

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		201	354

<i>Dai Lu</i>		06-09-10
REGISTERED CIVIL ENGINEER	DATE	

01-06-14
PLANS APPROVAL DATE

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A GENERAL DESIGN NOTES

1. CRITERIA

BUILDING CODE:
 2010 California Building Code as Adopted
 by the California Building Standards Commission

OCCUPANCY CATEGORY: II

2. MATERIALS

REINFORCED CONCRETE: (Strength Design)
 $f'c = 3,650 \text{ psi}$
 $f_y = 60,000 \text{ psi}$

STRUCTURAL STEEL: (Allowable Strength Design)
 Channels, Angles, Plates & Misc. Shapes $F_y = 36 \text{ ksi}$
 Hollow Structural Steel (HSS) $F_y = 46 \text{ ksi}$
 Weld Electrodes $F_y = 70 \text{ ksi}$

3. FOUNDATION

Soils report dated : September 3, 2009
 Allowable Soil Pressure: 2,000 psf
 For Soil Classification, see Log of Test Borings Sheet.

B DESIGN LOADS

1. LIVE

Roof = 20 psf

2. SEISMIC

Importance Factor = 1.0
 Site Class = E
 Mapped Spectral Response Accelerations:
 $S_S = 1.500$ $S_I = 0.600$
 Design Spectral Response Coefficients:
 $S_{DS} = 0.900$ $S_{D1} = 0.960$
 Design Category = D
 Analysis Procedure: Equivalent Lateral Force

Seismic Force-Resisting System:

<u>North - South</u>	<u>East - West</u>
Cantilevered Column	Cantilevered Column
$R = 1.5$	$R = 1.5$
$C_S = 0.6$	$C_S = 0.6$

3. WIND

Importance Factor = 1.0
 Basic Wind Speed = 85 mph (3 sec gust)
 Exposure C
 Analysis Procedure: Simplified

C STEEL DECK NOTES

1. Loads: Shear = 500 plf
 Dead = 15 psf
 Live = 20 psf
 Wind = 10 psf (Net Uplift)

2. Metal Deck shall be one of the following Manufacturer / Types:
 Verco Manufacturing Co / PLB-36
 ASC Profiles, Inc / DGB-36
 or equivalent

3. 3 Span min coverage

4. Thickness: 43 mils

5. Fasteners: *12 Screws with layout pattern 36/4 @ Perpendicular Supports
 *10 Screws @ 12" OC @ Parallel Supports and Side Laps
 Screws shall have neoprene washers

6. Alternative Fasteners and/or Spacings may be submitted for Approval.

7. G90 Galvanized coating.

D GENERAL NOTES

- For Concrete see: "Concrete Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.
- The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

DESIGN	BY EDWARD ZHANG	CHECKED DAI LU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY		SHEET ST7-0
	BY EDWARD ZHANG	CHECKED DAI LU			58M5708	COVERED STORAGE	DESIGN CRITERIA AND DETAIL NOTES	
	BY	CHECKED			NA			
DETAILS	BY EDWARD ZHANG	CHECKED DAI LU	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
QUANTITIES	BY	CHECKED	0 1 2 3	3599 11000000351	EA 076701	04-08-10 06-03-10		

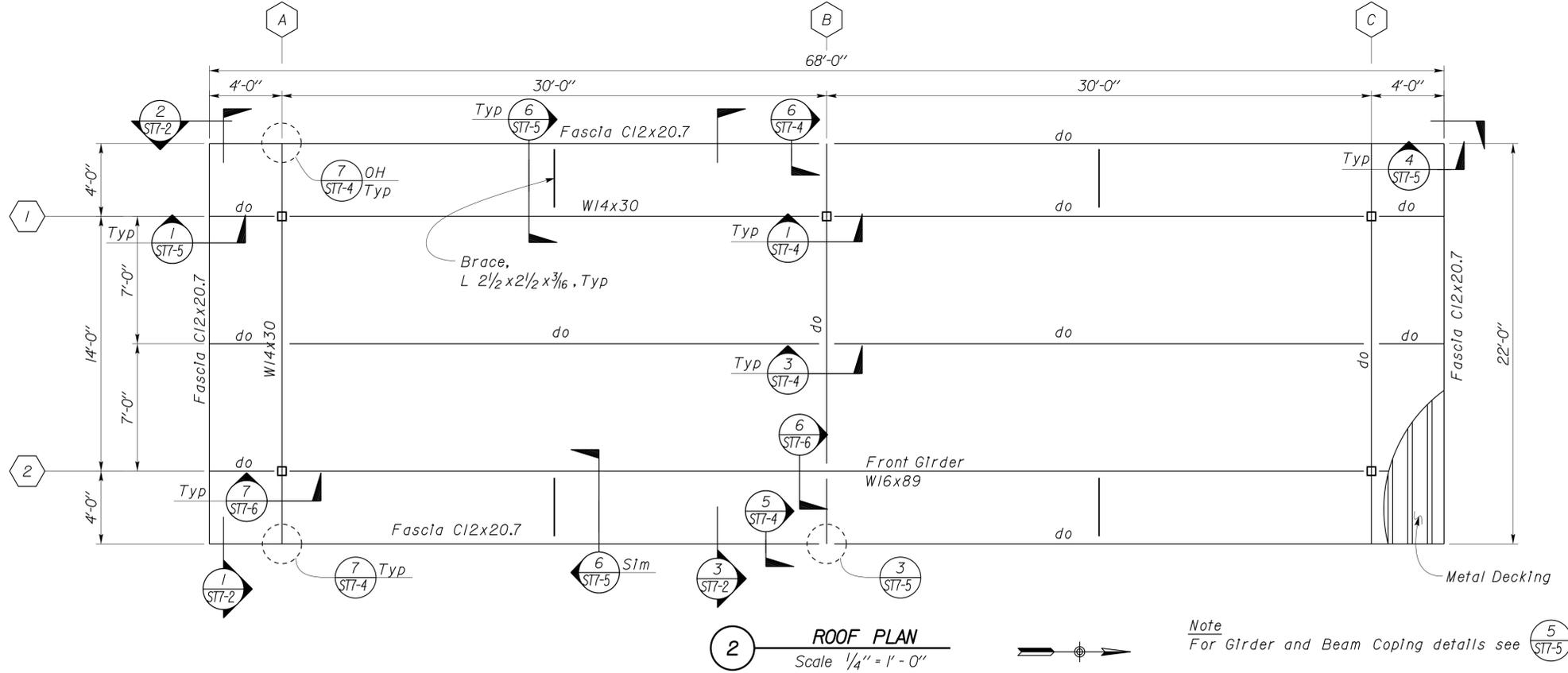
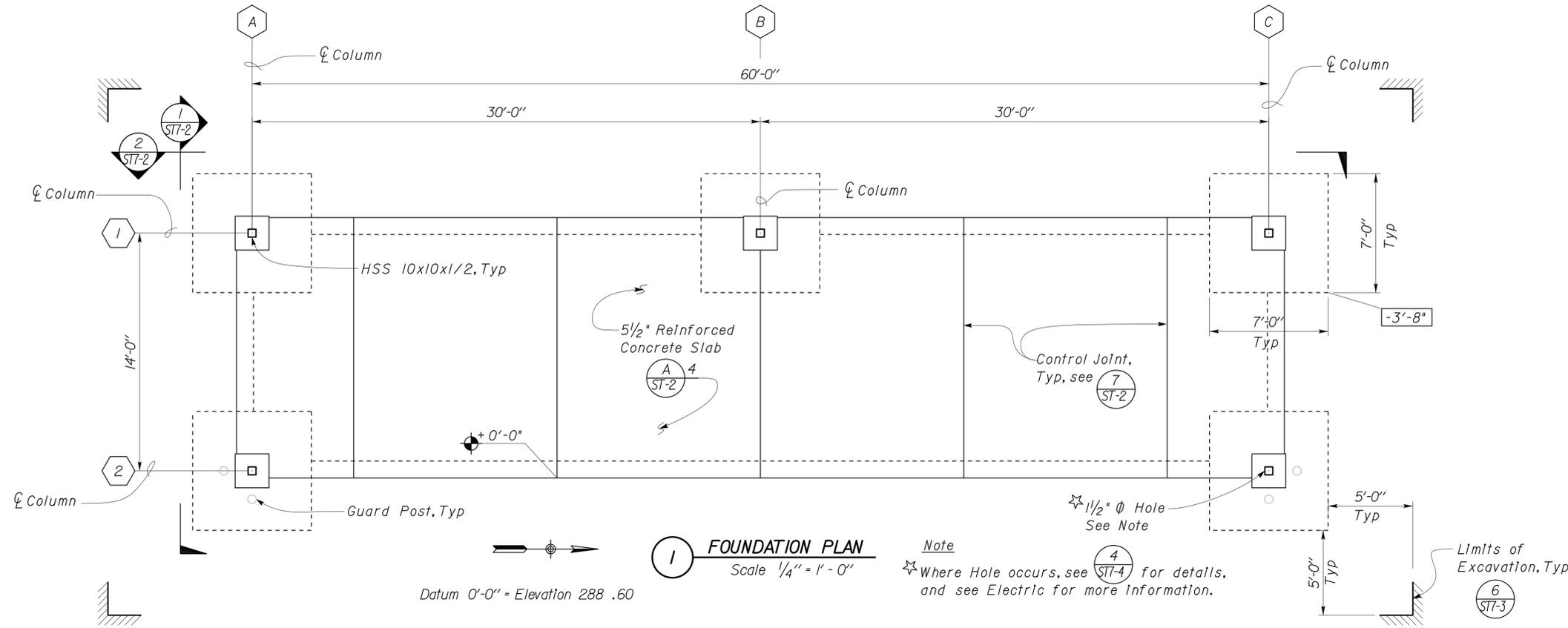
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		202	354

Dai Lu
 REGISTERED CIVIL ENGINEER
 No. 67416
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA

06-09-10
 DATE

01-06-14
 PLANS APPROVAL DATE

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Sean Samuel
 DESIGN ENGINEER

DESIGN	BY EDWARD ZHANG	CHECKED DAI LU
DETAILS	BY EDWARD ZHANG	CHECKED DAI LU
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	FOUNDATION/ROOF FRAMING PLANS	SHEET OF ST7-1
POST MILE NA			
COVERED STORAGE		REVISION DATES (PRELIMINARY STAGE ONLY)	
DISREGARD PRINTS BEARING EARLIER REVISION DATES		04-08-10 06-03-10	

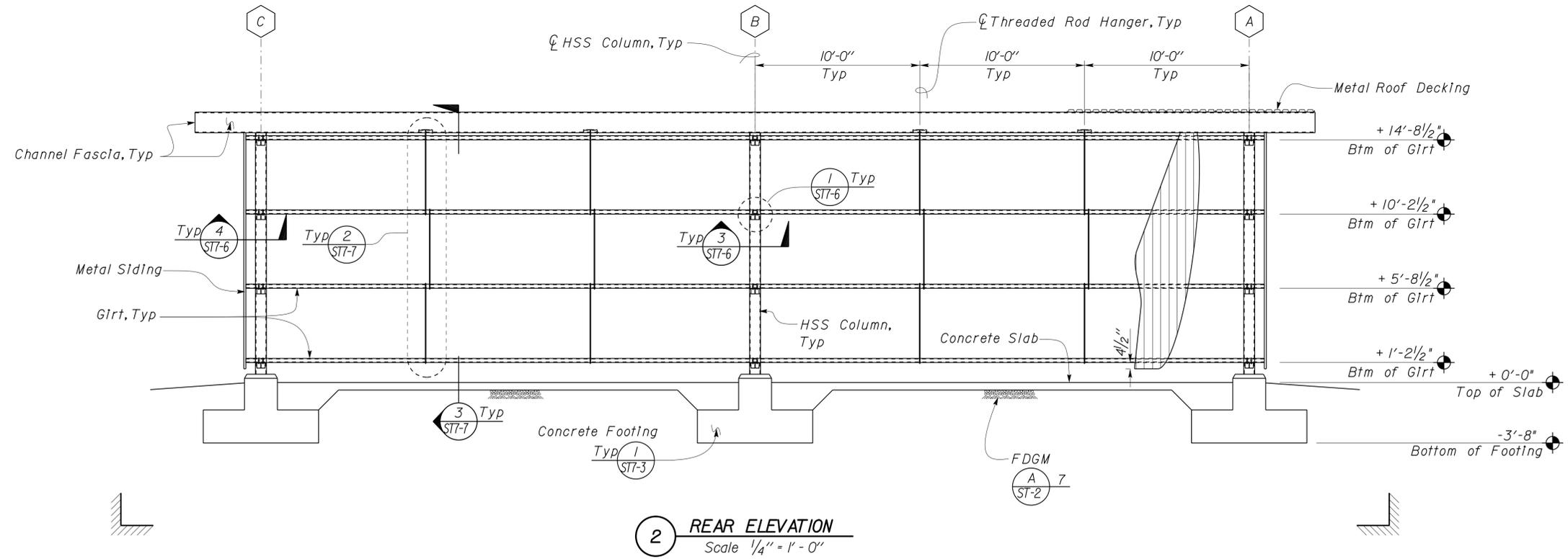
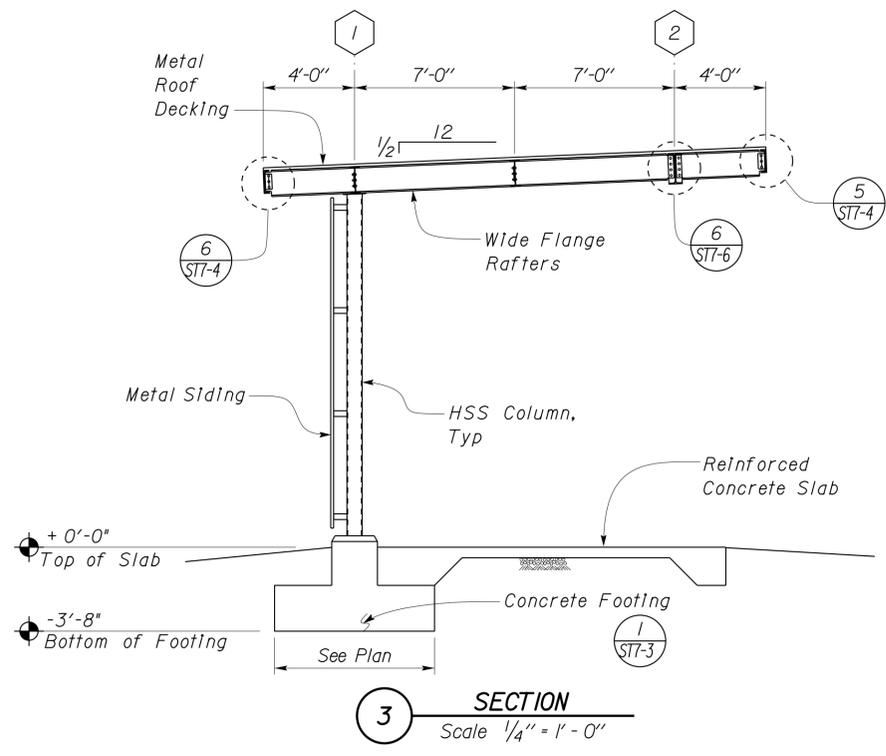
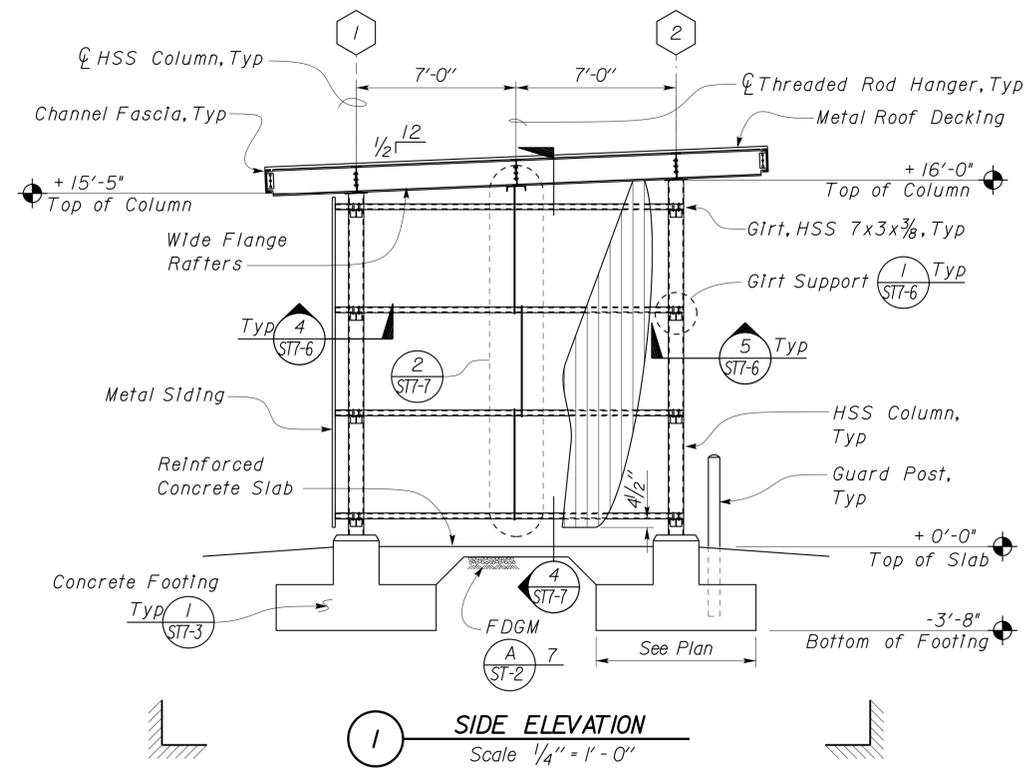
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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DESIGN	BY EDWARD ZHANG	CHECKED DAI LU
DETAILS	BY EDWARD ZHANG	CHECKED DAI LU
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET ST7-2
POST MILE	NA		
COVERED STORAGE		BUILDING ELEVATIONS	

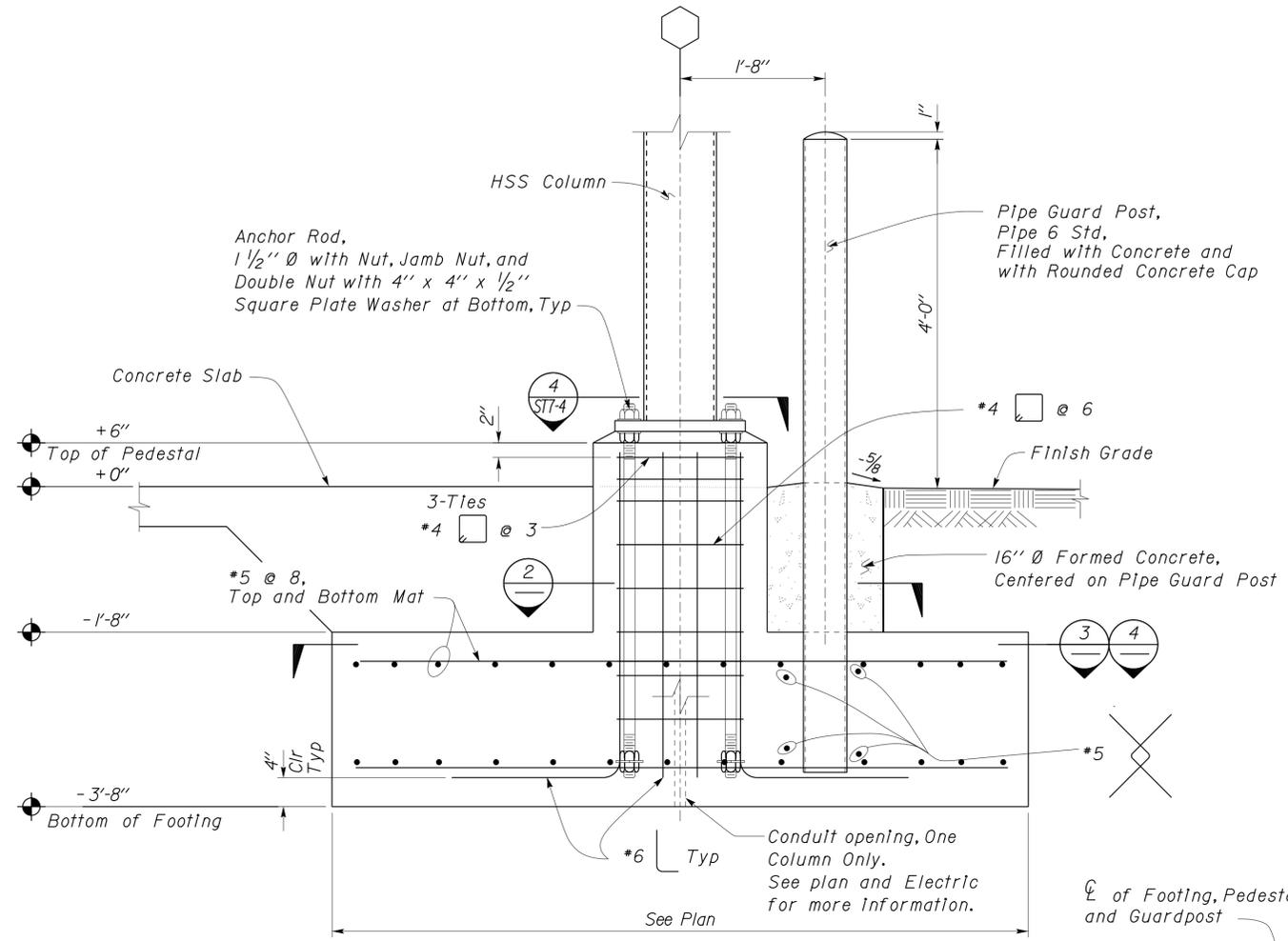
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		204	354

Dai Lu
 REGISTERED CIVIL ENGINEER
 No. 67416
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA

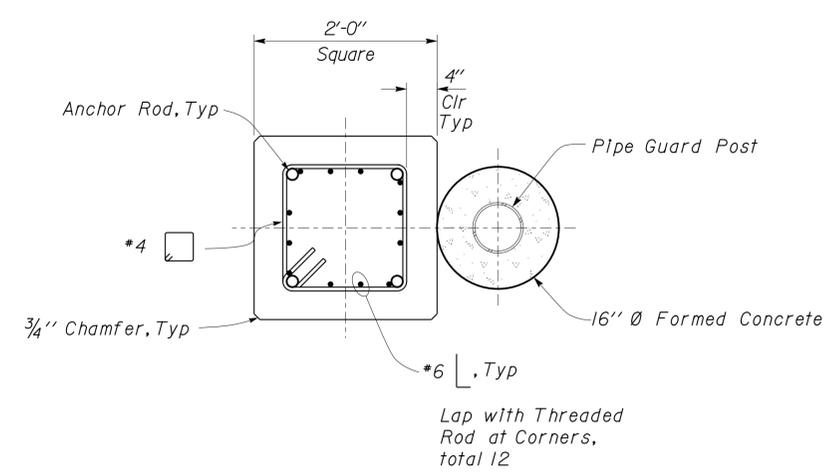
06-09-10
 DATE

01-06-14
 PLANS APPROVAL DATE

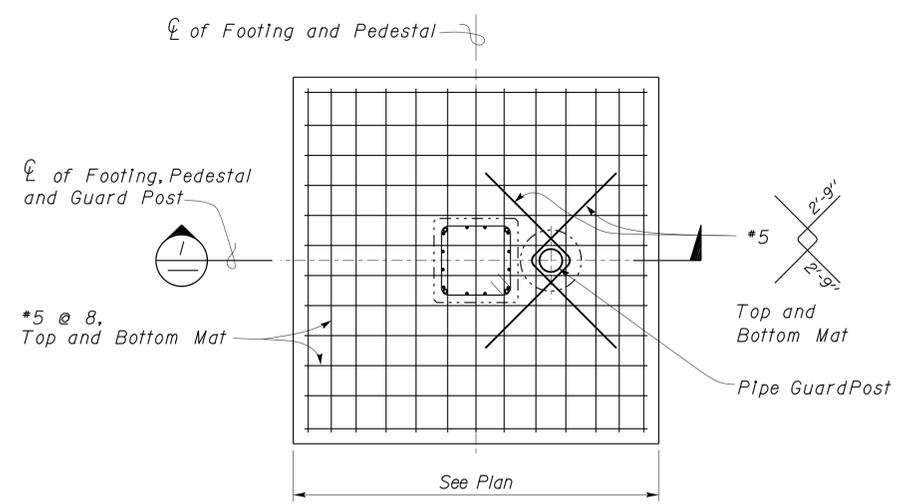
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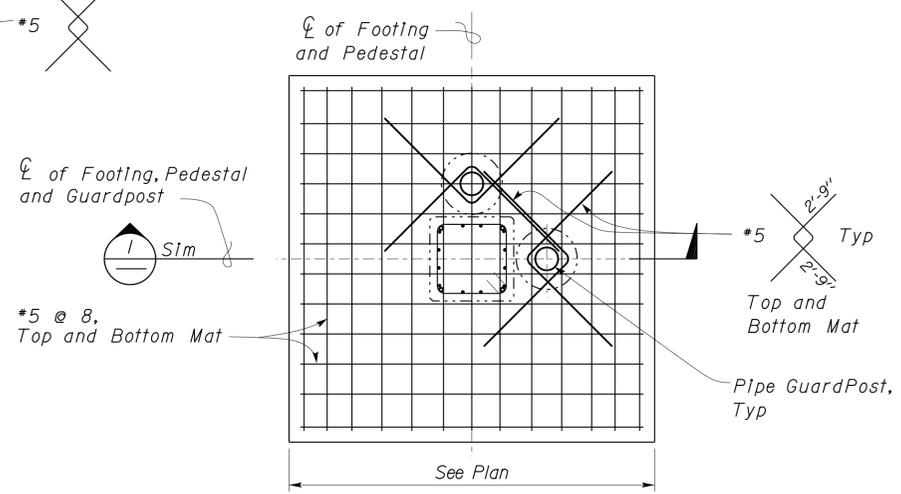
1 COLUMN FOOTING AND GUARDPOST DETAIL
 Scale 1" = 1'-0"



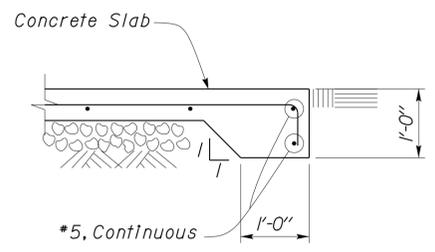
2 COLUMN PEDESTAL AND PIPE GUARDPOST SECTION
 Scale 1" = 1'-0"



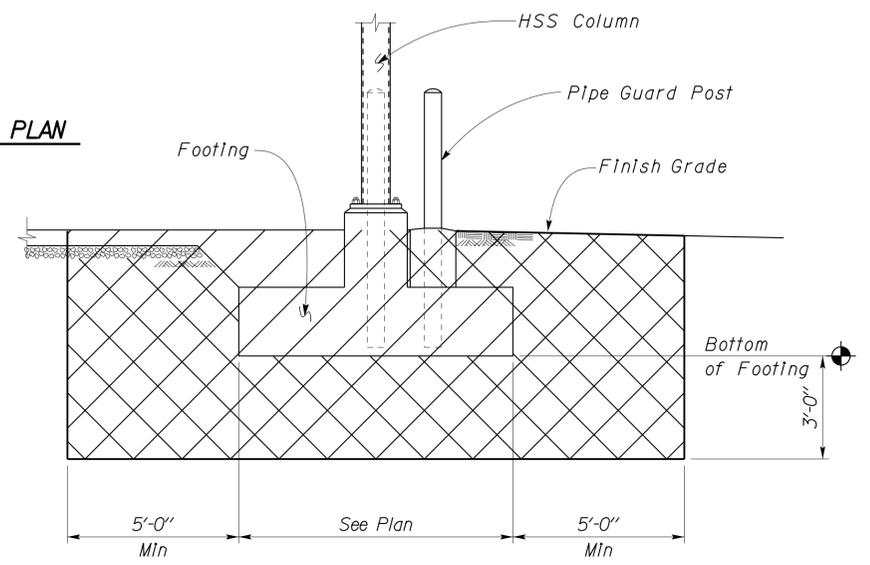
3 COLUMN FOOTING AND GUARD POST PLAN
 Scale 1/2" = 1'-0"



4 COLUMN FOOTING AND DUAL GUARD POST PLAN
 Scale 1/2" = 1'-0"



5 SLAB EDGE DETAIL
 Scale 3/4" = 1'-0"



6 STRUCTURE EXCAVATION AND STRUCTURE BACKFILL DETAIL
 No Scale

DESIGN BY EDWARD ZHANG	CHECKED DAI LU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST7-3
DETAILS BY EDWARD ZHANG	CHECKED DAI LU		PROJECT NUMBER & PHASE 11000000351	POST MILE NA	COVERED STORAGE	FOOTING DETAILS	OF
QUANTITIES BY	CHECKED		UNIT 3599	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	04-08-10 06-03-10	SHEET

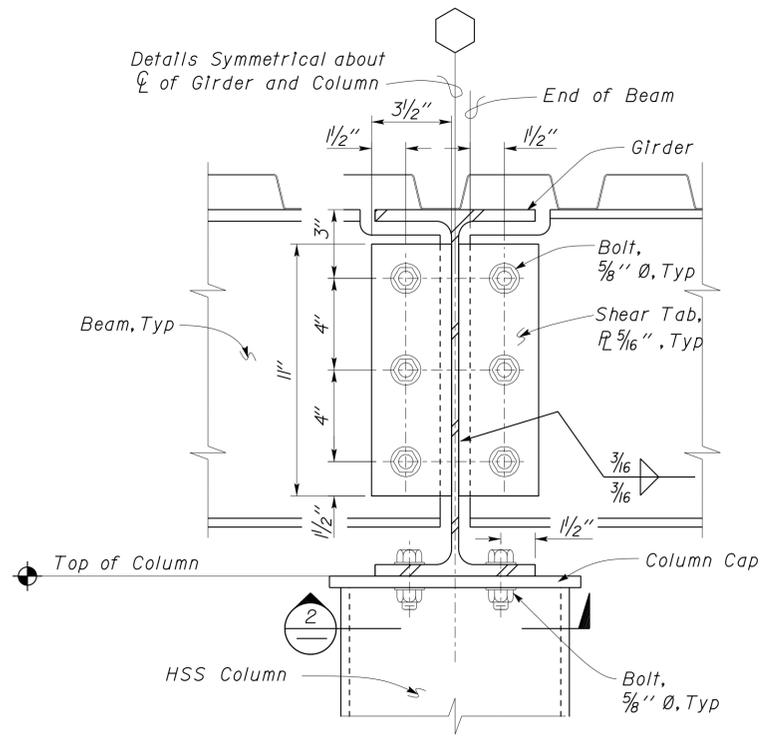
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

TAEMWW Imperial Rev. 7/10

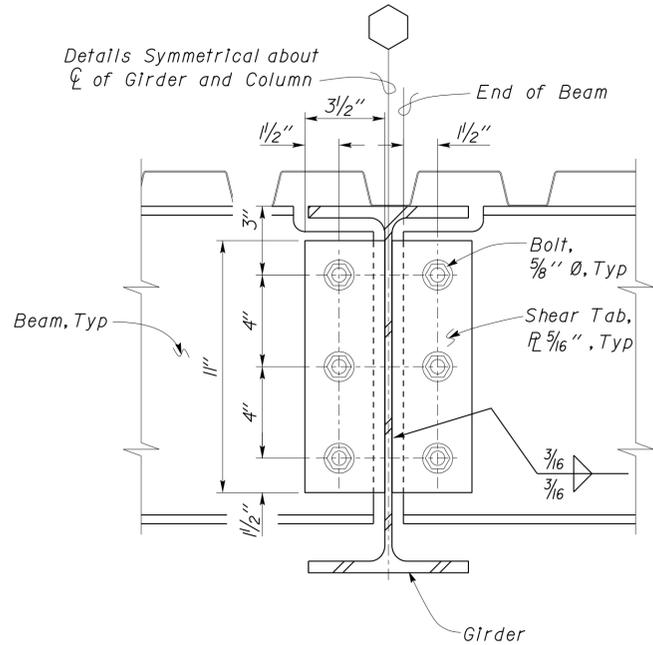
EA 076701

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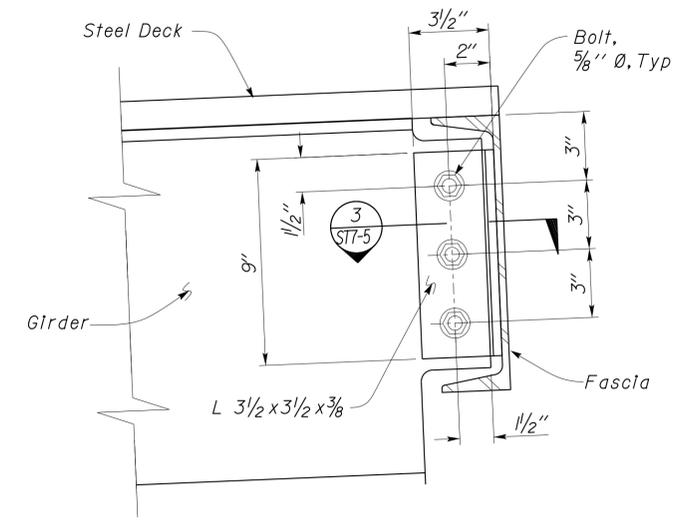
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11	Imp	5708		205	354
Dai Lu REGISTERED CIVIL ENGINEER No. 67416 Exp. 12-31-14 CIVIL STATE OF CALIFORNIA			06-09-10 DATE		01-06-14 PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



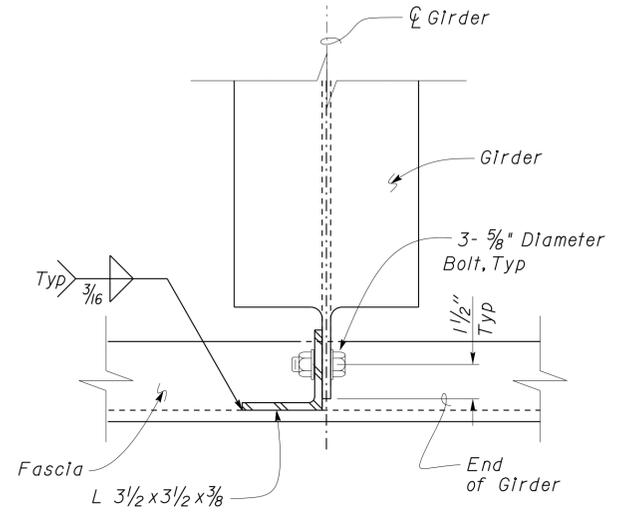
1 GIRDER TO COLUMN CONNECTION
Scale 3" = 1' - 0"



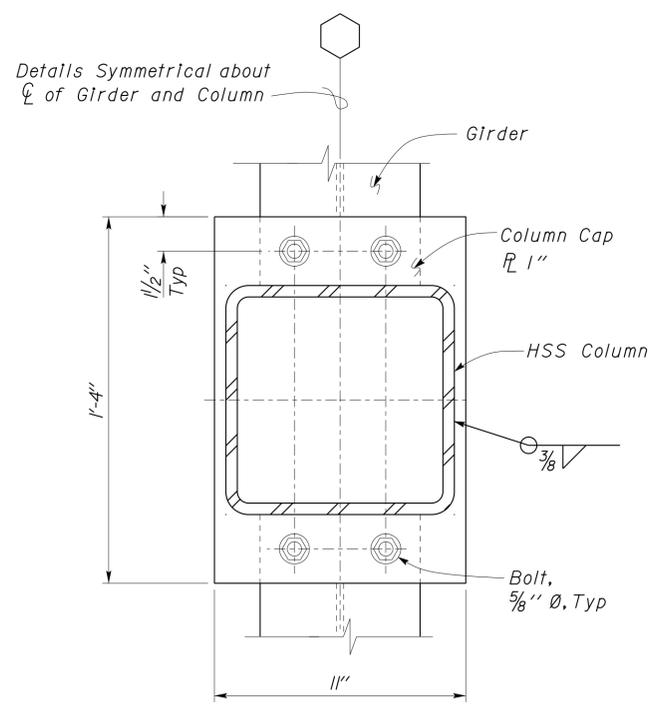
3 BEAM TO GIRDER CONNECTION
Scale 3" = 1' - 0"



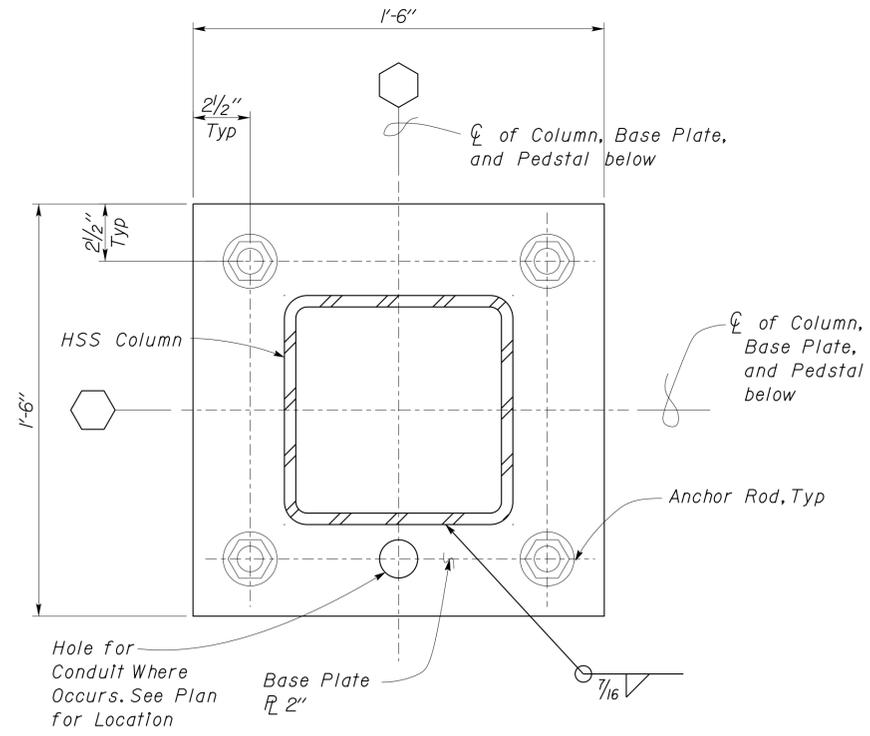
5 GIRDER TO UPPER FASCIA DETAIL
Scale 3" = 1' - 0"



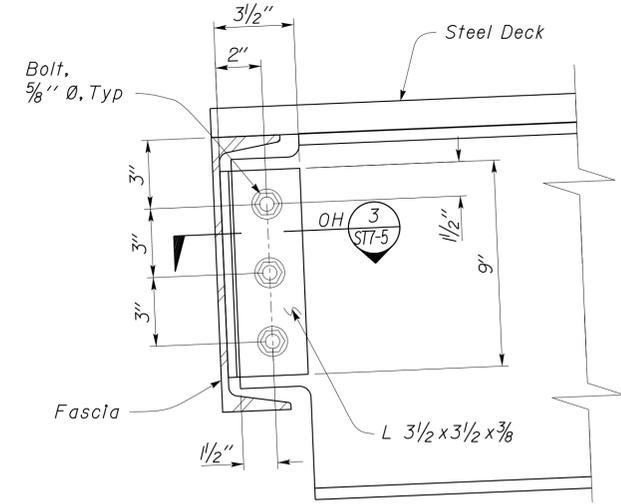
7 GIRDER TO FASCIA DETAIL
Scale 3" = 1' - 0"



2 COLUMN CAP DETAIL
Scale 3" = 1' - 0"



4 COLUMN BASE DETAIL
Scale 3" = 1' - 0"



6 GIRDER TO LOWER FASCIA DETAIL
Scale 3" = 1' - 0"

DESIGN	BY EDWARD ZHANG	CHECKED DAI LU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST7-4
DETAILS	BY EDWARD ZHANG	CHECKED DAI LU		ARCHITECTURAL AND STRUCTURAL DESIGN	POST MILE NA	COVERED STORAGE	FRAMING DETAILS	
QUANTITIES	BY	CHECKED		PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT PROJECT NUMBER & PHASE 3599 11000000351 EA 076701

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		206	354

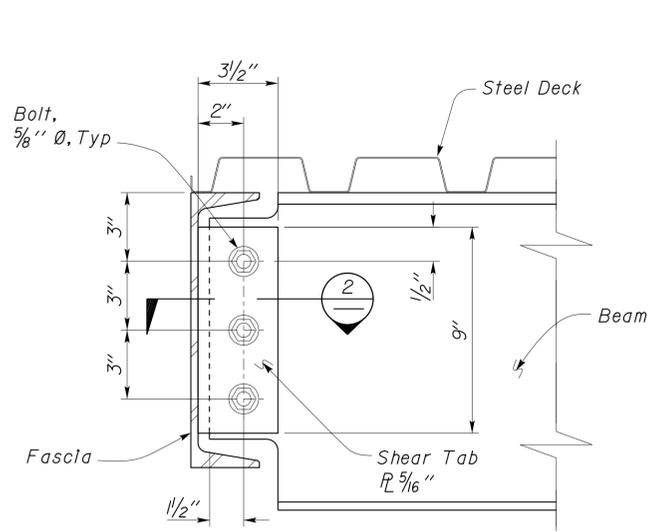
Dai Lu
 REGISTERED CIVIL ENGINEER DATE 06-09-10

PLANS APPROVAL DATE

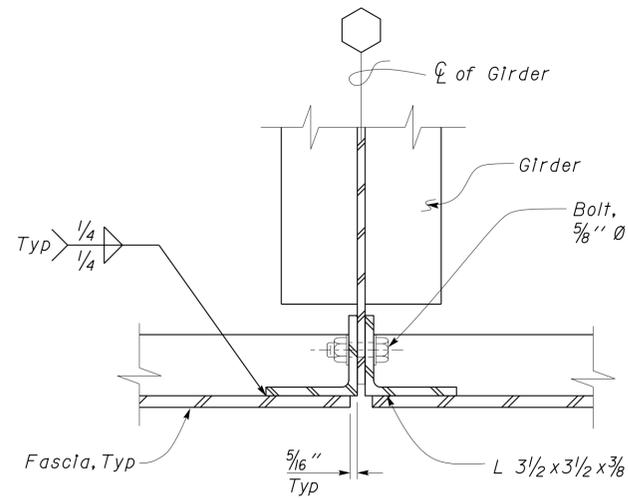
01-06-14

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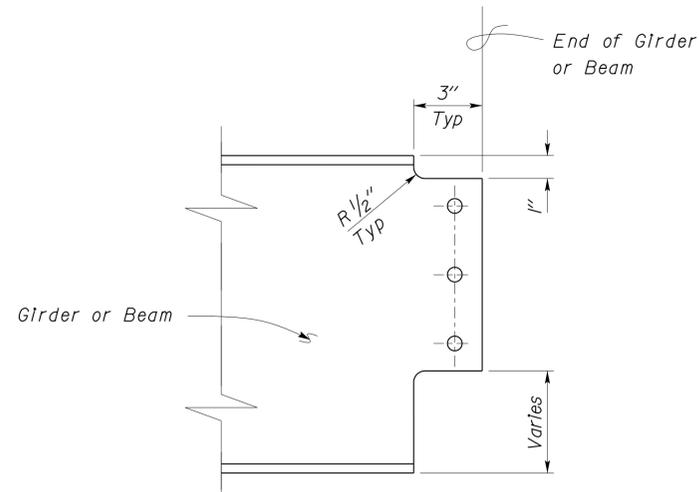
REGISTERED PROFESSIONAL ENGINEER
 No. 67416
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA



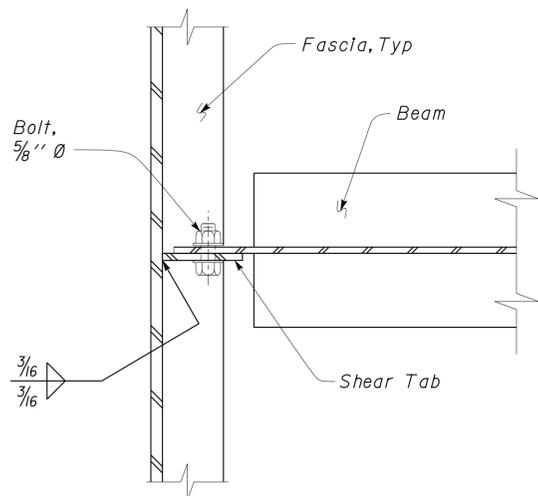
1 BEAM TO FASCIA CONNECTION
 Scale 3" = 1' - 0"



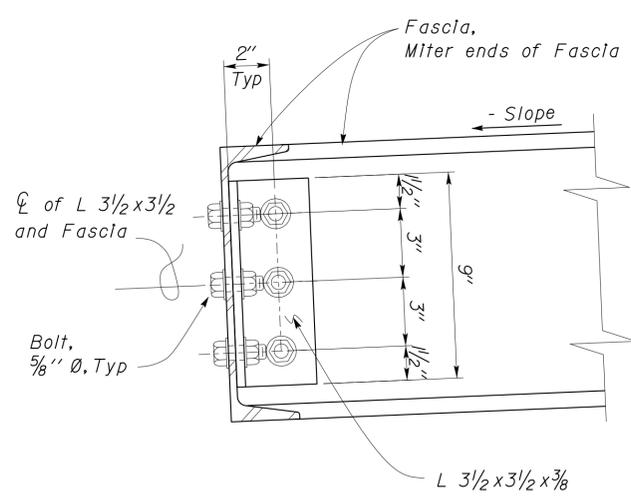
3 GIRDER TO FASCIA SPLICE CONNECTION
 Scale 3" = 1' - 0"



5 GIRDER OR BEAM COPING DETAIL
 Scale 3" = 1' - 0"

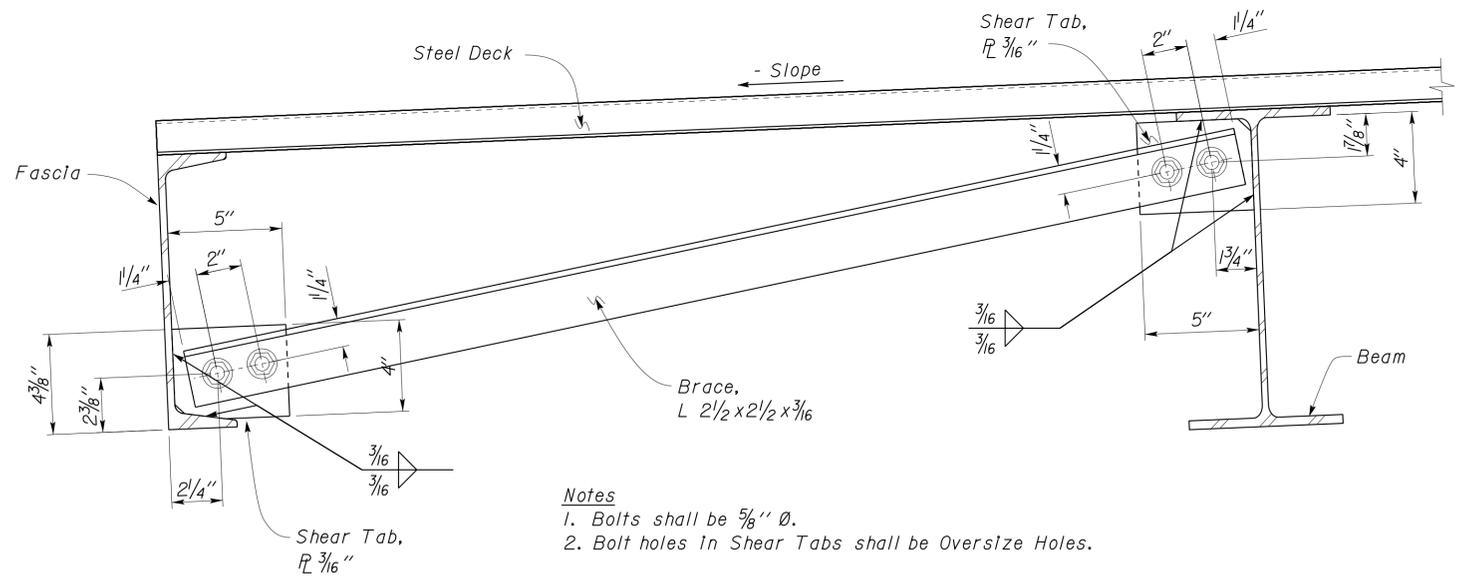


2 BEAM TO FASCIA CONNECTION
 Scale 3" = 1' - 0"



4 FASCIA TO FASCIA CONNECTION
 Scale 3" = 1' - 0"

Note
 Steel Decking not shown.



Notes
 1. Bolts shall be 5/8" Ø.
 2. Bolt holes in Shear Tabs shall be Oversize Holes.

6 CANOPY BRACE CONNECTION DETAIL
 Scale 3" = 1' - 0"

DESIGN	BY EDWARD ZHANG	CHECKED DAI LU
DETAILS	BY EDWARD ZHANG	CHECKED DAI LU
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708
POST MILE	NA

EL CENTRO MAINTENANCE FACILITY

COVERED STORAGE

FRAMING DETAILS

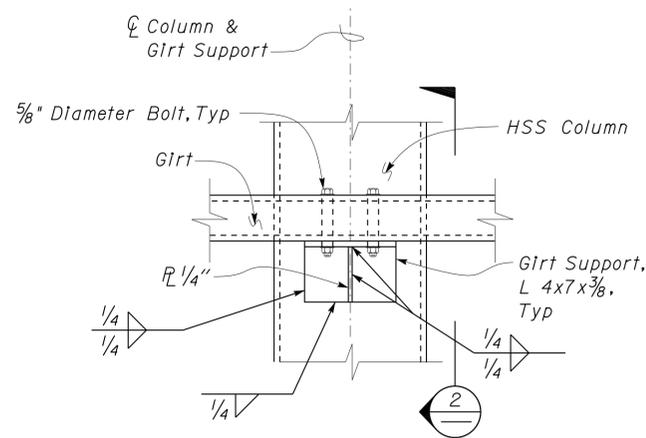
SHEET
ST7-5

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		207	354

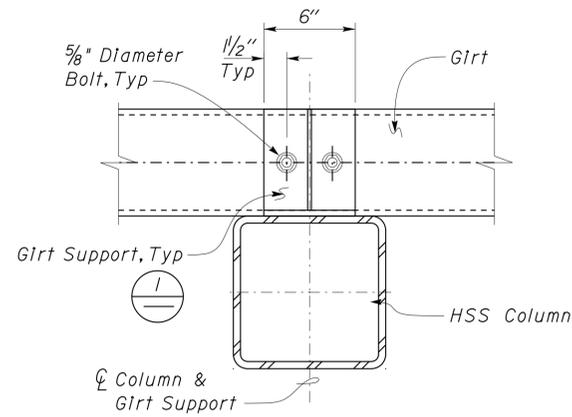
Dai Lu
 REGISTERED CIVIL ENGINEER DATE 06-09-10

01-06-14
 PLANS APPROVAL DATE

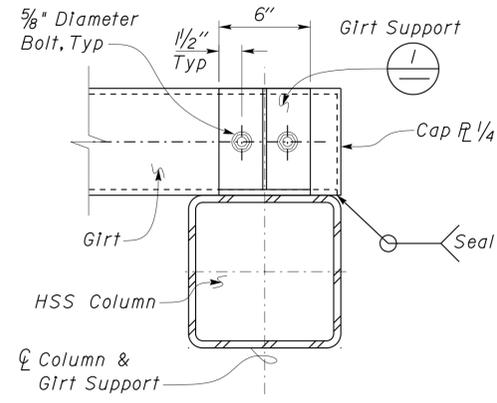
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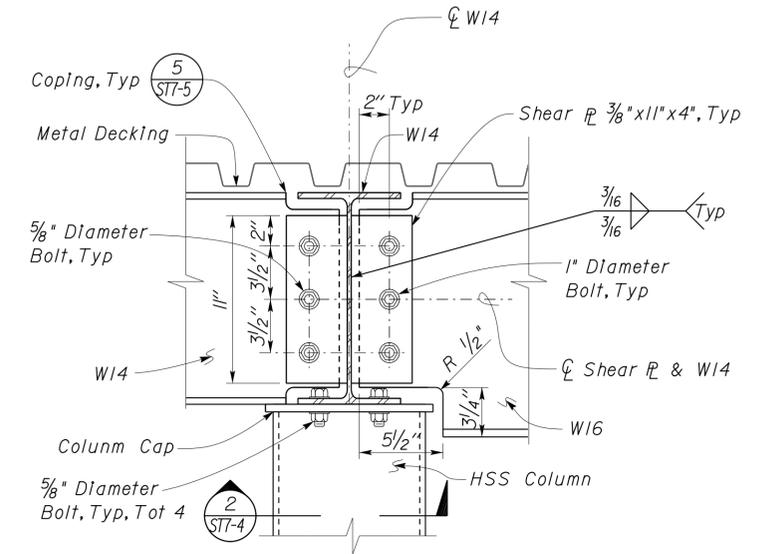
1 GIRT SUPPORT DETAIL
 Scale 2" = 1' - 0"



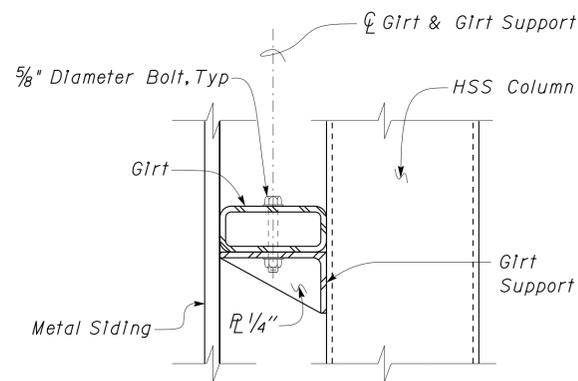
3 GIRT TO COLUMN DETAIL
 Scale 2" = 1' - 0"



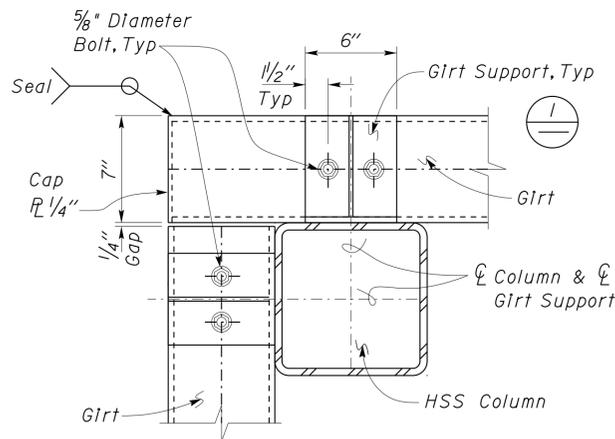
5 GIRT TO COLUMN DETAIL
 Scale 2" = 1' - 0"



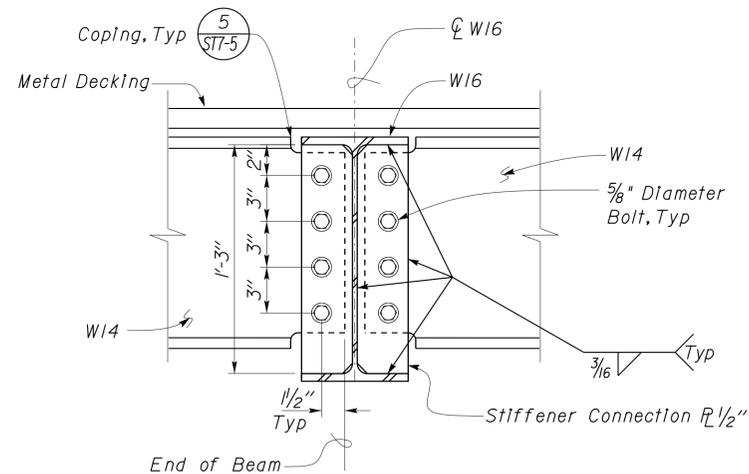
7 SEATED W16 CONNECTION
 Scale 2" = 1' - 0"



2 GIRT SUPPORT DETAIL
 Scale 2" = 1' - 0"



4 GIRT TO COLUMN DETAIL
 Scale 2" = 1' - 0"



6 W14 TO W16 CONNECTION
 Scale 2" = 1' - 0"

Note: Incline due to Roof Slope not Shown

DESIGN BY EDWARD ZHANG	CHECKED DAI LU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST7-6
				POST MILE NA	COVERED STORAGE	FRAMING DETAILS	OF
DETAILS BY EDWARD ZHANG	CHECKED DAI LU	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE EA 076701	3599 11000000351	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET
QUANTITIES BY	CHECKED	0	1	2	3	04-08-10 06-03-10	OF

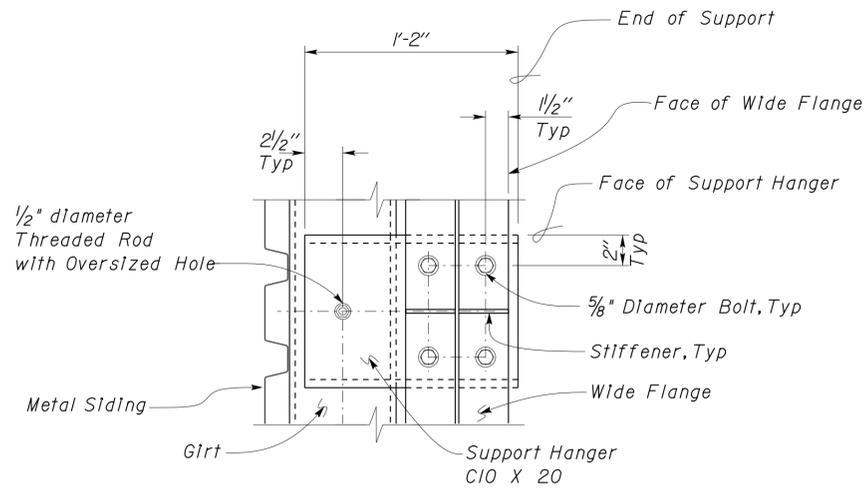
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		208	354

Dai Lu
 REGISTERED CIVIL ENGINEER
 No. 67416
 Exp. 12-31-14
 CIVIL
 STATE OF CALIFORNIA

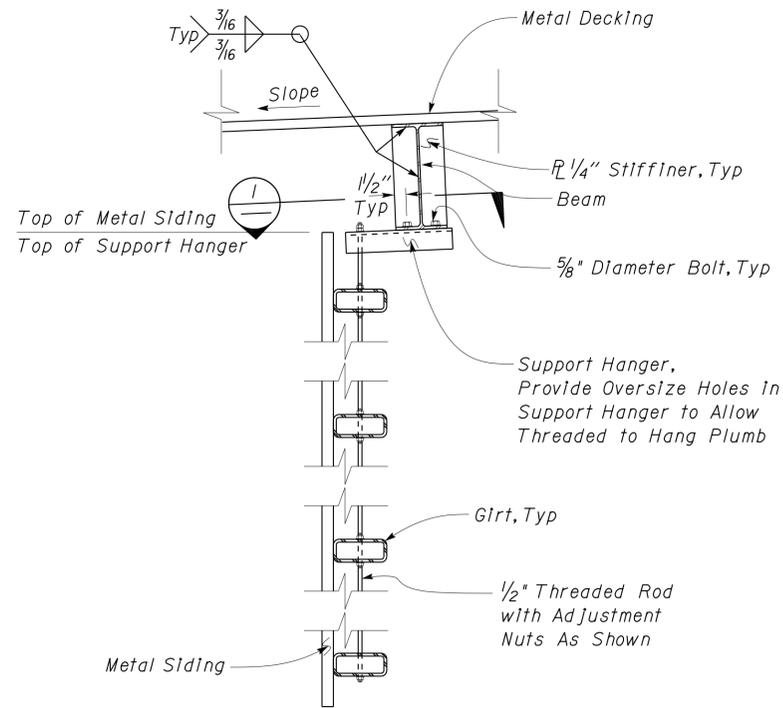
06-09-10
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01-06-14
 PLANS APPROVAL DATE

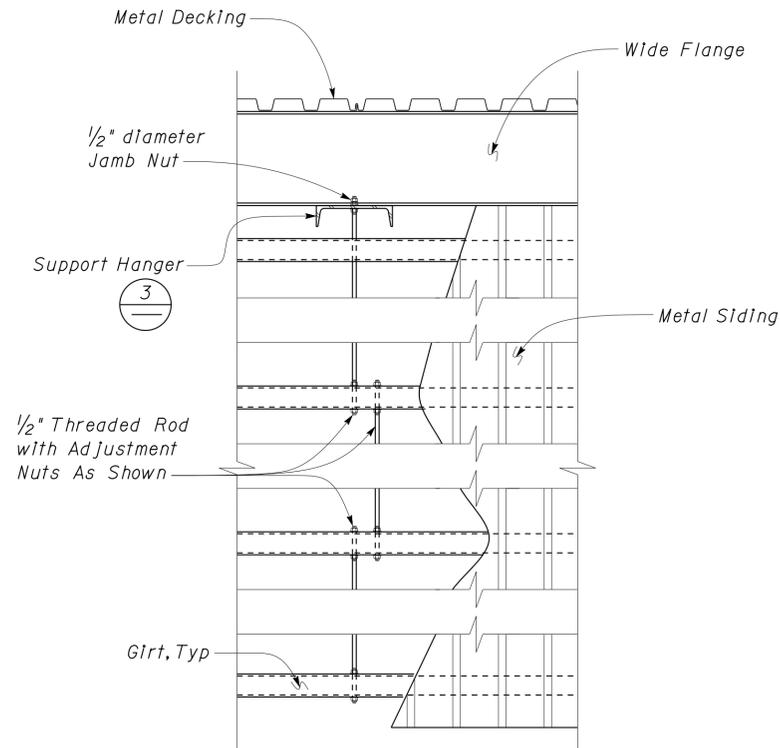
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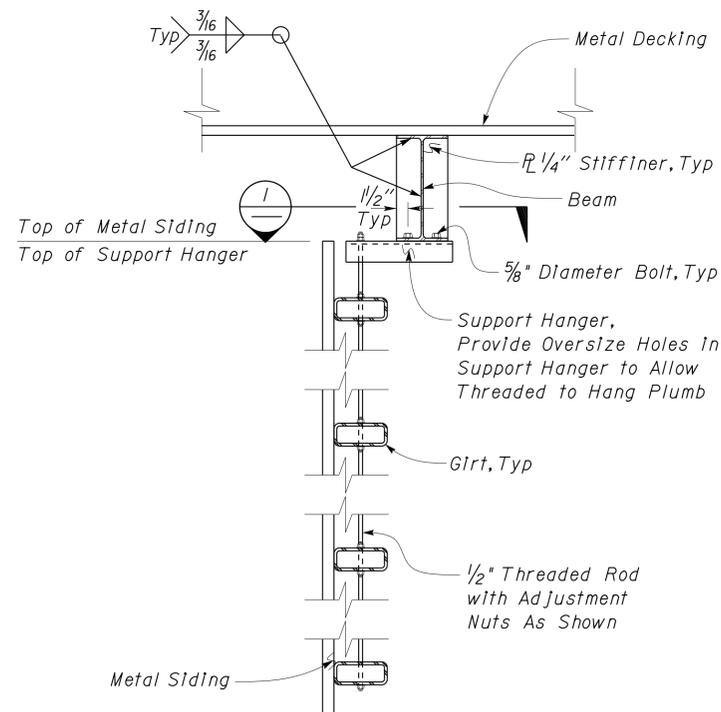
1 GIRT SUPPORT HANGER DETAIL
 Scale 2" = 1'-0"



3 GIRT AND METAL DECKING SECTION
 Scale 1" = 1'-0"



2 GIRT AND METAL DECKING DETAILS
 Scale 1" = 1'-0"



4 GIRT AND METAL DECKING SECTION
 Scale 1" = 1'-0"

DESIGN	BY EDWARD ZHANG	CHECKED DAI LU
DETAILS	BY EDWARD ZHANG	CHECKED DAI LU
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708
POST MILE	NA

EL CENTRO MAINTENANCE FACILITY

COVERED STORAGE

FRAMING DETAILS

SHEET **ST7-7** OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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 REGISTERED CIVIL ENGINEER			06-08-10 DATE		
01-06-14 PLANS APPROVAL DATE					
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A GENERAL DESIGN NOTES

1. CRITERIA

BUILDING CODE:
 2010 California Building Code as Adopted
 by the California Building Standards Commission

OCCUPANCY CATEGORY: II

2. MATERIALS

REINFORCED CONCRETE: (Strength Design)
 $f'_c = 3,650 \text{ psi}$
 $f_y = 60,000 \text{ psi}$

COLD FORMED STEEL: (Allowable Strength Design)
 Thickness less than or equal to 43 mil $F_y = 33 \text{ ksi}$
 Thickness greater than 43 mil $F_y = 50 \text{ ksi}$

3. FOUNDATION

Soils report dated : September 3, 2009
 Allowable Soil Pressure: 2,000 psf
 For Soil Classification, see Log of Test Borings Sheet.

B DESIGN LOADS

1. LIVE

Roof = 20 psf

2. SEISMIC

Importance Factor = 1.0
 Site Class = E
 Mapped Spectral Response Accelerations:
 $S_S = 1.500$ $S_I = 0.600$
 Design Spectral Response Accelerations:
 $S_{DS} = .900$ $S_{DI} = 0.960$
 Design Category = D
 Analysis Procedure: Equivalent Lateral Force

Seismic Force-Resisting System:

<u>North - South</u>	<u>East - West</u>
Bearing Wall	Bearing Wall
$R = 6.5$	$R = 6.5$
$C_S = 0.139$	$C_S = 0.139$

3. WIND

Importance Factor = 1.0
 Basic Wind Speed = 85 mph (3 sec gust)
 Exposure C
 Analysis Procedure: Simplified

D WOOD STRUCTURAL PANEL NOTES

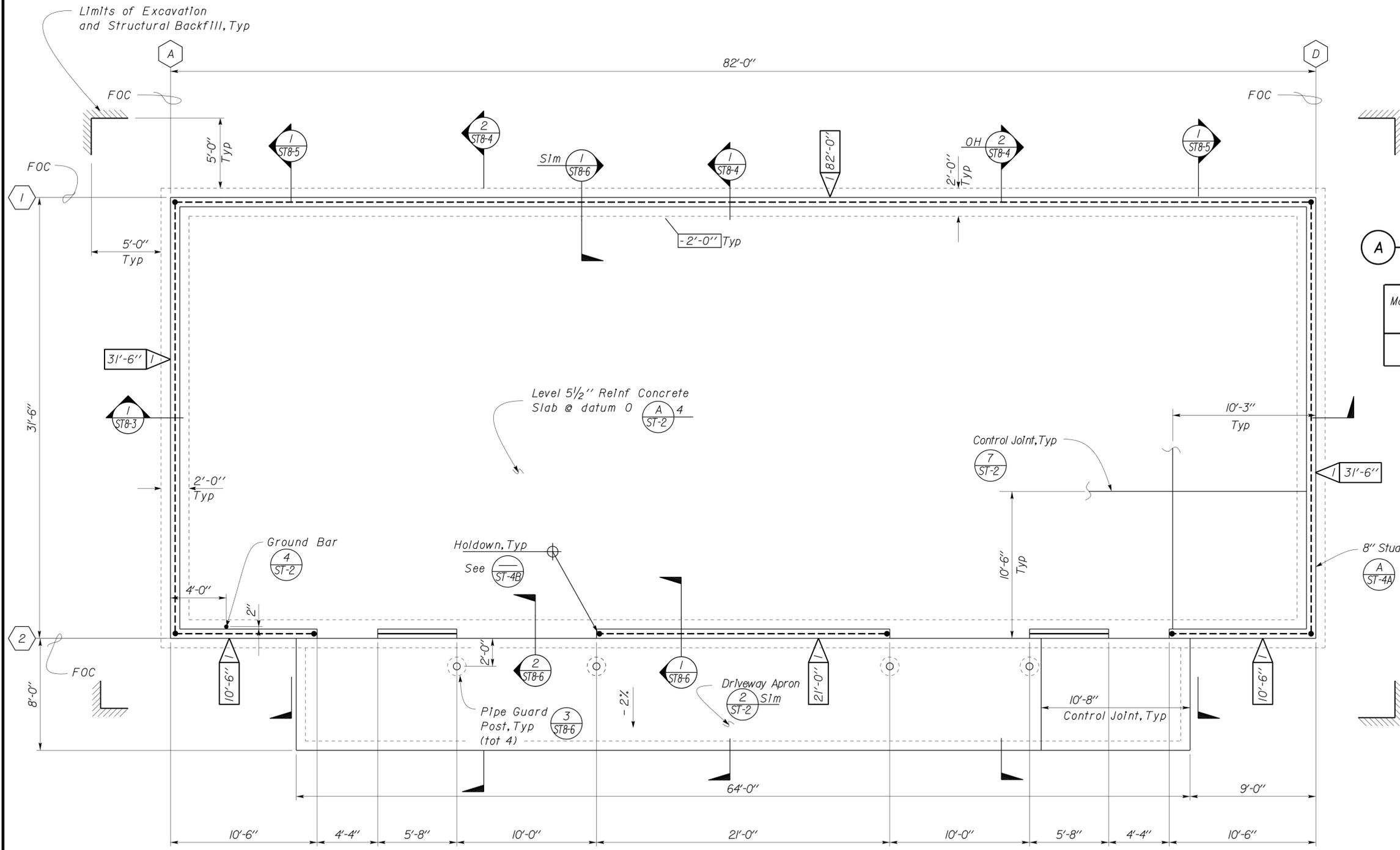
- Wood Structural Panels shall be conform to the Requirements for their Type in Voluntary Product Standard PS 1-07 or PS 2-04. Panels shall be Factory-Marked Indicating Compliance with Grade Requirements. The Durability Classification shall be Exposure I.
- Bearing, shear and exterior walls shall be sheathed with 15/32" Oriented Strand Board Panels with 32/16 Span Rating.
- All Exterior Wall Panels shall be Installed with Strength Axis Placed Horizontally. All Panel Edges shall be Blocked.
- All roofs shall be sheathed with 19/32" T&G Plywood Panels with 40/20 Span Rating.
- Plywood for roofs shall be placed face grain perpendicular to supports. Where possible, plywood shall be placed in full sheets and staggered one-half sheet length. Any partial plywood sheet shall not be less than 2'-0" in length or width unless fully blocked.
- Panel Screws shall be #8 Modified Truss Screw with reamer point and a 5/16" min Head Dia. Maximum Spacing shall be 6" at Panel Edges and 12" at Intermediate Supports. See Shear Wall Schedules for other Spacing Requirements.
- Prior to Installation, Panels shall be protected from Exposure to Weather and Moisture. Provide Air Circulation around Tarp-Covered Stacks..

C GENERAL NOTES

- For Concrete see: "Concrete Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.
- The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

DESIGN	BY	Justin Uyehara	CHECKED	Sean Samuel	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY		SHEET ST8-0		
	DETAILS	BY	Justin Uyehara	CHECKED			Sean Samuel	58M5708	WAREHOUSE		DESIGN CRITERIA AND DETAIL NOTES	
QUANTITIES	BY		CHECKED		UNIT	3599	POST MILE	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET	OF	
TAEMWW Imperial Rev. 7/10					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES		
					PROJECT NUMBER & PHASE	11000000351						
					EA 076701			D:\NTRM\Projects\EL CENTRO MS\Temp\st8_00.dgn				

21-JAN-2014 14:33



A SHEAR WALL TABLE

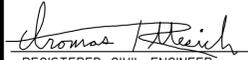
Mark	Screw Schedule		Holddown	Holddown Anchorbolt
	Edge Screw	Field Screw		
1	6" OC	12" OC	S/HD8S TD8S	7/8" Ø x 26"

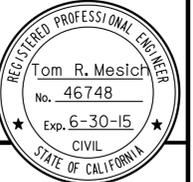
- See (1) ST-4A for Typical Shear Wall Detail
- Bottom Track shall not be splced within shear wall.
- Shearwall lengths shown are minimum.

