

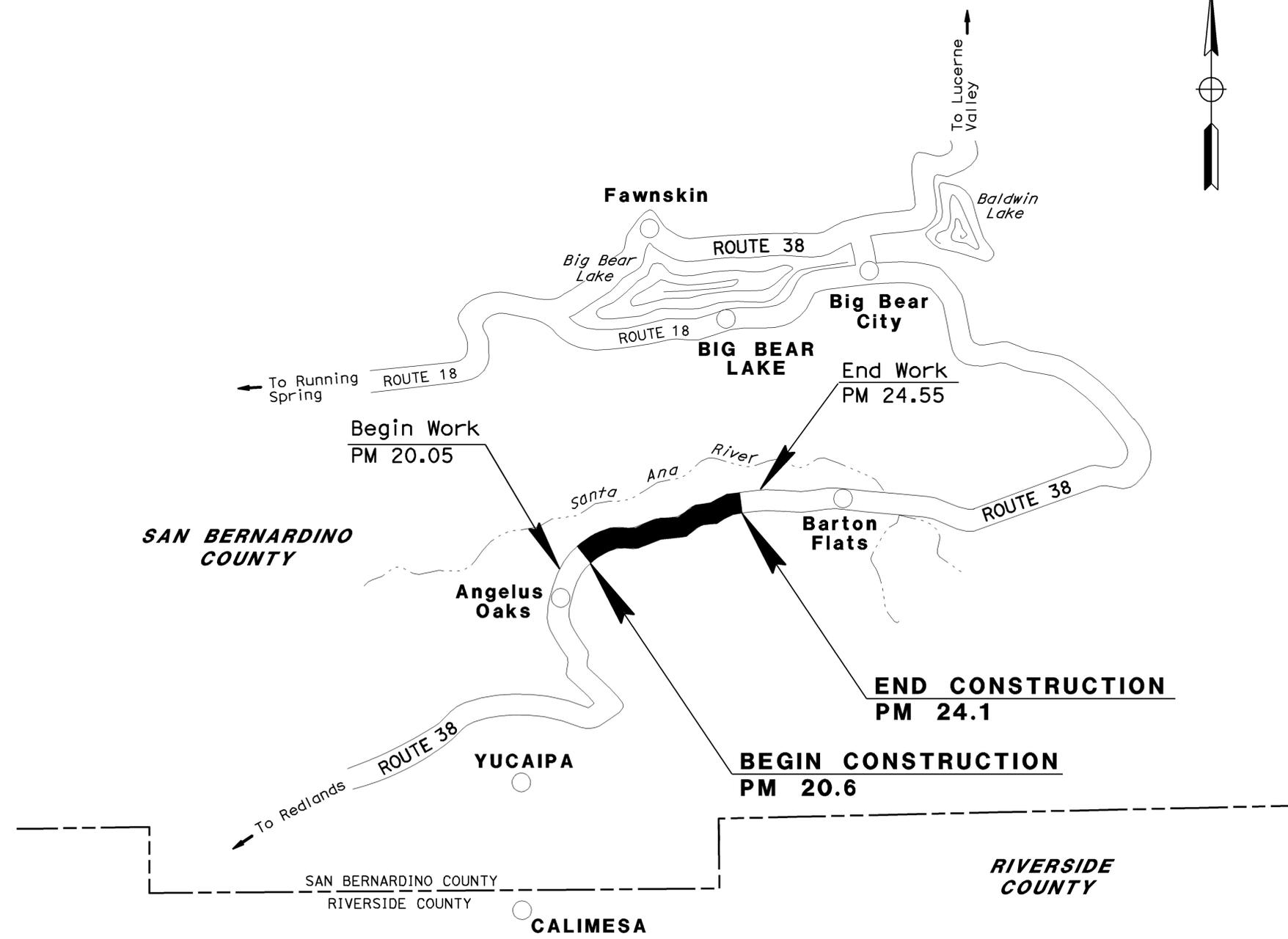
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-8	CONSTRUCTION DETAILS
9	CONSTRUCTION AREA SIGNS
10	PAVEMENT DELINEATION AND SIGN QUANTITIES
11	SUMMARY OF QUANTITIES
12-13	NEW STANDARD PLANS
14-24	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA **ACHSSTPH-P038(017)E**
 DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY**
IN SAN BERNARDINO COUNTY
NEAR ANGELUS OAKS
**FROM 0.2 MILE WEST OF MILL CREEK ROAD
 TO 0.3 MILE WEST OF FORSEE CREEK**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER
MUSTAPHA IAALI
 DESIGN ENGINEER
HANNAH NGUYEN

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

NO SCALE

PROJECT ENGINEER DATE 11-3-09
 REGISTERED CIVIL ENGINEER
February 16, 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-OM1304

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	2	24

REGISTERED CIVIL ENGINEER	DATE
<i>[Signature]</i>	11-3-09
PLANS APPROVAL DATE	
	2-16-10

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.



NOTES:

1. REFER TO 2006 NEW STANDARD PLANS NSP A77C5 AND A77C6.
2. FOR HMA DIKE LOCATIONS, REFER TO CONSTRUCTION DETAIL SHEETS.

LEGEND:

VEGETATION CONTROL (MINOR CONCRETE)

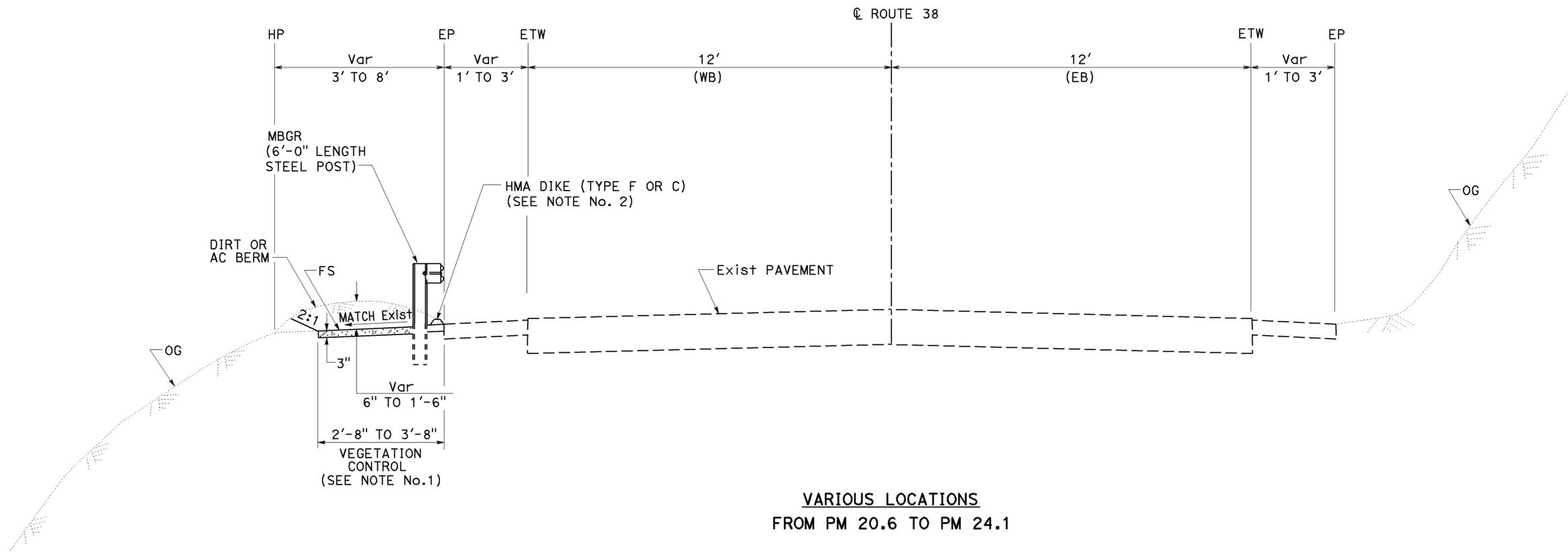
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR
 SERGIO E. AVILA

CALCULATED/DESIGNED BY
 CHECKED BY

HANNAH NGUYEN
 SERGIO E. AVILA

REVISED BY
 DATE REVISED



VARIOUS LOCATIONS
 FROM PM 20.6 TO PM 24.1

TYPICAL CROSS SECTION
 NO SCALE
X-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	3	24

REGISTERED CIVIL ENGINEER	DATE
11-3-09	
PLANS APPROVAL DATE	
2-16-10	

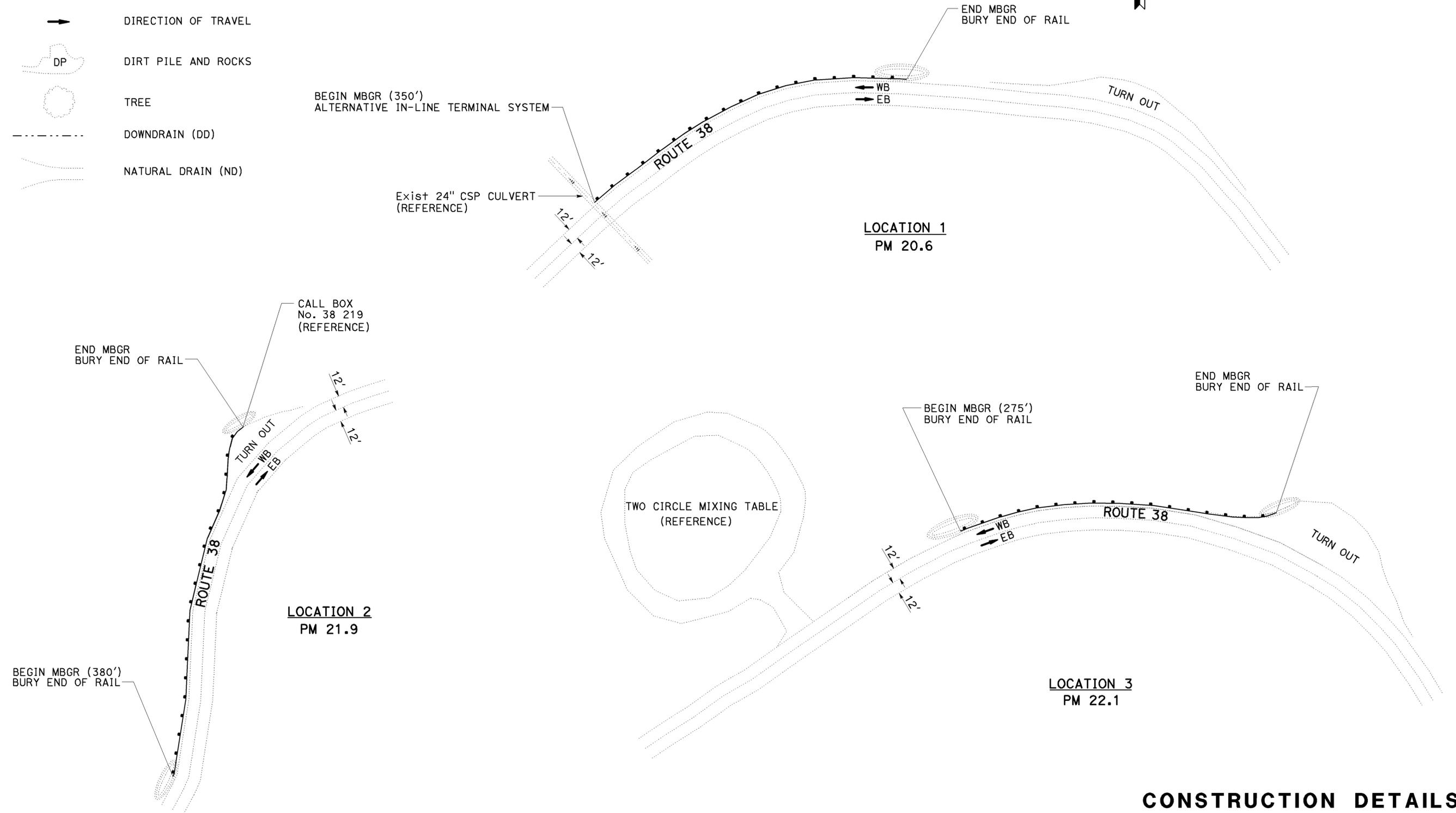
REGISTERED PROFESSIONAL ENGINEER
SERGIO E. AVILA
No. 60957
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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.

