

Appendix A
Design Drawings

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PRELIMINARY
NOT FOR CONSTRUCTION
07/03/2014

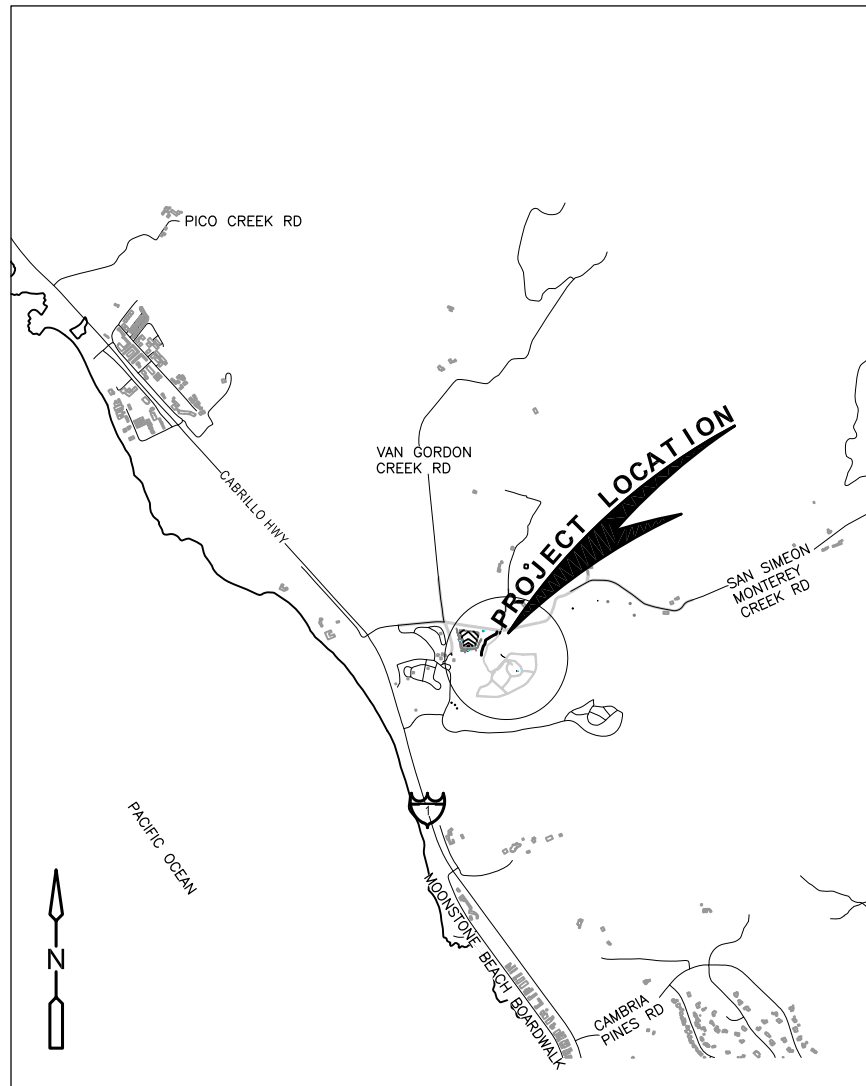
CAMBRIA, CALIFORNIA

EMERGENCY WATER SUPPLY PROJECT

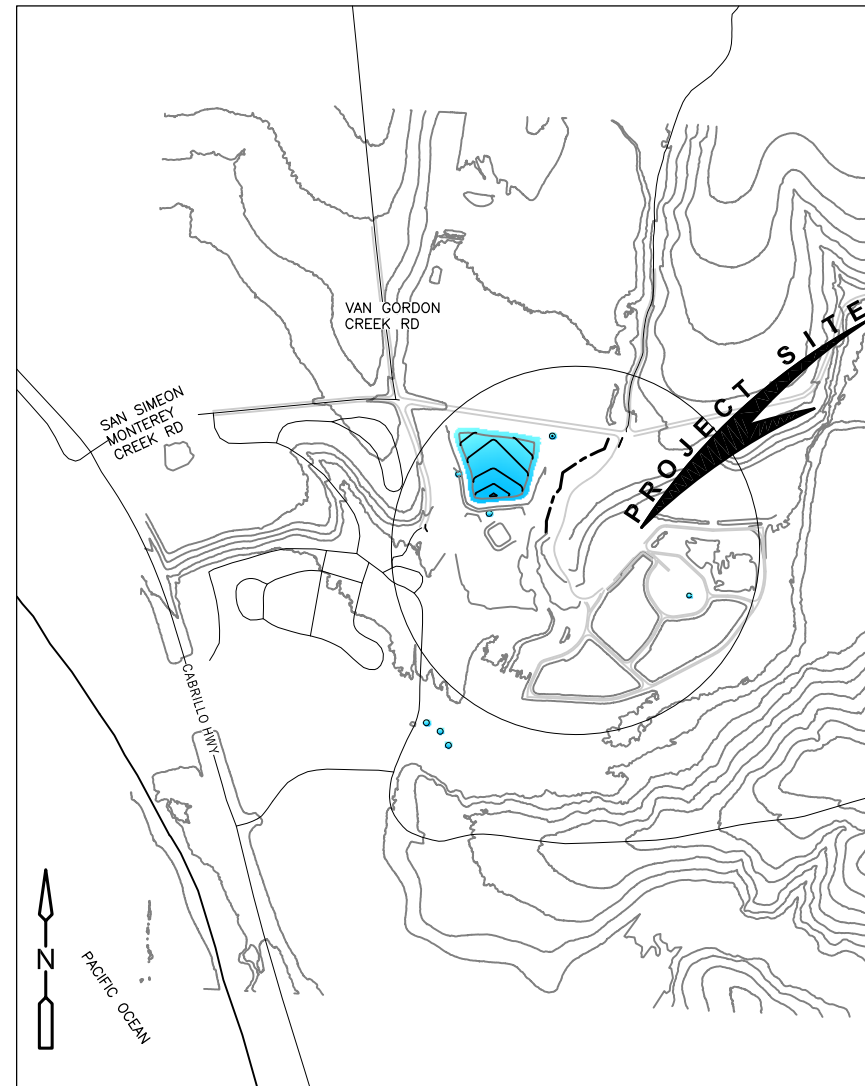
PWC # XXX

90% DESIGN SUBMITTAL
JULY 2014

SHT NO.	DWG NO.	SHEET INDEX	SHEET TITLE	INCLUDED
1	G-1		TITLE SHEET & SHEET INDEX	X
2	G-2		GENERAL NOTES & LEGENDS & ABBREVIATIONS	X
3	P-1		PROCESS FLOW DIAGRAM	X
4	C-1		OVERALL SITE PLAN	X
5	C-2		CONVEYANCE PIPING PLAN	X
6	C-3		AWTP GRADING AND DRAINAGE PLAN	X
7	C-4		AWTP YARD PIPING PLAN	X
8	C-5		BRINE EVAPORATION POND PLAN	X
9	C-6		BRINE EVAPORATION POND SECTION AND DETAILS I	X
10	C-7		BRINE EVAPORATION POND SECTION AND DETAILS II	X
11	C-8		CIVIL DETAILS I	X
12	C-9		CIVIL DETAILS II	X
13	S-1		AWTP STRUCTURAL GENERAL NOTES	X
14	S-2		AWTP STRUCTURAL DETAILS	X
15	M-1		MECHANICAL NOTES, LEGENDS, AND PIPE SCHEDULE	X
16	M-2		CONTROL ROOM GENERAL ARRANGEMENT	X
17	M-3		UF GENERAL ARRANGEMENT	X
18	M-4		RO TRAIN #1 GENERAL ARRANGEMENT	X
19	M-5		RO TRAIN #2 GENERAL ARRANGEMENT	X
20	M-6		THIRD STAGE RO GENERAL ARRANGEMENT (NOT INCLUDED IN THIS SET)	X
21	M-7		UV GENERAL ARRANGEMENT	X
22	M-8		CHEMICAL SYSTEM GENERAL ARRANGEMENT	X
23	E-1		ELECTRICAL NOTES, LEGENDS, AND ABBREVIATIONS 1 OF 2	X
24	E-2		ELECTRICAL NOTES, LEGENDS, AND ABBREVIATIONS 2 OF 2	X
25	E-3		ELECTRICAL SINGLE LINE DIAGRAM - AWTP	X
26	E-4		ELECTRICAL POWER AND CONTROL PLAN - AWTP	X
27	E-5		ELECTRICAL SINGLE LINE DIAGRAM - EVAPORATION POND	X
28	E-6		ELECTRICAL POWER AND CONTROL PLAN - EVAPORATION POND	X
29	E-7		ELECTRICAL LIGHTING PANELBOARD AND FIXTURE SCHEDULES 1 OF 2	X
30	E-8		ELECTRICAL LIGHTING PANELBOARD AND FIXTURE SCHEDULES 2 OF 2	X
31	E-9		ELECTRICAL DETAILS 1 OF 2	X
32	E-10		ELECTRICAL DETAILS 1 OF 2	X
33	E-11		ELECTRICAL CA TITLE 24 LIGHTING CALCULATION 1	X
34	E-12		ELECTRICAL CA TITLE 24 LIGHTING CALCULATION 2	X
35	I-1		INSTRUMENTATION LEGENDS, SYMBOLS, AND ABBREVIATIONS	X
36	I-2		OVERALL SYSTEM ARCHITECTURE	X
37	I-3		P&ID - SUPPLY WELL	X
38	I-4		P&ID - AWTP INFLUENT TANK AND MF FEED PUMP	X
39	I-5		P&ID - MF CONTAINER	X
40	I-6		P&ID - BREAK/BACKWASH TANK AND MF CIP TANK	X
41	I-7		P&ID - RO FEED SUPPLY PUMPS AND PRIMARY RO TRAINS 1 AND 2	X
42	I-8		P&ID - THIRD STAGE RO	X
43	I-9		P&ID - UV	X
44	I-10		P&ID - PRODUCT WATER TANK, PUMP STATION AND RIW INJECTION	X
45	I-11		P&ID - CHEMICAL SYSTEMS	X
46	I-12		P&ID - BRINE EVAPORATION SYSTEM	X
H2OI INNOVATION SUPPLY P&IDS				
47	O-14024-C01-0290		MF FEED PUMP SKID - P&ID	X
48	O-14024-C01-0300		MF STRAINER STATION - P&ID	X
49	O-14024-C01-0310		MICROFILTRATION UNIT W/ FCV - P&ID	X
50	O-14024-C01-0360		MF BACKPULSE SYSTEM - P&ID	X
51	O-14024-C01-0370		MF CIP SYSTEM W/ VFD CONTROLLED PUMP - P&ID	X
52	O-14024-C01-0400		RO FEED PUMP SKID - P&ID	X
53	O-14024-C01-0410		PRIMARY RO TRAIN 1 CONTAINER - P&ID	X
54	O-14024-C01-0411		PRIMARY RO TRAIN 2 CONTAINER - P&ID	X
55	O-14024-C01-0420		INTERSTAGE BOOSTER PUMP - P&ID	X
56	O-14024-C01-0421		THIRD STAGE RO - P&ID	X
57	O-14024-C01-0470		RO CIP SYSTEM - P&ID	X
58	O-14024-C01-0800-1		DOSING SKIDS - SINGLE PUMP SKID - P&ID	X
59	O-14024-C01-0800-2		DOSING SKIDS - SINGLE PUMP SKID - P&ID	X
60	O-14024-C01-0810		CHEMICAL TREATMENT BUILDING - P&ID	X
61	O-14024-C01-0950		AIR COMPRESSOR SYSTEM - AIR SCOUT & MIT AS SEPARATE LINES - P&ID	X
62	O-14024-C01-0990		UF BACKPULSE SYSTEM - P&ID	X
TROJAN SUPPLY P&IDS				
63	TYPICAL		P&ID - UV SYSTEM OVERVIEW	X
64	TYPICAL		P&ID - UV	X



VICINITY MAP



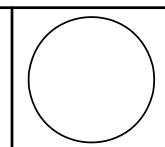
LOCATION MAP

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____ E.Y.
DRAWN BY: _____ O.N.
SHEET CHK'D BY: _____
CROSS CHK'D BY: _____
APPROVED BY: _____
DATE: _____ JULY 2014

WARNING
0 1/2" 1"
IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY



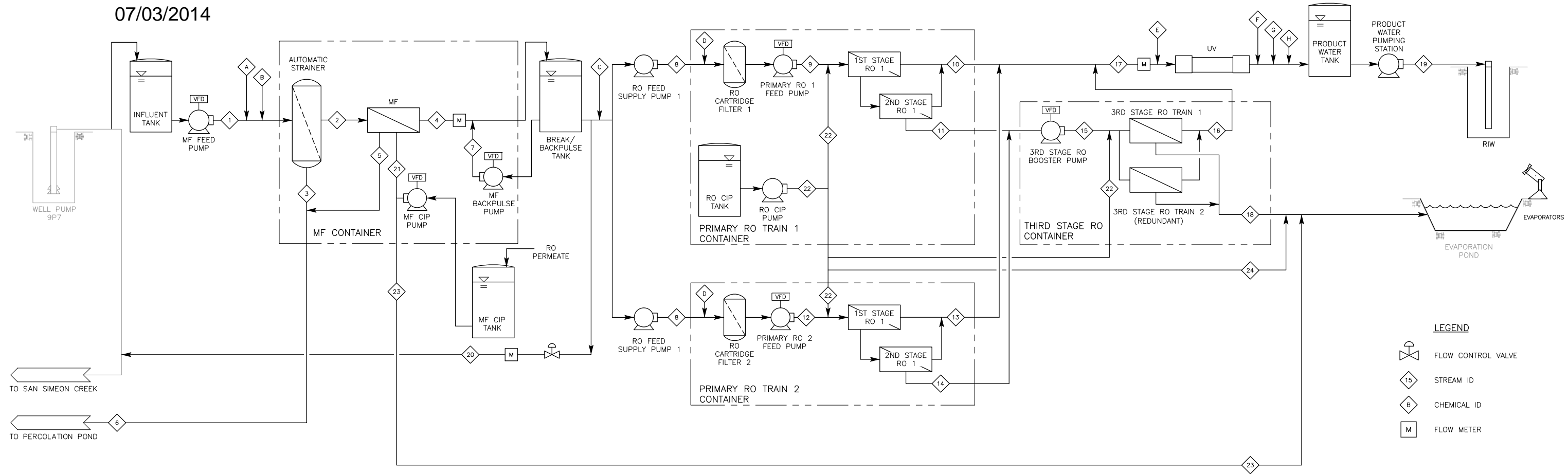
CAMBRIA EMERGENCY WATER SUPPLY PROJECT
CAMBRIA COMMUNITY SERVICE DISTRICT

TITLE SHEET AND SHEET INDEX

PROJECT NO. 138760-104133
FILE NAME:
SHEET NO.
G-01

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014



LEGEND

- FLOW CONTROL VALVE
- STREAM ID
- CHEMICAL ID
- FLOW METER

FLOW BALANCE

AUTOMATIC STRAINER RECOVERY	99%
MF RECOVERY	92%
OVERALL RO RECOVERY	92%
CIP WASTE	0.5%

FLOW STREAM	AWTP FEED	MF FEED	AUTOMATIC STRAINER WASTE	MF FILTRATE	MF BACKWASH WASTE (NOTE 1)	MF AND AUTOMATIC STRAINER COMBINED WASTE	MF BACKWASH FEED (NOTE 1)	COMBINED RO FEED	PRIMARY RO 1 FEED	PRIMARY RO 1 PERMEATE	PRIMARY RO 1 CONCENTRATE	PRIMARY RO 2 FEED	PRIMARY RO 2 PERMEATE	PRIMARY RO 2 CONCENTRATE	THIRD STAGE RO FEED	THIRD STAGE RO PERMEATE	COMBINED RO PERMEATE	THIRD STAGE RO CONCENTRATE	PRODUCT WATER TO RECHARGE INJECTION WELL (RIW)	MF FILTRATE TO SAN SIMEON CREEK LAGOON	MF CIP FEED (NOTE 1)	RO CIP FEED (NOTE 1)	MF CIP WASTE (NOTE 1)	RO CIP WASTE (NOTE 1)
FLOW STREAM ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Average Flow (GPM)	691	684	7	629	55	62	55	529	265	212	53	265	212	53	106	64	487	42	484	100	2	1	2	1
Pressure (psi)	40	30	5	5	5	30	30	122	15	115	122	15	115	122	15	215	15	20	30	20	20	20	20	20
TDS (mg/L)	1374	1374	1374	1374	-	1374	1374	1374	1366	101	6756	1366	101	6756	6756	1108	222	14529	222	1374	-	-	-	-

NOTES

- INTERMITTENT FLOW.
- ALL THE CHEMICAL DOSING SKIDS EXCEPT THRESHOLD INHIBITOR WILL BE INSTALLED IN CONTAINER 5 (NOT SHOWN). THRESHOLD INHIBITOR DOSING SKIDS WILL BE INSTALLED IN CONTAINER 2 AND CONTAINER 3.
- MAIN CONTROL ROOM AND OFFICE SPACE WILL BE SUPPLIED IN CONTAINER 6 (NOT SHOWN).
- RO FLOW CONDITIONS ARE BASED ON AN AVERAGE MEMBRANE AGE OF 3 YEARS.

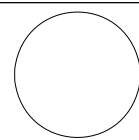
CHEMICAL	AQUEOUS AMMONIA	SODIUM HYPOCHLORITE	SULFURIC ACID	THRESHOLD INHIBITOR	HYDROGEN PEROXIDE	SODIUM HYPOCHLORITE	CALCIUM CHLORIDE	SODIUM HYDROXIDE
CHEMICAL STREAM ID	A	B	C	D	E	F	G	H
Bulk Chemical Concentration	19.00%	12.50%	93.00%	100.00%	27.00%	12.50%	34.70%	25.00%
Chemical Dose, Max	1.5 mg/L	6.0 mg/L	45 mg/L	3.0 mg/L	5.0 mg/L	19 mg/L	40 mg/L	50 mg/L
Dosing Rate, Max	8.5 gpd	39 gpd	21 gpd	0.9 gpd	12 gpd	87 gpd	60 gpd	112 gpd

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____
 DRAWN BY: _____ RH
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: _____ JUNE, 2014

WARNING
 0 1/2" 1"
 IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY



**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

PROCESS FLOW DIAGRAM

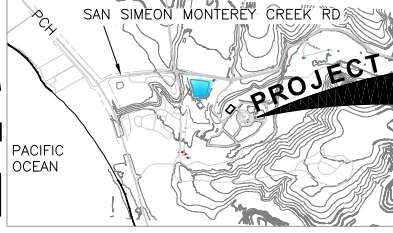
PROJECT NO. 138760-104133
FILE NAME:

SHEET NO.

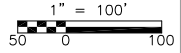
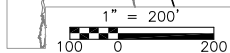
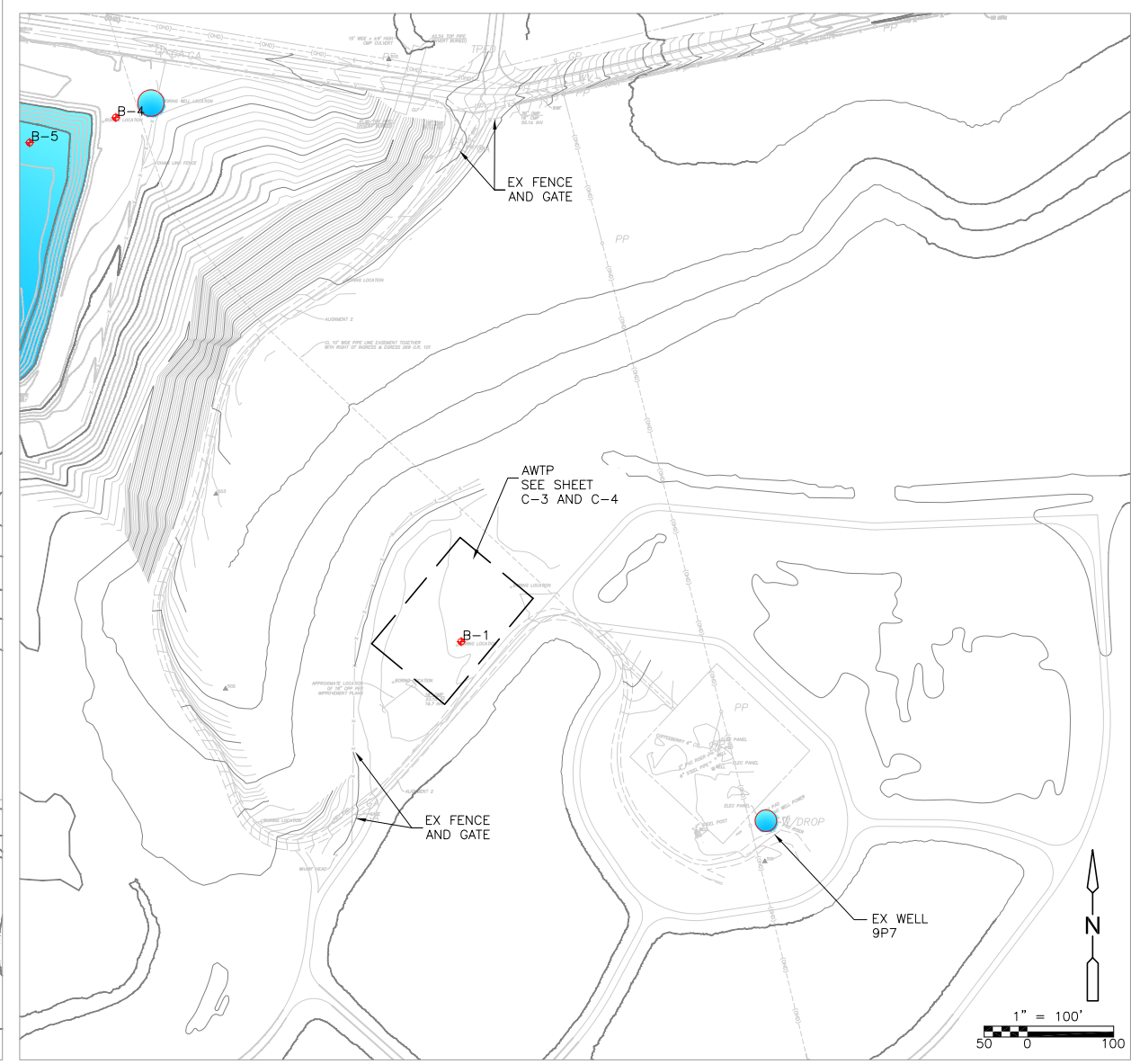
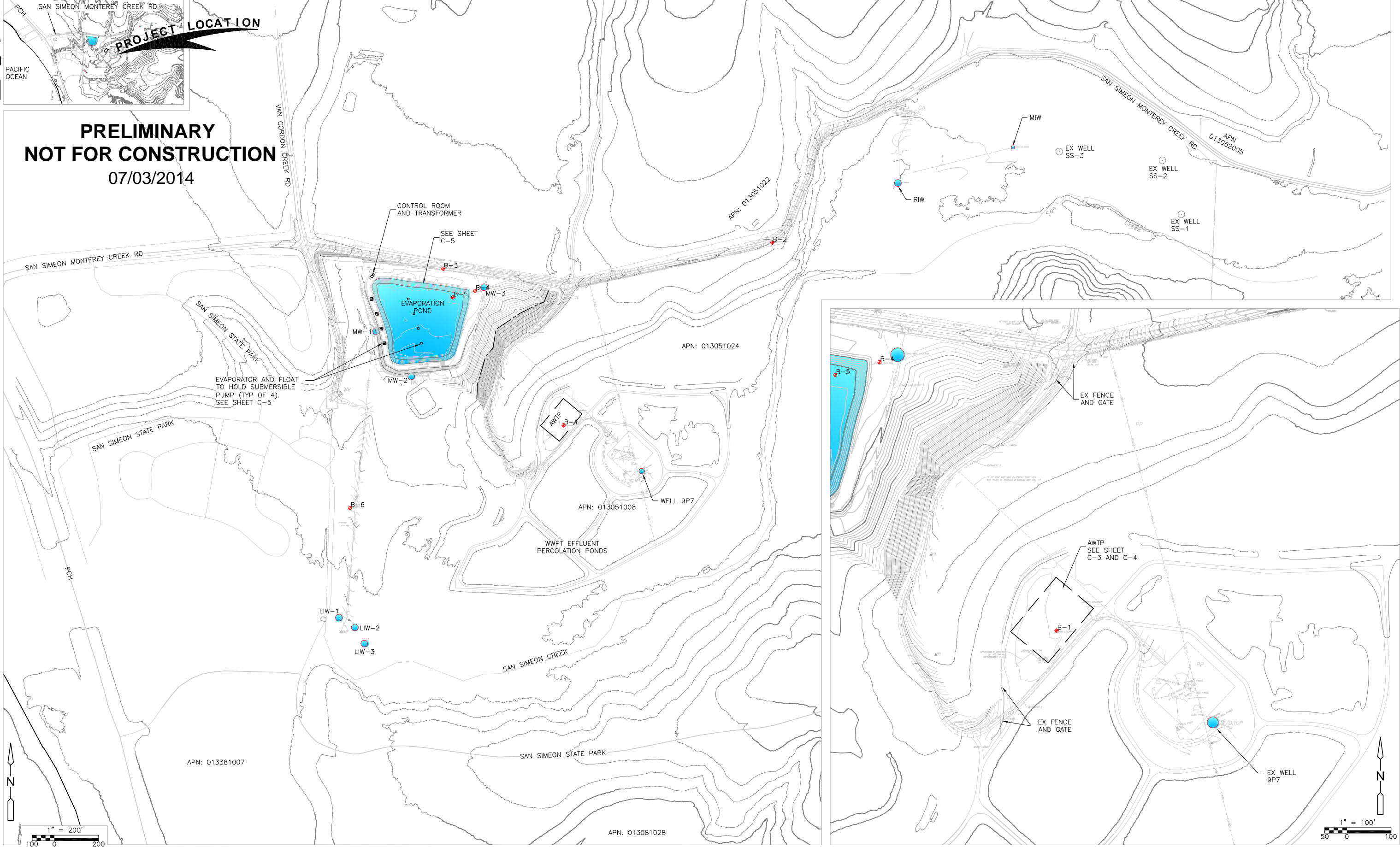
P-01

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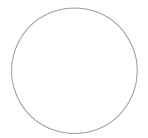
**PRELIMINARY
NOT FOR CONSTRUCTION**
07/03/2014



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DRAWN BY: _____	O.N.
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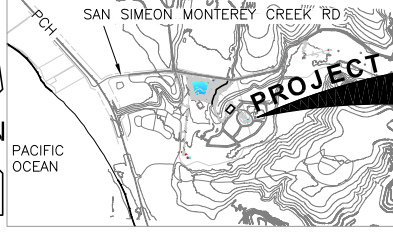
**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
CAMBRIA COMMUNITY SERVICE DISTRICT

OVERALL SITE PLAN

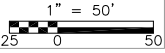
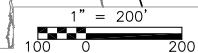
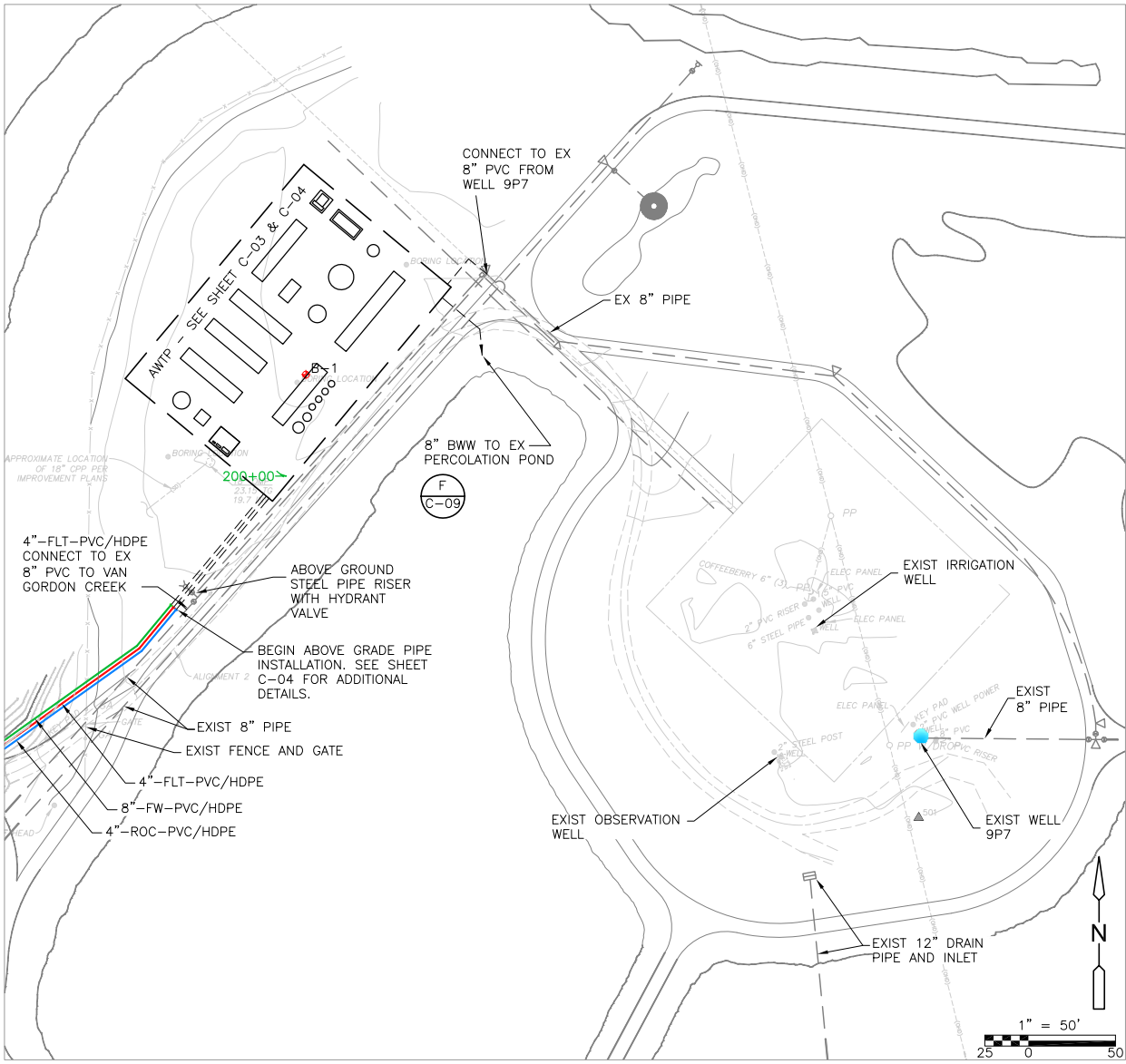
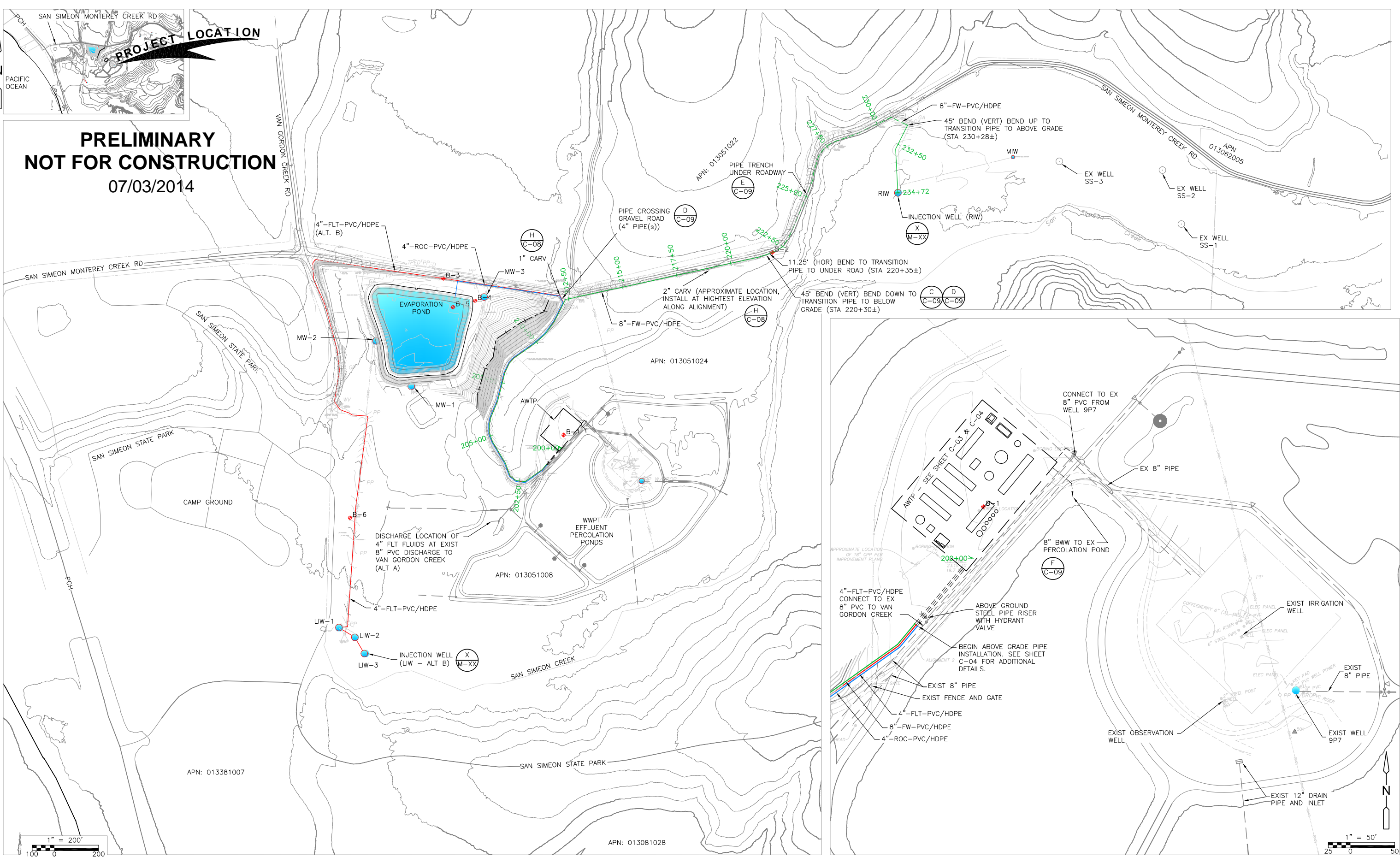
PROJECT NO. 138760-104133
FILE NAME:
SHEET NO.
C-01

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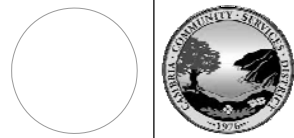
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**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
CAMBRIA COMMUNITY SERVICE DISTRICT

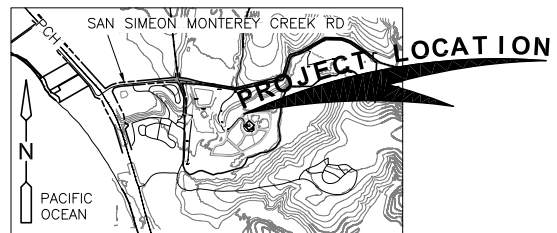
CONVEYANCE PIPING PLAN

PROJECT NO. 138760-104133
FILE NAME:
SHEET NO.
C-02

NOT FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014



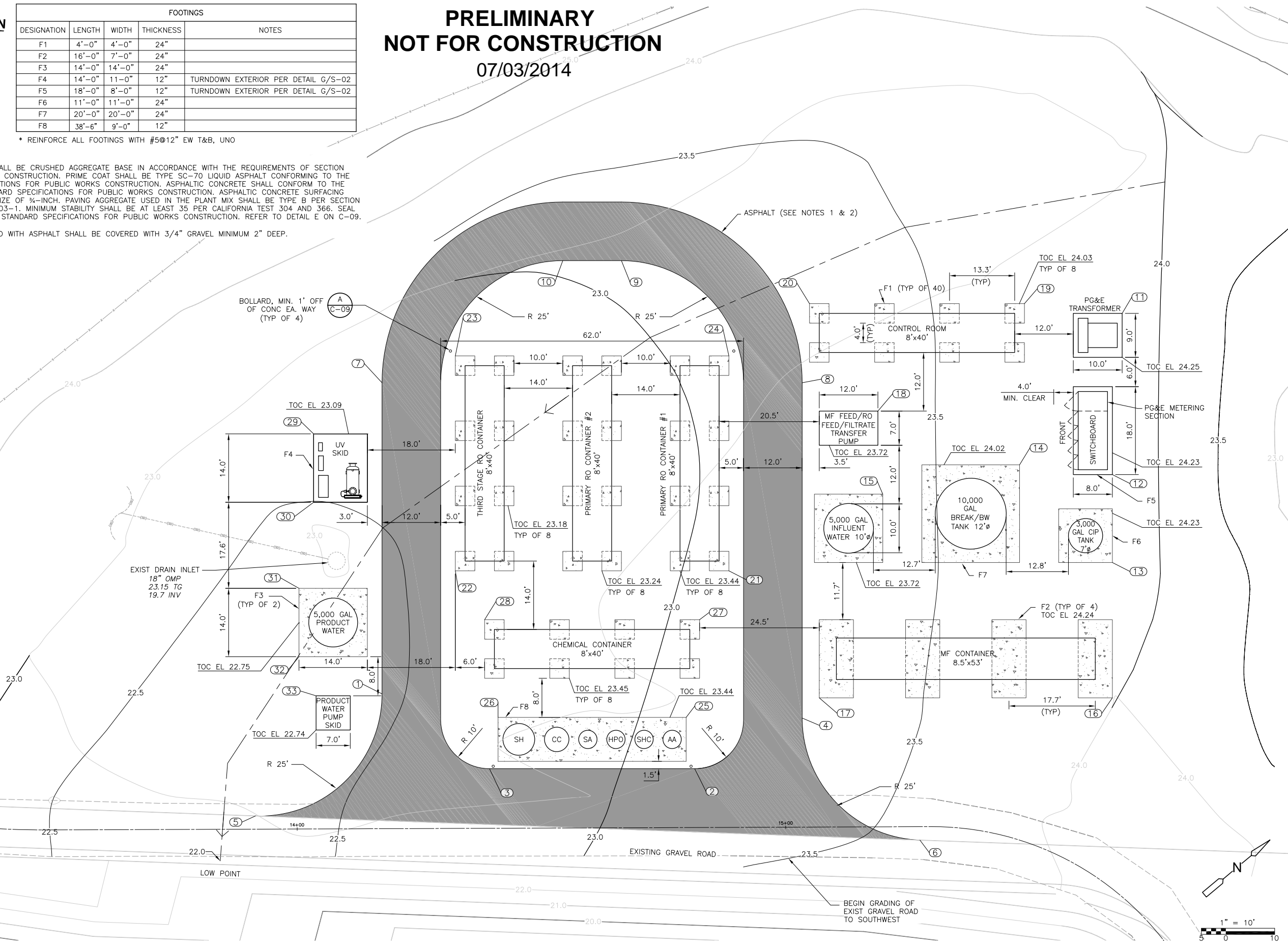
DESIGNATION	LENGTH	WIDTH	THICKNESS	NOTES
F1	4'-0"	4'-0"	24"	
F2	16'-0"	7'-0"	24"	
F3	14'-0"	14'-0"	24"	
F4	14'-0"	11'-0"	12"	TURNDOWN EXTERIOR PER DETAIL G/S-02
F5	18'-0"	8'-0"	12"	TURNDOWN EXTERIOR PER DETAIL G/S-02
F6	11'-0"	11'-0"	24"	
F7	20'-0"	20'-0"	24"	
F8	38'-6"	9'-0"	12"	

* REINFORCE ALL FOOTINGS WITH #5@12" EW T&B, UNO

PAVEMENT NOTES:

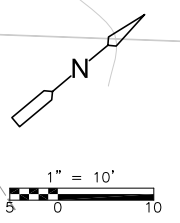
- PAVE WITH ASPHALT WHERE INDICATED. ROAD BASE MATERIAL SHALL BE CRUSHED AGGREGATE BASE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 200-2.2 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. PRIME COAT SHALL BE TYPE SC-70 LIQUID ASPHALT CONFORMING TO THE REQUIREMENTS OF SECTION 203-2 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. ASPHALTIC CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 200, 201 AND 203 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. ASPHALTIC CONCRETE SURFACING SHALL BE A DENSE GRADED MIX WITH A MAXIMUM AGGREGATE SIZE OF 3/4-INCH. PAVING AGGREGATE USED IN THE PLANT MIX SHALL BE TYPE B PER SECTION 203-6.3. ASPHALT CEMENT SHALL BE AR-4000 PER SECTION 203-1. MINIMUM STABILITY SHALL BE AT LEAST 35 PER CALIFORNIA TEST 304 AND 366. SEAL COAT SHALL CONFORM TO SECTION 203-9 AND 302-8 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. REFER TO DETAIL E ON C-09.
- AREAS WITHIN THE LIMITS OF LAYOUT AREA THAT ARE NOT PAVED WITH ASPHALT SHALL BE COVERED WITH 3/4" GRAVEL MINIMUM 2" DEEP.

