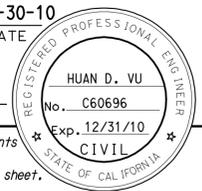
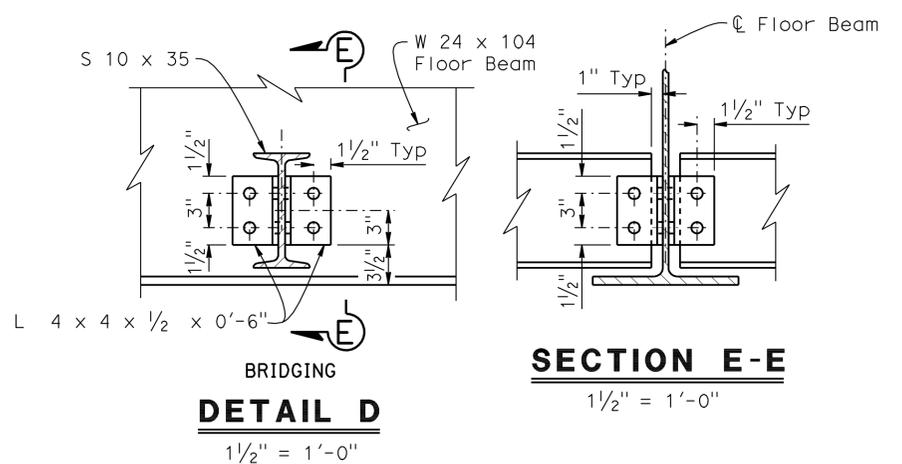
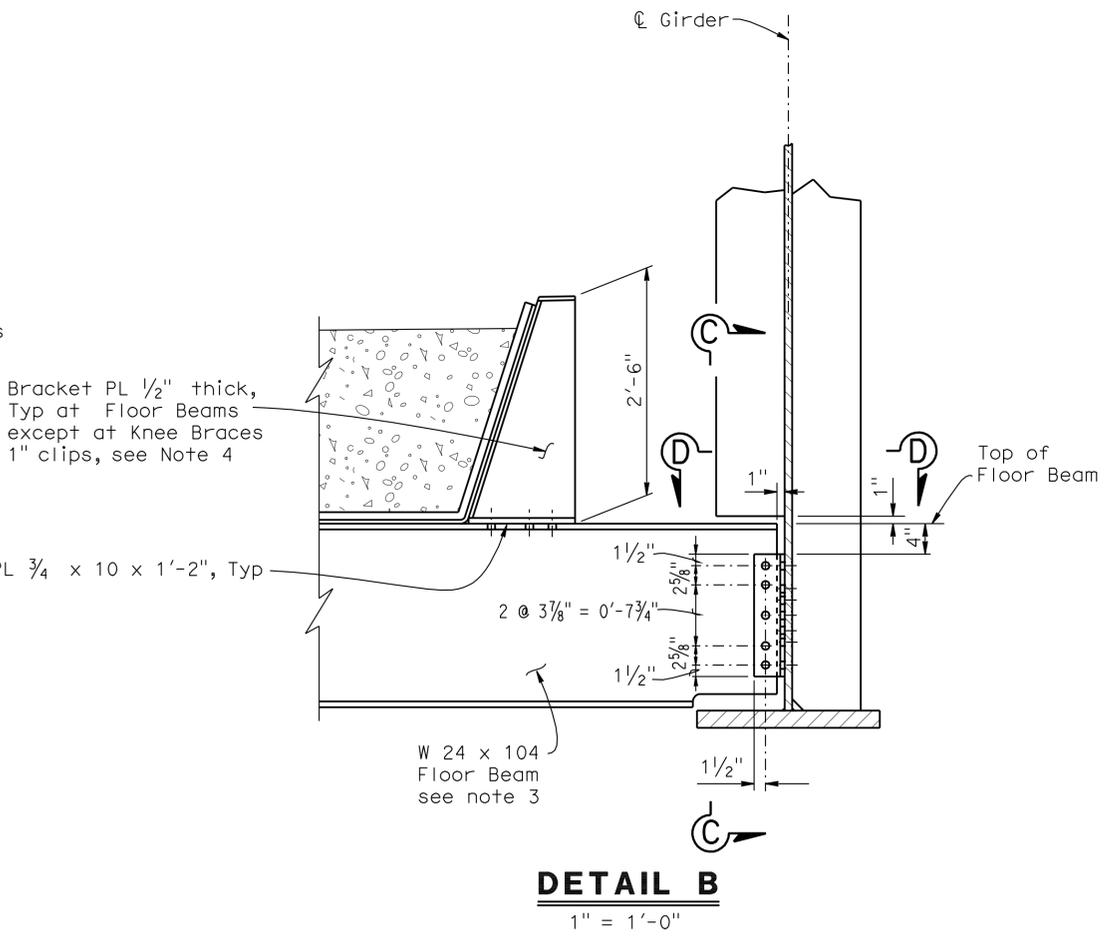
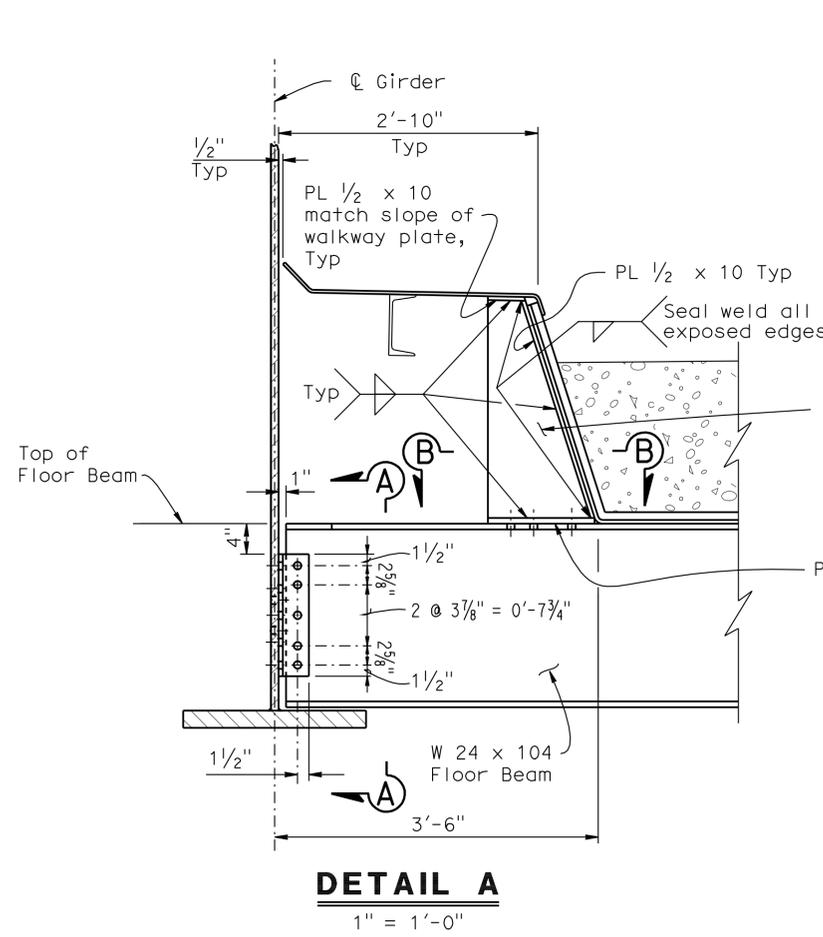
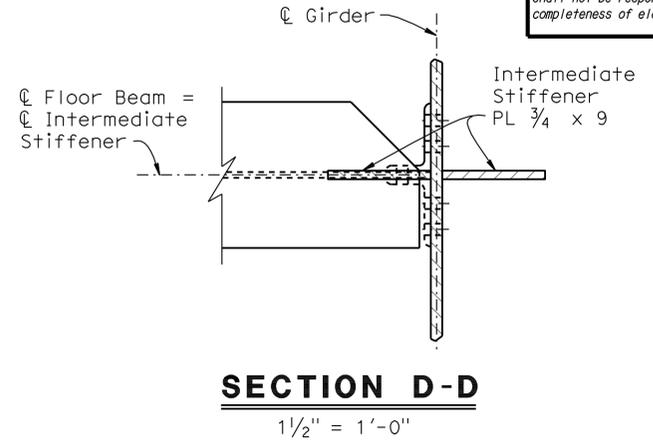
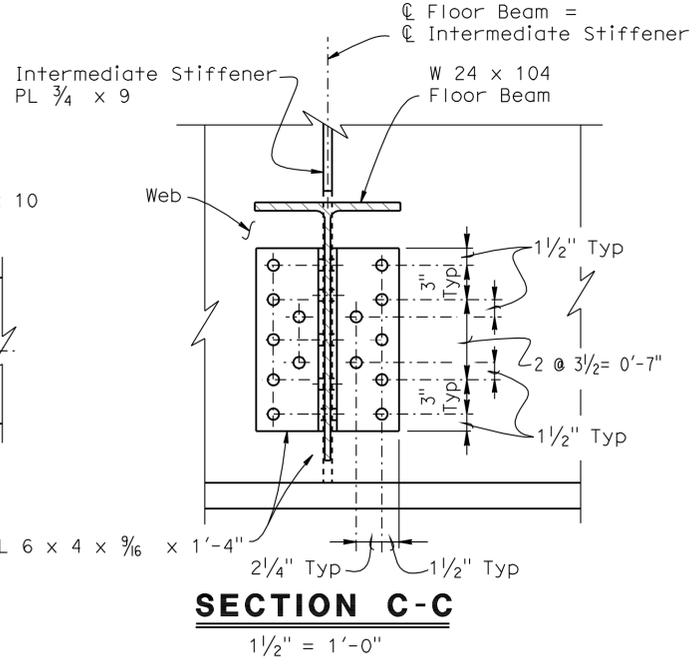
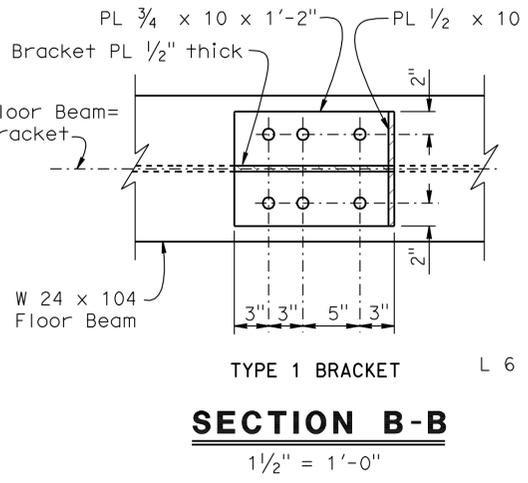
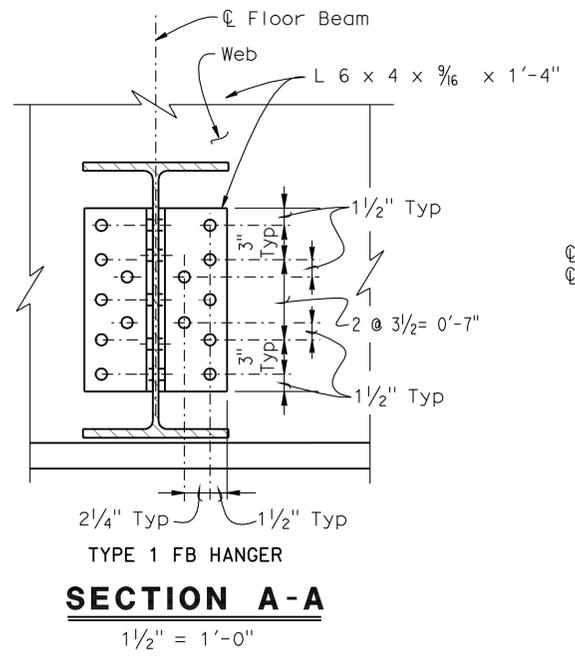


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2001	2028
 REGISTERED CIVIL ENGINEER DATE 11-30-10					
PLANS APPROVAL DATE 4-25-11 <small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



- NOTES:
1. For locations of "Detail A", "Detail B" and "Detail D", see "TYPICAL SECTION" sheet.
 2. For Floor Beam Intermediate Stiffener and bridging locations, see "GIRDER LAYOUT" sheets.
 3. Optional cope of FB shown in "Detail B" applies consistently, but is mandatory with field splices.
 4. See "DECK PLATING & SIDEWALK LAYOUT" sheet for additional information.

Walkway plate & support not shown for clarity

DESIGN	BY B. Addlespurger	CHECKED G. Slocum
DETAILS	BY E. Montevirgen	CHECKED G. Slocum
QUANTITIES	BY T. Sanderson	CHECKED R. Anderson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0848
POST MILE 19.39

PACHAPPA UP (SHOOFLY)
GIRDER DETAILS NO. 1

CU 08
EA 448401

REVISION DATES

9-7-08	10-28-09	11-17-09	5-25-10	6-09-10	10-20-10
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SHEET 20 OF 39

USERNAME => hrtt1ght DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 14:38

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

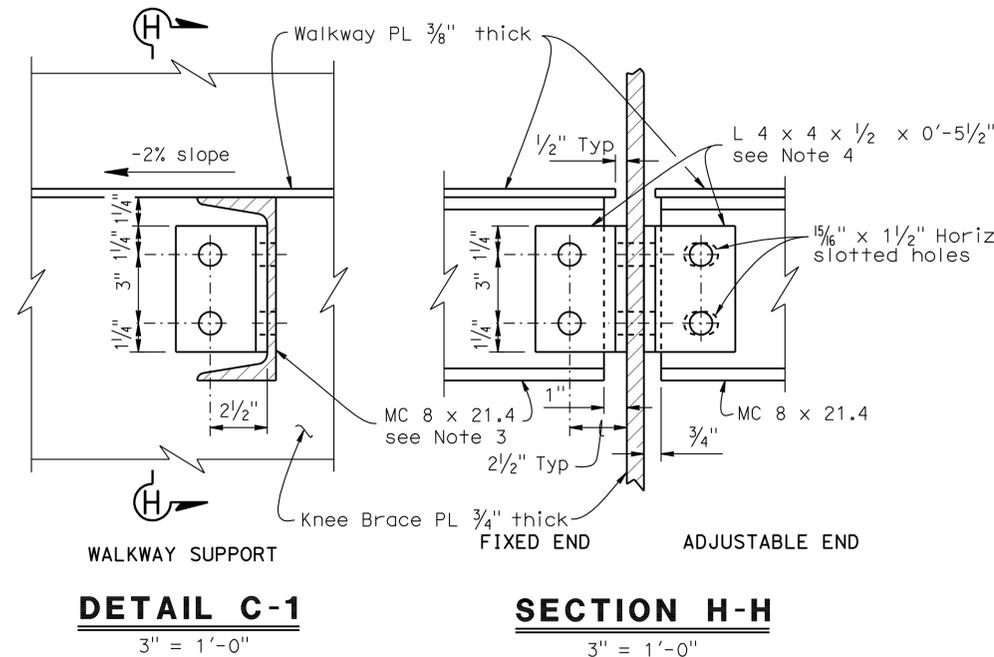
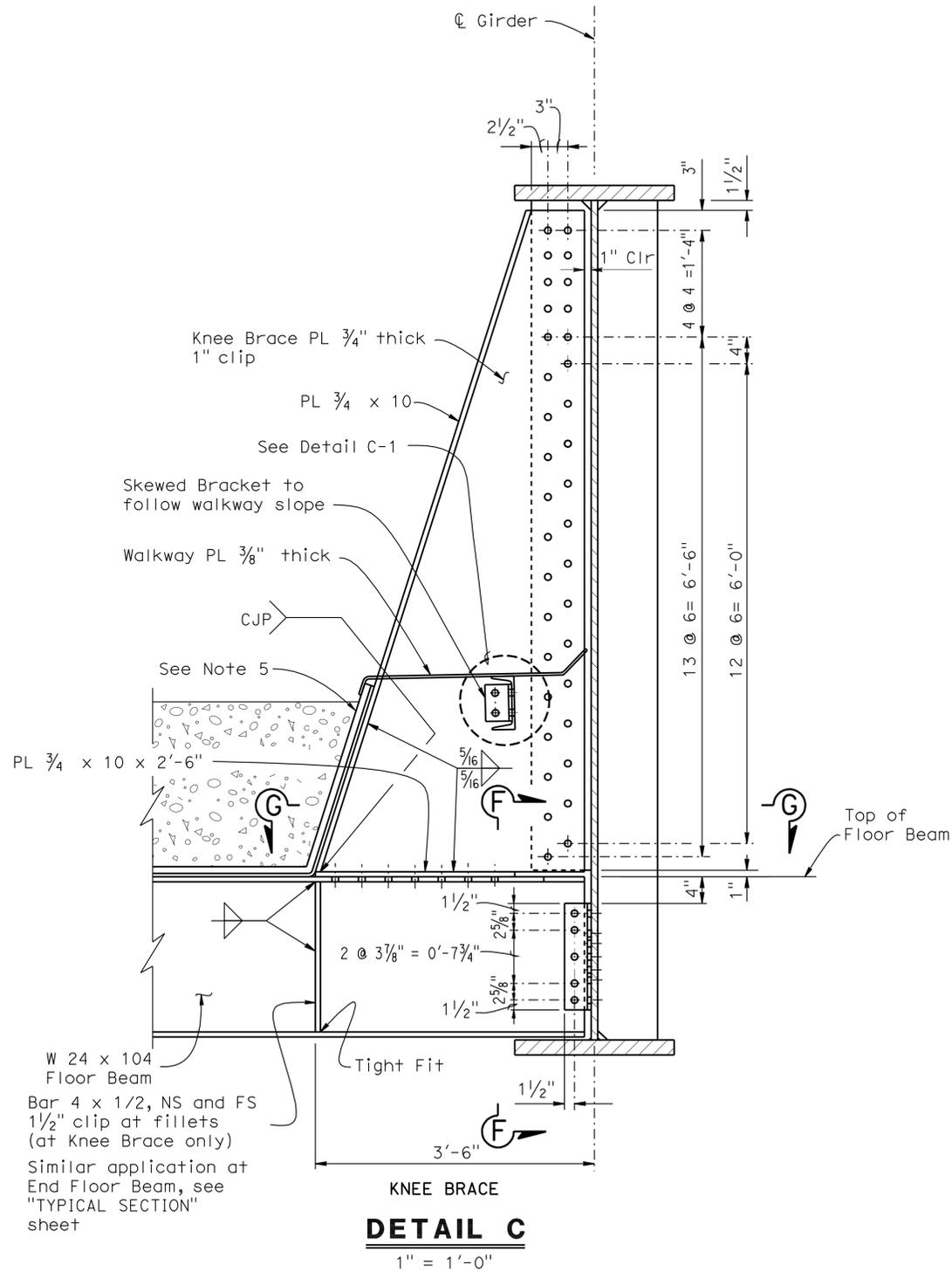
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08	Riv	91	15.6/21.6	2002	2028

11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

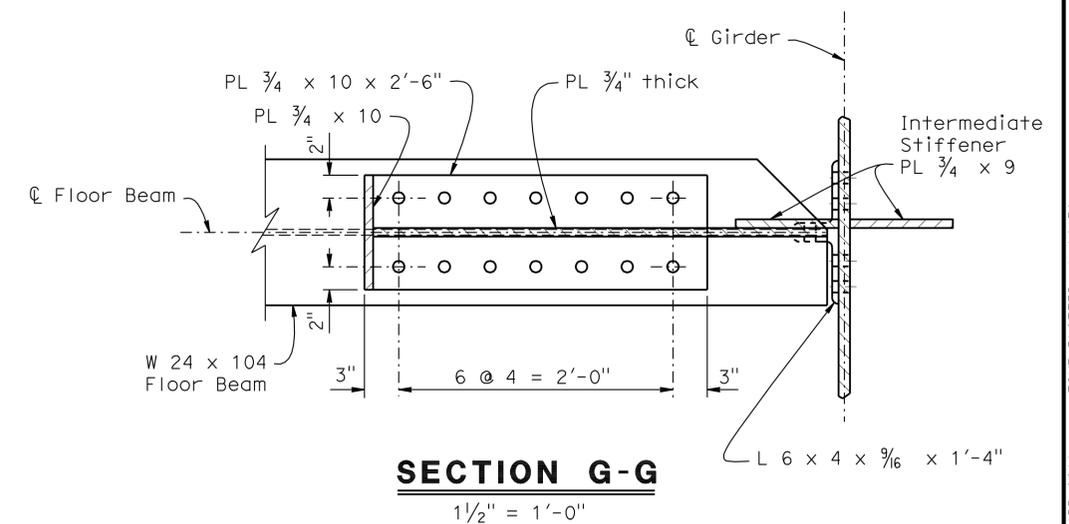
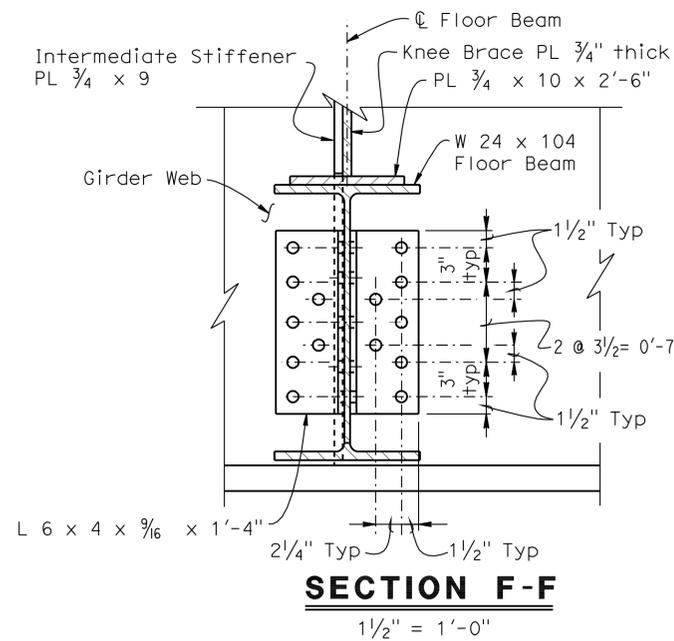
HUAN D. VU
No. C60696
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

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NOTES:

1. For location of Detail C, see "TYPICAL SECTION" sheet.
2. For knee brace, floor beam and intermediate stiffener locations, see "GIRDER LAYOUT" sheets.
3. Walkway supports shall have one fixed end and one adjustable end.
4. Angle 4 x 4 x 1/2 x 0'-5 1/2" shall be fastened to the Knee Brace PL and field bolted to MC8, see "DECK PLATING & SIDEWALK DETAILS NO. 2" sheet.
5. Curb flashing detail not shown for clarity. See "DECK PLATING & SIDEWALK DETAILS NO. 1" sheet.



DESIGN	BY B. Adlespurger	CHECKED G. Slocum
DETAILS	BY E. Montevirgen	CHECKED G. Slocum
QUANTITIES	BY T. Sanderson	CHECKED R. Anderson

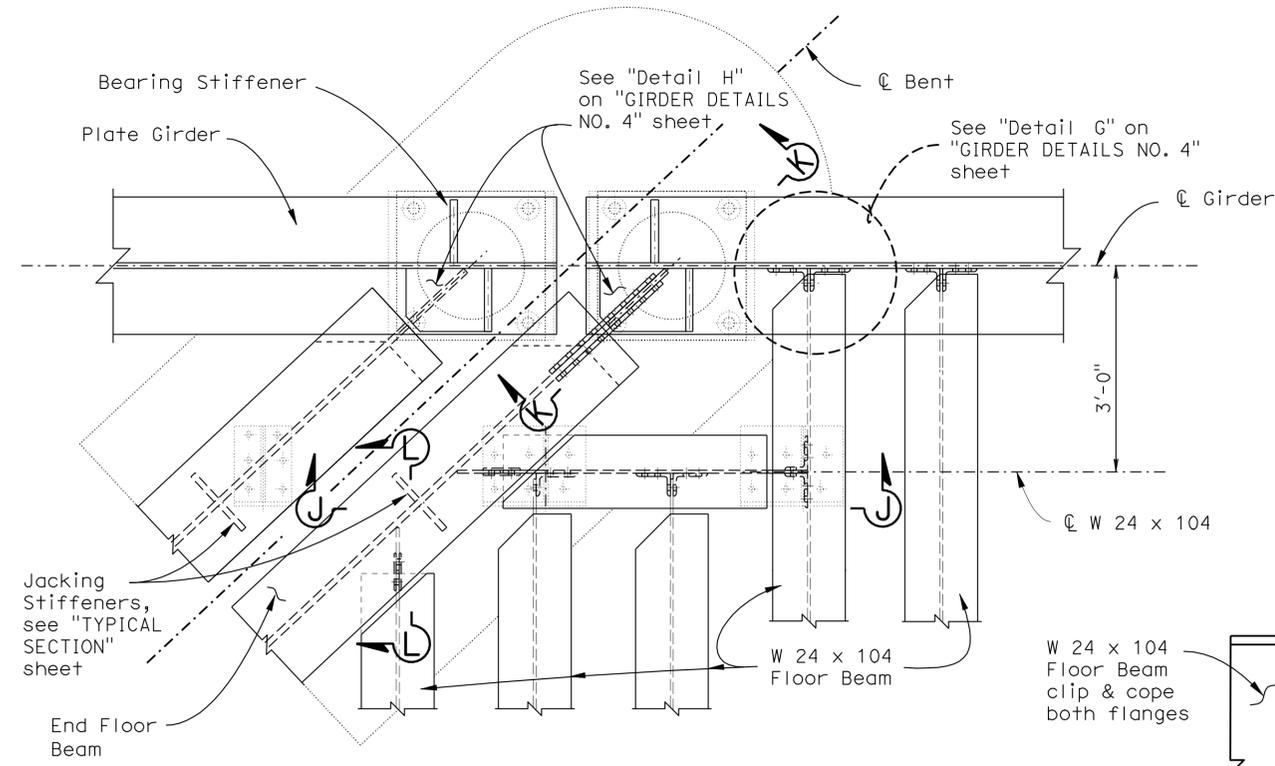
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0848
POST MILE	19.39

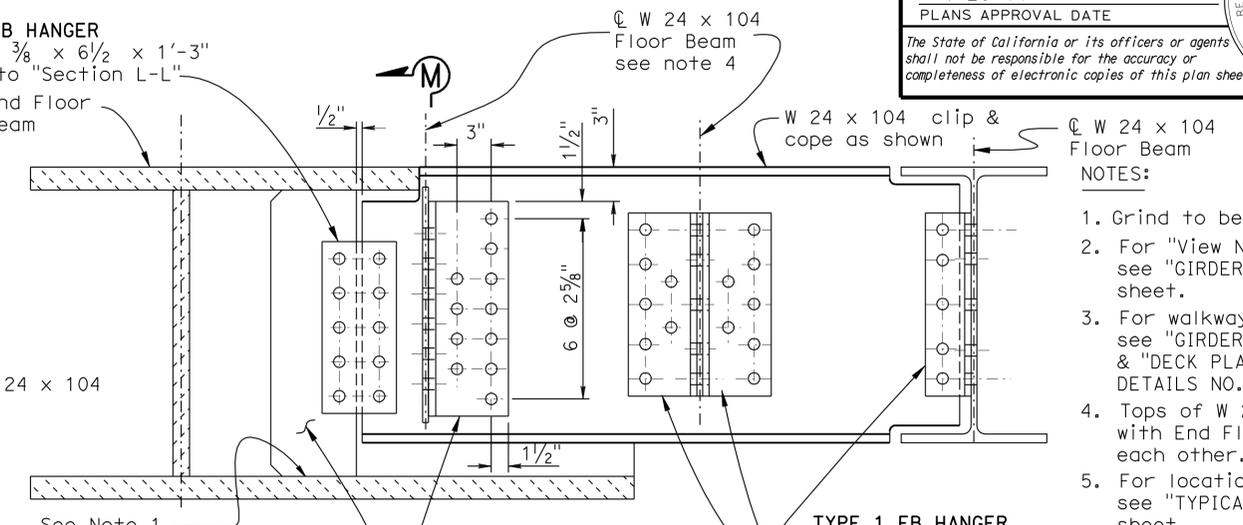
PACHAPPA UP (SHOOFLY)
GIRDER DETAILS NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2003	2028
			11-30-10	DATE	
REGISTERED CIVIL ENGINEER			HUAN D. VU No. C60696 Exp. 12/31/10 CIVIL		
4-25-11 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.		



