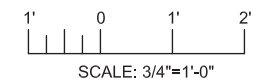


- 
- 12" 1/4"
- B-1
- 12' C/C  
(ALL SIDES) (5)
- 1/2x1 BACK-UP BAR  
(ALL SIDES) TYP
- 3/8" CAP PLATE
- 3/8" PL
- W/P
- C-1
- C-C COLUMN

1 DETAIL  
3" = 1'-0"



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NOT FOR  
CONSTRUCTION

MICROFILM		
BILL OF MATL		
DWG LIST		
SUPSDS		
SUPSD BY		
SHEET NO.	of	SHEETS
S-01-02		REV 1

FILENAME: E2-S-XX-0102AD.dwg

**CH2MHILL®**[illegible]

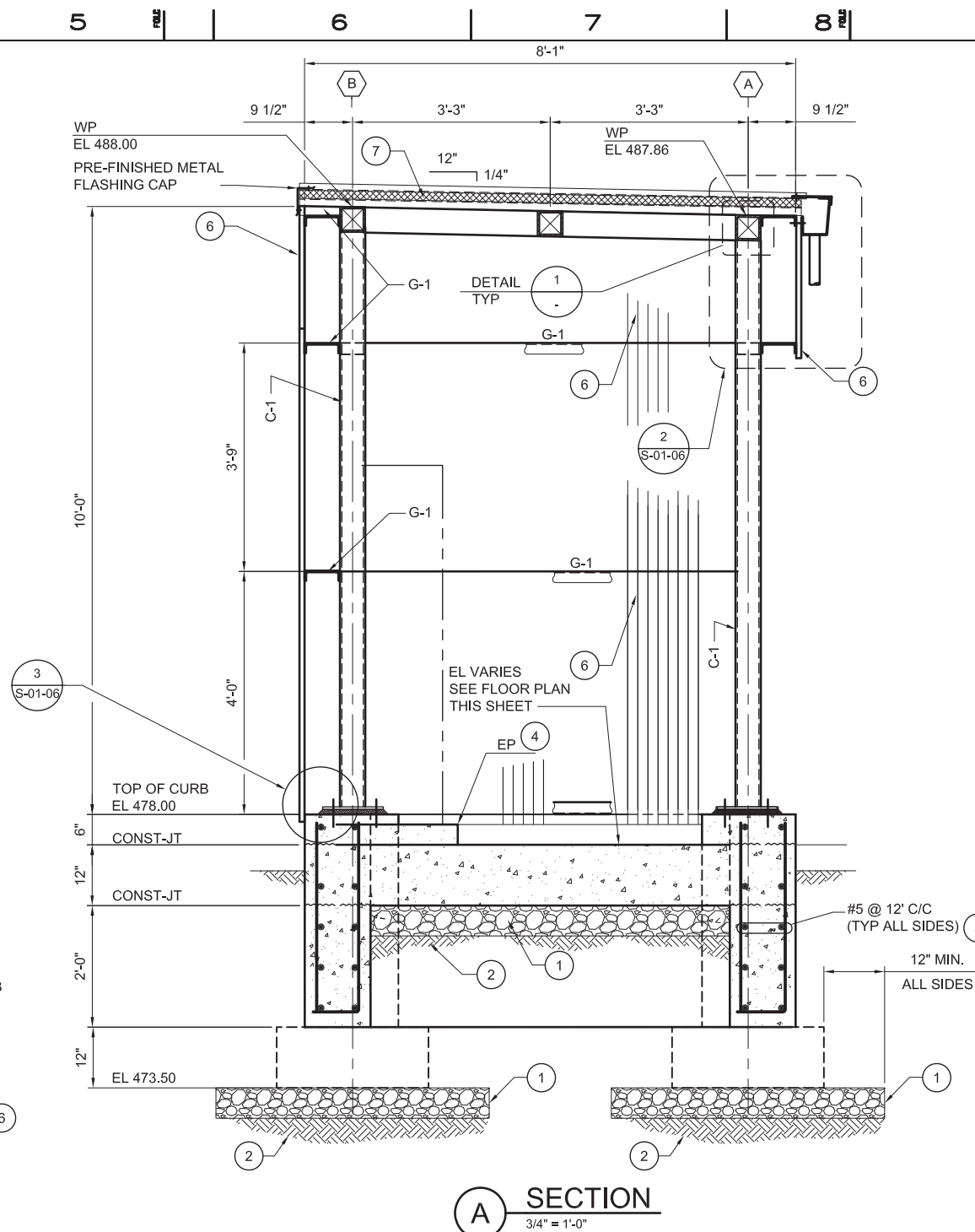
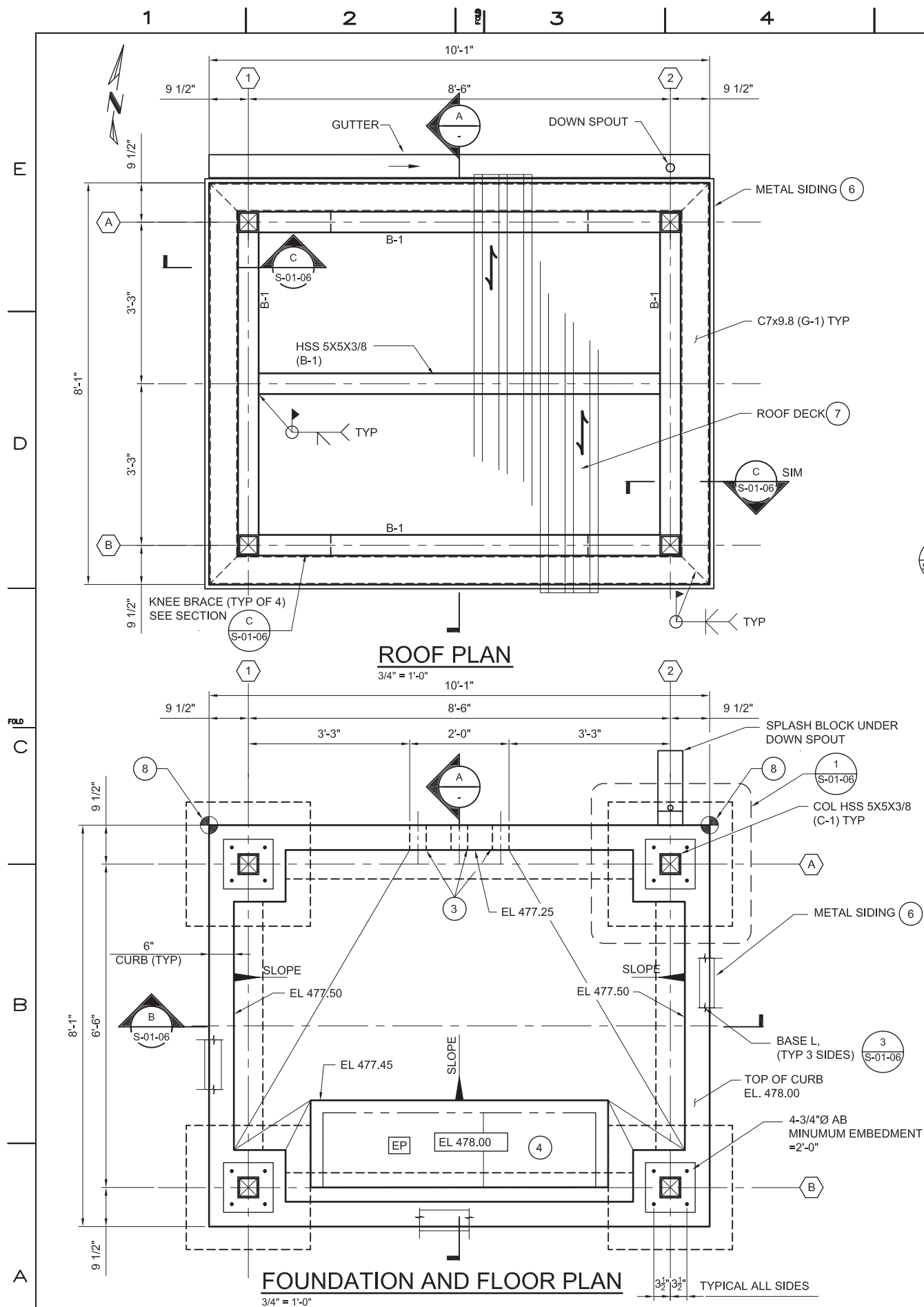
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	SUPV	VMB
	DSGN	KDD
	DWN	MD
	CHKD	KJ
	OK VMB	
	DATE	6/30/14
	SCALES AS NOTED	

