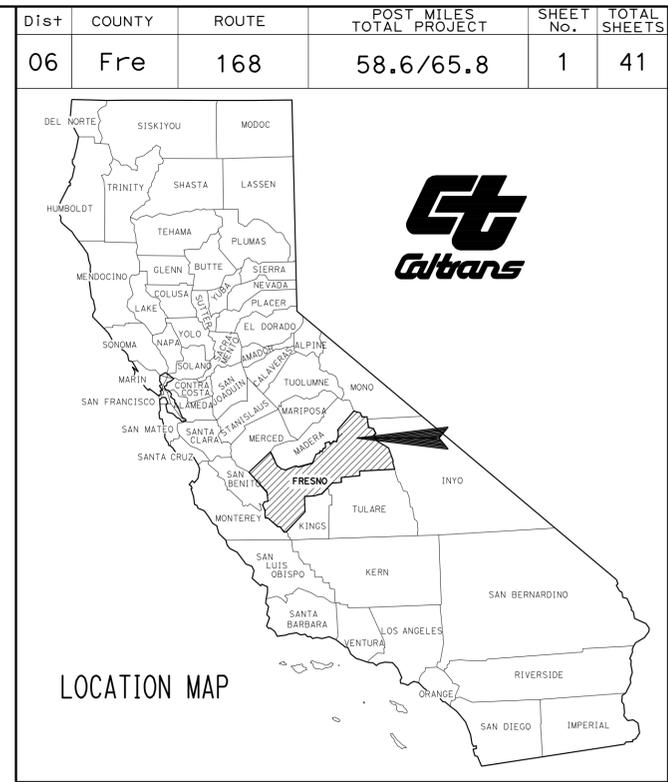
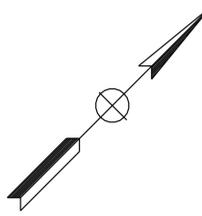


STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN FRESNO COUNTY
NEAR HUNTINGTON LAKE AT VARIOUS LOCATIONS
FROM 0.1 MILE WEST OF TAMARACK CREEK BRIDGE
TO 0.1 MILE EAST OF RANCHERIA CREEK BRIDGE

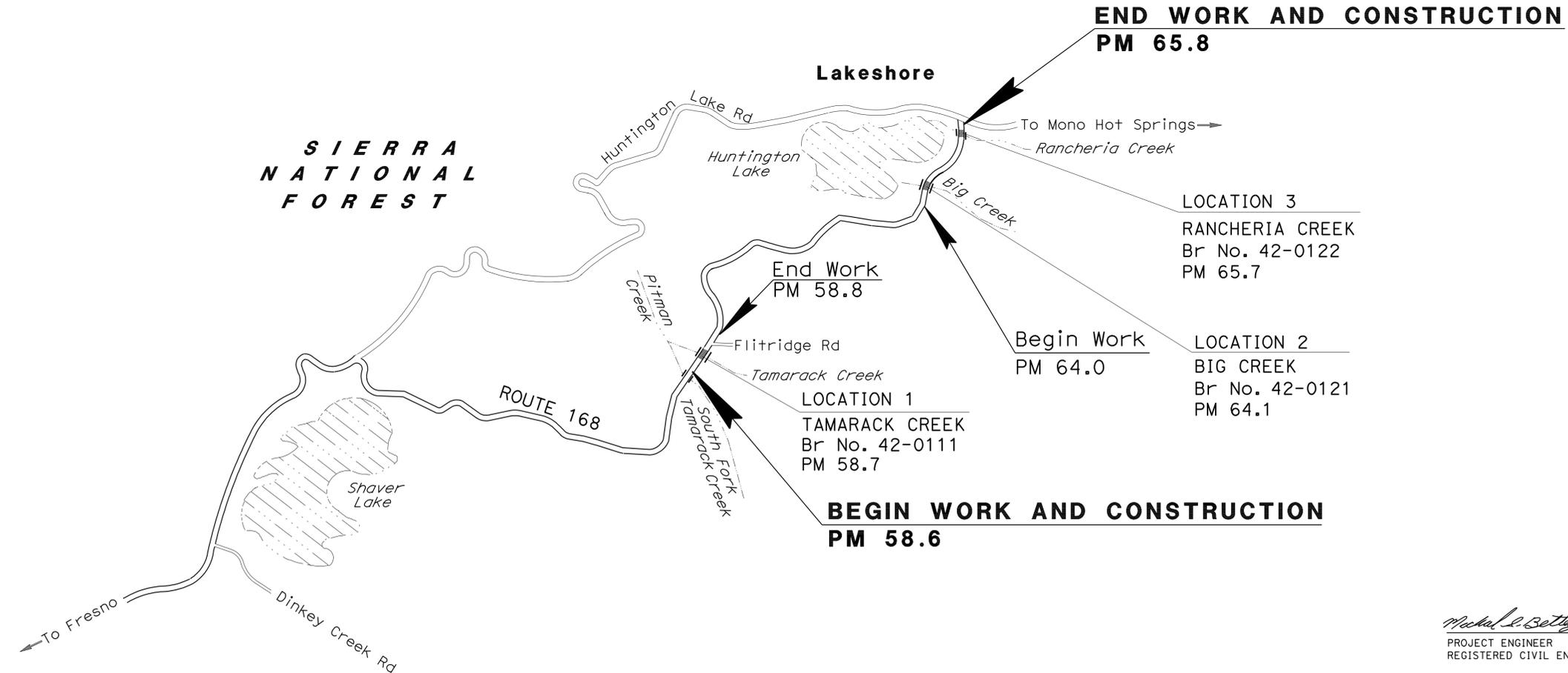
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	LAYOUTS
4	CONSTRUCTION DETAILS
5	CONSTRUCTION AREA SIGNS
6-10	TRAFFIC HANDLING PLANS AND QUANTITIES
11	PAVEMENT DELINEATION PLAN
12	SUMMARY OF QUANTITIES
13-19	ELECTRICAL PLANS
20-32	REVISED STANDARD PLANS
STRUCTURE PLANS	
33-41	ROUTE 168 BRIDGES

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



PROJECT MANAGER
EARLE JONES

DESIGN ENGINEER
GETACHEW ESHETE

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

NO SCALE

Michael S. Bettega 05/07/09
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

September 8, 2009
PLANS APPROVAL DATE

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

CONTRACT No. **06-OF29U4**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	2	41

<i>Michael S. Bettega</i>	04/14/09
REGISTERED CIVIL ENGINEER DATE	
9-8-09	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
MICHAEL S. BETTEGA
 No. C 34348
 Exp. 9/30/09
 CIVIL
 STATE OF CALIFORNIA

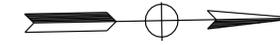
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

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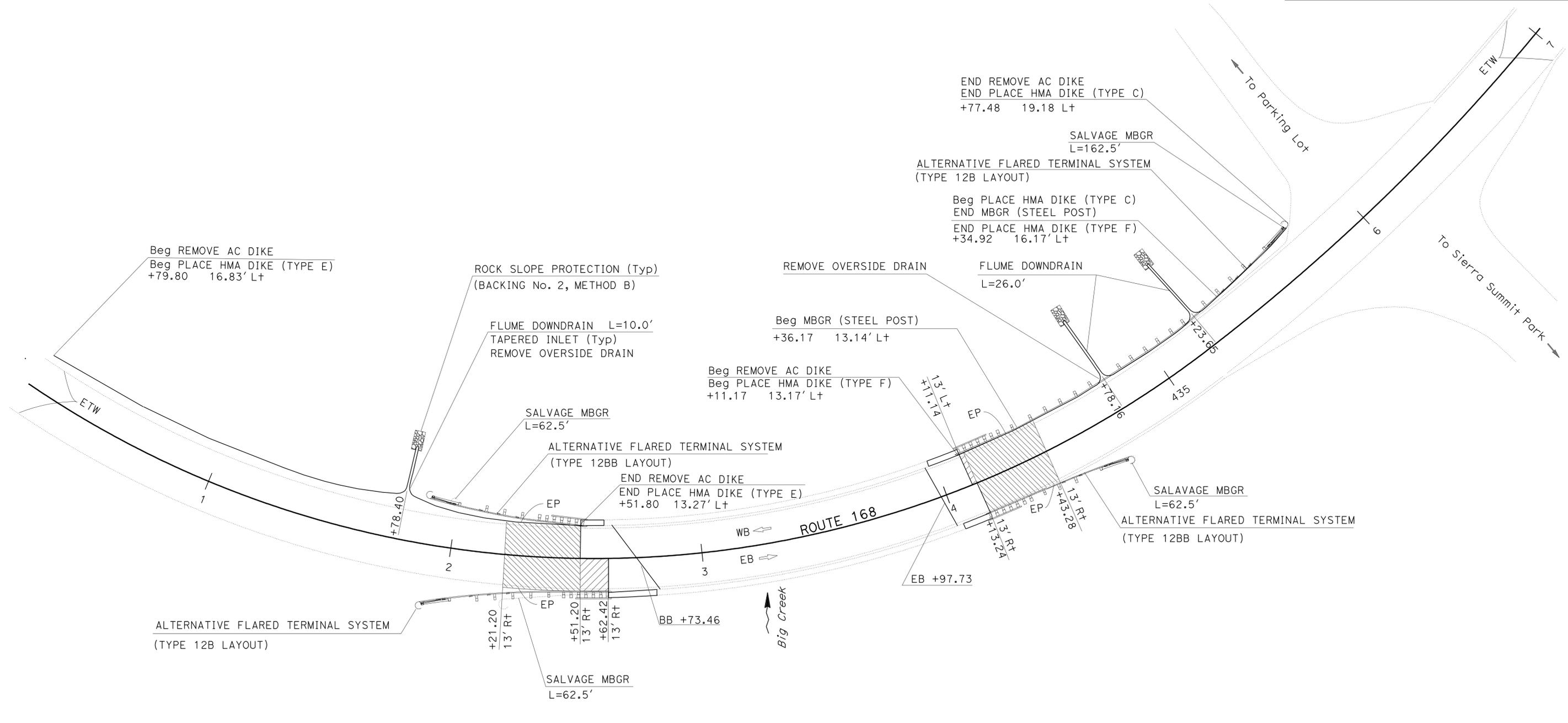
- PAVEMENT TRANSITION, SEE SHEET C-1
- HMA (TYPE A), SEE SHEET C-1

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE GENERAL PLAN SHEETS FOR STRUCTURE WORK DETAILS.
3. ALIGNMENT FOR CONSTRUCTION PURPOSES ONLY.



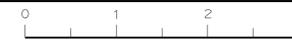
REVISOR	DATE
REVISED BY	DATE REVISED
HOSS SHOJAI	MIKE BETTEGA
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	GETACHEW ESHETE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Caltrans	



BIG CREEK BRIDGE

LAYOUT
SCALE: 1"=20'

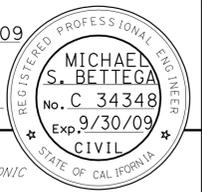
L-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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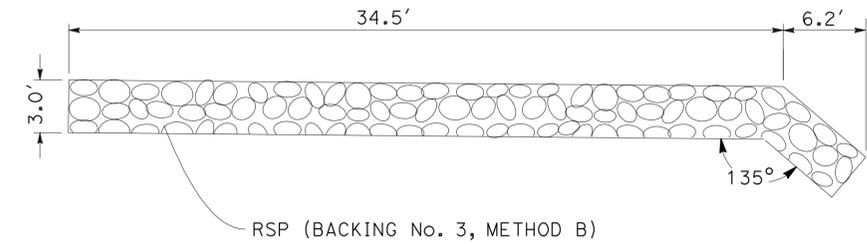
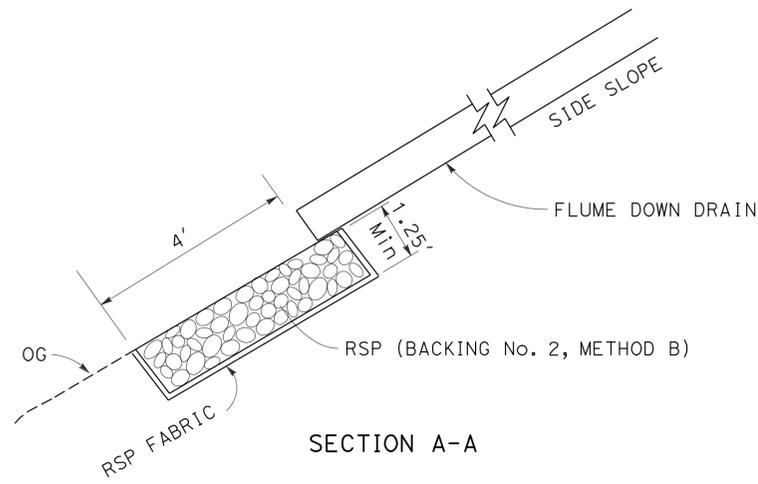
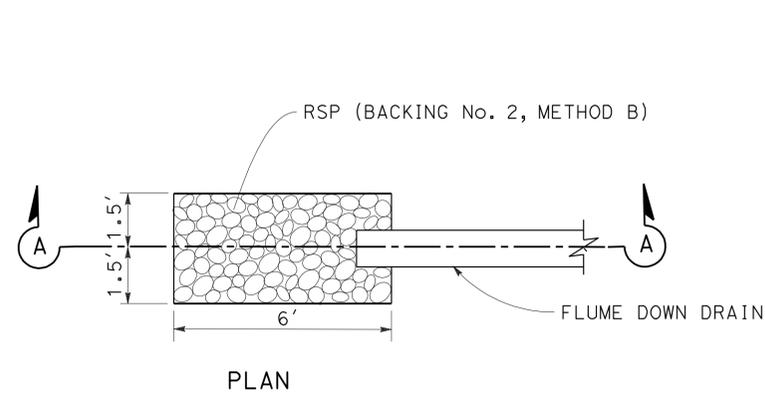
<i>Michael S. Bettega</i>	04/14/09
REGISTERED CIVIL ENGINEER DATE	
9-8-09	
PLANS APPROVAL DATE	

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

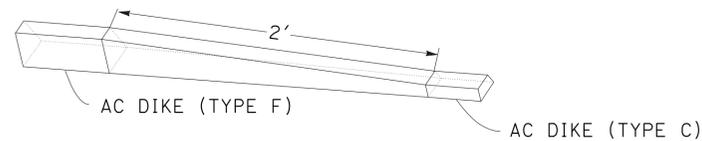


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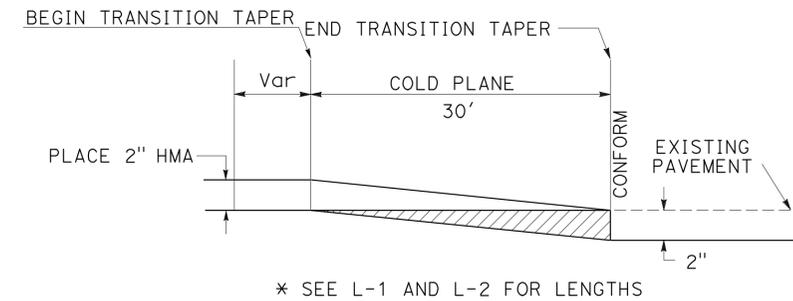
- COLD PLANE
- RSP



ROCK SLOPE PROTECTION DETAILS



DIKE TRANSITION DETAIL (TYPE F TO TYPE C)



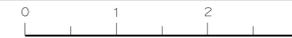
PAVEMENT TRANSITION DETAIL

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Caltrans	
FUNCTIONAL SUPERVISOR	GETACHEW ESHETE
CALCULATED-DESIGNED BY	CHECKED BY
HOSS SHOJAI	MIKE BETTEGA
REVISED BY	DATE REVISED



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	5	41

Hassan Cohe 05-12-09
REGISTERED CIVIL ENGINEER DATE

9-8-09
PLANS APPROVAL DATE

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

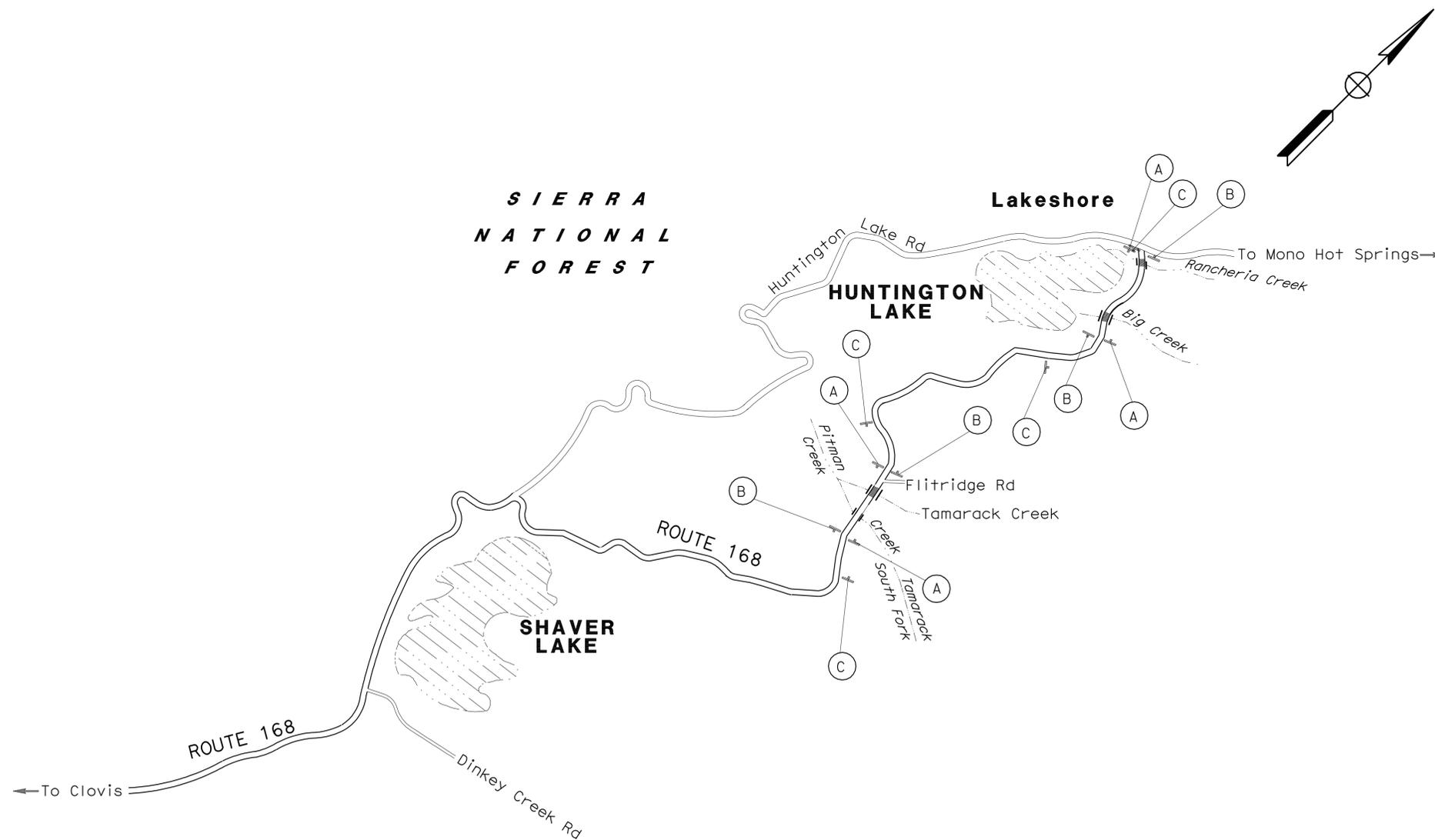
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

NOTES:

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO TRAFFIC HANDLING PLANS.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE	No. OF SIGNS
A	W20-1	ROAD WORK AHEAD	48" x 48"	1 - 6" x 6"	4
	R2-1	SPEED LIMIT(25)	24" x 30"		
B	G20-2	END ROAD WORK	36" x 18"	1 - 4" x 4"	4
	R3(CA)	END SPEED LIMIT(25)	36" x 45"		
C	R2-4	(25) ZONE AHEAD	36" x 18"	1 - 4" x 4"	4



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

SUPERVISING ENGINEER: MOHAMMED OATAMI

CALCULATED-DESIGNED BY: CHECKED BY:

REVISOR: VANIK POGOSYAN, HASSAN TAHA

DATE REVISED:

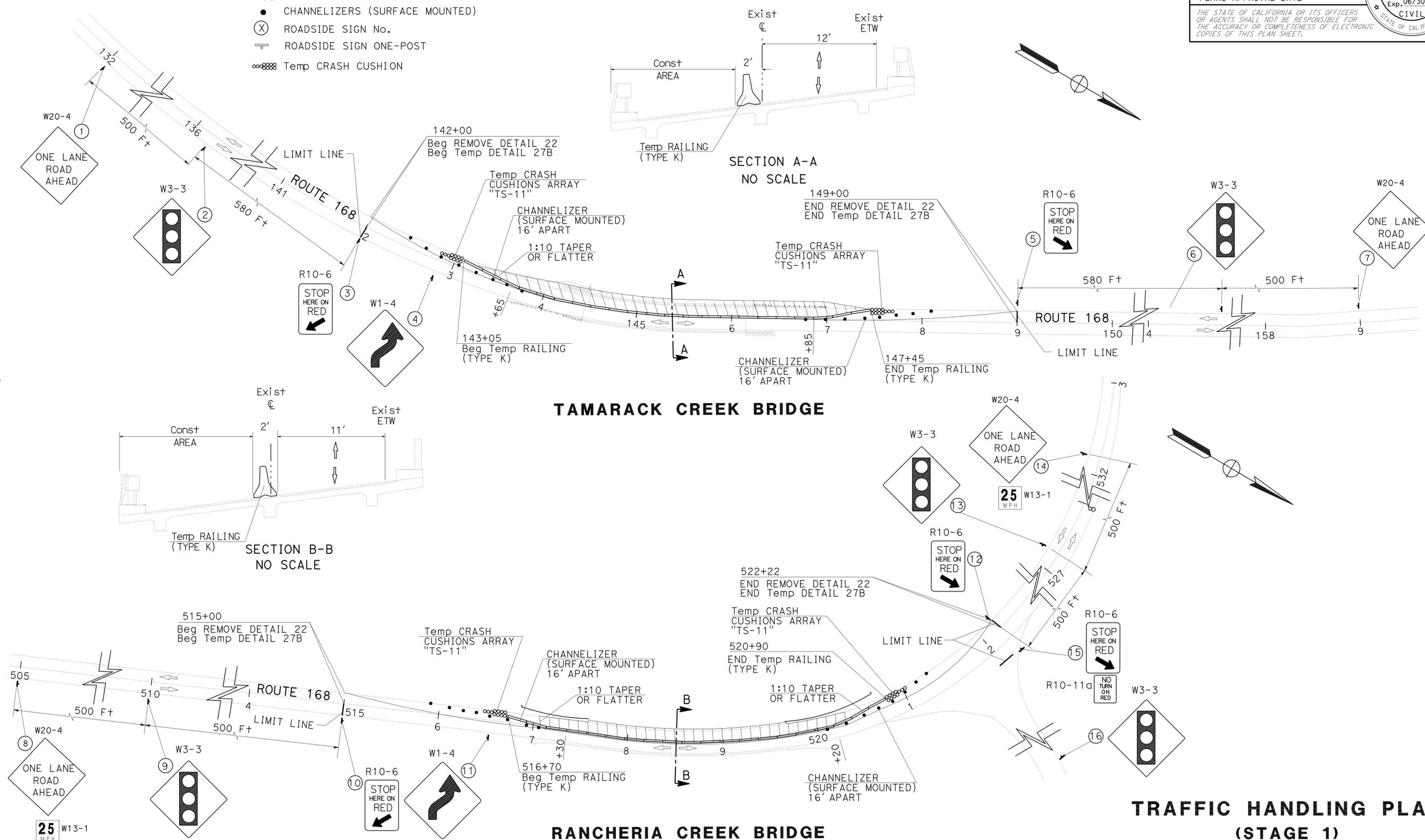
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	6	41
<p>Hassan Cohe 05-12-09 REGISTERED CIVIL ENGINEER DATE</p> <p>9-8-09 PLANS APPROVAL DATE</p> <p>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.</p>					
<p>REGISTERED PROFESSIONAL ENGINEER HASSAN M. TAHA No. 60130 Exp. 06/30/10 CIVIL</p>					

LEGEND:

- CONSTRUCTION AREA
- DIRECTION OF TRAFFIC
- Temp RAILING (TYPE K)
- CHANNELIZERS (SURFACE MOUNTED)
- ROADSIDE SIGN No.
- ROADSIDE SIGN ONE-POST
- Temp CRASH CUSHION

NOTE:

1. FOR ADDITIONAL CONSTRUCTION AREA SIGNS REFER TO SHEET CS-1.
2. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.



TAMARACK CREEK BRIDGE

RANCHARIA CREEK BRIDGE

TRAFFIC HANDLING PLAN (STAGE 1)

SCALE: 1"=50'

TH-1

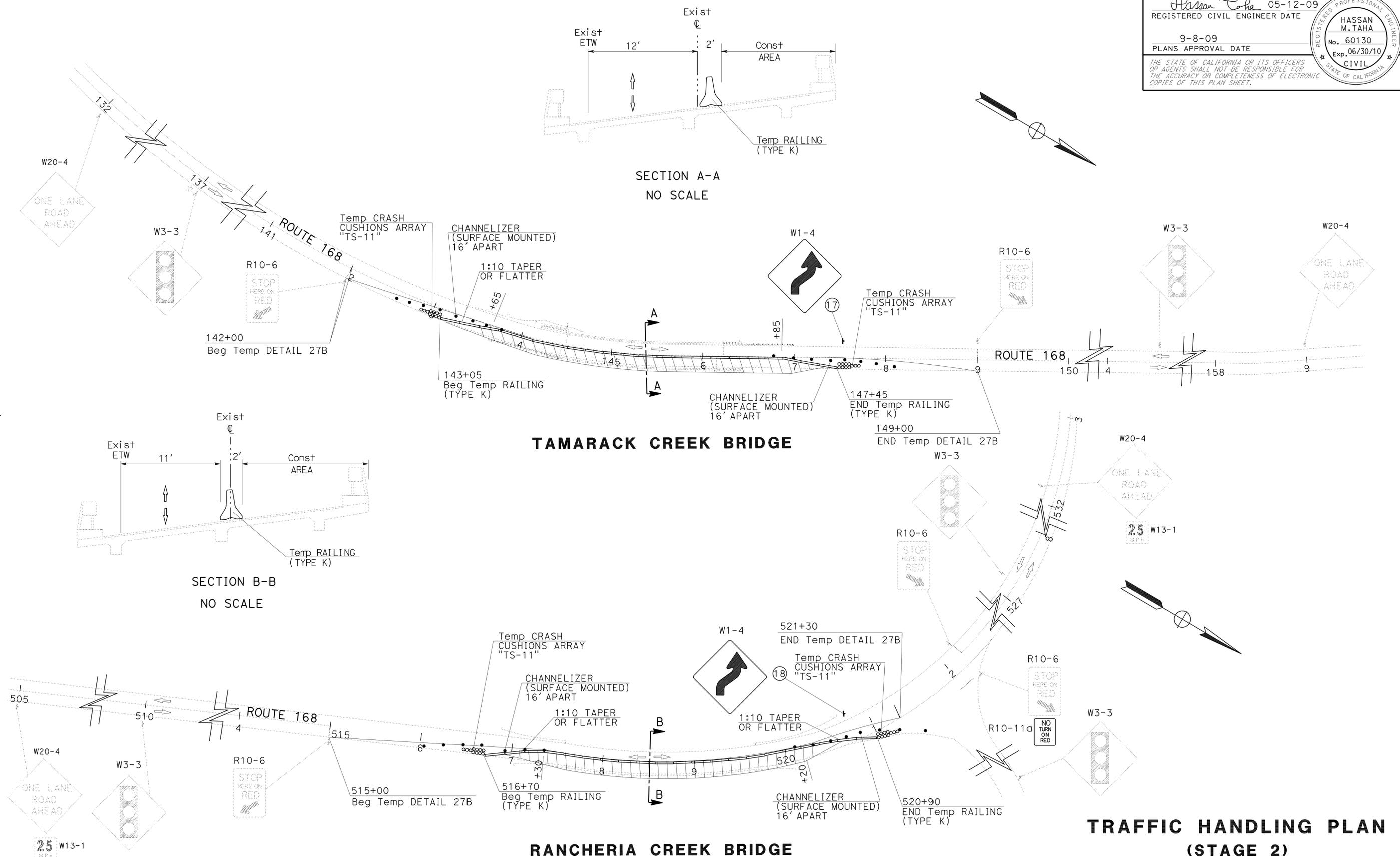
THIS PLAN ACCURATE FOR TRAFFIC HANDLING ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC DESIGN
 SUPERVISING ENGINEER: MOHAMMED QATAMI
 DESIGNED BY: VANIK POGOSYAN
 CHECKED BY: HASSAN TAHA
 REVISED BY: [blank]
 DATE REVISED: [blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	7	41
<i>Hassan Cohe</i> 05-12-09 REGISTERED CIVIL ENGINEER DATE			HASSAN M. TAHA No. 60130 Exp. 06/30/10 CIVIL		
9-8-09 PLANS APPROVAL DATE			THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC DESIGN

