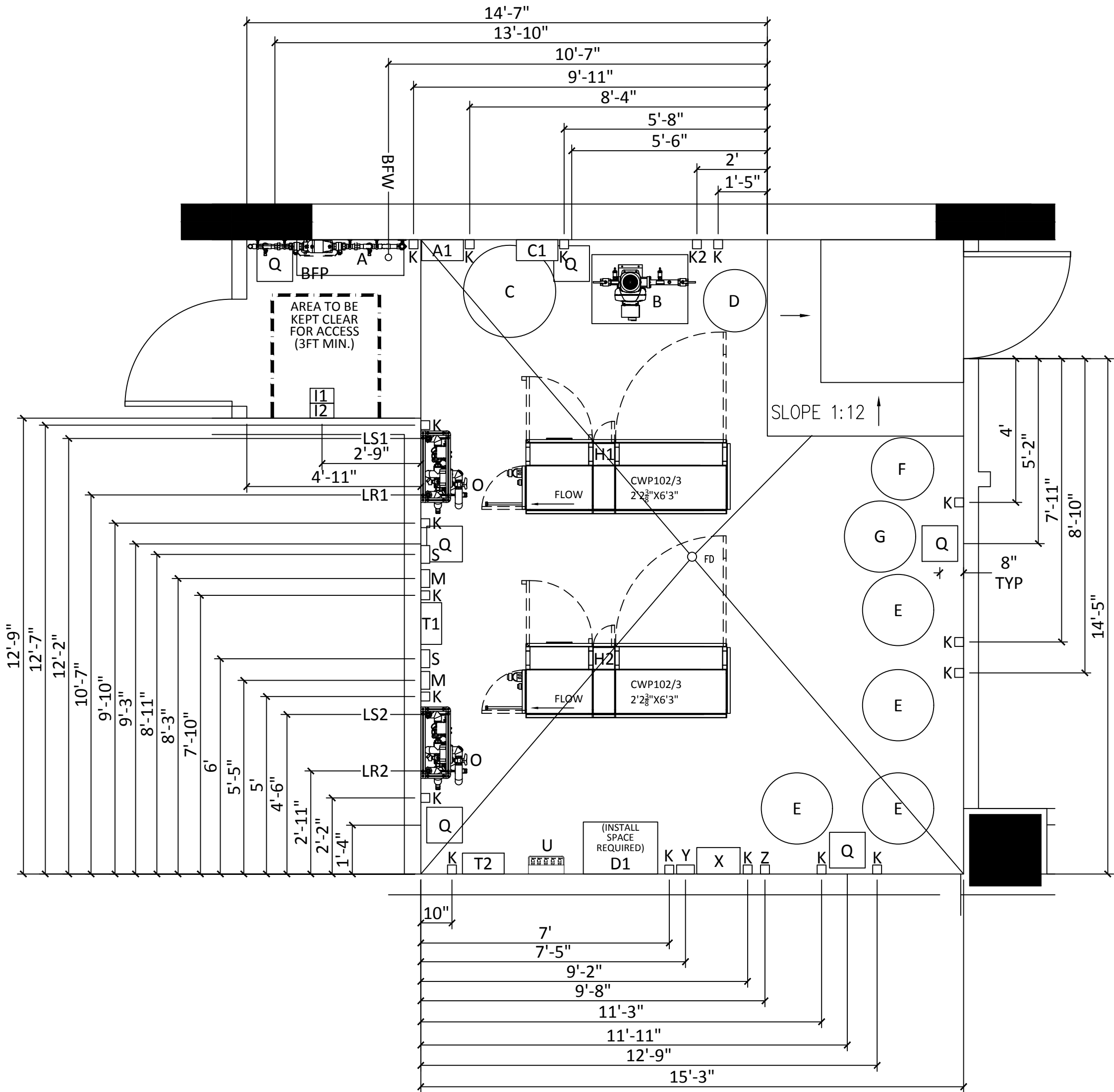


LEGEND:

- A: TEMPERATURE BLEND VALVE
(SEE PLUMBING NOTE 2,3,4, & 5)
- A1: WATER LEAK PANEL
120V, 1PH, 60Hz
- B: FEED WATER BOOSTER PUMP
208/230V, 3PH, 60Hz, 3Hp
41" W x 41" D x 60" HT, 220 LBS.
- C: BREAK TANK; 165 GAL.
31"Ø x 57" HT, 1445 LBS.
- C1: BREAK TANK CONTROL PANEL
120V, 1PH, 60Hz
- D: MULTI-MEDIA FILTER; 6 CUFT
21"Ø x 72" HT, 1200 LBS.
- D1: CARTRIDGE FILTERS; 1 MICRON
- E: CARBON FILTER; 7 CUFT
24"Ø x 74" HT, 1325 LBS.
- F: WATER SOFTENER; 180K
21"Ø x 71" HT, 875 LBS.
- G: BRINE TANK
24"Ø x 40" HT, 750 LBS.
- H1: CWP-102H; 5.3 GPM
75" W x 27" D x 79" HT, 1995 LBS.
208V, 3PH (5 WIRES), 60Hz, 60 AMP
- H2: CWP-102H; 5.3 GPM
75" W x 27" D x 79" HT, 1995 LBS.
208V, 3PH (5 WIRES), 60Hz, 60 AMP
- I1: SAFETY DISCONNECT
208V, 3PH (5 WIRES), 60Hz, 60 AMP
- I2: SAFETY DISCONNECT
208V, 3PH (5 WIRES), 60Hz, 60 AMP
(SEE ELECTRICAL NOTE 4)
- K: ELECTRICAL OUTLET; DUPLEX
120V, 1PH, 60Hz, 20AMP
- K2: TWIST LOCK; HUBBELL 2720
208/230V, 3PH, 60Hz, 3Hp
(SEE ELECTRICAL NOTE 5)
- M: RO REMOTE JUNCTION BOX
(SEE ELECTRICAL NOTE 3)
- O: CWP-PT
120V, 1PH, 60Hz
24"W x 15" D x 73" H, 85 LBS.
- Q: FLOOR SINK
MINIMUM DRAIN CAPACITY: 35 GPM
- S: RO DISCONNECT JUNCTION BOX
(SEE ELECTRICAL NOTE 6)
- T1: OVER TEMPERATURE ALARM
120V, 1PH, 60Hz, 5AMP
- T2: OVER TEMPERATURE ALARM
120V, 1PH, 60Hz, 5AMP
- U: SAMPLE BOX
- X: CHLORINE MONITOR
120V, 1PH, 60Hz
- Y: CHLORINE REMOTE JUNCTION BOX
(SEE ELECTRICAL NOTE 7)
- Z: POWERED RJ45 JACK
- BFW: BLENDED FEED WATER
(77° F)
- LS1: LOOP #1 SUPPLY
- LR1: LOOP #1 RETURN
- LS2: LOOP #2 SUPPLY
- LR2: LOOP #2 RETURN
- BFP: BACKFLOW PREVENTER
(SEE PLUMBING NOTE 1 & 4)



REVISION HISTORY

SEE SHEET 1 FOR REVISION RECORD

GENERAL NOTES:

1. THE ROOM DIMENSIONS ARE BASED ON AN AUTOCAD FILE OF THE FLOOR PLAN PROVIDED BY THE SALES DEPARTMENT. THE ROOM DIMENSIONS MUST BE CONFIRMED BEFORE THE INSTALLATION OF THE WATER TREATMENT SYSTEM.
2. 3/4" PLYWOOD IS REQUIRED FOR SECURING PIPING & PANELS TO THE WALL. PLYWOOD SUPPLIED AND INSTALLED BY G.C. PRIOR TO MAR COR'S ARRIVAL. PLYWOOD TO BE 8'-0" IN HEIGHT.
3. ANY WINDOWS NEED TO BE COVERED TO PROVIDE MOUNTING LOCATIONS FOR PIPING AND TO HELP PREVENT BACTERIAL AND BIOLOGICAL GROWTH.
4. NOT USED.

