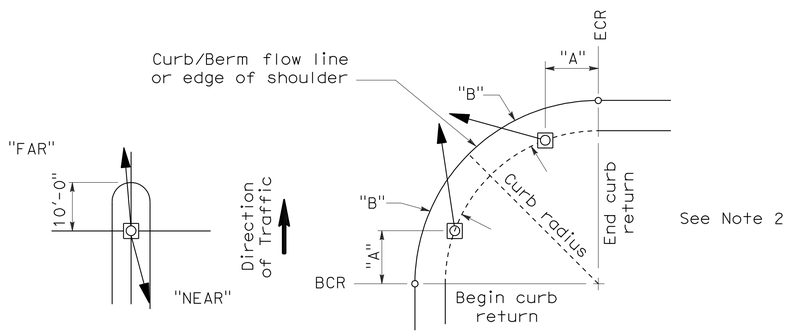
SECTION A-A



FRONT VIEW

DIRECTIONAL LOUVER

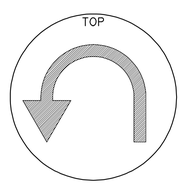
Directional louvers shall be oriented as directed by the Engineer and secured in place with one plated brass machine screw and nut.



NOTES:

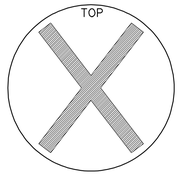
1. Typical signal pole placement unless dimensioned on plans.
2. For "A" and "B" dimensions, see Pole Schedule, or as directed by the Engineer.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS

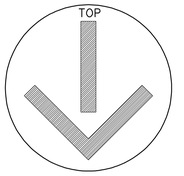


U-TURN SIGNAL FACE

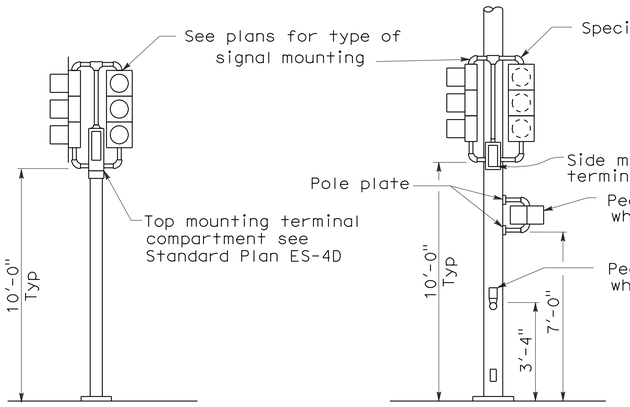
BICYCLE SIGNAL FACE



LANE CONTROL SIGNAL FACE

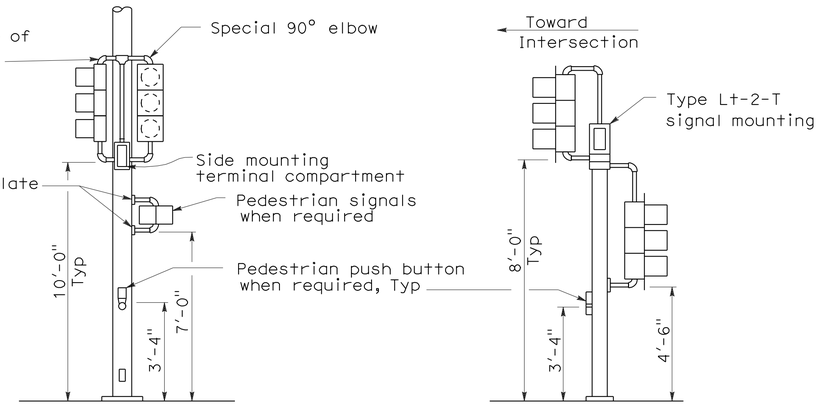


LANE CONTROL SIGNAL FACE



TOP MOUNTED SIGNALS (TV)

Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans



SIDE MOUNTED SIGNALS (SV AND SP)

Normally used on standards with luminaire or signal mast arm

LEFT TURN LANE SIGNAL

Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans

TYPICAL SIGNAL INSTALLATIONS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

RSP ES-4C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN ES-4C DATED MAY 1, 2006 - PAGE 420 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-4C

2006 REVISED STANDARD PLAN RSP ES-4C

5-19-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	28	32

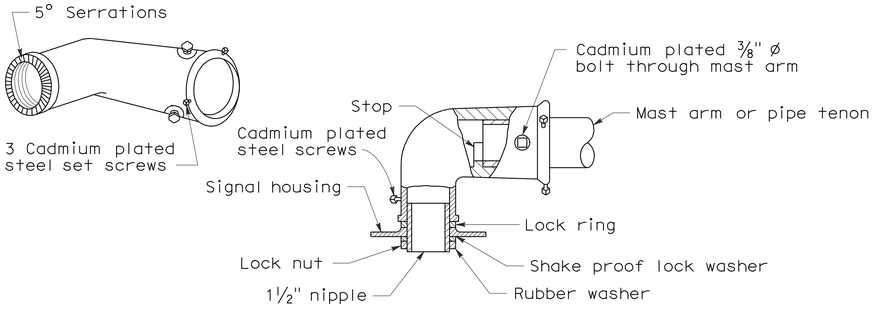
Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-10 — ELECTRICAL — STATE OF CALIFORNIA

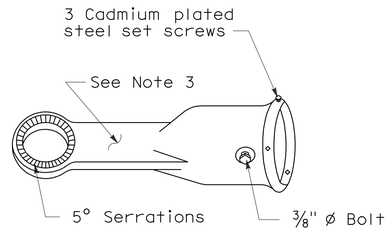
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 3-1-10



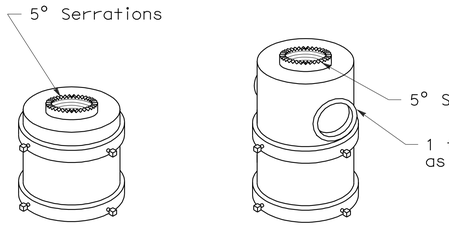
MAST ARM MOUNTING - TYPE "MAT"

For 2 NPS pipe, see Note 1.



MAST ARM MOUNTING - TYPE "MAS"

For 2 NPS pipe. See Note 1.