TOPOCK GROUNDWATER REMEDIATION PROJECT  
HNWR-1A FRESHWATER SUPPLY WELL  
ELECTRICAL PAD  
FLOOR & ROOF PLAN AND SECTIONS  
GAS TRANSMISSION & DISTRIBUTION  
PACIFIC GAS AND ELECTRIC COMPANY  
SAN FRANCISCO, CALIFORNIA

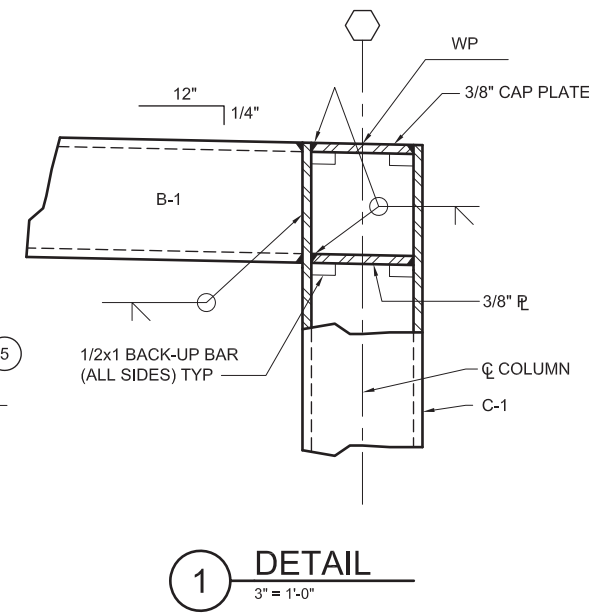








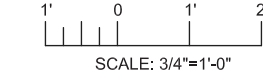
- KEY NOTES**
- 1 PROVIDE 6" CRUSHED DRAIN ROCK
  - 2 STRUCTURAL FILL ~ 95% COMPACTION
  - 3 PROVIDE 3-4"Ø HALF ROUND PVC PIPE IN CURB FOR DRAINAGE
  - 4 FOR EQUIPMENT PAD (EP) SEE DETAIL 10 ON DWG. S-00-02
  - 5 PROVIDE CORNER REINFORCING PER DETAIL 5 ON DWG. S-00-02
  - 6 METAL SIDING: 3/4" HIGH X 36" WIDE PANEL (6 RIBS @ 6" C/C PER PANEL) GALVANIZED 18 GAGE, MINIMUM PROPERTIES/LF OF WIDTH:  
+I = 0.0323 IN<sup>4</sup>  
-I = 0.0220 IN<sup>3</sup>  
+S = 0.0592 IN<sup>3</sup>  
-S = 0.0538 IN<sup>3</sup>
  - 7 ROOF DECK: 1 1/2" HIGH X 36" WIDE PANEL (6 RIBS @ 6" C/C PER PANEL) GALVANIZED 20 GAGE, MINIMUM PROPERTIES/LF OF WIDTH:  
I = 0.29 IN<sup>4</sup>/LF  
+S = 0.315 IN<sup>3</sup>/LF  
-S = 0.316 IN<sup>3</sup>/LF  
PROVIDE 2" RIGID INSULATION AND STANDING SEAM ROOF PANELS.
  - 8 FOR COORDINATES, SEE DWG. C-01-02.



**CONTINGENT**

**NOTE:**

THE EQUIPMENT AND FACILITY SHOWN IS PART OF A CONTINGENT SYSTEM AND MAY BE CONSTRUCTED IN THE FUTURE.



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CONSTRUCTION**

**E2 Consulting Engineers, Inc.**  
1900 Powell Street, Ste. 250  
Emeryville, CA 94608  
(510) 652-1164

**CH2MHILL**

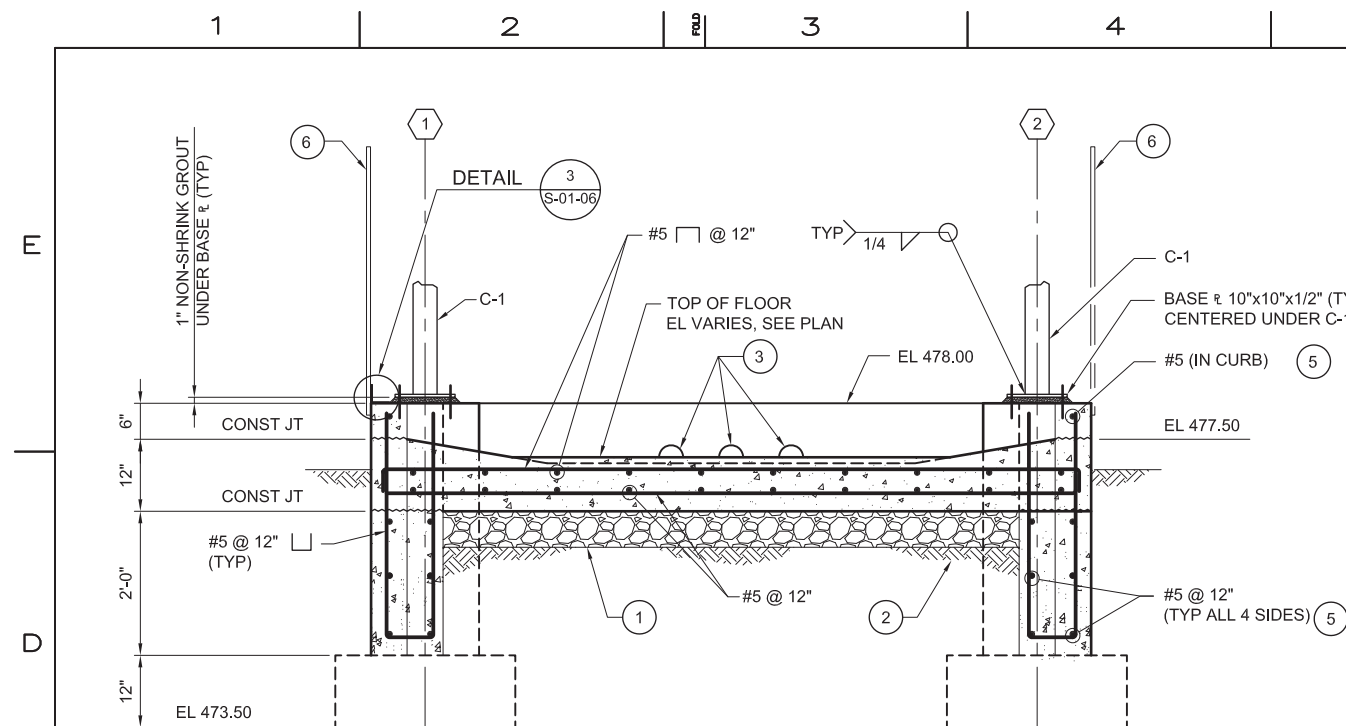
REVISIONS										REVISIONS									
NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY	NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY	NO.	DATE	DESCRIPTION	GM/SPEC