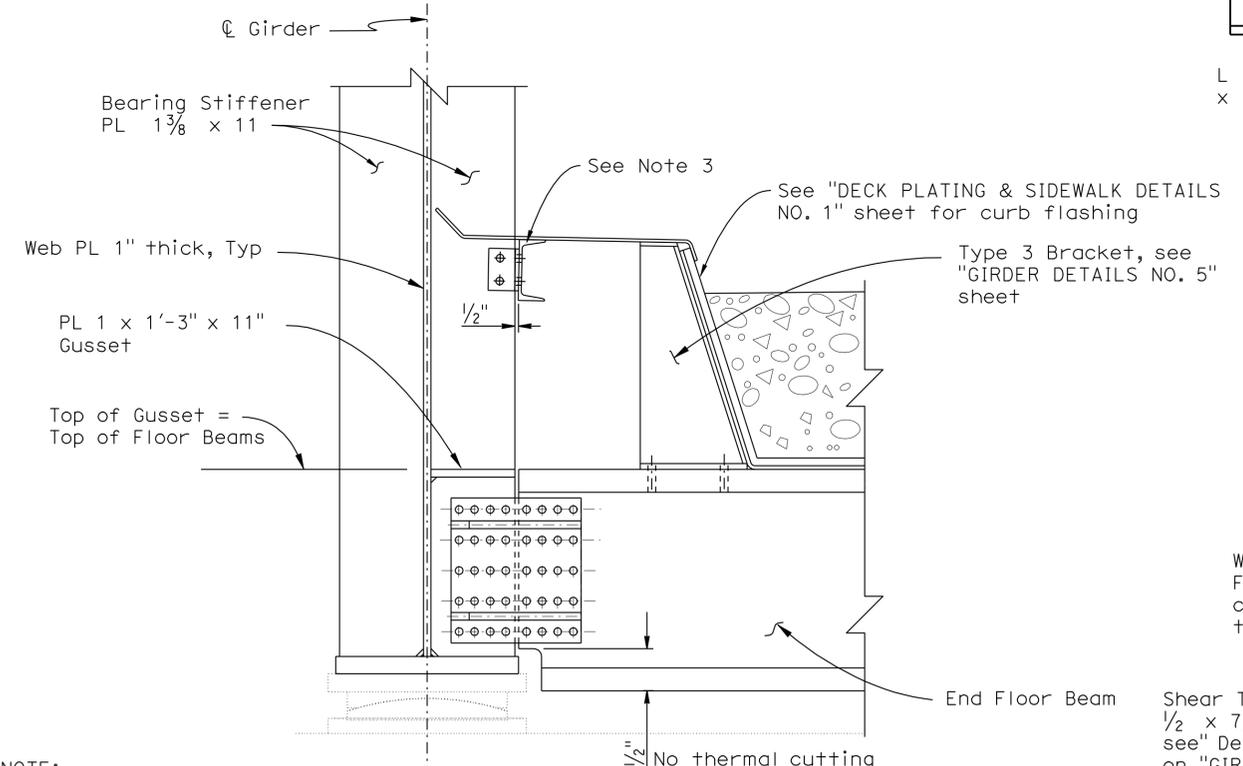
END FLOOR BEAM FRAMING DETAIL
3/4" = 1'-0"

TYPE 3 FB HANGER
2 Plates 3/8" x 6 1/2" x 1'-3"
similar to "Section L-L"



SECTION J-J
1 1/2" = 1'-0"

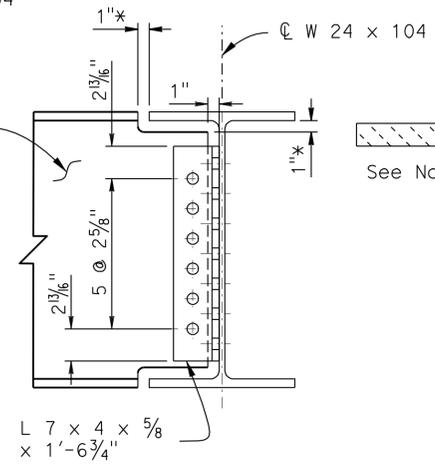
- NOTES:
1. Grind to bear.
 2. For "View N-N" see "GIRDER DETAILS NO. 4" sheet.
 3. For walkway support see "GIRDER DETAILS NO. 5" & "DECK PLATING & SIDEWALK DETAILS NO. 2" sheets.
 4. Tops of W 24 to be flush with End Floor Beam & each other.
 5. For location of "Detail E", see "TYPICAL SECTION" sheet.



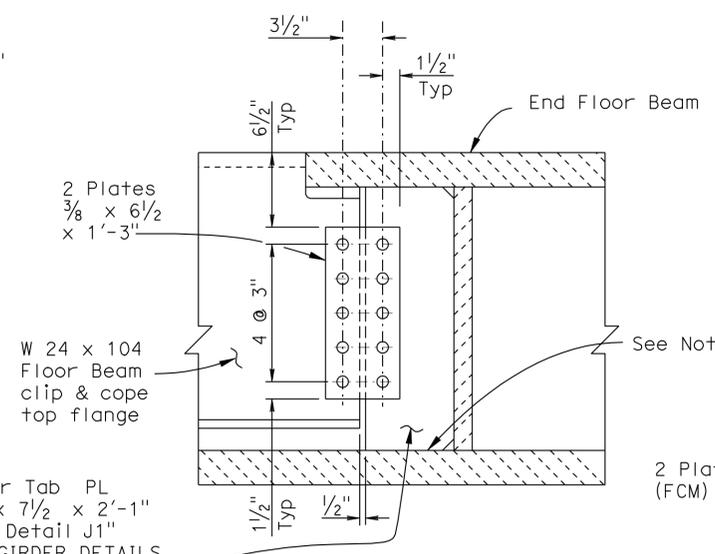
DETAIL E
1" = 1'-0"

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

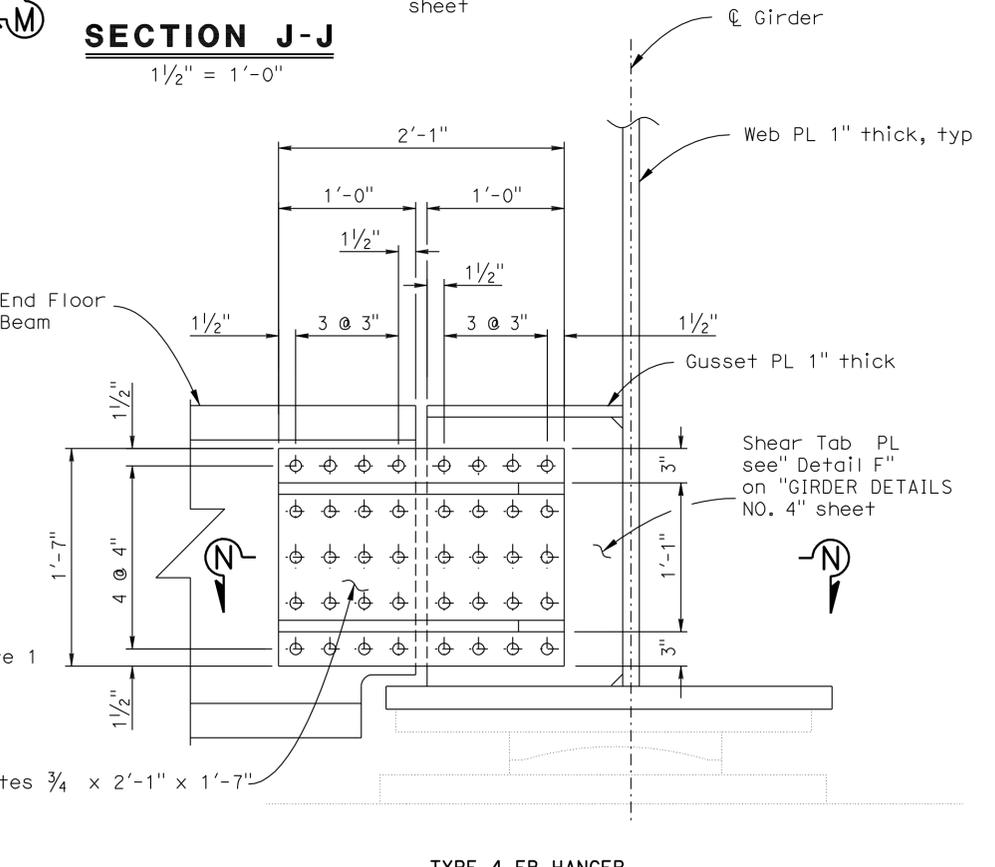
* Typical all W24 connections



VIEW M-M
1 1/2" = 1'-0"



SECTION L-L
1 1/2" = 1'-0"



SECTION K-K
1 1/2" = 1'-0"

DESIGN	BY B. Addlespurger	CHECKED G. Slocum
DETAILS	BY D. Wooten	CHECKED G. Slocum
QUANTITIES	BY T. Sanderson	CHECKED R. Anderson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0848
POST MILE	19.39

PACHAPPA UP (SHOOFLY)
GIRDER DETAILS NO. 3

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2004	2028

11-30-10
REGISTERED CIVIL ENGINEER DATE

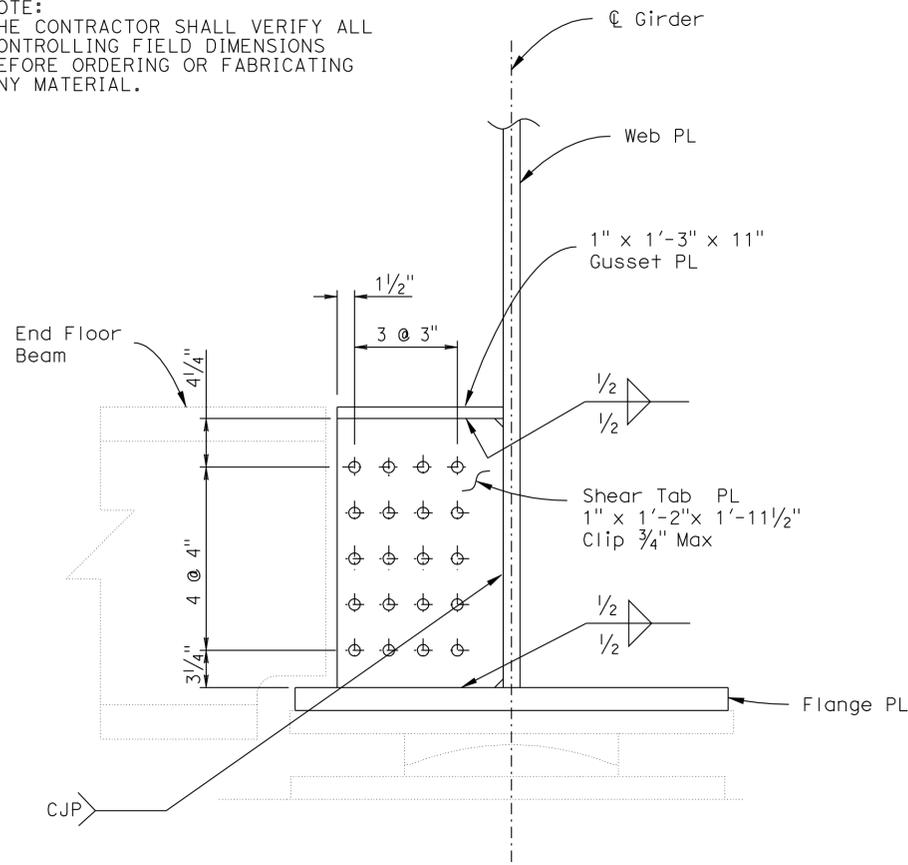
4-25-11
PLANS APPROVAL DATE

HUAN D. VU
No. C60696
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

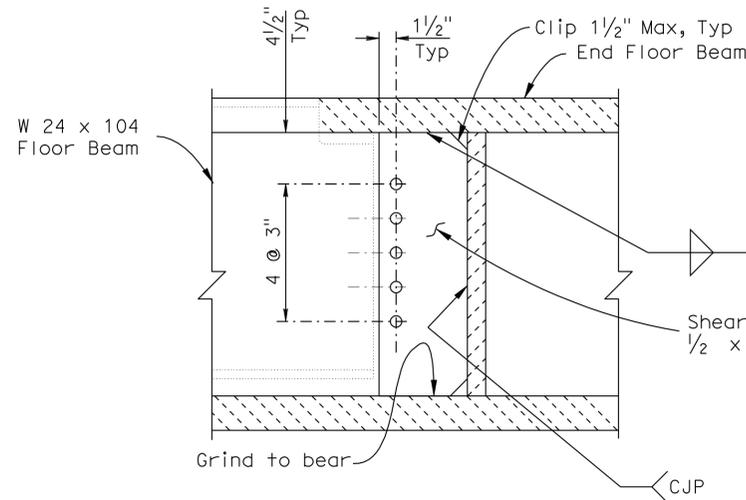
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTES:

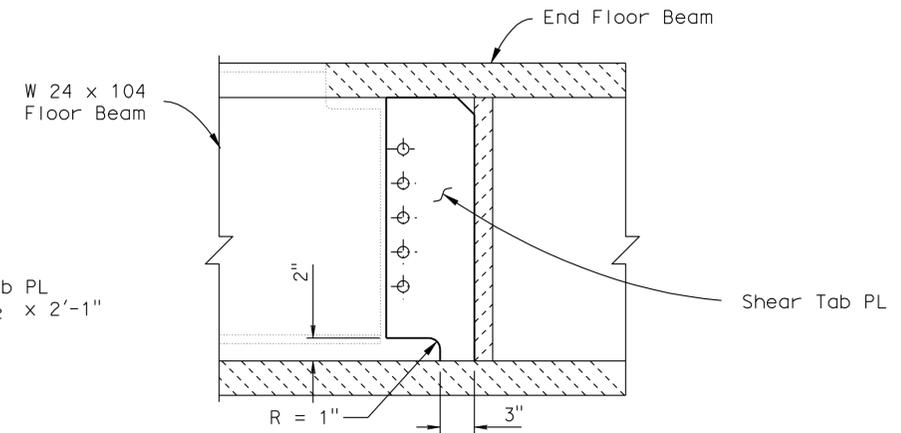
- For location of "Detail F", "Detail G", "Detail H", "Detail J1", and "View N-N", see "GIRDER DETAILS NO. 3" sheet.
- Detail J1 is the preferred connection detail for W24 & End Floor Beam. Detail J2 occurs if bolts interfere with connection. See "SHEAR KEY BEAM DETAILS" sheet.



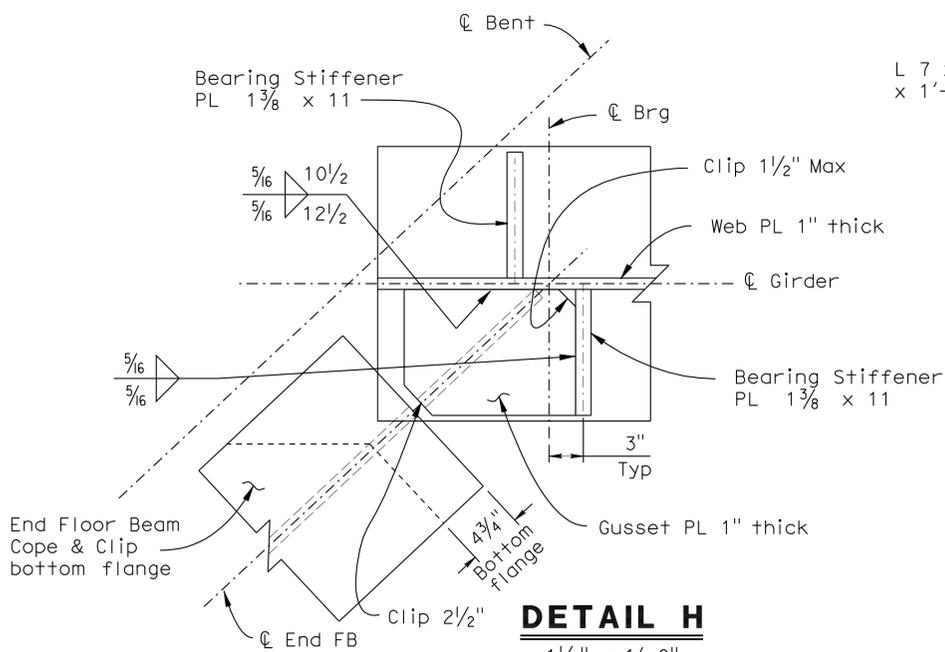
DETAIL F
1/2" = 1'-0"



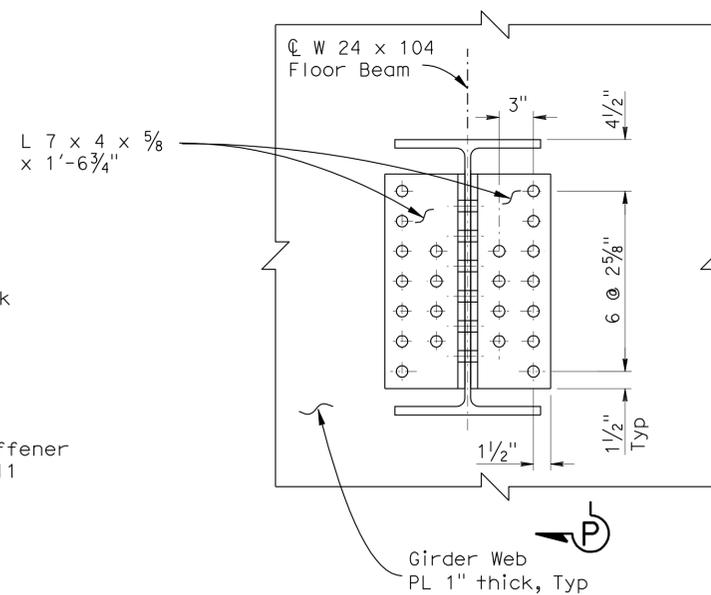
DETAIL J1
1/2" = 1'-0"



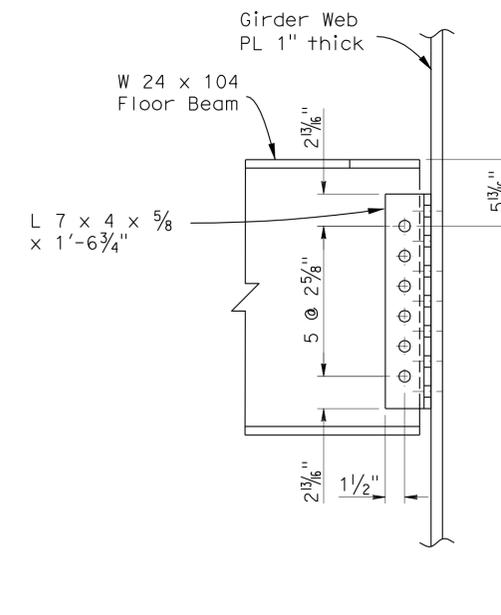
DETAIL J2
1/2" = 1'-0"
See Note 2



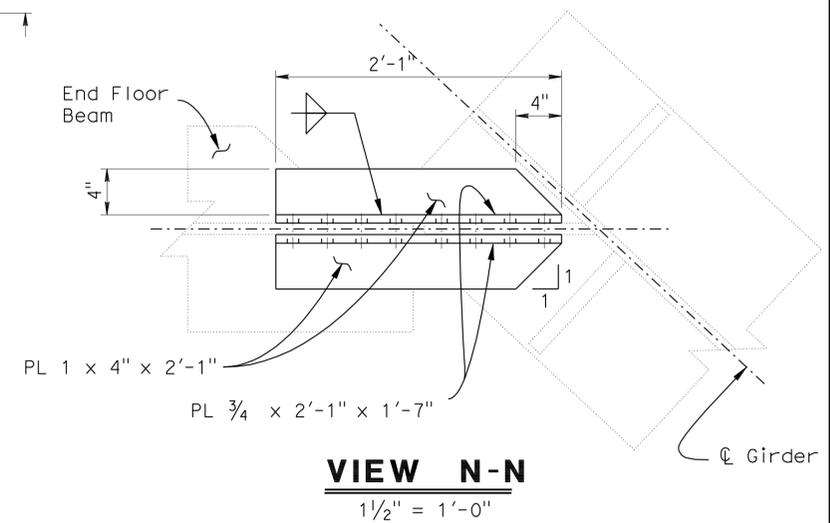
DETAIL H
1/2" = 1'-0"



DETAIL G
TYPE 2 FB HANGER
1/2" = 1'-0"



SECTION P-P
1/2" = 1'-0"



VIEW N-N
1/2" = 1'-0"

DESIGN	BY B. Addlespurger	CHECKED G. Slocum
DETAILS	BY D. Wooten	CHECKED G. Slocum
QUANTITIES	BY T. Sanderson	CHECKED R. Anderson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0848
POST MILE	19.39

PACHAPPA UP (SHOOFLY)
GIRDER DETAILS NO. 4

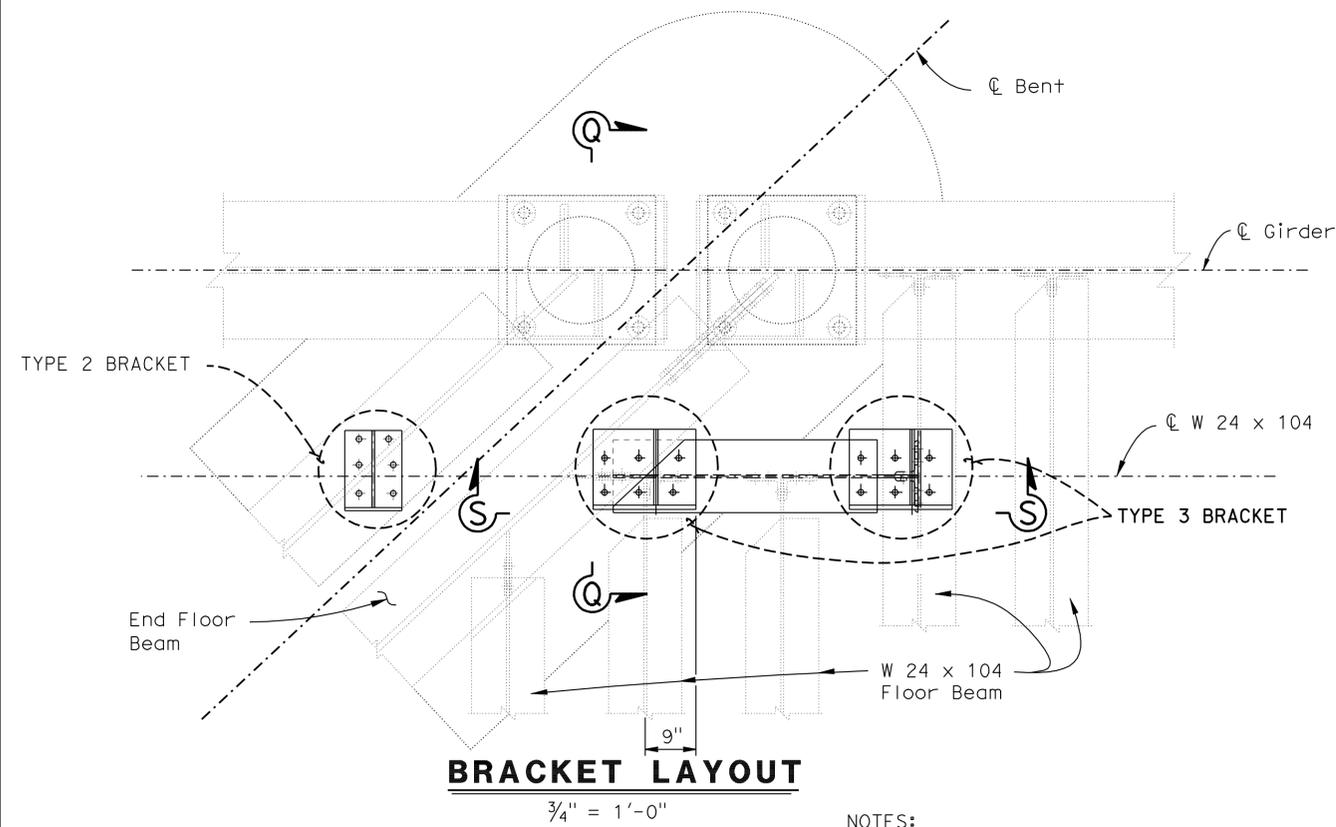
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2005	2028

Huan D. Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN D. VU
No. C60696
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

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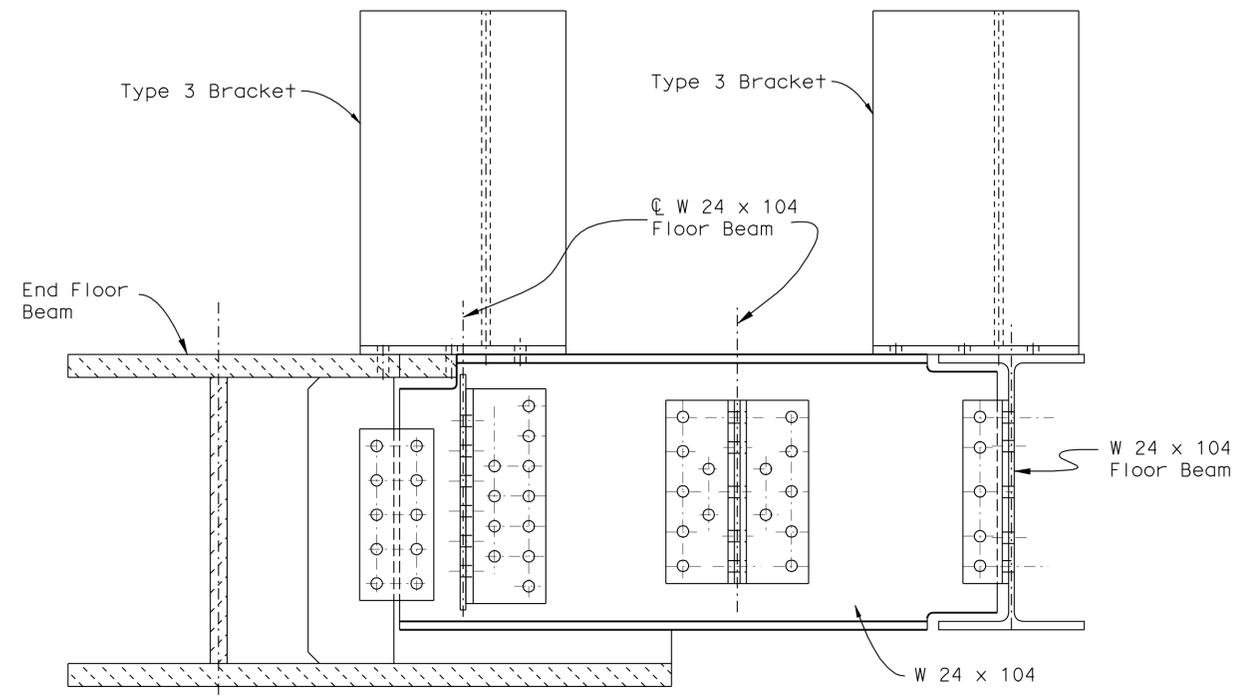


BRACKET LAYOUT

3/4" = 1'-0"

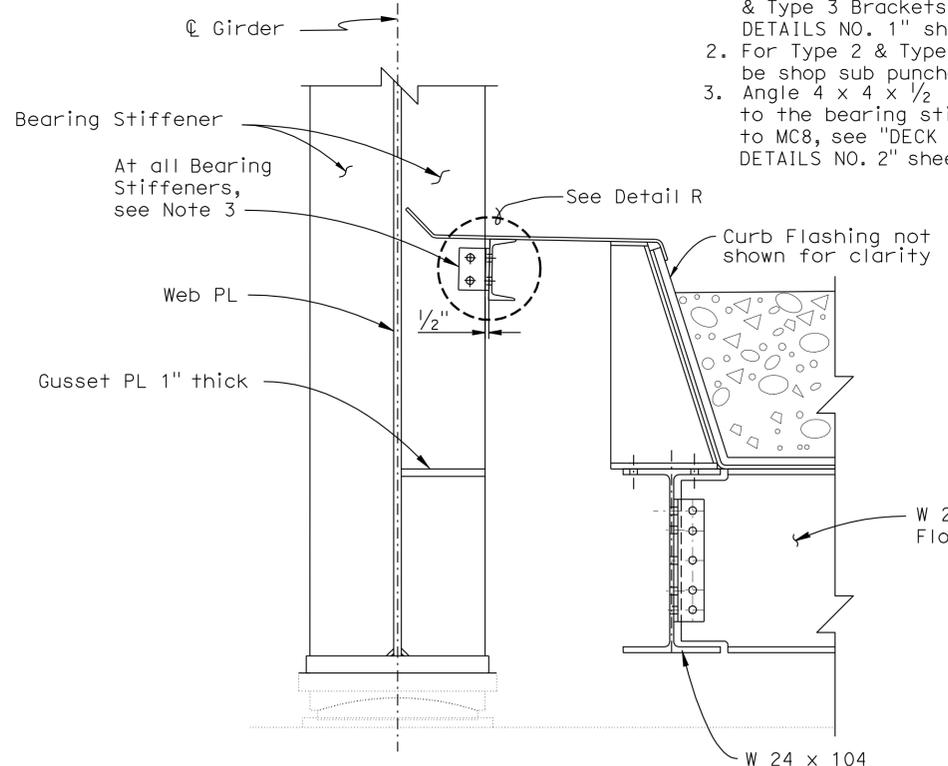
NOTES:

1. Weldments and assembly for Type 1, Type 2, & Type 3 Brackets are shown on "GIRDER DETAILS NO. 1" sheet.
2. For Type 2 & Type 3 Brackets, top flanges to be shop sub punched & field reamed.
3. Angle 4 x 4 x 1/2 x 0'-5 1/2" shall be fastened to the bearing stiffeners and field bolted to MC8, see "DECK PLATING & SIDEWALK DETAILS NO. 2" sheet.



