

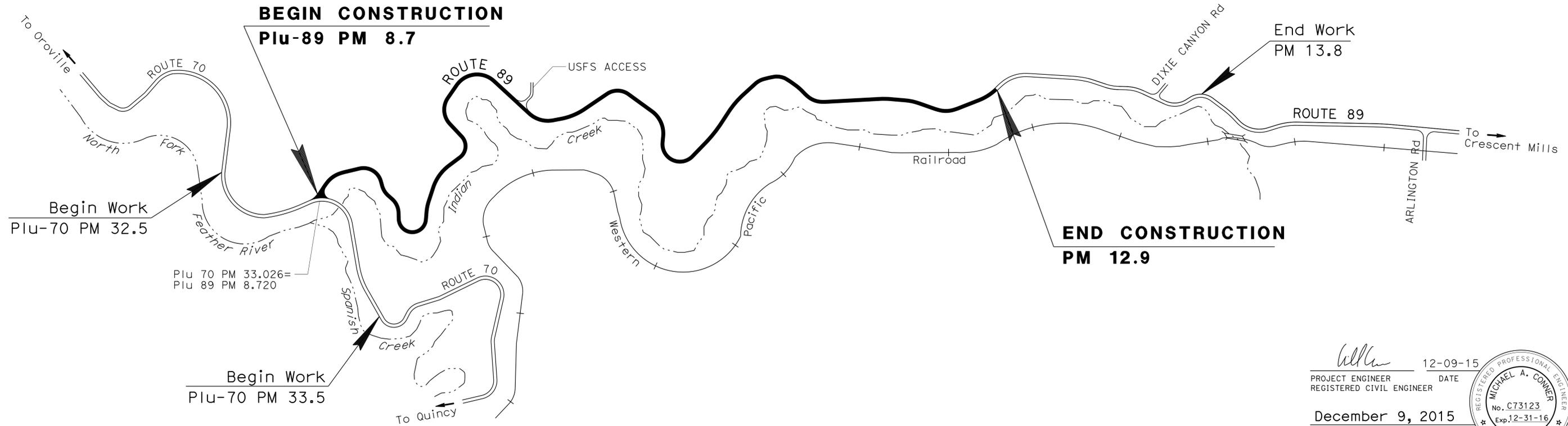
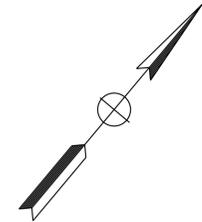
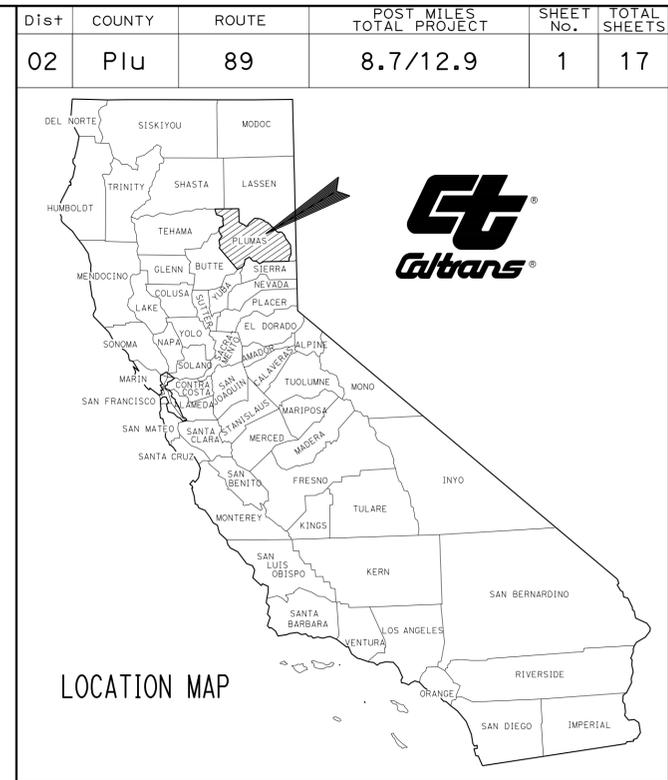
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-6	CONSTRUCTION DETAILS
7	CONSTRUCTION AREA SIGNS
8	PAVEMENT DELINEATION DETAILS AND QUANTITIES
9	SUMMARY OF QUANTITIES
10-17	REVISED 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 PLUMAS COUNTY NEAR CRESCENT MILLS
FROM ROUTE 70 TO 0.7 MILE SOUTH
OF DIXIE CANYON ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER
MICHAEL CONNER
 DESIGN ENGINEER
MICHAEL CONNER

PROJECT ENGINEER DATE 12-09-15
 REGISTERED CIVIL ENGINEER
December 9, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



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

NO SCALE

CONTRACT No.	02-1H0504
PROJECT ID	0215000091

LAST REVISION DATE PLOTTED => 28-DEC-2015 TIME PLOTTED => 06:43

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Plu	89	8.7/12.9	3	17

<i>William</i>	12-09-15
REGISTERED CIVIL ENGINEER	DATE
12-09-15	
PLANS APPROVAL DATE	

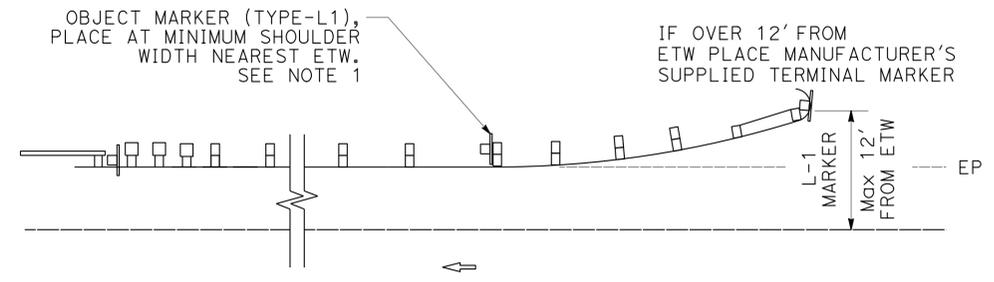
REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CONNER
 No. C73123
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA

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

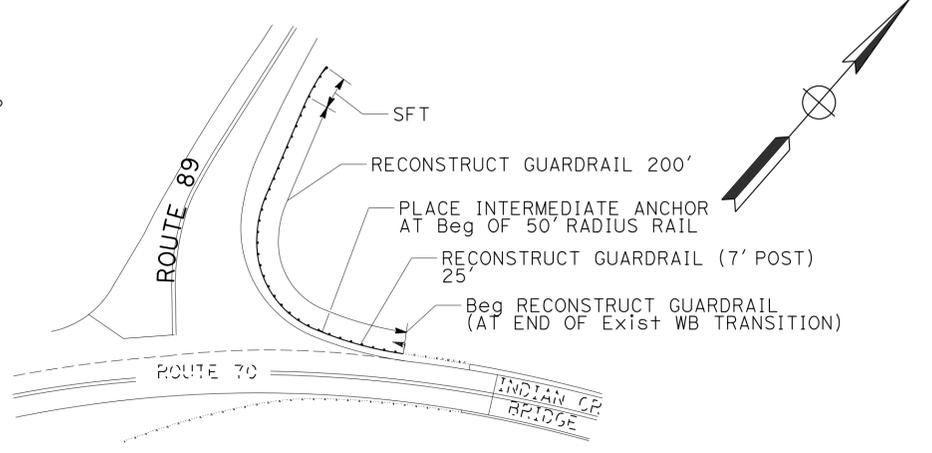
NOTES:

1. PLACE L-1 MARKER WHERE GUARDRAIL FIRST GETS PARALLEL/CLOSEST TO THE ETW. IF WIDTH OF THE PAVED SHOULDER IS REDUCED APPROACHING A FIXED OBJECT, REPLACE L-1 MARKER WITH P MARKER.
2. FOR DETAILS OF THE ANCHOR PLATE AND 3/4" CABLE, SEE REVISED STANDARD PLAN RSP A77S3.
3. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.
4. "RELOCATE END CAP" FROM REMOVED BREAKAWAY CABLE ANCHOR FROM OTHER LOCATION.

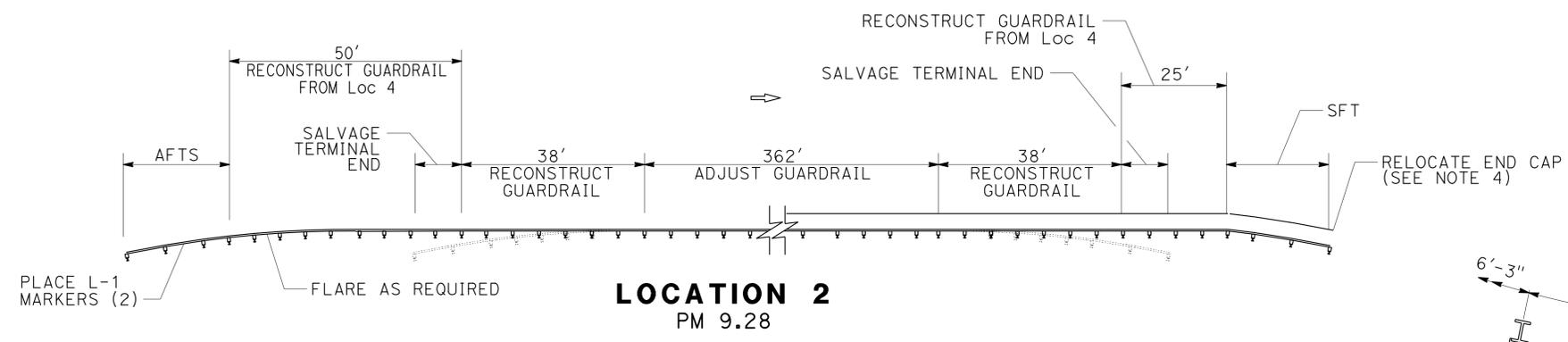
ABBREVIATIONS:
 AFTS ALTERNATIVE FLARED TERMINAL SYSTEM
 AITS ALTERNATIVE IN-LINE TERMINAL SYSTEM
 SFT END ANCHOR ASSEMBLY (TYPE SFT)
 SRT TERMINAL SYSTEM (TYPE SRT)