For one mounting — For mulitiple mountings

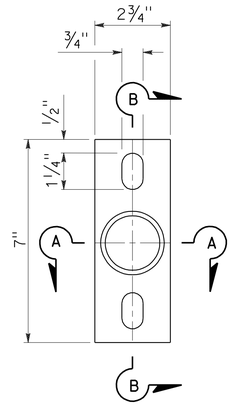
TOP MOUNTINGS

For 4 NPS pipe, see Note 2.

NOTES:

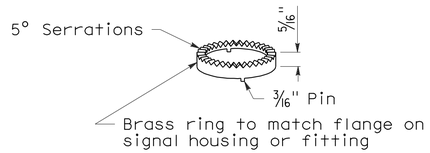
1. After mast arm signal has been plumbed and secured, drill 7/16" hole through mast arm tenon in line with slip fitter hole. Place a cadmium plated ⅜" ø galvanized bolt with washer under bolt head through hole and secure with washer, nut, and locknut. Seal openings between mast arm mountings and mast arm with mastic.
2. (a) Threaded top mounted slip fitter openings shall be 1½ NPS.
   (b) Serrations in fittings shall match those on bottom of signal heads or in lock ring.
   (c) Top opening shall be offset when backplate is used.
3. Wireway shall have a cross section area of 0.95 square inch minimum. Minimum width of ½".

SIGNAL SLIP FITTERS



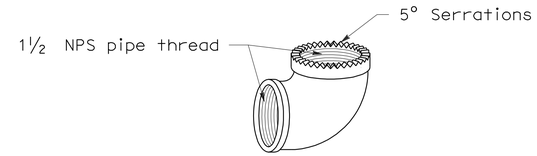
POLE PLATE

For side mountings



LOCK RING

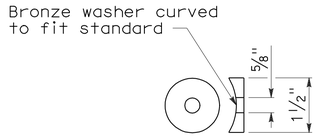
Use where locking ring is not integral with signal housing or fitting.



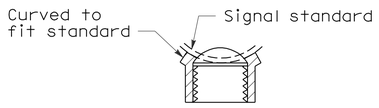
SPECIAL 90° ELBOW

One for each signal head, except those with special slip fitter mounting

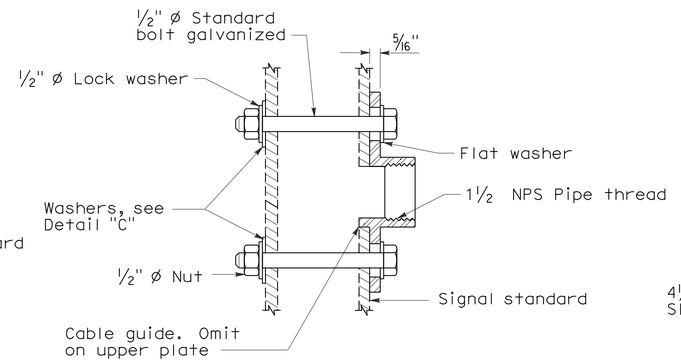
MISCELLANEOUS MOUNTING HARDWARE



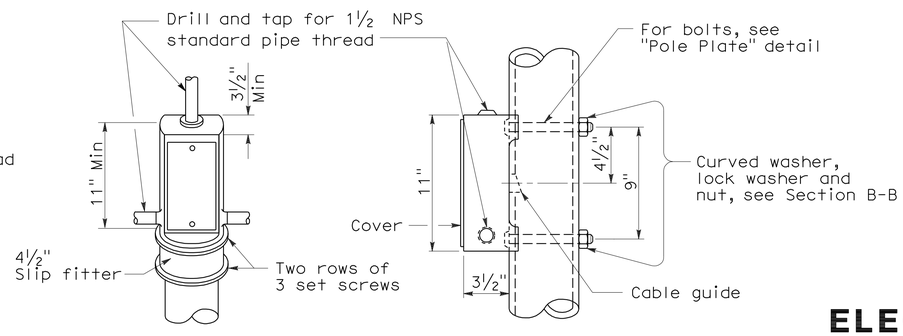
DETAIL "C"



SECTION A-A



SECTION B-B



TOP MOUNTING — SIDE MOUNTING

TERMINAL COMPARTMENTS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

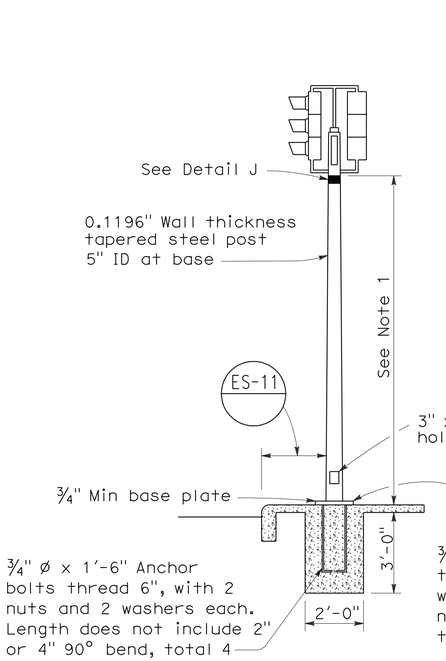
NO SCALE

RSP ES-4D DATED June 6, 2008 SUPERSEDES STANDARD PLAN ES-4D
DATED MAY 1, 2006 - PAGE 421 OF THE STANDARD PLANS BOOK DATED MAY 2006.

