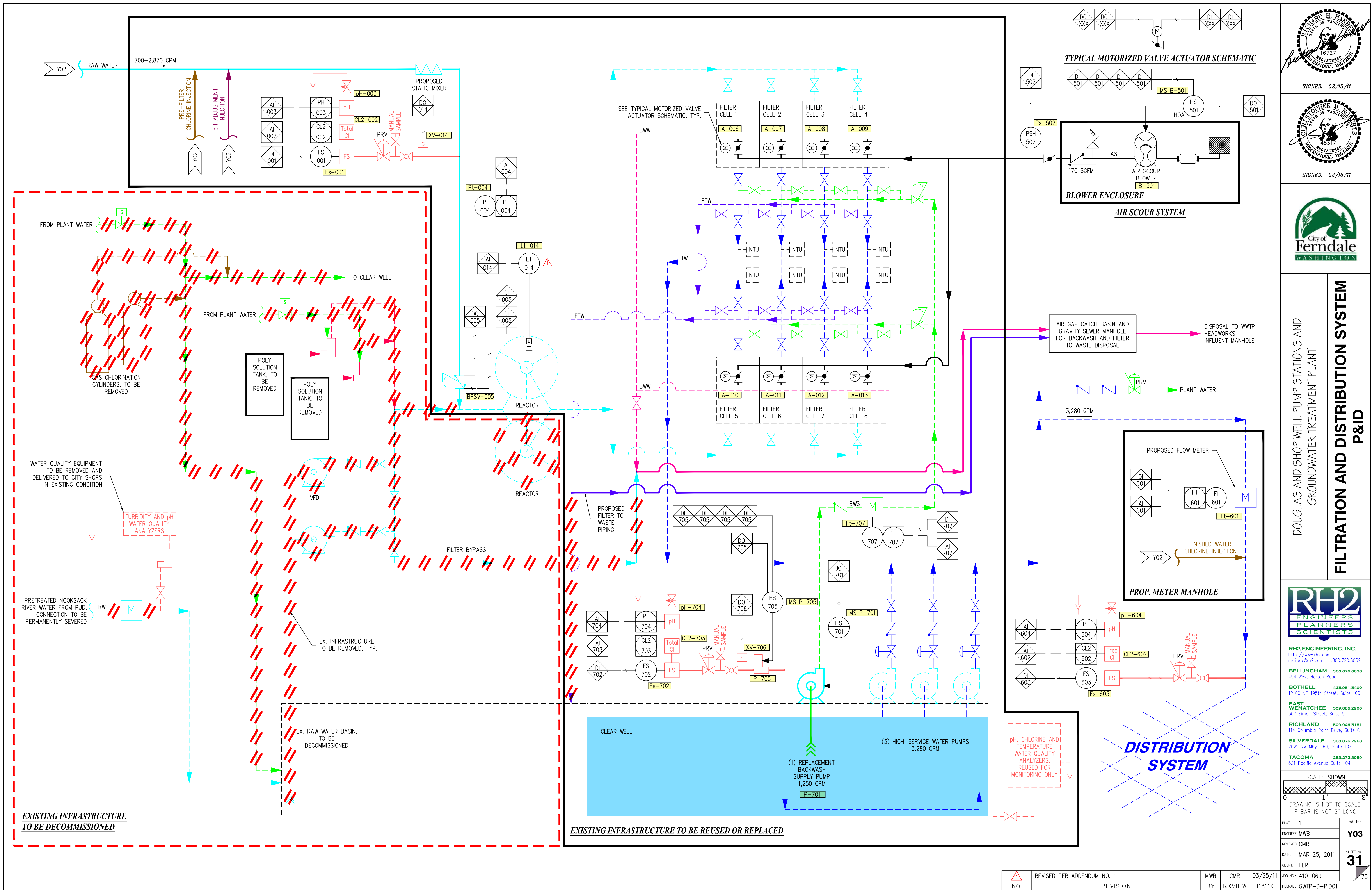
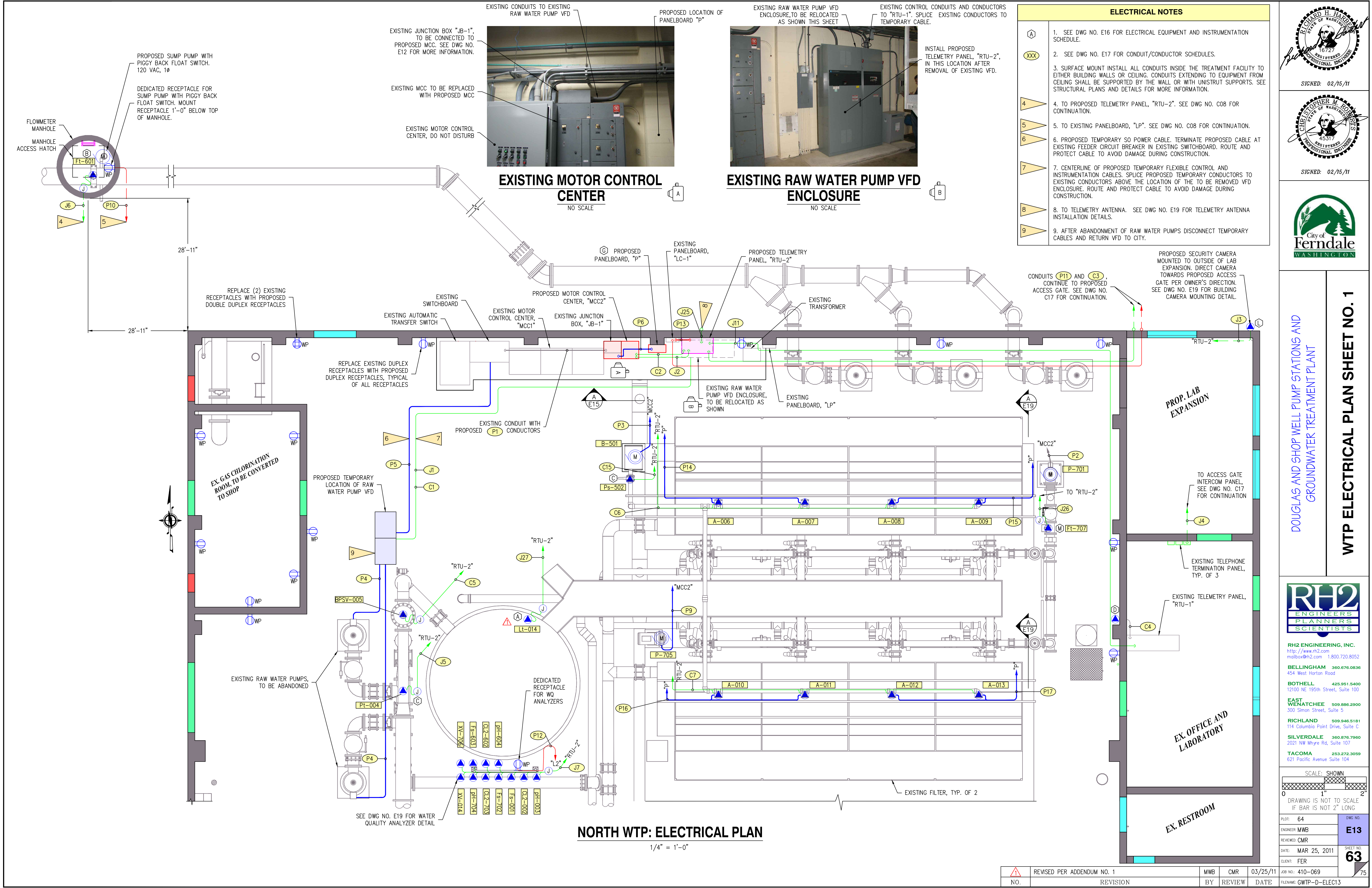