#	NORTHING	EASTING
1	2418151.3218	5634685.8818
2	2418190.6682	5634738.6320
3	2418158.4089	5634711.7372
4	2418214.2081	5634744.7529
5	2418115.4233	5634688.4802
6	2418216.7136	5634779.3689
7	2418192.0990	5634636.9710
8	2418258.1539	5634692.0414
9	2418245.7437	5634649.1463
10	2418236.5268	5634641.4621
11	2418317.5562	5634723.0778
12	2418294.8884	5634747.1437
13	2418283.3620	5634760.9692
14	2418281.5756	5634733.4409
15	2418256.2272	5634720.1195
16	2418265.6243	5634782.2450
17	2418219.5394	5634743.8238
18	2418266.3451	5634706.4217
19	2418303.4753	5634708.7346
20	2418269.6797	5634680.5590
21	2418221.9791	5634712.0072
22	2418178.9666	5634676.1474
23	2418207.1421	5634642.3519
24	2418250.1546	5634678.2117
25	2418196.0478	5634729.4465
26	2418166.4767	5634704.7979
27	2418210.9671	5634715.8459
28	2418177.1715	5634687.6704
29	2418174.6440	5634636.0447
30	2418165.6791	5634646.7978
31	2418152.0955	5634658.4059
32	2418143.1306	5634669.1590
33	2418140.6960	5634677.5449



BEGIN GRADING OF EXIST GRAVEL ROAD TO NORTHEAST

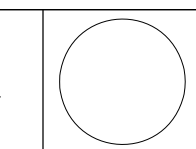
BEGIN GRADING OF EXIST GRAVEL ROAD TO SOUTHWEST



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____ E.Y.
 DRAWN BY: _____ O.N.
 SHEET CHK'D BY: _____
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 DATE: _____ JUNE, 2014

WARNING
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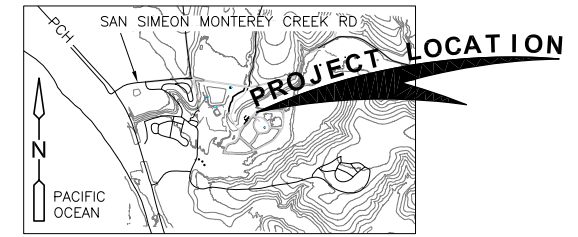
CAMBRIA EMERGENCY WATER SUPPLY PROJECT
 CAMBRIA COMMUNITY SERVICE DISTRICT

AWTP SITE GRADING AND DRAINAGE PLAN

PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO.
C-03

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014



NOTES:

- ALL CHEMICAL LINES TO BE 1/4" FLEXIBLE PVC HOSE (REINFORCED), OR HDPE (FOR AQUEOUS AMMONIA AND SODIUM HYPOCHLORITE AT A MINIMUM) PLACED IN 2" TO 3" PVC PIPE AS SECONDARY CONTAINMENT.
- ALL PIPING AND HOSE TO BE INSTALLED BELOW GRADE WITHIN THE LAYOUT AREA OF THE AWTP AS INDICATED BY DASHED BOX. PIPE AND/OR HOSE TO TURN VERTICALLY TO SURFACE NO MORE THAN 3 FEET FROM PROCESS CONNECTIONS LOCATED ABOVE GRADE. EXCEPTION IS CHEMICAL TUBING BETWEEN CHEMICAL TANKS AND CHEMICAL CONTAINER WHICH ARE ABOVE GRADE.

ABBREVIATIONS:

CC	CALCIUM CHLORIDE
HPO	HYDROGEN PEROXIDE
SA	SULFURIC ACID
ASC	ANTI-SCALANT/THRESHOLD INHIBITOR
SHC	SODIUM HYPOCHLORITE
AA	AQUEOUS AMMONIA
SH	SODIUM HYDROXIDE
CA	CITRIC ACID
BWW	BRACKISH WASTE
FLT	FILTRATE
FW	FINISHED WATER
ROC	RO CONCENTRATE
ROF	RO FEED
ROP	RO PRODUCT
RW	RAW WATER
UVP	UV PRODUCT

LEGEND

---	BELOW GRADE CHEMICAL HOSE (DOUBLE CONTAINED)
---	ABOVE GRADE CHEMICAL HOSE (DOUBLE CONTAINED)
---	ABOVE GRADE PROCESS PIPING
---	BELOW GRADE PROCESS PIPING

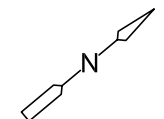
MATERIAL

HDPE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE

EX 8" PVC FROM WELL 9P7

EX 8" PVC FROM WELL 9P7

EX CONDUIT



1" = 10'

TRANSITION ALL PIPES TO ABOVE GRADE. TRANSITION SHALL BE SIMILAR TO THAT USED FOR GRAVEL ROAD PIPE CROSSING ON DETAIL D/C-09

EXISTING ABOVE GROUND STEEL PIPE RISER WITH HYDRANT VALVE

EX SD INLET

5,000 GAL PRODUCT WATER

PRODUCT WATER SKID

8" FW-PVC (TO RIW)

4" ROC-PVC (TO EVAPORATION POND)

4" SADDLE CONNECTION TO EX 8" PVC PIPE. FIELD VERIFY EX PIPE DEPTH.

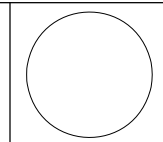
45° BEND (TYP)

EXIST 8" PVC TO VAN GORDON CREEK

THESE ALL LOOK LIKE THEY ARE BENDING DOWNWARD. PLEASE FLIP AROUND SO BENDING UPWARD.

DESIGNED BY: _____	E.Y.
DRAWN BY: _____	O.N.
SHEET CHK'D BY: _____	
CROSS CHK'D BY: _____	
APPROVED BY: _____	
DATE: _____	JUNE, 2014

WARNING
0 1/2" 1"
IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY



CAMBRIA EMERGENCY WATER SUPPLY PROJECT
CAMBRIA COMMUNITY SERVICE DISTRICT

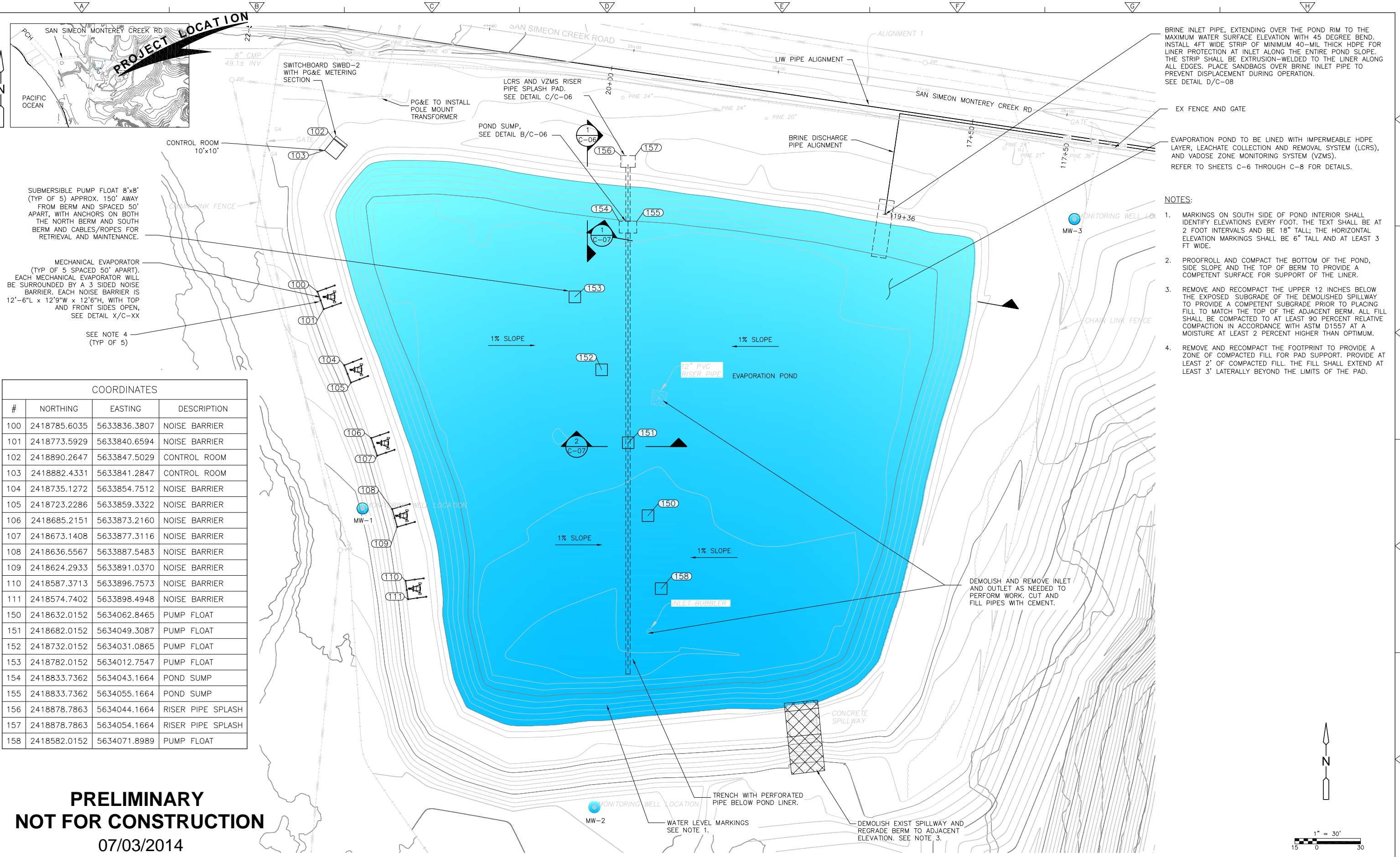
AWTP CIVIL YARD PIPING PLAN

PROJECT NO. 138760-104133
FILE NAME:
SHEET NO.
C-04

NOT FOR CONSTRUCTION

XREFS: [CDMS_2234, CAMB-MF-04Site, CAMB-MF-05-Road] Images: []
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BRINE INLET PIPE, EXTENDING OVER THE POND RIM TO THE MAXIMUM WATER SURFACE ELEVATION WITH 45 DEGREE BEND. INSTALL 4FT WIDE STRIP OF MINIMUM 40-MIL THICK HDPE FOR LINER PROTECTION AT INLET ALONG THE ENTIRE POND SLOPE. THE STRIP SHALL BE EXTRUSION-WELDED TO THE LINER ALONG ALL EDGES. PLACE SANDBAGS OVER BRINE INLET PIPE TO PREVENT DISPLACEMENT DURING OPERATION. SEE DETAIL D/C-08

EX FENCE AND GATE

EVAPORATION POND TO BE LINED WITH IMPERMEABLE HDPE LAYER, LEACHATE COLLECTION AND REMOVAL SYSTEM (LCRS), AND VADOSE ZONE MONITORING SYSTEM (VZMS). REFER TO SHEETS C-6 THROUGH C-8 FOR DETAILS.

- NOTES:**
1. MARKINGS ON SOUTH SIDE OF POND INTERIOR SHALL IDENTIFY ELEVATIONS EVERY FOOT. THE TEXT SHALL BE AT 2 FOOT INTERVALS AND BE 18" TALL; THE HORIZONTAL ELEVATION MARKINGS SHALL BE 6" TALL AND AT LEAST 3 FT WIDE.
 2. PROOFROLL AND COMPACT THE BOTTOM OF THE POND, SIDE SLOPE AND THE TOP OF BERM TO PROVIDE A COMPETENT SURFACE FOR SUPPORT OF THE LINER.
 3. REMOVE AND RECOMPACT THE UPPER 12 INCHES BELOW THE EXPOSED SUBGRADE OF THE DEMOLISHED SPILLWAY TO PROVIDE A COMPETENT SUBGRADE PRIOR TO PLACING FILL TO MATCH THE TOP OF THE ADJACENT BERM. ALL FILL SHALL BE COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION IN ACCORDANCE WITH ASTM D1557 AT A MOISTURE AT LEAST 2 PERCENT HIGHER THAN OPTIMUM.
 4. REMOVE AND RECOMPACT THE FOOTPRINT TO PROVIDE A ZONE OF COMPACTED FILL FOR PAD SUPPORT. PROVIDE AT LEAST 2' OF COMPACTED FILL. THE FILL SHALL EXTEND AT LEAST 3' LATERALLY BEYOND THE LIMITS OF THE PAD.

SUBMERSIBLE PUMP FLOAT 8'x8' (TYP OF 5) APPROX. 150' AWAY FROM BERM AND SPACED 50' APART, WITH ANCHORS ON BOTH THE NORTH BERM AND SOUTH BERM AND CABLES/ROPES FOR RETRIEVAL AND MAINTENANCE.

MECHANICAL EVAPORATOR (TYP OF 5 SPACED 50' APART). EACH MECHANICAL EVAPORATOR WILL BE SURROUNDED BY A 3 SIDED NOISE BARRIER. EACH NOISE BARRIER IS 12'-6"L x 12'9"W x 12'6"H, WITH TOP AND FRONT SIDES OPEN, SEE DETAIL X/C-XX

SEE NOTE 4 (TYP OF 5)

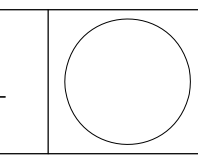
COORDINATES			
#	NORTHING	EASTING	DESCRIPTION
100	2418785.6035	5633836.3807	NOISE BARRIER
101	2418773.5929	5633840.6594	NOISE BARRIER
102	2418890.2647	5633847.5029	CONTROL ROOM
103	2418882.4331	5633841.2847	CONTROL ROOM
104	2418735.1272	5633854.7512	NOISE BARRIER
105	2418723.2286	5633859.3322	NOISE BARRIER
106	2418685.2151	5633873.2160	NOISE BARRIER
107	2418673.1408	5633877.3116	NOISE BARRIER
108	2418636.5567	5633887.5483	NOISE BARRIER
109	2418624.2933	5633891.0370	NOISE BARRIER
110	2418587.3713	5633896.7573	NOISE BARRIER
111	2418574.7402	5633898.4948	NOISE BARRIER
150	2418632.0152	5634062.8465	PUMP FLOAT
151	2418682.0152	5634049.3087	PUMP FLOAT
152	2418732.0152	5634031.0865	PUMP FLOAT
153	2418782.0152	5634012.7547	PUMP FLOAT
154	2418833.7362	5634043.1664	POND SUMP
155	2418833.7362	5634055.1664	POND SUMP
156	2418878.7863	5634044.1664	RISER PIPE SPLASH
157	2418878.7863	5634054.1664	RISER PIPE SPLASH
158	2418582.0152	5634071.8989	PUMP FLOAT

**PRELIMINARY
NOT FOR CONSTRUCTION**
07/03/2014

REV.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____
 DRAWN BY: _____ O.N.
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: _____ JUNE, 2014

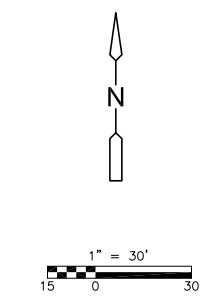
WARNING
 0 1/2" 1"
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**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

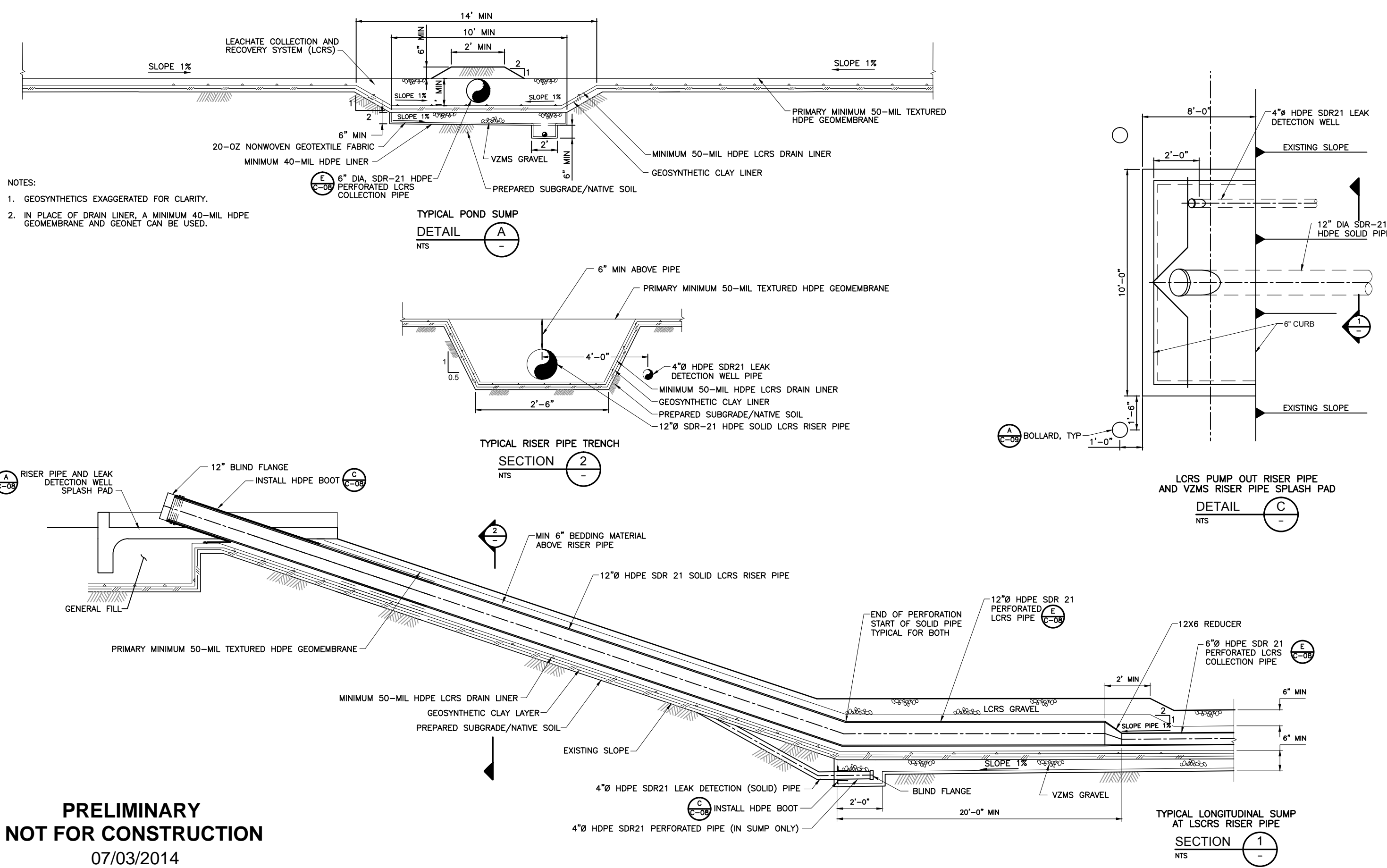
EVAPORATION POND PLAN

PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO.
C-05



NOT FOR CONSTRUCTION

XREF: [CDMS_2234, CAMB-MF-04Site, CAMB-MF-05-Road] Images: []
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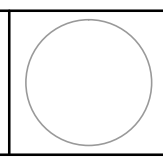
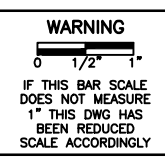


- NOTES:
1. GEOSYNTHETICS EXAGGERATED FOR CLARITY.
 2. IN PLACE OF DRAIN LINER, A MINIMUM 40-MIL HDPE GEOMEMBRANE AND GEONET CAN BE USED.

PRELIMINARY
NOT FOR CONSTRUCTION
 07/03/2014

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____
 DRAWN BY: _____ C.B.
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: _____ JUNE, 2014



CAMBRIA EMERGENCY
WATER SUPPLY PROJECT
 CAMBRIA COMMUNITY SERVICE DISTRICT

POND SECTIONS I

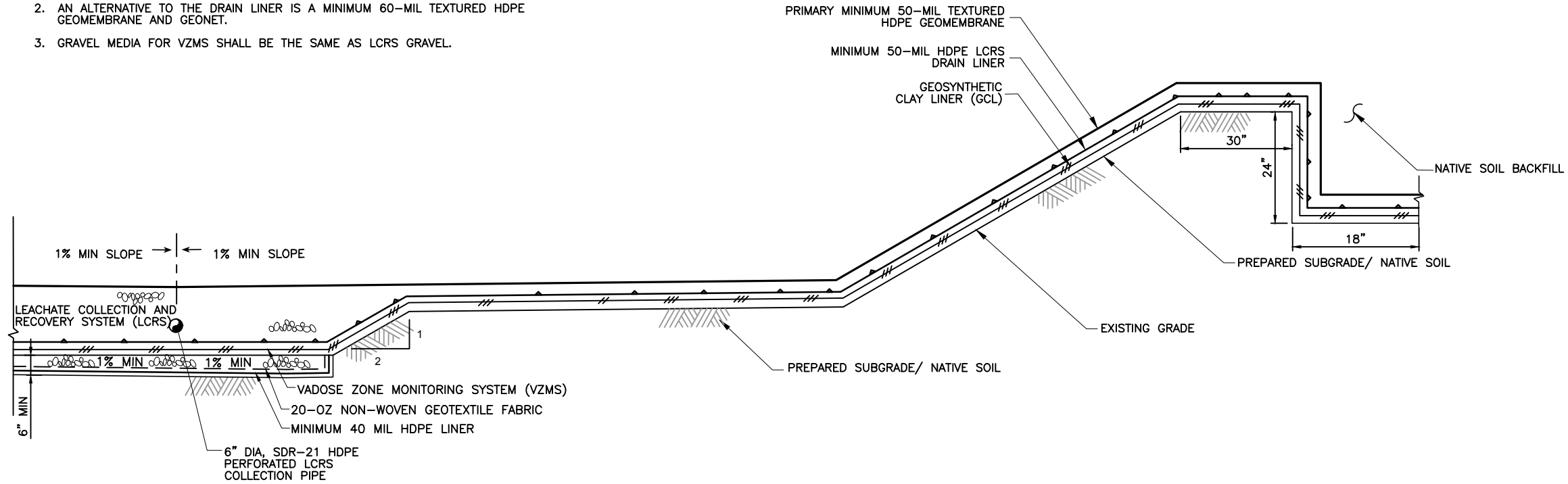
PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO.
C-06

NOT FOR CONSTRUCTION

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NOTES:

1. GEOSYNTHETICS EXAGGERATED FOR CLARITY.
2. AN ALTERNATIVE TO THE DRAIN LINER IS A MINIMUM 60-MIL TEXTURED HDPE GEOMEMBRANE AND GEONET.
3. GRAVEL MEDIA FOR VZMS SHALL BE THE SAME AS LCRS GRAVEL.

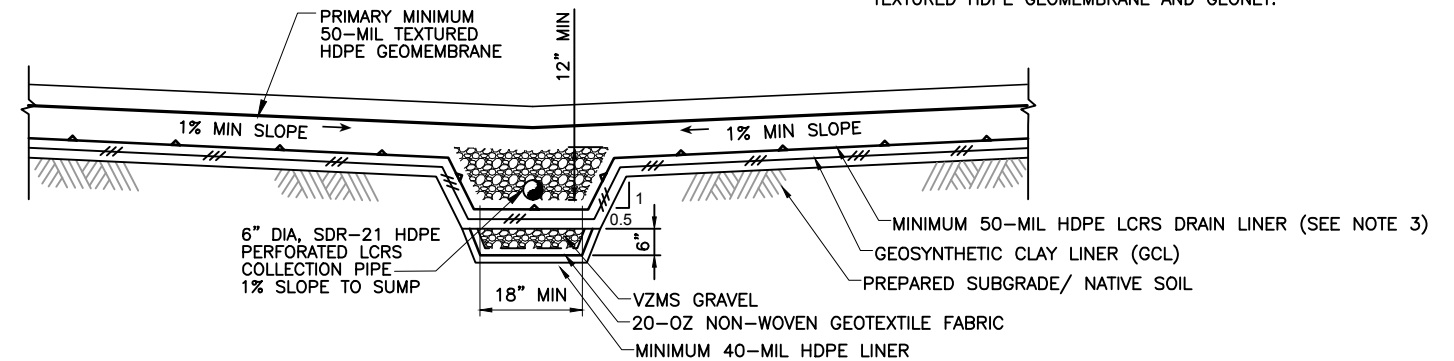


TYPICAL DOUBLE LINER SYSTEM AT SUMP

SECTION 1
NTS

NOTES:

1. EXISTING SOILS DO NOT MEET 1X10-6 CM/SEC HYDRAULIC CONDUCTIVITY REQUIREMENT, THEREFORE A CLAY OR GCL LAYER IS REQUIRED.
2. IF EXISTING SOILS ARE SUITABLE IN GRAIN SIZE FOR SUBGRADE, SOILS WILL BE USED AS IS. IF SOILS ARE NOT GEOTECHNICALLY SUITABLE, THE SOILS WILL BE AMENDED OR REPLACED WITH SUITABLE MATERIAL.
3. AN ALTERNATIVE TO THE DRAIN LINER IS A MINIMUM 60-MIL TEXTURED HDPE GEOMEMBRANE AND GEONET.



TYPICAL DOUBLE LINER SYSTEM

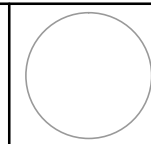
SECTION 2
NTS

**PRELIMINARY
NOT FOR CONSTRUCTION**
07/03/2014

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____
 DRAWN BY: C.B.
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: JUNE, 2014

WARNING
 0 1/2" 1"
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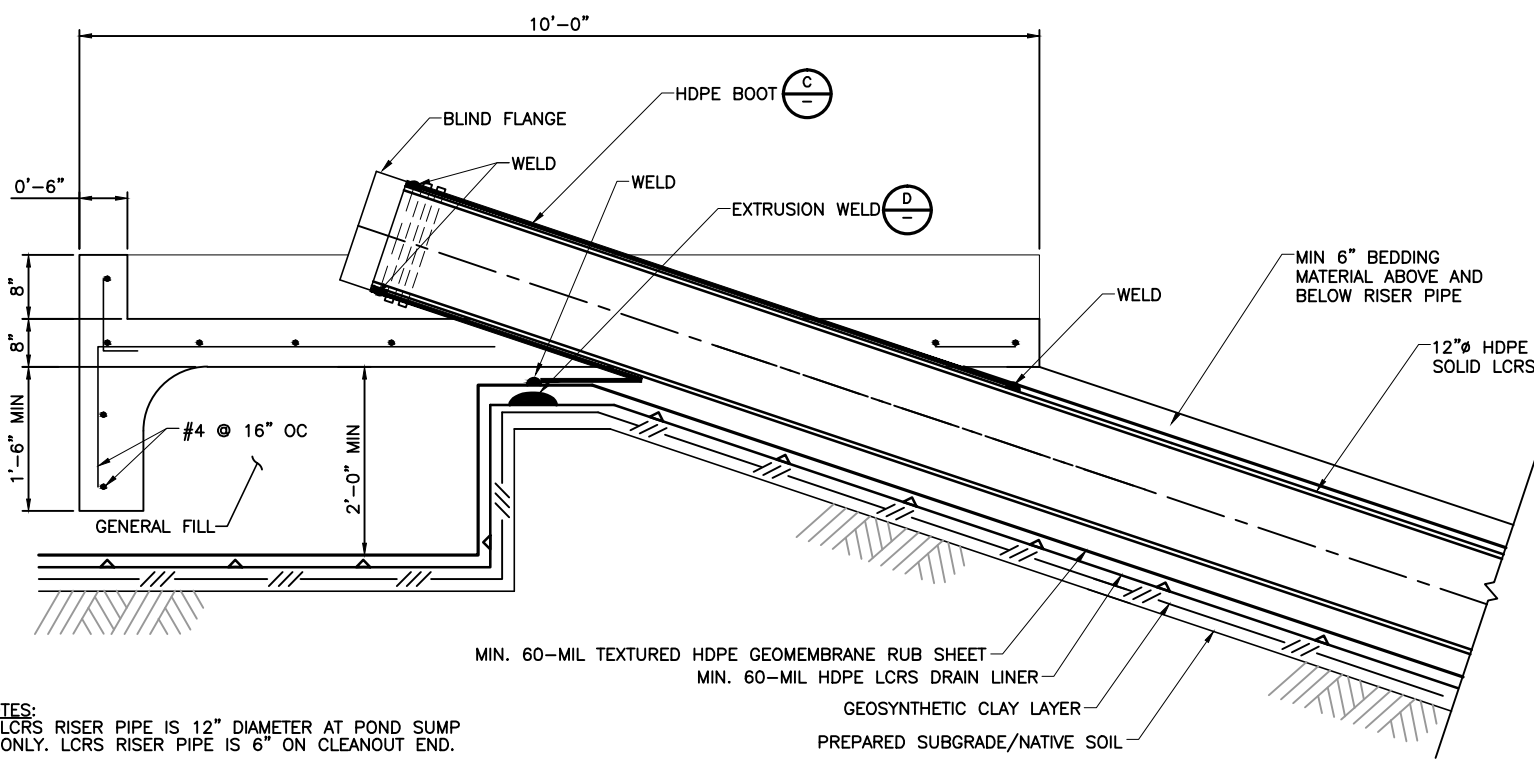


**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

POND SECTIONS II

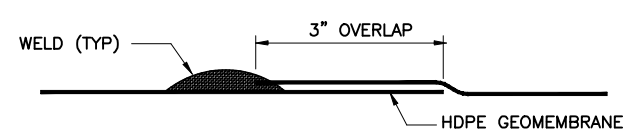
PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO.
C-07

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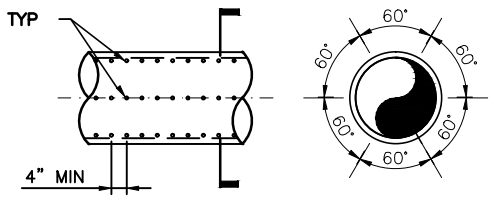


SPLASH PAD DETAIL SECTION AT LCRS RISER PIPE

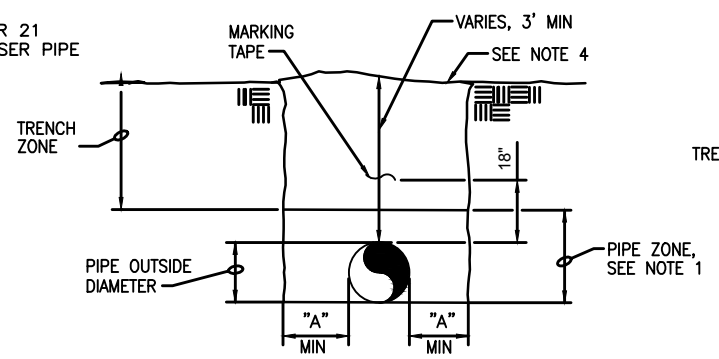
DETAIL A
NTS



TYPICAL EXTRUDED WELD
DETAIL D
NTS

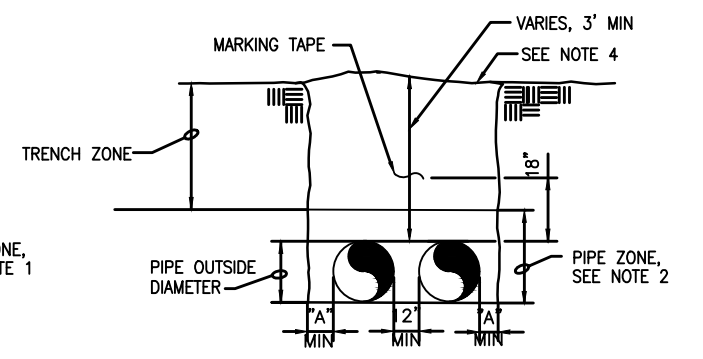


COLLECTOR PIPE PERFORATION
DETAIL E
NTS



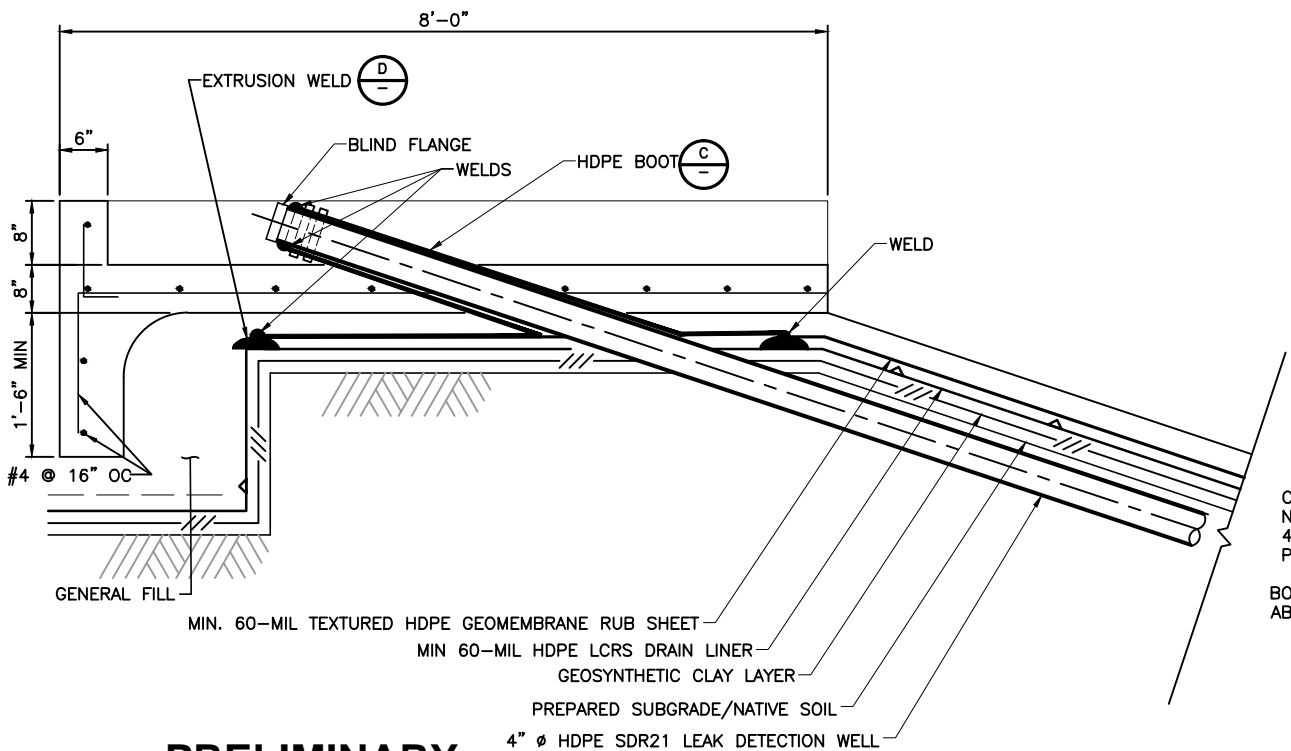
PIPE ZONE		
NOMINAL PIPE DIA (IN.)	HEIGHT ABOVE TOP OF PIPE (IN.)	"A" (IN.)
4	6	2
6	6	3
8	6	4

