

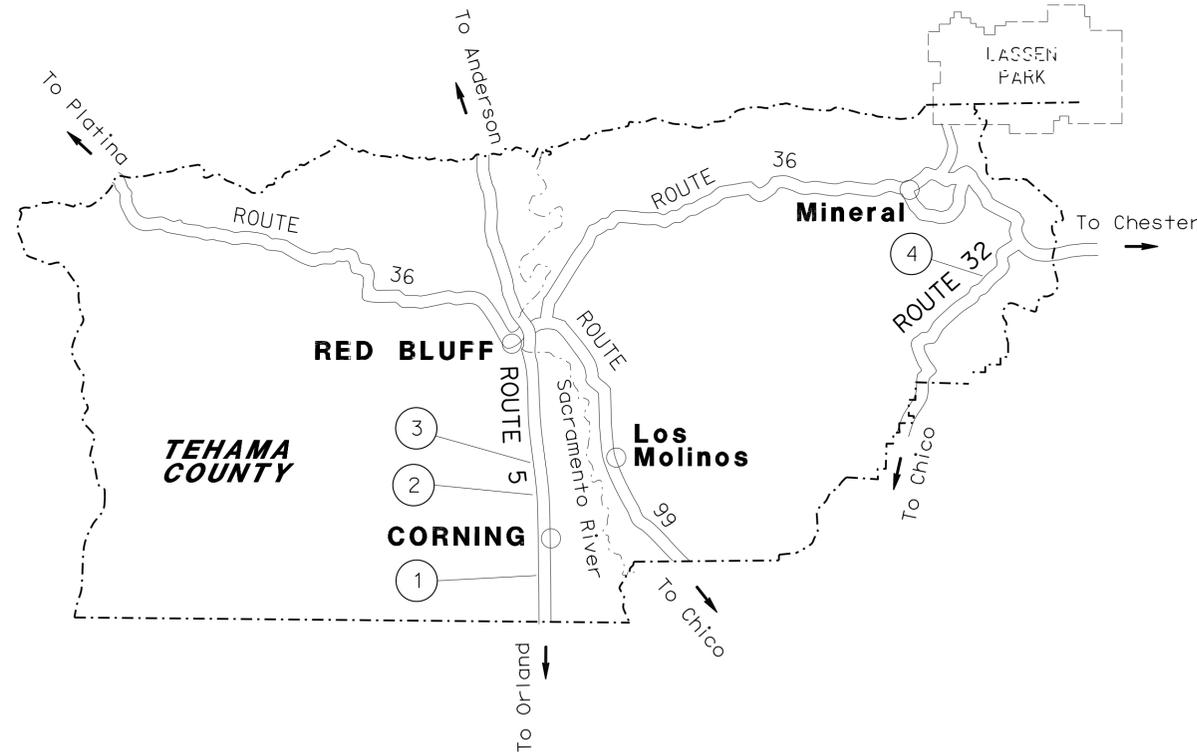
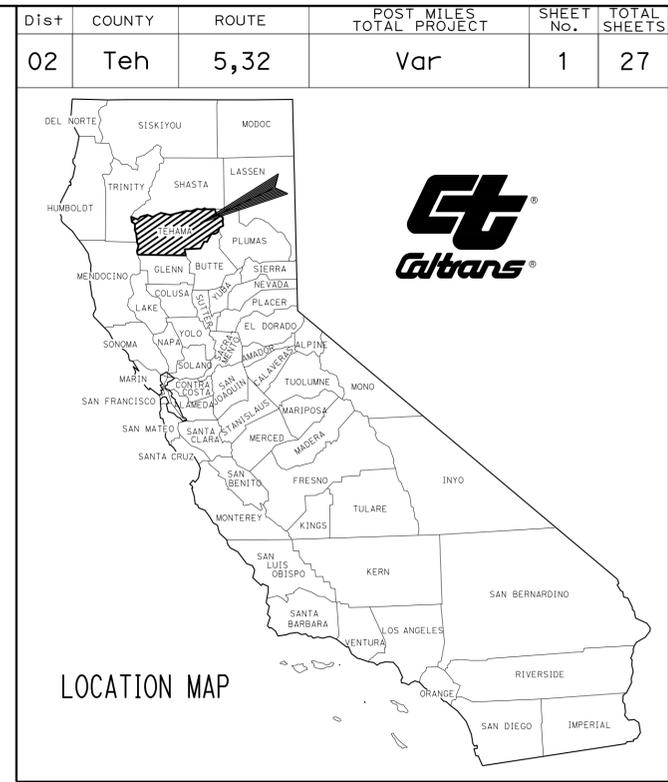
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE SHEET AND LOCATION MAP
2-7	CONSTRUCTION DETAILS
8-9	CONSTRUCTION AREA SIGNS
10-11	SUMMARY OF QUANTITIES
12-21	REVISED STANDARD PLANS
STRUCTURES	
22-27	STRUCTURE 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 TEHAMA COUNTY
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



LOCATIONS OF CONSTRUCTION

Loc No.	Co	R+e	PM	Br No.	BRIDGE NAME
①	Teh	5	R6.99	08-0121	VIOLA AVENUE OC
②	Teh	5	R13.96	08-0116	GYLE ROAD OC
③	Teh	5	R16.99	08-0084L	ELDER CREEK
④	Teh	32	20.47	08-0154	SLATE CREEK

PROJECT MANAGER
MICHAEL CONNER
 DESIGN MANAGER
MICHAEL CONNER

Roy S. Cahill 10-08-15

PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER

October 8, 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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	2	27

Roy & Cahill 10-08-15
 REGISTERED CIVIL ENGINEER DATE
 10-08-15
 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.

REGISTERED PROFESSIONAL ENGINEER
 ROY S. CAHILL
 No. C48876
 Exp. 9-30-16
 CIVIL
 STATE OF CALIFORNIA

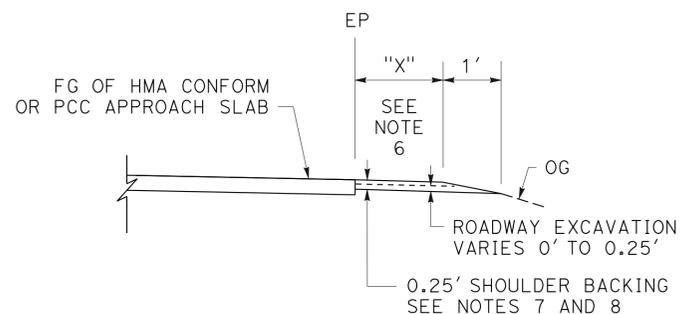
NOTES:

- DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATION AND CROSS SLOPE TO MATCH EXISTING OR AS DIRECTED BY THE ENGINEER.
- COLD PLANE FULL WIDTH OF PAVED AC ROADWAY.
- SEE GENERAL PLANS FOR DETAILS NOT SHOWN.
- BRIDGE JOINT SEALS ARE NOT SHOWN ON THIS SHEET.
- MBGR IS NOT SHOWN ON THIS SHEET.
- PLACE SHOULDER BACKING ADJACENT TO EACH NEW HMA CONFORM AND EACH NEW STRUCTURE APPROACH SLAB FOR THE LENGTH OF THE HMA CONFORM OR STRUCTURE APPROACH SLAB.
- PLACE SHOULDER BACKING UNDER NEW MBGR, FROM EDGE OF PAVEMENT TO APPROXIMATELY 18" BEHIND MBGR POST, AS DIRECTED BY THE ENGINEER.
- SEE "GENERAL PLAN No. 2" AND "STRUCTURE APPROACH TYPE R(30D) MODIFIED" SHEETS FOR DETAILS ON NEW PCC STRUCTURE APPROACH SLABS.
- UTILITIES HAVE NOT BEEN POSITIVELY LOCATED.

LEGEND:

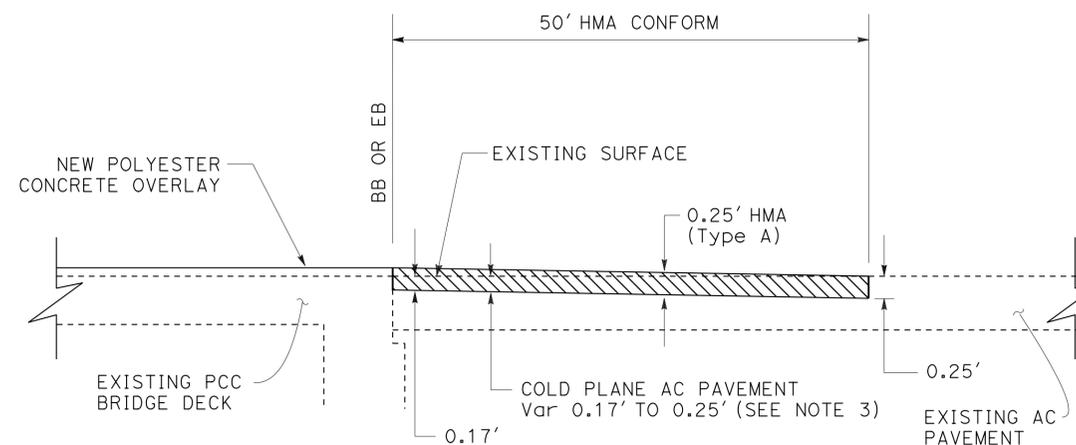
HOT MIX ASPHALT (TYPE A)

PAVEMENT CLIMATE REGIONS	LOCATION
INLAND VALLEY	1, 2, 3
HIGH MOUNTAIN	4

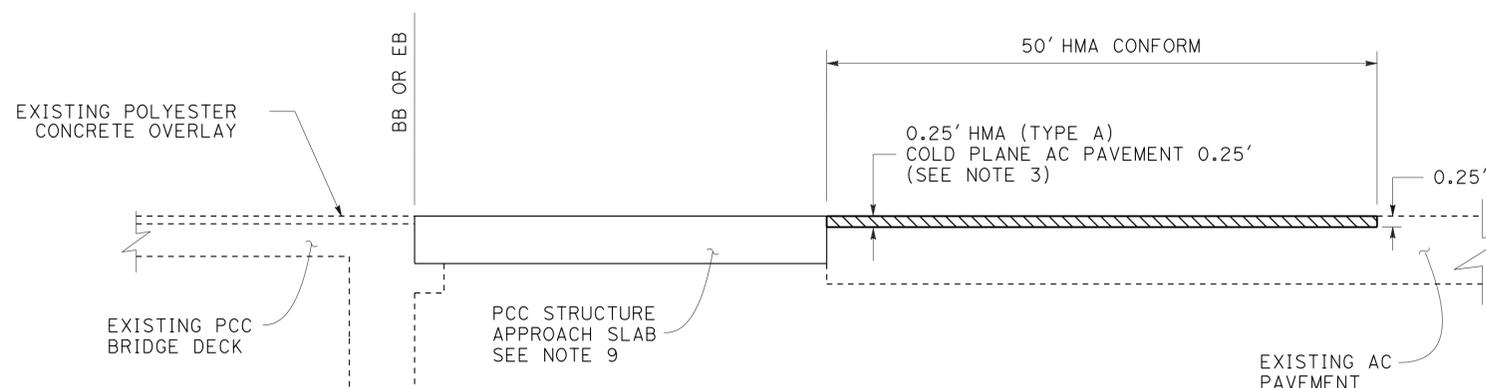


SHOULDER BACKING DETAIL (Typ)

LOCATION	DIMENSION "X"
SLATE CREEK, Br No. 08-0154	VARIES 2' TO 6' Approx
ELDER CREEK, Br No. 08-0084L	4'



PROFILE
HMA CONFORM
SLATE CREEK, Br No. 08-0154



PROFILE
HMA CONFORM
ELDER CREEK, Br No. 08-0084L

CONSTRUCTION DETAILS

NO SCALE

C-1

P:\proj\3\02\0h360\plans\pse\20h360ga001.dgn

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
MICHAEL CONNER

CALCULATED/DESIGNED BY
CHECKED BY

ROY CAHILL
MIKE CONNER

REVISED BY
DATE REVISED

DATE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	3	27

Roy S. Cahill 10-08-15
 REGISTERED CIVIL ENGINEER DATE
 10-08-15
 PLANS APPROVAL DATE

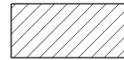
REGISTERED PROFESSIONAL ENGINEER
 ROY S. CAHILL
 No. C48876
 Exp. 9-30-16
 CIVIL
 STATE OF CALIFORNIA

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

NOTES:

- 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.
- FOR TEMPORARY TAPERS ON BRIDGE DECKS AND APPROACH SLABS, CONSTRUCT TEMPORARY TAPERS WITH POLYESTER CONCRETE.
- IF AUTHORIZED, YOU MAY USE ALTERNATIVE MATERIALS OR METHODS TO PRODUCE THE REQUIRED TAPER.

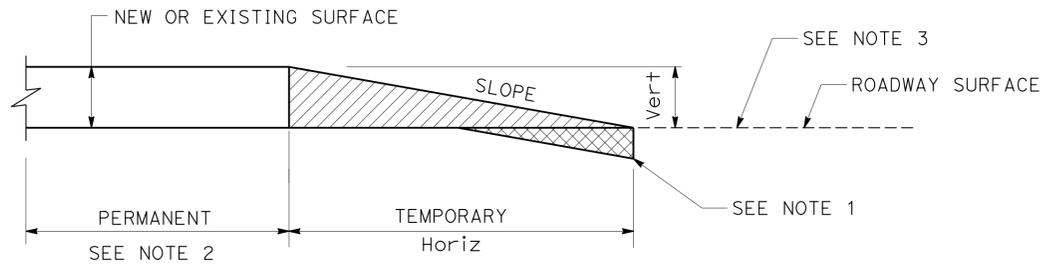
LEGEND:



HMA MATERIAL (TEMPORARY TAPER)
(SEE NOTE 4)



IF NECESSARY, COLD PLANE ASPHALT CONCRETE PAVEMENT
AND PLACE HMA MATERIAL (SEE NOTE 1)



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

**TYPICAL PAVING CONFORM
FOR TEMPORARY CONSTRUCTION TAPERS**

CONSTRUCTION DETAILS
NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR: MICHAEL CONNER
 CALCULATED/DESIGNED BY: CHECKED BY:
 ROY CAHILL MIKE CONNER
 REVISED BY: DATE: REVISIONS:
 10-08-15 DATE PLOTTED => 12-OCT-2015 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	4	27

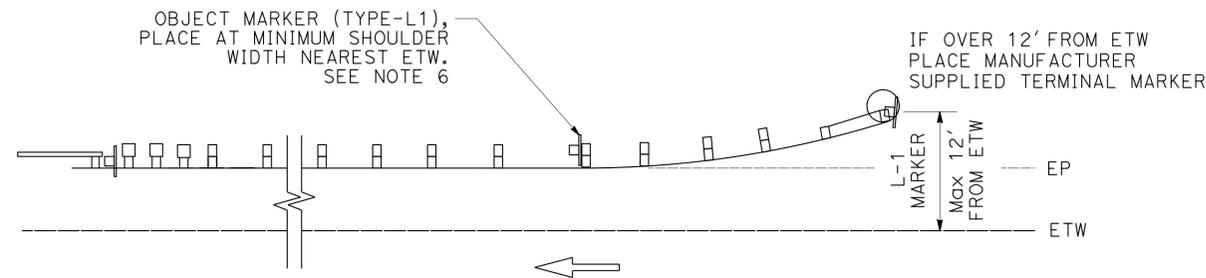
<i>Dwight D Winterlin</i>	10-08-15
REGISTERED CIVIL ENGINEER	DATE
10-08-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DWIGHT WINTERLIN
No. C68438
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

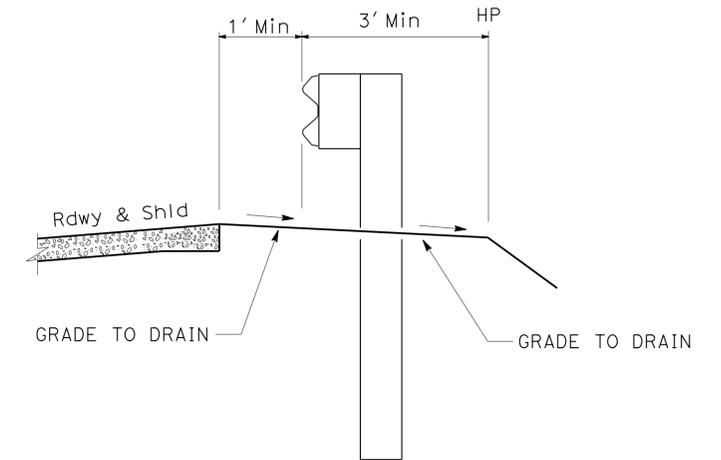
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

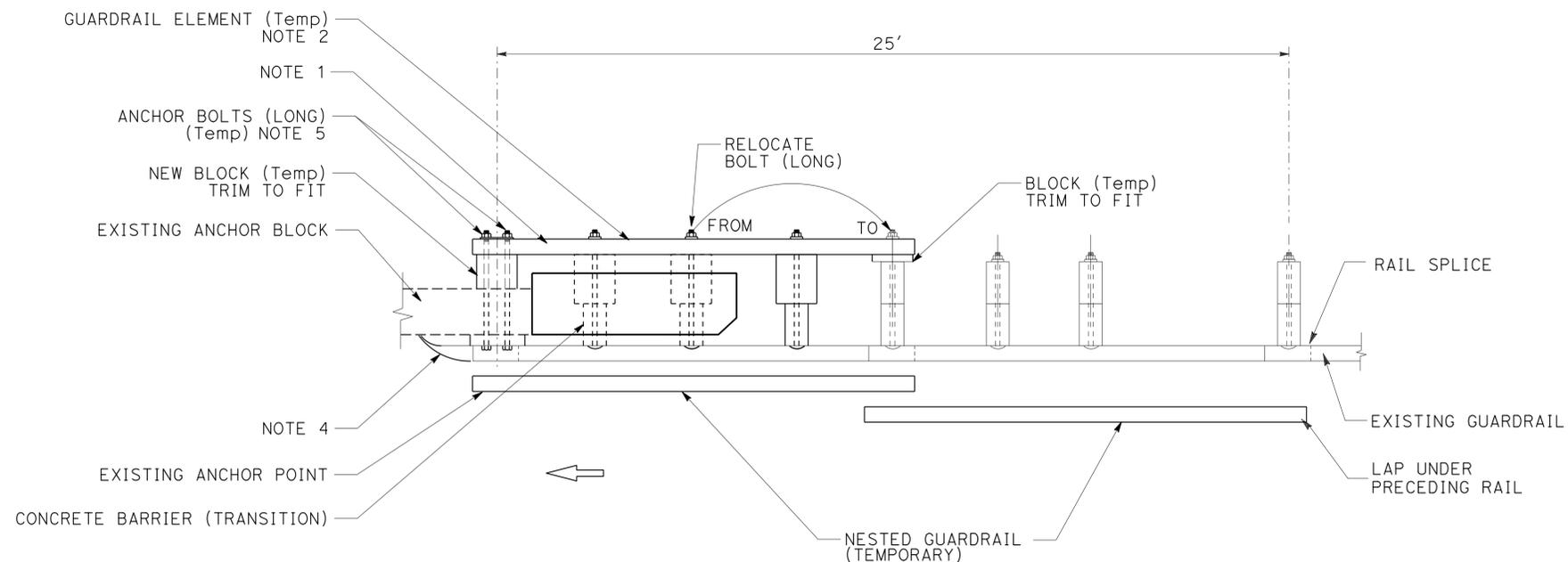
1. Max 2 EXISTING POSTS MAY BE REMOVED
2. GUARDRAIL ELEMENT ON BACK OF POST NOT REQUIRED IF NEW TRANSITION IS COMPLETED WITHIN 20 WORKING DAYS FROM POST REMOVAL.
3. Max 2" OF ADDITIONAL BLOCKING MAY BE ADDED BETWEEN RAIL ELEMENT AND EXISTING POST OR ANCHOR BLOCK TO ACCOMMODATE FORM WORK.
4. ATTACH END CAP FLUSH TO EXISTING ANCHOR BLOCK FOR OPPOSING TRAFFIC
5. USE 2 EACH, 1" HIGH STRENGTH THROUGH BOLTS TO ATTACH RAILING TO EXISTING ANCHOR BLOCK. USE EXISTING P WASHERS FOR CONNECTION.
6. PLACE L-1 MARKER WHERE GUARD RAIL 1ST GETS PARALLEL/CLOSEST TO THE ETW. IF THE PAVED SHOULDER IS REDUCED APPROACHING A FIXED OBJECT, PLACE A P MARKER INSTEAD OF L-1 MARKER.
7. UTILITIES HAVE NOT BEEN POSITIVELY LOCATED.



