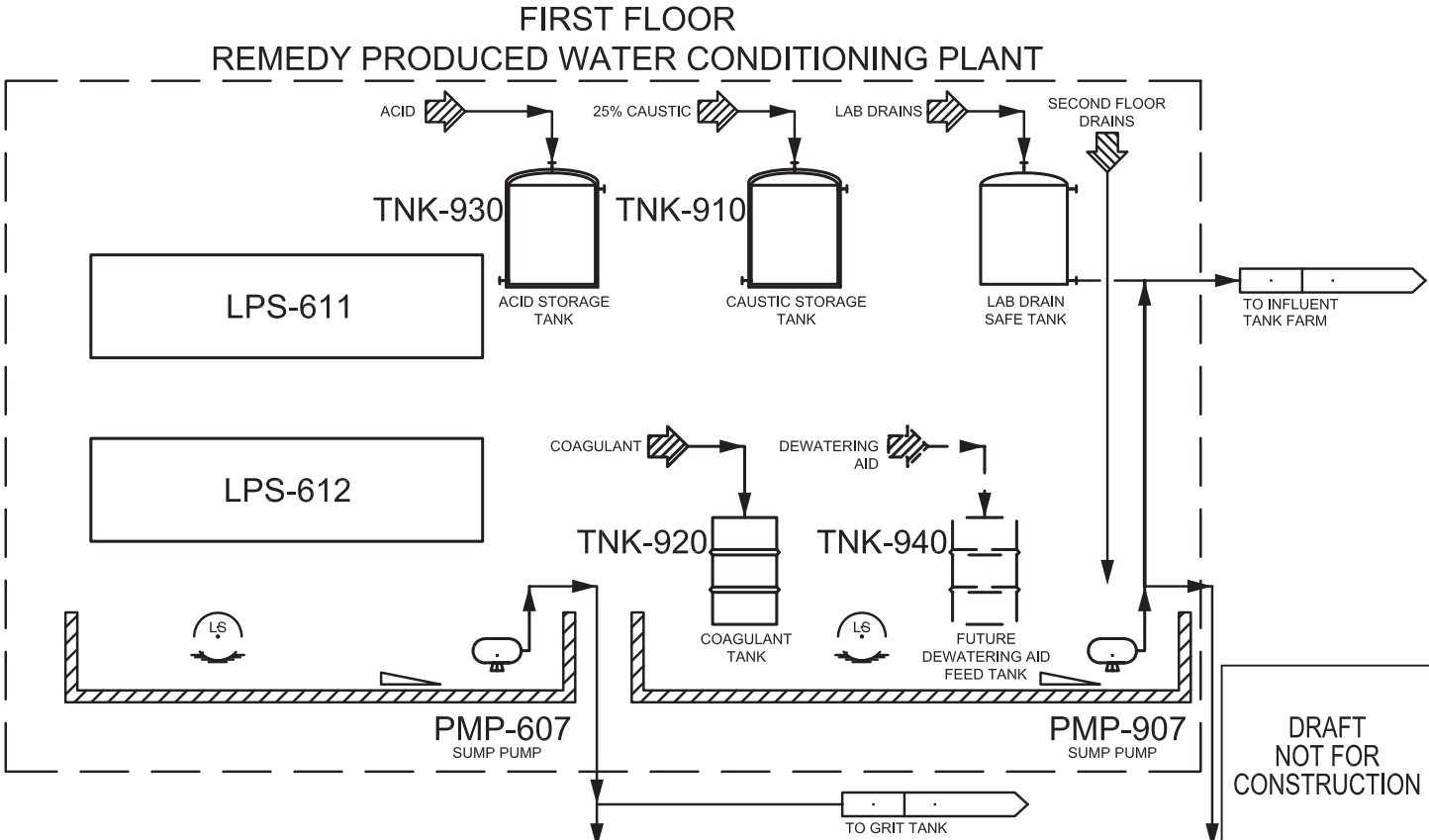
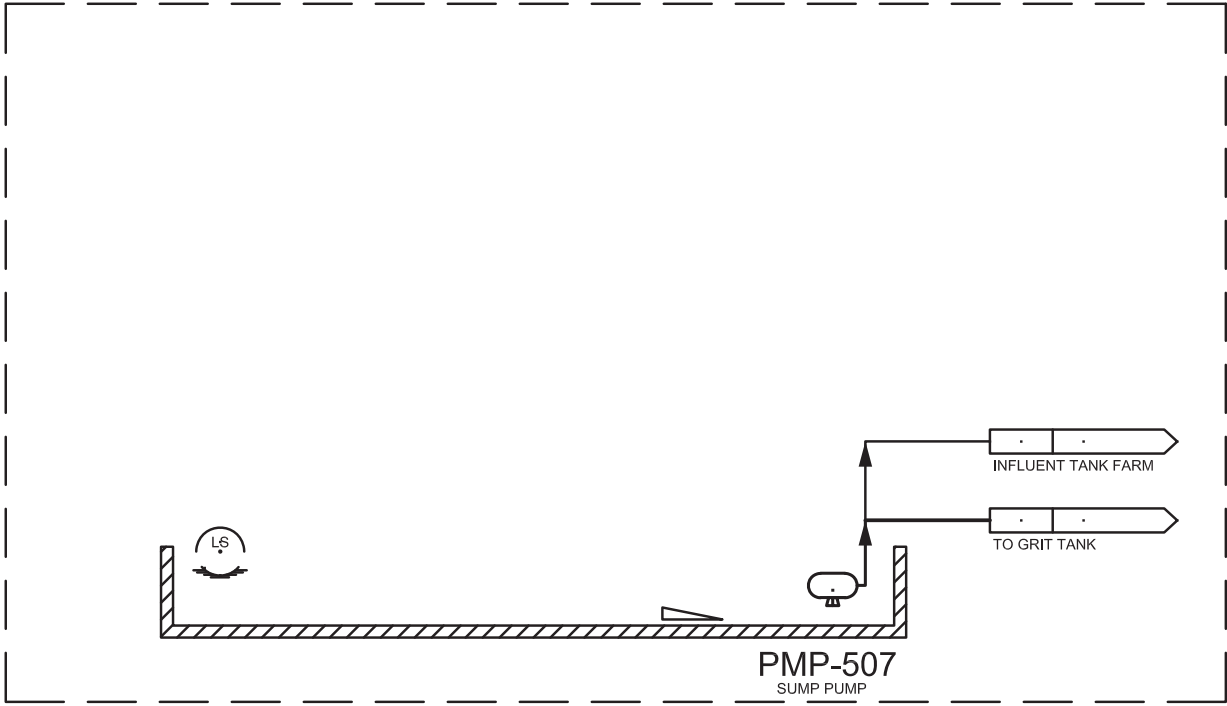




