

INDEX OF PLANS

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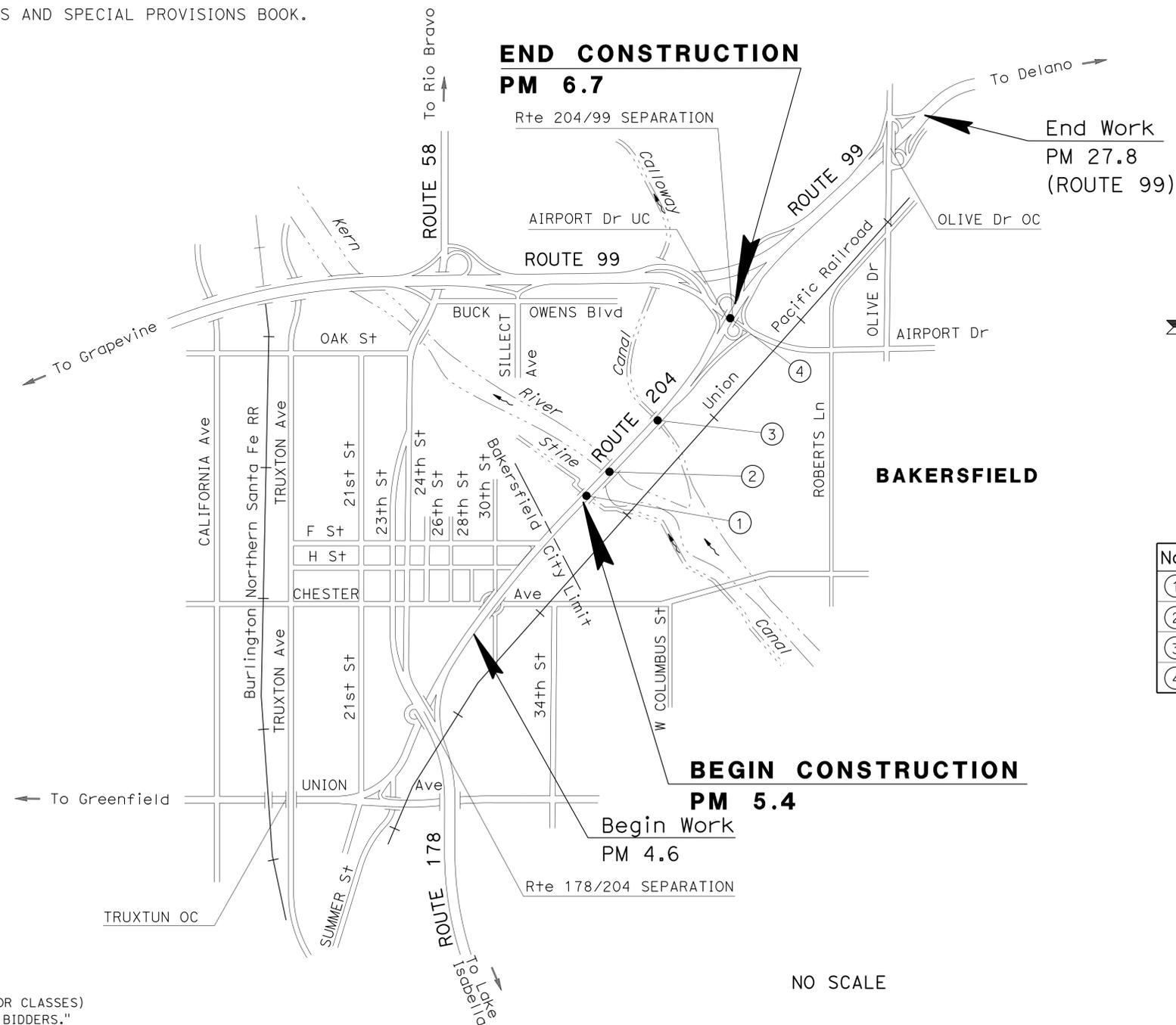
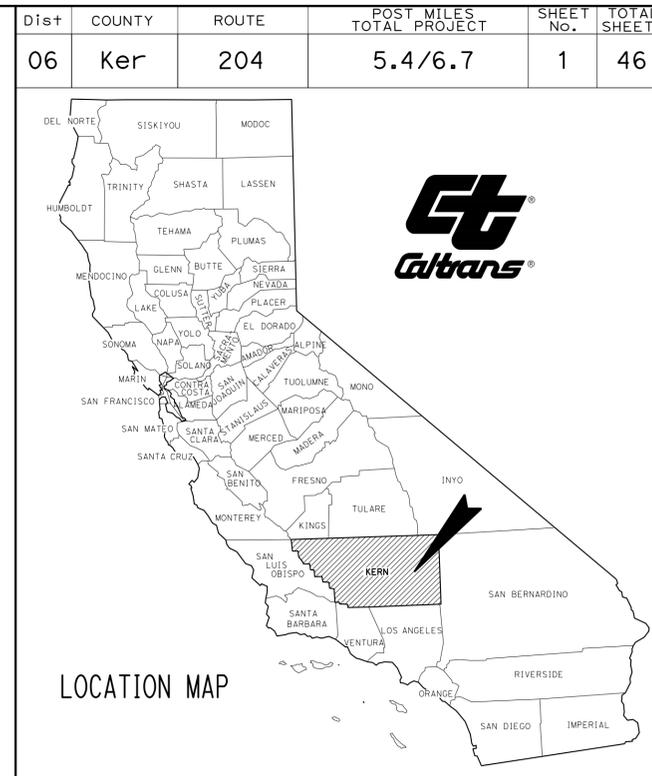
STRUCTURE PLANS

39-46	STRUCTURE PLANS
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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA ACNHP-P204(005)E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN KERN COUNTY
IN BAKERSFIELD
AT VARIOUS LOCATIONS
FROM STINE CANAL
TO AIRPORT DRIVE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

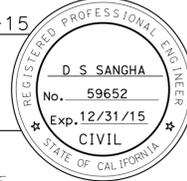


LOCATIONS OF CONSTRUCTION

No.	POST MILE	DESCRIPTION	DIRECTION
①	5.49	STINE CANAL (Br No. 50-0208)	NORTH/SOUTH
②	5.61	KERN RIVER (Br No. 50-0033)	NORTH/SOUTH
③	5.90	CALLOWAY CANAL (Br No. 50-0209)	NORTH/SOUTH
④	6.70	AIRPORT DRIVE UC (Br No. 50-0475)	NORTH/SOUTH

PROJECT MANAGER
MEHRAN AKHAVAN
 DESIGN ENGINEER
DAVID SANGHA

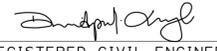
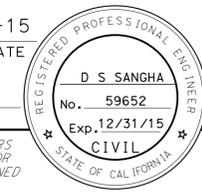
PROJECT ENGINEER DATE **2-12-15**
 REGISTERED CIVIL ENGINEER
February 17, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CONTRACT No.	06-ON9604
PROJECT ID	0612000026

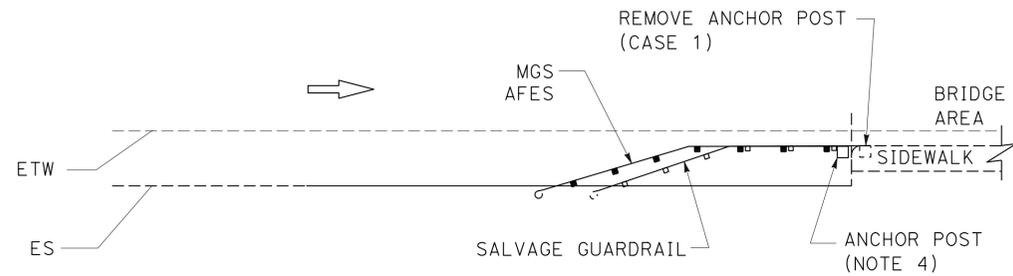
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

DATE PLOTTED => 06-MAY-2015
 TIME PLOTTED => 1:54:44
 LAST REVISION 02-17-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	3	46
			2-12-15	DATE	
REGISTERED CIVIL ENGINEER					
2-17-15			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 THIS SHEET ONLY

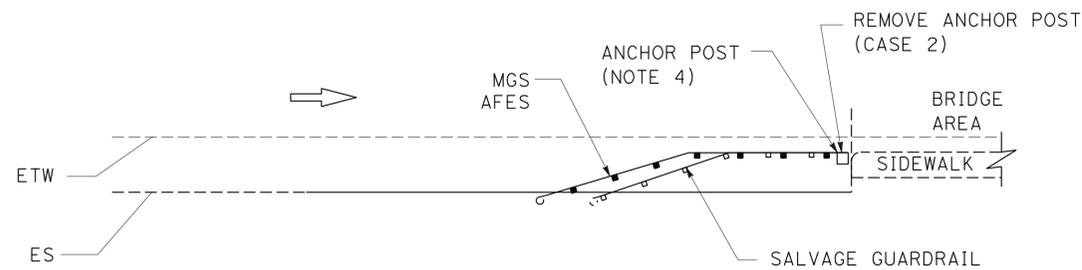
1. EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.
2. REFER TO STRUCTURE PLANS FOR BRIDGE WORK.
3. REFER TO STANDARD PLANS FOR MIDWEST GUARDRAIL SYSTEM TYPICAL DIKE POSITIONING DETAILS, LAYOUTS, AND DIKE TYPES.
4. REFER TO CONSTRUCTION DETAILS FOR ANCHOR POST DETAILS.



**TYPICAL LOCATION OF
MIDWEST GUARDRAIL SYSTEM**

SOUTHBOUND

PM 5.49 STINE CANAL (Br No. 50-0208)
PM 5.61 KERN RIVER (Br No. 50-0033)

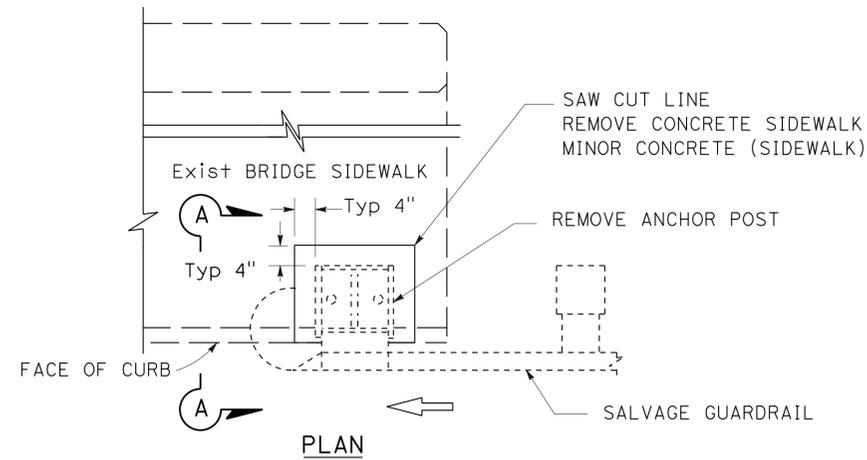


**TYPICAL LOCATION OF
MIDWEST GUARDRAIL SYSTEM**

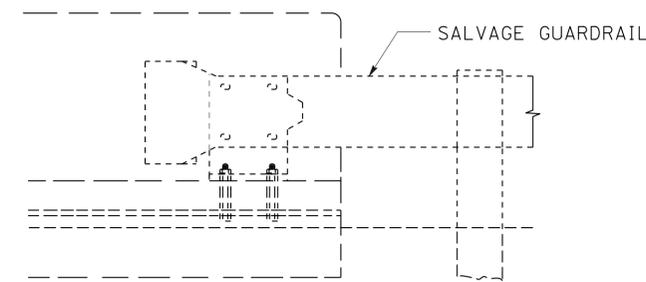
NORTHBOUND

PM 5.49 STINE CANAL (Br No. 50-0208)
PM 5.61 KERN RIVER (Br No. 50-0033)

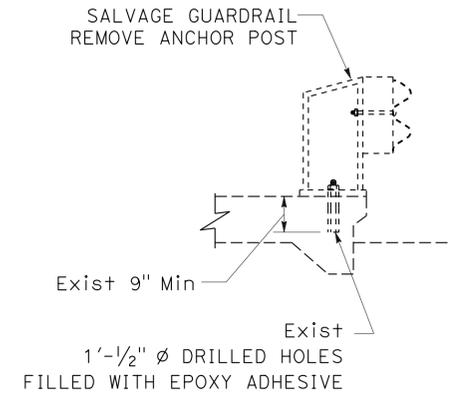
NORTHBOUND/SOUTHBOUND
PM 5.90 CALLOWAY CANAL (Br No. 50-0209)



PLAN

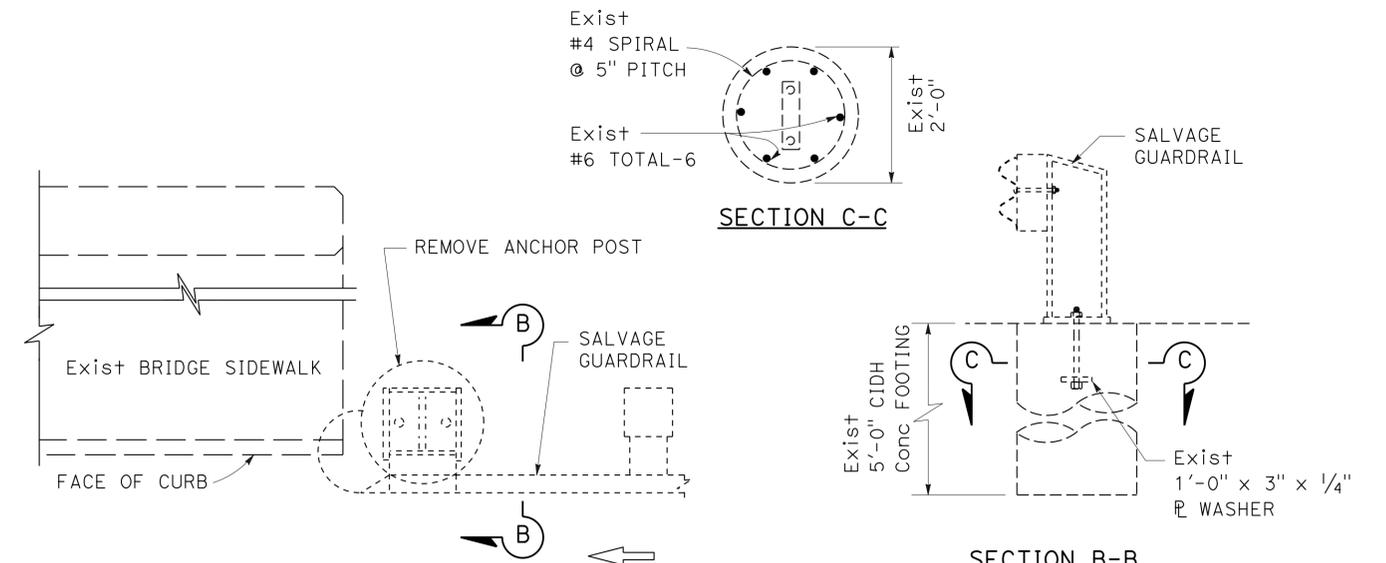


ELEVATION



SECTION A-A

**CASE 1
REMOVE ANCHOR POST ON BRIDGE SIDEWALK**



PLAN

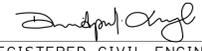
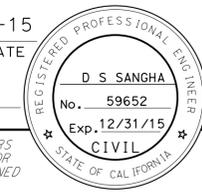
SECTION C-C

SECTION B-B

**CASE 2
REMOVE ANCHOR POST ON SHOULDER**

**CONSTRUCTION DETAILS
C-2**

NO SCALE

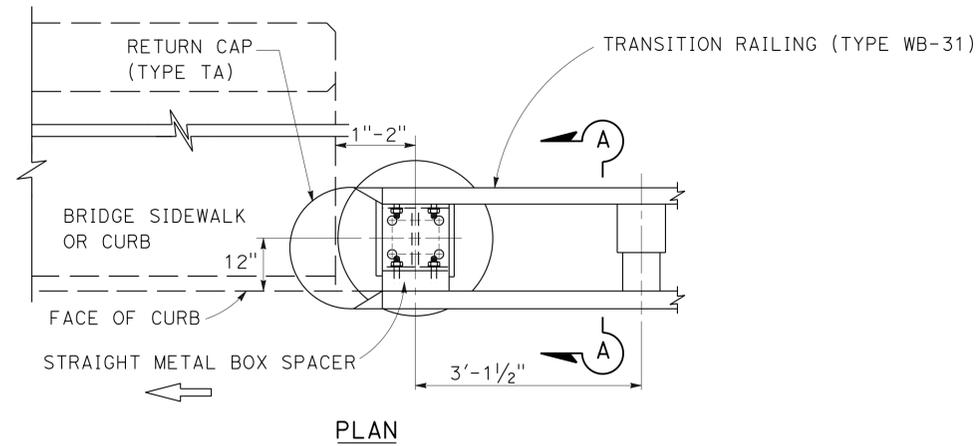
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	4	46
 REGISTERED CIVIL ENGINEER		2-12-15 DATE			
2-17-15 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTE:

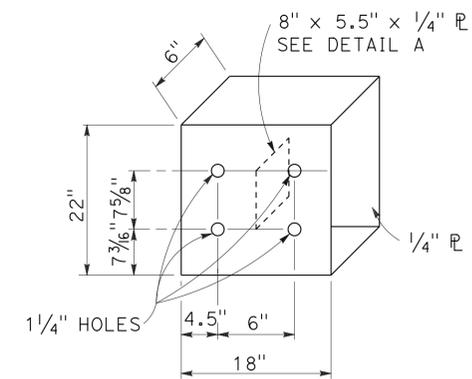
THE CONCRETE FOOTING MUST MEET LOAD OF 22,030 POUNDS AT THE CENTERLINE OF THE THREE BEAM.

LEGEND:

← DIRECTION OF TRAFFIC

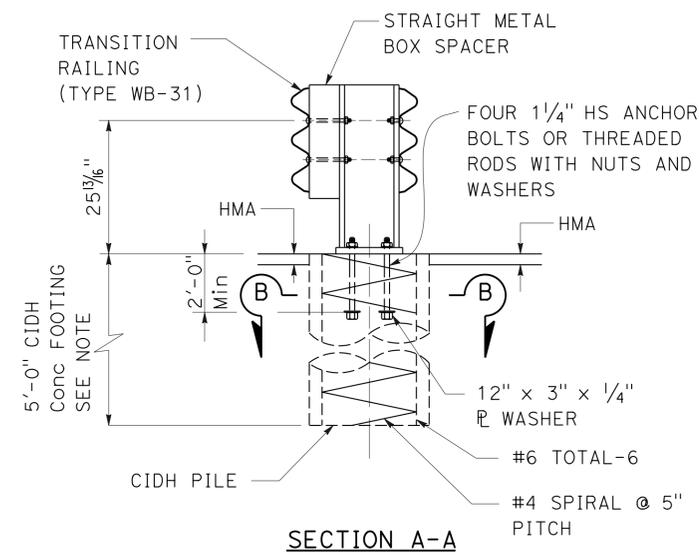


PLAN
CONNECTION DETAIL

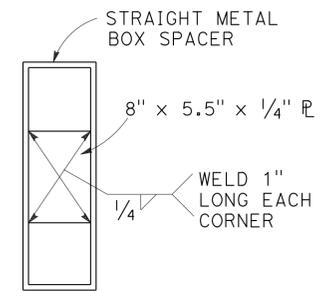


METAL BOX SPACER

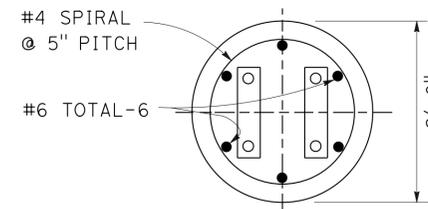
PLACE 1" BOLTS THROUGH 1 1/4" Ø x 5 1/4" PIPE SPACERS PASSING THROUGH BOX INTERIOR.



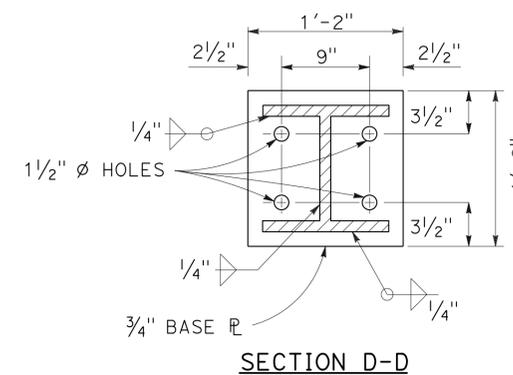
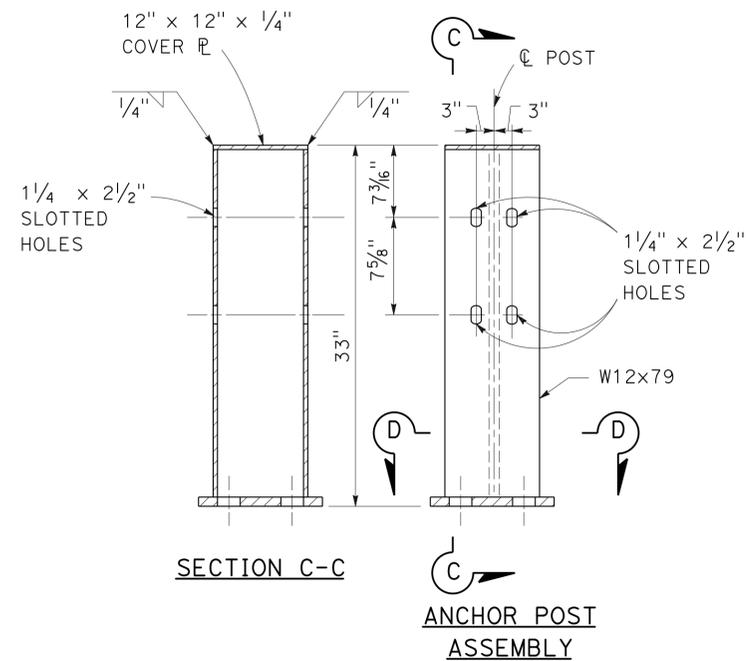
SECTION A-A



DETAIL A



SECTION B-B
 CIDH PILE SECTION



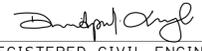
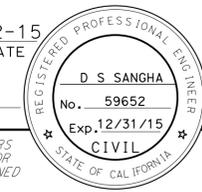
SECTION D-D

CONSTRUCTION DETAILS (ANCHOR POST DETAILS)

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	DAVID SANGHA
CALCULATED-DESIGNED BY	CHEKED BY
CARMELITA BELLE	MAGDI MOHAMED
REVISD BY	DATE REVISED

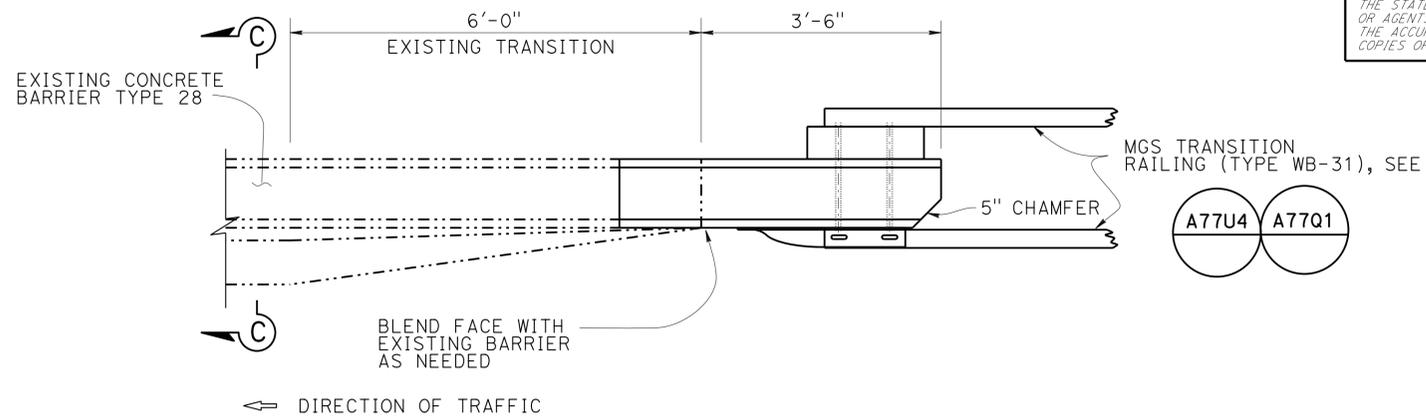
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	5	46
			2-12-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
2-17-15			PLANS APPROVAL DATE		
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

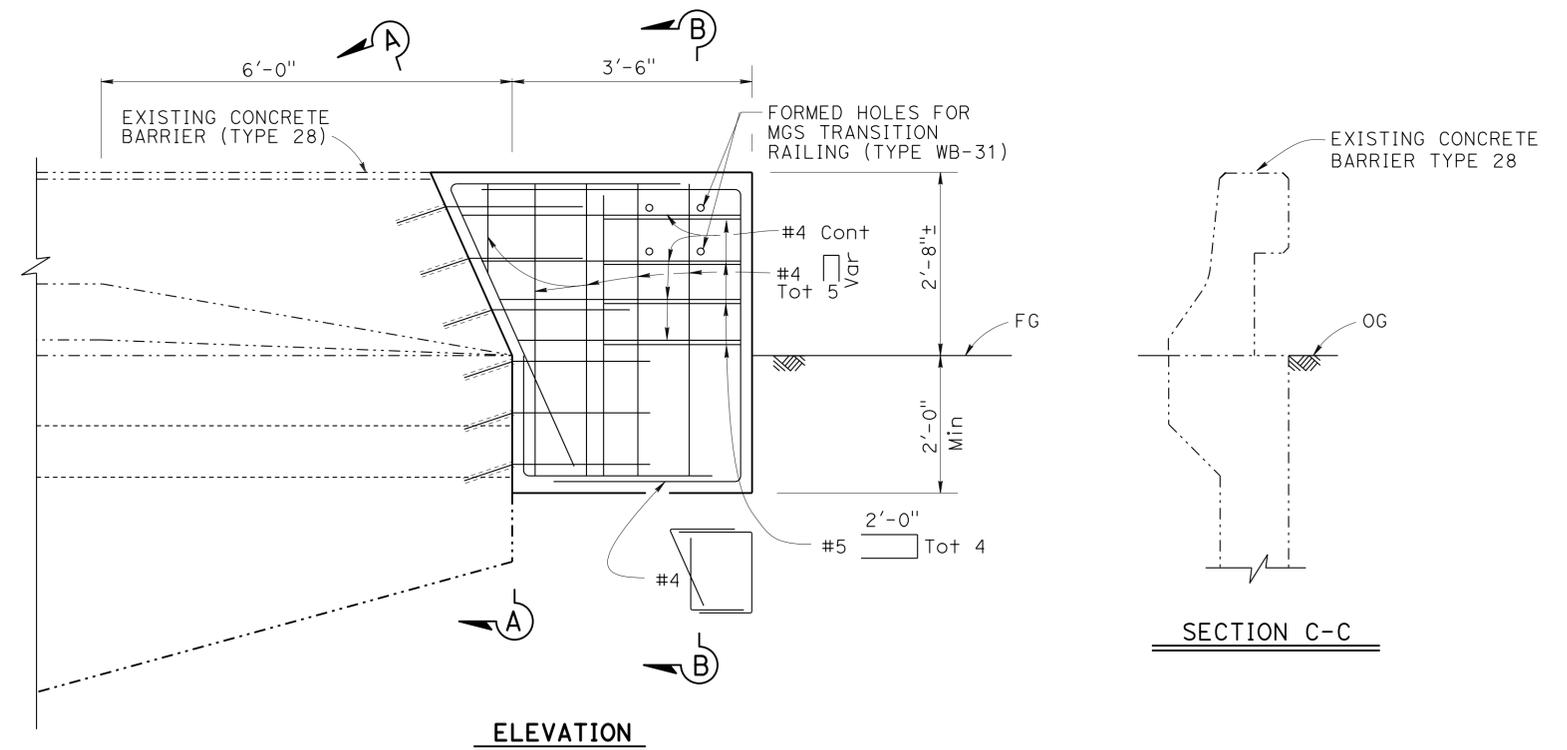
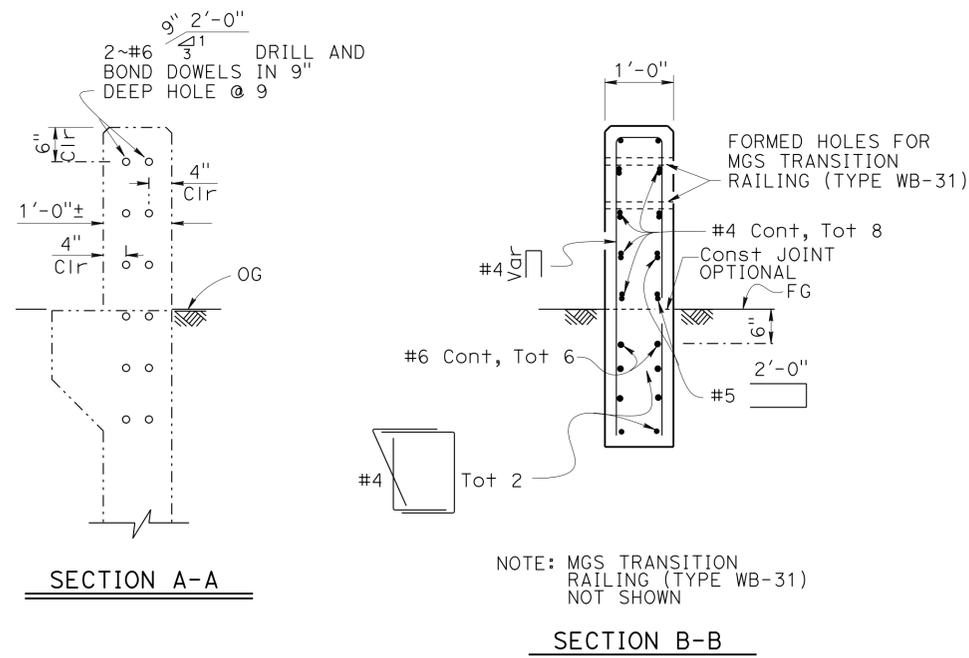
1. YOU MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.
3. FOR DETAILS NOT SHOWN, SEE STANDARD PLANS.
4. ALL PLATES AND BOLTS ARE GALVANIZED.