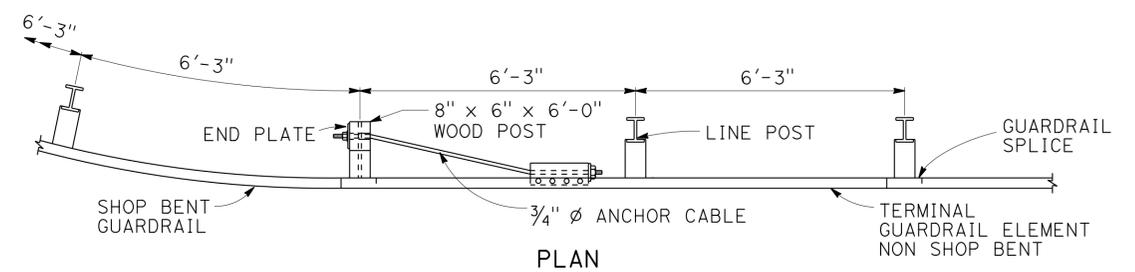
TYPICAL OBJECT MARKER LOCATIONS



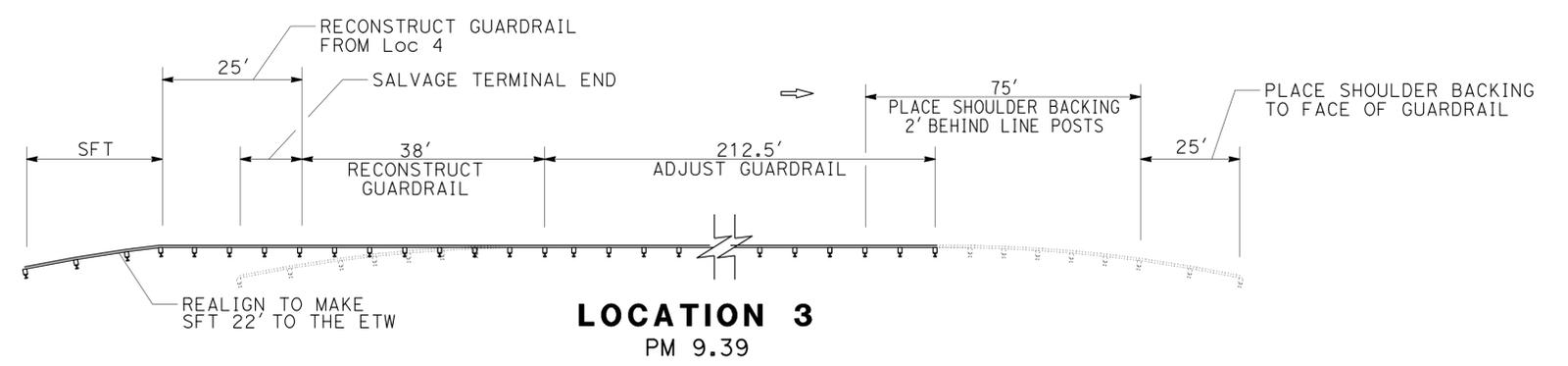
LOCATION 1
PM 8.72



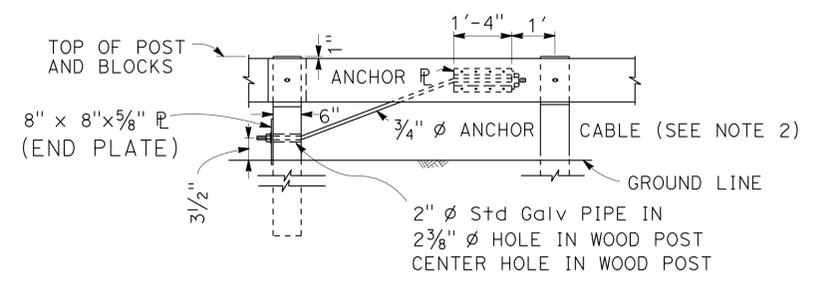
LOCATION 2
PM 9.28



PLAN



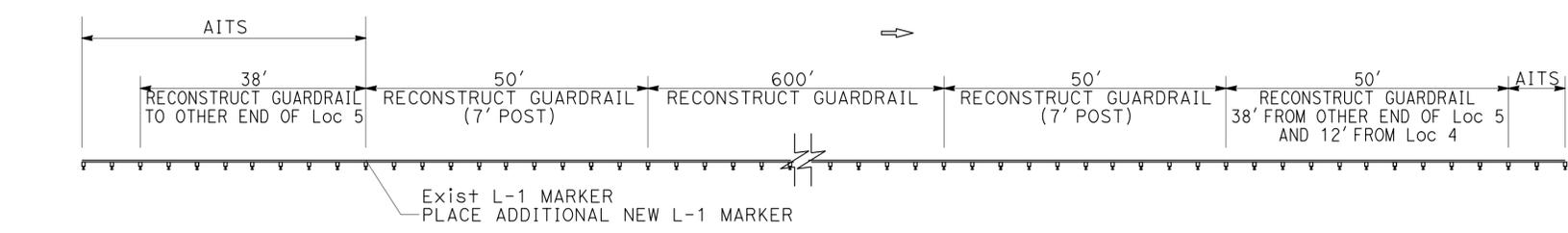
LOCATION 3
PM 9.39



ELEVATION

SEE NOTE 2

INTERMEDIATE ANCHOR ASSEMBLY



LOCATION 5
PM 12.07

CONSTRUCTION DETAILS

NO SCALE

C-1

P:\proj\3\02\1\h050\plans\pse\21h050ga001.dgn

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CHECKED BY	REVISOR
Caltrans	MICHAEL CONNER	MICHAEL CONNER	MICHAEL CONNER
MAINTENANCE			

USERNAME => s115152
 DGN FILE => 21h050ga001.dgn



UNIT 0156

PROJECT NUMBER & PHASE 02 1500 0091 1

BORDER LAST REVISED 7/2/2010

LAST REVISION DATE PLOTTED => 28-DEC-2015
 12-09-15 TIME PLOTTED => 06:43

NOTES:

1. Max 10:1 SLOPE IN FRONT OF GUARDRAIL.
2. FOR POST AND BLOCK DETAILS, SEE REVISED STANDARD PLAN RSP A77N2. FOR RAIL ELEMENT AND HARDWARE DETAILS USE MGS DETAILS SHOWN ON REVISED STANDARD PLANS RSP A77L2 AND RSP A77M1.
3. WHEN THERE IS A BREAK POINT IN FRONT OF GUARDRAIL BETWEEN 4'-8' THE HEIGHT WILL BE DETERMINED BY THE ENGINEER.
4. USE 6' POST WHEN FACE OF RAIL TO HP IS 3' OR GREATER
USE 7' POST WHEN FACE OF RAIL TO HP IS 2' TO 3'.
EXACT LOCATION OF 7' POST TO BE DETERMINED BY THE ENGINEER.
5. BLOCKS MUST HAVE MEANS TO RESIST ROTATION OTHER THAN THROUGH BOLT.
6. PLACE RUB RAIL (GUARDRAIL ELEMENT) AND ATTACH TO POST WITH NO BLOCK WHEN HEIGHT OF GUARDRAIL IS Min 31" ABOVE FINISH GRADE UNDER FACE OF RAIL.
7. ADJUST ALIGNMENT IN RECONSTRUCT TO IMPROVE CRZ IN CURVES, EXACT ALIGNMENT TO BE DETERMINED BY THE ENGINEER. ADJUST ALIGNMENT AT 15:1.
8. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.
9. SKIP-POST SEE LONG SPAN NESTED GUARD RAILING DETAIL ON C-3.

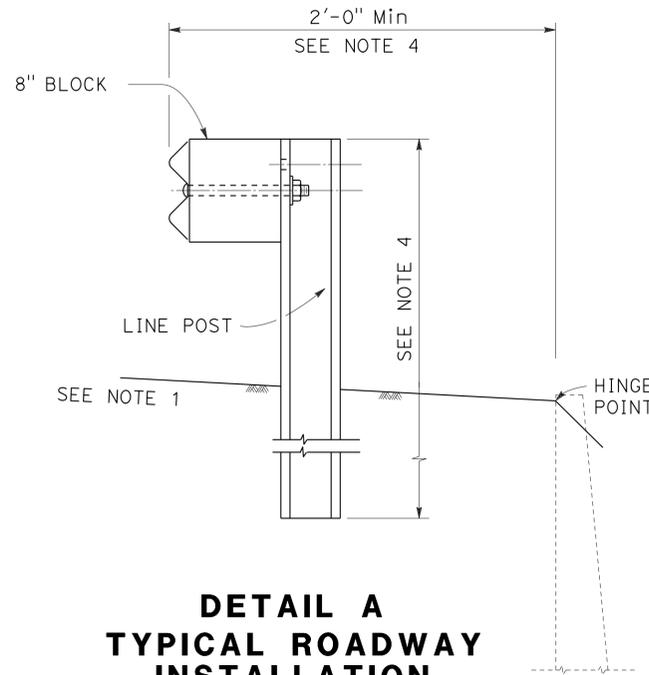
ABBREVIATIONS:

CRZ CLEAR RECOVERY ZONE

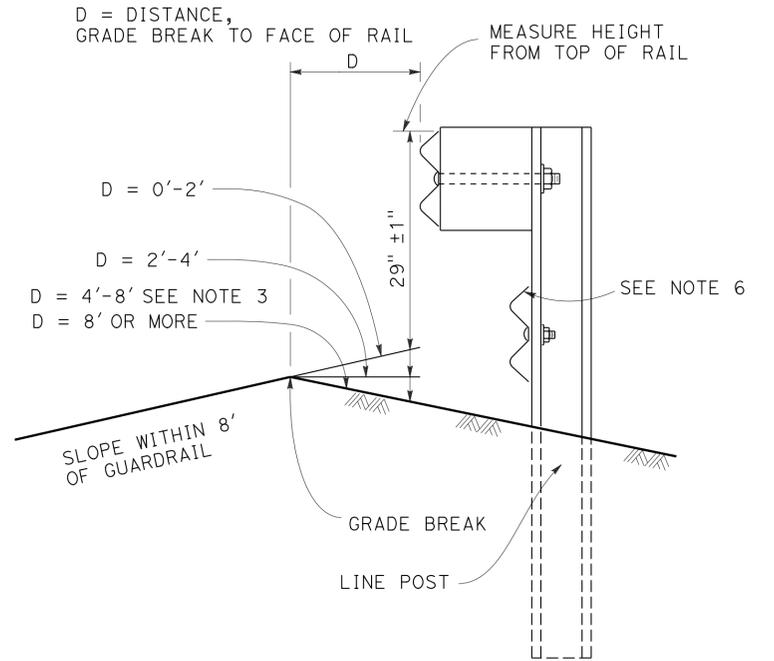
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	PIU	89	8.7/12.9	4	17

<i>Willie</i>	12-09-15
REGISTERED CIVIL ENGINEER	DATE
12-09-15	
PLANS APPROVAL DATE	

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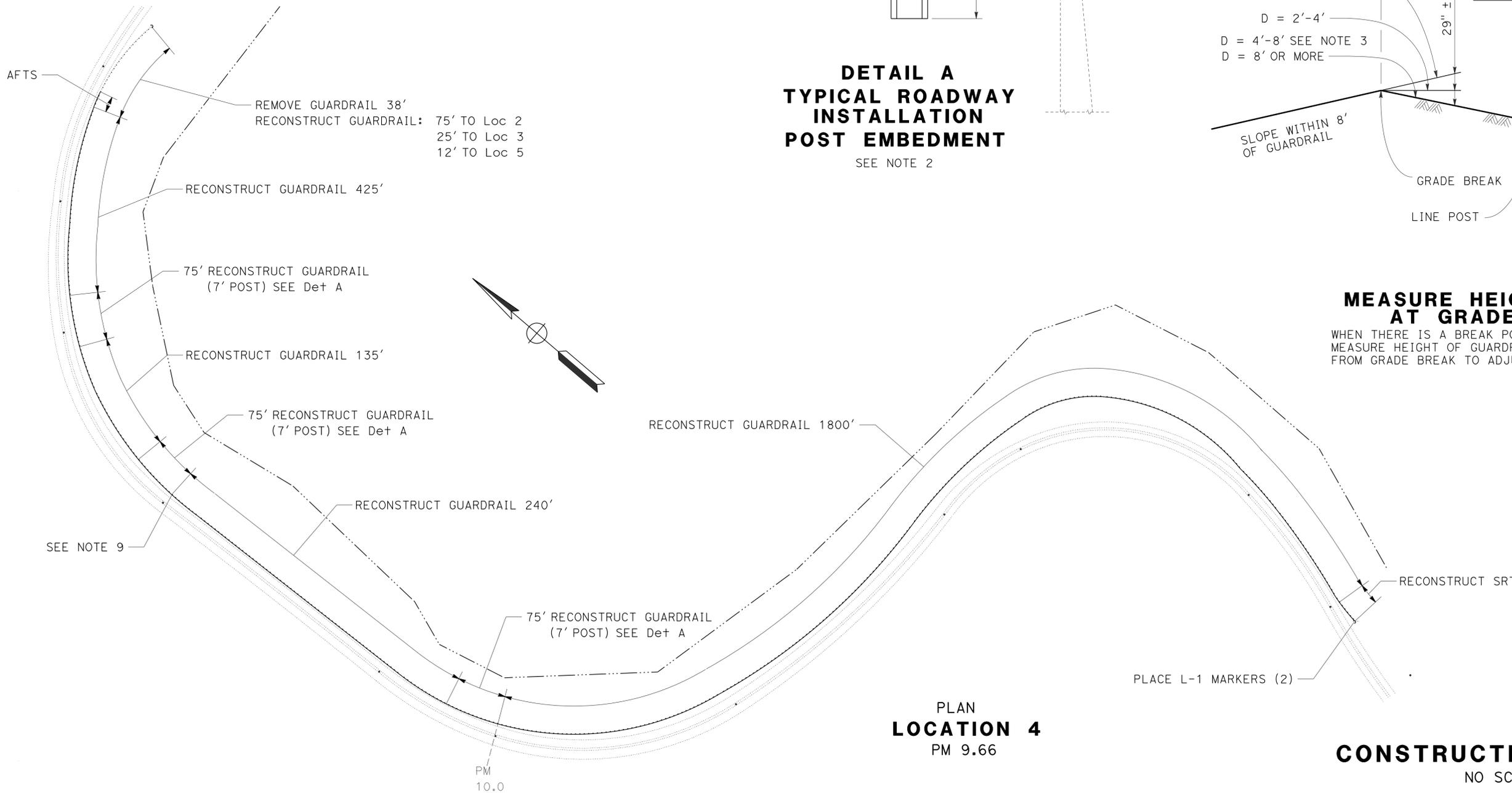


**DETAIL A
TYPICAL ROADWAY
POST EMBEDMENT**
SEE NOTE 2



**MEASURE HEIGHT DETAIL
AT GRADE BREAK**

WHEN THERE IS A BREAK POINT IN FRONT OF GUARDRAIL MEASURE HEIGHT OF GUARDRAIL BASED ON DISTANCE FROM GRADE BREAK TO ADJUST FOR TRAJECTORY.



