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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

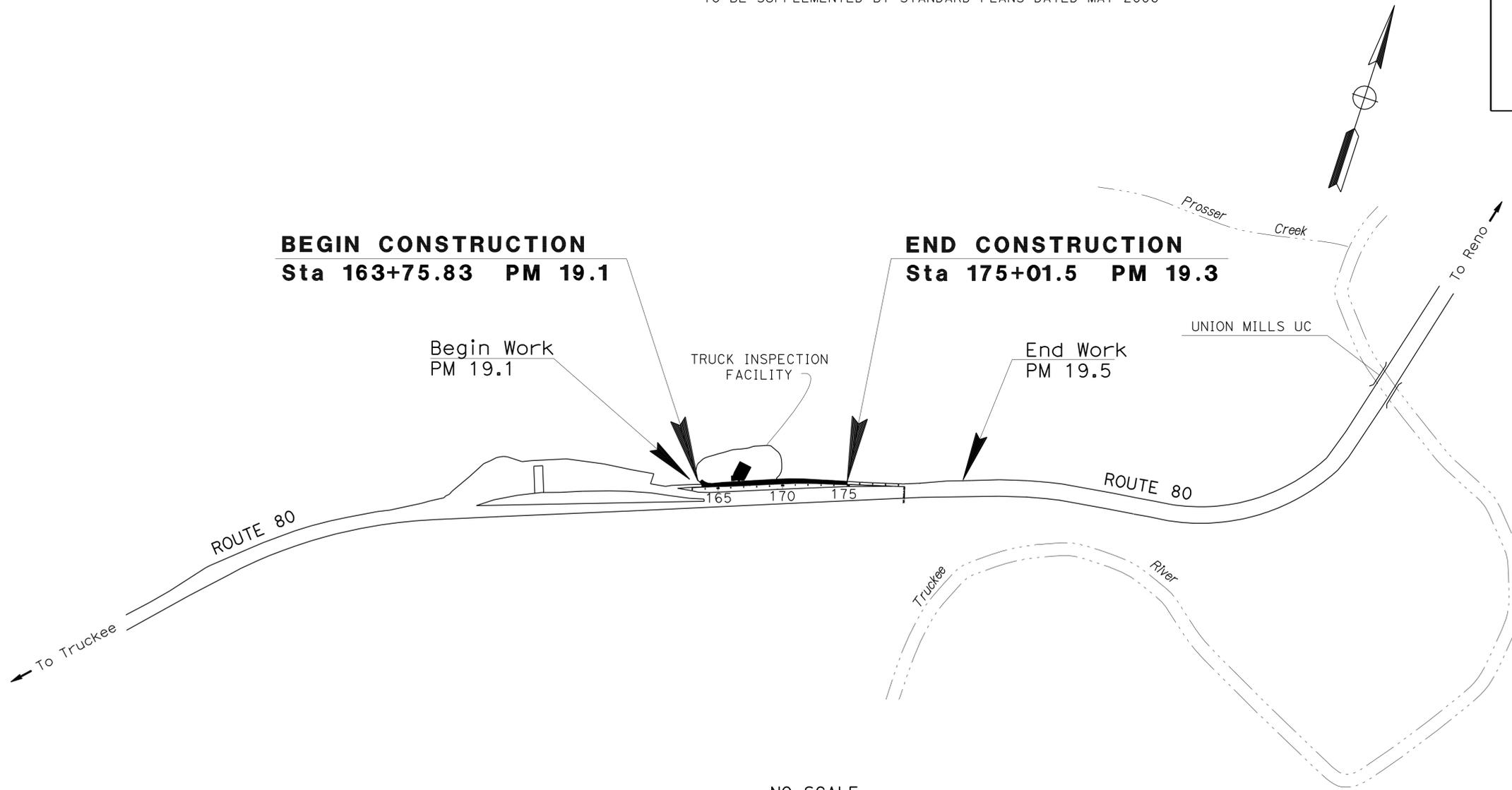
ACIM-080-4(193)E

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN NEVADA COUNTY NEAR TRUCKEE
FROM 0.9 MILE WEST OF UNION MILLS UNDERCROSSING
TO 1.1 MILES WEST OF UNION MILLS UNDERCROSSING
AT DONNER PASS TRUCK INSPECTION FACILITY
AT 12800 HIGHWAY 80

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	1	71

LOCATION MAP



NO SCALE

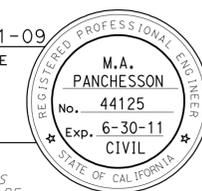
PROJECT MANAGER
MIKE PANCHESSON

DESIGN ENGINEER
KEVIN ESPINOZA

M.A. Panchesson 4-01-09
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

July 27, 2009
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.



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



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	2	71

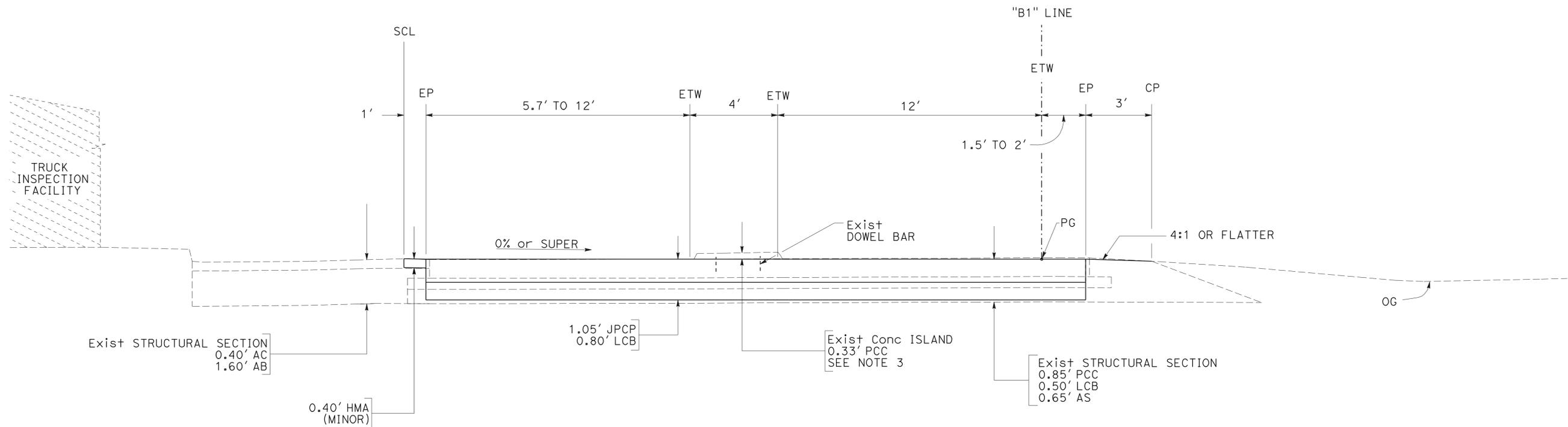
<i>M.A. Panchesson</i> 4-01-09 REGISTERED CIVIL ENGINEER DATE		
7-27-09 PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>		

NOTES:

- DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED BY THE STANDARD SPECIFICATIONS.
- SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- REMOVE CONCRETE ISLAND FROM L+ "B1" 165+74.5 TO "B1" 167+31.7. SEE BUILDING PLANS.
- SAW CUT LINE: FROM 40.2' Lt, "B1" 163+62.4 TO 34.9' Lt, "B1" 170+45.7.
- EXISTING PCC Pvm+ TIE BARS NOT SHOWN. SEE 1984 Std PLAN A35-A.
- PROPOSED JPCP TIE BARS AND DOWEL BARS NOT SHOWN. SEE Std PLAN P1.

ABBREVIATIONS / SYMBOLS

SCL - SAW CUT LINE
 CHP - CALIFORNIA HIGHWAY PATROL
 CP - CATCH POINT



TRUCK INSPECTION FACILITY OFF-RAMP
 Sta "B1" 163+75.83 TO "B1" 169+60

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	BILL BIGGS	REVISOR	SAT
<i>Caltrans</i>	SHAHNA THOMAS	DATE	11/10/08
FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY	
KEVIN ESPINOZA			
DESIGN			



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	3	71

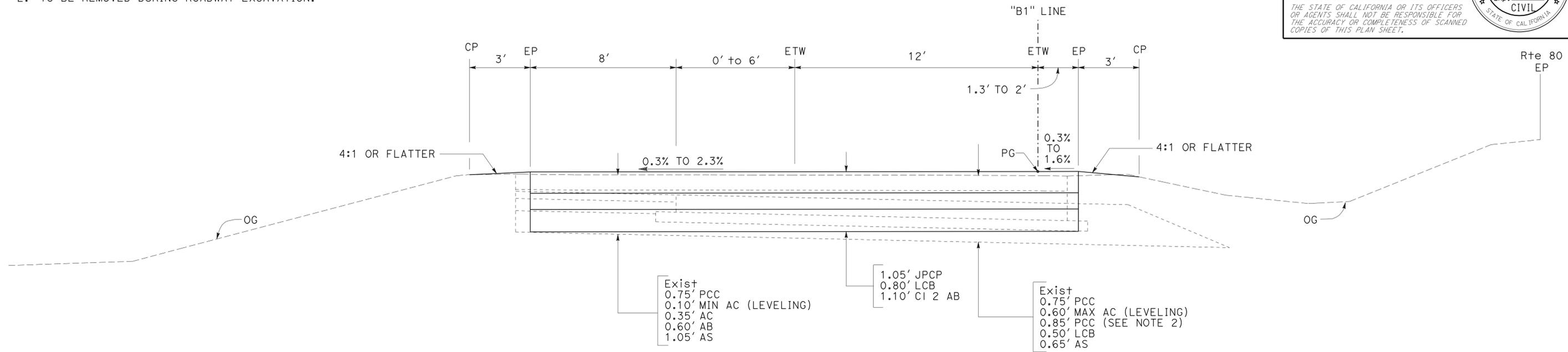
M.A. Panchesson 4-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-27-09
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 M.A. PANCHESSON
 No. 44125
 Exp. 6-30-11
 CIVIL
 STATE OF CALIFORNIA

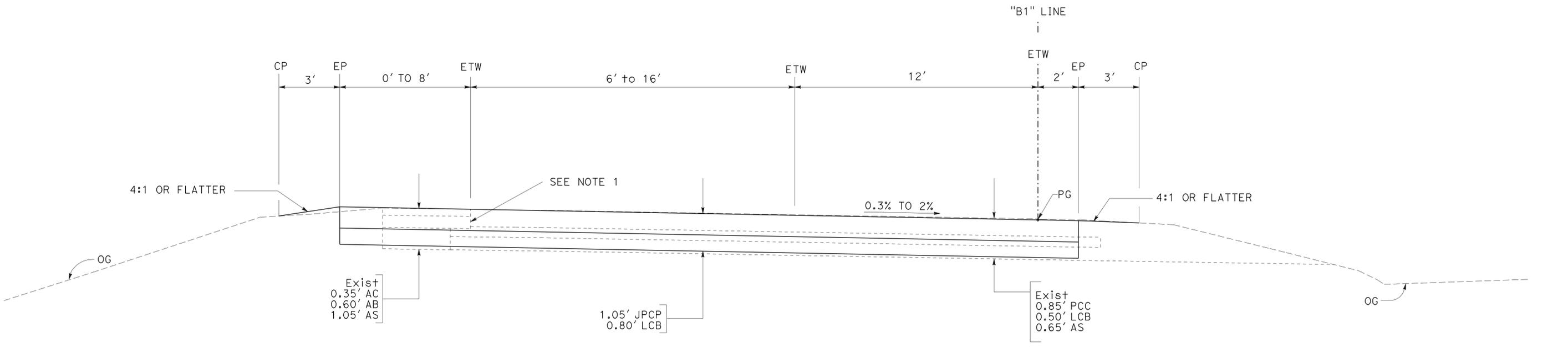
NOTES:

1. LOCATION OF EXISTING LONGITUDINAL JOINT VARIES FROM 2.3' TO 8' FROM THE EXISTING EP.
2. TO BE REMOVED DURING ROADWAY EXCAVATION.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 KEVIN ESPINOZA
 CALCULATED-DESIGNED BY
 CHECKED BY
 BILL BIGGS
 SHAHNA THOMAS
 REVISED BY
 DATE REVISED
 SAT
 11/12/08



TRUCK INSPECTION FACILITY OFF RAMP
 Sta "B1" 173+21.6 TO "B1" 175+01.5



TRUCK INSPECTION FACILITY OFF RAMP
 Sta "B1" 169+60 TO "B1" 173+21.6

TYPICAL CROSS SECTIONS

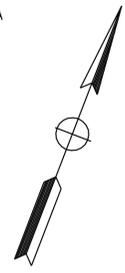
NO SCALE **X-2**

NOTES:

- FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
- HORIZONTAL DATUM NAD83 (91.35). GRID DISTANCES AND GRID BEARINGS SHOWN. TO OBTAIN GROUND LEVEL DISTANCES, DIVIDE DISTANCES BY 0.99964836.
- VERTICAL DATUM NGVD 1929.
- AT APPROXIMATE STATION "B1" 165+05, USE STRENGTHENED RAILING SECTION FOR MBGR PER REVISED STANDARD PLAN A77G3.
- FOR SNOW POLE MARKER LOCATIONS SEE SHEETS C-3 AND Q-1.
- LOCATION OF UTILITY FACILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE UTILITY OWNERS PRIOR TO CONSTRUCTION.
- NOT ALL SERVICE LINES OR FACILITIES OUTSIDE THE STATE RIGHT OF WAY ARE SHOWN.
- ALL THREE MBGR LOCATIONS WILL REQUIRE STRENGTHENING OF THE RAILING SECTIONS. SEE RSP A77G3.

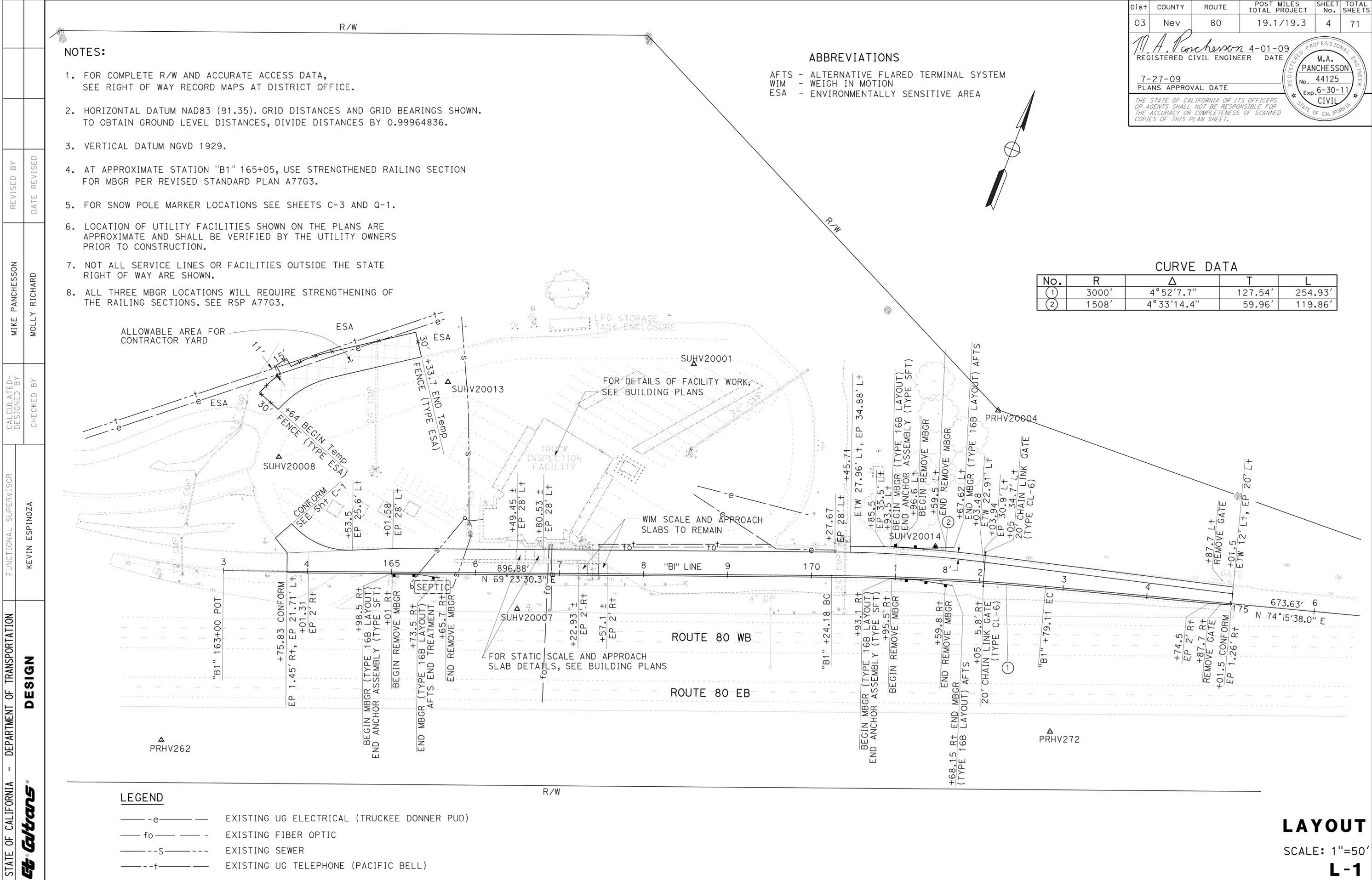
ABBREVIATIONS

- AFTS - ALTERNATIVE FLARED TERMINAL SYSTEM
 WIM - WEIGH IN MOTION
 ESA - ENVIRONMENTALLY SENSITIVE AREA



CURVE DATA

No.	R	Δ	T	L
①	3000'	4°52'7.7"	127.54'	254.93'
②	1508'	4°33'14.4"	59.96'	119.86'

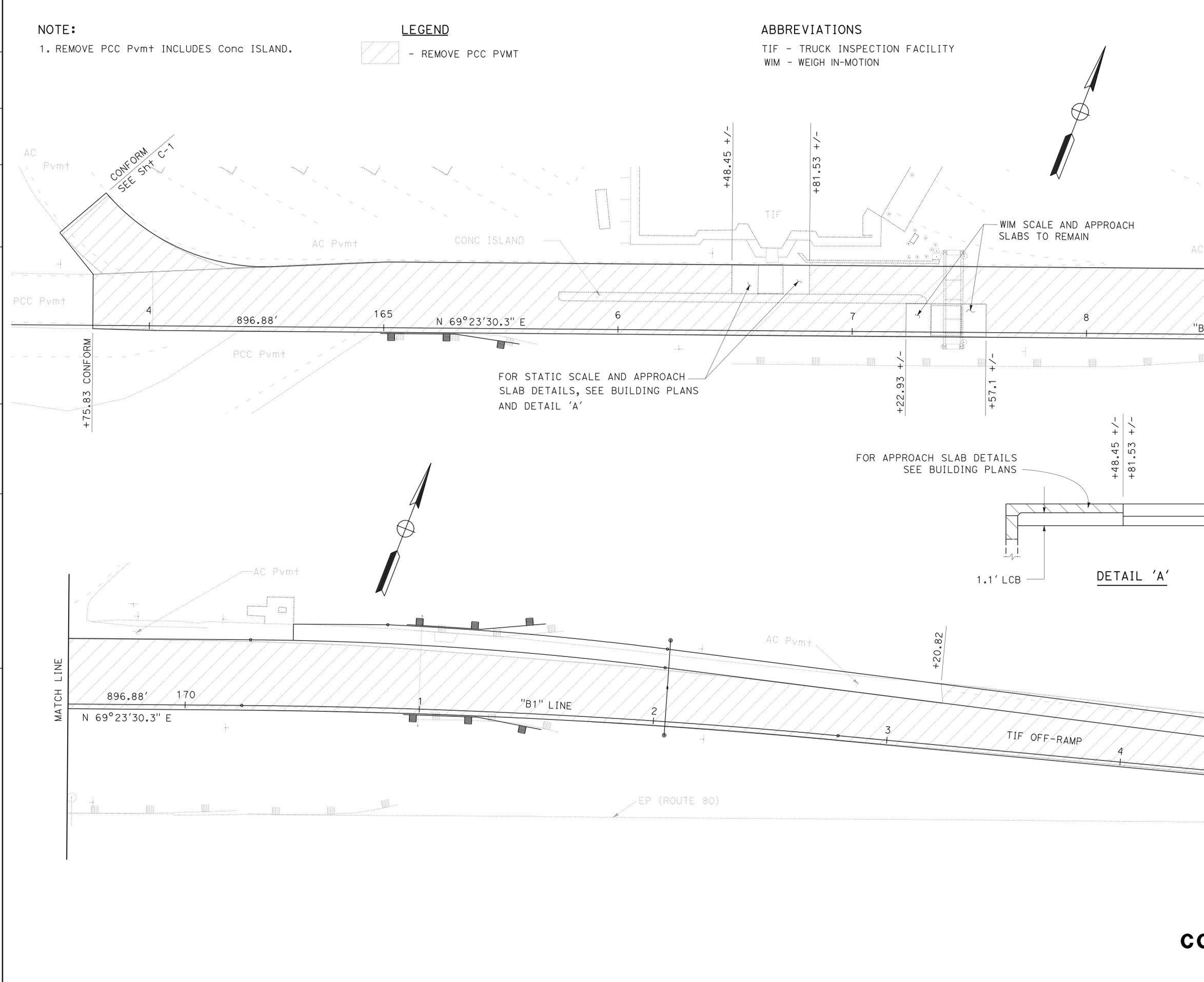


LEGEND

- e- EXISTING UG ELECTRICAL (TRUCKEE DONNER PUD)
- fo- EXISTING FIBER OPTIC
- s- EXISTING SEWER
- t- EXISTING UG TELEPHONE (PACIFIC BELL)

LAYOUT
 SCALE: 1"=50'
L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN



NOTE:
 1. REMOVE PCC Pvmf INCLUDES Conc ISLAND.

LEGEND
 [Hatched Box] - REMOVE PCC PVMF

ABBREVIATIONS
 TIF - TRUCK INSPECTION FACILITY
 WIM - WEIGH IN-MOTION

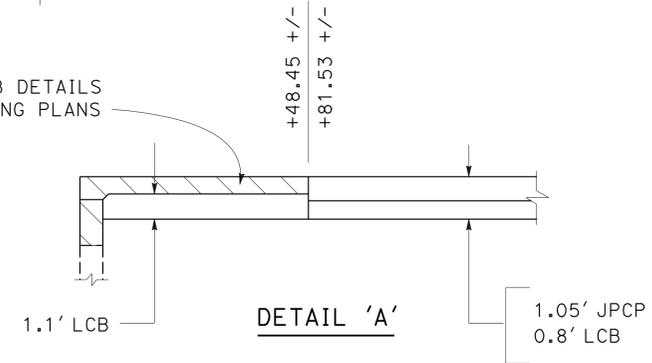
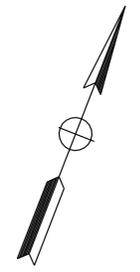
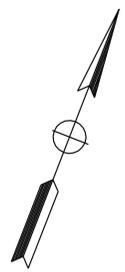
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	7	71

M.A. Panchesson 4-01-09
 REGISTERED CIVIL ENGINEER DATE

7-27-09
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 M.A. PANCHESSON
 No. 44125
 Exp. 6-30-11
 CIVIL
 STATE OF CALIFORNIA



FOR STATIC SCALE AND APPROACH SLAB DETAILS, SEE BUILDING PLANS AND DETAIL 'A'



USERNAME => frrmikesl
 DGN FILE => 34c220ga002.dgn

CU 03227 EA 4C2201

REMOVE PCC PAVEMENT
CONSTRUCTION DETAILS
 SCALE: 1"=20' **C-2**

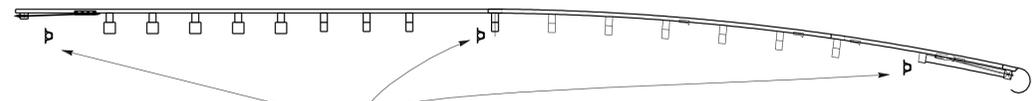
LAST REVISION DATE PLOTTED => 30-JUL-2009
 00-00-00 TIME PLOTTED => 12:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	8	71

M.A. Panchesson 4-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-27-09
 PLANS APPROVAL DATE

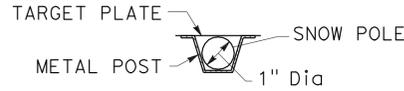
REGISTERED PROFESSIONAL ENGINEER
 M.A. PANCHESSON
 No. 44125
 Exp. 6-30-11
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 STATE OF CALIFORNIA

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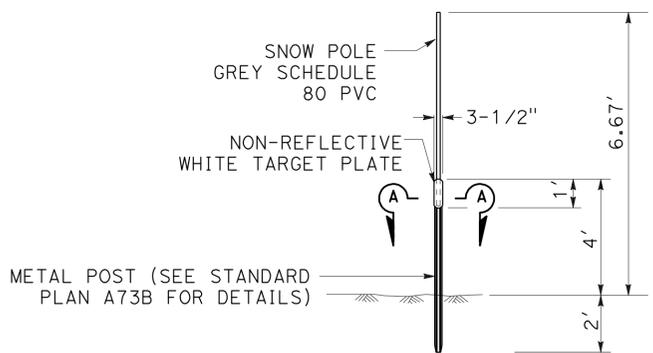


SNOW POLE MARKER
EXACT LOCATION TO BE DETERMINED BY THE ENGINEER

PLAN VIEW

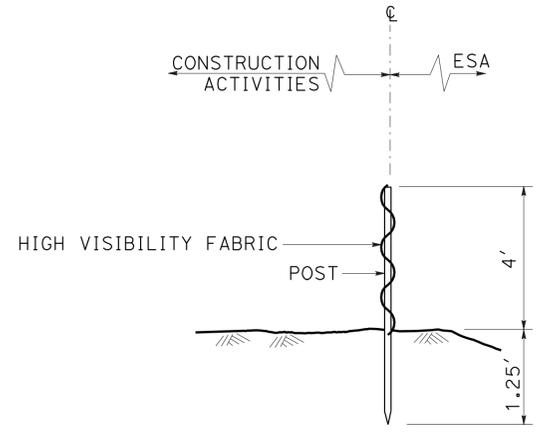


SECTION A-A



**SNOW POLE MARKER
DETAIL**

FOR DETAILS NOT SHOWN, SEE
STANDARD PLAN A73C



**SECTION
TEMPORARY FENCE (TYPE ESA)**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Caltrans	
FUNCTIONAL SUPERVISOR	KEVIN ESPINOZA
CALCULATED-DESIGNED BY	CHECKED BY
SHAHNA THOMAS	MIKE PANCHESSON
REVISOR BY	DATE REVISED

CONSTRUCTION DETAILS

NO SCALE

C-3

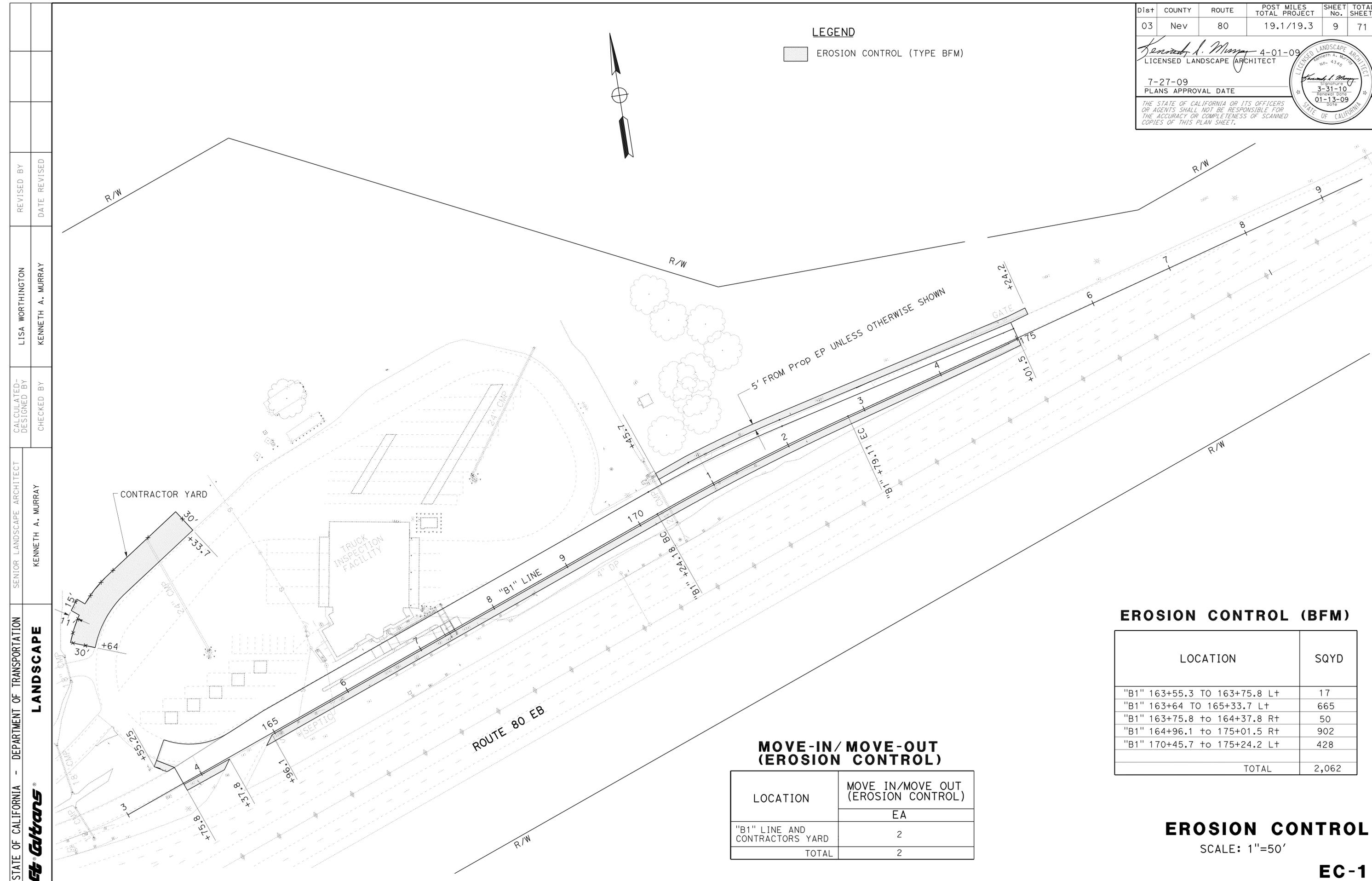
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	9	71

Kenneth A. Murray 4-01-09
 LICENSED LANDSCAPE ARCHITECT
 7-27-09
 PLANS APPROVAL DATE

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LEGEND

EROSION CONTROL (TYPE BFM)



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
LANDSCAPE
 SENIOR LANDSCAPE ARCHITECT
 KENNETH A. MURRAY
 CALCULATED-DESIGNED BY
 CHECKED BY
 LISA WORTHINGTON
 KENNETH A. MURRAY
 REVISED BY
 DATE REVISED

EROSION CONTROL (BFM)

LOCATION	SQYD
"B1" 163+55.3 TO 163+75.8 Lt	17
"B1" 163+64 TO 165+33.7 Lt	665
"B1" 163+75.8 to 164+37.8 Rt	50
"B1" 164+96.1 to 175+01.5 Rt	902
"B1" 170+45.7 to 175+24.2 Lt	428
TOTAL	2,062

MOVE-IN/ MOVE-OUT (EROSION CONTROL)

LOCATION	MOVE IN/MOVE OUT (EROSION CONTROL)
	EA
"B1" LINE AND CONTRACTORS YARD	2
TOTAL	2

EROSION CONTROL

SCALE: 1"=50'

EC-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	10	71

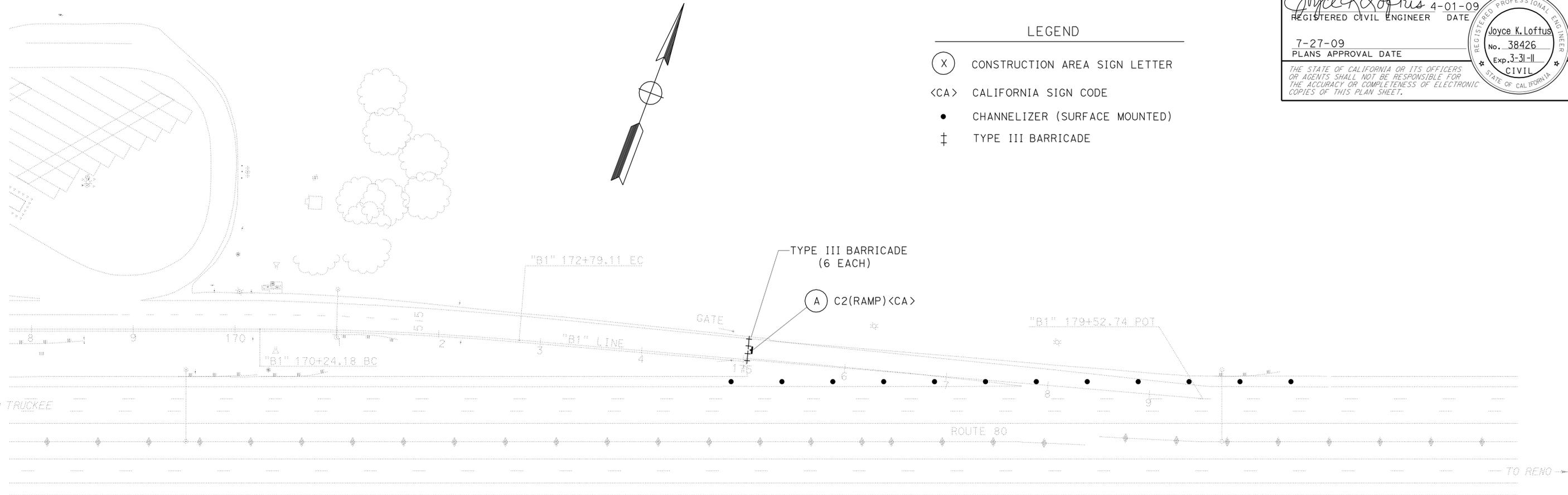
Joyce K. Loftus 4-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-27-09
 PLANS APPROVAL DATE

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
 No. 38426
 Exp. 3-31-11
 CIVIL
 STATE OF CALIFORNIA

LEGEND

- (X) CONSTRUCTION AREA SIGN LETTER
- <CA> CALIFORNIA SIGN CODE
- CHANNELIZER (SURFACE MOUNTED)
- ‡ TYPE III BARRICADE



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)		C2(RAMP)	48" X 30"	RAMP CLOSED	MOUNTED ON BARRICADE	1

NOTE: EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.

CHANNELIZER - BARRICADE

LOCATION	CHANNELIZER (SURFACE MOUNTED) (EA)	TYPE III BARRICADE	
		FURNISH (EA)	INSTALL
WB ROUTE 80 EXIT RAMP TO DONNOR PASS INSPECTION STATION	12	6	6
TOTAL	12	6	—

NOTES:

- ALL CHANNELIZERS (SURFACE MOUNTED) SHALL BE INSTALLED 50' ON CENTER.
- THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY.

TRAFFIC HANDLING PLAN AND QUANTITIES

SCALE: 1"=50'

TH-1

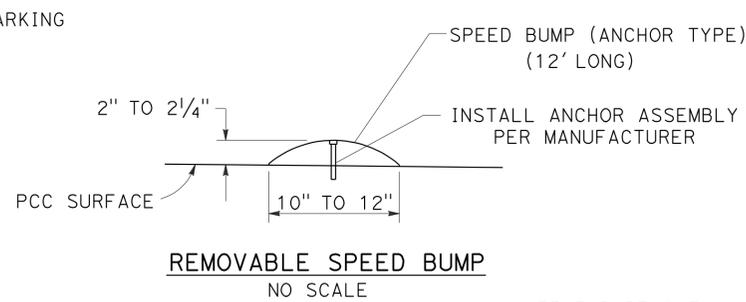
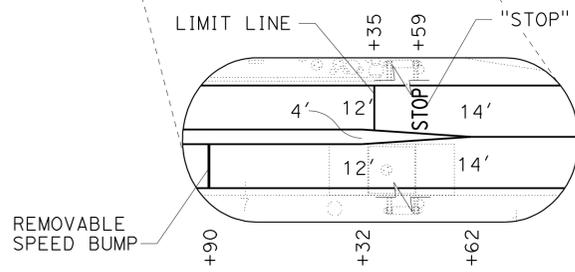
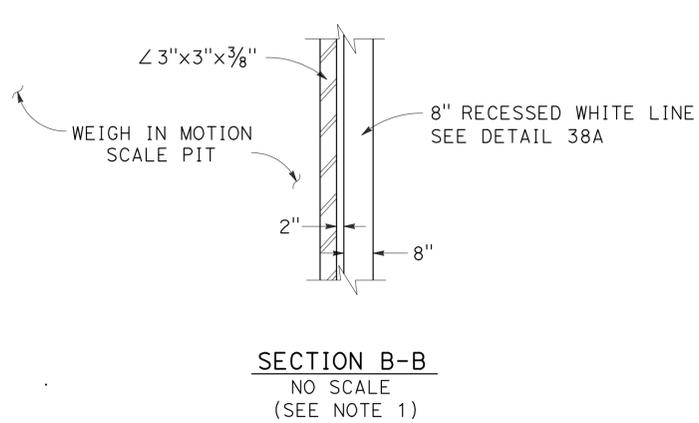
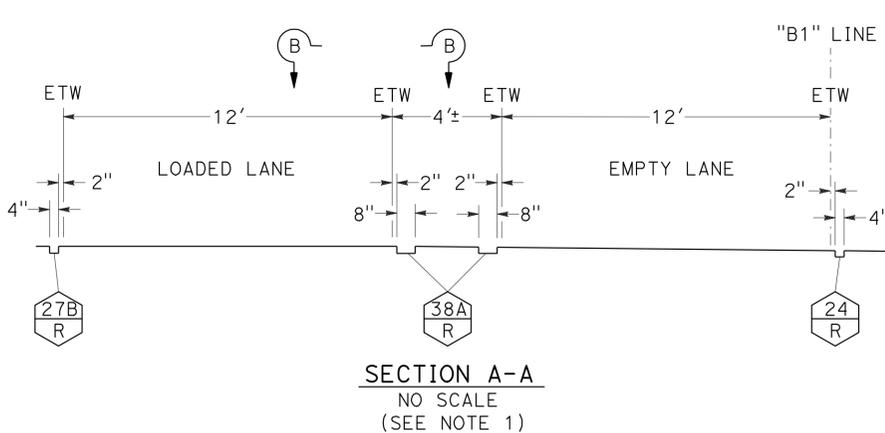
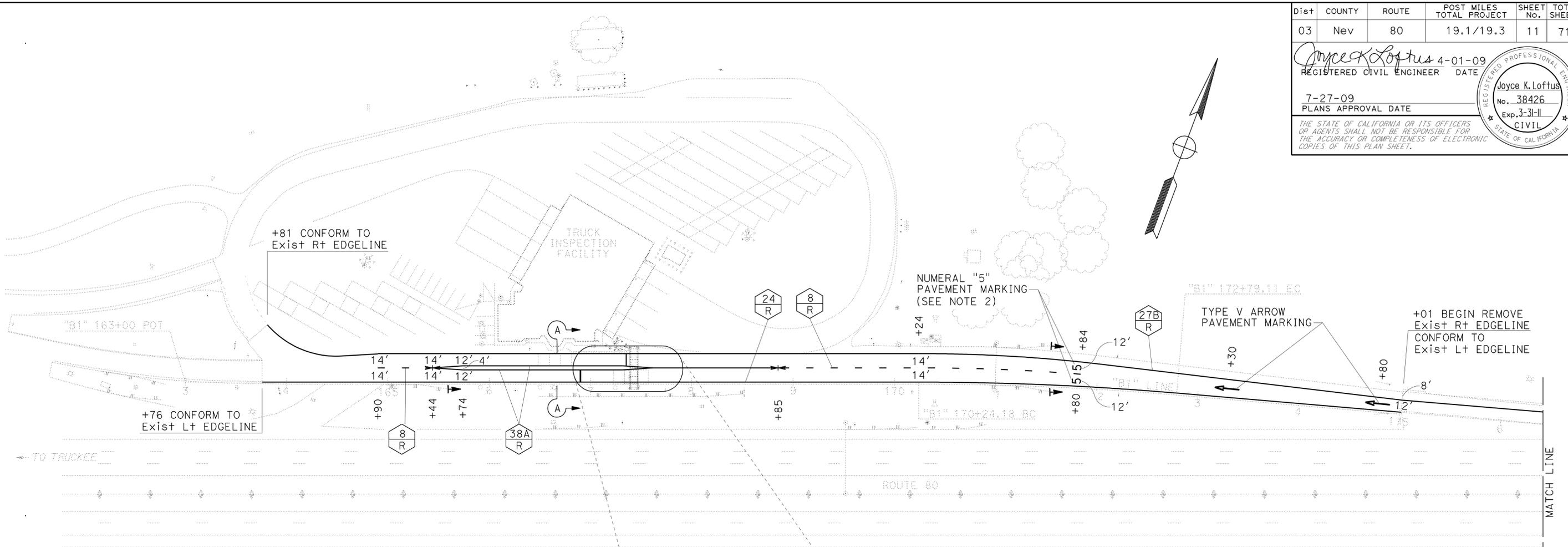
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 SHAUN A. RICE
 FUNCTIONAL SUPERVISOR
 J. KEMMERLY
 J. LOFTUS
 REVISOR
 DATE REVISOR
 CALCULATED BY
 DESIGNED BY
 CHECKED BY
 J. KEMMERLY
 J. LOFTUS
 REVISOR
 DATE REVISOR
 CALCULATED BY
 DESIGNED BY
 CHECKED BY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	11	71

Joyce K. Loftus 4-01-09
 REGISTERED CIVIL ENGINEER DATE
 7-27-09
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REGISTERED PROFESSIONAL ENGINEER
 Joyce K. Loftus
 No. 38426
 Exp. 3-31-11
 CIVIL
 STATE OF CALIFORNIA

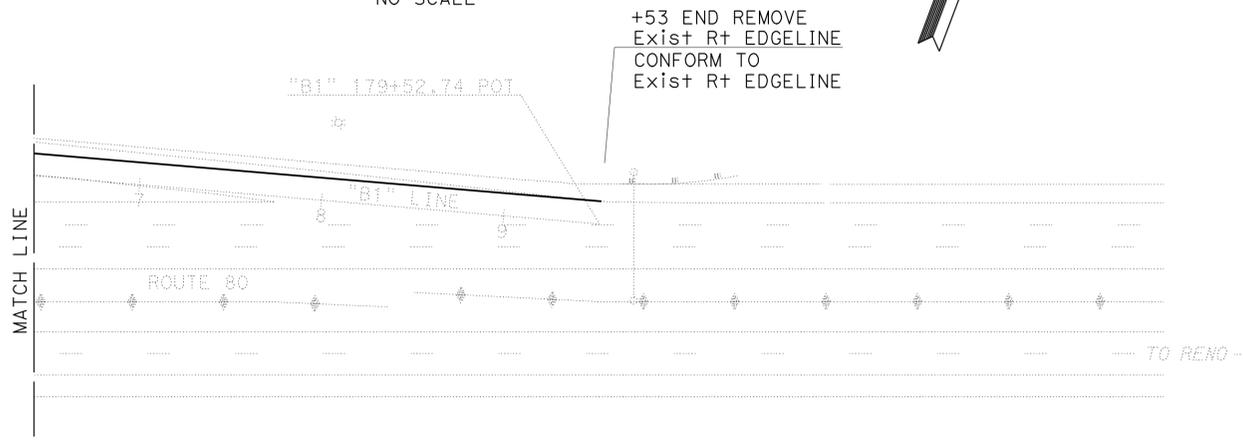
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Et Caltrans®
 FUNCTIONAL SUPERVISOR
 SHAUN A. RICE
 TRAFFIC
 CALCULATED-DESIGNED BY
 CHECKED BY
 J. KEMMERLY
 J. LOFTUS
 REVISED BY
 DATE REVISED



LEGEND

	CHANGE IN STRIPING PATTERN
	PAVEMENT DELINEATION DETAIL NUMBER
	RECESSED TRAFFIC STRIPE
	TYPE V ARROW
	OBJECT MARKER (TYPE L-1)

- NOTES:**
1. FOR ADDITIONAL RECESSED TRAFFIC STRIPE DETAILS, SEE STANDARD PLAN A20D.
 2. FOR ADDITIONAL INFORMATION, SEE "NUMERAL 5 MARKING" DETAIL ON SHEET PDQ-1.
 3. ALL STATION CALLOUTS FOR PAVEMENT MARKINGS ARE TO THE CENTER.
 4. THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY.



PAVEMENT DELINEATION PLAN
 SCALE: 1"=50'
PD-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	12	71

Joyce K. Loftus 4-01-09
 REGISTERED CIVIL ENGINEER DATE

7-27-09
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No. 38426
 Exp. 3-31-11
 CIVIL

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4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17-7) (RECESSED)

DETAIL NUMBER	LINEAR FEET
8	353
TOTAL	353

TWO-COMPONENT PAINT PAVEMENT MARKING

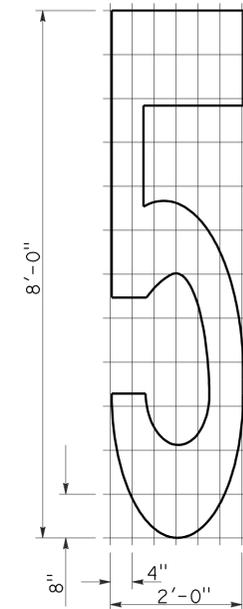
DESCRIPTION	NUMBER	SQUARE FEET
"STOP"	1 @ 22 SQFT	22.0
LIMIT LINE	1	12.2
TYPE V ARROW	2 @ 33 SQFT	66.0
NUMERAL "5"	2 @ 9.3 SQFT	18.6
TOTAL		118.8

8" THERMOPLASTIC TRAFFIC STRIPE (RECESSED)

DETAIL NUMBER	LINEAR FEET
38A	559
TOTAL	559

REMOVE TRAFFIC STRIPE

STATION LIMITS	DESCRIPTION	LINEAR FEET
"B1" 175+01 TO "B1" 179+53	R+ EDGELINE	452
TOTAL		452



AREA=9.3 SQFT
NUMERAL 5 MARKING
 NO SCALE

4" THERMOPLASTIC TRAFFIC STRIPE (RECESSED)

DETAIL NUMBER	LINEAR FEET
24	1,124
27B	1,572
TOTAL	2,696

OBJECT MARKER (TYPE L-1)

LOCATION	EACH
"B1" 165+58 R+	1
"B1" 171+52 L+	1
"B1" 171+52 R+	1
TOTAL	3

REMOVABLE SPEED BUMP

LOCATION	EACH
"B1" 166+90 L+	1
TOTAL	1

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: SHAUN A. RICE
 REVISIONS: J. KEMMERLY, J. LOFTUS
 REVISOR: J. KEMMERLY, J. LOFTUS
 DATE: 4/11/2008

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	19.1/19.3	13	71

M.A. Panchesson 4-01-09
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 7-27-09
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ROADWAY QUANTITIES

LOCATION	ROADWAY EXCAVATION	(N) EMBANKMENT	REMOVE CONCRETE PAVEMENT	CLASS 2 AGGREGATE BASE	LEAN CONCRETE BASE	CONCRETE PAVEMENT (JPCP)	MINOR HOT MIX ASPHALT	SEAL PAVEMENT JOINT	SEAL LONGITUDINAL ISOLATION JOINT
	CY	CY	CY	CY	CY	CY	TON	LF	LF
"B1" 163+75.83 TO 175+01.50 Lt/Rt	1,508	2	968	183	1,006	1,311	19	1,476	879
"B1" 175+01.50 TO 175+24.00 Lt		2	1						
TOTAL	1,508	4	969	183	1,006	1,311	19	1,476	879

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

METAL BEAM GUARD RAILING

LOCATION	METAL BEAM GUARD RAILING	END ANCHOR ASSEMBLY (TYPE SFT)	ALTERNATIVE FLARED TERMINAL SYSTEM	(N) GUARD RAILING LAYOUT	REMOVE METAL BEAM GUARD RAILING
	LF	EA	EA	TYPE	LF
"B1" 164+98.5 TO 165+73.5 Rt	37.5			16B	
"B1" 171+93.1 TO 171+68.15 Rt	37.5			16B	
"B1" 170+93.5 TO 171+67.12 Lt	37.5			16B	
"B1" 165+01.0 TO 165+65.7 Rt					65
"B1" 170+95.5 TO 171+59.8 Rt					65
"B1" 170+96.6 TO 171+59.5 Lt					64
"B1" 164+98.5 Rt		1			
"B1" 165+73.5 Rt			1		
"B1" 170+93.1 Rt		1			
"B1" 170+93.5 Lt		1			
"B1" 171+67.12 Lt			1		
"B1" 171+68.15 Rt			1		
TOTAL	112.5	3	3		194

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

20' CHAIN LINK GATE (TYPE CL-6)

LOCATION	EA
"B1" 172+05.0 Rt	1
"B1" 172+05.0 Lt	1
TOTAL	2

TEMPORARY FENCE (TYPE ESA)

LOCATION	LF
"B1" 163+64 TO 165+33.7 Lt	286
TOTAL	286

SNOW POLE MARKER

LOCATION	EA
"B1" 163+78.5 Lt	1
"B1" 164+98.5 Rt	1
"B1" 165+30.5 Rt	1
"B1" 165+58.0 Rt	1
"B1" 170+93.1 Rt	1
"B1" 170+95.3 Lt	1
"B1" 170+24.9 Lt	1
"B1" 170+24.9 Rt	1
"B1" 171+52.1 Lt	1
"B1" 171+52.4 Rt	1
TOTAL	10

REMOVE GATE

LOCATION	EA
"B1" 174+87.7 Lt/Rt	2
TOTAL	2

TEMPORARY FIBER ROLL

LOCATION	LF
"B1" 163+75.83 TO 175+24.20 Lt	515
"B1" 163+75.83 TO 175+01.50 Rt	1,126
"B1" 170+40.0 Rt (Pipe Entrance)	100
TOTAL	1,741

TEMPORARY COVER

LOCATION	SQYD
"B1" 163+75.83 TO 175+01.50	412
TOTAL	412

TEMPORARY DRAINAGE INLET PROTECTION

LOCATION	EA
"B1" 164+80.6 Lt 122'	1
"B1" 168+55.2 Lt 149'	1
TOTAL	2

SUMMARY OF QUANTITIES

Q-1

GRAPHIC SYMBOLS FOR ELECTRICAL WIRING AND LAYOUT DIAGRAMS

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	14	71

Eric Greve
 REGISTERED ELECTRICAL ENGINEER DATE 4-14-09

7-27-09
 PLANS APPROVAL DATE

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SYMBOL	DESCRIPTION
(2) 1/2" C, PVC, 2#12	CONDUCTOR INFO (PER CONDUIT) CONDUIT TYPE CONDUIT SIZE NUMBER OF CONDUITS (NO NUMBER INDICATES ONE CONDUIT)
—MC—	CONDUIT, METALLIC UNDERGROUND
—PVC—	CONDUIT, POLYVINYL CHLORIDE, UNDERGROUND
—	CONDUIT CONCEALED IN CEILING OR WALL
----	CONDUIT CONCEALED IN FLOOR
-x-x-	CONDUIT EXPOSED
---#---	CROSS-LINES INDICATE NUMBER OF #12 AWG CONDUCTORS. LONGER CROSS-LINE INDICATES #12 AWG (G) FOR EQUIPMENT GROUNDING CONDUCTOR. NO CROSS-LINE INDICATES 2#12 WITH #12 (G) UNLESS OTHERWISE NOTED. ALL CONDUIT 1/2" UNLESS OTHERWISE NOTED.
	CIRCUIT BREAKER, SINGLE POLE
	CIRCUIT BREAKER, DOUBLE POLE
	CIRCUIT BREAKER, THREE POLE
	CONTACT, NORMALLY OPEN
	CONTACT, NORMALLY CLOSED
	CONTACT, NORMALLY CLOSED, TIME DELAY CLOSING ON DE-ENERGIZING
	CONTACT, NORMALLY OPEN, TIME DELAY OPENING ON DE-ENERGIZING
	CONTACT, NORMALLY OPEN, TIME DELAY CLOSING ON ENERGIZING
	CONTACT, NORMALLY CLOSED, TIME DELAY OPENING ON ENERGIZING
	OPERATING COIL
	PUSHBUTTON SWITCH, NORMALLY CLOSED
	PUSHBUTTON SWITCH, NORMALLY OPEN
	SWITCH, SINGLE-POLE
	SWITCH, SINGLE-POLE, DOUBLE-THROW
	SWITCH, DOUBLE-POLE
	SWITCH, DOUBLE-POLE, DOUBLE-THROW
	SWITCH, SINGLE-POLE, 3-POSITION
	THERMAL OVERLOAD
	FUSE
	RESISTOR
	VARIABLE RESISTOR
	TRANSFORMER WINDING
	GROUNDING ELECTRODE
	ENCLOSURE BOND
	PILOT LIGHT (A=AMBER, G=GREEN, R=RED)
	GENERATOR
	MOTOR
	FAN MOTOR

SYMBOL	DESCRIPTION
	EXISTING STANDARD WITH SIGNAL MAST ARM, AND ATTACHED TRUCK SIGNAL FACES AND DIGITAL WEIGHT DISPLAY. REMOVE EXISTING DIGITAL WEIGHT DISPLAY AND REPLACE WITH NEW DIGITAL WEIGHT DISPLAY.
	PULL BOX-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	PULL BOX (TRAFFIC RATED)-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	TYPE A DETECTOR LOOP
	SECTION/ELEVATION LETTER
	SHEET NUMBER
	DETAIL NUMBER
	SHEET NUMBER
	EXISTING DETECTOR LOOP
	EXISTING PULL BOX
-E-E-	EXISTING CONDUIT(S) AND CONDUCTORS-TO REMAIN UNLESS OTHERWISE NOTED
-x-x-	EXISTING CONDUIT AND CONDUCTORS-REMOVE
	EXISTING JUNCTION BOX-TO REMAIN
	EXISTING JUNCTION BOX-REMOVE
	EXISTING LOAD CELL
	AUTOMATIC SIGN CONTROL CABINET

ABBREVIATIONS

A	AMPERES
BRK	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
DP	DUPLEX PLUG RECEPTACLE
(E)	EXISTING
FLEX	FLEXIBLE CONDUIT
G	GROUND
JB	JUNCTION BOX
MT	EMPTY CONDUIT
(N)	NEW
PB	PULL BOX
PVC	POLYVINYL CHLORIDE
RWIS	ROADWAY WEATHER INFORMATION STATION
TIF	TRUCK INSPECTION FACILITY
TYP	TYPICAL
WP	WEATHERPROOF
WSMS	WEIGH STATION MESSAGE SIGN

PROJECT NOTES

- SEPARATE GROUNDED (NEUTRAL) CONDUCTOR SHALL BE USED FOR EACH 120-VOLT CIRCUIT.
- HOMERUNS TO PANELBOARDS SHALL BE INSTALLED AS SHOWN ON THE PLANS. HOMERUNS SHALL NOT BE COMBINED.
- A SINGLE INSULATED EQUIPMENT GROUNDING CONDUCTOR (SIZED AS REQUIRED) SHALL BE INSTALLED IN EACH CONDUIT RUN.
- FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

DESIGN	BY Greve Eric	CHECKED Greve Eric	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	DONNER PASS TRUCK INSPECTION FACILITY	SHEET E-0	
	DETAILS	BY Dall Zhou			CHECKED Greve Eric			17W0001
	QUANTITIES	BY Greve Eric			CHECKED Greve Eric			POST MILE 19.5
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				CU 03227 EA 4C2201	DISREGARD PRINTS BEARING EARLIER REVISION DATES			
DOES SD Imperial Rev. 1/07				0 1 2 3	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF

31-JUL-2008 06:04

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	15	71

<i>Eric Greve</i>		4-14-09
REGISTERED ELECTRICAL ENGINEER	DATE	

7-27-09	
PLANS APPROVAL DATE	

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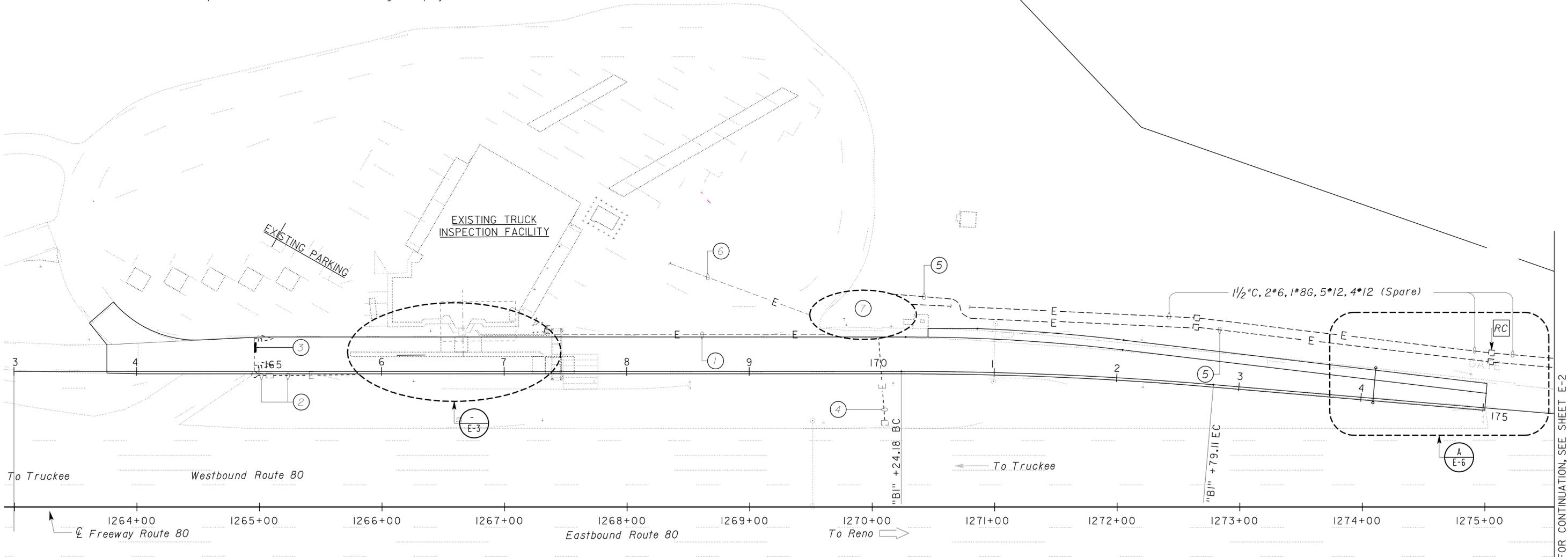
General Note:

- A. All conduits shown are existing. Unless otherwise indicated, all conduits/conductors/cables to remain. During excavation, due caution shall be exercised so as not to damage existing electrical systems. All damage must be repaired at The Contractor's full expense.
- B. For complete Right of Way and Accurate Access Data, See Right of Way Record Maps at District Office.