LEGEND:

- INDICATES EXISTING STRUCTURE
- INDICATES NEW STRUCTURE



TYPICAL PLAN



ELEVATION

CONCRETE BARRIER (TRANSITION) DETAIL

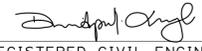
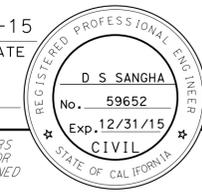
NORTHBOUND/SOUTHBOUND
PM 6.70 AIRPORT DRIVE UC (Br No. 50-0475)

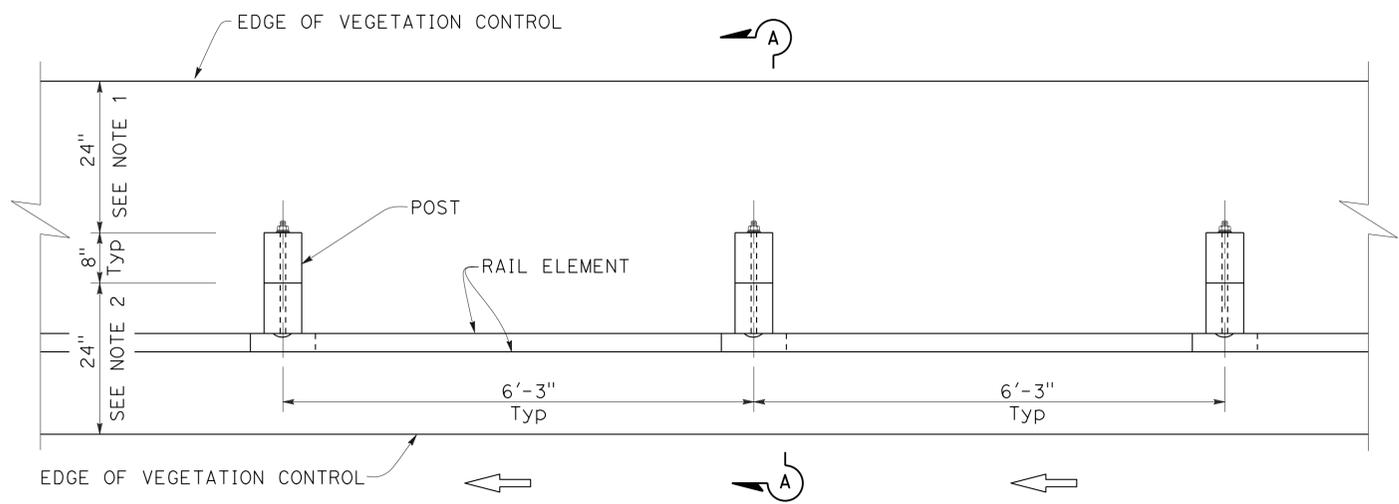
**CONSTRUCTION DETAILS
(CONCRETE BARRIER (TRANSITION) DETAILS)**

NO SCALE

C-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN
 Et Caltrans®
 FUNCTIONAL SUPERVISOR: DAVID SANGHA
 CALCULATED/DESIGNED BY: DAVID SANGHA
 CHECKED BY: MAGDI MOHAMED
 REVISIONS: CARMELITTA BELLE, MAGDI MOHAMED
 REVISED BY: DATE REVISED

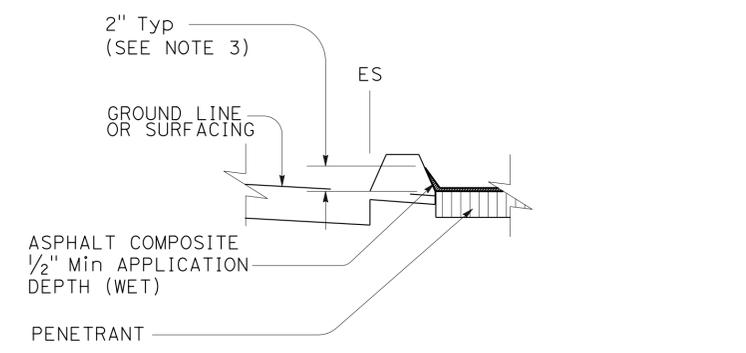
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	6	46
			2-12-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
2-17-15			PLANS APPROVAL DATE		
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



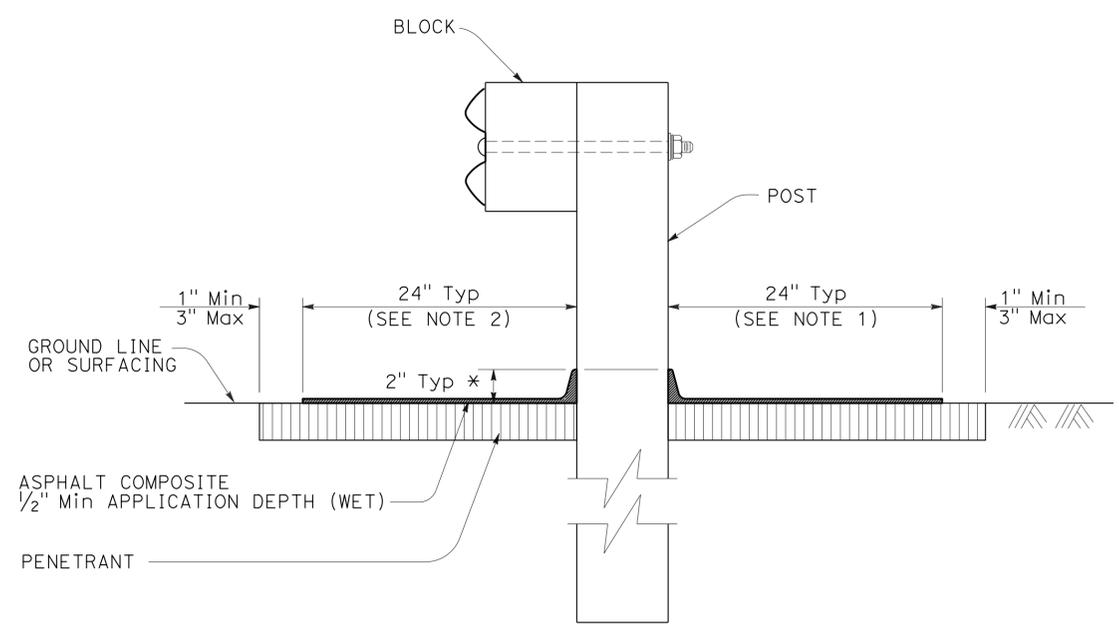
PLAN

NOTES:

1. WHERE THE DISTANCE BETWEEN BACK OF POST AND HINGE POINT IS LESS THAN 24", VEGETATION CONTROL TO BE CONSTRUCTED 6" BEYOND THE HINGE POINT WITH THE EDGE KEYED IN.
2. WHERE CURB OR DIKE IS CONSTRUCTED UNDER RAILING, CONSTRUCT VEGETATION CONTROL TO BACK EDGE OF CURB OR DIKE. WHERE PAVED SHOULDER IS CONSTRUCTED WITHIN 24" IN FRONT OF THE POST, CONSTRUCT VEGETATION CONTROL TO THE EDGE OF PAVED SHOULDER.
3. FEATHER EDGE OF ASPHALT COMPOSITE TRANSITION UP POSTS AND BACK OF CURBS AND DIKES. TRANSITION LINE SHALL FORM A REASONABLY STRAIGHT LINE, HORIZONTALLY FROM POST TO POST OR ALONG TOP EDGE OF CURB OR DIKE.
4. DIRECTION OF ADJACENT TRAFFIC INDICATED BY ← .

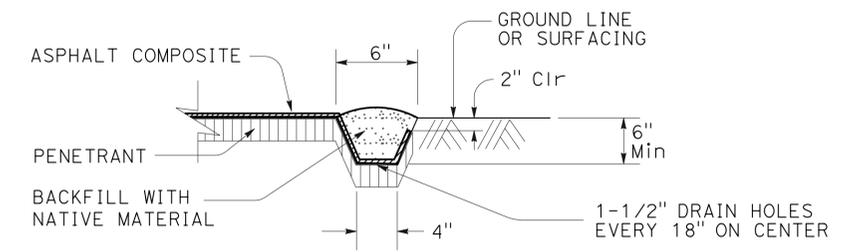


VEGETATION CONTROL at CURB OR DIKE



* (SEE NOTE 3)

SECTION A-A



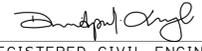
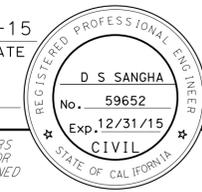
KEY EDGE

**CONSTRUCTION DETAILS
(MIDWEST GUARDRAIL SYSTEM
VEGETATION CONTROL (ASPHALT COMPOSITE)
STANDARD RAILING SECTION)**

NO SCALE

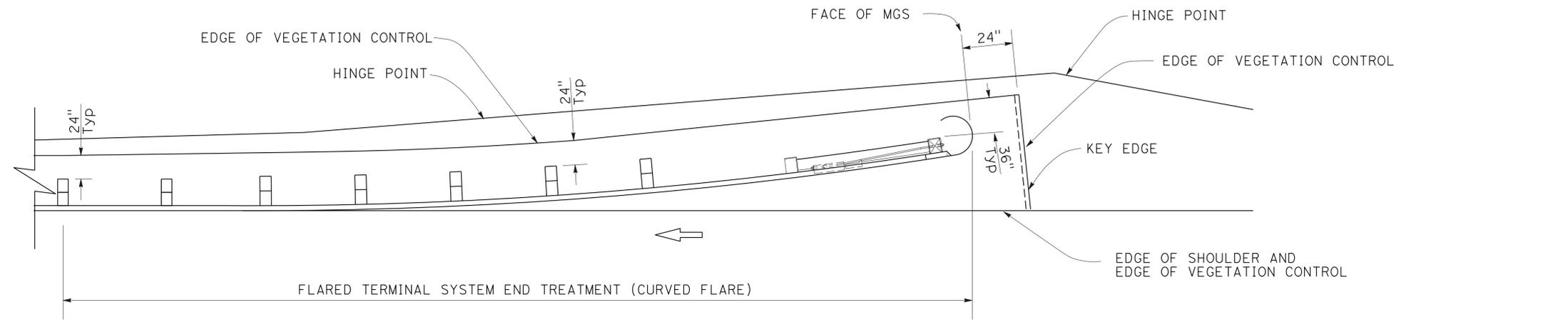
C-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	DAVID SANGHA
CALCULATED-DESIGNED BY	CHECKED BY
CARMELITTA BELLE	MAGDI MOHAMED
REVISOR	DATE

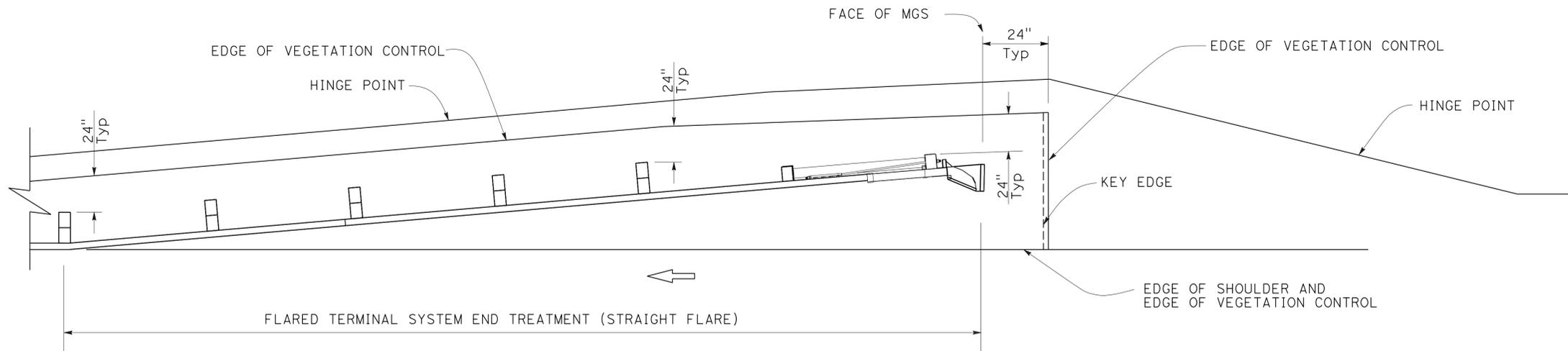
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	7	46
			2-12-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
2-17-15			PLANS APPROVAL DATE		
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

- SEE CONSTRUCTION DETAIL SHEET C-5 FOR ADDITIONAL VEGETATION CONTROL DETAILS.
- WHERE THE DISTANCE BETWEEN BACK OF POST AND HINGE POINT IS LESS THAN 24", VEGETATION CONTROL TO BE CONSTRUCTED 6" BEYOND THE HINGE POINT WITH THE EDGE KEYED IN.
- WHERE DIKE IS CONSTRUCTED UNDER RAILING, CONSTRUCT VEGETATION CONTROL TO BACK EDGE OF CURB OR DIKE. WHERE PAVED SHOULDER IS CONSTRUCTED WITHIN 24" IN FRONT OF THE POST, CONSTRUCT VEGETATION CONTROL TO THE EDGE OF PAVED SHOULDER.
- DIRECTION OF ADJACENT TRAFFIC INDICATED BY  .



PLAN



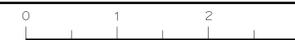
PLAN

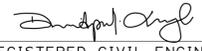
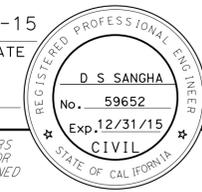
**CONSTRUCTION DETAILS
(MIDWEST GUARDRAIL SYSTEM
VEGETATION CONTROL (ASPHALT COMPOSITE)
FOR TERMINAL SYSTEM END TREATMENTS)**

NO SCALE

C-6

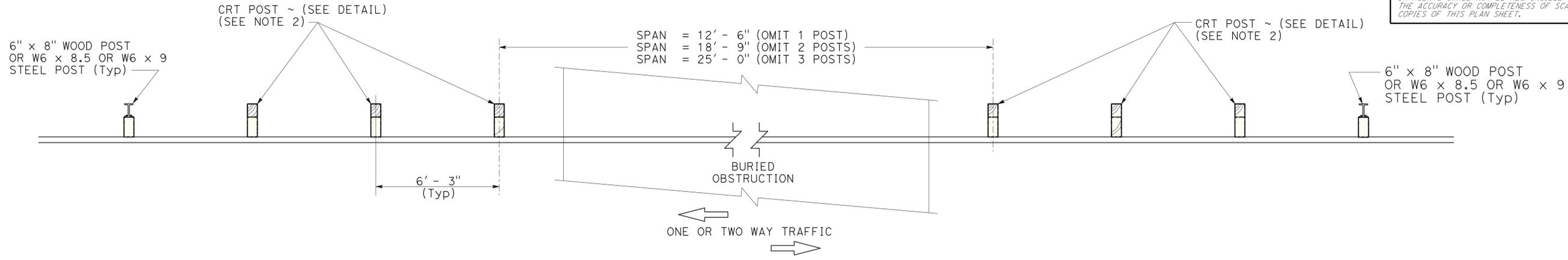
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
	
FUNCTIONAL SUPERVISOR	DAVID SANGHA
CALCULATED/DESIGNED BY	CHECKED BY
CARMELITTA BELLE	MAGDI MOHAMED
REVISED BY	DATE REVISED



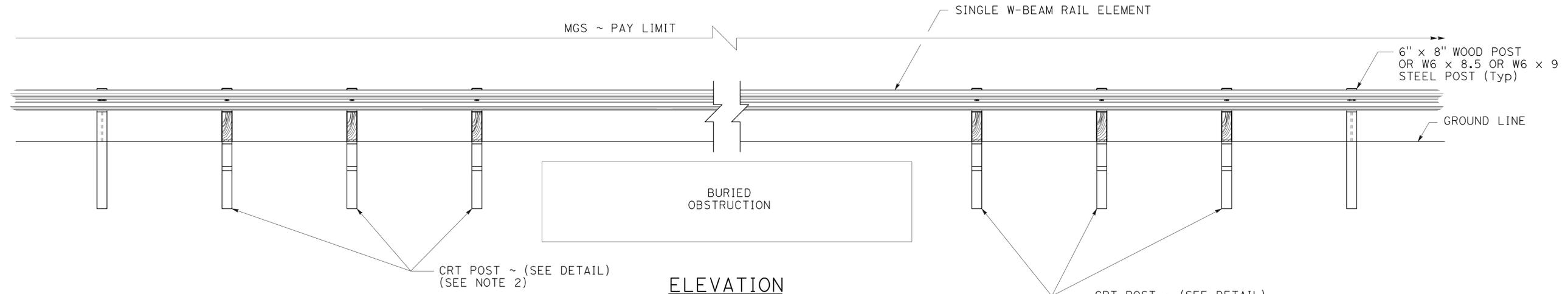
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	9	46
			2-12-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
2-17-15			PLANS APPROVAL DATE		
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:
 1. FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN, REFER TO RSP A77L1 AND RSP A77L2.
 2. CRT POST TO BE WOOD ONLY.

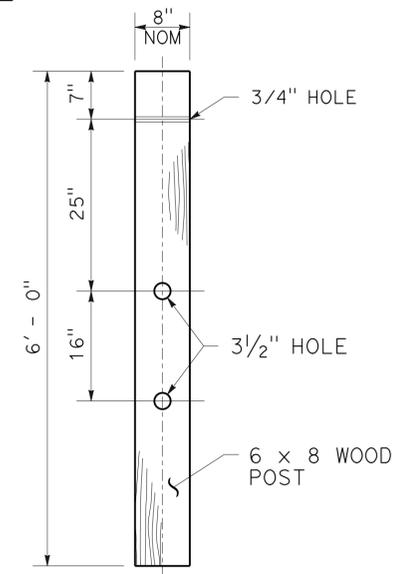
ABBREVIATION:
 NOM - NOMINAL



PLAN



ELEVATION



CONTROLLED RELEASING TERMINAL (CRT) POST DETAIL

CONSTRUCTION DETAILS
(MIDWEST GUARDRAIL SYSTEM DETAILS)
 NO SCALE
C-8

REVISOR	DATE	REVISION
CARMELITTA BELLE	MAGDI MOHAMED	
CALCULATED/DESIGNED BY	CHECKED BY	FUNCTIONAL SUPERVISOR
DAVID SANGHA		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		
DESIGN		
		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	10	46

Hassan M. Taaha 9-02-14
REGISTERED CIVIL ENGINEER DATE
2-17-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
No. 60130
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.

LEGEND:

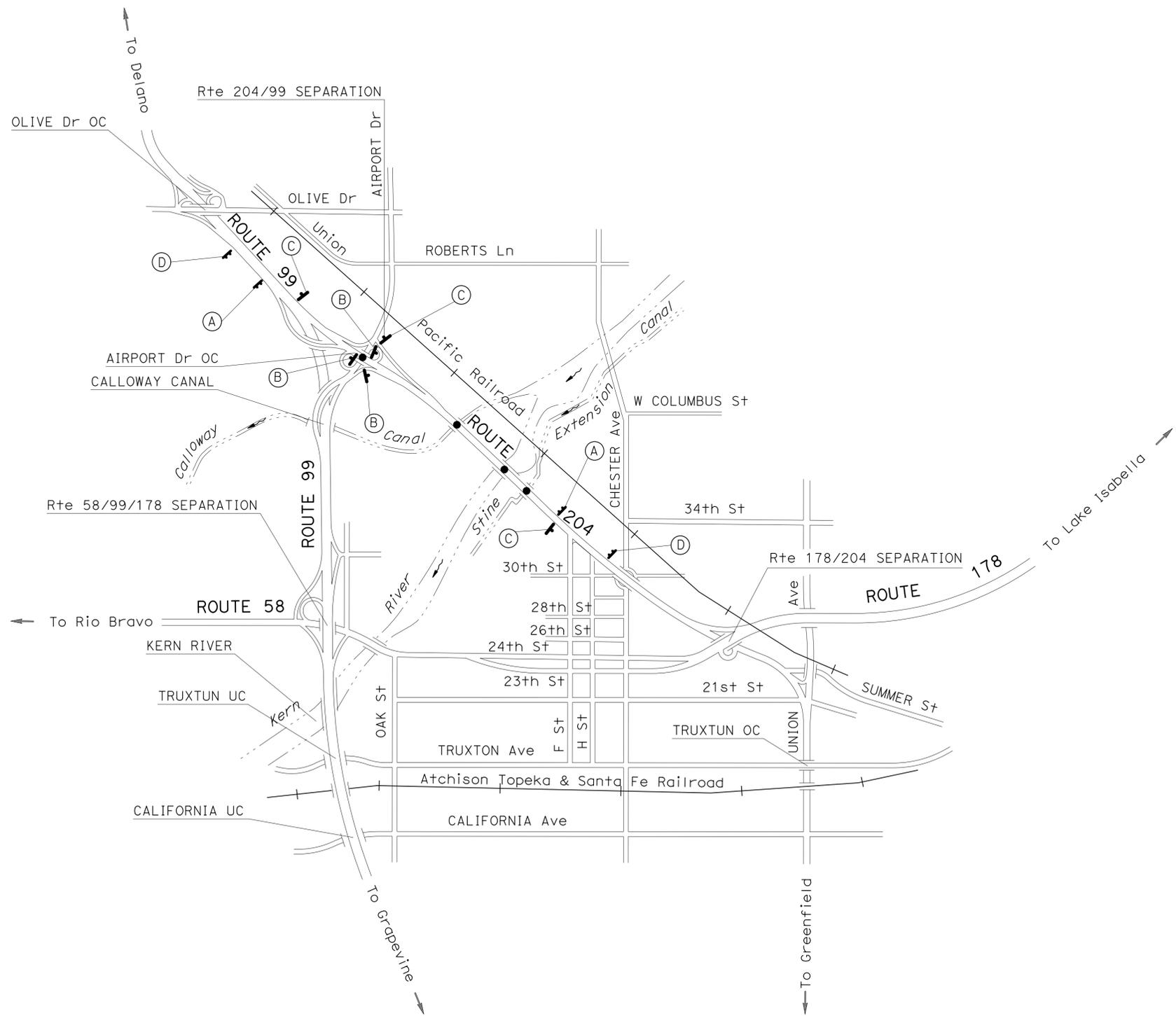
⊗ CONSTRUCTION AREA SIGN NUMBER

NOTES:

1. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. FOR SIGN "C40" (TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES), ALL LETTERS MUST BE BLACK ON WHITE BACKGROUND.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE		PANEL SIZE	SIGN MESSAGE	No. OF POST AND POST SIZE	No. OF SIGN
	FEDERAL	CALIFORNIA				
(A)	W20-1		60" x 60"	ROAD WORK AHEAD	2 - 6" x 6"	2
(B)	W20-1		48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	3
(C)	G20-2		36" x 18"	END ROAD WORK	1 - 4" x 4"	3
(D)		C40	108" x 42"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" x 6"	2



CONSTRUCTION AREA SIGNS

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI
 CALCULATED/DESIGNED BY: GURMIT GILL
 CHECKED BY: HASSAN TAHA
 REVISED BY: GURMIT GILL
 DATE REVISED: HASSAN TAHA

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	11	46

Hassan Cohe 9-02-14
REGISTERED CIVIL ENGINEER DATE
2-17-15
PLANS APPROVAL DATE

HASSAN M. TAHA
No. 60130
Exp. 06/30/16
CIVIL

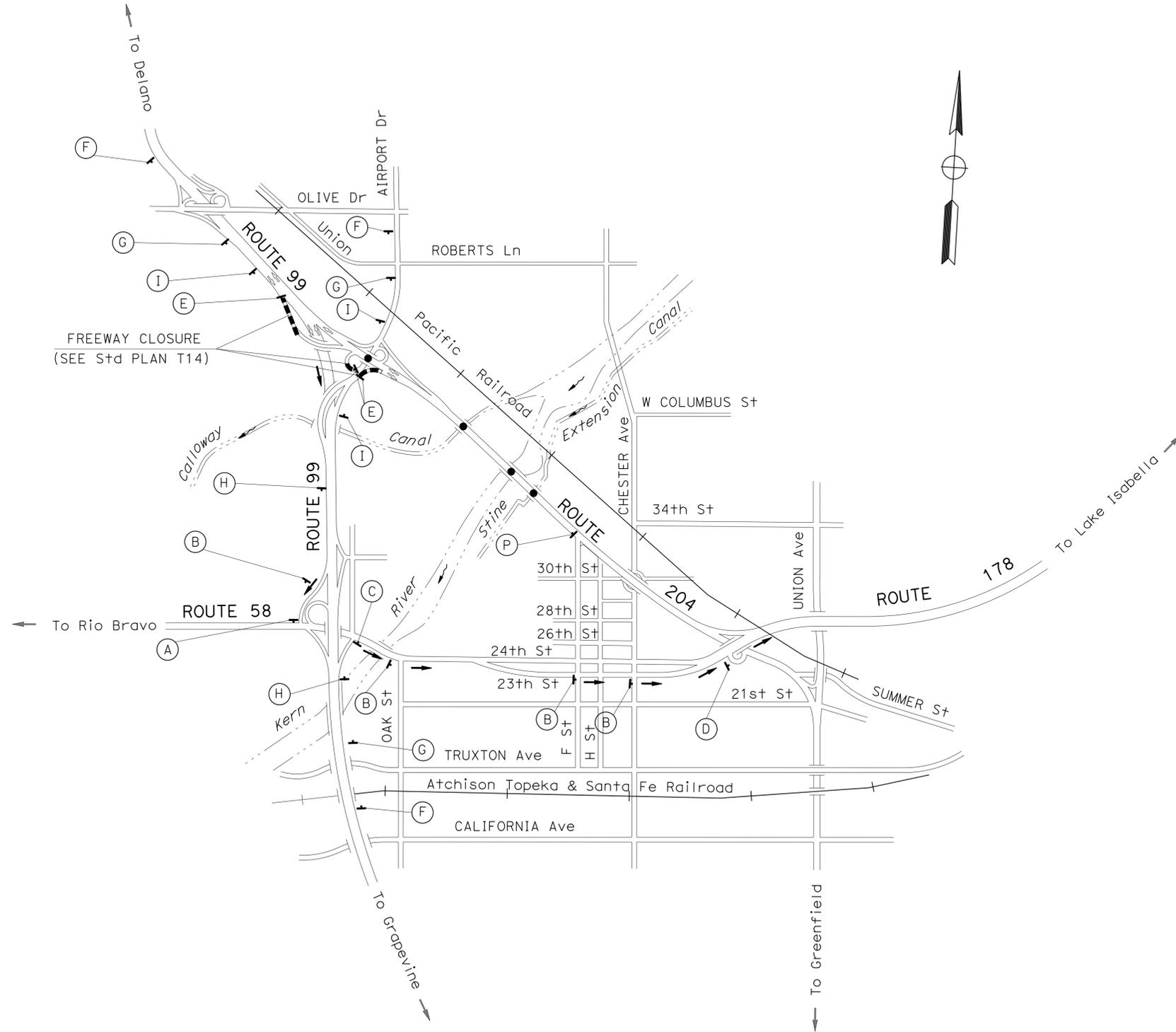
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

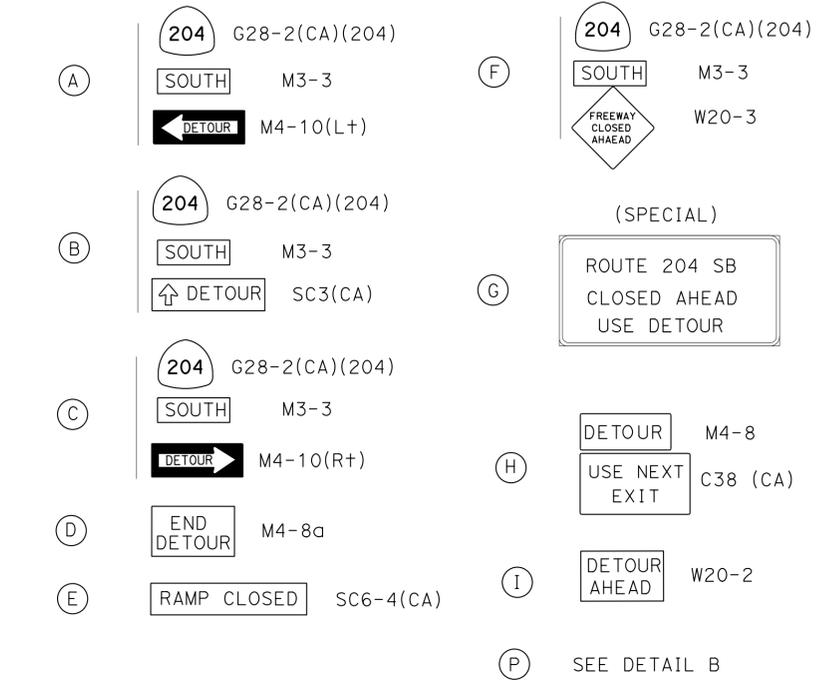
- ← DIRECTION OF DETOUR TRAVEL
- ↑ CONSTRUCTION AREA SIGN
- FREEWAY CLOSURE LOCATION
- CONSTRUCTION AREA

NOTES:

1. LOCATION OF ROADSIDE SIGNS ARE APPROXIMATE, EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. SEE STANDARD PLAN (T-10) LANE CLOSURE CHARTS FOR ADDITIONAL REQUIRED SIGNS



NO SCALE



MOTORIST INFORMATION PLAN
(DETOUR PLAN FOR ROUTE 204 SB CLOSURE)

NO SCALE

MI-1

APPROVED FOR DETOUR WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
Caltrans TRAFFIC DESIGN	MOHAMMED OATAMI	GURMIT GILL	HASSAN TAHA
		CHECKED BY	DATE REVISED

FUNCTIONAL SUPERVISOR	MOHAMMED GATAMI
CALCULATED-DESIGNED BY	CHECKED BY
GURMIT GILL	HASSAN TAHA
REVISED BY	DATE REVISED

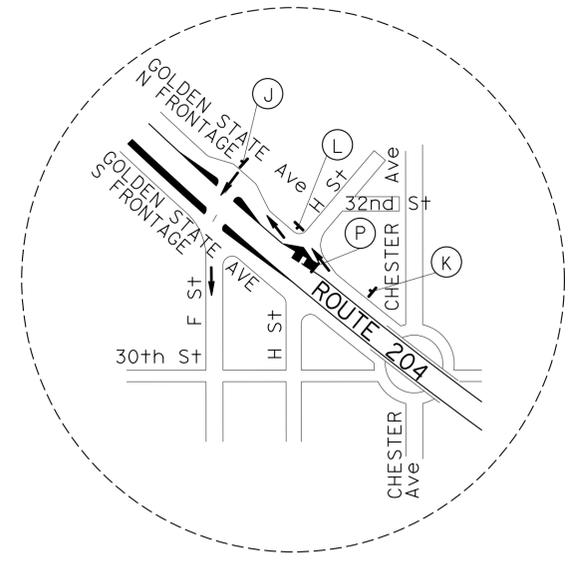


NO SCALE

APPROVED FOR DETOUR WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	12	46
Hassan Taha		9-02-14		REGISTERED CIVIL ENGINEER DATE	
2-17-15		PLANS APPROVAL DATE			
REGISTERED PROFESSIONAL ENGINEER HASSAN M. TAHA No. 60130 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.					