**PLAN
LOCATION 4**
PM 9.66

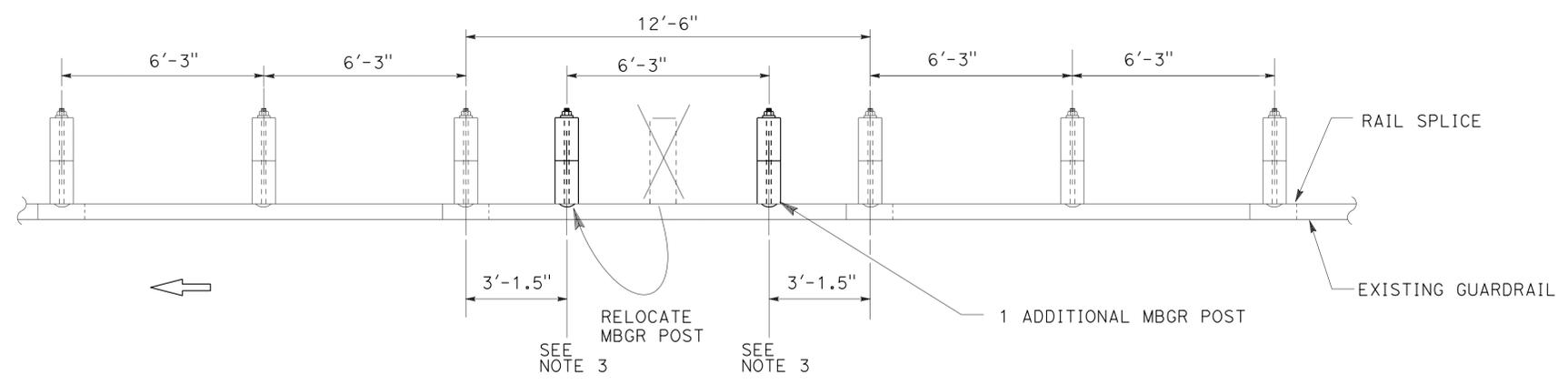
CONSTRUCTION DETAILS

NO SCALE

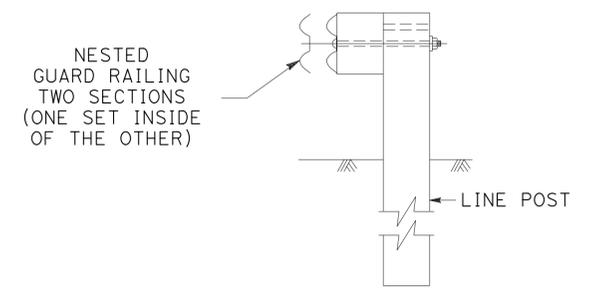
C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 FUNCTIONAL SUPERVISOR: MICHAEL CONNER
 CALCULATED/DESIGNED BY: MICHAEL CONNER
 CHECKED BY: KARLIE SMITH
 REVISIONS: BY: DATE: REVISIONS: BY: DATE:

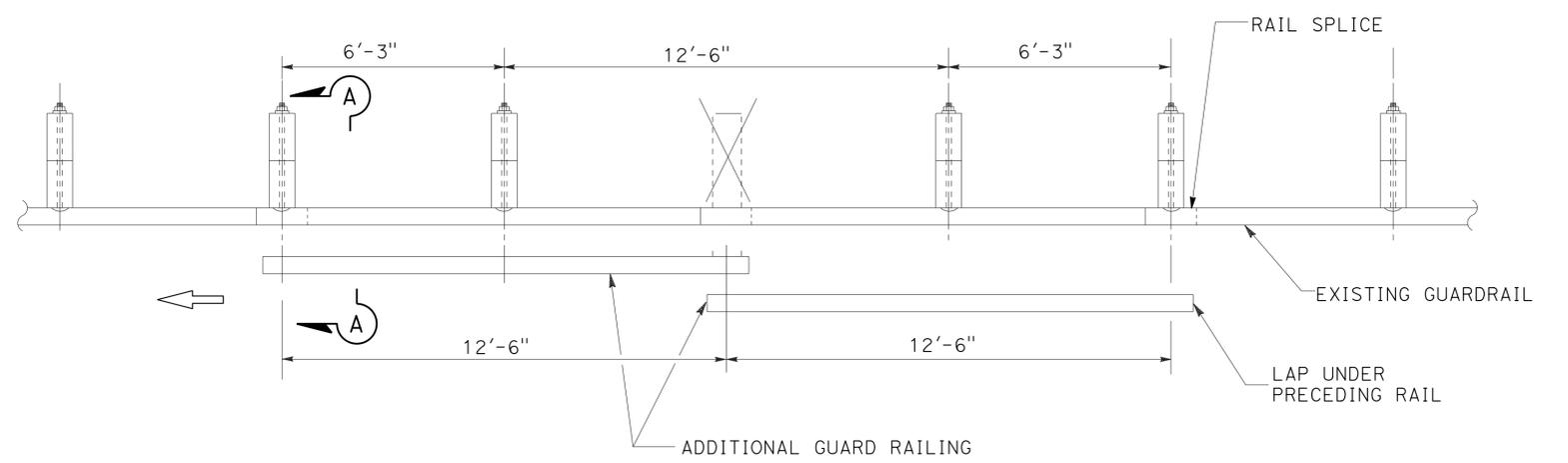
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	PIU	89	8.7/12.9	5	17
			12-09-15	DATE	
			12-09-15	PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



CASE 1
 (ONE POST CONFLICT, MOVE THE POST AND ADD ONE POST)
 (NO NESTED RAIL REQUIRED)



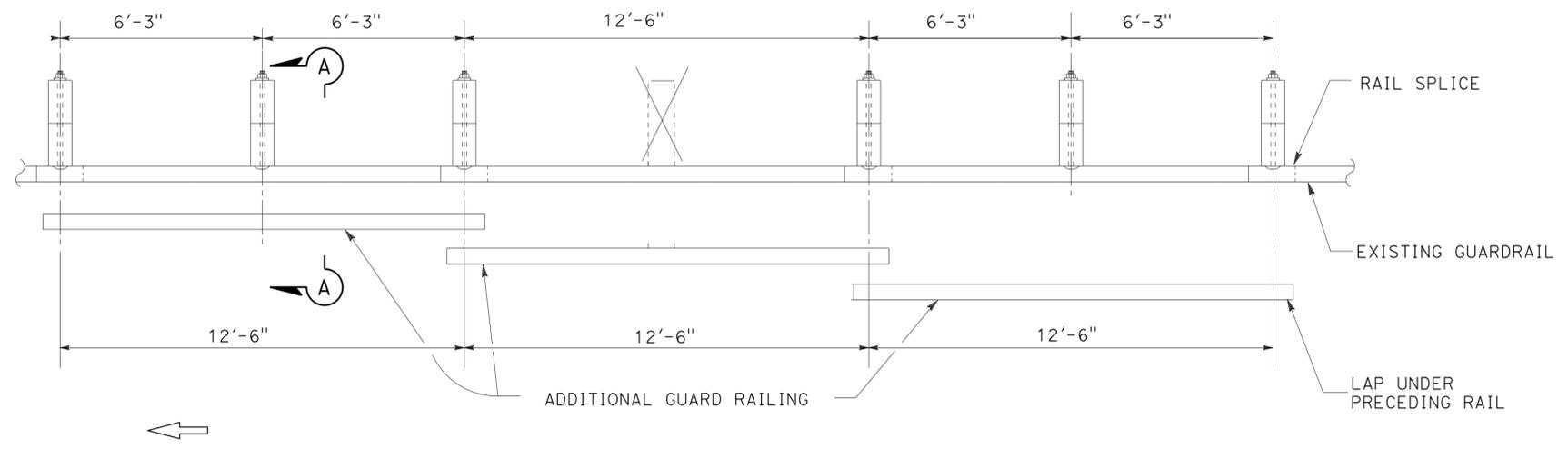
SECTION A-A
TYPICAL RAILING OVERLAP INSTALLATION AT POST



CASE 2
 (ONE POST OMITTED AT JUNCTION OF TWO ELEMENTS)
 (NEST TWO LENGTHS OF RAIL REQUIRED)

NOTES:

1. NEST ALL RAILS AT EXISTING RAIL LAPS.
2. WHEN A POST IS REMOVED AND THE RAIL ELEMENTS ARE NESTED, THE NESTED ELEMENTS MUST BE SUPPORTED BY A Min OF 2 POSTS EACH SIDE OF THE MISSING POST OR ADD ADDITIONAL LENGTH OF NESTED ELEMENTS.
3. DO NOT CUT HOLE OR SLOT TO BOLT ELEMENT TO POST AND BLOCK. IF NO SLOT IS EXISTING, BOLT BLOCK TO POST ONLY.
4. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.
5. USING CASE 3, A SECOND ADJACENT POST CAN BE REMOVED IF THE NESTED RAIL ELEMENTS ARE SUPPORTED BY A Min OF 2 POSTS EACH SIDE OF THE MISSING POSTS. THE 2-POST OPTION USES CASE 3 BUT NOT SHOWN.



CASE 3
 (ONE POST OMITTED AT CENTER OF ELEMENT)
 (NEST THREE LENGTHS OF RAIL REQUIRED)
 (ONE ADDITIONAL POST MAY BE OMITTED SEE NOTE 3)

CONSTRUCTION DETAILS
LONG SPAN NESTED GUARD RAILING
 NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 MAINTENANCE
 Michael Conner
 Functional Supervisor
 Checked by
 Michael Conner
 Calculated/Designed by
 Michael Conner
 Karlie Smith
 Revised by
 Michael Conner
 Date Revised
 12-09-15



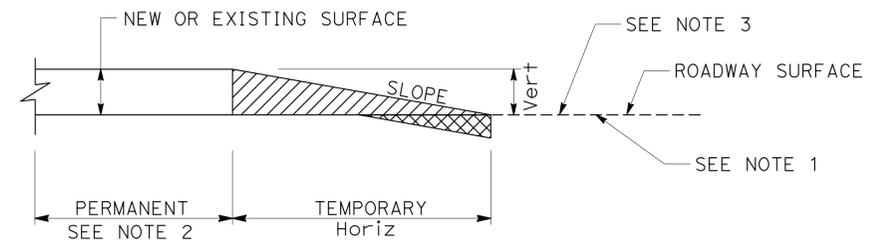
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Plu	89	8.7/12.9	6	17
			12-09-15	DATE	
			12-09-15	PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

- FOR TEMPORARY CONSTRUCTION TAPERS, GRIND EXISTING SURFACES TO ACCOMMODATE A MINIMUM TAPER THICKNESS OF 0.10' WHEN EITHER:
 - HMA MATERIAL SUCH AS RUBBERIZED, POLYMER MODIFIED OR OPEN GRADED IS UNSUITABLE FOR RAKING TO A MAXIMUM 0.02' THICKNESS AT THE CONFORM.
 - TEMPORARY TAPER WILL BE IN PLACE FOR MORE THAN 14 DAYS.
- PERMANENT SURFACE MAY BE EXISTING OR NEW PAVEMENT.
- ROADWAY SURFACE IS THE TOP OF EXISTING SURFACE OR THE TOP OF THE PLANED SURFACE.
- THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