1 FOUNDATION PLAN
Scale 1/4" = 1' - 0"

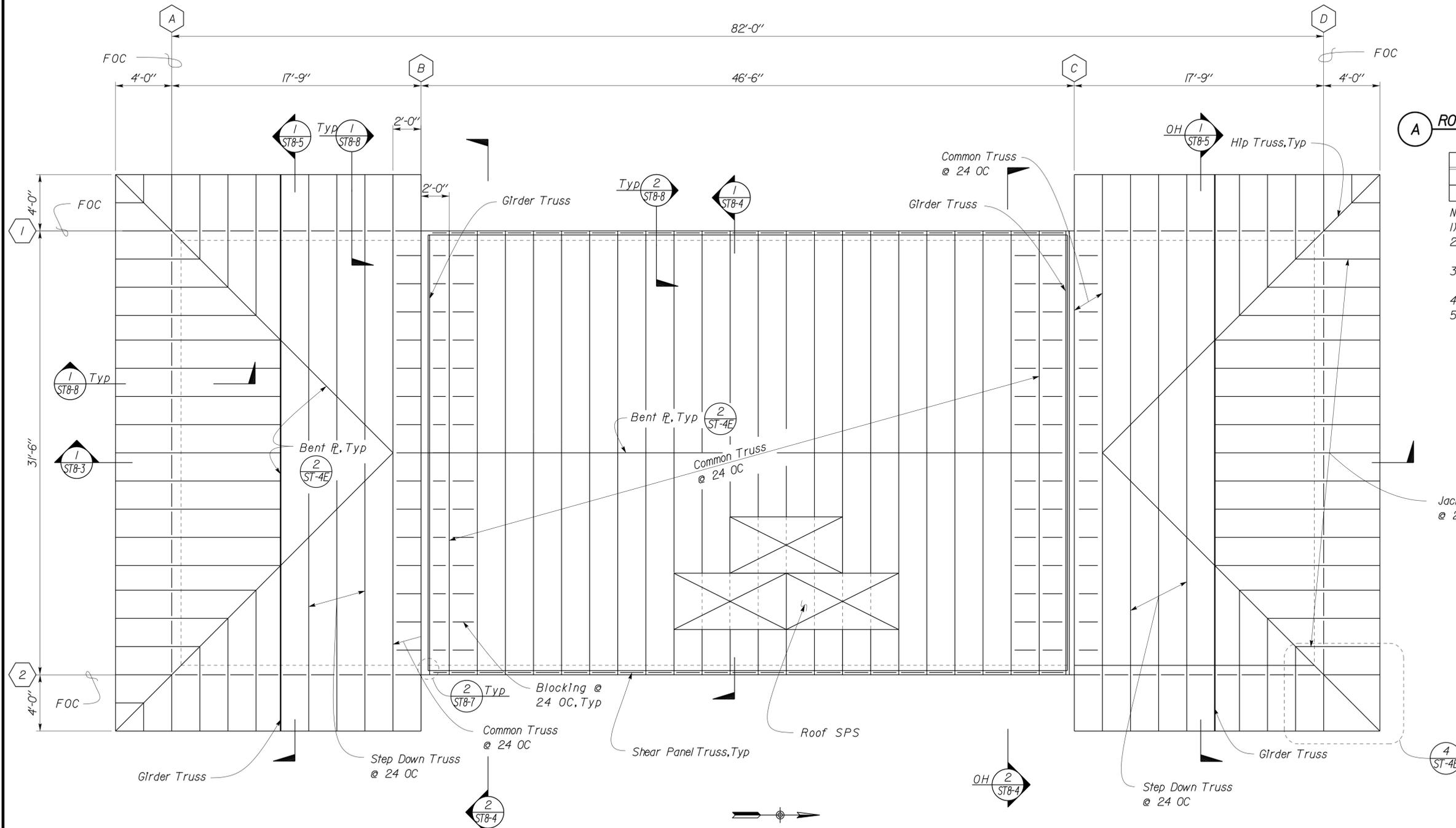
Datum 0'-0" = Elevation 287.52'

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		211	354

 06-08-10
 REGISTERED CIVIL ENGINEER DATE



01-06-14
 PLANS APPROVAL DATE
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A ROOF DIAPHRAGM SCREW SCHEDULE

Location	
Edge Screw	*8 Screws @ 6"OC
Field Screw	*8 Screws @ 12"OC

- Note:**
- 1) Truss and roof rafters shall be located directly above wall stud/post
 - 2) Girder truss shall be located directly above double stud back to back connected w/*10 Screws @ 12" OC
 - 3) See (D) ST4-0 for roof sheathing notes
 - 4) See ST-3A and ST-3B for truss details
 - 5) See ST-4B for hip and ridge plates

1 ROOF FRAMING PLAN
Scale 1/4" = 1' - 0"

For truss details see
(ST-3A) (ST-3B)

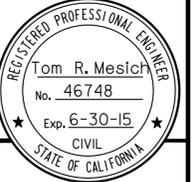
DESIGN BY Justin Uyehara CHECKED Sean Samuel DETAILS BY Justin Uyehara CHECKED Sean Samuel QUANTITIES BY CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST8-2
			POST MILE	WAREHOUSE	ROOF FRAMING PLAN	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			UNIT PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY) SHEET OF

EA 076701

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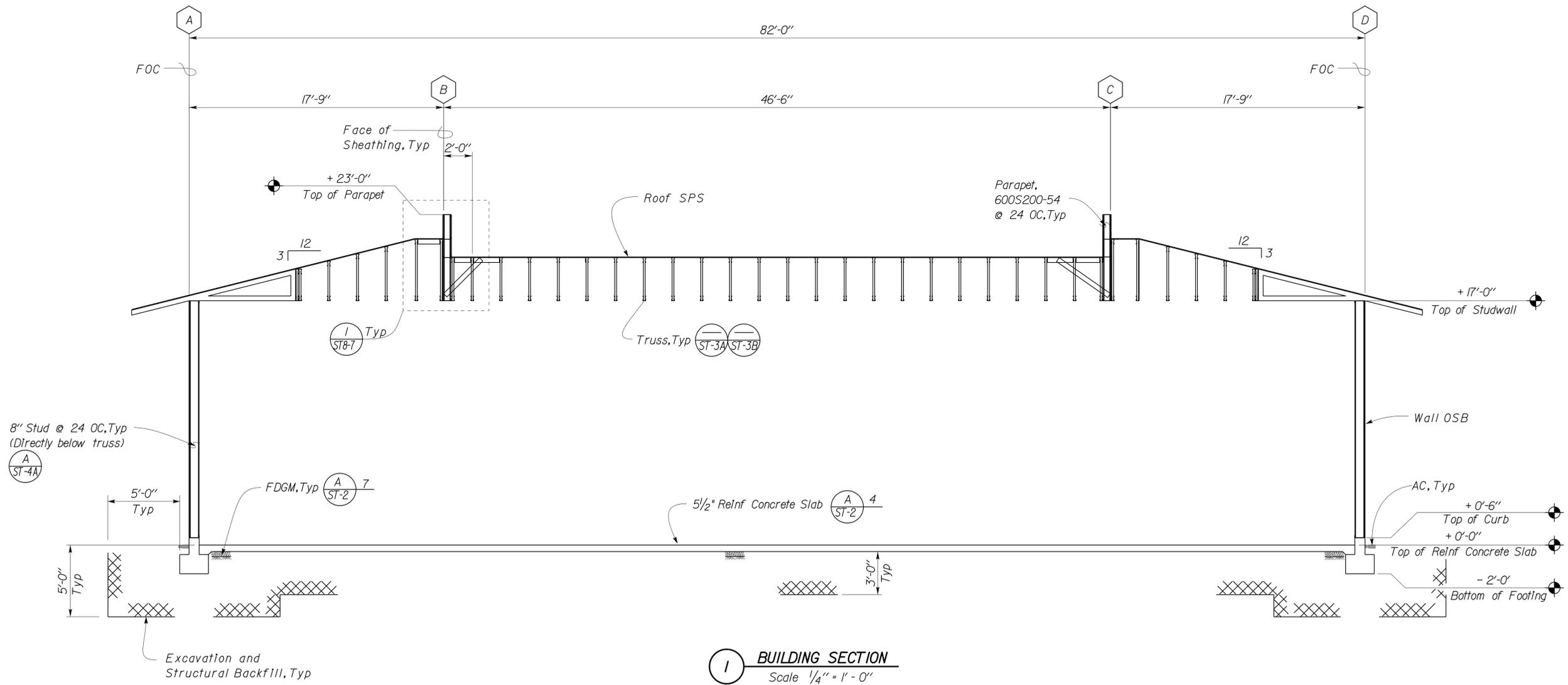
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		212	354

Thomas Reich
REGISTERED CIVIL ENGINEER
DATE 06-08-10



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DESIGN	BY Justin Uyehara	CHECKED Sean Samuel
DETAILS	BY Justin Uyehara	CHECKED Sean Samuel
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

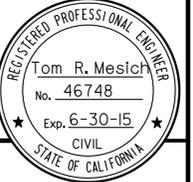
BRIDGE NO. 58M5708
POST MILE

EL CENTRO MAINTENANCE FACILITY
WAREHOUSE BUILDING SECTION

SHEET OF
ST8-3

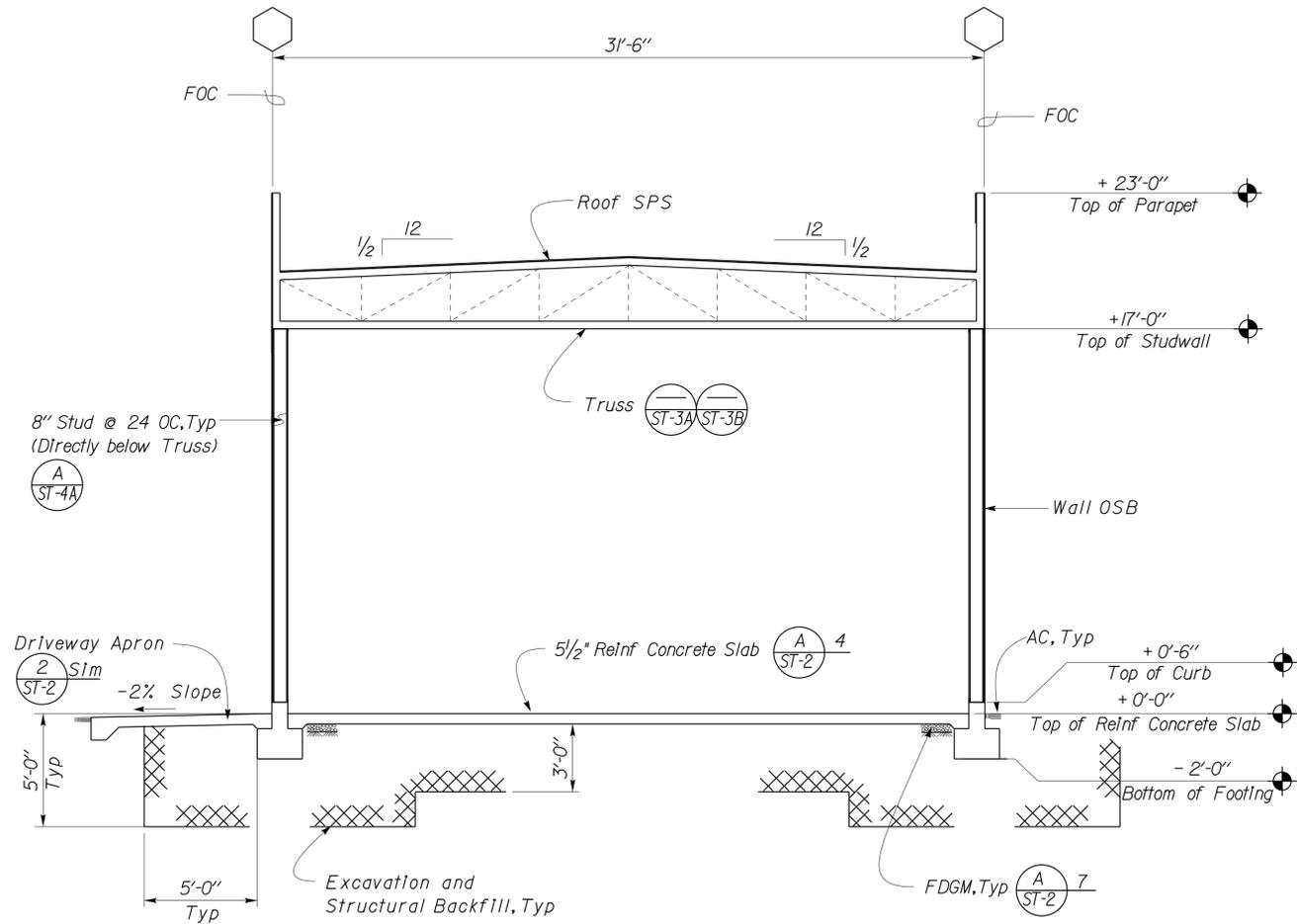
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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Thomas Reich
REGISTERED CIVIL ENGINEER
DATE 06-08-10

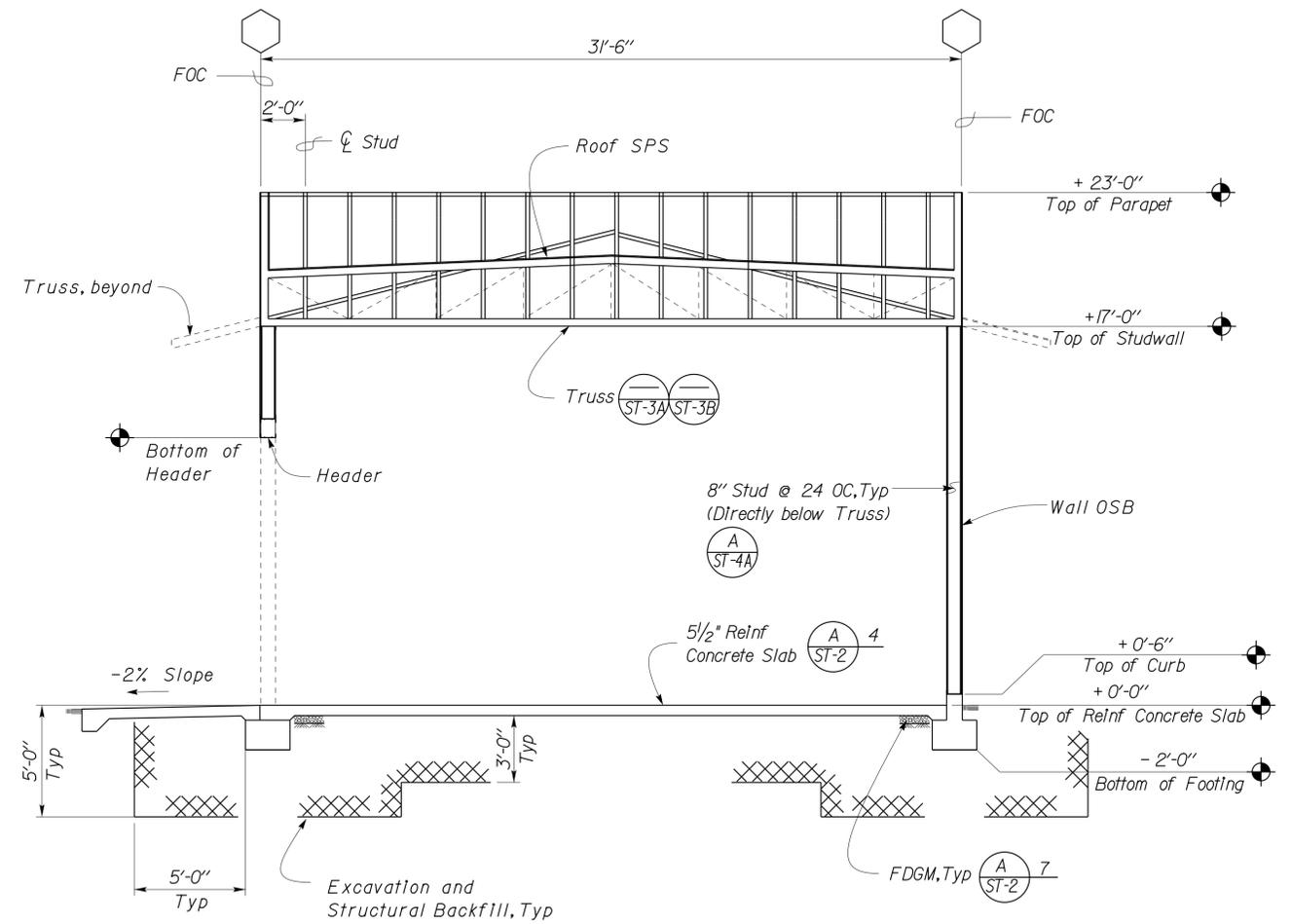


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PLANS APPROVAL DATE

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1 BUILDING SECTION
Scale 1/4" = 1'-0"



2 BUILDING SECTION
Scale 1/4" = 1'-0"

DESIGN	BY Justin Uyehara	CHECKED Sean Samuel
DETAILS	BY Justin Uyehara	CHECKED Sean Samuel
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
POST MILE

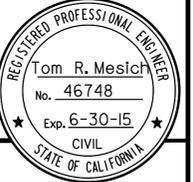
EL CENTRO MAINTENANCE FACILITY
WAREHOUSE BUILDING SECTIONS

SHEET **ST8-4**



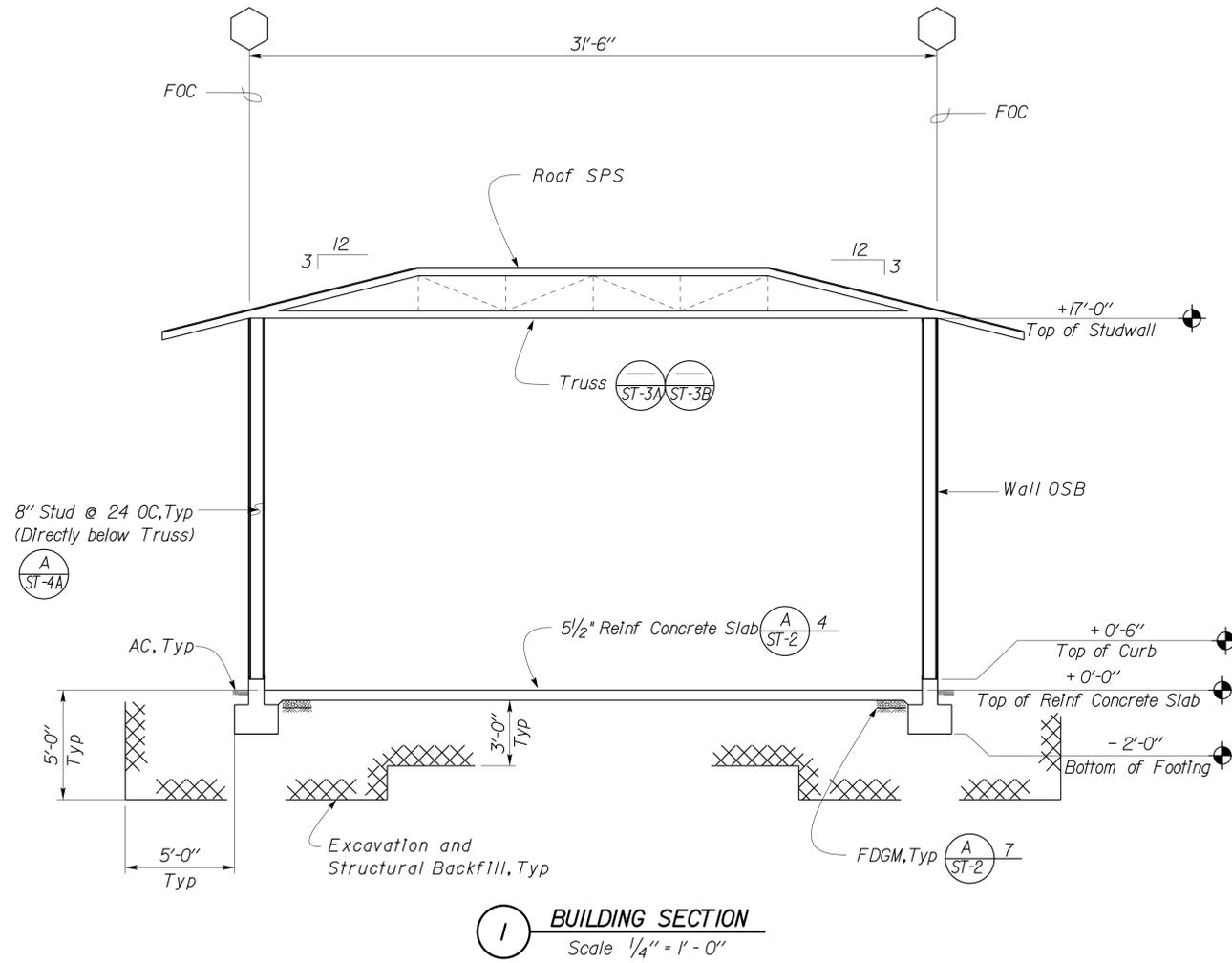
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		214	354

Thomas Reich
 REGISTERED CIVIL ENGINEER
 DATE 06-08-10



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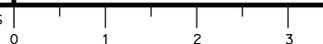
DESIGN	BY Justin Uyehara	CHECKED Sean Samuel
DETAILS	BY Justin Uyehara	CHECKED Sean Samuel
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708
POST MILE	

EL CENTRO MAINTENANCE FACILITY		SHEET
WAREHOUSE	BUILDING SECTION	ST8-5

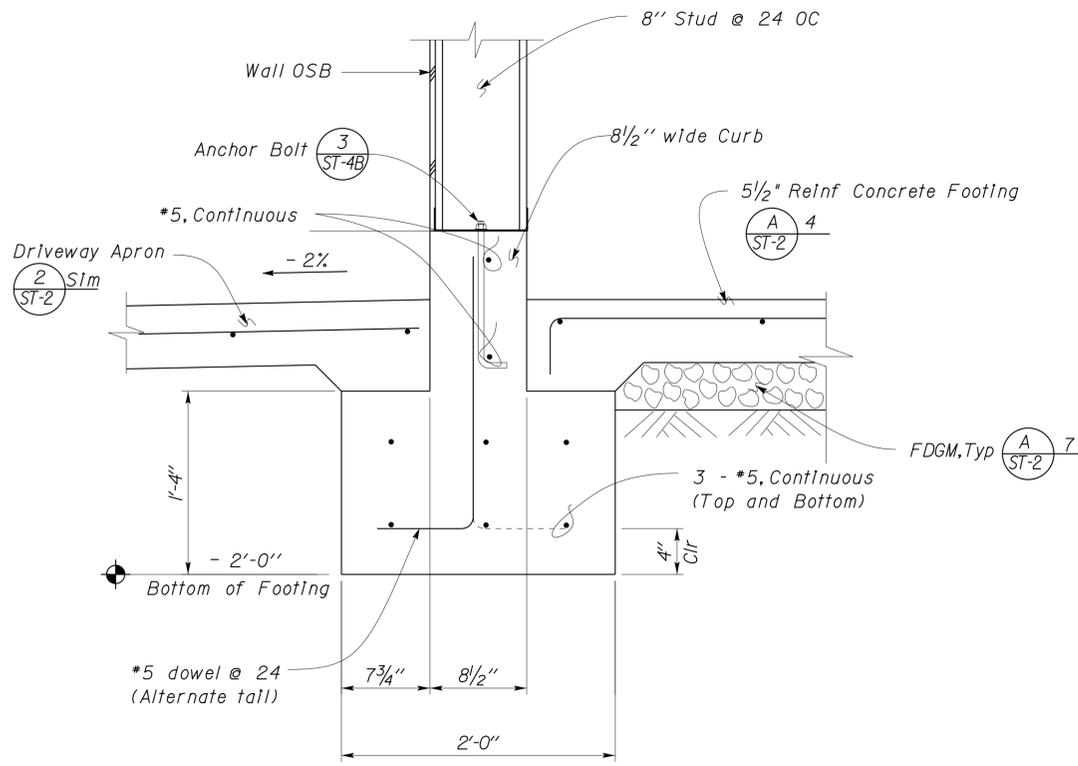


DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		215	354

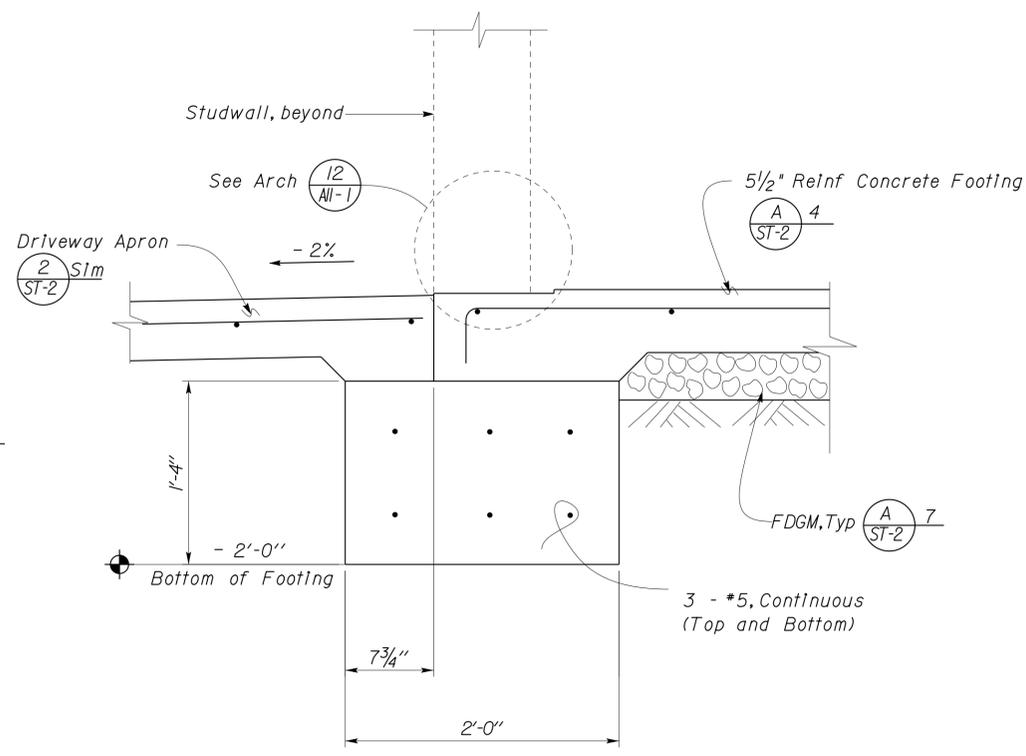
Thomas Reich
 REGISTERED CIVIL ENGINEER
 DATE 06-08-10



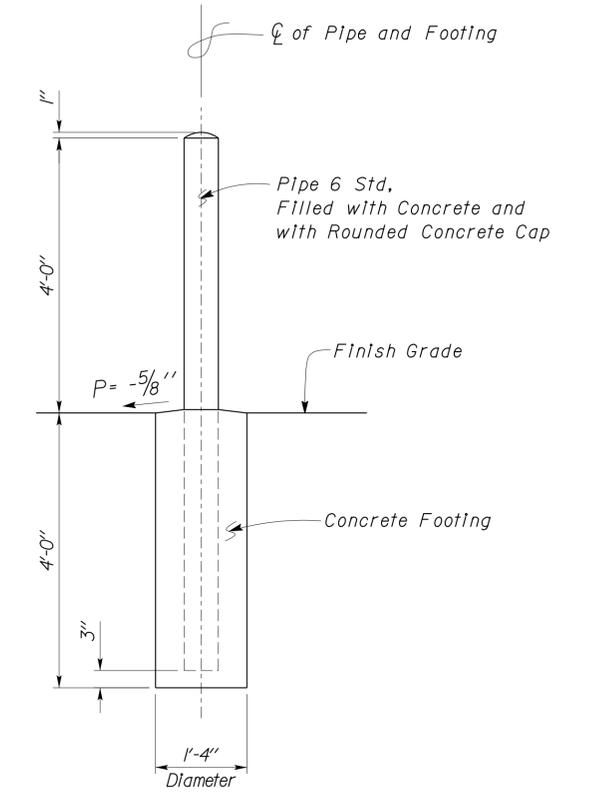
01-06-14
 PLANS APPROVAL DATE
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1 FOOTING DETAIL
 Scale 1 1/2" = 1' - 0"



2 FOOTING DETAIL
 Scale 1 1/2" = 1' - 0"



3 PIPE GUARDPOST DETAIL
 Scale 3/4" = 1' - 0"

DESIGN	BY Justin Uyehara	CHECKED Sean Samuel
DETAILS	BY Justin Uyehara	CHECKED Sean Samuel
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

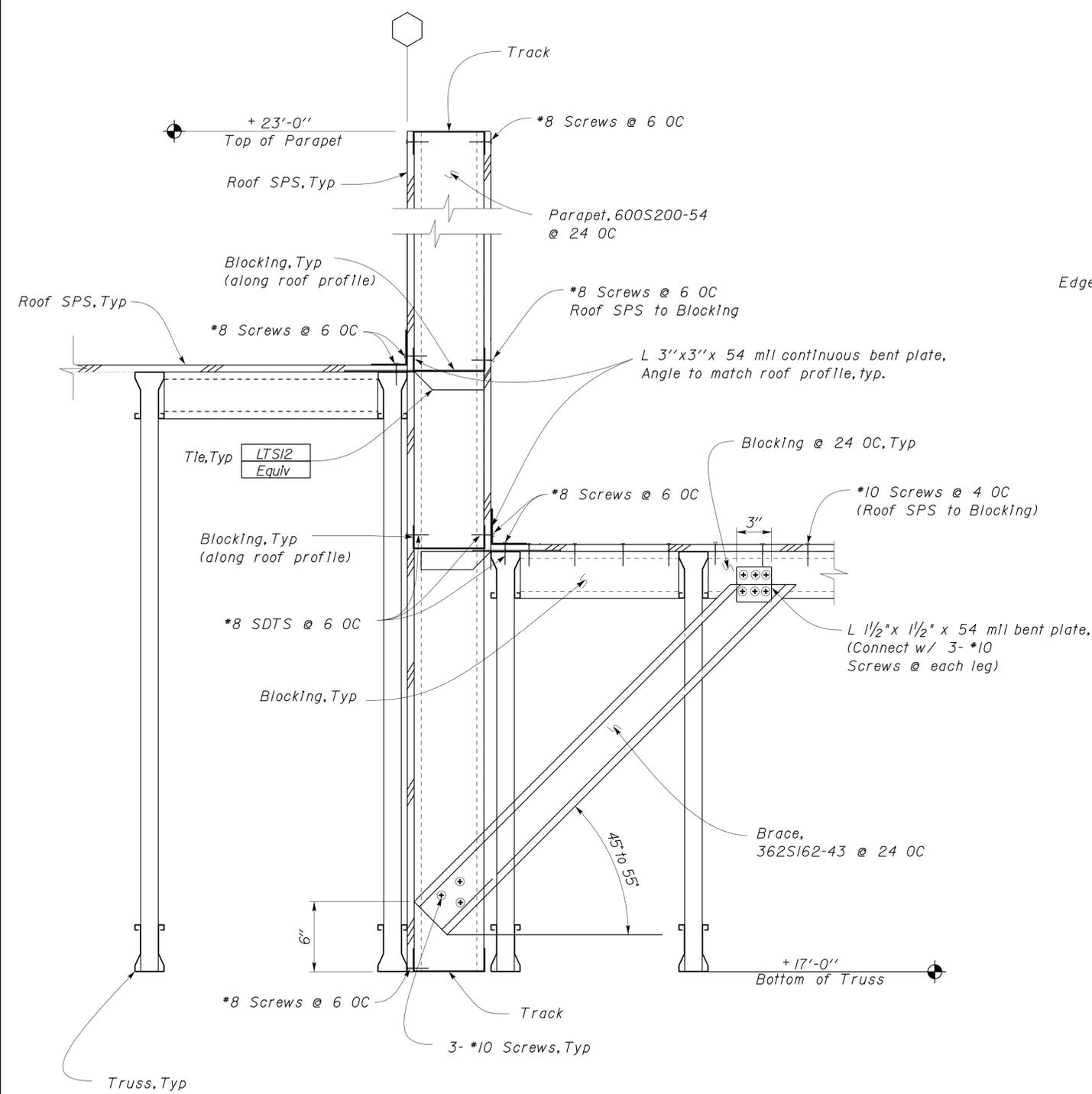
DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
 POST MILE

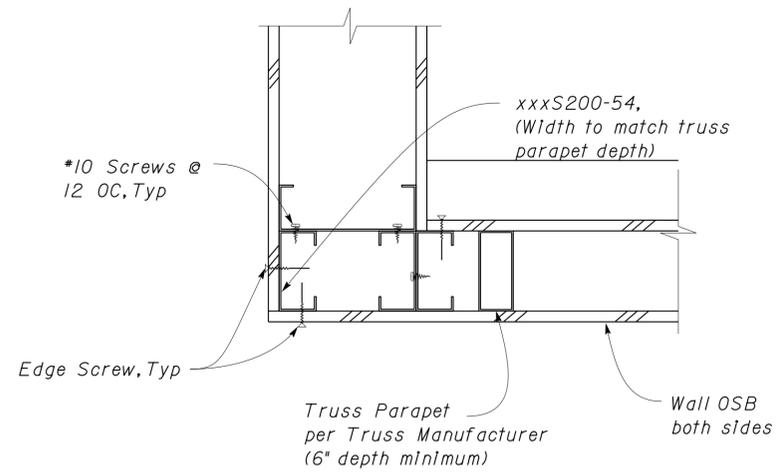
EL CENTRO MAINTENANCE FACILITY
 WAREHOUSE FOUNDATION DETAIL

SHEET OF
ST8-6

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		216	354
<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER			06-08-10 DATE		
01-06-14 PLANS APPROVAL DATE					
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1 ROOF FRAMING SECTION
 Scale 2" = 1' - 0"

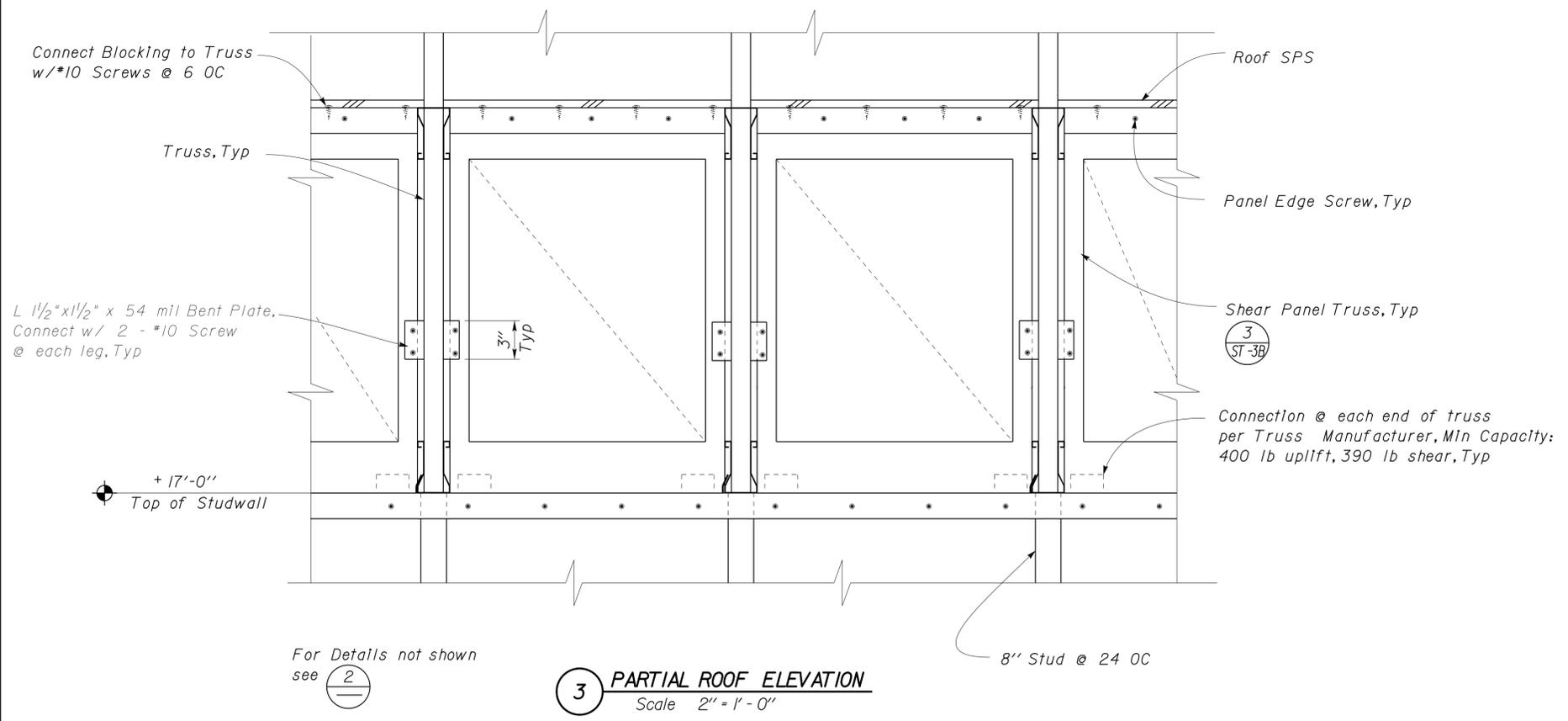
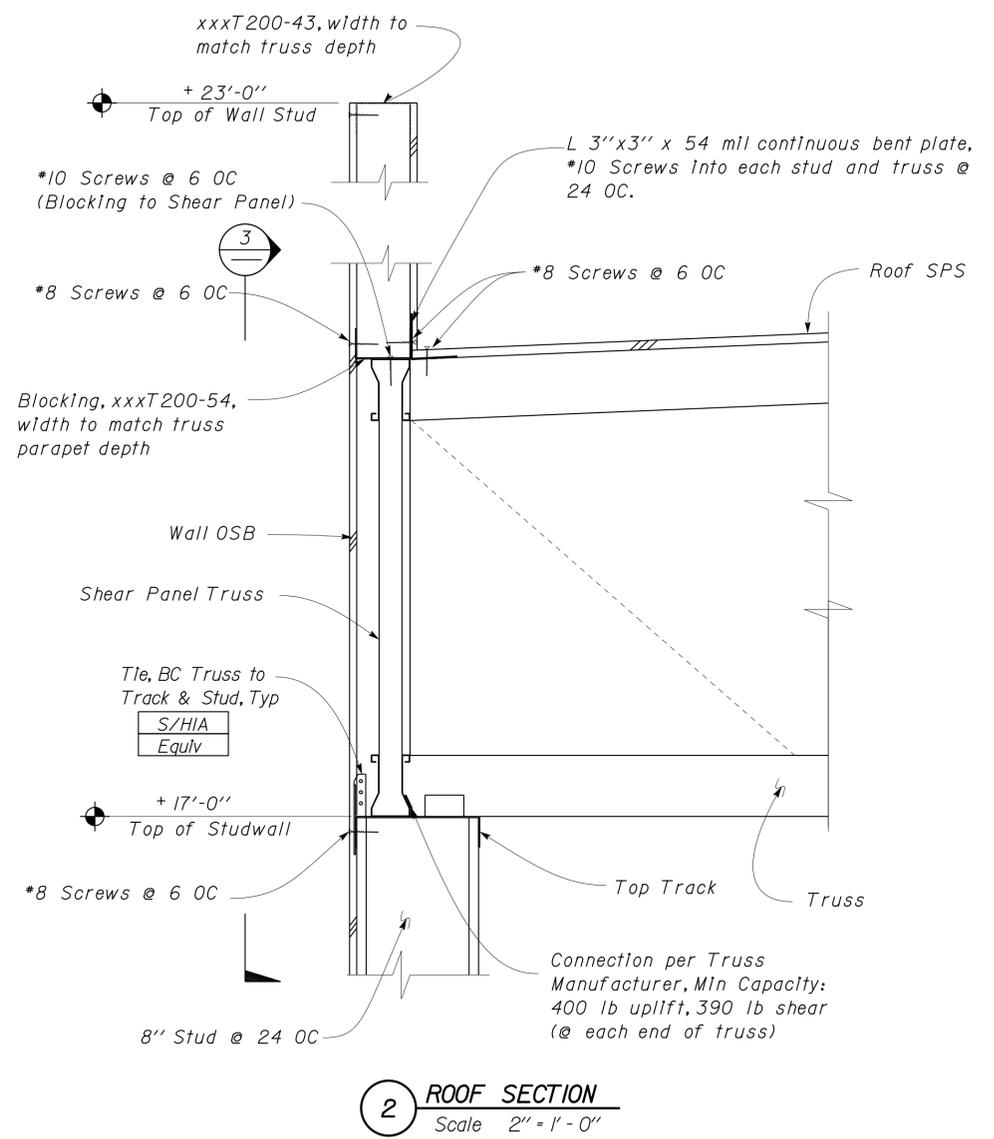
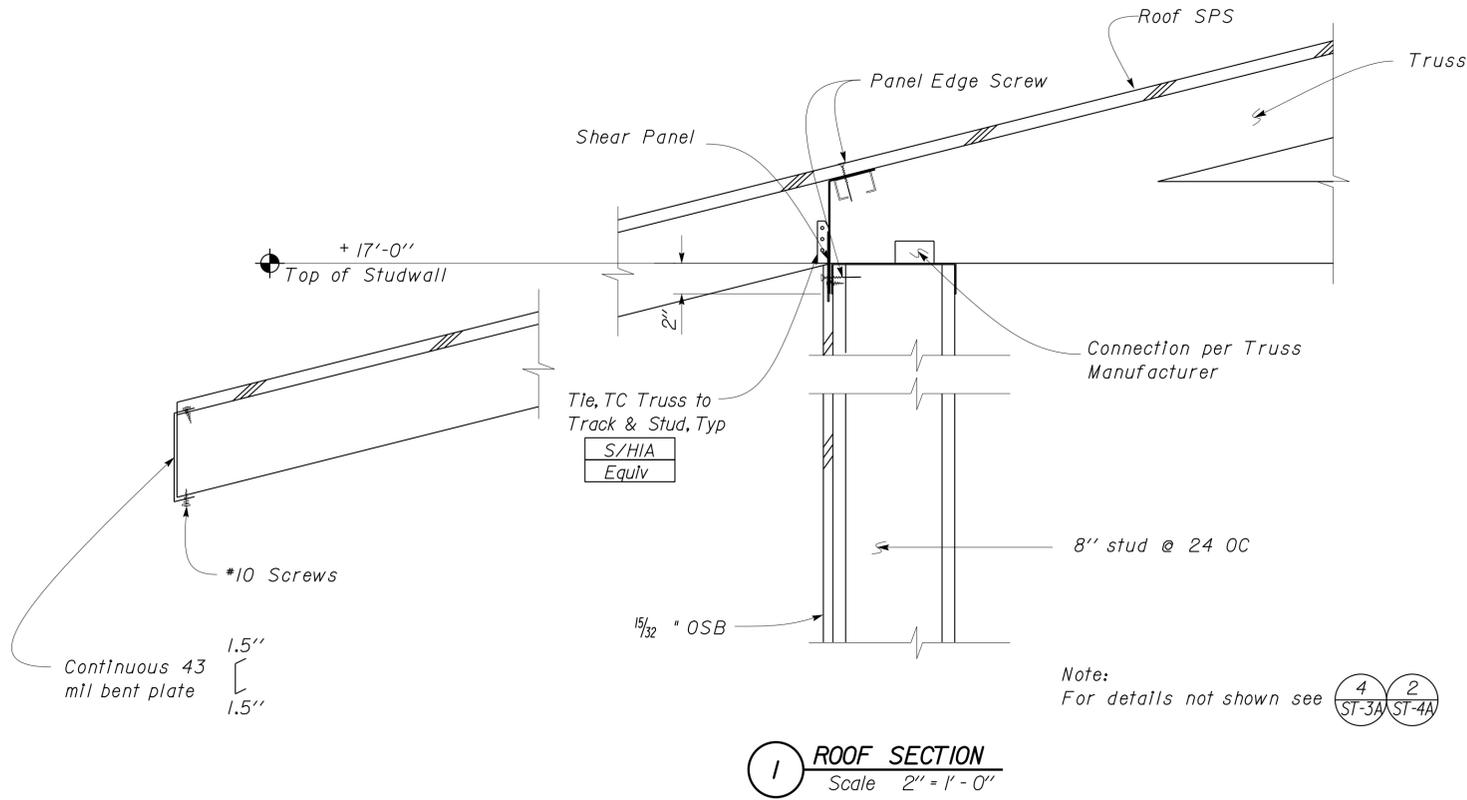


2 PARAPET DETAIL
 No Scale

DESIGN BY Justin Uyehara CHECKED Sean Samuel	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY		SHEET
			58M5708	ROOF FRAMING AND MISCELLANEOUS DETAILS		ST8-7
DETAILS BY Justin Uyehara CHECKED Sean Samuel	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3599 1100000351	POST MILE	WAREHOUSE	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
QUANTITIES BY CHECKED						
TAEMWW Imperial Rev. 7/10		EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	D:\TRM\Projects\EL CENTRO MS\Temp\st8_07.dgn		

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		217	354
<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER			06-08-10 DATE	REGISTERED PROFESSIONAL ENGINEER Tom R. Mesich No. 46748 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA	
01-06-14 PLANS APPROVAL DATE					
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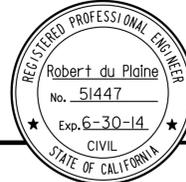
DESIGN BY Justin Uyehara	CHECKED Sean Samuel	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST8-8
				POST MILE	WAREHOUSE	ROOF FRAMING AND MISCELLANEOUS DETAILS	
DETAILS BY Justin Uyehara	CHECKED Sean Samuel	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	
QUANTITIES BY	CHECKED					SHEET	OF

TAEMWW Imperial Rev. 7/10

EA 076701

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		218	354
			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14			PLANS APPROVAL DATE		
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A GENERAL DESIGN NOTES

1. CRITERIA

BUILDING CODE:
2010 California Building Code as Adopted by the California Building Standards Commission

OCCUPANCY CATEGORY: II

2. MATERIALS

REINFORCED CONCRETE: (Strength Design)
 $f'c = 3,650 \text{ psi}$
 $f_y = 60,000 \text{ psi}$

STRUCTURAL STEEL: (Allowable Strength Design)

Channels, Angles, Plates & Misc. Shapes $F_y = 36 \text{ ksi}$
Hollow Structural Steel (HSS) $F_y = 46 \text{ ksi}$
Wide Flange Structural Steel $F_y = 50 \text{ ksi}$
Weld Electrodes $F_y = 70 \text{ ksi}$

COLD FORMED STEEL: (Allowable Strength Design)

Thickness less than or equal to 43 mil $F_y = 33 \text{ ksi}$
Thickness greater than 43 mil $F_y = 50 \text{ ksi}$

3. FOUNDATION

Soils report dated : Sept. 3, 2009
Allowable Soil Pressure: 2,000 psf
For Soil Classification, see Log of Test Borings Sheets.

B DESIGN LOADS

1. LIVE

Roof = 20 psf

2. SEISMIC

Importance Factor = 1.0
Site Class = E
Spectral Response Accelerations:
 $S_s = 1.500$ $S_1 = 0.600$
Spectral Response Coefficients:
 $S_{DS} = 0.9$ $S_{DI} = 0.96$
Design Category = D
Analysis Procedure: Equivalent Lateral Force

Seismic Force-Resisting System:

<u>North - South</u>	<u>East - West</u>
Bearing Wall	Bearing Wall
$R = 6.5$	$R = 6.5$
$C_s = 0.14$	$C_s = 0.14$

3. WIND

Importance Factor = 1.0
Basic Wind Speed = 85 mph (3 sec gust)
Exposure C
Analysis Procedure: Simplified
Internal Pressure Coefficient $GC_{pi} = \pm 0.18$
Windward Parapet $GC_{pn} = +1.5$
Leeward Parapet $GC_{pn} = -1.0$
Wind Pressure on Components and Cladding
Corners of Hip Roof or Gable Roof = 37psf
All Others = 25 psf

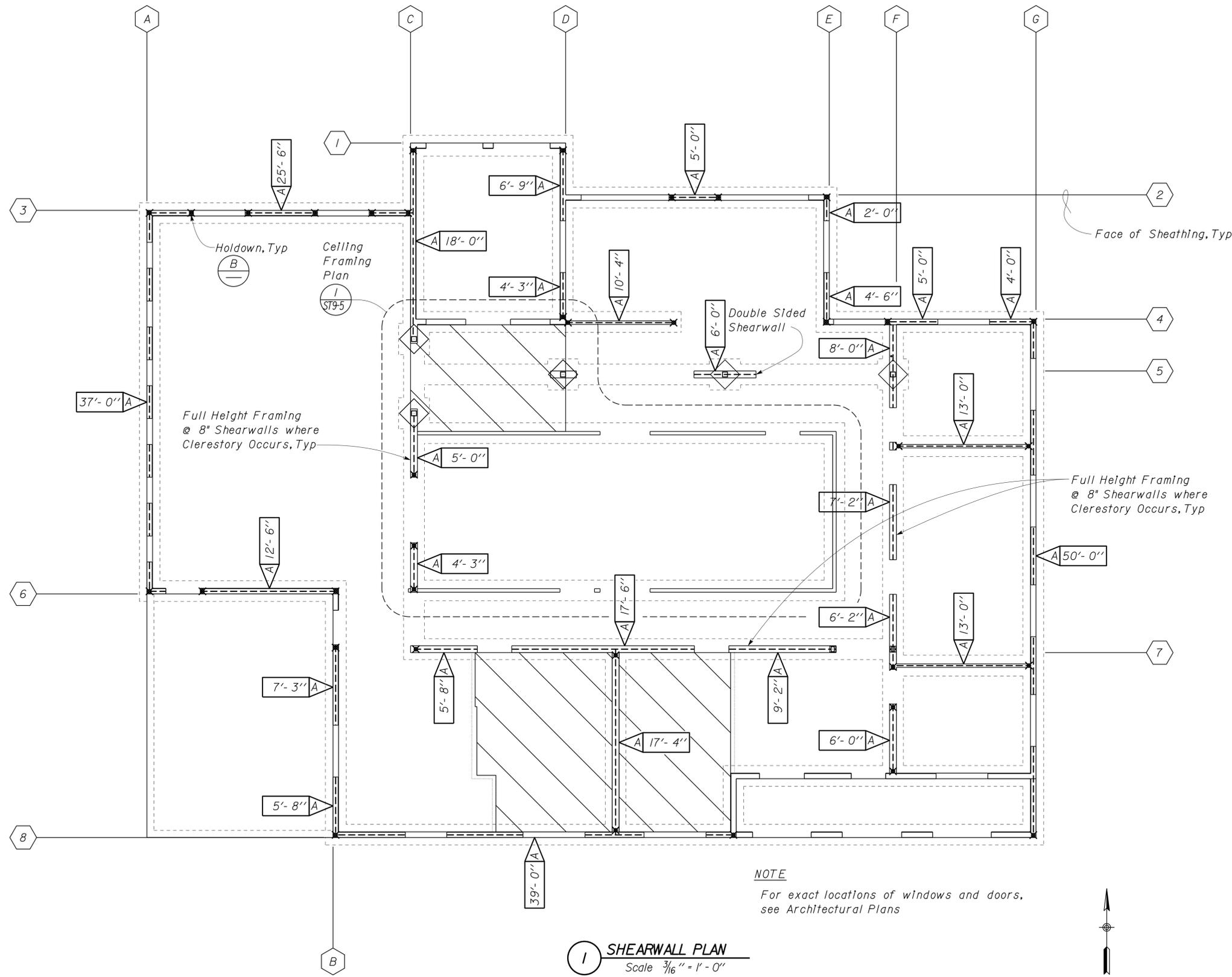
C WOOD STRUCTURAL PANEL NOTES

- Wood Structural Panels shall conform to the Requirements for their Type in Voluntary Product Standard PS 1-07 or PS 2-04. Panels shall be Factory-Marked indicating Compliance with Grade Requirements. The Durability Classification shall be Exposure 1.
- Bearing, shear and exterior walls shall be sheathed with 15/32" Oriented Strand Board Panels with 32/16 Span Rating.
- All Exterior Wall Panels shall be installed with Strength Axis Placed Horizontally. All Panel Edges shall be Blocked.
- All roofs shall be sheathed with 19/32" T&G Plywood Panels with 40/20 Span Rating.
- Plywood for roofs shall be placed face grain perpendicular to supports. Where possible, plywood shall be placed in full sheets and staggered one-half sheet length. Any partial plywood sheet shall not be less than 2'-0" in length or width unless fully blocked.
- Panel Screws shall be #8 Wafer Head SDSTS with a 5/16" min Head Dia. Maximum Spacing shall be 6" at Panel Edges and 12" at Intermediate Supports. See Shear Wall Schedules for other Spacing Requirements.
- Prior to Installation, Panels shall be protected from Exposure to Weather and Moisture. Provide Air Circulation around Tarp-Covered Stacks..

D GENERAL NOTES

- For Concrete see: "Concrete Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.
- The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

DESIGN BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY	SHEET ST9-0
				POST MILE		
DETAILS BY David Good	CHECKED Tom Mesich			n/a		
QUANTITIES BY	CHECKED	UNIT PROJECT NUMBER & PHASE	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		04-07-10		



A SHEAR WALL LEGEND

A XX'-X"

"A" Indicates the Shear Wall type. See Shear Wall Table

XX'-X" Indicates the minimum length of the Shear Wall or the Shear Wall pier

✕ Indicates the approximate location of HoldDowns

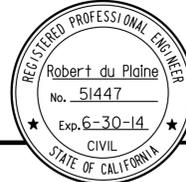
B SHEAR WALL TABLE

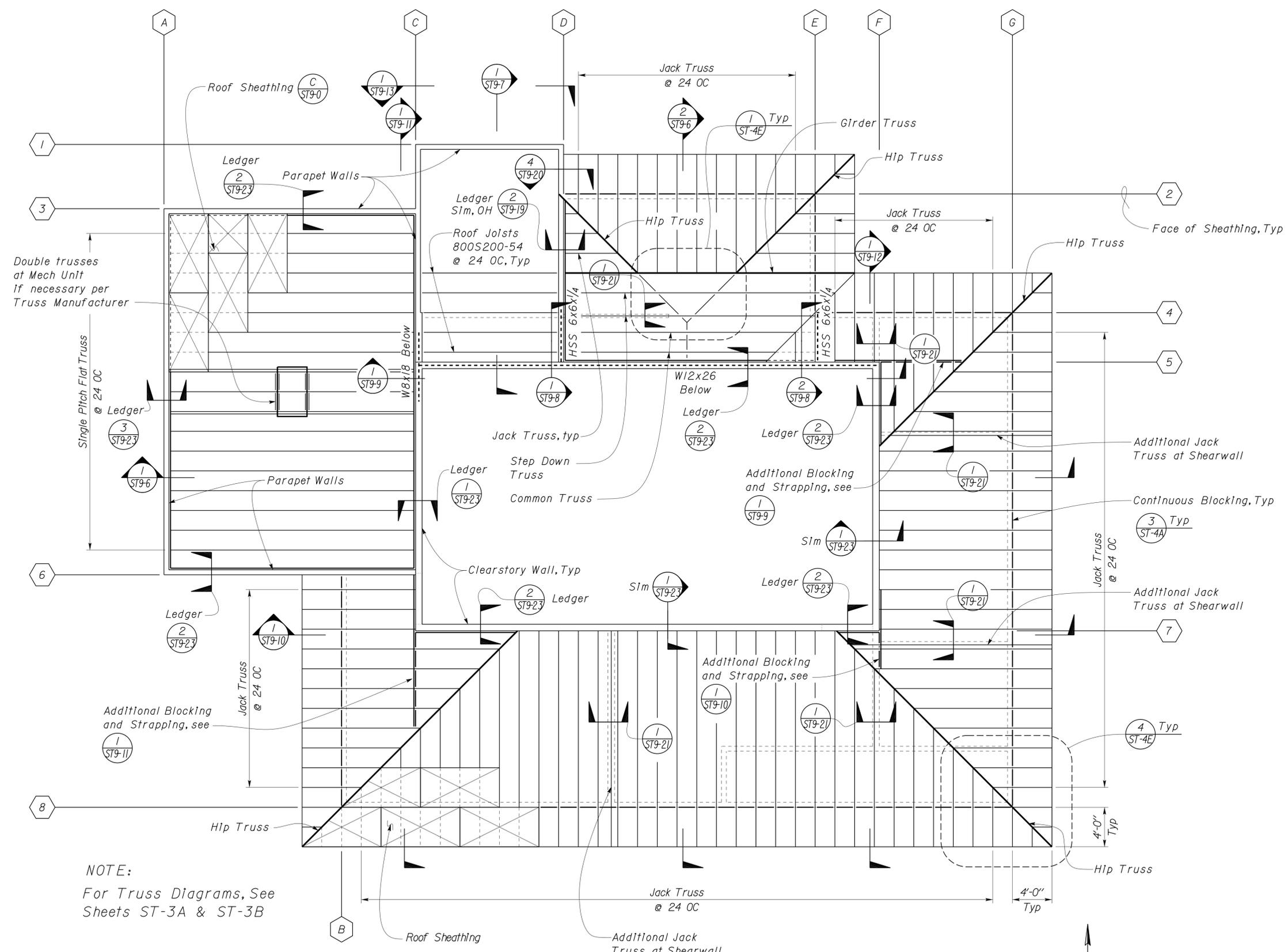
Shear Wall	Screw Schedule		Holddown	Holddown Anchorbolt
	Edge Screw	Field Screw		
A	6" OC	12" OC	S/HDU6 Equiv.	PAB5-16 w 14" min embed

- See **I** ST-4A for Typical Shear Wall Detail
- 1/2" Ø Anchor Bolt @ 4' OC
Embedment 8" below Top of Slab
2" < end distance < 9"
- Use Framing Clips at 36" max from Roof Truss to Shear Wall
at all drag trusses typ UNO. **L50 AC5**

NOTE
For exact locations of windows and doors, see Architectural Plans

I SHEARWALL PLAN
Scale 3/16" = 1' - 0"

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		221	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14 PLANS APPROVAL DATE					
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NOTE:
For Truss Diagrams, See
Sheets ST-3A & ST-3B

1 LOWER ROOF FRAMING PLAN
Scale 3/16" = 1'-0"



DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET ST9-3
POST MILE	n/a		
REGIONAL OFFICE		ROOF FRAMING PLAN (LOWER)	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		222	354

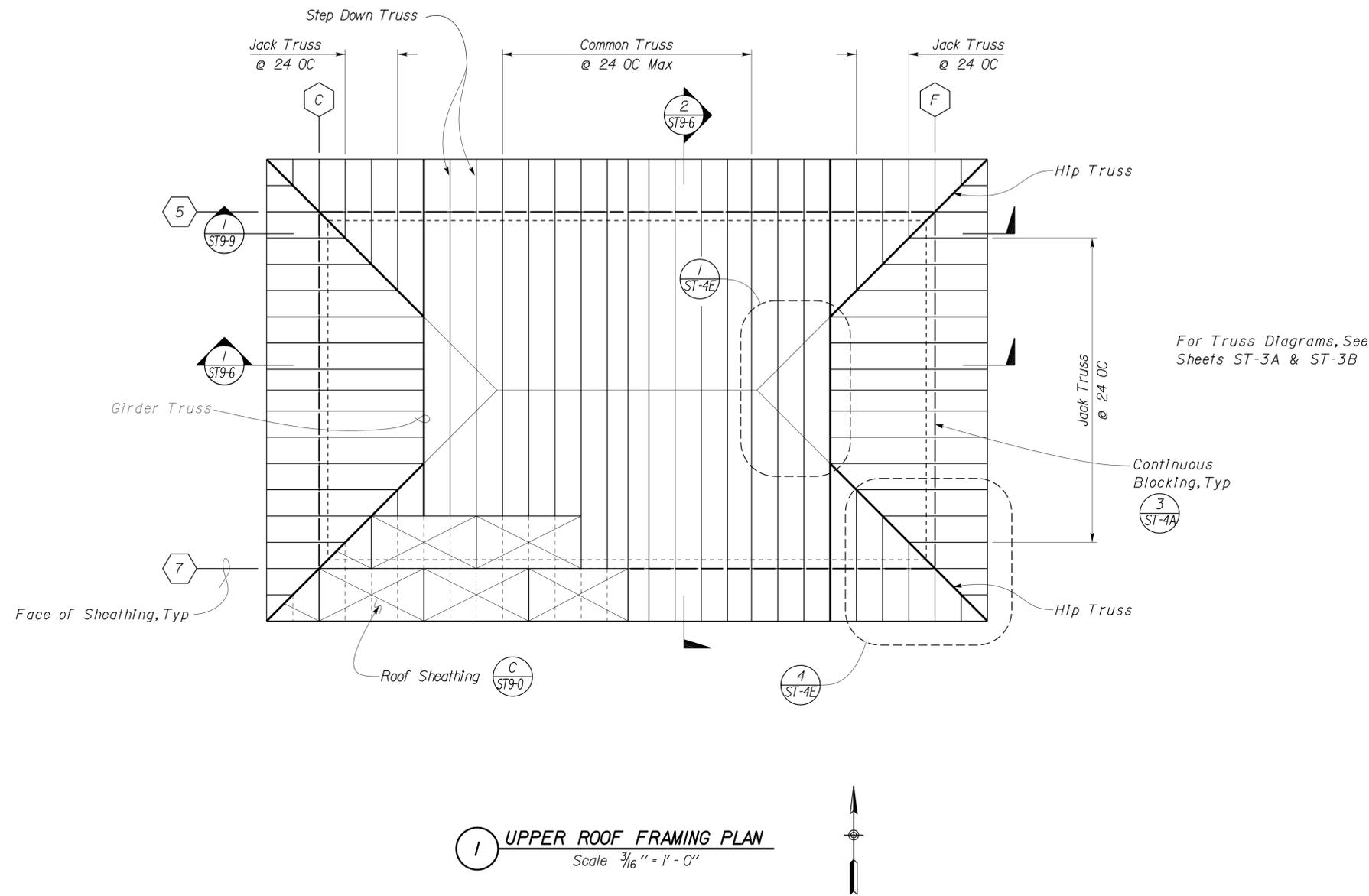
RdP
REGISTERED CIVIL ENGINEER

12-06-10
DATE

REGISTERED PROFESSIONAL ENGINEER
 Robert du Plaine
 No. 51447
 Exp. 6-30-14
 CIVIL
 STATE OF CALIFORNIA

01-06-14
PLANS APPROVAL DATE

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For Truss Diagrams, See
Sheets ST-3A & ST-3B

NOTE:
For Truss Diagrams, See
Sheets ST-3A & ST-3B

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

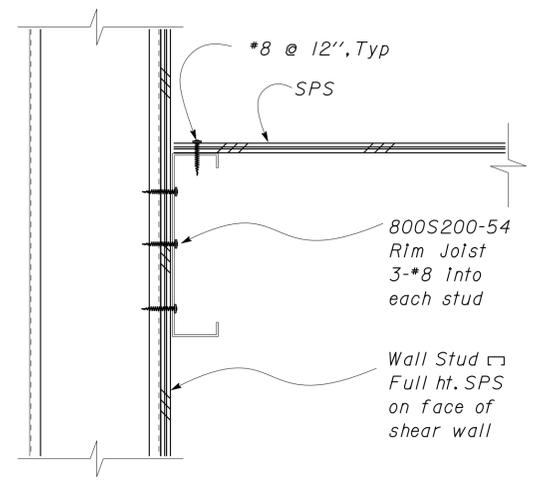
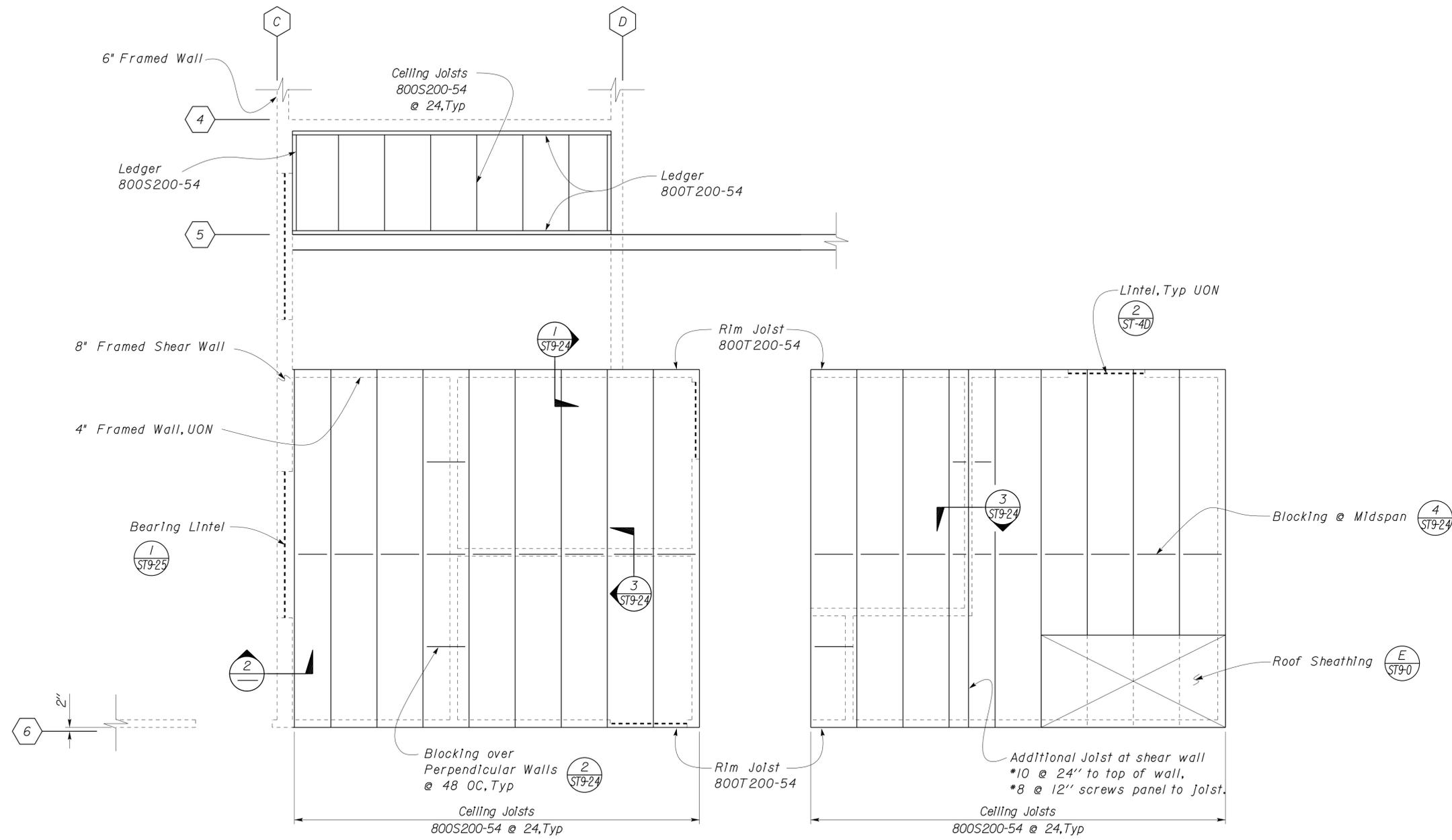
BRIDGE NO.	58M5708
POST MILE	n/a

EL CENTRO MAINTENANCE FACILITY

REGIONAL OFFICE: **ROOF FRAMING PLAN (UPPER)**

SHEET **ST9-4**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		223	354
			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14					
PLANS APPROVAL DATE					
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2 LEDGER DETAIL
No Scale

1 CEILING FRAMING PLAN
Scale 3/8" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET ST9-5
	DETAILS	BY David Good			CHECKED Tom Mesich		
QUANTITIES	BY	CHECKED	UNIT PROJECT NUMBER & PHASE EA 076701	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
TAEMWW Imperial Rev. 7/10		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3	04-07-10		

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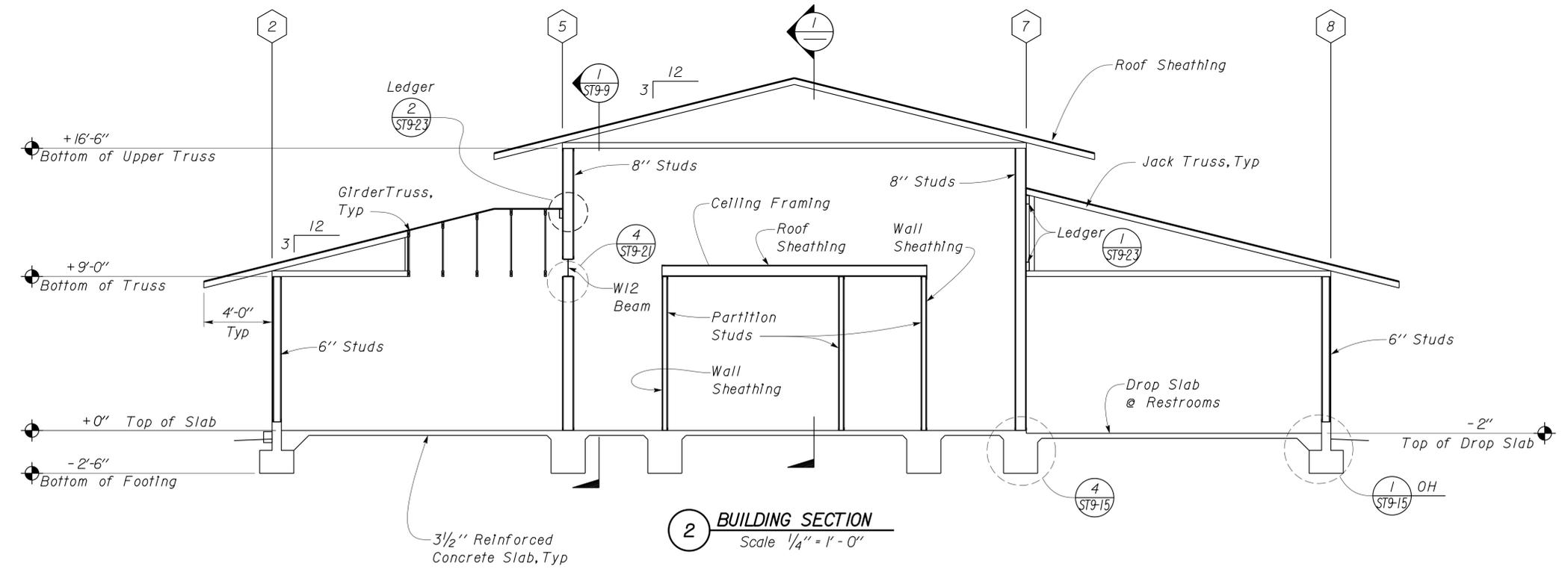
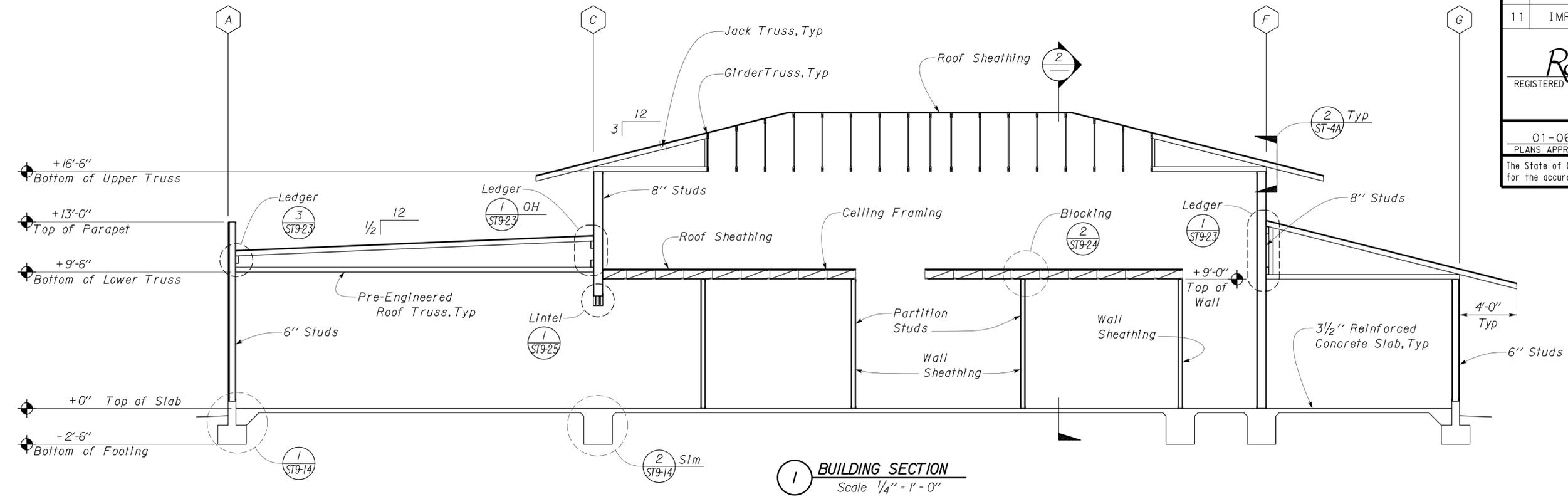
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		224	354

RdP
REGISTERED CIVIL ENGINEER
12-06-10 DATE

Robert du Plaine
No. 51447
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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PLANS APPROVAL DATE

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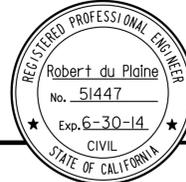


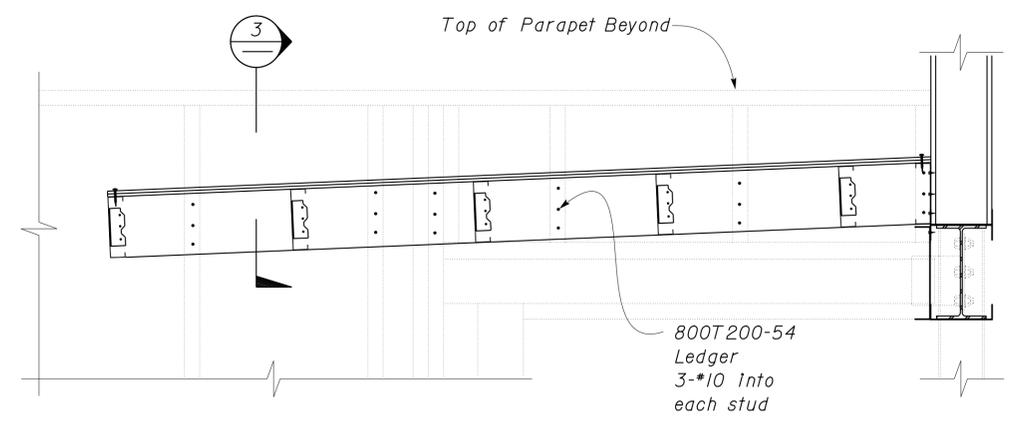
DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET ST9-6
	DETAILS	BY David Good			CHECKED Tom Mesich		
QUANTITIES	BY	CHECKED	UNIT PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	04-07-10	SHEET OF

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

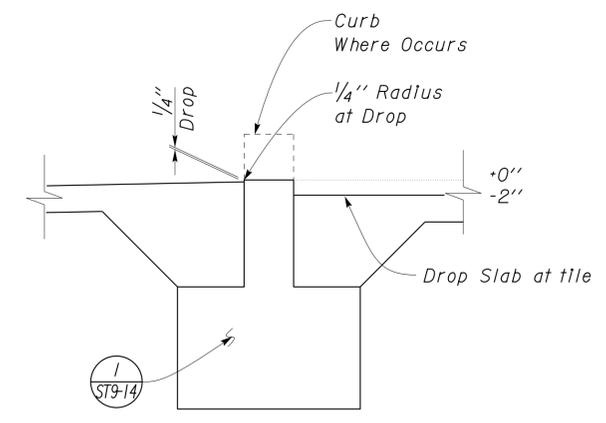
EA 076701

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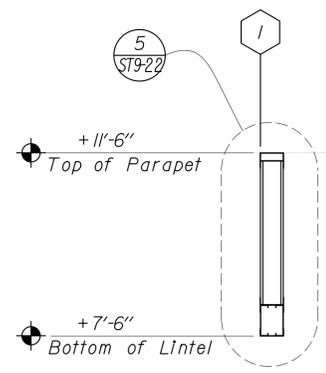
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11	IMP	5708		225	354
			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14			PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



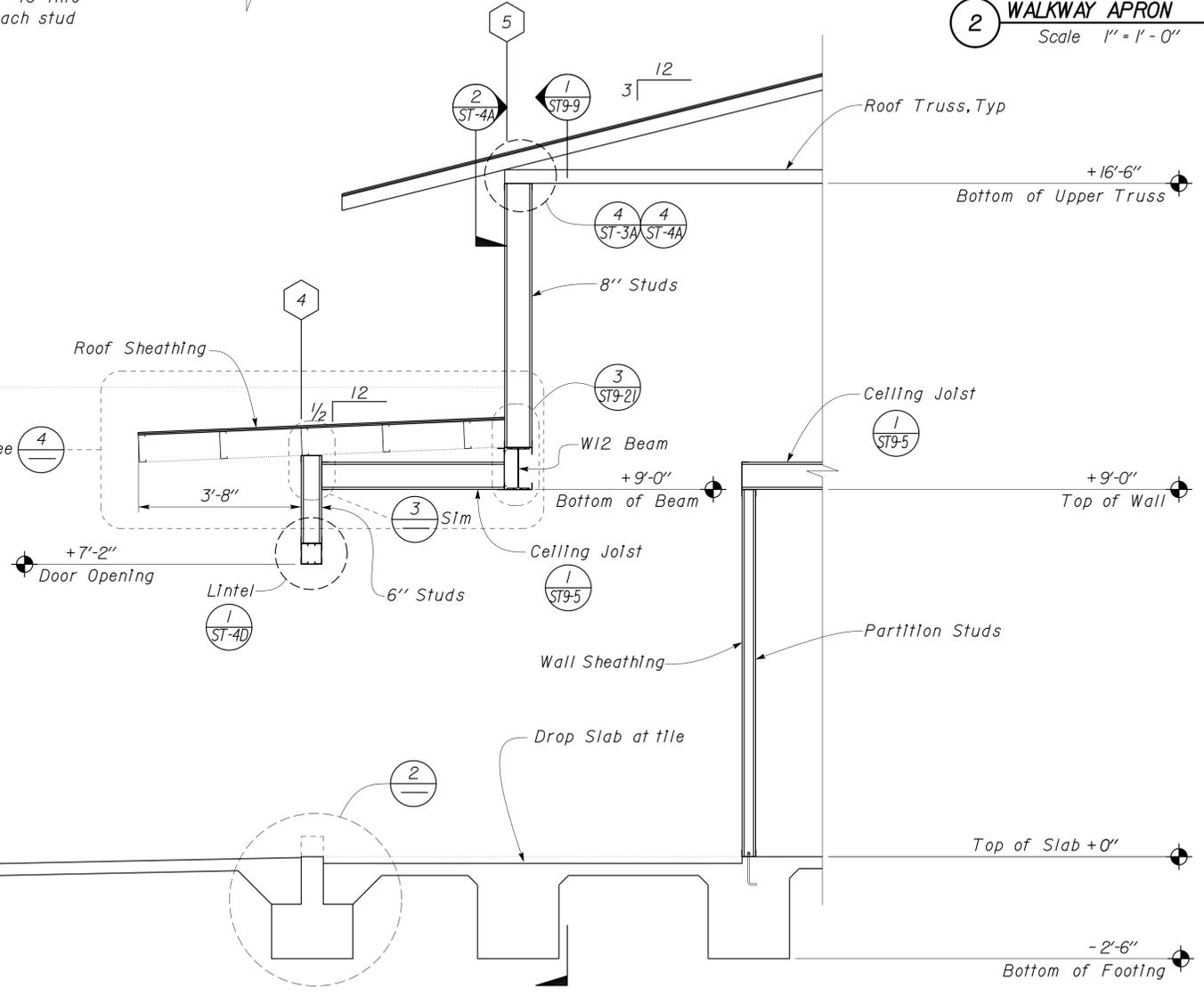
4 LEDGER DETAIL
No Scale



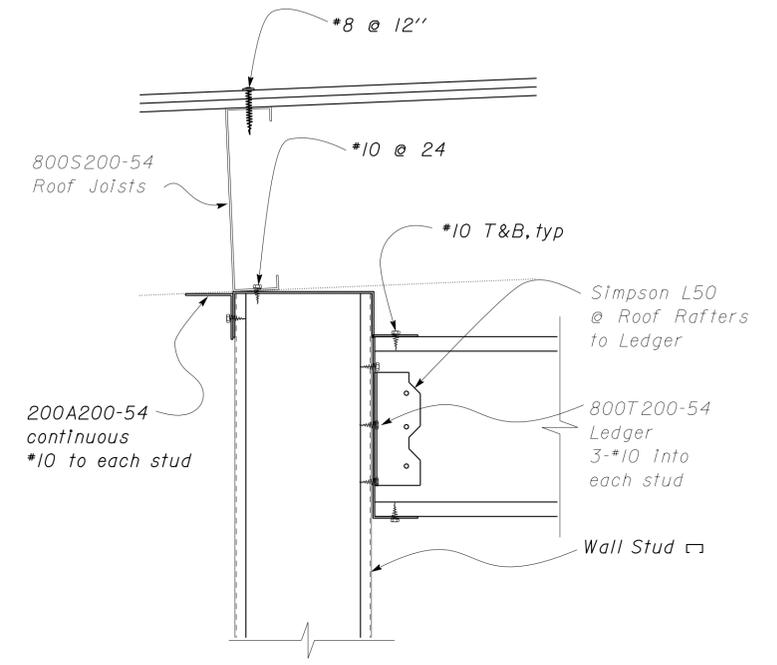
2 WALKWAY APRON
Scale 1" = 1'-0"



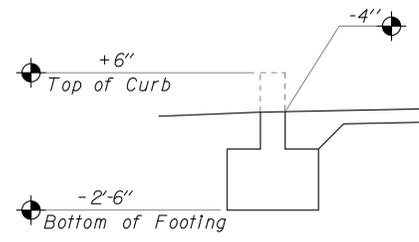
Top of Parapet Beyond
Top of Parapet
Bottom of Lintel
For Roof Ledger details, See **4**



1 PARTIAL BUILDING SECTION
Scale 1/2" = 1'-0"



3 LEDGER DETAIL
No Scale

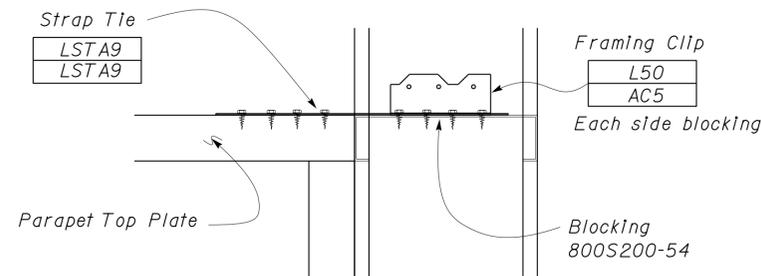


Top of Curb
Bottom of Footing

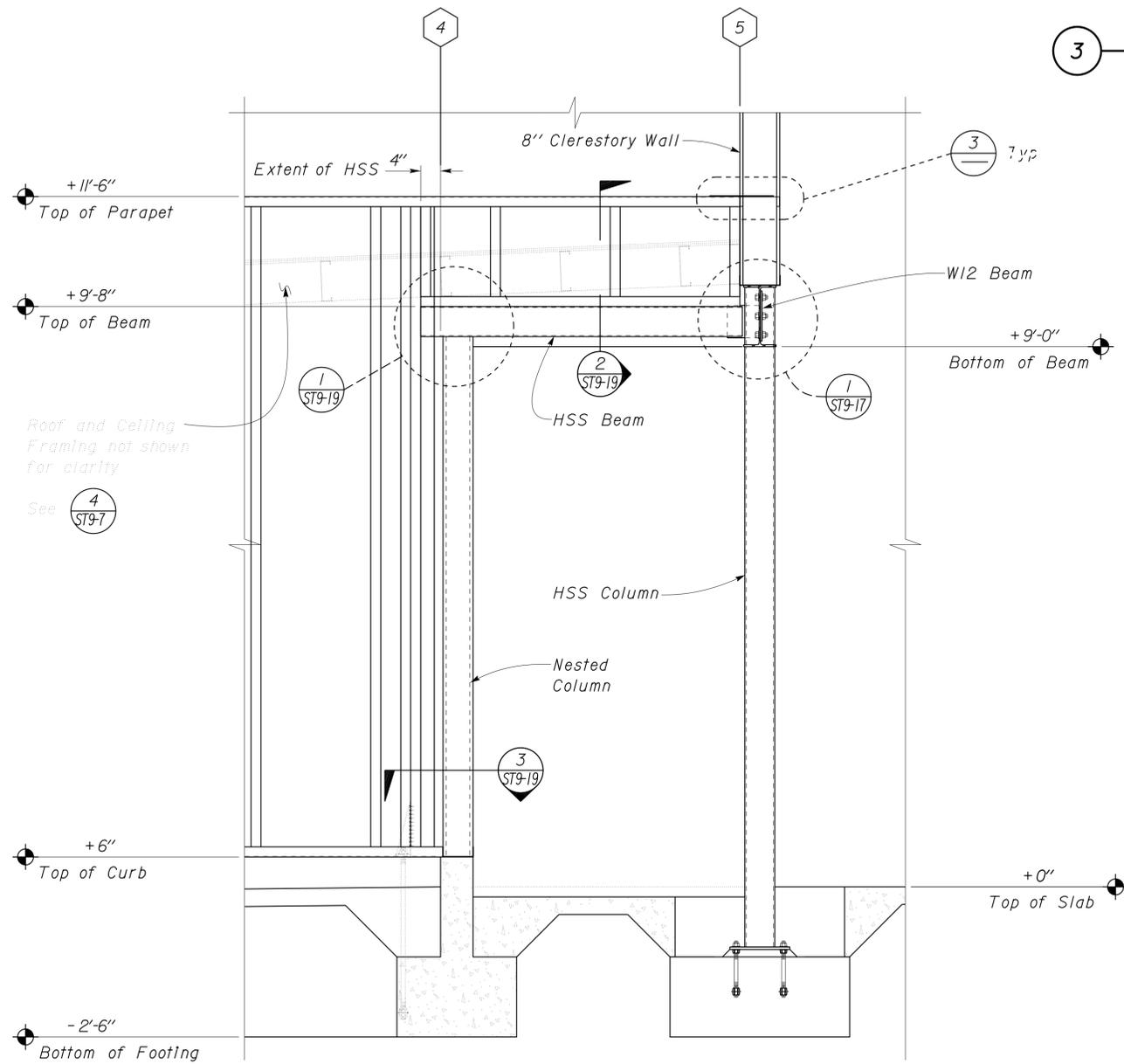
DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY	SHEET ST9-7
	DETAILS BY David Good	CHECKED Tom Mesich			58M5708		
QUANTITIES	BY	CHECKED	DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL AND STRUCTURAL DESIGN	POST MILE n/a	BUILDING SECTION	
TAEMWW Imperial Rev. 7/10	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT PROJECT NUMBER & PHASE	3599 11000000351	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	0	1	2	3	EA 076701	04-07-10	

21-JAN-2014 14:33

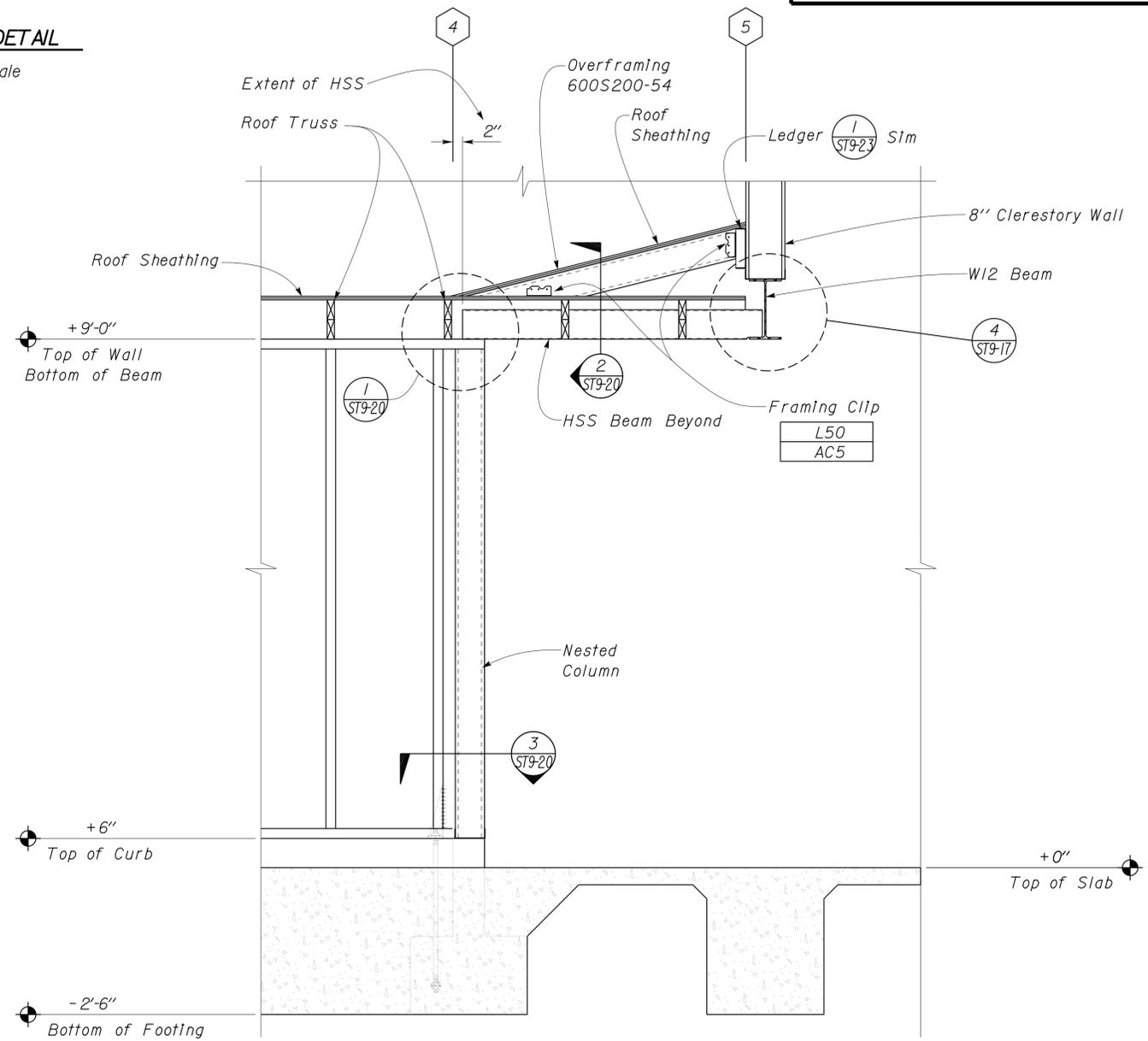
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		226	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14			PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



3 STRAP DETAIL
No Scale



1 PARTIAL SECTION
Scale 3/4" = 1' - 0"



2 PARTIAL SECTION
Scale 3/4" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.
58M5708
POST MILE
n/a

EL CENTRO MAINTENANCE FACILITY
BUILDING SECTIONS

SHEET
ST9-8

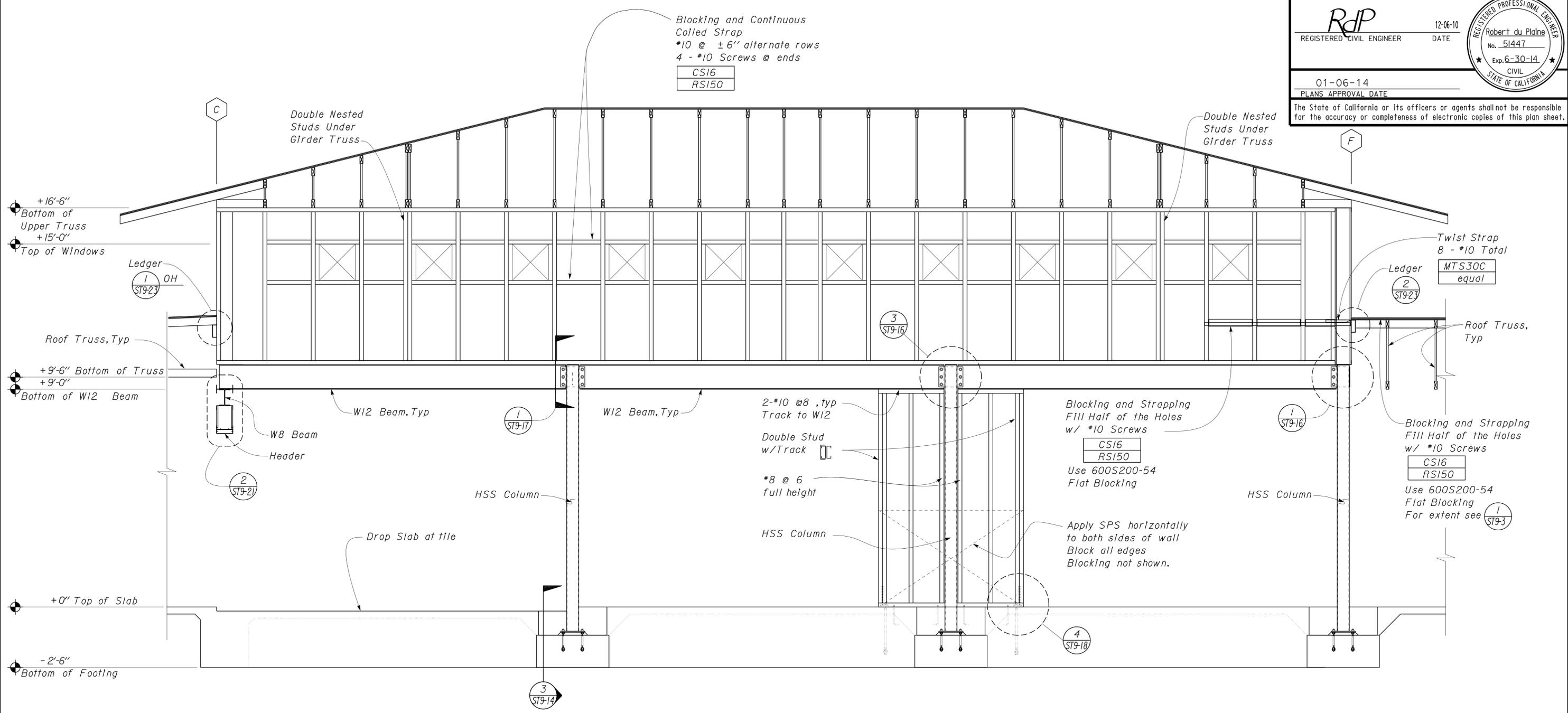
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		227	354

RdP
REGISTERED CIVIL ENGINEER
DATE 12-06-10

Robert du Plaine
No. 51447
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

01-06-14
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.