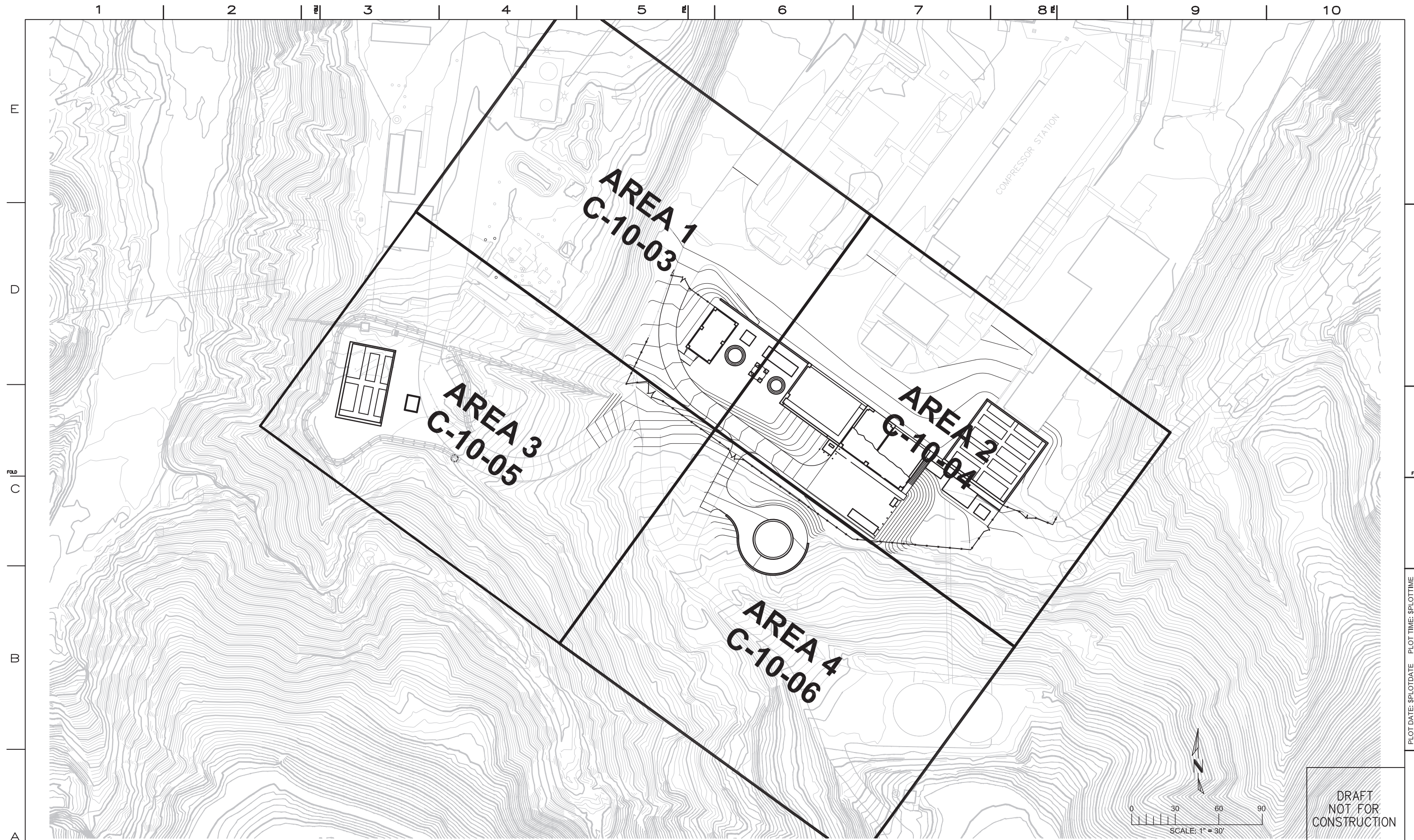
DRAFT
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CONSTRUCTION

[illegible]

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

TOPOCK GROUNDWATER REMEDIATION PROJECT
PROCESS SCHEMATIC
SECONDARY CONTAINMENT FOR
TCS / REMEDY PRODUCED WATER
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM		
BILL OF MATL		
DWG LIST		
SUPSDS		
SUPSD BY		
SHEET NO.	of	SHEETS
G-10-01		REV 2



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CONSTRUCTION

0 30 60 90

SCALE: 1" = 30'

TOPOCK GROUNDWATER REMEDIATION PROJECT

TCS AREA KEY MAP

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

MICROFILM

INVENTORY	
BILL OF MATL	

DWG LIST

SUPSDS

SUPSD BY

SHEET NO.

2

1

FILENAME: E2-C-XXX-1002



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

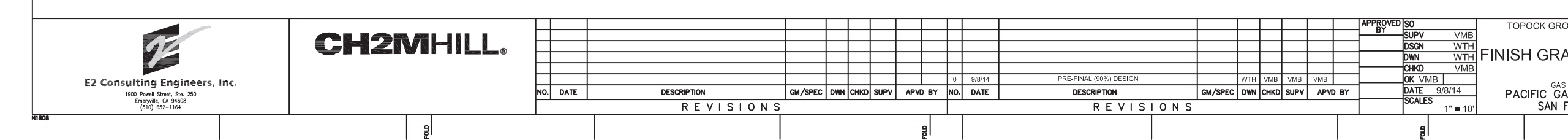
CH2MHILL®

[illegible]

APPROVED BY	SO
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	DSGN WTB
	DWN WTB
	CHKD VMB
	OK VMB
	DATE 9/8/14
	SCALES 1" = 20'

