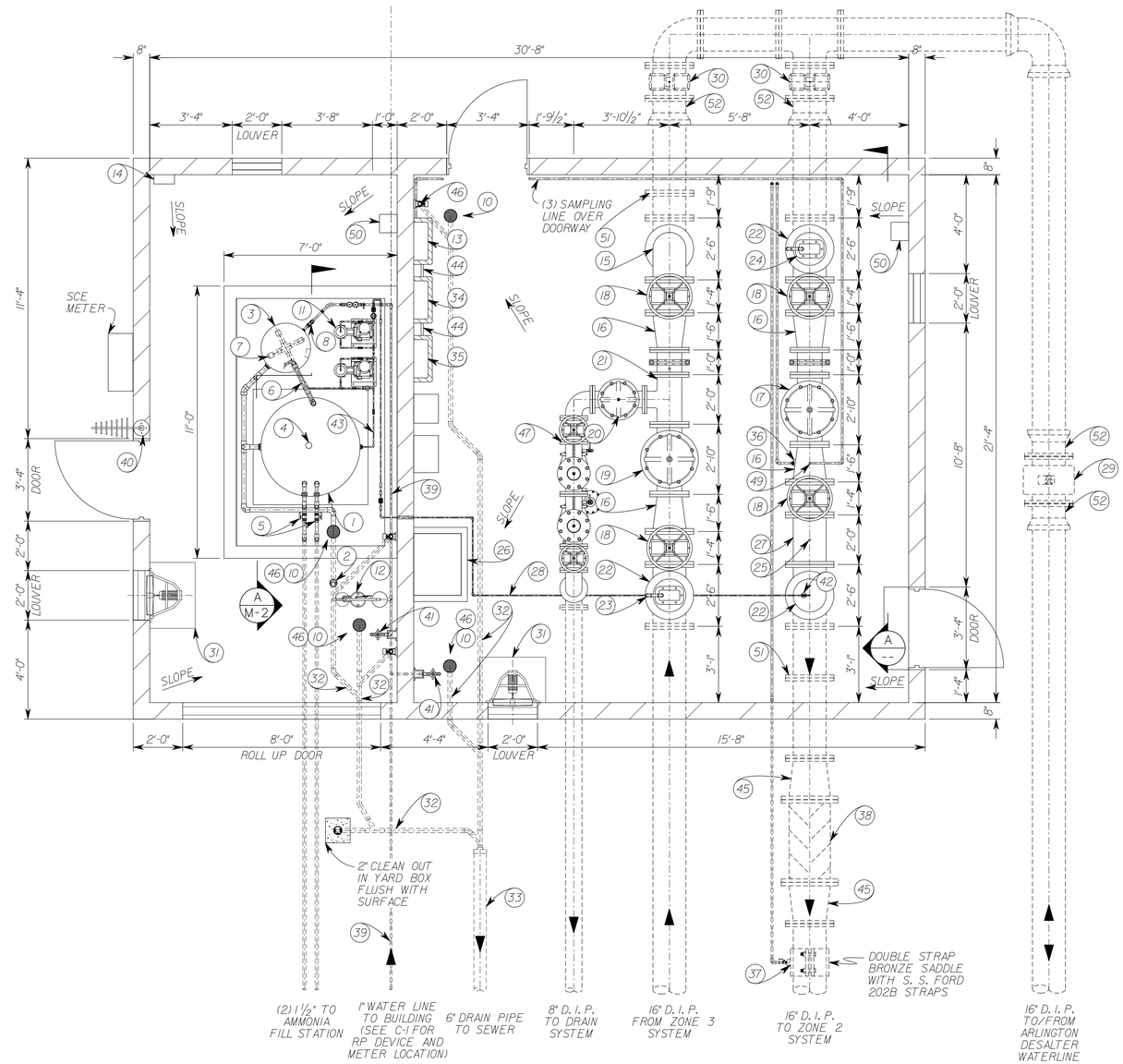
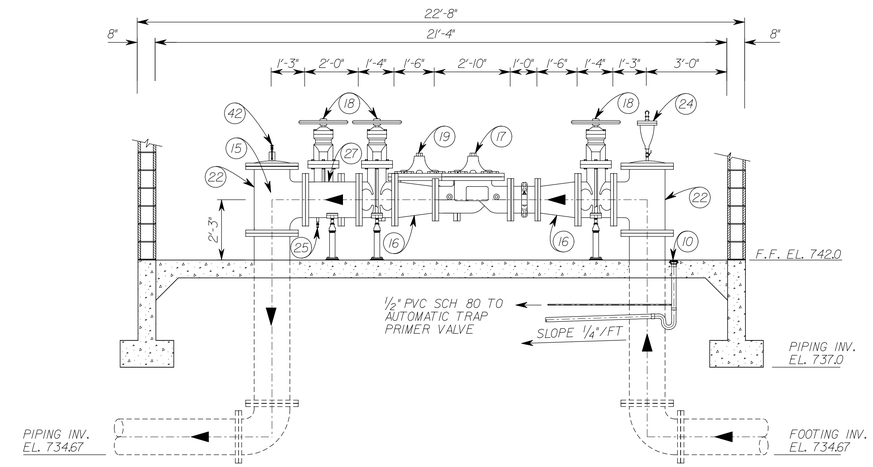