ELECTRICAL NOTES:

1. ALL ELECTRICAL OUTLETS, SWITCHED OUTLETS, SAFETY DISCONNECTS, JUNCTION BOXES, AND POWER SUPPLIED TO THIS EQUIPMENT IS SUPPLIED AND INSTALLED BY E.C. UNLESS NOTED. INSTALL ALL AFOREMENTIONED ITEMS 6'-6" A.F.F.
2. ELECTRICAL OUTLETS SHOWN ARE REQUIRED FOR THE WATER TREATMENT SYSTEM ONLY. ADDITIONAL OUTLETS MAY BE REQUIRED FOR OTHER USES. THE QUANTITY AND LOCATION OF THESE ADDITIONAL OUTLETS IS AT THE DISCRETION OF THE CUSTOMER.
3. TERMINATE THE CONDUIT AND WIRES FOR THE RO REMOTE MONITOR IN THE JUNCTION BOX (ITEM M). THE JUNCTION BOX SHOULD BE LOCATED 2'-0" BELOW THE CEILING AND WITHIN 5'-0" OF THE RO UNIT (BY E.C.)
4. NOT USED.
5. THE TWIST LOCK (ITEM K2) REQUIRES 208/230V, 3PH, 60Hz POWER. POWER SUPPLIED AND CONNECTED TO THE OUTLET (BY E.C.). THE TWIST LOCK IS TO BE LOCATED 6'-0" A.F.F.
6. WIRES FROM THE RO DISCONNECT SWITCHES TO THE JUNCTION BOXES IS PULLED BY E.C. THE JUNCTION BOXES ARE TO BE MOUNTED 6'-0" A.F.F.
7. TERMINATE THE CONDUIT AND WIRES FOR THE CHLORINE REMOTE MONITOR IN THE JUNCTION BOX (ITEM Y). THE JUNCTION BOX SHOULD BE LOCATED 2'-0" BELOW THE CEILING AND WITHIN 5'-0" OF THE CHLORINE UNIT (BY E.C.)

PLUMBING NOTES:

MINIMUM FEED WATER SUPPLY CAPACITY: 35 GPM
MINIMUM DRAIN CAPACITY: 35 GPM
MINIMUM RO BLENDED FEED WATER: 20 GPM

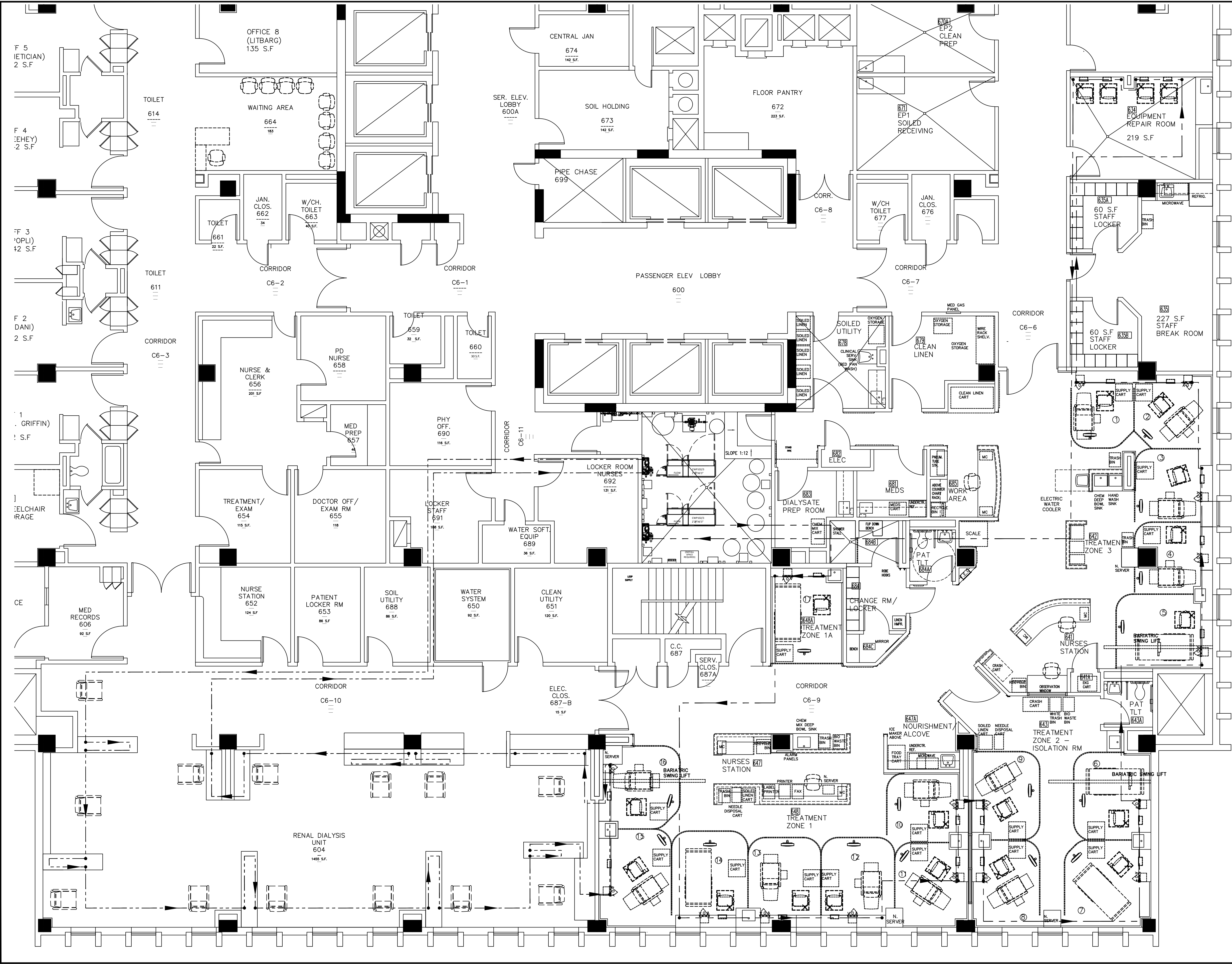
1. APPROPRIATE BACK FLOW PREVENTION DEVICE (IF REQUIRED BY LOCAL CODES) SUPPLIED AND INSTALLED (BY P.C.).
2. TEMPERATURE BLEND VALVE SUPPLIED BY MAR COR AND INSTALLED (BY P.C.) PRIOR TO MAR COR'S ARRIVAL.
3. TEMPERATURE BLEND VALVE TO BE INSTALLED WITH A COLD WATER BY-PASS ABLE TO SUPPLY THE ENTIRE DEMAND OF THE WATER TREATMENT SYSTEM (BY P.C.).
4. TEMPERATURE BLEND VALVE AND BACK FLOW PREVENTION DEVICE TO BE LOCATED (BY P.C.) CONSIDERING LOCAL PLUMBING CODES. AREA SHOWN IN DRAWING IS ONLY A POSSIBLE LOCATION THAT WOULD HAVE TO HAVE APPROVAL FROM RESPONSIBLE PARTY.
5. TERMINATE THE FEED WATER SUPPLY PIPING AT THE LOCATION BFW ON THE DRAWING 5'-6" A.F.F. WITH A 1-1/2" FNPT FITTING. FEED WATER SUPPLY PIPING TO BE LOCATED AFTER THE TEMPERATURE BLEND VALVE AND BACK FLOW PREVENTION DEVICE (BY P.C.).
6. TERMINATE THE RO WATER LOOP SUPPLIES (LS1 & LS2) AND LOOP RETURN (LR) RETURNS (LR1 & LR2) PIPING 12" BELOW THE CEILING AND WITHIN 7'-0" TO 10'-0" OF THE FINISHED FLOOR WITH A FEMALE FITTING. LABEL THE LOOP SUPPLY AND RETURN PIPING AT THE TERMINATION POINTS (BY P.C.).
7. NOT USED.