1 PARTIAL FRAMING SECTION
Scale 1/2" = 1' - 0"

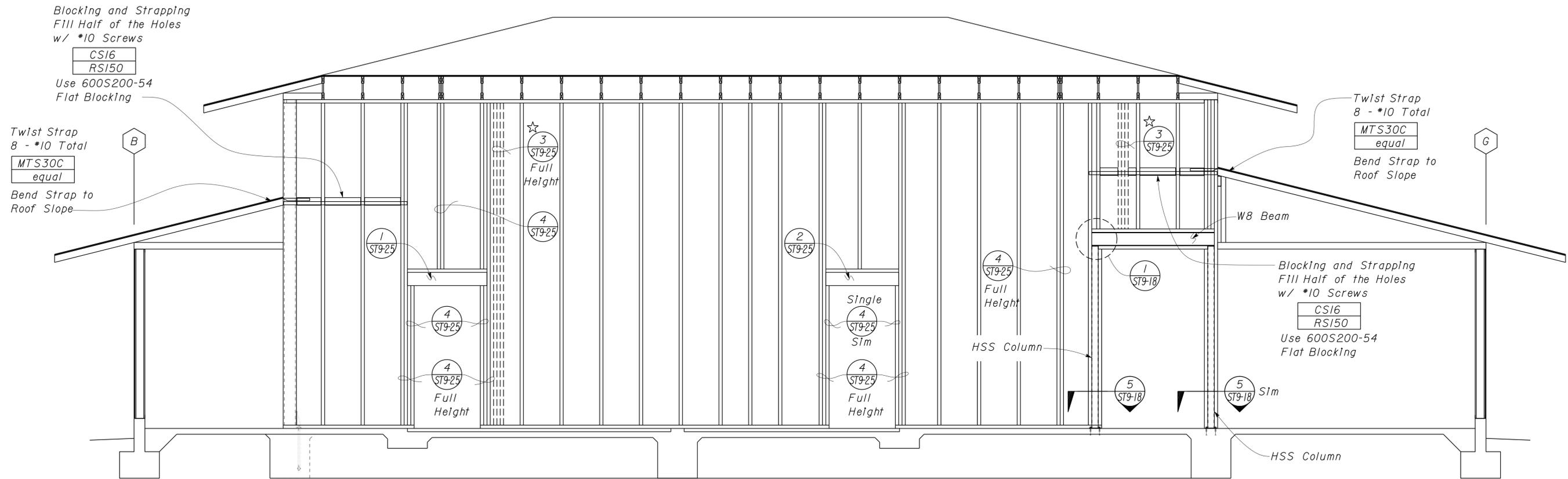
DESIGN BY Robert Du Plaine CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708 POST MILE n/a	EL CENTRO MAINTENANCE FACILITY BUILDING SECTION	SHEET ST9-9 OF
DETAILS BY David Good CHECKED Tom Mesich	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3599 11000000351	REVISION DATES (PRELIMINARY STAGE ONLY)	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
QUANTITIES BY	0 1 2 3	EA 076701	04-07-10		

TAEMWW Imperial Rev. 7/10

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		228	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14					
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.	

★ Triple Nested Column Provided for Hip Truss Support

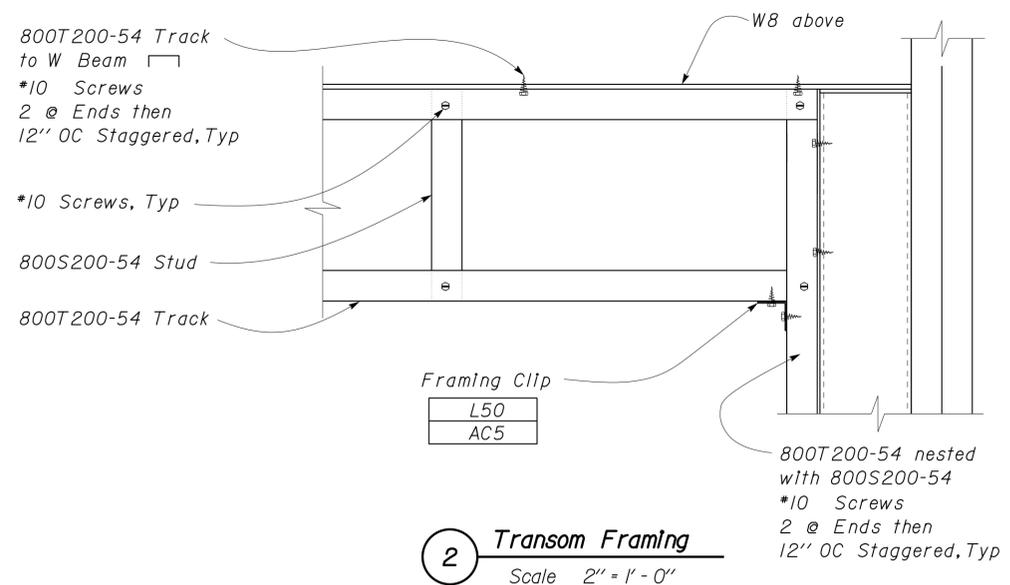


Standard Wall Blocking
Not Shown for Clarity

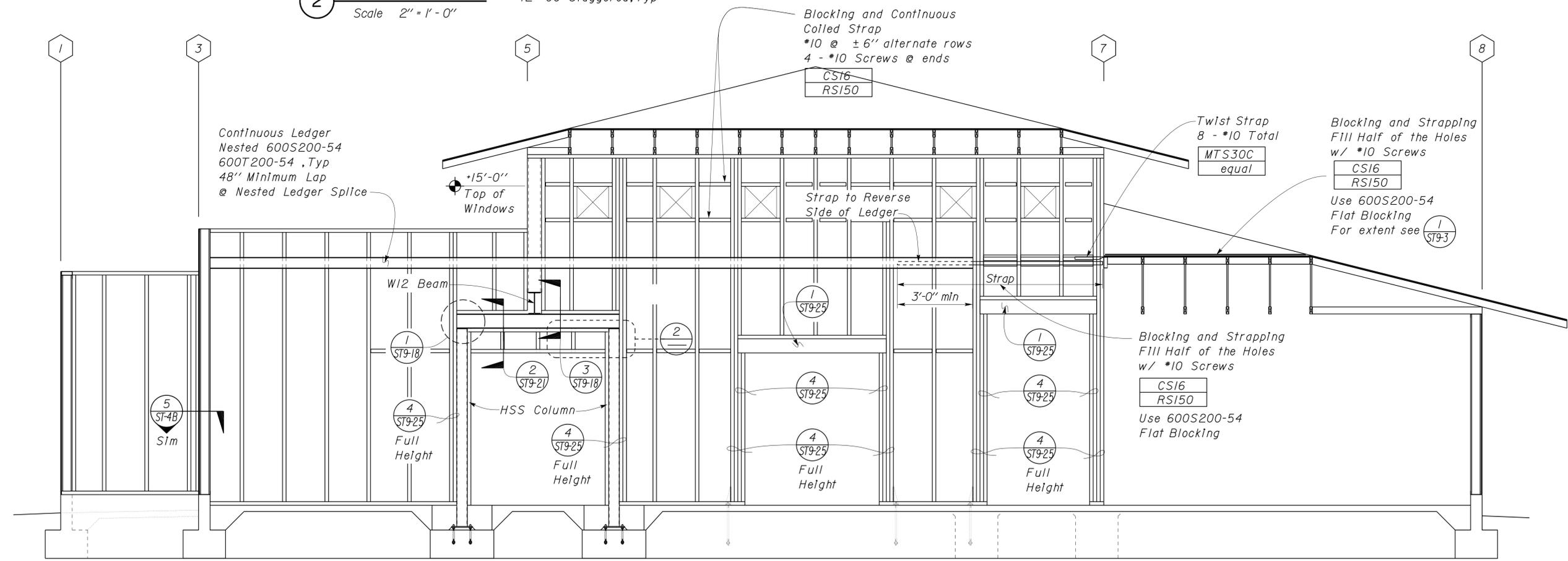
1 FULL HEIGHT WALL - SOUTH
Scale $\frac{3}{8}'' = 1' - 0''$

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY	SHEET	
	DETAILS	BY David Good			CHECKED Tom Mesich		58M5708	WALL FRAMING ELEVATION
QUANTITIES	BY	CHECKED		POST MILE	n/a	REGIONAL OFFICE	ST9-10	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	UNIT PROJECT NUMBER & PHASE	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	04-07-10
TAEMWW Imperial Rev. 7/10			EA 076701	D:\NTRM\Projects\EL CENTRO MS\Temp\st9_10.dgn			21-JAN-2014 14:33	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		229	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14					
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.	



2 Transom Framing
Scale 2" = 1' - 0"

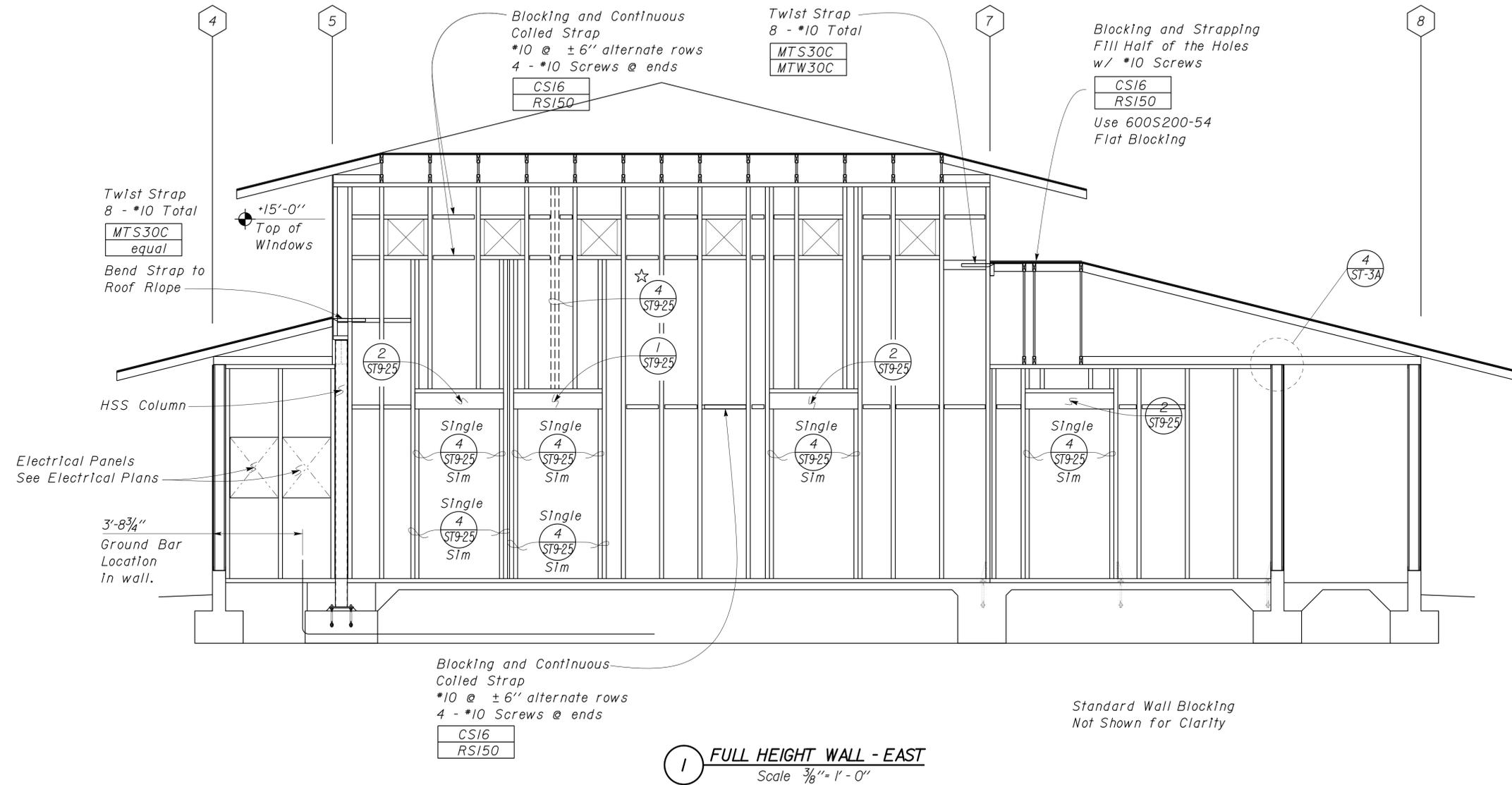


1 FULL HEIGHT WALL - WEST
Scale 3/8" = 1' - 0"

Standard Wall Blocking
Not Shown for Clarity

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY	SHEET	
	DETAILS	BY David Good			CHECKED Tom Mesich		58M5708	POST MILE
QUANTITIES	BY	CHECKED	PROJECT NUMBER & PHASE	11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	04-07-10	21
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						UNIT PROJECT NUMBER & PHASE 3599 11000000351		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		230	354
			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14					
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.					



1 FULL HEIGHT WALL - EAST
Scale 3/8" = 1' - 0"

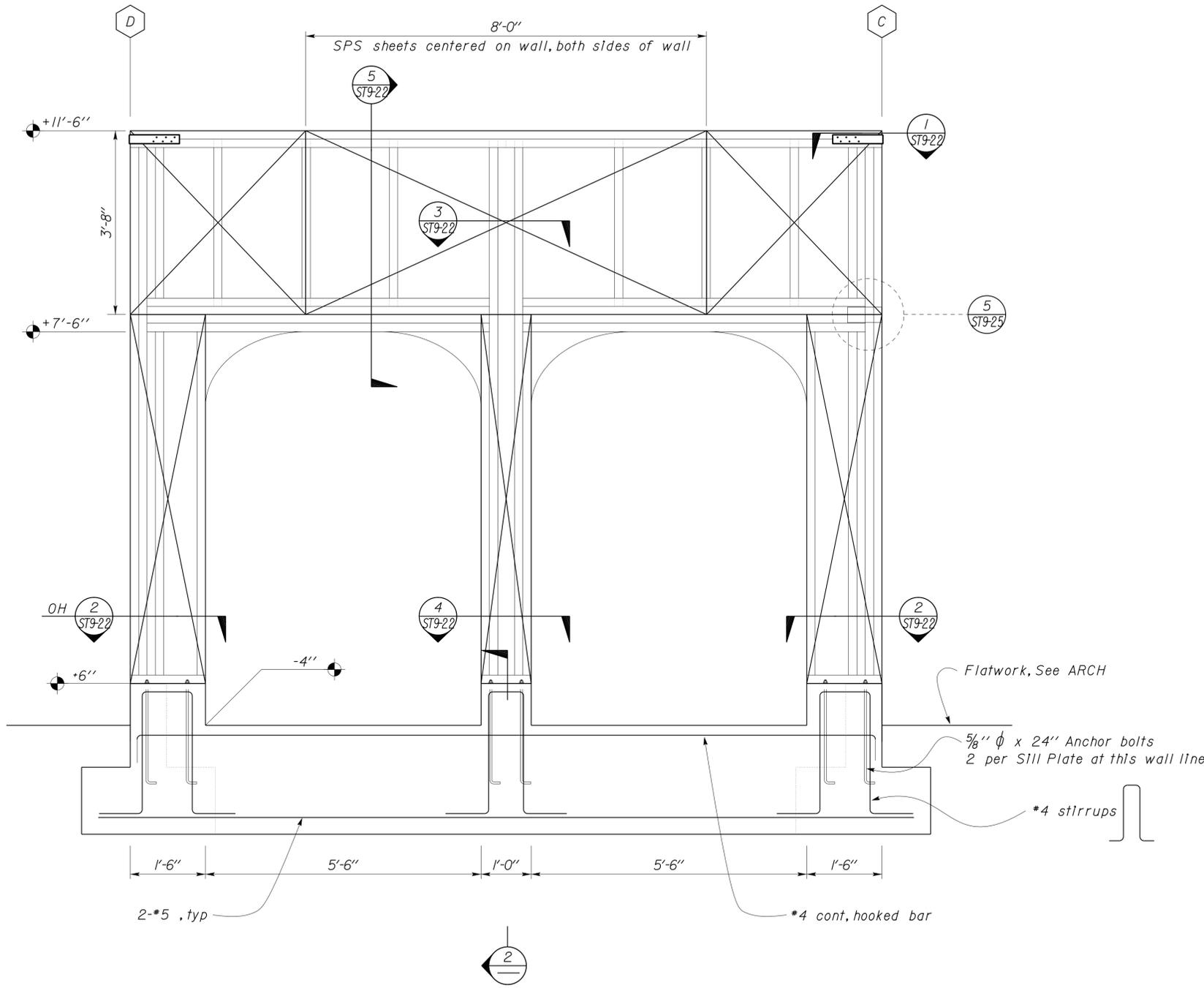
DESIGN BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST9-12
				POST MILE n/a	REGIONAL OFFICE	WALL FRAMING ELEVATION	
DETAILS BY David Good	CHECKED Tom Mesich	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
QUANTITIES BY	CHECKED	0 1 2 3	3599 11000000351	04-07-10			

TAEMWW Imperial Rev. 7/10

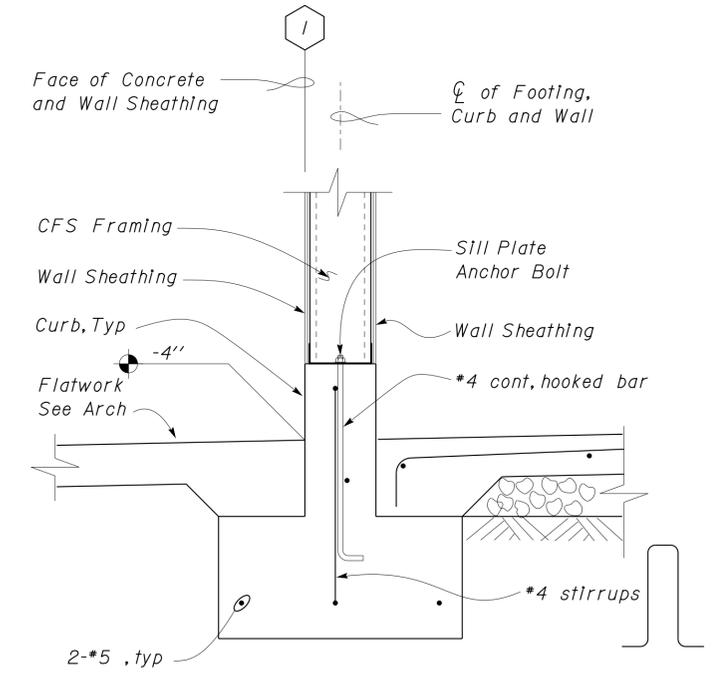
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		231	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14				PLANS APPROVAL DATE	
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1 ATRIUM WALL ELEVATION
Scale 3/4" = 1' - 0"



2 EXTERIOR FOOTING AT ATRIUM
Scale 1" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF
CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL
AND
STRUCTURAL DESIGN

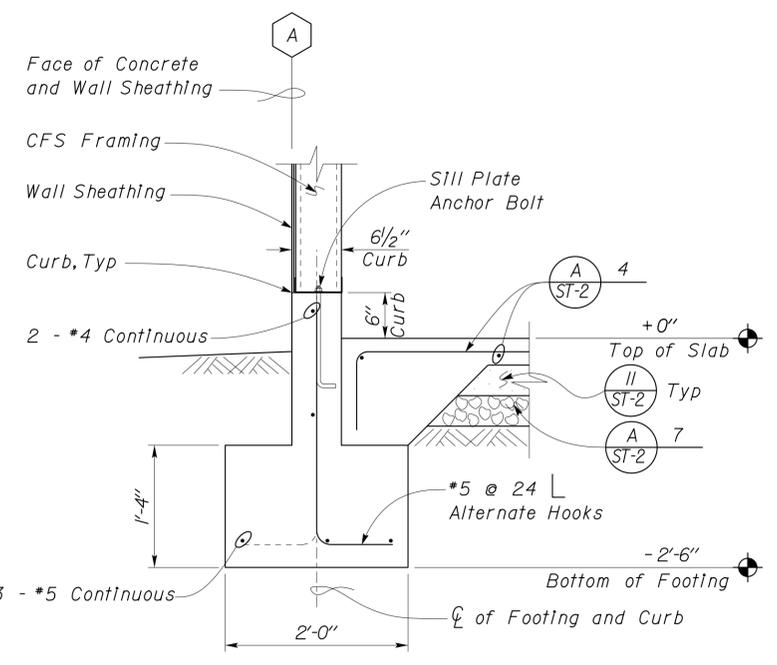
BRIDGE NO.
58M5708
POST MILE
n/a

EL CENTRO MAINTENANCE FACILITY

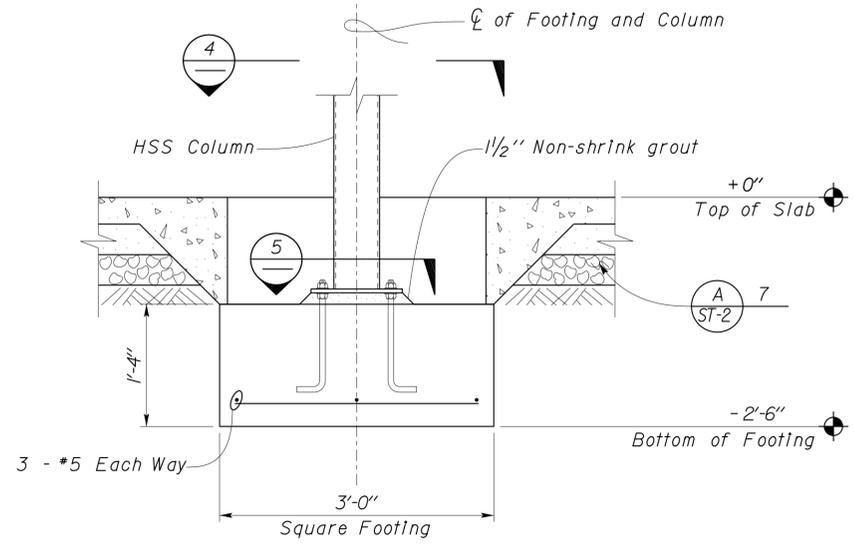
REGIONAL OFFICE
WALL FRAMING ELVATION

SHEET
ST9-13

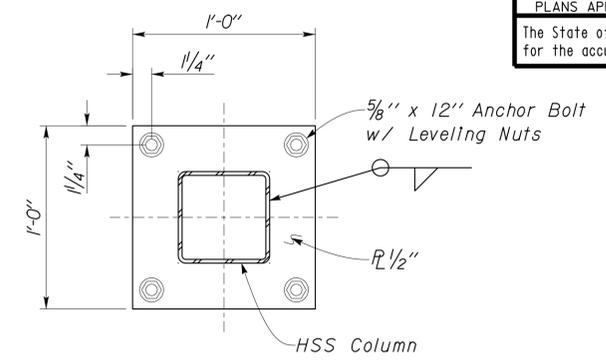
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		232	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



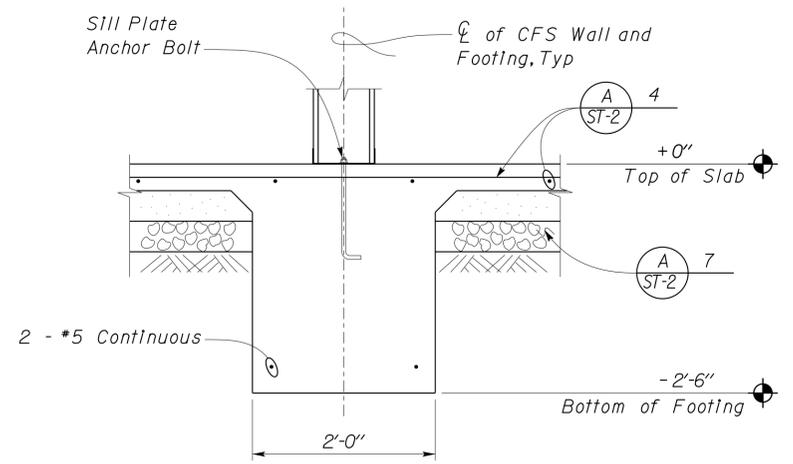
1 EXTERIOR FOOTING
Scale 1" = 1'-0"



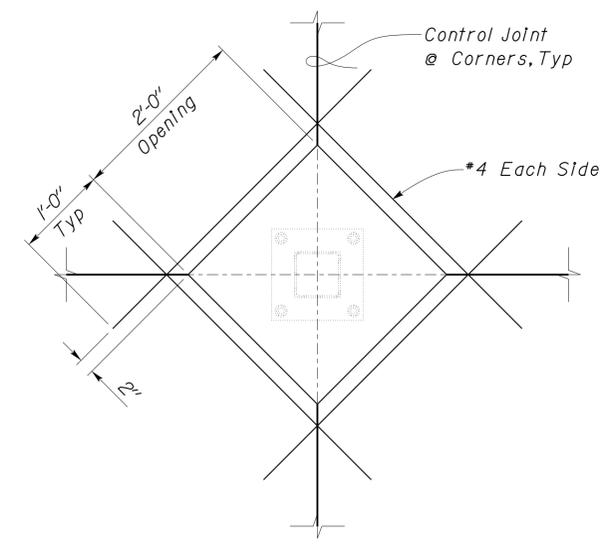
3 COLUMN FOOTING
Scale 1" = 1'-0"



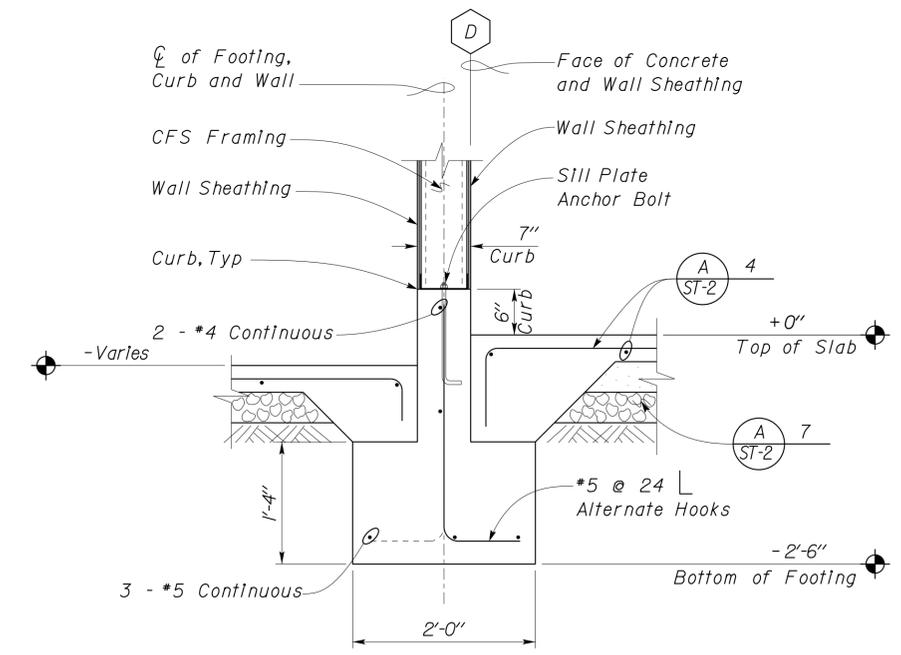
5 COLUMN BASE
Scale 2" = 1'-0"



2 INTERIOR FOOTING
Scale 1" = 1'-0"



4 SLAB BLOCKOUT AT COLUMNS
Scale 1" = 1'-0"



6 EXTERIOR FOOTING AT ATRIUM
Scale 1" = 1'-0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY FOUNDATION DETAILS	SHEET ST9-14
	DETAILS	BY David Good			CHECKED Tom Mesich		POST MILE n/a
QUANTITIES	BY	CHECKED	UNIT PROJECT NUMBER & PHASE EA 076701	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	04-07-10

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT PROJECT NUMBER & PHASE

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET OF

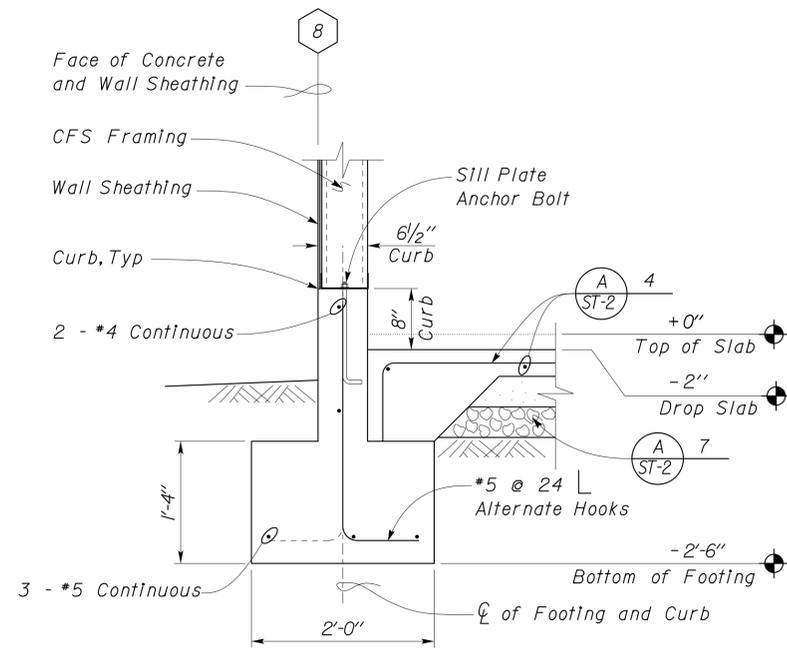
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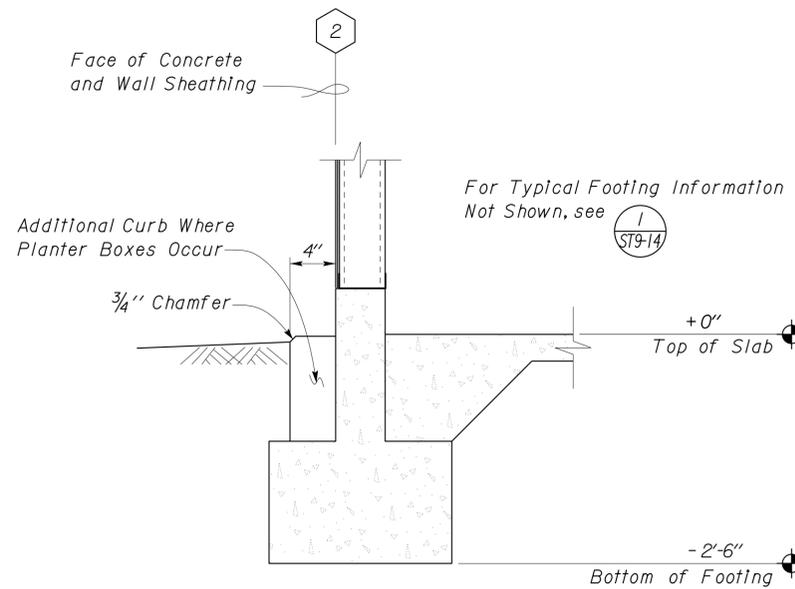
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		233	354


 REGISTERED CIVIL ENGINEER
 DATE 12-06-10
 Robert du Plaine
 No. 51447
 Exp. 6-30-14
 CIVIL
 STATE OF CALIFORNIA

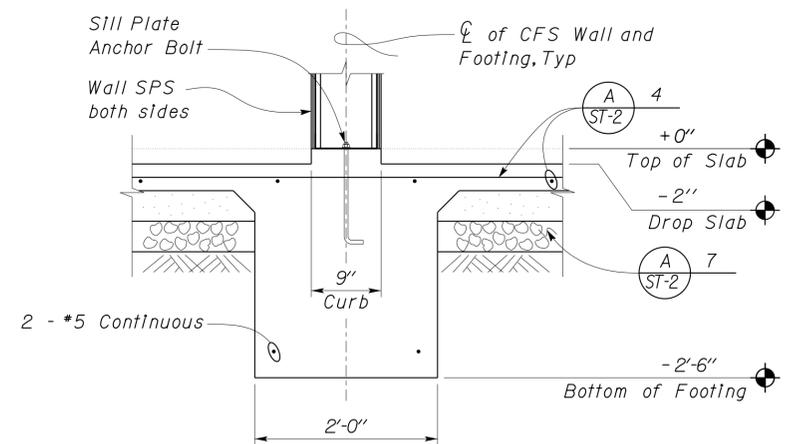
01-06-14
 PLANS APPROVAL DATE
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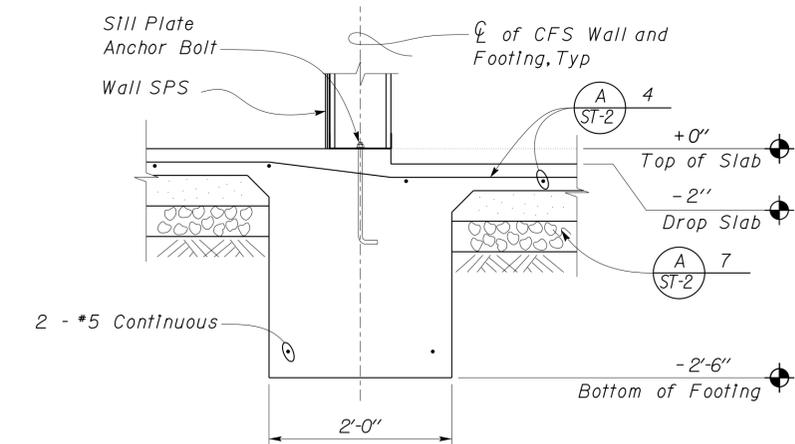
1 EXTERIOR FOOTING AT DROP SLAB
Scale 1" = 1'-0"



2 PLANTER CURB
Scale 1" = 1'-0"



3 INTERIOR FOOTING AT DROP SLAB
Scale 1" = 1'-0"



4 DROP SLAB AT BEARING WALL
Scale 1" = 1'-0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
 POST MILE n/a

EL CENTRO MAINTENANCE FACILITY
 REGIONAL OFFICE FOUNDATION DETAILS

SHEET OF
ST9-15



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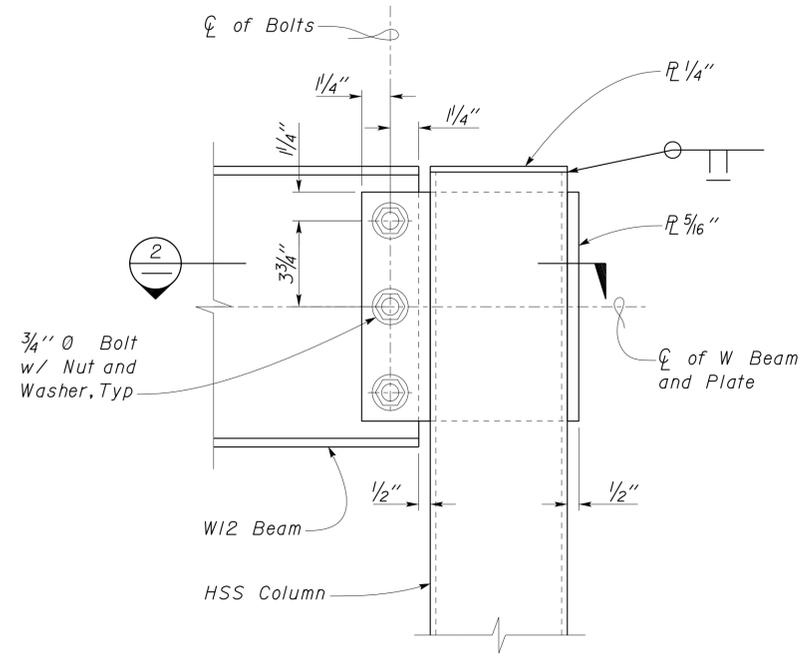
RdP
REGISTERED CIVIL ENGINEER

12-06-10
DATE

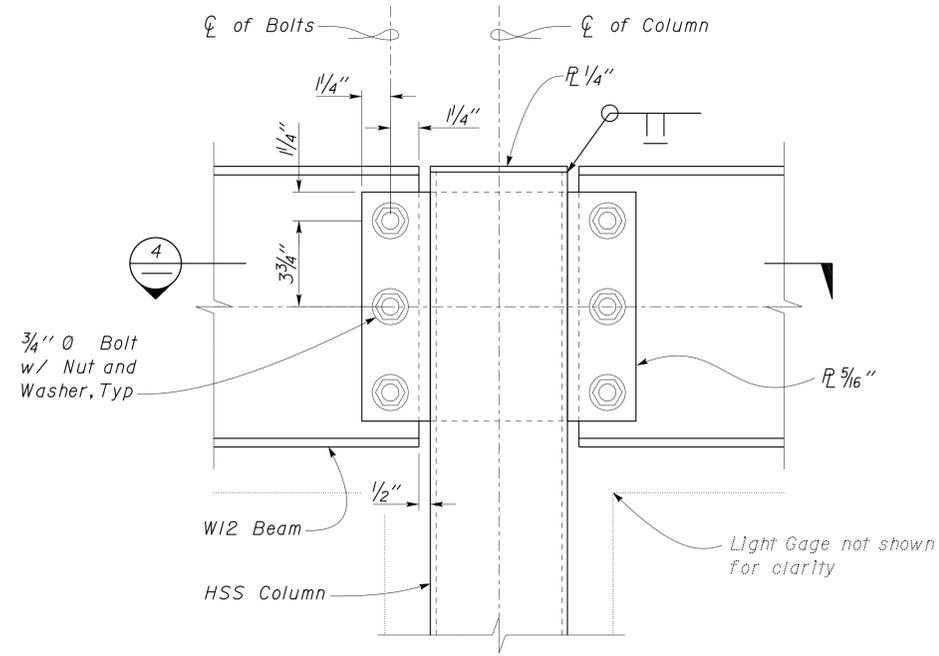
01-06-14
PLANS APPROVAL DATE

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

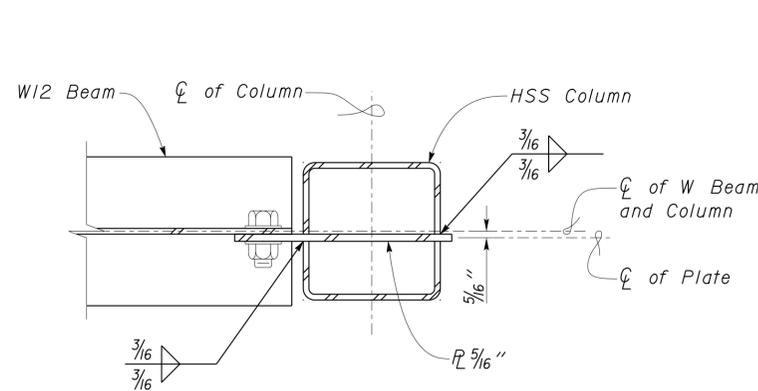
REGISTERED PROFESSIONAL ENGINEER
Robert du Plaine
No. 51447
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA



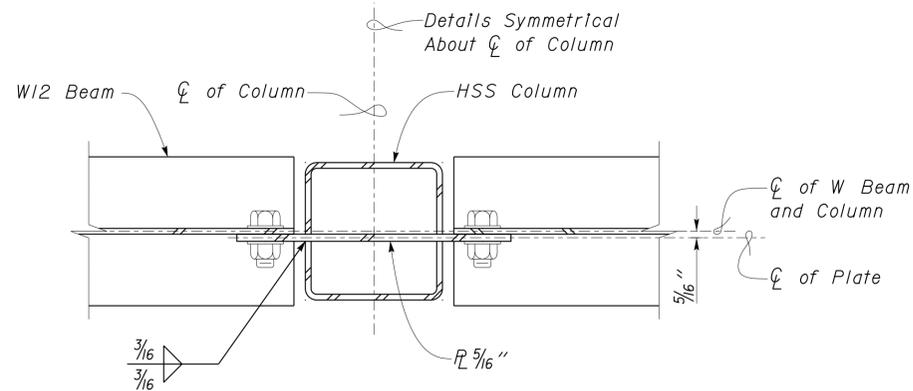
1 BEAM TO COLUMN
Scale 3" = 1' - 0"



3 BEAMS TO COLUMN
Scale 3" = 1' - 0"



2 BEAM TO COLUMN
Scale 3" = 1' - 0"



4 BEAMS TO COLUMN
Scale 3" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708
POST MILE	n/a

EL CENTRO MAINTENANCE FACILITY

REGIONAL OFFICE: FRAMING DETAILS

SHEET **ST9-16**

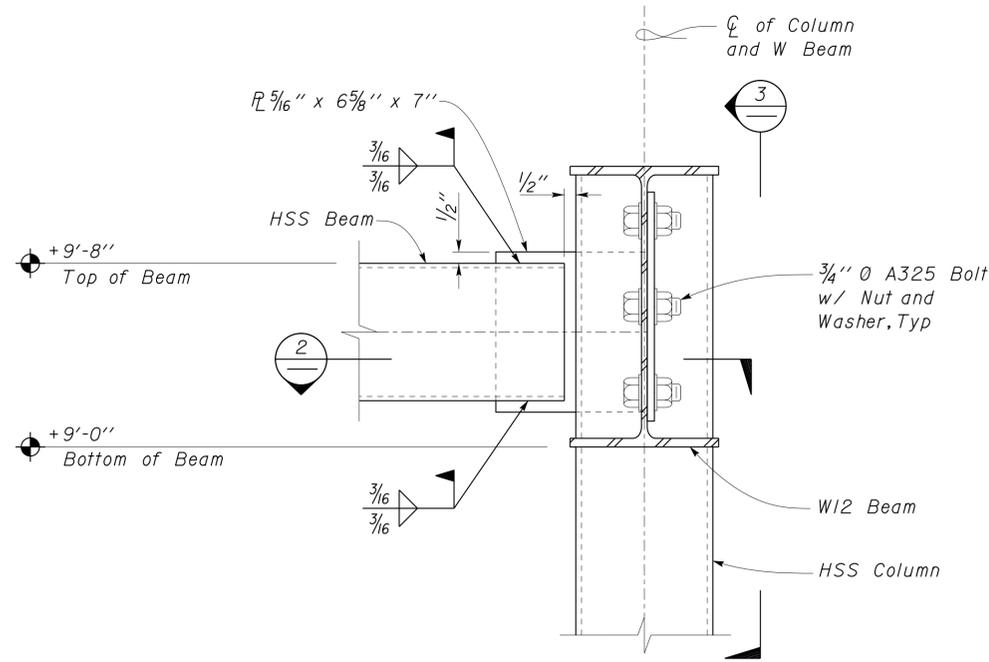
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		235	354



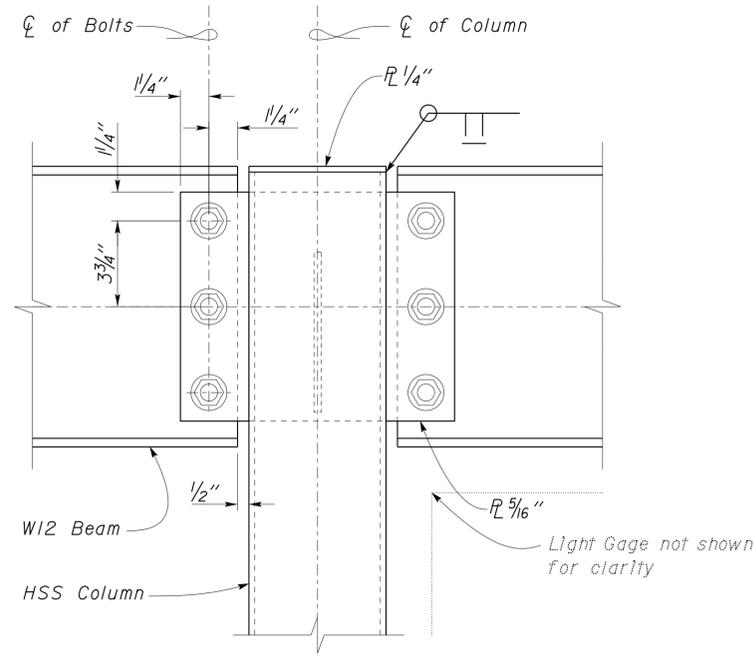
 REGISTERED CIVIL ENGINEER DATE 12-06-10

01-06-14
 PLANS APPROVAL DATE

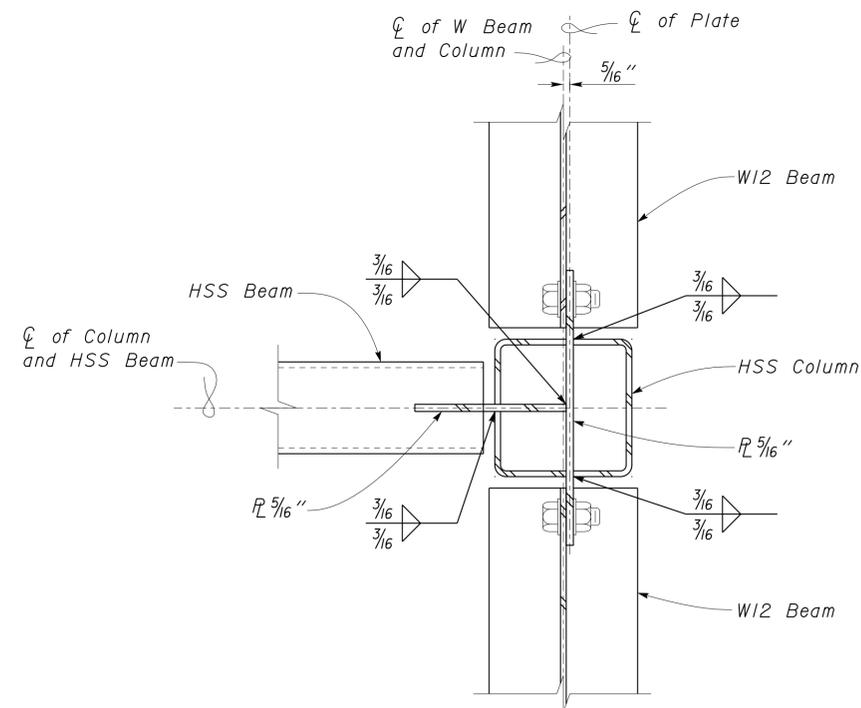
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



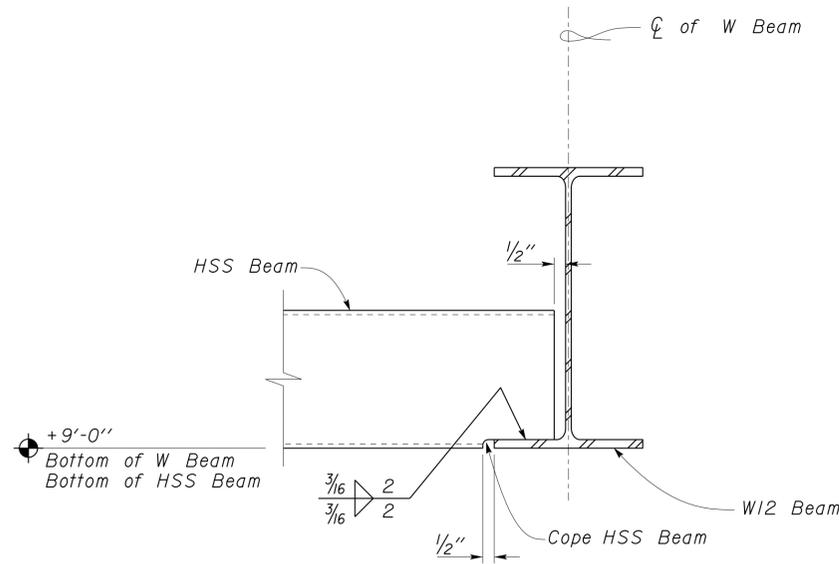
1 BEAMS TO COLUMN
Scale 3" = 1' - 0"



3 BEAMS TO COLUMN
Scale 3" = 1' - 0"



2 BEAM TO COLUMN
Scale 3" = 1' - 0"



4 HSS to W BEAM
Scale 3" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

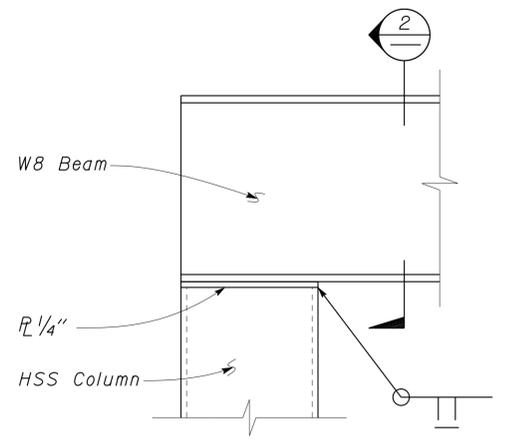
BRIDGE NO.	58M5708
POST MILE	n/a

EL CENTRO MAINTENANCE FACILITY
 FRAMING DETAILS

SHEET OF
ST9-17

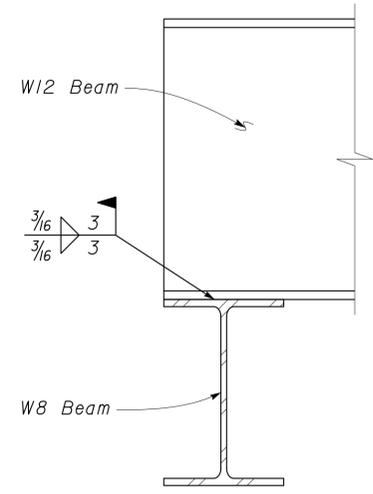


DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		236	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

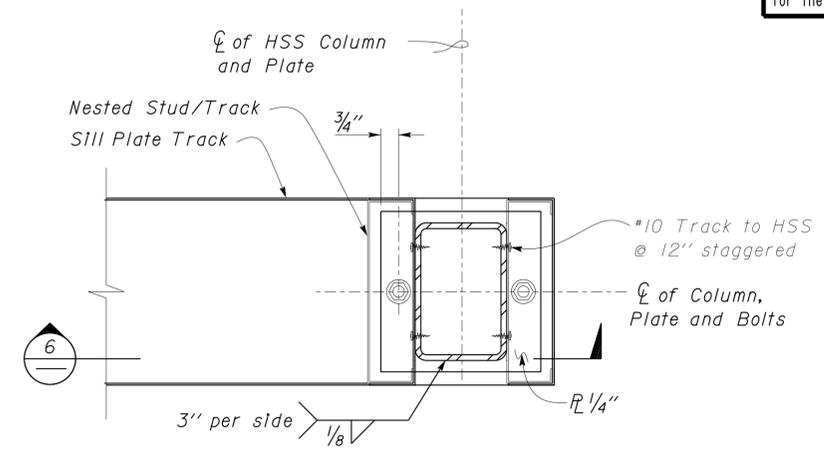


1 BEAM TO COLUMN
Scale 3" = 1' - 0"

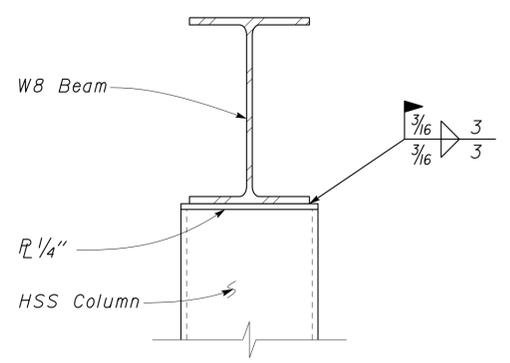
Light Gage not shown for clarity



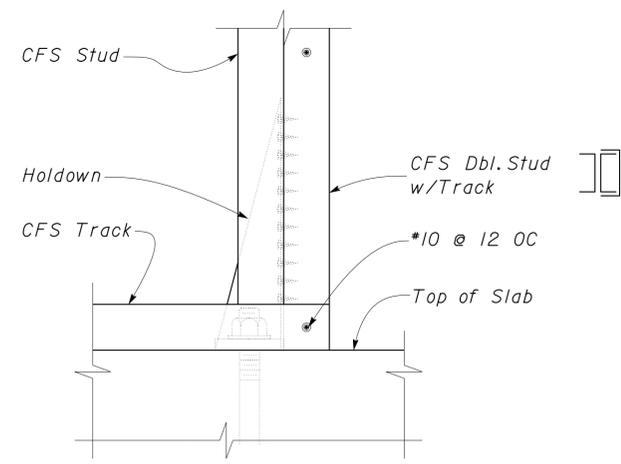
3 BEAM TO BEAM
Scale 3" = 1' - 0"



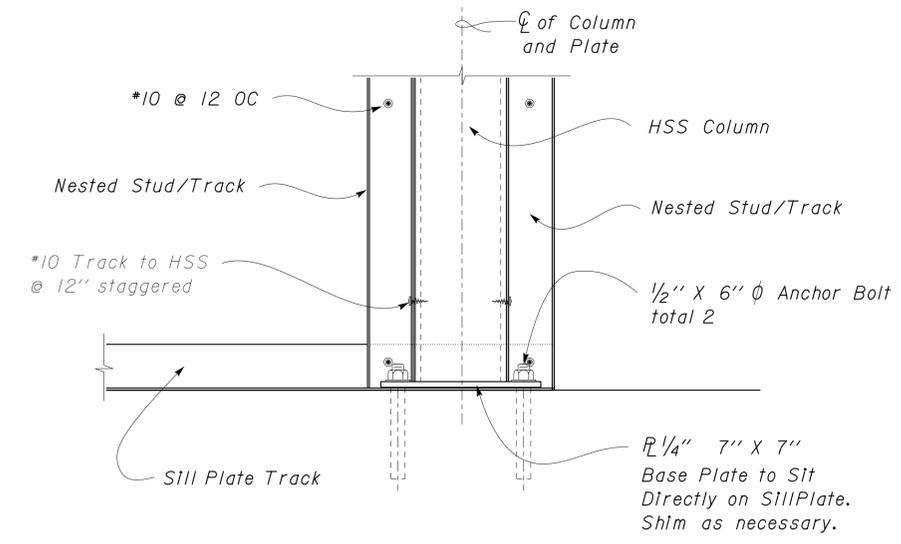
5 HSS COLUMN & BASE
Scale 3" = 1' - 0"



2 BEAM TO COLUMN
Scale 3" = 1' - 0"



4 HOLDOWN TO HSS STUD
Scale 3" = 1' - 0"



6 HSS COLUMN & BASE
Scale 3" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

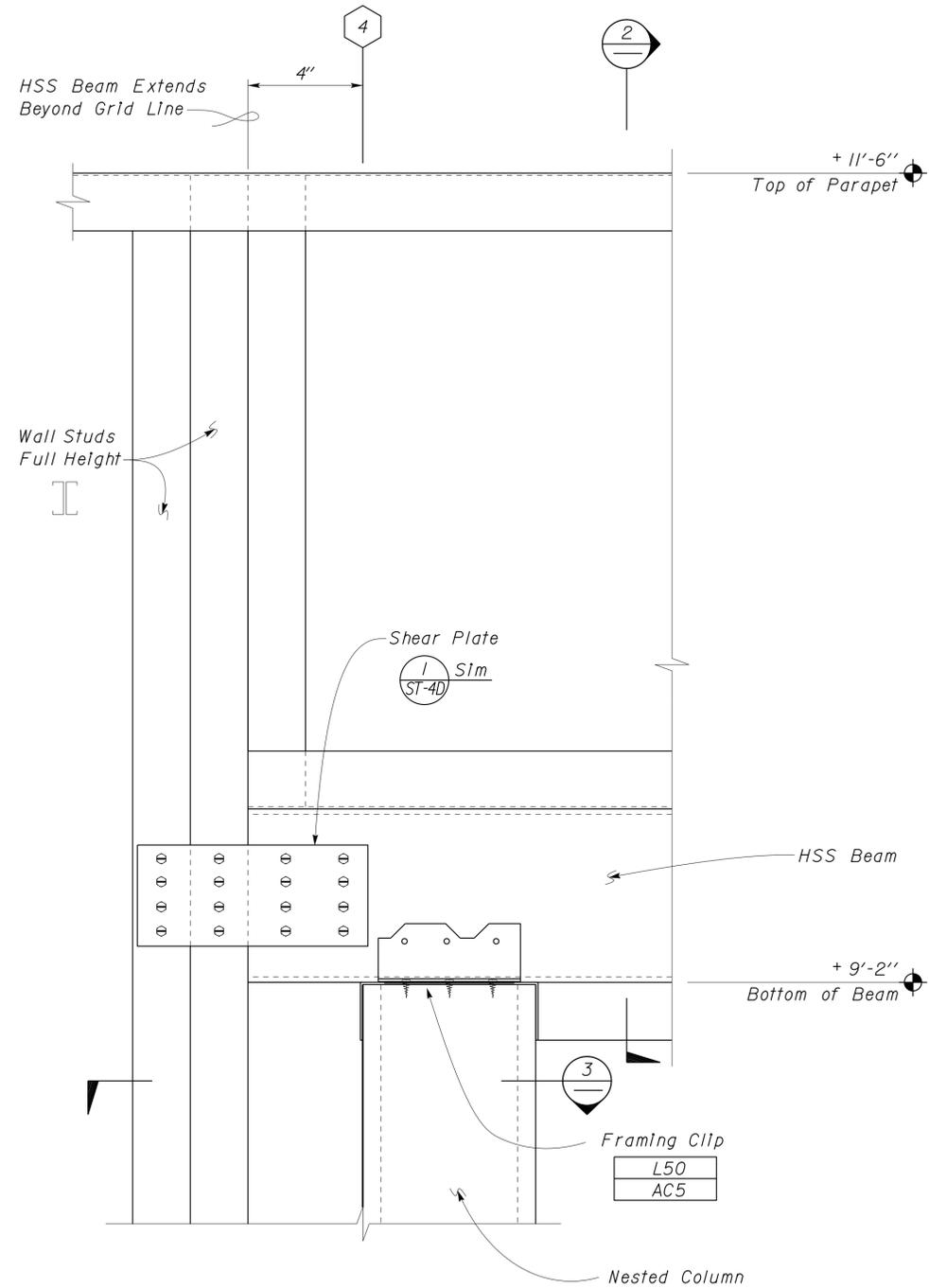
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
POST MILE n/a

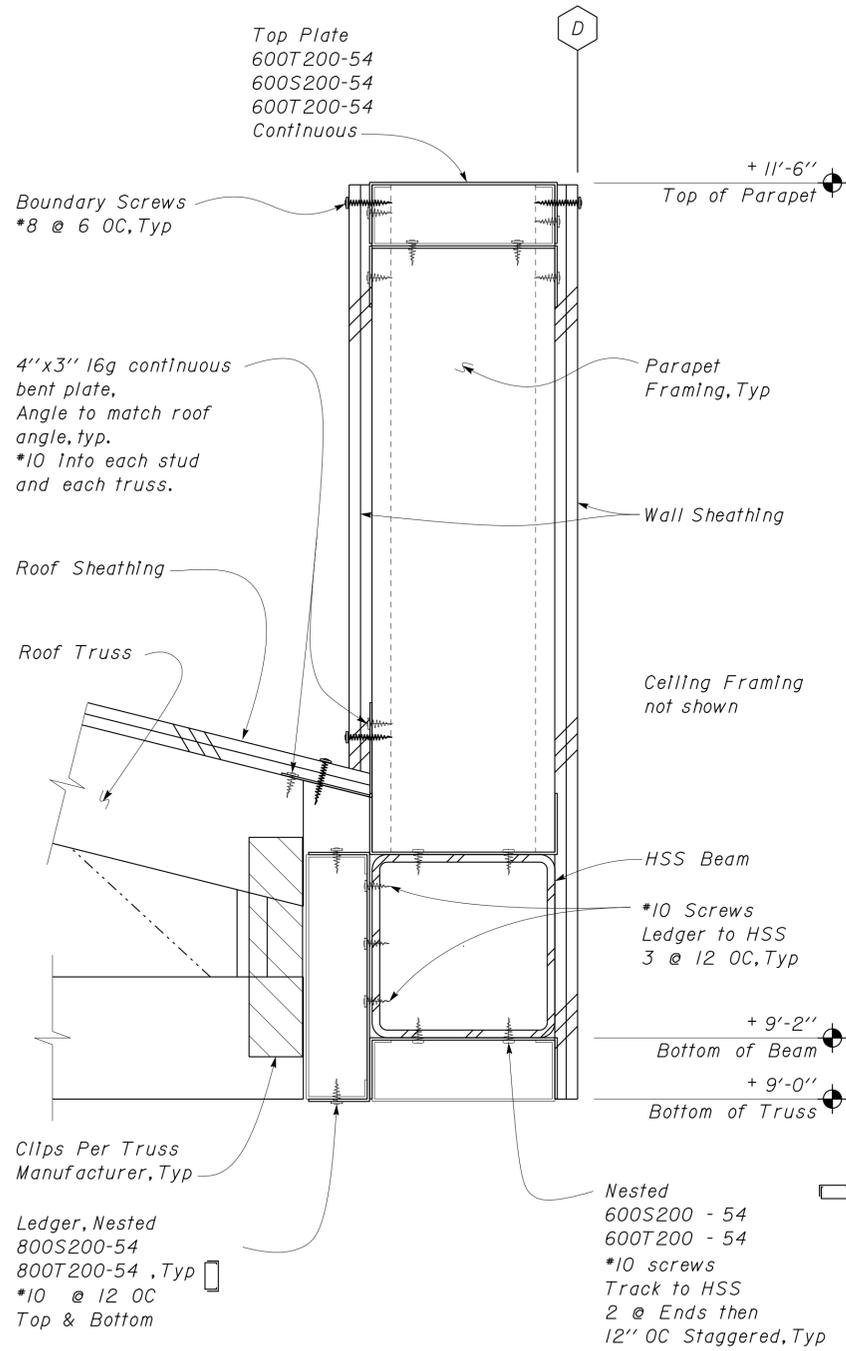
EL CENTRO MAINTENANCE FACILITY
FRAMING DETAILS

SHEET **ST9-18**

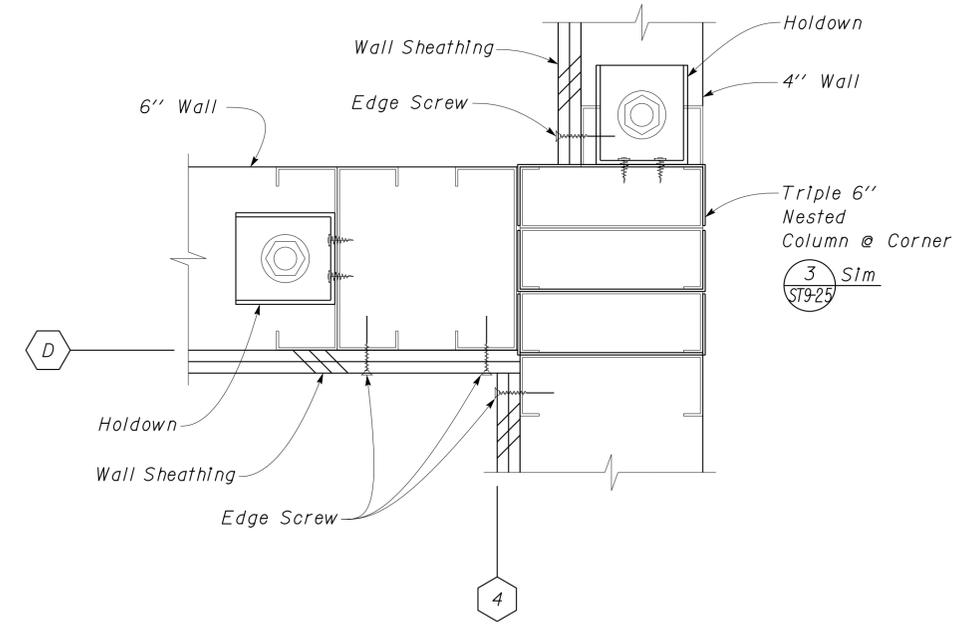
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		237	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



1 HSS TO WALL CONNECTION
Scale 4" = 1' - 0"



2 ROOF TRUSS TO HSS CONNECTION
Scale 4" = 1' - 0"



3 BEAM SUPPORT AT CORNER
Scale 4" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

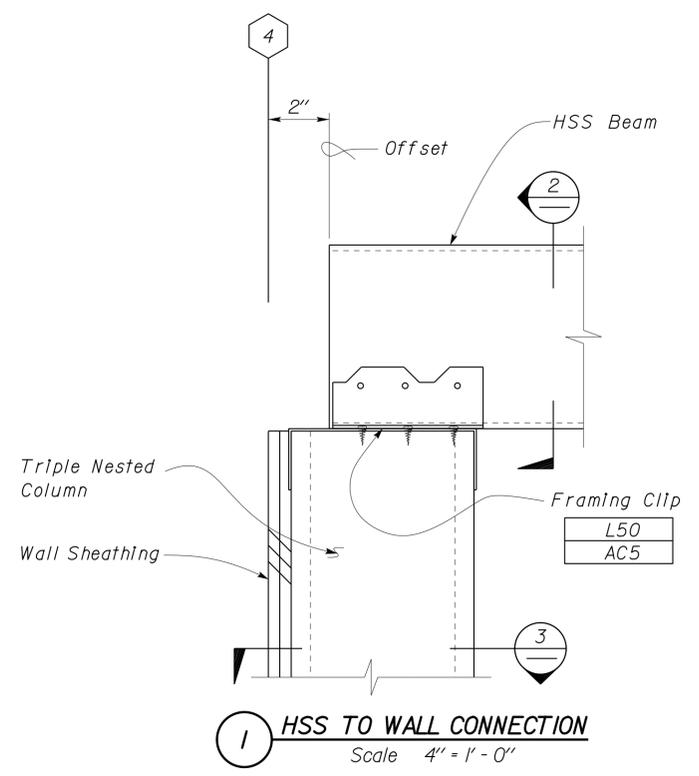
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
POST MILE n/a

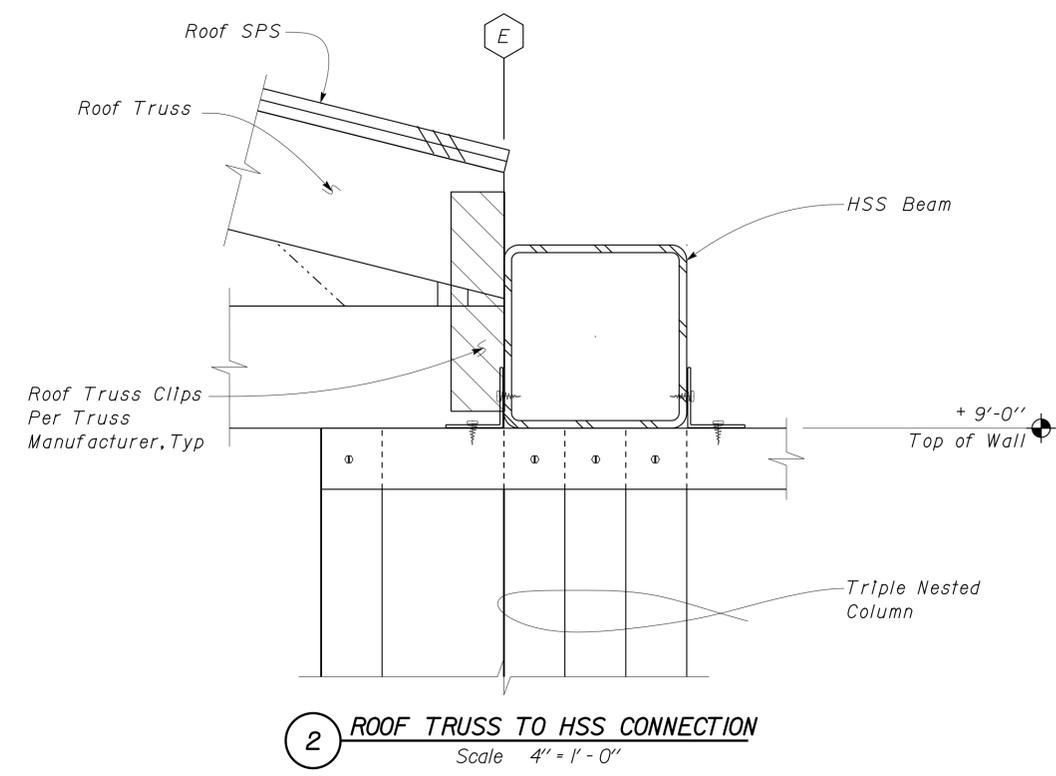
EL CENTRO MAINTENANCE FACILITY
REGIONAL OFFICE WALL FRAMING DETAILS

SHEET OF
ST9-19

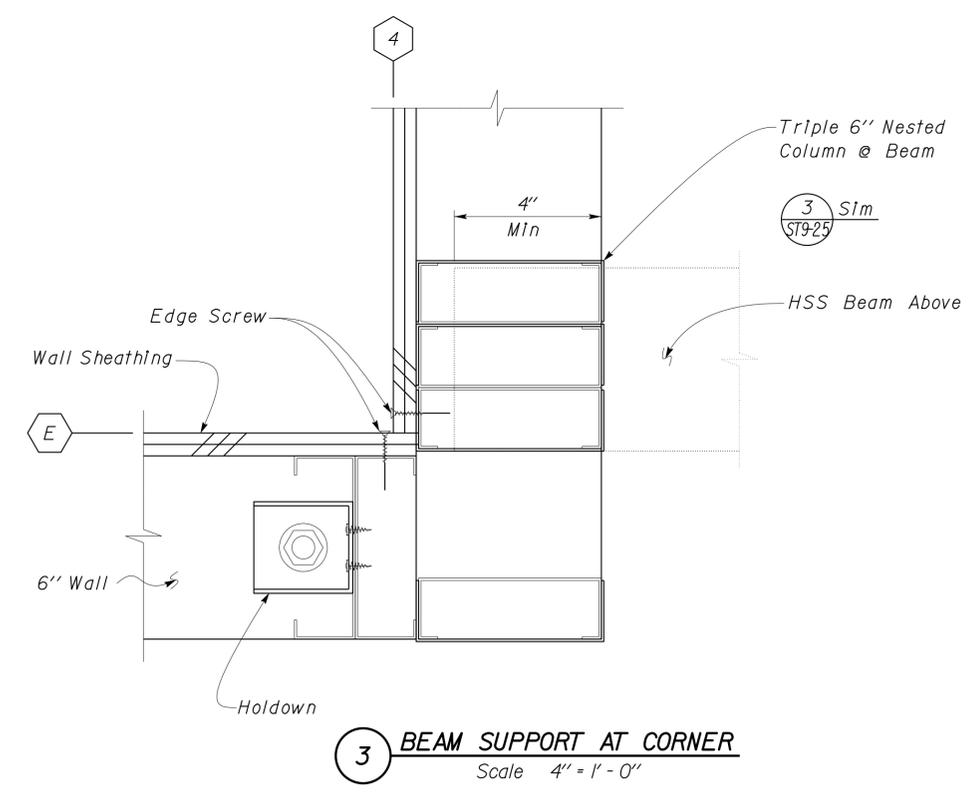
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	IMP	5708		238	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