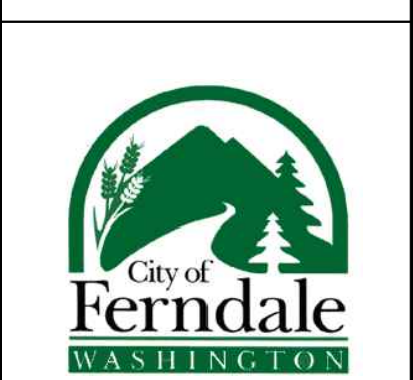




- ELECTRICAL NOTES**
1. SEE DWG NO. E16 FOR ELECTRICAL EQUIPMENT AND INSTRUMENTATION SCHEDULE.
 2. SEE DWG NO. E17 FOR CONDUIT/CONDUCTOR SCHEDULES.
 3. SURFACE MOUNT INSTALL ALL CONDUITS INSIDE THE TREATMENT FACILITY TO EITHER BUILDING WALLS OR CEILING. CONDUITS EXTENDING TO EQUIPMENT FROM CEILING SHALL BE SUPPORTED BY THE WALL OR WITH UNISTRUT SUPPORTS. SEE STRUCTURAL PLANS AND DETAILS FOR MORE INFORMATION.
 4. TO PROPOSED TELEMETRY PANEL, "RTU-2". SEE DWG NO. C08 FOR CONTINUATION.
 5. TO EXISTING PANELBOARD, "LP". SEE DWG NO. C08 FOR CONTINUATION.
 6. PROPOSED TEMPORARY 50 POWER CABLE. TERMINATE PROPOSED CABLE AT EXISTING FEEDER CIRCUIT BREAKER IN EXISTING SWITCHBOARD. ROUTE AND PROTECT CABLE TO AVOID DAMAGE DURING CONSTRUCTION.
 7. CENTERLINE OF PROPOSED TEMPORARY FLEXIBLE CONTROL AND INSTRUMENTATION CABLES. SPLICE PROPOSED TEMPORARY CONDUCTORS TO EXISTING CONDUCTORS ABOVE THE LOCATION OF THE TO BE REMOVED VFD ENCLOSURE. ROUTE AND PROTECT CABLE TO AVOID DAMAGE DURING CONSTRUCTION.
 8. TO TELEMETRY ANTENNA. SEE DWG NO. E19 FOR TELEMETRY ANTENNA INSTALLATION DETAILS.
 9. AFTER ABANDONMENT OF RAW WATER PUMPS DISCONNECT TEMPORARY CABLES AND RETURN VFD TO CITY.

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DOUGLAS AND SHOP WELL PUMP STATIONS AND GROUNDWATER TREATMENT PLANT

WTP ELECTRICAL PLAN SHEET NO. 1

RH2 ENGINEERS PLANNERS SCIENTISTS

RH2 ENGINEERING, INC.
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114 Columbia Point Drive, Suite C