SECTION S-S

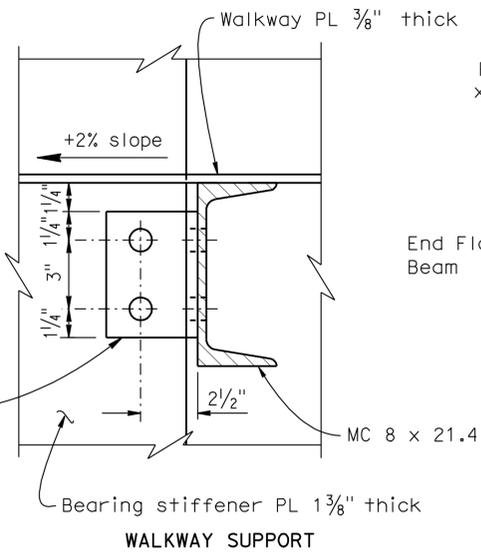
1/2" = 1'-0"



SECTION Q-Q

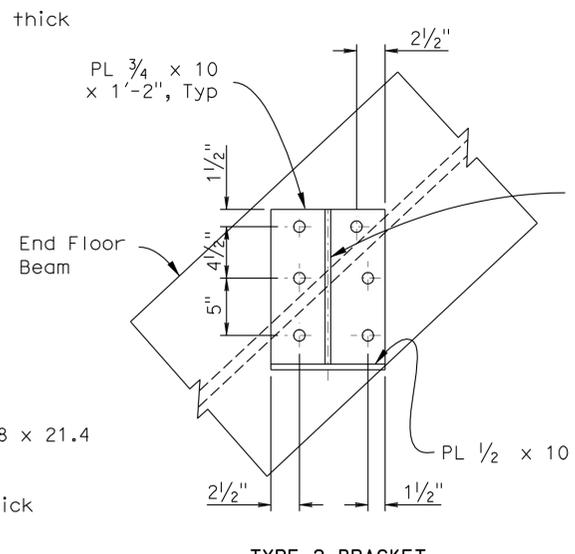
1" = 1'-0"

NOTE:
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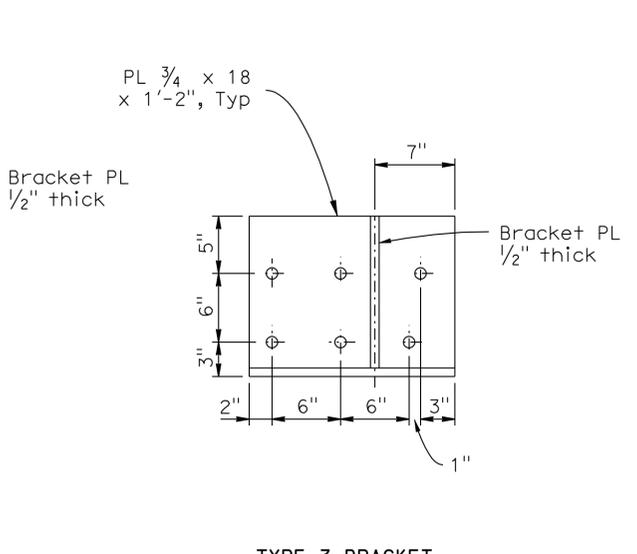
DETAIL R

3" = 1'-0"



TYPE 2 BRACKET

1/2" = 1'-0"



TYPE 3 BRACKET

1/2" = 1'-0"

DESIGN	BY	B. Addlespurger	CHECKED	G. Slocum	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0848	PACHAPPA UP (SHOOFLY) GIRDER DETAILS NO. 5
	DETAILS	D. Wooten	CHECKED	G. Slocum			POST MILE	19.39	
	QUANTITIES	T. Sanderson	CHECKED	R. Anderson			REVISION DATES		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)						CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET 24 OF 39

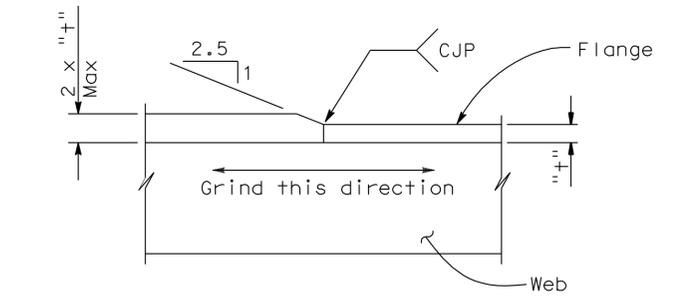
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2006	2028

Huan D. Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

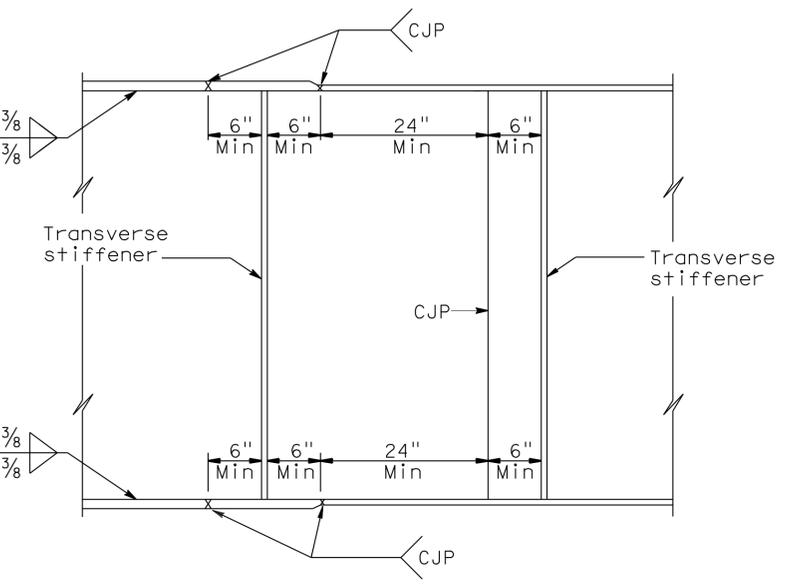
4-25-11
PLANS APPROVAL DATE

HUAN D. VU
No. C60696
Exp. 12/31/10
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STATE OF CALIFORNIA

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FLANGE THICKNESS

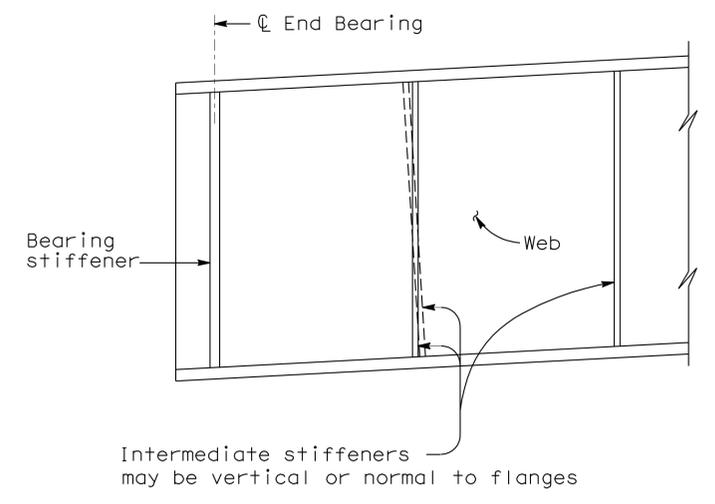


GIRDER SHOP SPLICE

NOTES:

- Alternative girder splices may be permitted subject to approval by the Engineer.
- Web splices:
Grind all weld surfaces flush on the exterior face of exterior girders.
- Flange splices:
Grind all weld surfaces flush on tension flanges.
Grind all weld surfaces flush on compression flanges when required for non-destructive testing (NDT).

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

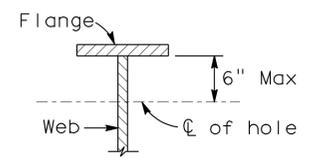


TRANSVERSE STIFFENERS

Intermediate stiffeners may be vertical or normal to flanges

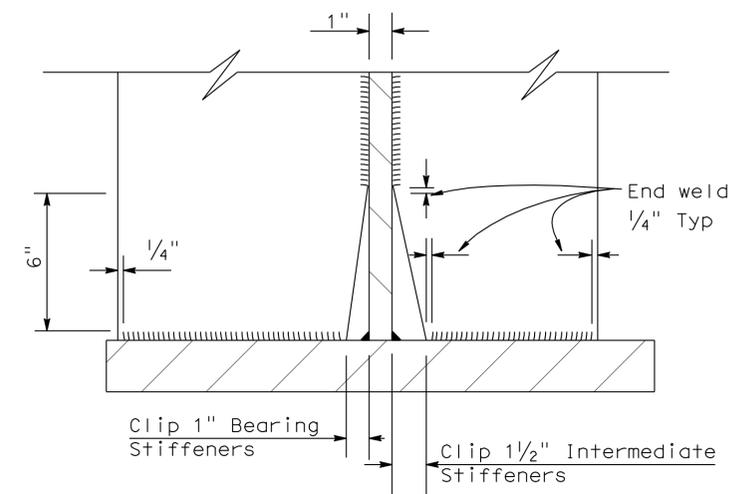
NOTES:

- Under full dead load as shown on the camber diagram, girder ends and bearing stiffeners shall be vertical except they may be normal to grade for grades less than 2 percent.
- For stiffener sizes see Project Plan sheets.
- Fillet Weld size to be minimum size from Project Specifications unless otherwise shown on Project Plan sheets.

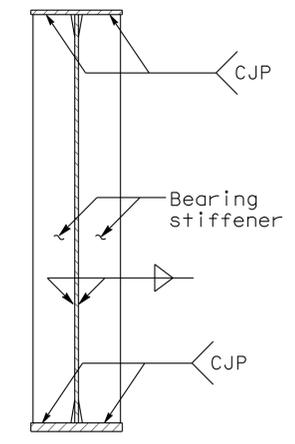


- 1" Max diameter hole at 4' ± Min spacing to be used for falsework support when specified by the Contractor. Contractor to determine location, size and spacing.
- 2" Max diameter hole to be drilled where lighting conduit passes through girder web. For location and size of hole see "Road Plans".

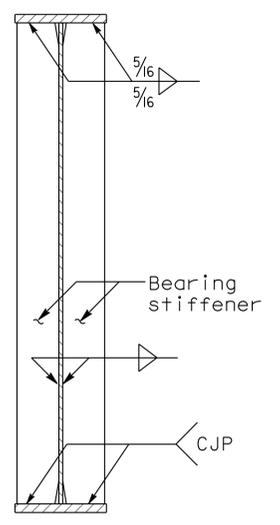
HOLES FOR CONDUIT AND FALSEWORK



COPE AND WELDING DETAIL

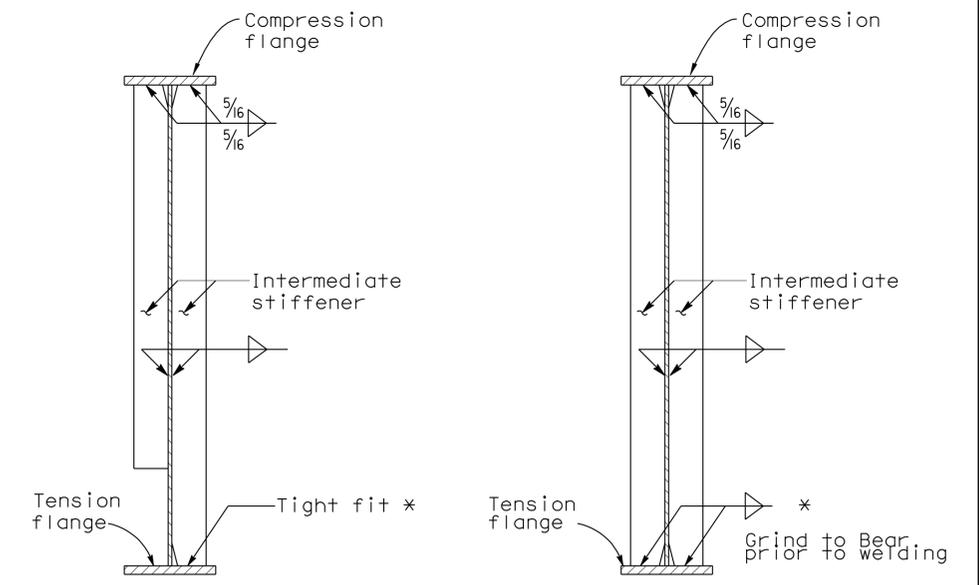


ABUTMENT



BENT

BEARING STIFFENERS



INTERMEDIATE STIFFENERS

* Stiffeners located within 10'-6" from the bearing shall be also welded to the tension flange

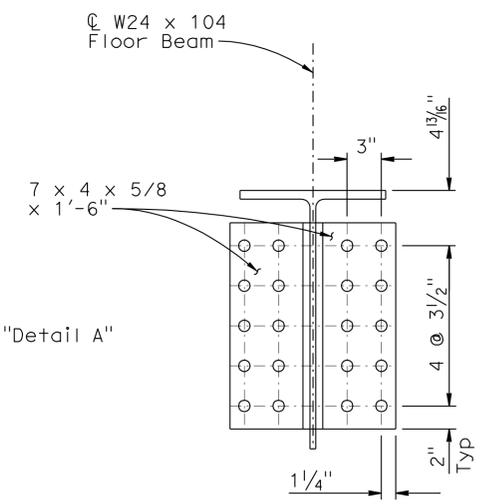
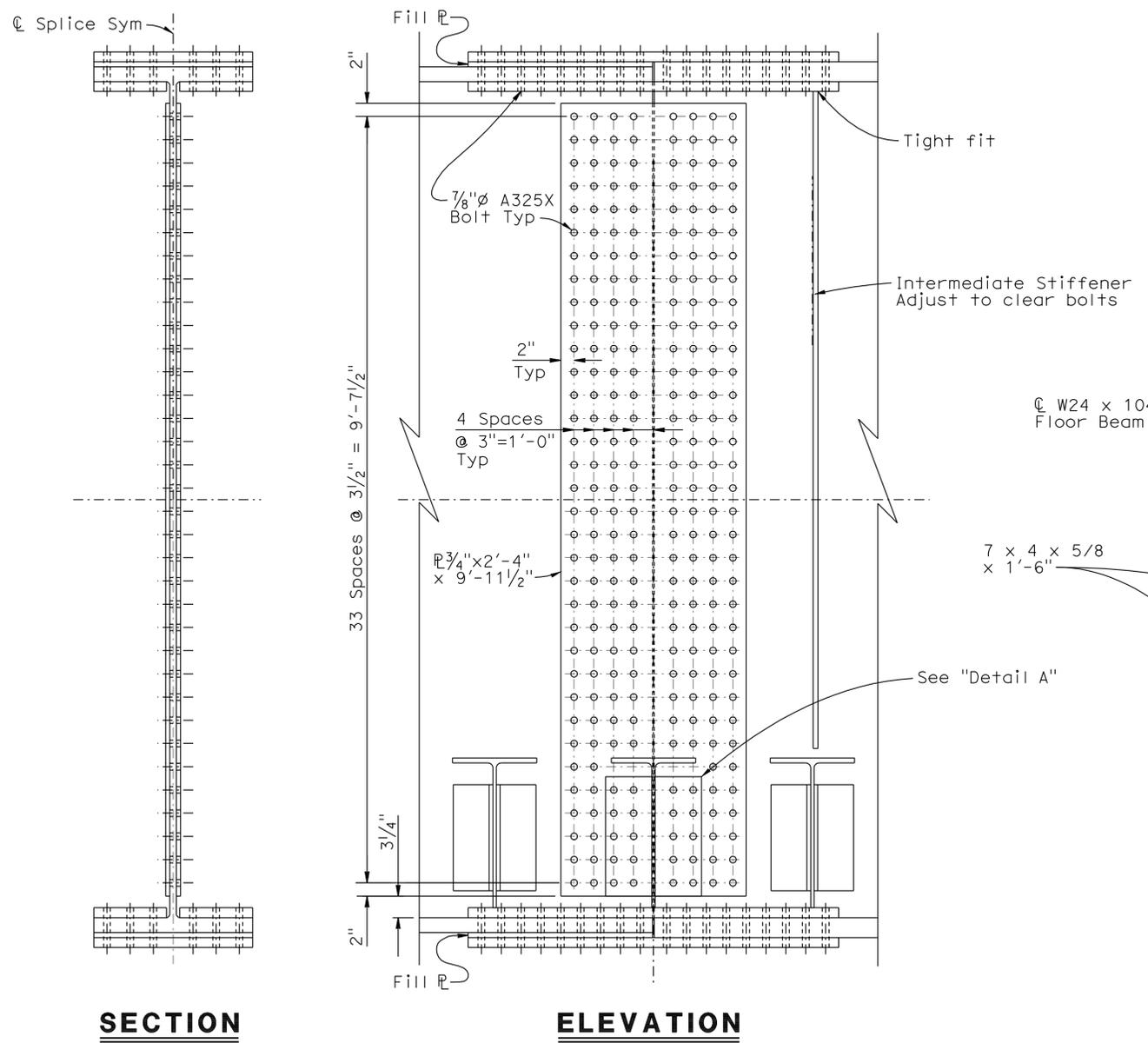
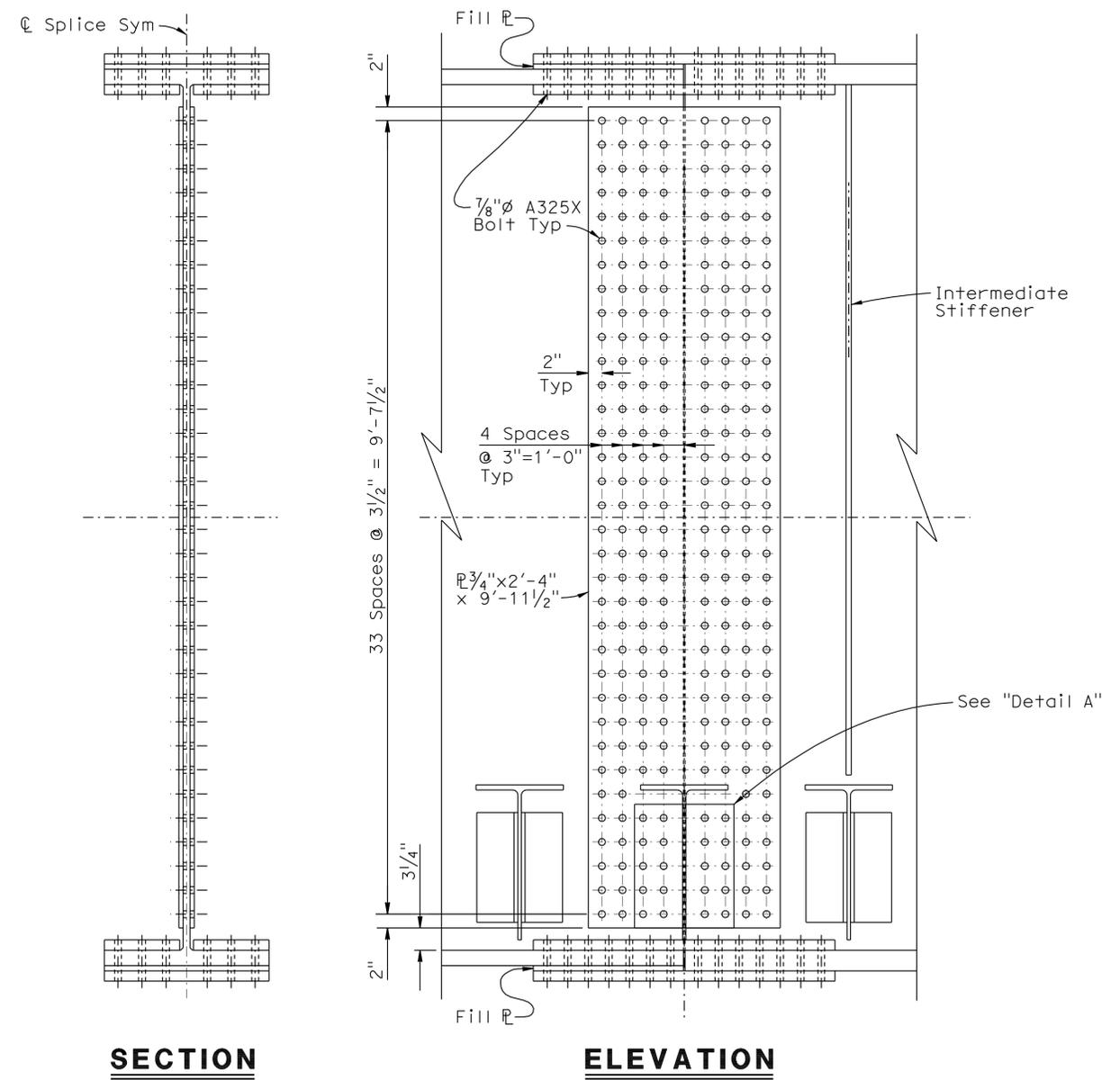
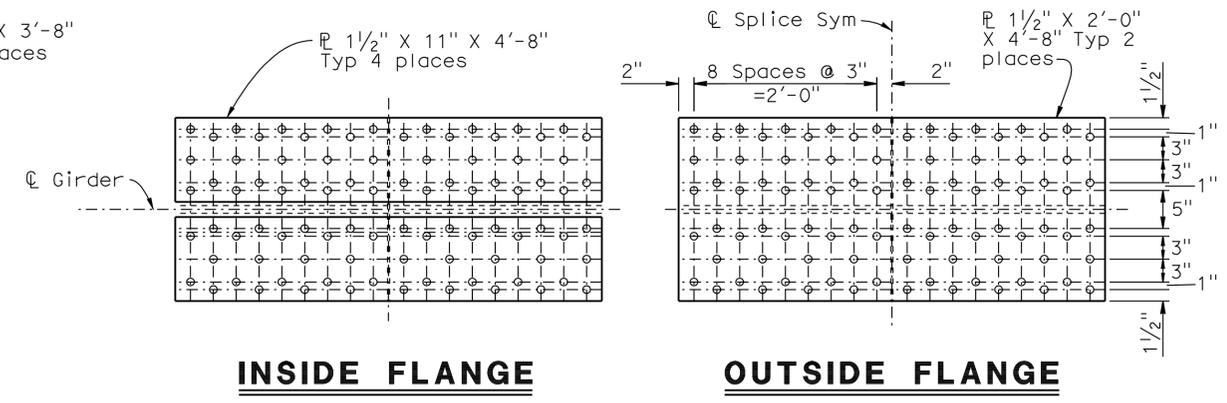
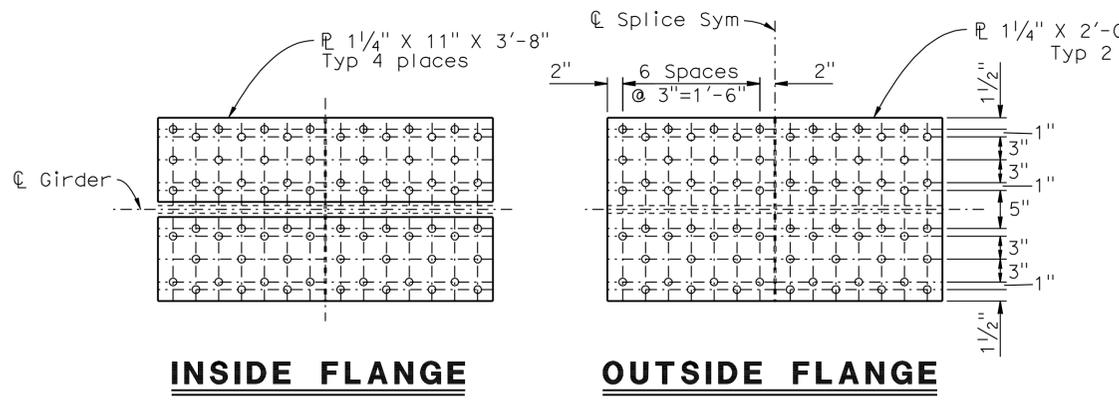
NO SCALE

DESIGN	BY	B. Addlespurger	CHECKED	G. Slocum	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0848	PACHAPPA UP (SHOOFLY) GIRDER DETAILS NO. 6	
	DETAILS	BY	G. Hallstrom	CHECKED			G. Slocum	POST MILE		19.39
	QUANTITIES	BY	T. Sanderson	CHECKED			R. Anderson	REVISION DATES		7-02-10 9-29-10 10-21-10
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	7-02-10 9-29-10 10-21-10	SHEET 25 OF 39	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2007	2028