- NOTE**
- PIPE ZONE DEPTH AND "A" SHALL BE VALUES SHOWN IN TABLE ABOVE.
 - PIPE ZONE AND TRENCH ZONE SHALL BE BACKFILLED AND COMPACTED PER SPECIFICATIONS.
 - TRENCH EXCAVATION LESS THAN 5 FEET MAY REQUIRE SHORING DUE TO SOIL INSTABILITY.
 - SEE DETAIL E ON SHEET C-09 FOR PAVEMENT REPLACEMENT IN AREAS WHERE PIPING IS INSTALLED BELOW ROADS,



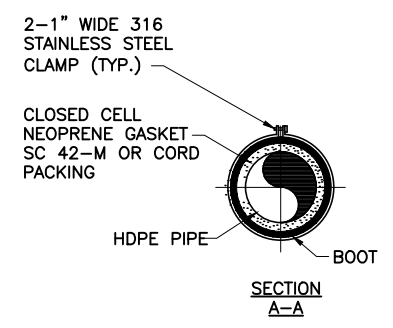
PIPE ZONE		
NOMINAL PIPE DIA (IN.)	HEIGHT ABOVE TOP OF PIPE (IN.)	"A" (IN.)
4	6	2
6	6	3
8	6	4

- NOTE**
- PIPE ZONE DEPTH AND "A" SHALL BE VALUES SHOWN IN TABLE ABOVE.
 - PIPE ZONE AND TRENCH ZONE SHALL BE BACKFILLED AND COMPACTED PER SPECIFICATIONS.
 - TRENCH EXCAVATION LESS THAN 5 FEET MAY REQUIRE SHORING DUE TO SOIL INSTABILITY.
 - SEE DETAIL E ON SHEET C-09 FOR PAVEMENT REPLACEMENT IN AREAS WHERE PIPING IS INSTALLED BELOW ROADS,

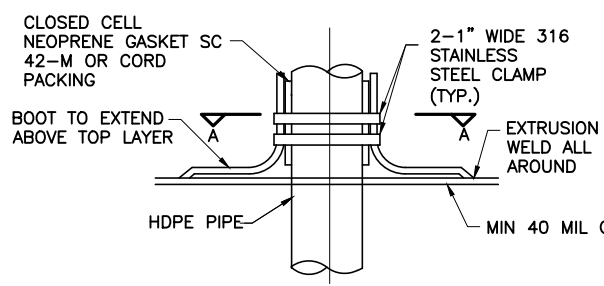


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DETAIL B
NTS



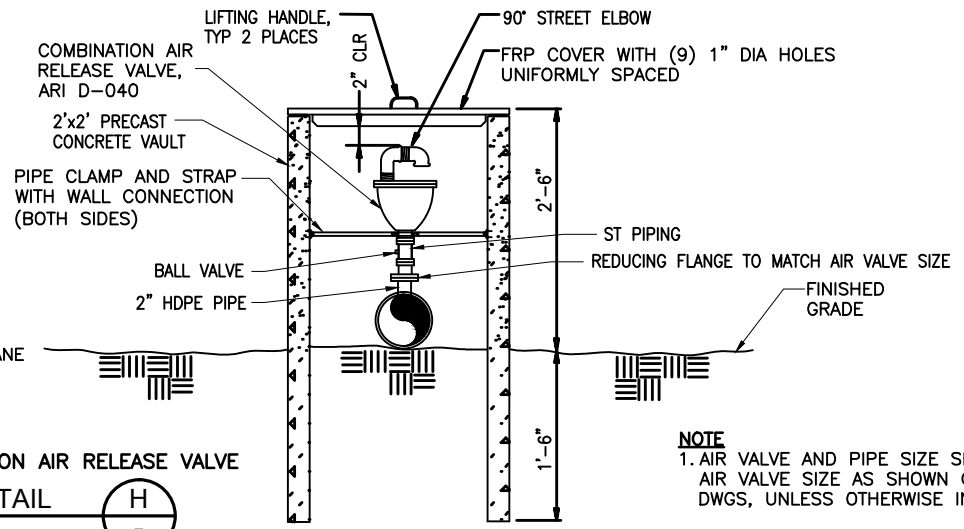
SECTION A-A



COLLECTION PIPE PERFORATION
DETAIL C
NTS

SINGLE PIPE TRENCH BACKFILL
DETAIL F
NTS

MULTIPLE PIPE TRENCH BACKFILL
DETAIL G
NTS



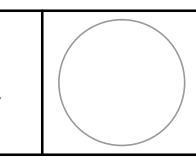
COMBINATION AIR RELEASE VALVE
DETAIL H
NTS

- NOTE**
- AIR VALVE AND PIPE SIZE SHALL MATCH AIR VALVE SIZE AS SHOWN ON THE DWGS, UNLESS OTHERWISE INDICATED.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____
 DRAWN BY: _____ C.B.
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: _____ JUNE, 2014

WARNING
 0 1/2" 1"
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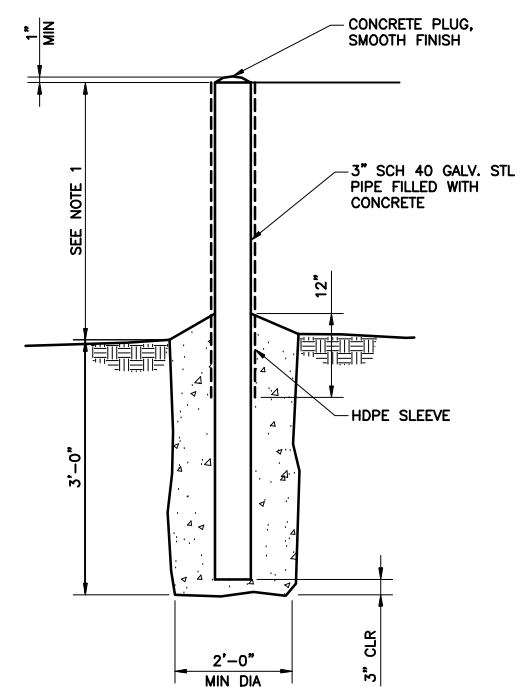


CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT
 CAMBRIA COMMUNITY SERVICE DISTRICT

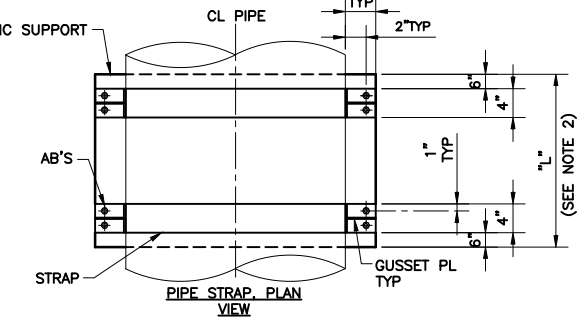
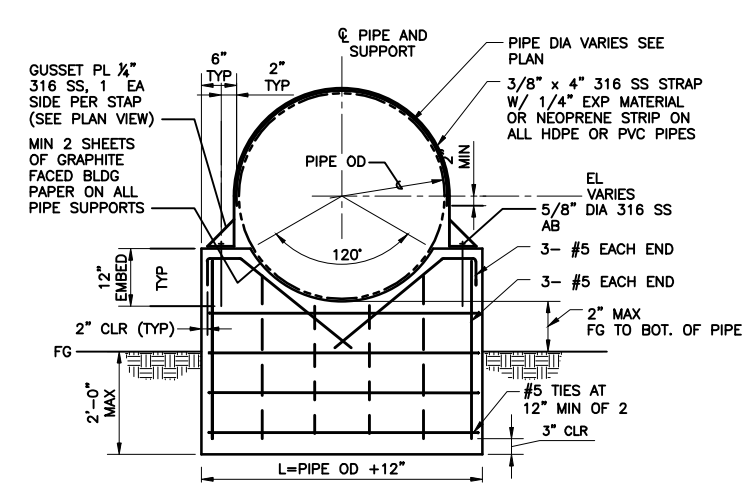
TYPICAL CIVIL DETAILS I
 SHEET NO. C-08

PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO. C-08

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HDPE PIPE STABILIZER
 DETAIL A
 NTS



CONCRETE SADDLE SUPPORT FOR HDPE PIPE
 DETAIL B
 NTS

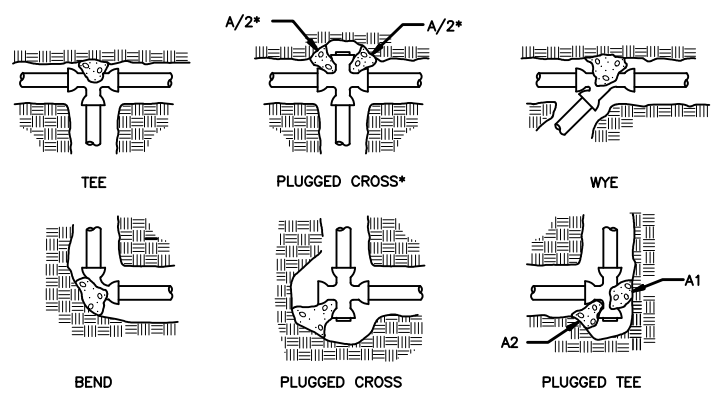
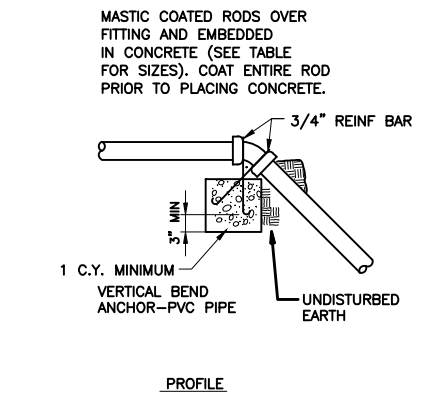
VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)

FITTING SIZE	BEND ANGLE (DEGREES)		
	45°	22 1/2°	11 1/4°
4	1.1	0.4	0.2
6	2.7	1.0	0.4
8	4.0	1.5	0.6

FITTING SIZE	ROD SIZE	EMBEDMENT
12" AND LESS	#6	30"

THRUST BLOCK NOTES:

- BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON DRAWINGS TAKE PRECEDENCE OVER THIS STANDARD.
- CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH. COMPACT TO 95% RELATIVE DENSITY UNDER, OVER AND AROUND EACH THRUST BLOCK.
- KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
- REQUIRED VOLUMES OR BEARING AREAS AT FITTINGS SHALL BE AS INDICATED, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) PROVIDED BY THE ENGINEER.
- THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESS./150) x (TABLE VALUE).
- BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR (13.33)(P'/S'b), WHERE: P' = ACTUAL TEST PRESSURE, PSIG; S'b = ACTUAL ALLOWABLE SOIL BEARING PRESSURE, PSF.
- THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
- BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT.
- VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE DRAWINGS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE.
- TEST PRESSURE SHALL BE 100 PSI UNLESS SHOWN OTHERWISE.
- ALLOWABLE SOIL BEARING PRESSURE SHALL BE 600 PSF UNLESS SHOWN OTHERWISE.
- COATING FOR RODS TO BE SYSTEM 29 PER SPECIFICATIONS.

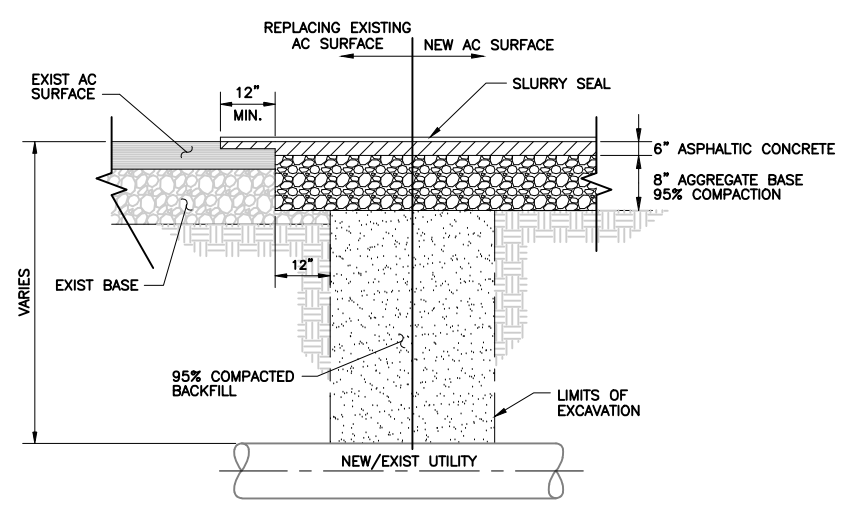


BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)

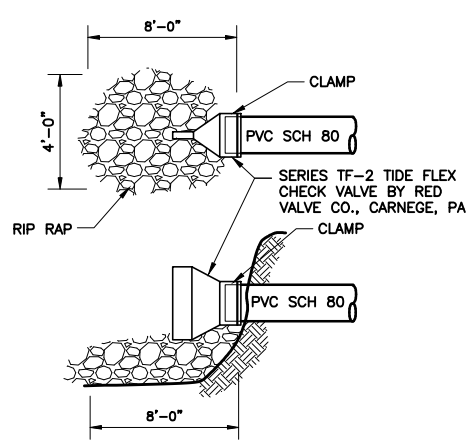
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	BEND ANGLE (DEGREES)				
			TEE PLUGGED RUN		BEND ANGLE (DEGREES)		
			A1	A2	45°	22 1/2°	11 1/4°
4	1.0	1.4	1.9	1.4	1.0	-	-
6	2.1	3.0	4.3	3.0	1.6	1.0	-
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0

PIPE SUPPORT/THRUST RESTRAINT FOR PVC PIPE

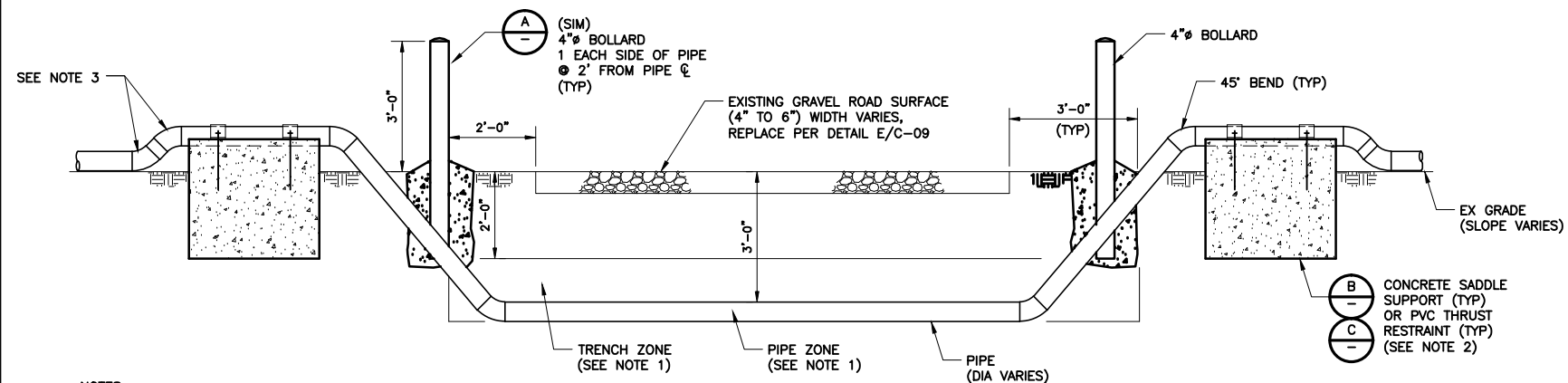
DETAIL C
 NTS



AC PAVEMENT SURFACING
 DETAIL E
 NTS



DRAINAGE OUTLET ASSEMBLY
 DETAIL F
 NTS



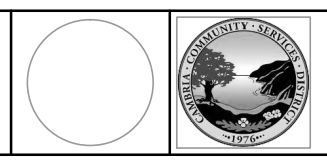
GRAVEL ROAD PIPE CROSSING
 DETAIL D
 NTS

PRELIMINARY
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 07/03/2014

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____
 DRAWN BY: C.B.
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: JUNE, 2014

WARNING
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CAMBRIA EMERGENCY WATER SUPPLY PROJECT
 CAMBRIA COMMUNITY SERVICE DISTRICT

TYPICAL CIVIL DETAILS II

PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO.
C-09

GENERAL STRUCTURAL NOTES

DESIGN CRITERIA:
 CODES:
 CBC-2013 (CALIFORNIA BUILDING CODE 2013)
 ACI 318-11 (BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE)

DESIGN LOADS:
 LIVE LOADS:
 PROCESS FLOORS AND SLABS 200 PSF (NON-REDUCIBLE)

RISK CATEGORY IV

WIND DESIGN DATA:
 BASIC WIND SPEED, V_{ult} 115 MPH (ULTIMATE)
 EXPOSURE CATEGORY 89 MPH (NOMINAL)
 C

SEISMIC DESIGN DATA:
 SOIL SITE CLASS D
 MAPPED SPECTRAL RESPONSE ACCELERATIONS
 SHORT PERIOD $S_s = 1.590g$
 ONE SECOND PERIOD $S_1 = 0.601g$
 SPECTRAL RESPONSE COEFFICIENTS
 SHORT PERIOD $S_{ds} = 1.060g$
 ONE SECOND PERIOD $S_{d1} = 0.601g$
 SEISMIC DESIGN CATEGORY D
 SEISMIC IMPORTANCE FACTOR, $I_p = 1.5$

SNOW:
 GROUND SNOW LOAD $P_g = 0$ PSF

SEISMIC REQUIREMENTS - NON-STRUCTURAL COMPONENTS:
 IN ACCORDANCE WITH THE REQUIREMENTS OF CBC AND BY REFERENCE ASCE 7-10, ALL MECHANICAL, ELECTRICAL AND NON-STRUCTURAL COMPONENTS AND EQUIPMENT AND ANCHORAGES FOR RISK CATEGORY IV AREAS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 13 OF ASCE 7 WITH A COMPONENT IMPORTANCE FACTOR $I_p = 1.5$.
 FOR THIS PURPOSE ALL COMPONENTS AND EQUIPMENT SHALL BE CONSIDERED TO HAVE THE SAME SEISMIC DESIGN CATEGORY AS THAT OF THE STRUCTURE THEY OCCUPY.

FOUNDATIONS:
 FOUNDATIONS ARE DESIGNED FOR ALLOWABLE SOIL PRESSURE OF 600 PSF.
 ALL EXTERIOR FOUNDATIONS SHALL EXTEND TO A DEPTH = 18".

GENERAL CONDITIONS:
 ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE OTHER PROJECT DRAWINGS AND SPECIFICATIONS.
 STANDARD DETAILS SHALL BE USED AT ALL APPLICABLE LOCATIONS, UNLESS NOTED OTHERWISE ON DRAWINGS.
 SEE CIVIL SITE PLANS FOR STRUCTURE LOCATION COORDINATES.
 FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO CONSTRUCTION.
 WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED SIZES.

CONSTRUCTION NOTES:
 PRIOR TO INSTALLATION OF EQUIPMENT, COORDINATE AND CONFIRM THE ANCHORAGE REQUIREMENTS WITH THE MANUFACTURER. THE ANCHORAGE SYSTEM SHALL NOT DAMAGE THE CONCRETE.
 CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD. THE PROJECT MANAGER SHALL BE NOTIFIED OF ANY DISCREPANCY BETWEEN DRAWINGS IMMEDIATELY UPON DISCOVERY.

CONCRETE ANCHORS AND DOWELS:
 CONTRACTOR SHALL LOCATE EXISTING REBAR USING NON-DESTRUCTIVE METHODS PRIOR TO DRILLING HOLES FOR ADHESIVE AND EXPANSION ANCHORS. ADJUST SPACING OF ANCHORS TO MISS REINFORCING A MAXIMUM OF 1 1/2" FROM DETAILED LOCATIONS.
 ADHESIVE FOR EMBEDDED DOWELS AND ANCHORS SHALL BE HILTI HIT-RE 500-SD (ICC EVALUATION REPORT 2322), OR APPROVED EQUAL. DRILLED HOLES SHALL BE SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT TZ, (ICC EVALUATION REPORT 1917), OR ICC APPROVED EQUAL.
 ICC REPORTS SHALL STATE THAT ANCHORS ARE COMPLIANT WITH THE 2012 IBC AND CAN BE USED TO RESIST EARTHQUAKE LOADS IN CRACKED, NORMAL-WEIGHT CONCRETE.

CAST-IN-PLACE CONCRETE:
 REINFORCED CONCRETE SHALL CONFORM TO ACI 318.
 REINFORCING STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI MANUAL OF STANDARD PRACTICE.
 CONCRETE WORK SHALL CONFORM TO ACI 301 (SPECIFICATIONS FOR STRUCTURAL CONCRETE).
 MINIMUM CONCRETE COVER SHALL BE TO NEAREST EXPOSED SURFACE.
 ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE 3/4" CHAMFER, UNLESS OTHERWISE NOTED.
 WALL REINFORCEMENT AT CORNERS OR JUNCTIONS OF WALLS SHALL BE CONTINUOUS, LAPPED, OR TERMINATED IN AN ACI STANDARD 90 DEGREE STANDARD HOOK DETAIL. LAP SPLICES SHALL CONFORM WITH THE TABLE ON THIS SHEET.
 UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BARS SHALL BE DOWELED. DOWELS SHALL BE THE SAME SIZE AND SPACING AS THE REINFORCEMENT WHICH IS SPLICED TO THE DOWELS UNLESS OTHERWISE NOTED.
 SLABS, BEAMS, AND COLUMN REINFORCING BARS SHALL HAVE A MINIMUM EXTENSION OR ANCHORAGE INTO SUPPORTS IN ACCORDANCE WITH ACI 318.
 STIRRUP SUPPORT BARS SHALL BE PROVIDED AS REQUIRED TO SECURE TOP BARS AGAINST DISPLACEMENT.
 UNLESS OTHERWISE INDICATED ON THE DRAWINGS, CONCRETE COVER OVER #11 AND SMALLER REINF BARS SHALL BE AS FOLLOWS:
 SLABS AND JOISTS:
 FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES FOR DRY CONDITIONS.....2"
 FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR LOCATED OVER FLUIDS.....2"
 BEAMS AND COLUMNS:
 FORMED CONCRETE SURFACES FOR DRY CONDITIONS:
 STIRRUPS, SPIRALS AND TIES.....2"
 PRINCIPAL REINFORCEMENT.....2 1/2"
 FORMED CONCRETE SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR BEAMS LOCATED OVER FLUIDS:
 STIRRUPS AND TIES.....2"
 PRINCIPAL REINFORCEMENT.....2 1/2"
 WALLS:
 FORMED CONCRETE SURFACES FOR DRY CONDITIONS.....2"
 FORMED CONCRETE SURFACES EXPOSED TO WEATHER OR IN CONTACT WITH SOIL OR FLUIDS.....2"
 FOOTINGS AND SLABS ON GRADE:
 FORMED CONCRETE SURFACES.....2"
 AT UNFORMED CONCRETE SURFACES CAST AGAINST THE SOIL OR CONCRETE WORK MATS.....3"

CONCRETE JOINT:
 CONSTRUCTION JOINTS SHALL NOT BE PLACED AT LOCATIONS OTHER THAN THOSE SHOWN ON THE DRAWINGS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.

TYPICAL STRUCTURAL MATERIALS:
 SEE PROJECT SPECIFICATIONS AND NOTES ON DRAWINGS FOR INDIVIDUAL STRUCTURES FOR DETAILED OR SPECIAL REQUIREMENTS.

CONCRETE
 FILL, DUCT ENCASEMENT, WHERE NOTED: CLASS A ($f'_c = 2500$ PSI)
 STRUCTURAL CONCRETE; $W/C \leq 0.54$ CLASS B ($f'_c = 3000$ PSI)
 REINFORCING STEEL: ASTM A615, GRADE 60 ($F_y = 60,000$ PSI)
 REINFORCING STEEL (WELDABLE): ASTM A706, GRADE 60 ($F_y = 60,000$ PSI)
 CEMENT: ASTM C150, TYPE II
 AIR ENTRAINMENT: 3.5 TO 5.0 PERCENT

STRUCTURAL STEEL
 SHAPES - W AND WT: ASTM A992 ($F_y = 50$ KSI)
 SHAPES - S, M, HP, C, MC, L, PLATE AND BAR: ASTM A36 ($F_y = 36$ KSI)
 HOLLOW STRUCTURAL SECTIONS:
 ROUND: ASTM A500, GRADE B ($F_y = 42$ KSI)
 SQUARE AND RECTANGULAR: ASTM A500, GRADE B ($F_y = 46$ KSI)
 ANCHOR RODS: ASTM F1554, 3/8" MINIMUM UNO ($F_y = 36$ KSI)
 WELDING ELECTRODES: E70XX ($F_t = 70$ KSI)
 ASSEMBLY BOLTS: HIGH STRENGTH ASTM A325-N

SPECIAL INSPECTION REQUIREMENTS
 SPECIAL INSPECTIONS SHALL BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN CHAPTER 17 OF THE CALIFORNIA BUILDING CODE.
 IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 17 OF THE BUILDING CODE, THE PERMIT APPLICANT WILL PROVIDE QUALIFIED PERSONNEL TO PERFORM THE FOLLOWING SPECIAL INSPECTIONS AND SHALL FURNISH INSPECTION REPORTS FROM THE SPECIAL INSPECTOR TO THE ENGINEER AND BUILDING OFFICIAL. THIS DOES NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR 24 HOURS IN ADVANCE OF ALL INSPECTIONS.
 SECONDARY CONTAINMENT SHALL RECEIVE SPECIAL INSPECTION: CONCRETE CONSTRUCTION (1704.4) SOILS (1704.7)

ABBREVIATIONS:

#	NUMBER	ID	INSIDE DIAMETER
&	AND	IF	INSIDE FACE
AT	AT	IN	INCH
AB	ANCHOR BOLT	INT	INTERIOR
ABV	ABOVE	INVT	INVERT
ADDL	ADDITIONAL	JT	JOINT
AGG	AGGREGATE	KO	KNOCKOUT
AL	ALUMINUM	L	ANGLE
ALT	ALTERNATE (ING)	LLH	LONG LEG HORIZONTAL
APPROX	APPROXIMATELY	LLV	LONG LEG VERTICAL
ARCH	ARCHITECT (URAL) (URE)	LNTL	LINTEL
B TO B	BACK TO BACK	LOC	LOCATION/LOCATED
BEV	BEVEL (ED)	LONG	LONGITUDINAL
BLK	BLOCK	LP	LOW POINT
BLKG	BLOCKING	LT	LEFT
B.O.	BOTTOM OF	LW	LIGHTWEIGHT
BOT	BOTTOM	MAS	MASONRY
BRG	BEARING	MATL	MATERIAL
C TO C	CENTER TO CENTER	MAX	MAXIMUM
CIRC	CIRCUMFERENTIAL	MB	MACHINE BOLTS
CJ	CONSTRUCTION JOINT	MCJ	MASONRY CONTROL JOINT
CL OR C	CENTERLINE	MECH	MECHANICAL
CLR	CLEAR	MIN	MINIMUM
CMU	CONCRETE MASONRY UNITS	MISC	MISCELLANEOUS
COL	COLUMN	MO	MASONRY OPENING
COMP	COMPRESSIBLE	NF	NEAR FACE
CONC	CONCRETE	NSG	NON-SHRINK GROUT
CONN	CONNECTION	NTS	NOT TO SCALE
CONT	CONTINUOUS	OC	ON CENTER OR OCCUPANCY CATEGORY
CPLG	COUPLING	OD	OUTSIDE DIAMETER
CRS	COURSE (S)	OF	OUTSIDE FACE
CSK	COUNTERSINK	OPNG	OPENING
CTG	COATING	OPP	OPPOSITE
CTR	CENTER (ED)	OPP HD	OPPOSITE HAND
d	PENNY	OPT	OPTION (AL)
DET	DETAIL	PCF	POUNDS PER CUBIC FOOT
Ø OR DIA	DIAMETER	PCJ	PARTIAL CONTRACTION JOINT
DIAG	DIAGONAL	PJF	PREMOLDED JOINT FILLER
DIR	DIRECTION	PL OR P	PLATE
DL	DEAD LOAD	PLYWD	PLYWOOD
DO	DITTO	PREFAB	PREFABRICATED
DWG	DRAWING	PROJ	PROJECTION
DWL	DOWEL	PSF	POUNDS PER SQUARE FOOT
EA	EACH	PSI	POUNDS PER SQUARE INCH
EB	EXPANSION BOLT	PVMT	PAVEMENT
EF	EACH FACE	R	RISER (S)
EL	ELEVATION	RAD	RADIUS
ELEC	ELECTRIC (AL)	RC	REINFORCED CONCRETE
EMBED	EMBEDMENT	REF	REFERENCE/REFER
EQ	EQUAL (LY)	REINF	REINFORCE (D, ING)
EQPT	EQUIPMENT	REQD	REQUIRED
ES	EACH SIDE	REV	REVISION
EW	EACH WAY	RLG	RAILING
EXP ANCH	EXPANSION ANCHOR	RO	ROUGH OPENING
EXP JT	EXPANSION JOINT	RT	RIGHT
EXST	EXISTING	SCHED	SCHEDULE
EXT	EXTERIOR	SCJ	SLAB CONTROL JOINT
f'c	CONCRETE COMPRESSION STRESS	SECT	SECTION
f'm	MASONRY PRISM STRESS	SFR	SYNTHETIC FIBER REINFORCED
FAB	FABRICATE (OR) (ED)	SIM	SIMILAR
FD	FLOOR DRAIN	SP	SPACE (S) (ED)
FDN	FOUNDATION	SPECS	SPECIFICATION/SPECIFIED
FF	FAR FACE	SQ	SQUARE
FHMS	FLATHEAD MACHINE SCREW	SST	STAINLESS STEEL
FHWS	FLATHEAD WOOD SCREW	STD	STANDARD
FIN	FINISH (ED)	STIF	STIFFENER
FL	FLOOR	STIR	STIRRUP (S)
FRP	FIBERGLASS REINFORCED PLASTIC	SYM	SYMMETRICAL
FT	FEET/FOOT	T	TREAD (S)
FTG	FOOTING/FITTING	T&B	TOP AND BOTTOM
GA	GAGE	TF	TOP FACE
GALV	GALVANIZED	THD	THREADED
GI	GALVANIZED IRON	TOC	TOP OF CONCRETE
GLB	GLASS BLOCK	TOW	TOP OF WALL
GR	GRADE	TRNSV	TRANSVERSE
GRTG	GRATING	TSL	TOP OF SLAB
HAS	HEADED ANCHOR STUD	TYP	TYPICAL
HD	HEAVY DUTY	UNO	UNLESS NOTED OTHERWISE
HDR	HEADER	VB	VAPOR BARRIER
HOR	HORIZONTAL	VERT	VERTICAL
HP	HIGH POINT	W	WIDE FLANGE
HR	HANDRAIL	W/	WITH
HSS	HOLLOW STRUCTURAL SECTION	W/O	WITHOUT
HVAC	HEATING, VENTILATING & AIR CONDITIONING	WP	WORKING POINT
IAW	IN ACCORDANCE WITH	WS	WATERSTOP
		WWF	WELDED WIRE FABRIC

ABBREVIATION NOTES:
 ABBREVIATIONS AND DESIGNATIONS FOR STEEL MEMBERS MAY BE FOUND IN THE CURRENT MANUAL OF STEEL CONSTRUCTION BY AISC.
 ABBREVIATIONS OF TECHNICAL SOCIETIES AND TRADE ASSOCIATIONS MAY BE FOUND IN THE SPECIFICATIONS.
 WELDING SYMBOLS AND ABBREVIATIONS MAY BE FOUND IN AWS 2.4.