NOTICE ON REPRODUCTIONS

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D 1610048
SCALE: NONE (REF ONLY)
SHEET 2 OF 4

PW 1502550 SH 2 OF 2 REV 0



REVISION HISTORY	
SEE SHEET 1 FOR REVISION RECORD	

RO #1 LOOP (-----) ESTIMATE
HORIZONTAL LENGTH ESTIMATE - 497FT
VERTICAL LENGTH ESTIMATE (AT 10FT/ELEVATION
CHANGE) - 200FT
TOTAL ESTIMATED LENGTH - 697FT

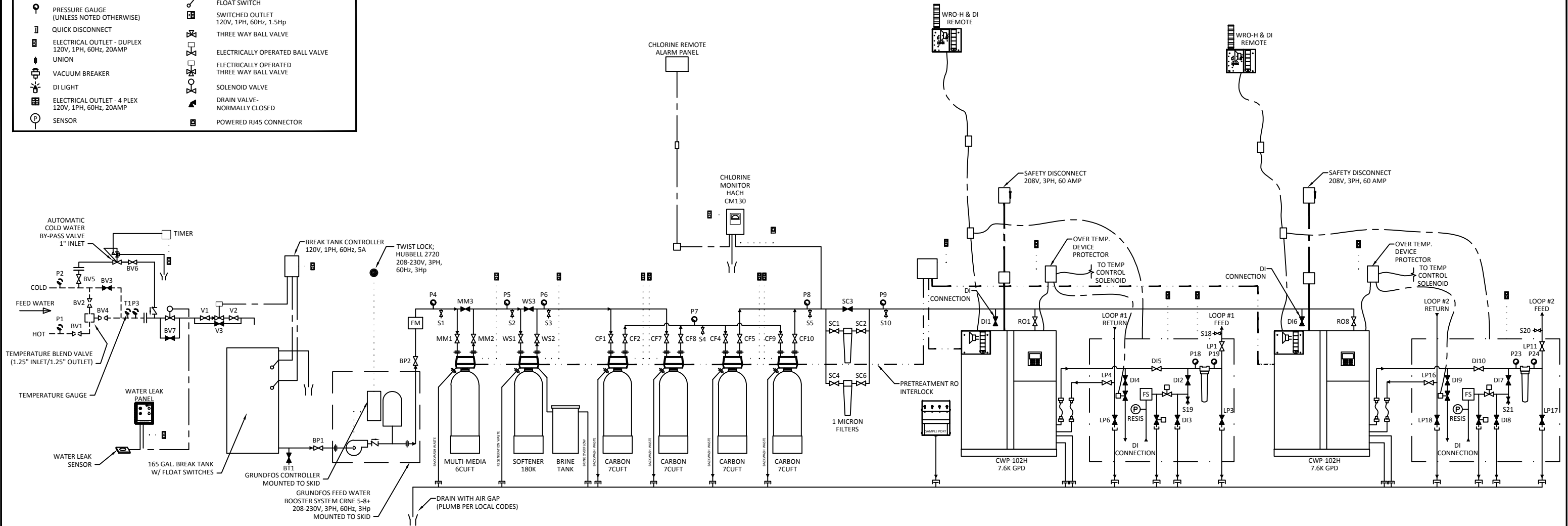
RO #2 LOOP (-----) ESTIMATE
HORIZONTAL LENGTH ESTIMATE - 486FT
VERTICAL LENGTH ESTIMATE (AT 10FT/ELEVATION
CHANGE) - 180FT
TOTAL ESTIMATED LENGTH - 666FT

NOTE:
LOOP TUBING/PIPING REQUIRES SLEEVING/HANGERS IN ALL OVERHEAD, INTERSTITIAL, AND UNDER SLAB SECTIONS. SLEEVING IS ALSO REQUIRED FOR ALL VERTICAL PIPING SECTIONS. SLEEVING/HANGERS WILL BE SUPPLIED AND INSTALLED BY P.C. ACCORDING TO MAR COR'S DISTRIBUTION PIPE SLEEVING GUIDELINES.