NOTE:
 1. EXACT LOCATION OF MBGR WILL BE DETERMINED BY THE ENGINEER IN THE FIELD

- LEGEND:**
- DIRT/ROCK MOUND
 - DIRECTION OF TRAVEL
 - DIRT PILE AND ROCKS (DP)
 - TREE
 - DOWNDRAIN (DD)
 - NATURAL DRAIN (ND)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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 FUNCTIONAL SUPERVISOR
 SERGIO E. AVILA
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 CHECKED BY
 HANNAH NGUYEN
 SERGIO E. AVILA
 REVISED BY
 DATE REVISED



CONSTRUCTION DETAILS
 NO SCALE
C-1

LAST REVISION | DATE PLOTTED => 11-FEB-2010
 11-03-09 | TIME PLOTTED => 14:05

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Caltrans
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FUNCTIONAL SUPERVISOR
 SERGIO E. AVILA

CALCULATED-DESIGNED BY
 CHECKED BY

HANNAH NGUYEN
 SERGIO E. AVILA

REVISED BY
 DATE REVISED

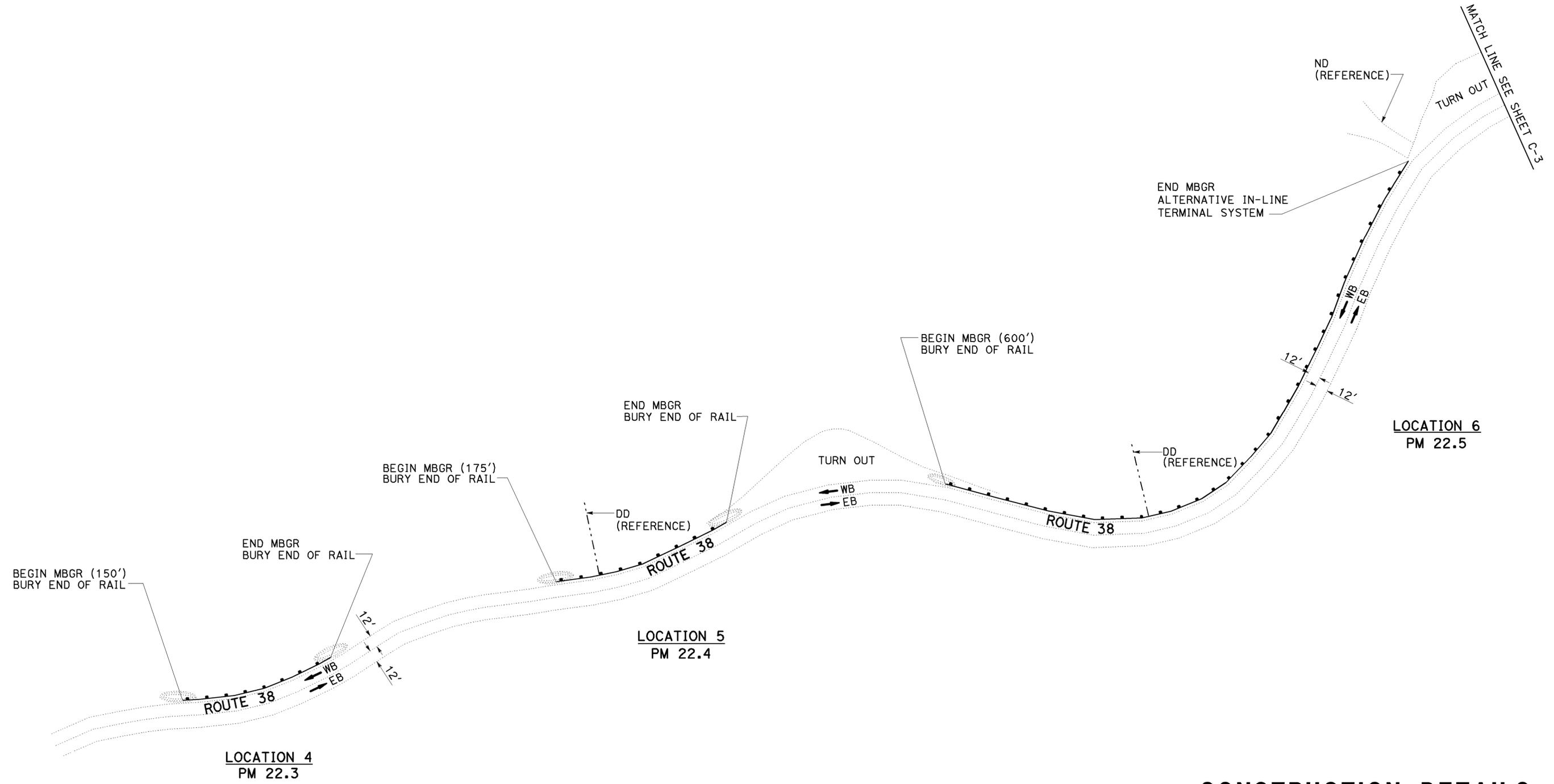
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08	SBd	38	20.6/24.1	4	24

REGISTERED CIVIL ENGINEER DATE 11-3-09
 PLANS APPROVAL DATE 2-16-10

REGISTERED PROFESSIONAL ENGINEER
 SERGIO E. AVILA
 No. 60957
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

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NOTE:
 1. EXACT LOCATION OF MBGR WILL BE DETERMINED BY THE ENGINEER IN THE FIELD



CONSTRUCTION DETAILS
 NO SCALE
C-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	5	24

REGISTERED CIVIL ENGINEER	DATE
<i>Sergio E. Avila</i>	11-3-09
PLANS APPROVAL DATE	
	2-16-10

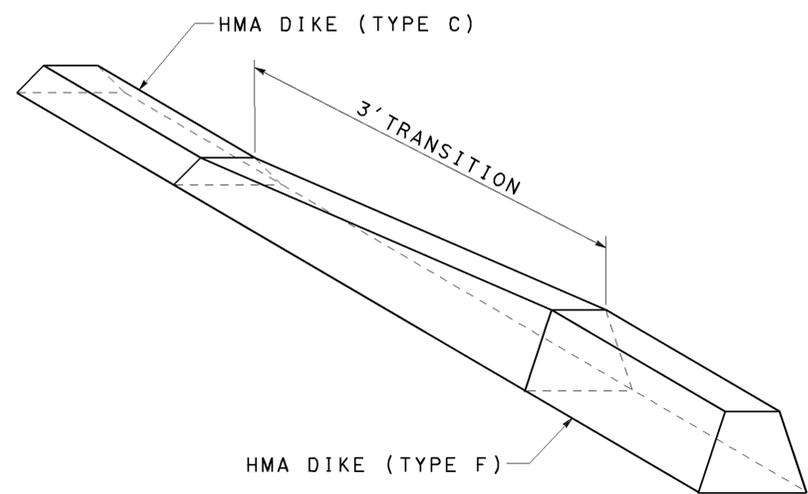
REGISTERED PROFESSIONAL ENGINEER
SERGIO E. AVILA
No. 60957
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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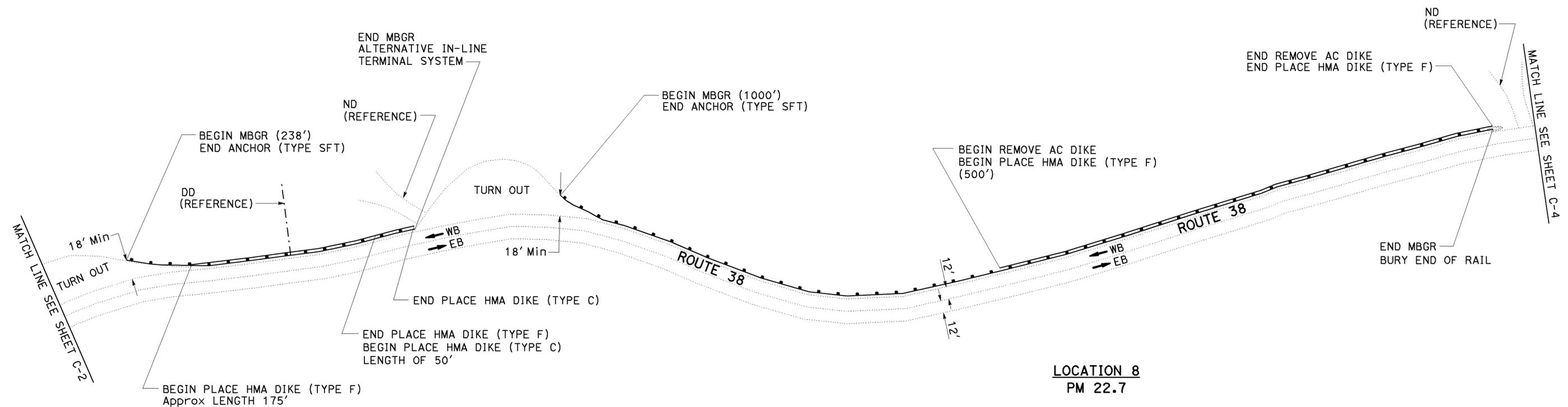
NOTE:

1. EXACT LOCATION OF MBGR WILL BE DETERMINED BY THE ENGINEER IN THE FIELD

REVISOR: HANNAH NGUYEN, SERGIO E. AVILA
 DESIGNED BY: SERGIO E. AVILA
 CHECKED BY:
 SUPERVISOR: SERGIO E. AVILA
 DESIGN: DEPARTMENT OF TRANSPORTATION



**HMA DIKE (TYPE C)
TO HMA DIKE (TYPE F) TRANSITION**



**LOCATION 7
PM 22.6**

**LOCATION 8
PM 22.7**

**CONSTRUCTION DETAILS
NO SCALE
C-3**

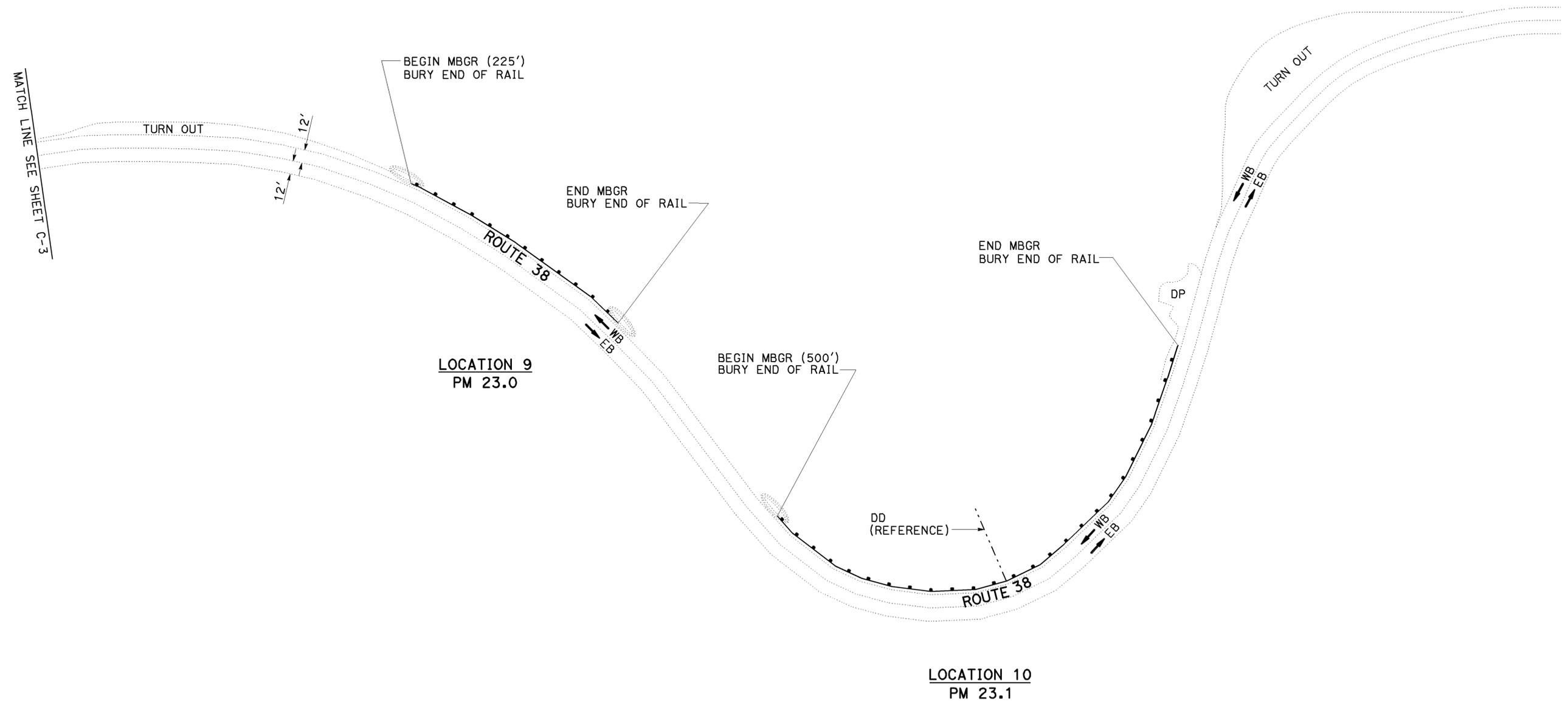
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	6	24

REGISTERED CIVIL ENGINEER	DATE
<i>Sergio E. Avila</i>	11-3-09
PLANS APPROVAL DATE	
	2-16-10

REGISTERED PROFESSIONAL ENGINEER
SERGIO E. AVILA
No. 60957
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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NOTE:
1. EXACT LOCATION OF MBGR WILL BE DETERMINED BY THE ENGINEER IN THE FIELD



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Caltrans
DESIGN

FUNCTIONAL SUPERVISOR
SERGIO E. AVILA

CALCULATED-DESIGNED BY
CHECKED BY

HANNAH NGUYEN
SERGIO E. AVILA

REVISED BY
DATE REVISED

CONSTRUCTION DETAILS
NO SCALE
C-4

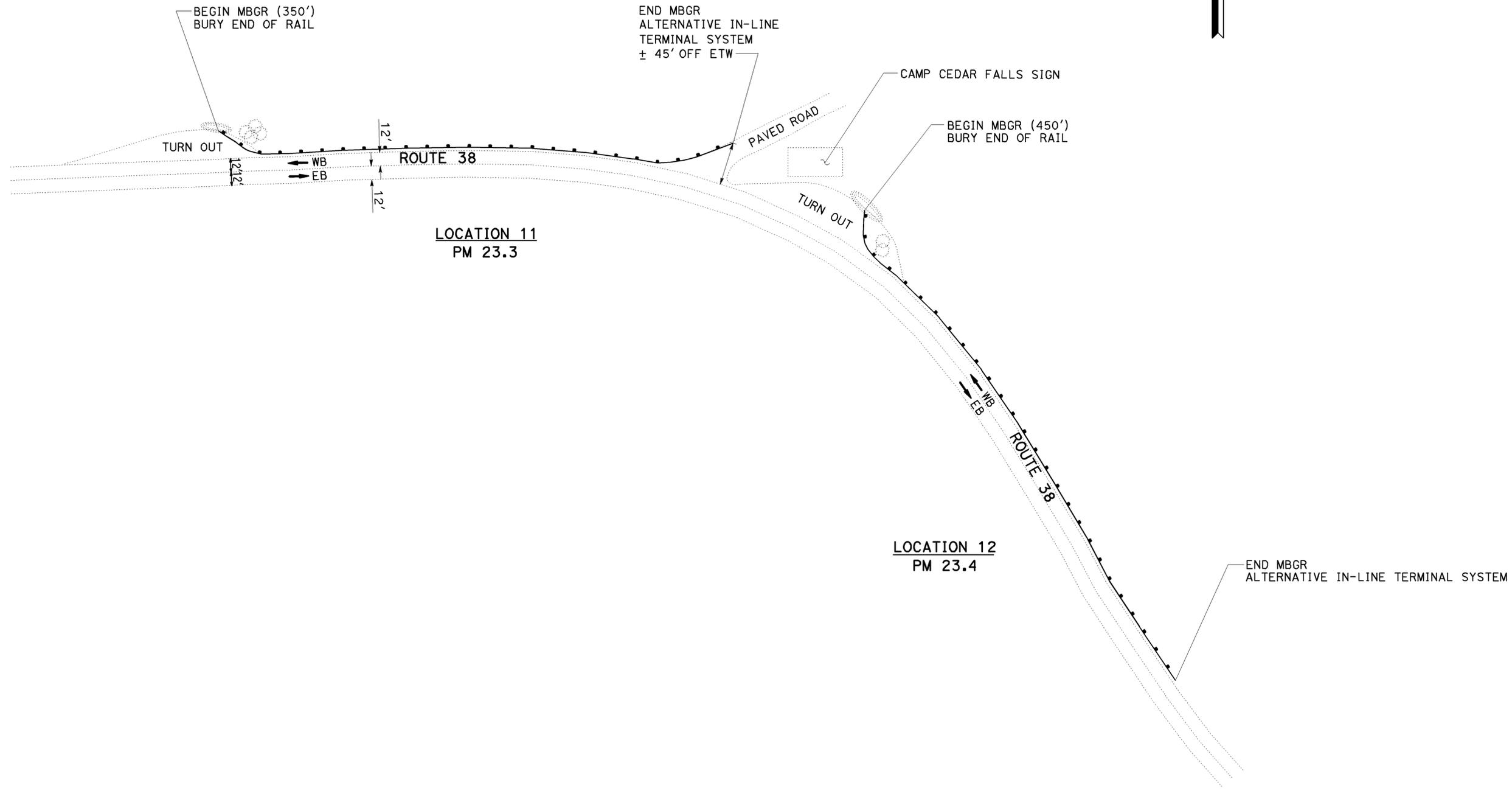
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	7	24

REGISTERED CIVIL ENGINEER	DATE
<i>Sergio E. Avila</i>	11-3-09
PLANS APPROVAL DATE	
	2-16-10

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
SERGIO E. AVILA
No. 60957
Exp. 12-31-10
CIVIL

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NOTE:
 1. EXACT LOCATION OF MBGR WILL BE DETERMINED BY THE ENGINEER IN THE FIELD



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Caltrans
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FUNCTIONAL SUPERVISOR
SERGIO E. AVILA
CALCULATED/DESIGNED BY
CHECKED BY
HANNAH NGUYEN
SERGIO E. AVILA
REVISED BY
DATE REVISED

CONSTRUCTION DETAILS
 NO SCALE
C-5

LAST REVISION | DATE PLOTTED => 11-FEB-2010 | TIME PLOTTED => 14:05

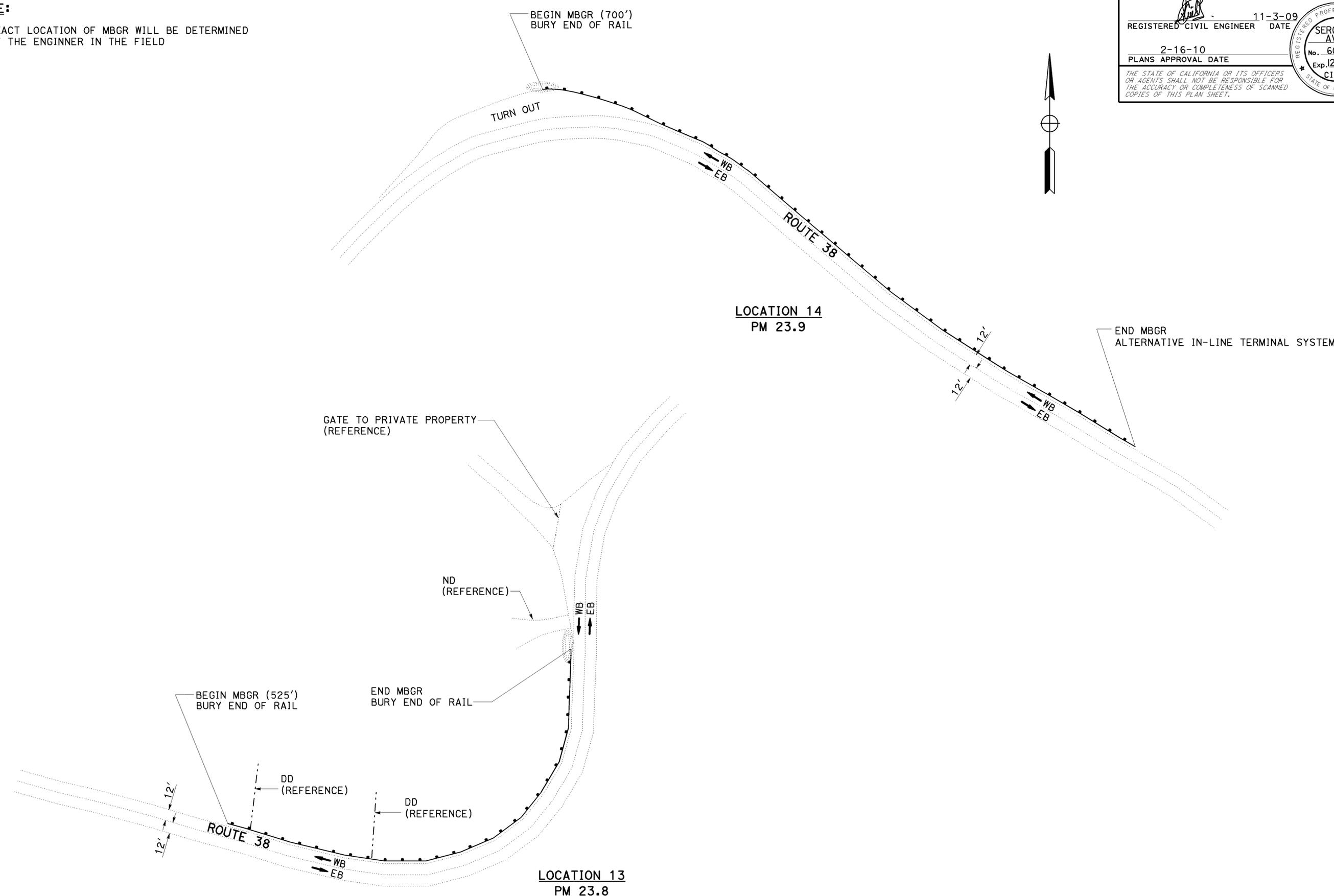
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	8	24

REGISTERED CIVIL ENGINEER	DATE
<i>Sergio E. Avila</i>	11-3-09
PLANS APPROVAL DATE	
	2-16-10

REGISTERED PROFESSIONAL ENGINEER
SEARGIO E. AVILA
No. 60957
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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NOTE:
 1. EXACT LOCATION OF MBGR WILL BE DETERMINED BY THE ENGINEER IN THE FIELD



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

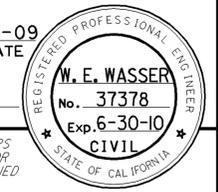
FUNCTIONAL SUPERVISOR
 SERGIO E. AVILA

CALCULATED/DESIGNED BY
 CHECKED BY

HANNAH NGUYEN
 SERGIO E. AVILA

REVISED BY
 DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	9	24
<i>W E Wasser</i> 11-3-09 REGISTERED CIVIL ENGINEER DATE					
2-16-10 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

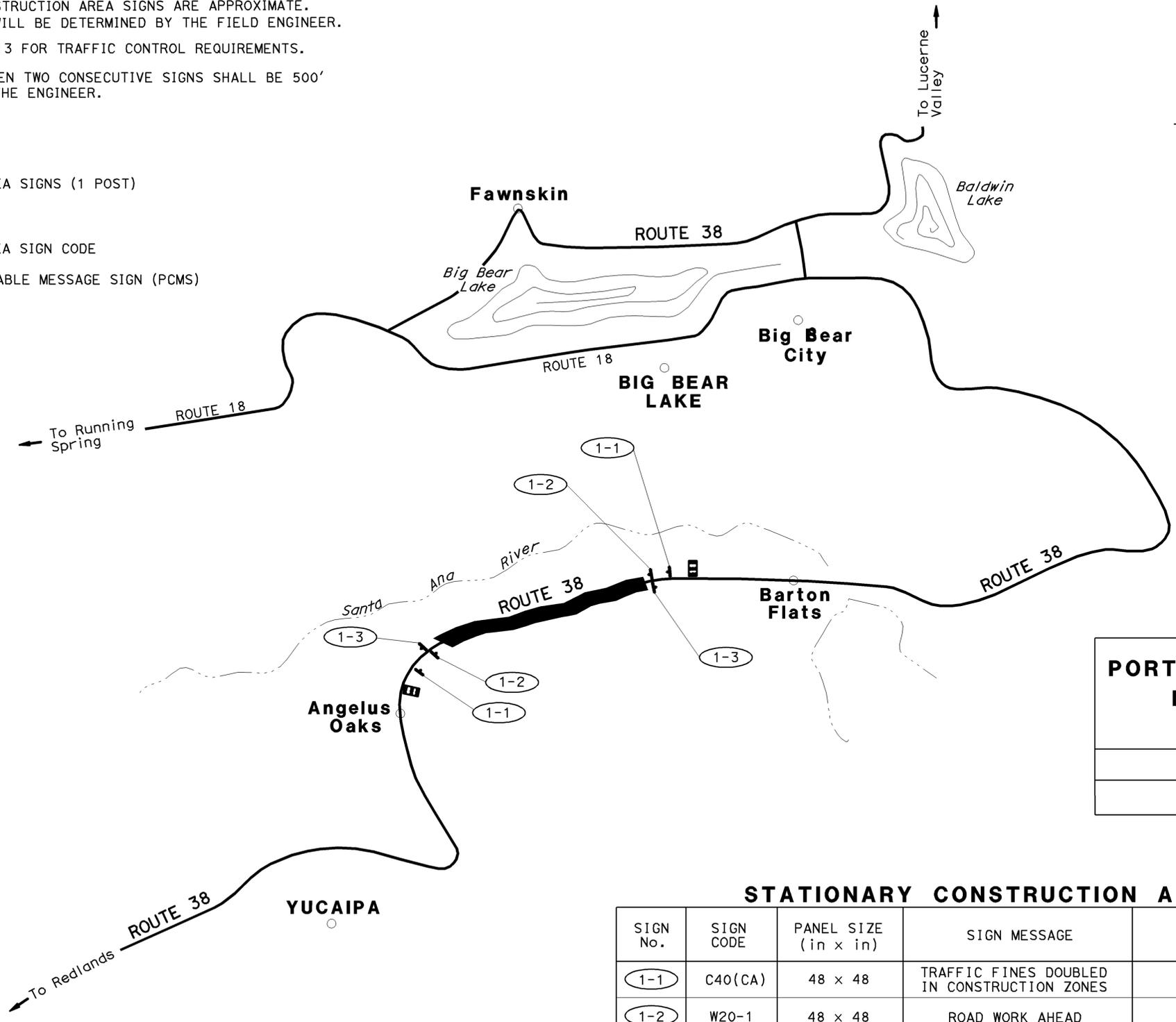


NOTES:

1. LOCATIONS OF THE CONSTRUCTION AREA SIGNS ARE APPROXIMATE. THE EXACT LOCATIONS WILL BE DETERMINED BY THE FIELD ENGINEER.
2. REFER TO Std PLANS T13 FOR TRAFFIC CONTROL REQUIREMENTS.
3. MINIMUM SPACING BETWEEN TWO CONSECUTIVE SIGNS SHALL BE 500' OR AS DETERMINED BY THE ENGINEER.

LEGEND:

- ↑ CONSTRUCTION AREA SIGNS (1 POST)
- ROAD WORK AREA
- 1-X CONSTRUCTION AREA SIGN CODE
- ▣ PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)



PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
(EA)
2

STATIONARY CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE (in x in)	SIGN MESSAGE	No. OF POST(S) AND SIZE (in x in)	No. OF SIGNS (EA) (N)
1-1	C40(CA)	48 x 48	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	1 - 6" x 6"	2
1-2	W20-1	48 x 48	ROAD WORK AHEAD	1 - 6" x 6"	2
1-3	G20-2	48 x 24	END ROAD WORK	1 - 4" x 6"	2

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

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.



USERNAME => fandres
DGN FILE => 80m1301a001.dgn

CU 08380

EA 0M1301

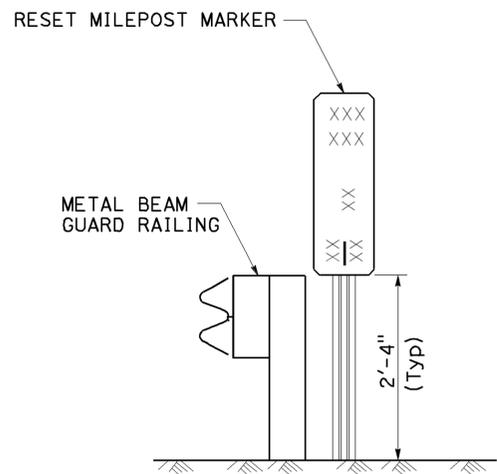
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - TRAFFIC DESIGN A
 FUNCTIONAL SUPERVISOR: W. E. WASSER
 CALCULATED/DESIGNED BY: PATTI BARTOLLI
 CHECKED BY: SHABIR AHMED
 REVISED BY: DATE REVISION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	10	24

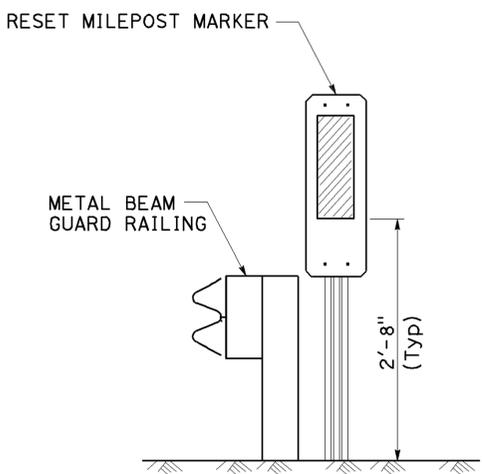
W E Wasser 11-3-09
 REGISTERED CIVIL ENGINEER DATE
 2-16-10
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
W. E. WASSER
 No. 37378
 Exp. 6-30-10
 CIVIL
 STATE OF CALIFORNIA



*** TYPICAL MILEPOST MARKER INSTALLATION**



*** TYPICAL L-MARKER INSTALLATION**

* SEE STANDARD PLANS A73A, A73B AND A77C4 FOR ADDITIONAL INFORMATION REGARDING OBJECT MARKERS, MILEPOST MARKERS AND GUARD RAILING DELINEATORS.

GUARDRAIL DELINEATOR

QUANTITY (EACH)
257

OBJECT MARKER

QUANTITY (EACH)
2

RESET SNOW POLE

QUANTITY (EACH)
4

RESET SNOW POLE WITH MARKER

QUANTITY (EACH)
49

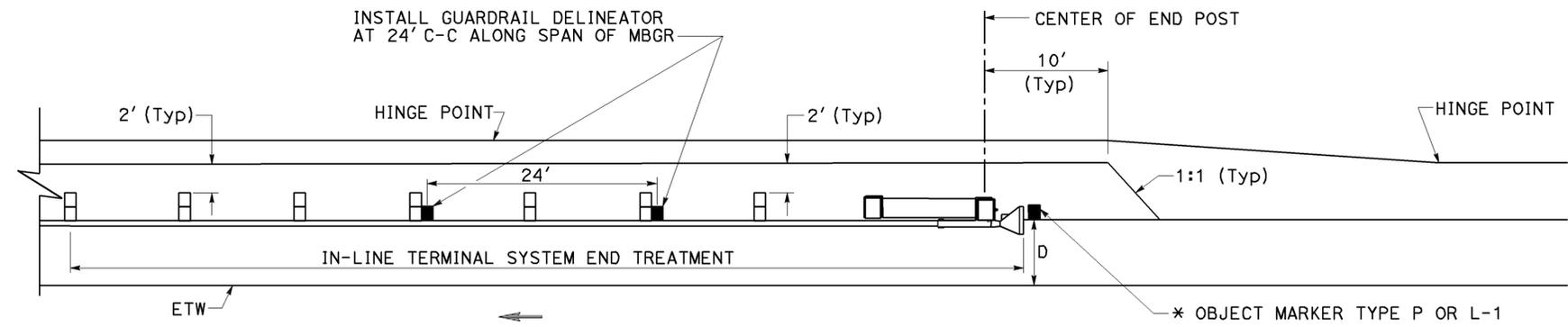
RESET MARKER

QUANTITY (EACH)
6

INCLUDES OBJECT MARKERS AND MILEPOST MARKERS.

RESET ROADSIDE SIGN (ONE POST)

QUANTITY (EACH)
8



PLAN
TYPICAL OBJECT MARKER LOCATION FOR TERMINAL SYSTEM END TREATMENTS

IF D IS LESS THAN 8', USE TYPE P.
 IF D IS GREATER THAN 8', BUT LESS THAN 12' USE TYPE L-1.
 IF D IS GREATER THAN 12', NO MARKER IS REQUIRED.
 * IF NO TYPE P OR L-1 MARKER PROVIDED AT THE FACE OF MBGR ADD OBJECT MARKER IN COMPLIANCE WITH NOTES ABOVE.

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN QUANTITIES ONLY.

PAVEMENT DELINEATION AND SIGN QUANTITIES

NO SCALE

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - TRAFFIC DESIGN A
 FUNCTIONAL SUPERVISOR: W. E. WASSER
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 PATTI BARTOLLI
 SHABIR AHMED
 REVISED BY: [Blank]
 DATE REVISED: [Blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	38	20.6/24.1	11	24

 11-3-09
 REGISTERED CIVIL ENGINEER DATE
 2-16-10
 PLANS APPROVAL DATE



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METAL BEAM GUARD RAILING AND ASPHALT CONCRETE DIKE

No.	PM	Dir	LOCATION DESCRIPTION	ALTERNATIVE IN-LINE TERMINAL SYSTEM	(N) BURIED POST END ANCHOR	END ANCHOR ASSEMBLY (TYPE SFT)	MBGR (STEEL POST)	REMOVE AC DIKE	PLACE HMA DIKE (TYPE F)	PLACE HMA DIKE (TYPE C)	MINOR HOT MIX ASPHALT	VEGETATION CONTROL (MINOR CONCRETE)	
				(EA)	(EA)	(EA)	(LF)	(LF)	(LF)	(LF)	(TON)	WIDTH (N)	AREA (SQYD)
1	20.6	WB	BEGIN ALTERNATIVE IN-LINE TERMINAL SYSTEM AT Exist 24" CSP CULVERT	1	1		350					3.67	143
2	21.9	WB	BEGIN MBGR AT 380' WEST OF CALL BOX No. 38 219		2		380					3.67	155
3	22.1	WB	BEGIN MBGR Approx 190' EAST OF TWO CIRCLE MIXING TABLE		2		275					3.67	112
4	22.3	WB	INSTALL MBGR BETWEEN TWO BIG DIRT BERMS		2		150					3.67	61
5	22.4	WB	BEGIN MBGR AT 175' WEST OF TURN OUT		2		175					3.67	71
6	22.5	WB	BEGIN AND END MBGR BETWEEN TWO TURN OUTS	1	1		600					3.67	245
7	22.6	WB	BEGIN AND END MBGR BETWEEN TWO TURN OUTS	1		1	238		175	50	4.5	2.67	71
8	22.7	WB	BEGIN MBGR AT TURN OUT		1	1	1000	500	500		10.5	2.67	297
9	23.0	WB	BEGIN MBGR AT TURN OUT		2		225					3.67	92
10	23.1	WB	BEGIN MBGR APPROX 770' WEST OF TURN OUT		2		500					3.67	204
11	23.3	WB	BEGIN MBGR AT TURN OUT JUST WEST OF GROUP OF TREES	1	1		350					3.67	143
12	23.4	WB	BEGIN MBGR Approx 140' EAST OF PAVED ROAD CLOSE TO THE CAMP CEDAR FALLS SIGN AND WEST OF GROUP OF TREES	1	1		450					3.67	184
13	23.8	WB	BEGIN MBGR Approx 640' WEST OF GATE TO PRIVATE PROPERTY		2		525					3.67	214
14	23.9	WB	BEGIN MBGR AT TURN OUT	1	1		700					3.67	285
TOTAL				6	20	2	5918	500	675	50	15	3.67	2277

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

NOTE:

1. VEGETATION CONTROL WIDTH MAY BE VARIED BY THE ENGINEER TO SUIT CONDITIONS ENCOUNTERED IN THE FIELD, REFER TO NEW STANDARD PLANS NSP A77C5 & A77C6.

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 DESIGN
 FUNCTIONAL SUPERVISOR: SERGIO E. AVILA
 CALCULATED-DESIGNED BY: HANNAH NGUYEN
 CHECKED BY: SERGIO E. AVILA
 REVISED BY: []
 DATE REVISED: []

SUMMARY OF QUANTITIES

Q-1

LAST REVISION: 11-03-09 14:05
 DATE PLOTTED => 11-FEB-2010
 TIME PLOTTED => 14:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	12	24

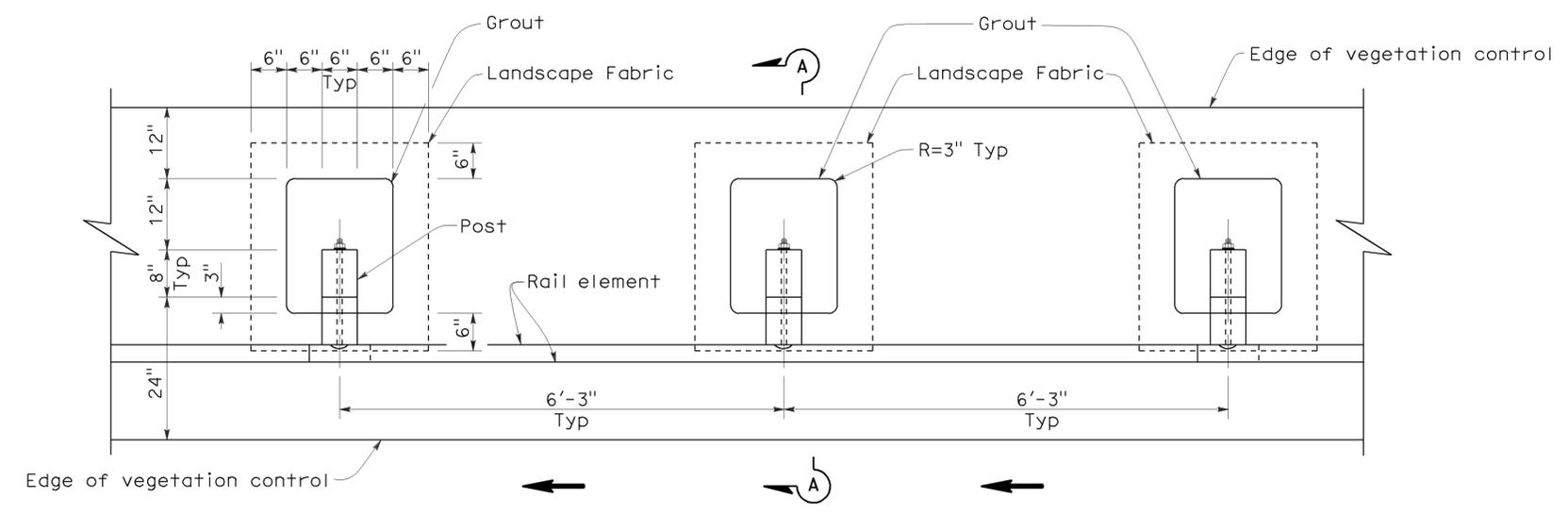
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

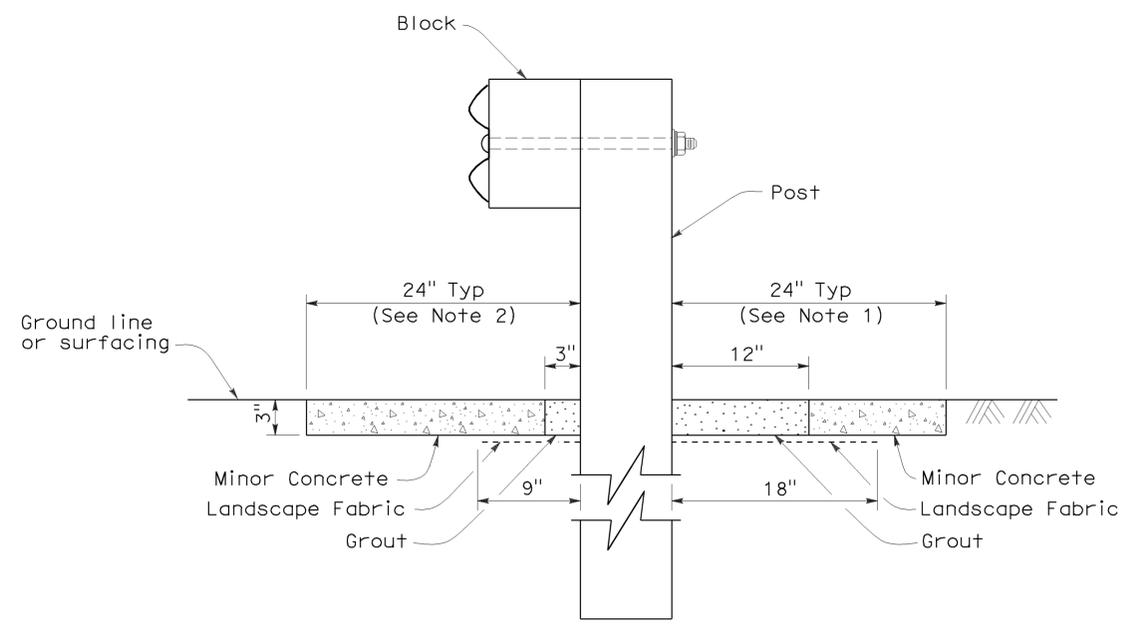
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-07
CIVIL
STATE OF CALIFORNIA

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To accompany plans dated February 16, 2010



PLAN



SECTION A-A

NOTES:

- 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.
- 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.
- Direction of adjacent traffic indicated by ← .

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	13	24

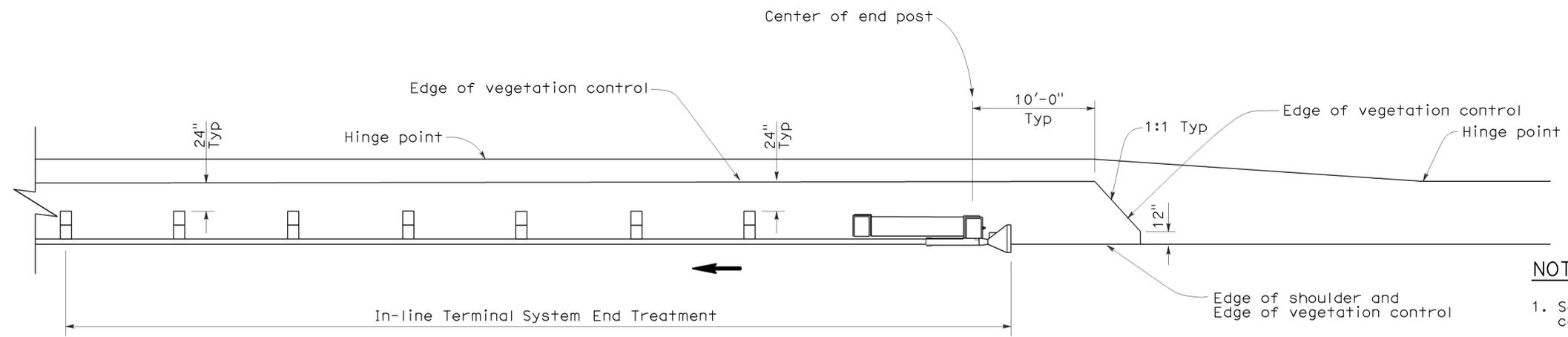
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

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

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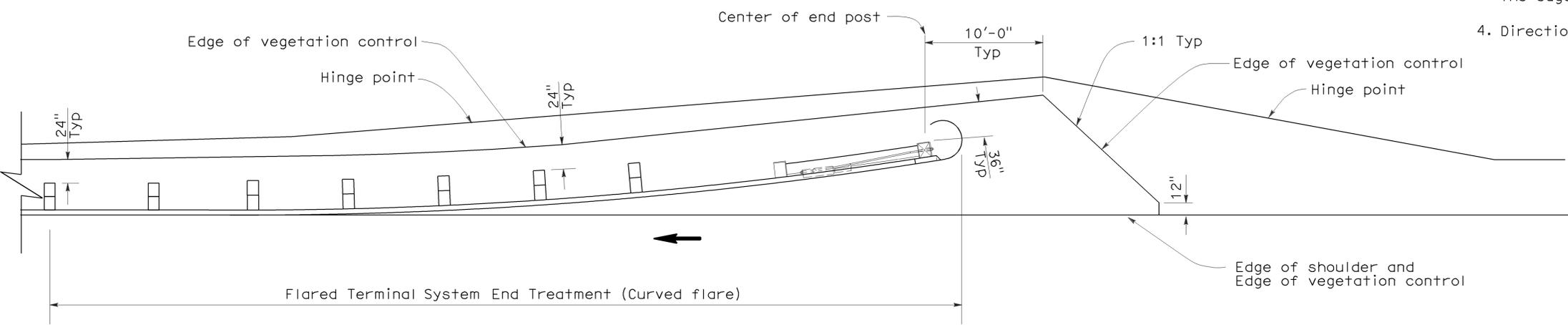
To accompany plans dated February 16, 2010



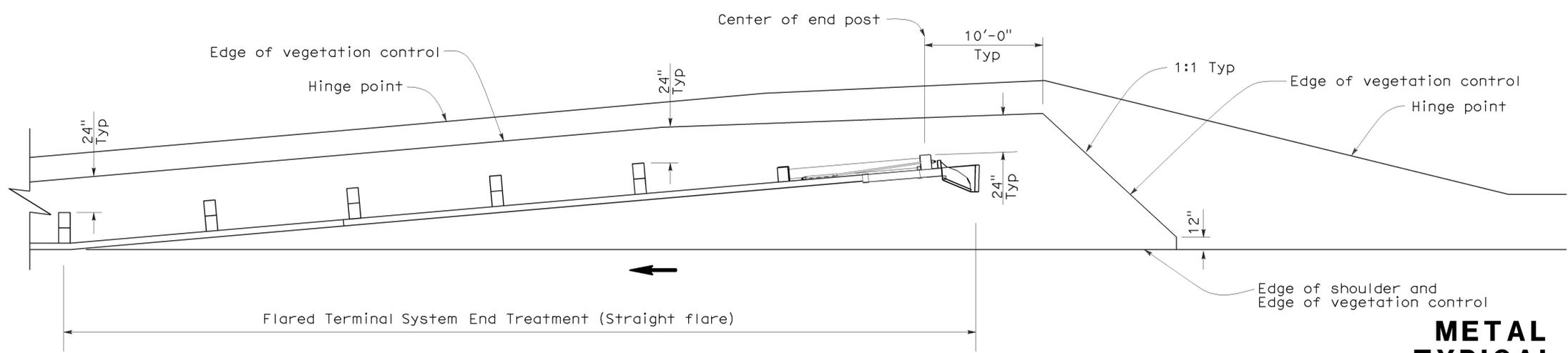
PLAN

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 ←.



PLAN



PLAN

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SbD	38	20.6/24.1	14	24

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

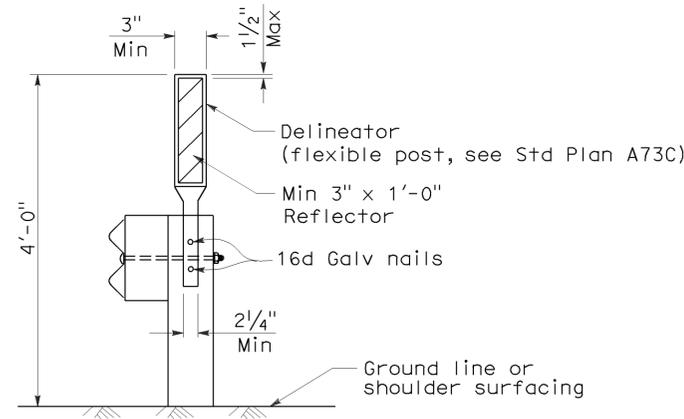
June 6, 2008
PLANS APPROVAL DATE

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To accompany plans dated February 16, 2010

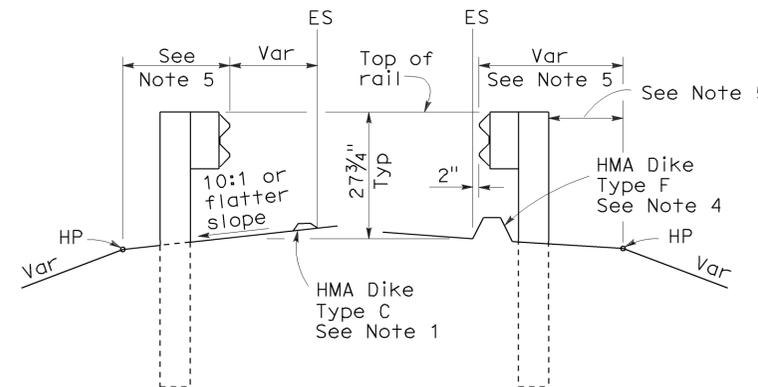
NOTES:

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



GUARD RAILING DELINEATION

See Note 3



DIKE POSITIONING

See Note 1

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP A77C4

2006 REVISED STANDARD PLAN RSP A77C4

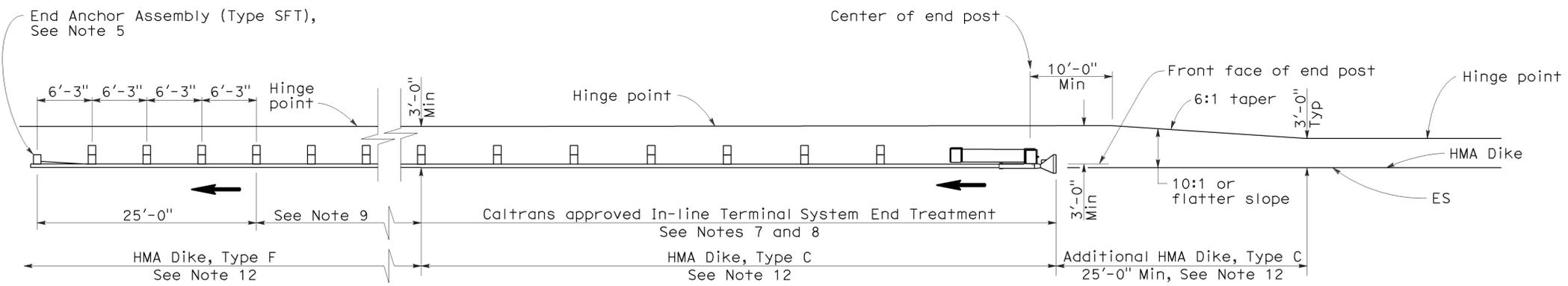
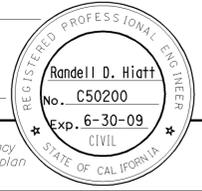
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	15	24

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

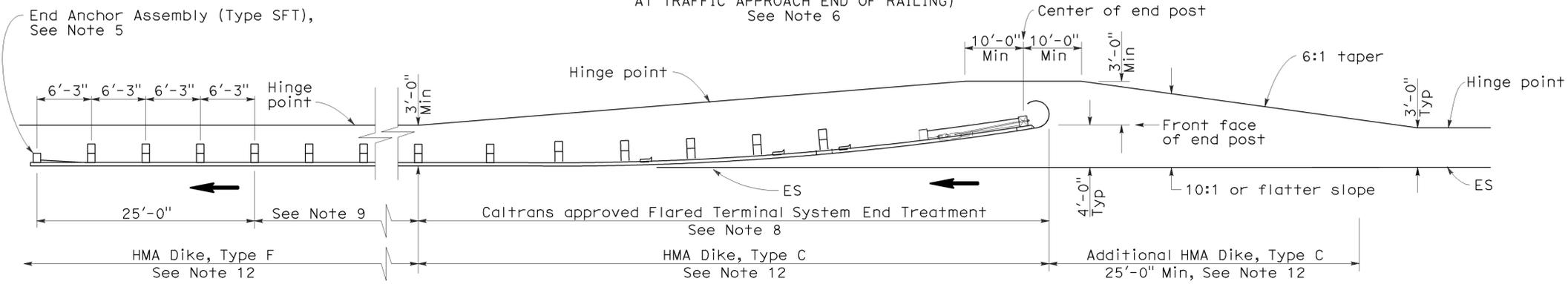
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To accompany plans dated February 16, 2010



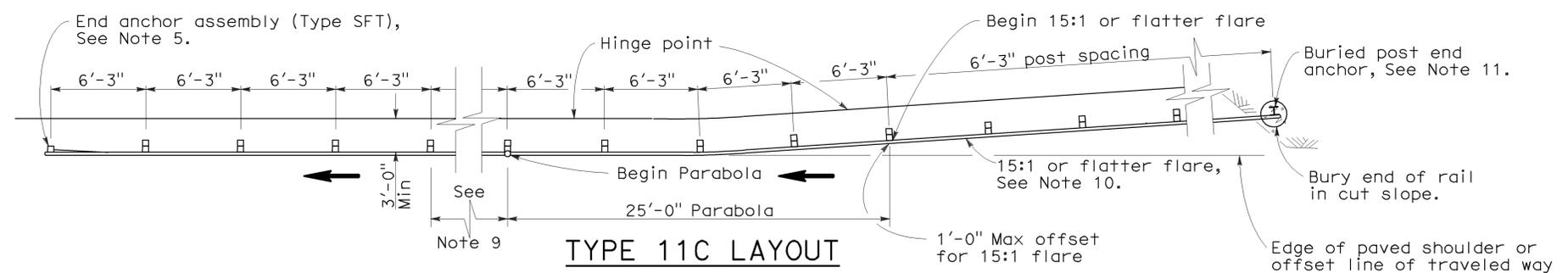
TYPE 11A LAYOUT

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



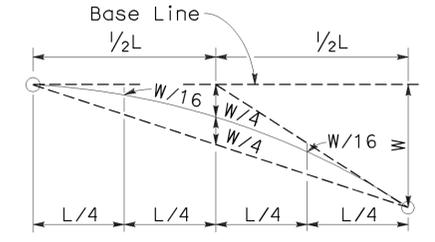
TYPE 11B LAYOUT

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

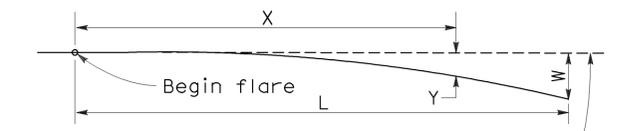


TYPE 11C LAYOUT

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



TYPICAL PARABOLIC LAYOUT

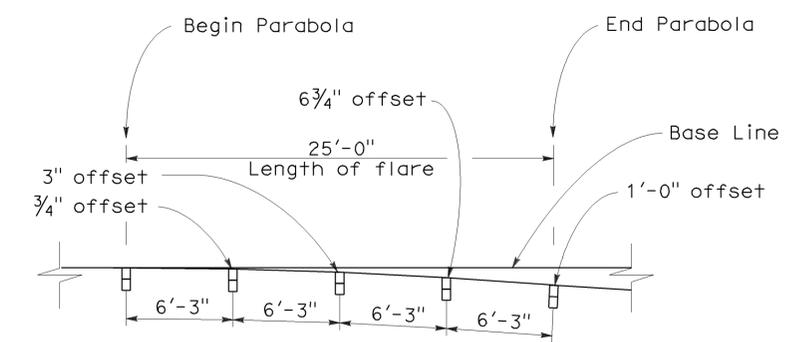


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

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

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

PARABOLIC FLARE OFFSETS



TYPICAL FLARE OFFSETS FOR 1 FOOT MAX END OFFSET

NOTES:

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

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

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

REVISED STANDARD PLAN RSP A77E1

2006 REVISED STANDARD PLAN RSP A77E1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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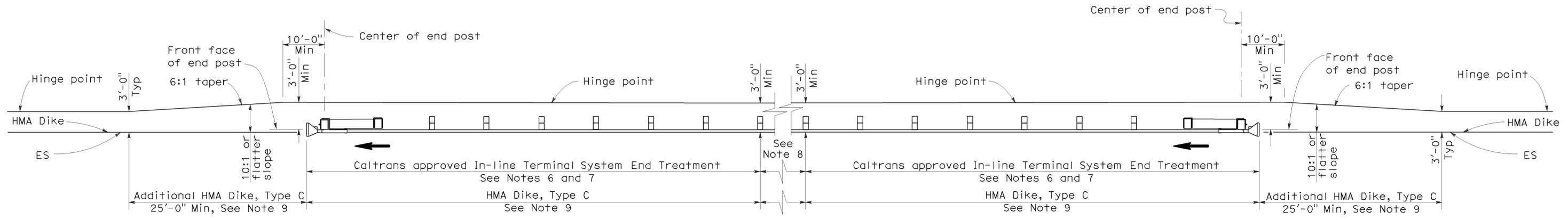
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REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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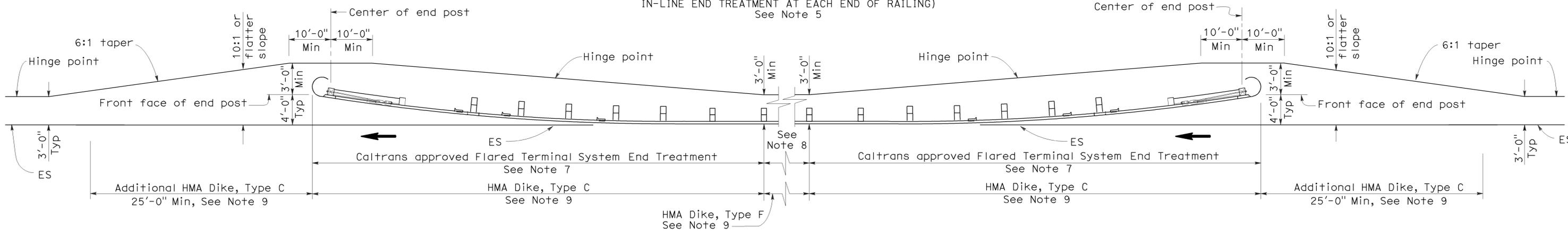
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated February 16, 2010



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:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- 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.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- 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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	17	24

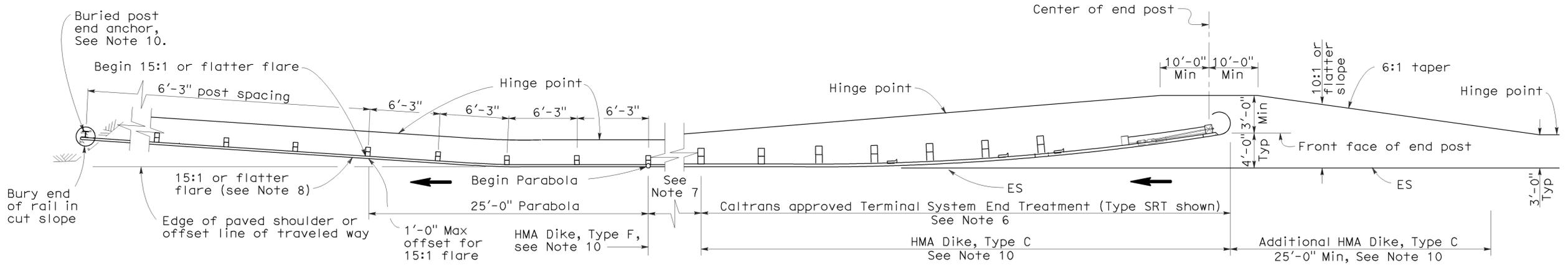
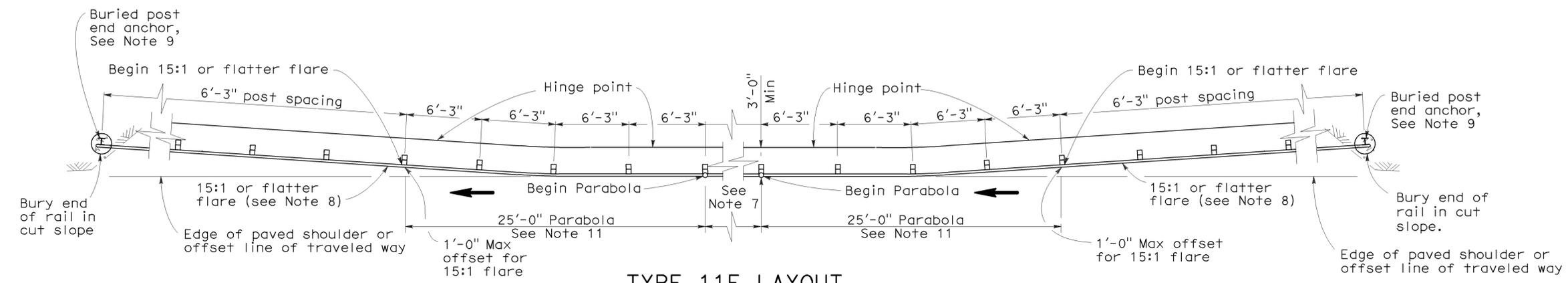
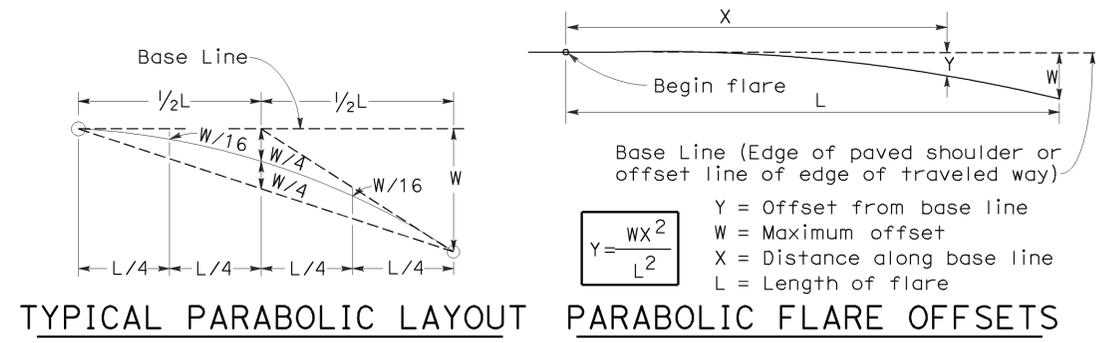
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

To accompany plans dated February 16, 2010



NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- 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.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 11F and 11G Layouts, see Standard Plan A77I2.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- 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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	18	24

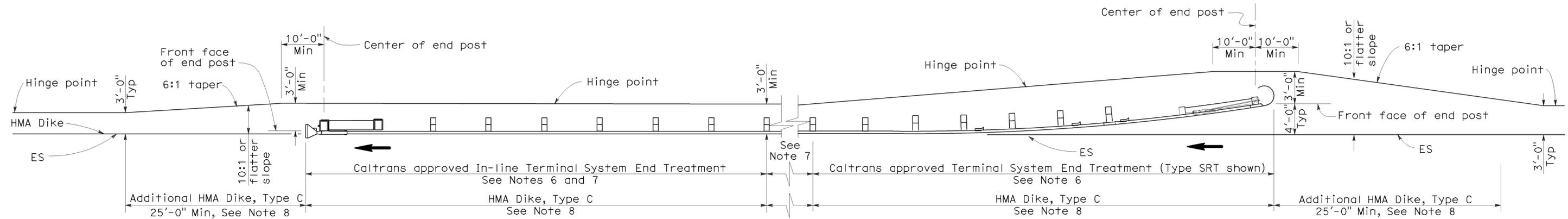
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REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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No. C50200
Exp. 6-30-09
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To accompany plans dated February 16, 2010



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:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- 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.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- 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

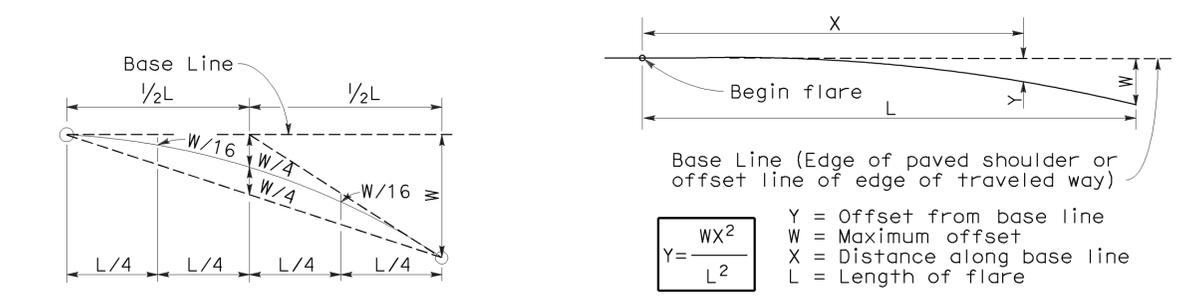
2006 REVISED STANDARD PLAN RSP A77E4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SbD	38	20.6/24.1	19	24

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 No. C50200
 Exp. 6-30-09
 CIVIL
 STATE OF CALIFORNIA

June 6, 2008
 PLANS APPROVAL DATE

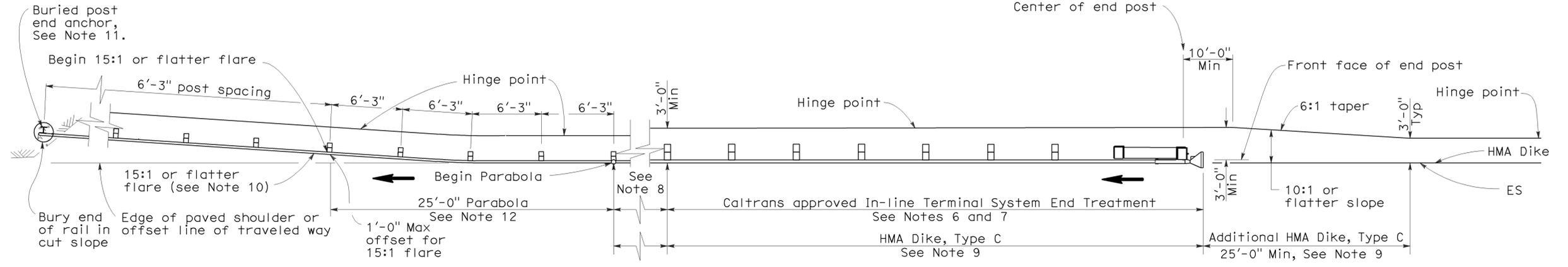
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TYPICAL PARABOLIC LAYOUT

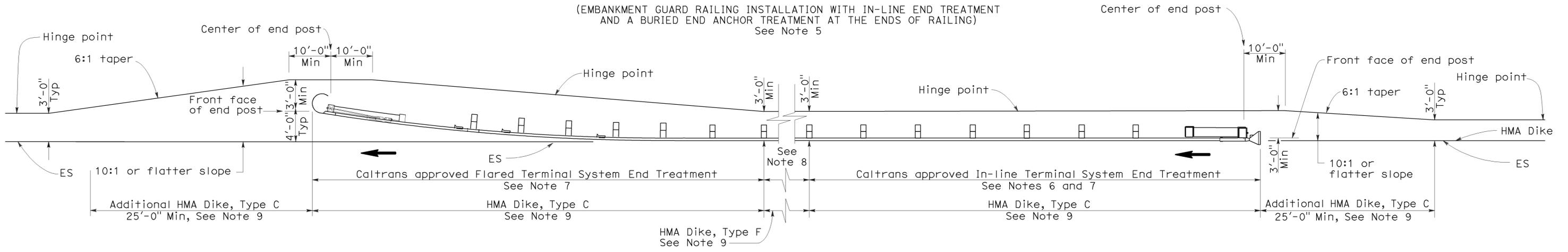
PARABOLIC FLARE OFFSETS

To accompany plans dated February 16, 2010



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:

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

2006 REVISED STANDARD PLAN RSP A77E5

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SbD	38	20.6/24.1	20	24

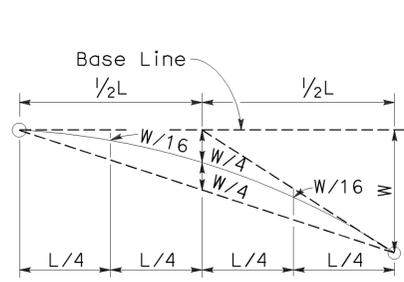
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

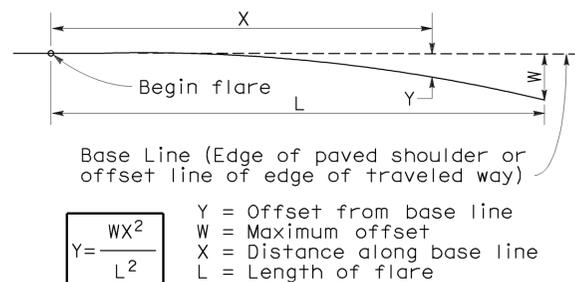
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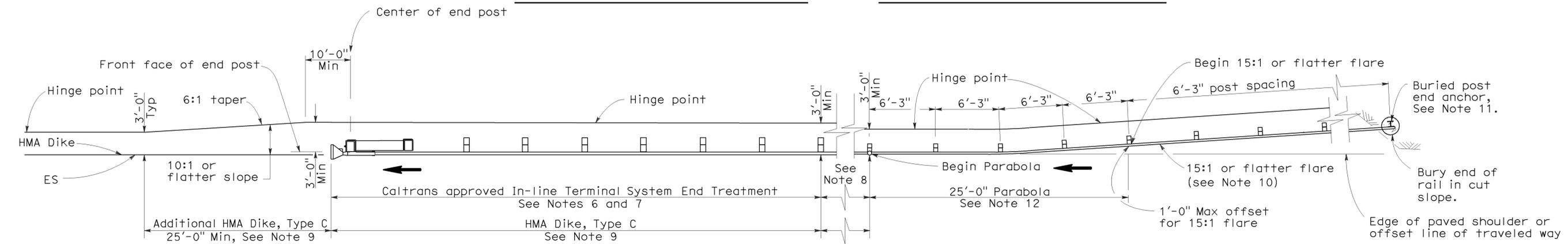
To accompany plans dated February 16, 2010