STRUCTURAL LEGEND AND SYMBOLS:

(E)	INDICATES EQUIPMENT PAD PER DETAILS J OR K ON SHEET S-200-003. COORDINATE SIZE WITH EQUIPMENT REQUIREMENTS.
	HYDROPHILIC (EXPANSIVE) WATERSTOP
	GRATING SPAN DIRECTION
	EARTH FILL
	UNDISTURBED EARTH
	CONCRETE
	CONCRETE MASONRY
	STEEL
	ALUMINUM
	GRATING
	CHECKED PLATE
	GRANULAR FILL
	SAND
	GROUT
	SHALE

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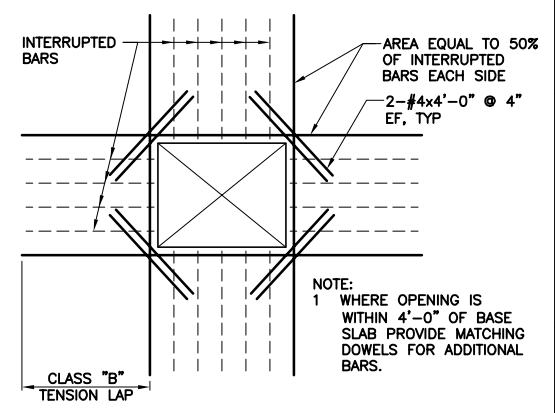
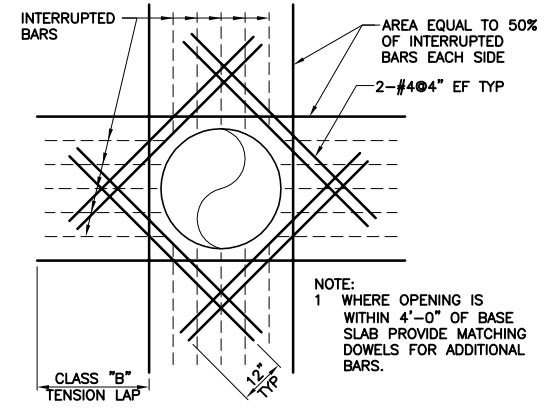
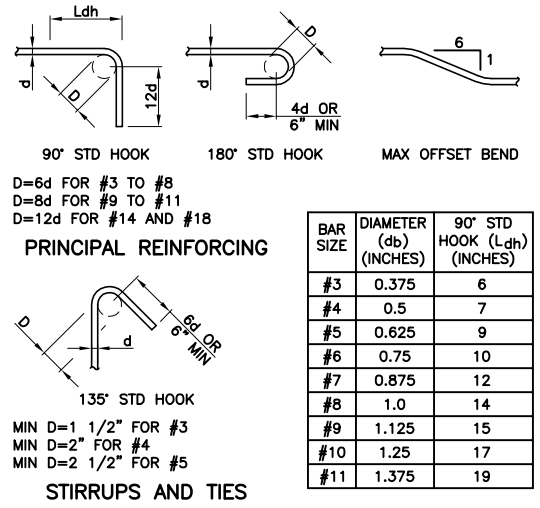
DESIGNED BY: A. HAHN	 111 Academy Way, Suite 150 Irvine, California 92617 Tel: (949) 752-5452	 CAMBRIA EMERGENCY WATER SUPPLY PROJECT CAMBRIA COMMUNITY SERVICE DISTRICT	PROJECT NO. XXXXX-XXXXX	
DRAWN BY: A. JOHNSON			FILE NAME: S-01.dwg	
SHEET CHK'D BY: -			SHEET NO.	
CROSS CHK'D BY: -			S-01	
APPROVED BY: -	DATE: JUNE, 2014			
REV. NO.	DATE	DRWN	CHKD	REMARKS

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BAR SIZE	DIAMETER (db) (INCHES)	WALLS AND SLABS				BEAMS AND COLUMNS			
		DEVELOPMENT LENGTH (L _d)(INCHES)		CLASS B LAP SPLICE (INCHES)		DEVELOPMENT LENGTH (L _d)(INCHES)		CLASS B LAP SPLICE (INCHES)	
		"TOP" BARS	OTHER	"TOP" BARS	OTHER	"TOP" BARS	OTHER	"TOP" BARS	OTHER
#3	0.375	12	12	16	16	19	15	24	19
#4	0.5	15	12	20	16	25	19	32	25
#5	0.625	19	15	24	19	31	24	40	31
#6	0.75	22	17	29	22	37	29	48	37
#7	0.875	33	25	42	33	54	42	70	54
#8	1.0	37	29	48	37	62	48	80	62
#9	1.125	46	36	60	46	70	54	91	70
#10	1.25	57	44	74	57	79	61	102	79
#11	1.375	68	53	89	68	87	67	113	87

NOTES:
 1 "TOP" BARS IS HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.
 2 CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED SHALL
 A) NOT BE LESS THAN d_b, HAVE CLEAR COVER NOT LESS THAN d_b, AND STIRRUPS OR TIES THROUGHOUT L_d NOT LESS THAN THE CODE MINIMUM OR;
 B) CLEAR SPACING OF BARS WHERE d_b=DIAMETER OF REINFORCING BAR AND L_d=DEVELOPMENT LENGTH.
 3 FOR SPECIAL SPLICE REQUIREMENTS FOR COLUMNS AND END BEARING SPLICES IN COMPRESSION SEE ACI 318 CHAPTER 12.
 4 TABLE IS BASED ON f'_c = 4000 PSI AND f_y = 60,000 PSI. LAP SPLICE AND DEVELOPMENT LENGTHS SHALL BE INCREASED FOR LOWER CONCRETE COMPRESSIVE STRENGTH AS FOLLOWS:

	MULTIPLIER	f' _c 3500 PSI	MULTIPLIER	f' _c 4500 PSI
f' _c 2500 PSI	1.27		1.07	
f' _c 3000 PSI	1.16		0.94	

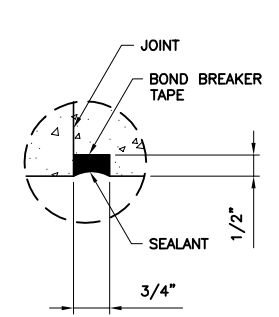


STANDARD HOOK AND LAP SPLICE IN CONCRETE
 DETAIL A
 NOT TO SCALE

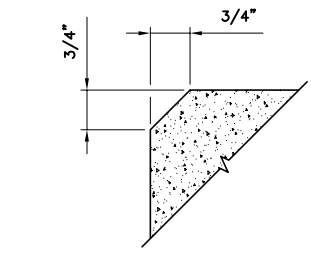
BAR BENDS
 DETAIL B
 NTS

REINFORCEMENT AT CIRCULAR OPENINGS GREATER THAN 12"
 DETAIL C
 NTS

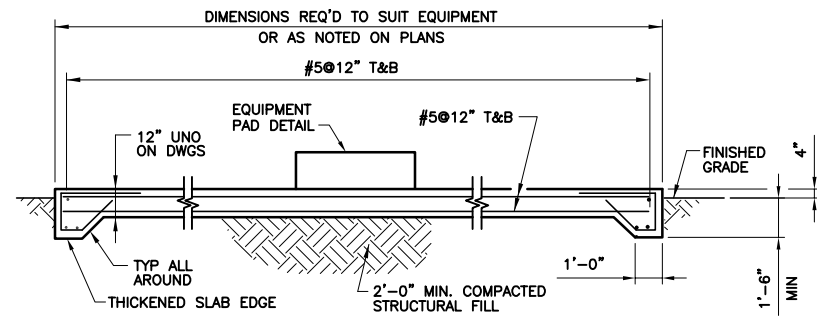
REINFORCEMENT AT RECTANGULAR OPENINGS GREATER THAN 12"
 DETAIL D
 NTS



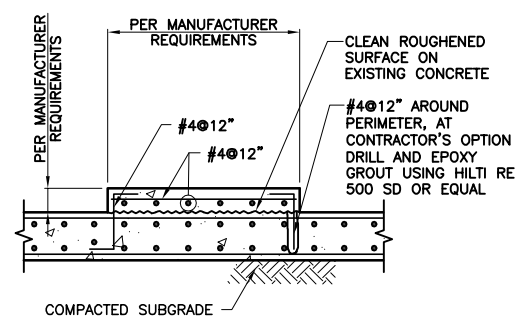
JOINT SEALANT
 DETAIL E
 NTS



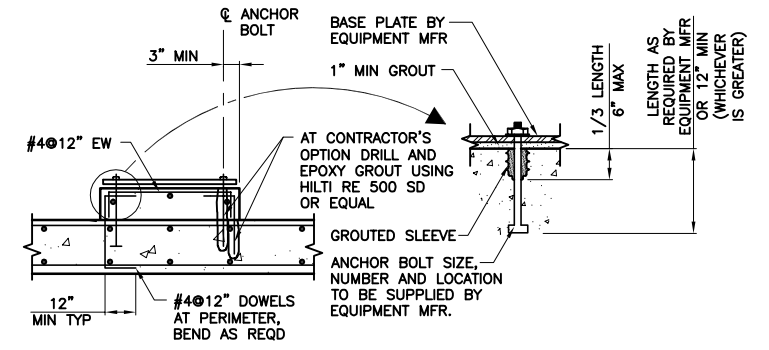
CHAMFER
 DETAIL F
 NTS



EXTERIOR EQUIPMENT SLAB
 DETAIL G
 NTS



HOUSEKEEPING PAD
 DETAIL H
 NTS



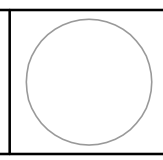
EQUIPMENT PAD
 DETAIL J
 NTS

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DESIGNED BY: A. HAHN
 DRAWN BY: A. JOHNSON
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

WARNING
 0 1/2" 1"
 IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY



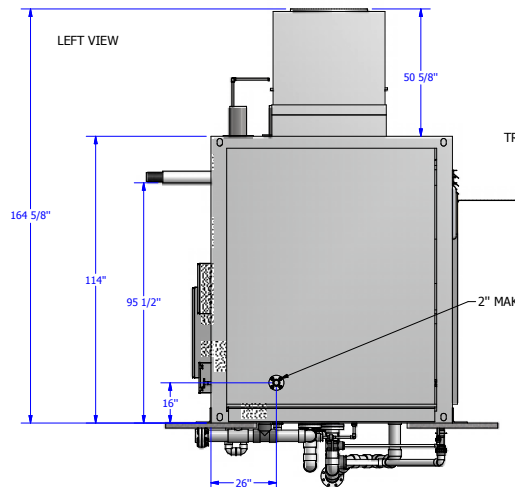
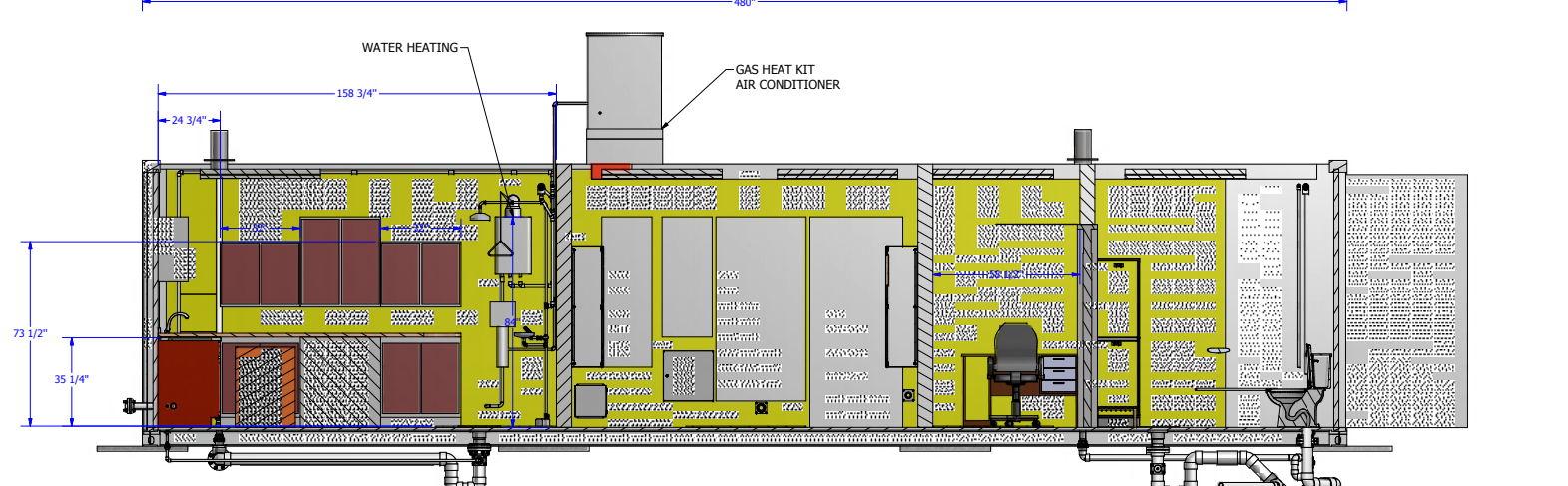
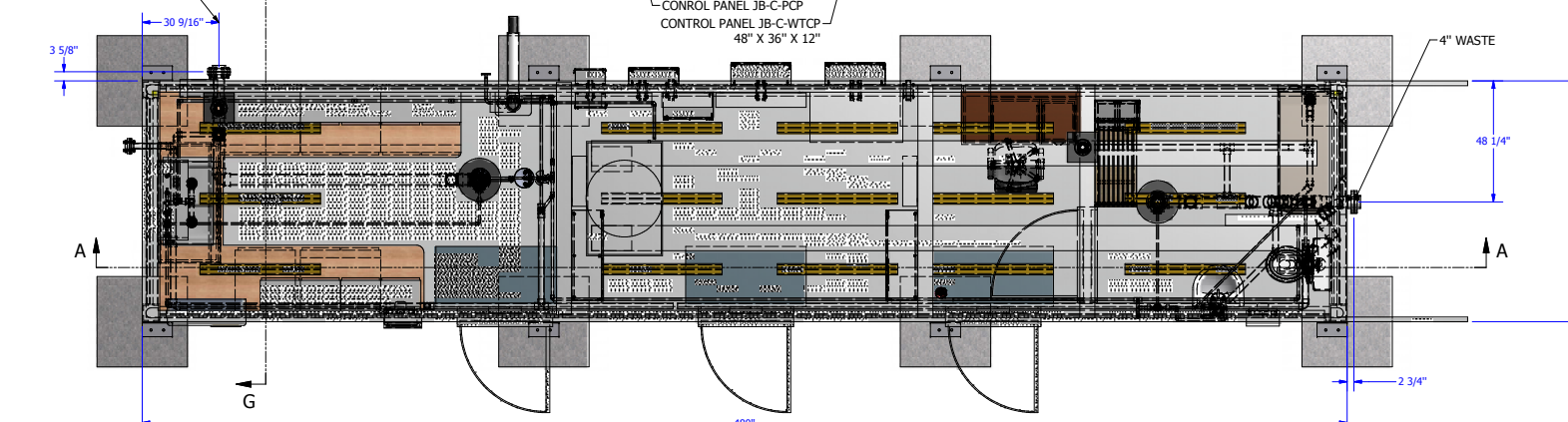
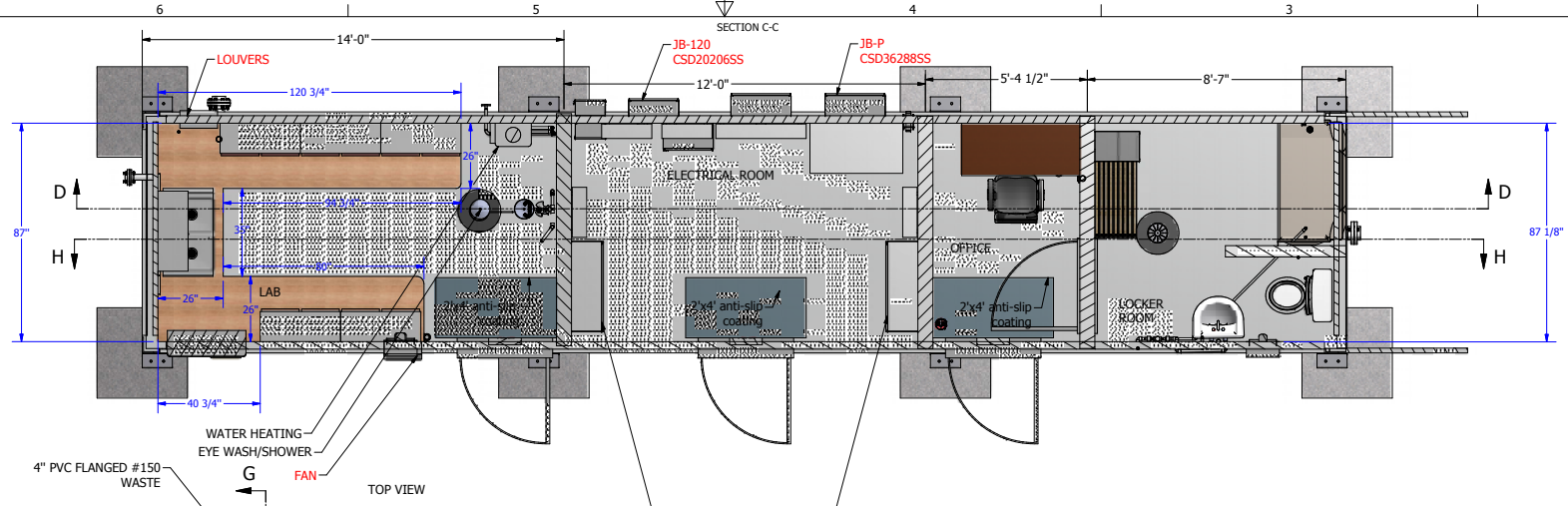
CAMBRIA EMERGENCY WATER SUPPLY PROJECT
 CAMBRIA COMMUNITY SERVICE DISTRICT

PROJECT NO. XXXXX-XXXXX	FILE NAME: S-02.dwg
SHEET NO. S-02	STRUCTURAL STANDARD DETAILS

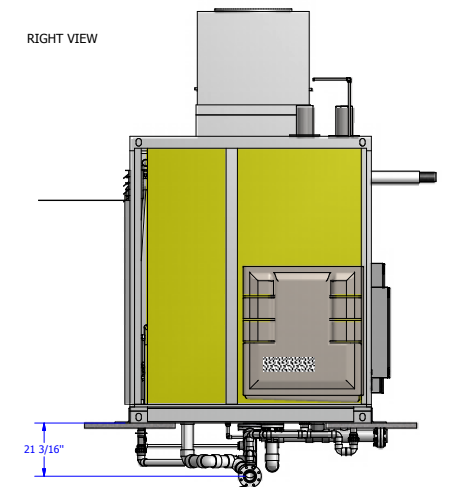
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07/03/2014



PACKAGE TERMINAL AIR CONDITIONER
TRANE MODEL PTEE-070-1-C-C 7000 BTUH TOTAL
COOLING CAPACITY WITH 215 CFM
1.5 KW HEATER, FAN SPEED CONTROL



APPROXIMATE WEIGHT
SHIPPING WEIGHT = 14 250 LBS

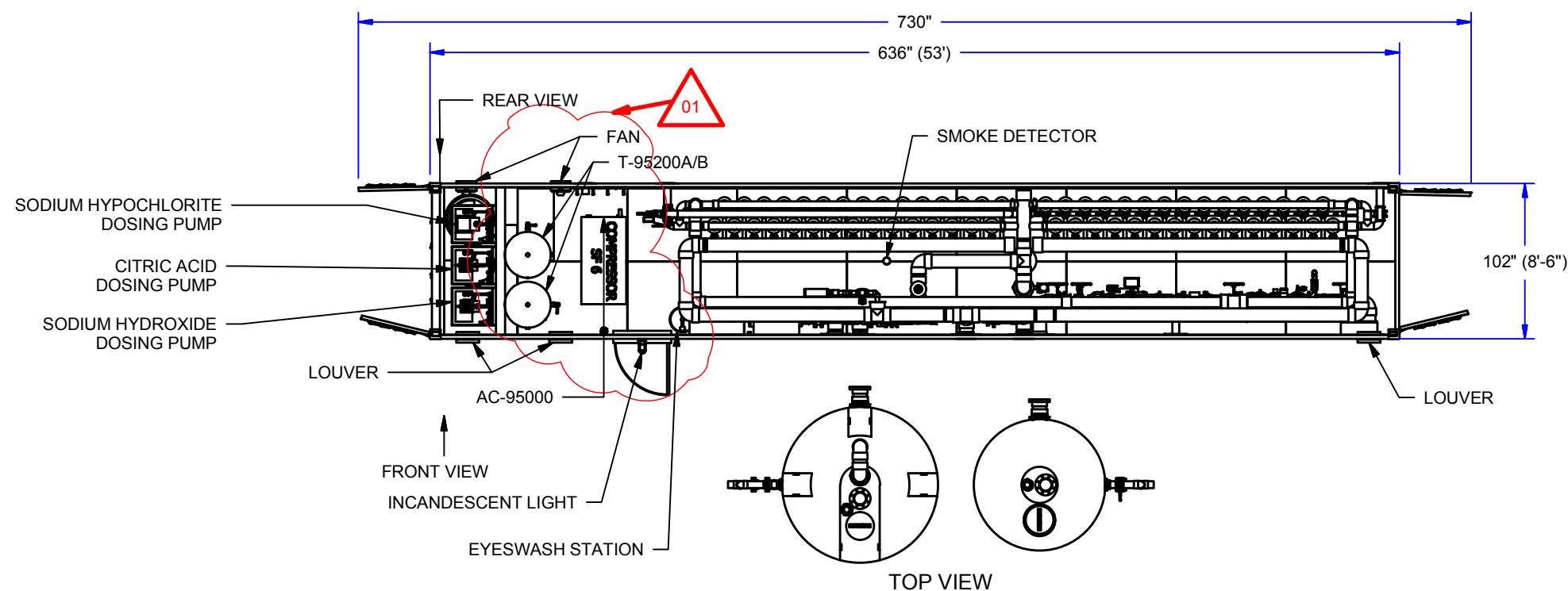
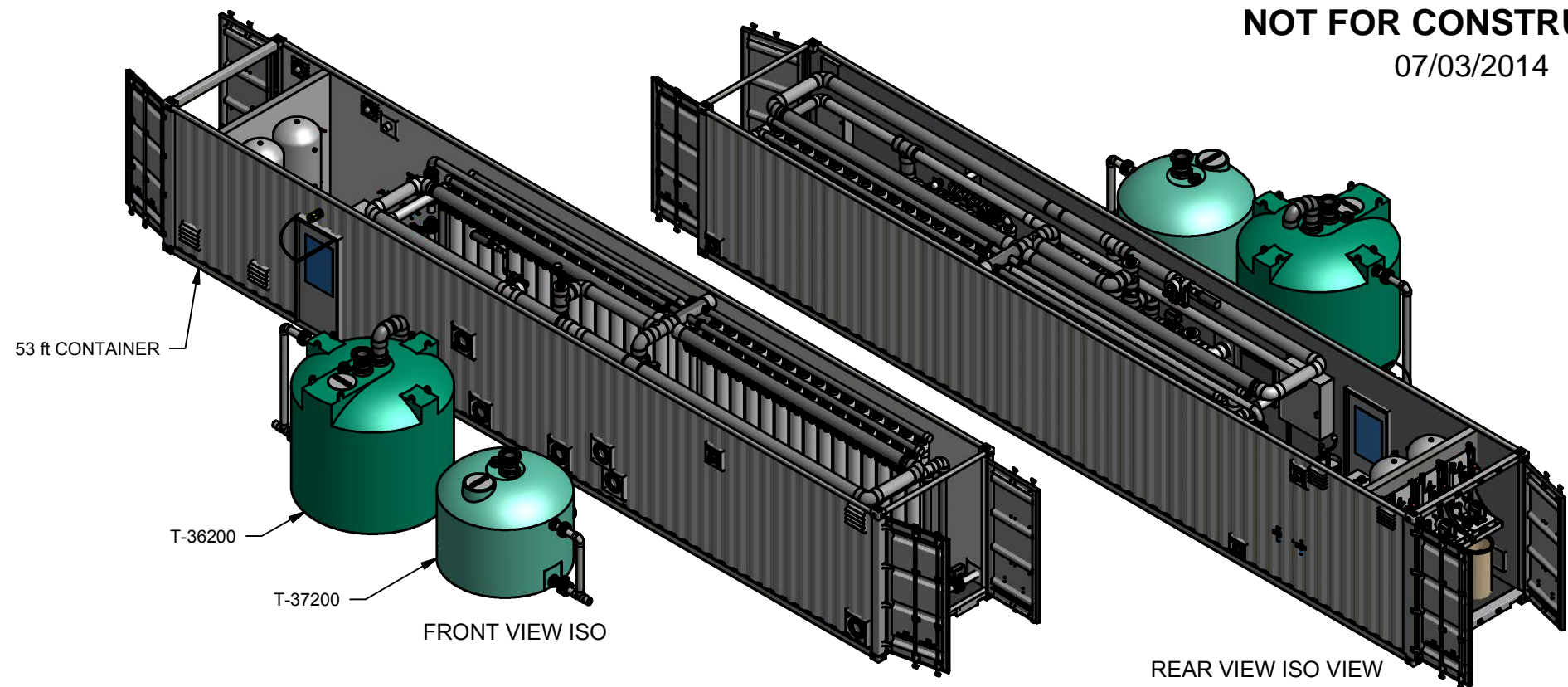
CONTROL BUILDING GENERAL ARRANGEMENT

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NOTES:

1. REFERENCE P&ID #P14761-C01-0001.
2. ALL WELDING TO CONFORM TO: AWS D1.1.
3. NO VERTICAL DOWN WELDS ARE ALLOWED UNLESS CERTIFIED PER AWS D1.1.
4. STITCH WELDS NOT ALLOWED UNLESS APPROVED BY H₂O INNOVATION.
5. WELDER CERTIFICATION FOR ALL WELDERS MUST BE PROVIDED TO H₂O INNOVATION.
6. BOLTS AND NUTS ARE STAINLESS STEEL TYPE 18-8 SS. WASHERS AND LOCK WASHERS ARE STAINLESS STEEL TYPE 18-8 SS. DIMENSIONS PER ASME B18.2.1. MECHANICAL PROPERTIES PER CONDITION CW OF ASTM F593. THREADS PER ANSI B1.1 CLASS 2A.
7. ALL STAINLESS STEEL TO BE PASSIVATED TO ASTM 380-06. TEST REPORT REQUIRED.
8. SAND BLAST TO SSPC-SSP6 FINISH. ACCEPTABLE FOR POWDER COAT OR PAINTING.
9. APPLY ONE (1) COAT, WITH MINIMUM DRY FILM THICKNESS (DFT) PER COAT OF 4 TO 7 MILS, OF POLYAMIDE EPOXY PRIMER, PITT-GUARD 95-245 SERIES FROM PPF OR APPROVED EQUAL.
10. APPLY TWO (2) COATS, WITH MINIMUM DRY FILM THICKNESS (DFT) PER COAT OF 2 TO 3 MILS, OF ACRYLIC ALIPHATIC URETHANE PAINT. PITTHANE ULTRA 95-812 SERIES FROM PPG OR APPROVED EQUAL. TO ACHIEVE FINAL 8 TO 13 MILS TOTAL DRY FILM THICKNESS.
11. ALL PVC PIPE TO BE SCHEDULE 80, GRAY, U.N.O. PIPE MATERIAL TO CONFORM TO ASTM D-1784. PHYSICAL DIMENSIONS, SCHEDULES, AND TOLERANCES TO CONFORM TO ASTM D-1785.
12. ALL PVC FITTINGS TO BE SCHEDULE 80, GRAY. SOCKET FITTINGS TO CONFORM TO ASTM D-2467.
13. ALL PVC FLANGED CONNECTIONS TO BE VAN STONE STYLE WITH GLASS FILLED PVC RING, CLASS 150, U.N.O. PVC MATERIAL TO CONFORM TO ASTM D-1784. BOLT HOLE PATTERN PER ANSI B16.5; ASTM D-4024.
14. PRIMER TO CONFORM TO ASTM-656. PVC SOLVENT CEMENT TO CONFORM TO ASTM D-2564.
15. ALL GASKETS TO CONFORM TO ASTM F-447.
16. TAP (1/2" NPT ONLY) INTO PVC / CPVC FITTING IS ALLOWED BUT ONLY IN SPECIFIC LOCATION WHERE NO ADEQUATE FITTING IS PROVIDED.
17. FINISHED ASSEMBLY (WITHOUT HFUF MODULES) MUST BE HYDROSTATICALLY TESTED TO 70 psi. TESTING MUST BE WITNESSED BY AN H₂O INNOVATION REPRESENTATIVE.
18. FITTINGS PROTRUDING THROUGH THE ROOF WILL BE REMOVED FOR SHIPPING TO BE SITE INSTALLED.
19. APPROXIMATE WEIGHT: 82,061 LBS.

TOTAL QUANTITY REQUIRED FOR THE PROJECT:	1
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NOTE:
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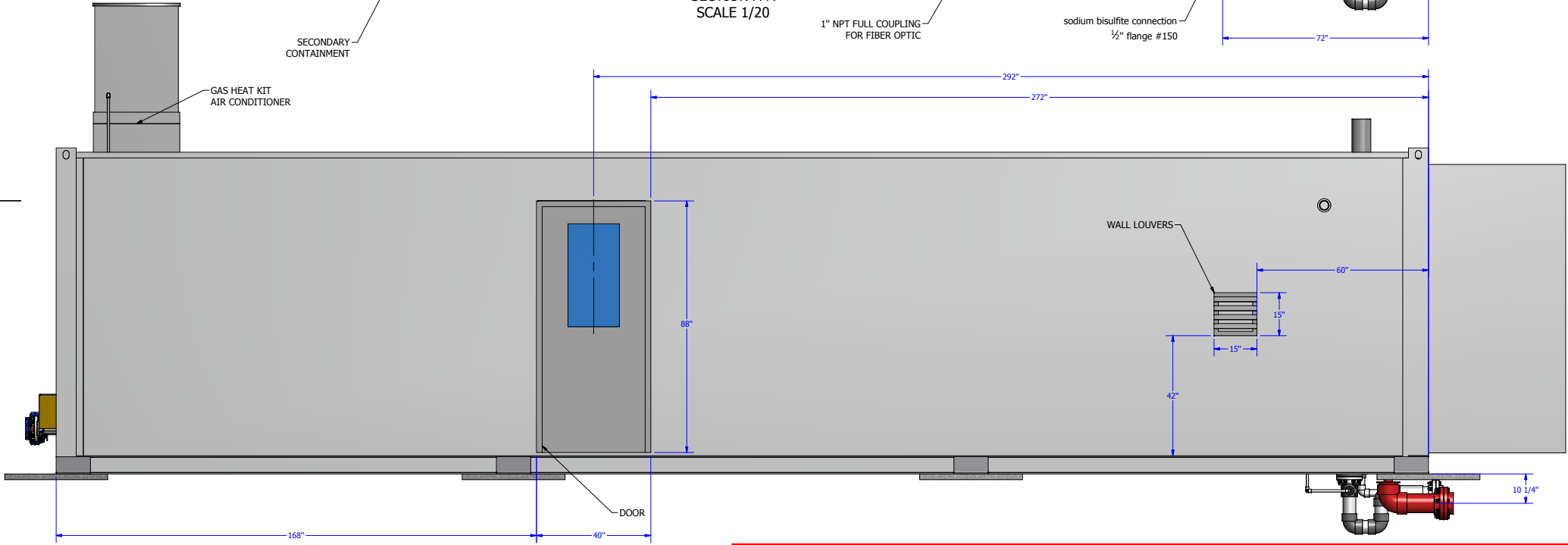
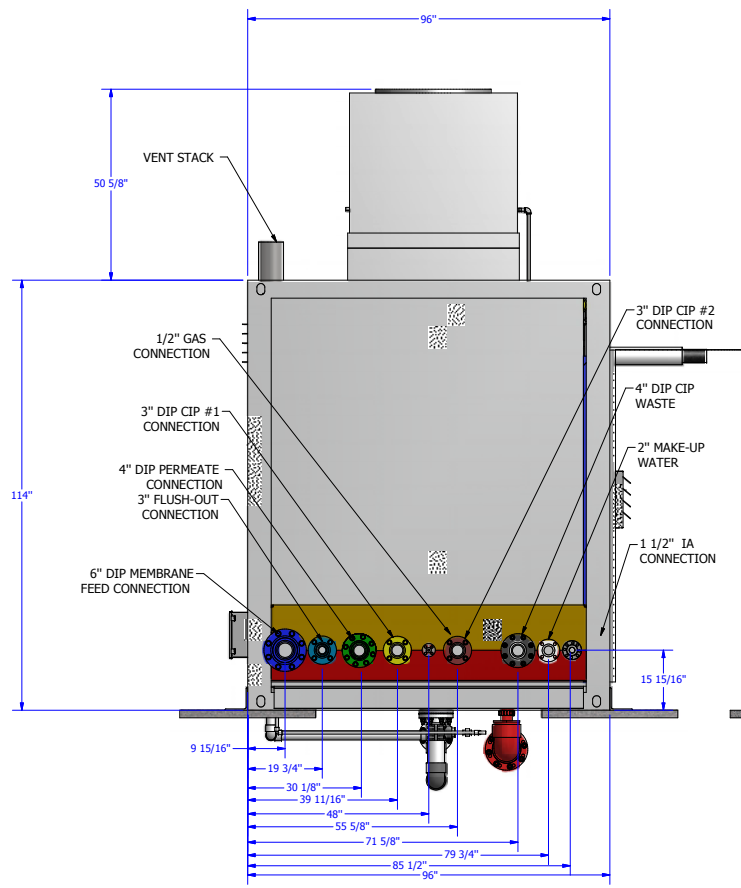
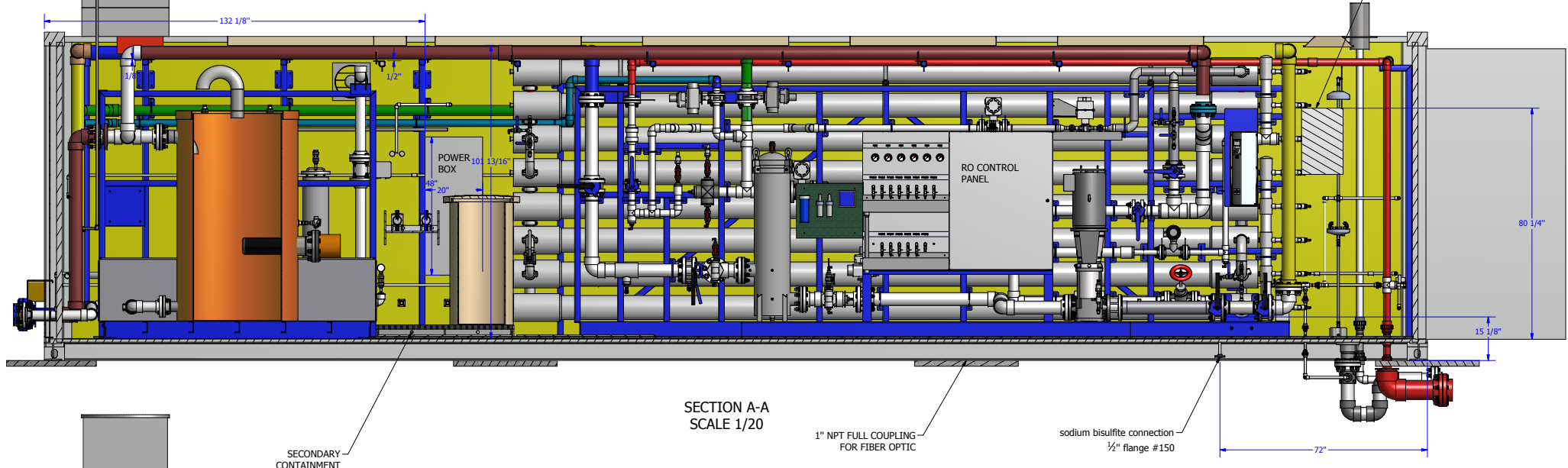
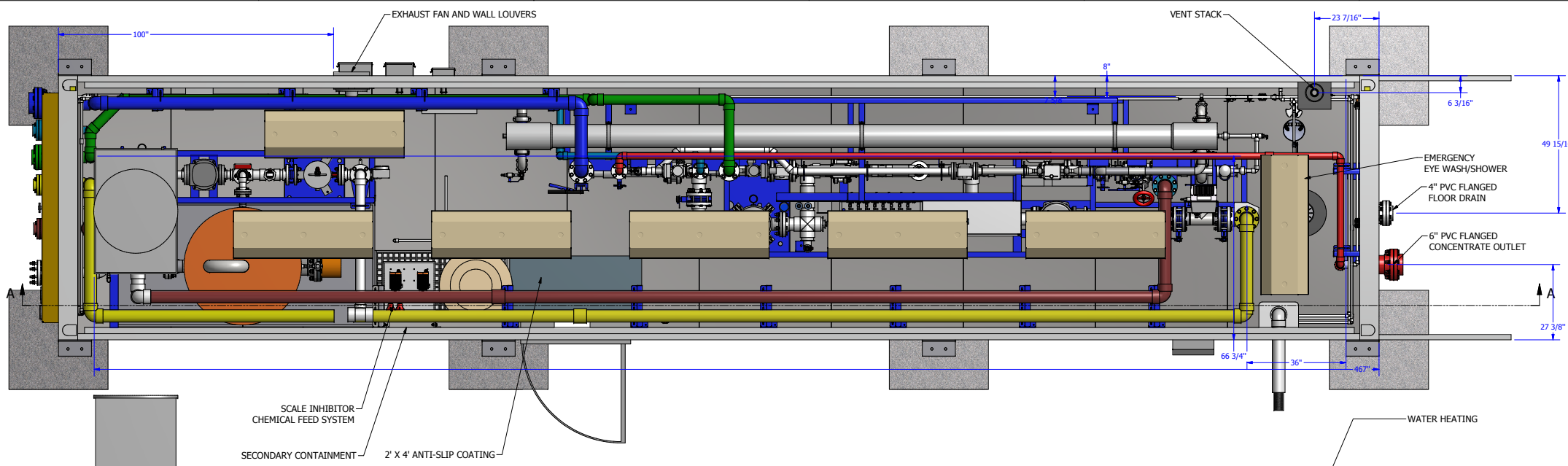
DRAWING REVISION		REV	DATE	REVISION DESCRIPTION	DRAWN	CHKD	ENG	APPVD
01	2014-02-21			REVISED PER COMMENTS	Y.D.	B.K.	R.G.	R.G.
00	2014-02-03			PRELIMINARY	Y.D.	B.K.	R.G.	R.G.