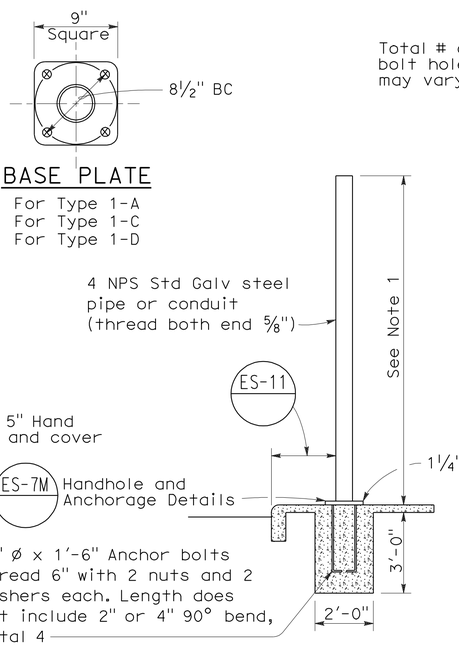
REVISED STANDARD PLAN RSP ES-4D

2006 REVISED STANDARD PLAN RSP ES-4D

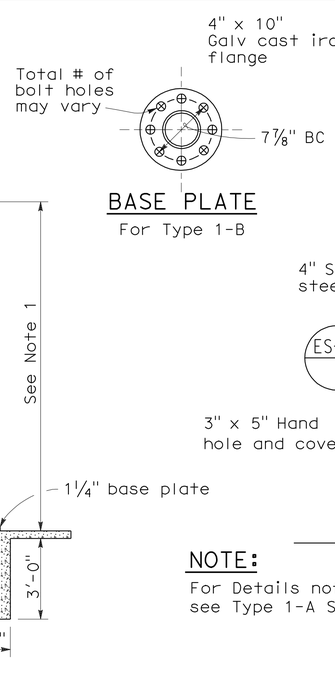
5-19-08

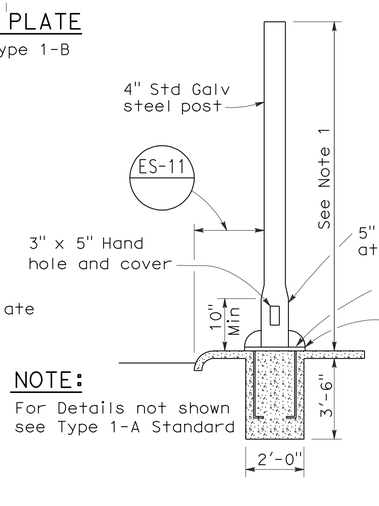


TYPE 1-A STANDARD



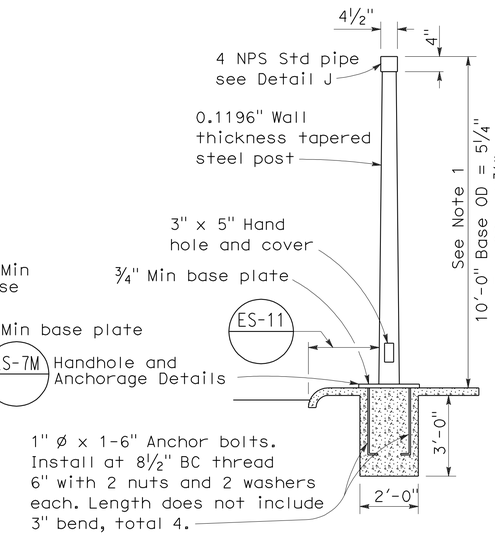
TYPE 1-B STANDARD





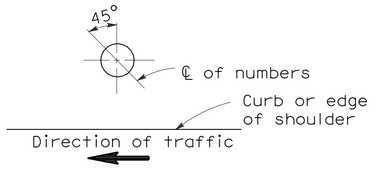
NOTE:
For Details not shown see Type 1-A Standard

TYPE 1-C STANDARD

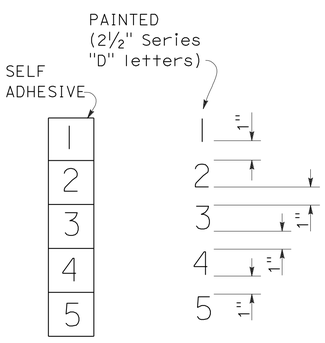


TYPE 1-D STANDARD

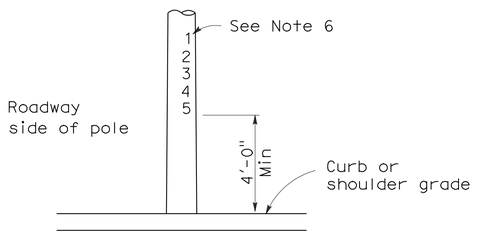
TYPE 1 SIGNAL STANDARDS



PLAN

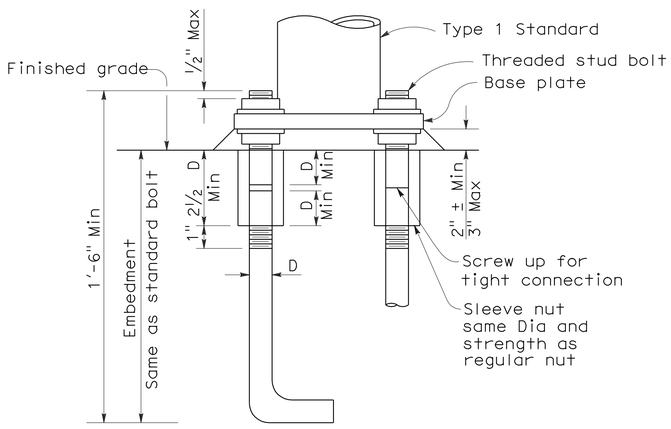


NUMBER DETAIL



TYPICAL NUMBER FORMAT

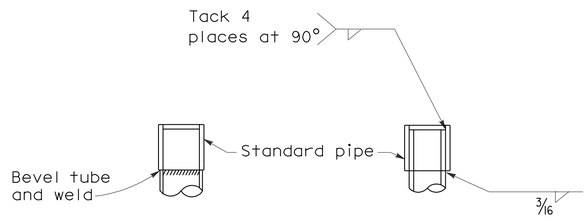
LOCATION OF EQUIPMENT NUMBERS ON STANDARDS AND POSTS



ANCHOR BOLTS WITH SLEEVE NUTS

Sleeve nuts to be used only when shown or specified on Project Plans

D = Diameter of anchor bolt



DETAIL J

Tube may be inserted into pipe or butted as required

NOTES:

1. Standards shall be 10'-0" ± 2" for vehicle signals and 7'-0" ± 2" for pedestrian signals unless otherwise noted on plans.
2. Top of standards shall be 4½" OD.
3. Conduits shall extend 2" maximum above finished surface of foundation and for Types 1-A, 1-C and 1-D shall be sloped toward handhole.
4. Anchor bolts shall be bonded to conduit or grounding conductor.
5. Conduit between standard and adjacent pull box shall be 2" minimum.
6. Paint numbers on roadway side facing traffic when electrolier or post is left of direction of traffic.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	29	32