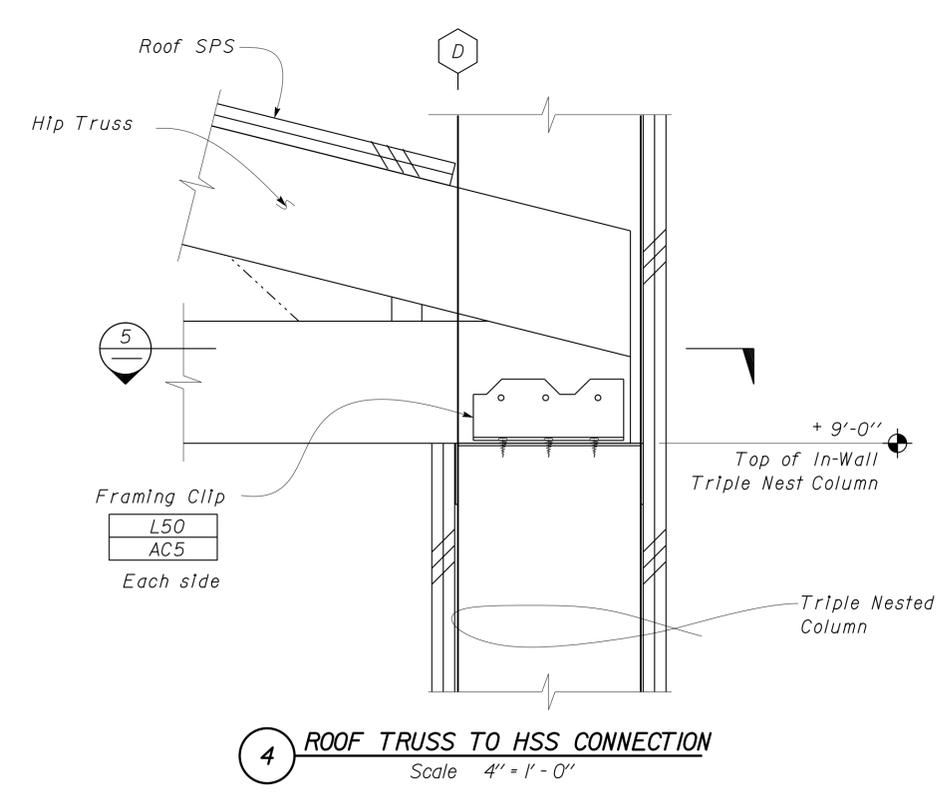
1 HSS TO WALL CONNECTION
Scale 4" = 1' - 0"



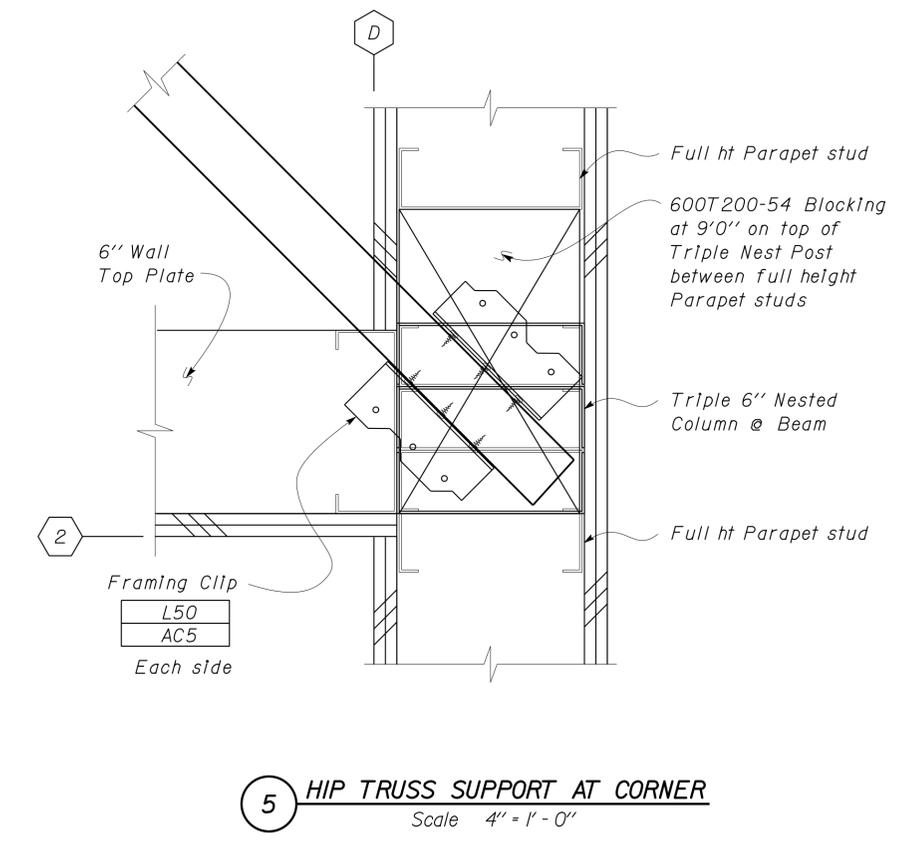
2 ROOF TRUSS TO HSS CONNECTION
Scale 4" = 1' - 0"



3 BEAM SUPPORT AT CORNER
Scale 4" = 1' - 0"



4 ROOF TRUSS TO HSS CONNECTION
Scale 4" = 1' - 0"



5 HIP TRUSS SUPPORT AT CORNER
Scale 4" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET	
	DETAILS	BY David Good			CHECKED Tom Mesich		POST MILE n/a	REGIONAL OFFICE
QUANTITIES	BY	CHECKED	UNIT PROJECT NUMBER & PHASE EA 076701	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	04-07-10	SHEET 21 OF 21

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT PROJECT NUMBER & PHASE

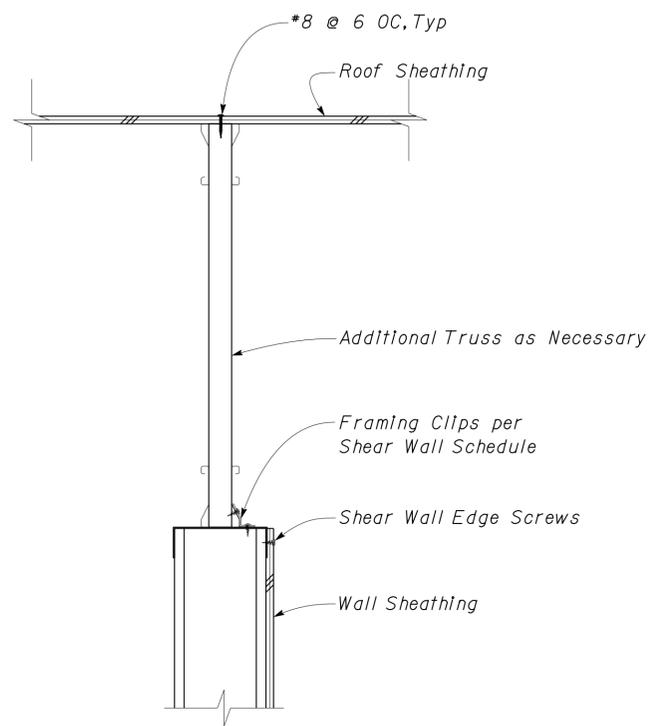
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

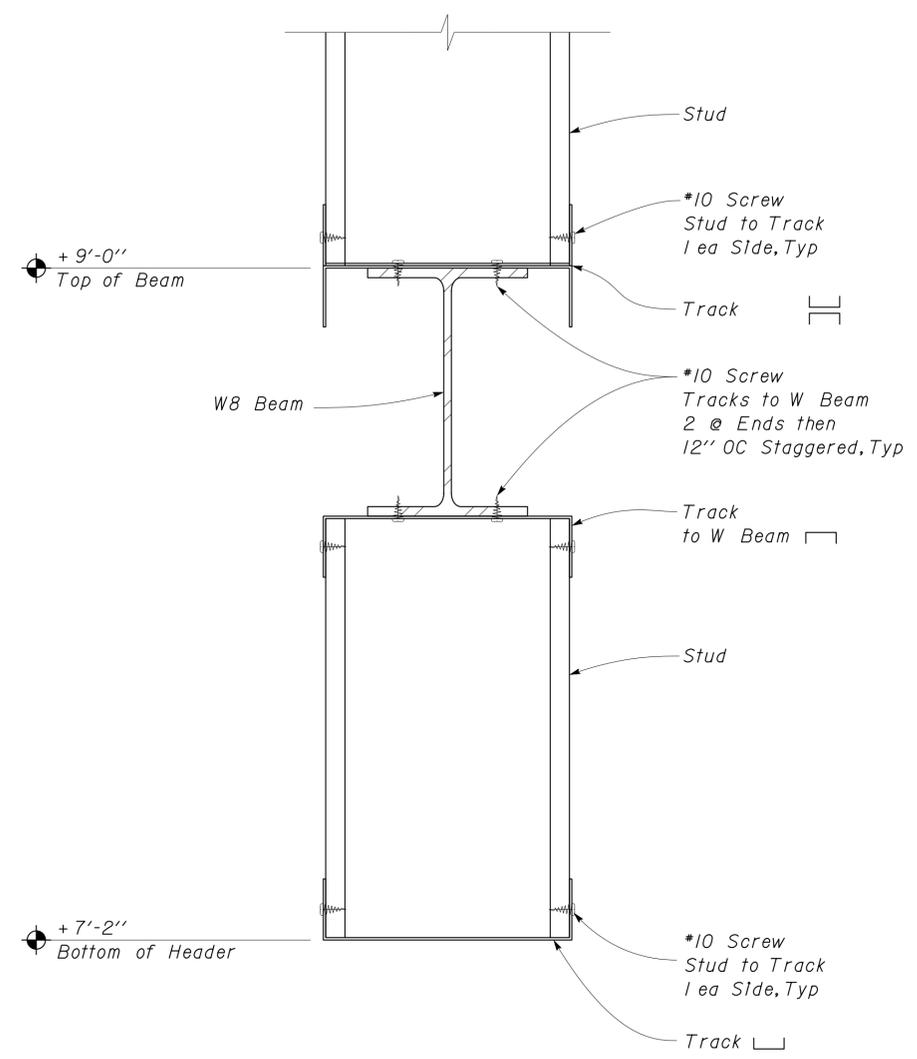
SHEET 21 OF 21

D:\TRM\Projects\EL CENTRO MS\Temp\st9_20.dgn

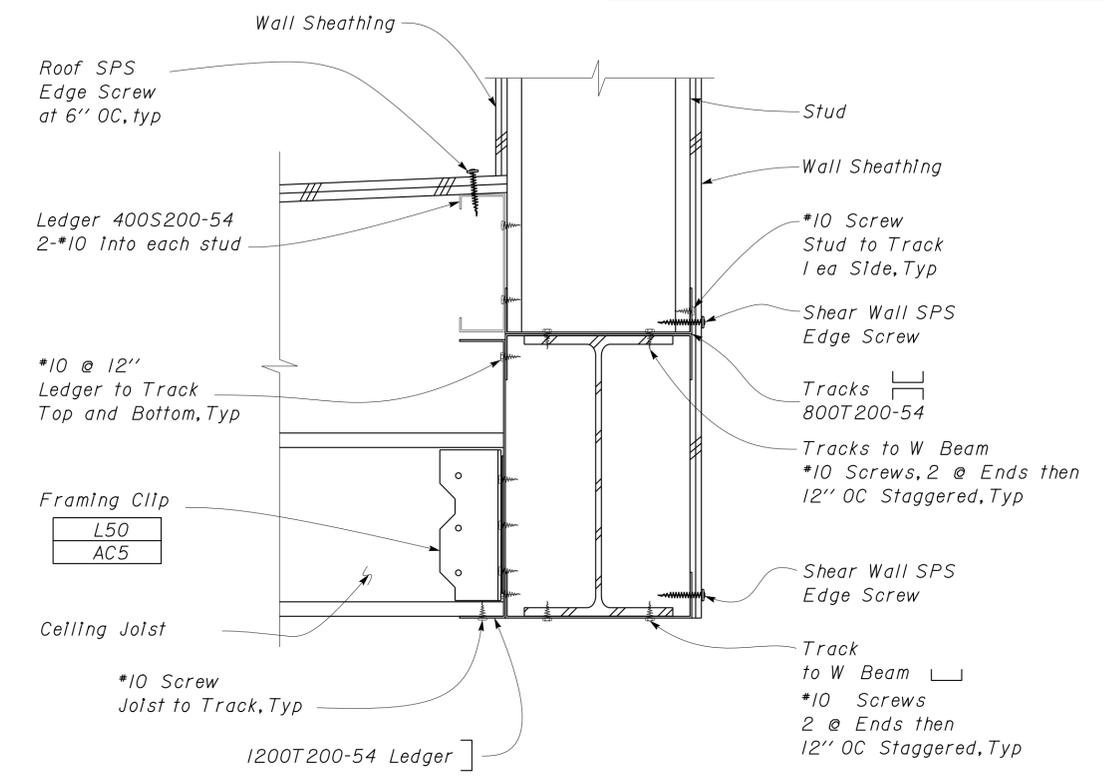
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		239	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14					
PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



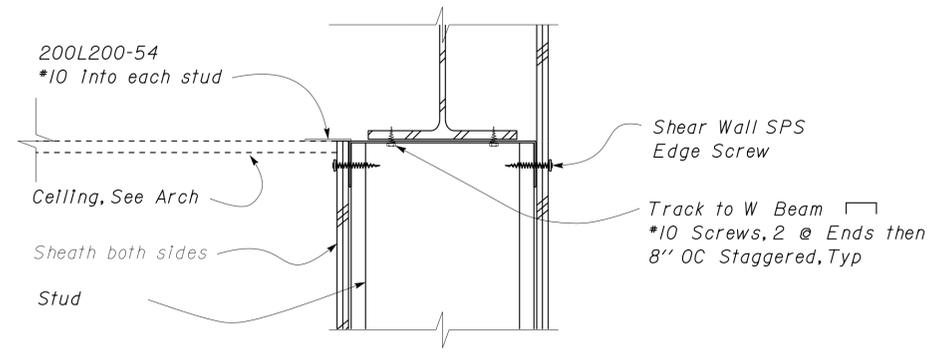
1 SHEAR WALL TO ROOF TRUSS CONNECTION
Scale 2" = 1' - 0"



2 HEADER DETAIL
Scale 4" = 1' - 0"



3 FRAMING @ W BEAM
Scale 3" = 1' - 0"



4 FRAMING @ SHEAR WALL
Scale 3" = 1' - 0"

*10 Screws
Nailer to W Beam
2 @ 8" OC, Typ

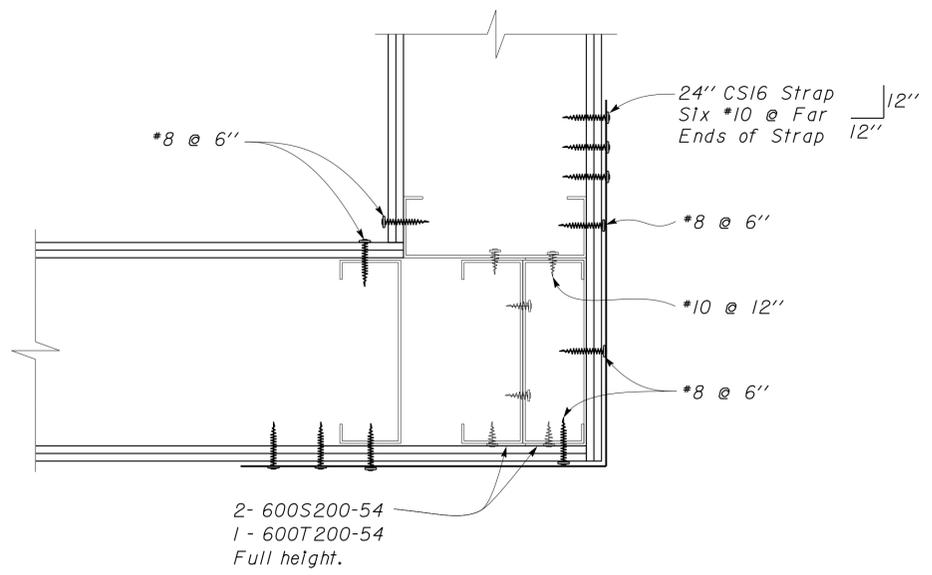
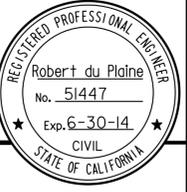
DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET
	DETAILS	BY David Good			CHECKED Tom Mesich		POST MILE n/a
QUANTITIES	BY	CHECKED	UNIT PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	04-07-10	SHEET OF
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	EA 076701			D:\NTRM\Projects\EL CENTRO MS\Temp\st9_21.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		240	354

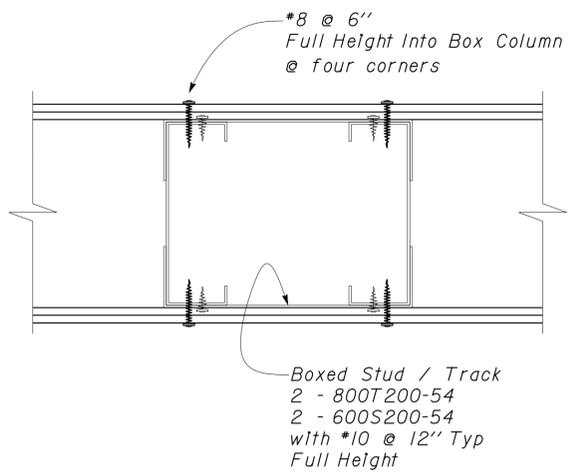
RdP
REGISTERED CIVIL ENGINEER
DATE 12-06-10

01-06-14
PLANS APPROVAL DATE

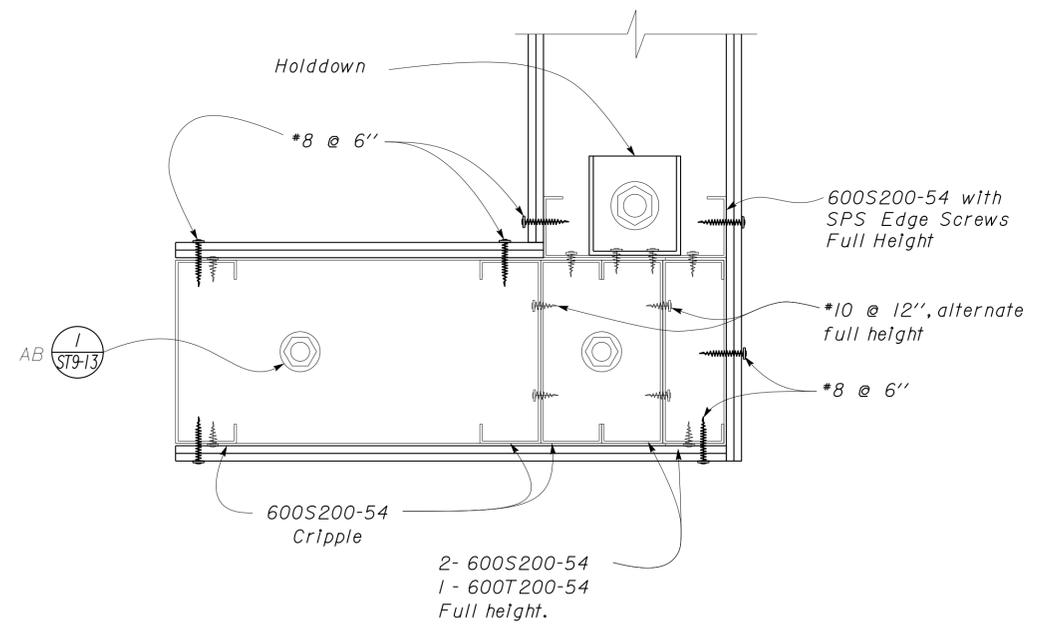
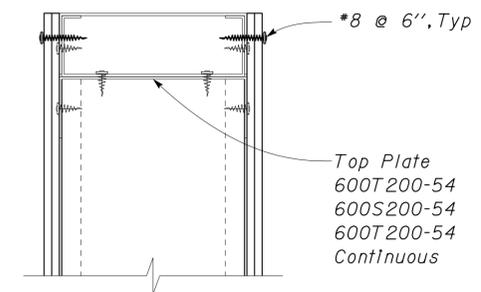
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



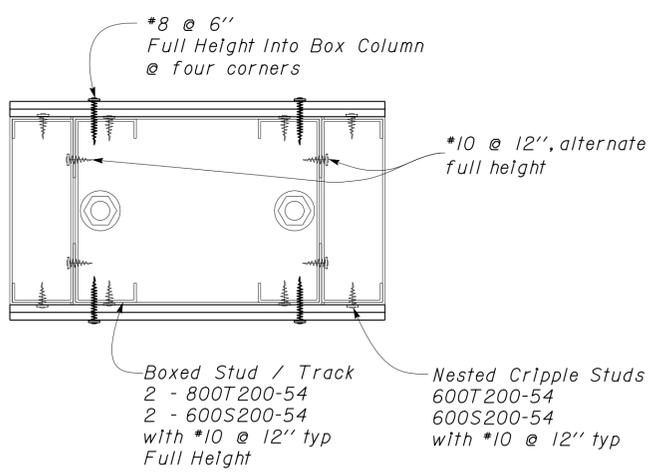
1 CORNER DETAIL
Scale 4" = 1' - 0"



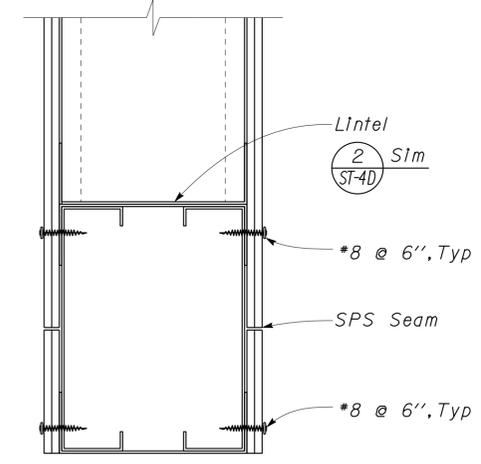
3 BOX COLUMN SECTION
Scale 4" = 1' - 0"



2 HOLDDOWN DETAIL
Scale 4" = 1' - 0"



4 BOX COLUMN DETAIL
Scale 4" = 1' - 0"



5 LINTEL DETAIL
Scale 4" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

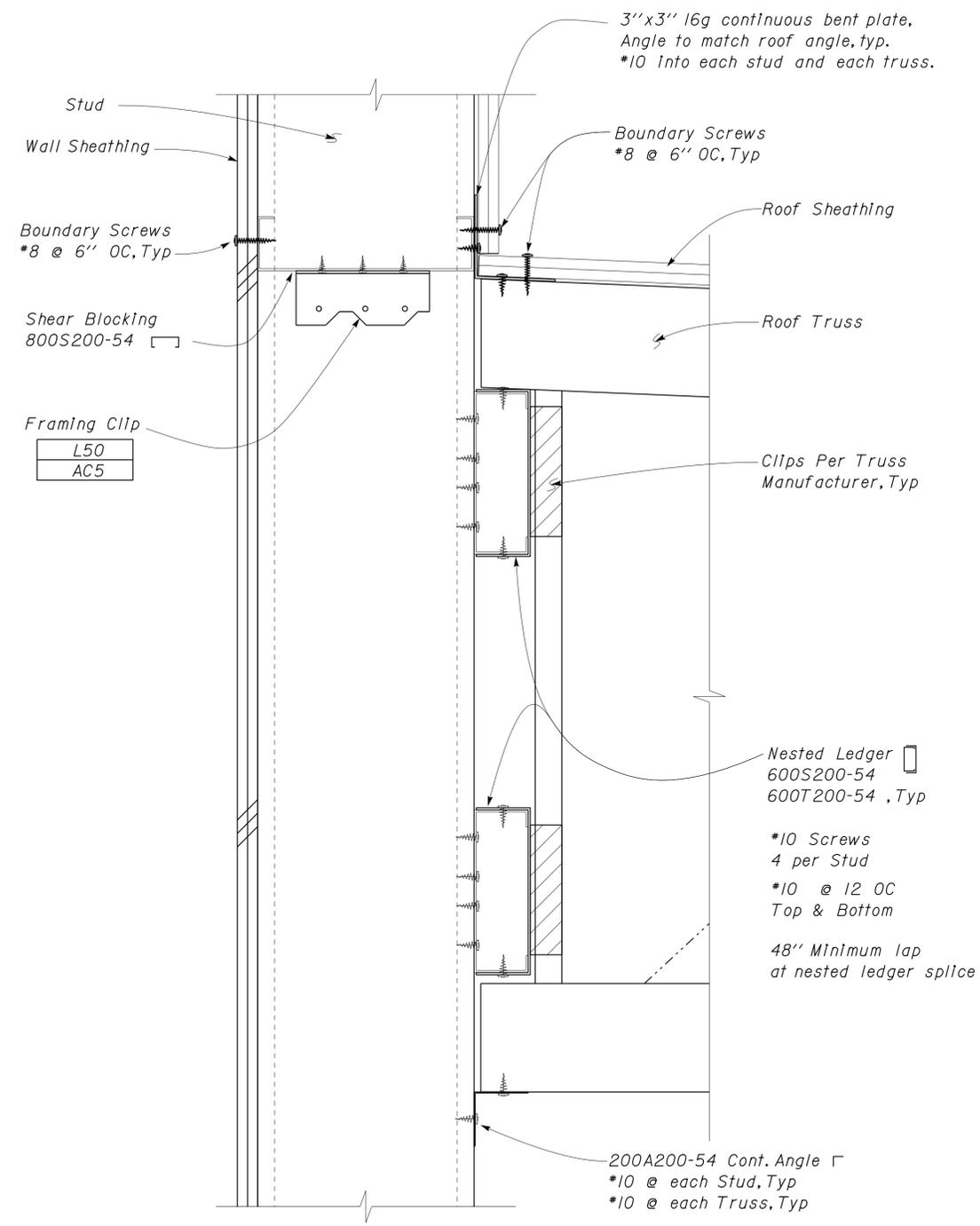
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708
POST MILE	n/a

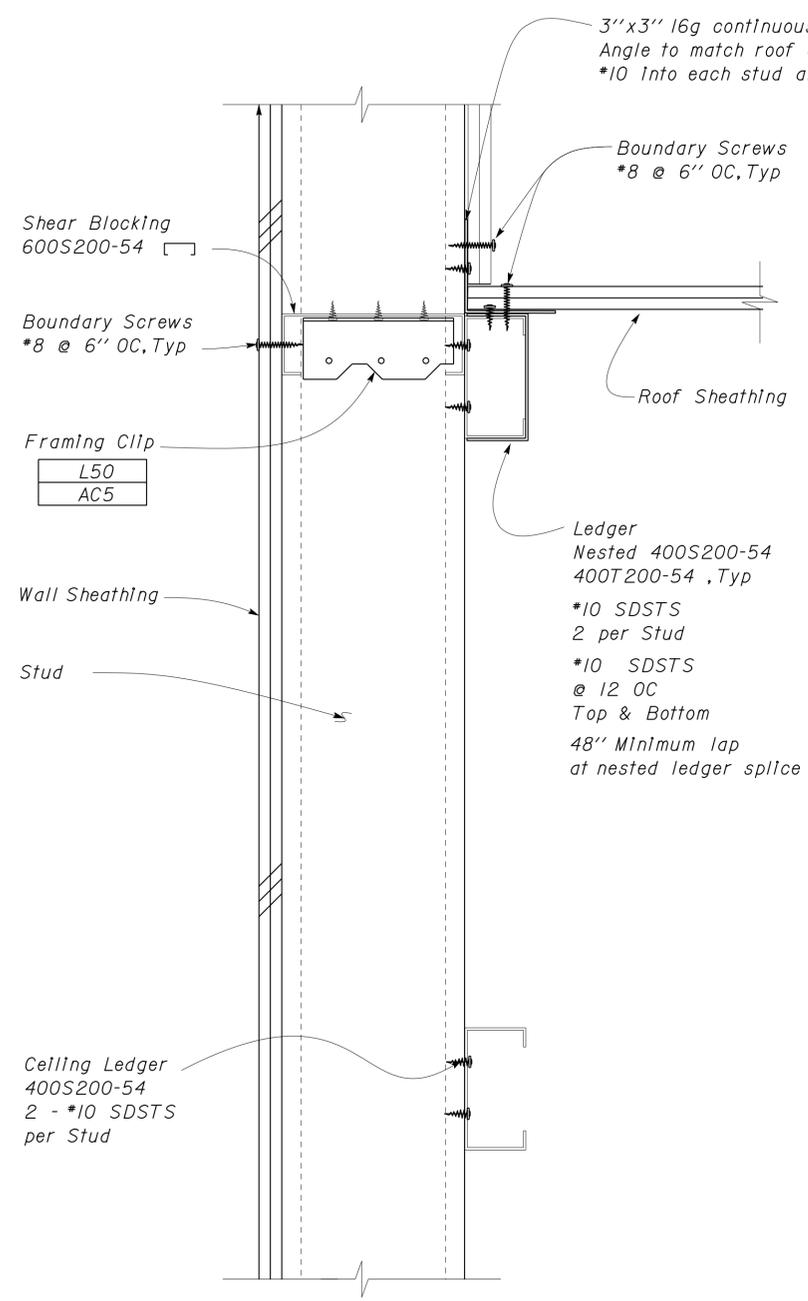
EL CENTRO MAINTENANCE FACILITY
REGIONAL OFFICE
WALL FRAMING DETAILS

SHEET **ST9-22** OF

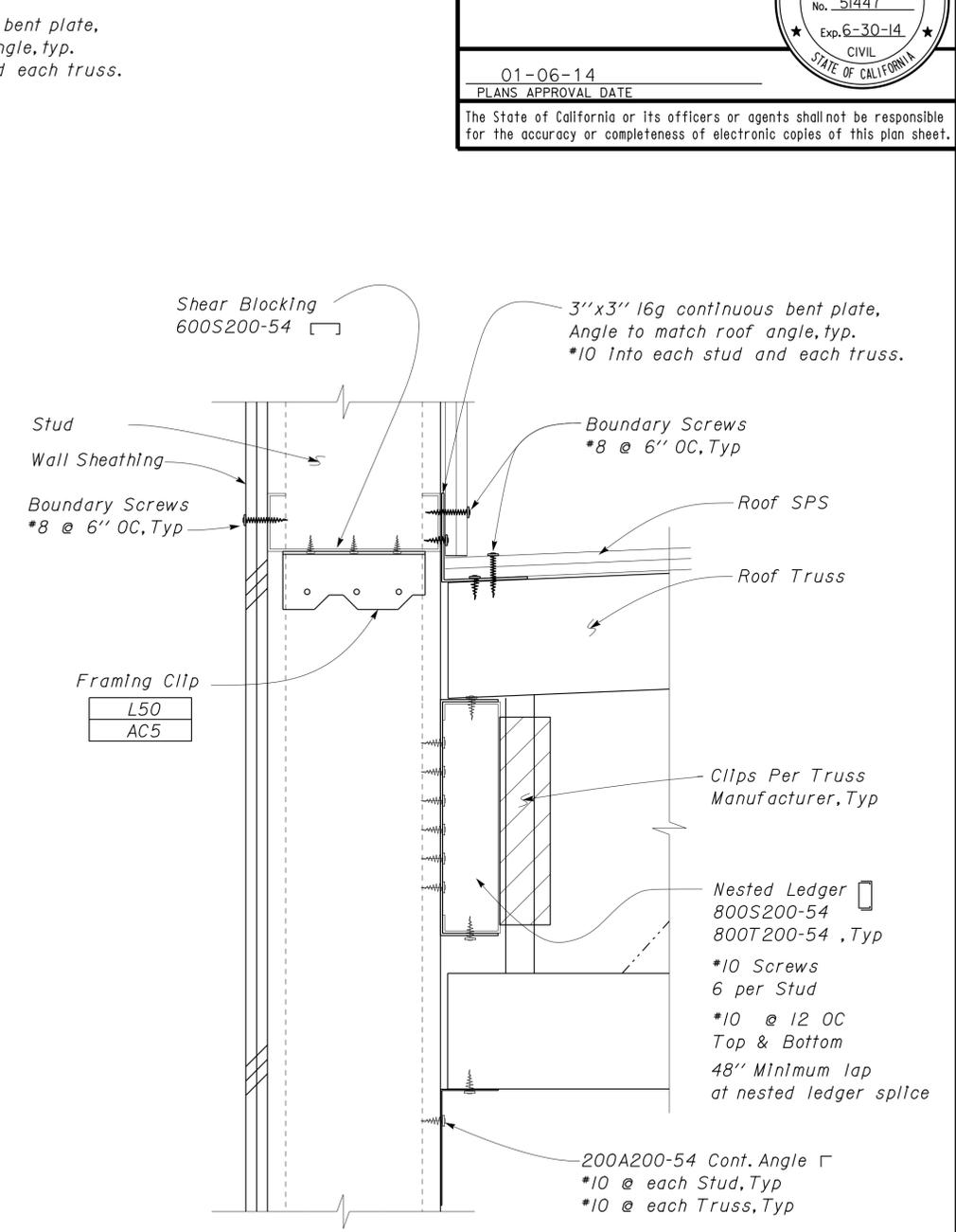
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		241	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



1 LEDGER DETAIL
Scale 4" = 1' - 0"



2 LEDGER & BLOCKING DETAIL
Scale 4" = 1' - 0"



3 LEDGER DETAIL
Scale 4" = 1' - 0"

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY ROOF FRAMING DETAILS	SHEET
	DETAILS	BY David Good			CHECKED Tom Mesich		POST MILE n/a
QUANTITIES	BY	CHECKED	UNIT PROJECT NUMBER & PHASE EA 076701	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
TAEMWW Imperial Rev. 7/10		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		04-07-10	

21-JAN-2014 14:34

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		242	354

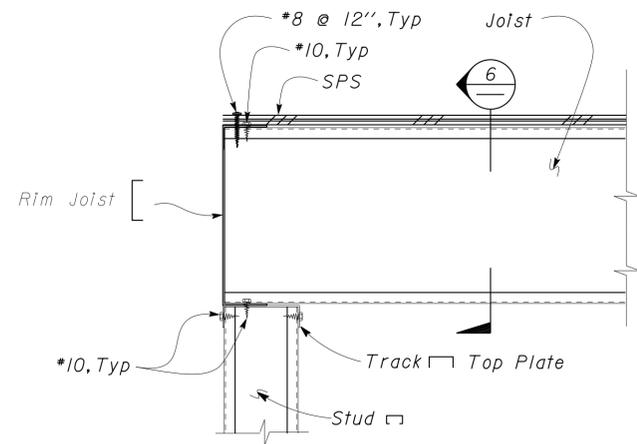
RdP
REGISTERED CIVIL ENGINEER

12-06-10
DATE

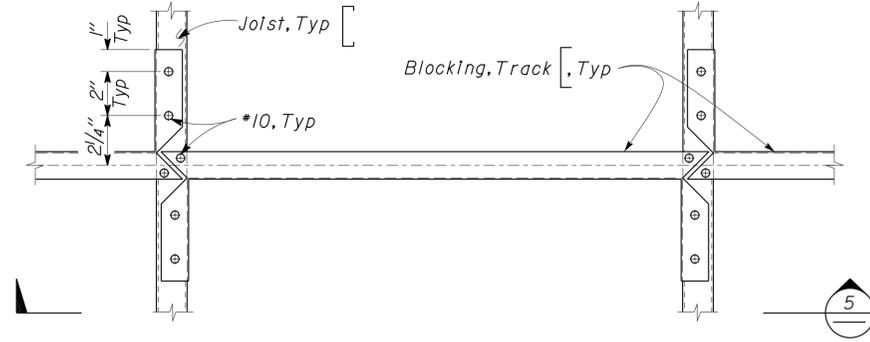
01-06-14
PLANS APPROVAL DATE

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

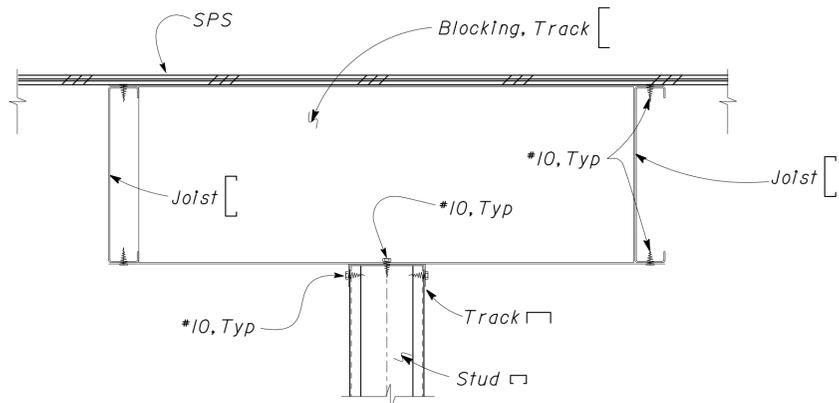
REGISTERED PROFESSIONAL ENGINEER
Robert du Plaine
No. 51447
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA



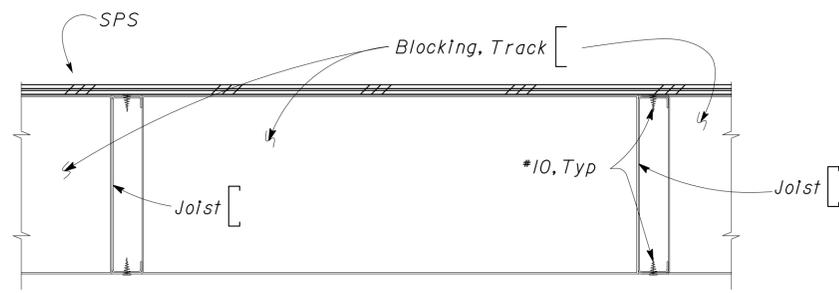
1 RIM JOIST DETAIL
No Scale



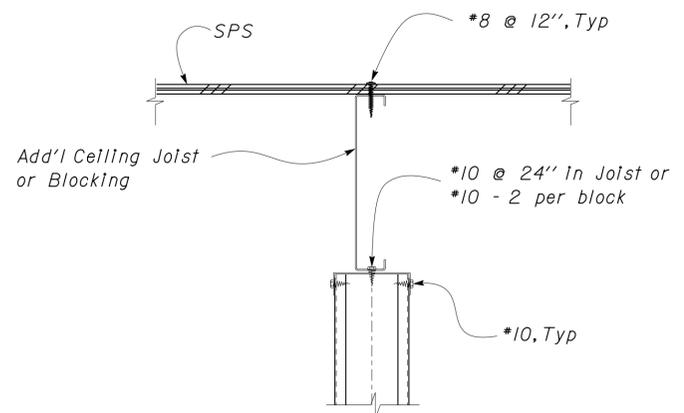
4 JOIST BLOCKING PLAN
No Scale



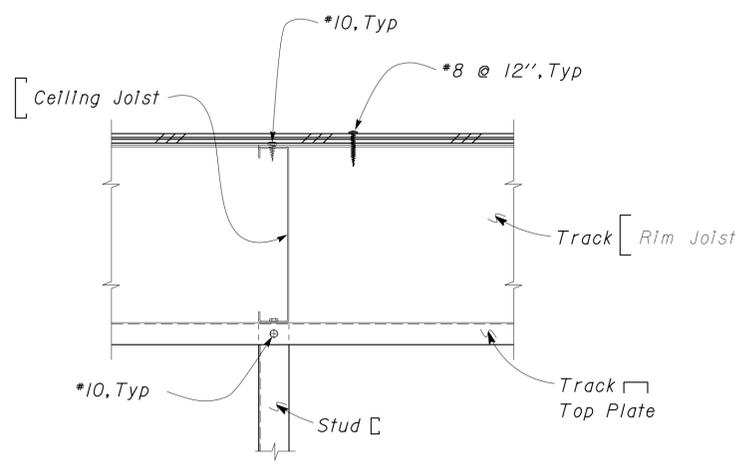
2 BLOCKING AT WALL
No Scale



5 JOIST BLOCKING ELEVATION
No Scale



3 JOIST / SHEAR WALL CONNECTION
No Scale



6 RIM JOIST DETAIL
No Scale

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich
DETAILS	BY David Good	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

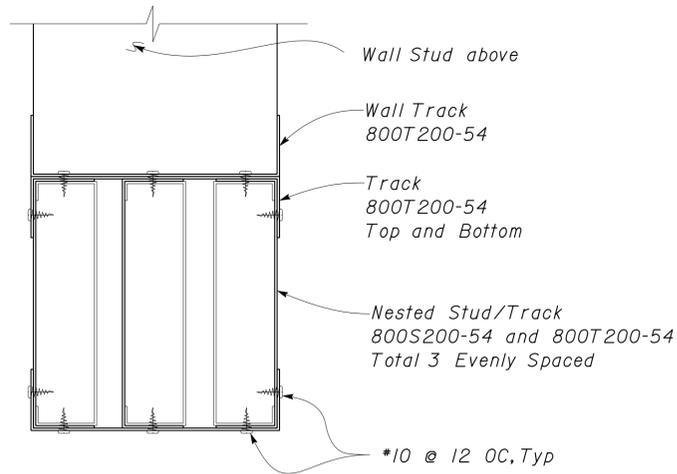
BRIDGE NO.	58M5708
POST MILE	n/a

EL CENTRO MAINTENANCE FACILITY

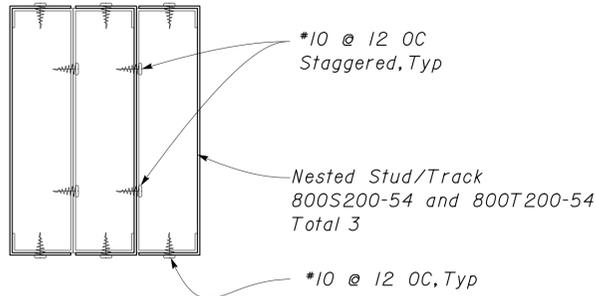
REGIONAL OFFICE: CEILING FRAMING DETAILS

SHEET **ST9-24**

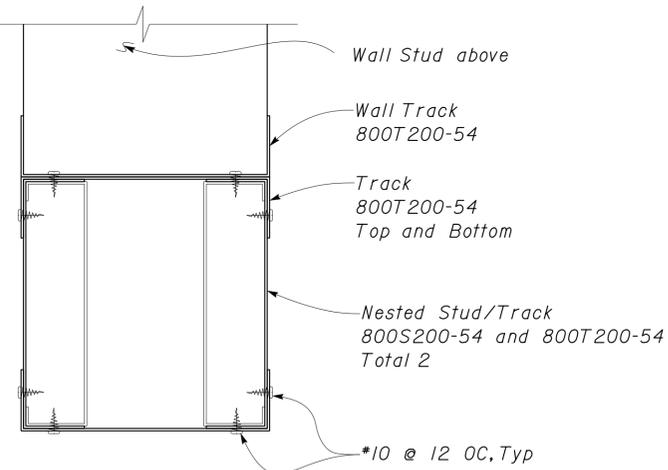
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		243	354
RdP			12-06-10		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



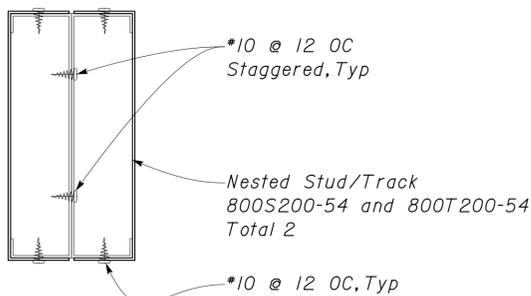
1 TRIPLE NESTED HEADER
Scale 4" = 1' - 0"



3 TRIPLE NESTED COLUMN
Scale 4" = 1' - 0"

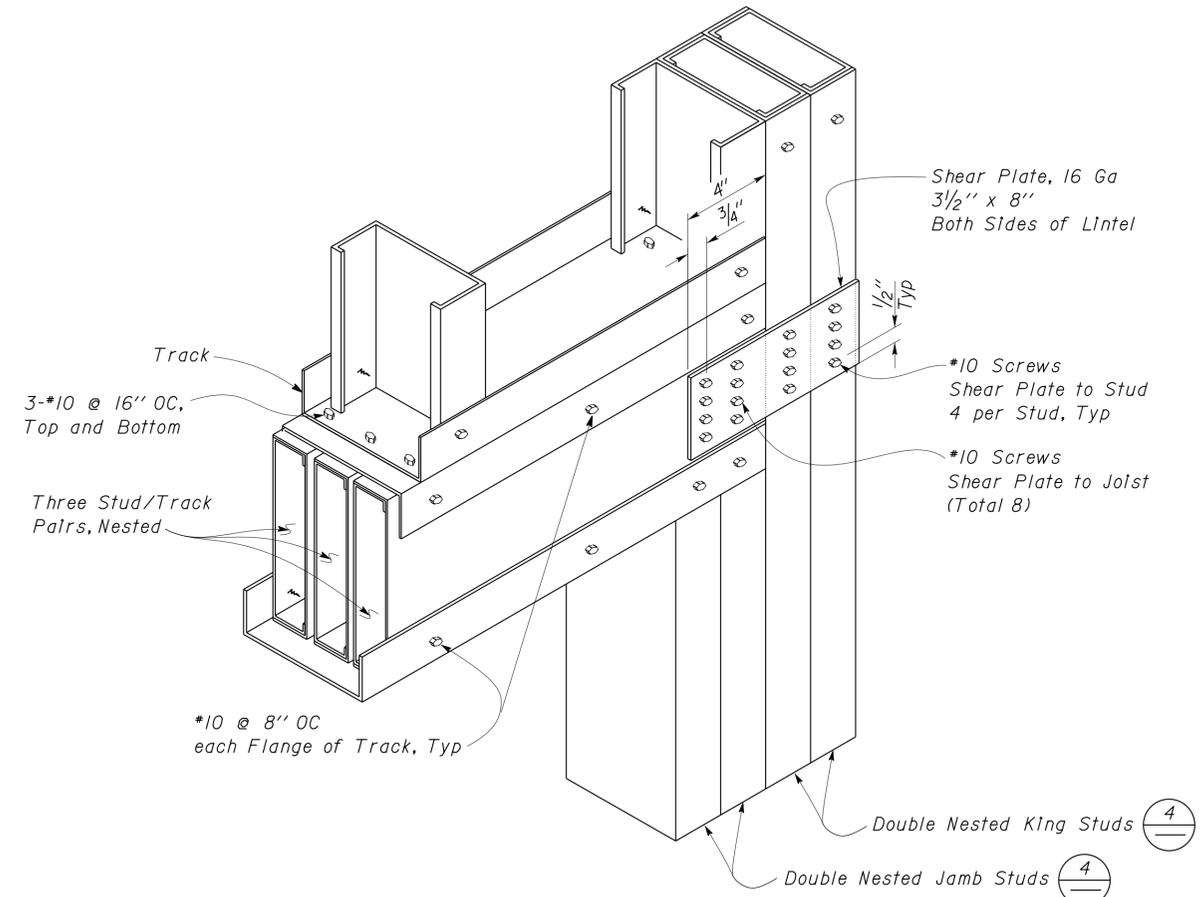


2 DOUBLE NESTED HEADER
Scale 4" = 1' - 0"



4 DOUBLE NESTED COLUMN
Scale 4" = 1' - 0"

Single Nested Column is half of this Detail



5 TRIPLE NESTED WALL LINTEL
No Scale

DESIGN	BY Robert Du Plaine	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET
	DETAILS	BY David Good			CHECKED Tom Mesich		POST MILE n/a
QUANTITIES	BY	CHECKED	UNIT PROJECT NUMBER & PHASE EA 076701	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	04-07-10			

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		244	354

<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER	06-08-10 DATE	
01-06-14 PLANS APPROVAL DATE		

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A GENERAL DESIGN NOTES

1. CRITERIA

BUILDING CODE:
2010 California Building Code as Adopted
by the California Building Standards Commission

OCCUPANCY CATEGORY: I

2. MATERIALS

REINFORCED CONCRETE: (Strength Design)
 $f'_c = 3,650 \text{ psi}$
 $f_y = 60,000 \text{ psi}$

STRUCTURAL STEEL: (Allowable Strength Design)
Channels, Angles, Plates & Misc. Shapes $F_y = 36 \text{ ksi}$

3. FOUNDATION

Soils report dated : September 3, 2009
Allowable Soil Pressure: 2,000 psf
For Soil Classification, see Log of Test Borings Sheet.

B DESIGN LOADS

1. LIVE

Roof = 20 psf

2. SEISMIC

Importance Factor = 1.0
Site Class = E
Spectral Response Accelerations:
 $S_S = 1.500$ $S_I = 0.600$
Spectral Response Coefficients:
 $S_{DS} = 0.900$ $S_{DI} = 0.960$
Design Category = D
Analysis Procedure: Equivalent Lateral Force

Seismic Force-Resisting System:
North - South East - West
Cantilevered Column Cantilevered Column
 $R = 1.0$ $R = 1.0$
 $C_S = 1.0$ $C_S = 1.0$

3. WIND

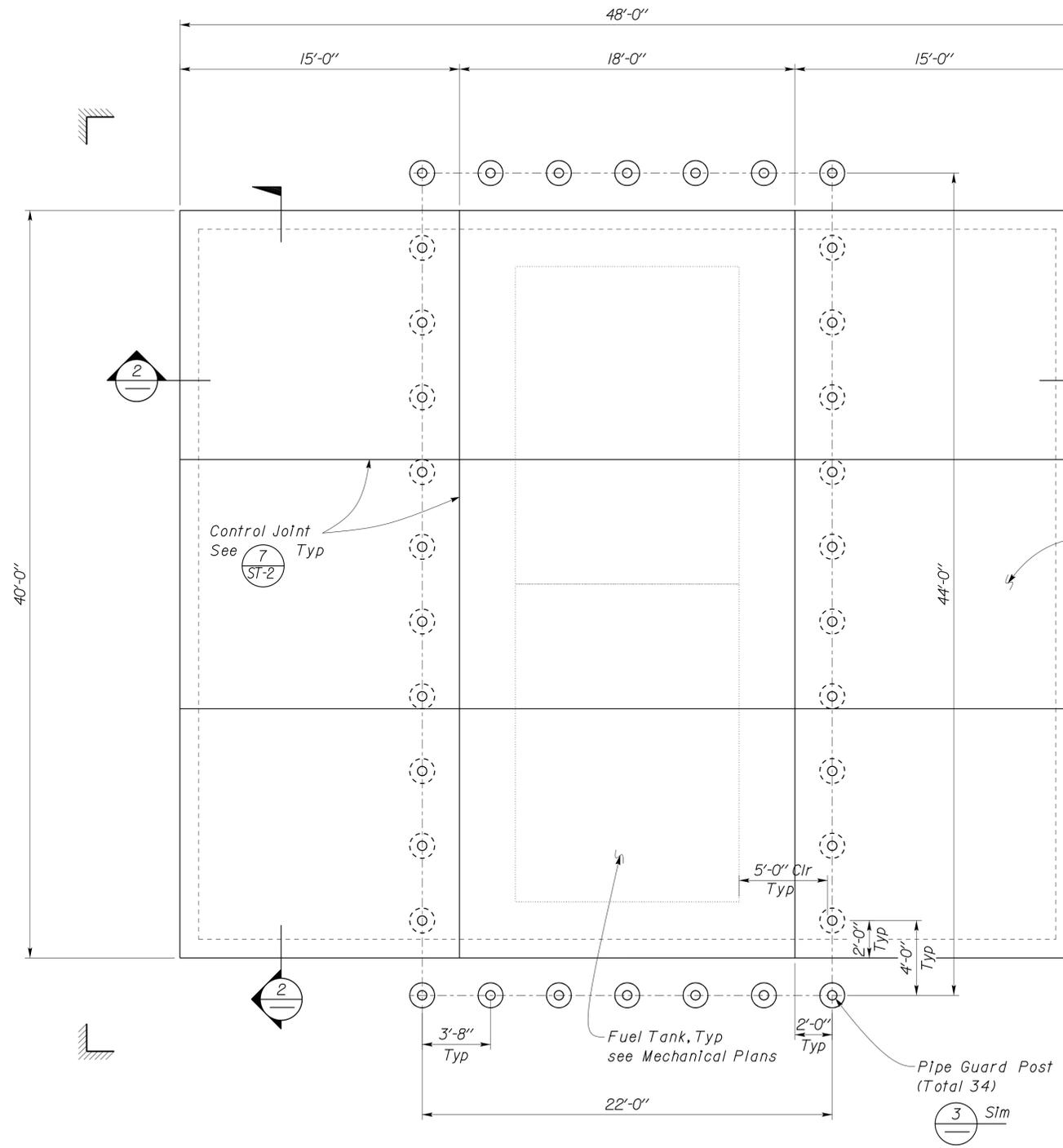
Importance Factor = 1.0
Basic Wind Speed = 85 mph (3 sec gust)
Exposure C
Analysis Procedure: Simplified

DESIGN	BY	Tom Mesich	CHECKED	Sean Samuel	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY		SHEET ST11-0	
	DETAILS	BY	Tom Mesich	CHECKED			Sean Samuel	POST MILE	FUEL ISLAND		DESIGN CRITERIA AND DETAIL NOTES
	QUANTITIES	BY		CHECKED							

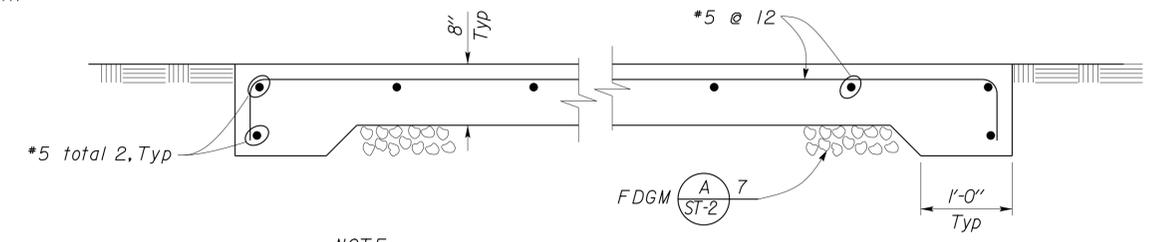
TAEMWW Imperial Rev. 7/10	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	UNIT PROJECT NUMBER & PHASE	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	01-06-09	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		245	354
 REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE			01-06-14		
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.					

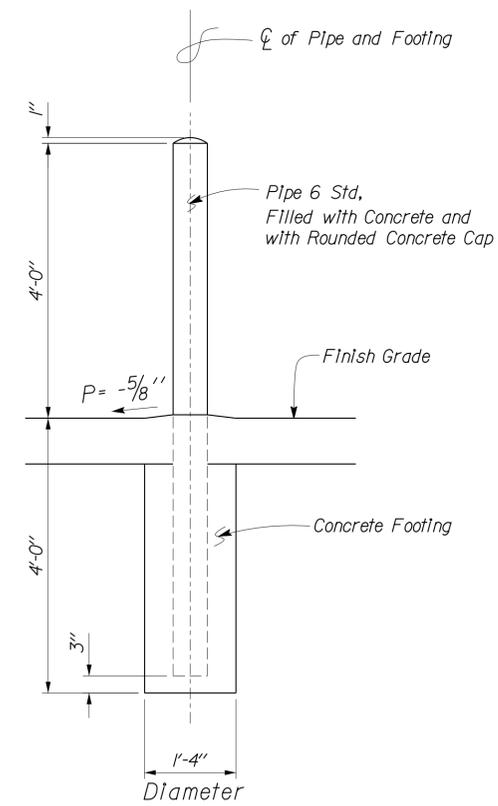


1 FOUNDATION PLAN
Scale 1/4" = 1'-0"



NOTE:
Pipe Guard Posts not shown for clarity, see (3)

2 CONCRETE SLAB
Scale 1" = 1'-0"



3 PIPE GUARD POST DETAIL
Scale 3/4" = 1'-0"


DESIGN ENGINEER

DESIGN	BY Tom Mesich	CHECKED Sean Samuel
DETAILS	BY Tom Mesich	CHECKED Sean Samuel
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	
POST MILE	

EL CENTRO MAINTENANCE FACILITY
FUEL ISLAND
FOUNDATION PLAN AND DETAILS

SHEET OF
ST11-1

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		246	354

<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER	06-08-10 DATE	
01-06-14 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.

A GENERAL DESIGN NOTES

1. CRITERIA

BUILDING CODE:
2010 California Building Code as Adopted
by the California Building Standards Commission

OCCUPANCY CATEGORY: I

2. MATERIALS

REINFORCED CONCRETE: (Strength Design)
 $f'_c = 3,650 \text{ psi}$
 $f_y = 60,000 \text{ psi}$

STRUCTURAL STEEL: (Allowable Strength Design)
Channels, Angles, Plates & Misc. Shapes $F_y = 36 \text{ ksi}$
Hollow Structural Sections (HSS) $F_y = 46 \text{ ksi}$
Weld Electrodes $F_y = 70 \text{ ksi}$

3. FOUNDATION

Soils report dated : September 3, 2009
Allowable Soil Pressure: 2,000 psf
For Soil Classification, see Log of Test Borings Sheet.

B DESIGN LOADS

1. LIVE

Roof = 20 psf

2. SEISMIC

Importance Factor = 1.0
Site Class = E
Spectral Response Accelerations:
 $S_S = 1.500$ $S_I = 0.600$
Spectral Response Accelerations:
 $S_{DS} = 0.90$ $S_{DI} = 0.960$
Design Category = D
Analysis Procedure: Equivalent Lateral Force

Seismic Force-Resisting System:

North - South East - West

$R = 3.00$ $R = 3.00$
 $C_S = 0.160$ $C_S = 0.160$

3. WIND

Importance Factor = 1.0
Basic Wind Speed = 85 mph (3 sec gust)
Exposure C

C GENERAL NOTES

- For Concrete see: "Concrete Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.
- The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

DESIGN BY Justin Uyehara	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET ST12-0
				POST MILE		
DETAILS BY Justin Uyehara	CHECKED Tom Mesich			UNIT PROJECT NUMBER & PHASE 3599 11000000351	EMULSION TANK 6000 GALLON	DESIGN CRITERIA AND DETAIL NOTES
QUANTITIES BY	CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES			

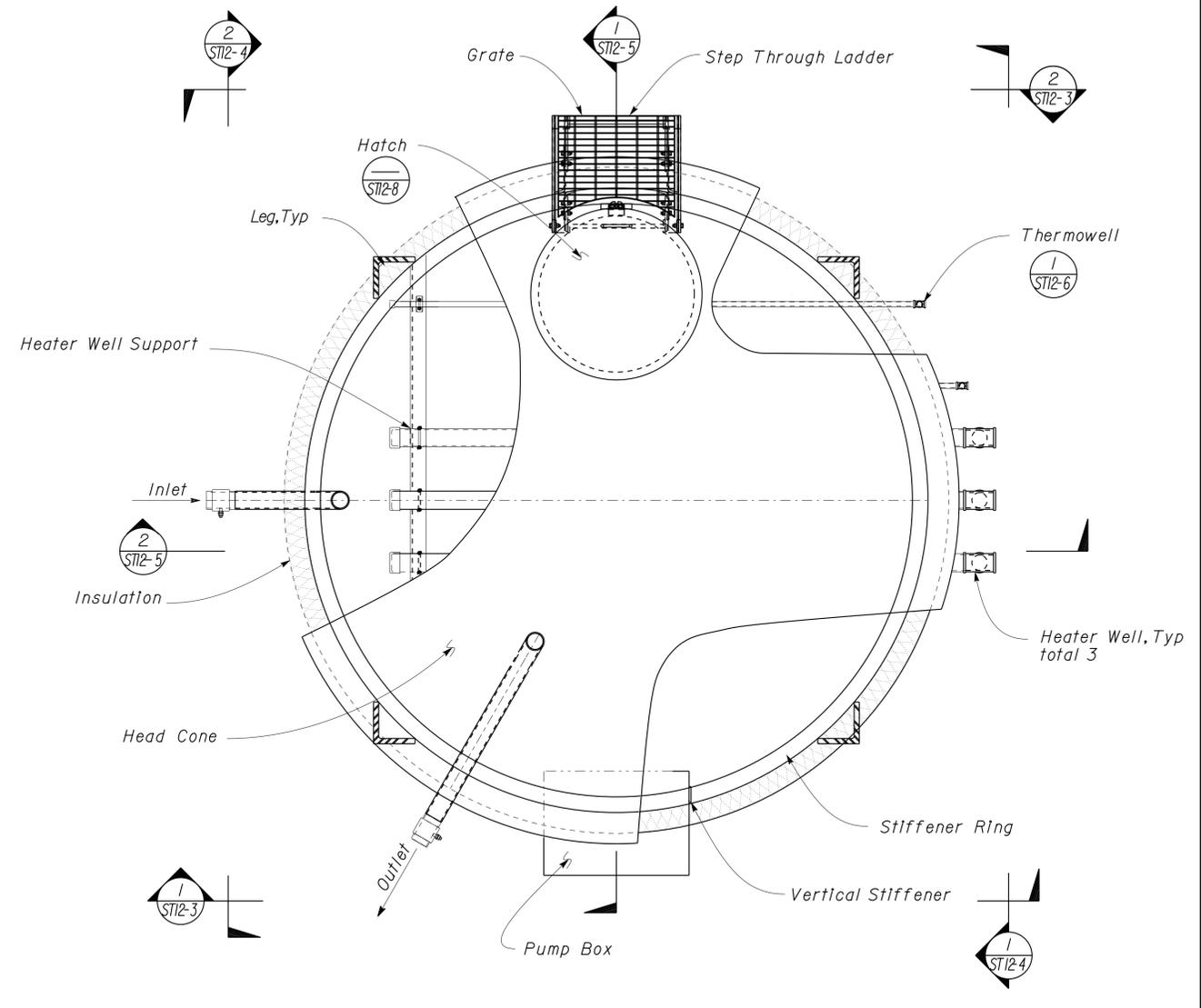
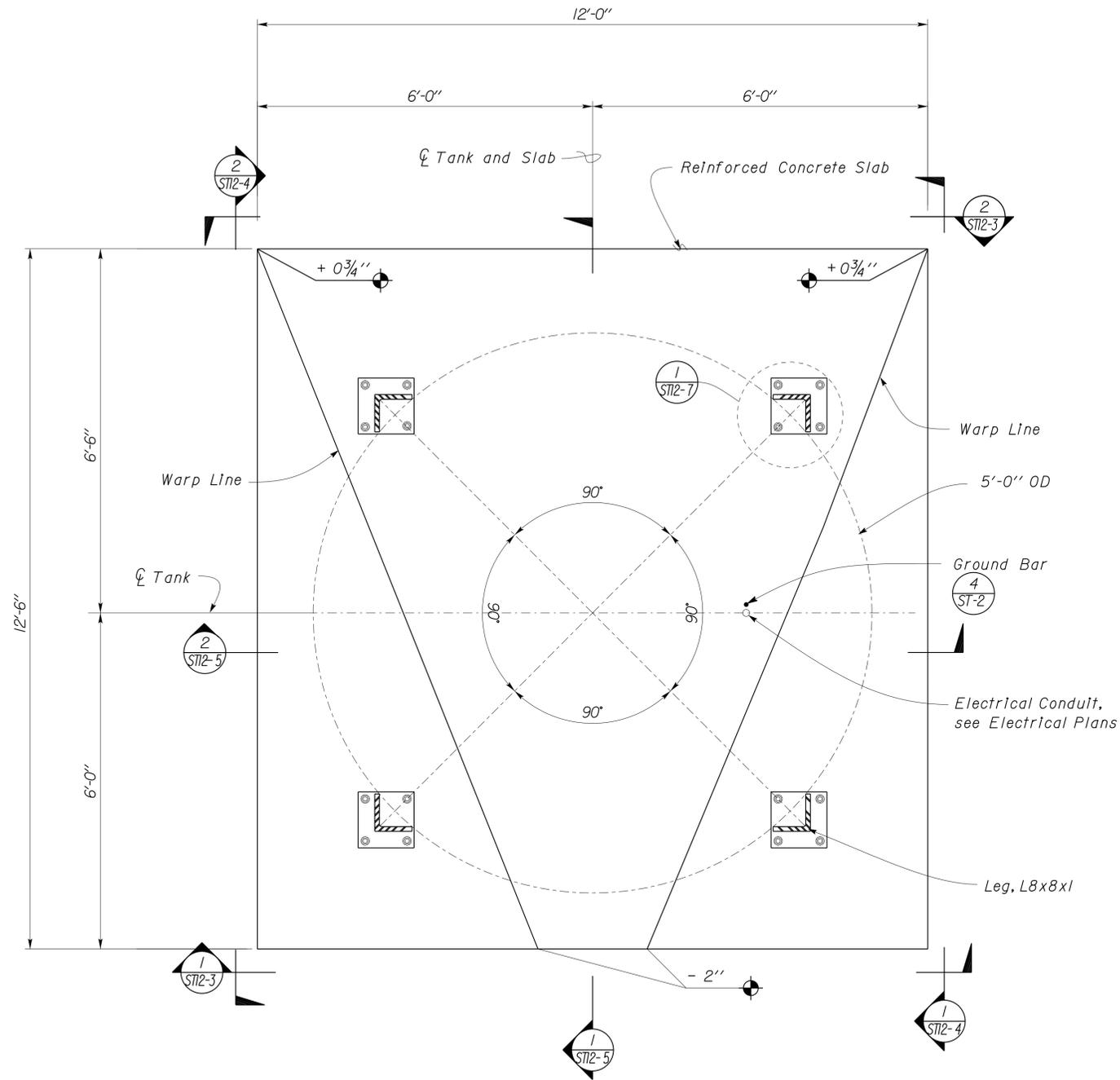
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		247	354

Thomas Reich
 REGISTERED CIVIL ENGINEER
 DATE 06-08-10



01-06-14
 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.



Datum 0'-0" = Elevation 286.91

Note
 1. Containment Apron/Curb not shown see (1) ST12-2
 2. Pipe Guard Post not shown see (1) ST12-2

1 FOUNDATION PLAN
 Scale 3/4" = 1'-0"

2 EMULSION TANK PLAN
 Scale 3/4" = 1'-0"

Sean Samuel
 DESIGN ENGINEER

DESIGN	BY Justin Uyehara	CHECKED Tom Mesich
DETAILS	BY Justin Uyehara	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

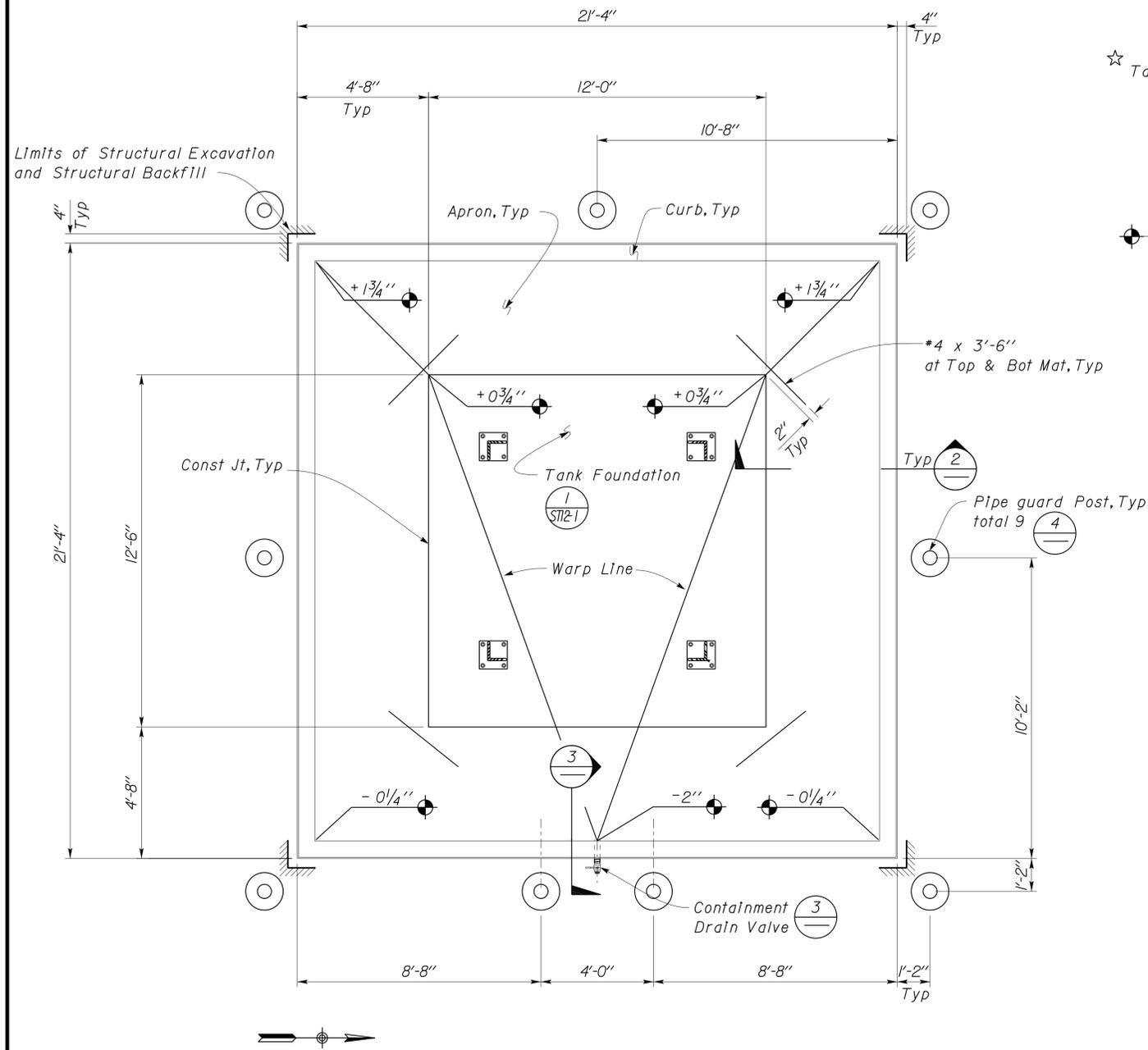
DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
 POST MILE

EL CENTRO MAINTENANCE FACILITY
 EMULSION TANK 6000 GALLON
EMULSION TANK PLANS

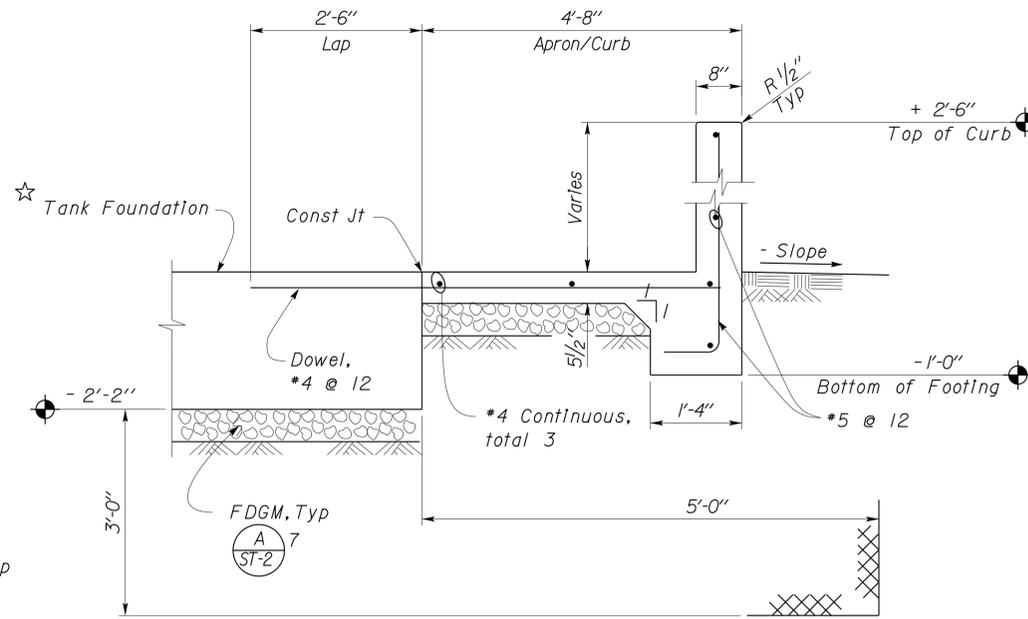
SHEET OF
ST12-1

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		248	354
<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER			06-08-10 DATE	REGISTERED PROFESSIONAL ENGINEER Tom R. Mesich No. 46748 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA	
01-06-14 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.					



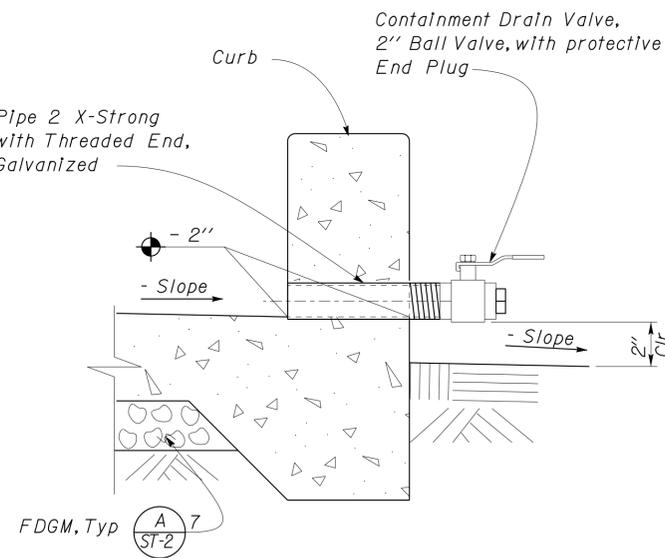
1 CONTAINMENT APRON/CURB PLAN
Scale 3/8" = 1' - 0"

Note
Establish Finish Grade such that all sides of the Finish Grade, slope away from the Containment Apron/Curb from all four sides.