SILVERDALE 360.876.7960
2021 NW Myhre Rd, Suite 107

TACOMA 253.272.3099
621 Pacific Avenue Suite 104

SCALE: SHOWN
0 1" 2"
DRAWING IS NOT TO SCALE
IF BAR IS NOT 2" LONG

PLT: 64	DWG NO. E13
ENGINEER: MWB	
REVIEWED: CMR	
DATE: MAR 25, 2011	
CLIENT: FER	

JOB NO.: 410-069
FILENAME: GWTP-D-ELEC13

75

NO.	REVISION	BY	REVIEW	DATE
	REVISED PER ADDENDUM NO. 1	MWB	CMR	03/25/11

INSTRUMENTATION CONDUIT AND CONDUCTOR SCHEDULE					
CIRCUIT	SOURCE	DESTINATION	TRADE SIZE	(QUANTITY) CONDUCTORS	NOTES
J1	TO BE REMOVED RAW WATER PUMP VFD LOCATION	RELOCATED RAW WATER PUMP VFD	—	(1) FLEXIBLE MULTICONDUCTOR CABLE WITH (4) TWSP	RAW WATER PUMP VFD SPEED AND SPEED FEEDBACK SIGNALS
J2	TELEMETRY PANEL, "RTU-2"	MOTOR CONTROL CENTER, "MCC2"	3/4"	(1) CAT 6 ETHERNET CABLE	
J3A	TELEMETRY PANEL, "RTU-2"	BUILDING SECURITY CAMERA	3/4"	(1) CAT 6 ETHERNET CABLE	CIRCUITS "J3A" AND "J3B" SHARE CONDUIT J3
J3B	TELEMETRY PANEL, "RTU-2"	BUILDING SECURITY CAMERA	3/4"	(2) — #14, (1) — #14 GRD	CIRCUITS "J3A" AND "J3B" SHARE CONDUIT J3
J4	EXISTING TELEPHONE TERMINATION PANEL	ACCESS GATE INTERCOM PANEL	3/4"	(1) 1-PAIR TELEPHONE CABLE	
J5	TELEMETRY PANEL, "RTU-2"	PRESSURE TRANSMITTER, Pt-004	3/4"	(1) 2-CONDUCTOR SHIELDED CABLE	
J6A	TELEMETRY PANEL, "RTU-2"	FLOW METER, Ft-601	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J6A" AND "J6B" SHARE CONDUIT J6
J6B	TELEMETRY PANEL, "RTU-2"	FLOW METER, Ft-601	1"	(2) — #14, (1) — #14 GRD	CIRCUITS "J6A" AND "J6B" SHARE CONDUIT J6
J7A	TELEMETRY PANEL, "RTU-2"	FLOW SWITCH, Fs-001	2"	(2) — #14, (1) — #14 GRD	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7B	TELEMETRY PANEL, "RTU-2"	CLHORINATION ANALYZER, CL2-002	2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7C	TELEMETRY PANEL, "RTU-2"	pH ANALYZER, Ph-003	2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7D	TELEMETRY PANEL, "RTU-2"	FLOW SWITCH, Fs-603	2"	(2) — #14, (1) — #14 GRD	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7E	TELEMETRY PANEL, "RTU-2"	CLHORINATION ANALYZER, CL2-602	2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7F	TELEMETRY PANEL, "RTU-2"	pH ANALYZER, Ph-604	2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7G	TELEMETRY PANEL, "RTU-2"	FLOW SWITCH, Fs-702	2"	(2) — #14, (1) — #14 GRD	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7H	TELEMETRY PANEL, "RTU-2"	CLHORINATION ANALYZER, CL2-703	2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7I	TELEMETRY PANEL, "RTU-2"	pH ANALYZER, Ph-704	2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7J	TELEMETRY PANEL, "RTU-2"	SOLENOID VALVE, XV-014	2"	(2) — #14, (1) — #14 GRD	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J7K	TELEMETRY PANEL, "RTU-2"	SOLENOID VALVE XV-706	2"	(2) — #14, (1) — #14 GRD	CIRCUITS "J7A" THRU "J7K" SHARE CONDUIT J7.
J9A	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-006	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J9A" THRU "J9D" SHARE CONDUIT J9.
J9B	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-007	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J9A" THRU "J9D" SHARE CONDUIT J9.
J9C	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-008	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J9A" THRU "J9D" SHARE CONDUIT J9.
J9D	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-009	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J9A" THRU "J9D" SHARE CONDUIT J9.
J10A	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-010	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J10A" THRU "J10D" SHARE CONDUIT J10.
J10B	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-011	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J10A" THRU "J10D" SHARE CONDUIT J10.
J10C	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-012	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J10A" THRU "J10D" SHARE CONDUIT J10.
J10D	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-013	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J10A" THRU "J10D" SHARE CONDUIT J10.
J11	TELEMETRY PANEL, "RTU-2"	EXISTING TELEMETRY PANEL, "RTU-1"	1 1/2"	MULTI-MODE FIBER OPTIC CABLE	
J12A	ON-SITE GENERATION CONTROL PANEL, "Cp-300"	LEVEL SWITCH, Ls-305	1"	(2) — #14, (1) — #14 GRD	CIRCUITS "J12A", "J12B", AND "J12C" SHARE CONDUIT J12
J12B	ON-SITE GENERATION CONTROL PANEL, "Cp-300"	LEVEL TRANSMITTER, Lt-306	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J12A", "J12B", AND "J12C" SHARE CONDUIT J12
J12C	ON-SITE GENERATION CONTROL PANEL, "Cp-300"	PRESSURE SWITCH, Ps-307	1"	(2) — #14, (1) — #14 GRD	CIRCUITS "J12A", "J12B", AND "J12C" SHARE CONDUIT J12
J13A	ON-SITE GENERATION CONTROL PANEL, "Cp-300"	LEVEL SWITCH, Ls-308	1"	(2) — #14, (1) — #14 GRD	CIRCUITS "J13A", "J13B", AND "J13C" SHARE CONDUIT J13
J13B	ON-SITE GENERATION CONTROL PANEL, "Cp-300"	LEVEL TRANSMITTER, Lt-309	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J13A", "J13B", AND "J13C" SHARE CONDUIT J13
J13C	ON-SITE GENERATION CONTROL PANEL, "Cp-300"	PRESSURE SWITCH, Ps-310	1"	(2) — #14, (1) — #14 GRD	CIRCUITS "J13A", "J13B", AND "J13C" SHARE CONDUIT J13
J14A	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-303	1"	(4) — #14, (1) — #14 GRD	CIRCUITS "J14A" AND "J14B" SHARE CONDUIT J14
J14B	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-303	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J14A" AND "J14B" SHARE CONDUIT J14
J15A	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-301	1"	(4) — #14, (1) — #14 GRD	CIRCUITS "J15A" AND "J15B" SHARE CONDUIT J15
J15B	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-301	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J15A" AND "J15B" SHARE CONDUIT J15
J16A	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-302	1"	(4) — #14, (1) — #14 GRD	CIRCUITS "J16A" AND "J16B" SHARE CONDUIT J16
J16B	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-302	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J16A" AND "J16B" SHARE CONDUIT J16
J17A	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-401	1"	(4) — #14, (1) — #14 GRD	CIRCUITS "J17A" AND "J17B" SHARE CONDUIT J17
J17B	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-401	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J17A" AND "J17B" SHARE CONDUIT J17
J18A	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-402	1"	(4) — #14, (1) — #14 GRD	CIRCUITS "J18A" AND "J18B" SHARE CONDUIT J18
J18B	TELEMETRY PANEL, "RTU-2"	METERING PUMP P-402	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J18A" AND "J18B" SHARE CONDUIT J18
J19A	TELEMETRY PANEL, "RTU-2"	DILUTION SKID, Cp-400	1 1/2"	(12) — #14, (1) — #14 GRD	CIRCUITS "J19A" AND "J19B" SHARE CONDUIT J19
J19B	TELEMETRY PANEL, "RTU-2"	DILUTION SKID, Cp-400	1 1/2"	(3) 2-CONDUCTOR SHIELDED CABLES	CIRCUITS "J19A" AND "J19B" SHARE CONDUIT J19
J20A	TELEMETRY PANEL, "RTU-2"	LEVEL SWITCH, Ls-405	1"	(2) — #14, (1) — #14 GRD	CIRCUITS "J20A" AND "J20B" SHARE CONDUIT J20
J20B	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-406	1"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J20A" AND "J20B" SHARE CONDUIT J20
J21	EXISTING CITY NETWORK CONNECTION	LAB EXPANSION NETWORK PORT 1	3/4"	(1) CAT 5 ETHERNET CABLE	
J22	EXISTING CITY NETWORK CONNECTION	LAB EXPANSION NETWORK PORT 2	3/4"	(1) CAT 5 ETHERNET CABLE	
J23	TELEMETRY PANEL, "RTU-2"	ON-SITE GENERATION CONTROL PANEL, Cp-300	3/4"	(1) CAT 6 ETHERNET CABLE	
J24A	ON-SITE GENERATION CONTROL PANEL, Cp-300	ON-SITE GENERATION SYSTEM RECTIFIER	1 1/4"	(4) — #14, (1) — #14 GRD	CIRCUITS "J24A" AND "J24B" SHARE CONDUIT J24
J24B	ON-SITE GENERATION CONTROL PANEL, Cp-300	ON-SITE GENERATION SYSTEM RECTIFIER	1 1/4"	(3) 2-CONDUCTOR SHIELDED CABLES	CIRCUITS "J24A" AND "J24B" SHARE CONDUIT J24
J25	TELEMETRY PANEL, "RTU-2"	TELEMETRY ANTENNA	1 1/2"	(1) COAXIAL ANTENNA CABLE	
J26A	TELEMETRY PANEL, "RTU-2"	FLOWMETER TRANSMITTER, Ft-707	3/4"	(1) 2-CONDUCTOR SHIELDED CABLE	CIRCUITS "J26A" AND "J26B" SHARE CONDUIT J26
J26B	TELEMETRY PANEL, "RTU-2"	FLOWMETER TRANSMITTER, Ft-707	3/4"	(4) — #14, (1) — #14 GRD	CIRCUITS "J26A" AND "J26B" SHARE CONDUIT J26
J27	TELEMETRY PANEL, "RTU-2"	LEVEL TRANSMITTER, Lt-014	3/4"	(1) 2-CONDUCTOR SHIELDED CABLE	