MECHANICAL PLAN

SCALE: ⅜" = 1'-0"

LIST OF MATERIALS

ITEM	DESCRIPTION	SIZE	QTY	ITEM	DESCRIPTION	SIZE	QTY
1	500 GALLON AA HD-XPLE STORAGE TANK (DIA. =4'-0", H=7'-0") WITH 6'-0" LADDER	-	1	27	D.I. SPOOL PIECE (FLG x FLG)	16"	AS REQ'D
2	BARE STEM EPDM & SS BUTTERFLY VALVE (NORMALLY CLOSED WITH LOCK)	2"	1	28	PVC SCH 80 PIPE AND FITTINGS FOR AA INJECTION LINE W/ ½" TUBING	1"	AS REQ'D
3	ABSORBER PE TANK (DIA. =2'-0", H=48")	-	1	29	ENDRESS & HAUSER MAGNETIC FLOWMETER 53P AHEROBIAK5BACA (CITY PROVIDED)	16"	1
4	K-TEK SHORT RANGE ULTASONIC LEVEL TRANSMITTER	-	1	30	RW GATE VALVE (FLG x FLG) PER CITY STANDARD DETAILS 420 & 421	16"	2
5	AA FILL AND RETURN W/DIAPHRAM VALVE (CPVC SCH 80)	2"	AS REQ'D	31	EXHAUST FAN W/WALL HOUSING AND GUARD, 2000 CFM AIR FLOW	1/3 HP	2
6	VENT TO ABSORBER TANK (CPVC)	2"	AS REQ'D	32	DJ. GRAVITY SEWER PIPE	2"	AS REQ'D
7	PVC PIPE ON TANK FLOOR W/ ½" DIA. HOLES DRILLED @ 2" O. C. (TYP)	2"	AS REQ'D	33	D.I. GRAVITY SEWER PIPE	6"	AS REQ'D
8	FLOAT CONTROL VALVE W/FLOAT MECHANISM (CLA-VAL-129-01)	1¼"	1	34	CI-17 (HACH) FREE Cl_2 ANALYZER	-	1
9	PVC BALL VALVES (NORMALLY OPEN)	2"	2	35	CI-17 (HACH) TOTAL Cl_2 ANALYZER	-	1
10	FLOOR DRAIN (ZURN Z-1901) W/TRAP PRIMER	12" SQ.	4	36	SAMPLE POINT FOR FREE Cl_2 ANALYZER JOIN WITH SS BALL VALVE & S.S. SHORT NIPPLE WITH ½" S.S. TUBING	-	1
11	MILTON ROY DIAPHRAGM METERING PUMP (2.4 GAL/HR, 90 PSI) MILROYAL HPD	-	2	37	SAMPLE POINT FOR TOTAL Cl_2 ANALYZER JOIN WITH SS BALL VALVE & S.S. SHORT NIPPLE WITH ½" S.S. TUBING	-	1
12	EMERGENCY SHOWER AND EYEWASH	-	1	38	KOMAX FBE EPOXY LINED AND COATED MODEL NO. 55599 STATIC MIXER WITH 2 ELEMENTS	20"	1
13	HACH NITRATE ANALYZER	-	1	39	TYPE K HARD DRAWN COPPER TUBING	1"	AS REQ'D
14	AMMONIA GAS DETECTOR MOUNTED 12" BELOW CEILING BY WALLACE & TIERNAN (ACUTEC 35)	-	1	40	SCADA SYSTEM ANTENNA	-	1
15	D. I. CL 200 FLG x FLG 90° TEE	16" x 16"	1	41	HOSE BIBB	1"	2
16	D. I. CL 200 FLG x FLG CONCENTRIC REDUCER	16" x 12"	4	42	INJECTION QUILL-AMMONIA INJECTOR (MODEL EB-145 AMMONIA) SAF-T-FLO	½"	1
17	RATE OF FLOW CONTROLLER VALVE AND SOLENOID SHUT-OFF (CLA-VAL 43-01)	12"	1	43	AQUA AMMONIA FROM TANK TO PUMP SUCTION LINE (CPVC SCH 80 PIPELINE)	1"	AS REQ'D
18	RW GATE VALVE (FLG x FLG)	16"	4	44	PVC SCH 80 PIPE FOR INSTRUMENTS WATER DRAINAGE. SEE NOTE 3 HEREON	1"	AS REQ'D
19	RATE OF FLOW CONTROLLER AND PRESSURE REDUCING VALVE (CLA-VAL 49.01)	12"	1	45	D.I. CLASS 200 REDUCER (FLG x FLG)	20" x 16"	2
20	PRESSURE RELIEF AND SURGE ANTICIPATOR VALVE, CLA-VAL 52-03	8"	1	46	CLEAN OUT IN VERTICAL AND VENT	1½" & 2"	4
21	D. I. CL 200 FLG x FLG TEE	12" x 8"	1	47	CLA-VAL RP-4 BACKFLOW PREVENTER DEVICE	8"	1
22	D. I. CL 200 FLG x FLG TEE	16"	3	48	ADJUSTABLE PIPE SUPPORT PER CITY STD. DWG. 418	-	6
23	COMBINATION AIR/VAC VALVE ASSEMBLY PER CITY OF CORONA STD. DWG. 413	2"	1	49	316 S.S. PIPE TO NITRATE ANALYZER	½"	AS REQ'D
24	COMBINATION AIR/VAC VALVE ASSEMBLY PER CITY OF CORONA STD. DWG. 413	1"	1	50	BOSCH FAP - 325 SMOKE DETECTOR OR EQUAL	-	2
25	1" PIPE SADDLE ON 16" LINE WITH MANUAL VALVE FOR SERVICE	1"	2	51	X52E ORIFICE PLATE ASSEMBLY	-	2
26	SCADA PANEL	-	-	52	ADAPTOR (FLG x FLG)	16"	4