HUAN D. VU
 REGISTERED CIVIL ENGINEER DATE 11-30-10
 PLANS APPROVAL DATE 4-25-11
 No. C60696
 Exp. 12/31/10
 CIVIL
 STATE OF CALIFORNIA

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SECTION
ELEVATION
OPTIONAL SPLICE PLATE
DETAIL SPAN 1
1" = 1'-0"

SECTION
ELEVATION
OPTIONAL SPLICE PLATE
DETAIL SPAN 2
1" = 1'-0"

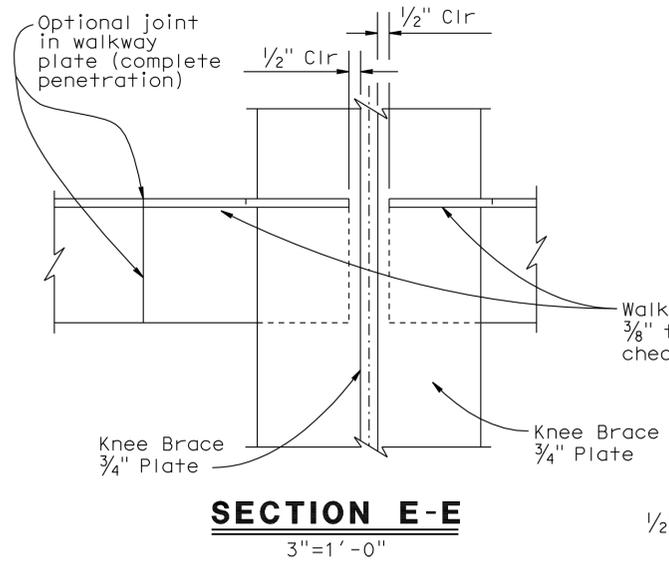
DETAIL A
1/2" = 1'-0"

DESIGN BY B. Addlespurger CHECKED G. Slocum DETAILS BY G. Hallstrom CHECKED G. Slocum QUANTITIES BY T. Sanderson CHECKED R. Anderson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0848	PACHAPPA UP (SHOOFLY) GIRDER DETAILS NO. 7
			POST MILE 19.39	
			REVISION DATES SHEET 26 OF 39	

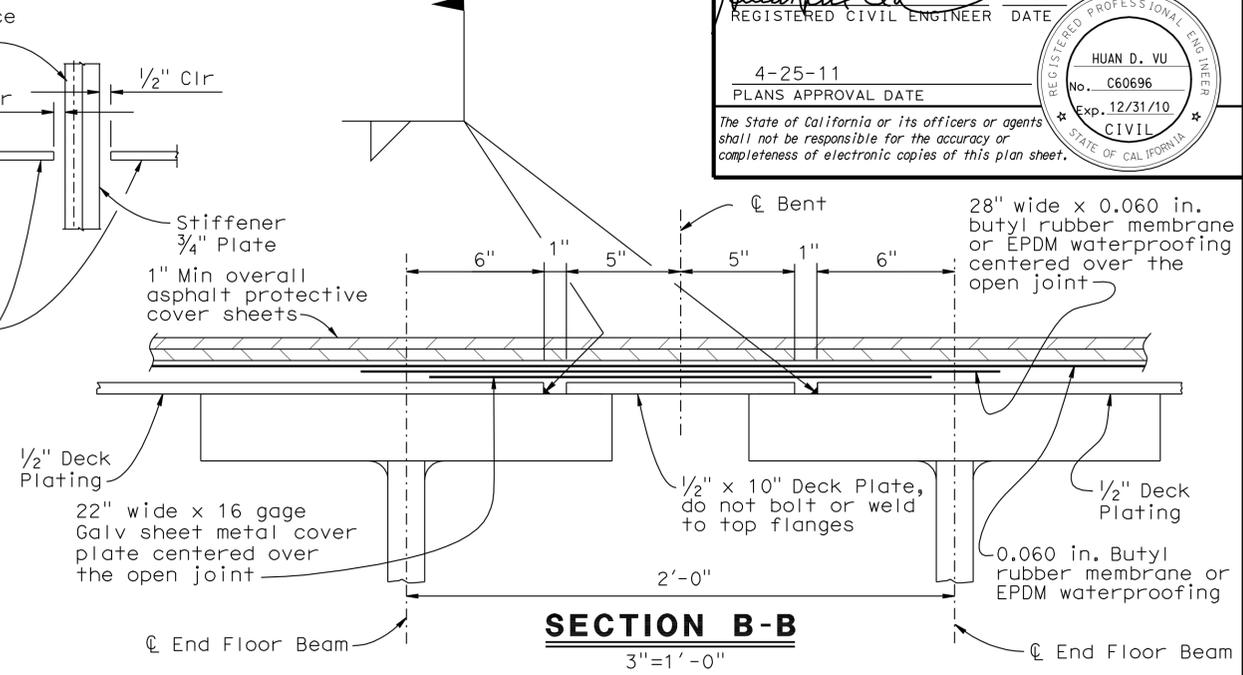
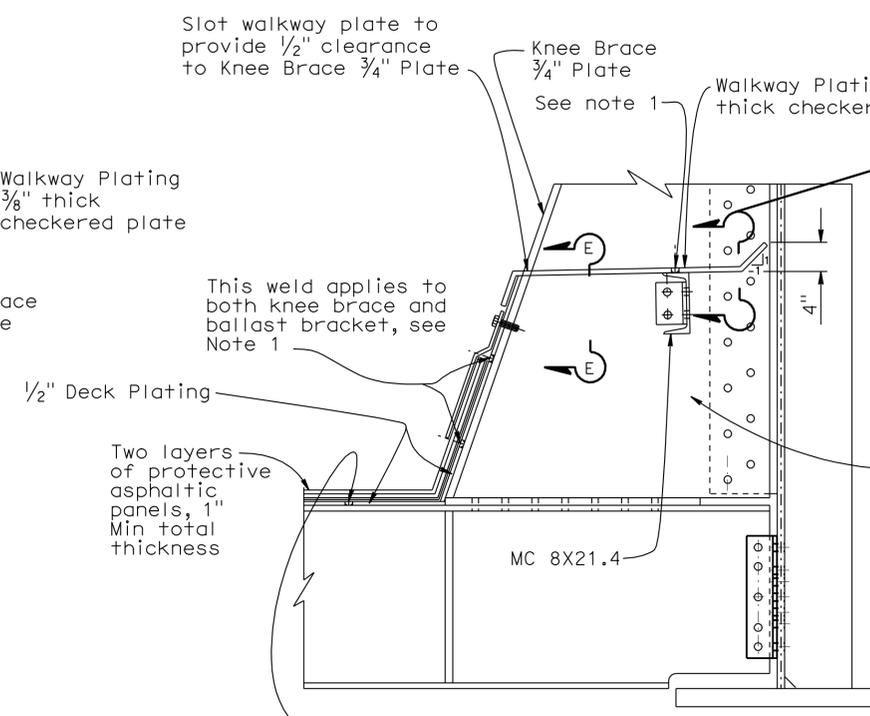
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS CU 08 EA 448401 DISREGARD PRINTS BEARING EARLIER REVISION DATES 11-10-10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2009	2028

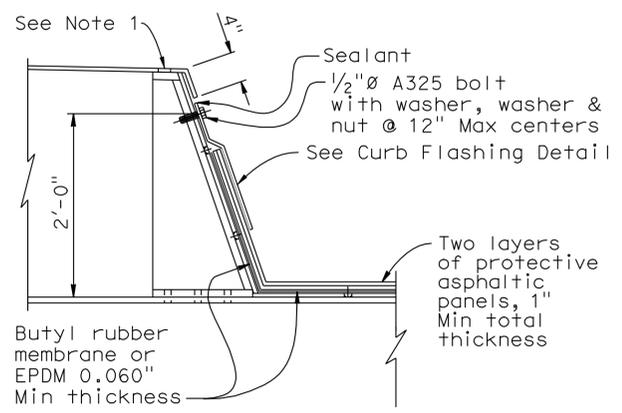
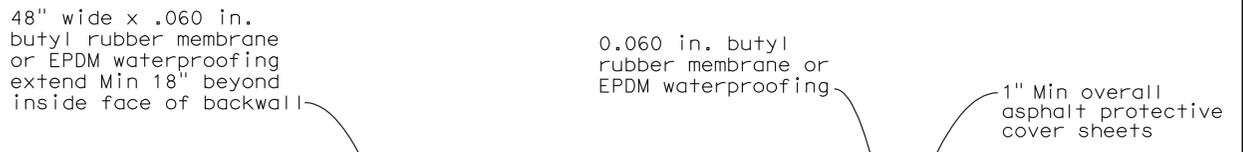
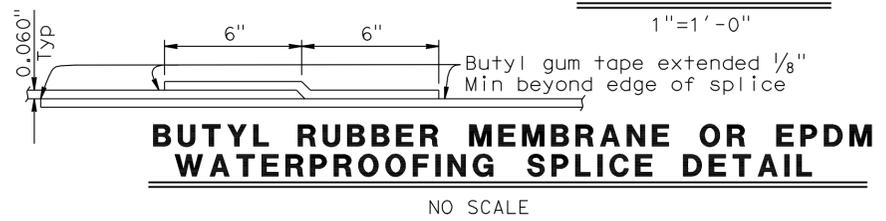
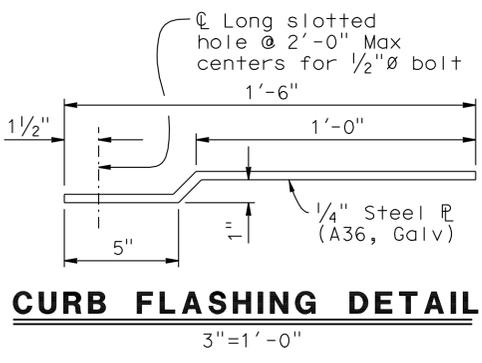
11-30-10
 REGISTERED CIVIL ENGINEER DATE
 HUAN D. VU
 No. C60696
 Exp. 12/31/10
 CIVIL
 STATE OF CALIFORNIA
 4-25-11
 PLANS APPROVAL DATE
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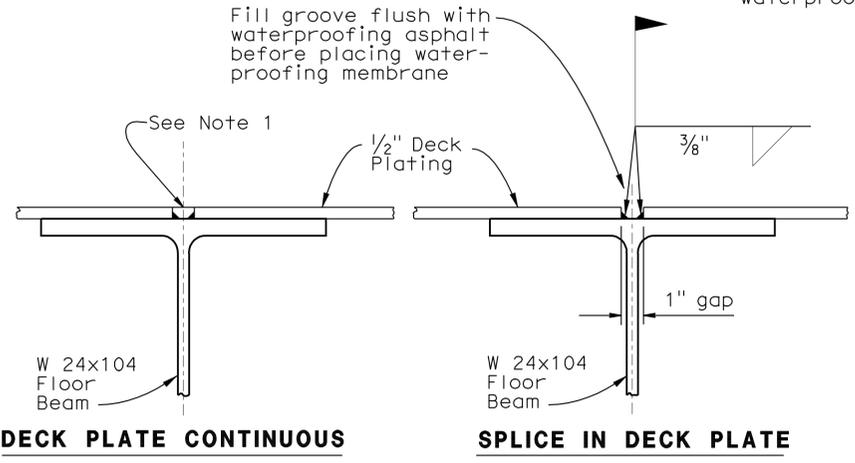
NOTE: EPDM=Ethylene-propylene-diene-monomer



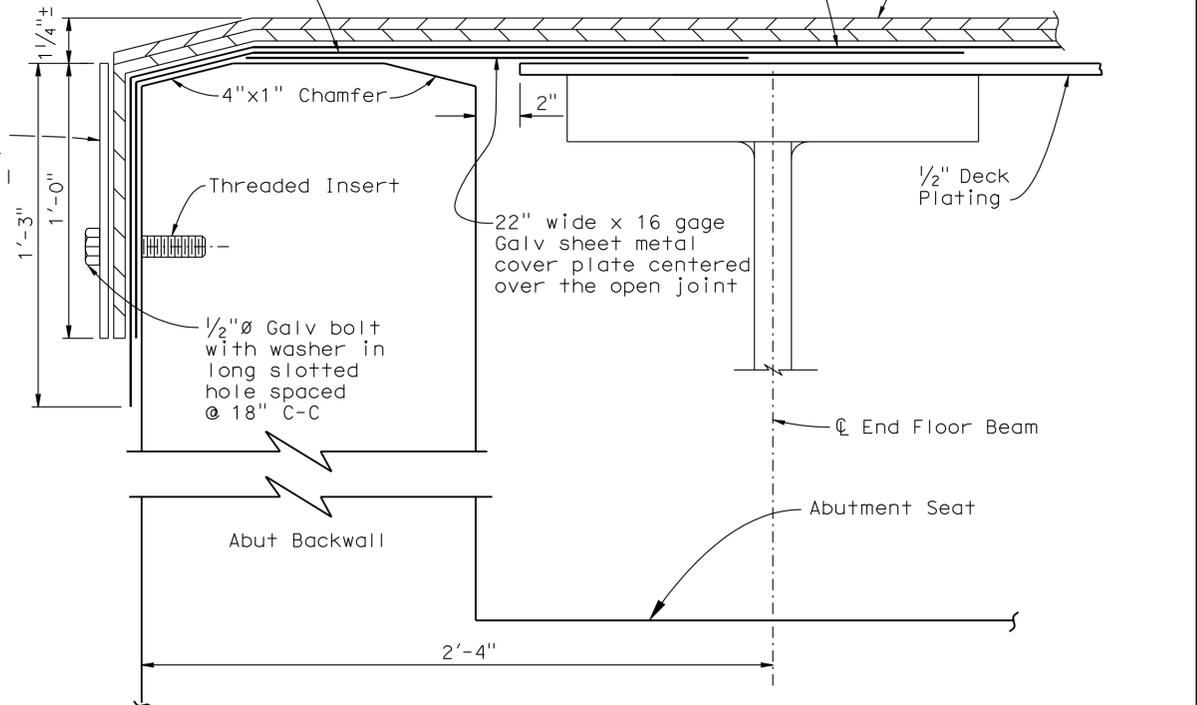
- NOTES:
- Weld all around with 3/8" fillet weld in 1" hole in plate. Space holes @ 1'-3" Max
 - For location of "Section A-A" thru "Section D-D", see "DECK PLATING & SIDEWALK LAYOUT" sheet.



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



3/8" x 12" wide armor plate at abutments, full length of waterproofing



DESIGN	BY B. Addlespurger	CHECKED G. Slocum	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	PACHAPPA UP (SHOOFLY) DECK PLATING & SIDEWALK DETAILS NO. 1
DETAILS	BY G. Hallstrom	CHECKED G. Slocum			56-0848	
QUANTITIES	BY T. Sanderson	CHECKED R. Anderson			19.39	

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS CU 08 EA 448401 DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	12-04-09	3-7-10	5-04-10	6-03-10	9-02-10	9-29-10
SHEET	28	OF	39			

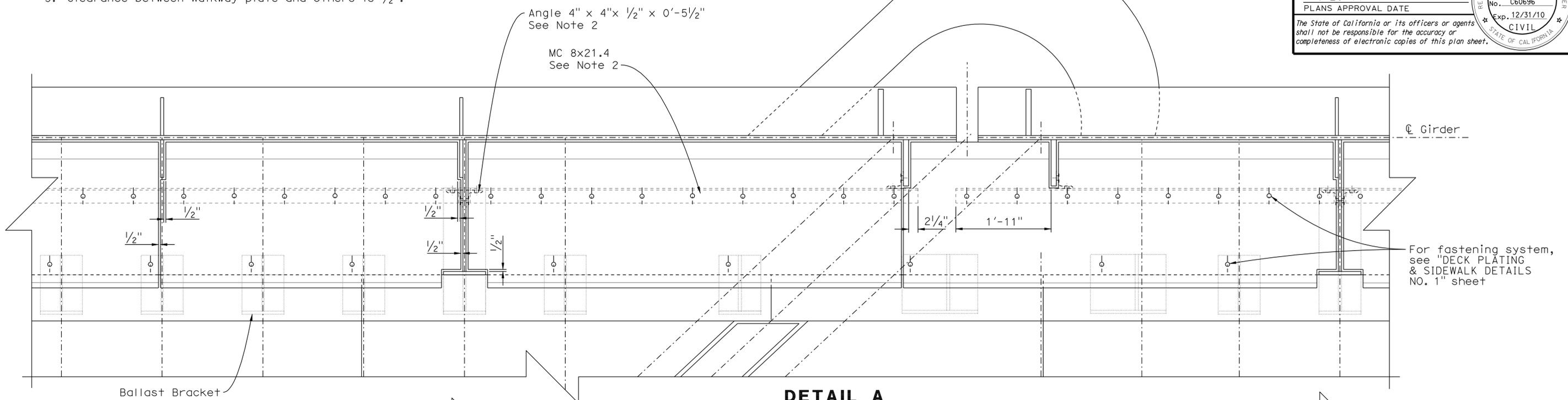
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2010	2028

HUAN D. VU 11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
 HUAN D. VU
 No. C60696
 Exp. 12/31/10
 CIVIL
 STATE OF CALIFORNIA
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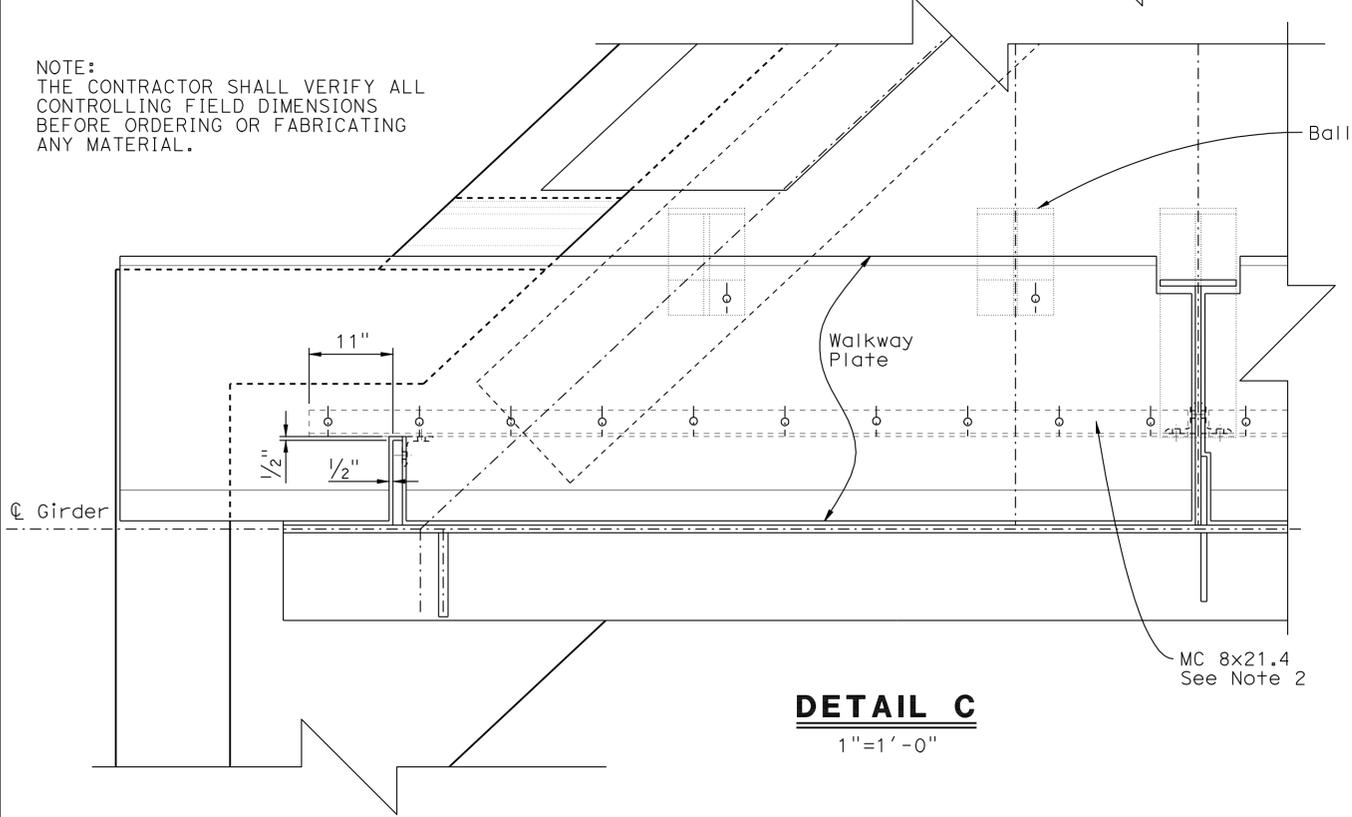
NOTES:

1. For locations of Details "A" through "C", see "DECK PLATING & SIDEWALK LAYOUT" sheet.
2. Walkway Support details are shown on "GIRDER DETAILS NO. 2" and "GIRDER DETAILS NO. 5" sheets.
3. Clearance between Walkway plate and others is 1/2".

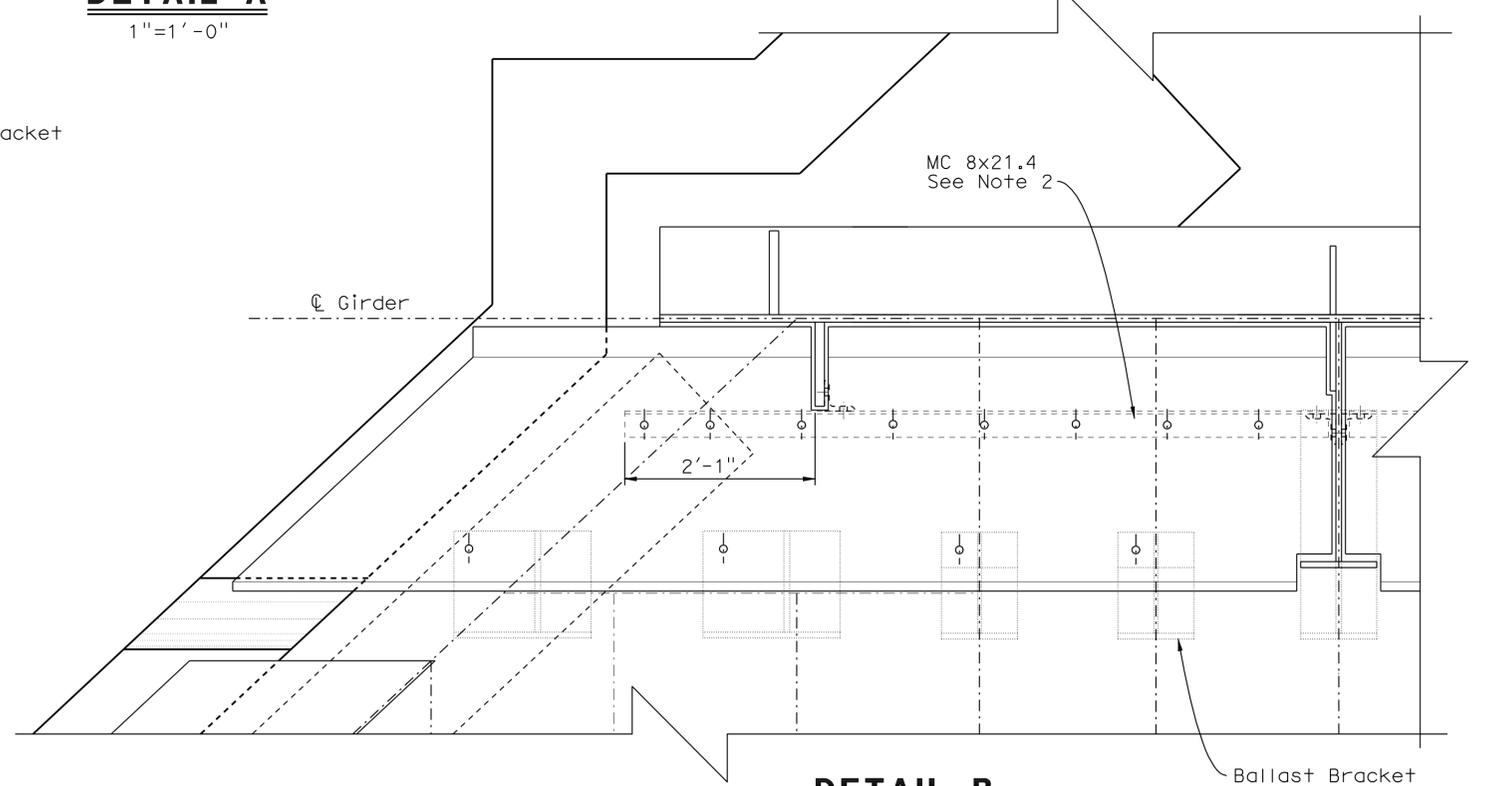


DETAIL A
1"=1'-0"

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



DETAIL C
1"=1'-0"



DETAIL B
1"=1'-0"

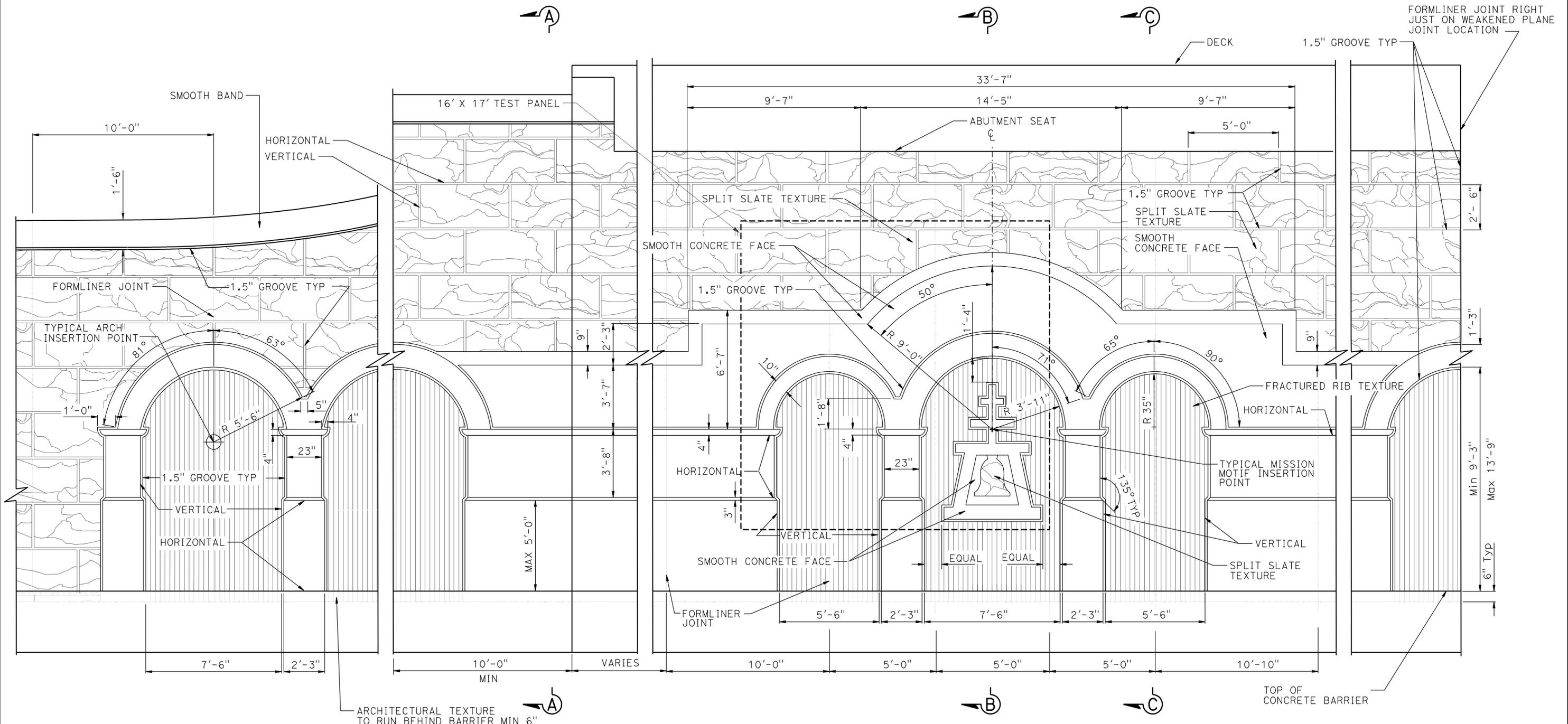
DESIGN	BY B. Addlespurger	CHECKED G. Slocum
DETAILS	BY G. Hallstrom	CHECKED G. Slocum
QUANTITIES	BY T. Sanderson	CHECKED R. Anderson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.
56-0848
POST MILE
19.39