CONTROL CONDUIT AND CONDUCTOR SCHEDULE					
CIRCUIT	SOURCE	DESTINATION	TRADE SIZE	(QUANTITY) CONDUCTORS	NOTES
C1	TO BE REMOVED RAW WATER PUMP VFD LOCATION	RELOCATED RAW WATER PUMP VFD	—	FLEXIBLE CONTROL CABLE WITH (10) — #14 CONDUCTORS	RAW WATER PUMP SELECT CALL, CALL, PUMP 1 RUN, PUMP 2 RUN
C2	TELEMETRY PANEL, "RTU-2"	MOTOR CONTROL CENTER, "MCC2"	1 1/4"	(50) — #14, (1) — #14 GRD	
C3	TELEMETRY PANEL, "RTU-2"	ACCESS GATE OPERATOR	3/4"	(2) — #14, (1) — #14 GRD	
C4	EXISTING TELEMETRY PANEL, "RTU-1"	TREATMENT PLANT FLOOD SWITCH	EXISTING	(2) — #14, (1) — #14 GRD	REPLACE EXISTING CONDUCTORS WITH PROPOSED CONDUCTORS
C5	TELEMETRY PANEL, "RTU-2"	BACKPRESSURE SUSTAINING VALVE, BPSV-005	3/4"	(6) — #14, (1) — #14 GRD	
C6A	TELEMETRY PANEL, "RTU-2"	VALVE ACTUATOR, A-006	3/4"	(8) — #14, (1) — #14 GRD	CIRCUITS "C6A" THRU "C6D" SHARE CONDUIT C6.
C6B	TELEMETRY PANEL, "RTU-2"	VALVE ACTUATOR, A-007	3/4"	(8) — #14, (1) — #14 GRD	CIRCUITS "C6A" THRU "C6D" SHARE CONDUIT C6.
C6C	TELEMETRY PANEL, "RTU-2"	VALVE ACTUATOR, A-008	3/4"	(8) — #14, (1) — #14 GRD	CIRCUITS "C6A" THRU "C6D" SHARE CONDUIT C6.
C6D	TELEMETRY PANEL, "RTU-2"	VALVE ACTUATOR, A-009	3/4"	(8) — #14, (1) — #14 GRD	CIRCUITS "C6A" THRU "C6D" SHARE CONDUIT C6.
C7A	TELEMETRY PANEL, "RTU-2"	VALVE ACTUATOR, A-010	3/4"	(8) — #14, (1) — #14 GRD	CIRCUITS "C7A" THRU "C7D" SHARE CONDUIT C7.
C7B	TELEMETRY PANEL, "RTU-2"	VALVE ACTUATOR, A-011	3/4"	(8) — #14, (1) — #14 GRD	CIRCUITS "C7A" THRU "C7D" SHARE CONDUIT C7.
C7C	TELEMETRY PANEL, "RTU-2"	VALVE ACTUATOR, A-012	3/4"	(8) — #14, (1) — #14 GRD	CIRCUITS "C7A" THRU "C7D" SHARE CONDUIT C7.
C7D	TELEMETRY PANEL, "RTU-2"	VALVE ACTUATOR, A-013	3/4"	(8) — #14, (1) — #14 GRD	CIRCUITS "C7A" THRU "C7D" SHARE CONDUIT C7.
C8	LAB ROOM HEATING THERMOSTAT	LAB ROOM HEATER "H1"	3/4"	(2) — #14, (1) — #14 GRD	
C9	TELEMETRY PANEL, "RTU-2"	LAB ROOM SMOKE DETECTOR	3/4"	(4) — #14, (1) — #14 GRD	
C10	ON-SITE GENERATION CONTROL PANEL, Cp-300	INTRINSIC RELAY BOX	3/4"	(8) — #14, (1) — #14 GRD	
C11	ON-SITE GENERATION CONTROL PANEL, Cp-300	CONTROL JUNCTION BOX	3/4"	(6) — #12, (1) — #12 GRD	
C12	ON-SITE GENERATION CONTROL PANEL, Cp-300	CONTROL JUNCTION BOX	3/4"	(10) — #14, (1) — #14 GRD	
C13	CONTROL JUNCTION BOX	DILUTION WATER VALVE, XV-315	3/4"	(2) — #14, (1) — #14 GRD	
C14	ON-SITE GENERATION CONTROL PANEL, Cp-300	BRINE TANK LEVEL SWITCH	3/4"	(2) — #14, (1) — #14 GRD	
C15	TELEMETRY PANEL, "RTU-2"	PRESSURE SWITCH, Ps-502	3/4"	(2) — #14, (1) — #14 GRD	

