Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	1	95

STPHG-000C(322)E

INDEX OF PLANS

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

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN RIVERSIDE AND SAN BERNARDINO COUNTIES AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

LOCATION MAP

LOCATION OF CONSTRUCTION

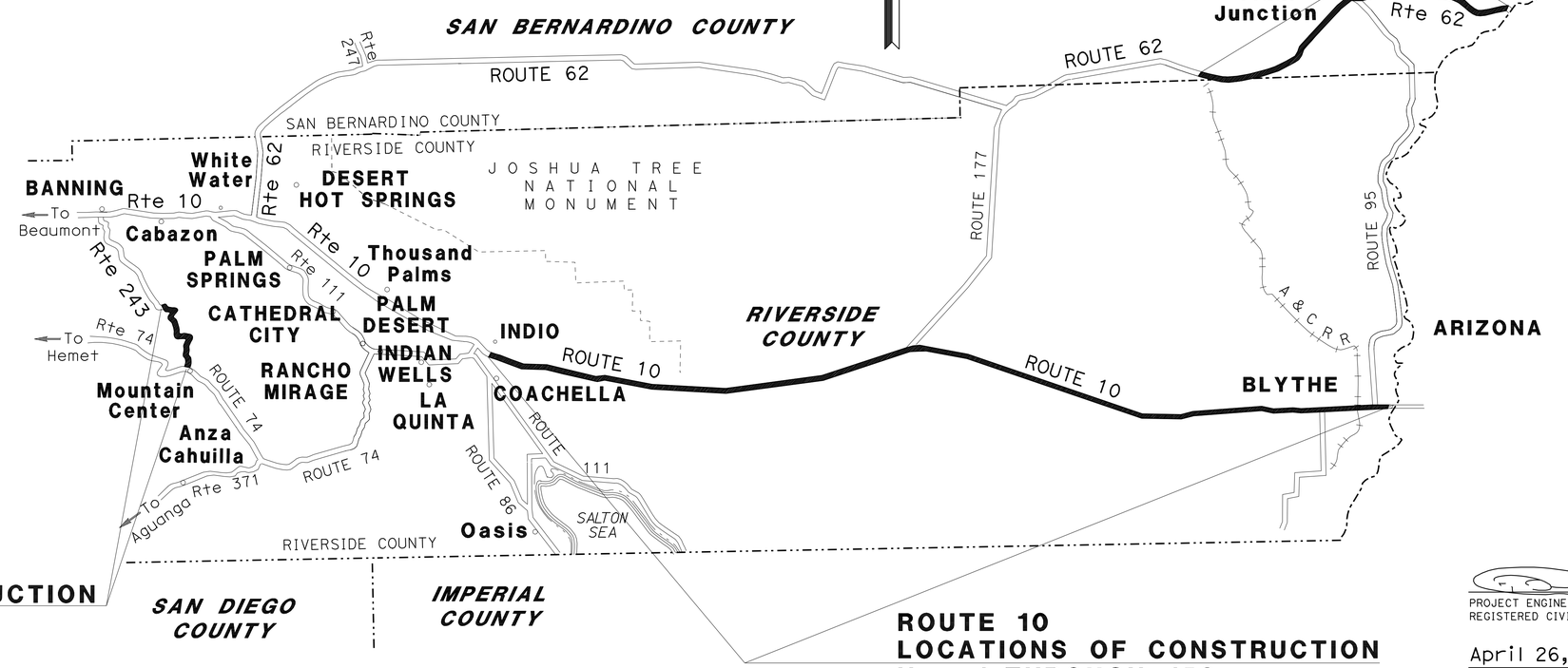
No. (X)	COUNTY	ROUTE	POST MILES	DESCRIPTION
1 - 153	Riv	10	R58.9/R156.4	FROM DILLON RD UNDERCROSSING TO COLORADO RIVER BRIDGE
154 - 180	Riv	243	1.5/12.5	0.7 MILES NORTH OF SOUTH ENTRANCE KEENWILD FOREST TO 15.7 MILES SOUTH OF BANNING CITY LIMITS
181 - 184	SBd	62	108.0/130.0	FROM RICE WASTEWAY BRIDGE TO 12.7 MILES WEST OF ARIZONA STATE LINE

NOTE: THE LOCATIONS OF CONSTRUCTION ARE SHOWN ON THE "LOCATION OF CONSTRUCTION" SHEETS.

ROUTE 62 LOCATIONS OF CONSTRUCTION Nos. 181 THROUGH 184

ROUTE 243 LOCATIONS OF CONSTRUCTION Nos. 154 THROUGH 180

ROUTE 10 LOCATIONS OF CONSTRUCTION Nos. 1 THROUGH 153



NO SCALE

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

PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

1-20-10
DATE

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

April 26, 2010
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.	08-478304
PROJECT ID	0800000762

PROJECT MANAGER: STEVEN CROUCH
DESIGN ENGINEER: RAFTAR SHARIATZADEH

LAST REVISION: 01-20-10
DATE PLOTTED => 30-JUL-2010
TIME PLOTTED => 13:17

BORDER LAST REVISED 8/1/2008 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trlim DGN FILE => 847830ab001.dgn | CU 08235 | EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	2	95

1-20-10
REGISTERED CIVIL ENGINEER — DATE

4-26-10
PLANS APPROVAL DATE

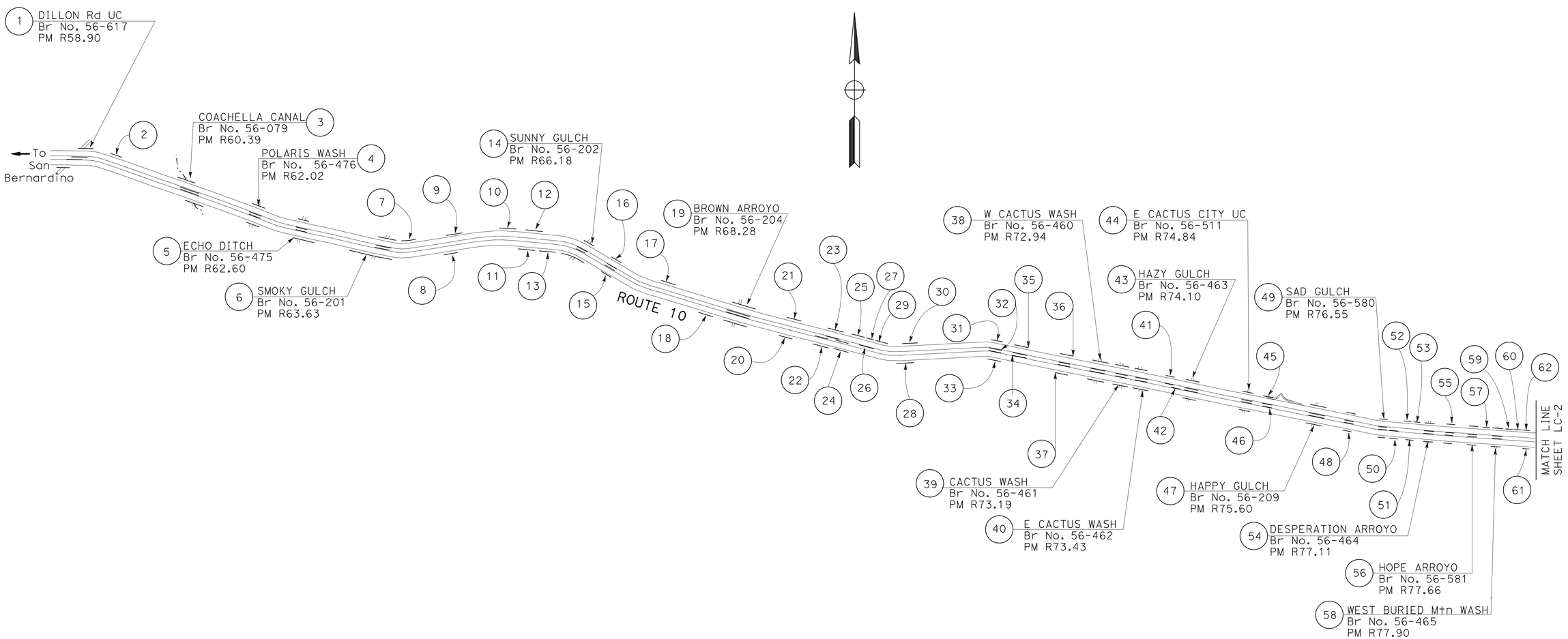
RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

NOTES:

1. THE LOCATIONS ARE FOR IDENTIFICATION ONLY SEE SUMMARY OF QUANTITIES SHEETS FOR END TREATMENT TYPE AND EXACT LOCATION.
2. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
4. METAL BEAM GAURD RAIL LENGTH AND LOCATIONS MAY BE VERIFIED BY THE ENGINEER TO SUIT CONDITIONS ENCOUNTERED IN THE FIELD.

LEGEND

(X) CONSTRUCTION LOCATIONS



LOCATION OF CONSTRUCTION

NO SCALE

LC-1

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

LAST REVISION | DATE PLOTTED => 30-APR-2010
01-20-10 | TIME PLOTTED => 11:18

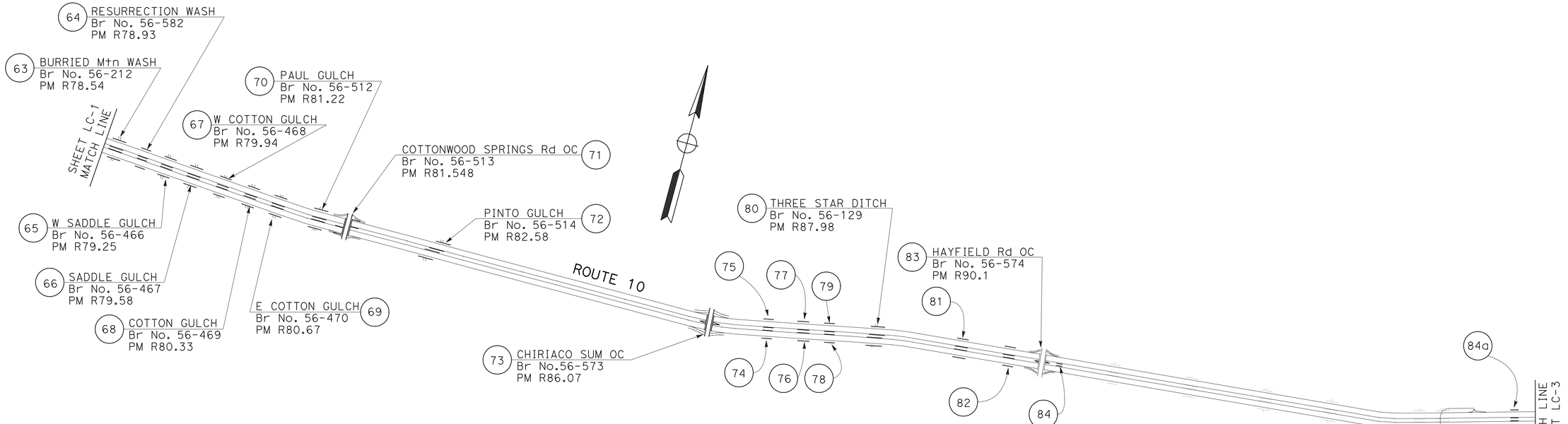
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	3	95

1-20-10
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

RAFTER SHARIATZADEH
No. C72941
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
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.



NOTE:

UNLABELED STRUCTURES ARE TO BE REPAIRED UNDER A SEPARATE CONTRACT.

LOCATION OF CONSTRUCTION

NO SCALE

LC-2

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

LAST REVISION DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:18
01-20-10

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trcarol
DGN FILE => 847830ba002.dgn
CU 08235
EA 478301

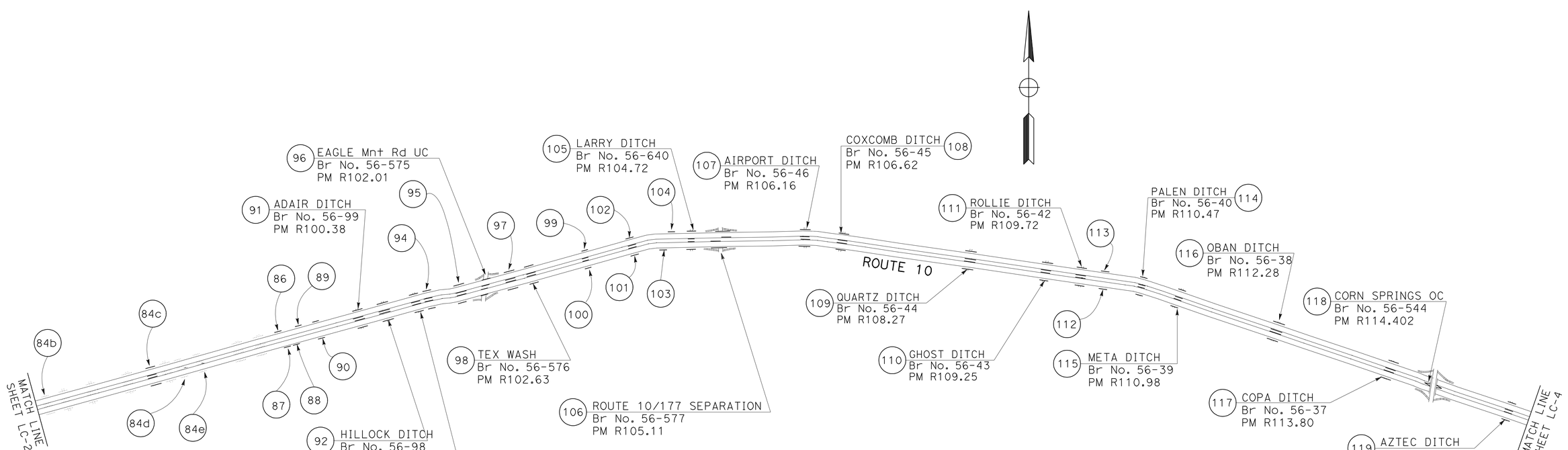
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	4	95

REGISTERED CIVIL ENGINEER — DATE: 1-20-10

RAFTER SHARIATZADEH
No. C72941
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

4-26-10
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:

UNLABELED STRUCTURES ARE TO BE REPAIRED UNDER A SEPARATE CONTRACT.

LOCATION OF CONSTRUCTION

NO SCALE

LC-3

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION

LAST REVISION DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:19
01-20-10

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => 847830ba003.dgn

CU 08235

EA 478301

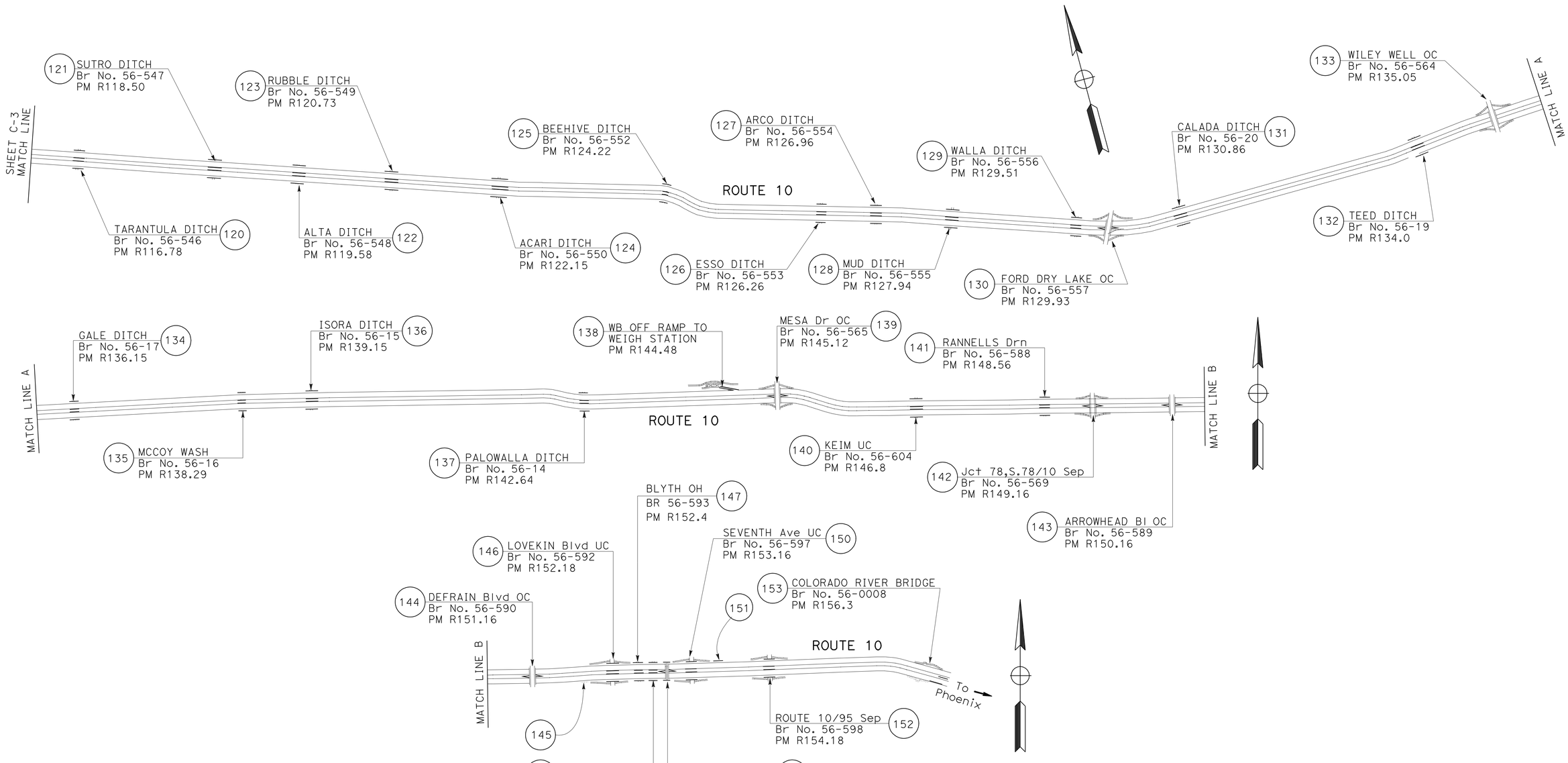
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	5	95

1-20-10
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

RAFTER SHARIATZADEH
No. C72941
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
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.



LOCATION OF CONSTRUCTION

NO SCALE

LC-4

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

LAST REVISION 01-20-10
DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:19

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

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DGN FILE => 847830ba004.dgn

CU 08235

EA 478301

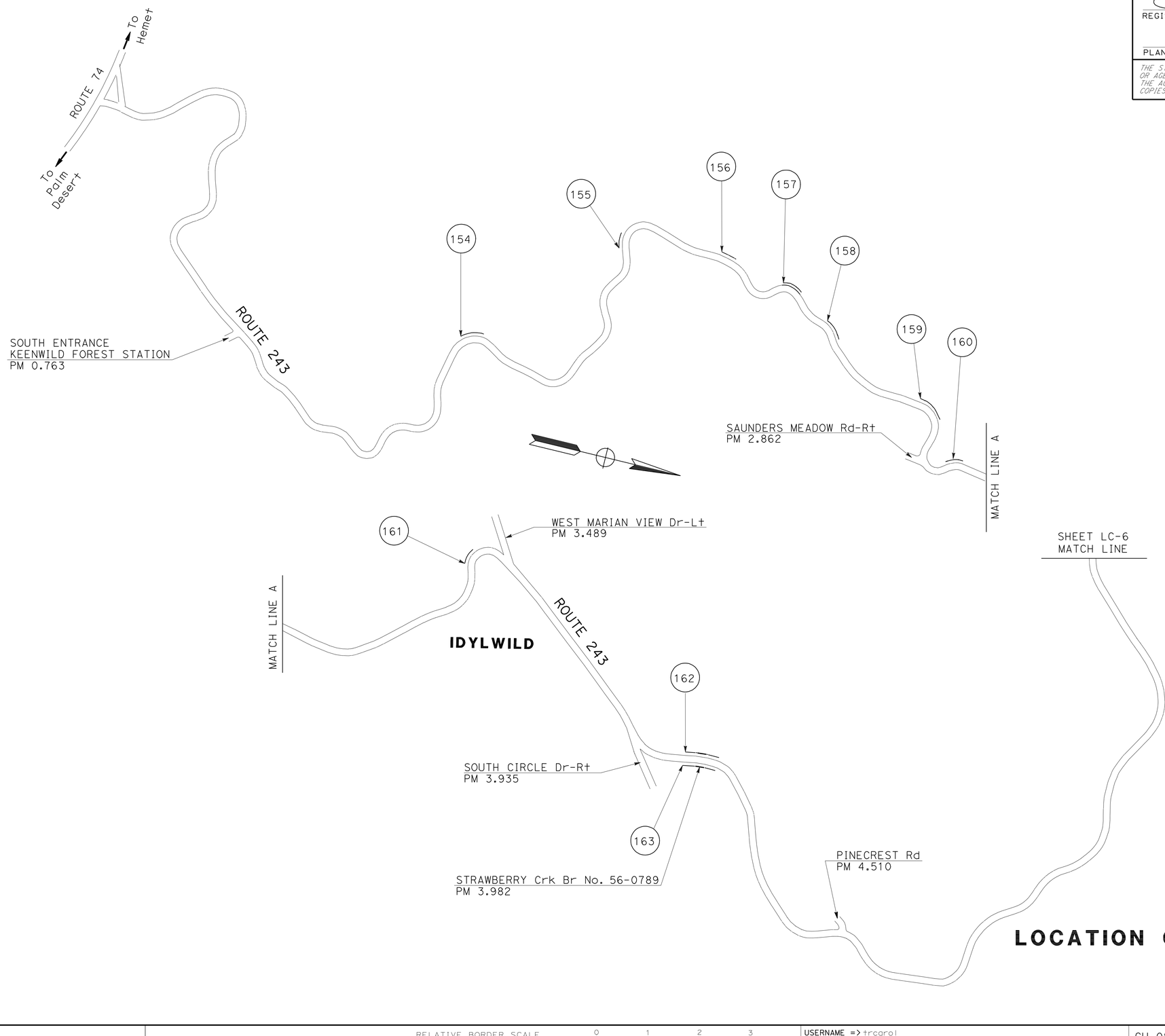
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	6	95

REGISTERED CIVIL ENGINEER — DATE: 1-20-10

PLANS APPROVAL DATE: 4-26-10

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — 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.



LOCATION OF CONSTRUCTION

NO SCALE

LC-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED

LAST REVISION — DATE PLOTTED => 30-APR-2010 — TIME PLOTTED => 11:19
01-20-10

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => 847830ba005.dgn

CU 08235

EA 478301

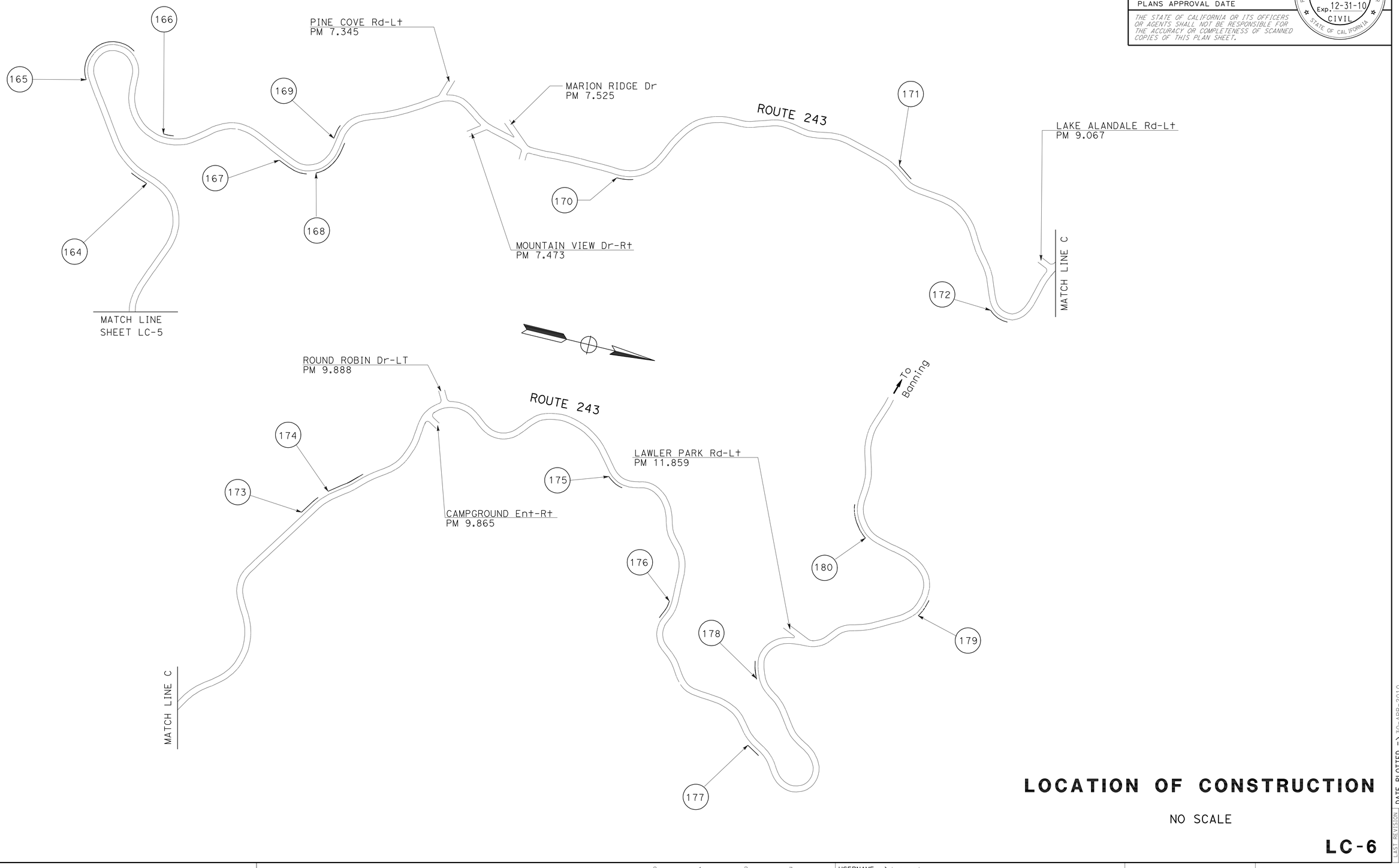
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	7	95

REGISTERED CIVIL ENGINEER — 1-20-10 DATE

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
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.



LOCATION OF CONSTRUCTION

NO SCALE

LC-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH

REVISED BY	DATE REVISED

LAST REVISION: DATE PLOTTED => 30-APR-2010; TIME PLOTTED => 11:19; 01-20-10

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => 847830ba006.dgn

CU 08235

EA 478301

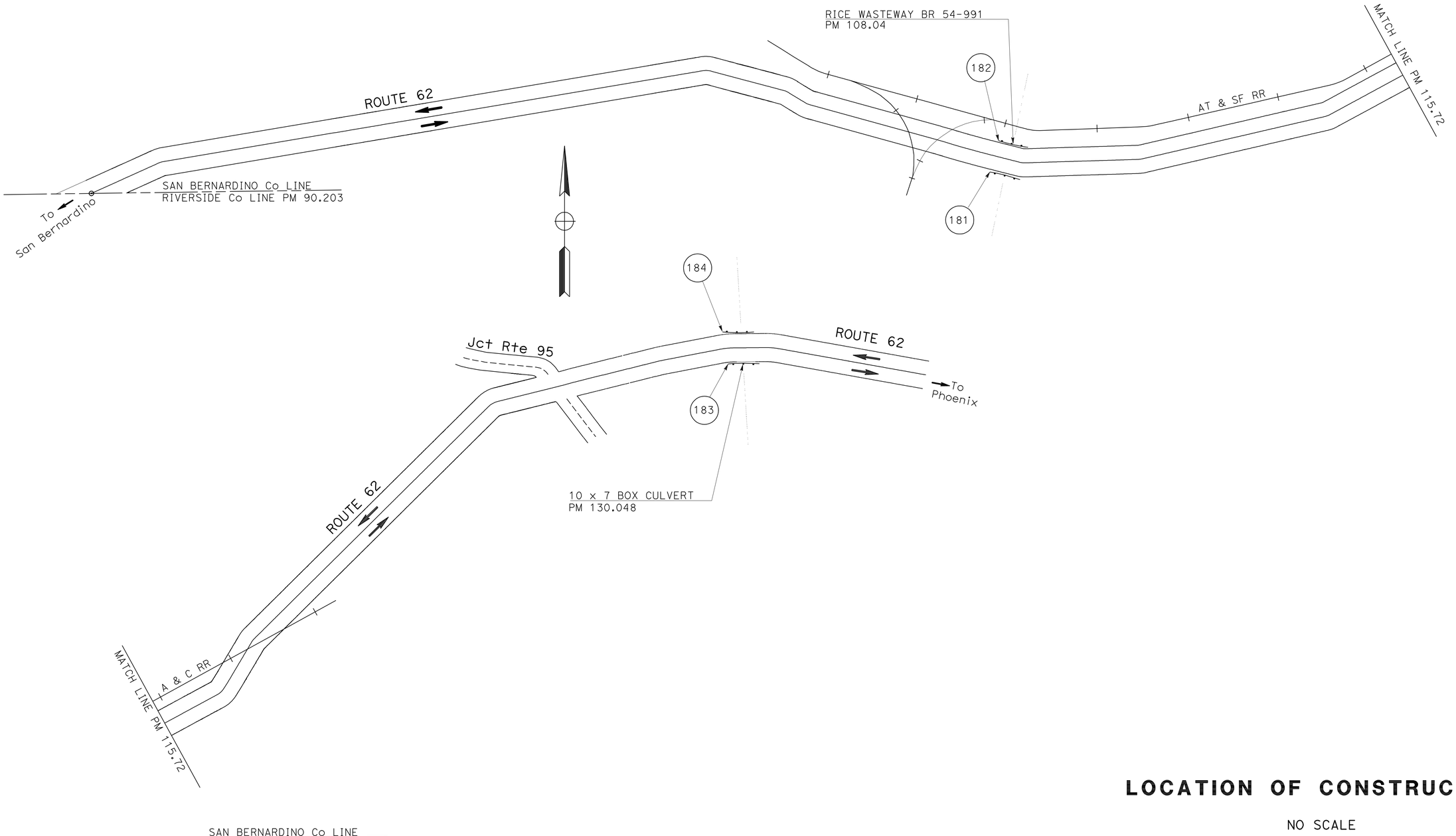
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	8	95

REGISTERED CIVIL ENGINEER — 1-20-10 DATE

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
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.



LOCATION OF CONSTRUCTION

NO SCALE

LC-7

CALCULATED-DESIGNED BY	RAJBINDER S. GILL
CHECKED BY	RAFTAR SHARIATZADEH
FUNCTIONAL SUPERVISOR	MUSTAPHA RAOUF
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN DIVISION
REVISED BY	
DATE REVISED	

LAST REVISION 01-20-10
DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:19

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trcarol
DGN FILE => 847830ba007.dgn

CU 08235

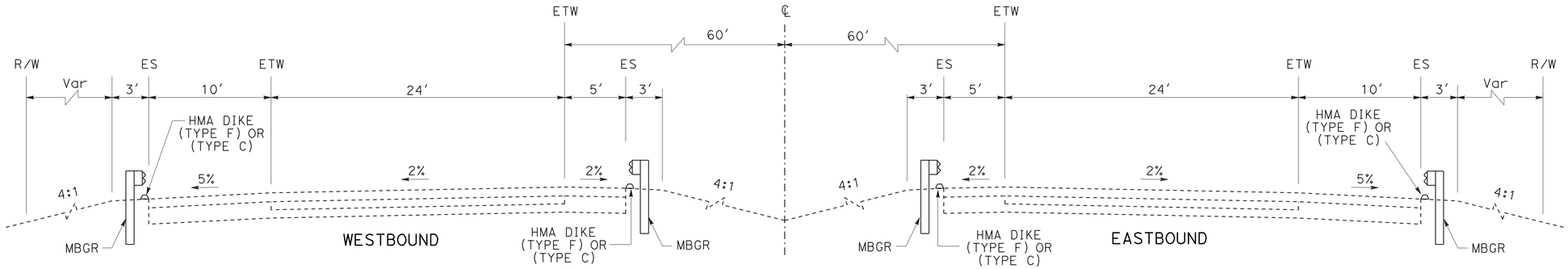
EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	9	95

REGISTERED CIVIL ENGINEER — 1-20-10 DATE

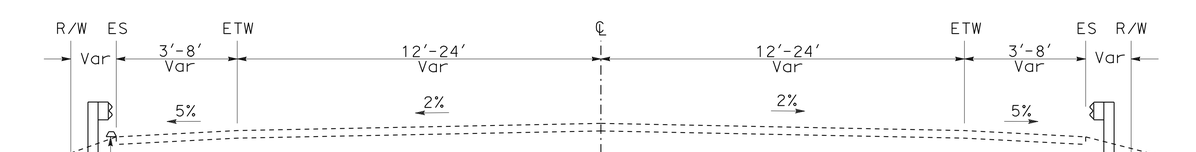
RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
PLANS APPROVAL DATE



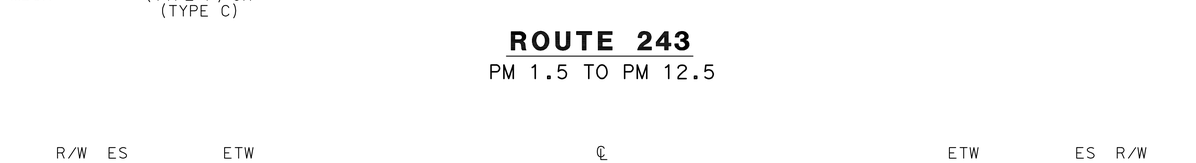
ROUTE 10

PM R58.9 TO PM R156.4



ROUTE 243

PM 1.5 TO PM 12.5



ROUTE 62

PM 108.0 TO PM 130.0

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED

LAST REVISION 01-20-10
DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:12

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => 847830ca001.dgn
CU 08235
EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	10	95

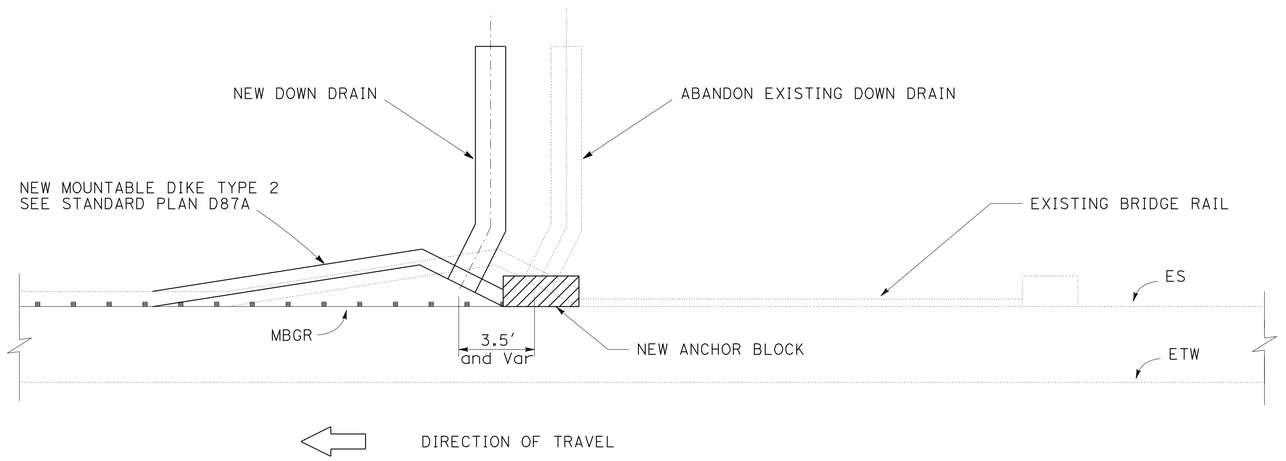
REGISTERED CIVIL ENGINEER — 1-20-10 DATE

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

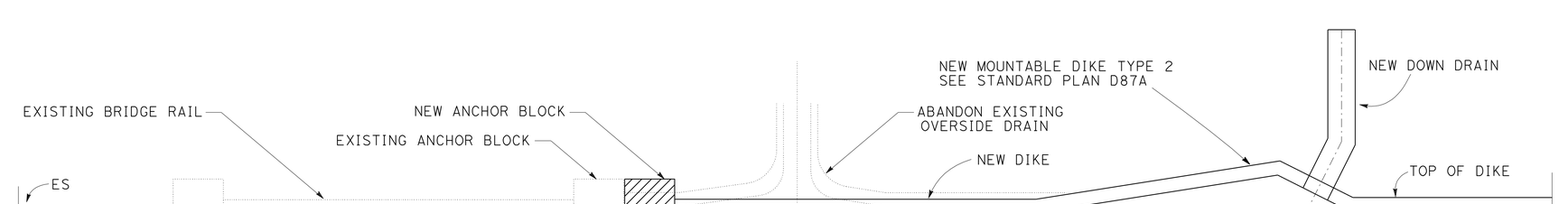
4-26-10
PLANS APPROVAL DATE

NOTE:

1. LOCATION OF NEW DOWN DRAIN TO BE CONFIRMED BY THE ENGINEER.



CASE 1



CASE 2

TYPICAL DRAINAGE RELOCATION

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED

LAST REVISION 01-20-10
DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:12

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => 847830ga001.dgn

CU 08235

EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	11	95

1-20-10
REGISTERED CIVIL ENGINEER DATE

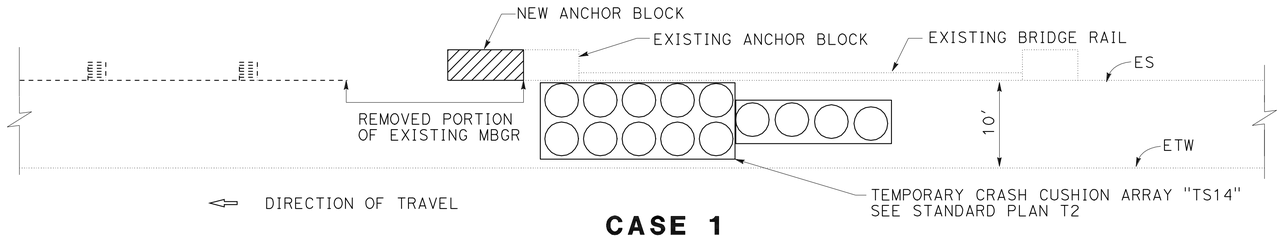
RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
PLANS APPROVAL DATE

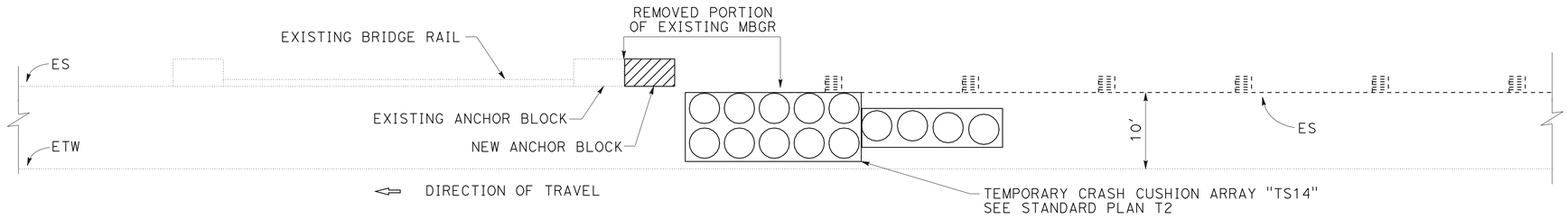
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. LOCATION OF CRASH CUSHION TO BE CONFIRMED BY THE ENGINEER.

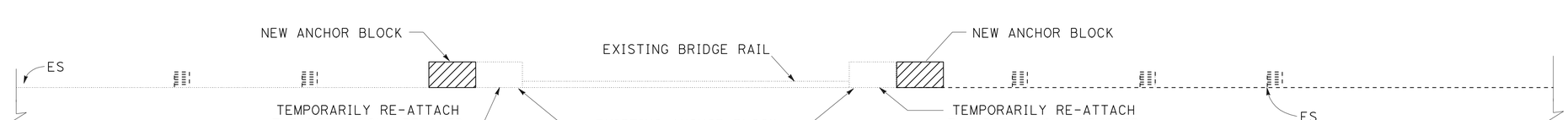


CASE 1



CASE 2

TEMPORARY CRASH CUSHION DETAILS



TEMPORARY RE-ATTACHMENT OF EXISTING METAL BEAM GUARD RAIL DETAILS

BRIDGE RAILING REMOVAL DETAILS

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY / DATE REVISED

LAST REVISION 01-20-10
DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:13

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => 847830ga002.dgn
CU 08235
EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	12	95

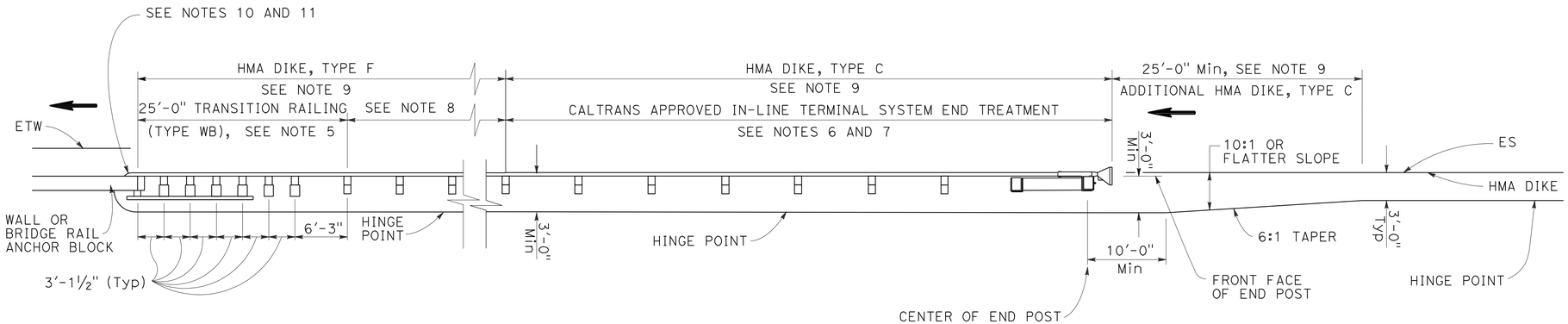
REGISTERED CIVIL ENGINEER — DATE: 1-20-10

PLANS APPROVAL DATE: 4-26-10

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

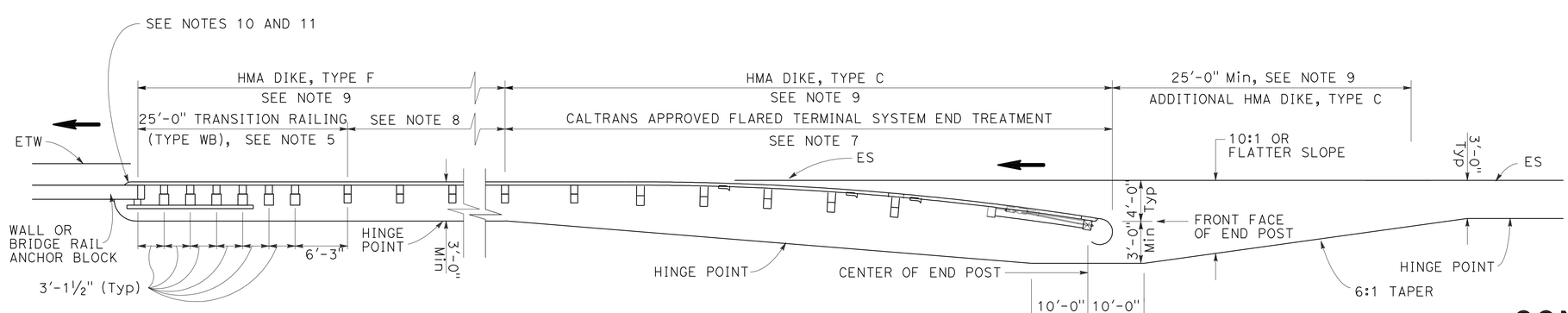
NOTES:

1. LINE POST, BLOCKS AND HARDWARE TO BE USED ARE SHOWN ON STANDARD PLANS A77A1, A77A2, A77B1, A77C1 AND A77C2.
2. GUARD RAIL POST SPACING TO BE 6'-3" CENTER TO CENTER, EXCEPT AS OTHERWISE NOTED.
3. 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.
4. DIRECTION OF ADJACENT TRAFFIC INDICATED BY ⟶ .
5. FOR TRANSITION RAILING (TYPE WB) DETAILS FOR TYPES 12A AND 12B LAYOUTS, SEE STANDARD PLAN A77J4.
6. IN-LINE TERMINAL SYSTEM END TREATMENTS ARE USED WHERE SITE CONDITIONS WILL NOT ACCOMMODATE A FLARED END TREATMENT.
7. THE TYPE OF TERMINAL SYSTEM END TREATMENT TO BE USED WILL BE SHOWN ON THE PROJECT PLANS.
8. 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.
9. WHERE PLACEMENT OF DIKE IS REQUIRED WITH GUARD RAILING INSTALLATIONS, SEE REVISED STANDARD PLAN RSP A77C4 FOR DIKE POSITIONING DETAILS.
10. 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.
11. FOR ADDITIONAL DETAILS OF A TYPICAL CONNECTION TO WALLS OR ABUTMENTS, SEE STANDARD PLAN A77J3.



INLINE LAYOUT

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



FLARED LAYOUT

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

CONSTRUCTION DETAILS

METAL BEAM GUARD RAILING

TYPICAL LAYOUTS FOR STRUCTURE APPROACH IN THE MEDIAN

NO SCALE

C-3

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH

FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

LAST REVISION: DATE PLOTTED => 30-APR-2010
01-20-10 TIME PLOTTED => 11:13

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES: 0 1 2 3

USERNAME => trmartin
DGN FILE => 847830ga003.dgn

CU 08235

EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	13	95

Thanh Trinh 1-20-10
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

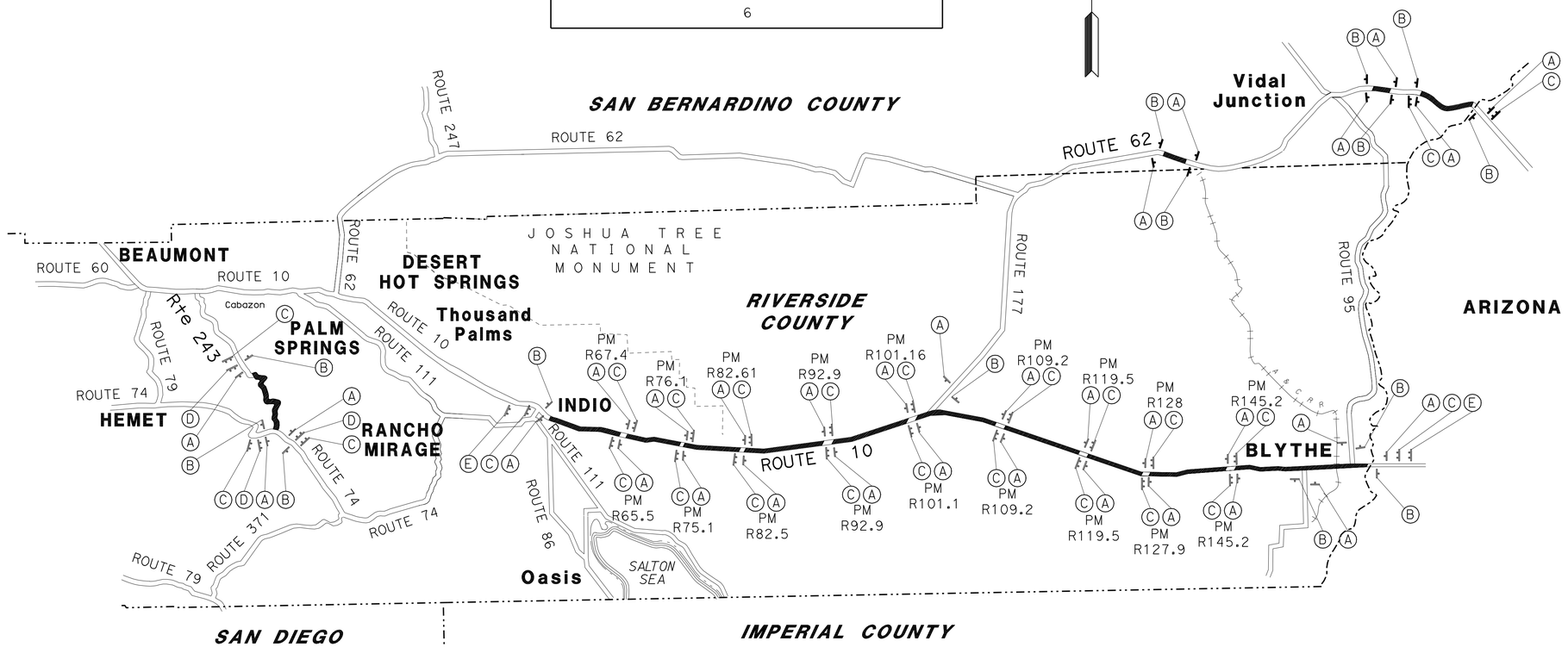
REGISTERED PROFESSIONAL ENGINEER
T. TRINH
No. 41189
Exp. 3-31-11
CIVIL
STATE OF CALIFORNIA

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

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. EXACT LOCATIONS AND MESSAGES OF PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) WILL BE DETERMINED BY THE ENGINEER.

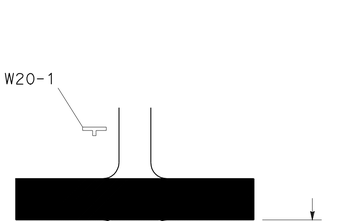
PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
(EA)
6



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)
(A)	W20-1	48" X 48"	ROAD WORK AHEAD	1 - 6" X 6"	32
(B)	G20-2	48" X 24"	END ROAD WORK	1 - 4" X 4"	14
(C)	C40(CA)	144" X 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 4" X 6"	25
(D)	G20-1	90" X 48"	ROAD WORK NEXT 11 MILES	2 - 4" X 6"	3
(E)	G20-1	90" X 48"	ROAD WORK NEXT 100 MILES	2 - 4" X 6"	2

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



TYPICAL INTERSECTION

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC DESIGN
FUNCTIONAL SUPERVISOR: BILL WASSER
CALCULATED-DESIGNED BY: PHIL VU
CHECKED BY: THAN TRINH
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:13
01-20-10

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => 8478301a001.dgn
CU 08380
EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	14	95

Thanh Trinh 1-20-10
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
T. TRINH
No. 41189
Exp. 3-31-11
CIVIL
STATE OF CALIFORNIA

ROADSIDE SIGN QUANTITIES

LOCATION	POST MILE	SIGN CODE	RESET ROADSIDE SIGN	
			ONE POST	TWO POST
			EA	EA
ROUTE 243 SB	2.00	S32 (CA)	1	
	2.37	W11-7	1	
	2.91	G8-22 (CA)		1
	2.98	G8-22 (CA)		1
	6.73	G17 (CA)	1	
ROUTE 243 NB	3.98	S32 (CA)	1	
	7.79	W50 (CA)	1	
	8.80	W1-8	4	
	10.38	W8-5	1	
ROUTE 62 WB	142.42	G10 (CA)		1
	142.47	W1-7	1	
	147.59	G28-2 (CA) M3-4	1	
ROUTE 62 EB	142.37	M3-12 G28-2 (CA)	1	
	142.43	SPECIAL		1
	142.46	R1-1	1	
	142.49	W5-2	1	
	142.54	M4-12 G28-2 (CA)	1	
TOTAL			16	4

DELINEATOR QUANTITIES

LOCATION	RESET	
	TYPE F	TYPE G
	EA	
ROUTE 10 EB	28	35
ROUTE 10 WB	28	25
ROUTE 243 NB	30	
ROUTE 243 SB	87	
SUB TOTAL	165	60
TOTAL	225	

OBJECT MARKERS QUANTITIES

LOCATION	RESET			
	P (CA)	L-1 (CA)	L-2 (CA)	POST MILE
	EA			
ROUTE 10 EB		160	13	R85
ROUTE 10 WB		165	13	R89
ROUTE 62 EB	1 (RIGHT)	8		2
ROUTE 62 WB	1 (LEFT)	8		2
ROUTE 243 NB		11		2
ROUTE 243 SB		19		3
SUB TOTAL	2	371	26	
TOTAL	399			

SIGN QUANTITIES

SQ-1

REVISED BY | DATE REVISED
PHIL VU | THAN TRINH
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | BILL WASSER
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

LAST REVISION | DATE PLOTTED => 30-APR-2010
01-20-10 | TIME PLOTTED => 11:13

ROADWAY QUANTITIES ROUTE 10

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION (M-MEDIAN, O-OUTSIDE)	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	CRASH CUSHION (TYPE CAT)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	RAPID STRENGTH CONCRETE (MINOR STRUCTURE) (N)	ANCHOR BLOCK TYPE (N)	MINOR CONCRETE (MINOR STRUCTURE)	PLACE ASPHALT CONCRETE DIKE (TYPE F)	PLACE ASPHALT CONCRETE DIKE (TYPE C)	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	RECONSTRUCT METAL BEAM GUARD RAILING	REMOVE METAL BEAM GUARD RAILING	REMARKS
						EA	EA	EA	EA	EA	EA	—	—	CY	LF	LF	LF	LF	TON	LF	LF	
1	R58.9	X		O	56-0617R		1				1	1	1	0.74	350	50	350.0	58	2.7		58	REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R58.9	X		M	56-0617R				1		1	1	1	0.74			375.0					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R58.9		X	O	56-0617L		1				1	1	1	0.74	350	50	350.0	50	2.7		50	REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R58.9		X	M	56-0617L				1		1	1	1	0.74			375.0					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
2	R59.2		X	O	-	1				1					37.5	37.5	37.5	74	0.5			REMOVE MBGR
3	R60.39	X		O	56-0079R	1					1	1	1	0.74		37.5		70	0.3	12.5		RECONSTRUCT MBGR, PROTECT SLOTTED DRAIN.
	R60.39	X		M	56-0079R				1		1	1	1	0.74			300.0					DIRT DRIVE WAY TO BE LEFT UNBLOCKED
	R60.4		X	M	56-0079L				1		1	1	1	0.74			300.0					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R60.4		X	O	56-0079L	1					1	1	1	0.74	37.5	37.5	37.5	70	0.5		70	REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
4	R62.02		X	M	56-0476L				1		1	1	1	0.74			387.5	77	0.4			176-FEET WIDE MEDIAN
	R62.02		X	O	56-0476L						1	1	1	0.74						62.5		REMOVE MBGR
	R62.02	X		O	56-0476R							1	1	0.74						87.5		RECONSTRUCT MBGR
	R62.02	X		M	56-0476R				1		1	1	1	0.74			387.5					RECONSTRUCT MBGR
5	R62.6	X		O	56-0475R		1									50		81	0.4			RECONSTRUCT MBGR
	R62.6	X		O	56-0475R						1	1	1	0.74						950.0		RECONSTRUCT MBGR
	R62.6	X		M	56-0475R	1					1	1	1	0.74						25.0		RECONSTRUCT MBGR
	R62.62		X	M	56-0475L	1					1	1	1	0.74		37.5		67	0.3			RECONSTRUCT MBGR
	R62.62		X	O	56-0475L		1				1	1	1	0.74		50		80	0.4			RECONSTRUCT MBGR
6	R63.63	X		M	56-0201R						1	1	1	0.74								NEEDS ONLY ADDING OF MINOR CONCRETE. MBGR IN GOOD SHAPE.
	R63.63	X		O	56-0201R		1			1	1	1	1	0.74		50		2728	0.4	2650.0		RECONSTRUCT MBGR AND NEEDS MINOR GRADING
	R63.63		X	M	56-0201L	1					1	1	1	0.74								RECONSTRUCT MBGR
	R63.63		X	O	56-0201L			1			1	1	1	0.74						237.5		RECONSTRUCT MBGR, PROTECT SLOTTED DRAIN
7	R64.10		X	O	-					1										700.0		RECONSTRUCT MBGR
8	R64.5	X		O	-					1										37.5		RECONSTRUCT MBGR
9	R64.9		X	O	-					1										512.5		RECONSTRUCT MBGR
10	R65.4		X	O	-															275.0		RECONSTRUCT MBGR
11	R65.4	X		O	-			1		1												RECONSTRUCT MBGR
12	R65.60		X	O	-					1										362.5		RECONSTRUCT MBGR, PROTECT DOWN DRAIN
13	R65.7	X		O	-			1		1					562.5		562.5	552	3.6		552	REMOVE MBGR
14	R66.18	X		O	56-0202R			1											0.3	825.0		RECONSTRUCT MBGR
	R66.18	X		M	56-0202R				1			1	1	0.74								RECONSTRUCT MBGR
	R66.18	X		O	56-0202R						1	1	1	0.74						675.0		RECONSTRUCT MBGR, NEED EMBANKMENT REPAIR- FOR QUANTITIES SEE Q-10.
	R66.21		X	M	56-0202L	1				1		1	1	0.74		37.5		80	0.3	50.0		RECONSTRUCT MBGR
	R66.4		X	O	56-0202L							1	1	0.74						512.5		RECONSTRUCT MBGR
15	R66.6	X		O	-			1		1										737.5		RECONSTRUCT MBGR
	R66.6	X		M	-		1			1										112.5		RECONSTRUCT MBGR
16	R66.7		X	M	-															150.0		RECONSTRUCT MBGR
	R66.8			O	-															562.5		RECONSTRUCT MBGR
17	R67.4		X	O	-					1										462.5		RECONSTRUCT MBGR
18	R67.9	X		O	-			1		1										337.5		RECONSTRUCT MBGR
19	R68.28	X		O	56-0204R		1				1	1	1	0.74		50		341	0.4	275.0		RECONSTRUCT MBGR
	R68.28	X		M	56-0204R		1				1	1	1	0.74		50		81	0.4			RECONSTRUCT MBGR
	R68.28	X		O	56-0204R					1										437.5		RECONSTRUCT MBGR
	R68.28		X	O	56-0204L		1				1	1	1	0.74		50		394	0.4	325.0		RECONSTRUCT MBGR
	R68.28		X	M	56-0204L	1						1	1	0.74						50.0		RECONSTRUCT MBGR
20	R69.0	X		O	-					1					275		275.0	266	1.8		266	REMOVE ALL MBGR
21	R69.1		X	O	-					1										188		RECONSTRUCT MBGR
22	R69.4	X		O	-	1				1						37.5			0.3	537.5		RECONSTRUCT MBGR
	R69.5	X		M	-					1										37.5		RECONSTRUCT MBGR
23	R69.5		X	M	-					1								675		137.5		RECONSTRUCT MBGR
	R69.5		X	O	-					1										175.0		RECONSTRUCT MBGR
24	R69.7	X		O	-					1										937.5		RECONSTRUCT MBGR
	R69.7	X		M	-					1							125.0					
25	R69.8		X	O	-					1										137.5		RECONSTRUCT MBGR
26	R69.9		X	M	-		1			1										662.5		RECONSTRUCT MBGR
27	R69.96		X	O	-					1										400.0		RECONSTRUCT MBGR
28	R70.4	X		O	-		1			1							475.0					
29	R70.03		X	O	-			1		1										550.0		RECONSTRUCT MBGR
30	R70.45		X	O	-					1										375.0		REMOVE MBGR, CONVERT OVERSIDE DRAIN TO DOWN DRAIN. FOR DETAILS SEE Q-10
	SUB TOTAL					9	11	7	7	28	23	28	-	20.72	1612.5	625	4337.5	5744	16.1	15563	996	

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	15	95

REGISTERED CIVIL ENGINEER — DATE: 1-20-10

RAFTER SHARIATZADEH — No. C72941 — Exp. 12-31-10 — CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
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.