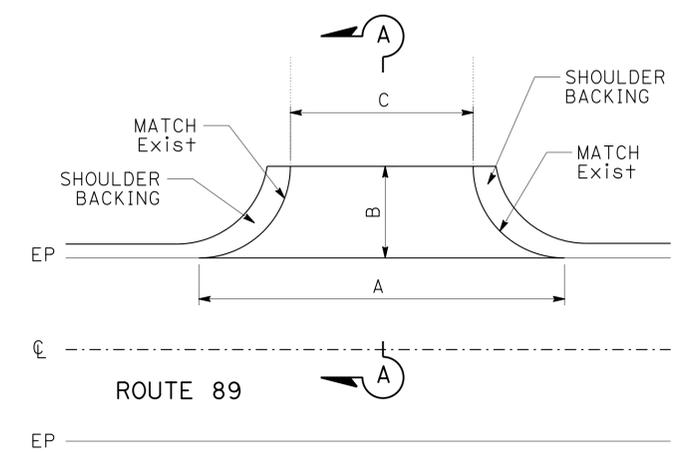
LEGEND:

- HMA MATERIAL (TEMPORARY TAPER)
- IF NECESSARY, COLD PLANE ASPHALT CONCRETE PAVEMENT AND PLACE HMA MATERIAL (SEE NOTE 1)
- COLD PLANE ASPHALT CONCRETE PAVEMENT (0.00' TO 0.10')

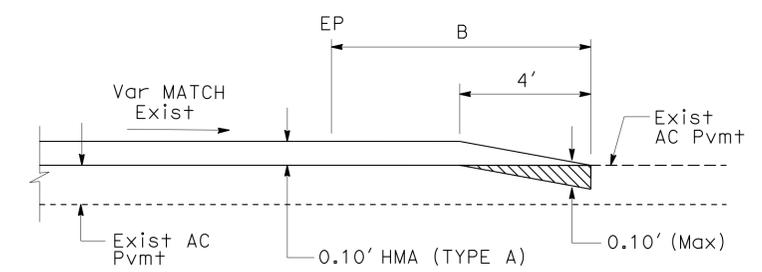


TYPICAL PAVING CONFORM FOR TEMPORARY CONSTRUCTION TAPERS

Vert	SLOPE RATIO Horiz/Vert
0-0.10'	70:1
GREATER THAN 0.10'	160:1



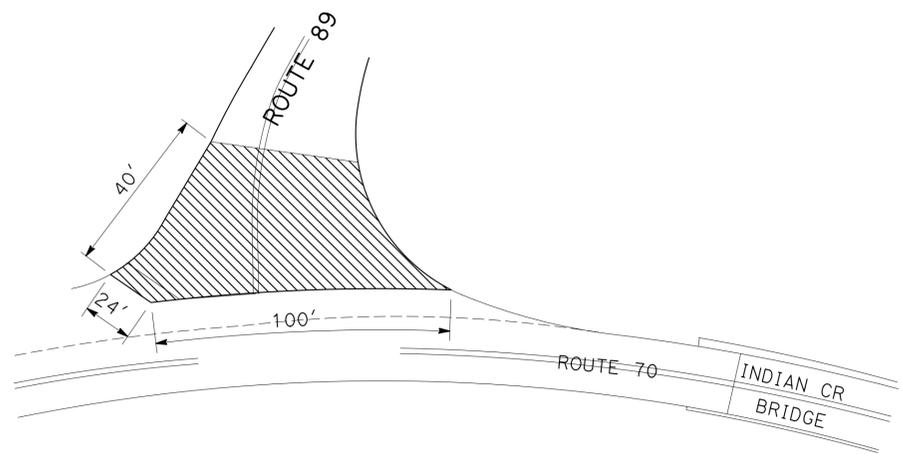
PAVED ROAD CONNECTIONS



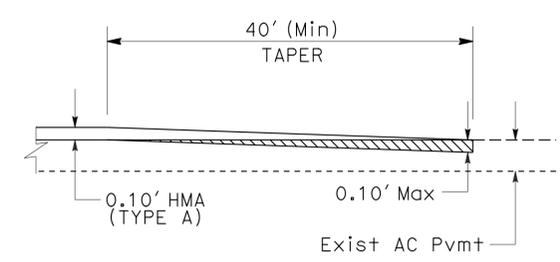
SECTION A-A

ROAD CONNECTIONS

ROAD CONNECTION	SIDE	POST MILE	DIMENSIONS (LF)		
			A	B	C
ROAD CONNECTION	L+	10.43	530	30	45
ROAD CONNECTION	L+	11.45	375	30	36



BEGIN CONSTRUCTION DETAIL



MAINLINE CONFORM TAPER
PM 8.72
PM 12.90

CONSTRUCTION DETAILS

NO SCALE

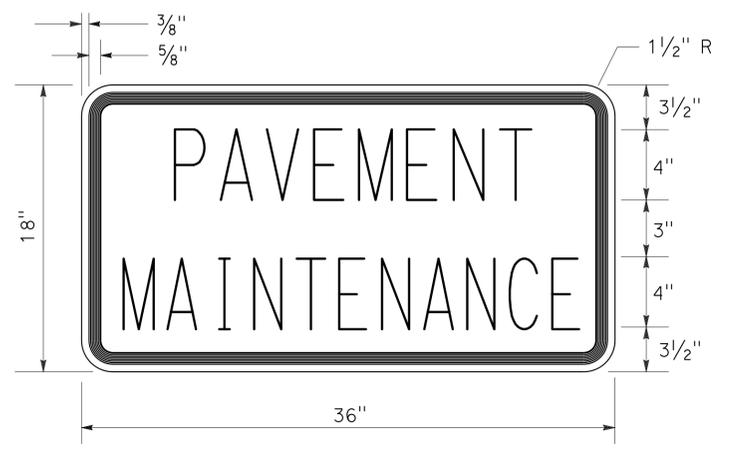
C-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 Michael Conner
 Karlie Smith
 Michael Conner
 Michael Conner
 Michael Conner

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	PIU	89	8.7/12.9	7	17
			12-09-15	DATE	
			12-09-15	PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

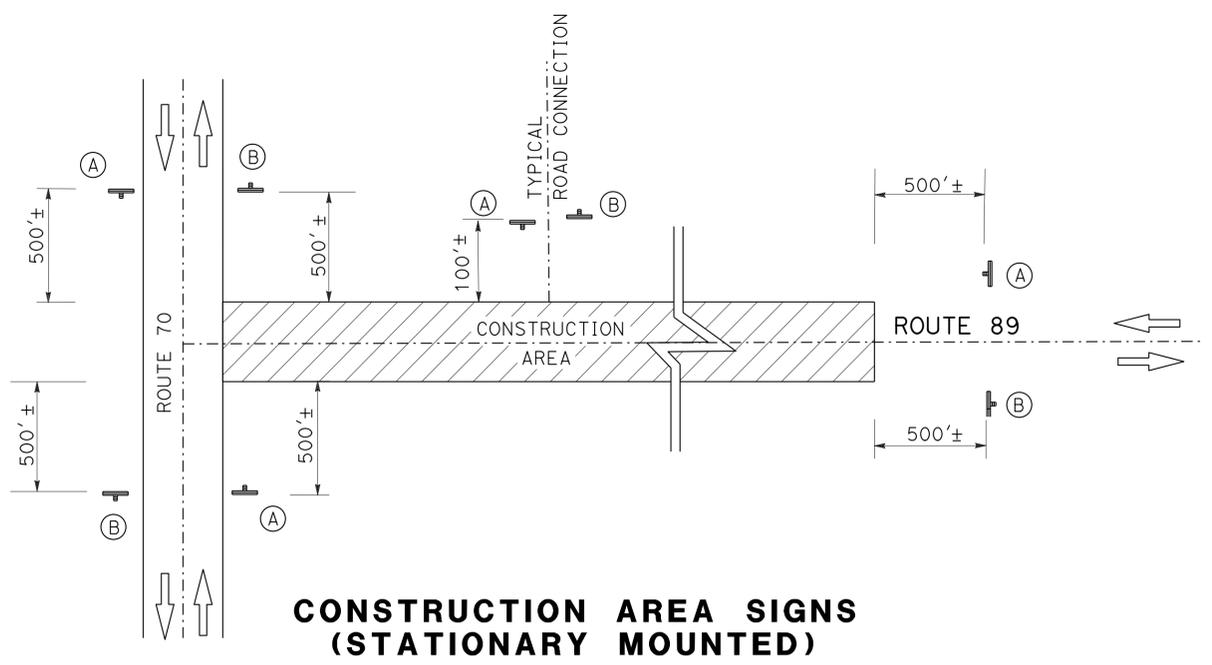
1. EXACT LOCATION OF ALL SIGNS TO BE DETERMINED BY THE ENGINEER.
2. CALIFORNIA CODES ARE DESIGNATED BY (CA), OTHERWISE FEDERAL CODES ARE SHOWN.
3. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.



C23B(CA) SIGN PANEL DETAIL

CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

TYPE	CODE	PANEL SIZE	SIGN MESSAGE	NUMBER AND SIZE OF POST	No. OF SIGNS
(A)	W20-1	48" x 48"	ROAD WORK AHEAD	1-4" x 6"	5
	C23B(CA)	36" x 18"	PAVEMENT MAINTENANCE		
(B)	G20-2	36" x 18"	END ROAD WORK	1-4" x 4"	5



CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

ROAD CONNECTIONS

POST MILE	DESCRIPTION	L+	R+	(A)	(B)
10.43	ROAD CONNECTION	X		1	1
11.45	INDIAN FALLS Rd	X		1	1

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

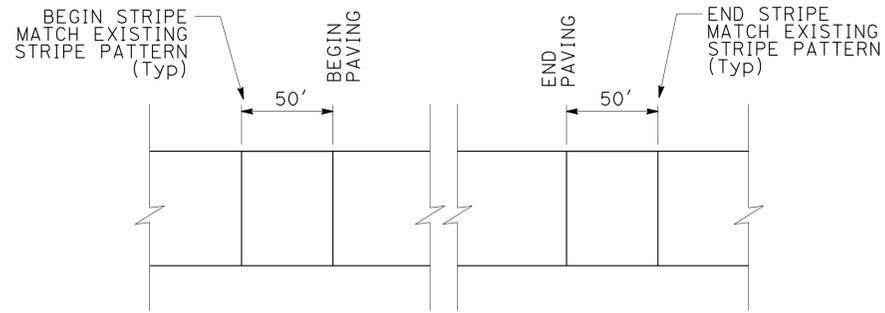
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Michael Conner
 Functional Supervisor
 Michael Conner
 Revised By
 Karlie Smith
 Date Revised
 Calculated/Designed By
 Checked By
 USERNAME => s115152
 DGN FILE => 21h0501a001.dgn
 BORDER LAST REVISED 7/2/2010
 UNIT 0156
 PROJECT NUMBER & PHASE 02 1500 0091 1



LAST REVISION | DATE PLOTTED => 28-DEC-2015
 12-09-15 | TIME PLOTTED => 06:43

NOTES:

- (N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
- THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.