POWER CONDUIT AND CONDUCTOR SCHEDULE					
CIRCUIT	SOURCE	DESTINATION	TRADE SIZE	(QUANTITY) CONDUCTORS	NOTES
P1	EXISTING JUNCTION BOX	MOTOR CONTROL CENTER, "MCC2"		(3) — #3/0, (1) — #3/0 N, (1) — #3 GRD	PARALLEL CONDUCTORS
P2	MOTOR CONTROL CENTER, "MCC2"	BACKWASH PUMP, P-701	EXISTING	(3) — #10, (1) — #10 GRD	INSTALL PROPOSED CONDUCTORS IN EXISTING CONDUIT
P3	MOTOR CONTROL CENTER, "MCC2"	AIR SCOUR BLOWER, B-501	3/4"	(3) — #12, (1) — #12 GRD	PARALLEL CONDUCTORS
P4	EXISTING RAW WATER PUMP VFD ENCLOSURE	RAW WATER PUMP		TEMPORARY SO CABLE SIZED FOR LOAD	
P5	EXISTING SWITCHBOARD	EXISTING RAW WATER PUMP VFD ENCLOSURE		TEMPORARY SO CABLE SIZED FOR LOAD	
P6	MOTOR CONTROL CENTER, "MCC2"	DISTRIBUTION PANELBOARD, "P"	1 1/4"	(3) — #3, (1) — #3 N, (1) — #8 GRD	
P7	DISTRIBUTION PANELBOARD, "P"	LIGHTING PANELBOARD, "L2", TRANSFORMER	3/4"	(3) — #10, (1) — #10 N, (1) — #10 GRD	
P8	LIGHTING PANELBOARD, "L2", TRANSFORMER	LIGHTING PANELBOARD, "L2"	1"	(3) — #6, (1) — #6 N, (1) — #10 GRD	
P9	MOTOR CONTROL CENTER, "MCC2"	TRANSFER PUMP, P-705	3/4"	(3) — #12, (1) — #12 GRD	
P10	EXISTING LIGHTING PANELBOARD, "LP"	DEDICATED MANHOLE SUMP PUMP RECEPTACLE	3/4"	(2) — #12, (1) — #12 GRD	
P11	DISTRIBUTION PANELBOARD, "P"	ACCESS GATE OPERATOR	3/4"	(2) — #12, (1) — #12 GRD	
P12	LIGHTING PANELBOARD, "L2"	DEDICATED WATER QUALITY ANALYZER RECEPTACLE	3/4"	(2) — #12, (1) — #12 GRD	
P13	EXISTING LIGHTING PANELBOARD, "LC-1"	TELEMETRY PANEL, "RTU-2"	3/4"	(2) — #12, (1) — #12 GRD	
P14	DISTRIBUTION PANELBOARD, "P"	VALVE ACTUATOR, A-006 AND A-007	3/4"	(3) — #12, (1) — #12 GRD	
P15	DISTRIBUTION PANELBOARD, "P"	VALVE ACTUATOR, A-008 AND A-009	3/4"	(3) — #12, (1) — #12 GRD	
P16	DISTRIBUTION PANELBOARD, "P"	VALVE ACTUATOR, A-010 AND A-011	3/4"	(3) — #12, (1) — #12 GRD	
P17	DISTRIBUTION PANELBOARD, "P"	VALVE ACTUATOR, A-012 AND A-013	3/4"	(3) — #12, (1) — #12 GRD	
P18	LIGHTING PANELBOARD, "L2"	DEDICATED WTP SUMP PUMP RECEPTACLE	3/4"	(2) — #12, (1) — #12 GRD	
P19	LIGHTING PANELBOARD, "L2"	METERING PUMP P-303 DEDICATED RECEPTACLE	3/4"	(2) — #12, (1) — #12 GRD	
P20	LIGHTING PANELBOARD, "L2"	METERING PUMP P-301 DEDICATED RECEPTACLE	3/4"	(2) — #12, (1) — #12 GRD	
P21	LIGHTING PANELBOARD, "L2"	METERING PUMP P-302 DEDICATED RECEPTACLE	3/4"	(2) — #12, (1) — #12 GRD	
P22	LIGHTING PANELBOARD, "L2"	METERING PUMP P-401 DEDICATED RECEPTACLE	3/4"	(2) — #12, (1) — #12 GRD	
P23	LIGHTING PANELBOARD, "L2"	METERING PUMP P-402 DEDICATED RECEPTACLE	3/4"	(2) — #12, (1) — #12 GRD	
P24	LIGHTING PANELBOARD, "L2"	DILUTION SKID, Cp-400	3/4"	(2) — #12, (1) — #12 GRD	
P25	DISTRIBUTION PANELBOARD, "P"	HOT WATER HEATER	3/4"	(3) — #12, (1) — #12 GRD	
P26	LIGHTING PANELBOARD, "L2"	TANK HEAT TRACE SYSTEM	3/4"	(2) — #12, (1) — #12 GRD	
P27	EXISTING LIGHTING PANELBOARD, "LP"	LAB ROOM HEATER "H1"	3/4"	(2) — #12, (1) — #12 GRD	
P28	DISTRIBUTION PANELBOARD, "P"	ON-SITE GENERATION SYSTEM RECTIFIER	3/4"	(3) — #10, (1) — #10 GRD	
P29	LIGHTING PANELBOARD, "L2"	ON-SITE GENERATION CONTROL PANEL, Cp-300	3/4"	(2) — #12, (1) — #12 GRD	
P30	CONTROL JUNCTION BOX	BRINE PUMP, P-316	3/4"	(2) — #12, (1) — #12 GRD	
P31	LIGHTING PANELBOARD, "L2"	PIPE HEAT TRACE SYSTEM	3/4"	(2) — #12, (1) — #12 GRD	

SIGNED: 02/15/11

SIGNED: 02/15/11

City of Ferndale
WASHINGTON

DOUGLAS AND SHOP WELL PUMP STATIONS AND
GROUNDWATER TREATMENT PLANT

WTP CONDUIT AND CONDUCTOR
SCHEDULES

RH2 ENGINEERS, INC.
http://www.rh2.com
mailto:rh2@rh2.com 1.800.720.8052

BELLINGHAM 360.676.0836
454 West Horton Road

BOTHELL 425.951.5400
12100 NE 195th Street, Suite 100

EAST WENATCHEE 509.886.2900
300 Simon Street, Suite 5

RICHLAND 509.946.5181
114 Columbia Point Drive, Suite C

SILVERDALE 360.876.7960
2021 NW Myhre Rd, Suite 107

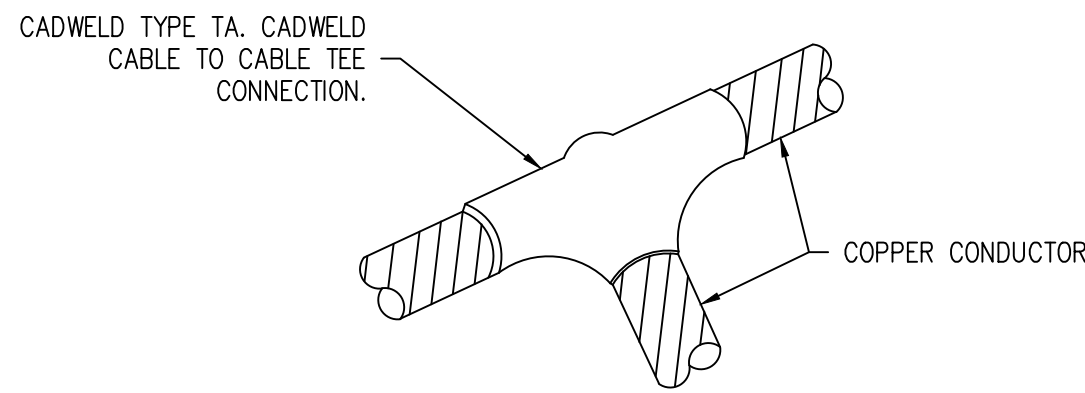
TACOMA 253.272.3059
621 Pacific Avenue Suite 104

SCALE: SHOWN

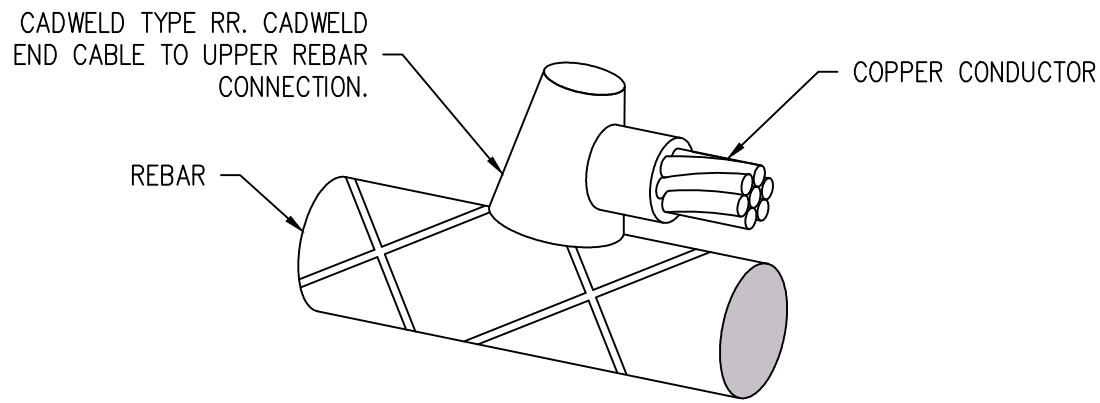
DRAWING IS NOT TO SCALE
IF BAR IS NOT 2" LONG