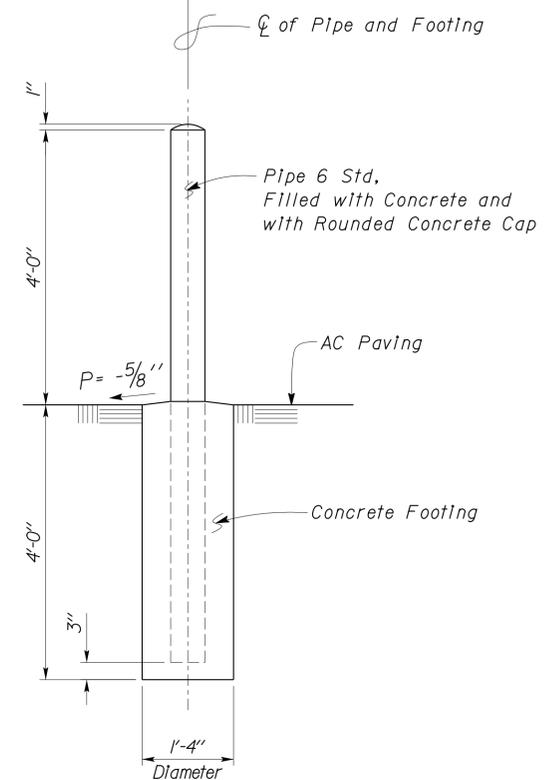


2 CONTAINMENT APRON/CURB SECTION
Scale 3/4" = 1' - 0"

Note
For reinforcement not shown



3 CONTAINMENT DRAIN VALVE DETAIL
Scale 1/2" = 1' - 0"



4 PIPE GAURDPOST DETAIL
Scale 3/4" = 1' - 0"

DESIGN	BY Justin Uyehara	CHECKED Tom Mesich
DETAILS	BY Justin Uyehara	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

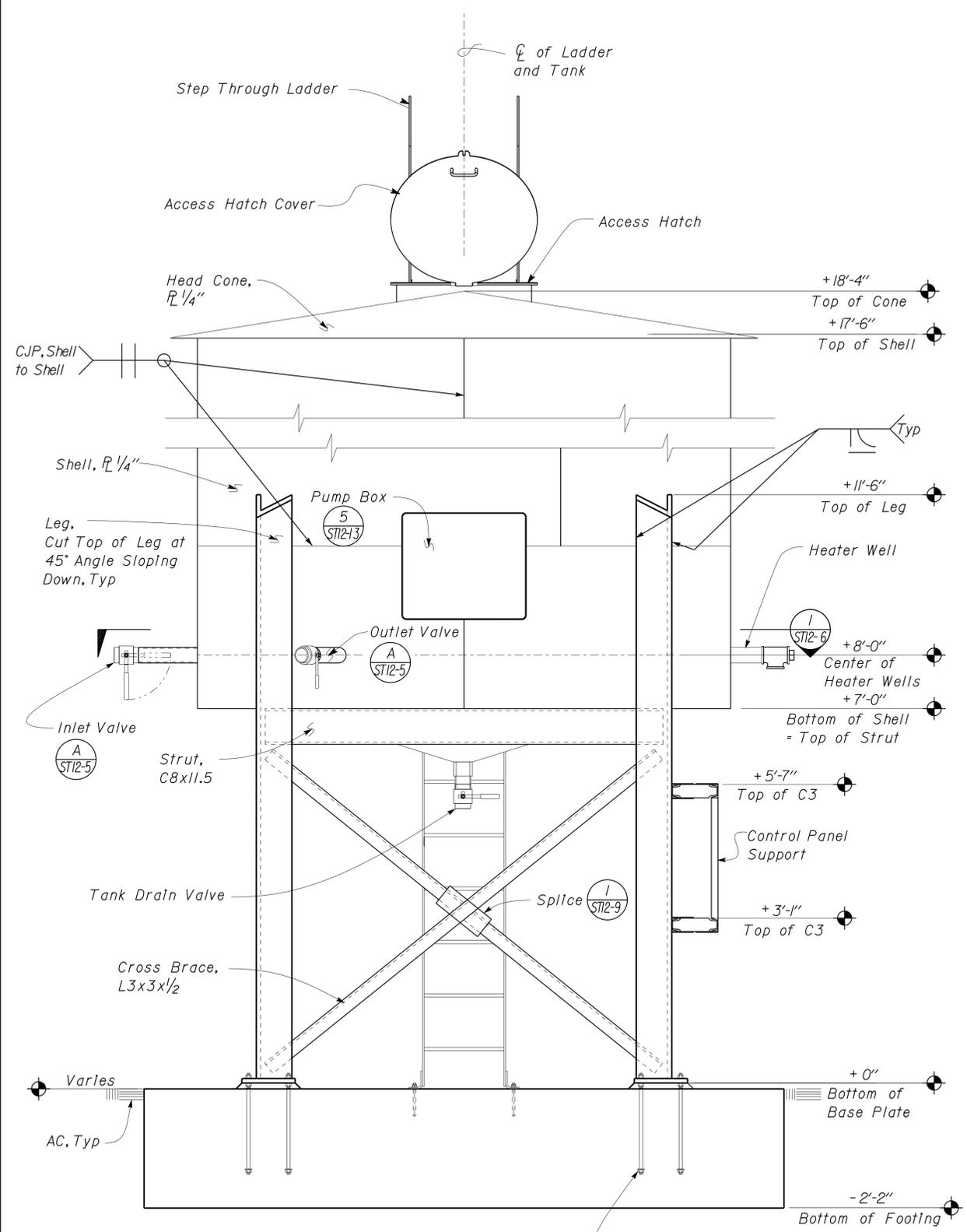
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
POST MILE

EL CENTRO MAINTENANCE FACILITY
EMULSION TANK 6000 GALLON
EMULSION TANK ELEVATION

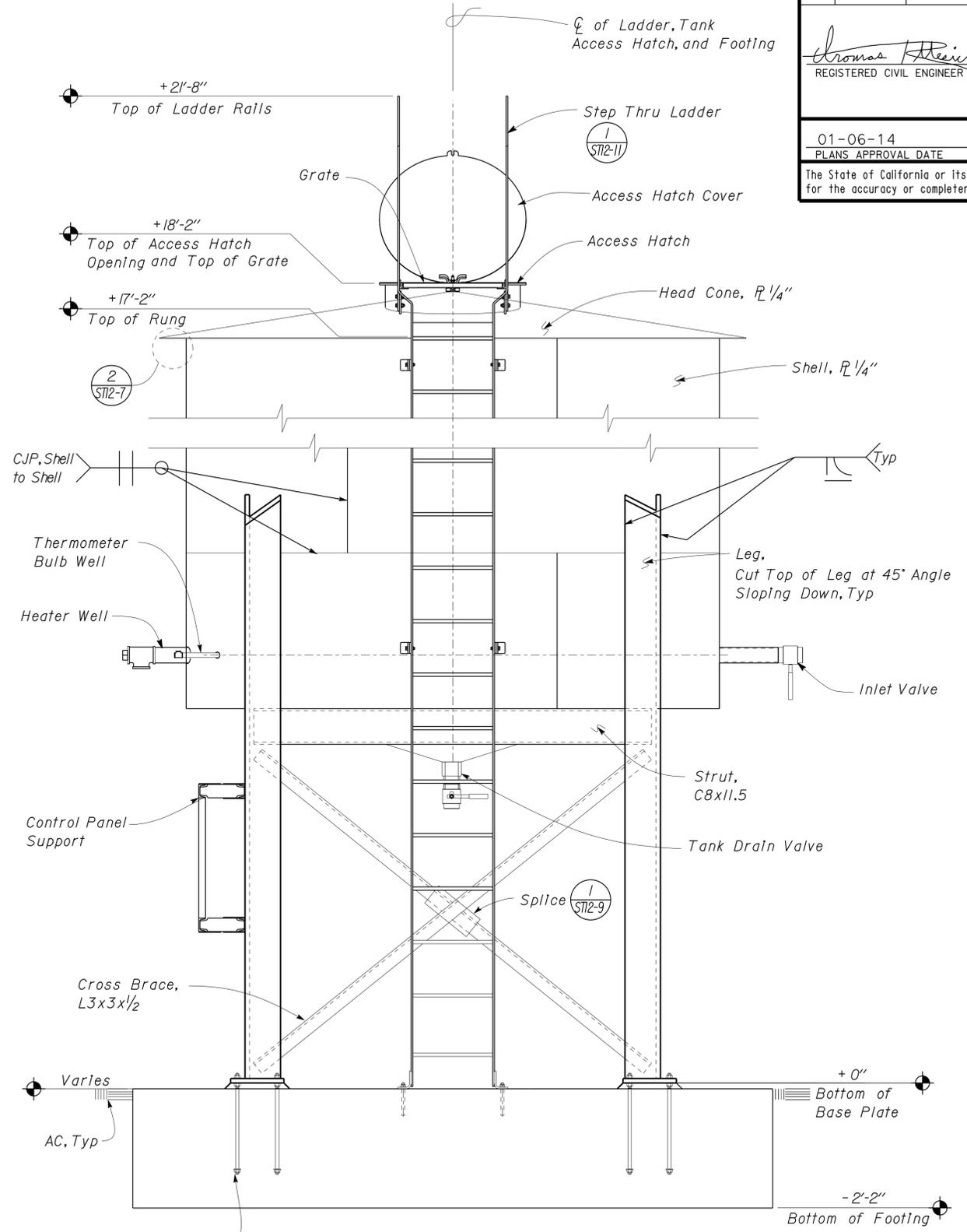
SHEET OF
ST12-2

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		249	354
 REGISTERED CIVIL ENGINEER			DATE		
01-06-14 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.					



1 EAST ELEVATION
Scale 3/4" = 1' - 0"

Note
1) Tank Insulation not shown, see ST12-5.
2) Containment Basin not shown

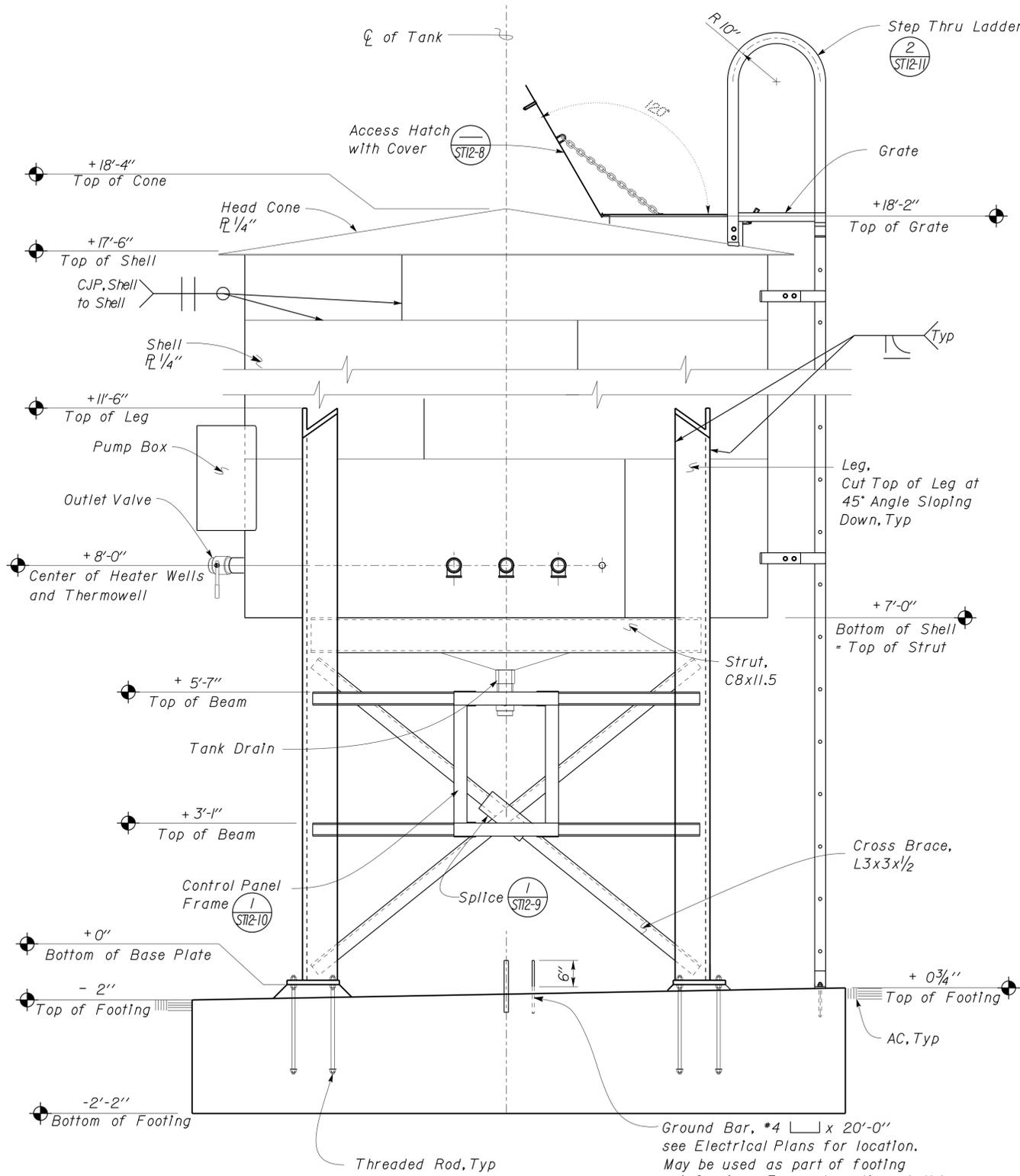


2 WEST ELEVATION
Scale 3/4" = 1' - 0"

Note
1) Tank Insulation not shown, see ST12-5.
2) Containment Basin not shown

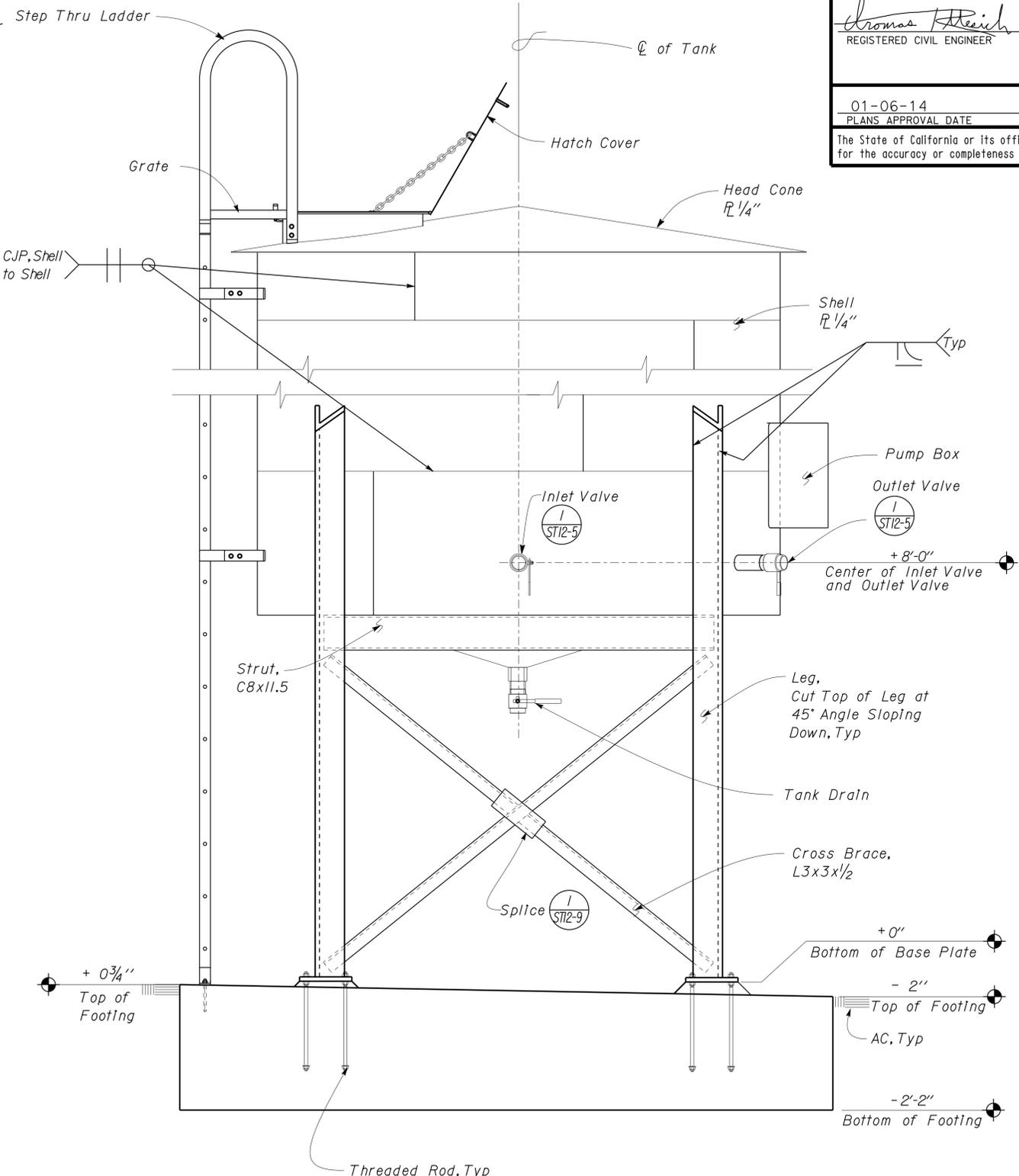
DESIGN BY Justin Uyehara	CHECKED BY Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET NO. ST12-3
				POST MILE	EMULSION TANK 6000 GALLON	EMULSION TANK ELEVATIONS	
DETAILS BY Justin Uyehara	CHECKED BY Tom Mesich	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3599 1100000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY	CHECKED	0 1 2 3	EA 076701				

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		250	354
 REGISTERED CIVIL ENGINEER			06-08-10 DATE		
01-06-14 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.					



1 NORTH ELEVATION
Scale 3/4" = 1' - 0"

Note
 1) Tank Insulation not shown, see ST12-5.
 2) Containment Basin not shown

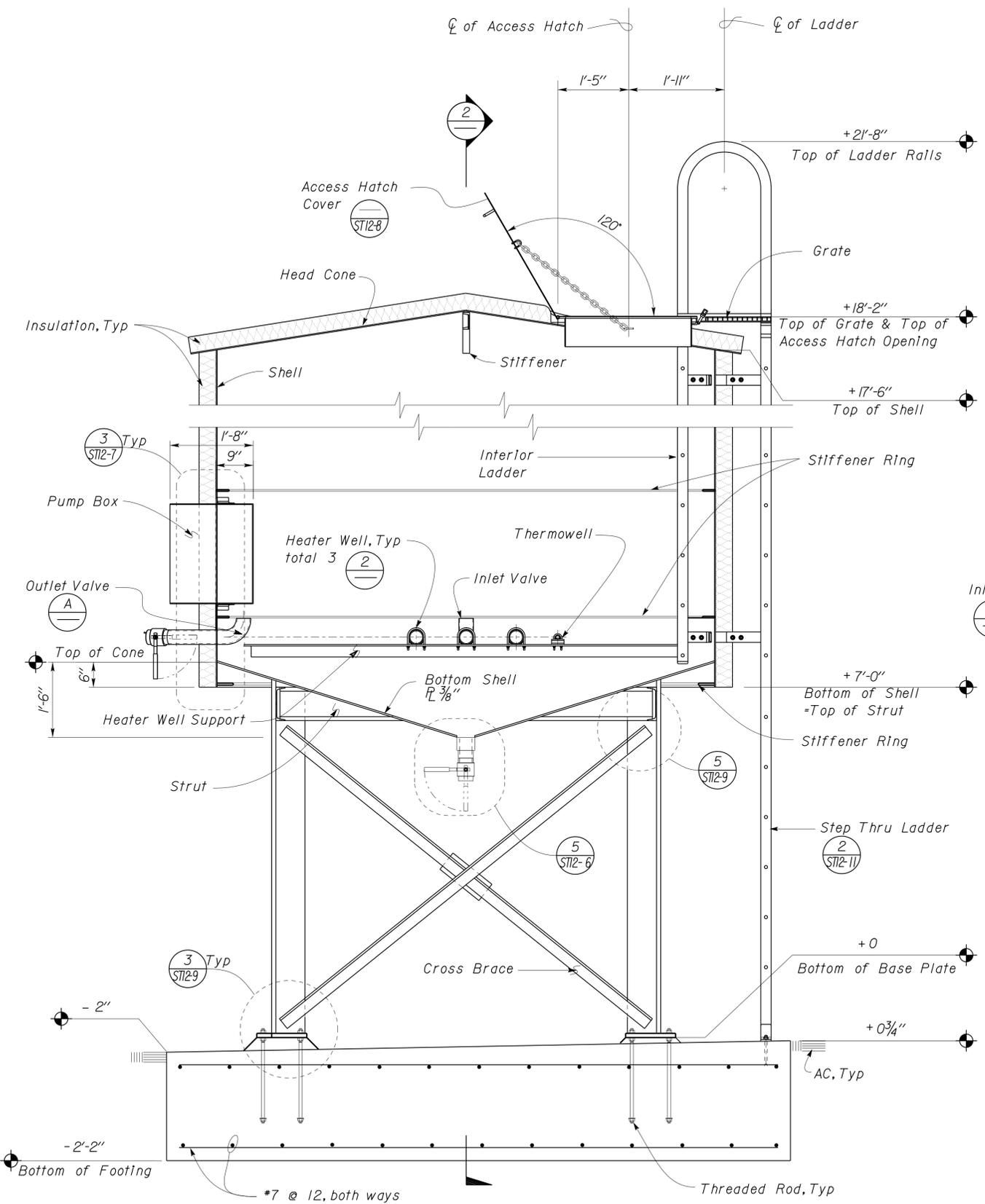


2 SOUTH ELEVATION
Scale 3/4" = 1' - 0"

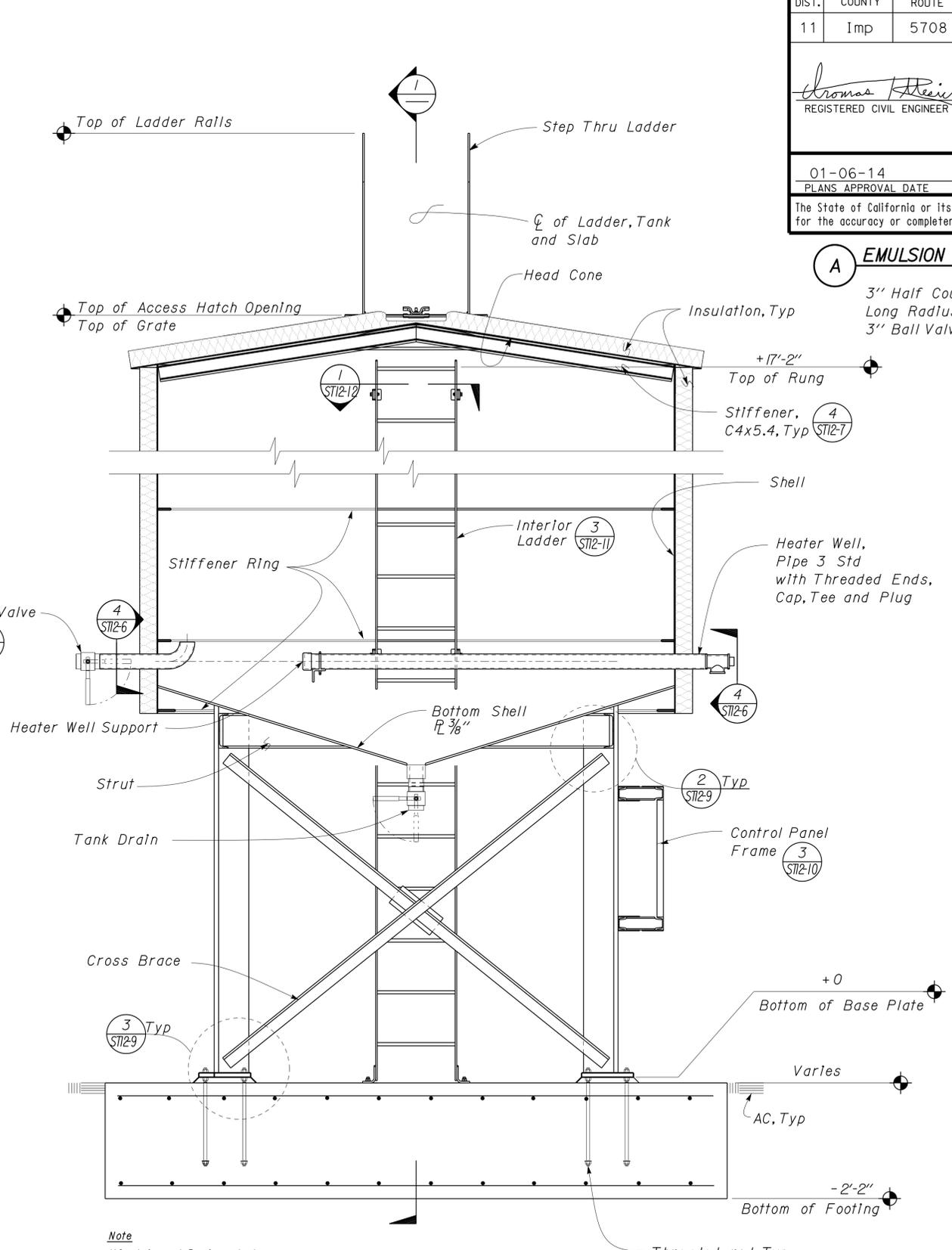
Note
 1) Tank Insulation not shown, see ST12-5.
 2) Containment Basin not shown

DESIGN BY Justin Uyehara	CHECKED BY Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST12-4
				POST MILE	EMULSION TANK 6000 GALLON	EMULSION TANK ELEVATIONS	
DETAILS BY Justin Uyehara	CHECKED BY Tom Mesich	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY	CHECKED	0 1 2 3	EA 076701				21-JAN-2014 14:30

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		251	354
<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER			06-08-10 DATE	REGISTERED PROFESSIONAL ENGINEER Tom R. Mesich No. 46748 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA	
01-06-14 PLANS APPROVAL DATE					
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1 SECTION AT LADDER
Scale 3/4" = 1'-0"



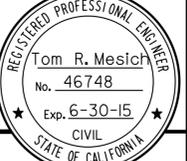
2 SECTION AT CONTROL PANEL
Scale 3/4" = 1'-0"

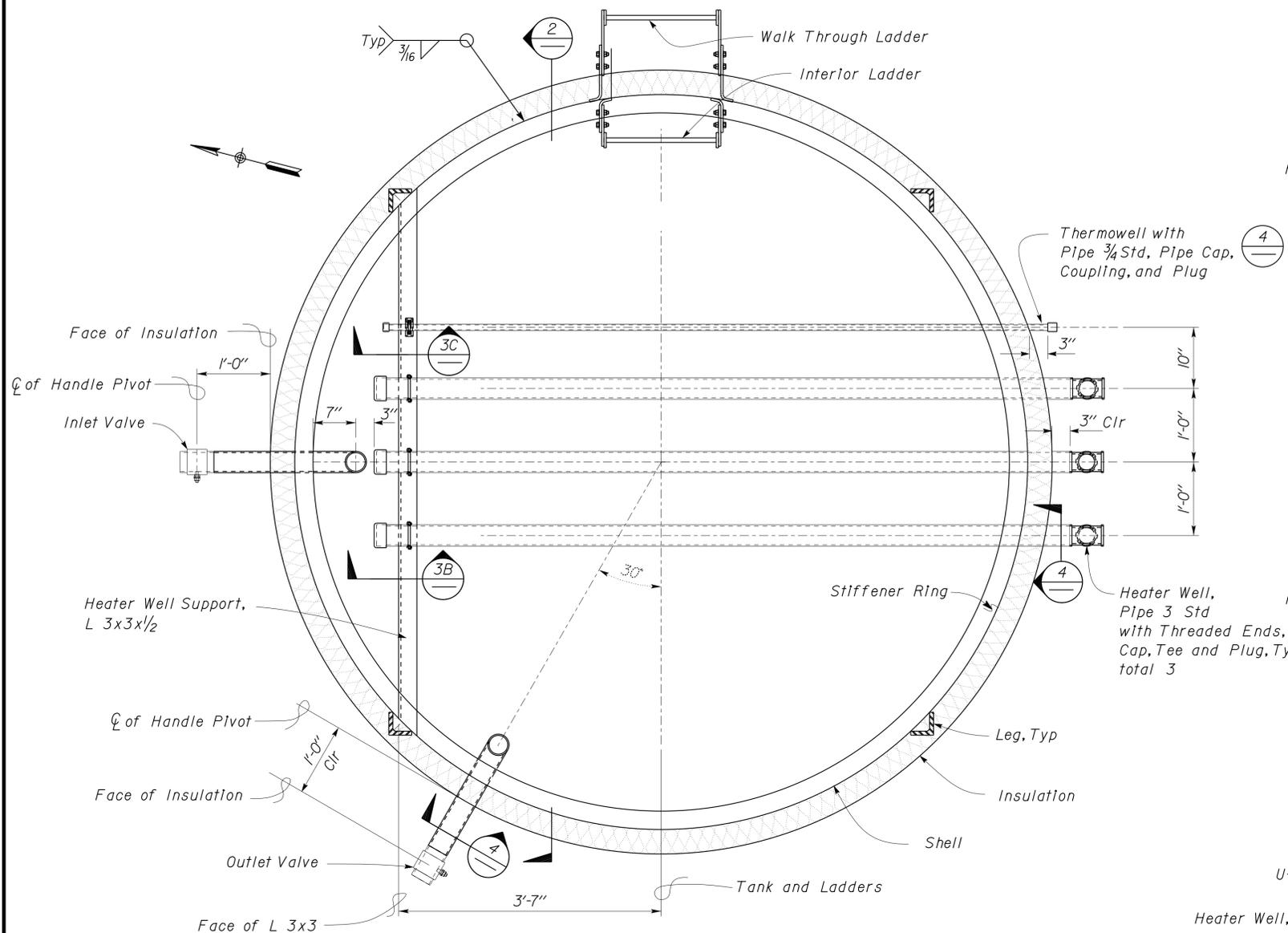
A EMULSION INLET AND OUTLET
 3" Half Coupling, Nipple and Long Radius Welded Elbow, and 3" Ball Valve with stem turned sideways.

Note
1) Containment Basin not shown

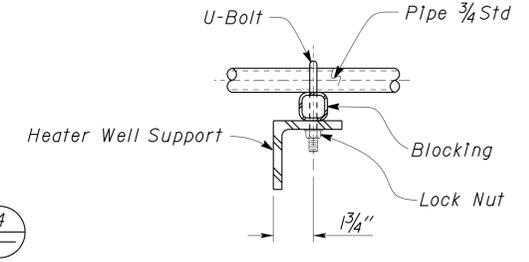
Note
1) Containment Basin not shown

DESIGN BY Justin Uyehara	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST12-5
DETAILS BY Justin Uyehara	CHECKED Tom Mesich		PROJECT NUMBER & PHASE 3599 11000000351	POST MILE	EMULSION TANK 6000 GALLON	EMULSION TANK SECTIONS	OF
QUANTITIES	CHECKED		UNIT PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF

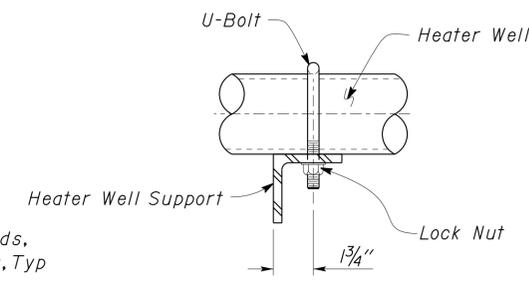
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		252	354
 REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE			01-06-14		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



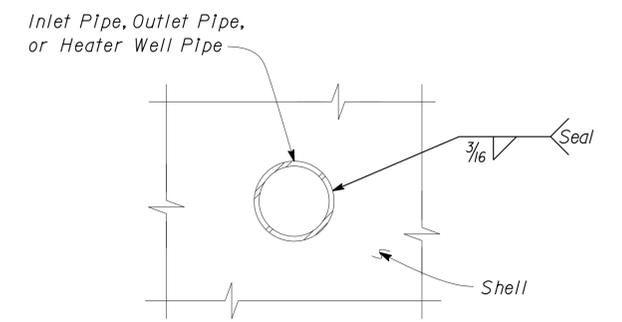
1 HEATER WELL LAYOUT
No Scale



C U-BOLT AND BLOCKING DETAIL

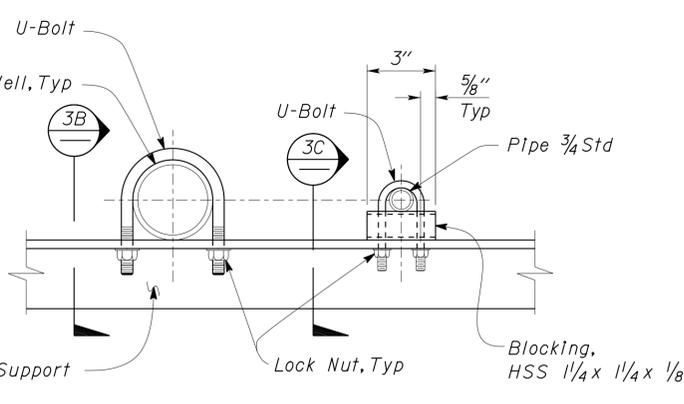


B U-BOLT DETAIL



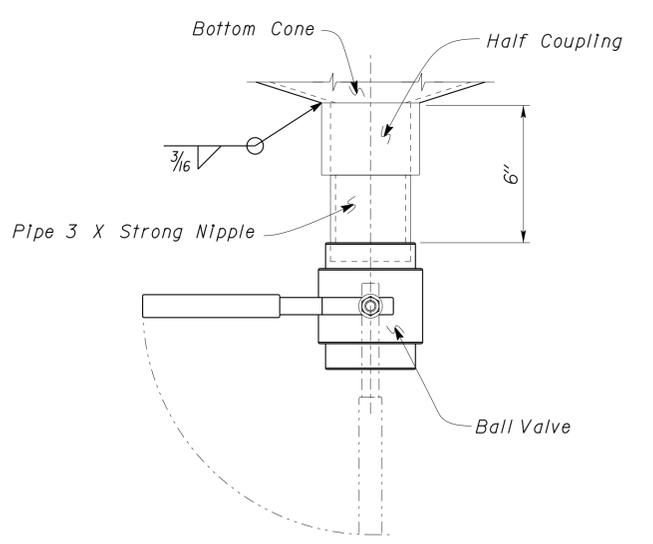
Note
Thermometer Pipe similar.

4 PIPE PENETRATION WELDING DETAIL
Scale 3" = 1'-0"



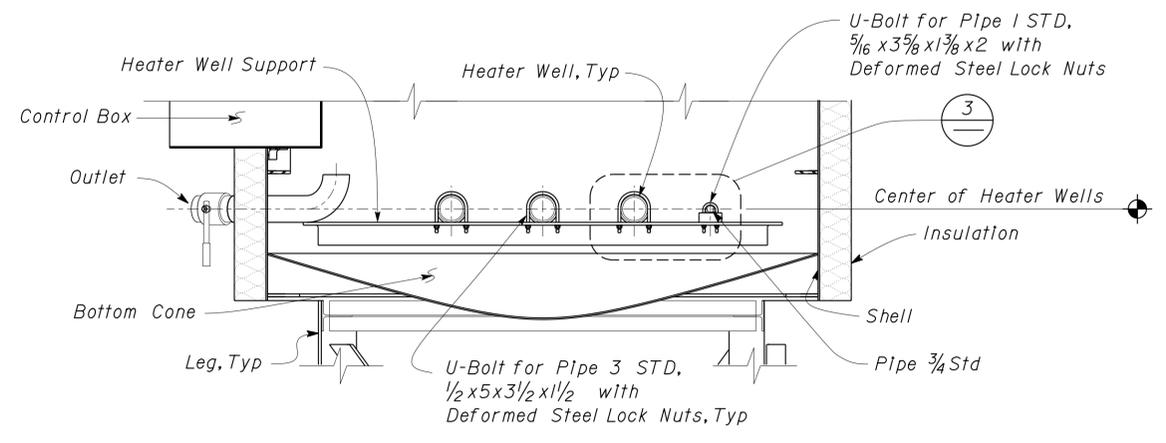
A U-BOLT DETAIL

3 HEATER WELL SUPPORT DETAILS
Scale 3" = 1'-0"



Tank Drain,
3" Ball Valve, with Half Coupling
and Pipe 3 X-Strong Nipple

5 TANK DRAIN WELDING DETAIL
Scale 3" = 1'-0"



2 HEATER WELL SECTION
No Scale

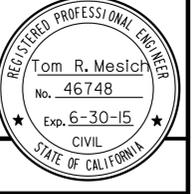
DESIGN	BY	Justin Uyehara	CHECKED	Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY		SHEET
	DETAILS	BY	Justin Uyehara	CHECKED			Tom Mesich	58M5708	HEATER WELL SECTIONS AND DETAILS	
QUANTITIES	BY		CHECKED		UNIT	PROJECT NUMBER & PHASE	POST MILE	EMULSION TANK 6000 GALLON	REVISION DATES (PRELIMINARY STAGE ONLY)	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
TAEMWW Imperial Rev. 7/10					EA 076701		3599	11000000351	SHEET OF	

21-JAN-2014 14:30

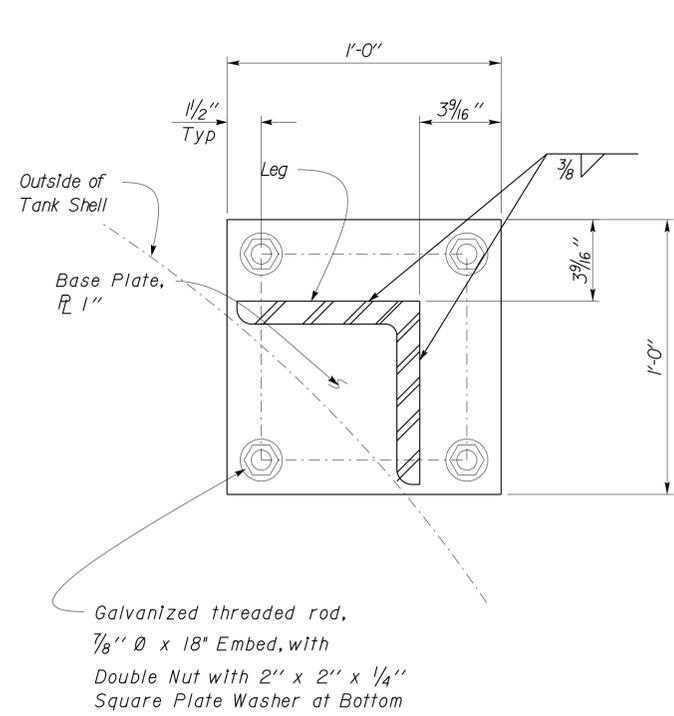
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		253	354

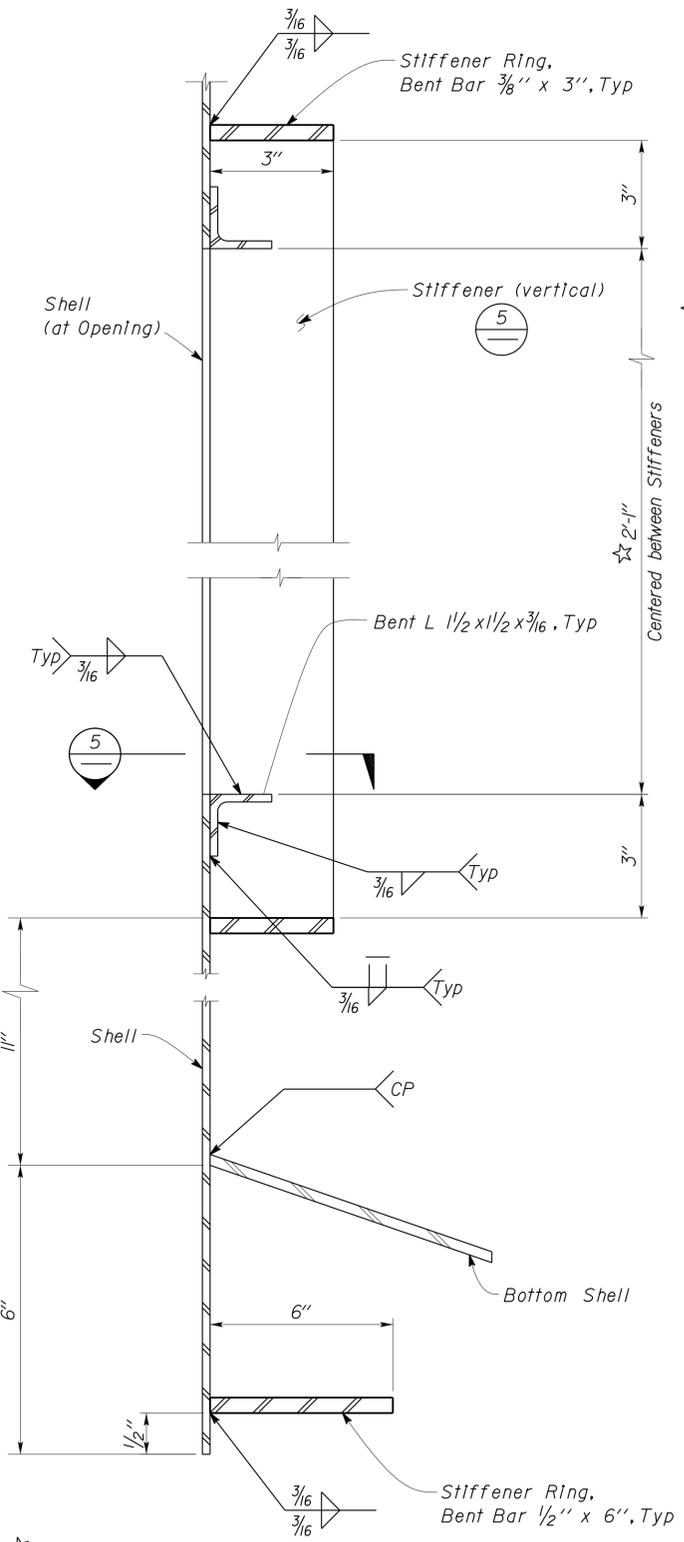
Thomas Reich
 REGISTERED CIVIL ENGINEER
 DATE 06-08-10
 PLANS APPROVAL DATE 01-06-14



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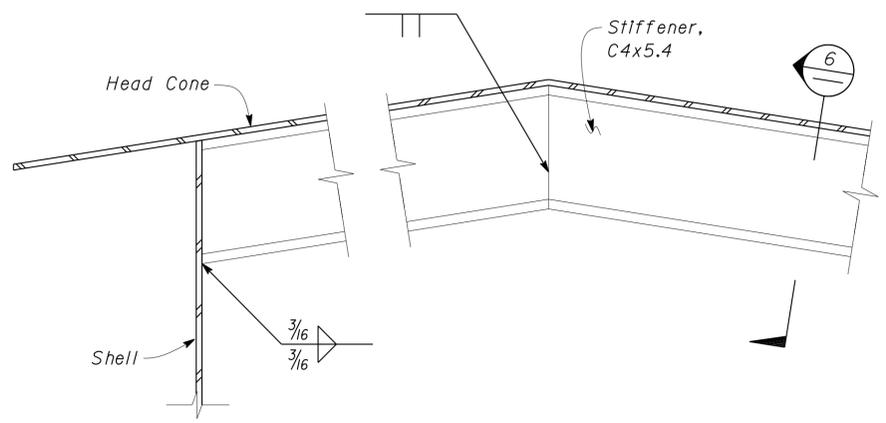


1 BASE PLATE DETAIL
Scale 3" = 1'-0"

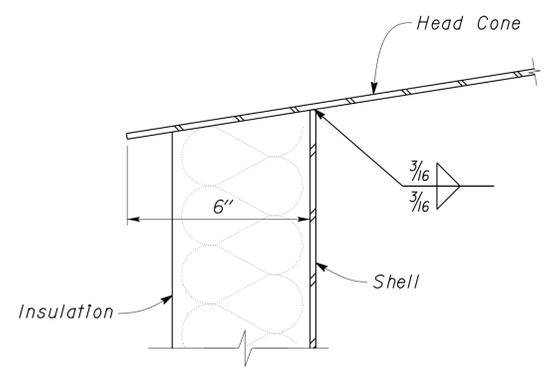


3 SHELL WELDING DETAILS
No Scale

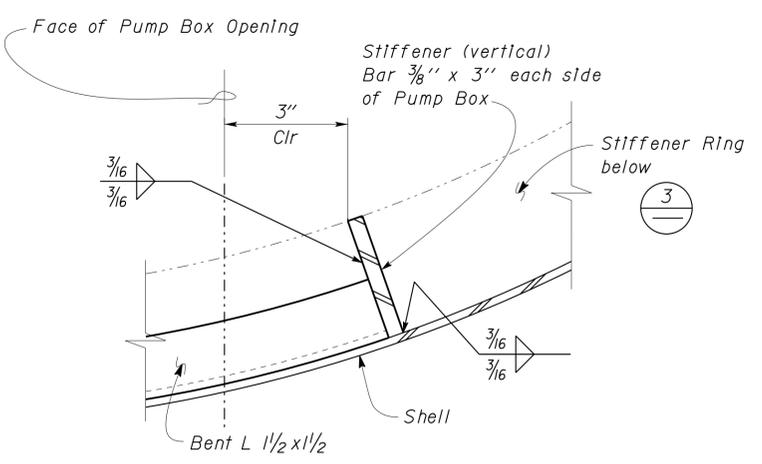
☆ **Weld Note**
Fillet Weld Pump Box to the Tank Shell all around, to provide liquid tight seal.



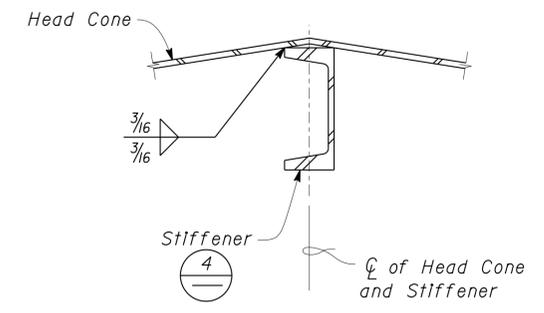
4 HEAD CONE STIFFENER WELD DETAIL
Scale 4" = 1'-0"



2 SHELL TO HEAD CONE WELD DETAIL
Scale 4" = 1'-0"



5 VERTICAL STIFFENER TO RING STIFFENER WELD DETAIL
No Scale



6 HEAD CONE STIFFENER SECTION
Scale 4" = 1'-0"

DESIGN	BY Justin Uyehara	CHECKED Tom Mesich
DETAILS	BY Justin Uyehara	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

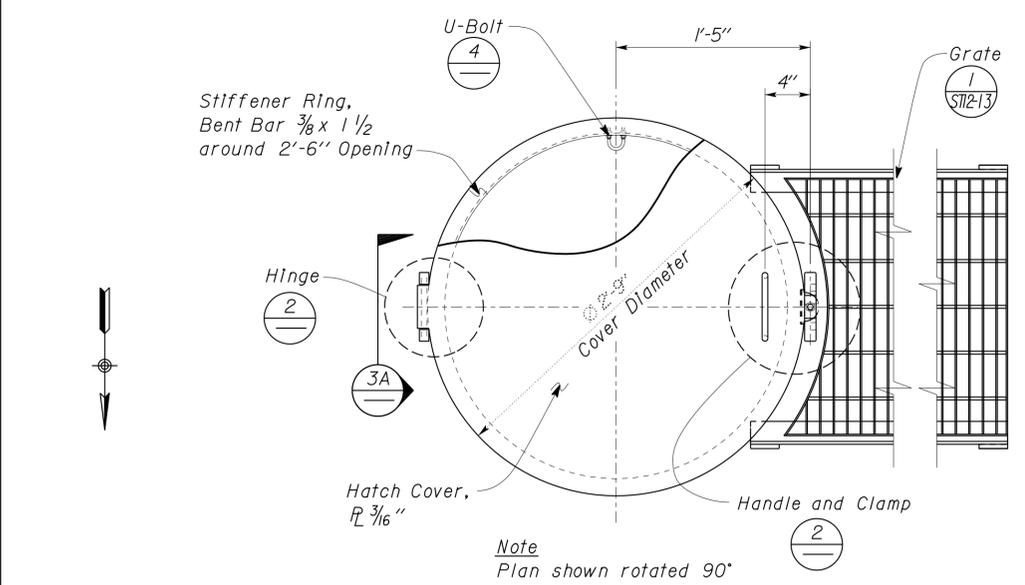
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
POST MILE

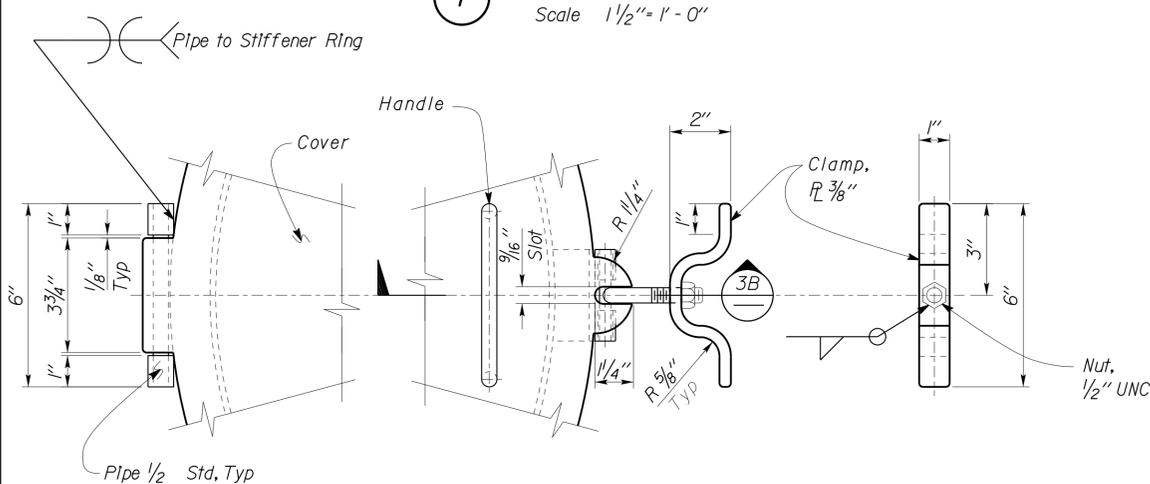
EL CENTRO MAINTENANCE FACILITY
EMULSION TANK 6000 GALLON
EMULSION TANK DETAILS NO. 1

SHEET **ST12-7** OF

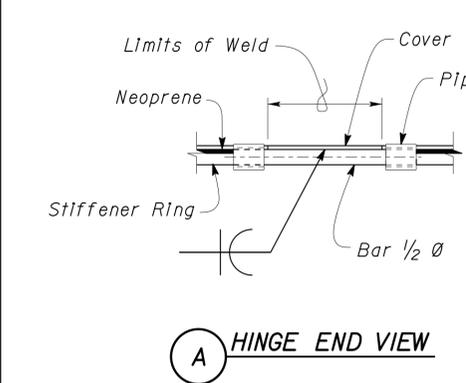
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		254	354
<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER			06-08-10 DATE	REGISTERED PROFESSIONAL ENGINEER Tom R. Mesich No. 46748 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA	
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



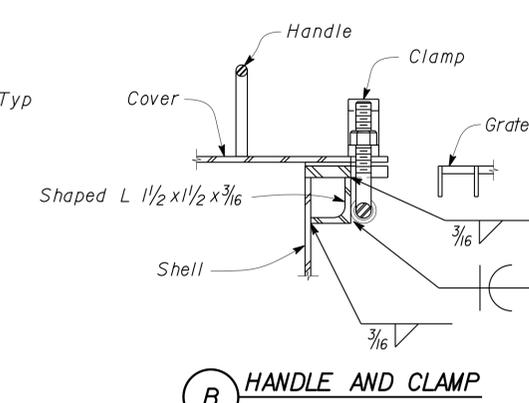
1 ACCESS HATCH PLAN
Scale 1 1/2" = 1'-0"



2 HATCH PARTIAL PLAN DETAILS
Scale 4" = 1'-0"

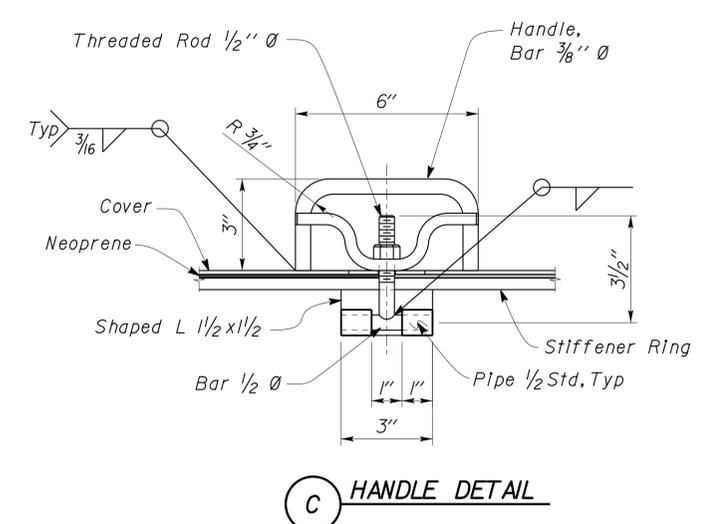


A HINGE END VIEW

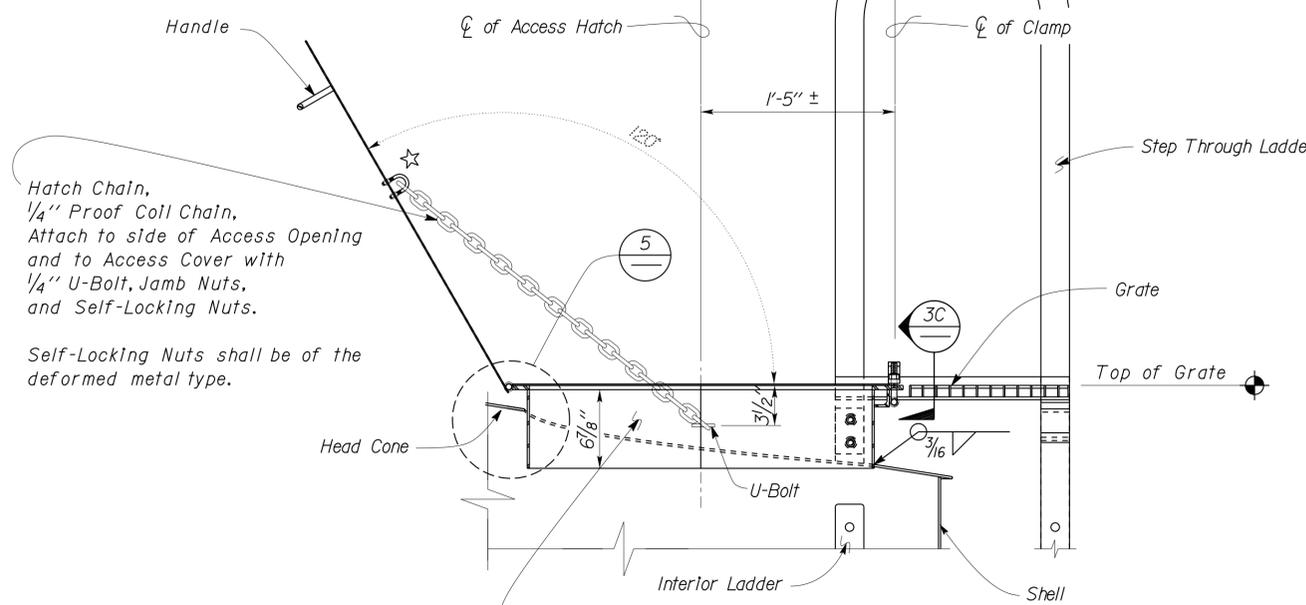


B HANDLE AND CLAMP

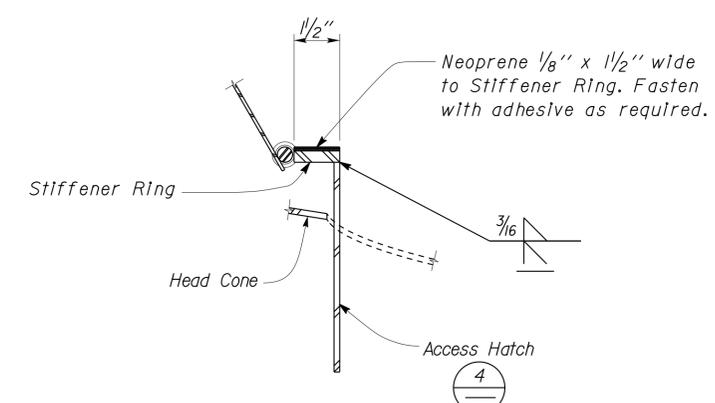
3 HATCH HINGE AND CLAMP DETAILS
Scale 4" = 1'-0"



C HANDLE DETAIL



4 ACCESS HATCH SECTION
Scale 1 1/2" = 1'-0"



5 STIFFENER RING WELD DETAIL
Scale 1 1/2" = 1'-0"

Note
Hatch Cover, Clamp and Hinge components shall be hot dip galvanized.

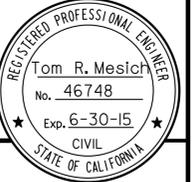
DESIGN	BY	Justin Uyehara	CHECKED	Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST12-8	
	DETAILS	BY	Justin Uyehara	CHECKED				Tom Mesich	POST MILE		EMULSION TANK 6000 GALLON
QUANTITIES	BY		CHECKED		UNIT	3599	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	PROJECT NUMBER & PHASE		11000000351
TAEMWW Imperial Rev. 7/10					EA 076701		PROJECT NUMBER & PHASE		11000000351		OF

21-JAN-2014 14:30

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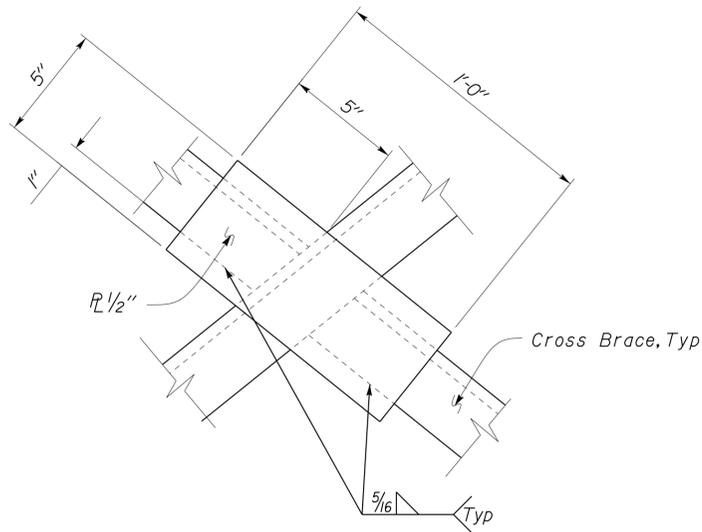
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		255	354

Thomas Reich
REGISTERED CIVIL ENGINEER
DATE 06-08-10

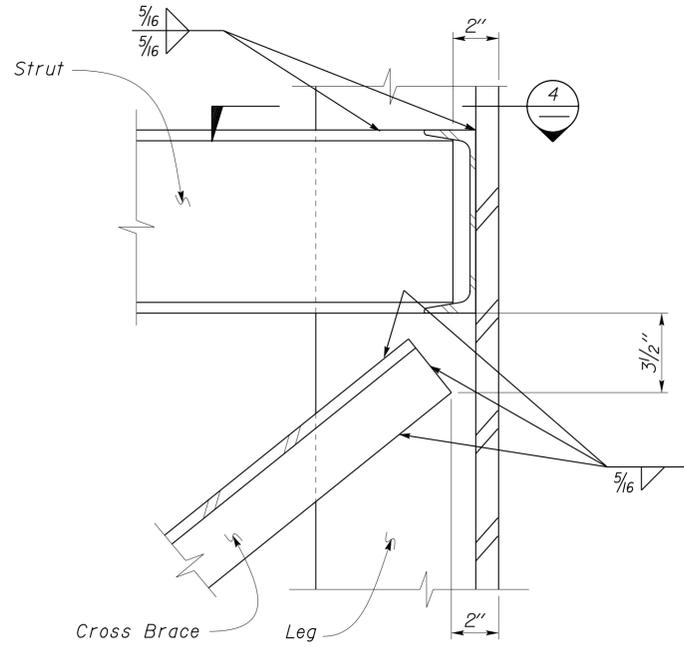


01-06-14
PLANS APPROVAL DATE

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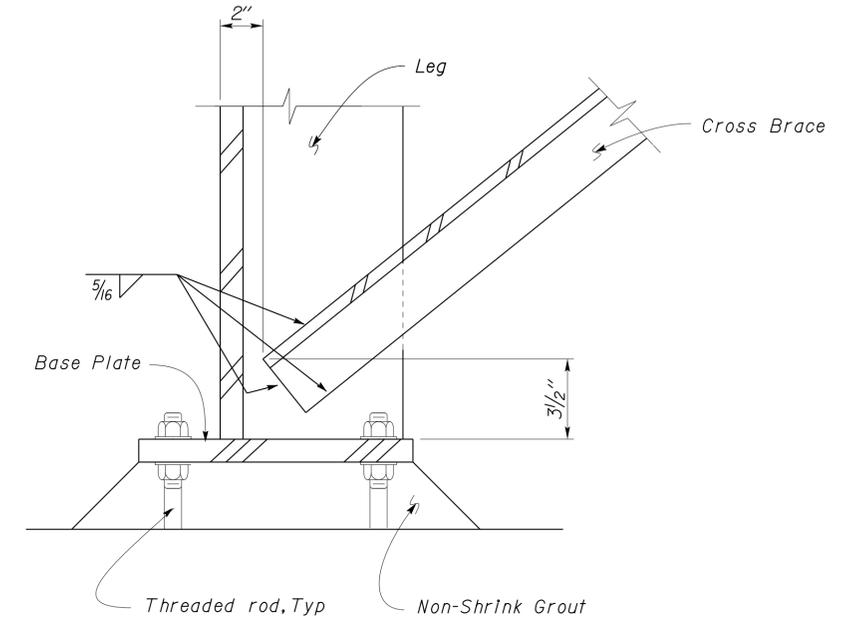


1 CROSS BRACE SPLICE DETAIL
Scale 3" = 1'-0"

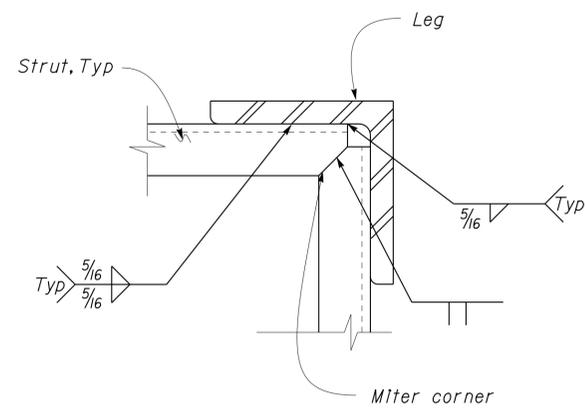


Note:
Shell not shown

2 CROSS BRACE TO LEG DETAIL
Scale 3" = 1'-0"



3 CROSS BRACE TO LEG DETAIL
Scale 3" = 1'-0"



4 STRUT TO LEG CONNECTION
Scale 3" = 1'-0"

DESIGN	BY Justin Uyehara	CHECKED Tom Mesich
DETAILS	BY Justin Uyehara	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

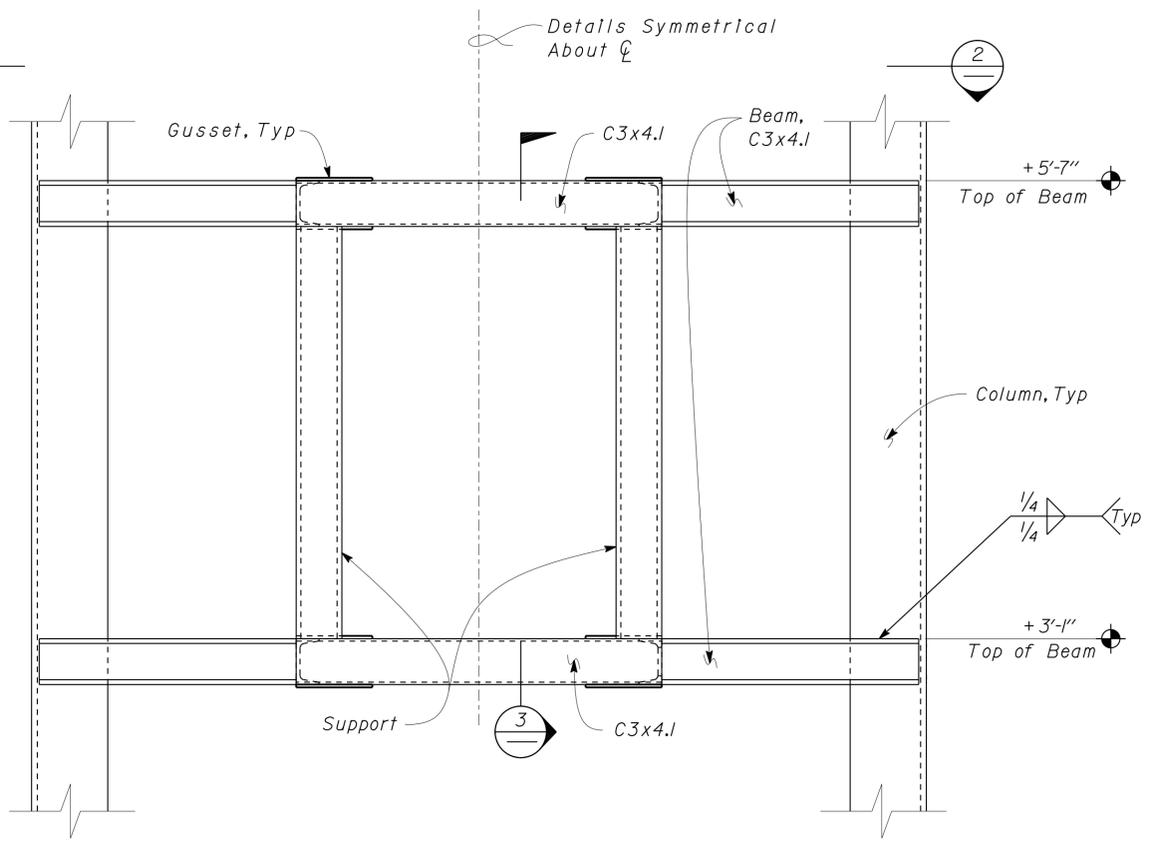
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708
POST MILE	

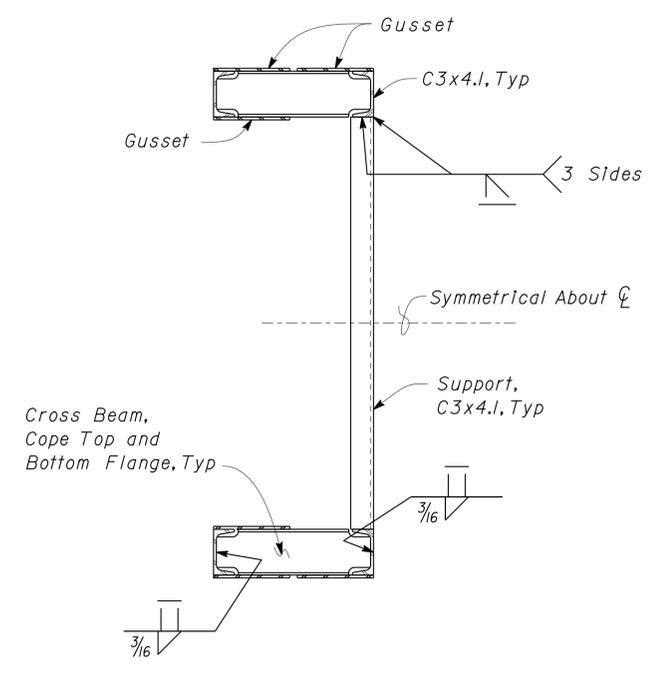
EL CENTRO MAINTENANCE FACILITY
EMULSION TANK 6000 GALLON
EMULSION TANK DETAILS NO. 3

SHEET **ST12-9** OF

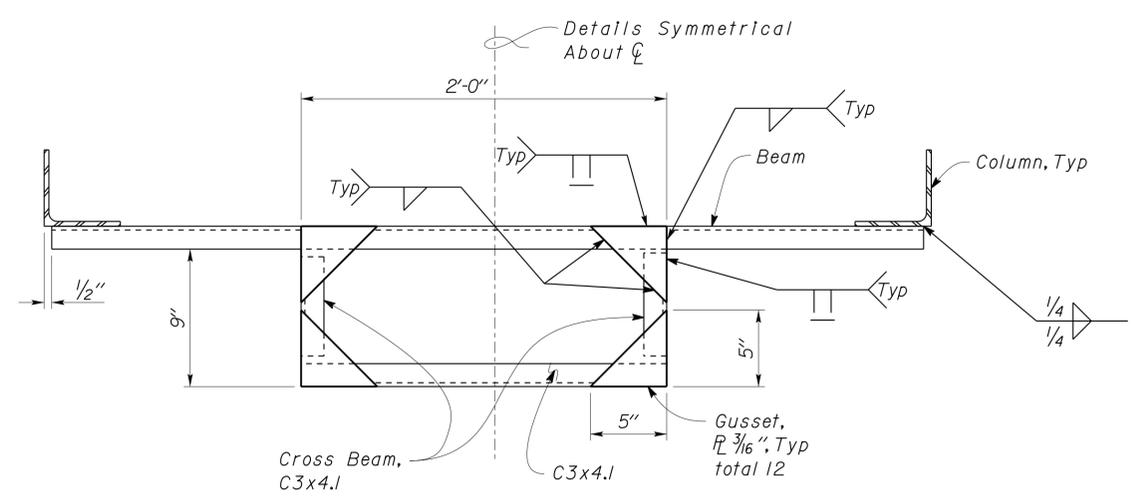
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		256	354
<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER			06-08-10 DATE		
01-06-14 PLANS APPROVAL DATE					
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1 CONTROL PANEL SUPPORT FRAME ELEVATION
 Scale 2" = 1' - 0"



3 CONTROL PANEL SUPPORT FRAME SECTION
 Scale 2" = 1' - 0"



2 CONTROL PANEL SUPPORT FRAME PLAN
 Scale 2" = 1' - 0"

DESIGN	BY Justin Uyehara	CHECKED Tom Mesich
DETAILS	BY Justin Uyehara	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

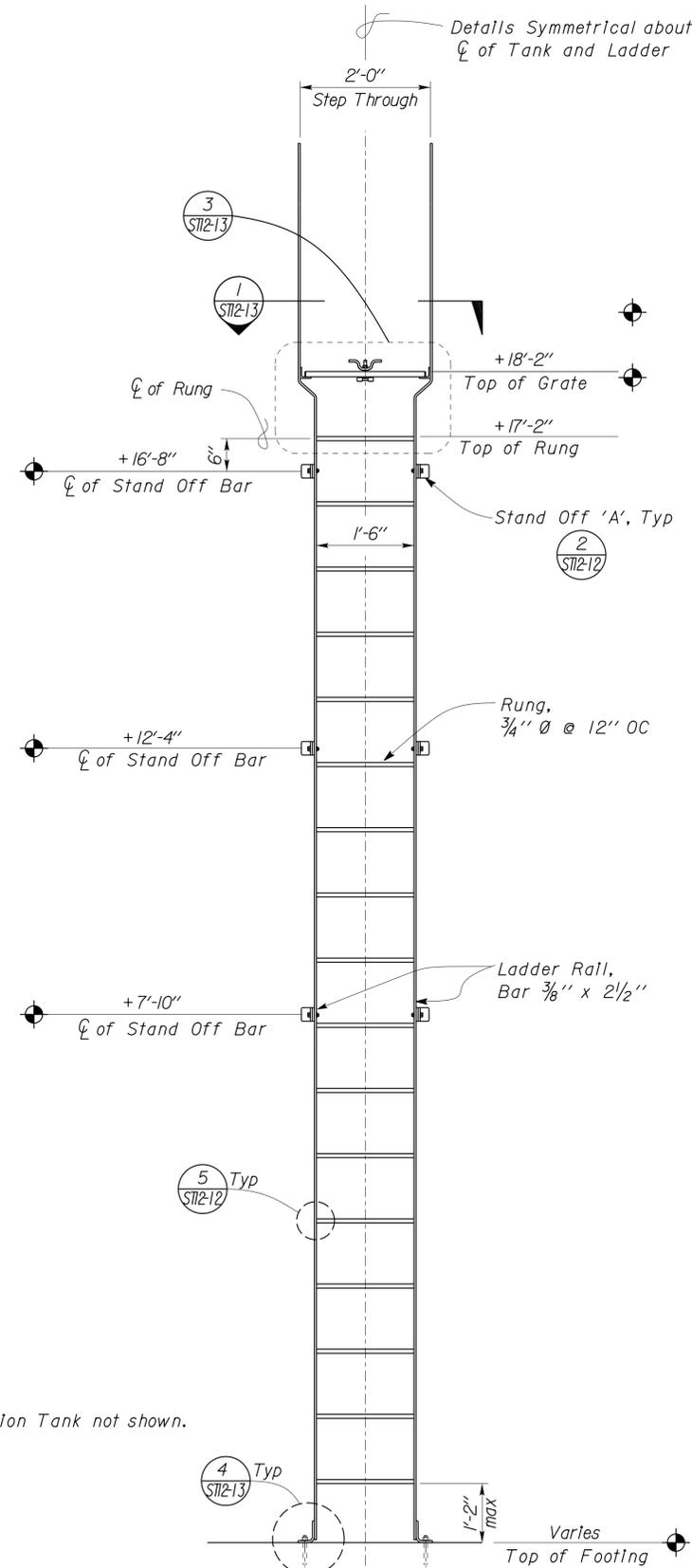
DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	58M5708
POST MILE	

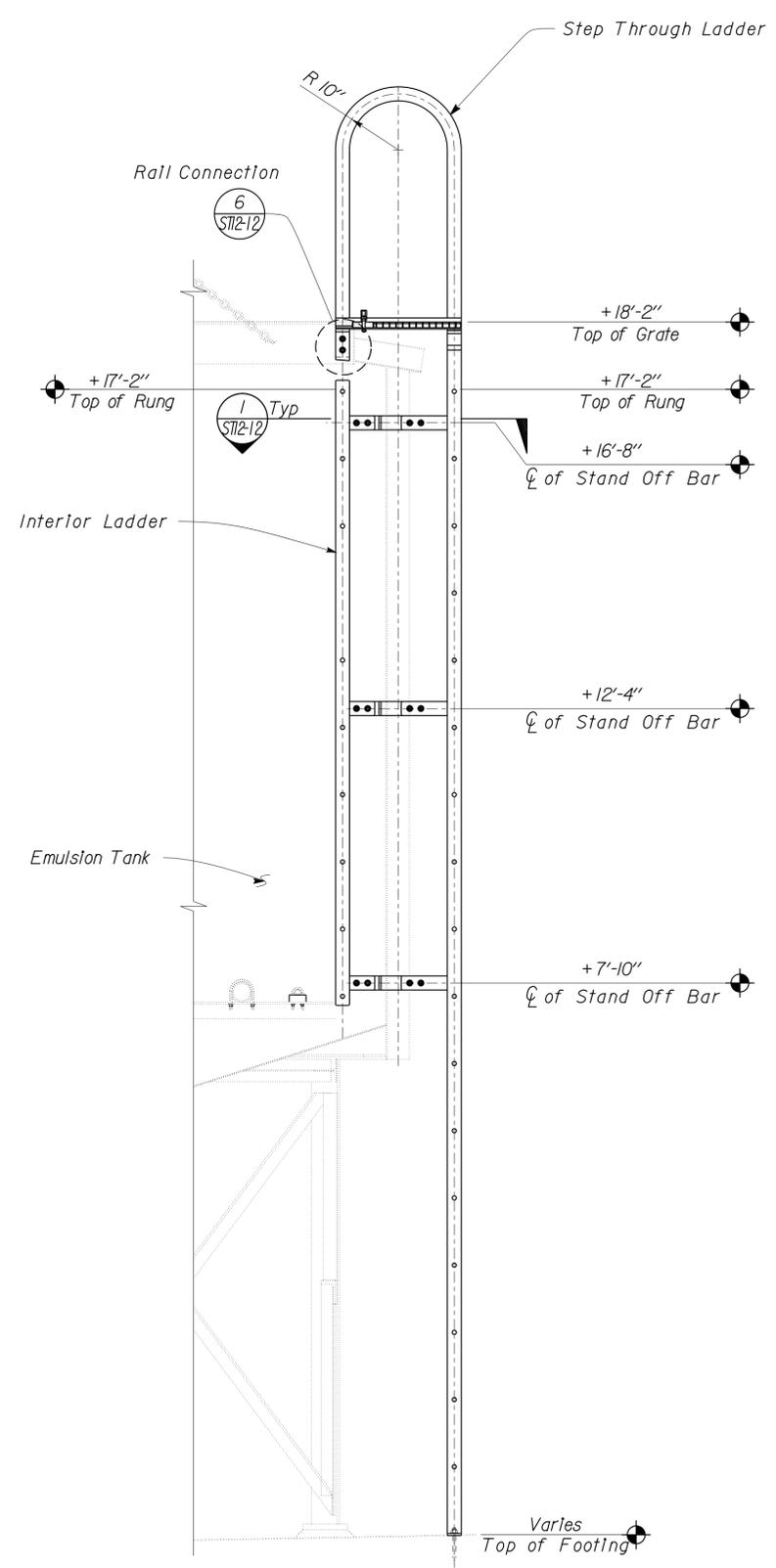
EL CENTRO MAINTENANCE FACILITY
 EMULSION TANK 6000 GALLON
 EMULSION TANK DETAILS NO. 4

SHEET **ST12-10** OF

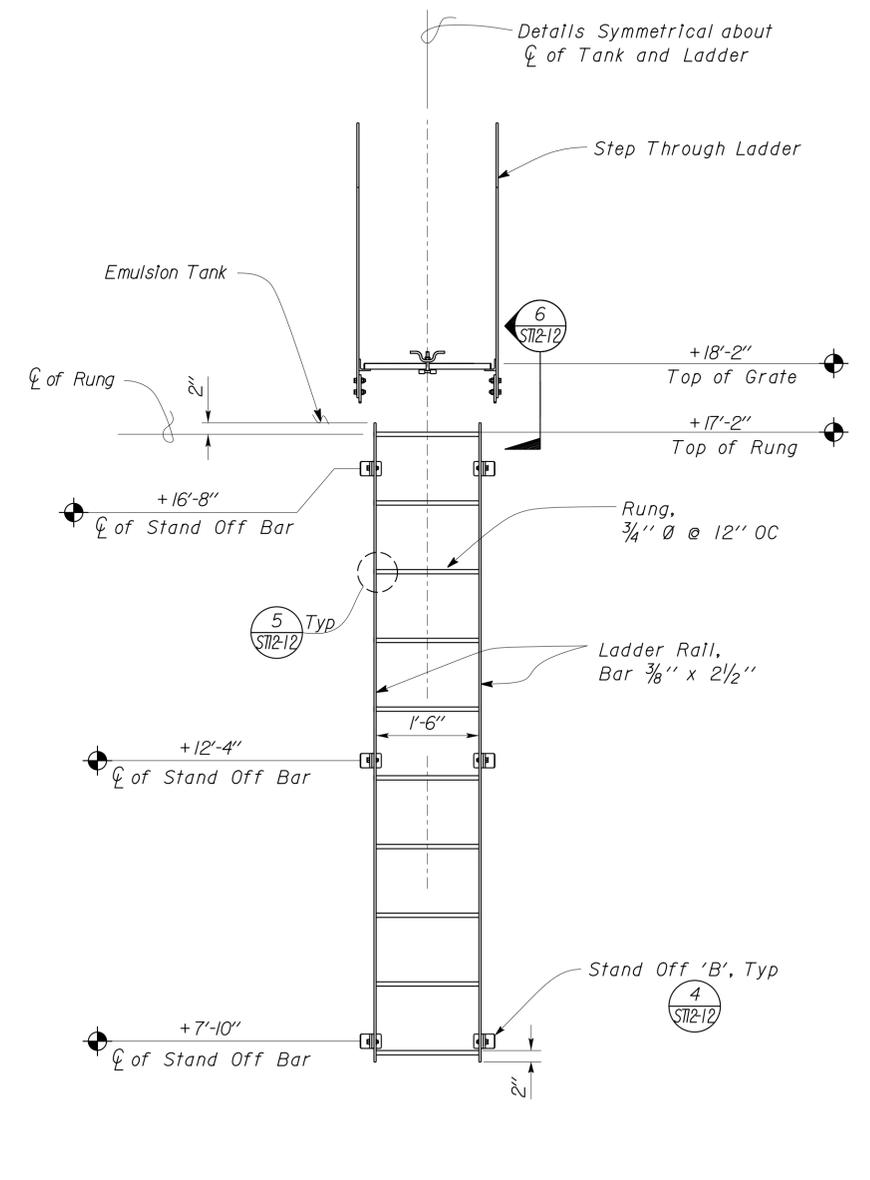
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		257	354
 REGISTERED CIVIL ENGINEER			DATE		
01-06-14			PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



1 STEP THROUGH LADDER ELEVATION
Scale 3/4" = 1'-0"



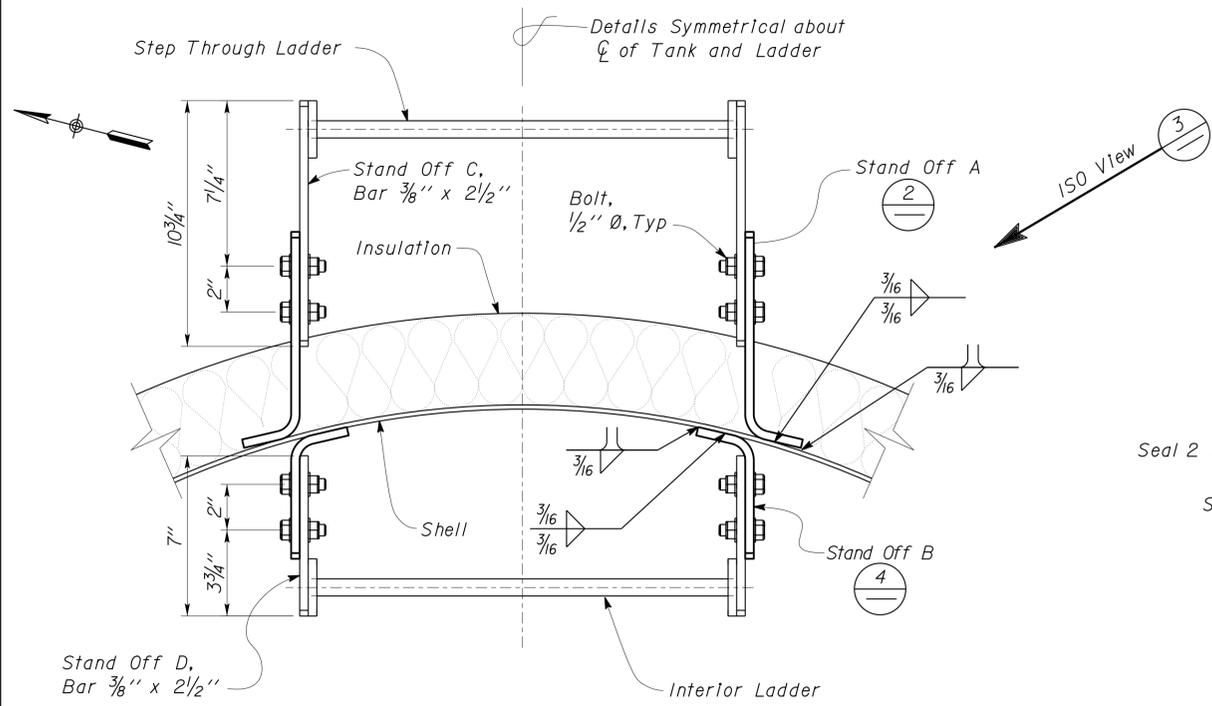
2 STEP THROUGH LADDER AND INTERIOR LADDER SECTION
Scale 3/4" = 1'-0"