REVISOR: VANIK POGOSYAN
 REVISION DATE: HASSAN TAHA
 SUPERVISING ENGINEER: MOHAMMED QATAMI
 CALCULATED/DESIGNED BY: CHECKED BY:



THIS PLAN ACCURATE FOR TRAFFIC HANDLING ONLY



USERNAME => tr1im
 DGN FILE => 60F29umd002.dgn

CU 06386

EA OF29U1

LAST REVISION DATE PLOTTED => 08-SEP-2009
 05-12-09 TIME PLOTTED => 13:33

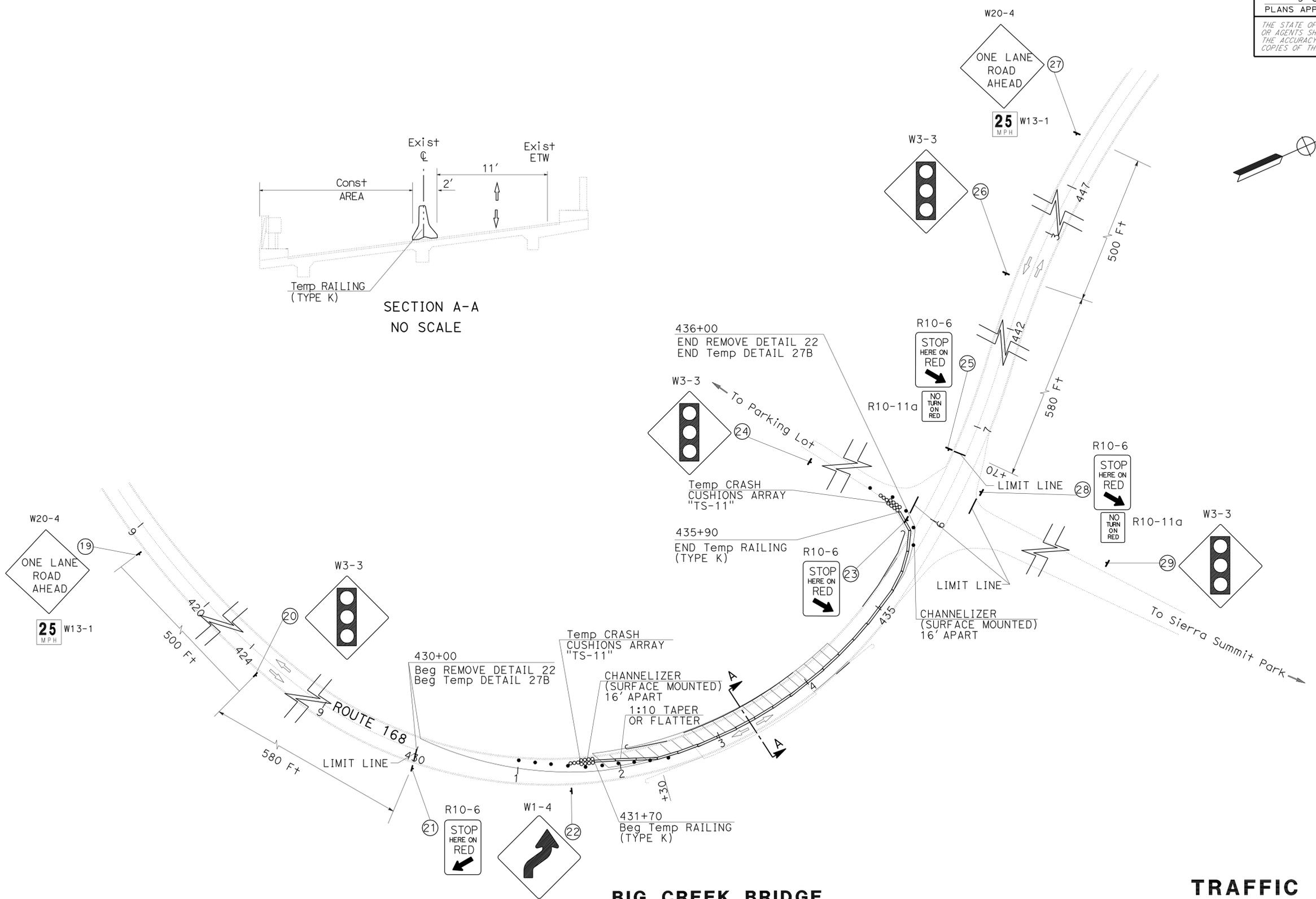
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	8	41

Hassan Cohe 05-12-09
REGISTERED CIVIL ENGINEER DATE
9-8-09
PLANS APPROVAL DATE

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

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SUPERVISING ENGINEER	REVISOR	DATE
Caltrans	MOHAMMED QATAMI	VANIK POGOSYAN	HASSAN TAHA
	TRAFFIC DESIGN	CHECKED BY	DESIGNED BY



BIG CREEK BRIDGE

**TRAFFIC HANDLING PLAN
(STAGE 3)**

SCALE: 1"=50'

TH-3

THIS PLAN ACCURATE FOR TRAFFIC HANDLING ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	9	41

Hassan Cohe 05-12-09
REGISTERED CIVIL ENGINEER DATE

9-8-09
PLANS APPROVAL DATE

HASSAN M. TAHA
No. 60130
Exp. 06/30/10
CIVIL

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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

TRAFFIC DESIGN

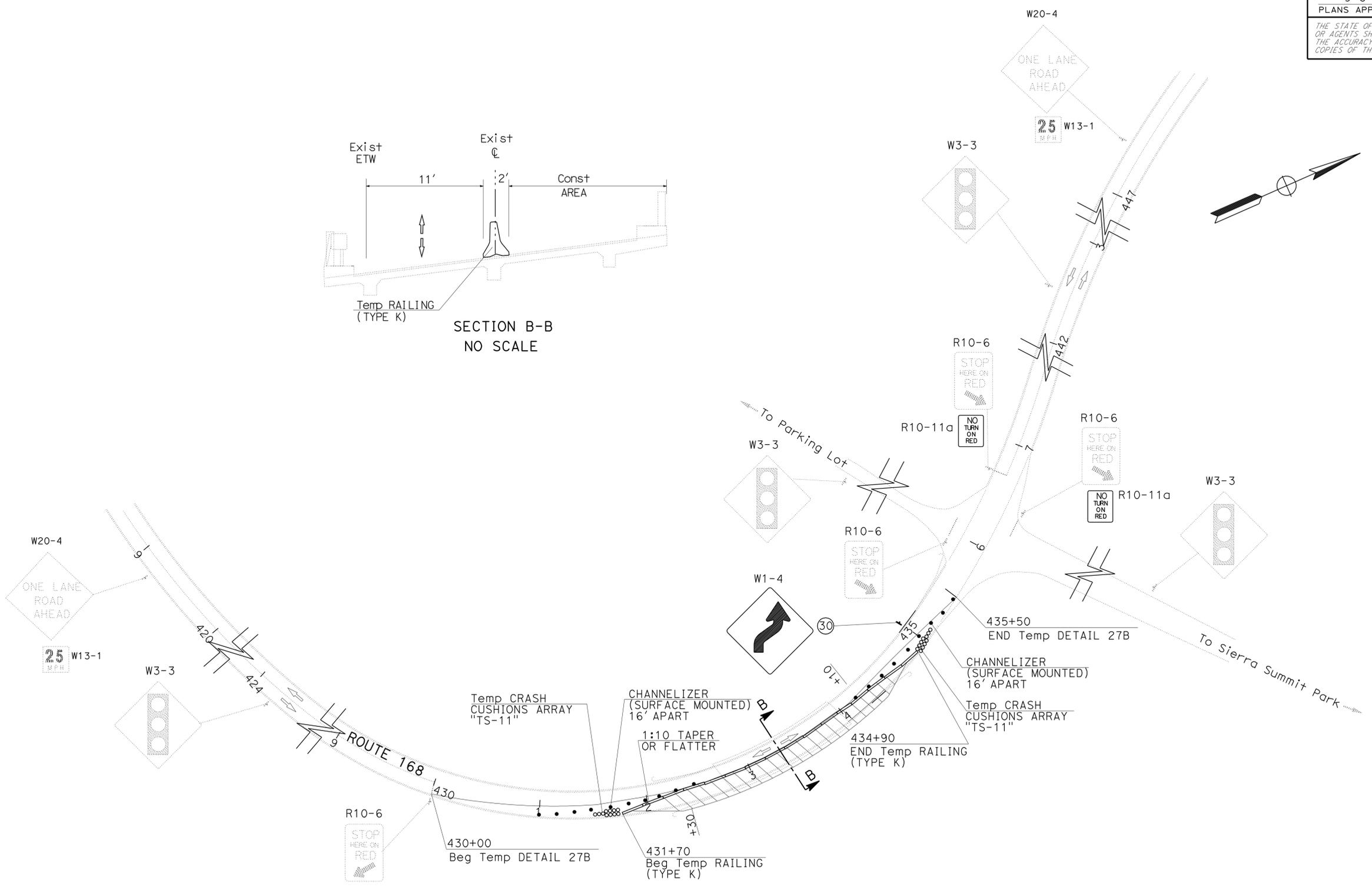
SUPERVISING ENGINEER: MOHAMMED QATAMI

DESIGNED BY: VANIK POGOSYAN

CHECKED BY: HASSAN TAHA

REVISOR: VANIK POGOSYAN

DATE: 04/11/2008



BIG CREEK BRIDGE

**TRAFFIC HANDLING PLAN
(STAGE 4)**

SCALE: 1"=50'

TH-4

THIS PLAN ACCURATE FOR TRAFFIC HANDLING ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	10	41

Hassan M. Taaha 05-12-09
REGISTERED CIVIL ENGINEER DATE

9-8-09
PLANS APPROVAL DATE

HASSAN M. TAHA
No. 60130
Exp. 06/30/10
CIVIL

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.

CONSTRUCTION AREA SIGNS (TRAFFIC HANDLING)

SHEET No.	SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE	No. OF SIGNS
TH-1	①	W20-4	AS SHOWN ON PLAN	36" x 36"	1-4" x 4"	1
	②	W3-3	AS SHOWN ON PLAN	36" x 36"	MOUNT ON POLE	1
	③	R10-6	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1
	④	W1-4	AS SHOWN ON PLAN	30" x 30"	1-4" x 4"	1
	⑤	R10-6	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1
	⑥	W3-3	AS SHOWN ON PLAN	36" x 36"	MOUNT ON POLE	1
	⑦	W20-4	AS SHOWN ON PLAN	36" x 36"	1-4" x 4"	1
	⑧	W20-4	AS SHOWN ON PLAN	36" x 36"	1-4" x 4"	1
		W13-1	AS SHOWN ON PLAN	36" x 24"		
	⑨	W3-3	AS SHOWN ON PLAN	36" x 36"	MOUNT ON POLE	1
	⑩	R10-6	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1
	⑪	W1-4	AS SHOWN ON PLAN	30" x 30"	1-4" x 4"	1
	⑫	R10-6	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1
	⑬	W3-3	AS SHOWN ON PLAN	36" x 36"	MOUNT ON POLE	1
W20-4		AS SHOWN ON PLAN	36" x 36"			
⑭	W13-1	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1	
	R10-6	AS SHOWN ON PLAN	36" x 24"			
⑮	R10-11a	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1	
	R10-11b	AS SHOWN ON PLAN	36" x 24"			
TH-2	⑯	W3-3	AS SHOWN ON PLAN	36" x 36"	MOUNT ON POLE	1
	⑰	W1-4	AS SHOWN ON PLAN	30" x 30"	1-4" x 4"	1
⑱	W1-4	AS SHOWN ON PLAN	30" x 30"	1-4" x 4"	1	
TH-3	⑲	W20-4	AS SHOWN ON PLAN	36" x 36"	1-4" x 4"	1
		W13-1	AS SHOWN ON PLAN	36" x 24"		
	⑳	W3-3	AS SHOWN ON PLAN	36" x 36"	MOUNT ON POLE	1
	㉑	R10-6	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1
	㉒	W1-4	AS SHOWN ON PLAN	30" x 30"	1-4" x 4"	1
	㉓	R10-6	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1
	㉔	W3-3	AS SHOWN ON PLAN	36" x 36"	MOUNT ON POLE	1
	㉕	R10-6	AS SHOWN ON PLAN	36" x 24"	1-4" x 4"	1
		R10-11a	AS SHOWN ON PLAN	36" x 24"		
	TH-4	㉖	W3-3	AS SHOWN ON PLAN	36" x 36"	MOUNT ON POLE
㉗		W1-4	AS SHOWN ON PLAN	30" x 30"	1-4" x 4"	1

TEMPORARY CRASH CUSHION MODULE

SHEET No.	EA
TH-1	44
TH-2	44
TH-3	22
TH-4	22
TOTAL	132

CHANNELIZER (SURFACE MOUNTED)

SHEET No.	EA
TH-1	32
TH-2	32
TH-3	15
TH-4	19
TOTAL	98

TEMPORARY PAVEMENT DELINEATION

SHEET No.	LOCATION Sta TO Sta	DETAIL No.	REMOVE PAVEMENT MARKER	REMOVE TRAFFIC STRIPE	TEMPORARY TRAFFIC STRIPE (TAPE)	TEMPORARY PAVEMENT MARKING (TAPE)	
			EA	LF	LF	DESCRIPTION	SQFT
TH-1	142+00 TO 149+00	22	62	1400		2-LIMIT LINE	24
		27B			700		
TH-1	515+00 TO 522+22	22	64	1444		3-LIMIT LINE	36
		27B			722		
TH-2	142+00 TO 147+45	27B			545		
		27B			630		
TH-3	430+00 TO 436+00	22	54	1200		4-LIMIT LINE	48
		27B			600		
TH-4	430+00 TO 433+50	27B			350		
TOTAL			180	4044	3547		108

TEMPORARY RAILING (TYPE K)

SHEET No.	Sta TO Sta	LF
TH-1	143+05 TO 147+45	440
	516+70 TO 520+90	420
TH-2	143+05 TO 147+45	440
	516+70 TO 520+90	420
TH-3	431+70 TO 435+90	420
TH-4	431+70 TO 434+90	320
TOTAL		2460

TRAFFIC HANDLING QUANTITIES

THQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN
SUPERVISING ENGINEER: MOHAMMED QATAMI
CALCULATED/DESIGNED BY: VANIK POGOSYAN
CHECKED BY: HASSAN TAHA
REVISED BY: HASSAN TAHA
DATE REVISED:

THIS PLAN ACCURATE FOR TRAFFIC HANDLING ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	11	41

Hassan M. Taaha 05-12-09
REGISTERED CIVIL ENGINEER DATE

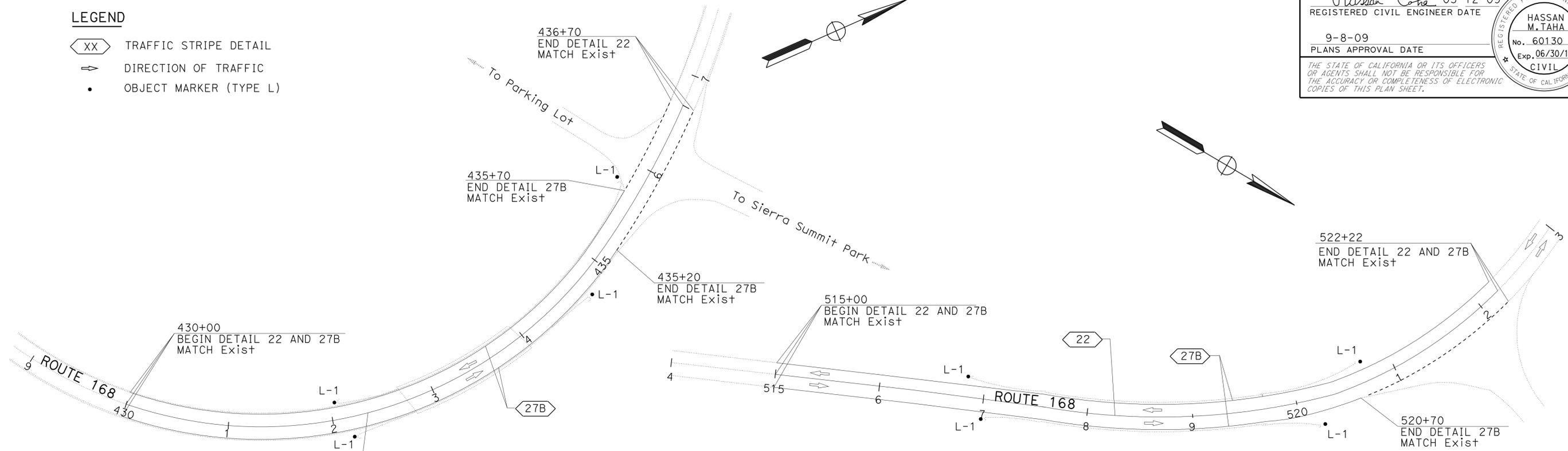
9-8-09
PLANS APPROVAL DATE

HASSAN M. TAHA
No. 60130
Exp. 06/30/10
CIVIL

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.

LEGEND

- XX TRAFFIC STRIPE DETAIL
- DIRECTION OF TRAFFIC
- OBJECT MARKER (TYPE L)



BIG CREEK BRIDGE

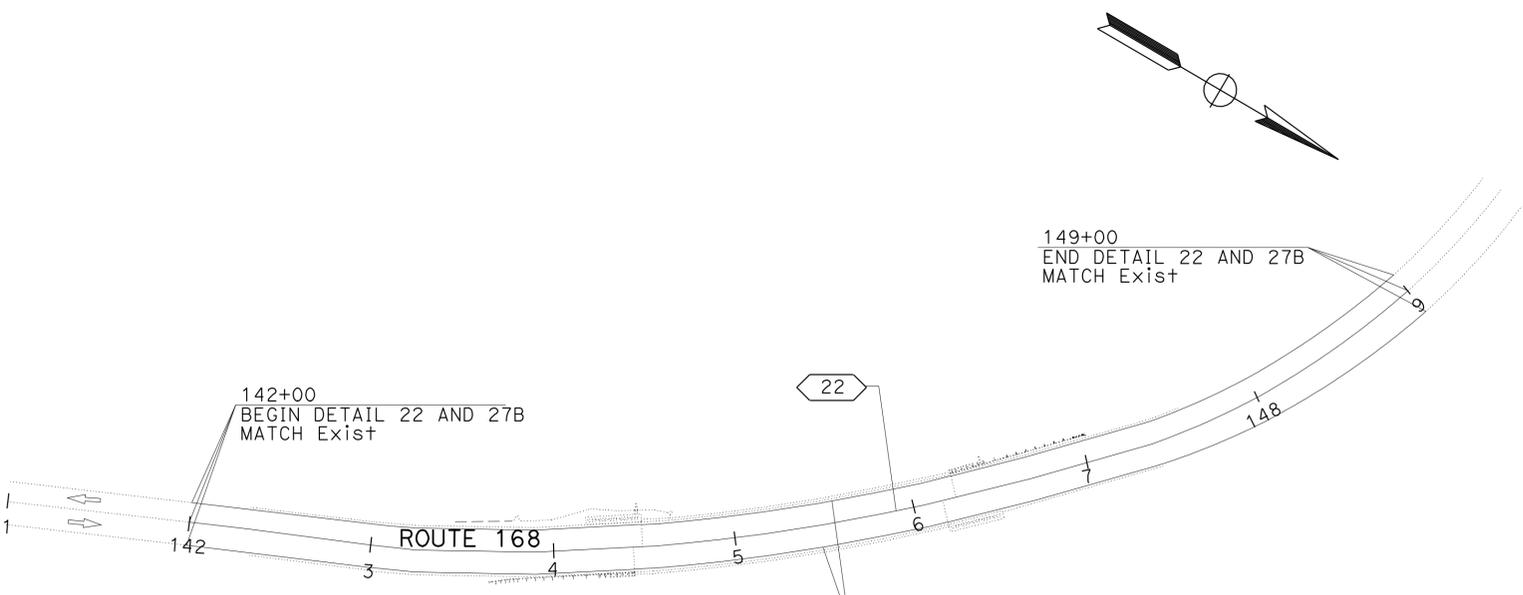
RANCHERIA CREEK BRIDGE

PAVEMENT DELINEATION

SHEET No.	LOCATION Sta TO Sta	DETAIL No.	PAVEMENT MARKER RETRO-REFLECTIVE	THERMOPLASTIC TRAFFIC STRIPE
			TYPE D	4"
PD-1	142+00 TO 149+00	22	EA	LF
		27B	62	1400
	430+00 TO 436+70	22	58	1340
	430+00 TO 435+20	27B		520
	430+00 TO 435+70	27B		570
	515+00 TO 522+22	22	64	1444
		27B		722
	515+00 TO 520+70	27B		570
TOTAL			184	7966

OBJECT MARKER (TYPE L-1)

SHEET No.	EA
PDQ-1	8



TAMARACK CREEK BRIDGE

PAVEMENT DELINEATION PLAN AND QUANTITIES

SCALE: 1"=50'

PD-1

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN
SUPERVISING ENGINEER: MOHAMMED QATAMI
DESIGNED BY: VANIK POGOSYAN
CHECKED BY: HASSAN TAHA
REVISOR: VANIK POGOSYAN
DATE: 04/11/2008

RELATIVE BORDER SCALE IS IN INCHES

USERNAME => tr1im
DGN FILE => 60F29uno001.dgn

CU 06386

EA 0F29U1

LAST REVISION: 05-12-09
DATE PLOTTED: 05-12-09
TIME PLOTTED: 13:34

ROADWAY QUANTITIES

LOCATION	DIRECTION	PLACE HMA (Misc AREA)		REMOVE AC DIKE	PLACE HMA DIKE			HMA (TYPE A)	COLD PLANE AC PAVEMENT
		OVERSIDE DRAIN	GUTTER FLARE		(TYPE C)	(TYPE E)	(TYPE F)		
		SQYD			LF	LF	LF		
430+79.80 TO 432+51.80	WB			251.3		251.3		6.5	
431+78.40	WB		0.8					0.2	
432+21.20 TO 432+51.20	WB							4.8	43.3
434+11.14 TO 434+13.28	WB							0.3	
434+13.28 TO 434+36.14	WB							4.8	43.3
434+11.14 TO 435+77.48	WB			162.5					
434+36.17 TO 435+34.92	WB					125		1.7	
435+34.92 TO 435+77.48	WB				37.5			0.3	
434+78.16	WB		0.8					0.2	
435+23.65	WB		0.8					0.2	
432+21.20 TO 432+51.20	EB							4.8	43.3
432+51.20 TO 432+62.42	EB							1.8	
432+20.30 TO 432+81.61	EB			62.5					
434+13.28 TO 434+43.28	EB							4.8	43.3
434+2.10 TO 434+72.16	EB			62.5					
516+14.52 TO 517+44.50	WB			251.3		251.3		6.5	
517+14.60 TO 517+44.60	WB							4.8	43.3
517+53.76	WB		0.8					0.2	
519+73.94 TO 522+22.60	WB			250	62.5	187.5		5	
521+6.70	WB		0.8					0.2	
517+14.60 TO 517+44.60	EB							4.8	43.3
517+44.60 TO 517+52.94	EB							1.2	
519+78.88 TO 520+8.88	EB							4.8	43.3
519+87.20	EB	2.7						0.5	
SUBTOTAL		2.7	4	1040.1	100	502.6	312.5	58.4	330.1
TOTAL		6.7		1040.1	100	502.6	312.5	58.4	330.1

METAL BEAM GUARD RAILING

BIG CREEK	RANCHERIA CREEK	DIRECTION	APPROACH	DEPARTURE	FLARE LAYOUT (N)		ALTERNATIVE FLARED TERMINAL SYSTEM	TRANSITION RAILING (TYPE WB)	METAL BEAM GUARD RAILING(STEEL POST)	SALVAGE METAL BEAM GUARD RAILING
					TYPE	EA				
X		EB	X		12B	1	2		62.5	
X		EB		X	12BB	1	2		62.5	
X		WB	X		12B	1	2	100	162.5	
X		WB		X	12BB	1	2		62.5	
	X	EB	X		12C		2	62.5	75	
	X	EB		X	12BB	1	2		62.5	
	X	WB	X		12B	1	2	162.5	225	
	X	WB		X	12BB	1	2		62.5	
TOTAL						7	16	325	775	

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

TEMPORARY WATER POLLUTION CONTROL

TAMARACK CREEK	BIG CREEK	RANCHERIA CREEK	DIRECTION	APPROACH	DEPARTURE	Temp FENCE (TYPE ESA)	Temp GRAVEL BAG BERM
						LF	LF
X			EB	X		75	
X			EB		X	75	
X			WB	X		75	25
X			WB		X	75	25
	X		EB	X		75	
	X		EB		X	75	
	X		WB	X		75	50
	X		WB		X	75	25
		X	EB	X		75	
		X	EB		X	75	
		X	WB	X		75	25
		X	WB		X	75	25
						900	175

NOTE: EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER

DRAINAGE QUANTITIES

BIG CREEK	RANCHERIA CREEK	DIRECTION	APPROACH	DEPARTURE	FLUME ANCHOR ASSEMBLY	TAPERED INLET	FLUME DOWNDRAIN	ROCK SLOPE PROTECTION (BACKING No.2, METHOD B)	ROCK SLOPE PROTECTION (BACKING No.3, METHOD B)	ROCK SLOPE PROTECTION (FACING, METHOD B)	ROCK SLOPE PROTECTION FABRIC	REMOVE AC OVERSIDE DRAIN
					EA	EA	LF	CY	CY	CY	SQYD	EA
X		WB	X		4	6	52	1.7			10.4	1
X		WB		X	2	2	10	1.7			5.2	1
	X	EB	X						3.9		22	
	X	EB		X				1.7			5.2	
	X	WB	X		3	1	24			16	46.2	
	X	WB		X	2	1	10	0.8			5.2	1
TOTAL					10	10	96	5.9	3.9	16	94.2	3

SUMMARY OF QUANTITIES

Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	12	41

Michael S. Bettega 04/14/09
 REGISTERED CIVIL ENGINEER DATE
 9-8-09
 PLANS APPROVAL DATE
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	13	41
			06-02-09		
			REGISTERED ELECTRICAL ENGINEER DATE		
			9-8-09		
			PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER
HASHIM KHALID
 No. 18054
 Exp. 6/30/11
 ELECTRICAL
 STATE OF CALIFORNIA

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NOTES:

- 1 POWER SHALL BE PROVIDED BY GENERATOR WITH A BACKUP GENERATOR, SEE DETAIL E ON SHEET E-7.
- 2 INSTALL STATE-FURNISHED MODEL 2070 CONTROLLER ASSEMBLY ON TEMPORARY FOUNDATION PLATFORM FOR MODEL 332 CABINET PER DETAIL D ON SHEET E-7.
- 3 LOOPS SHALL HAVE 5 TURNS.
4. OVERHEAD CONDUCTORS SHALL BE TIED ON MESSENGER CABLE WITH UV RESISTANT TIES. AT EVERY 3' MAXIMUM WITH SELF-CLINGING NYLON TIES.
5. OVERHEAD ENTRANCE CONDUIT FITTING SHALL HAVE A DRIP LOOP.
6. PROVIDE GUY WIRE, GUY GUARDS AND ANCHOR AS REQUIRED. POLE GUY SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.
7. MAXIMUM SPACING BETWEEN WOOD POLES WITH OVERHEAD CONDUCTORS SHALL NOT EXCEED 200'.
8. SIGNS SHOWN ARE "CONSTRUCTION AREA SIGNS". SEE SHEET TH-1 FOR DETAILS.
9. ALL PULL BOXES SHALL BE No. 3 1/2 UNLESS OTHERWISE NOTED.
10. MESSENGER CABLE SHALL BE 3/8", 7 STRAND GALVANIZED.