TRAFFIC STRIPE MATCH DETAIL

TEMPORARY PAVEMENT MARKING (TAPE)

POST MILE	L+	R+	(N) EA	SQFT	REMARKS
8.72	X		1	51	LIMIT LINE
10.43	X		1	40	LIMIT LINE
11.45	X		1	33	LIMIT LINE
TOTAL				124	

REMOVE PAVEMENT MARKER (N)

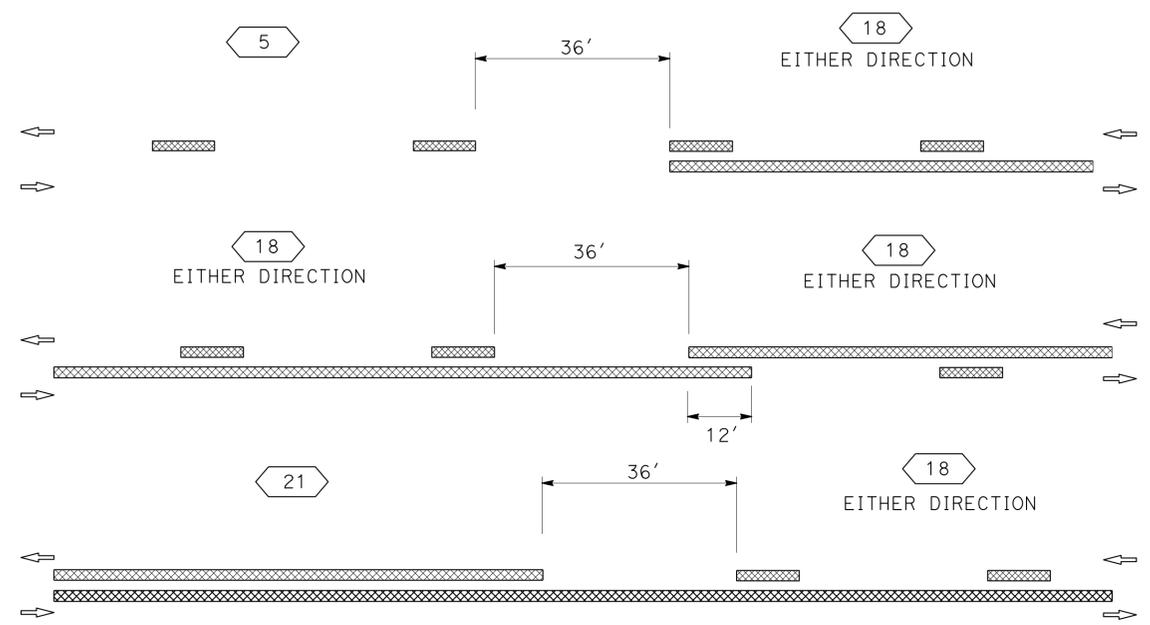
POST MILE LIMITS	TOTAL EA
8.72-12.90	1789

THERMOPLASTIC PAVEMENT MARKING

POST MILE	L+	R+	(N) EA	SQFT	REMARKS
8.72	X		2	44	STOP
8.72	X		1	51	LIMIT LINE
8.79	X		1	31	AHEAD
8.80	X		1	22	STOP
10.43	X		1	22	STOP
10.43	X		1	40	LIMIT LINE
11.45	X		1	22	STOP
11.45	X		1	33	LIMIT LINE
TOTAL				265	

REMOVE THERMOPLASTIC PAVEMENT MARKING

POST MILE	L+	R+	(N) EA	SQFT	REMARKS
8.72	X		2	44	STOP
8.72	X		1	51	LIMIT LINE
8.79	X		1	31	AHEAD
8.80	X		1	22	STOP
10.43	X		1	22	STOP
10.43	X		1	40	LIMIT LINE
11.45	X		1	22	STOP
11.45	X		1	33	LIMIT LINE
TOTAL				265	



TRAFFIC STRIPE TRANSITION DETAILS

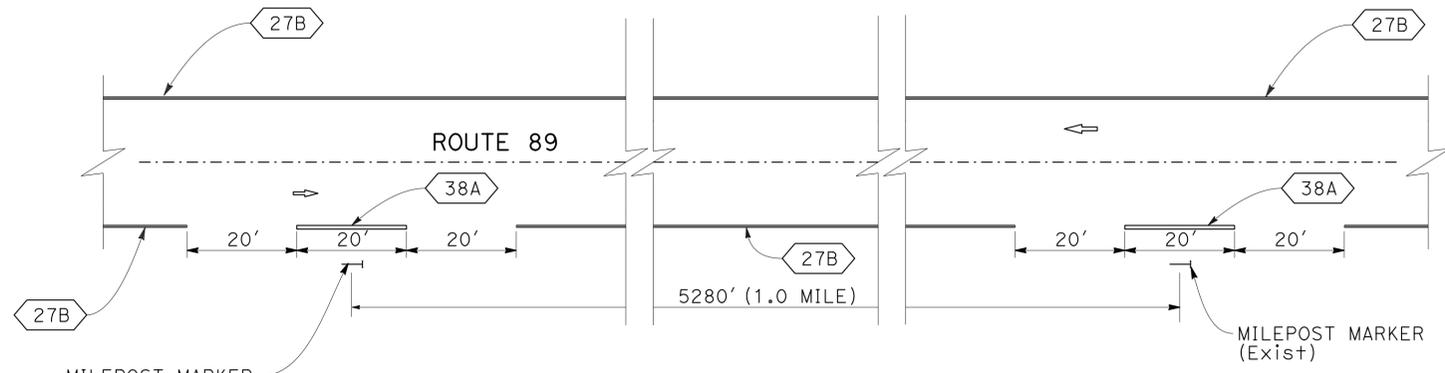
THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)

POST MILE LIMITS	DETAIL 5	DETAIL 18	DETAIL 21	DETAIL 27B	DETAIL 27C	DETAIL 28	DETAIL 38A
8.72-12.90	476	1373	19,959	43,469	672	265	3708
TOTAL	69,922						

PAVEMENT DELINEATION DETAILS AND QUANTITIES

NO SCALE

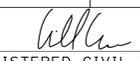
PDQ-1



TYPICAL MILEPOST STRIPE (CONVENTIONAL ROADWAY)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Michael Conner
 Functional Supervisor
 Michael Conner
 Calculated/Designed By
 Michael Conner
 Checked By
 Karlie Smith
 Revised By
 Karlie Smith
 Date Revised
 12-09-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Plu	89	8.7/12.9	9	17

 12-09-15
 REGISTERED CIVIL ENGINEER DATE

12-09-15
 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:

- (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
- EXACT LOCATIONS OF REPLACE ASPHALT CONCRETE SURFACING TO BE DETERMINED BY THE ENGINEER.
- THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.
- "SALVAGE TERMINAL END" IS SALVAGING 12.5' AT THE TERMINAL END. THIS INCLUDES THE FOLLOWING: HEAD, ELEMENT, TUBES, AND ANCHOR SYSTEM TYPE ET-PLUS.
- "RELOCATE END CAP" FROM REMOVED BREAKAWAY CABLE ANCHOR FROM OTHER LOCATION.

GUARDRAIL ITEMS

POST MILE	Loc	Dir	RECONSTRUCT GUARDRAIL	RECONSTRUCT GUARDRAIL (7' POST)	ADJUST GUARDRAIL	RECONSTRUCT TERMINAL SYSTEM (TYPE SRT)	RELOCATE END CAP	SALVAGE TERMINAL END	REMOVE GUARDRAIL	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE IN-LINE TERMINAL SYSTEM	INTERMEDIATE ANCHOR	END ANCHOR ASSEMBLY (TYPE SFT)	OBJECT MARKER	TREATED WOOD WASTE	REMARKS
			LF	LF	LF	EA	EA	EA	LF	EA	EA	EA	EA	EA	EA	
8.72	1	R+	200	25								1	1		3426	
9.28	2	R+	151		362			2		1			1	2	2227	75' FROM Loc 4
9.39	3	R+	63		212.5			1					1		981	25' FROM Loc 4
9.66	4	R+	2600	225		1	1		38	1				2	40,647	112' GOES TO Loc 2,3 AND 5. 38' REMOVED
12.07	5	R+	650	100							2			2	11,011	38' GOES TO END AND 12' FROM Loc 4
TOTAL			3664	350	574.5	1	1	3	38	2	2	1	3	6	58,292	

ROADWAY QUANTITIES

POST MILE LIMITS	(N) WIDTH	(N) LENGTH	HMA (TYPE A)	TACK COAT	SHOULDER BACKING
PM - PM	LF	LF	TON	TON	TON
8.72-8.75	124.0-22.5	158			
8.75-8.82	22.5-24.0	370			
8.82-8.83	24.0-35.0	53			
8.83-8.90	35.0	370			
8.90-8.92	35.0-24.0	106			
8.92-9.00	24.0-26.0	422			
9.00-9.22	26.0-31.0	1162			
9.22-9.24	31.0-39.0	106			
9.24-9.30	39.0-52.0	317			
9.30-9.40	52.0-40.0	528			
9.40-9.43	40.0-25.5	158			
9.43-9.65	25.5-24.0	1162			
9.65-9.66	24.0-40.0	53			
9.66-9.71	40.0	264			
9.71-9.73	40.0-26.5	106			
9.73-10.30	26.5-25.0	3010			
10.30-10.31	25.0-40.0	53			
10.31-10.48	40.0-39.5	898			
10.48-10.49	39.5-26.0	53			
10.49-11.00	26.0-23.5	2693			
11.00-11.34	23.5-28.0	1795			
11.34-11.38	28.0-39.0	211			
11.38-11.45	39.0-49.0	370			
11.45-11.50	49.0-25.5	264			
11.50-11.69	25.5	1003			
11.69-11.73	29.0	211			
11.73-11.79	26.0-41.0	317			
11.79-11.83	41.0-48.5	211			
11.83-11.86	48.5-25.0	158			
11.86-12.00	25.0-24.5	739			
12.00-12.41	24.5	2165			
12.41-12.42	24.5-39.5	53			
12.42-12.44	39.5	106			
12.44-12.45	39.5-24.5	53			
12.45-12.90	24.5-26.0	2376			
ROAD CONNECTIONS			111	1.0	4
TOTAL			4856	21.5	1487

REPLACE ASPHALT CONCRETE SURFACING

POST MILE LIMITS	(N) Approx No. OF DIGOUTS	(N) LENGTH (Avg)	(N) WIDTH	(N) DEPTH	CY
		LF	LF	LF	
8.72-9.00	10	100	4	0.33	49
9.00-10.00	15	100	4	0.33	74
10.00-11.00	15	100	4	0.33	74
11.00-12.00	10	100	4	0.33	49
12.00-12.90	10	100	4	0.33	49
TOTAL					295

COLD PLANE ASPHALT CONCRETE PAVEMENT

POST MILE	(N) LENGTH	(N) WIDTH	AREA	REMARKS
	LF	LF	SQYD	
8.72	40	124	551	BEGIN MAINLINE
10.43	4	45	20	ROAD CONNECTION - L+
11.45	4	36	16	ROAD CONNECTION - L+
12.90	40	26	116	END MAINLINE
TOTAL			703	

PREPAVING GRINDING DAY

POST MILE LIMITS	EA
8.72-12.90	3
TOTAL	3

MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION

Rte	POST MILE	TYPE	LOCATION DESCRIPTION
89	8.72	HAR FLASHER	Jct SR89-SR70 FLASHER FOR SB TRAFFIC
70	32.97	HAR FLASHER	WEST OF SR70-SR89 (GREENVILLE WYE)
	33.00	HAR	GREENVILLE WYE (SR70-SR89)
	33.04	CCTV	GREENVILLE WYE (SR70-SR89)

Exist LOOP DETECTORS TO REMAIN IN PLACE AND OPERATIONAL (N)

ID#	ELEMENT	LOCATION Co-Rte-PM	DESCRIPTION
127	CONTROL	Plu-89-8.65	469' NORTH OF Jct 70 (2 LOOPS)

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 Michael Conner
 Functional Supervisor
 Michael Conner
 Calculated/Designed By
 Michael Conner
 Checked By
 Michael Conner
 Revised By
 Michael Conner
 Date Revised
 Michael Conner

LAST REVISION DATE PLOTTED => 28-DEC-2015
 12-09-15 TIME PLOTTED => 06:43

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

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

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

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Piu	89	8.7/12.9	10	17

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Grace M. Tsushima
 No. C49814
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 12-09-15

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

TABLE A

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

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

TABLE B

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

* For use on a sign panel only

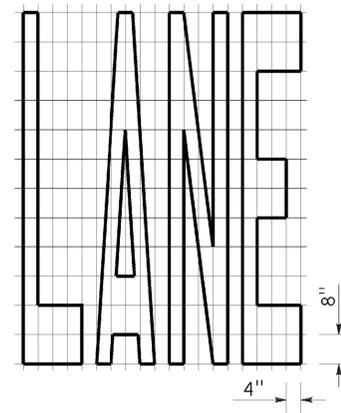
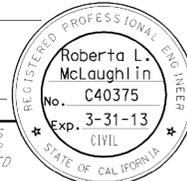
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

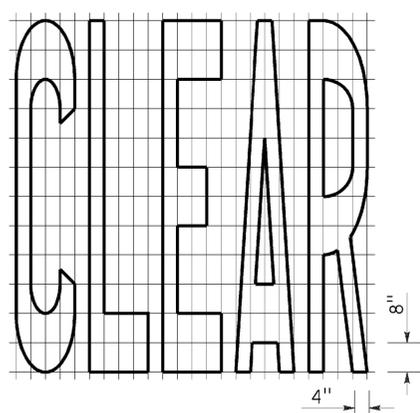
NO SCALE

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

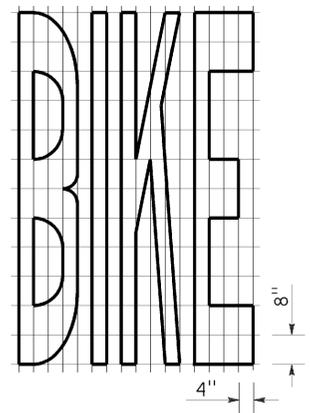
REVISED STANDARD PLAN RSP A10B



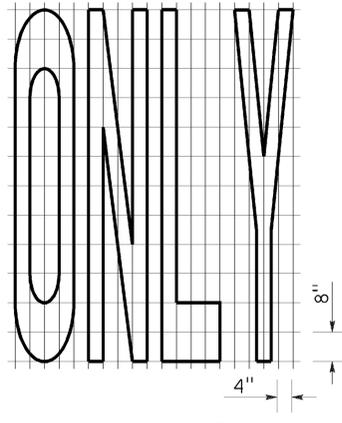
A=24 ft²



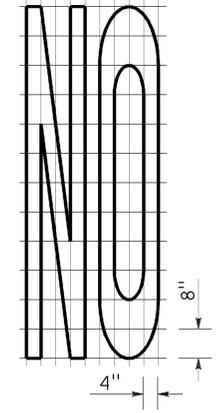
A=27 ft²



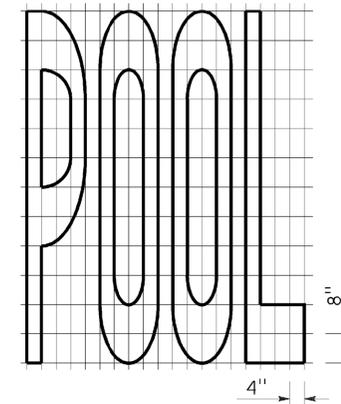
A=21 ft²



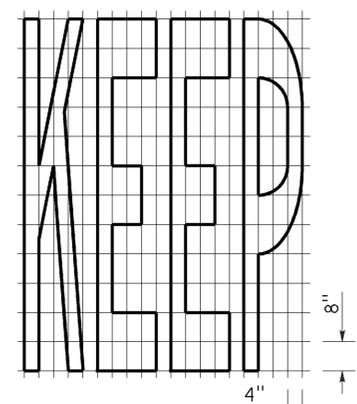
A=22 ft²



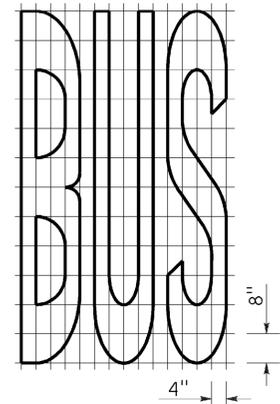
A=14 ft²



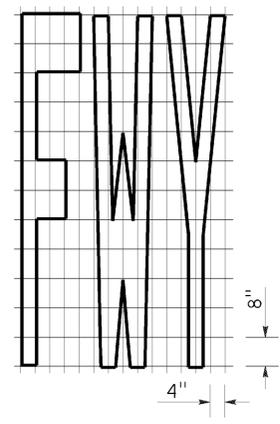
A=23 ft²



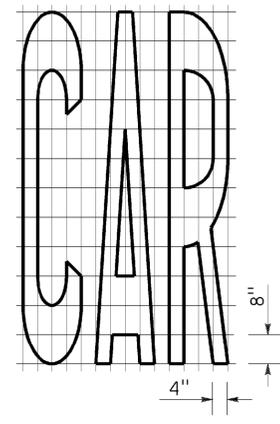
A=24 ft²



A=20 ft²

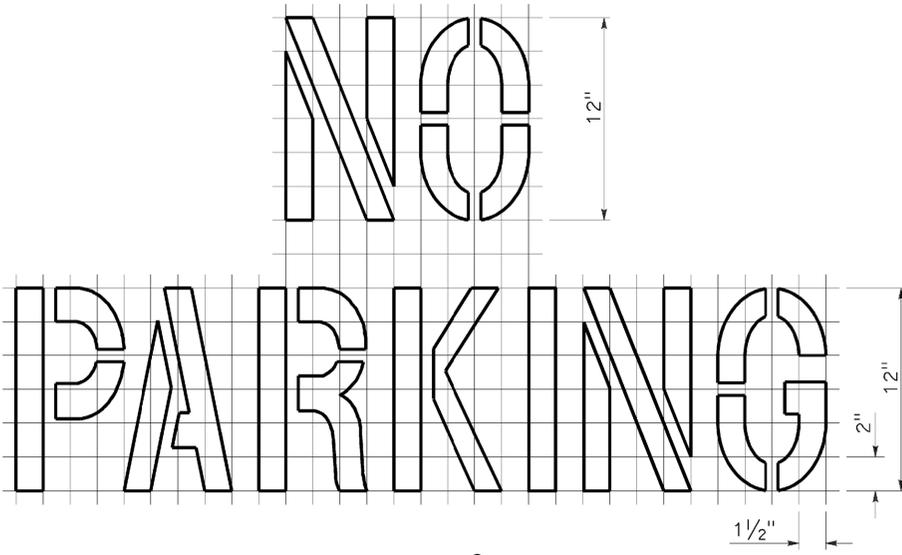


A=16 ft²

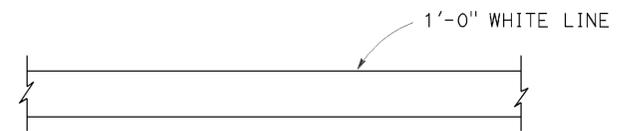


A=17 ft²

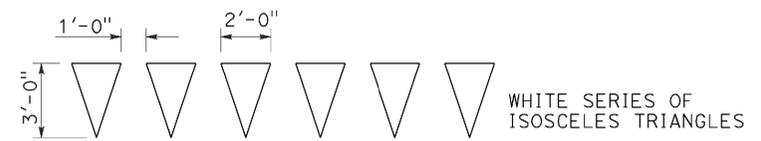
WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



↑
DIRECTION OF TRAVEL
YIELD LINE

NOTES:

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES
NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Piu	89	8.7/12.9	12	17

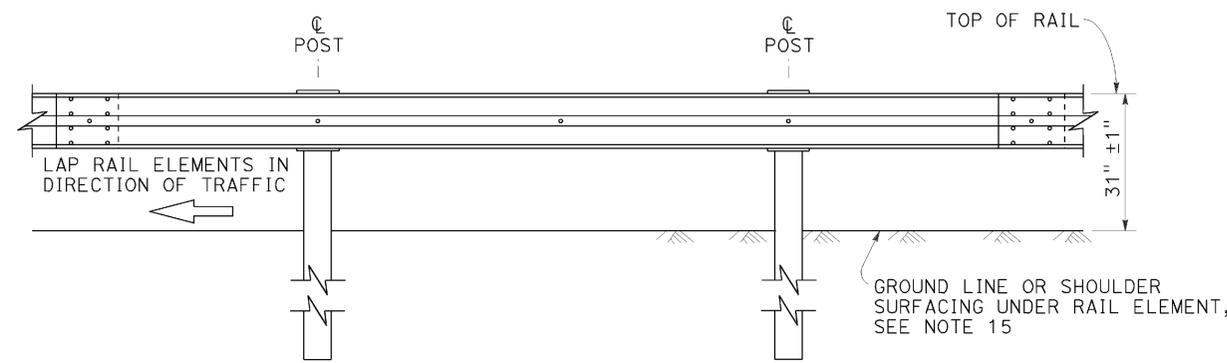
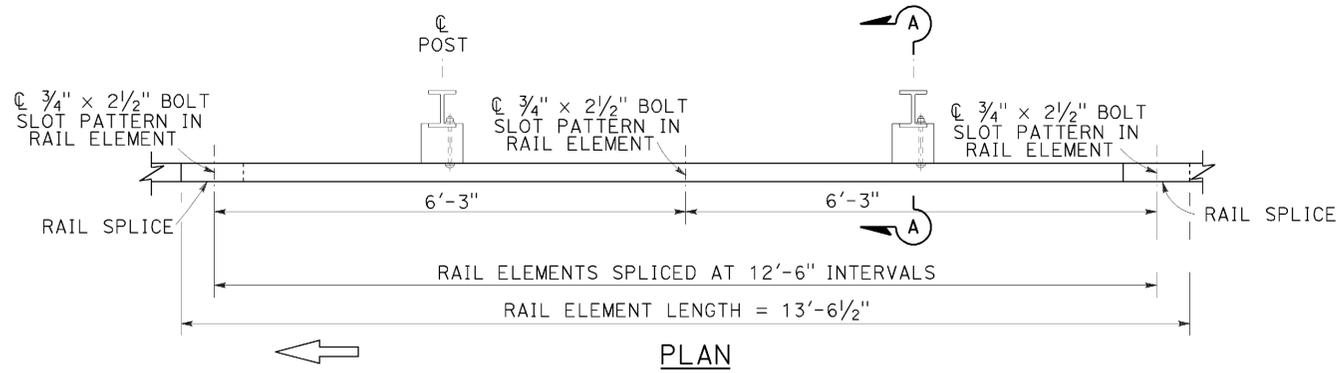
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

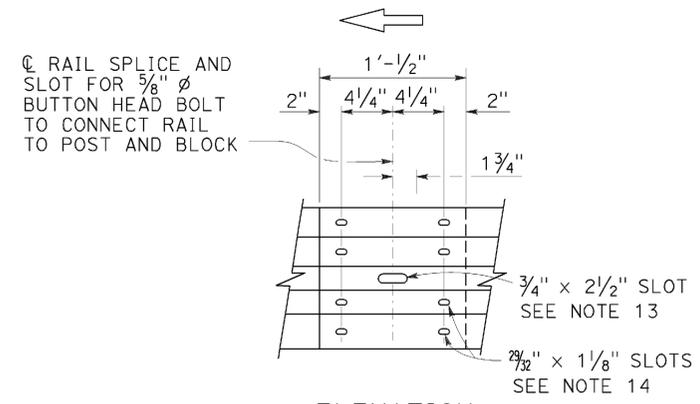
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TO ACCOMPANY PLANS DATED 12-09-15

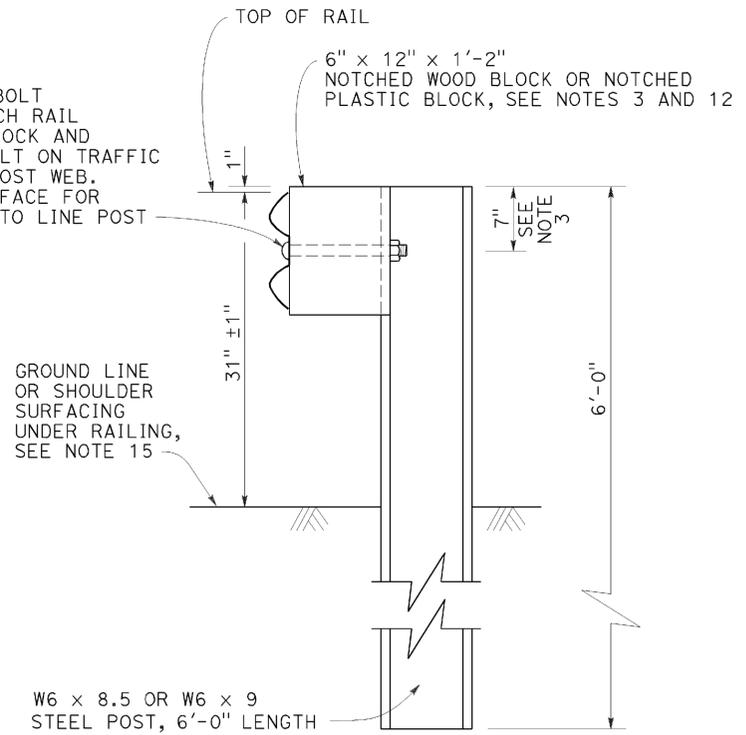
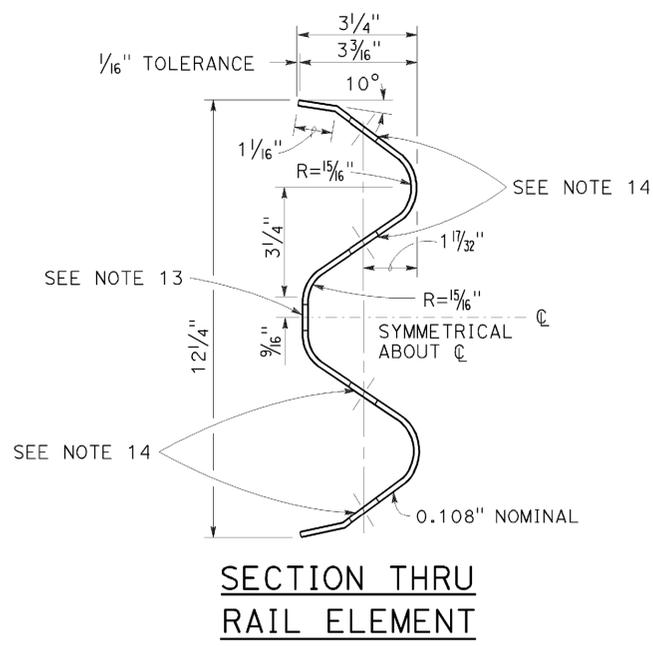
2010 REVISED STANDARD PLAN RSP A77L2



MIDWEST GUARDRAIL SYSTEM WITH STEEL POSTS AND NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCKS



- Connect the overlapped end of the rail elements with $\frac{5}{8}$ " ϕ x $1\frac{3}{8}$ " button head oval shoulder splice bolts inserted into the $\frac{29}{32}$ " x $1\frac{1}{8}$ " slots and bolted together with $\frac{5}{8}$ " ϕ recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



See Note 4

NOTES:

- For details of wood post installations, see Revised Standard Plan RSP A77L1.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of steel posts and notched wood blocks used to construct MGS, see Revised Standard Plan RSP A77N2.
- For additional installation details, see Revised Standard Plan RSP A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77Q and A77R Series of Standard Plans.
- If railing is connected to terminal system end treatment, use 31" height terminal system end treatment.
- For MGS end anchor details, see Revised Standard Plans RSP A77S1 and RSP A77T2.
- For details of MGS transition to bridge railing, see Revised Standard Plan RSP A77U4.
- For additional details of MGS connection to bridge railings, see Revised Standard Plans RSP A77U1, RSP A77U2 and RSP A77V1.
- For dike positioning and MGS delineation details, see Revised Standard Plan RSP A77N4.
- Notched face of block faces steel post.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Install posts in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

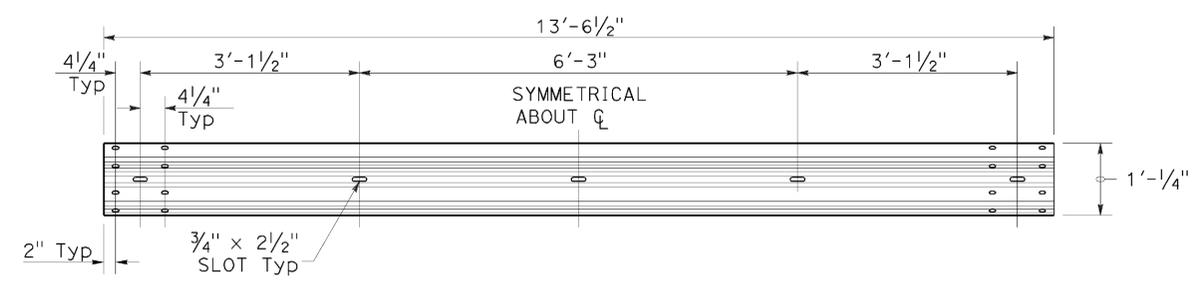
**MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(STEEL POST WITH NOTCHED
WOOD OR NOTCHED
RECYCLED PLASTIC BLOCK)**

NO SCALE

RSP A77L2 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L2

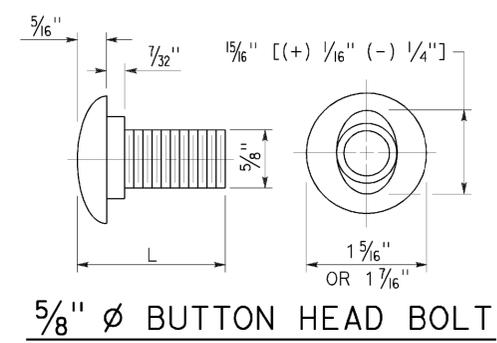
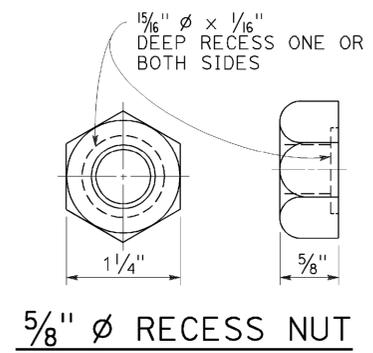
TO ACCOMPANY PLANS DATED 12-09-15



TYPICAL RAIL ELEMENT

NOTE:

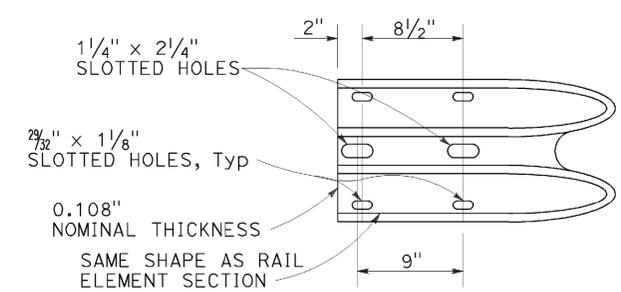
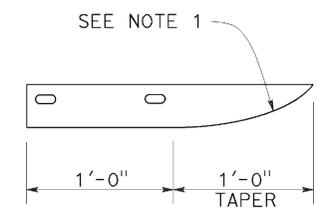
1. Slotted holes for splice bolts to overlap ends of rail element.



BUTTON HEAD BOLT

L	THREAD LENGTH
1 3/8"	FULL THREAD LENGTH
2"	FULL THREAD LENGTH
10"	4" Min THREAD LENGTH
18"	4" Min THREAD LENGTH
20"	4" Min THREAD LENGTH
22"	4" Min THREAD LENGTH
26"	4" Min THREAD LENGTH
36"	4" Min THREAD LENGTH
** 2 3/4"	2" Min THREAD LENGTH
** 19"	4" Min THREAD LENGTH

** For nested rail applications.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STANDARD HARDWARE**

NO SCALE

RSP A77M1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77M1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Piu	89	8.7/12.9	14	17

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

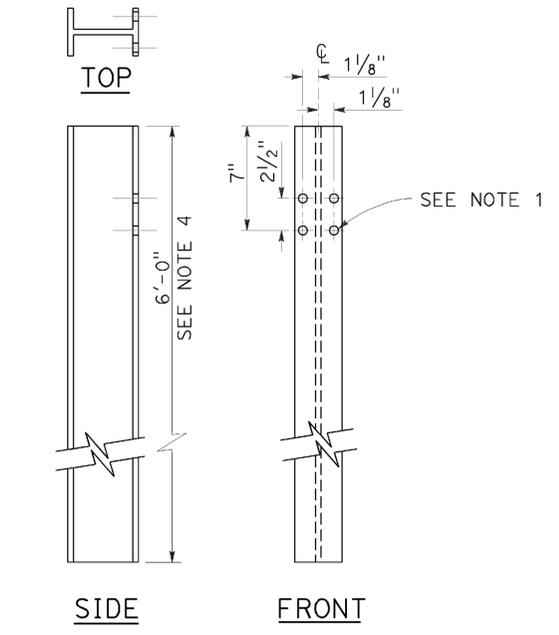
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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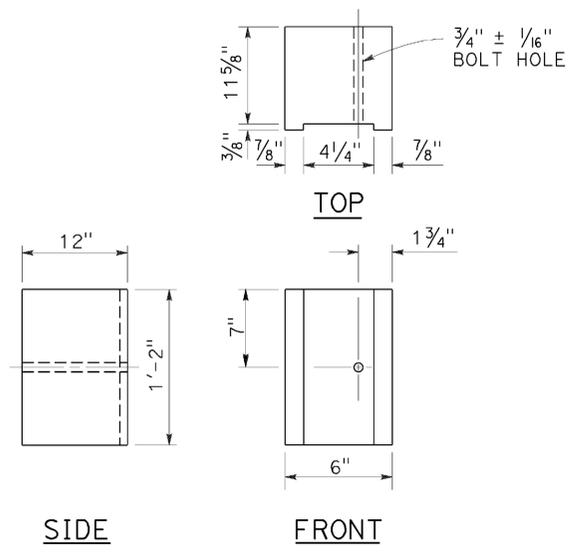
TO ACCOMPANY PLANS DATED 12-09-15

NOTES:

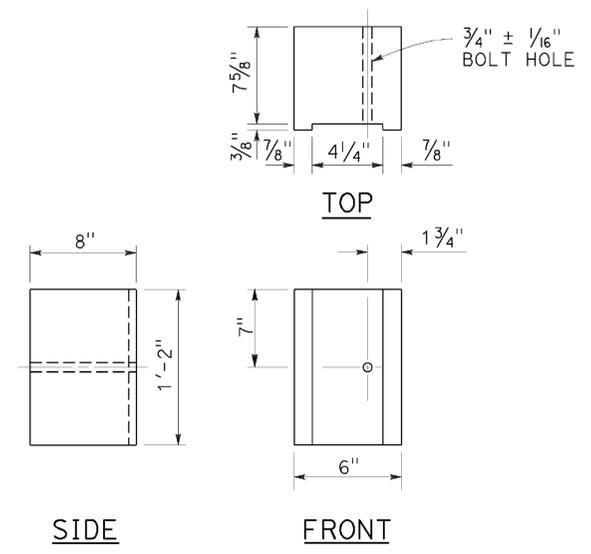
1. All holes in steel post shall be $\frac{13}{16}$ " Dia maximum.
2. Dimensions shown for wood block are nominal.
3. Notched face of block faces steel post.
4. 6'-0" length posts to be used for typical roadway installation. See Revised Standard Plan RSP A77N3.
5. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" notched wood blocks.
6. This post and 8" x 12" block combination to be used for line post sections of MGS on narrow roadways and where strengthened line post sections of MGS are warranted to shield fixed objects.