Notes:

- ① 7 conduits, with the following size and contents: 1"C, CCTV Cables, 1"C, 2*12, 1*10G (CCTV power), 2-1/2 "C, MT, 1 1/2 "C, 2*6, 1*8G, 9*12, 2"C to traffic loops, 2"C, 1 Fiber optic cable.
- ② 1"C, remove existing weight display cable. Prepare conduit and install new weight display cable.

- ③ Remove existing digital weight display and install new digital weight display. Connect to new cable as required.
- ④ Ex1st 3"C, 3 dlc, 2 antenna cables, 3 RWIS sensor cables
- ⑤ Ex1st 1"C, 2*6, 1*8
- ⑥ Ex1st 2"C, 4 signal cables, 1 telephone cable, 2"C, 1 fiber optic cable
- ⑦ Location of existing RWIS and Weigh Station Bypass Controller Cabinet. All existing electrical systems are to remain intact and operational. Prior to excavation in this area, The Contractor shall determine location of all potentially impacted conduits. The Contractor shall exercise due caution and employ best practices to avoid damage to underground facilities. Any damage to existing electrical facilities shall be repaired at The Contractor's expense.



SITE PLAN
SCALE 1" = 40'-0"

R/W

DESIGN SUPERVISOR <i>Alan M. Fouse</i>	DESIGN	BY Greve Eric	CHECKED Greve Eric
	DETAILS	BY Dai Zhou	CHECKED Greve Eric
	QUANTITIES	BY Greve Eric	CHECKED Greve Eric

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0001
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY

ELECTRICAL SITE PLAN I

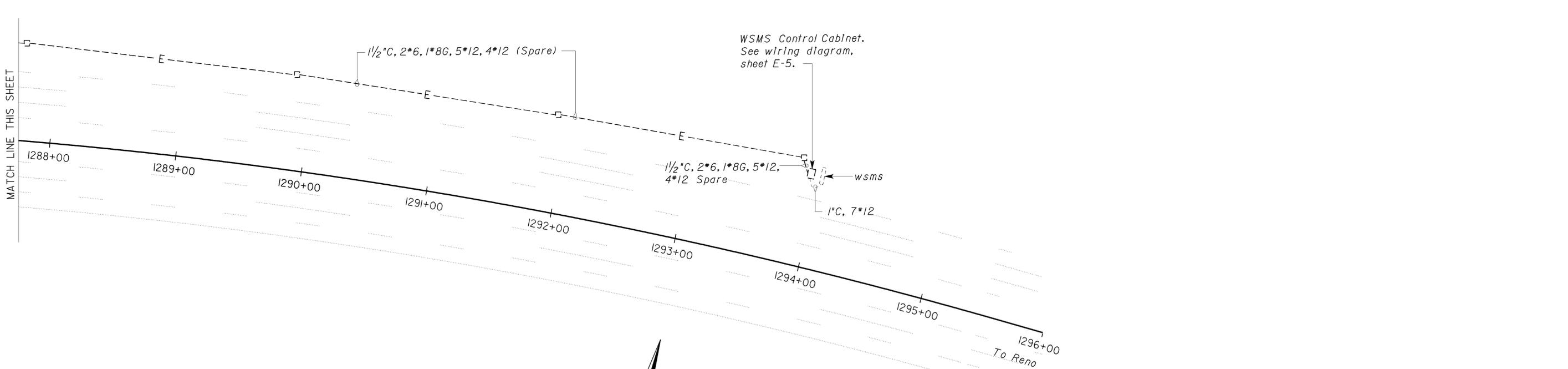
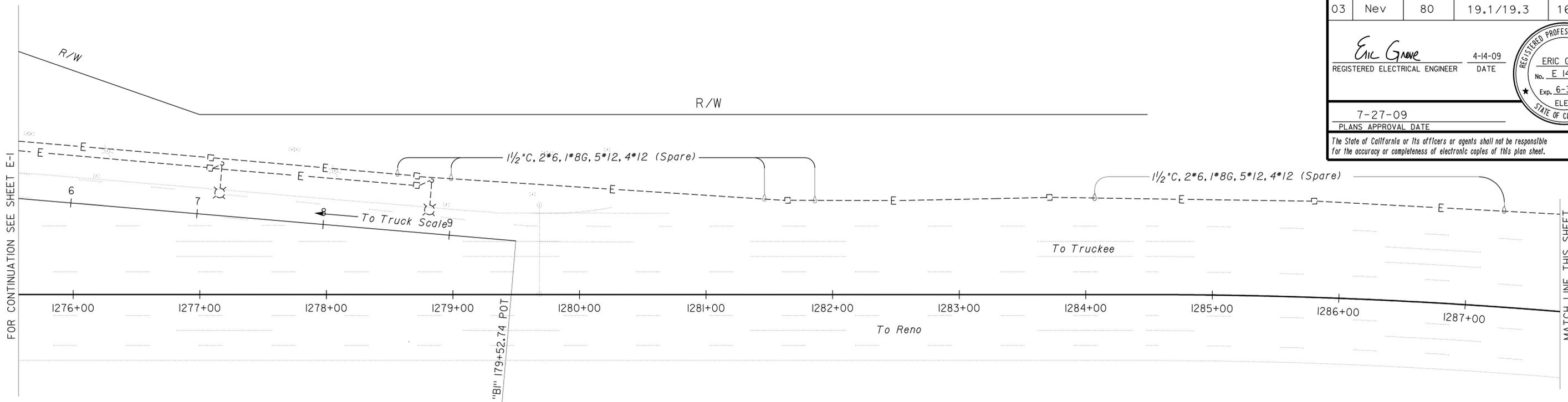
SHEET E-1

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	16	71

Eric Greve
REGISTERED ELECTRICAL ENGINEER 4-14-09 DATE

7-27-09
PLANS APPROVAL DATE

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SITE PLAN
SCALE 1" = 40'-0"

DESIGN	BY <i>Greve Eric</i>	CHECKED <i>Greve Eric</i>
DETAILS	BY <i>Dall Zhou</i>	CHECKED <i>Greve Eric</i>
QUANTITIES	BY <i>Greve Eric</i>	CHECKED <i>Greve Eric</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0001
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
ELECTRICAL SITE PLAN 2

SHEET **E-2**

REVISION DATES (PRELIMINARY STAGE ONLY)	
11/6/08	4/14/09

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	17	71

<i>Eric Greve</i>	4-14-09
REGISTERED ELECTRICAL ENGINEER	DATE

REGISTERED PROFESSIONAL ENGINEER
 ERIC GREVE
 No. E 14791
 Exp. 6-30-11
 ELEC
 STATE OF CALIFORNIA

7-27-09
PLANS APPROVAL DATE

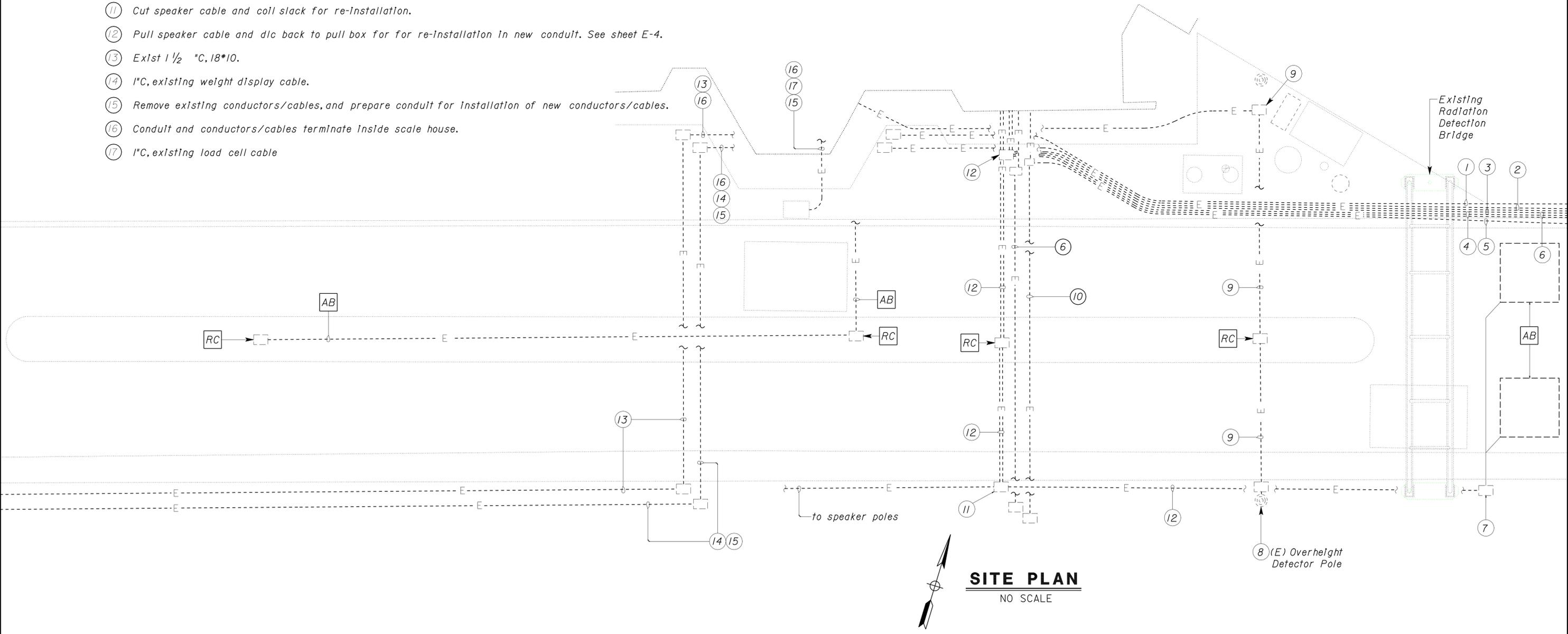
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Notes:

- ① Exist 1"C, CCTV Cables.
- ② Exist 1"C, 2*12, 1*10G (CCTV power).
- ③ Exist 1 1/2 "C, MT.
- ④ Exist 1 1/2 "C, 2*6, 1*8G, 9*12.
- ⑤ Exist 2"C to traffic loops.
- ⑥ Exist 2"C, 1 Fiber optic cable.
- ⑦ Detach dlc from loop conductors to allow re-use of dlc with new loops.
- ⑧ Detach conductors from Overheight Detector for re-use.
- ⑨ Pull Overheight Detector conductors back to pull box for re-Installation In new conduit. See sheet E-4.
- ⑩ Exist 2"C, 9 dlc
- ⑪ Cut speaker cable and coil slack for re-Installation.
- ⑫ Pull speaker cable and dlc back to pull box for for re-Installation In new conduit. See sheet E-4.
- ⑬ Exist 1 1/2 "C, 18*10.
- ⑭ 1"C, existing weight display cable.
- ⑮ Remove existing conductors/cables, and prepare conduit for installation of new conductors/cables.
- ⑯ Conduit and conductors/cables terminate inside scale house.
- ⑰ 1"C, existing load cell cable

General Notes:

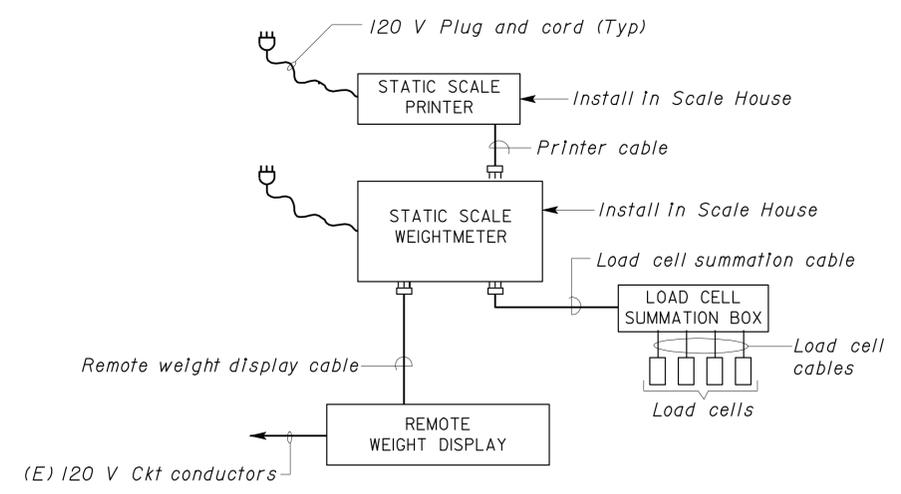
A. See sheet E-4 for new work and modifications to be done.



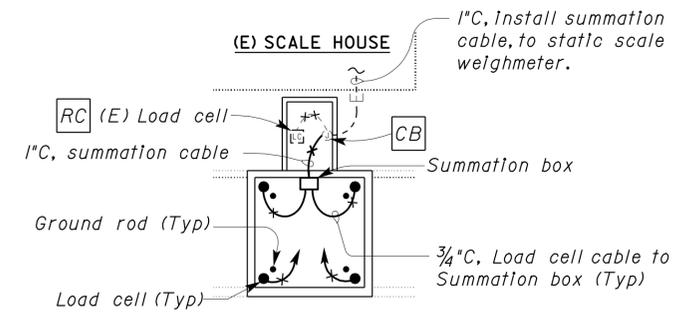
DESIGN BY <i>Greve Eric</i> CHECKED <i>Greve Eric</i> DETAILS BY <i>Dall Zhou</i> CHECKED <i>Greve Eric</i> QUANTITIES BY <i>Greve Eric</i> CHECKED <i>Greve Eric</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0001 POST MILE 19.5	DONNER PASS TRUCK INSPECTION FACILITY EXISTING PARTIAL SITE PLAN	SHEET E-3
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 03227 EA 4C2201	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 4/7/08 4/14/09	SHEET OF
	DOES SD Imperial Rev. 1/07				

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	18	71

Eric Greve REGISTERED ELECTRICAL ENGINEER		4-14-09 DATE
7-27-09 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>		

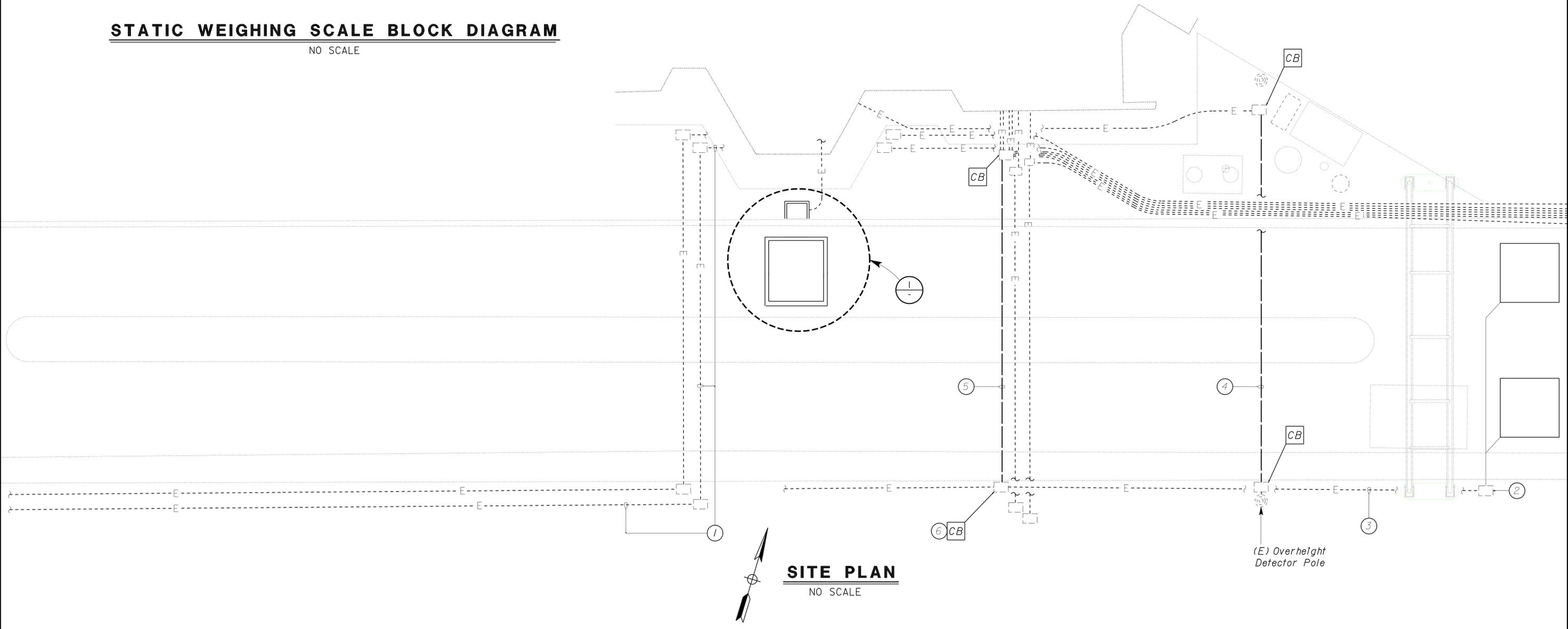


STATIC WEIGHING SCALE BLOCK DIAGRAM
NO SCALE



1 ENLARGED DETAIL
NO SCALE

- Notes:**
- 1 Install new remote weight display cables.
 - 2 Install new loop conductors into existing pull box. Connect new loop conductors to 2 dlc.
 - 3 Reinstall 2 dlc.
 - 4 1/2" C. reinstall overheight detector cables
 - 5 2" C. re-install 2 dlc and speaker cable.
 - 6 Splice speaker cable.



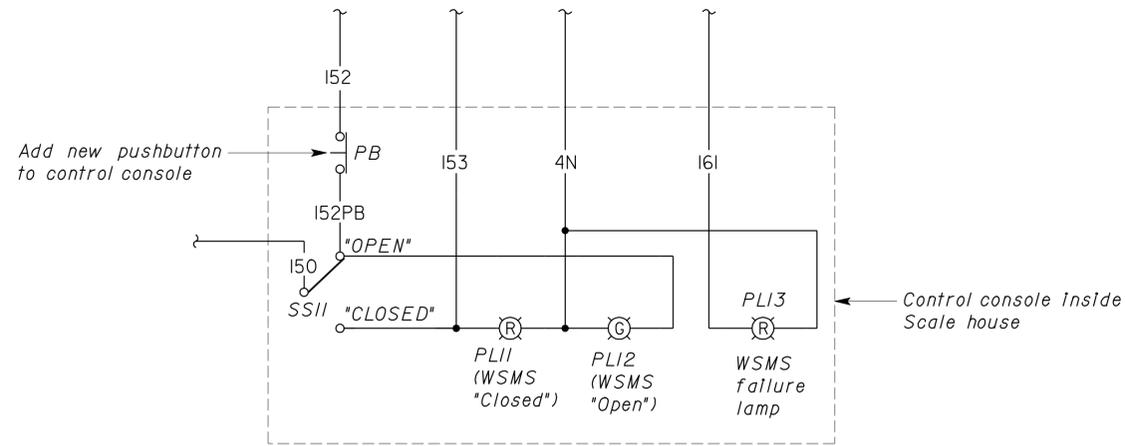
DESIGN BY <i>Greve Eric</i> CHECKED <i>Greve Eric</i> DETAILS BY <i>Dall Zhou</i> CHECKED <i>Greve Eric</i> QUANTITIES BY <i>Greve Eric</i> CHECKED <i>Greve Eric</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0001 POST MILE 19.5	DONNER PASS TRUCK INSPECTION FACILITY MODIFIED PARTIAL SITE PLAN	SHEET E-4
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 03227 EA 4C2201	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 4/7/08 4/14/09	SHEET OF
	DOES SD Imperial Rev. 1/07	31-JUL-2006 06:05	e_4.dgn		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	19	71

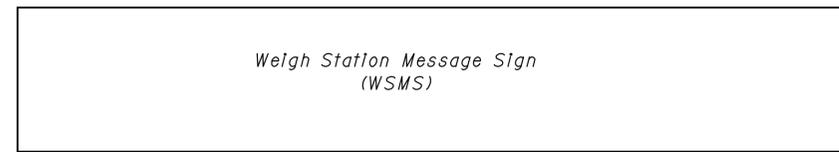
ERIC GREVE REGISTERED ELECTRICAL ENGINEER No. E 14791 Exp. 6-30-11 ELEC STATE OF CALIFORNIA		4-14-09 DATE
7-27-09 PLANS APPROVAL DATE		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>		

General Note:

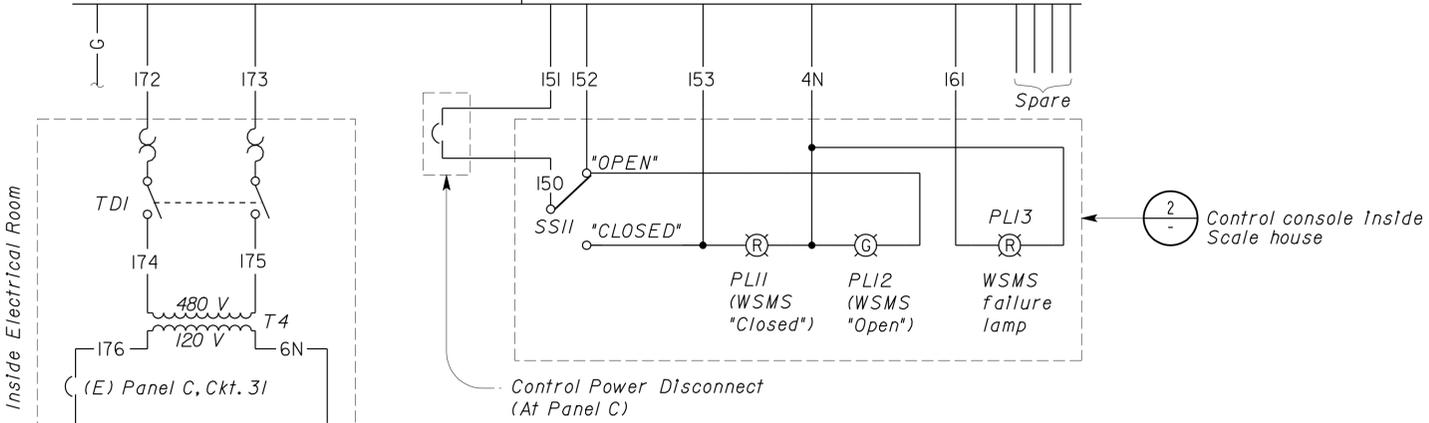
Unless otherwise indicated, all equipment shown on this sheet is existing, and shall remain in place and operational.



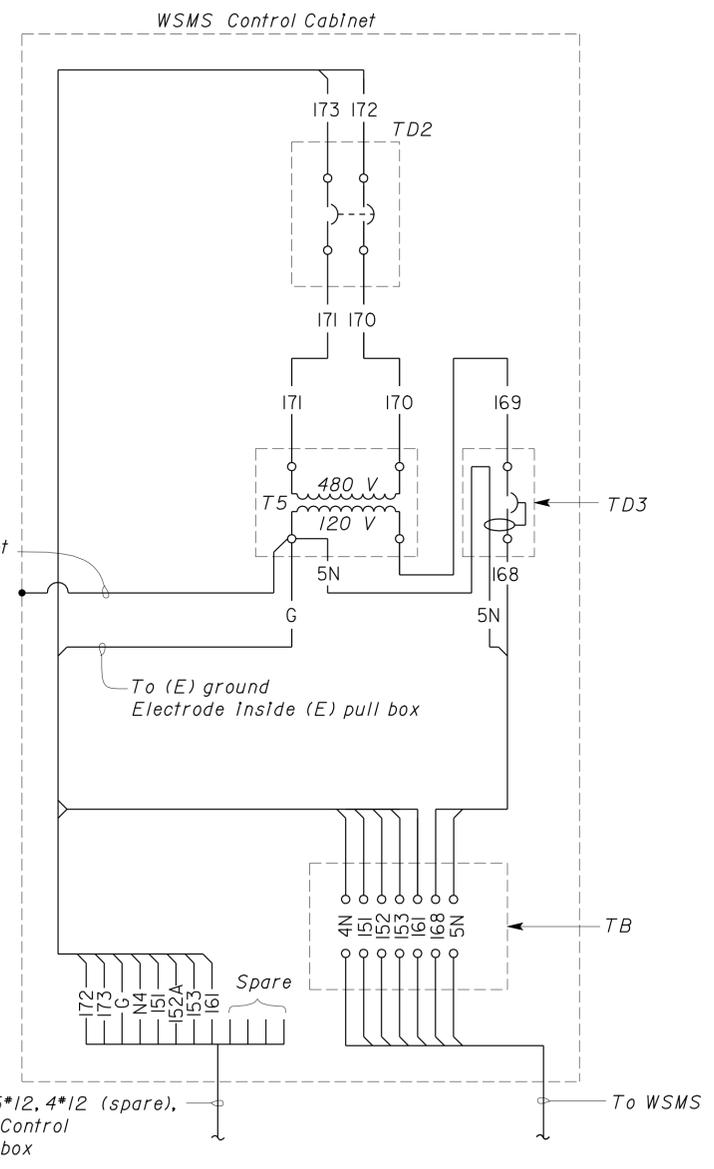
2 MODIFIED CONTROL CONSOLE



1/2" C, 2*6, 1*8G, 5*12, 4*12 (Spare)



WSMS CONTROL SCHEMATIC



1 WSMS CONTROL CABINET WIRING DIAGRAM
(for informational purposes only)

DESIGN	BY Greve Eric	CHECKED Greve Eric
DETAILS	BY Dall Zhou	CHECKED Greve Eric
QUANTITIES	BY Greve Eric	CHECKED Greve Eric

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0001
POST MILE	19.5

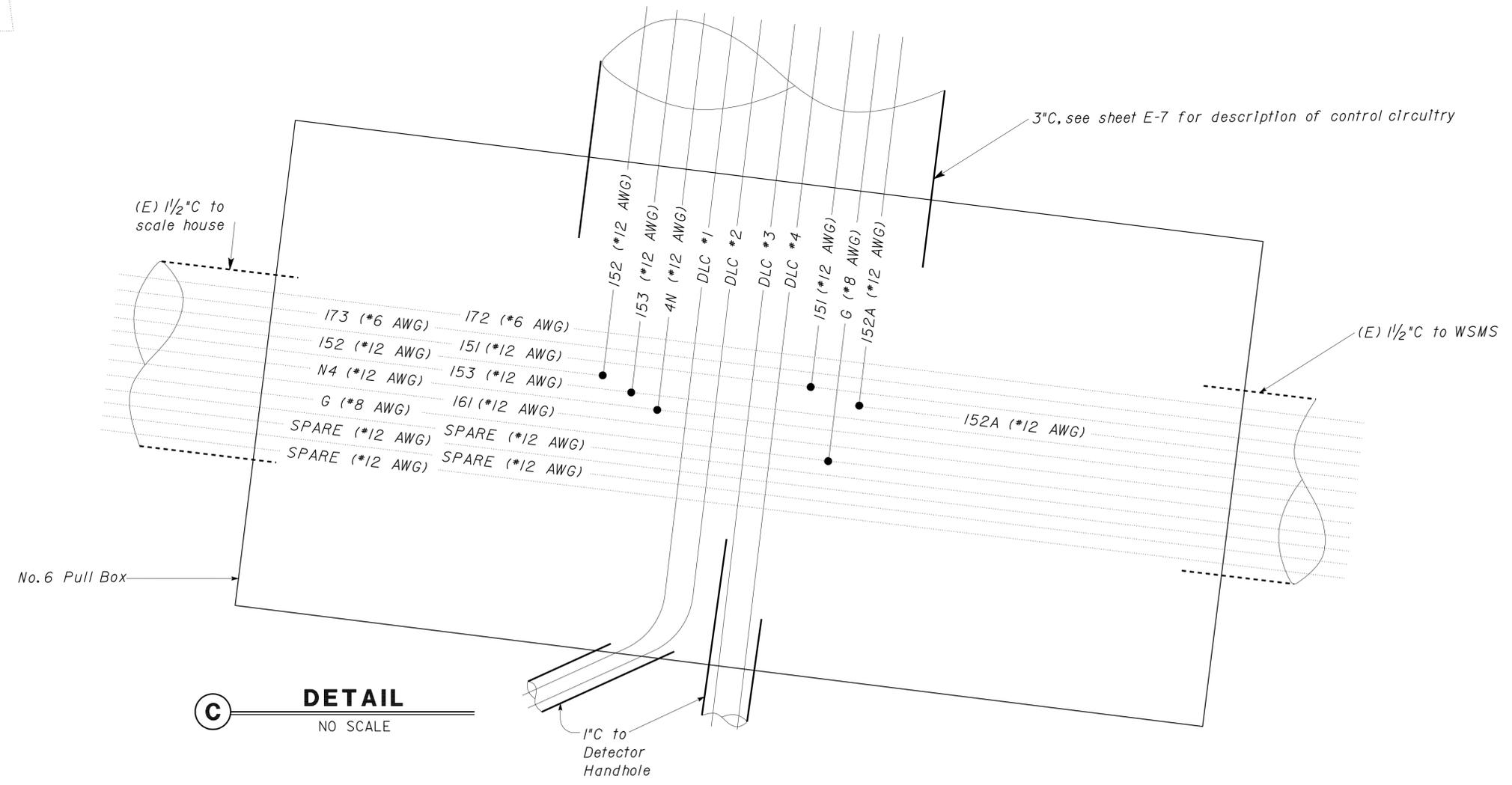
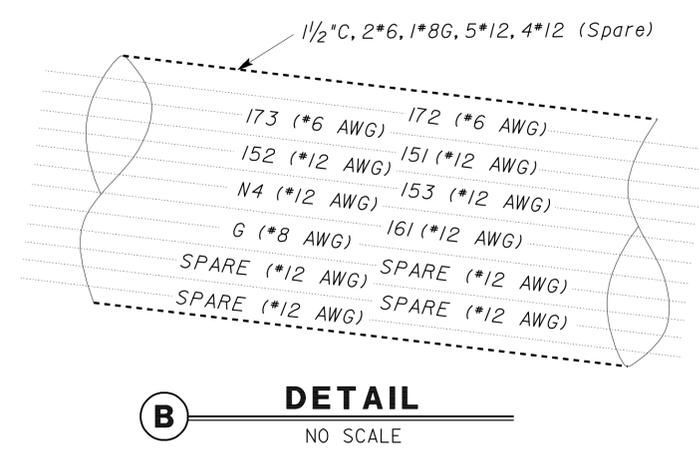
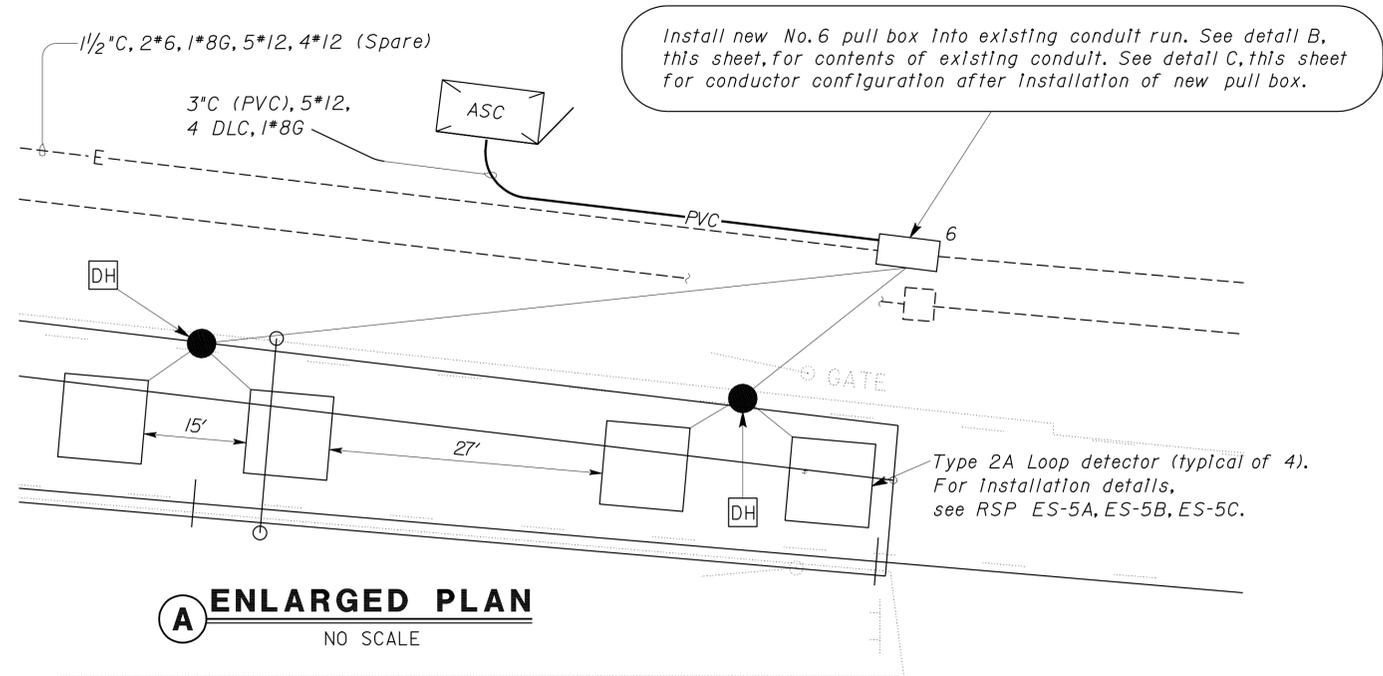
DONNER PASS TRUCK INSPECTION FACILITY

WSMS Details

SHEET	E-5
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	20	71

ERIC GREVE REGISTERED ELECTRICAL ENGINEER No. E 14791 Exp. 6-30-11 ELEC STATE OF CALIFORNIA		4-14-09 DATE
7-27-09 PLANS APPROVAL DATE		
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DESIGN	BY Greve Eric	CHECKED Greve Eric
DETAILS	BY Dai Zhou	CHECKED Greve Eric
QUANTITIES	BY Greve Eric	CHECKED Greve Eric

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 17W0001 POST MILE 19.5
---	--

DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0001 POST MILE 19.5
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DONNER PASS TRUCK INSPECTION FACILITY WSMS AUTOMATIC CONTROL		SHEET OF E-6
--	--	------------------------

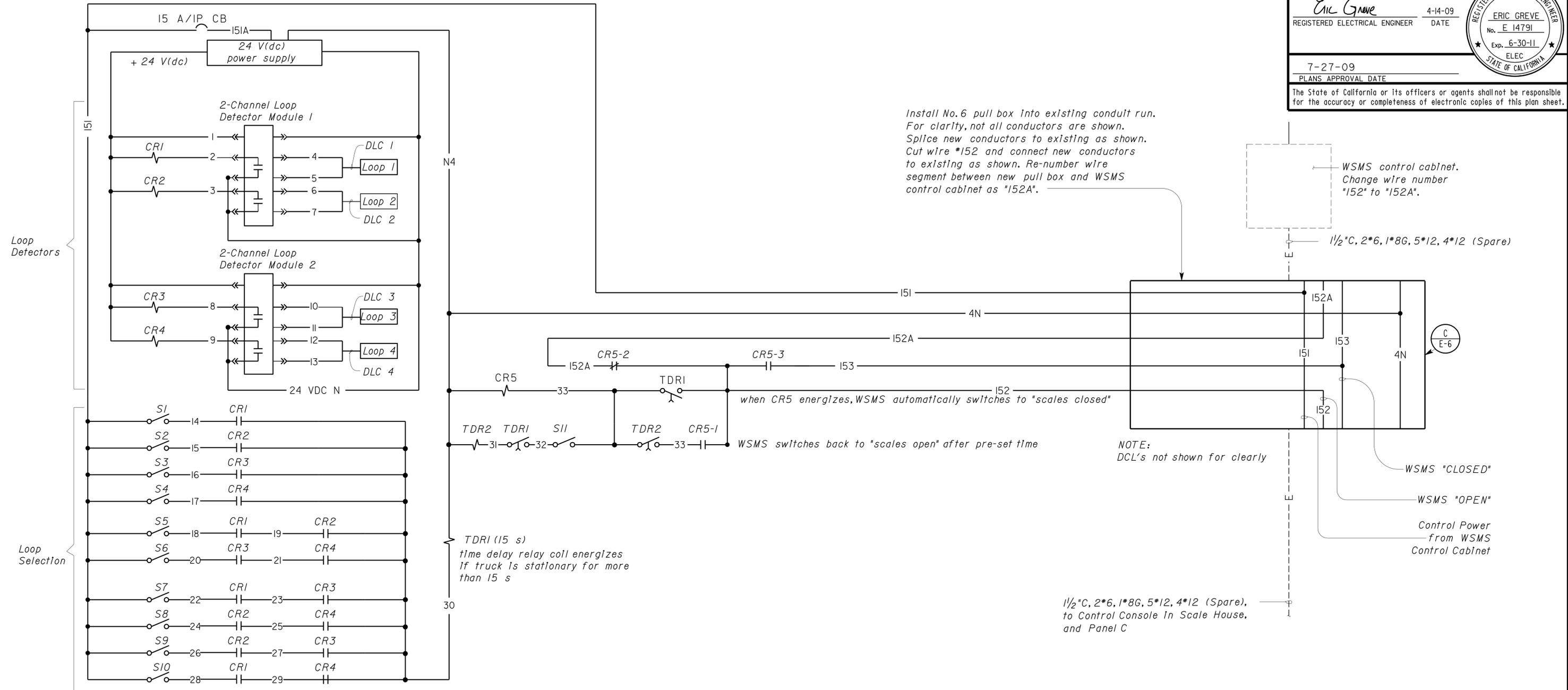
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	21	71

Eric Greve		4-14-09
REGISTERED ELECTRICAL ENGINEER	DATE	

REGISTERED PROFESSIONAL ENGINEER
 ERIC GREVE
 No. E 14791
 Exp. 6-30-11
 ELEC
 STATE OF CALIFORNIA

7-27-09
PLANS APPROVAL DATE

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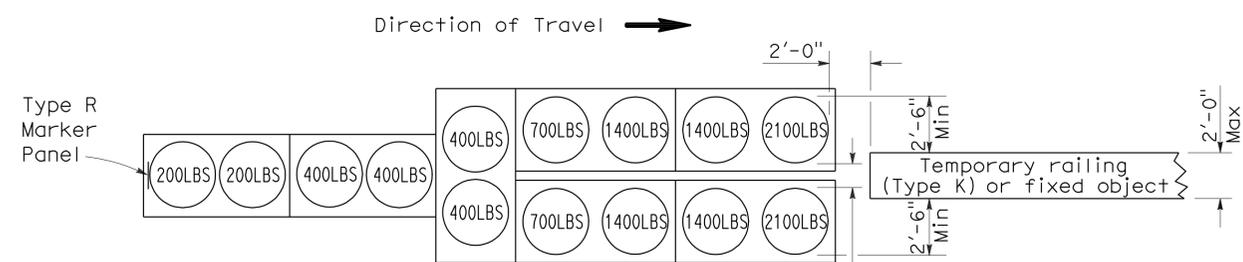


WSMS AUTOMATIC CONTROL SCHEMATIC DIAGRAM

DESIGN	BY Greve Eric	CHECKED Greve Eric	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	DONNER PASS TRUCK INSPECTION FACILITY AUTOMATIC CONTROL SCHEMATIC	SHEET	
	DETAILS BY Dall Zhou	CHECKED Greve Eric			17W0001		E-7	
	QUANTITIES BY Greve Eric	CHECKED Greve Eric			POST MILE 19.5			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	CU 03227 EA 4C2201	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

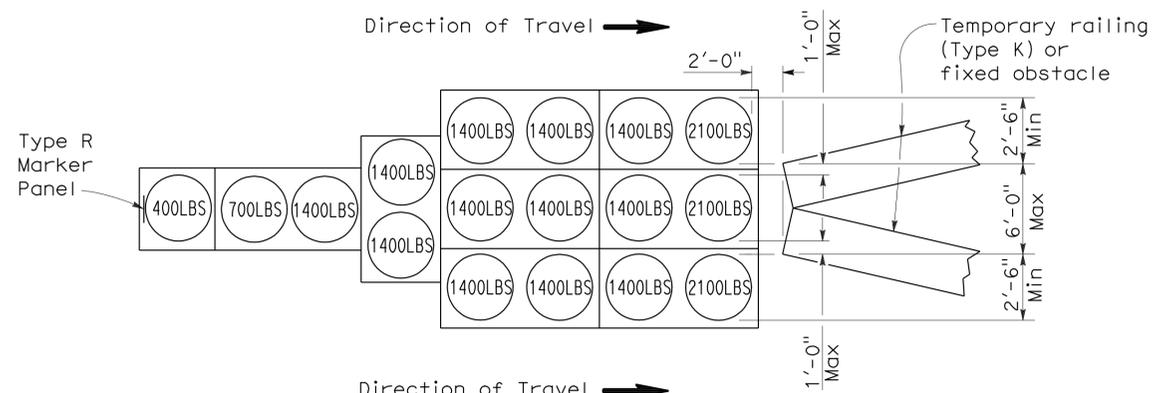
To accompany plans dated 7-27-09

2006 REVISED STANDARD PLAN RSP T1A



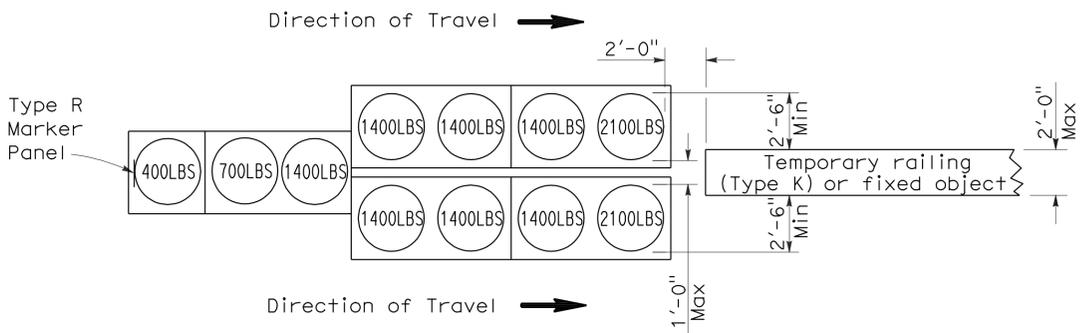
ARRAY 'TU14'

Approach speed 45 mph or more



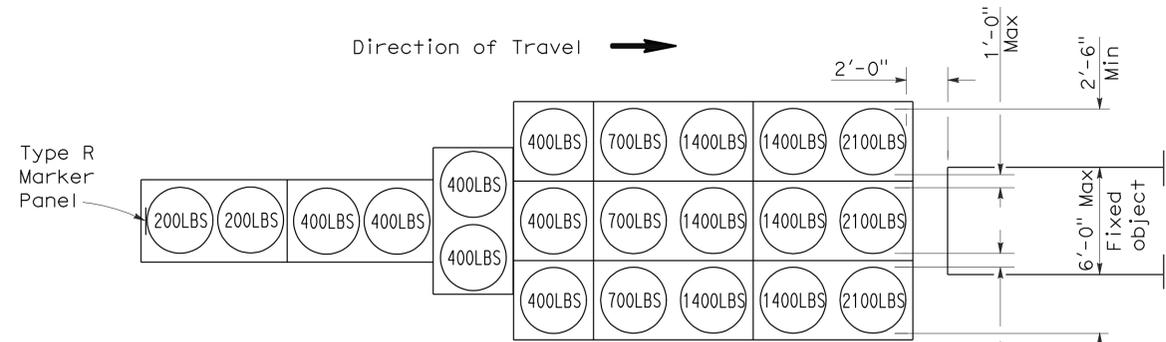
ARRAY 'TU17'

Approach speed less than 45 mph



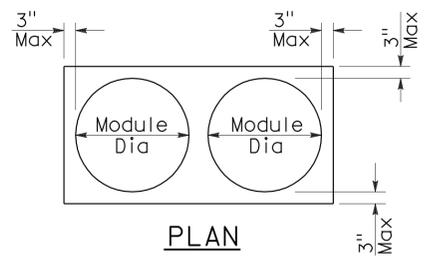
ARRAY 'TU11'

Approach speed less than 45 mph

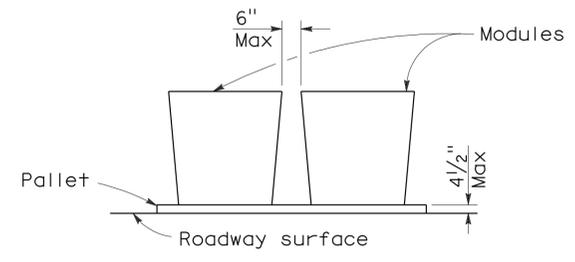


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

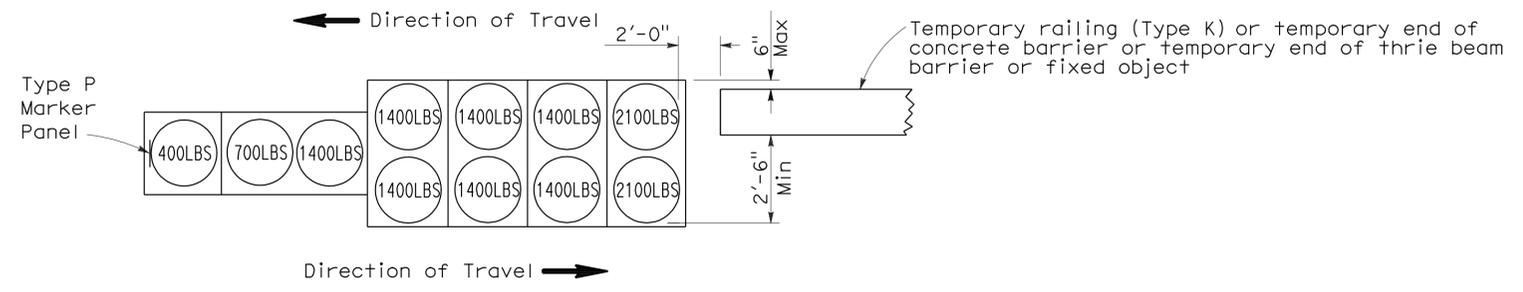
**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

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

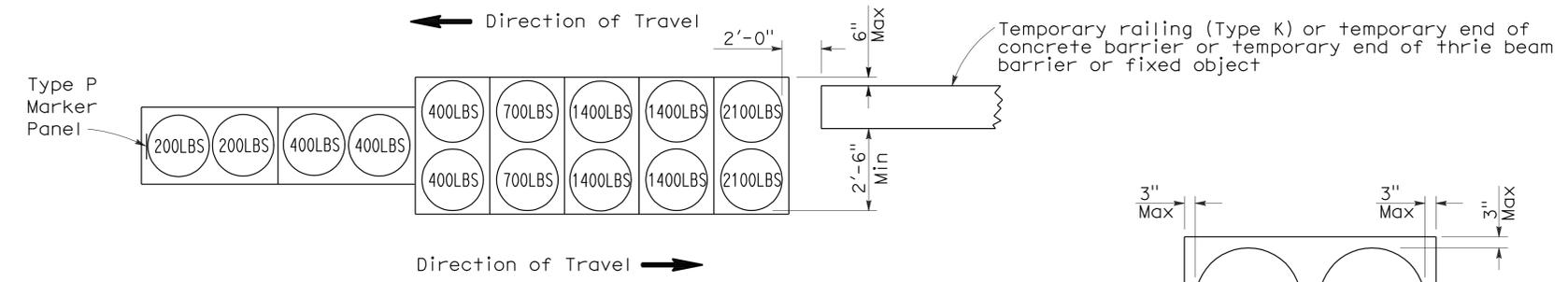
REVISED STANDARD PLAN RSP T1A

To accompany plans dated 7-27-09



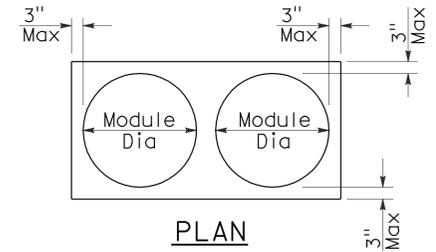
ARRAY 'TB11'

Approach speed less than 45 mph

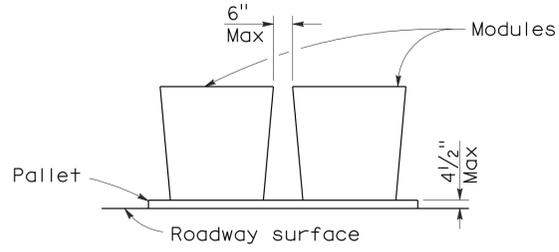


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

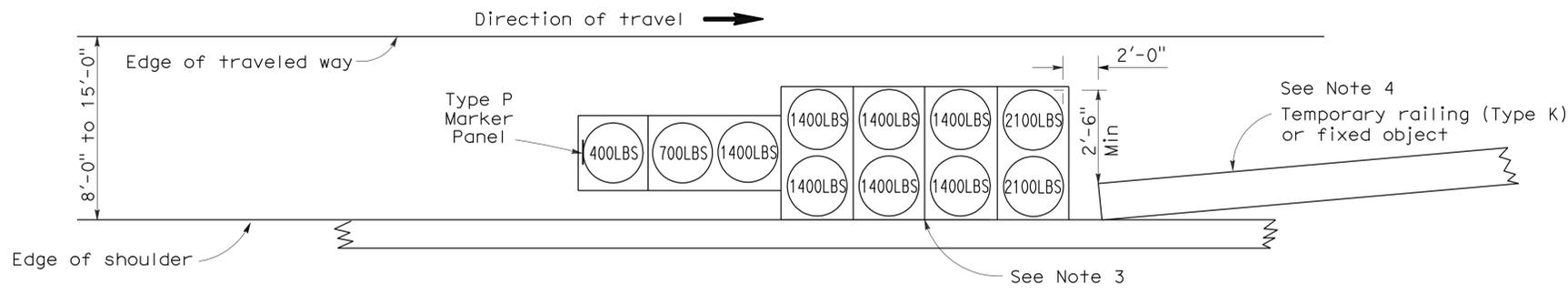
NO SCALE

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

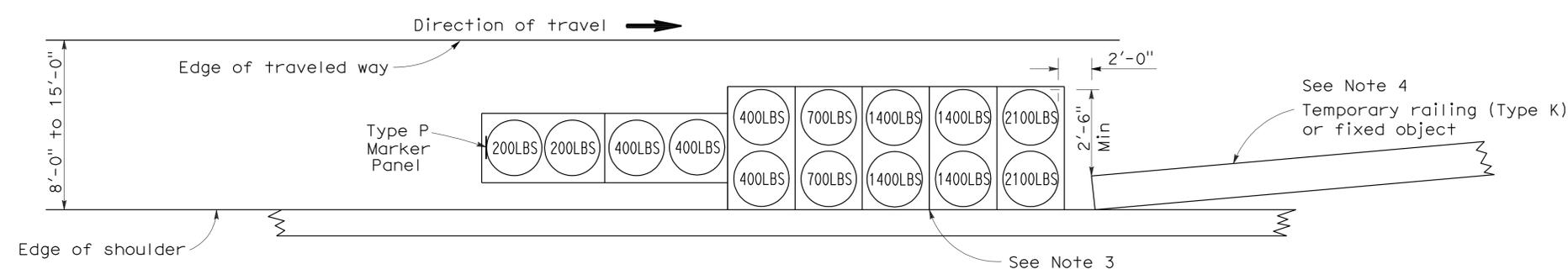
REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