Stanley P. Johnson
REGISTERED CIVIL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Stanley P. Johnson
No. C57793
Exp. 3-31-08
CIVIL
STATE OF CALIFORNIA

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

To accompany plans dated 3-1-10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD TYPE 1 STANDARD AND EQUIPMENT NUMBERING)

NO SCALE

RSP ES-7B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-7B DATED MAY 1, 2006 - PAGE 438 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7B

2006 REVISED STANDARD PLAN RSP ES-7B

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	30	32

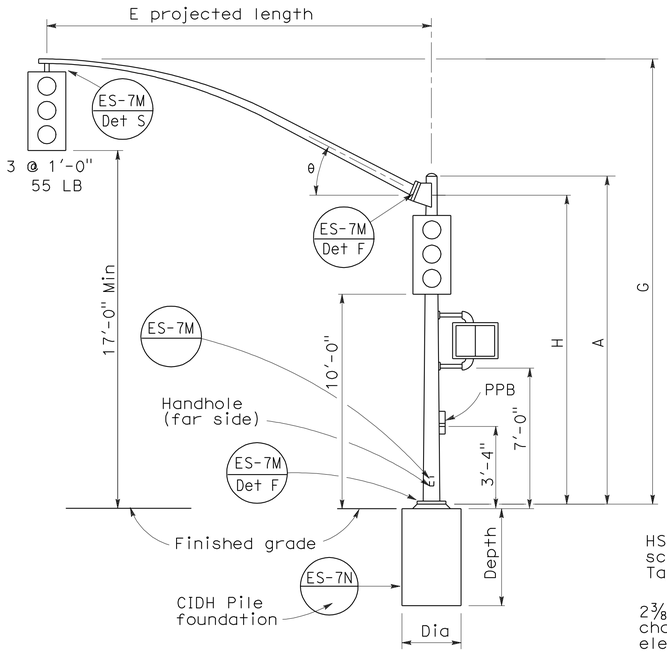
Stanley P Johnson
REGISTERED CIVIL ENGINEER

June 15, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Stanley P. Johnson — No. C57793 — Exp. 3-31-08 CIVIL — STATE OF CALIFORNIA

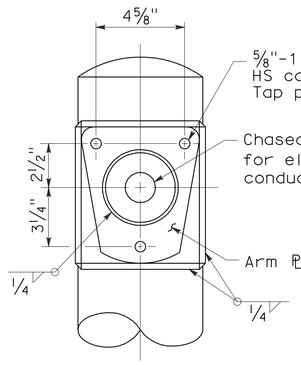
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