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
REVISED BY
DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

SUMMARY OF QUANTITIES

Q-1

LAST REVISION DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:13
01-20-10

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmartin | DGN FILE => 847830pa001.dgn | CU 08235 | EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	16	95

1-20-10
REGISTERED CIVIL ENGINEER DATE

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
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ROADWAY QUANTITIES ROUTE 10

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION (M-MEDIAN, O-OUTSIDE)	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	CRASH CUSHION (TYPE CAT)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	RAPID STRENGTH CONCRETE (MINOR STRUCTURE) (N)	ANCHOR BLOCKTYPE (N)	MINOR CONCRETE (MINOR STRUCTURE)	PLACE ASPHALT CONCRETE DIKE (TYPE F)	PLACE ASPHALT CONCRETE DIKE (TYPE C)	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	RECONSTRUCT METAL BEAM GUARD RAILING	REMOVE METAL BEAM GUARD RAILING	REMARKS
						EA	EA	EA	EA	EA	EA	—	—	CY	LF	LF	LF	LF	TON	LF	LF	
31	R71.51		X	O	-		1			1						50		413	0.4	375.0		RE-CONSTRUCT MBGR
32	R71.56		X	M	-					1										37.5		RE-CONSTRUCT MBGR
33	R71.7	X		O	-			1		1										62.5		RE-CONSTRUCT MBGR
	R71.7	X		M	-		1			1						50		90	0.4	50.0		RE-CONSTRUCT MBGR
34	R71.8	X		M	-		1			1										50.0		RE-CONSTRUCT MBGR
35	R71.9		X	M	-		1													0.0		RE-CONSTRUCT MBGR
	R71.9		X	O	-															112.5		RE-CONSTRUCT MBGR
36	R72.5	X		O	-					1										112.5		RE-CONSTRUCT MBGR
	R72.5	X		M	-	1				1						37.5		90	0.3	62.5		RE-CONSTRUCT MBGR
37	R72.6		X	M	-															87.5		RE-CONSTRUCT MBGR
	R72.6		X	O	-															200.0		RE-CONSTRUCT MBGR
38	R72.94	X		O	56-0460R						1	1	1	0.74						62.5		RE-CONSTRUCT MBGR
	R72.94	X		M	56-0460R		1				1	1	1	0.74						0.0		RE-CONSTRUCT MBGR
	R72.94		X	O	56-0460L		1				1	1	1	0.74		50		78	0.4	0.0		RE-CONSTRUCT MBGR
	R72.94		X	M	56-0460L		1				1	1	1	0.74						0.0		RE-CONSTRUCT MBGR
39	R73.19	X		O	56-0461R		1				1	1	1	0.74		50		76	0.4	0.0		RE-CONSTRUCT MBGR, RELOCATE DOWN DRAIN, SEE Q-10
	R73.19	X		M	56-0461R		1				1	1	1	0.74			37.5					
	R73.21		X	M	56-0461L		1				1	1	1	0.74						25.0		RE-CONSTRUCT MBGR ON APPROACH
	R73.21		X	O	56-0461L						1	1	1	0.74						62.5		RE-CONSTRUCT MBGR
40	R73.43	X		O	56-0462R		1				1	1	1	0.74		50		80	0.4	0.0		RE-CONSTRUCT MBGR, RELOCATE SLOTTED DRAIN
	R73.43	X		M	56-0462R		1				1	1	1	0.74						0.0		RE-CONSTRUCT MBGR
	R73.45		X	M	56-0462L						1	1	1	0.74						87.5		RE-CONSTRUCT MBGR ON APPROACH
	R73.45		X	O	56-0462L						1	1	1	0.74						62.5		RE-CONSTRUCT MBGR
41	R73.8		X	M	-					1										75.0		RE-CONSTRUCT MBGR
	R73.8		X	O	-					1										62.5		REMOVE MBGR
42	R73.80	X		M	-					1										87.5		
43	R74.10	X		O	56-0463R						1	1	1	0.74						50.0		RE-CONSTRUCT MBGR, RELOCATE DOWN DRAIN, FOR QUANTITIES SEE Q-10
	R74.10	X		M	56-0463R						1	1	1	0.74						50.0		RE-CONSTRUCT MBGR
	R74.10		X	M	56-0463L				1		1	1	1	0.74			387.5					RE-CONSTRUCT MBGR. MINOR GRADING REQUIRED ON APPROACH
	R74.10		X	O	56-0463L						1	1	1	0.74						62.5		RE-CONSTRUCT MBGR
44	R74.84		X	O	56-0511L	1				1						37.5		327	0.3	300.0		RE-CONSTRUCT MBGR, RELOCATE DOWN DRAIN, FOR QUANTITIES SEE Q-10
	R74.84		X	M	56-0511L	1					1	1	1	0.74						0.0		
	R74.8	X		O	56-0511R						1	1	1	0.74						350.0		REMOVE MBGR
	R74.8	X		M	56-0511R						1	1	1	0.74						62.5		RE-CONSTRUCT MBGR
	R74.84		X	O	56-0511L		1				1	1	1	0.74	12.5	50	12.5	40	0.4		40	REMOVE MBGR ON APPROACH
45	R75.05		X	M	-					1										112.5		RE-CONSTRUCT MBGR
	R75.05		X	O	-					1										125.0		RE-CONSTRUCT MBGR
46	R75.1	X		M	-		1			1										50.0		RE-CONSTRUCT MBGR
47	R75.6	X		O	56-0209R		1					1	1	0.74		50		75	0.4	25.0		RE-CONSTRUCT MBGR
	R75.6	X		M	56-0209R				1		1	1	1	0.74			387.5					RE-CONSTRUCT MBGR
	R75.68		X	M	56-0209L		1				1	1	1	0.74			25.0					RECONSTRUCT MBGR ON APPROACH
	R75.68		X	O	56-0209L	1					1	1	1	0.74		37.5		66	0.3	0.0		RE-CONSTRUCT MBGR
48	R76.1	X		O	-		1									50	62.5	230	0.4	187.5		REMOVE MBGR, CONVERT OVERSIDE DRAIN TO DOWN DRAIN & RELOCATE IT, FOR DETAILS SEE C-1
	R76.1	X		M	-	1															90	REMOVE MBGR
	R76.1		X	M	-	1				1										75.0		RE-CONSTRUCT MBGR
	R76.1		X	O	-	1				1										75.0		RE-CONSTRUCT MBGR
49	R76.5	X		O	56-0580R															112.5		RE-CONSTRUCT MBGR
	R76.5	X		M	56-0580R															100.0		RE-CONSTRUCT MBGR
	R76.55		X	M	56-0580L	1				1							87.5				116	REMOVE MBGR, PROTECT IN PLACE CALL BOX
	R76.55		X	O	56-0580L	1											87.5					
50	R76.6	X		O	-															262.5		RE-CONSTRUCT MBGR
	R76.6	X		M	-															100.0		RE-CONSTRUCT MBGR
51	R76.8	X		O	-															175.0		RE-CONSTRUCT MBGR
52	R76.90		X	O	-	1														62.5		RE-CONSTRUCT MBGR
53	R76.96		X	O	-	1														62.5		RE-CONSTRUCT MBGR
	SUB TOTAL					11	17	1	2	17	23	24	-	17.76	12.5	512.5	1087.5	1565	4.1	4075	246	

(N) - FOR INFORMATION ONLY; NOT A SEPARATE PAY ITEM

SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 30-APR-2010
01-20-10 TIME PLOTTED => 11:13

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => 847830pa002.dgn
CU 08235
EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	17	95

REGISTERED CIVIL ENGINEER — DATE: 1-20-10

RAFTER SHARIATZADEH, No. C72941, Exp. 12-31-10, CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE: 4-26-10

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 ROUTE 10

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION (M-MEDIAN, O-OUTSIDE)	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	CRASH CUSHION (TYPE CAT)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	RAPID STRENGTH CONCRETE (MINOR STRUCTURE) (N)	ANCHOR BLOCK TYPE (N)	MINOR CONCRETE (MINOR STRUCTURE)	PLACE ASPHALT CONCRETE DIKE (TYPE F)	PLACE ASPHALT CONCRETE DIKE (TYPE C)	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	RECONSTRUCT METAL BEAM GUARD RAILING	REMOVE METAL BEAM GUARD RAILING	REMARKS
						EA	EA	EA	EA	EA	EA	—	—	CY	LF	LF	LF	LF	TON	LF	LF	
54	R77.09	X		O	56-0464R								1	0.74						87.5		RE-CONSTRUCT MBGR
	R77.09	X		M	56-0464R		1						1	0.74						25.0		RE-CONSTRUCT MBGR
	R77.11		X	M	56-0464L						1	1	1	0.74						50.0		RE-CONSTRUCT MBGR ON APPROACH
	R77.11		X	O	56-0464L	1					1	1	1	0.74						0.0		RE-CONSTRUCT MBGR
55	R77.3	X		O	-															112.5		RE-CONSTRUCT MBGR. MINOR GRADING REQUIRED.
	R77.3	X		M	-															100.0		RE-CONSTRUCT MBGR
	R77.3		X	M	-	1														62.5		RE-CONSTRUCT MBGR, PROTECT IN PLACE CALL BOX
	R77.3		X	O	-	1														75.0		RE-CONSTRUCT MBGR, PROTECT IN PLACE CALL BOX, 26-FEET ETM
56	R77.65	X		O	56-0581R															112.5		RE-CONSTRUCT MBGR,NEED EMBANKMENT REPAIR, FOR QUANTITIES SEE Q-10
	R77.65	X		M	56-0581R															100.0		RE-CONSTRUCT MBGR
	R77.66		X	M	56-0581L	1																REMOVE MBGR
	R77.66		X	O	56-0581L	1																REMOVE MBGR
57	R77.86		X	O	CULVERT	1																REMOVE MBGR
58	R77.9	X		O	56-0465R		1						1	0.74		50		79	0.4	37.5		RE-CONSTRUCT MBGR. NEED EMBANKMENT REPAIR & RELOCATE DOWNDRAIN, FOR QUANTITIES SEE Q-10
	R77.9	X		M	56-0465R	1							1	0.74						37.5		RE-CONSTRUCT MBGR
	R77.97		X	M	56-0465L	1					1	1	1	0.74								REMOVE MBGR ON APPROACH
	R77.97		X	O	56-0465L	1					1	1	1	0.74							64	REMOVE MBGR
59	R78.1		X	O	CULVERT	1															90	REMOVE MBGR
60	R78.2		X	O	CULVERT	1															90	REMOVE MBGR
61	R78.29	X		O	-																	RE-CONSTRUCT MBGR
62	R78.3		X	O	-	1														62.5		RE-CONSTRUCT MBGR
63	R78.54	X		M	56-212R				1				1	0.74			387.5			62.5		RE-CONSTRUCT MBGR. MINOR GRADING REQUIRED
	R78.54	X		O	56-212R								1	0.74						87.5		RE-CONSTRUCT MBGR, CONVERT OVERSIDE DRAIN TO DOWN DRAIN & RELOCATE, FOR QUANTITIES SEE Q-10
	R78.54		X	M	56-212L	1					1	1	1	0.74			37.5				64	REMOVE MBGR ON APPROACH
	R78.54		X	O	56-212L	1					1	1	1	0.74			37.5				65	REMOVE MBGR
64	R78.93	X		O	56-582R															112.5		RE-CONSTRUCT MBGR
	R78.93	X		M	56-582R															100.0		RE-CONSTRUCT MBGR
	R78.93		X	M	56-582L	1											75.0					REMOVE MBGR
	R78.93		X	O	56-582L		1										75.0					REMOVE MBGR
65	R79.25	X		O	56-466R								1	0.74						87.5		RE-CONSTRUCT MBGR
	R79.25	X		M	56-466R								1	0.74						87.5		RE-CONSTRUCT MBGR
	R79.25		X	M	56-466L	1					1	1	1	0.74			50.0				76	REMOVE MBGR ON APPROACH
	R79.25		X	O	56-466L		1				1	1	1	0.74			25.0					REMOVE MBGR
66	R79.58	X		O	56-467R								1	0.74						87.5		RE-CONSTRUCT MBGR
	R79.58	X		M	56-467R		1						1	0.74						25.0		RE-CONSTRUCT MBGR
	R79.58		X	M	56-467L						1	1	1	0.74			75.0				65	REMOVE MBGR ON APPROACH
	R79.58		X	O	56-467L		1				1	1	1	0.74			25.0					REMOVE MBGR
67	R79.94	X		O	56-468R							1	1	0.74						87.5		RE-CONSTRUCT MBGR
	R79.94	X		M	56-468R							1	1	0.74						62.5		RE-CONSTRUCT MBGR
	R79.97		X	M	56-468L	1					1	1	1	0.74			37.5				64	REMOVE MBGR ON APPROACH
	R79.97		X	O	56-468L		1				1	1	1	0.74	25	50	25.0	65	0.5			REMOVE MBGR
68	R80.33	X		O	56-469R							1	1	0.74						87.5		RE-CONSTRUCT MBGR
	R80.33	X		M	56-469R						1	1	1	0.74			75.0					RE-CONSTRUCT MBGR
	R80.33		X	M	56-469L						1	1	1	0.74			75.0				64	REMOVE MBGR ON APPROACH
	R80.33		X	O	56-469L		1				1	1	1	0.74			25.0					REMOVE MBGR
69	R80.67	X		O	56-470R							1	1	0.74						87.5		RE-CONSTRUCT MBGR
	R80.67	X		M	56-470R		1					1	1	0.74			25.0				65	REMOVE MBGR
	R80.66		X	M	56-470L	1					1	1	1	0.74			37.5	64	0.5		64	REMOVE MBGR ON APPROACH
	R80.66		X	O	56-470L						1	1	1	0.74	37.5	37.5	75.0				67	REMOVE MBGR
SUB TOTAL						18	9	0	1	0	17	22	-	23.68	62.5	137.5	1162.5	208	1.4	1837.5	838	

(N) - FOR INFORMATION ONLY; NOT A SEPARATE PAY ITEM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
CHECKED BY: RAFTAR SHARIATZADEH
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
REVISED BY
DATE REVISED

SUMMARY OF QUANTITIES

Q-3

LAST REVISION DATE PLOTTED => 30-APR-2010
01-20-10 TIME PLOTTED => 11:13

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmartin | DGN FILE => 847830pa003.dgn | CU 08235 | EA 478301

ROADWAY QUANTITIES ROUTE 10

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION (M-MEDIAN, O-OUTSIDE)	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM EA	ALTERNATIVE INLINE TERMINAL SYSTEM EA	BURIED POST ANCHOR (N) EA	CRASH CUSHION (TYPE CAT) EA	TERMINAL ANCHOR ASSEMBLY (TYPE SFT) EA	TRANSITION RAILING (TYPE WB) EA	RAPID STRENGTH CONCRET (MINOR STRUCTURE) (N) —	ANCHOR BLOCK TYPE (N) —	MINOR CONCRETE (MINOR STRUCTURE) CY	PLACE ASPHALT CONCRETE DIKE (TYPE F) LF	PLACE ASPHALT CONCRETE DIKE (TYPE C) LF	METAL BEAM GUARD RAILING (WOOD POST) LF	REMOVE ASPHALT CONCRETE DIKE LF	MINOR HOT MIX ASPHALT TON	RECONSTRUCT METAL BEAM GUARD RAILING LF	REMOVE METAL BEAM GUARD RAILING LF	REMARKS
	R81.22	X		O	56-512R							1	1	0.74	75		75.0	75	0.5		75	REMOVE MBGR
70	R81.22	X		M	56-512R		1					1	1	0.74		50		74	0.4	25		RE-CONSTRUCT
	R81.22		X	M	56-512L	1					1	1	1	0.74			37.5					REMOVE MBGR ON APPROACH
	R81.22		X	O	56-512L	1					1	1	1	0.74	37.5	37.5	37.5	66	0.5			REMOVE MBGR
	R81.5	X		O	56-513	1											75.0					REMOVE MBGR
71	R81.5	X		M	56-513										225		225.0	100	0.6		100	REMOVE MBGR
	R81.6		X	M	56-513												87.5				101	REMOVE MBGR
	R81.6		X	O	56-513	1											75.0					REMOVE MBGR
	R82.58	X		O	56-514R	1					1	1	1	0.74			37.5				68	REMOVE MBGR
72	R82.58	X		M	56-514R	1					1	1	1	0.74	50	37.5	50.0	80	0.6		80	REMOVE MBGR
	R82.61		X	M	56-514L		1				1	1	1	0.74			37.5				79	REMOVE MBGR ON APPROACH
	R82.61		X	O	56-514L		1				1	1	1	0.74	25	50	25.0	68	0.5		68	REMOVE MBGR
73	R86.07	X		M	56-573	1											175.0				79	REMOVE MBGR
74	R86.7	X		O	CULVERT	1									50	37.5	50.0	80	0.6			REMOVE MBGR
	R86.7	X		M	CULVERT	1											50.0					REMOVE MBGR
75	R86.77		X	O	56-0132	1											12.5					REMOVE MBGR
	R86.77		X	M	56-0132	1											12.5					REMOVE MBGR
76	R87.2	X		O	CULVERT		1			1							37.5					REMOVE MBGR
	R87.2	X		M	CULVERT		1			1							37.5					REMOVE MBGR
77	R87.2		X	M	CULVERT	1											37.5					REMOVE MBGR
	R87.2		X	O	CULVERT	1											37.5					REMOVE MBGR
78	R87.4	X		O	CULVERT	1											37.5					REMOVE MBGR
	R87.4	X		M	CULVERT	1											37.5					REMOVE MBGR
79	R87.4		X	M	CULVERT	1											37.5					REMOVE MBGR
	R87.4		X	O	CULVERT	1											50.0					REMOVE MBGR
	R87.98	X		O	56-129R	1					1	1	9	0.71			50.0				77	REMOVE MBGR
80	R87.98	X		M	56-129R		1				1	1	9	0.71			50.0				88	REMOVE MBGR
	R87.96		X	M	56-129L		1				1	1	9	0.71			50.0				95	REMOVE MBGR
	R87.96		X	O	56-129L	1					1	1	9	0.71			62.5				91	REMOVE MBGR
	R89.1	X		O	CULVERT		1										25.0					REMOVE MBGR
81	R89.1	X		M	CULVERT	1											37.5					REMOVE MBGR
	R89.1		X	M	CULVERT		1			1							37.5					REMOVE MBGR
	R89.1		X	O	CULVERT		1			1							50.0					REMOVE MBGR
	R89.9	X		O	CULVERT	1											75.0				103	REMOVE MBGR
82	R89.9	X		M	CULVERT		1										50.0					REMOVE MBGR
	R89.9		X	M	CULVERT		1			1							50.0					REMOVE MBGR
	R89.9		X	O	CULVERT		1			1							50.0					REMOVE MBGR
83	R90.1	X		M	56-0574				1								175.0				79	REMOVE MBGR
84	R90.2	X		M	CULVERT		1										25.0				65	REMOVE MBGR
	R90.2		X	M	CULVERT		1										37.5				79	REMOVE MBGR
	R95.9	X		O	CULVERT	1				1							50.0				80	REMOVE MBGR
84a	R95.9	X		M	CULVERT		1			1							25.0				65	REMOVE MBGR
	R95.9		X	M	CULVERT		1			1							37.5				80	REMOVE MBGR
	R95.9		X	O	CULVERT		1			1							25.0				80	REMOVE MBGR
	R96.2	X		O	CULVERT	1				1							37.5				65	REMOVE MBGR
84b	R96.2	X		M	CULVERT		1			1							25.0				65	REMOVE MBGR
	R96.2		X	M	CULVERT																	REMOVE MBGR
	R96.2		X	O	CULVERT		1			1							37.5				80	REMOVE MBGR
	R97.7	X		O	CULVERT	1				1	1						37.5				65	REMOVE MBGR
84c	R97.7	X		M	CULVERT		1			1							25.0				65	REMOVE MBGR
	R97.7		X	M	CULVERT		1			1							25.0				65	REMOVE MBGR
	R97.7		X	O	CULVERT		1			1							37.5				80	REMOVE MBGR
	R97.9	X		O	CULVERT	1				1							50.0				80	REMOVE MBGR
84d	R97.9	X		M	CULVERT		1			1							37.5				80	REMOVE MBGR
	R97.9		X	M	CULVERT		1			1							37.5				80	REMOVE MBGR
	R97.9		X	O	CULVERT	1				1							50.0				80	REMOVE MBGR
	R98.2	X		O	CULVERT		1										37.5				80	REMOVE MBGR
84e	R98.2	X		M	CULVERT		1										37.5				80	REMOVE MBGR
	R98.3		X	M	CULVERT		1			1							25.0				65	REMOVE MBGR
	R98.3		X	O	CULVERT	1				1							50.0				80	REMOVE MBGR
85	R98.8	X		M	56-0105R				1								300					SALVAGE EXISTING END TREATMENT, INSTALL 150 Ft DOUBLE MBGR
	R98.81		X	M	56-0105L				1								300					SALVAGE EXISTING END TREATMENT, INSTALL 150 Ft DOUBLE MBGR
86	R99.34		X	O	CULVERT		1			1							37.5				80	REMOVE MBGR
87	R99.4	X		O	CULVERT		1										12.5					INSTALL NEW SYSTEM
88	R99.46	X		O	CULVERT		1			1							12.5					INSTALL NEW SYSTEM
89	R99.45		X	O	CULVERT		1			1							37.5				80	REMOVE MBGR, NEED EMBANKMENT REPAIR, FOR QUANTITIES SEE Q-10
90	R99.7	X		O	CULVERT		1			1							37.5				80	REMOVE MBGR
	R99.6		X	O	CULVERT		1			1							62.5				100	REMOVE MBGR
SUB TOTAL						27	34	0	3	28	11	12	-	8.76	462.5	212.5	3687.5	543	3.7	175	3082	

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	18	95

1-20-10
REGISTERED CIVIL ENGINEER — DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — RAFTER SHARIATZADEH — No. C72941 — Exp. 12-31-10 — 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.

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
REVISED BY
DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

SUMMARY OF QUANTITIES

Q-4

LAST REVISION: DATE PLOTTED => 30-APR-2010
01-20-10 TIME PLOTTED => 11:14

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => 847830pq004.dgn

CU 08235

EA 478301

ROADWAY QUANTITIES ROUTE 10

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION (M-MEDIAN, O-OUTSIDE)	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	CRASH CUSHION (TYPE CAT)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	RAPID STRENGTH CONCRETE (MINOR STRUCTURE) (N)	ANCHOR BLOCK TYPE (N)	MINOR CONCRETE (MINOR STRUCTURE)	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	RECONSTRUCT METAL BEAM GUARD RAILING	REMOVE METAL BEAM GUARD RAILING	REMARKS
						EA	EA	EA	EA	EA	EA	—	—	CY	LF	LF	TON	LF	LF	
91	R100.38	X		O	56-0099R						1	1	9	0.71				87.5		RE-CONSTRUCT MBGR
	R100.38	X		M	56-0099R				1		1	1	9	0.71	387.5					REMOVE MBGR
	R100.4		X	M	56-0099L		1				1	1	9	0.71	50.0					REMOVE MBGR
	R100.4		X	O	56-0099L	1					1	1	9	0.71	75.0					REMOVE MBGR
92	R100.57	X		O	56-0098R						1	1	9	0.71				75.0		RE-CONSTRUCT MBGR
	R100.57	X		M	56-0098R	1					1	1	9	0.71				62.5		RE-CONSTRUCT MBGR
	R100.7		X	M	56-0098L		1				1	1	9	0.71	50.0					REMOVE MBGR
	R100.7		X	O	56-0098L	1					1	1	9	0.71	62.5					REMOVE MBGR
93	R101.1	X		O	57-0097R	1					1	1	9	0.71	50.0					REMOVE MBGR
	R101.1	X		M	57-0097R	1					1	1	9	0.71	62.5					REMOVE MBGR
	R101.16		X	M	57-0097L	1					1	1	9	0.71	62.5					REMOVE MBGR
	R101.16		X	O	57-0097L		1				1	1	9	0.71	37.5					REMOVE MBGR
94	R101.2	X		O	CULVERT	1				1								62.5		RE-CONSTRUCT MBGR
	R101.2	X		M	CULVERT													100.0		RE-CONSTRUCT MBGR
	R101.2		X	M	CULVERT		1			1					25.0					REMOVE MBGR
	R101.2		X	O	CULVERT	1				1					37.5				64	REMOVE MBGR
95	R101.8	X		O	CULVERT					1								75.0		RE-CONSTRUCT MBGR
	R101.8	X		M	CULVERT					1					75.0					
	R101.8		X	M	CULVERT		1			1					25.0			25.0		RE-CONSTRUCT MBGR
	R101.8		X	O	CULVERT	1				1								37.5		RE-CONSTRUCT MBGR
96	R102.01	X		O	56-0575R	1					1	1	9	0.71	50.0					RE-CONSTRUCT MBGR
	R102.01	X		M	56-0575R		1				1	1	9	0.71	50.0					RE-CONSTRUCT MBGR
	R102.01		X	M	56-0575L		1				1	1	9	0.71	37.5					REMOVE MBGR
	R102.01		X	O	56-0575L	1					1	1	9	0.71	37.5				75	REMOVE MBGR
97	R102.2	X		O	CULVERT	1									37.5				65	REMOVE MBGR, PROTECT IN PLACE CALL BOX
	R102.2	X		M	CULVERT													75.0		RE-CONSTRUCT MBGR
	R102.2		X	M	CULVERT	1				1					37.5					REMOVE MBGR
	R102.2		X	O	CULVERT		1			1					37.5					REMOVE MBGR
98	R102.6	X		O	56-0576R						1	1		0.71				750.0		RE-CONSTRUCT MBGR
	R102.6	X		M	56-0576R						1	1		0.71				87.5		RE-CONSTRUCT MBGR
	R102.63		X	M	56-0576L				1		1	1	9	0.71	387.5					REMOVE MBGR
	R102.63		X	O	56-0576L					1		1(D)	9	0.71				87.5		RE-CONSTRUCT MBGR. 1(D) MEANS ONE TRANSITION ANCHOR BLOCK IN DEPARTURE.
	R102.63		X	O	56-0576L	1					1	1		0.71	37.5					REMOVE MBGR
99	R103.27	X		O	CULVERT													75.0		RE-CONSTRUCT MBGR
	R103.27	X		M	CULVERT													75.0		RE-CONSTRUCT MBGR
100	R103.3		X	M	CULVERT		1			1					25.0					REMOVE MBGR
	R103.3		X	O	CULVERT		1			1					25.0					REMOVE MBGR
101	R104	X		O	CULVERT		1			1					25.0					REMOVE MBGR
	R104	X		M	CULVERT		1			1					25.0					REMOVE MBGR
102	R104		X	M	CULVERT		1			1					25.0					REMOVE MBGR
	R104		X	O	CULVERT		1			1					37.5					REMOVE MBGR, PROTECT IN PLACE CALL BOX No.10-1043 TO THE END OF END TREATMENT
103	R104.4	X		O	CULVERT		1			1					50.0					REMOVE MBGR
104	R104.4		X	O	CULVERT		1			1					50.0					REMOVE MBGR
105	R104.7	X		O	56-0640R		1			1					50.0					REMOVE MBGR
	R104.7	X		M	56-0640R		1			1					50.0					REMOVE MBGR
	R104.7		X	M	56-0640L		1			1					50.0					REMOVE MBGR
	R104.7		X	O	56-0640L		1			1					50.0					REMOVE MBGR
106	R105.11	X		O	56-0577R		1				1	1	9	0.71				137.5		RE-CONSTRUCT MBGR
	R105.11	X		M	56-0577R						1	1	9	0.71				225.0		RE-CONSTRUCT MBGR
	R105.11		X	M	56-0577L		1				1	1	9	0.71				175.0		RE-CONSTRUCT MBGR
	R105.11		X	O	56-0577L						1	1	9	0.71				187.5		RE-CONSTRUCT MBGR
107	R106.1	X		O	56-046R					1								212.5		RE-CONSTRUCT MBGR
	R106.1	X		M	56-046R					1								250.0		RE-CONSTRUCT MBGR
	R106.16		X	M	56-046L				1	1					387.5					REMOVE MBGR
	R106.16		X	O	56-046L					1								250.0		RE-CONSTRUCT MBGR
108	R106.62	X		O	56-0045R		1				1	1	8	0.95				137.5		RE-CONSTRUCT MBGR
	R106.62	X		M	56-0045R						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R106.64		X	M	56-0045L						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R106.64		X	O	56-0045L						1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
SUB TOTAL						14	23	0	3	26	28	29	-	21.55	2562.5			3887.5	204	

(N) - FOR INFORMATION ONLY; NOT A SEPARATE PAY ITEM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	19	95

1-20-10
REGISTERED CIVIL ENGINEER DATE

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
PLANS APPROVAL DATE

SUMMARY OF QUANTITIES

Q-5

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

LAST REVISION DATE PLOTTED => 30-APR-2010
TIME PLOTTED => 11:14
01-20-10

ROADWAY QUANTITIES ROUTE 10

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION (M-MEDIAN, O-OUTSIDE)	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	CRASH CUSHION (TYPE CAT)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	RAPID STRENGTH CONCRETE (MINOR STRUCTURE) (N)	ANCHOR BLOCK TYPE (N)	MINOR CONCRETE (MINOR STRUCTURE)	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	RECONSTRUCT METAL BEAM GUARD RAILING	REMOVE METAL BEAM GUARD RAILING	REMARKS
						EA	EA	EA	EA	EA	EA	-	-	CY	LF	LF	TON	LF	LF	
109	R108.27	X		O	56-0044R						1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
	R108.27	X		M	56-0044R						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R108.29		X	M	56-0044L				1		1	1	8	0.95	387.5					RE-CONSTRUCT MBGR
	R108.29		X	O	56-0044L						1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
110	R109.2	X		O	56-0043R						1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
	R109.2	X		M	56-0043R						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R109.2		X	M	56-0043L						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R109.2		X	O	56-0043L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
111	R109.7	X		O	56-0042R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R109.7	X		M	56-0042R				1		1	1	8	0.95	387.5					RE-CONSTRUCT MBGR
	R109.7		X	M	56-0042L		1		1		1	1	8	0.95	387.5					RE-CONSTRUCT MBGR
	R109.7		X	O	56-0042L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
112	R109.9	X		O	CULVERT					1								212.5		RE-CONSTRUCT MBGR
113	R110		X	O	CULVERT					1								162.5		RE-CONSTRUCT MBGR
114	R110.41	X		O	56-0040R						1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
	R110.41	X		M	56-0040R						1	1	8	0.95				175.0		RE-CONSTRUCT MBGR
	R110.4		X	M	56-0040L						1	1	8	0.95				237.5		RE-CONSTRUCT MBGR
	R110.4		X	O	56-0040L						1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
115	R110.9	X		O	56-0039R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R110.9	X		M	56-0039R						1	1	8	0.95	262.5					RE-CONSTRUCT MBGR
	R111		X	M	56-0039L				1		1	1	8	0.95	387.5					RE-CONSTRUCT MBGR
	R111		X	O	56-0039L						1	1	8	0.95				237.5		RE-CONSTRUCT MBGR
116	R112.3	X		O	56-0038R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR, PROTECT IN PLACE CALL BOX #10-1113
	R112.3	X		M	56-0038R						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R112.3		X	M	56-0038L		1				1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
	R112.3		X	O	56-0038L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
117	R113.8	X		O	56-0037R						1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
	R113.8	X		M	56-0037R						1	1	8	0.95				237.5		RE-CONSTRUCT MBGR
	R113.8		X	M	56-0037L						1	1	8	0.95				237.5		RE-CONSTRUCT MBGR
	R113.8		X	O	56-0037L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
118	R114.4	X	X	M	56-0544										175.0				77	REMOVE AND REINSTALL NEW MEDIAN MBGR TO PROTECT BRIDGE COLUMN
119	R115.3	X		O	56-0545R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R115.3	X		M	56-0545R						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R115.4		X	M	56-0545L						1	1	8	0.95				237.5		RE-CONSTRUCT MBGR
	R115.4		X	O	56-0545L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
120	R116.78	X		O	56-0546R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R116.78	X		M	56-0546R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R116.8		X	M	56-0546L						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R116.8		X	O	56-0546L						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
121	R118.5	X		O	56-0547R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R118.5	X		M	56-0547R						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R118.5		X	M	56-0547L						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R118.5		X	O	56-0547L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
122	R119.58	X		O	56-0548R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R119.58	X		M	56-0548R						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R119.5		X	M	56-0548L						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R119.5		X	O	56-0548L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
123	R120.73	X		O	56-0549R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R120.73	X		M	56-0549R						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R120.73		X	M	56-0549L						1	1	8	0.95				225.0		RE-CONSTRUCT MBGR
	R120.73		X	O	56-0549L						1	1	8	0.95				212.5		RE-CONSTRUCT MBGR
124	R122.15	X		O	56-0550R						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
	R122.15	X		M	56-550R						1	1	8	0.95				237.5		RE-CONSTRUCT MBGR
	R122.1		X	M	56-0550L						1	1	8	0.95				237.5		RE-CONSTRUCT MBGR
	R122.1		X	O	56-0550L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
125	R124.2	X		O	56-0552R						1	1	8	0.95				187.5		RE-CONSTRUCT MBGR
	R124.2	X		M	56-0552R			1			1	1	8	0.95	387.5					RE-CONSTRUCT MBGR
	R124.27		X	M	56-0552L			1			1	1	8	0.95	387.5					REMOVE MBGR
	R124.27		X	O	56-0552L						1	1	8	0.95				200.0		RE-CONSTRUCT MBGR
SUB TOTAL						0	2	2	4	2	56	56	-	53.2	2762.5	0	0	10650	77	

(N) - FOR INFORMATION ONLY; NOT A SEPARATE PAY ITEM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	20	95

1-20-10
REGISTERED CIVIL ENGINEER DATE

RAFTER SHARIATZADEH
No. C72941
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

4-26-10
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.

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

SUMMARY OF QUANTITIES

Q-6

LAST REVISION | DATE PLOTTED => 30-APR-2010
01-20-10 | TIME PLOTTED => 11:14

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trmartin
DGN FILE => 847830pa006.dgn

CU 08235

EA 478301

ROADWAY QUANTITIES ROUTE 10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	21	95

1-20-10
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
RAFTER SHARIATZADEH
No. C72941
Exp. 12-31-10
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.

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION (M-MEDIAN, O-OUTSIDE)	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	CRASH CUSHION (TYPE CAT)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	RAPID STRENGTH CONCRETE (MINOR STRUCTURE) (N)	ANCHOR BLOCK TYPE (N)	MINOR CONCRETE (MINOR STRUCTURE)	PLACE ASPHALT CONCRETE DIKE (TYPE F)	PLACE ASPHALT CONCRETE DIKE (TYPE C)	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	RECONSTRUCT METAL BEAM GUARD RAILING	REMOVE METAL BEAM GUARD RAILING	REMARKS
						EA	EA	EA	EA	EA	EA	—	—	CY	LF	LF	LF	LF	TON	LF	LF	
126	R126.2	X		O	56-0553R						1	1	8	0.95						187.5		RE-CONSTRUCT MBGR
	R126.2	X		M	56-0553R						1	1	8	0.95						225.0		RE-CONSTRUCT MBGR
	R126.29		X	M	56-0553L						1	1	8	0.95						225.0		RE-CONSTRUCT MBGR
	R126.29		X	O	56-0553L						1	1	8	0.95						187.5		RE-CONSTRUCT MBGR
127	R126.9	X		O	56-0554R						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR
	R126.9	X		M	56-0554R						1	1	8	0.95						237.5		RE-CONSTRUCT MBGR
	R127		X	M	56-0554L						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR
	R127		X	O	56-0554L						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR
128	R127.9	X		O	56-0555R						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR
	R127.9	X		M	56-0555R						1	1	8	0.95						225.0		RE-CONSTRUCT MBGR
	R128		X	M	56-0555L						1	1	8	0.95						225.0		RE-CONSTRUCT MBGR
	R128		X	O	56-0555L						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR, PROTECT IN PLACE CALL BOX
129	R129.5	X		O	56-0556R						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR
	R129.5	X		M	56-0556R						1	1	8	0.95						225.0		RE-CONSTRUCT MBGR
	R129.54		X	M	56-0556L		1				1	1	8	0.95						175.0		RE-CONSTRUCT MBGR
	R129.54		X	O	56-0556L						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR
130	R129.9	X		M	56-0557												87.5				80	REMOVE DAMAGED EXISTING SYSTEM, INSTALL NEW SYSTEM.
	R129.93		X	M	56-0557												87.5				80	REMOVE THE DAMAGED EXISTING SYSTEM, INSTALL NEW SYSTEM.
131	R130.86	X		O	56-0020R						1	1	8	0.95						187.5		RE-CONSTRUCT MBGR
	R130.86	X		M	56-0020R						1	1	8	0.95						225.0		RE-CONSTRUCT MBGR
	R130.89		X	M	56-0020L		1				1	1	8	0.95						187.5		RE-CONSTRUCT MBGR
	R130.89		X	O	56-0020L						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR
132	R134	X		O	56-0019R						1	1	8	0.95						187.5		RE-CONSTRUCT MBGR, PROTECT IN PLACE CALL BOX No.10-1342
	R134	X		M	56-0019R						1	1	8	0.95						225.0		RE-CONSTRUCT MBGR
	R134		X	M	56-0019L						1	1	8	0.95						225.0		RE-CONSTRUCT MBGR
	R134		X	O	56-0019L						1	1	8	0.95						200.0		RE-CONSTRUCT MBGR, PROTECT IN PLACE CALL BOX No.10-1343
133	R135.05	X		M	56-0564			1									87.5					INSTALL NEW SYSTEM FOR MEDIAN
	R135.05		X	M	56-0564			1									87.5					INSTALL NEW SYSTEM FOR MEDIAN
134	R136.15	X		O	56-0017R	1					1	1	8	0.95			62.5					REMOVE MBGR
	R136.15	X		M	56-0017R	1					1	1	8	0.95			75.0					REMOVE MBGR
	R136.16		X	M	56-0017L	1					1	1	8	0.95			75.0					REMOVE MBGR
	R136.16		X	O	56-0017L	1					1	1	8	0.95			62.5					REMOVE MBGR
135	R138.29	X		O	56-0016R	1					1	1	8	0.95	50	37.5	50	76	0.5			REMOVE MBGR
	R138.29	X		M	56-0016R	1					1	1	8	0.95			12.5					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R138.3		X	M	56-0016L	1					1	1	8	0.95			12.5					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R138.3		X	O	56-0016L	1					1	1	8	0.95			12.5					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
136	R139.15	X		O	56-0015R	1					1	1	8	0.95			25					REMOVE MBGR
	R139.15	X		M	56-0015R	1					1	1	8	0.95			12.5					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R139.15		X	M	56-0015L	1					1	1	8	0.95			12.5					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R139.15		X	O	56-0015L	1					1	1	8	0.95			12.5					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
137	R142.6	X		O	56-014R	1					1	1	8 CASE 2	0.95			12.5					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R142.6	X		M	56-014R	1					1	1	8 CASE 2	0.95			12.5					REMOVE BRIDGE APPROACH GUARD RAILING, FOR DETAILS SEE C-2
	R142.64		X	M	56-0014L	1					1	1	8 CASE 2	0.95			62.5					REMOVE EXISTING MINOR CONCRETE
	R142.64		X	O	56-0014L	1					1	1	8 CASE 2	0.95			62.5					REMOVE EXISTING MINOR CONCRETE
138	R144.48		X	R	RAMP					1										600.0		WEIGH STATION "PROTECT IN PLACE CRASH CUSHION"
	R144.48		X	R	RAMP															90.0		WEIGH STATION
	R144.48		X	O	RAMP		1			1						50		90	0.3	50.0		WEIGH STATION
139	R145.12	X	X	M	56-0565												175.0					INSTALL NEW SYSTEM FOR MEDIAN
140	R146.8	X		O	56-0604R						1	1	9 CASE 2	0.79						50.0		RE-CONSTRUCT MBGR
	R146.8	X		M	56-0604R			1			1	1	9 CASE 2	0.79			300.0					REMOVE MBGR
	R146.91		X	M	56-0604L			1			1	1	9 CASE 2	0.79			300.0				163	
	R146.91		X	O	56-0604L	1					1	1	9 CASE 2	0.79	37.5	37.5	37.5	65	0.5		65	REMOVE MBGR
141	R148.56	X		O	56-0588R	1					1	1	8 CASE 2	0.95	37.5	37.5	37.5	64	0.5			REMOVE MBGR
	R148.56	X		M	56-0588R			1			1	1	8 CASE 2	0.95			300.0					REMOVE EXISTING MINOR CONCRETE
	R148.56		X	M	56-0588L			1			1	1	8 CASE 2	0.95			300.0					
	R148.56		X	O	56-0588L	1					1	1	8 CASE 2	0.95			37.5				64	50-FEET WIDE MEDIAN
142	R149.16	X	X	M	56-0569												175.0				90	REMOVE MBGR
143	R150.16	X	X	M	56-0589												175.0				90	REMOVE MBGR
144	R151.16	X	X	M	56-0590												175.0				90	REMOVE MBGR
SUB TOTAL						19	3		6	2	48	48	-	44.96	125	162.5	2937.5	295	1.8	5740	722	

(N) - FOR INFORMATION ONLY; NOT A SEPARATE PAY ITEM

CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
RAJBINDER S. GILL
RAFTAR SHARIATZADEH
FUNCTIONAL SUPERVISOR
MUSTAPHA RAOUF
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

SUMMARY OF QUANTITIES

Q-7

LAST REVISION DATE PLOTTED => 30-APR-2010
01-20-10 TIME PLOTTED => 11:14

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => 847830pa007.dgn
CU 08235
EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	22	95

1-20-10
REGISTERED CIVIL ENGINEER DATE

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
PLANS APPROVAL DATE

ROADWAY QUANTITIES ROUTE 10

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION (M-MEDIAN, O-OUTSIDE)	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	CRASH CUSHION (TYPE CAT)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	RAPID STRENGTH CONCRETE (MINOR STRUCTURE) (N)	ANCHOR BLOCK TYPE (N)	MINOR CONCRETE (MINOR STRUCTURE)	PLACE ASPHALT CONCRETE DIKE (TYPE F)	PLACE ASPHALT CONCRETE DIKE (TYPE C)	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	RECONSTRUCT METAL BEAM GUARD RAILING	REMOVE METAL BEAM GUARD RAILING	CRASH CUSHION (REACT 9CBB)	REMOVE CRASH CUSHION, SAND FILLED	REMARKS
						EA	EA	EA	EA	EA	EA	-	-	CY	LF	LF	LF	LF	TON	LF	LF	EA	EA	
145	R151.82	X		O	-																			NO WORK AT THE LOCATION
146	R152.15	X		O	56-0592R						1	1	9 CASE 2	0.79						50				RECONSTRUCT MBGR, PROTECT DOWN DRAIN IN PLACE.
	R152.15	X		M	56-0592R				1		1	1	9 CASE 2	0.79			275.0							REMOVE MBGR
	R152.18		X	M	56-0592L				1		1	1	9 CASE 2	0.79			275.0							REMOVE MBGR
	R152.18		X	O	56-0592L	1					1	1	9 CASE 2	0.79	37.5	37.5	37.5	65	0.5					REMOVE MBGR
147	R152.4	X		O	56-0593R	1					1	1	9 CASE 2	0.79	12.5	37.5	12.5		0.4					REMOVE MBGR
	R152.4	X		M	56-0593R				1		1	1	9 CASE 2	0.79			275.0							REMOVE MBGR
	R152.52		X	M	56-0593L				1		1	1	9 CASE 2	0.79			275.0							REMOVE MBGR
	R152.52		X	O	56-0593L	1					1	1	9 CASE 2	0.79	12.5	37.5	12.5		0.4					REMOVE MBGR
148	R152.65	X		O	56-0595R						1	1	9 CASE 2	0.79					0.4	50				RECONSTRUCT MBGR
	R152.65	X		M	56-0595R				1		1	1	9 CASE 2	0.79			275.0							REMOVE MBGR
	R152.68		X	M	56-0595L				1		1	1	9 CASE 2	0.79	275		275.0	164	1.7					RECONSTRUCT MBGR
	R152.68		X	O	56-0595L	1					1	1	9 CASE 2	0.79	37.5	37.5	37.5	65	0.5					REMOVE MBGR
149	R152.86	X		O	56-0596		1			1							137.5				180			BLYTHE PEDESTRIAN OVERCROSSING. REMOVE MBGR
	R152.86	X		M	56-0596												87.5							BLYTHE PEDESTRIAN OVERCROSSING. REMOVE MBGR
	R152.86		X	M	56-0596												87.5							BLYTHE PEDESTRIAN OVERCROSSING. INSTALL NEW SYSTEM FOR MEDIAN
	R152.90		X	O	56-0596		1			1										187.5				BLYTHE PEDESTRIAN OVERCROSSING. RECONSTRUCT MBGR
150	R153.16		X	O	56-0597L	1					1	1	9	0.71		37.5		165	0.3	112.5				RECONSTRUCT MBGR
	R153.16		X	M	56-0597L				1		1	1	9	0.71	275		275.0	65	1.7					REMOVE MBGR
	R153.16	X		O	56-0597R				1		1	1	9	0.71	275		275.0	65	1.7					REMOVE MBGR
	R153.16	X		M	56-0597R						1	1	9	0.71						150				RECONSTRUCT MBGR
151	R153.4		X	O	-															87.5				RECONSTRUCT MBGR
152	R154.18	X		O	56-0598L	1					1	1	9	0.71		37.5		65	0.3					RECONSTRUCT MBGR
	R154.18	X		M	56-0598L				1		1	1	9	0.71			275.0							REMOVE MBGR
	R154.18		X	M	56-0598R				1		1	1	9	0.71			275.0							REMOVE MBGR, PROTECT IN PLACE CALL BOX No.10-1543
	R154.18		X	O	56-0598R						1	1	9	0.71						50				RECONSTRUCT MBGR
153	R156.3	X		O	56-0008						1	1	9-11	1.13						50				RECONSTRUCT MBGR
	R156.3	X		M	-																	1	9	REACT (TYPE 9CBB) CRASH-CUSHION SYSTEM
SUB TOTAL						6	2	0	10	2	21	21	-	16.29	925	225	3162.5	654	7.9	737.5	180	1	9	

(N) - FOR INFORMATION ONLY; NOT A SEPARATE PAY ITEM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH

REVISED BY
DATE REVISED

SUMMARY OF QUANTITIES

Q-8

LAST REVISION DATE PLOTTED => 23-JUN-2010
01-20-10 TIME PLOTTED => 13:37

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	23	95

REGISTERED CIVIL ENGINEER — DATE: 1-20-10

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
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.

ROADWAY QUANTITIES ROUTE 243

LOCATION No.	POSTMILE	SOUTH BOUND	NORTH BOUND	BRIDGE No.	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE IN LINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	TRANSITION RAILING (TYPE WB)	PLACE ASPHALT CONCRETE DIKE (TYPE F)	PLACE ASPHALT CONCRETE DIKE (TYPE C)	METAL BEAM GUARD RAILING (STEEL POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	REMOVE METAL BEAM GUARD RAILING	REMARKS
					EA	EA	EA	EA	LF	LF	LF	LF	TON	LF	
154	1.50	X			2						362.5			437	REQUIRES MINOR GRADING
155	2.00	X			2						387.5			463	REQUIRES MINOR GRADING
156	2.23	X			1	1					87.5			173	
157	2.37	X				2					200			292	
158	2.48	X			1	1					62.5			148	
159	2.72	X			1	1					275			357	
160	2.91	X			1	1					12.5			93	
161	3.41	X			1	1					12.5			89	
162	3.98	X		56-0789	2			2			64			64	
163	3.98		X	56-0789	1	1		2			64			64	
164	6.00	X			2						150			188	
165	6.30	X				1	1				612.5			690	
166	6.73	X			2									77	
167	7.00		X		2						75			149	
168	7.04		X		1	1					175			263	
169	7.14	X			2						25			101	
170	7.79		X		1	1								55	
171	8.62	X			1	1			25	50	75	75	0.5	155	
172	8.80		X		2						137.5			207	REQUIRES MINOR GRADING
173	9.53	X			2						62.5			127	
174	9.57	X			2						350			426	REQUIRES MINOR GRADING
175	10.38		X		1		1				175			249	
176	10.77		X		1	1					137.5			204	
177	11.23		X		2						125			199	REQUIRES MINOR GRADING
178	11.60	X			1	1					75			154	
179	12.00		X		2						125			196	REQUIRES MINOR GRADING
180	12.13	X			1	1					425			512	REQUIRES MINOR GRADING
SUB TOTAL					37	15	2	4	25	50	4253	75	0.5	6132	

(N) - FOR INFORMATION ONLY; NOT A SEPARATE PAY ITEM

ROUTE 62 ROADWAY QUANTITIES

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	ALTERNATIVE FLARED TERMINAL SYSTEM	METAL BEAM GUARD RAILING (STEEL POST)	REMOVE METAL BEAM GUARD RAILING
				EA	LF	LF
181	108.04	X		2	25	88
182	108.04		X	2	25	88
183	130.04	X		2	25	63
184	130.04		X	2	25	88
SUB TOTAL				8	100	327

GRAND TOTAL ROADWAY QUANTITIES ROUTE 10, 62 & 243

	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST ANCHOR (N)	CRASH CUSHION (TYPE CAT)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	MINOR CONCRETE (MINOR STRUCTURE)	PLACE ASPHALT CONCRETE DIKE (TYPE F)	PLACE ASPHALT CONCRETE DIKE (TYPE C)	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE ASPHALT CONCRETE DIKE	MINOR HOT MIX ASPHALT	RECONSTRUCT METAL BEAM GUARD RAILING	REMOVE METAL BEAM GUARD RAILING	CRASH CUSHION (REACT 9CBB)	REMOVE CRASH CUSHION (SAND FILLED)	METAL BEAM GUARD RAILING (STEEL POST)
	EA	EA	EA	EA	EA	EA	CY	LF	LF	LF	LF	TON	LF	LF	EA	EA	LF
GRAND TOTAL	149	116	12	36	105	231	207	3225	1925	21700.5	9084	35.5	42516	12804	1	9	4353

(N) - FOR INFORMATION ONLY; NOT A SEPARATE PAY ITEM

SUMMARY OF QUANTITIES

Q-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF
CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 30-APR-2010
01-20-10 | TIME PLOTTED => 11:14

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmartin
DGN FILE => 847830pa009.dgn
CU 08235
EA 478301

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	24	95

REGISTERED CIVIL ENGINEER — DATE 1-20-10

RAFTER SHARIATZADEH No. C72941 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-26-10
PLANS APPROVAL DATE

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

NOTES:

1. DOWNDRAIN (DD) RELOCATION IS BASED ON ENGINEER'S DISCRETION.
2. FOR RELOCATION DETAILS OF DOWN DRAIN SYSTEM, SEE SHEET C-1.