To accompany plans dated 7-27-09



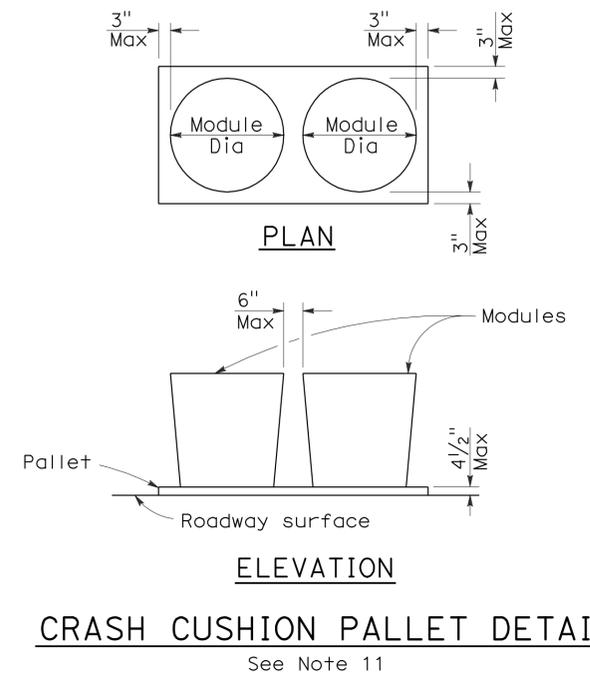
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



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

NOTES:

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



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

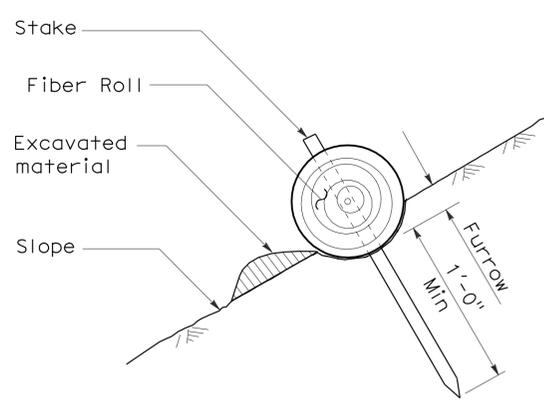
REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

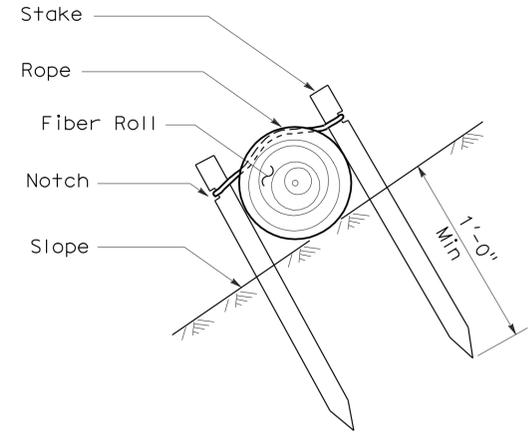
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	25	71

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 April 3, 2009
 PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

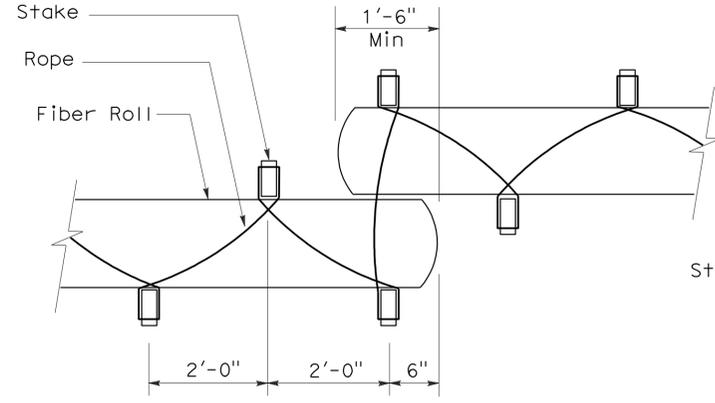
To accompany plans dated 7-27-09



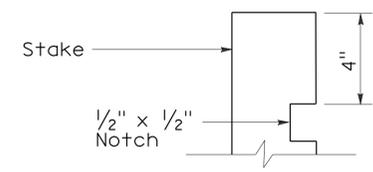
SECTION
TEMPORARY FIBER ROLL
(TYPE 1)



SECTION
TEMPORARY FIBER ROLL
(TYPE 2)

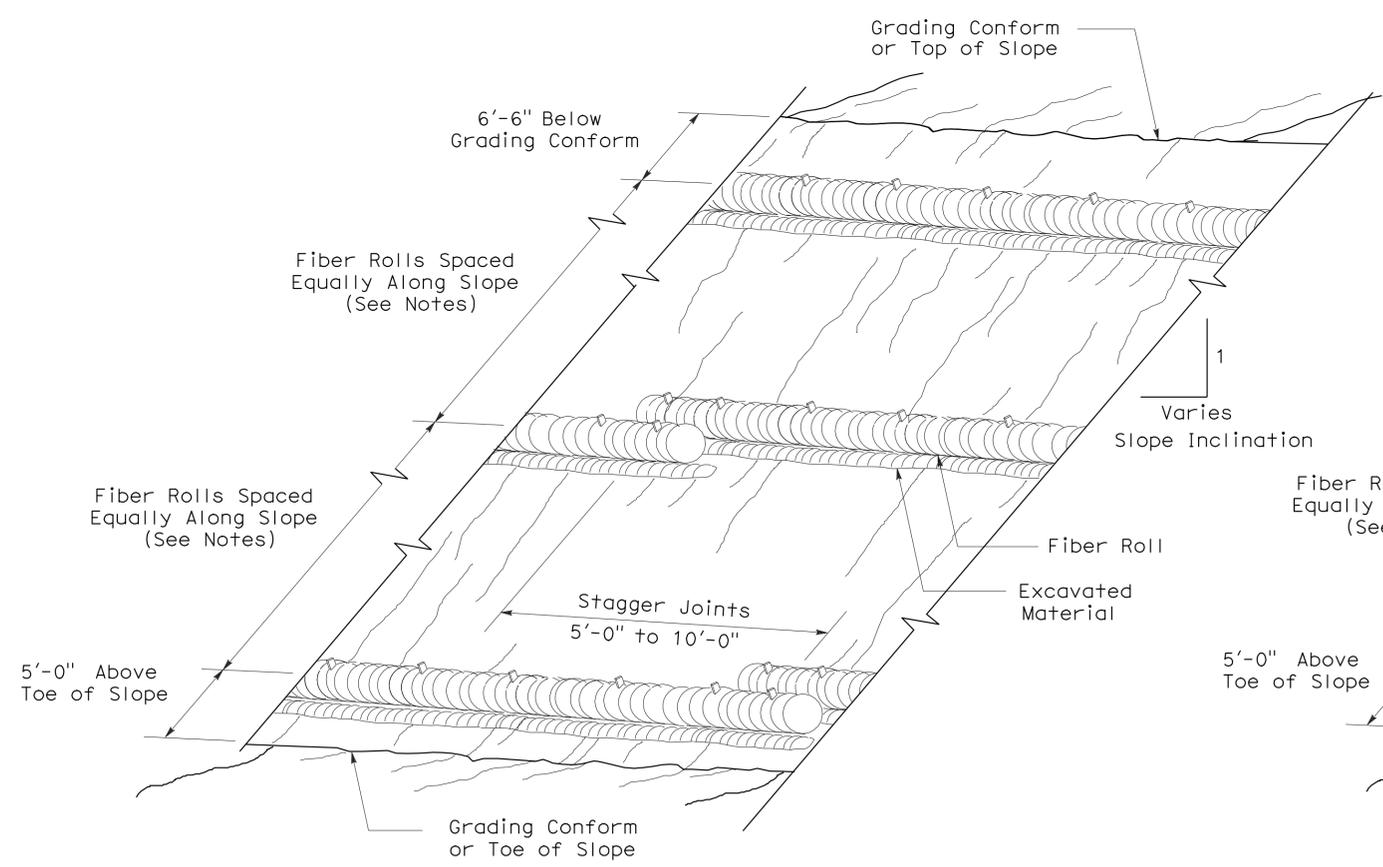


PLAN
TEMPORARY FIBER ROLL
(TYPE 2)

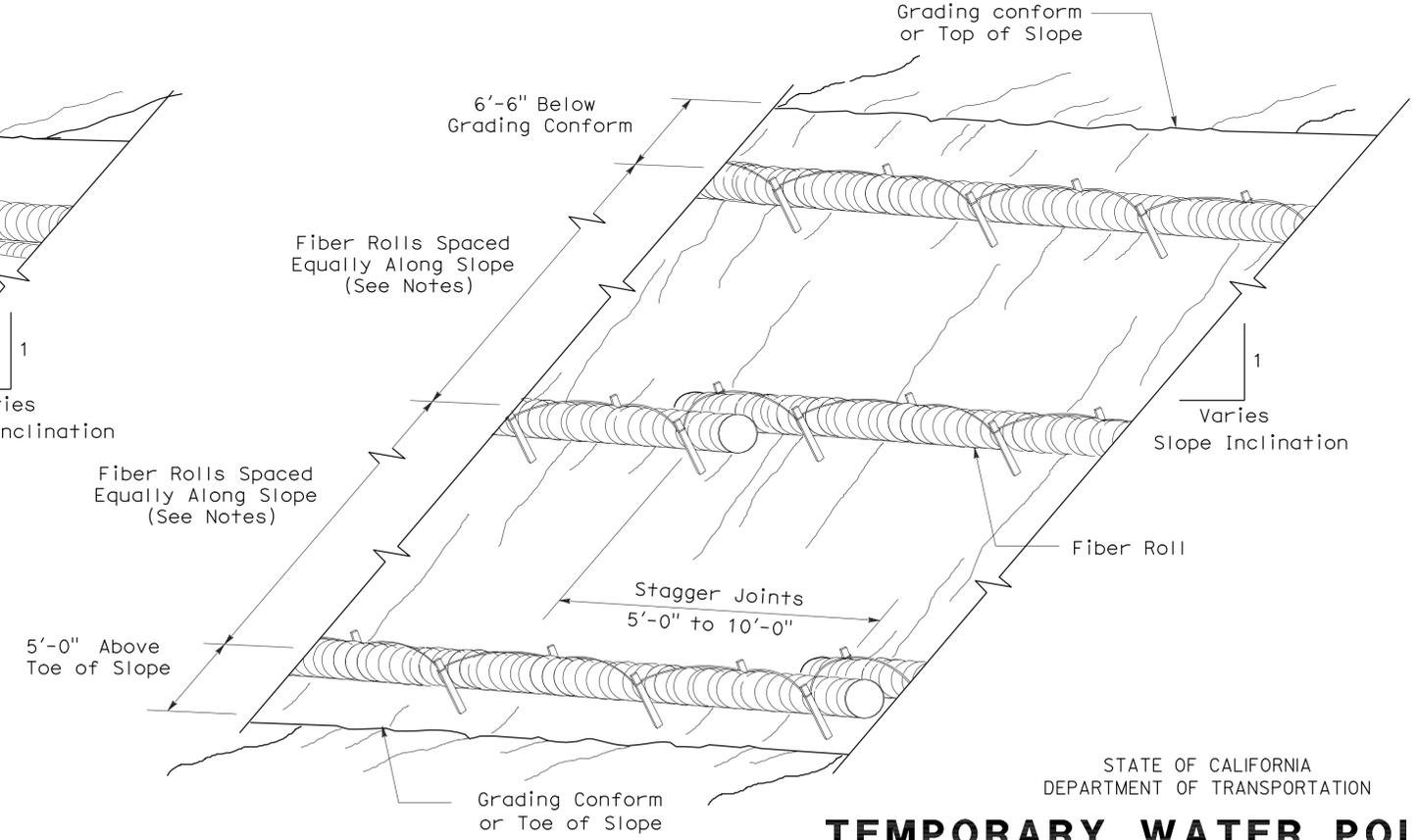


ELEVATION
STAKE NOTCH DETAIL

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



PERSPECTIVE
TEMPORARY FIBER ROLL (TYPE 1)



PERSPECTIVE
TEMPORARY FIBER ROLL (TYPE 2)

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY FIBER ROLL)
 NO SCALE

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

REVISED STANDARD PLAN RSP T56

2006 REVISED STANDARD PLAN RSP T56

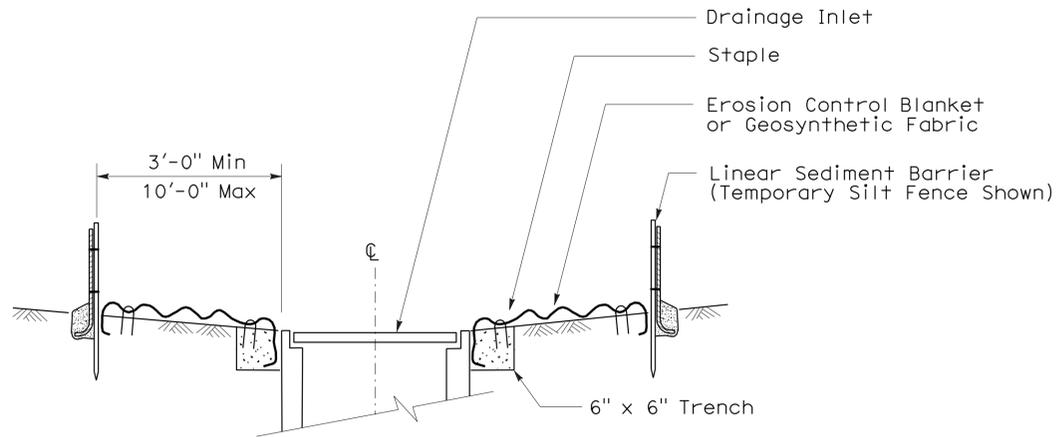
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Neu	80	19.1/19.3	26	71

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

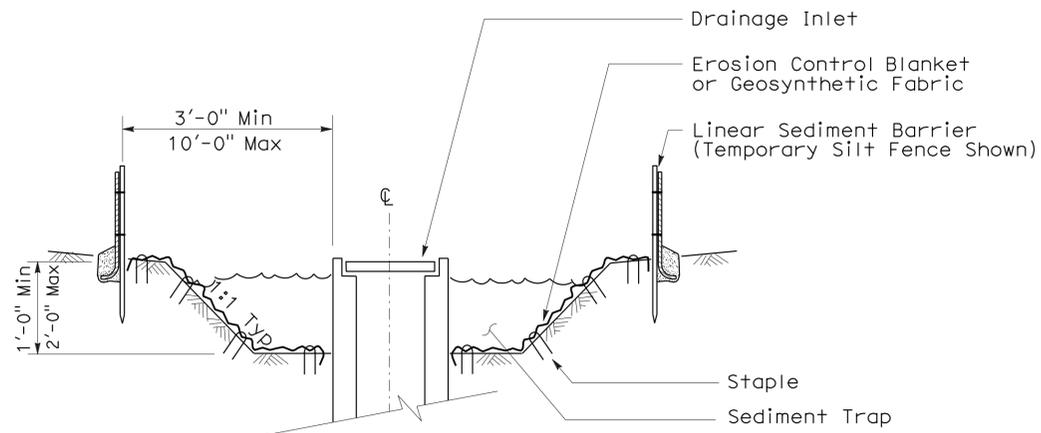
August 15, 2008
 PLANS Approval DATE

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

To accompany plans dated 7-27-09



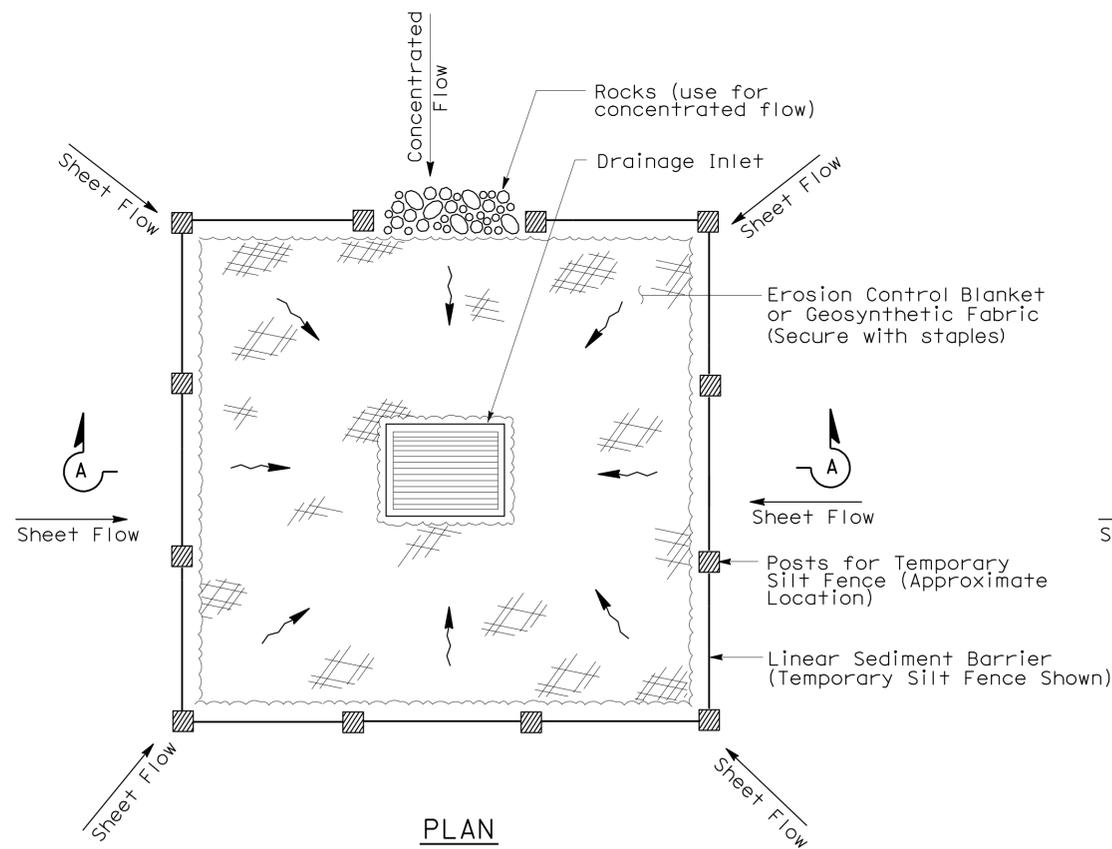
SECTION A-A



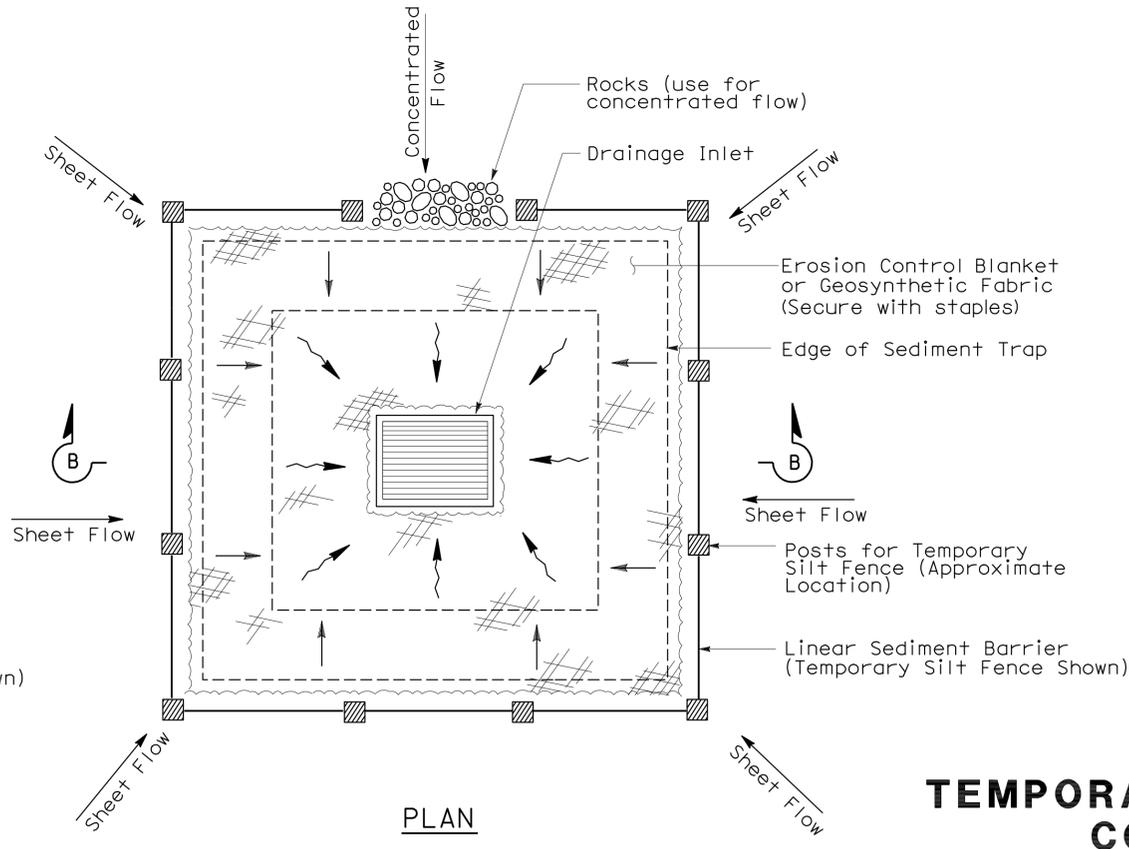
SECTION B-B

NOTES:

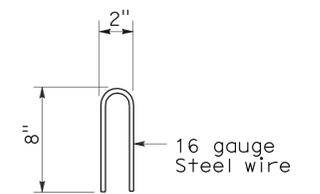
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

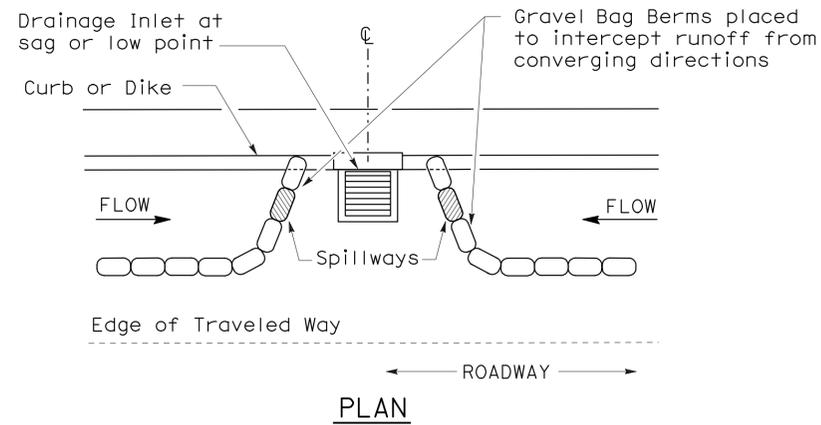
NSP T61 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.



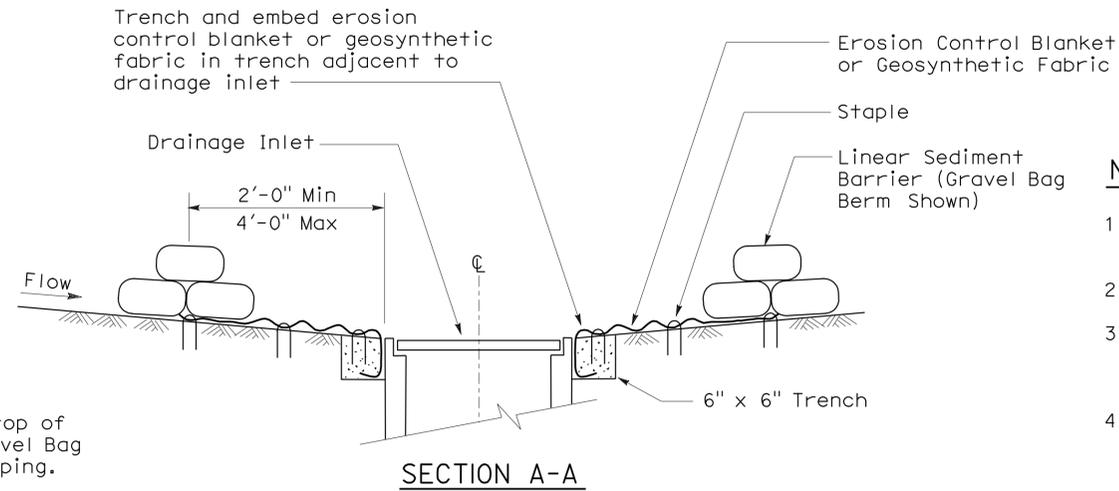
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent



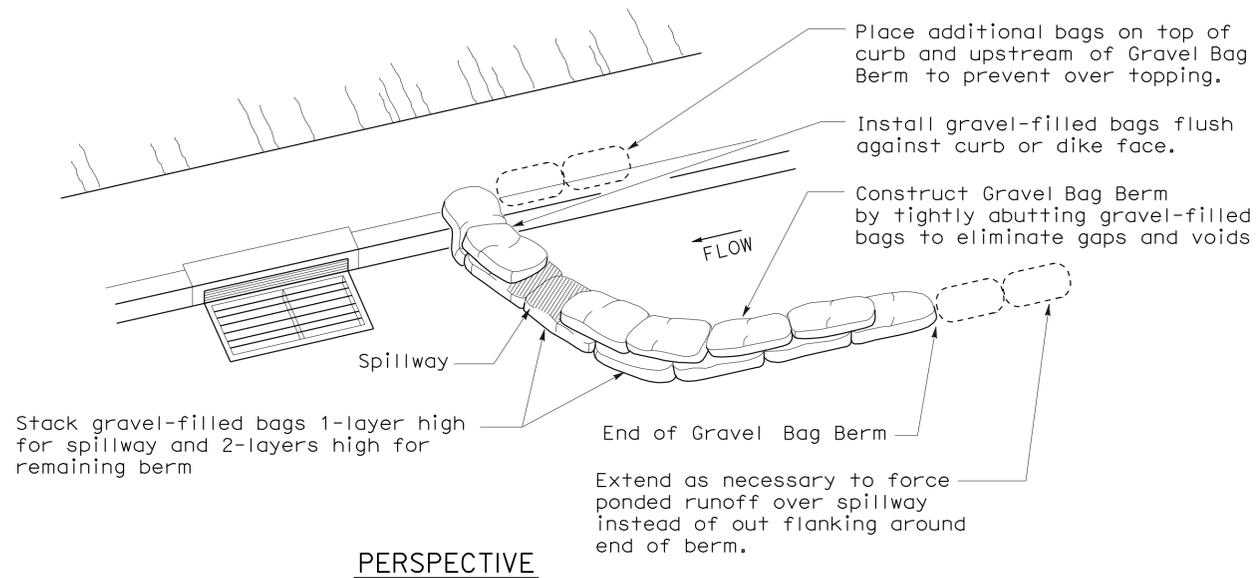
PLAN
CONFIGURATION FOR SAG POINT INLET
(GRAVEL BAG BERM)



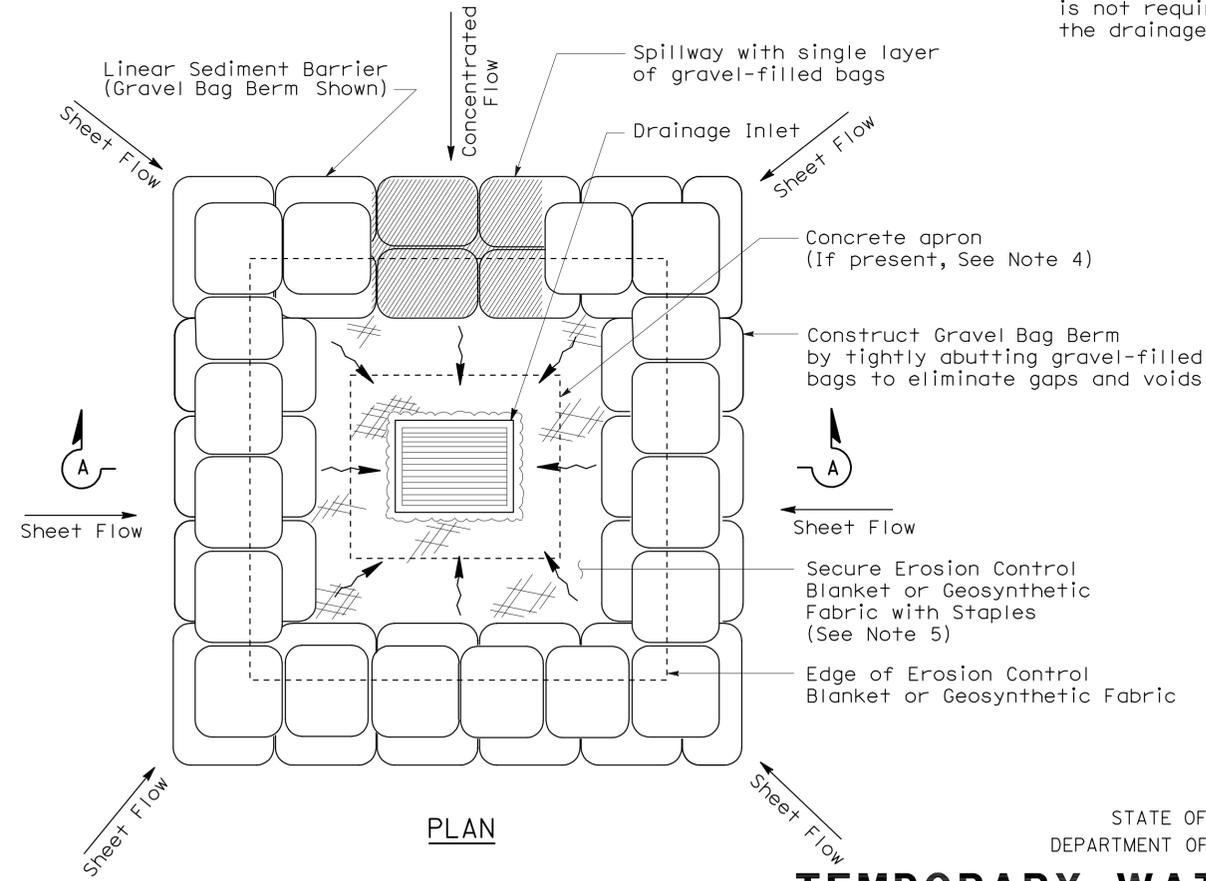
SECTION A-A

NOTES:

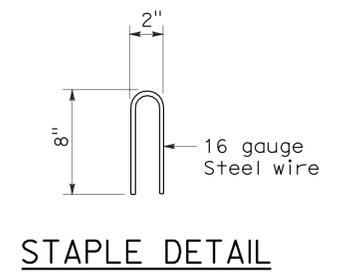
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.



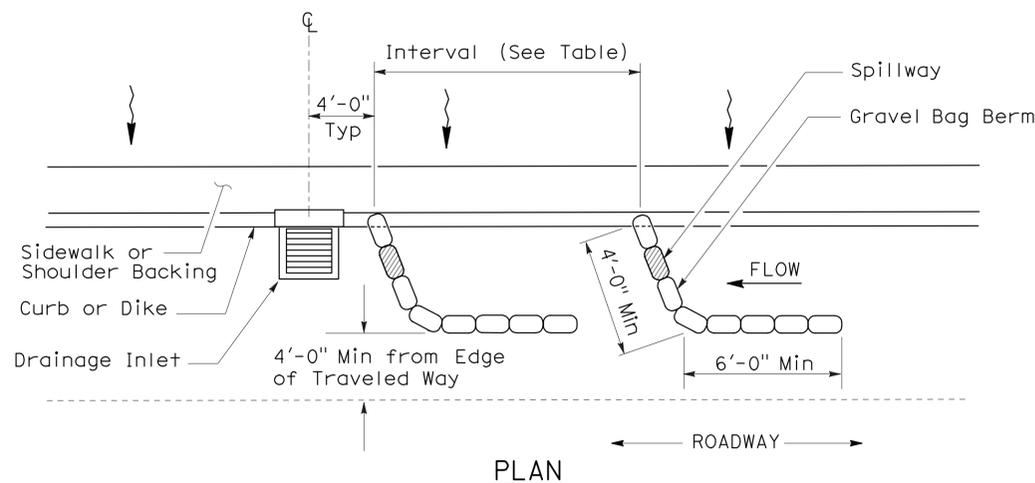
PERSPECTIVE



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3A)
(GRAVEL BAG BERM)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	28	71

Robert B. Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
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.

STATE OF CALIFORNIA
LICENSED LANDSCAPE ARCHITECT
Robert B. Schott
11-04-08
08-11-08
Date

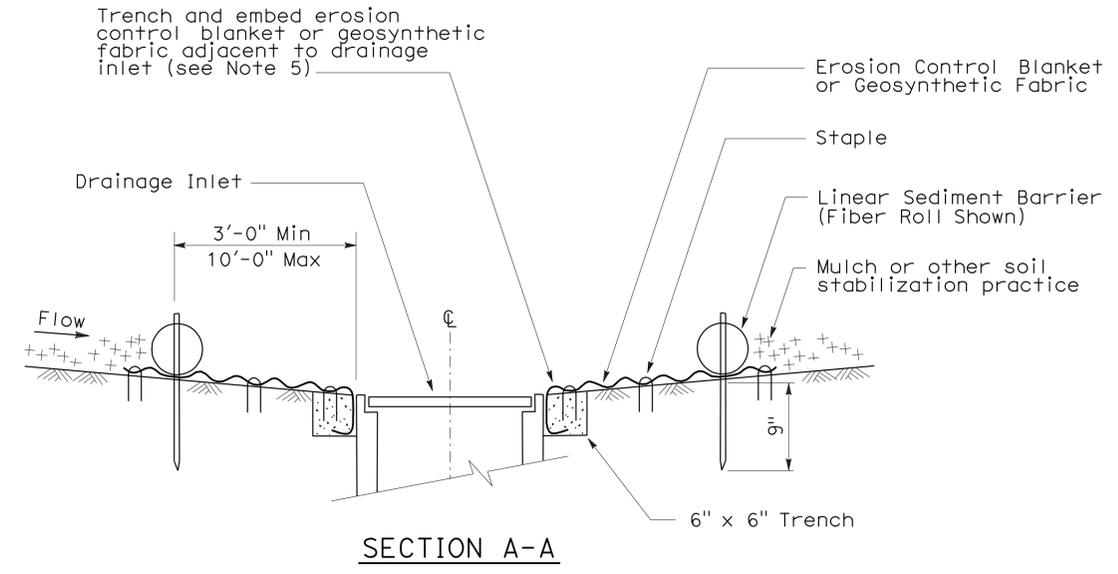
FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'

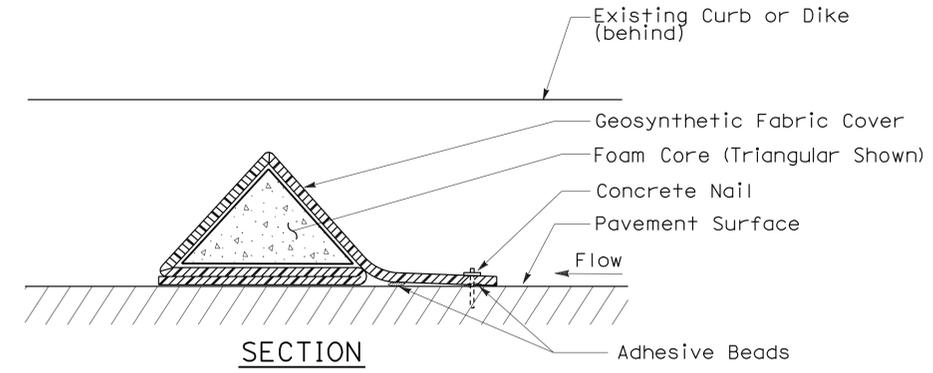
To accompany plans dated 7-27-09

NOTES:

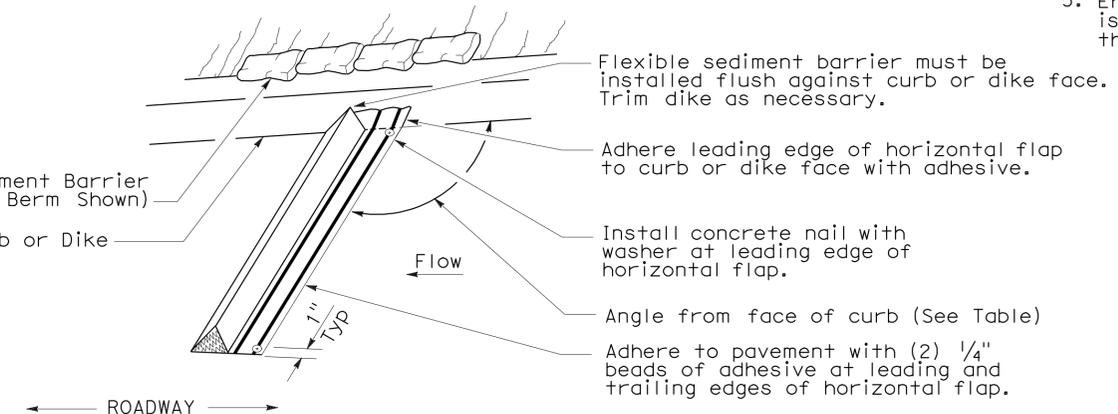
- See Standard Plan T51 for Temporary Silt Fence.
- Dimensions may vary to fit field conditions.
- Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
- Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
- Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.



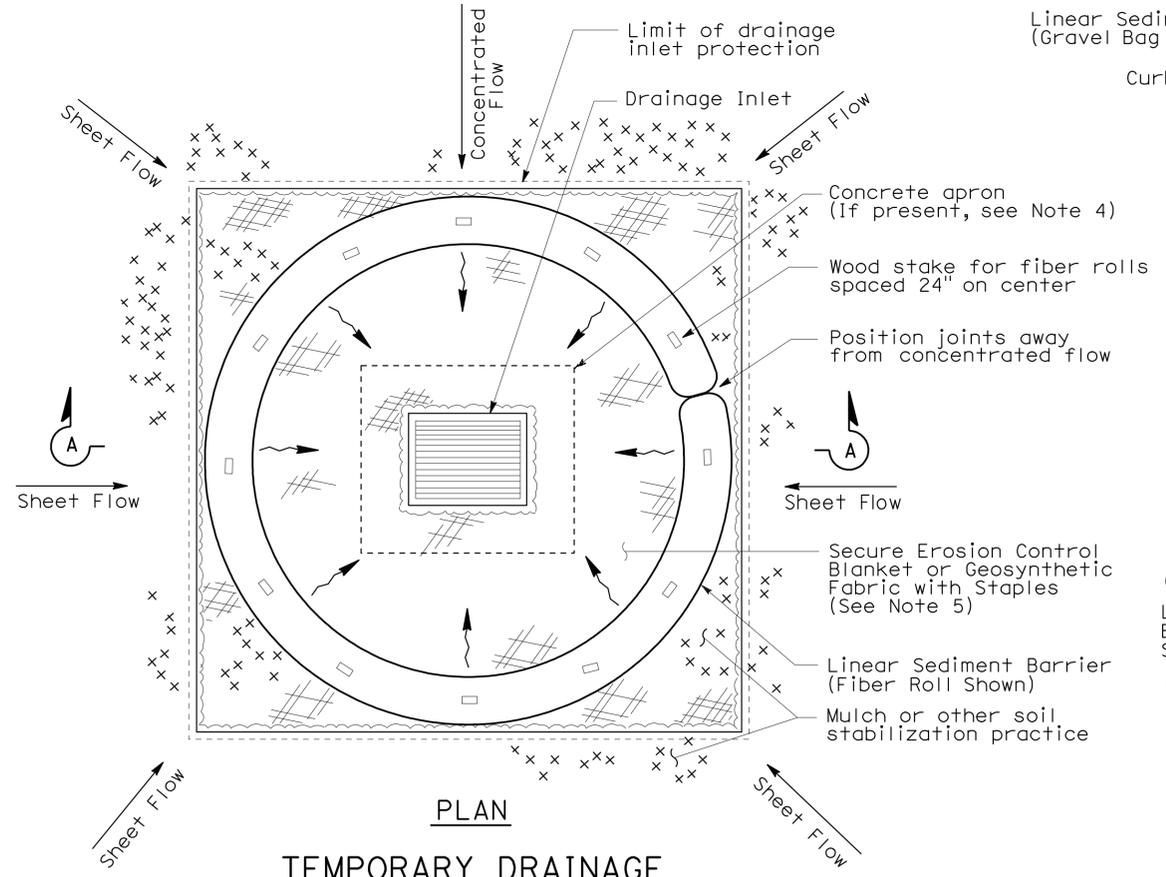
SECTION A-A



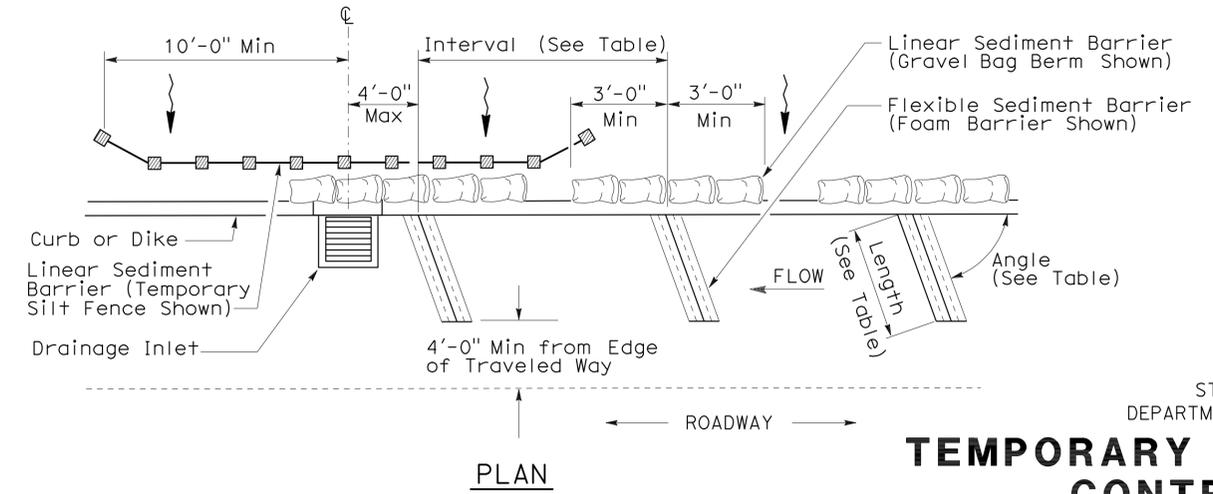
FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)



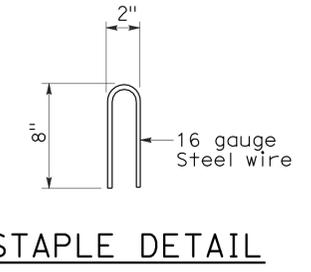
PERSPECTIVE



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4B) FLEXIBLE SEDIMENT BARRIER



STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T63

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	29	71

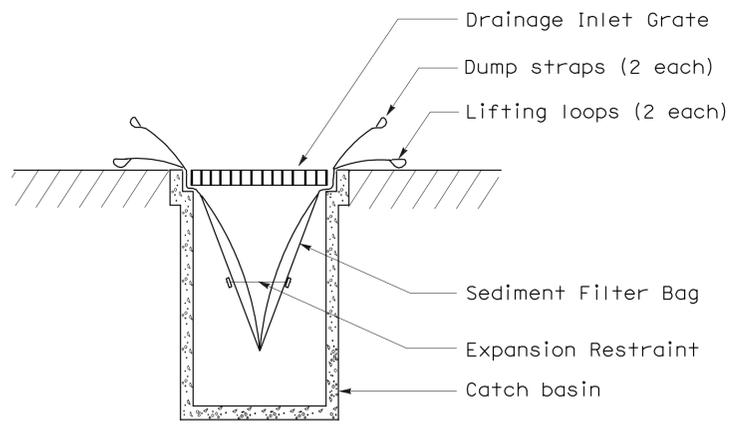
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

August 15, 2008
 PLANS APPROVAL DATE

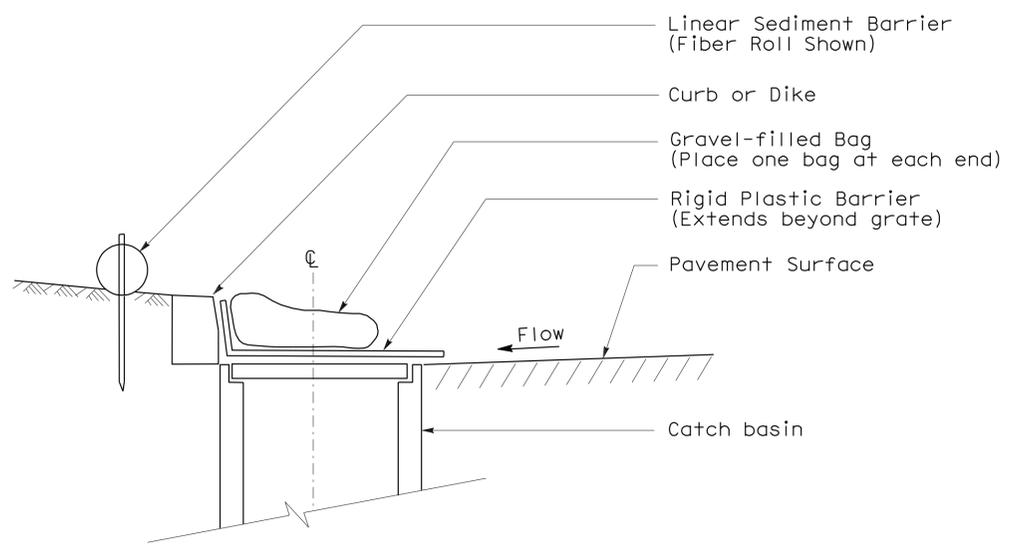
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 11-04-08
 08-11-08
 STATE OF CALIFORNIA

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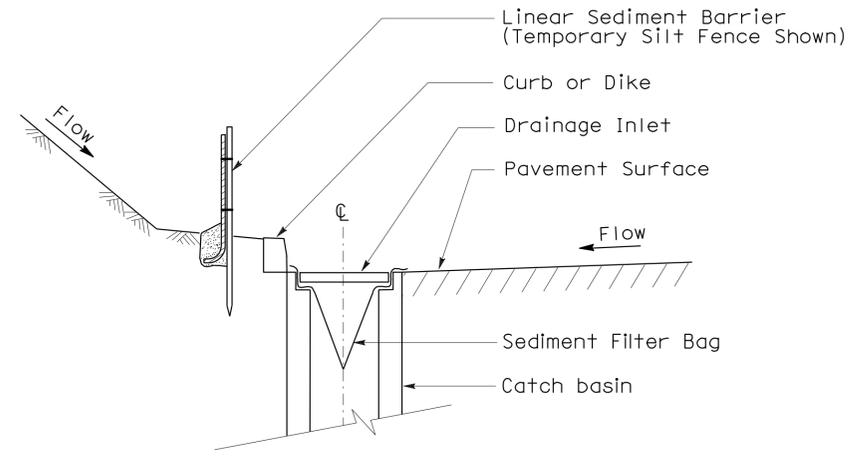
To accompany plans dated 7-27-09



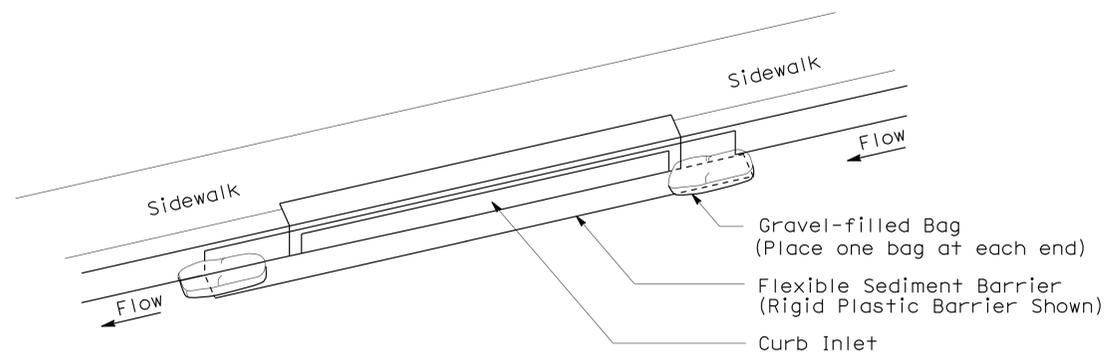
SECTION B-B
SEDIMENT FILTER BAG DETAIL



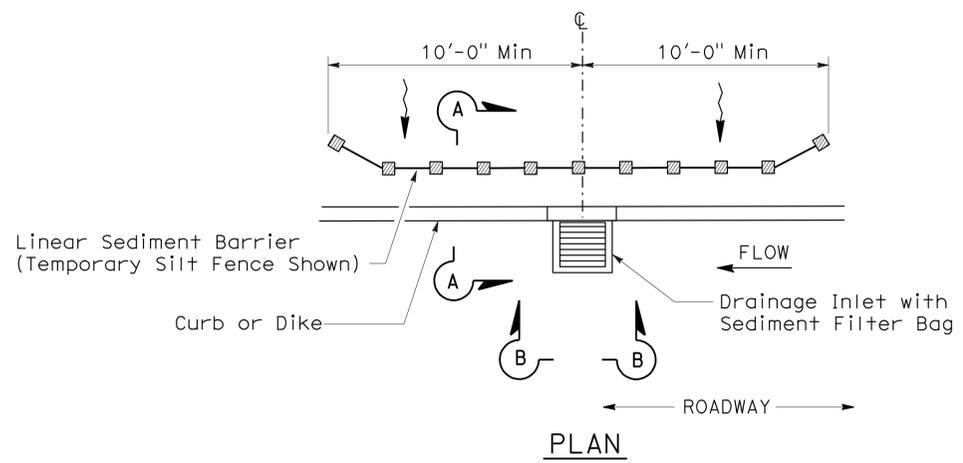
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



PERSPECTIVE
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

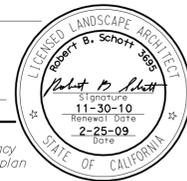
NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

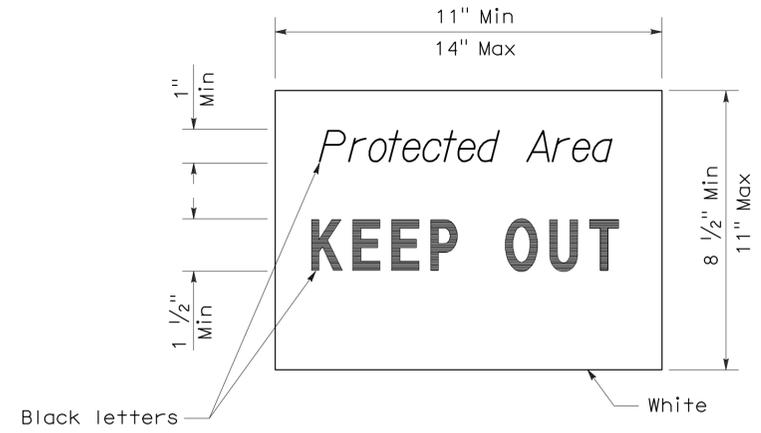
2006 NEW STANDARD PLAN NSP T64

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	30	71

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 April 3, 2009
 PLANS APPROVAL DATE
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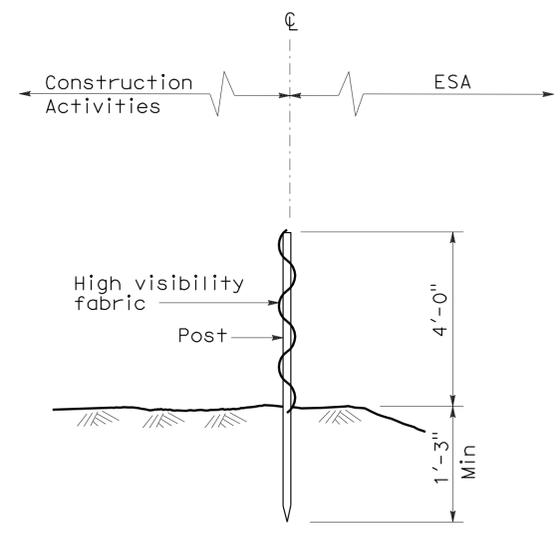
To accompany plans dated 7-27-09



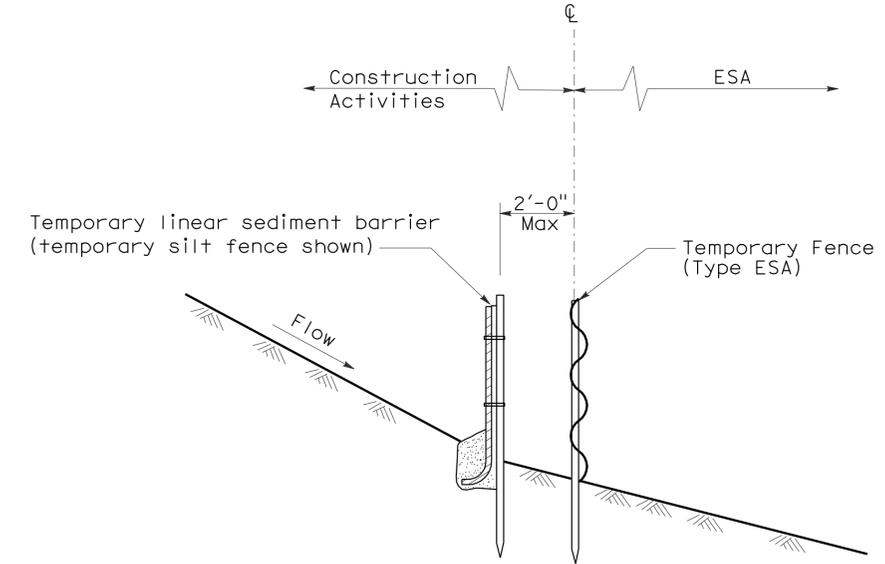
SIGN DETAIL

NOTE:

1. Temporary silt fence and temporary straw bale barrier shown for reference purposes only.

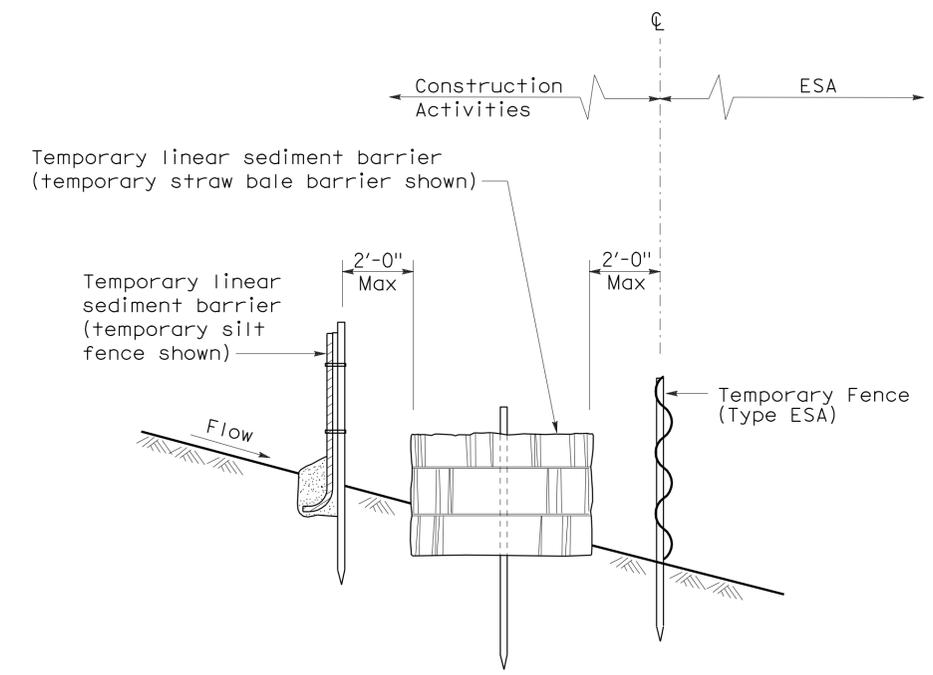


SECTION TEMPORARY FENCE (TYPE ESA)