APPROVED BY	SO
	SUPV VMB
	DSGN KDD
	DWN MD
	CHKD KJ
	OK VMB
	DATE 6/30/14
	SCALE AS NOTED

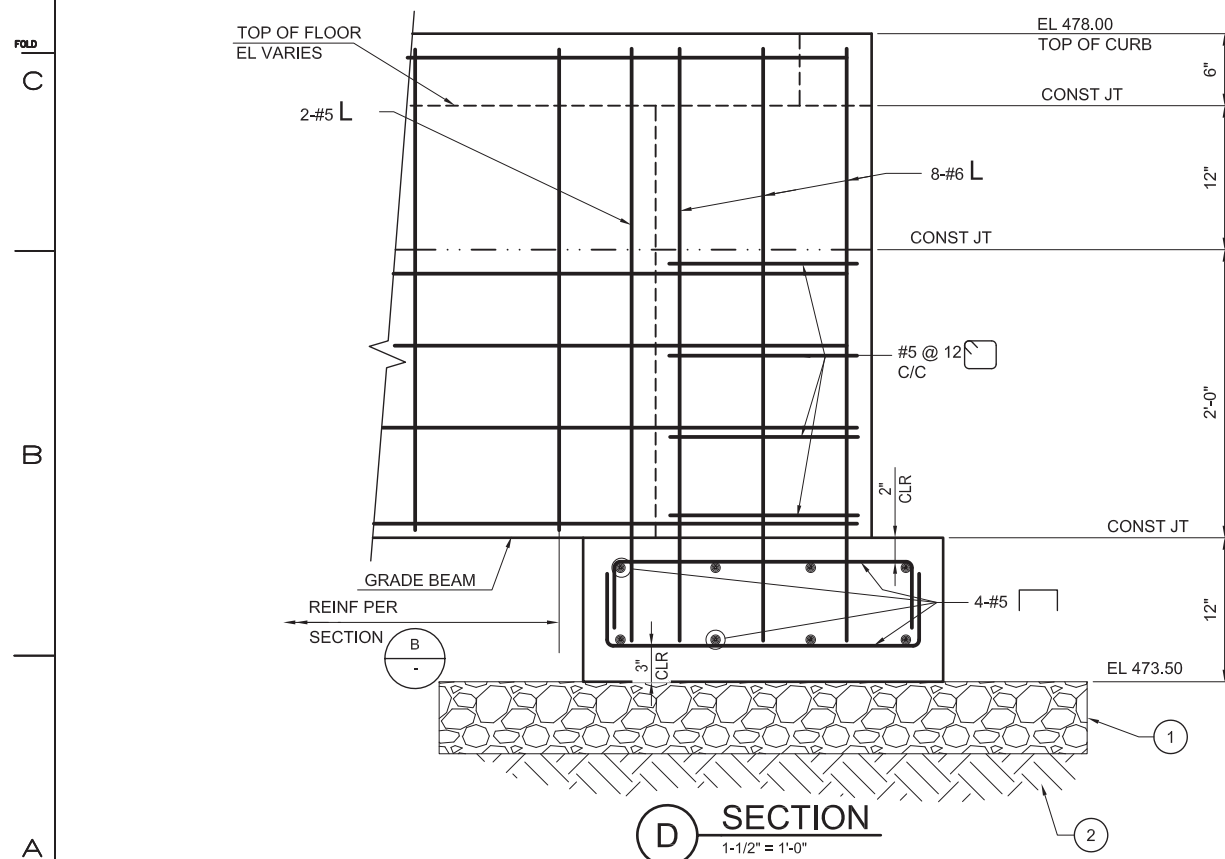
TOPOCK GROUNDWATER REMEDIATION PROJECT  
**FRESHWATER WELL SITE B  
ELECTRICAL PAD  
FLOOR & ROOF PLAN AND SECTION**  
GAS TRANSMISSION & DISTRIBUTION  
PACIFIC GAS AND ELECTRIC COMPANY  
SAN FRANCISCO, CALIFORNIA

MICROFILM	
BILL OF MATL	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO.	of SHEETS
S-01-05	REV 0

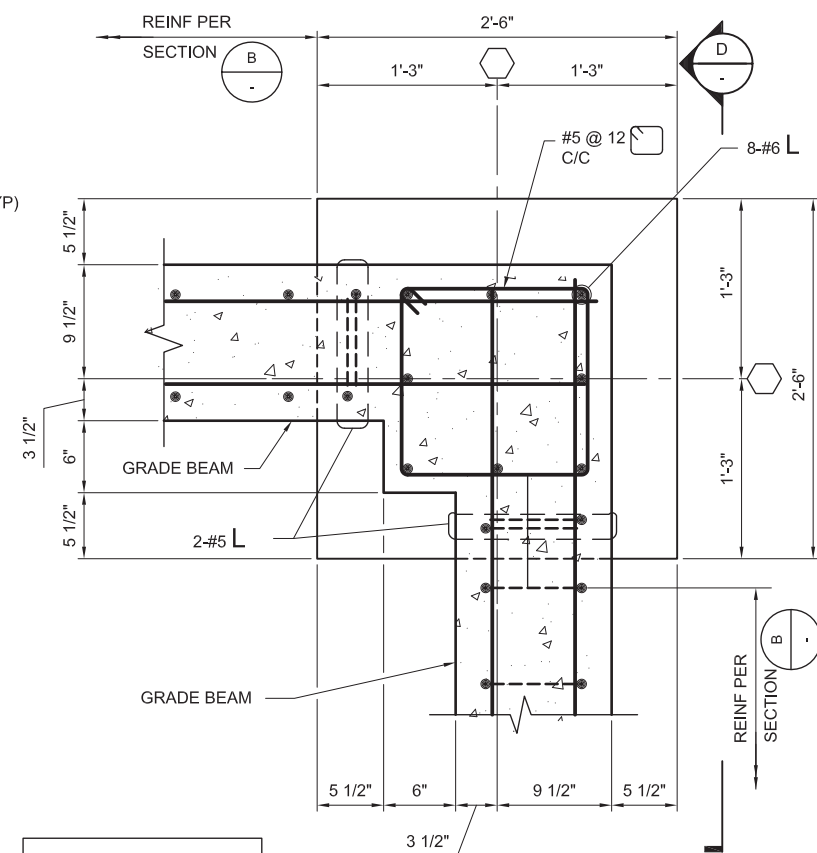
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**B** SECTION  
3/4" = 1'-0"  
S-01-05