LEGEND

OSD - OVER SIDE DRAIN

DD - DOWN DRAIN

(N) - NOT A PAY ITEM; FOR INFORMATION ONLY

TEMPORARY WATER POLLUTION CONTROL

DESCRIPTION	UNIT
TEMPORARY CONCRETE WASHOUT (PORTABLE)	LS

ROUTE 10 EARTHWORK QUANTITIES

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION OUTSIDE (O) MEDIAN (M)	EMBANKMENT (CY) (N)	IMPORTED BORROW (CY)
14	R66.4	X		O	80.00	80.00
56	R77.65	X		O	22.67	22.67
58	R77.97	X		O	4.63	4.63
88	R99.45		X	O	35.56	35.56
				TOTAL EARTHWORK	142.86	142.86

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

DRAINAGE QUANTITIES ROUTE 10

LOCATION No.	POSTMILE	EAST BOUND	WEST BOUND	POSITION OUTSIDE (O) MEDIAN (M)	Exist DRAINAGE SYS DOWN DRAIN (DD) OVERSIDE DRAIN (OSD)	12" CORRUGATED STEEL PIPE DOWNDRAIN (0.079" THICK)	REMARKS
14	R66.18	X		O	DD	50	RELOCATE DD; FOR DETAILS SEE NOTE 2
14	R66.18		X	M	DD	50	RELOCATE DD; FOR DETAILS SEE NOTE 2
30	R70.45	X		O	OSD	50	CONVERT OSD TO DD; SEE STD PLAN D87A
39	R73.21	X		O	DD	50	RELOCATE DD; FOR DETAILS SEE NOTE 2
40	R73.43	X		O	DD	50	RELOCATE DD; FOR DETAILS SEE NOTE 2
48	R76.1	X		O	OSD	45	CONVERT OSD TO DD; SEE STD PLAN D87A
58	R77.97	X		O	DD	50	RELOCATE DD; FOR DETAILS SEE NOTE 2
63	R78.54	X		O	OSD	15	ABANDON OSD; INSTALL DD AT NEW LOCATION FOR DETAILS SEE NOTE 2
145	R152.15	X		O	DD	50	RELOCATE DD; FOR DETAILS SEE NOTE 2
				TOTAL		410	

SUMMARY OF QUANTITIES

Q-10

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: RAJBINDER S. GILL
CHECKED BY: RAFTAR SHARIATZADEH
FUNCTIONAL SUPERVISOR: MUSTAPHA RAOUF

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN DIVISION

LAST REVISION | DATE PLOTTED => 30-APR-2010
01-20-10 | TIME PLOTTED => 11:14

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trmartin | DGN FILE => 847830pa010.dgn | CU 08235 | EA 478301

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	25	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

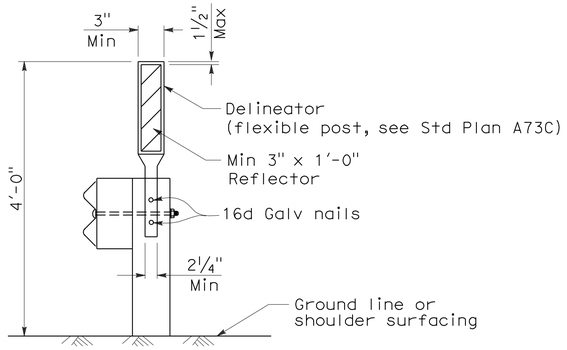
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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.

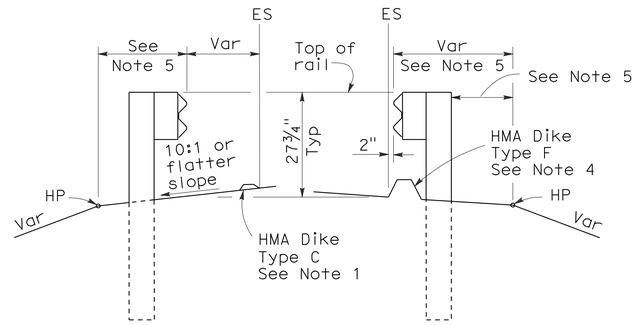
To accompany plans dated 4-26-10

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

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	26	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-07 — CIVIL — STATE OF CALIFORNIA

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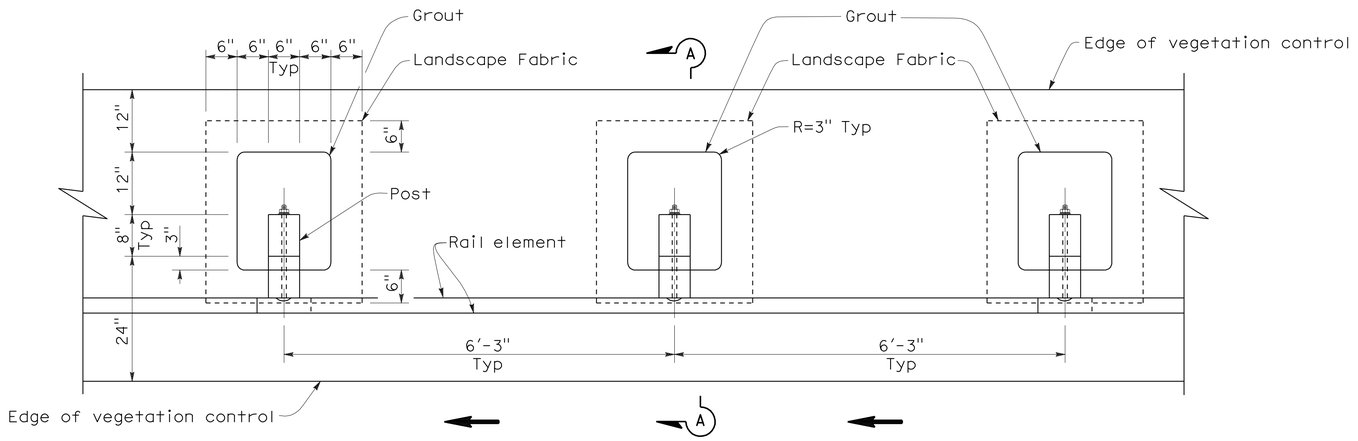
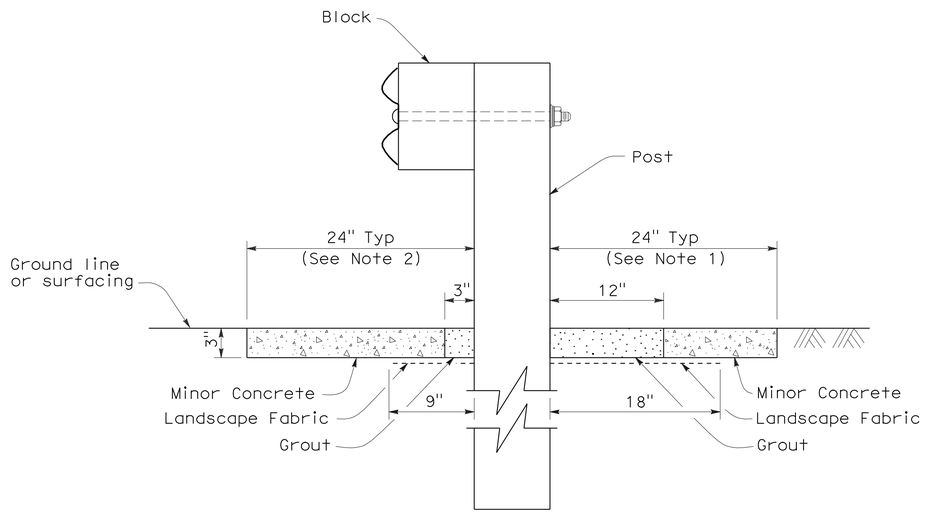
To accompany plans dated 4-26-10



PLAN

NOTES:

1. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
3. Direction of adjacent traffic indicated by ← .



SECTION A-A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL
STANDARD RAILING SECTION

NO SCALE

NSP A77C5 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C5

2006 NEW STANDARD PLAN NSP A77C5

7-17-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	27	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-07
CIVIL
STATE OF CALIFORNIA

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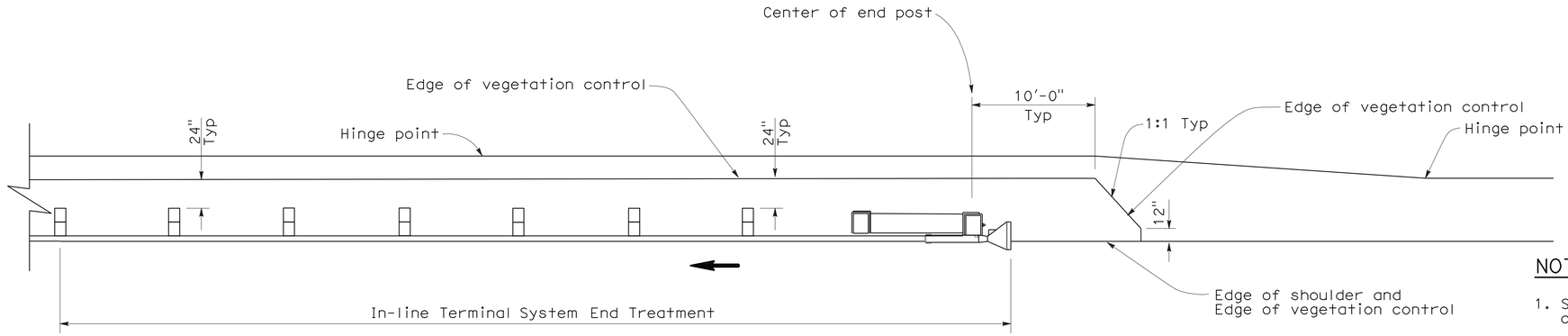
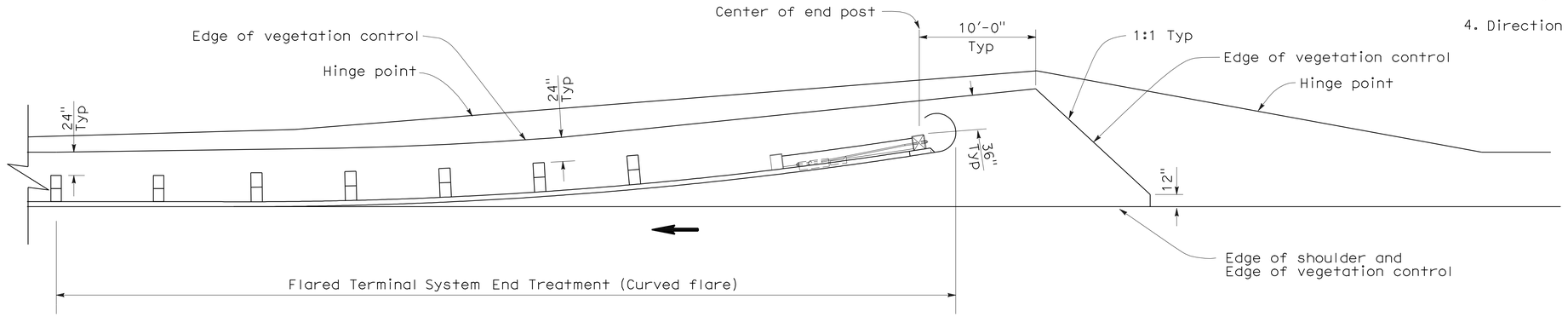
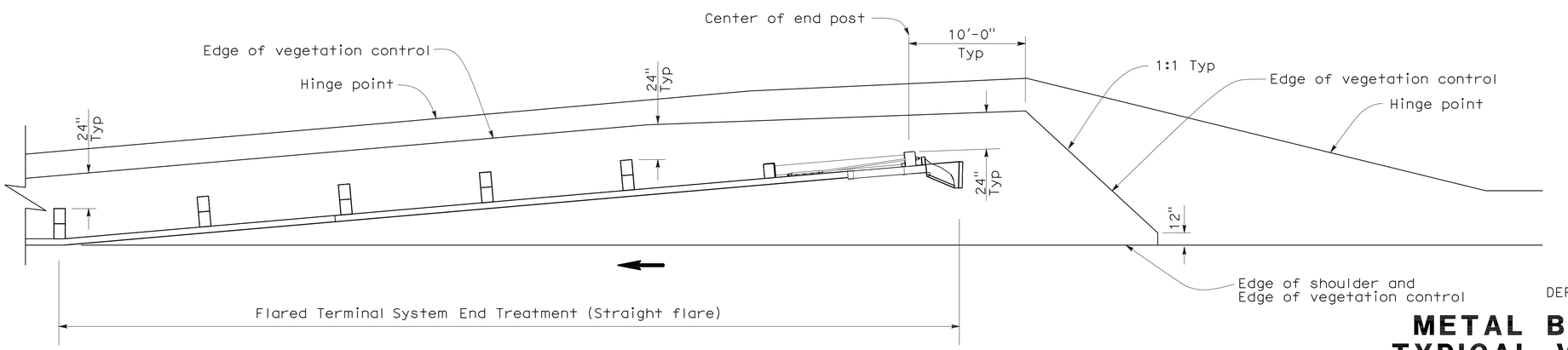
To accompany plans dated 4-26-10



PLAN



PLAN



PLAN

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL
FOR TERMINAL SYSTEM END TREATMENTS

NO SCALE

NSP A77C6 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C6

2006 NEW STANDARD PLAN NSP A77C6

7-17-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	28	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-07 — CIVIL — STATE OF CALIFORNIA

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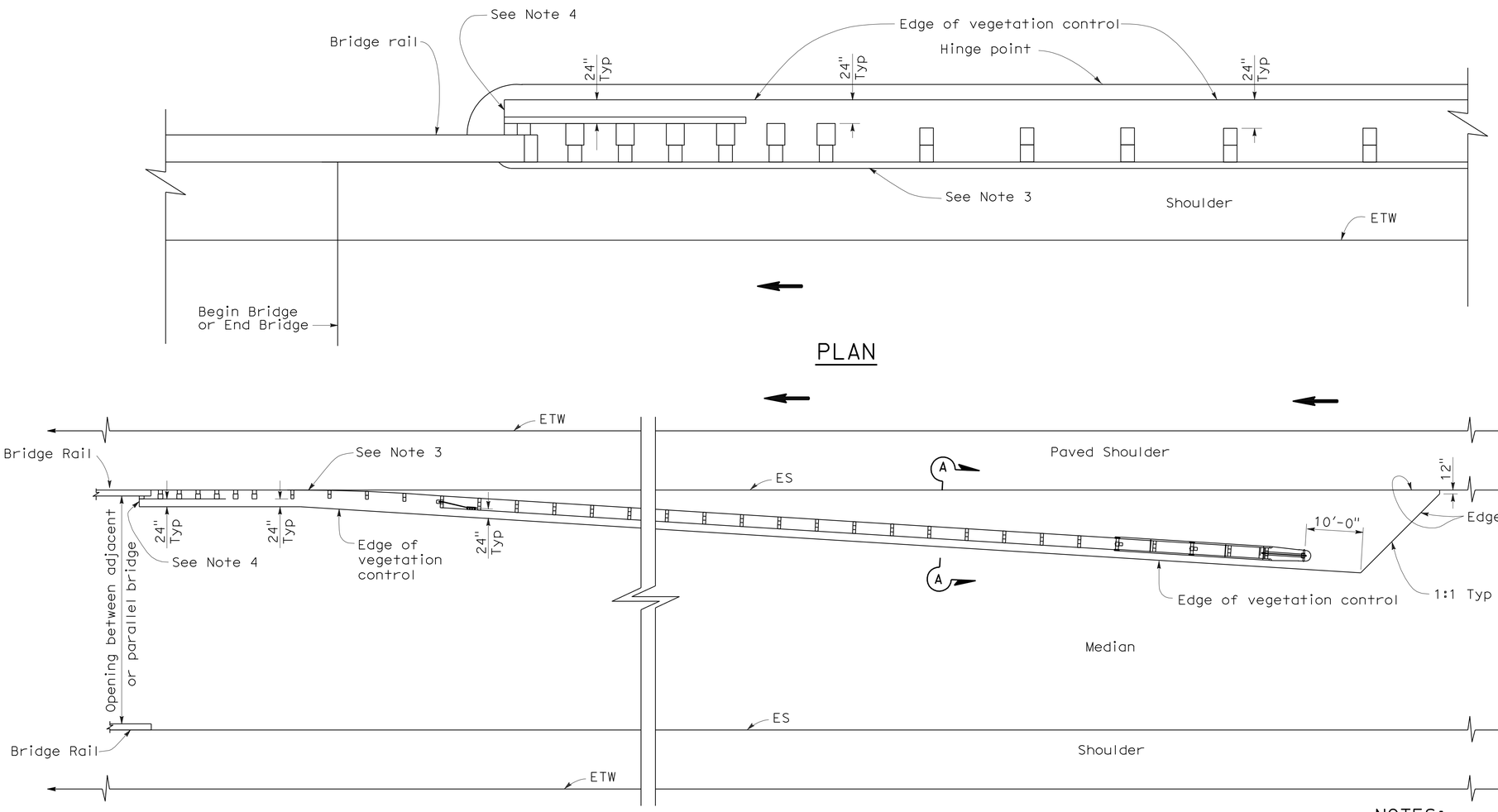
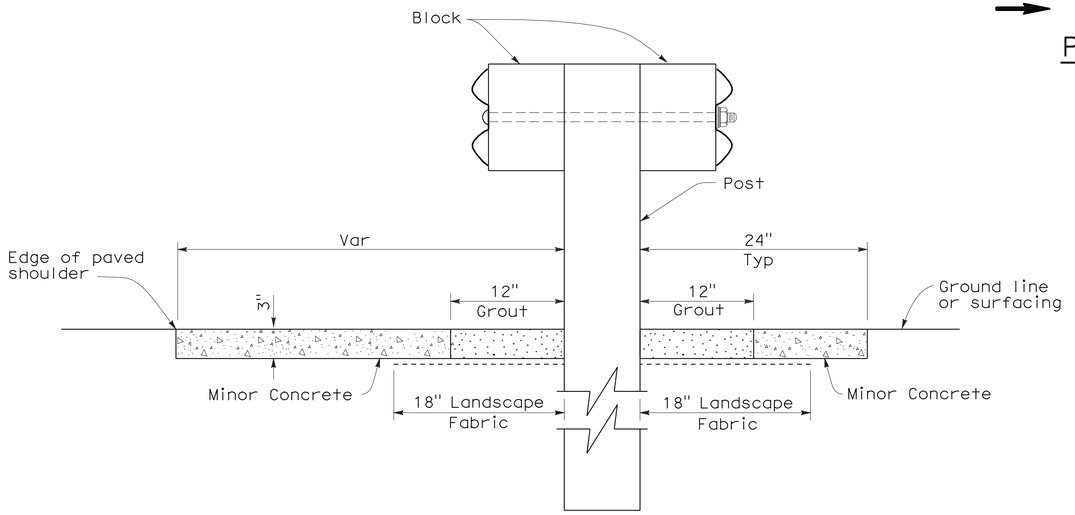
To accompany plans dated 4-26-10





NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. End vegetation control at end of backside rail element.
5. Direction of adjacent traffic indicated by ←.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL VEGETATION CONTROL AT STRUCTURE APPROACH AND DEPARTURE

NO SCALE

NSP A77C7 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C7

2006 NEW STANDARD PLAN NSP A77C7

7-17-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	29	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-07
CIVIL
STATE OF CALIFORNIA

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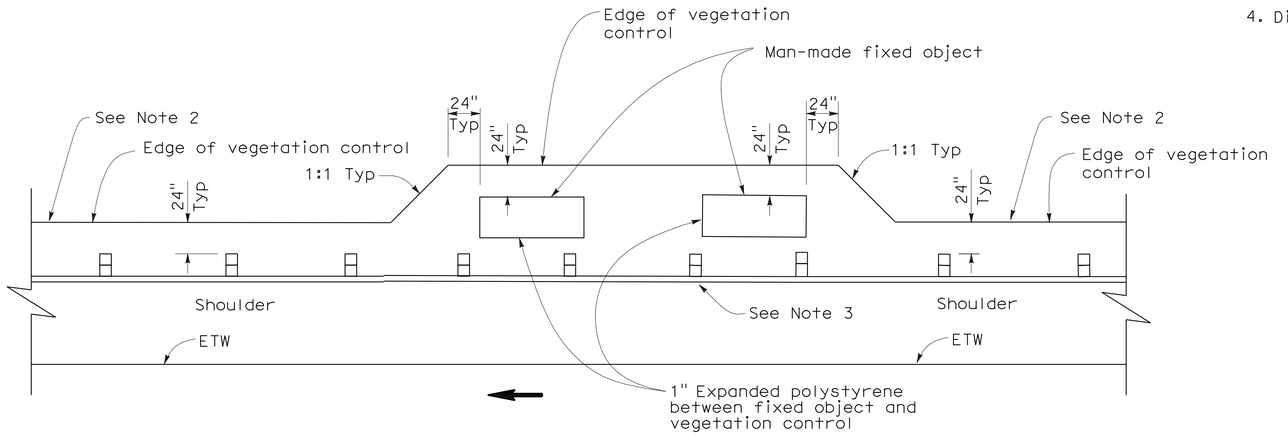
To accompany plans dated 4-26-10

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.



PLAN

FIXED OBJECT(S) ON SHOULDER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL AT FIXED OBJECT

NO SCALE

NSP A77C8 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C8

2006 NEW STANDARD PLAN NSP A77C8

7-17-06

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
3. Direction of adjacent traffic indicated by ← .

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	30	95

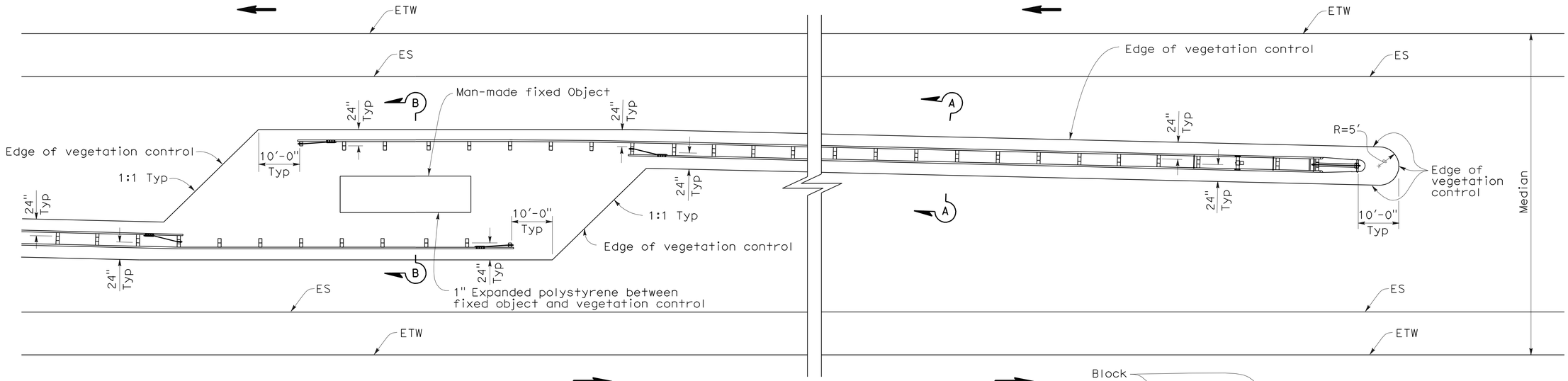
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-07 — CIVIL — STATE OF CALIFORNIA

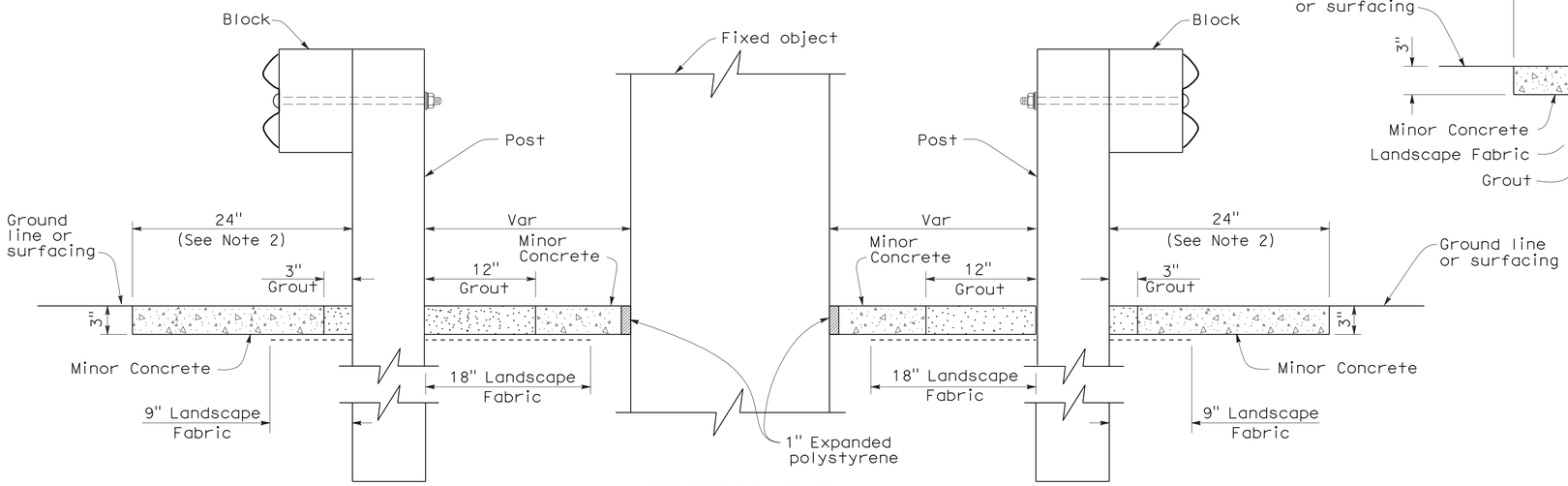
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 4-26-10

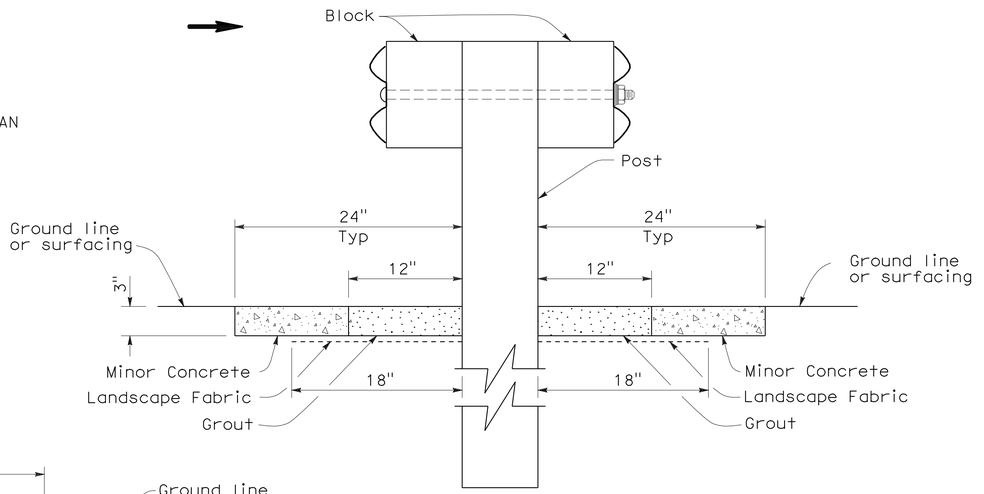


PLAN

FIXED OBJECT(S) IN MEDIAN



SECTION B-B



SECTION A-A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL VEGETATION CONTROL AT FIXED OBJECT

NO SCALE

NSP A77C9 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C9

2006 NEW STANDARD PLAN NSP A77C9

7-17-06

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
3. Direction of adjacent traffic indicated by ⟵.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	31	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-07 — CIVIL — STATE OF CALIFORNIA

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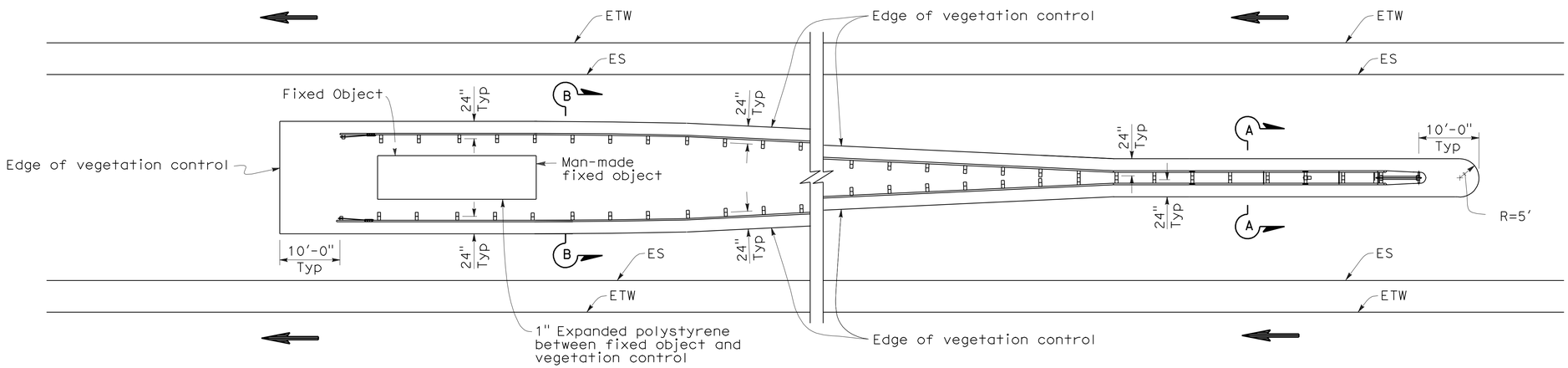
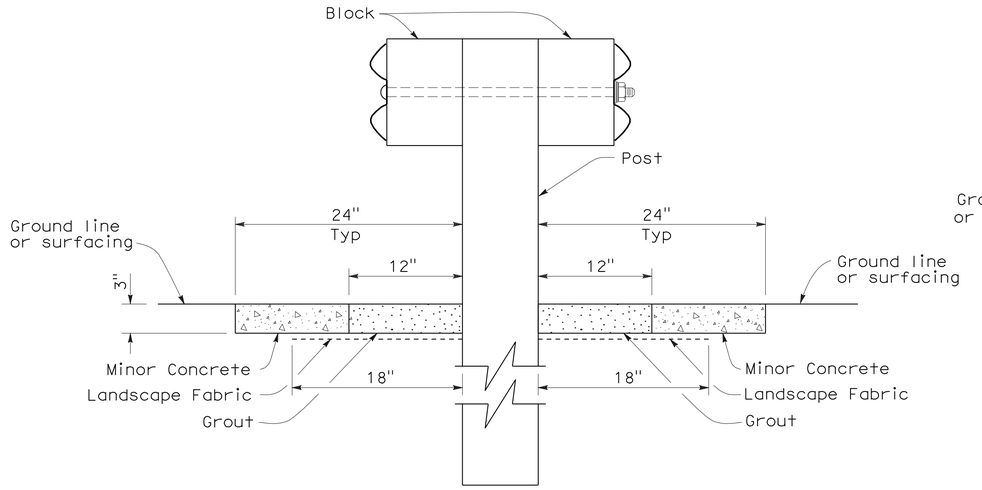
To accompany plans dated 4-26-10

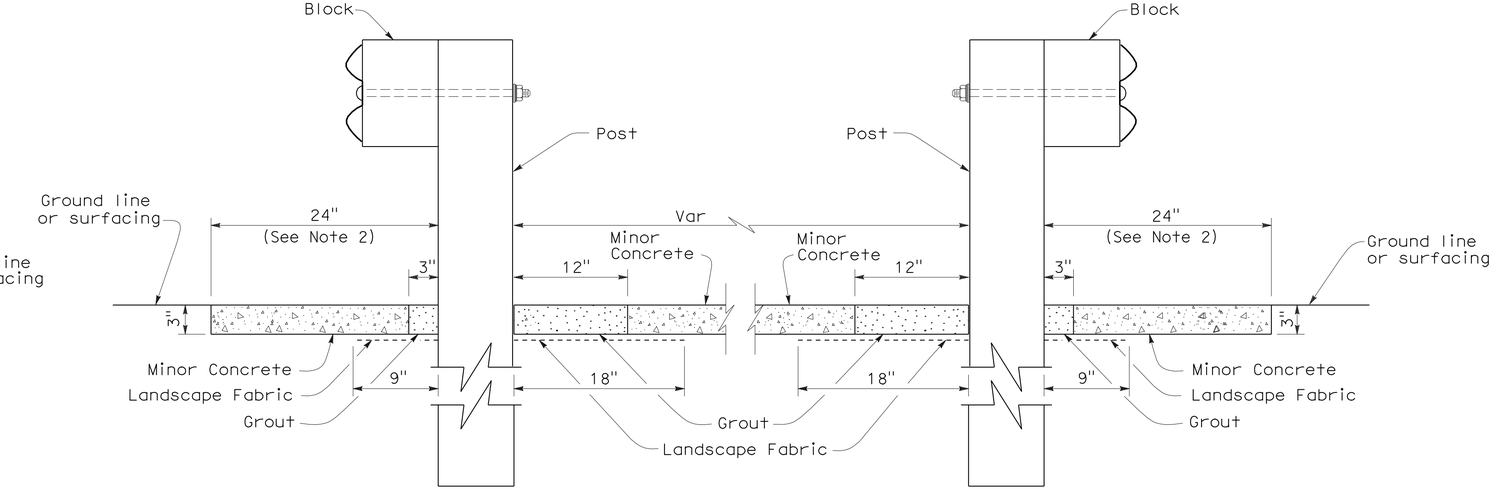


PLAN

FIXED OBJECT(S) BETWEEN SEPARATE ROADBEDS
(ONE-WAY TRAFFIC)



SECTION A-A



SECTION B-B

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL VEGETATION CONTROL AT FIXED OBJECT

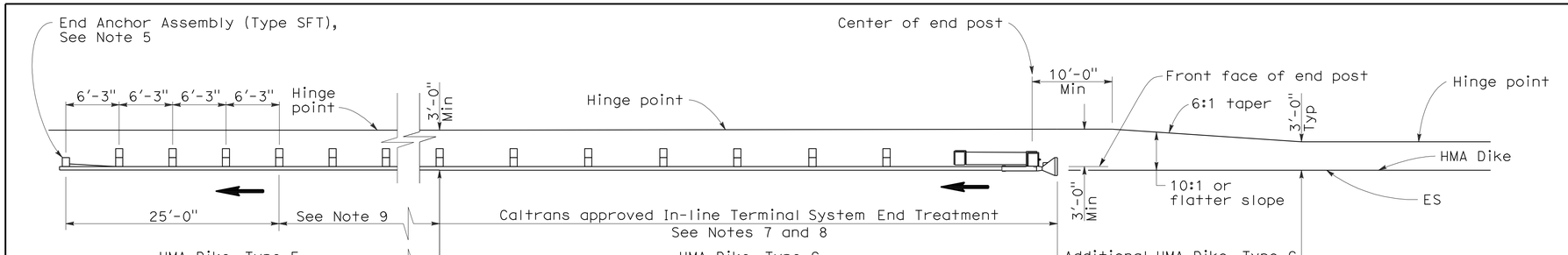
NO SCALE

NSP A77C10 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C10

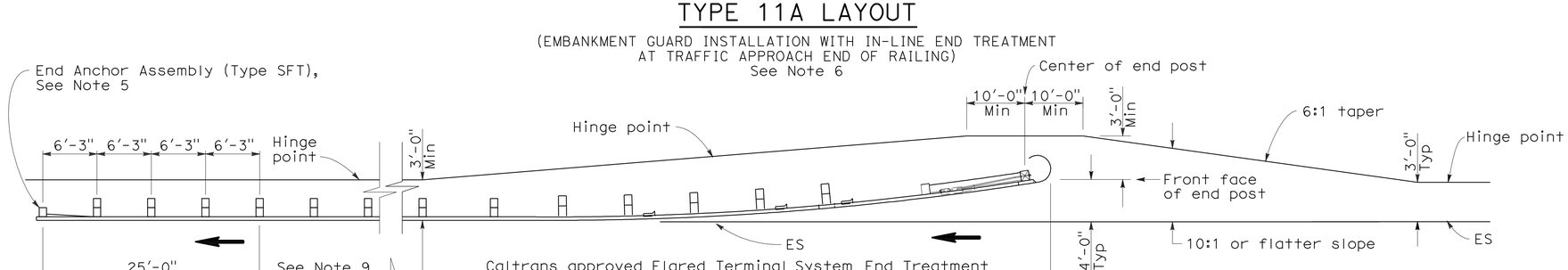
2006 NEW STANDARD PLAN NSP A77C10

7-17-06



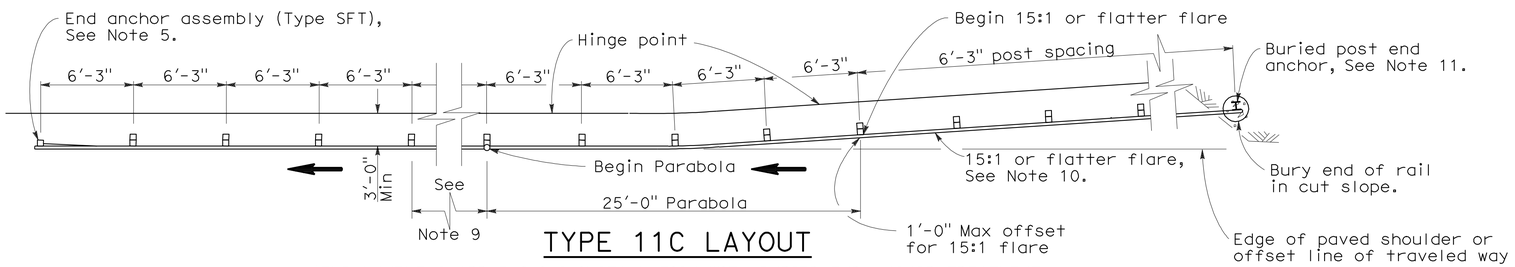
TYPE 11A LAYOUT

(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

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1, and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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.
4. Direction of adjacent traffic indicated by ➞.
5. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
6. 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.
7. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
8. The type of terminal system end treatment to be used will be shown on the Project Plans.
9. 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.
10. 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".
11. For details of the buried post end anchor used with Type 11C Layout, see Standard Plan A77I2.
12. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	32	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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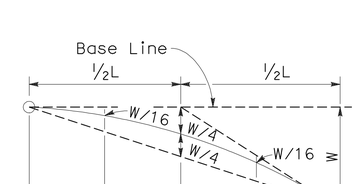
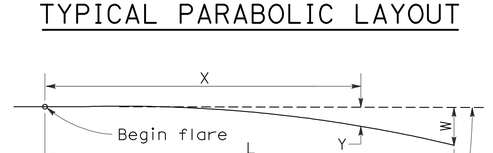
To accompany plans dated 4-26-10



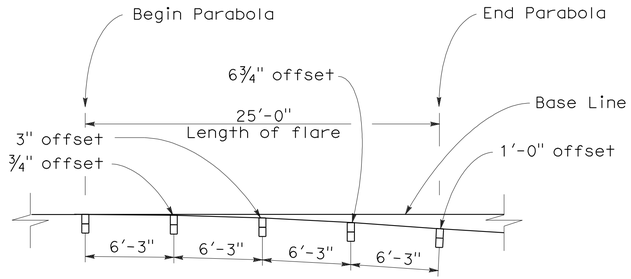
TYPICAL PARABOLIC LAYOUT



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

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

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

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	33	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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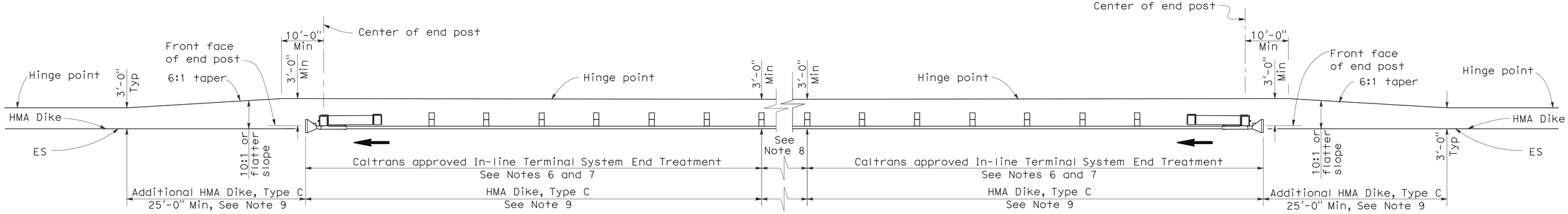
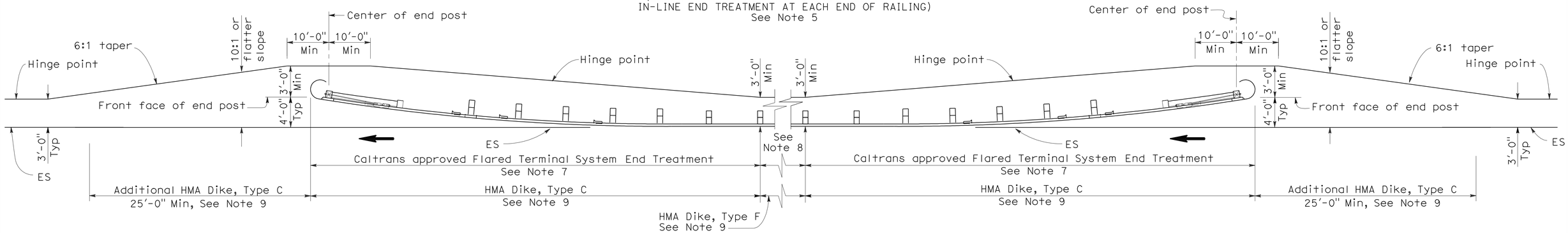
To accompany plans dated 4-26-10



TYPE 11D LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH IN-LINE END TREATMENT AT EACH END OF RAILING)
See Note 5



TYPE 11E LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT EACH END OF RAILING)
See Note 5

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ➞.
5. Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for both directions of traffic.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system end treatment to be used will be shown on the Project Plans.
8. 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.
9. 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 A77E2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E2
DATED MAY 1, 2006 - PAGE 49 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E2

2006 REVISED STANDARD PLAN RSP A77E2

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	34	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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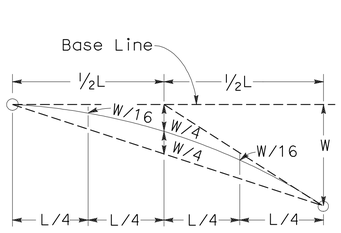
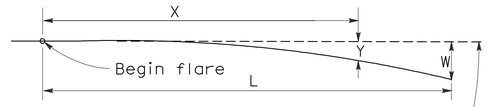
To accompany plans dated 4-26-10



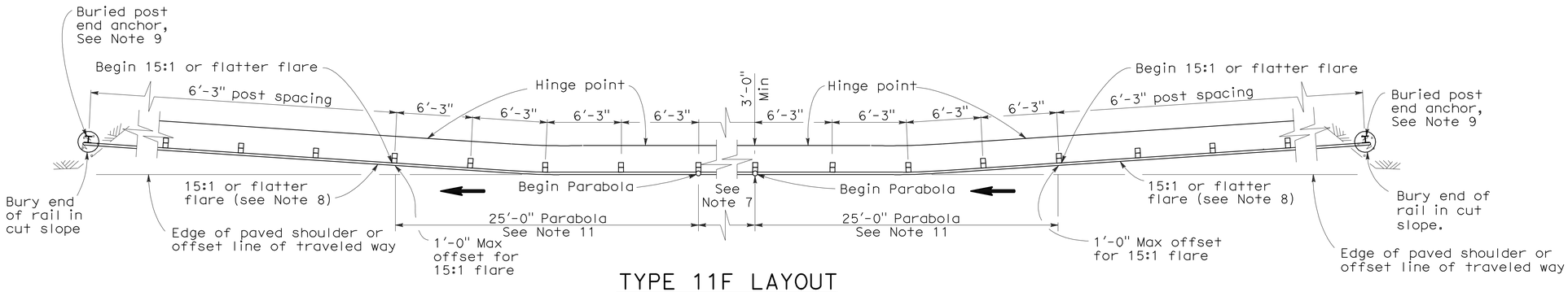
TYPICAL PARABOLIC LAYOUT



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

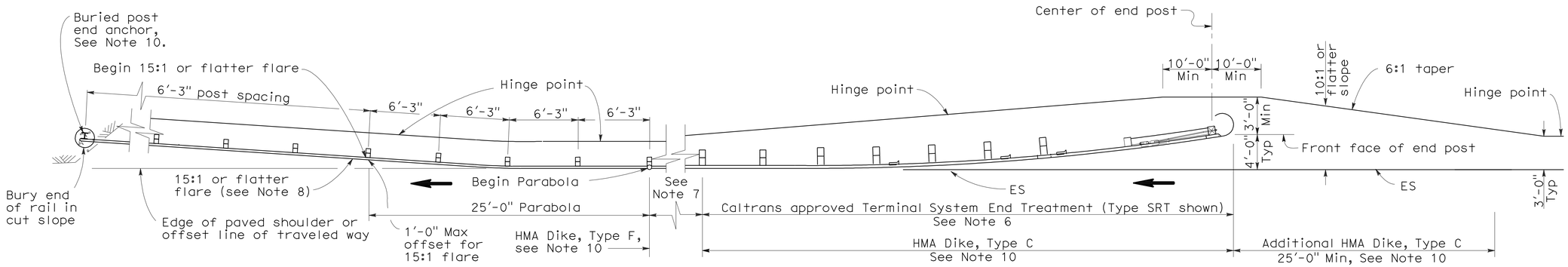
Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPE 11F LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH A BURIED END ANCHOR TREATMENT AT EACH END OF RAILING)
See Notes 5 and 10



TYPE 11G LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AND A BURIED END ANCHOR TREATMENT AT THE ENDS OF RAILING)
See Notes 5 and 10

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ⟶.
5. Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for both directions of traffic.
6. The type of terminal system end treatment to be used will be shown on the Project Plans.
7. 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.
8. 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".
9. For details of the buried post end anchor used with Type 11F and 11G Layouts, see Standard Plan A77I2.
10. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
11. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR EMBANKMENTS

NO SCALE

RSP A77E3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E3
DATED MAY 1, 2006 - PAGE 50 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E3

2006 REVISED STANDARD PLAN RSP A77E3

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	35	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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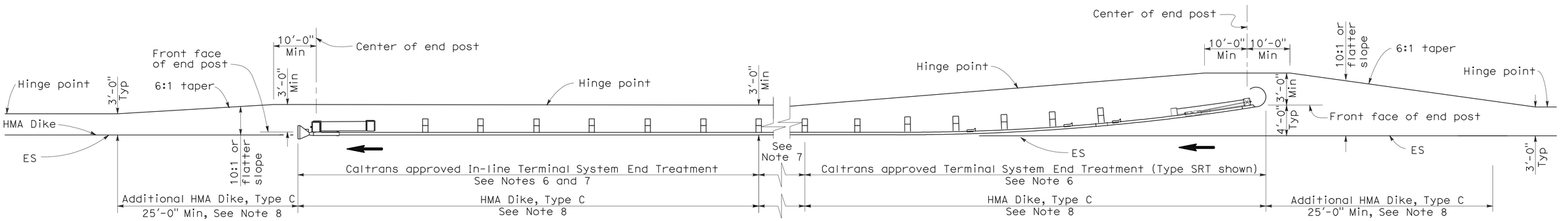
To accompany plans dated 4-26-10



TYPE 11H LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT
AND AN IN-LINE TREATMENT AT THE ENDS OF RAILING)
See Notes 5 and 8

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ➞.
5. Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for both directions of traffic.
6. The type of terminal system end treatment to be used will be shown on the Project Plans.
7. 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.
8. 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 A77E4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E4
DATED MAY 1, 2006 - PAGE 51 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E4

2006 REVISED STANDARD PLAN RSP A77E4

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	36	95

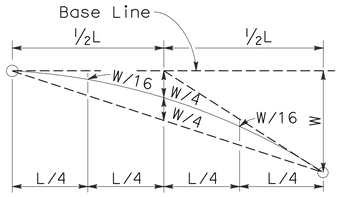
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

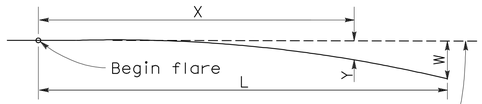
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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.

To accompany plans dated 4-26-10



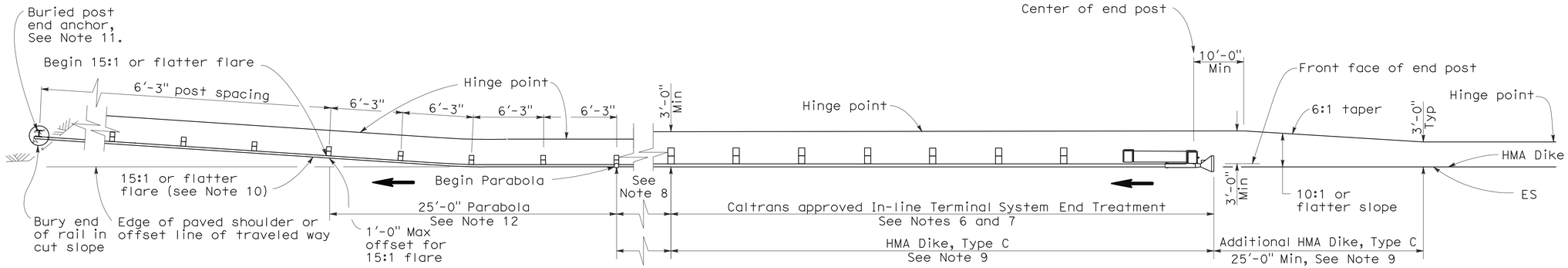
TYPICAL PARABOLIC LAYOUT



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

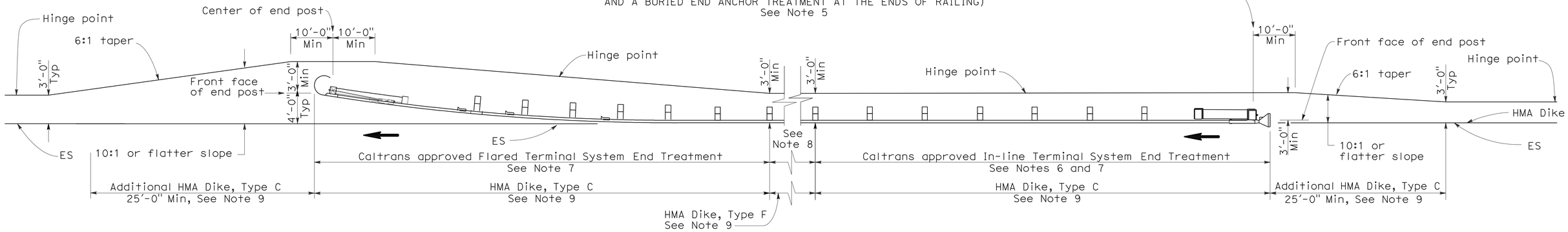
Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPE 11I LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH IN-LINE END TREATMENT AND A BURIED END ANCHOR TREATMENT AT THE ENDS OF RAILING)
See Note 5



TYPE 11J LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH IN-LINE END TREATMENT AND FLARED END TREATMENT AT THE ENDS OF RAILING)
See Note 5

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ➞.
5. Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embamkment slopes and a crashworthy end treatment is required for both directions of traffic.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system end treatment to be used will be shown on the Project Plans.
8. 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.
9. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
10. 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".
11. For details of the buried post end anchor used with Type 11I Layout, see Standard Plan A77I2.
12. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR EMBANKMENTS

NO SCALE

RSP A77E5 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E5 DATED MAY 1, 2006 - PAGE 52 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E5

2006 REVISED STANDARD PLAN RSP A77E5

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	37	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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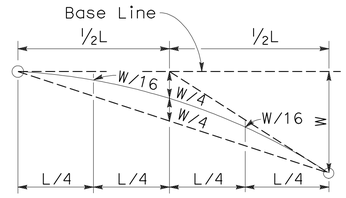
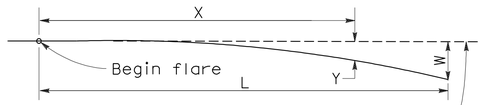
To accompany plans dated 4-26-10



TYPICAL PARABOLIC LAYOUT

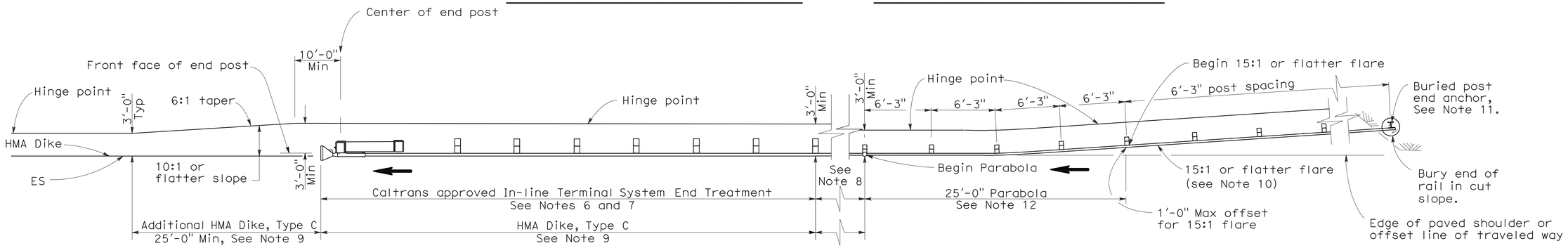


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

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

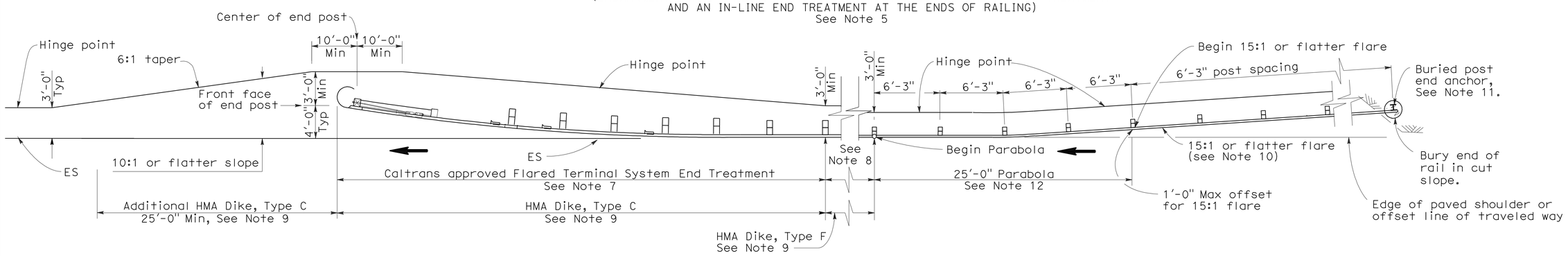
Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPE 11K LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH A BURIED END ANCHOR TREATMENT AND AN IN-LINE END TREATMENT AT THE ENDS OF RAILING)
See Note 5



TYPE 11L LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH A BURIED END ANCHOR TREATMENT AND A FLARED END TREATMENT AT THE ENDS OF RAILING)
See Note 5

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ➔.
5. Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embamkment slopes and a crashworthy end treatment is required for both directions of traffic.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system end treatment to be used will be shown on the Project Plans.
8. 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.
9. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
10. 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".
11. For details of the buried post end anchor used with Type 11K and 11L Layouts, see Standard Plan A7712.
12. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR EMBANKMENTS

NO SCALE

RSP A77E6 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E6
DATED MAY 1, 2006 - PAGE 53 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E6

2006 REVISED STANDARD PLAN RSP A77E6

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	38	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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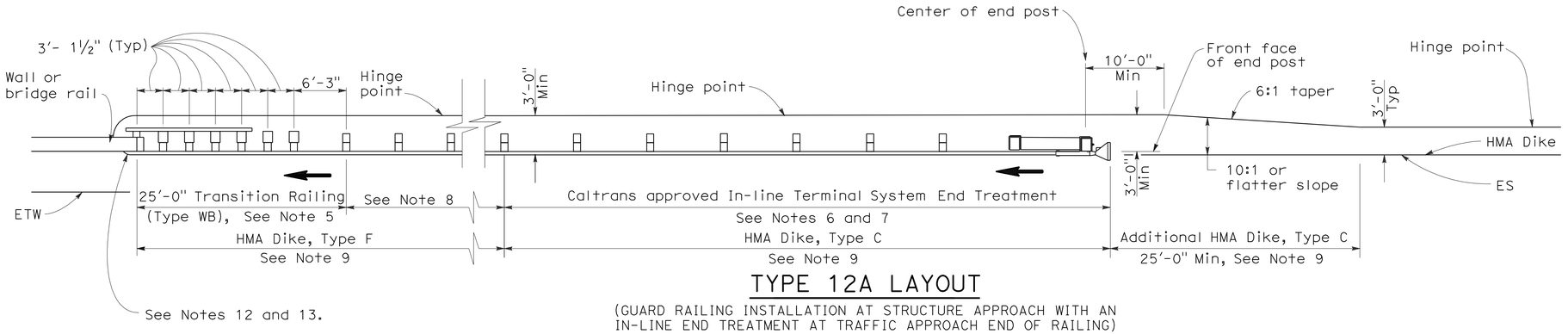
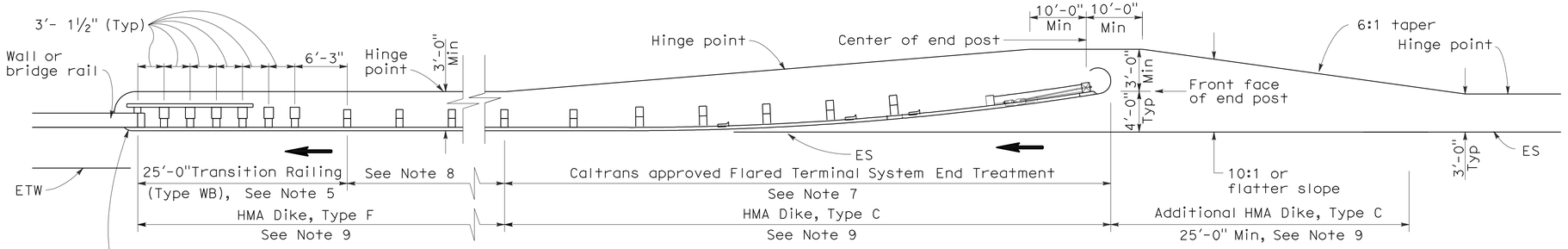
To accompany plans dated 4-26-10



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:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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.
4. Direction of adjacent traffic indicated by ➡.
5. For Transition Railing (Type WB) details for Types 12A and 12B Layouts, see Standard Plan A77J4.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system end treatment to be used will be shown on the Project Plans.
8. 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.
9. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
10. Type 12A or Type 12B Layouts are typically used:
    a. 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.
    b. 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.
    c. To the right of approaching traffic at the end of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
    d. To the right of approaching traffic at the end of the structure on multilane freeways or expressways with decked median on the bridge.
11. 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.
12. 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.
13. 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

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	39	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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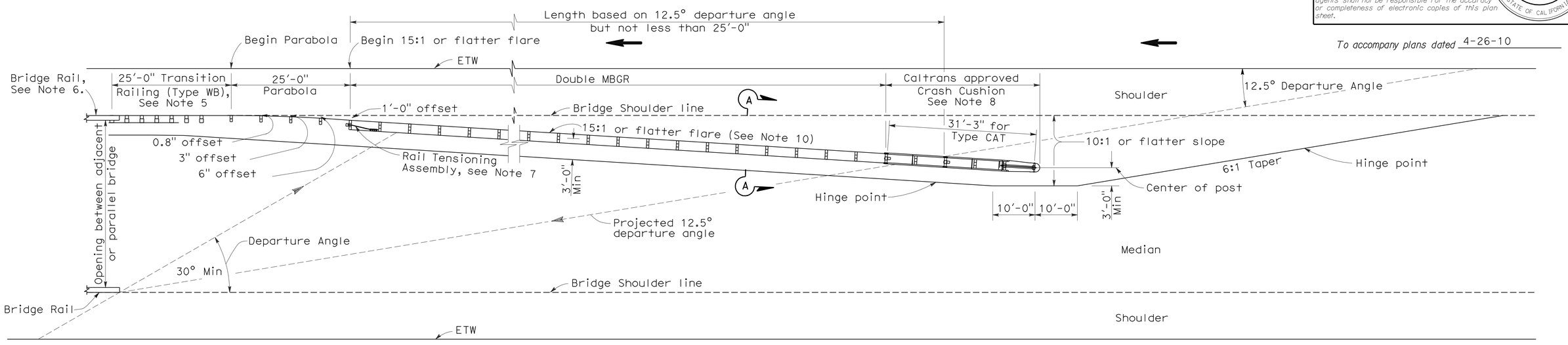
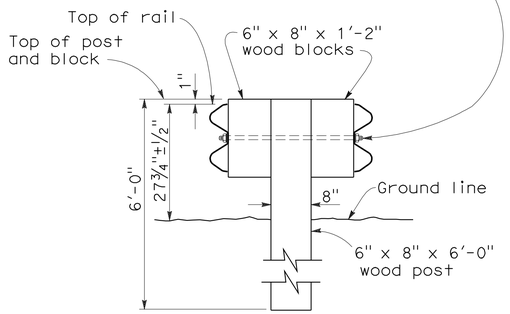


TYPE 12E LAYOUT

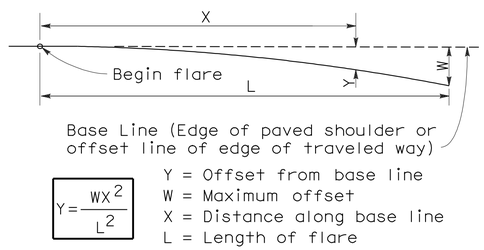
See Note 10

5/8" Ø Button head bolt with hex nut or 5/8" Ø Rod, threaded both ends, with hex nuts. 1/2" Max exposed threads after hex nut(s) tightened. No washer on rail faces for bolted connection to line post.