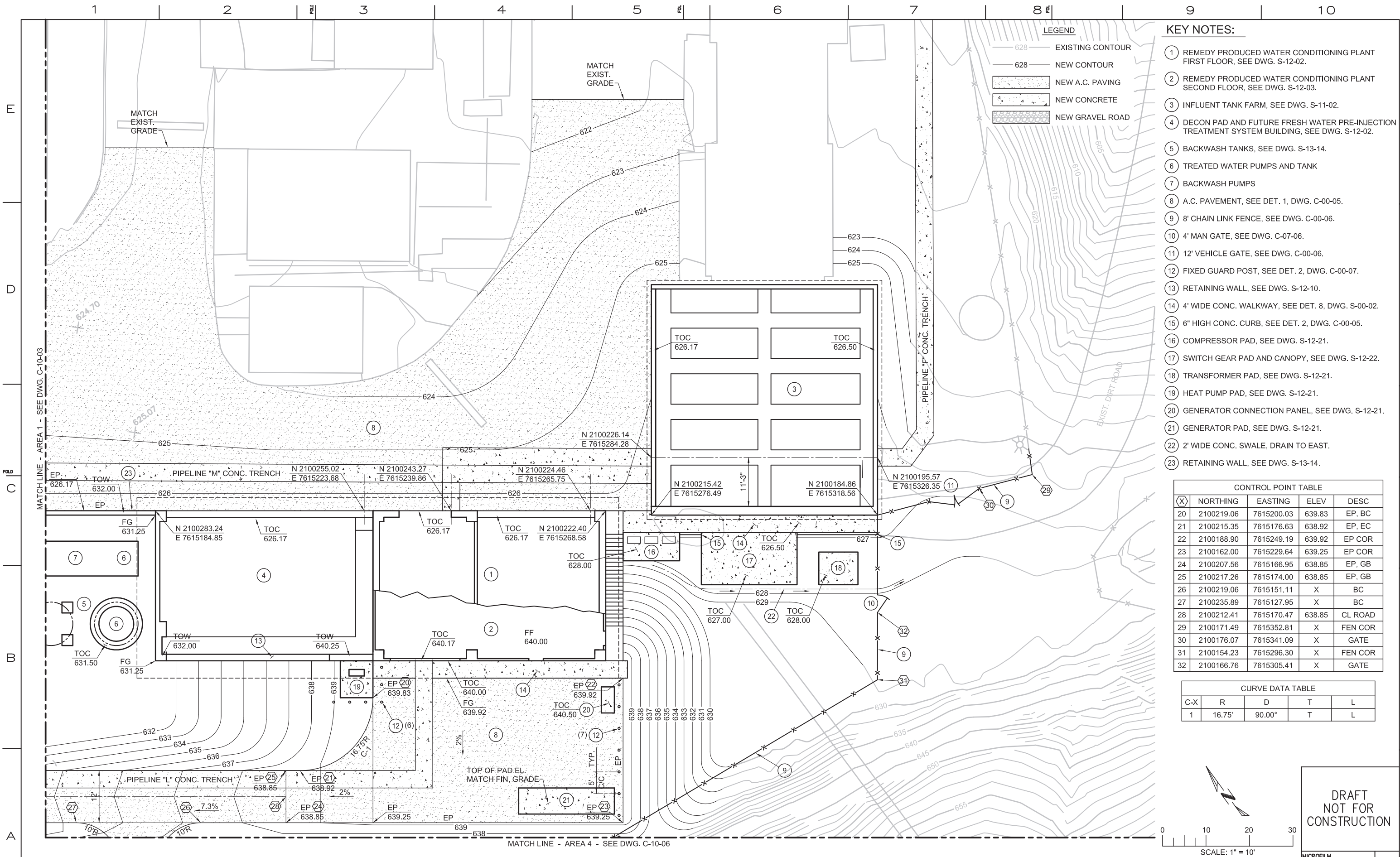
 $1'' = 20$

N1808



-
- The drawing shows a road layout with a scale bar at the bottom left. The scale bar is marked with 10, 20, and 30 feet. The text 'SCALE: 1" = 10'' is written below the scale bar. The road layout is shown with a centerline and a dashed line indicating a proposed change. The title block on the right contains the following text:
- DRAFT
NOT FOR
CONSTRUCTION
- | | |
|--------------|----------|
| MICROFILM | |
| BILL OF MATL | |
| DWG LIST | |
| SUPSDS | |
| SUPSD BY | |
| SHEET NO. | of SHEET |
| C-10-03 | REV 0 |
- 0

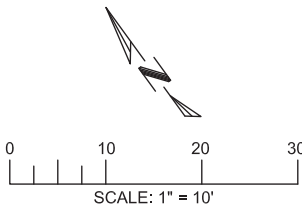
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- KEY NOTES:**
- 1 REMEDY PRODUCED WATER CONDITIONING PLANT FIRST FLOOR, SEE DWG. S-12-02.
 - 2 REMEDY PRODUCED WATER CONDITIONING PLANT SECOND FLOOR, SEE DWG. S-12-03.
 - 3 INFLUENT TANK FARM, SEE DWG. S-11-02.
 - 4 DECON PAD AND FUTURE FRESH WATER PRE-INJECTION TREATMENT SYSTEM BUILDING, SEE DWG. S-12-02.
 - 5 BACKWASH TANKS, SEE DWG. S-13-14.
 - 6 TREATED WATER PUMPS AND TANK
 - 7 BACKWASH PUMPS
 - 8 A.C. PAVEMENT, SEE DET. 1, DWG. C-00-05.
 - 9 8' CHAIN LINK FENCE, SEE DWG. C-00-06.
 - 10 4' MAN GATE, SEE DWG. C-07-06.
 - 11 12' VEHICLE GATE, SEE DWG. C-00-06.
 - 12 FIXED GUARD POST, SEE DET. 2, DWG. C-00-07.
 - 13 RETAINING WALL, SEE DWG. S-12-10.
 - 14 4' WIDE CONC. WALKWAY, SEE DET. 8, DWG. S-00-02.
 - 15 6" HIGH CONC. CURB, SEE DET. 2, DWG. C-00-05.
 - 16 COMPRESSOR PAD, SEE DWG. S-12-21.
 - 17 SWITCH GEAR PAD AND CANOPY, SEE DWG. S-12-22.
 - 18 TRANSFORMER PAD, SEE DWG. S-12-21.
 - 19 HEAT PUMP PAD, SEE DWG. S-12-21.
 - 20 GENERATOR CONNECTION PANEL, SEE DWG. S-12-21.
 - 21 GENERATOR PAD, SEE DWG. S-12-21.
 - 22 2' WIDE CONC. SWALE, DRAIN TO EAST.
 - 23 RETAINING WALL, SEE DWG. S-13-14.

CONTROL POINT TABLE				
C-X	NORTHING	EASTING	ELEV	DESC
20	2100219.06	7615200.03	639.83	EP, BC
21	2100215.35	7615176.63	638.92	EP, EC
22	2100188.90	7615249.19	639.92	EP COR
23	2100162.00	7615229.64	639.25	EP COR
24	2100207.56	7615166.95	638.85	EP, GB
25	2100217.26	7615174.00	638.85	EP, GB
26	2100219.06	7615151.11	X	BC
27	2100235.89	7615127.95	X	BC
28	2100212.41	7615170.47	638.85	CL ROAD
29	2100171.49	7615352.81	X	FEN COR
30	2100176.07	7615341.09	X	GATE
31	2100154.23	7615296.30	X	FEN COR
32	2100166.76	7615305.41	X	GATE

CURVE DATA TABLE				
C-X	R	D	T	L
1	16.75'	90.00°	T	L



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1900 Powell Street, Ste. 250
Emeryville, CA 94608
(510) 652-1164