- (J) **204** G28-2(CA)(204)
 NORTH M3-1
 DETOUR M4-10(L+)
- (M) **204** G28-2(CA)(204)
 NORTH M3-1
 FREEWAY CLOSED AHEAD W20-3
 (SPECIAL)
 ROUTE 204 NB CLOSED AHEAD USE DETOUR
- (K) **204** G28-2(CA)(204)
 NORTH M3-1
 DETOUR SC3(CA)
- (N) SEE DETAIL A
- (L) **204** G28-2(CA)(204)
 NORTH M3-1
 DETOUR M4-10(R+)
- (O) SEE DETAIL A
- (D) END DETOUR M4-8a



DETAIL C

MOTORIST INFORMATION PLAN
 (DETOUR PLAN FOR ROUTE 204 NB CLOSURE)

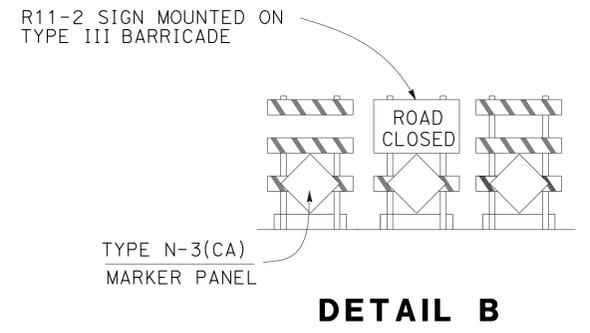
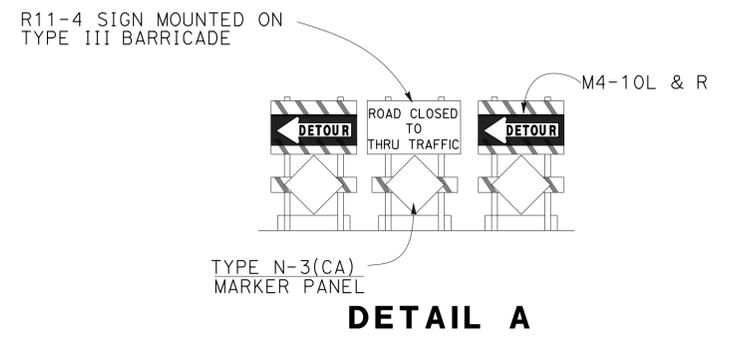
NO SCALE

MI-2

CONSTRUCTION AREA SIGNS (TRAFFIC HANDLING, PORTABLE)

SIGN No. ⓧ	SIGN CODE		PANEL SIZE	SIGN MESSAGE	No. OF SIGNS
	FEDERAL	CALIFORNIA			
A		G28-2(CA)	21" x 18"	CA ROUTE MARKER (204)	1
	M3-3		24" x 12"	SOUTH	
	M4-10(L+)		48" x 18"	DETOUR (ARROW LEFT)	
B		G28-2(CA)	21" x 18"	CA ROUTE MARKER (204)	4
	M3-3		24" x 12"	SOUTH	
		SC3 (CA)	48" x 18"	DETOUR (ARROW STRAIGHT)	
C		G28-2(CA)	21" x 18"	CA ROUTE MARKER (204)	1
	M3-3		24" x 12"	SOUTH	
	M4-10(R+)		48" x 18"	DETOUR (ARROW RIGHT)	
D	M4-8a		24" x 18"	END DETOUR	2
E		SC6-4(CA)	48" x 60"	RAMP CLOSED XX-XX THRU XX-XX	3
		G28-2(CA)	35" x 32"	CA ROUTE MARKER (204)	
F	M3-3		24" x 12"	SOUTH	3
	W20-3		48" x 48"	FREEWAY CLOSED AHEAD	
G	(SPECIAL)		72" x 36"	ROUTE 204 SB CLOSED AHEAD USE DETOUR	3
H	M4-8		30" x 15"	DETOUR	2
		C38(CA)	48" x 36"	USE NEXT EXIT	
I	W20-2		48" x 48"	DETOUR AHEAD	3
J		G28-2(CA)	35" x 32"	CA ROUTE MARKER (204)	3
	M3-1		24" x 12"	NORTH	
K		G28-2(CA)	35" x 32"	CA ROUTE MARKER (204)	9
	M3-1		24" x 12"	NORTH	
		SC3 (CA)	48" x 18"	DETOUR (ARROW STRAIGHT)	
L		G28-2(CA)	35" x 32"	CA ROUTE MARKER (204)	3
	M3-1		24" x 12"	NORTH	
	M4-10(R+)		48" x 18"	DETOUR (ARROW RIGHT)	
M		G28-2(CA)	35" x 32"	CA ROUTE MARKER (204)	2
	M3-1		24" x 12"	NORTH	
	W20-3		48" x 48"	FREEWAY CLOSED AHEAD	
N	(SPECIAL)		72" x 36"	ROUTE 204 NB CLOSED AHEAD USE DETOUR	3
O	R11-4		60" x 30"	ROAD CLOSED (SEE DETAIL A)	1
P	R11-2		48" x 30"	ROAD CLOSED (SEE DETAIL B)	2

NOTE: 1-FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO SHEET CS-1.



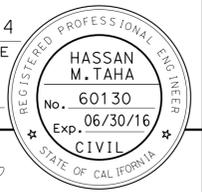
MOTORIST INFORMATION DETAILS AND QUANTITIES (ROUTE 204 NB AND SB CLOSURE)

NO SCALE

MIQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI
 GURMIT GILL, HASSAN TAHA
 REVISIONS: REVISED BY, DATE, REVISION
 CALCULATED/DESIGNED BY, CHECKED BY

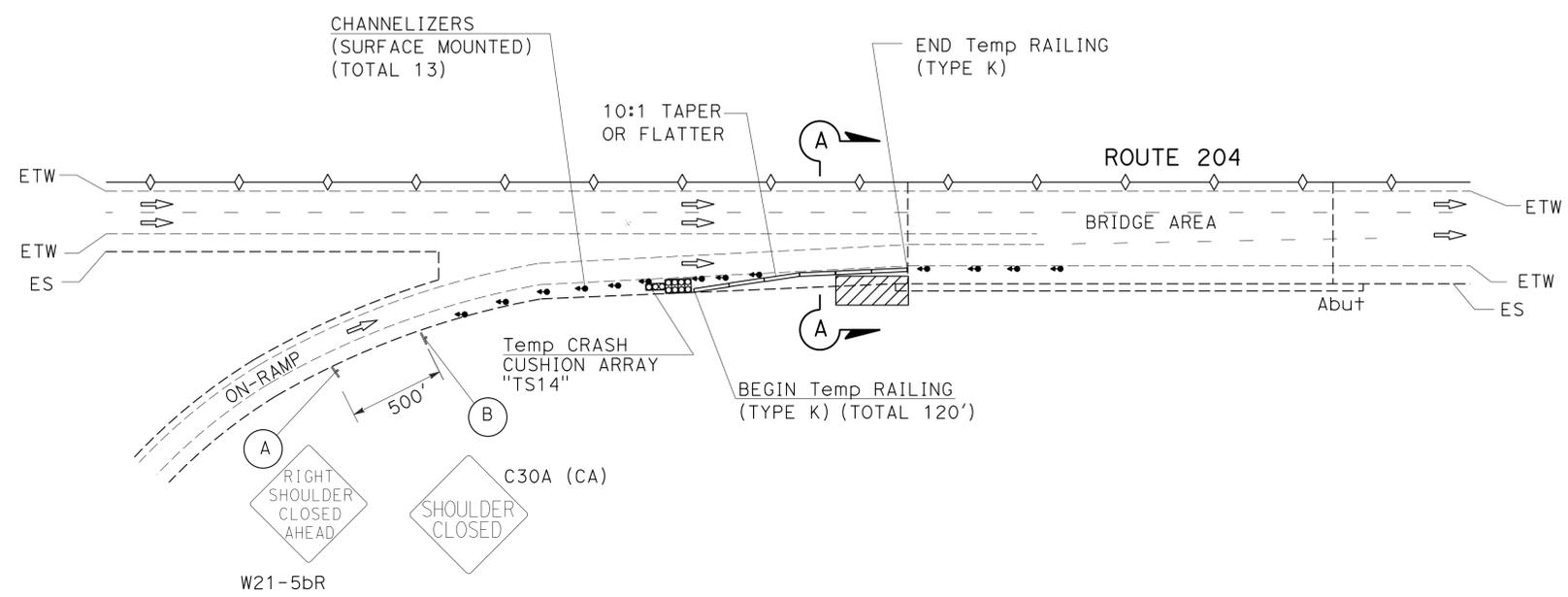
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	14	46
<i>Hassan Cohe</i> 9-02-14 REGISTERED CIVIL ENGINEER DATE					
2-17-15 PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



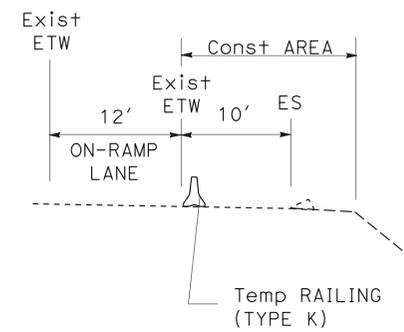
LEGEND:

- ← DIRECTION OF TRAFFIC
- Temp RAILING (TYPE K)
- ⊗ CONSTRUCTION AREA SIGN NUMBER
- CHANNELIZERS (SURFACED MOUNTED)
- Temp CRASH CUSHION ARRAY (TS14)
- CONSTRUCTION AREA

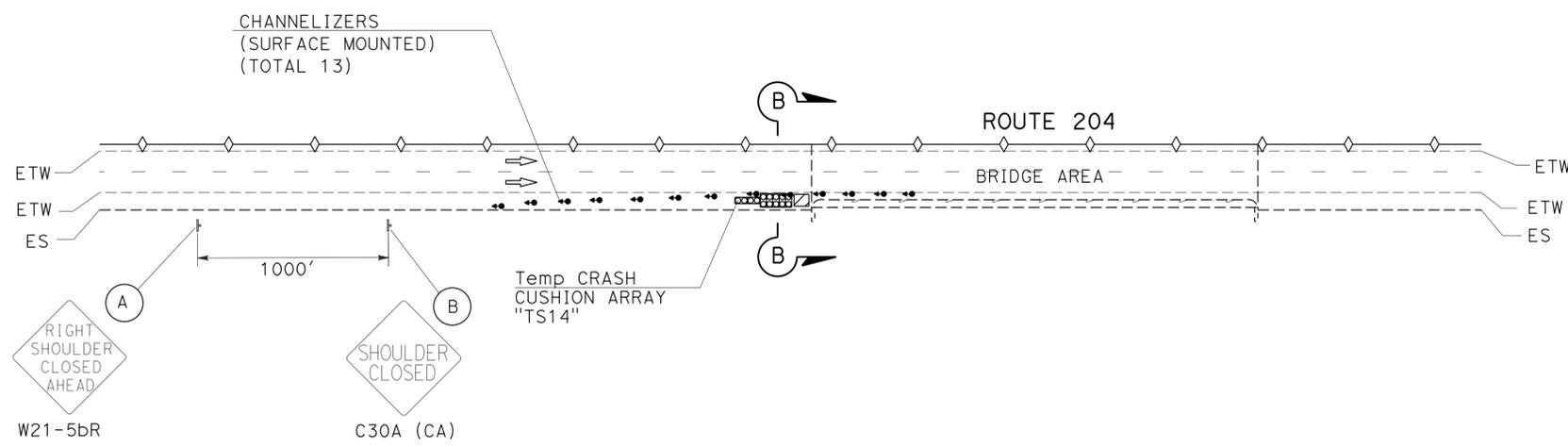
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR MOHAMMED QATAMI
 CALCULATED/DESIGNED BY GURMIT GILL
 CHECKED BY HASSAN TAHA
 REVISED BY DATE
 GURMIT GILL HASSAN TAHA



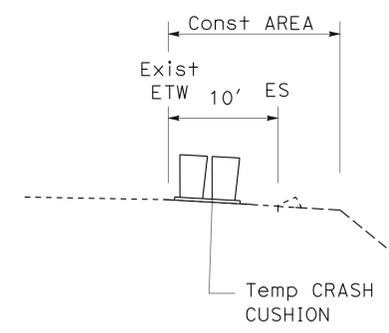
TYPICAL SHOULDER CLOSURE WITH TEMPORARY TRAFFIC BARRIER
 NORTHBOUND/SOUTHBOUND
 PM 6.70 AIRPORT DRIVE UC (Br No. 50-0475)



SECTION A-A



TYPICAL SHOULDER CLOSURE WITH TEMPORARY CRASH CUSHION
 NORTHBOUND/SOUTHBOUND
 PM 5.49 STINE CANAL (Br No. 50-0208)
 PM 5.61 KERN RIVER (Br No. 50-0033)
 PM 5.90 CALLOWAY CANAL (Br No. 50-0209)



SECTION B-B

TRAFFIC HANDLING PLAN
 (TYPICAL)

TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	15	46

Hassan Cohe 9-02-14
 REGISTERED CIVIL ENGINEER DATE
 2-17-15
 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.

NOTE:

FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO SHEET CS-1

ABBREVIATION:

SA STRUCTURE APPROACH

**STATIONARY MOUNTED
CONSTRUCTION AREA SIGNS (TRAFFIC HANDLING)**

DIRECTION	LOCATION	SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE	No. OF SIGNS
NORTHBOUND	PM 5.49 STINE CANAL (Br No. 50-0208)	A	W21-5bR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	1 - 4" x 4"	1
		B	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 4" x 4"	1
	PM 5.61 KERN RIVER (Br No. 50-0033)	A	W21-5bR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	1 - 4" x 4"	1
		B	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 4" x 4"	1
	PM 5.90 CALLOWAY CANAL (Br No. 50-0209)	A	W21-5bR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	1 - 4" x 4"	1
		B	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 4" x 4"	1
	PM 6.70 AIRPORT DRIVE UC (Br No. 50-0475)	A	W21-5bR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	1 - 4" x 4"	1
		B	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 4" x 4"	1
SOUTHBOUND	PM 5.49 STINE CANAL (Br No. 50-0208)	A	W21-5bR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	1 - 4" x 4"	1
		B	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 4" x 4"	1
	PM 5.61 KERN RIVER (Br No. 50-0033)	A	W21-5bR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	1 - 4" x 4"	1
		B	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 4" x 4"	1
	PM 5.90 CALLOWAY CANAL (Br No. 50-0209)	A	W21-5bR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	1 - 4" x 4"	1
		B	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 4" x 4"	1
	PM 6.70 AIRPORT DRIVE UC (Br No. 50-0475)	A	W21-5bR	RIGHT SHOULDER CLOSED AHEAD	48" x 48"	1 - 4" x 4"	1
		B	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 4" x 4"	1

TRAFFIC HANDLING QUANTITIES

DIRECTION	POST MILE	LOCATION BRIDGE NAME (No.)/ DESCRIPTION	SIDE OF BRIDGE	TEMPORARY RAILING (TYPE K)	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE
				LF	EA	EA
NORTHBOUND	PM 5.49	STINE CANAL (Br No. 50-0208)	SA		13	14
	PM 5.61	KERN RIVER (Br No. 50-0033)	SA		13	14
	PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	SA		13	14
	PM 6.70	AIRPORT DRIVE UC (Br No. 50-0475)	SA	120	13	14
SOUTHBOUND	PM 5.49	STINE CANAL (Br No. 50-0208)	SA		13	14
	PM 5.61	KERN RIVER (Br No. 50-0033)	SA		13	14
	PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	SA		13	14
	PM 6.70	AIRPORT DRIVE UC (Br No. 50-0475)	SA	120	13	14
TOTAL				240	104	112

**TRAFFIC HANDLING QUANTITIES
THQ-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 GURMIT GILL HASSAN TAHA
 MOHAMMED QATAMI
 REVISIONS: 02-17-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	16	46

Hassan Cohe 9-02-14
REGISTERED CIVIL ENGINEER DATE
2-17-15
PLANS APPROVAL DATE

HASSAN M. TAHA
No. 60130
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.

PAVEMENT DELINEATION QUANTITIES

ROUTE	LOCATION/PM	DIRECTION	DETAIL No.	PAVEMENT MARKERS (RETROREFLECTIVE)		REMOVE THERMOPLASTIC TRAFFIC STRIPE	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS-WASTE)	REMOVE PAVEMENT MARKER	THERMOPLASTIC TRAFFIC STRIPE					OBJECT MARKER			
				TYPE G	TYPE H				EA	LF	EA	LF	LF		4" (BROKEN 36-12)	4" (BROKEN 17-7)	TYPE P
204	AIR PORT DRIVE/ PM 6.70	SB	27B			400											
			25		9		400		9								
			12	9		100		9									
			38	5		210		5	105								
			8			57								193			
204	STINE CANAL/ PM 5.49	NB	27B									525					
			25		11												
			12	11													
204	STINE CANAL/ PM 5.49	SB	27B									525					
			25		11												
			12	11													
204	KERN RIVER/ PM 5.61	NB	27B									1323					
			25		27												
			12	27													
204	KERN RIVER/ PM 5.61	SB	27B									1323					
			25		27												
			12	27													
204	KERN RIVER/ PM 5.90	NB	27B									502					
			25		10												
			12	10													
204	KERN RIVER/ PM 5.90	SB	27B									502					
			25		10												
			12	10													
SUB TOTAL						110	105		767	400	23	105	5,100	5,100	5,100	193	8
GRAND TOTAL						215			767	400	23	105	10,200	5,100	193		8

* ONE (1) OBJECT MARKER PLACED AT NB, AND ONE (1) PLACED AT SB

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
GURMIT GILL
HASSAN TAHA
REVISOR BY
DATE REVISOR
CALCULATED/DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR
MOHAMMED QATAMI

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	17	46

Hassan Cohe 9-02-14
REGISTERED CIVIL ENGINEER DATE

2-17-15
PLANS APPROVAL DATE

HASSAN M. TAHA
No. 60130
Exp. 06/30/16
CIVIL

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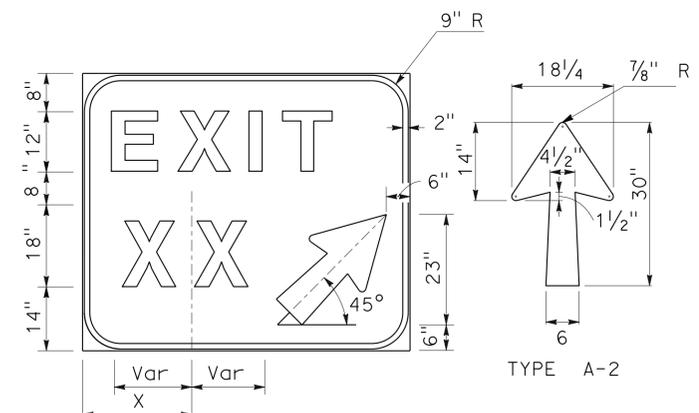
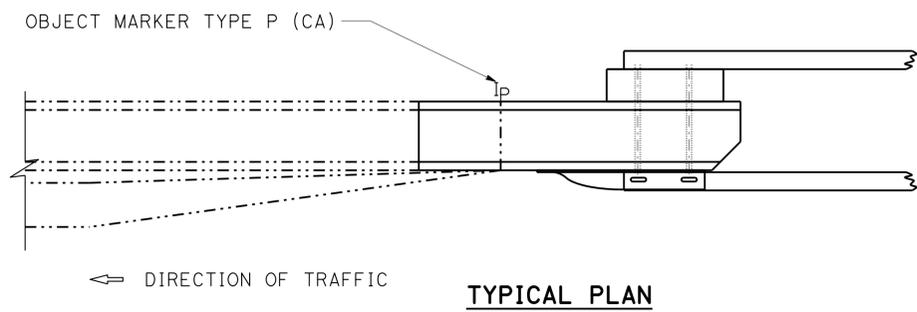
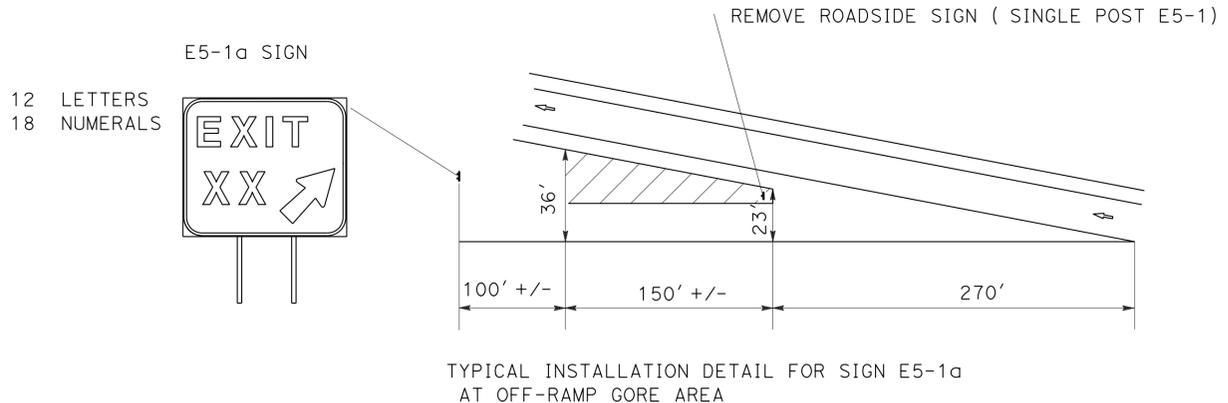
LEGEND:

← DIRECTION OF TRAFFIC

ROADSIDE SIGN QUANTITIES

LOCATION No.	SIGN LOCATION	DIRECTION	SIGN CODE	SIGN MESSAGE	No. OF POST AND SIZE	PANEL SIZE	SINGLE FACED	BACKGROUND		LEGEND			GRAFFITI FLOW	FURNISH SINGLE SHEET ALUMINUM SIGN (0.08 -FRAMED) FOR RETROREFLECTIVE SHEETING (TYPE XI)	RETROREFLECTIVE SHEETING (TYPE XI)	REMOVE ROADSIDE SIGN	ROADSIDE SIGN TWO - POST	TREATED WOOD WASTE *
								SHEETING COLOR	RETROREFLECTIVITY ASTM TYPE	SHEETING COLOR	RETROREFLECTIVITY ASTM TYPE	PREMIUM						
4 (PM 6.7)	NB 204 OFF RAMP TO AIRPORT DRIVE	NB	E5-1	EXIT WITH ARROW	2- 6" x 6"	72" X 60"	X	GREEN	XI	WHITE	XI	X	30.00	30.00	1	1	55	
		NB	E5-1a	EXIT 6 WITH ARROW														
4 (PM 6.7)	SB 204 OFF RAMP TO AIRPORT DRIVE	SB	E5-1	EXIT WITH ARROW	2- 6" x 6"	72" X 60"	X	GREEN	XI	WHITE	XI	X	30.00	30.00	1	1	55	
		SB	E5-1a	EXIT 6 WITH ARROW														
TOTAL													60.00	60.00	2	2	110	

* THE QUANTITY INCLUDED IN THE MIDWEST GUARDRAIL SYSTEM TABLE Q-1 SHEET.



E5-1a SIGN DETAILS

SIGN SPECIFICATIONS

SIGN NUMBER	BOARD SIZE	No. OF DIGITS	X	ARROW		
				WIDTH	LENGTH	TYPE
E5-1a	72"x60"	1 OR 2	24	18 1/4"	30"	A-2
E5-1a	72"x60"	3*	33	18 1/4"	30"	A-2
E5-1a	108"x60"	4*	42	18 1/4"	30"	A-2

* REDUCE SPACING 25% BETWEEN NUMERALS

SIGN DETAIL AND QUANTITIES

NO SCALE

SQ-1

APPROVED FOR SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 GURMIT GILL
 HASSAN TAHA
 MOHAMMED QATAMI
 TRAFFIC DESIGN
 Et Galtans

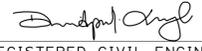
NOTES:

- DO NOT SALVAGE GUARDRAIL POSTS AND BLOCKS THAT THEIR SIZES ARE EQUAL OR SMALLER THAN 6"x8".
- TREATED WOOD WASTE IS FOR REMOVE GUARDRAIL POST (6"x8" OR SMALLER).

ABBREVIATIONS:

- A - STRUCTURE APPROACH
- D - STRUCTURE DEPARTURE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	18	46

 2-12-15
 REGISTERED CIVIL ENGINEER DATE

2-17-15
 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
 D. S. SANGHA
 No. 59652
 Exp. 12/31/15
 CIVIL
 STATE OF CALIFORNIA

MIDWEST GUARDRAIL SYSTEM TABLE

SHEET No.	DIRECTION	POST MILE	LOCATION BRIDGE NAME (No.)/ DESCRIPTION	SIDE OF BRIDGE	COLD PLANE LENGTH (N)		LAYOUT TYPE (N)	MIDWEST GUARDRAIL SYSTEM (STEEL POST)	ALTERNATIVE FLARED TERMINAL SYSTEM	ANCHOR POST	TRANSITION RAILING (TYPE WB-31)	CONCRETE BARRIER (TRANSITION)	SALVAGE GUARDRAIL (SEE NOTE 1)	REMOVE GUARDRAIL POST (6"x8" OR SMALLER) (N)	TREATED WOOD WASTE (SEE NOTE 2)	REMOVE ANCHOR POST (N)	REMOVE TERMINAL SYSTEM (N)	VEGETATION CONTROL (ASPHALT COMPOSITE)	REMOVE CONCRETE SIDEWALK *	MINOR CONCRETE (SIDEWALK) **												
					LF	EA																										
SQ-1	NORTHBOUND	PM 5.49	STINE CANAL (Br No. 50-0208)	A	180	12B	25	1	1	1			87.5	14	990	1	1															
		PM 5.49	STINE CANAL (Br No. 50-0208)	D	180																											
		PM 5.61	KERN RIVER (Br No. 50-0033)	A	180	12B	25	1	1	1				87.5	14	990	1	1														
		PM 5.61	KERN RIVER (Br No. 50-0033)	D	180																											
		PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	A	180	12B	25	1	1	1				87.5	14	990	1	1														
		PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	D	180																											
		PM 6.70	AIRPORT DRIVE UC (Br No. 50-0475)	A		12B	25	1		1	3.5			87.5	14	990		1	47													
		PM 5.49	STINE CANAL (Br No. 50-0208)	A	180	12B	25	1	1	1				87.5	14	990	1	1		0.31	0.08											
		PM 5.49	STINE CANAL (Br No. 50-0208)	D	180																											
		PM 5.61	KERN RIVER (Br No. 50-0033)	A	180	12B	25	1	1	1				87.5	14	990	1	1		0.31	0.08											
		PM 5.61	KERN RIVER (Br No. 50-0033)	D	180																											
		PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	A	180	12B	25	1	1	1				87.5	16	1140	1	1														
		PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	D	180																											
		PM 6.70	AIRPORT DRIVE UC (Br No. 50-0475)	A		12B	25	1		1	3.5			87.5	14	990		1	47													
PM 6.70	AIRPORT DRIVE UC (Br No. 50-0475)	D	100																													
ROADSIDE SIGN QUANTITIES TABLE																																
TOTAL																			200	8	6	8	7.0	700.0		8180				94	0.62	0.16

- (N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
- * REFER TO STRUCTURE PLANS FOR ADDITIONAL REMOVE CONCRETE SIDEWALK QUANTITIES.
- ** REFER TO STRUCTURE PLANS FOR ADDITIONAL MINOR CONCRETE (SIDEWALK) QUANTITIES.

**SUMMARY OF QUANTITIES
Q-1**

NOTE:
 REFER TO STANDARD PLANS FOR DOWNDRAIN ENTRANCE TAPER DETAILS.

ABBREVIATIONS:
 A STRUCTURE APPROACH
 D STRUCTURE DEPARTURE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	19	46

2-12-15
 REGISTERED CIVIL ENGINEER DATE
 2-17-15
 PLANS APPROVAL DATE

D S SANGHA
 No. 59652
 Exp. 12/31/15
 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.

ROADWAY QUANTITIES TABLE

DIRECTION	POST MILE	LOCATION/ BRIDGE NAME (No.)	SIDE OF BRIDGE	COLD PLANE LENGTH (N)	RESET MILEPOST MARKER	COLD PLANE AC Pymt	TACK COAT	HMA DIKE			HMA (TYPE A)			DOWNDRAIN (SEE NOTE) ENTRANCE TAPER			
								PLACE HMA DIKE (TYPE C)	PLACE HMA DIKE (TYPE E)	REMOVE AC DIKE	(PLACE HMA DIKE)		(PLACE HMA (Misc AREA))	PLACE HMA (Misc AREA)	ENTRANCE TAPER	REMOVE ENTRANCE TAPER	PIPE DIAMETER (N)
								LF	LF	LF	TON	TON	TON	SQYD	EA	EA	INCH
NORTHBOUND	PM 5.49	STINE CANAL (Br No. 50-0208)	A	180	1	840	0.77	30	150	180	4	163					
	PM 5.49	STINE CANAL (Br No. 50-0208)	D	180	1	720	0.66		180	180	5	140	0.66	4	2	2	10
	PM 5.61	KERN RIVER (Br No. 50-0033)	A	180	1	720	0.66	30	150	180	4	140	0.33	2	1	1	10
	PM 5.61	KERN RIVER (Br No. 50-0033)	D	180	1	720	0.66		180	180	5	140	0.33	2	1	1	10
	PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	A	180	1	720	0.66	30	150	180	4	140					
	PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	D	180	1	840	0.77		180	180	5	163					
	PM 6.70	AIRPORT DRIVE UC (Br No. 50-0475)	A														
SOUTHBOUND	PM 5.49	STINE CANAL (Br No. 50-0208)	A	180	1	720	0.66	30	150	180	4	140	0.66	4	2	2	10
	PM 5.49	STINE CANAL (Br No. 50-0208)	D	180	1	720	0.66		180	180	5	140					
	PM 5.61	KERN RIVER (Br No. 50-0033)	A	180	1	720	0.66	30	150	180	4	140	0.33	2	1	1	10
	PM 5.61	KERN RIVER (Br No. 50-0033)	D	180	1	720	0.66		180	180	5	140		2	1	1	10
	PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	A	180	1	720	0.66	30	150	180	4	140					
	PM 5.90	CALLOWAY CANAL (Br No. 50-0209)	D	180	1	720	0.66		180	180	5	140	0.33	2	1	1	10
	PM 6.70	AIRPORT DRIVE UC (Br No. 50-0475)	A														
	PM 6.70	AIRPORT DRIVE UC (Br No. 50-0475)	D	100		444	0.41					74					
	SUB-TOTAL											54	1800	2.64			
TOTAL				14		9324	8.55	180	1980	2160		1856.64		18	9	9	

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

**SUMMARY OF QUANTITIES
 Q-2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	20	46

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 2-17-15

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
∅	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

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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.

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
Tel	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
UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME
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 Sec	CROSS SECTION
Xing	CROSSING
Yr	YEAR
Yrs	YEARS

U

V

W

X

Y

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	21	46

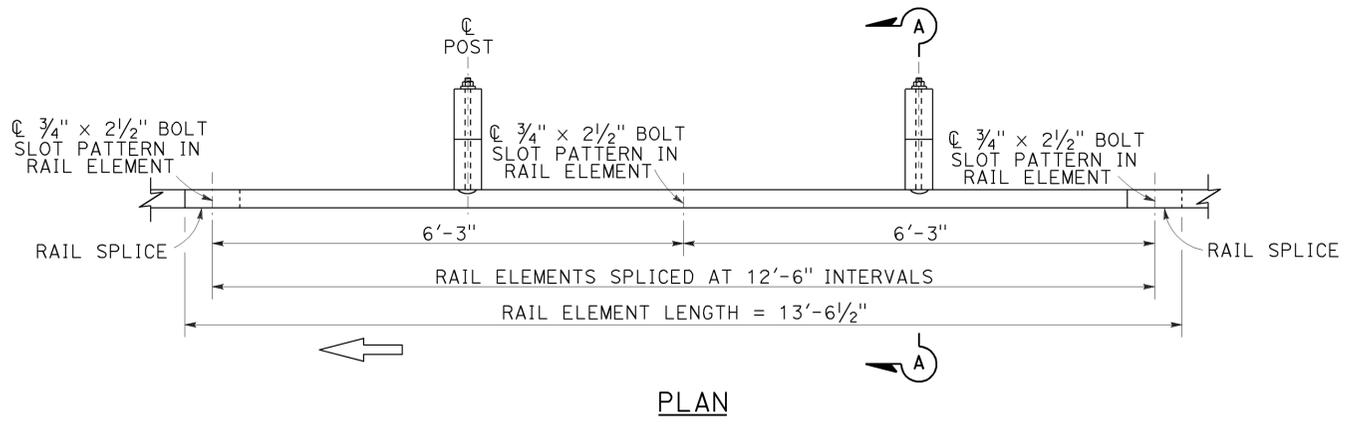
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

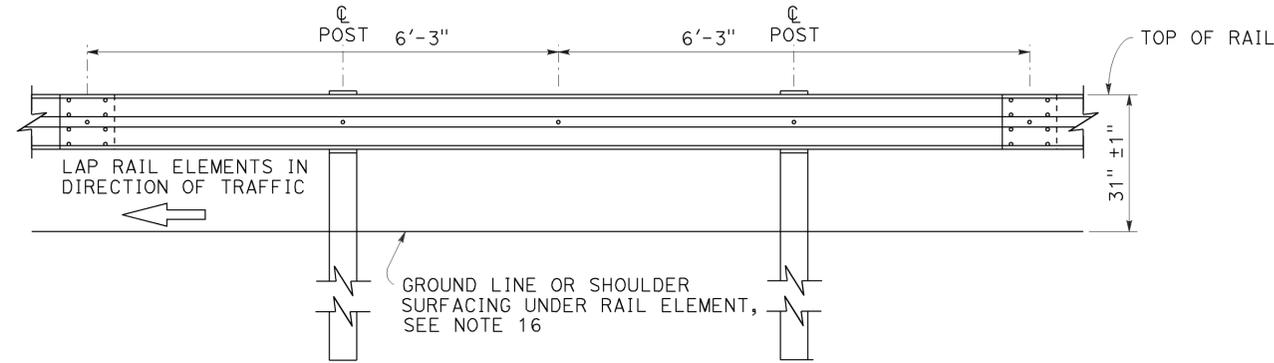
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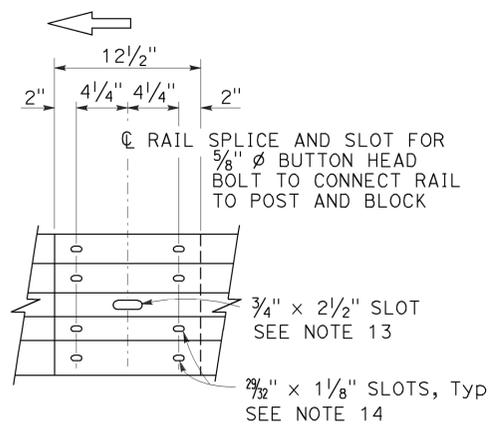


PLAN



ELEVATION

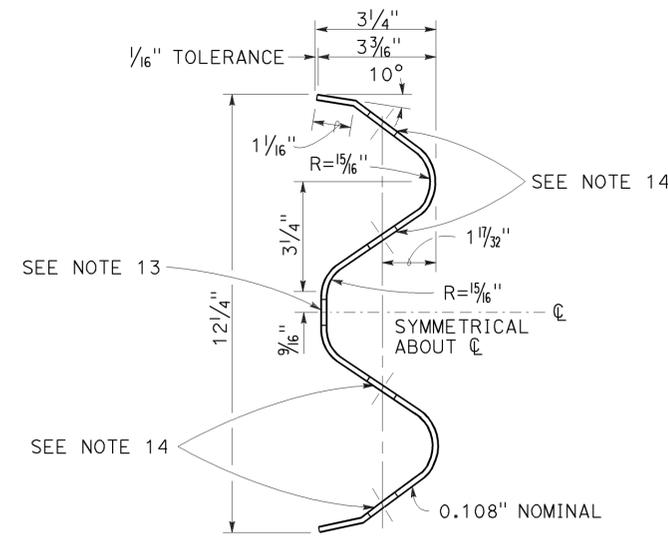
MIDWEST GUARDRAIL SYSTEM WITH WOOD POST AND BLOCKS



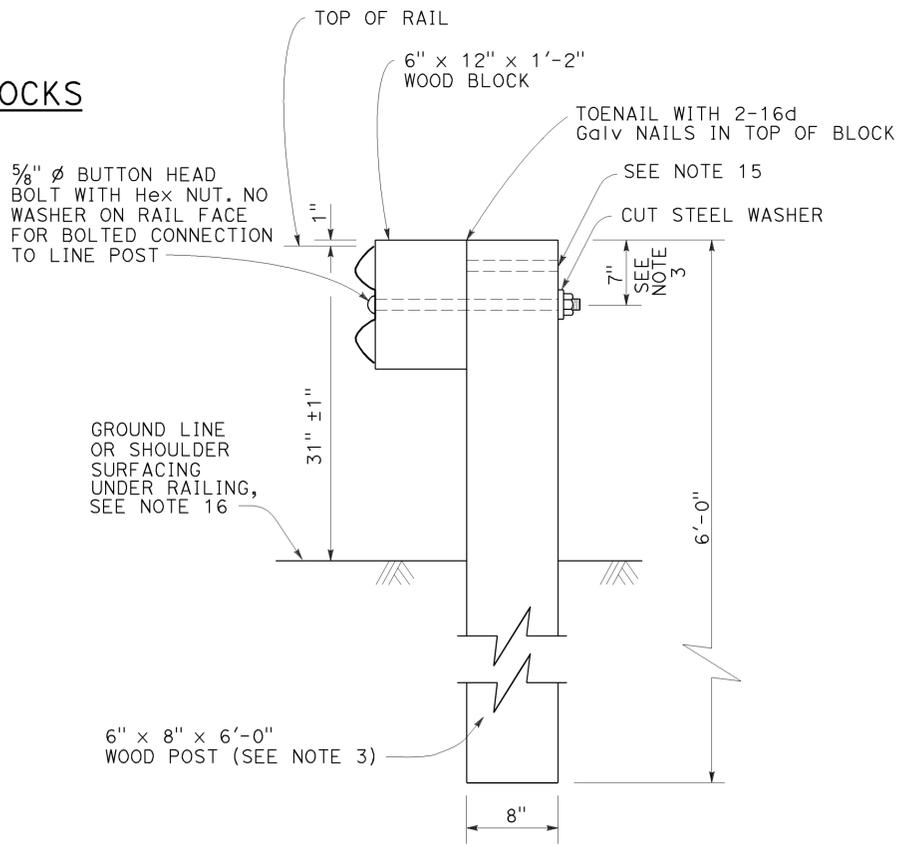
ELEVATION

RAIL ELEMENT SPLICE DETAIL

- Connect the over lapped 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.



SECTION THRU RAIL ELEMENT



SECTION A-A
TYPICAL WOOD LINE POST INSTALLATION

See Note 4

NOTES:

- For details of steel post installations, see Revised Standard Plan RSP A77L2.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of wood posts and wood blocks used to construct MGS, see Revised Standard Plan RSP A77N1.
- 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 railing, see Revised Standard Plans RSP A77U1, RSP A77U2 and RSP A77V1.
- For MGS connection details to abutments and walls, see Revised Standard Plan RSP A77U3.
- For typical MGS delineation and dike positioning details, see Revised Standard Plan RSP A77N4.
- 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".
- Additional hole in uppermost portion of line post is for potential future adjustments of railing height. See Revised Standard Plan RSP A77N1.
- Install posts in soil.

STATE OF CALIFORNIA
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MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(WOOD POST WITH WOOD BLOCK)

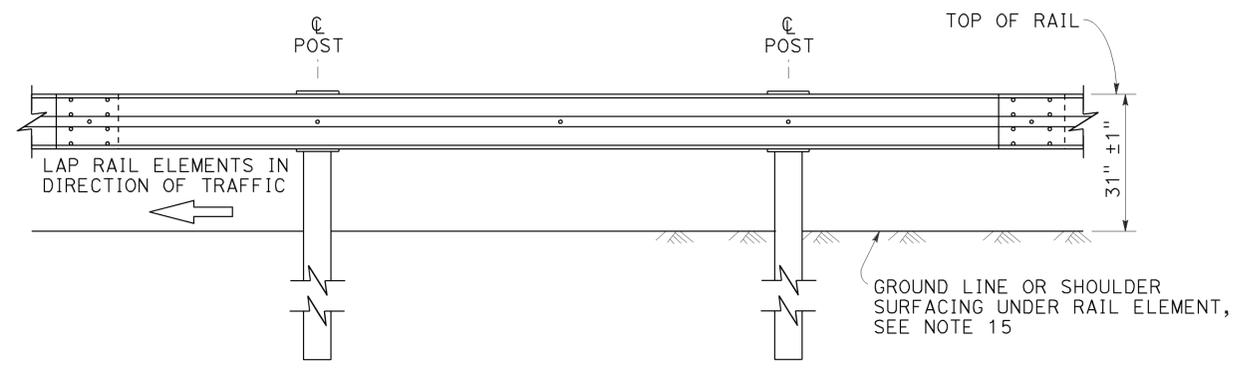
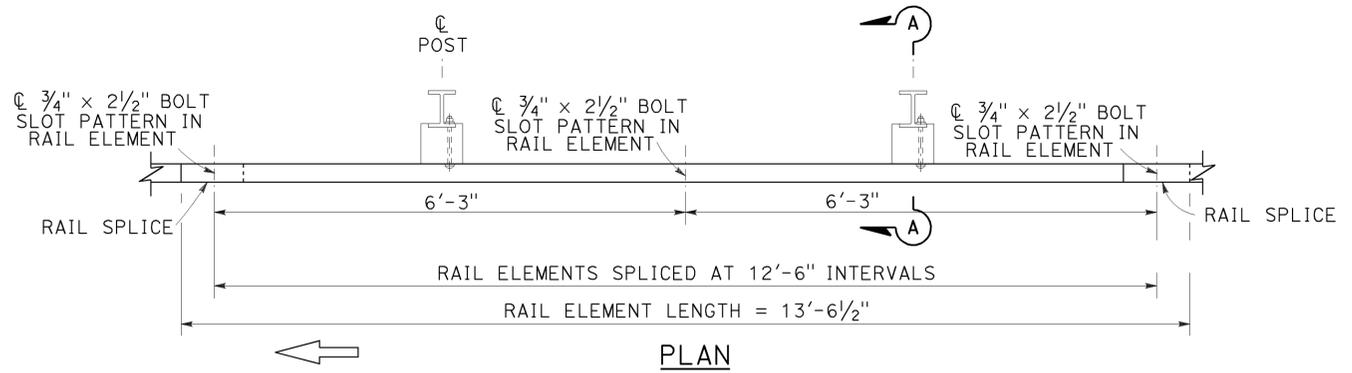
NO SCALE

RSP A77L1 DATED JULY 19, 2013 SUPPLEMENTS STANDARD PLANS BOOK DATED 2010.

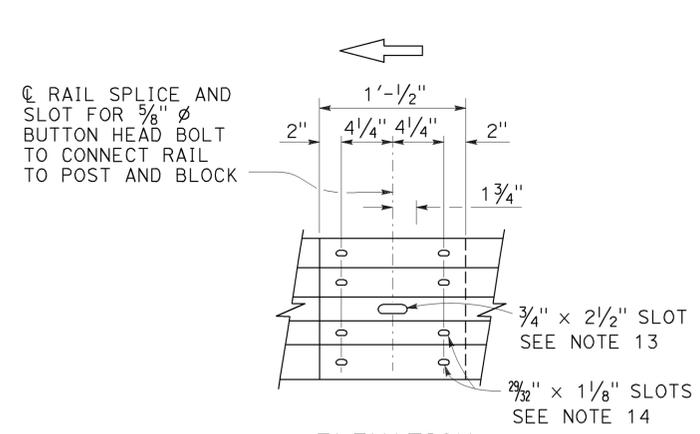
REVISED STANDARD PLAN RSP A77L1

2010 REVISED STANDARD PLAN RSP A77L1

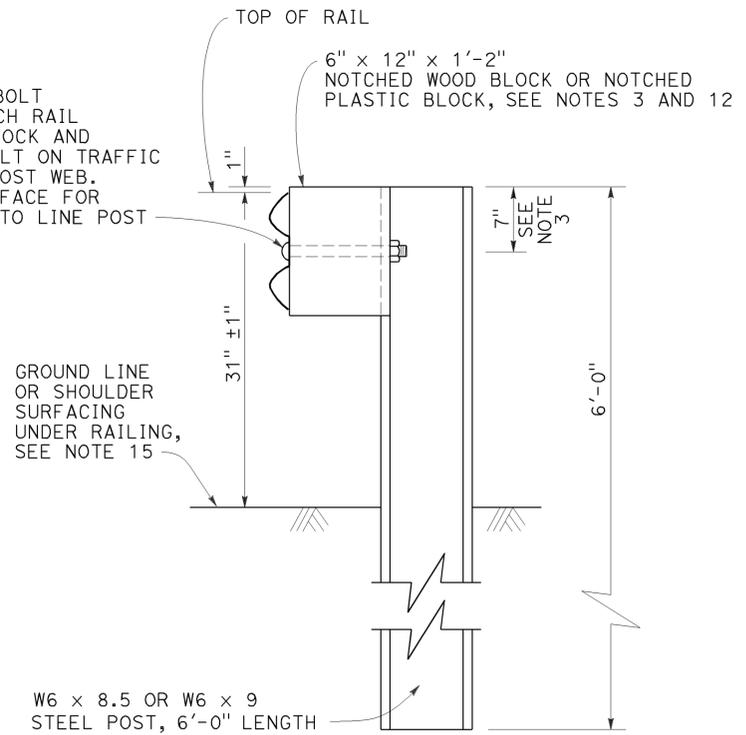
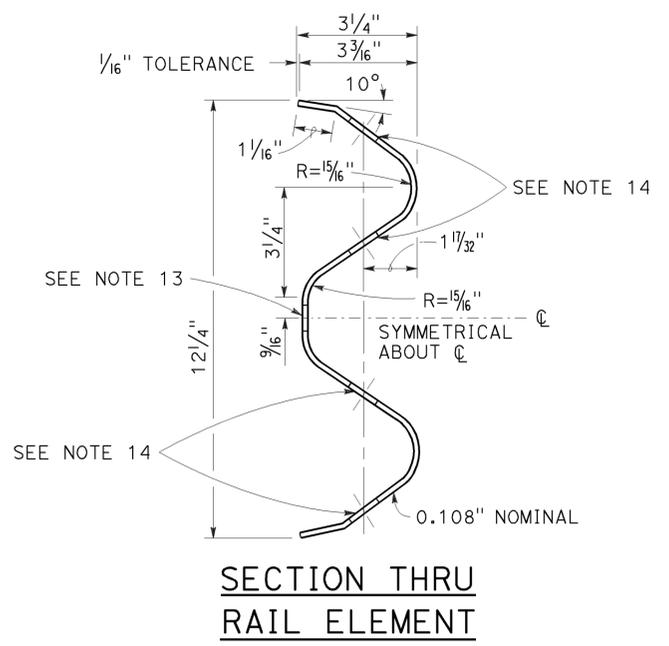
2010 REVISED STANDARD PLAN RSP A77L2



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 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.



SECTION A-A
TYPICAL STEEL LINE POST INSTALLATION
See Note 4

NOTES:

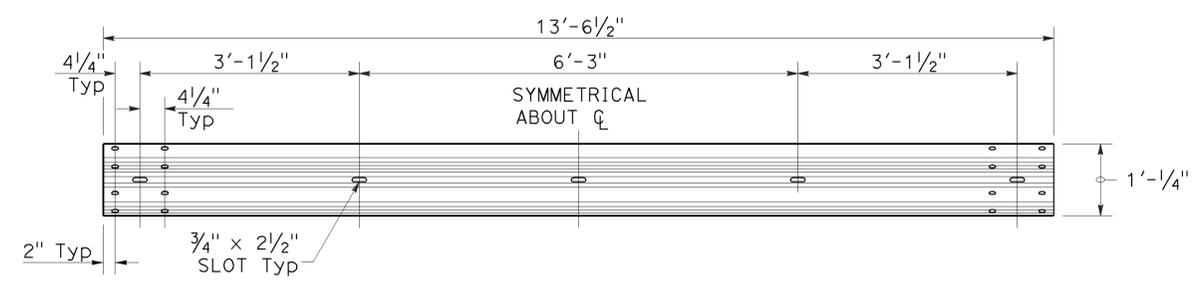
- For details of wood post installations, see Revised Standard Plan RSP A77L1.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of steel posts and notched wood blocks used to construct MGS, see Revised Standard Plan RSP A77N2.
- For additional 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

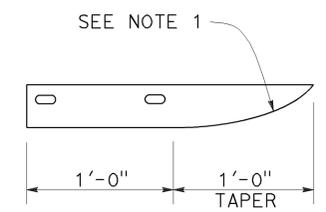
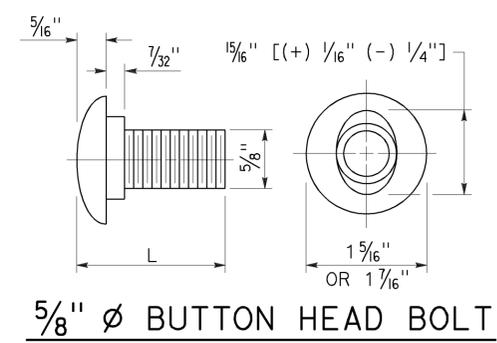
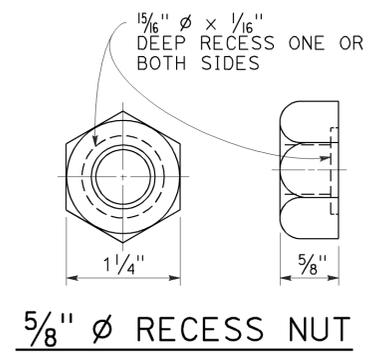
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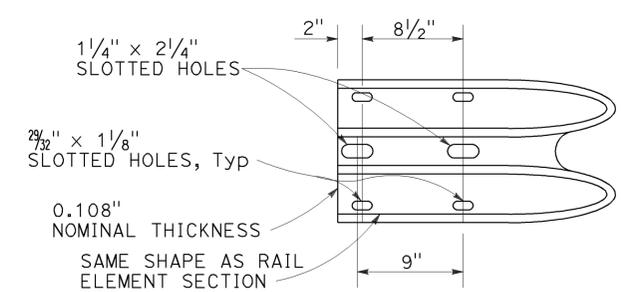
TYPICAL RAIL ELEMENT

NOTE:

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



PLAN



**ELEVATION
END CAP
(TYPE A)**

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.

2010 REVISED STANDARD PLAN RSP A77M1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	24	46

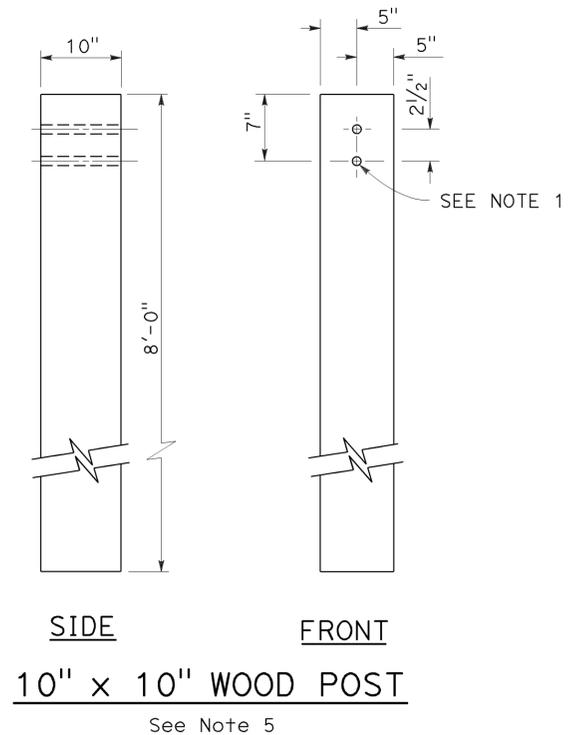
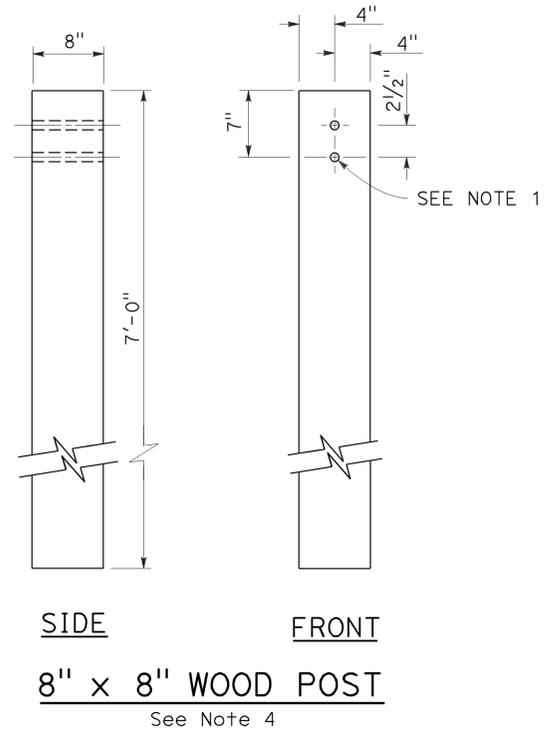
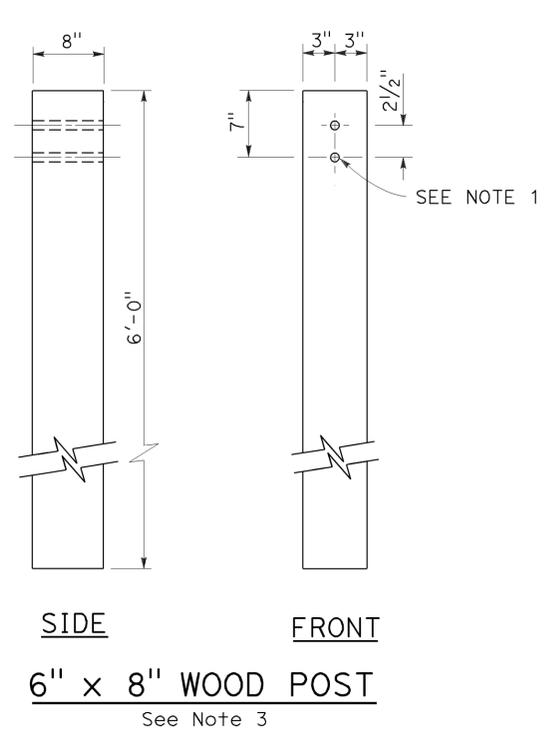
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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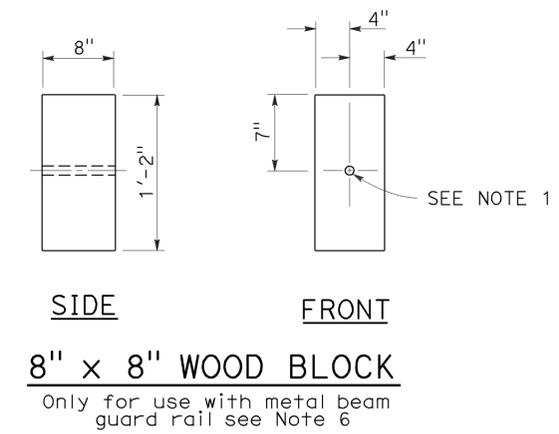
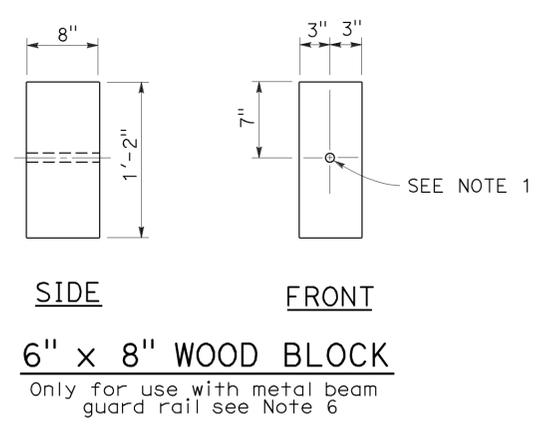
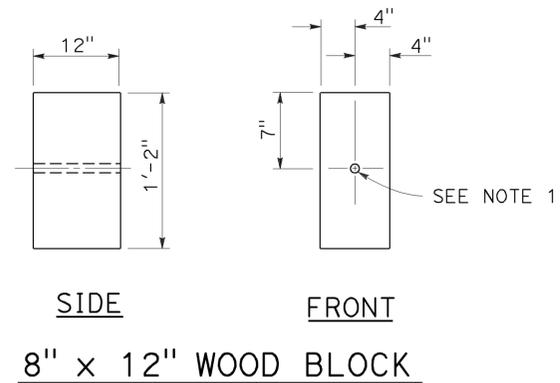
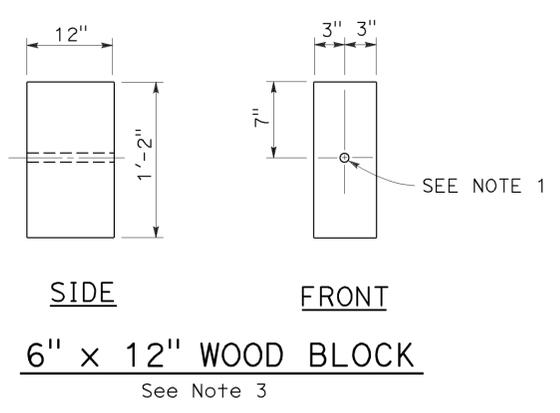
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No. C50200
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STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 2-17-15



NOTES:

1. All holes in wood posts and blocks shall be 3/4" Dia ± 1/16".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post and 8" x 12" block combination is typically used where strengthened line post sections of MGS are warranted to shield fixed objects.
6. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" wood blocks.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

RSP A77N1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N1

2010 REVISED STANDARD PLAN RSP A77N1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	25	46

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

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

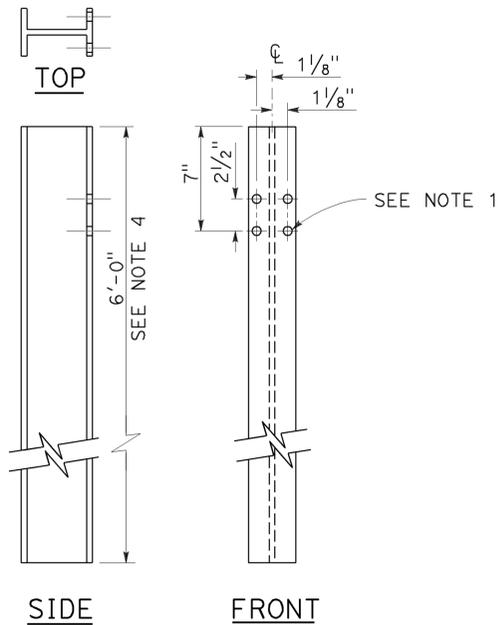
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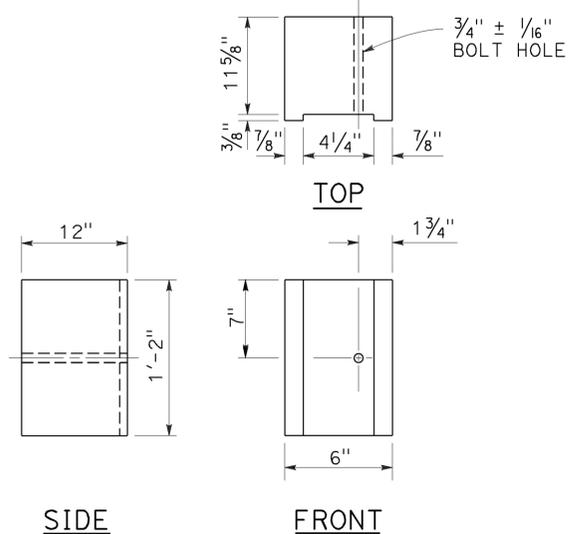
NOTES:

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.

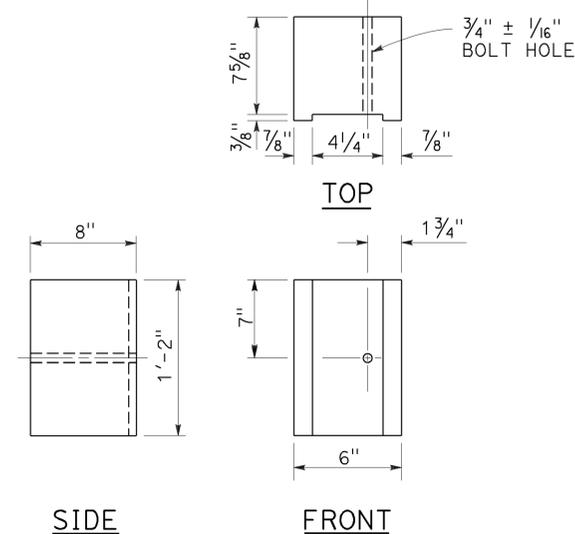
2010 REVISED STANDARD PLAN RSP A77N2



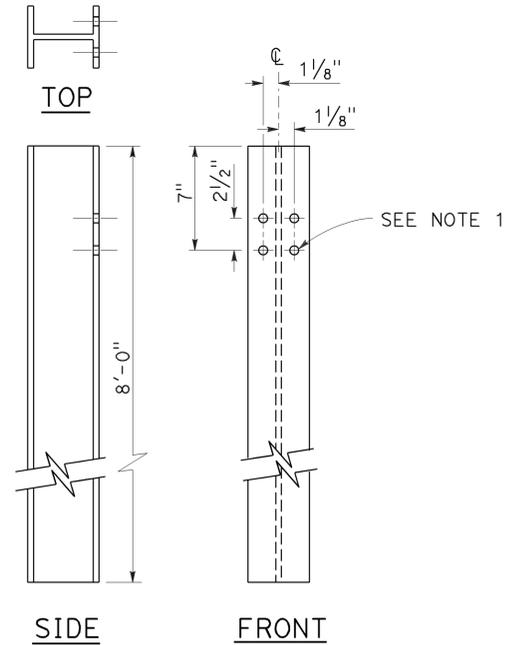
**W6 x 9 OR W6 x 8.5
STEEL POST**
See Note 4



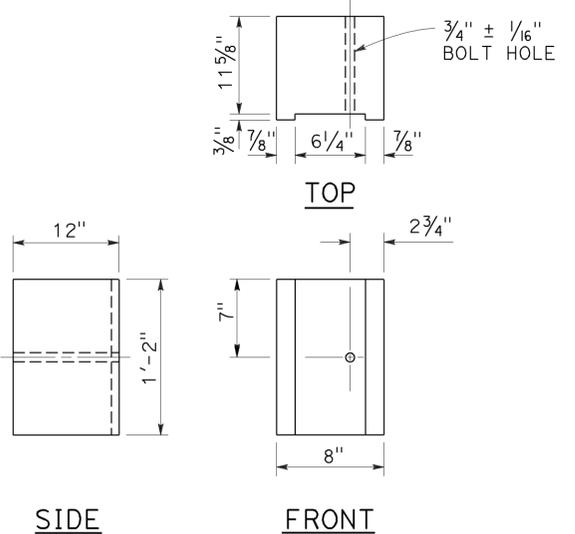
**6" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



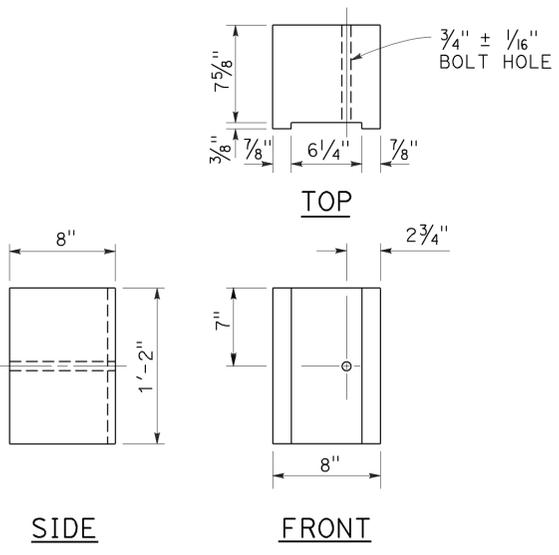
**6" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5



**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
06	Ker	204	5.4/6.7	26	46

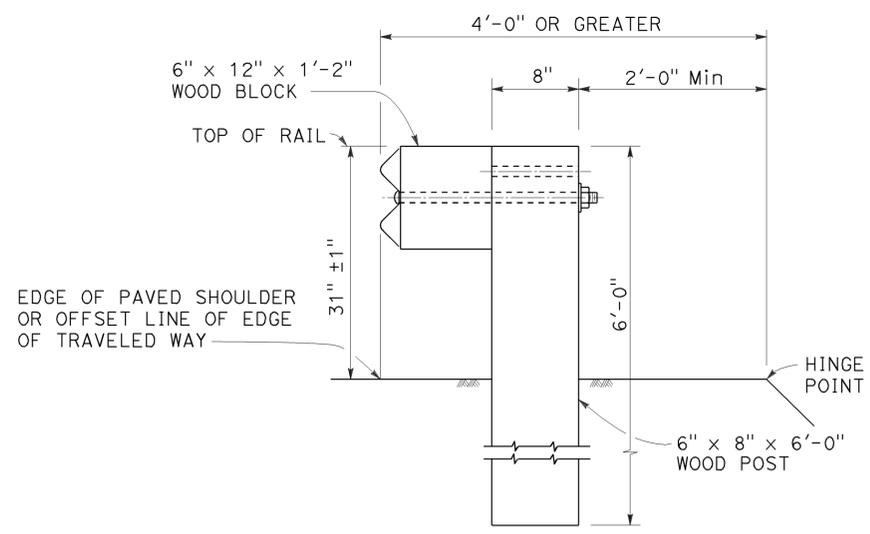
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