CONDUIT NOTES:

- | | |
|---|--|
| <ol style="list-style-type: none"> 1 3"C, 2#8 (LTG), 2#6 (SIGNAL), 2#10 (EB FB AND SIGN LTG), 2#10 (WB FB AND SIGN LTG) 2 3"C, 2#6 (SIGNAL), 2-5CSC, 4 DLC 3 3"C, 2#8 (LTG), 2#10 (EB FB AND SIGN LTG), 2#10 (WB FB AND SIGN LTG), 2-5CSC, 4 DLC 4 MESSENGER CABLE- 2#8 (LTG), 2#10 (EB FB AND SIGN LTG), 1-5CSC, 2 DLC 5 MESSENGER CABLE- 2#8 (LTG), 2#10 (WB FB AND SIGN LTG), 1-5CSC, 2 DLC 6 3"C, 2#6 (SIGNAL), 4-5CSC, 6 DLC 7 3"C, 2#8 (LTG), 2#10 (EB FB AND SIGN LTG), 2#10 (WB FB AND SIGN LTG), 4-5CSC, 6 DLC 8 MESSENGER CABLE- 2#8 (LTG), 2#10 (WB FB AND SIGN LTG), 4-5CSC, 4 DLC 9 MESSENGER CABLE- 2#8 (LTG), 2#10 (WB FB AND SIGN LTG), 3-5CSC, 4 DLC 10 MESSENGER CABLE- 2#8 (LTG), 1-5CSC, 1 DLC 11 MESSENGER CABLE- 2#8 (LTG), 2#10 (WB FB AND SIGN LTG), 1-5CSC, 2 DLC | <ol style="list-style-type: none"> 12 3"C, 2#6 (SIGNAL), 3-5CSC, 5 DLC 13 3"C, 2#8 (LTG), 2#10 (EB FB AND SIGN LTG), 2#10 (WB FB AND SIGN LTG), 3-5CSC, 5 DLC 14 MESSENGER CABLE- 2#8 (LTG), 2#10 (EB FB AND SIGN LTG), 3-5CSC, 5 DLC 15 MESSENGER CABLE- 2#8 (LTG), 2#10 (EB FB AND SIGN LTG), 3-5CSC, 4 DLC 16 MESSENGER CABLE- 2#8 (LTG), 1-5CSC 17 MESSENGER CABLE- 2#8 (LTG), 2#10 (EB FB AND SIGN LTG), 1-5CSC, 3 DLC 18 MESSENGER CABLE- 2#8 (LTG), 2#10 (EB FB AND SIGN LTG), 1-5CSC, 2 DLC |
|---|--|

LEGEND:

- WOOD POLE WITH ADVANCE FB, SEE DETAIL A ON SHEET E-6.
- WOOD POLE WITH LMA, SMA, SEE DETAIL B SHEET ON E-6.
- FUEL TANK.
- TEMPORARY 6' CL-6 FENCE WITH 3' GATE.
- FUEL LINE.
- GENERATOR AND TRANSFER SWITCH.
- WOOD POST WITH NEMA 3R ENCLOSURE. SEE DETAIL F ON SHEET E-7.
- 40' WOOD POLE. SEE DETAIL G ON SHEET E-7.

ABBREVIATION:

ATS - AUTOMATIC TRANSFER SWITCH

TEMPORARY SIGNAL SYSTEM

NO SCALE

E-1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	17	41

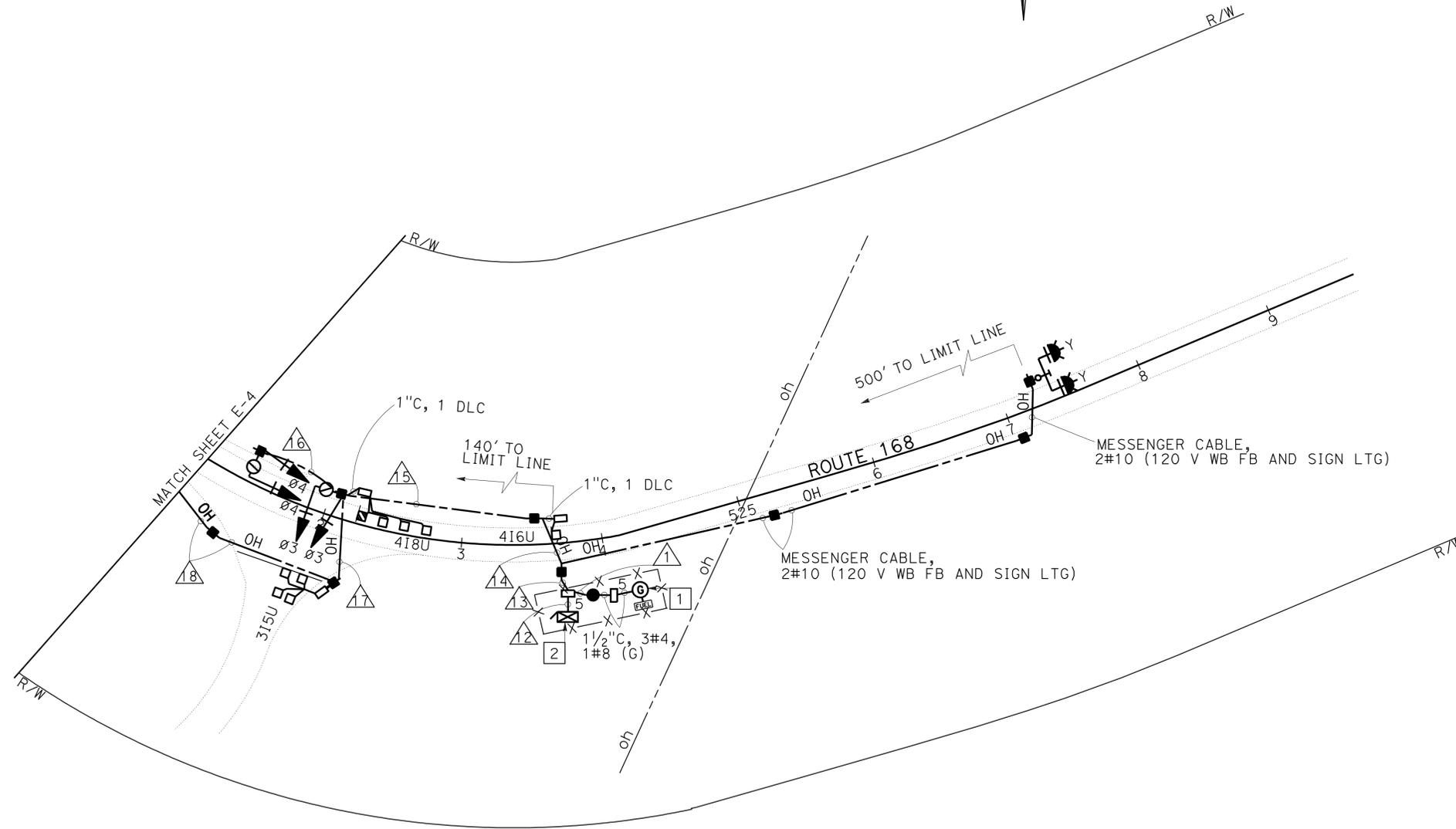
<i>[Signature]</i>	06-02-09
REGISTERED ELECTRICAL ENGINEER DATE	
9-8-09	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
HASHIM KHALID
No. 18054
Exp. 6/30/11
ELECTRICAL
STATE OF CALIFORNIA

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NOTES:

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



LOCATION 3

TEMPORARY SIGNAL SYSTEM

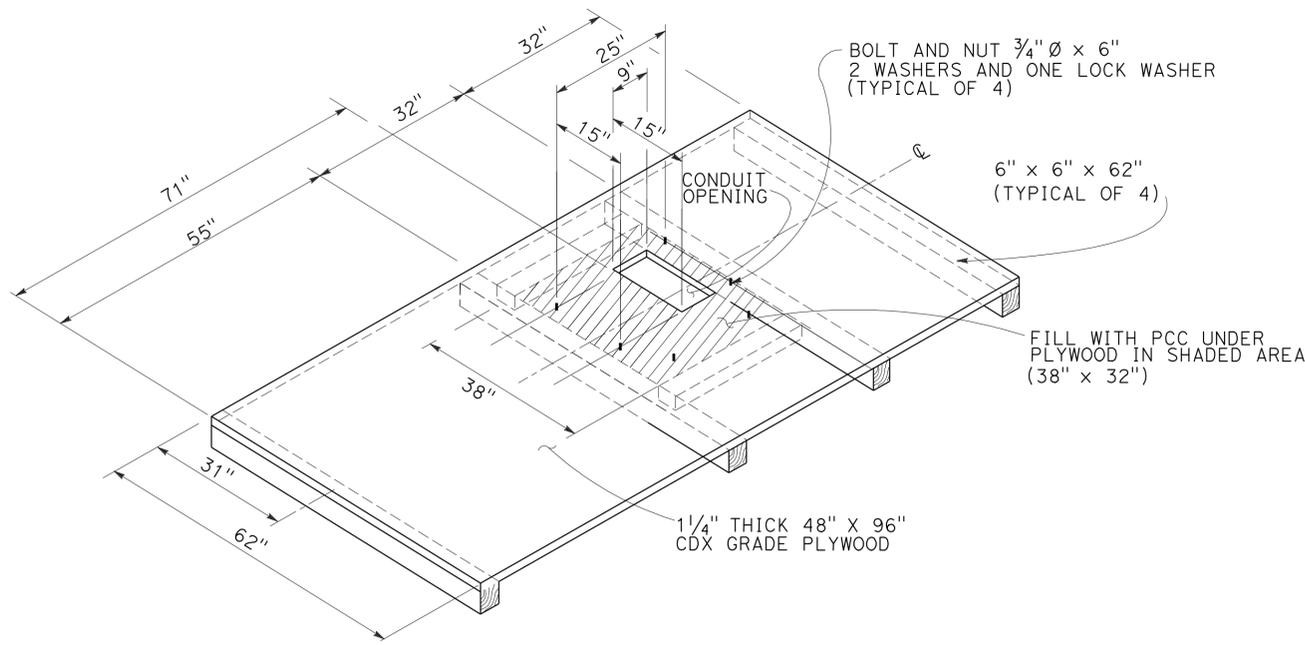
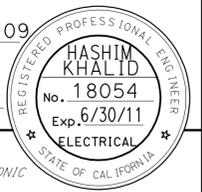
E-5

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

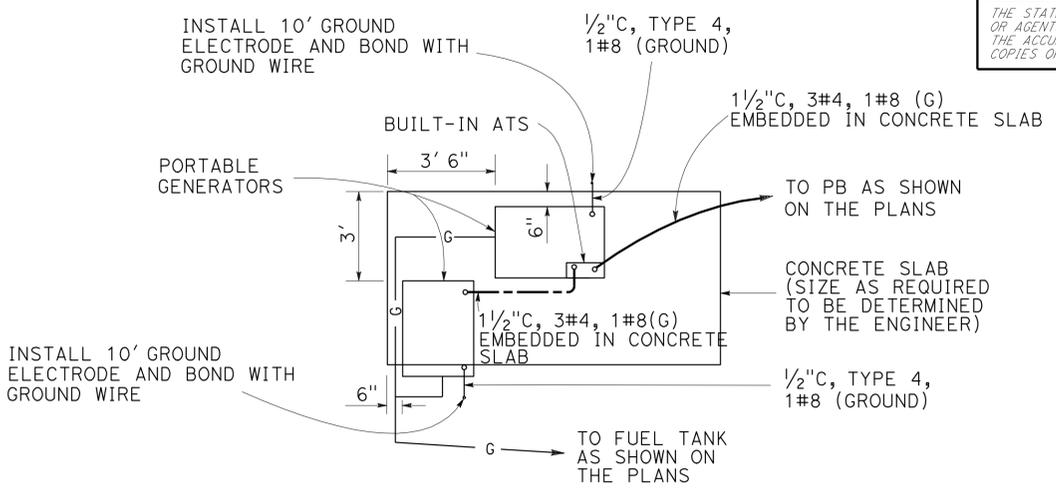
SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR
ALI BAKHDOUD
CALCULATED-DESIGNED BY
CHECKED BY
KARIM ABDOLLAHIAN
HASHIM KHALID
REVISED BY
DATE REVISED

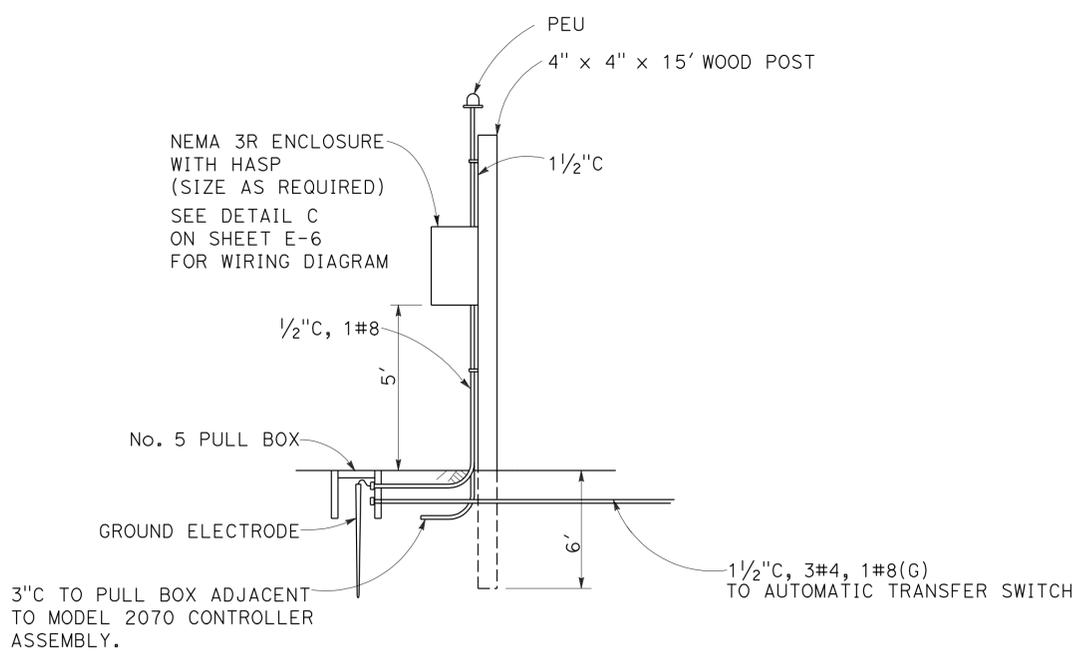
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	58.6/65.8	19	41
			06-02-09	REGISTERED ELECTRICAL ENGINEER DATE	
			9-8-09	PLANS APPROVAL DATE	
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TEMPORARY MODEL 332 CABINET FOUNDATION PLATFORM
DETAIL D

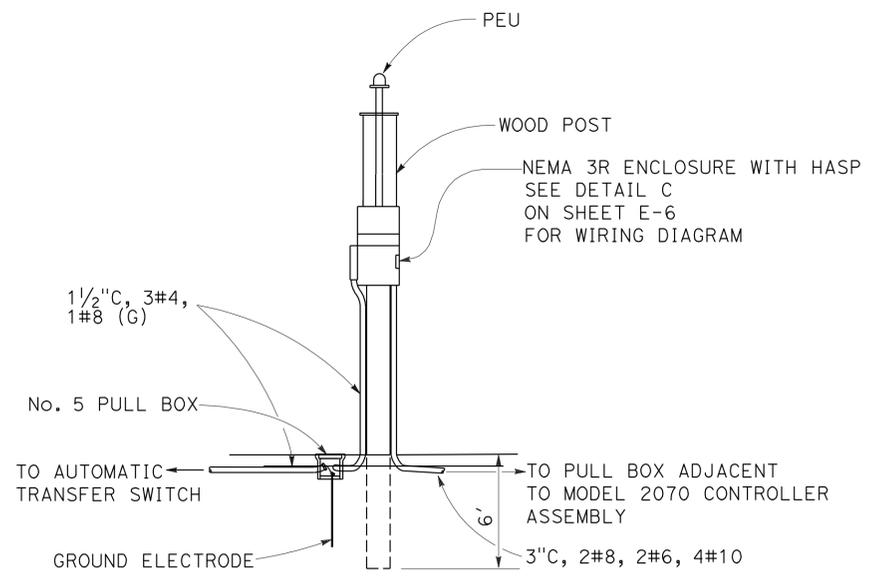


GENERATOR POWER SOURCE
DETAIL E

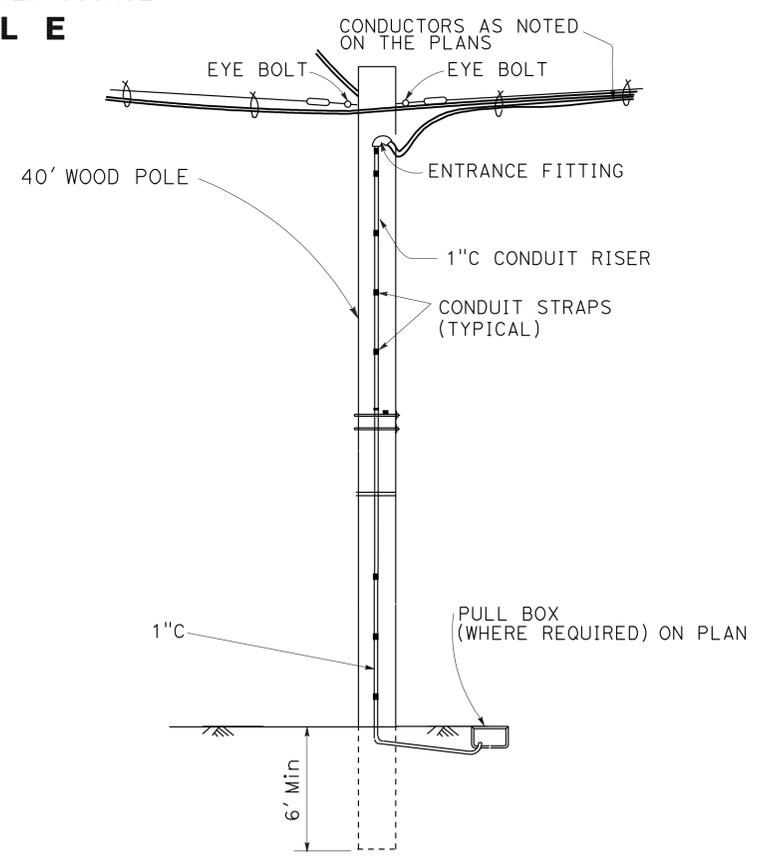


ELECTRICAL SERVICE SIDE VIEW

DETAIL F



ELECTRICAL SERVICE FRONT VIEW



DETAIL G

TEMPORARY SIGNAL SYSTEM

NO SCALE

E-7

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Electrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
ALI BAKHDOUD

CALCULATED-DESIGNED BY
CHECKED BY

KARIM ABDOLLAHIAN
HASHIM KHALID

REVISED BY
DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	20	41

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

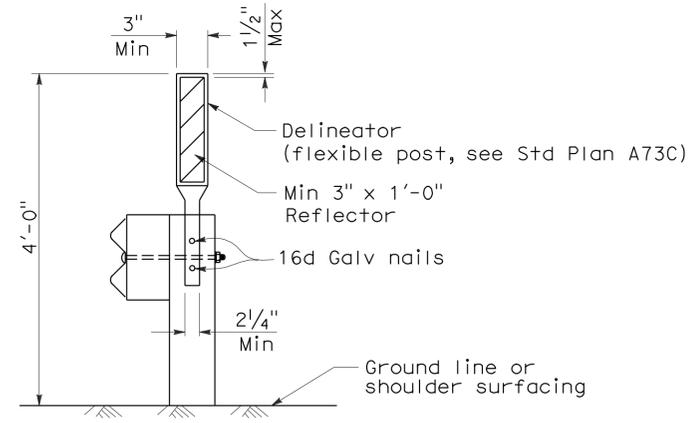
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

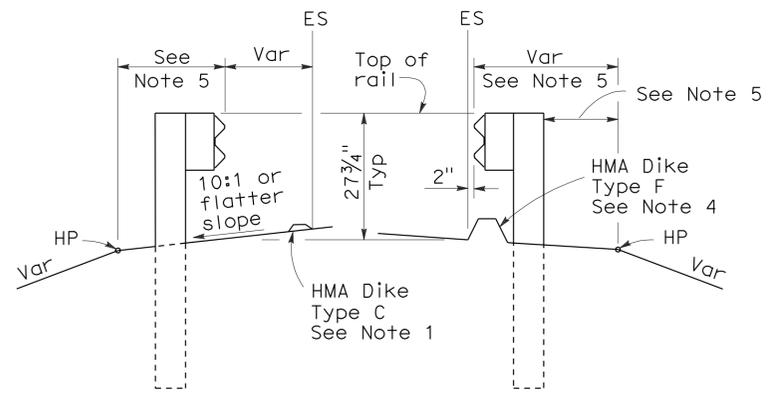
To accompany plans dated 9-8-09

NOTES:

1. When necessary to place dike in front of face of guard railing, only Type C dike may be used. For dike details, see Standard Plan A87B.
2. For standard railing post embedment, see Standard Plans A77C3.
3. Guard railing delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under guard railing, the maximum height of the dike or curb shall be 4". Mountable dike should not be used. For dike and curb details, see Revised Standard Plans RSP A87A and Standard Plan A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77C3.



GUARD RAILING DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL RAILING DELINEATION
AND DIKE POSITIONING DETAILS**

NO SCALE

RSP A77C4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77C4
DATED MAY 1, 2006 - PAGE 47 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77C4

2006 REVISED STANDARD PLAN RSP A77C4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	21	41

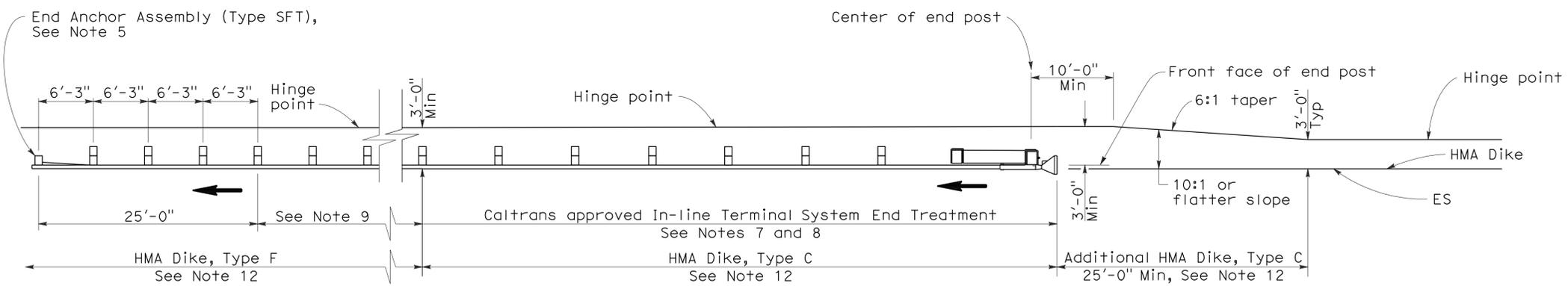
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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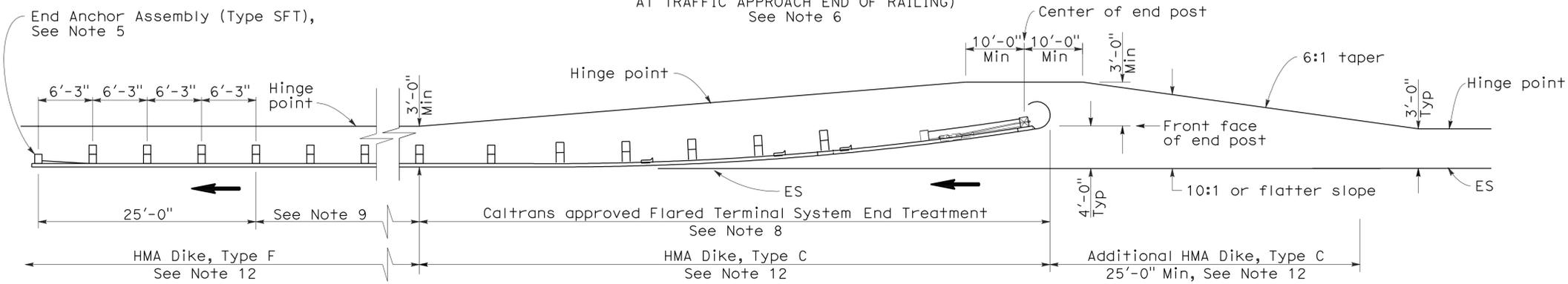
To accompany plans dated 9-8-09

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



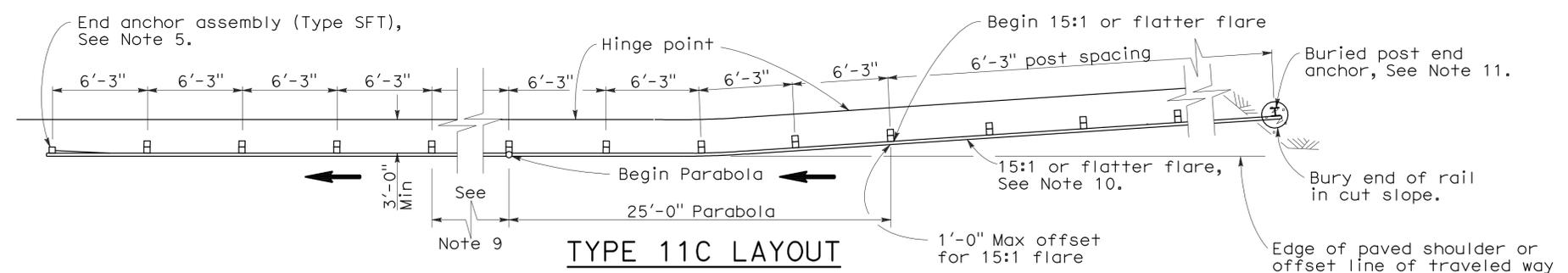
TYPE 11A LAYOUT

(EMBANKMENT GUARD INSTALLATION WITH IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6



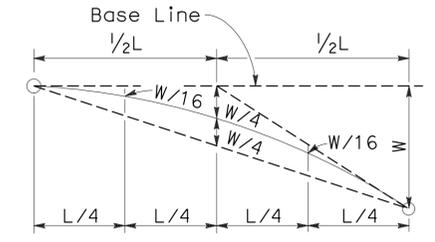
TYPE 11B LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6