TYPICAL PARABOLIC LAYOUT

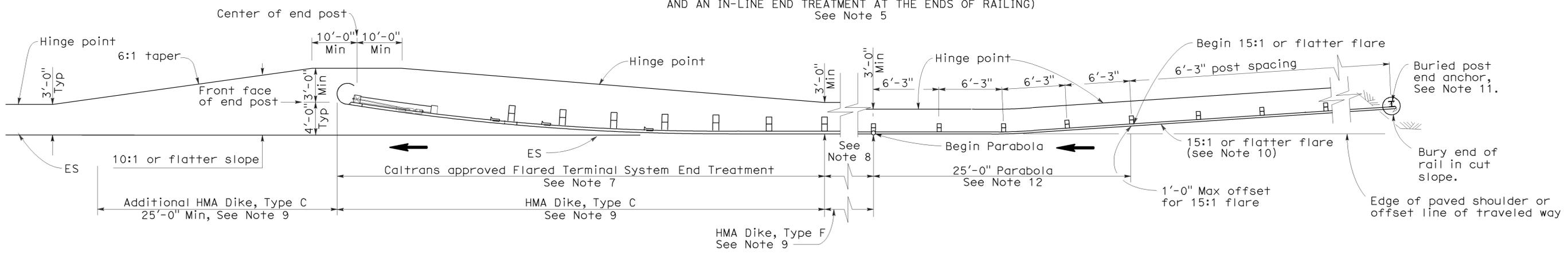


PARABOLIC FLARE OFFSETS



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:

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	21	24

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

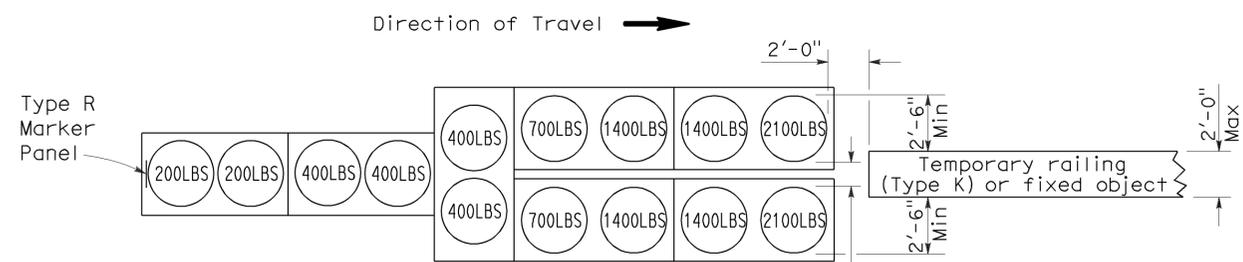
June 6, 2008
PLANS APPROVAL DATE

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No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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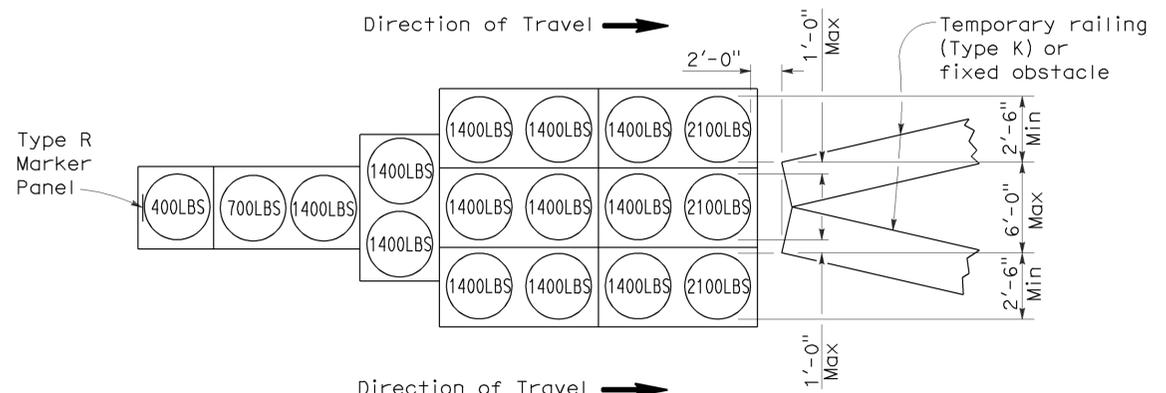
To accompany plans dated February 16, 2010

2006 REVISED STANDARD PLAN RSP T1A



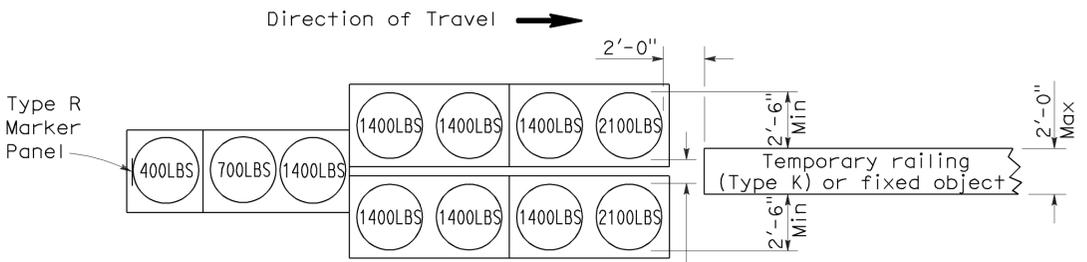
ARRAY 'TU14'

Approach speed 45 mph or more



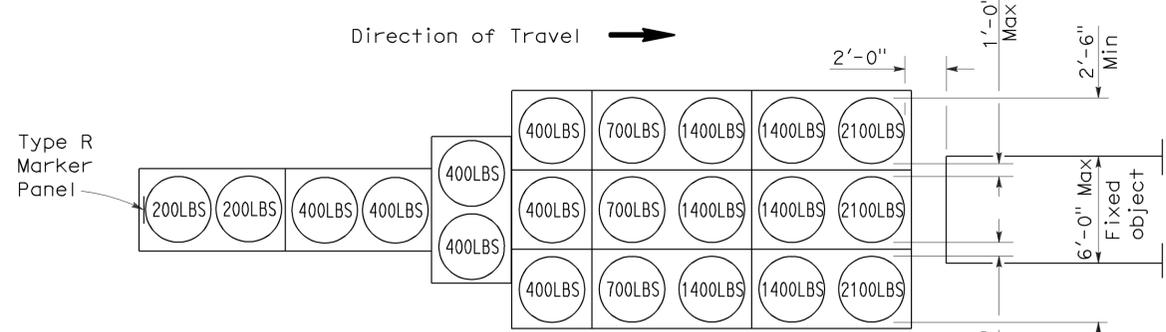
ARRAY 'TU17'

Approach speed less than 45 mph



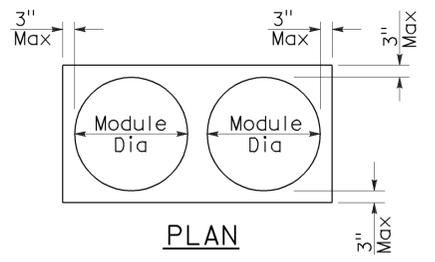
ARRAY 'TU11'

Approach speed less than 45 mph

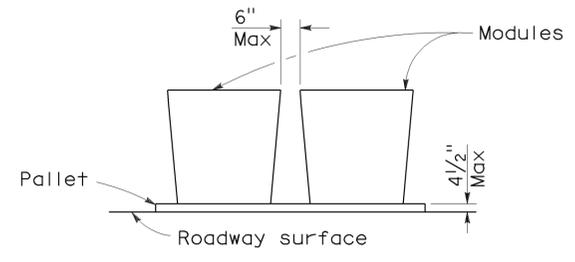


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	22	24

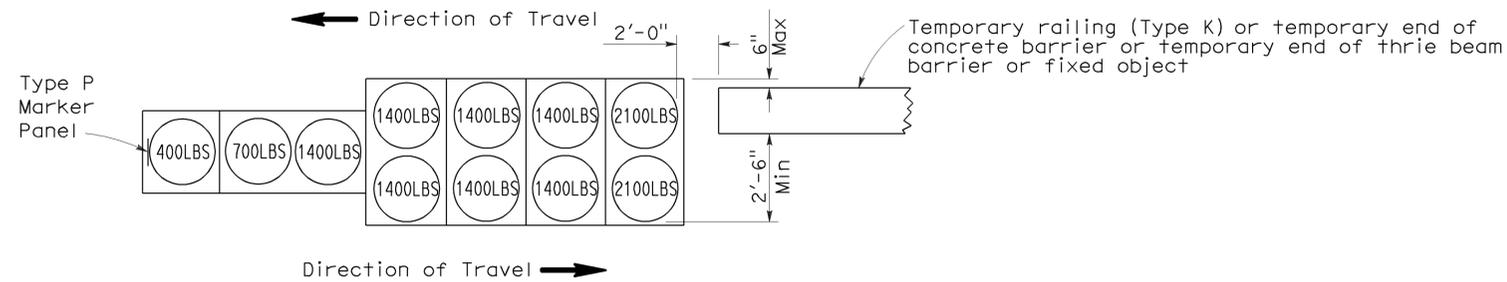
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

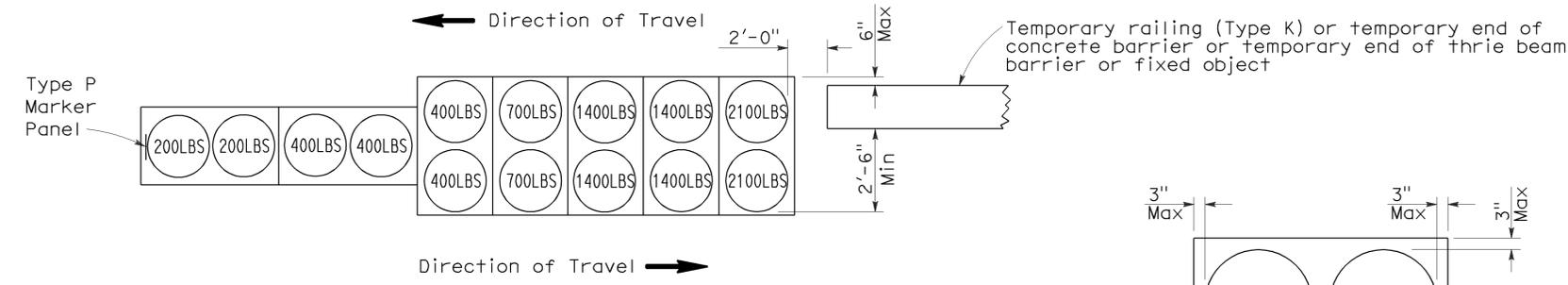
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated February 16, 2010



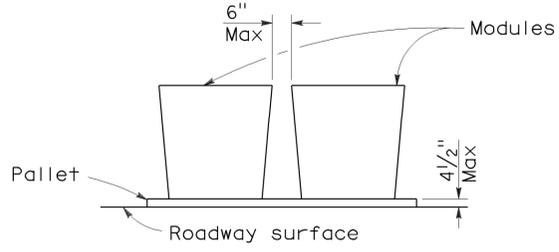
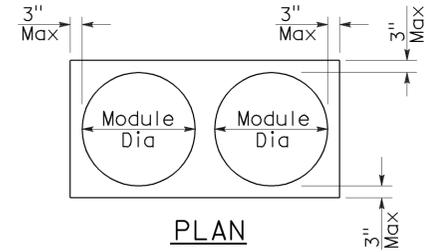
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

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

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	23	24

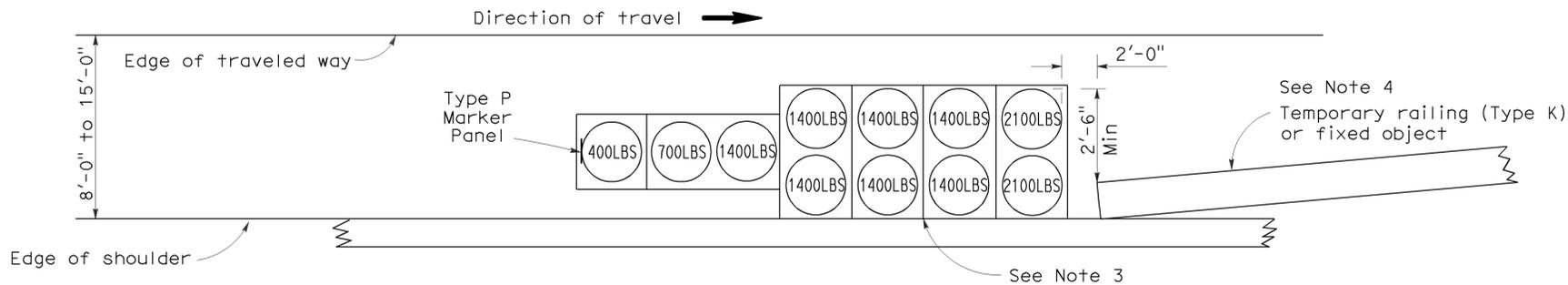
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