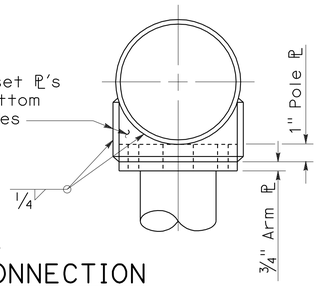
To accompany plans dated 3-1-10



ELEVATION

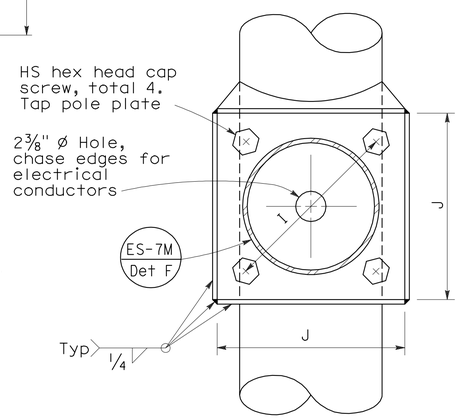
TYPE 16-1-100, 18-1-100

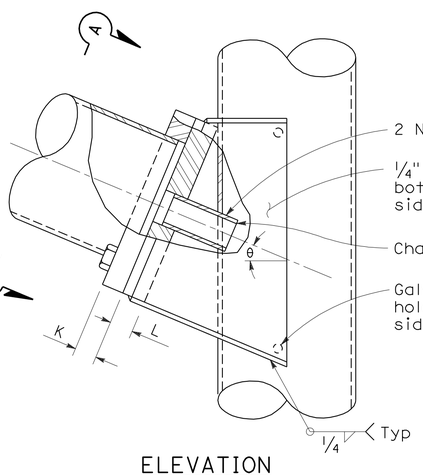




DETAIL W

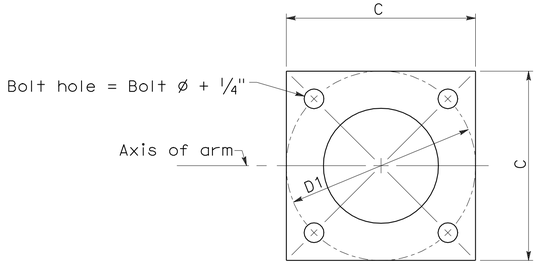
LUMINAIRE ARM CONNECTION



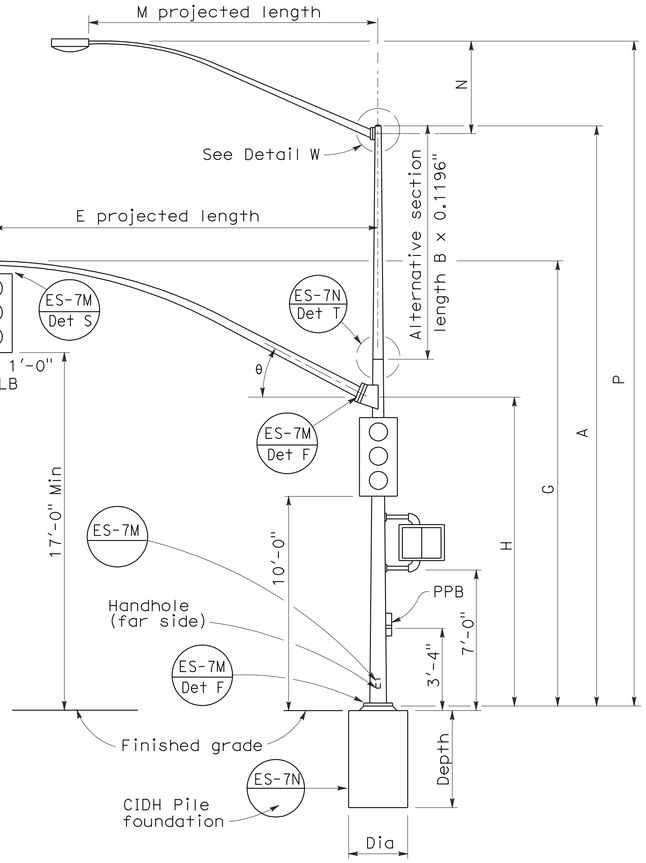


VIEW A-A ELEVATION

SIGNAL ARM CONNECTION DETAILS



BASE PLATE



ELEVATION

TYPE 19-1-100, 19A-1-100

SIGNAL ARM DATA										
E Projected Length	G Mounting Height	H	Min OD At Pole	Thickness	I Bolt Circle	HS Cap Screws	J Plate size	K Arm ℄ Thickness	L Pole ℄ Thickness	θ
15'-0"	21'-8"±	17'-6"	7"	0.1196"	12"	1¼"-7NC-3"	1'-0"	1¼"	1½"	23°
20'-0"	21'-8"±		7⅛"							
25'-0"	22'-8"±	16'-0"	7⅝"							
30'-0"	23'-0"±		8"							

LUMINAIRE ARM DATA					
M Projected Length	N Rise	Min OD at Pole	Thickness	P Mounting Height 30'-0" Pole	P Mounting Height 35'-0" Pole
6'-0"	2'-0"±	3¼"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3½"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3⅞"		32'-9"±	37'-9"±
12'-0"	4'-3"±			33'-9"±	38'-9"±
15'-0"	4'-9"±	4¼"		34'-3"±	39'-3"±

Pole Type	Load Case	Wind Velocity mph	POLE DATA: A Height	Min OD Base	Min OD Top	Thickness	Alternative Section B Length	Alternative Section Bottom	Alternative Section Top	BASE PLATE DATA: C	D1 Bolt Circle	Thickness	Anchor Bolts Size	Luminaire Arm	Signal Arm	CIDH PILE FOUNDATION: Diameter	Depth	Reinforced
16-1-100	1	100	18'-6"	10¾"	8¼"	0.1793"	None			1'-6"	1'-5½"	1¼"	1½" ø x 42" x 6"	None	15'-0", 20'-0"	2'-6"	7'-2"	Yes
18-1-100			17'-0"		8⅞6"		None							None				
19-1-100			30'-0"		6⅝"		10'-0"	8"	6⅝"					6'-15' 12'-0"	25'-0", 30'-0"			
19A-1-100			35'-0"		5⅝6"		15'-0"		5⅝6"					6'-15' 15'-0"				

☐ Indicates arm length to be used unless otherwise noted on plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD CASE 1 ARM LOADING WIND VELOCITY = 100 MPH ARM LENGTHS 15' TO 30')

NO SCALE

RSP ES-7C DATED JUNE 15, 2007 SUPERSEDES STANDARD PLAN ES-7C DATED MAY 1, 2006 - PAGE 439 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7C

2006 REVISED STANDARD PLAN RSP ES-7C

1-26-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	31	32

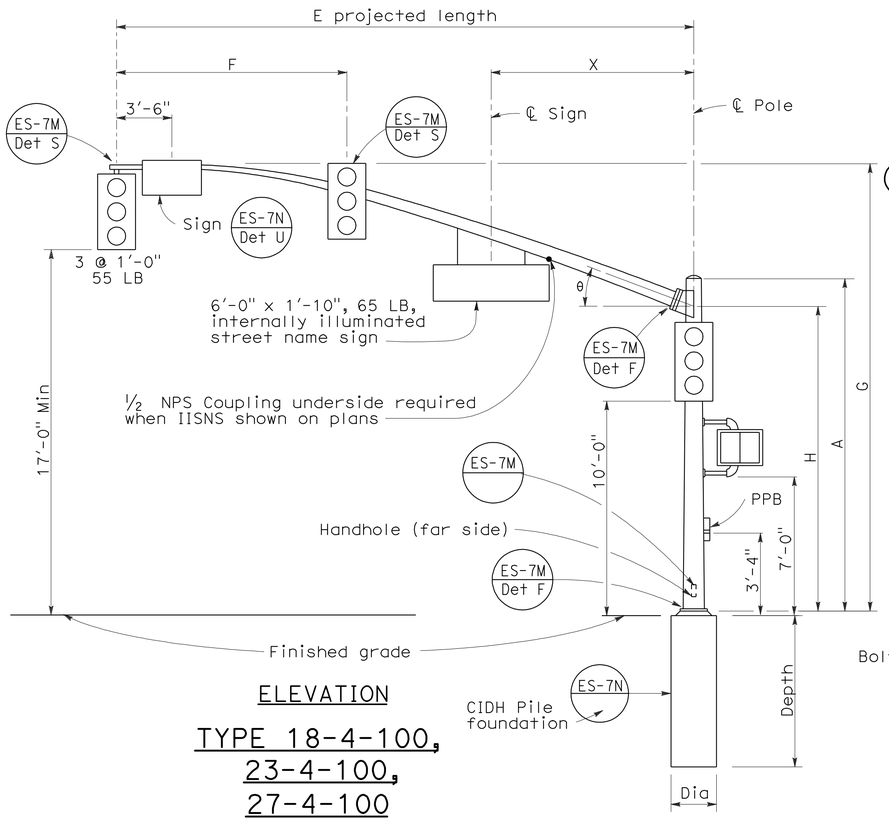
REGISTERED CIVIL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Stanley P. Johnson
No. C57793
Exp. 3-31-08
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