MECHANICAL SECTION A

SCALE: ⅜" = 1'-0"

SHEET NOTES:

1. AA STORAGE TANK SHALL BE LABELED ACCORDING TO NFPA 704.
2. SAMPLING POINT FOR TOTAL CHLORINE ANALYZER SHALL BE INSTALLED IN MIN. 10-FEET DISTANCE FROM STATIC MIXER.
3. PROVIDE AIRGAP CONNECTION BETWEEN INSTRUMENTS OUTLET AND DRAINAGE LINE. THE AIRGAP MUST BE TWO TIMES THE INNER DIAMETER OF THE PIPE.
4. PROVIDE FLOOR DRAIN W/FUNNEL FOR INSTRUMENT AND TANK DRAINS, AND EXTEND THE DRAIN LINE TO THE POINT ABOVE FUNNEL.
5. DRAIN PIPES SLOPE SHALL BE ¼" FT.
6. PROVIDE AUTOMATIC TRAP PRIMER VALVE FOR ALL FLOOR DRAINS. (ZURN Z1022 OR EQUAL). TRAP PRIMER CONNECTION ADAPTER (Z1023 OR EQUAL) SHALL BE INSTALLED.
7. POTABLE WATERLINE CONNECTION TO PRIMER TO BE DETERMINED IN THE FIELD AND APPROVED BY CONSTRUCTION MANAGER.
8. INSTALLATION OF AMMONIA SYSTEM SHALL BE IN ACCORDANCE WITH CALIFORNIA FIRE CODE CHAPTERS 27 & 37.

AKM JOB No. 0760890.00

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REGISTERED PROFESSIONAL ENGINEER GARY J. HOBSON No. 40779 Exp. 3/31/11 CIVIL STATE OF CALIFORNIA

0 ½ 1 — 24x36 FORMAT: IF THIS BAR MEASURES 1" THEN DRAWING SCALE IS AS NOTED
0 ¼ ½ — 12x18 FORMAT: WARNING IF THIS BAR MEASURES 1/2" THEN DRAWING IS NOT FULL SCALE AND IS 50% REDUCED

Designed by	Drawn by	Checked by
KEVIN SALEH	CADD	GARY J. HOBSON

PLANS PREPARED UNDER SUPERVISION OF GARY J. HOBSON
Date MARCH 2010 R.C.E. No. 40779

Date	By	REVISIONS	App'd

AKM CONSULTING ENGINEERS
553 WALD
IRVINE, CA. 92618
(949) 753-7333

CDWP _____
WMWD _____

Department of Water and Power Approval
By _____ Donald A. Williams, P.E. R.C.E. No. 32333 EXP 12/31/2010

Approved _____
By _____ Jeffrey D. Sims, P.E. R.C.E. No. 46212, Exp. 12/31/10 Assistant General Manager/ Chief Operations Officer

Approved _____
By _____ Kip D. Field, P.E. R.C.E. No. 45679, Exp. 12/31/10 Public Works Director

CITY OF CORONA - ARLINGTON DESALTER CONNECTION
WESTERN MUNICIPAL WATER DISTRICT - PROMENADE CONNECTION
MECHANICAL PLAN AND SECTION

Drawing No. 09-050U
M-1
Sht. 5 of 24

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