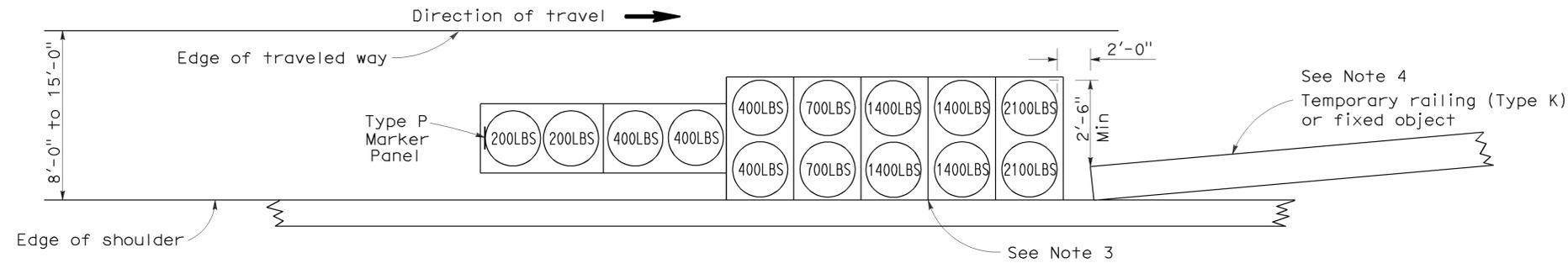
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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 February 16, 2010



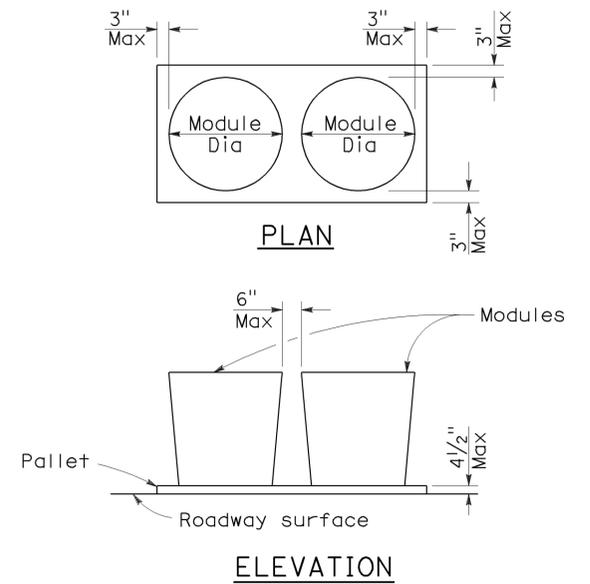
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



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

NOTES:

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



CRASH CUSHION PALLET DETAIL
See Note 11

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

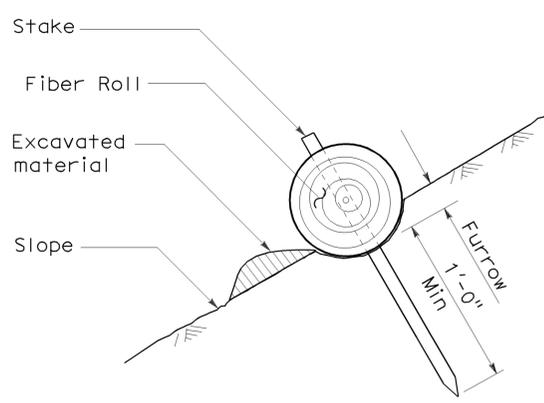
NO SCALE
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

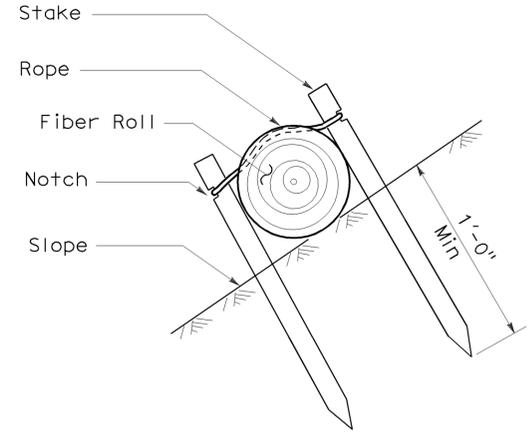
2006 REVISED STANDARD PLAN RSP T2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	38	20.6/24.1	24	24
<i>Robert B. Schott</i> LICENSED LANDSCAPE ARCHITECT April 3, 2009 PLANS APPROVAL DATE <small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

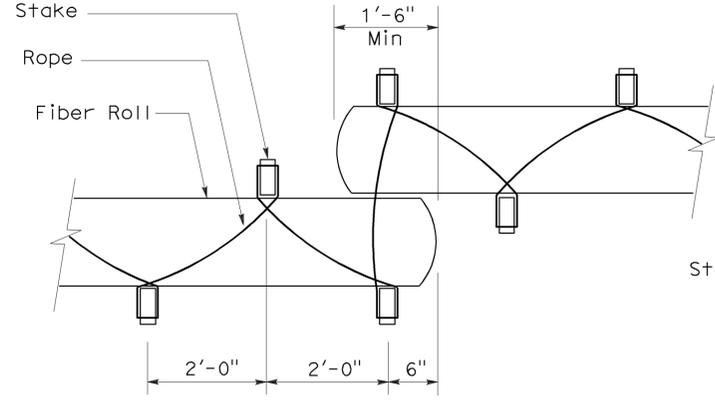
To accompany plans dated February 16, 2010



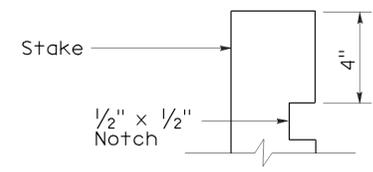
SECTION
TEMPORARY FIBER ROLL
(TYPE 1)



SECTION
TEMPORARY FIBER ROLL
(TYPE 2)

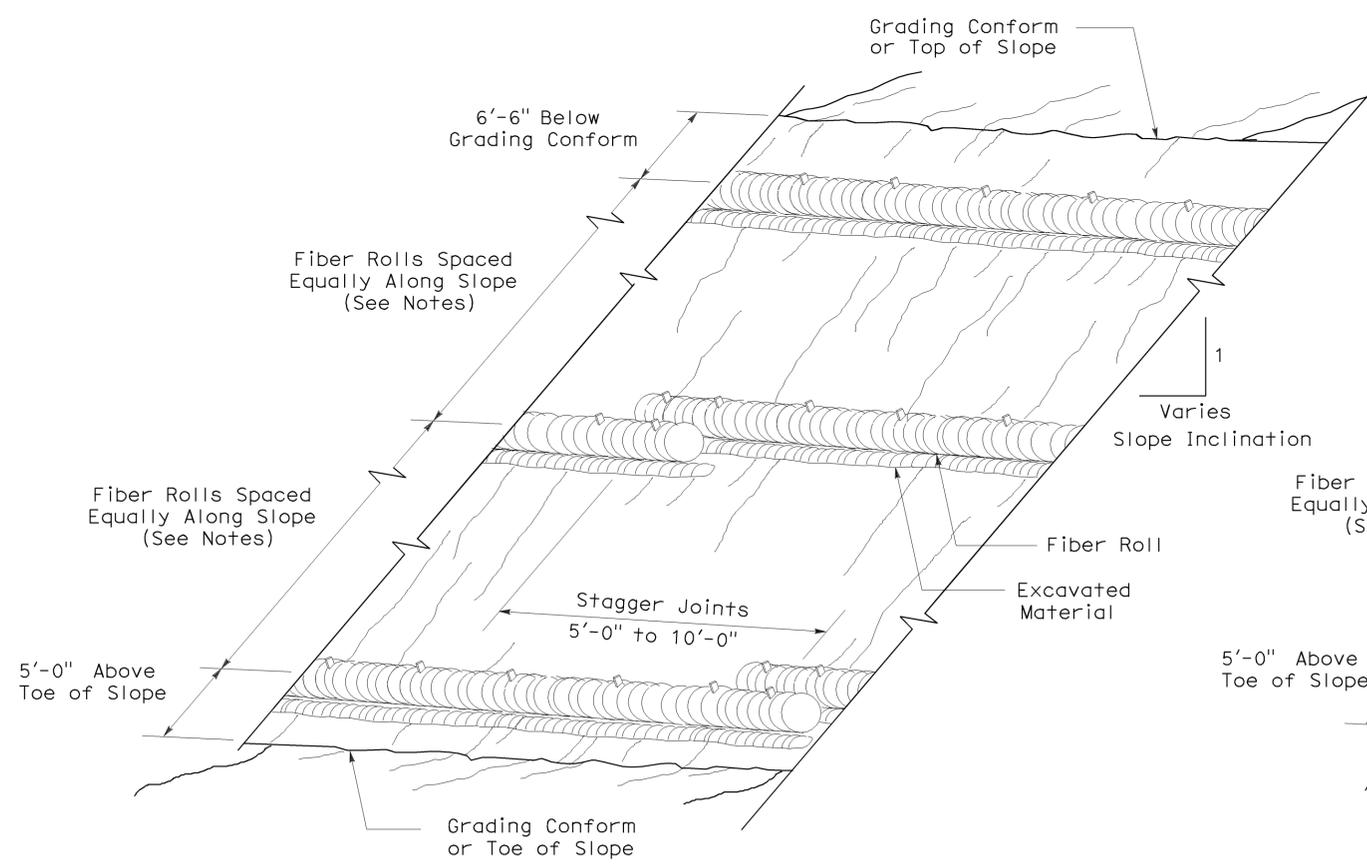


PLAN
TEMPORARY FIBER ROLL
(TYPE 2)

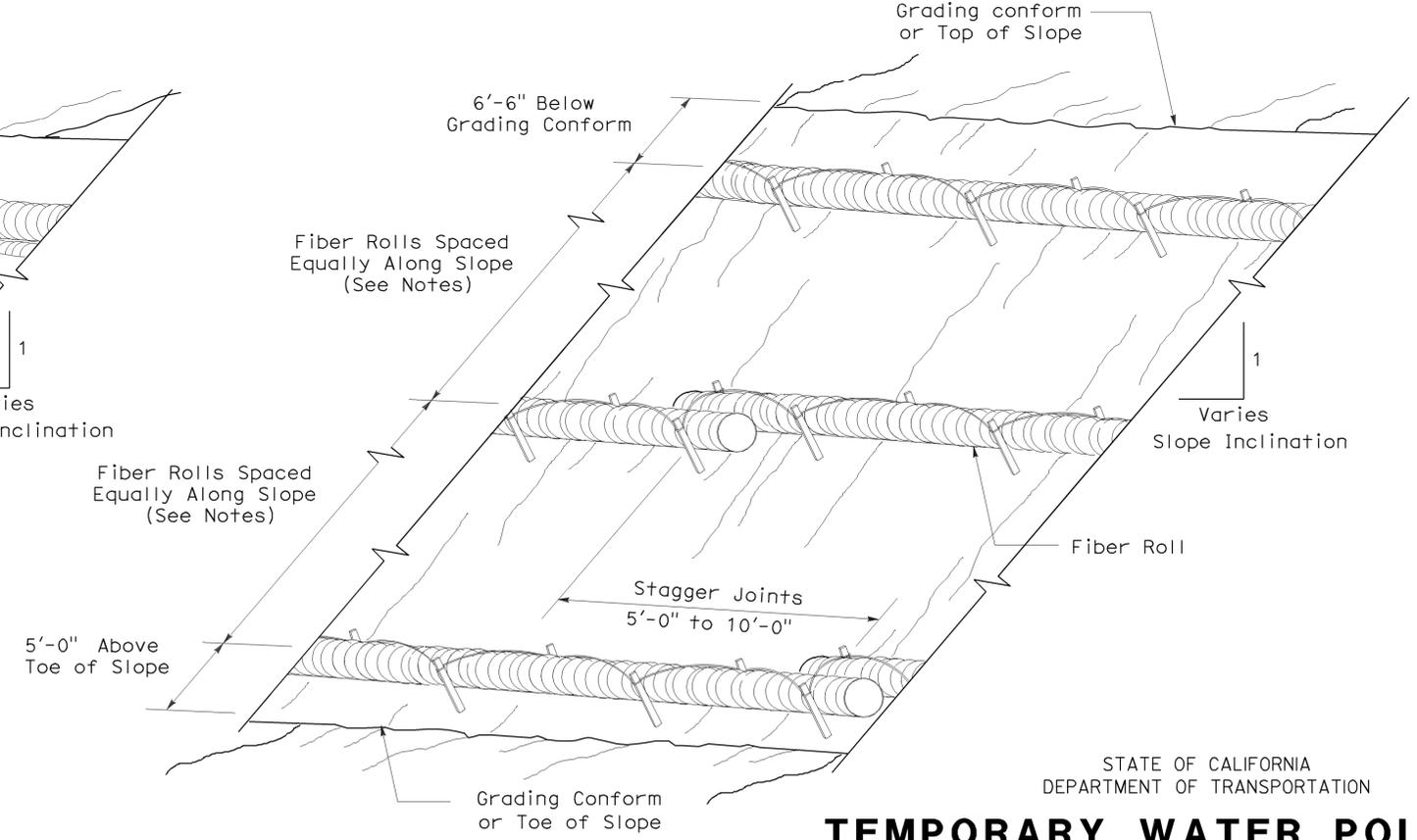


ELEVATION
STAKE NOTCH DETAIL

- NOTES:**
1. Temporary fiber roll spacing varies depending upon slope inclination.
 2. Installations shown in the perspectives are for slope inclination of 10:1 and steeper.



PERSPECTIVE
TEMPORARY FIBER ROLL (TYPE 1)



PERSPECTIVE
TEMPORARY FIBER ROLL (TYPE 2)

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY FIBER ROLL)

NO SCALE

RSP T56 DATED APRIL 3, 2009 SUPERSEDES STANDARD PLAN T56
 DATED MAY 1, 2006 - PAGE 232 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T56

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2006 REVISED STANDARD PLAN RSP T56