SECTION PLACEMENT DETAIL FOR TEMPORARY LINEAR SEDIMENT BARRIER USED WITH TEMPORARY FENCE (TYPE ESA)

(See Note 1)



SECTION PLACEMENT DETAIL FOR TEMPORARY SILT FENCE AND TEMPORARY STRAW BALE BARRIER USED WITH TEMPORARY FENCE (TYPE ESA)

(See Note 1)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

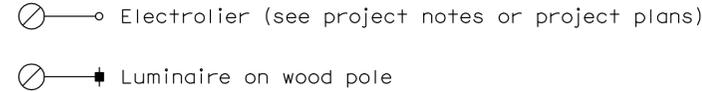
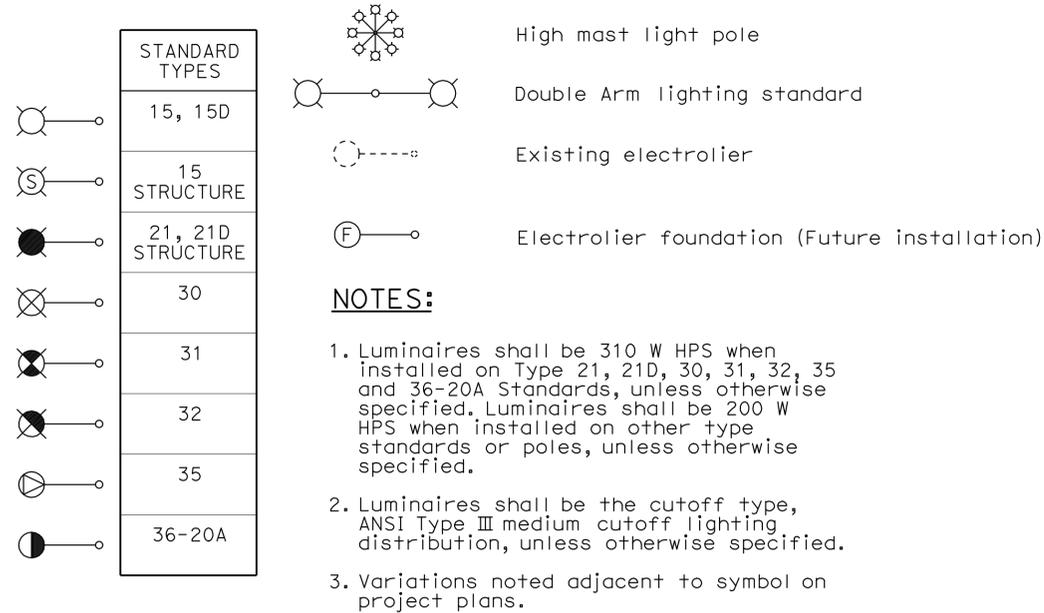
TEMPORARY WATER POLLUTION CONTROL DETAILS [TEMPORARY FENCE (TYPE ESA)]

NO SCALE

NSP T65 DATED APRIL 3, 2009 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T65

ELECTROLIERS



STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	31	71

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

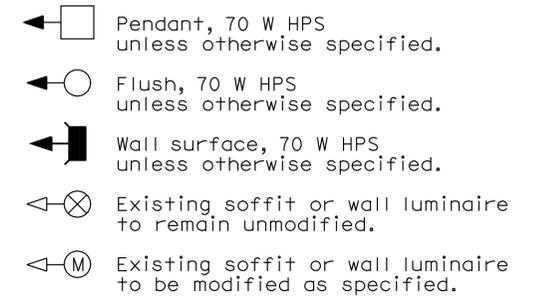
October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

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To accompany plans dated 7-27-09

SOFFIT AND WALL MOUNTED LUMINAIRES



NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	32	71

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

To accompany plans dated 7-27-09

CONDUIT

PROPOSED	EXISTING	
---	---	Lighting Conduit, unless otherwise indicated or noted
---	---	Traffic signal conduit
-C-	-c-	Communication conduit
-T-	-t-	Telephone conduit
-F-	-f-	Fire alarm conduit
-FO-	-fo-	Fiber optic conduit
---	---	Conduit termination
		Conduit riser in/on structure or service pole

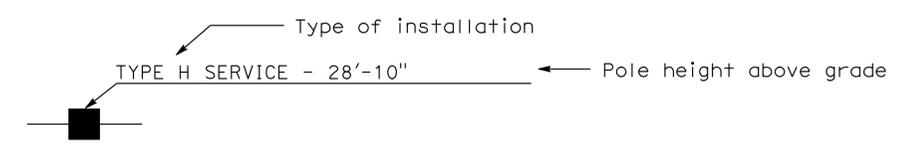
SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" indicates all non-arrow sections louvered "LG" indicates louvered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH	---oh	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SYMBOLS AND ABBREVIATIONS)**
 NO SCALE

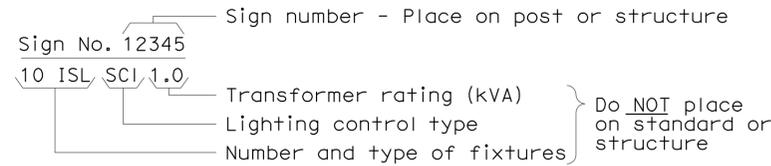
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

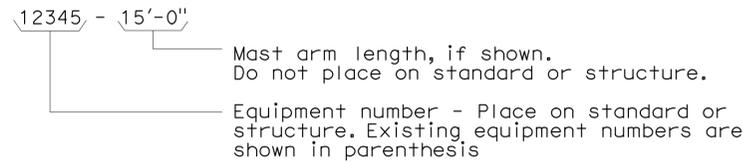
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

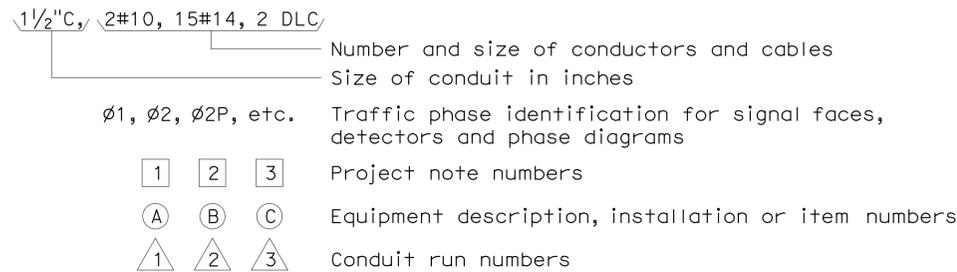
ILLUMINATED SIGN IDENTIFICATION NUMBER:



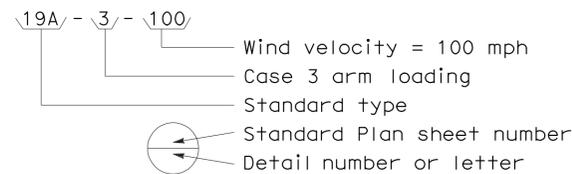
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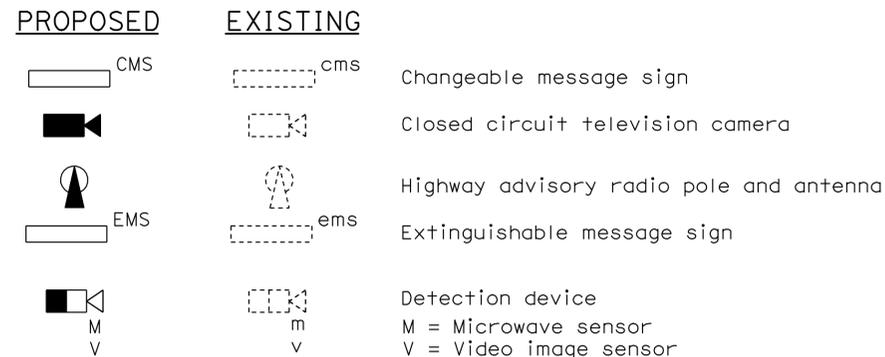
CONDUIT AND CONDUCTOR IDENTIFICATION:



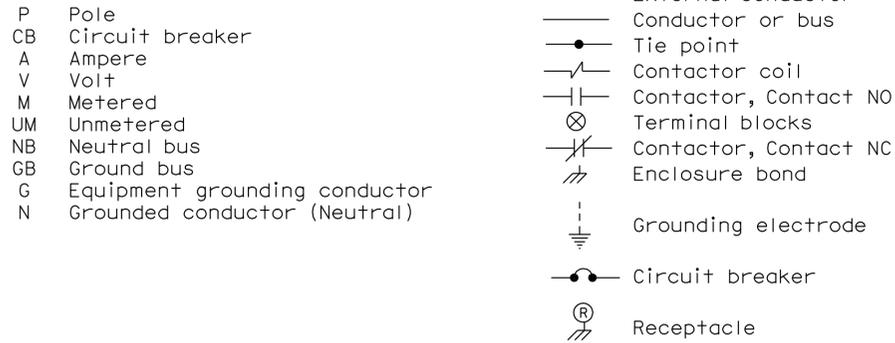
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



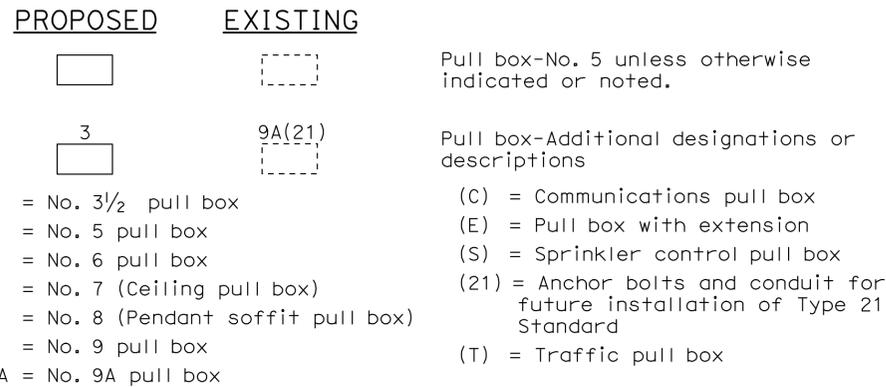
MISCELLANEOUS EQUIPMENT



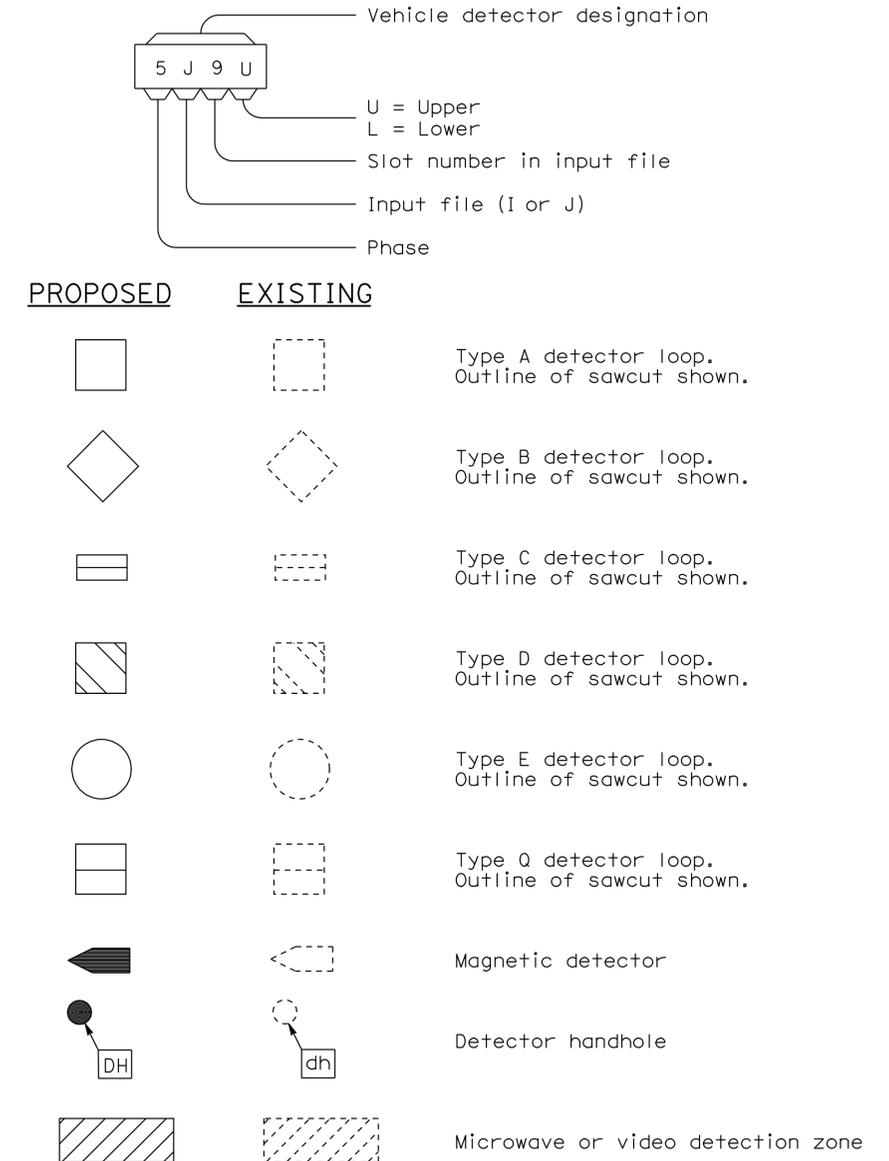
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

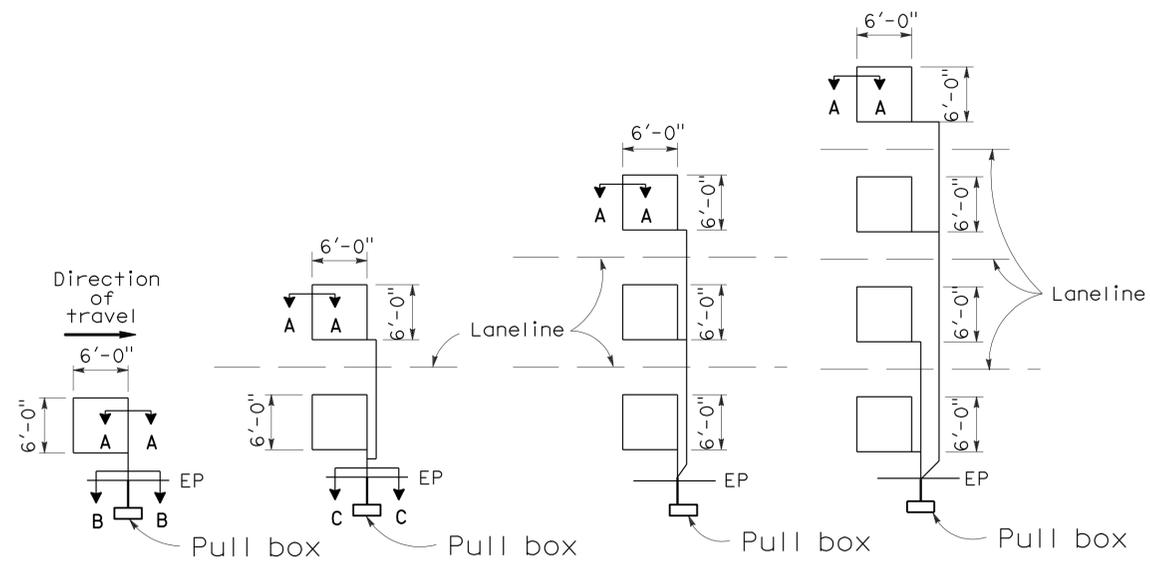
2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Neu	80	19.1/19.3	34	71

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.
 REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

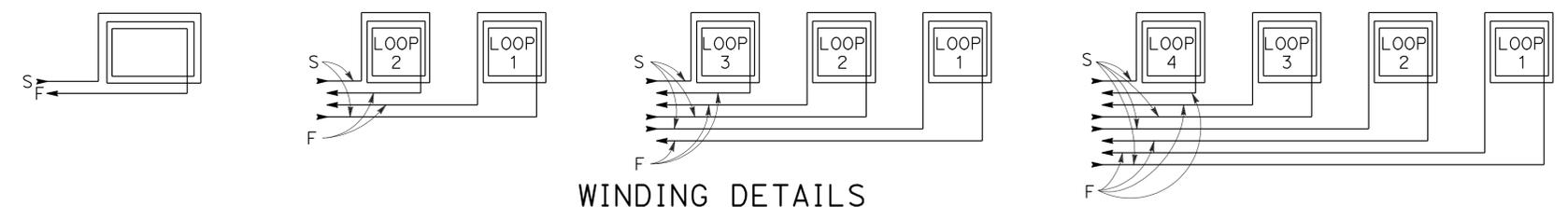
LOOP INSTALLATION PROCEDURE

- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



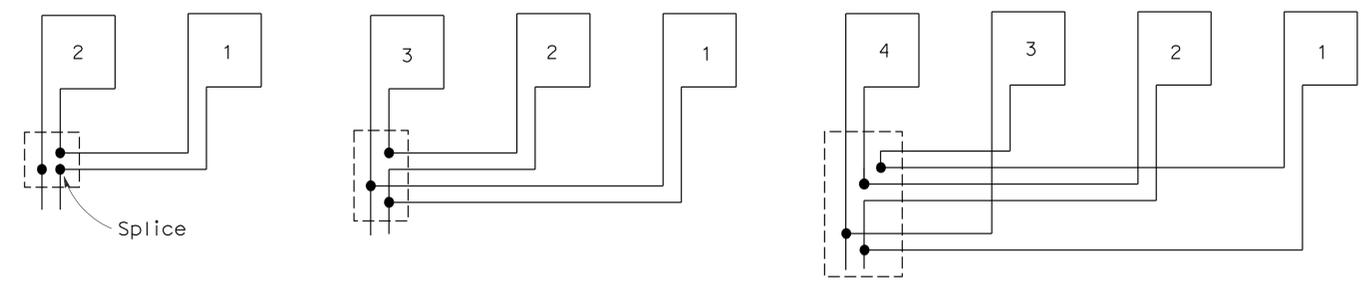
TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION
SAWCUT DETAILS
 (Type A loop detector configurations illustrated)

- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



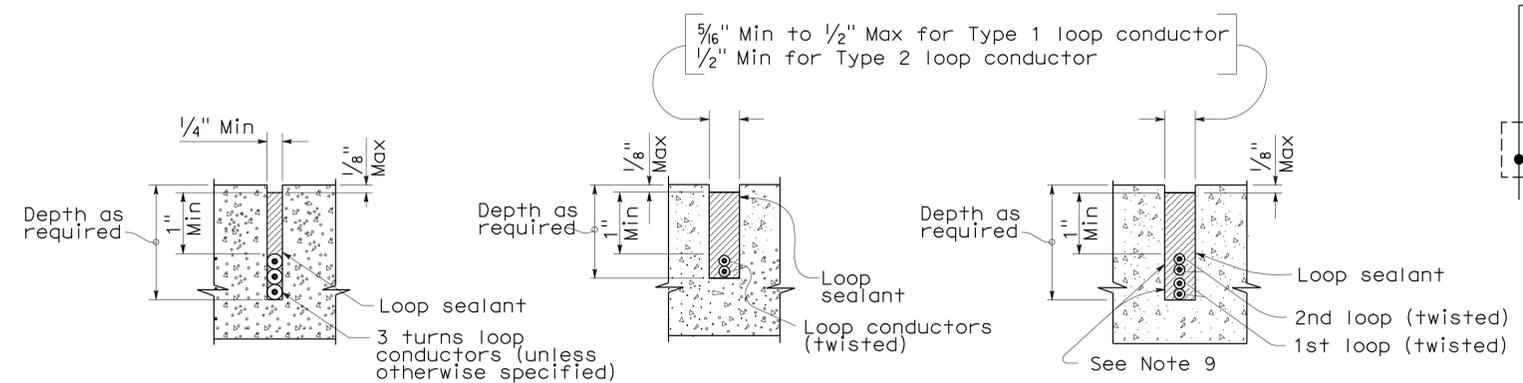
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C
SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

ELECTRICAL SYSTEMS (DETECTORS)

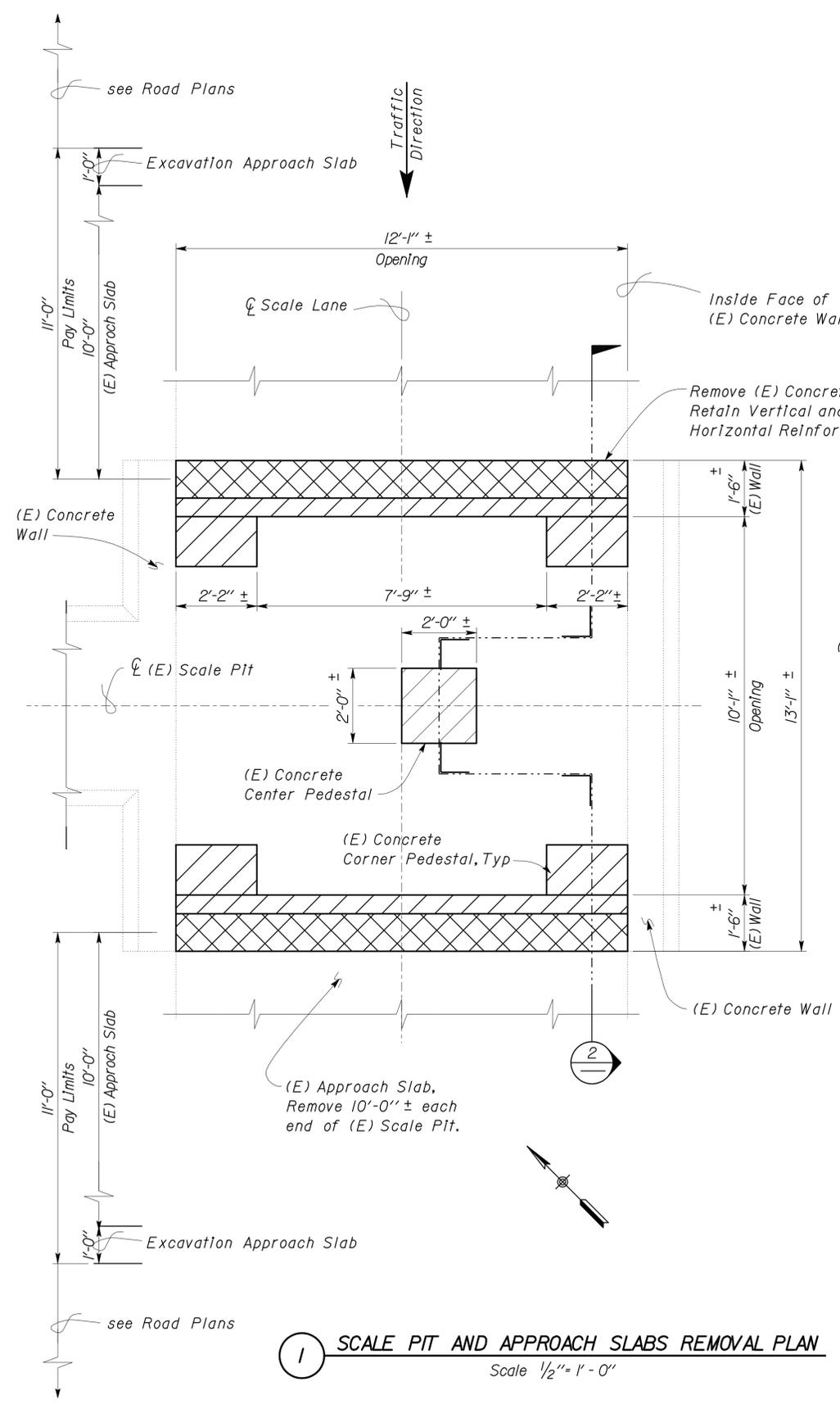
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

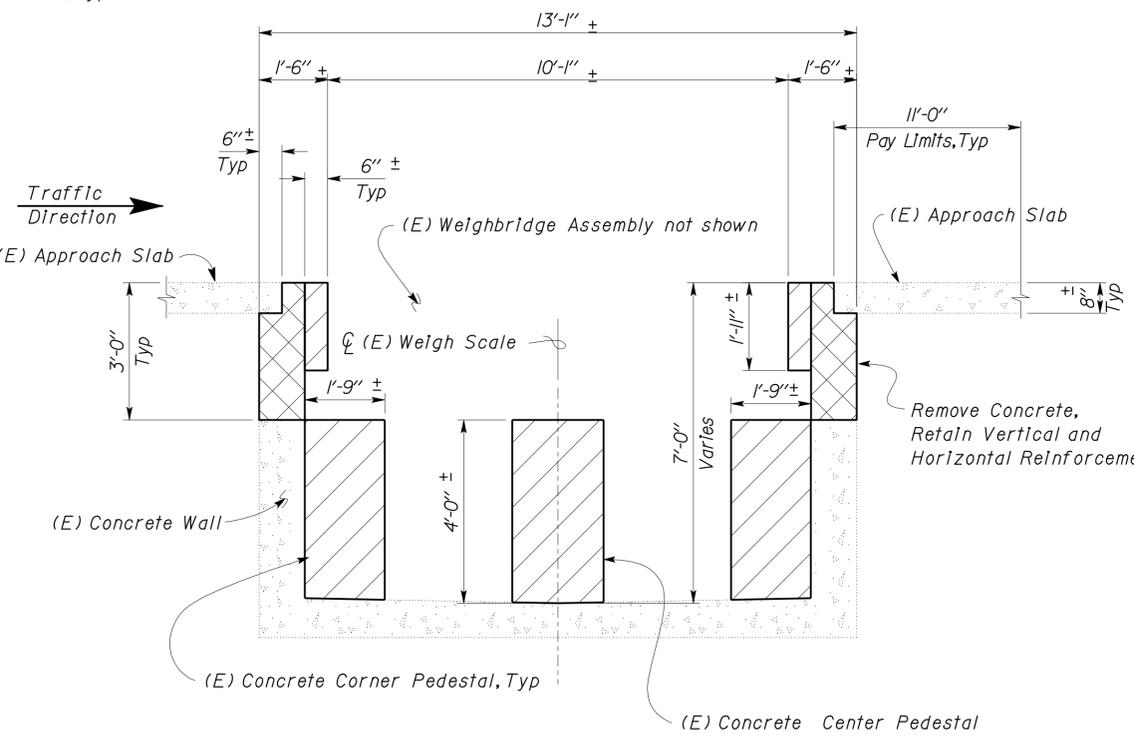
RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-5A

To accompany plans dated 7-27-09



1 SCALE PIT AND APPROACH SLABS REMOVAL PLAN
Scale 1/2" = 1'-0"



2 SCALE PIT REMOVAL SECTION
Scale 1/2" = 1'-0"

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

A SCALE PIT DESIGN NOTES

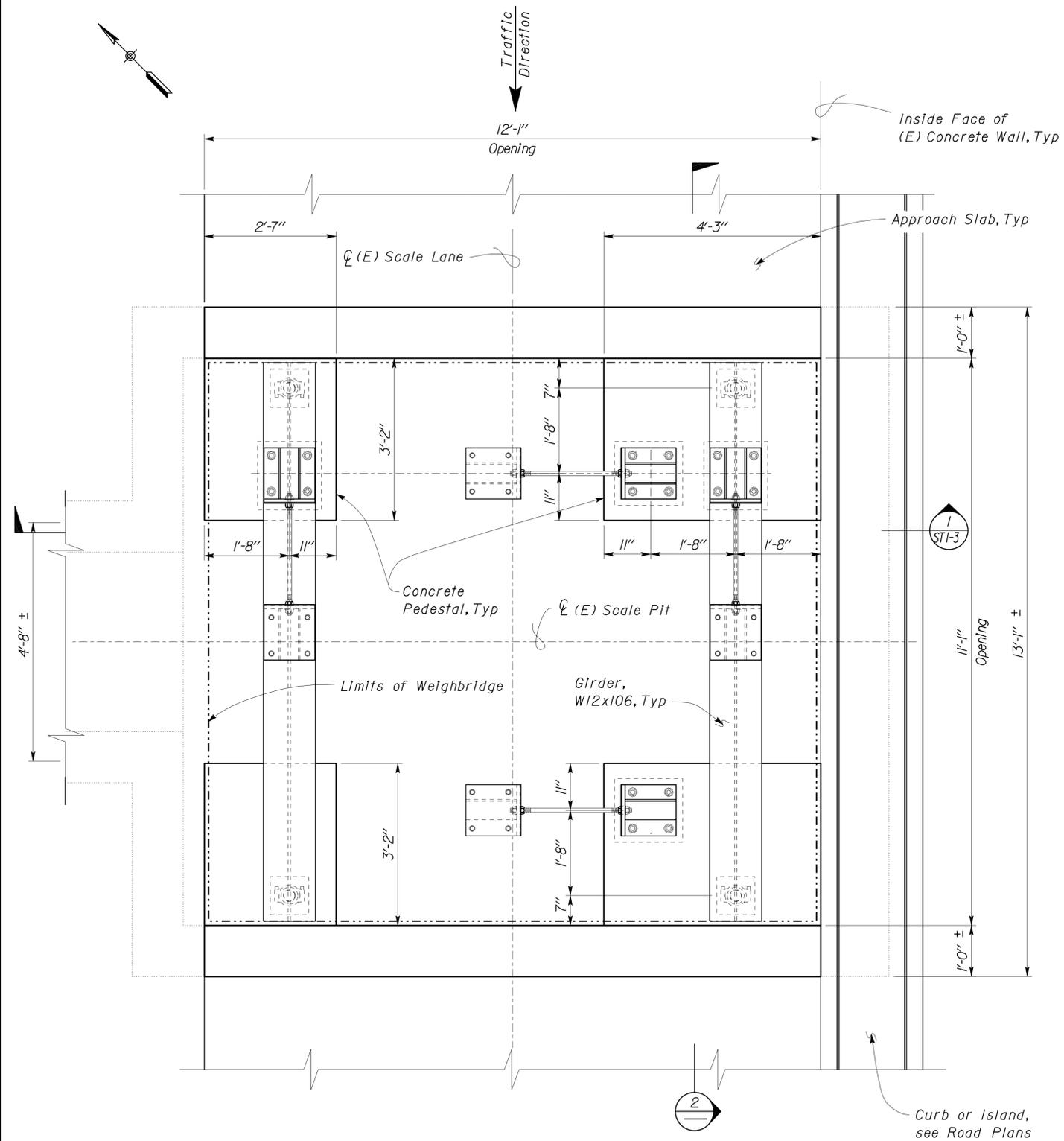
1. Design:
 - 2004 AASHTO LRFD Bridge Design Specifications
- a. Loads:
 - HL-93:
 - Design Truck or Design Tandem, and Design Lane Load
- b. Reinforced Concrete: (Allowable Stress Design)
 - $f'_c = 3,000$ PSI
 - $f_y = 60,000$ PSI
- c. Structural Steel: (Allowable Stress Design)
 - $f_y = 50,000$ PSI
2. Foundation : (Dead Load plus Live Load allowable soil pressure)
 - 1,000 PSF

B DETAIL NOTES

1. The Weighbridge Assembly Reinforced Concrete Deck shall be in full bearing with the wide flange beams and connected to the wide flange beams with headed stud anchors.
2. Corner Pedestal dimensions shown are minimum. Pedestals may be increased in size, per the Engineers approval, to accommodate load cells and restrainer assemblies. Pedestals shall not inhibit existing access into the scale pit nor existing floor drainage.
3. Lateral Load Restrainer Assembly Bracket dimensions shown are minimum. Bracket locations and dimensions, may be adjusted, per the Engineers approval, to accommodate the particular load cells supplied.
4. All metal to metal bolted connections shall utilize A325 High Strength Bolts with oversize holes, unless otherwise shown.
5. All miscellaneous metal shall be hot-dip galvanized after fabrication.
6. All reinforcement shall be Epoxy Coated.

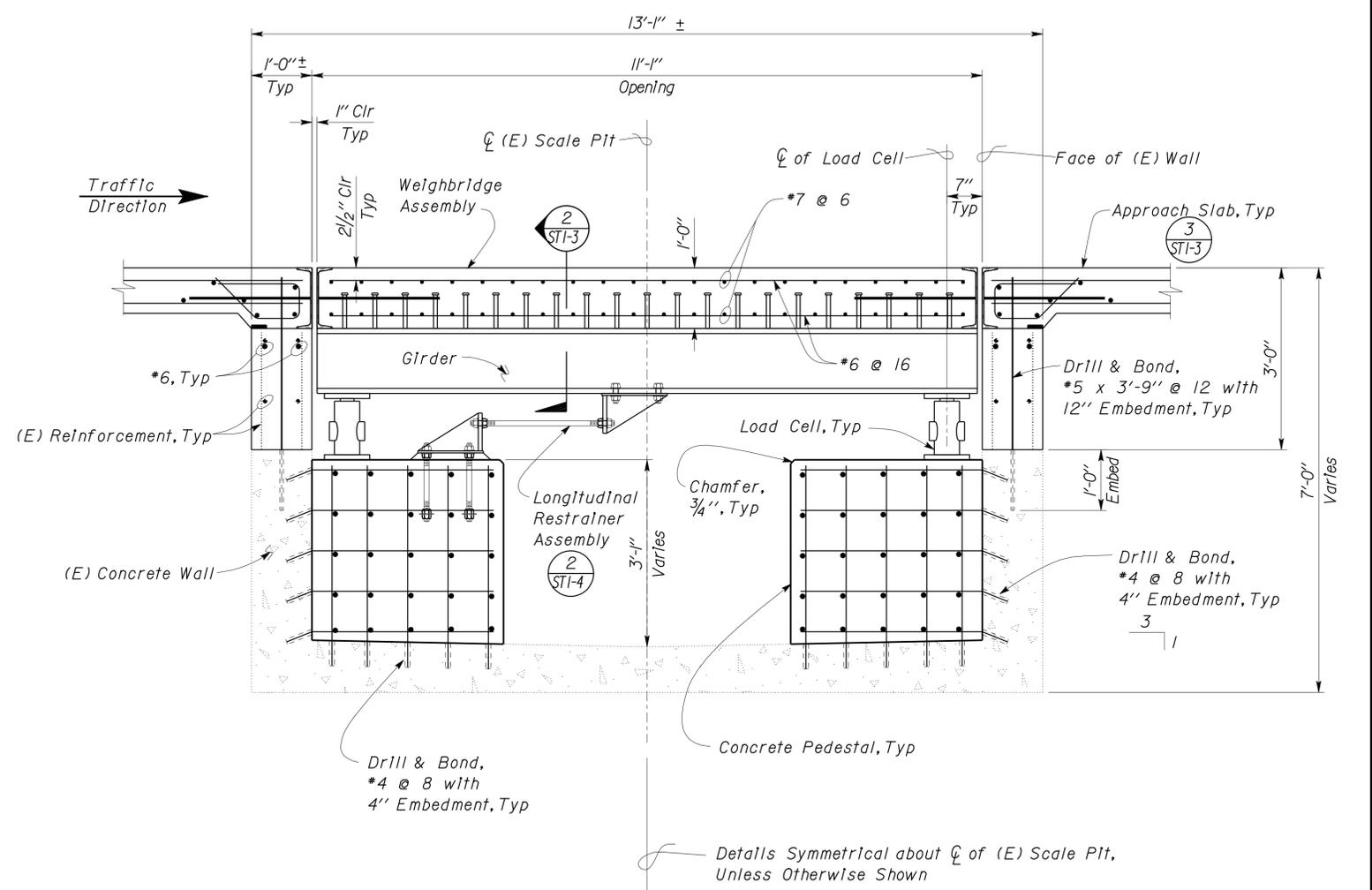
Symbols

Concrete Removal	
Remove (E) Concrete and Retain Reinforcement	



1 SCALE PIT LAYOUT
Scale 3/4" = 1'-0"

Note
Weighbridge Concrete Slab not shown.



Note
All reinforcement shall be Epoxy coated.

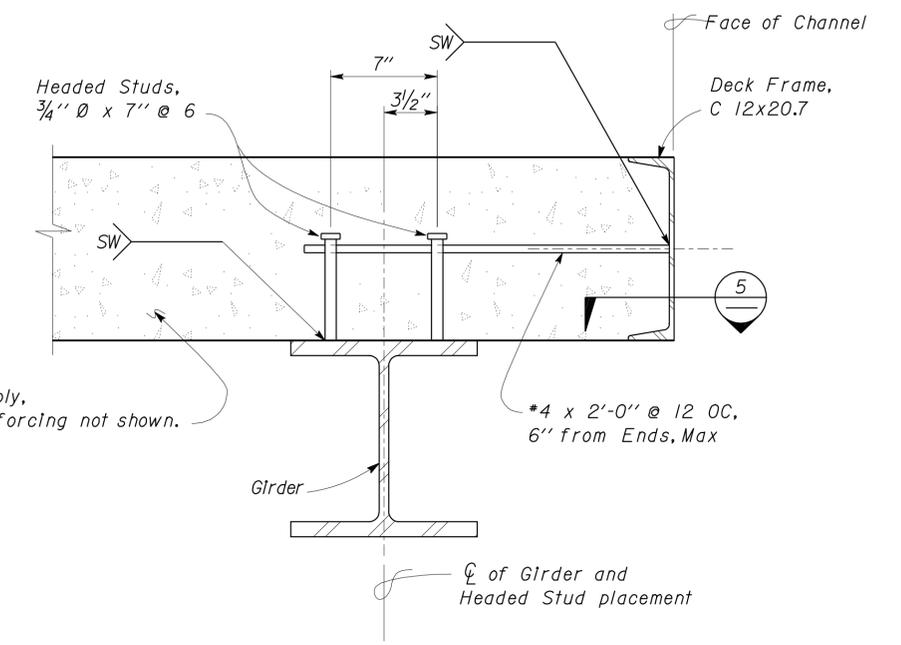
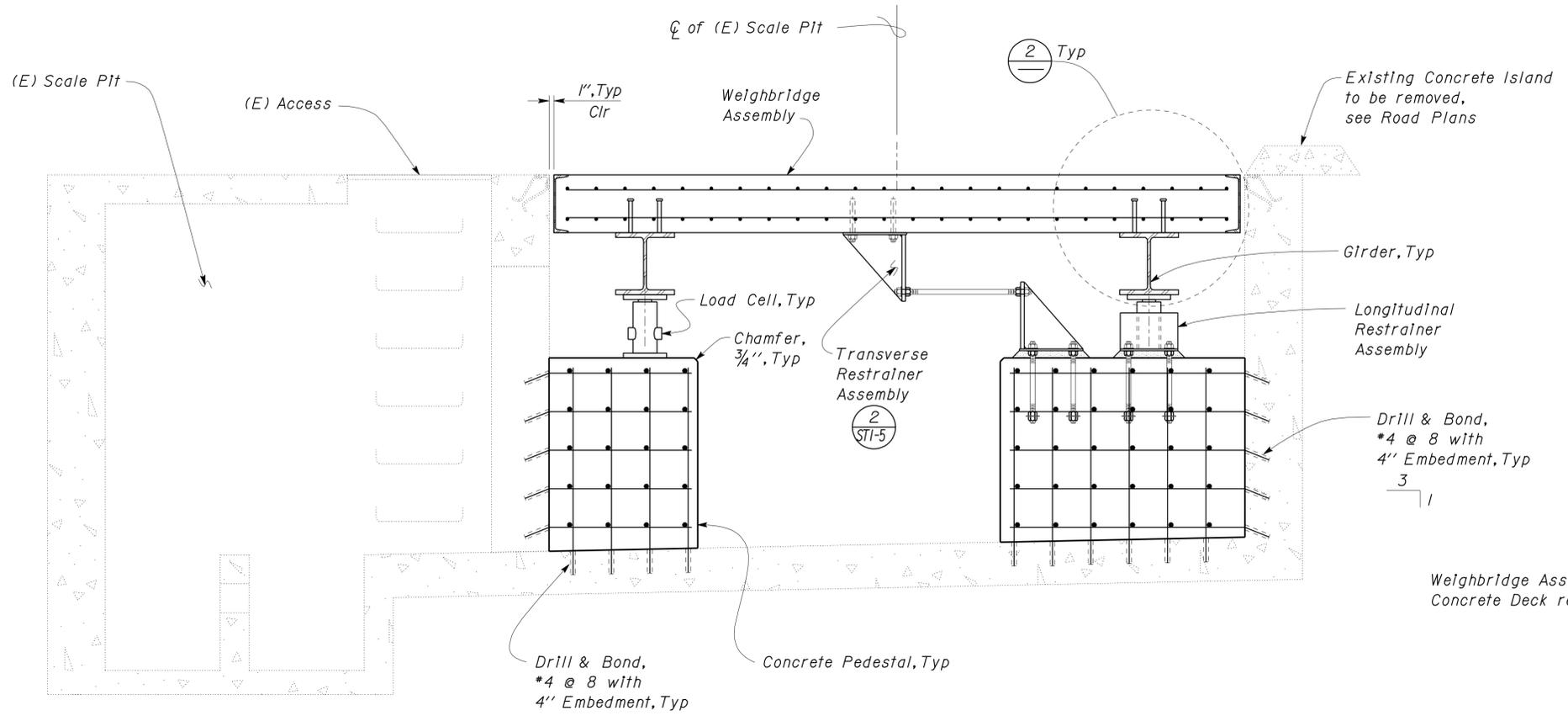
2 SCALE PITS TRANSVERSE SECTION
Scale 3/4" = 1'-0"

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

DESIGN BY <i>Joseph Camillovi</i>	CHECKED <i>Dailu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 17W002	DONNER PASS TRUCK INSPECTION FACILITY		SHEET ST1-2
				POST MILE 19.5	SCALE PIT PLAN AND SECTION		
DETAILS BY <i>George E. Rowe</i>	CHECKED <i>Joseph Camillovi</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 03227 EA 4C2201	WESTBOUND SCALE PIT	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES				DISREGARD PRINTS BEARING EARLIER REVISION DATES	04-14-09		

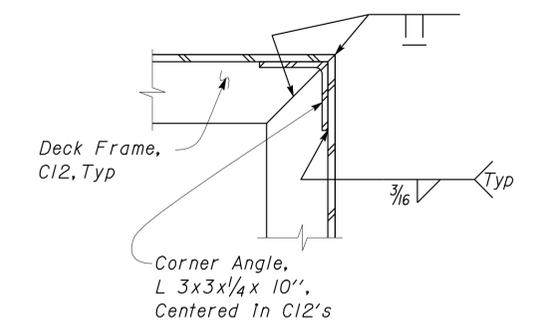
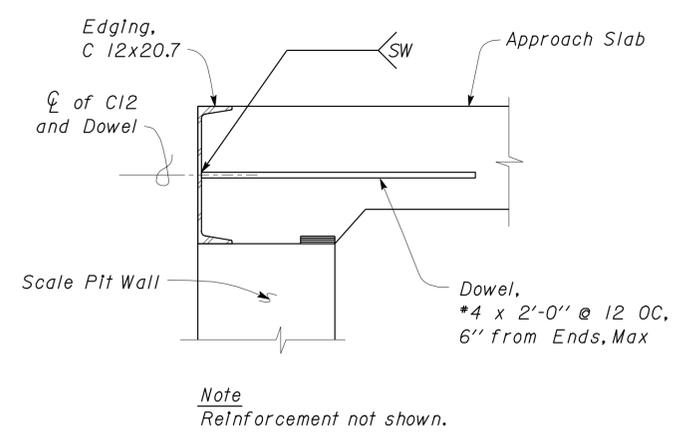
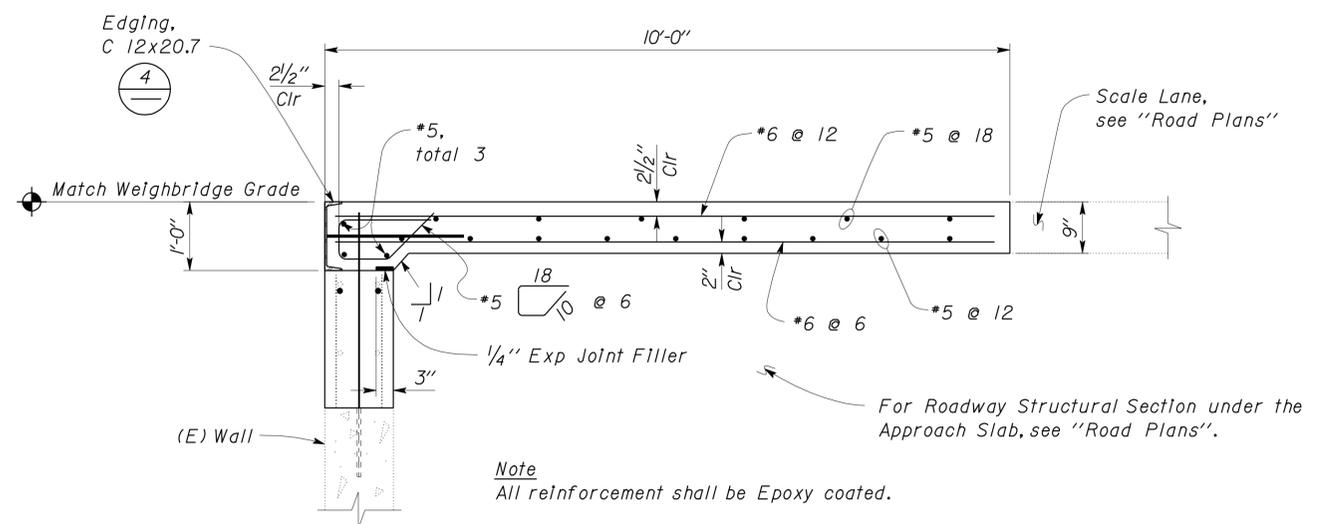
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	37	71

<i>Joseph Camillovi</i> REGISTERED CIVIL ENGINEER		04-14-09 DATE
7-27-09 PLANS APPROVAL DATE		
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1 LONGITUDINAL SECTION
Scale 3/4" = 1'-0"

2 CHANNEL EDGE AND SHEAR CONNECTION DETAIL
Scale 2" = 1'-0"



3 APPROACH SLAB SECTION
Scale 3/4" = 1'-0"

4 APPROACH SLAB EDGING DETAIL
Scale 1 1/2" = 1'-0"

5 DECK FRAME MITERED CORNER DETAIL
Scale 3" = 1'-0"

Note: All reinforcement shall be Epoxy coated.

Note: Reinforcement not shown.