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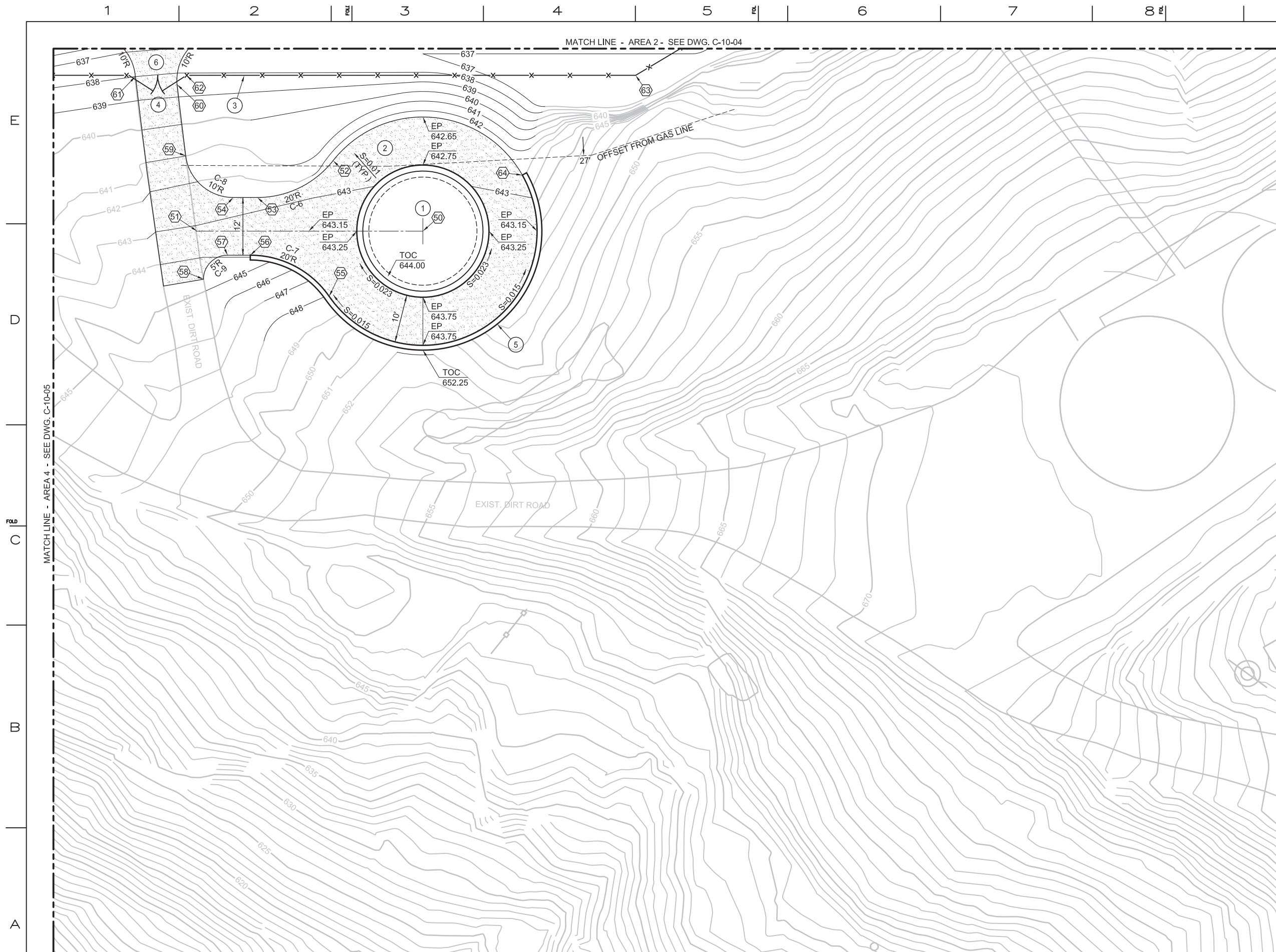
NO.		DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY	NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
REVISIONS																
0		9/8/14	PRE-FINAL (90%) DESIGN													

APPROVED BY	SO
	SUPV
	DSGN
	DWN
	CHKD
	OK VMB
	DATE 9/8/14
	SCALE 1" = 10'

TOPOCK GROUNDWATER REMEDIATION PROJECT
TCS AREA 2
FINISH GRADING AND PAVING PLAN
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM	
BILL OF MATL	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO.	of SHEETS
C-10-04	REV 0

FILENAME: E2-C-XXX-1004



KEY NOTES:

- ① CONDITIONED WATER STORAGE TANK, SEE DWG. S-14-01.
- ② 12' WIDE TANK ACCESS ROAD, SEE DWG. S-14-08.
- ③ 8' CHAIN LINK FENCE, SEE DWG. C-00-06.
- ④ 10' VEHICLE GATE, SEE DWG. C-00-06.
- ⑤ RETAINING WALL, SEE DWG. S-14-08.
- ⑥ A.C. PAVEMENT, SEE DET. 1, DWG. C-00-05.

CONTROL POINT TABLE				
(X)	NORTHING	EASTING	ELEV	DESC
50	2100161.39	7615160.09	X	CL TANK
51	2100189.12	7615121.92	X	CL ROAD
52	2100184.23	7615153.59	X	BC
53	2100187.29	7615136.36	X	EC
54	2100190.23	7615132.30	X	BC
55	2100161.87	7615136.35	X	BC
56	2100178.45	7615128.11	X	EC
57	2100181.23	7615124.28	X	BC
58	2100180.12	7615117.29	X	EC
59	2100203.06	7615129.37	X	EC
60	2100216.12	7615136.65	X	EC
61	2100222.55	7615130.59	X	EC
62	2100216.51	7615139.37	X	GATE
63	2100161.60	7615139.37	X	FEN COR
64	2100158.66	7615183.69	X	WALL

CURVE DATA TABLE				
C-X	R	D	T	L
6	20.00'	D	T	L
7	20.00'	D	T	L
8	10.00'	D	T	L
9	5.00'	D	T	L

LEGEND

- | | | |
|---|-----|------------------|
|  | 628 | EXISTING CONTOUR |
|  | 628 | NEW CONTOUR |
|  | | NEW A.C. PAVING |
|  | | NEW CONCRETE |
|  | | NEW GRAVEL ROAD |



0 10 20 30
SCALE: 1" = 10'

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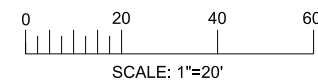
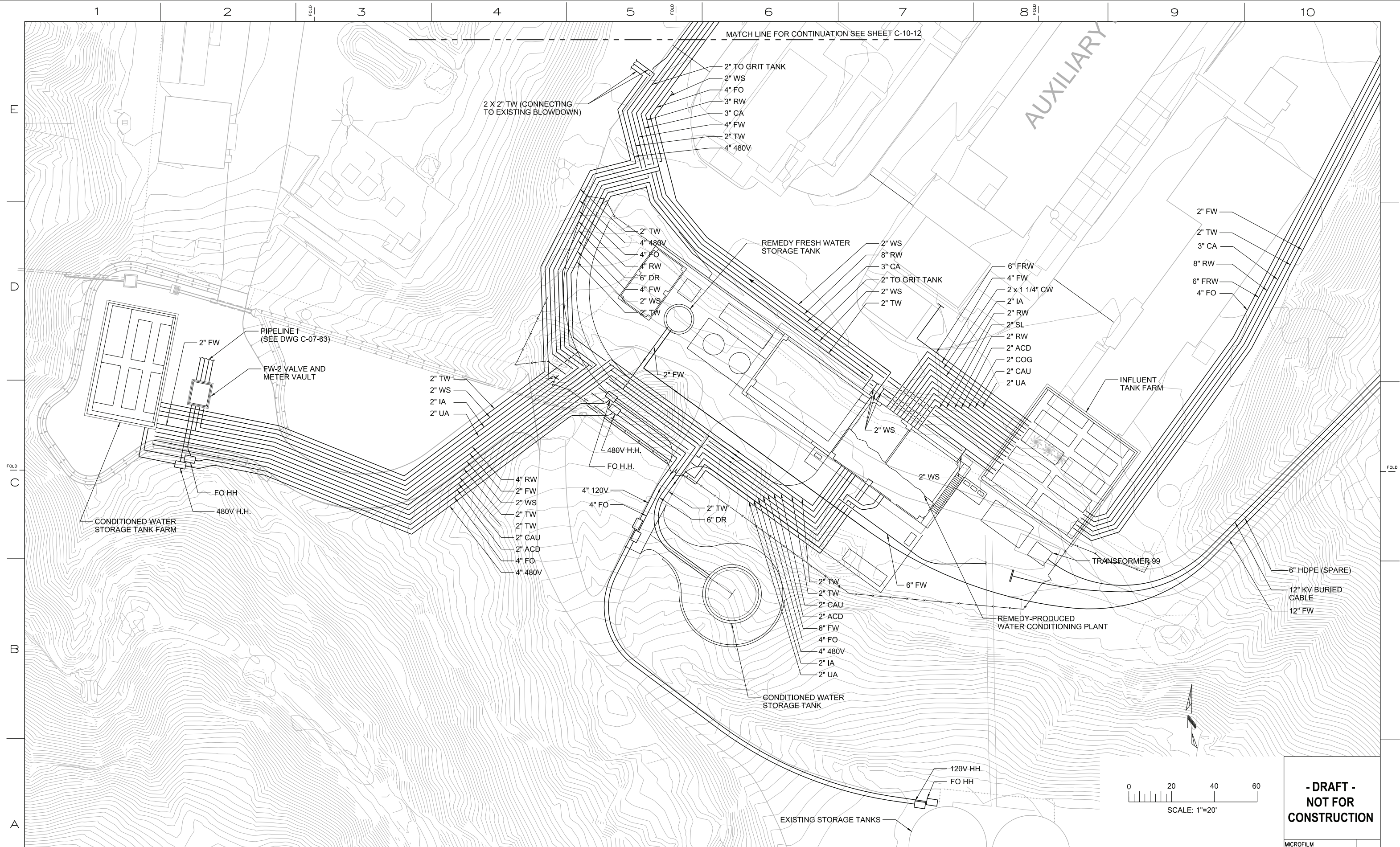
E2 Consulting Engineers, Inc.
1900 Powell Street, Ste. 250
Emeryville, CA 94608
(510) 652-1164