**UF
GENERAL ARRANGEMENT**

M-03

**PRELIMINARY
NOT FOR CONSTRUCTION**
07/03/2014



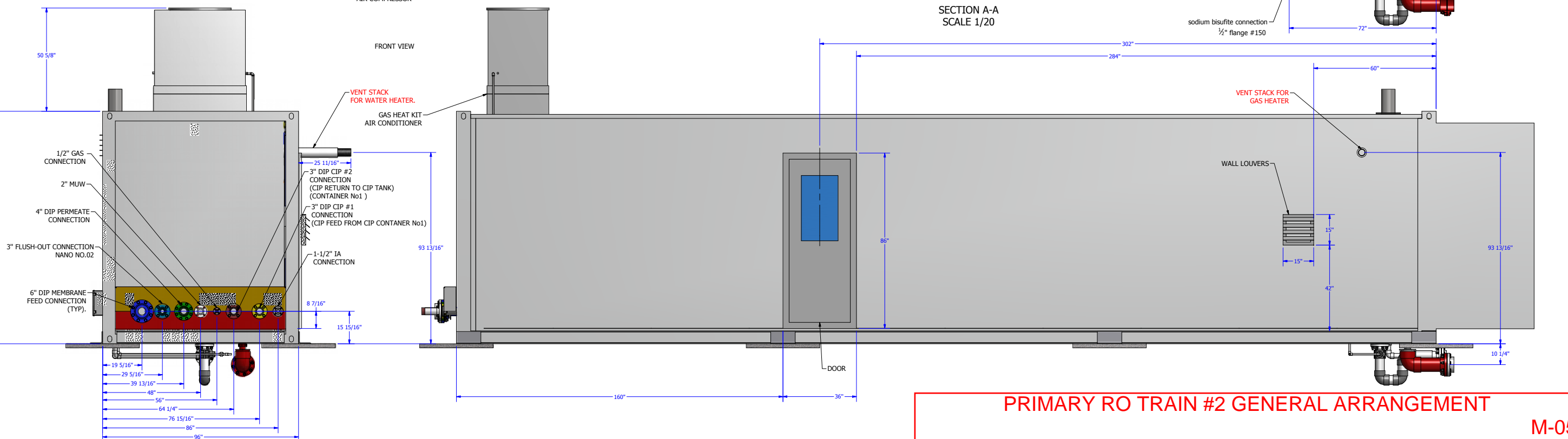
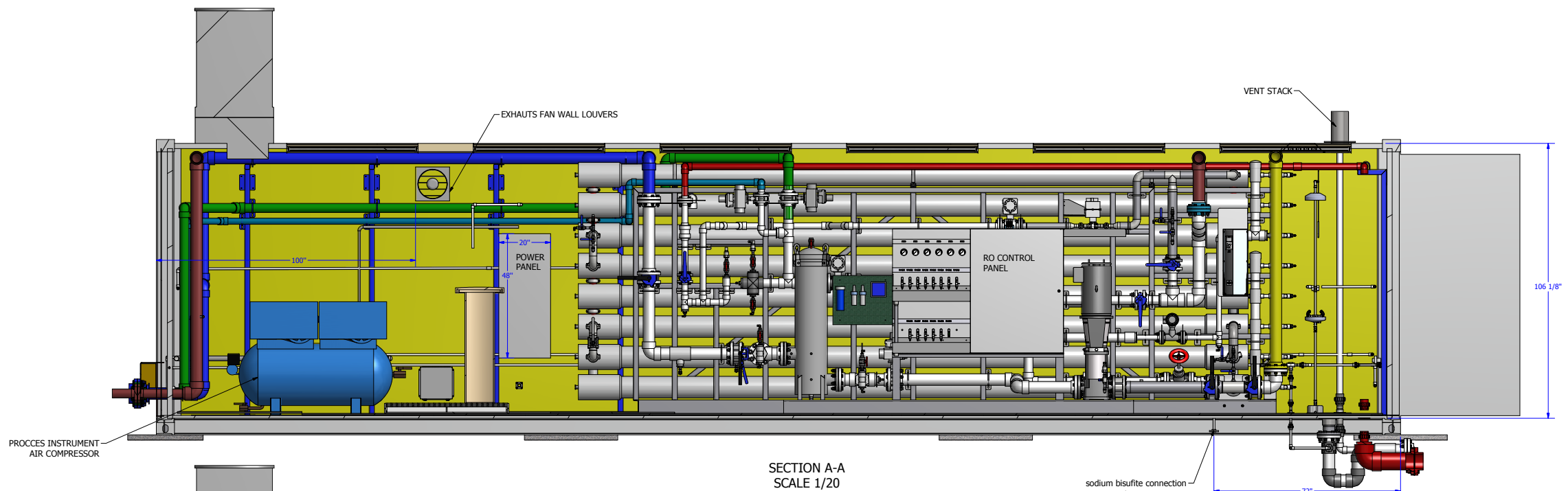
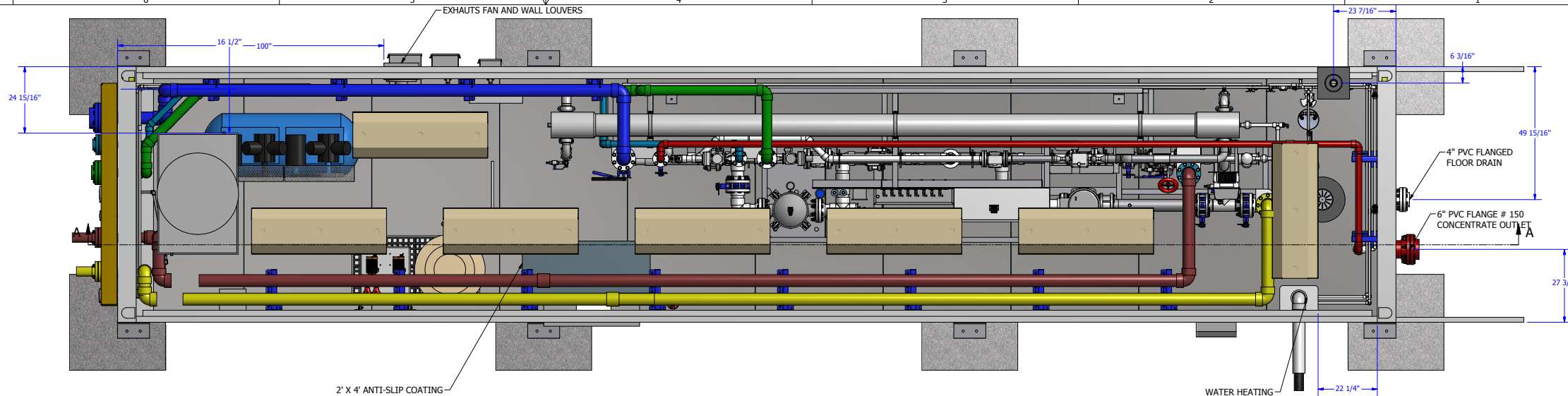
PRIMARY RO TRAIN #1 GENERAL ARRANGEMENT

TOP VIEW
NANOFILTER BLDG NO.02
PRELIMINARY DRAWING

APPROXIMATE WEIGHTS
SHIPPING WEIGHT 21 385 LBS

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014

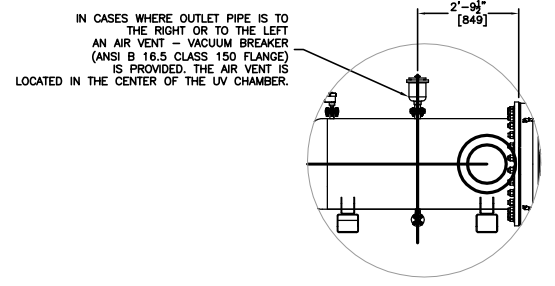


PRIMARY RO TRAIN #2 GENERAL ARRANGEMENT

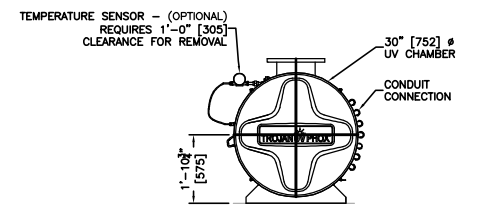
M-05

PRELIMINARY NOT FOR CONSTRUCTION

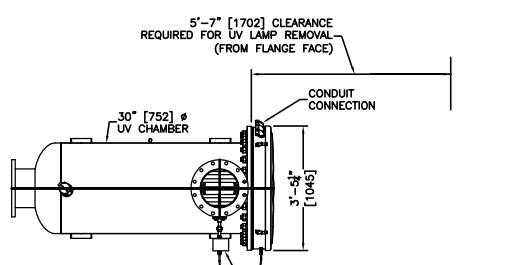
07/03/2014



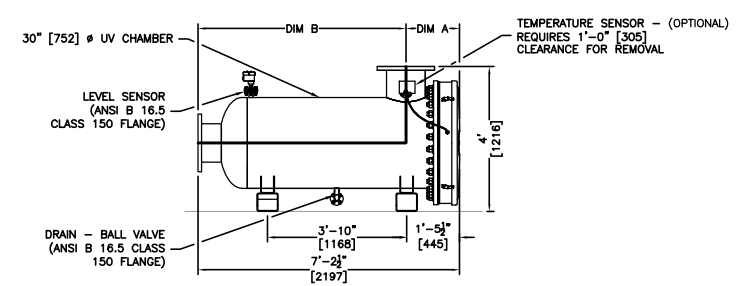
VENT
SCALE: NOT TO SCALE



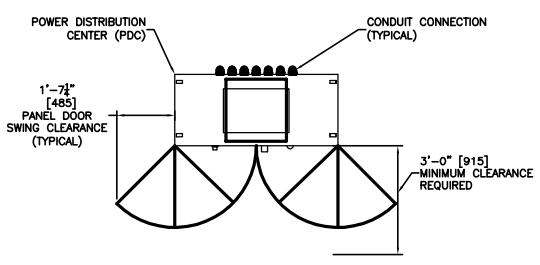
OUTLET END VIEW
SCALE: NOT TO SCALE



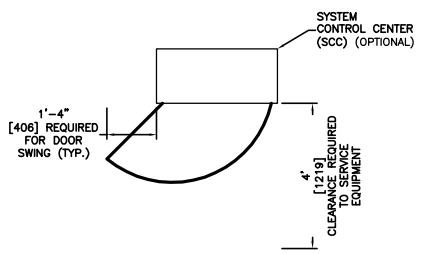
PLAN VIEW
SCALE: NOT TO SCALE



FRONT VIEW
SCALE: NOT TO SCALE



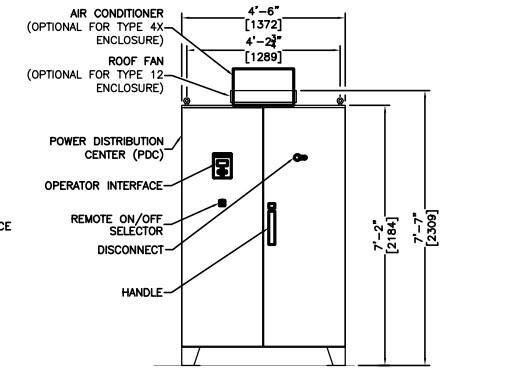
PLAN VIEW OF PDC
SCALE: NOT TO SCALE



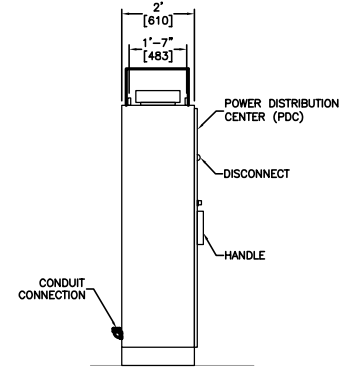
PLAN VIEW OF SCC
SCALE: NOT TO SCALE

- NOTES:**
- : MAXIMUM OPERATING PRESSURE TO BE 65 psi [4.5 BAR].
 - : INTERCONNECTING CABLE LENGTH TO BE 12 FT. [3658mm] FROM CONDUIT CONNECTOR ON UV CHAMBER END CAP TO CONDUIT CONNECTOR ON PDC.
 - : INLET/OUTLET GASKETS AND HARDWARE TO BE SUPPLIED BY CUSTOMER.
 - : INLET/OUTLET AWWA C207 CLASS D FLANGE.
 - : HEAT EXCHANGER OR ROOF FANS ARE AVAILABLE METHODS FOR COOLING ON PDC.
 - : HEAT EXCHANGER SHOWN FOR CLARITY.
 - : 72AL75 CHAMBER WEIGHT DRY 2100 lbs. [953 kg.] / WET 3700 lbs. [1678 kg.]
 - : PDC WEIGHT 800 lbs [362 kg.]
 - : UV CHAMBER MATERIAL TO BE 316 STAINLESS STEEL.
 - : POWER DISTRIBUTION CENTER TO BE PAINTED MILD STEEL (STANDARD) 304 SST (OPTIONAL).
 - : SCC MATERIAL TO BE MILD STEEL (STANDARD) OR 304 SST (OPTIONAL) OR 316L SST (OPTIONAL).
 - : INLET AND OUTLET PIPES CAN BE FROM LEFT OR RIGHT ORIENTATIONS. TOP AND BOTTOM PIPE ORIENTATIONS ARE SHOWN FOR CLARITY ONLY.
 - : SCC TO PDC WIRING MAXIMUM DISTANCE OF 1000 FT. [304.8m] REQUIRING A FIBER OPTIC CABLING - ALL OTHER WIRING HAS A MAXIMUM DISTANCE OF 300 FT. [91.4m].
 - * INDICATES DIMENSIONS ARE SUBJECT TO CHANGE BASED ON PROJECT SPECIFIC REQUIREMENTS.

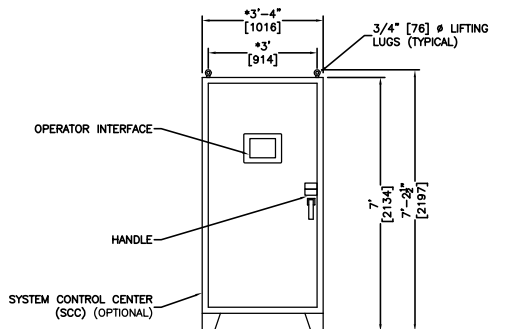
INLET / OUTLET PIPE SIZE (SS)	DIM A	DIM B
8	1'-4" [402]	5'-11" [1805]
12	1'-6" [454]	5'-9" [1753]
16	1'-7" [496]	5'-7" [1711]
20	1'-9" [546]	5'-5" [1660]



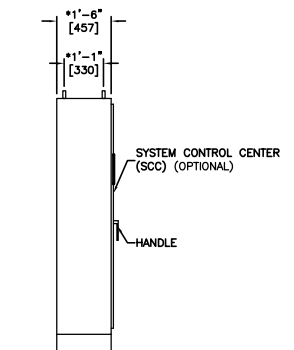
FRONT VIEW OF PDC
SCALE: NOT TO SCALE



LEFT VIEW OF PDC
SCALE: NOT TO SCALE



FRONT VIEW OF SCC
SCALE: NOT TO SCALE



LEFT VIEW OF SCC
SCALE: NOT TO SCALE

TROJANUV

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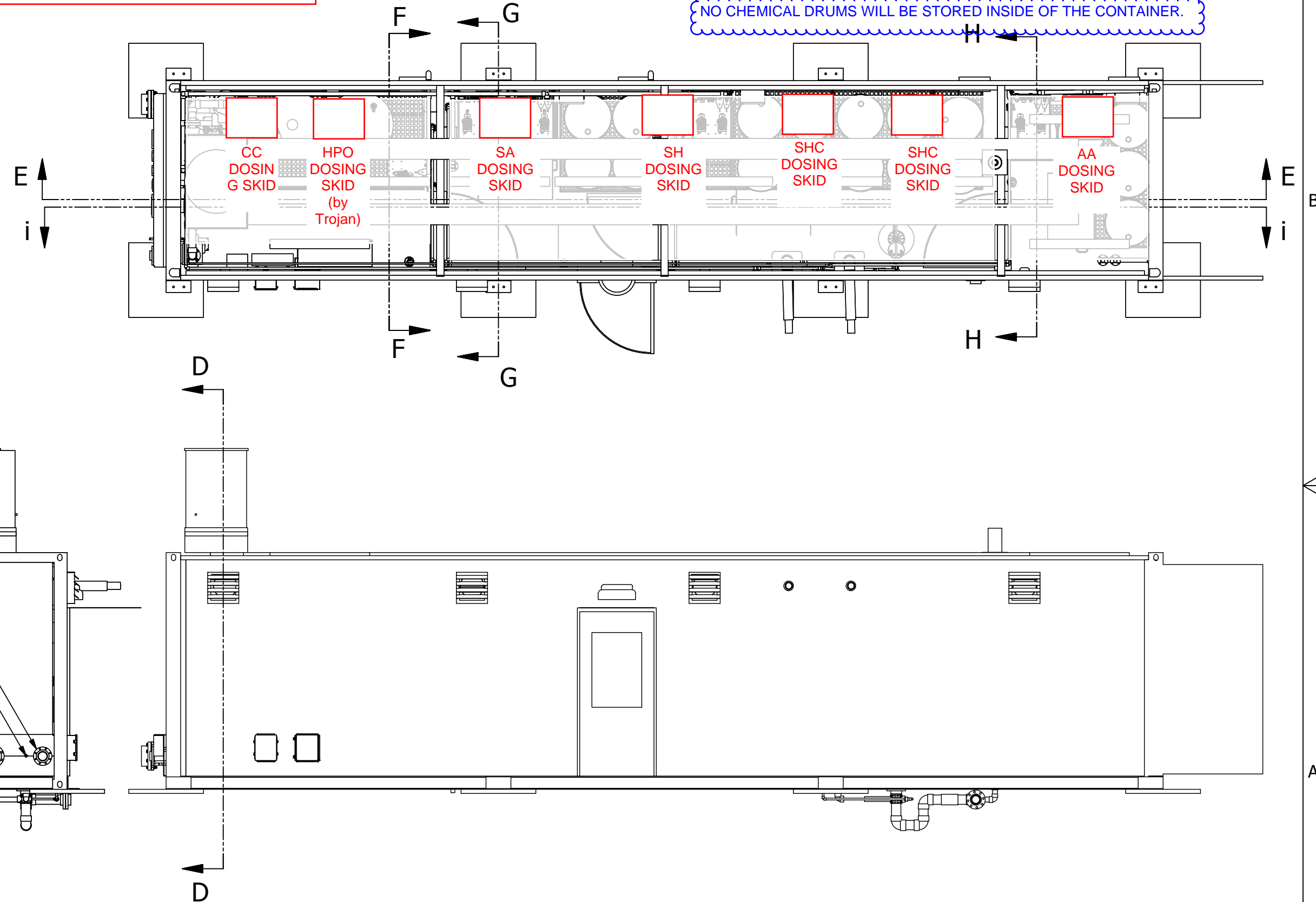
**UV
GENERAL ARRANGEMENT
M-07**

M-08-CHEMICAL SYSTEM GENERAL ARRANGEMENT-HH-062514-V002

**PRELIMINARY
NOT FOR CONSTRUCTION**

07/03/2014

NO CHEMICAL DRUMS WILL BE STORED INSIDE OF THE CONTAINER.



- 4" DIP BYPASS
- 1/2" GAS
- 6" DIP PERMEATE FROM NANO-FILTRATION BLDG. 1&2
- 2" DIP WATER SUPPLY
- 1 1/2" PVC SODIUM HYPOCHLORITE EMERGENCY CARRIER PIPE TO AERATOR INFLUENT W1/4" FEED TUBING
- 1 1/2" PVC POTASSIUM PERMEGANATE CARRIER PIPE W1/4" FEED TUBING TO AERATOR EFFLUENT
- 4" DRAIN TO WASTE HOLDING TANK
- 8" DIP TREATED WATER TO CLEARWELL

NOTE:
THE INFORMATION, SPECIFICATIONS AND DATA SHOWN ON THIS PRINT ARE FURNISHED BY AND ARE TO REMAIN THE PROPERTY OF H₂O INNOVATION.

THE PURPOSE OF THIS DOCUMENT IS TO FACILITATE THE INSTALLATION, MAINTENANCE AND OPERATION OF THE EQUIPMENT REPRESENTED BY SAID PRINT. NO OTHER USE OF THIS DOCUMENT SHALL BE MADE WITHOUT EXPRESS WRITTEN CONSENT FROM H₂O INNOVATION.

DRAWING REVISION		DRAWN	CHKD	ENG	APPVD
REV	DATE				



TIT: CHEMICAL SYSTEM GA (CONTAINER #6)		FILE: pid
DRAWN BY: Y.Dube		DATE: 2012-10-26
ENGINEER: M.B.		SHEET: 2 OF 4
CHECKED: M.B.	APPROVED:	SCALE: SCALE
DRAWING NUMBER: M-08		REVISION: 07

PRELIMINARY NOT FOR CONSTRUCTION

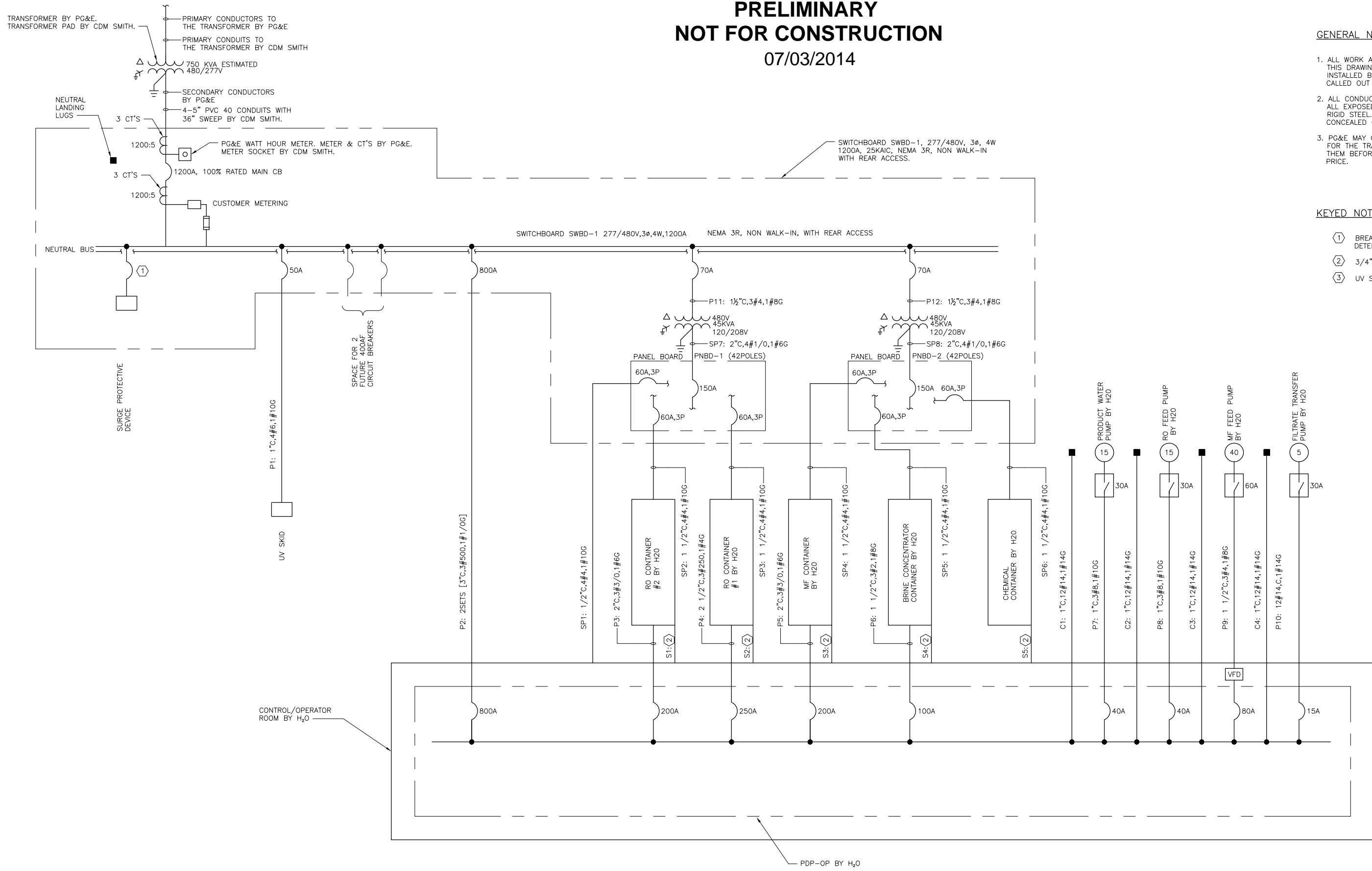
07/03/2014

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2. ALL CONDUCTOR IS COPPER XHHW-2 ALL EXPOSED CONDUIT IS GALVANIZED RIGID STEEL. ALL BURIED OR CONCEALED CONDUIT IS PVC 40.
3. PG&E MAY CHARGE UP-FRONT COSTS FOR THE TRANSFORMER. CHECK WITH THEM BEFORE DETERMINING FINAL BID PRICE.

KEYED NOTES:

- ① BREAKER AMPERAGE SHALL BE DETERMINED BY THE MFR
- ② 3/4" C, CAT6
- ③ UV SKID REQUIRES 277/480V.

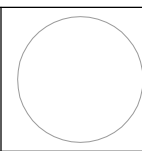


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K.RAY
 DRAWN BY: B.J.FRANSEN
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

WARNING
 0 1/2" 1"
 IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY



**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

**ELECTRICAL
SINGLE-LINE DIAGRAM**

PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO.
E-03

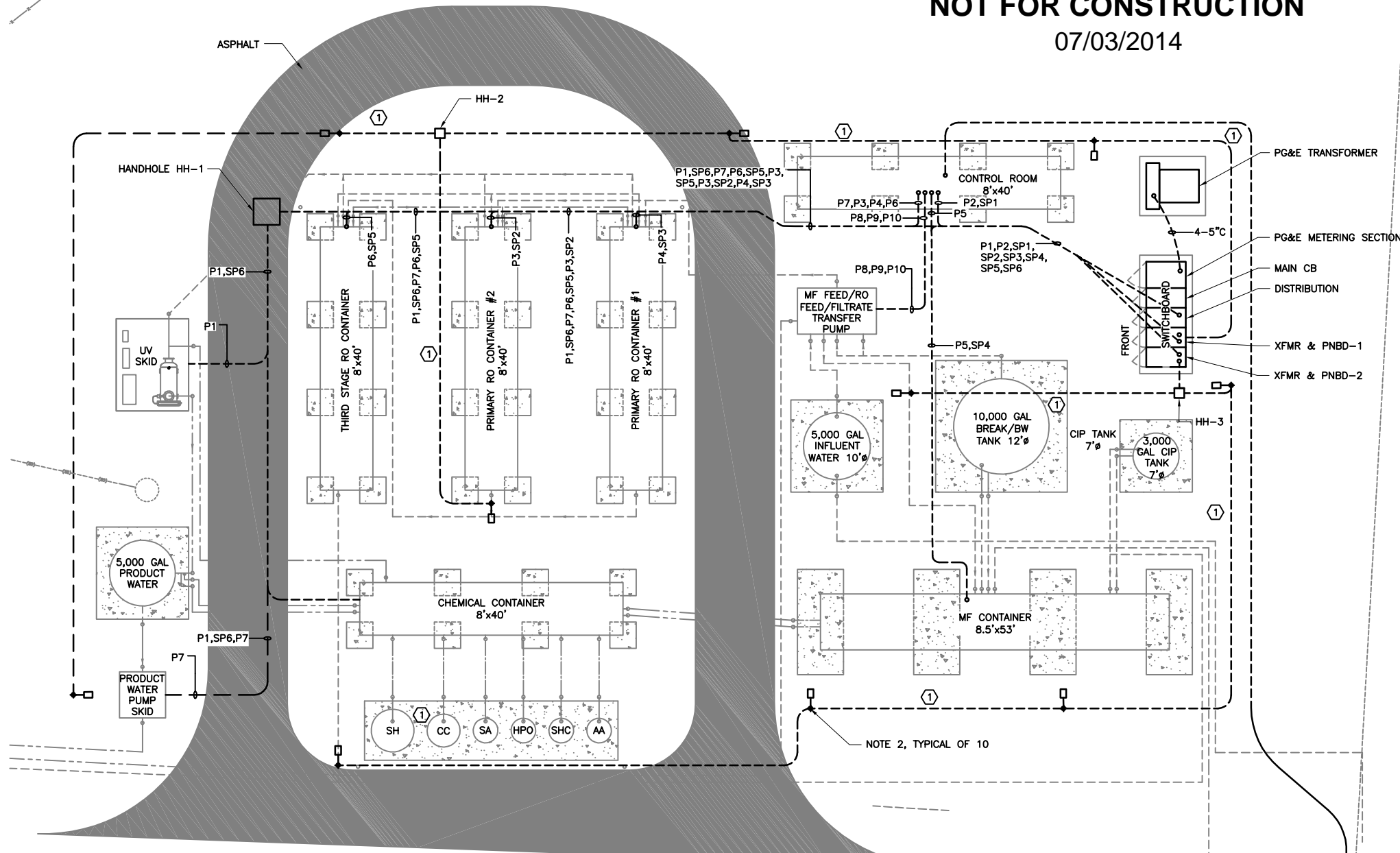
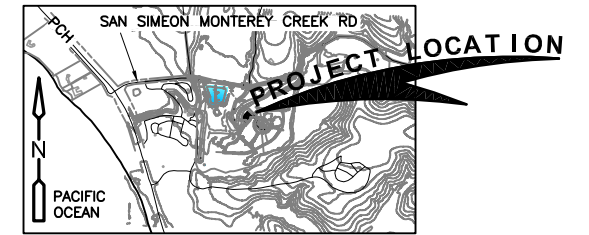
NOT FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

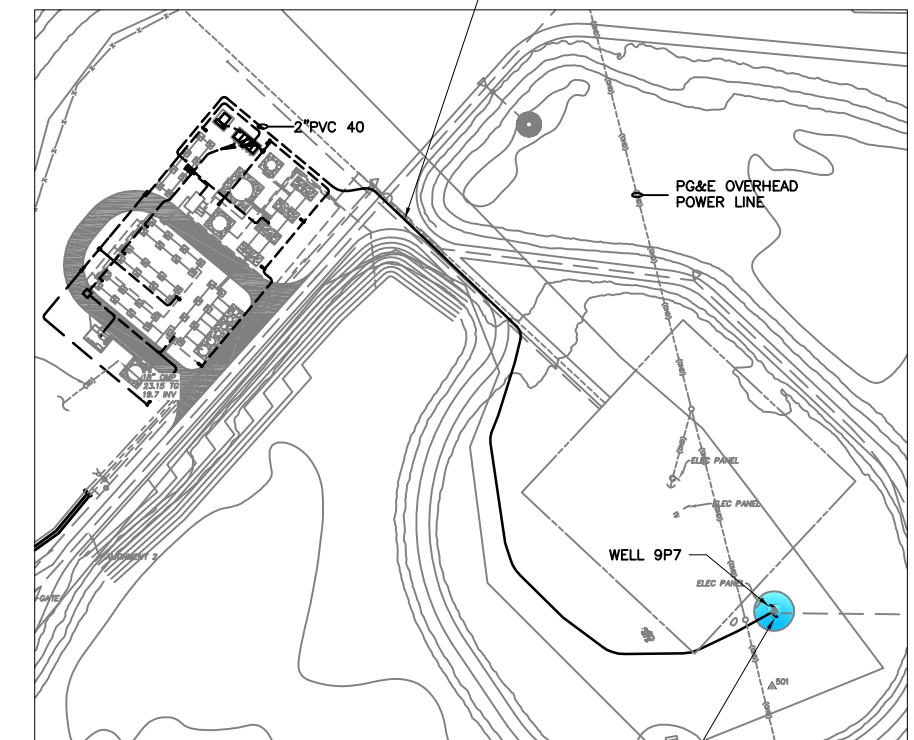
07/03/2014

LEGEND

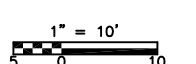
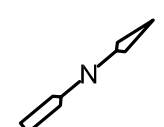
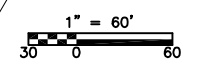
- CONCEALED OR BURIED CONDUIT
- EXPOSED CONDUIT



2" INTERMEDIATE METAL CONDUIT SUPPORTED EVERY 10'. FILL WITH 6#14, 1#14G, 1-2/C, #16SH. SEE P&ID DRAWINGS FOR CONNECTIONS.



DEMO THE EXISTING WELL PUMP STARTER. PURCHASE & INSTALL A NEW SIZE 3 FVNR COMBINATION STARTER NEMA 3R CONSTRUCTION. STARTER SHALL HAVE AN HOA SWITCH WITH A DRY AUTO CONTACT FOR CONNECTION TO THE PLC.



GENERAL NOTES:

1. ALL EXPOSED CONDUIT SHALL BE GRS. ALL BURIED OR CONCEALED CONDUIT SHALL BE PVC 40. ALL BURIED CONDUIT SHALL BE CONCRETE ENCASED. REINFORCING IS NOT REQUIRED.
2. 150W HPS FIXTURE ON 15' TALL STEEL POLE, 208V, FULL CUT OFF.

KEYED NOTES:

① 1" C, 2#12, 1#12G

PERCOLATION PONDS

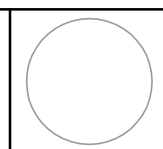
NOTE 2, TYPICAL OF 10

p:\dcp\p1\FW_XM1\138760\104133\04 Design Services\NL_PDR\02 Civi\10 CADD\C-02.dwg
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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K.RAY
DRAWN BY: B.J.FRANSEN
SHEET CHK'D BY: -
CROSS CHK'D BY: -
APPROVED BY: -
DATE: JUNE, 2014

WARNING
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**CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

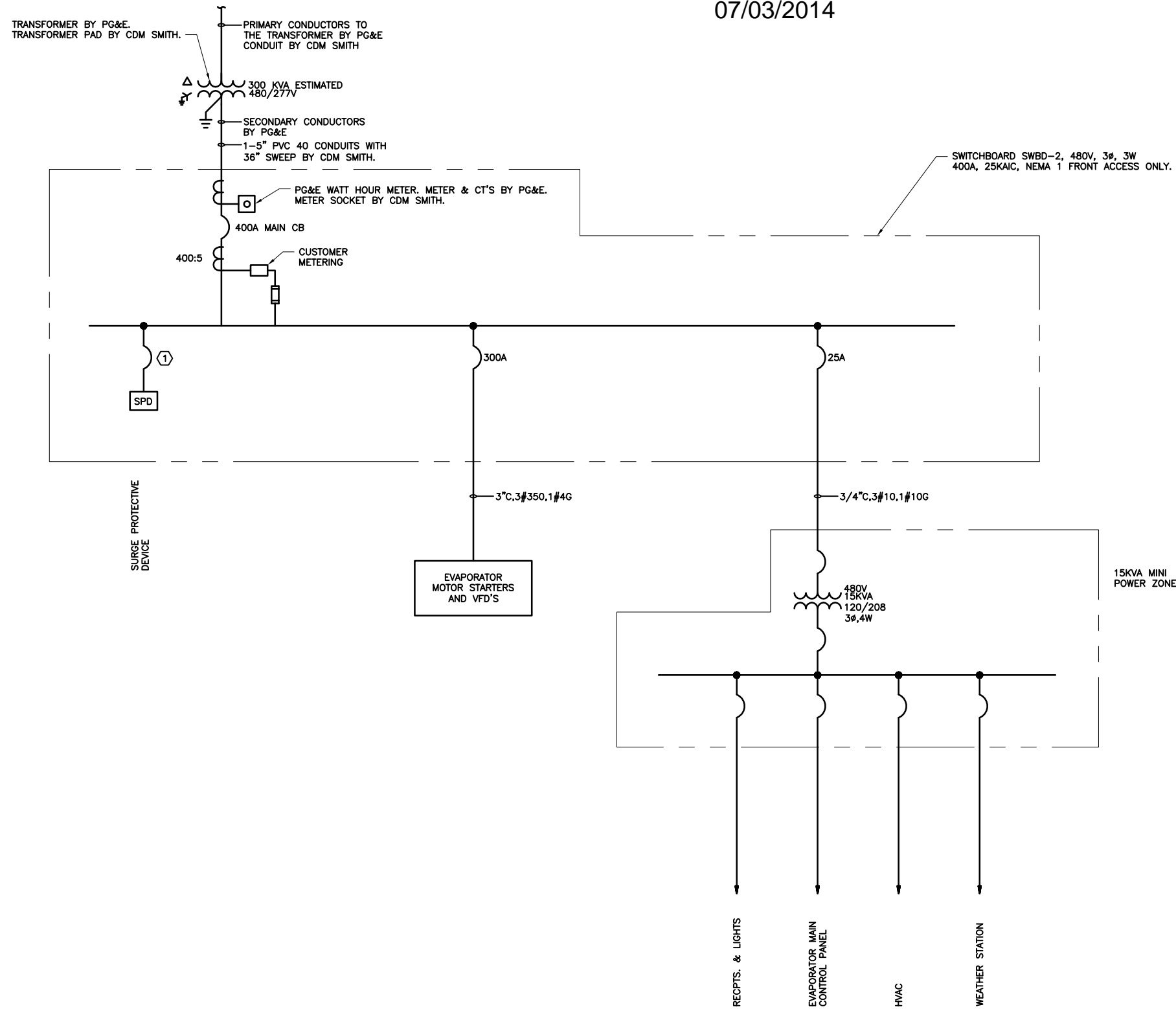
**ELECTRICAL
 POWER AND CONTROL PLAN**

PROJECT NO. 138760-104133
FILE NAME:
SHEET NO.
E-04

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3. PG&E MAY CHARGE UP-FRONT COSTS FOR THE TRANSFORMER. CHECK WITH THEM BEFORE DETERMINING FINAL BID PRICE.