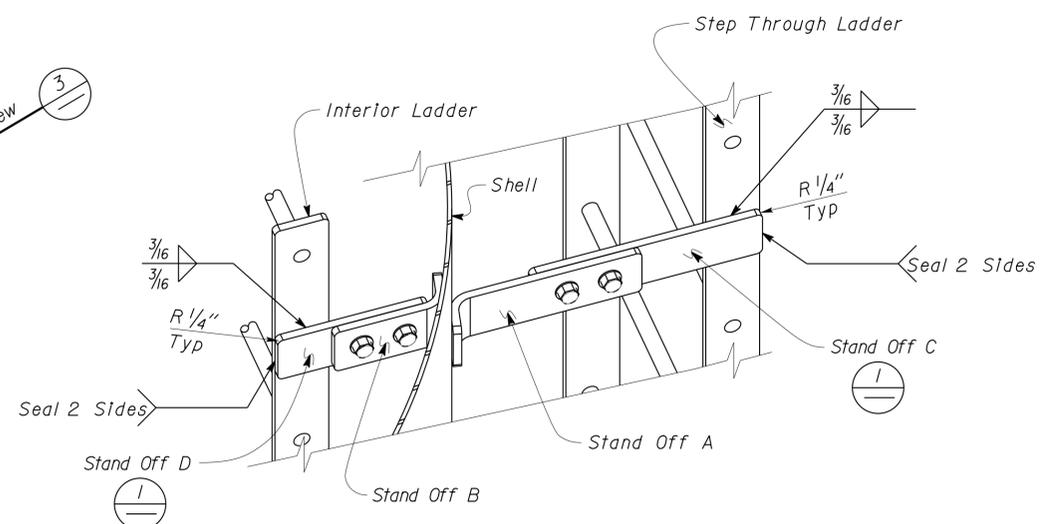
3 INTERIOR LADDER ELEVATION
Scale 3/4" = 1'-0"

DESIGN	BY Justin Uyehara	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET ST12-11
	DETAILS	BY Justin Uyehara			CHECKED Tom Mesich		
QUANTITIES	BY	CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE	3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)
TAEMWW Imperial Rev. 7/10			0 1 2 3	EA 076701	SHEET OF		21-JAN-2014 14:30

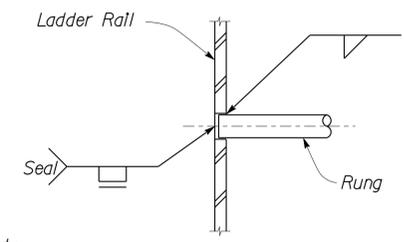
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		258	354
<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER			06-08-10 DATE		
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



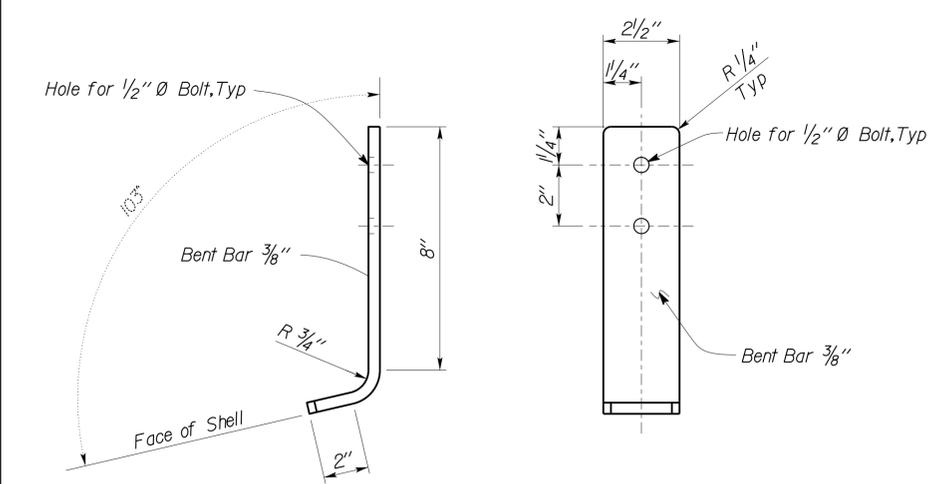
1 STAND OFF PLAN
Scale 3" = 1' - 0"



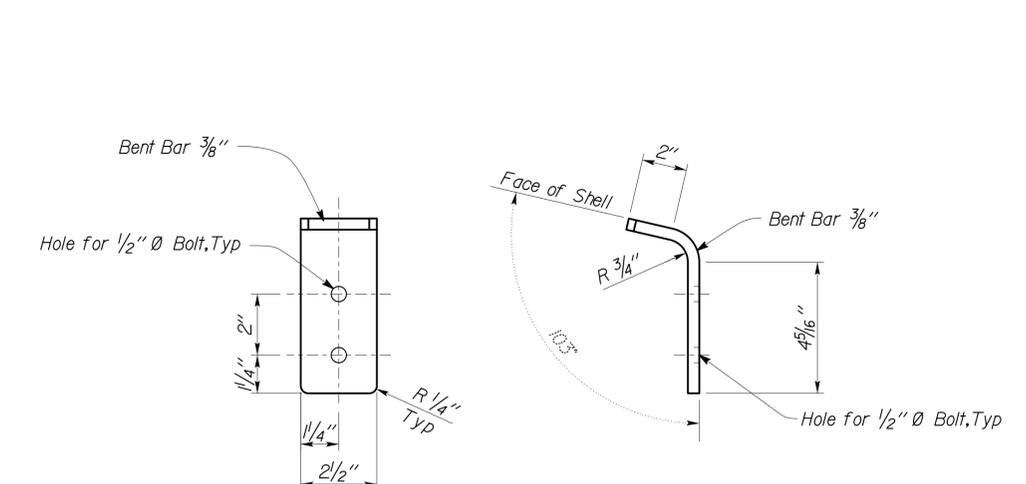
3 STAND OFF 'C' DETAILS
Scale 3" = 1' - 0"



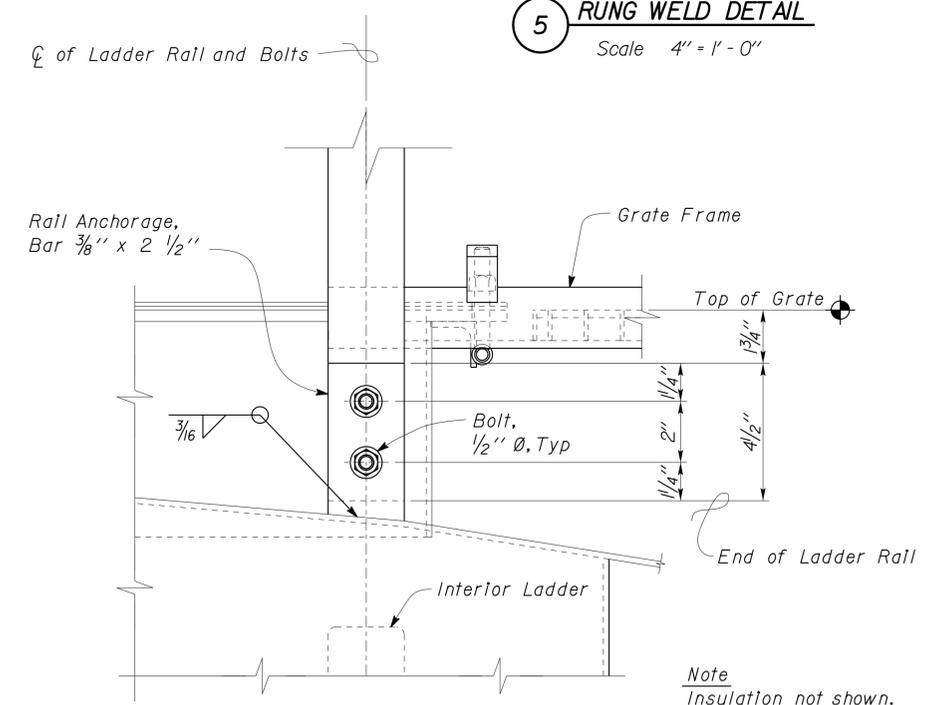
5 RUNG WELD DETAIL
Scale 4" = 1' - 0"



2 STAND OFF 'A' DETAILS
Scale 4" = 1' - 0"



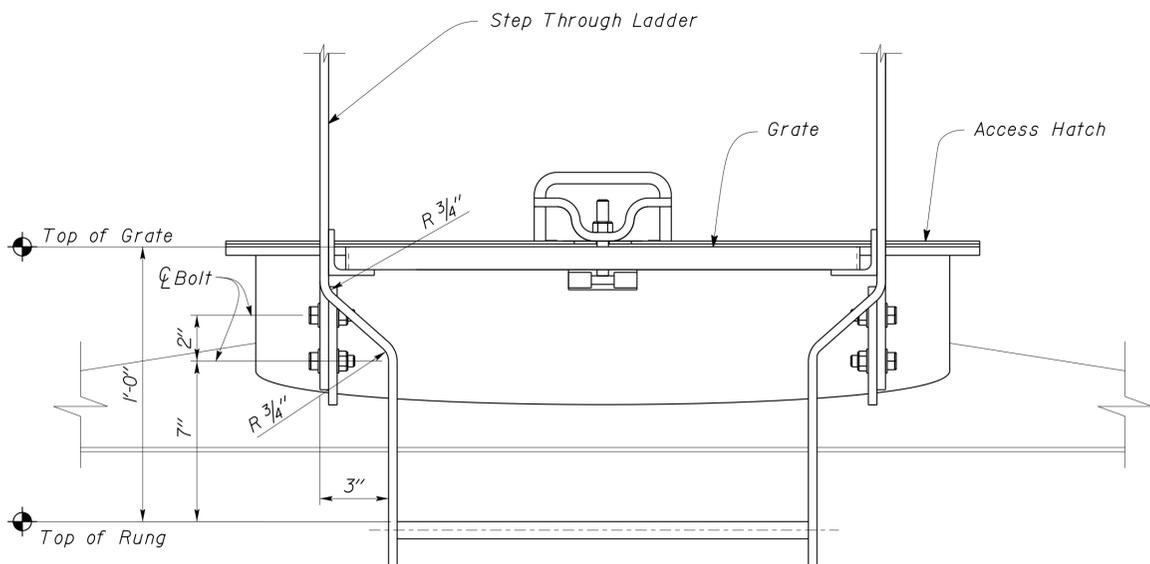
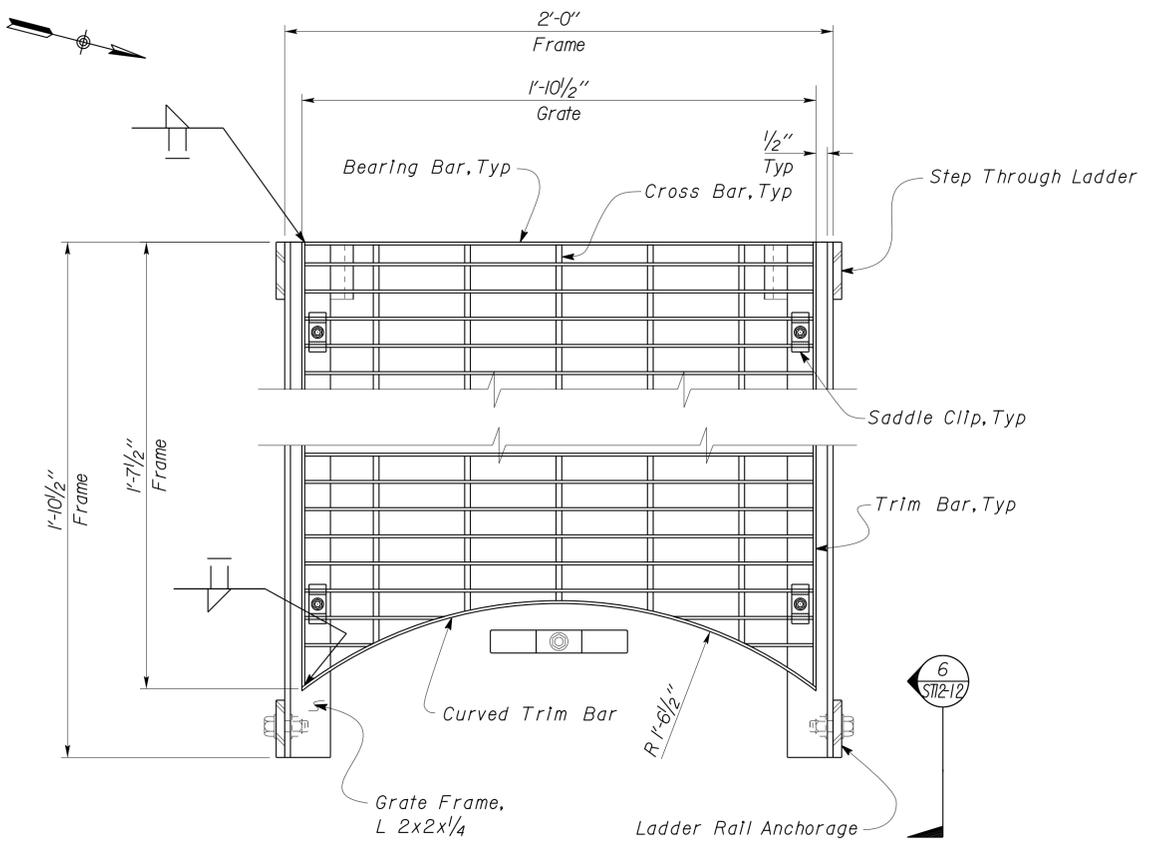
4 STAND OFF 'B' DETAILS
Scale 4" = 1' - 0"



6 RAIL CONNECTION
No Scale

DESIGN	BY	Justin Uyehara	CHECKED	Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY		SHEET	
	DETAILS	BY	Justin Uyehara	CHECKED			Tom Mesich	58M5708	EMULSION TANK 6000 GALLON		ST12-12
QUANTITIES	BY		CHECKED		UNIT	3599	POST MILE	EMULSION TANK DETAILS NO. 6		SHEET	
					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	PROJECT NUMBER & PHASE	11000000351	REVISION DATES (PRELIMINARY STAGE ONLY)		OF
TAEMWW Imperial Rev. 7/10					EA 076701		DISREGARD PRINTS BEARING EARLIER REVISION DATES		D:\TRM\Projects\EL_CENTRO MS\Temp\st12_12.dgn		21-JAN-2014 14:30

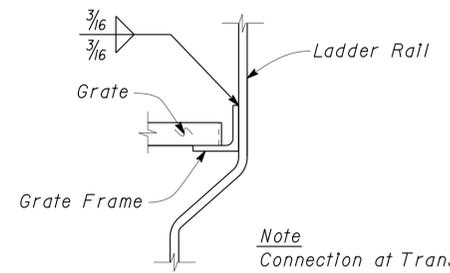
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		259	354
<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER			06-08-10 DATE	REGISTERED PROFESSIONAL ENGINEER Tom R. Mesich No. 46748 Exp. 6-30-15 CIVIL STATE OF CALIFORNIA	
01-06-14 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



3 STEP THROUGH LADDER TRANSITION
Scale 3" = 1'-0"

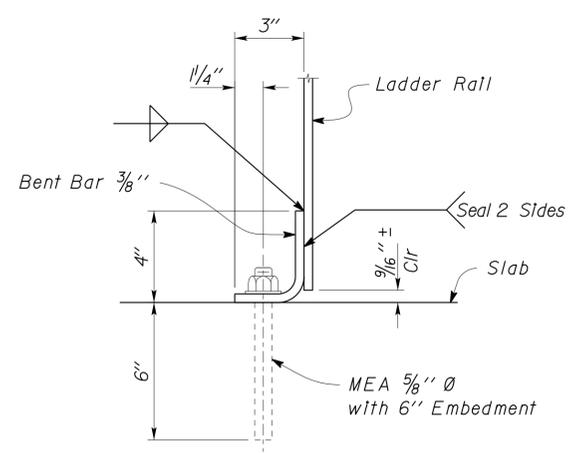
Welded Steel Grate
 Bearing Bars 1" x 1/8" @ 1 3/16" C-C
 Cross Bars @ 4" C-C
 Trim Bars " x 1/8" fillet welded to ends of Bearing Bars
 Grate shall be anchored to supports with 1/4" Ø threaded stud and "Saddle Clip" type fastener, as recommended by the manufacturer. Fasteners shall be installed maximum 4" from ends with 4 minimum per Grate.

1 WELDED STEEL GRATE PLAN
Scale 3" = 1'-0"

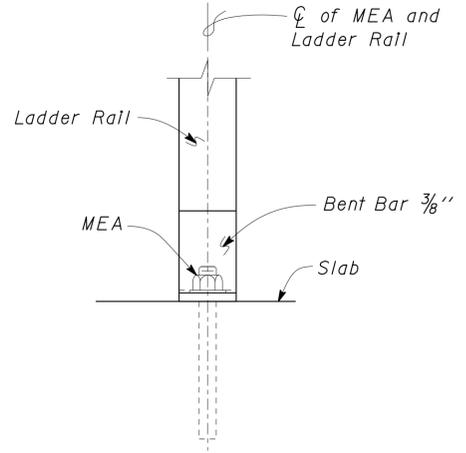


Note
Connection at Transition shown, connection at Rail Anchorage similar.

2 GRATE FRAME TO LADDER RAIL DETAIL
Scale 3" = 1'-0"

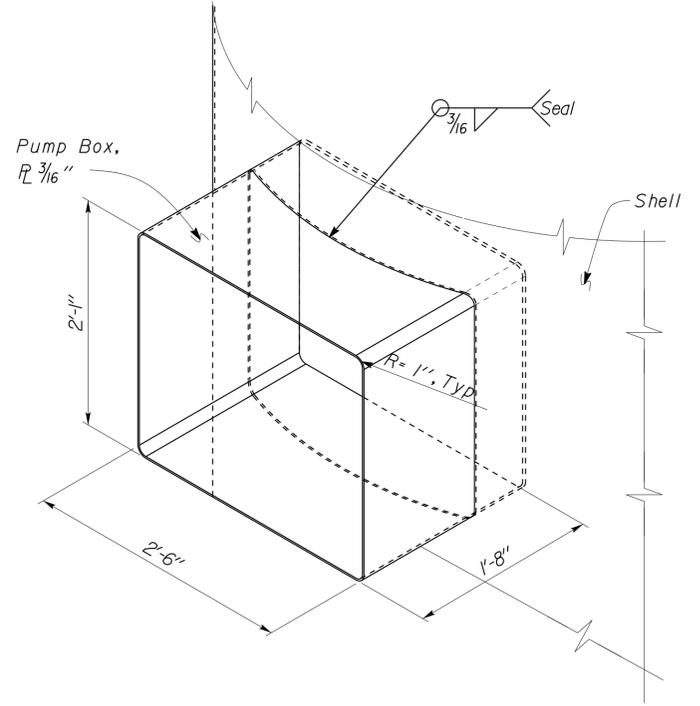


ELEVATION



SIDE VIEW

4 LADDER RAIL ANCHORAGE DETAIL
Scale 3" = 1'-0"



Pump Box Notes
 1. All welds used to form Pump Box, shall be liquid tight.
 2. See Mechanical Plans

5 PUMP BOX DETAIL
No Scale

DESIGN	BY	Justin Uyehara	CHECKED	Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY		SHEET
	DETAILS	BY	Justin Uyehara	CHECKED			Tom Mesich	58M5708	EMULSION TANK 6000 GALLON	
QUANTITIES	BY		CHECKED		UNIT PROJECT NUMBER & PHASE	3599 11000000351	POST MILE	EMULSION TANK DETAILS NO. 7		SHEET OF
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)			
TAEMWW Imperial Rev. 7/10 EA 076701 D:\TRM\Projects\EL_CENTRO MS\Temp\st12_13.dgn										

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		260	354

<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER	06-08-10 DATE	
01-06-14 PLANS APPROVAL DATE		

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A GENERAL DESIGN NOTES

1. CRITERIA

BUILDING CODE:
2010 California Building Code as Adopted
by the California Building Standards Commission

OCCUPANCY CATEGORY: I

2. MATERIALS

REINFORCED CONCRETE: (Strength Design)
 $f'_c = 3,650 \text{ psi}$
 $f_y = 60,000 \text{ psi}$

3. FOUNDATION

Soils report dated : September 3, 2009
Allowable Soil Pressure: 2,000 psf
For Soil Classification, see Log of Test Borings Sheet.

B DESIGN LOADS

1. LIVE

Roof = 20 psf

2. SEISMIC

Importance Factor = 1.0
Site Class = E
Spectral Response Accelerations:
 $S_S = 1.500$ $S_I = 0.600$
Spectral Response Coefficients:
 $S_{DS} = 0.900$ $S_{DI} = 0.960$
Design Category = D
Analysis Procedure: Equivalent Lateral Force

Seismic Force-Resisting System:

<u>North - South</u>	<u>East - West</u>
Cantilevered Column	Cantilevered Column
$R = 1.0$	$R = 1.0$
$C_S = 1.0$	$C_S = 1.0$

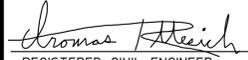
3. WIND

Importance Factor = 1.0
Basic Wind Speed = 85 mph (3 sec gust)
Exposure C
Analysis Procedure: Simplified

DESIGN	BY	EDWARD ZHANG	CHECKED	Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	EL CENTRO MAINTAINANCE FACILITY		SHEET	ST13-0	
	DETAILS	BY	EDWARD ZHANG	CHECKED			Tom Mesich	POST MILE	CONCRETE SLABS	DESIGN CRITERIA AND DETAIL NOTES		OF
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT	3599	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	01-06-09	
TAEMWW Imperial Rev. 7/10							PROJECT NUMBER & PHASE	11000000351	EA 076701		D:\TRM\Projects\EL CENTRO MS\Temp\st13_00.dgn	

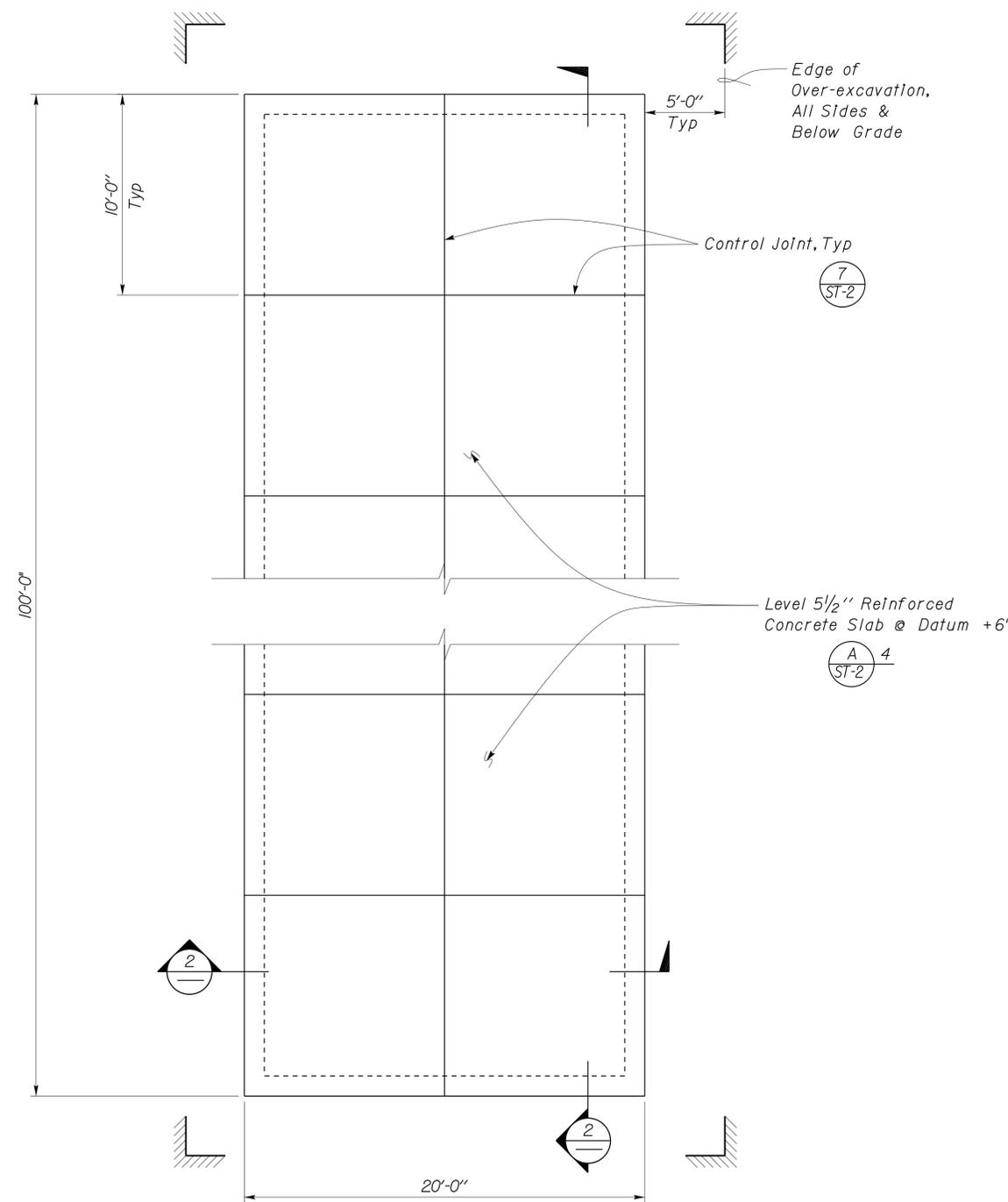
21-JAN-2014 14:31

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		261	354

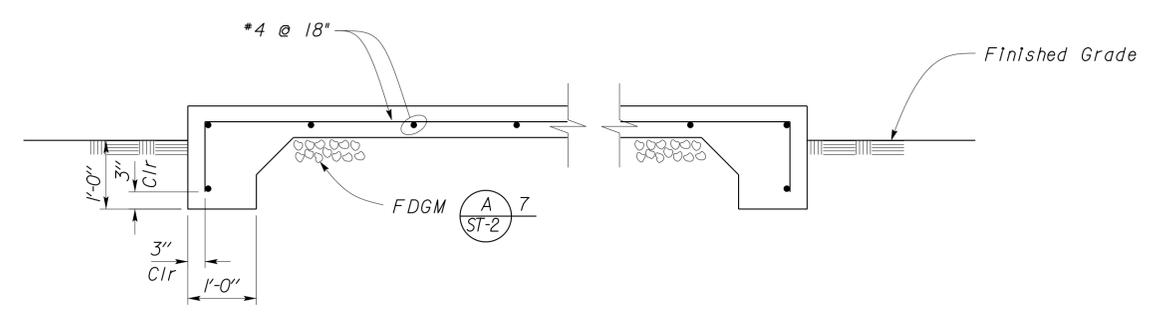
 06-08-10
 REGISTERED CIVIL ENGINEER DATE



01-06-14
 PLANS APPROVAL DATE
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1 CONCRETE SLAB PLAN
 Scale 1/4" = 1' - 0"



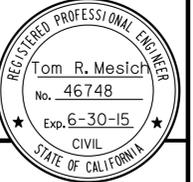
2 TYPICAL SECTION
 Scale 3/4" = 1' - 0"

TAEMWW Imperial Rev. 7/10	 DESIGN ENGINEER	DESIGN BY EDWARD ZHANG CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTAINANCE FACILITY	SHEET OF ST13-1
		DETAILS BY EDWARD ZHANG CHECKED Tom Mesich			POST MILE		
		QUANTITIES BY CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES 08-05-09	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

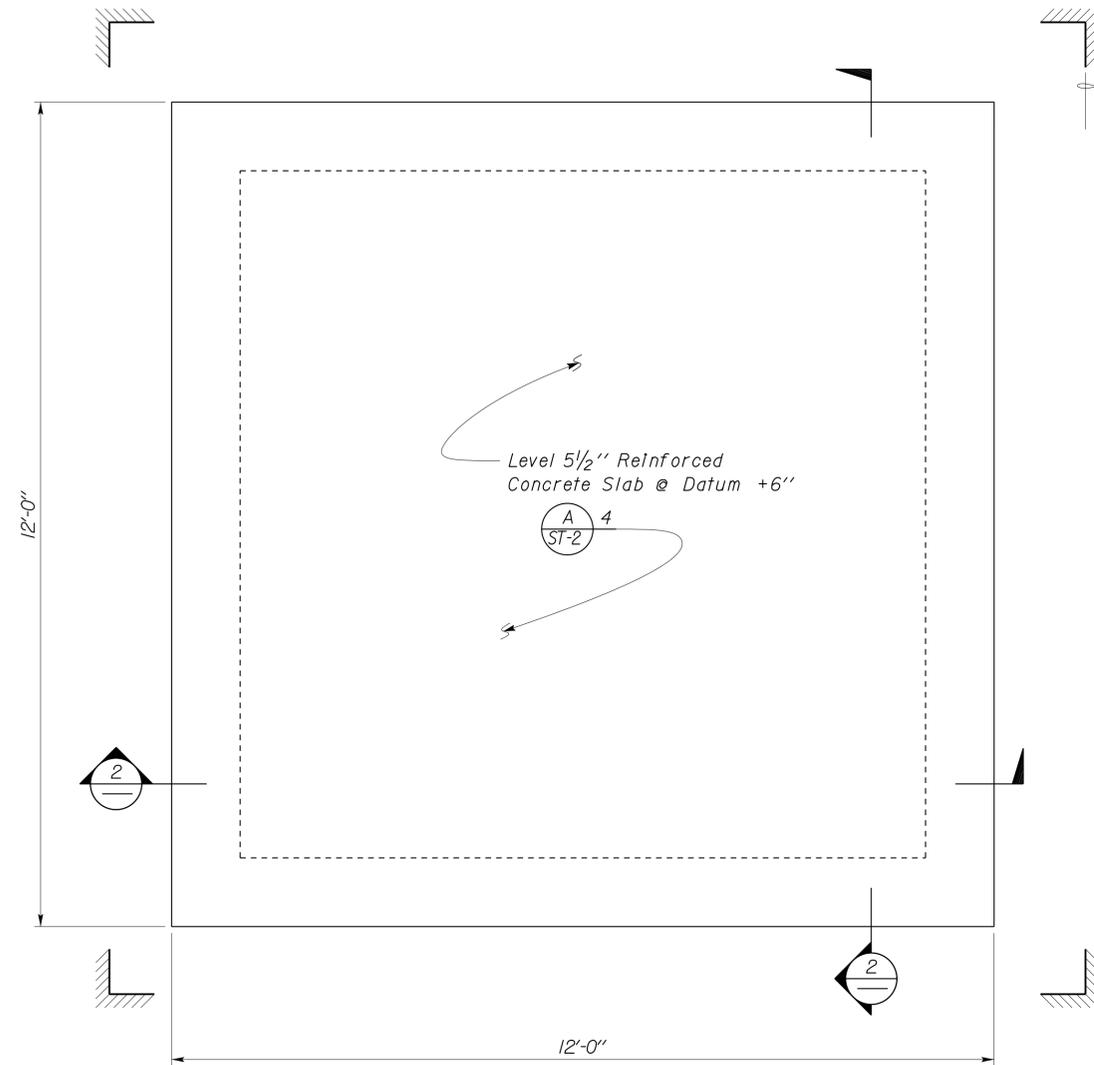
21-JAN-2014 14:31

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		262	354

Thomas Reich
REGISTERED CIVIL ENGINEER
DATE 06-08-10

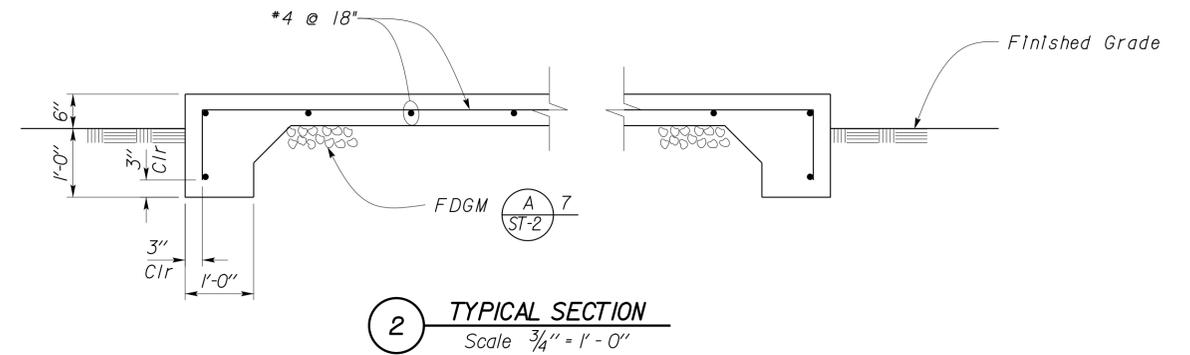


01-06-14
PLANS APPROVAL DATE
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Datum 0'-0" = Elevation 286.74'

1 CONCRETE SLAB PLAN
Scale 3/4" = 1'-0"



2 TYPICAL SECTION
Scale 3/4" = 1'-0"

DESIGN	BY EDWARD ZHANG	CHECKED Tom Mesich
DETAILS	BY EDWARD ZHANG	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
POST MILE

EL CENTRO MAINTAINANCE FACILITY
CONCRETE SLABS HAZ/MAT CONTAINER PAD

SHEET OF
ST13-2

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		263	354

<i>Thomas Reich</i> REGISTERED CIVIL ENGINEER	06-08-10 DATE	
01-06-14 PLANS APPROVAL DATE		

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C GENERAL NOTES

- For Concrete see: "Concrete Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.
- The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

B DESIGN LOADS

- 1. LIVE**
Roof = 20 psf
- 2. SEISMIC**
Importance Factor = 1.0
Site Class = E
Spectral Response Accelerations:
 $S_S = 1.500$ $S_I = 0.600$
Spectral Response Accelerations:
 $S_{DS} = 0.900$ $S_{DI} = 0.960$
Design Category = D
Analysis Procedure: Equivalent Lateral Force
- Seismic Force-Resisting System:**
North - South East - West
Bearing Wall Bearing Wall
 $R = 1.25$ $R = 1.25$
 $C_S = 0.24$ $C_S = 0.24$
- 3. WIND**
Importance Factor = 1.0
Basic Wind Speed = 85 mph (3 sec gust)
Exposure C
Analysis Procedure: Simplified

A GENERAL DESIGN NOTES

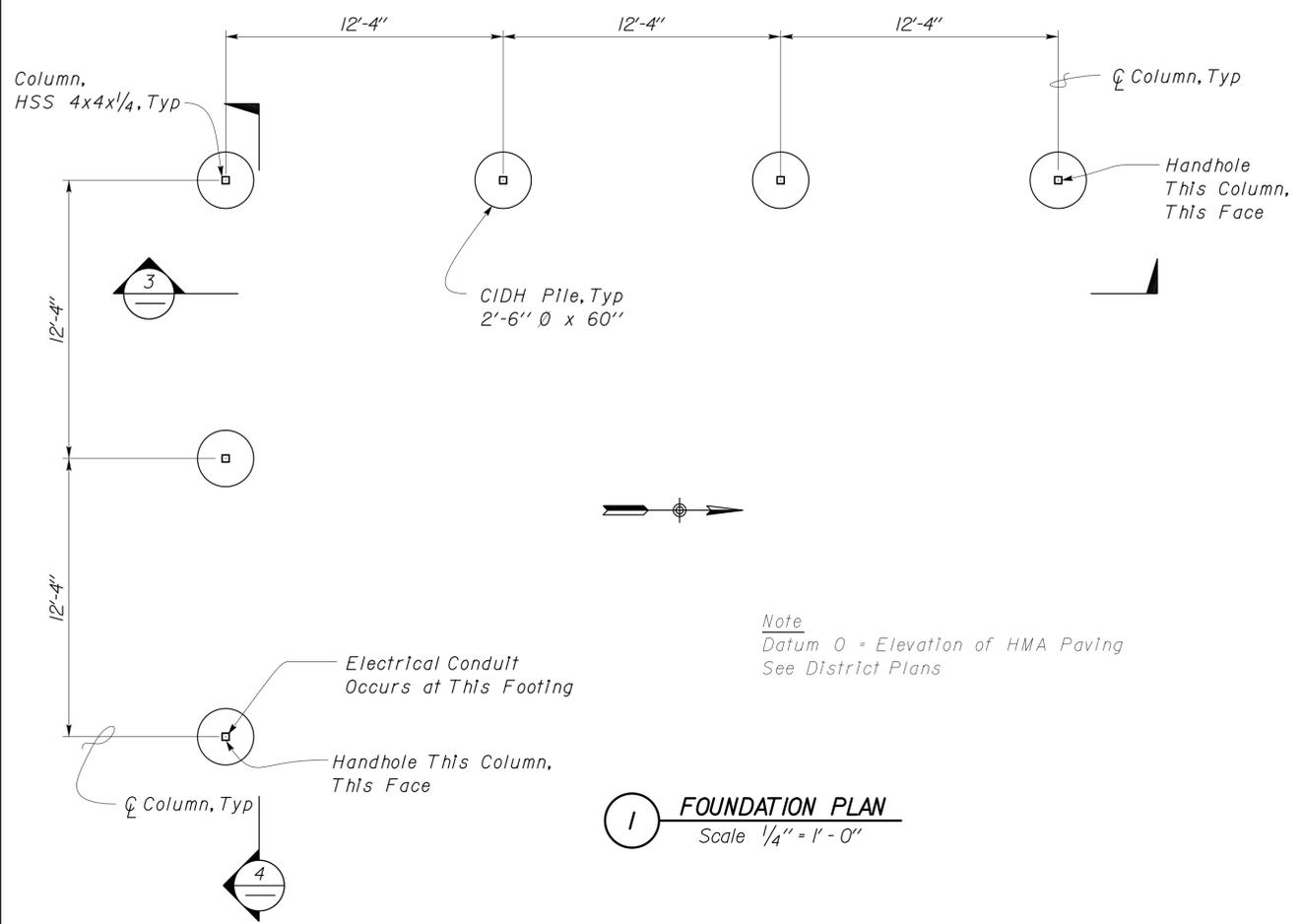
- 1. CRITERIA**
- BUILDING CODE:**
2010 California Building Code as Adopted by the California Building Standards Commission
- OCCUPANCY CATEGORY:** I
- 2. MATERIALS**
- REINFORCED CONCRETE:** (Strength Design)
 $f'_c = 3,650$ psi
 $f_y = 60,000$ psi
- STRUCTURAL STEEL:** (Allowable Strength Design)
Plates $F_y = 36$ ksi
Hollow Structural Sections (HSS) $F_y = 46$ ksi
Weld Electrodes $F_y = 70$ ksi
- 3. FOUNDATION**
- Soils report dated : September 3, 2009
Allowable Soil Pressure: 2,000 psf
For Soil Classification, see Log of Test Borings Sheet.

DESIGN BY Justin Uyehara	CHECKED Tom Mesich	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET ST14-0
	DETAILS BY Justin Uyehara		CHECKED Tom Mesich	POST MILE	SANDER RACKS	DESIGN CRITERIA AND DETAIL NOTES	OF
QUANTITIES BY	CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3599 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	07-29-09	

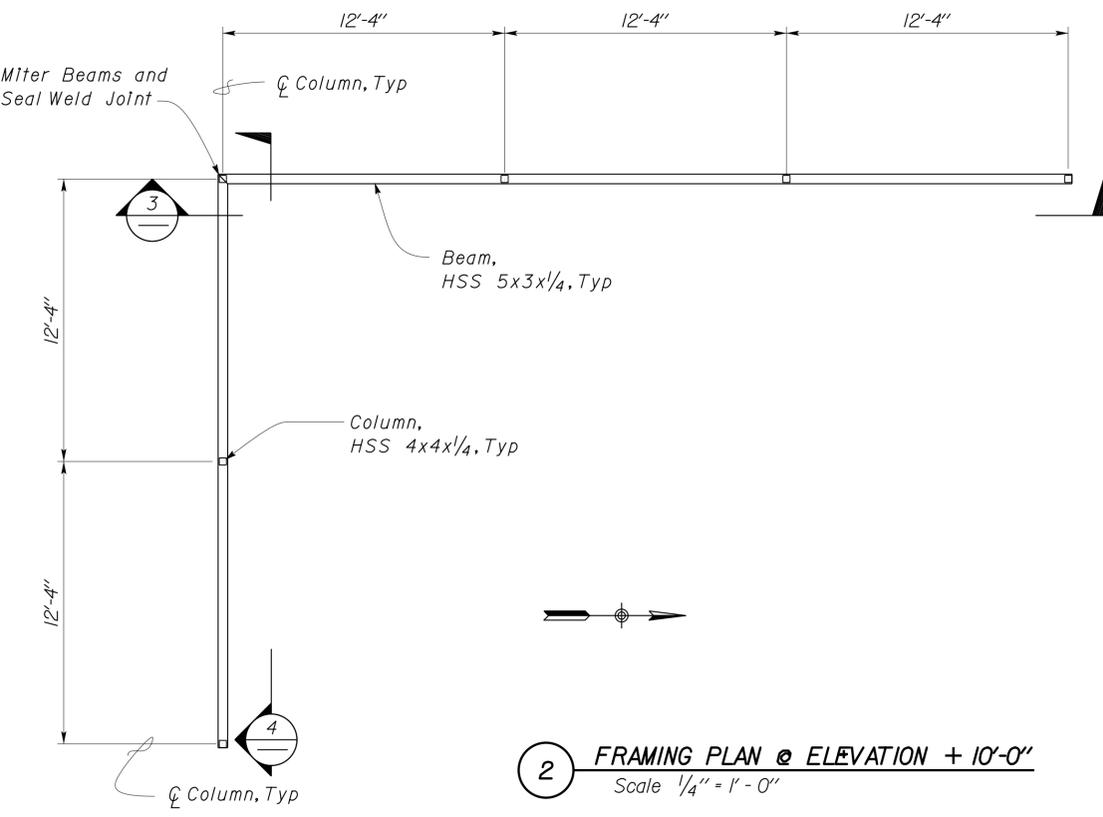
TAEMWW Imperial Rev. 7/10 EA 076701 D:\TRM\Projects\EL CENTRO MS\Temp\st14_00.dgn

21-JAN-2014 14:31

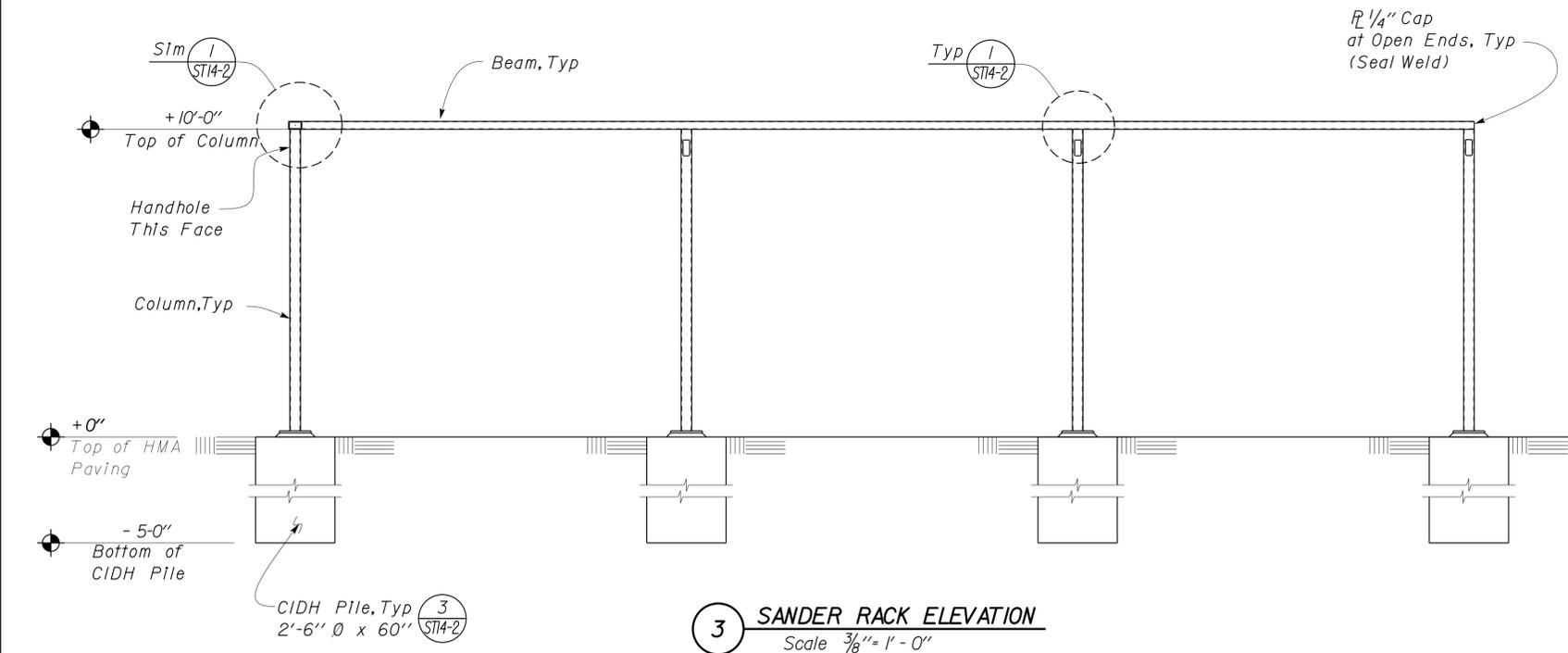
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		264	354
 REGISTERED CIVIL ENGINEER			DATE		
01-06-14 PLANS APPROVAL DATE					
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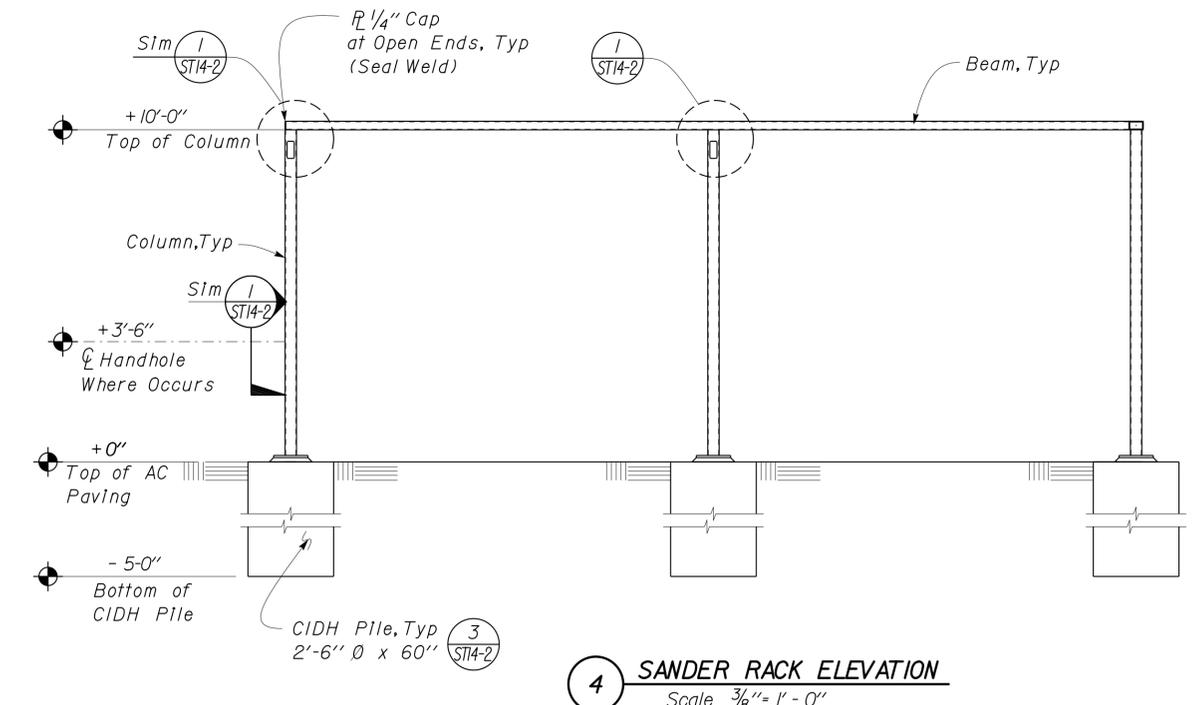
1 FOUNDATION PLAN
Scale 1/4" = 1'-0"



2 FRAMING PLAN @ ELEVATION +10'-0"
Scale 1/4" = 1'-0"



3 SANDER RACK ELEVATION
Scale 3/8" = 1'-0"



4 SANDER RACK ELEVATION
Scale 3/8" = 1'-0"


DESIGN ENGINEER

DESIGN	BY Justin Uyehara	CHECKED Tom Mesich
DETAILS	BY Justin Uyehara	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

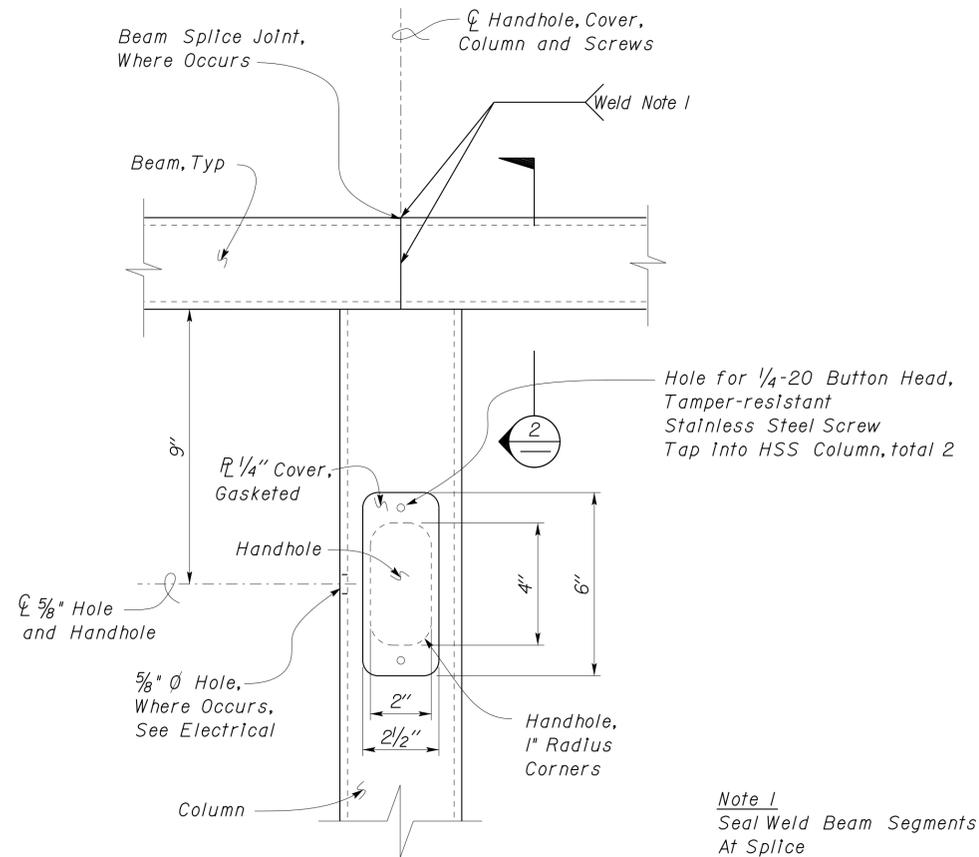
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
POST MILE

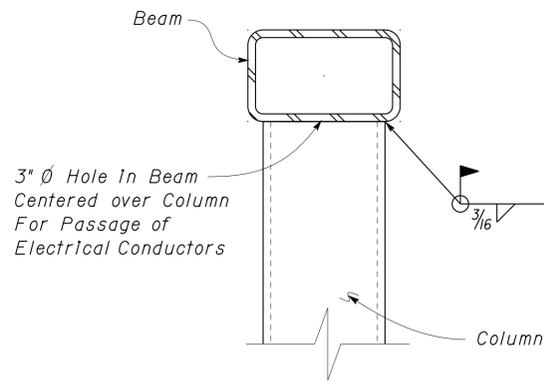
EL CENTRO MAINTENANCE FACILITY
SANDER RACKS
FOUNDATION PLAN AND ELEVATION

SHEET ST14-1

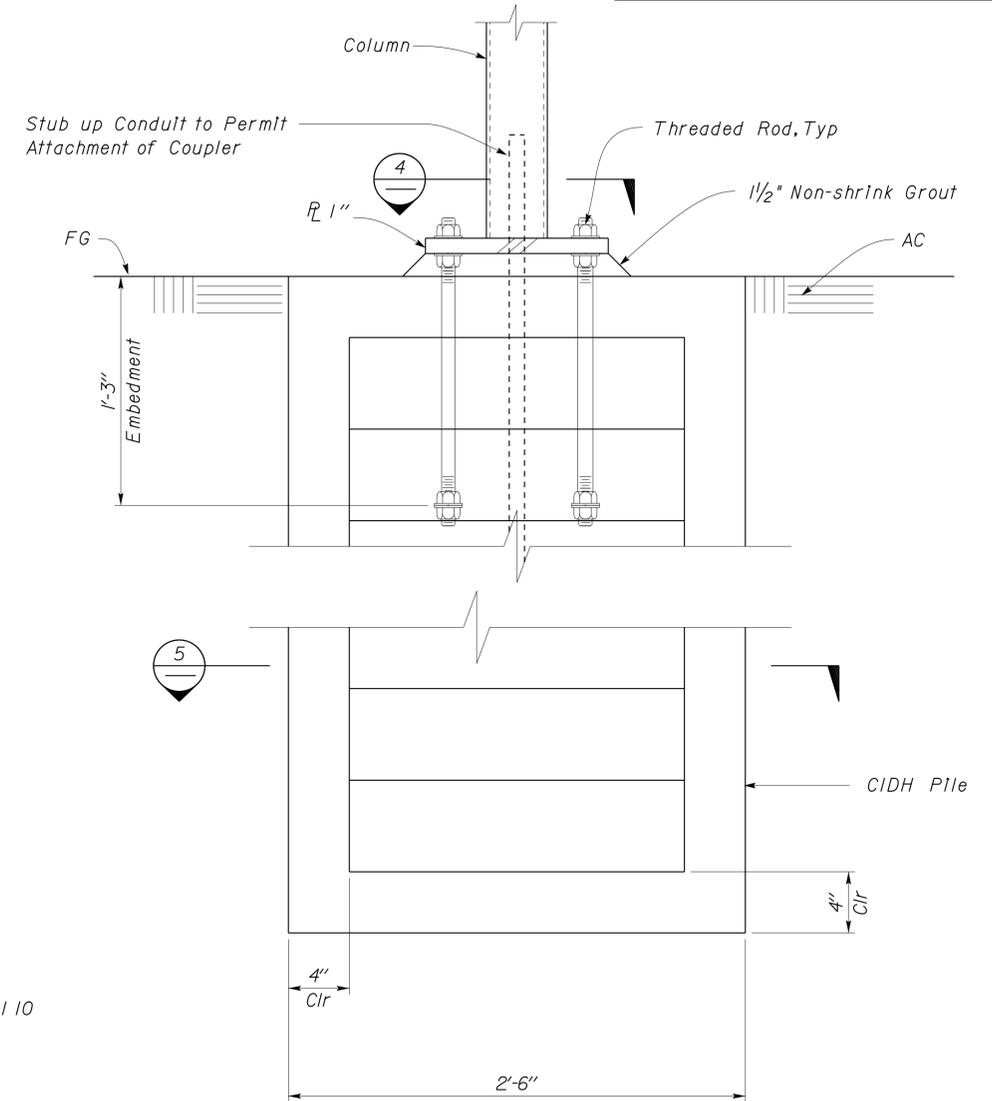
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		265	354
 REGISTERED CIVIL ENGINEER			DATE		
01-06-14			PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



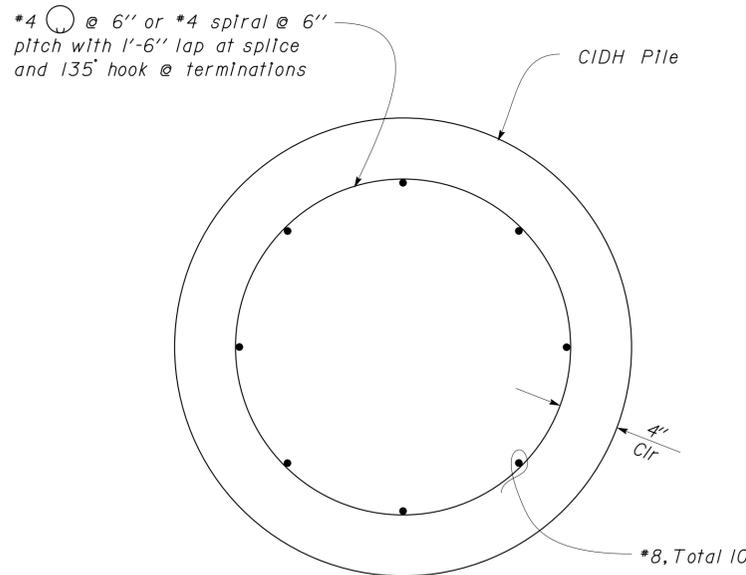
1 COLUMN CONNECTION AND HANDHOLE
Scale 4" = 1' - 0"



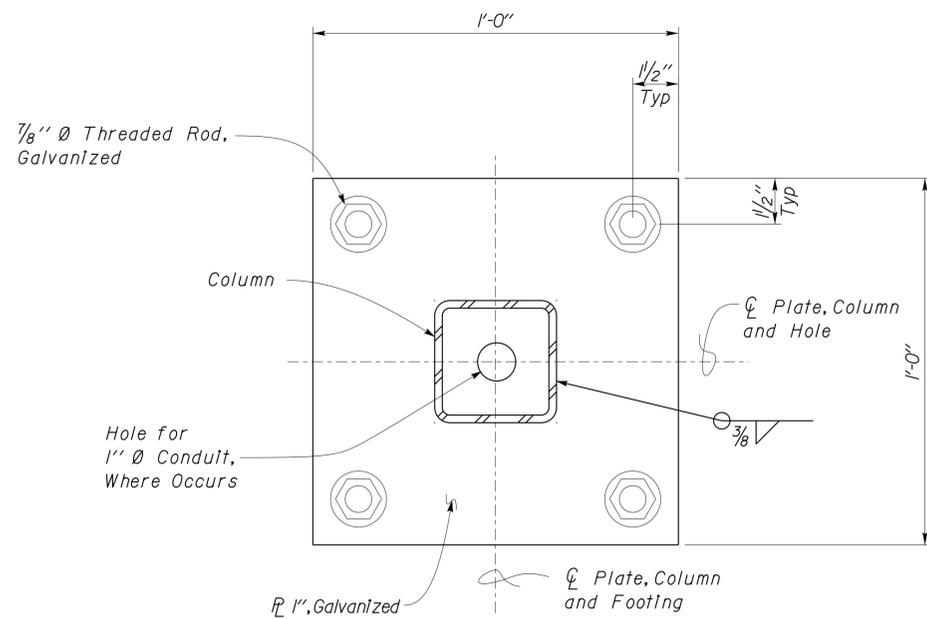
2 COLUMN TO BEAM CONNECTION
Scale 4" = 1' - 0"



3 CIDH PILE DETAIL
Scale 2" = 1' - 0"



5 CIDH PILE DETAIL
Scale 2" = 1' - 0"



4 BASE PLATE DETAIL
Scale 4" = 1' - 0"

Note 1
Seal Weld Beam Segments At Splice

DESIGN	BY Justin Uyehara	CHECKED Tom Mesich
DETAILS	BY Justin Uyehara	CHECKED Tom Mesich
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 58M5708
POST MILE

EL CENTRO MAINTENANCE FACILITY
SANDER RACKS
MISCELLANEOUS DETAILS

SHEET ST14-2

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT PROJECT NUMBER & PHASE 3599 11000000351

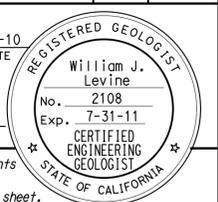
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET OF

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	Imp	5708		266	354

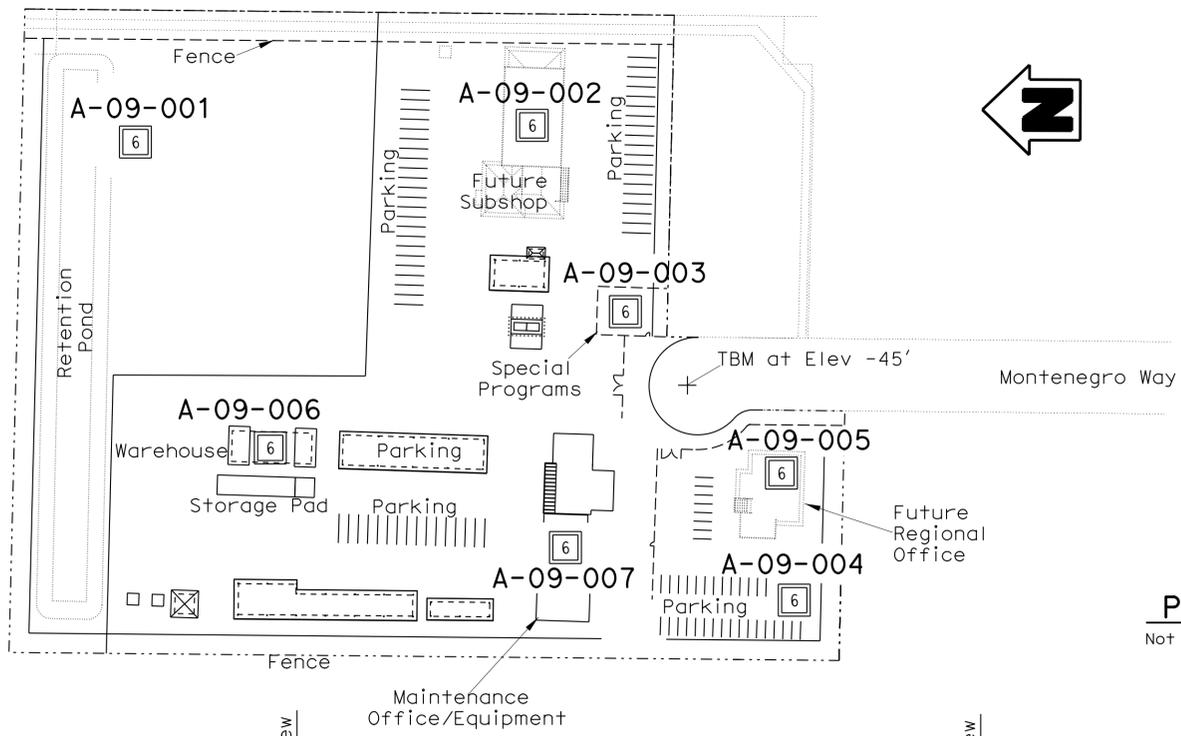
<i>Bill Levine</i>		2-16-10
CERTIFIED ENGINEERING GEOLOGIST	DATE	
01-06-14		
PLANS APPROVAL DATE		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>		



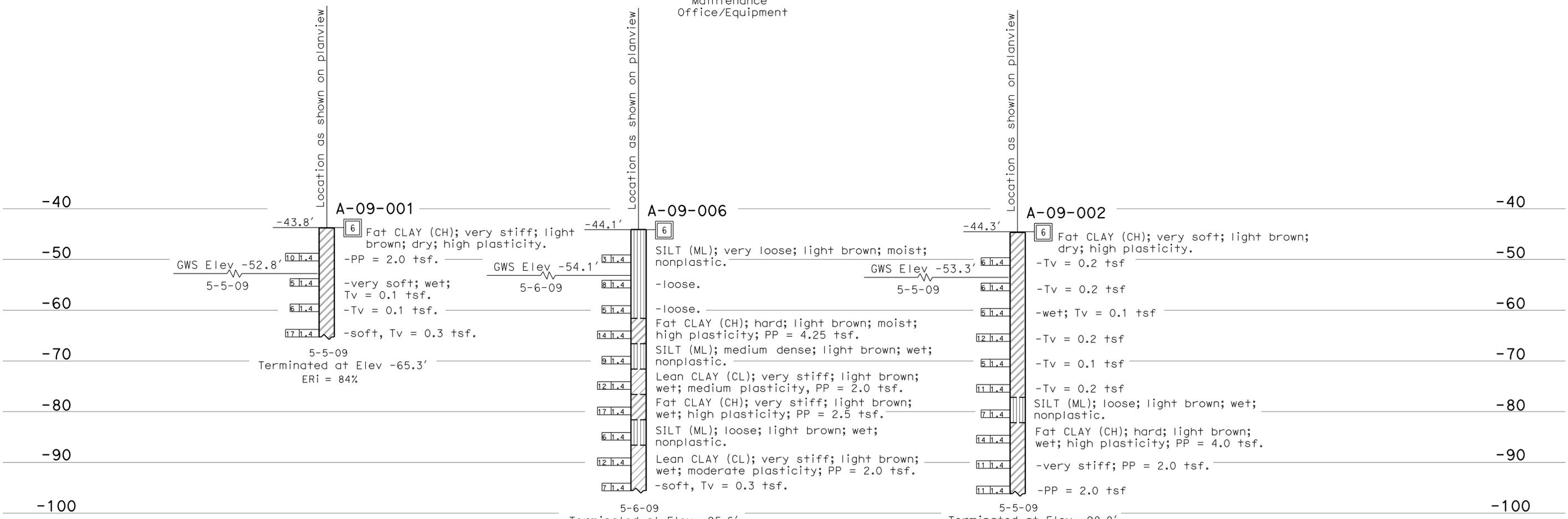
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007).

BENCH MARK

Elev measured from 22" diameter metal sewer cover located near middle of cul-de-sac turnaround at the north end of Montenegro Way. Assumed Elev of 45' below sea level at TBM. (see site plan)



PLAN
Not To Scale



PROFILE
HOR. Not To Scale
VER. 1"=10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		EL CENTRO MAINTENANCE STATION	
FUNCTIONAL SUPERVISOR		DRAWN BY: W. Tang 10/09		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		POST MILES		LOG OF TEST BORINGS 1 OF 4	
NAME: A. Perez-Cobo		CHECKED BY: D. Cook		FIELD INVESTIGATION BY: B. Levine		DESIGN BRANCH					
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU EA 11 076701		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET OF	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	Imp	5708		267	354

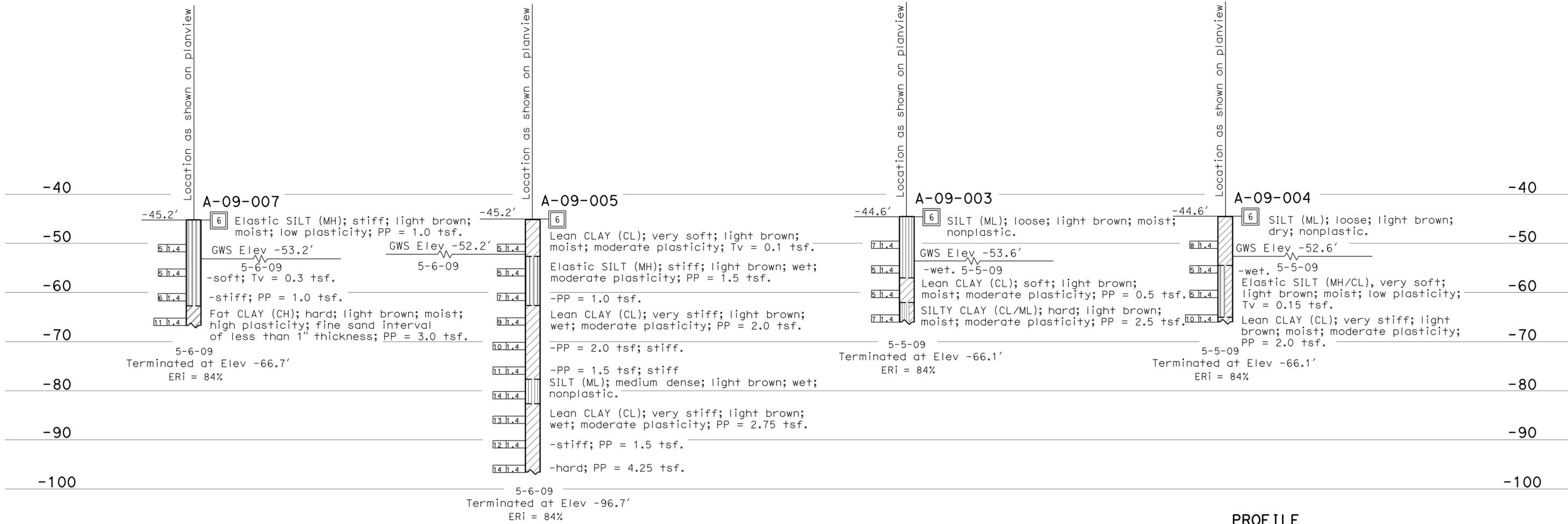
<i>Bill Levine</i>		2-16-10
CERTIFIED ENGINEERING GEOLOGIST	DATE	
01-06-14		
PLANS APPROVAL DATE		

REGISTERED GEOLOGIST
 William J. Levine
 No. 2108
 Exp. 7-31-11
 CERTIFIED ENGINEERING GEOLOGIST
 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.

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

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS 1 OF 4"



PROFILE
HOR. Not To Scale
VER. 1"=10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		EL CENTRO MAINTENANCE STATION	
FUNCTIONAL SUPERVISOR		DRAWN BY: W. Tang 10/09		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		POST MILES		LOG OF TEST BORINGS 2 OF 4	
NAME: A. Perez-Cobo		CHECKED BY: D. Cook		FIELD INVESTIGATION BY: B. Levine		DESIGN BRANCH					
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		CU 11 EA 076701		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
						FILE => st_Log_02_of_04.dgn		10-09 02-10-10 02-16-10		SHEET OF	

USERNAME => s127400 DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 14:35

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
11	Imp	5708		268	354

Bill Levine
 2-16-10 DATE
 CERTIFIED ENGINEERING GEOLOGIST
 William J. Levine
 No. 2108
 Exp. 7-31-11
 REGISTERED GEOLOGIST
 STATE OF CALIFORNIA

01-06-14
PLANS APPROVAL DATE

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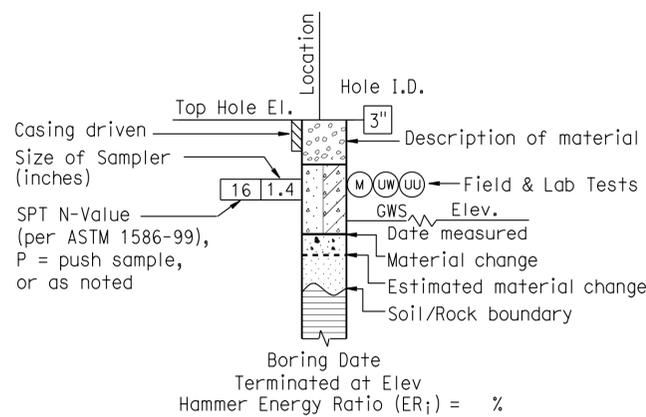
CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

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

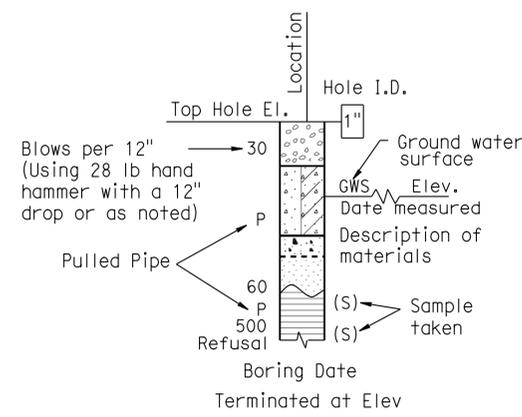
BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring
	R	Rotary drilled boring
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778-95)
	O	Other

Note: Size in inches.

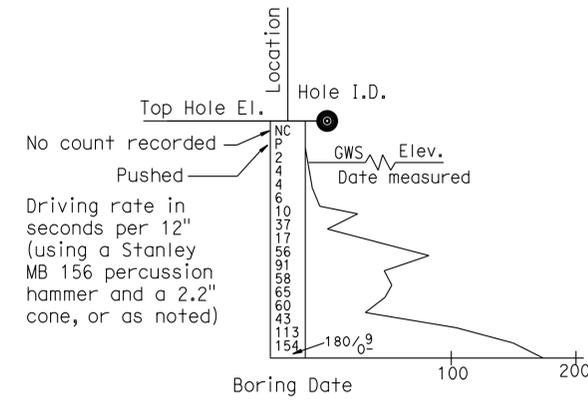
PLASTICITY OF FINE-GRAINED SOILS	
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the 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.



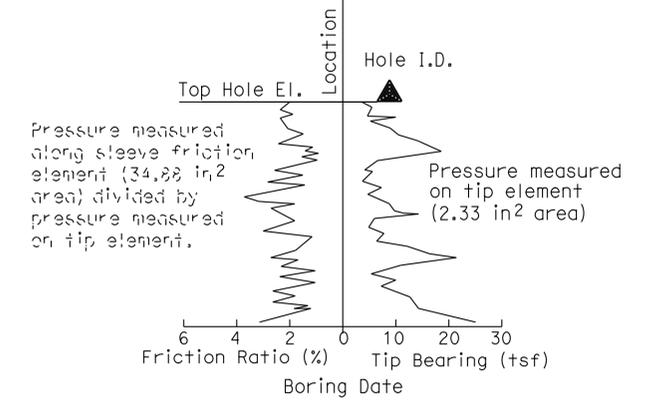
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO.	EL CENTRO MAINTENANCE STATION
	PREPARED BY: W. Tang 10/09			POST MILE	
GS LOTB SOIL LEGEND	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 11 EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET OF

USERNAME => s127400 DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 14:35

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	Well-graded GRAVEL		Lean CLAY
	Well-graded GRAVEL with SAND		Lean CLAY with SAND
	Poorly graded GRAVEL		Lean CLAY with GRAVEL
	Poorly graded GRAVEL with SAND		SANDY lean CLAY
	Well-graded GRAVEL with SILT		SANDY lean CLAY with GRAVEL
	Well-graded GRAVEL with SILT and SAND		GRAVELLY lean CLAY
	Well-graded GRAVEL with CLAY (or SILTY CLAY)		GRAVELLY lean CLAY with SAND
	Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SILTY CLAY
	Poorly graded GRAVEL with SILT		SILTY CLAY with SAND
	Poorly graded GRAVEL with SILT and SAND		SILTY CLAY with GRAVEL
	Poorly graded GRAVEL with CLAY (or SILTY CLAY)		SANDY SILTY CLAY
	Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SANDY SILTY CLAY with GRAVEL
	SILTY GRAVEL		GRAVELLY SILTY CLAY
	SILTY GRAVEL with SAND		GRAVELLY SILTY CLAY with SAND
	CLAYEY GRAVEL		SILT
	CLAYEY GRAVEL with SAND		SILT with SAND
	SILTY, CLAYEY GRAVEL		SILT with GRAVEL
	SILTY, CLAYEY GRAVEL with SAND		SANDY SILT
	Well-graded SAND		SANDY SILT with GRAVEL
	Well-graded SAND with GRAVEL		GRAVELLY SILT
	Poorly graded SAND		GRAVELLY SILT with SAND
	Poorly graded SAND with GRAVEL		ORGANIC lean CLAY
	Well-graded SAND with SILT		ORGANIC lean CLAY with SAND
	Well-graded SAND with SILT and GRAVEL		ORGANIC lean CLAY with GRAVEL
	Well-graded SAND with CLAY (or SILTY CLAY)		SANDY ORGANIC lean CLAY
	Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		SANDY ORGANIC lean CLAY with GRAVEL
	Poorly graded SAND with SILT		GRAVELLY ORGANIC lean CLAY
	Poorly graded SAND with SILT and GRAVEL		GRAVELLY ORGANIC lean CLAY with SAND
	Poorly graded SAND with CLAY (or SILTY CLAY)		ORGANIC SILT
	Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		ORGANIC SILT with SAND
	SILTY SAND		ORGANIC SILT with GRAVEL
	SILTY SAND with GRAVEL		SANDY ORGANIC SILT
	CLAYEY SAND		SANDY ORGANIC SILT with GRAVEL
	CLAYEY SAND with GRAVEL		GRAVELLY ORGANIC SILT
	SILTY, CLAYEY SAND		GRAVELLY ORGANIC SILT with SAND
	SILTY, CLAYEY SAND with GRAVEL		ORGANIC fat CLAY
	PEAT		ORGANIC fat CLAY with SAND
	COBBLES		ORGANIC fat CLAY with GRAVEL
	COBBLES and BOULDERS		SANDY ORGANIC fat CLAY
	BOULDERS		SANDY ORGANIC fat CLAY with GRAVEL
			GRAVELLY ORGANIC fat CLAY
			GRAVELLY ORGANIC fat CLAY with SAND

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)

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

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO.	EL CENTRO MAINTENANCE STATION	
	PREPARED BY: W. Tang 10/09			POST MILE		LOG OF TEST BORINGS 4 OF 4
GS LOTB SOIL LEGEND	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	CU 11 EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET OF

FILE => st_Log_04_of_04.dgn



PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 1 of 3) PERF-1C

Project Name: **El Centro Maintenance Facility** Date: **2/22/2013**

Project Address: **602 Ross Road El Centro** Climate Zone: **CA Climate Zone 15** Total Cond. Floor Area: **3,036** Addition Floor Area: **n/a**

GENERAL INFORMATION

Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Relocatable - indicate specific climate zone all climates

Phase of Construction: New Construction Addition Alteration

STATEMENT OF COMPLIANCE

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to a Building using the performance compliance approach.

The documentation author hereby certifies that the documentation is accurate and complete.