SECTION A-A

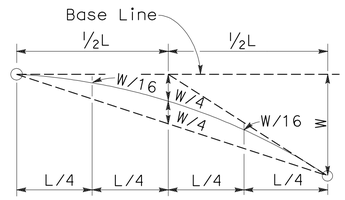
TYPICAL DOUBLE METAL BEAM GUARD RAILING



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

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

PARABOLIC FLARE OFFSETS



TYPICAL PARABOLIC LAYOUT

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by →.
5. For Transition Railing (Type WB) details, see Standard Plan A77J4.
6. For additional details of a typical connection to bridge rail, see Connection Detail AA on Revised Standard Plan RSP A77J1.
7. For Rail Tensioning Assembly details, see Standard Plan A77H2.
8. The type of Crash Cushion to be used will be shown on the Project Plans.
9. Type 12E Layout is typically used left of approaching traffic at the end of each structure on multilane freeways or expressways where a median type barrier is not constructed between separated roadbeds.
10. The 15:1 or flatter flare is measured off of the edge of traveled way.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR STRUCTURE APPROACH

NO SCALE

RSP A77F3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F3
DATED MAY 1, 2006 - PAGE 56 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77F3

2006 REVISED STANDARD PLAN RSP A77F3

12-10-07

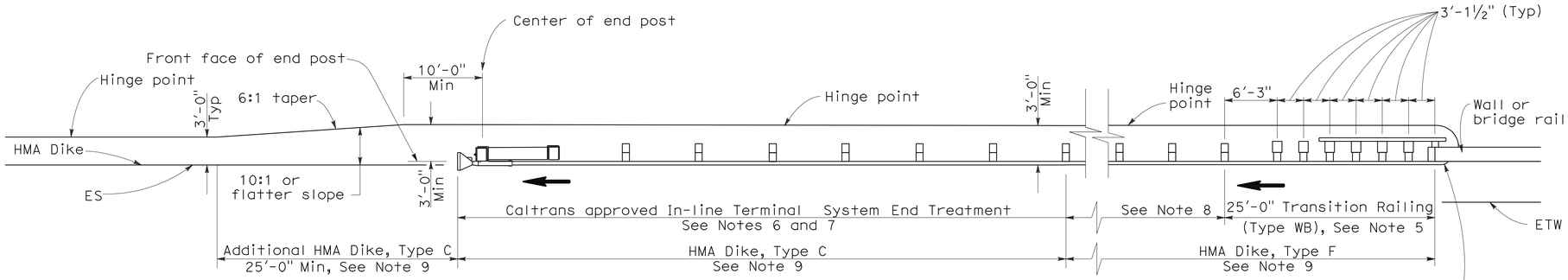
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	40	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

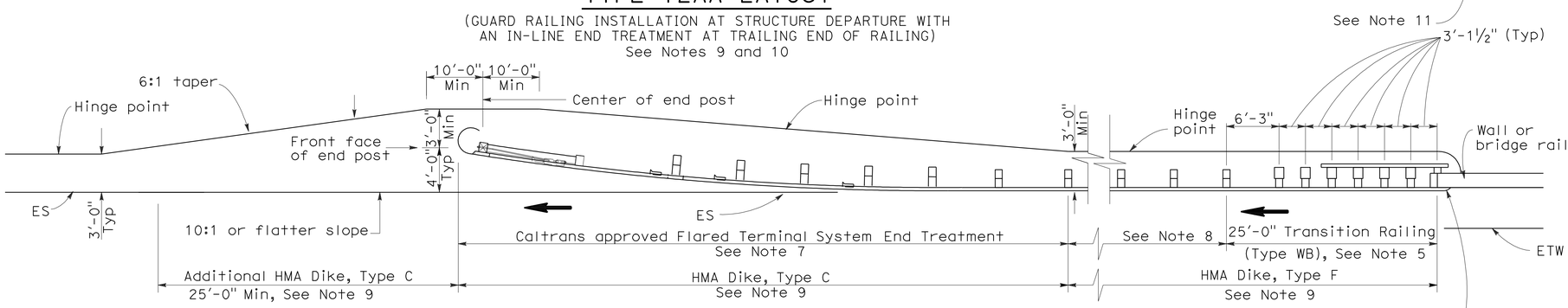
REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-09 — CIVIL — STATE OF CALIFORNIA

To accompany plans dated 4-26-10



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:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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.
4. Direction of adjacent traffic indicated by ➞.
5. For Transition Railing (Type WB) details for Types 12AA and 12BB Layouts, see Standard Plan A77J4.
6. In-line Terminal System Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. 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.
9. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
10. 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.
11. 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

2006 REVISED STANDARD PLAN RSP A77F4

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	41	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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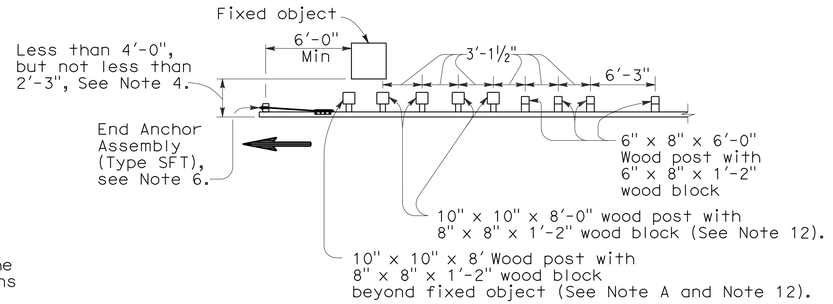
To accompany plans dated 4-26-10

NOTES:

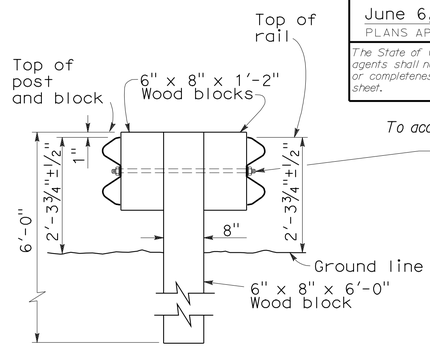
1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel 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 line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing of 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ➡.
6. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
7. For details of Rail Tensioning Assembly, see Standard Plan A77H2.
8. The type of crash cushion to be used will be shown on the Project Plans.
9. Type 14A layout is typically used on multilane freeways or expressways to shield fixed objects where a median type barrier is not constructed between the separated roadbeds.
10. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
11. The 15:1 or flatter flare is measured off of the edge of traveled way.
12. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic block may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed objects.

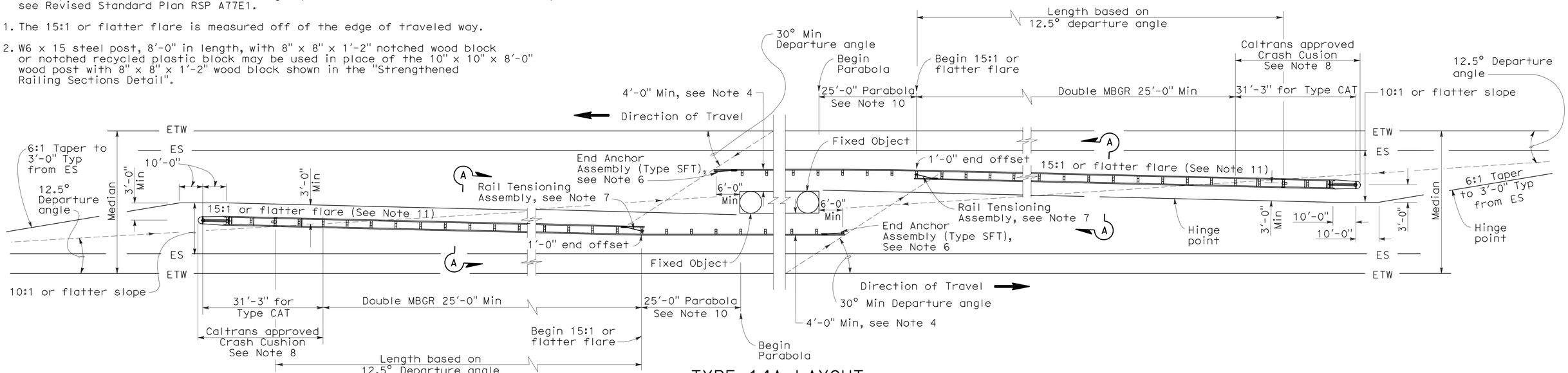
STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

Use strengthened railing sections with Type 14A layout where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3", See Note 4.



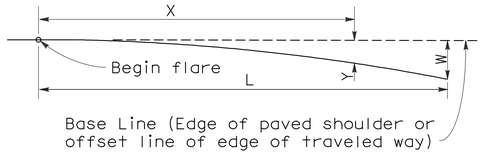
⅝" Ø button head bolt with hex nut or ⅝" Ø Rod, threaded both ends, with hex nuts. ½" Max exposed threads after hex nut(s) tightened. No washer on rail faces for bolted connection to line post.

SECTION A-A
TYPICAL DOUBLE METAL BEAM GUARD RAILING



TYPE 14A LAYOUT

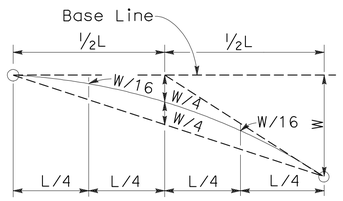
See Note 9



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

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

PARABOLIC FLARE OFFSETS



TYPICAL PARABOLIC LAYOUT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR FIXED OBJECTS BETWEEN SEPARATE ROADBEDS (TWO-WAY TRAFFIC)

NO SCALE

RSP A77G1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G1
DATED MAY 1, 2006 - PAGE 59 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G1

2006 REVISED STANDARD PLAN RSP A77G1

12-10-07

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing section with post spacing of 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ➡.
6. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
7. Type of crash cushion to be used will be shown on the Project Plans.
8. Type 15A layout is typically used on multilane freeways or expressways to shield fixed objects in the area between separated one-way roadbeds.
9. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
10. The 15:1 or flatter flare is measured off of the edge of the traveled way.
11. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	42	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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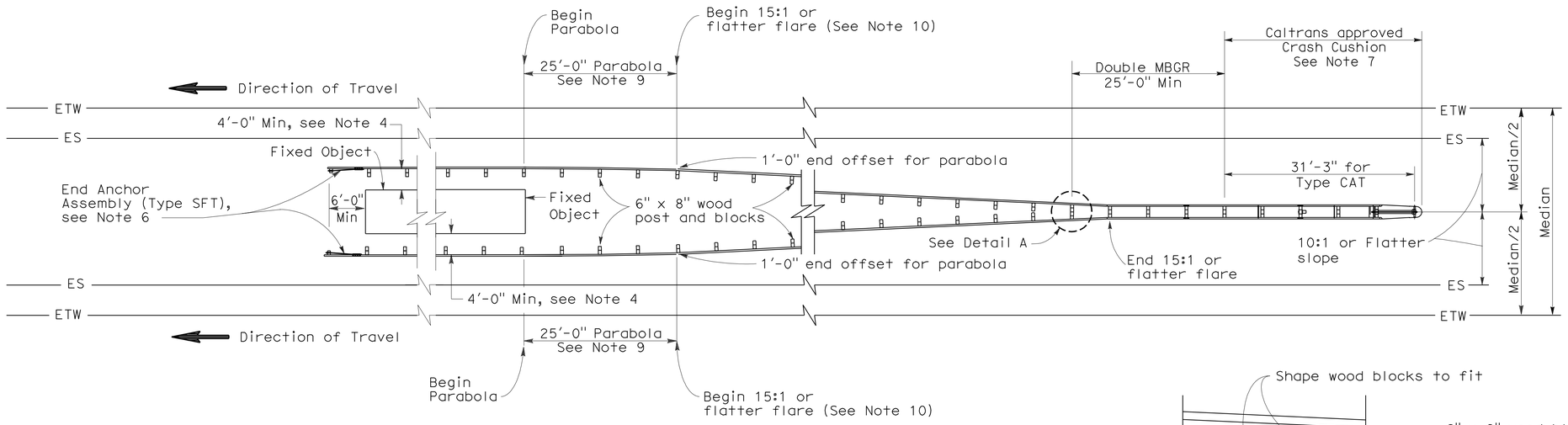
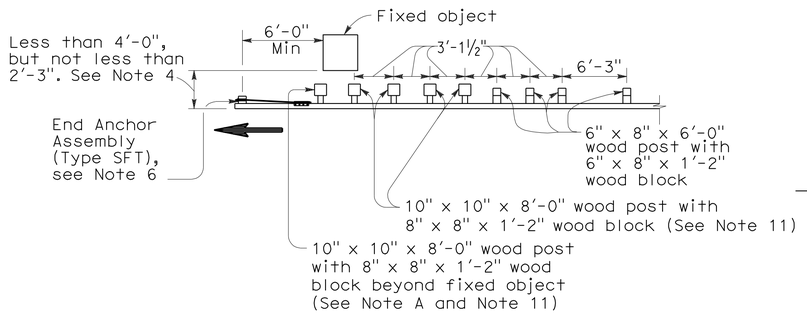
To accompany plans dated 4-26-10



TYPE 15A LAYOUT

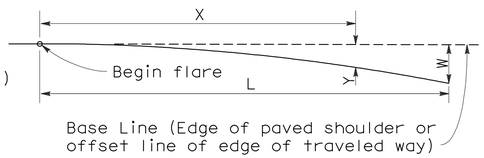
See Note 9



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed objects.

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

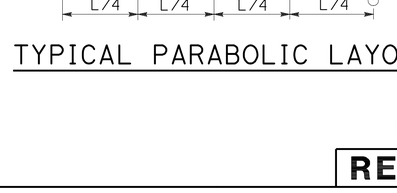
Use strengthened railing sections with Type 15A layout where minimum clearance between the face of the guard railing and the fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4.



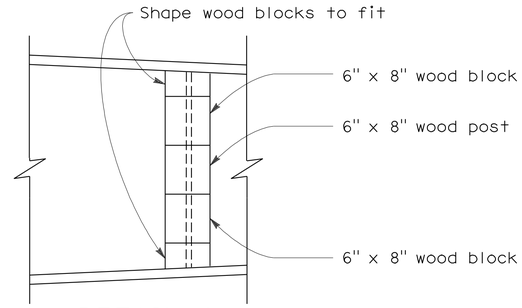
$$Y = \frac{WX^2}{L^2}$$

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

PARABOLIC FLARE OFFSETS



TYPICAL PARABOLIC LAYOUT



DETAIL A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR FIXED OBJECTS BETWEEN SEPARATE ROADBEDS (ONE-WAY TRAFFIC)

NO SCALE

RSP A77G2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G2
DATED MAY 1, 2006 - PAGE 60 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G2

2006 REVISED STANDARD PLAN RSP A77G2

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	43	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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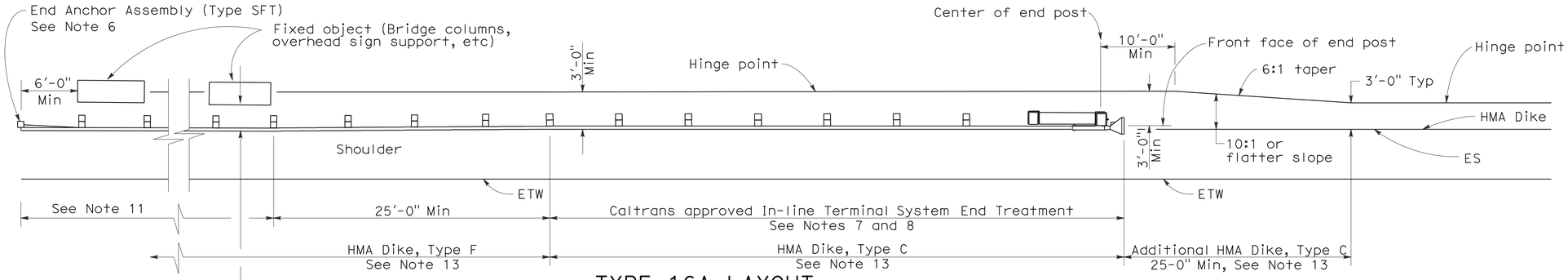
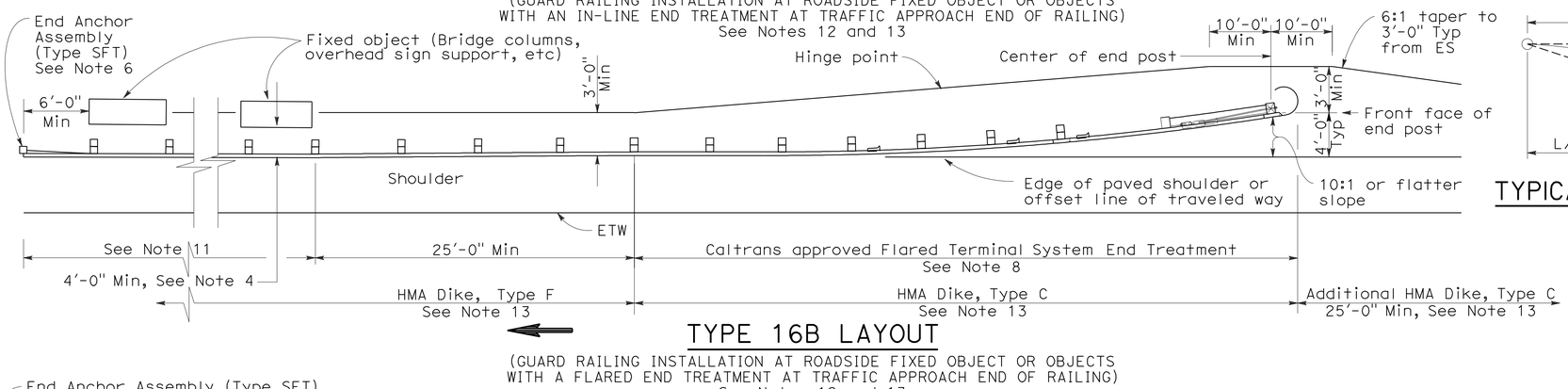
To accompany plans dated 4-26-10



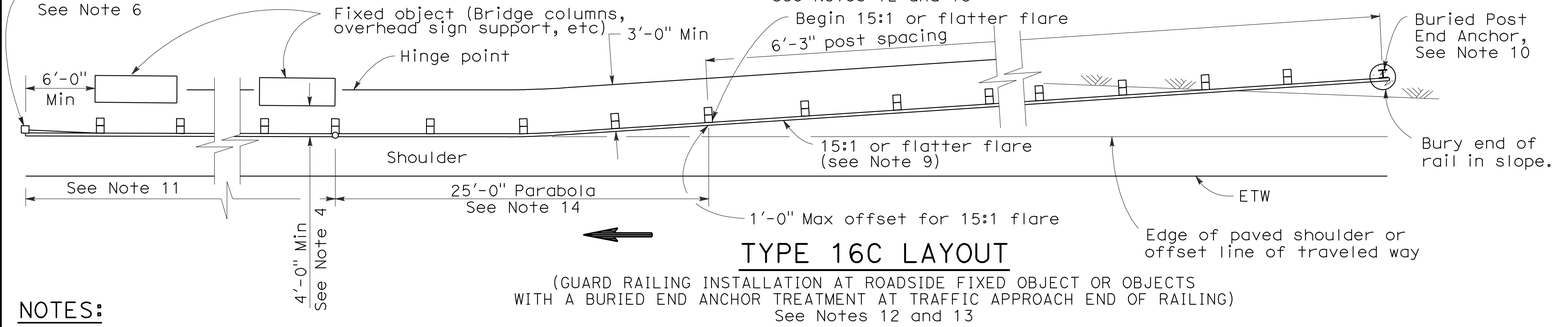
TYPE 16A LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13



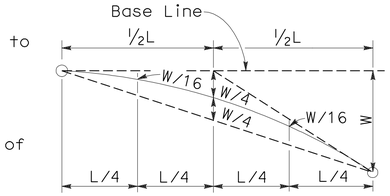
TYPE 16B LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13

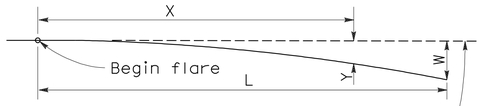


TYPE 16C LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13



TYPICAL PARABOLIC LAYOUT

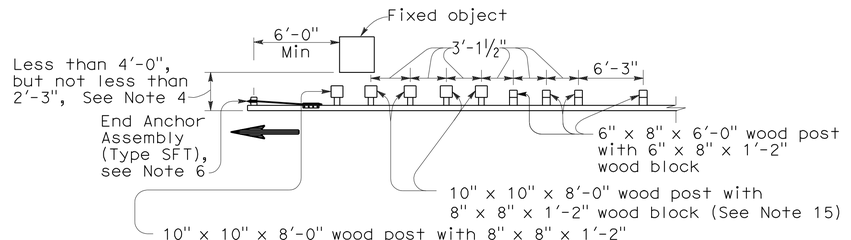


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

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

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

PARABOLIC FLARE OFFSETS



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed objects.

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

Use strengthened railing sections with Types 16A, 16B or 16C Layouts where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4

NOTES:

1. Line post, blocks and hardware to be used are shown on Revised Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing of 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ➡.
6. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
7. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
8. The type of terminal system to be used will be shown on the Project Plans.
9. The 15:1 or flatter flare used with Type 16C Layout 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".
10. For details of the Buried Post End Anchor used with Type 16C Layout, see Standard Plan A77I2.
11. As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3" except as specified in Note 4.
12. Layout Types 16A, 16B or 16C are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for only one direction of traffic.
13. Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
14. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
15. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

NO SCALE

RSP A77G3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G3
DATED MAY 1, 2006 - PAGE 61 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G3

2006 REVISED STANDARD PLAN RSP A77G3

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	44	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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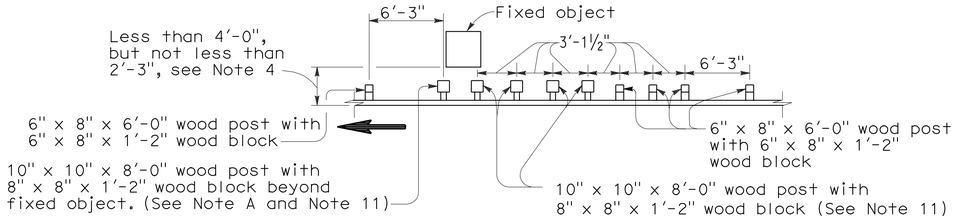
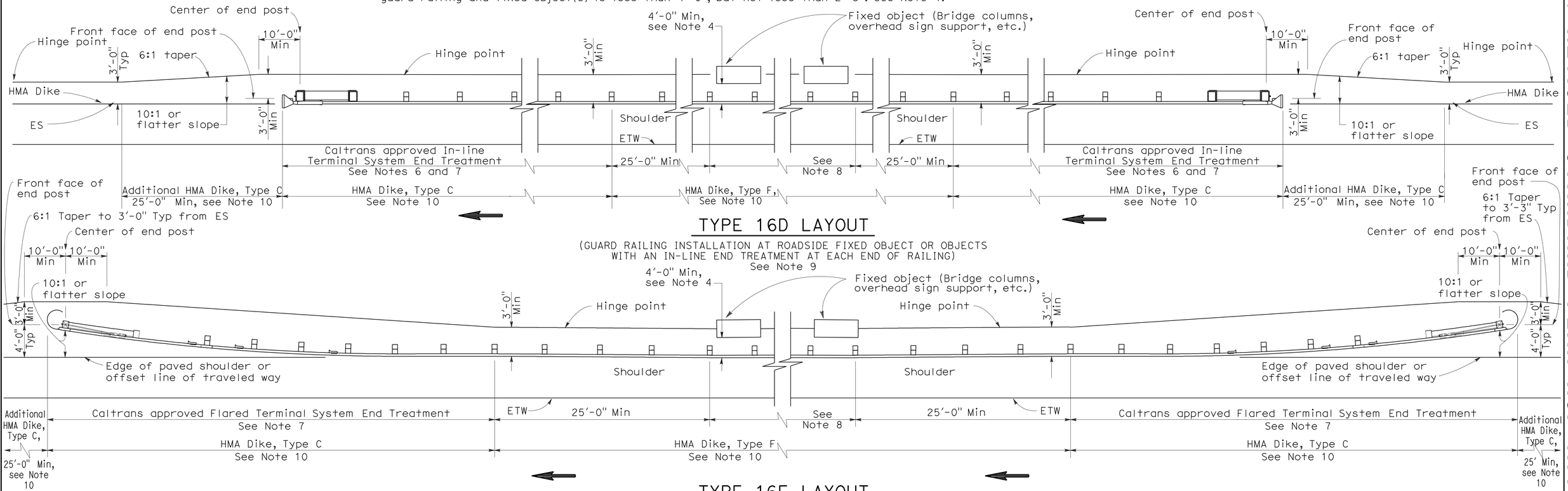
To accompany plans dated 4-26-10



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed object(s).

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

Use strengthened railing sections with Layout Types 16D or 16E where minimum clearance between the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4.



TYPE 16D LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AT EACH END OF RAILING) See Note 9

TYPE 16E LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AT EACH END OF RAILING) See Note 9

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing at 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ⟶.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3", except as specified in Note 4.
9. Layout Types 16D through 16L, shown on the A77G Series of Revised Standard Plans, are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for both directions of traffic.
10. Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
11. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic block may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail."

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

NO SCALE

RSP A77G4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G4
DATED MAY 1, 2006 - PAGE 62 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G4

2006 REVISED STANDARD PLAN RSP A77G4

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	45	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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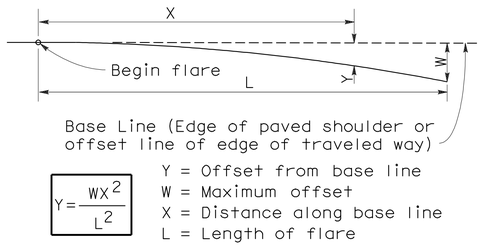
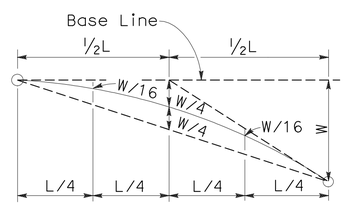
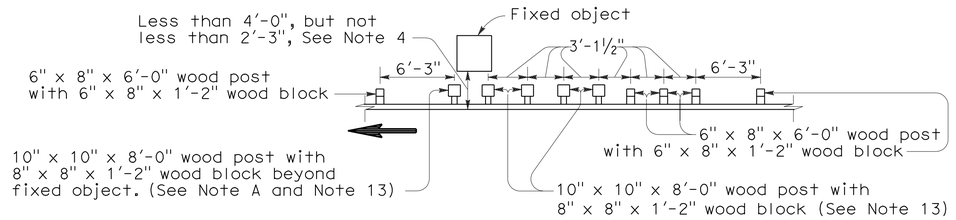
To accompany plans dated 4-26-10



PARABOLIC FLARE OFFSETS



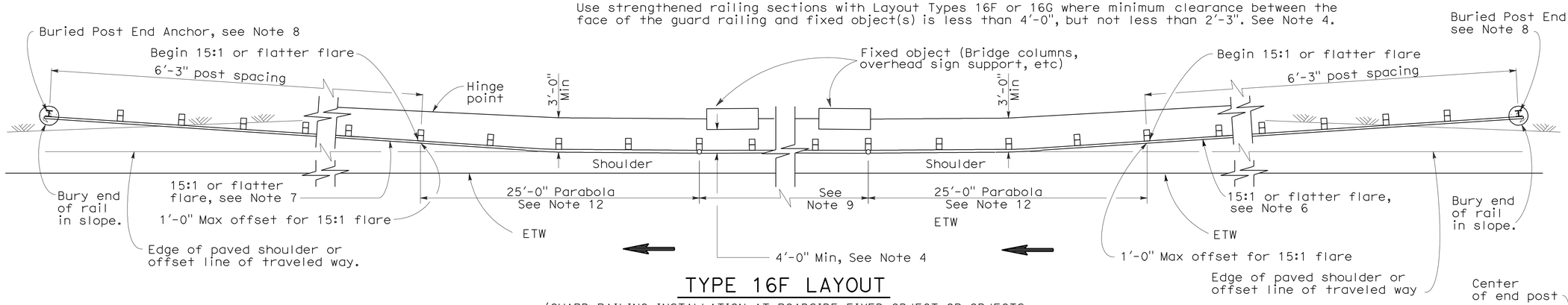
TYPICAL PARABOLIC LAYOUT



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed object(s).

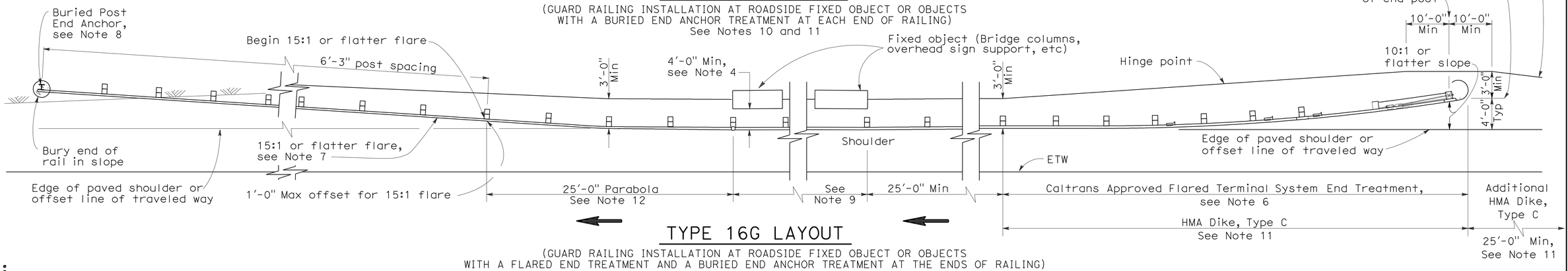
STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

Use strengthened railing sections with Layout Types 16F or 16G where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4.



TYPE 16F LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A BURIED END ANCHOR TREATMENT AT EACH END OF RAILING)
See Notes 10 and 11



TYPE 16G LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AND A BURIED END ANCHOR TREATMENT AT THE ENDS OF RAILING)
See Notes 10 and 11

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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 8" 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.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing at 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ⟶.
6. The type of terminal system to be used will be shown on the Project Plans.
7. The 15:1 or flatter flare for the buried post anchor 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".
8. For details of the Buried Post End Anchor details, see Standard Plan A77I2.
9. As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3", except as specified in Note 4.
10. Layout Types 16D through 16L, shown on the A77G Series of Revised Standard Plans, are typically used on highways where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for both directions of traffic.
11. Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
12. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
13. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

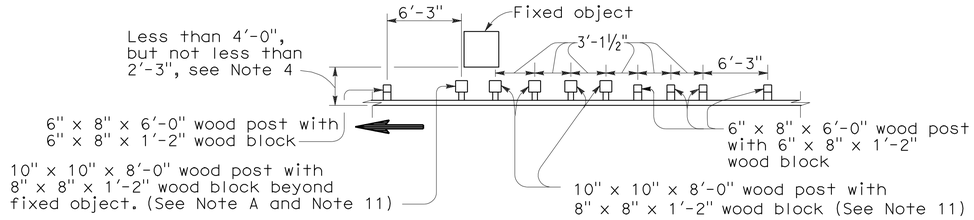
NO SCALE

RSP A77G5 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G5
DATED MAY 1, 2006 - PAGE 63 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G5

2006 REVISED STANDARD PLAN RSP A77G5

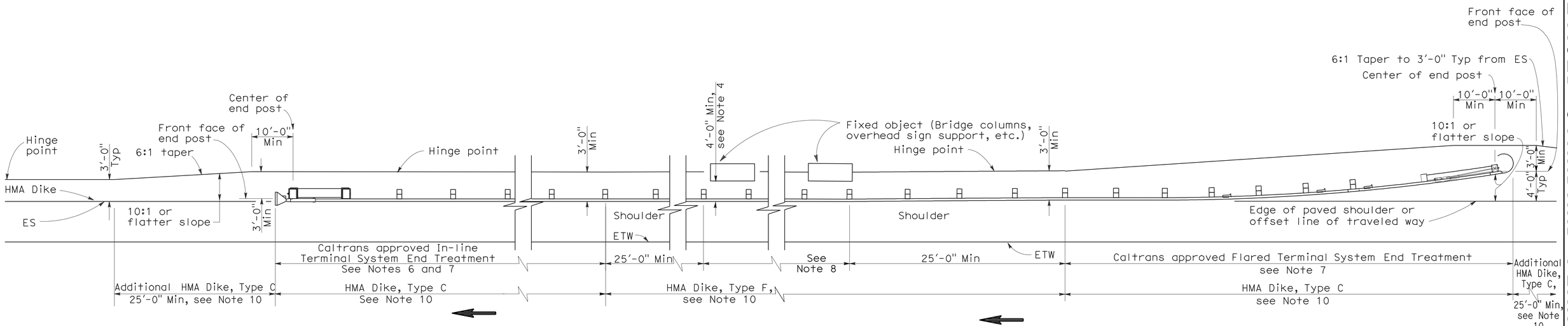
12-10-07



Note A. For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed object(s).

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

Use strengthened railing sections with Layout Type 16H where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4.



TYPE 16H LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AND AN IN-LINE TREATMENT AT THE ENDS OF RAILING)
See Note 9

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing at 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ➞ .
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3", except as specified in Note 4.
9. Layout Types 16D through 16L, shown on the A77G Series of Revised Standard PLans, typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for both directions of traffic.
10. Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
11. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	46	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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To accompany plans dated 4-26-10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

NO SCALE

RSP A77G6 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G6 DATED MAY 1, 2006 - PAGE 64 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G6

2006 REVISED STANDARD PLAN RSP A77G6

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	47	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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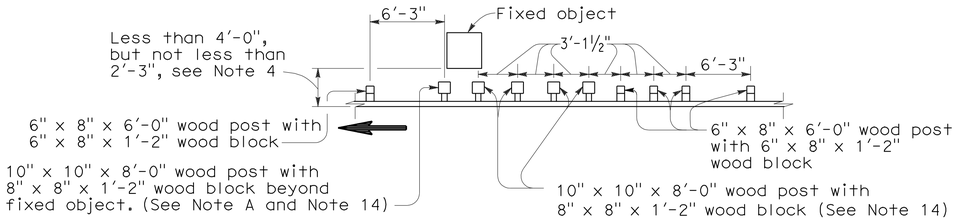
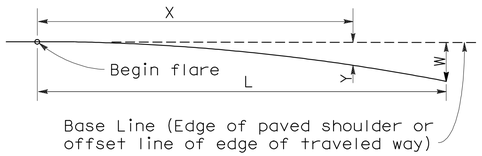
To accompany plans dated 4-26-10



Note A. For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed object(s).

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

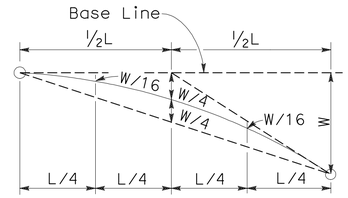


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

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

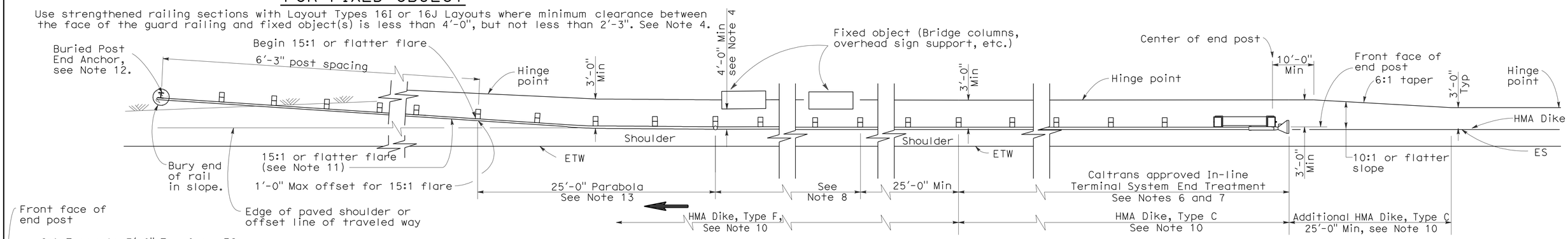
Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



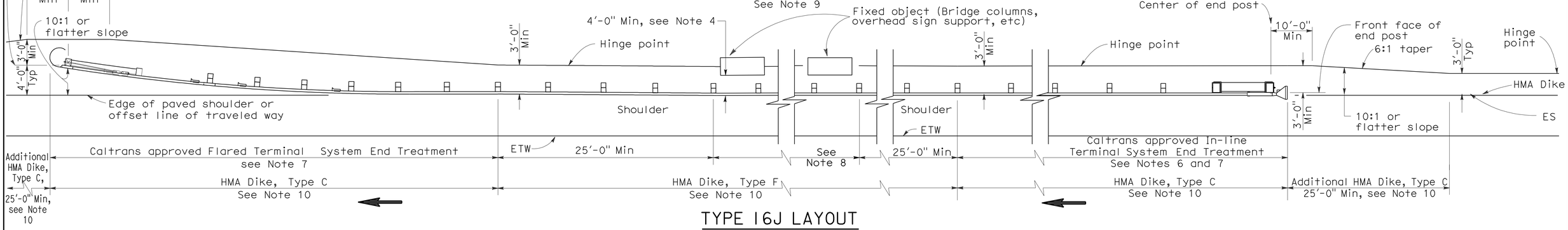
TYPICAL PARABOLIC LAYOUT

Use strengthened railing sections with Layout Types 16I or 16J Layouts where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4.



TYPE 16I LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AND A BURIED END ANCHOR TREATMENT AT THE ENDS OF RAILING)
See Note 9



TYPE 16J LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AND A FLARED END TREATMENT AT THE ENDS OF RAILING)
See Note 9

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing at 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ⟶ .
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3", except as specified in Note 4.
9. Layout Types 16D through 16L, shown on the A77G Series of Revised Standard Plans, are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for both directions of traffic.
10. Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
11. The 15:1 or flatter flare for the buried post anchor 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".
12. For details of Buried Post End Anchor details, see Standard Plan A77I2.
13. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard RSP Plan A77E1.
14. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

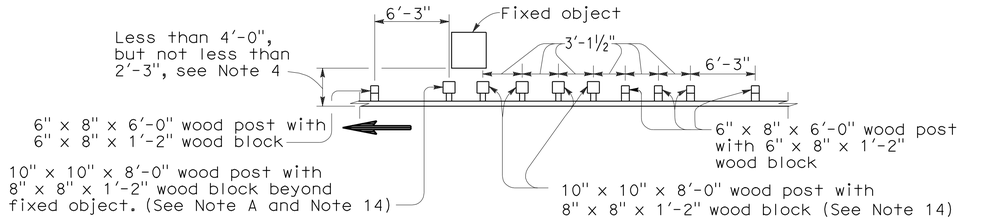
NO SCALE

RSP A77G7 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G7 DATED MAY 1, 2006 - PAGE 65 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G7

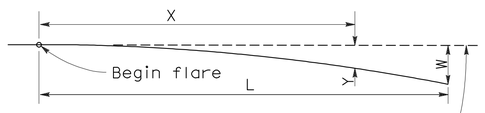
2006 REVISED STANDARD PLAN RSP A77G7

12-10-07



Note A. For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed object(s).

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

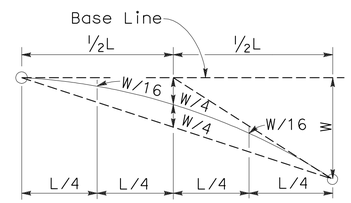


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

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

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

PARABOLIC FLARE OFFSETS



TYPICAL PARABOLIC LAYOUT

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	48	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

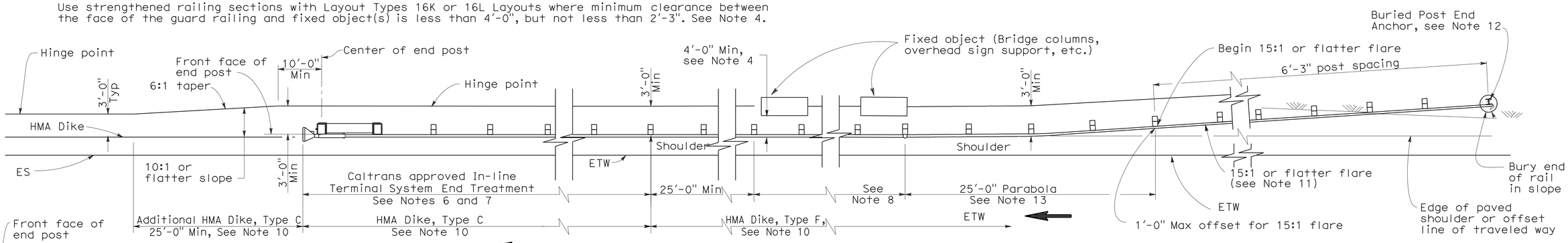
June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-09 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.

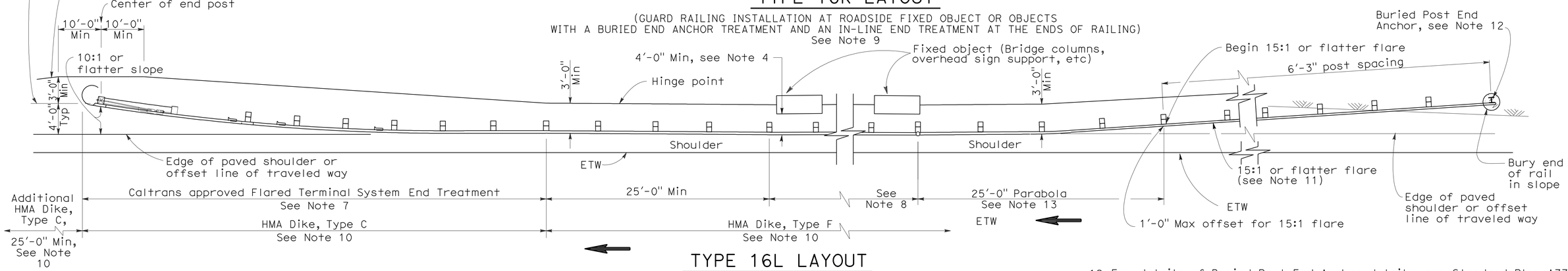
To accompany plans dated 4-26-10

Use strengthened railing sections with Layout Types 16K or 16L Layouts where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4.



TYPE 16K LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A BURIED END ANCHOR TREATMENT AND AN IN-LINE END TREATMENT AT THE ENDS OF RAILING)
See Note 9



TYPE 16L LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A BURIED END ANCHOR TREATMENT AND A FLARED END TREATMENT AT THE ENDS OF RAILING)
See Note 9

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. 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.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing at 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ➞.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3", except as specified in Note 4.
9. Layout Types 16D through 16L, shown on the A77G Series of Revised Standard Plans are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for both directions of traffic.
10. Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
11. The 15:1 or flatter flare for the buried post anchor 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".
12. For details of Buried Post End Anchor details, see Standard Plan A77I2.
13. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard RSP Plan A77E1.
14. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

NO SCALE

RSP A77G8 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G8
DATED MAY 1, 2006 - PAGE 66 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G8

2006 REVISED STANDARD PLAN RSP A77G8

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	49	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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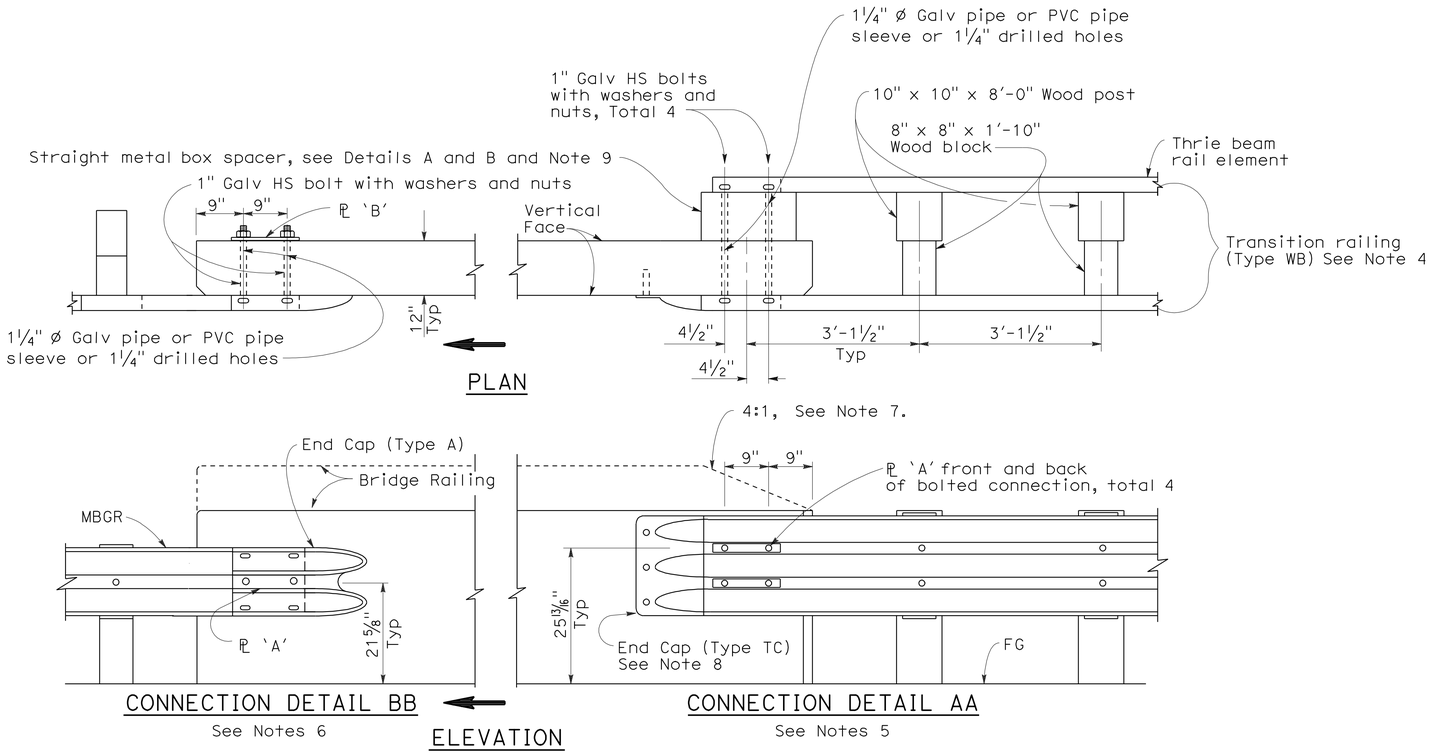
To accompany plans dated 4-26-10



GUARD RAILING CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK

NOTES:

1. See Revised Standard Plan RSP A77J2 for additional connection details to bridges without sidewalks.
2. Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
3. Direction of adjacent traffic indicated by ➡.
4. 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.
5. 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.
6. 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.
7. 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.
8. For details of End Cap (Type TC), see Standard Plan A77J4.
9. See Standard Plan A77J4 for additional details regarding depth dimension for straight metal box spacer.

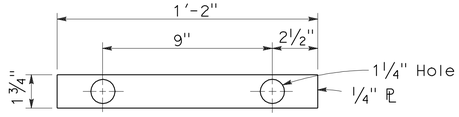


PLATE 'A'

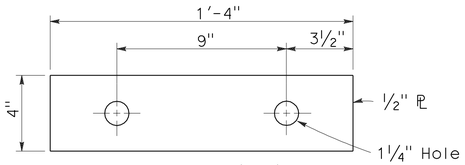
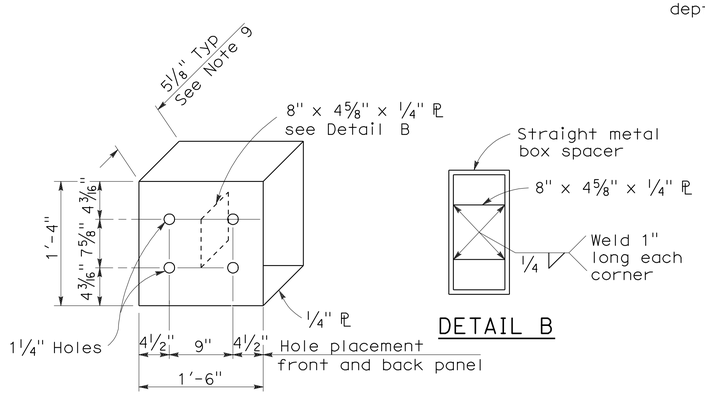


PLATE 'B'
(For backside of connection BB)



DETAIL A

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.