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

DESIGN	BY <i>Joseph Camillovi</i>	CHECKED <i>Dailu</i>
DETAILS	BY <i>George E. Rowe</i>	CHECKED <i>Joseph Camillovi</i>
QUANTITIES	BY	CHECKED

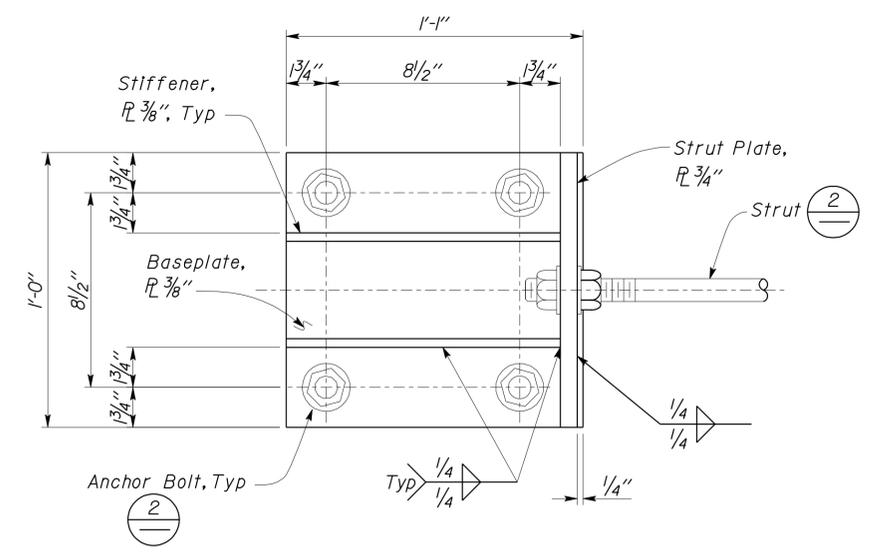
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	17W0002	WESTBOUND SCALE PIT	DONNER PASS TRUCK INSPECTION FACILITY	SHEET ST1-3
POST MILE	19.5			
MISCELLANEOUS DETAILS				

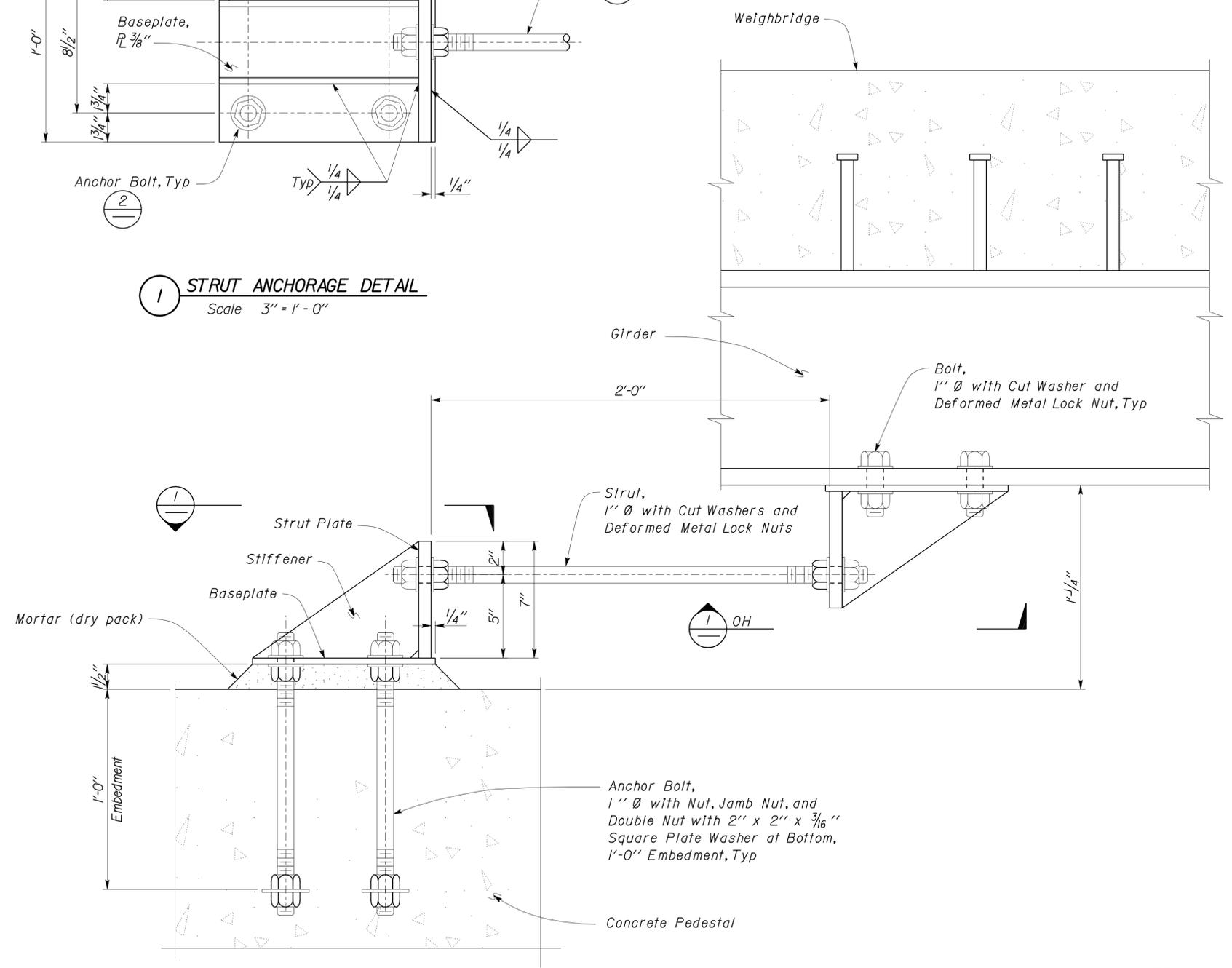
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	38	71

Joseph Camilloni
 REGISTERED CIVIL ENGINEER
 DATE 04-14-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Joseph F. Camilloni
 No. 3656
 Exp. 3-31-10
 STRUCTURAL
 STATE OF CALIFORNIA



1 STRUT ANCHORAGE DETAIL
Scale 3" = 1' - 0"



2 LONGITUDINAL RESTRAINT ASSEMBLY AND ANCHORAGE
Scale 3" = 1' - 0"

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

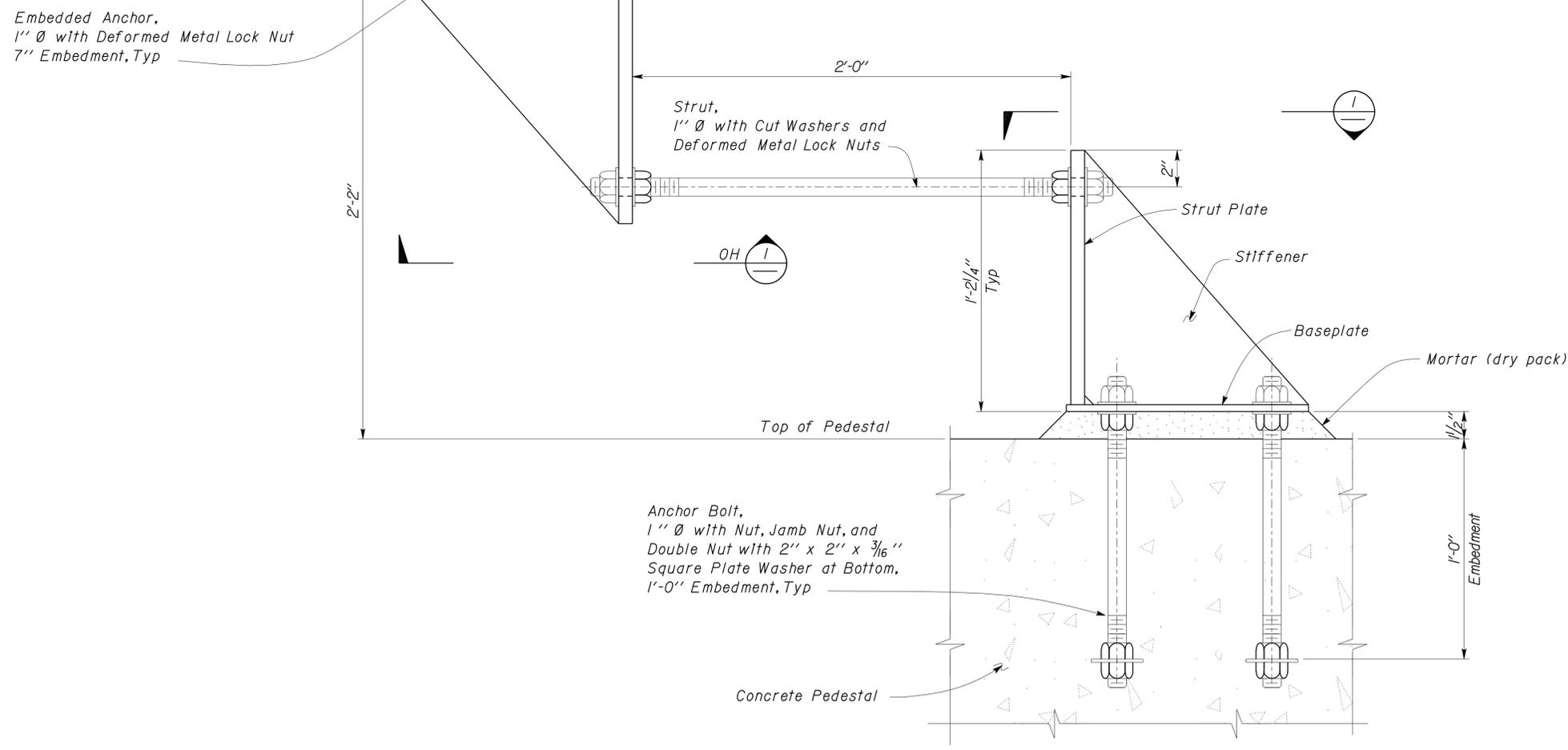
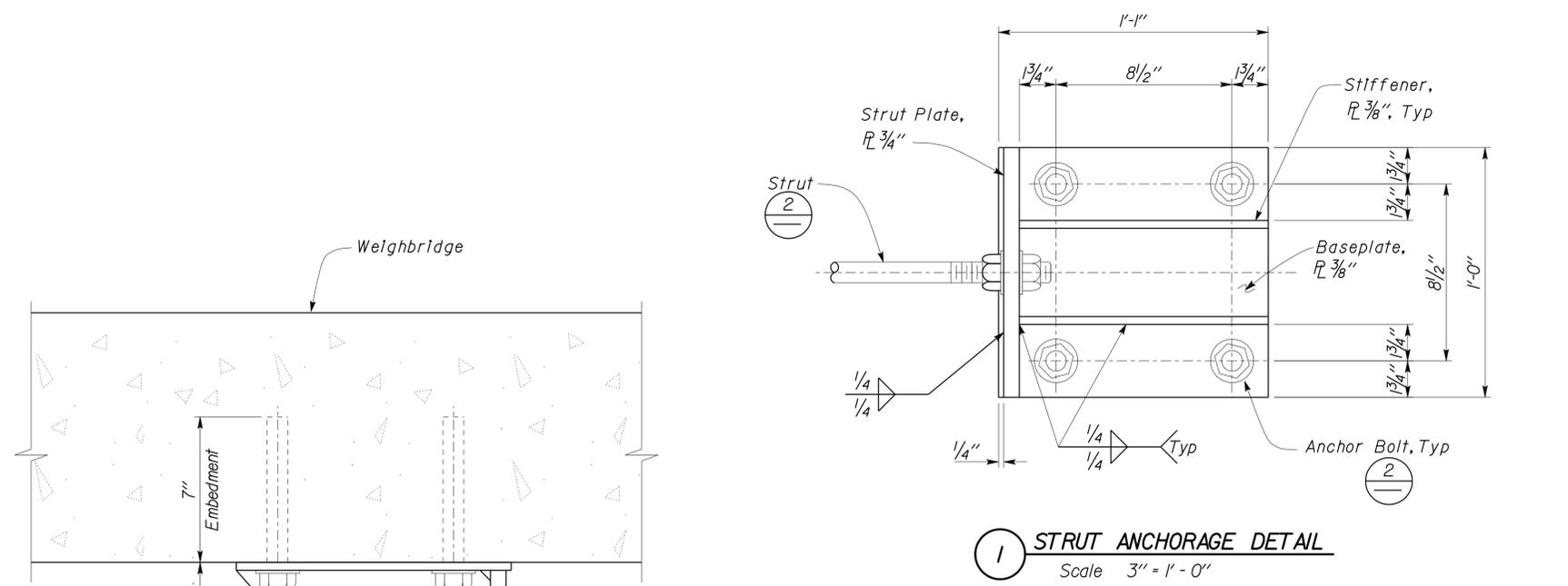
DESIGN BY <i>Joseph Camilloni</i>	CHECKED <i>Dailu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY		SHEET ST1-4
				POST MILE 19.5	WESTBOUND SCALE PIT	WEIGHBRIDGE LATERAL RESTRAINT DETAILS	
DETAILS BY <i>George E. Rowe</i>	CHECKED <i>Joseph Camilloni</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 03227 EA 4C2201	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
QUANTITIES		0 1 2 3		04-14-09			

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	39	71

Joseph Camilloni
 REGISTERED CIVIL ENGINEER
 DATE 04-14-09
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Joseph F. Camilloni
 No. 3656
 Exp. 3-31-10
 STRUCTURAL
 STATE OF CALIFORNIA

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DESIGN BY <i>Joseph Camilloni</i>	CHECKED <i>Dailu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY		SHEET ST1-5
				POST MILE 19.5	WESTBOUND SCALE PIT	WEIGHBRIDGE LATERAL RESTRAINT DETAILS	
DETAILS BY <i>George E. Rowe</i>	CHECKED <i>Joseph Camilloni</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 03227 EA 4C2201	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	40	71

Michael R. White 4/14/09
 REGISTERED MECHANICAL ENGINEER DATE



7-27-09
PLANS APPROVAL DATE

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INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>ELECTRICAL</u>
<u>STRUCTURAL</u>		<u>MECHANICAL</u>		
STI-1	EXISTING SCALE PIT PLAN AND SECTION	M-00	INDEX OF SHEETS	E-0 LEGEND
STI-2	SCALE PIT PLAN AND SECTION	M-0	MECHANICAL LEGEND	E-1 ELECTRICAL SITE PLAN 1
STI-3	MISCELLANEOUS DETAILS	M-1	BLOCK DIAGRAM OF EXISTING SYSTEM	E-2 ELECTRICAL SITE PLAN 2
STI-4	WEIGHBRIDGE LATERAL RESTRAINT DETAILS	M-2	BLOCK DIAGRAM OF MODIFIED SYSTEM	E-3 EXISTING PARTIAL SITE PLAN
STI-5	WEIGHBRIDGE LATERAL RESTRAINT DETAILS	M-3	DIESEL-FIRED BOILER REMOVAL	E-4 MODIFIED PARTIAL SITE PLAN
		M-4	DIESEL FUEL PUMP & PIPE REMOVAL	E-5 WSMS DETAILS
		M-5	PNEUMATIC CONTROL SYSTEM REMOVAL	E-6 WSMS AUTOMATIC CONTROL
		M-6	CIRCULATING PUMPS AND PIPING REMOVAL	E-7 AUTOMATIC CONTROL SCHEMATIC
		M-7	NEW BOILER CONCRETE PAD	EE-0 LEGEND
		M-8	CIRCULATING PUMP PAD REMOVAL	EE-1 MECH ROOM - ELEC SYSTEM MODIFICATIONS
		M-9	BOILER & SNOWMELT WATER SUPPLY	EE-2 CIRCULATING PUMP DETAILS I
		M-10	BOILER DETAILS 1	
		M-11	BOILER DETAILS 2	
		M-12	CIRCULATING SYSTEM DETAILS 1	
		M-13	CIRCULATING SYSTEM DETAILS 2	
		M-14	REMOVAL OF EXISTING GAS PIPING	
		M-15	GAS PIPING DETAILS 1	
		M-16	GAS PIPING DETAILS 2	
		M-17	PLATFORM FOR AIR HANDLER	
		M-18	WATER LINES FOR AIR HANDLER 1	
		M-19	WATER LINES FOR AIR HANDLER 2	
		M-20	AIR HANDLER / FURNACE DETAILS	
		M-21	REMOVAL OF EXISTING AIR DUCTS	
		M-22	AIR DUCT DETAILS 1	
		M-23	AIR DUCT DETAILS 2	
		M-24	OPERATIONAL SCHEMATIC	
		M-25	BOILER CONTROL SYSTEM	
		M-26	LPG TANK DETAILS	
		M-27	MISCELLANEOUS DETAILS	

DESIGN BY <i>Michael White</i> CHECKED <i>Chris Farla</i> DETAILS BY <i>Michael White</i> CHECKED <i>Chris Farla</i> QUANTITIES BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0002 POST MILE 19.5	DONNER PASS TRUCK INSPECTION FACILITY INDEX OF SHEETS	SHEET M-00
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 03 EA 4C2200	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)
	0 1 2 3		12/18/08 07/14/09 4/14/09	SHEET OF	

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	42	71

Michael R. White 4/14/09
REGISTERED MECHANICAL ENGINEER DATE

7-27-09
PLANS APPROVAL DATE

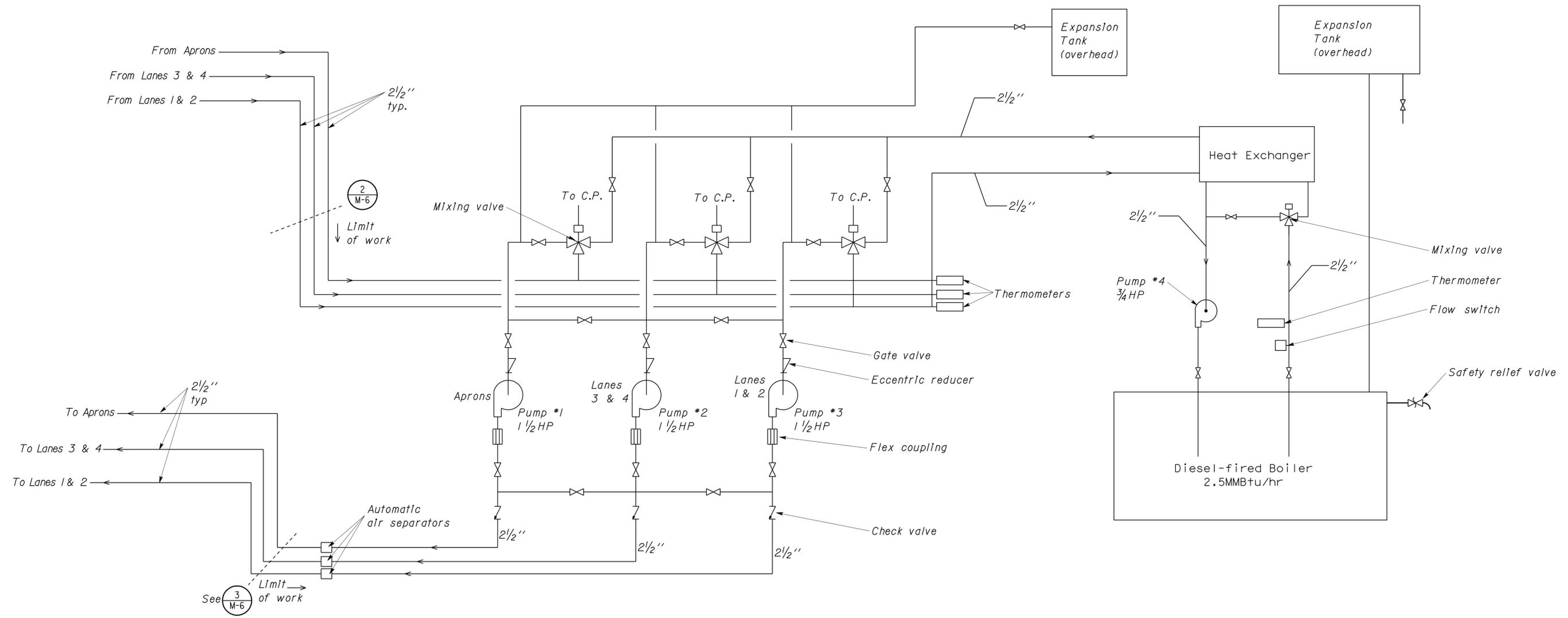
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Pump	Circuit	HP	GPM	Head
1	Aprons	1 1/2	60	40
2	Lanes 3 & 4	1 1/2	60	40
3	Lanes 1 & 2	1 1/2	60	40
4	Boiler circ.	3/4	unk.	unk.

All are 1750 RPM, 230 VAC, single phase, 2" suction, 1-1/2" discharge

- Notes:
- See Sheet M-6 for details on the locations of the limits of work.
 - Remove the boiler, heat exchanger, two (overhead) expansion tanks, four pumps, mixing valves, and associated piping within the limits of work shown.
 - Also see Electrical sheets for extent of demolition work.



1 EXISTING HOT WATER SYSTEM - BLOCK DIAGRAM
Controls system not shown

DESIGN SUPERVISOR: *John Schreff*
DESIGN ENGINEER: *Alan M. Fines*

DESIGN	BY Michael White	CHECKED Chris Farla
DETAILS	BY Michael White	CHECKED Chris Farla
QUANTITIES	BY Michael White	CHECKED Chris Farla

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO. 17W0002
POST MILE 19.5

DONNER PASS TRUCK INSPECTION FACILITY
BLOCK DIAGRAM OF EXISTING SYSTEM

SHEET M-1 OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	43	71

Michael R. White
REGISTERED MECHANICAL ENGINEER
DATE 4/14/09

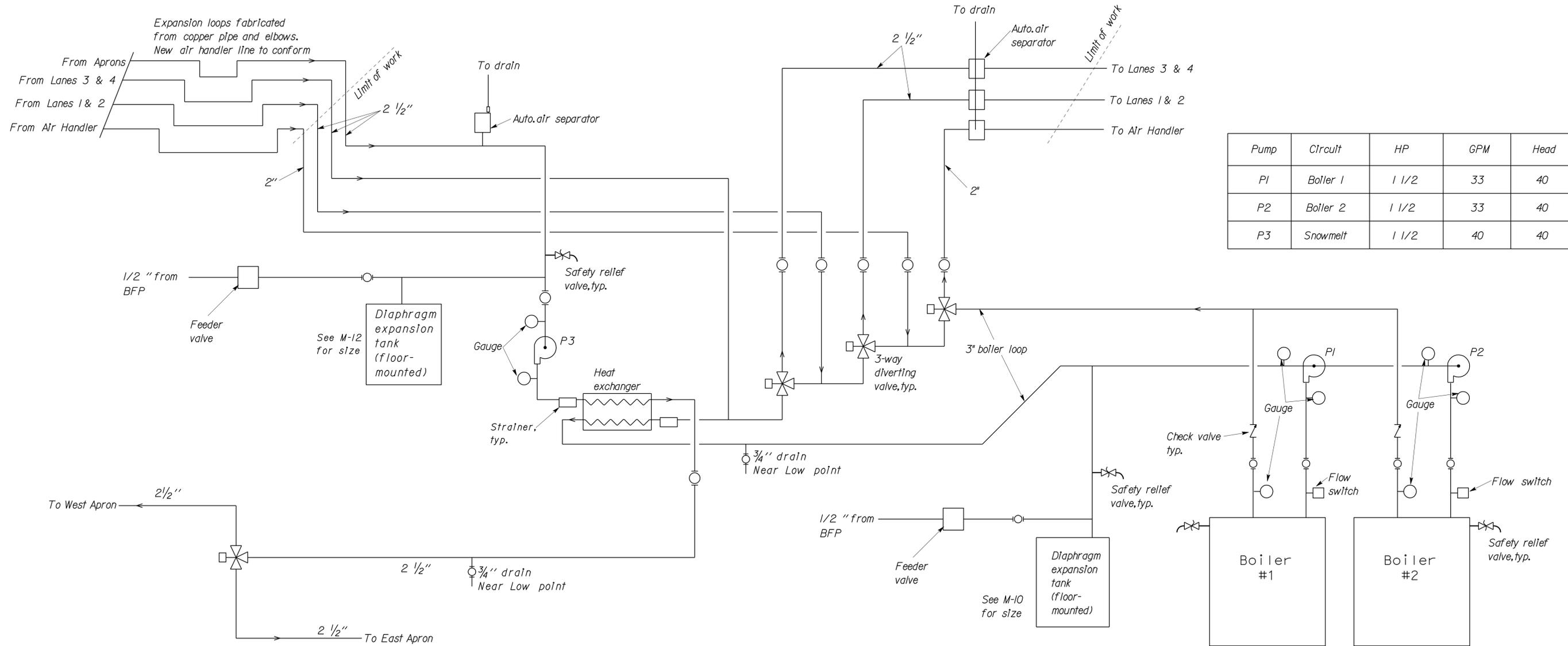
7-27-09
PLANS APPROVAL DATE

Michael R. White
No. M29108
Exp. 6/30/10
MECH
STATE OF CALIFORNIA

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Notes:

1. This sheet is a block diagram only. See other Mechanical sheets for piping details and layout
2. Most pipe support hanger assemblies will remain in place and be used with the new piping
3. Terminate any drain or vent line with a 3/4" NH male fitting to facilitate hose connections to the system
4. All piping for circulating systems shall be Type K copper
5. Wherever the word "Gauge" or the Gauge symbol is shown on these plans, it shall mean a combination Pressure & Temperature gauge. See the Special Provisions for details.
6. All automatic air separators and vents shall be routed to the closest drain.



Pump	Circuit	HP	GPM	Head
P1	Boiler 1	1 1/2	33	40
P2	Boiler 2	1 1/2	33	40
P3	Snowmelt	1 1/2	40	40

1 NEW HOT WATER SYSTEM - BLOCK DIAGRAM
Control system not shown

DESIGN	BY Michael White	CHECKED Chris Farla
DETAILS	BY Michael White	CHECKED Chris Farla
QUANTITIES	BY Michael White	CHECKED Chris Farla

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO. 17W0002
POST MILE 19.5

DONNER PASS TRUCK INSPECTION FACILITY
BLOCK DIAGRAM OF MODIFIED SYSTEM

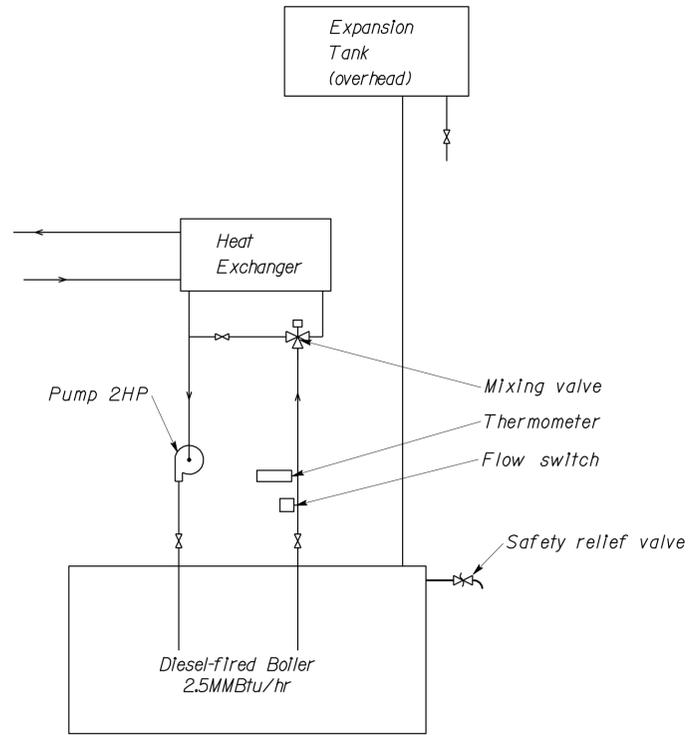
SHEET M-2 OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	44	71

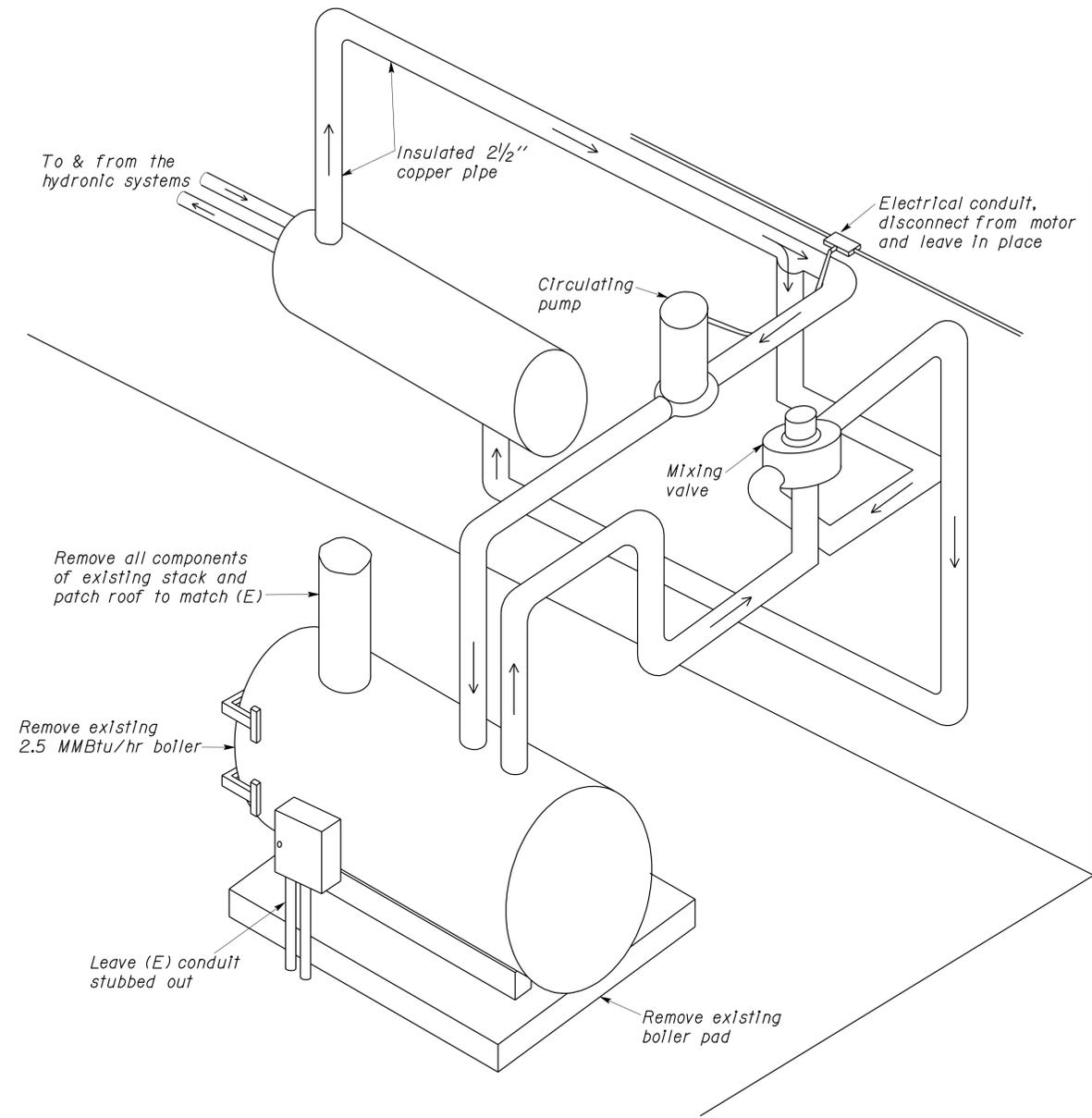
<i>Michael R. White</i>		4/14/09
REGISTERED MECHANICAL ENGINEER	DATE	

7-27-09
PLANS APPROVAL DATE

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1 BLOCK DIAGRAM
No scale



2 GENERAL LAYOUT OF EXISTING BOILER PIPING
No scale

- Notes:
1. Remove all boiler and heat exchanger piping.
 2. The existing boiler will fit out down the aisle to the west of where it is currently located. The clearance past the pressurized water tank supports and the concrete building column is only 2 inches and will require special handling operations to maneuver the boiler through this area.
 3. Remove all components of the existing flue stack both inside the mechanical room and from the roof. Patch existing hole through roof with materials matching the existing roof and seal appropriately.
 4. Remove existing concrete boiler pad
 5. Also see Electrical sheets for extent of demolition work.

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0002
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
DIESEL-FIRED BOILER REMOVAL

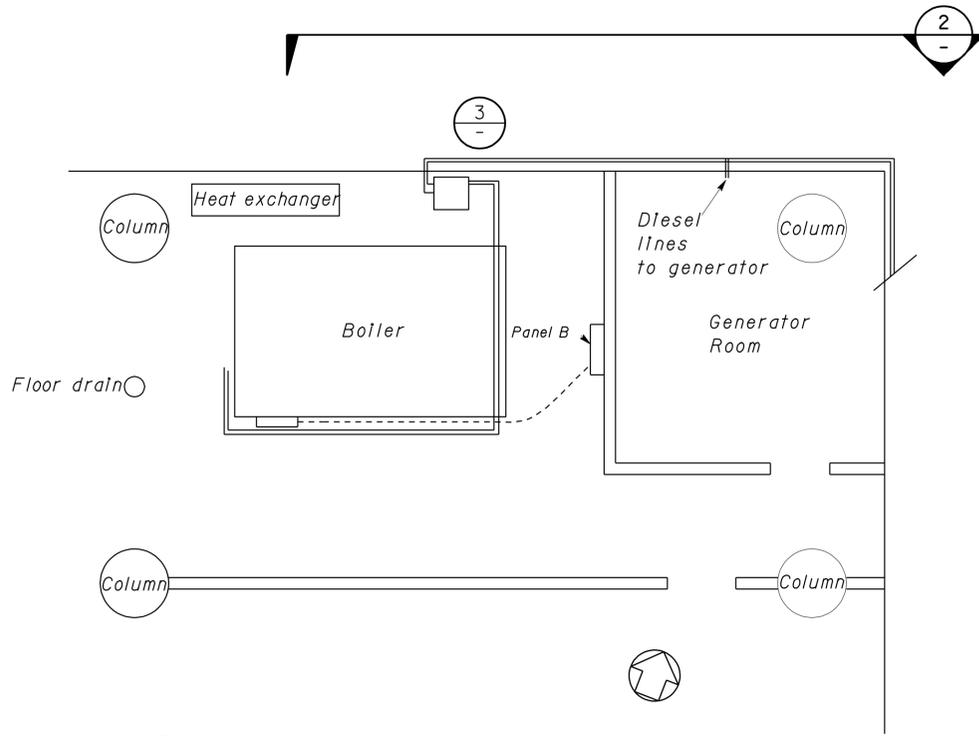
SHEET **M-3** OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	45	71

Michael R. White 4/14/09
 REGISTERED MECHANICAL ENGINEER DATE
 No. M29108
 Exp. 6/30/10
 MECH
 STATE OF CALIFORNIA

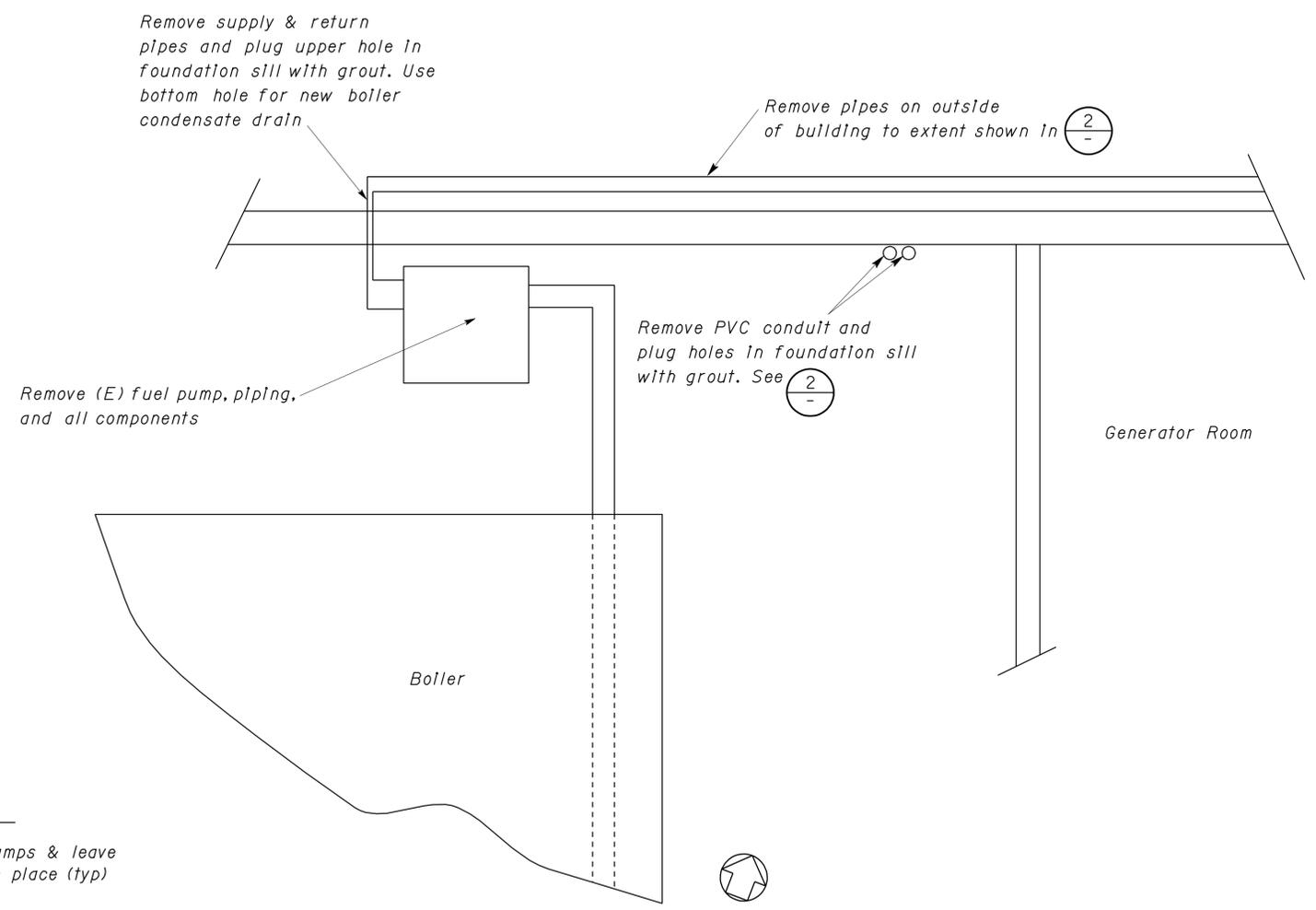
7-27-09
 PLANS APPROVAL DATE

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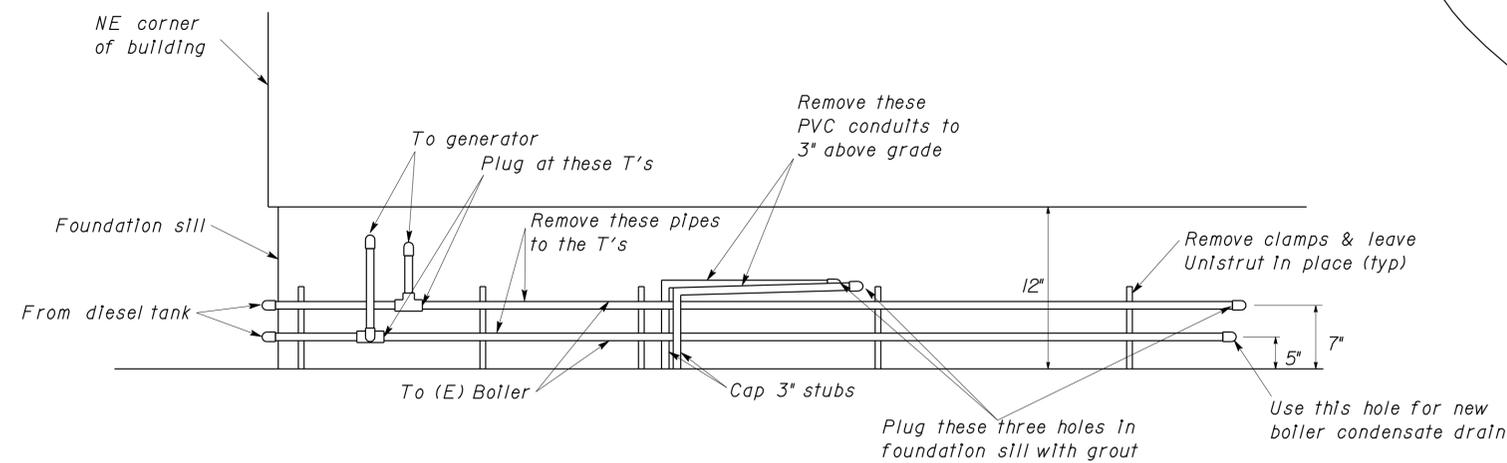


1 BOILER FUEL PUMP PLAN
 No scale
(AREA OF WORK)

- Notes:
- The diesel supply tank is above ground and located directly off the NE corner of the inspection facility.
 - The Contractor must verify proper operation of the emergency generator upon completion of the diesel fuel supply line modifications.



3 BOILER FUEL PUMP WORK PLAN
 No scale
(INSIDE OF MECHANICAL ROOM)



2 BOILER FUEL PUMP WORK
 No scale
(OUTSIDE OF MECHANICAL ROOM)

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0002
POST MILE	19.5
DONNER PASS TRUCK INSPECTION FACILITY	
DIESEL FUEL PUMP & PIPE REMOVAL	

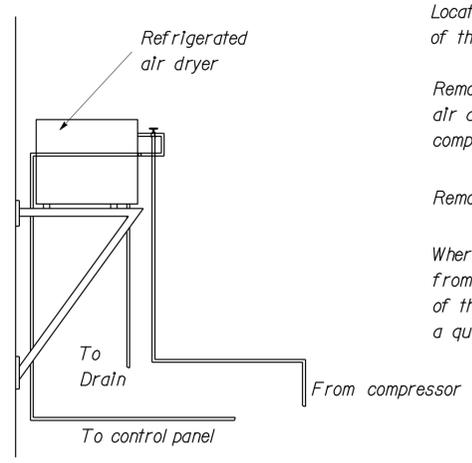
SHEET M-4 OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	46	71

Michael R. White 4/14/09
REGISTERED MECHANICAL ENGINEER DATE

7-27-09
PLANS APPROVAL DATE

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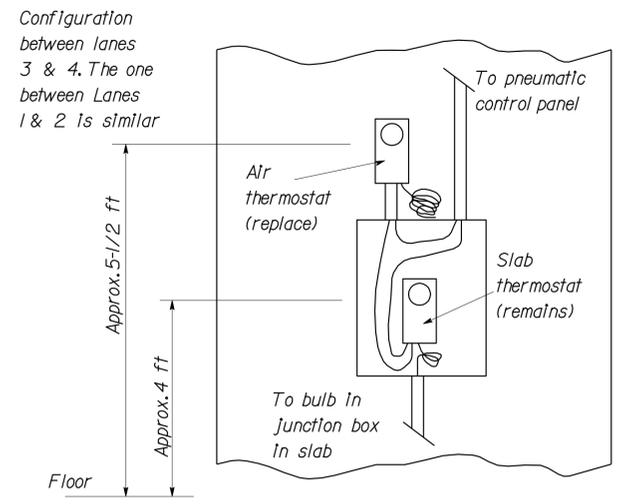
Located in the NW corner of the Mechanical Room

Remove the refrigerated air dryer and all associated components

Remove the wall bracket

Where the copper line connects from the air dryer to the steel pipe of the compressed air line, install a quick disconnect fitting

1 EXISTING AIR DRYER
No scale



3 EXISTING LANE TEMPERATURE SENSOR
No scale

Notes:

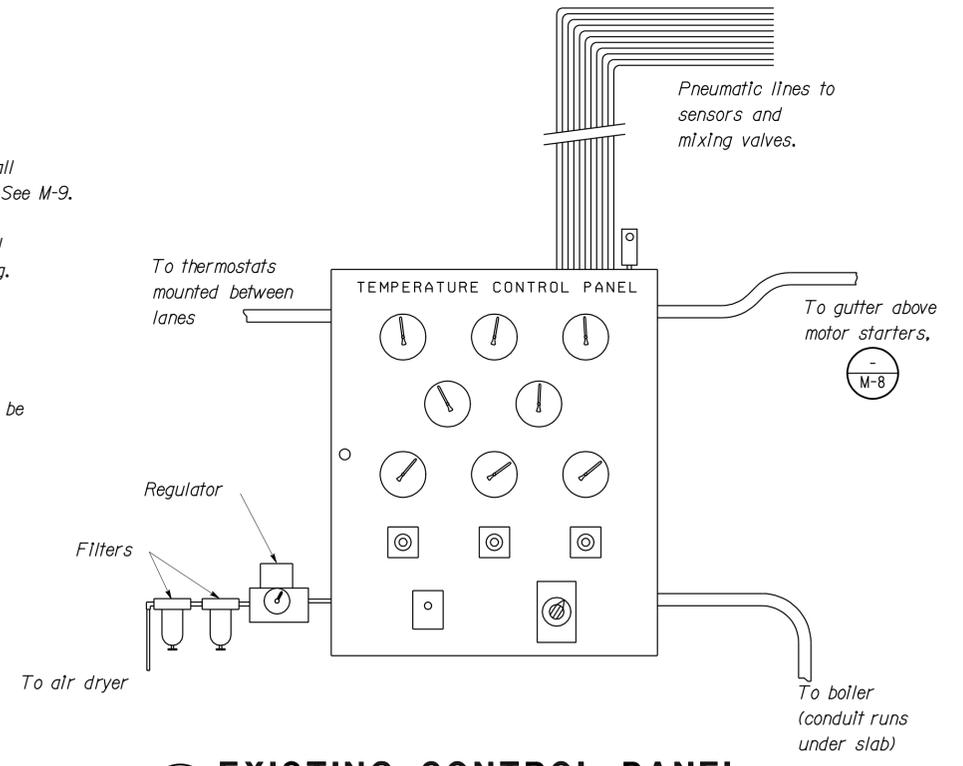
1. The Contractor shall use appropriate methods for removal and disposal of the refrigerated dryer unit and the refrigerant within it.

Located on the north wall of the Mechanical Room, See M-9.

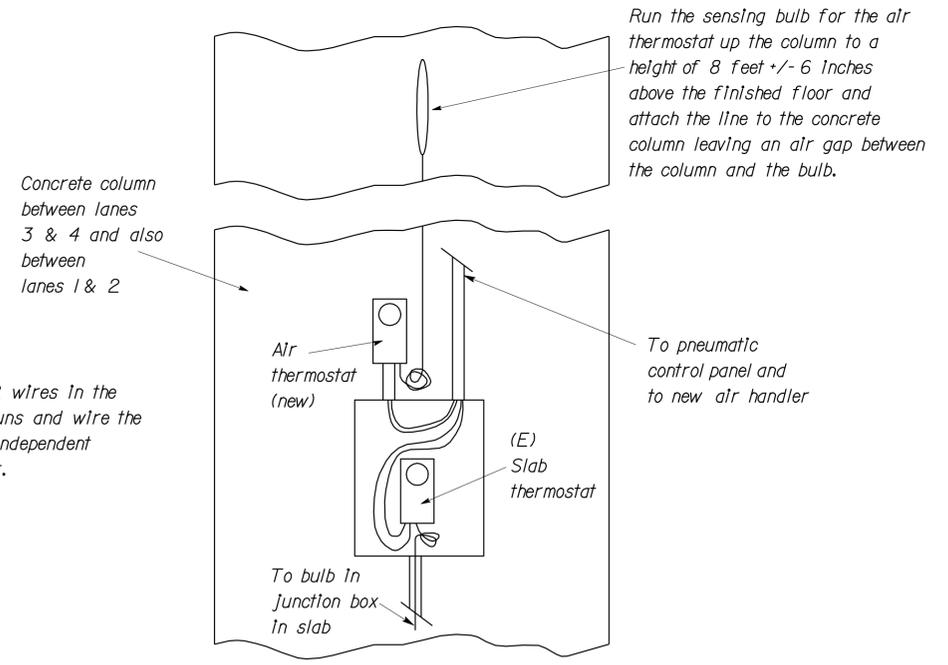
Remove the control panel and all pneumatic tubing.

Remove the regulator, and filter units.

Conduit will remain and be used to connect to new control system panel.



2 EXISTING CONTROL PANEL
No scale



Run new #12 wires in the (E) conduit runs and wire the thermostats independent of each other.

4 MODIFIED LANE TEMPERATURE SENSOR
No scale

DESIGN	BY Michael White	CHECKED Chris Farla
DETAILS	BY Michael White	CHECKED Chris Farla
QUANTITIES	BY Michael White	CHECKED Chris Farla

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

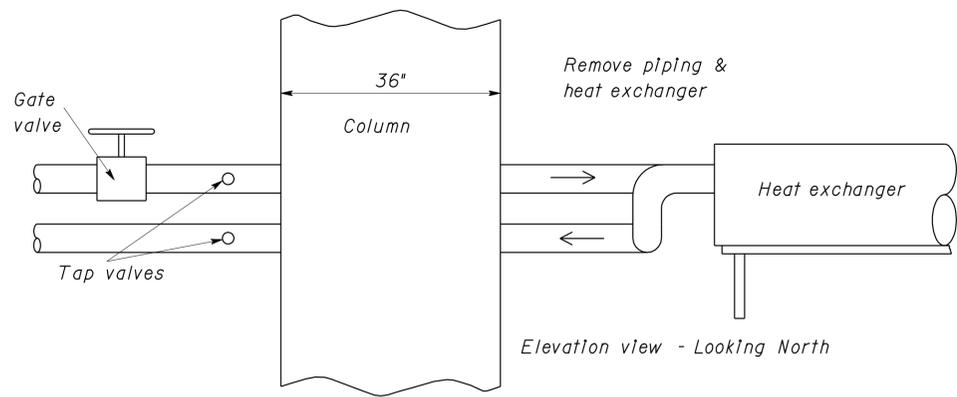
DIVISION OF ENGINEERING SERVICES
ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE NO.	17W0002
POST MILE	19.5

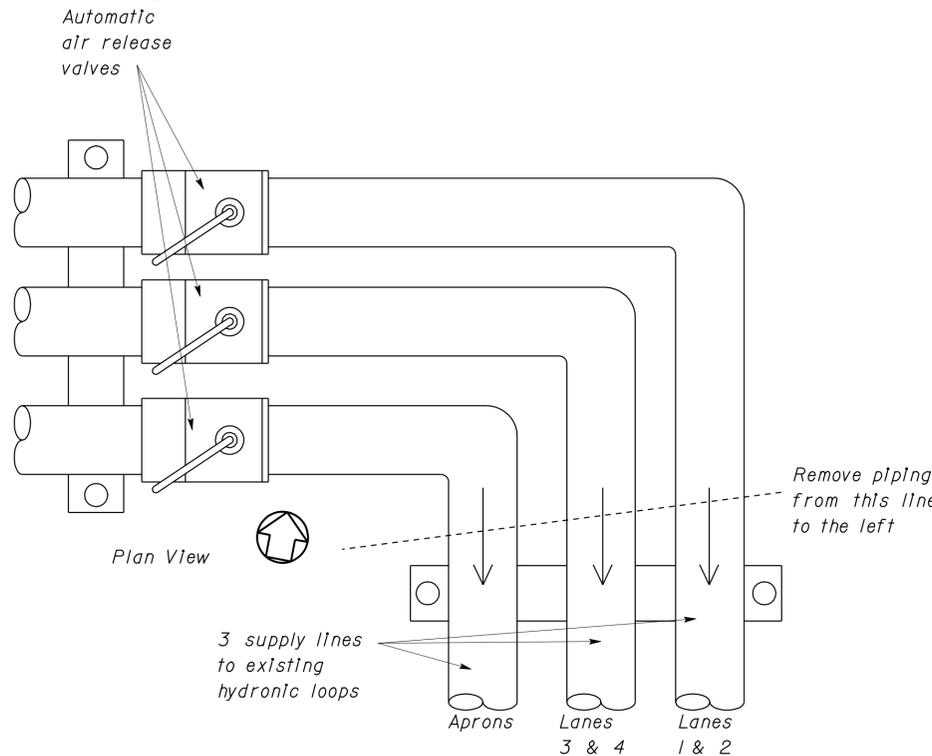
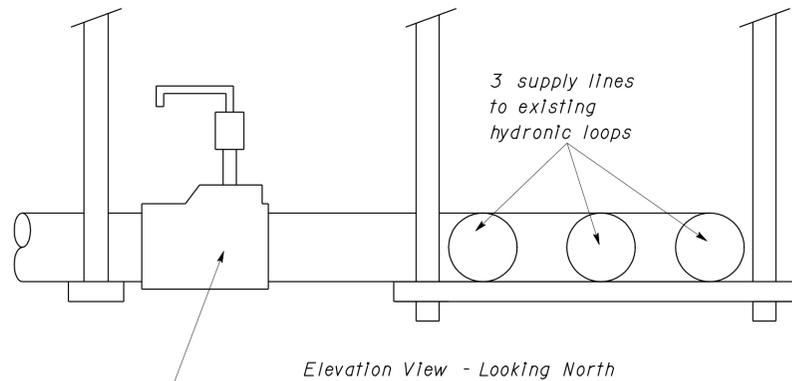
DONNER PASS TRUCK INSPECTION FACILITY
PNEUMATIC CONTROL SYSTEM REMOVAL

SHEET M-5 OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	47	71
<i>Michael R. White</i> 4/14/09 REGISTERED MECHANICAL ENGINEER DATE					
7-27-09 PLANS APPROVAL DATE					
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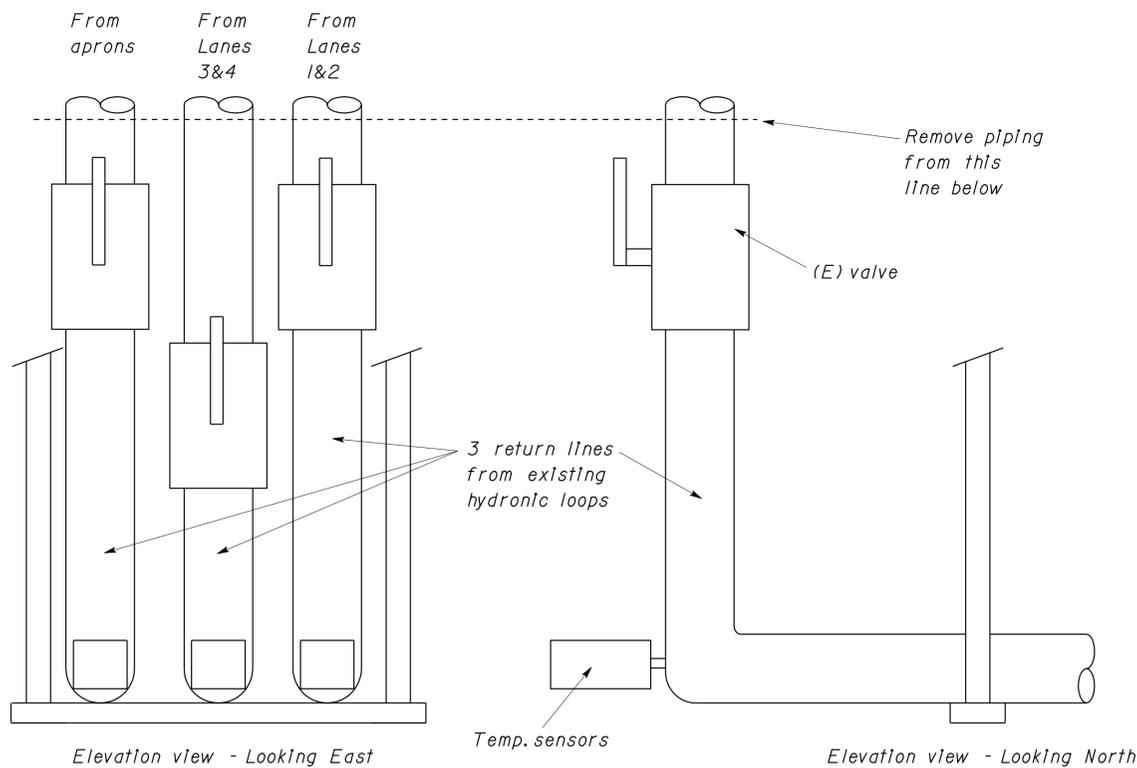
1 PIPING & HX REMOVAL
No scale



3 PIPING REMOVAL FOR THE SUPPLY LINES (ABOVE THE PUMP AREA)
No scale

Notes:

1. All existing piping is covered with non-asbestos insulation.
2. Leave all hanger assembly rods and vibration dampeners in place so they may be used for the new piping.
3. All copper piping is to be removed and retained as State property.
4. Remove overhead thermal expansion tanks and all associated piping.
5. The (E) circulation pumps are to be removed and retained as State property.
6. All work shown on this sheet is within the Mechanical Room.



2 PIPING REMOVAL FOR THE RETURN LINES (ABOVE THE PUMP AREA)
No scale

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

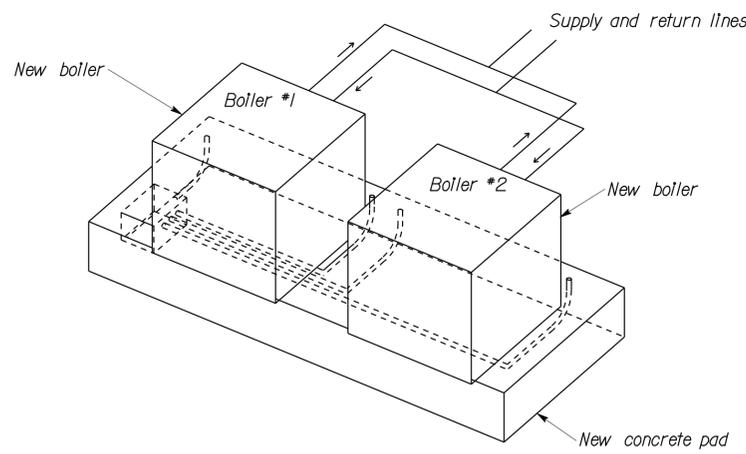
BRIDGE NO.	17W0002
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
CIRCULATING PUMPS AND PIPING REMOVAL

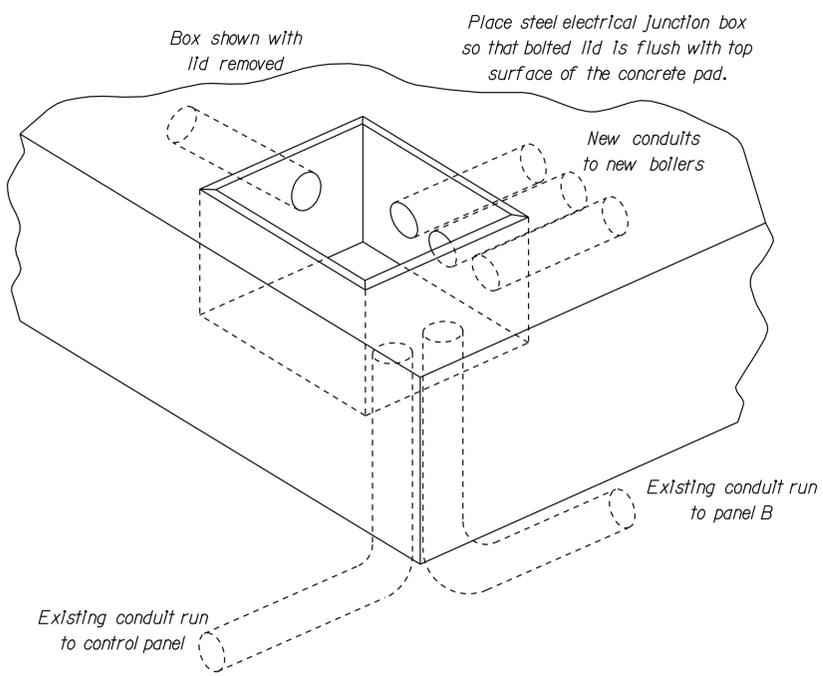
SHEET M-6 OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	48	71

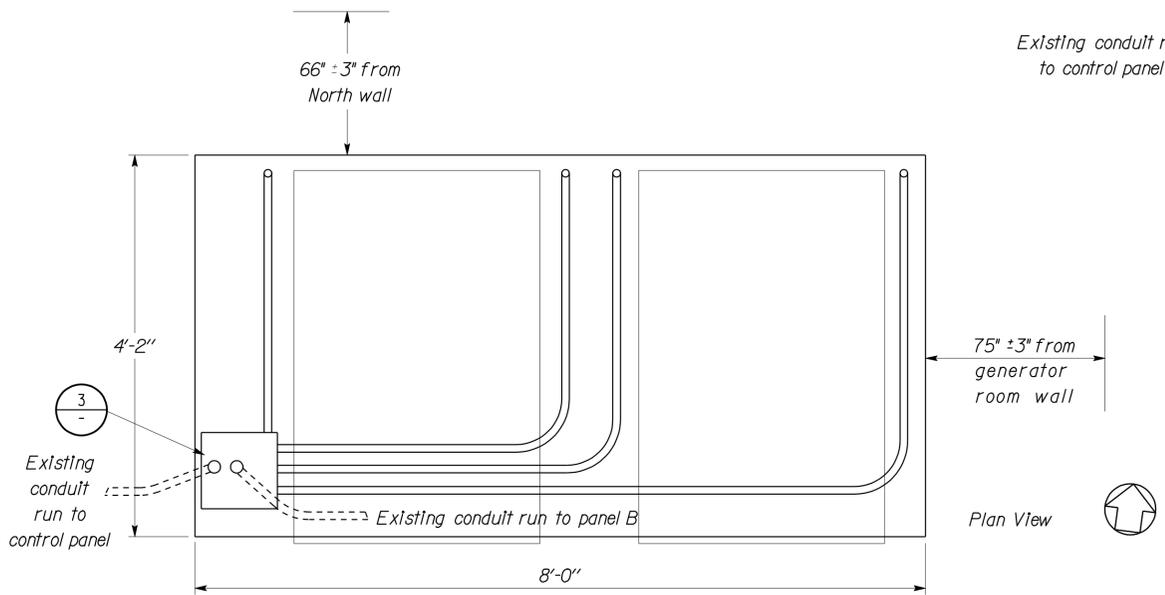
<i>Michael R. White</i> REGISTERED MECHANICAL ENGINEER No. M29108 Exp. 6/30/10 MECH STATE OF CALIFORNIA	4/14/09 DATE
7-27-09 PLANS APPROVAL DATE	
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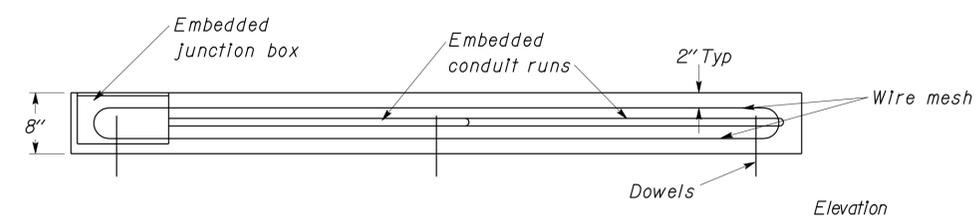
1 GENERAL LAYOUT
NO SCALE



3 JUNCTION BOX DETAILS
NO SCALE



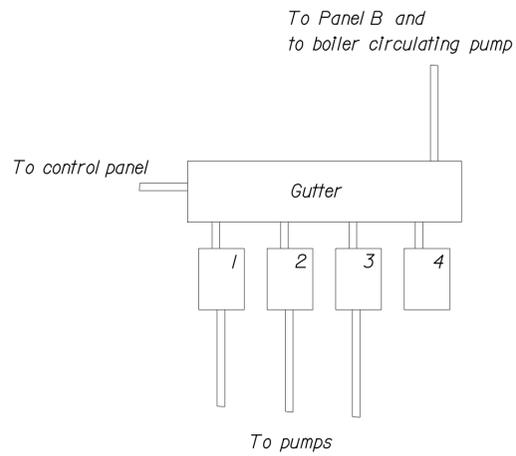
2 NEW BOILER PAD
NO SCALE



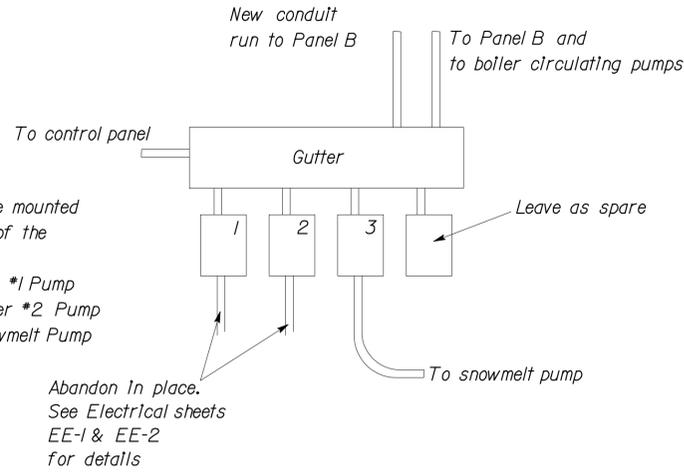
- NOTES:
1. Drill and bond 9 dowels into the floor. Dowels shall be #5 (5/8") with a 4" min bond-side length and an overall length of 8".
 2. Use 4" x 4" welded wire mesh on 2" double blocks for the bottom pad reinforcement. Maintain 2" clearance around edges. Place top mesh 2" below top surface.
 3. Exact pad position within the Mechanical Room will be determined by the location of the existing conduit protrusion from the floor.
 4. Boiler pad dimensions are general. Final pad dimensions will be determined by the requirements of the chosen boilers. If the pad is to be extended, it must be in the direction(s) away from the North wall and away from the generator room wall. Consult with the Engineer if the selected boilers require more space.
 5. The electrical junction box shall have a gasketed steel lid with a non-slip surface. When bolted down, the lid shall not pose a tripping hazard.
 6. Stub out the electrical conduits at the rear of the boilers to 36" above the concrete pad.