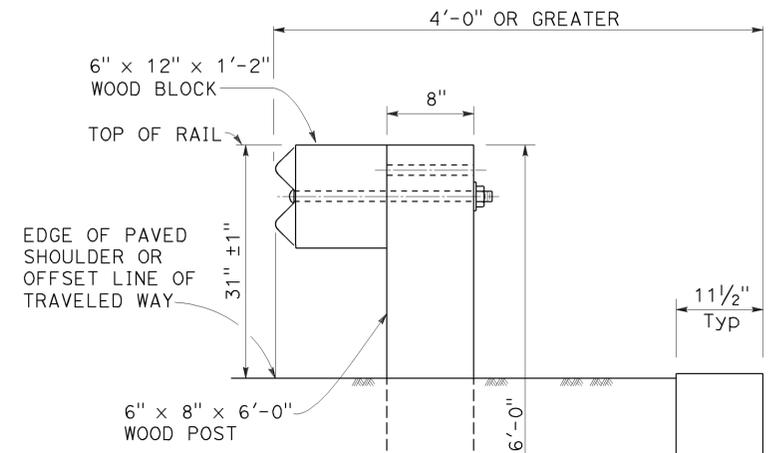
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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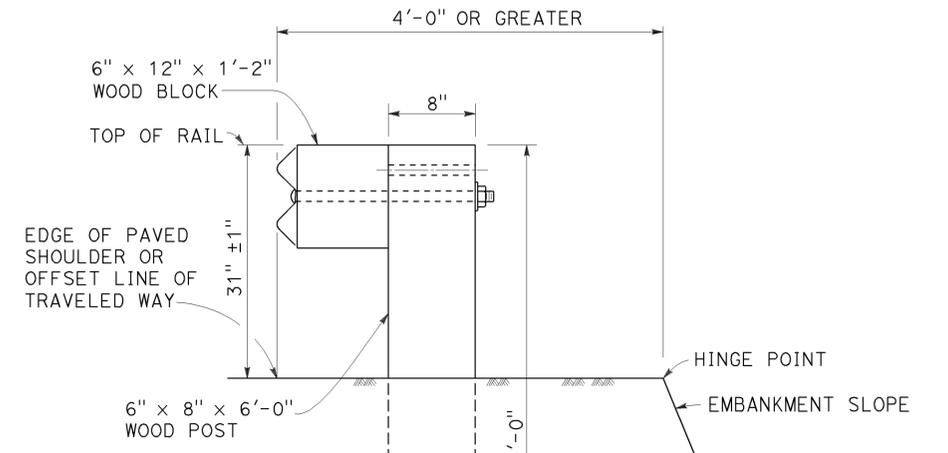
TO ACCOMPANY PLANS DATED 2-17-15



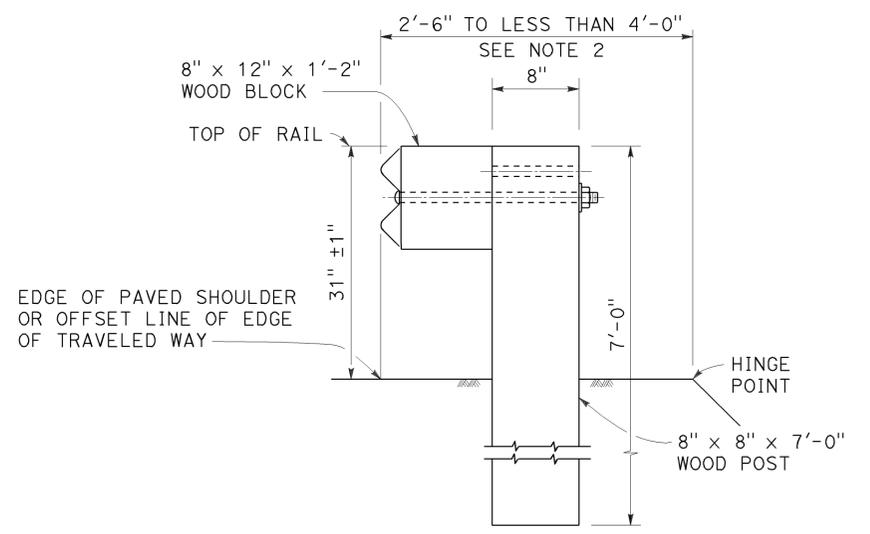
DETAIL A
TYPICAL ROADWAY
INSTALLATION
See Note 1



DETAIL C
INSTALLATION AT EARTH RETAINING WALLS



DETAIL D
INSTALLATION AT EARTH RETAINING WALLS



DETAIL B
NARROW ROADWAY
INSTALLATION
See Note 1

POST EMBEDMENT

NOTES:

1. These installation details also applicable to steel line post installations. For Detail A, C, and D, where steel line post installations are constructed, W6 x 8.5 or W6 x 9 steel post, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For Detail B, where steel line post installations are constructed, W6 x 15 steel post, 8'-0" in length, with 8" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For additional installation details, see Revised Standard Plan RSP A77L1 and RSP A77L2.
2. Where the distance between the face of the rail and the hinge point is less than 2'-6", see the Project Plans for special details.
3. For dike positioning with MGS installations, see Revised Standard Plan RSP A77N4.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM
TYPICAL LINE POST
EMBEDMENT AND
HINGE POINT OFFSET DETAILS

NO SCALE

RSP A77N3 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77N3
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N3

2010 REVISED STANDARD PLAN RSP A77N3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	27	46

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

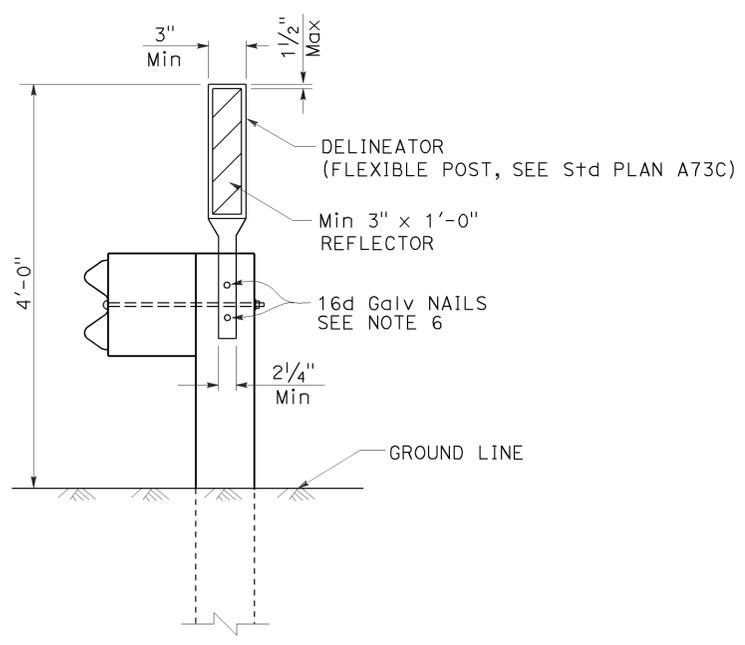
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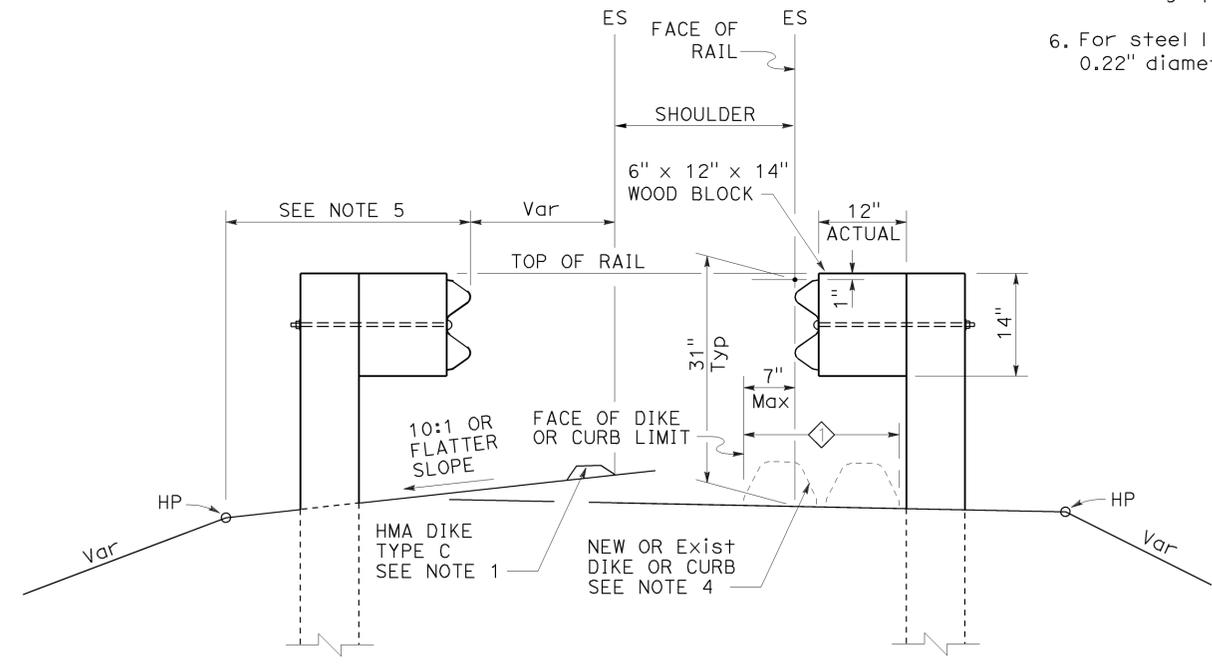
TO ACCOMPANY PLANS DATED 2-17-15

NOTES:

1. When necessary to place dike more than 7" in front of face of MGS, only Type C dike may be used. For dike details, see Revised Standard Plan RSP A87B.
2. For standard railing post embedment, see Revised Standard Plan RSP A77N3.
3. MGS delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under MGS, the maximum height of the dike or curb shall be 6". Mountable dike should not be used. For dike and curb details, see Revised Standard Plans RSP A87A and RSP A87B.
5. For details of typical distance between the face of rail and hinge point, see Revised Standard Plan RSP A77N3.
6. For steel line posts, use 1/4" - 20 self-tapping screws in 0.22" diameter holes or 1/4" bolts in 3/32" diameter holes.



MGS DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

◇ PERMISSIBLE DIKE OR CURB PLACEMENT AREA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL RAILING DELINEATION
AND DIKE POSITIONING DETAILS**
NO SCALE

RSP A77N4 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A77N4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	28	46

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

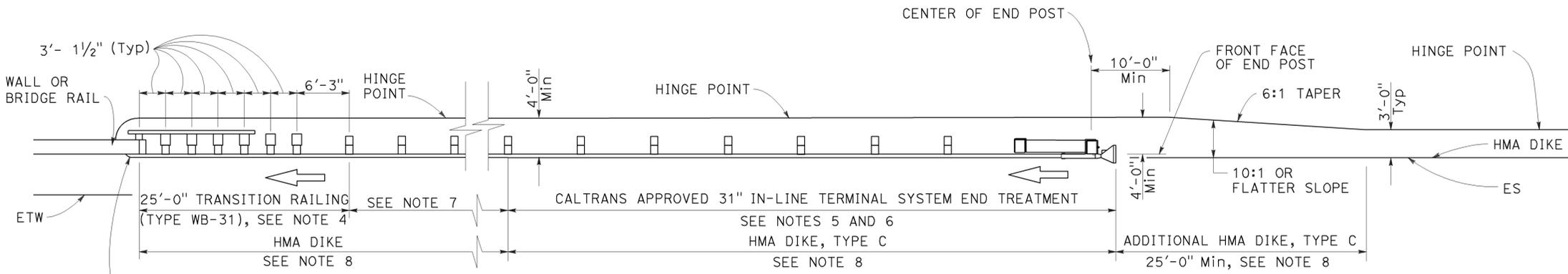
July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 2-17-15

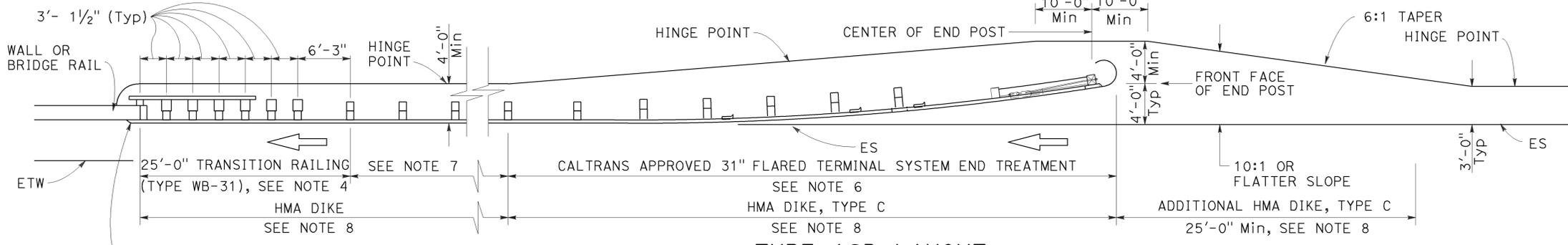


2010 REVISED STANDARD PLAN RSP A77Q1



TYPE 12A LAYOUT

(MGS installation at structure approach with 31" in-line end treatment at traffic approach end of railing)
See Notes 5 and 6
SEE NOTE 8
SEE NOTE 9



TYPE 12B LAYOUT

(MGS installation at structure approach with 31" Flared end treatment at traffic approach end of railing)
SEE NOTE 6
SEE NOTE 8
SEE NOTE 9

NOTES:

- Line post, blocks and hardware to be used are shown on Revised Standard Plans RSP A77L1, RSP A77L2, RSP A77M1, RSP A77N1 and RSP A77N2.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 12" x 1'-2" wood blocks. W6 x 8.5 or W6 x 9 steel posts, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 12" x 1'-2" wood blocks where applicable and when specified.
- For Transition Railing (Type WB-31) details for Types 12A and 12B Layouts, see Revised Standard Plan RSP A77U4.
- 31" in-line terminal system end treatments are used where site conditions will not accommodate a 31" flared end treatment.
- The type 31" of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes, or other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatment. A 12.5 degree angle of departure can be drawn on the Project Plans from the edge of traveled way through the outer most point of the fixed object to determine the additional length of railing needed.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77N4 for dike positioning details.
- Type 12A or Type 12B Layouts are typically used:
 - To the right of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
 - To the left of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
 - To the right of approaching traffic at the end of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
 - To the right of approaching traffic at the end of the structure on multilane freeways or expressways with decked median on the bridge.
- See Revised Standard Plan RSP A77Q3 for typical layout used left of approaching traffic at the ends of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
- For additional details of typical connections to bridge rail, see Connection Detail AA on Revised Standard Plans RSP A77U1 and RSP A77U2 and Connection Detail FF on Revised Standard Plans RSP A77V1 and RSP A77V2.
- For additional details of a typical connection to walls or abutments, see Revised Standard Plan RSP A77U3.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TYPICAL LAYOUTS FOR
STRUCTURE APPROACH**

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	29	46

Randell D. Hiatt
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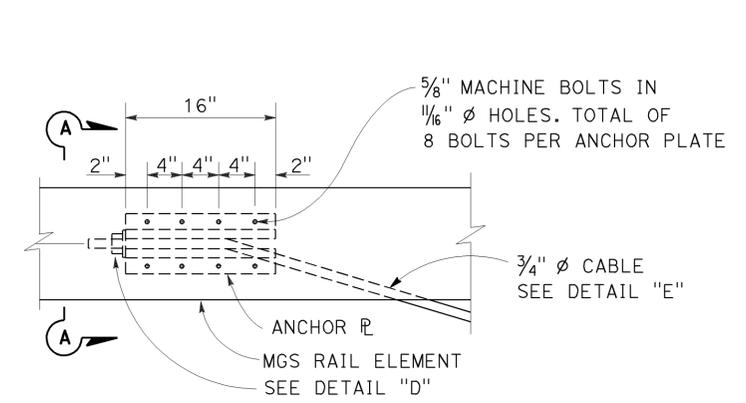
November 15, 2013
PLANS APPROVAL DATE

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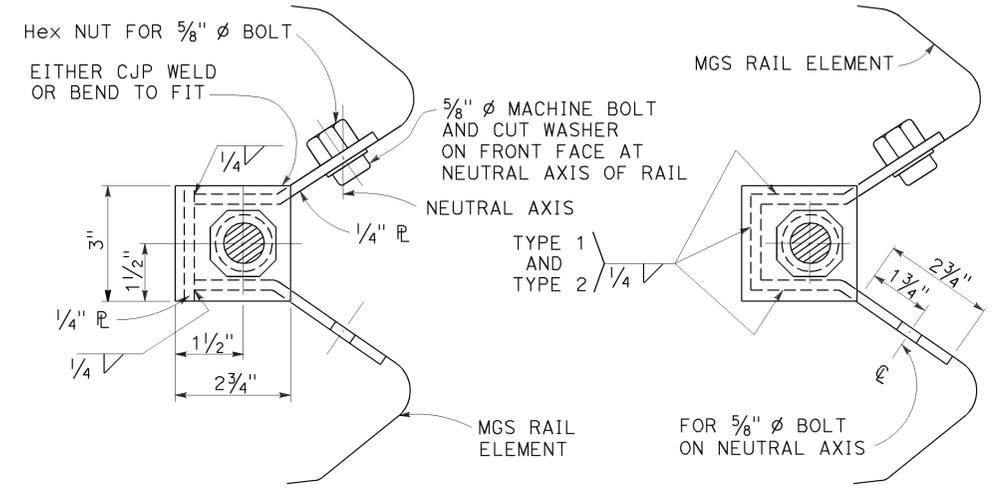
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TO ACCOMPANY PLANS DATED 2-17-15

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

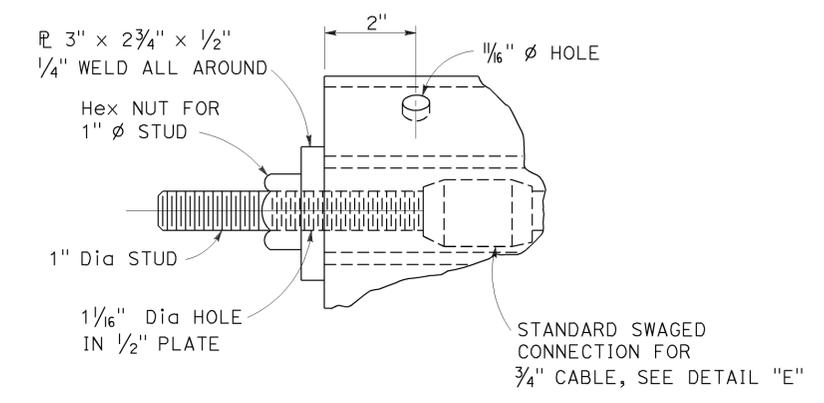


ANCHOR PLATE DETAIL
(MGS shown, TBB similar)

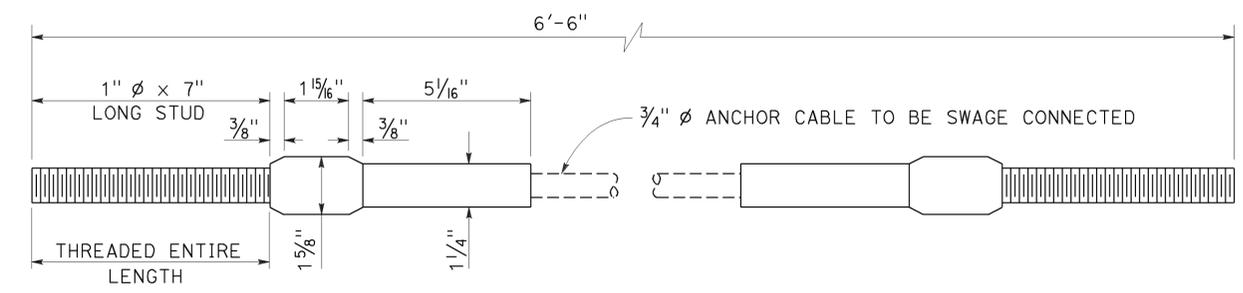


NOTE:
Dimensioning applies to both types.

SECTION A-A (ALTERNATIVE TYPE 1) **SECTION A-A (ALTERNATIVE TYPE 2)**



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.

2010 REVISED STANDARD PLAN RSP A77S3

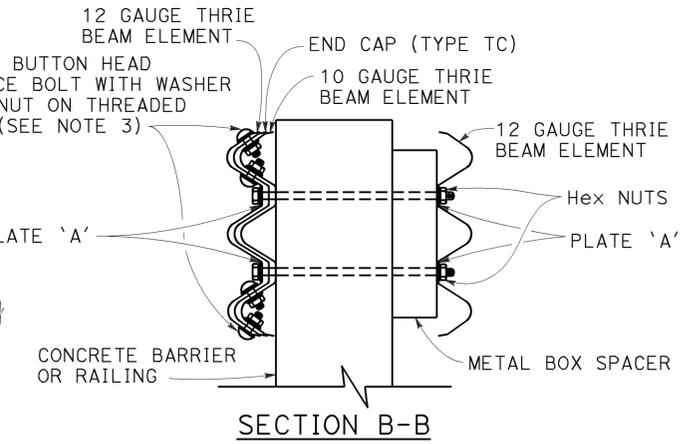
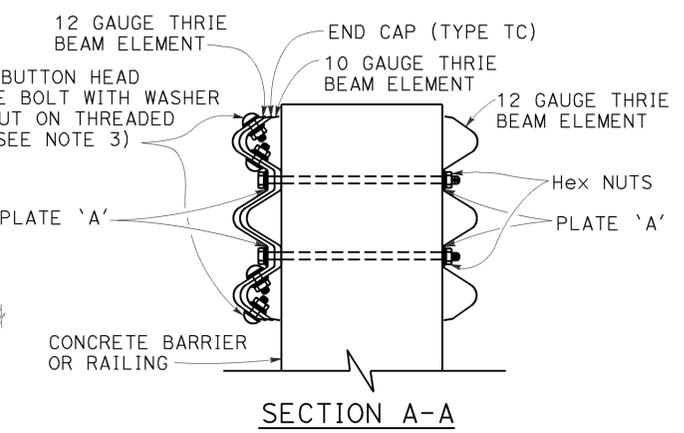
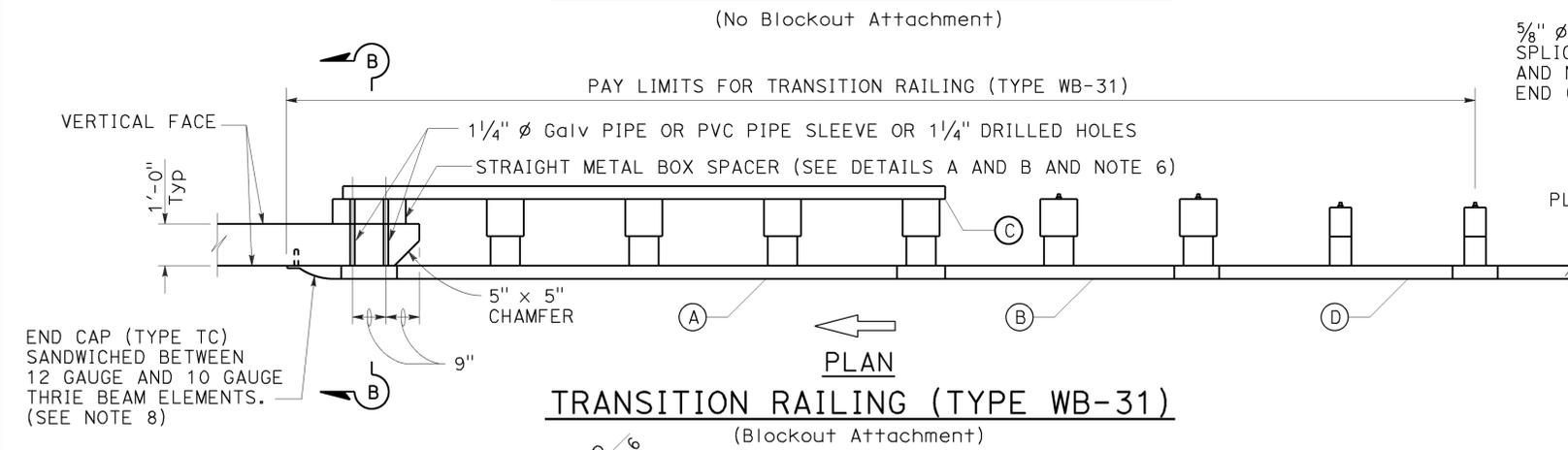
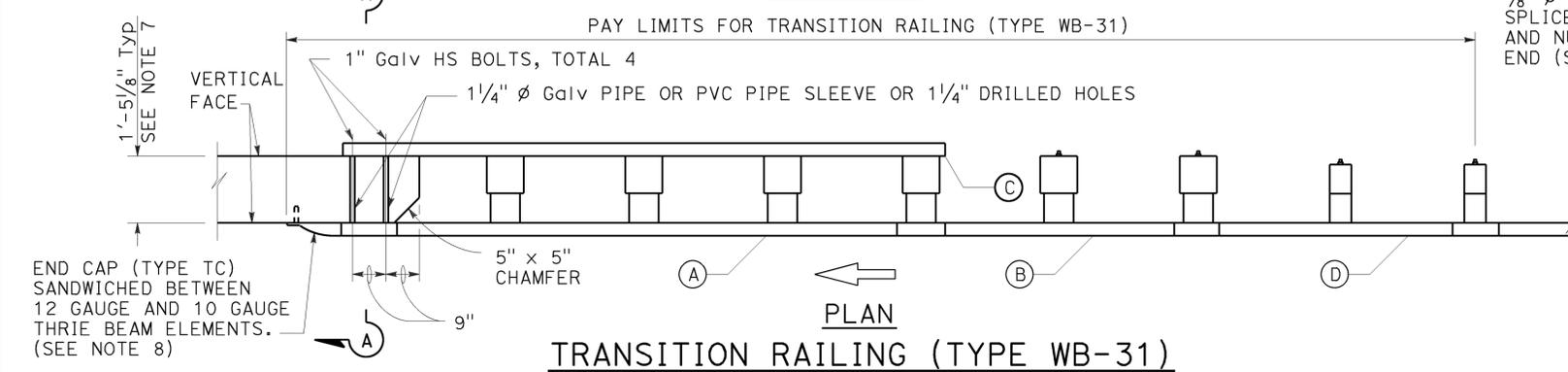
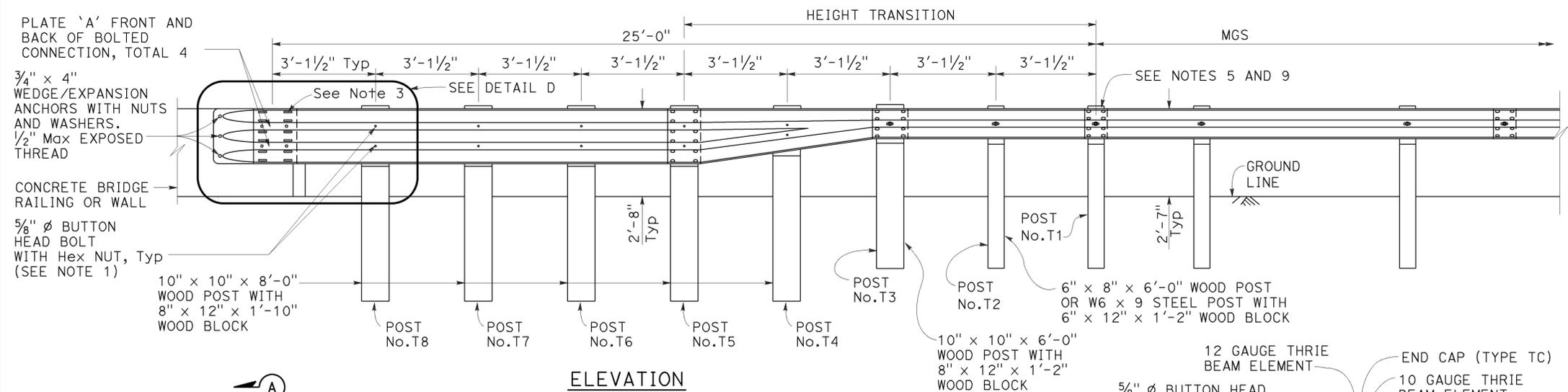
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	30	46

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

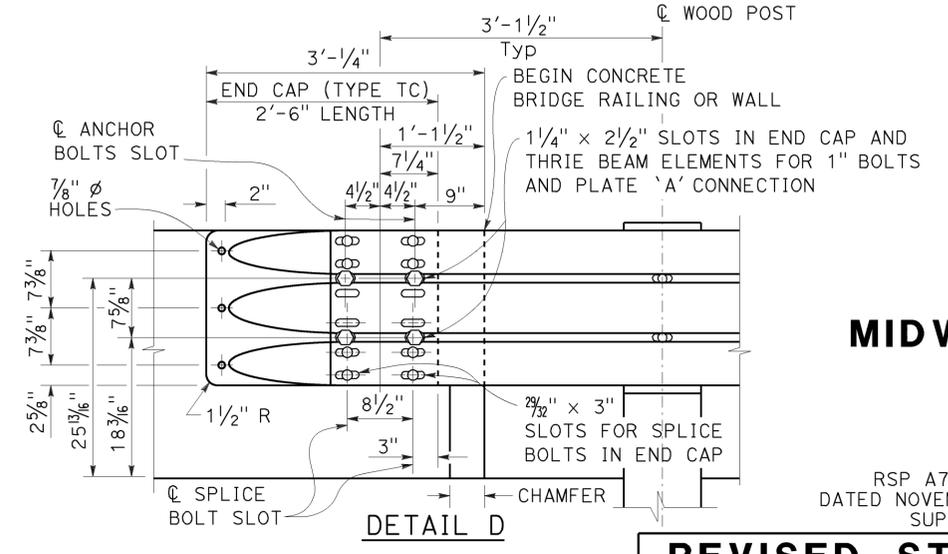
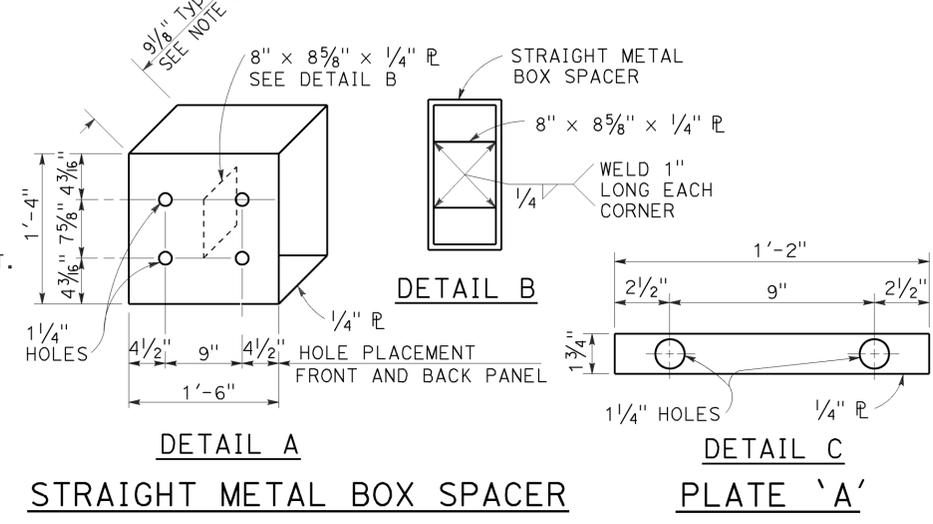
January 23, 2015
PLANS APPROVAL DATE

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No. C50200
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STATE OF CALIFORNIA



- LEGEND:**
- (A) NESTED THRIE BEAM ELEMENTS (ONE 12 GAUGE ELEMENT NESTED OVER ONE 10 GAUGE ELEMENT).
 - (B) ONE ASYMMETRICAL 10 GAUGE "W" BEAM TO THRIE BEAM ELEMENT.
 - (C) ONE 12 GAUGE THRIE BEAM ELEMENT.
 - (D) ONE 10 GAUGE "W" BEAM RAIL ELEMENT (7'-3/2" LENGTH)
- 10 GAUGE = 0.138" THICK
12 GAUGE = 0.108" THICK



- NOTES:** TO ACCOMPANY PLANS DATED 2-17-15
1. Use 5/8" ϕ Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
 2. The nested rail elements, end cap, and 'W' beam to thrie beam element may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
 3. Exterior splice bolt holes for rail element splices at Post No. T5 and the connection to the concrete barrier or railing shall be the standard 7/32" x 1/8" slot size. Interior splice bolt holes at these locations may be increased up to 1/4" ϕ . Only the top 4 and the bottom 4 splice bolts with washers and nuts are required for rail splices at Post No. T5 and the connection to the concrete barrier or railing.
 4. The top elevation of Posts No. T2 through No. T7 shall not project more than 1" above the top elevation of the rail element.
 5. Typically, the railing connected to Transition Railing (Type WB-31) will be either standard railing section of MGS with height transition ratio of 150:1 or a Caltrans approved 31" end treatment attached to Post No. T1.
 6. The depth of the metal box spacer varies from the 9/8" to 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 is typically 21 1/8". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1 1/2", metal plates similar to Plate 'A' are to be used as spacers.
 7. Where the width of the concrete railing or wall is greater than 17 1/8", wood blocks are to be used to fill the space created between the backside of Posts No. T5 through No. T8 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
 8. End cap may be installed over 12 gauge and 10 gauge thrie beam elements where transition railing is installed on the departure end of bridge railing.
 9. Conform standard railing section height to 31" at Post No. T1 using height transition ratio of 150:1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
TRANSITION RAILING
(TYPE WB-31)**

NO SCALE

RSP A77U4 DATED JANUARY 23, 2015 SUPERSEDES RSP A77U4 DATED NOVEMBER 15, 2013 AND RSP A77U4 DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77U4

2010 REVISED STANDARD PLAN RSP A77U4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	31	46

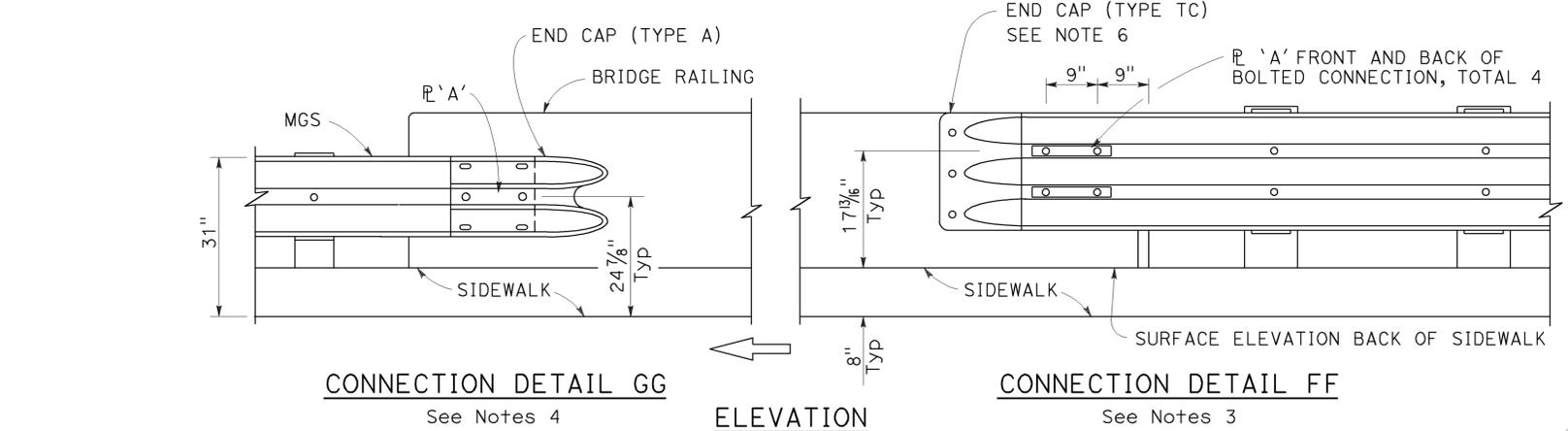
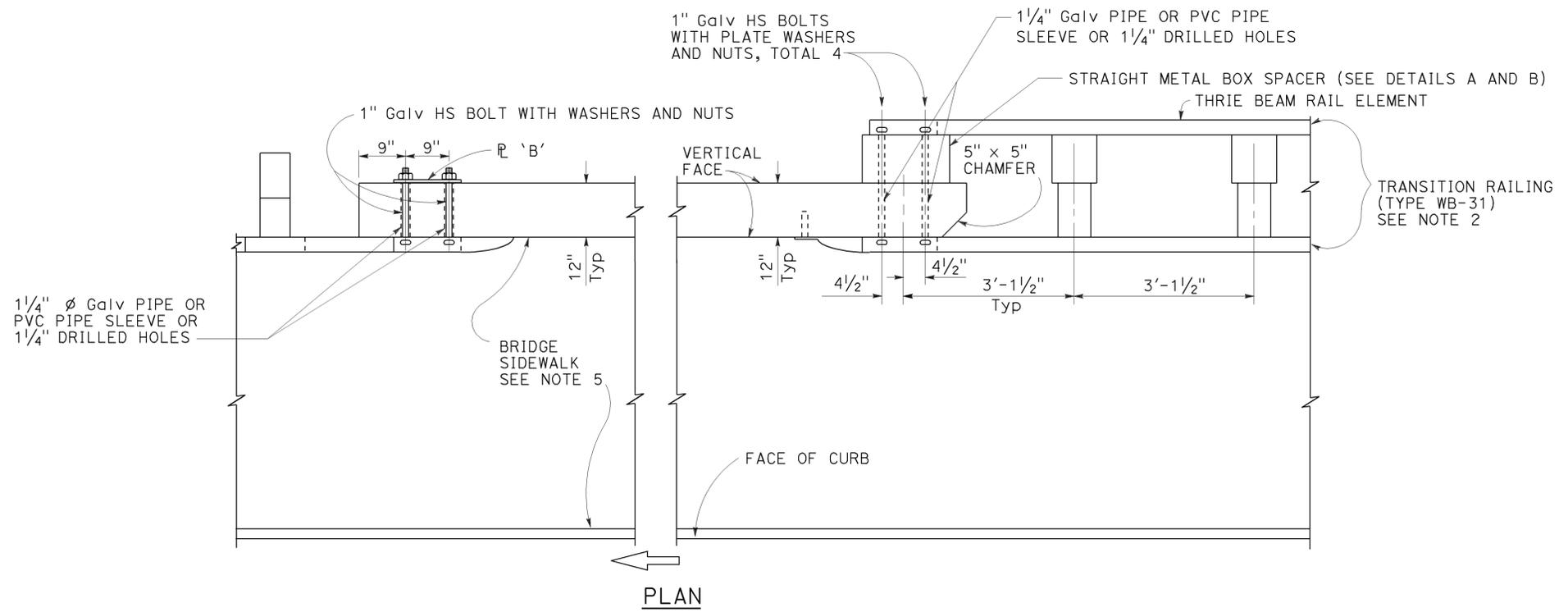
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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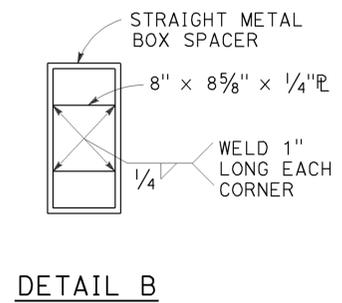
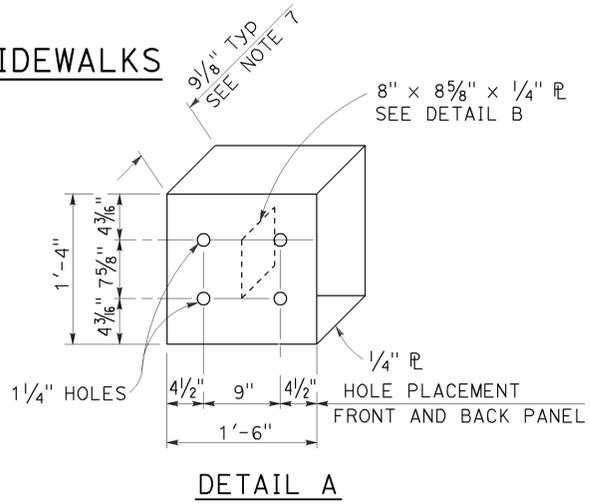
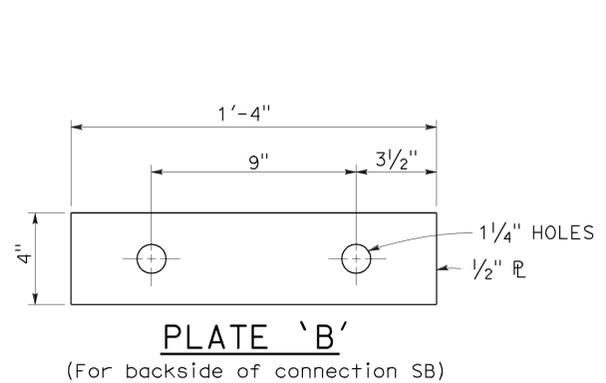
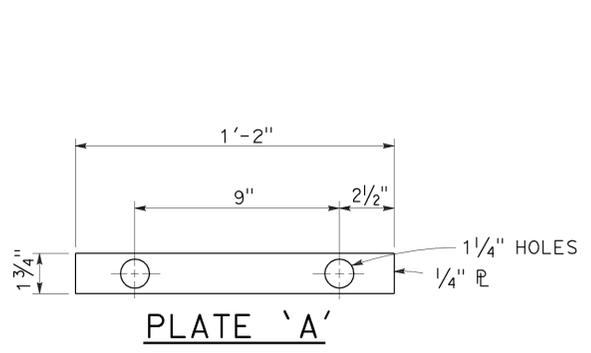
TO ACCOMPANY PLANS DATED 2-17-15



NOTES:

1. See Revised Standard Plan RSP A77V2 for additional connection details to bridges with sidewalks.
2. 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.
3. For typical use of Connection Detail FF, see Layout Types 12A and 12B on Revised Standard Plan RSP A77Q1.
4. For typical use of Connection Detail GG, see Layout Type 12D on Revised Standard Plan RSP A77Q2 and Layout Type 12DD on Revised Standard Plan RSP A77Q5.
5. Where the bridge sidewalk is not continued beyond the end of the bridge railing, the portion of the sidewalk beyond each end of the bridge railing shall be transitioned down from the top elevation of the sidewalk, for its entire width, to the finished grade of the adjacent roadbed. The longitudinal slope of each sidewalk elevation transition shall not exceed 8.33 percent.
6. For details of End Cap (Type TC), see Revised Standard Plan RSP A77U4.
7. See Revised Standard Plan RSP A77U4 for additional details regarding depth dimension for straight metal box spacer.

MIDWEST GUARDRAIL SYSTEM CONNECTION TO BRIDGE RAILING WITH SIDEWALKS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
CONNECTIONS TO BRIDGE
RAILINGS WITH SIDEWALKS
DETAILS No. 1**

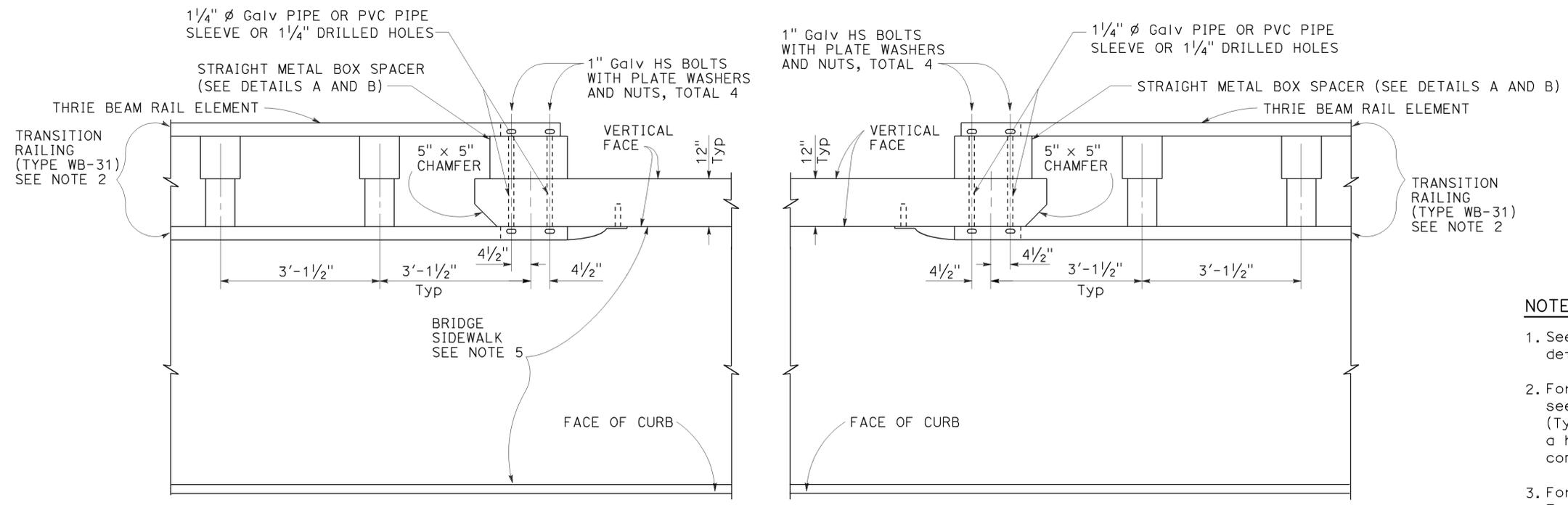
NO SCALE

RSP A77V1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

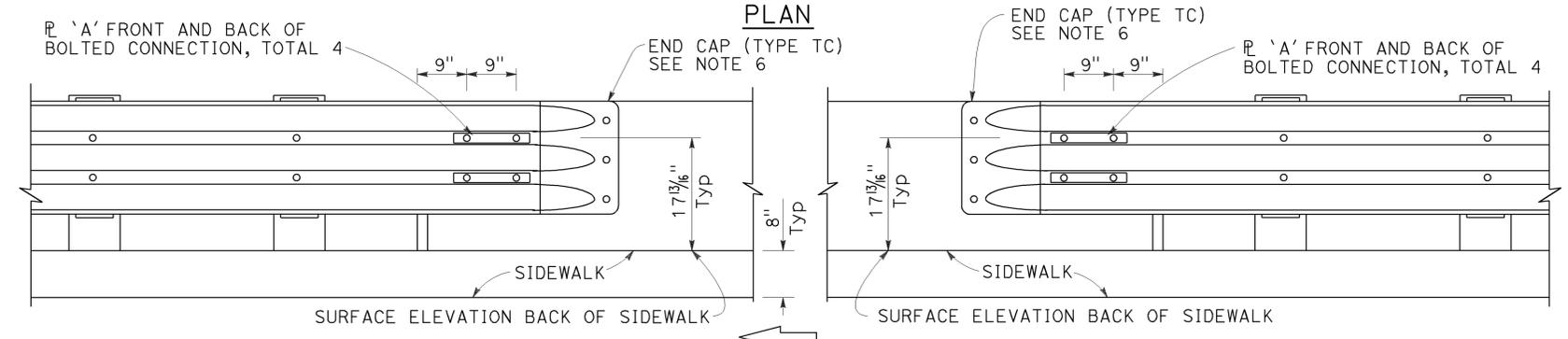
REVISED STANDARD PLAN RSP A77V1

2010 REVISED STANDARD PLAN RSP A77V1

TO ACCOMPANY PLANS DATED 2-17-15



PLAN



CONNECTION DETAIL HH

CONNECTION DETAIL FF

See Notes 4

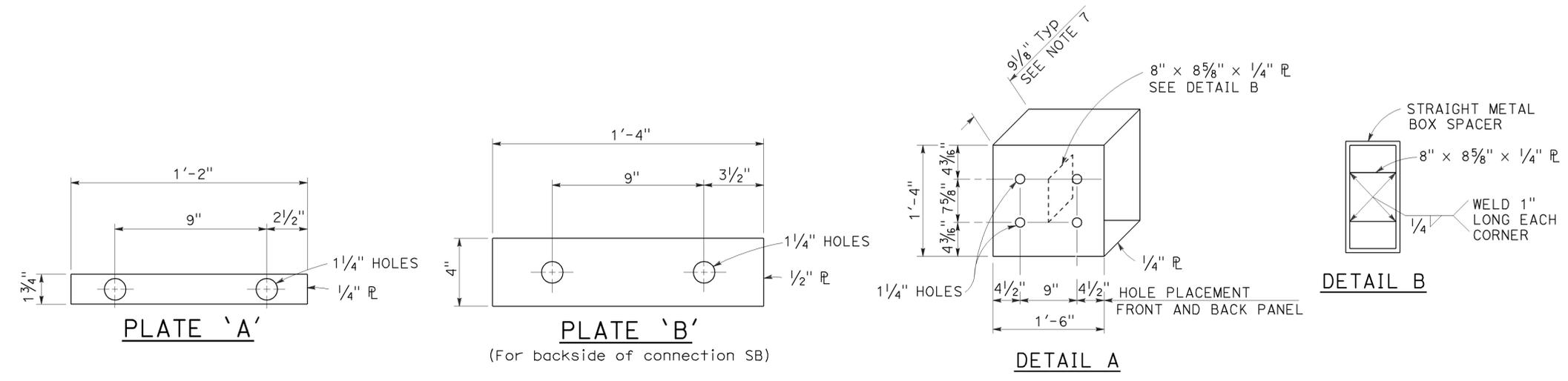
See Notes 3

ELEVATION

MIDWEST GUARDRAIL SYSTEM CONNECTION TO BRIDGE RAILING WITH SIDEWALKS

NOTES:

1. See Revised Standard Plan RSP A77V1 for additional connection details to bridges with sidewalks.
2. 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.
3. For typical use of Connection Detail FF, see Layout Types 12A and 12B on Revised Standard Plan RSP A77Q1.
4. For typical use of Connection Detail HH, see Layout Types 12AA and 12BB on Revised Standard Plan RSP A77Q4.
5. Where the bridge sidewalk is not continued beyond the end of the bridge railing, the portion of the sidewalk beyond each end of the bridge railing shall be transitioned down from the top elevation of the sidewalk, for its entire width, to the finished grade of the adjacent roadbed. The longitudinal slope of each sidewalk elevation transition shall not exceed 8.33 percent.
6. For details of End Cap (Type TC), see Revised Standard Plan RSP A77U4.
7. 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 WITH SIDEWALKS
DETAILS No. 2**

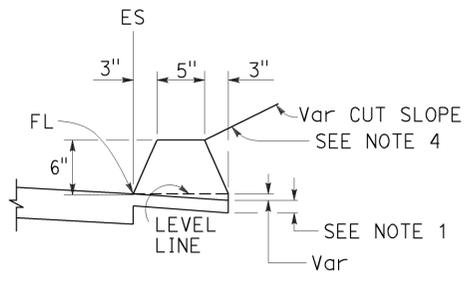
NO SCALE

RSP A77V2 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

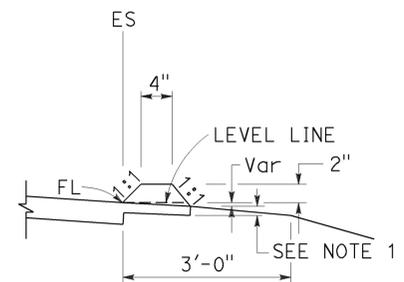
2010 REVISED STANDARD PLAN RSP A77V2



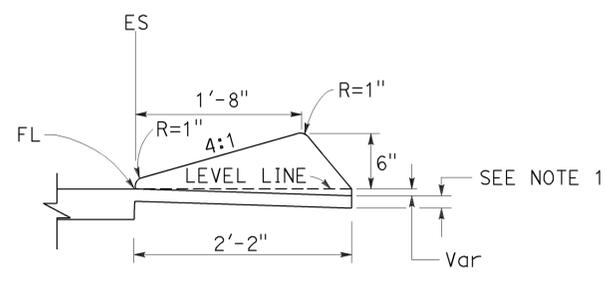
TO ACCOMPANY PLANS DATED 2-17-15



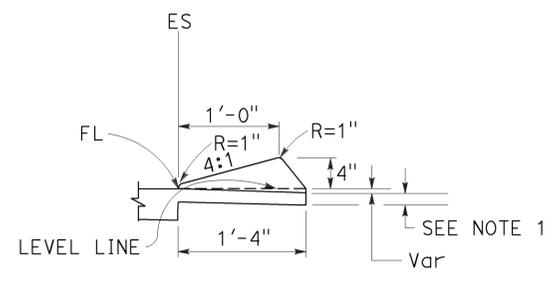
TYPE A
See Note 3



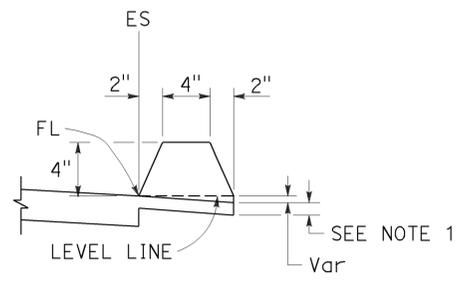
TYPE C



TYPE D

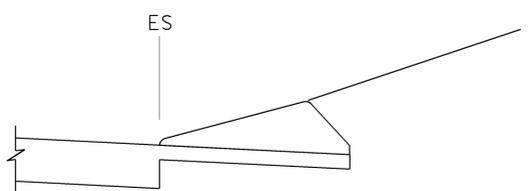


TYPE E

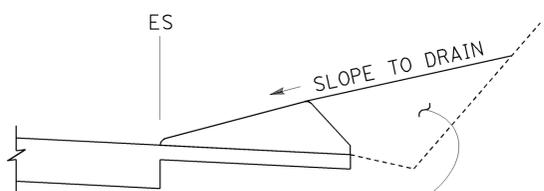


TYPE F
See Note 5

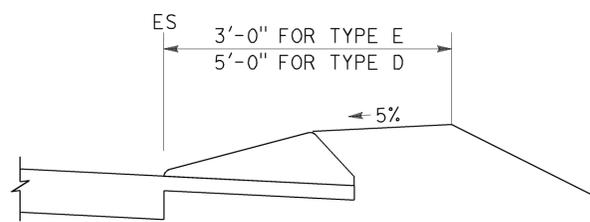
DIKES



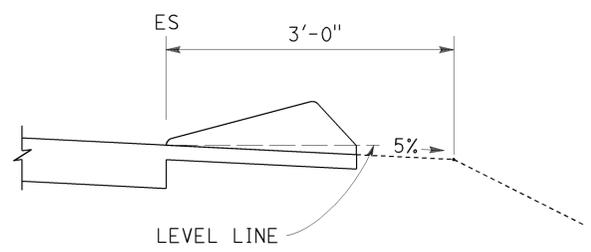
CASE C-1
Cut Slope



CASE C-2
Cut Slope



CASE F



CASE R
See Note 2

TYPE D AND E BACKFILL DETAILS

NOTES:

1. For HMA shoulders only, extend top layer of HMA placed on the shoulder under dike with no joint at the ES. For projects with OGFC shoulders, do not extend OGFC under dike. See project plans for modified dike detail.
2. Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
3. Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
4. Fill and compact with excavated material to top of dike.
5. Use Type F dike, where dike is required with guard railing installations. See Revised Standard Plan RSP A77N4 for dike positioning details.

DIKE QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A	0.0135
C	0.0038
D	0.0293
E	0.0130
F	0.0066

Quantities based on 5% cross slope.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HOT MIX ASPHALT DIKES

NO SCALE

RSP A87B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87B
DATED MAY 20, 2011 - PAGE 120 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A87B

2010 REVISED STANDARD PLAN RSP A87B

TO ACCOMPANY PLANS DATED 2-17-15

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
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

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

TABLE 3

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

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

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

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

2010 REVISED STANDARD PLAN RSP T9

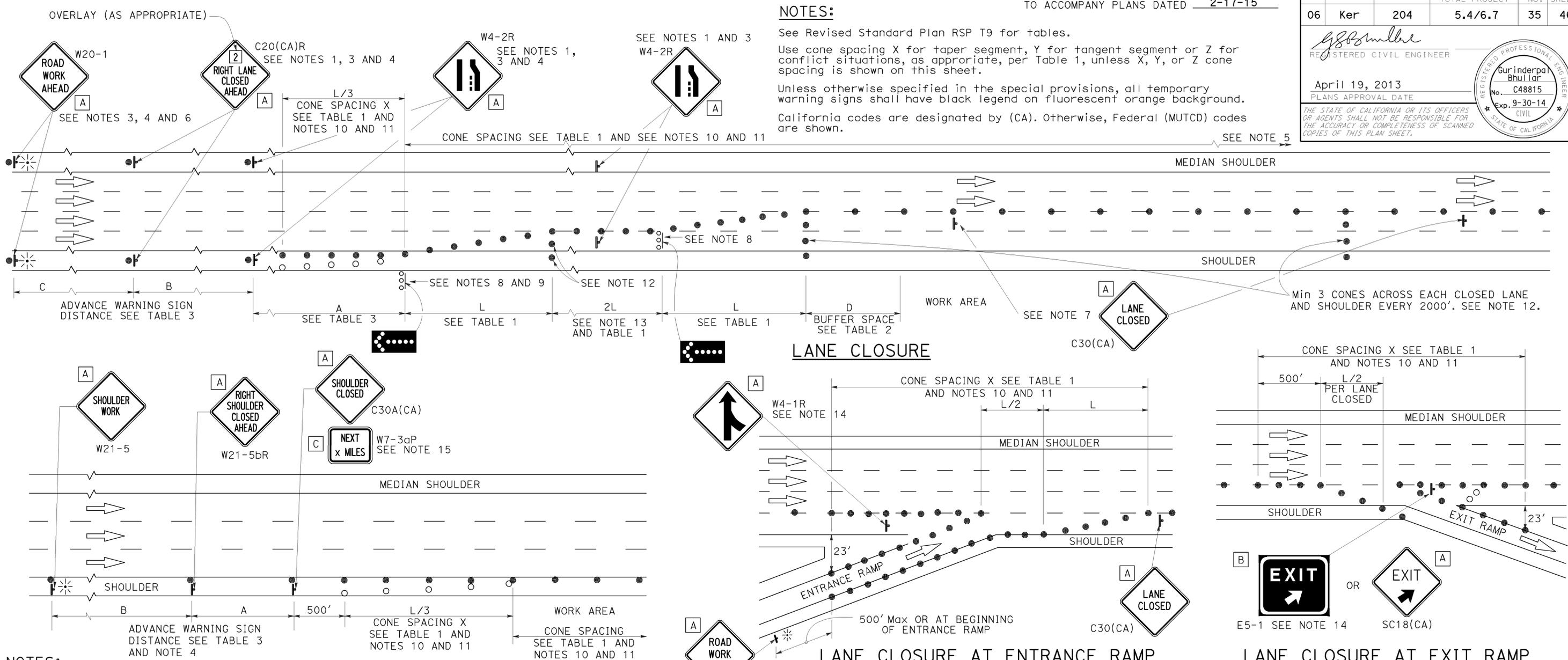
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	35	46

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

TO ACCOMPANY PLANS DATED 2-17-15

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)L and W4-2L signs shall be used.
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.

W20-1 SEE NOTE 4

LEGEND

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

SIGN PANEL SIZE (Min)

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

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

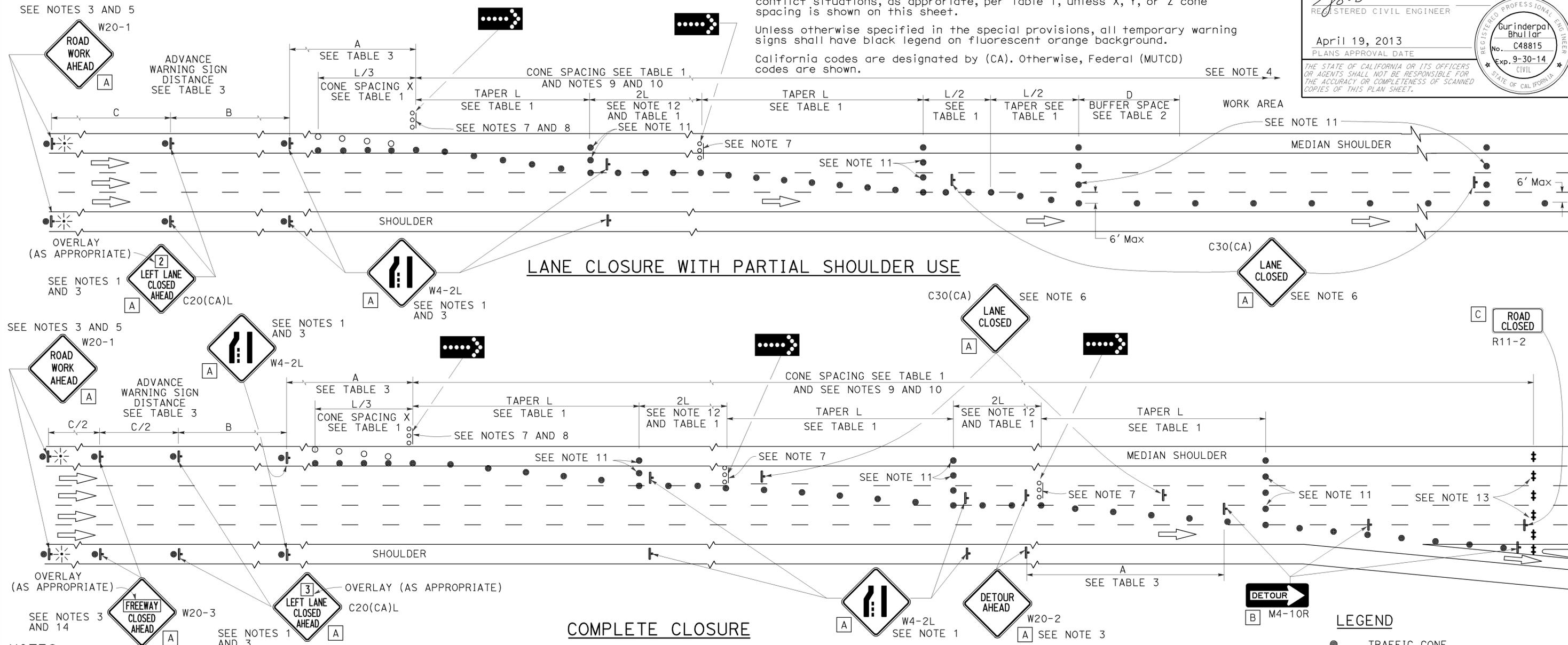
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	36	46

REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

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:**
- 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

2010 REVISED STANDARD PLAN RSP T10A

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⚡ PORTABLE FLASHING BEACON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	37	46

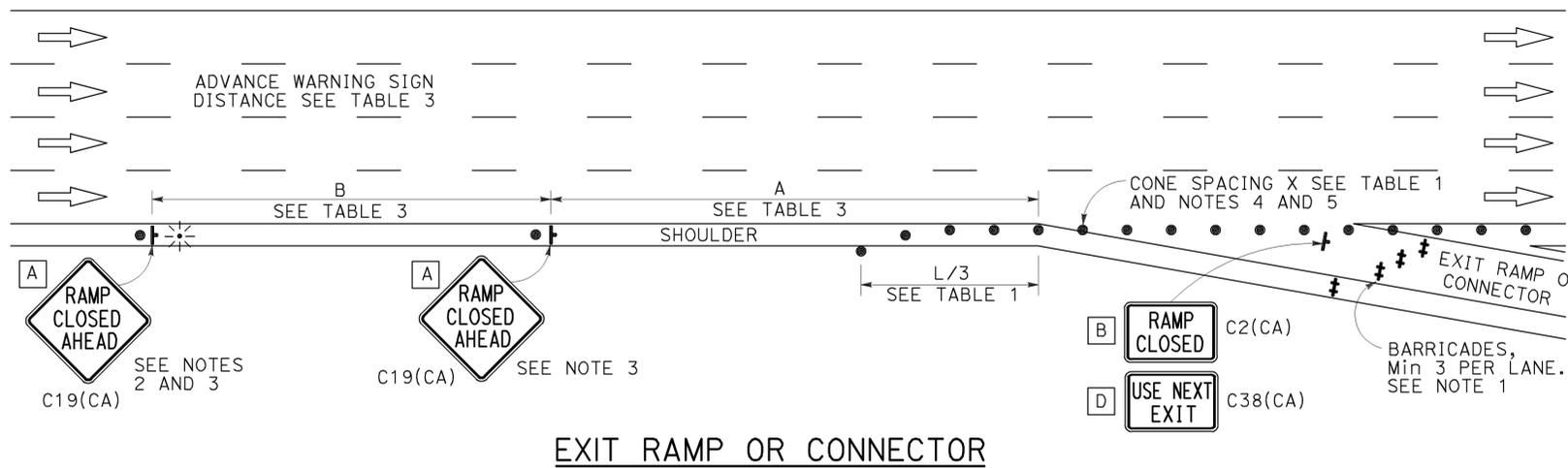
Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

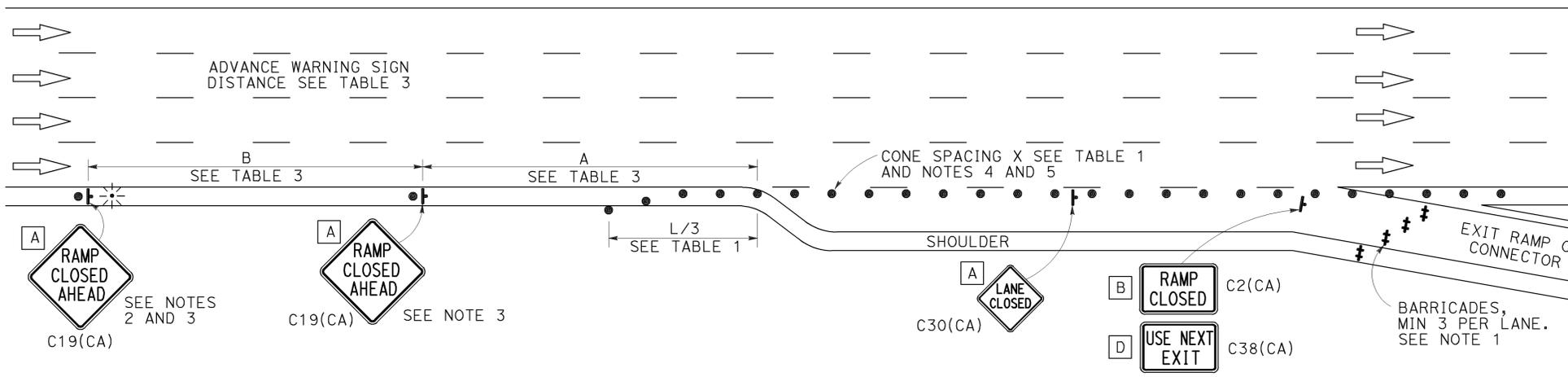
TO ACCOMPANY PLANS DATED 2-17-15

NOTES:

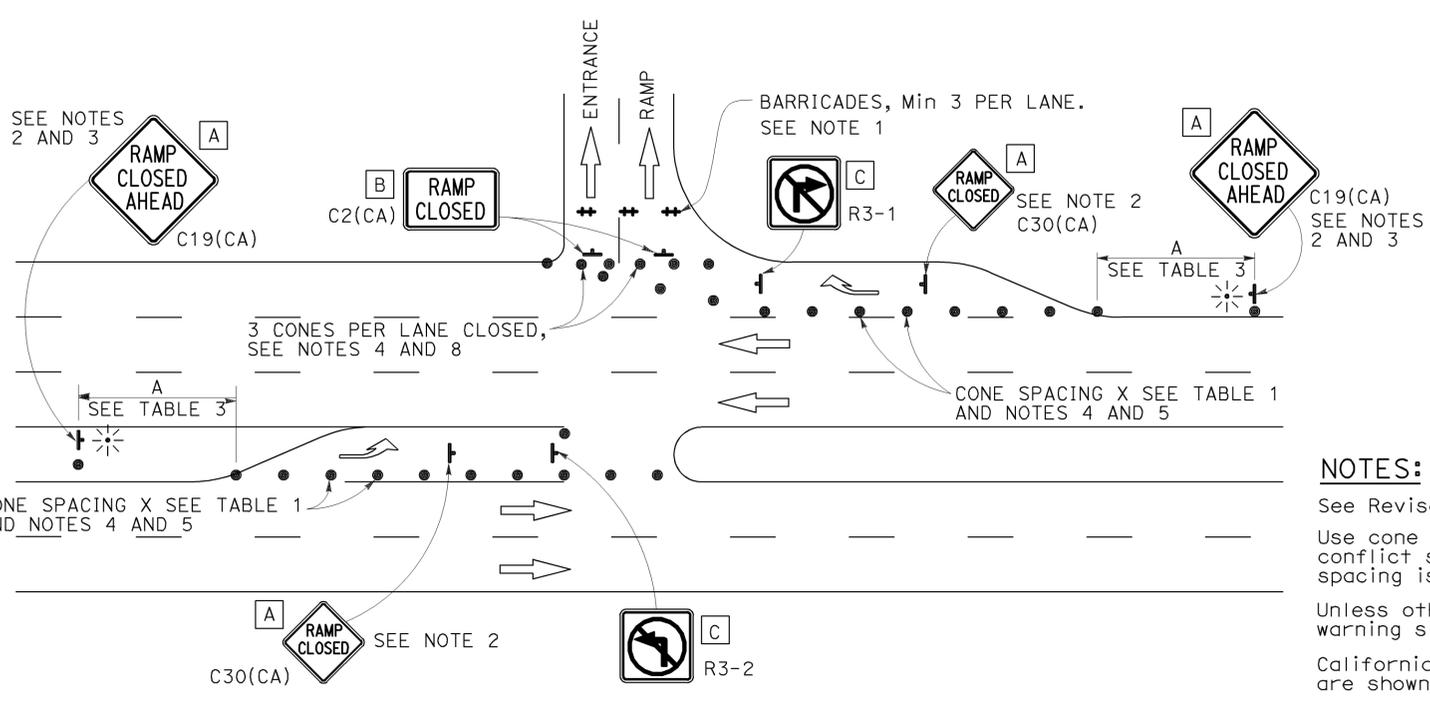
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
- Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
- All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
- At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
- The existing "EXIT" signs shall be covered during ramp closures.
- A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.



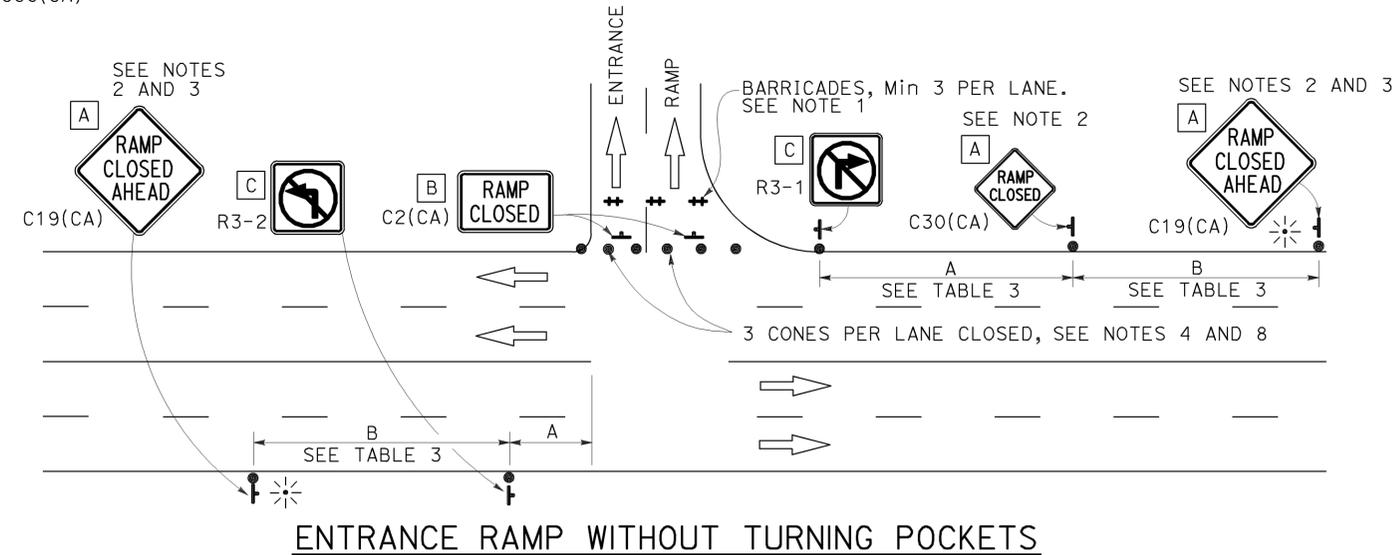
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

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

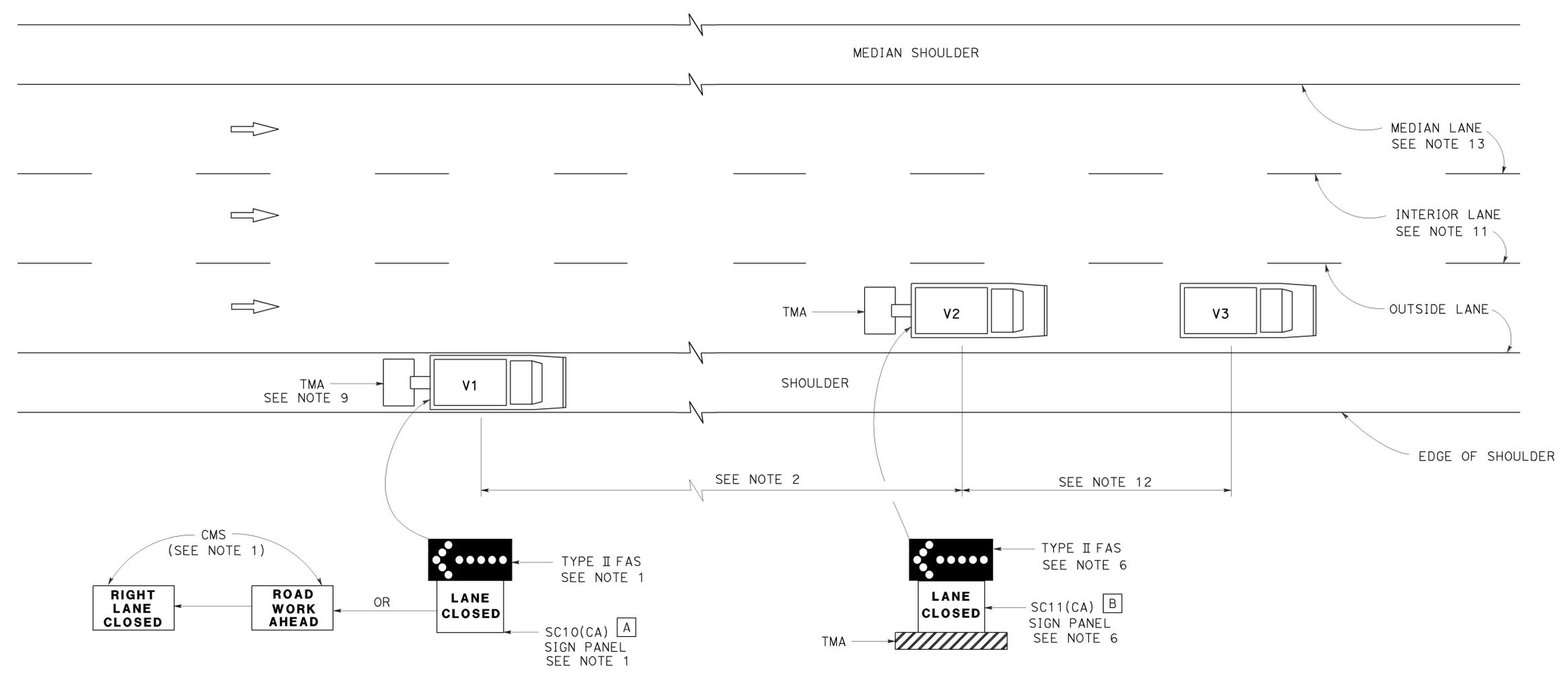
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURE**
 NO SCALE

RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14 DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T14

2010 REVISED STANDARD PLAN RSP T14

TO ACCOMPANY PLANS DATED 2-17-15



SIGN PANEL SIZE (Min)

- A 66" x 36"
- B 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

MOVING LANE CLOSURE ON MEDIAN LANE OR OUTSIDE LANE OF MULTILANE HIGHWAYS

NOTES:

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS
NO SCALE

RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15 DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T15

2010 REVISED STANDARD PLAN RSP T15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	39	46

Peter B. Kang 10-16-14
REGISTERED CIVIL ENGINEER DATE

2-17-15
PLANS APPROVAL DATE

PETER B. KANG
No. C 70336
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 electronic copies of this plan sheet.

QUANTITIES

STINE CANAL

BRIDGE NO. 50-0208

RAPID SETTING CONCRETE (PATCH)	231	CF
REMOVE ASPHALT CONCRETE SURFACING	9,246	SOFT
REMOVE UNSOUND CONCRETE	231	CF
POLYESTER CONCRETE EXPANSION DAM	216	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	9,246	SOFT
TREAT BRIDGE DECK	9,246	SOFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	103	GAL
HOT MIX ASPHALT (BRIDGE)	196	TON
CLEAN EXPANSION JOINT	377	LF
JOINT SEAL (MR $\frac{1}{2}$ ")	377	LF

NOTES: (APPLY TO THIS SHEET ONLY)



Indicates limits of remove existing AC overlay. Existing AC overlay varies in depth from 4" to 6". Remove unsound concrete and patch with rapid setting concrete. Prepare and treat bridge deck with high molecular weight methacrylate. Place 3 $\frac{1}{2}$ " depth HMA overlay as shown on the "DECK REPAIR DETAIL - OVERLAY" on "JOINT SEAL DETAILS" sheet.



Indicates location of remove existing joint seal, construct polyester concrete expansion dam, and place new joint seal. For details, see "EXPANSION DAM DETAILS" and "JOINT SEAL DETAILS" sheets.

NOTE: (APPLY TO ALL SHEETS)



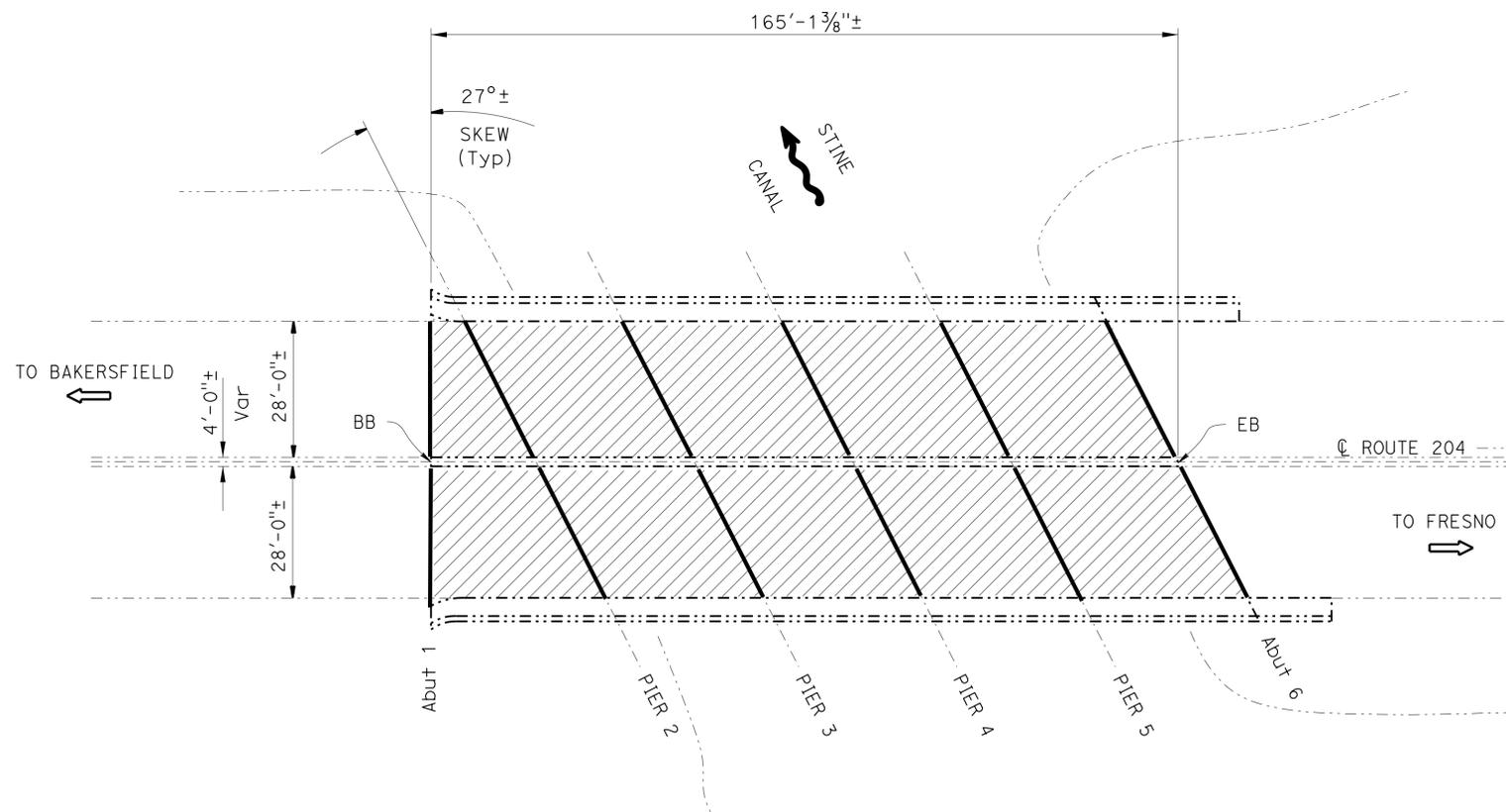
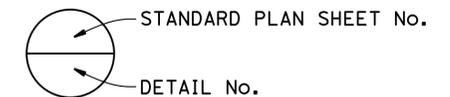
Indicates existing.

STANDARD PLANS DATED MAY 2010

SHEET NO.	TITLE
A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	GENERAL PLAN NO. 4
5	EXPANSION DAM DETAILS
6	SIDEWALK DETAILS NO. 1
7	SIDEWALK DETAILS NO. 2
8	JOINT SEAL DETAILS



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



STINE CANAL

Br No. 50-0208, PM 5.49
1"=20'

Matthew W. Lee 10-16-14
DESIGN ENGINEER

DESIGN	BY P. KANG	CHECKED D. ACOPA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY D. KISH	CHECKED D. ACOPA	LAYOUT	BY D. KISH
QUANTITIES	BY P. KANG	CHECKED D. ACOPA	SPECIFICATIONS	BY ELAHEH MANSOUBI
				CHECKED P. KANG
				PLANS AND SPECS COMPARED ELAHEH MANSOUBI

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

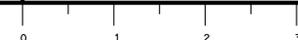
DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

ROUTE 204 BRIDGES
GENERAL PLAN NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3488
PROJECT NUMBER & PHASE: 0612000026

CONTRACT NO.: 06-0N9601

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
3-25-14 8-18-14 5-11-14 5-20-14	1	8

QUANTITIES

KERN RIVER

BRIDGE NO. 50-0033

LEAD COMPLIANCE PLAN	LUMP SUM
WORK AREA MONITORING (BRIDGE)	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	1,315 CF
REMOVE ASPHALT CONCRETE SURFACING	52,586 SQFT
REMOVE CONCRETE SIDEWALK (SQYD)	8 SQYD
REMOVE UNSOUND CONCRETE	1,315 CF
POLYESTER CONCRETE EXPANSION DAM	686 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	52,586 SQFT
TREAT BRIDGE DECK	52,586 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	584 GAL
HOT MIX ASPHALT (BRIDGE)	1,112 TON
CLEAN EXPANSION JOINT	1,197 LF
JOINT SEAL (MR 1/2")	1,197 LF
CLEAN AND PAINT STRUCTURAL STEEL (EXISTING BRIDGE)	LUMP SUM
MINOR CONCRETE (SIDEWALK)	2 CY

NOTES: (APPLY TO THIS SHEET ONLY)



Indicates limits of remove existing AC overlay. Existing AC overlay varies in depth from 4" to 6". Remove unsound concrete and patch with rapid setting concrete. Prepare and treat bridge deck with high molecular weight methacrylate. Place 3 1/2" depth HMA overlay as shown on the "DECK REPAIR DETAIL - OVERLAY" on "JOINT SEAL DETAILS" sheet.



Limits of 100% blast clean and paint structural steel and bridge railing.



Indicates limits of remove existing concrete sidewalk and construct concrete sidewalk. For details, see "SIDEWALK DETAILS NO. 1" and "SIDEWALK DETAILS NO. 2" sheets.



Indicates location of remove existing joint seal, construct polyester concrete expansion dam, and place joint seal. For details, see "EXPANSION DAM DETAILS" and "JOINT SEAL DETAILS" sheets.

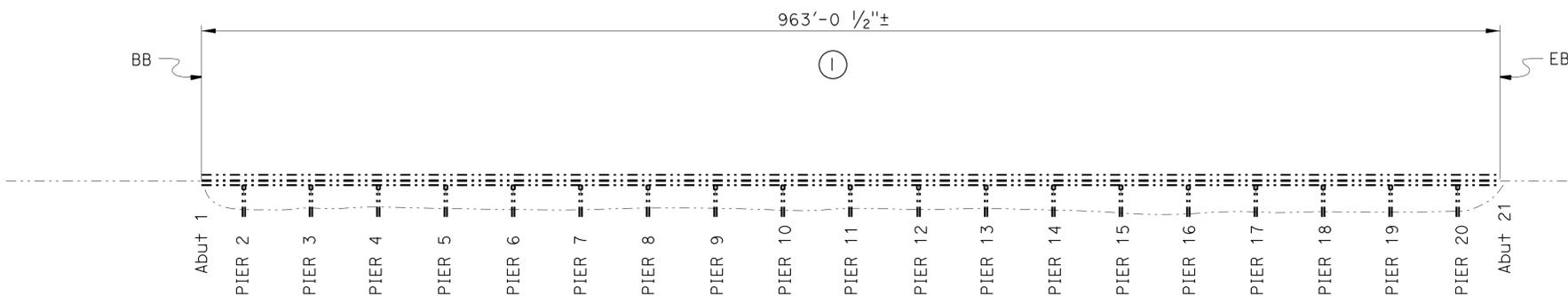
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	40	46

Peter B. Kang 10-16-14
 REGISTERED CIVIL ENGINEER DATE

2-17-15
 PLANS APPROVAL DATE

PETER B. KANG
 No. C 70336
 Exp. 9-30-16
 CIVIL
 STATE OF CALIFORNIA

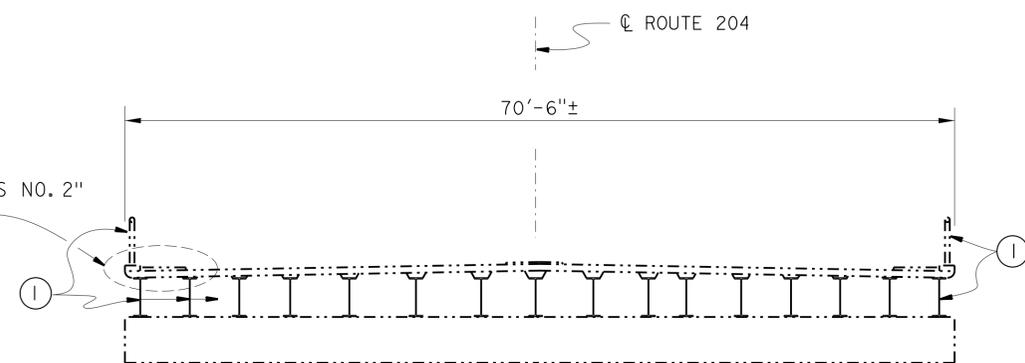
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ELEVATION

1"=60'

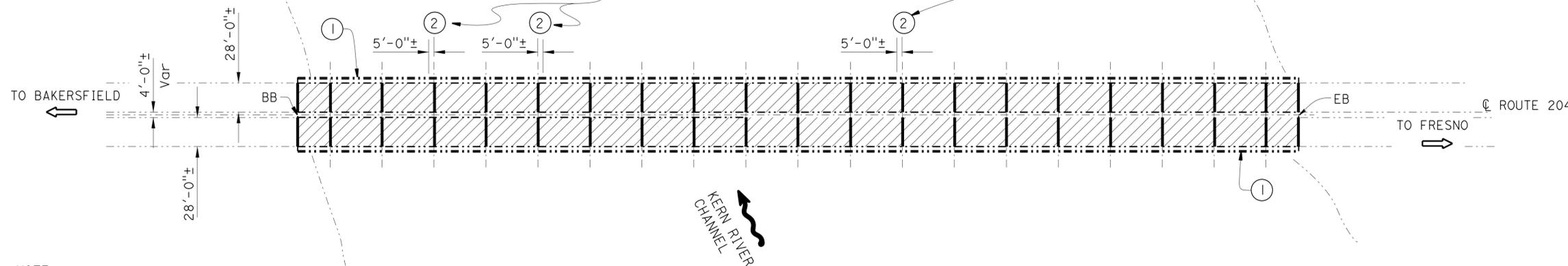
See "SIDEWALK DETAILS NO. 1" and "SIDEWALK DETAILS NO. 2" sheets for "SIDEWALK SECTION" details.



TYPICAL SECTION

1/8"=1'-0"

See "SIDEWALK DETAILS NO. 1" and "SIDEWALK DETAILS NO. 2" sheets for "SIDEWALK SECTION" details.



KERN RIVER

Br No. 50-0033, PM 5.61

1"=60'

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



Matthew W. Lee 10-16-14
DESIGN ENGINEER

DESIGN	BY P. KANG	CHECKED D. ACOBA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY D. KISH	CHECKED D. ACOBA	LAYOUT	BY D. KISH
QUANTITIES	BY P. KANG	CHECKED D. ACOBA	SPECIFICATIONS	BY ELAHEH MANSOUBI
				CHECKED P. KANG
				PLANS AND SPECS COMPARED ELAHEH MANSOUBI

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
POST MILE VARIES

**ROUTE 204 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: 0612000026

CONTRACT NO.: 06-0N9601

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
3-23-14 7-07-14 2-04-14 8-18-14	2	8

NOTES: (APPLY TO THIS SHEET ONLY)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	41	46
			10-16-14 REGISTERED CIVIL ENGINEER DATE		
			2-17-15 PLANS APPROVAL DATE		
			PETER B. KANG No. C 70336 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 electronic copies of this plan sheet.					



Indicates limits of remove existing AC overlay. Existing AC overlay varies in depth from 4" to 6". Remove unsound concrete and patch with rapid setting concrete. Prepare and treat bridge deck with high molecular weight methacrylate. Place 3 1/2" depth HMA overlay as shown on the "DECK REPAIR DETAIL - OVERLAY" on "JOINT SEAL DETAILS" sheet.

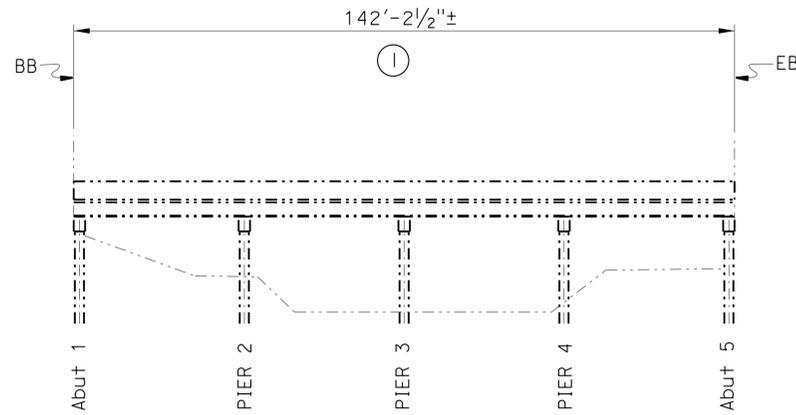
①

Limits of 100% blast clean and paint structural steel and bridge railing.

②

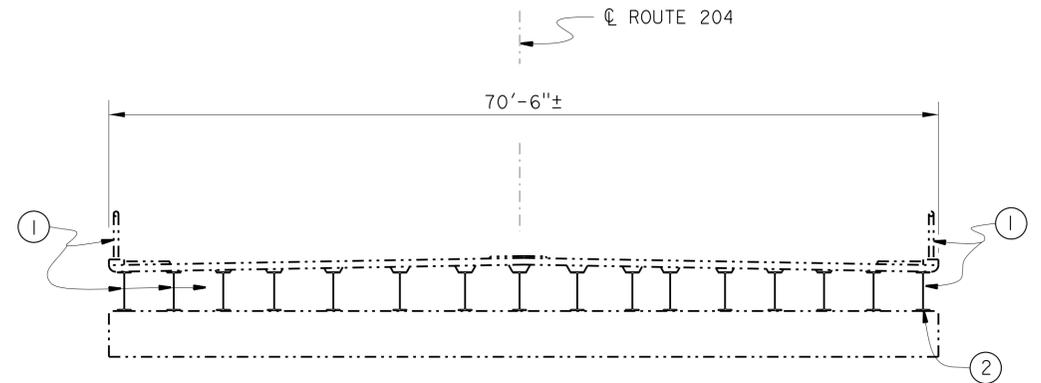
Indicates limits of straighten damaged girder flange. Remove existing paint prior to heat straightening operation.

Indicates location of remove existing joint seal, construct polyester concrete expansion dam, and place joint seal. For details, see "EXPANSION DAM DETAILS" and "JOINT SEAL DETAILS" sheets.