PLT: 1	DWG NO:
ENGINEER: MWB	E17
REVIEWED: CMR	
DATE: MAR 25, 2011	SHEET NO: 67
CLIENT: FER	

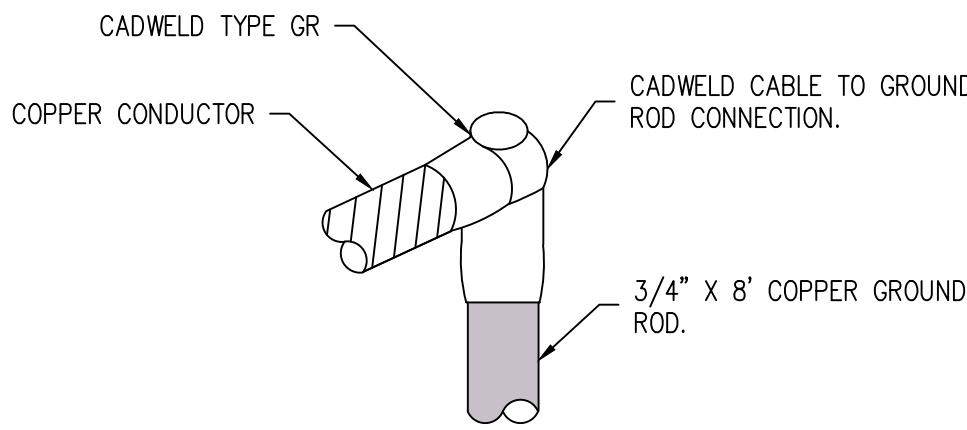
JOB NO.: 410-069
FILENAME: GWTP-D-ELEC16