KEYED NOTES:

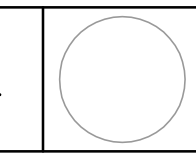
- ① BREAKER AMPERAGE SHALL BE DETERMINED BY THE MFR

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K.RAY
 DRAWN BY: B.J.FRANSEN
 SHEET CHK'D BY:
 CROSS CHK'D BY:
 APPROVED BY:
 DATE: JUNE, 2014

WARNING
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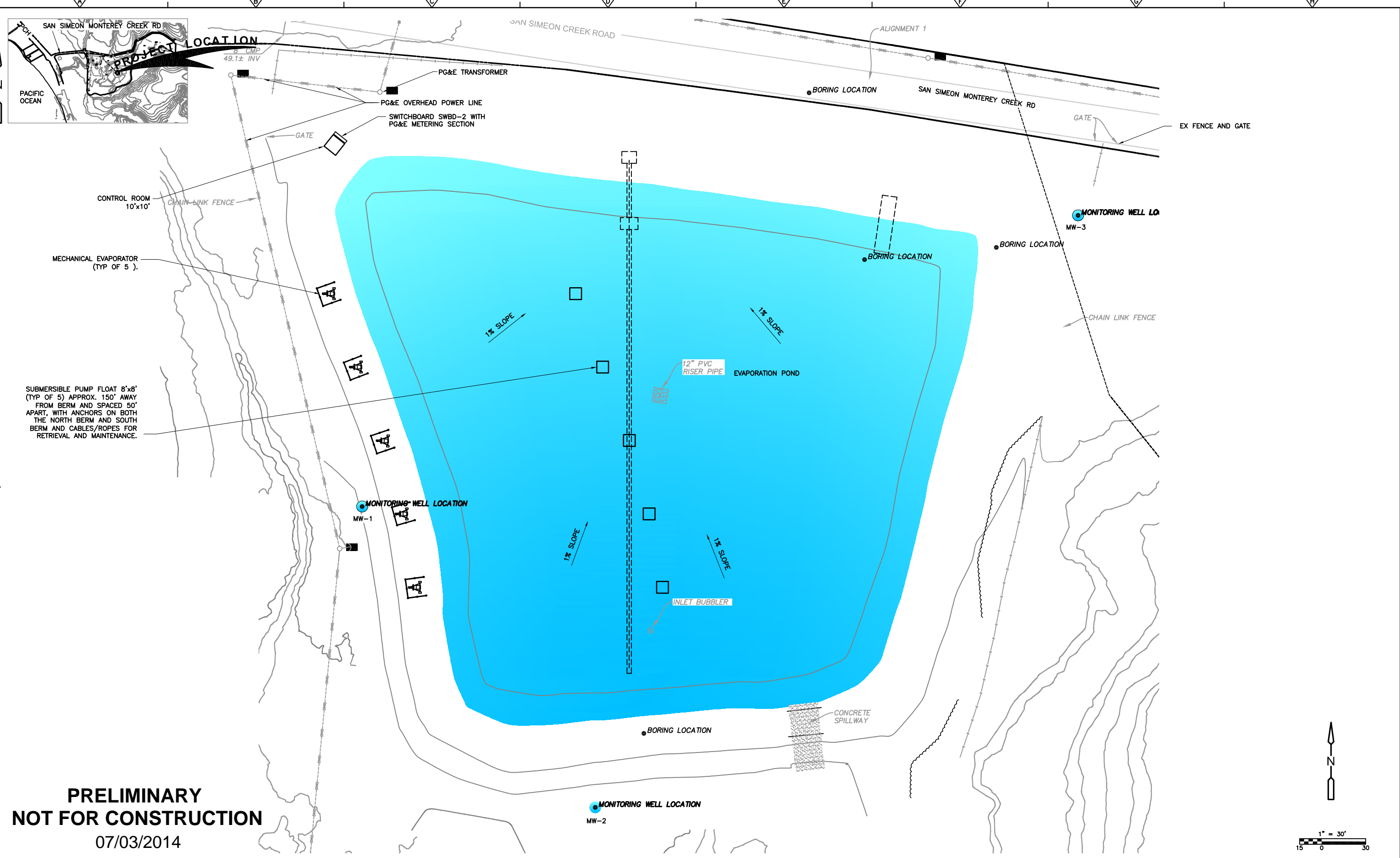
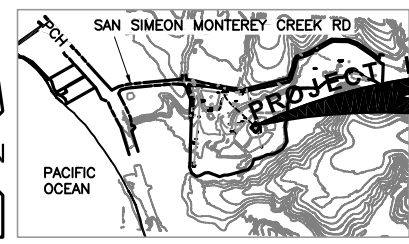


**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

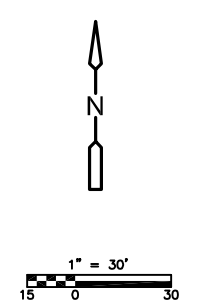
**ELECTRICAL
EVAPORATORS SINGLE-LINE DIAGRAM**

PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO.
E-05

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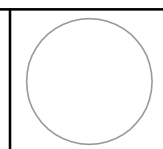
PRELIMINARY
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 07/03/2014



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____
 DRAWN BY: K.RAY
 SHEET CHK'D BY: B.J.FRANSEN
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: JUNE, 2014

WARNING
 0 1/2" 1"
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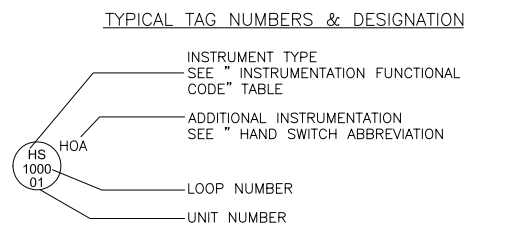
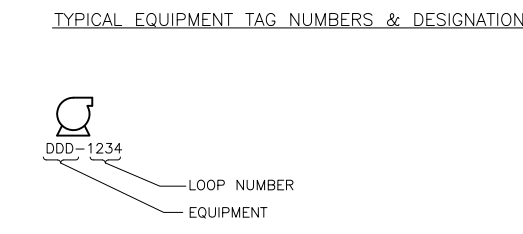
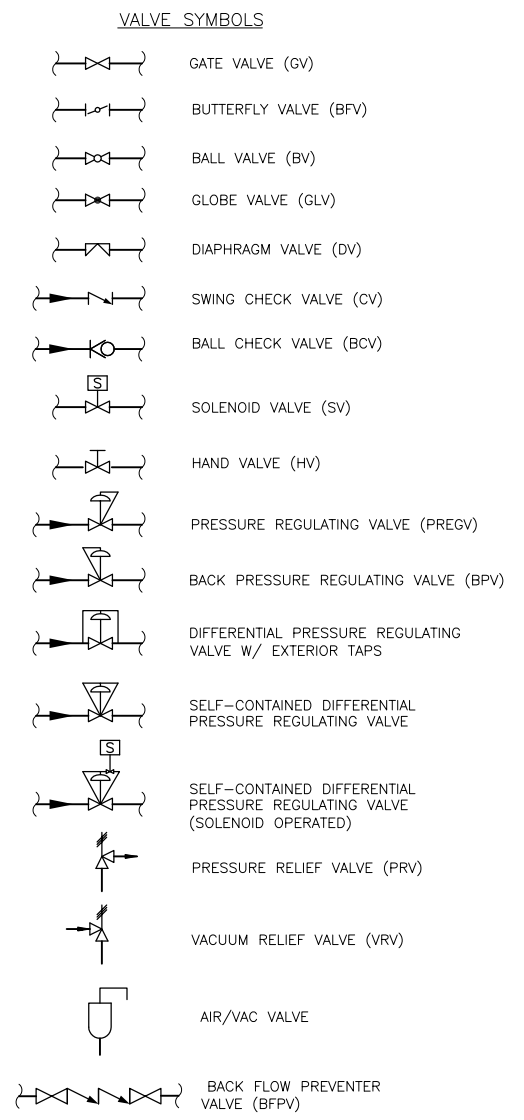
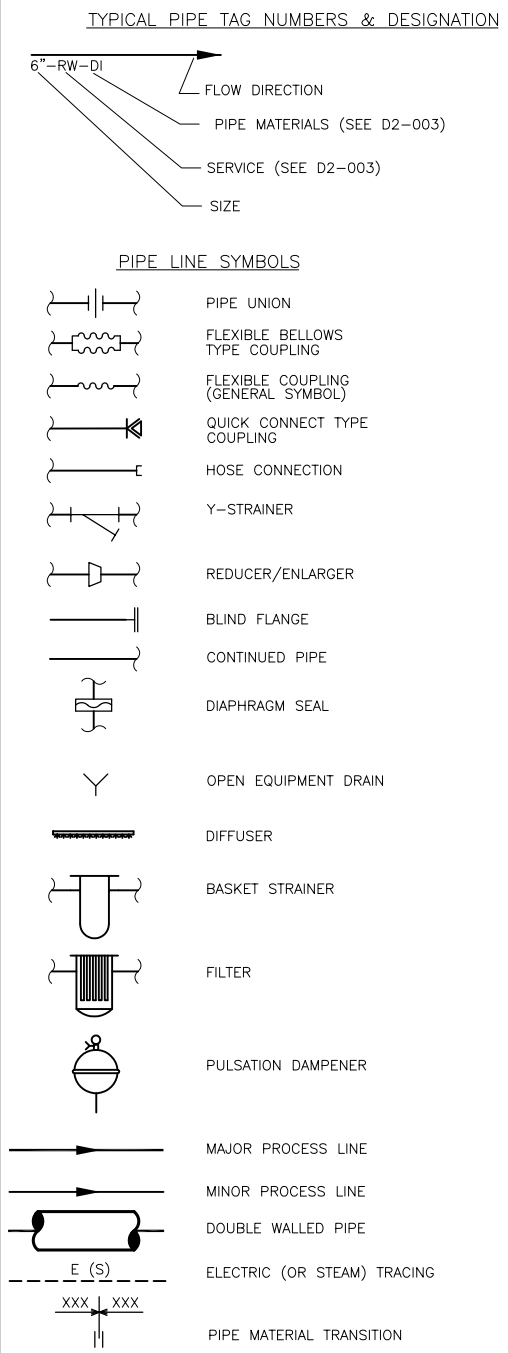
CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT
 CAMBRIA COMMUNITY SERVICE DISTRICT

ELECTRICAL
 EVAPORATION POND PLAN
 E-06

PROJECT NO. 138760-104133
 FILE NAME:
 SHEET NO.
E-06

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HAND SWITCH ABBREVIATIONS

AO = AUTO/OFF
 AM = AUTO/MANUAL
 CM = COMPUTER/MANUAL
 ES = EMERGENCY STOP
 FR = FORWARD/REVERSE
 FOR = FORWARD/OFF/REVERSE
 FS = FAST/SLOW
 FOS = FAST/OFF/SLOW
 HOA = HAND/OFF/AUTO
 LLS = LEAD/LAG/STANDBY
 LOC = LOCAL/OFF/COMPUTER

LOR = LOCAL/OFF/REMOTE
 LOS = LOCKOUT/STOP
 LA = LOCAL/AUTO
 L/R = LOCAL/REMOTE
 OC = OPEN/CLOSE
 OCA = OPEN/CLOSE/AUTO
 OO = ON/OFF
 OOA = ON/OFF/AUTO
 OSC = OPEN/STOP/CLOSE
 RSL = RAISE/STOP/LOWER
 RST = RESET
 SS = START/STOP
 SOR = START/OFF/RESET

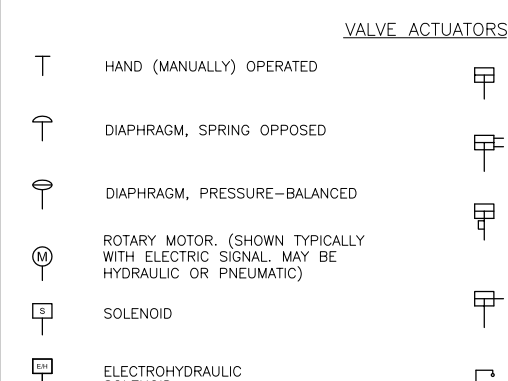
ELECTRICAL / AIR SOURCES

UPS ———> UPS POWER VIA PCSS PROVIDED UPS DIRECT CONNECTION
 [UPS] ———> UPS POWER VIA PCSS PROVIDED UPS LIGHTING PANEL
 ES ———> PCSS SUPPLIED PANEL ELECTRICAL SOURCE
 [ES] ———> VENDOR SUPPLIED PANEL ELECTRICAL SOURCE
 [ES] ———> NON-PCSS SUPPLIED PANEL ELECTRICAL SOURCE
 IA ———> INSTRUMENT AIR SOURCE

NOTE 1: ALL POWER SOURCES ARE 120 VAC UNLESS OTHERWISE STATED ON THE DRAWINGS

NOTE 2: REFER TO UPS SPECIFICATIONS FOR POWER REQUIREMENTS OF PANEL

NOTE 3: REFER TO OTHER SPECIFICATION SECTIONS FOR POWER REQUIREMENTS OF INSTRUMENTS

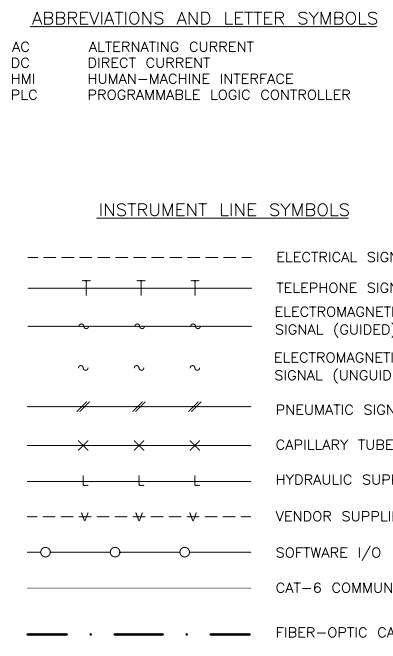
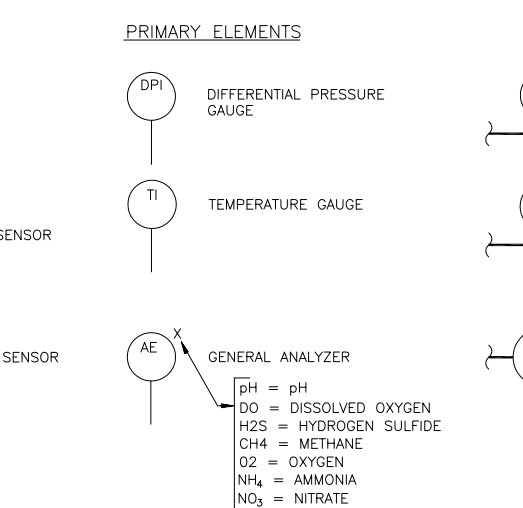


CYLINDER, SINGLE-ACTING, SPRING OPPOSED WITHOUT POSITIONER OR PILOT.

CYLINDER, DOUBLE ACTING, WITHOUT POSITIONER OR PILOT

EXAMPLE OF CYLINDER WITH POSITIONER
 SOLENOID VALVE, SIGNAL CONVERTER, etc.
 ANY CYLINDER THAT IS ASSEMBLED WITH A PILOT SO THAT ASSEMBLY IS ACTUATED BY ONE CONTROLLED INPUT. PILOT MAY BE POSITIONER.

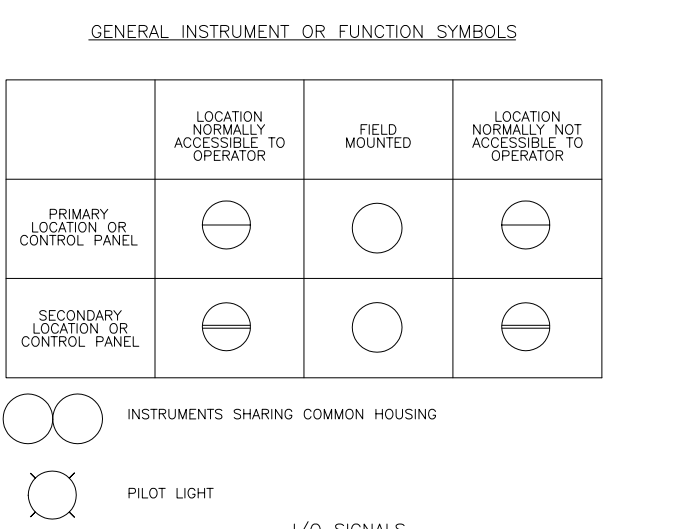
FLOAT ACTUATOR



GENERAL NOTES

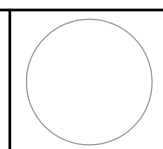
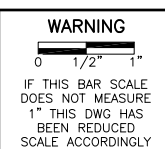
- THIS LEGEND APPLIES TO P&IDS ONLY AND MAY DIFFER FROM LEGENDS FOR OTHER SHEETS.
- IN GENERAL THIS LEGEND SHEET AND THE P&IDS ARE BASED ON INTERNATIONAL SOCIETY OF AUTOMATION (ISA) STANDARDS FOR PRACTICES FOR INSTRUMENTATION. SOME MODIFICATIONS, ADDITIONS AND ALTERATIONS HAVE BEEN MADE AS REQUIRED TO ACCOMMODATE PROJECT REQUIREMENTS.
- SOME PROCESS ITEMS, SUCH AS EQUIPMENT ISOLATION VALVES, BYPASS LINES, ETC., WHICH ARE NOT CRITICAL FOR AN UNDERSTANDING OF THE INSTRUMENTATION FUNCTIONS ARE NOT SHOWN ON THE P&IDS.
- SEE ELECTRICAL AND MECHANICAL SHEETS AND SPECIFICATIONS FOR ADDITIONAL CONTROL AND INTERLOCK REQUIREMENTS.
- LIGHTER WEIGHT LINES, SHOWN AS _____, INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE EXISTING. WEIGHTED LINES, SHOWN AS _____, OR HEAVIER _____, INDICATE EQUIPMENT, INSTRUMENTS OR PIPING THAT ARE NEW.

PRELIMINARY
NOT FOR CONSTRUCTION
 07/03/2014



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 DATE: JUNE, 2014



CAMBRIA EMERGENCY WATER SUPPLY PROJECT
 CAMBRIA COMMUNITY SERVICE DISTRICT

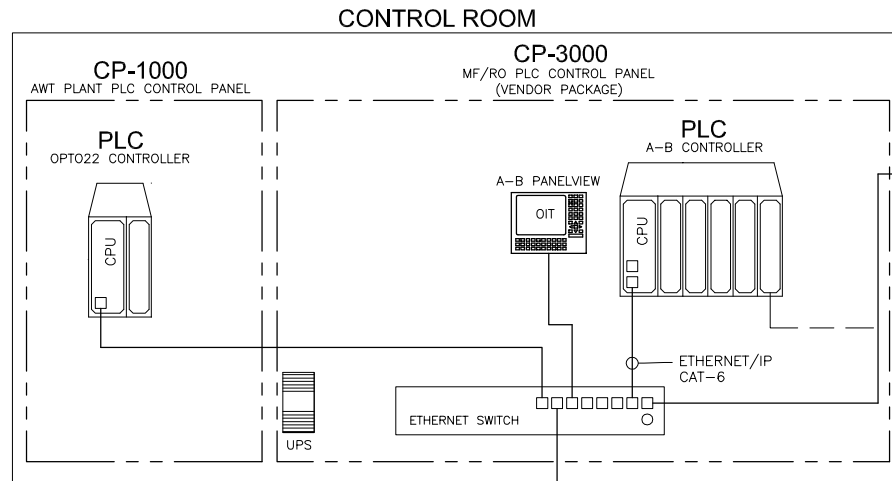
PROCESS AND INSTRUMENTATION LEGEND, SYMBOLS, AND ABBREVIATIONS

PROJECT NO. 138760-104133
 FILE NAME: I-1.DWG
 SHEET NO. I-1

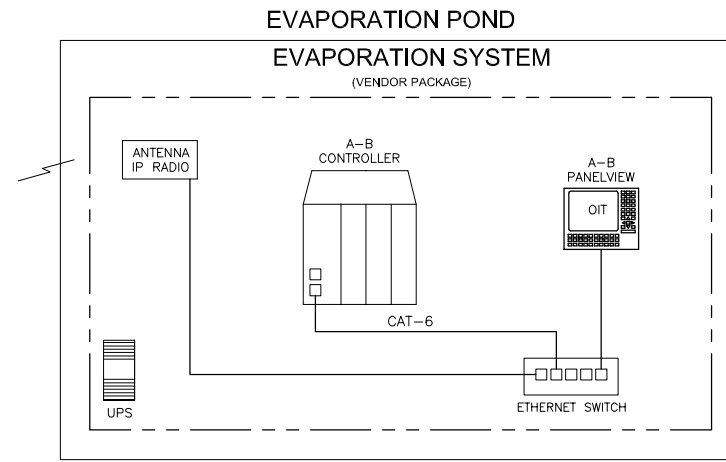
NOT FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014

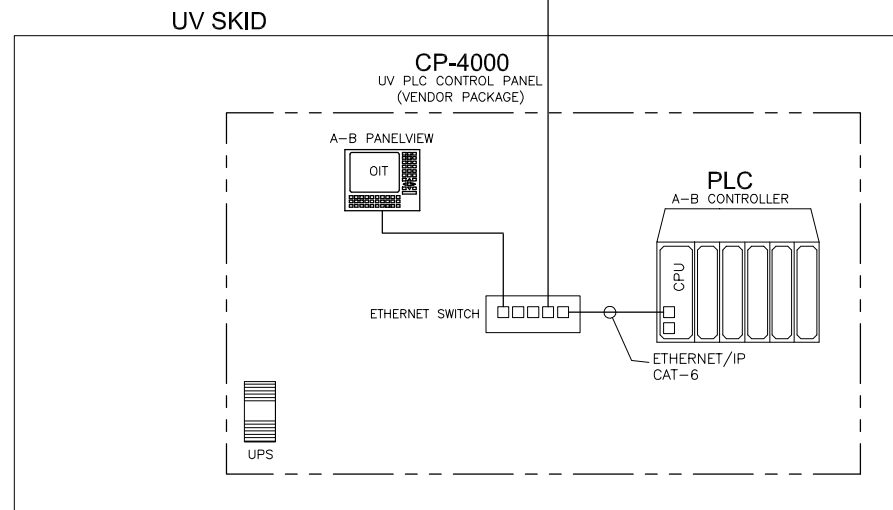


ANTENNA IP RADIO

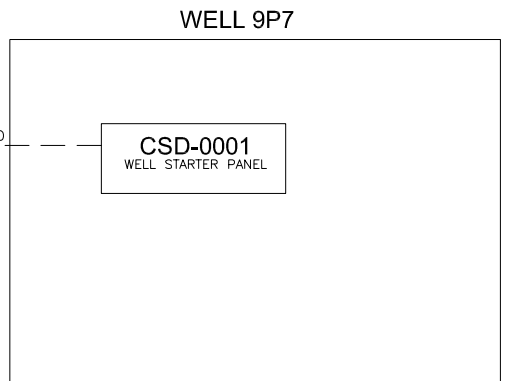


NOTE:

1. THE AWT PLANT CONTROLLER WILL BE INTEGRATED INTO THE EXISTING BROADBAND ETHERNET WIRELESS NETWORK. THE AWT PLANT WILL BE MONITORED BY SCADA SYSTEM AT WWTP OFFICE, 5500 HEATH LANE. THE ETHERNET BRIDGE RADIO WILL BE PROVIDED AND INSTALLED BY OTHER. RADIO PROGRAMMING AND ASSOCIATED OPTO 22 PLC PROGRAMMING SHALL BE BY OTHER.



HARD WIRED I/O

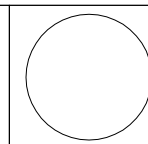


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

WARNING
 0 1/2" 1"
 IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY



**CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

**PROCESS AND INSTRUMENTATION
 OVERALL
 SYSTEM ARCHITECTURE**

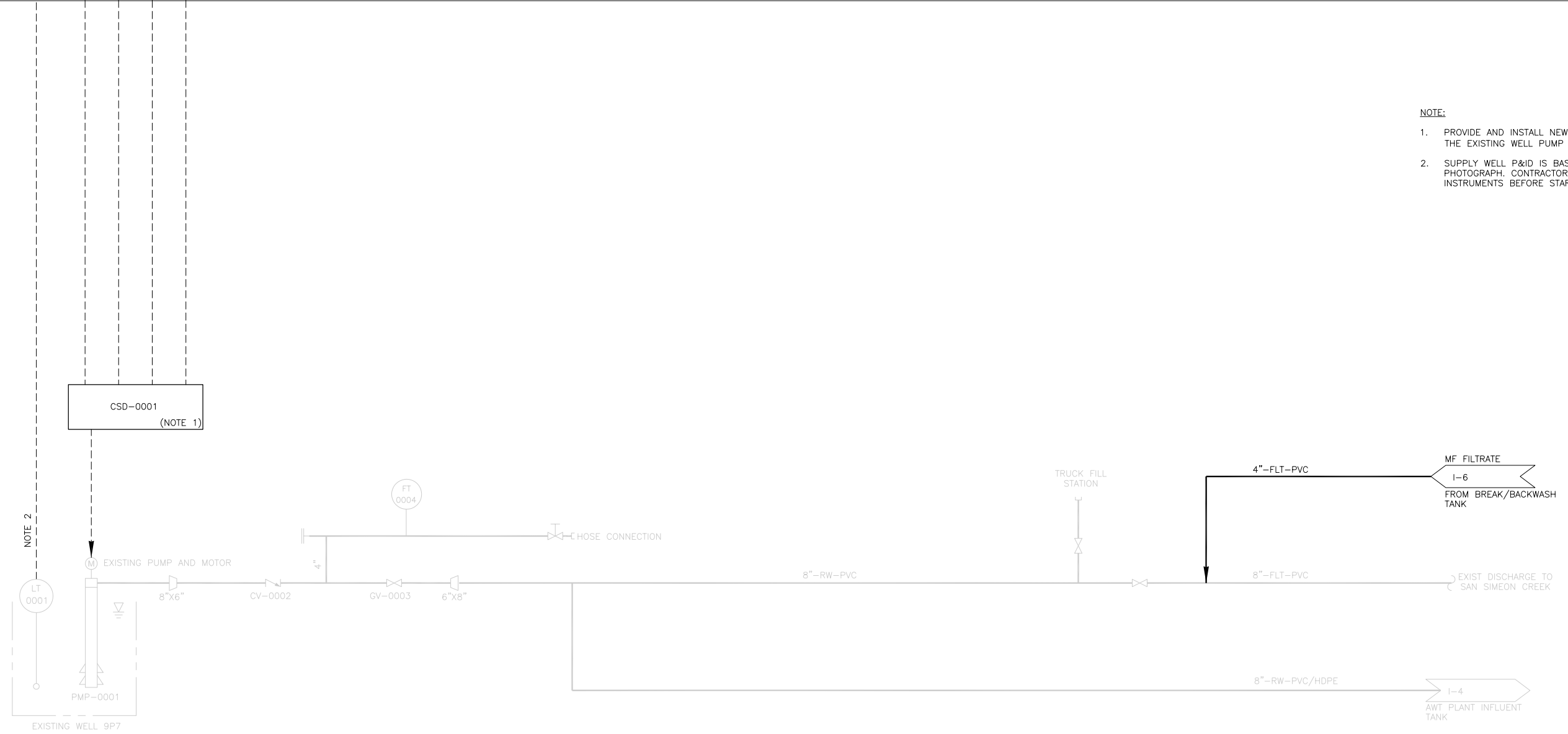
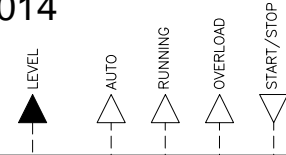
PROJECT NO. 138760-104133
 FILE NAME: I-2.DWG
 SHEET NO.
I-2

NOT FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014

MF/RO PLC (VENDOR PACKAGE AT AWT PLANT)



NOTE:

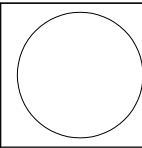
1. PROVIDE AND INSTALL NEW STARTER PANEL FOR THE EXISTING WELL PUMP (CDM SMITH SUPPLY).
2. SUPPLY WELL P&ID IS BASED ON FIELD PHOTOGRAPH. CONTRACTOR SHALL FIELD VERIFY INSTRUMENTS BEFORE STARTING WORK.

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

WARNING
 0 1/2" 1"
 IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY



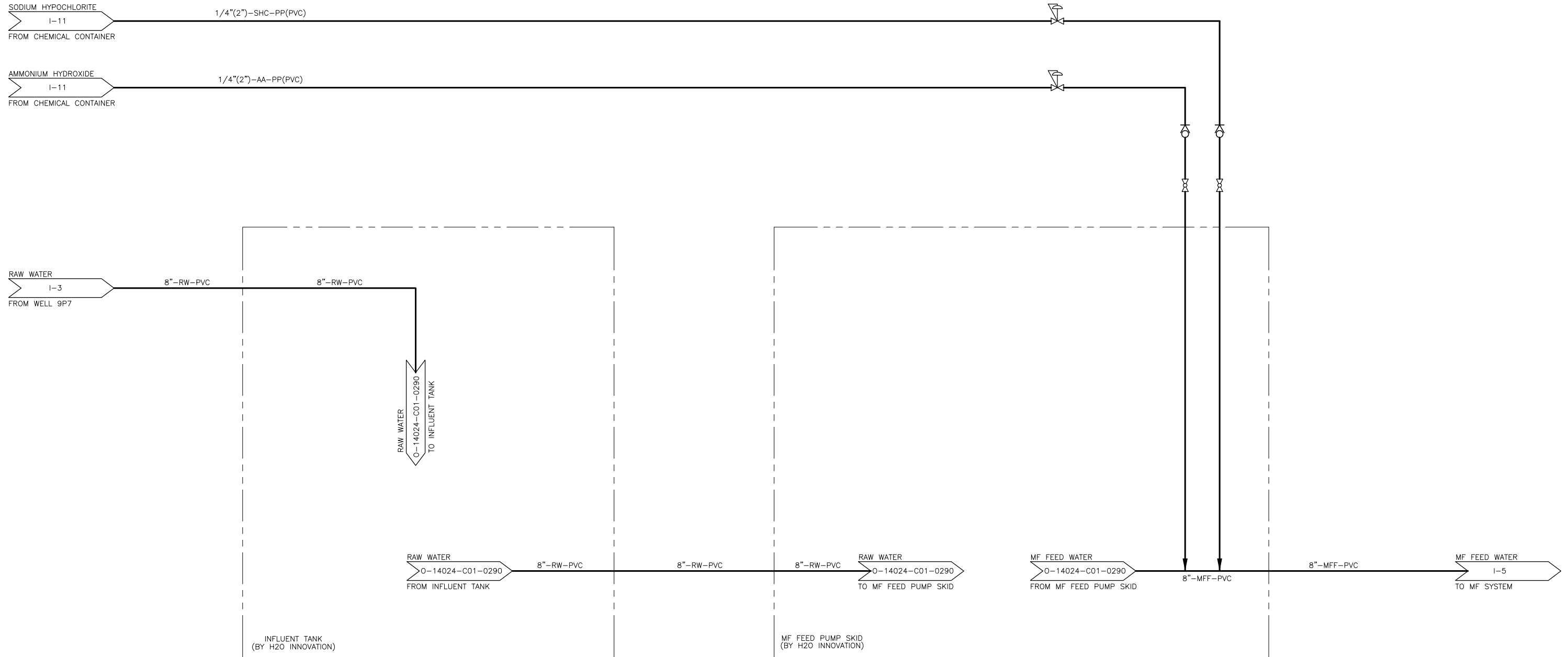
**CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

**PROCESS AND INSTRUMENTATION
 SUPPLY WELL**

PROJECT NO. 138760-104133
 FILE NAME: I-3.DWG
 SHEET NO.
I-3

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014

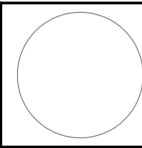


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

WARNING
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**CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

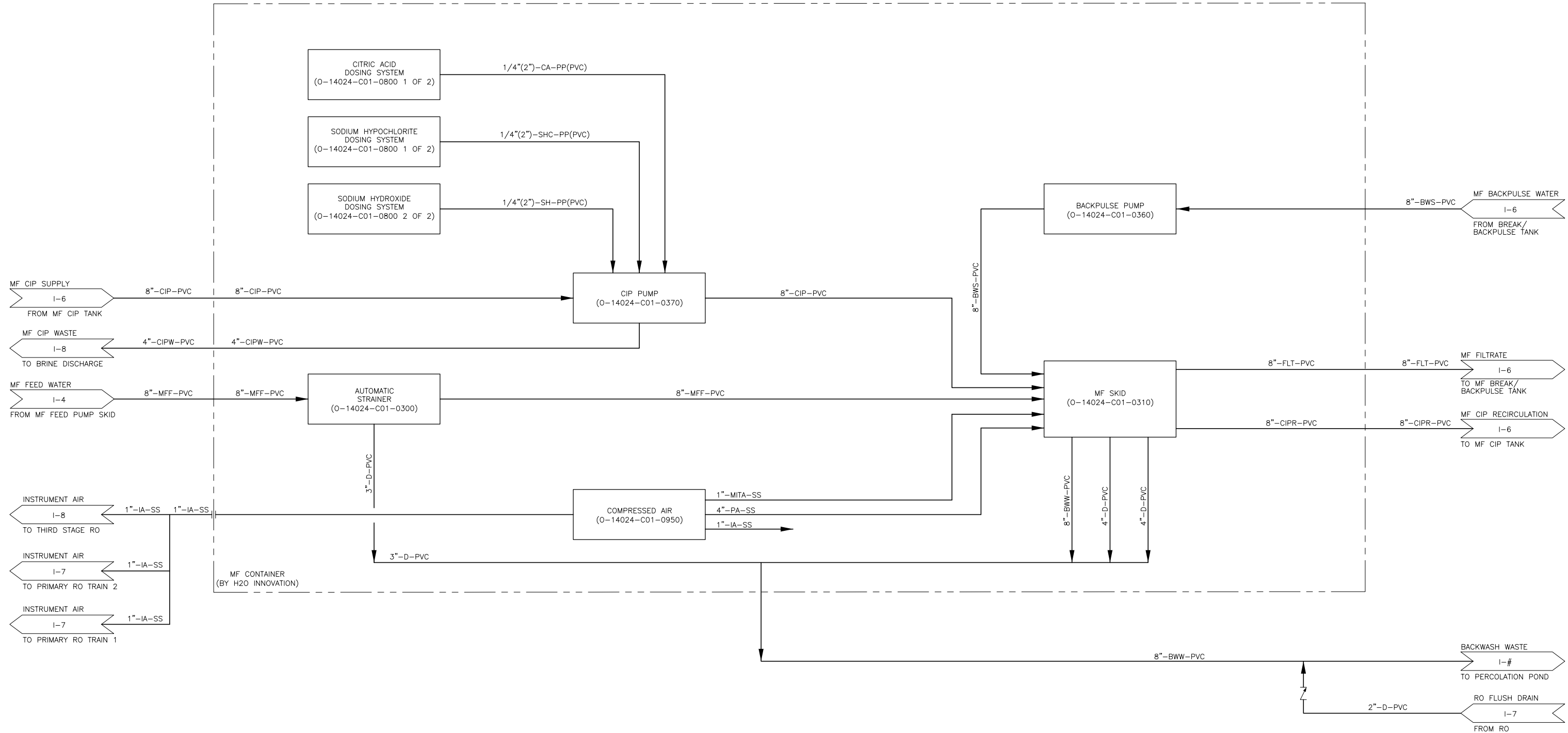
**PROCESS AND INSTRUMENTATION
 INFLUENT TANK AND MF FEED PUMP STATION**

PROJECT NO. 138760-104133
 FILE NAME: I-4.DWG
 SHEET NO.
I-4

NOT FOR CONSTRUCTION

**PRELIMINARY
NOT FOR CONSTRUCTION**

07/03/2014

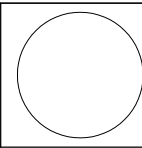


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

WARNING
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 IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY



**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

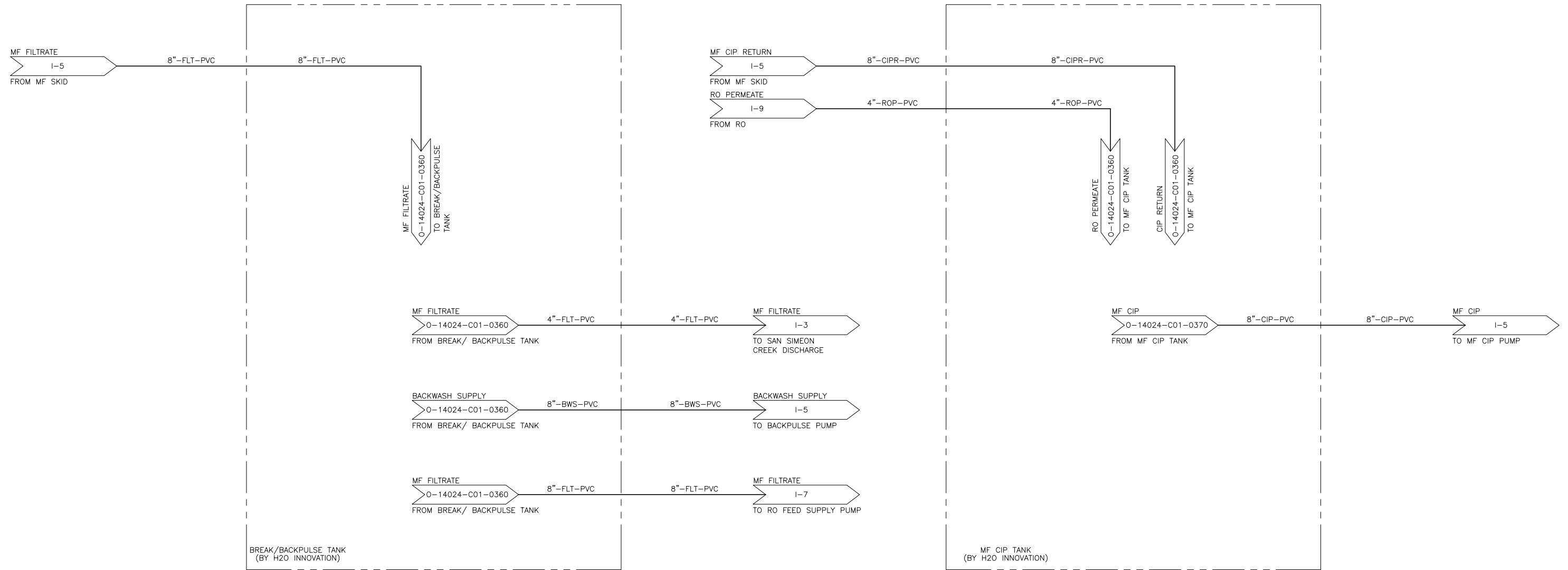
**PROCESS AND INSTRUMENTATION
MF CONTAINER**