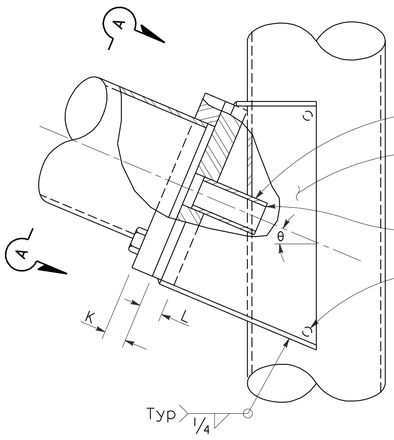
To accompany plans dated 3-1-10

2006 REVISED STANDARD PLAN RSP ES-7F

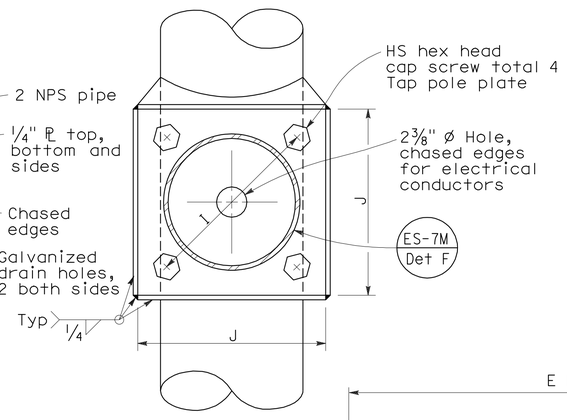


ELEVATION

TYPE 18-4-100,
23-4-100,
27-4-100

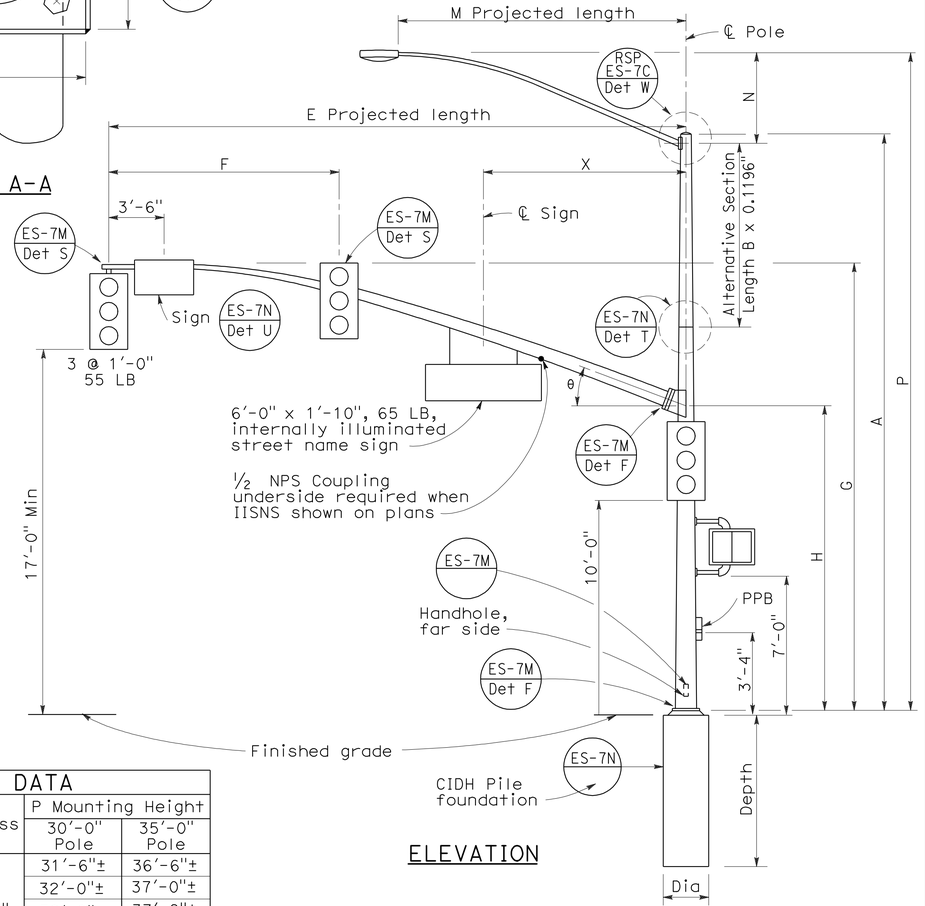


ELEVATION



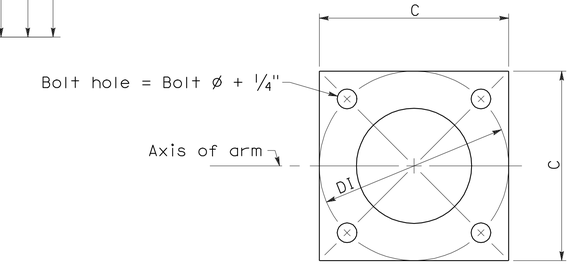
VIEW A-A

SIGNAL ARM CONNECTION DETAILS



ELEVATION

TYPE 19-4-100, 19A-4-100,
24-4-100, 24A-4-100,
26-4-100, 26A-4-100



BASE PLATE

SIGNAL ARM DATA

E Projected Length	F Min Spacing	G Mounting Height	H	Min OD at Pole	Thickness	I Bolt Circle	HS Cap Screws	J Plate Size	K Arm ℙ Thickness	L Pole ℙ Thickness	θ	X Max
25'-0"	10'-0"	22'-8"±	16'-0"	7⅝"	0.2391"	12"	1¼"-7NC-3"	1'-0"	1¼"	1½"	23°	10'-6"
30'-0"	12'-0"	23'-0"±		8"		13½"		1'-1½"	1½"	1¾"	21°	
35'-0"	14'-0"			8 11/16"								
40'-0"	15'-0"			9⅜"							15°	13'-0"
45'-0"		23'-8"±		10¼"								

LUMINAIRE ARM DATA

M Projected Length	N Rise	Min OD at Pole	Thickness	P Mounting Height 30'-0" Pole	P Mounting Height 35'-0" Pole
6'-0"	2'-0"±	3¼"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3½"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3⅞"		32'-9"±	37'-9"±
12'-0"	4'-3"±			33'-9"±	38'-9"±
15'-0"	4'-9"±	4¼"		34'-3"±	39'-3"±