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D	1610048
SCALE:	NONE (REF ONLY)
SHEET	3 OF 4

LEGEND	
	DRAIN
	RELIEF VALVE
	BALL VALVE-NORMALLY CLOSED
	BALL VALVE-NORMALLY OPEN
	SAMPLE PORT
	CHECK VALVE
	PRESSURE GAUGE (UNLESS NOTED OTHERWISE)
	QUICK DISCONNECT
	ELECTRICAL OUTLET - DUPLEX 120V, 1PH, 60Hz, 20AMP UNION
	VACUUM BREAKER
	DI LIGHT
	ELECTRICAL OUTLET - 4 PLEX 120V, 1PH, 60Hz, 20AMP
	SENSOR
	FM FLOW METER
	FVM FLOW VELOCITY METER
	FS FLOW SWITCH
	PRESSURE REDUCING VALVE
	PS PRESSURE SWITCH
	FLOAT SWITCH
	SWITCHED OUTLET 120V, 1PH, 60Hz, 1.5Hp
	THREE WAY BALL VALVE
	ELECTRICALLY OPERATED BALL VALVE
	ELECTRICALLY OPERATED THREE WAY BALL VALVE
	SOLENOID VALVE
	DRAIN VALVE-NORMALLY CLOSED
	POWERED RJ45 CONNECTOR

REVISION HISTORY						
REV	DESCRIPTION	DCO #	DWN BY	DWN DATE	APVD BY	APVD DATE
0	ENGINEERING RELEASE	N/A	EM	05DEC17		
1	NEW QUOTE	N/A	EM	04JAN18		