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APPROVED BY	SO
	SUPV VMB
	DSGN WTB
	DWN WTB
	CHKD VMB
	OK VMB
	DATE 9/8/14
	SCALES 1" = 10'

TOPOCK GROUNDWATER REMEDIATION PROJECT
TCS AREA 4
FINISH GRADING AND PAVING PLAN
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM		
BILL OF MATL		
QWG LIST		
SUPSDS		
SUPSD BY		
SHEET NO.		SHEETS
C-10-06		REV 0



**- DRAFT -
NOT FOR
CONSTRUCTION**

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2101 WEBSTER STREET SUITE 1000
OAKLAND, CA 94612-3060
PROJECT NO. 60272335

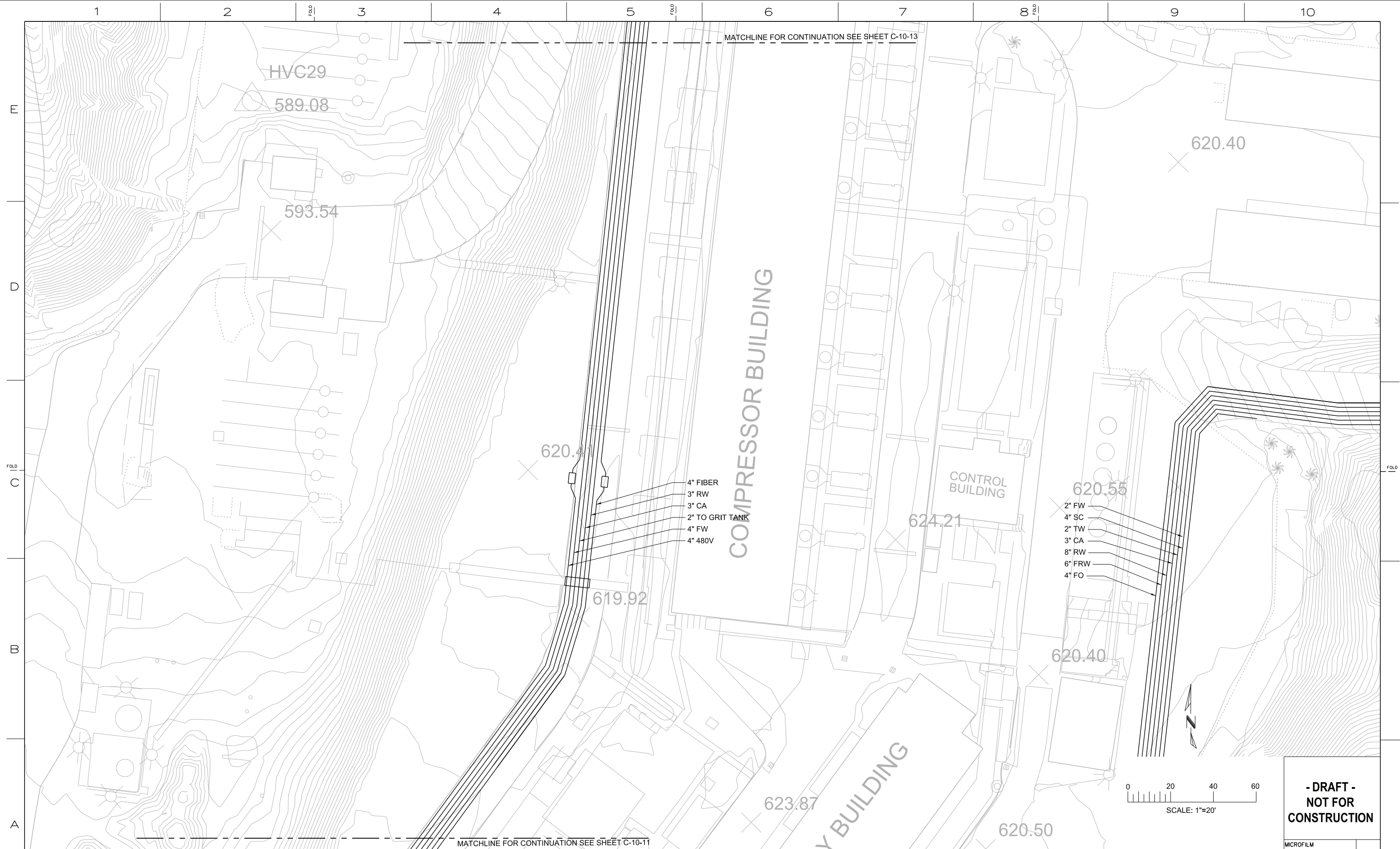
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TOPOCK GROUNDWATER REMEDIATION PROJECT