REVISED STANDARD PLAN RSP A77J1

2006 REVISED STANDARD PLAN RSP A77J1

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	50	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 5, 2009
PLANS APPROVAL DATE

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

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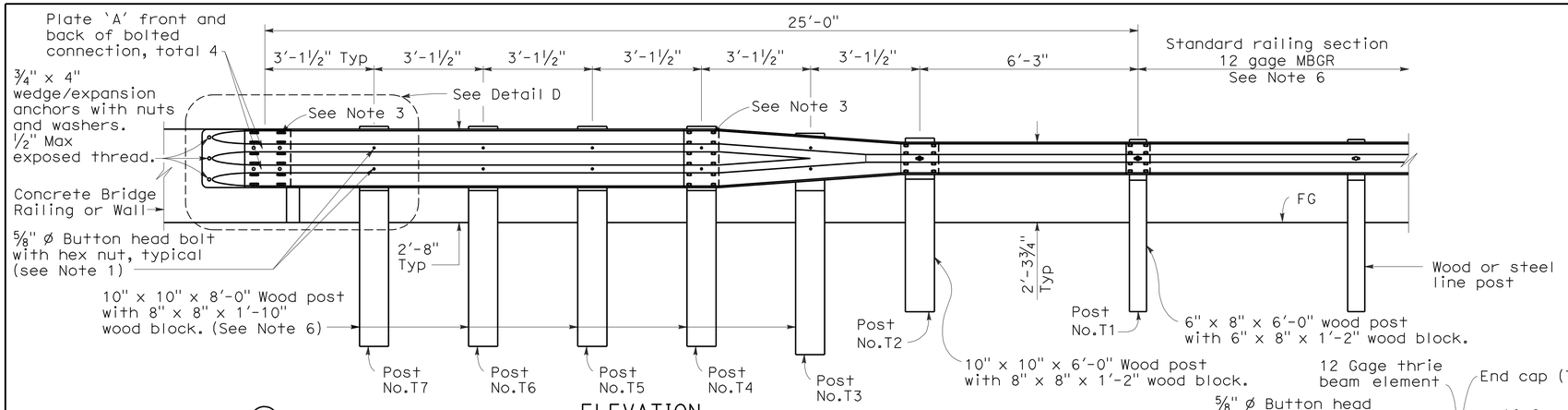
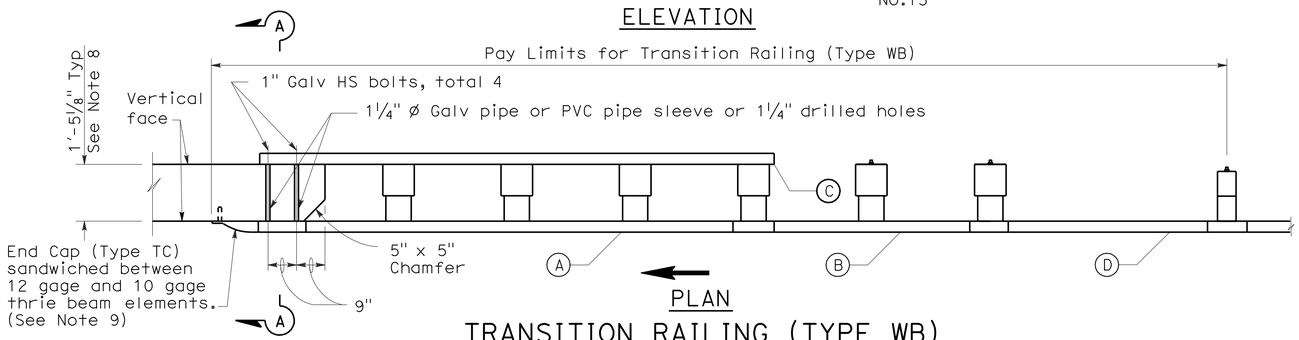


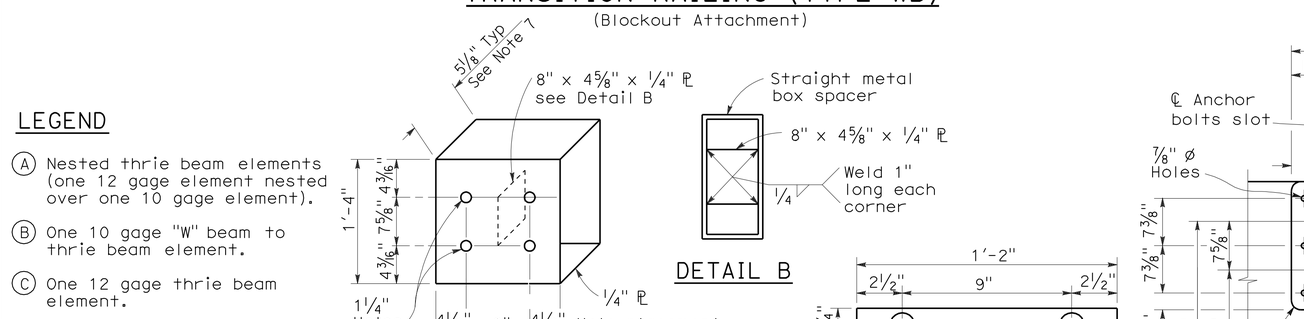
ELEVATION



PLAN

TRANSITION RAILING (TYPE WB)

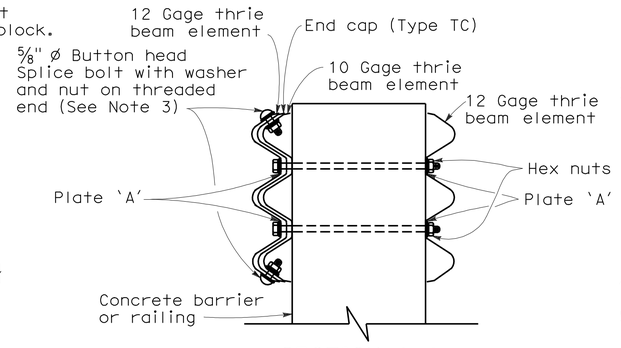
(No Blockout Attachment)



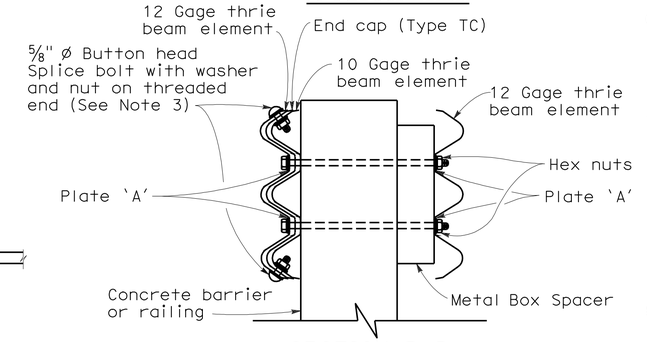
PLAN

TRANSITION RAILING (TYPE WB)

(Blockout Attachment)



SECTION A-A



SECTION B-B

LEGEND

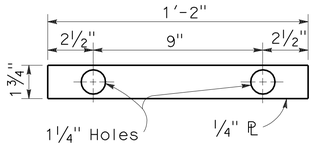
- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
- (B) One 10 gage "W" beam to thrie beam element.
- (C) One 12 gage thrie beam element.
- (D) One 10 gage "W" beam rail element (7'-3½" length)

10 gage = 0.135" thick

12 gage = 0.108" thick

DETAIL A

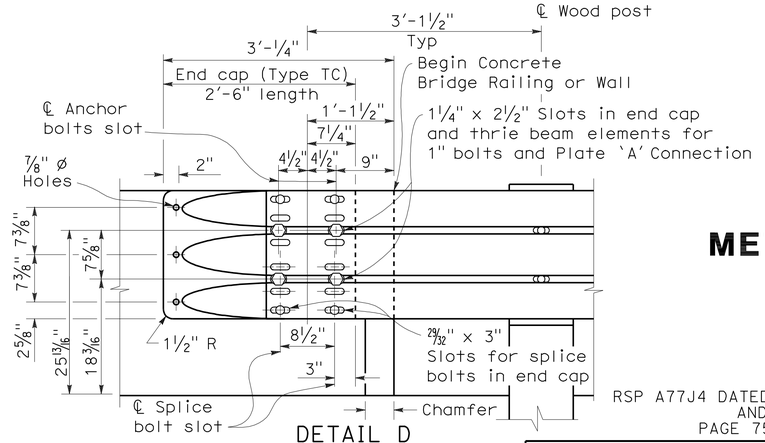
DETAIL B



DETAIL C

STRAIGHT METAL BOX SPACER

PLATE 'A'



DETAIL D

NOTES:

To accompany plans dated 4-26-10

1. Use 5/8 " ø 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.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 " ø. 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.
4. Direction of adjacent traffic indicated by →.
5. The top elevation of Post Nos.T2 through T7 shall not project more than 1" above the top elevation of the rail element.
6. 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.
7. 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.
8. 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.
9. 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.

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.

REVISED STANDARD PLAN RSP A77J4

2006 REVISED STANDARD PLAN RSP A77J4

5-14-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	51	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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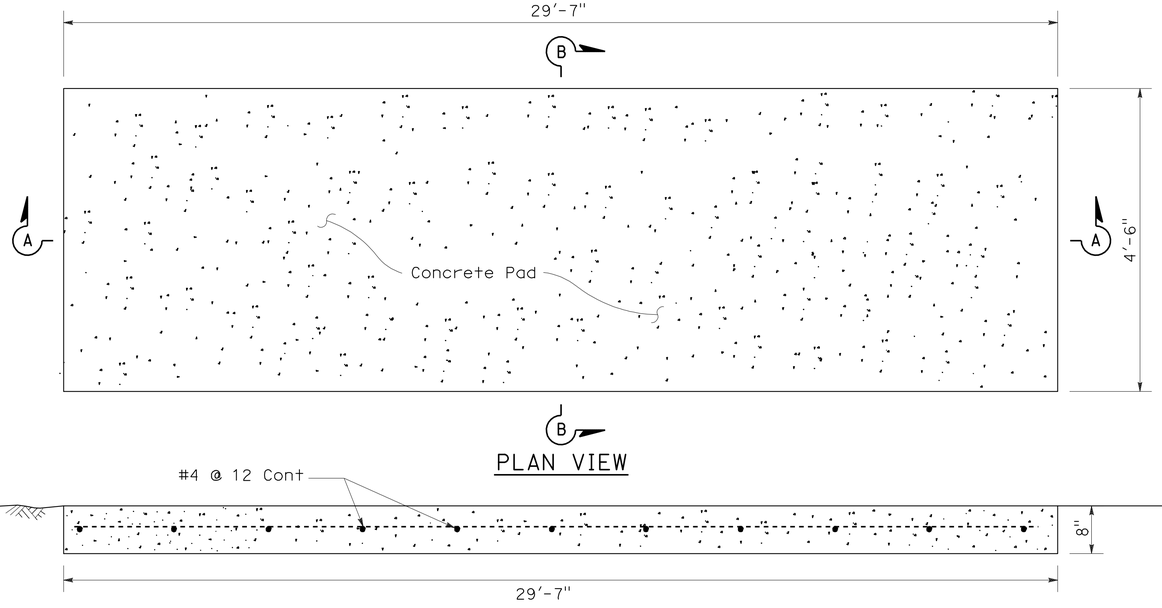
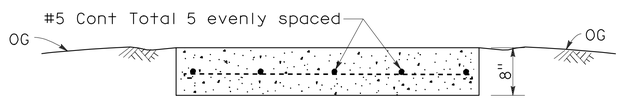
To accompany plans dated 4-26-10



PLAN VIEW

SECTION A-A

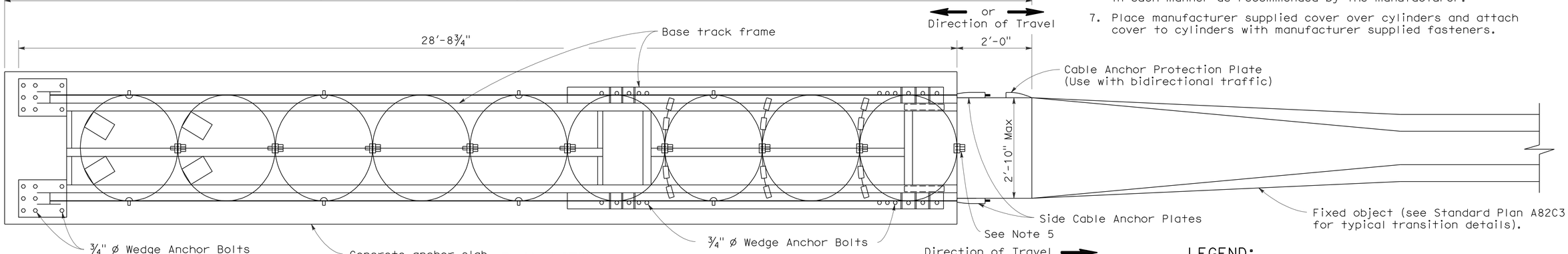
CONCRETE ANCHOR SLAB



SECTION B-B

NOTES:

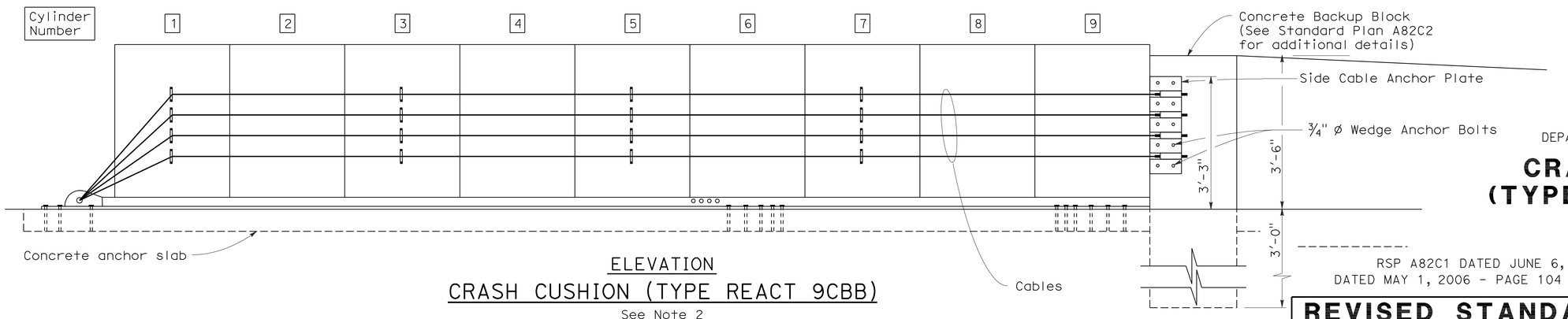
1. For additional details of this crash cushion, refer to manufacturer's installation instructions.
2. For details of the REACT Crash Cushion with self contained backup support (no concrete backup block), see Standard Plan A82D1.
3. The base track frame with cylinders attached comes from the manufacturer as a completely pre-assembled unit.
4. Place the crash cushion unit on the cured concrete anchor slab and use the base track frame of the crash cushion as a template for drilling anchor bolt holes. Drill holes in slab and attach crash cushion with wedge anchor bolts supplied by the manufacturer.
5. Attach last cylinder to concrete backup block with manufacturer supplied fastener in such manner as recommended by the manufacturer.
6. Attach the manufacturer supplied side cable anchor plates to the cured concrete backup block with the manufacturer supplied bolts in such manner as recommended by the manufacturer.
7. Place manufacturer supplied cover over cylinders and attach cover to cylinders with manufacturer supplied fasteners.



PLAN VIEW

LEGEND:

9CBB = 9 Cylinder Cushion with Concrete Backup Block



ELEVATION

CRASH CUSHION (TYPE REACT 9CBB)

See Note 2

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CRASH CUSHION (TYPE REACT 9CBB)

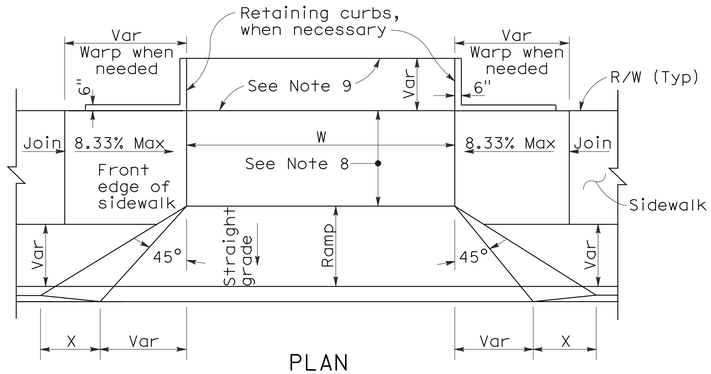
NO SCALE

RSP A82C1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A82C1 DATED MAY 1, 2006 - PAGE 104 OF THE STANDARD PLANS BOOK DATED MAY 2006.

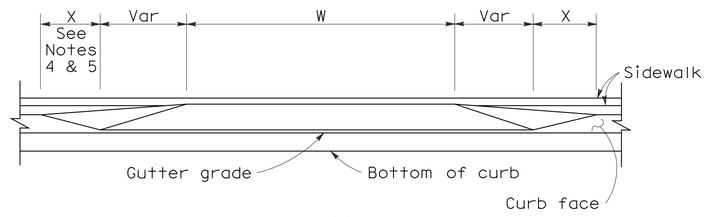
REVISED STANDARD PLAN RSP A82C1

2006 REVISED STANDARD PLAN RSP A82C1

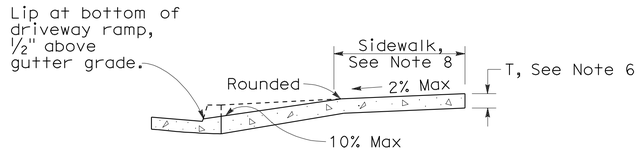
4-21-08



PLAN

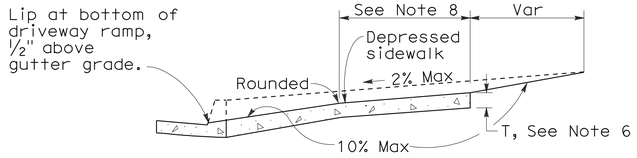


ELEVATION



CASE A

Typical driveway, sidewalk not depressed



CASE B

Driveway with depressed sidewalk

SECTIONS

CURB QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	52	95

REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Michael Janzen — No. 44788 — Exp. 03-31-08 CIVIL — STATE OF CALIFORNIA

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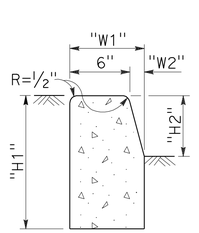
To accompany plans dated 4-26-10

TABLE A

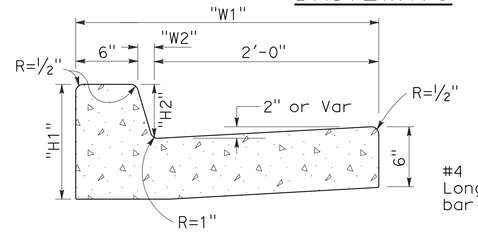
CURB TYPE	DIMENSIONS "H1"	"H2"	"W1"	"W2"
A1-6	1′-2"	6"	7½"	1½"
A1-8	1′-4"	8"	8"	2"
A2-6	1′-0"	6"	2′-7½"	1½"
A2-8	1′-2"	8"	2′-8"	2"
A3-6	6"	5"	7¼"	1¼"
A3-8	8"	7"	7¾"	1¾"
B1-4	1′-0"	4"	7½"	2½"
B1-6	1′-2"	6"	9"	4"
B2-4	10"	4"	2′-7½"	2½"
B2-6	1′-0"	6"	2′-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8½"	3½"
D-4	10"	4"	1′-6"	1′-1"
D-6	1′-0"	6"	2′-2"	1′-8"

DRIVEWAYS



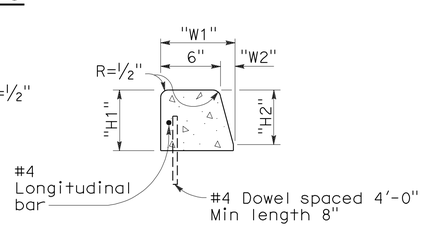
TYPE A1 CURBS

See Table A



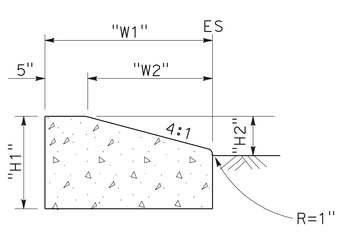
TYPE A2 CURBS

See Table A



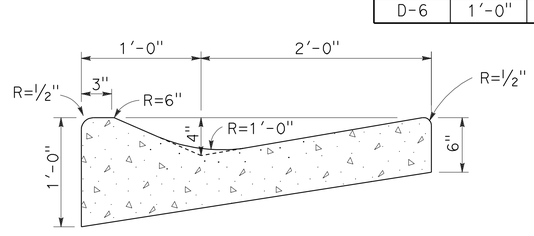
TYPE A3 CURBS

Superimposed on existing pavement
See Table A

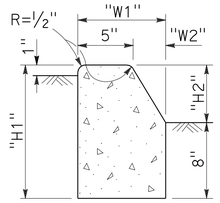


TYPE D CURBS

See Table A

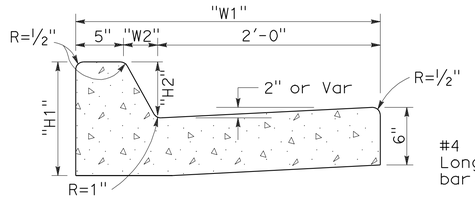


TYPE E CURB



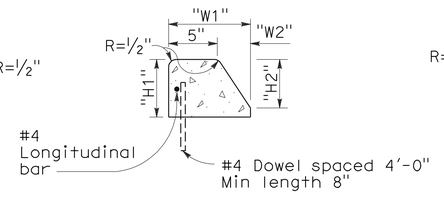
TYPE B1 CURBS

See Table A



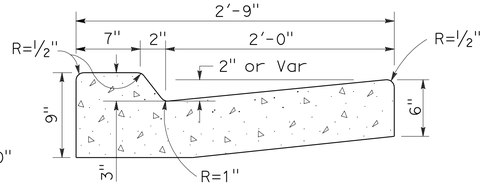
TYPE B2 CURBS

See Table A

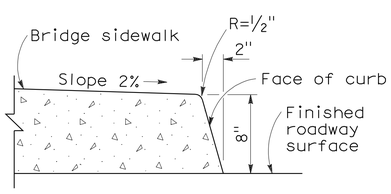


TYPE B3 CURBS

Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB

On Bridges

NOTES:

1. Case A driveway section typically applies.
2. Use Case B driveway section when ramp slopes would exceed 10% in Case A.
3. Use Case B driveway section when sidewalk cross slope would exceed 2% in Case A.
4. X=3′-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.

CURBS

5. X is a variable when sidewalk is located where wheelchairs may traverse the surface. Slopes shall not exceed 8.33%.
6. Sidewalk and ramp thickness "T" at driveway shall be 4" for residental and 6" for commercial.
7. Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5′-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
8. Minimum width of clear passageway for sidewalk shall be 4′-0".
9. Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
10. Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2′-0" of width.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURBS AND DRIVEWAYS

NO SCALE

RSP A87A DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN A87A
DATED MAY 1, 2006 - PAGE 113 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A87A

2006 REVISED STANDARD PLAN RSP A87A

10-25-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	53	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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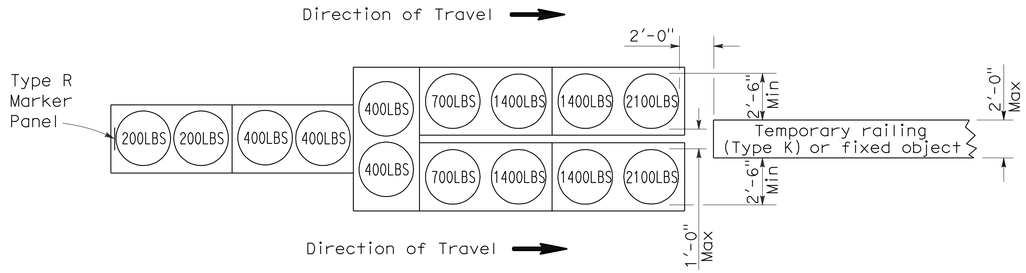
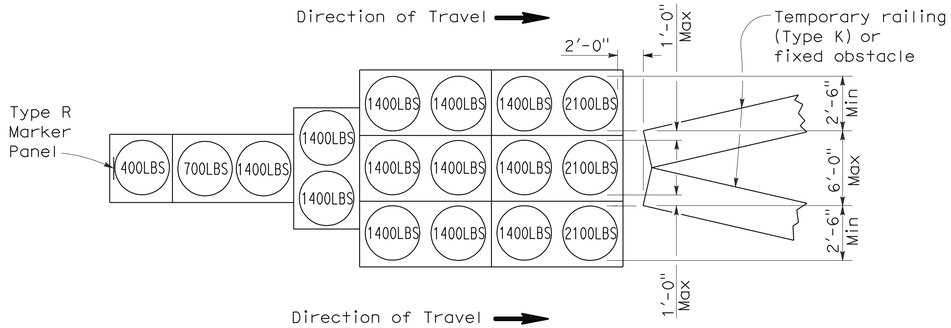
To accompany plans dated 4-26-10



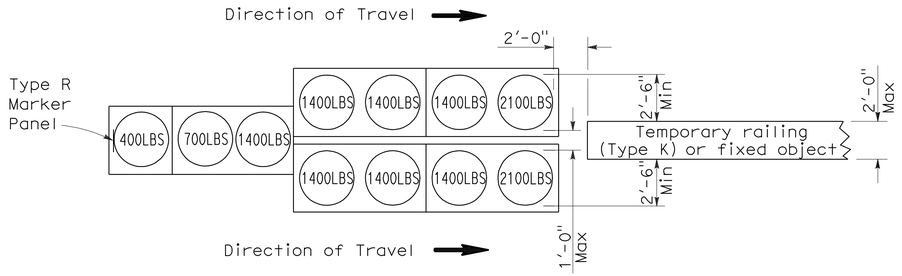
ARRAY 'TU14'

Approach speed 45 mph or more



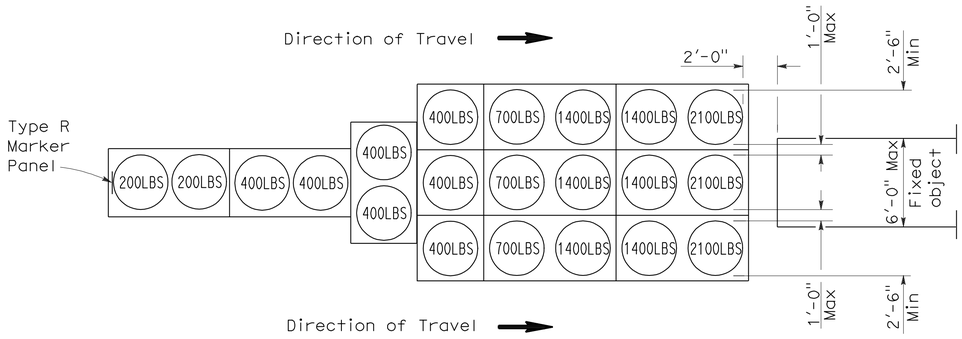
ARRAY 'TU17'

Approach speed less than 45 mph



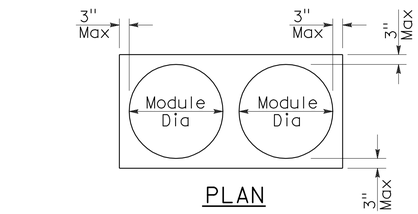
ARRAY 'TU11'

Approach speed less than 45 mph

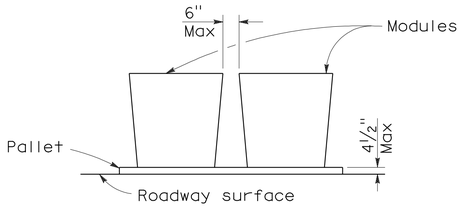


ARRAY 'TU21'

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

2006 REVISED STANDARD PLAN RSP T1A

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	54	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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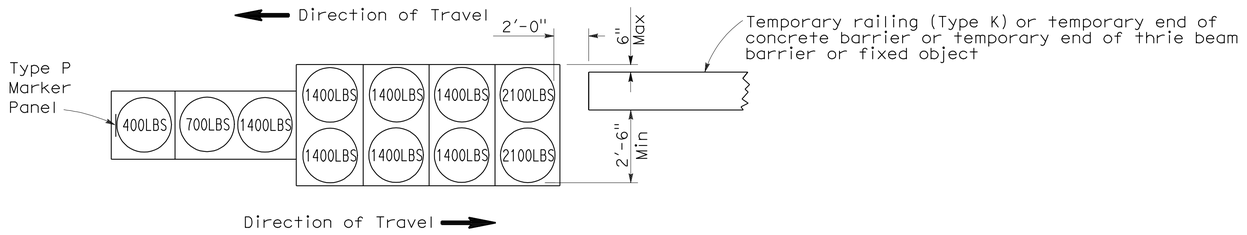
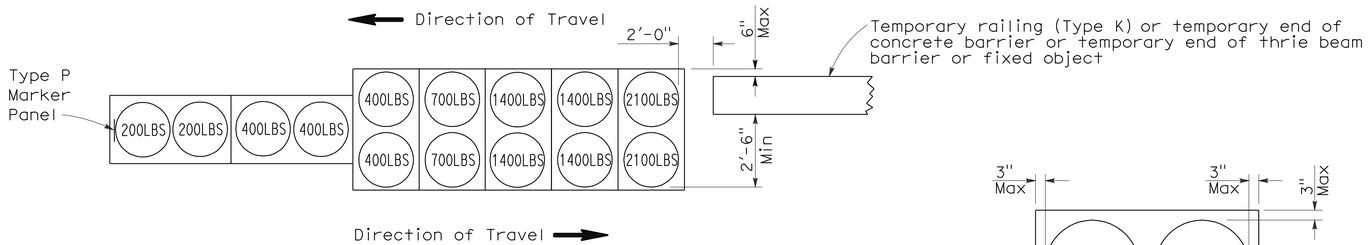
To accompany plans dated 4-26-10



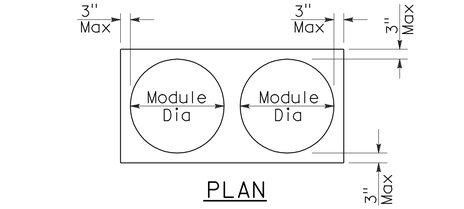
ARRAY 'TB11'

Approach speed less than 45 mph

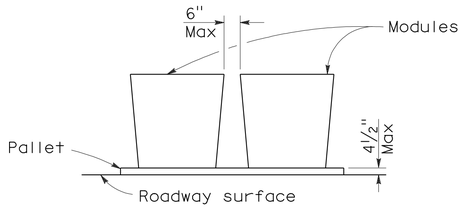


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	55	95

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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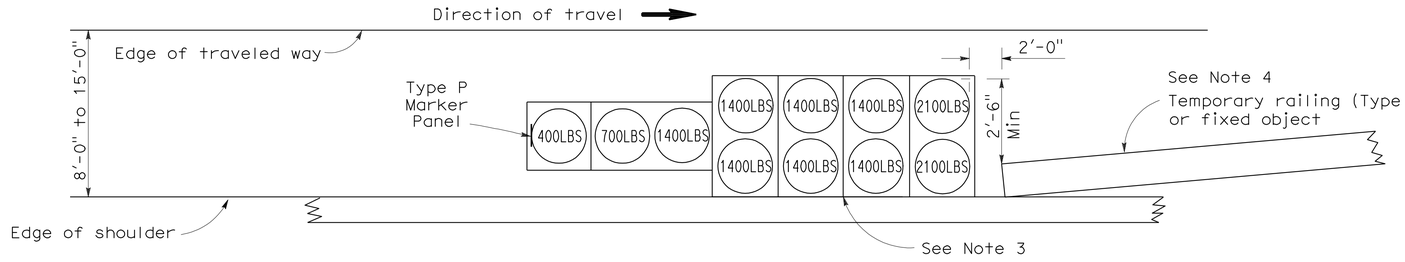
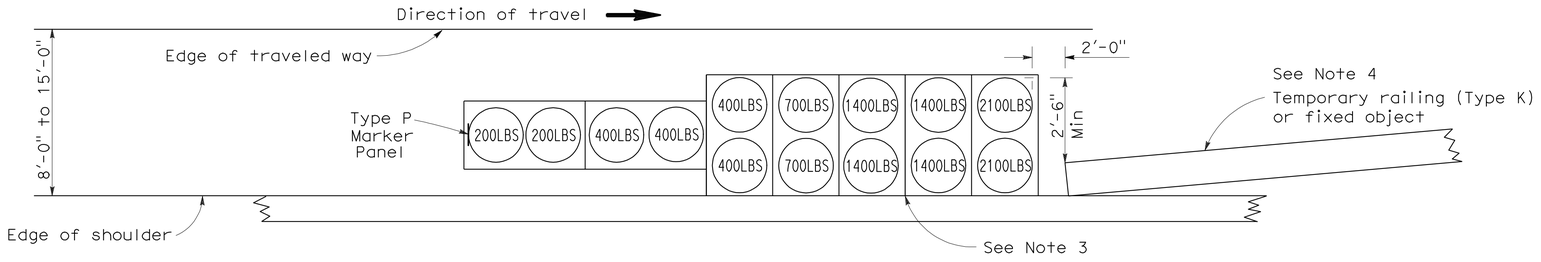
To accompany plans dated 4-26-10



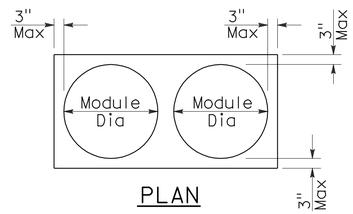
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

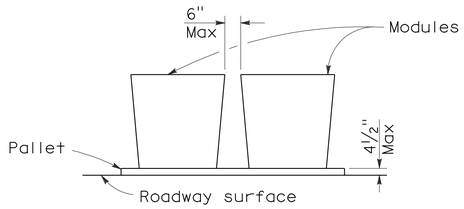


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

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. 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.
4. 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.
5. Temporary crash cushion arrays shall not encroach on the traveled way.
6. Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
7. Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
8. Refer to Standard Plan A73B for marker details.
9. 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.
10. Approach speeds indicated conform to NCHRP 350 Report criteria.
11. 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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	56	95

Greg W. Edwards
REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Greg W. Edwards — No. C36386 — Exp. 6-30-08 CIVIL — STATE OF CALIFORNIA

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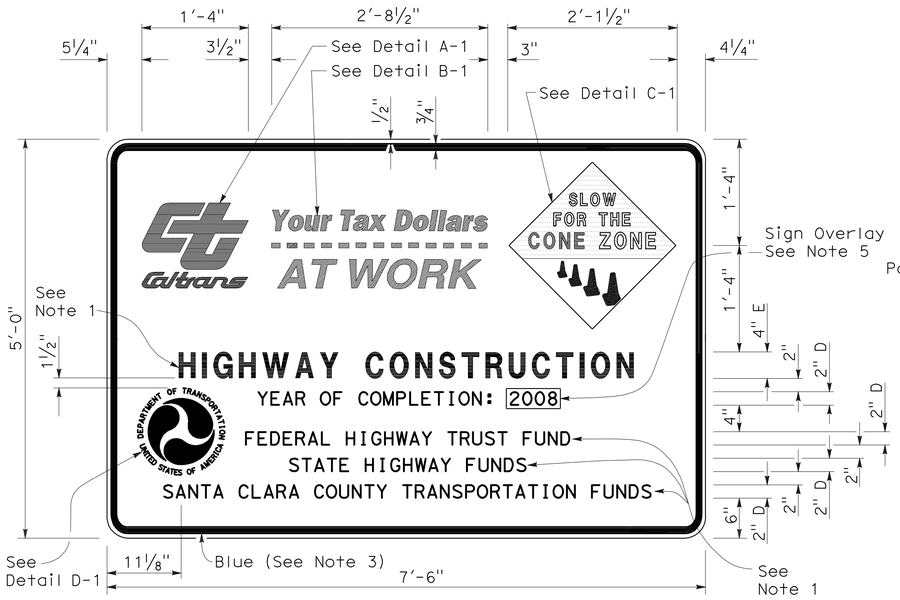
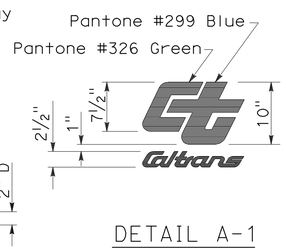
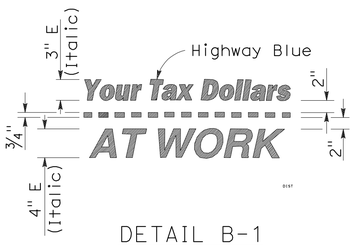
To accompany plans dated 4-26-10



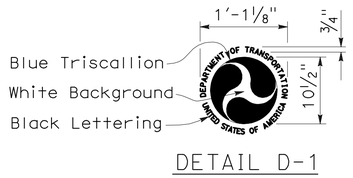
TYPE 1



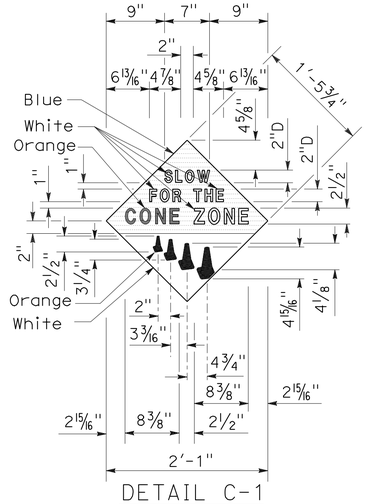
DETAIL A-1



DETAIL B-1
(See Note 3)



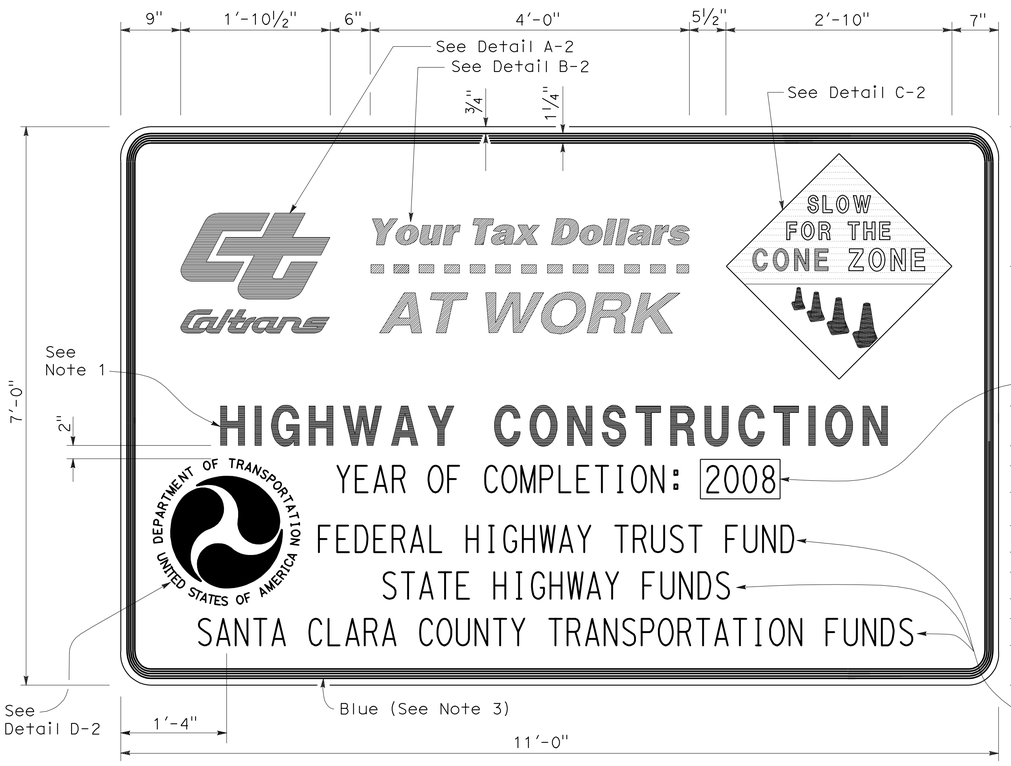
DETAIL D-1
(See Note 6)



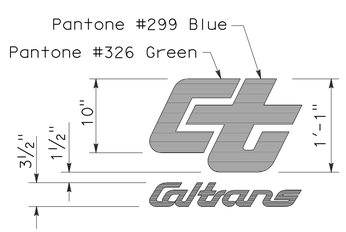
DETAIL C-1
(See Note 4)

NOTES:

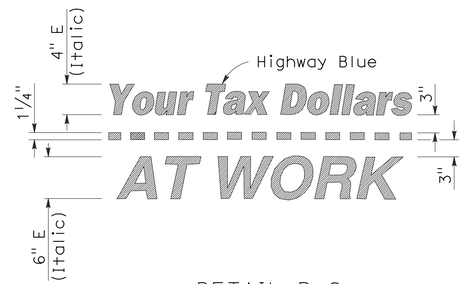
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



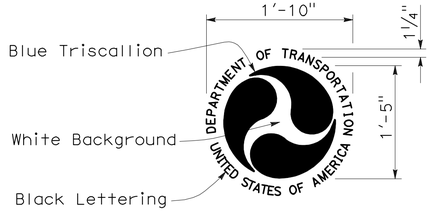
TYPE 2



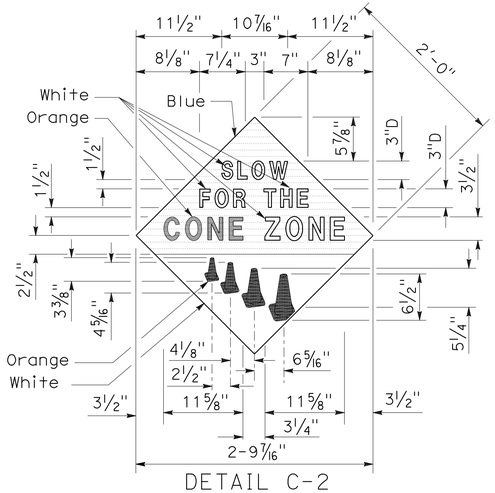
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL D-2
(See Note 6)



DETAIL C-2
(See Note 4)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

RSP T7 DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN T7
DATED MAY 1, 2006 - PAGE 217 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T7

2006 REVISED STANDARD PLAN RSP T7

9-7-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	57	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 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.

INDEX TO PLAN SHEETS

JAMES SAGAR
DESIGN ENGINEER

DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD			
DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells		
QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON		

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
INDEX TO PLAN

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 6/24/09

SHEET 1 OF 39

FILE => 08478301001.dgn

USERNAME => tmrkes| DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:48

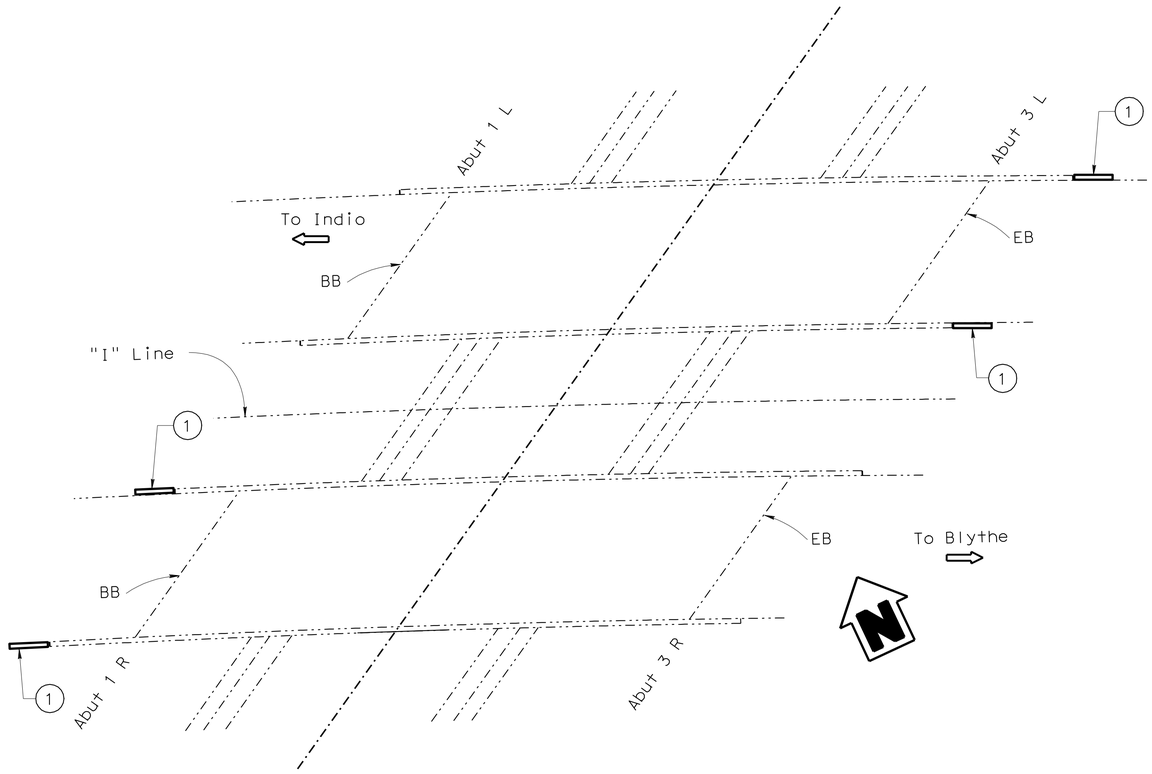
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	58	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

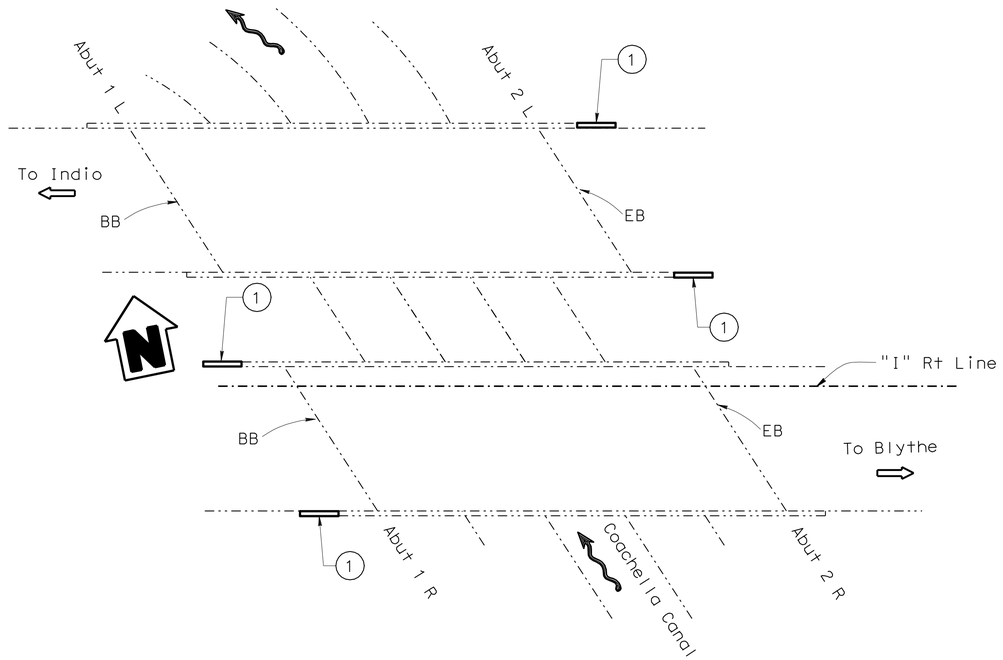
4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 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.



DILLON ROAD UC
56-617 R/L, RTE 10, PM 58.9



COACHELLA CANAL BRIDGE
56-079 R/L, RTE 10, PM 60.39

Legend:

-·-·-·- Indicates existing structure.

——— Indicates new construction

NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
DILLON ROAD UC & COACHELLA CANAL BRIDGE
GENERAL PLAN NO. 1

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 2 OF 39

FILE => 08478301002.dgn

USERNAME => rtmikes DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:48

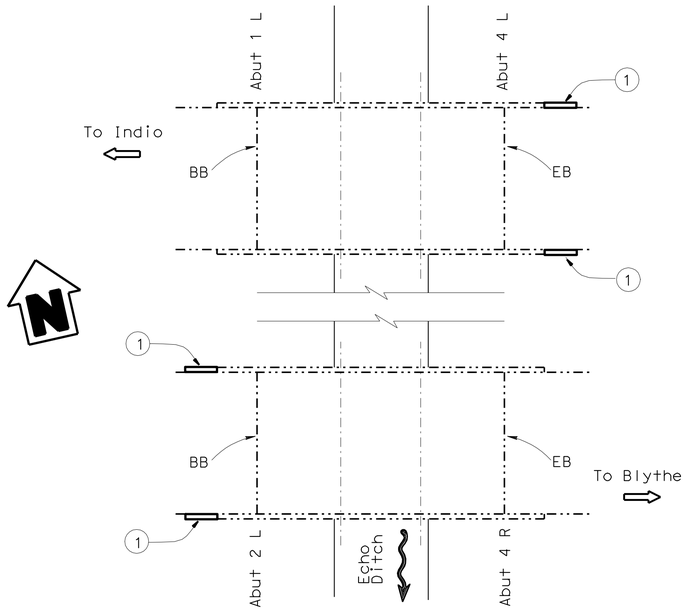
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	59	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

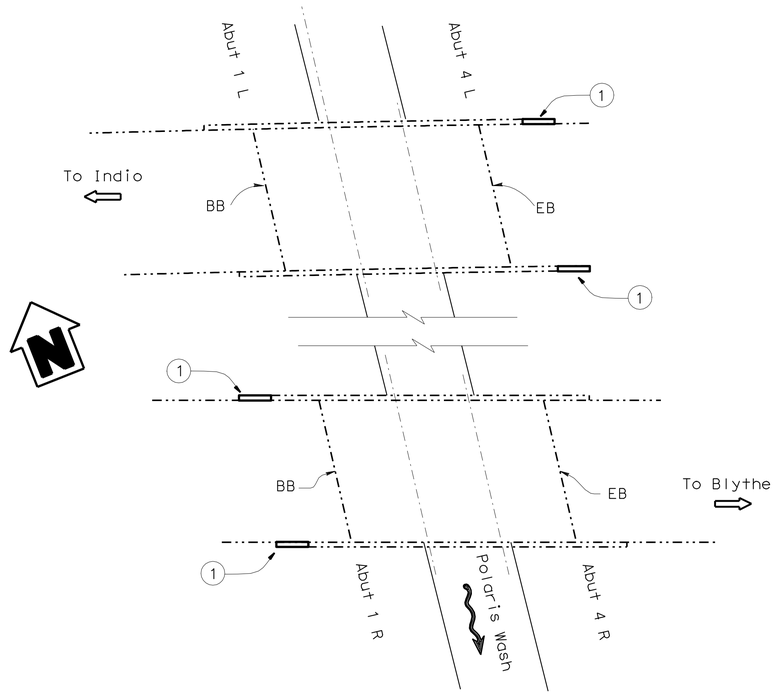
4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 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.



ECHO DITCH BRIDGE
56-475 R/L, RTE 10, PM 62.60



POLARIS WASH BRIDGE
56-476 R/L, RTE 10, PM 62.02

NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

Legend:

-·-·-·- Indicates existing structure.

——— Indicates new construction

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
ECHO DITCH BRIDGE & POLARIS WASH BRIDGE
GENERAL PLAN NO. 2

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 3 OF 39

FILE => 08478301003.dgn

USERNAME => frmirkes1 DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	60	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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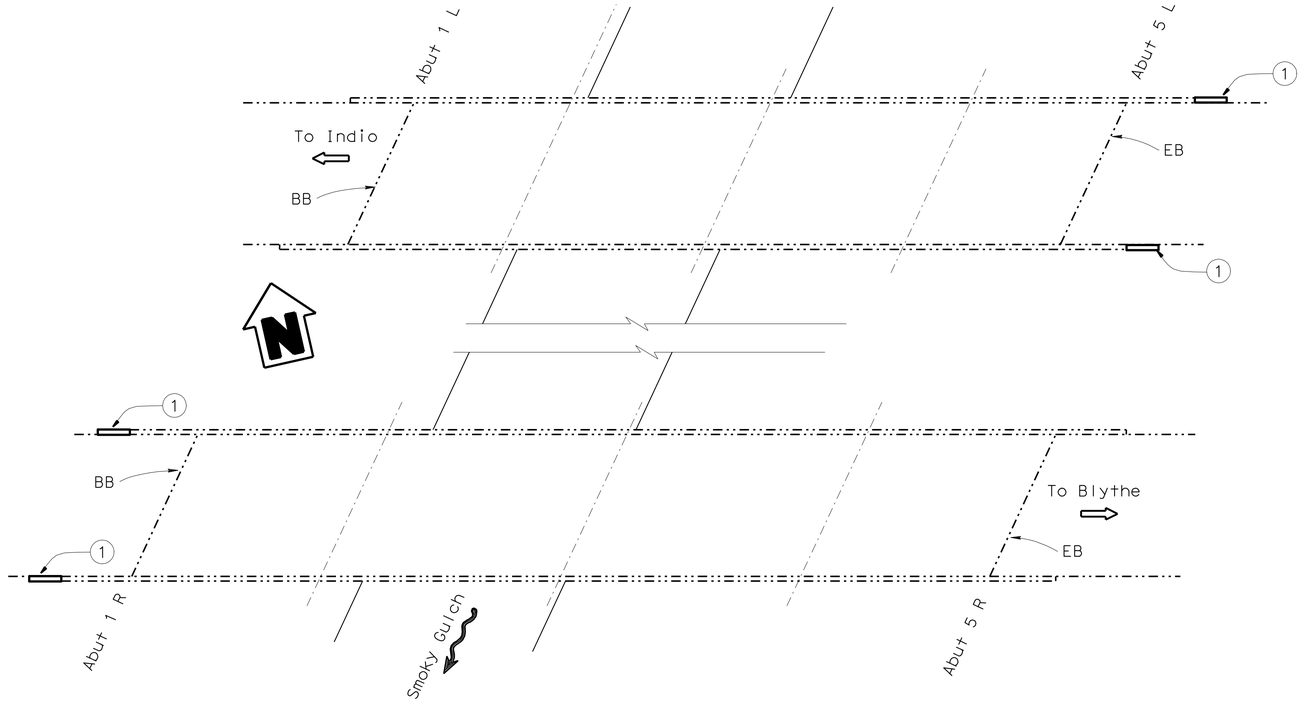
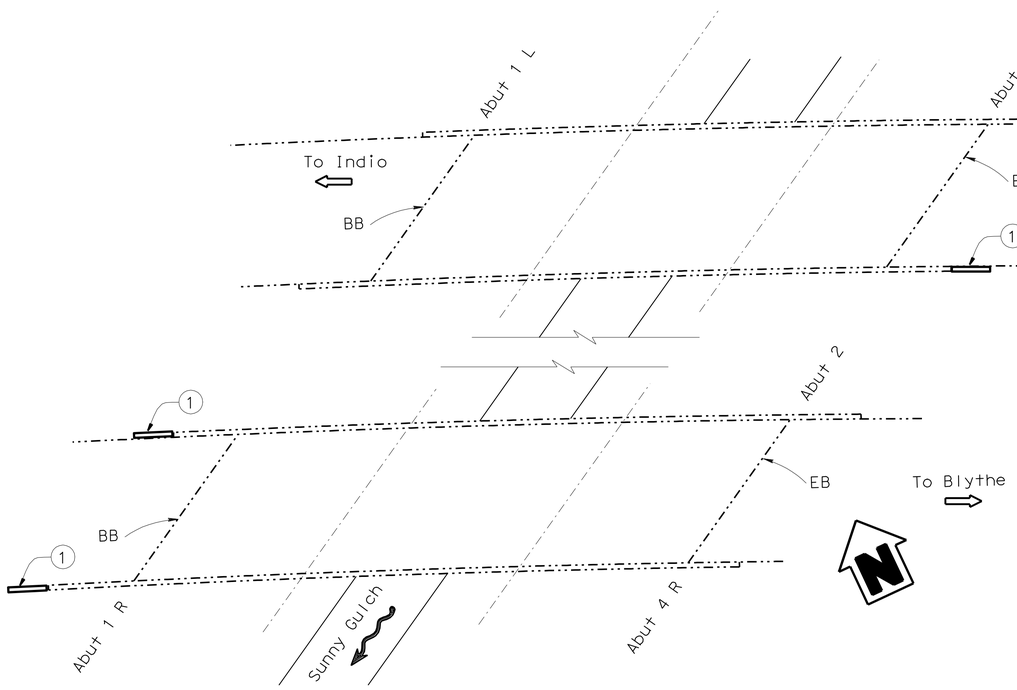


SMOKY GULCH BRIDGE
56-201 R/L, RTE 10, PM 63.63

Legend:

Indicates existing structure.