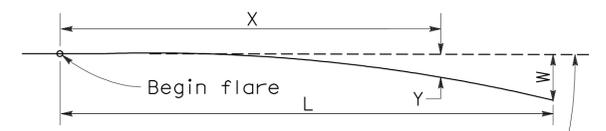


TYPE 11C LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 6 and 12



TYPICAL PARABOLIC LAYOUT

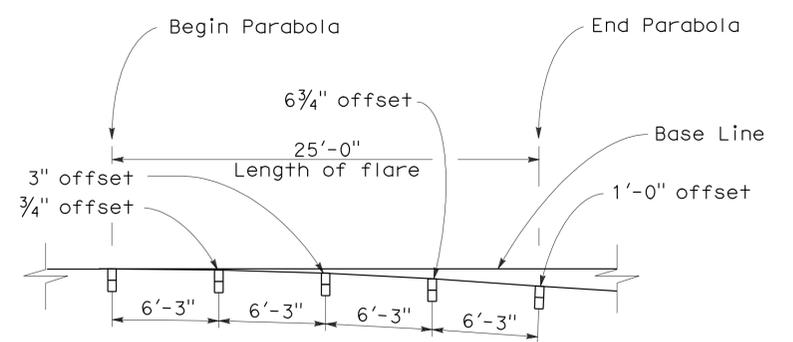


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

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

Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPICAL FLARE OFFSETS FOR 1 FOOT MAX END OFFSET

NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1, and A77C2.
- Guard rail 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 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or recycled plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
- Layout Types 11A, 11B or 11C are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for only one direction of traffic.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 11C Layout, see Standard Plan A77I2.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR EMBANKMENTS
NO SCALE

RSP A77E1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E1
DATED MAY 1, 2006 - PAGE 48 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E1

2006 REVISED STANDARD PLAN RSP A77E1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	22	41

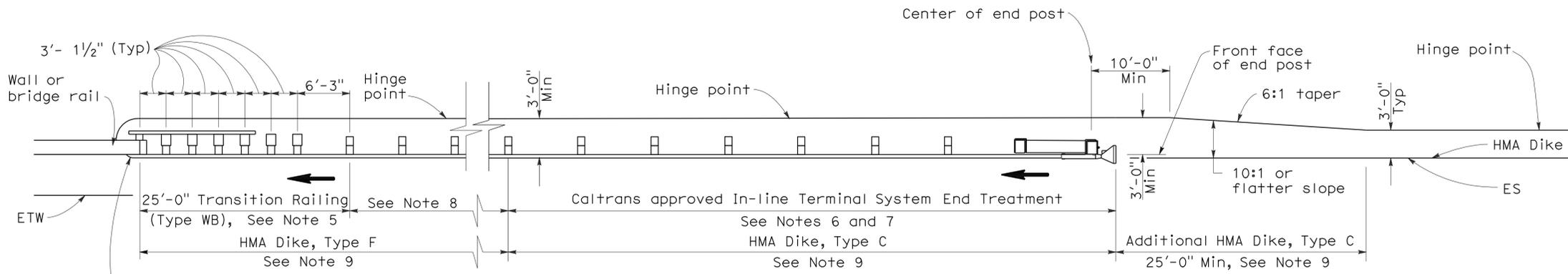
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

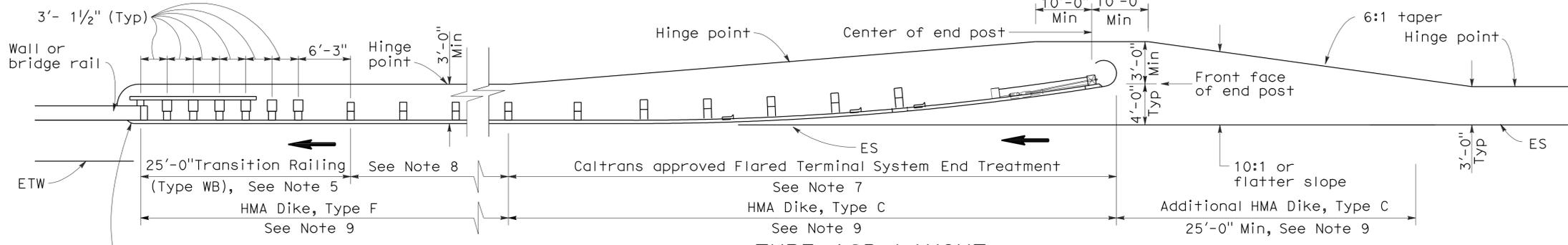
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To accompany plans dated 9-8-09



TYPE 12A LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 10



TYPE 12B LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 10

NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail 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 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- For Transition Railing (Type WB) details for Types 12A and 12B Layouts, see Standard Plan A77J4.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type 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.

- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 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 A77F3 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 A77J1 and RSP A77J2 and Connection Detail FF on Standard Plans A77K1 and A77K2.
- For additional details of a typical connection to walls or abutments, see Standard Plan A77J3.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
STRUCTURE APPROACH**

NO SCALE

RSP A77F1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F1
DATED MAY 1, 2006 - PAGE 54 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77F1

2006 REVISED STANDARD PLAN RSP A77F1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	23	41

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

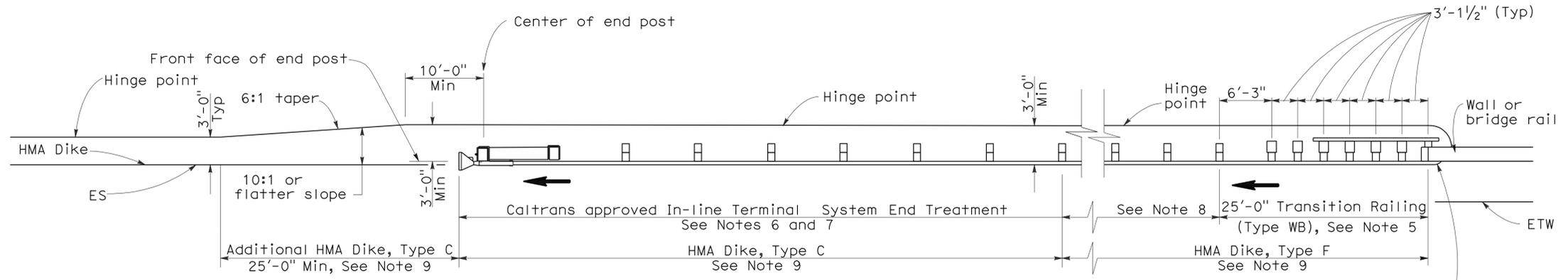
June 6, 2008
PLANS APPROVAL DATE

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

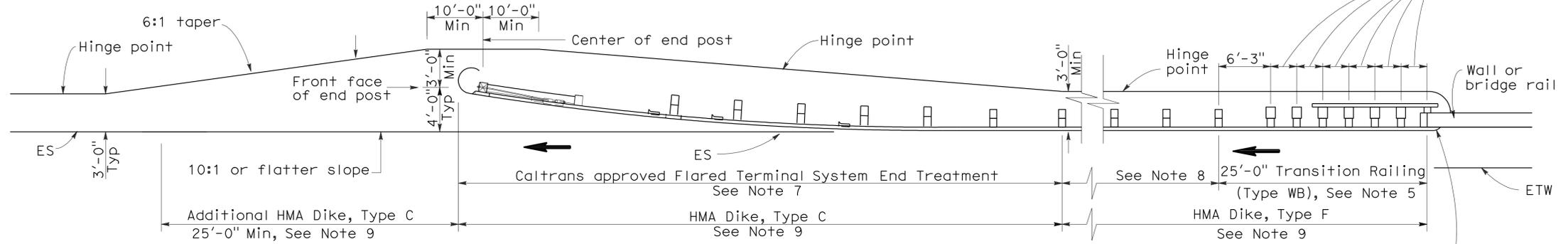
To accompany plans dated 9-8-09

2006 REVISED STANDARD PLAN RSP A77F4



TYPE 12AA LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE DEPARTURE WITH AN IN-LINE END TREATMENT AT TRAILING END OF RAILING)
See Notes 9 and 10



TYPE 12BB LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE DEPARTURE WITH A FLARED END TREATMENT AT TRAILING END OF RAILING)
See Notes 9 and 10

NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail 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 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by \rightarrow .
- For Transition Railing (Type WB) details for Types 12AA and 12BB Layouts, see Standard Plan A77J4.
- In-line Terminal System Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes, 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 treatments.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- Type 12AA or Type 12BB Layouts are typically used to the right of traffic departing a structure on two-way conventional highways where the roadbed width across the structure is less than 40 feet.
- For additional details of typical connections to bridge rail, see Connection Detail CC on Revised Standard Plan RSP A77J2 and Connection Detail HH on Standard Plans A77K2.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
STRUCTURE DEPARTURE**
NO SCALE

RSP A77F4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F4
DATED MAY 1, 2006 - PAGE 57 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77F4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	24	41

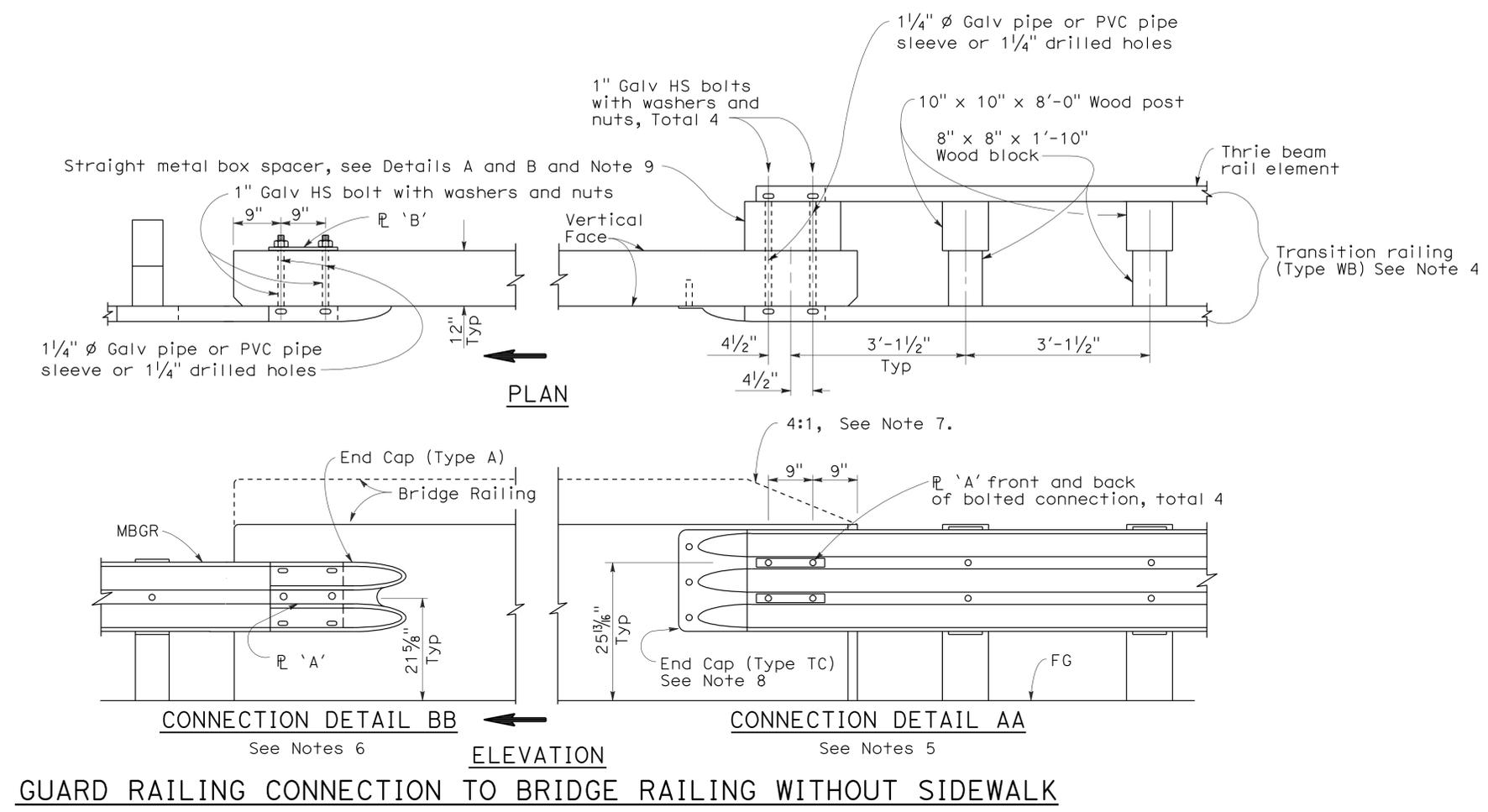
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

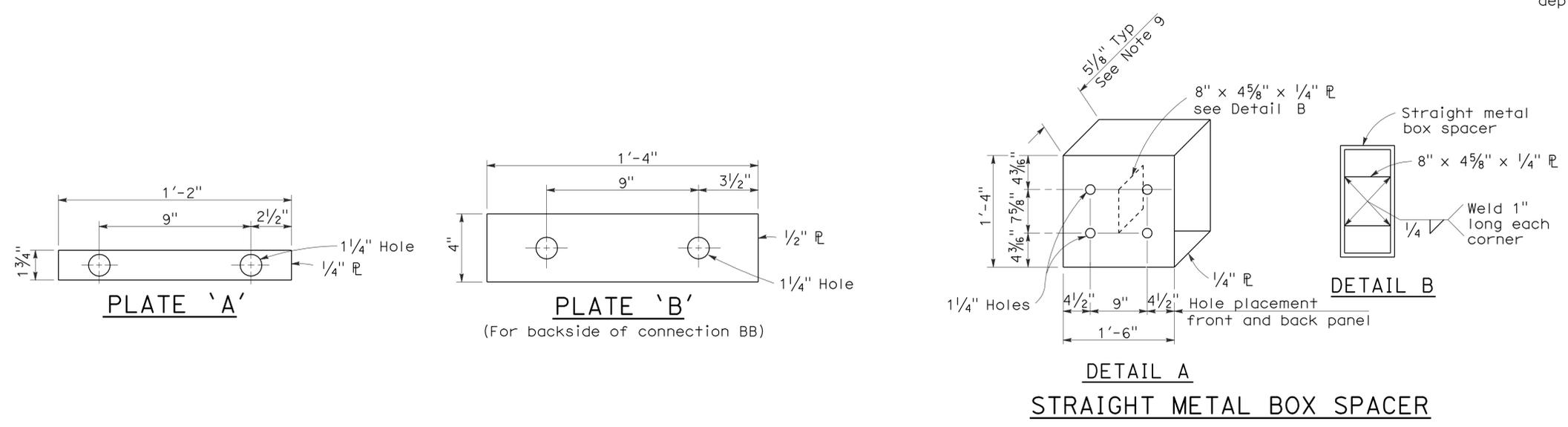
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 9-8-09



- NOTES:**
- See Revised Standard Plan RSP A77J2 for additional connection details to bridges without sidewalks.
 - Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
 - Direction of adjacent traffic indicated by \rightarrow .
 - For additional details of Transition Railing (Type WB), see Standard Plan A77J4. Transition Railing (Type WB) transitions the 12 gage w-beam standard railing section of guard railing to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
 - For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77F1, Layout Types 12C and 12D on Standard Plan A77F2, and Layout Type 12E on Revised Standard Plan RSP A77F3.
 - For typical use of Connection Detail BB, see Layout Type 12D (structure departure railing connection) on Standard Plan A77F2 and Layout Type 12DD on Standard Plan A77F5.
 - Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail.
 - For details of End Cap (Type TC), see Standard Plan A77J4.
 - See Standard Plan A77J4 for additional details regarding depth dimension for straight metal box spacer.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS No.1

NO SCALE

RSP A77J1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77J1 DATED MAY 1, 2006 - PAGE 72 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77J1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	25	41

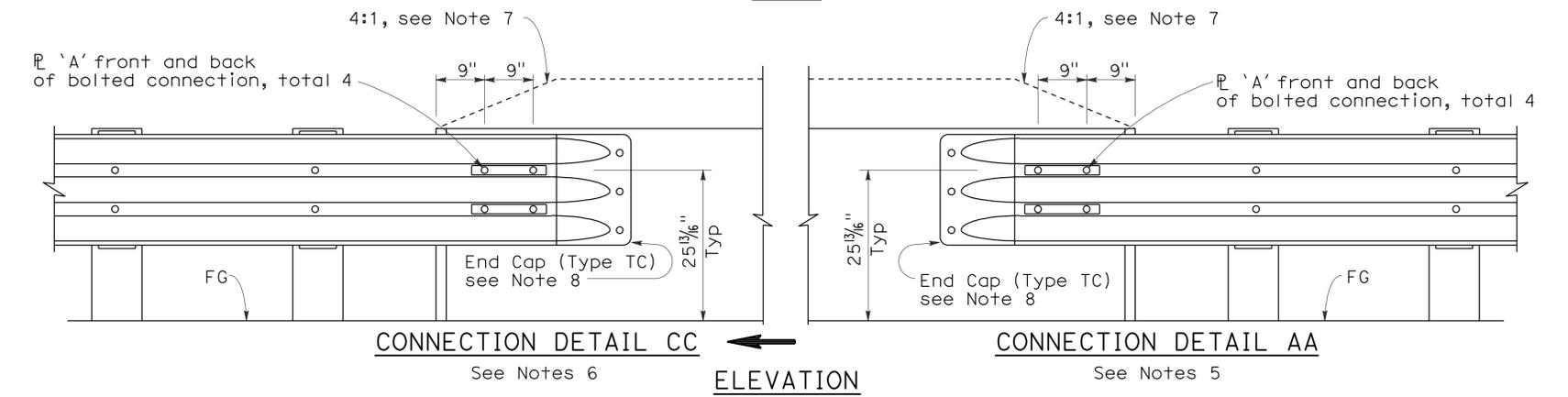
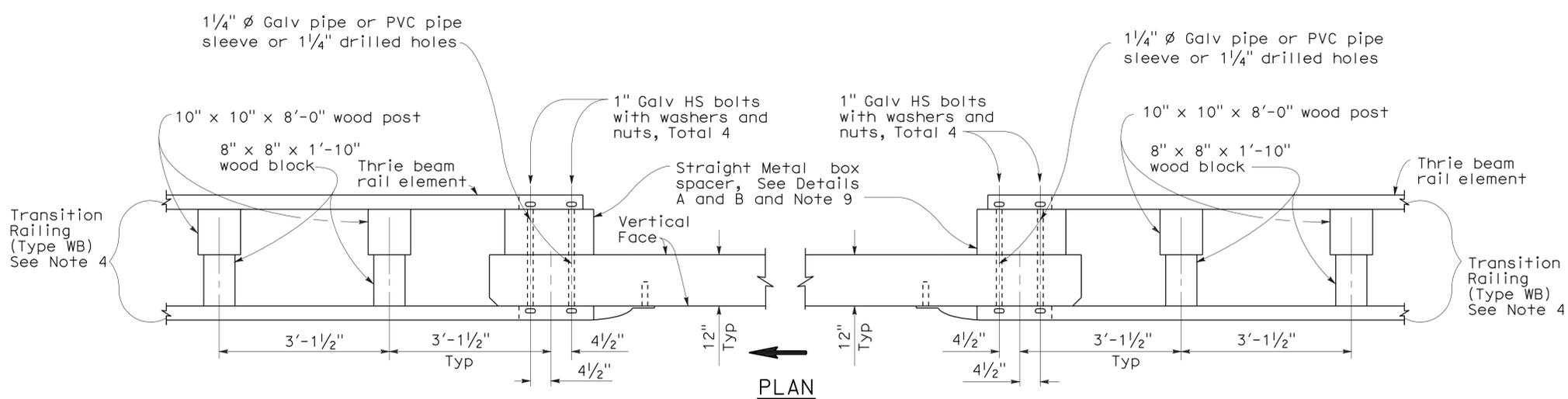
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No. C50200
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STATE OF CALIFORNIA

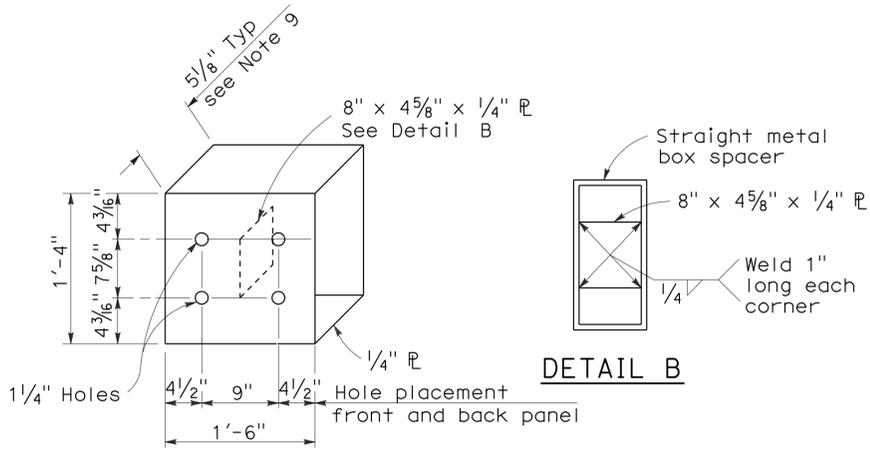
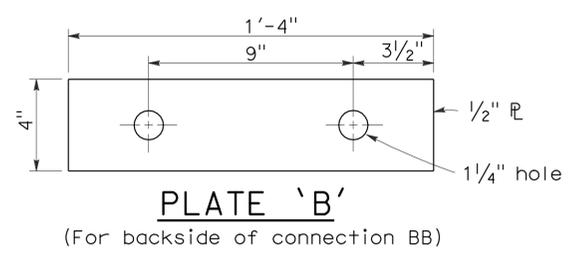
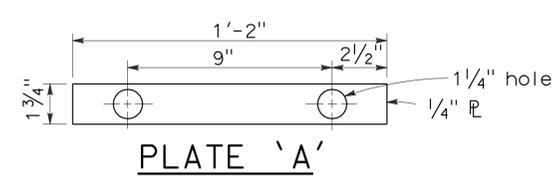
To accompany plans dated 9-8-09



GUARD RAILING CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK

NOTES:

- See Revised Standard Plan RSP A77J1 for additional connection details to bridges without sidewalks.
- Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
- Direction of adjacent traffic indicated by →.
- For additional details of Transition Railing (Type WB), see Standard Plan A77J4. Transition Railing (Type WB) transitions the 12 gage w-beam standard railing section of guard railing to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
- For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77F1, Layout Types 12C and 12D on Standard Plan A77F2, and Layout Type 12E on Revised Standard Plan RSP A77F3.
- For typical use of Connection Detail CC, see Layout Types 12AA and 12BB on Standard Plan A77F4 and Layout Type 12CC on Standard Plan A77F5.
- Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA and connection Detail CC, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam railing.
- For details of End Cap (Type TC), see Standard Plans A77J4.
- See Standard Plans A77J4 for additional details regarding depth dimension for straight metal box spacer.



**DETAIL A
STRAIGHT METAL BOX SPACER**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
CONNECTIONS TO BRIDGE RAILINGS
WITHOUT SIDEWALKS DETAILS No.2**

NO SCALE
RSP A77J2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77J2
DATED MAY 1, 2006 - PAGE 73 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77J2

2006 REVISED STANDARD PLAN RSP A77J2

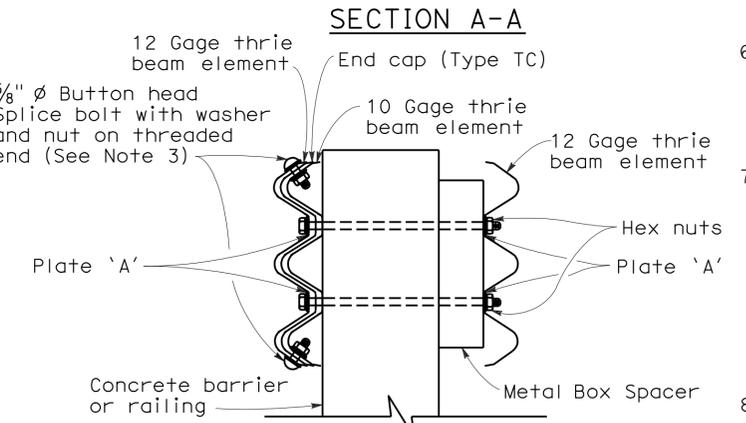
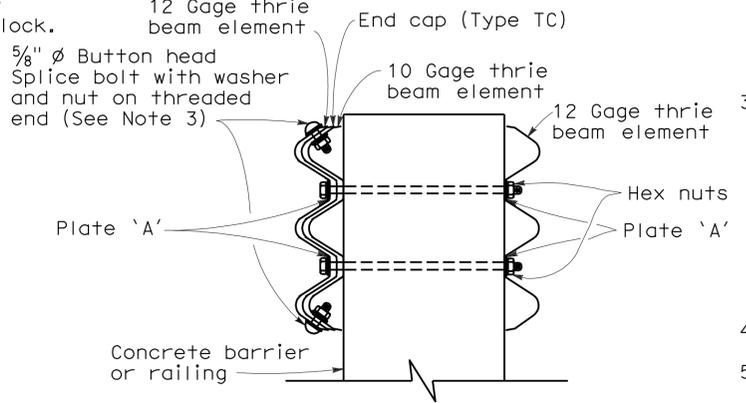
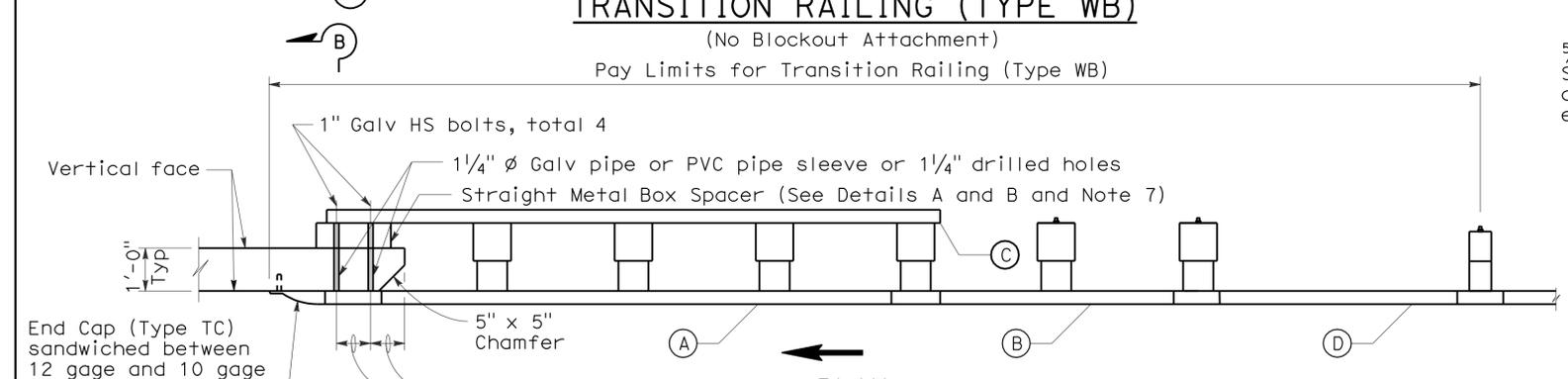
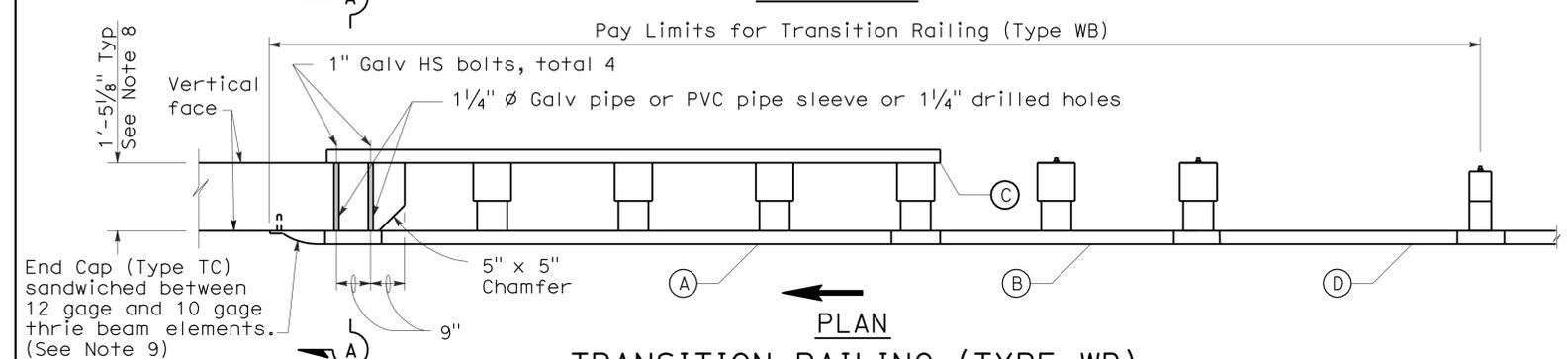
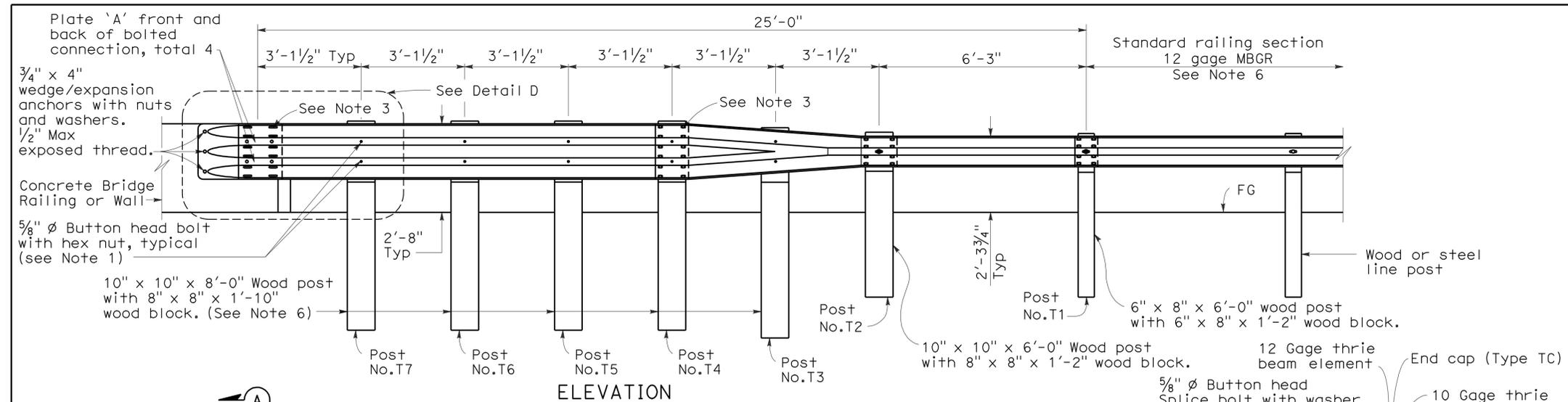
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	26	41