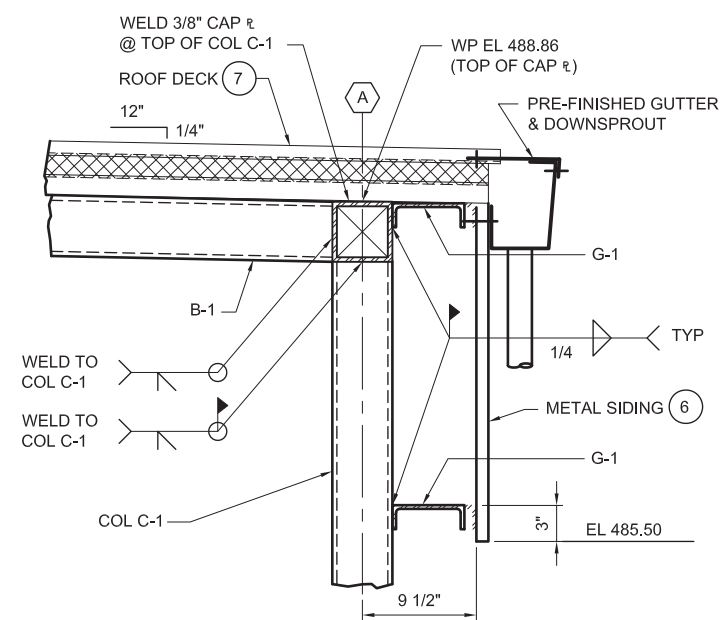


**D SECTION**  
1'-1/2" = 1'-0"

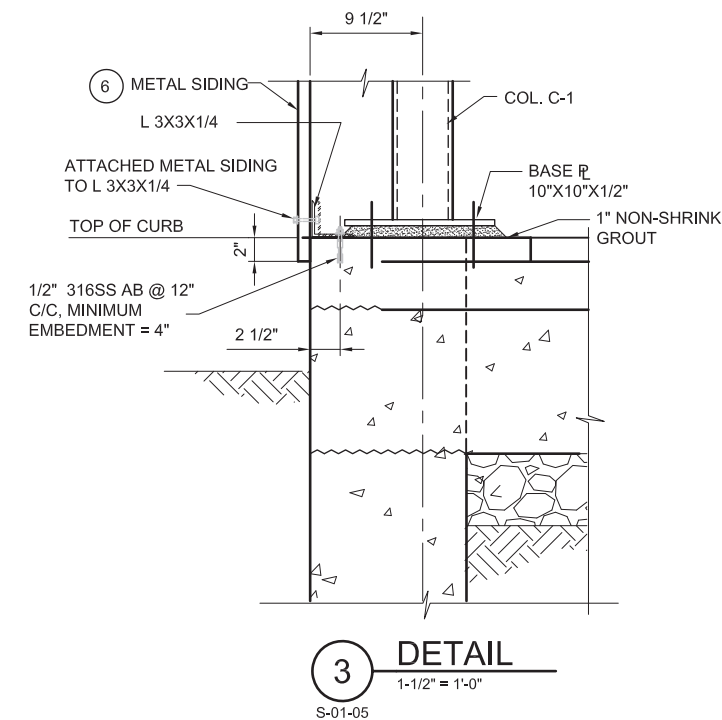


1 DETAIL  
1'-1/2" = 1'-0"  
S-01-05

FOR KEY NOTES, SEE  
SHEET S-01-05



2 DETAIL  
1-1/2" = 1'-0"  
S-01-05

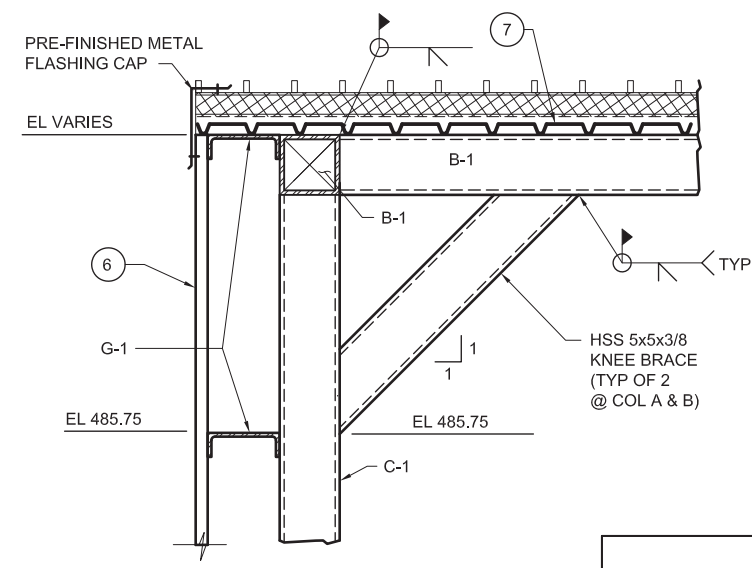


3 DETAIL  
1'-1/2" = 1'-0"

CONTINGENT

NOTE:

THE EQUIPMENT AND FACILITY SHOWN IS  
PART OF A CONTINGENT SYSTEM AND MAY  
BE CONSTRUCTED IN THE FUTURE.



**C** SECTION  
1-1/2" = 1'-0"  
S-01-05

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NOT FOR  
CONSTRUCTION

[illegible]