Indicates new construction



SUNNY GULCH BRIDGE
56-202 R/L, RTE 10, PM 66.18

NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
SMOKY GULCH BRIDGE & SUNNY GULCH BRIDGE
GENERAL PLAN NO. 3

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 5-02-09

SHEET 4 OF 39

FILE => 08478301004.dgn

USERNAME => tmikesl DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	61	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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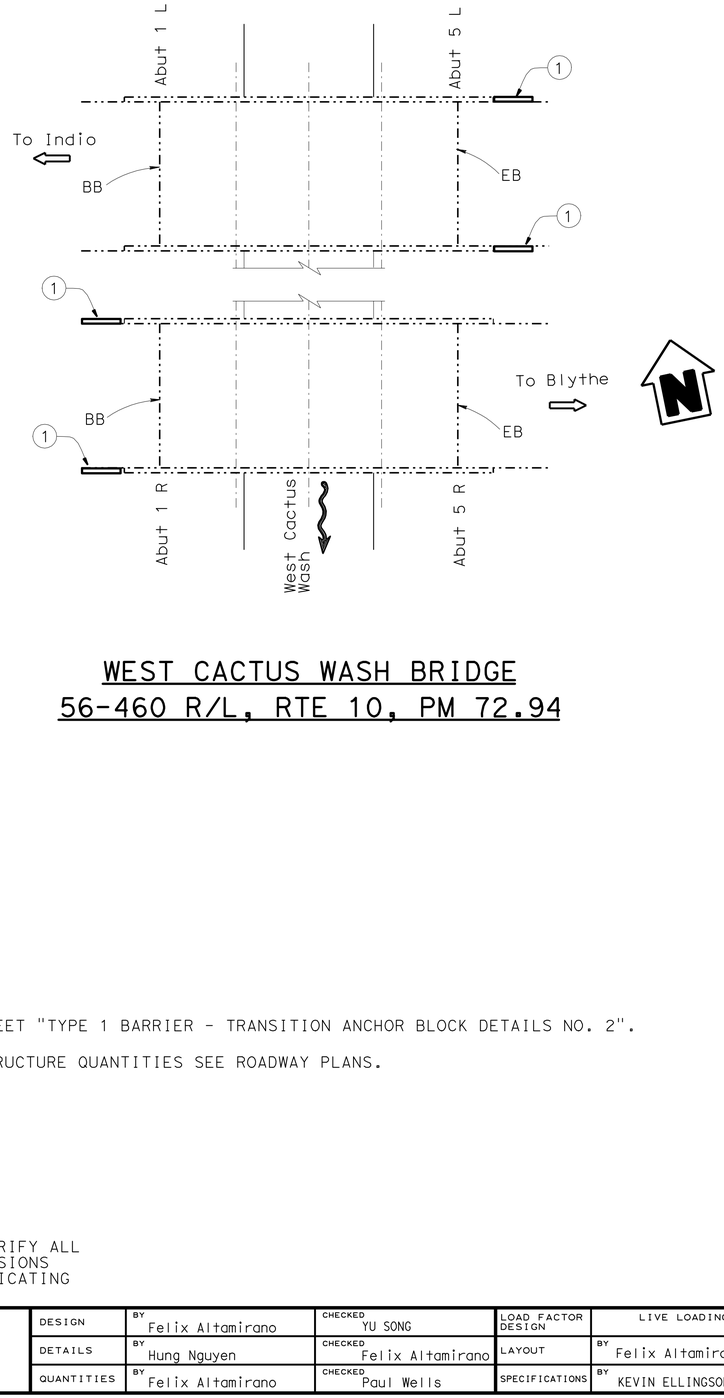
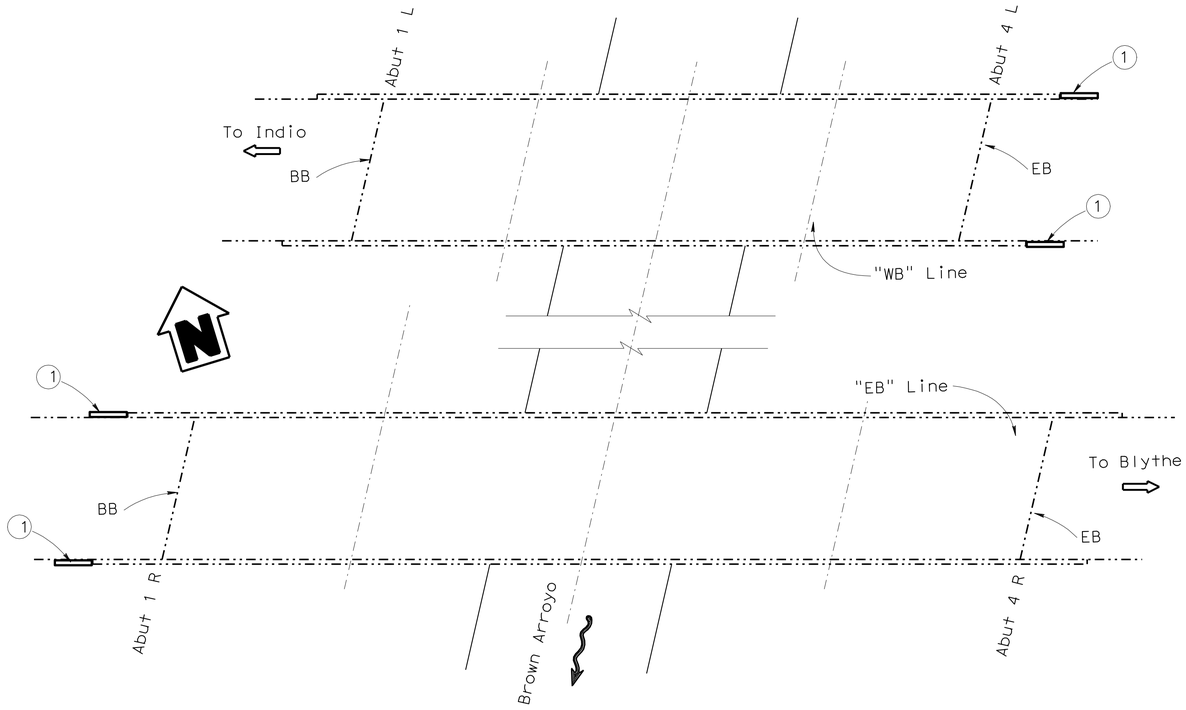


WEST CACTUS WASH BRIDGE
56-460 R/L, RTE 10, PM 72.94

Legend:

Indicates existing structure.

Indicates new construction



BROWN ARROYO BRIDGE
56-204 R/L, RTE 10, PM 68.28

NO SCALE

NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

JAMES SAGAR
DESIGN ENGINEER

DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells
QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
WEST CACTUS WASH BRIDGE & BROWN ARROYO BRIDGE
GENERAL PLAN NO. 4

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 5 OF 39

FILE => 08478301005.dgn

USERNAME => ttmirkes1 DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:42

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	62	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — FELIX ALTAMIRANO — No. C56401 — Exp. 6/30/11 — CIVIL — STATE OF CALIFORNIA

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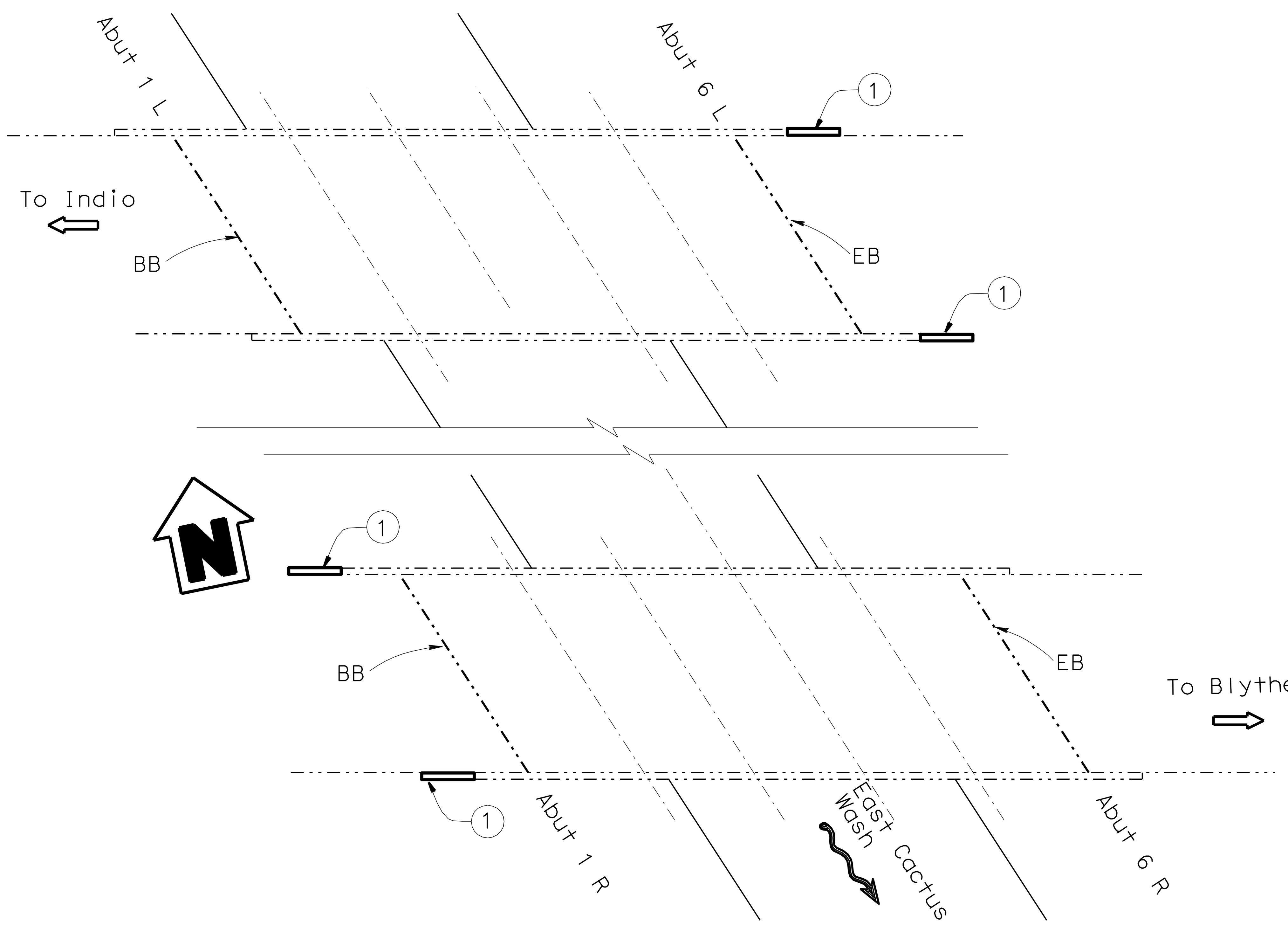
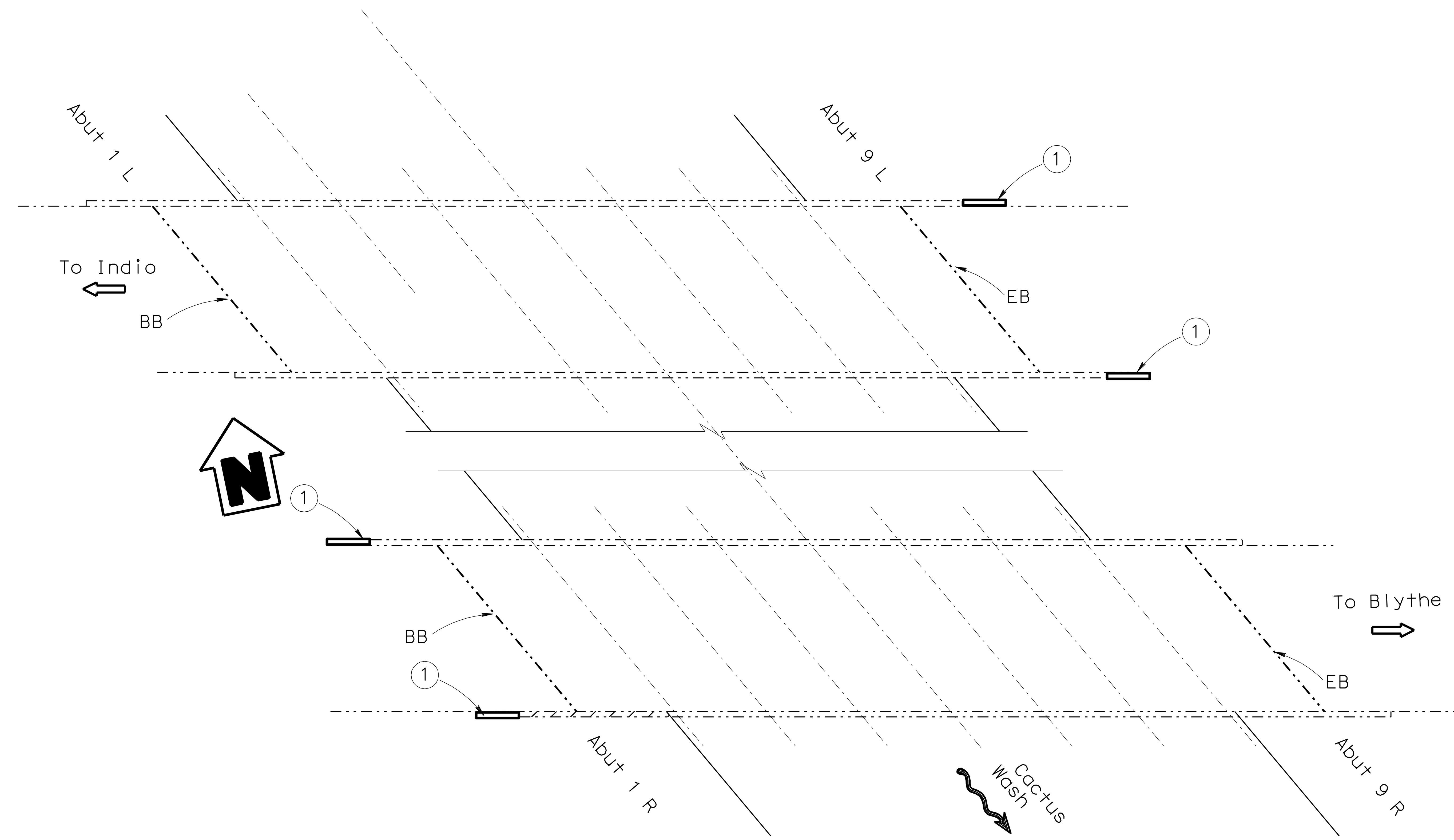


Legend:

-·-··-·- Indicates existing structure.

——— Indicates new construction

EAST CACTUS WASH BRIDGE
56-462 R/L, RTE 10, PM 73.43



NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

CACTUS WASH BRIDGE
56-461 R/L, RTE 10, PM 73.19

NO SCALE

JAMES SAGAR, DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
EAST CACTUS WASH BRIDGE & CACTUS WASH BRIDGE
GENERAL PLAN NO. 5

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
10-01-09	6	39

FILE => 08478301006.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	63	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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NOTES:

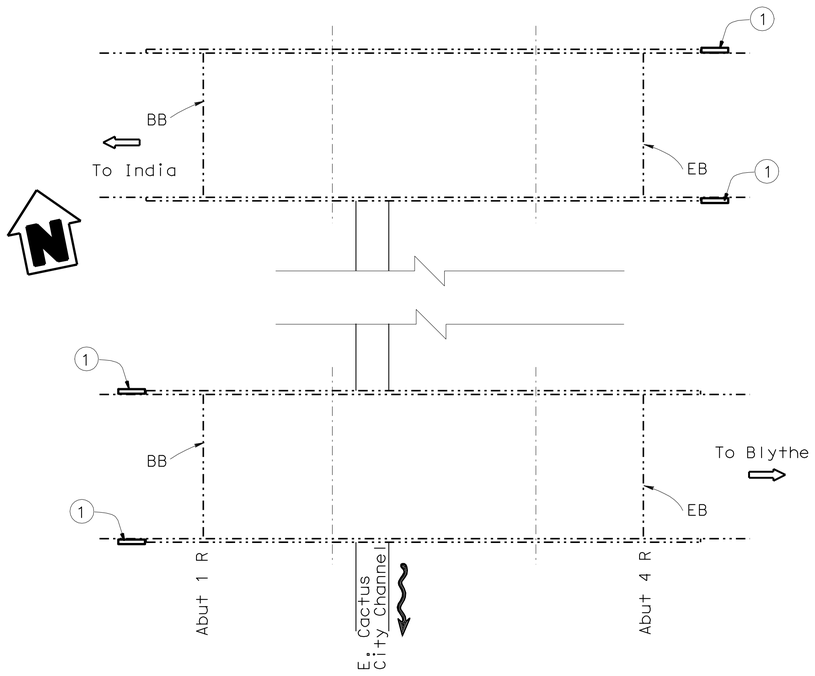
(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

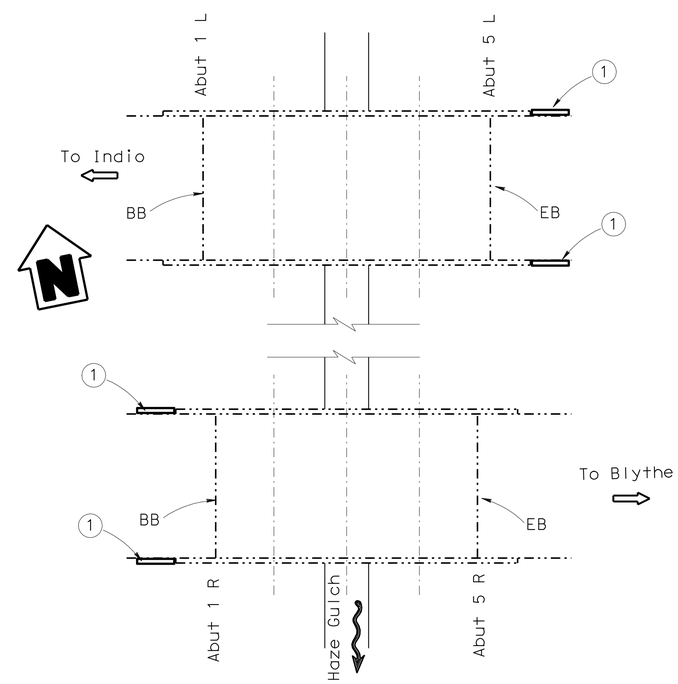
Legend:

-·-·-·-·- Indicates existing structure.

——— Indicates new construction



EAST CACTUS CITY UC BRIDGE
56-511 R/L, RTE 10, PM 74.84



HAZY GULCH BRIDGE
56-463 R/L, RTE 10, PM 74.10

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
EAST CACTUS CITY UC BRIDGE & HAZY GULCH BRIDGE
GENERAL PLAN NO. 6

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 7 OF 39

FILE => 08478301007.dgn

USERNAME => rmikesl DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:42

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	64	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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Legend:

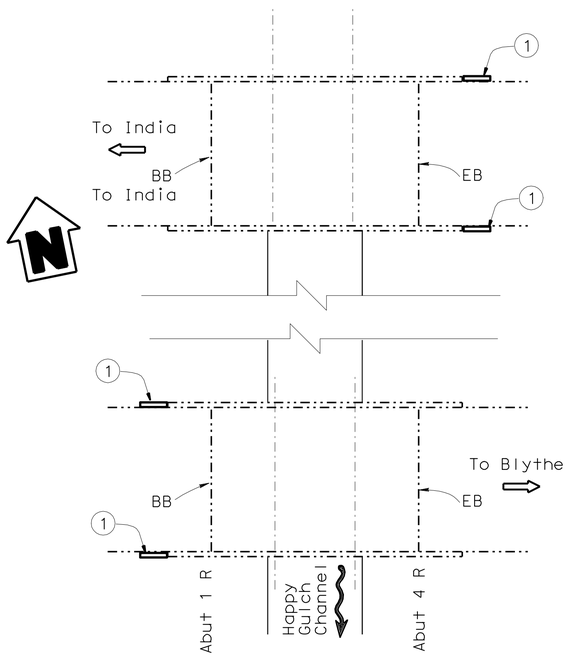
Indicates existing structure.

Indicates new construction

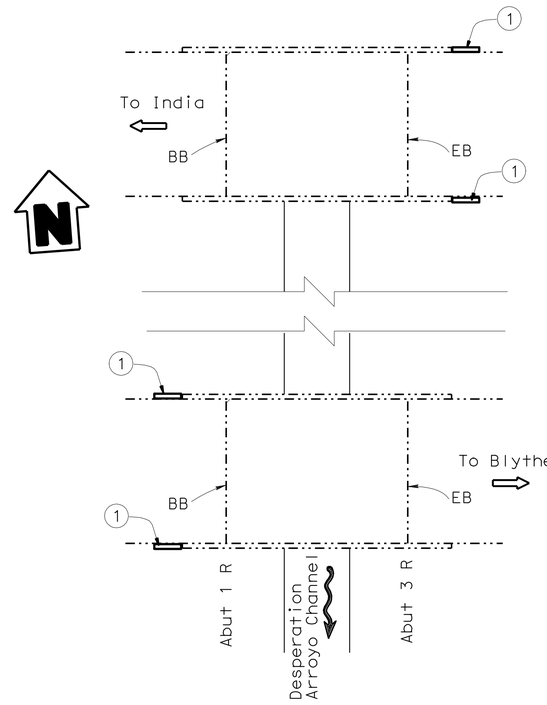
NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



HAPPY GULCH BRIDGE
56-209 R/L, RTE 10, PM 75.60



DESPERATION ARROYO BRIDGE
56-464 R/L, RTE 10, PM 77.11

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURES DESIGN SPECIAL DESIGNS BRANCH
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells		
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON		

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
HAPPY GULCH BRIDGE & DESPERATION ARROYO BRIDGE
GENERAL PLAN NO. 7

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 8 OF 39

FILE => 08478301008.dgn

USERNAME => tmikesl DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:42

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	65	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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LEGEND:

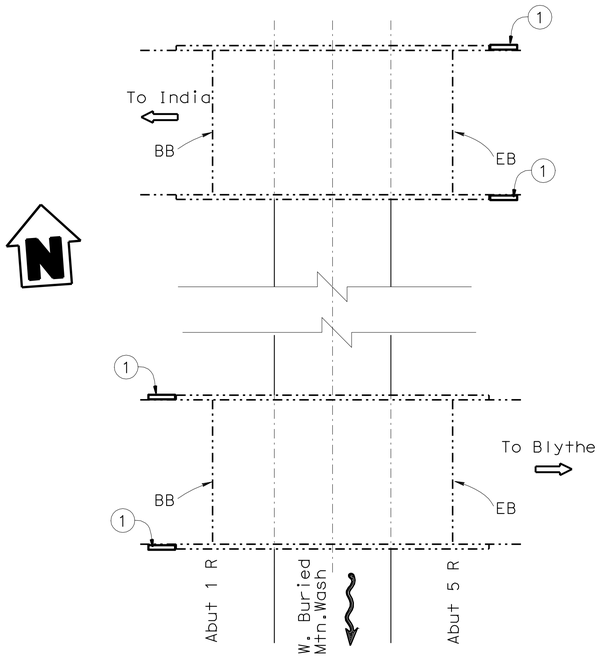
-·-·-·- Indicates existing structure.

——— Indicates new construction

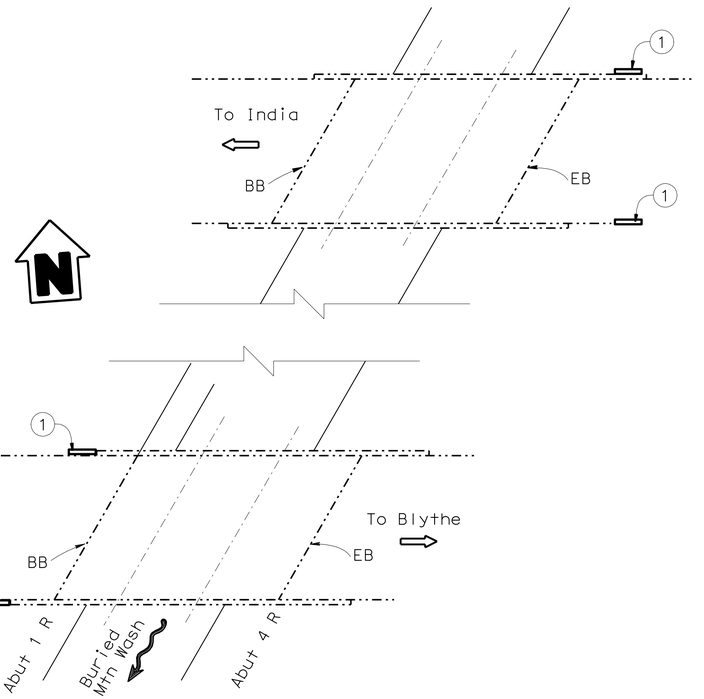
NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



WEST BURIED MOUNTAIN WASH BRIDGE
56-465 R/L, RTE 10, PM 77.90



BURIED MOUNTAIN WASH BRIDGE
56-212 R/L, RTE 10, PM 78.54

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
WEST BURIED MOUNTAIN WASH BRIDGE & BURIED MOUNTAIN WASH BRIDGE
GENERAL PLAN NO. 8

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 9 OF 39

FILE => 08478301009.dgn

USERNAME => rmikesl DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:43

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	66	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

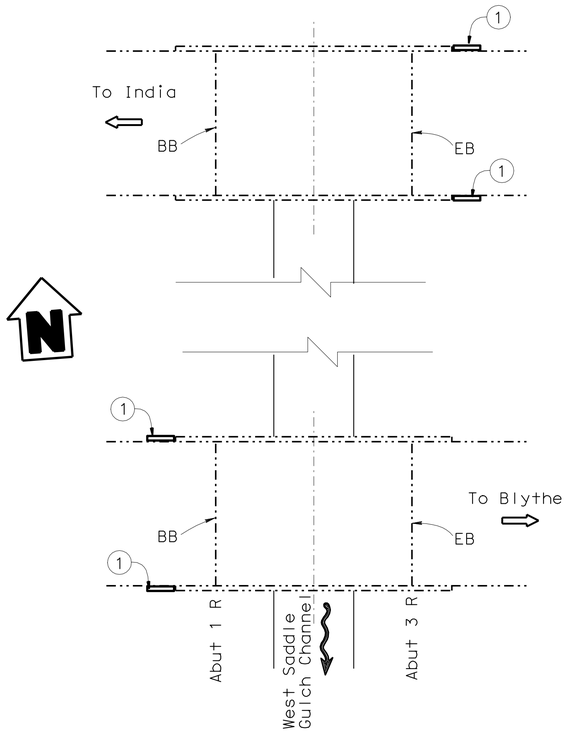
REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

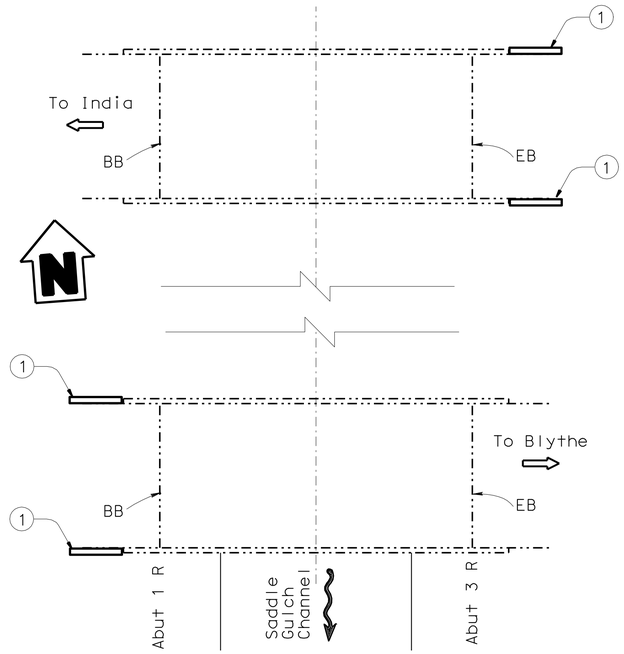
LEGEND:

-·-·-·- Indicates existing structure.

——— Indicates new construction



WEST SADDLE GULCH BRIDGE
56-466 R/L, RTE 10, PM 79.25



SADDLE GULCH BRIDGE
56-467R/L, RTE 10, PM 79.58

NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES

WEST SADDLE GULCH BRIDGE & SADDLE GULCH BRIDGE

GENERAL PLAN NO. 9

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)										SHEET	OF
3-02-09	10-7-09									10	39

FILE => 08478301010.dgn

USERNAME => rtrim DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	67	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

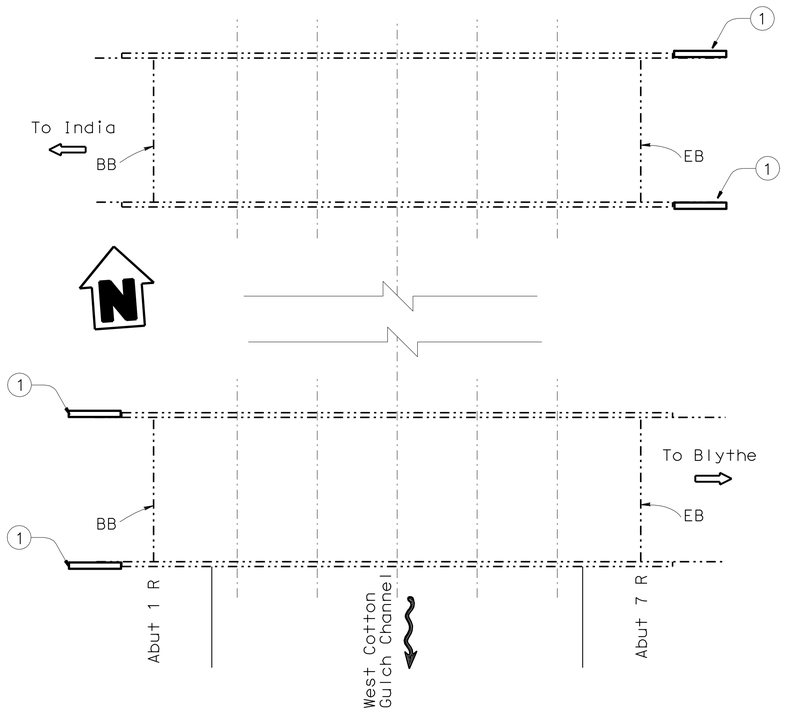
REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

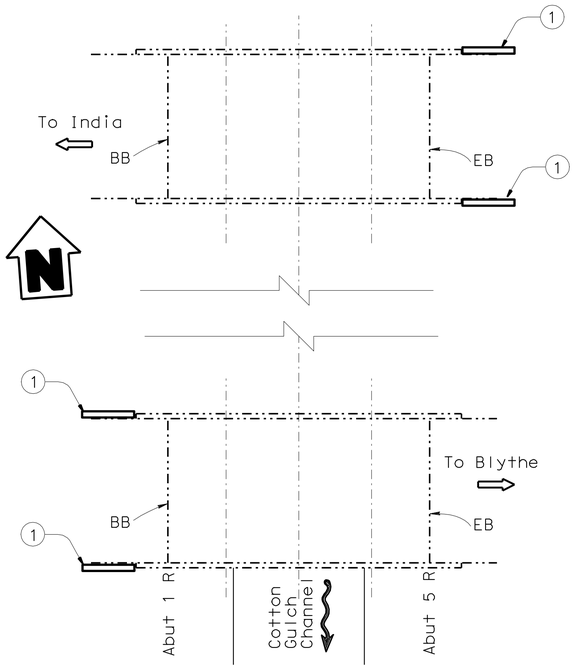
LEGEND:

Indicates existing structure.

Indicates new construction



WEST COTTON GULCH BRIDGE
56-468 R/L, RTE 10, PM 79.94



COTTON GULCH BRIDGE
56-469 R/L, RTE 10, PM 80.33

NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

NO SCALE

JAMES SAGAR
DESIGN ENGINEER

DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells
QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES

WEST COTTON GULCH BRIDGE & COTTON GULCH BRIDGE

GENERAL PLAN NO.10

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 11 OF 39

FILE => 08478301011.dgn

USERNAME => rfrtim DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	68	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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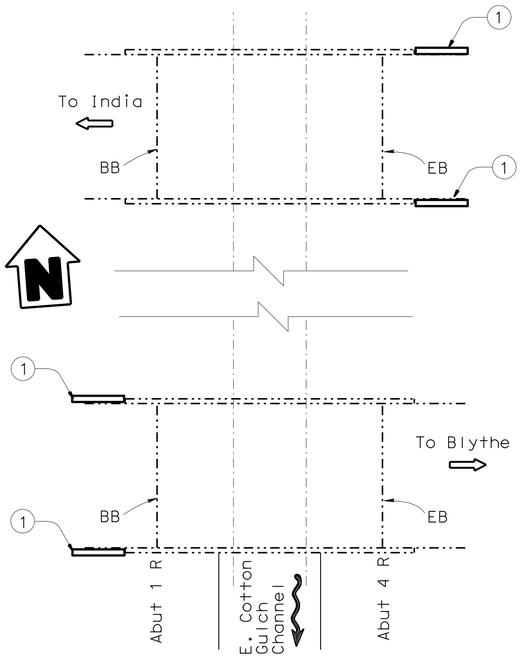
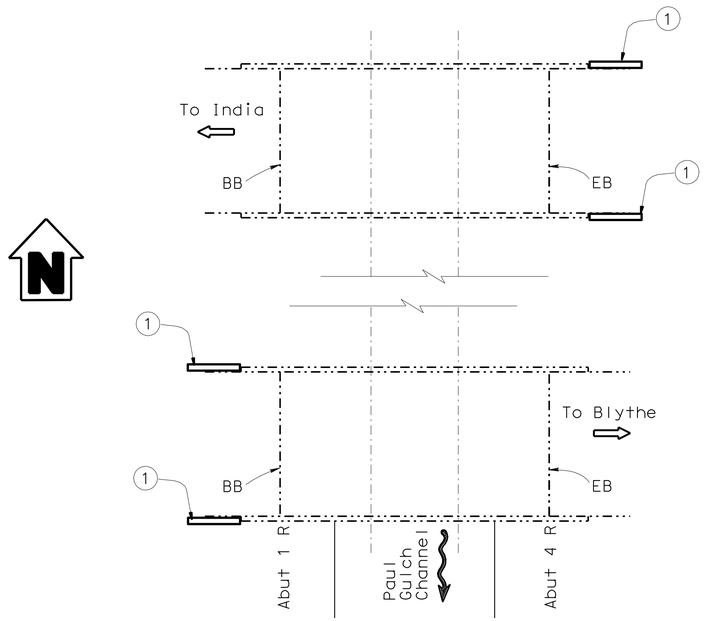
LEGEND:

-·-·-·- Indicates existing structure.

——— Indicates new construction



EAST COTTON GULCH BRIDGE
56-470 R/L, RTE 10, PM 80.67



PAUL GULCH BRIDGE
56-512 R/L, RTE 10, PM 81.22

NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

NO SCALE

JAMES SAGAR, DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES

EAST COTTON GULCH BRIDGE & PAUL GULCH BRIDGE

GENERAL PLAN NO. 11

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 12 OF 39

FILE => 08478301012.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:30
USERNAME => tr1im

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	69	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

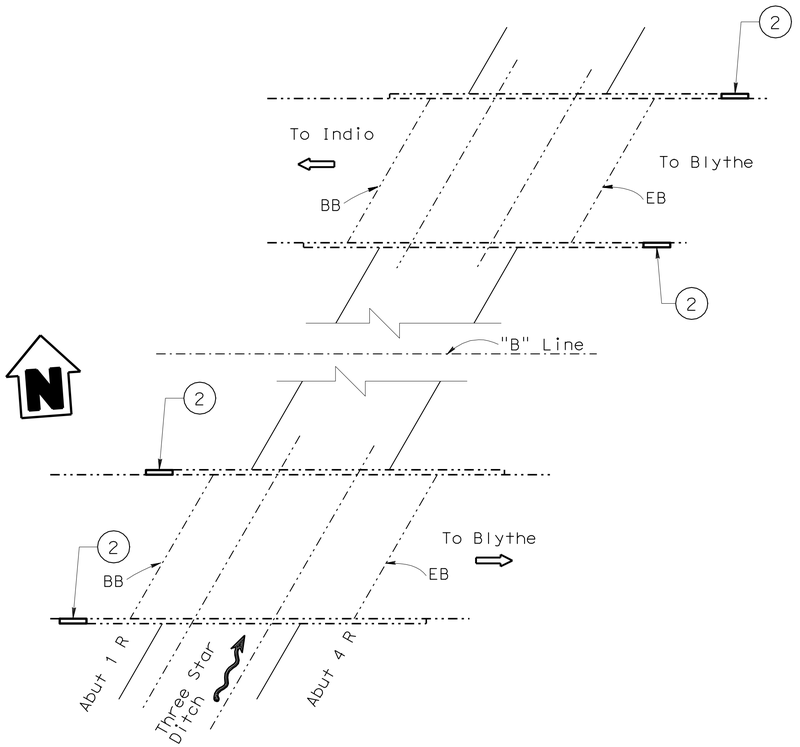
4-26-10
PLANS APPROVAL DATE

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.

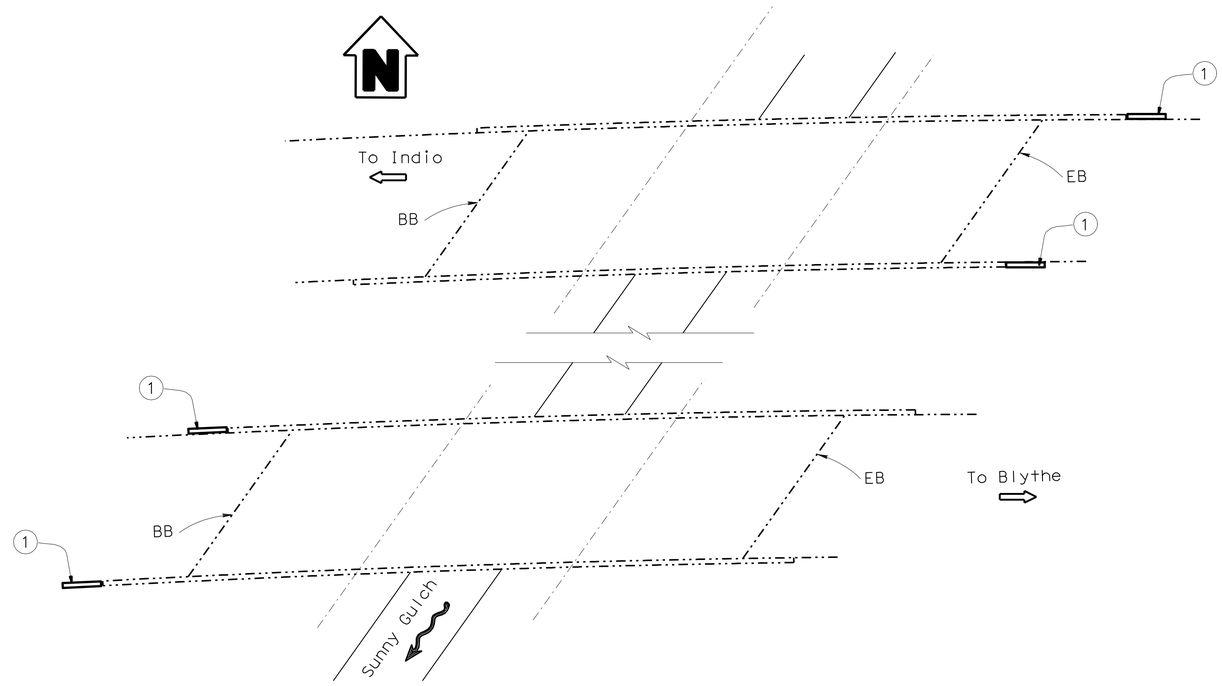
LEGEND:

Indicates existing structure.

Indicates new construction



THREE STAR DITCH BRIDGE
56-129 R/L, RTE 10, PM 87.98



PINTO GULCH BRIDGE
56-514 R/L, RTE 10, PM 82.58

NOTES:

(1) SEE SHEET "TYPE 1 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 2".

(2) SEE SHEET "TYPE 9 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 1".

3. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

NO SCALE

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

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
THREE STAR DITCH BRIDGE & PINTO GULCH BRIDGE
GENERAL PLAN NO. 12

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 13 OF 39

FILE => 08478301013.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:30
USERNAME => fr1im

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	70	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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LEGEND:

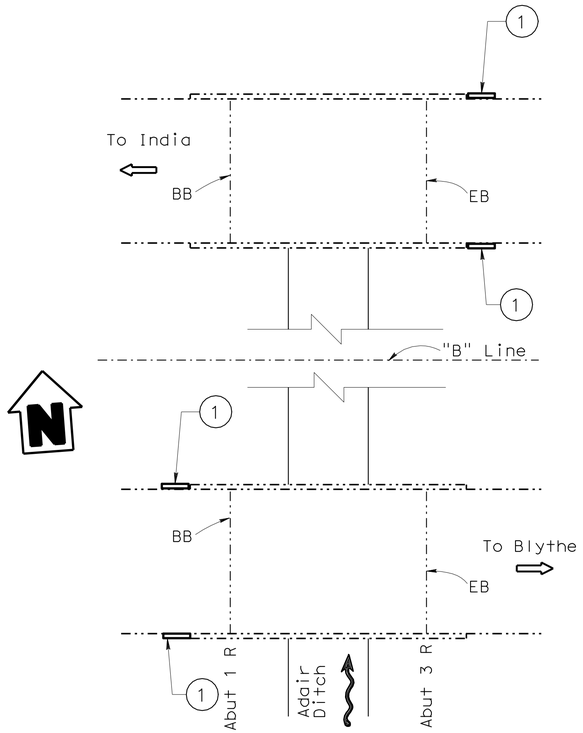
-·-·-·- Indicates existing structure.

——— Indicates new construction

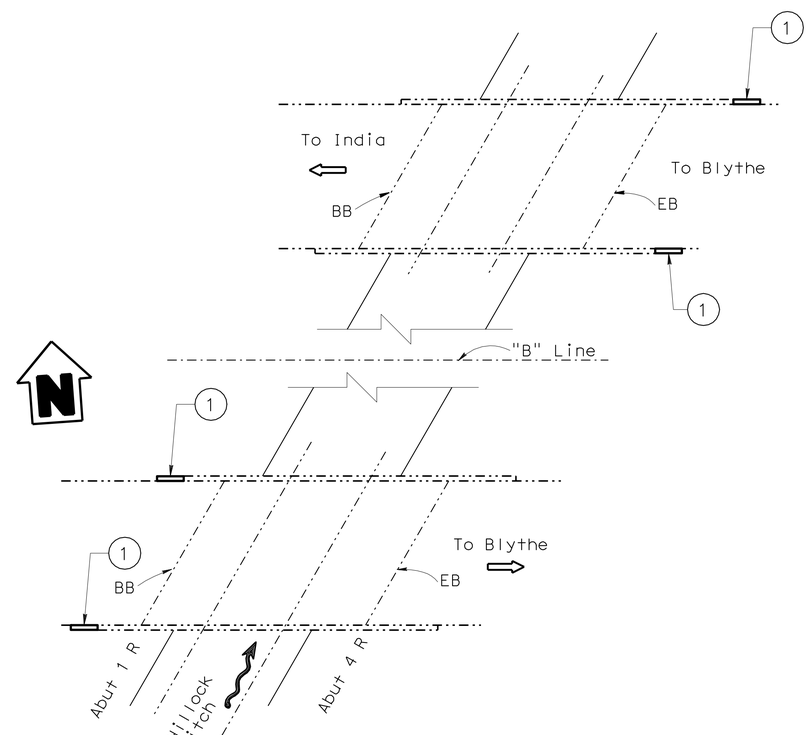
NOTES:

(1) SEE SHEET "TYPE 9 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 1".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



ADAIR DITCH BRIDGE
56-99 R/L, RTE 10, PM 100.38



HILLOCK DITCH BRIDGE
56-98 R/L, RTE 10, PM 100.57

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURES DESIGN SPECIAL DESIGNS BRANCH	BRIDGE NO. varies KILOMETER POST
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells			
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON			

ROUTE 10 BRIDGES
ADAIR DITCH BRIDGE & HILLOCK DITCH BRIDGE
GENERAL PLAN NO. 19

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 4-14-09

SHEET 14 OF 39

FILE => 08478301020.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:30
USERNAME => fr1fm

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	71	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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LEGEND:

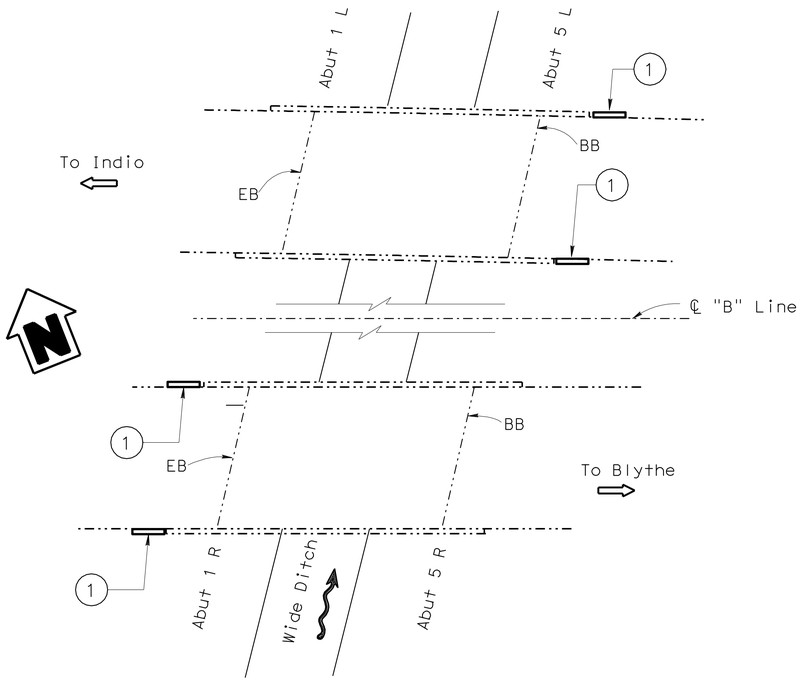
-·-·-·- Indicates existing structure.

——— Indicates new construction

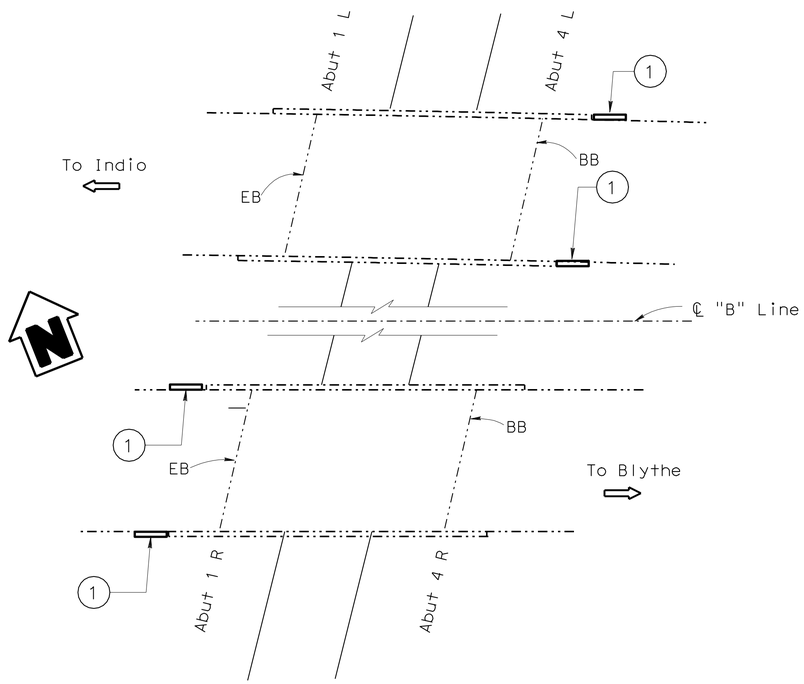
NOTES:

(1) SEE SHEET "TYPE 9 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 1".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



WIDE DITCH BRIDGE
56-97 R/L, RTE 10, PM 101.2



EAGLE MOUNTAIN ROAD UC
56-575 R/L, RTE 10, PM 102.1

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGN BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
WIDE DITCH BRIDGE & EAGLE MOUNTAIN ROAD UC
GENERAL PLAN NO. 20

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 15 OF 39

FILE => 08478301021.dgn

USERNAME => HTTim DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	72	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

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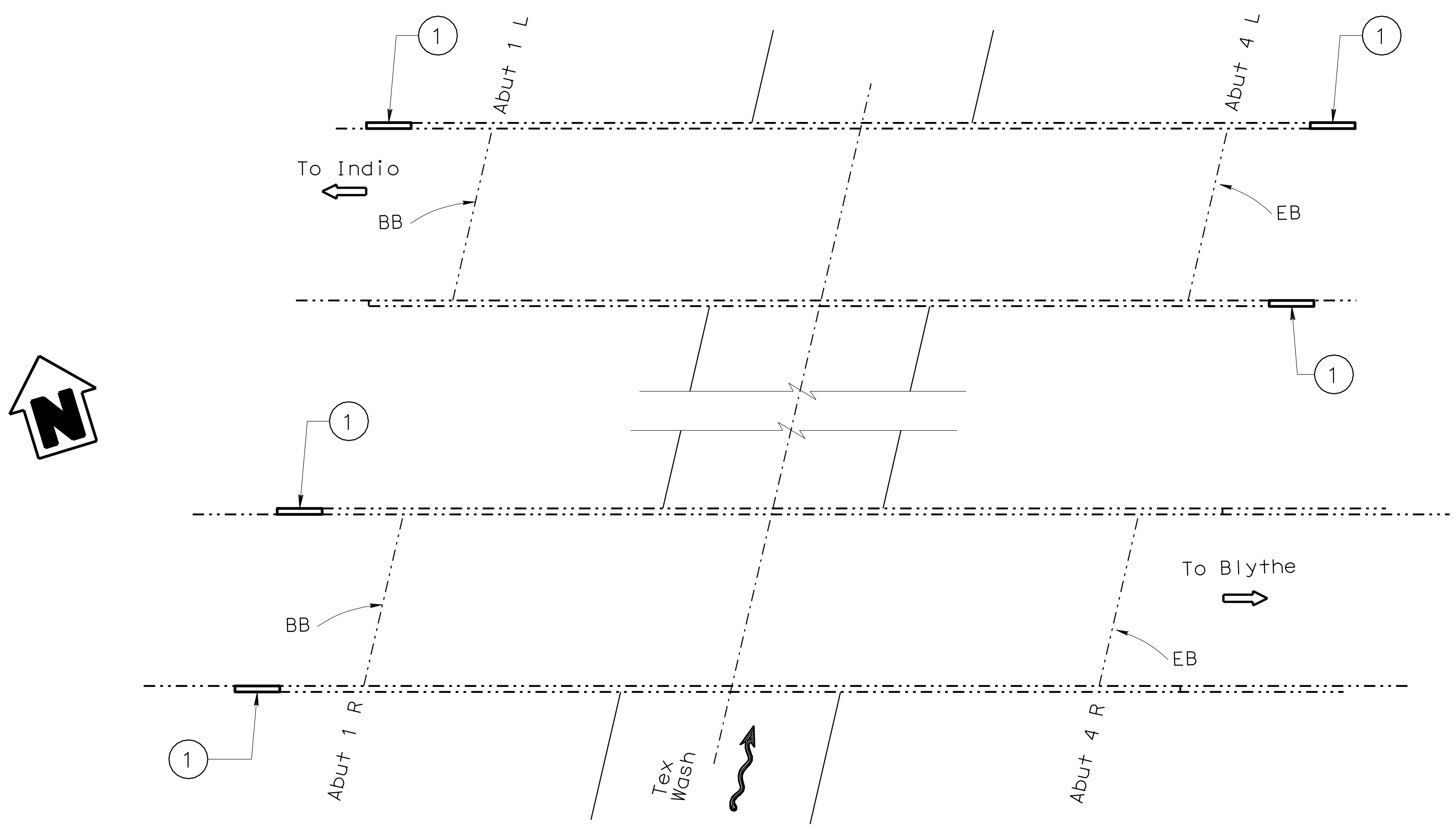
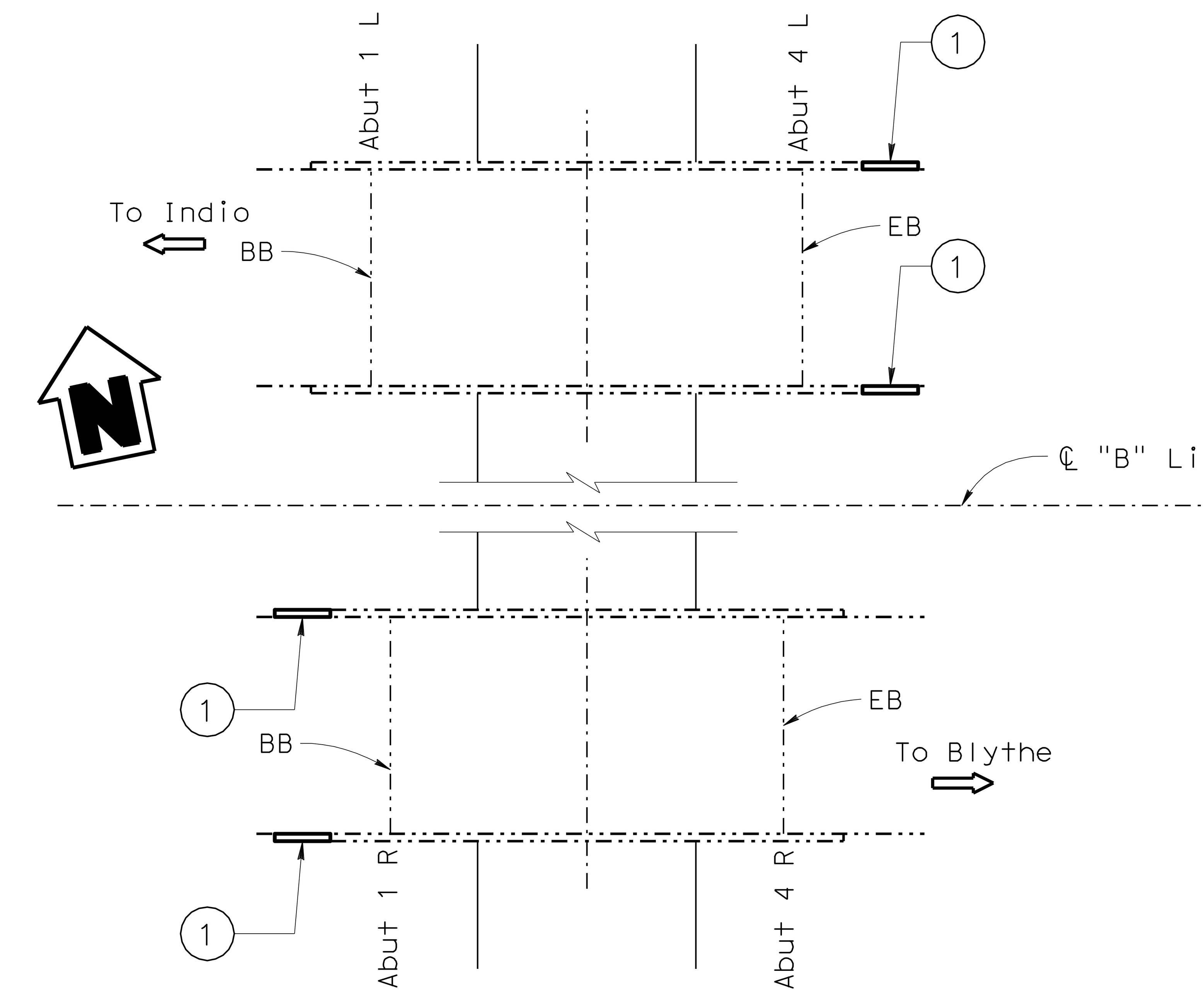
REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

LEGEND:
-·-·-·- Indicates existing structure.
——— Indicates new construction

NOTES:
1. SEE SHEET "TYPE 9 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 1".
2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



TEX WASH BRIDGE
56-576 R/L, RTE 10, PM 102.63



ROUTE 10/177 SEPARATION
56-577 R/L, RTE 10, PM 105.1

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

NO SCALE

ROUTE 10 BRIDGES
TEX WASH BRIDGE & ROUTE 10/177 SEPARATION
GENERAL PLAN NO.21

DESIGN	BY FELIX ALTAMIRANO	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY BOB EDWARDS	CHECKED FELIX ALTAMIRANO	LAYOUT	BY Felix Altamirano / CHECKED Paul Wells
QUANTITIES	BY FELIX ALTAMIRANO	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON / PLANS AND SPECS COMPARED KEVIN ELLINGSON

JAMES SAGAR
DESIGN ENGINEER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 4-14-09

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 16 OF 39

FILE => 08478301022.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	73	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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LEGEND:

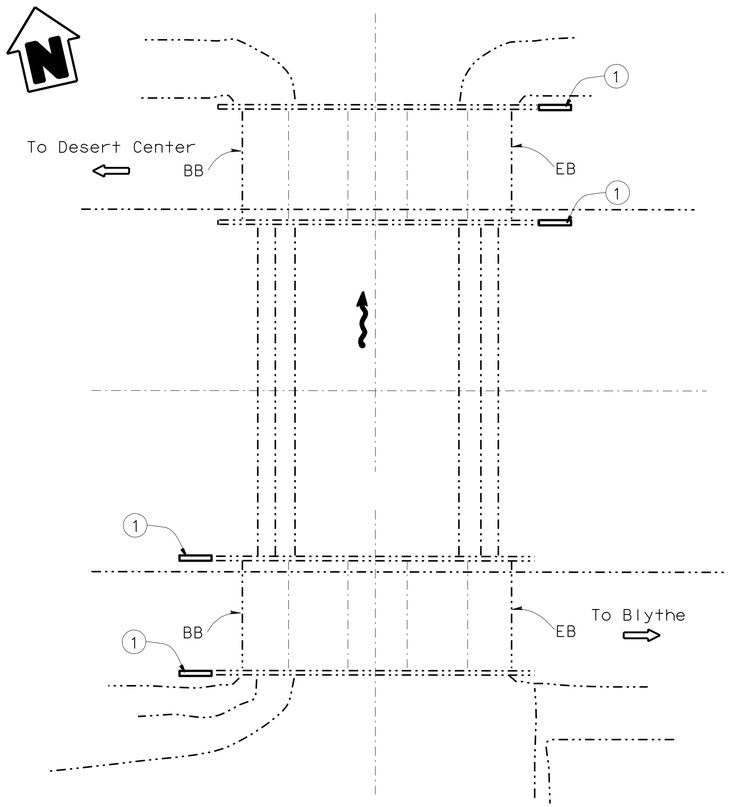
-·-·-·- Indicates existing structure.