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 5, 2009
PLANS APPROVAL DATE

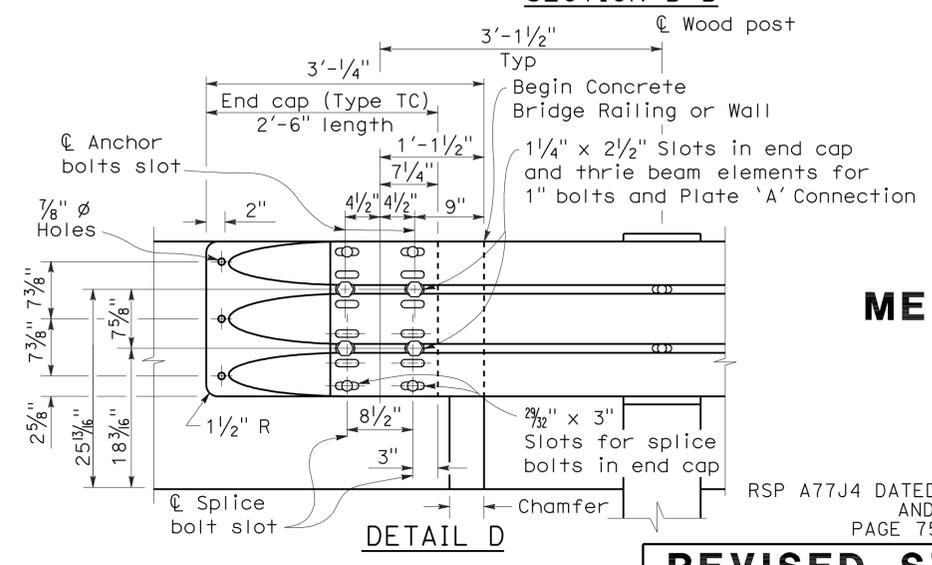
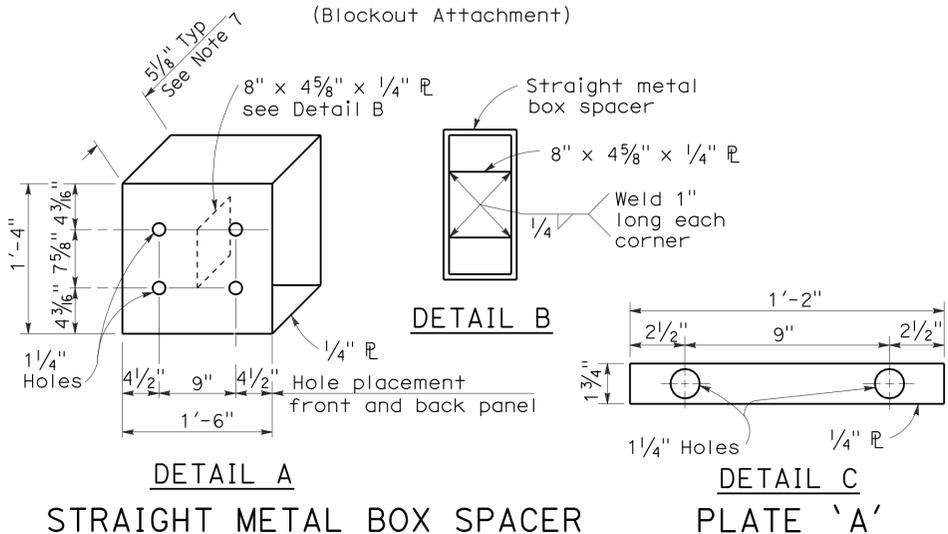
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REGISTERED PROFESSIONAL ENGINEER
No. C50200
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CIVIL
STATE OF CALIFORNIA



- NOTES:** To accompany plans dated 9-8-09
- Use 5/8 " ϕ Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
 - 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.
 - Exterior splice bolt holes for rail element splices at Post No.T4 and the connection to the concrete barrier or railing shall be the standard 29/32 " x 1 1/8 " slot size. Interior splice bolt holes at these locations may be increased up to 1 1/4 " ϕ . Only the top 2 and the bottom 2 splice bolts with washers and nuts are required for rail splices at Post No.T4 and the connection to the concrete barrier or railing.
 - Direction of adjacent traffic indicated by \rightarrow .
 - The top elevation of Post Nos.T2 through T7 shall not project more than 1" above the top elevation of the rail element.
 - Typically, the railing connected to Transition Railing (Type WB) will be either standard railing section of metal beam guard railing or an approved Caltrans end treatment attached to Post No.T1.
 - The depth of the metal box spacer varies from the 5 1/8 " to 1 1/2 " and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 17 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.
 - 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.4 through No.7 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.
 - End cap may be installed over 12 gage and 10 gage thrie beam elements where transition railing is installed on the departure end of bridge railing.

- LEGEND**
- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
 - (B) One 10 gage "W" beam to thrie beam element.
 - (C) One 12 gage thrie beam element.
 - (D) One 10 gage "W" beam rail element (7'-3 1/2" length)
- 10 gage = 0.135" thick
12 gage = 0.108" thick



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TRANSITION RAILING (TYPE WB)

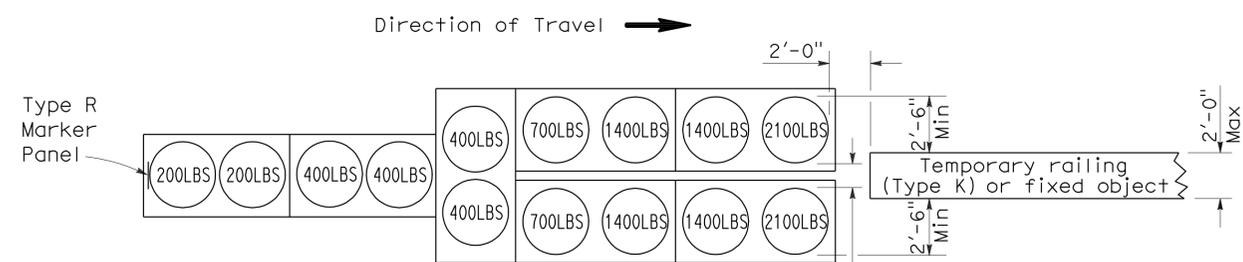
NO SCALE

RSP A77J4 DATED JUNE 5, 2009 SUPERSEDES RSP A77J4 DATED JUNE 6, 2008 AND STANDARD PLAN A77J4 DATED MAY 1, 2006 - PAGE 75 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77J4

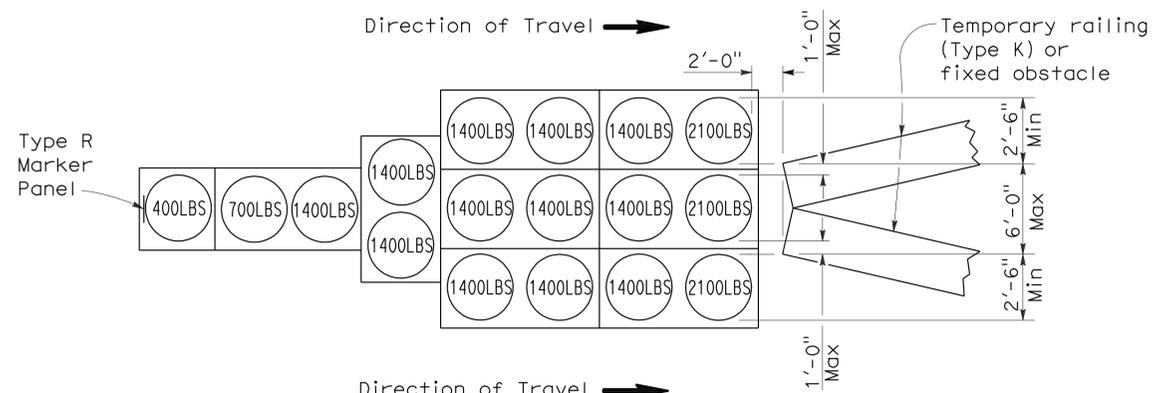
To accompany plans dated 9-8-09

2006 REVISED STANDARD PLAN RSP T1A



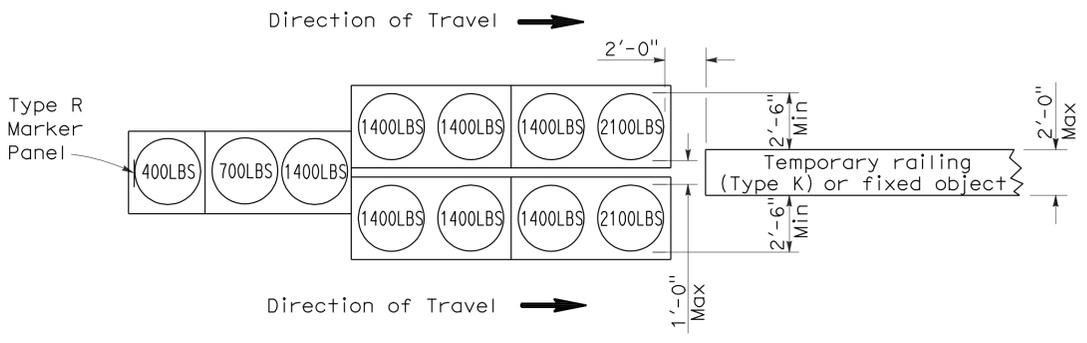
ARRAY 'TU14'

Approach speed 45 mph or more



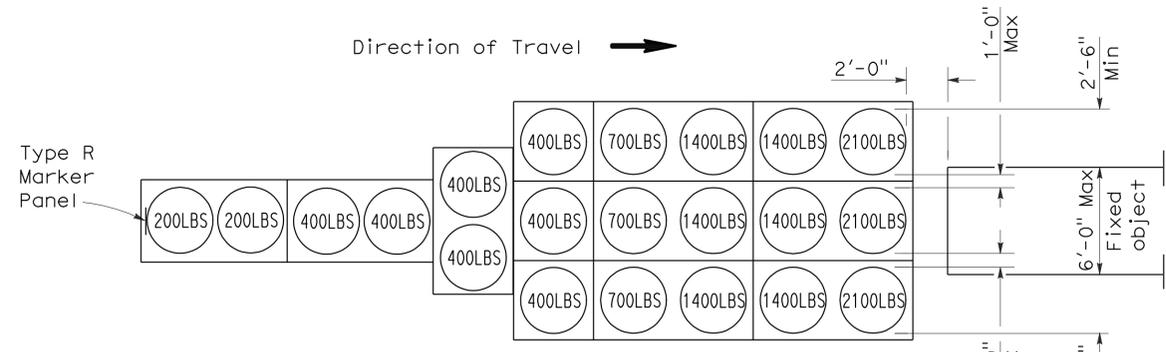
ARRAY 'TU17'

Approach speed less than 45 mph



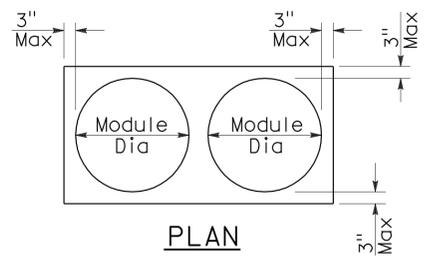
ARRAY 'TU11'

Approach speed less than 45 mph

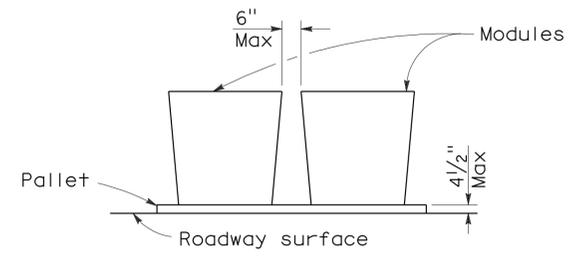


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	28	41

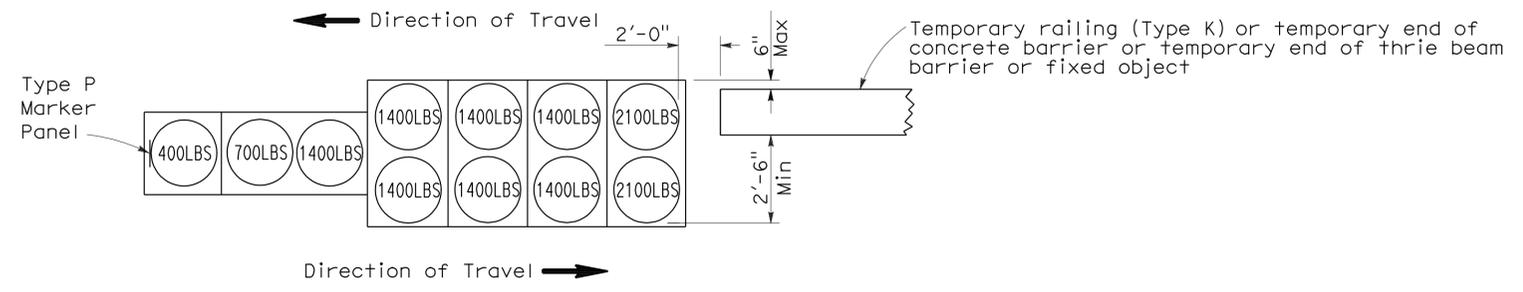
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

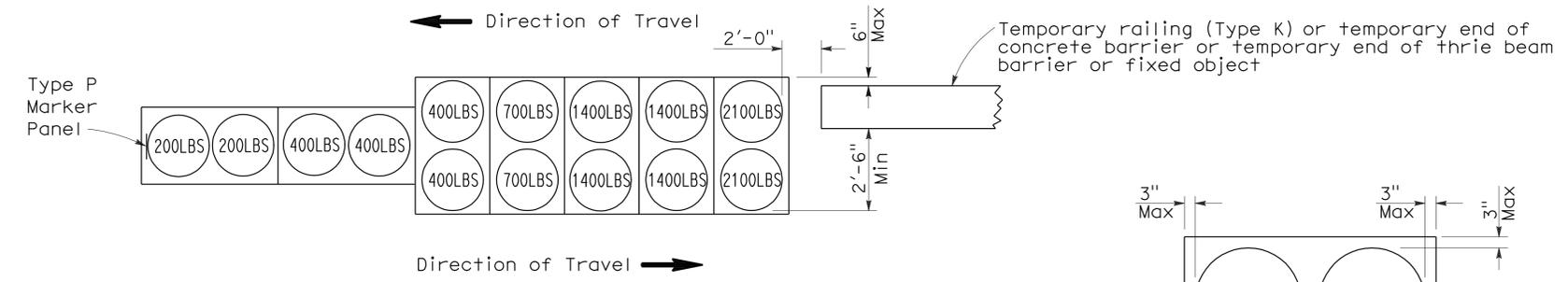
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To accompany plans dated 9-8-09



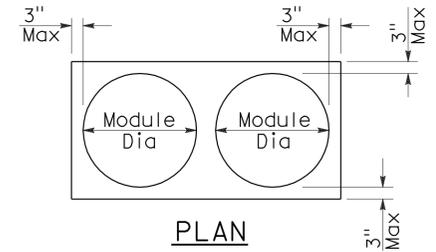
ARRAY 'TB11'

Approach speed less than 45 mph

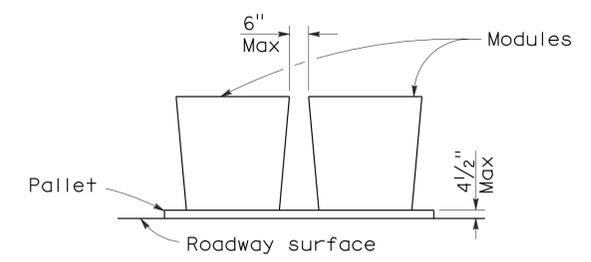


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	29	41

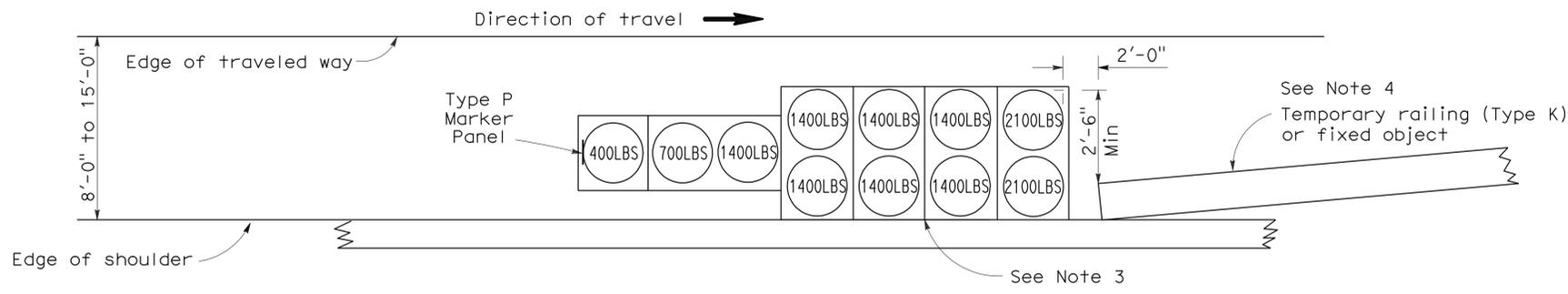
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

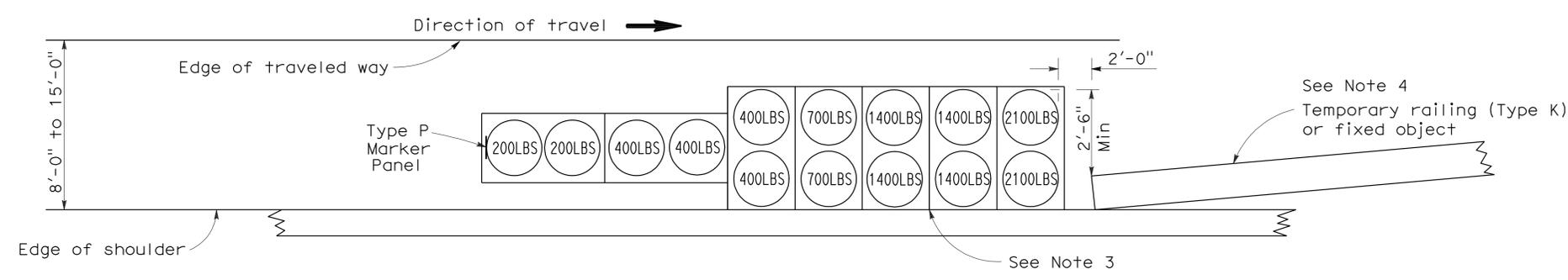
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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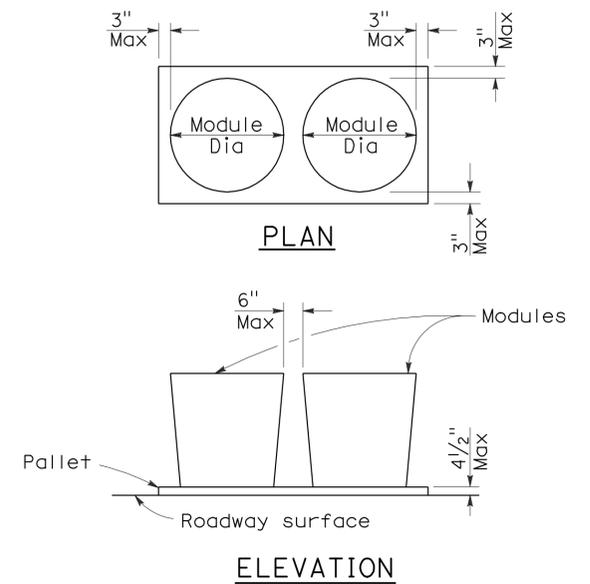
To accompany plans dated 9-8-09



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

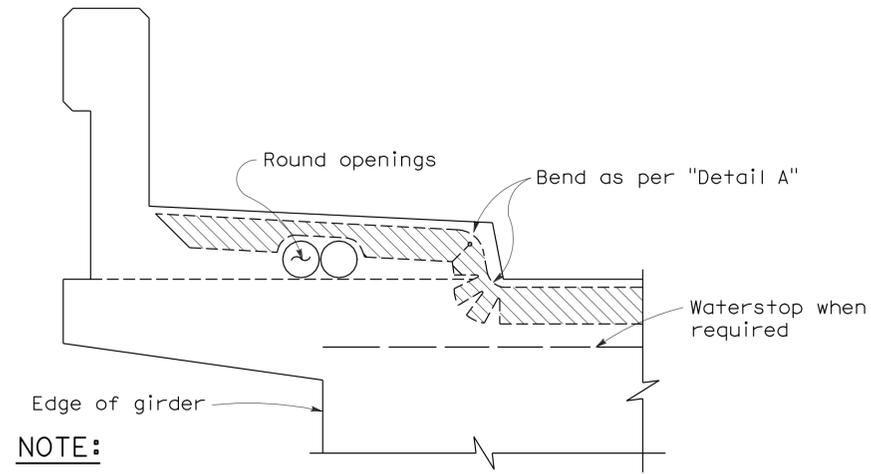
- (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

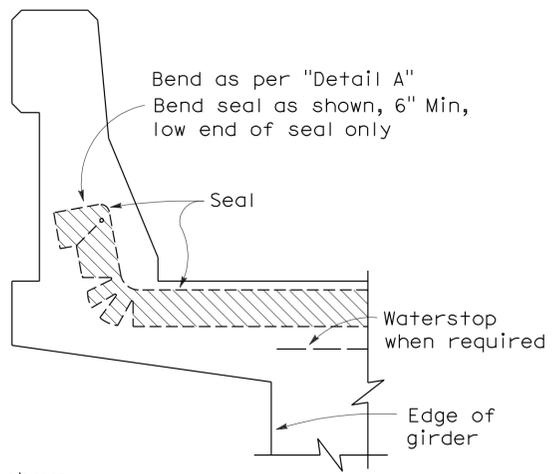
REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

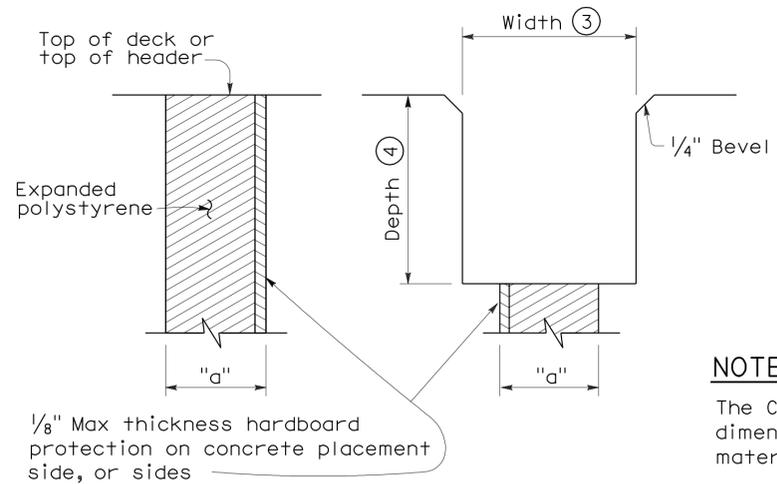


NOTE:
 Type "B" seal shown. Type "A" seals to conform to the general path of seal shown, cuts for bending not required. Bend Type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK



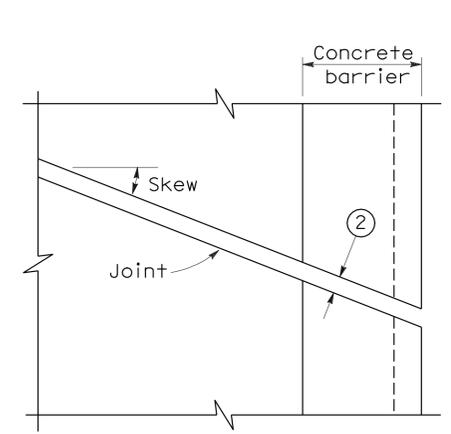
CONCRETE BARRIER



FORMING DETAIL SAWCUT DETAIL

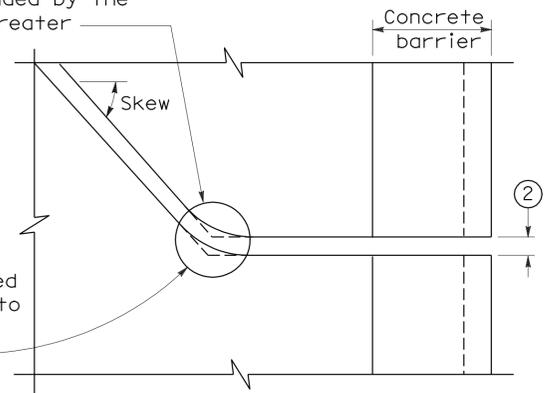
NOTE:
 The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

JOINT SEALS DETAILS



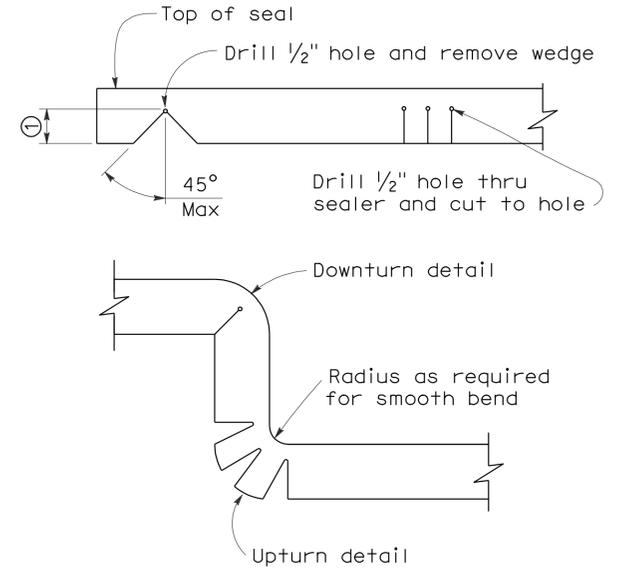
PLAN OF JOINT (SKEW ≤ 20°)

Min ϕ radius to be 4 times uncompressed width of seal or as recommended by the manufacturer, whichever is greater



PLAN OF JOINT (SKEW > 20°)

In lieu of saw cutting, this area may be blocked out and reconstructed to match saw cutting on both sides.