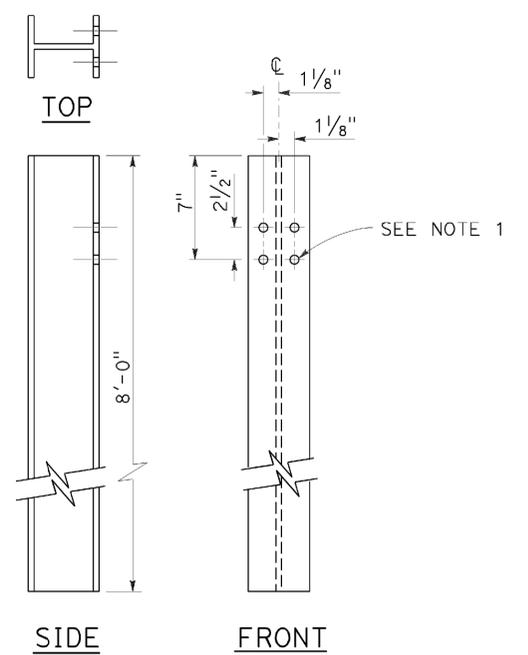
**W6 x 9 OR W6 x 8.5
STEEL POST**
See Note 4



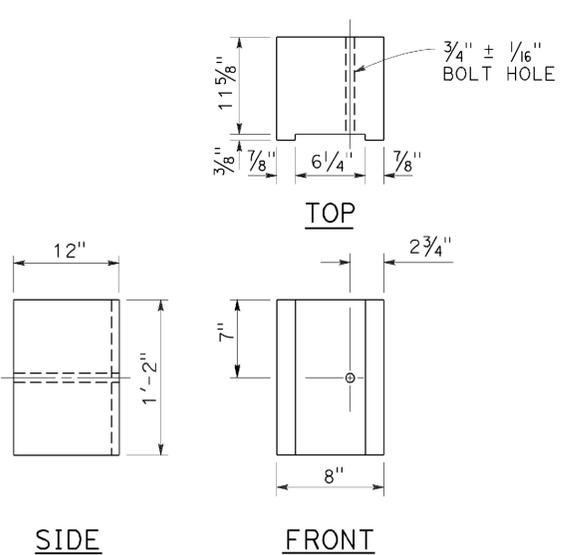
**6" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



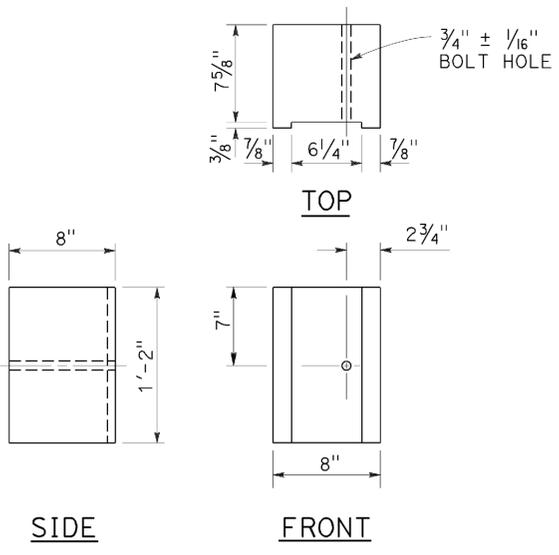
**6" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5



**W6 x 15
STEEL POST**
See Note 6



**8" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



**8" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STEEL POST AND
NOTCHED WOOD BLOCK DETAILS**

NO SCALE

RSP A77N2 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77N2
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N2

2010 REVISED STANDARD PLAN RSP A77N2

DATE PLOTTED => 28-DEC-2015
TIME PLOTTED => 06:44

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Piu	89	8.7/12.9	15	17

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

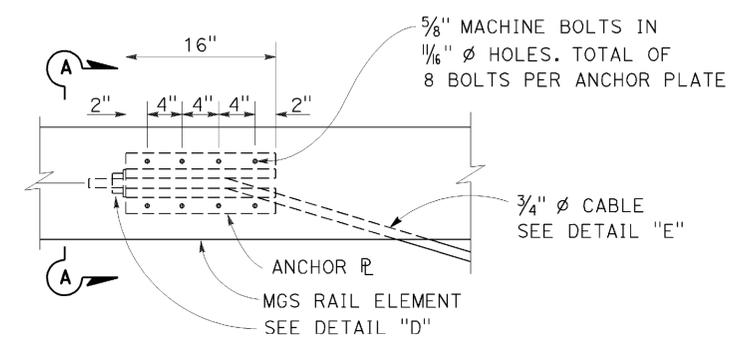
November 15, 2013
PLANS APPROVAL DATE

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

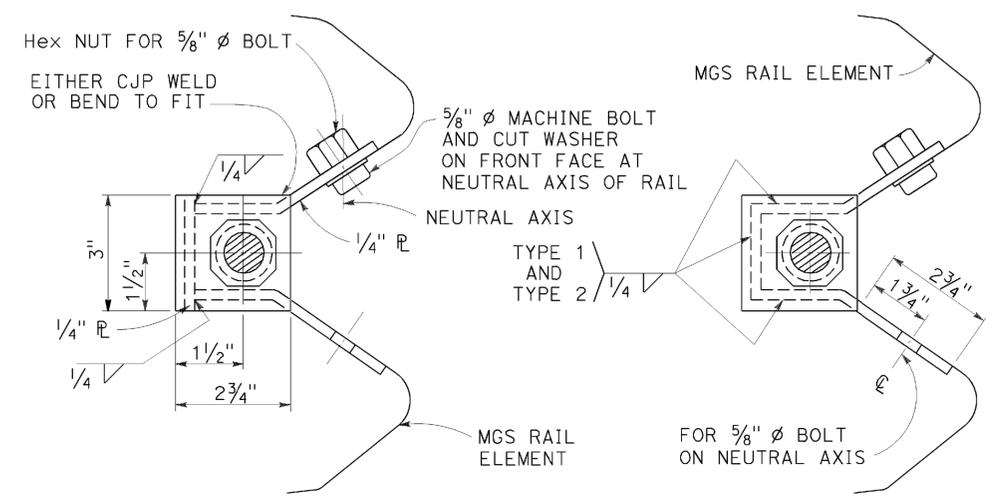
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 12-09-15

NOTE:
See Revised Standard Plans RSP A77S1, RSP A77S2 and RSP A77T1 for typical use of anchor cable and anchor plate.



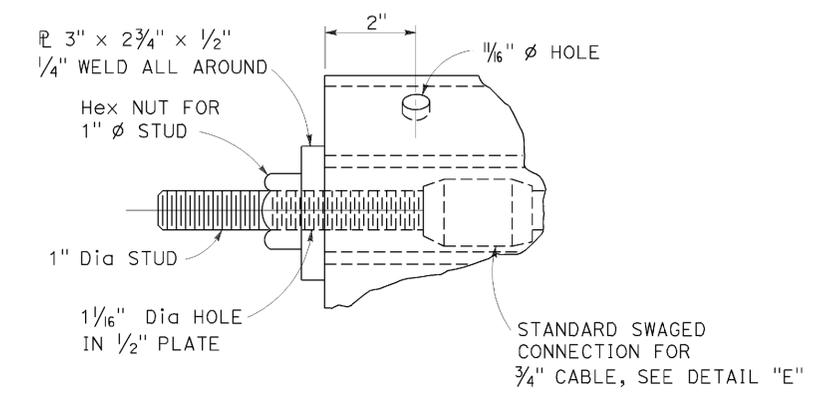
ANCHOR PLATE DETAIL
(MGS shown, TBB similar)



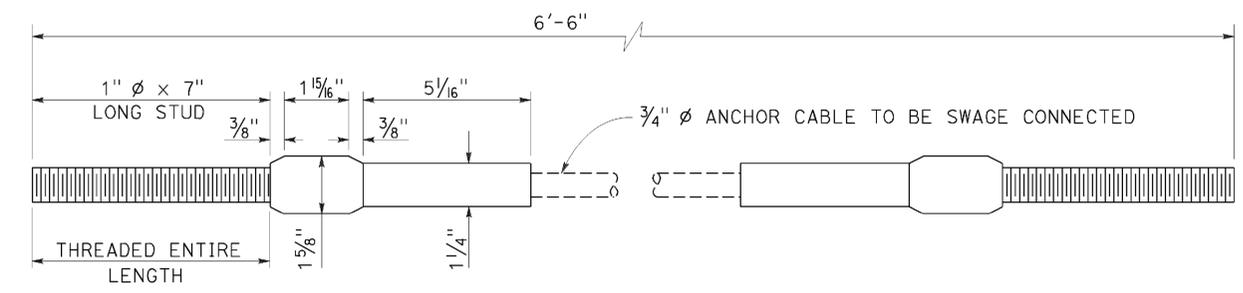
SECTION A-A (ALTERNATIVE TYPE 1)

SECTION A-A (ALTERNATIVE TYPE 2)

NOTE:
Dimensioning applies to both types.



DETAIL "D"



ANCHOR CABLE WITH SWAGED FITTING AND STUD
DETAIL "E"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL RAILING
ANCHOR CABLE AND
ANCHOR PLATE DETAILS**

NO SCALE

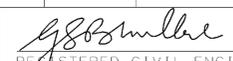
RSP A77S3 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77S3 DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77S3

2010 REVISED STANDARD PLAN RSP A77S3

DATE PLOTTED => 28-DEC-2015
TIME PLOTTED => 06:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Piu	89	8.7/12.9	16	17


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE



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TO ACCOMPANY PLANS DATED 12-09-15

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**

NO SCALE

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

REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Piu	89	8.7/12.9	17	17

Devinder Singh
 REGISTERED CIVIL ENGINEER
 October 17, 2014
 PLANS APPROVAL DATE
 No. C50470
 Exp. 6-30-15
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER

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NOTES:

See Revised Standard Plan RSP T9 for tables.

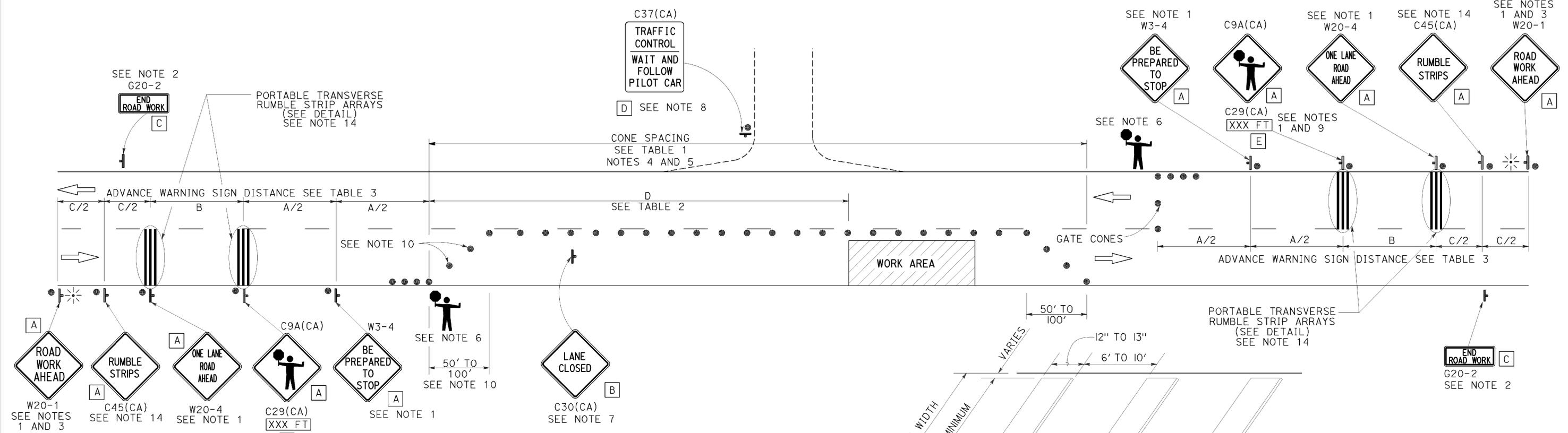
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

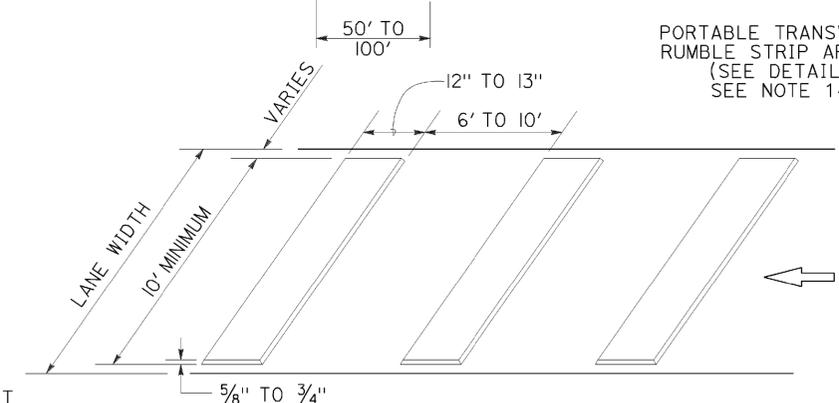
TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 12-09-15



NOTES:

- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
- Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
- An optional C29(CA) sign may be placed below the C9A(CA) sign.
- Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
- The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
- Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
- If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
- Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
 - Work duration occupies a location for four hours or less
 - Posted speed limit is below 45 MPH
 - Work is of emergency nature
 - Work zone is in snow or icy weather conditions



LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⊛ PORTABLE FLASHING BEACON
- ⊠ FLAGGER

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 20" x 7"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR LANE CLOSURE ON
TWO LANE CONVENTIONAL
HIGHWAYS**

NO SCALE

RSP T13 DATED OCTOBER 17, 2014 SUPERSEDES RSP T13 DATED JULY 18, 2014
AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED
MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13