**PIPE LAYOUT
SHEET 1 OF 4**

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

MICROFILM		
BILL OF MATL		
DWG LIST		
SUPSDS		
SUPSD BY		
SHEET NO.	OF	SHEETS
C-10-11		REV 1



**- DRAFT -
NOT FOR
CONSTRUCTION**

MICROFILM

BILL OF MATL

DWG LIST

SUPSDS

SUPSD BY

SHEET NO. OF

C 10 13

0-10-12

AECOM

2101 WEBSTER STREET SUITE 1000
OAKLAND, CA 94612-3060

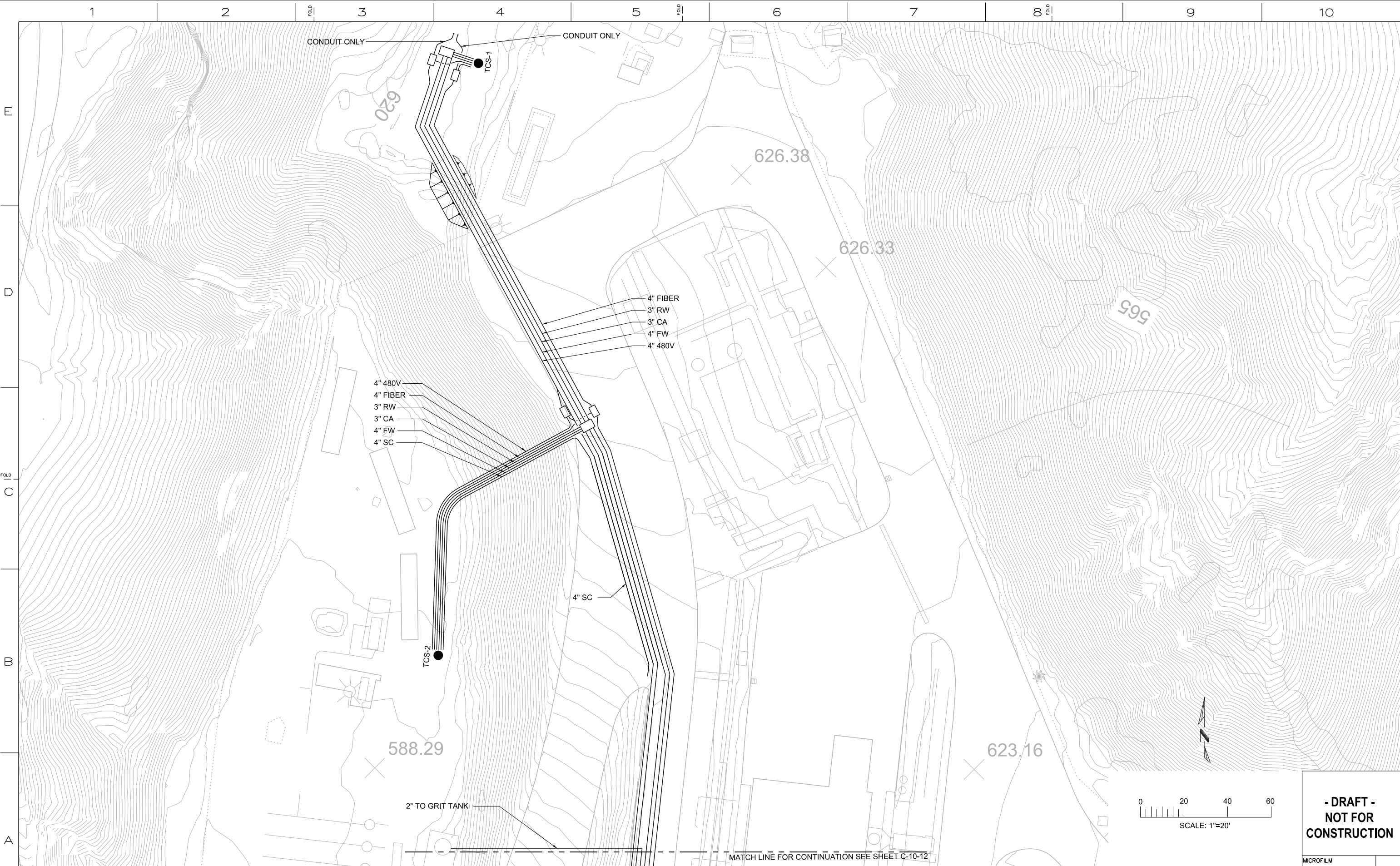
PROJECT NO. 60272335

TOPOCK GROUNDWATER REMEDIATION PROJECT

PIPE LAYOUT
SHEET 2 OF 4

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

[illegible]



AECOM
2101 WEBSTER STREET SUITE 1000
OAKLAND, CA 94612-3060
PROJECT NO. 60272335

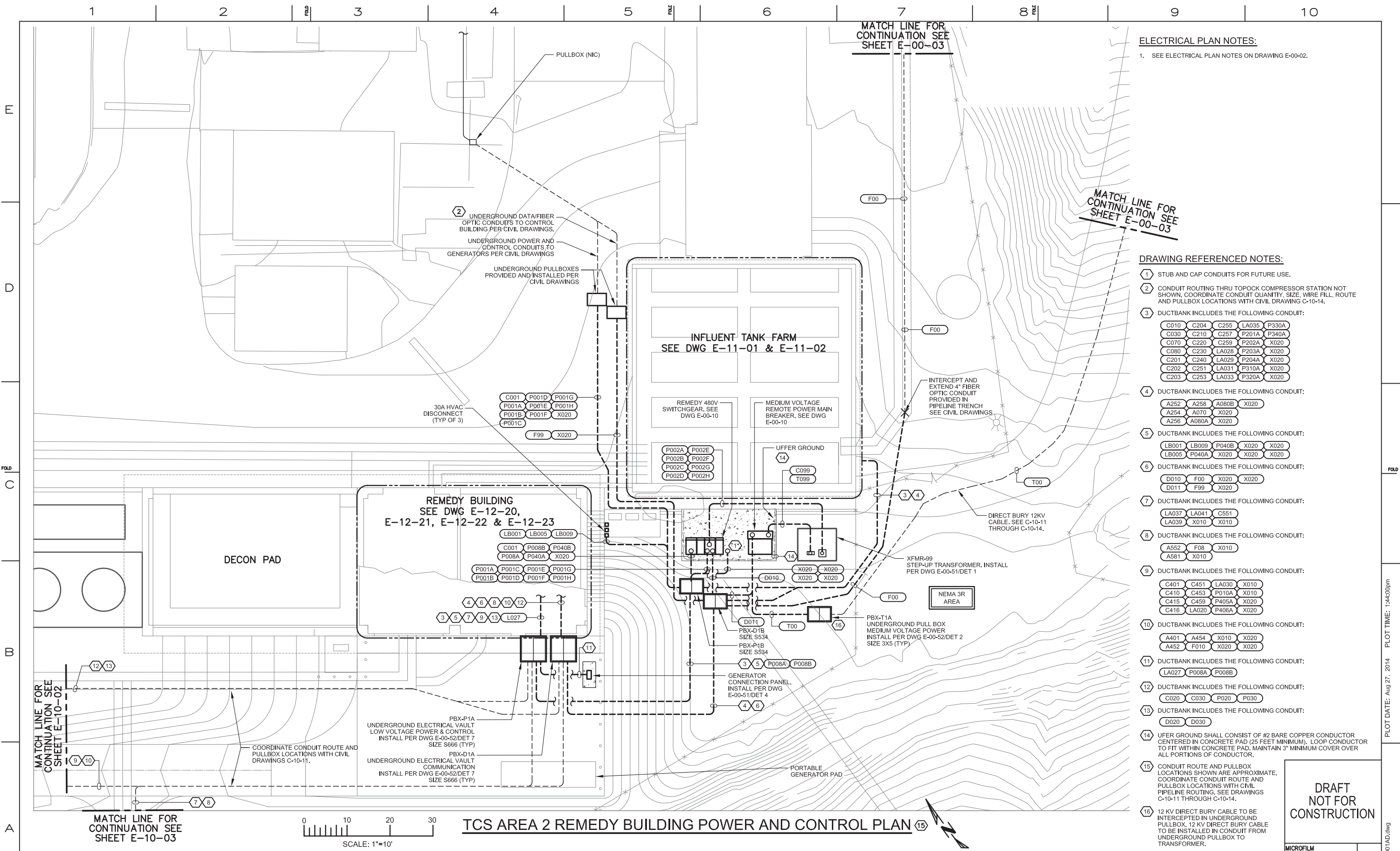
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1	9/8/14	PRE-FINAL (90%) DESIGN						0	4/5/13	INTERMEDIATE (60%) DESIGN									