PACHAPPA UP (SHOOFLY)
DECK PLATING & SIDEWALK DETAILS NO. 2



TYPICAL MISSION MOTIF ELEVATION

3/8" = 1'-0"

FRACTURED RIB/SPLIT SLATE TEXTURE

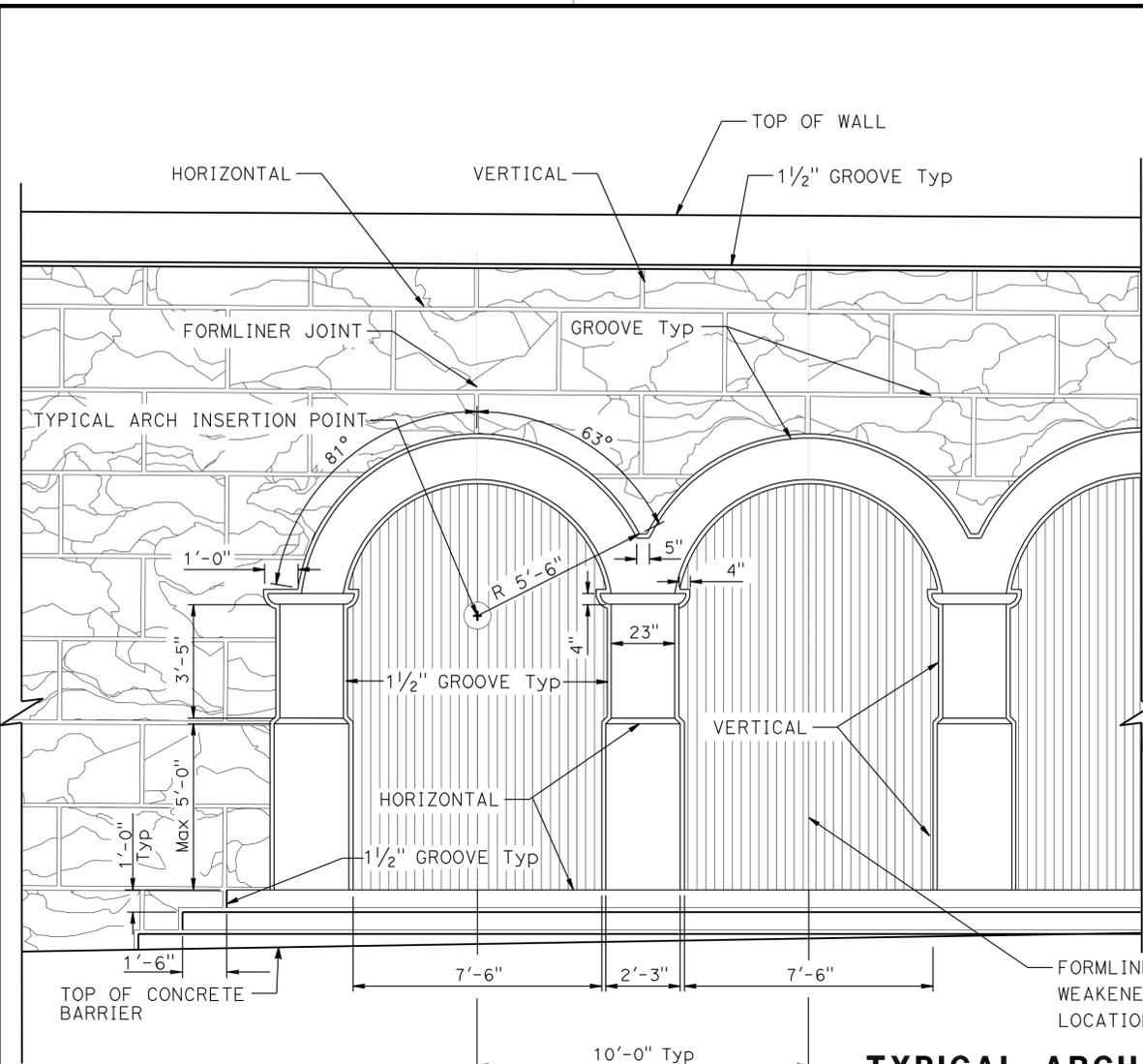
PACHAPPA UP (SHOOFLY)
ARCHITECTURAL DETAILS NO. 1

DESIGN BY	M. Hall	CHECKED	M. Bishop	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0848
DETAILS BY	G. Hallstrom/Y. Tang	CHECKED	M. Bishop			POST MILE	19.39
QUANTITIES BY	T. Sanderson	CHECKED	R. Anderson				

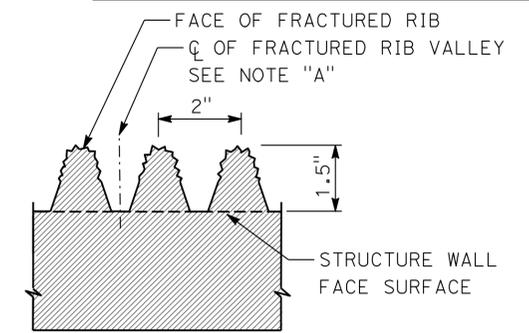
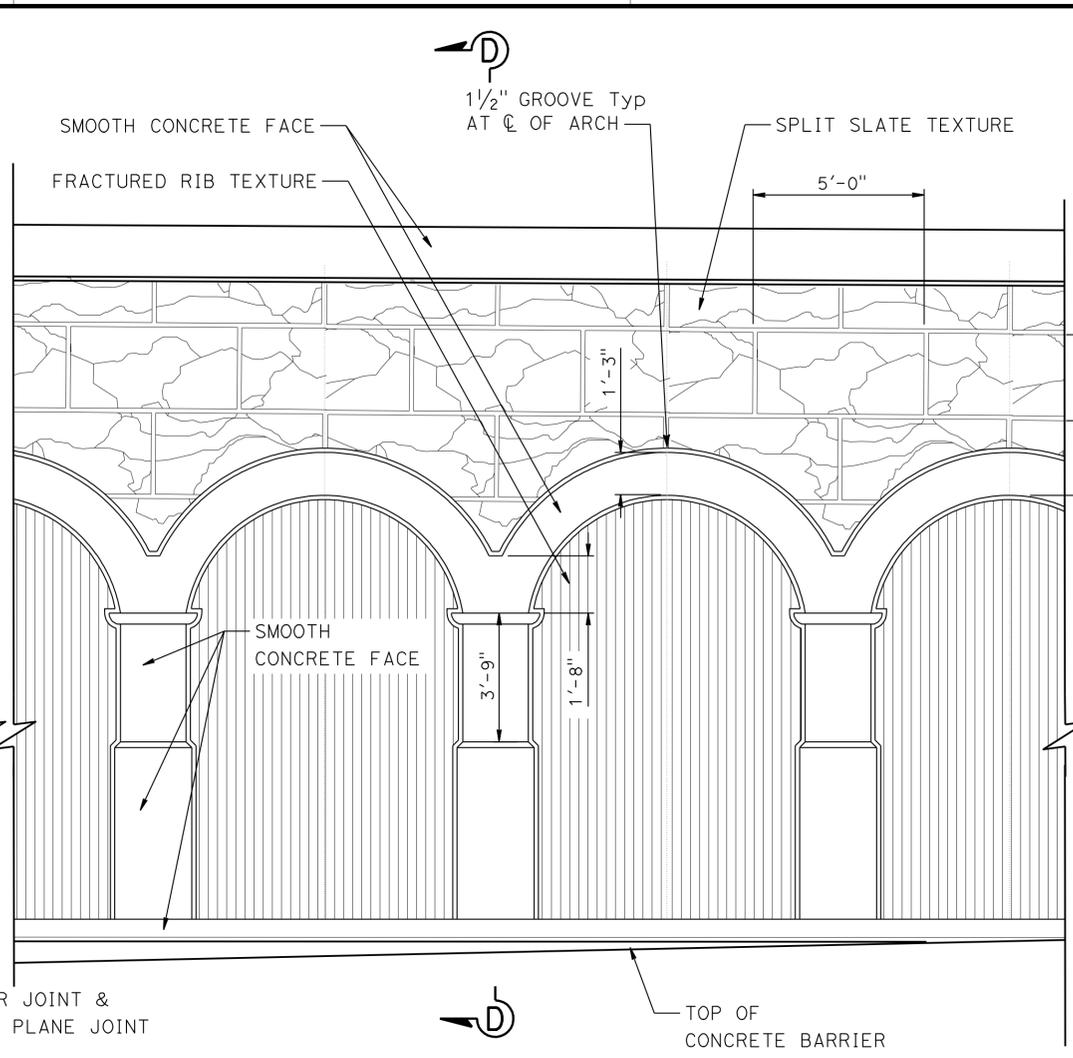
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	91	15.6/21.6	2012	2028

11-30-10
 LICENSED LANDSCAPE ARCHITECT
 4-25-11
 PLANS APPROVAL DATE

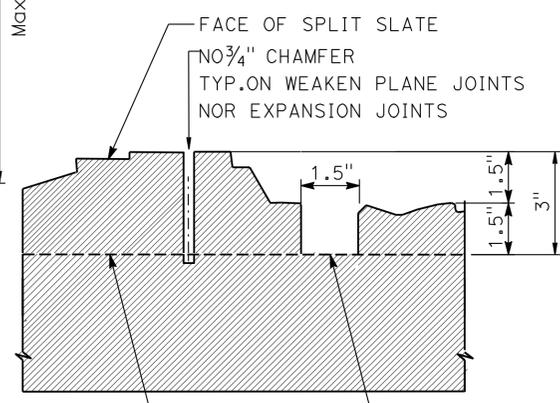
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



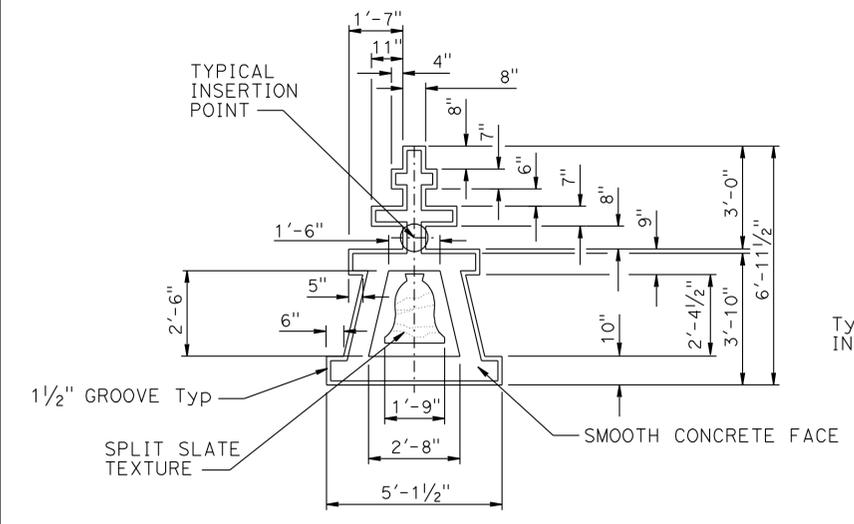
TYPICAL ARCH DETAIL
 $\frac{3}{8}'' = 1' - 0''$



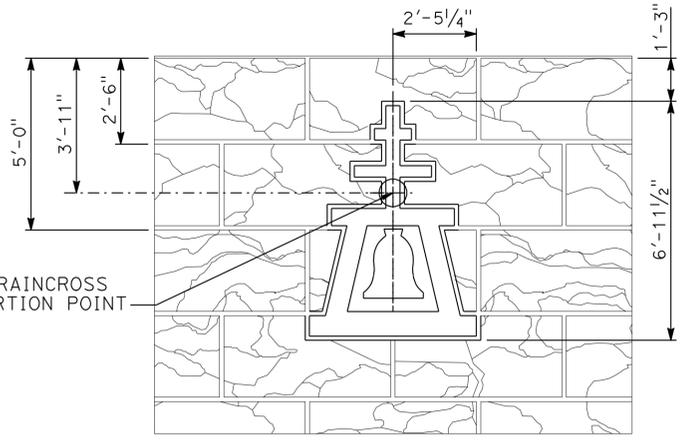
TYPICAL FRACTURED RIB TEXTURE
 NO SCALE



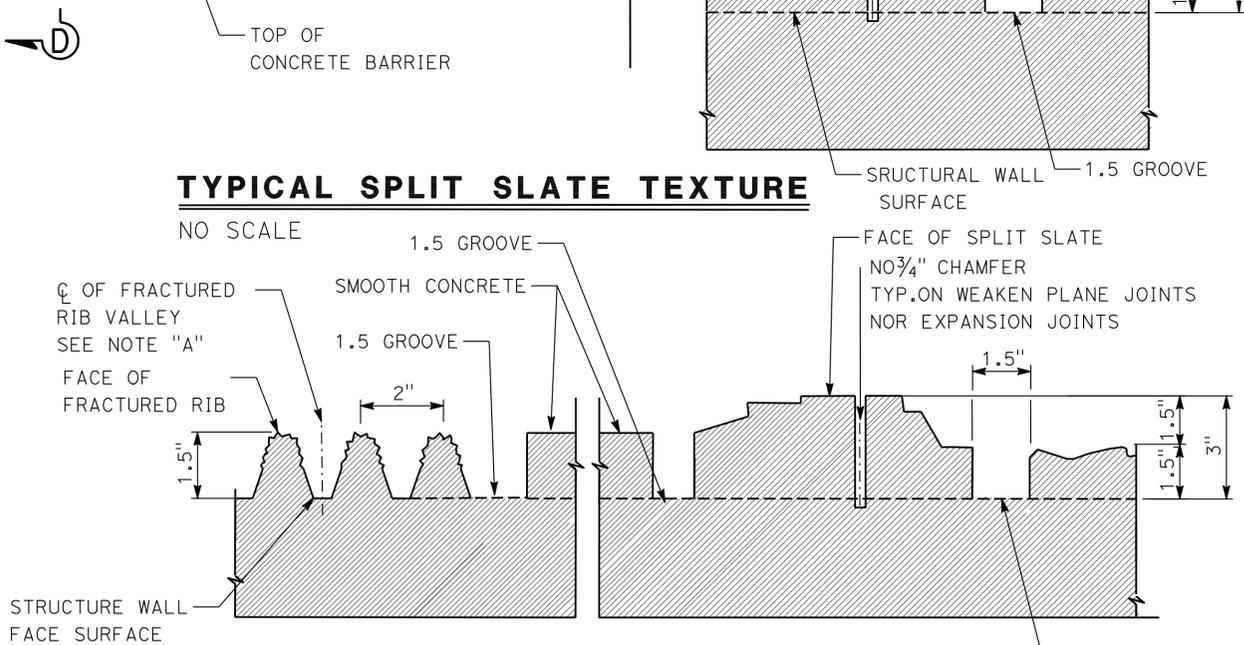
TYPICAL SPLIT SLATE TEXTURE
 NO SCALE



TYPICAL RAINCROSS DETAIL
 $\frac{3}{8}'' = 1' - 0''$



TYPICAL RAINCROSS DETAIL / SPLIT SLATE TEXTURE
 $\frac{3}{8}'' = 1' - 0''$



TYPICAL FRACTURED RIB WITH SPLIT SLATE TEXTURE
 NO SCALE

FRACTURED RIB / SPLIT SLATE TEXTURE

DESIGN	BY M. Hall	CHECKED M. Bishop
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED M. Bishop
QUANTITIES	BY T. Sanderson	CHECKED R. Anderson

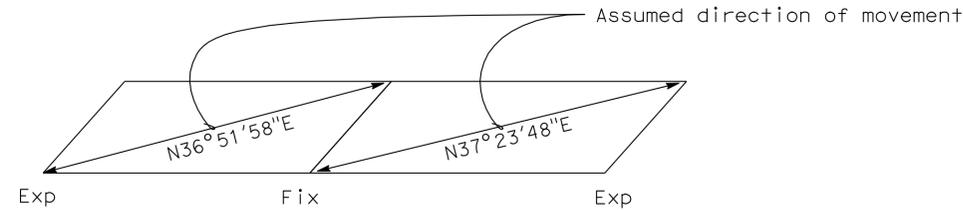
STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.
DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN	56-0848
	DESIGN BRANCH 10	POST MILE 19.39

CU 08	EA 448401
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PACHAPPA UP (SHOOFLY)	
ARCHITECTURAL DETAILS NO. 2	
REVISION DATES	SHEET 31 OF 39

TABLE FOR PLATE SETTING DATA EXPANSION BRGS POSITION OF SOLE PLATE RELATIVE TO BASE PLATES

TEMP @ TIME OF SETTING	20°F	70°F	120°F
ADJUSTMENT ALONG ϕ WEB TOWARDS BENT 2	+0.5"	0"	-0.5"



Slotted holes for expansion, bearings shall be oriented parallel to assumed direction for movement.

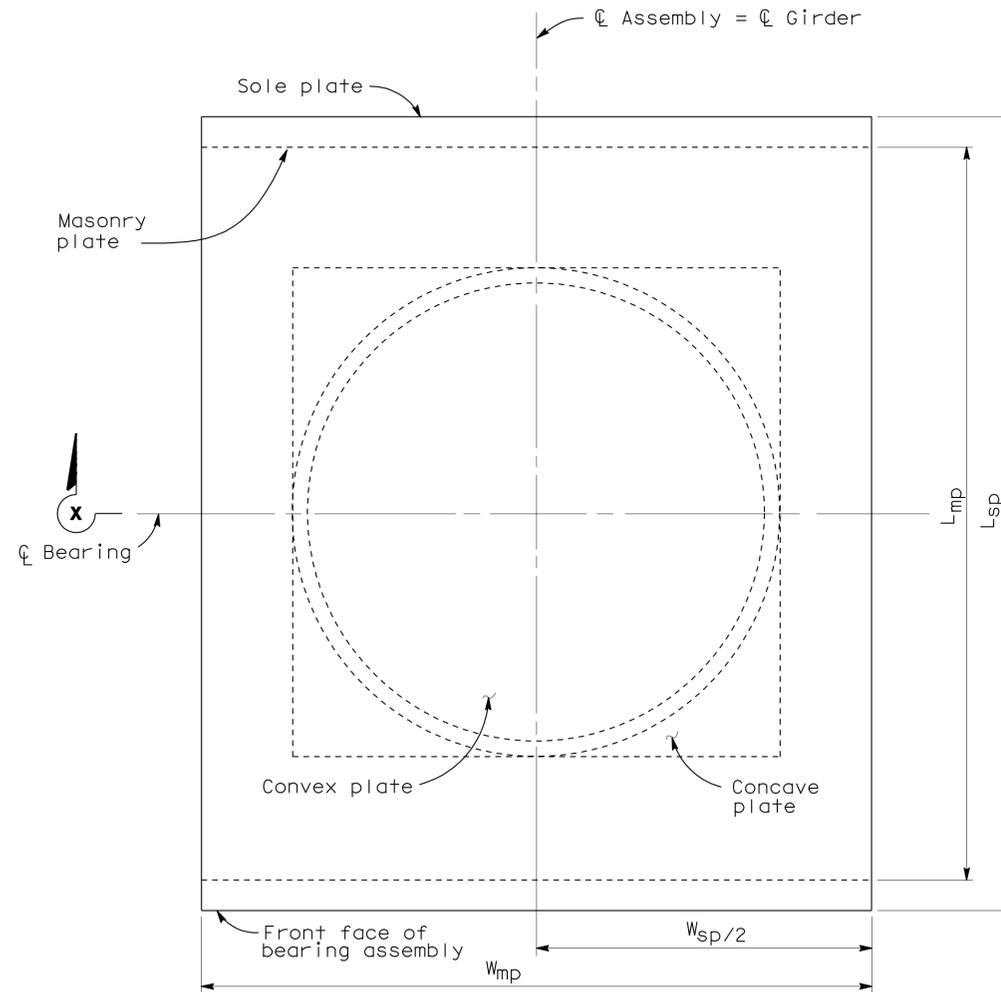
DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	91	15.6/21.6	2014	2028

11-30-10
REGISTERED ENGINEER - CIVIL
Huan D. Vu
No. C60696
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

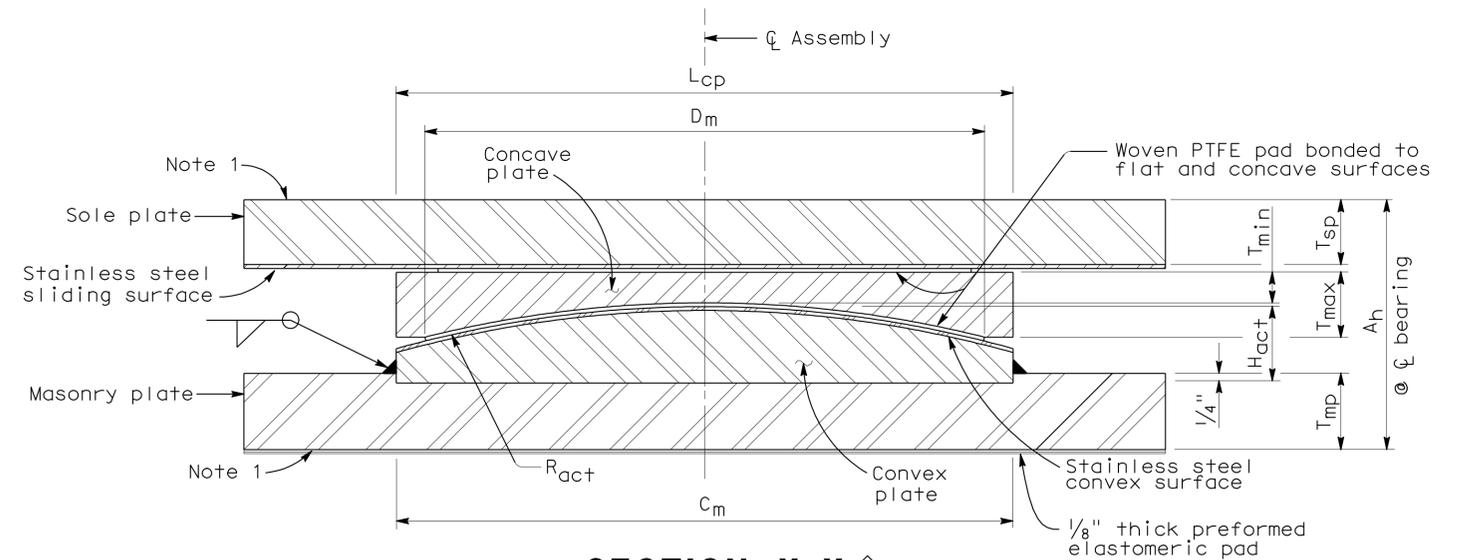
4-25-11
PLANS APPROVAL DATE
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EXPANSION BEARING TABLE

LOCATION	MAXIMUM VERTICAL LOAD (kips)	MINIMUM DEAD LOAD (kips)	DESIGN ROTATION (Radians)	CONCAVE PLATE						CONVEX PLATE		MASONRY PLATE			SOLE PLATE			ASSEMBLY HEIGHT
				WIDTH / LENGTH	FLAT PTFE AREA (in ²)	DIAMETER	SPHERICAL RADIUS	MINIMUM THICKNESS	MAXIMUM THICKNESS	DIAMETER	MAXIMUM THICKNESS	WIDTH	LENGTH	THICKNESS	WIDTH	LENGTH	THICKNESS	
				L _{cp}	A _{PTFE}	D _m	R _{act}	T _{min}	T _{max}	C _m	H _{act}	W _{mp}	L _{mp}	T _{mp}	W _{sp}	L _{sp}	T _{sp}	A _h
Abut 1	1150	260	0.037	19.125	256	18.0	20.5	0.75	3.125	19.375	3.45	28	28	2.5	26	38	2.0	8.76
Abut 3	1150	260	0.037	19.125	256	18.0	20.5	0.75	3.125	19.375	3.45	28	28	2.5	26	38	2.0	8.76



PLAN



SECTION X-X

NOTES:

- Anchorage method shown on "PTFE/SPHERICAL ANCHORAGE DETAILS" sheet.
- All units in inches unless otherwise noted.
- All dimensions shown are steel only unless otherwise noted.
- H_{act} includes stainless steel.
- A_h includes PTFE, substratum and stainless steel, (Varies).
- R_{act} is to sliding surface.
- All bearings shall be marked prior to shipping. The marks shall indicate the bearing location and direction on the bridge, and a direction arrow that points up station. All marks shall be permanent and visible after the bearing is installed.