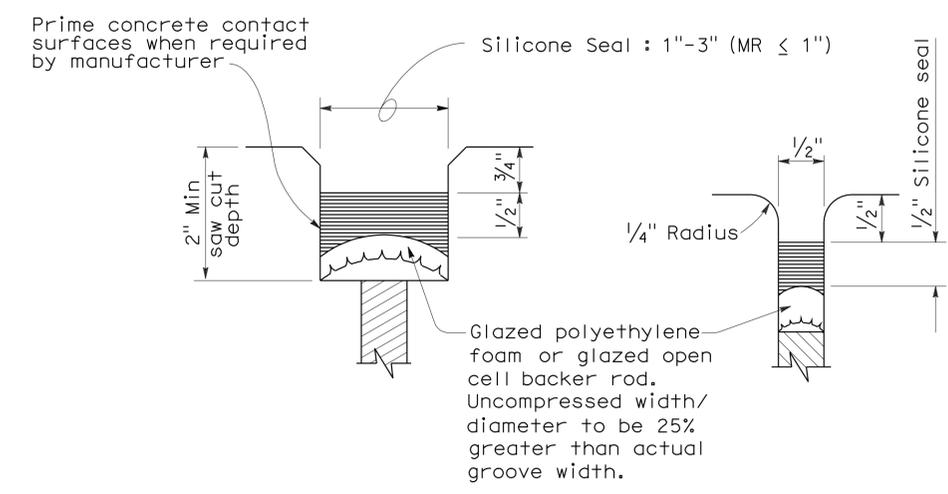
DETAIL A

- NOTES:**
- Make smooth cuts from the bottom of seal to 1 1/2" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
 - Opening in barrier to match width of sawn deck joint.
 - Sawcut groove widths shall be as ordered by the Engineer.
 - Depth of sawcut: Type A - Depth to be 2" minimum.
 Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W₂) plus dimensions shown.
 - MR (movement rating) as shown on other plan sheets.
 - Other depths must be approved by the Engineer.

DIMENSIONS "a" OF JOINT REQUIRED

Movement Rating (MR) ⑤	Bridge Type	"a" Dimension		
		Deck Concrete Placed		
		Winter	Fall-Spring	Summer
2"	All except CIP/PS	1 1/2"	1 1/4"	3/4"
	CIP/PS	1 1/4"	1"	1/2"
1 1/2"	All except CIP/PS	1 1/4"	1"	1/2"
	CIP/PS	1"	3/4"	1/2"
1"	All except CIP/PS	1"	3/4"	1/2"
	CIP/PS	3/4"	1/2"	1/2"
1/2"	All except CIP/PS	3/4"	3/4"	1/2"
	CIP/PS	1/2"	1/2"	1/2"

STATE OF CALIFORNIA
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JOINT SEALS
(MAXIMUM MOVEMENT RATING = 2")
 NO SCALE

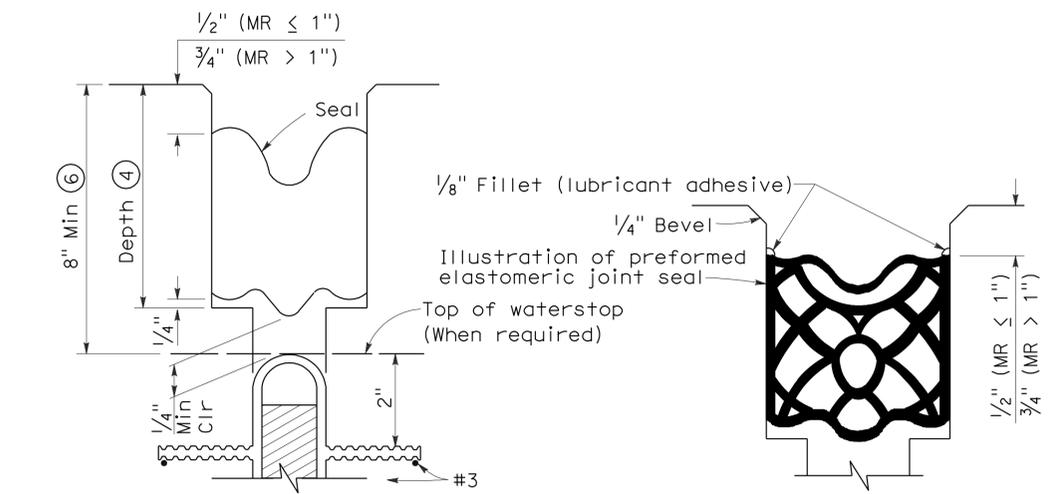


TYPE A SEAL

Movement rating : Silicone = 1" Max

TYPE AL SEAL

Longitudinal joints only



TYPE B JOINT SEAL IN MINIMUM WIDTH POSITION (W₂)

TYPE B SEAL

Movement Rating ≤ 2"

RSP B6-21 DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN B6-21 DATED MAY 1, 2006 - PAGE 258 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP B6-21

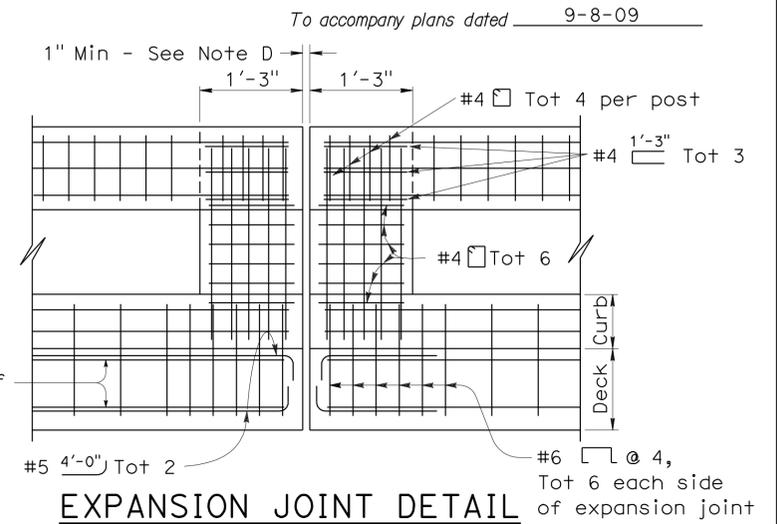
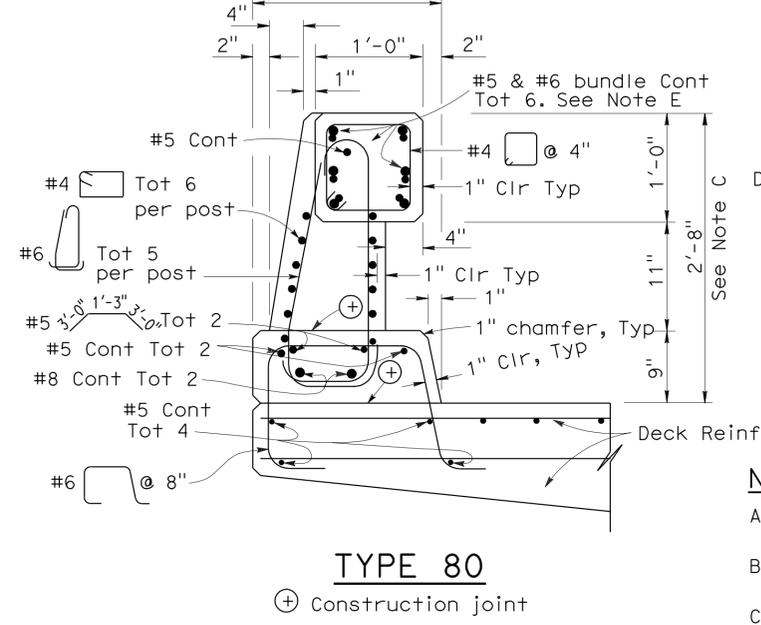
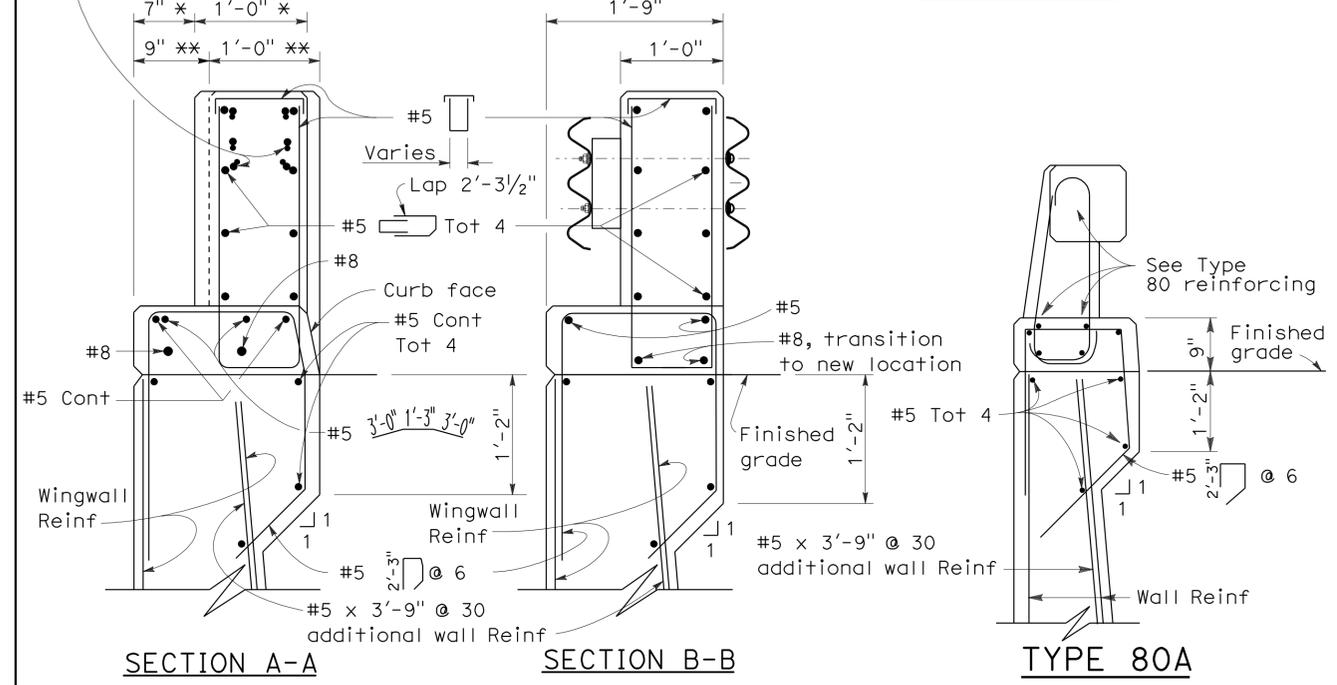
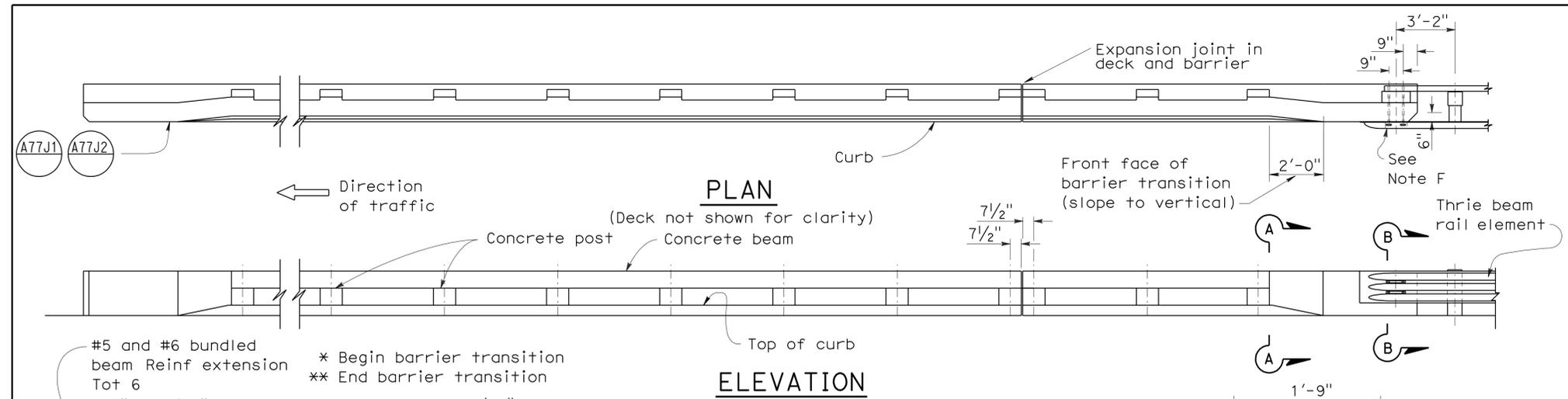
2006 REVISED STANDARD PLAN RSP B6-21

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	32	41

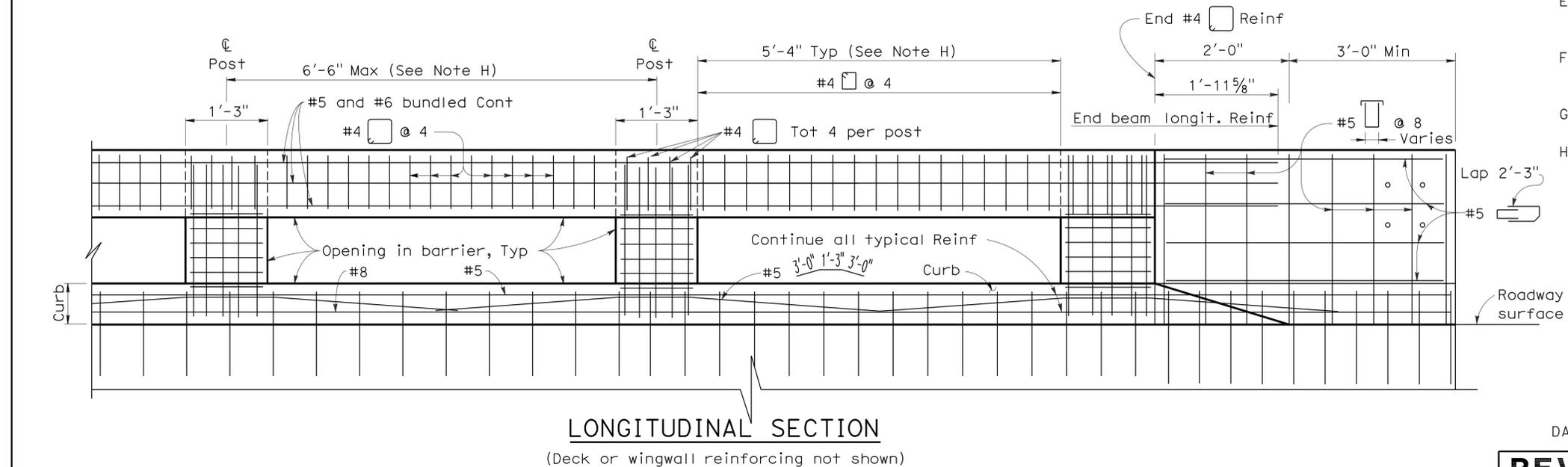
REGISTERED CIVIL ENGINEER
 Tillet Satter
 No. C42892
 Exp. 03-31-08
 CIVIL
 STATE OF CALIFORNIA

January 18, 2008
 PLANS APPROVAL DATE

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



- NOTES:**
- A. Walls are to be backfilled before the barrier is placed.
 - B. Longitudinal reinforcing steel to stop at all expansion joints.
 - C. The front face dimensions are to be constant above the finish roadway profile, but the overall height will vary with certain thicknesses of surfacing and roadway slopes.
 - D. Expansion joint to match deck joint.
 - E. No lap splicing allowed on the longitudinal rail reinforcing. Splicing shall be staggered.
 - F. For typical metal railing connection details not shown, see Standard Plans A77J1 and A77J2.
 - G. Chain link railing is not allowed on Type 80 Barriers.
 - H. Post to be spaced equally, typically 6'-6" spacing. Post spacing may be reduced where location of hinges or expansion joints or the length of wingwalls will not accommodate the 6'-6" spacing. Maximum see-through availability is to be strived for, where 6'-6" post spacing can not be achieved.

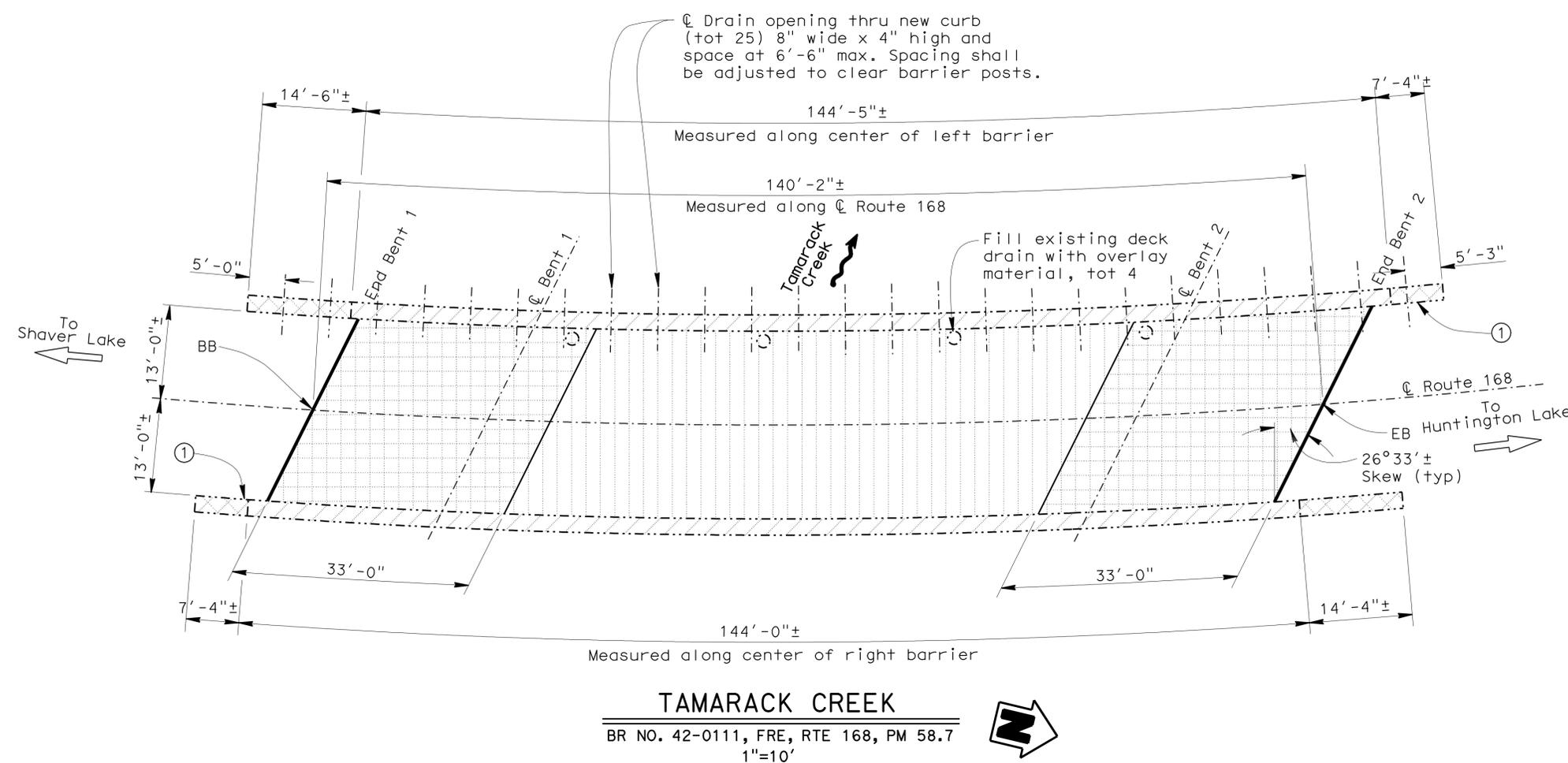
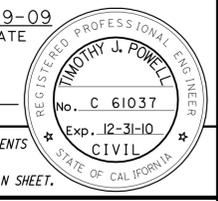


STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**CONCRETE BARRIER
 TYPE 80
 (SHEET 1 OF 2)**
 NO SCALE

RSP B11-60 DATED JANUARY 18, 2008 SUPERSEDES STANDARD PLAN B11-60
 DATED MAY 1, 2006 - PAGE 276 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP B11-60

2006 REVISED STANDARD PLAN RSP B11-60



TAMARACK CREEK
 BR NO. 42-0111, FRE, RTE 168, PM 58.7
 1"=10'

- Notes:**
- Indicates existing.
 - [Hatched Box] Indicates limits of prepare existing concrete bridge deck surface, furnish and place new 1" minimum depth polyester concrete overlay. For details, see "DECK REPAIR DETAIL" on MISCELLANEOUS DETAILS sheet.
 - [Dotted Box] Indicates limits of remove existing concrete bridge deck surface, prepare existing concrete, furnish and place new polyester concrete overlay. For details, see "DECK SURFACE REMOVAL DETAIL" on MISCELLANEOUS DETAILS sheet.
 - [Diagonal Hatched Box] Indicates limits of remove existing Modified Type 80 Barrier to top of existing concrete deck and replace with new Concrete Barrier Type 80 Modified to limits shown. Retain existing reinforcing steel (except where noted otherwise).
 - [Cross-hatched Box] Indicates limits of remove existing Modified Type 80 Barrier to top of existing concrete footing and replace with new Concrete Barrier Type 80 Modified to limits shown. Retain existing reinforcing steel (except where noted otherwise).
 - [Solid Line] Indicates location of remove existing joint seal and place new joint seal. For details, see MISCELLANEOUS DETAILS sheet.
 - ① Paint bridge name and bridge number.
- Construction staging not shown. For details see TYPICAL CONSTRUCTION STAGING sheet.

QUANTITIES

	LUMP SUM
PUBLIC SAFETY PLAN	
REMOVE CONCRETE DECK SURFACE	900 SQFT
REMOVE UNSOUND CONCRETE	10 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	3,790 SQFT
BRIDGE REMOVAL (PORTION), LOCATION A	
CLEAN EXPANSION JOINT	61 LF
RAPID SETTING CONCRETE (PATCH)	10 CF
FURNISH POLYESTER CONCRETE OVERLAY	378 CF
PLACE POLYESTER CONCRETE OVERLAY	3,790 SQFT
JOINT SEAL (MR 1/2")	61 LF
CONCRETE BARRIER (TYPE 80 MODIFIED)	332 LF

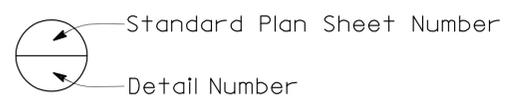
STANDARD PLANS DATED MAY 2006

SHEET NO.	TITLE
A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B11-60	CONCRETE BARRIER TYPE 80
T3	TEMPORARY RAILING (TYPE K)

INDEX TO PLANS

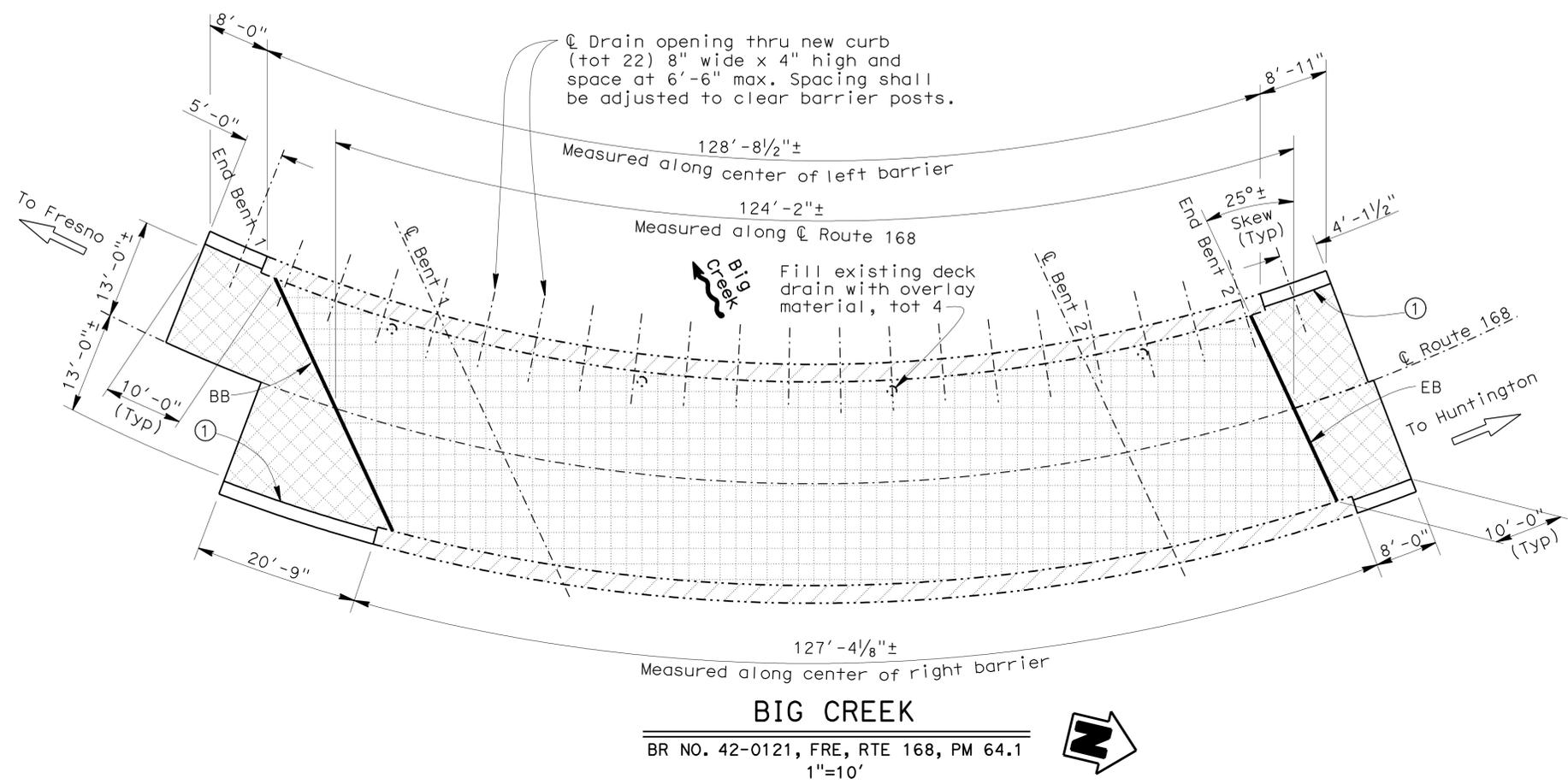
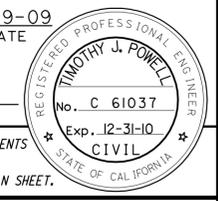
SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	CROSS SECTION
5	TYPICAL CONSTRUCTION STAGING
6	DECK REHABILITATION DETAILS
7	MISCELLANEOUS DETAILS
8	CONCRETE BARRIER TYPE 80 (MODIFIED)
9	STRUCTURE APPROACH TYPE R(10D)

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



 6-19-09 DESIGN ENGINEER	DESIGN	By: Khanh Truong	CHECKED	Franz Espinoza	LAYOUT	By: Trung Lam	CHECKED	Khanh Truong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 168 BRIDGES GENERAL PLAN NO. 1
	DETAILS	By: Trung Lam	CHECKED	Franz Espinoza	SPECIFICATIONS	By: Khanh Truong	CHECKED	X			VARIOUS	
	QUANTITIES	By: Khanh Truong	CHECKED	Franz Espinoza					DEPARTMENT OF TRANSPORTATION CU 06 EA OF 29U1	VARIOUS POST MILE VARIES	REVISION DATES 8-29-08 9-04-08 9-12-08 01-08-09 3-28-09 5-27-09 4-08-09 4-16-09 6-18-09 6-24-09	SHEET 1 OF 9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	34	41
 REGISTERED CIVIL ENGINEER			6-19-09	DATE	
9-8-09 PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.					