——— Indicates new construction

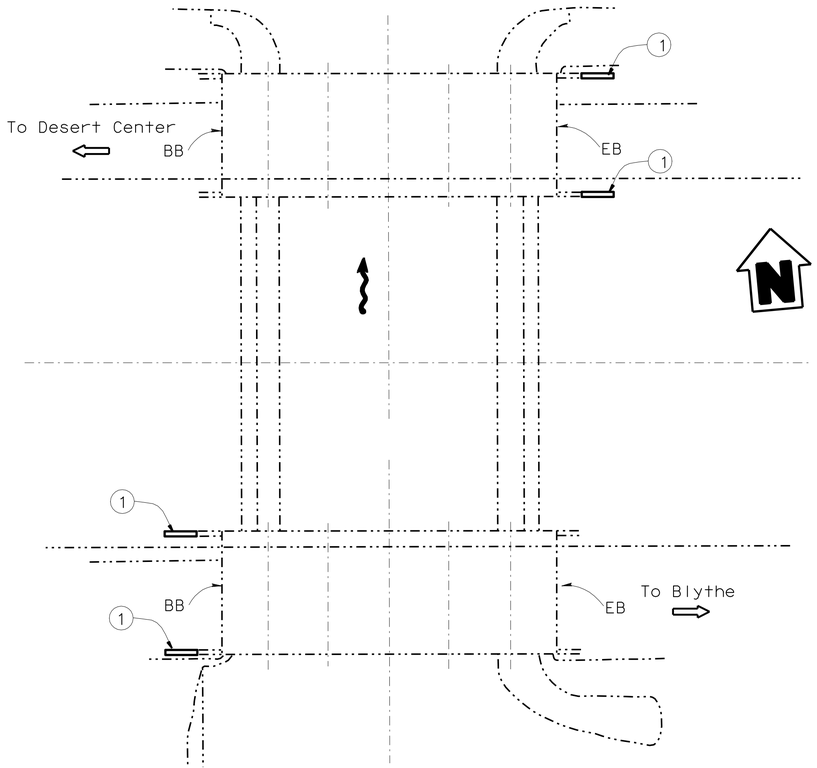
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



COXCOMB DITCH BRIDGE
56-045 L/R, PM 106.62



QUARTZ DITCH BRIDGE
56-044 L/R, PM 108.27

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

NO SCALE

JAMES SAGAR
DESIGN ENGINEER

DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES

COXCOMB DITCH BRIDGE & QUARTZ DITCH BRIDGE

GENERAL PLAN NO. 22

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 17 OF 39

FILE => 08478301023.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:30
USERNAME => ffl1m

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	74	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 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.

LEGEND:

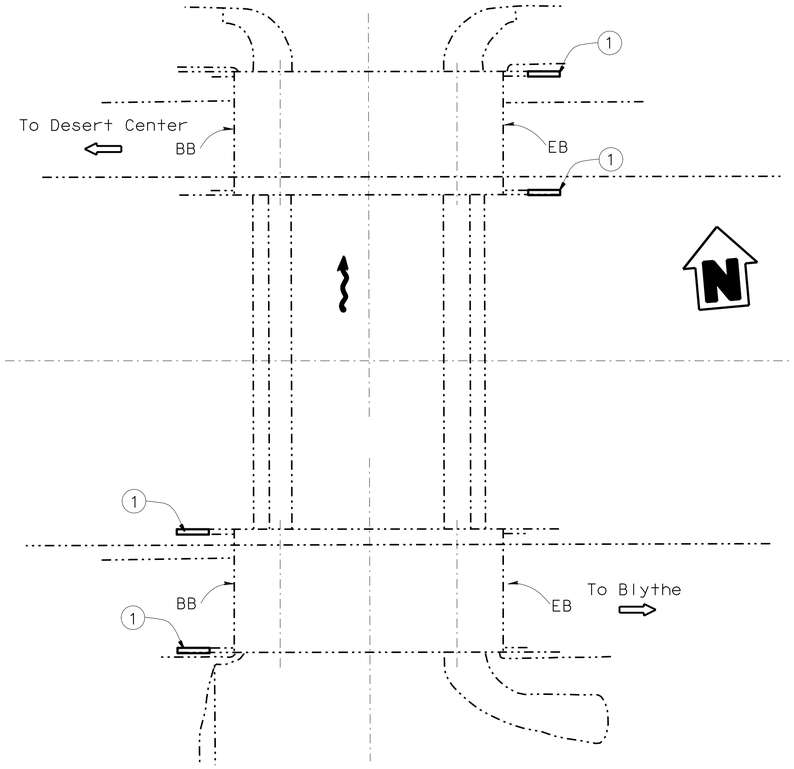
Indicates existing structure.

Indicates new construction

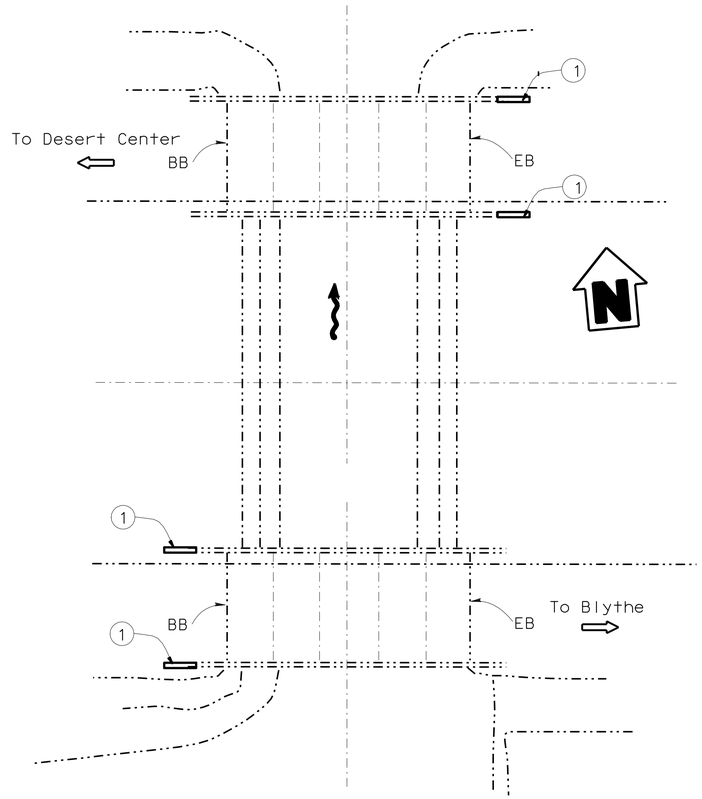
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



ROLLIE DITCH BRIDGE
56-042 L/R, PM 109.72



GHOST DITCH BRIDGE
56-043 L/R, PM 109.25

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

NO SCALE

	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
JAMES SAGAR	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
DESIGN ENGINEER	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
ROLLIE DITCH BRIDGE & GHOST DITCH BRIDGE
GENERAL PLAN NO. 23

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 18 OF 39

FILE => 08478301024.dgn

USERNAME => tritim DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	75	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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Legend:

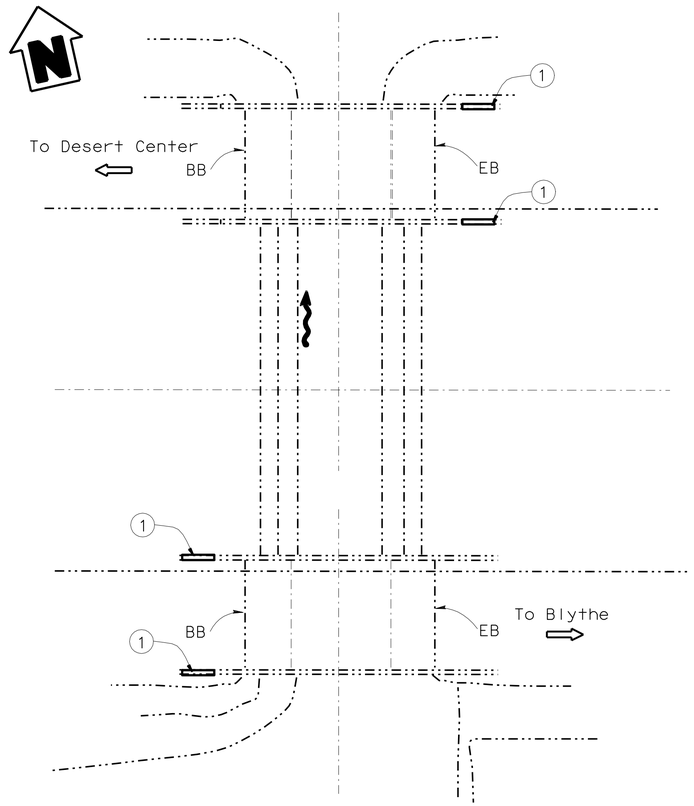
-·-·-·- Indicates existing structure.

——— Indicates new construction

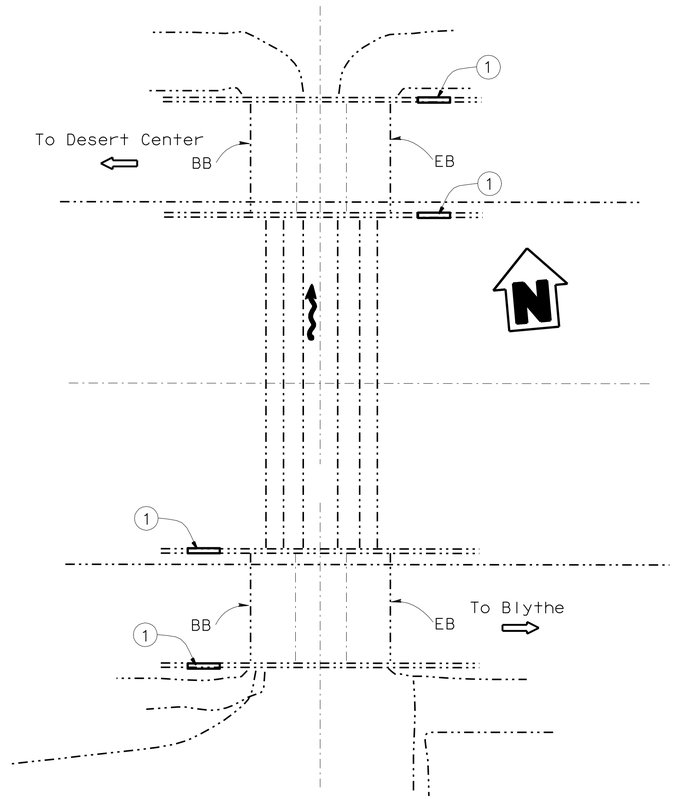
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



PALEN DITCH BRIDGE
56-040 L/R, PM 110.47



META DITCH BRIDGE
56-039 L/R, PM 110.98

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
PALEN DITCH BRIDGE & META DITCH BRIDGE
GENERAL PLAN NO. 24

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 5-02-09

SHEET 19 OF 39

FILE => 08478301025.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:31
USERNAME => tf1lm

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	76	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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Legend:

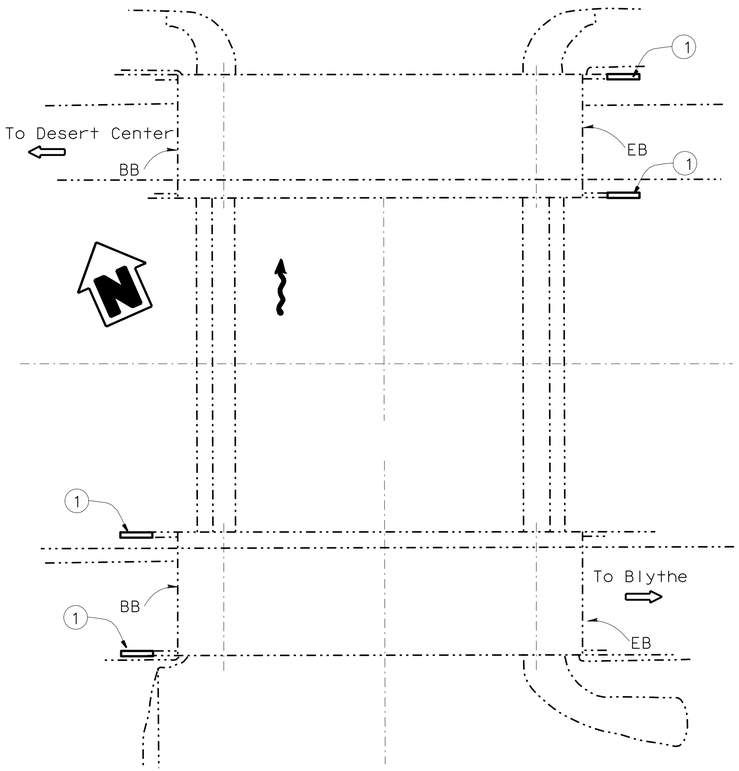
-·-·-·- Indicates existing structure.

——— Indicates new construction

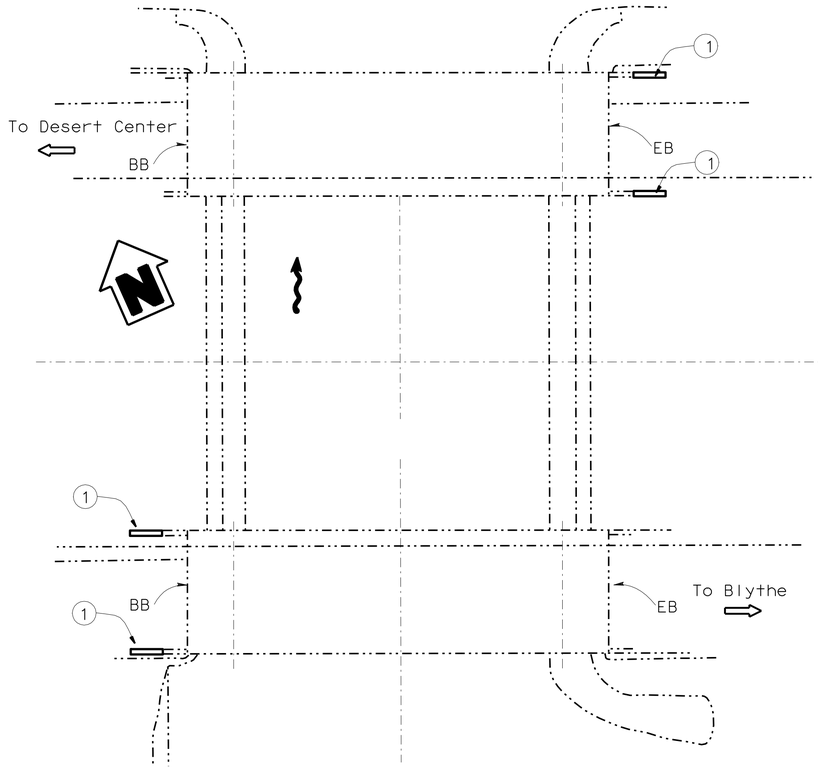
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



OBAN DITCH BRIDGE
56-038 L/R, PM 112.28



COPA DITCH BRIDGE
56-037 L/R, PM 113.80

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

NO SCALE

JAMES SAGAR
DESIGN ENGINEER

DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells
QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
OBAN DITCH BRIDGE & COPA DITCH BRIDGE
GENERAL PLAN NO. 25

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 20 OF 39

FILE => 08478301026.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:31
USERNAME => rtrim

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	77	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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Legend:

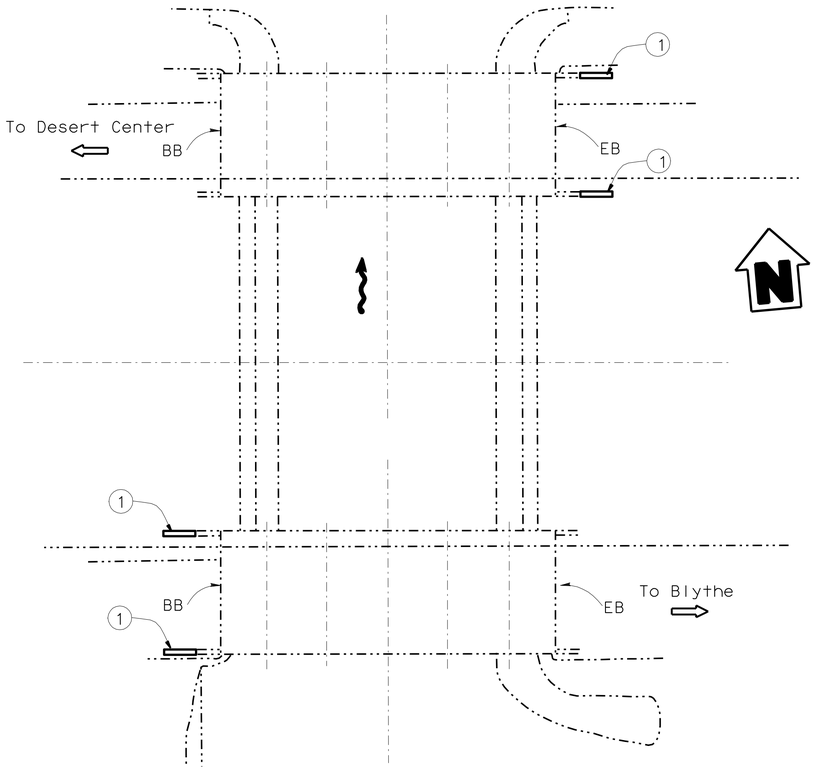
-·-·-·-·- Indicates existing structure.

——— Indicates new construction

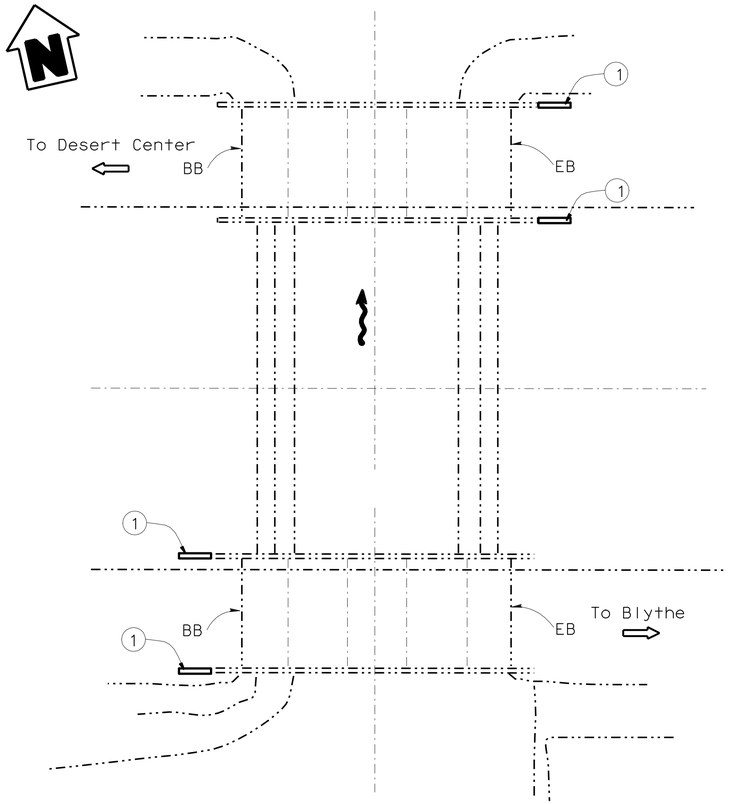
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



AZTEC DITCH BRIDGE
56-545 L/R, RTE 10, PM 115.30



TARANTULA DITCH BRIDGE
56-546 L/R, RTE 10, PM 116.78

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURES DESIGN SPECIAL DESIGNS BRANCH	BRIDGE NO. varies
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells			KILOMETER POST
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON			

ROUTE 10 BRIDGES

AZTEC DITCH BRIDGE & TARANTULA DITCH BRIDGE

GENERAL PLAN NO. 26

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 21 OF 39

FILE => 08478301027.dgn

USERNAME => trlim DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:31

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	78	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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Legend:

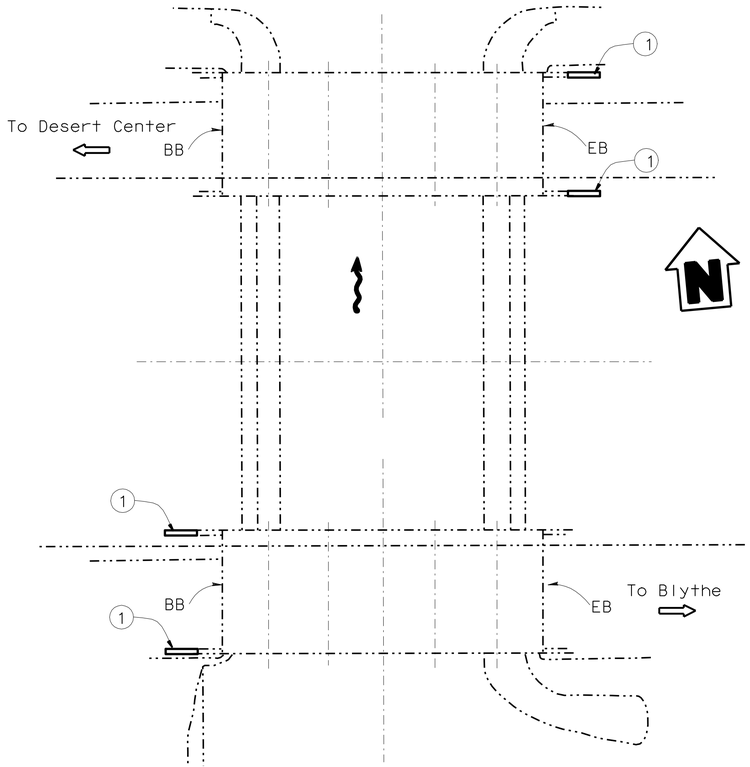
-·-·-·- Indicates existing structure.

——— Indicates new construction

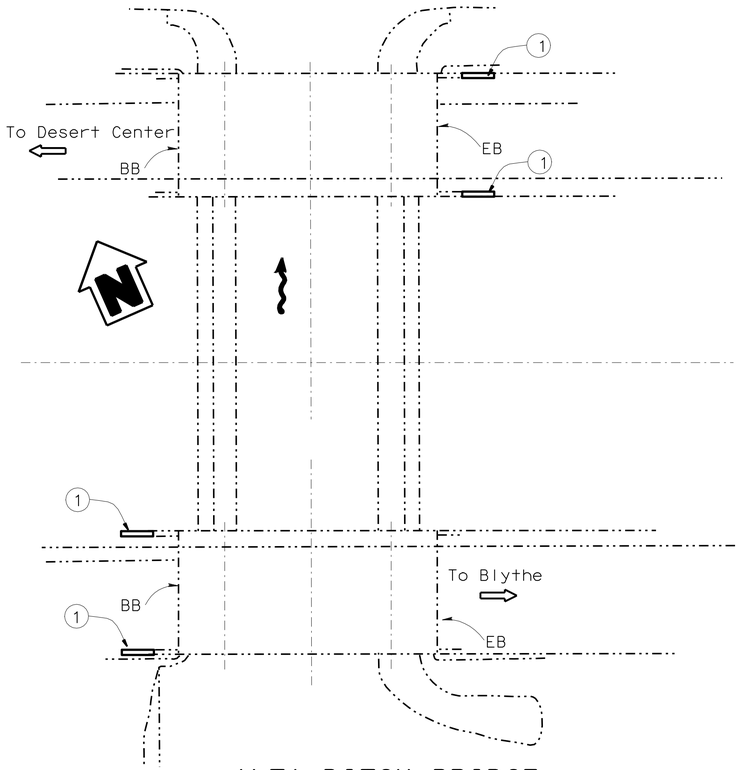
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



SUTRO DITCH BRIDGE
56-547 L/R, RTE 10, PM 118.5



ALTA DITCH BRIDGE
56-548 L/R, RTE 10, PM 119.58

NO SCALE

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

JAMES SAGAR
DESIGN ENGINEER

DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells
QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

CU 08
EA 478301

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
SUTRO DITCH BRIDGE & ALTA DITCH BRIDGE
GENERAL PLAN NO. 27

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09, 10-7-09

SHEET 22 OF 39

FILE => 08478301028.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:13:1
USERNAME => rtrim

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	79	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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Legend:

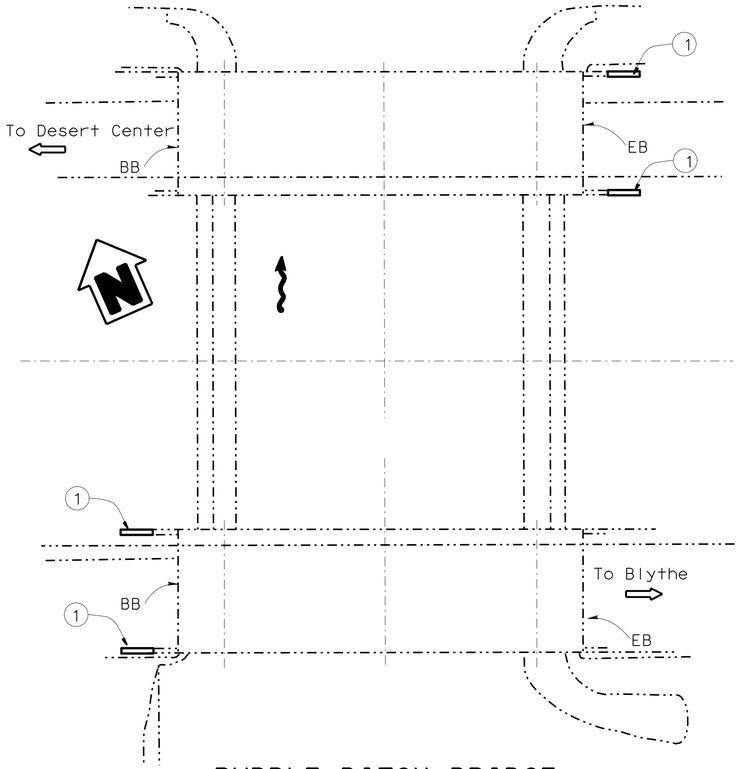
-·-·-·- Indicates existing structure.

——— Indicates new construction

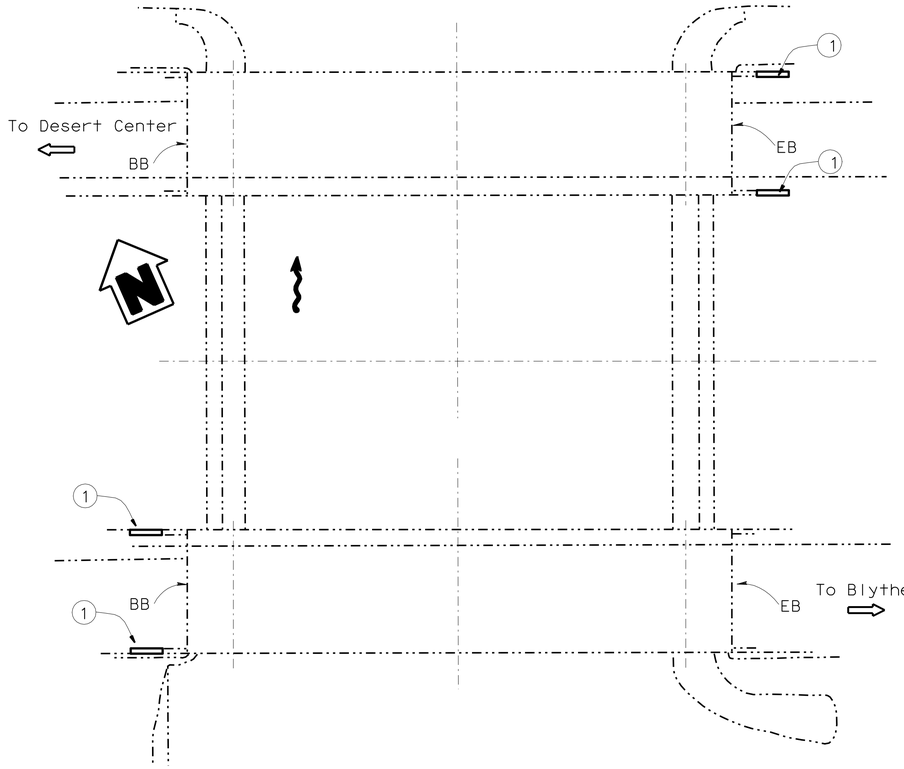
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



RUBBLE DITCH BRIDGE
56-549 L/R, RTE 10, PM 120.73



ACARI DITCH BRIDGE
56-550 L/R, RTE 10, PM122.15

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
RUBBLE DITCH BRIDGE & ACARI DITCH BRIDGE
GENERAL PLAN NO. 28

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 23 OF 39

FILE => 08478301029.dgn

USERNAME => ??TTTM DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:31

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	80	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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Legend:

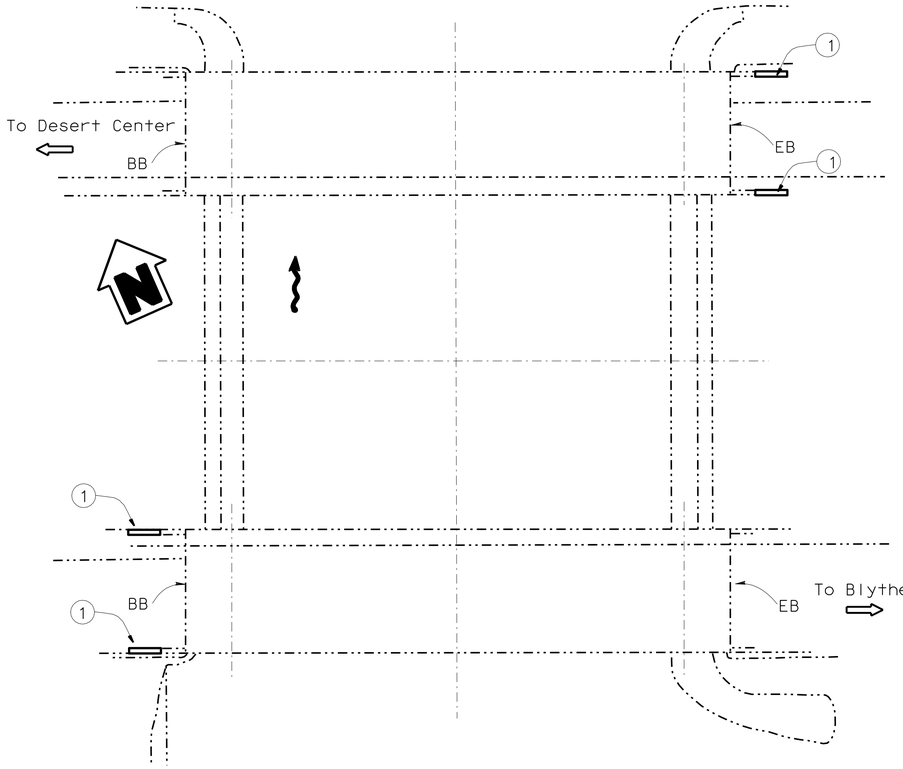
-·-·-·- Indicates existing structure.

——— Indicates new construction

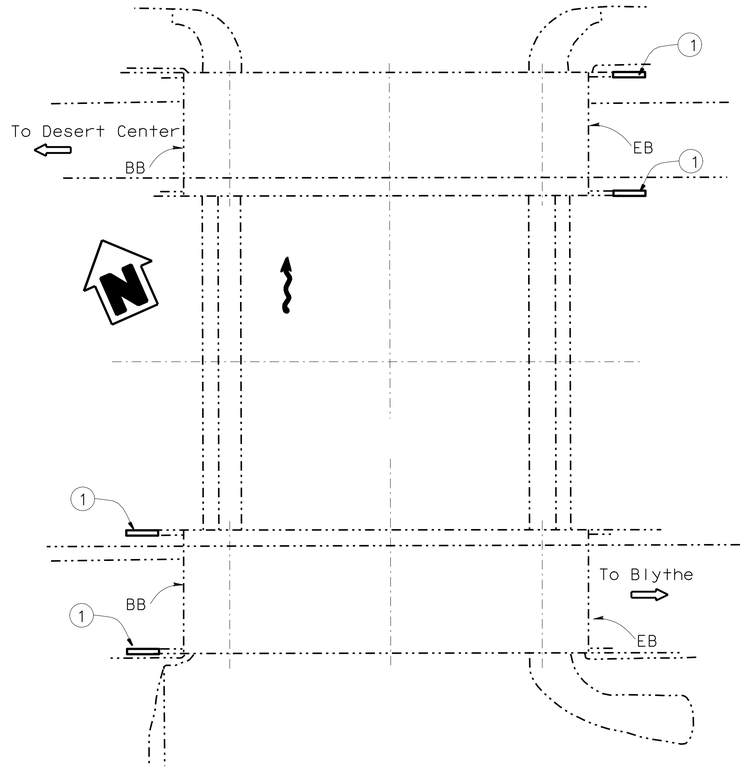
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



BEEHIVE DITCH BRIDGE
56-552 L/R, RTE 10, PM 124.22



ESSO DITCH BRIDGE
56-553 L/R, RTE 10, PM 126.26

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURES DESIGN SPECIAL DESIGNS BRANCH
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells		
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON		

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES

BEEHIVE DITCH BRIDGE & ESSO DITCH BRIDGE

GENERAL PLAN NO. 29

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 24 OF 39

FILE => 08478301030.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:31

USERNAME => trilm

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	81	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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Legend:

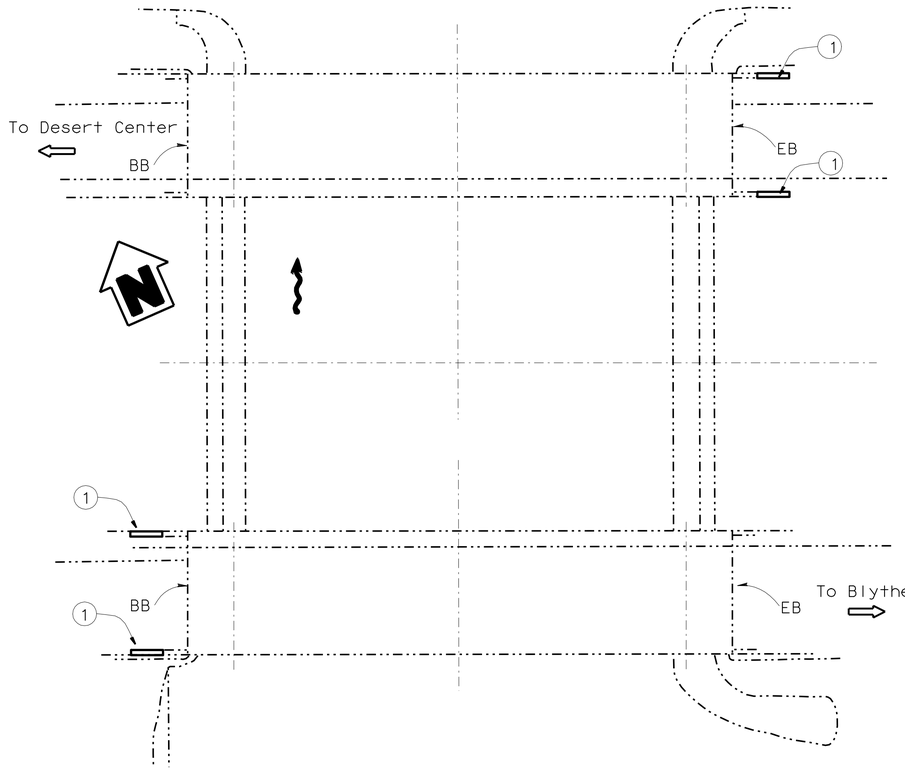
-·-·-·- Indicates existing structure.

——— Indicates new construction

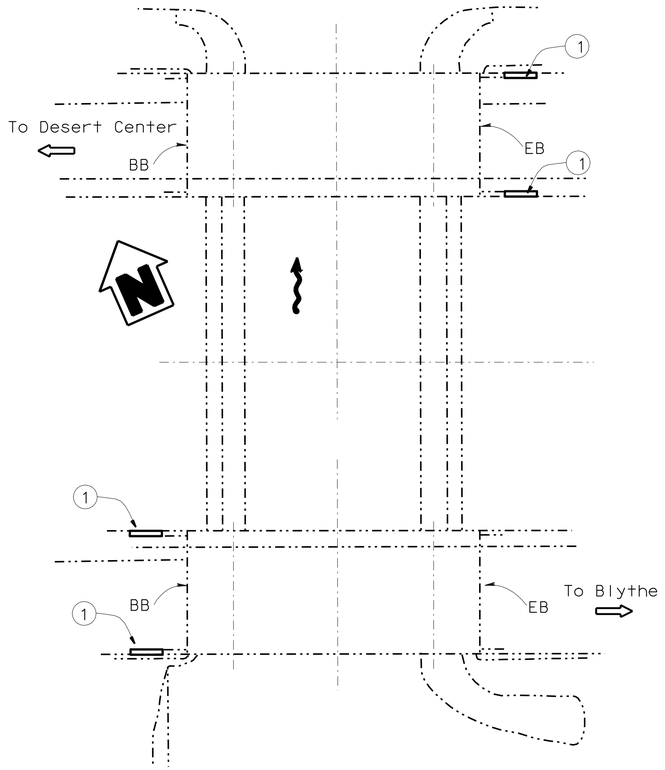
NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



MUD DITCH BRIDGE
56-555 L/R, RTE 10, PM 127.94



ARCO DITCH BRIDGE
56-554 L/R, RTE 10, PM 126.90

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	CHECKED KEVIN ELLINGSON	

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
MUD DITCH BRIDGE & ARCO DITCH BRIDGE
GENERAL PLAN NO. 30

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 25 OF 39

FILE => 08478301031.dgn

USERNAME => tfrtim DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:31

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	82	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 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.

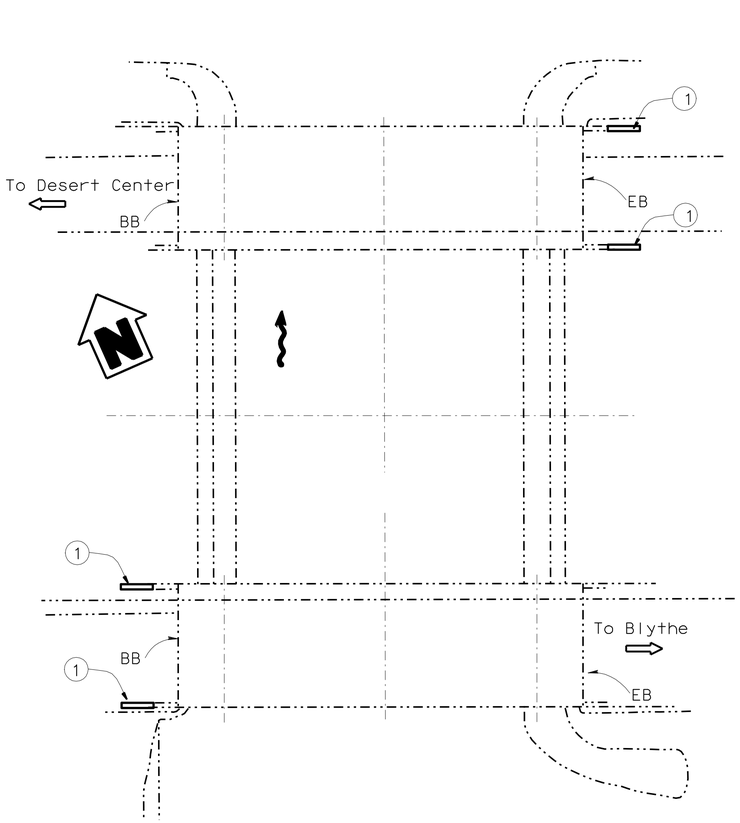
Legend:

Indicates existing structure.

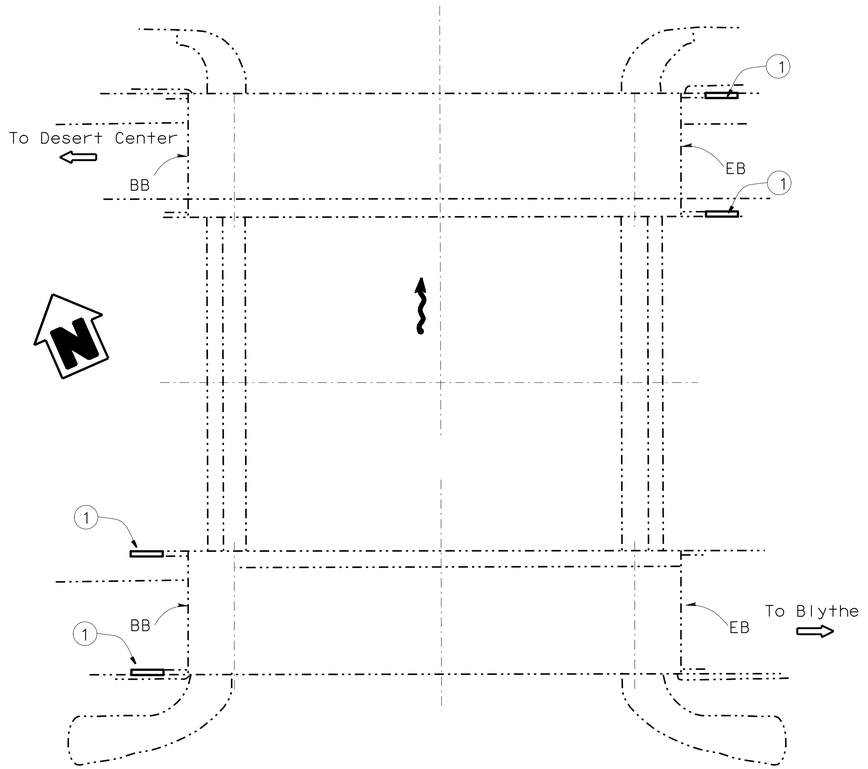
Indicates new construction

NOTES:

1. SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".
2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.



CALADA DITCH BRIDGE
56-20 L/R, RTE 10, PM 130.86



WALLA DITCH BRIDGE
56-0556 L/R, RTE 10, PM 129.50

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
CALADA DITCH BRIDGE & WALLA DITCH BRIDGE
GENERAL PLAN NO. 31

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 3-02-09

SHEET 26 OF 39

FILE => 08478301032.dgn

USERNAME => tfilm DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:31

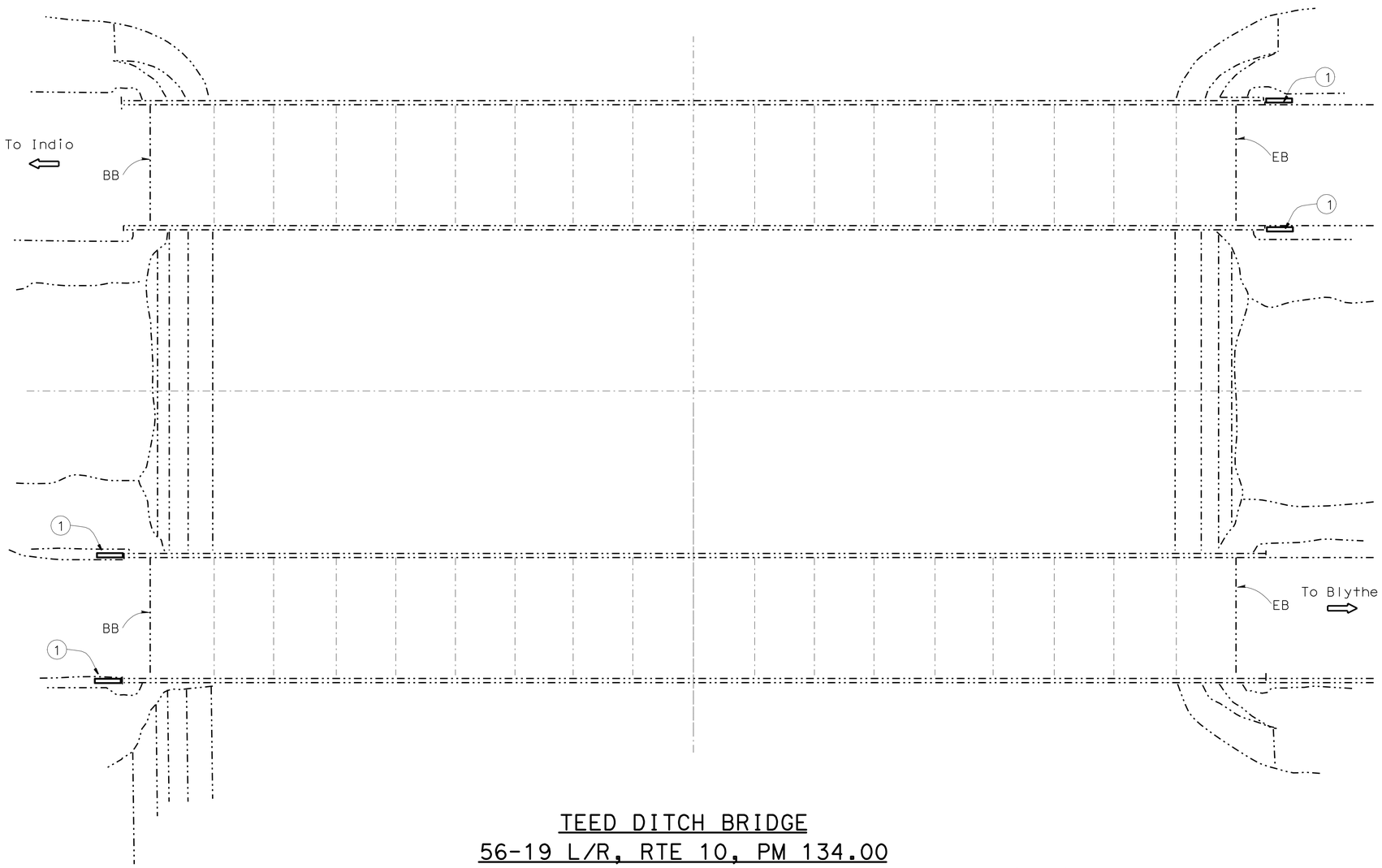
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	83	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

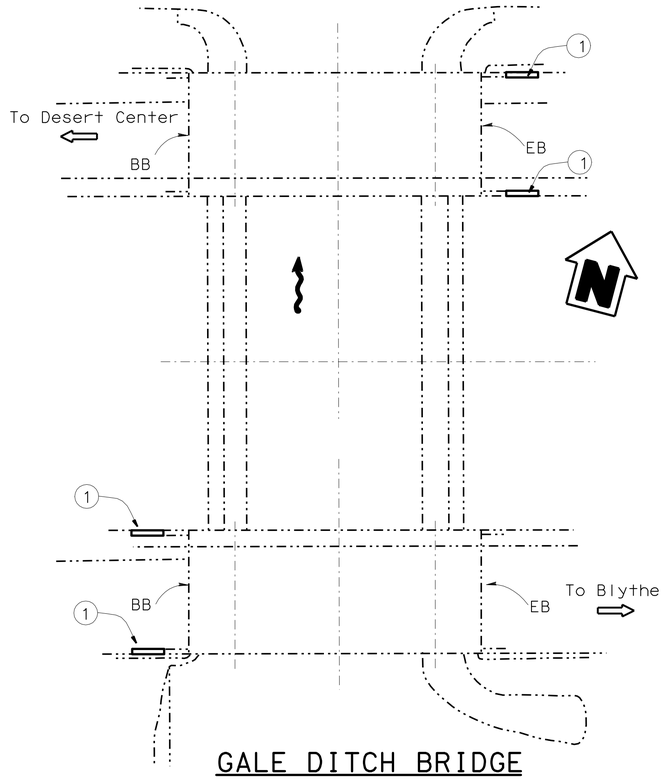
4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 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.



TEED DITCH BRIDGE
56-19 L/R, RTE 10, PM 134.00



GALE DITCH BRIDGE
56-17 L/R, RTE 10, PM 136.15

NO SCALE

Legend:

Indicates existing structure.

Indicates new construction

NOTES:

(1) SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

JAMES SAGAR
DESIGN ENGINEER

DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells
QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
TEED DITCH BRIDGE & GALE DITCH BRIDGE
GENERAL PLAN NO. 32

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 27 OF 39

FILE => 08478301033.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:31
USERNAME => ttttm

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	84	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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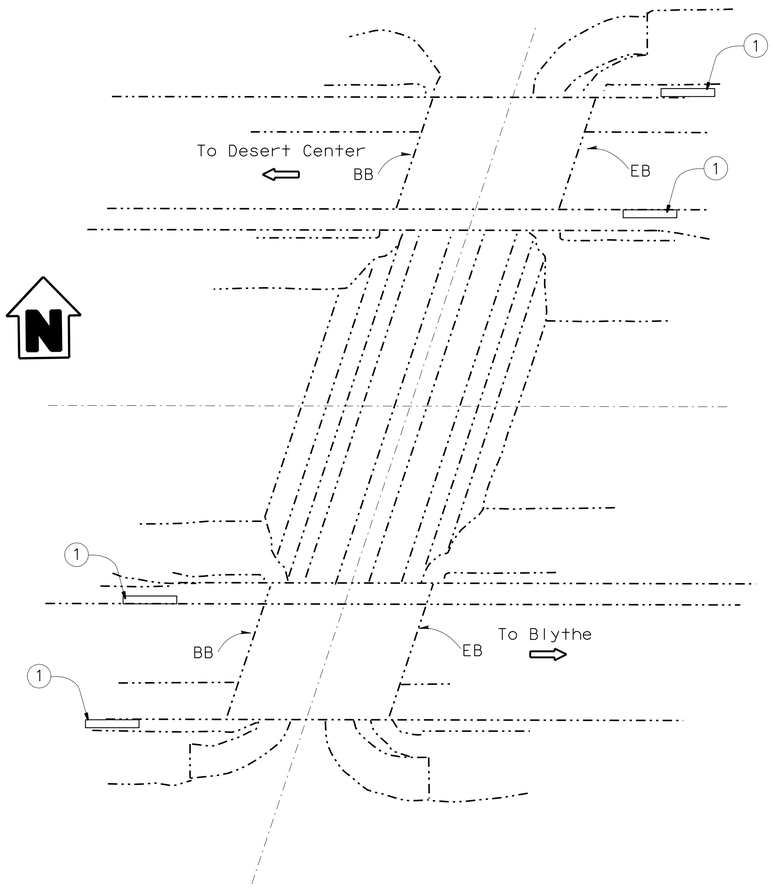
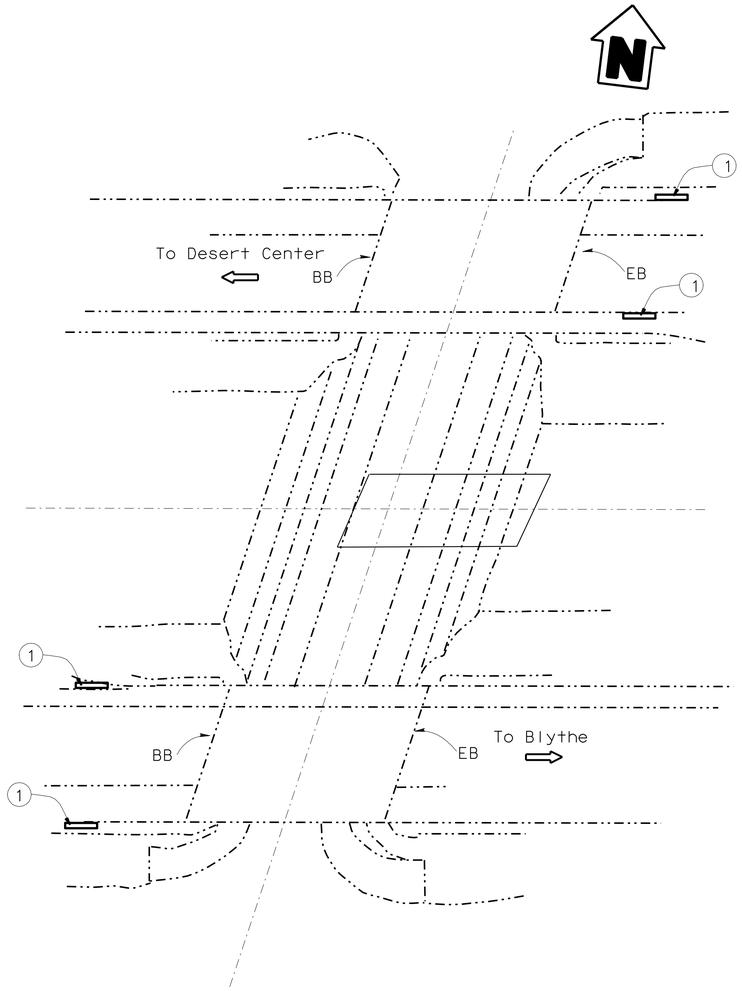


ISORA DITCH BRIDGE
56-015 L/R, PM 139.15



MC COY WASH BRIDGE
56-016 L/R, PM 138.29

Legend:

Indicates existing structure.