APPROVED BY	SO	
	SUPV	VM
	DSGN	KD
	DWN	M
	CHKD	K
	OK VMB	
	DATE	6/30/1
	SCALES	
	AS NOTED	

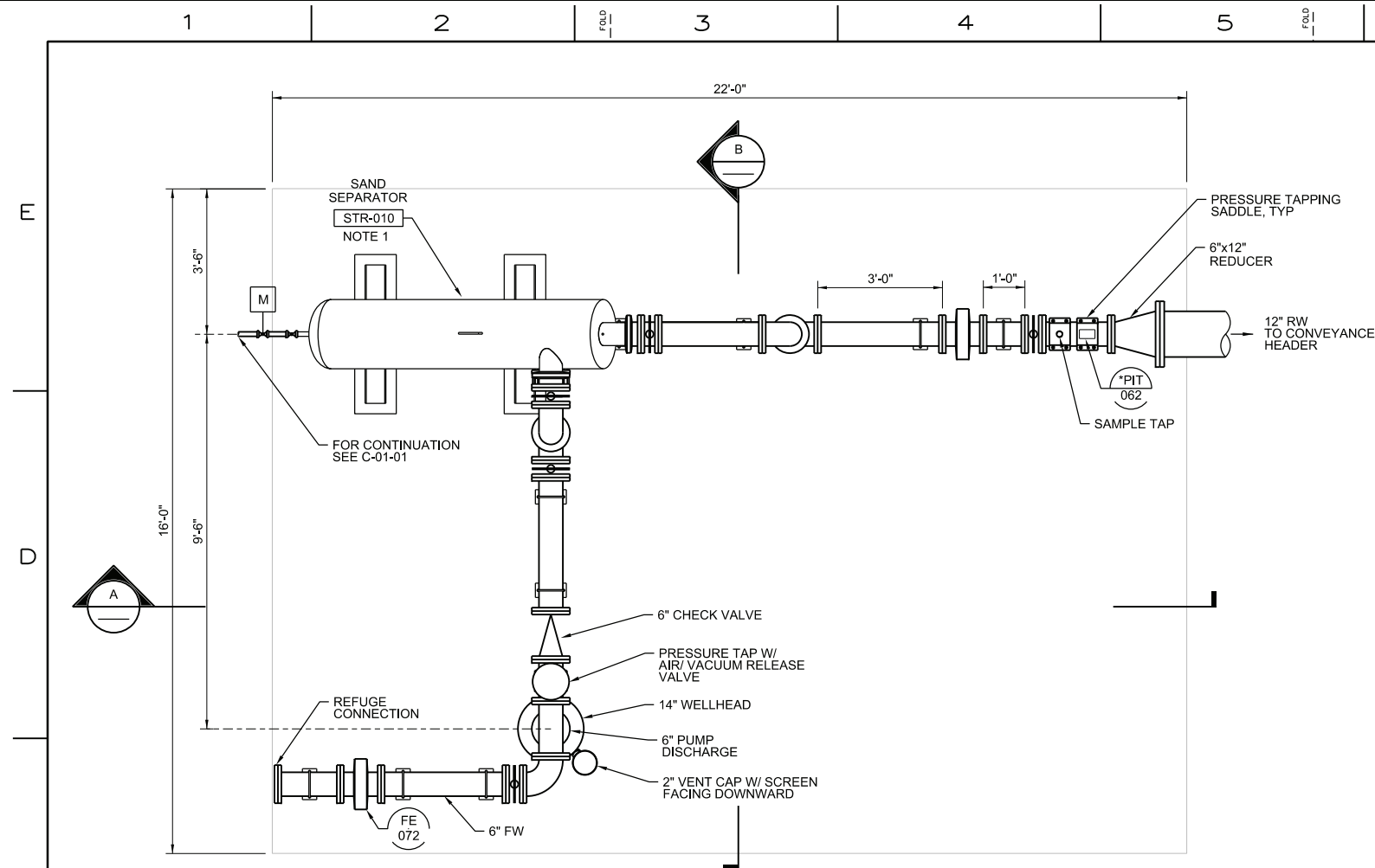
TOPOCK GROUNDWATER REMEDIATION PROJECT  
FRESHWATER WELL SITE B  
ELECTRICAL PAD SECTIONS  
AND DETAILS  
GAS TRANSMISSION & DISTRIBUTION  
PACIFIC GAS AND ELECTRIC COMPANY  
SAN FRANCISCO, CALIFORNIA