DESIGN BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY	SHEET M-7
			POST MILE 19.5		
DETAILS BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 03227 EA 4C2200	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 12/18/08 07/14/09 4/14/09	SHEET OF
QUANTITIES BY <i>Michael White</i> CHECKED <i>Chris Farla</i>					

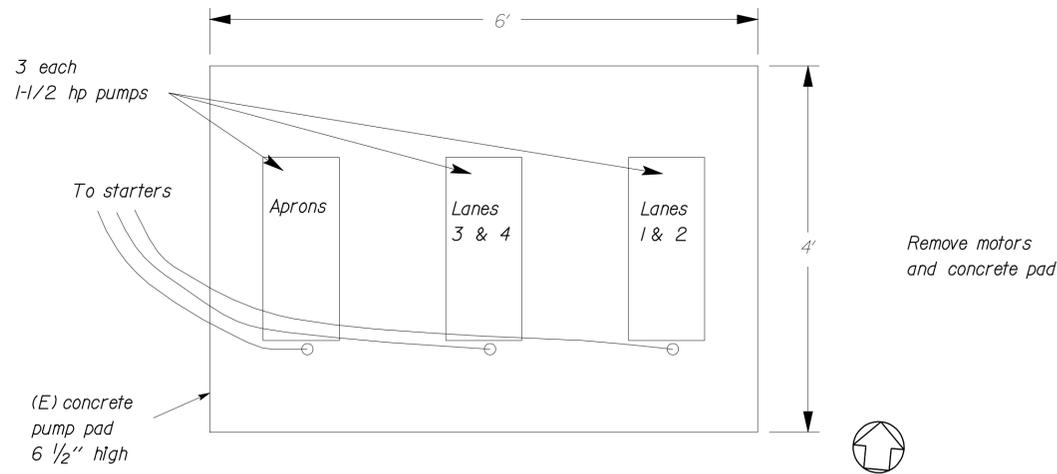
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	49	71
<i>Michael R. White</i> 4/14/09 REGISTERED MECHANICAL ENGINEER DATE					
7-27-09 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



1 EXISTING PUMP CONTROLS
NO SCALE



2 MODIFIED PUMP CONTROLS
NO SCALE



3 EXISTING PUMP DIAGRAM PLAN
NO SCALE

NOTES:

- The (E) circulation pumps are to be removed and retained as State property.
- Remove existing concrete pad. Cut off (E) conduit flush with exposed surface and fill the top 2" with grout. Finished work shall not pose a tripping hazard.
- After removal of the (E) pump pad, make the exposed concrete floor match the existing floor to the satisfaction of the Engineer. The newly exposed floor shall closely match the surrounding floor area.
- All of the work shown on this sheet is within the Mechanical Room.

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0002
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
CIRCULATING PUMP PAD REMOVAL

SHEET **M-8** OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	50	71

Michael R. White 4/14/09
REGISTERED MECHANICAL ENGINEER DATE

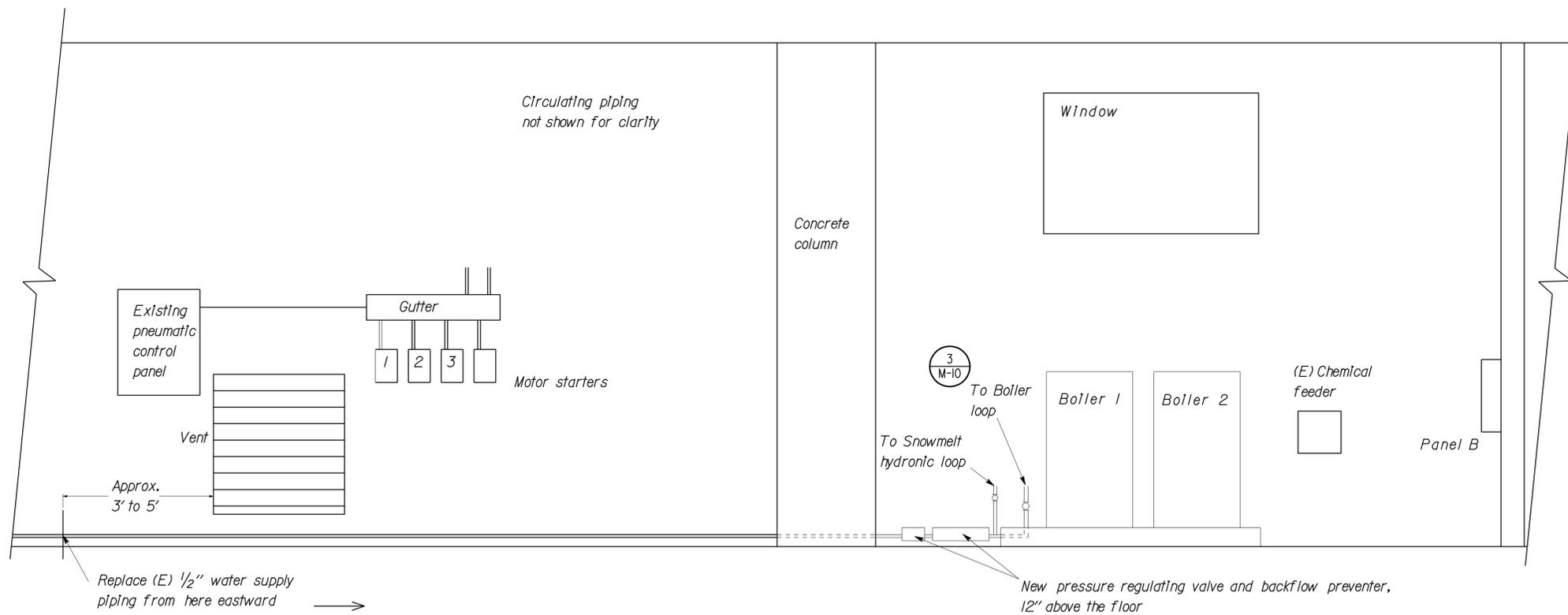
7-27-09
PLANS APPROVAL DATE

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NOTES:

1. Remove existing chemical feeder and associated piping.
2. Remove existing water supply line from boiler connection to approximately 3' to 5' west of the vent in the north wall of the mechanical room.
3. Install a new backflow preventer for the snowmelt loop and boiler water supply line along the north wall. Ensure test taps are on the proper side so the unit can be mounted tight to the wall.



1 MODIFIED BOILER WATER SUPPLY LAYOUT
LOOKING NORTH

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

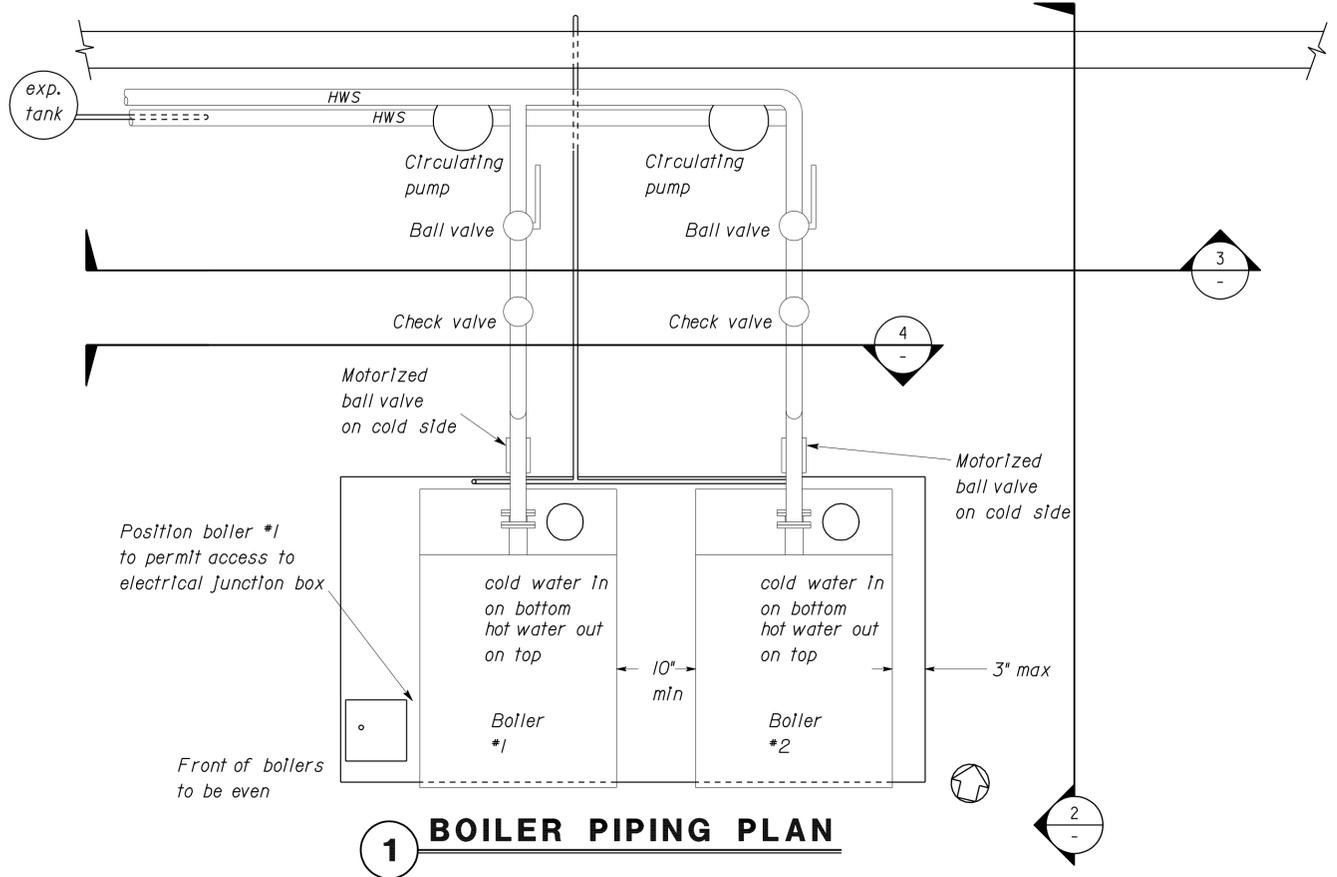
BRIDGE NO.	17W0002
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
BOILER & SNOWMELT WATER SUPPLY

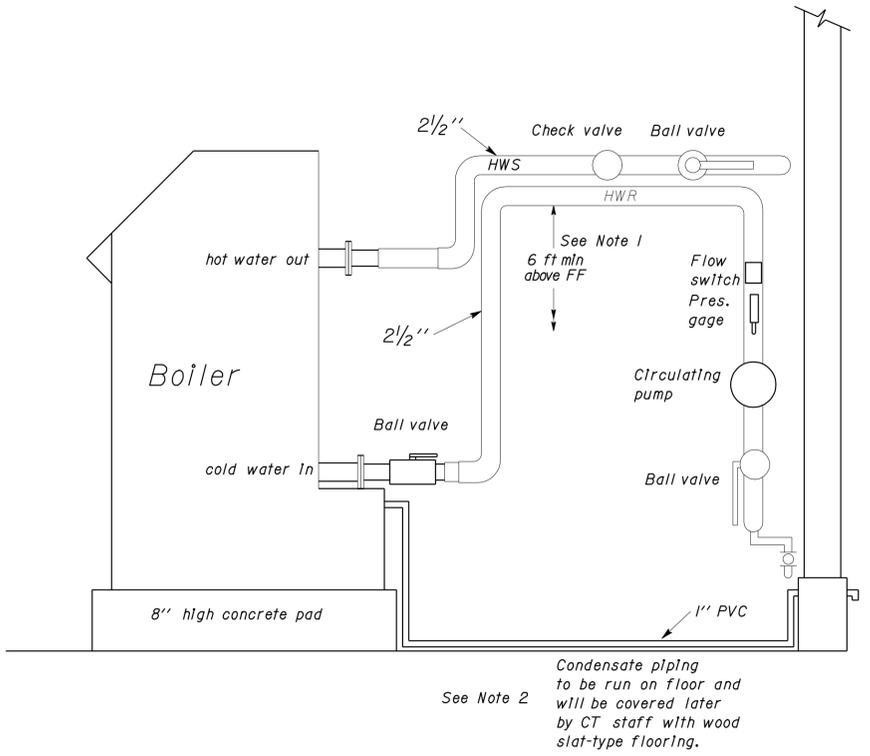
SHEET **M-9** OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	51	71

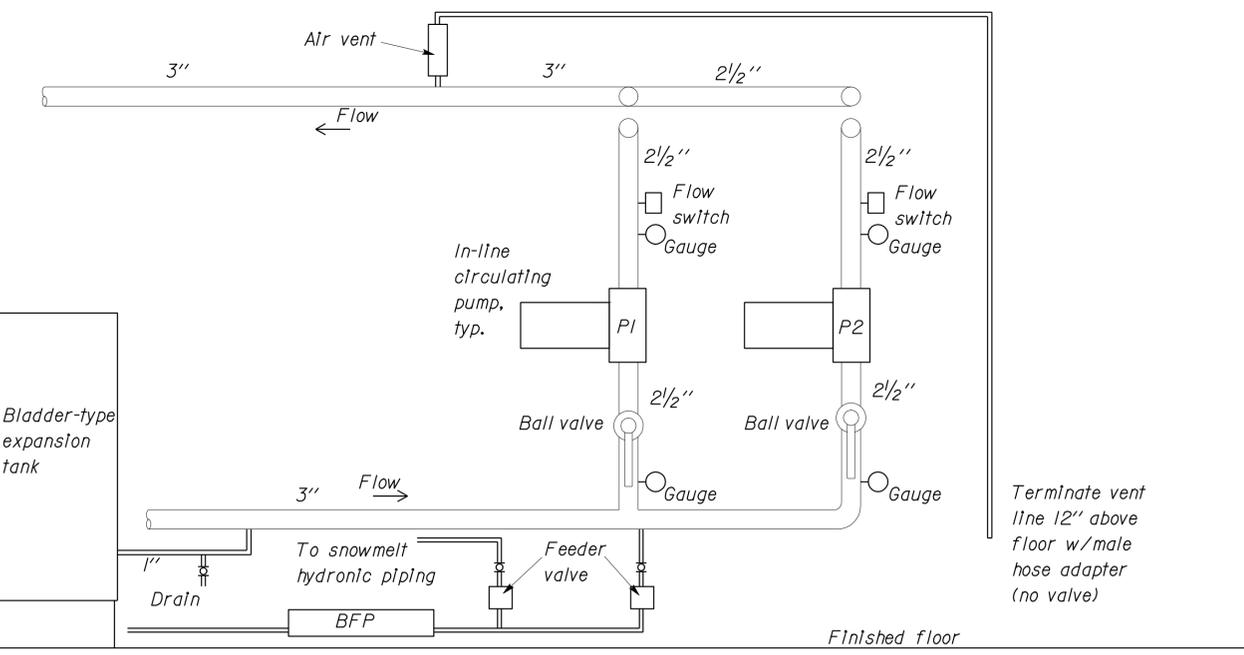
<i>Michael R. White</i> REGISTERED MECHANICAL ENGINEER No. M29108 Exp. 6/30/10 MECH STATE OF CALIFORNIA	4/14/09 DATE
7-27-09 PLANS APPROVAL DATE	
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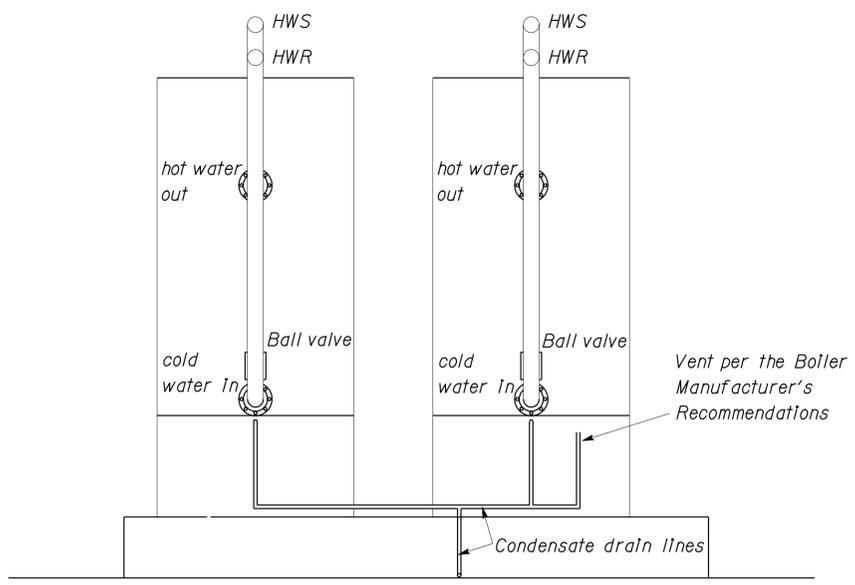
1 BOILER PIPING PLAN



2 SIDE VIEW OF BOILER PIPING



3 BOILER LOOP PIPING ON NORTH WALL



4 PIPING AT REAR OF BOILERS

- NOTES:
- Supply and return piping is to be overhead to keep floor space clear.
 - Condensate drain pipe is to be PVC. Route new condensate piping to existing hole through foundation sill that was previously used for diesel fuel piping. Concrete floor between boiler pad and north wall to be covered with wood slat-type flooring later by CT staff.
 - Follow boiler manufacturers recommendations for gas piping, flue stack combining, and intake air vent combining and connections.
 - The four separate conduit runs from the embedded junction box to each side of both boilers is to provide for separation of the high and low voltage runs to and from the boilers.
 - All circulation system piping is to be Type K copper
 - All drain lines shall terminate with a male hose adapter

Boiler pumps P1 & P2:
 33 gpm
 40 feet head
 1-1/2 HP, 230 VAC, 60 Hz, 1 ph.

Boiler expansion tank:
 44 gallons overall
 34 gallons acceptance volume
 100 psi working pressure
 240 deg F max. operating temp.

Boilers:
 750,000 Btu/hr
 Condensing type
 33 gpm at 40F delta T
 130 gpm Max.
 60 psi MAWP
 Jetted for LPG at 6,000 ft elevation
 Capable of operation on natural gas at same elevation

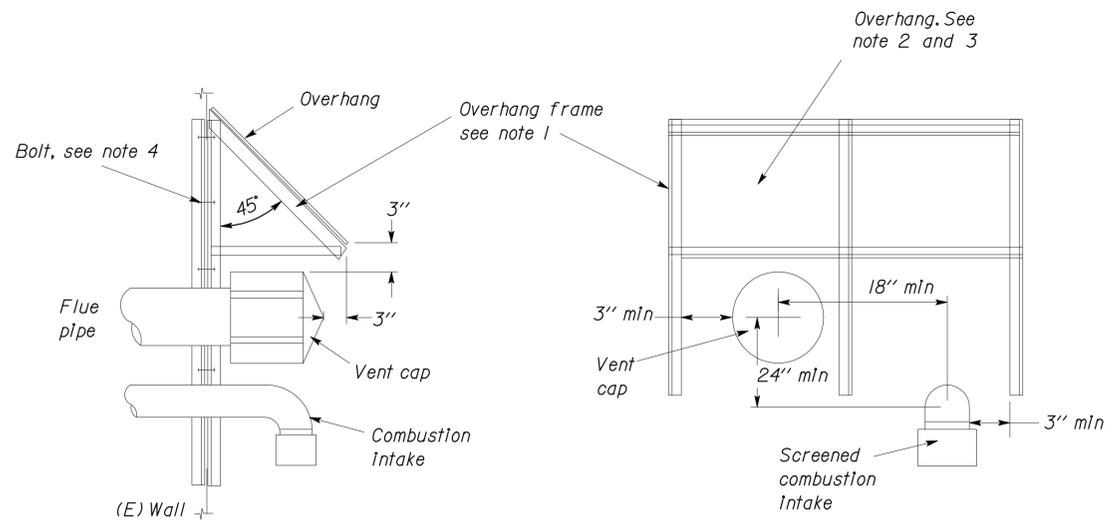
DESIGN BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY	SHEET M-10
			POST MILE 19.5		
			BOILER DETAILS I		
DETAILS BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	CU 03227 EA 4C2200	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
QUANTITIES BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	12/18/08 07/14/09 4/14/09		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	52	71

Michael R. White 4/14/09
 REGISTERED MECHANICAL ENGINEER DATE
 No. M29108
 Exp. 6/30/10
 MECH
 STATE OF CALIFORNIA

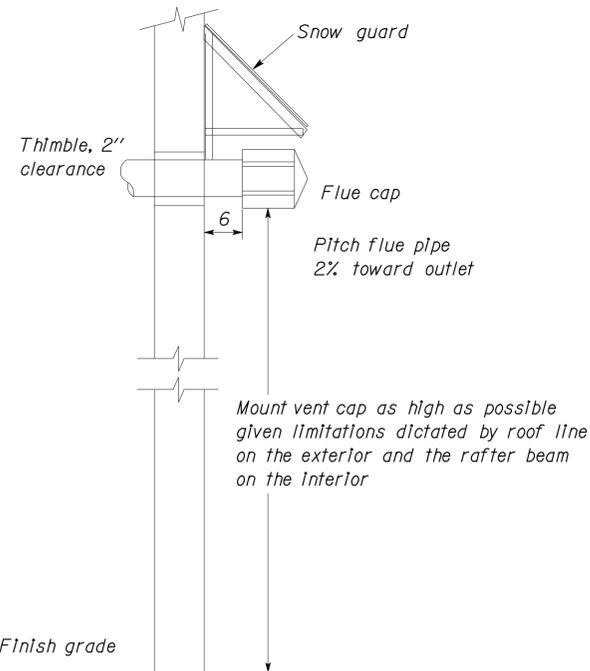
7-27-09
PLANS APPROVAL DATE

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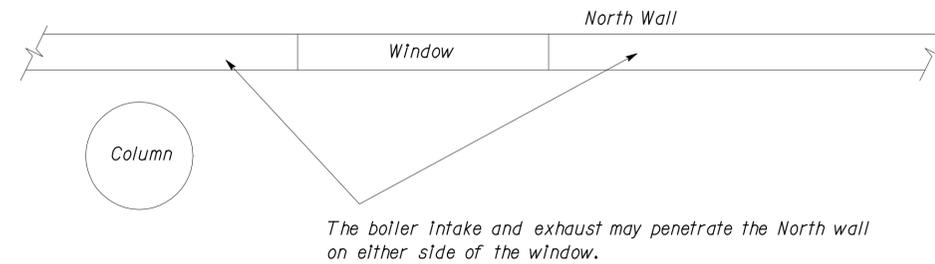
2 PENETRATION AND SNOW GUARD

No scale

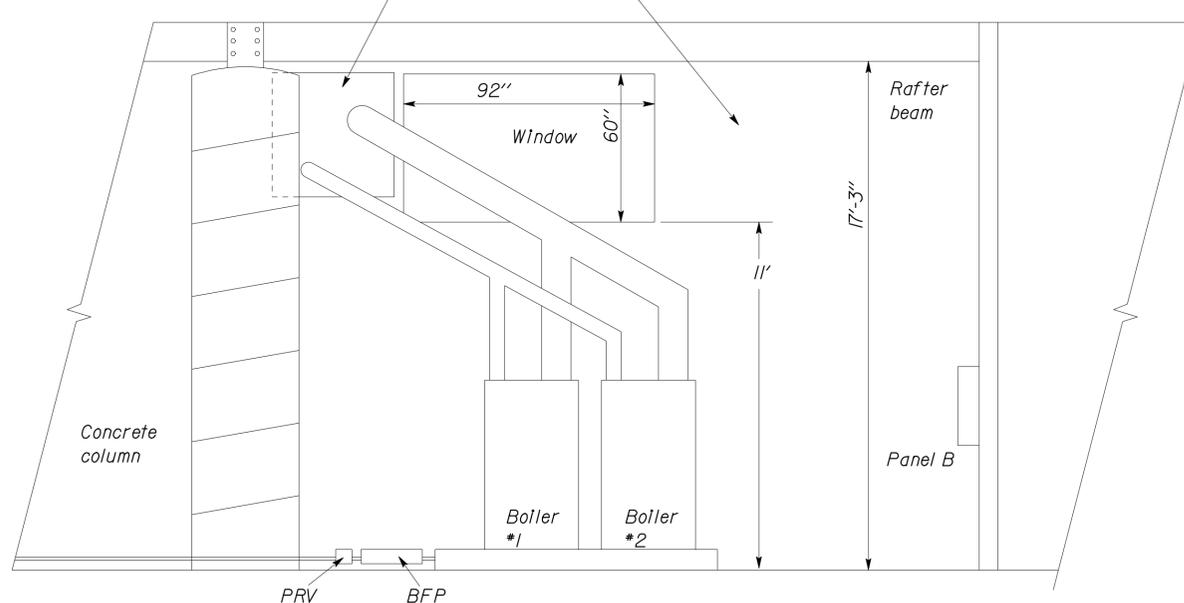


1 FLUE PENETRATION

No scale



There is 11" clearance between the column and the wall



3 PENETRATION LOCATION ON NORTH WALL

No scale
(LOOKING NORTH)

NOTES:

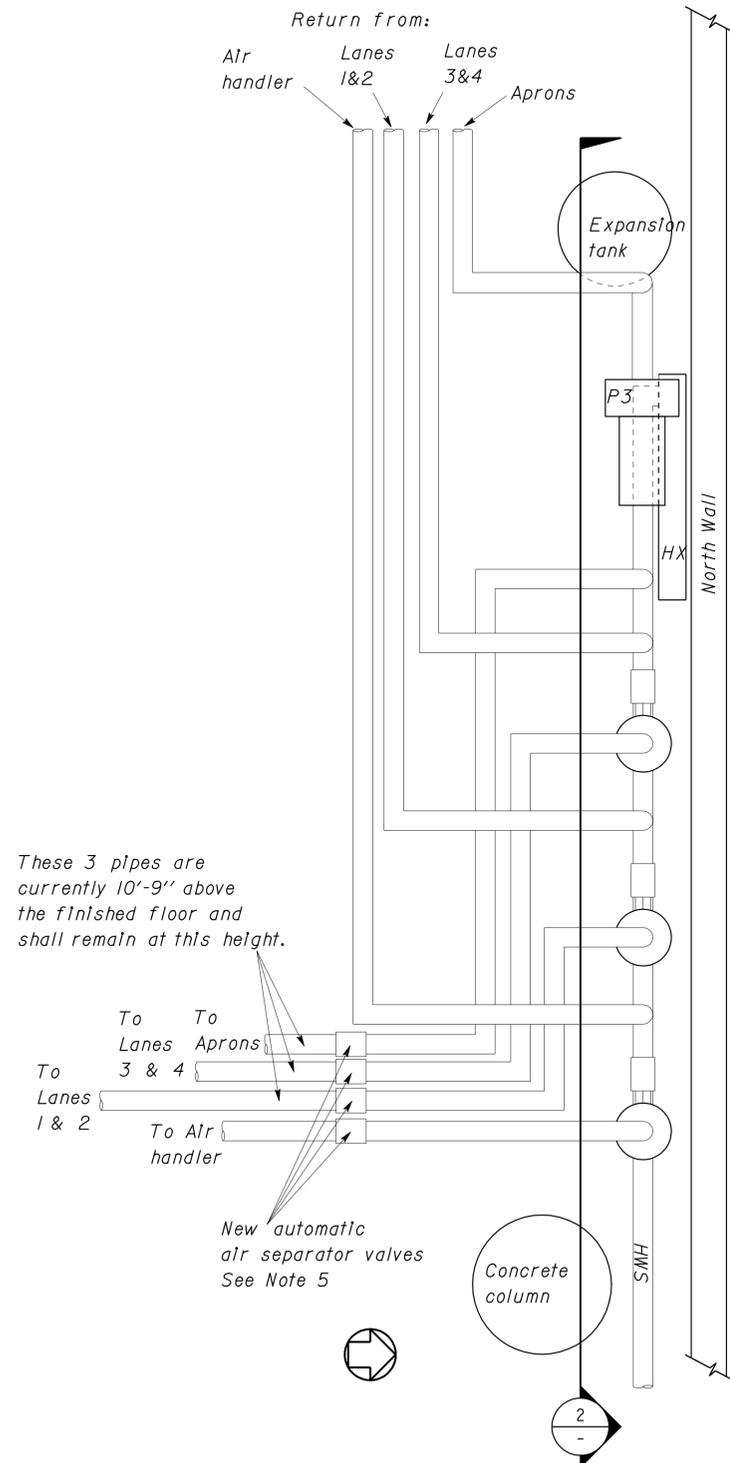
- Overhang frame shall be 2" x 2" x 1/4" angle, all welded construction, hot dipped galvanized after fabrication.
- Overhang shall have 12 gage galvanized sheet metal plate attached to frame with sheet metal screws at 3" O.C. Cut top of plate to match siding and seal watertight.
- Overhang size shall be suitable for vent cap installed.
- Frame shall be bolted to building with 3/8" bolts and locknuts on 6" centers.
- All mounting hardware on the outside of the building shall be stainless steel.

DESIGN	BY	Michael White	CHECKED	Chris Farla	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	17W0002	DONNER PASS TRUCK INSPECTION FACILITY	SHEET M-11		
	DETAILS	BY	Michael White	CHECKED			Chris Farla	POST MILE			19.5	BOILER DETAILS 2
	QUANTITIES	BY	Michael White	CHECKED			Chris Farla	REVISION DATES (PRELIMINARY STAGE ONLY)			12/18/08 07/14/09 4/14/09	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						0 1 2 3	CU 03227 EA 4C2200	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET OF			

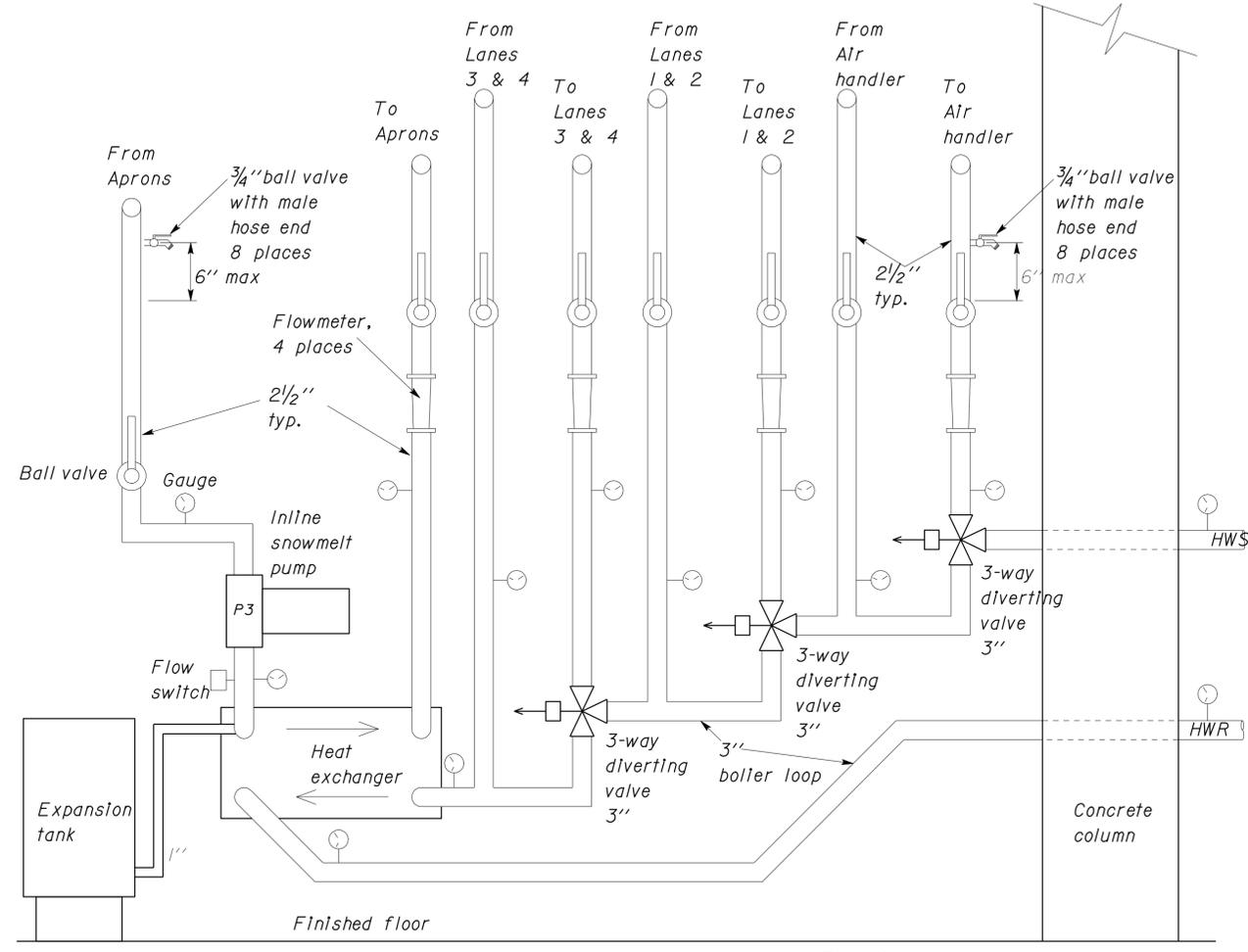
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	53	71

<i>Michael R. White</i> 4/14/09 REGISTERED MECHANICAL ENGINEER DATE		
7-27-09 PLANS APPROVAL DATE		

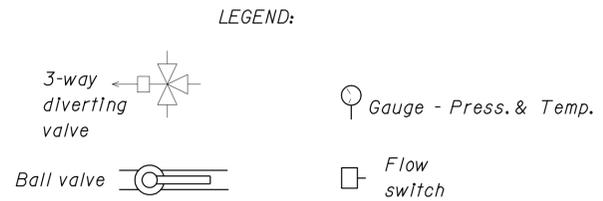
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1 CIRCULATION PIPING PLAN



2 PIPING ALONG NORTH WALL



- NOTES:
- All circulation system piping shall be Type K copper. All circulation piping shall be insulated.
 - Ball valves on the risers shall be easily accessible from ground level.
 - Wherever the word "Gauge" or the Gauge symbol is shown on these plans, it shall mean a combination Pressure & Temperature gauge. See the Special Provisions for details.
 - Mount all gauges near eye level. Mount all diverter valves and ball valves within 6'-6" from finished floor for easy access by Maintenance Personnel.
 - Connect all four automatic air separator outlets to a common drain pipe and route to the nearest concrete column. Terminate 12" from finished floor with a male hose adapter.
 - The 3-way diverting valves have 3" flanged connections, are controlled with a 4-20 mA signal, and have positioner feedback to the controller. Consult with the Engineer for flow and pressure drop information. See Sheet M-24 for more information.
 - The heat exchanger shall be a flat-plate, counter-flow type with stainless steel plates. Install a 20-40 mesh strainer on both inlets. The boiler-side shall be rated for 66 gpm with a pressure drop of 5.7 psi and the snowmelt-side shall be rated for 40 gpm with a pressure drop of 2.4 psi.

Snowmelt Pump P3:
 40 gpm
 40 feet head
 1-1/2 HP, 230 VAC, 60 Hz, 1 ph.

Snowmelt loop expansion tank:
 20 gallons overall
 11.3 gallons acceptance volume
 100 psi working pressure
 240 deg F max. operating temp.

Heat Exchanger:
 400,000 Btu/hr
 See Sheet M-24 for maximum operating conditions

DESIGN BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	DONNER PASS TRUCK INSPECTION FACILITY	SHEET M-12
			17W0002		
DETAILS BY <i>Michael White</i> CHECKED <i>Chris Farla</i>			POST MILE	CIRCULATING SYSTEM DETAILS I	
QUANTITIES BY <i>Michael White</i> CHECKED <i>Chris Farla</i>			19.5		
DOES SD Imperial Rev. 1/07	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 03227 EA 4C2200	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

30-JUL-2009 12:50 m_12.dgn

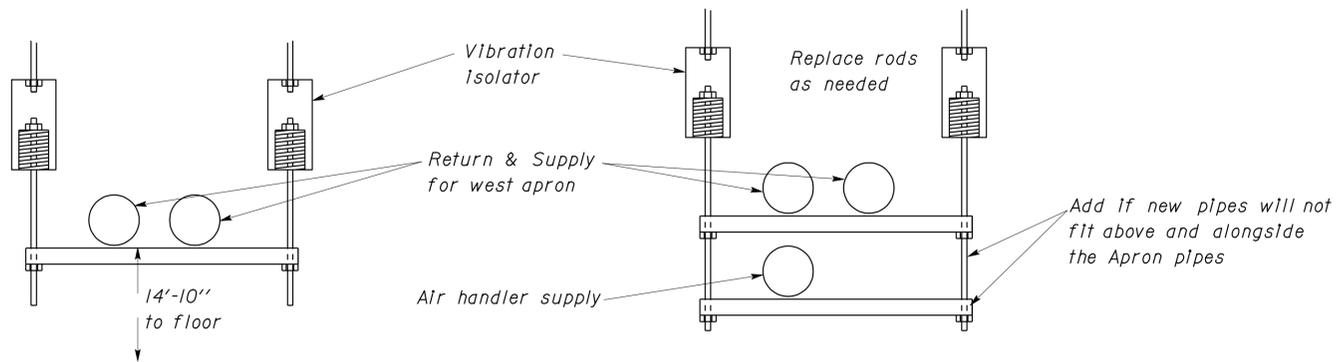
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	54	71

Michael R. White 4/14/09
REGISTERED MECHANICAL ENGINEER DATE



7-27-09
PLANS APPROVAL DATE

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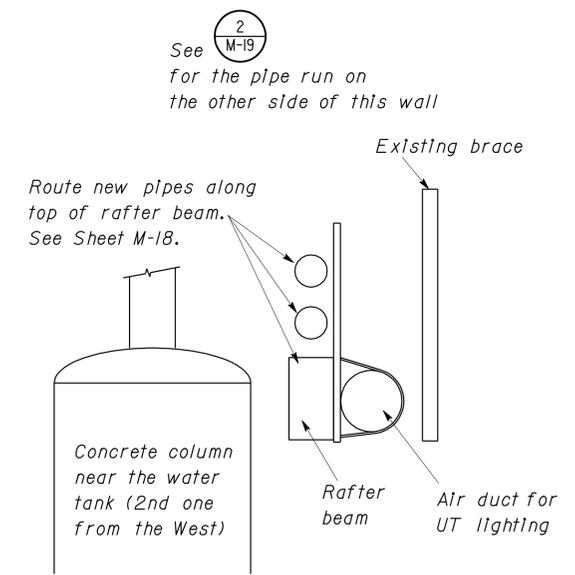


**1 TYPICAL PIPE SUPPORT
APRON LINES IN MECH. ROOM**

**2 MODIFIED PIPE SUPPORT
IN MECH. ROOM**

NOTES:

- All circulation system piping shall be Type K copper and shall be insulated.
- Route the new return line for the air handler along with the other return lines. If there is insufficient room on top of the existing pipe supports, attach the new pipe to the underside of them by extending the hanger rods and adding a new horizontal bar.
- Route the new supply line for the air handler along with the supply line to the west-side apron hydronic loop. If there is insufficient room on top of the existing pipe supports, attach the new pipe to the underside of them by extending the hanger rods and adding a new horizontal bar.



**3 WALL PENETRATION FOR AIR HANDLER PIPING
LOOKING NORTH FROM INSIDE THE INSPECTION BAY**

DESIGN	BY Michael White	CHECKED Chris Farla
DETAILS	BY Michael White	CHECKED Chris Farla
QUANTITIES	BY Michael White	CHECKED Chris Farla

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

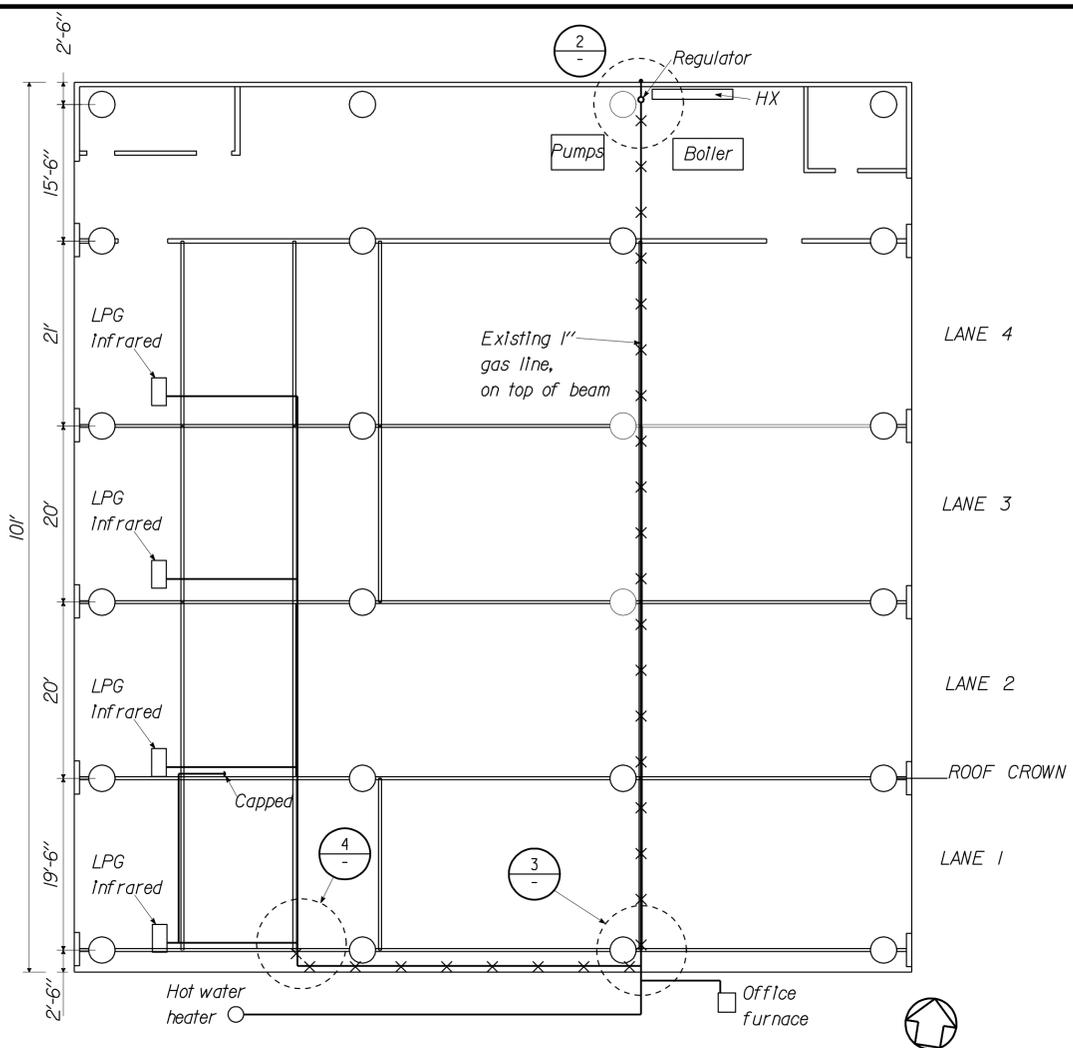
DIVISION OF ENGINEERING SERVICES
ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE NO.	17W0002
POST MILE	19.5

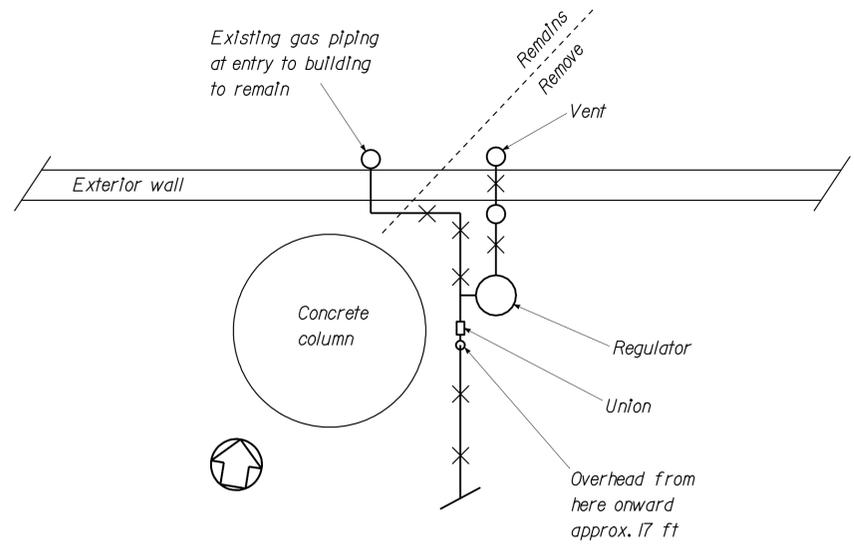
DONNER PASS TRUCK INSPECTION FACILITY
CIRCULATING SYSTEM DETAILS 2

SHEET **M-13** OF

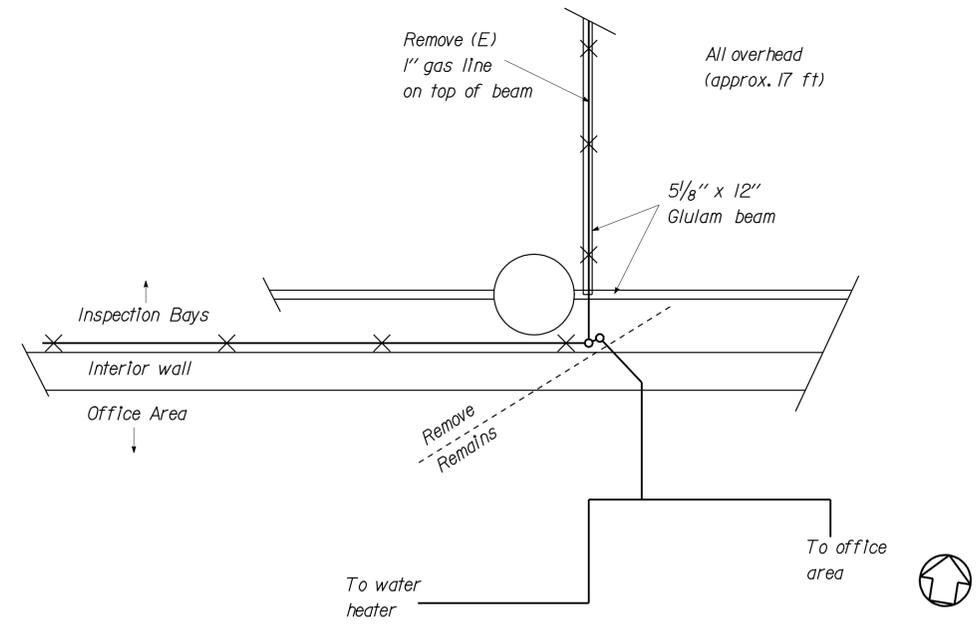
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	55	71
<i>Michael R. White</i> REGISTERED MECHANICAL ENGINEER			4/14/09 DATE		
7-27-09 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



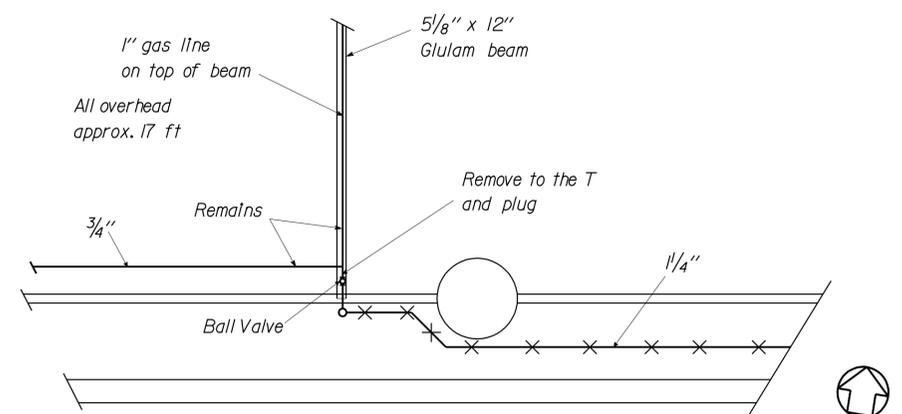
1 EXISTING GAS LINE PLAN
No scale



2 GAS LINE ENTRY TO BUILDING PLAN
No scale



3 GAS LINE SPLIT NEAR OFFICE AREA PLAN
No scale



4 GAS LINE SPLIT NEAR WORKSTATIONS PLAN
No scale

- NOTES:
1. Remove all existing gas piping to the extent shown on these plans
 2. Piping to office area furnace and water heater is to remain from where the piping enters the interior wall onward.
 3. Consult with the local gas supplier (Suburban Propane) prior to gas line work to determine if they have any special requirements.