Indicates new construction

NOTES:

1. SEE SHEET "TYPE 8 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 3".
2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
ISORA DITCH BRIDGE & MC COY WASH BRIDGE
GENERAL PLAN NO. 33

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-1-09

SHEET 28 OF 39

FILE => 08478301034.dgn

USERNAME => tr.tim DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	85	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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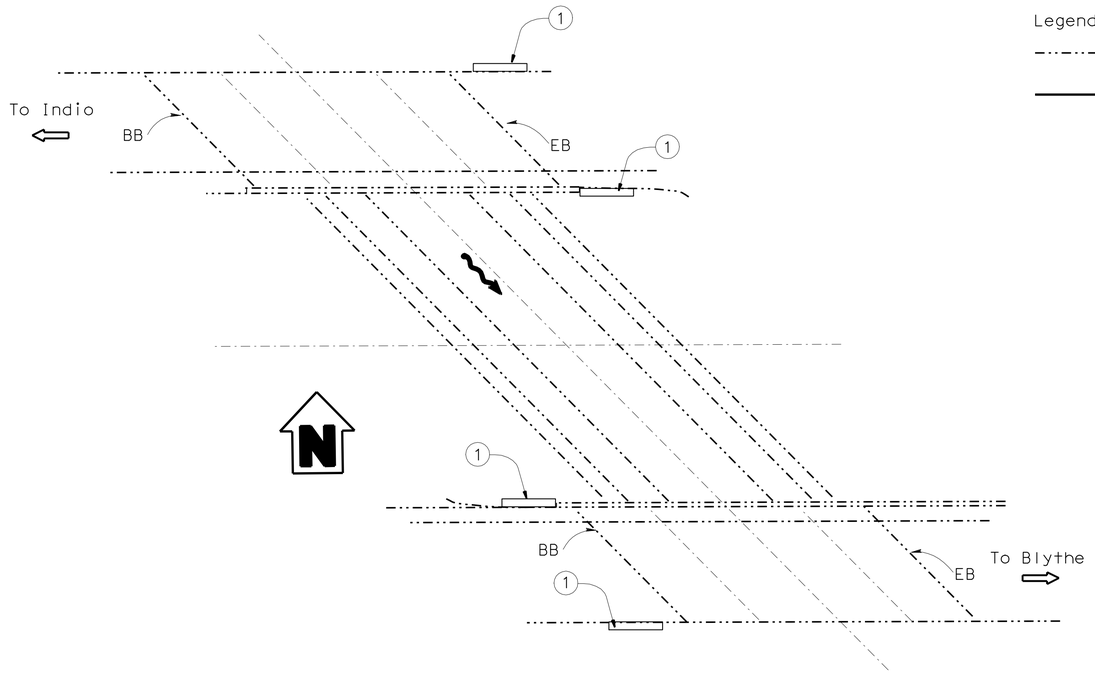
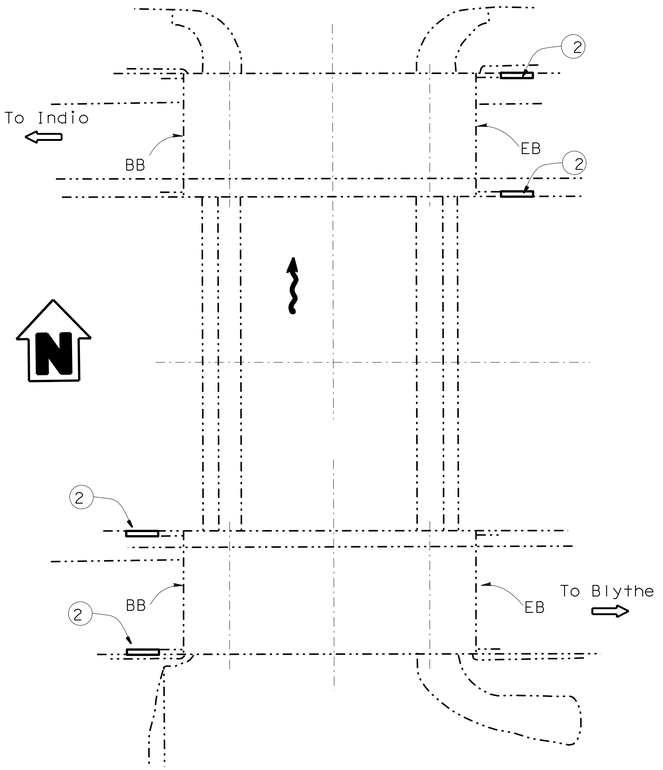


Legend:

-·-·-·- Indicates existing structure.

——— Indicates new construction



PALOWALLA DITCH BRIDGE
56-014 L/R, PM142.64

KEIM ACCESS ROAD UC
56-604 L/R, RTE 10, PM 146.80

NOTES:

(1) SEE SHEET "TYPE 8 BARRIER (CASE 2) - TRANSITION ANCHOR BLOCK DETAILS NO. 4".

(2) SEE SHEET "TYPE 9 BARRIER (CASE 2) - TRANSITION ANCHOR BLOCK DETAILS NO. 5".

3. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
PALOWALLA DITCH BRIDGE & KEIM ACCESS ROAD UC
GENERAL PLAN NO. 34

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-5-09

SHEET 29 OF 39

FILE => 08478301035.dgn

USERNAME => trlim DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 12:32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	86	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FELIX ALTAMIRANO
No. C56401
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

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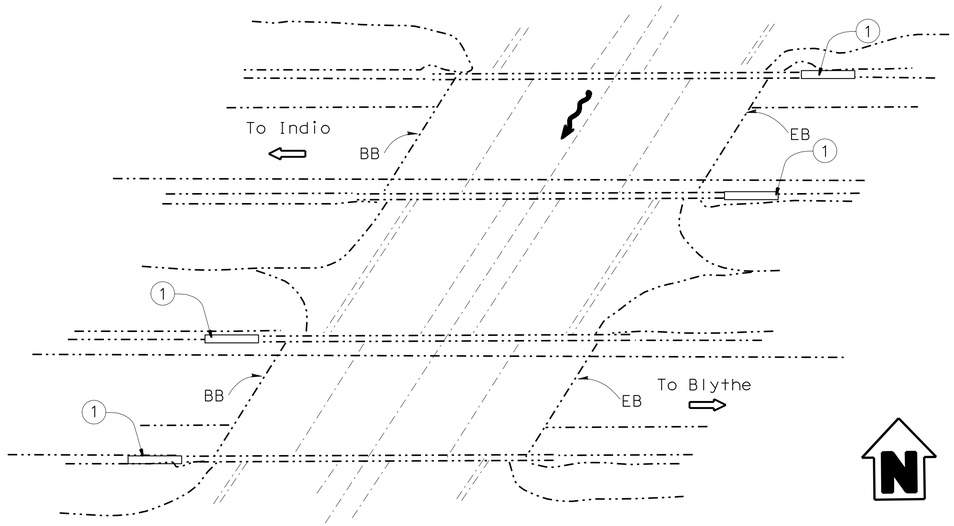
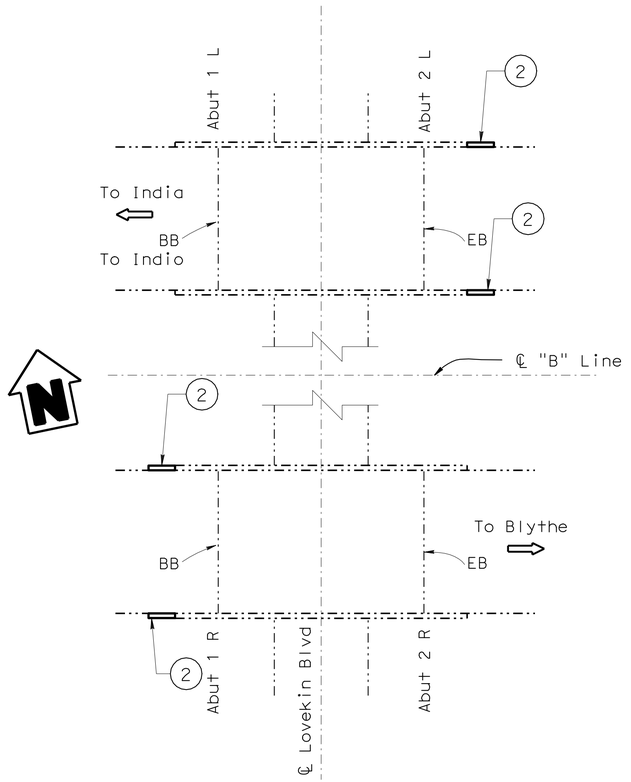


RANNELLS DRAIN BRIDGE
56-588 L/R, PM 148.56



LOVEKIN BOULEVARD UNDERCROSSING
56-592 R/L, RTE 10, PM 152.15

NOTES:

(1) SEE SHEET "TYPE 8 BARRIER (CASE 2) - TRANSITION ANCHOR BLOCK DETAILS NO. 4".

(2) SEE SHEET "TYPE 9 BARRIER (CASE 2) - TRANSITION ANCHOR BLOCK DETAILS NO. 5".

3. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

Legend:

—·—·—·— Indicates existing structure.

——— Indicates new construction

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES

RANNELLS DRAIN BRIDGE & LOVEKIN BOULEVARD UNDERCROSSING

GENERAL PLAN NO. 35

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-5-09

SHEET 30 OF 39

FILE => 08478301036.dgn

USERNAME => tratik DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	87	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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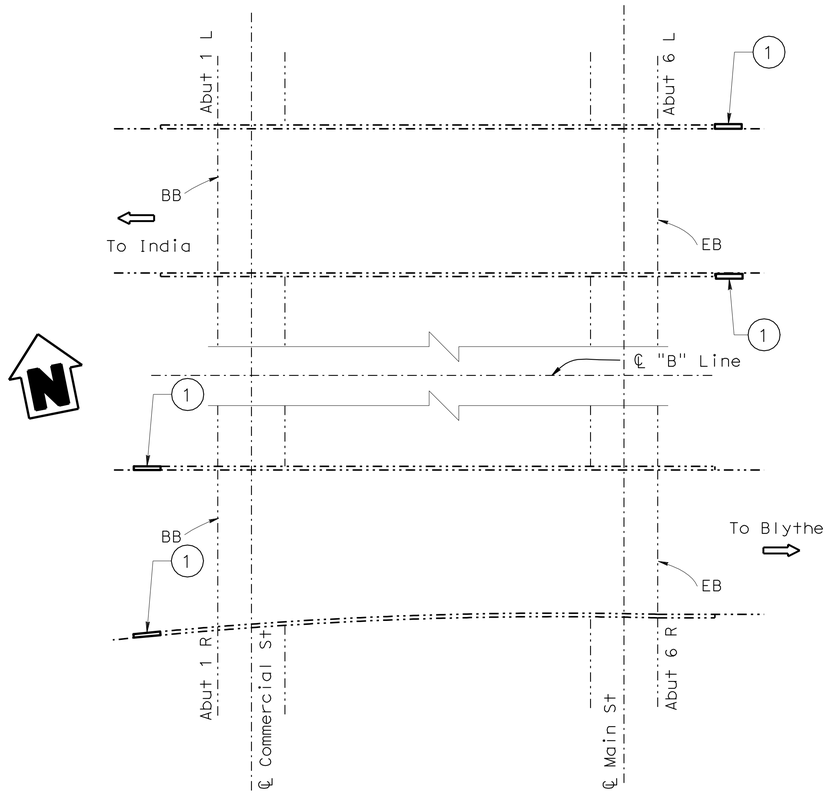
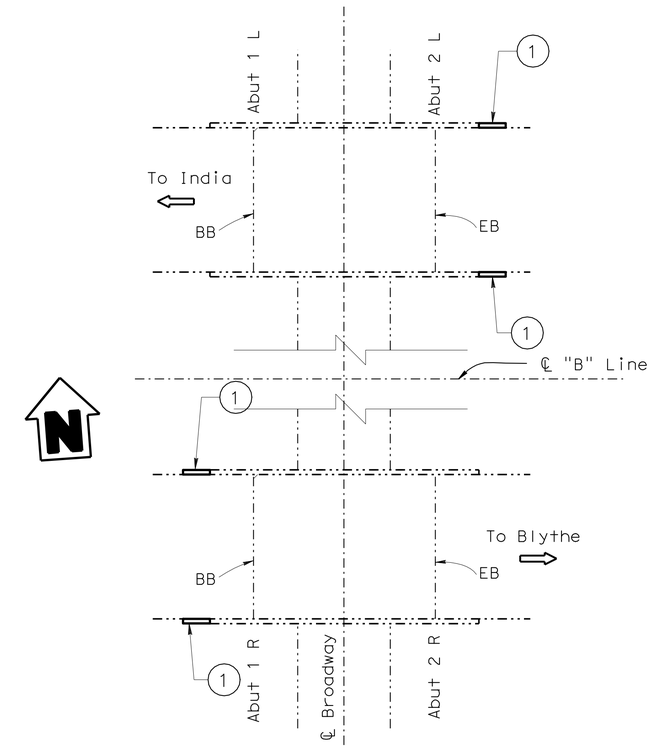
Legend:

Indicates existing structure.

Indicates new construction



BLYTH OVERHEAD
56-593 R/L, RTE 10, PM 152.4



BROADWAY UNDERCROSSING
56-595 R/L, RTE 10, PM 152.65

NOTES:

(1) SEE SHEET "TYPE 9 BARRIER CASE (2) - TRANSITION ANCHOR BLOCK DETAILS NO. 5".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY BOB EDWARDS	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
BLYTH OVERHEAD & BROADWAY UNDERCROSSING
GENERAL PLAN NO. 36

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 4-15-09 | 10-5-09

SHEET 31 OF 39

FILE => 08478301037.dgn

USERNAME => tfrstrk DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	88	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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NOTES:

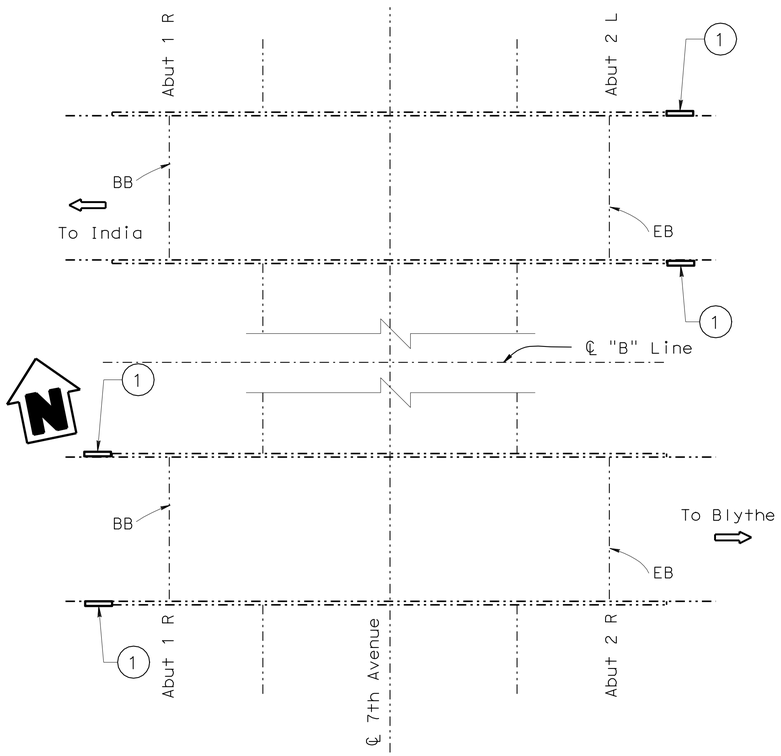
(1) SEE SHEET "TYPE 9 BARRIER - TRANSITION ANCHOR BLOCK DETAILS NO. 1".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

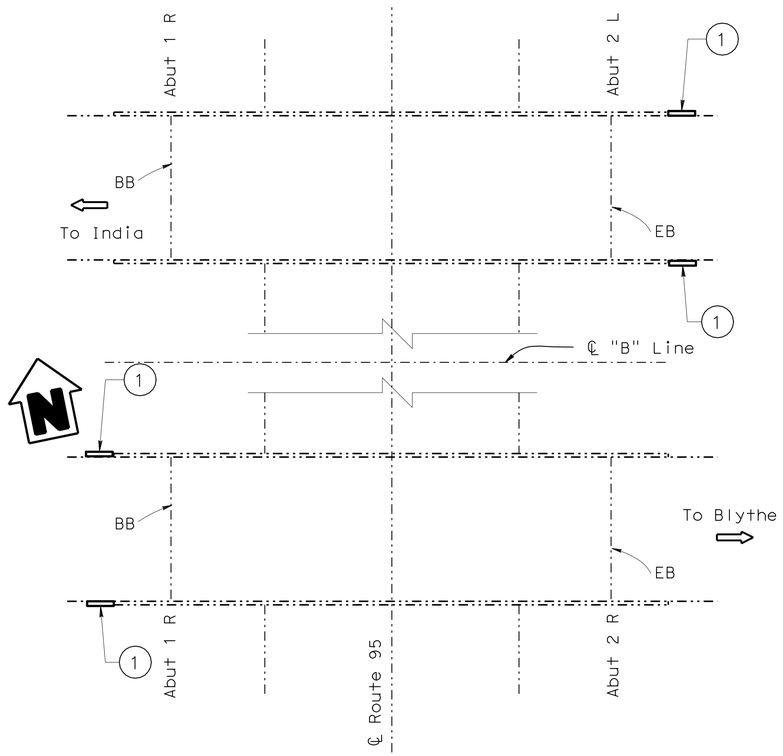
Legend:

-·-·-·- Indicates existing structure.

——— Indicates new construction



7TH AVENUE UNDERCROSSING
56-597 R/L, RTE 10, PM 153.16



ROUTE 10/95 SEPARATION
56-598 R/L, RTE 10, PM 154.18

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY FELIX ALTAMIRANO	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURES DESIGN SPECIAL DESIGNS BRANCH	BRIDGE NO. varies KILOMETER POST	ROUTE 10 BRIDGES 7TH AVENUE UNDERCROSSING & ROUTE 10/95 SEPARATION GENERAL PLAN NO. 37
	DETAILS	BY BOB EDWARDS	CHECKED FELIX ALTAMIRANO	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells				
	QUANTITIES	BY FELIX ALTAMIRANO	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON				

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 10-5-09

SHEET 32 OF 39

FILE => 08478301038.dgn

DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:15
USERNAME => ttstk

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	89	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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NOTES:

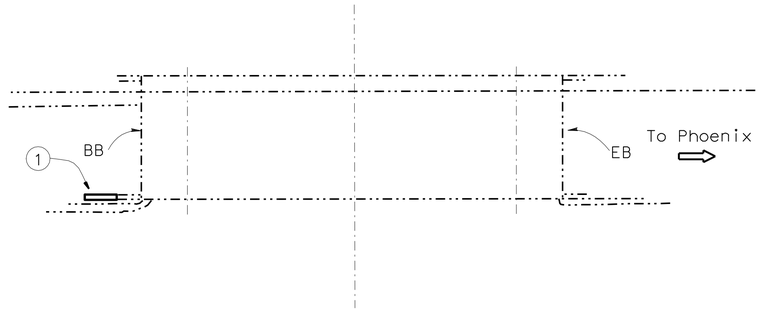
(1) SEE SHEET "TYPE 9-11 TO TYPE WB - TRANSITION ANCHOR BLOCK DETAILS NO. 6".

2. FOR STRUCTURE QUANTITIES SEE ROADWAY PLANS.

Legend:

Indicates existing structure.

Indicates new construction



COLORADO RIVER BRIDGE
56-008, PM 156.3

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

NO SCALE

JAMES SAGAR DESIGN ENGINEER	DESIGN	BY Felix Altamirano	CHECKED YU SONG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD		
	DETAILS	BY Hung Nguyen	CHECKED Felix Altamirano	LAYOUT	BY Felix Altamirano	CHECKED Paul Wells	
	QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells	SPECIFICATIONS	BY KEVIN ELLINGSON	PLANS AND SPECS COMPARED KEVIN ELLINGSON	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURES DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. varies
KILOMETER POST

ROUTE 10 BRIDGES
COLORADO RIVER BRIDGE
GENERAL PLAN NO. 38

STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.12-1-01)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10-5-09

SHEET 33 OF 39

FILE => 08478301039.dgn

USERNAME => rtrstrk DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	90	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FELIX ALTAMIRANO
No. C56401
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

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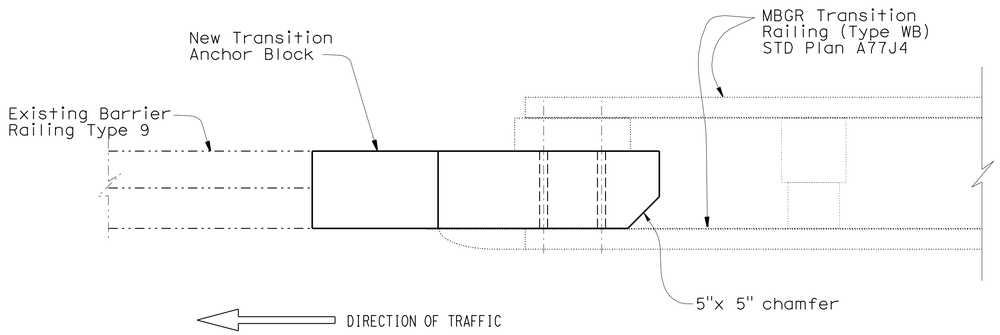
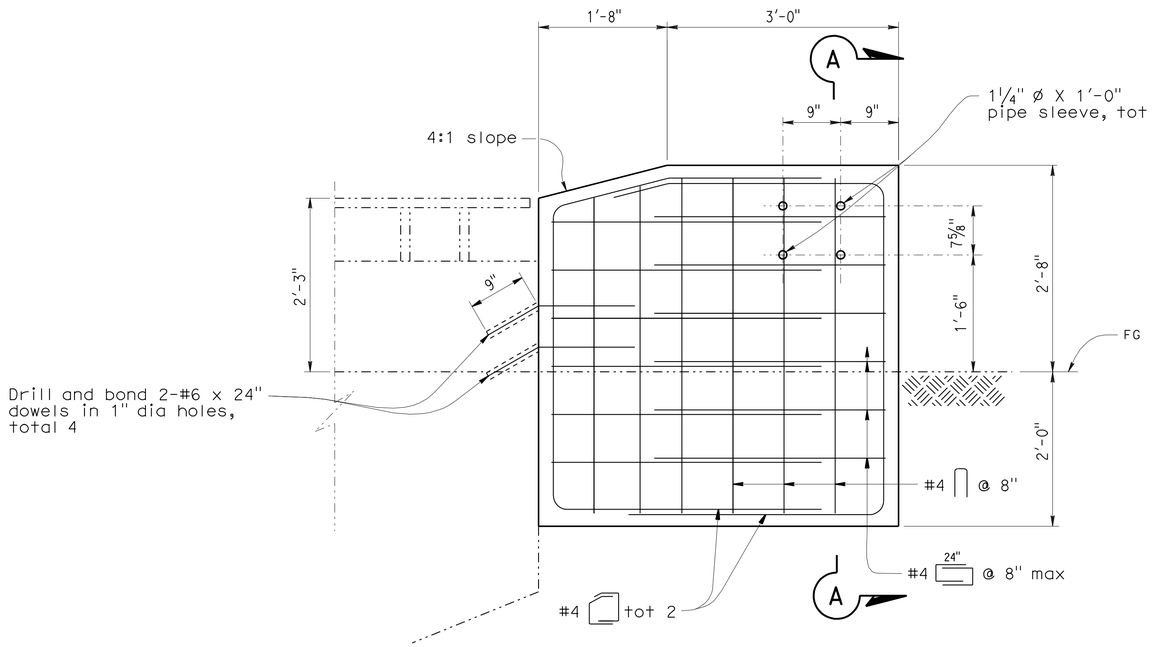
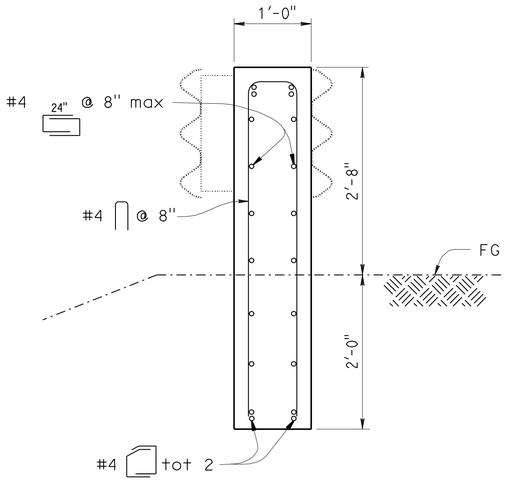


PLAN



ELEVATION



SECTION A-A

Notes:

1. For limits of excavation and backfill, see 2006 Standard Plans A62C, section E-E.
2. The contractor shall verify all controlling field dimensions, before ordering or fabricating any material.

NO SCALE

DESIGN	BY Felix Altamirano	CHECKED YU SONG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGN BRANCH	BRIDGE NO. Varies
DETAILS	BY Hung Nguyen/B Edwards	CHECKED Felix Altamirano			POST MILE Varies
QUANTITIES	BY Felix Altamirano	CHECKED Paul Wells			

ROUTE 10 BRIDGES

TYPE 9 BARRIER

TRANSITION ANCHOR BLOCK DETAILS NO.1

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 10-25-05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES									SHEET	OF
8/11/09	3/29/09								34	39

FILE => 08478301040.dgn

USERNAME => trsitk DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	91	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FELIX ALTAMIRANO
No. C56401
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

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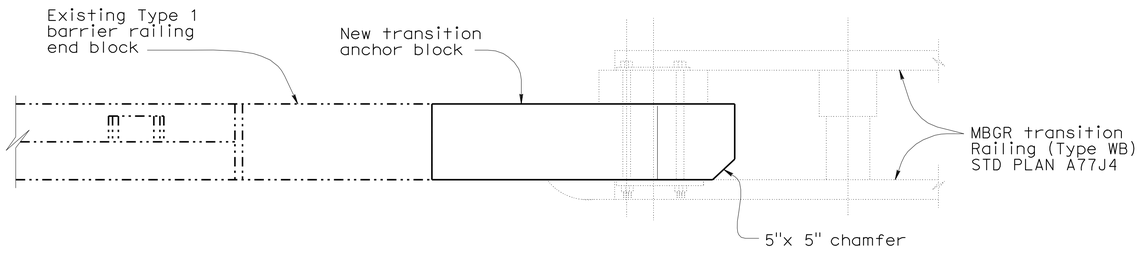
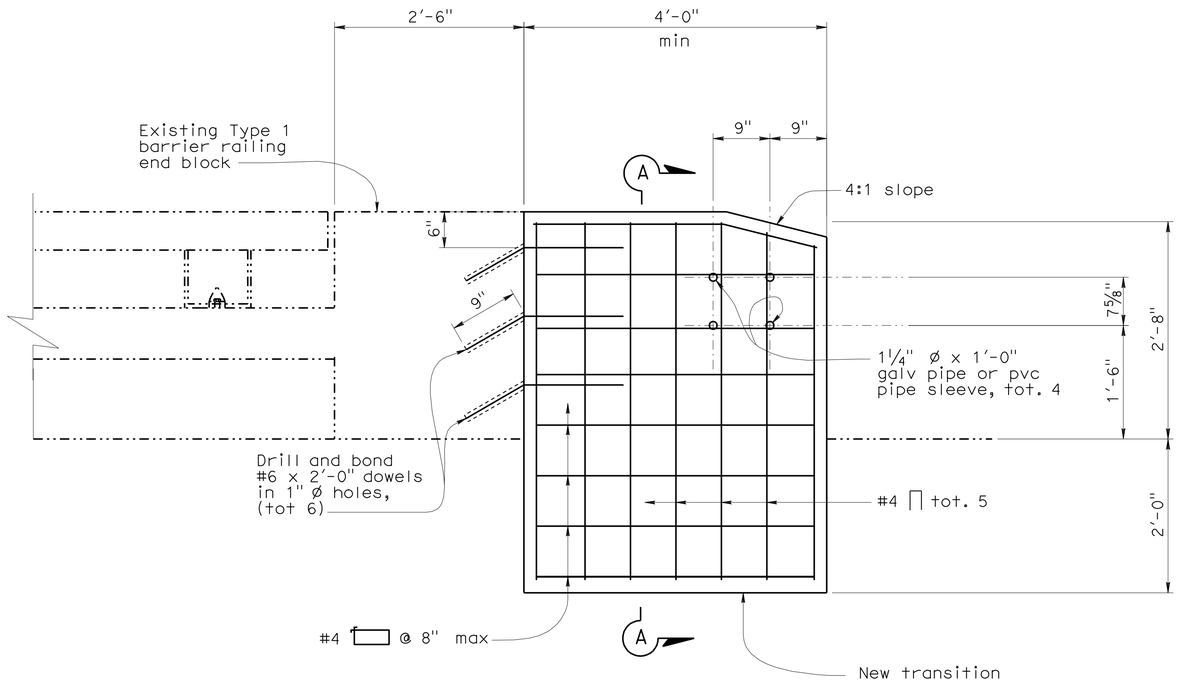


PLAN



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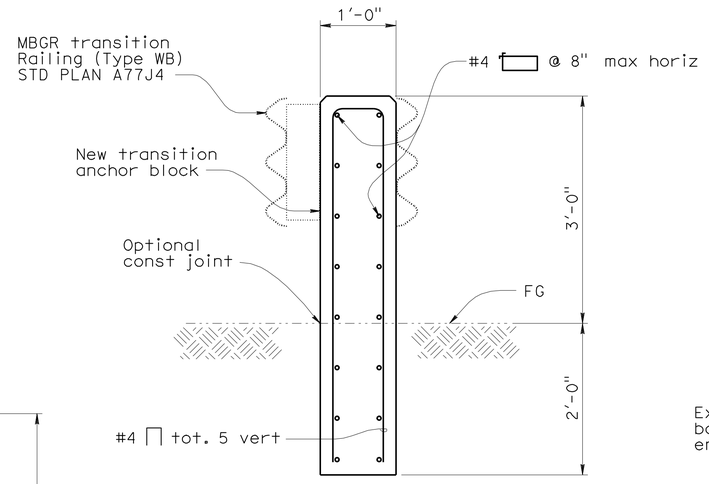
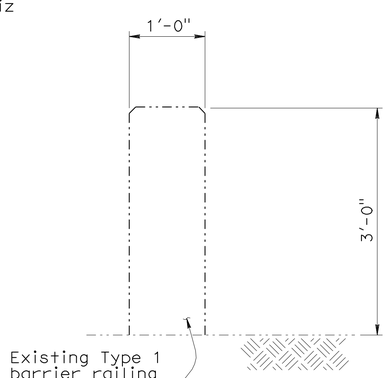


SECTION A-A



TYPICAL SECTION

(TYPE 1 BARRIER
END BLOCK)

Notes:

1. For limits of excavation and backfill, see 2006 Standard Plans A62C, section E-E.
2. See Roadway Plans for work location.
3. The contractor shall verify all controlling field dimensions, before ordering or fabricating any material.

NO SCALE

DESIGN	BY Felix Altamirano	CHECKED YU SONG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGNS BRANCH	BRIDGE NO. Varies
DETAILS	BY Hung Nguyen	CHECKED Paul Wells			POST MILE Varies
QUANTITIES	BY Felix Altamirano	CHECKED Yu Song			

ROUTE 10 BRIDGES

TYPE 1 BARRIER

TRANSITION ANCHOR BLOCK DETAILS NO. 2

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 10-25-05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 3/16/09

SHEET 35 OF 39

FILE => 08478301041.dgn

USERNAME => tfsthk DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	92	95

Felix S Altamirano 4-26-10 X
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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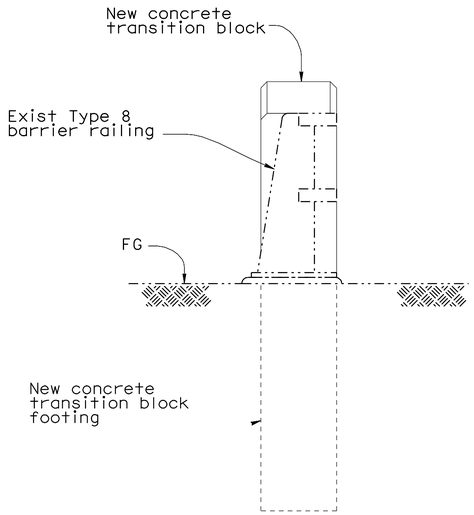
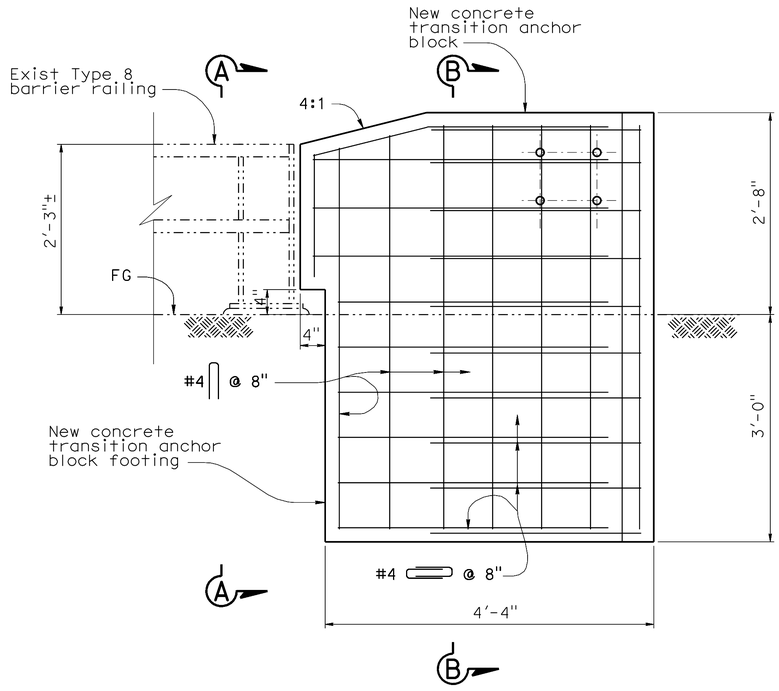
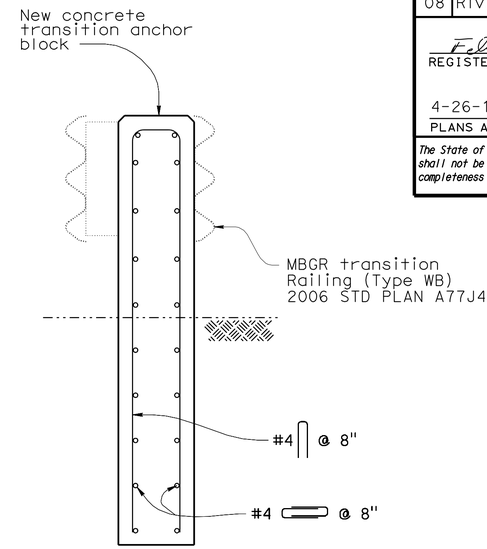


SECTION A-A
NO SCALE



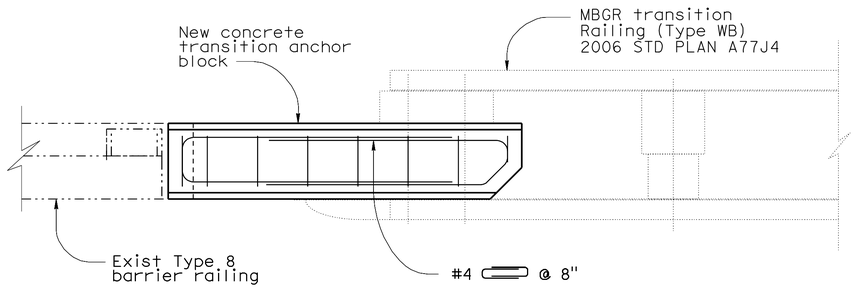
ELEVATION
NO SCALE



SECTION B-B
NO SCALE

NOTES:

1. For limits of excavation and backfill see 2006 Standard Plans A62c, Section E-E.
2. See Roadway Plans for work locations.
3. Epoxy fill drilled holes for bolts used to fasten MBGR to existing end block, unless holes were cast using pipe sleeves.
4. Existing barrier heights vary. Where exist barrier height is more than 2'-8", transition barrier height to 2'-8" @ 4:1 slope.
5. The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.



PLAN
NO SCALE

NO SCALE

DESIGN	BY F ALTAMIRANO	CHECKED YU SONG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGNS BRANCH	BRIDGE NO. X	ROUTE 10 BRIDGES
DETAILS	BY P C WELLS	CHECKED F ALTAMIRANO			POST MILE X	TYPE 8 BARRIER
QUANTITIES	BY F ALTAMIRANO	CHECKED P C WELLS				TRANSITION ANCHOR BLOCK DETAILS NO. 3

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 10-25-05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
X										36	39

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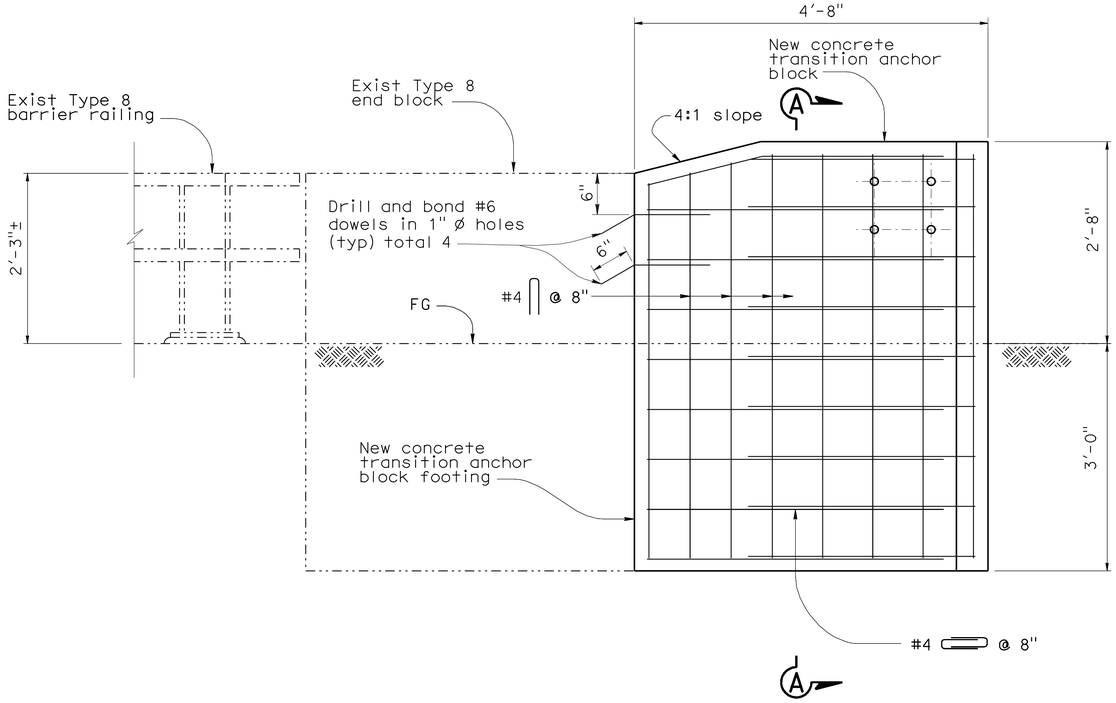
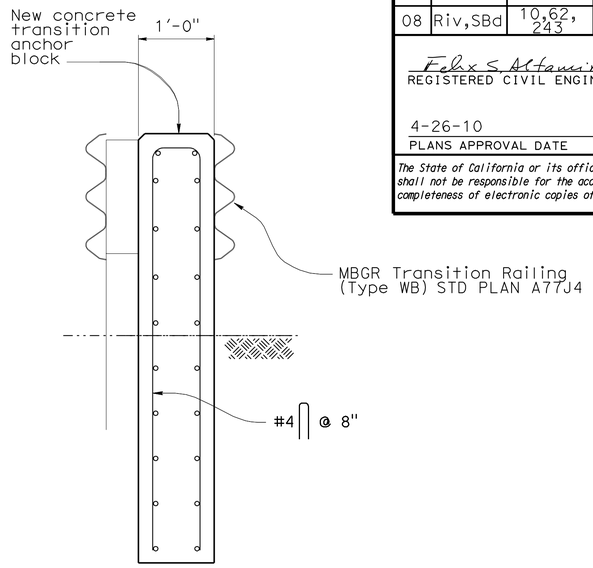


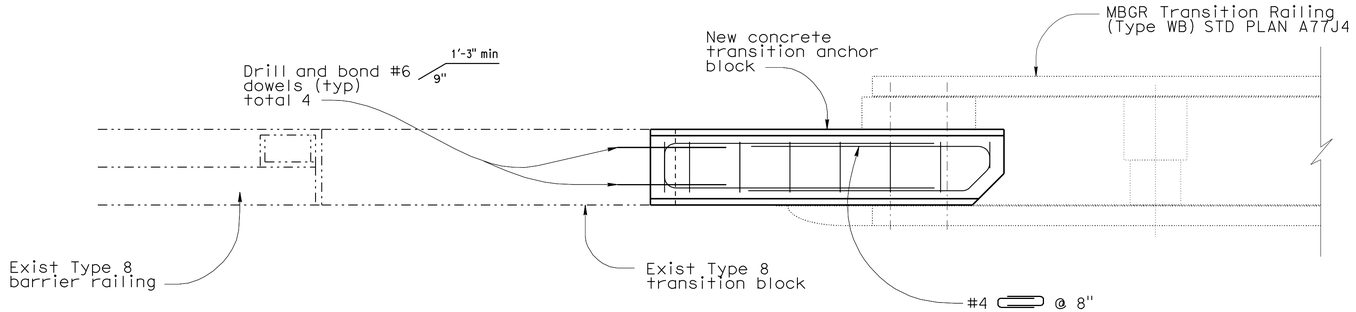
ELEVATION
NO SCALE



SECTION A-A
NO SCALE

NOTES:

1. For limits of excavation and backfill see 2006 Standard Plans A62c, Section E-E.
2. See Roadway Plans for work locations.
3. Epoxy fill drilled holes for bolts used to fasten MBGR to existing end block, unless holes were cast using pipe sleeves.
4. Existing barrier heights vary. Where exist barrier height is more than 2'-8", transition barrier height to 2'-8" @ 4:1 slope.
5. The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.



PLAN
NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	93	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — FELIX ALTAMIRANO — No. C56401 — Exp. 6/30/11 — CIVIL — STATE OF CALIFORNIA

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NO SCALE

DESIGN	BY F ALTAMIRANO	CHECKED YU SONG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGNS BRANCH	BRIDGE NO. 56-14/56-588
DETAILS	BY P C WELLS	CHECKED F ALTAMIRANO			POST MILE X
QUANTITIES	BY F ALTAMIRANO	CHECKED P C WELLS			

ROUTE 10 BRIDGES

TYPE 8 BARRIER CASE (2)

TRANSITION ANCHOR BLOCK DETAILS NO. 4

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 10-25-05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: X

SHEET 37 OF 39

FILE => 08478301043.dgn

USERNAME => trstrk DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	94	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FELIX ALTAMIRANO
No. C56401
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

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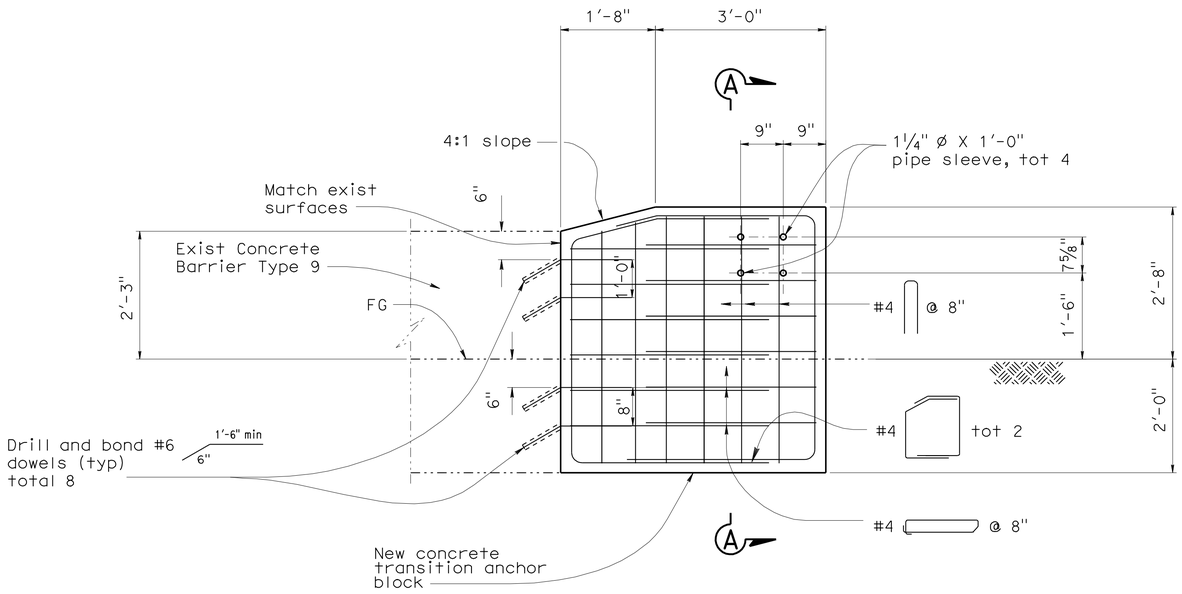
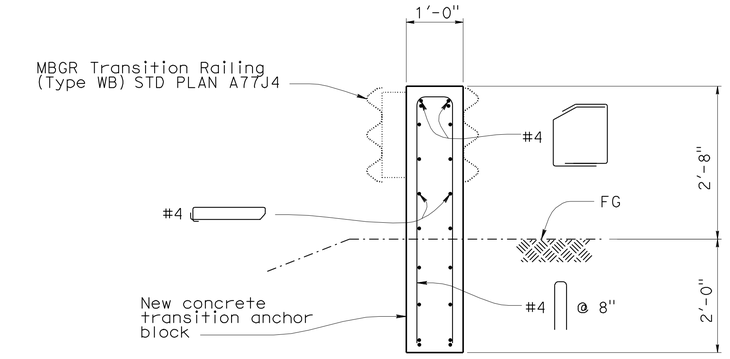
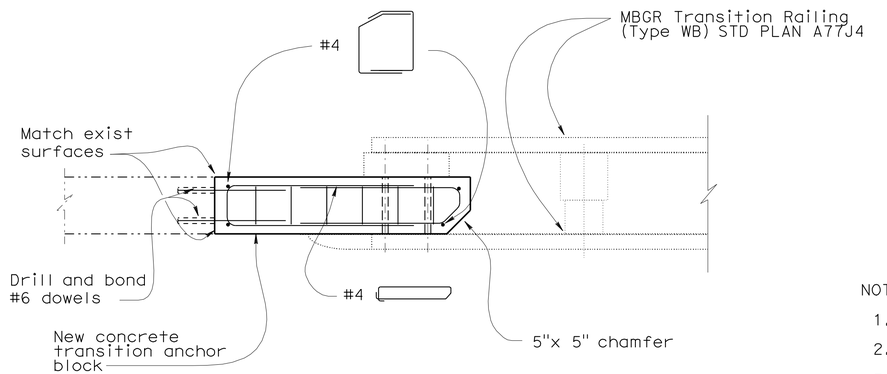


ELEVATION
no scale



SECTION A-A
no scale



PLAN
no scale

NOTES:

1. For limits of excavation and backfill see 2006 Standard Plans A62c, Section E-E.
2. See Roadway Plans for work locations.
3. Epoxy fill drilled holes for bolts used to fasten MBGR to existing end block, unless holes were cast using pipe sleeves.
4. Existing barrier heights vary. Where exist barrier height is more than 2'-8", transition barrier height to 2'-8" @ 4:1 slope.
5. The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

NO SCALE

DESIGN	BY F ALTAMIRANO	CHECKED YU SONG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGN BRANCH	BRIDGE NO. Varies
DETAILS	BY P C WELLS	CHECKED F ALTAMIRANO			POST MILE Varies
QUANTITIES	BY F ALTAMIRANO	CHECKED P C WELLS			

ROUTE 10 BRIDGES
TYPE 9 BARRIER CASE (2)
TRANSITION ANCHOR BLOCK DETAILS NO. 5

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 10-25-05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 01
EA 464001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
7-30-09	10-6-09									38	39

FILE => 08478301044.dgn

USERNAME => ttrstrk DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv,SBd	10,62, 243	Var	95	95

Felix S. Altamirano
REGISTERED CIVIL ENGINEER DATE

4-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FELIX ALTAMIRANO No. C56401 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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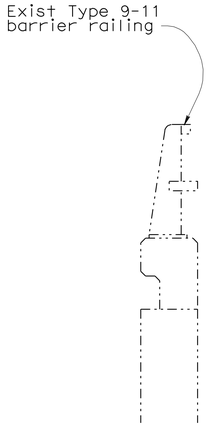
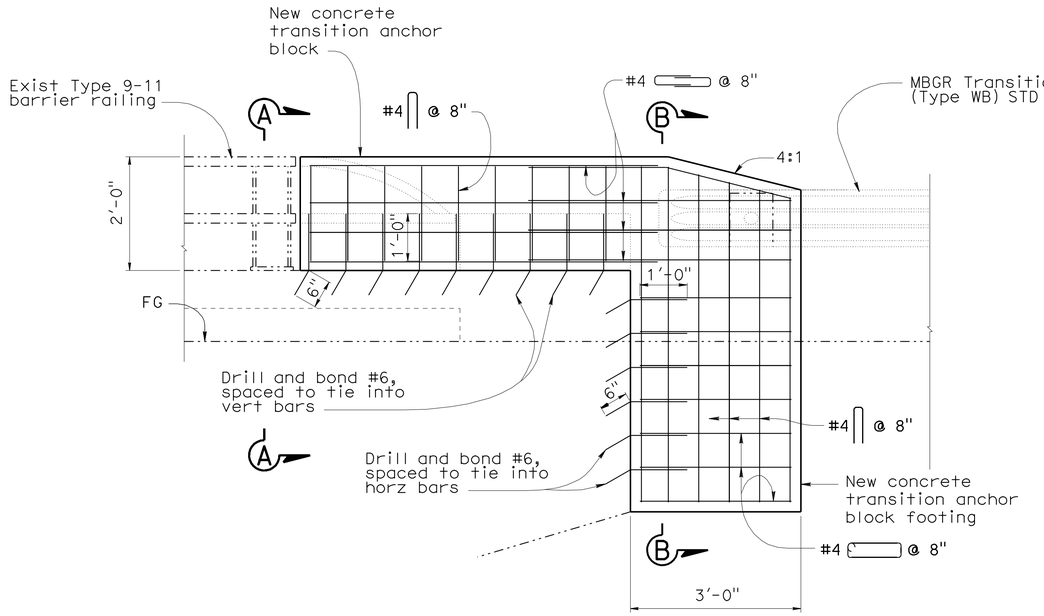
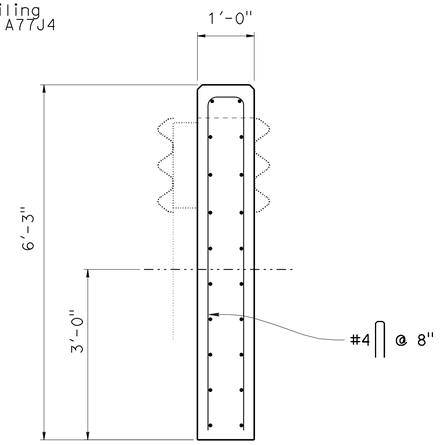


SECTION A-A
NO SCALE



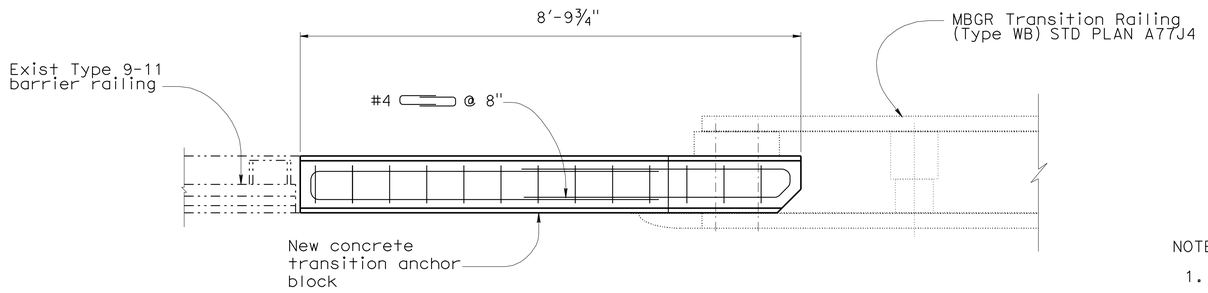
ELEVATION
NO SCALE



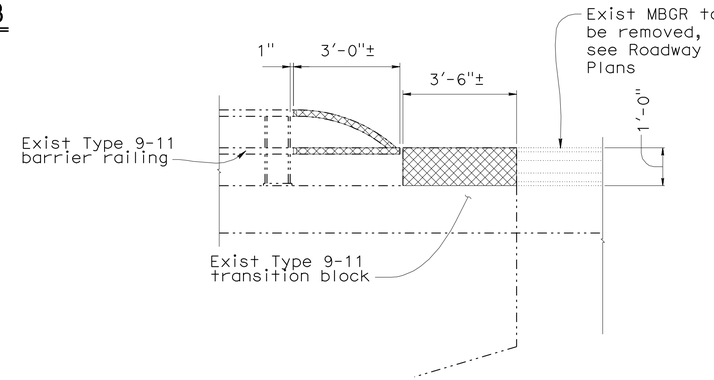
SECTION B-B
NO SCALE

LEGEND

- Existing construction
- New construction
- Demolition



PLAN
NO SCALE



ELEVATION
DEMOLITION
NO SCALE

NOTES:

1. For limits of excavation and backfill see 2006 Standard Plans A62c, Section E-E.
2. See Roadway Plans for work locations.
3. Epoxy fill drilled holes for bolts used to fasten MBGR to existing end block, unless holes were cast using pipe sleeves.
4. Existing barrier heights vary. Where exist barrier height is more than 2'-8", transition barrier height to 2'-8" @ 4:1 slope.
5. The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

NO SCALE

DESIGN	BY F ALTAMIRANO	CHECKED YU SONG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGNS BRANCH	BRIDGE NO. X
DETAILS	BY P C WELLS	CHECKED F ALTAMIRANO			POST MILE X
QUANTITIES	BY F ALTAMIRANO	CHECKED P C WELLS			

ROUTE 10 BRIDGES
TYPE 9-11 TO TYPE WB
TRANSITION ANCHOR BLOCK DETAILS NO. 6

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 10-25-05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 478301

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
10-7-09										39	39

FILE => 08478301045.dgn

USERNAME => trstrk DATE PLOTTED => 30-APR-2010 TIME PLOTTED => 11:16