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

SPECIAL DETAILS NO SCALE

STANDARD DRAWING			
RELEASE DATE	DESIGN	CHECKED	RELEASED BY
Revised	BY ROBERTO LACALLE	ROD SIMMONS	
FILE NO.	DETAILS	CHECKED	
xs9-010	BY R. YEE	ROD SIMMONS	
	SUBMITTED	DRAWING DATE	OFFICE CHIEF
	BY ROBERTO LACALLE	11/93	

- 1 Notes modified
- 2 Details added
- 3 Details modified

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

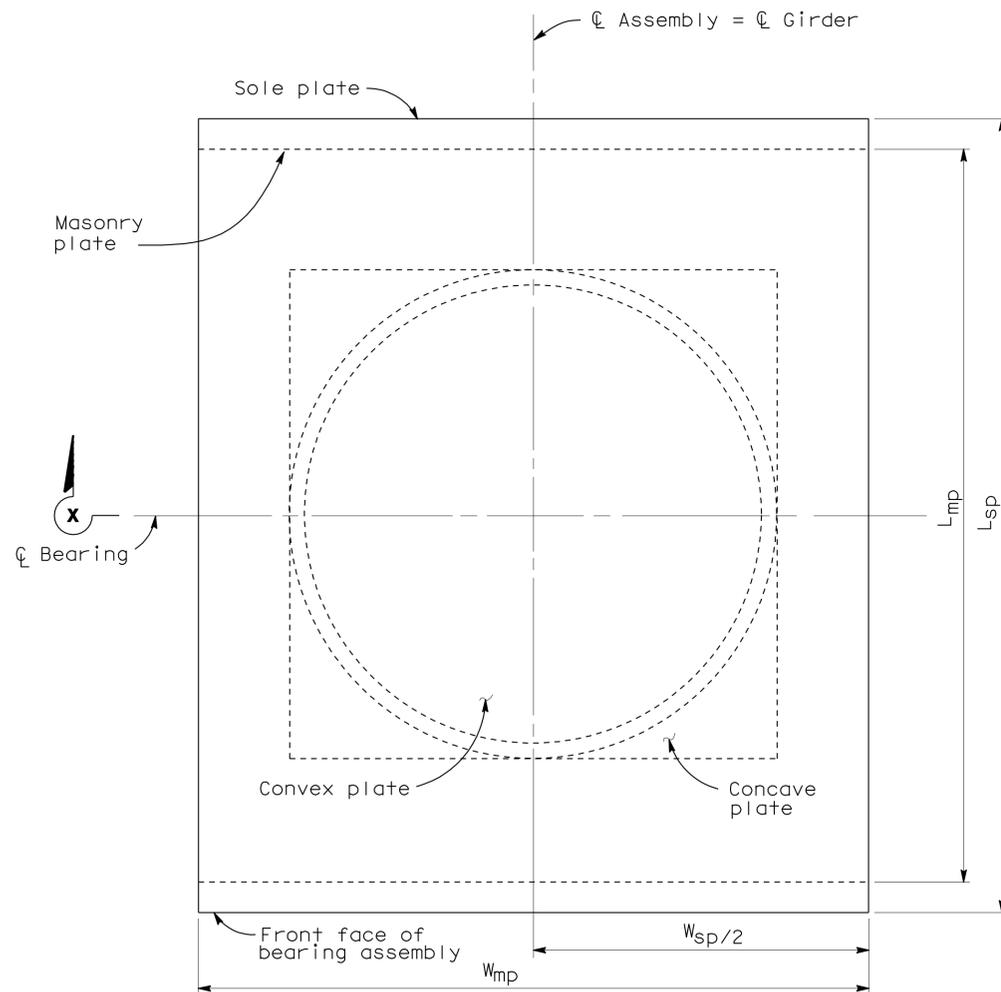
DIVISION OF ENGINEERING SERVICES

BRIDGE NO.
56-0848
KILOMETER POST
19.39

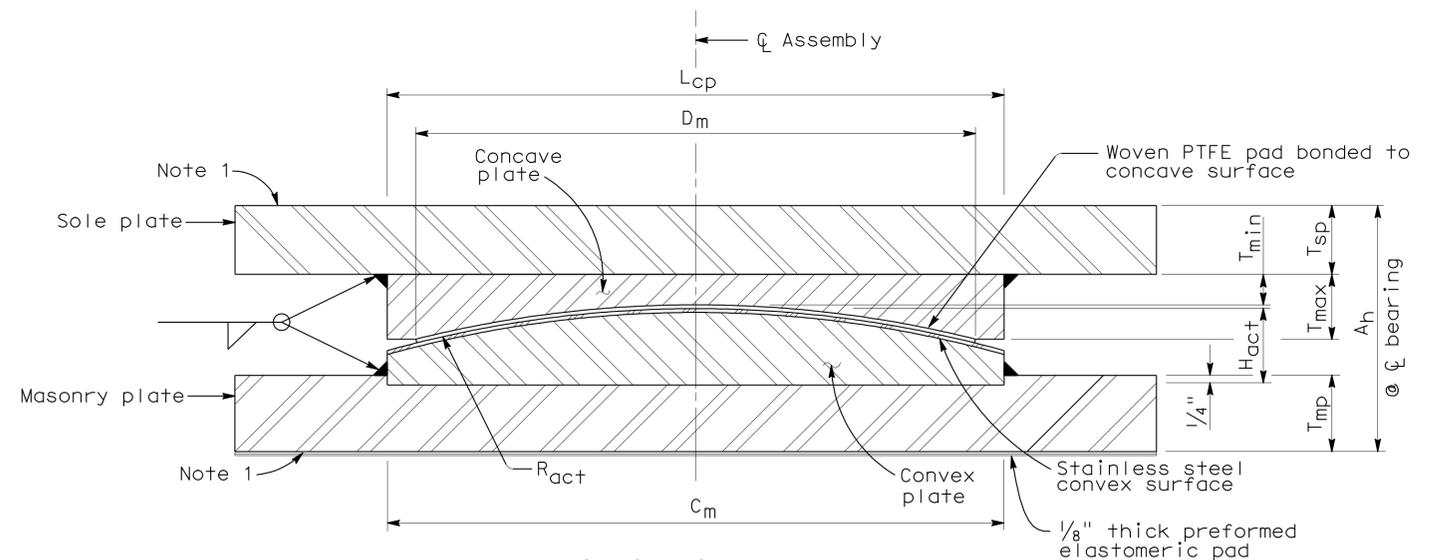
PACHAPPA UP (SHOOFLY)
PTFE/SPHERICAL EXPANSION BEARING DETAILS

FIXED BEARING TABLE ◊

LOCATION	MAXIMUM VERTICAL LOAD (kips)	MINIMUM DEAD LOAD (kips)	DESIGN ROTATION (Radians)	CONCAVE PLATE						CONVEX PLATE		MASONRY PLATE			SOLE PLATE			ASSEMBLY HEIGHT
				WIDTH / LENGTH	FLAT PTFE AREA (in ²)	DIAMETER	SPHERICAL RADIUS	MINIMUM THICKNESS	MAXIMUM THICKNESS	DIAMETER	MAXIMUM THICKNESS	WIDTH	LENGTH	THICKNESS	WIDTH	LENGTH	THICKNESS	
				L _{cp}	A _{PTFE}	D _m	R _{act}	T _{min}	T _{max}	C _m	H _{act}	W _{mp}	L _{mp}	T _{mp}	W _{sp}	L _{sp}	T _{sp}	A _h
Bent 2 Span 1	1150	260	0.037	19.125	N/A	18.0	20.5	0.75	3.125	19.375	3.45	28	28	2.5	26	26	2.0	8.54
Bent 2 Span 2	1150	260	0.037	19.125	N/A	18.0	20.5	0.75	3.125	19.375	3.45	28	28	2.5	26	26	1.5	8.04



PLAN ◊



SECTION X-X ◊

NOTES: ◊

- Anchorage method shown on "PTFE/SPHERICAL ANCHORAGE DETAILS" sheet.
- All units in inches unless otherwise noted.
- All dimensions shown are steel only unless otherwise noted.
- H_{act} includes stainless steel.
- A_h includes PTFE, substratum and stainless steel, (Varies).
- R_{act} is to sliding surface.
- All bearings shall be marked prior to shipping. The marks shall indicate the bearing location and direction on the bridge, and a direction arrow that points up station. All marks shall be permanent and visible after the bearing is installed.

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

SPECIAL DETAILS NO SCALE

STANDARD DRAWING			
RELEASE DATE	DESIGN	CHECKED	RELEASED BY
Revised	BY ROBERTO LACALLE	ROD SIMMONS	
FILE NO.	DETAILS	CHECKED	
xs9-020	BY R. YEE	ROD SIMMONS	
	SUBMITTED	DRAWING DATE	OFFICE CHIEF
	BY ROBERTO LACALLE	11/93	

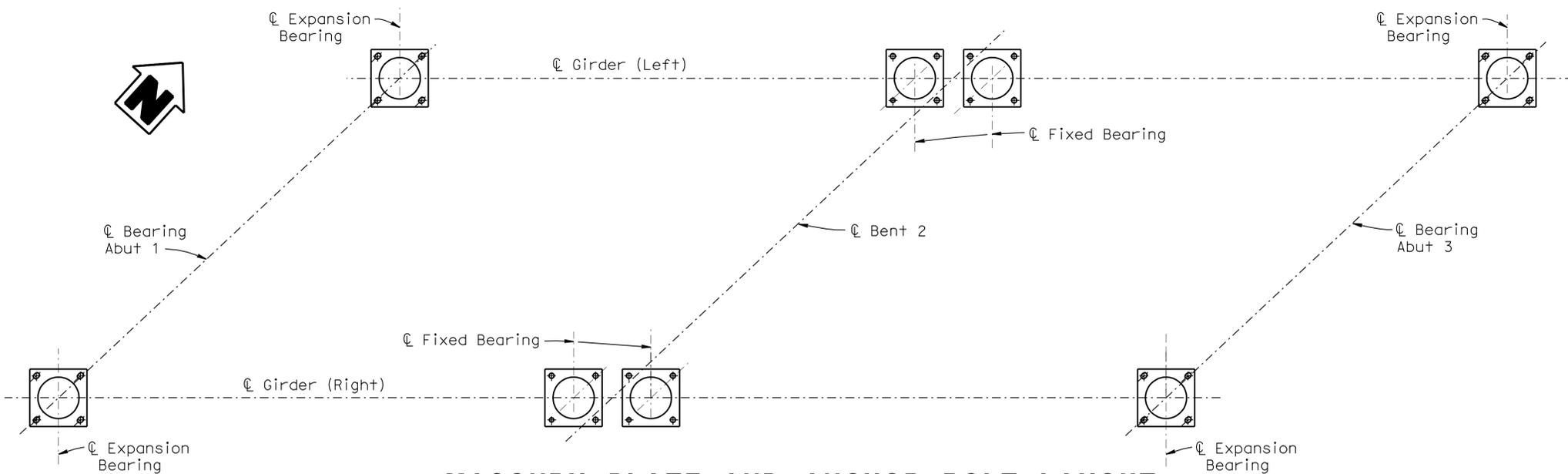
- ◊ Note modified
- ◊ Details modified
- ◊ Details added

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

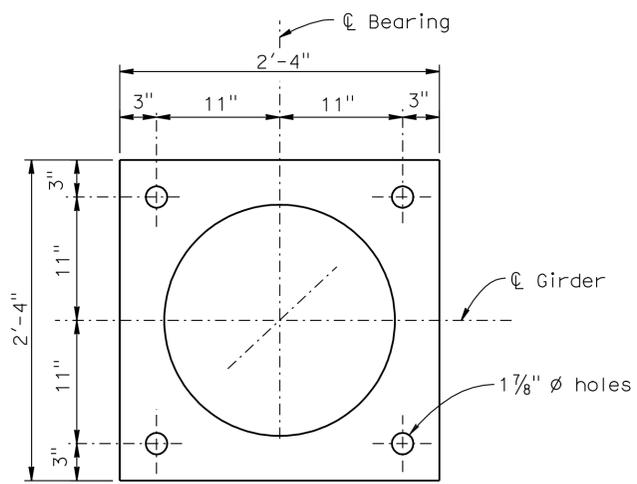
BRIDGE NO.
56-0848
KILOMETER POST
19.39

PACHAPPA UP (SHOOFLY)
PTFE/SPHERICAL FIXED BEARING DETAILS



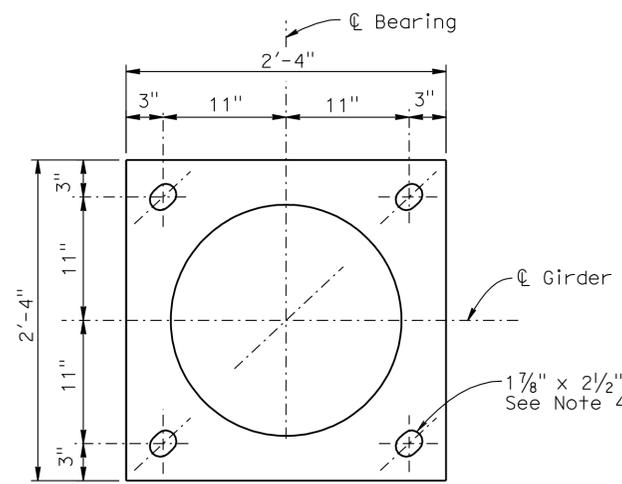
MASONRY PLATE AND ANCHOR BOLT LAYOUT

NO SCALE



PLAN - MASONRY PLATES (FIXED BEARINGS)

NO SCALE



PLAN - MASONRY PLATES (EXPANSION BEARINGS)

NO SCALE

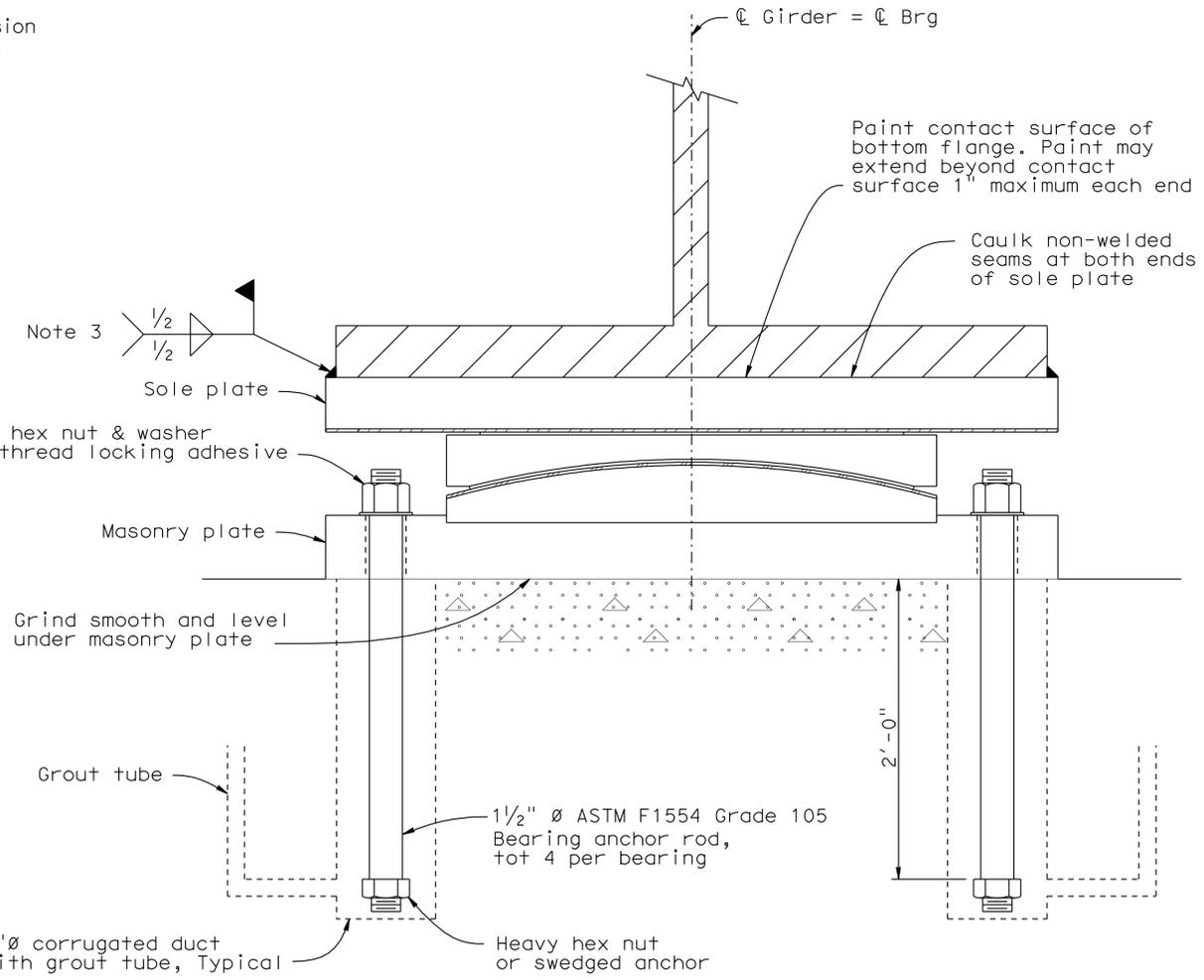
CONCRETE ELEVATION DATA

LOCATIONS	ELEVATIONS
(Left) Girder:	
Abut 1	873.141
Bent 2	874.160
Abut 3	875.171
(Right) Girder:	
Abut 1	872.915
Bent 2	873.934
Abut 3	874.946

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

NOTES:

- The welding operation shall be performed at an ambient temperature between 55°F to 85°F
- If grouting is performed after welding sole plate to flange plate, then grout should be placed at the ambient temperature requirement of Note 1.
- Welds for sole plates are longitudinal to girder axis only, and may be shop welded. Transverse joints shall be sealed with an approved caulking material.
- Slotted holes shall be oriented as shown on "PTFE/SPHERICAL EXPANSION BEARING DETAILS" sheet.



PTFE/ SPHERICAL ANCHORAGE DETAILS

NO SCALE

DESIGN	BY B. Addlespurger	CHECKED G. Slocum
DETAILS	BY J. Yang/E. Montevirgen	CHECKED G. Slocum
QUANTITIES	BY T. Sanderson	CHECKED R. Anderson

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

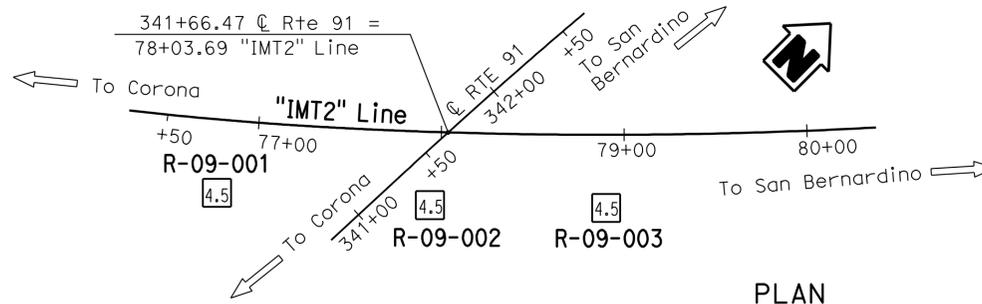
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0848
POST MILE 19.39

PACHAPPA UP (SHOOFLY)
PTFE/ SPHERICAL ANCHORAGE DETAILS

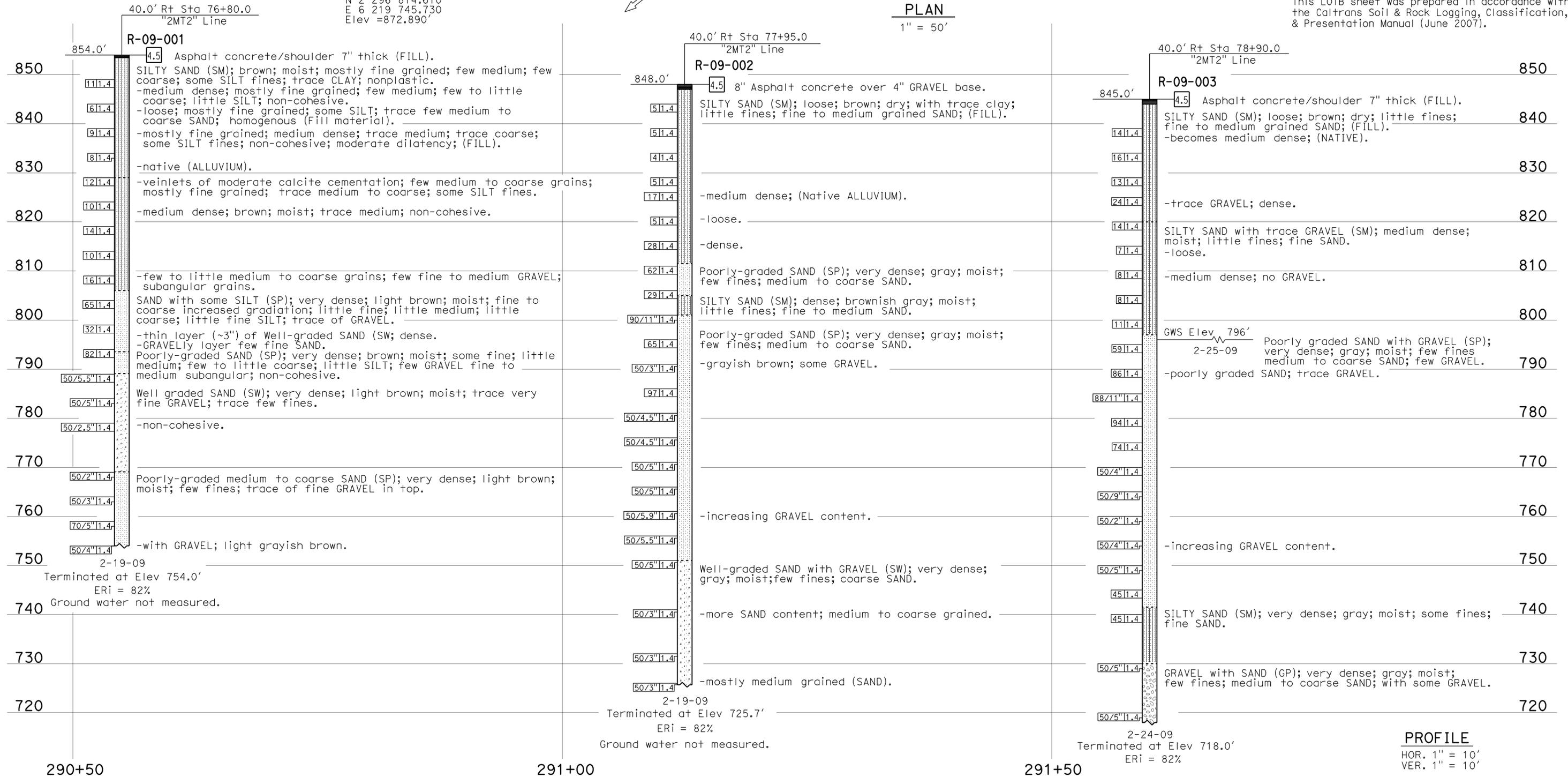
BENCH MARK

SUHV 100
 2X2/Tag EB91
 57.842 Rt. C Rte 91
 Sta. 341+64.44
 N 2 296 806.496
 E 6 219 868.695
 Elev =848.861
 SUHV 3244
 Br. Disk Riv91-19.39 LS5
 65.383 Lt. C Rte 91
 Sta. 341+65.77
 N 2 296 814.610
 E 6 219 745.730
 Elev =872.890'



PLAN

1" = 50'



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2018	2028

9-22-10
 CERTIFIED ENGINEERING GEOLOGIST
 K. Douglas Cook
 No. 1391
 Exp. 12-31-11
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

4-25-11
 PLANS APPROVAL DATE

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007).

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		PACHAPPA UP (SHOOFLY)	
FUNCTIONAL SUPERVISOR		DRAWN BY: F. Nguyen 03/10		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		56-0325		LOG OF TEST BORINGS 1 OF 3	
NAME: A. Perez-Cobo		CHECKED BY: W. Levine		S. Logeswaran		DESIGN BRANCH		POST MILES		REVISION DATES	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		CU EA 08 448401		19.5		SHEET OF 37 39	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2019	2028

K. Douglas Cook 9-22-10
 CERTIFIED ENGINEERING GEOLOGIST

4-25-11
 PLANS APPROVAL DATE

K. Douglas Cook
 No. 1391
 Exp. 12-31-11
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

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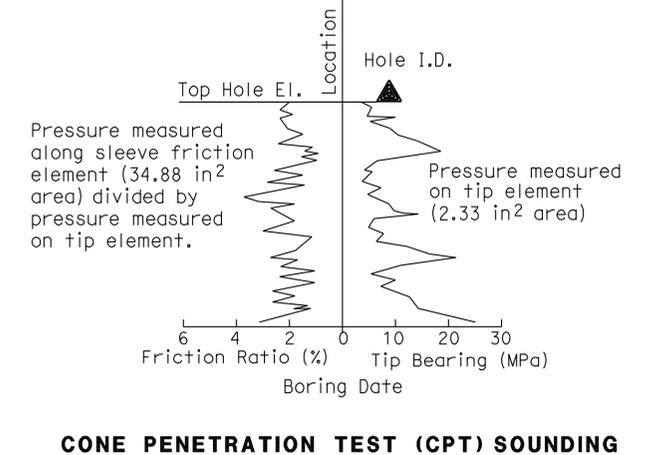
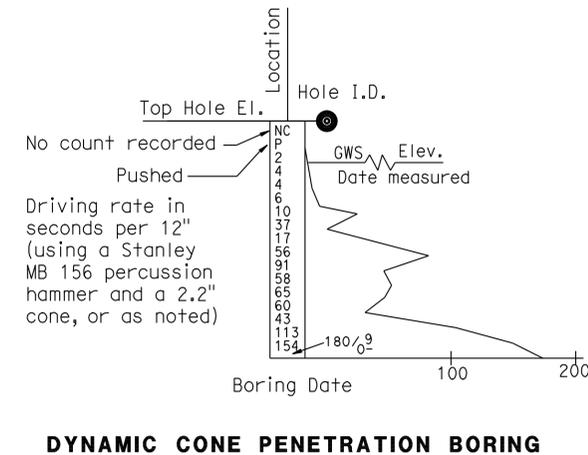
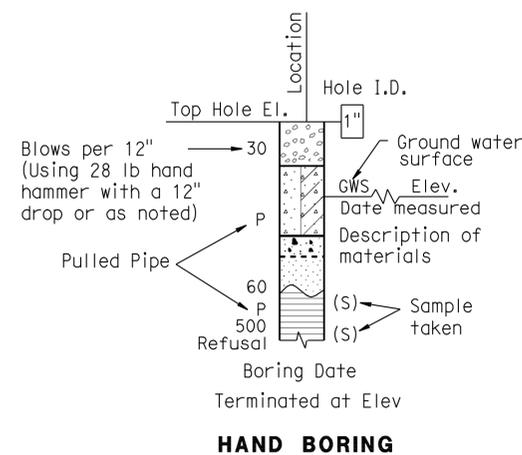
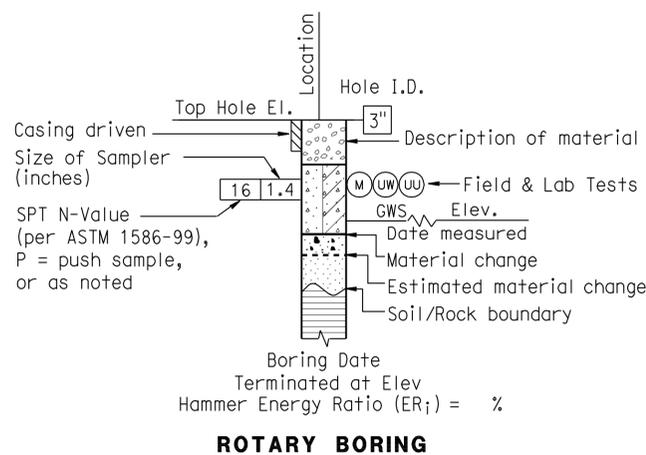
CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

CONSISTENCY OF COHESIVE SOILS				
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring
	R	Rotary drilled boring
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778-95)
	O	Other

Note: Size in inches.