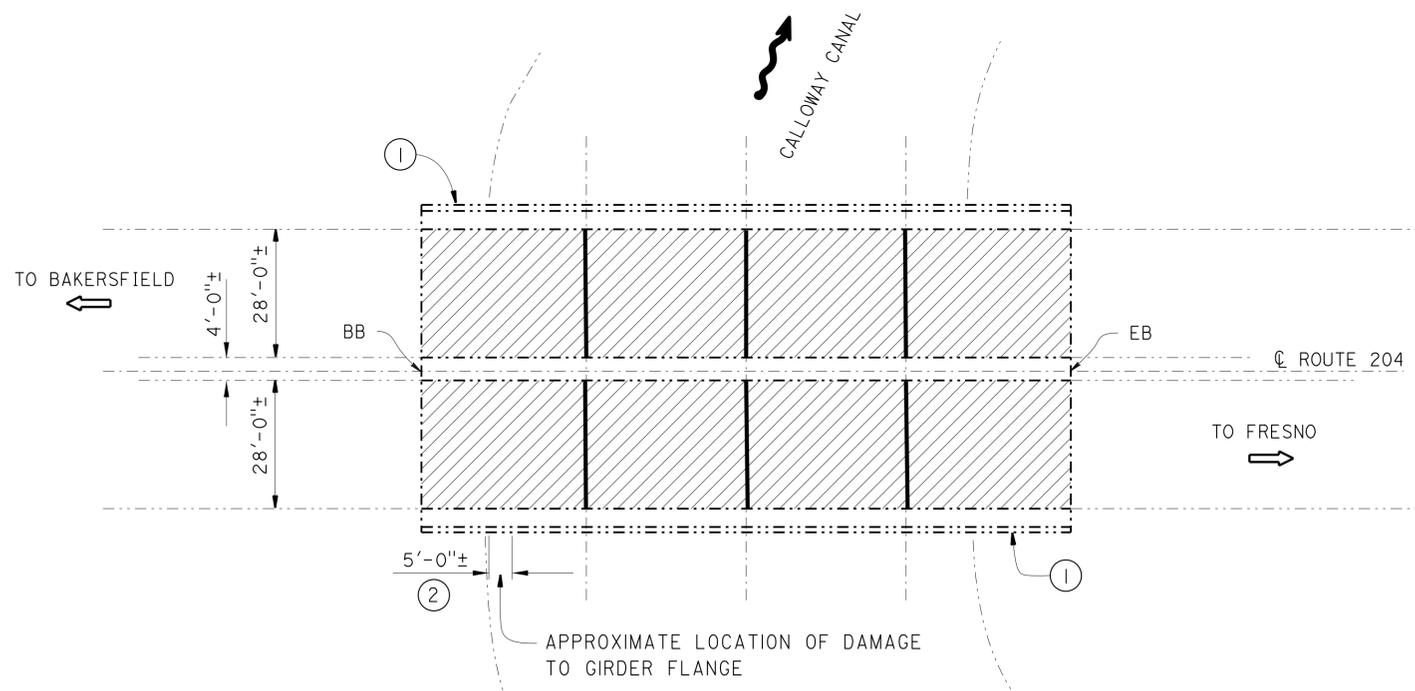
ELEVATION

1"=20'



TYPICAL SECTION

1/8"=1'-0"



CALLOWAY CANAL

Br No. 50-0209, PM 5.90

1"=20'

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

QUANTITIES	
CALLOWAY CANAL	BRIDGE NO. 50-0209

LEAD COMPLIANCE PLAN	LUMP SUM
WORK AREA MONITORING (BRIDGE)	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	199 CF
REMOVE ASPHALT CONCRETE SURFACING	7,964 SQFT
REMOVE UNSOUND CONCRETE	199 CF
POLYESTER CONCRETE EXPANSION DAM	98 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	7,964 SQFT
TREAT BRIDGE DECK	7,964 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	89 GAL
HOT MIX ASPHALT (BRIDGE)	169 TON
CLEAN EXPANSION JOINT	171 LF
JOINT SEAL (MR 1/2")	171 LF
HEAT STRAIGHTEN STEEL GIRDER	LUMP SUM
CLEAN AND PAINT STRUCTURAL STEEL (EXISTING BRIDGE)	LUMP SUM

DESIGN	BY P. KANG	CHECKED D. ACOBA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY D. KISH	CHECKED D. ACOBA	LAYOUT	BY D. KISH
QUANTITIES	BY P. KANG	CHECKED D. ACOBA	SPECIFICATIONS	BY ELAHEH MANSOUBI

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS

ROUTE 204 BRIDGES GENERAL PLAN NO. 3

PROJECT NUMBER & PHASE: 0612000026 CONTRACT NO.: 06-0N9601

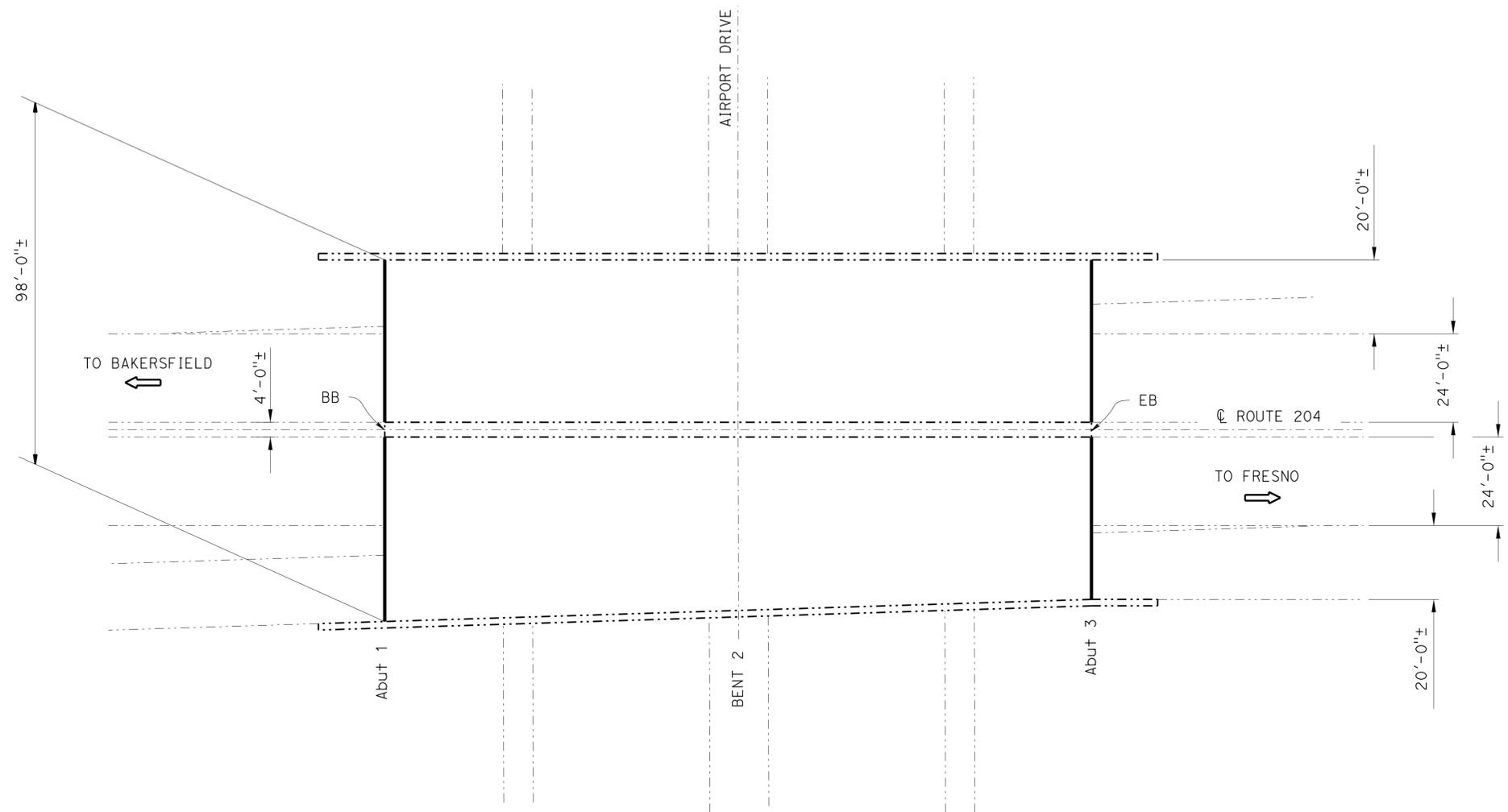
REVISION DATES: 11-06-13, 4-10-14, 5-23-14, 2-24-14

SHEET 3 OF 8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	42	46
<i>Peter B. Kang</i> 10-16-14 REGISTERED CIVIL ENGINEER DATE					
2-17-15			PLANS APPROVAL DATE		
<small>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.</small>					

NOTES: (APPLY TO THIS SHEET ONLY)

Indicates location of existing joint seal removal and placement of joint seal. For details, see "JOINT SEAL DETAILS" sheet.



QUANTITIES

AIRPORT DRIVE UNDERCROSSING	BRIDGE NO. 50-0475
CLEAN EXPANSION JOINT	184 LF
JOINT SEAL (MR 1")	184 LF



AIRPORT DRIVE UNDERCROSSING

Br No. 50-0475, PM 6.70
1"=20'

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

 DESIGN ENGINEER	DESIGN	BY P. KANG	CHECKED D. ACOBA	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY D. KISH	CHECKED D. ACOBA	LAYOUT	BY D. KISH
	QUANTITIES	BY P. KANG	CHECKED D. ACOBA	SPECIFICATIONS	BY ELAHEH MANSOUBI

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 204 BRIDGES
GENERAL PLAN NO. 4

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3488
PROJECT NUMBER & PHASE: 0612000026

CONTRACT NO.: 06-0N9601

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES			SHEET	OF
11-15-13	2-04-14	5-23-14	4	8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	43	46

REGISTERED CIVIL ENGINEER Peter B. Kang DATE 10-16-14
 PLANS APPROVAL DATE 2-17-15
 No. C 70336 Exp. 9-30-16
 PETER B. KANG
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 STATE OF CALIFORNIA

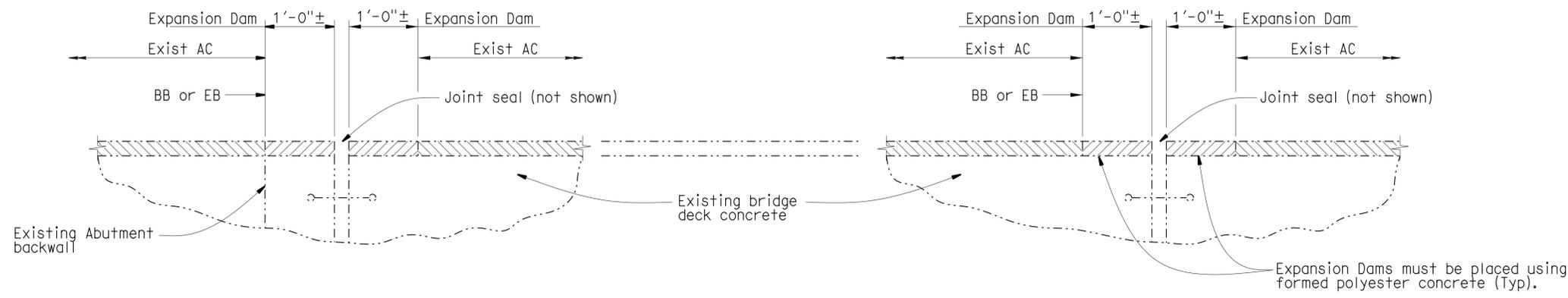
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTES: (APPLY TO THIS SHEET ONLY)

----- Indicates existing.

 Indicates limits of existing asphalt concrete removal and placement of polyester concrete expansion dam.

 Indicates limits of Existing AC

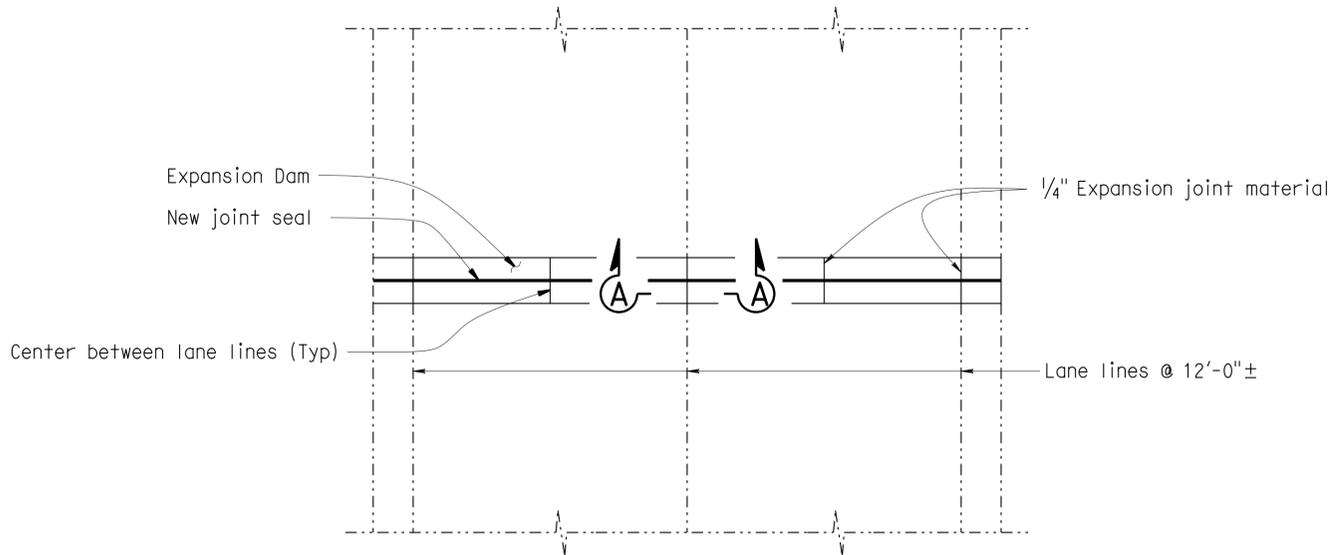


TYPICAL AT ABUTMENTS

TYPICAL AT PIERS

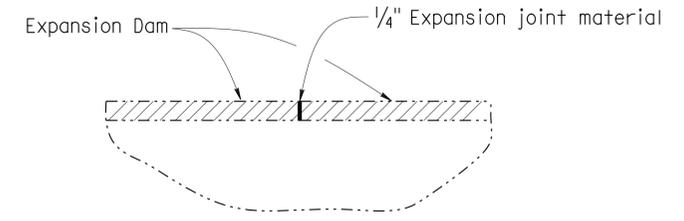
SECTION AT EXPANSION JOINTS

1" = 1'-0"



EXPANSION DAM DETAILS

1/4" = 1'-0"



SECTION A-A

1" = 1'-0"

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

DESIGN	BY P. KANG	CHECKED D. ACOBA
DETAILS	BY David Kish	CHECKED D. ACOBA
QUANTITIES	BY P. KANG	CHECKED D. ACOBA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 204 BRIDGES
EXPANSION DAM DETAILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	44	46

Peter B. Kang 10-16-14
REGISTERED CIVIL ENGINEER DATE

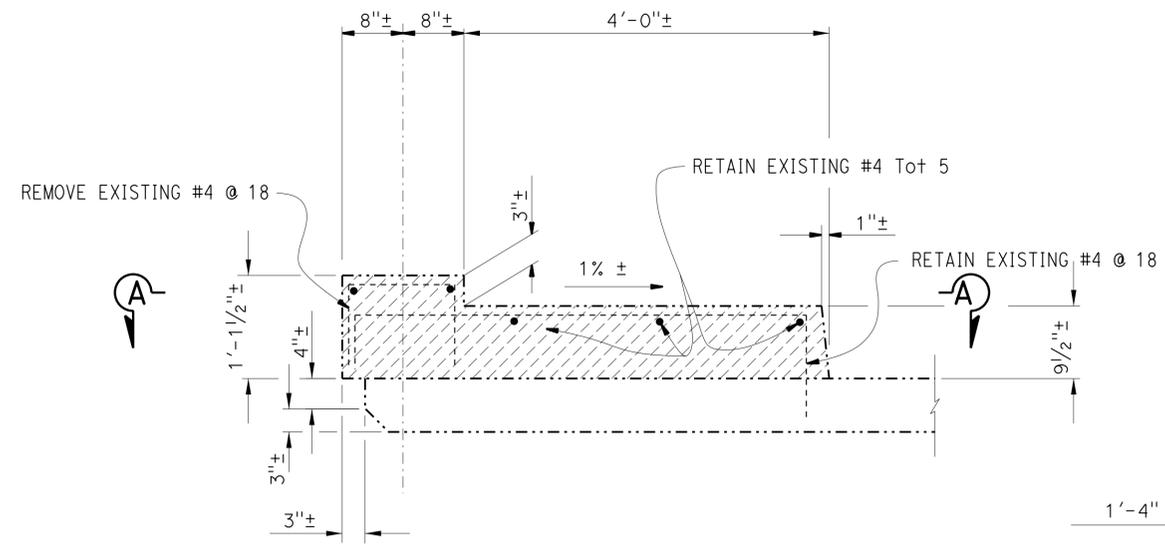
2-17-15
PLANS APPROVAL DATE

PETER B. KANG
No. C 70336
Exp. 9-30-16
CIVIL
STATE OF CALIFORNIA

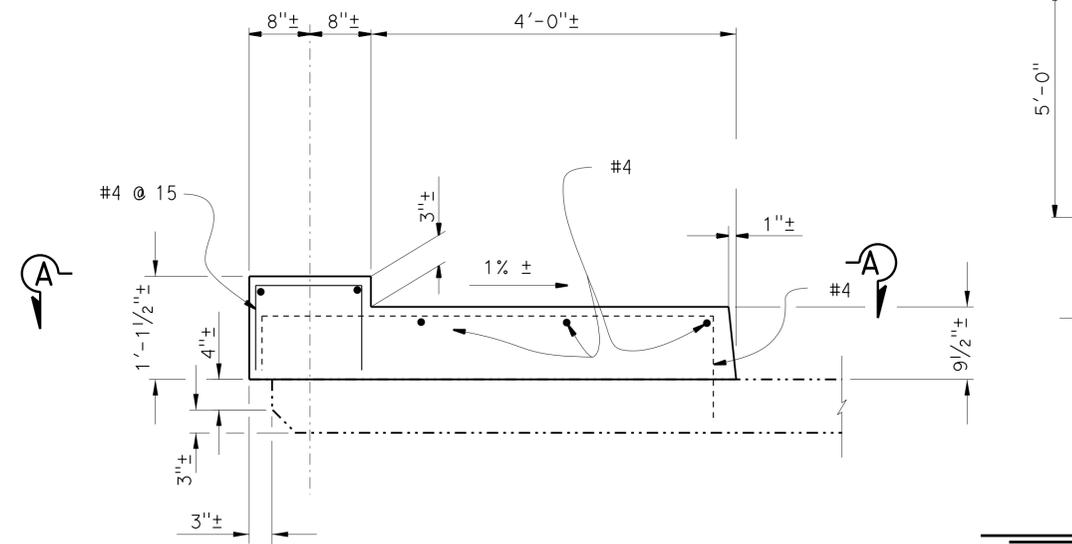
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTES: (APPLY TO THIS SHEET ONLY)

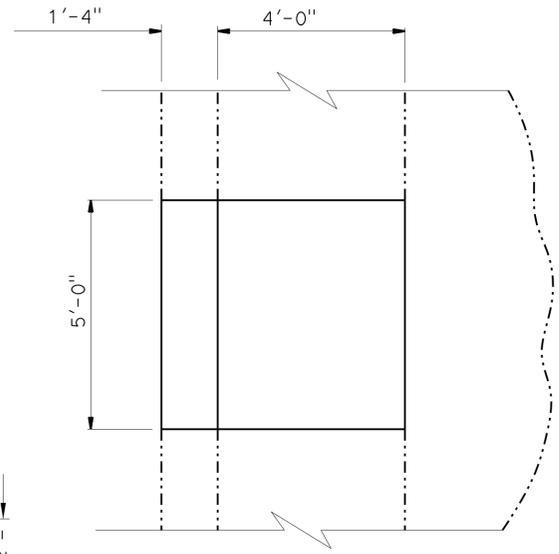
 Indicates limits of remove existing concrete sidewalk and construct concrete sidewalk.



EXISTING



RECONSTRUCTION



NOTE: Existing not shown.

SECTION A-A

1/2" = 1'-0"

SIDEWALK SECTION AT PIER 6

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

Br No. 50-0033
1" = 1'-0"

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY P. KANG	CHECKED D. ACOPA	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 204 BRIDGES	
	DETAILS	BY David Kish	CHECKED D. ACOPA			VARIOUS		SIDEWALK DETAILS NO. 1
	QUANTITIES	BY P. KANG	CHECKED D. ACOPA			VARIES		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					UNIT: 3488	REVISION DATES		
PROJECT NUMBER & PHASE: 0612000026					CONTRACT NO.: 06-0N9601	SHEET 6 OF 8		

FILE => 06-0n9601_06de101.dgn
DATE PLOTTED => 06-MAY-2015
TIME PLOTTED => 13:46
USERNAME => s115755

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	204	5.4/6.7	45	46

PETER B. KANG 10-16-14
 REGISTERED CIVIL ENGINEER DATE

2-17-15
 PLANS APPROVAL DATE

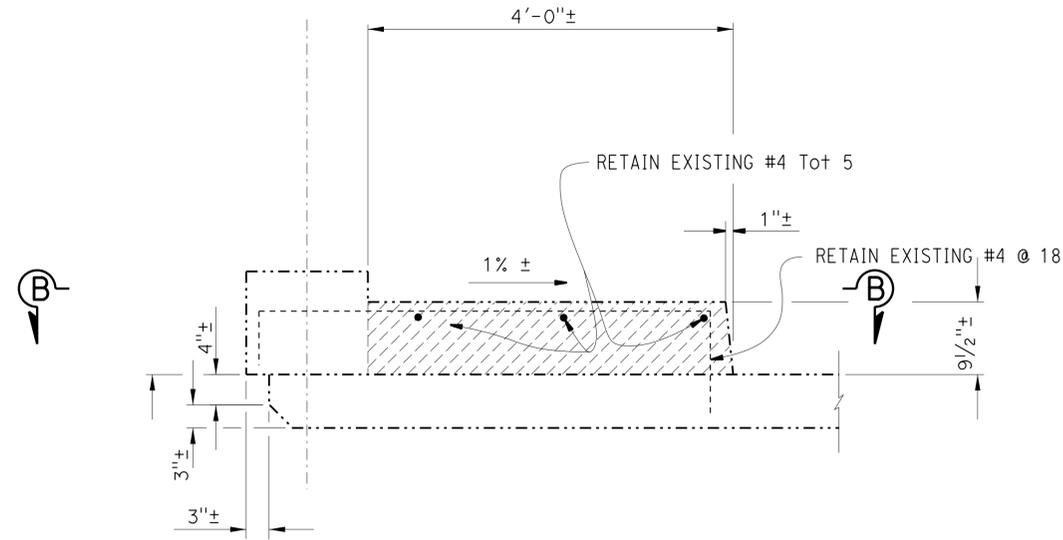
PETER B. KANG
 No. C 70336
 Exp. 9-30-16
 CIVIL
 STATE OF CALIFORNIA

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

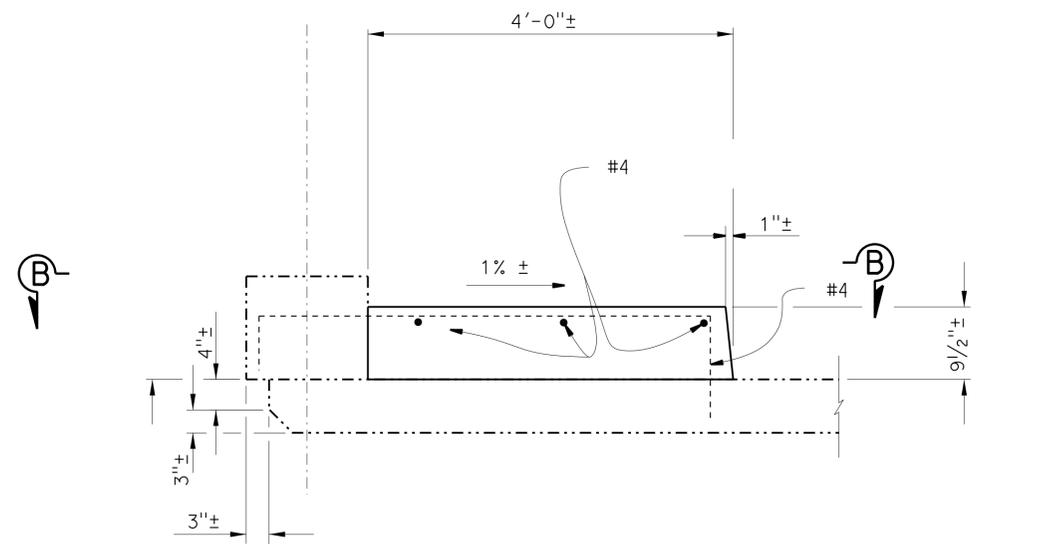
NOTES: (APPLY TO THIS SHEET ONLY)



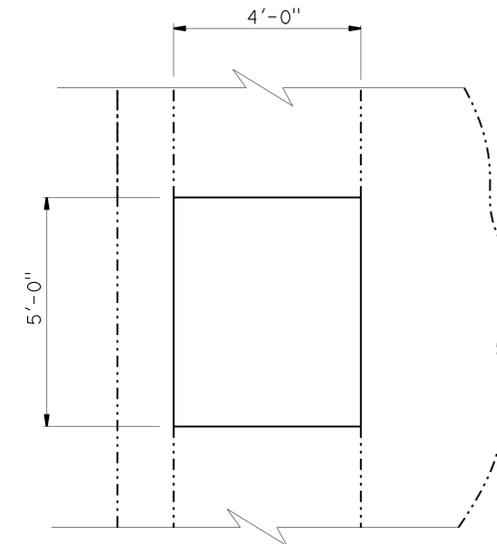
Indicates limits of remove existing concrete sidewalk and construct concrete sidewalk.



EXISTING



RECONSTRUCTION



NOTE: Existing not shown.

SECTION B-B

1/2" = 1'-0"

SIDEWALK SECTION AT PIER 4 AND PIER 13

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

Br No. 50-0033
1" = 1'-0"

DESIGN	BY P. KANG	CHECKED D. ACOPA
DETAILS	BY David Kish	CHECKED D. ACOPA
QUANTITIES	BY P. KANG	CHECKED D. ACOPA

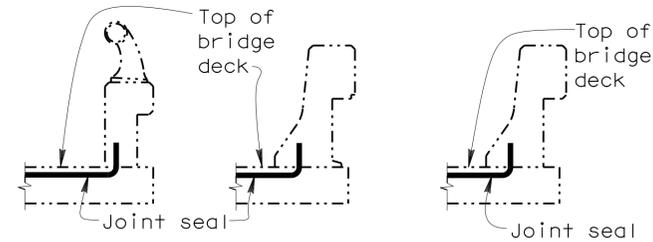
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 204 BRIDGES
SIDEWALK DETAILS NO. 2

JOINT SEAL TABLE							
BRIDGE NO.	BRIDGE NAME	LOCATION		MINIMUM "MR" (INCHES)	APPROX LENGTH (FEET)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)
50-0208	STINE CANAL	Abut 1	BW	1/2	57	NO	9
		PIER 2	☉	1/2	64	NO	7
		PIER 3	☉	1/2	64	NO	7
		PIER 4	☉	1/2	64	NO	7
		PIER 5	☉	1/2	64	NO	7
		Abut 6	BW	1/2	64	NO	9
50-0033	KERN RIVER	Abut 1	BW	1/2	57	NO	9
		PIER 2	☉	1/2	57	NO	7
		PIER 3	☉	1/2	57	NO	7
		PIER 4	☉	1/2	57	NO	7
		PIER 5	☉	1/2	57	NO	7
		PIER 6	☉	1/2	57	NO	7
		PIER 7	☉	1/2	57	NO	7
		PIER 8	☉	1/2	57	NO	7
		PIER 9	☉	1/2	57	NO	7
		PIER 10	☉	1/2	57	NO	7
		PIER 11	☉	1/2	57	NO	7
		PIER 12	☉	1/2	57	NO	7
		PIER 13	☉	1/2	57	NO	7
		PIER 14	☉	1/2	57	NO	7
		PIER 15	☉	1/2	57	NO	7
		PIER 16	☉	1/2	57	NO	7
		PIER 17	☉	1/2	57	NO	7
		PIER 18	☉	1/2	57	NO	7
		PIER 19	☉	1/2	57	NO	7
		PIER 20	☉	1/2	57	NO	7
		50-0209	CALLOWAY CANAL	Abut 21	BW	1/2	57
PIER 2	☉			1/2	57	NO	7
PIER 3	☉			1/2	57	NO	7
PIER 4	☉			1/2	57	NO	7
50-0475	AIRPORT DRIVE UNDERCROSSING	Abut 1 *	BW	1	95	YES	12
		Abut 3 *	BW	1	89	YES	12



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.

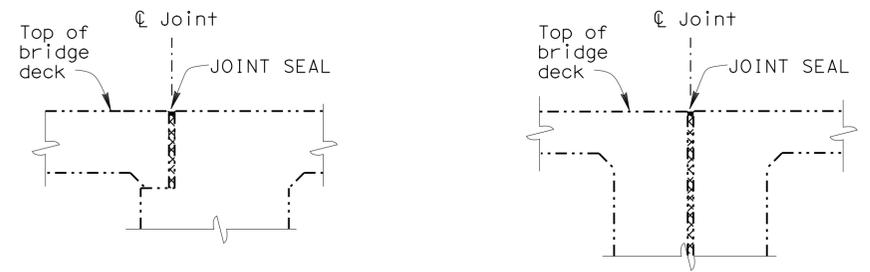
The following note applies to JOINT SEAL TYPE A:
 Install Type A joint seal 3" up into curb or rail on the low side of the deck where joint matches curb or rail joint. For details not shown see (B6-21)

DECK REPAIR TABLE			
REMOVE UNSOUND CONCRETE AND PATCH WITH RAPID SETTING CONCRETE			
BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH (INCHES)
STINE CANAL	50-0208	10	3
KERN RIVER	50-0033	10	3
CALLOWAY CANAL	50-0209	10	3

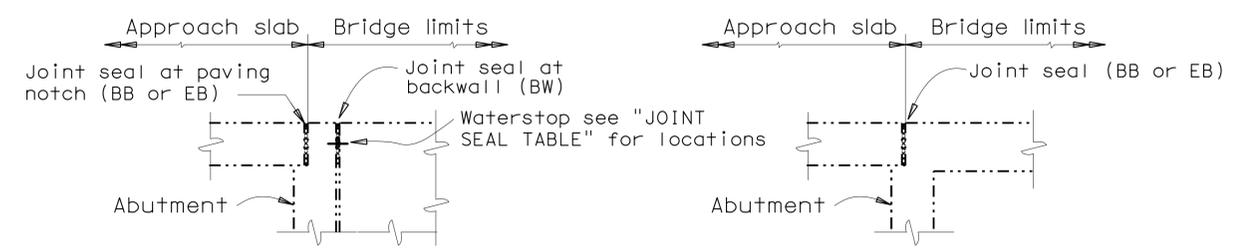
Location of repairs to be determined by the Engineer.

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 shall 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)



PIER



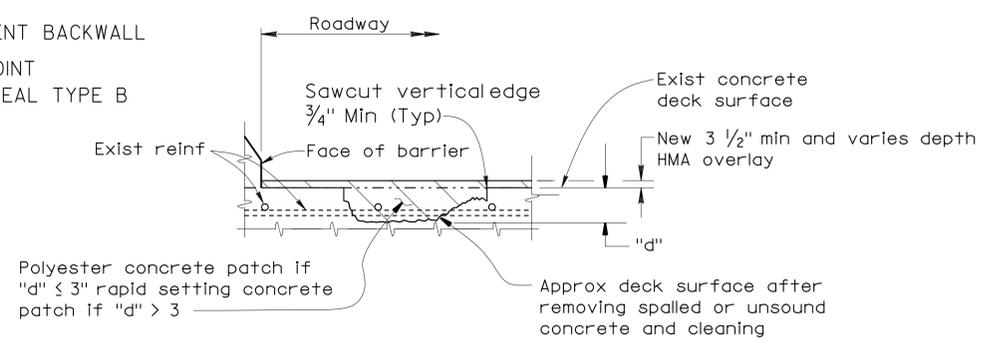
ABUTMENT WITH BACKWALL

DIAPHRAGM ABUTMENT

JOINT SEAL LOCATION

LEGEND:

- BW - ABUTMENT BACKWALL
- ☉ - PIER JOINT
- * - JOINT SEAL TYPE B



DECK REPAIR DETAIL-OVERLAY

Note: Reinforcement may be encountered during deck concrete removal.

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

NO SCALE