PROJECT NO. 138760-104133
 FILE NAME: I-5.DWG
 SHEET NO.
I-5

NOT FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014

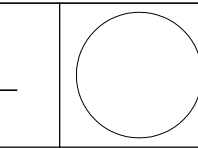


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

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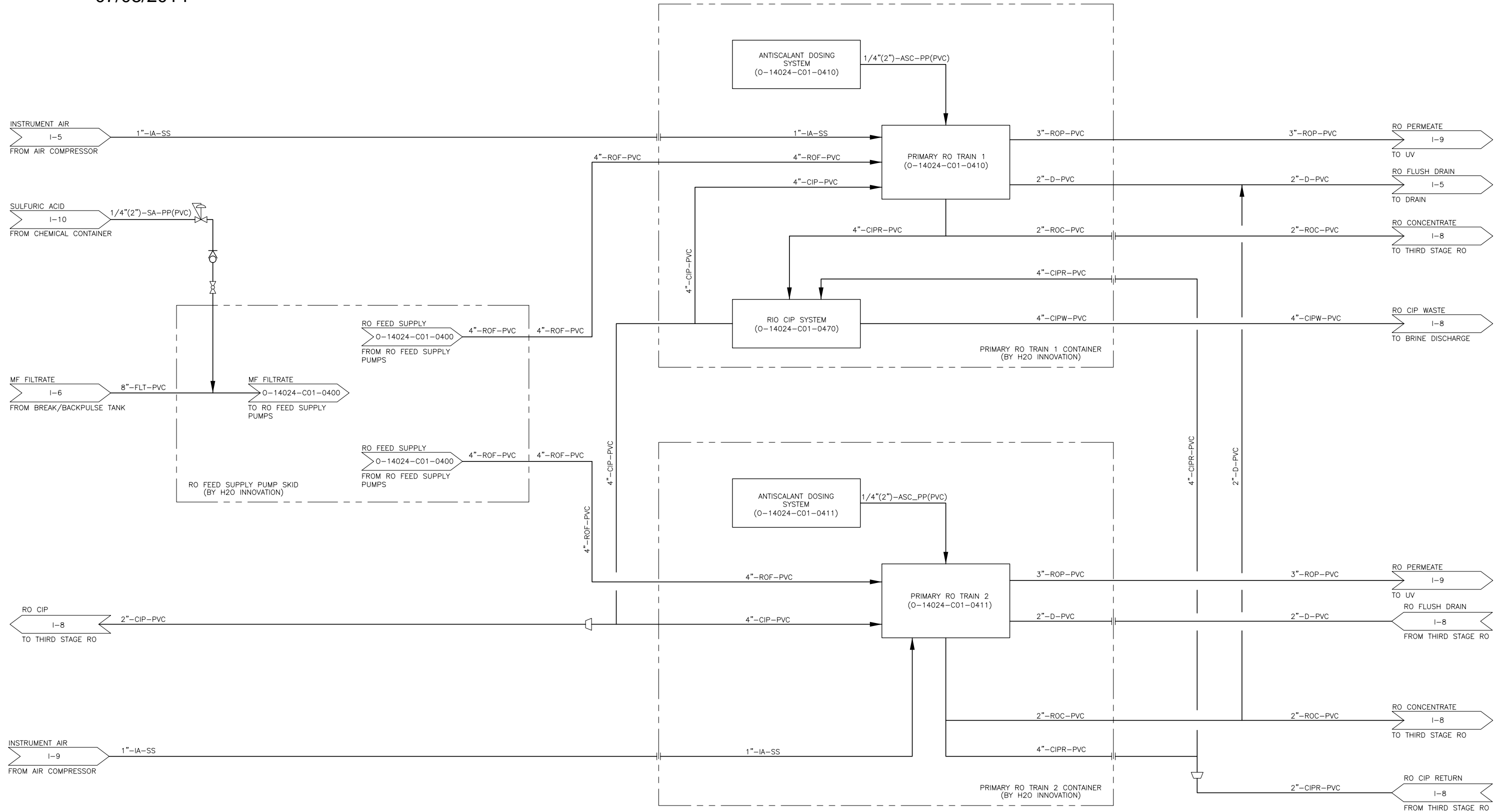
**CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

**PROCESS AND INSTRUMENTATION DIAGRAM
 BREAK/BACKPULSE TANK AND MF CIP TANK**

PROJECT NO. 138760-104133
 FILE NAME: I-6.DWG
 SHEET NO.
I-6

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014

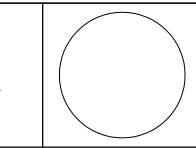


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

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**CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

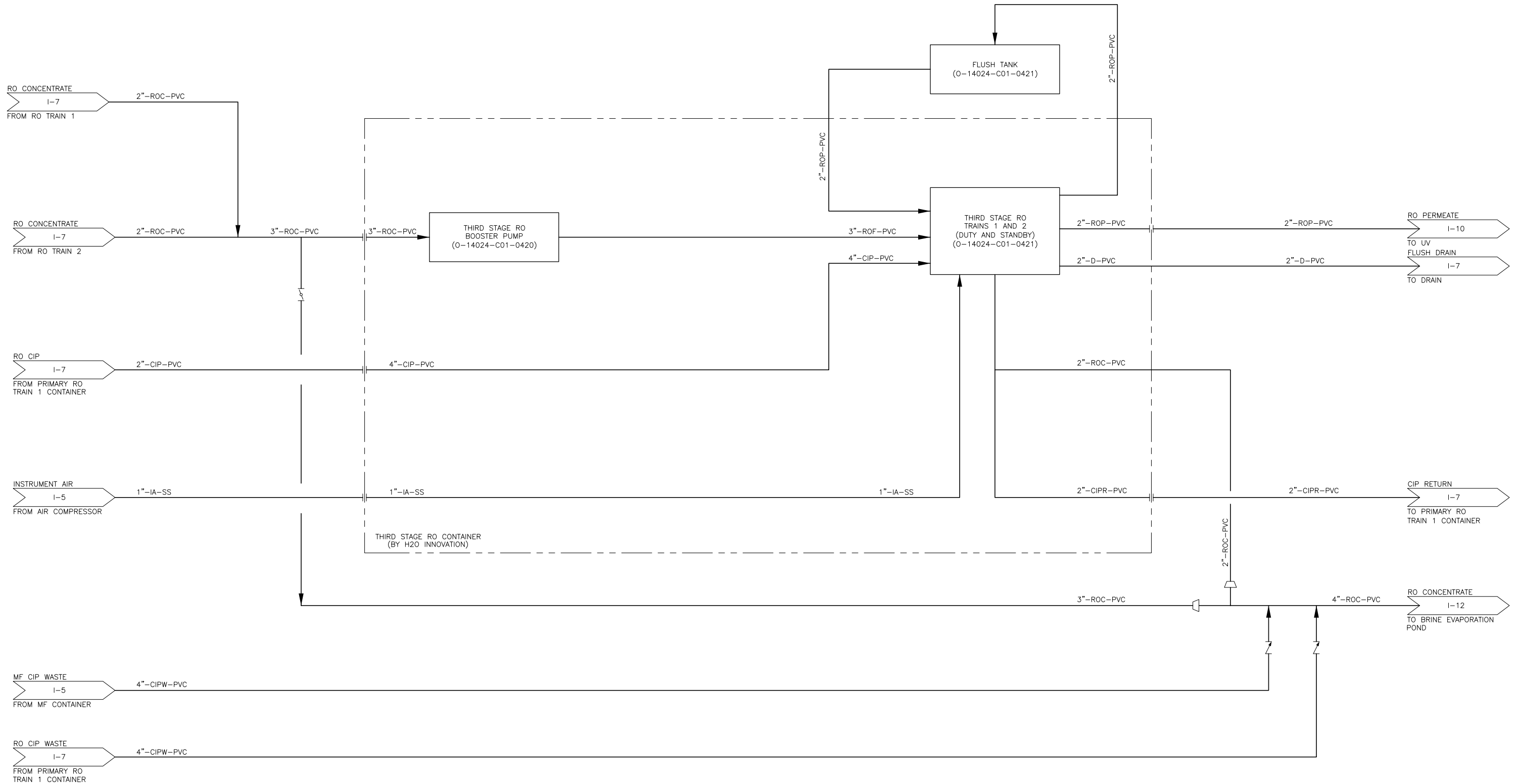
**PROCESS AND INSTRUMENTATION
 RO FEED SUPPLY PUMPS AND
 PRIMARY RO TRAINS 1 AND 2**

PROJECT NO. 138760-104133
 FILE NAME: I-7.DWG
 SHEET NO.
I-7

NOT FOR CONSTRUCTION

**PRELIMINARY
NOT FOR CONSTRUCTION**

07/03/2014

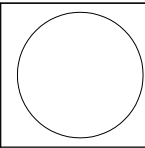


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

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**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

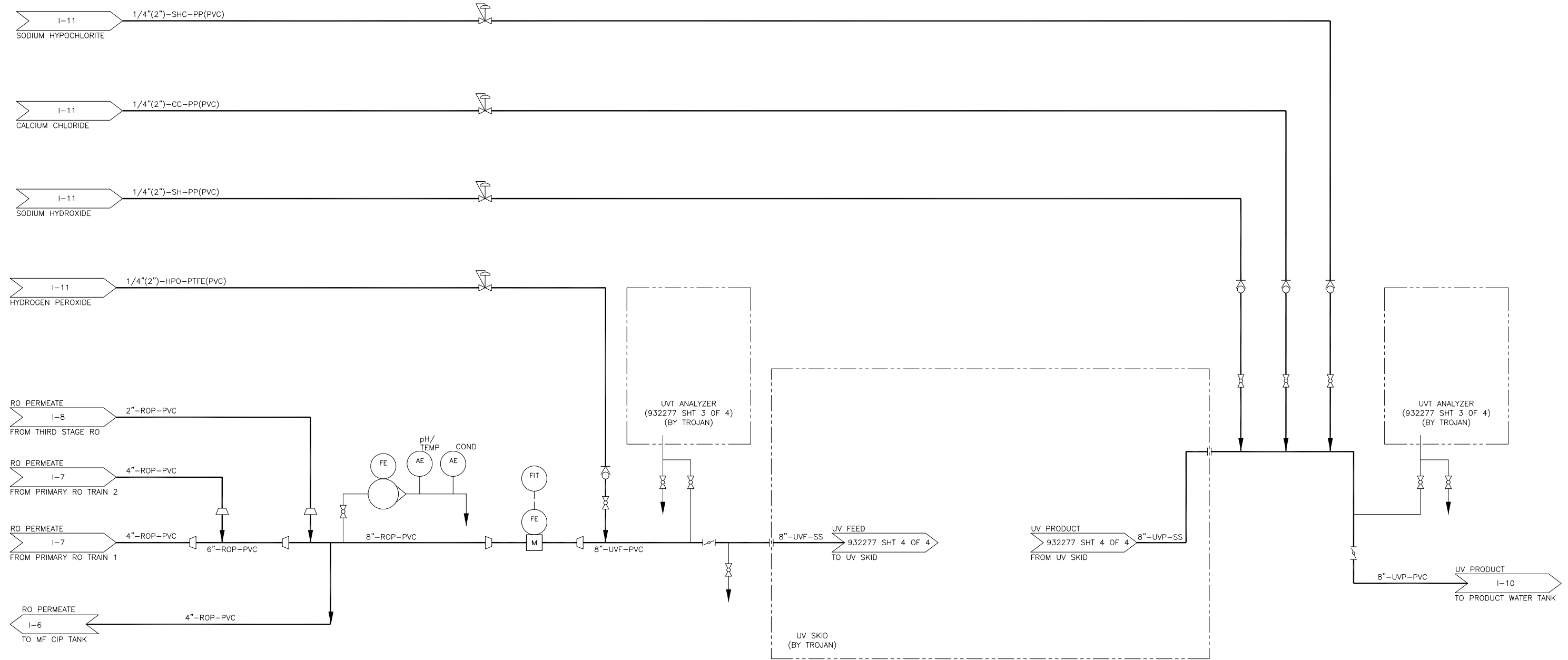
**PROCESS AND INSTRUMENTATION
THIRD STAGE RO**

PROJECT NO. 138760-104133
 FILE NAME: I-8.DWG
 SHEET NO.
I-8

NOT FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014

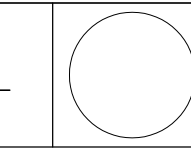


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
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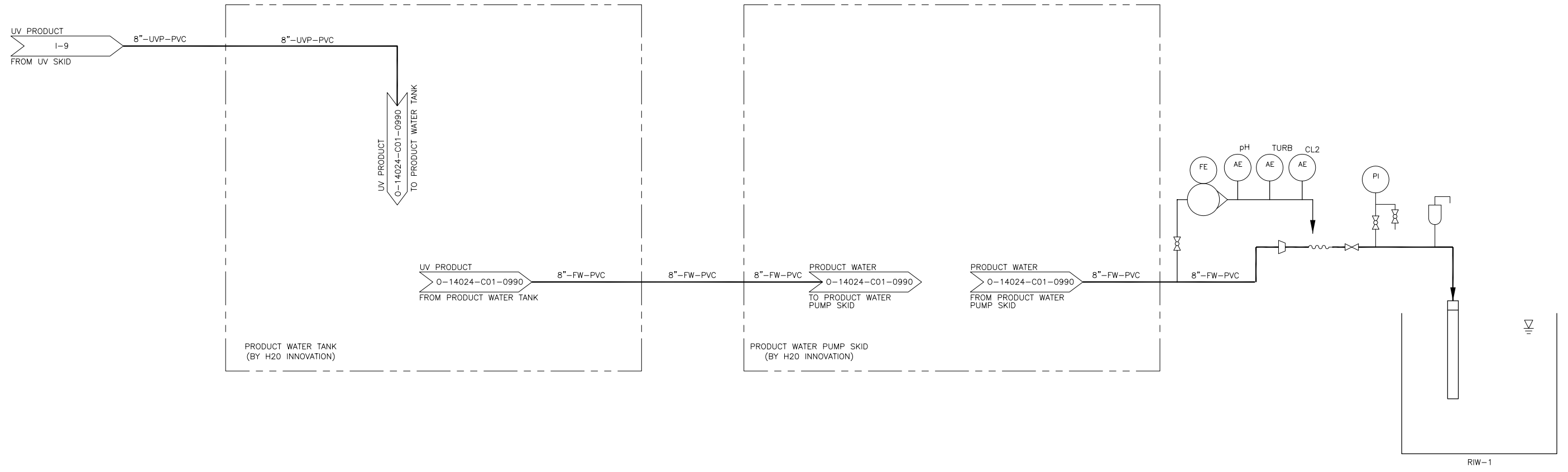
**CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

**PROCESS AND INSTRUMENTATION
 UV**

PROJECT NO. 138760-104133
 FILE NAME: I-9.DWG
 SHEET NO.
I-9

NOT FOR CONSTRUCTION

**PRELIMINARY
NOT FOR CONSTRUCTION**
07/03/2014

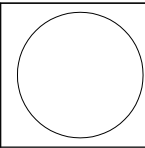


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: J. ISIDORO
 SHEET CHK'D BY: -
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 APPROVED BY: -
 DATE: JUNE, 2014

WARNING
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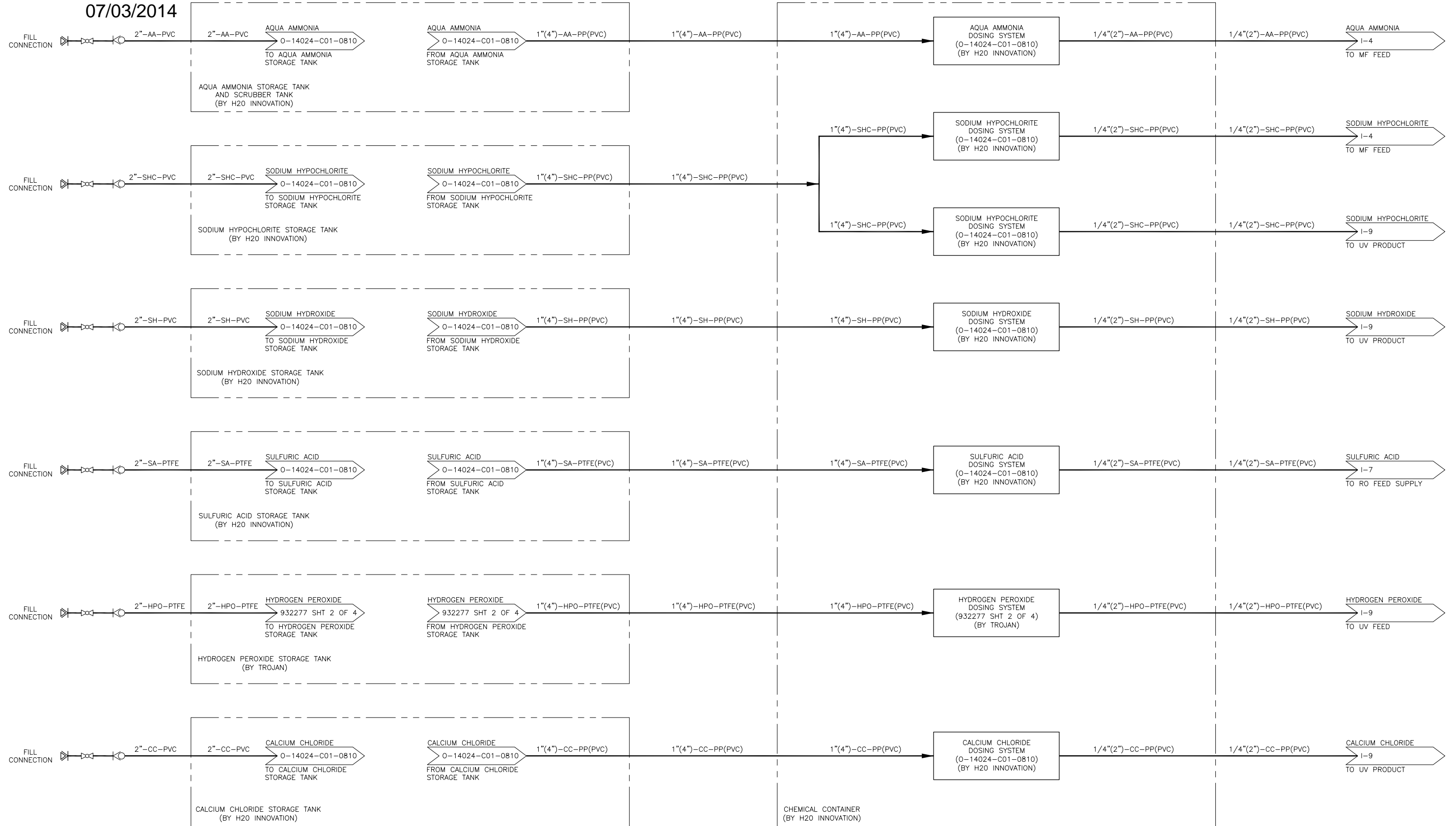
**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

**PROCESS AND INSTRUMENTATION DIAGRAM
PRODUCT WATER TANK, PUMP STATION
AND RIW INJECTION**

PROJECT NO. 138760-104133
 FILE NAME: I-10.DWG
 SHEET NO.
I-10

PRELIMINARY NOT FOR CONSTRUCTION

07/03/2014

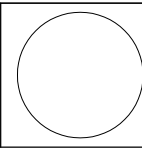


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: T. KARTHICK
 SHEET CHK'D BY: -
 CROSS CHK'D BY: -
 APPROVED BY: -
 DATE: JUNE, 2014

WARNING
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**CAMBRIA EMERGENCY
 WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

**PROCESS AND INSTRUMENTATION DIAGRAM
 CHEMICAL SYSTEMS**

PROJECT NO. 138760-104133
 FILE NAME: I-11.DWG
 SHEET NO.
I-11

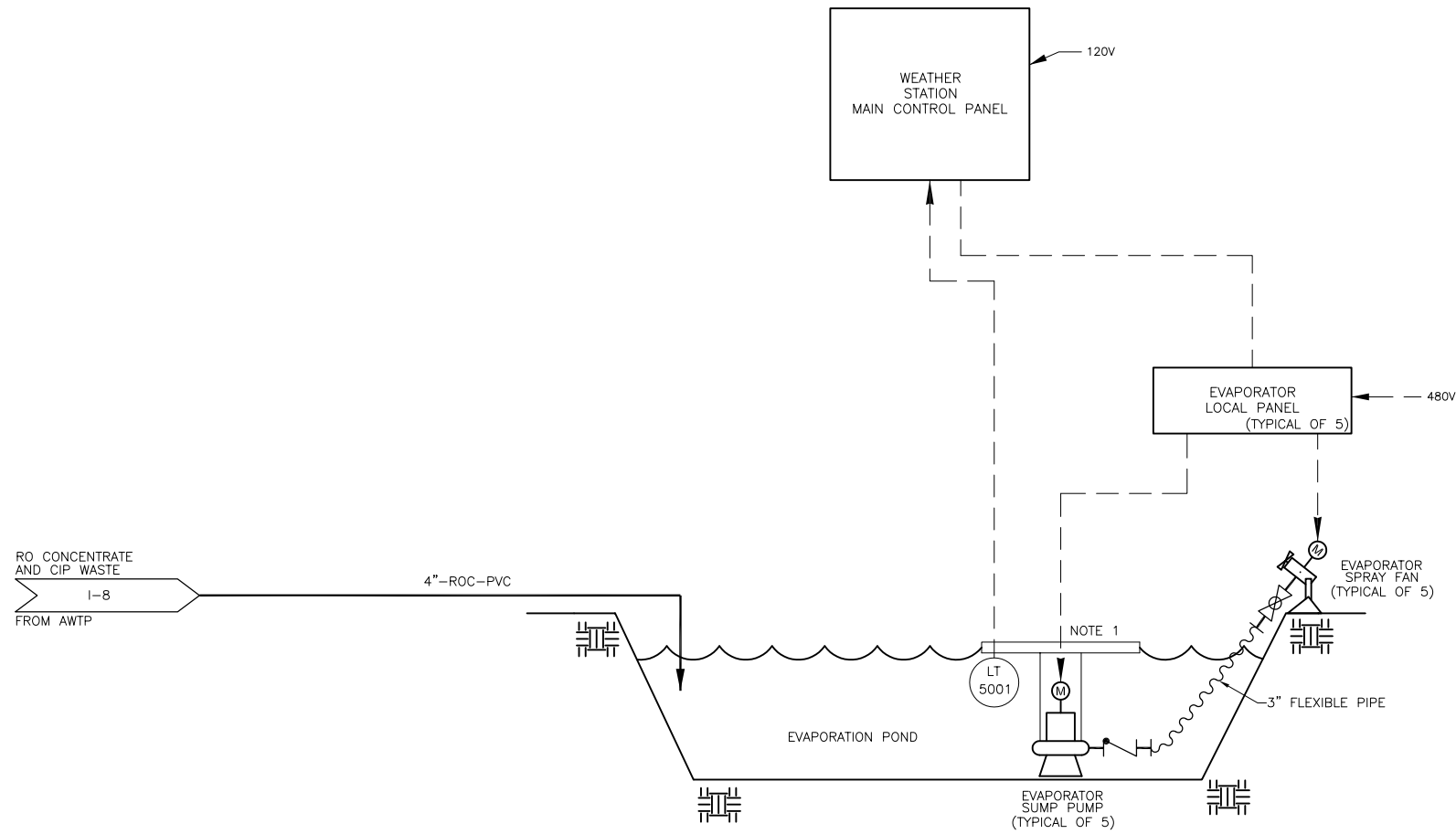
NOT FOR CONSTRUCTION

**PRELIMINARY
NOT FOR CONSTRUCTION**

07/03/2014

NOTE:

1. THE SUBMERSIBLE PUMPS WILL BE ANCHORED AT FLOATING STRUCTURE

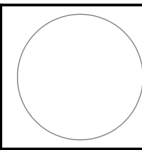


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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: H. NGUYEN
 DRAWN BY: T. KARTHICK
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**CAMBRIA EMERGENCY
WATER SUPPLY PROJECT**
 CAMBRIA COMMUNITY SERVICE DISTRICT

**PROCESS AND INSTRUMENTATION DIAGRAM
BRINE EVAPORATION SYSTEM**

PROJECT NO. 138760-104133
 FILE NAME: I-12.DWG
 SHEET NO.
I-12

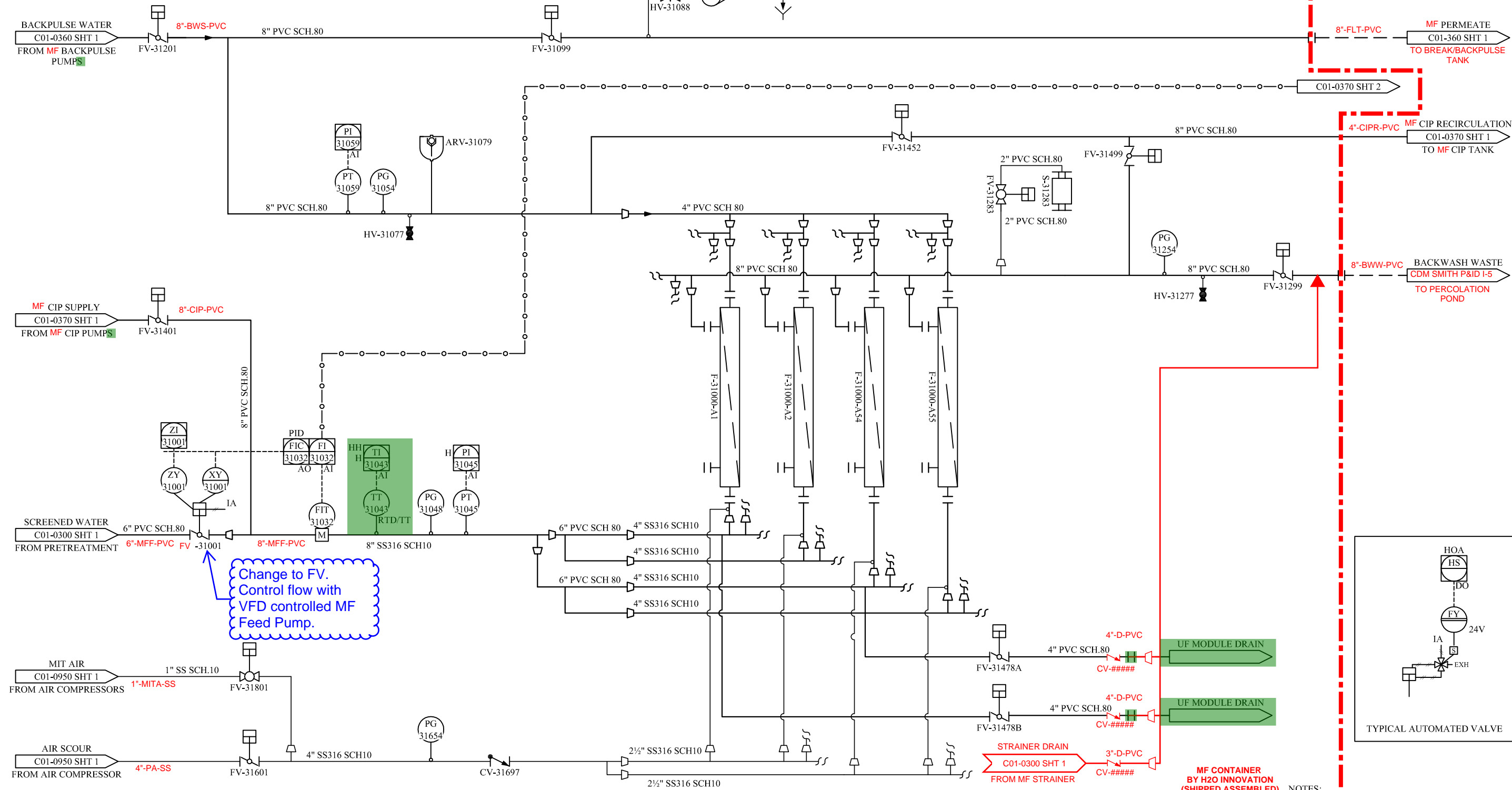
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NOT FOR CONSTRUCTION

07/03/2014

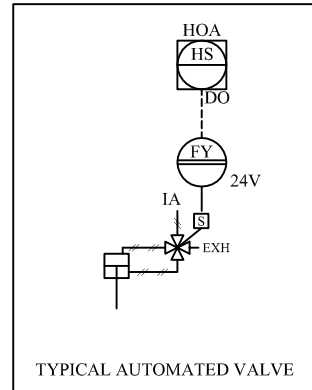
VENDOR PACKAGE
H2OI SUPPLY

**PRELIMINARY
NOT FOR CONSTRUCTION**

07/03/2014



Change to FV.
Control flow with
VFD controlled MF
Feed Pump.



NOTES:
1. GRAVITY DRAIN FOR THE ENTIRE SKID IS REQUIRED.

NOTE:
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REV	DATE	REVISION DESCRIPTION	DRAWN	CHKD	ENG	APPVD
0	12/06/2014	PRELIMINARY	M.C	M.C	M.C	-



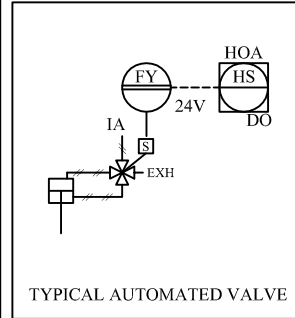
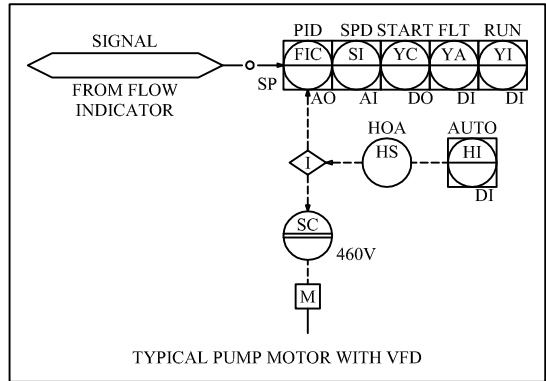
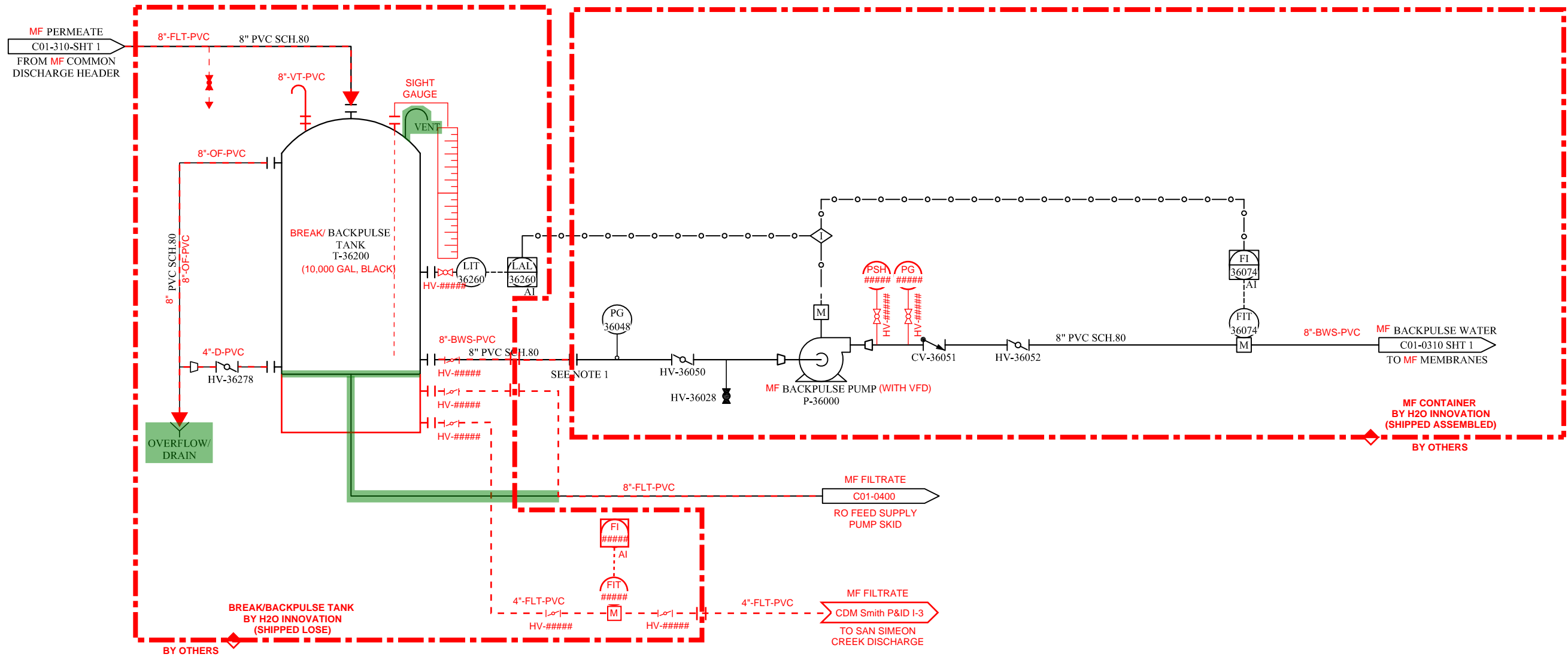
UNLESS NOTED OTHERWISE
INTERPRETATION: ANSI Y14.5
TOLERANCES: FRACTIONS: 1/16", 1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"
DECIMALS: 0.000, 0.001, 0.002, 0.003, 0.004, 0.005, 0.006, 0.007, 0.008, 0.009, 0.010, 0.015, 0.020, 0.025, 0.030, 0.040, 0.050, 0.060, 0.070, 0.080, 0.090, 0.100
ANGLES: 15°, 30°, 45°, 60°, 75°, 90°, 105°, 120°, 135°, 150°, 165°, 180°
HOLE SIZES: 1/16", 1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"
HOLE CENTERS: 1/16", 1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"
DO NOT SCALE PRINTS

**CAMBRIA COMMUNITY SERVICES
DISTRICT EMERGENCY WATER
SUPPLY PROJ**

TITLE: MF SKID PROCESS & INSTRUMENTATION DIAGRAM		
SCALE: N/A	DRAWING NUMBER: O-14024-C01-0310	REVISION A
		SHEET: 1 of 1

**PRELIMINARY
NOT FOR CONSTRUCTION**

07/03/2014



- NOTES:**
1. THE BACKPULSE TANK IS LOCATED OUTSIDE THE CONTAINER. ALL VALVES, INSTRUMENTS, AND PIPING ARE SHIPPED LOOSE TO BE INSTALLED BY OTHERS.