APPROVED BY	SO	XXXX
	SUPV	PD
	DSGN	TL
	DWN	GO
	CHKD	JM
	OK	PD
DATE	9/8/14	
SCALE	1" = 20'-0"	

TOPOCK GROUNDWATER REMEDIATION PROJECT
**PIPE LAYOUT
SHEET 3 OF 4**
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
C-10-13	REV 1



ELECTRICAL PLAN NOTES:

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

- DRAWING REFERENCED NOTES:
1. STUB AND CAP CONDUITS FOR FUTURE USE.
2. CONDUIT ROUTING THRU TOPOCK COMPRESSOR STATION NOT SHOWN. COORDINATE CONDUIT QUANTITY, SIZE, WIRE FILL, ROUTE AND PULLBOX LOCATIONS WITH CIVIL DRAWING C-10-14.
3. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | | | |
|------|------|-------|-------|-------|
| C010 | C204 | C255 | LA035 | P330A |
| C030 | C210 | C257 | P201A | P340A |
| C070 | C220 | C259 | P202A | X020 |
| C080 | C230 | LA028 | P203A | X020 |
| C201 | C240 | LA029 | P204A | X020 |
| C202 | C251 | LA031 | P310A | X020 |
| C203 | C253 | LA033 | P320A | X020 |
4. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | | |
|------|-------|-------|------|
| A252 | A258 | A080B | X020 |
| A254 | A070 | X020 | |
| A256 | A080A | X020 | |
5. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | | | |
|-------|-------|-------|------|------|
| LB001 | LB009 | P040B | X020 | X020 |
| LB005 | P040A | X020 | X020 | X020 |
6. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | | |
|------|-----|------|------|
| D010 | F00 | X020 | X020 |
| D011 | F99 | X020 | |
7. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | |
|-------|-------|------|
| LA037 | LA041 | C551 |
| LA039 | X010 | X010 |
8. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | |
|------|------|------|
| A552 | F08 | X010 |
| A581 | X010 | |
9. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | | |
|------|-------|-------|------|
| C401 | C451 | LA030 | X010 |
| C410 | C453 | P010A | X010 |
| C415 | C459 | P405A | X020 |
| C416 | LA020 | P406A | X020 |
10. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | | |
|------|------|------|------|
| A401 | A454 | X010 | X020 |
| A452 | F010 | X020 | X020 |
11. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | |
|-------|-------|-------|
| LA027 | P008A | P008B |
|-------|-------|-------|
12. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | | | |
|------|------|------|------|
| C020 | C030 | P020 | P030 |
|------|------|------|------|
13. DUCTBANK INCLUDES THE FOLLOWING CONDUIT:
- | | |
|------|------|
| D020 | D030 |
|------|------|
14. 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.
15. CONDUIT ROUTE AND PULLBOX LOCATIONS SHOWN ARE APPROXIMATE. COORDINATE CONDUIT ROUTE AND PULLBOX LOCATIONS WITH CIVIL PIPELINE ROUTING. SEE DRAWINGS C-10-11 THROUGH C-10-14.
16. 12 KV DIRECT BURY CABLE TO BE INTERCEPTED IN UNDERGROUND PULLBOX. 12 KV DIRECT BURY CABLE TO BE INSTALLED IN CONDUIT FROM UNDERGROUND PULLBOX TO TRANSFORMER.

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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
0	9/8/14	PRE-FINAL (90%) DESIGN					MBY		TPF
NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY	NO.	DATE

APPROVED BY	SO
TPF	SUPV
	DSGN
	DWN
	CHKD
	OK
	TPF
	DATE
	SCALES
	N/A

TOPOCK GROUNDWATER REMEDIATION PROJECT
**TCS AREA 2
ELECTRICAL SITE PLAN**
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM	
BILL OF MATL	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO.	of
E-10-01	SHEETS
REV	0

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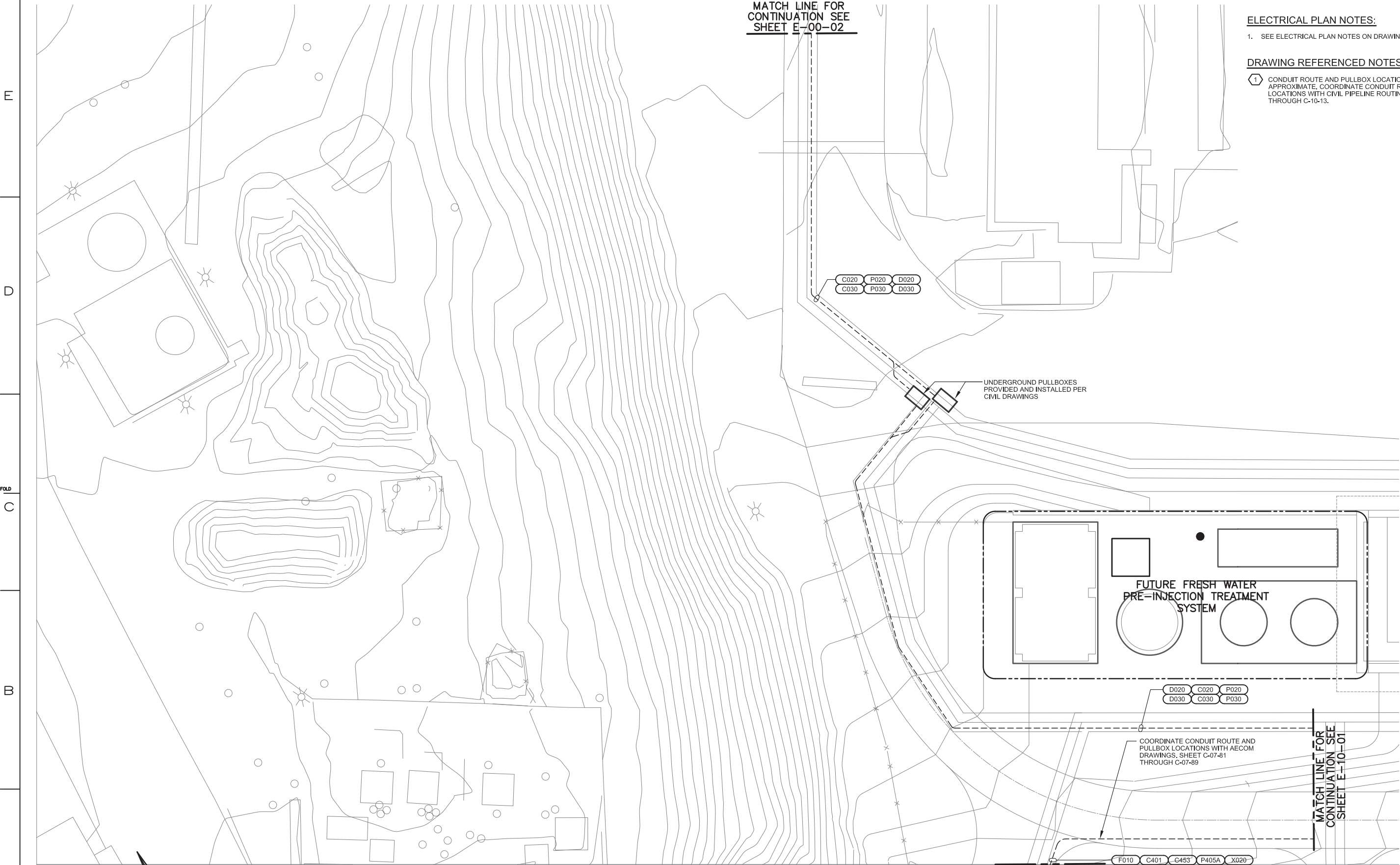
MATCH LINE FOR
CONTINUATION SEE
SHEET E-00-02