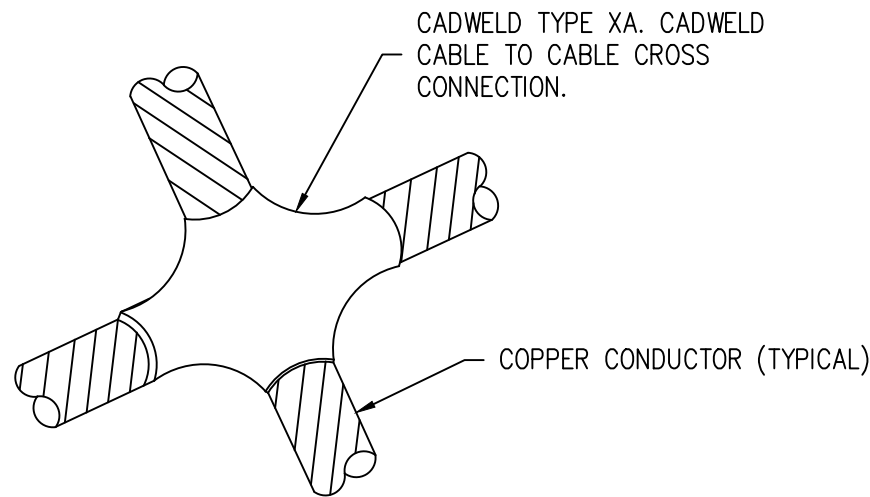
GROUND TEE



GROUND REBAR



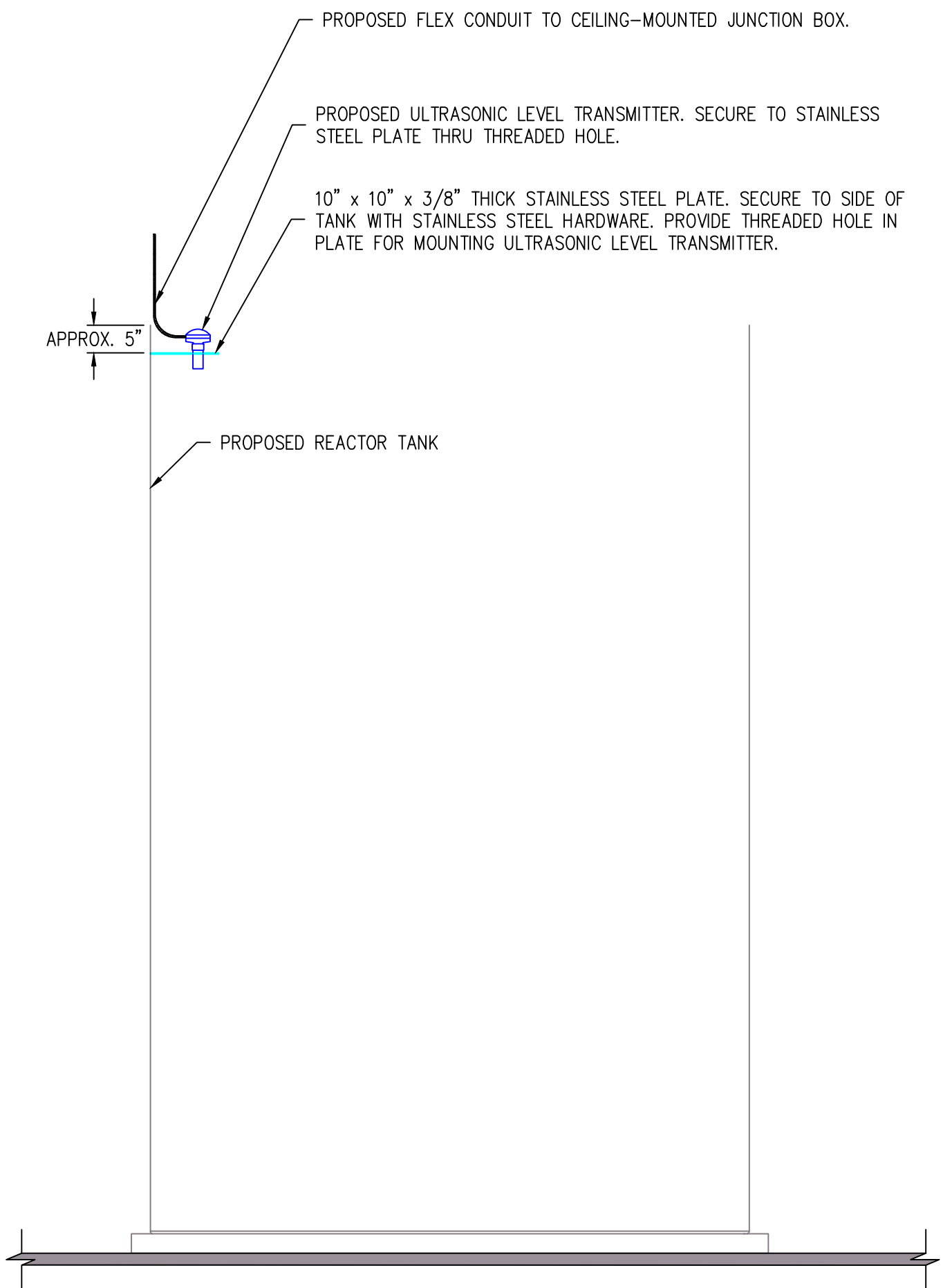
GROUND ROD



GROUND CROSS

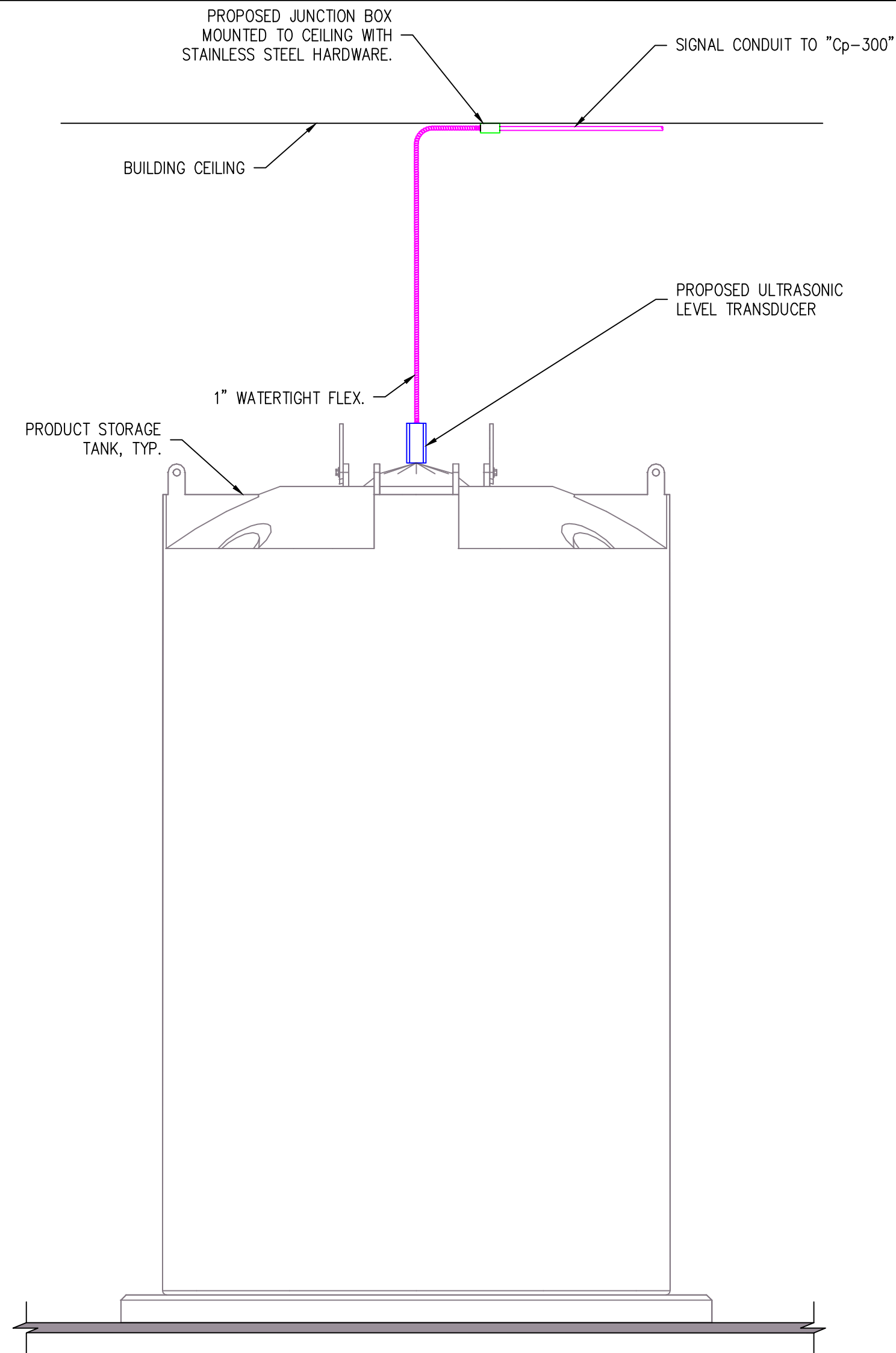
GROUND CONNECTION DETAILS

NO SCALE



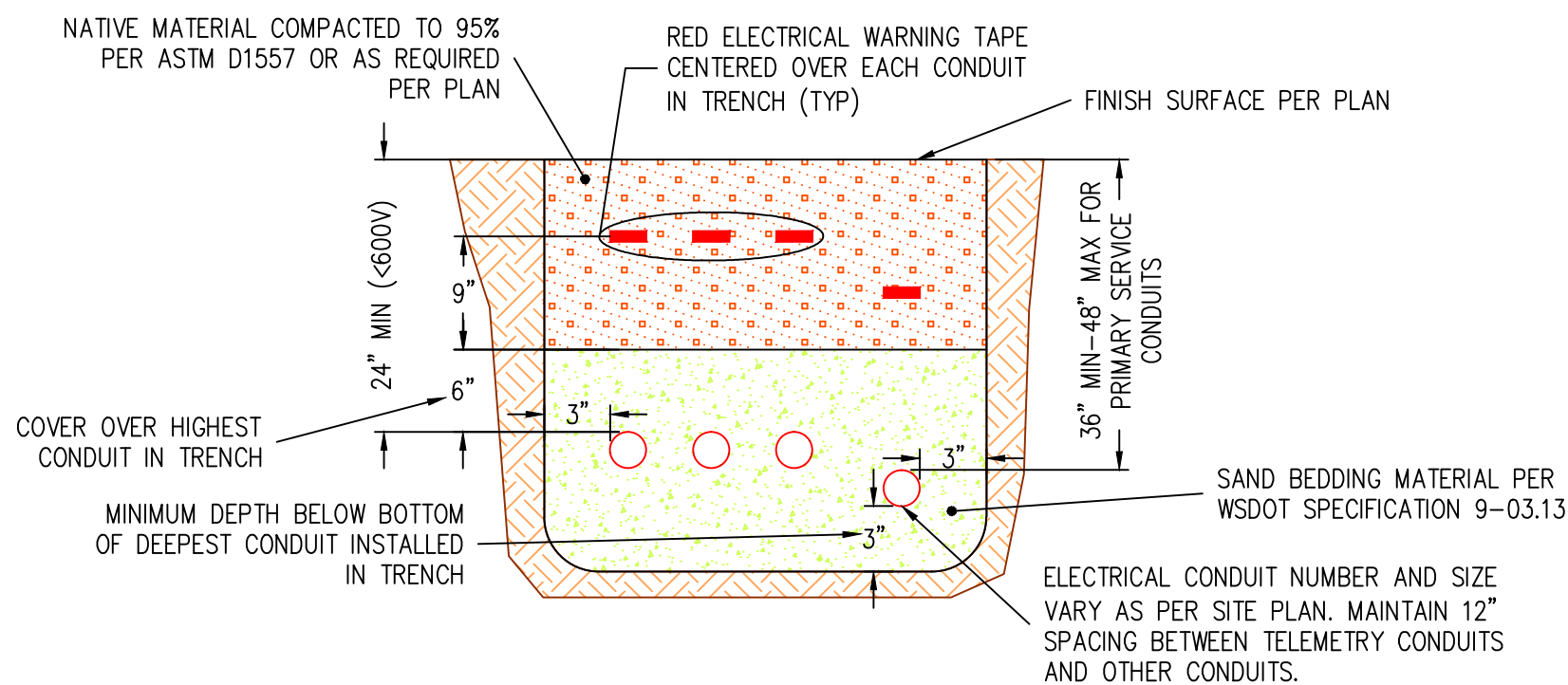
INDOOR REACTOR TANK ULTRASONIC LEVEL TRANSMITTER DETAIL