PLASTICITY OF FINE-GRAINED SOILS	
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



GROUP SYMBOLS AND NAMES					
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	Well-graded GRAVEL Well-graded GRAVEL with SAND		CL Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND		CL-ML SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
	Poorly graded GRAVEL Poorly graded GRAVEL with SAND				
	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND		ML SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND		OL ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)				
	Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND		OL ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND		OL ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
	Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)				
	SILTY GRAVEL SILTY GRAVEL with SAND		CH Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND		MH Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
	CLAYEY GRAVEL CLAYEY GRAVEL with SAND				
	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	Well-graded SAND Well-graded SAND with GRAVEL				
	Poorly graded SAND Poorly graded SAND with GRAVEL		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL				
	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL				
	Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	SILTY SAND SILTY SAND with GRAVEL				
	CLAYEY SAND CLAYEY SAND with GRAVEL		OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL				
	PEAT		OL/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND		OL/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS				

FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content-% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(PP)	Pocket Penetrometer
(R)	R-Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(TV)	Pocket Torvane
(UC)	Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
(UU)	Unconsolidated Undrained Triaxial (ASTM D 2850)
(UW)	Unit Weight (ASTM D 4767)
(VS)	Vane Shear (AASHTO T 223)

K. Douglas Cook 9-22-10
CERTIFIED ENGINEERING GEOLOGIST

4-25-11
PLANS APPROVAL DATE

K. Douglas Cook
No. 1391
Exp. 12-31-11
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

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APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N ₆₀ (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE	
Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE		
Description	Size	
Boulder	> 12"	
Cobble	3" to 12"	
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2021	2028

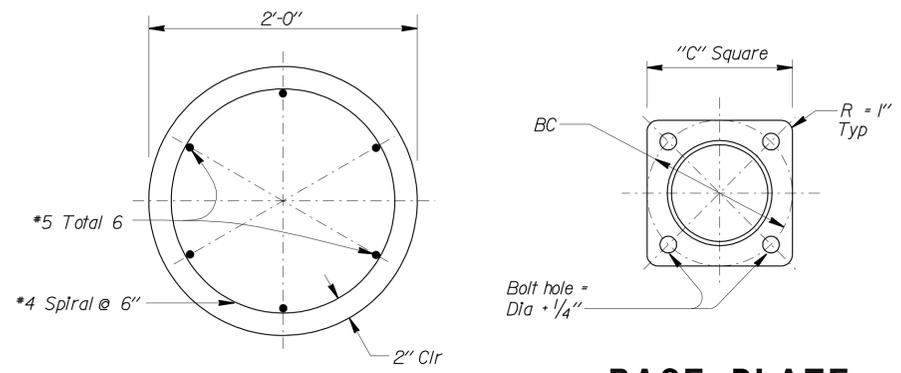
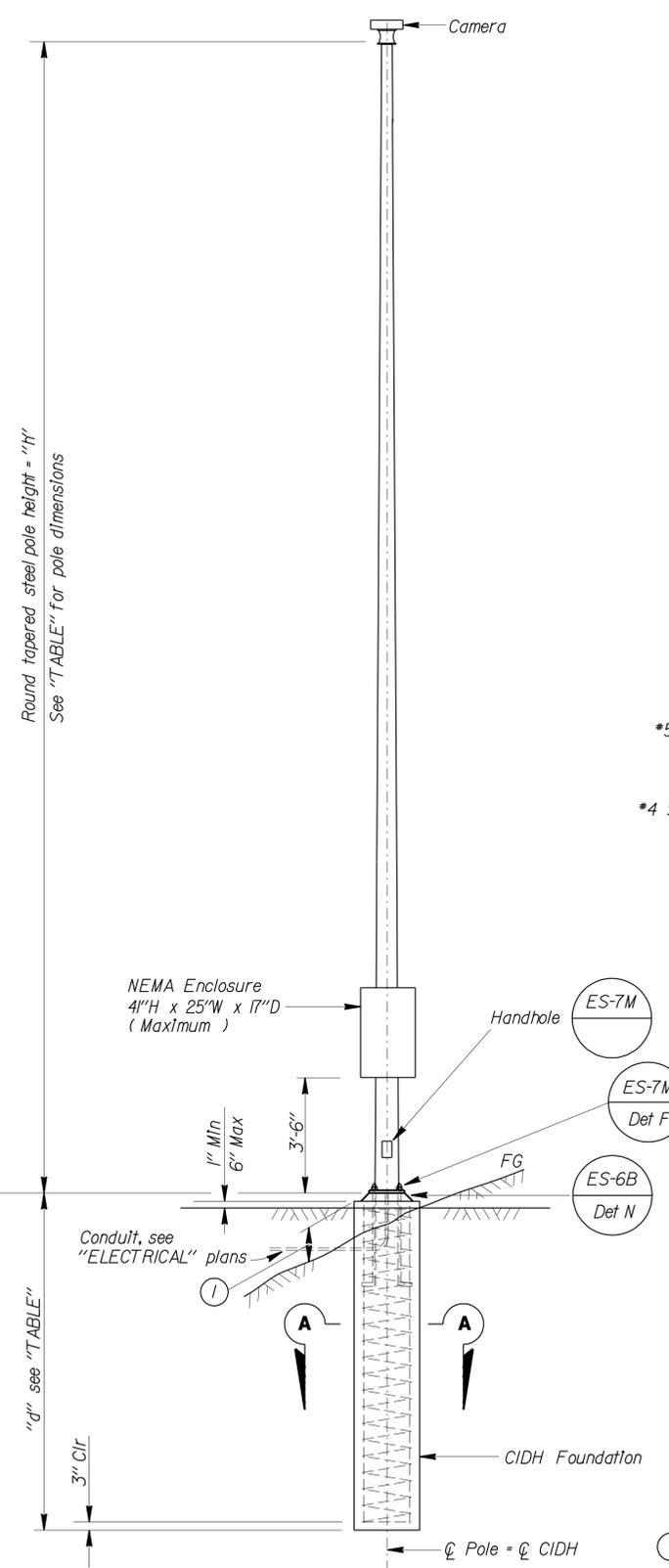
Mahfoud A. Licha 3/15/11
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
 No. C62816
 Exp. 6/30/12
 CIVIL
 STATE OF CALIFORNIA

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POLE TYPE	POLE DATA				BASE PLATE DATA				"d" 2'-0" Ø CIDH Pile		STRUCTURAL STEEL LBS PLUS 3.5% GALVANIZING
	HEIGHT "H"	Min OD		THICKNESS	"C"	THICKNESS	ANCHOR BOLTS		LEVEL GROUND	SLOPING GROUND	
		BASE	TOP				SIZE	BC = BOLT CIRCLE			
CCTV 35	35'	8 5/8"	3 7/8"	0.1793"	1'-1"	1"	1 1/4" x 3'-0" x 4"	1'-1"	9'-0"	11'-0"	550
CCTV 40	40'	9 3/8"	3 7/8"	0.1793"	1'-1"	1"	1 1/4" x 3'-0" x 4"	1'-1"	9'-0"	11'-0"	650

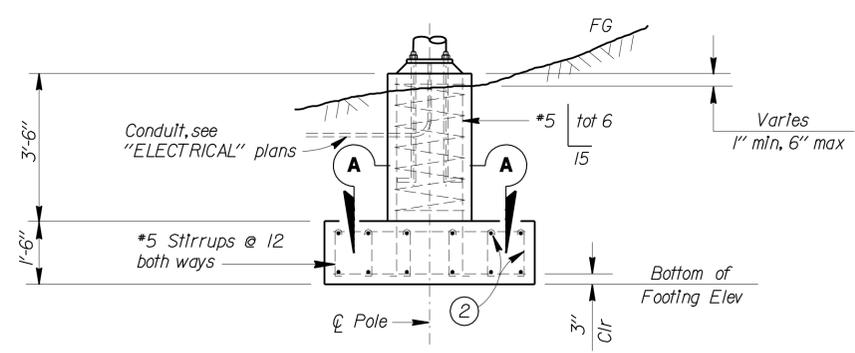
ATTACHMENT	MOUNTING HEIGHT	WEIGHT LIMITS (Max)
Enclosure	3'-6" Max bottom Clr	120 lbs
Camera	Top of pole	20 lbs

GROUND	FOOTING SIZE LENGTH x WIDTH x DEPTH	REINFORCEMENT TOP & BOTTOM
Level	7'-0" x 7'-0" x 1'-6"	7 - #5
Sloping	8'-0" x 8'-0" x 1'-6"	8 - #5



SECTION A-A

BASE PLATE



ALTERNATIVE FOOTING ELEVATION

- ① 1'-3" Max for sloped finished grade.
- ② *5 Bars and *5 stirrups (Top and bottom) to run both longitudinal and transverse directions.

ELEVATION
CCTV 35 and CCTV 40

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

DESIGN NOTES:
SPECIFICATIONS
 Design : AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals dated 2001.
LOADING
 Wind Loadings: 100 mph
UNIT STRESSES
 Structural steel: $f_y = 48,000$ psi tapered steel pole
 $f_y = 36,000$ psi unless otherwise noted.
 Anchor bolts = A307
 Reinforced concrete: $f'_c = 3,600$ psi
 $f_y = 60,000$ psi
NOTES:
 1. All steel shall be galvanized after fabrication.
 2. During pole erection the pole shall be raked as necessary with the use of levelling nuts to provide a plumb pole axis.
 3. The foundation shall be treated as level ground condition if the slope inclination is flatter than 4H:1V.
 4. For mounting heights and weights of equipment mounted, see "ELECTRICAL" sheets.
 5. Foundation design is based on AASHTO 2001 article 13.6 Broms' approximate procedure assuming a cohesionless material. The angle of internal friction used is 30 degrees and unit weight of soil used is 120 lbs/ft³.
 6. For details not shown, see 2006 "STANDARD PLANS" and 2006 "REVISED STANDARD PLANS".

BRANCH CHIEF 	DESIGN BY MAHFOUD LICHA CHECKED DEVIANG VORA	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH	BRIDGE NO.	CLOSED CIRCUIT TELEVISION SYSTEM CCTV POLE DETAILS	SES-1
	DETAILS BY R. YEE CHECKED MAHFOUD LICHA			POST MILE		
	QUANTITIES BY MAHFOUD LICHA CHECKED DEVIANG VORA					
(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
		0 1 2 3		REVISION DATES 6/24/10 6/29/10 7/29/10 1/26/11		SHEET 1 OF 8

USERNAME => TPTIGHT DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 14:41

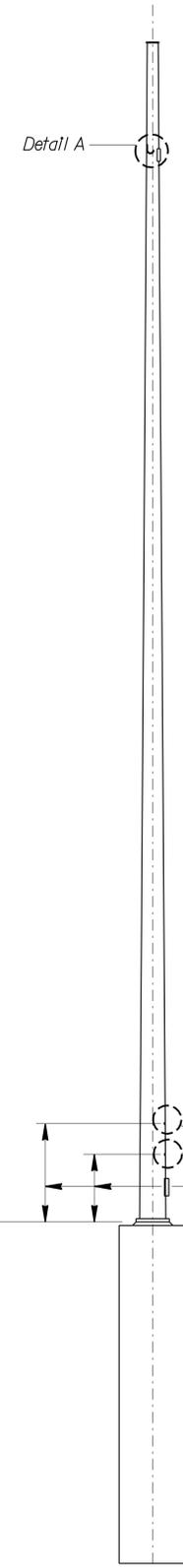
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2022	2028

Mahfoud A. Licha 3/15/11
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
 4-25-11
 No. C62816
 Exp. 6/30/12
 CIVIL
 STATE OF CALIFORNIA

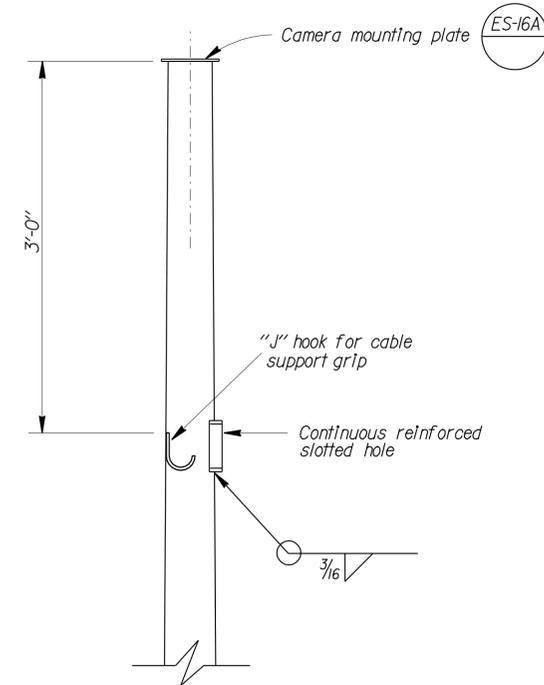
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NOTES:

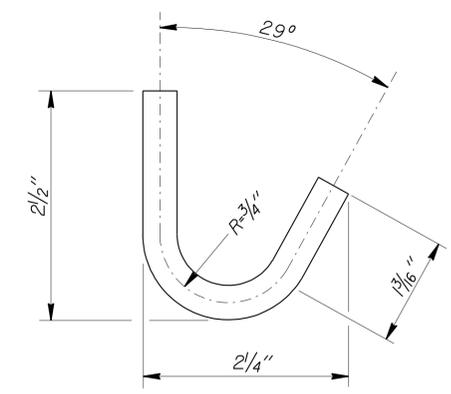
1. Place all couplings on the same side of pole.
2. Chase nipples and slotted hole have a raintight plug. Plug should only be removed if chase nipple or slotted hole is used.
3. The chase nipples shall be 1'-0" min vertical clearance from the slotted hole and not on the same side as the slotted hole.
4. For attachment details, see sheet SES-1.
5. Coupling location above ground and spacing shall be verified to match choice of enclosure, prior to fabrication.
6. All attachments, unless otherwise noted, shall be mounted to pole with stainless steel straps or other method without drilling holes in pole. Enclosure may require drilling through post for mounting. Method of mounting enclosure will require Engineer's approval.



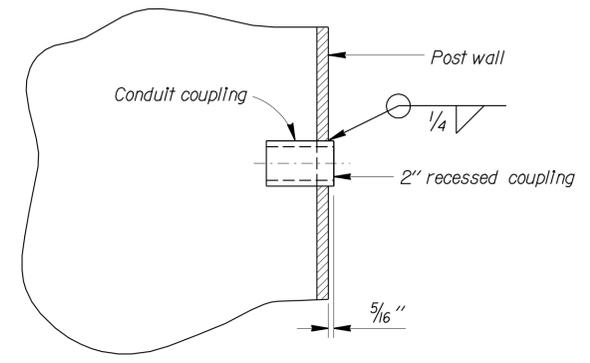
ELEVATION
CCTV 35 and CCTV 40



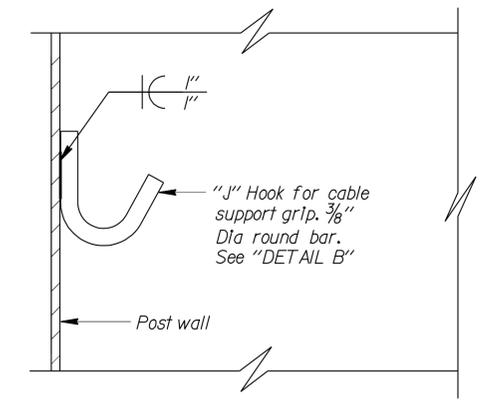
DETAIL A



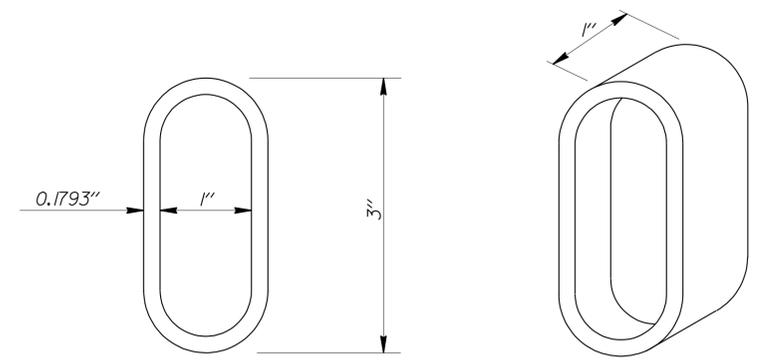
DETAIL B



**2" RECESSED COUPLING
DETAIL C (TYPICAL)**



J HOOK DETAIL



SLOTTED HOLE

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

BRANCH CHIEF *Coffey B Woody*

DESIGN	BY MAHFOUD LICHA	CHECKED DEVANG VORA
DETAILS	BY R. YEE	CHECKED MAHFOUD LICHA
QUANTITIES	BY MAHFOUD LICHA	CHECKED DEVANG VORA

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 DESIGN AND TECHNICAL SERVICES
 SPECIAL DESIGNS BRANCH

NO SCALE

BRIDGE NO.
POST MILE

CLOSED CIRCUIT TELEVISION SYSTEM
CCTV POLE DETAILS

SES-2

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

CU 08
EA 448401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
6/14/10	2	8

USERNAME => hrr1ght DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 14:41

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2023	2028

Mahfoud A. Licha 3/11/11
 REGISTERED CIVIL ENGINEER DATE

4-25-11
 PLANS APPROVAL DATE

No. C62816
 Exp. 6/30/12
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SIGNAL ARM DATA											
E	F	G	H	Min OD AT POLE	THICKNESS	I	HS CAP SCREWS	J	K	L	θ
PROJECTED LENGTH	Min SPACING	MOUNTING HEIGHT				BOLT CIRCLE		PLATE SIZE	ARM PL THICKNESS	POLE PL THICKNESS	
40'-0"	10'-0"	23'-0"±	16'-0"	9 7/8"	0.2391"	13 1/2"	1/4" - 7NC - 3"	1' - 1/2"	1/2"	3/4"	15°
45'-0"	12'-0"	23'-6"±	16'-0"	10 1/4"	0.2391"	13 1/2"	1/4" - 7NC - 3"	1' - 1/2"	1/2"	3/4"	15°

POLE TYPE	LOAD CASE	WIND VELOCITY mph	POLE DATA			BASE PLATE DATA				
			A HEIGHT	Min OD BASE	Min OD TOP	THICKNESS	C	DI BOLT CIRCLE	THICKNESS	ANCHOR BOLTS SIZE
27-4-100	4	100	17'-0"	13 1/2"	9 3/4"	0.3125"	1'-6"	1'-6"	1 1/2"	2"Ø x 42" x 6"

GENERAL NOTES:

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals dated 2001 and including Interims for 2002 and 2004.

LOADING

WIND LOADINGS: 100 mph

UNIT STRESSES

Structural steel: $f_y = 48,000$ psi tapered steel tube
 $f_y = 36,000$ psi unless otherwise noted

Anchor bolts: A307

Reinforced concrete: $f'_c = 3,600$ psi
 $f_y = 60,000$ psi

NOTES:

- For details not shown, see "2006 STANDARD PLANS" and "2006 REVISED STANDARD PLANS".
- For Type 27-4-100 modified pole location, see "ELECTRICAL" sheets.
- All steel shall be galvanized after fabrication.
- During pole erection, the post shall be raked as necessary with the use of levelling nuts to provide a plumb pole axis.
- Sign panels mounted on signal arm to be R89-1, 24" x 10".
- CIDH Pile foundation design is based on AASHTO 2001 article 13.6 Broms' approximate procedure assuming a cohesionless material. The angle of internal friction used is 30 degrees and unit weight of soil is 120 lb/ft³.
- Sign panels mounted on signal arm to be R89-1, 24" x 10" maximum.

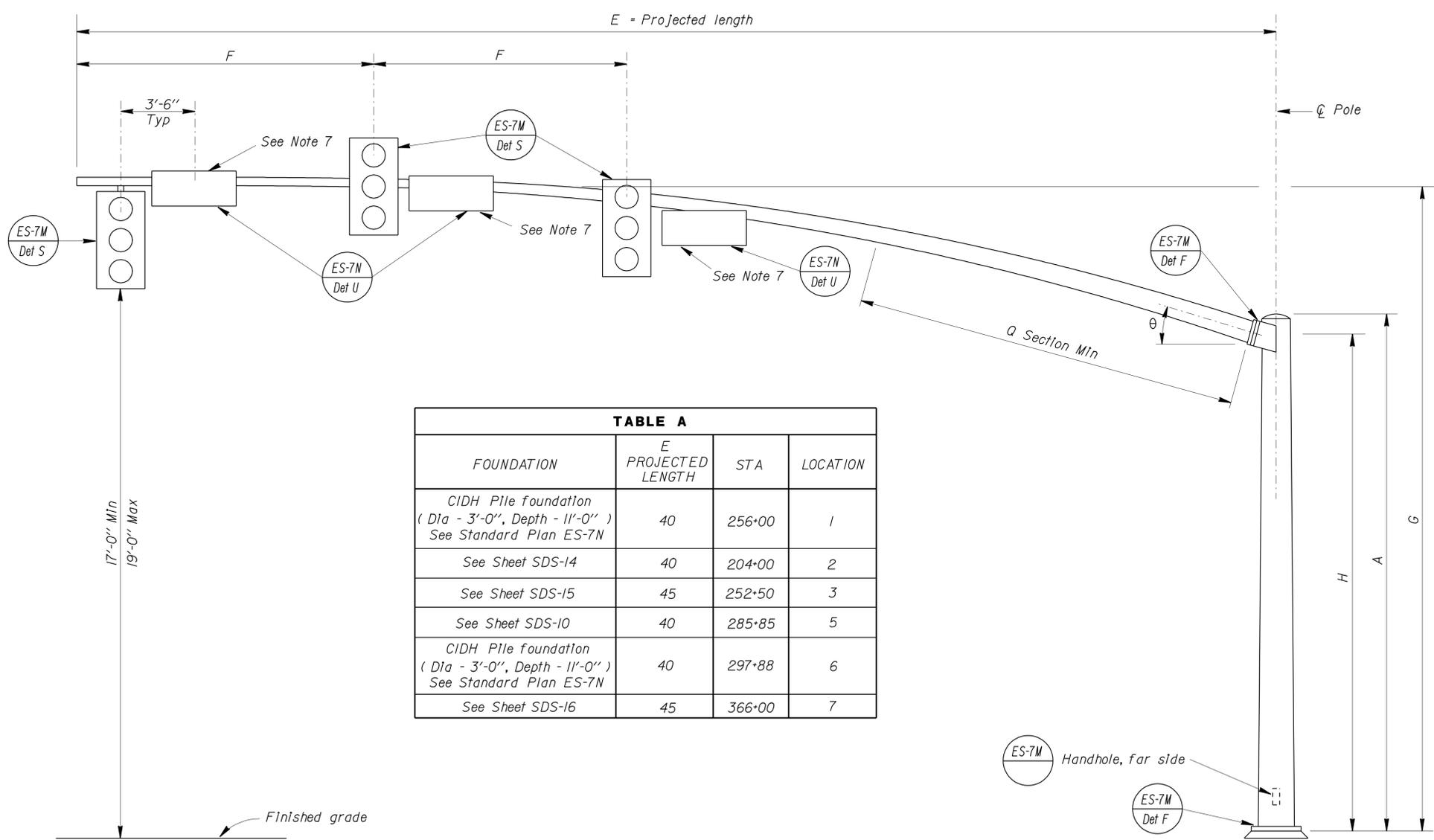


TABLE A			
FOUNDATION	E PROJECTED LENGTH	STA	LOCATION
CIDH Pile foundation (Dia - 3'-0", Depth - 11'-0") See Standard Plan ES-7N	40	256+00	1
See Sheet SDS-14	40	204+00	2
See Sheet SDS-15	45	252+50	3
See Sheet SDS-10	40	285+85	5
CIDH Pile foundation (Dia - 3'-0", Depth - 11'-0") See Standard Plan ES-7N	40	297+88	6
See Sheet SDS-16	45	366+00	7

TYPE 27-4-100 MODIFIED POLE ELEVATION

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

BRANCH CHIEF *Coffey & Woody*

DESIGN BY MAHFOUD LICHA CHECKED DEVANG VORA
 DETAILS BY R. YEE CHECKED MAHFOUD LICHA
 QUANTITIES BY CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 DESIGN AND TECHNICAL SERVICES
 SPECIAL DESIGNS BRANCH

BRIDGE NO.
 POST MILE

NO SCALE

MODIFY RAMP METERING SYSTEMS
 RAMP ARM DETAILS

SES-3

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

CU 08
 EA 448401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES					
3/29/10	10/11/10	2/2/11	3/2/11	3/11/11	

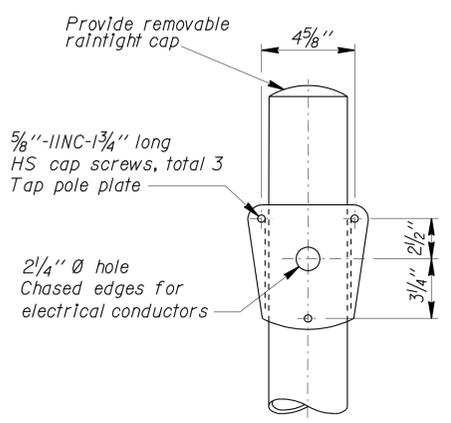
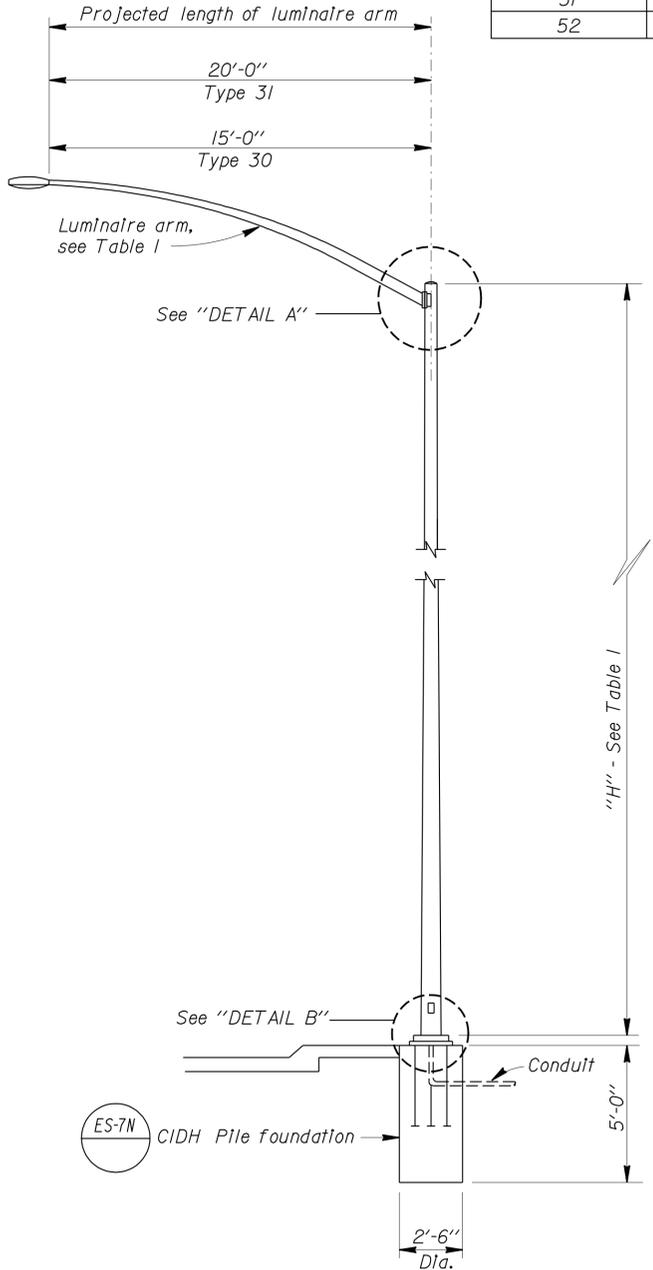
SHEET 3 OF 8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2024	2028