DESIGN BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY	SHEET M-14	
			POST MILE 19.5			REMOVAL OF EXISTING GAS PIPING
DETAILS BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 03227 EA 4C2200	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF
QUANTITIES BY <i>Michael White</i> CHECKED <i>Chris Farla</i>			DISREGARD PRINTS BEARING EARLIER REVISION DATES	12/18/08	07/14/09	

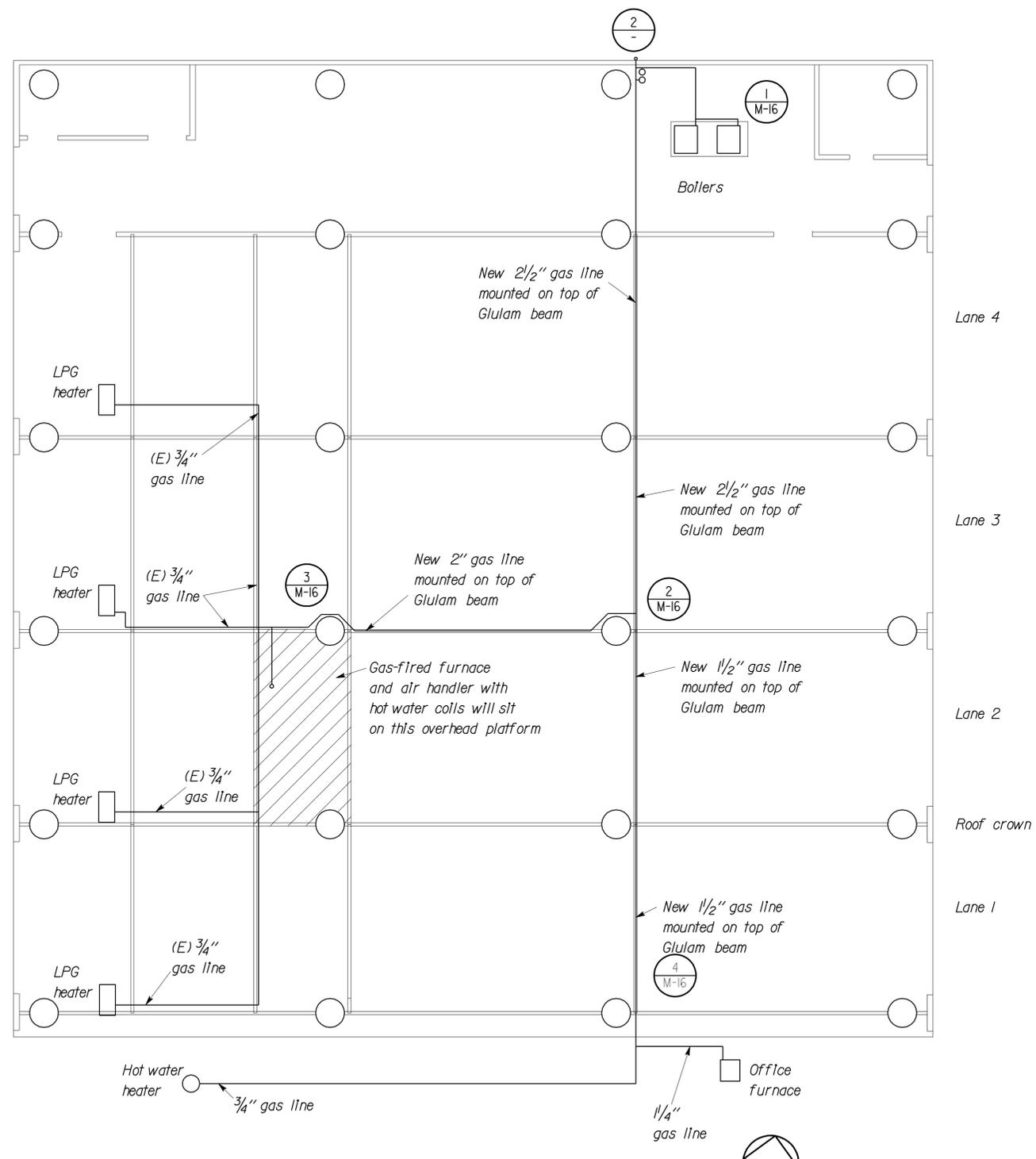
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Neu	80	19.1/19.3	56	71

Michael R. White 4/14/09
 REGISTERED MECHANICAL ENGINEER DATE

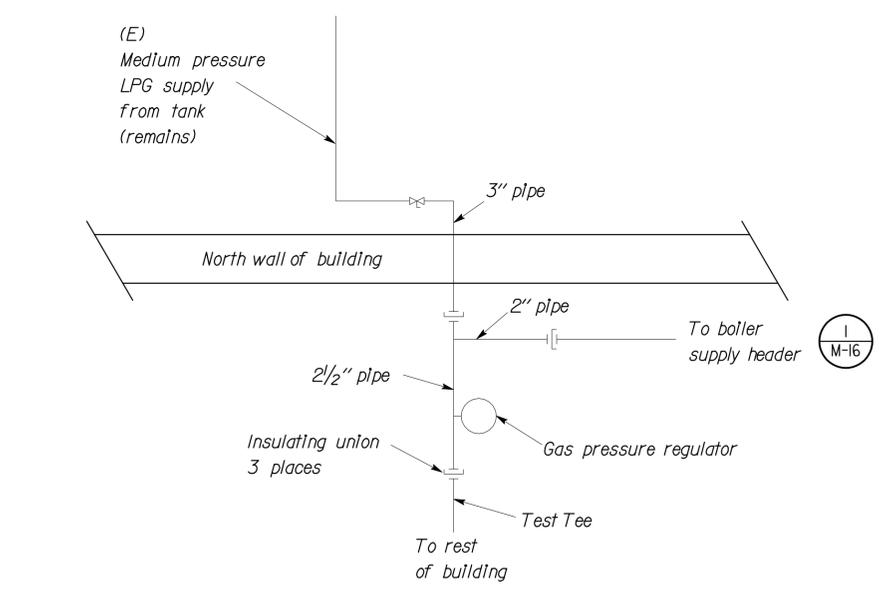
Michael R. White
 No. M29108
 Exp. 6/30/10
 MECH
 STATE OF CALIFORNIA

7-27-09
 PLANS APPROVAL DATE

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1 NEW GAS LINE PLAN
 No scale



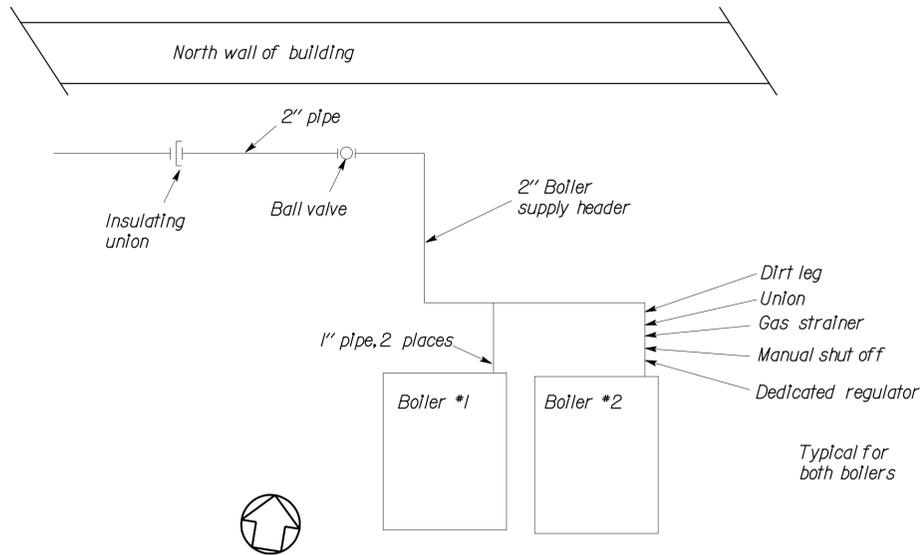
2 GAS LINE ENTRY TO BUILDING DIAGRAM
 No scale

- NOTES:
- The gas pressure regulator for the boilers shall have a safety shut-off and full capacity relief valve. Capacity shall be 1,700,000 Btu/hr for LPG.
 - The gas pressure regulator for the building shall have a safety shut-off and full capacity relief valve. Capacity shall be 800,000 Btu/hr for LPG.
 - Piping is sized for future conversion to natural gas and is larger than that required for LPG.
 - Use the existing gas vent hole in the north wall for the new vent pipe, if possible.
 - All valves used in the gas line shall be rated for gas service.

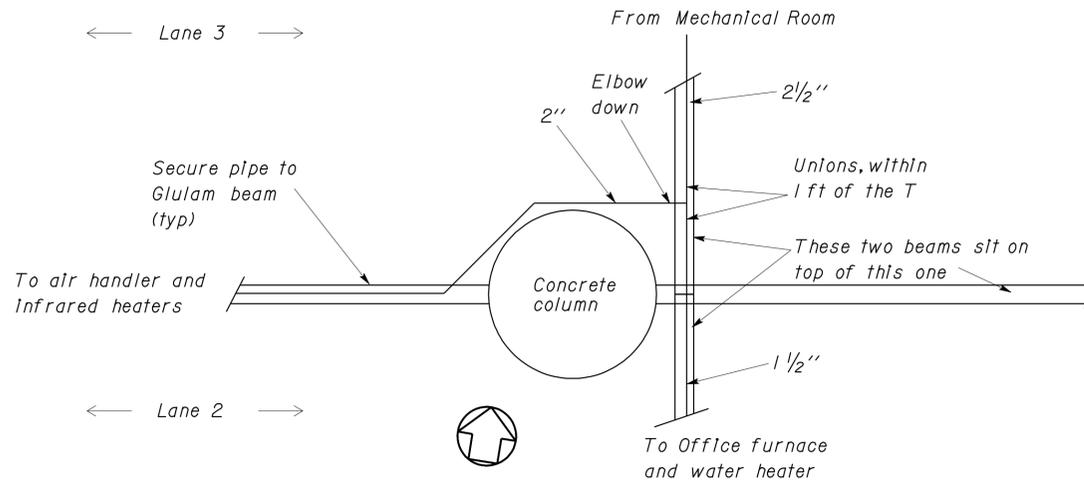
DOES SD Imperial Rev. 1/07	DESIGN BY Michael White	CHECKED Chris Farla	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY GAS PIPING DETAILS I	SHEET M-15
	DETAILS BY Michael White	CHECKED Chris Farla		CU 03227 EA 4C2200	POST MILE 19.5		REVISION DATES (PRELIMINARY STAGE ONLY)
	QUANTITIES BY Michael White	CHECKED Chris Farla	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	12/18/08 07/14/09 4/14/09	

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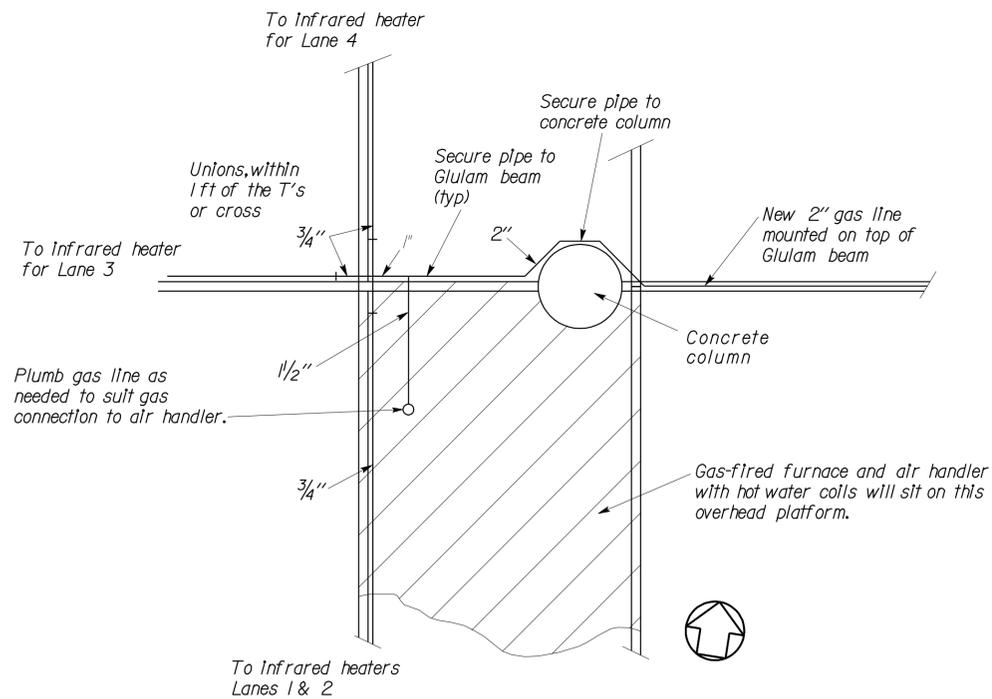
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	57	71
<i>Michael R. White</i> REGISTERED MECHANICAL ENGINEER			4/14/09 DATE		
7-27-09					
PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



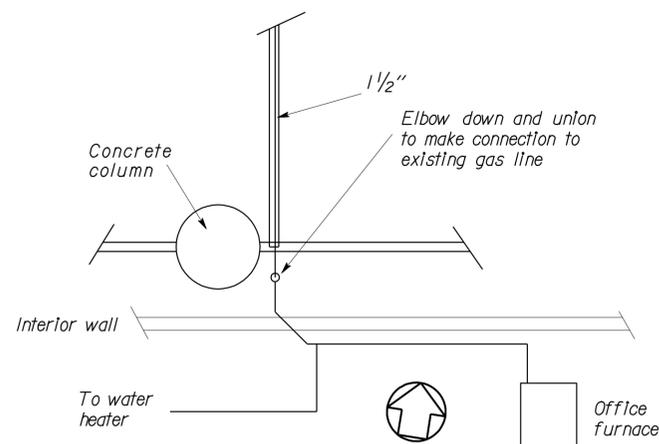
1 BOILER GAS LINE DIAGRAM
No scale



2 GAS LINE NEAR EAST END OF LANES 2 & 3
No scale



3 GAS LINE NEAR WEST END OF LANES 2 & 3
No scale



4 GAS LINE NEAR OFFICE AREA
No scale

- NOTES:
1. Leave existing gas pipe runs to the LP Infrared heaters in place as much as possible
 2. Attach to Glulam beams using lag bolts and Unistrut-type connections
 3. Attach to concrete columns using drop-in anchors
 4. All valves used in the gas line shall be rated for gas service.

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0002
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
GAS PIPING DETAILS 2

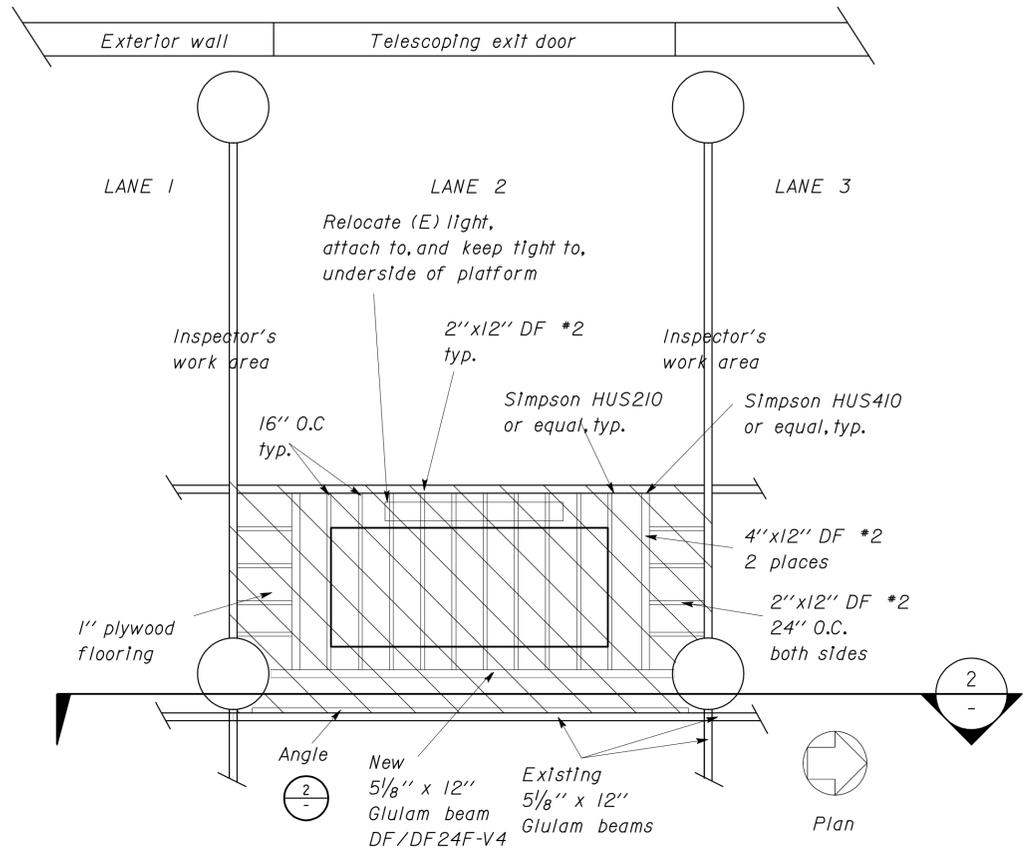
SHEET **M-16**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	58	71

Michael R. White 4/14/09
 REGISTERED MECHANICAL ENGINEER DATE
 No. M29108
 Exp. 6/30/10
 MECH
 STATE OF CALIFORNIA

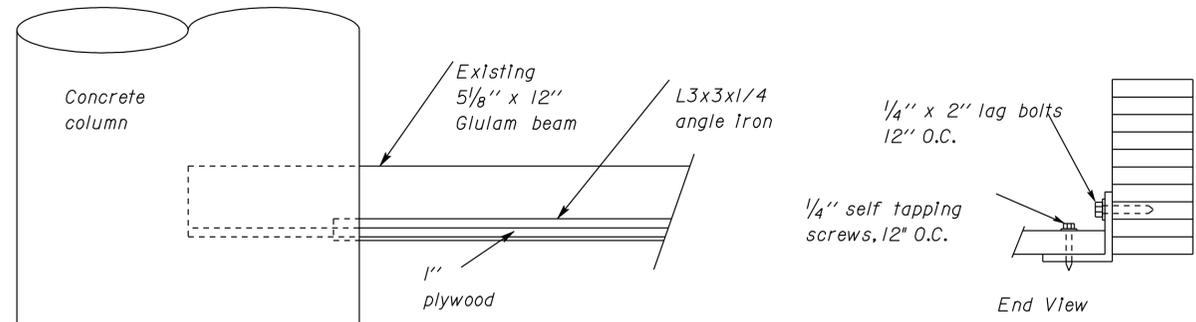
7-27-09
 PLANS APPROVAL DATE

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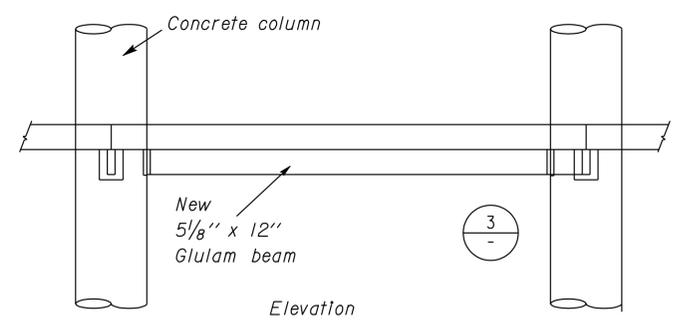


2 ANGLE IRON ON GLULAM CROSS BEAM

No scale

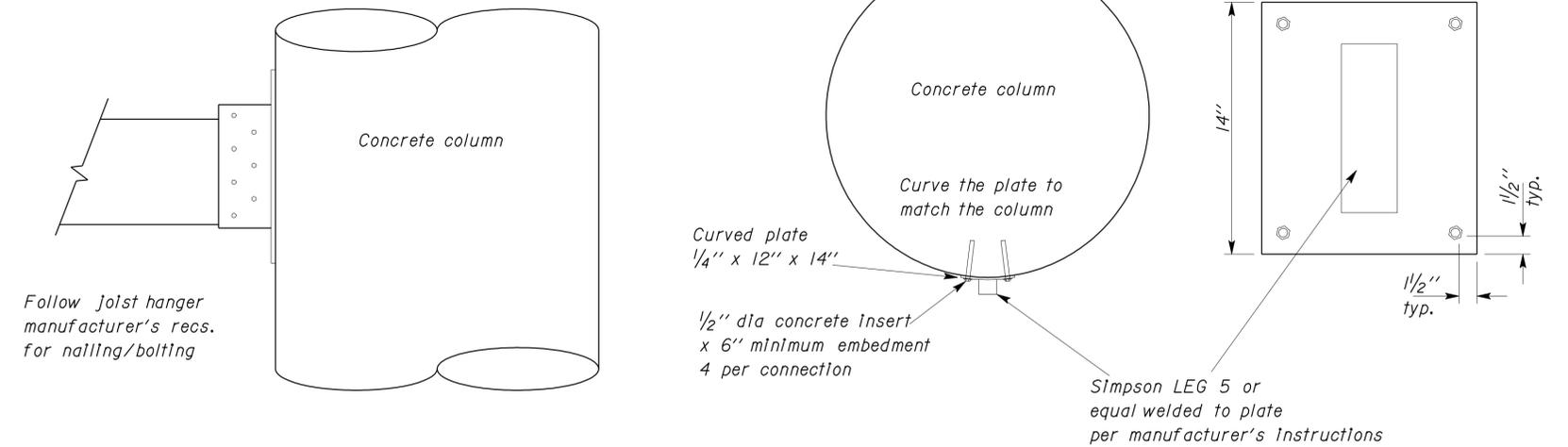


- Notes:
1. See Sheet M-18 for location of platform within the facility
 2. Platform is designed for 18 psf dead load and 40 psf live load
 3. Typical air handler will weigh approximately 1800 lbs. This will be spread over approximately 56 sq.ft. (32 psf)



1 PLATFORM LAYOUT

No scale



3 CONNECTION DETAILS FOR NEW JOIST TO CONCRETE

No scale

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

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

BRIDGE NO. 17W0002
 POST MILE 19.5
DONNER PASS TRUCK INSPECTION FACILITY
 PLATFORM FOR AIR HANDLER

SHEET	M-17
OF	

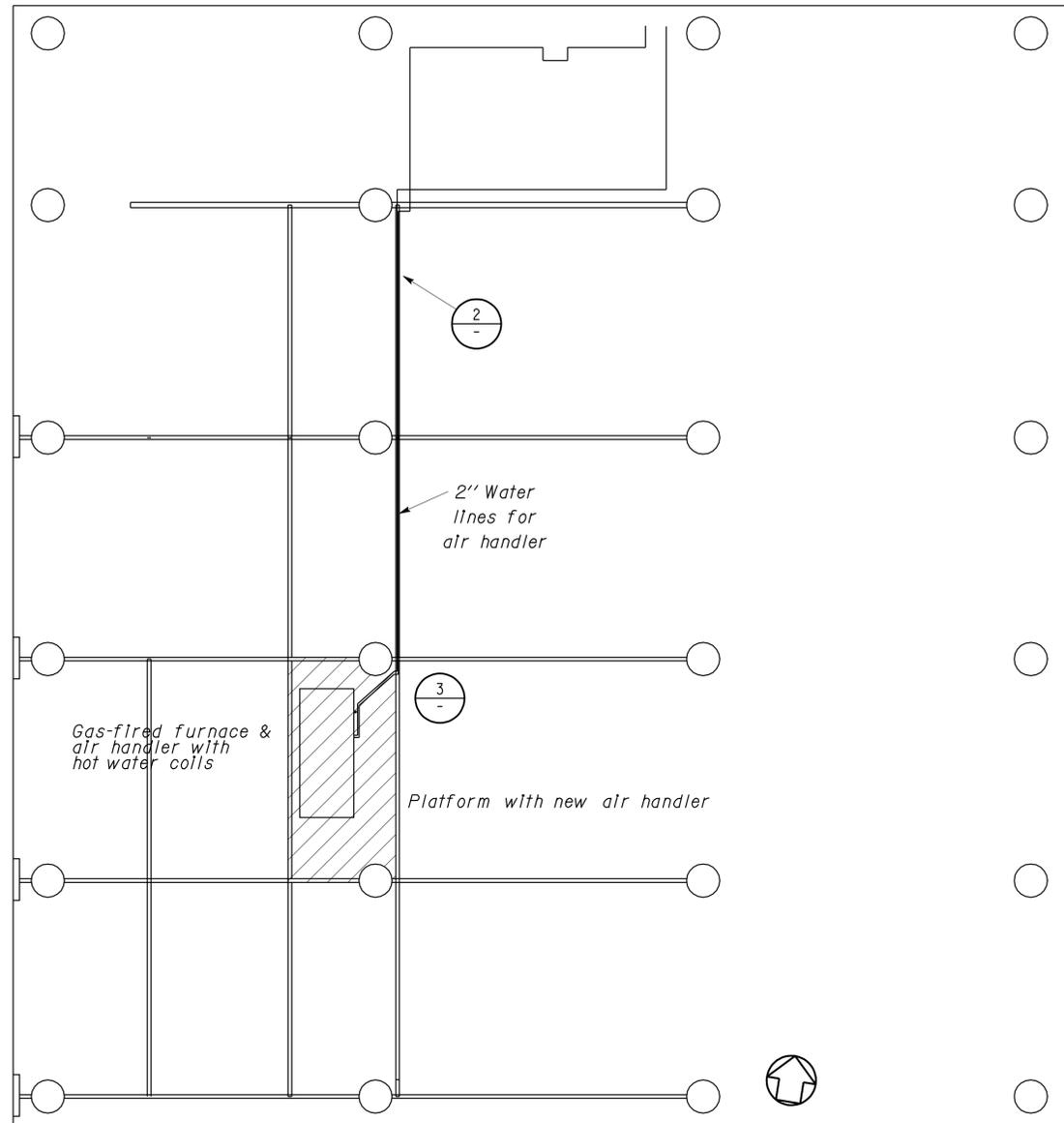
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	59	71

Michael R. White 4/14/09
 REGISTERED MECHANICAL ENGINEER DATE

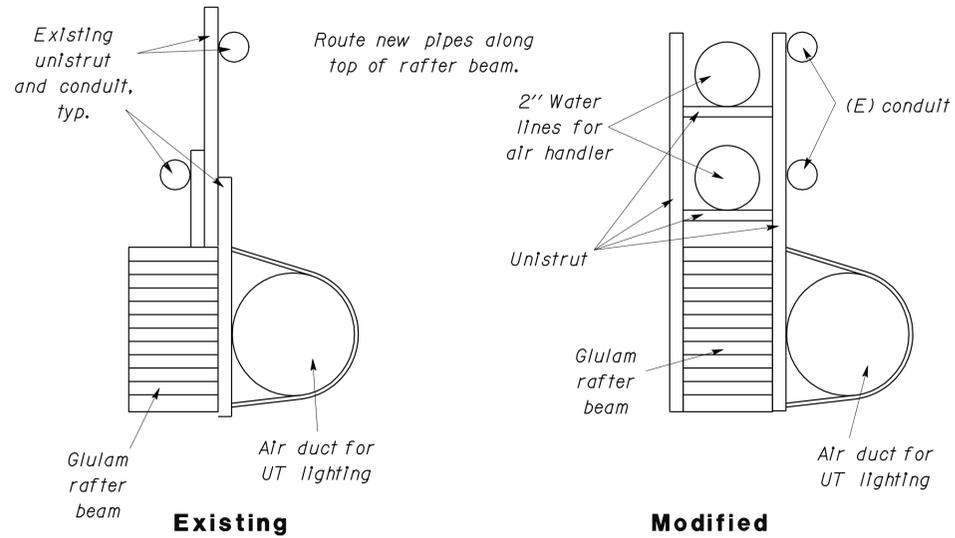
7-27-09
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 Michael R. White
 No. M29108
 Exp. 6/30/10
 MECH
 STATE OF CALIFORNIA

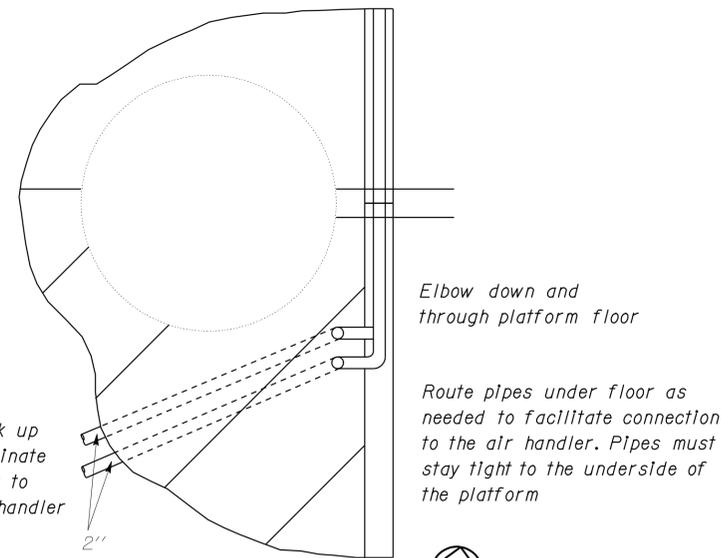


1 WATER SUPPLY & RETURN FOR AIR HANDLER
 No scale
 (GENERAL LAYOUT WITHIN INSPECTION BAYS)

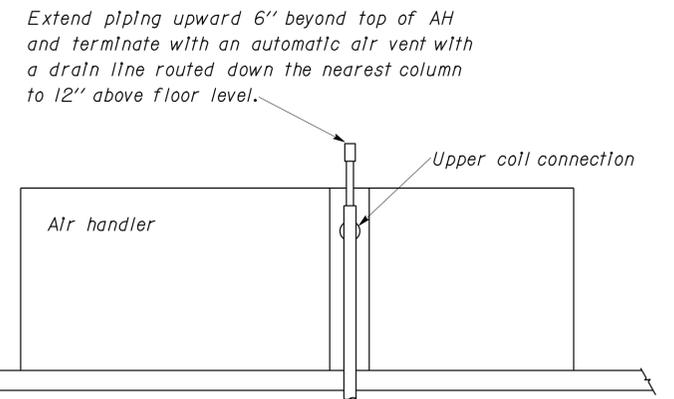


2 PIPE SUPPORT ON BEAM
 No scale

- Notes:
- All circulation system piping shall be Type K copper and shall be insulated.
 - Route the new supply & return lines for the air handler along the top of the existing rafter beam. Use the existing unistrut where possible. Add new Unistrut supports as needed.
 - Affix a sheet metal guide plate to outer insulation where it rests on supports.
 - Follow the air handler manufacturer's recommendations for securing the unit to the platform.
 - Place a ball valve within 12" of each connection to the hot water coil. Place a strainer on the inlet line as well.



3 PIPE RUN AT PLATFORM
 No scale



4 PIPE TERMINATION AT AIR HANDLER
 No scale

DESIGN	BY Michael White	CHECKED Chris Farla
DETAILS	BY Michael White	CHECKED Chris Farla
QUANTITIES	BY Michael White	CHECKED Chris Farla

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

BRIDGE NO.	17W0002
POST MILE	19.5

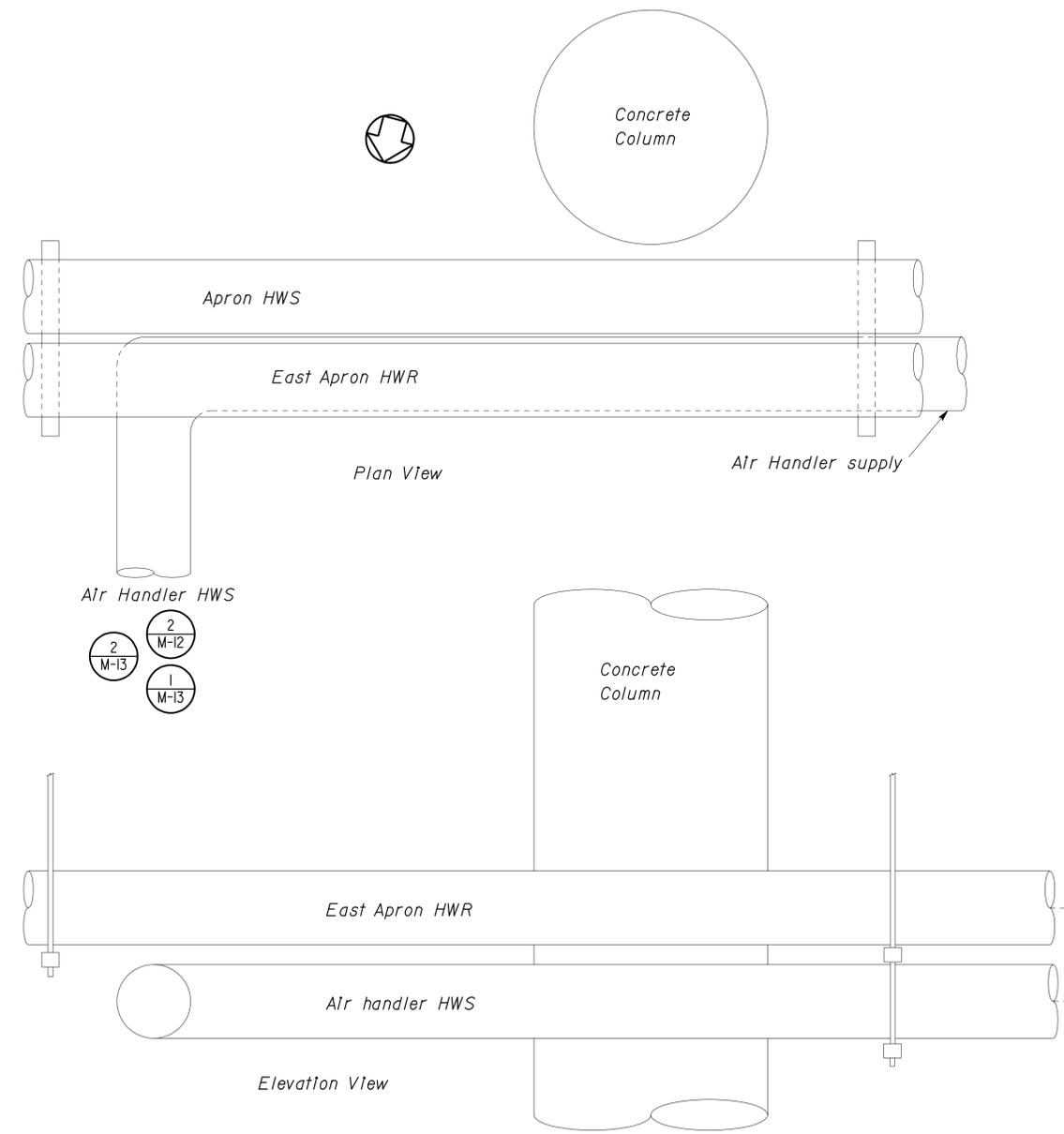
DONNER PASS TRUCK INSPECTION FACILITY
 WATER LINES FOR AIR HANDLER I

SHEET M-18 OF

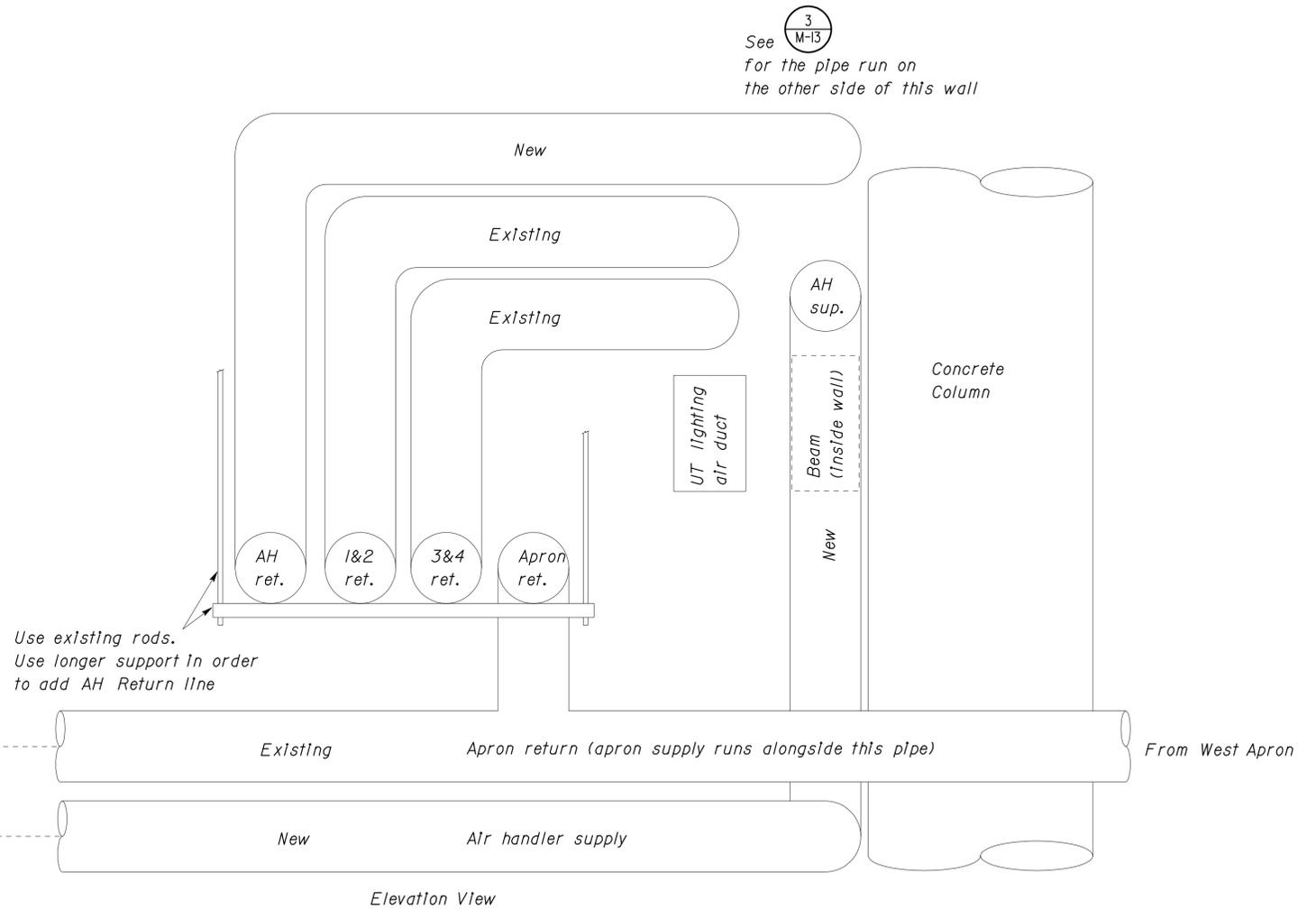
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	NeV	80	19.1/19.3	60	71

<i>Michael R. White</i> REGISTERED MECHANICAL ENGINEER No. M29108 Exp. 6/30/10 MECH STATE OF CALIFORNIA	4/14/09 DATE
7-27-09 PLANS APPROVAL DATE	
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- Notes:
- The return pipes in the mechanical room are approximately 15 feet above the finished floor
 - All circulation system piping shall be Type K copper and shall be insulated.
 - Modify existing hangers for Apron supply & return to accommodate the Air Handler supply line
 - All work on this sheet is within the Mechanical Room.



1 HYDRONIC PIPES IN MECHANICAL ROOM (OPPOSITE FROM BOILER AREA)



2 WALL PENETRATION OF HYDRONIC PIPES IN MECHANICAL ROOM (ELEVATION VIEW, LOOKING SOUTH)

DESIGN BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY	SHEET M-19	
			POST MILE 19.5			WATER LINES FOR AIR HANDLER 2
DETAILS BY <i>Michael White</i> CHECKED <i>Chris Farla</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 03227 EA 4C2200	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF
QUANTITIES BY <i>Michael White</i> CHECKED <i>Chris Farla</i>			DISREGARD PRINTS BEARING EARLIER REVISION DATES	12/18/08	07/14/09	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Neu	80	19.1/19.3	61	71

<i>Michael R. White</i>		4/14/09
REGISTERED MECHANICAL ENGINEER	DATE	

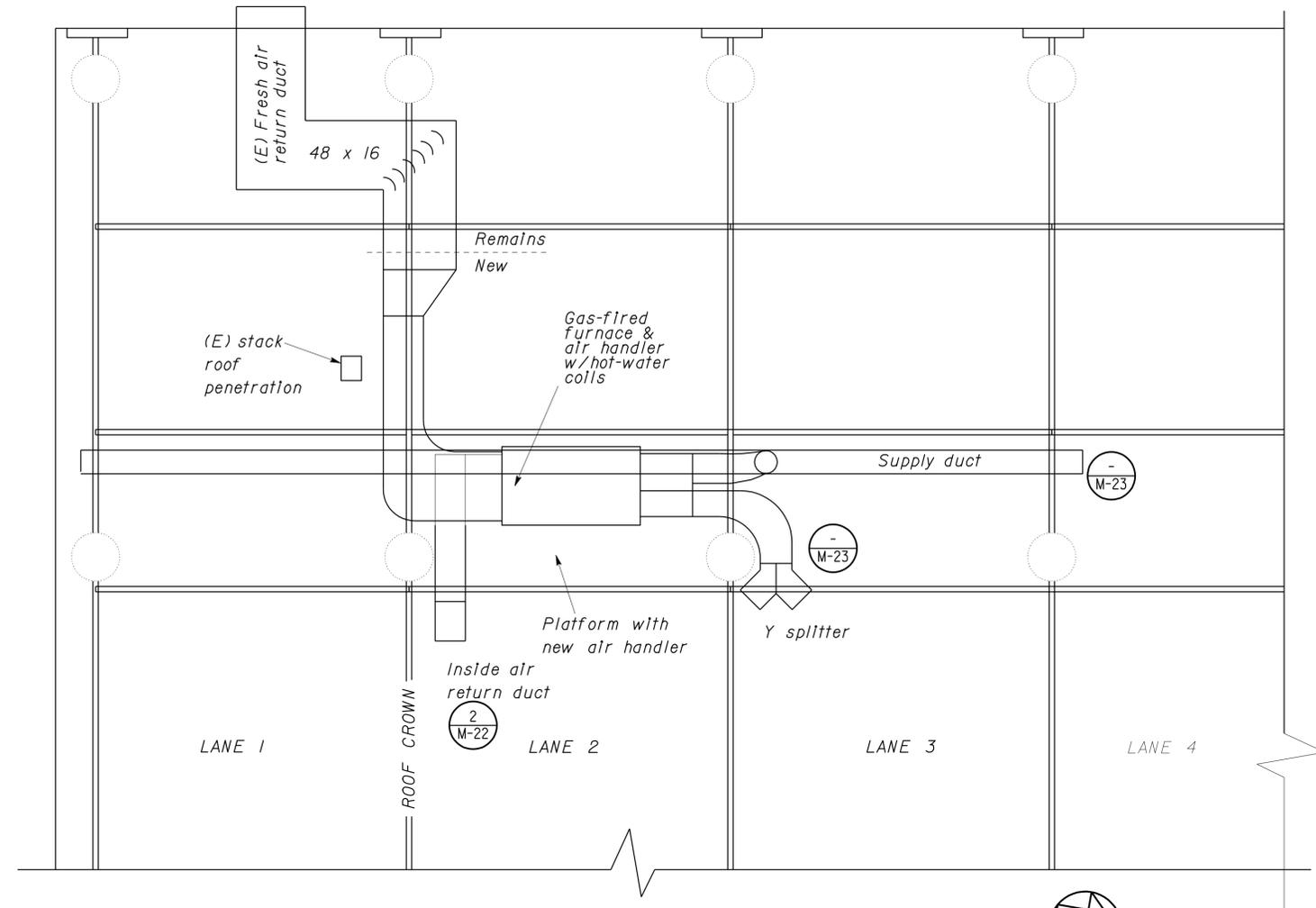
7-27-09
PLANS APPROVAL DATE

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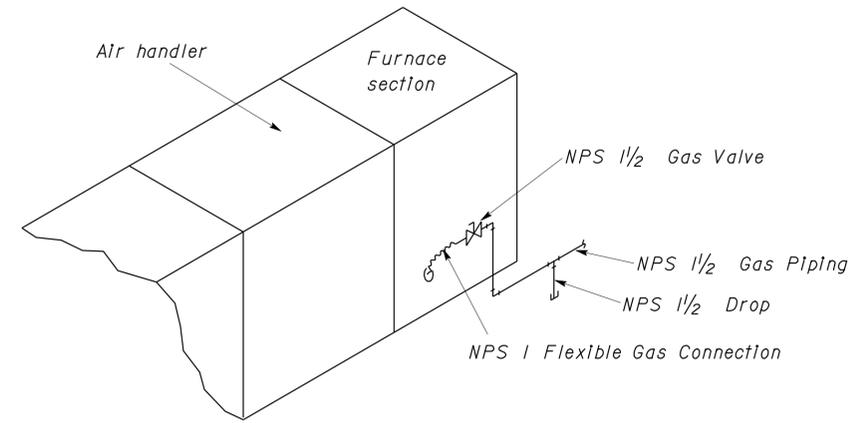


Notes:

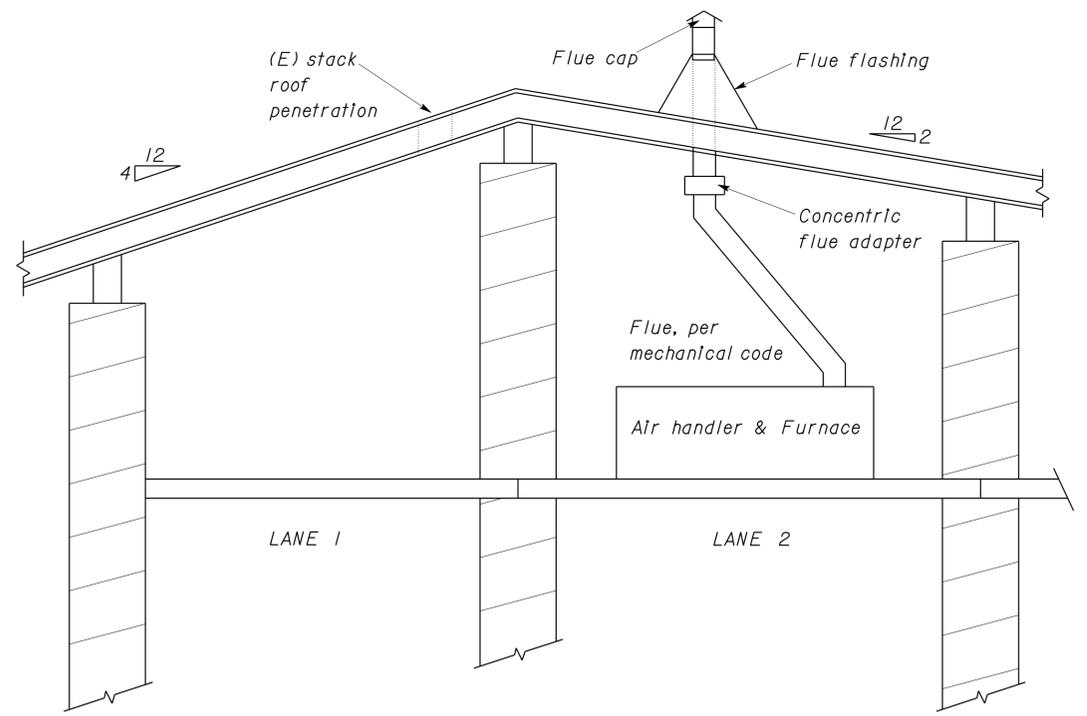
1. Remove existing flue stack and patch hole in roof to match existing roof.
2. Install new concentric-duct flue stack on north side of roof crown. It must extend beyond snow accumulation depth.
3. Keep dirt leg drop on the gas line higher than the bottom of the lowest glulam beam for truck clearance
4. The air handler shall have a hot water coil capable of delivering 500,000 Btu/hr with 5000 cfm airflow and a delta T of 92.5 F. The entering water temperature shall be 130 F. The leaving water temperature shall be 80 F. The entering air temperature shall be 20 F. The leaving air temperature shall be 112 F.
5. The air handler shall have a gas-fired furnace factory jetted for LPG at an elevation of 6000 ft and shall be supplied with any components necessary to field convert it to operation on Natural Gas. The furnace shall have a gross rating of 400,000 Btu/hr. See the Special Provisions for more details on the air handler specifications.
6. The air handler shall utilize 230 VAC, 60 Hz, single-phase power. The blower shall be 3 HP capable of 5000 cfm against 1.8" of total static pressure. See Special Provisions for more details.



1 AIR HANDLER GENERAL LAYOUT



2 FURNACE GAS CONNECTION



3 FURNACE FLUE LAYOUT

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0002
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
AIR HANDLER / FURNACE DETAILS

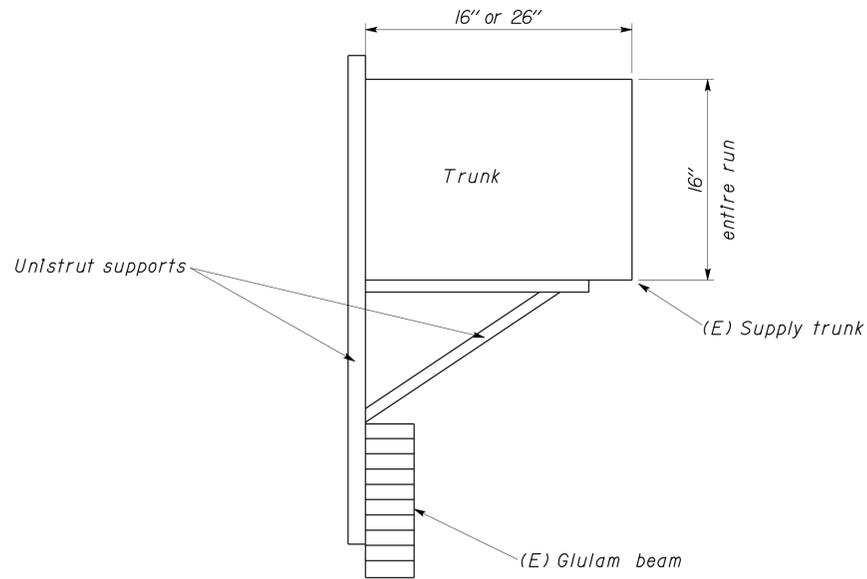
SHEET **M-20** OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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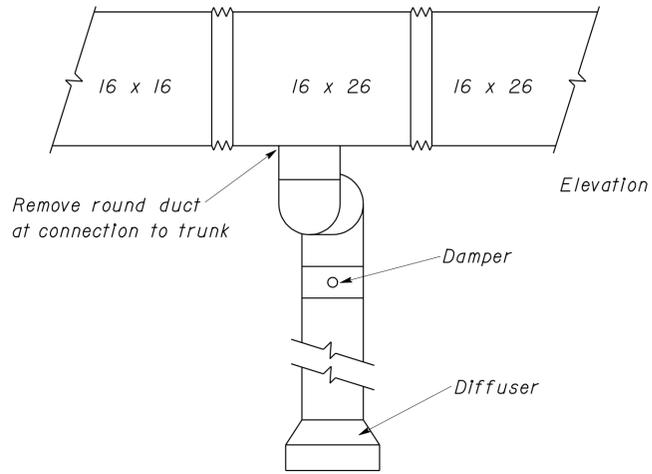
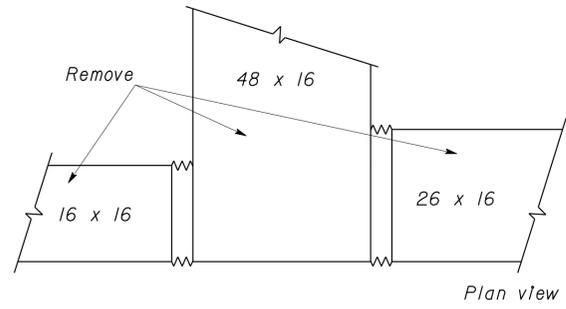
Michael R. White 4/14/09
 REGISTERED MECHANICAL ENGINEER DATE
 Michael R. White
 No. M29108
 Exp. 6/30/10
 MECH
 STATE OF CALIFORNIA

7-27-09
PLANS APPROVAL DATE

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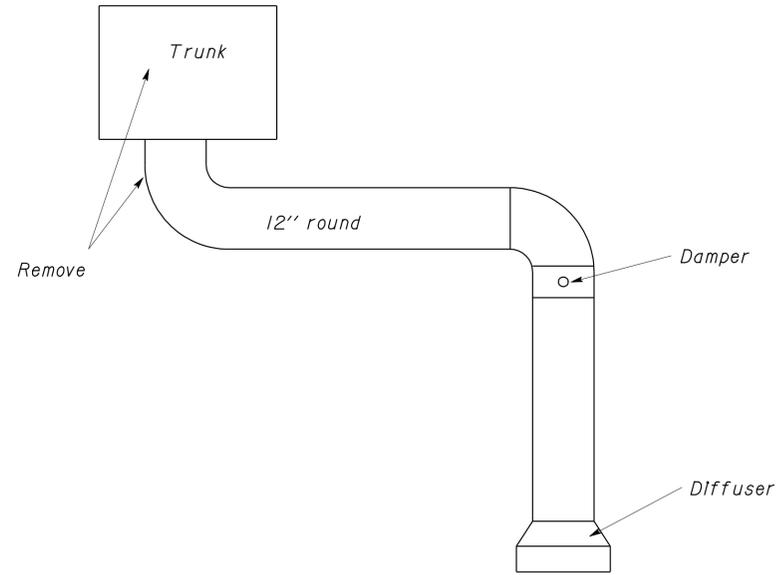


1 EXISTING TRUNK SUPPORT
No scale

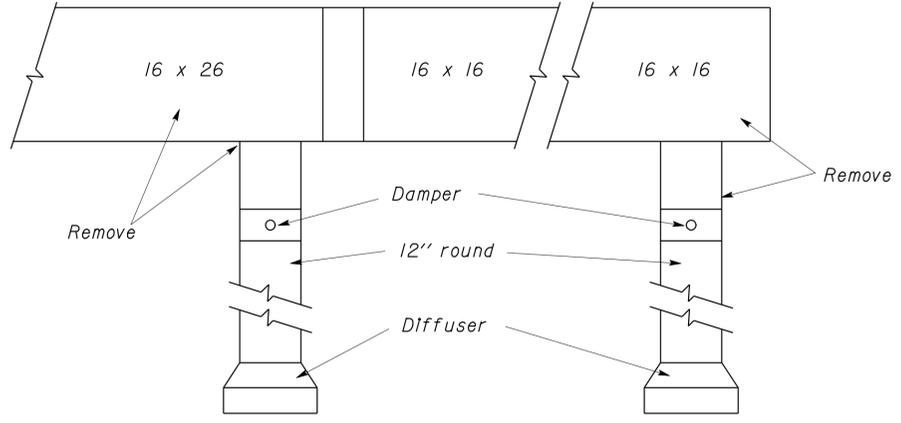


3 EXISTING LANE 2 TRUNK SECTION
No scale

Notes:
 1. Remove all existing trunk duct as well as the round drop downs. Re-use existing supports where feasible.
 2. All work shown on this sheet is at the west end of the Inspection lanes above the Inspectors' work area.