ELECTRICAL PLAN NOTES:

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

DRAWING REFERENCED NOTES:

- 1 CONDUIT ROUTE AND PULLBOX LOCATIONS SHOWN ARE APPROXIMATE. COORDINATE CONDUIT ROUTE AND PULLBOX LOCATIONS WITH CIVIL PIPELINE ROUTING. SEE DRAWINGS C-10-11 THROUGH C-10-13.



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CONSTRUCTION

MICROFILM		
BILL OF MATL		
DWG LIST		
GUPSDS		
GUPSD BY		
SHEET NO.	of	SHEET
E-10-02		REV 0

FILENAME: FE-E-xxx-1001AD.dwg PLOT DATE: Aug 27, 2014 PLOT TIME: 1:45:35pm

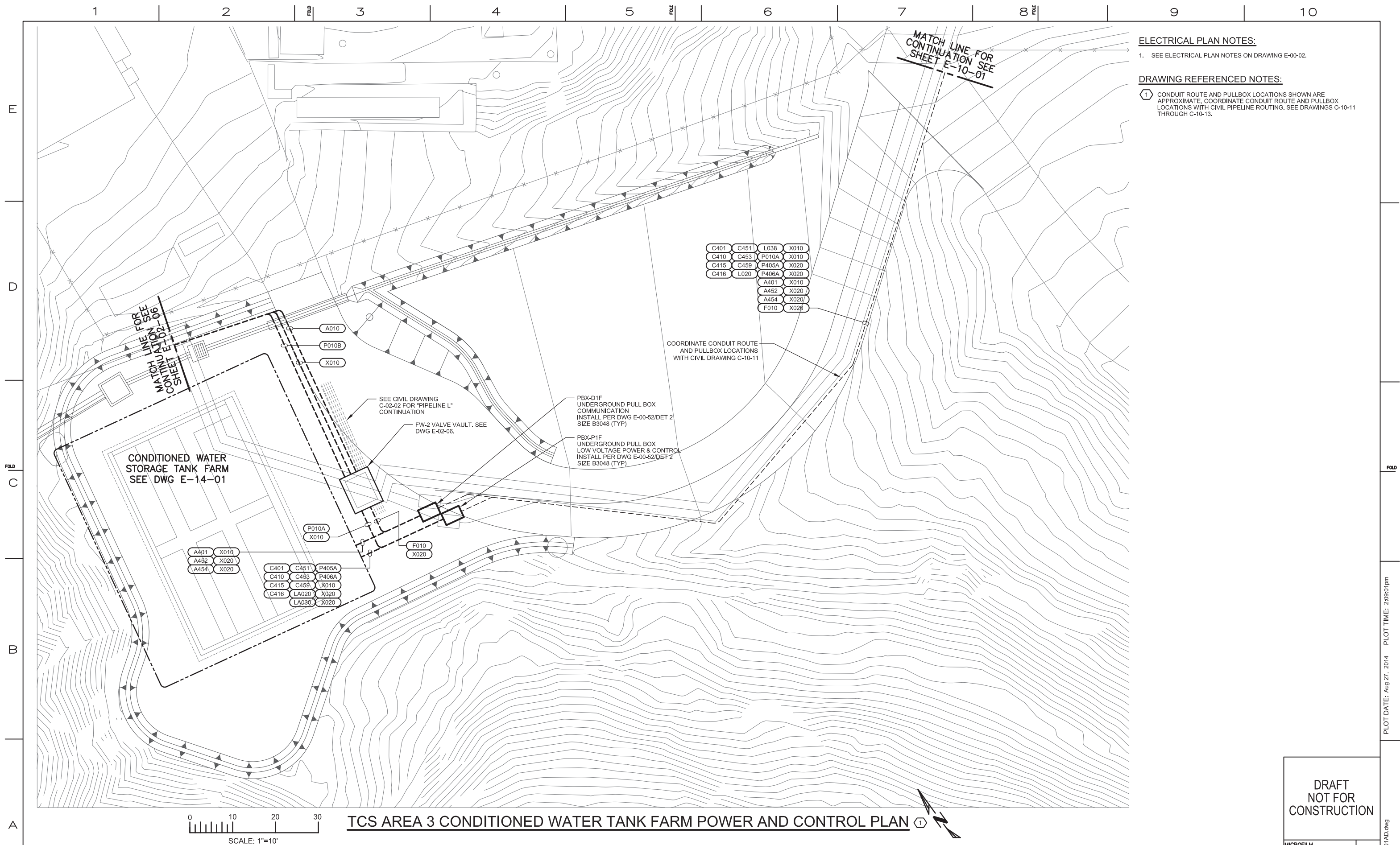
 **FRISCH
ENGINEERING, INC.**
CONSULTING ELECTRICAL ENGINEERS
13405 FOLSOM BLVD, UNIT 600
FOLSOM, CA 95630
PH 916 353 1025
WWW.FRISCHENGINEERING.COM

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[illegible]

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

TOPOCK GROUNDWATER REMEDIATION PROJECT
TCS AREA 1
ELECTRICAL SITE PLAN
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA



ELECTRICAL PLAN NOTES:

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

DRAWING REFERENCED NOTES:

- 1 CONDUIT ROUTE AND PULLBOX LOCATIONS SHOWN ARE APPROXIMATE. COORDINATE CONDUIT ROUTE AND PULLBOX LOCATIONS WITH CIVIL PIPELINE ROUTING. SEE DRAWINGS C-10-11 THROUGH C-10-13.

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NOT FOR
CONSTRUCTION



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

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[illegible]

	APPROVED BY	SO
	TPF	SUPV TPF
		DSGN ME
		DWN MBY, N
		CHKD M
		OK TPF
Y		DATE
		SCALES
		N

TOPOCK GROUNDWATER REMEDIATION PROJECT
TCS AREA 3
ELECTRICAL SITE PLAN
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM	
BILL OF MATL	
DWG LIST	
SUPSDS	
SUPSD BY	
SHEET NO.	of SHEET
E-10-04	REV 0

FILE NAME: EE-E-xxx-1007AD.dwg	PLOT DATE: Aug 27 2014	PLOT TIME: 2:09:01pm
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