- Notes:**
- Indicates existing.
 - [Symbol: Dashed line] Indicates limits of new barrier transition. For details, see "SECTION B-B" & "SECTION C-C" on CONCRETE BARRIER TYPE 80 (MOD) sheet.
 - [Symbol: Dotted line] Indicates limits of remove existing 2"± depth AC overlay, prepare existing concrete bridge deck surface and place new 4" depth Rapid Strength Latex Modified Concrete. For details, see DECK REHABILITATION DETAILS sheet.
 - [Symbol: Cross-hatched] Indicates limits of remove existing approach pavement and place new Structure Approach Type R (10D). For details, see STRUCTURE APPROACH TYPE R (10D) sheet.
 - [Symbol: Diagonal lines] Indicates limits of remove existing Modified Type 80 Barrier to top of existing concrete deck and replace with new Concrete Barrier Type 80 Modified to limits shown. Retain existing reinforcing steel (except where noted otherwise).
 - [Symbol: Solid line] Indicates location of remove existing joint seal and place new joint seal. For details, see MISCELLANEOUS DETAILS sheet.
 - ① Paint bridge name and bridge number.
- Construction staging not shown. For details see TYPICAL CONSTRUCTION STAGING sheet.

BIG CREEK
 BR NO. 42-0121, FRE, RTE 168, PM 64.1
 1"=10'

QUANTITIES

REMOVE ASPHALT CONCRETE SURFACING	3,788	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	3,788	SQFT
BRIDGE REMOVAL (PORTION), LOCATION B	LUMP	SUM
AGGREGATE BASE (APPROACH SLAB)	2	CY
RAPID STRENGTH LATEX MODIFIED CONCRETE	56	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	20	CY
PAVING NOTCH EXTENSION	46	CF
DRILL AND BOND DOWEL	630	LF
JOINT SEAL (MR 1/2")	60	LF
BAR REINFORCING STEEL (EPOXY COATED) (BRIDGE)	10,200	LB
CONCRETE BARRIER (TYPE 80 MODIFIED)	302	LF

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

 DESIGN ENGINEER	DESIGN	BY: Khanh Truong	CHECKED: Franz Espinoza	LAYOUT	BY: Trung Lam	CHECKED: Khanh Truong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 168 BRIDGES GENERAL PLAN NO. 2	
	DETAILS	BY: Trung Lam	CHECKED: Franz Espinoza	SPECIFICATIONS	BY: Khanh Truong	CHECKED: Franz Espinoza			VARIOUS		
	QUANTITIES	BY: Khanh Truong	CHECKED: Franz Espinoza		X	X		POST MILE			
STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)							ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 06 EA OF 29U1	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES: 8-29-08 9-04-08 9-12-08 01-08-09 3-20-09 3-27-09 4-08-09 4-16-09 6-19-09 6-24-09	SHEET 2 OF 9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	35	41

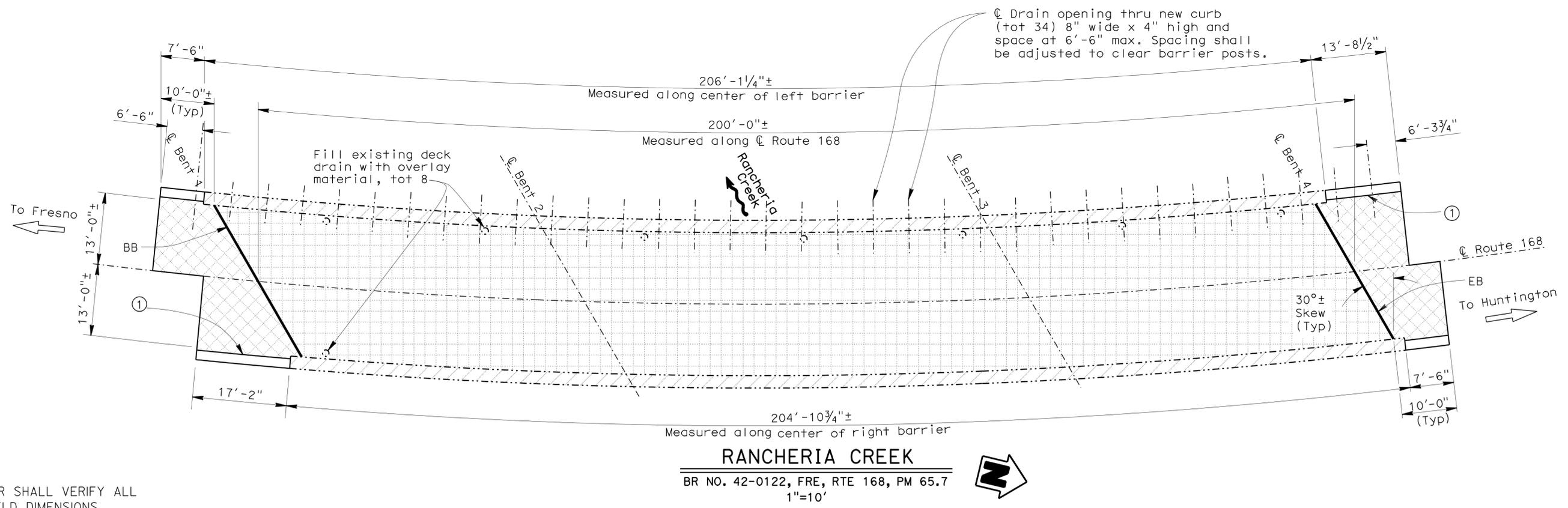
6-19-09
 REGISTERED CIVIL ENGINEER DATE
 9-8-09
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 TIMOTHY J. POWELL
 No. C 61037
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

- Notes:**
- Indicates existing.
 - Indicates limits of new barrier transition. For details, see "SECTION B-B" & "SECTION C-C" on CONCRETE BARRIER TYPE 80 (MOD) sheet.
 - Indicates limits of remove existing 2"± depth AC overlay, prepare existing concrete bridge deck surface and place new 4" depth Rapid Strength Latex Modified Concrete. For details, see DECK REHABILITATION DETAILS sheet.
 - Indicates limits of remove existing approach pavement and place new Structure Approach Type R (10D). For details, see STRUCTURE APPROACH TYPE R (10D) sheet.
 - Indicates limits of remove existing Modified Type 80 Barrier to top of existing concrete deck and replace with new Concrete Barrier Type 80 Modified to limits shown. Retain existing reinforcing steel (except where noted otherwise).
 - Indicates location of remove existing joint seal and place new joint seal. For details, see MISCELLANEOUS DETAILS sheet.
 - ① Paint bridge name and bridge number.
- Construction staging not shown. For details see TYPICAL CONSTRUCTION STAGING sheet.

QUANTITIES

REMOVE ASPHALT CONCRETE SURFACING	6,100	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	6,100	SQFT
BRIDGE REMOVAL (PORTION), LOCATION C	LUMP	SUM
AGGREGATE BASE (APPROACH SLAB)	2	CY
RAPID STRENGTH LATEX MODIFIED CONCRETE	91	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	21	CY
PAVING NOTCH EXTENSION	46	CF
DRILL AND BOND DOWEL	960	LF
JOINT SEAL (MR 1")	63	LF
BAR REINFORCING STEEL (EPOXY COATED) (BRIDGE)	17,650	LB
CONCRETE BARRIER (TYPE 80 MODIFIED)	458	LF

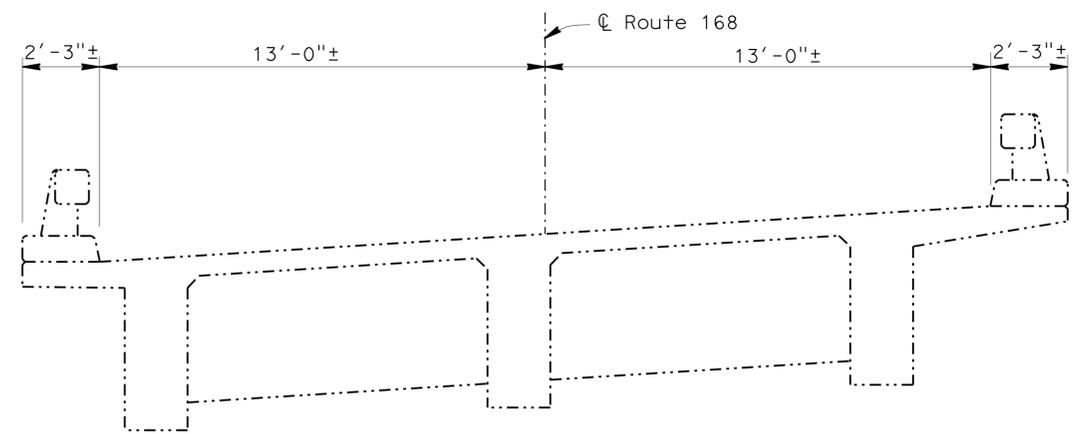
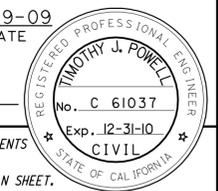


NOTE:
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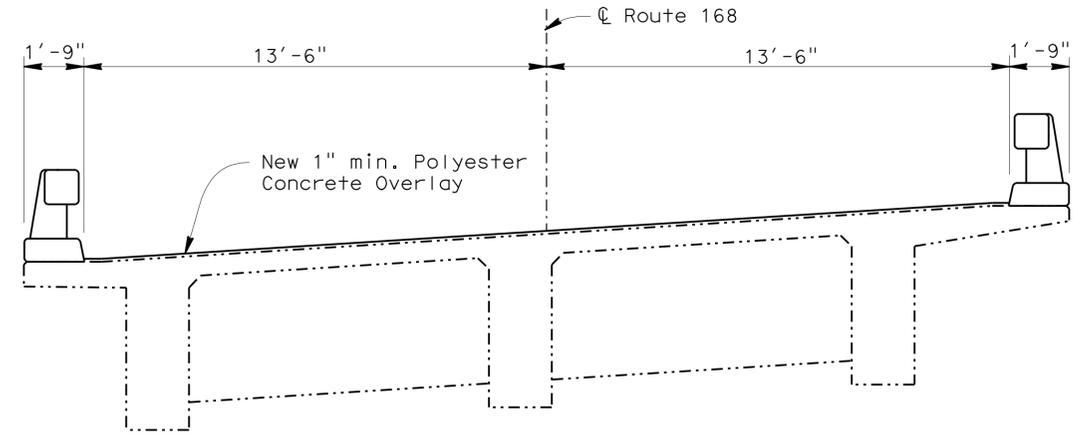
 6-19-09 DESIGN ENGINEER	DESIGN BY: Khanh Truong CHECKED: Franz Espinoza	LAYOUT BY: Trung Lam CHECKED: Khanh Truong	SPECIFICATIONS BY: X CHECKED: X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO. VARIOUS POST MILE VARIOUS	ROUTE 168 BRIDGES GENERAL PLAN NO. 3	
STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3	CU 06 EA OF 29U1	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES: 8-29-08, 9-04-08, 9-12-08, 01-08-09, 3-20-09, 3-27-09, 4-08-09, 4-16-09, 6-19-09, 6-24-09	SHEET 3 OF 9

USERNAME => htlm DATE PLOTTED => 08-SEP-2009 TIME PLOTTED => 13:38

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	36	41
 REGISTERED CIVIL ENGINEER			6-19-09	DATE	
PLANS APPROVAL DATE 9-8-09					
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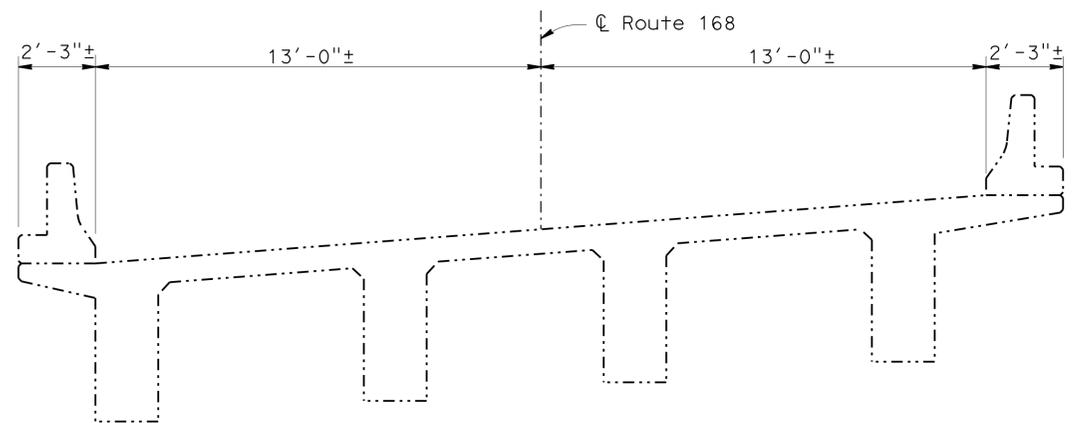


NEW

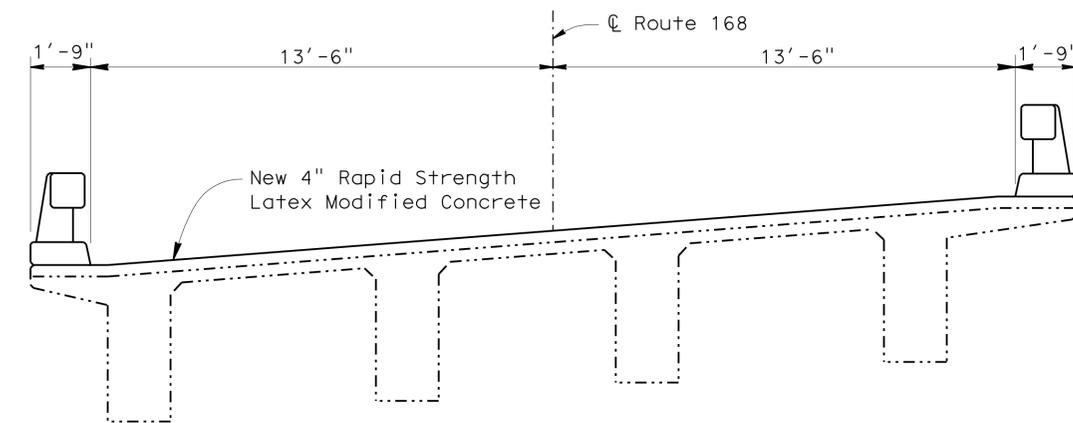
CROSS SECTION

BR NO. 42-0111
3/8"=1'

Notes:
 ----- Indicates existing.
 All new reinforcement shall be epoxy coated.
 Construction staging not shown. For details see TYPICAL CONSTRUCTION STAGING sheet.



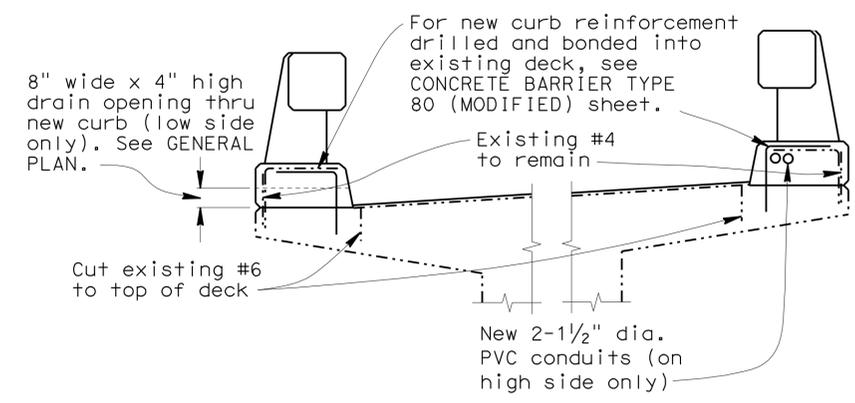
EXISTING



NEW

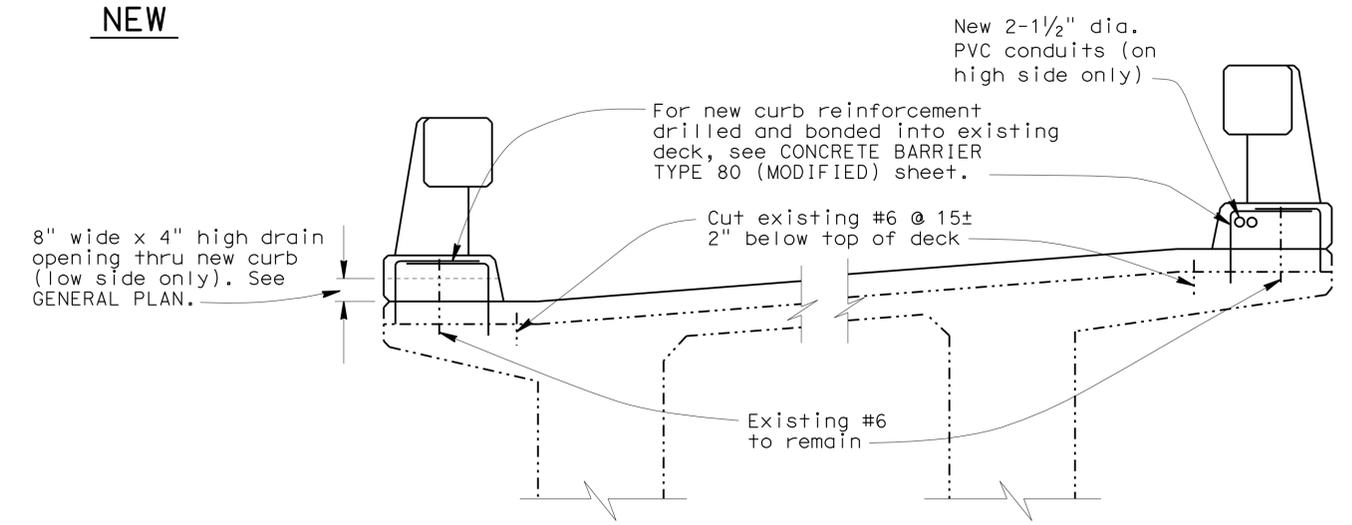
CROSS SECTION

BR NO. 42-0122 SHOWN
BR NO. 42-0121 SIMILAR
3/8"=1'



TYPICAL BARRIER REPLACEMENT

BR NO. 42-0111
No Scale

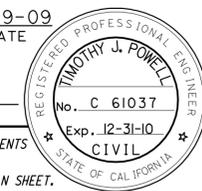


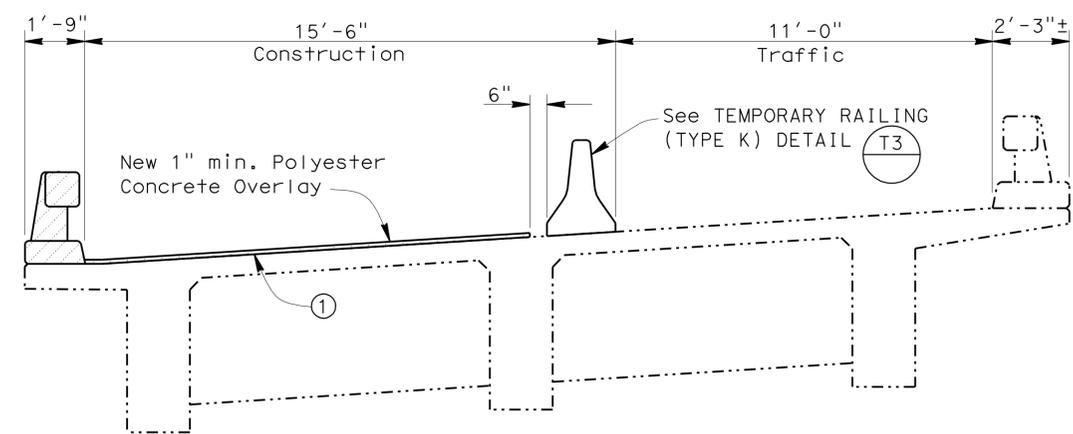
TYPICAL BARRIER REPLACEMENT

BR NO. 42-0122 SHOWN
BR NO. 42-0121 SIMILAR
3/4"=1'

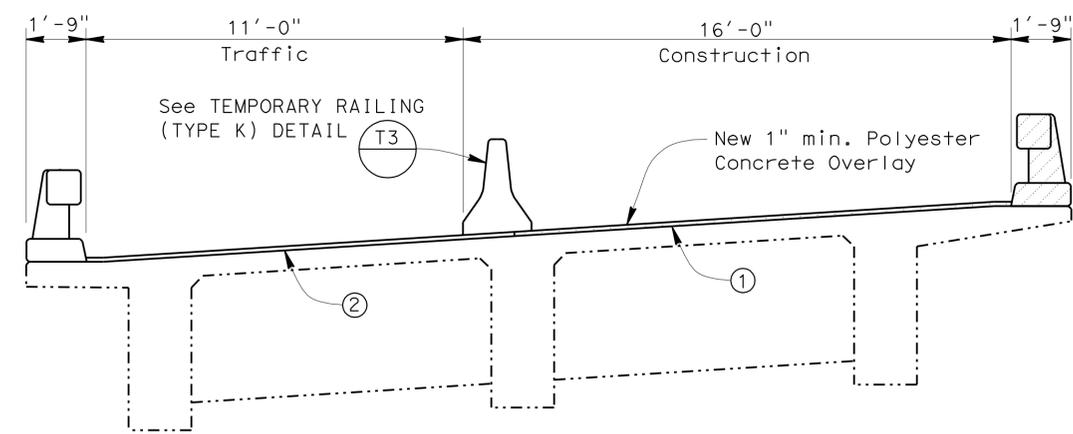
NOTE:
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STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)	DESIGN	BY Khanh Truong	CHECKED Franz Espinoza	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	VARIOUS	ROUTE 168 BRIDGES CROSS SECTION
	DETAILS	BY Trung Lam	CHECKED Franz Espinoza			POST MILE	VARIES	
	QUANTITIES	BY Khanh Truong	CHECKED Franz Espinoza			REVISION DATES	8-29-08 9-04-08 9-12-08 01-08-09 3-27-09 4-08-09 4-16-09 6-19-09 6-24-09	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	CU 06 EA OF 29U1	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 4 OF 9	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	37	41
 REGISTERED CIVIL ENGINEER			6-19-09 DATE		
9-8-09 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>					



STAGE 1

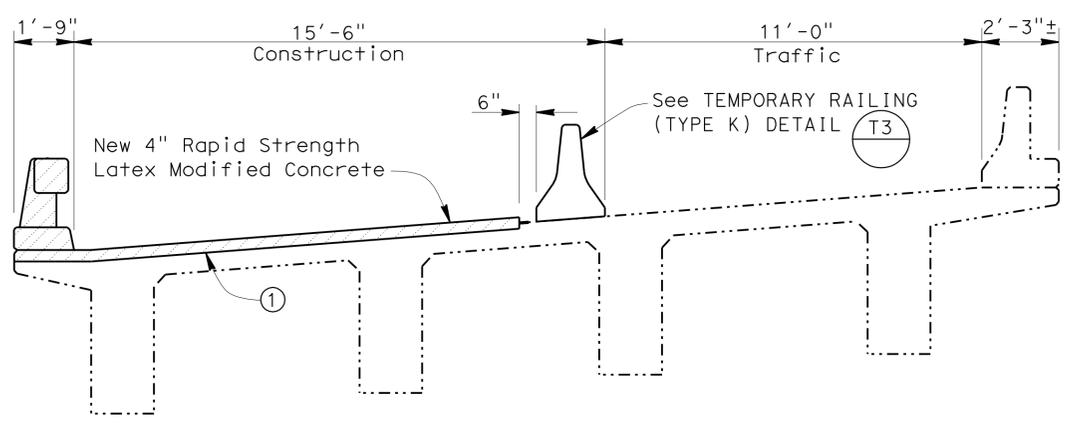


STAGE 2

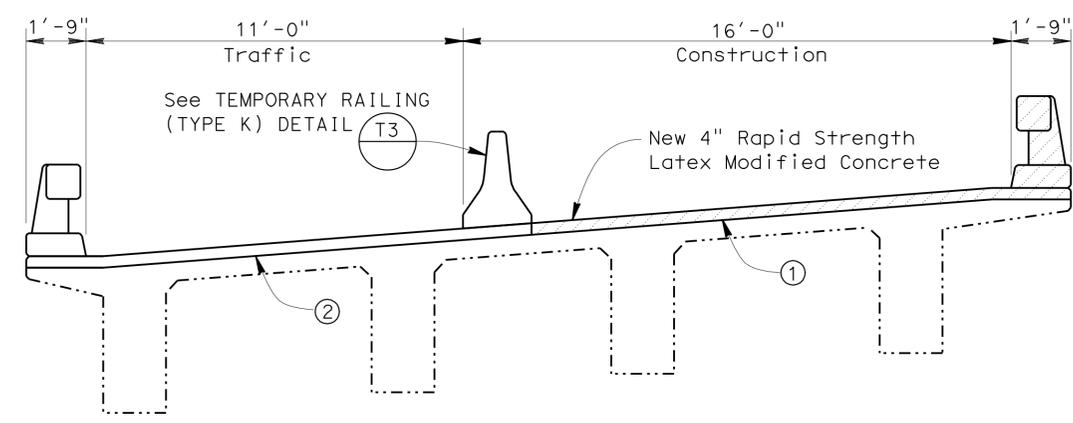
CONSTRUCTION STAGING TYPICAL SECTION

BR NO. 42-0111
 $\frac{3}{8}''=1'$

- Notes:
- Indicates existing.
 -  Indicates new construction.
 - ① Portion of existing deck and concrete barrier to be reconstructed in current stage.
 - ② Portion of existing deck and concrete barrier reconstructed in previous stage.