MICROFILM		
BILL OF MATL		
DWG LIST		
SUPSDS		
SUPSD BY		
SHEET NO.	of	SHEETS
S-01-06		REV 0



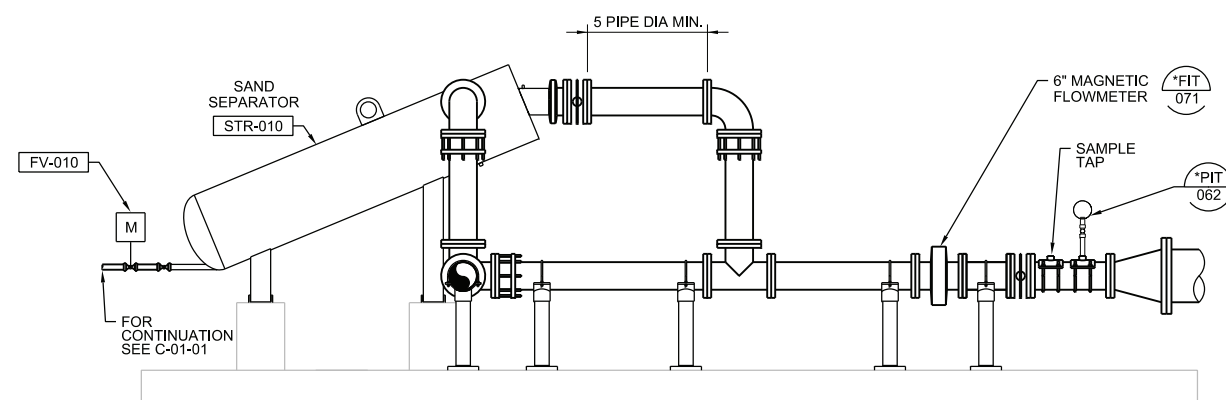




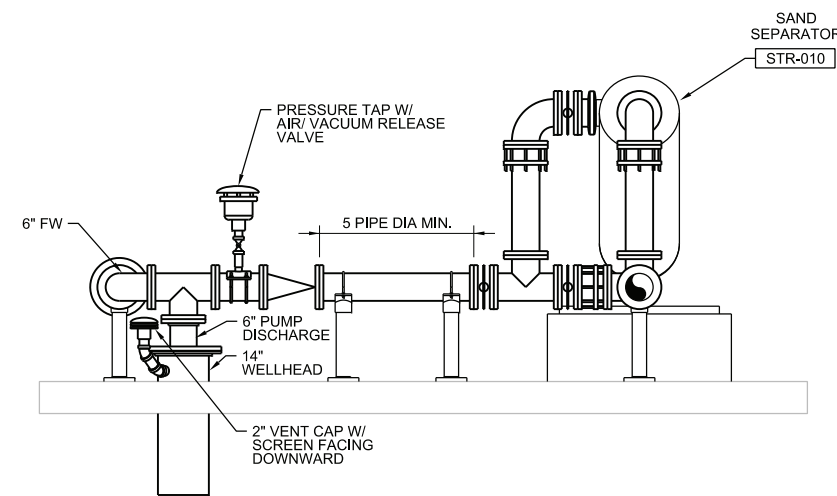


- NOTES:**
1. THE EQUIPMENT AND FACILITY SHOWN IS PART OF A CONTINGENT SYSTEM AND MAY BE CONSTRUCTED IN THE FUTURE.
  2. LAKOS SEPARATOR MODEL IHB-0500 (GROOVED JOINTS), PROVIDE 1 1/2" LAKOS BRONZE COMPACT MOTORIZED BALL VALVE FOR PURGE LINE. VALVE SHALL HAVE OPERATOR ADJUSTABLE SETTINGS FOR PURGE FREQUENCY AND DURATION. ELECTRIC ACTUATOR (120V) SHALL HAVE NEMA 4 HOUSING SUITABLE FOR OUTDOOR INSTALLATION. INSTALL PIPE SUPPORT FOR VALVE.
  3. FOR PIPE SUPPORT SEE (4005-501) .
  4. SET WELL PUMP AT DEPTH OF 154 FEET. WELL PUMP SHALL BE GRUNDFOS 800S1000 OR APPROVED EQUAL. DROP PIPE SHALL BE ASTM A53 GR B, SCH 40 OR API 5CT J55 OR BETTER. NPT ENDS WITH API OR EQUAL COUPLINGS. WELL HEAD SEAL/FLANGE SHALL BE FURNISHED WITH PRE-CUT HOLES FOR DROP PIPE (6"). 1" STILLING WELL, 1" AND 3" NPT SPARE, AND 1" FOR PUMP CABLES. CONTRACTOR SHALL FURNISH STILLING WELL WITH SCH 40 PVC PIPE SECURED TO PUMP DROP PIPE WITH DRILLERS TAPE. STILLING WELL SHALL EXTEND TO 120 FEET DEEP. FURNISH THREADED END CAPS ON EACH OF THE PORTS WITH 2" NIPPLES EXCEPT FOR THE PUMP CABLES AND PUMP DROP PIPE.
  5. EQUIPMENT TAGS SHOWN ARE UNIQUELY IDENTIFIED WITH THE ADDITION OF THE LOCATION ID CODE OF "HNWR1A" BEFORE THE NUMERIC CODE.

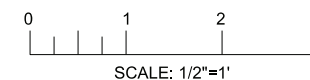
## WELL HEAD PIPING PAD PLAN



**A** SECTION  
1/2"=1'-0"



**B** SECTION  
1/2"=1'-0"



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CONSTRUCTION

MICROFILM		
BILL OF MATL		
DWG LIST		
SUPSDS		
SUPSD BY		
SHEET NO.	of	SHEET
M-01-01		REV 1

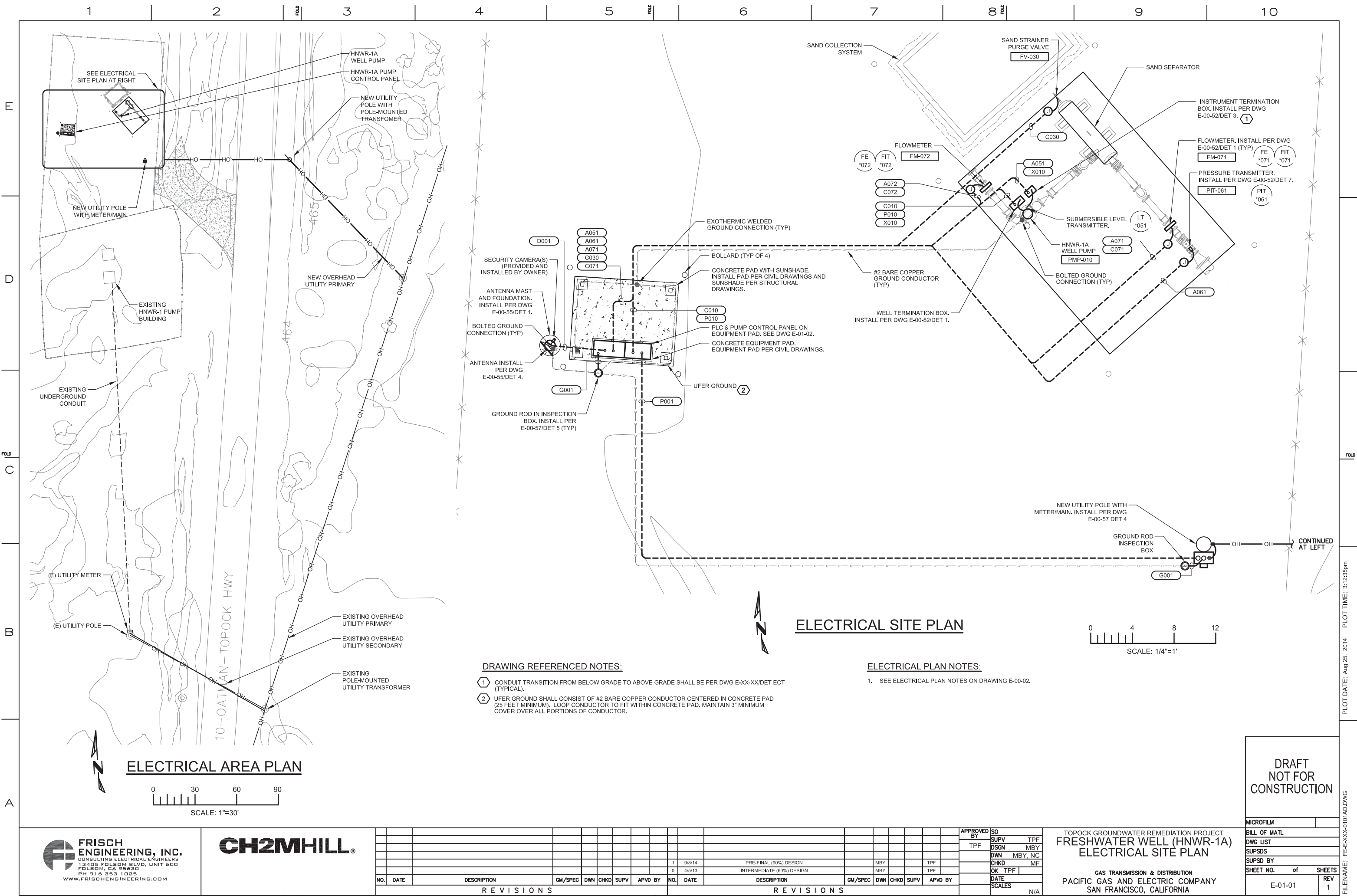
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TOPOCK GROUNDWATER REMEDIATION PROJECT  
HNWR-1A WELL HEAD PIPING  
PLAN AND SECTIONS

GAS TRANSMISSION & DISTRIBUTION  
PACIFIC GAS AND ELECTRIC COMPANY  
SAN FRANCISCO, CALIFORNIA







**FRISCH ENGINEERING, INC.**  
CONSULTING ELECTRICAL ENGINEERS  
13405 FOLSOM BLVD., UNIT 600  
FOLSOM, CA 95630  
PH 916 353 1025  
WWW.FRISCHENGINEERING.COM

**CH2MHILL**

REVISIONS					REVISIONS				
NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY	NO.	DATE
1	9/8/14	PRE-FINAL (90%) DESIGN						1	9/8/14
0	4/5/13	INTERMEDIATE (60%) DESIGN						0	4/5/13