Documentation Author

Name: **Severiano Gutierrez** Signature: *Severiano Gutierrez*

Company: **Department of Transportation - TAMEWW Branch** Date: **2/22/2013**

Address: **1801 30th Street** Phone: **916-227-8332**

City/State/Zip: **Sacramento, Ca 95816**

The Principal Designer hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the energy efficiency requirements contained in sections 110, 116 through 118, and 140 through 149 of Title 24, Part 6. Please check one:

ENV. LTG. MECH.

I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.

I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.

I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Principal Envelope Designer

Name: **Anthony Manansala** Signature: *Anthony Manansala*

Company: **CALTRANS** Date: **02-22-2013**

Address: **1801 30th Street** License #: **C32260**

City/State/Zip: **Sacramento, Ca 95758** Phone: **916-227-8289**

Principal Mechanical Designer

Name: **Mark Hedglin** Signature: *Mark Hedglin*

Company: **CALTRANS** Date: **02-22-2013**

Address: **1801 30th Street** License #: **M32912**

City/State/Zip: **Sacramento, Ca 95816** Phone: **916-227-8541**

Principal Lighting Designer

Name: **Tomy F. Lee** Signature: *Tomy F. Lee*

Company: **CALTRANS** Date: **02-22-2013**

Address: **1801 30th Street** License #: **E18534**

City/State/Zip: **Sacramento, ca 95816** Phone: **916-227-8376**

INSTRUCTIONS TO APPLICANT COMPLIANCE & WORKSHEETS (check box if worksheets are included)

<input checked="" type="checkbox"/> ENV-1C Certificate of Compliance. Required on plans.	<input checked="" type="checkbox"/> MECH-1C Certificate of Compliance. Required on plans.
<input checked="" type="checkbox"/> LTG-1C Certificate of Compliance. Required on plans.	<input checked="" type="checkbox"/> MECH-2C Air/Water Side/Service Hot Water & Pool Requirements.
<input checked="" type="checkbox"/> LTG-2C Lighting Controls Credit Worksheet.	<input checked="" type="checkbox"/> MECH-3C Mechanical Ventilation and Reheat.
<input checked="" type="checkbox"/> LTG-3C Indoor Lighting Power Allowance.	<input checked="" type="checkbox"/> MECH-5C Mechanical Equipment Details.

EnergyPro 5.1 by EnergySoft User Number: 3478 RunCode: 2013-02-27T15:27:36 ID: 11-076701 Page 3 of 28

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 2 of 3) PERF-1C

Project Name: **El Centro Maintenance Facility** Date: **2/22/2013**

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sqft-yr)

Energy Component	Standard Design	Proposed Design	Compliance Margin
Space Heating	0.14	0.33	-0.19
Space Cooling	133.86	99.68	34.18
Indoor Fans	55.10	67.92	-12.82
Heat Rejection	0.00	0.00	0.00
Pumps & Misc.	0.00	0.00	0.00
Domestic Hot Water	9.89	8.75	1.14
Lighting	59.47	36.38	23.09
Receptacle	85.90	85.90	0.00
Process	0.00	0.00	0.00
Process Lighting	0.00	0.00	0.00
TOTALS	344.35	298.95	45.40

Percent better than Standard: **13.2%** (13.2% excluding process)

BUILDING COMPLIES

GENERAL INFORMATION

Building Orientation	(N) 0 deg	Conditioned Floor Area	3,036 sqft.
Number of Stories	1	Unconditioned Floor Area	5,240 sqft.
Number of Systems	2	Conditioned Footprint Area	3,036 sqft.
Number of Zones	5	Natural Gas Available On Site	Yes

Orientation	Gross Area	Glazing Area	Glazing Ratio
Front Elevation	(N) 702 sqft.	116 sqft.	16.5%
Left Elevation	(E) 0 sqft.	0 sqft.	0.0%
Rear Elevation	(S) 702 sqft.	73 sqft.	10.4%
Right Elevation	(W) 180 sqft.	6 sqft.	3.3%
Roof	Total 3,036 sqft.	195 sqft.	12.3%
		0 sqft.	0.0%

	Standard	Proposed	Prescriptive Values for Comparison only. See LTG-1C for allowed LPD.
Prescriptive Lighting Power Density	0.850 W/sqft.	0.520 W/sqft.	
Prescriptive Envelope TDV Energy	79,344	124,439	

Remarks:

EnergyPro 5.1 by EnergySoft User Number: 3478 RunCode: 2013-02-27T15:27:36 ID: 11-076701 Page 4 of 28



THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		273	354

 12-03-13
 REGISTERED ENGINEER-MECHANICAL
 No. M21648
 Exp. 6-30-15
 MECH
 STATE OF CALIFORNIA

O1-06-14
 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.

CALIFORNIA STATE FIRE MARSHAL APPROVED
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.
 Reviewed by: 
 Approval date: 11-29-2013
 CSFM No. 01-13-11-0025

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 5) MECH-1C

Project Name <i>El Centro Maintenance Facility</i>		Date <i>2/22/2013</i>
Project Address <i>602 Ross Road El Centro</i>	Climate Zone <i>15</i>	Total Cond. Floor Area <i>3,036</i>
		Addition Floor Area <i>n/a</i>

GENERAL INFORMATION

Building Type: Nonresidential High-Rise Residential Hotel/Motel Guest Room
 Schools (Public School) Relocatable Public School Bldg. Conditioned Spaces Unconditioned Spaces (affidavit)

Phase of Construction: New Construction Addition Alteration

Approach of Compliance: Component Overall Envelope TDV Energy Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *0 deg*

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>DHW Heater</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Gas Fired DHW Boiler</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>40,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>0.65 EF</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>HVAC System</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Split DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>2</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>78,984 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>94% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>144,711 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.3 SEER / 12.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Attic, Ceiling Ins, vented / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>Yes</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
 2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
 3. Indicate Equipment Type: Gas (Pkg or Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

EnergyPro 5.1 by EnergySoft User Number: 3478 RunCode: 2013-02-27T15:28:18 ID: 11-076701 Page 15 of 24

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 3 of 5) MECH-1C

Project Name <i>El Centro Maintenance Facility</i>		Date <i>2/22/2013</i>
Required Acceptance Tests		

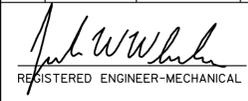
Designer:
 This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for mechanical systems. The designer is required to check the applicable boxes by all acceptance tests that apply and listed all equipment that requires an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems. The NA number designates the Section in the Appendix of the Nonresidential Reference Appendices Manual that describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Building Departments:
Systems Acceptance: Before occupancy permit is granted for a newly constructed building or space, or a new space-conditioning system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance.
Systems Acceptance: Before occupancy permit is granted. All newly installed HVAC equipment must be tested using the Acceptance Requirements.

The MECH-1C form is not considered a completed form and is not to be accepted by the building department unless the correct boxes are checked. The equipment requiring testing, person performing the test (Example: HVAC installer, TAB contractor, controls contractor, PE in charge of project) and what Acceptance test must be conducted. The following checked-off forms are required for ALL newly installed equipment. In addition a Certificate of Acceptance forms shall be submitted to the building department that certifies plans, specifications, installation, certificates, and operating and maintenance information meet the requirements of §10-103(b) and Title 24 Part 6. The building inspector must receive the properly filled out and signed forms before the building can receive final occupancy.

TEST DESCRIPTION	Qty	MECH-2A	MECH-3A	MECH-4A	MECH-5A	MECH-6A	MECH-7A	MECH-8A	MECH-9A	MECH-10A	MECH-11A
		Outdoor Ventilation For VAV & CAV	Constant Volume & Single-Zone Unitary	Air Distribution Ducts	Economizer Controls	Demand Control Ventilation DCV	Supply Fan VAV	Valve Leakage Test	Supply Water Temp. Reset	Hydronic System Variable Flow Control	Automatic Demand Shed Control
Equipment Requiring Testing or Verification											
York H1R0060S06	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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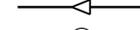
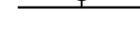
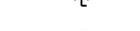
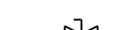
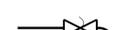
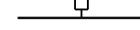
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01-06-14 PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

CALIFORNIA STATE FIRE MARSHAL APPROVED
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approvals subject to field inspection. One set of approved plans shall be available on the project site at all times.
 Reviewed by: 
 FRANCIS SOLICH
 Approval date: 11-29-2013
 CSFM No. 01-13-11-0025

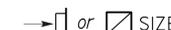
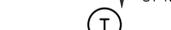
PLUMBING

- — — — Cold Water
- A — Compressed Air
- F — Fire Service Water Line
- G — Gas
- D — Equipment Drain
- RD — Roof Drain
- OD — Overflow Drain
- RHW — Recirculating Hot Water
- — — — Hot Water
- R — Relief Valve Discharge Pipe
- S — Sewer Line
- — — — Sanitary Sewer (above grade)
- — — — Sewer Line
- — — — Sanitary Sewer Vent

PIPE FITTINGS AND VALVES

-  Cap, Threaded
-  Elbow, Turned Down
-  Elbow, Turned Up
-  Reducer, Concentric
-  Pressure Gauge (with gage cock and Snubber)
-  Strainer
-  Union
-  Union, Insulating
-  Valve, Ball
-  Valve, Check
-  Valve, Gas
-  Valve, Gate
-  Valve, Safety Relief
-  Valve, Pressure Reducing
-  Valve, Pressure/Temperature Relief
-  Water Hammer Arrestor

HEATING, VENTILATING AND AIR CONDITIONING

-  Balance Damper
-  Flexible Duct
- EA — Exhaust Air
- RA — Return Air
- SA — Supply Air
-  SIZE Exhaust Register
-  or SIZE Return Register, See Note
-  or SIZE CFM Supply Diffuser, See Note
-  T Thermostat
-  TS Time Switch
-  EF Exhaust Fan
-  FE Fire Extinguisher
-  CHLF Combination Heat Lamp, Light and Fan Unit

MISCELLANEOUS

- L Angle
-  Centerline
- \emptyset Diameter
-  Section / Elevation Letter
-  Sheet Number
-  Detail Number
-  Sheet Number

MECHANICAL ABBREVIATIONS:

- | | | | | | |
|--------|---|------|---|------|------------------------------|
| A/C | Air Conditioning | GA | Gauge | R | Radius |
| ABS | Acrylonitrile Butadiene Styrene | GALV | Galvanized | RH | Radiant Heater |
| AC | Asphalt Concrete | GH | Ground Hydrant | RHW | Return hot water |
| AD | Air Drop | GLV | Globe Valve | REG | Register |
| AP | Alternative Pipe | GPM | Gallons Per Minute | RCP | Reinforced Concrete Pipe |
| ATF | Automatic Transmision Fluid | GSP | Galvanized Steel Pipe | RV | Relief Valve |
| BFP | Backflow Preventer | GV | Gate Valve | REQ | Requird |
| B.H. | Box Hydrant | GWH | Gas Water Heater | RA | Return Air |
| BLDG | Building | GYP | Gypsum | RD | Roof Drain |
| BTU | British Thermal Unit | H | Height | SDS | Sanitary Dump Station |
| BTUH | British Thermal Unit Per Hour | HB | Hydrant Box | SS | Sanitary Sewer |
| BV | Balancing Valve | H/C | Hot Water, High Pressure Cleaner | SCH | Schedule |
| C | Conduit | HF | Hose Faucet | S/S | Service Sink |
| Cap. | Capacity | H.P. | Horse Power | SHR | Shower |
| CHLF | Combination Heat Lamp, Light and Fan Unit | HVAC | Heating, Ventilating And Air Conditioning | SS | Stainless Steel |
| CI | Cast-Iron | HW | Hot Water | STD | Standard |
| CO | Cleanout | HZ | Hertz | S.P. | Static Pressure |
| COTF | Cleanout Through Floor | ID | Inside Diameter | STA | Station |
| COTG | Cleanout Through Grade | IE | Invert Elevation | SA | Supply Air |
| COTW | Cleanout To Wall | IM | Ice Machine | SF | Supply Fan |
| CV | Check Valve | IN | Inch | TCV | Temperature Control Valve |
| CW | Cold Water | IPS | International Pipe Standard | TP | Trap Primer |
| CFM | Cubic Feet Per Minute | KS | Kitchen Sink | TOT | Total |
| DHP | Ductless Heat Pump | KW | Kilowatt | TS | Time Switch |
| Dia | Diameter | LAV | Lavatory | Typ | Typical |
| DWV | Drain / Waste / Vent | LPG | Liquified Petroleum Gas | UH | Unit Heater |
| DB | Dry Bulb | MAX | Maximum | UR | Urinal |
| DF | Declassification Fan | Mfr | Manufacturer | V | Vent |
| DH | Duct Heater | MH | Manhole | VAC | Voltage, Alternating Current |
| (E) | Existing | MHR | Motorized Hose Reel | VF | Vestibule Fan |
| EA | Exhaust Air | MIN | Minimum | VR | Vent Riser |
| EC | Evaporative Cooler | MS | Mop Sink | VTR | Vent Thru Roof |
| EEW | Emergency Eyewash and Shower | (N) | New | W | Width |
| EF | Exhaust Fan | NIC | Not In Contract | W/ | With |
| EL | Elevation | NO | Number | W/O | Without |
| Elect. | Electrical | NPT | National Pipe Thread | WB | Wet Bulb |
| Ent. | Entering | NST | National Standard Thread | WC | Water Closet |
| ESP | External Static Pressure | NPS | Nominal Pipe Size | W.C. | Water Column |
| EWC | Electric Water Cooler | OA | Outside Air | WHA | Water Hammer Arrestor |
| EWH | Electric Water Heater | OC | On Center | WH | Water Heater |
| EEWS | Emergency eye wash and shower | OD | Outside Diameter | WLS | Water Level Switch |
| °F | Fahrenheit | OG | Original Ground | WP | Weatherproof |
| F | Fan | OSA | Outside Air | WO | Waste Oil |
| FC | Flexible Connection | PH | Phase | WS | Wash Sink |
| FD | Floor Drain | POC | Point of Connection | WSP | Welded Steel Pipe |
| FDC | Fire Department Connection | PVC | Polyvinyl Chloride | | |
| FE | Fire Extinguisher | PCC | Portland Cement Concrete | | |
| FG | Finish Grade | PSI | Pounds Per Square Inch | | |
| FL | Flow Line | PRV | Pressure Reducing Valve | | |
| FH | Fire Hydrant | P&T | Pressure and Temperature Relief Valve | | |
| FS | Floor Sink | | | | |
| FTR | Flue Through Roof | | | | |

NOTE Ceiling Registers and Diffusers are Identified by Duct Connection Neck Size

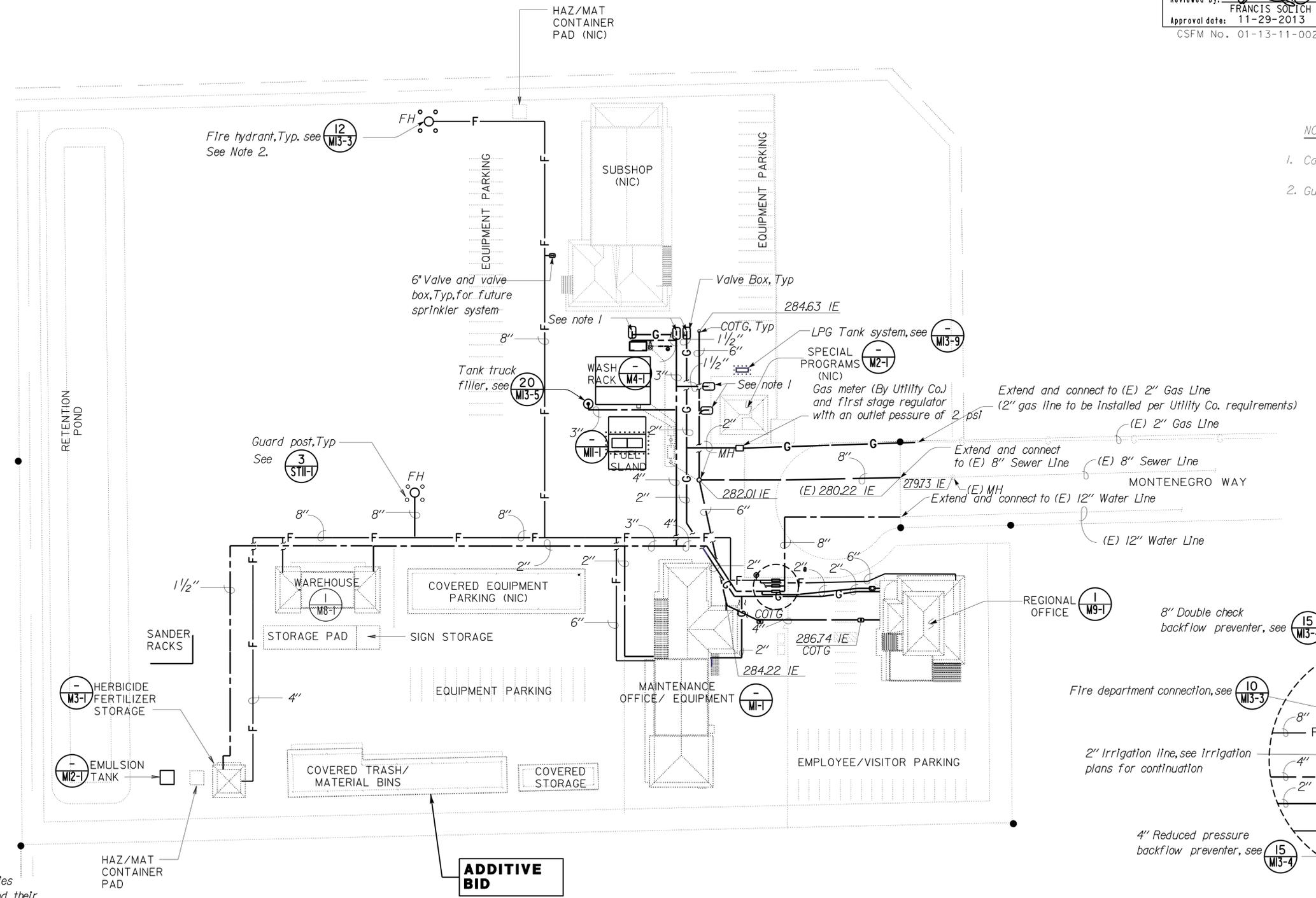
THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

DESIGN BY Severiano Gutierrez CHECKED Mark Hedglin DETAILS BY Severiano Gutierrez CHECKED Mark Hedglin QUANTITIES BY Severiano Gutierrez CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY MECHANICAL LEGEND	SHEET NO. MO-0
			POST MILE		REVISION DATES (PRELIMINARY STAGE ONLY) 06-02-10 02-07-10 02-27-10 08-13-10 12-03-13
TAEWW Imperial Rev. 7/10 FILE => m0_0.dgn DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:12	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT 3580 PROJECT NUMBER & PHASE 11000000351 EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 06-02-10 02-07-10 02-27-10 08-13-10 12-03-13	SHEET OF

USERNAME => s127284 DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:12

DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		275	354
 REGISTERED ENGINEER-MECHANICAL No. M21648 Exp. 6-30-15 MECH STATE OF CALIFORNIA			12-03-13		
O1-06-14 PLANS APPROVAL DATE					
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CALIFORNIA STATE FIRE MARSHAL APPROVED
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 Reviewed by: 
 FRANCIS SOLICH
 Approval date: 11-29-2013
 CSFM No. 01-13-11-0025



- NOTES:**
1. Cap below grade, for future connection.
 2. Guard post for fire hydrants shall be 4' apart, on center

- NOTES:**
1. Contractor shall contact local utilities for exact location of services and their requirements.
 2. The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

SITE PLAN
 SCALE: 1" = 50'-0"

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DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin
DETAILS	BY Severiano Gutierrez	CHECKED Mark Hedglin
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE NO.	58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET MO-1
POST MILE			
SITE PLAN			

**MAINTENANCE OFFICE / EQUIPMENT BUILDING
EQUIPMENT SCHEDULE**

Equipment	COOLING CAPACITY			Fan Capacity (CFM)	Outside Air Min Damper setting (CFM)	Heating Capacity (BTUH)	S.P. (In.)	H.P.	Electrical Data		Nominal Sound Rating Sones
	Nominal Cooling Load (BTUH)	Air Temperature Ent. Outdoor Unit (°F)	Air Temperature Ent. Indoor Unit (°F)						Volt	Phase	
AC-1	60,000	115	-	-	-	-	-	-	208	3	-
AC-2	60,000	115	-	-	-	-	-	-	208	3	-
Furnace-1	-	-	80	2,000	460	80,000	-	1/2	120	1	-
Furnace-2	-	-	80	2,000	460	80,000	-	1/2	120	1	-
F1	-	-	-	600	-	-	1/2	-	120	1	5.2
F2	-	-	-	600	-	-	1/2	-	120	1	5.2
F3	-	-	-	115	-	-	1/8	-	120	1	0.9
F4	-	-	-	200	-	-	1/4	-	120	1	2.4
F5	-	-	-	115	-	-	1/4	-	120	1	0.9
F6	-	-	-	115	-	-	1/4	-	120	1	0.9
F7	-	-	-	1040	-	-	1/4	-	120	1	6.2
VF	-	-	-	50	-	-	0J	-	120	1	0.4
CHLF	-	-	-	70	-	-	1/4	-	120	1	3.5
EC-1 Thru EC-4	-	-	-	6500	-	-	1/2	1.0	208	1	-
RH-1 Thru RH-6	-	-	-	-	-	60,000	-	-	120	1	-
DF-1 Thru DF-3	-	-	-	1300	-	-	1/4	1/4	120	1	7.1

**HERBICIDE / FERTILIZER STORAGE
EQUIPMENT SCHEDULE**

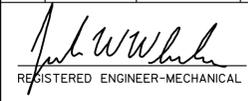
Equipment	COOLING CAPACITY			Nominal Fan Capacity (CFM)	Outside Air Min Damper setting (CFM)	Heating Capacity (BTUH)	S.P. (In.)	Watts	Electrical Data		Nominal Sound Rating Sones
	Nominal Cooling Load (BTUH)	Air Temperature Ent. Outdoor Unit (°F)	Air Temperature Ent. Indoor Unit (°F)						Volt	Phase	
EF-1	-	-	-	220	-	-	1/4	166	120	1	2.9

**WASHER / SWEEPER ROOM
EQUIPMENT SCHEDULE**

Equipment	COOLING CAPACITY			Nominal Fan Capacity (CFM)	Outside Air Min Damper setting (CFM)	Heating Capacity (BTUH)	S.P. (In.)	Watts	Electrical Data		Nominal Sound Rating Sones
	Nominal Cooling Load (BTUH)	Air Temperature Ent. Outdoor Unit (°F)	Air Temperature Ent. Indoor Unit (°F)						Volt	Phase	
EF-1	-	-	-	200	-	-	1/4	166	120	1	2.4

CALIFORNIA STATE FIRE MARSHAL APPROVED
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Reviewed by: 
FRANCIS SOLICH
Approval date: 11-29-2013
CSFM No. 01-13-11-0025

DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		276	354

12-03-13
REGISTERED ENGINEER-MECHANICAL

No. M21648
Exp. 6-30-15
MECH
STATE OF CALIFORNIA

01-06-14
PLANS APPROVAL DATE

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**WAREHOUSE BUILDING
EQUIPMENT SCHEDULE**

Equipment	COOLING CAPACITY			Nominal Fan Capacity (CFM)	Outside Air Min Damper setting (CFM)	Heating Capacity (BTUH)	S.P. (In.)	H.P.	Electrical Data		Nominal Sound Rating Sones
	Nominal Cooling Load (BTUH)	Air Temperature Ent. Outdoor Unit (°F)	Air Temperature Ent. Indoor Unit (°F)						Volt	Phase	
EF-1	-	-	-	1300	-	-	1/4	1/4	120	1	7.1
EF-2	-	-	-	1300	-	-	1/4	1/4	120	1	7.1

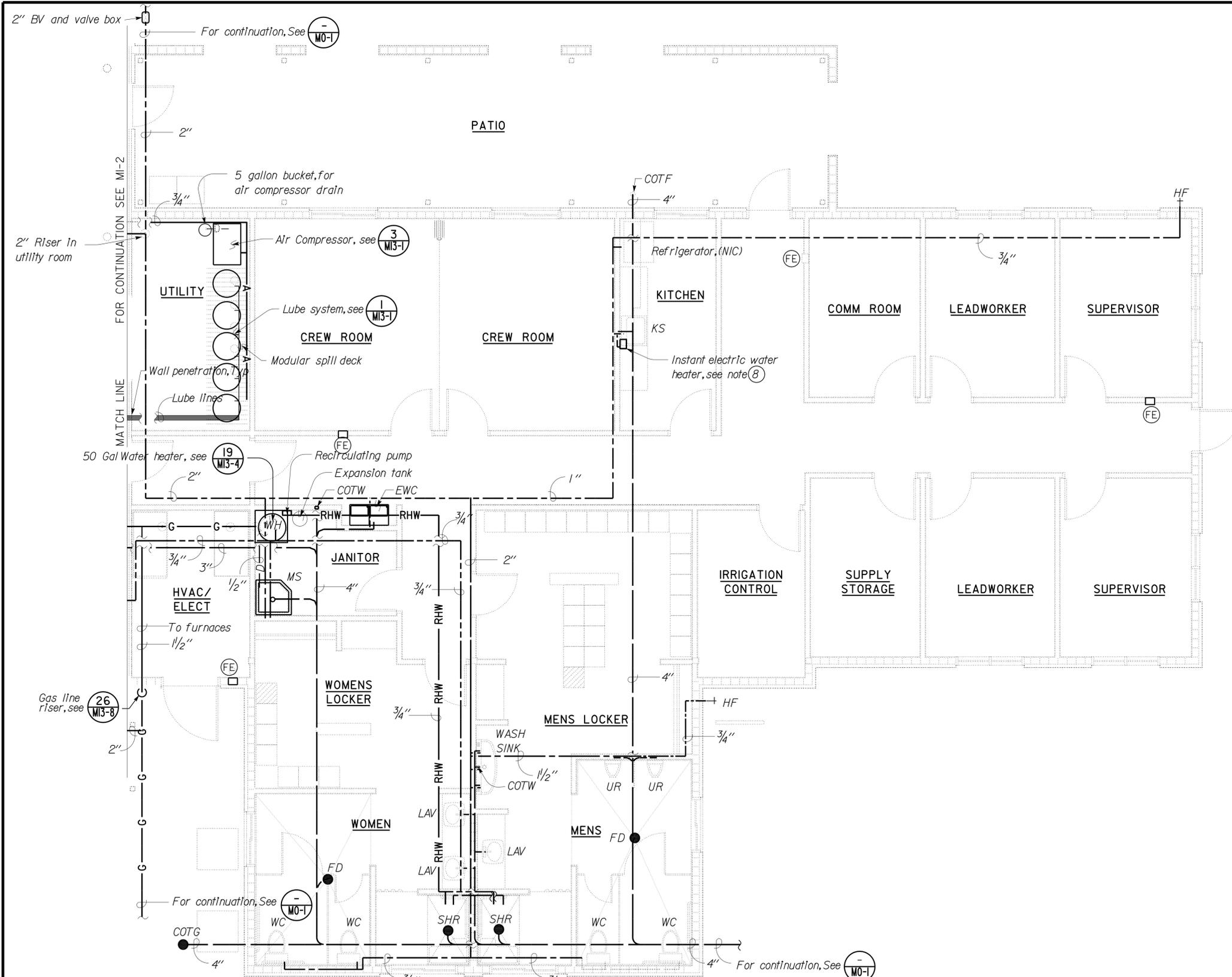
**REGIONAL OFFICE BUILDING
EQUIPMENT SCHEDULE**

Equipment	COOLING CAPACITY			Nominal Fan Capacity (CFM)	Outside Air Min Damper setting (CFM)	Nominal Heating Capacity (BTUH)	S.P. (In.)	H.P.	Electrical Data		Nominal Sound Rating Sones
	Nominal Cooling Load (BTUH)	Air Temperature Ent. Outdoor Unit (°F)	Air Temperature Ent. Indoor Unit (°F)						Volt	Phase	
AC-1	60,000	115	-	-	-	-	-	-	208	1	-
AC-2	90,000	115	-	-	-	-	-	-	208	1	-
AC-3	48,000	115	80	1,600	450	75,000	-	-	208	1	-
Furnace-1	-	-	80	2,000	450	100,000	-	3/4	120	1	-
Furnace-2A & 2B	-	-	80	1,500 each	450	80,000	-	1/2	120	1	-
F-1	-	-	-	200	-	-	1/4	-	120	1	2.4
F-2	-	-	-	200	-	-	1/4	-	120	1	2.4
F-3	-	-	-	95	-	-	1/4	-	120	1	1.2

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DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY EQUIPMENT SCHEDULE	SHEET				
DETAILS	BY Severiano Gutierrez	CHECKED Mark Hedglin		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	58M5708		MO-2				
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin		PROJECT NUMBER & PHASE	11000000351						
TAEMWW Imperial Rev. 7/10	FILE => m0_2.dgn DATE PLOTTED => 21-JAN-2014	TIME PLOTTED => 09:12	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE	3580 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	06-02-10 02-07-11 02-27-13 08-13-13 12-03-13	SHEET	OF

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Approval date: 11-29-2013

CSFM No. 01-13-11-0025

DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		277	354

12-03-13

REGISTERED ENGINEER-MECHANICAL

Jack Wheeler

No. M21648

Exp. 6-30-15

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01-06-14

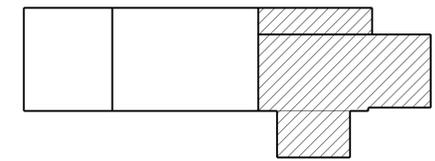
PLANS APPROVAL DATE

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- NOTES:**
- For pipe sizes, see MI-3
 - For piping schematic, see MI-3, MI-4
 - Fire extinguishers shall be 2A-40BC.
 - Provide automatic trap primers for floor drains. Trap primers shall be in the wall and shall be accessible through stainless steel access door.
 - Air compressor shall be tank mounted, vertical type, 147 CFM, @ 175 psi, 5 HP, 208 V, 3 Ø, 60 gallon tank.
 - Recirculation pump system, shall have a capacity of 6 GPM @ 5', 1/25 HP, 120V, 1 Ø, shall include pump, thermostat, and programmable timer.
 - Maintenance office and equipment building is to be sprinklered as ordinary hazard, system shall be designed and installed in accordance with NFPA-13, UBC-38 standards and the requirements of the State and local Fire Marshal.
 - Instant electric water heater shall be tankless type, 1 GPM, @ 30°F temperature rise, 24.7 amp nominal, 208V, 1 Ø.

General Note:

Penetrations of walls and wall membranes required to have fire-resistance rating shall be protected with through-penetration fire stops suitable for the method of penetration. Through-penetrations fire stops shall be tested using U.B.C. Standard 7-5 (C.B.C. Section 709.6 709.7 & 714)



KEY PLAN

PARTIAL PLUMBING PLAN

SCALE: 1/4" = 1'-0"

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

THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY PLUMBING PLAN - I	SHEET M1-1	
DETAILS	BY Severiano Gutierrez	CHECKED Mark Hedglin		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE		MAINTENANCE OFFICE/EQUIPMENT	OF
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin		PROJECT NUMBER & PHASE 11000000351	UNIT EA 076701		REVISION DATES (PRELIMINARY STAGE ONLY)	

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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

06-02-10 02-07-10 02-27-10 08-18-13 12-03-13

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET OF

DATE PLOTTED => 21-JAN-2014

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DATE PLOTTED => 21-JAN-2014

TIME PLOTTED => 09:12

Notes:

- For pipe sizes, see **M1-3**
- For piping schematic, see **M1-3** and **M1-4**
- Fire extinguisher shall be bracket mounted and shall be 2A-40BC
- Water and gas lines shall be installed 12'-0" minimum from finished floor.
- Mount radiant heaters temperature controls 4'-0" from finished floor.
- Ice machine shall have a nominal capacity of 270 lbs. at 90 degree air and 70 degree water, 30" wide, 1 phase, 115 V, 60 Hz.
- Ice machine drain shall be drained indirectly per UPC, chapter 6.

- Maintenance office and equipment building is to be sprinkled as ordinary hazard, system shall be designed and installed in accordance with NFPA-13, UBC-38 standards and the requirements of the Fire Marshal.
- Fire water line size to building riser subject to change per fire sprinkler design requirements.

General Note:

Penetrations of walls and wall membranes required to have fire-resistance rating shall be protected with through-penetration fire stops suitable for the method of penetration. Through-penetrations fire stops shall be tested using U.B.C. Standard 7-5 (C.B.C. Section 709.6 709.7 & 714)

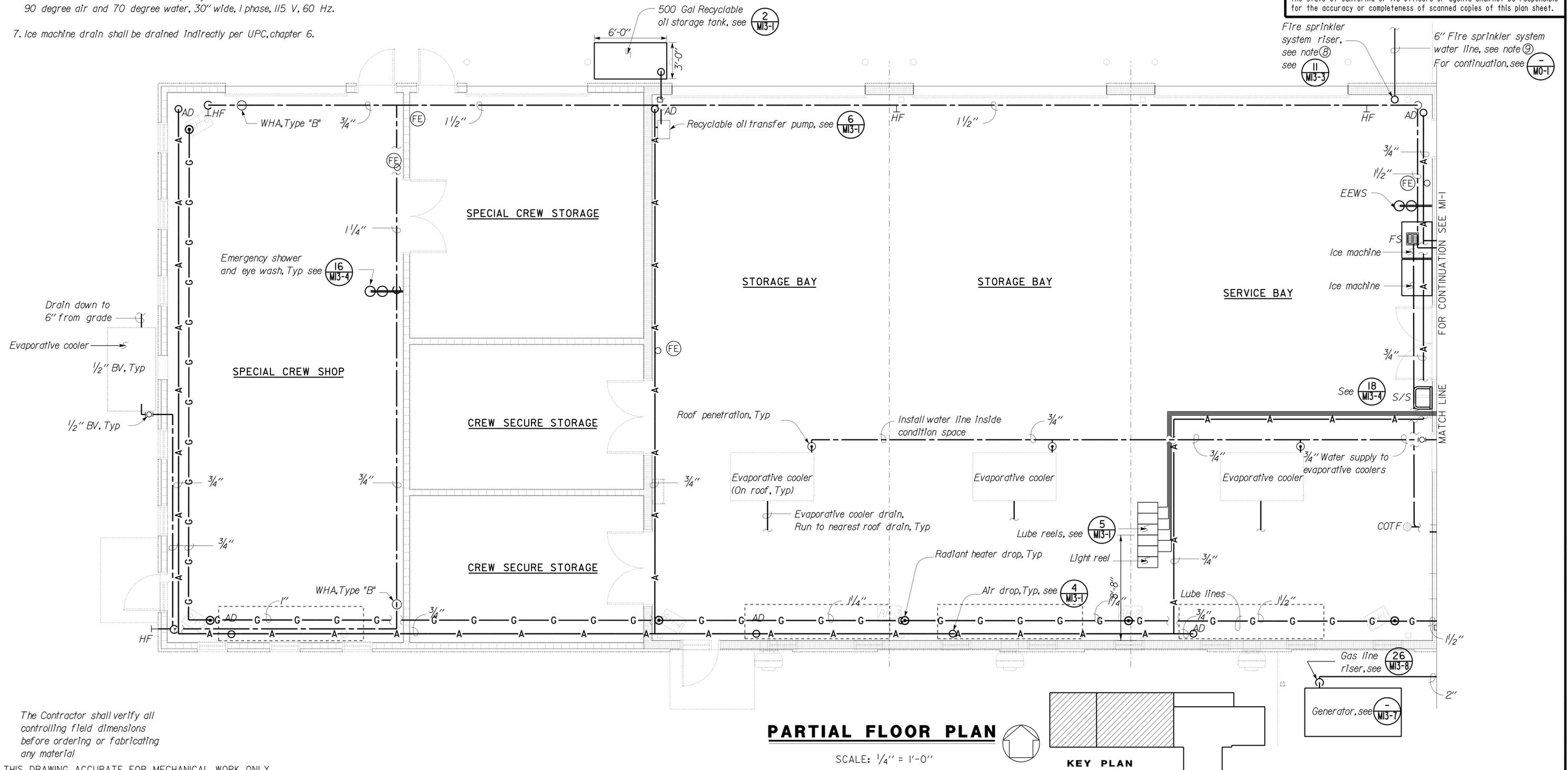
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 CSFM No. 01-13-11-0025

DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		278	354

12-03-13
 REGISTERED ENGINEER-MECHANICAL
 Jack Wheeler
 No. M21648
 Exp. 6-30-15
 MECH
 STATE OF CALIFORNIA

01-06-14
 PLANS APPROVAL DATE

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PARTIAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

KEY PLAN

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

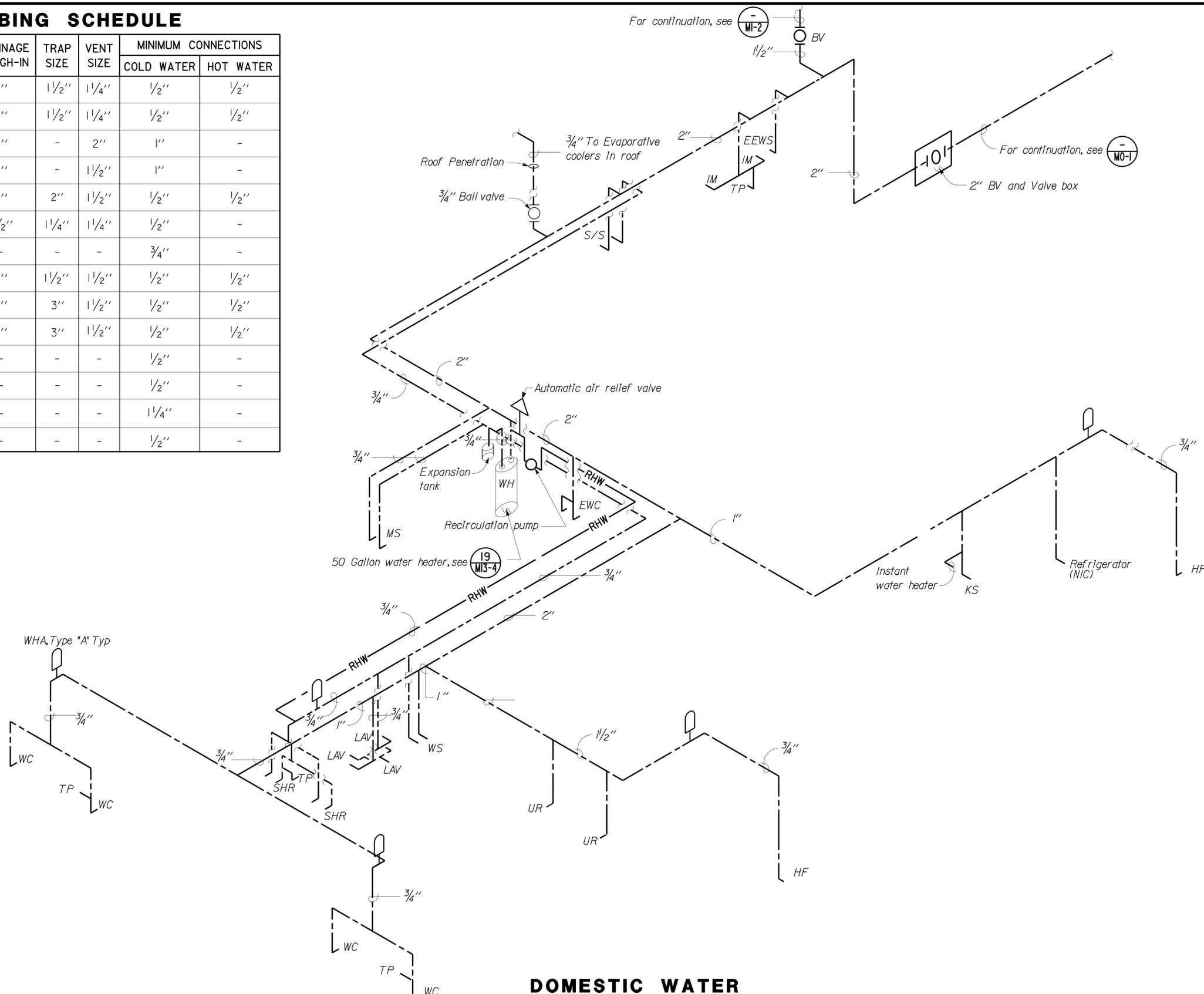
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DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY MAINTENANCE OFFICE/EQUIPMENT PLUMBING PLAN - 2	SHEET M1-2
	DETAILS BY Severiano Gutierrez	CHECKED Mark Hedglin			POST MILE		
	QUANTITIES BY Severiano Gutierrez	CHECKED Mark Hedglin					
UNIT PROJECT NUMBER & PHASE 3580 11000000351				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	
FILE => m1_2.dgn DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:12				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		06-02-10 07-10-10 07-03-11 02-22-13 08-08-13 12-03-13	

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PLUMBING SCHEDULE

FIXTURE	DRAINAGE ROUGH-IN	TRAP SIZE	VENT SIZE	MINIMUM CONNECTIONS	
				COLD WATER	HOT WATER
LAVATORY	2"	1 1/2"	1 1/4"	1/2"	1/2"
WASH SINK	2"	1 1/2"	1 1/4"	1/2"	1/2"
WATER CLOSET	3"	-	2"	1"	-
URINAL	2"	-	1 1/2"	1"	-
SHOWER	2"	2"	1 1/2"	1/2"	1/2"
ELECTRIC WATER COOLER	1 1/2"	1 1/4"	1 1/4"	1/2"	-
HOSE FAUCET	-	-	-	3/4"	-
KITCHEN SINK	2"	1 1/2"	1 1/2"	1/2"	1/2"
MOP SINK	3"	3"	1 1/2"	1/2"	1/2"
SERVICE SINK	3"	3"	1 1/2"	1/2"	1/2"
ICE MACHINE	-	-	-	1/2"	-
EVAPORATIVE COOLER	-	-	-	1/2"	-
EMERGENCY SHOWER AND EYEWASH	-	-	-	1 1/4"	-
REFRIGERATOR	-	-	-	1/2"	-



DOMESTIC WATER

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NO SCALE

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DETAILS	BY Severiano Gutierrez	CHECKED Mark Hedglin
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE NO. 58M5708
POST MILE

EL CENTRO MAINTENANCE FACILITY
MAINTENANCE OFFICE/EQUIPMENT
DOMESTIC WATER

SHEET **M1-3**

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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT PROJECT NUMBER & PHASE 3580 11000000351

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)	
06-02-10	12-07-10
02-03-11	02-22-13
08-13-13	12-03-13

SHEET OF

DIST. 11	COUNTY Imp	LOCATION CODE 5708	POST MILES TOTAL PROJECT	SHEET NO. 279	TOTAL SHEETS 354
			12-03-13		
REGISTERED ENGINEER-MECHANICAL			PLANS APPROVAL DATE		
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CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: FRANCIS SOLICH
Approval date: 11-29-2013
CSFM No. 01-13-11-0025

USERNAME => s127284 DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:13

Notes:

1. Mount radiant heaters temperature controls 4'-0" from finished floor.
2. All exhaust ducts shall terminate above the roof and shall be equipped with back-draft dampers and weather cap. Size of rigid steel duct to be determined by exhaust fan manufacturer.

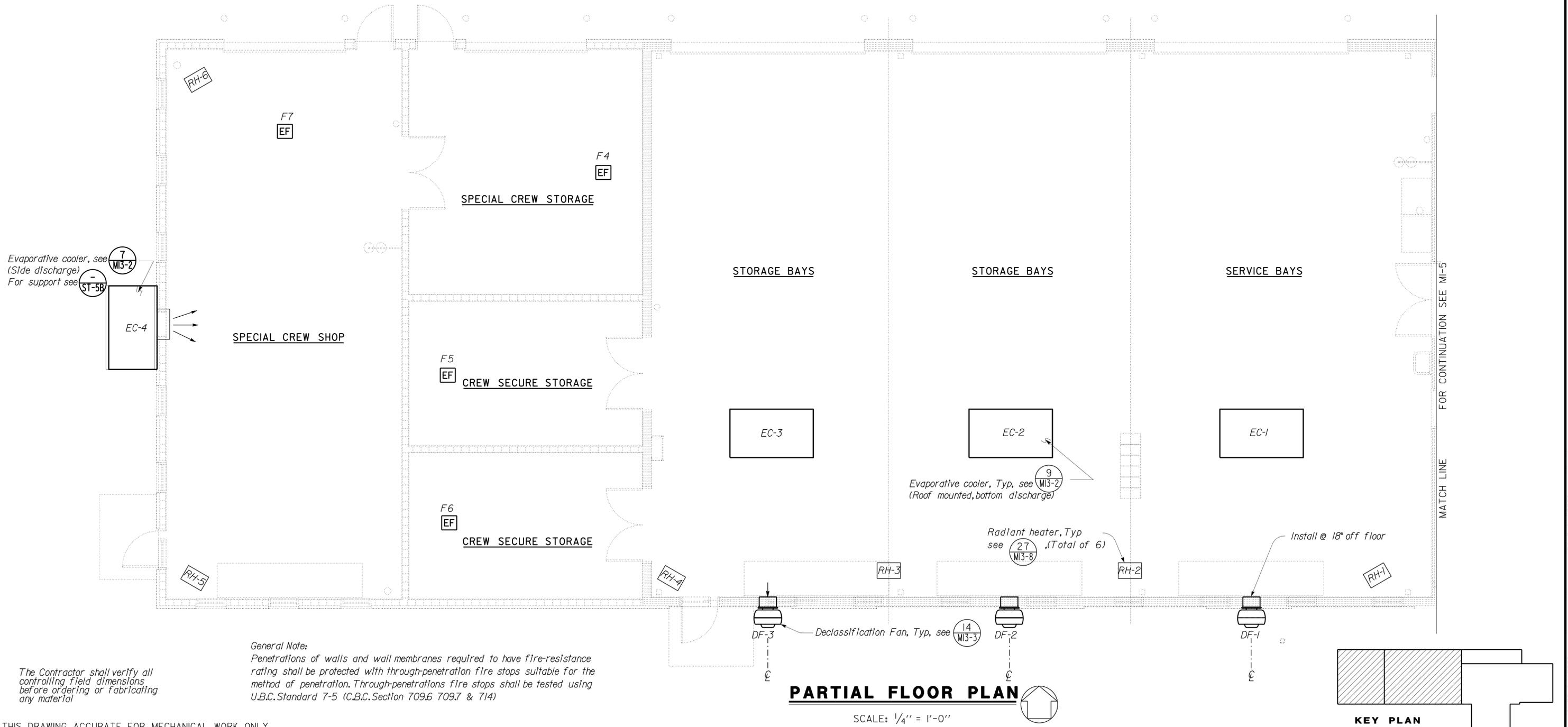
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DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		282	354

12-03-13
 REGISTERED ENGINEER-MECHANICAL
[Signature]
 Jack Wheeler
 No. M21648
 Exp. 6-30-15
 MECH
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	DETAILS	BY Severiano Gutierrez			CHECKED Mark Hedglin	POST MILE	MAINTENANCE OFFICE/EQUIPMENT	
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin	UNIT PROJECT NUMBER & PHASE 3580 11000000351	EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

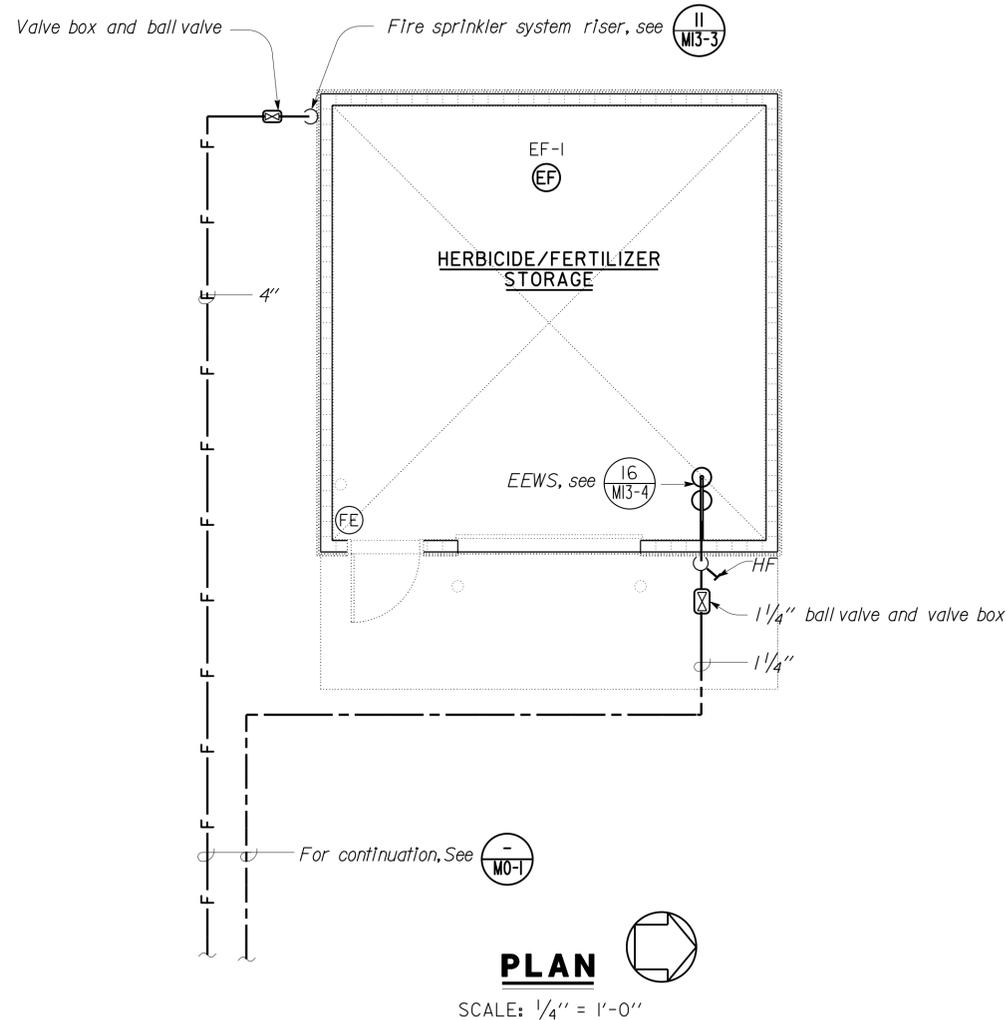
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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 0 1 2 3

REVISION DATES (PRELIMINARY STAGE ONLY)
 06-02-10 02-04-10 02-07-11 02-22-13 08-03-13 12-03-13

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- Notes:
1. Fire extinguisher shall be 2A-40BC.
 2. Building shall have fire sprinkler system installed in accordance with NFPA-13, UBC-38 standards and the requirements of the State and local Fire Marshal.
 3. Exhaust duct shall terminate above the roof and shall be equipped with back-draft dampers and weather cap. Size of rigid steel duct to be determined by exhaust fan manufacturer.



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11	Imp	5708		283	354

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	DETAILS	BY Severiano Gutierrez			CHECKED Mark Hedglin			
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin	UNIT PROJECT NUMBER & PHASE 3580 11000000351	EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF

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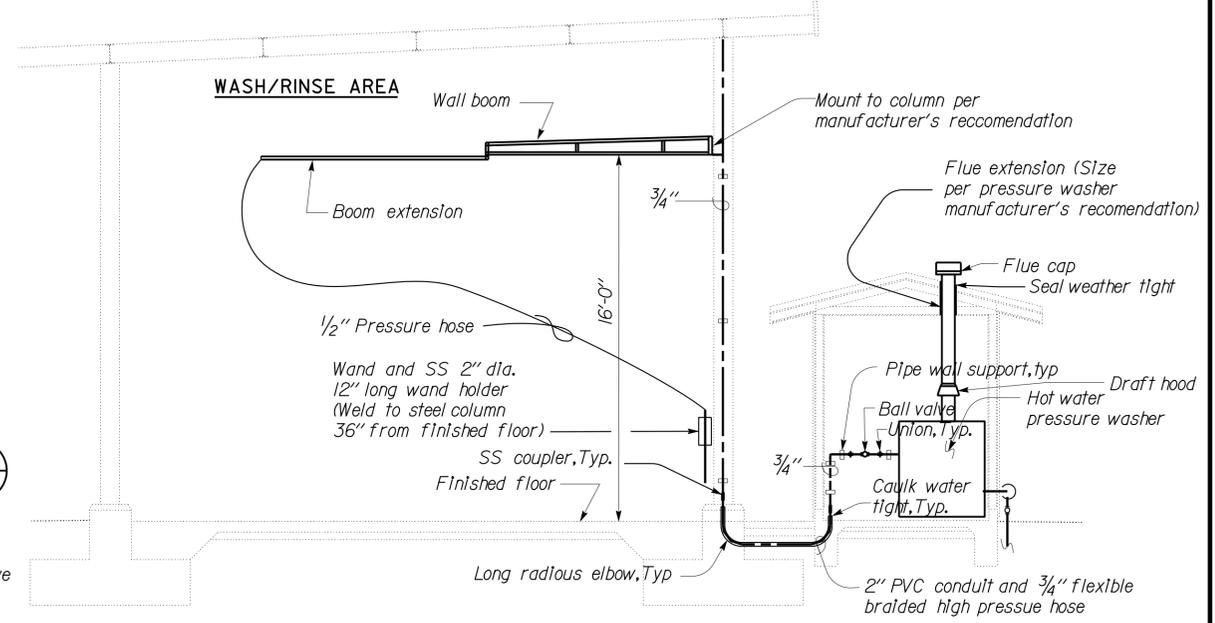
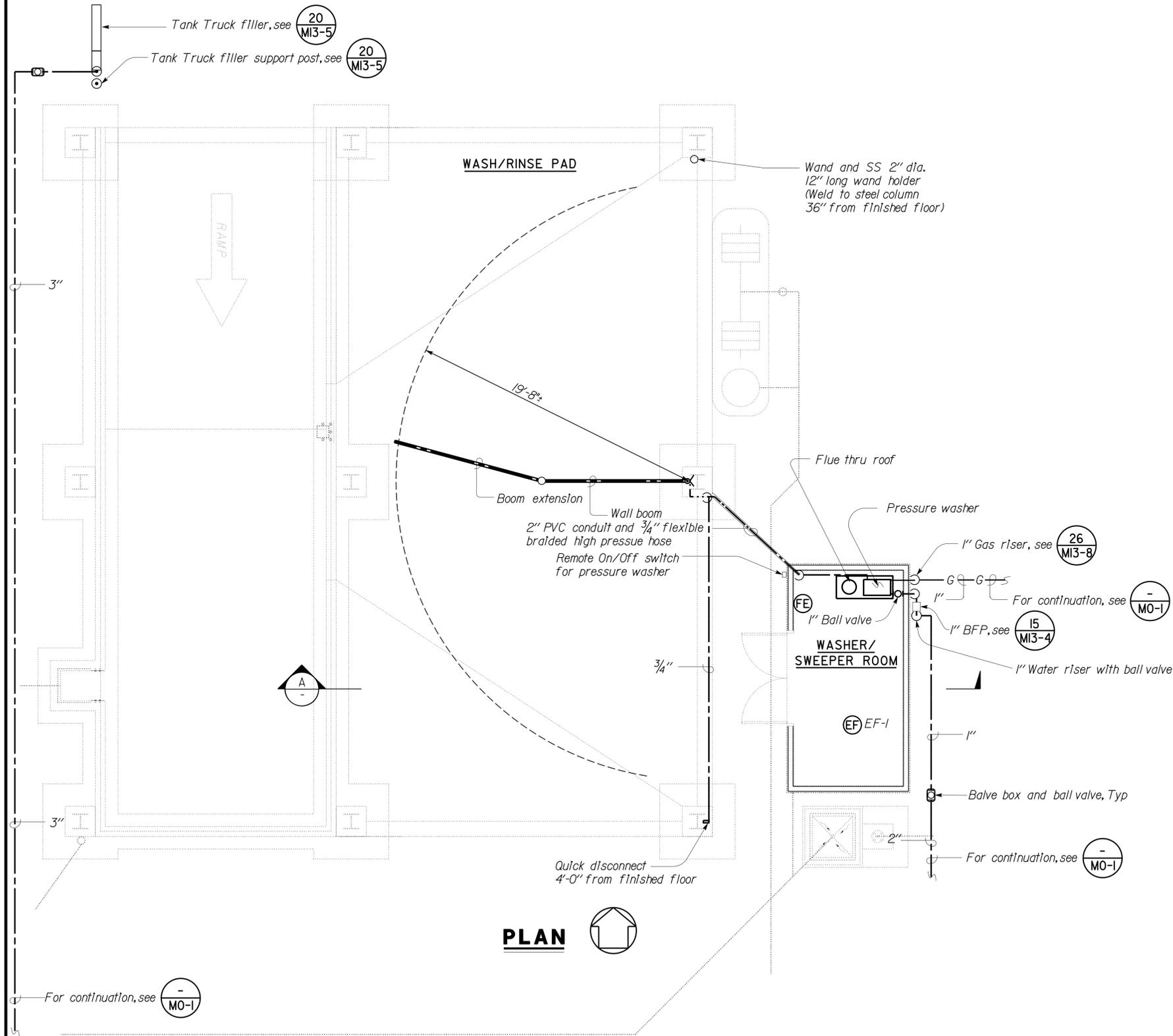
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 Jack Wheeler
 No. M21648
 Exp. 6-30-15
 MECH
 STATE OF CALIFORNIA

01-06-14
 PLANS APPROVAL DATE

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A ELEVATION

- Note:
1. Fire extinguisher shall be bracket mounted and shall be 2A-40BC.
 2. Pressure washer flue shall be sized per equipment manufacturer recommendation.

THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

SCALE: 1/4" = 1'-0"

DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET
DETAILS	BY Severiano Gutierrez	CHECKED Mark Hedglin		PROJECT NUMBER & PHASE 11000000351	POST MILE	WASH RACK MECHANICAL PLAN		M4-1
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin		UNIT 3580	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		OF
FILE => m4_1.dgn DATE PLOTTED => 21-JAN-2014			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	06-02-10 07-07-10 07-07-11 02-22-13 08-03-13 12-03-13		SHEET OF	

USERNAME => s127284 DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:13

Notes:

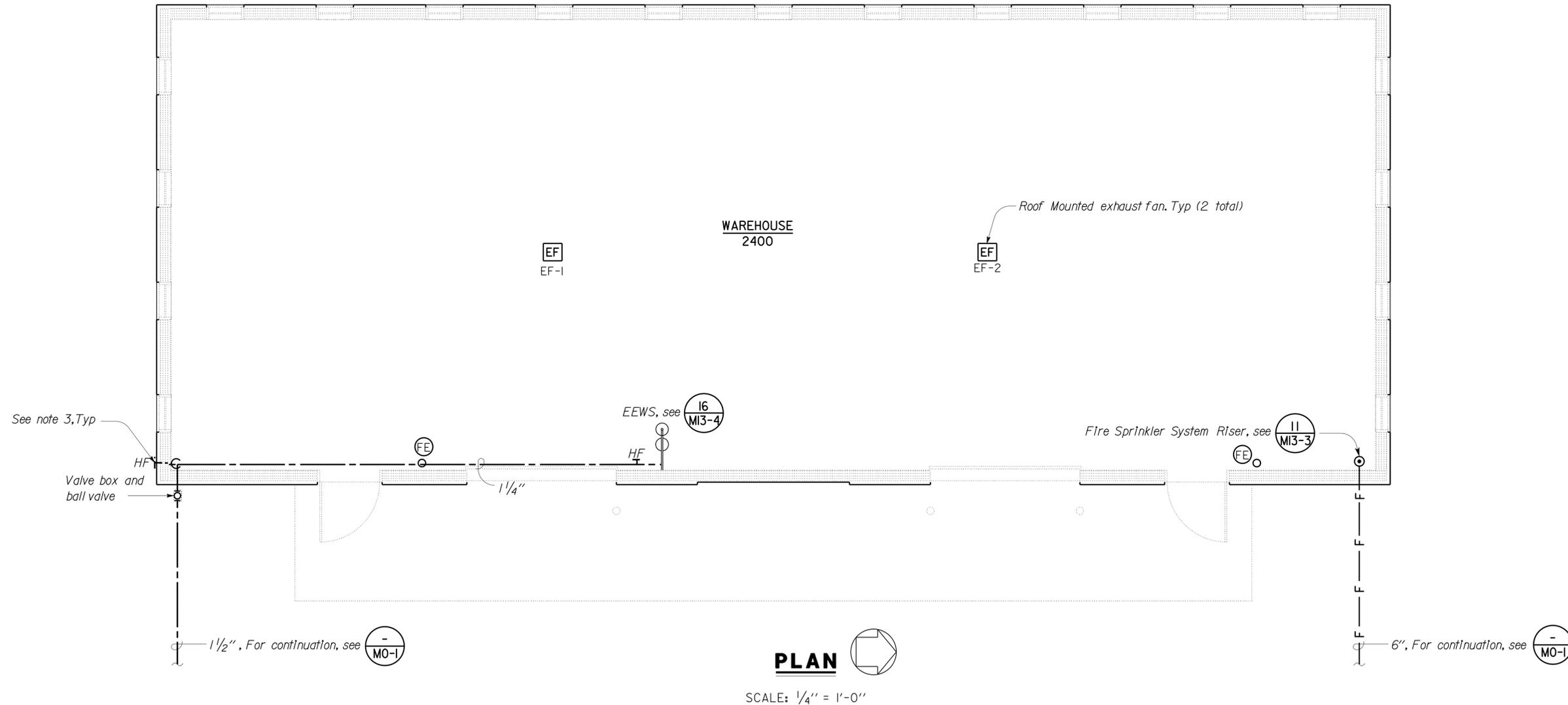
1. Fire extinguisher shall be bracket mounted and shall be 3A-40BC.
2. Warehouse building is to be sprinklered as ordinary hazard, system shall be designed and installed in accordance with NFPA-13, UBC-38 standards and the requirements of the Fire Marshal.
3. 3/4" Connection to each hose faucet

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 Reviewed by: 
 FRANCIS SOLICH
 Approval date: 11-29-2013
 CSFM No. 01-13-11-0025

DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		285	354

01-06-14
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PLAN

SCALE: 1/4" = 1'-0"

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DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET M8-1	
	DETAILS	BY Severiano Gutierrez			CHECKED Mark Hedglin			POST MILE
	QUANTITIES	BY Severiano Gutierrez			CHECKED Mark Hedglin			WAREHOUSE
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT PROJECT NUMBER & PHASE	3580 11000000351	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
0 1 2 3				DISREGARD PRINTS BEARING EARLIER REVISION DATES		06-02-10 12-07-10 02-03-11 02-22-13 08-13-13 12-03-13	11 OF 11	

USERNAME => s127284 DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:13

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

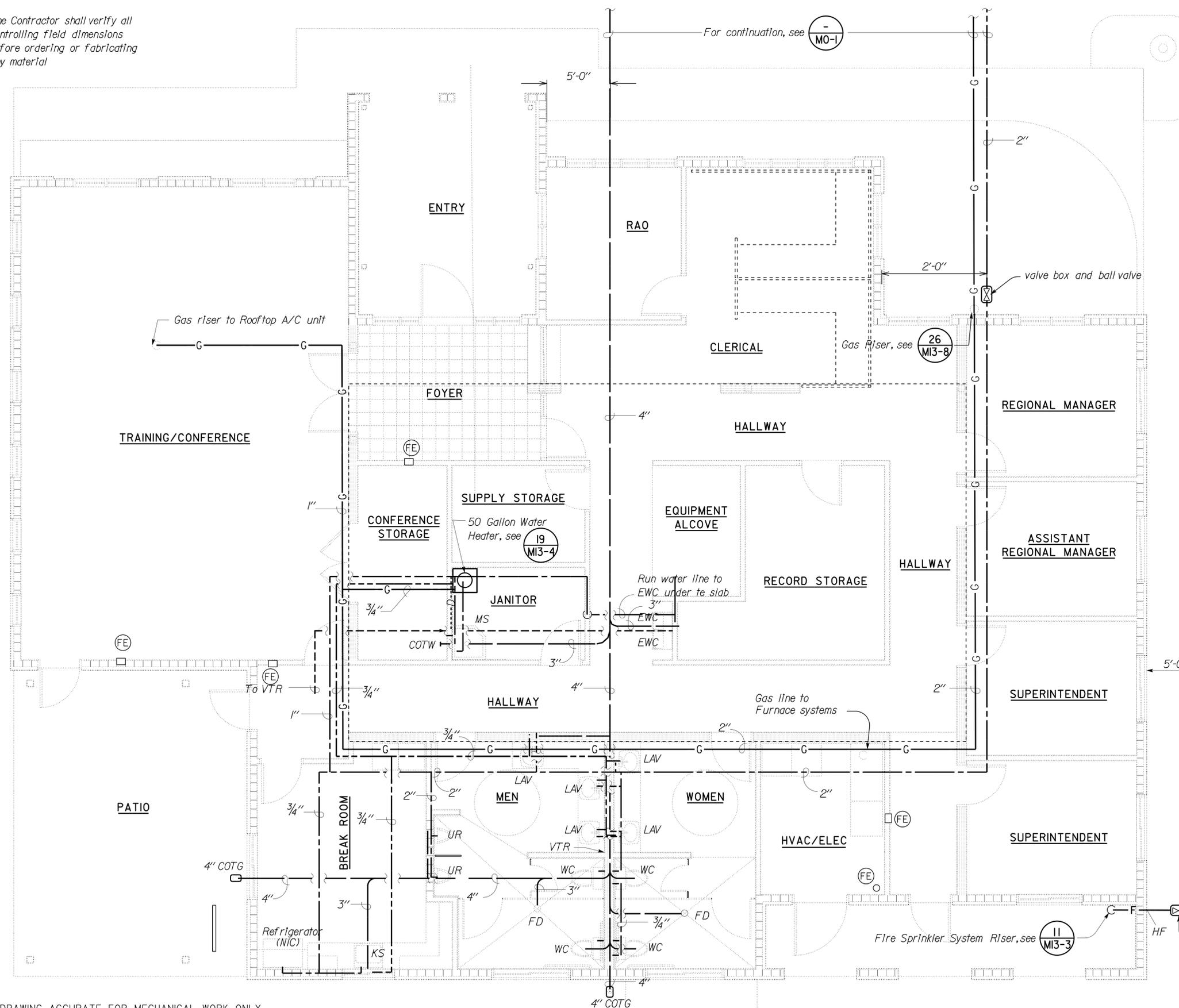
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12-03-13
 REGISTERED ENGINEER-MECHANICAL
 Jack Wheeler
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For continuation, see MO-1

- Notes:
1. For Piping Schematic, see M9-2 M9-3
 2. Fire Extinguisher shall be 2A-40BC.
 3. Building shall have fire sprinkler system installed in accordance with NFPA-13, UBC-38 standards and the requirements of the State and local Fire Marshal.
 4. Fire water line to building riser subject to change per fire sprinkler design requirements.

General Note:
 Penetrations of walls and wall membranes required to have fire-resistance rating shall be protected with through-penetration fire stops suitable for the method of penetration. Through-penetrations fire stops shall be tested using U.B.C. Standard 7-5 (C.B.C. Section 709.6 709.7 & 714)

PLAN
 SCALE: 1/4" = 1'-0"

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DESIGN	By Severiano Gutierrez	CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY REGIONAL OFFICE PLUMBING PLAN	SHEET	
DETAILS	By Severiano Gutierrez	CHECKED		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	58M5708		PROJECT NUMBER & PHASE 3580 11000000351	OF
QUANTITIES	By Severiano Gutierrez	CHECKED			POST MILE			REVISION DATES (PRELIMINARY STAGE ONLY)
TAEMWW Imperial Rev. 7/10 FILE => m9_1.dgn DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:13			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES 06/22/10 12/07/10 12/22/10 08-13-13 12-03-13	EA 076701		SHEET M9-1	

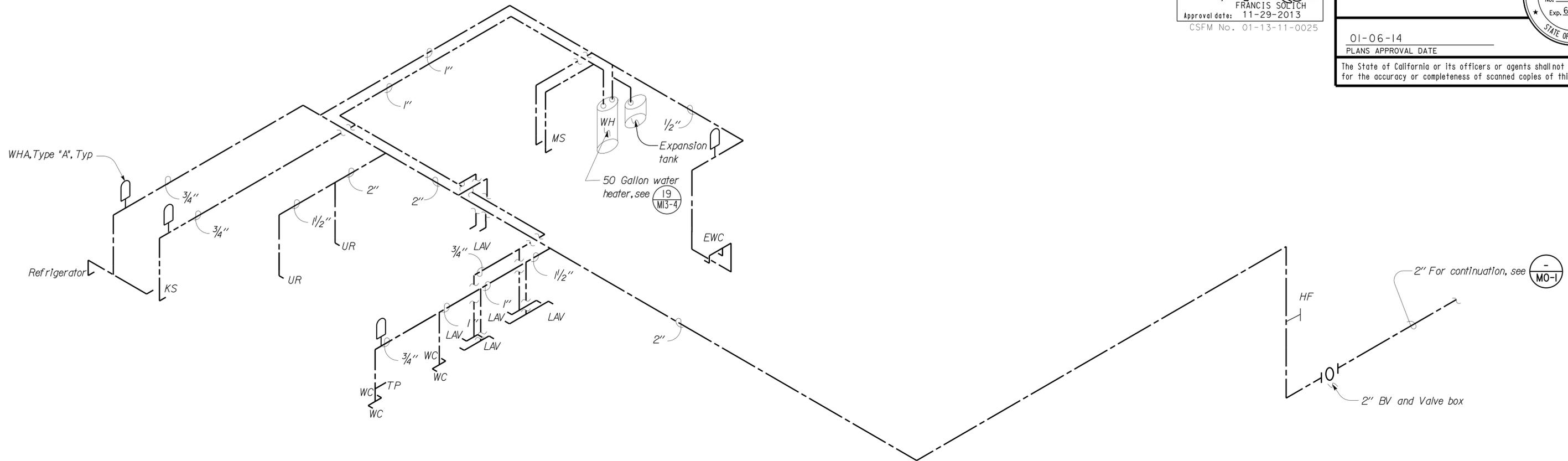
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DOMESTIC WATER

NO SCALE

PLUMBING SCHEDULE

FIXTURE	DRAINAGE ROUGH-IN	TRAP SIZE	VENT SIZE	MINIMUM CONNECTIONS	
				COLD WATER	HOT WATER
LAVATORY	2"	1 1/2"	1 1/4"	1/2"	1/2"
WATER CLOSET	3"	-	2"	1"	-
URINAL	2"	-	1 1/2"	1"	-
ELECTRIC WATER COOLER	1 1/2"	1 1/4"	1 1/4"	1/2"	-
HOSE FAUCET	-	-	-	3/4"	-
KITCHEN SINK	2"	1 1/2"	1 1/2"	1/2"	1/2"
MOP SINK	3"	3"	1 1/2"	1/2"	1/2"

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DETAILS	BY Severiano Gutierrez	CHECKED			POST MILE	REGIONAL OFFICE	DOMESTIC WATER		
QUANTITIES	BY Severiano Gutierrez	CHECKED			UNIT PROJECT NUMBER & PHASE	REVISION DATES (PRELIMINARY STAGE ONLY) 06/22/10 12/01/10 12/03/10 02/22/13 08-13-13 12-03-13			
TAEMWW Imperial Rev. 7/10 FILE => m9_2.dgn DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:13			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	3580 11000000351 EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET OF		

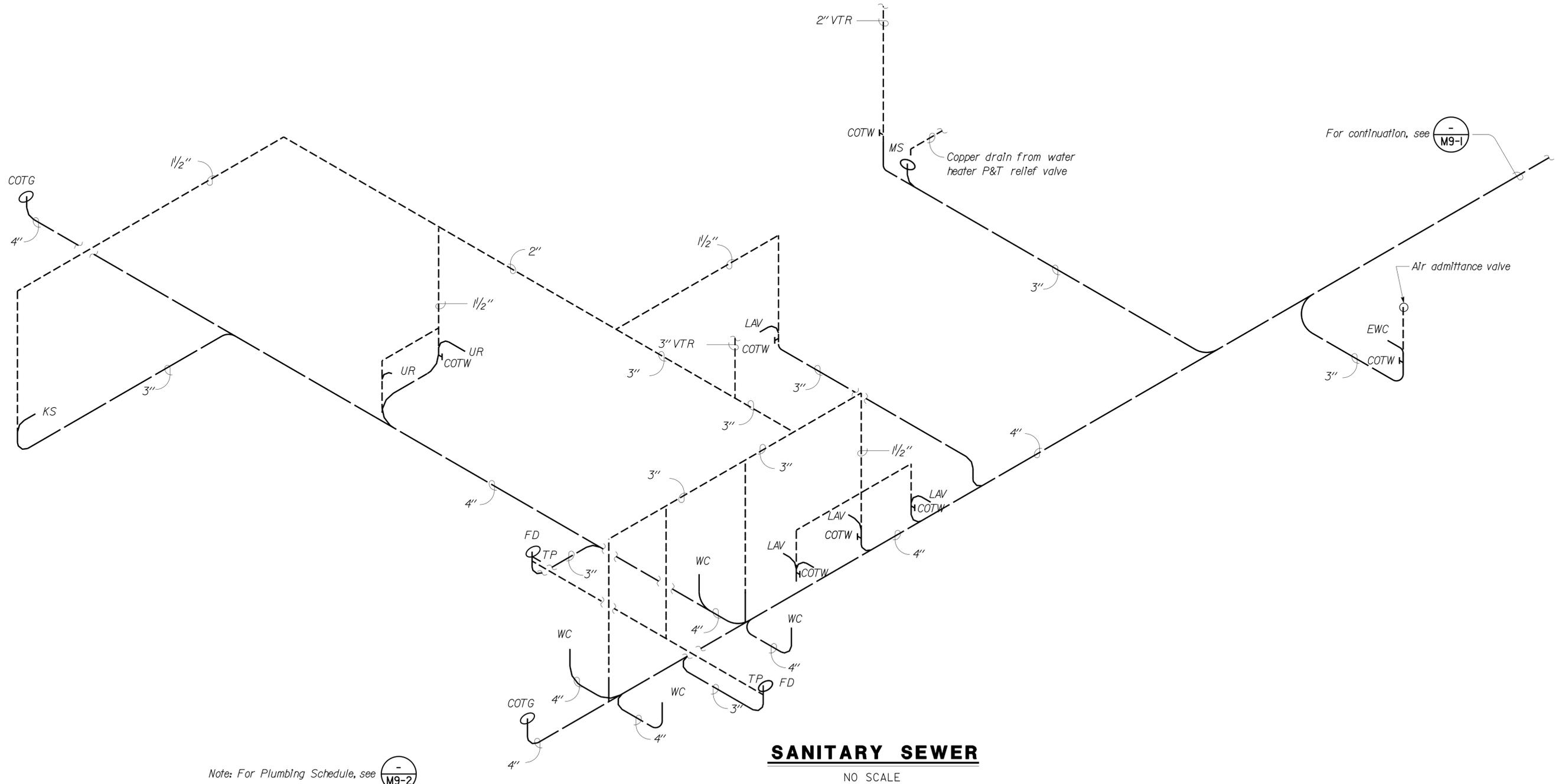
USERNAME => s127284 DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:13

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	DETAILS	BY Severiano Gutierrez			CHECKED		58M5708	SANITARY SEWER
QUANTITIES	BY Severiano Gutierrez	CHECKED			POST MILE		REGIONAL OFFICE	
TAEWW Imperial Rev. 7/10		FILE => m9_3.dgn	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE	3580 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET
DATE PLOTTED => 21-JAN-2014		DATE PLOTTED => 21-JAN-2014	TIME PLOTTED => 09:13	EA 076701		06/22/10 12/01/10 12/03/10 02/22/13 08-13-13 12-03-13		

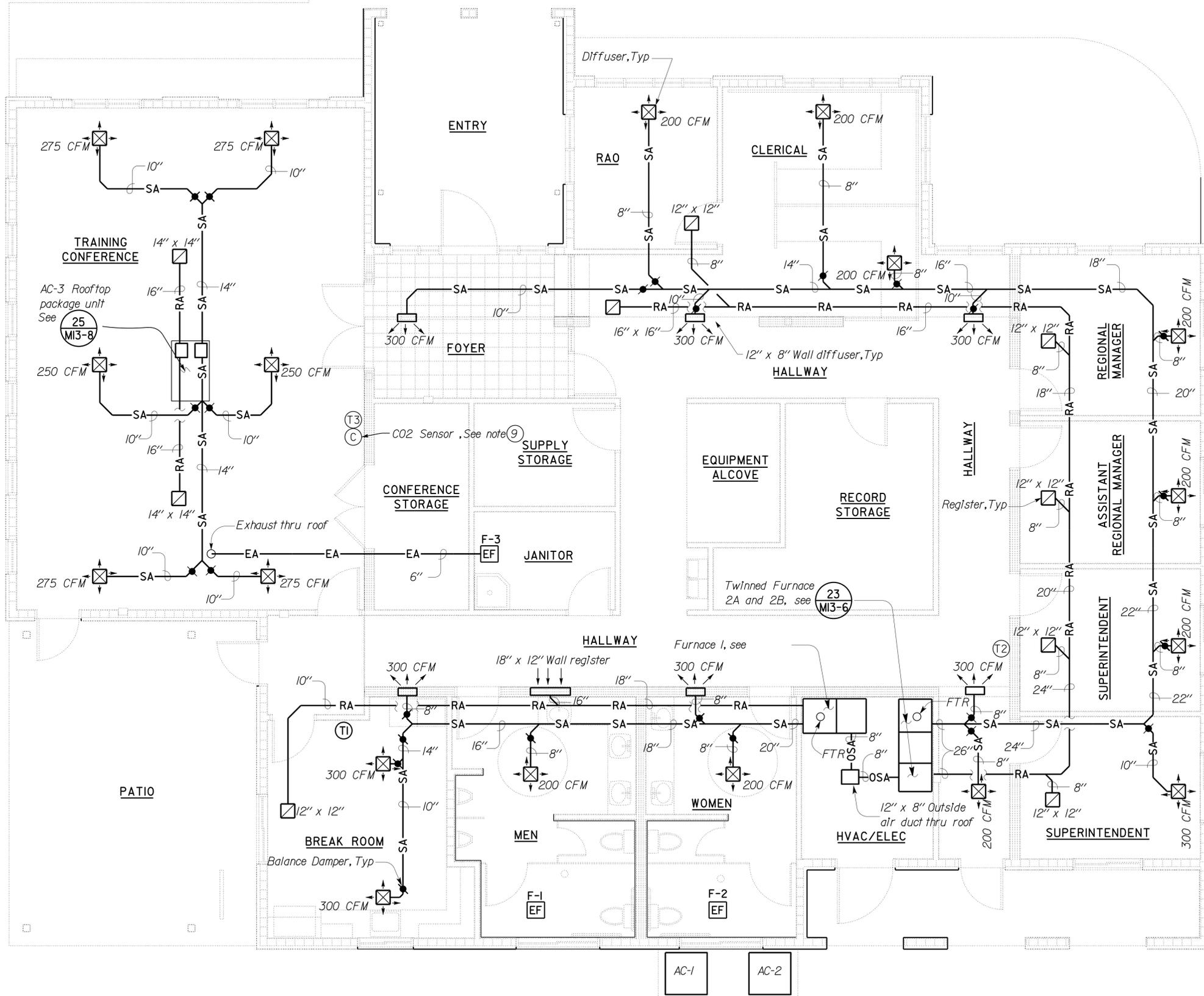
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- Notes:
- All diffusers and registers shall be 12" x 12" unless noted.
 - For exact location of supply diffusers and return air registers, see (A9-7) reflected ceiling plan.
 - All duct sizes are round, unless otherwise shown.
 - A maximum of 5' of flexible duct may be installed at each diffuser and register.
 - All balancing dampers shall be accessible.
 - A minimum of 400 CFM of outside air shall be supplied by each office HVAC system, and 450 CFM for conference area HVAC system.
 - All exhaust ducts shall terminate above the roof and shall be equipped with back-draft dampers and weather cap. Size of duct to be determined by exhaust fan manufacturer.
 - Install roof Make-up air for HVAC systems and flashing similar to architectural detail plans. See (A11-5)
 - CO2 Sensor Interlock with AC unit and economizer.