POLE DATA / BASE PLATE DATA / CIDH PILE FOUNDATION

Pole Type	Load Case	Wind Velocity mph	A Height	Min OD Base	Min OD Top	Thickness	Alternative Section B Length	Alternative Section Bottom	Alternative Section Top	C	DI Bolt Circle	Thickness	Anchor Bolts Size	Luminaire Arm	Signal Arm	CIDH Pile Foundation Dia	Depth	Reinforced
18-4-100	4	100	17'-0"	12"	9"	0.2391"	None			1'-6"	1'-6"	1½"	2" ø x 42" x 6"	None	25'-0", [30'-0"]	3'-0"	9'-0"	Yes
19-4-100			30'-0"		8"		10'-0"	9⅜"	8"					6'-15' [12'-0"]				
19A-4-100			35'-0"		7⅝"		15'-0'		7⅝"					6'-15' [15'-0"]				
23-4-100			17'-0"		9"		None							None	35'-0"			
24-4-100			30'-0"		8"		10'-0"	9⅜"	8"					6'-15' [12'-0"]				
24A-4-100			35'-0"		7⅝"		15'-0"		7⅝"					6'-15' [15'-0"]				
26-4-100			30'-0"	12½"	8"	0.3125"	10'-0"	9¾"	8⅜"					6'-15' [12'-0"]	40'-0", [45'-0"]			
26A-4-100			35'-0"		7⅝"		15'-0"		7 11/16"					6'-15' [15'-0"]				
27-4-100			17'-0"		9¾"		None							None				

☐ Indicates arm length to be used unless otherwise noted on plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD CASE 4 ARM LOADING WIND VELOCITY=100 MPH ARM LENGTHS 25' TO 45')

NO SCALE

RSP ES-7F DATED OCTOBER 5, 2007 SUPERCEDES RSP ES-7F DATED NOVEMBER 17, 2006 AND STANDARD PLAN ES-7F DATED MAY 1, 2006 - PAGE 442 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7F

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	100.1/101.6	32	32

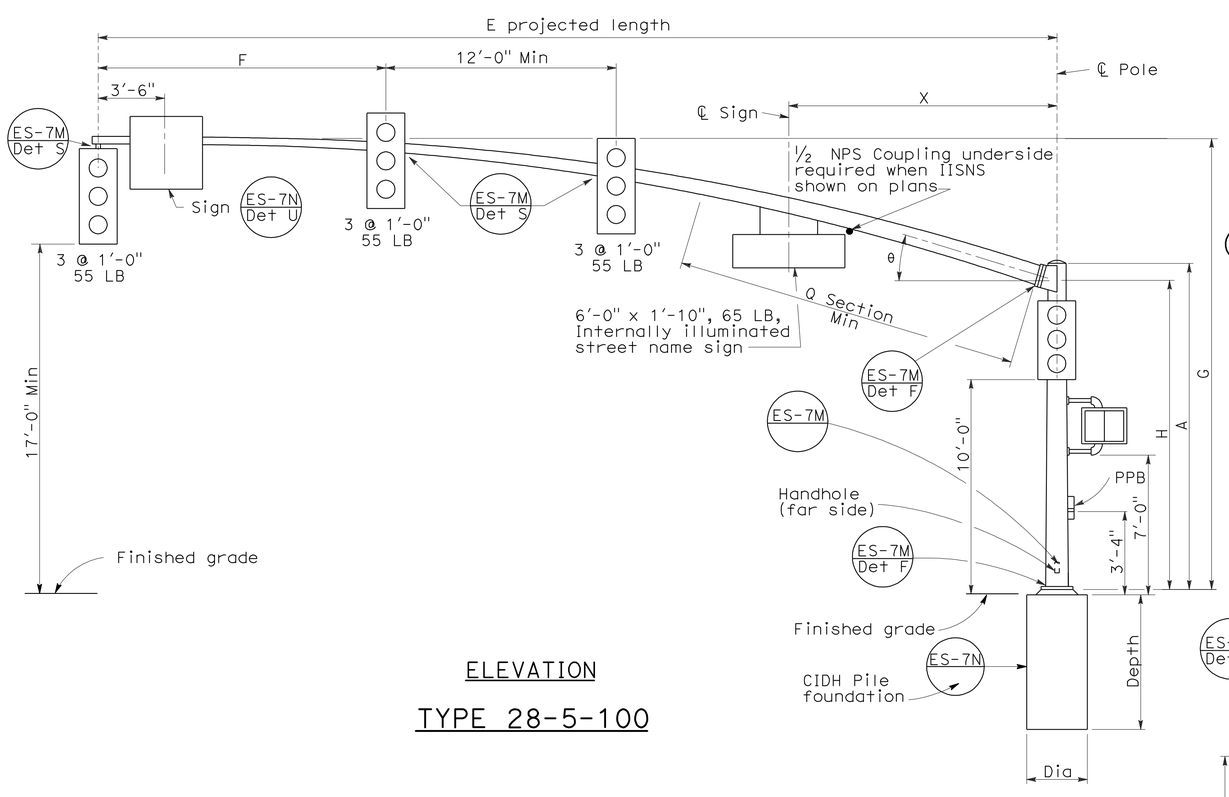
REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Stanley P. Johnson — No. C57793 — Exp. 03-31-08 CIVIL — STATE OF CALIFORNIA

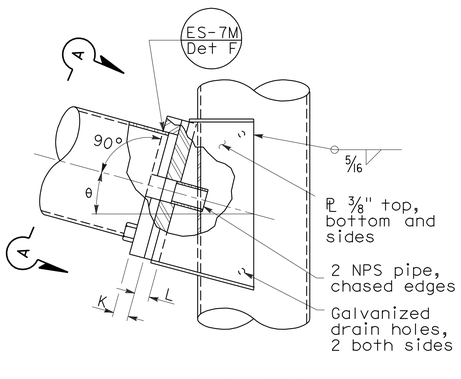
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 3-1-10

