Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R17.8	1	16

ACIM-4712(005)E

INDEX OF PLANS

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

IN LOS ANGELES COUNTY
AT PICKENS CANYON FLUME OVERCROSSING

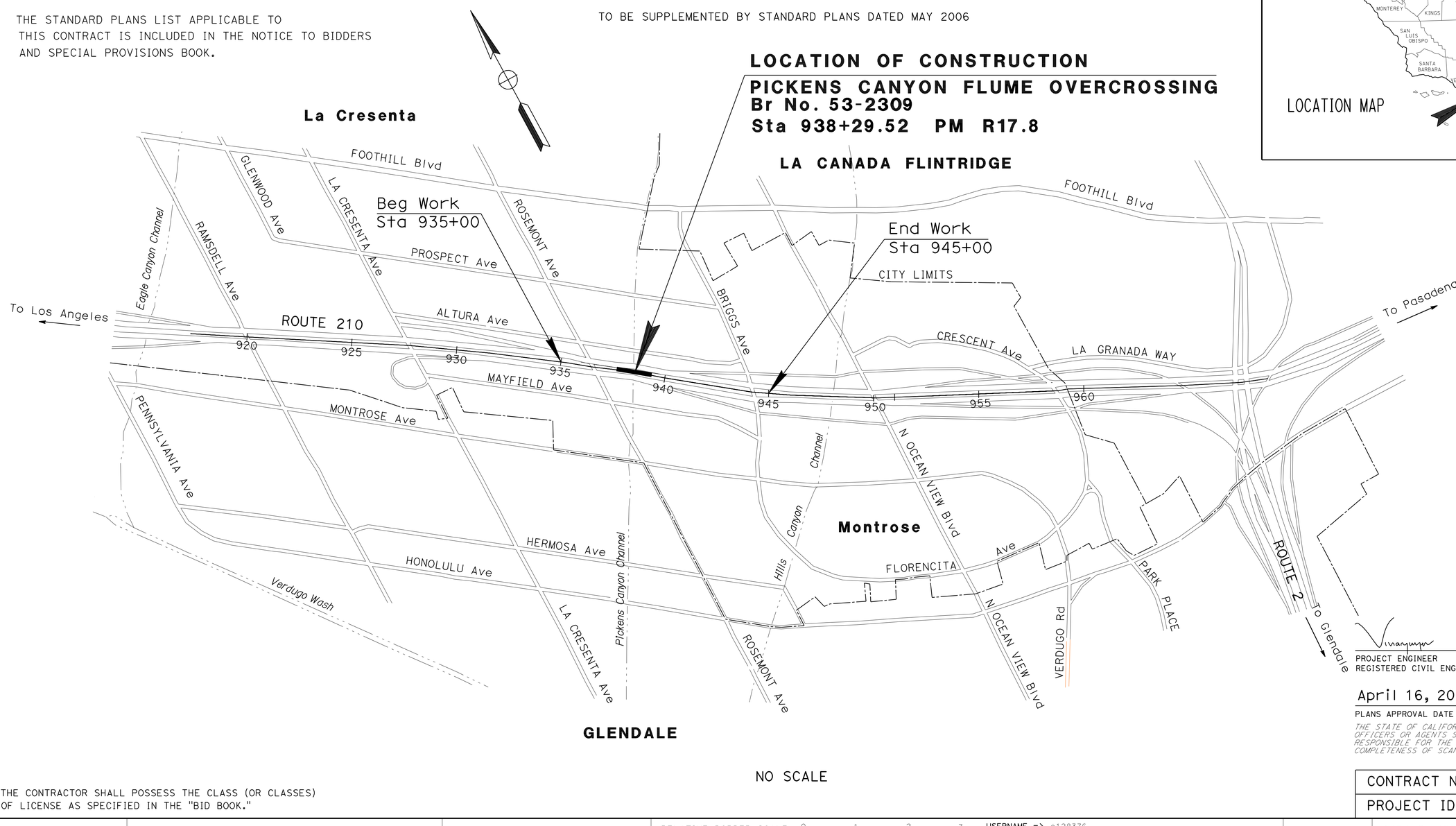
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

LOCATION MAP

LOCATION OF CONSTRUCTION

PICKENS CANYON FLUME OVERCROSSING
Br No. 53-2309
Sta 938+29.52 PM R17.8



NO SCALE

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "BID BOOK."

PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

3-5-12
DATE

REGISTERED PROFESSIONAL ENGINEER
VIVIAN NGUYEN
No. C73723
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

April 16, 2012
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.	07-2X8404
PROJECT ID	0700020913

PROJECT MANAGER: JOHN K. LEE
DESIGN ENGINEER: VIVIAN NGUYEN

LAST REVISION 10-28-11
DATE PLOTTED => 30-APR-2012
TIME PLOTTED => 14:12

BORDER LAST REVISED 7/2/2010 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s128376 DGN FILE => 74Y720ab001.dgn | UNIT 1806 | PROJECT NUMBER & PHASE 07000209131

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R17.8	2	16

REGISTERED CIVIL ENGINEER — DATE 3-5-12

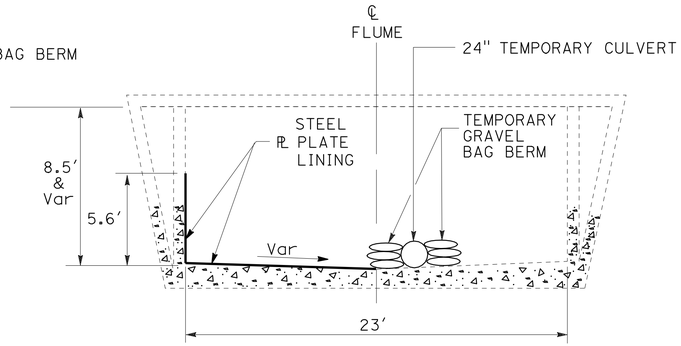
PLANS APPROVAL DATE 4-16-12

REGISTERED PROFESSIONAL ENGINEER — VIVIAN NGUYEN No. C73723 Exp. 6/30/13 CIVIL — STATE OF CALIFORNIA

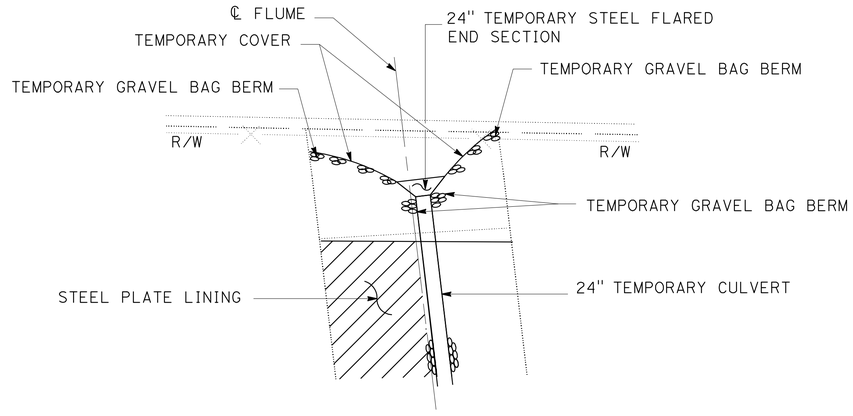
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

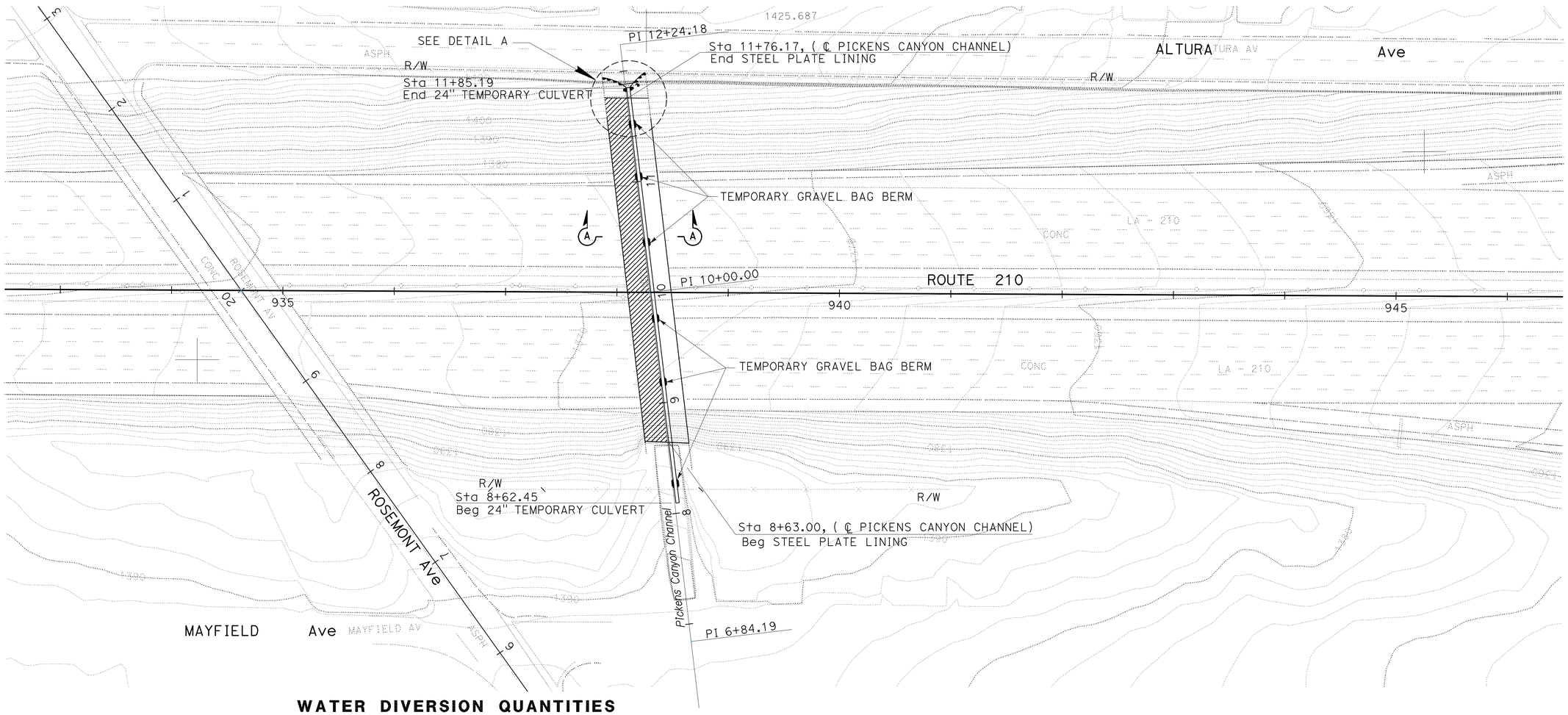
- TEMPORARY CULVERT
- TEMPORARY GRAVEL BAG BERM
- WORK AREA



SECTION A-A



DETAIL A



WATER DIVERSION QUANTITIES

LOCATION	DESCRIPTION	TEMPORARY GRAVEL BAG BERM	24" TEMPORARY CULVERT	24" TEMPORARY STEEL FES
		LF	LF	EA
PICKENS CANYON CHANNEL	Sta 8+64.07 - 11+75.17	630	330	1

WATER DIVERSION

STAGE 1

CONSTRUCTION DETAILS

NO SCALE

C-1

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY: VIVIAN NGUYEN

CHECKED BY: OJI KALU

FUNCTIONAL SUPERVISOR: M. OJI KALU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DESIGN

Caltrans

LAST REVISION: DATE PLOTTED => 30-APR-2012 TIME PLOTTED => 14:12

09-08-11

BORDER LAST REVISED 7/1/2010

USERNAME => s128376
DGN FILE => 72x8401ea01.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1806

PROJECT NUMBER & PHASE 07000209131

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R17.8	3	16

3-5-12
REGISTERED CIVIL ENGINEER DATE

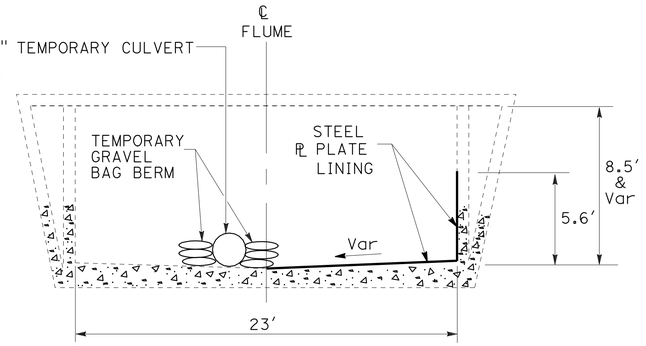
4-16-12
PLANS APPROVAL DATE

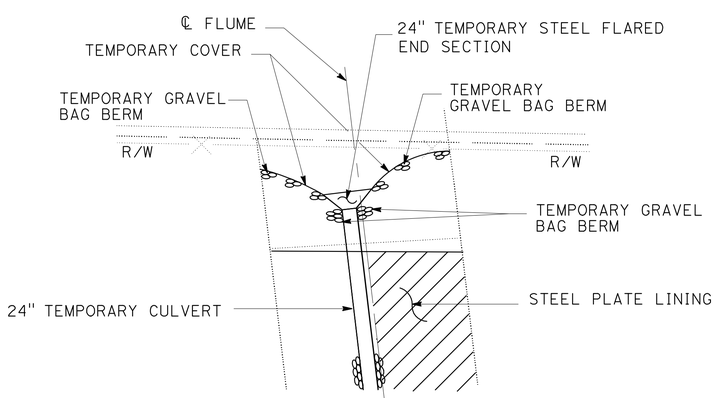
REGISTERED PROFESSIONAL ENGINEER
VIVIAN NGUYEN
No. C73723
Exp. 6/30/13
CIVIL
STATE OF CALIFORNIA

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

LEGEND:

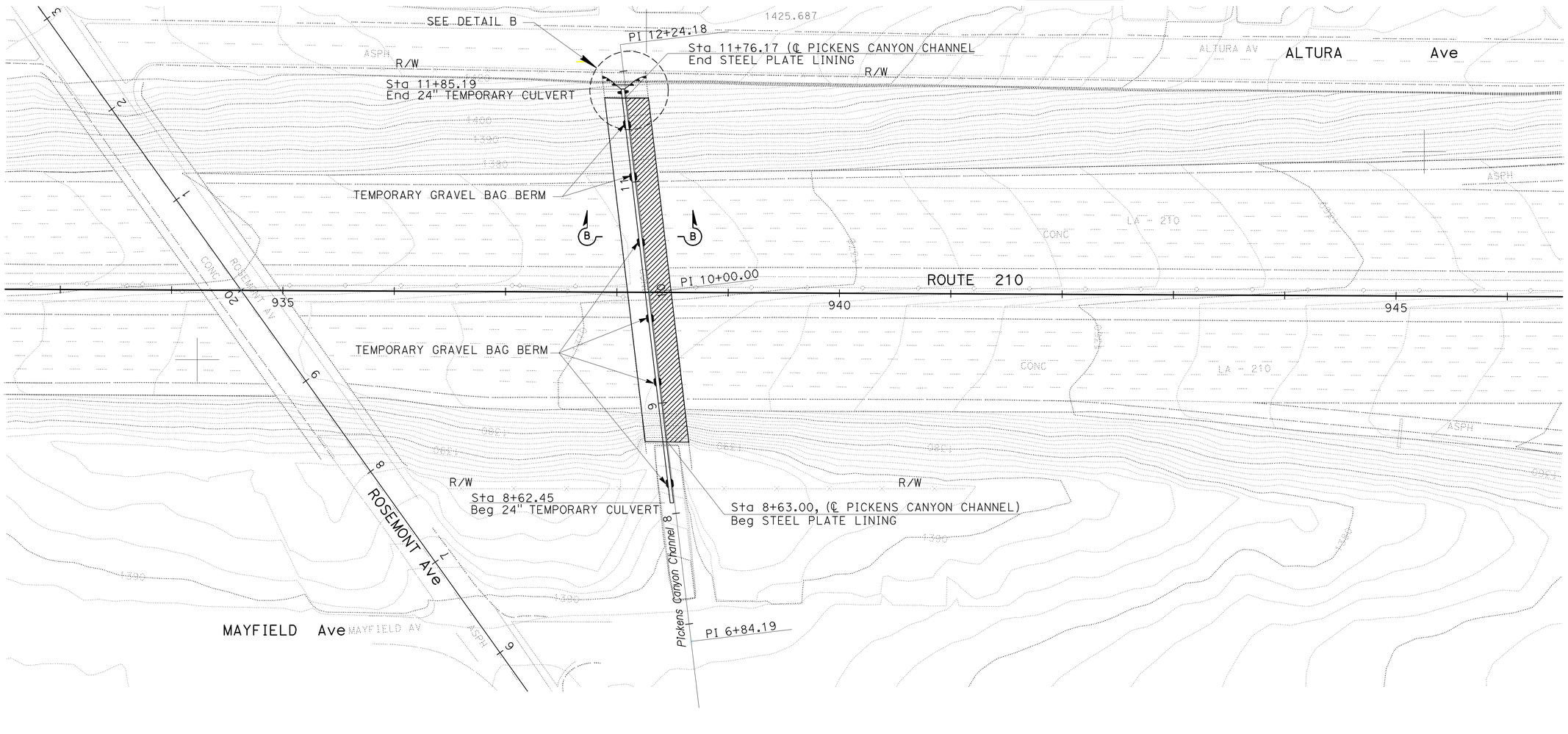
- TEMPORARY CULVERT
- TEMPORARY GRAVEL BAG BERM
- WORK AREA





SECTION B-B

DETAIL B



WATER DIVERSION

STAGE 2

CONSTRUCTION DETAILS

NO SCALE

C-2

VIVIAN NGUYEN — DESIGN — REVISED BY — DATE REVISED

OJI KALU — CALCULATED-DESIGNED BY — CHECKED BY

M. OJI KALU — FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 09-08-11
DATE PLOTTED => 30-APR-2012
TIME PLOTTED => 14:13

BORDER LAST REVISED 7/1/2010

USERNAME => s128376
DGN FILE => 72x8401ea01.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1806

PROJECT NUMBER & PHASE 07000209131

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R17.8	4	16

M. Celina Aviles 3-5-12
REGISTERED CIVIL ENGINEER DATE

4-16-12
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
N. CELINA AVILES
No. 57106
Exp 12/31/13
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. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. LOCATION OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

ABBREVIATIONS:

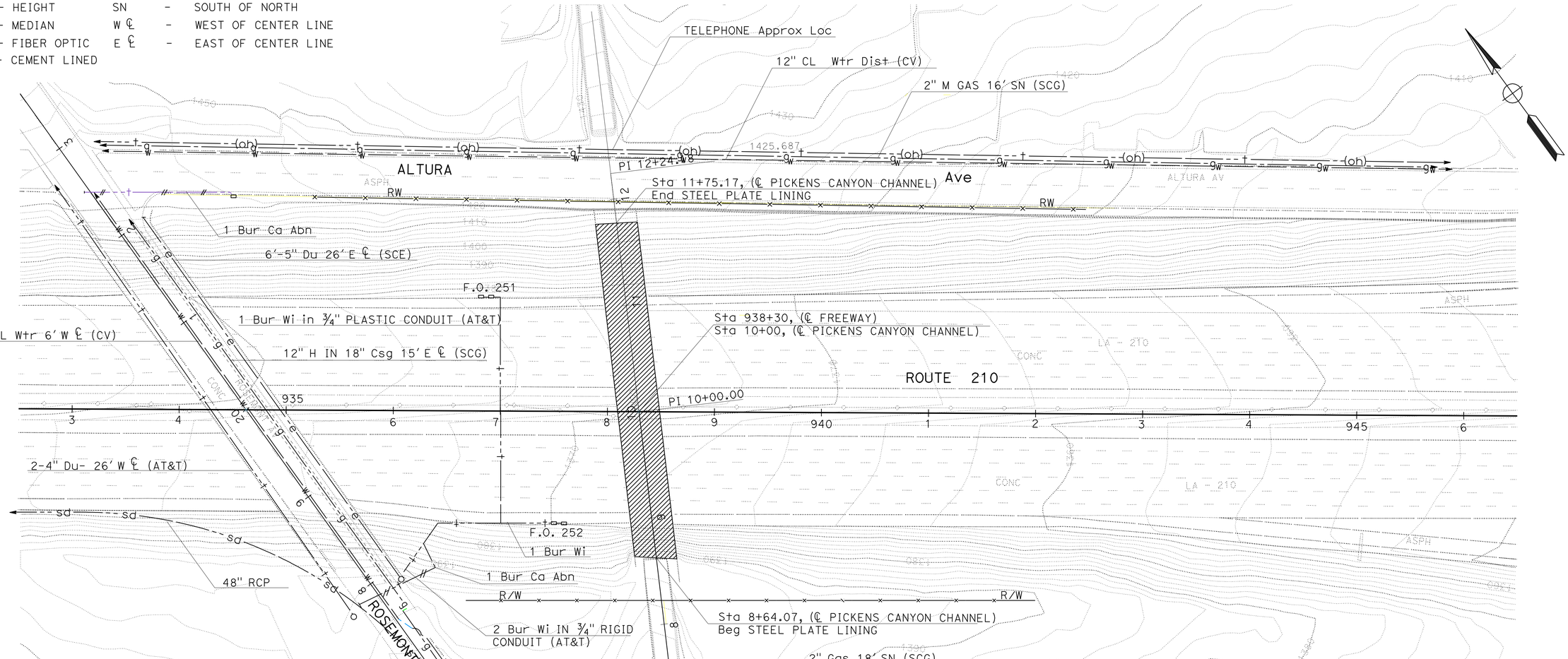
Du	DUCT	Bur Ca	BURIED CABLE
Wi	WIRE	Dist	DISTRICT
H	HEIGHT	SN	SOUTH OF NORTH
M	MEDIAN	W ℄	WEST OF CENTER LINE
FO	FIBER OPTIC	E ℄	EAST OF CENTER LINE
CL	CEMENT LINED		

LEGEND:

WORK AREA

UTILITY OWNERSHIP ON THIS PROJECT

GAS	-	SOUTHERN CALIFORNIA GAS (SCG)
WATER	-	CRESCENTA VALLEY WATER DISTRICT (CV)
TELEPHONE	-	AT&T CALIFORNIA (AT&T)
ELECTRICAL	-	SOUTHERN CALIFORNIA EDISON (SCE)



UTILITY PLAN

SCALE 1" = 50'

U-1

APPROVED FOR UTILITY INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

FUNCTIONAL SUPERVISOR: JERREL KAM

CALCULATED-DESIGNED BY: VIVIAN NGUYEN
CHECKED BY: MITRA VAHID

REVISED BY / DATE REVISED

LAST REVISION: DATE PLOTTED => 30-APR-2012
TIME PLOTTED => 14:13
10-07-11

BORDER LAST REVISED 7/1/2010

USERNAME => s128376
DGN FILE => 72x8401ea01.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1806

PROJECT NUMBER & PHASE 07000209131

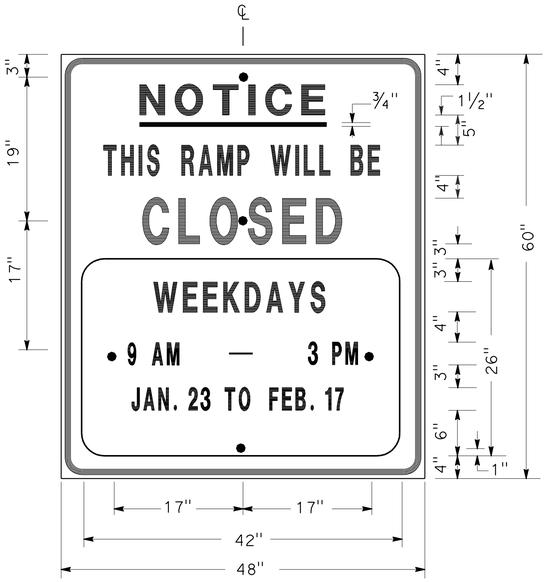
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R17.8	5	16

Matt Oregel 01-09-12
REGISTERED CIVIL ENGINEER DATE

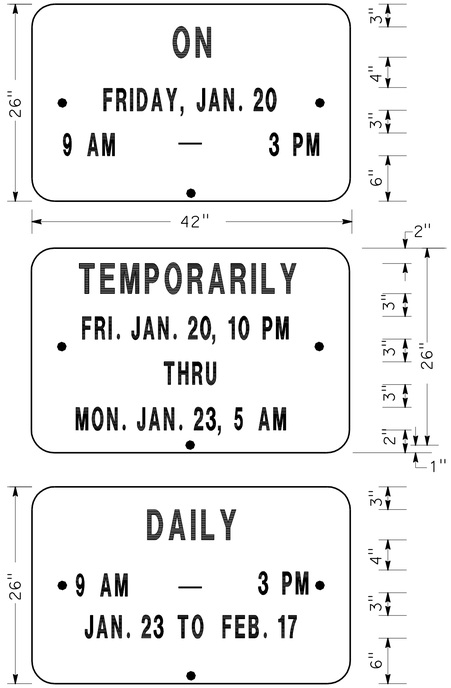
4-16-12
PLANS APPROVAL DATE

MARTIN OREGEL No. C56816 Exp. 6-30-13 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.

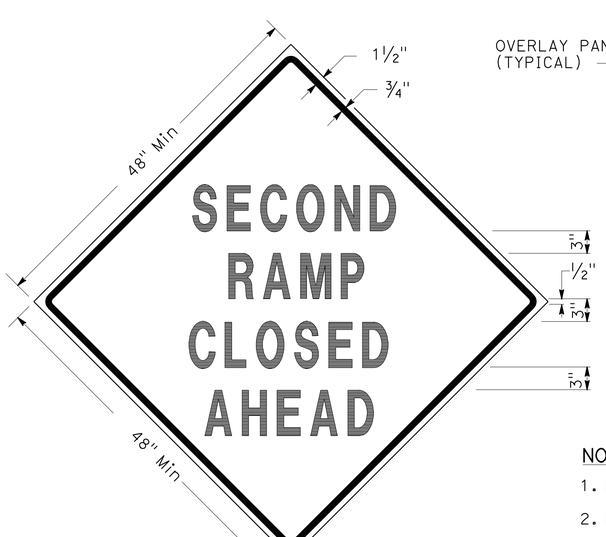


SIGN SP-1

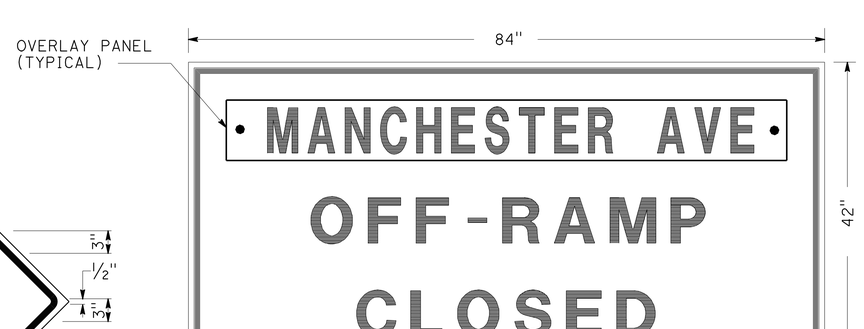


ALTERNATE OVERLAY PANELS (TYPICAL)

SPECIAL ADVANCE NOTICE PUBLICITY SIGN



SIGN SP-3



SIGN SP-5

NOTES: (SIGNS SP-3 & SP-5)

1. LETTERS - 6" SERIES D.
2. LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
3. BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
4. SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6′ ABOVE GROUND.

SPECIAL SIGN FOR EXIT RAMP CLOSURES

NOTES: (SIGN SP-1)

1. SIGNS SHALL HAVE ORANGE RETROREFLECTORIZED BACKGROUND WITH BLACK BORDER AND LETTERS.
2. BOLT HOLES SHALL BE 3/8" DIAMETER.
3. BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
4. SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6′ ABOVE GROUND.

SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5,6 & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"
* CONDENSED SPACING IF NECESSARY								

SIGN SP-4

OVERLAY PANEL (TYPICAL)

NOTES: (SIGN SP-4)

1. LETTERS - 6" SERIES C.
2. LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED WHITE BACKGROUND.
3. BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
4. SIGNS SHALL BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH STANDARD PLAN T14.

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS AND MISCELLANEOUS DETAILS

SHEET 1 OF 2
NO SCALE

THD-1

LAST REVISION | DATE PLOTTED => 30-APR-2012
00-00-00 | TIME PLOTTED => 14:13

CALCULATED- DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY | DATE REVISED: JC | 7/10
FUNCTIONAL SUPERVISOR: JOHN YANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
Caltrans®

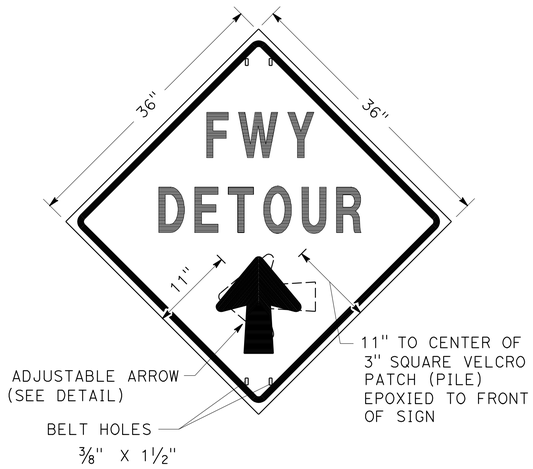
BORDER LAST REVISED 7/2/2010
USERNAME => s125624
DGN FILE => 72x840me01.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1887
PROJECT NUMBER & PHASE 07000209131

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R17.8	6	16

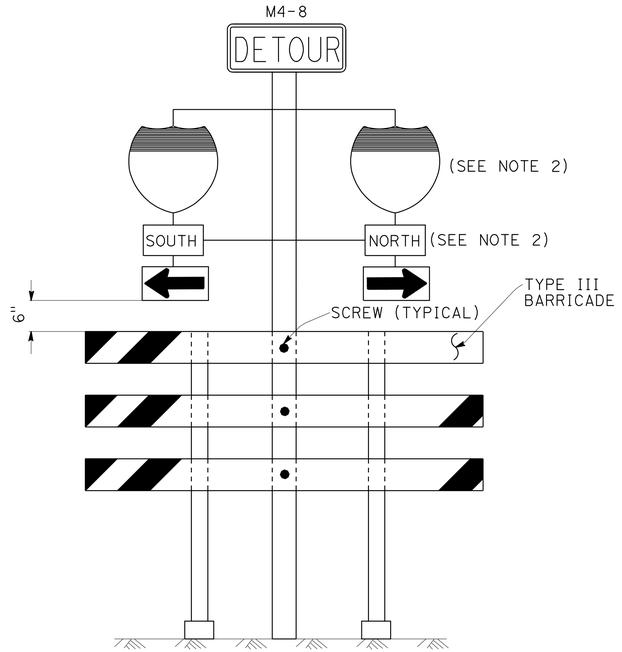
Mark Oregel 01-09-12
REGISTERED CIVIL ENGINEER DATE

4-16-12
PLANS APPROVAL DATE

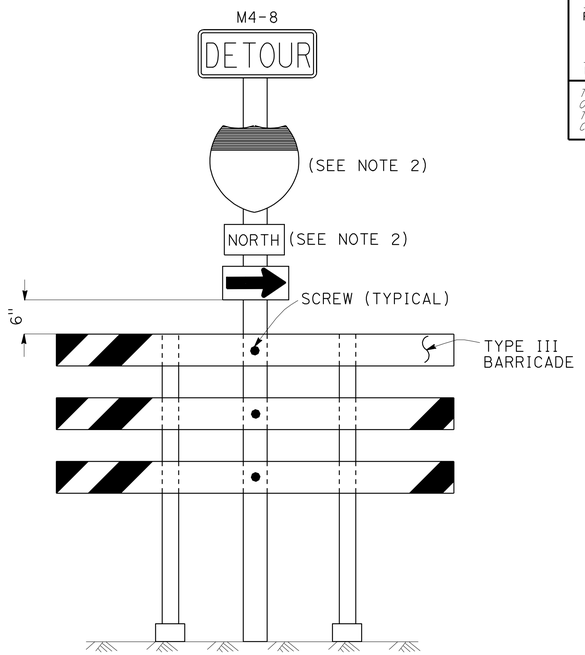
REGISTERED PROFESSIONAL ENGINEER
MARTIN OREGEL
No. C56816
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA



SIGN SP-2



SIGN SP-6 (SEE NOTE 1)



SIGN SP-7 (SEE NOTE 1)

NOTES: (SIGN SP-2)

1. LETTERS -6" SERIES E.
2. LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
3. BASE MATERIAL FOR SIGNS AND ARROWS SHALL BE ALUMINUM (MINIMUM 0.06").
4. BELTS (LUGGAGE STRAPS) SHALL BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
5. SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND EXCEPT AS OTHERWISE SHOWN ON OTHER TRAFFIC HANDLING DETAILS PLANS.

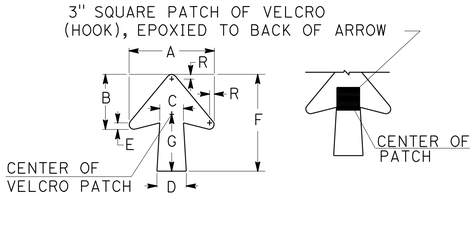
ABBREVIATION

(CA) CALIFORNIA CODE

NOTES: (SIGNS SP-6 & SP-7)

1. IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
2. USE APPROPRIATE ROUTE SHIELD [G26-2(CA), G27-2(CA), G28-2(CA)] AND CARDINAL DIRECTION [NORTH (M3-1), SOUTH (M3-3), EAST (M3-2), WEST (M3-4)]

SPECIAL PORTABLE FREEWAY DETOUR SIGNS



DIMENSIONS							
A	B	C	D	E	F	G	R
11 1/4"	7 1/4"	3 1/8"	4"	7/8"	13"	7 1/2"	5/8"

SPECIAL PORTABLE FREEWAY DETOUR SIGN

ADJUSTABLE ARROW DETAIL

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS AND MISCELLANEOUS DETAILS

SHEET 2 OF 2

NO SCALE

THD-2

CALCULATED-DESIGNED BY	JC	7/10	
CHECKED BY			
REVISED BY		DATE REVISED	
ALBERT K YU			
JOCELYN C CHIANG			
FUNCTIONAL SUPERVISOR	JOHN YANG		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DTM		

LAST REVISION DATE PLOTTED => 30-APR-2012
00-00-00 TIME PLOTTED => 14:13

BORDER LAST REVISED 7/2/2010 | USERNAME => s125624 | DGN FILE => 72x840me02.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1887 | PROJECT NUMBER & PHASE 07000209131

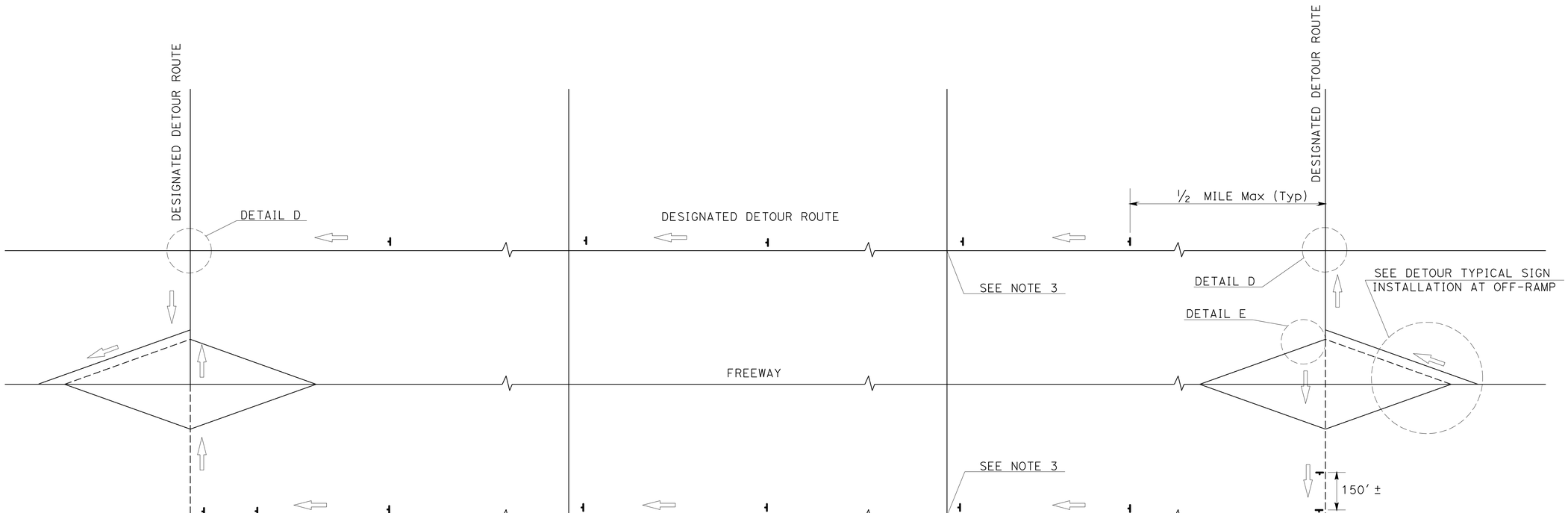
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R17.8	7	16

REGISTERED CIVIL ENGINEER — 01-09-12 DATE

MARTIN OREGEL No. C56816 Exp. 6-30-13 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

4-16-12
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.



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

LEGEND

- TEMPORARY SIGN (SP-2)
- AND/OR — DESIGNATED DETOUR ROUTE
- DIRECTION OF TRAVEL

NOTES:

1. SP-2 SIGNS SHALL NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
2. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
3. SP-2 SIGNS SHALL BE POSTED AT SIGNALIZED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE OR ½ MILE MAXIMUM APART.

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

SHEET 1 OF 2

NO SCALE

THD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DTM

FUNCTIONAL SUPERVISOR: JOHN YANG

CALCULATED-DESIGNED BY: ALBERT K YU

CHECKED BY: JOCELYN C CHIANG

REVISED BY: JC

DATE REVISED: 7/10

LAST REVISION — DATE PLOTTED => 30-APR-2012 — TIME PLOTTED => 14:14 — 00-00-00

BORDER LAST REVISED 7/2/2010 | USERNAME => s125624 | DGN FILE => 72x840me03.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1887 | PROJECT NUMBER & PHASE 07000209131

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R17.8	8	16

Matin Oregel 01-09-12
REGISTERED CIVIL ENGINEER DATE

4-16-12
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MARTIN OREGEL
No. C56816
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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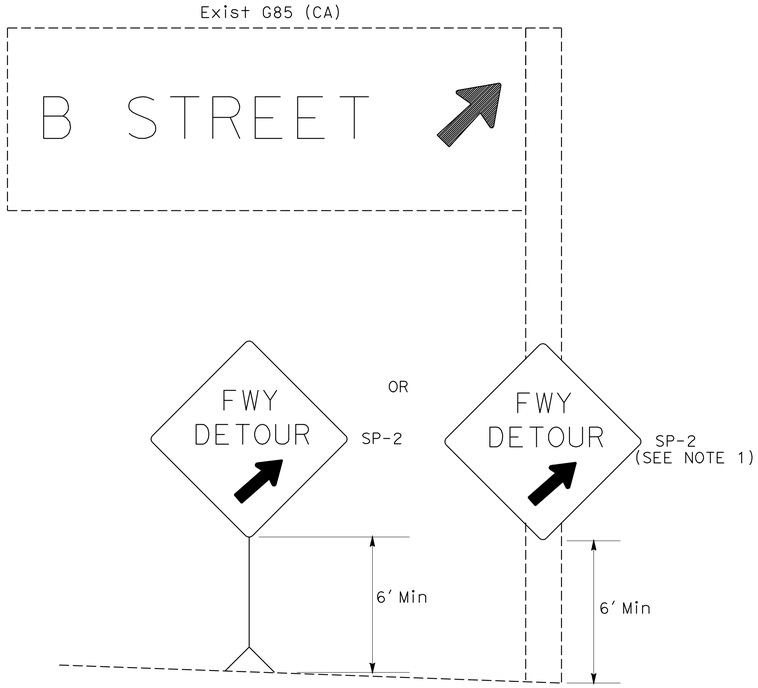
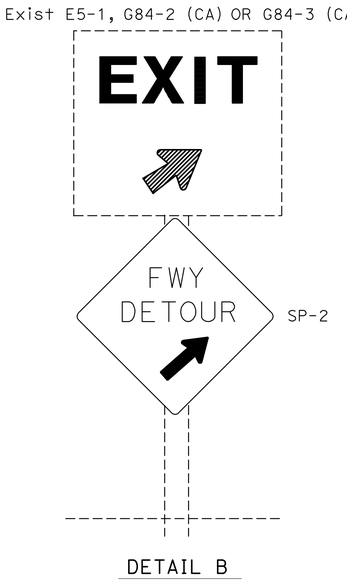
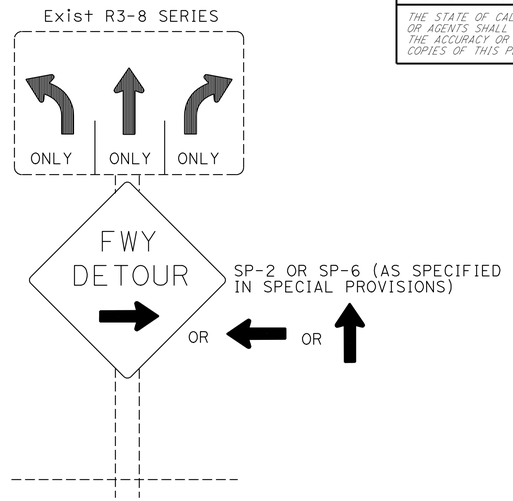


DETAIL A



DETAIL B



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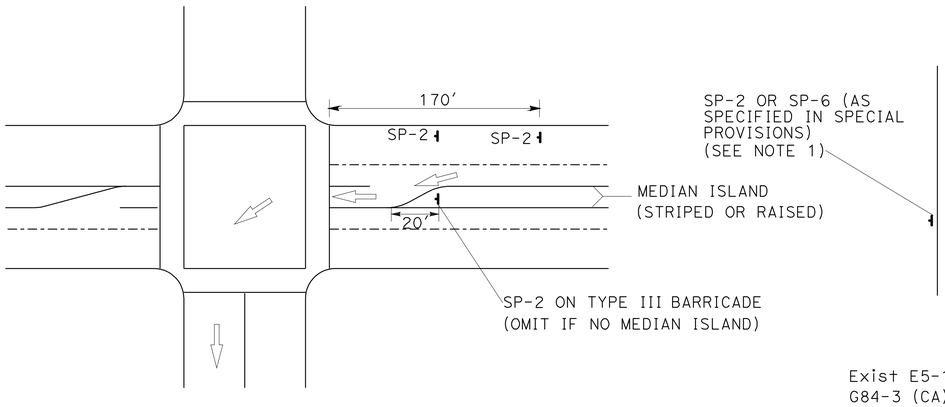
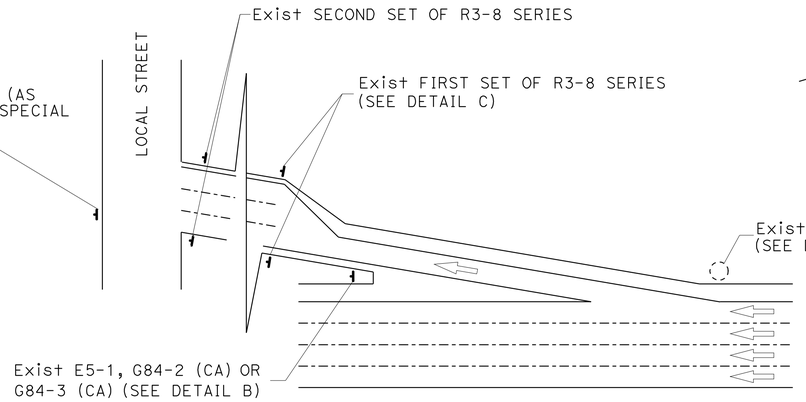
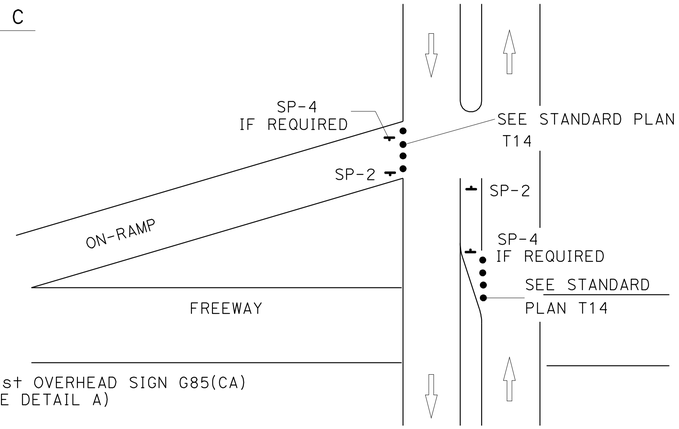


DETAIL D





DETAIL E

TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

NOTES:
1. TEMPORARY SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POSTS, OR SIGN POSTS.

ABBREVIATIONS
(CA) CALIFORNIA CODE

LEGENDS
- TRAFFIC CONE
- TEMPORARY SIGN
- DIRECTION OF TRAVEL
- EXISTING OVERHEAD SIGN

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE
SHEET 2 OF 2
NO SCALE

THD-4

CALCULATED-DESIGNED BY	JC
CHECKED BY	7/10
REVISED BY	DATE REVISED
ALBERT K YU	
JOCELYN C CHIANG	
FUNCTIONAL SUPERVISOR	JOHN YANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 30-APR-2012
TIME PLOTTED => 14:14

BORDER LAST REVISED 7/2/2010
USERNAME => s125624
DGN FILE => 72x840me04.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1887
PROJECT NUMBER & PHASE 07000209131

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R17.8	9	16

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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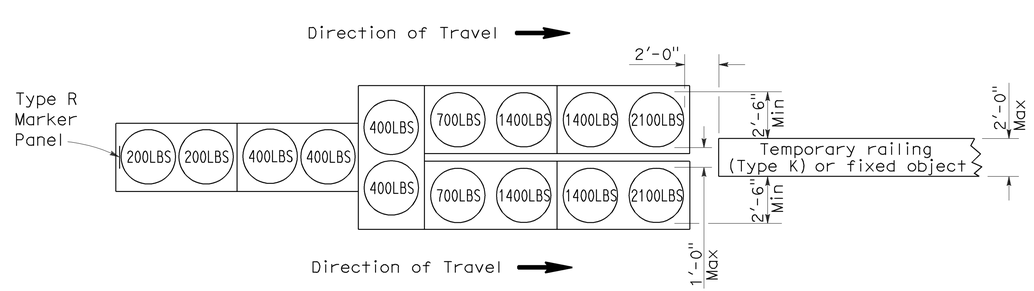
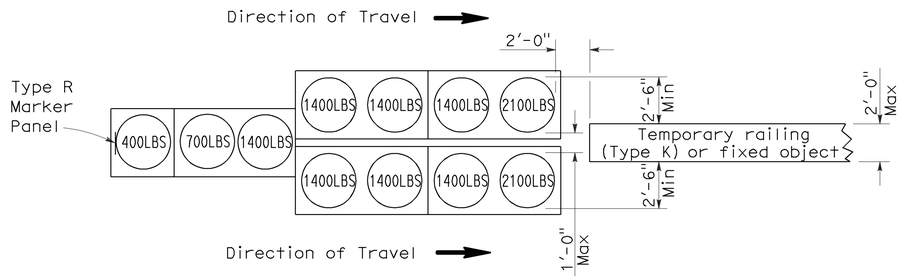
To accompany plans dated 4-16-12



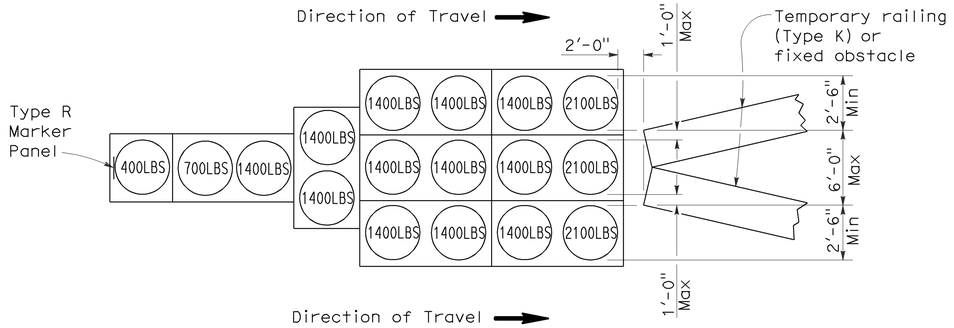
ARRAY 'TU14'

Approach speed 45 mph or more



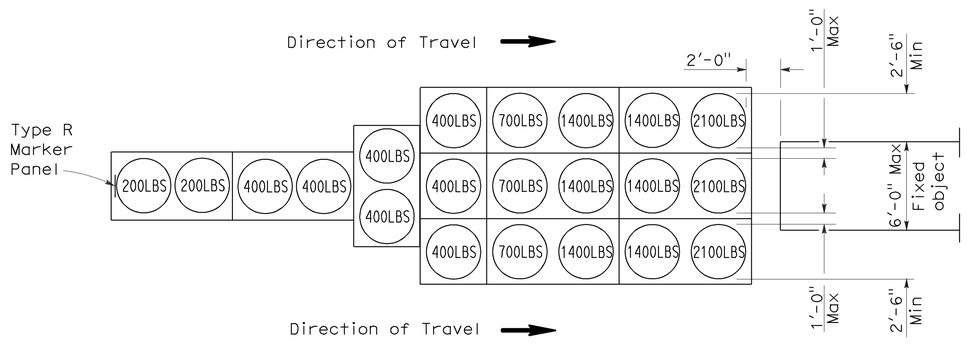
ARRAY 'TU11'

Approach speed less than 45 mph



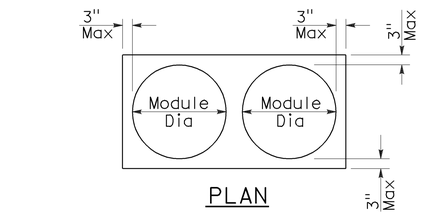
ARRAY 'TU17'

Approach speed less than 45 mph

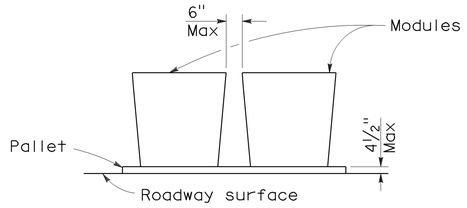


ARRAY 'TU21'

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
07	LA	210	R17.8	10	16

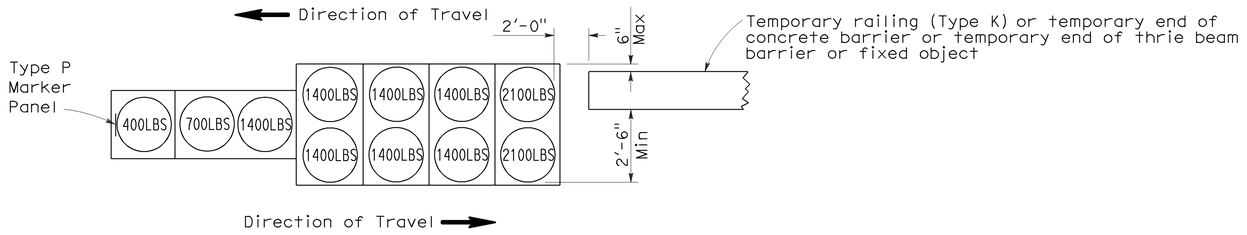
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

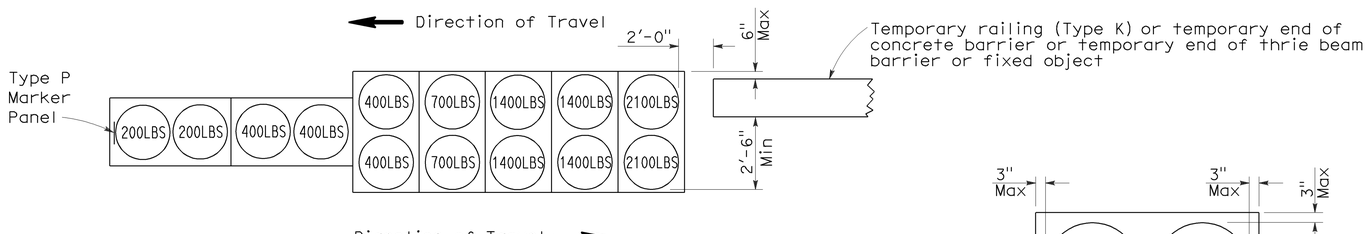
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 4-16-12



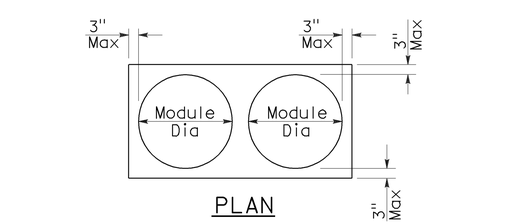
ARRAY 'TB11'

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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R17.8	11	16

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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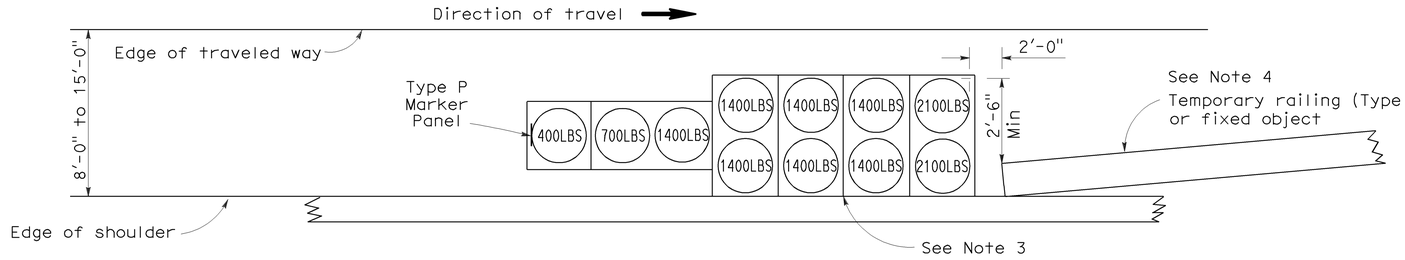
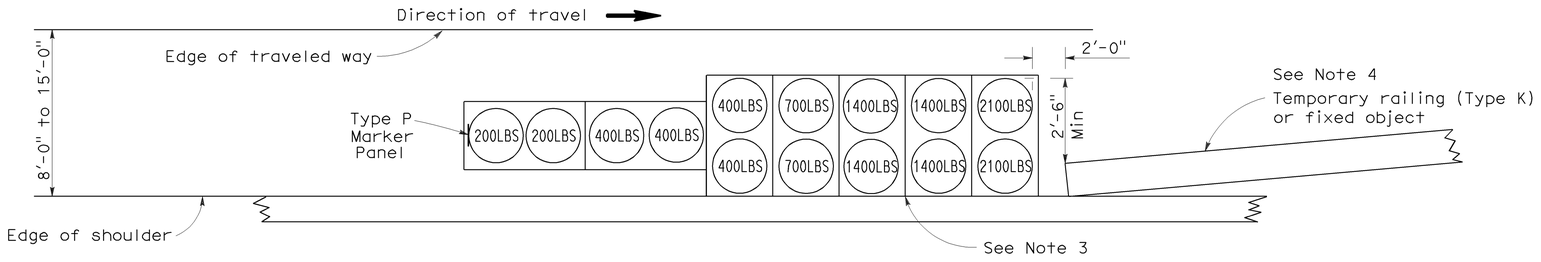
To accompany plans dated 4-16-12



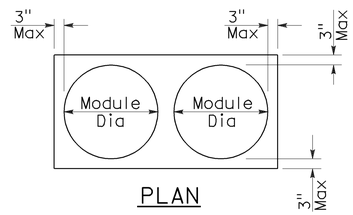
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

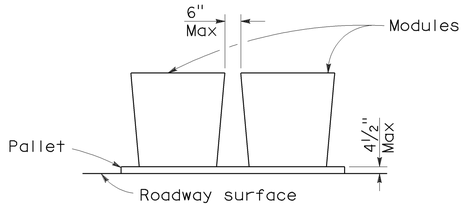


ARRAY 'TS14'

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
07	LA	210	R17.8	12	16

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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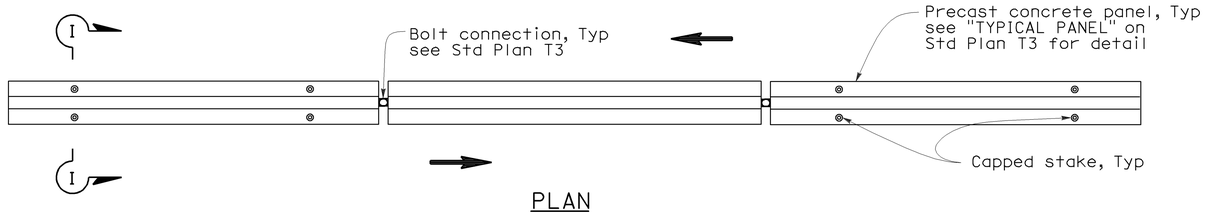
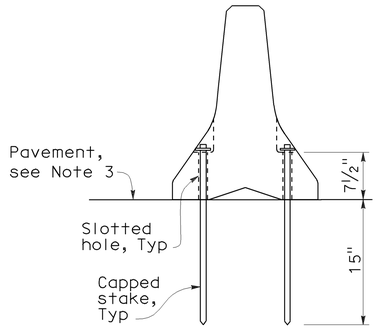
To accompany plans dated 4-16-12



PLAN

RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC

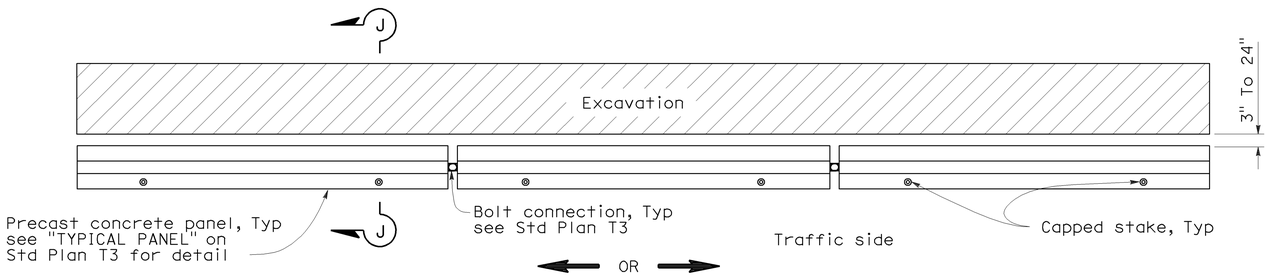
See Note 1



SECTION I-I

NOTES:

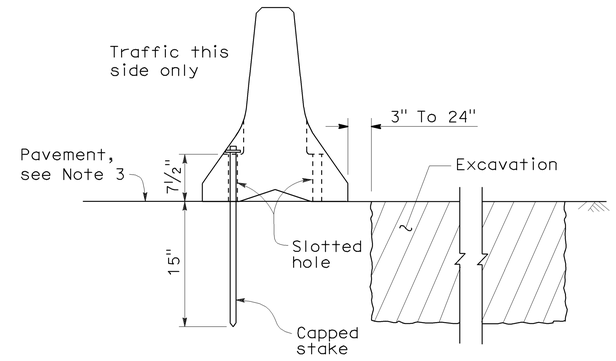
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by ⟹.



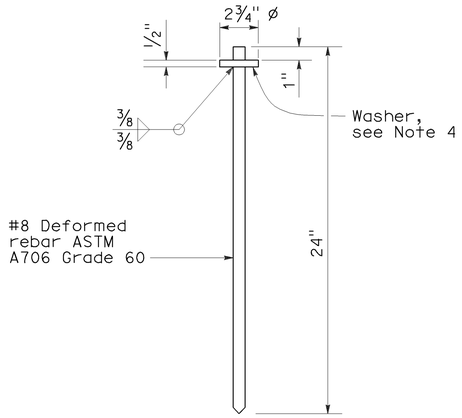
PLAN

RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION

See Note 2



SECTION J-J



CAPPED STAKE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY RAILING (TYPE K)

NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T3A

2006 NEW STANDARD PLAN NSP T3A

8-31-10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R17.8	13	16

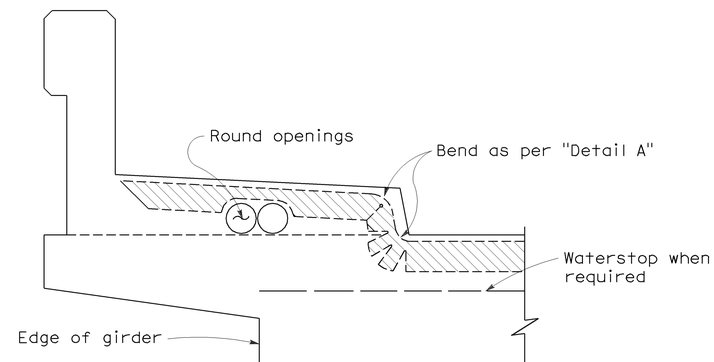
REGISTERED CIVIL ENGINEER

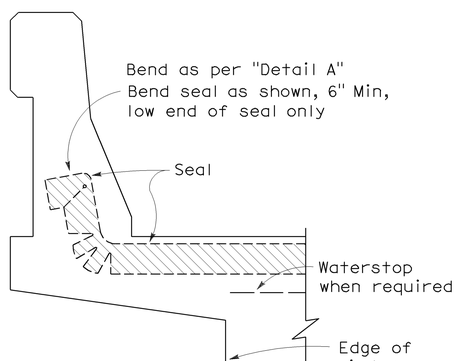
Efthymios Delis
No. C51434
Exp. 6-30-08
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

October 5, 2007
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.

To accompany plans dated 4-16-12



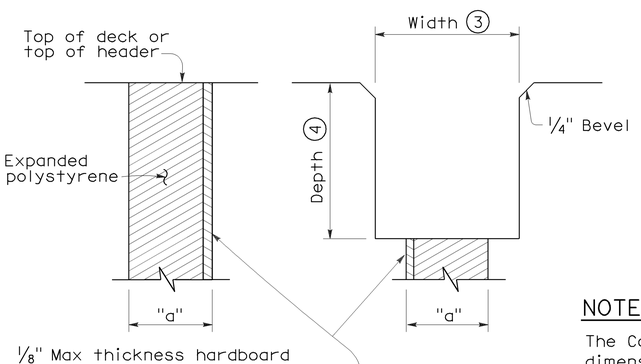


NOTE:

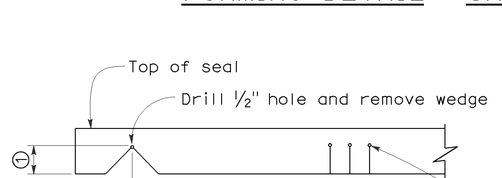
Type "B" seal shown. Type "A" seals to comform to the general path of seal shown, cuts for bending not required. Bend Type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK

CONCRETE BARRIER



FORMING DETAIL

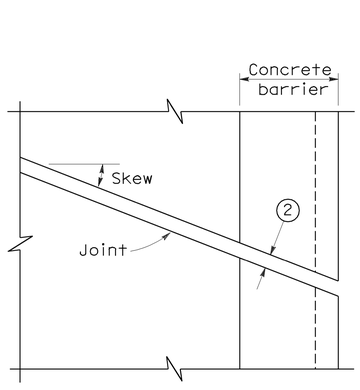


SAWCUT DETAIL

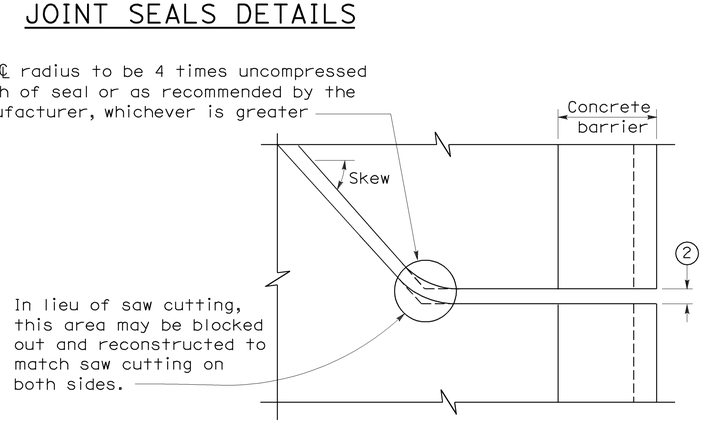
NOTE:

The Contractor shall verify all controlling field dimensions before ordering or fabricatiing any material.

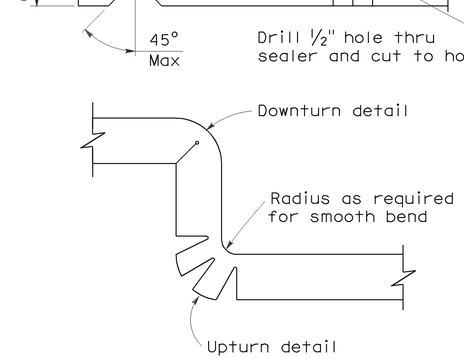
JOINT SEALS DETAILS



PLAN OF JOINT (SKEW ≤ 20°)



PLAN OF JOINT (SKEW > 20°)



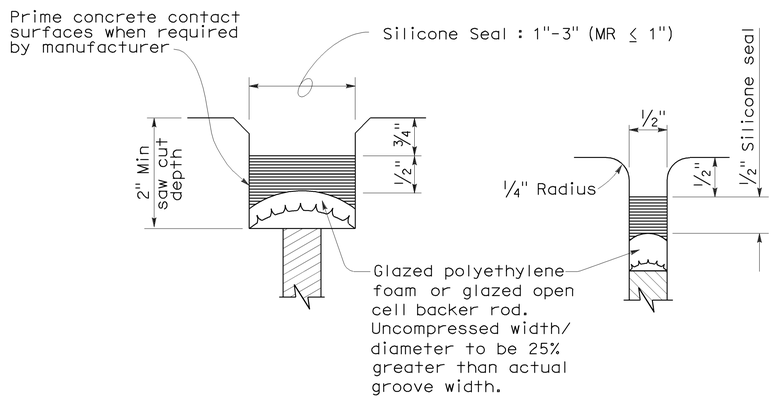
DETAIL A

NOTES:

1. Make smooth cuts from the bottom of seal to 1½" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
2. Opening in barrier to match width of sawn deck joint.
3. Sawcut groove widths shall be as ordered by the Engineer.
4. Depth of sawcut: Type A - Depth to be 2" minimum.
   Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W_2) plus dimensions shown.
5. MR (movement rating) as shown on other plan sheets.
6. Other depths must be approved by the Engineer.

DIMENSIONS "a" OF JOINT REQUIRED

Movement Rating (MR) (5)	Bridge Type	"a" Dimension, Deck Concrete Placed: Winter	Fall-Spring	Summer
2"	All except CIP/PS	1½"	1¼"	¾"
	CIP/PS	1¼"	1"	½"
1½"	All except CIP/PS	1¼"	1"	½"
	CIP/PS	1"	¾"	½"
1"	All except CIP/PS	1"	¾"	½"
	CIP/PS	¾"	½"	½"
½"	All except CIP/PS	¾"	¾"	½"
	CIP/PS	½"	½"	½"

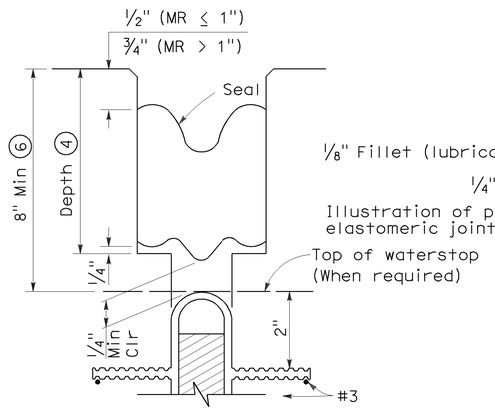


TYPE A SEAL

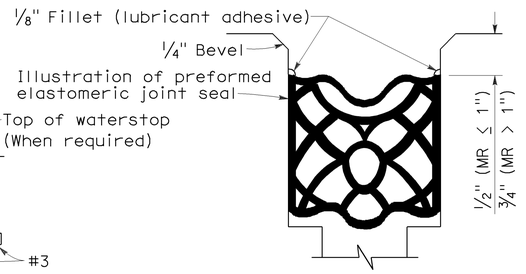
Movement rating : Silicone = 1" Max

TYPE AL SEAL

Longitudinal joints only



TYPE B JOINT SEAL
IN MINIMUM WIDTH POSITION (W_2)



TYPE B SEAL

Movement Rating ≤ 2"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

NO SCALE

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

REVISED STANDARD PLAN RSP B6-21

2006 REVISED STANDARD PLAN RSP B6-21

5-8-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	210	R17.8	14	16

Karen L Doll 3-7-2012
REGISTERED CIVIL ENGINEER DATE

4-16-2012
PLANS APPROVAL DATE

KAREN L. DOLL No. 68444 Exp. 9/30/13 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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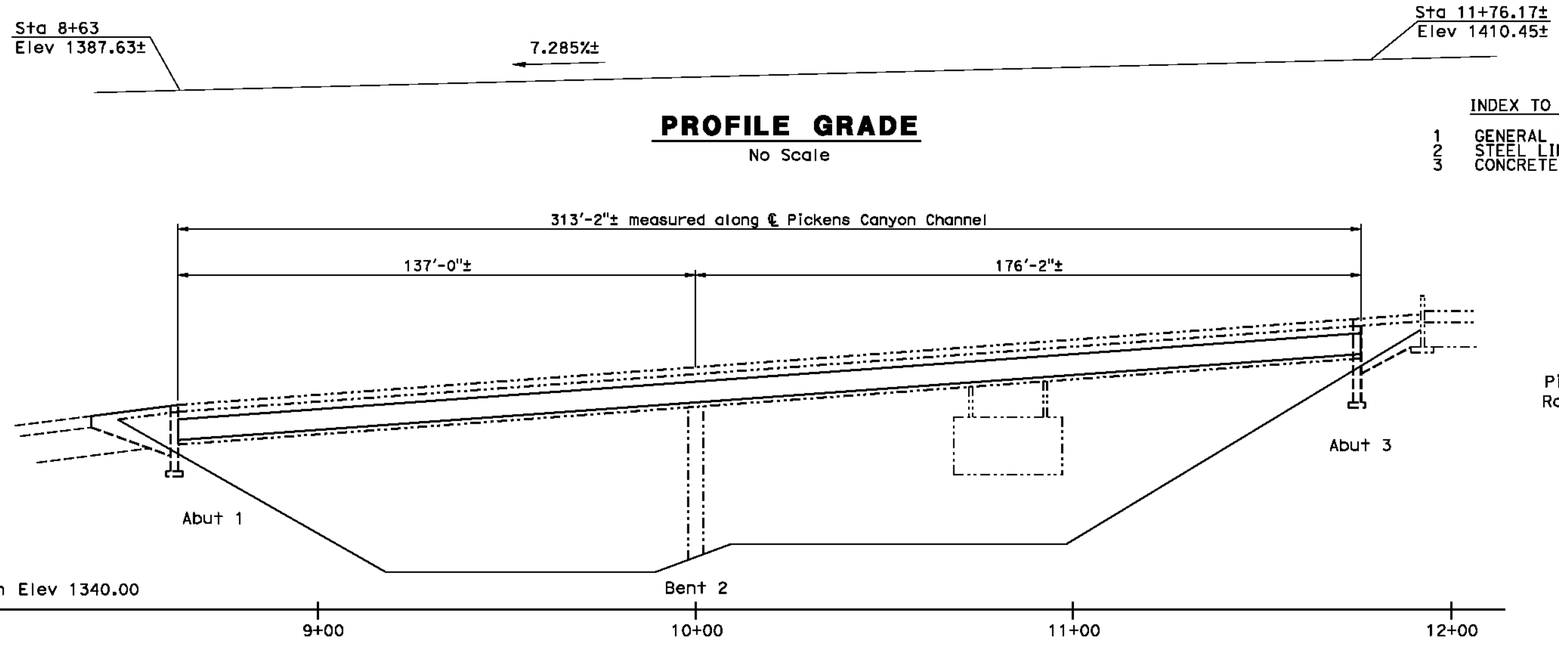
INDEX TO PLANS



PROFILE GRADE
No Scale

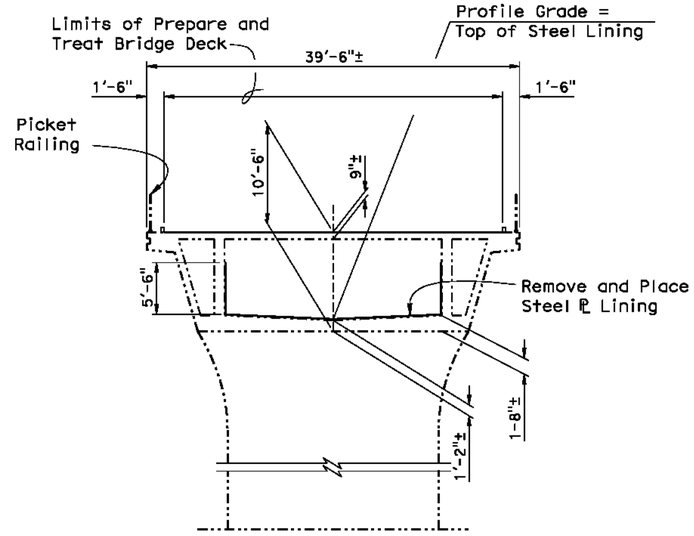
ELEVATION
1" = 20'-0"

Note

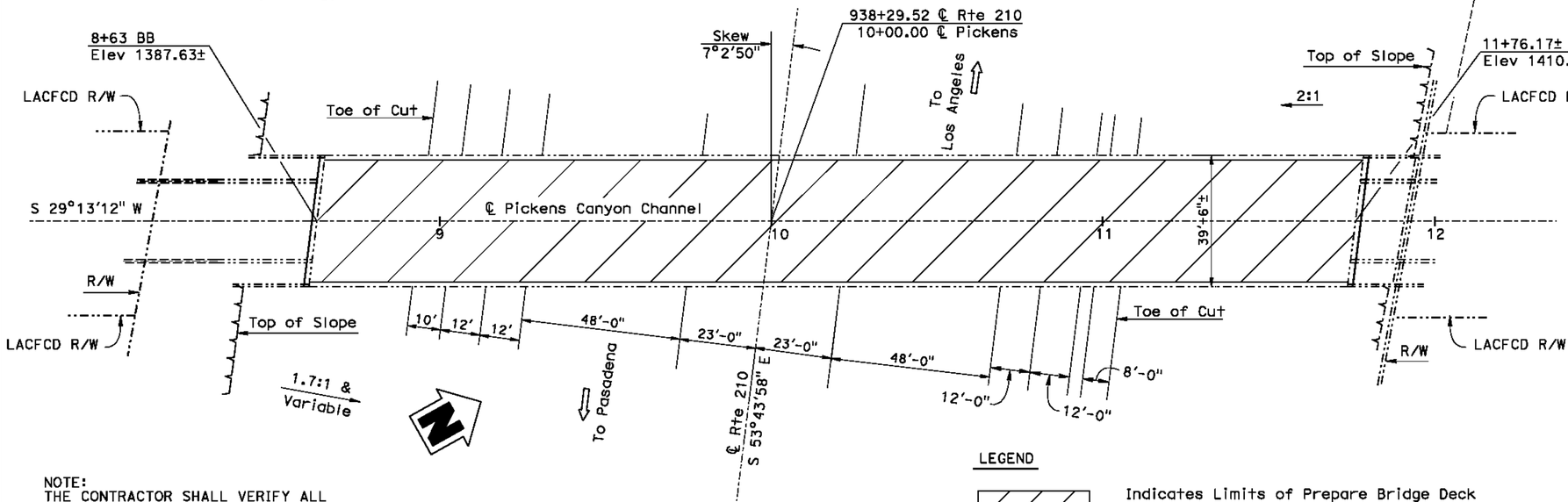
After existing steel liner is removed and prior to epoxy crack injection, clean exposed Flume concrete walls, ceiling, and floor.

ABBREVIATIONS

LACFCD Los Angeles County Flood Control District



TYPICAL SECTION
⅛" = 1'-0"



PLAN
1" = 20'-0"

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

LEGEND

Indicates Limits of Prepare Bridge Deck and Treat Bridge Deck with High Molecular Weight Methacrylate

QUANTITIES

REMOVE UNSOUND CONCRETE	5	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	11,500	SQFT
BRIDGE REMOVAL (PORTION)	LUMP	SUM
DRILL AND BOND ROD	398	LF
CLEAN EXPANSION JOINT	78	LF
RAPID SETTING CONCRETE PATCH	5	CF
INJECT CRACK (EPOXY)	152	LF
REPAIR SPALLED SURFACE AREA	1,462	SQFT
JOINT SEAL (MR 1")	78	LF
TREAT BRIDGE DECK	11,500	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	130	GAL
PUBLIC SAFETY PLAN	LUMP	SUM
STRUCTURAL STEEL (BRIDGE)	115,000	LB
CLEAN CONCRETE	19,600	SQFT

Ramy Rashedi 3-7-2012
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Karen Doll	Jay Posey
DETAILS	Loren Goldthwait	Jay Posey
QUANTITIES	Karen Doll	Jay Posey

LOAD & RESISTANCE FACTOR DESIGN — LIVE LOADING: 60 PSF & 5'-0" of Water

	BY	CHECKED
LAYOUT	Karen Doll	Jay Posey
SPECIFICATIONS	R. Franti	PLANS AND SPECS COMPARED R. Franti

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 11

BRIDGE NO. 53-2309
POST MILE R17.8

PICKENS CANYON FLUME OC (LINER REPAIR)
GENERAL PLAN

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3587
PROJECT NUMBER & PHASE: 0700020913 1
CONTRACT NO.: 2X8401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
11-16-11	3/14/12	4/3/12	3-6-12	1	3

FILE => 07-2x8401-a-gp.dgn

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

USERNAME => 6114300 DATE PLOTTED => 30-APR-2012 TIME PLOTTED => 09:13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	210	R17.8	15	16

Karen I Doll 3-7-2012
REGISTERED CIVIL ENGINEER DATE

4-16-2012
PLANS APPROVAL DATE

KAREN L. DOLL No. 68444 Exp. 9/30/13 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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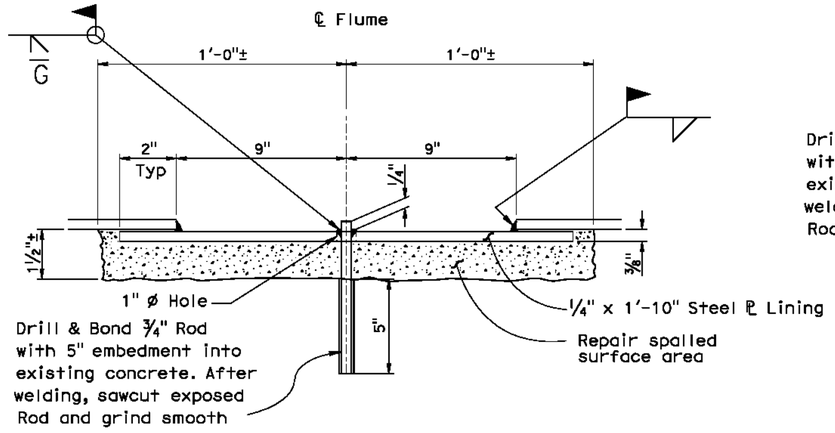
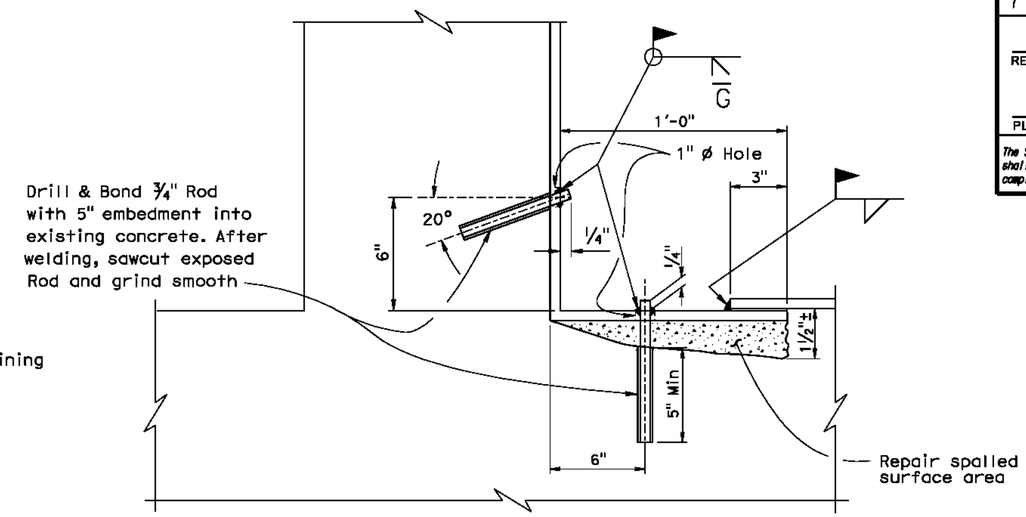


SECTION A-A
No Scale



SECTION B-B
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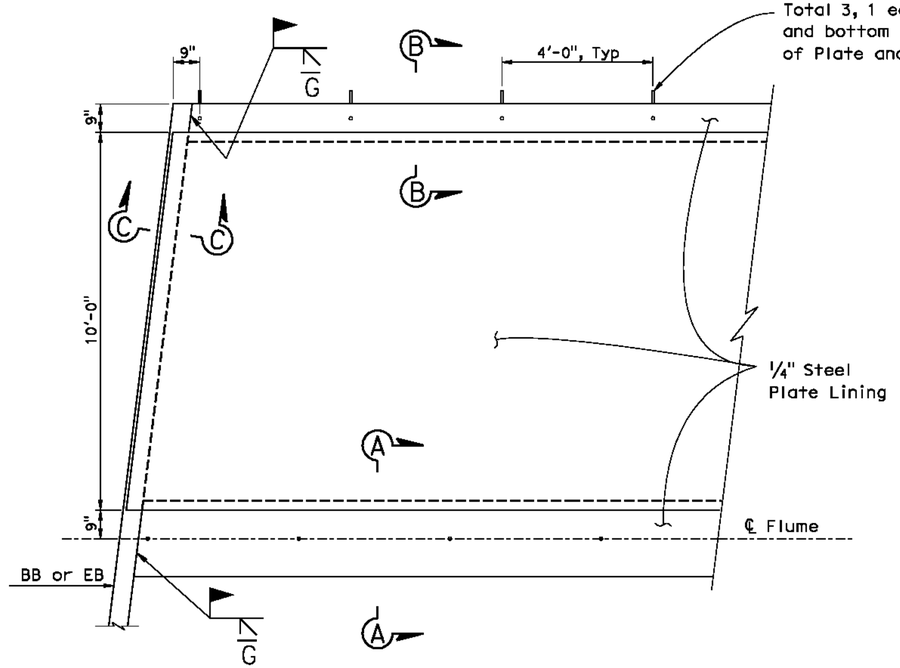


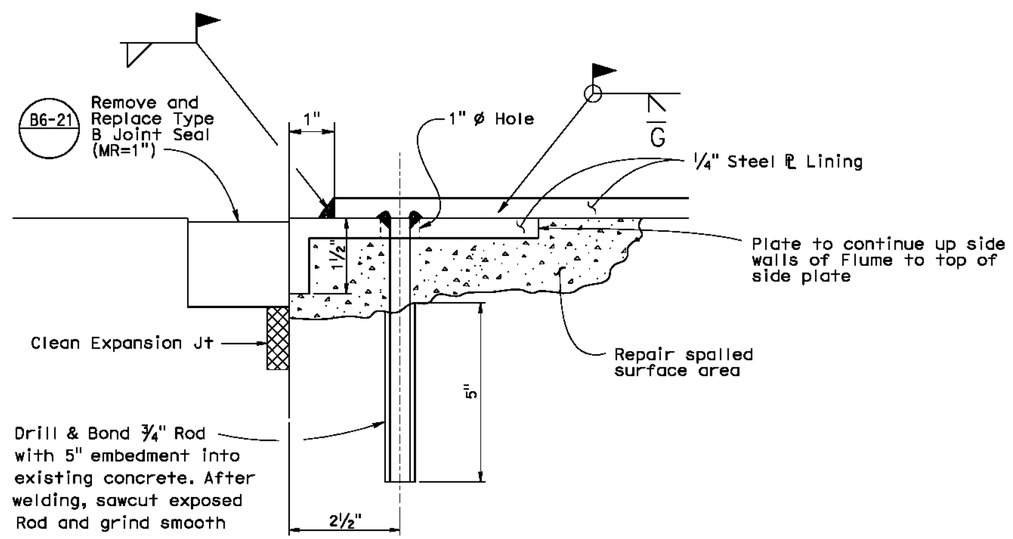
PART PLAN
½" = 1'-0"

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

NOTE:
Details Symmetrical about ℄ Flume

STANDARD PLANS
Dated May 2006

A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
A10C	SYMBOLS (SHEET 1 OF 2)
A10D	SYMBOLS (SHEET 2 OF 2)
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING= 2"



SECTION C-C
No Scale

DESIGN	BY Karen Doll	CHECKED Jay Posey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 11	BRIDGE NO. 53-2309
DETAILS	BY Loren Goldthwait	CHECKED Jay Posey			POST MILE R17.8
QUANTITIES	BY Karen Doll	CHECKED Jay Posey			

PICKENS CANYON FLUME OC (LINER REPAIR)
STEEL LINER REPAIR DETAILS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3587
PROJECT NUMBER & PHASE: 0700020913 1 CONTRACT NO.: 2X8401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-21-11	4/3/12	3-6-12	3/16/12	2	3

FILE => 07-2x8401-b-dets01.dgn

USERNAME => s114300 DATE PLOTTED => 30-APR-2012 TIME PLOTTED => 09:13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
7	LA	210	R17.8	16	16

Karen I Doll 3-7-2012
REGISTERED CIVIL ENGINEER DATE

4-16-2012
PLANS APPROVAL DATE

KAREN L. DOLL No. 68444 Exp. 9/30/13 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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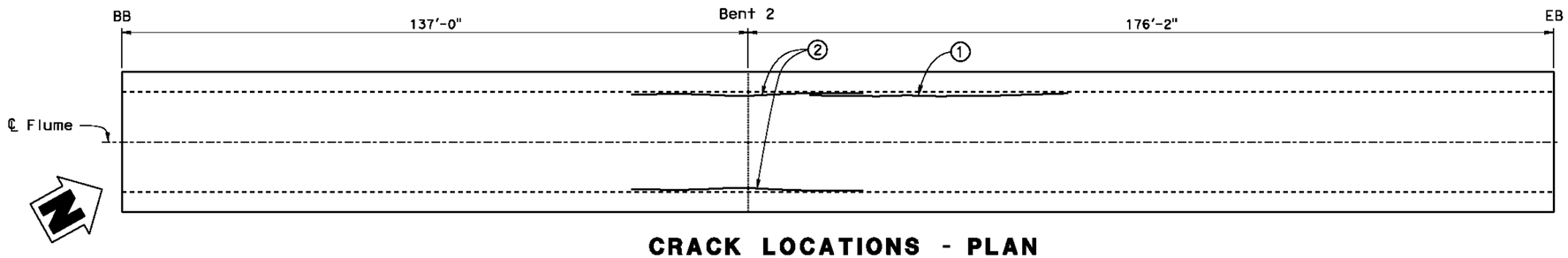
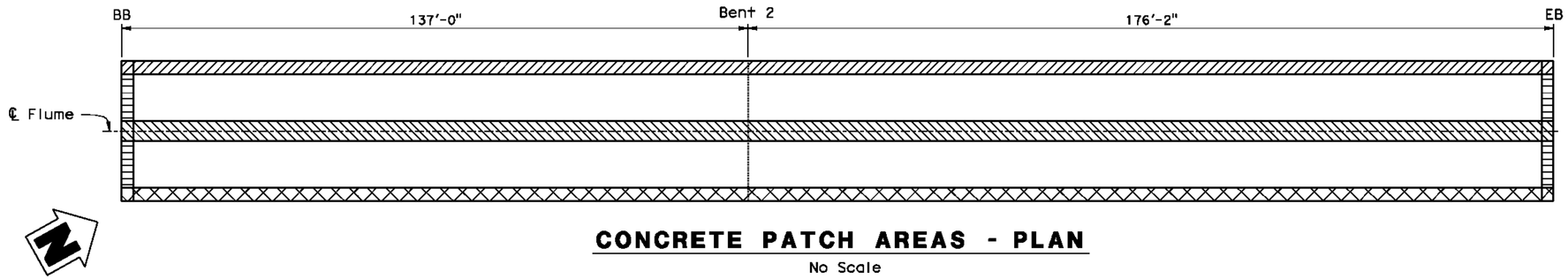


CRACK LOCATIONS - PLAN

No Scale

CRACK #	LOCATION	LENGTH
①	144 ft from Abut 1 on West Side Wall	52'
②	20' either side of Bent 2, any crack greater than 5 mils ±	100'



CONCRETE PATCH AREAS - PLAN

No Scale

LEGEND:

- Patch Area A, see 'Section B-B' on "STEEL LINER REPAIR DETAILS" sheet
- Patch Area B, see 'Section A-A' on "STEEL LINER REPAIR DETAILS" sheet
- Patch Area C, see "Section B-B' on "STEEL LINER REPAIR DETAILS" sheet
- Patch Area D, see 'Section C-C' on "STEEL LINER REPAIR DETAILS" sheet

The following notes apply to JOINT SEAL TYPE B:

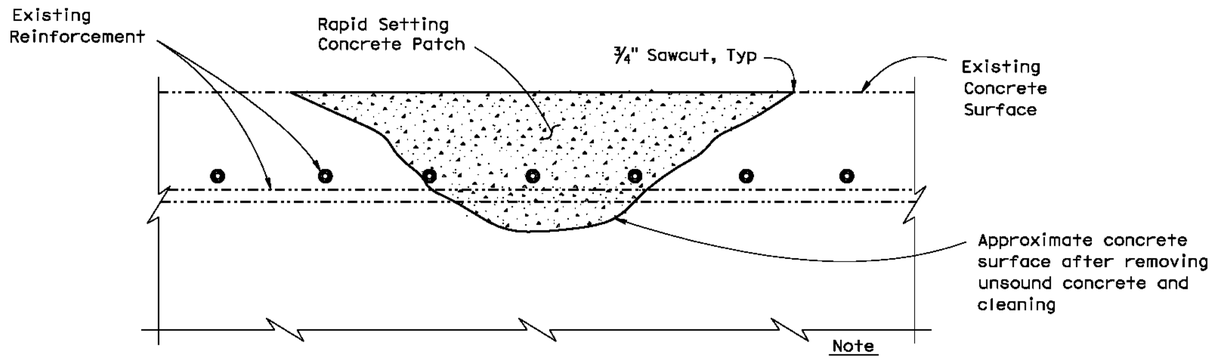
1. Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
2. Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be recalculated by the Engineer.
3. W1 shall be the smaller of the values determined on follows:
   a) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
   b) The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3.0 PSI.
4. For details not shown, see RSP B6-21 sheet.

DECK REPAIR TABLE
REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)

BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (%)	APPROXIMATE DEPTH (INCHES)
Pickens Canyon Flume OC	53-2309	1	3

JOINT SEAL TABLE

BRIDGE NAME	BRIDGE NUMBER	LOCATION	MINIMUM "MR" (INCHES)	APPROXIMATE LENGTH (FT)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JT (INCHES)
Pickens Canyon Flume OC	53-2309	Abut 1	1	39	Yes	Varies 6-10
Pickens Canyon Flume OC	53-2309	Abut 3	1	39	Yes	6



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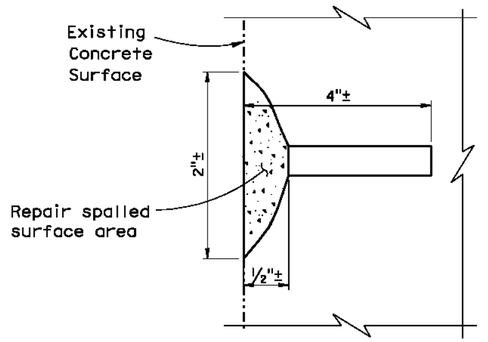
DECK REPAIR DETAIL

No Scale



NOTE:
Stud pullout locations are in vertical walls of Flume where embedded studs from original steel plate lining was ripped out.

SPALL REPAIR AT STUD PULLOUT LOCATIONS

No Scale

DESIGN	BY Karen Doll	CHECKED Jay Posey	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Loren Goldthwait	CHECKED Jay Posey	
QUANTITIES	BY Karen Doll	CHECKED Jay Posey	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 11

BRIDGE NO. 53-2309
POST MILE R17.8

PICKENS CANYON FLUME OC (LINER REPAIR)
CONCRETE REPAIR DETAILS

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UNIT: 3587
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DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-27-11	3-5-12	3/29/12	4/3/12	3	3

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