TYPICAL OBJECT MARKER LOCATIONS



GRADING DETAIL



TEMPORARY NESTED GUARDRAIL TO ACCOMODATE CONSTRUCTION OF CONCRETE ANCHOR BLOCK FOR NEW WB TRANSITION

CONSTRUCTION DETAILS

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAFFIC
 FUNCTIONAL SUPERVISOR KRISTI WESTOBY
 CALCULATED/DESIGNED BY
 CHECKED BY
 DWIGHT WINTERLIN ROY CAHILL
 REVISED BY DATE REVISED
 USERNAME => s115152
 DGN FILE => 20h360ga003.dgn
 BORDER LAST REVISED 7/2/2010
 RELATIVE BORDER SCALE IS IN INCHES
 UNIT 0148
 PROJECT NUMBER & PHASE 02 1500 0057 1

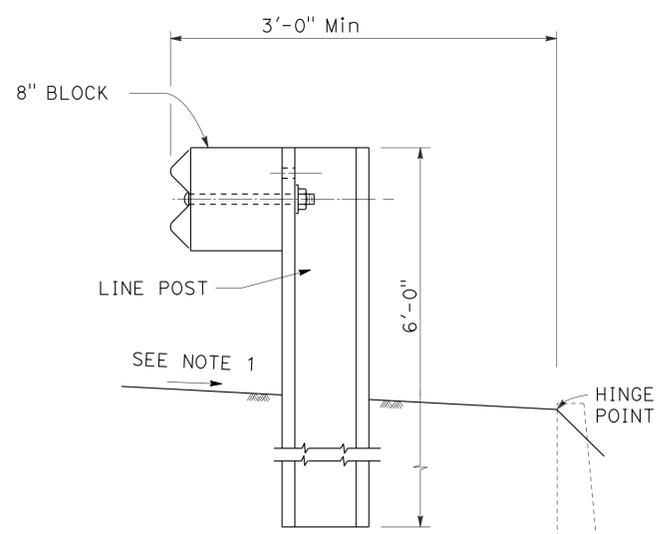
LAST REVISION DATE PLOTTED => 12-OCT-2015
 10-08-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	5	27

Dwight D Winterlin 10-08-15	
REGISTERED CIVIL ENGINEER	DATE
10-08-15	
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. SLOPE TO DRAIN AWAY FROM PAVEMENT.
2. FOR POST AND BLOCK DETAILS SEE REVISED STANDARD PLAN RSP A77N2. FOR RAIL ELEMENT AND HARDWARE DETAILS, USE MGS DETAILS SHOWN ON RSP A77L2 AND RSP A77M1.
3. POST AND HARDWARE SHOWN FOR MIDWEST GUARDRAIL ARE VALID FOR METAL BEAM GUARDRAIL.
4. A SINGLE LINE POST MAY BE OFFSET UP TO 12" INLINE WITH THE GUARDRAIL AS DIRECTED 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 MORE THAN 31" ABOVE FINISH GRADE UNDER FACE OF RAIL.
7. WHEN THERE IS A BREAK POINT IN FRONT OF GUARDRAIL BETWEEN 4'-8' THE HEIGHT WILL BE DETERMINED BY THE ENGINEER.
8. UTILITIES HAVE NOT BEEN POSITIVELY LOCATED.



**DETAIL A
TYPICAL ROADWAY
INSTALLATION**
SEE NOTE 2

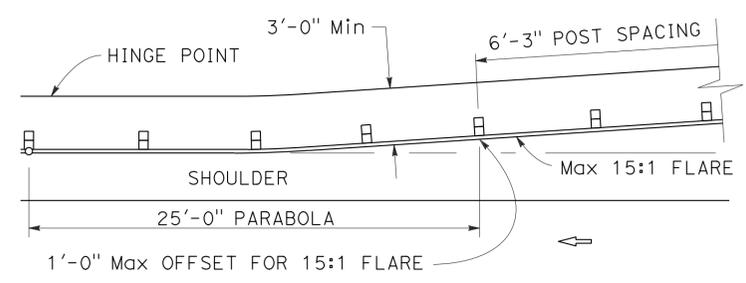


BASE LINE (EDGE OF PAVED SHOULDER OR OFFSET LINE OF EDGE OF TRAVELED WAY)

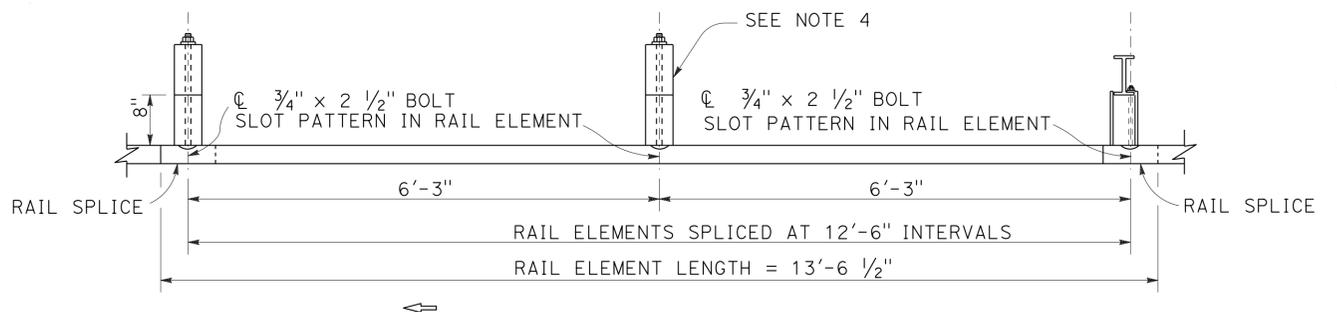
Y = OFFSET FROM BASE LINE
W = MAXIMUM OFFSET
X = DISTANCE ALONG BASE LINE
L = LENGTH OF FLARE

$$Y = \frac{WX^2}{L^2}$$

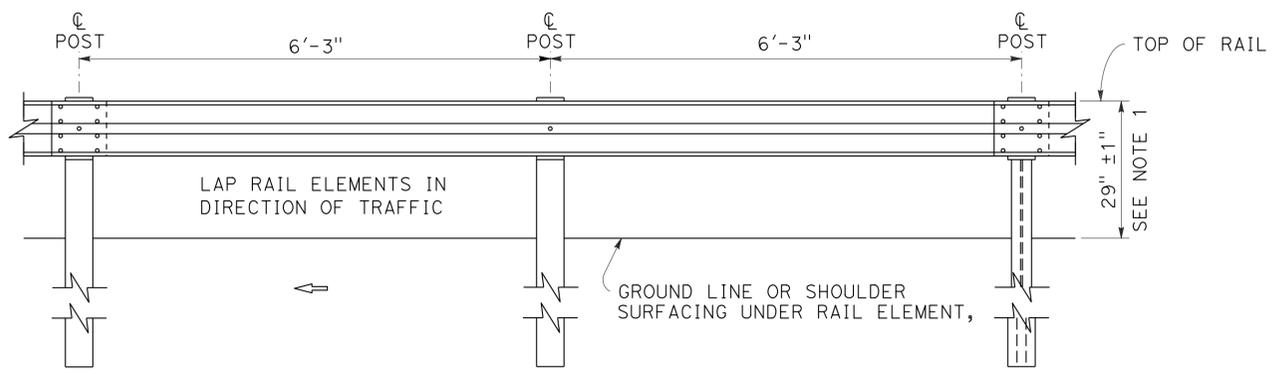
PARABOLIC FLARE OFFSETS



GUARDRAIL WITH FLARED ALIGNMENT

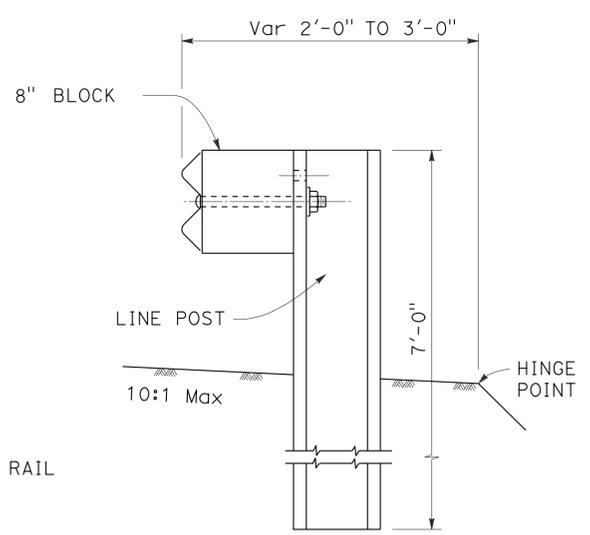


PLAN



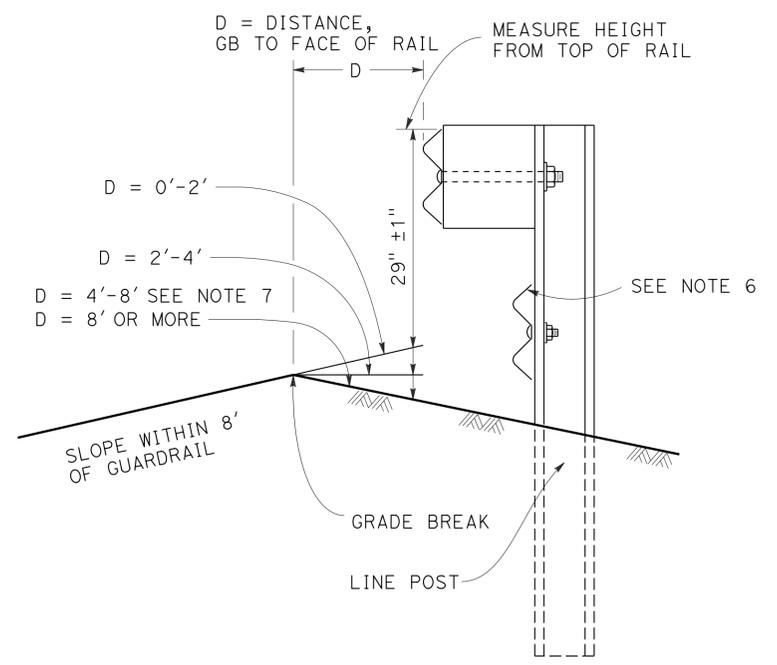
ELEVATION

METAL BEAM GUARD RAILING



**DETAIL B
NARROW ROADWAY
INSTALLATION**
SEE NOTE 2

POST EMBEDMENT



**MEASURE HEIGHT DETAIL
AT GRADE BREAK (GB)**
WHEN THERE IS A BREAK POINT IN FRONT OF GUARDRAIL MEASURE HEIGHT OF GUARDRAIL BASED ON DISTANCE FROM GRADE BREAK TO ADJUST FOR TRAJECTORY.

**CONSTRUCTION DETAILS
METAL BEAM GUARD RAILING
TYPICAL LINE POST
EMBEDMENT AND
HINGE POINT OFFSET DETAILS**

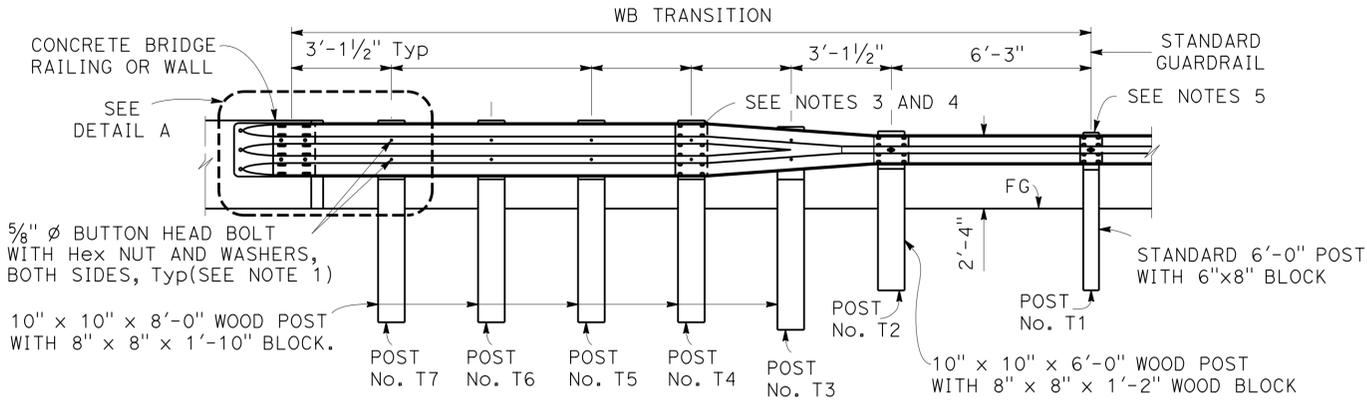
NO SCALE

C-4

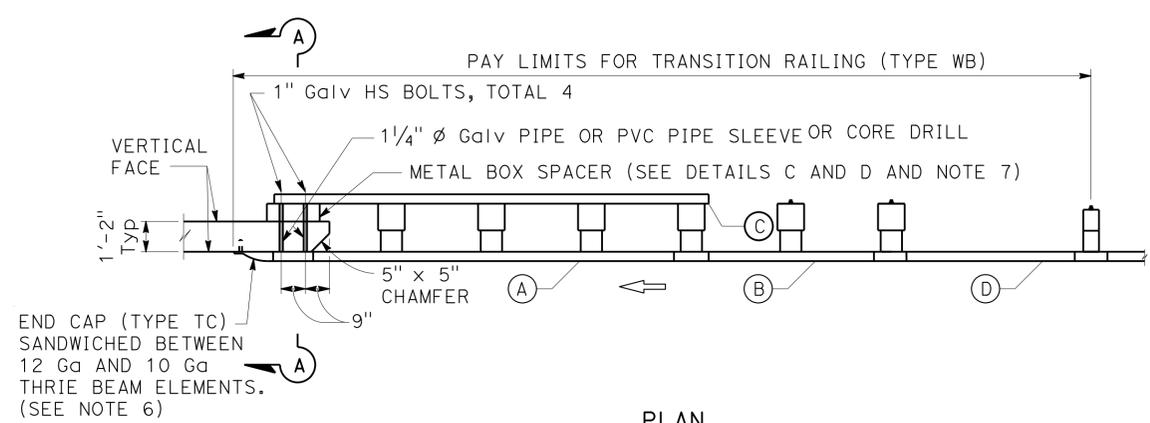
P:\proj\3\02\0h360\plans\pse\20h360ga004.dgn

REVISOR	DATE	REVISION
DWIGHT WINTERLIN	10-08-15	REGISTERED CIVIL ENGINEER
ROY CAHILL		
KRISTI WESTOBY		

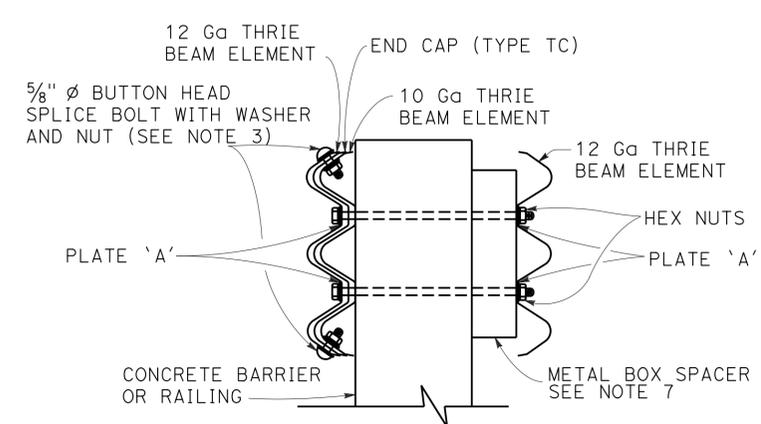
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	7	27
Dwight D Winterlin 10-08-15 REGISTERED CIVIL ENGINEER DATE					
10-08-15 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



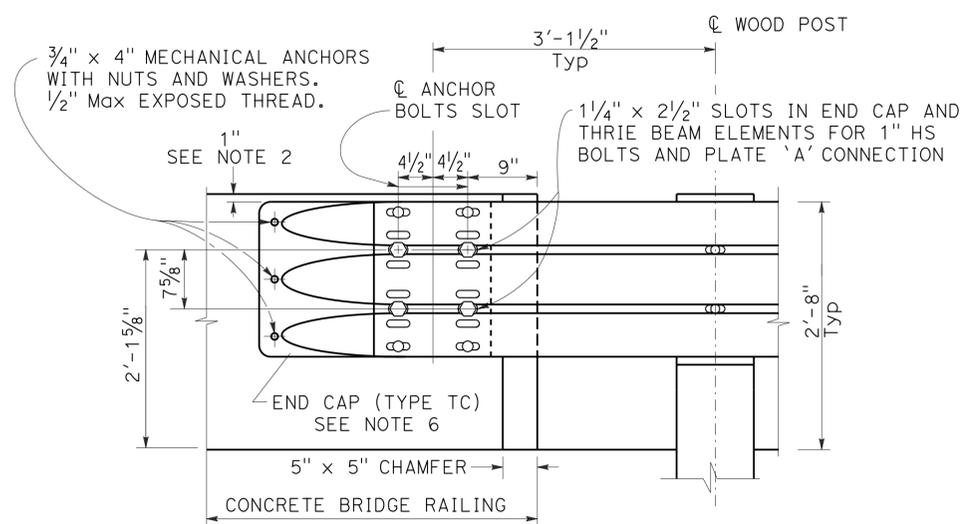
ELEVATION



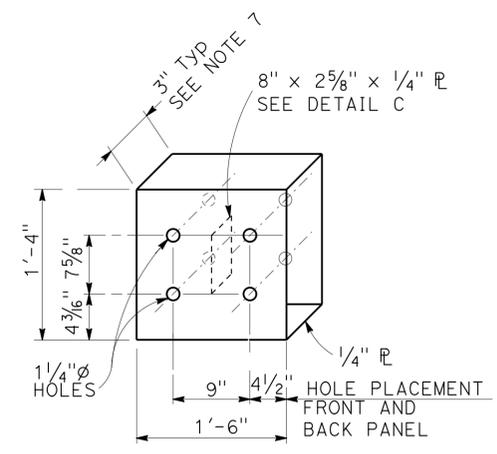
PLAN
TRANSITION RAILING (TYPE WB)



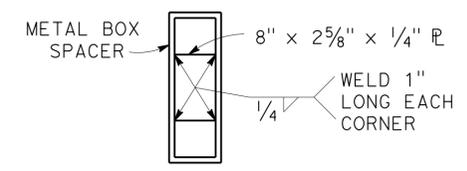
SECTION A-A



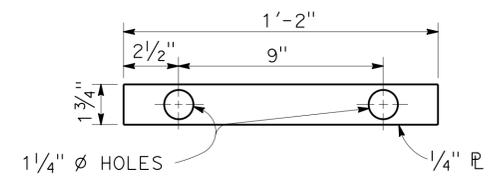
DETAIL A



DETAIL D



DETAIL C
METAL BOX SPACER



DETAIL B
PLATE 'A'

NOTES:

- USE 5/8" Dia BUTTON HEAD BOLTS WITH PL WASHERS AND HEX NUTS FOR CONNECTIONS TO 10" x 10" WOOD POSTS. PLACE PL WASHER UNDER BOLT AND NUT.
- TAPER THE TOP OF THE ANCHOR BLOCK AT 4:1 TO 1" ABOVE TOP OF RAIL.
- EXTERIOR SPLICE BOLT HOLES FOR RAIL ELEMENT SPLICES AT POST No. T4 AND THE CONNECTION TO THE CONCRETE BARRIER OR RAILING SHALL BE THE STANDARD 9/16" x 1/8" SLOT SIZE. INTERIOR SPLICE BOLT HOLES AT THESE LOCATIONS MAY BE INCREASED UP TO 1 1/4" Dia. ONLY THE TOP 4 AND THE BOTTOM 4 SPLICE BOLTS WITH WASHERS AND NUTS ARE REQUIRED FOR RAIL SPLICES AT POST No. T4 AND THE TOP 2 AND THE BOTTOM 2 SPLICE BOLTS ARE REQUIRED AT THE CONNECTION TO THE CONCRETE BARRIER OR RAILING.
- THE TOP ELEVATION OF POSTS No. T2 THROUGH No. T7 SHALL NOT PROJECT MORE THAN 1" ABOVE THE TOP ELEVATION OF THE RAIL ELEMENT.
- THE GUARD RAILING CONNECTED TO TRANSITION RAILING (TYPE WB) WILL BE A STANDARD RAILING SECTION OF METAL BEAM GUARD RAILING WITH HEIGHT TRANSITION RATIO OF 120:1.
- END CAP MAY BE INSTALLED OVER 12 Ga AND 10 Ga THRIE BEAM ELEMENTS WHERE TRANSITION RAILING IS INSTALLED ON THE DEPARTURE END OF BRIDGE RAILING.
- THE DEPTH OF THE METAL BOX SPACER VARIES FROM 5/8" TO 1 1/2" AND IS DEPENDENT ON THE WIDTH OF THE CONCRETE RAILING OR WALL. THE COMBINED DIMENSION FOR THE DEPTH OF THE METAL BOX SPACER PLUS THE WIDTH OF RAILING OR WALL SHOULD BE 17 1/8".
- UTILITIES HAVE NOT BEEN POSITIVELY LOCATED.

LEGEND:

- (A) NESTED THRIE BEAM ELEMENTS (ONE 12 Ga ELEMENT NESTED OVER ONE 10 Ga ELEMENT).
- (B) ONE 10 Ga "W" BEAM TO THRIE BEAM ELEMENT.
- (C) ONE 12 Ga THRIE BEAM ELEMENT.
- (D) ONE 10 Ga "W" BEAM RAIL ELEMENT (7'-3 1/2" LENGTH)

CONSTRUCTION DETAILS
RAILING TRANSITION
(TYPE WB)

NO SCALE

C-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAFFIC
 DWIGHT WINTERLIN
 ROY CAHILL
 KRISTI WESTOBY
 USERNAME => s115152
 DGN FILE => 20h360ga006.dgn
 BORDER LAST REVISED 7/2/2010
 RELATIVE BORDER SCALE 15" IN INCHES
 UNIT 0148
 PROJECT NUMBER & PHASE 02 1500 0057 1
 LAST REVISION DATE PLOTTED => 12-OCT-2015
 10-08-15 TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	8	27
Roy & Cahill		10-08-15		REGISTERED CIVIL ENGINEER DATE	
10-08-15		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>					

LOCAL ROAD CONNECTIONS

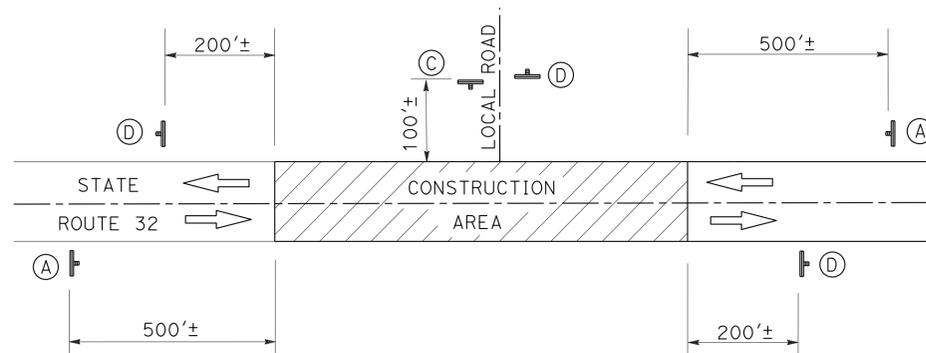
LOCATION	Co-Rte-PM	CONNECTION NAME
SLATE CREEK Br No. 08-0154	Teh-32-20.47	DIRT ROAD, L+

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. UTILITIES HAVE NOT BEEN POSITIVELY LOCATED.

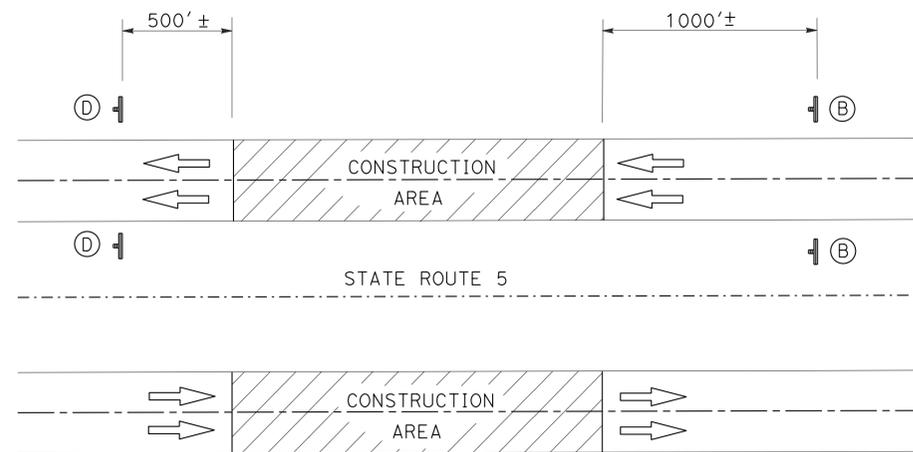
CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

SIGN No.	TYPE	PANEL SIZE INCHES	SIGN MESSAGE	No. OF POSTS AND SIZE	No. OF SIGNS
(A)	W20-1 C23B(CA)	48" x 48" 36" x 18"	ROAD WORK AHEAD BRIDGE MAINTENANCE	1 - 4" x 6"	2
(B)	W20-1 C23B(CA)	48" x 48" 42" x 24"	ROAD WORK AHEAD BRIDGE MAINTENANCE	1 - 4" x 6"	2
(C)	W20-1	48" x 48"	ROAD WORK AHEAD	1 - 4" x 6"	1
(D)	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	5



CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

SLATE CREEK, Br No. 08-0154

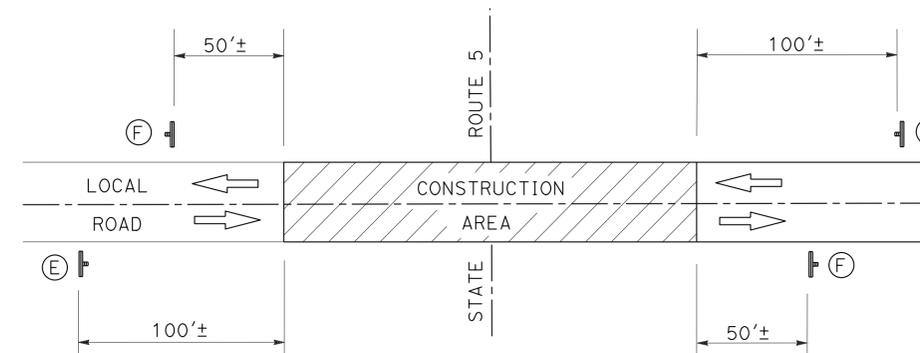


CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

ELDER CREEK, Br No. 08-0084L

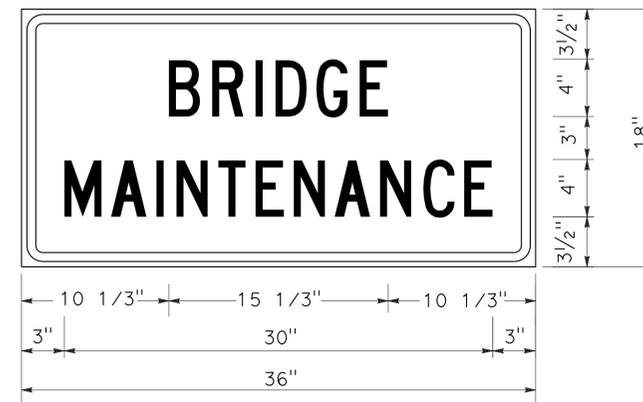
CONSTRUCTION AREA SIGNS (PORTABLE)

SIGN No.	TYPE	PANEL SIZE INCHES	SIGN MESSAGE	No. OF SIGNS
(E)	W20-1	48" x 48"	ROAD WORK AHEAD	4
(F)	G20-2	36" x 18"	END ROAD WORK	4

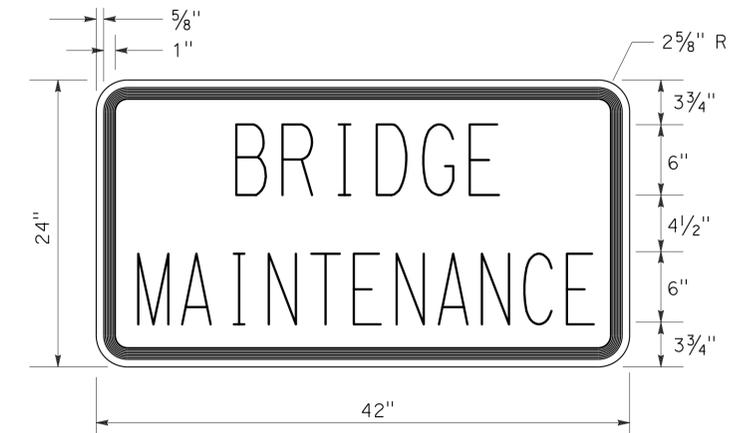


CONSTRUCTION AREA SIGNS (PORTABLE)

VIOLA AVENUE OC, Br No. 08-0121
GYLE ROAD OC, Br No. 08-0116



C23B(CA) SIGN PANEL DETAIL



C23B(CA) SIGN PANEL DETAIL

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

P:\proj\3\02\0h360\plans\pse\20h360\0001.dgn

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE

FUNCTIONAL SUPERVISOR
MICHAEL CONNER

CALCULATED/DESIGNED BY
CHECKED BY

ROY CAHILL
MIKE CONNER

REVISED BY
DATE REVISED

x

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	10	27

Roy & Cahill 10-08-15
 REGISTERED CIVIL ENGINEER DATE
 10-08-15
 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:

1. NEW TRAFFIC STRIPE PATTERN TO MATCH EXISTING TRAFFIC STRIPE PATTERN.
2. REMOVE THERMOPLASTIC TRAFFIC STRIPE QUANTITIES APPLY ONLY TO TRAFFIC STRIPE LOCATED ON BARE BRIDGE DECKS OR BARE STRUCTURE APPROACH SLABS.
3. STRIPING QUANTITIES INCLUDE THE LENGTH OF WORK TO BE PERFORMED ON EACH DECK, STRUCTURE APPROACH SLAB, HMA CONFORM AND APPROXIMATELY 50' BEYOND THE END OF THE WORK.
4. NO RECESSED PAVEMENT MARKERS SHALL BE PLACED ON BRIDGE DECKS OR STRUCTURE APPROACH SLABS.
5. PLACE NEW RUMBLE STRIP AT SAME LOCATION AS EXISTING RUMBLE STRIP WHICH WAS REMOVED DUE TO CONSTRUCTION OF NEW HMA CONFORMS. PLACE RUMBLE STRIP ON AC SURFACES ONLY.

ROADWAY QUANTITIES SUMMARY

Loc	Co	Rte	PM	BRIDGE No.	BRIDGE NAME	PAVEMENT QUANTITIES			SHOULDER BACKING TON	ROADWAY EXCAVATION CY	SHOULDER RUMBLE STRIP (HMA GROUND-IN INDENTATIONS) Sta
						COLD PLANE AC PAVEMENT SQYD	HMA (TYPE A) TON	TACK COAT TON			
1	Teh	5	R6.99	08-0121	VIOLA Ave OC						
2	Teh	5	R13.96	08-0116	GYLE ROAD OC						
3	Teh	5	R16.99	08-0084L	ELDER CREEK	219	38	0.2	11	7	1.0
4	Teh	32	20.47	08-0154	SLATE CREEK	356	62	0.3	29	18	
TOTAL						575	100	0.5	40	25	1.0

PAVEMENT DELINEATION QUANTITIES

Loc	Co	Rte	PM	BRIDGE No.	BRIDGE NAME	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)					PAVEMENT MARKER (RETROREFLECTIVE)			REMOVE THERMOPLASTIC TRAFFIC STRIPE LF	REMOVE PAVEMENT MARKER EA
						DETAIL 12	DETAIL 21	DETAIL 22	DETAIL 25	DETAIL 27B	TYPE D	TYPE G	TYPE H		
						LF	LF	LF	LF	LF	EA	EA	EA		
1	Teh	5	R6.99	08-0121	VIOLA Ave OC		292							384	
2	Teh	5	R13.96	08-0116	GYLE ROAD OC			292		584	26			768	8
3	Teh	5	R16.99	08-0084L	ELDER CREEK	181			181	181		5	5		3
4	Teh	32	20.47	08-0154	SLATE CREEK		256			512				224	
SUBTOTAL						181	548	292	181	1277	26	5	5		
TOTAL						2479					36			1376	11

SUMMARY OF QUANTITIES Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR: MICHAEL CONNER
 ROY CAHILL
 MIKE CONNER
 REVISIONS: REVISOR, DATE, REVISION
 CALCULATED/DESIGNED BY: ROY CAHILL
 CHECKED BY: MIKE CONNER
 REVISOR, DATE, REVISION
 P:\proj\3\02\0h360\plans\pse\20h360pa001.dgn

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	11	27

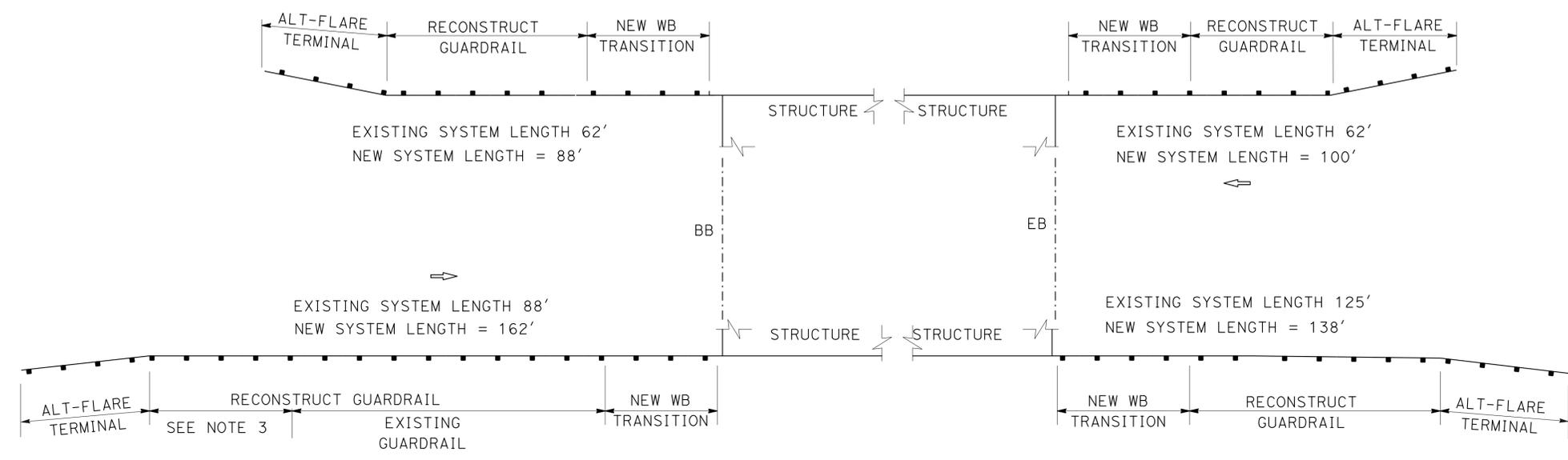
DWIGHT WINTERLIN 10-08-15
 REGISTERED CIVIL ENGINEER DATE
 10-08-15
 PLANS APPROVAL DATE

No. C68438
 Exp. 9-30-15
 CIVIL

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. (N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
2. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. LENGTH OF RECONSTRUCT GUARDRAIL MAY REQUIRE USING GUARDRAIL ELEMENTS FROM OTHER LOCATIONS.



GUARDRAIL WORK DESCRIPTION
DRAWING FOR TYPE OF WORK ONLY

GUARDRAIL QUANTITIES

Loc	Co	Rte	PM	BRIDGE No.	BRIDGE NAME	BRIDGE QUADRANT	REMOVE GUARDRAIL	RECONSTRUCT GUARDRAIL	RECONSTRUCT GUARDRAIL (7' POST)	ALTERNATIVE FLARED TERMINAL SYSTEM	TRANSITION RAILING (TYPE WB)	OBJECT MARKER (TYPE L-1)	(N) LAYOUT TYPE	TREATED WOOD WASTE	(N) EXISTING LENGTH GUARDRAIL	(N) NEW LENGTH GUARDRAIL	
							LF	LF	LF	EA	EA	EA	LB	LF	LF		
4	Teh	32	20.47	08-0154	SLATE CREEK	BB	L+	38	25		1	1		4740	62	88	
							R+	0	100 *		1	1	2		12B	88	162
						EB	L+	25	38		1	1	2		12B	62	100
							R+	50	62	12	1	1	12BB		125	138	
TOTAL							113	225	12	4	4	4	4740				

* SEE NOTE 3

SUMMARY OF QUANTITIES
Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAFFIC
 FUNCTIONAL SUPERVISOR: KRISTI WESTOBY
 CALCULATED/DESIGNED BY: DWIGHT WINTERLIN
 CHECKED BY: ROY CAHILL
 REVISED BY: DATE REVISED:

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

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

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

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	12	27

Grace M. Tsushima
REGISTERED CIVIL ENGINEER



July 19, 2013
PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 10-08-15

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	13	27

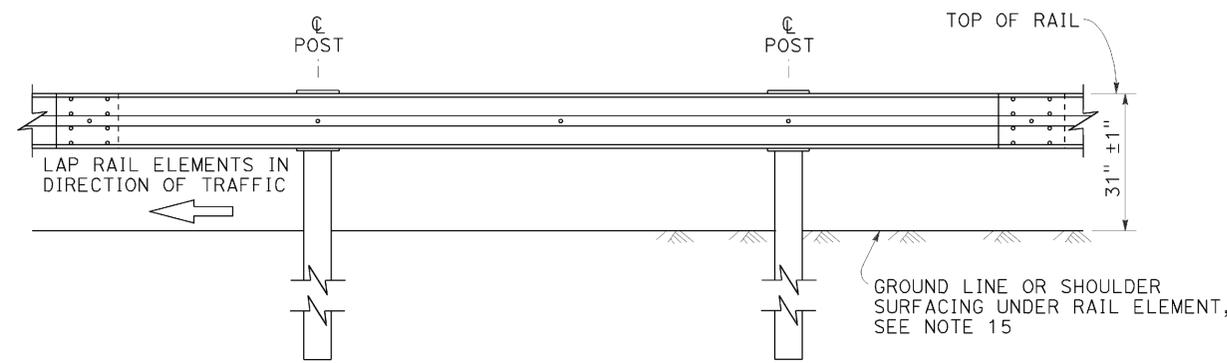
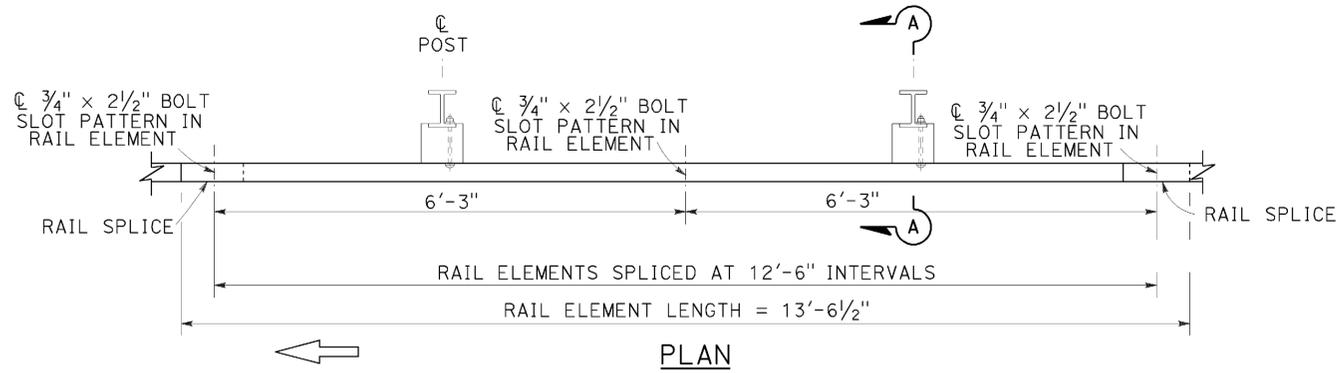
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

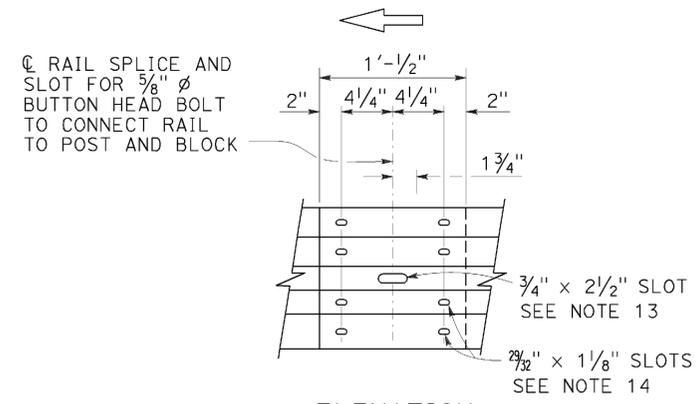
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 10-08-15

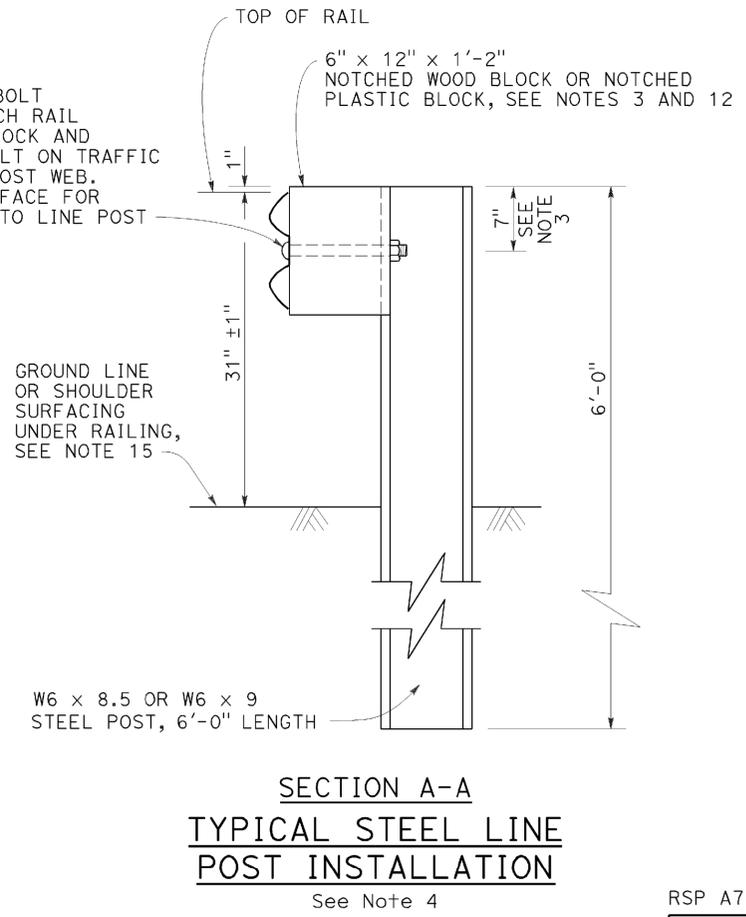
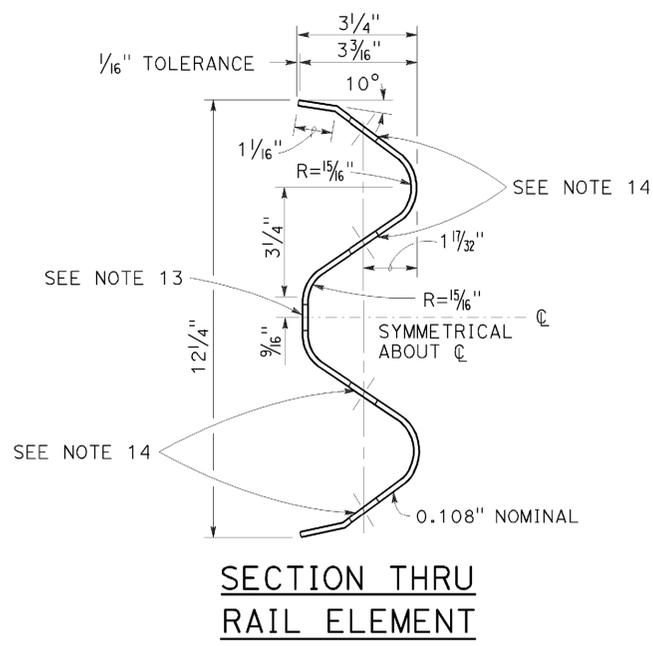
2010 REVISED STANDARD PLAN RSP A77L2



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



- Connect the overlapped end of the rail elements with 5/8" ϕ x 1 3/8" button head oval shoulder splice bolts inserted into the 2 7/32" x 1 1/8" slots and bolted together with 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.



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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	14	27

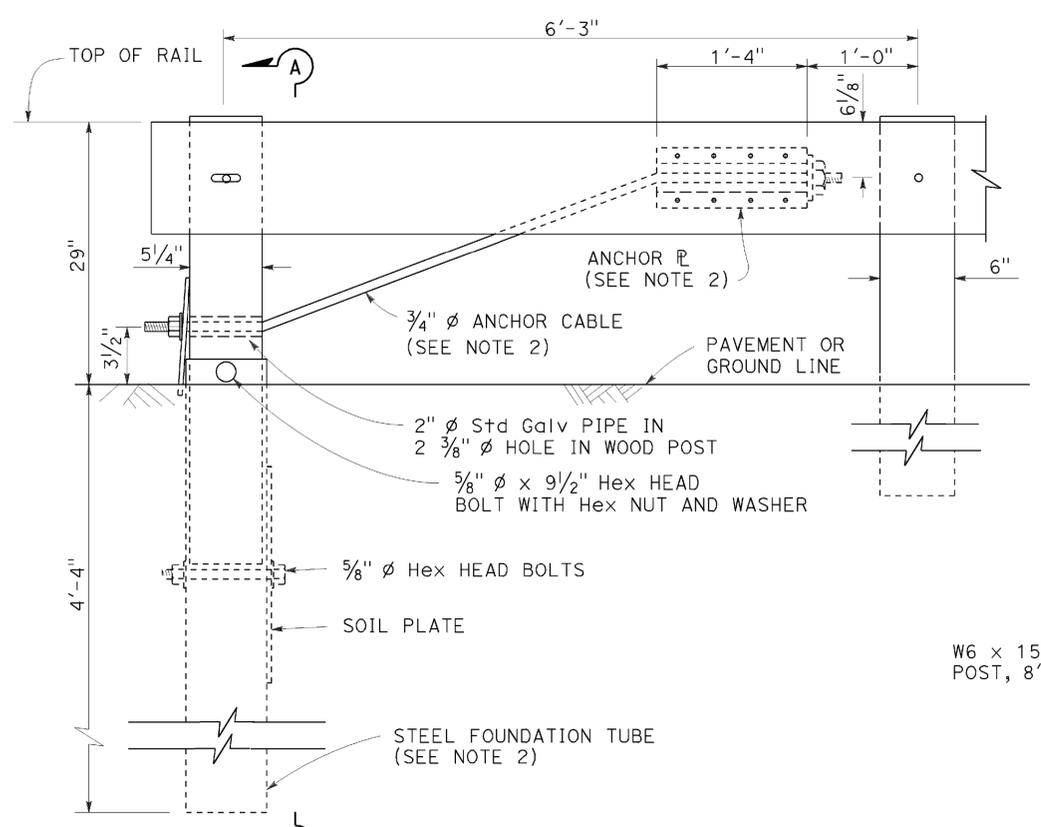
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

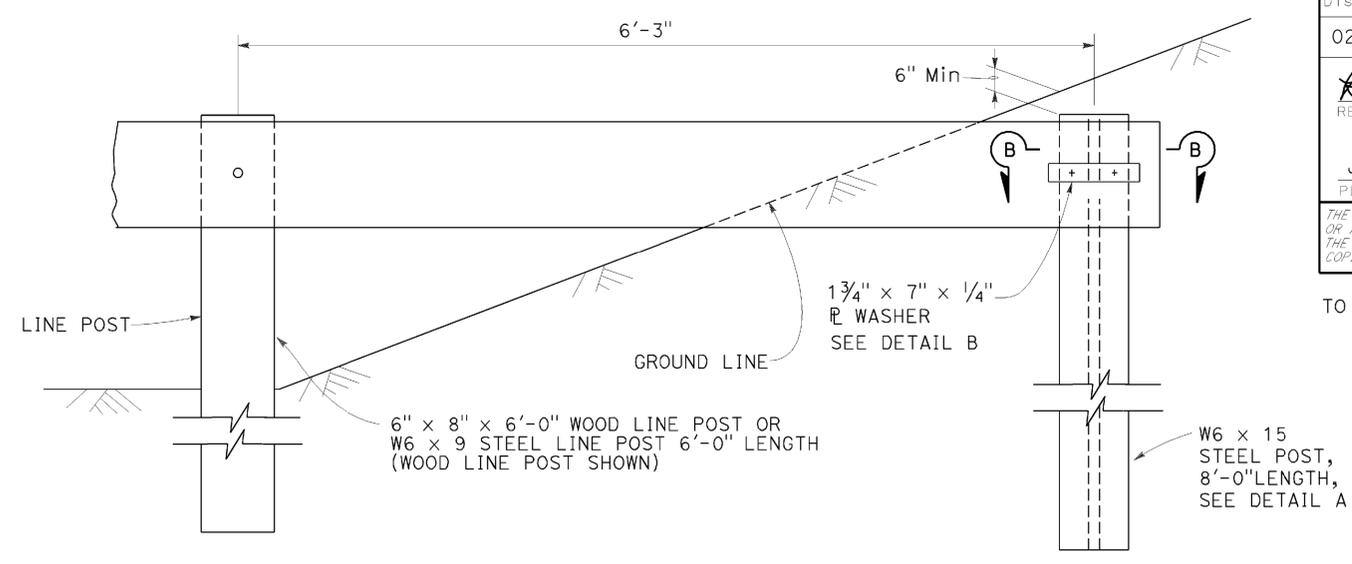
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 10-08-15

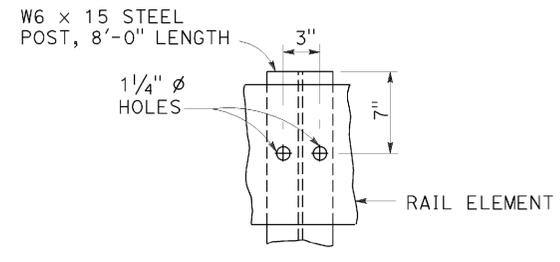
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA



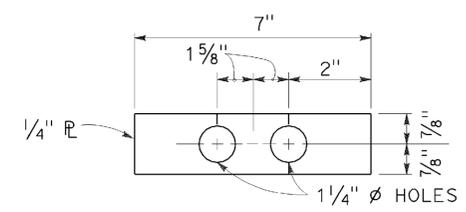
**ELEVATION
END ANCHOR
ASSEMBLY (TYPE SFT)**



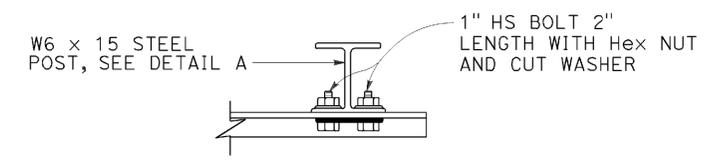
BURIED POST END ANCHOR



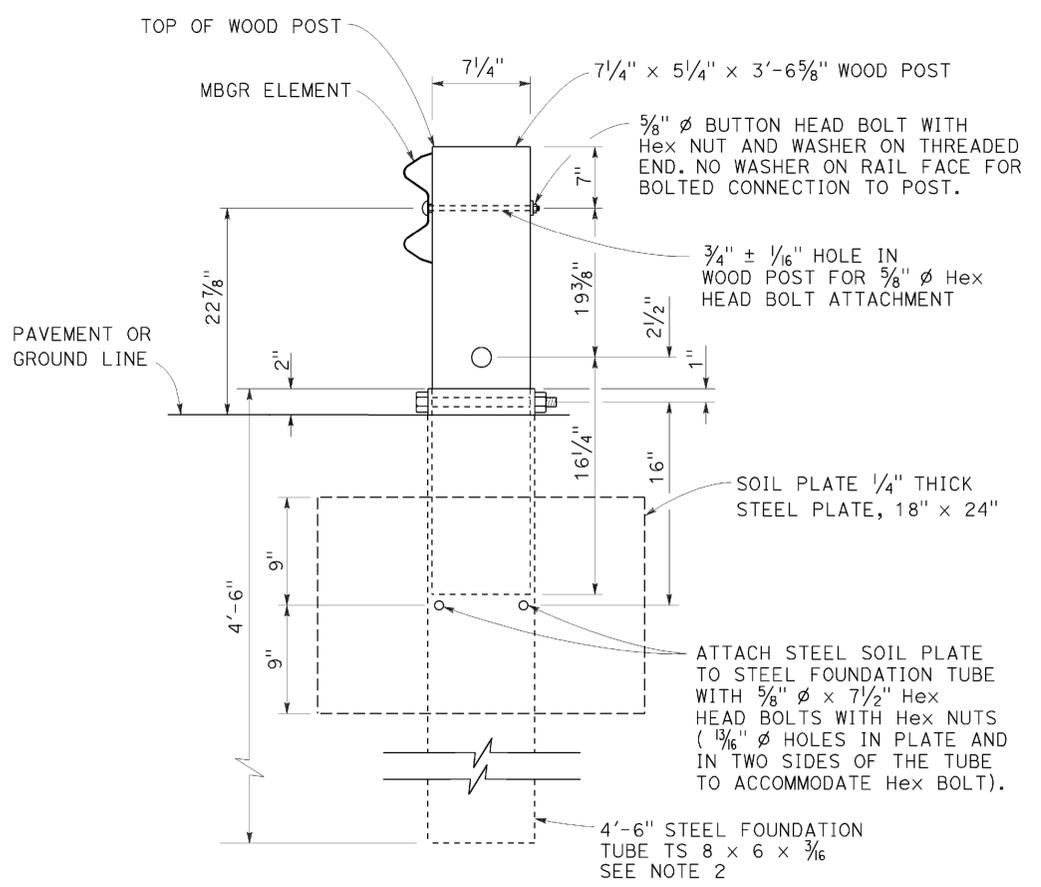
DETAIL A



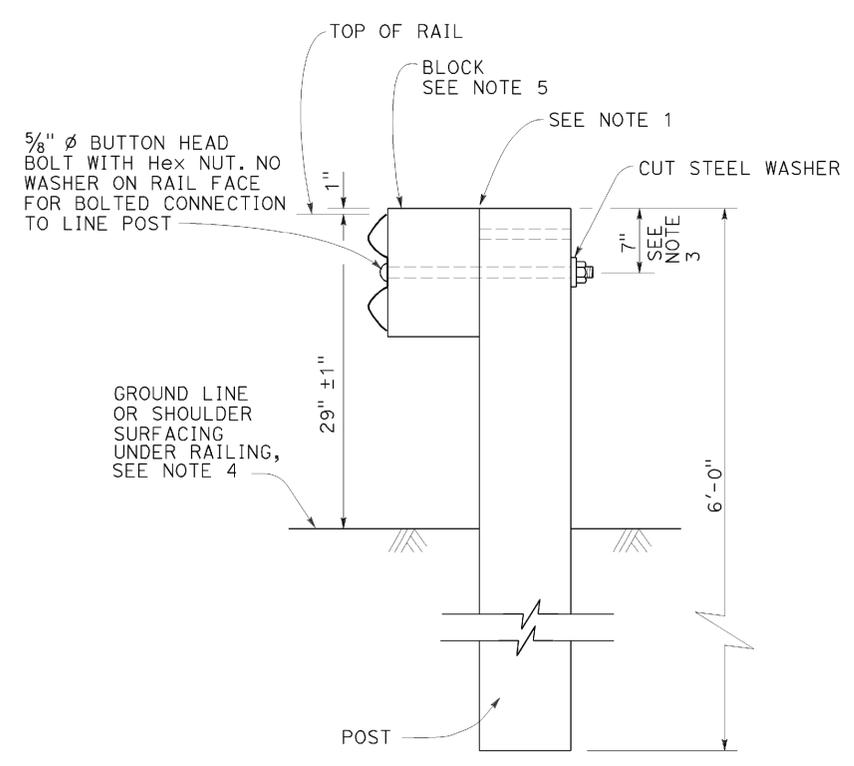
DETAIL B



SECTION B-B



SECTION A-A



**TYPICAL LINE
POST INSTALLATION**

NOTES:

1. For wood post and wood block, toenail with 2-16d Galv nails in top of block. For steel post and notched wood or plastic block, notched face of block faces steel post.
2. A 6'-0" Length steel foundation tube, TS 8 x 6 x 3/16, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 5/8" diameter hex head bolt and nut shall be installed in the hole in the 6'-0" length tube to keep the wood post from dropping into the tube.
3. To connect railing to 27" terminal system end treatment, transition the top of railing height at a ratio of 120:1 to terminal system end treatment height plus one 12'-6" standard railing section at the transitioned height for a horizontal connection to the end treatment.
4. Install posts in soil.
5. See Revised Standard Plans RSP A77N1 and RSP A77N2 for details.
6. Holes excavation in the slope to construct the buried post end anchor shall be backfilled with selected earth, placed in layers approximately 1'-0" thick. Each layer shall be moistened and thoroughly compacted.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

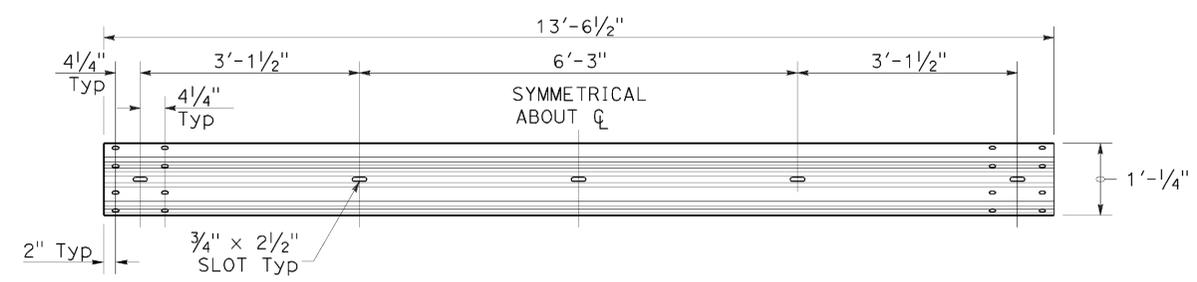
**METAL BEAM GUARD RAILING
RECONSTRUCT INSTALLATION**

NO SCALE

RSP A77L3 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L3

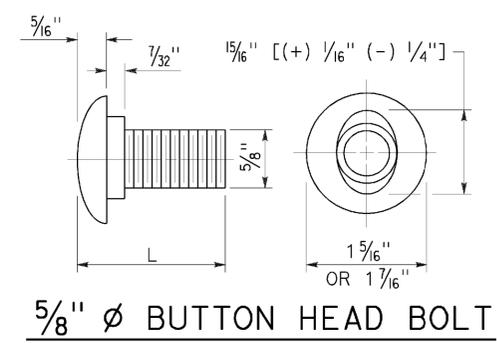
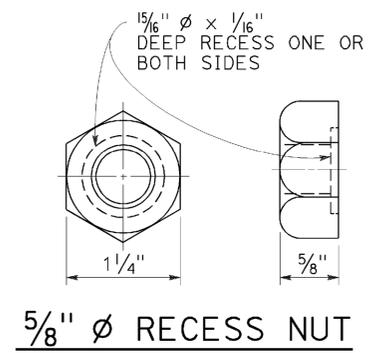
TO ACCOMPANY PLANS DATED 10-08-15



TYPICAL RAIL ELEMENT

NOTE:

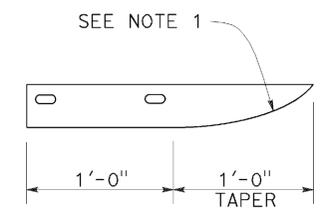
1. Slotted holes for splice bolts to overlap ends of rail element.



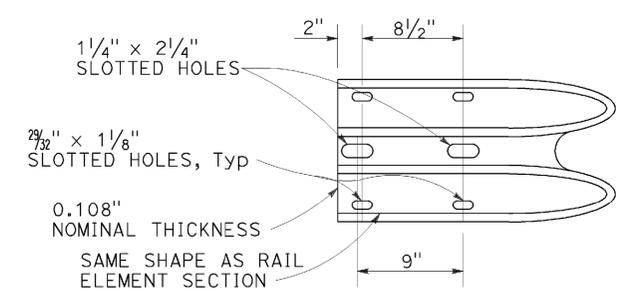
BUTTON HEAD BOLT

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.



PLAN



ELEVATION
END CAP
(TYPE A)

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	Teh	5,32	Var	16	27

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.

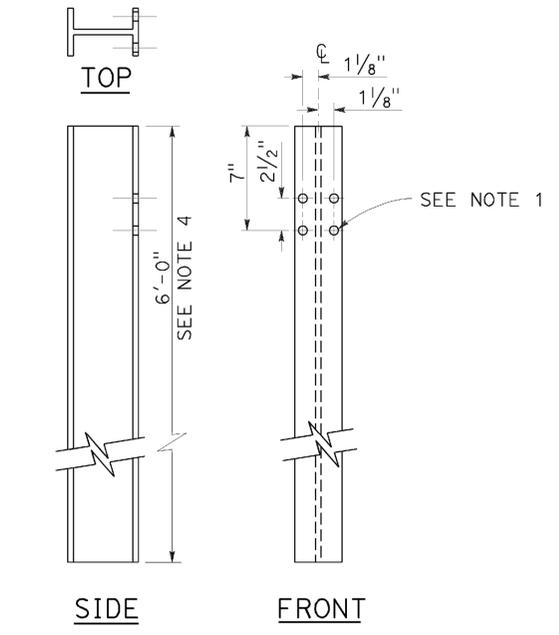
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 10-08-15

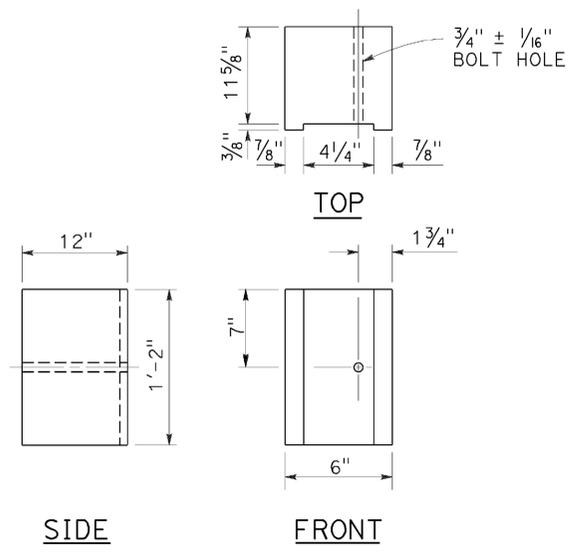
NOTES:

1. All holes in steel post shall be 1 3/8" 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.

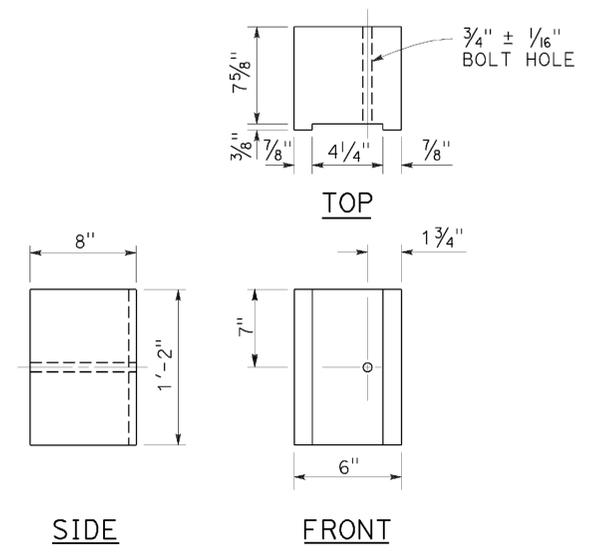
2010 REVISED STANDARD PLAN RSP A77N2



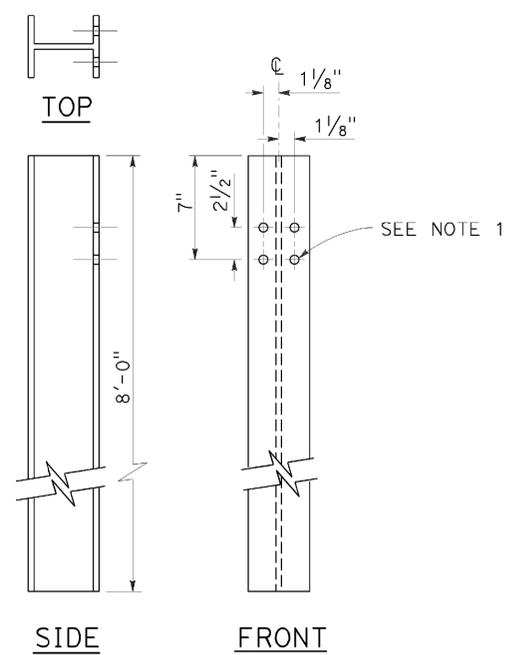
**W6 x 9 OR W6 x 8.5
STEEL POST**
See Note 4



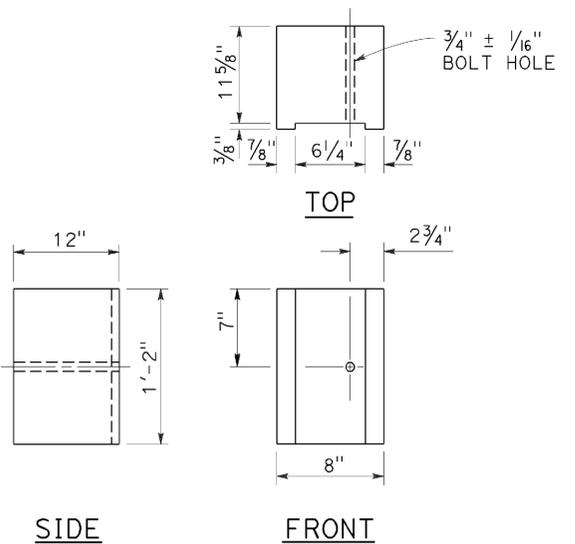
**6" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



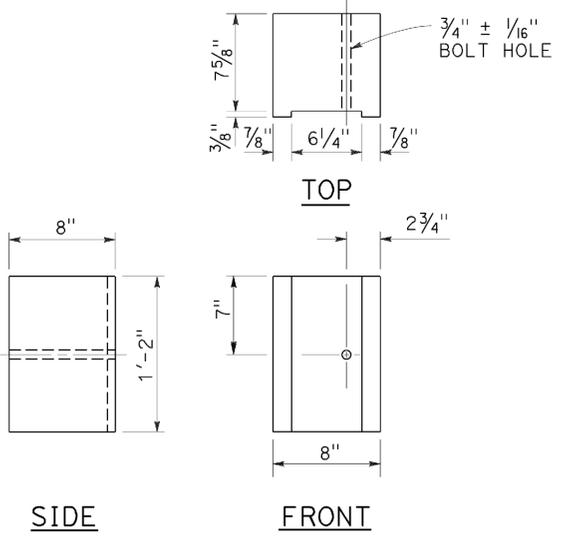
**6" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5



**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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	17	27

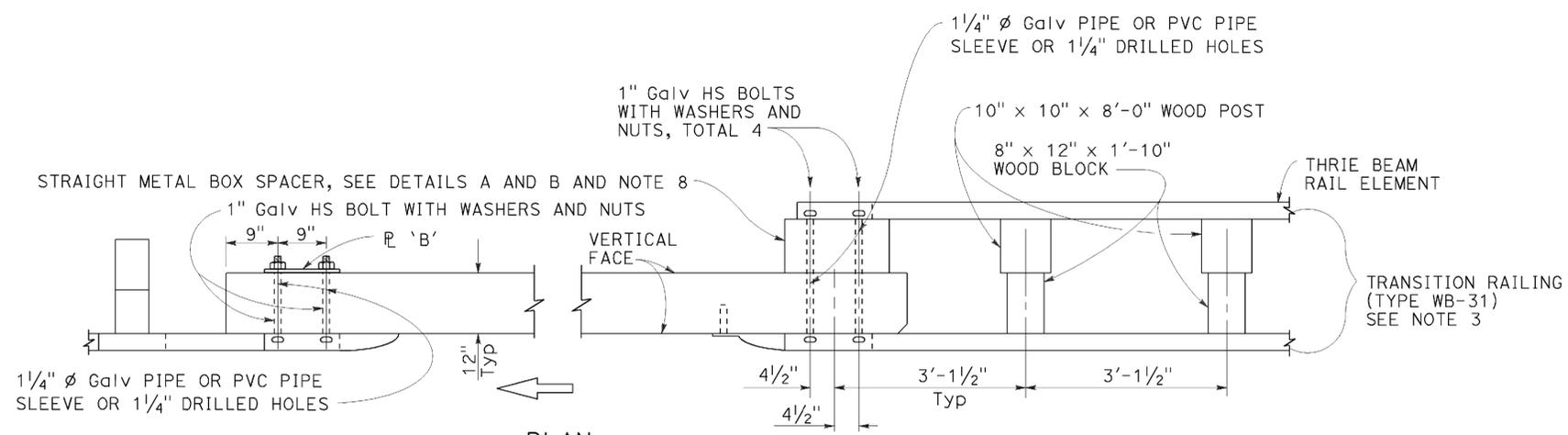
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

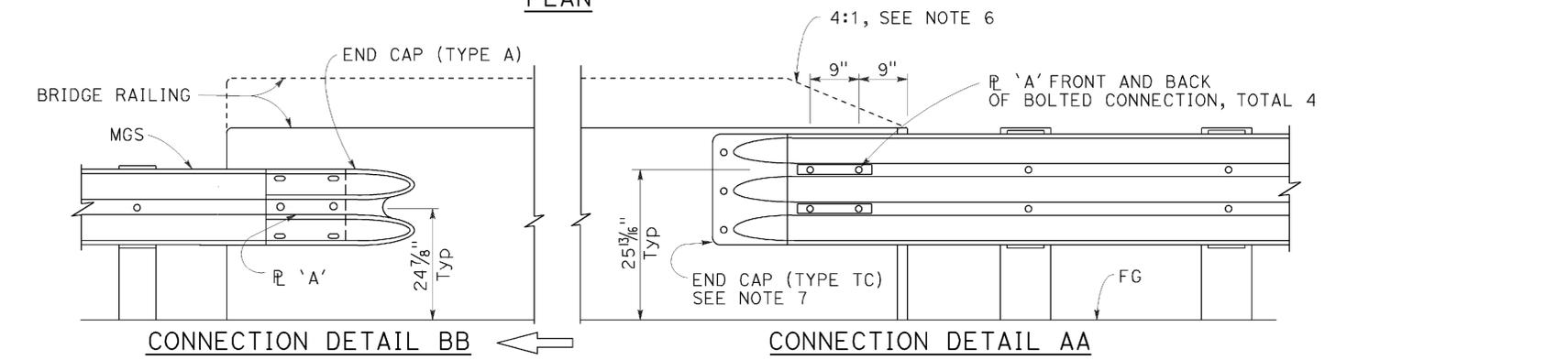
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

TO ACCOMPANY PLANS DATED 10-08-15



PLAN

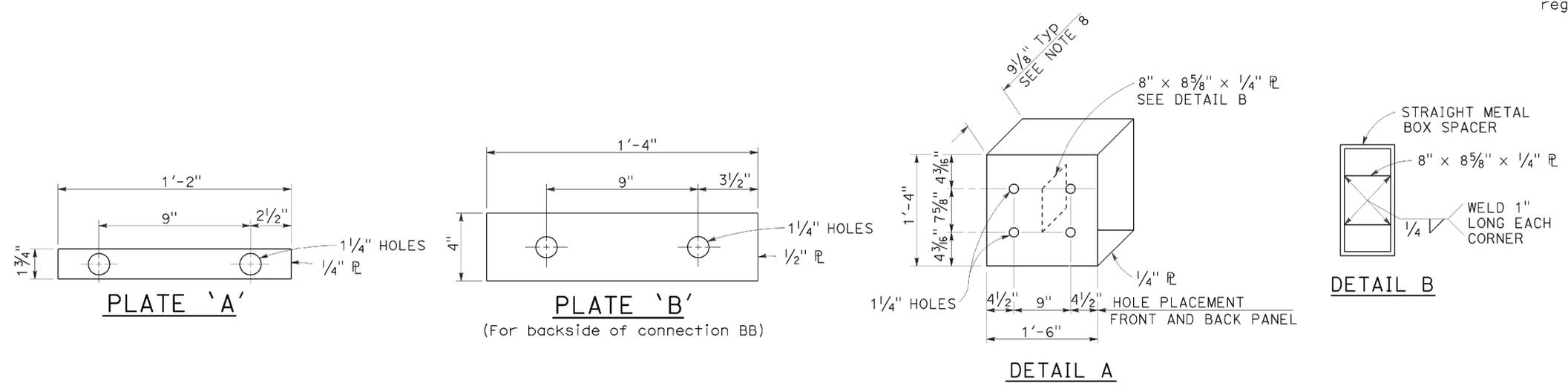


ELEVATION

MIDWEST GUARDRAIL SYSTEM CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK

NOTES:

1. See Revised Standard Plan RSP A77U2 for additional connection details to bridges without sidewalks.
2. Additional details of posts, blocks and hardware are shown on Revised Standard Plans RSP A77M1, RSP A77N1 and RSP A77N2.
3. For additional details of Transition Railing (Type WB-31), see Revised Standard Plan RSP A77U4. Transition Railing (Type WB-31) transitions the 12 gauge MGS railing section to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
4. For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77Q1, Layout Types 12C and 12D on Revised Standard Plan RSP A77Q2, and Layout Type 12E on Revised Standard Plan RSP A77Q3.
5. For typical use of Connection Detail BB, see Layout Type 12D (structure departure railing connection) on Revised Standard Plan RSP A77Q2 and Layout Type 12DD on Revised Standard Plan RSP A77Q5.
6. Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail.
7. For details of End Cap (Type TC), see Revised Standard Plan RSP A77U4.
8. See Revised Standard Plan RSP A77U4 for additional details regarding depth dimension for straight metal box spacer.



STRAIGHT METAL BOX SPACER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
MIDWEST GUARDRAIL SYSTEM CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS
DETAILS No. 1

NO SCALE

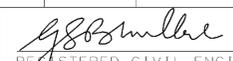
RSP A77U1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

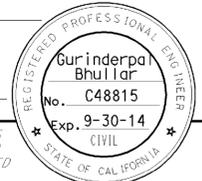
REVISED STANDARD PLAN RSP A77U1

2010 REVISED STANDARD PLAN RSP A77U1

DATE PLOTTED => 12-OCT-2015
TIME PLOTTED => 09:16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	18	27


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE



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

TO ACCOMPANY PLANS DATED 10-08-15

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	Teh	5,32	Var	19	27

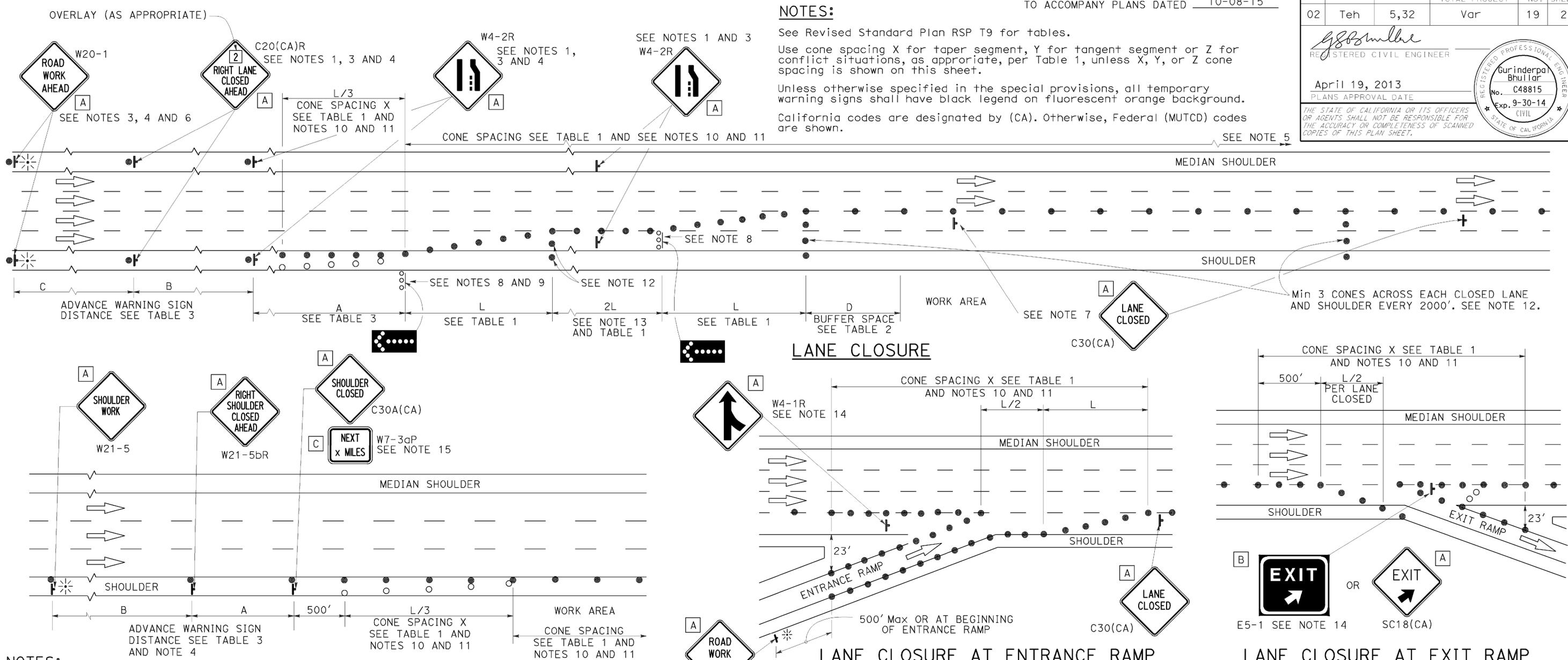
REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 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:

See Revised Standard Plan RSP T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
 California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



NOTES:

1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
 - a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

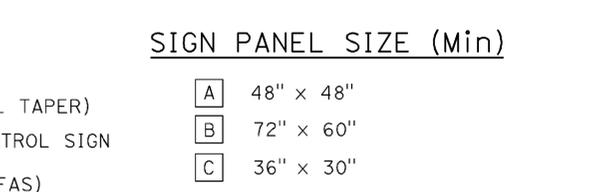
SHOULDER CLOSURE

6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

LANE CLOSURE AT ENTRANCE RAMP

12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
15. A W7-3aP "NEXT _____ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

LANE CLOSURE AT EXIT RAMP



LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⬢ FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 72" x 60"
- C 36" x 30"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 FREEWAYS AND EXPRESSWAYS**
 NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10
 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	20	27

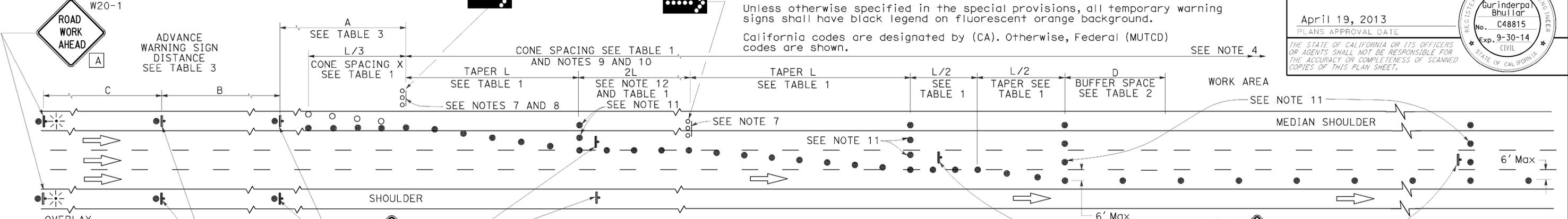
REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 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.

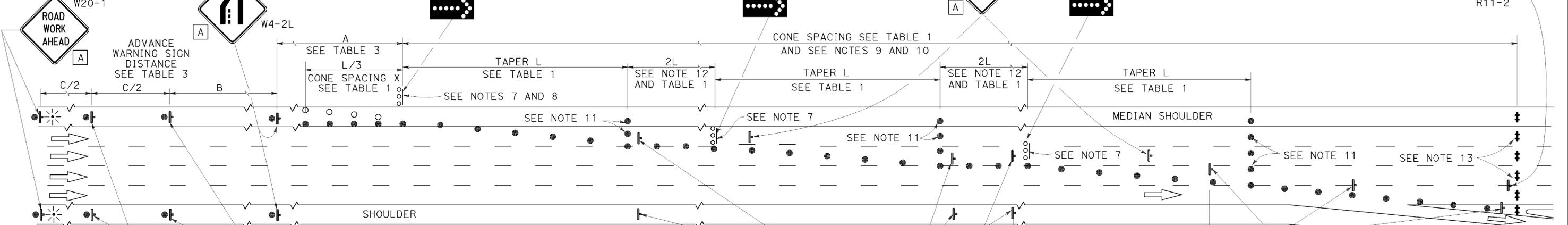
NOTES: See Revised Standard Plan RSP T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
 California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

SEE NOTES 3 AND 5



LANE CLOSURE WITH PARTIAL SHOULDER USE

SEE NOTES 3 AND 5



COMPLETE CLOSURE

NOTES:

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT ___ MILES", use a C20(CA) sign for the first advance warning sign.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 18"
- C 48" x 30"

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURES ON
 FREEWAYS AND EXPRESSWAYS**
 NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5,32	Var	21	27

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

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:

See Revised Standard Plan RSP T9 for tables.

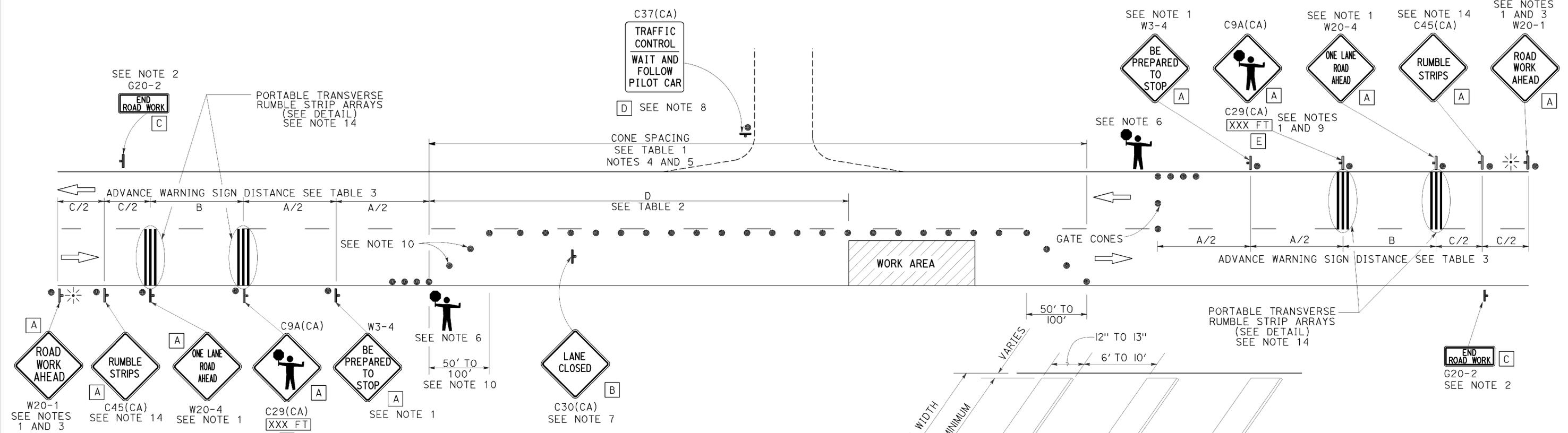
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

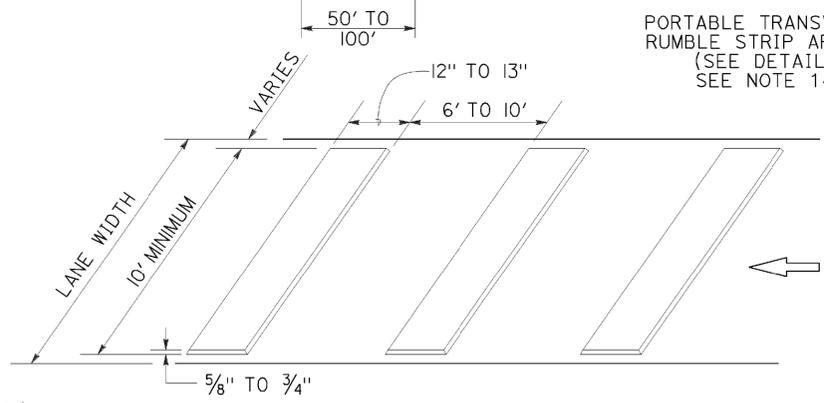
TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 10-08-15



- 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



SIGN PANEL SIZE (Min)

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

LEGEND

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

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5, 32	Var	22	27

NOTE: (APPLY TO ALL SHEETS)

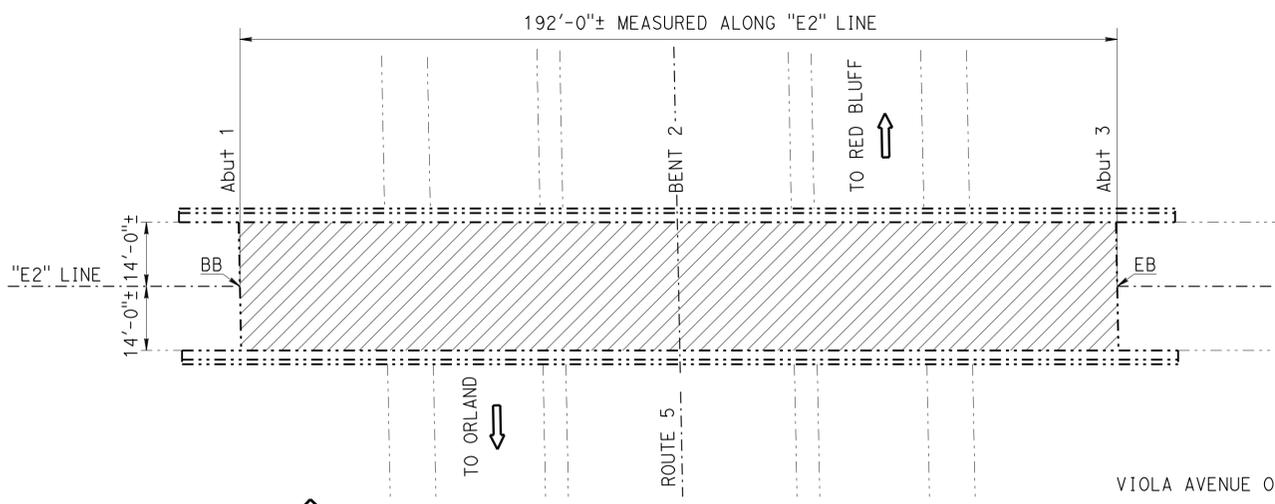
----- Indicates existing.

Tim Campbell 6-30-15
 REGISTERED CIVIL ENGINEER DATE

10-08-15
 PLANS APPROVAL DATE

TIM CAMPBELL
 No. 63268
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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



VIOLA AVENUE OVERCROSSING

Br. No. 08-0121, ROUTE 5, Teh, PM R6.99
 1" = 20'

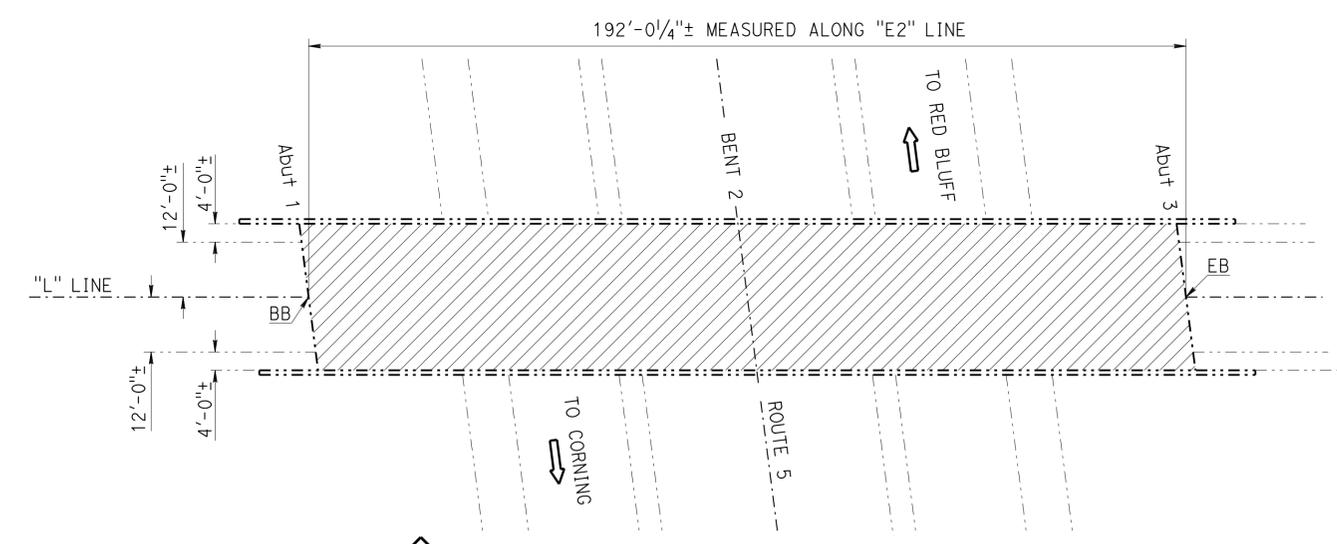
VIOLA AVENUE OVERCROSSING BRIDGE NO. 08-0121

QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	5,376 SQFT
TREAT BRIDGE DECK	5,376 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	60 GAL

NOTES: (APPLY TO THIS SHEET ONLY)

Indicates limits of prepare concrete bridge deck surface and treat bridge deck with methacrylate.



GYLE ROAD OVERCROSSING

Br. No. 08-0116, ROUTE 5, Teh, PM R13.96
 1" = 20'

GYLE ROAD OVERCROSSING BRIDGE NO. 08-0116

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	6,145 SQFT
TREAT BRIDGE DECK	6,145 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	68 GAL

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	JOINT SEAL DETAILS
5	STRUCTURE APPROACH TYPE R(30D) MODIFIED
6	THRIE BEAM CONNECTION - TYPE 25

STANDARD PLANS 2010

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
RSP A77U1	MIDWEST GUARDRAIL SYSTEM CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS No. 1
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

NOTE:
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

Matthew W. Lee 6-30-15
 DESIGN ENGINEER

DESIGN	BY T. Campbell	CHECKED D. Acoba	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Dale Kubochi	CHECKED D. Acoba	LAYOUT	BY Dale Kubochi
QUANTITIES	BY T. Campbell	CHECKED D. Acoba	SPECIFICATIONS	BY Laura Rubalcaba

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

**ROUTE 5 & 32 BRIDGES
 GENERAL PLAN NO. 1**

USERNAME => s115152 DATE PLOTTED => 12-OCT-2015 TIME PLOTTED => 09:18

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5, 32	Var	23	27

Tim Campbell 6-30-15
 REGISTERED CIVIL ENGINEER DATE

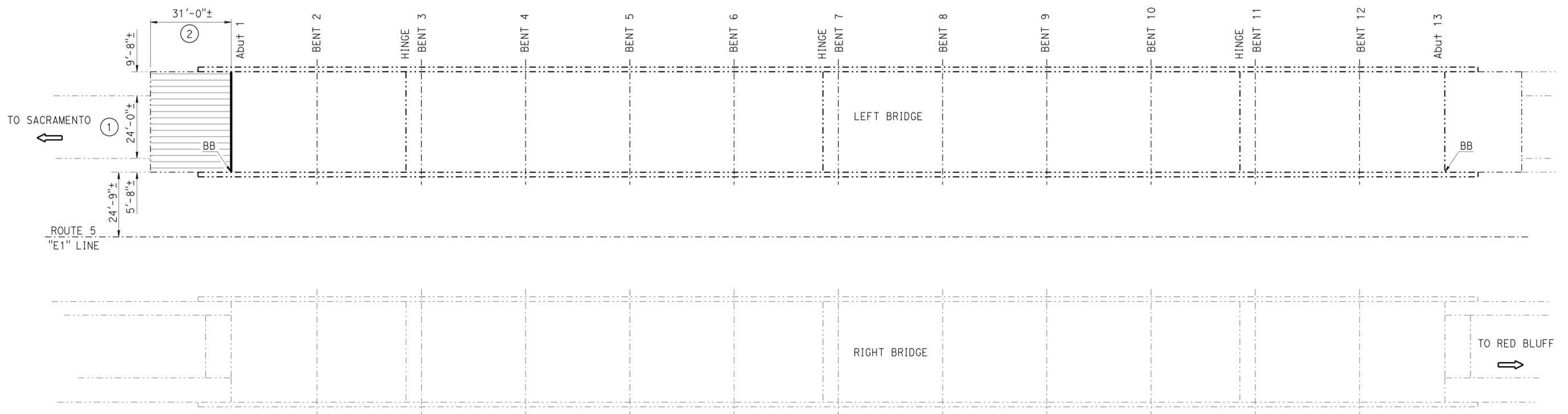
10-08-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 TIM CAMPBELL
 No. 63268
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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

NOTES: (APPLY TO THIS SHEET ONLY)

-  Indicates limits of construct new approach slab. For details, see "STRUCTURE APPROACH TYPE R(30D) MODIFIED" sheet.
-  Indicates location of install new joint seal. For details, see "JOINT SEAL DETAILS" sheet.
- ① For approach roadway taper, see "Roadway Plans".
- ② Indicates limits of existing approach slab.




 ELDER CREEK
 Br. No. 08-0084L, ROUTE 5, Teh, PM R16.99
 1" = 20'

ELDER CREEK	BRIDGE NO. 08-0084L
QUANTITIES	
AGGREGATE BASE (APPROACH SLAB)	15 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R) MODIFIED	60 CY
PAVING NOTCH EXTENSION	30 CF
JOINT SEAL (MR 1")	40 LF

NOTE:
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.


 DESIGN ENGINEER 6-30-15

DESIGN	BY T. Campbell	CHECKED D. Acoba	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Dale Kubochi	CHECKED D. Acoba	LAYOUT	BY Dale Kubochi
QUANTITIES	BY T. Campbell	CHECKED D. Acoba	SPECIFICATIONS	BY Laura Rubalcaba

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 5 & 32 BRIDGES
GENERAL PLAN NO. 2

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3488
 PROJECT NUMBER & PHASE: 0215000057

CONTRACT NO.: 02-0H3601

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
1-27-15 6-29-15	2	6

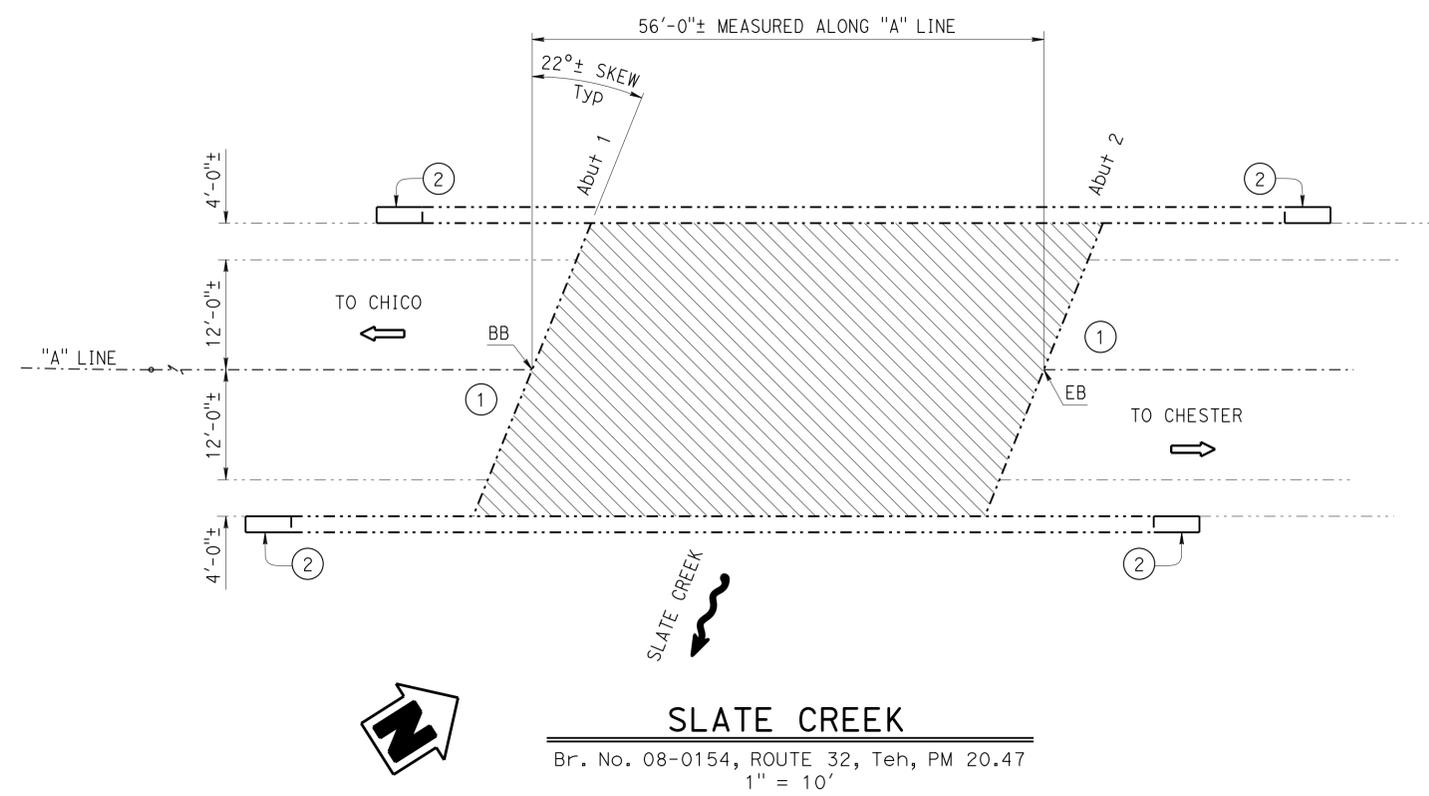
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5, 32	Var	24	27

Tim Campbell 6-30-15
 REGISTERED CIVIL ENGINEER DATE

10-08-15
 PLANS APPROVAL DATE

No. 63268
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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



- NOTES: (APPLY TO THIS SHEET ONLY)
- Indicates limits of prepare concrete bridge deck surface, furnish and place new 1" minimum depth polyester concrete overlay. Prior to placing new polyester concrete overlay, remove unsound concrete, place galvanic anodes and patch with rapid setting concrete as shown on the "Deck Repair Detail - Overlay" on "JOINT SEAL DETAILS" sheet.
 - ① For approach roadway taper, see "ROADWAY PLANS".
 - ② For "Concrete Barrier (Transition) Details", see "THRIE BEAM CONNECTION - TYPE 25" sheet.

SLATE CREEK
 Br. No. 08-0154, ROUTE 32, Teh, PM 20.47
 1" = 10'

SLATE CREEK	BRIDGE NO. 08-0154
QUANTITIES	
RAPID SETTING CONCRETE (PATCH)	5 CF
REMOVE UNSOUND CONCRETE	5 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	1,792 SQFT
FURNISH POLYESTER CONCRETE OVERLAY	179 CF
PLACE POLYESTER CONCRETE OVERLAY	1,792 SQFT
GALVANIC ANODE	18 EA
CONCRETE BARRIER (TRANSITION)	25 LF

NOTE:
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN ENGINEER 6-30-15

DESIGN	BY T. Campbell	CHECKED D. Acoba	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Dale Kubochi	CHECKED D. Acoba	LAYOUT	BY Dale Kubochi
QUANTITIES	BY T. Campbell	CHECKED D. Acoba	SPECIFICATIONS	BY Laura Rubalcaba

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

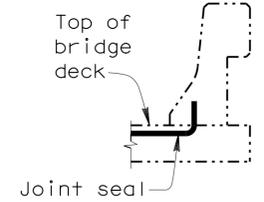
BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 5 & 32 BRIDGES
GENERAL PLAN NO. 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5, 32	Var	25	27

Tim Campbell 6-30-15
 REGISTERED CIVIL ENGINEER DATE
 10-08-15
 PLANS APPROVAL DATE
 No. 63268
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

JOINT SEAL TABLE							
BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (INCHES)	APPROXIMATE LENGTH (FEET)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)
ELDER CREEK	08-0084L	* Abut 1	BB	1	40	NO	-



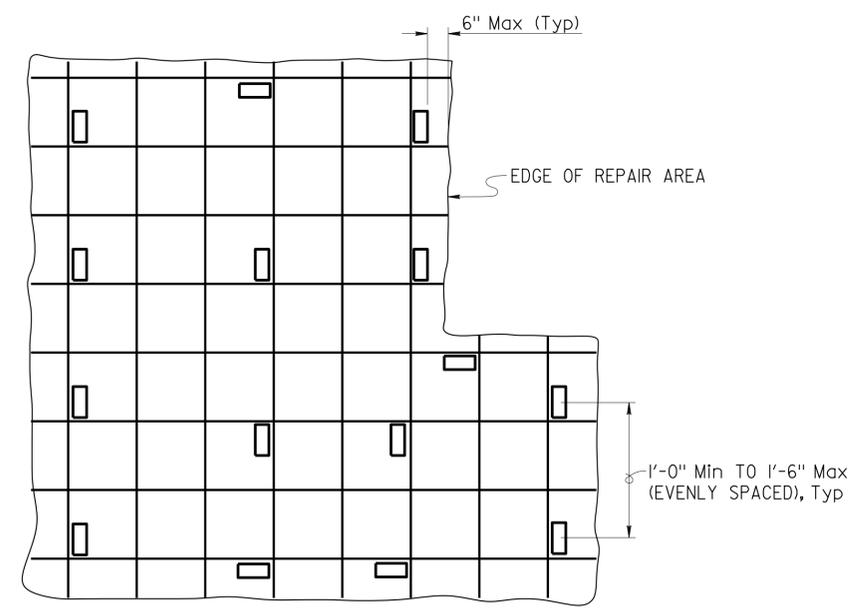
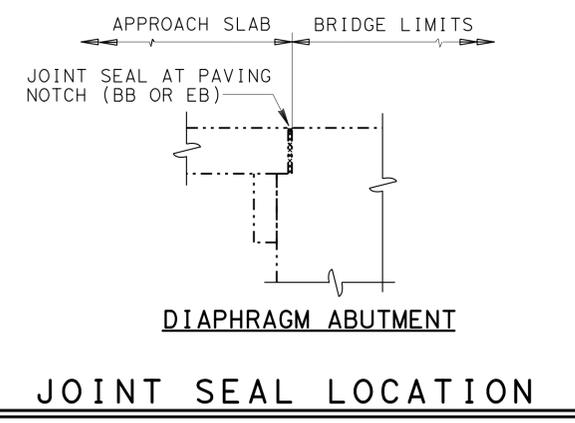
BARRIER RAIL
JOINT SEAL AT LOW SIDE OF DECK

Notes: Details shown for illustration purposes only. For use only where deck joint matches the sidewalk, curb or barrier rail joint.

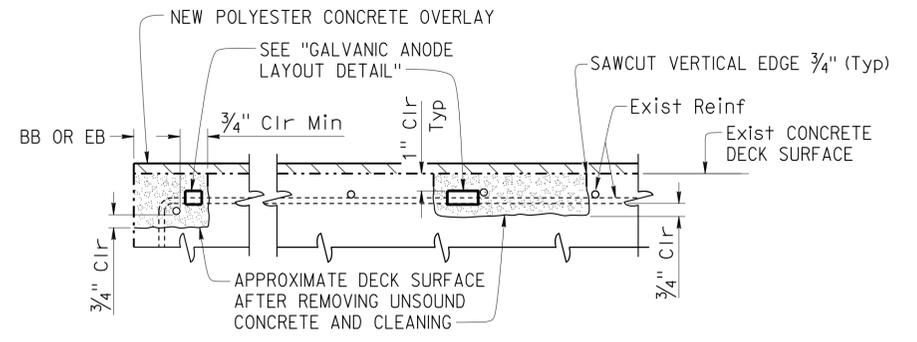
- The following notes apply to JOINT SEAL TYPE B:
- Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
 - Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be calculated by the Engineer.
 - W1 must be the smaller of the values determined as follows:
 - 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
 - The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.
 - Bend Type B joint seal 6" up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.
 - For details not shown, see B6-21

DECK REPAIR TABLE REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)				
BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH (INCHES)	APPROXIMATE NUMBER OF GALVANIC ANODES
SLATE CREEK	08-0154	1	3	18

Locations to be determined by the Engineer. For details see "Deck Repair Detail - Overlay".



GALVANIC ANODE LAYOUT DETAIL
Note: All galvanic anodes shall be installed with embedding mortar.



DECK REPAIR DETAIL - OVERLAY
Note: Locations to be determined by the Engineer. Reinforcement may be encountered during deck concrete removal.

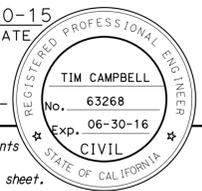
NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY T. Campbell	CHECKED D. Acoba	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 5 & 32 BRIDGES JOINT SEAL DETAILS
DETAILS	BY Dale Kubochi	CHECKED D. Acoba			VARIOUS	
QUANTITIES	BY T. Campbell	CHECKED D. Acoba			VARIES	

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT: 3488 PROJECT NUMBER & PHASE: 0215000057 CONTRACT NO.: 02-0H3601 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 1-24-15, 6-22-15 SHEET 4 OF 6
 FILE => 02-0h3601-j-jt-det.dgn