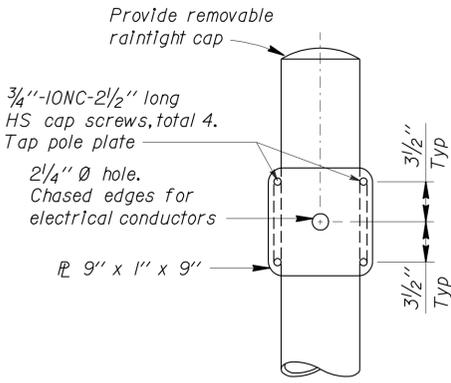
Maftoud A. Licha
 REGISTERED CIVIL ENGINEER DATE 3/11/11
 4-25-11
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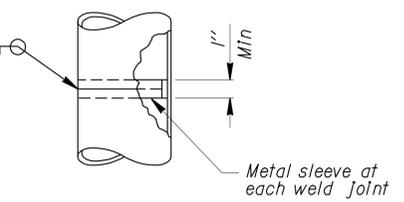
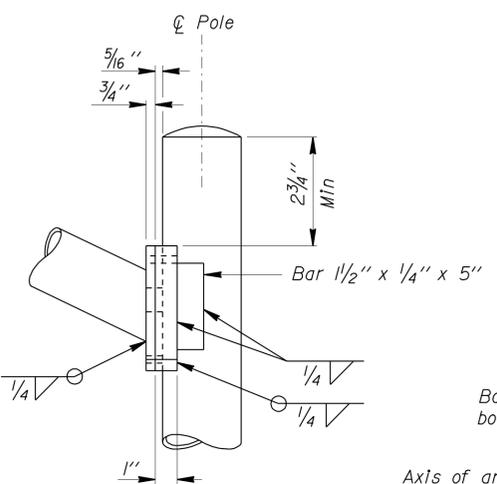
ELECTROLIER NUMBER	POLE TYPE	ELECTROLIER PLAN SHEET	BASE PLATE DATA				POLE DATA			LUMINAIRE ARM DATA			
			"C"	BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE	"H" POLE HEIGHT	Min OD AT BASE	Min OD AT TOP	THICKNESS	PROJECTED LENGTH	THICKNESS	Min OD AT POLE
40	31	10	1'-2 3/4"	1'-2 3/4"	1 1/2"	1/2" Ø x 3'-6" x 6"	29'-0"	10 3/4"	6"	0.1793"	20	0.1793"	5
41	31	10	1'-2 3/4"	1'-2 3/4"	1 1/2"	1/2" Ø x 3'-6" x 6"	31'-6"	10 3/4"	6"	0.1793"	20	0.1793"	5
47	31	17	1'-2 3/4"	1'-2 3/4"	1 1/2"	1/2" Ø x 3'-6" x 6"	13'-6"	10 3/4"	6"	0.1793"	20	0.1793"	5
48	30	17	1'-0"	1'-0"	1"	1/4" Ø x 3'-6" x 4"	15'-6"	8 3/4"	3 7/8"	0.1196"	15	0.1196"	4 1/4"
49	30	17	1'-0"	1'-0"	1"	1/4" Ø x 3'-6" x 4"	16'-6"	8 3/4"	3 7/8"	0.1196"	15	0.1196"	4 1/4"
50	30	17	1'-0"	1'-0"	1"	1/4" Ø x 3'-6" x 4"	13'-3"	8 3/4"	3 7/8"	0.1196"	15	0.1196"	4 1/4"
51	30	17	1'-0"	1'-0"	1"	1/4" Ø x 3'-6" x 4"	11'-3"	8 3/4"	3 7/8"	0.1196"	15	0.1196"	4 1/4"
52	30	18	1'-0"	1'-0"	1"	1/4" Ø x 3'-6" x 4"	11'-6"	8 3/4"	3 7/8"	0.1196"	15	0.1196"	4 1/4"



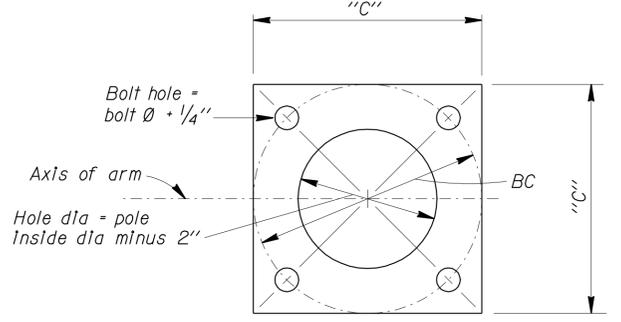
DETAIL A - TYPE 30



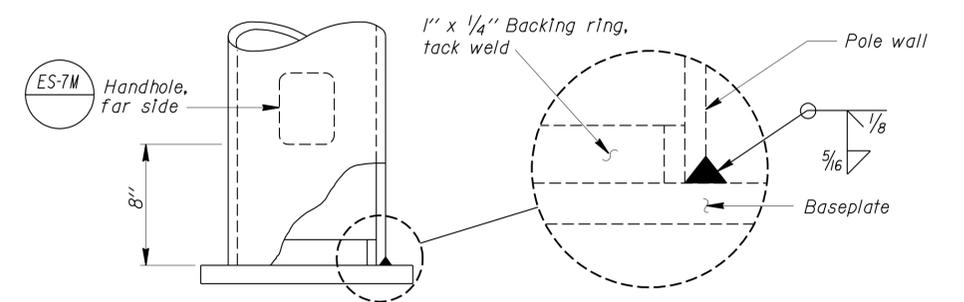
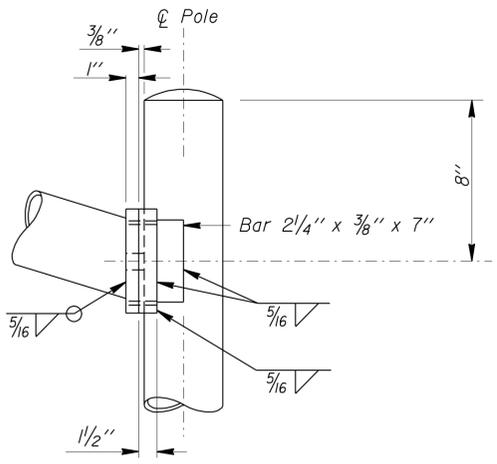
DETAIL A - TYPE 31



POLE SPLICE

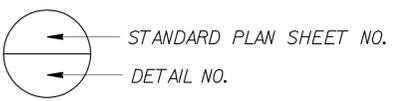


BASE PLATE



DETAIL B

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

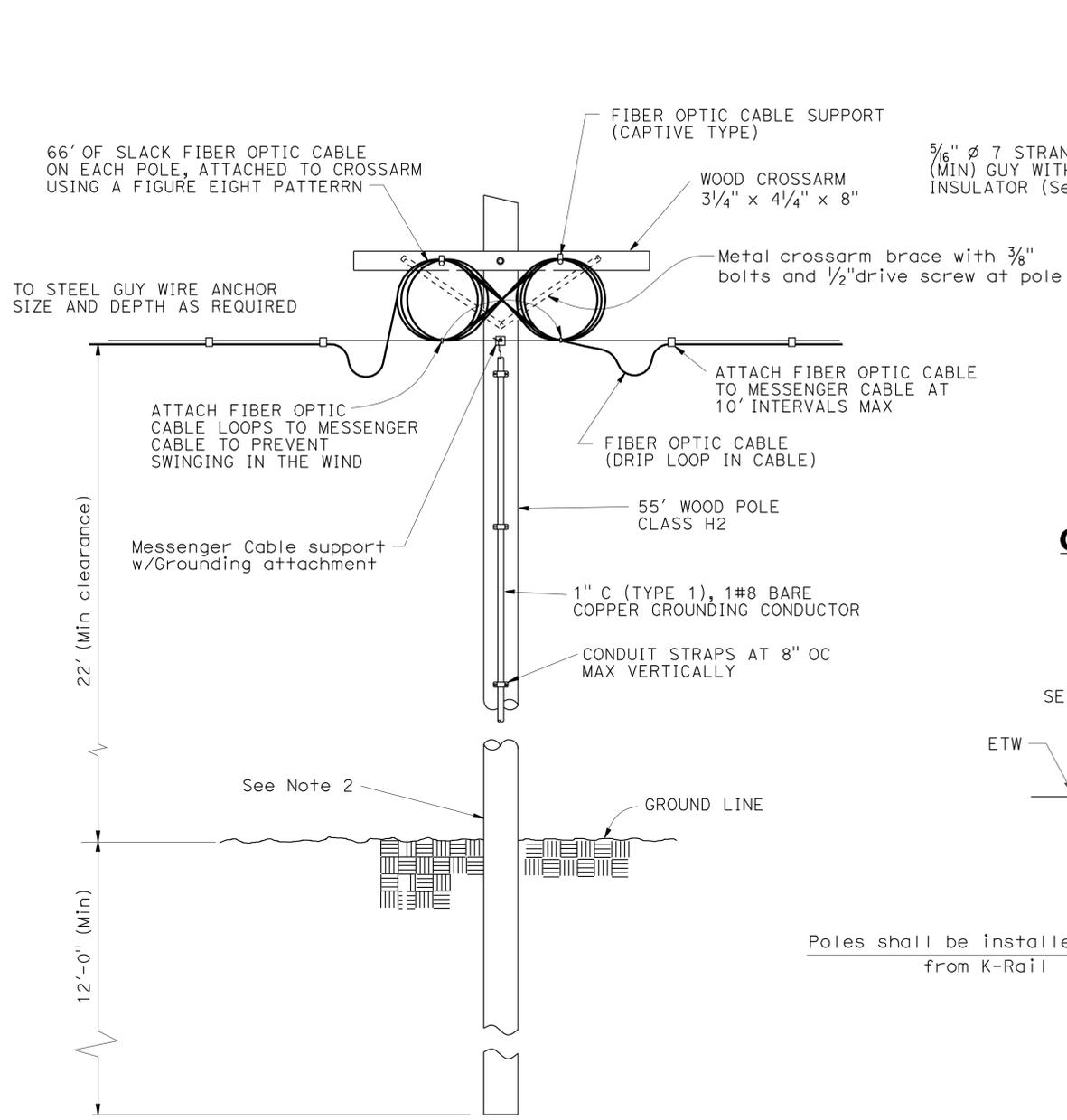


BRANCH CHIEF <i>Coffey B Woody</i>	DESIGN BY MAHFOUD LICHA	CHECKED DEVANG VORA	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH	BRIDGE NO.	MODIFY LIGHTING AND SIGN ILLUMINATION	SES-4
	DETAILS BY R. YEE	CHECKED MAHFOUD LICHA			POST MILE		
(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	NO SCALE	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 4 OF 8

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Diameter Shown	Number Of Strands	Grade	Minimum Breaking Strength (lb)
1/4"	3	Utilities	3,150
5/16"	7	Utilities	6,000
3/8"	7	Utilities	11,500
7/16"	7	Utilities	18,000
1/2"	7	Utilities	25,000

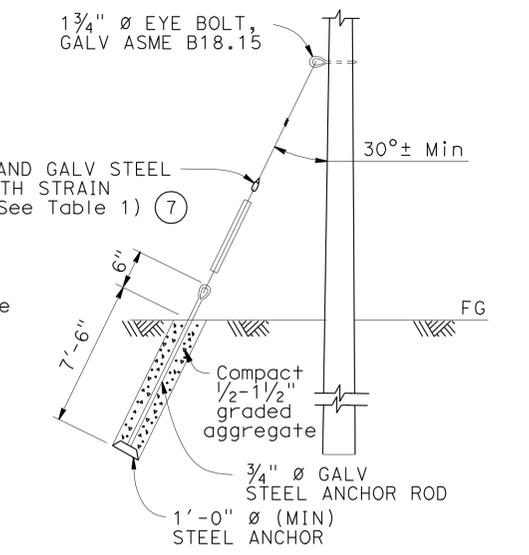
Messenger Wires: ASTM Designation A475-03, "Standard Specification for Zinc-Coated Steel Wire Strand". Weight of zinc coating Class B or Class C (temporary messenger wires may use Class A).



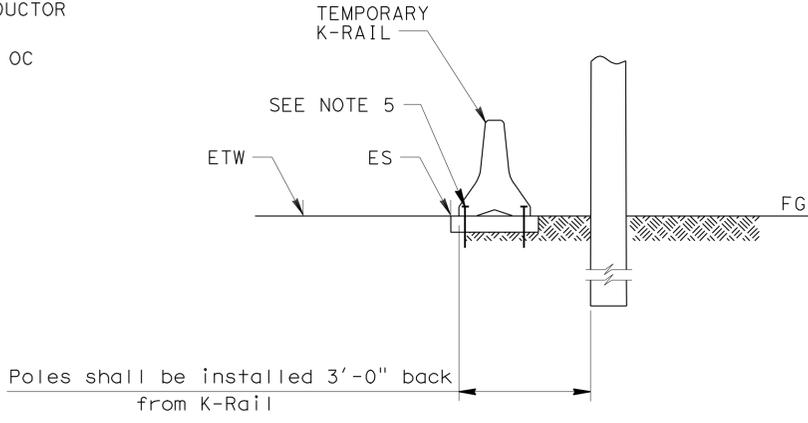
AERIAL FIBER OPTIC CABLE INSTALLATION

SLACK FIBER OPTIC CABLE ATTACHMENT TO CROSSARM TO PROVIDE FOR SHIFTING OF POLES DURING CONSTRUCTION STAGING.

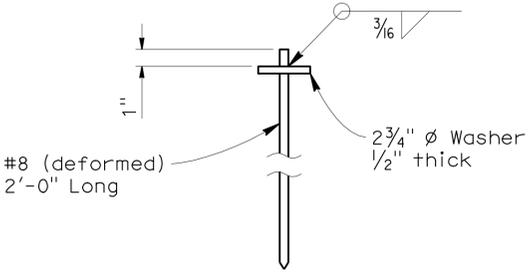
NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



GUY WIRE INSTALLATION DETAIL



K-RAIL DETAIL



STAKE DETAIL

NOTES:

- All overhead cables shall be slack spanned with 22'-0" minimum overhead clearance.
- Wood poles shall be protected by K-rail, See K-rail detail.
- Wood poles shall be stabilized using guy wires, breast blocks or rakes at each dead end, corner, drop or line deviation more than 15° from straight line. The direction of the guy shall counteract the resultant of unbalanced force applied to pole. Where space or conflict prevent guy installation, a diagonal brace shall be used. The brace shall be wood and shall be connected to the pole by means to satisfy structural and electrical requirements. The direction of the brace shall counteract the resultant of unbalanced horizontal force of 5300 pounds (Min) applied to the pole.
- Cable shall be suspended from span-wire main run with 3/8" span-wire with 4.5%± sag. See Table 1.
- K-Rail shall be placed on 4" Min concrete or asphalt pad using (4)-four capped stakes - ASTM A706 Grade 60 #8 deformed rebar.
- Overhead line construction not specifically covered here on shall conform with the provisions of General Order No. 95 of Public Utilities Commission.
- See Table 1 for guy wire details.
- If pole is located on a steep slope add 2 feet extra for embedment.
- Guy wires shall be attached to pole as nearly as practicable to the center of conductor's load or at a distance of 3'-0" Max, otherwise, see note 3.

NO SCALE

BRANCH CHIEF <i>Jeffrey B. Woody</i>	DESIGN	BY T MARCHENKO	CHECKED V LOPEZ	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH	BRIDGE NO.	N/A	TEMPORARY METROLINK COMMUNICATION WOOD POLE DETAILS	SES-5
	DETAILS	BY D W JUSTICE Jr	CHECKED T MARCHENKO			POST MILE			
	QUANTITIES	BY	CHECKED						

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2026	2028

Jeffrey B. Woody 3-17-11
 REGISTERED CIVIL ENGINEER DATE

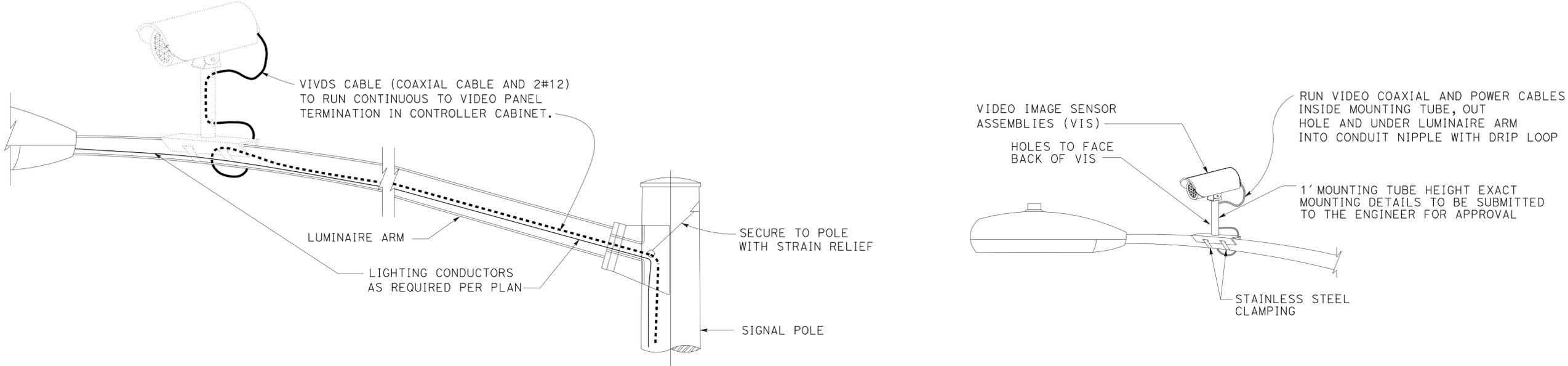
4-25-11
 PLANS APPROVAL DATE

No. C41260
 Exp. 3/31/11
 CIVIL
 STATE OF CALIFORNIA

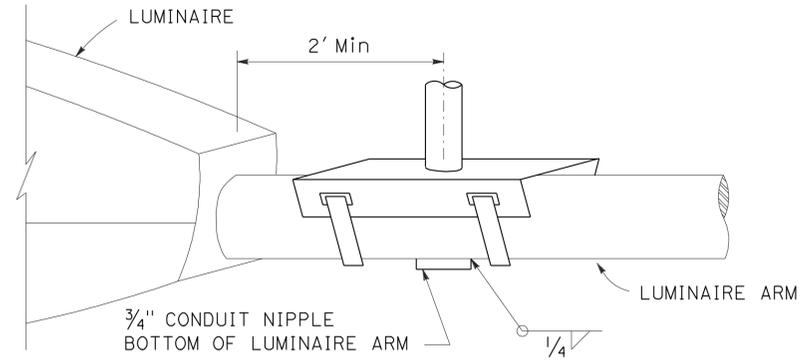
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NOTES:

1. ALL METALLIC CONDUITS, BOLTS STRAPS AND Misc HARDWARE SHALL BE GALVANIZED.
2. ELEMENTS (TOTAL VIVDS ASSEMBLY) SHALL HAVE A MAXIMUM WEIGHT OF 10 LBS AND A MAXIMUM EFFECTIVE PRESSURE AREA OF 1 SQUARE FOOT.
3. MAXIMUM OF 2 VIVDS ELEMENTS ADDED PER TRAFFIC SIGNAL STRUCTURE. MAXIMUM OF 1 ELEMENT PER ARM (LIGHTING ARM OR TRAFFIC SIGNAL ARM).



CAMERA MOUNTING DETAILS
NO SCALE



DETAIL A
NO SCALE

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

BRANCH CHIEF <i>Jeffrey B. Woody</i>	DESIGN	BY T MARCHENKO	CHECKED S JOHNSON	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH A	BRIDGE NO.	N/A	MODIFY SIGNAL AND LIGHTING CAMERA MOUNTING DETAILS	SES-6
	DETAILS	BY D W JUSTICE Jr	CHECKED T MARCHENKO			POST MILE			
	QUANTITIES	BY	CHECKED						

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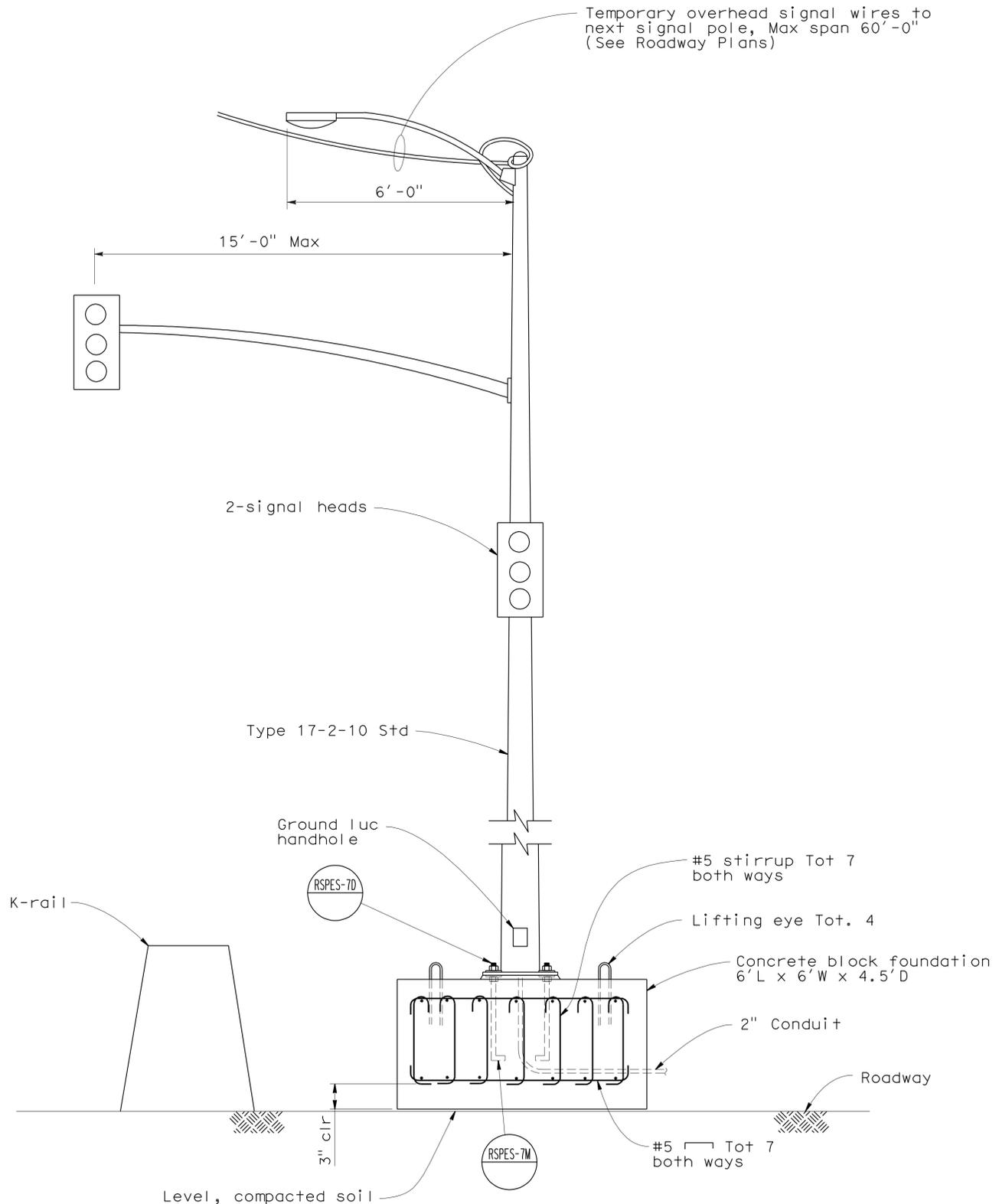
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2027	2028

K.C. Liu 3-17-11
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

K.C. LIU
No. C 50291
Exp. 06-30-11
CIVIL
STATE OF CALIFORNIA

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NOTES:

- 17-2-100 standard shall conform to standard plans RSP ES-7D (foundation excluded).
- 17-2-100 standard shall be have a maximum of 2 signal heads and 2 ped heads mounted to the shaft and one head mounted at the end of mast arm.

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

TYPE 17-2-100 STD

NO SCALE

BRANCH CHIEF <i>Jeffrey B. Woody</i>	DESIGN	BY T MARCHENKO	CHECKED K.C. LIU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH A	BRIDGE NO.	N/A	MODIFY SIGNAL AND LIGHTING TEMPORARY POLE DETAILS	SES-7
	DETAILS	BY D W JUSTICE Jr	CHECKED T MARCHENKO			POST MILE			
	QUANTITIES	BY	CHECKED						

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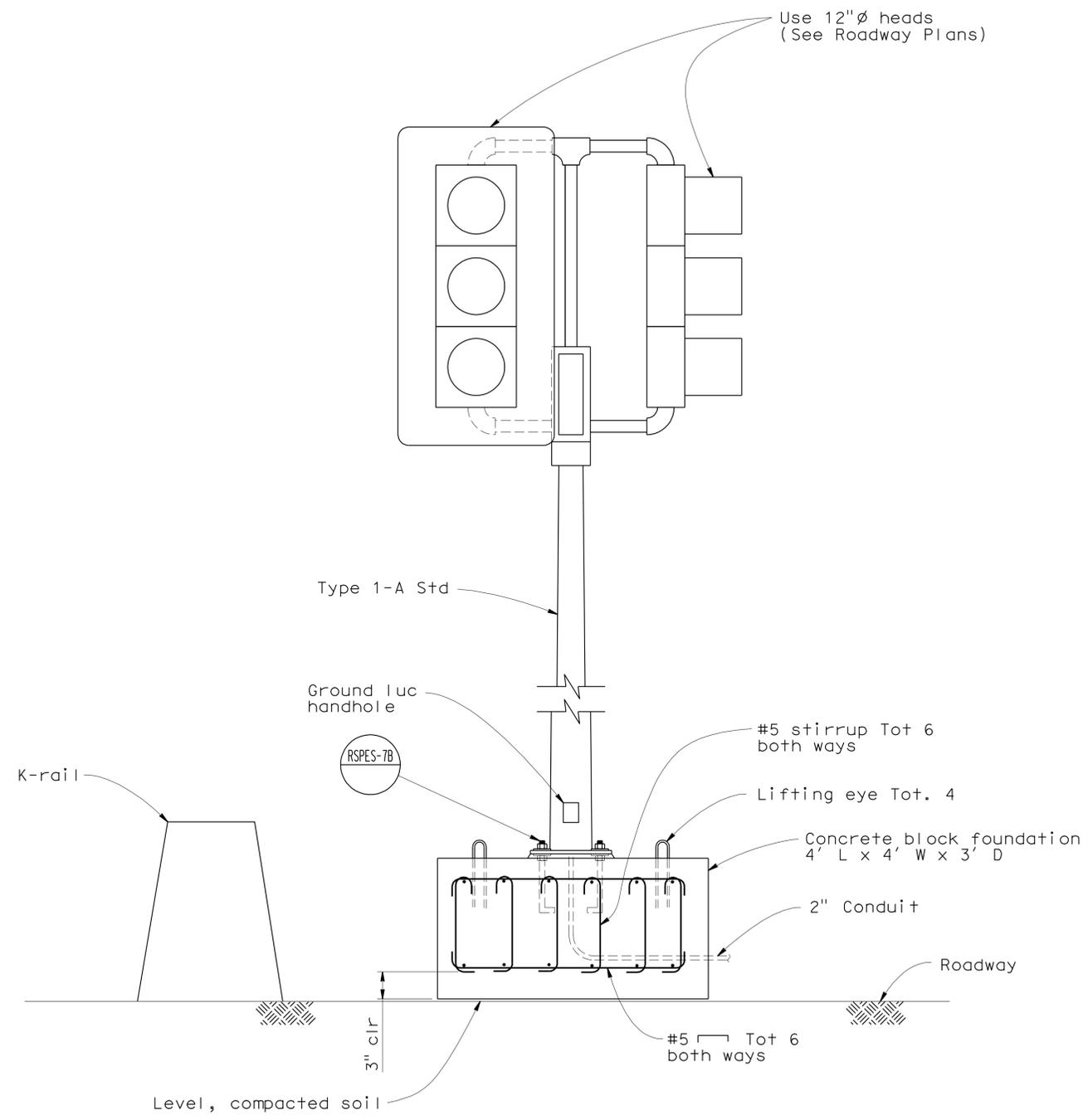
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	2028	2028

K.C. Liu 3-17-11
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

K.C. LIU
No. C 50291
Exp. 06-30-11
CIVIL
STATE OF CALIFORNIA

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- NOTES:
- 1-A standard shall conform to standard plans RSP ES-7B (foundation excluded).
 - 1-A standard shall be have a maximum of 3 signal heads and 2 ped heads mounted to the shaft.

TYPE 1-A STD

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

NO SCALE

BRANCH CHIEF <i>Jeffrey B. Woody</i>	DESIGN	BY T MARCHENKO	CHECKED K.C. LIU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH A	BRIDGE NO.	N/A	MODIFY SIGNAL AND LIGHTING TEMPORARY POLE DETAILS NO.2	SES-8
	DETAILS	BY D W JUSTICE Jr	CHECKED T MARCHENKO			POST MILE			
	QUANTITIES	BY	CHECKED						

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