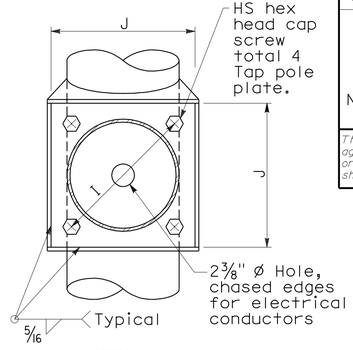


ELEVATION

TYPE 28-5-100

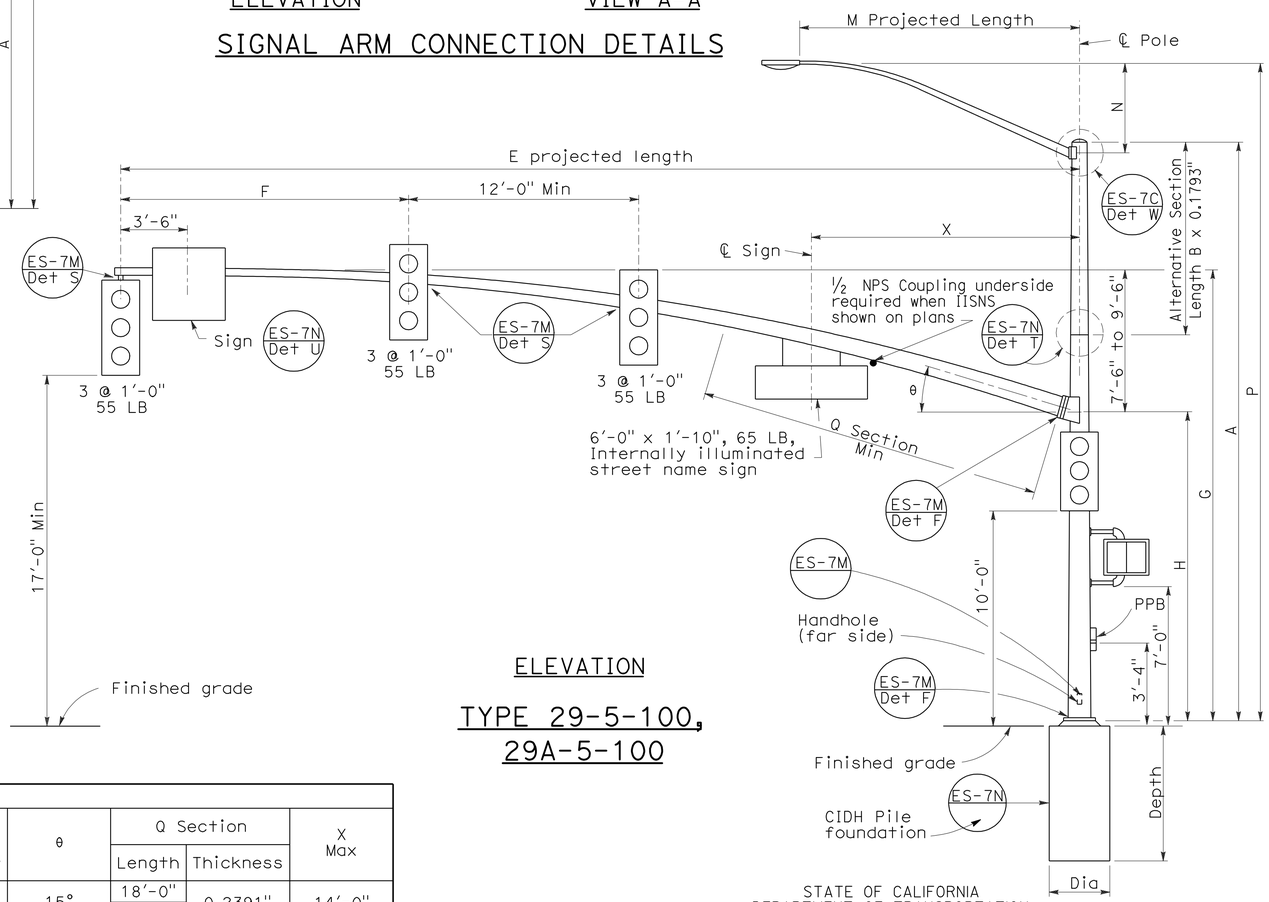


ELEVATION



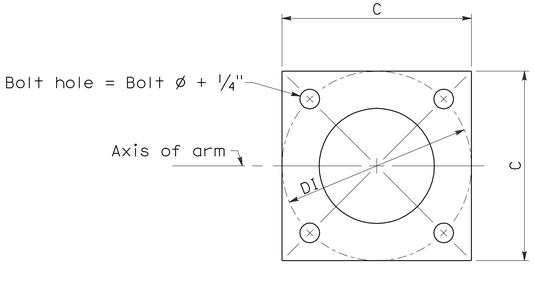
VIEW A-A

SIGNAL ARM CONNECTION DETAILS



ELEVATION

TYPE 29-5-100, 29A-5-100



BASE PLATE

LUMINAIRE ARM DATA					
M Projected Length	N Rise	Min OD at Pole	Thickness	P Mounting Height 30'-0" Pole	P Mounting Height 35'-0" Pole
6'-0"	2'-0"±	3 1/4"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3 1/2"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3 7/8"		32'-9"±	37'-9"±
12'-0"	4'-3"±			33'-9"±	38'-9"±
15'-0"	4'-9"±	4 1/4"		34'-3"±	39'-3"±

SIGNAL ARM DATA														
E Projected Length	F Min Spacing	G Mounting Height	H	Min OD at Pole	Thickness	I Bolt Circle	HS Cap Screws	J Plate Size	K Arm PL Thickness	L Pole PL Thickness	θ	Q Section Length	Q Section Thickness	X Max
50'-0"	15'-0"	23'-7"± to 25'-7"±	16'-0"	11 7/16"	0.1793"	16"	1 1/2"-6NC-3 1/4"	1'-4"	1 3/4"	1 3/4"	15°	18'-0"	0.2391"	14'-0"
55'-0"				1'-1 1/4"								23'-0"		

POLE DATA									BASE PLATE DATA				Luminaire Arm	Signal Arm	CIDH PILE FOUNDATION		
Pole Type	Load Case	Wind Velocity mph	A Height	Min OD Base	Min OD Top	Thickness	Alternative Section B Length	Alternative Section Bottom	Alternative Section Top	C	DI Bolt Circle	Thickness	Anchor Bolts Size			Dia	Depth	Reinforced
28-5-100	5	100	17'-0"	14"	11 11/16"	0.3125"	None	11 1/4"	9 7/8"	21"	21"	1 3/4"	2" ø x 42" x 6"	None	50'-0", 55'-0"	3'-0"	9'-2"	Yes
29-5-100			30'-0"		9 7/8"		10'-0"							6'-15' [15'-0"]				
29A-5-100			35'-0"		9 3/16"		15'-0"		9 3/16"	23"	23"							

[ ] Indicates arm length to be used unless otherwise noted on plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD CASE 5 ARM LOADING WIND VELOCITY=100 MPH ARM LENGTHS 50' TO 55')

NO SCALE

RSP ES-7G DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN ES-7G DATED MAY 1, 2006 - PAGE 443 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7G

2006 REVISED STANDARD PLAN RSP ES-7G

5-15-06