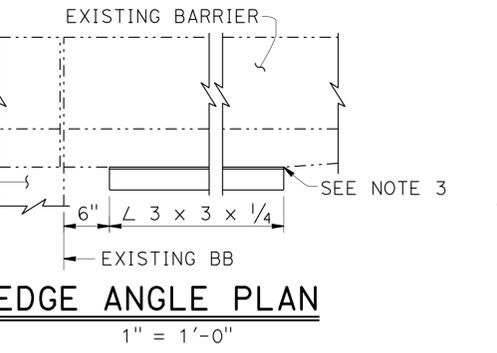
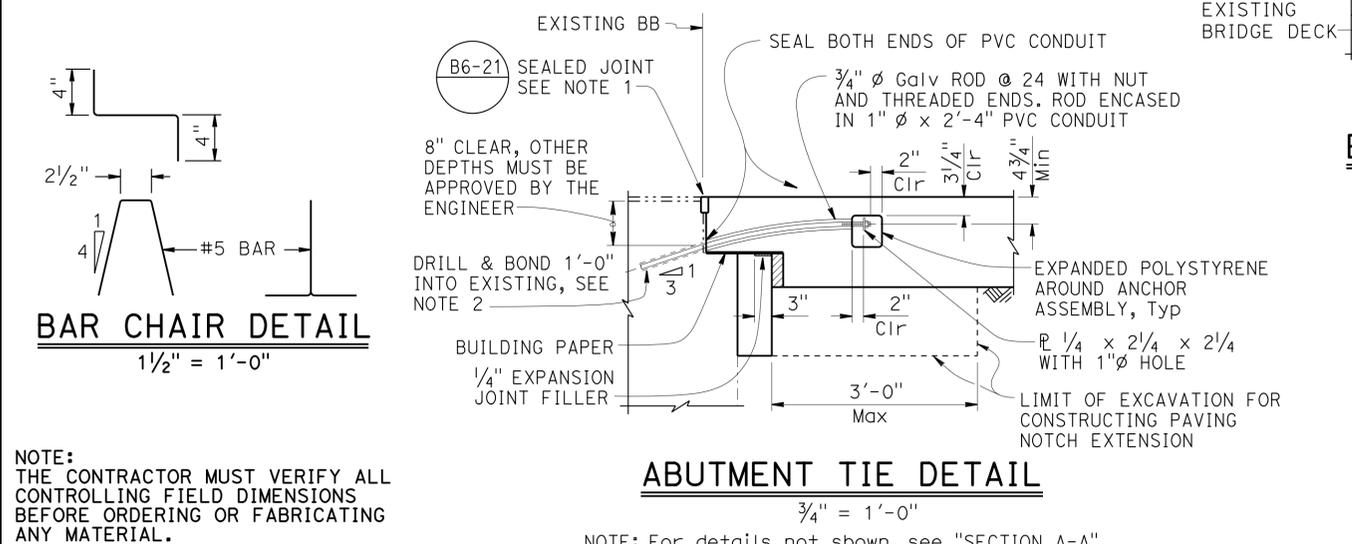
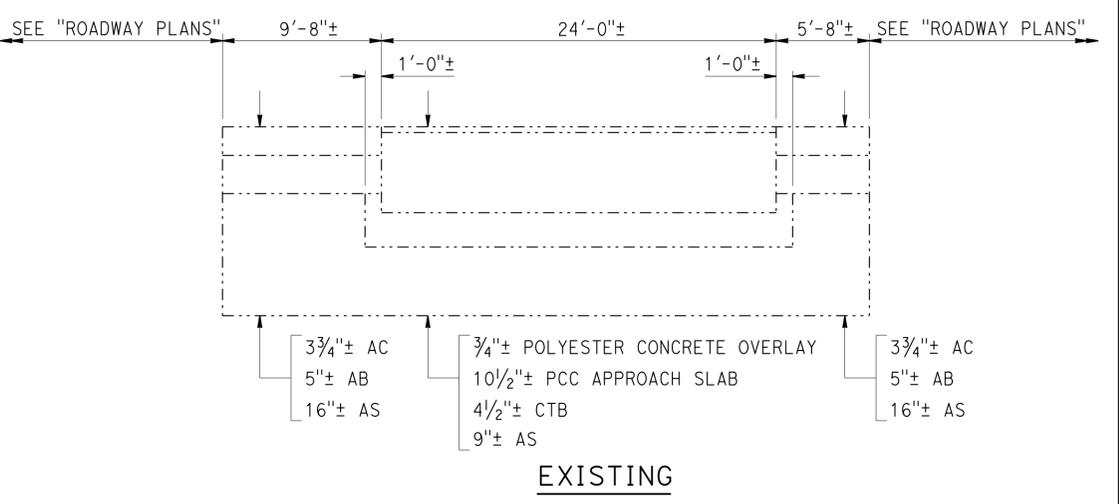
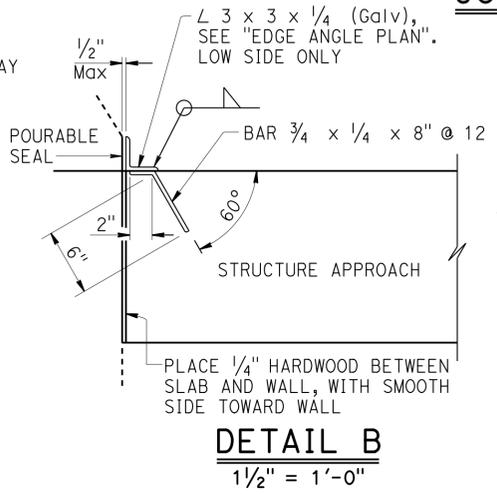
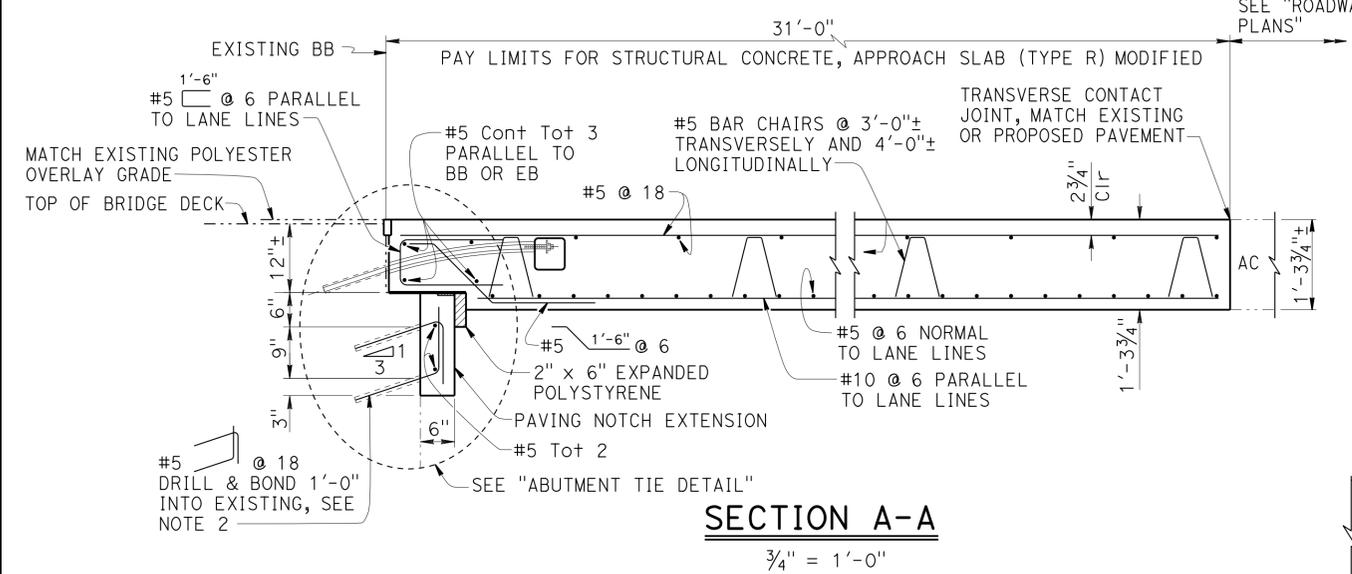
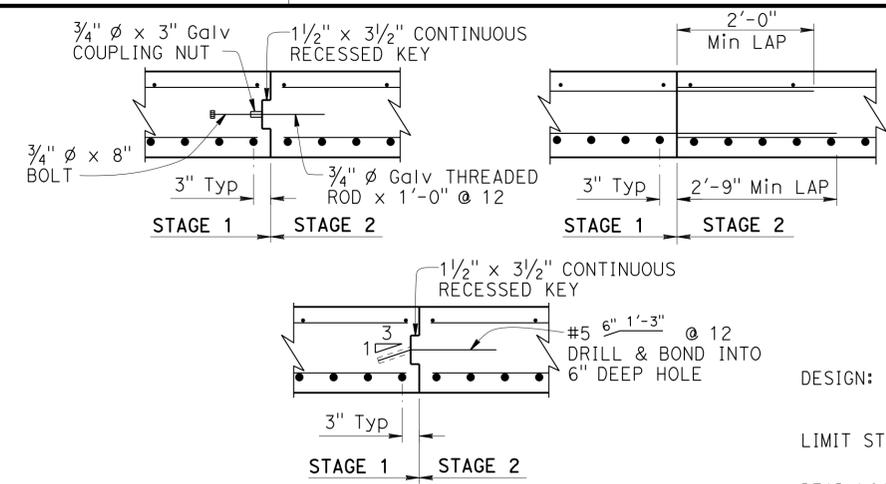
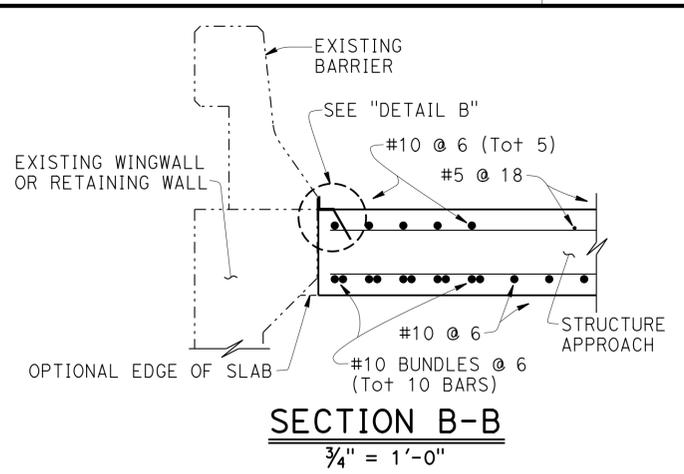
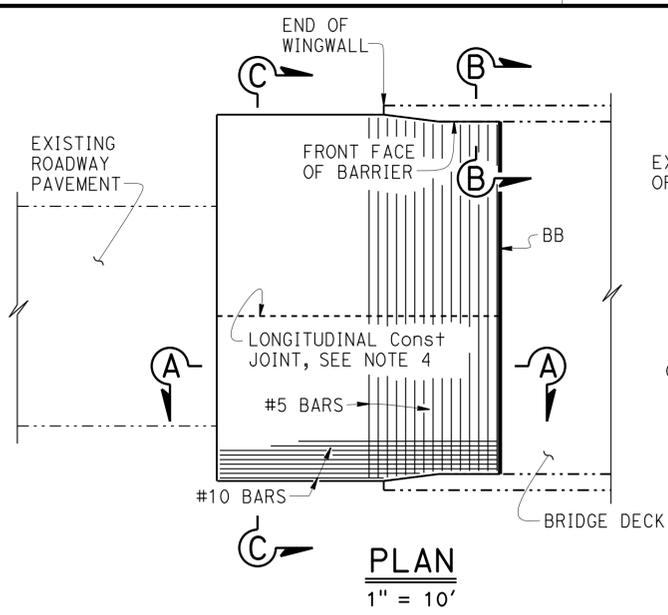
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5, 32	Var	26	27

6-30-15
 REGISTERED CIVIL ENGINEER DATE
 10-08-15
 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.



DESIGN NOTES

DESIGN: AASHTO LRFD Bridge Design Specifications, 2012 Edition with Caltrans Amendments, preface dated January 2014
 LIMIT STATES: Service I, Strength I & II, Extreme II and Fatigue I ($\gamma_{FAT} = 1.0$)
 DEAD LOAD: Includes 35 psf for future wearing surface
 LIVE LOAD: HL93 and permit design load
 Equivalent strip width method: $W_1 = 12$ ft
 Slab span: $L_1 = 24.5$ ft
 REINFORCED CONCRETE:
 $f_y = 60$ ksi
 $f'_c = 3.6$ ksi
 $n = 8$



- NOTES:
- For details not shown, see other plan sheets. Adjust reinforcement to clear sawcut for sealed joint.
 - Space reinforcement to avoid existing abutment reinforcement.
 - End the plate or edge angle at beginning of barrier transition, end of wingwall or end of structure approach as applicable.
 - Longitudinal construction joints, when permitted by the Engineer, must be located on lane lines.
- Indicates Existing Structure

NOTE:
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTE: For details not shown, see "SECTION A-A".

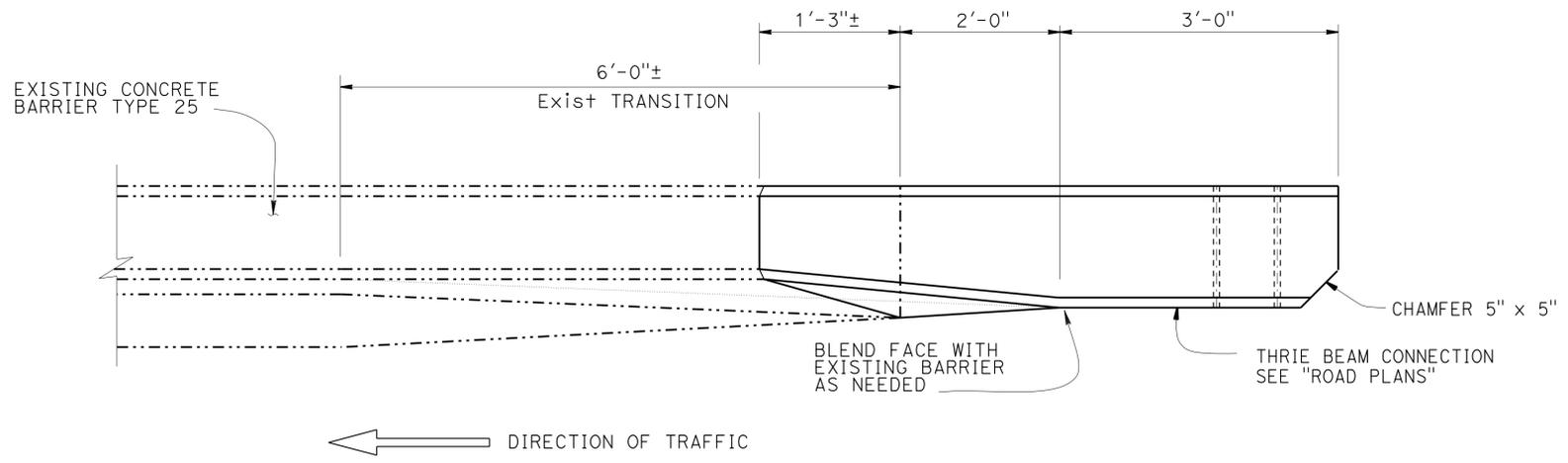
DESIGN	BY T. Campbell	CHECKED D. Acoba	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	VARIOUS	ROUTE 5 & 32 BRIDGES STRUCTURE APPROACH TYPE R(30D) MODIFIED
DETAILS	BY Dale Kubochi	CHECKED D. Acoba			POST MILE	VARIES	
QUANTITIES	BY T. Campbell	CHECKED D. Acoba					

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)
 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 UNIT: 3488
 PROJECT NUMBER & PHASE: 0215000057
 CONTRACT NO.: 02-OH3601
 DISREGARD PRINTS BEARING EARLIER REVISION DATES

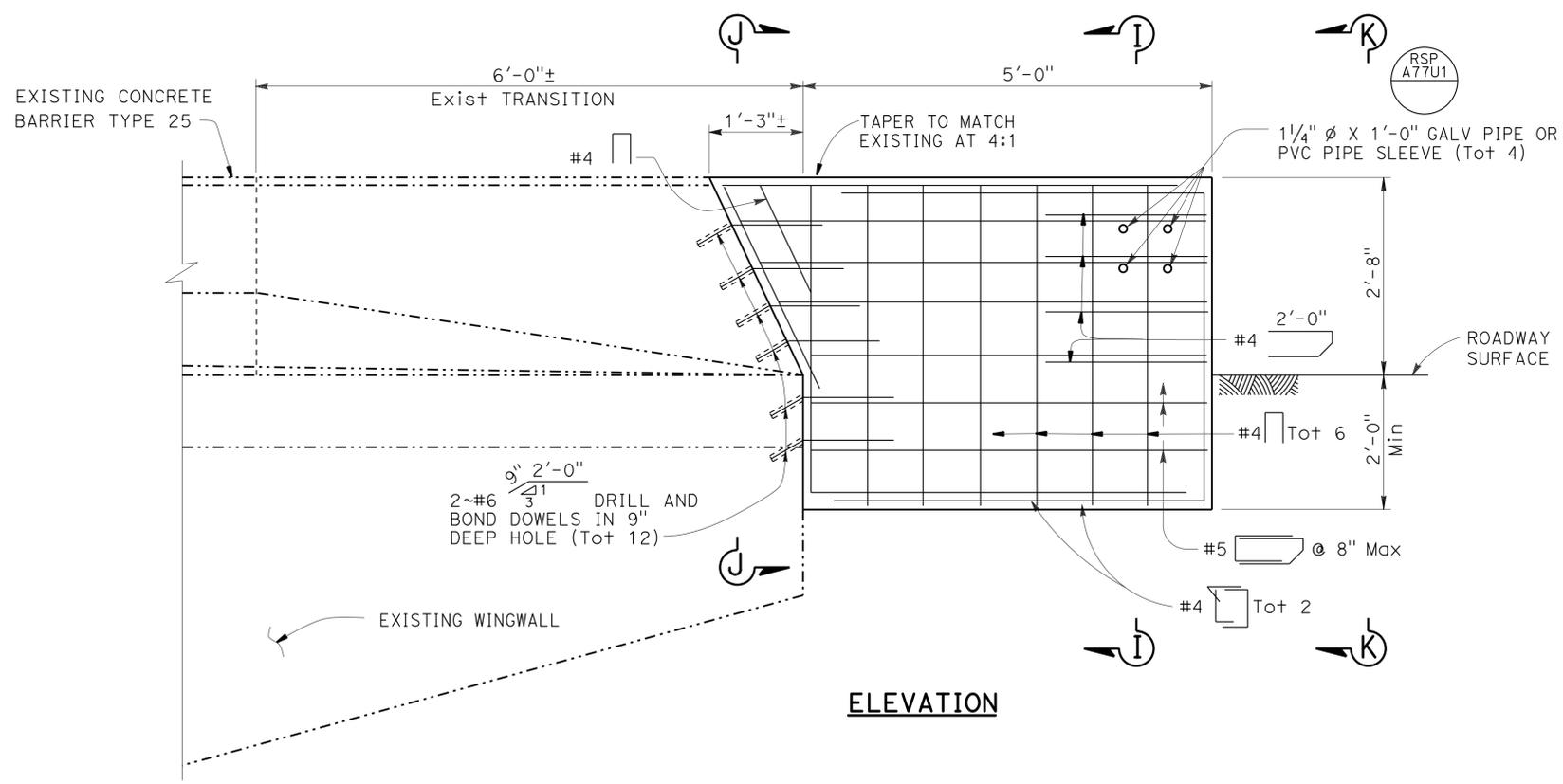
REVISION DATES	SHEET	OF
1-28-15 2-11-15 6-22-15 6-30-15	5	6

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Teh	5, 32	Var	27	27

Tim Campbell 6-30-15
 REGISTERED CIVIL ENGINEER DATE
 10-08-15
 PLANS APPROVAL DATE
 REGISTERED PROFESSIONAL ENGINEER
 TIM CAMPBELL
 No. 63268
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



PLAN

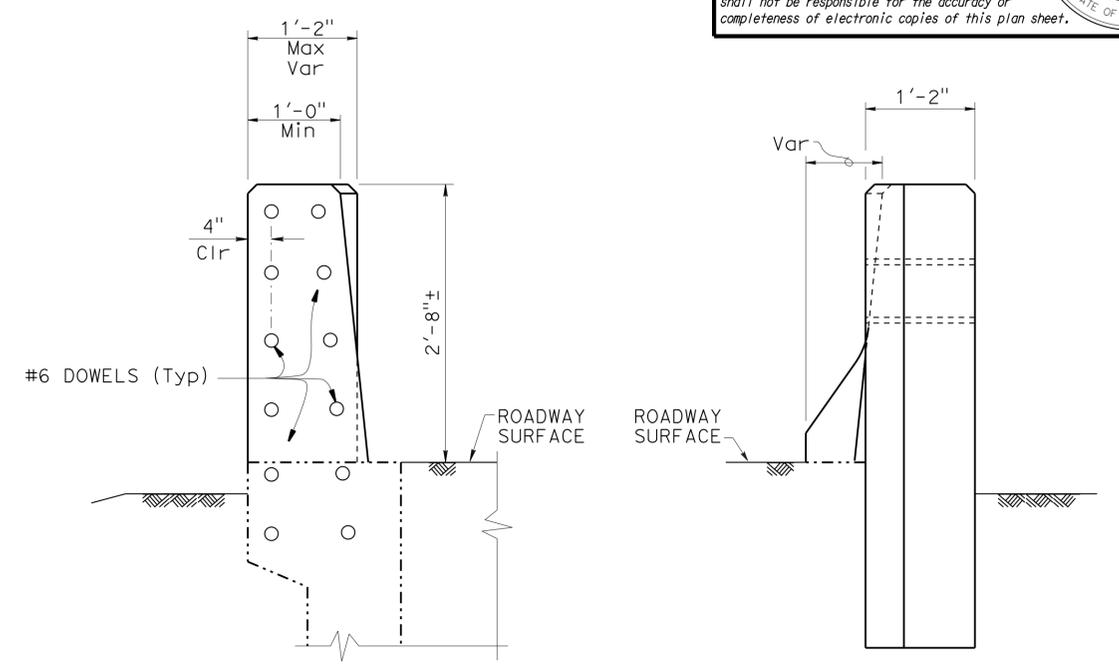


ELEVATION

CONCRETE BARRIER (TRANSITION) DETAILS
 (SLATE CREEK Br No. 08-0154)
 NO SCALE

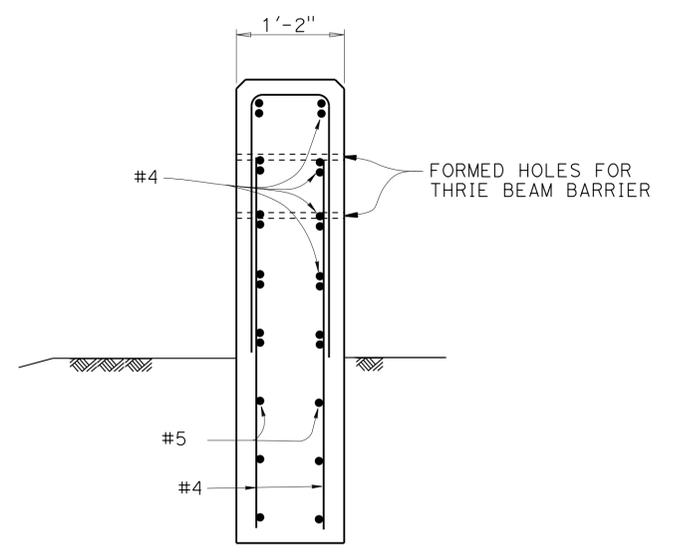
NOTE:
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

Notes:
 All bar reinforcing steel to be epoxy coated



SECTION J-J

VIEW K-K



SECTION I-I

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY T. Campbell	CHECKED D. Acoba	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 5 & 32 BRIDGES			
	DETAILS	BY DAVID KISH	CHECKED D. Acoba			VARIOUS				
	QUANTITIES	BY T. Campbell	CHECKED D. Acoba			VARIES				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3488	PROJECT NUMBER & PHASE: 0215000057	CONTRACT NO.: 02-0H3601	DISREGARD PRINTS BEARING EARLIER REVISION DATES			
				0	1	2	3	REVISION DATES	SHEET	OF
								11-22-15	6	6

USERNAME => s115152 DATE PLOTTED => 12-OCT-2015 TIME PLOTTED => 09:18