2 TYPICAL EXISTING DUCT DROP
No scale



4 EXISTING DUCT DROPS FOR LANES 3 & 4
No scale

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

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

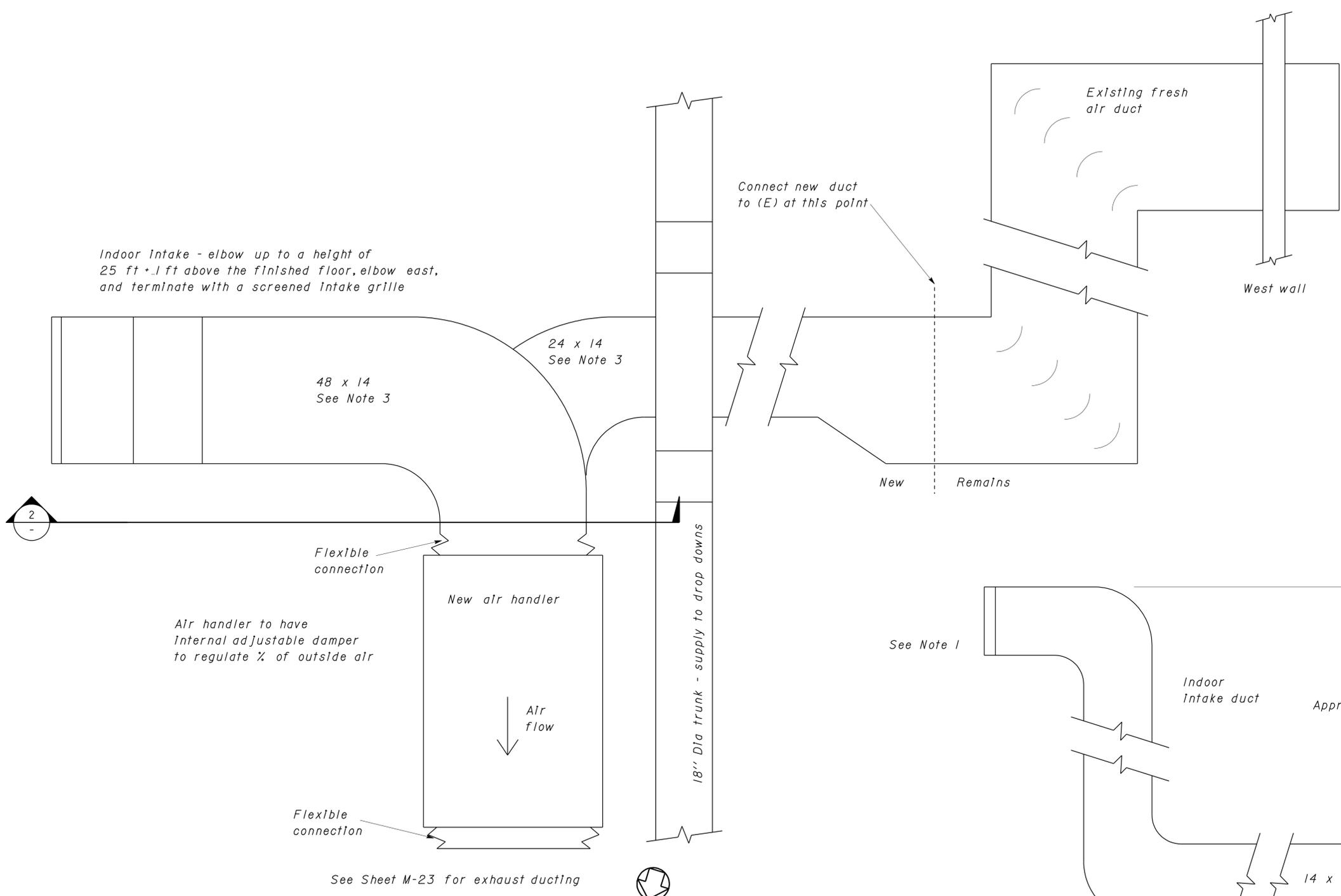
BRIDGE NO.	17W0002
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
 REMOVAL OF EXISTING AIR DUCTS

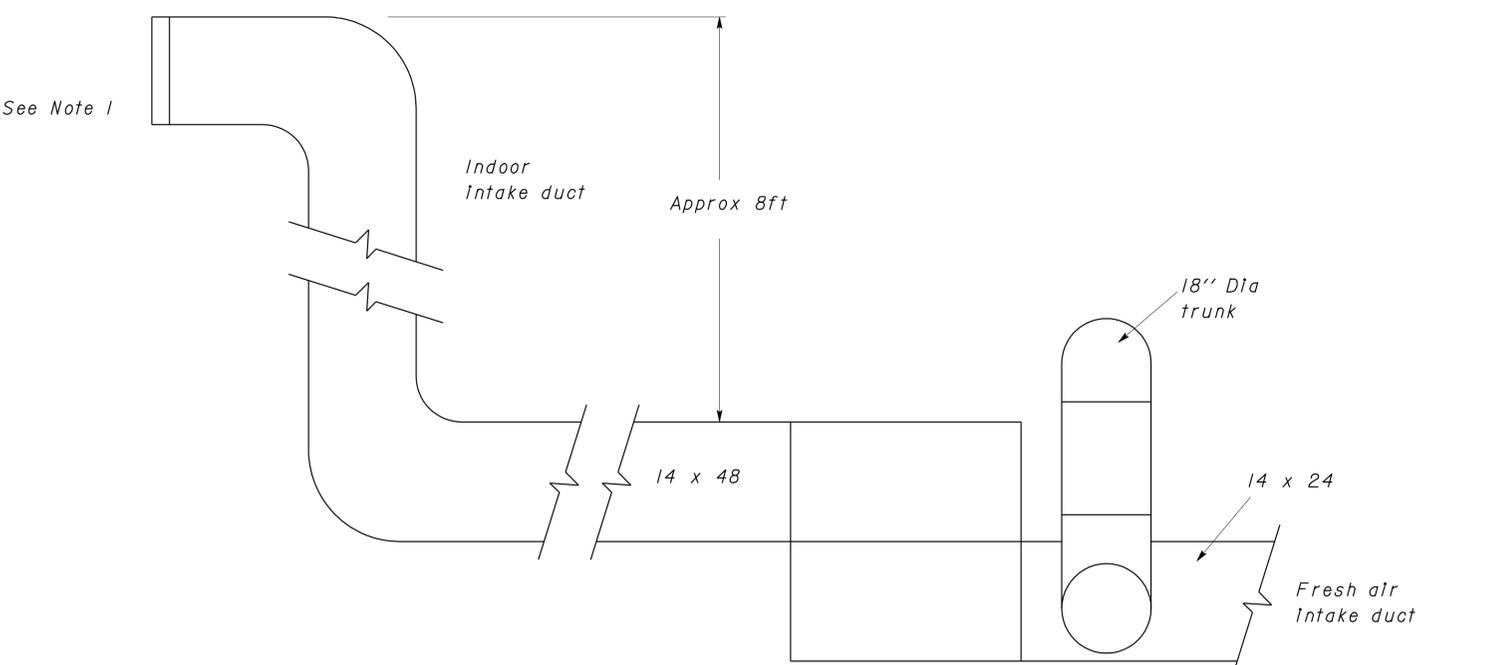
SHEET **M-21** OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Neu	80	19.1/19.3	63	71

<i>Michael R. White</i> REGISTERED MECHANICAL ENGINEER No. M29108 Exp. 6/30/10 MECH STATE OF CALIFORNIA	4/14/09 DATE
7-27-09 PLANS APPROVAL DATE	
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- Notes:
1. Indoor Intake grille shall have fixed blades in both horizontal and vertical directions.
 2. Intake to unit may be over/under or side-by-side. Return cannot enter unit from below in order to maintain truck height clearance.
 3. Sizes may vary slightly depending upon the size and configuration of the selected air handler. Appropriately sized round duct may also be used
 4. Round duct shall be pre-fabricated spiral duct. See Special Provisions.



1 INTAKE DUCT ARRANGEMENT - PLAN

2 INDOOR INTAKE DUCT ARRANGEMENT - ELEVATION

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0002
POST MILE	19.5
DONNER PASS TRUCK INSPECTION FACILITY	
AIR DUCT DETAILS I	

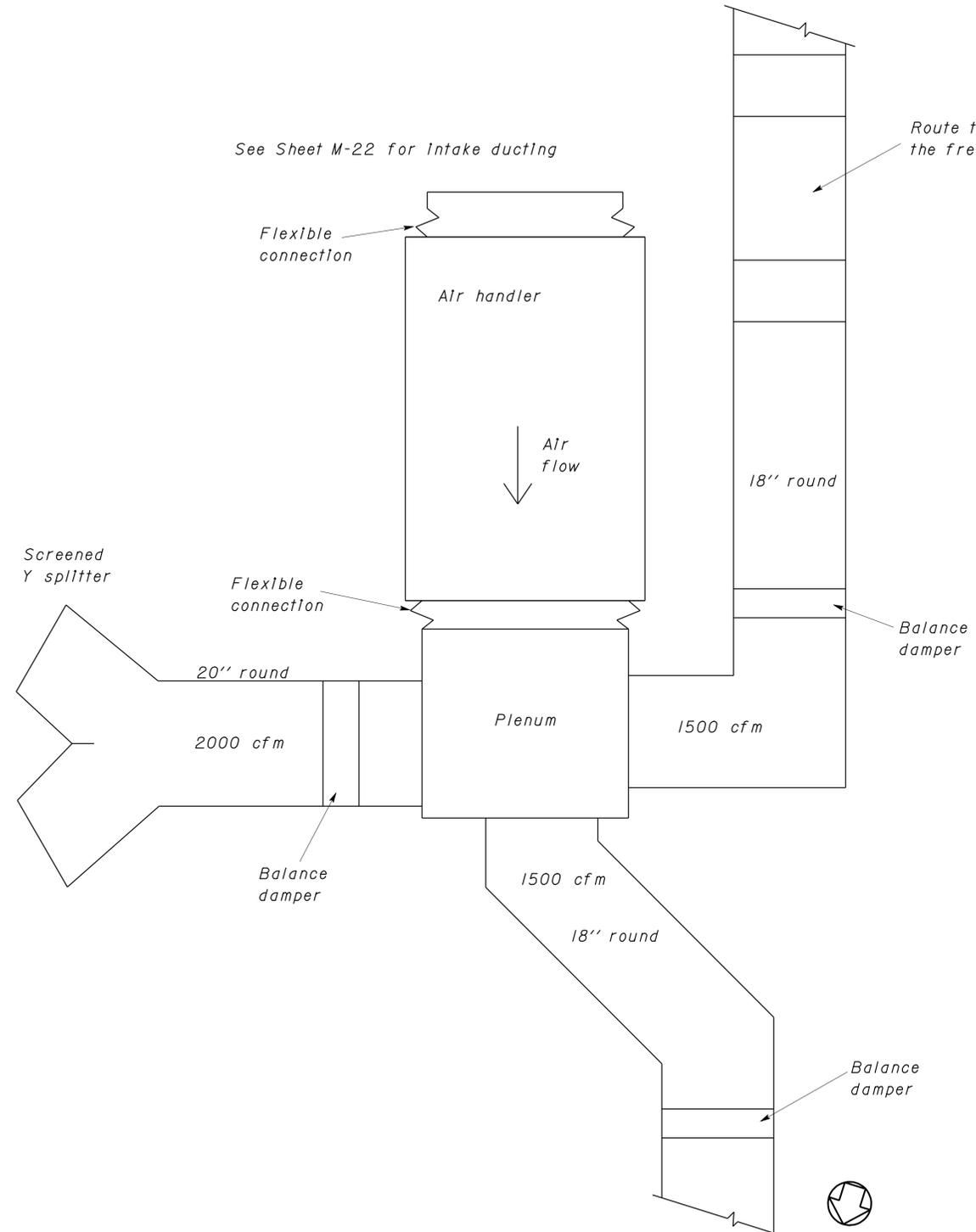
SHEET M-22 OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	64	71

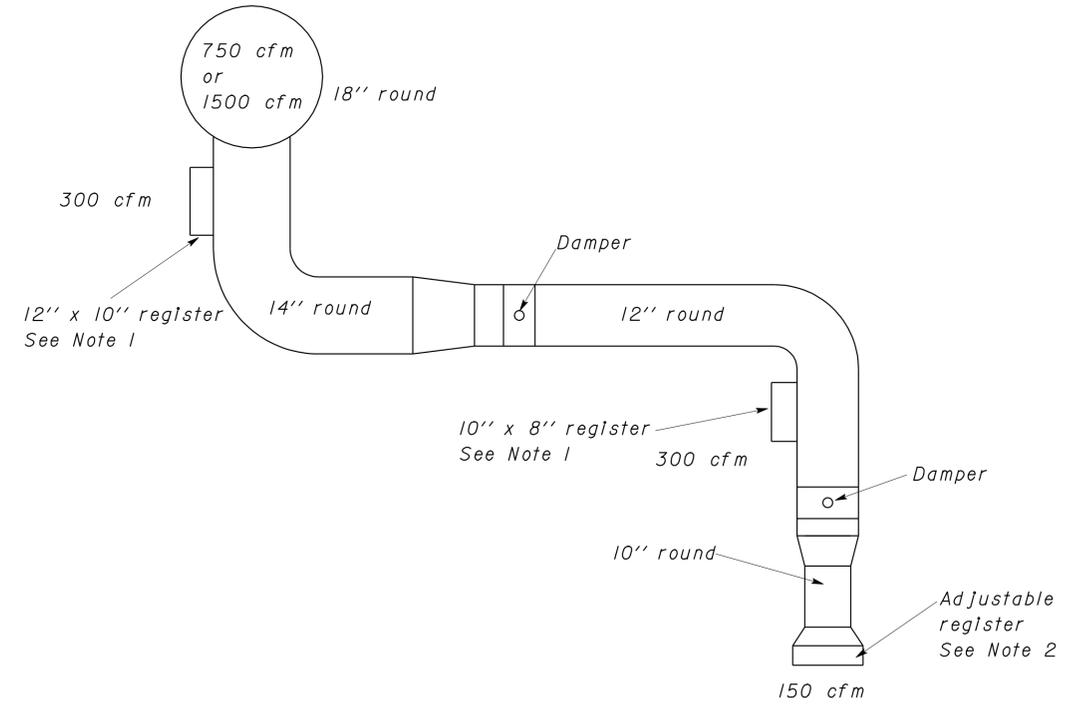
Michael R. White 4/14/09
REGISTERED MECHANICAL ENGINEER DATE

7-27-09
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 INSPECTION LANES DUCTWORK PLAN
No scale



2 TYPICAL DUCT DROP
No scale

Notes:

1. Duct registers have adjustable blades in both horizontal and vertical directions vertical blades on outside.
2. Overhead registers are round with an adjustable cone to direct air either vertically downward or horizontally.

DESIGN BY Michael White CHECKED Chris Farla	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY	SHEET M-23
			POST MILE 19.5		AIR DUCT DETAILS 2
			CU 03227 EA 4C2200		REVISION DATES (PRELIMINARY STAGE ONLY)
DETAILS BY Michael White CHECKED Chris Farla	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	12/18/08 07/14/09 4/14/09	
QUANTITIES BY Michael White CHECKED Chris Farla					

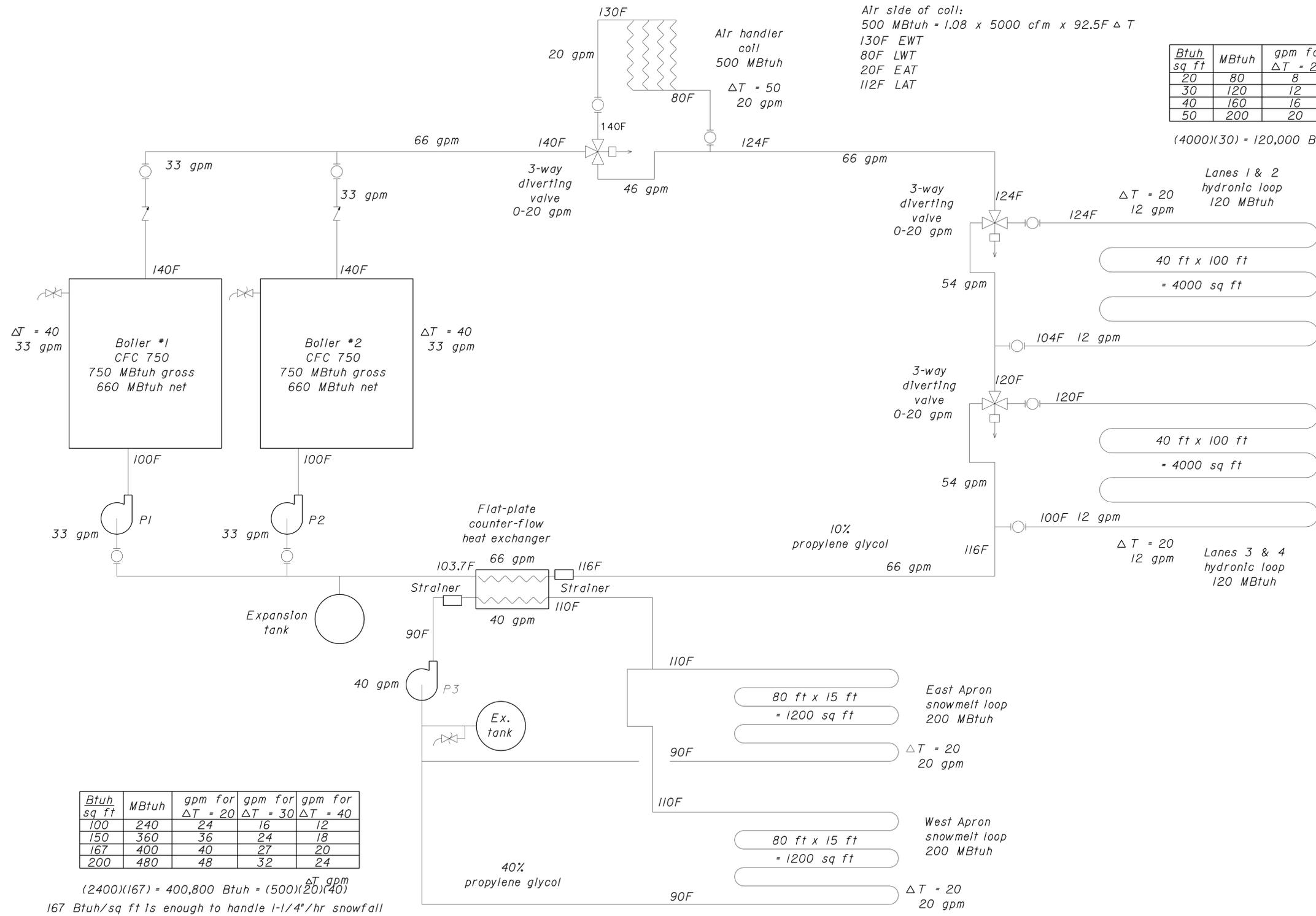
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	65	71

Michael R. White 4/14/09
REGISTERED MECHANICAL ENGINEER DATE

Michael R. White
No. M29108
Exp. 6/30/10
MECH
STATE OF CALIFORNIA

7-27-09
PLANS APPROVAL DATE

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Air side of coil:
500 MBtuh = 1.08 x 5000 cfm x 92.5F ΔT
130F EWT
80F LWT
20F EAT
112F LAT

Btuh sq ft	MBtuh	gpm for ΔT = 20	gpm for ΔT = 30	gpm for ΔT = 40
20	80	8	6	4
30	120	12	8	6
40	160	16	11	8
50	200	20	14	10

$(4000)(30) = 120,000 \text{ Btuh} = (500)(20)(12)$

Btuh sq ft	MBtuh	gpm for ΔT = 20	gpm for ΔT = 30	gpm for ΔT = 40
100	240	24	16	12
150	360	36	24	18
167	400	40	27	20
200	480	48	32	24

$(2400)(167) = 400,800 \text{ Btuh} = (500)(20)(40)$
167 Btuh/sq ft is enough to handle 1-1/4"/hr snowfall

Lanes 1 & 2 hydronic loop 120 MBtuh 30 Btuh/sq ft
40 ft x 100 ft = 4000 sq ft
There is a thermistor in the slab and a thermostat (air) between the Lanes

40 ft x 100 ft = 4000 sq ft
There is a thermistor in the slab and a thermostat (air) between the Lanes

Lanes 3 & 4 hydronic loop 120 MBtuh
ΔT = 20 12 gpm

- Notes:
1. Install the new control system where the existing control panel is located
 2. The boiler is the primary heat source supplying the floor heating and the coil in the new air handler. The furnace in the new air handler is for back-up heating. The IR heaters are for "personal" use and are not controlled by the system.
 3. This diagram is based on both boilers at 100% fire. The controller will turn down each as conditions demand less. See Sheet M-25 for controller connections and system operation.
 4. The heat exchanger shall be a flat-plate, counter-flow type with stainless steel plates. Install a 20-40 mesh strainer on both inlets. The boiler-side (side A) shall be rated for 66 gpm with a pressure drop of 5.7 psi and the snowmelt-side (side B) shall be rated for 40 gpm with a pressure drop of 2.4 psi.

DESIGN BY Michael White CHECKED Chris Farla	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 17W0002	DONNER PASS TRUCK INSPECTION FACILITY	SHEET M-24	
			POST MILE 19.5			OPERATIONAL SCHEMATIC
			CU 03227 EA 4C2200			
DETAILS BY Michael White CHECKED Chris Farla	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	12/18/08 07/14/09 4/14/09	SHEET OF		

DOES SD Imperial Rev. 1/07

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	66	71

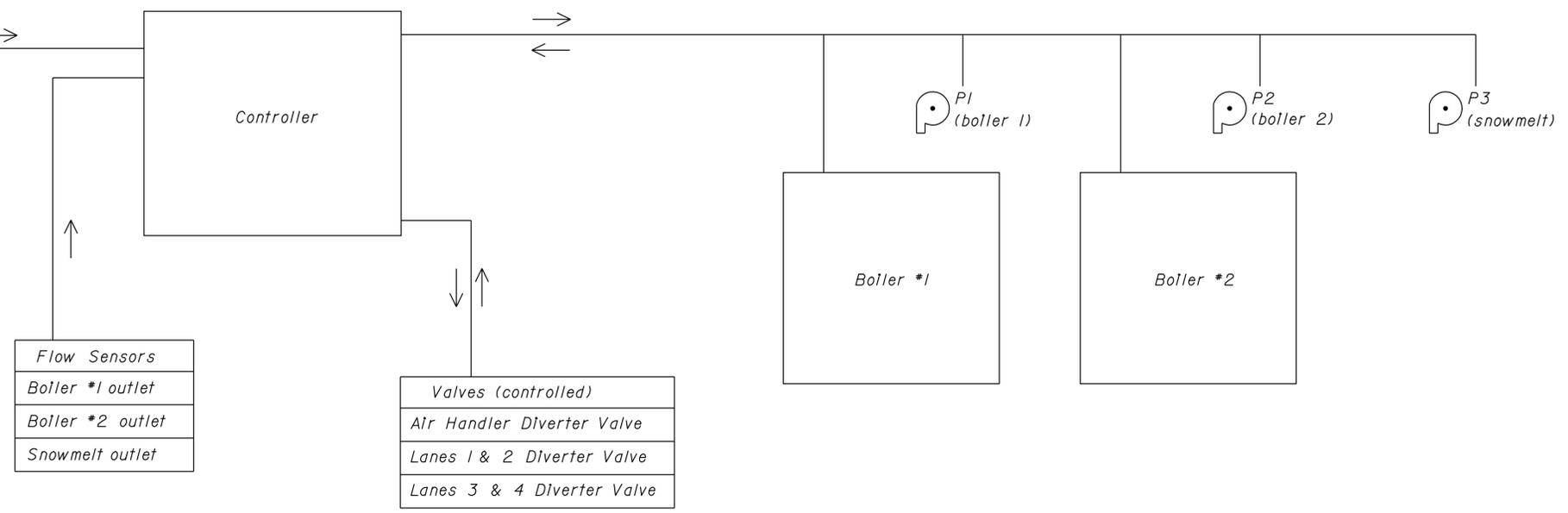
<i>Michael R. White</i>	4/14/09
REGISTERED MECHANICAL ENGINEER	DATE

7-27-09
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.



Temperature Sensors
Outside Air
Inside Slab Lanes 1 & 2
Inside Slab Lanes 3 & 4
Boiler #1 Supply
Boiler #1 Return
Boiler #2 Supply
Boiler #2 Return
Air Handler Supply
Air Handler Return
Lanes 1 & 2 Supply
Lanes 1 & 2 Return
Lanes 3 & 4 Supply
Lanes 3 & 4 Return
Apron Supply HX In
Apron Supply HX Out
Apron Return HX In
Apron Return HX Out



Boiler pump control:

The boiler pump will automatically start when the outside air temperature falls below the system enable setpoint. When the outside air temperature rises above this setpoint, the boiler pump will turn off. When enabled, the pump will start and run continuously. If for any reason its status does not match its commanded value an alarm will be generated. Whenever the system is commanded off, the boiler pump will run for a period of time to dissipate the heat in the system.

Boiler control:

The boiler on sequence will begin when any of the indoor hot water loops (floor hydronics or air handler) call for heat or when the snowmelt system is turned on. The boiler control sequence will begin when the boiler pump has a status of on. When the boiler enable command is sent, the boiler will turn on and the boiler will modulate to maintain the hot water supply temperature at a setpoint that is reset inversely to the outside air temperature. The boiler safety circuits will be monitored and the system will report a general alarm condition if a safety is tripped. A manual reset of the boiler safety will be required before the boiler can be restarted.

Indoor hot water loops control:

The Controller will continuously adjust the individual diverter valves (when the boiler is on) by monitoring the input and output temperatures of each loop in order to maintain the desired set points. Feedback from the diverter valve positioner will be used by the Controller to aid in this setting. The diverter valves will default to full flow through the boiler loop in the event of any failure. When the boiler is commanded off, the diverter valves will remain in their last position to aid in heat dissipation from the system.

Snowmelt hot water loop control:

When the snowmelt system is commanded on, the Controller will turn on the snowmelt pump which will run continuously until commanded off by the Controller. If for any reason its status does not match its commanded value an alarm will be generated. When the snowmelt system is commanded off, the pump may turn off immediately since heat dissipation from this side of the system is not necessary.

Notes:

1. The boiler is the primary heat source supplying hot water to the floor heating and the coil in the new air handler. The furnace in the new air handler is for back-up heating. The IR heaters are for "personal" use and are not controlled by the system.
2. The outside air sensor shall be located on the north side of the building, in the shade, and above the expected snow line.
3. See the Special Provisions for details about the Controller.

DESIGN	BY	Michael White	CHECKED	Chris Farla	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	17W0002	DONNER PASS TRUCK INSPECTION FACILITY	BOILER CONTROL SYSTEM	SHEET	M-25	
	DETAILS	BY	Michael White	CHECKED			Chris Farla	POST MILE			19.5	OF	
	QUANTITIES	BY	Michael White	CHECKED			Chris Farla	REVISION DATES (PRELIMINARY STAGE ONLY)			12/18/08	07/14/09	4/14/09

DOES SD Imperial Rev. 1/07	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	CU 03227 EA 4C2200	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
03	Nev	80	19.1/19.3	67	71

<i>Michael R. White</i> REGISTERED MECHANICAL ENGINEER		4/14/09 DATE
7-27-09 PLANS APPROVAL DATE		
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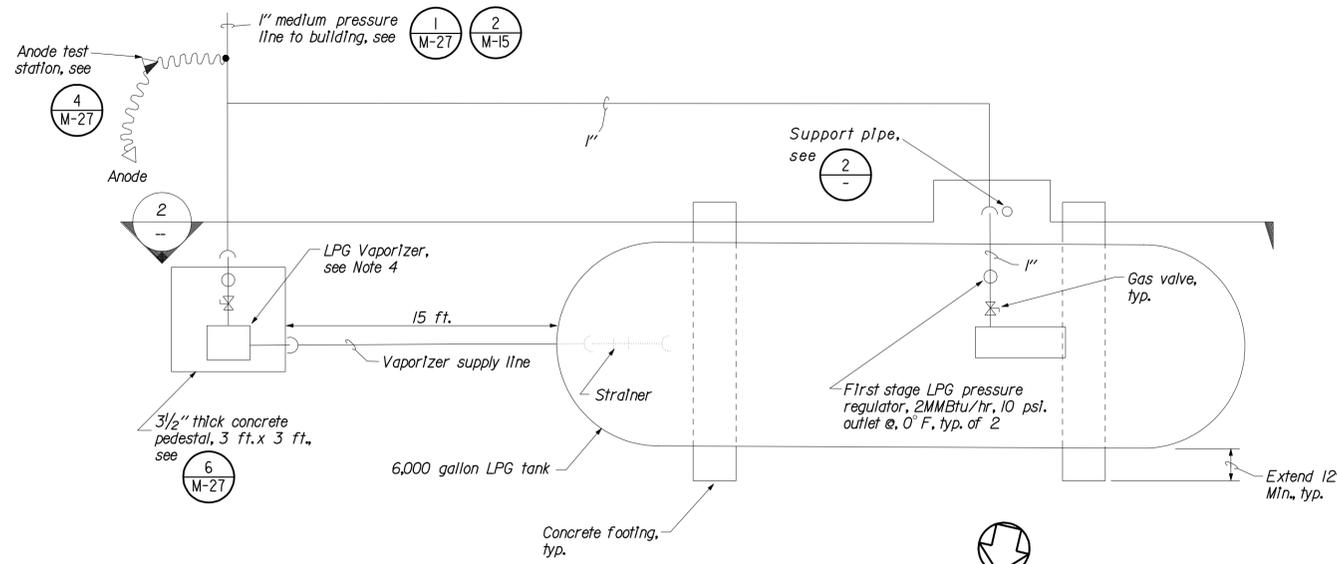


Notes:

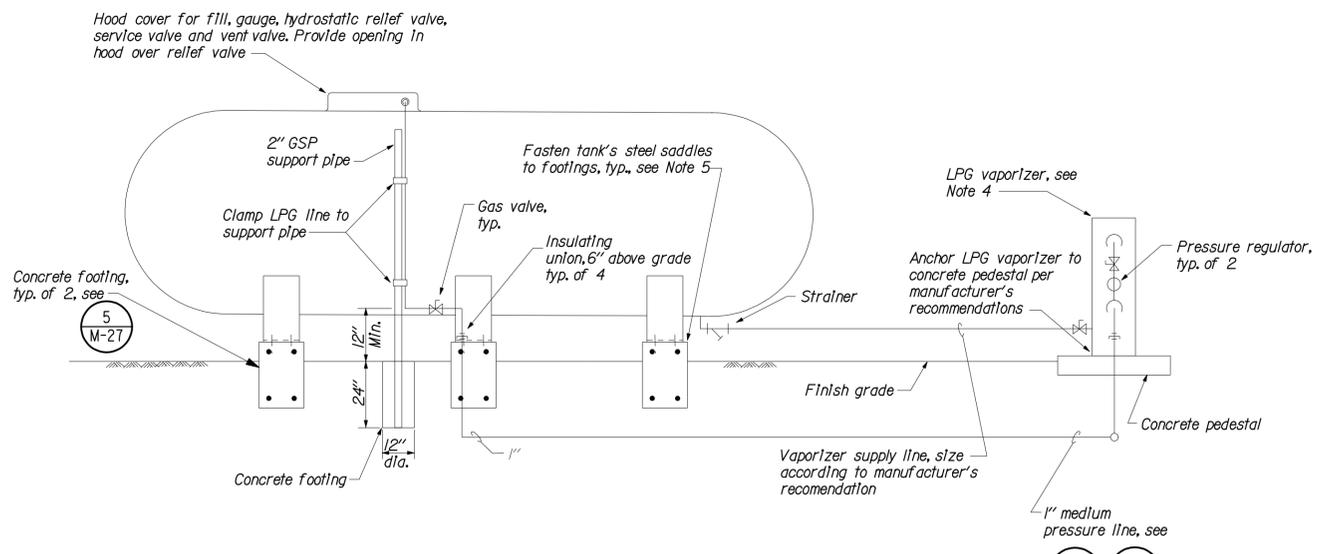
- Provide cathodic protection for underground LPG lines. Anode shall be 10 pounds.
- Install insulating union in vertical LPG line 6" + above grade to isolate underground lines for cathodic protection.
- Warning shall be lettered in red letters, 1 1/2" high, on a white background and shall state the following:

NO SMOKING, OPEN FLAMES OR OTHER SOURCE OF IGNITION PERMITTED WITHIN 50 FEET
- LPG vaporizer shall be direct-fired type, capable of vaporizing 90 pounds/hour LPG @ 0° F. Vaporizer shall include automatic ignitor.
- Fasten tank saddles to concrete footings using 3/4" studs, washers and nuts, or per manufacturer's recommendations. One end of tank shall be fastened to allow for thermal expansion and contraction and for seismic activity. All saddle-to-footing contact shall include 1/4" corrosion pads.

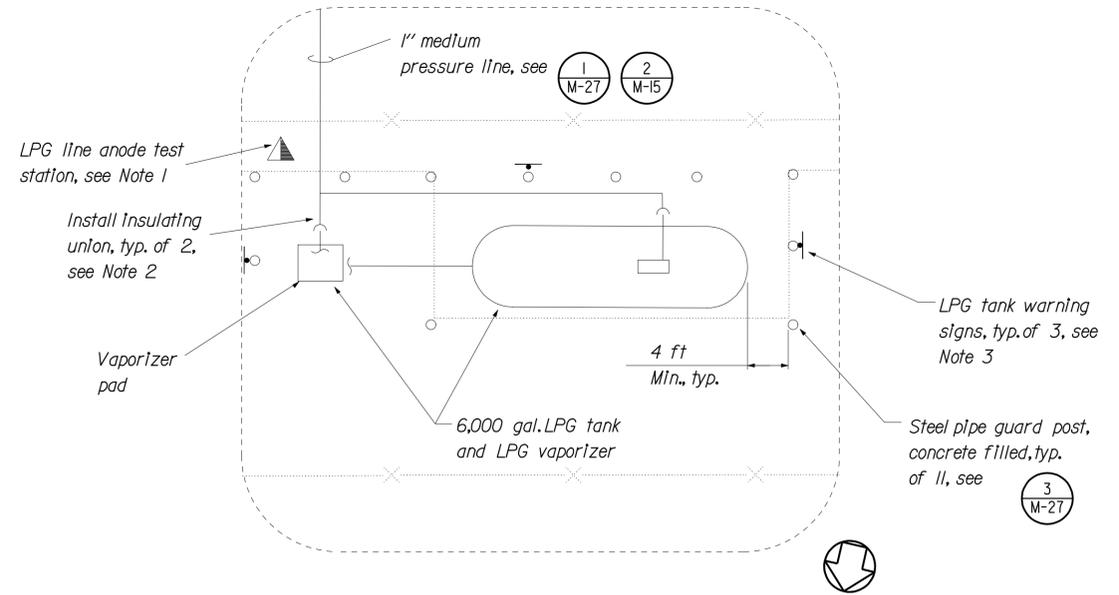
- The existing fence enclosure is 12 ft by 46 ft and will need to be expanded due to clearance requirements and the size of the new tank(s).
- Contact the local LP Supplier to determine their requirements for the tank installation, piping, regulators, warning signs, and the need for a vaporizer unit.
- Secure all components per the respective manufacturer's recommendations.
- At the Contractor's option, two 3000 gallon tanks may be used instead of a single 6000 gallon tank. If chosen, the Contractor shall submit plans to the Engineer for review.
- Size and number of footings is dependent upon tank selection and subject to review by the Engineer.
- Extend regulator vent pipes as needed to prevent burial by snow accumulation.



1 LPG TANK PLAN
No scale



2 LPG TANK PIPING
No scale



3 LPG TANK PLAN
No scale

DESIGN	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
DETAILS	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>
QUANTITIES	BY <i>Michael White</i>	CHECKED <i>Chris Farla</i>

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

BRIDGE NO.	17W0002
POST MILE	19.5

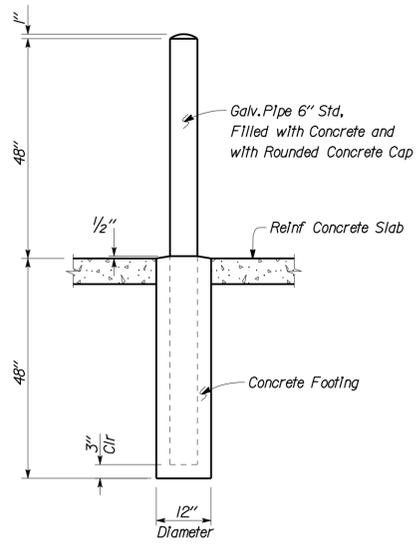
DONNER PASS TRUCK INSPECTION FACILITY
LPG TANK DETAILS

SHEET	M-26
OF	

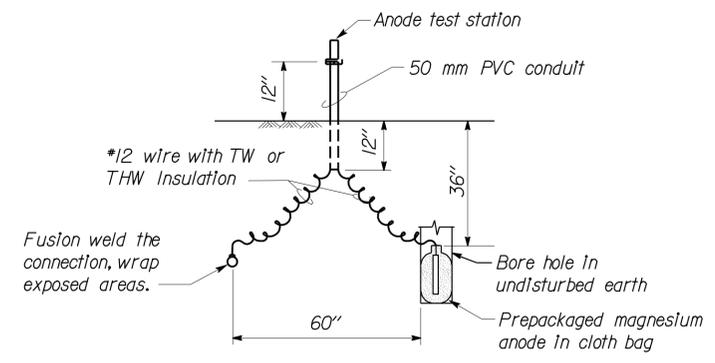
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	68	71

Michael R. White
REGISTERED MECHANICAL ENGINEER
DATE 4/14/09
No. M29108
Exp. 6/30/10
MECH
STATE OF CALIFORNIA

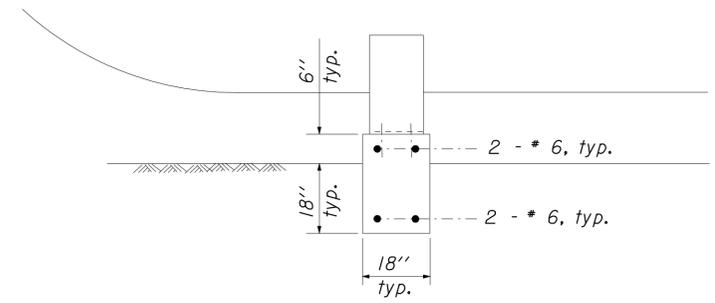
7-27-09
PLANS APPROVAL DATE
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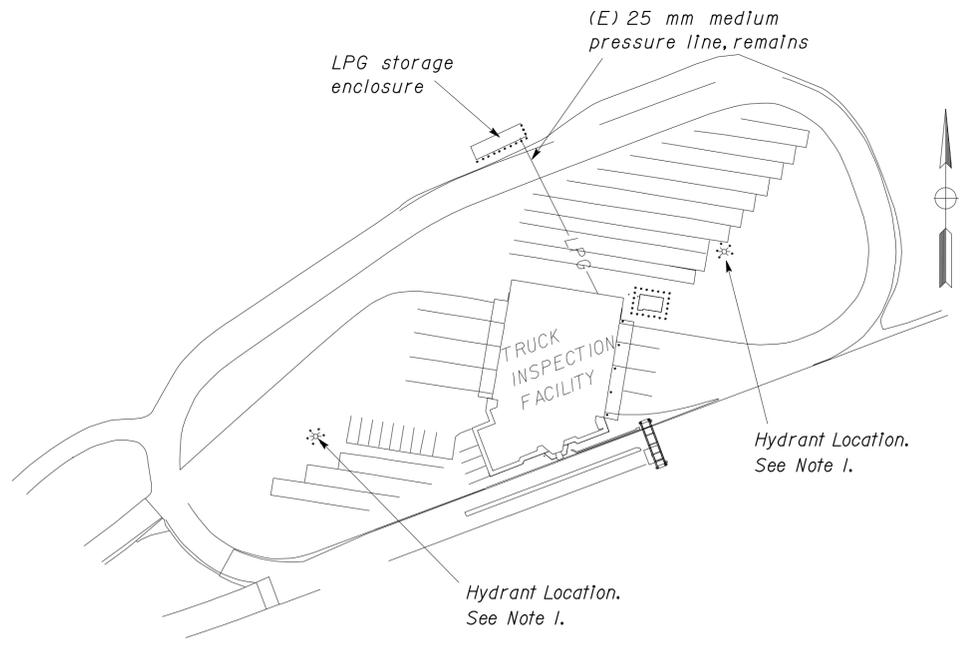
3 GUARD POST DETAIL
No scale



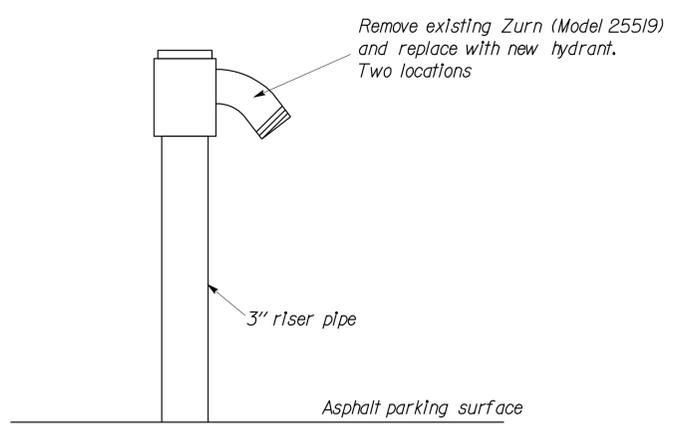
4 CATHODIC PROTECTION DETAIL
No scale



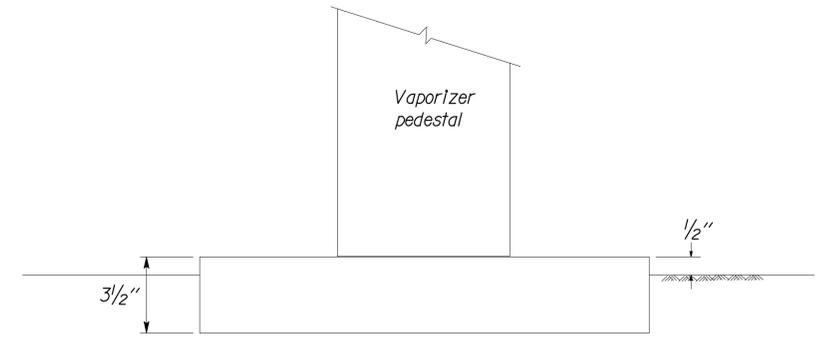
5 LPG TANK FOOTING
No scale



1 SITE PLAN FOR MECHANICAL ITEMS
No scale



2 TYPICAL PIPE AND HYDRANT
No scale



6 LPG VAPORIZER PEDESTAL
No scale

Notes:
1. Replace the two existing wharf hydrants in the Trucker's Parking area near the high-mast lighting standards. See the Special Provisions for the specification for the new hydrants.

DOES SD Imperial Rev. 1/07	DESIGN	BY Michael White	CHECKED Chris Farla	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	DONNER PASS TRUCK INSPECTION FACILITY	SHEET	
	DETAILS	BY Michael White	CHECKED Chris Farla			17W0002		MISCELLANEOUS DETAILS	M-27
	QUANTITIES	BY Michael White	CHECKED Chris Farla			POST MILE 19.5			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	CU 03227 EA 4C2200	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF	
						DISREGARD PRINTS BEARING EARLIER REVISION DATES		12/18/08 07/14/09 4/14/09	

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	69	71

Eric Greve REGISTERED ELECTRICAL ENGINEER	4-14-09 DATE
7-27-09 PLANS APPROVAL DATE	
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CALIFORNIA STATE FIRE MARSHAL
APPROVED

Approval of this plan does not authorize or approve any addition 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: _____

Date: XX/XX/XX

GRAPHIC SYMBOLS FOR ELECTRICAL WIRING AND LAYOUT DIAGRAMS

SYMBOL	DESCRIPTION
(2) 1/2" C, PVC, 2#12	CONDUCTOR INFO (PER CONDUIT) CONDUIT TYPE CONDUIT SIZE NUMBER OF CONDUITS (NO NUMBER INDICATES ONE CONDUIT)
—MC—	CONDUIT, METALLIC UNDERGROUND
—PVC—	CONDUIT, POLYVINYL CHLORIDE, UNDERGROUND
—	CONDUIT CONCEALED IN CEILING OR WALL
----	CONDUIT CONCEALED IN FLOOR
-x-x-	CONDUIT EXPOSED
—#—	CROSS-LINES INDICATE NUMBER OF #12 AWG CONDUCTORS. LONGER CROSS-LINE INDICATES #12 AWG (G) FOR EQUIPMENT GROUNDING CONDUCTOR. NO CROSS-LINE INDICATES 2#12 WITH #12 (G) UNLESS OTHERWISE NOTED. ALL CONDUIT 1/2" UNLESS OTHERWISE NOTED.
	CIRCUIT BREAKER, SINGLE POLE CIRCUIT BREAKER, DOUBLE POLE CIRCUIT BREAKER, THREE POLE
	CONTACT, NORMALLY OPEN CONTACT, NORMALLY CLOSED CONTACT, NORMALLY CLOSED, TIME DELAY CLOSING ON DE-ENERGIZING CONTACT, NORMALLY OPEN, TIME DELAY OPENING ON DE-ENERGIZING CONTACT, NORMALLY OPEN, TIME DELAY CLOSING ON ENERGIZING CONTACT, NORMALLY CLOSED, TIME DELAY OPENING ON ENERGIZING
	OPERATING COIL
	PUSHBUTTON SWITCH, NORMALLY CLOSED PUSHBUTTON SWITCH, NORMALLY OPEN
	SWITCH, SINGLE-POLE SWITCH, SINGLE-POLE, DOUBLE-THROW SWITCH, DOUBLE-POLE SWITCH, DOUBLE-POLE, DOUBLE-THROW SWITCH, SINGLE-POLE, 3-POSITION
	THERMAL OVERLOAD
	FUSE
	RESISTOR VARIABLE RESISTOR
	TRANSFORMER WINDING
	GROUNDING ELECTRODE
	ENCLOSURE BOND
	PILOT LIGHT (A=AMBER, G=GREEN, R=RED)
	GENERATOR
	MOTOR
	FAN MOTOR

SYMBOL	DESCRIPTION
	EXISTING STANDARD WITH SIGNAL MAST ARM, AND ATTACHED TRUCK SIGNAL FACES AND DIGITAL WEIGHT DISPLAY. REMOVE EXISTING DIGITAL WEIGHT DISPLAY AND REPLACE WITH NEW DIGITAL WEIGHT DISPLAY.
	PULL BOX-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	PULL BOX (TRAFFIC RATED)-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	TYPE A DETECTOR LOOP
	SECTION/ELEVATION LETTER
	SHEET NUMBER
	DETAIL NUMBER
	SHEET NUMBER
	EXISTING DETECTOR LOOP
	EXISTING PULL BOX
	EXISTING CONDUIT(S) AND CONDUCTORS-TO REMAIN UNLESS OTHERWISE NOTED
	EXISTING CONDUIT AND CONDUCTORS-REMOVE
	EXISTING JUNCTION BOX-TO REMAIN
	EXISTING JUNCTION BOX-REMOVE
	EXISTING LOAD CELL
	AUTOMATIC SIGN CONTROL CABINET

ABBREVIATIONS

A	AMPERES
BRK	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
DP	DUPLEX PLUG RECEPTACLE
(E)	EXISTING
FLEX	FLEXIBLE CONDUIT
G	GROUND
JB	JUNCTION BOX
MT	EMPTY CONDUIT
(N)	NEW
PB	PULL BOX
PVC	POLYVINYL CHLORIDE
RWS	ROADWAY WEATHER INFORMATION STATION
TIF	TRUCK INSPECTION FACILITY
TYP	TYPICAL
WP	WEATHERPROOF
WSMS	WEIGH STATION MESSAGE SIGN

STANDARD NOTES

- [AB] ABANDON, IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.
- [BC] INSTALL PULL BOX IN EXISTING CONDUIT RUN.
- [CB] INSTALL CONDUIT INTO EXISTING PULL BOX.
- [CC] CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED.
- [CF] CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS, INSTALL PULL ROPE AND PLUG.
- [FA] REMOVE FOUNDATION ABOVE GRADE AND ABANDON FOUNDATION BELOW GRADE.
- [RL] RELOCATE EQUIPMENT.
- [RLD] RELOCATED EQUIPMENT.
- [SC] SPLICE NEW TO EXISTING CONDUCTORS.

PROJECT NOTES

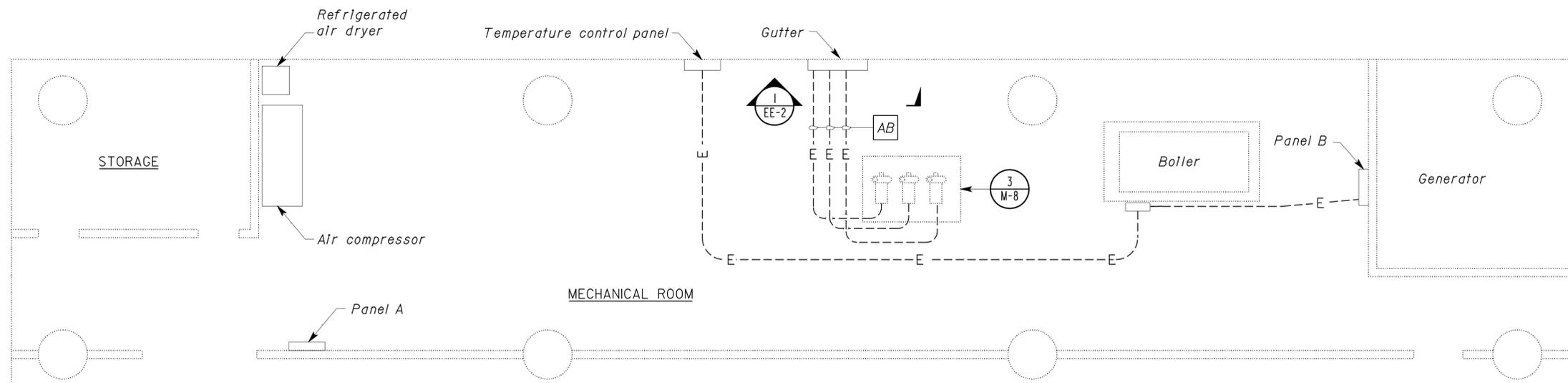
- A. SEPARATE GROUND (NEUTRAL) CONDUCTOR SHALL BE USED FOR EACH 120-VOLT CIRCUIT.
- B. HOMERUNS TO PANELBOARDS SHALL BE INSTALLED AS SHOWN ON THE PLANS. HOMERUNS SHALL NOT BE COMBINED.
- C. A SINGLE INSULATED EQUIPMENT GROUNDING CONDUCTOR (SIZED AS REQUIRED) SHALL BE INSTALLED IN EACH CONDUIT RUN.

DESIGN	BY Greve Eric	CHECKED Greve Eric	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	DONNER PASS TRUCK INSPECTION FACILITY	SHEET EE-0
	DETAILS	BY Dall Zhou			CHECKED Greve Eric		
QUANTITIES	BY Greve Eric	CHECKED Greve Eric	17W0001	19.5	LEGEND		
DOES SD Imperial Rev. 1/07	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	CU 03227 EA 4C2201	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	4/2/08 4/14/09	SHEET OF

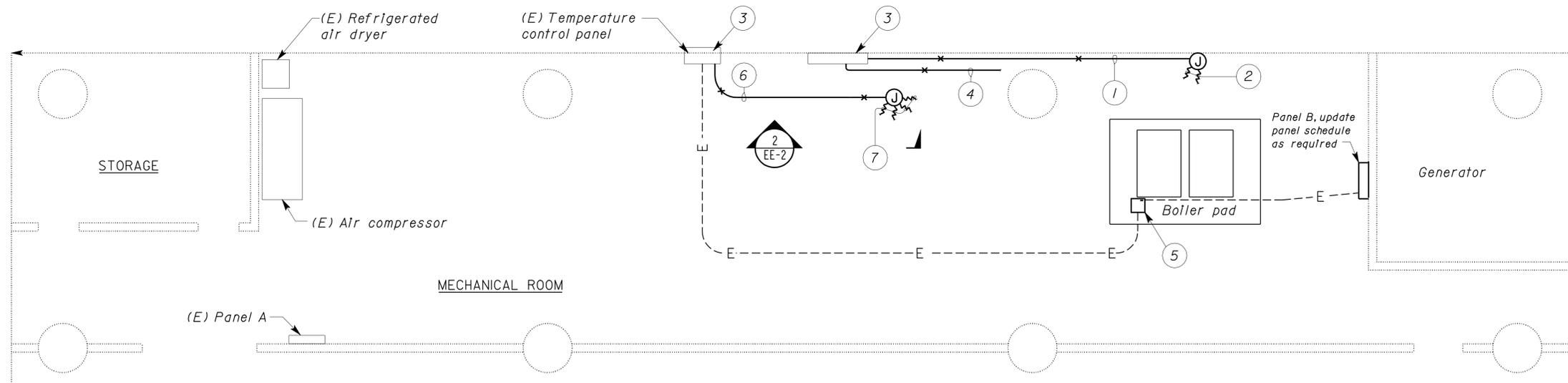
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	70	71

Eric Greve REGISTERED ELECTRICAL ENGINEER	4-14-09 DATE
7-27-09 PLANS APPROVAL DATE	
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1 EXISTING MECHANICAL ROOM LAYOUT
NO SCALE



2 MODIFIED MECHANICAL ROOM LAYOUT
NO SCALE

General Note:
For the sake of clarity, entire electrical system is not shown.
Unless otherwise noted, existing electrical systems are to remain intact and operational.

- Notes:**
- ① 1/2" C, 4*12 (new boiler circulating pumps P1 and P2), 1*12G
 - ② 1/2" C (flexible), 2*12, 1*12G. Terminate flexible conduit and conductors on individual boiler circulation pumps.
 - ③ Install new conduit(s) into existing gutter or panel
 - ④ 1/2" C, 2*12 (new snowmelt pump, P3), 1*12G
 - ⑤ Install new junction box into existing conduits. Reuse conductors as required. See mechanical sheets for details.
 - ⑥ 1" C, conductors as required for diverter valve control. Conduit shall run along North wall.
 - ⑦ 1/2" C (flexible), conductors as required for diverter valve control. Terminate flexible conduit and conductors on individual diverter valves.

DESIGN SUPERVISOR 	DESIGN	BY Greve Eric	CHECKED Greve Eric	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	DONNER PASS TRUCK INSPECTION FACILITY MECH ROOM - ELEC SYSTEM MODIFICATIONS	SHEET EE-1			
	DESIGN ENGINEER 	DETAILS	BY Dai Zhou			CHECKED Greve Eric			POST MILE	17W0001	
	QUANTITIES	BY Greve Eric	CHECKED Greve Eric			19.5					
DOES SD Imperial Rev. 1/07	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	CU 03227 EA 4C2201	DISREGARD PRINTS BEARING EARLIER REVISION DATES		4/14/09	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

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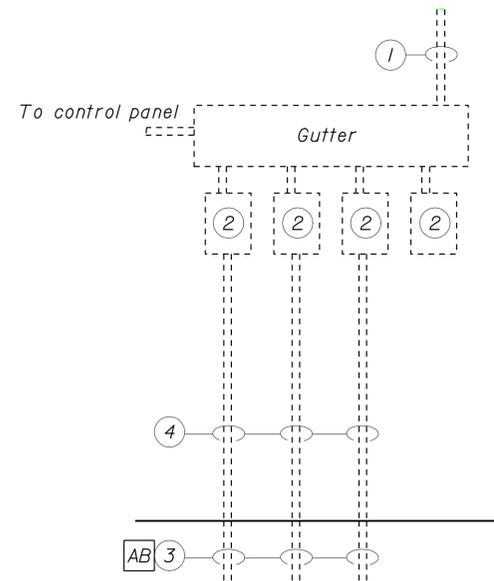
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev	80	19.1/19.3	71	71

Eric Greve
REGISTERED ELECTRICAL ENGINEER 4-14-09
DATE

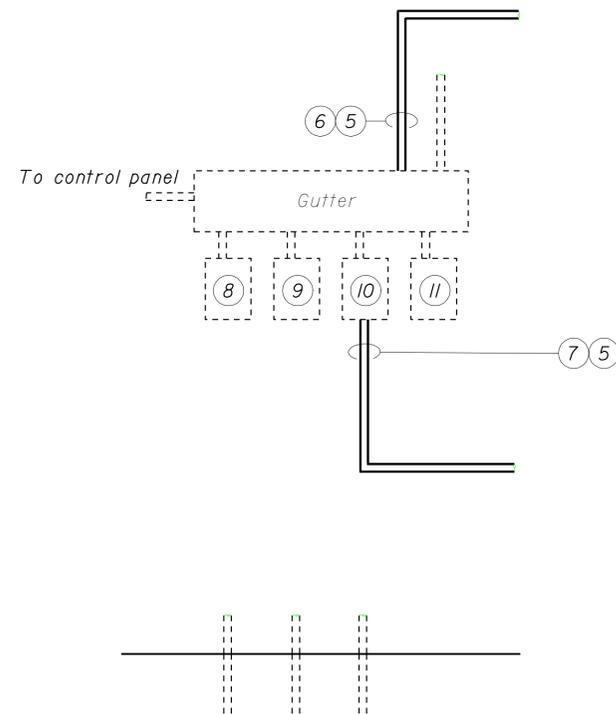
7-27-09
PLANS APPROVAL DATE

ERIC GREVE
No. E 14791
Exp. 6-30-11
ELEC
STATE OF CALIFORNIA

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1 EXISTING PUMP CONTROLS
No scale



2 MODIFIED PUMP CONTROLS
No scale

General Notes:

- A. For the sake of clarity, entire electrical system is not shown.
- B. Unless otherwise noted, all existing electrical systems are to remain intact and operational.

Notes:

- ① Existing conduit with conductors from Panel B
- ② Existing pump starters/controls
- ③ Existing in-ground conduits/conductors running to existing pumps
- ④ Cut conduit 6" above floor and cap.
- ⑤ Install new conduit into existing gutter or enclosure
- ⑥ 1/2" C, 4*12 (new boiler circulating pumps P1 and P2), 1*12G
- ⑦ 1/2" C, 2*12 (new snowmelt pump), 1*12G
- ⑧ Reuse existing motor starter for new boiler circulation pump #1. Terminate new conductors as required.
- ⑨ Reuse existing motor starter for new boiler circulation pump #2. Terminate new conductors as required.
- ⑩ Reuse existing motor starter for new snowmelt pump. Terminate new conductors as required.
- ⑪ Existing motor starter to remain as spare

DESIGN	BY Greve Eric	CHECKED Greve Eric
DETAILS	BY Dall Zhou	CHECKED Greve Eric
QUANTITIES	BY Greve Eric	CHECKED Greve Eric

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	17W0001
POST MILE	19.5

DONNER PASS TRUCK INSPECTION FACILITY
CIRCULATING PUMP DETAILS I

SHEET **EE-2**