NOTE:
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DRAWING REVISION						
REV	DATE	REVISION DESCRIPTION	DRAWN	CHKD	ENG	APPV'D
A	12/06/2014	PRELIMINARY	M.C	M.B	M.B	-

h₂O innovation
knowledge to share. du savoir à partager

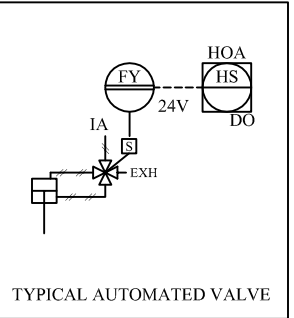
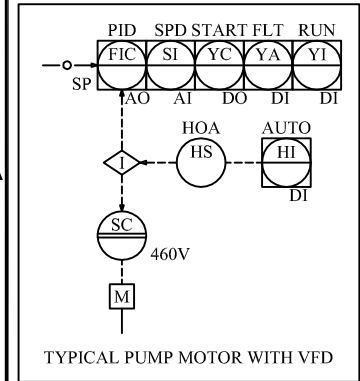
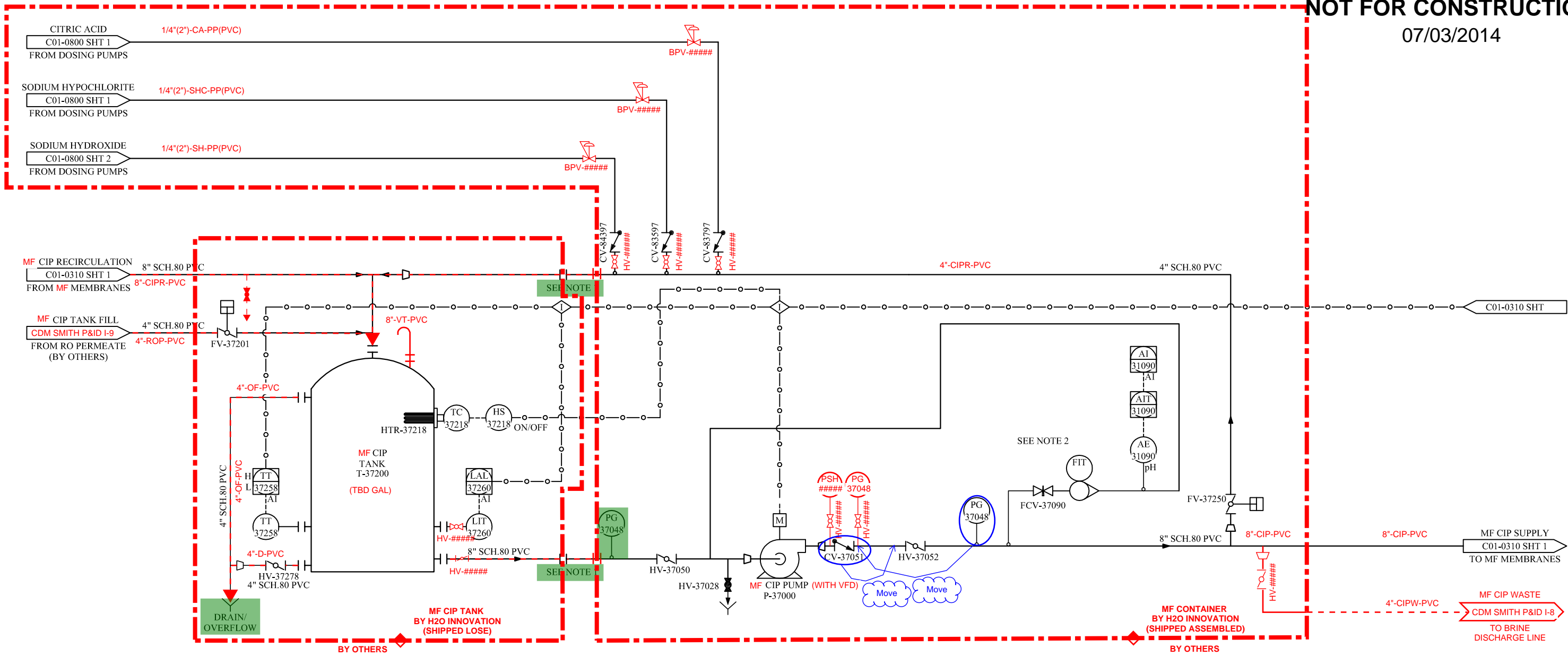
UNLESS NOTED OTHERWISE
INTERPRETATION: ANSI Y14.5

TOLERANCES:
FRACTIONS: 1/16", 1/8", 3/16", 1/4", 3/8", 1/2"
DECIMALS: 0.000, 0.001, 0.005, 0.010, 0.015, 0.030, 0.050, 0.100, 0.150, 0.300, 0.500, 1.000
ANGLES: 15°, 30°, 45°, 60°, 90°, 120°, 135°, 150°, 165°, 180°
HOLE SIZES: 1/16", 1/8", 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"
HOLE CENTERS: 1/16", 1/8", 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"
DO NOT SCALE PRINTS

**CAMBRIA COMMUNITY SERVICES
DISTRICT EMERGENCY WATER
SUPPLY PROJECT**

TITLE: MF BACKPULSE SYSTEM PROCESS & INSTRUMENTATION DIAGRAM		
SCALE: N/A	DRAWING NUMBER: O-14024-C01-0360	REVISION A
SHEET: 1 of 1		

PRELIMINARY
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 07/03/2014



- NOTES:**
1. THE CIP TANK IS LOCATED OUTSIDE THE CONTAINER. ALL VALVES, INSTRUMENTS, AND PIPING ARE SHIPPED LOOSE TO BE INSTALLED BY OTHERS.
 2. INSTRUMENT TO BE PLUMBED SO IT STAYS FLOODED

NOTE:
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DRAWING REVISION						
REV	DATE	REVISION DESCRIPTION	DRAWN	CHKD	ENG	APPVD
A	12/06/2014	PRELIMINARY	M.C	M.B	M.B	-



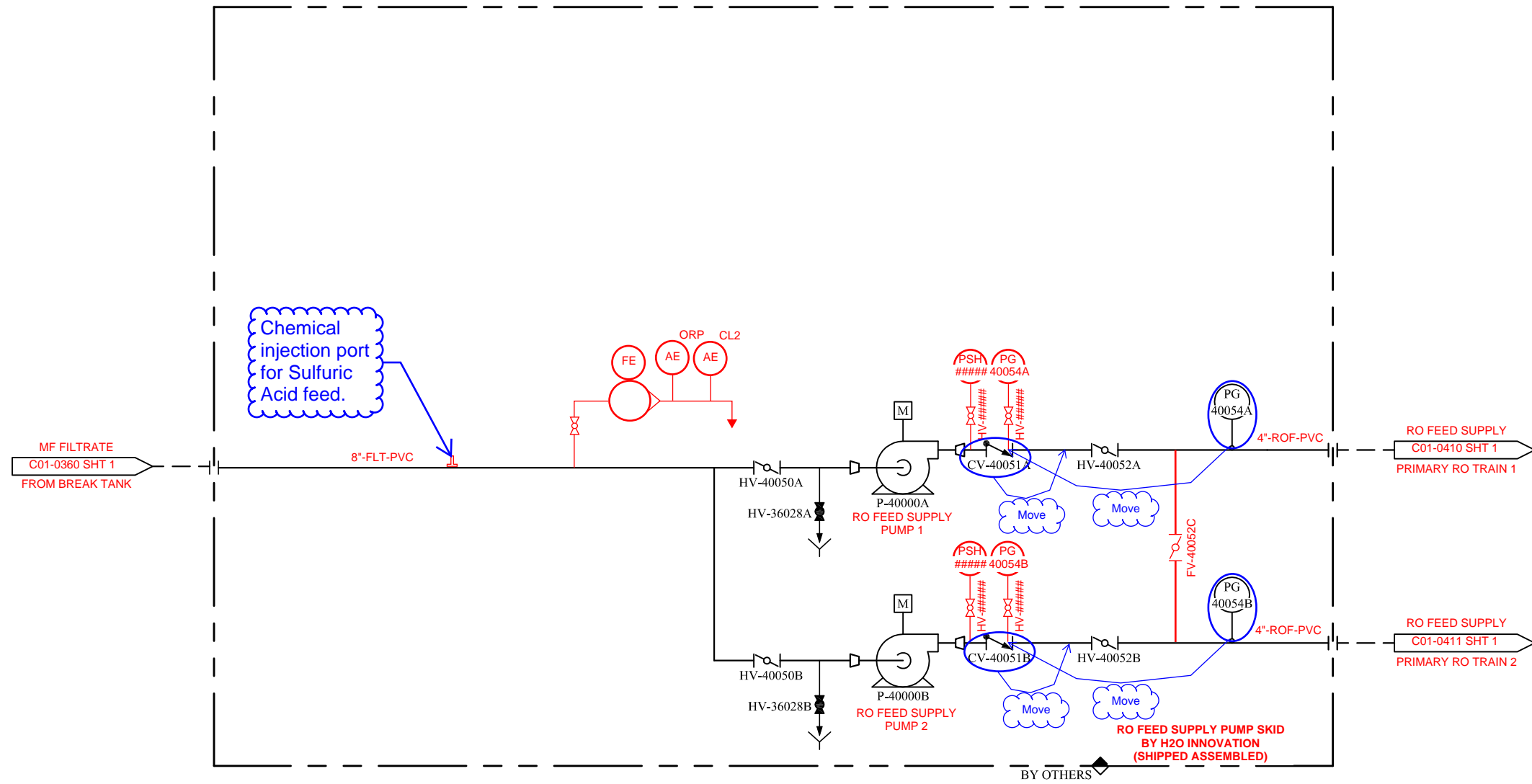
UNLESS NOTED OTHERWISE
 INTERPRETATION: ANSI Y14.5
 TOLERANCES: FRACTIONS: 1/16", 1/8", 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"
 DECIMALS: 0.000, 0.001, 0.002, 0.003, 0.005, 0.010, 0.015, 0.020, 0.030, 0.040, 0.050, 0.060, 0.070, 0.080, 0.090, 0.100
 ANGLES: 15°, 30°, 45°, 60°, 75°, 90°, 105°, 120°, 135°, 150°, 165°, 180°
 HOLE SIZES: 1/16", 1/8", 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"
 HOLE CENTERS: 1/16", 1/8", 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"
 DO NOT SCALE PRINTS

CAMBRIA COMMUNITY SERVICES
DISTRICT EMERGENCY WATER
 SUPPLY PROJECT

TITLE: MF CIP SYSTEM W/ VFD CONTROLLED PUMP PROCESS & INSTRUMENTATION DIAGRAM		
SCALE: N/A	DRAWING NUMBER: O-14024-C01-0370	REVISION A
SHEET: 1 of 1		

**PRELIMINARY
NOT FOR CONSTRUCTION**

07/03/2014



Chemical injection port for Sulfuric Acid feed.

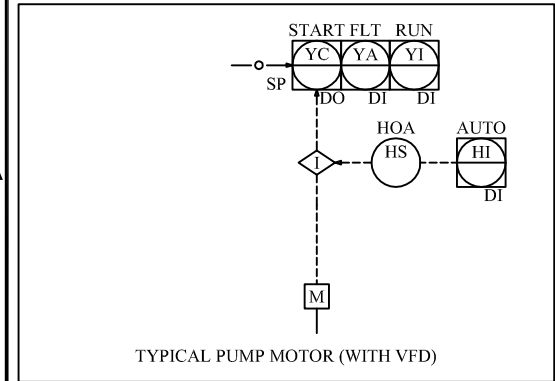
MF FILTRATE
C01-0360 SHT 1
FROM BREAK TANK

RO FEED SUPPLY
C01-0410 SHT 1
PRIMARY RO TRAIN 1

RO FEED SUPPLY
C01-0411 SHT 1
PRIMARY RO TRAIN 2

RO FEED SUPPLY PUMP SKID
BY H2O INNOVATION
(SHIPPED ASSEMBLED)

BY OTHERS



TYPICAL PUMP MOTOR (WITH VFD)

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DRAWING REVISION						
REV	DATE	REVISION DESCRIPTION	DRAWN	CHKD	ENG	APPVD
A	12/06/2014	PRELIMINARY	M.C	M.B	M.B	-

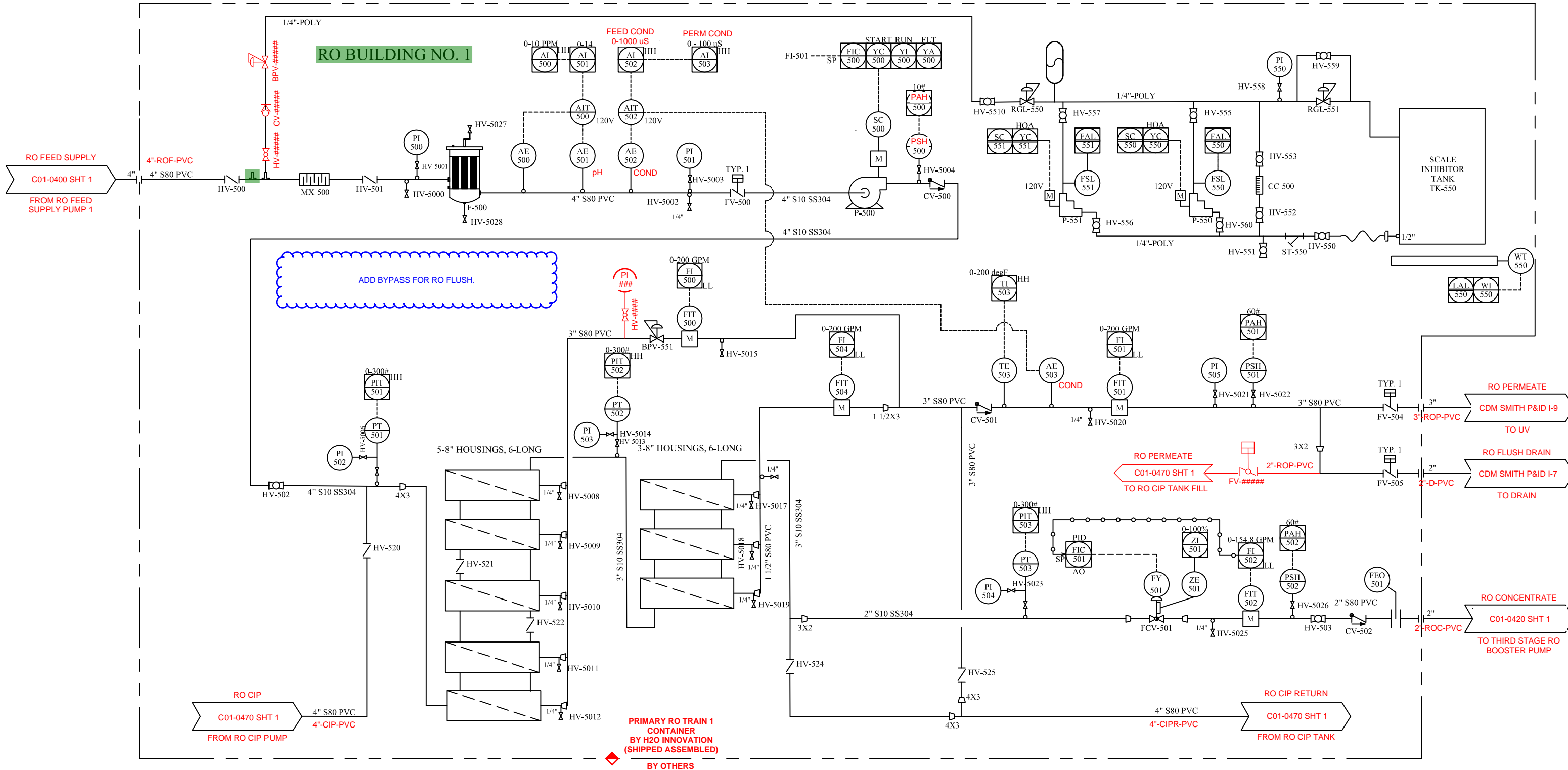


UNLESS NOTED OTHERWISE
INTERPRETATION: ANSI Y14.5
TOLERANCES: FRACTIONS: 1/16", 1/8", 1/4", 3/8", 1/2"
DECIMALS: 0.0005, 0.001, 0.002, 0.005, 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000
ANGLES: 15°, 30°, 45°, 60°, 75°, 90°, 105°, 120°, 135°, 150°, 165°, 180°
HOLE SIZES: 1/16", 1/8", 1/4", 3/8", 1/2"
HOLE CENTERS: 1/16", 1/8", 1/4", 3/8", 1/2"
DO NOT SCALE PRINTS

**CAMBRIA COMMUNITY SERVICES
DISTRICT EMERGENCY WATER
SUPPLY PROJECT**

TITLE: RO FEED SUPPLY PUMP SKID PROCESS & INSTRUMENTATION DIAGRAM		
SCALE: N/A	DRAWING NUMBER: O-14024-C01-0400	REVISION A
SHEET: 1 of 1		

RO BUILDING NO. 1



**PRELIMINARY
NOT FOR CONSTRUCTION**
07/03/2014

NOTE:
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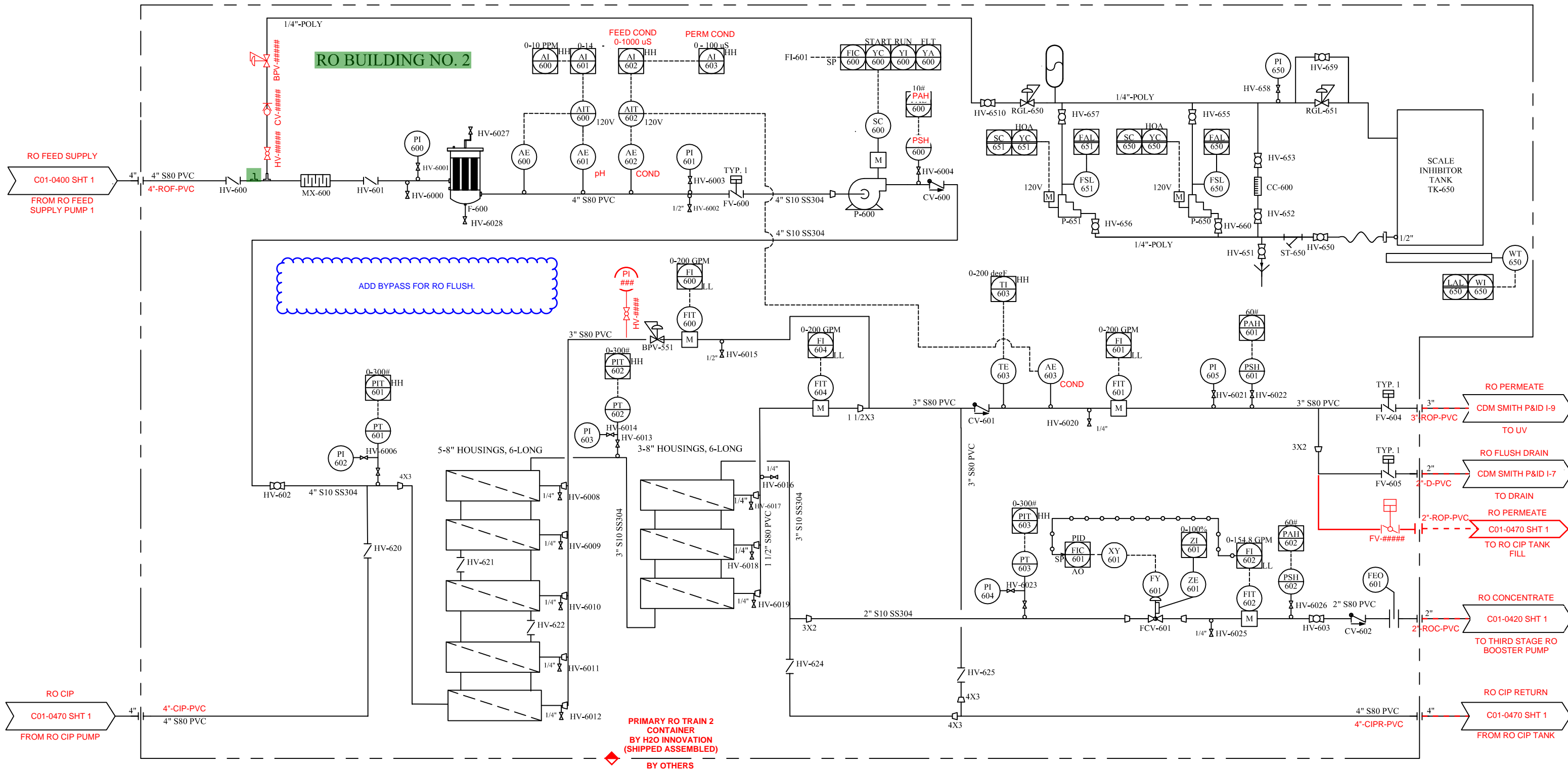
DRAWING REVISION			REV	DATE	DESCRIPTION	DRAWN	CHKD	ENG	APPVD
REVISION DESCRIPTION			A	12-14	PRELIMINARY	M.C	M.C	M.C	



**CAMBRIA COMMUNITY SERVICE
DISTRICT EMERGENCY
SUPPLY PROJECT**

TITLE: PRIMARY RO TRAIN 1 PROCESS & INSTRUMENTATION DIAGRAM		FILE: O-14024-C01-0410
DRAWN BY: M.C		DATE: 7/9/12
ENGINEER: M.B		SHEET: 1 OF 1
CHECKED: M.B		SCALE: N.T.S.
APPROVED:		DRAWING NUMBER: O-14024-C01-0410
		REVISION A 7/9/12

RO BUILDING NO. 2



**PRELIMINARY
NOT FOR CONSTRUCTION**
07/03/2014

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REV		DATE	REVISION DESCRIPTION	DRAWN	CHKD	ENG	APPVD
A		12-6	PRELIMINARY	M.C	M.C	M.C	

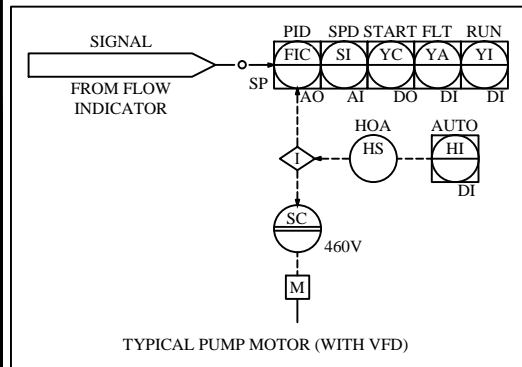
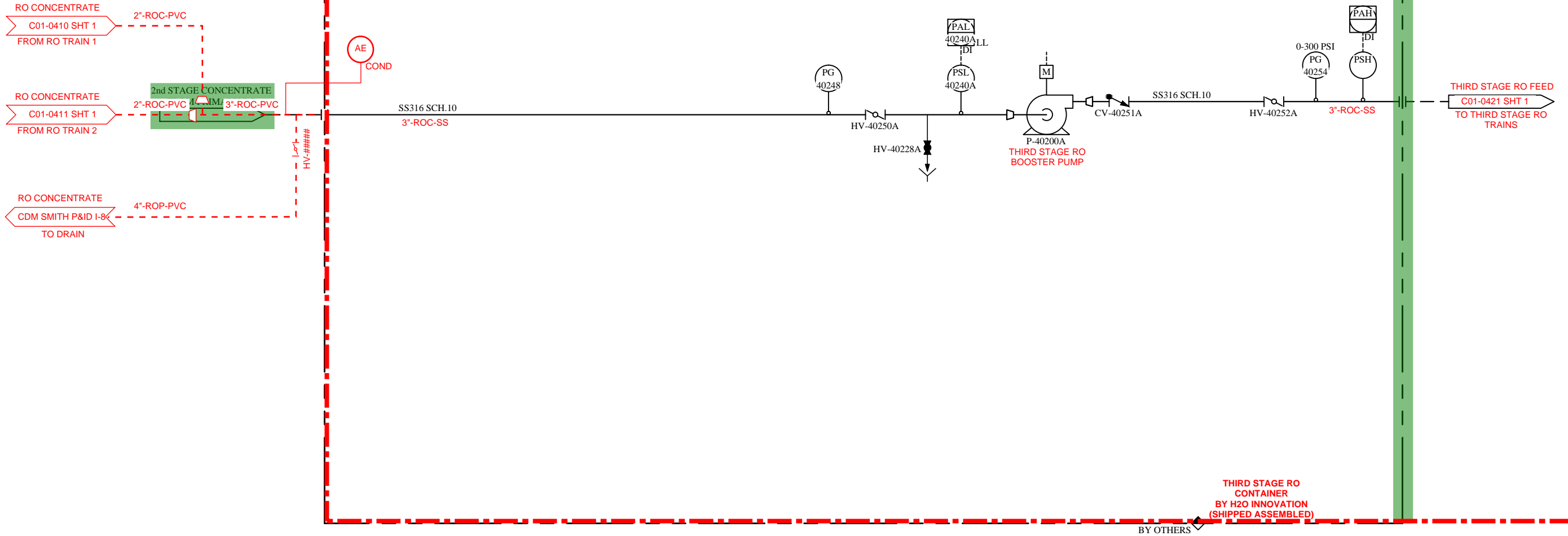


**CAMBRIA COMMUNITY SERVICES
DISTRICT EMERGENCY**

SUPPLY PROJECT

TITLE: PRIMARY RO TRAIN 2 PROCESS & INSTRUMENTATION DIAGRAM		FILE: O-14024-C01-411
DRAWN BY: RMG		DATE: 2014-06-12
ENGINEER: RMG		SHEET:
CHECKED: GJM		SCALE: N.T.S.
APPROVED:		DRAWING NUMBER: O-14024-C01-C01-0411
		REVISION A 7/9/12

**PRELIMINARY
NOT FOR CONSTRUCTION**
07/03/2014



NOTE:
LES INFORMATIONS, SPÉCIFICATIONS ET DONNÉES REPRÉSENTÉES SUR CET IMPRIMÉ SONT FOURNIS PAR ET DEVONT RESTER LA PROPRIÉTÉ DE H₂O INNOVATION.
LE PRÉSENT DOCUMENT VISE À FACILITER L'INSTALLATION, L'ENTRETIEN ET L'EXPLOITATION DE L'ÉQUIPEMENT REPRÉSENTÉ SUR LEDIT IMPRIMÉ. AUCUNE AUTRE UTILISATION NE SAURAIT ÊTRE FAITE DE CE DOCUMENT SANS L'ACCORD EXPRES ÉCRIT DE H₂O INNOVATION.

RÉVISIONS						
RÉV	DATE	DESCRIPTION DES RÉVISIONS	DESSIN	VÉRIF	ING.	APPRV
0	03/06/2014	INITIAL RELEASE	-	-	-	-



SAUF INDICATION CONTRAIRE
INTERPRÉTATION: ANS1 Y14.5
TOLÉRANCES:
FRACTIONS: 4/16"
DÉCIMALES: 0.XX 40/100
0.XXX 40/1000
ANGLES: 45°
TAILLE DES TROUS: 4/16"
CENTRE DES TROUS: 4/16"
VÉRIFIER À CONSERVER LES PROPORTIONS

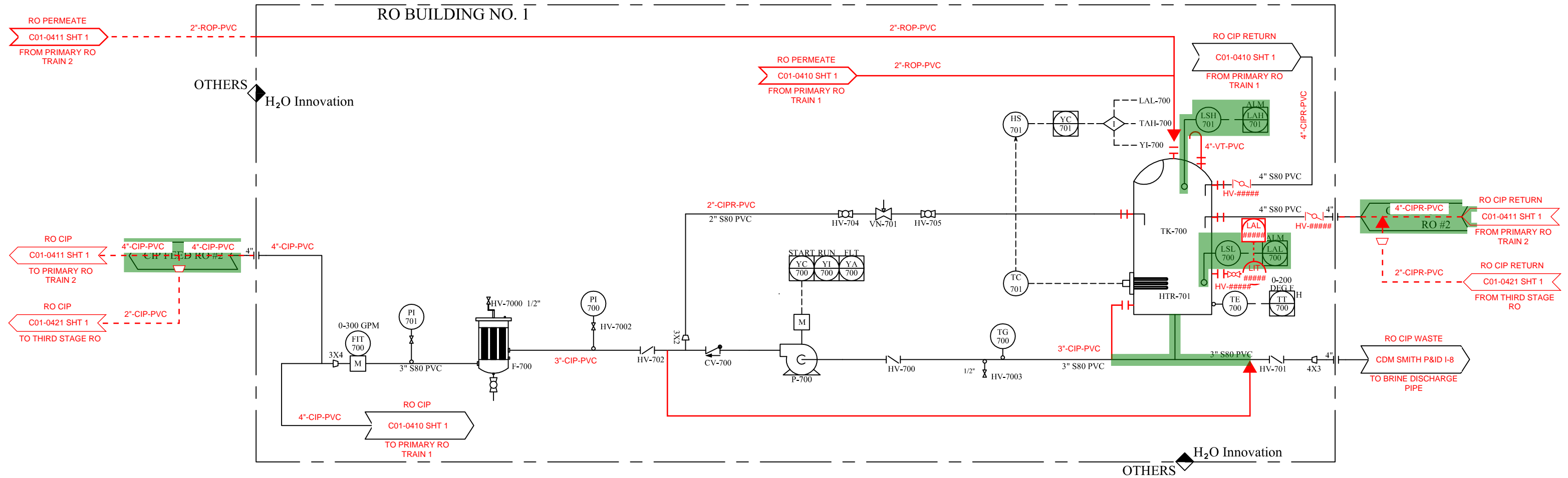
**CAMBRIA EMERGENCY WATER
TREATMENT SYSTEM**
ADVANCE WATER TREATMENT PLANT

TITRE: THIRD STAGE RO BOOSTER PUMP PROCESS & INSTRUMENTATION DIAGRAM		
ÉCHELLE: N/A	NUMÉRO DE DESSIN: O-14024-C01- 0420	RÉVISION: 0
FEUILLE: 1 of 1		

PRELIMINARY

**PRELIMINARY
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07/03/2014



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REV		DATE	REVISION DESCRIPTION	DRAWN	CHKD	ENG	APPVD
A		7/9/12	PRELIMINARY	M.C	M.B	M.B	

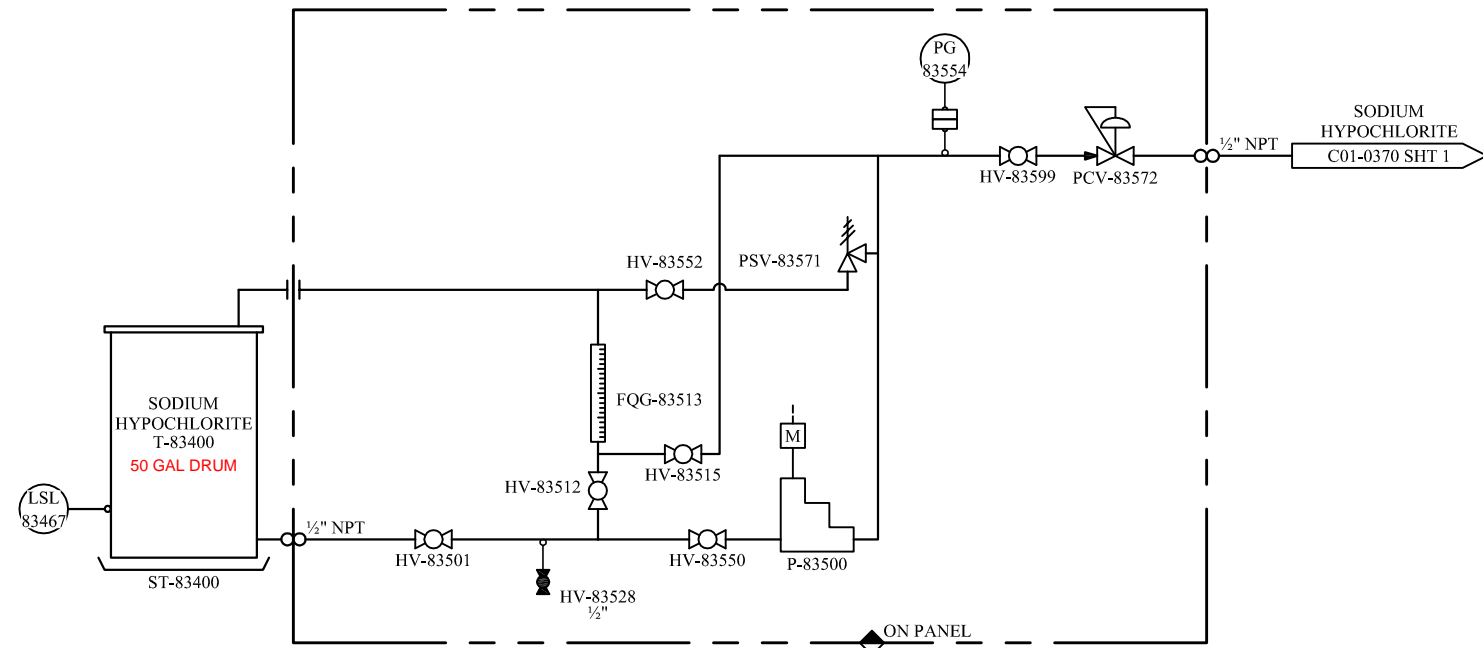


**CAMBRIA COMMUNITY SERVICES
EMERGENCY WATER
SUPPLY PROJECT**

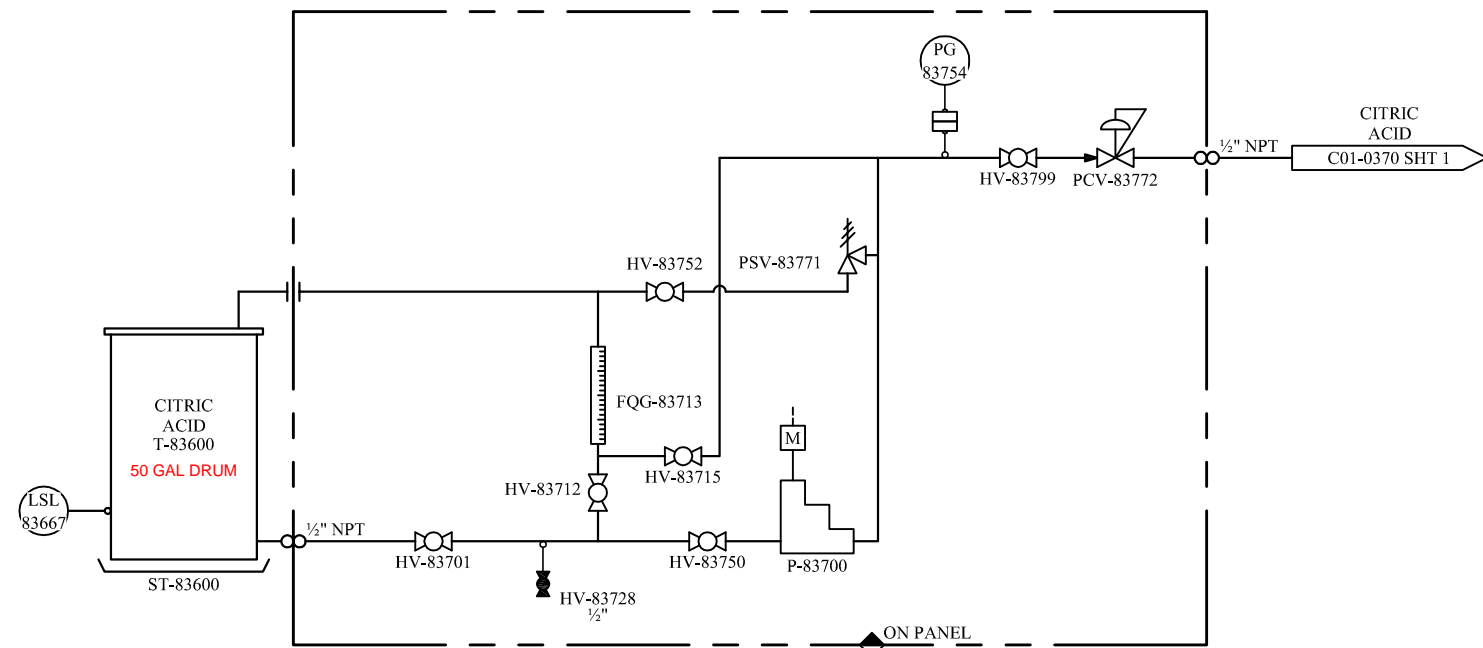
TITLE: RO CIP SYSTEM PROCESS & INSTRUMENTATION DIAGRAM		FILE: O-14024-C01-470
DRAWN BY: RMG		DATE:
ENGINEER: RMG		SHEET: 1 OF 1
CHECKED: GJM		SCALE: N.T.S.
APPROVED:		DRAWING NUMBER: P12069-C01-12
		REVISION A 7/9/12

**PRELIMINARY
NOT FOR CONSTRUCTION**

07/03/2014

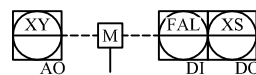


SODIUM HYPOCHLORITE DOSING SYSTEM



CITRIC ACID DOSING SYSTEM

**MF CONTAINER
BY H2O INNOVATION
(SHIPPED ASSEMBLED)**



TYPICAL PUMP MOTOR

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DRAWING REVISION						
REV	DATE	REVISION DESCRIPTION	DRAWN	CHKD	ENG	APPVD
A	12/06/2014	PRELIMINARY	M.C	M.B	M.B	-



UNLESS NOTED OTHERWISE
INTERPRETATION: ANSI Y14.5

TOLERANCES:
FRACTIONS: ±1/16"
DECIMALS: 0.30: ±0.009
0.300: ±0.015
ANGLES: ±0.5°
HOLE SIZES: ±0.004"
HOLE CENTERS: ±0.004"

DO NOT SCALE PRINTS

**CAMBRIA COMMUNITY SERVICES
DISTRICT EMERGENCY**

SUPPLY PROJECT

TITLE: MF CLEANING CHEMICALS PROCESS & INSTRUMENTATION DIAGRAM		
SCALE: N/A	DRAWING NUMBER: O-14024-C01-0800	REVISION A
SHEET: 1 of 2		