VALVE #	DESCRIPTION	POSITION	VALVE #	DESCRIPTION	POSITION	SAMPLE PORT		DESCRIPTION	POSITION
BV1	BLENDING VALVE, HW INLET	NO	SC1	SEDIMENT CARTRIDGE FILTER INLET	NO				
BV2	BLENDING VALVE, CW INLET	NO	SC2	SEDIMENT CARTRIDGE FILTER OUTLET	NO	S1		CITY WATER	NC
BV3	BLENDING VALVE, CW BY-PASS	NC	SC3	SEDIMENT CARTRIDGE FILTERS BY-PASS	NC	S2		MULTI-MEDIA FILTER OUTLET	NC
BV4	BLENDING VALVE, TEMPERED WATER OUTLET	NO	SC4	SEDIMENT CARTRIDGE FILTER INLET	NO	S3		WATER SOFTENER OUTLET	NC
BV5	BLENDING VALVE, AUTO CW INLET	NO	SC6	SEDIMENT CARTRIDGE FILTER OUTLET	NO	S4		WORKER CARBON FILTERS OUTLET	NC
BV6	BLENDING VALVE, AUTO CW OUTLET	NO	RO1	RO #1 FEED WATER INLET	NO	S5		POLISHER CARBON FILTERS OUTLET	NC
BV7	BLENDING VALVE, LEAK DETECTOR BY-PASS	NC	RO8	RO #2 FEED WATER INLET	NO	S10		RO PREFILTER SEDIMENT CARTRIDGE FILTERS OUTLET	NC
V1	BREAK TANK FEED SOLENOID INLET	NO	DI1	RO SYSTEM #1 BY-PASS	NC	S18		ENDOTOXIN FILTER LOOP #1 OUTLET	NC
V2	BREAK TANK FEED SOLENOID OUTLET	NO	DI2	DI SYSTEM #1 OUTLET	NC	S19		DI SYSTEM #1 OUTLET	NC
V3	BREAK TANK FEED SOLENOID BY-PASS	NC	DI3	DI SYSTEM #1 TO DRAIN	NC	S20		ENDOTOXIN FILTER LOOP #2 OUTLET	NC
BT1	BREAK TANK DRAIN	NC	DI4	DI SYSTEM #1 INLET	NC	S21		DI SYSTEM #2 OUTLET	NC
BP1	BOOSTER PUMP, FEED WATER INLET	NO	DI5	DI SYSTEM #1 BY-PASS	NO	GAUGE		DESCRIPTION	
BP2	BOOSTER PUMP, FEED WATER OUTLET	NO	DI6	RO SYSTEM #2 BY-PASS	NC				
MM1	MULTI-MEDIA FILTER INLET	NO	DI7	DI SYSTEM #2, OUTLET	NC	P1		HW INLET PRESSURE	
MM2	MULTI-MEDIA FILTER OUTLET	NO	DI8	DI SYSTEM #2 TO DRAIN	NC	P2		CW INLET PRESSURE	
MM3	MULTI-MEDIA FILTER BY-PASS	NC	DI9	DI SYSTEM #2 INLET	NC	P3		TEMPERED WATER OUTLET PRESSURE	
WS1	WATER SOFTENER INLET	NO	DI10	DI SYSTEM #2 BY-PASS	NO	P4		FEED WATER BOOSTER PUMP DISCHARGE PRESSURE	
WS2	WATER SOFTENER OUTLET	NO	LP1	LOOP, DISTRIBUTION #1, FEED	NO	P5		MULTI-MEDIA FILTER OUTLET PRESSURE	
WS3	WATER SOFTENER BY-PASS	NC	LP3	LOOP, DISTRIBUTION #1, FEED TO DRAIN	NC	P6		WATER SOFTENER OUTLET PRESSURE	
CF1	CARBON FILTER WORKER #1, INLET	NO	LP4	LOOP, DISTRIBUTION #1, RETURN TO RO #1	NO	P7		WORKER CARBON FILTERS OUTLET PRESSURE	
CF2	CARBON FILTER WORKER #1, OUTLET	NO	LP6	LOOP, DISTRIBUTION #1, RETURN TO DRAIN	NC	P8		POLISHER CARBON FILTERS OUTLET PRESSURE	
CF4	CARBON FILTER POLISHER #1, INLET	NO	LP11	LOOP, DISTRIBUTION #2, FEED	NO	P9		RO PREFILTERS OUTLET PRESSURE	
CF5	CARBON FILTER POLISHER #1, OUTLET	NO	LP16	LOOP, DISTRIBUTION #2, RETURN TO RO #2	NO	P18		ENDOTOXIN FILTER INLET PRESSURE-LOOP #1	
CF7	CARBON FILTER WORKER #2, INLET	NO	LP17	LOOP, DISTRIBUTION #2, FEED TO DRAIN	NC	P19		ENDOTOXIN FILTER OUTLET PRESSURE-LOOP #1	
CF8	CARBON FILTER WORKER #2, OUTLET	NO	LP18	LOOP, DISTRIBUTION #2, RETURN TO DRAIN	NC	P23		ENDOTOXIN FILTER INLET PRESSURE-LOOP #2	
CF9	CARBON FILTER POLISHER #2, INLET	NO	D1	FEED WATER BOOSTER PUMP DRAIN	NC	P24		ENDOTOXIN FILTER OUTLET PRESSURE-LOOP #2	
CF10	CARBON FILTER POLISHER #2, OUTLET	NO							

DUAL CWP DIRECT FEED RO SYSTEM

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DRAWN BY E. MADISON	DATE 05DEC17	TOLERANCES UNLESS NOTED BASIC MM TOL ± (0.5)-6 0.1 (100)-300 0.5 (6)-30 0.2 (300)-1000 0.8 (10)-100 0.3 (1000)-2000 1.2 BREAK AND DERAIL ALL SHARP EDGES 0.0 UNLESS OTHERWISE NOTED	DECIMALS ANGLES: ± 1° FRAC: ± 1/16 X ± .1 XX ± .03 XXX ± .015	REV 1	DRAWING NO. 1610048	REV 1
MAR-COR Plymouth, MN 55447 PH: (608) 633-3085 WWW.MARCOR.COM				SIMPLE FLOW, VAMC HINES		
NONE (REF ONLY)				1 OF 4		