General Note:
 Penetrations of walls and wall membranes required to have fire-resistance rating shall be protected with through-penetration fire stops suitable for the method of penetration. Through-penetrations fire stops shall be tested using U.B.C. Standard 7-5 (C.B.C. Section 709.6 709.7 & 714)

PLAN
 SCALE: 1/4" = 1'-0"

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

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DESIGN	By Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY MECHANICAL PLAN	SHEET M9-4	
DETAILS	By Severiano Gutierrez	CHECKED Mark Hedglin		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE		REGIONAL OFFICE	OF
QUANTITIES	By Severiano Gutierrez	CHECKED Mark Hedglin		UNIT PROJECT NUMBER & PHASE 3580 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	06-02-10 02-07-10 02-27-10 08-18-10 12-03-13

FILE => m9_4.dgn DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:13 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT PROJECT NUMBER & PHASE 3580 11000000351 EA 076701

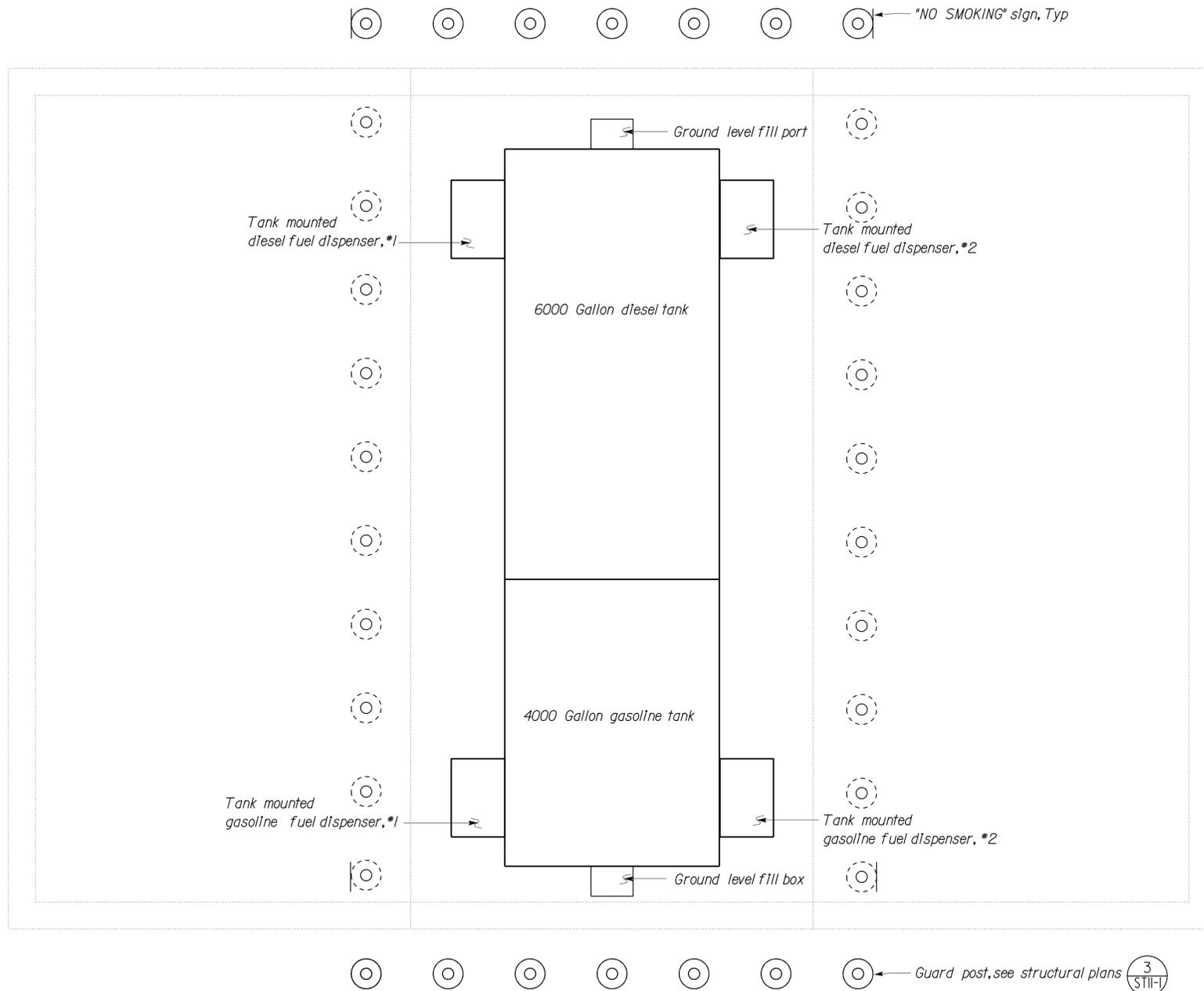
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- Notes:
1. Install tanks and fuel distribution system as indicated, and in accordance with NFPA 30 and the manufacturer's installation instructions.
 2. Install earthquake restraints on tanks in accordance with manufacturer's instructions.
 3. Fuel dispensers shall be tank mounted at each end of the tank as shown.
 4. Each tank shall be marked to show the product stored in the tank (example: gasoline) and the hazard (example: Flammable) (Diesel) (NFPA 30). The area surrounding the tanks shall be marked with "No Smoking" signs (NFPA 30)
 5. Facilities with an aggregate capacity of greater than 1320 gallons must comply with the Federal Environmental Protection Agency Spill Prevention Control & counter measures Plan requirements. (40 CFR 112)
 6. Above ground piping must be substantially supported and protected against physical damage (NFPA 30-2003, 5.5.1).
 7. Bottom of ground level fill box shall be approximately at 26" above base of tank.

PLAN 
 SCALE: 3/8" = 1'-0"

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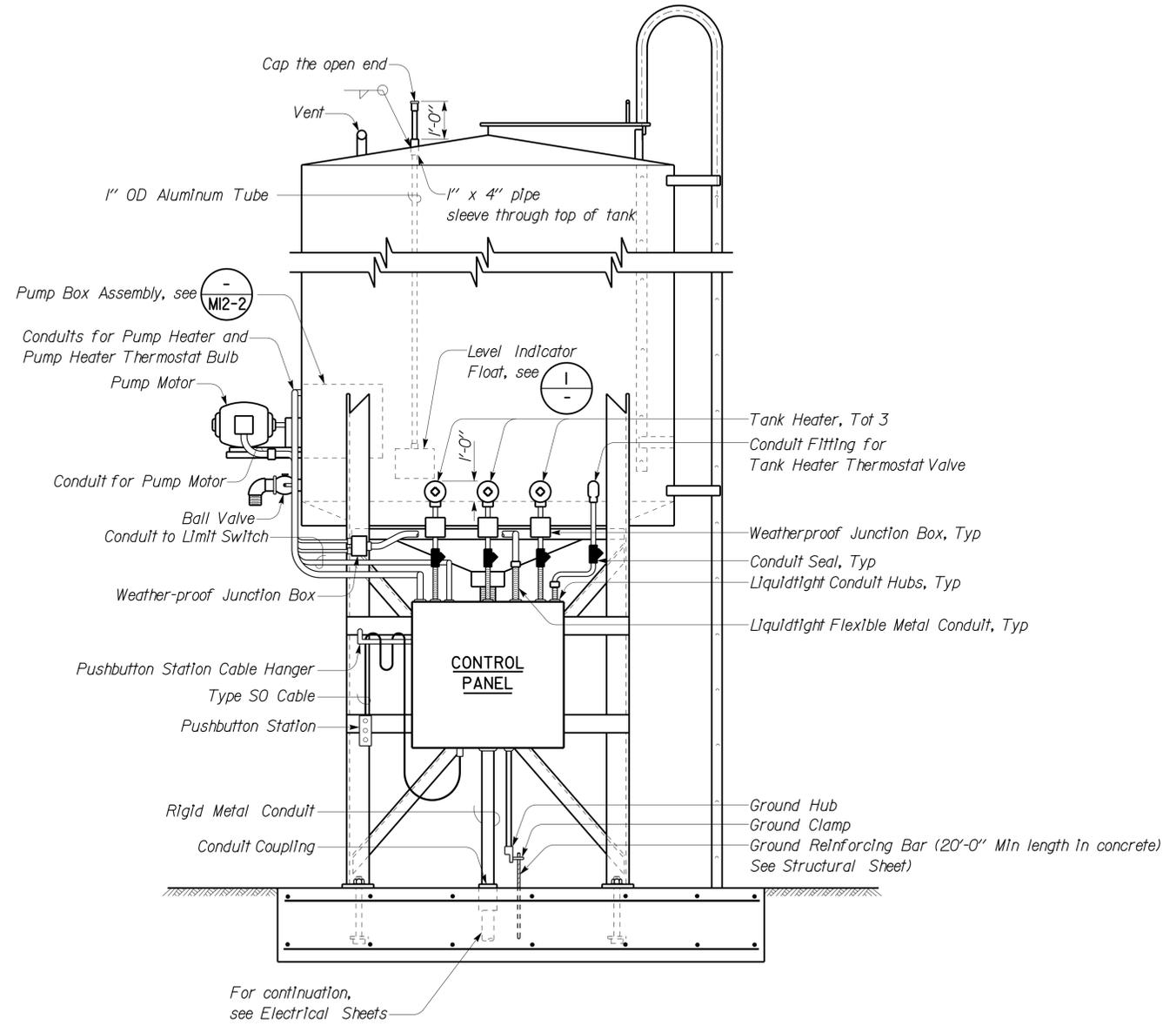
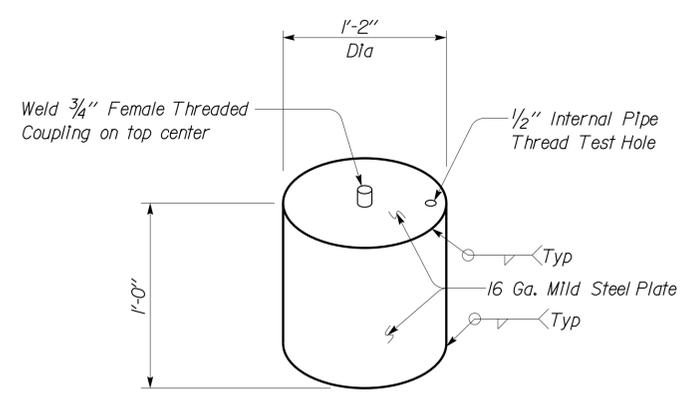
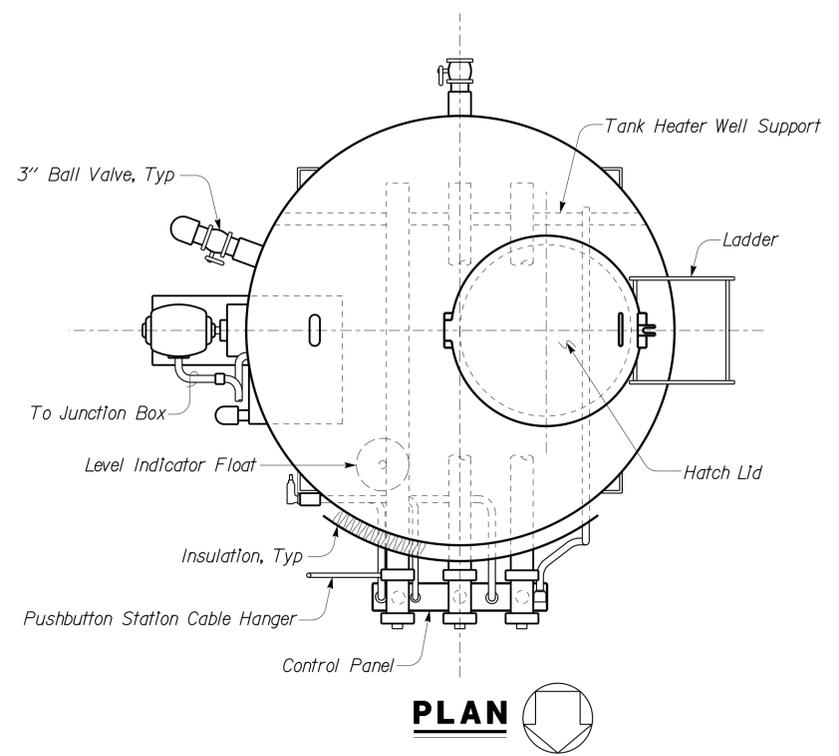
DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY		SHEET
DETAILS	BY Severiano Gutierrez	CHECKED Mark Hedglin		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE	FUEL ISLAND	MECHANICAL PLAN	M11-1
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin		UNIT PROJECT NUMBER & PHASE 3580 11000000351	EA 076701	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
TAEWW Imperial Rev. 7/10			FILE => m11_1.dgn	DATE PLOTTED => 21-JAN-2014	TIME PLOTTED => 09:13	06-02-10 02-07-10 02-07-11 02-22-13 08-13-13 12-03-13		

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- Notes:
- For details not shown, see 
 - Emulsion Tank shall be supplied Mobile Platform Ladder.
 - All conduit shall be Rigid Metal Conduit, except as noted.
 - Mark Emulsion Tank level graduations on the Aluminum Tube as per Engineer's Instruction.



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NO SCALE

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	DETAILS	BY	Severiano Gutierrez	CHECKED							Mark Hedglin	
	QUANTITIES	BY	Severiano Gutierrez	CHECKED							Mark Hedglin	
UNIT	PROJECT NUMBER & PHASE	3580 11000000351	EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	06-02-10	02-07-10	02-22-13	08-13-13	12-03-13	SHEET	OF

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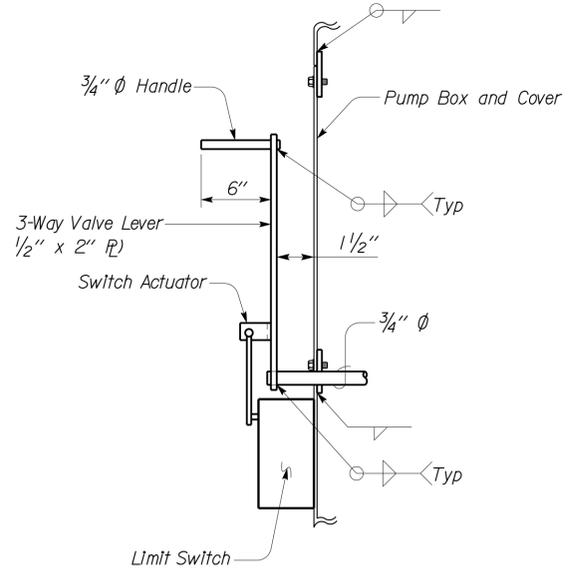
DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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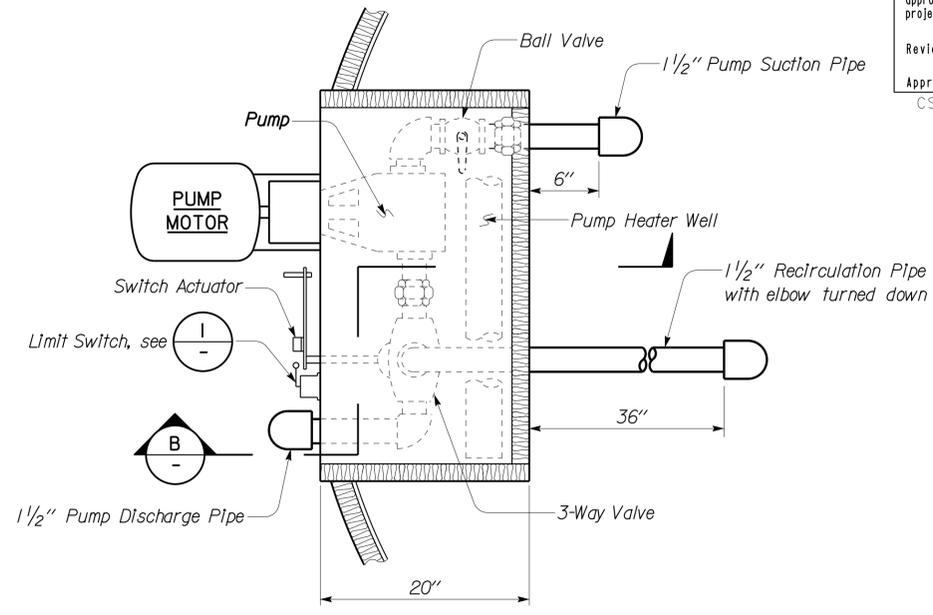
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- NOTES:**
- Pump Heater Well shall be securely attached to the sides of the Pump Box Wall and shall be removable for repair through the split cover.

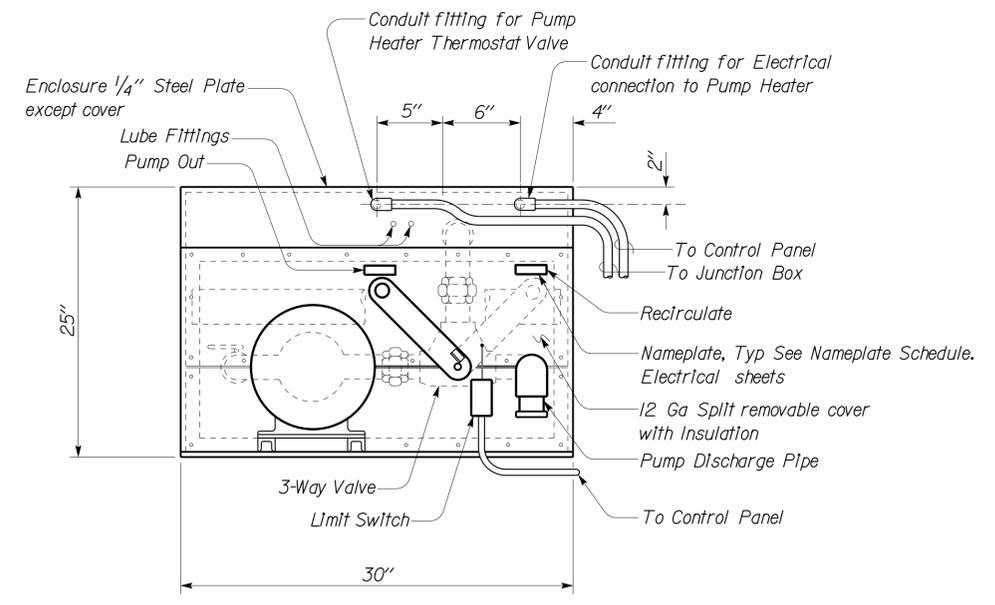


1 LIMIT SWITCH MOUNTING DETAIL

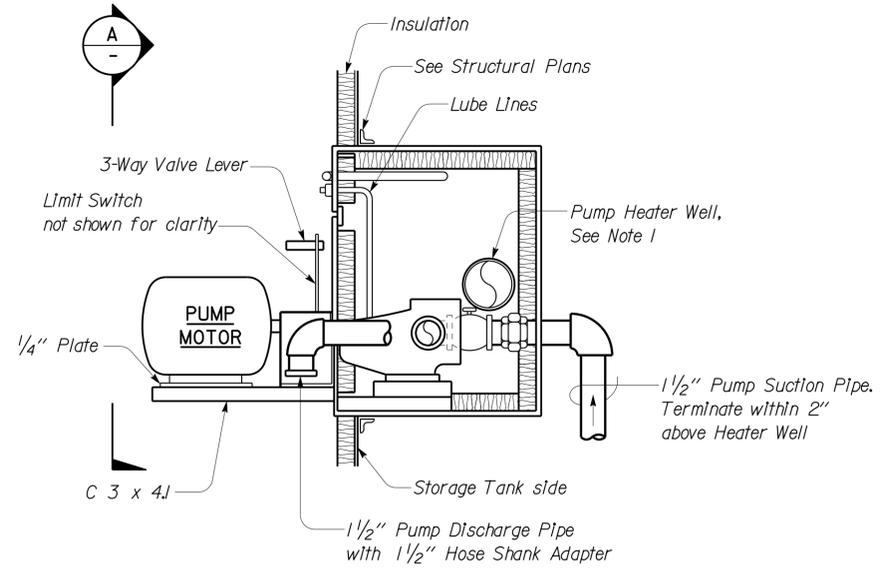
Switch Actuator shall be installed in the field during testing in the presence of the Engineer. Switch Actuator shall be installed with sheet metal screws.



PLAN



A ELEVATION



B SECTION

PUMP BOX

No Scale

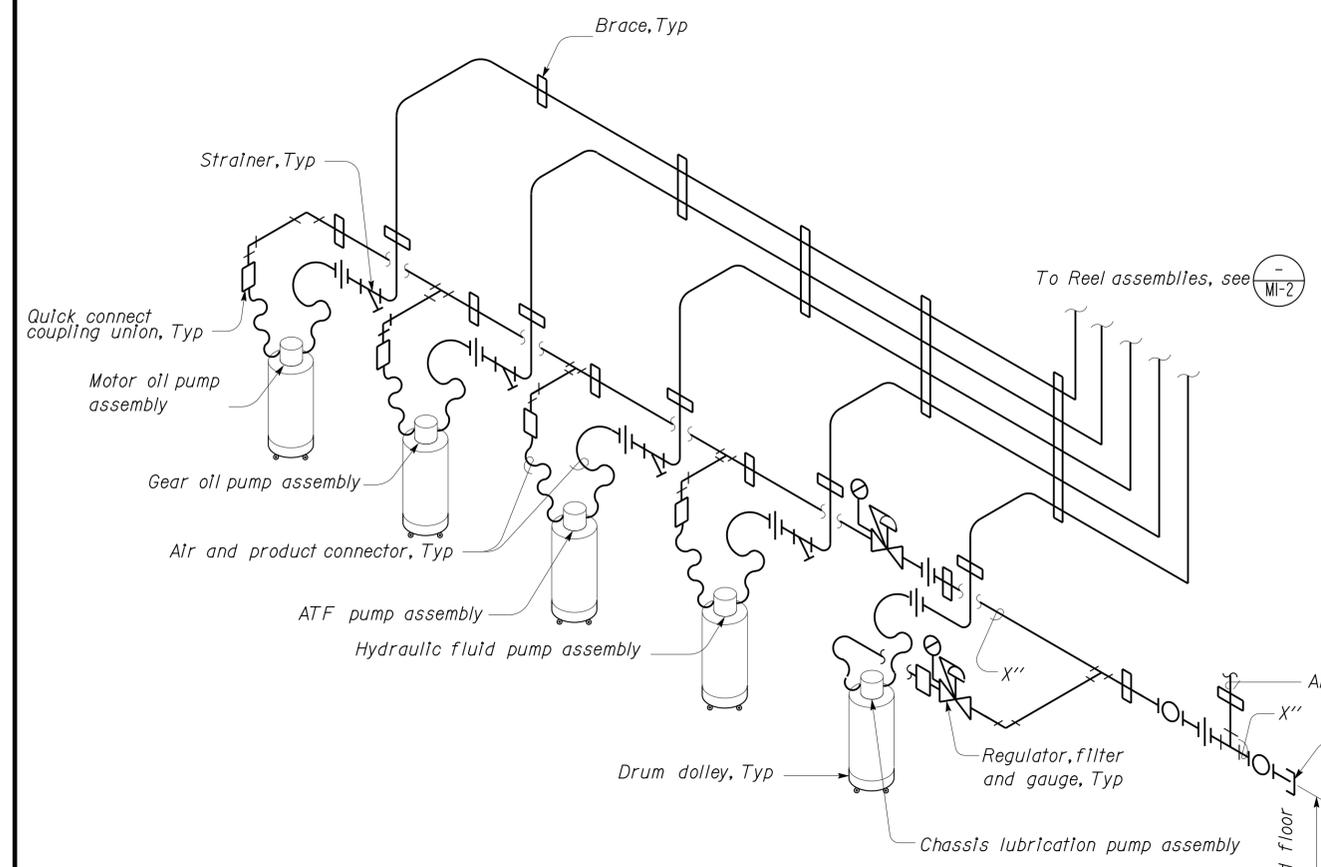
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DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY EMULSION TANK DETAILS	SHEET M12-2	
	DETAILS	BY Severiano Gutierrez			CHECKED Mark Hedglin			POST MILE
	QUANTITIES	BY Severiano Gutierrez			CHECKED Mark Hedglin			UNIT PROJECT NUMBER & PHASE 3580 11000000351
FILE => m12_2.dgn DATE PLOTTED => 21-JAN-2014		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF		
TAEWW Imperial Rev. 7/10		TIME PLOTTED => 09:13		DISREGARD PRINTS BEARING EARLIER REVISION DATES		06-02-10 12-07-10 02-22-13 08-13-13 12-03-13		

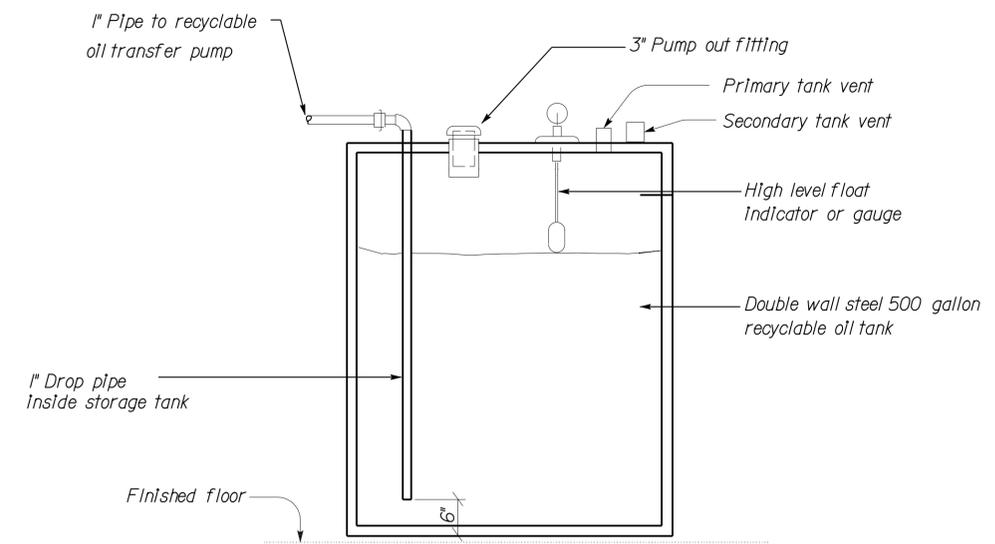
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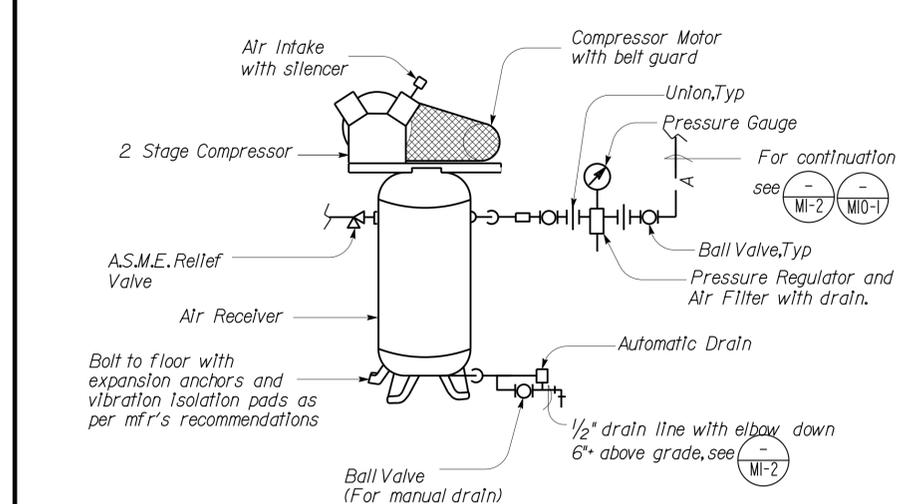
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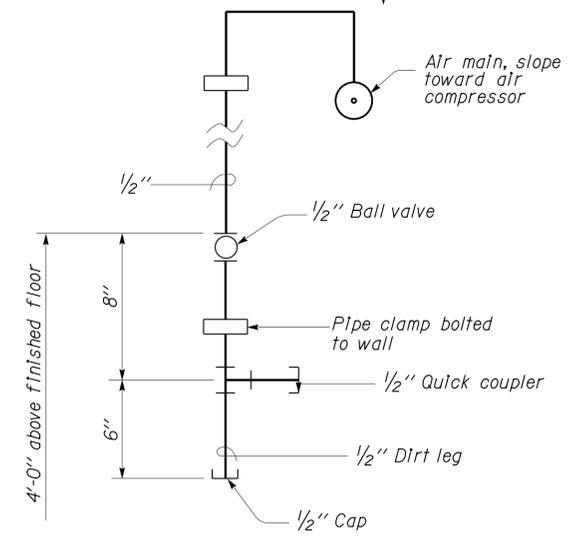
1 LUBE PUMP PIPING



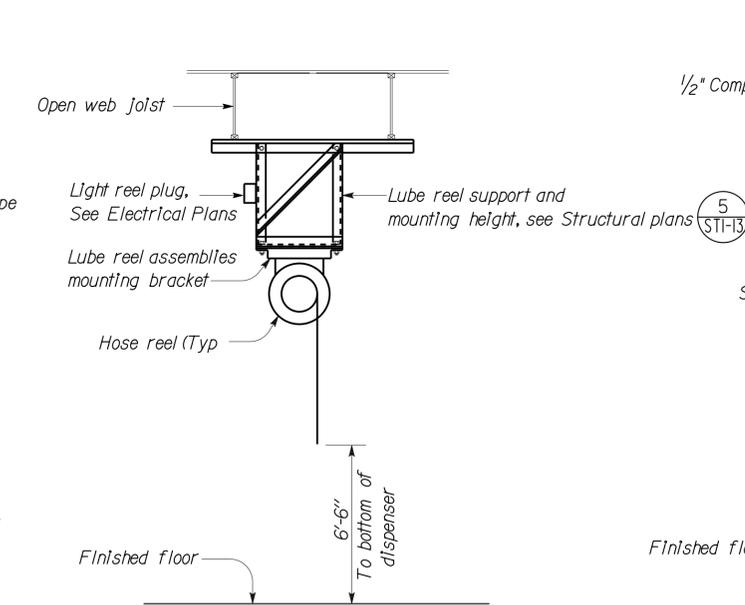
2 RECYCLABLE OIL STORAGE TANK



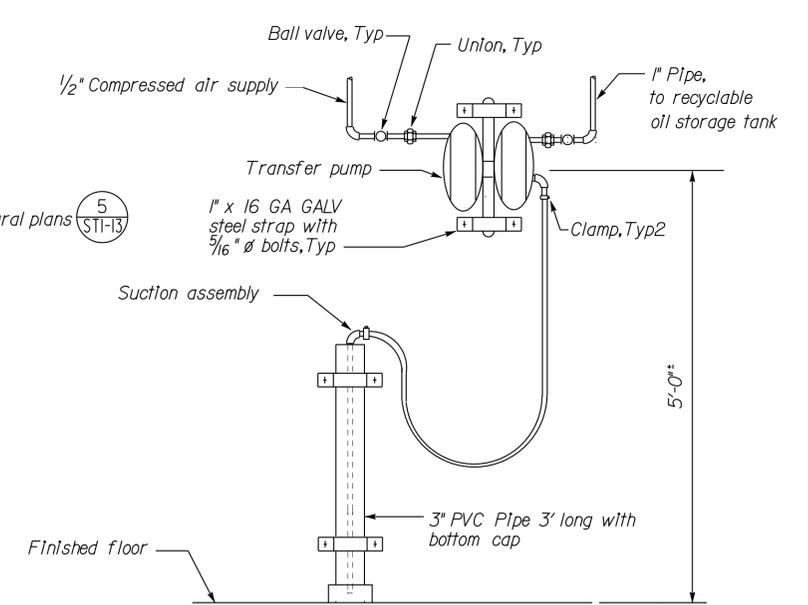
3 AIR COMPRESSOR



4 AIR DROP



5 LUBE REEL ASSEMBLIES



6 RECYCLABLE OIL TRANSFER PUMP

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NO SCALE

DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY MECHANICAL DETAILS - I	SHEET	
DETAILS	BY Severiano Gutierrez	CHECKED Mark Hedglin		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE		REVISION DATES (PRELIMINARY STAGE ONLY) 06-02-10 02-07-10 02-27-10 08-18-13 12-03-13	OF
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin		UNIT PROJECT NUMBER & PHASE 3580 11000000351	DISREGARD PRINTS BEARING EARLIER REVISION DATES			SHEET
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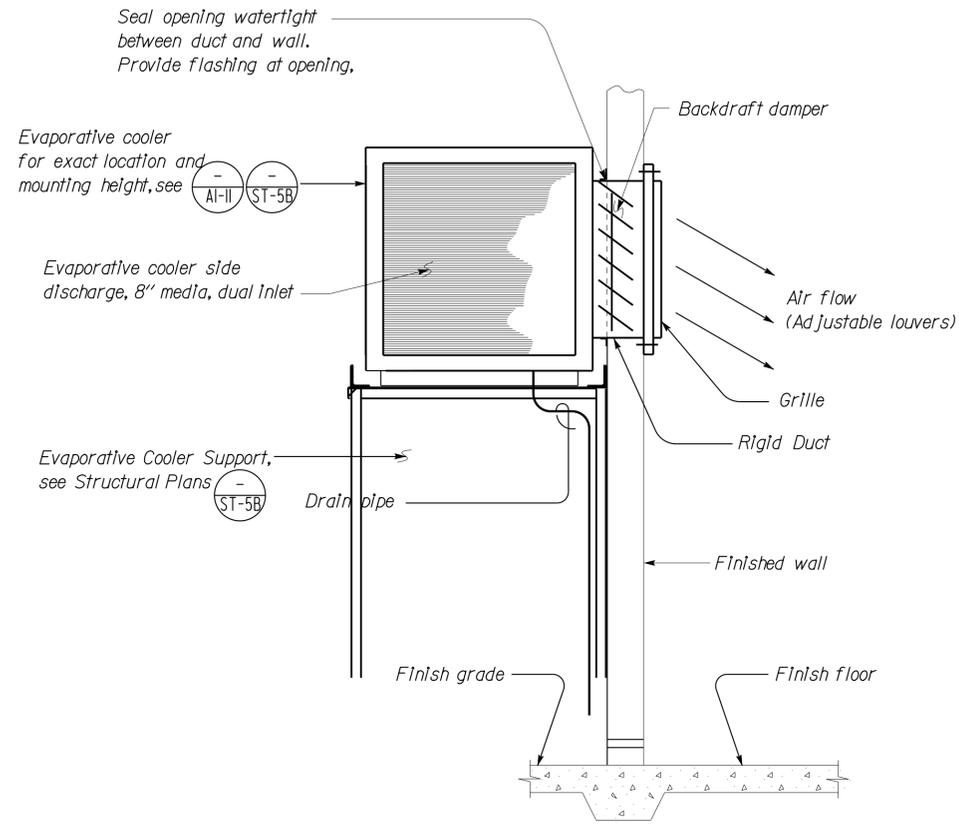
CALIFORNIA STATE FIRE MARSHAL APPROVED
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.
 Reviewed by: *[Signature]*
 FRANCIS SOLICH
 Approval date: 11-29-2013
 CSFM No. 01-13-11-0025

DIST.	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	Imp	5708		294	354

Reviewed by: *[Signature]* 12-03-13
 REGISTERED ENGINEER-MECHANICAL
 Jack Wheeler
 No. M21648
 Exp. 6-30-15
 MECH
 STATE OF CALIFORNIA

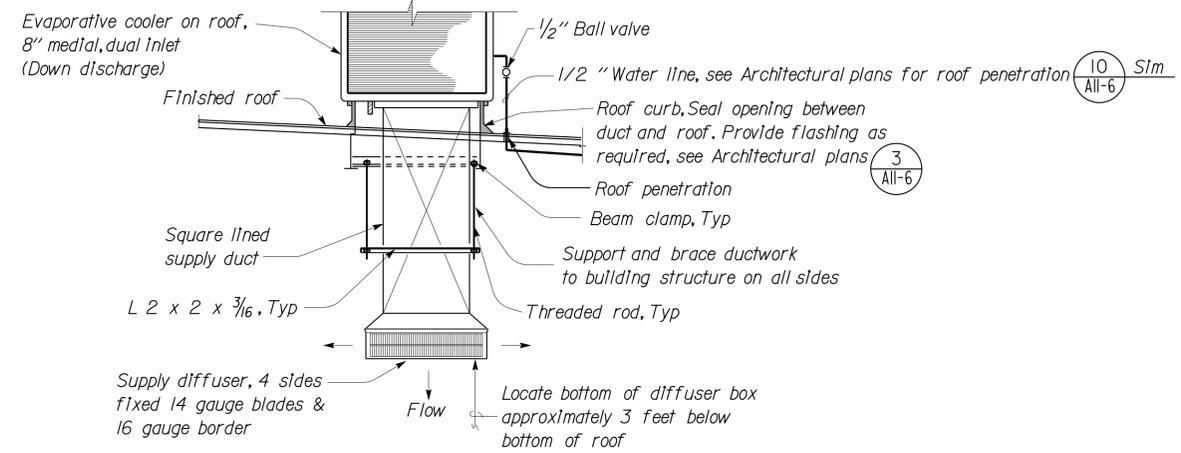
01-06-14
 PLANS APPROVAL DATE

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7 SIDE WALL MOUNTED EVAPORATIVE COOLER

**Install evaporative cooler drain 6" from finish floor



9 ROOF MOUNTED EVAPORATIVE COOLER ASSEMBLY

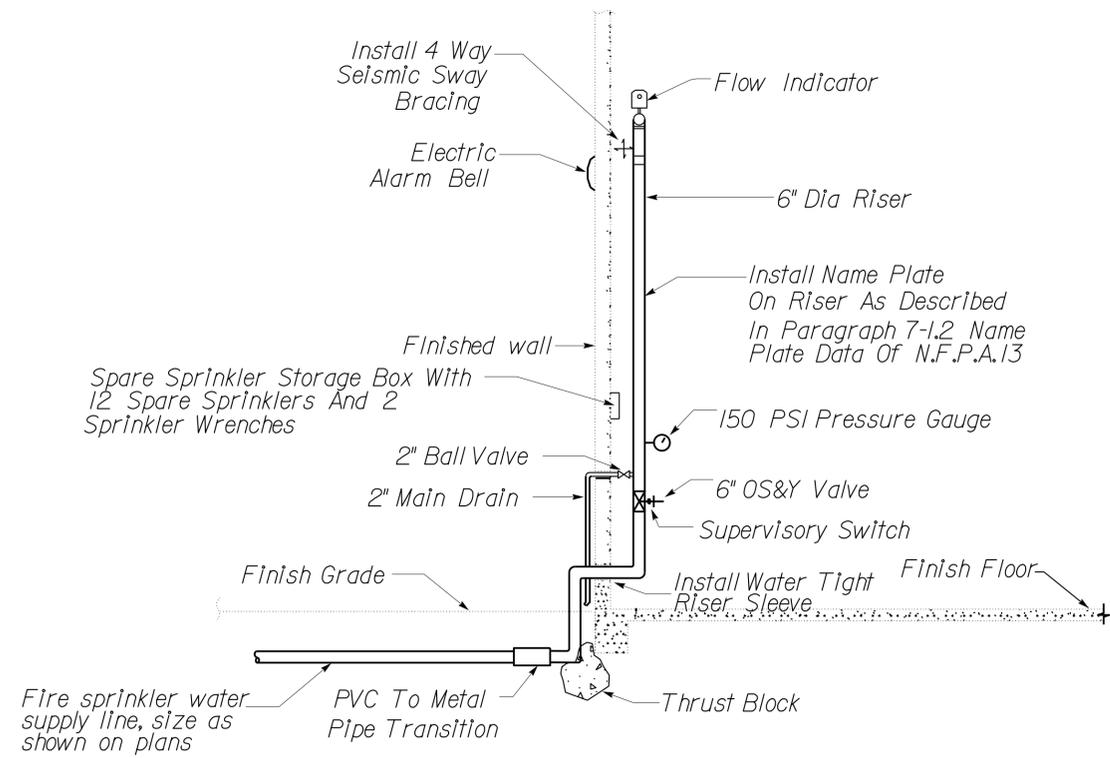
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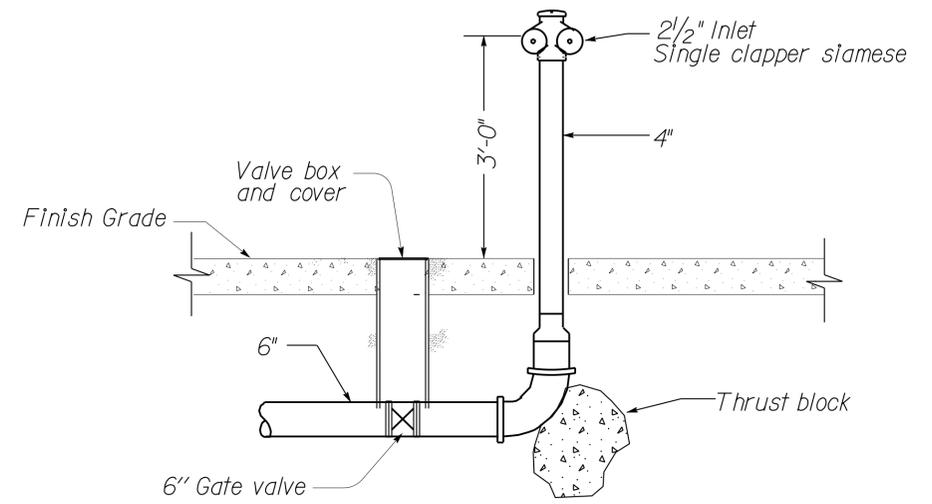
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	QUANTITIES	BY Severiano Gutierrez			CHECKED Mark Hedglin			POST MILE							
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USERNAME => s127284 DATE PLOTTED => 21-JAN-2014 TIME PLOTTED => 09:13

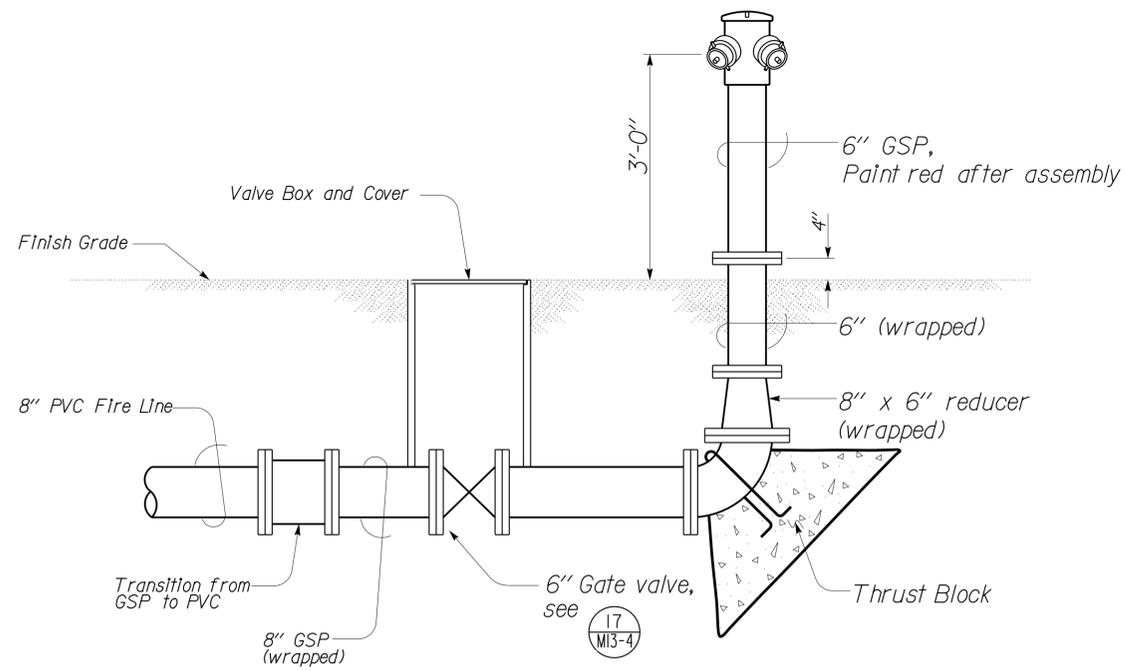
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01-06-14 PLANS APPROVAL DATE					
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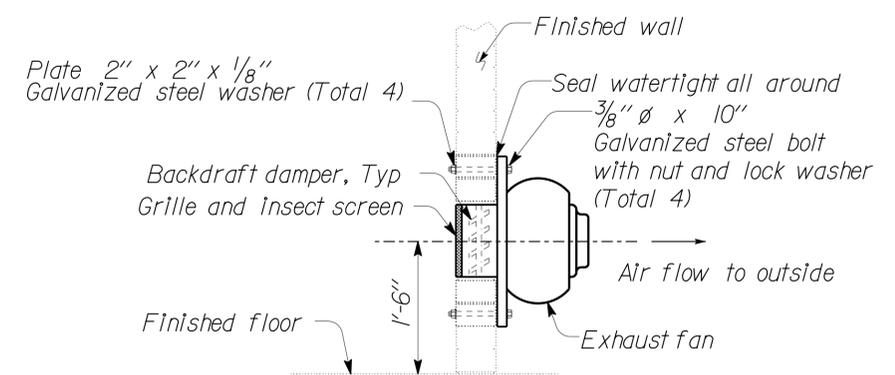
11 SPRINKLER SYSTEM RISER



10 FIRE DEPARTMENT CONNECTION



12 FIRE HYDRANT



14 DECLASSIFICATION FAN-ELEVATION

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NO SCALE

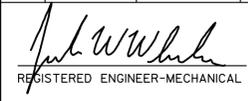
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			PROJECT NUMBER & PHASE 3580 11000000351		POST MILE	MECHANICAL DETAILS - 3		SHEET OF
			UNIT EA 076701		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY) 06-02-10 02-07-10 02-07-11 02-22-13 08-13-13 12-03-13	

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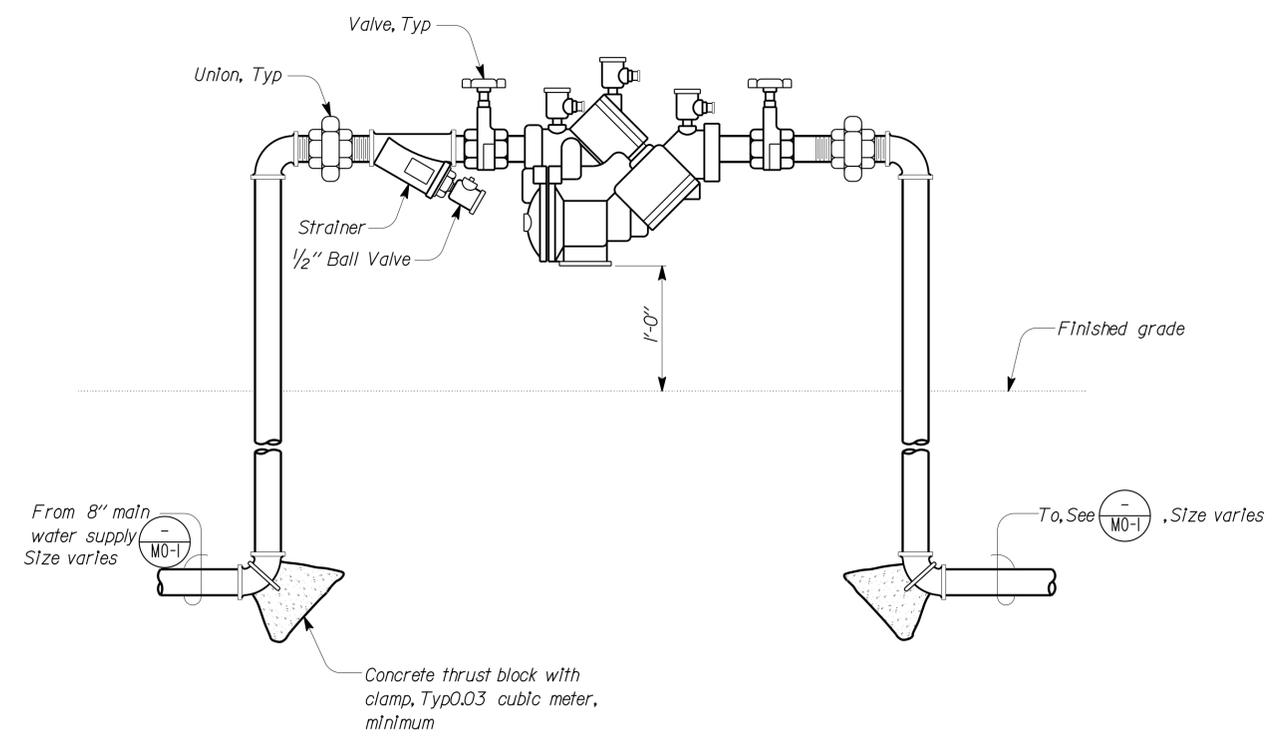
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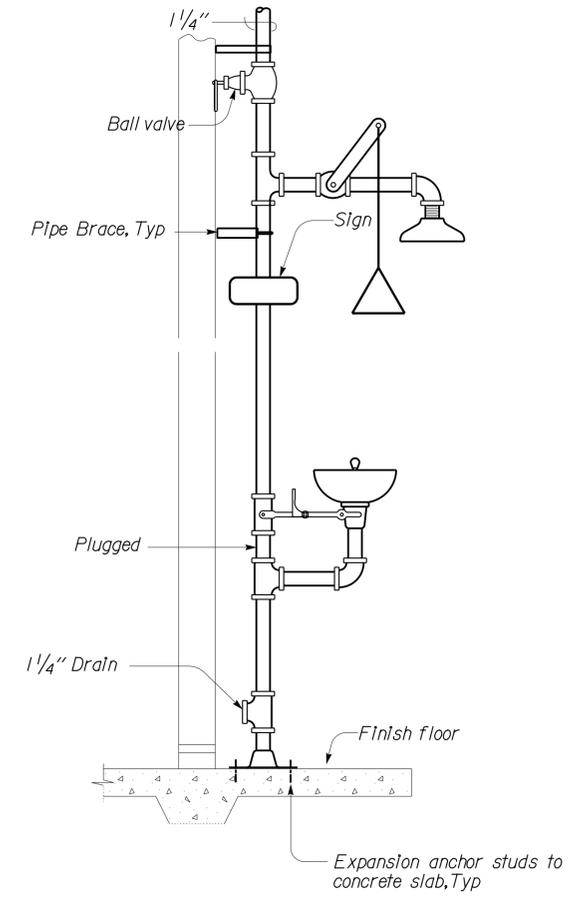
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01-06-14 PLANS APPROVAL DATE					
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 FRANCIS SOLICH
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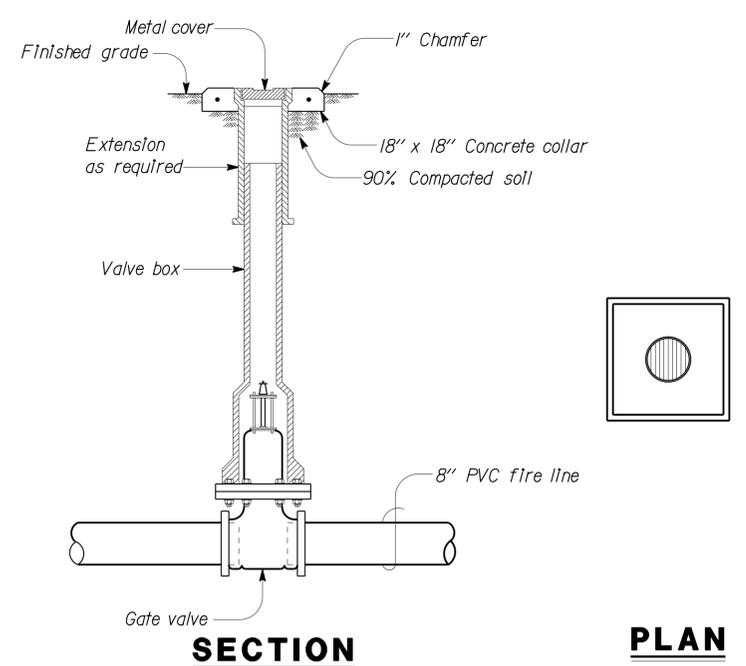


15 REDUCED PRESSURE BACKFLOW PREVENTER

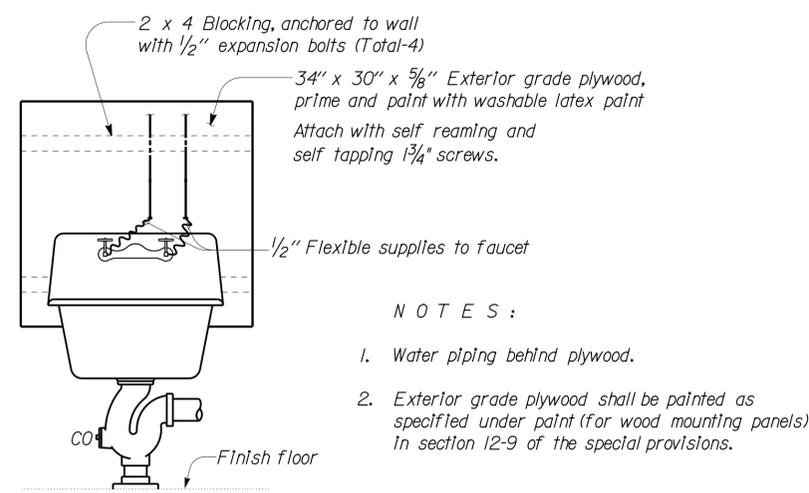
** Backflow preventer for fire protection shall be Double check type with tamper switch on valves**



16 EMERGENCY EYE WASH AND SHOWER DETAIL



17 VALVE BOX DETAIL

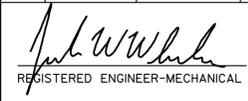


NOTES:
 1. Water piping behind plywood.
 2. Exterior grade plywood shall be painted as specified under paint (for wood mounting panels) in section 12-9 of the special provisions.

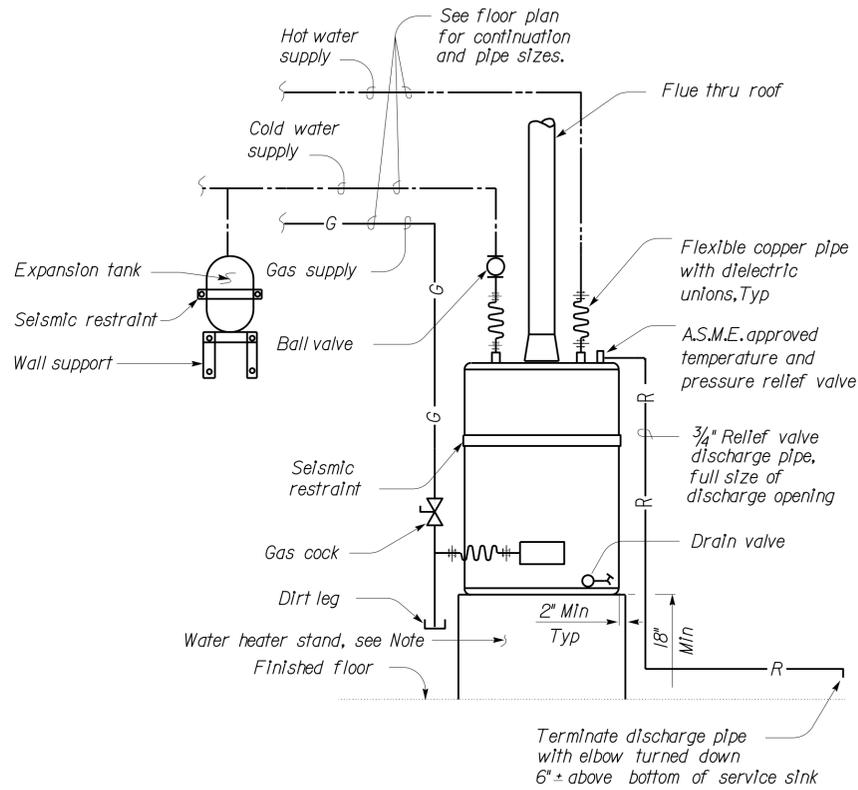
18 SERVICE SINK

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DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY MECHANICAL DETAILS - 4	SHEET M13-4		
DETAILS	BY Severiano Gutierrez	CHECKED Mark Hedglin		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE				
QUANTITIES	BY Severiano Gutierrez	CHECKED Mark Hedglin		UNIT PROJECT NUMBER & PHASE 3580 11000000351	EA 076701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 06-02-10 02-07-10 02-03-11 02-22-13 08-13-13 12-03-13	SHEET OF	
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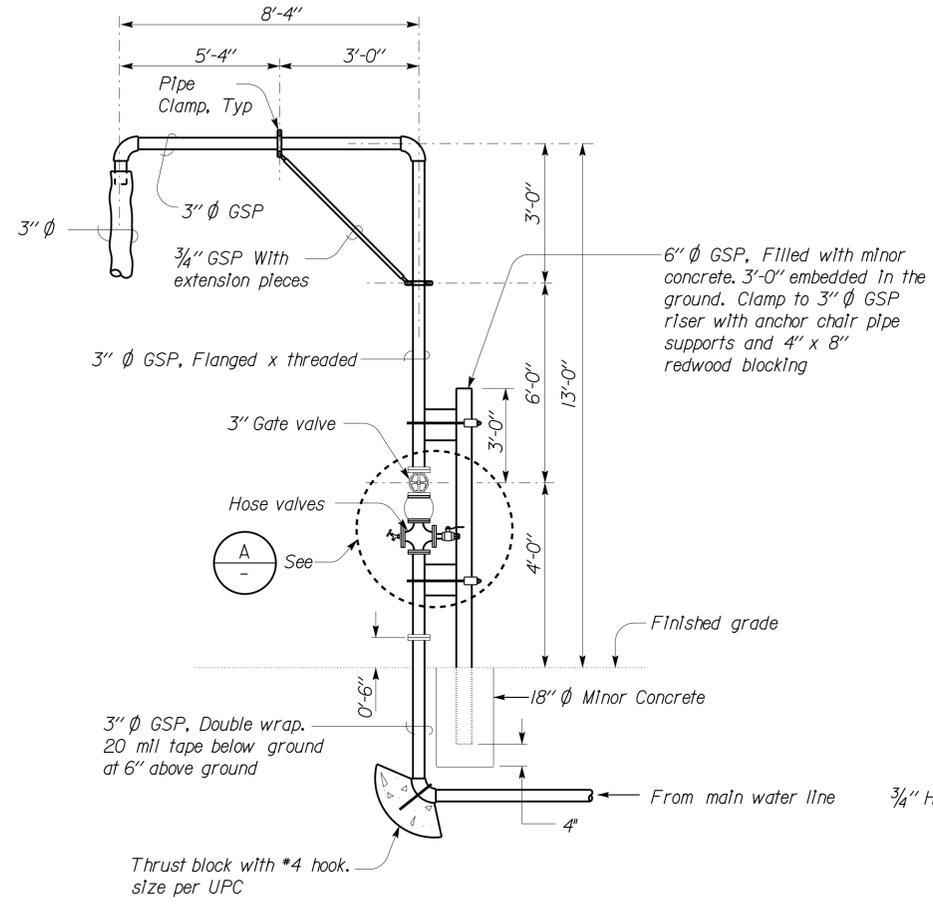
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01-06-14 PLANS APPROVAL DATE					
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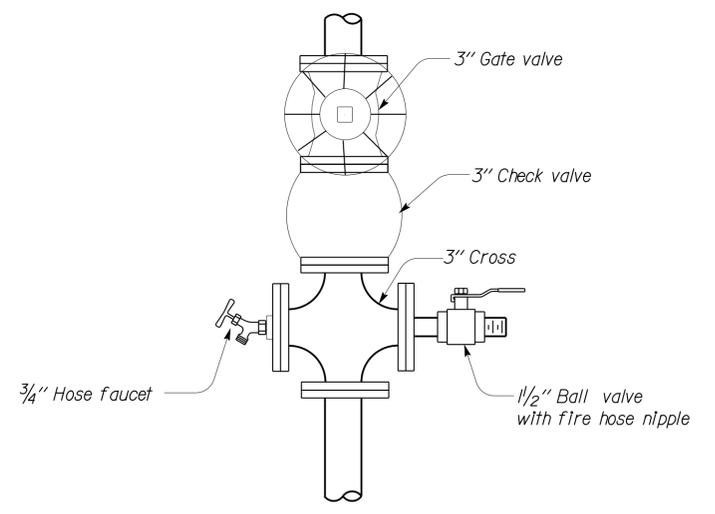
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19 WATER HEATER DETAIL
 Note: Water heater stand shall be 2x4 flr @ 16" OC Max, 3/4" Plywood on all exposed sides and top. Paint to match room walls.



20 TANK TRUCK FILLER



A DETAIL

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NO SCALE

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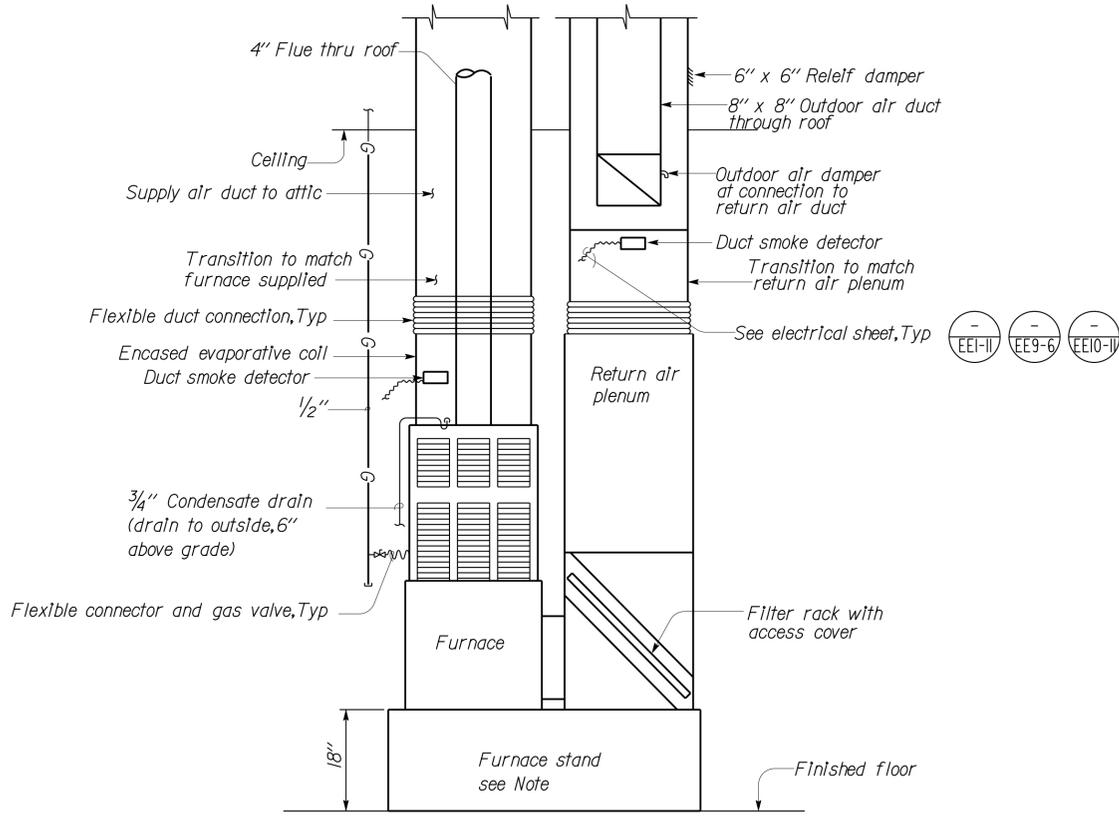

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01-06-14
PLANS APPROVAL DATE

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 CSFM No. 01-13-11-0025



22 SPLIT SYSTEM AIR CONDITIONING WITH GAS FURNACE - ELEVATION

Note: Furnace stand shall be 2x4 flr @ 16" OC Max, 3/4" Plywood on all exposed sides and top. Paint to match room walls.

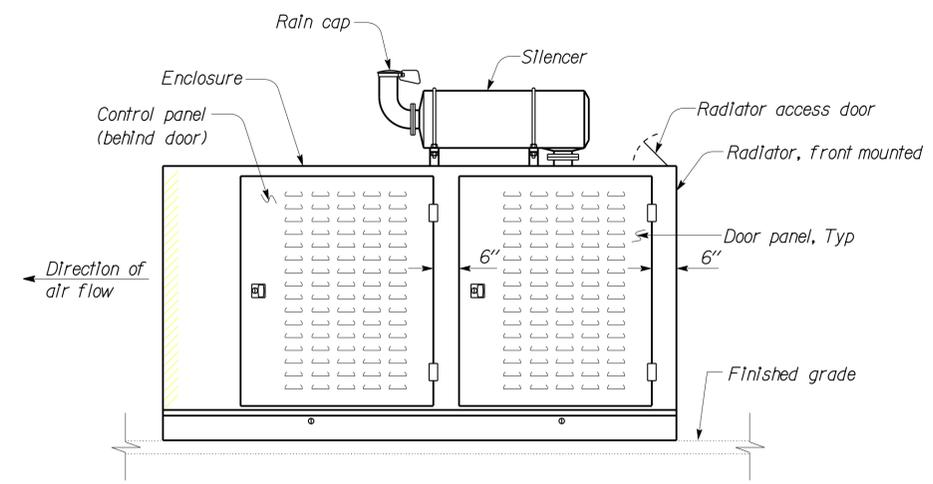
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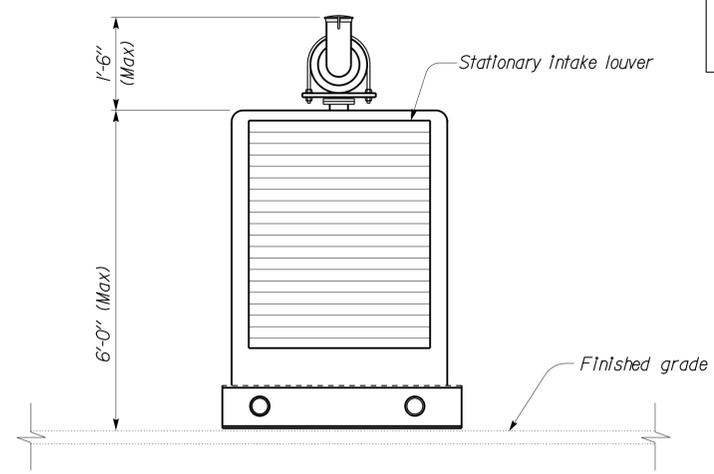
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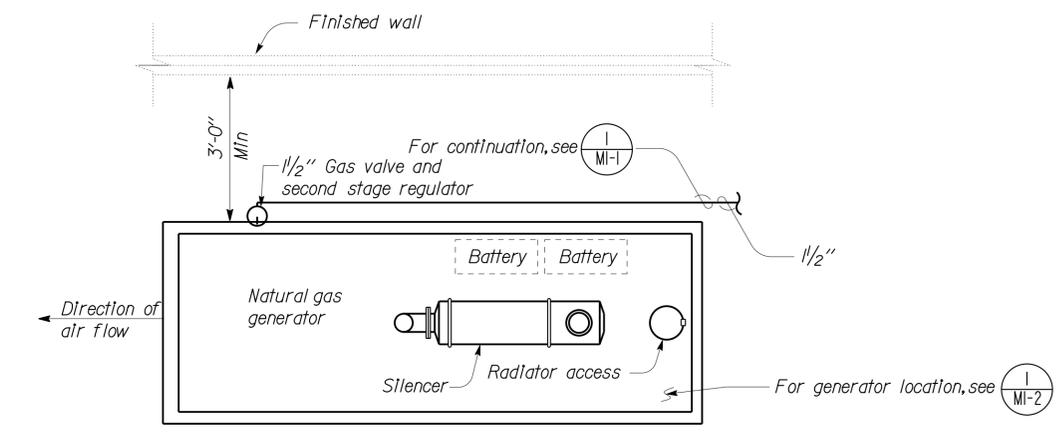
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				01-06-14	
				PLANS APPROVAL DATE	
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ELEVATION



REAR SIDE-ELEVATION



PLAN

- NOTES:**
- The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
 - The exhaust piping shall be the same size or larger than the inside diameter of the exhaust manifold outlet or as recommended by the manufacturer.

24 ENGINE GENERATOR

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NO SCALE

DESIGN BY Severiano Gutierrez CHECKED Mark Hedglin DETAILS BY Severiano Gutierrez CHECKED Mark Hedglin QUANTITIES BY Severiano Gutierrez CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN		BRIDGE NO.	EL CENTRO MAINTENANCE FACILITY MECHANICAL DETAILS - 7	SHEET			
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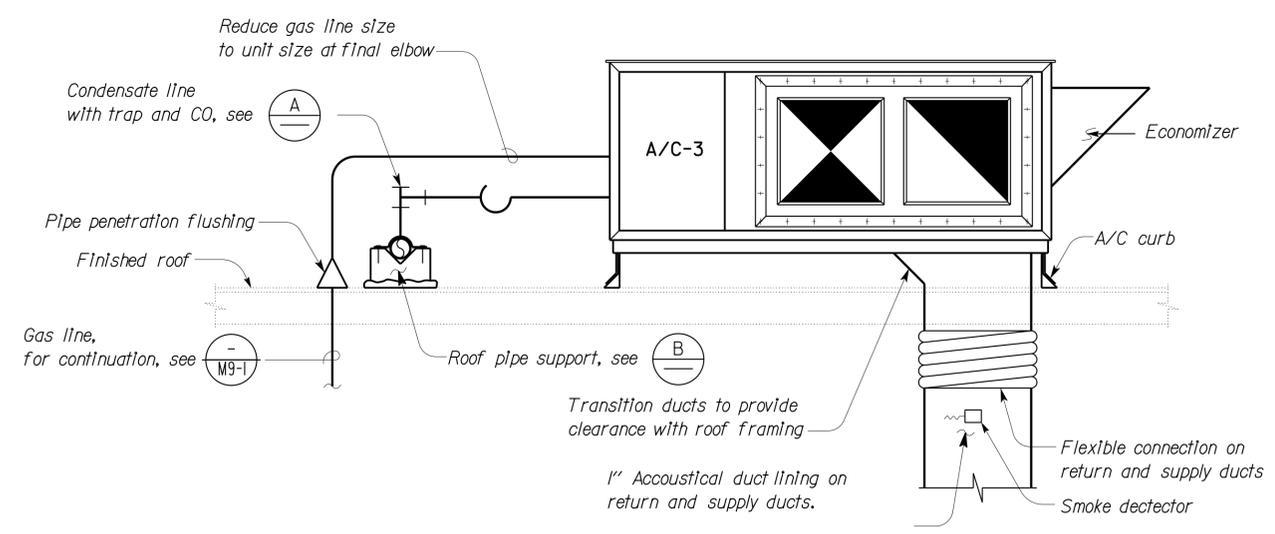
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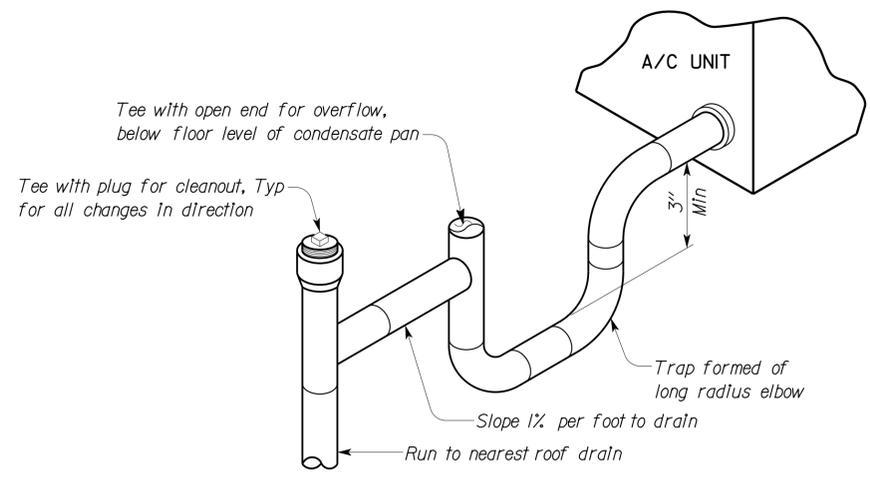
CALIFORNIA STATE FIRE MARSHAL APPROVED

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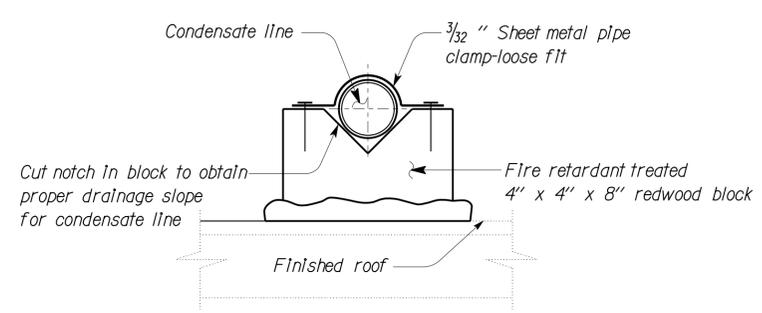
Reviewed by: 
 FRANCIS SOLICH
 Approval date: 11-29-2013
 CSFM No. 01-13-11-0025



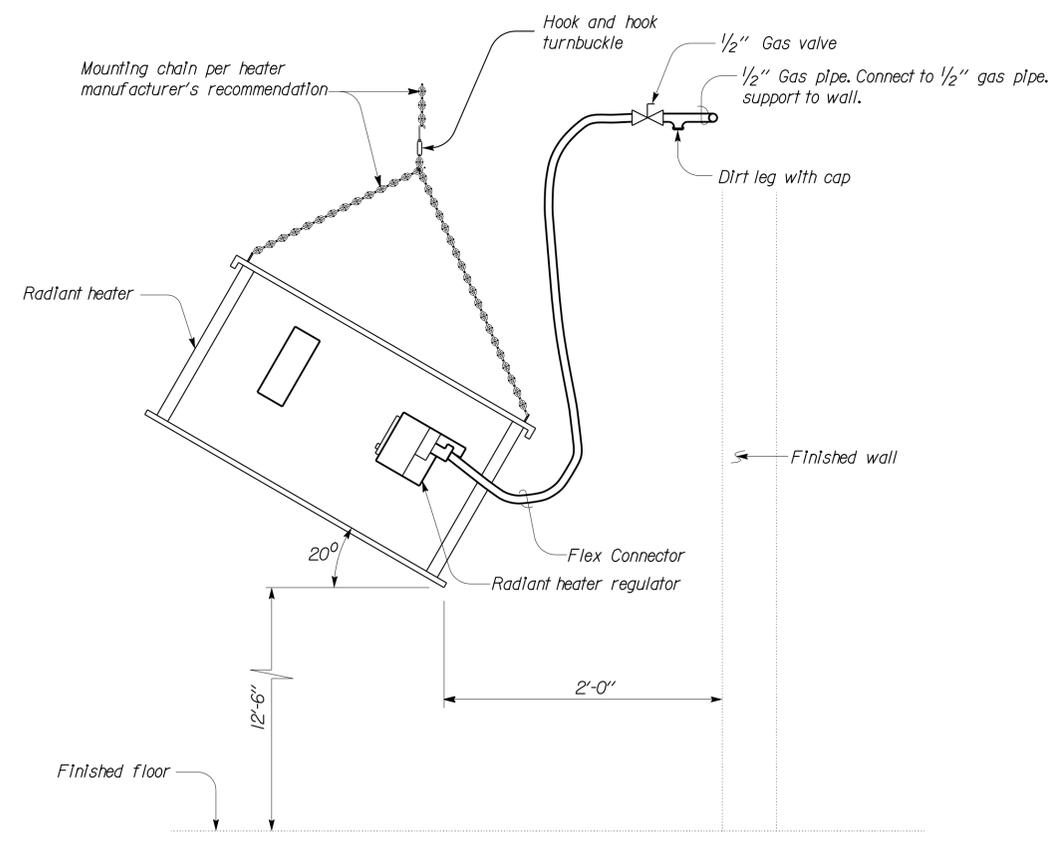
25 ROOFTOP PACKAGE HVAC SYSTEM



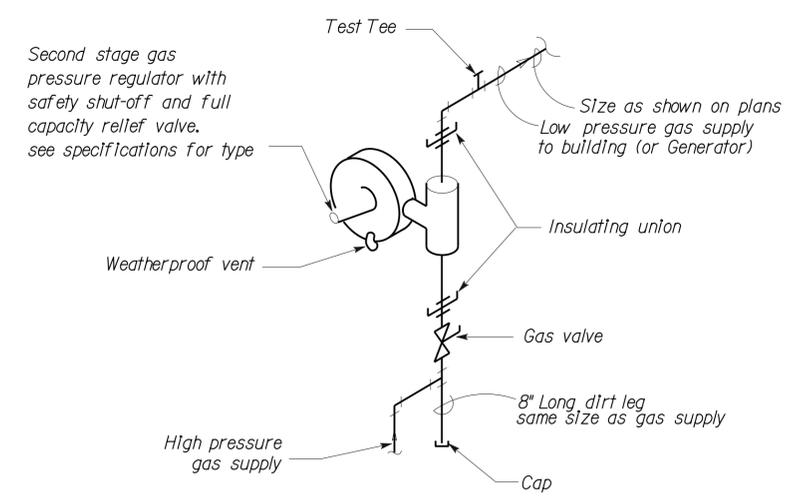
A CONDENSATE DRAIN DETAIL



B ROOF PIPE SUPPORT DETAIL



27 RADIANT HEATER DETAILS



26 SECOND STAGE GAS PRESSURE REGULATOR

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DESIGN	BY Severiano Gutierrez	CHECKED Mark Hedglin	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 58M5708	EL CENTRO MAINTENANCE FACILITY	SHEET M13-8
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