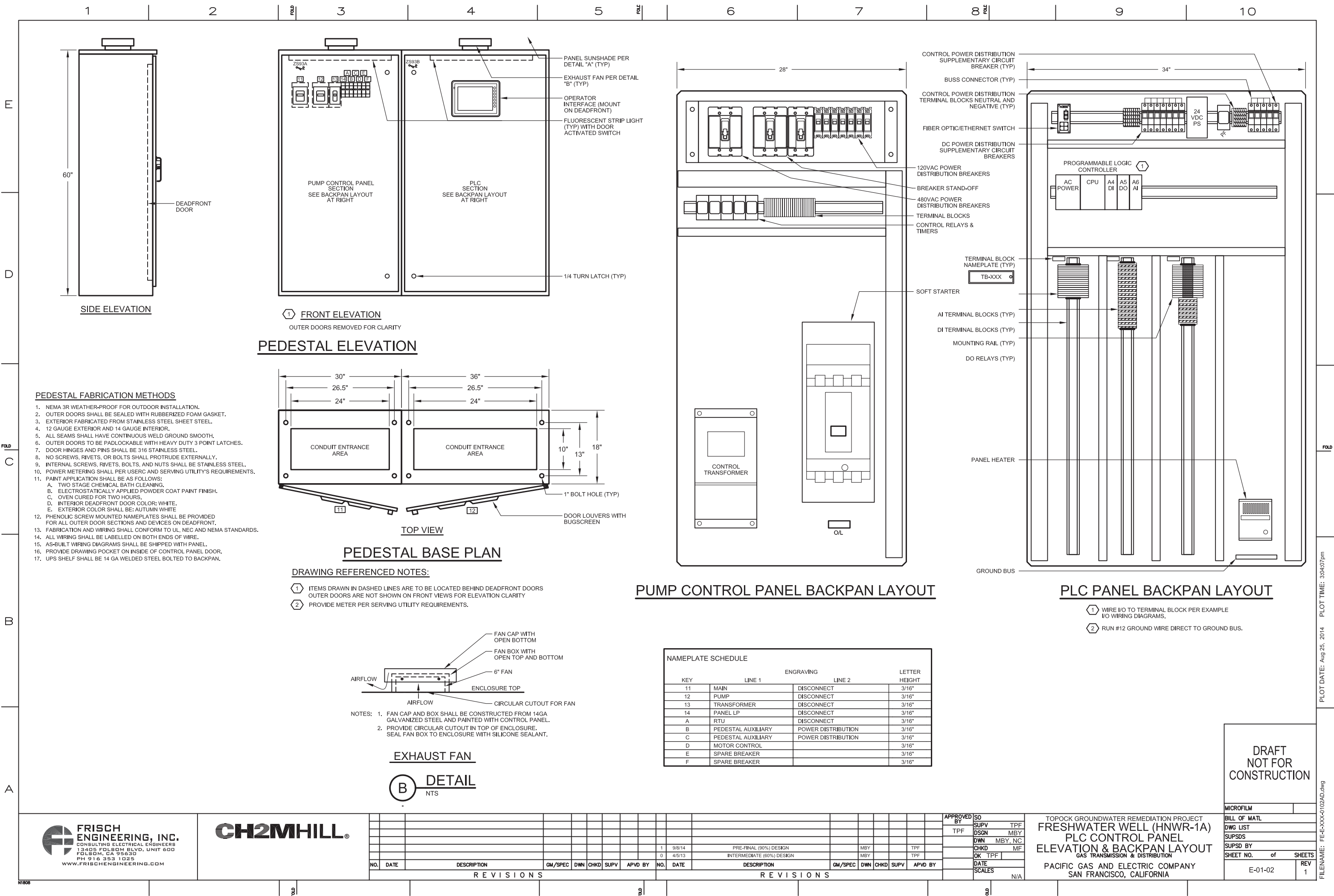
APPROVED BY  TPF	SO	
	SUPV	TPF
	DSGN	MBY
	DWN	MBY, NC
	CHKD	MF
	OK TPF	
	DATE	
	SCALES	N/A

TOPOCK GROUNDWATER REMEDIATION PROJECT  
**FRESHWATER WELL (HNWR-1A)**  
**ELECTRICAL SITE PLAN**  
  
GAS TRANSMISSION & DISTRIBUTION  
PACIFIC GAS AND ELECTRIC COMPANY  
SAN FRANCISCO, CALIFORNIA

**DRAFT  
NOT FOR  
CONSTRUCTION**

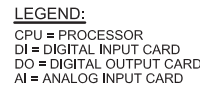
MICROFILM	
BILL OF MATL	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO. of SHEETS	
E-01-01	REV 1