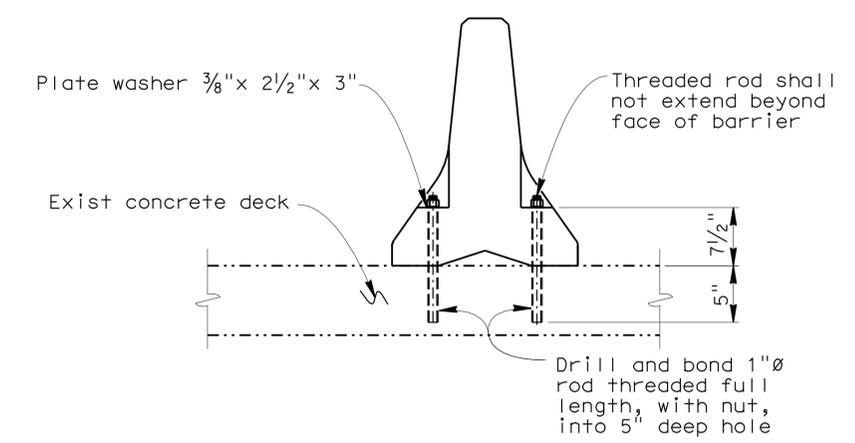
STAGE 1 FOR BR NO. 42-0122
STAGE 3 FOR BR NO. 42-0121



STAGE 2 FOR BR NO. 42-0122
STAGE 4 FOR BR NO. 42-0121

CONSTRUCTION STAGING TYPICAL SECTION

BR NO. 42-0122 SHOWN
 BR NO. 42-0121 SIMILAR
 $\frac{3}{8}''=1'$



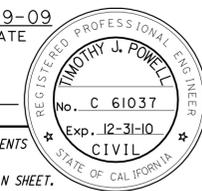
TEMPORARY RAILING (TYPE K) DETAIL

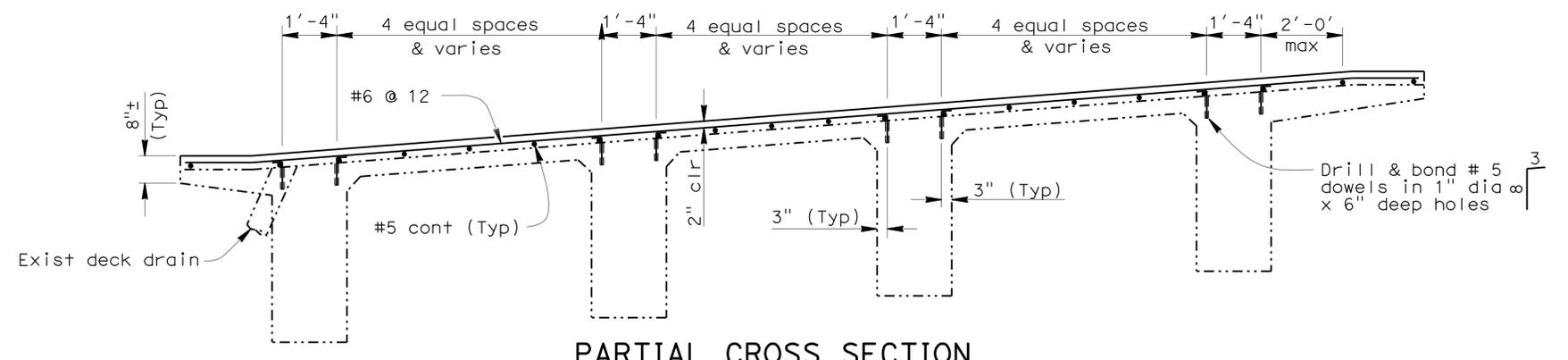
1"=1'

NOTE:
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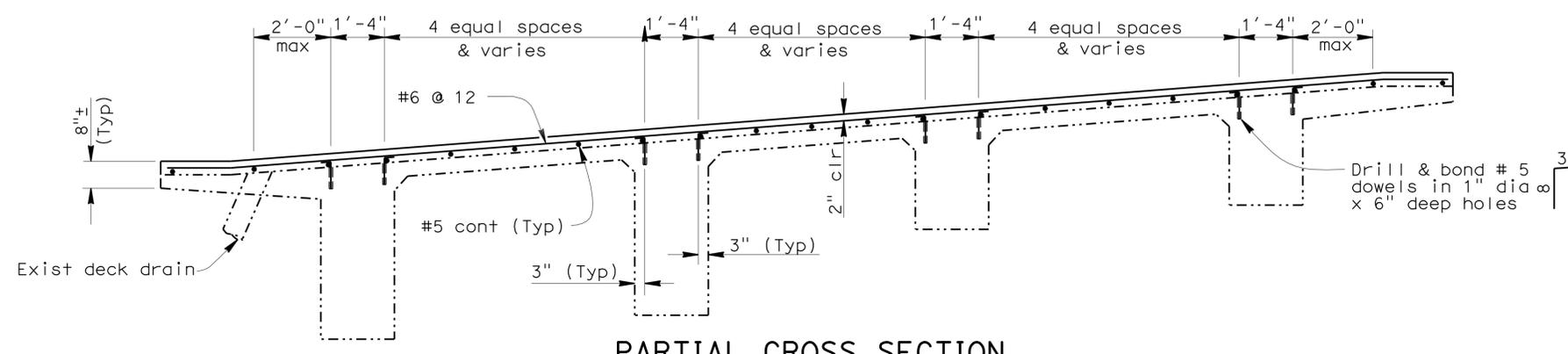
STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)	DESIGN	BY Khanh Truong	CHECKED Franz Espinoza	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 168 BRIDGES	
	DETAILS	BY Trung Lam	CHECKED Franz Espinoza			VARIOUS		
	QUANTITIES	BY Khanh Truong	CHECKED Franz Espinoza			VARIES		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	CU 06 EA OF 29U1	DISREGARD PRINTS BEARING EARLIER REVISION DATES	3-27-09 4-16-09 6-19-09	SHEET 5 OF 9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre	168	58.6/65.8	38	41

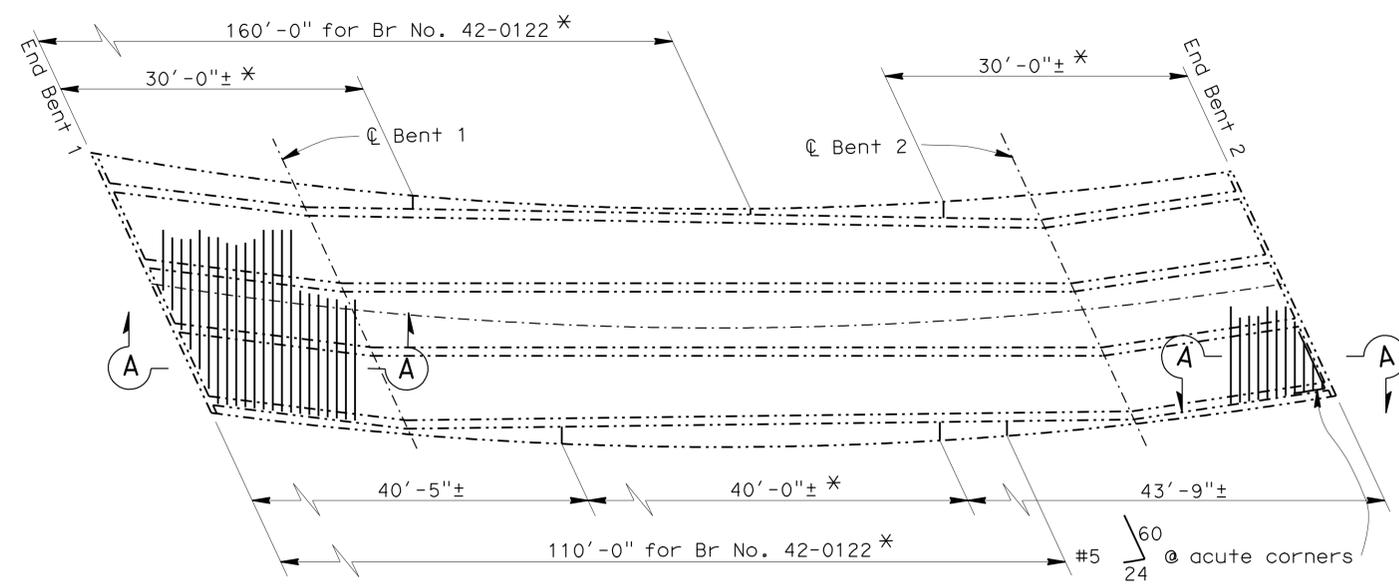
 REGISTERED CIVIL ENGINEER DATE 6-19-09		
PLANS APPROVAL DATE 9-8-09		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.		



PARTIAL CROSS SECTION
BR NO. 42-0121
1/2"=1'



PARTIAL CROSS SECTION
BR NO. 42-0122
1/2"=1'



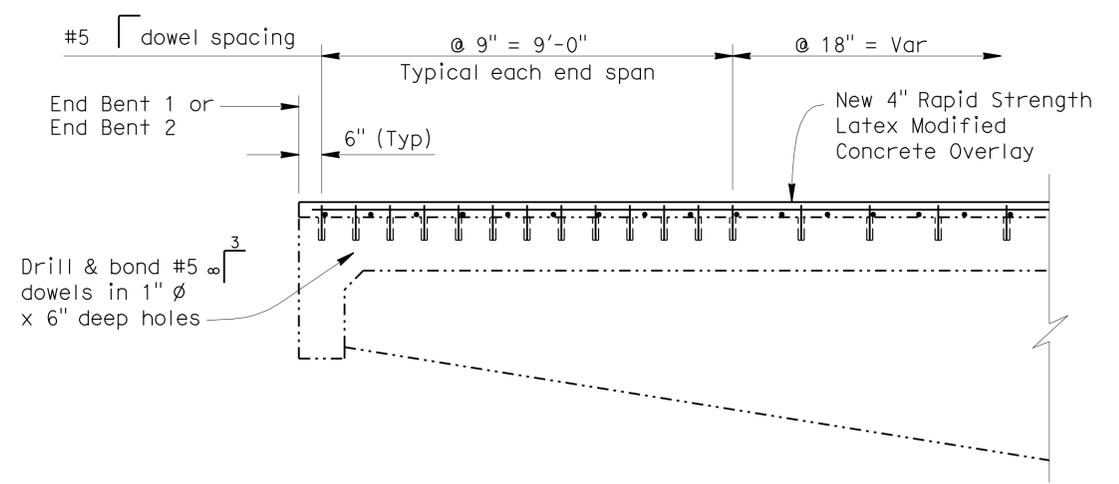
DECK PLAN
BR NO. 42-0121
1"=10'

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

Notes:
----- Indicates existing.
All new reinforcement shall be epoxy coated.

**GENERAL NOTES
LOAD FACTOR DESIGN**

DESIGN: BRIDGE DESIGN SPECIFICATIONS (1983 AASHTO with Interims and Revisions by CALTRANS)
DEAD LOAD: Includes 35 psf for future wearing surface.
LIVE LOADING: HS20-44 and alternative.
REINFORCED CONCRETE: $f_y = 60,000$ psi
 $f'_c = 3,250$ psi
 $n = 9$
Transverse deck slabs (Working Stress Design)
 $f_s = 20,000$ psi
 $f_c = 1,200$ psi



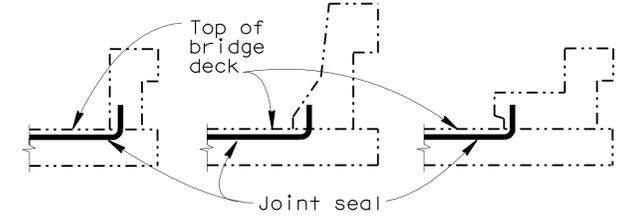
SECTION A-A
1/2" = 1'

Notes:
Br No. 42-0121 shown
Br No. 42-0122 similar except as noted.
* Indicates #6 x 6'-6" @ 12, lay between new #6 transverse bars.
New railing not shown.

STRUCTURES MAINTENANCE GENERAL PLAN & DETAIL SHEET (ENGLISH) (REV. 10/17/07)	DESIGN	BY Khanh Truong	CHECKED Franz Espinoza	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 168 BRIDGES
	DETAILS	BY Trung Lam	CHECKED Franz Espinoza			VARIOUS	
	QUANTITIES	BY Khanh Truong	CHECKED Franz Espinoza			POST MILE	
						VARIES	DECK REHABILITATION DETAILS
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	CU 06 EA OF 29U1	REVISION DATES 8-29-08 9-04-08 9-12-08 01-08-09 3-27-09 4-15-09 6-19-09
							SHEET 6 OF 9

JOINT SEAL TABLE

BRIDGE NUMBER	LOCATION	MINIMUM "MR" (Inches)	APPROXIMATE LENGTH (feet)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (Inches)
42-0111	End Bent 1	BB	1/2	No	12
	End Bent 2	EB	1/2	No	12
42-0121	End Bent 1	BB	1/2	No	12
	End Bent 2	EB	1/2	No	12
42-0122	☉ Bent 1	BB	1	No	12
	☉ Bent 4	EB	1	No	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 curb or barrier rail joint.

The following notes apply to JOINT SEAL TYPE A:

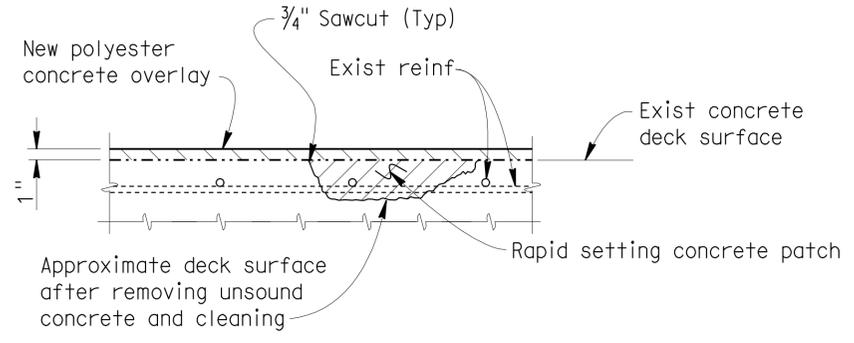
Install Type A joint seal 3" up into curb or rail on the low side of the deck where joint matches curb or rail joint. For details not shown see RSP B6-21.

LEGEND:
 BB = Paving notch at beginning of bridge.
 EB = Paving notch at end of bridge.

DECK REPAIR TABLE

BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH (INCHES)
42-0111	1	3
42-0121	1	3
42-0122	1	3

Locations to be determined by the Engineer. For details see "DECK REPAIR DETAIL".

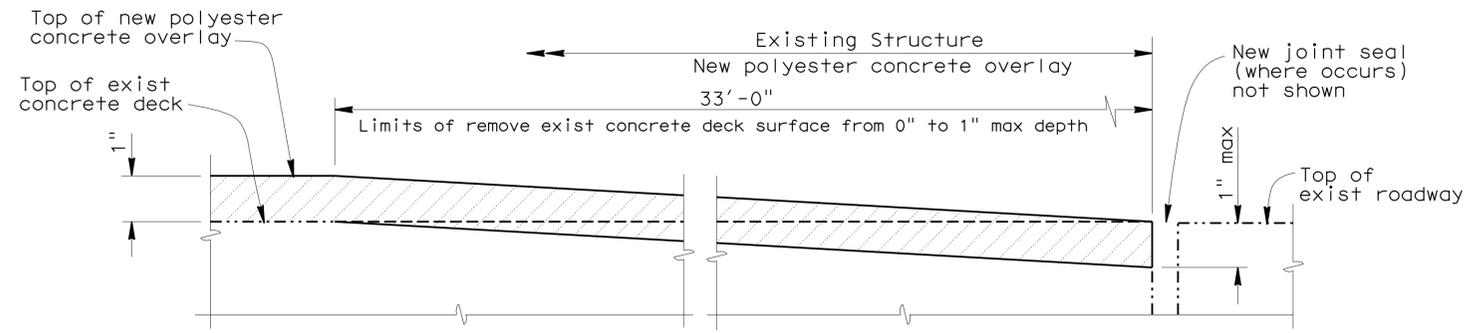


DECK REPAIR DETAIL

NO SCALE
 Reinforcement may be encountered during deck concrete removal.

The following notes apply to JOINT SEAL TYPE B:

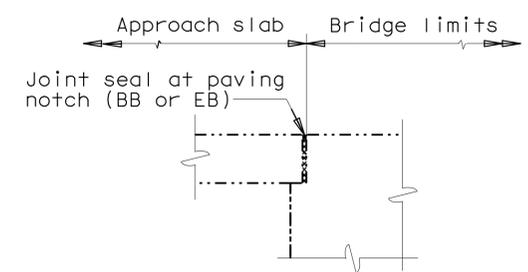
- 1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
- 2) Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be recalculated by the Engineer.
- 3) W1 shall be the smaller of the values determined as follows:
 - A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
 - B) 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.
- 4) 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.
- 5) For details not shown see RSP B6-21.



DECK SURFACE REMOVAL DETAIL

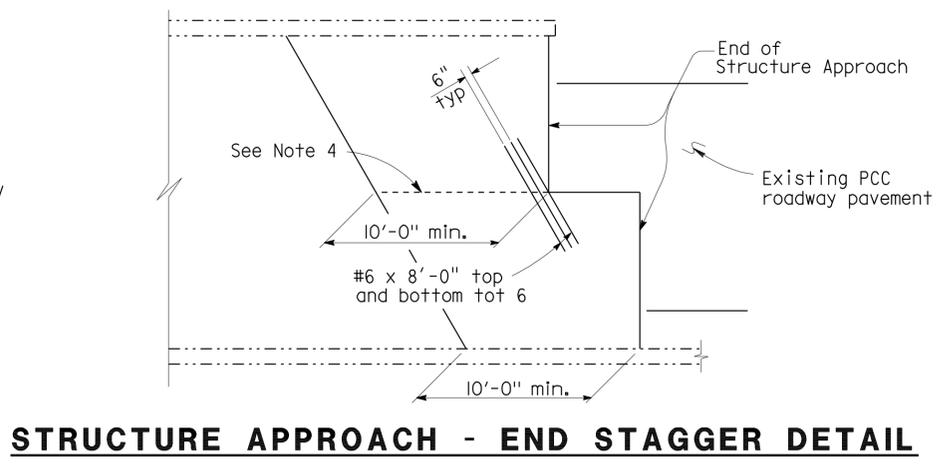
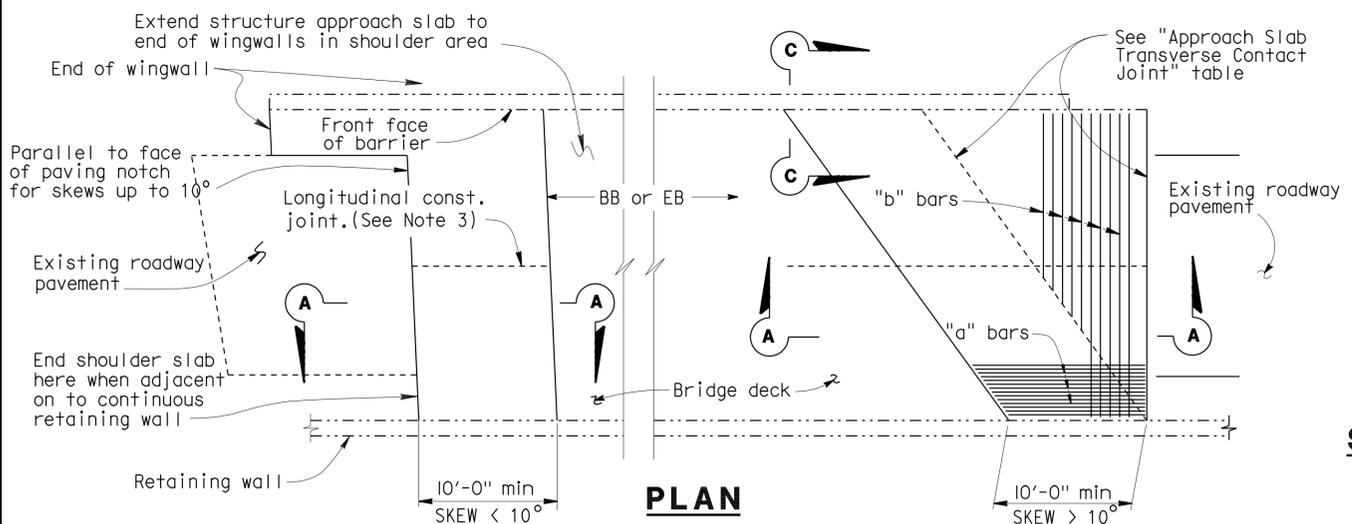
NO SCALE

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

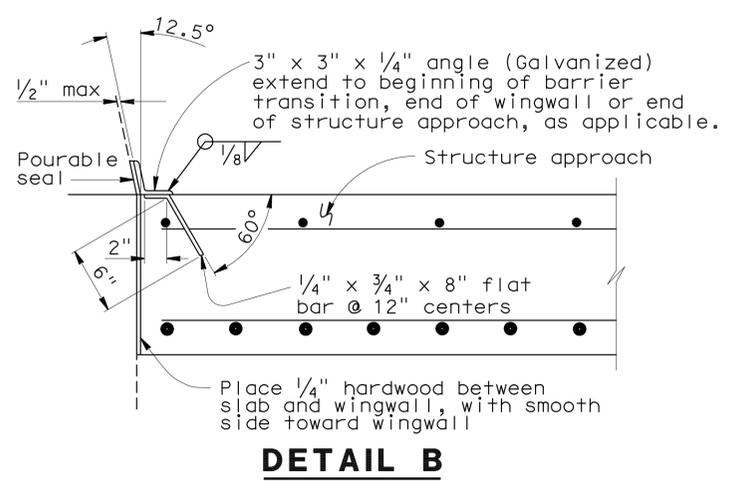
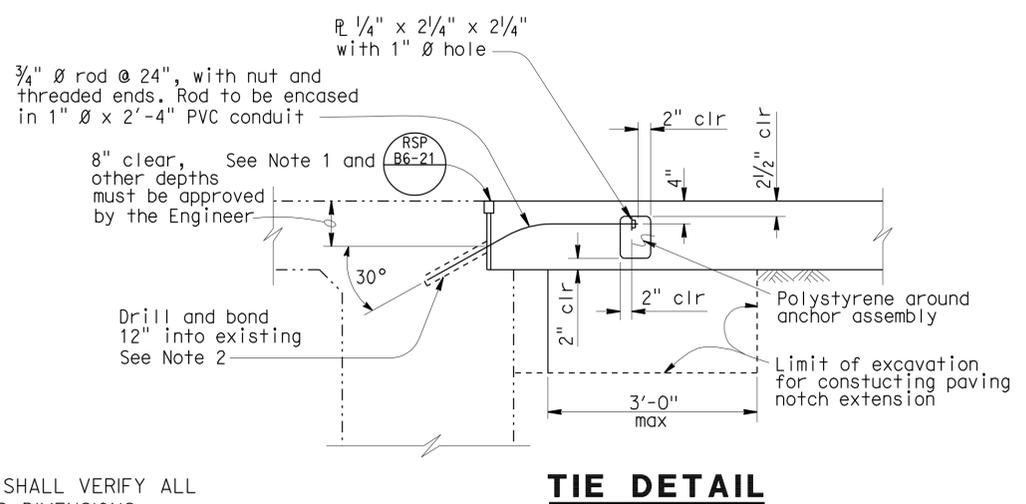
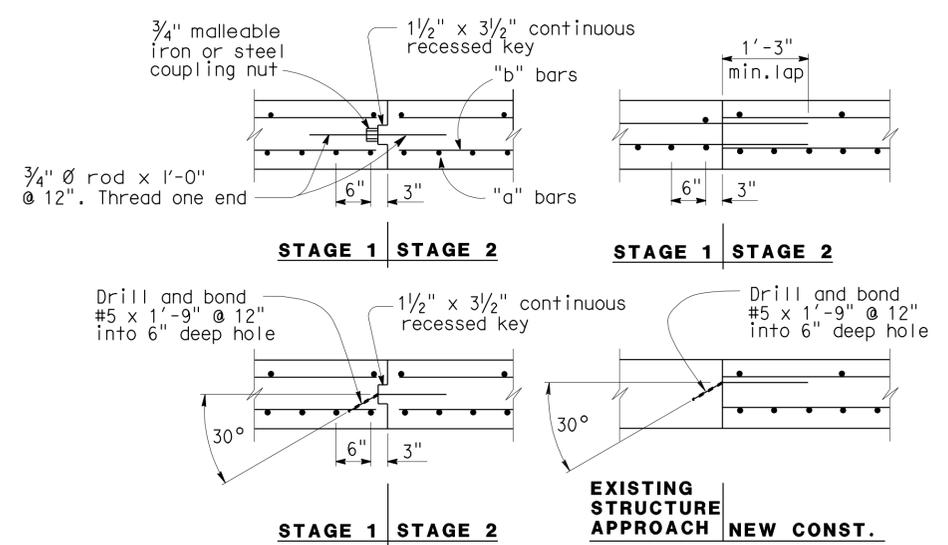
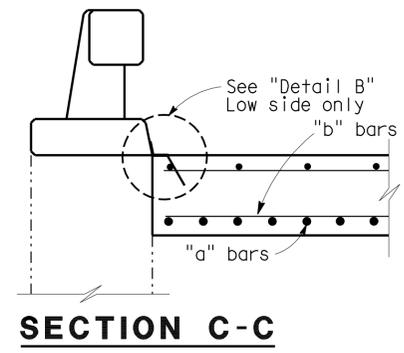
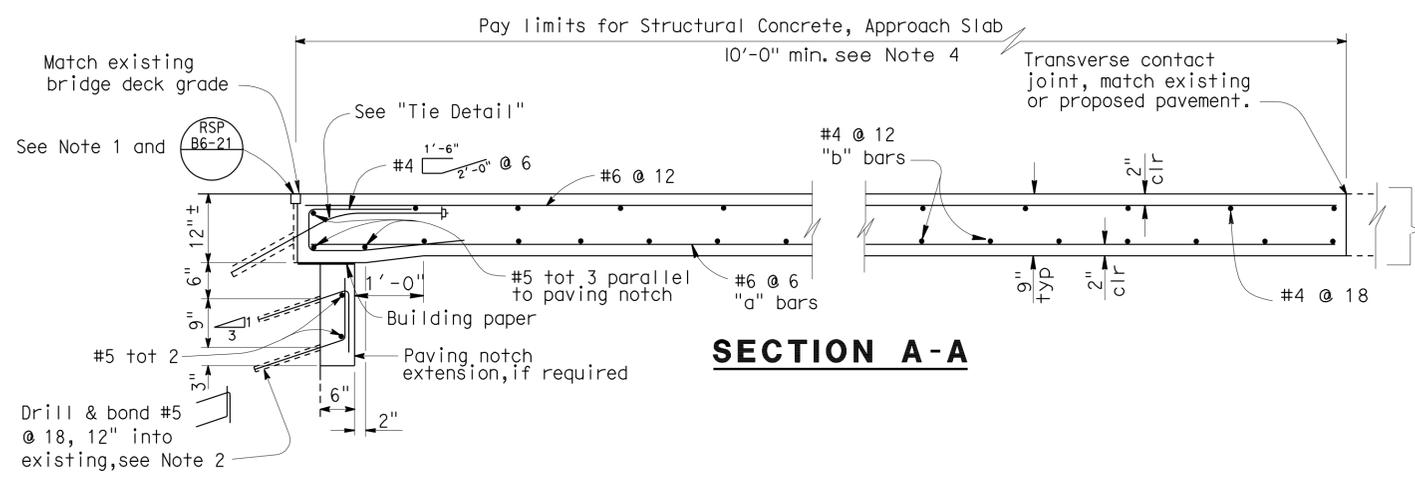


DIAPHRAGM ABUTMENT JOINT SEAL LOCATION

NO SCALE



APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	Parallel to face of paving notch	Parallel to face of paving notch
10° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24'-0" to 36'-0" apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line



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

LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES

3/4' = 1'-0"

- NOTES:**
- For details not shown or noted, see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
 - Space to avoid existing prestress anchorages and main reinforcement.
 - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
 - Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint.