

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	YoI	80	0.0/4.4	2	21

<i>James M. Ferreira</i> 11-22-10	
REGISTERED CIVIL ENGINEER	DATE
11-22-10	
PLANS APPROVAL DATE	

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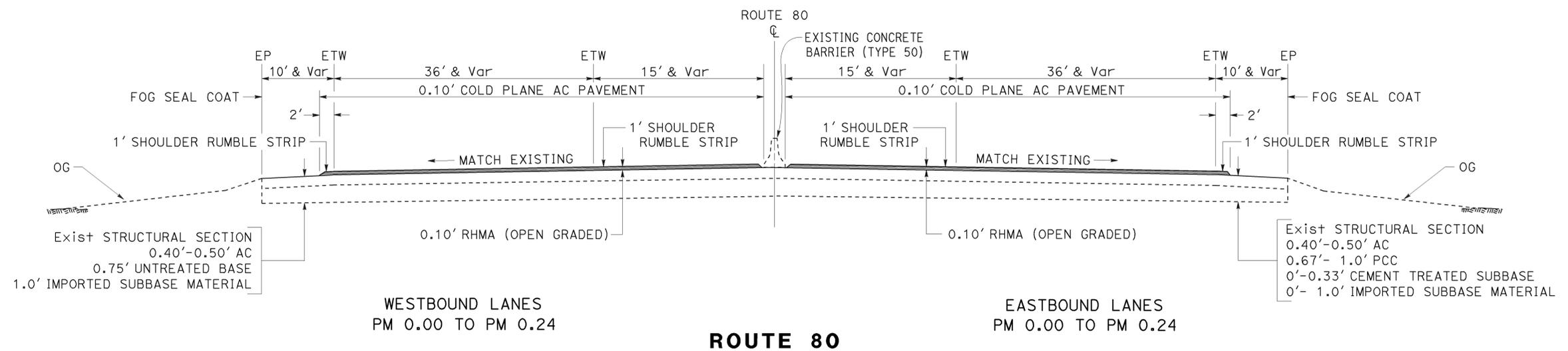
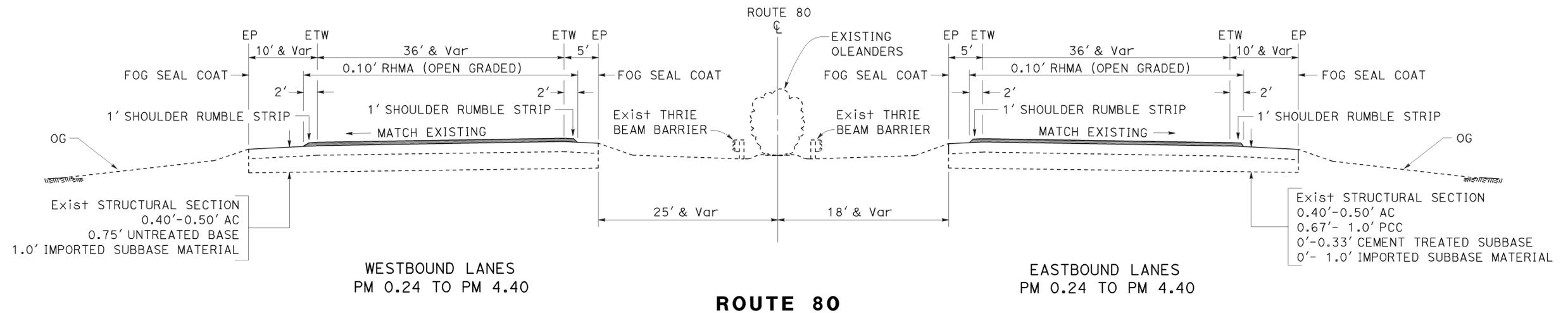
REGISTERED PROFESSIONAL ENGINEER	
JIM FERREIRA	
No. 48257	
Exp. 6-30-12	
CIVIL	

NOTES:

- DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- SHOULDER RUMBLE STRIPS ARE HMA, GROUND-IN INDENTATIONS 1' MAXIMUM IN WIDTH.
- EXISTING TW AND SHLD STRUCTURAL SECTIONS IN BOTH DIRECTIONS ARE THE SAME.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

ABBREVIATIONS:

- RHMA RUBBERIZED HOT MIX ASPHALT
 TW TRAVELED WAY



TYPICAL CROSS SECTIONS
NO SCALE

X-1

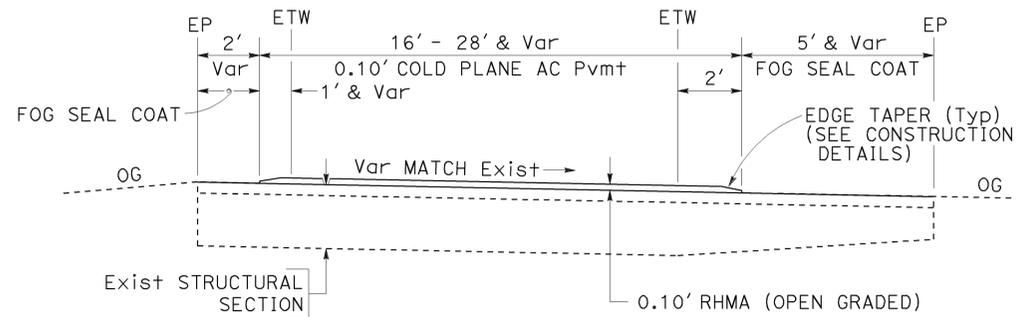
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

REVISOR: ROB SCHROEDER, JIM FERREIRA
 CALCULATED/DESIGNED BY: BRIAN TOEPFER
 CHECKED BY:

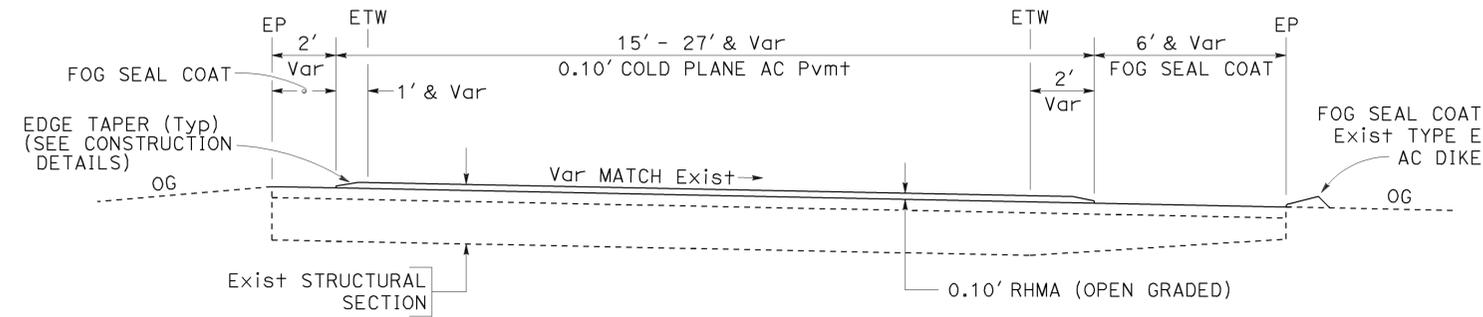
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	YoI	80	0.0/4.4	3	21
James M. Ferreira			11-22-10	REGISTERED CIVIL ENGINEER DATE	
11-22-10			PLANS APPROVAL DATE		
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NOTES:

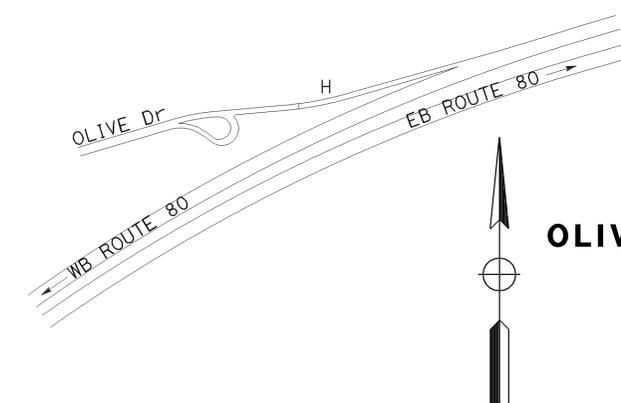
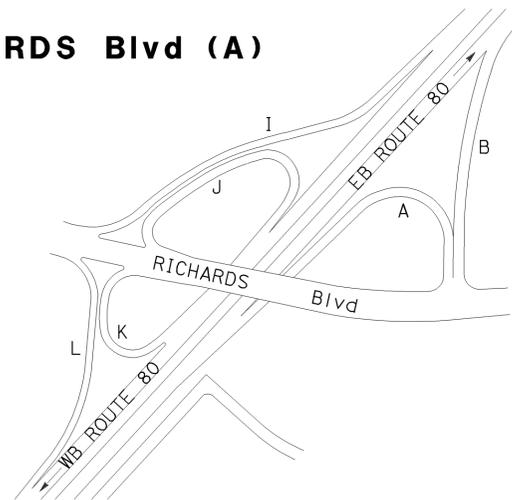
1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPER ELEVATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
4. ALL TYPICAL RAMP CROSS SECTIONS ARE SHOWN IN DIRECTION OF TRAVEL.



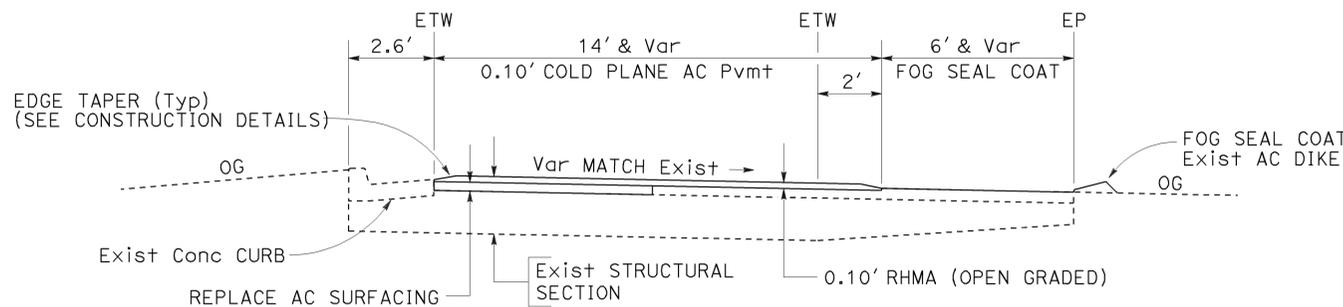
EB OFF-RAMP TO RICHARDS Blvd (A)



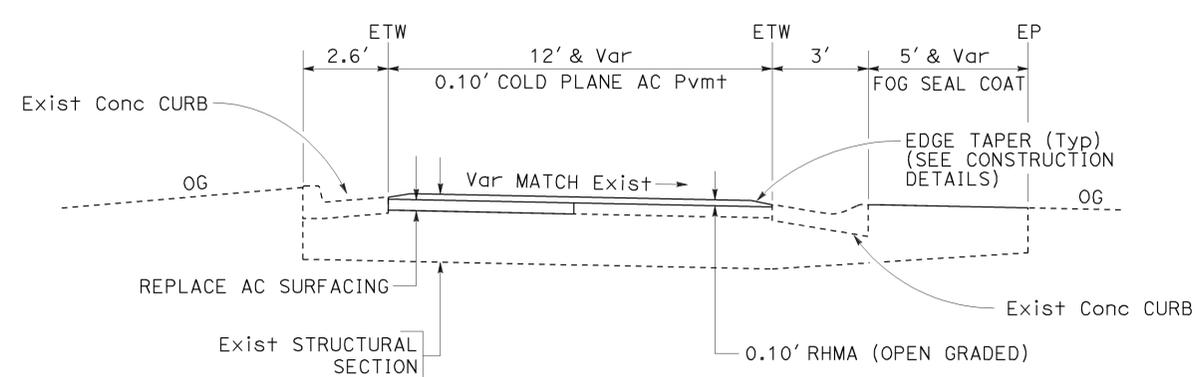
EB ON-RAMP FROM RICHARDS Blvd (B)



OLIVE Dr OFF-RAMP (H)



**ON-RAMP LOOP FROM NB RICHARDS Blvd TO WB ROUTE 80 (J)
WB ROUTE 80 OFF-RAMP LOOP TO SB RICHARDS Blvd (K)
ON-RAMP FROM SB RICHARDS Blvd TO WB ROUTE 80 (L)
WB ROUTE 80 OFF-RAMP TO OLIVE Dr (H)**



WB ROUTE 80 OFF-RAMP TO NB RICHARDS Blvd (I)

TYPICAL CROSS SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Rob Schroeder
 Jim Ferreira
 Brian Toepfer
 MAINTENANCE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	YoI	80	0.0/4.4	4	21
James M. Ferreira			11-22-10	REGISTERED CIVIL ENGINEER DATE	
11-22-10			PLANS APPROVAL DATE		
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- ALL TYPICAL RAMP CROSS SECTIONS ARE SHOWN IN DIRECTION OF TRAVEL.

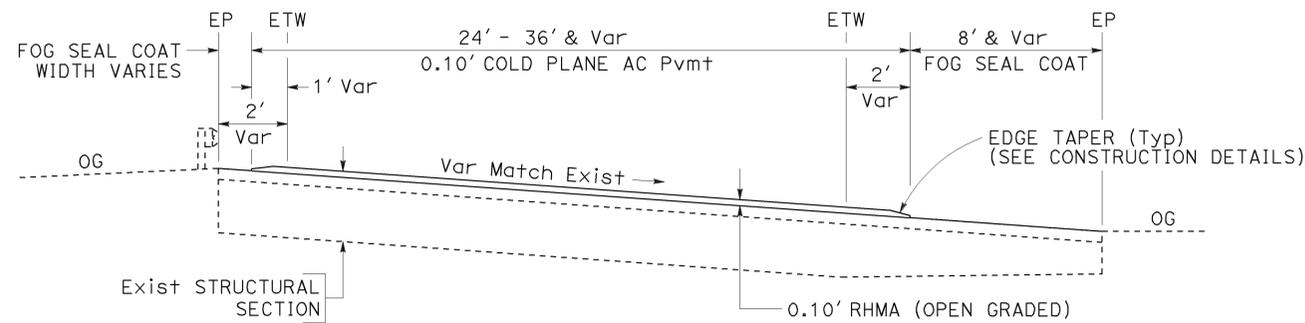
REVISOR BY DATE

ROB SCHROEDER
JIM FERREIRA

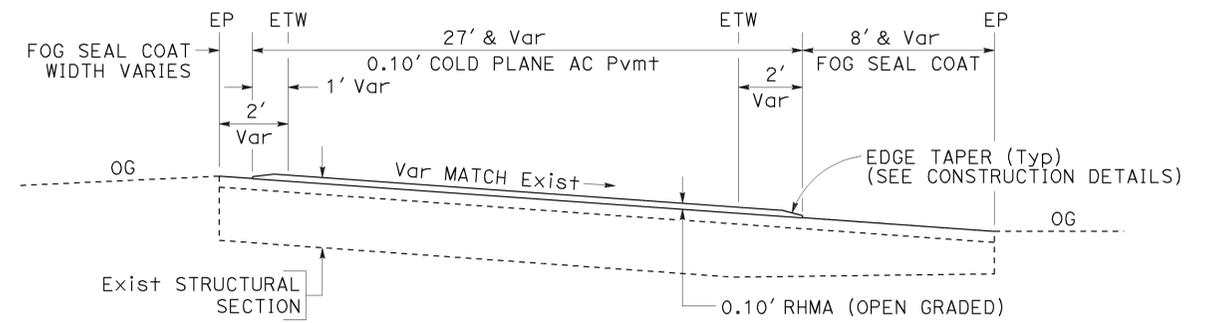
CALCULATED/DESIGNED BY CHECKED BY

FUNCTIONAL SUPERVISOR
BRIAN TOEPFER

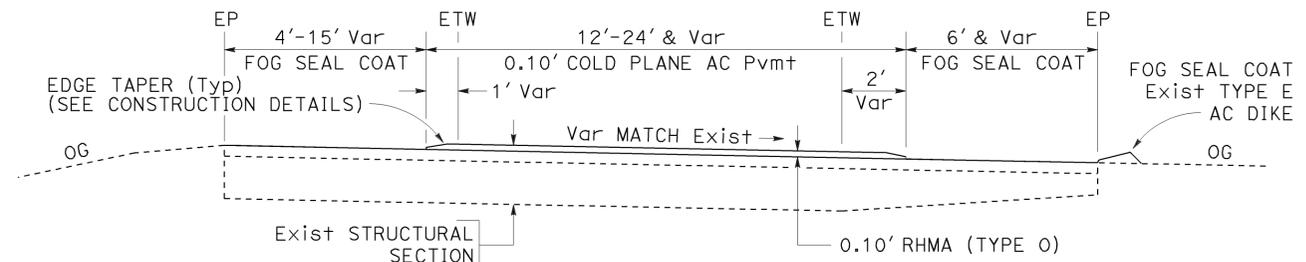
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE



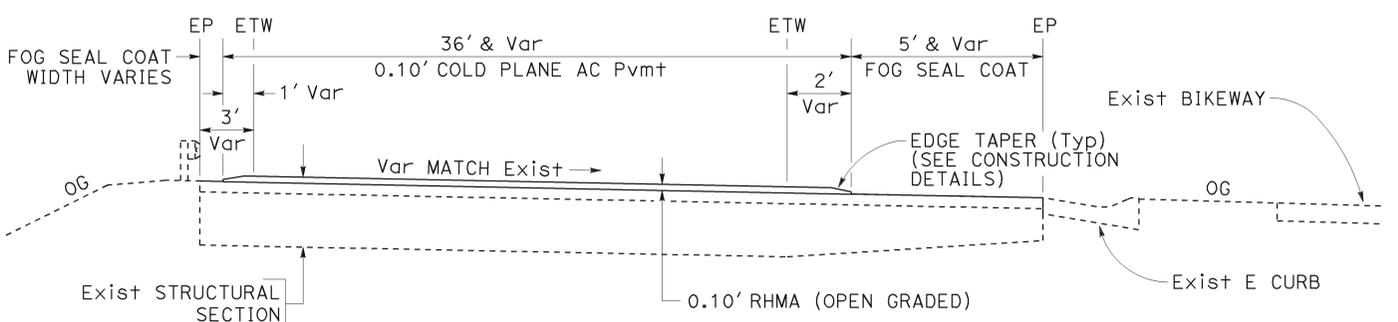
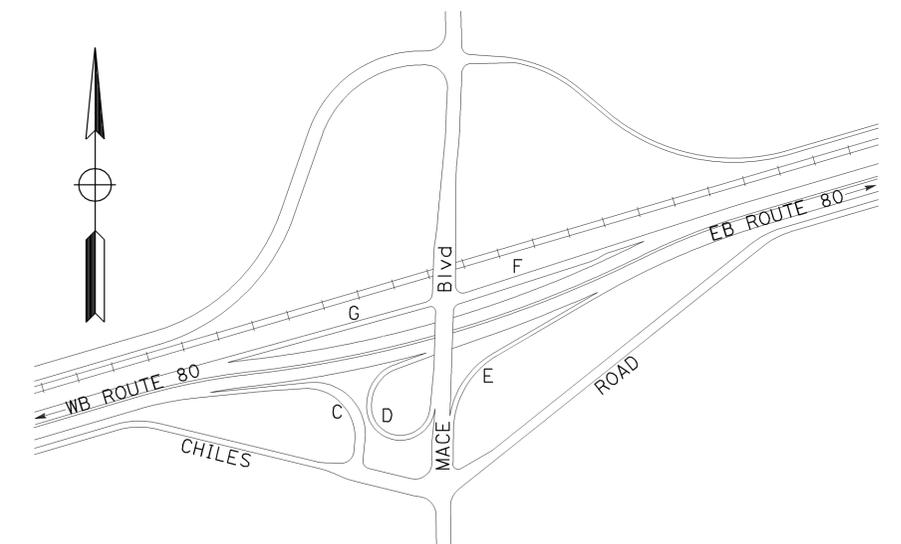
EB ROUTE 80 OFF-RAMP TO CHILES Rd / MACE Blvd (C)



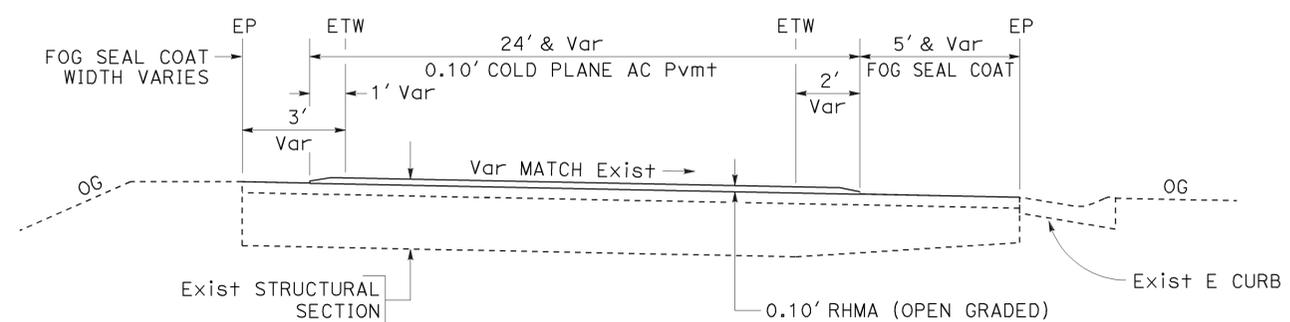
SB MACE Blvd ON-RAMP LOOP TO EB ROUTE 80 (D)



NB MACE Blvd ON-RAMP TO EB ROUTE 80 (E)



WB ROUTE 80 OFF-RAMP TO MACE Blvd (F)



MACE Blvd ON-RAMP TO WB ROUTE 80 (G)

MACE Blvd INTERCHANGE RAMPS

TYPICAL CROSS SECTIONS

NO SCALE

X-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Yol	80	0.0/4.4	5	21

<i>James M. Ferreira</i>	11-22-10
REGISTERED CIVIL ENGINEER	DATE
11-22-10	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
JIM FERREIRA
No. 48257
Exp. 6-30-12
CIVIL
STATE OF CALIFORNIA

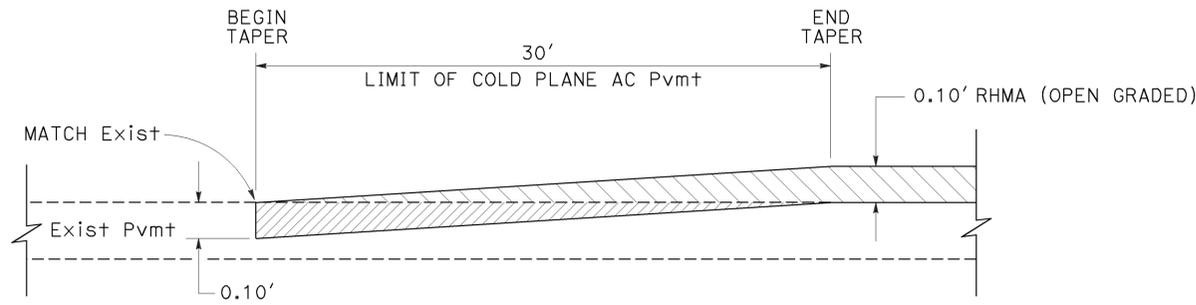
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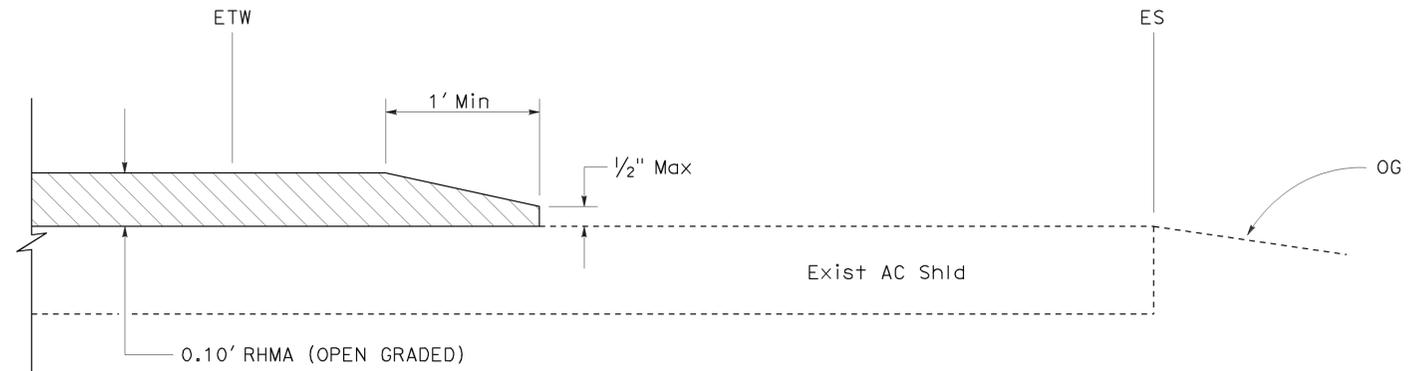
1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND

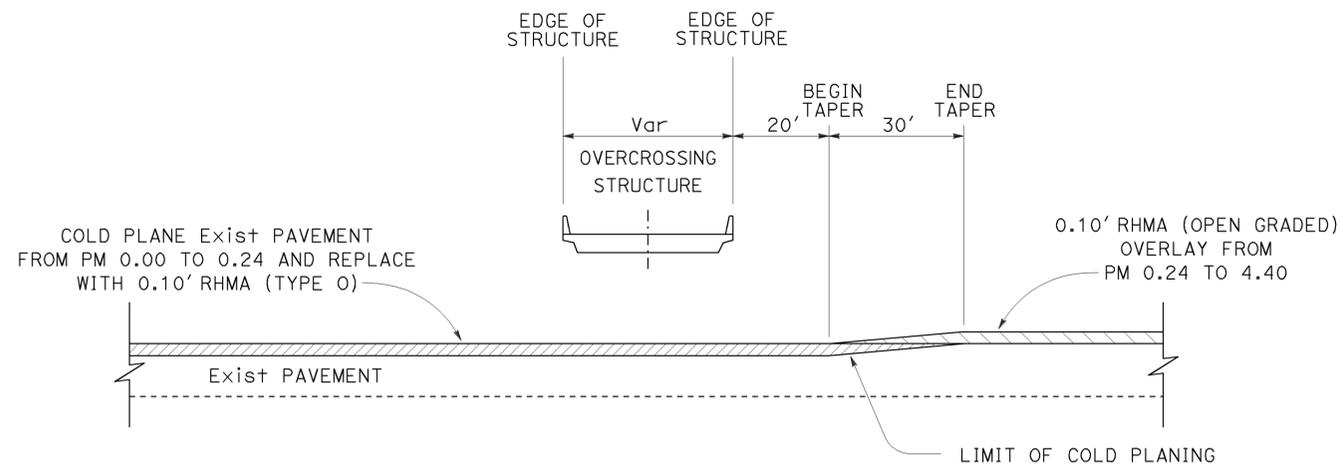
-  COLD PLANE AND REPAVE
-  0.10' RHMA (OPEN GRADED)



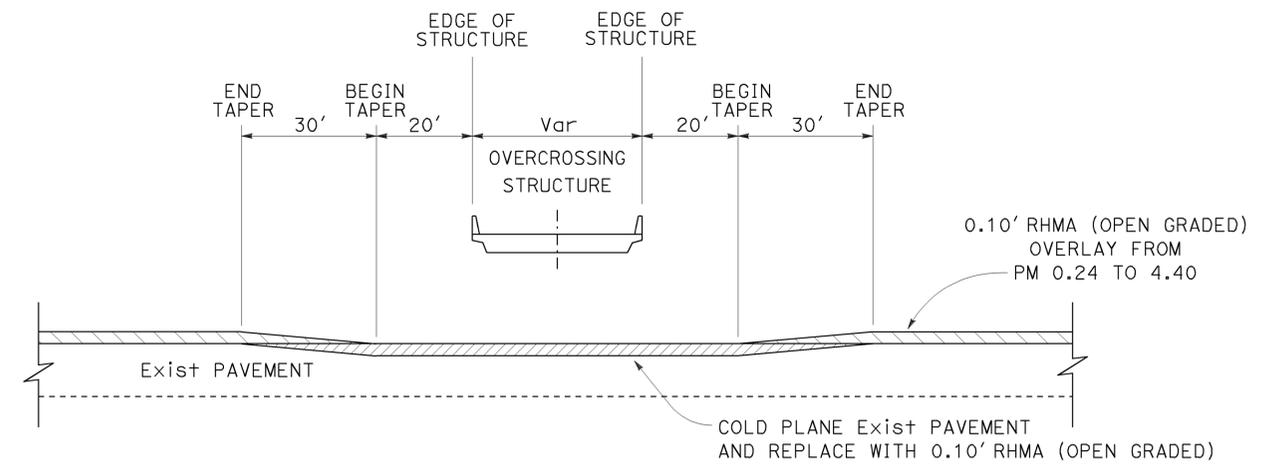
MAINLINE & RAMP PAVING CONFORM
BEGIN AND END OF CONSTRUCTION AND BRIDGE APPROACH SLABS



RHMA OVERLAY EDGE TAPER



PAVING CONFORM AT RICHARDS Blvd OVERCROSSING



PAVING CONFORM AT MACE Blvd OVERCROSSING

CONSTRUCTION DETAILS

NO SCALE

C-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Yol	80	0.0/4.4	6	21

James M. Ferreira 11-22-10
 REGISTERED CIVIL ENGINEER DATE
 11-22-10
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JIM FERREIRA
 No. 48257
 Exp. 6-30-12
 CIVIL
 STATE OF CALIFORNIA

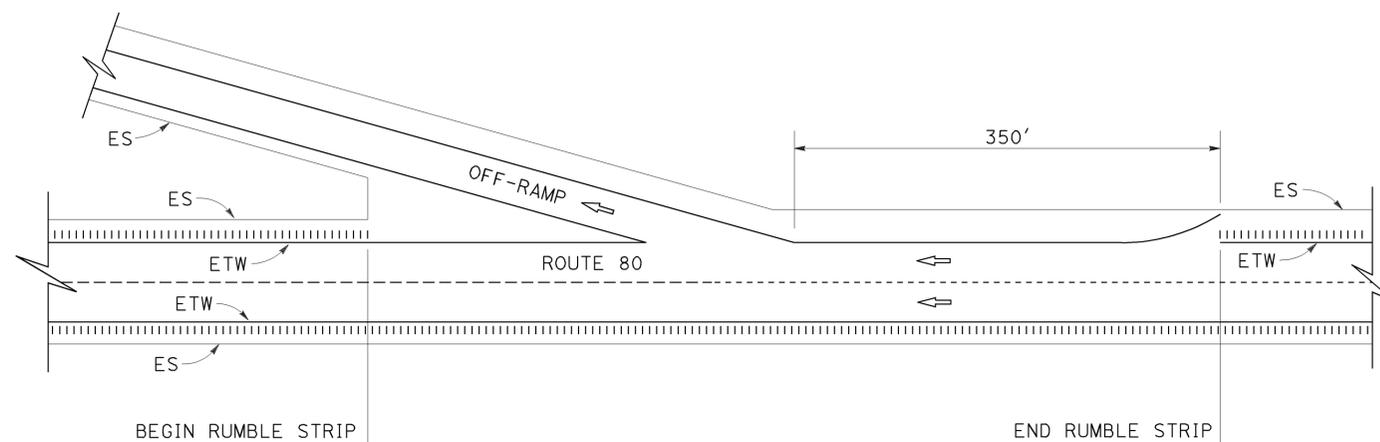
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NOTES:

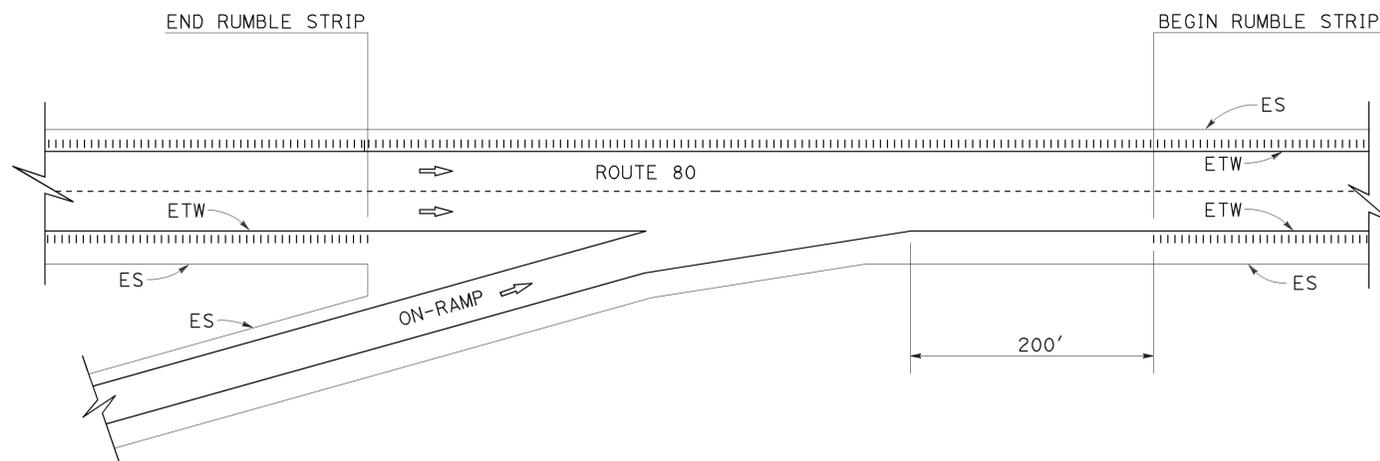
1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND

- ➔ DIRECTION OF TRAFFIC
- |||||| RUMBLE STRIP

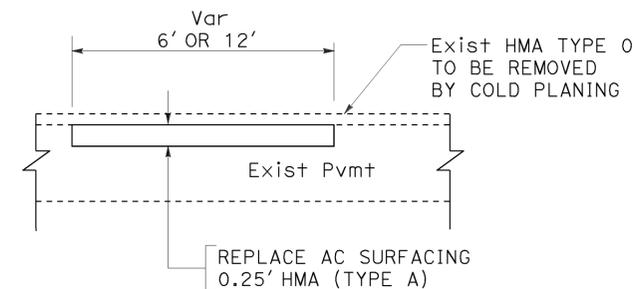


OFF-RAMP

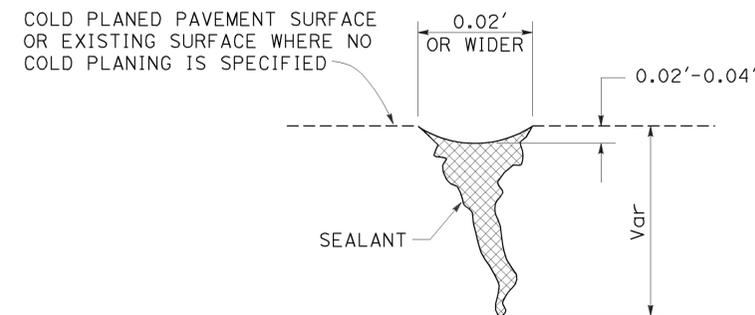


ON-RAMP

RUMBLE STRIP DETAIL AT RAMPS



REPLACE ASPHALT CONCRETE SURFACING



CRACK TREATMENT

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE
FUNCTIONAL SUPERVISOR	BRIAN TOEPFER
CALCULATED/DESIGNED BY	CHECKED BY
ROB SCHROEDER	JIM FERREIRA
REVISOR BY	DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Yol	80	0.0/4.4	7	21

James M. Ferreira 11-22-10
 REGISTERED CIVIL ENGINEER DATE

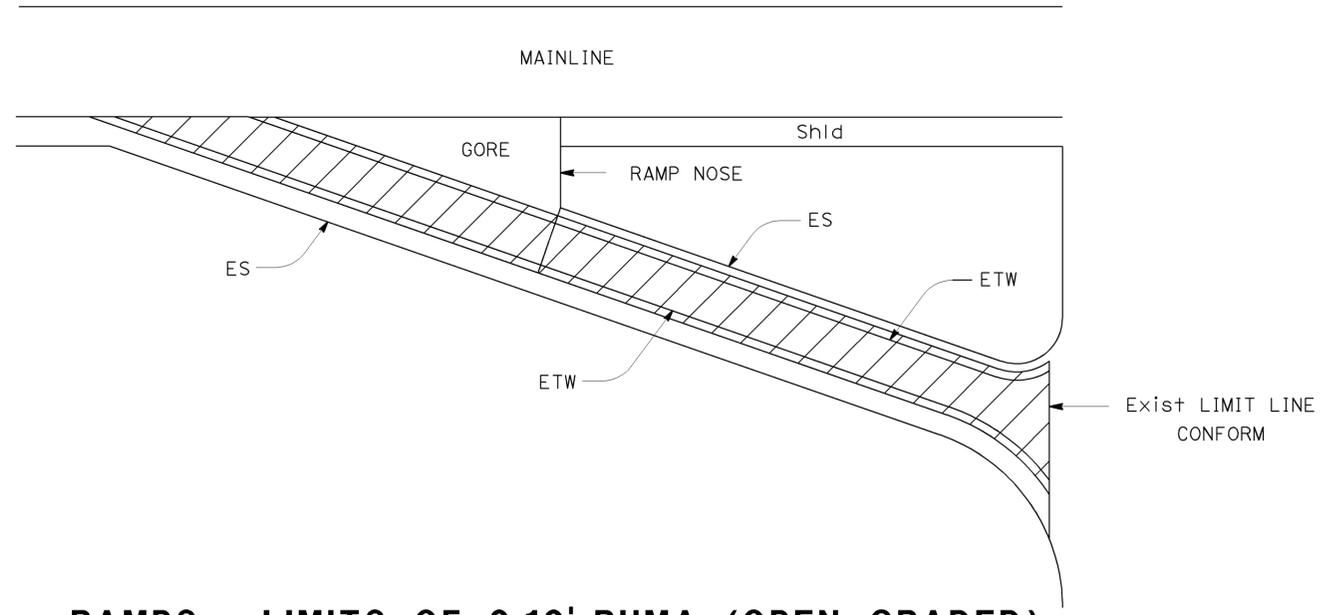
11-22-10
 PLANS APPROVAL DATE

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NOTES:

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	ROB SCHROEDER	REVISOR BY	
Caltrans	BRIAN TOEPFER	CHECKED BY	JIM FERREIRA	DATE	
MAINTENANCE					



RAMPS - LIMITS OF 0.10' RHMA (OPEN GRADED)
 (OFF-RAMP SHOWN - ON-RAMP SIMILAR)

CONSTRUCTION DETAILS

NO SCALE

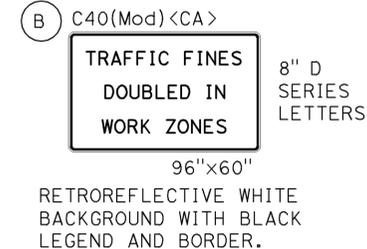
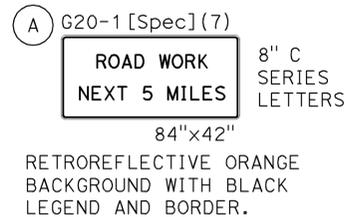
C-3

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)	G20-1 [Spec] (7)		84" x 42"	ROAD WORK NEXT 5 MILES	2 - 4" x 6"	2
(B)		C40(Mod)	96" x 60"	TRAFFIC FINES DOUBLED IN WORK ZONES	2 - 6" x 6"	2
(C)	W20-1	C23	48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	5
(D)	G20-2	C14	36" x 18"	END ROAD WORK	1 - 4" x 4"	7
(E)		C14	48" x 24"	END ROAD WORK	1 - 4" x 6"	2

LEGEND

- (X) CONSTRUCTION AREA SIGN LETTER
- ┆ SIGN - SINGLE POST
- ┆ SIGN - TWO POSTS
- <CA> CALIFORNIA SIGN CODE



NOTES: 1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER
2. THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

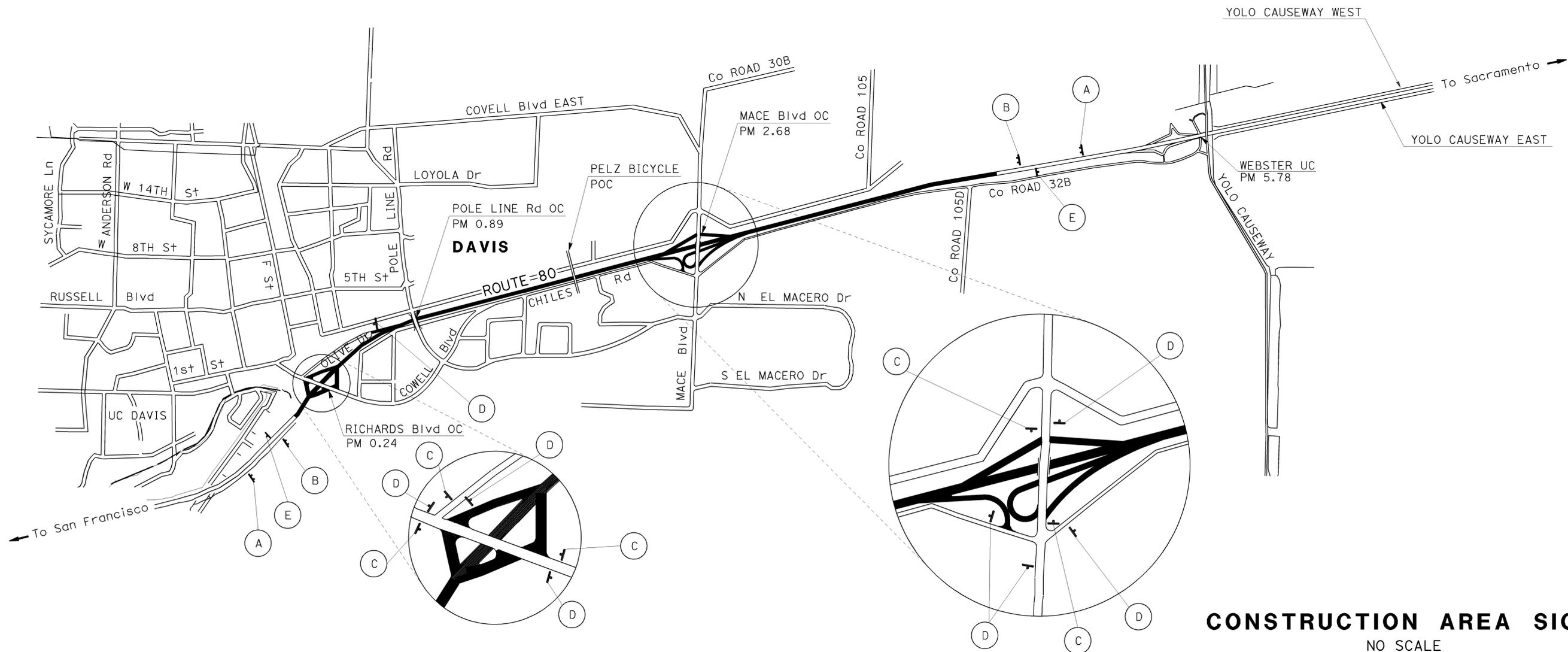
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Yol	80	0.0/4.4	8	21

11-13-10
REGISTERED CIVIL ENGINEER DATE

11-22-10
PLANS APPROVAL DATE

JEFFREY S. JEWETT
No. 49233
Exp 9-30-12
CIVIL

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CONSTRUCTION AREA SIGNS
NO SCALE

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC
FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
REVISOR: [blank]
DATE: [blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Yol	80	0.0/4.4	9	21

11-13-10
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
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THERMOPLASTIC TRAFFIC STRIPE

EB/WB	DESCRIPTION	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17-7)		4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36-12)		4" THERMOPLASTIC TRAFFIC STRIPE				8" THERMOPLASTIC TRAFFIC STRIPE				8" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12-3)
		DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	
		9	12	14A	21	25	25A	27B	36	36A	38	38B	37	
		LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	
EB	MAINLINE	1,247	45,312	1,152		23,232		23,946	1,164	714		379	1,081	
WB	MAINLINE	1,199	46,316	2,160		23,206		23,667	2,284	573		523	994	
WB	ON RAMP FROM SB RICHARDS Blvd						667	687				47		
WB	OFF RAMP TO SB RICHARDS Blvd						417	410				53		
WB	ON RAMP FROM NB RICHARDS Blvd						746	783						
WB	OFF RAMP TO NB RICHARDS Blvd						1,155	1,228				89		
EB	OFF RAMP TO RICHARDS Blvd				212		808	983				140		
EB	ON RAMP FROM RICHARDS Blvd	183			13		570	890						
WB	OFF RAMP TO OLIVE Dr						446	442						
EB	OFF RAMP TO CHILES Rd	817					847	786				543		
EB	ON RAMP FROM SB MACE Blvd						686	603				560		
EB	ON RAMP FROM NB MACE Blvd						873	857				420		
WB	ON RAMP FROM MACE Blvd	996					1,034	1,022						
WB	OFF RAMP TO MACE Blvd	839					834	808				736		
	SUBTOTAL		91,628	3,312	225	46,438	9,083	57,112	3,448	1,287	2,588	902		
	TOTAL	5,281	94,940			112,858			8,225				2,075	

REMOVE THERMOPLASTIC TRAFFIC STRIPE

EB/WB	DESCRIPTION	REMOVE THERMOPLASTIC TRAFFIC STRIPE				
		DETAIL NUMBER				
		36	36A	37	38	38B
		LF	LF	LF	LF	LF
EB	MAINLINE	1,164	714	216		379
WB	MAINLINE	2,284	573	199		523
WB	ON RAMP FROM SB RICHARDS Blvd				47	
WB	OFF RAMP TO SB RICHARDS Blvd				53	
WB	ON RAMP FROM NB RICHARDS Blvd					
WB	OFF RAMP TO NB RICHARDS Blvd				89	
EB	OFF RAMP TO SB RICHARDS Blvd				140	
EB	ON RAMP FROM SB RICHARDS Blvd					
WB	OFF RAMP TO OLIVE Dr					
EB	OFF RAMP TO CHILES Rd				543	
EB	ON RAMP FROM SB MACE Blvd				560	
EB	ON RAMP FROM NB MACE Blvd				420	
WB	ON RAMP FROM COUNTY Rd 30B					
WB	OFF RAMP TO COUNTY Rd 30B				736	
	SUBTOTAL	3,448	1,287	415	2,588	902
	TOTAL			8,640		

PAVEMENT DELINEATION QUANTITIES PDQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Yol	80	0.0/4.4	10	21

Jeffrey S. Jewett 11-13-10
 REGISTERED CIVIL ENGINEER DATE

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THERMOPLASTIC PAVEMENT MARKING

EB/WB	DESCRIPTION	THERMOPLASTIC PAVEMENT MARKING														REMOVE THERMOPLASTIC PAVEMENT MARKING SQFT	
		ARROW TYPE					LIMIT LINE SQFT	CROSS WALK SQFT	12" WHITE DIAGONALS SQFT	"AHEAD" MARKING SQFT	"SIGNAL" MARKING SQFT	DIAMOND SYMBOL SQFT	"CAR" MARKING SQFT	"POOL" MARKING SQFT	"LANE" MARKING SQFT		
		I (24') SQFT	II SQFT	III SQFT	V SQFT	VI SQFT											
EB	MAINLINE																
WB	MAINLINE					126											126
WB	ON RAMP FROM SB RICHARDS Blvd	31															31
WB	OFF RAMP TO SB RICHARDS Blvd				66												66
WB	ON RAMP FROM NB RICHARDS Blvd	31															31
WB	OFF RAMP TO NB RICHARDS Blvd				66												66
EB	OFF RAMP TO RICHARDS Blvd			168	33		45			31	32						129
EB	ON RAMP FROM RICHARDS Blvd	62				84			203								309
WB	OFF RAMP TO OLIVE Dr				66												66
EB	OFF RAMP TO CHILES Rd			378	66		70			62							576
EB	ON RAMP FROM SB MACE Blvd	31					16					44	34	46	48		219
EB	ON RAMP FROM NB MACE Blvd	31					12					33	17	23	24		140
WB	ON RAMP FROM MACE Blvd	62				126											188
WB	OFF RAMP TO MACE Blvd		90	168	99			74			64						495
SUBTOTAL		248	90	714	396	336	143	74	203	124	128	77	51	69	72		2,725
TOTAL									2,725								2,725

PAVEMENT MARKER

EB/WB	DESCRIPTION	PAVEMENT MARKER (RETROREFLECTIVE)											PAVEMENT MARKER (NON-REFLECTIVE)
		TYPE G (EA)						TYPE H (EA)		TYPE C (EA)		TYPE D (EA)	TYPE AY (EA)
		DET 9	DET 12	DET 36	DET 36A	DET 37	DET 38	DET 38B	DET 25	DET 25A	DET 14A	DET 37	DET 23
EB	MAINLINE	27	945	50	31	62				32	8		
WB	MAINLINE	26	967	97	25	60				60	8		
WB	ON RAMP FROM SB RICHARDS Blvd						3				29		
WB	OFF RAMP TO SB RICHARDS Blvd						3				19		
WB	ON RAMP FROM NB RICHARDS Blvd										32		
WB	OFF RAMP TO NB RICHARDS Blvd						5				50		
EB	OFF RAMP TO RICHARDS Blvd						7				35		
EB	ON RAMP FROM RICHARDS Blvd	5									25	20	90
WB	OFF RAMP TO OLIVE Dr										20	4	6
EB	OFF RAMP TO CHILES Rd	18					24				37		
EB	ON RAMP FROM SB MACE Blvd						25				30		
EB	ON RAMP FROM NB MACE Blvd						19				38		
WB	ON RAMP FROM MACE Blvd	22									44		
WB	OFF RAMP TO MACE Blvd	19					32				36		
SUBTOTAL					2,552				1,365		108	24	96
TOTAL									4,049				96

NOTE: DETAIL 23 SHALL BE PLACED ON DETAIL 21.

PAVEMENT DELINEATION QUANTITIES PDQ-2

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

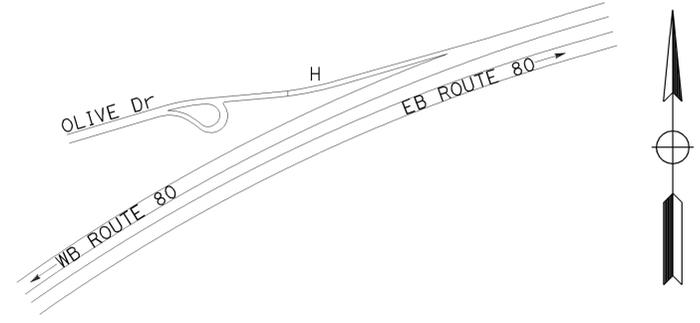
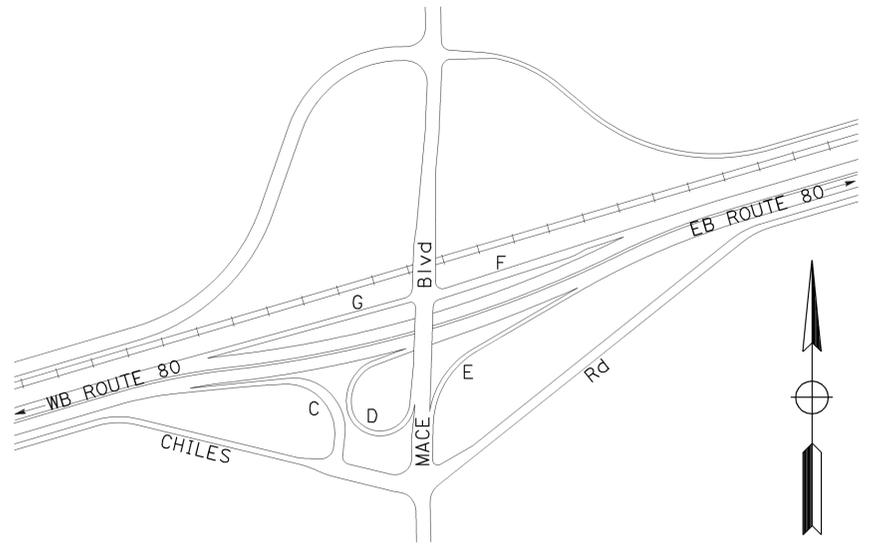
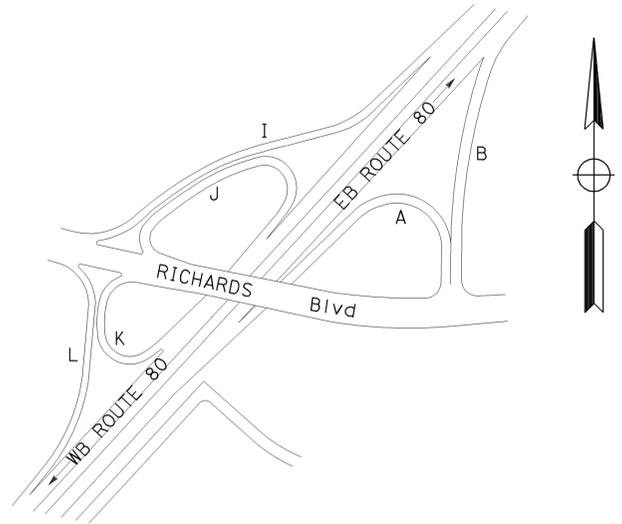
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	YoI	80	0.0/4.4	11	21

James M. Ferreira 11-22-10
 REGISTERED CIVIL ENGINEER DATE

11-22-10
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
JIM FERREIRA
 No. 48257
 Exp. 6-30-12
 CIVIL
 STATE OF CALIFORNIA



ROADWAY QUANTITIES

KEY	EB/WB	Co	PM	DESCRIPTION	RUBBERIZED HOT MIX ASPHALT (OPEN GRADED)	ASPHALTIC EMULSION (PAINT BINDER)	ASPHALTIC EMULSION (FOG SEAL COAT)	COLD PLANE ASPHALT CONCRETE PAVEMENT	REPLACE AC SURFACING	CRACK TREATMENT	RUMBLE STRIP
					TON	TON	TON	SQYD	CY	LNMI	STA
	EB	YoI	0.0 TO 0.24	MAINLINE	527	3.3	1.0	7,910		0.3	18
	WB	YoI	0.0 TO 0.24	MAINLINE	576	3.6	0.6	8,650		0.2	18
	EB	YoI	0.24 TO 4.40	MAINLINE	6,920	43.5	15.6			20.0	395
	WB	YoI	0.24 TO 4.40	MAINLINE	7,160	45.0	13.2			20.0	400
A	EB	YoI	0.22 TO 0.31	RICHARDS Blvd OFF-RAMP LOOP	140	1.0	0.3	2,100		1.1	
B	EB	YoI	0.31 TO 0.42	RICHARDS Blvd ON-RAMP	114	0.7	0.5	1,710		0.2	
C	EB	YoI	2.48 TO 2.55	MACE Blvd OFF-RAMP	211	1.3	0.4	3,030		0.2	
D	EB	YoI	2.60 TO 2.63	MACE Blvd ON-RAMP LOOP	156	1.0	0.4	2,340		0.1	
E	EB	YoI	2.65 TO 2.79	MACE Blvd ON-RAMP	158	1.0	0.3	2,370		0.1	
F	WB	YoI	2.84 TO 2.67	MACE Blvd OFF-RAMP	242	1.5	0.2	3,640		0.1	
G	WB	YoI	2.65 TO 2.45	MACE Blvd ON-RAMP	202	1.3	0.3	3,030		0.1	
H	WB	YoI	0.82 TO 0.79	OLIVE Dr OFF-RAMP	18	0.1	0.3	270		0.1	
I	WB	YoI	0.36 TO 0.19	RICHARDS Blvd OFF-RAMP	110	0.7		1,660	97		
J	WB	YoI	0.28 TO 0.21	RICHARDS Blvd ON-RAMP LOOP	100	0.6	0.2	1,500		0.1	
K	WB	YoI	0.18 TO 0.16	RICHARDS Blvd OFF-RAMP LOOP	48	0.3	0.2	720	30	0.1	
L	WB	YoI	0.17 TO 0.07	RICHARDS Blvd ON-RAMP	81	0.5	0.2	1,220	23	0.1	
SUBTOTAL					16,764	105.4	33.7	40,150	150	42.8	831
TOTAL					16,764	105.4	33.7	40,150	150	42.8	831

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR: BRIAN TOEPPER
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 ROB SCHROEDER
 JIM FERREIRA
 REVISOR: [blank]
 DATE: [blank]

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

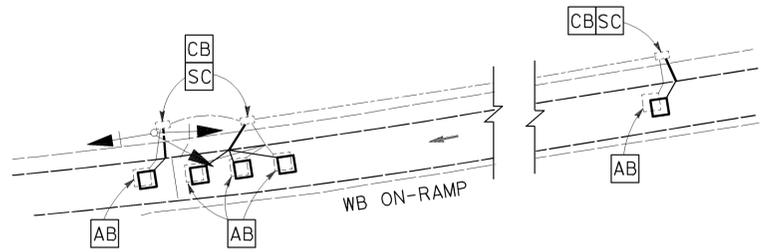
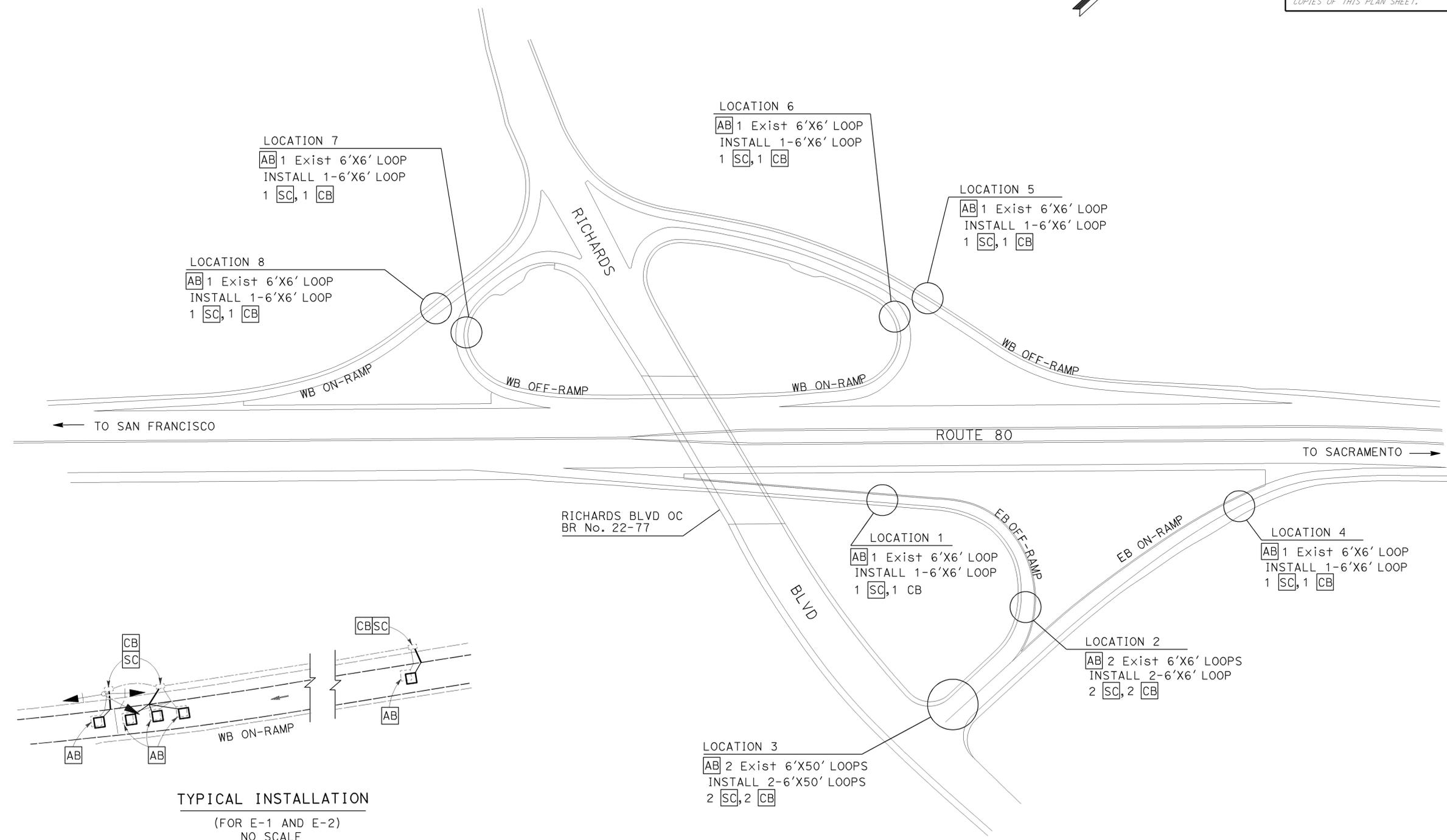
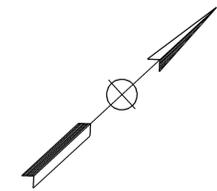
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Yol	80	0.0/4.4	12	21

11-12-10
REGISTERED ELEC ENGINEER DATE

JASKARAN SINGH BOPARAI
No. E15056
Exp. 12-31-11
ELECTRICAL

PLANS APPROVAL DATE

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.



TYPICAL INSTALLATION
(FOR E-1 AND E-2)
NO SCALE

REPLACE INDUCTIVE LOOP DETECTOR (ROUTE 80 AND RICHARDS BLVD) SCALE: 1"=100'

NOTE: THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN
SACRAMENTO

FUNCTIONAL SUPERVISOR
STEVE S. LEE

CALCULATED/DESIGNED BY
CHECKED BY

YOUNG TON
JASKARAN S. BOPARAI

REVISED BY
DATE REVISED

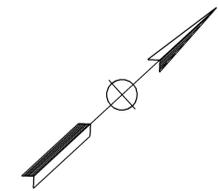
08-13-10
08-13-10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Yol	80	0.0/4.4	13	21

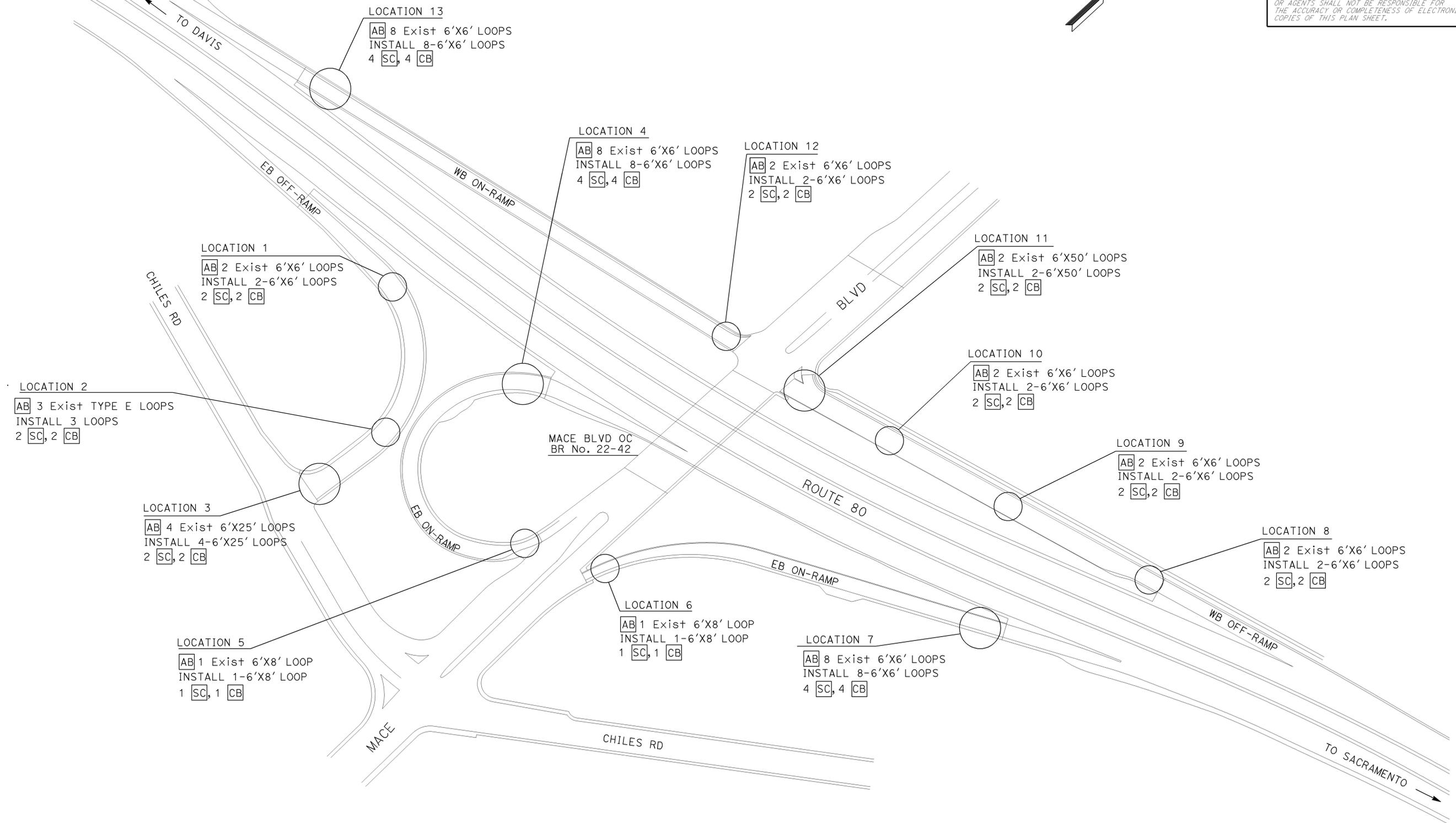
<i>Jaskaran Singh Bopara</i> 11-12-10 REGISTERED ELEC ENGINEER DATE	
11-22-10 PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER JASKARAN BOPARA No. E15056 Exp. 12-31-11 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.



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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - OFFICE OF ELECTRICAL DESIGN - SACRAMENTO

FUNCTIONAL SUPERVISOR: STEVE S. LEE

CALCULATED/DESIGNED BY: JASKARAN S. BOPARA

CHECKED BY: YOUNG TON

REVISOR: 08-13-10

DATE REVISED: 08-13-10

REPLACE INDUCTIVE LOOP DETECTOR

(ROUTE 80 AND MACE BLVD)

SCALE: 1"=100'

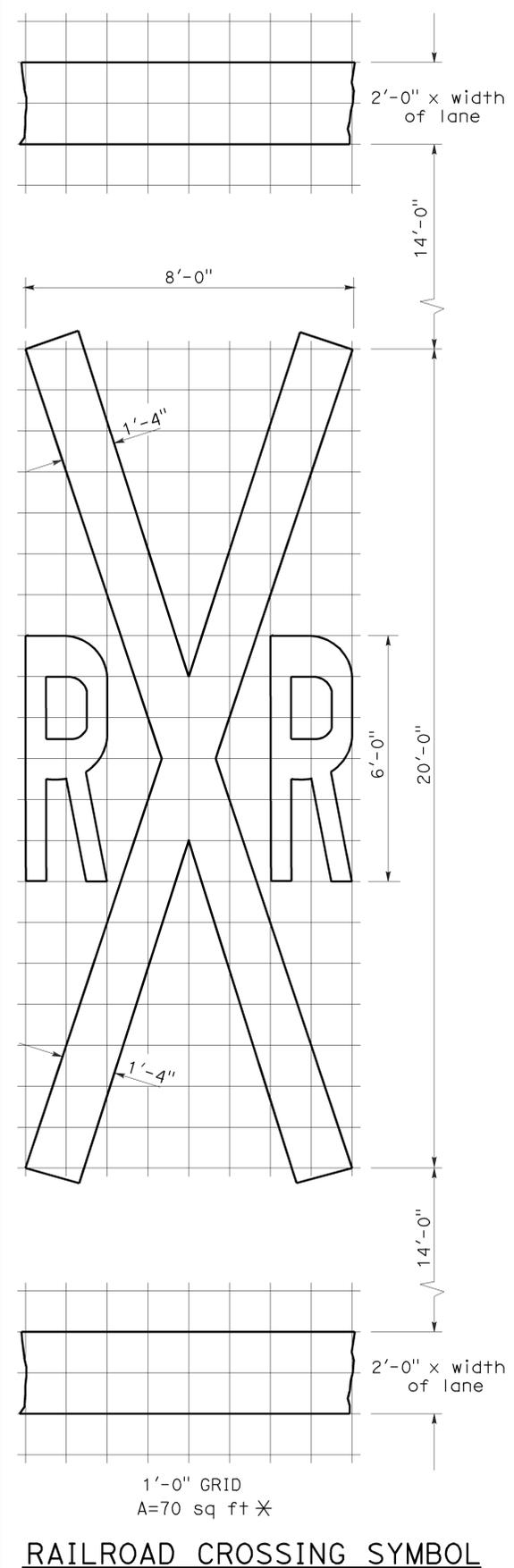
NOTE: THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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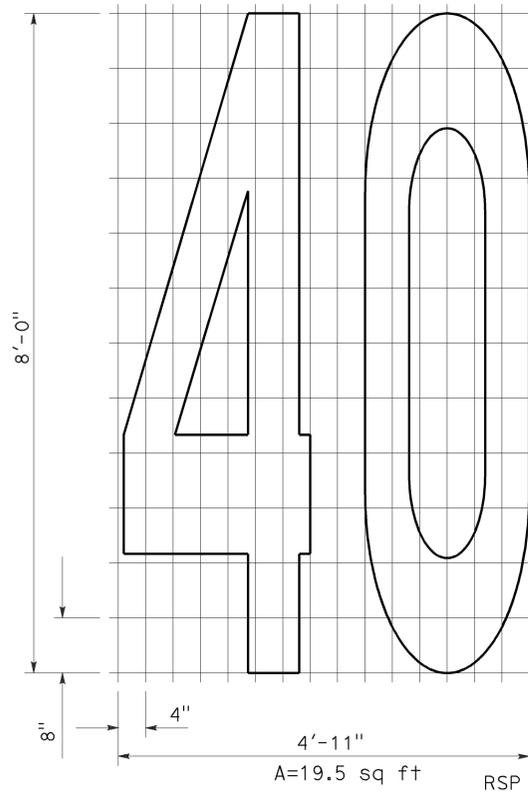
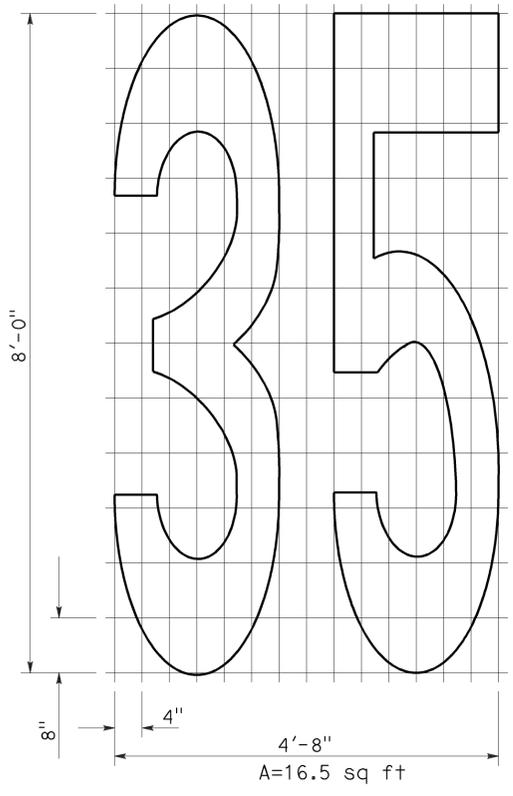
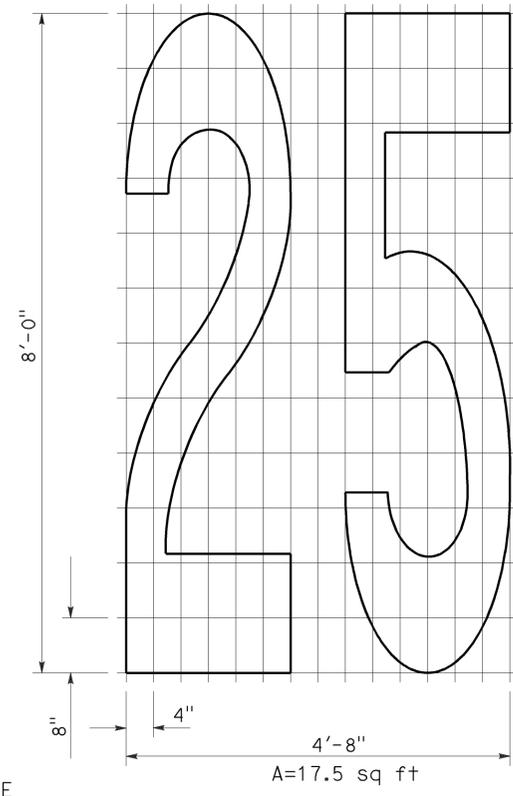
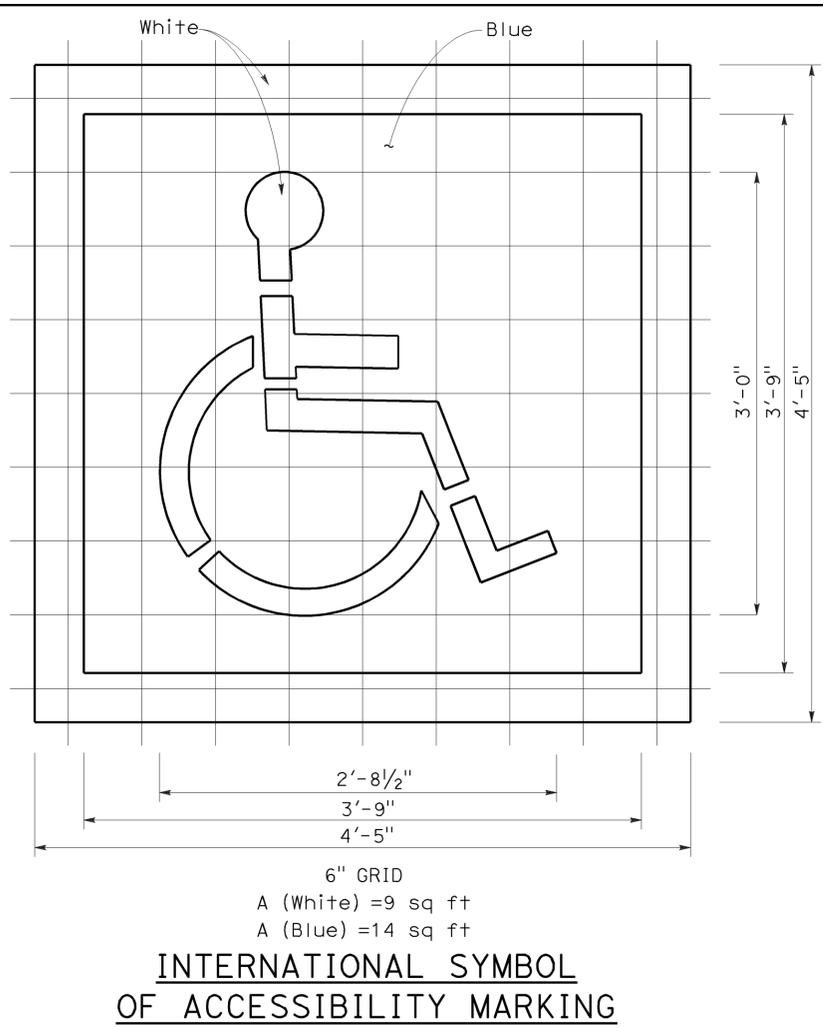
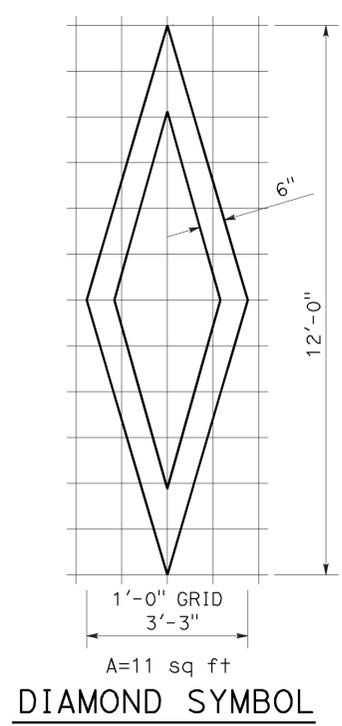
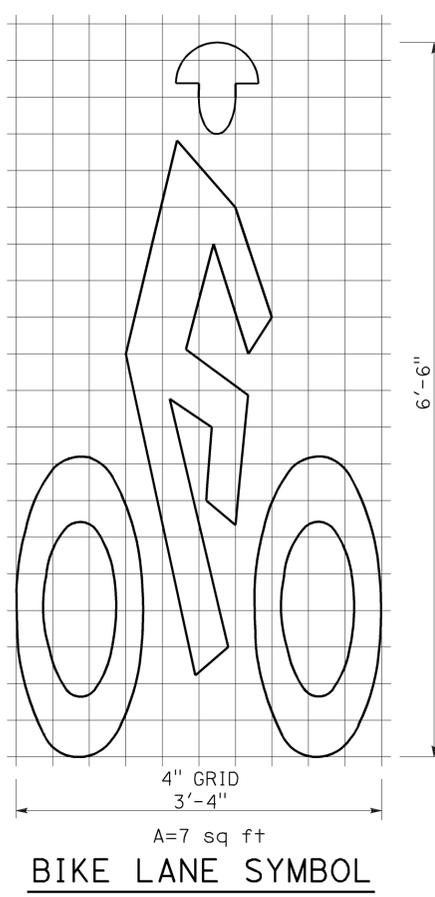
Donald E. Howe
 REGISTERED CIVIL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
 Donald E. Howe
 No. C46402
 Exp. 3-31-09
 CIVIL
 STATE OF CALIFORNIA

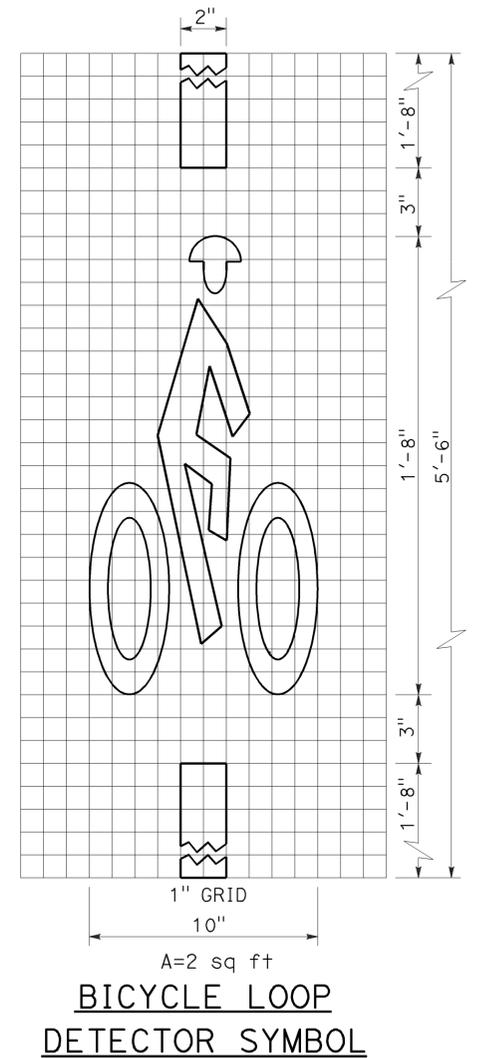
To accompany plans dated 11-22-10



*70 sq ft DOES NOT INCLUDE THE 2'-0" x VARIABLE WIDTH TRANSVERSE LINES.



NUMERALS



NOTE:
1. Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS SYMBOLS AND NUMERALS
NO SCALE

2006 REVISED STANDARD PLAN RSP A24C

RSP A24C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A24C DATED MAY 1, 2006 - PAGE 11 OF THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	YoI	80	0.0/4.4	15	21

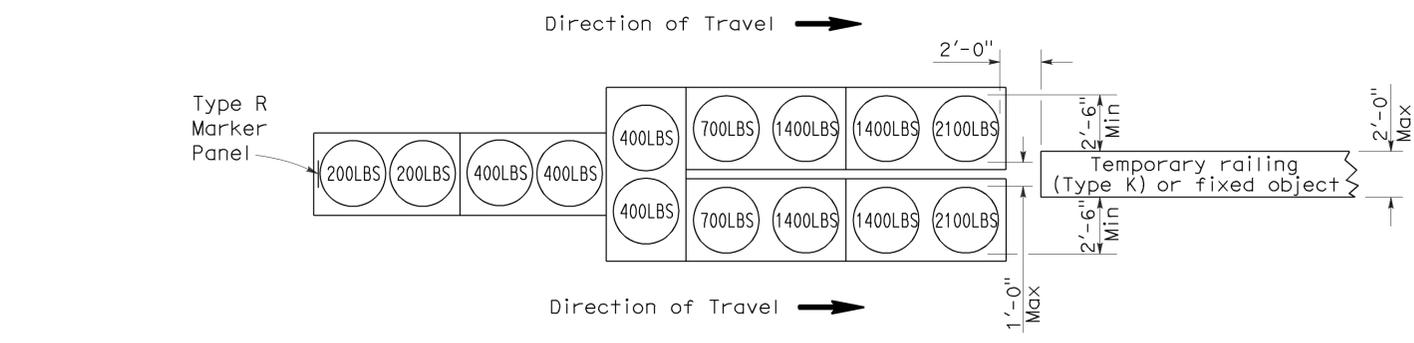
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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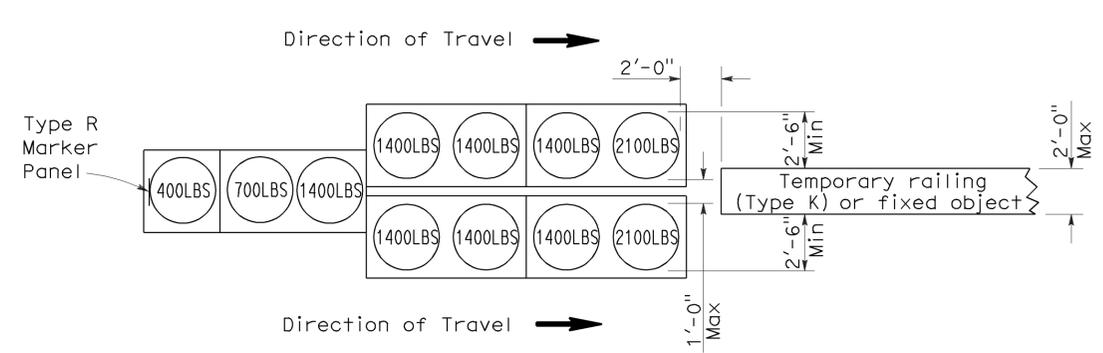
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 11-22-10



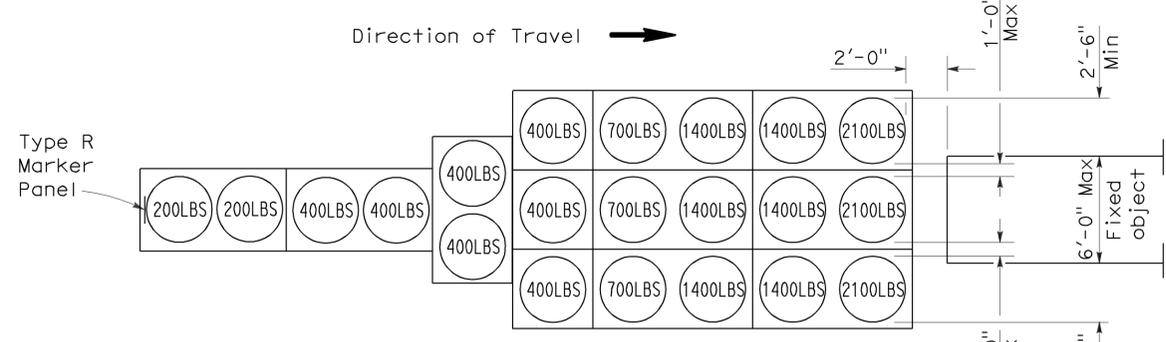
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Approach speed 45 mph or more



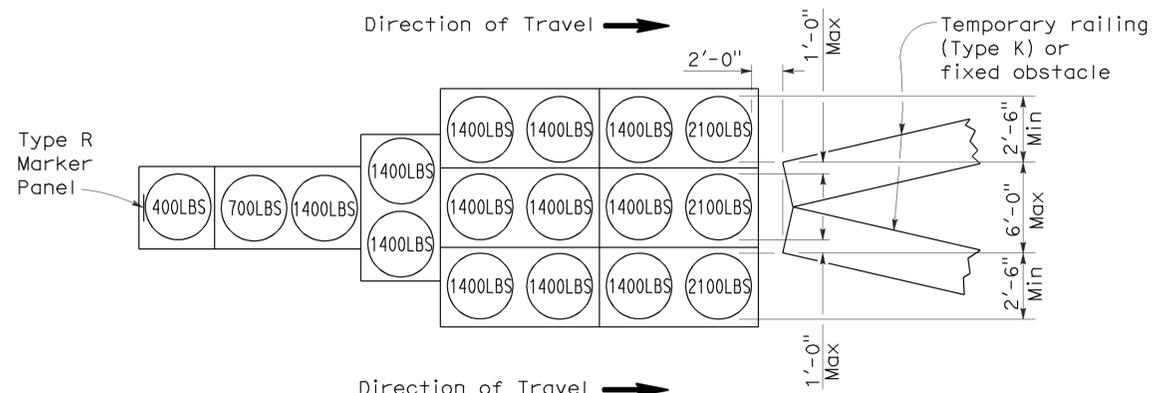
ARRAY 'TU11'

Approach speed less than 45 mph



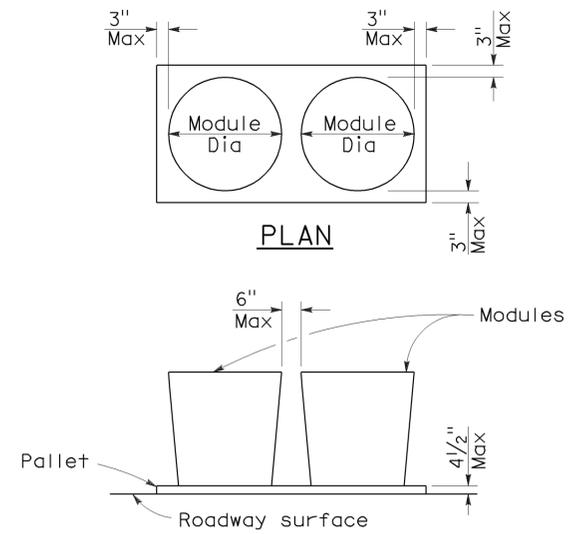
ARRAY 'TU21'

Approach speed 45 mph or more



ARRAY 'TU17'

Approach speed less than 45 mph



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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Yol	80	0.0/4.4	16	21

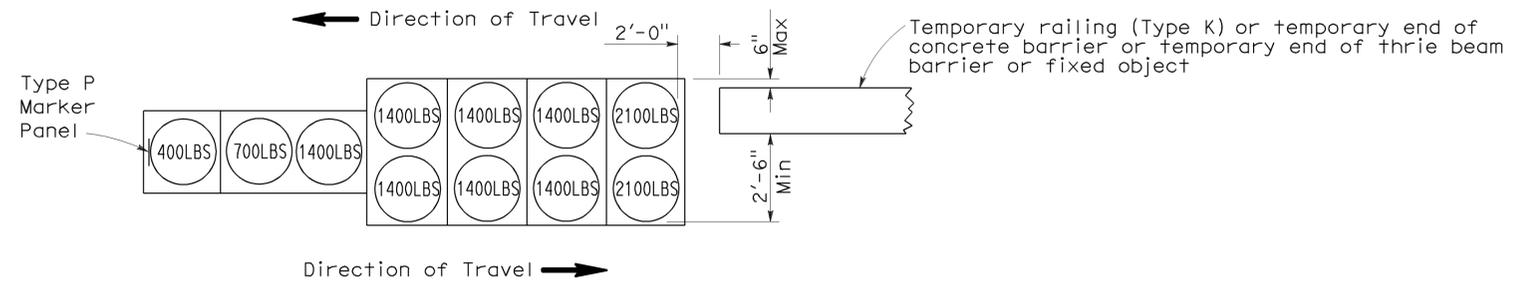
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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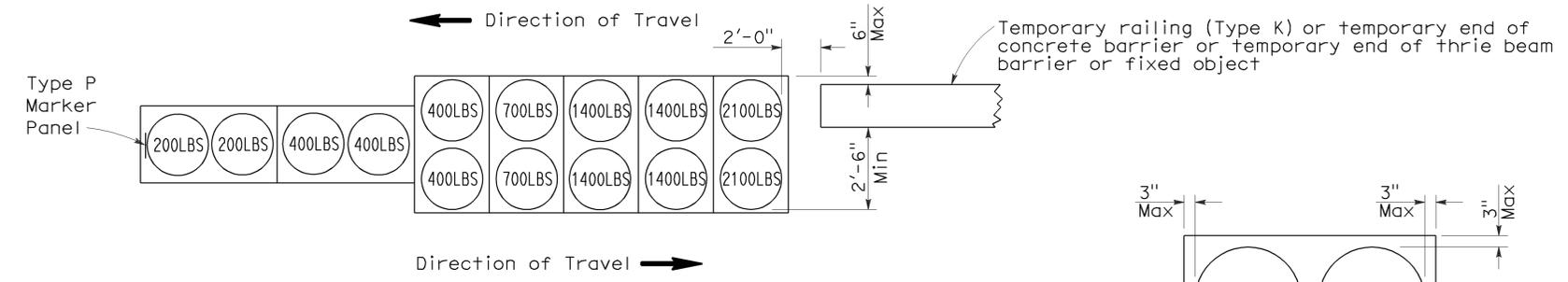
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 11-22-10



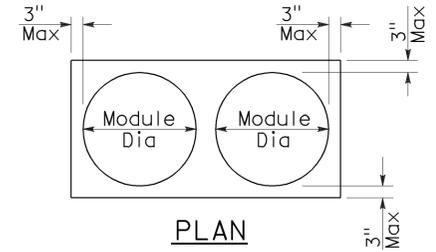
ARRAY 'TB11'

Approach speed less than 45 mph

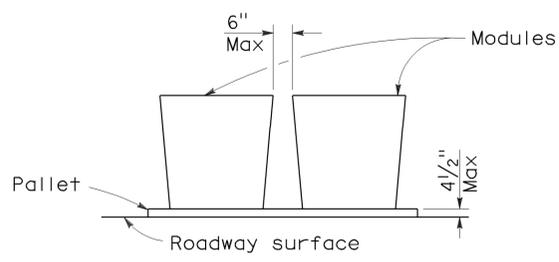


ARRAY 'TB14'

Approach speed 45 mph or more



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 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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Yol	80	0.0/4.4	17	21

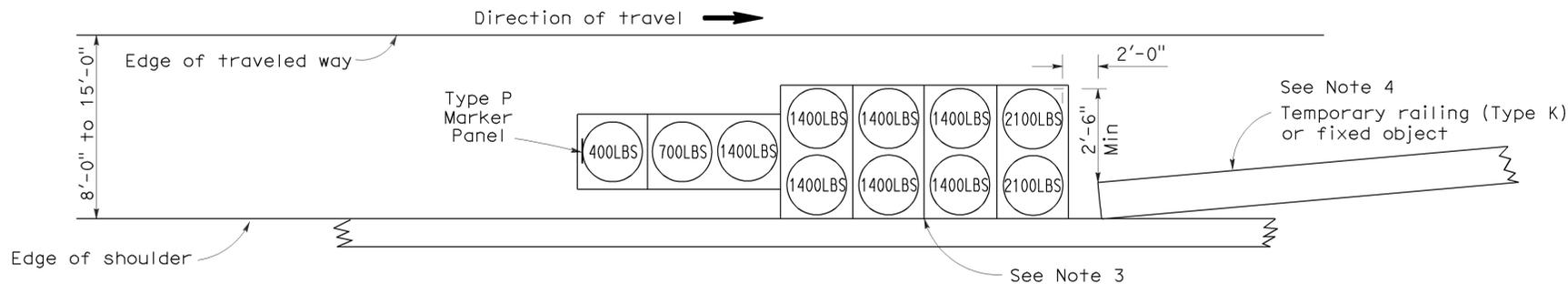
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

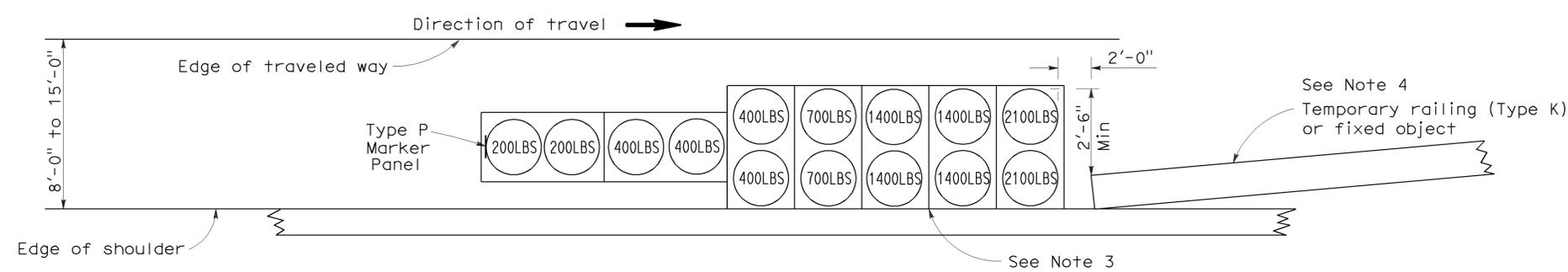
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

To accompany plans dated 11-22-10



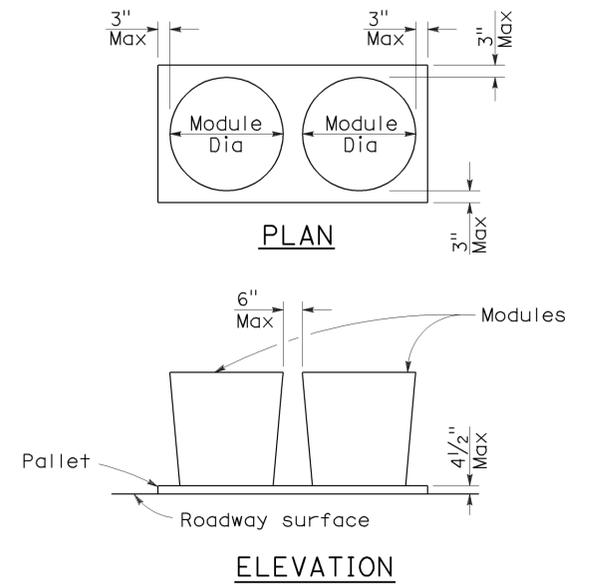
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9

NOTES:

- (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.
- All sand weights are nominal.
- 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.
- 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.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- 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.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.



CRASH CUSHION PALLET DETAIL
See Note 11

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

ELECTROLIERS

STANDARD TYPES	Symbol	Description
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		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.
32		
35		
36-20A		

- 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

PROPOSED	EXISTING	Description
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, side attachment - 4 signal section
MAS-4B	mas-4B	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4C	mas-4C	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	Mast arm mounting vehicle signal faces, 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
N	N	Mercury vapor lighting fixture
NC	NC	Neutral (Grounded Conductor)
NO	NO	Normally closed
PB	pb	Normally open
PEC	pec	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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Yol	80	0.0/4.4	18	21

REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE

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To accompany plans dated 11-22-10

SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Yol	80	0.0/4.4	19	21

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

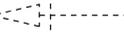
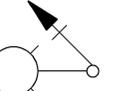
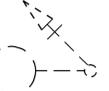
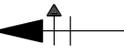
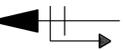
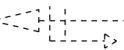
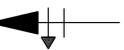
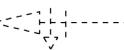
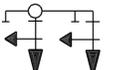
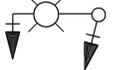
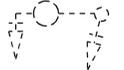
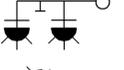
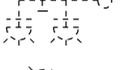
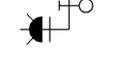
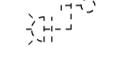
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To accompany plans dated 11-22-10

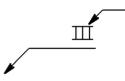
CONDUIT

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 
		Conduit riser in/on structure or service pole

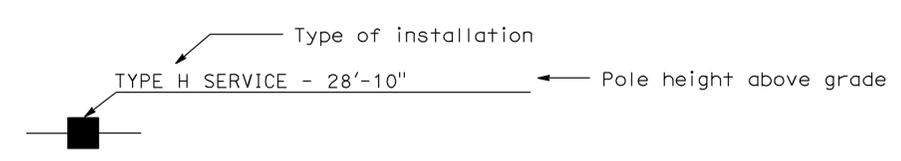
SIGNAL EQUIPMENT

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
		Modifications of basic symbols: "L" Indicates all non-arrow sections lowered "LG" Indicates lowered 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
		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

SERVICE EQUIPMENT

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

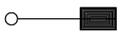
POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

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

SIGNAL EQUIPMENT Cont

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

NOTES:

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

STATE OF CALIFORNIA
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**ELECTRICAL SYSTEMS
(SYMBOLS AND ABBREVIATIONS)**

NO SCALE

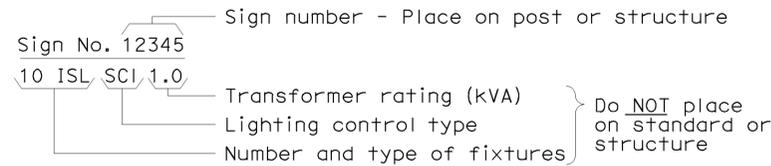
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

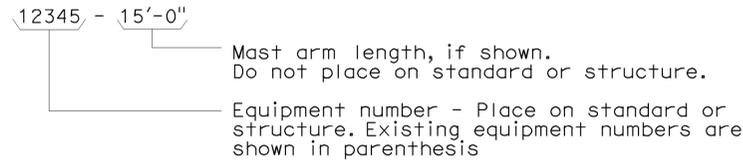
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

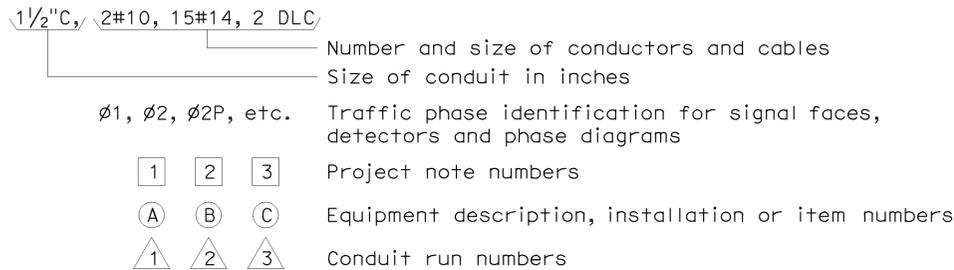
ILLUMINATED SIGN IDENTIFICATION NUMBER:



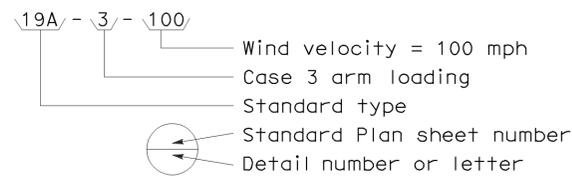
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



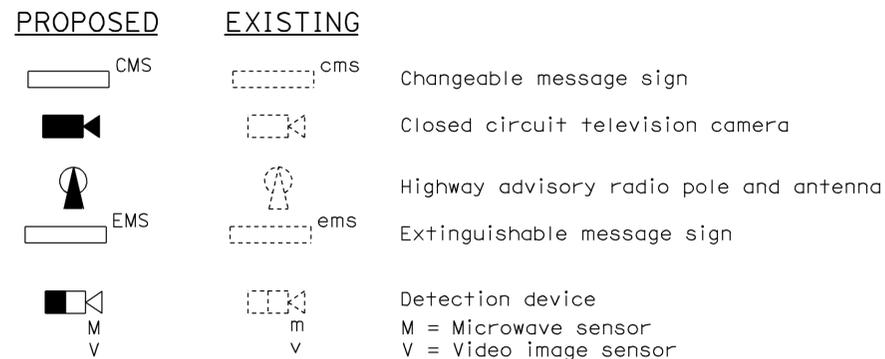
CONDUIT AND CONDUCTOR IDENTIFICATION:



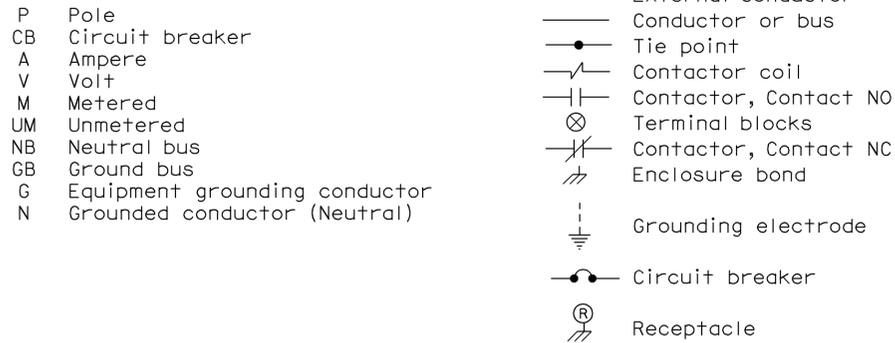
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



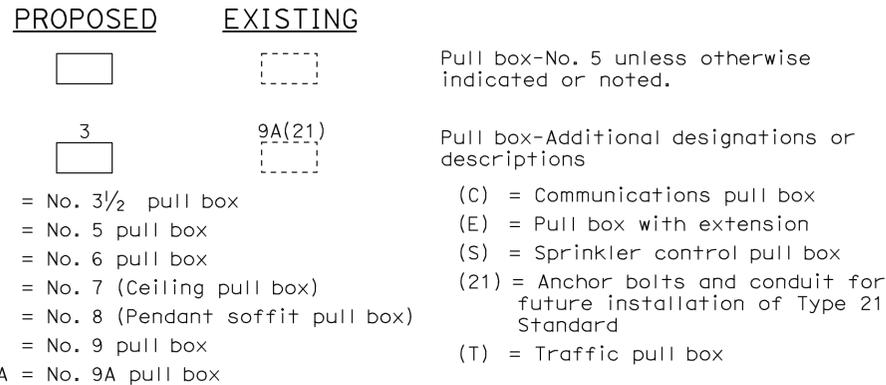
MISCELLANEOUS EQUIPMENT



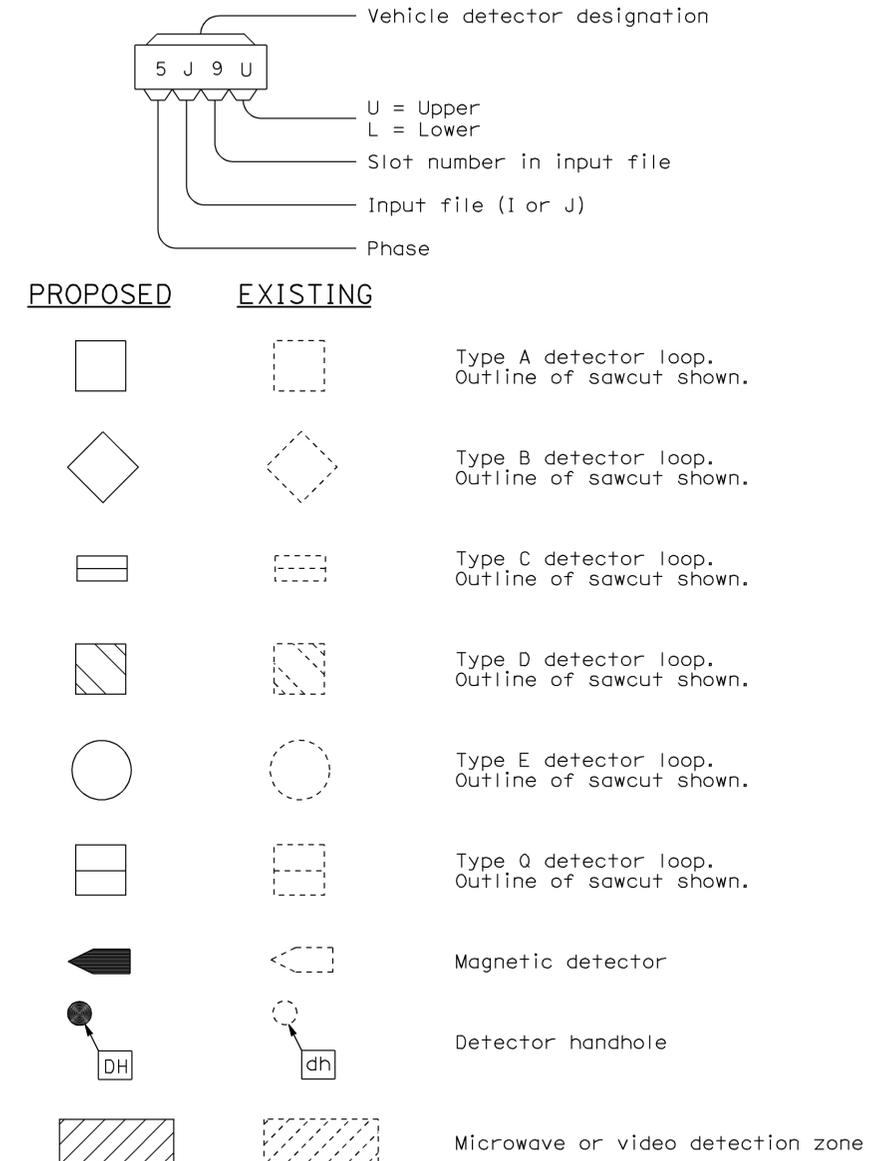
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (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

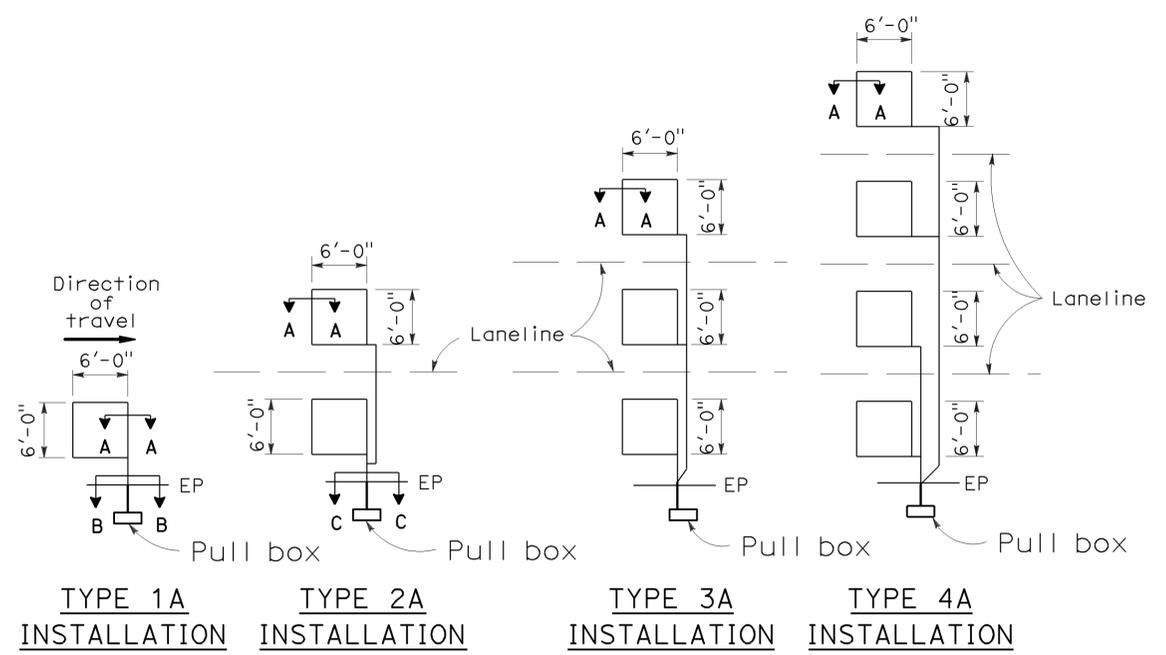
2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Yol	80	0.0/4.4	21	21

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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LOOP INSTALLATION PROCEDURE

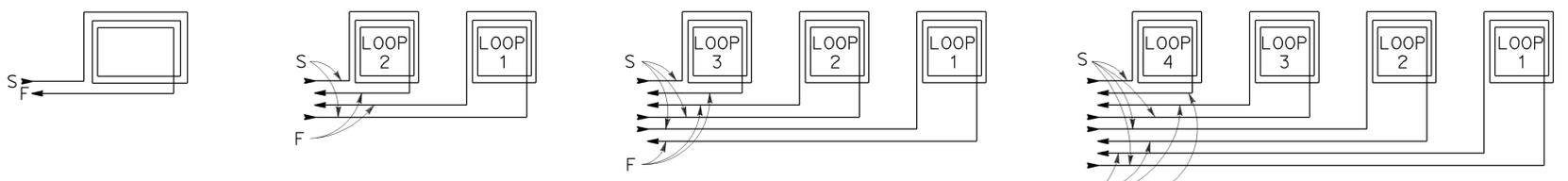
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION

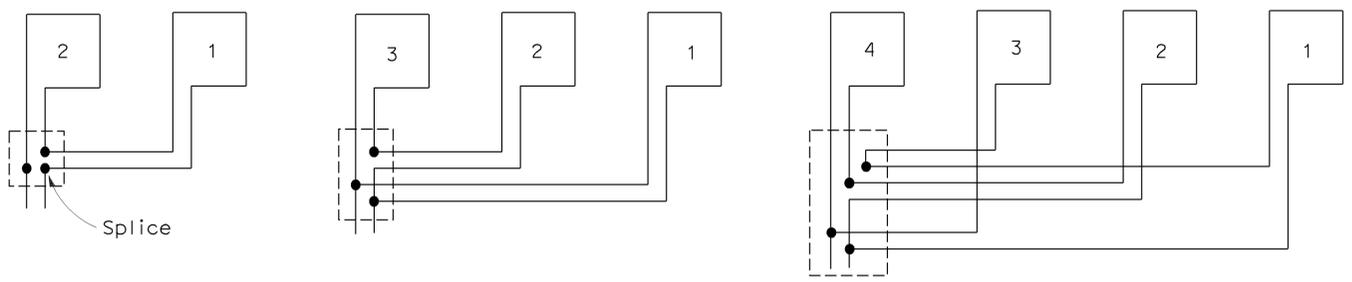
SAWCUT DETAILS

- (Type A loop detector configurations illustrated)
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



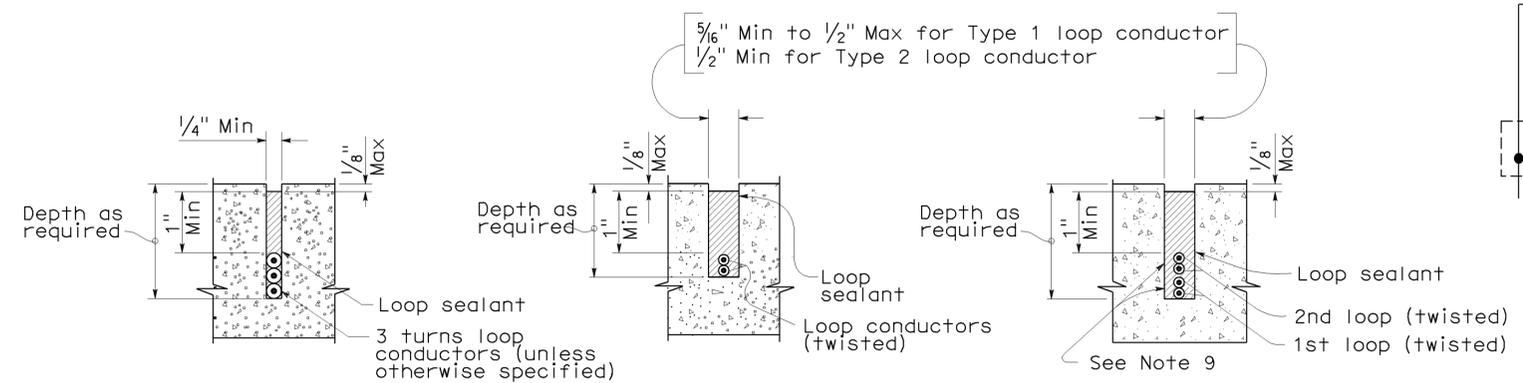
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C
 SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A