FILENAME: FE-E-XXX-0101AD.DWG PLOT DATE: Aug 25, 2014 PLOT TIME: 3:12:35pm



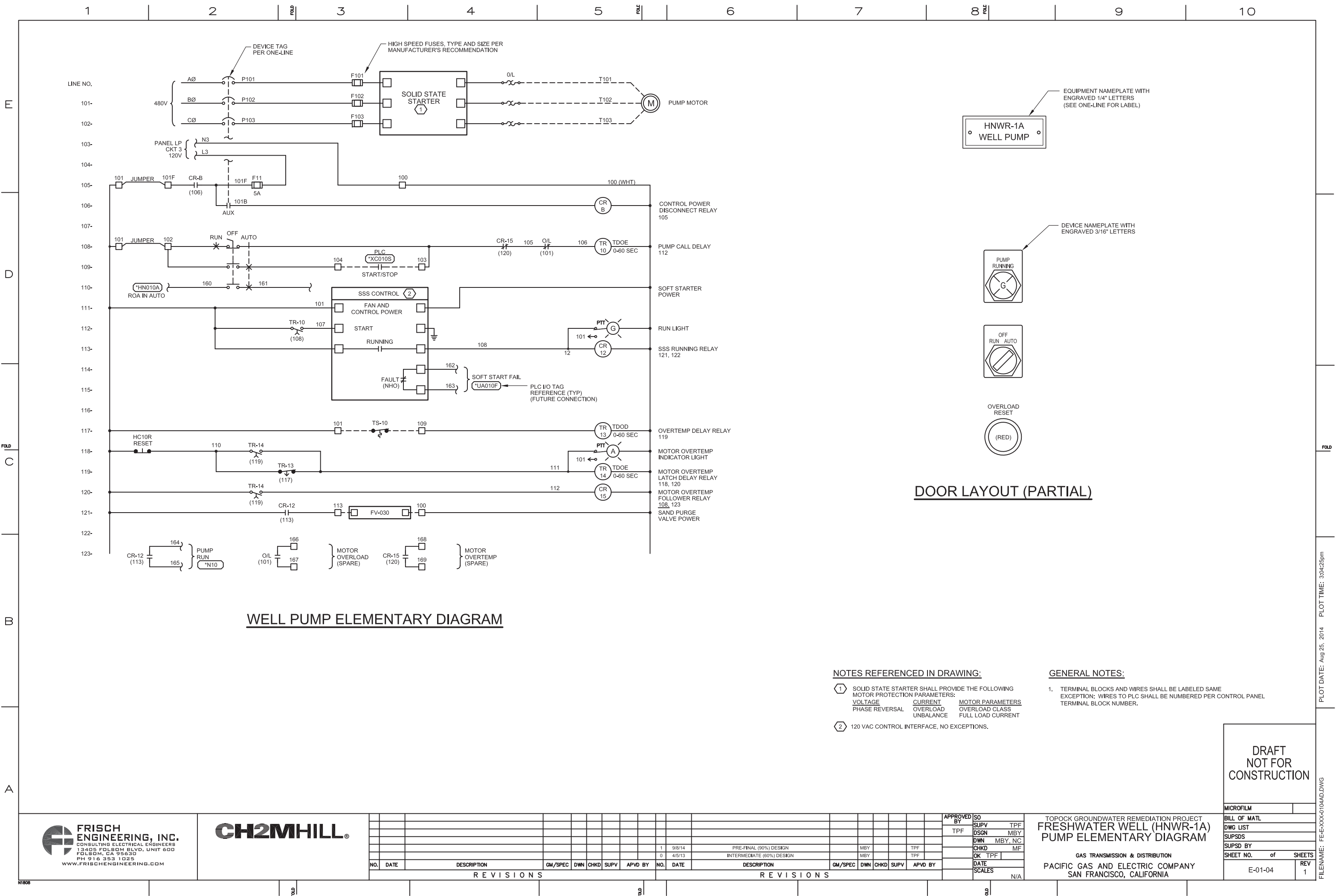


120/240 VAC DISTRIBUTION DIAGRAM  
NEUTRALS NOT SHOWN



APPROVED BY	SO	
TPF	SUPV	TPF
	DSGN	MBY
	DWN	MBY, NC
	CHKD	MF
	OK	TPF
	DATE	
	SCALES	
		N/A

MICROFILM		
BILL OF MATL		
DWG LIST		
SUPSDS		
SUPSD BY		
SHEET NO.	of	SHEETS
E-01-03		REV 1





**ELECTRICAL PLAN NOTES:**

1. SEE ELECTRICAL PLAN NOTES ON DRAWING E-00-02.

2. THE EQUIPMENT AND FACILITY SHOWN IS PART OF A CONTINGENT SYSTEM AND MAY BE CONSTRUCTED IN THE FUTURE.

**DRAWING REFERENCED NOTES:**

1. CONDUIT TRANSITION FROM BELOW GRADE TO ABOVE GRADE SHALL BE PER DWG E-00-52/DET 5 (TYPICAL).

2. UFER GROUND SHALL CONSIST OF #2 BARE COPPER CONDUCTOR CENTERED IN CONCRETE PAD (25 FEET MINIMUM). LOOP CONDUCTOR TO FIT WITHIN CONCRETE PAD. MAINTAIN 3" MINIMUM COVER OVER ALL PORTIONS OF CONDUCTOR.

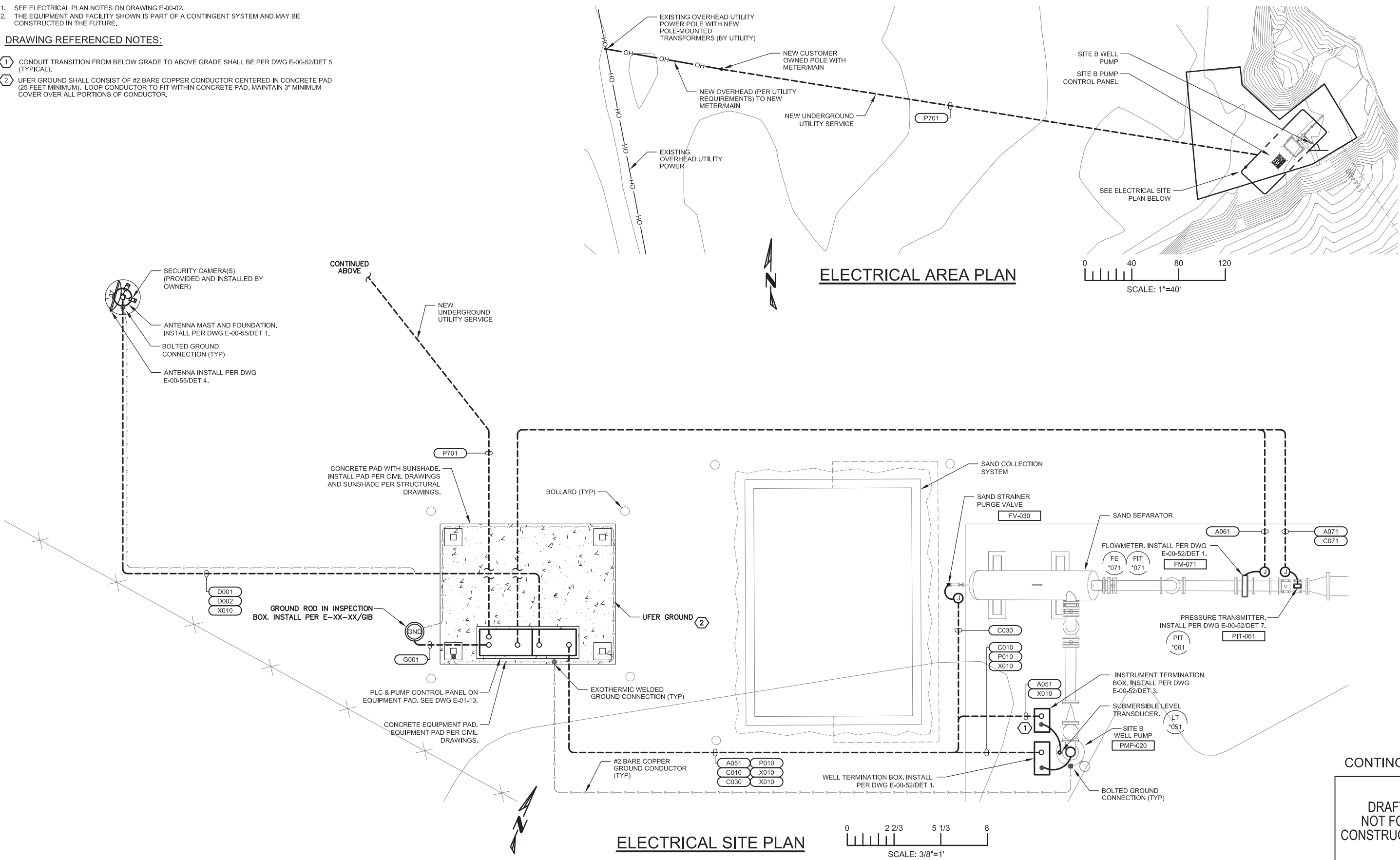
E

D

C

B

A



PLOT DATE: Aug 27, 2014 PLOT TIME: 8:41:51am

FILENAME: FE-E-XXX-0105AD SITE B.DWG

**FRISCH ENGINEERING, INC.**  
CONSULTING ELECTRICAL ENGINEERS  
13405 FOLSOM BLVD., UNIT 600  
FOLSOM, CA 95630  
PH 916 353 1025  
WWW.FRISCHENGINEERING.COM

**CH2MHILL**

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY	NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
REVISIONS															

APPROVED BY	SO	SUPV	TPF	DSGN	MBY	DWN	MBY, NC	CHKD	MF	OK	TPF	DATE	SCALES
TPF													N/A

TOPOCK GROUNDWATER REMEDIATION PROJECT  
**FRESHWATER WELL (SITE B)**  
**ELECTRICAL SITE PLAN**

GAS TRANSMISSION & DISTRIBUTION  
PACIFIC GAS AND ELECTRIC COMPANY  
SAN FRANCISCO, CALIFORNIA

**CONTINGENT**

**DRAFT NOT FOR CONSTRUCTION**

MICROFILM	
BILL OF MATL	DWG LIST
SUPSDS	SUPSD BY
SHEET NO.	of SHEETS
E-01-05	REV 0