NOT TO SCALE



INDOOR PRODUCT TANK ULTRASONIC LEVEL TRANSMITTER DETAIL

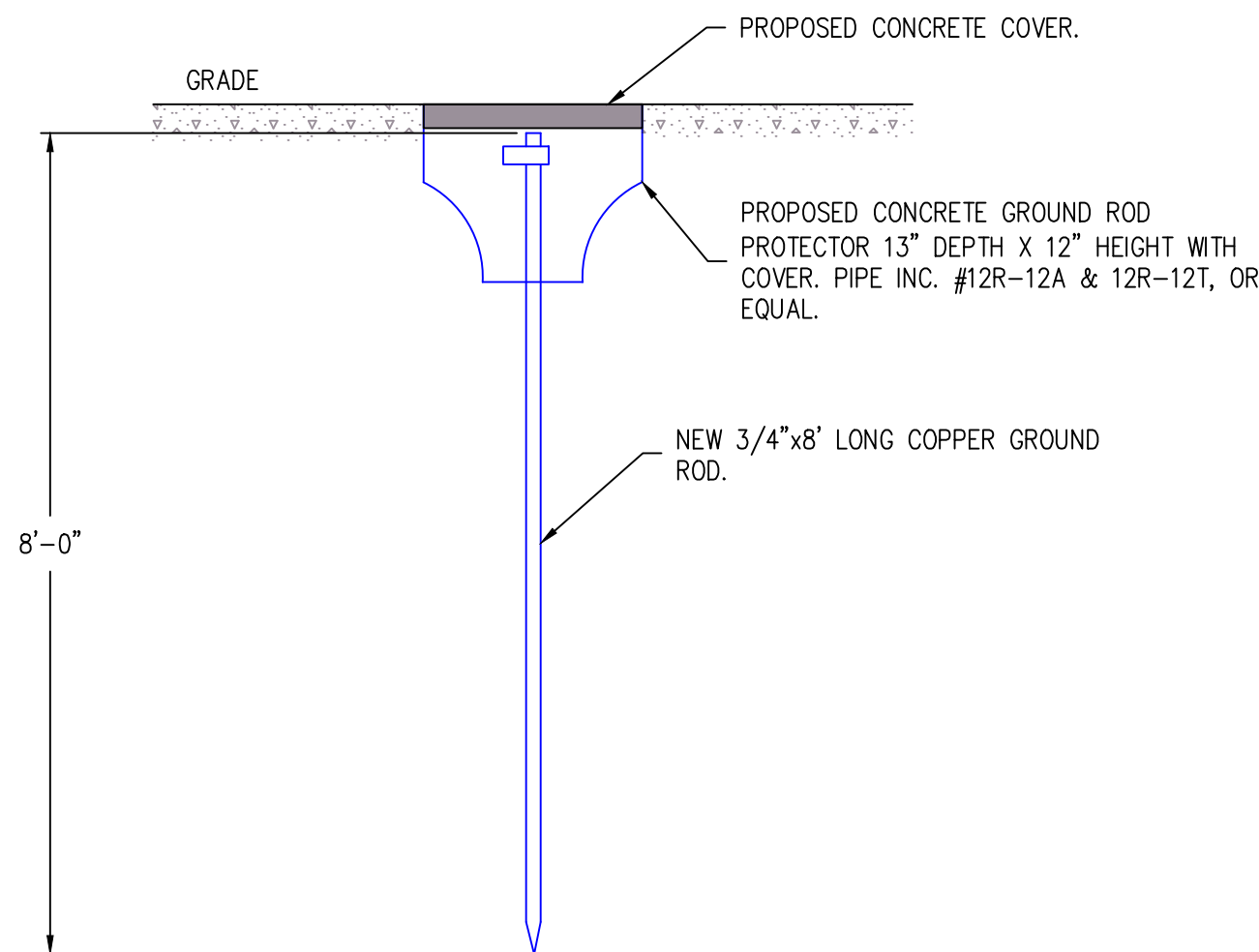
NOT TO SCALE



TYPICAL ELECTRICAL TRENCH DETAIL

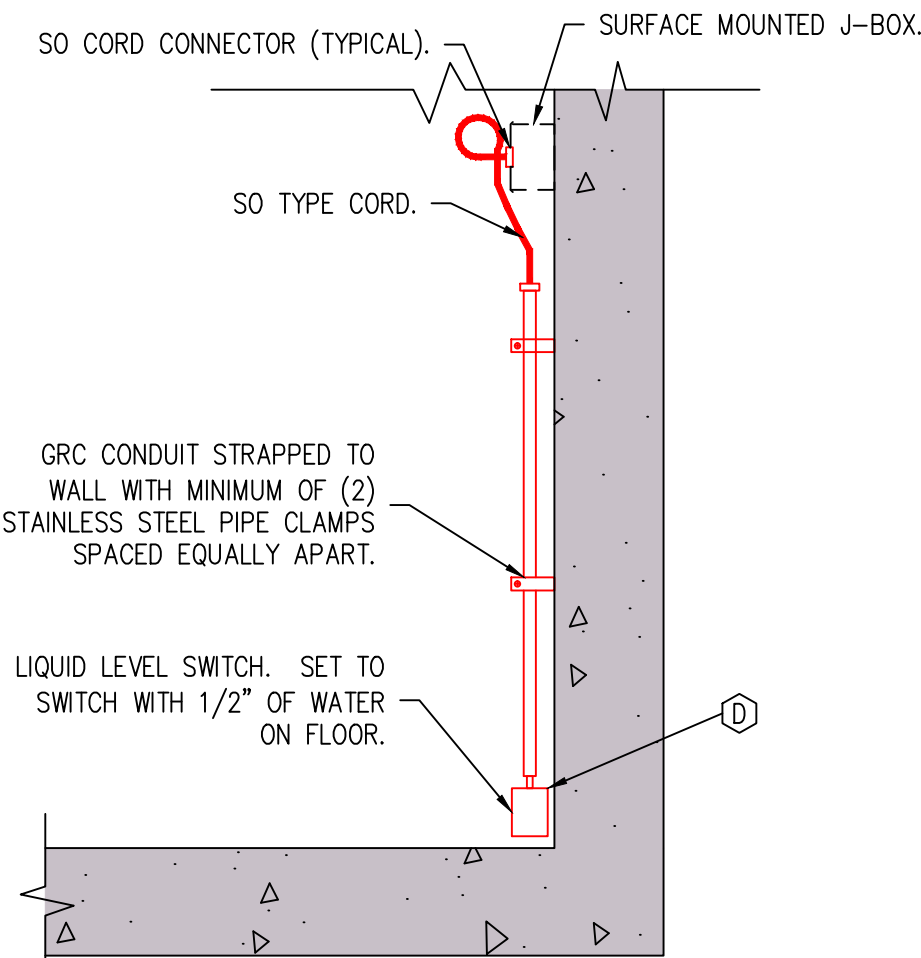
NOT TO SCALE

NOTE: BURY DEPTH OF CONDUIT AND HORIZONTAL SPACING SHALL BE CONFIRMED WITH SERVING UTILITY BEFORE CONSTRUCTION.



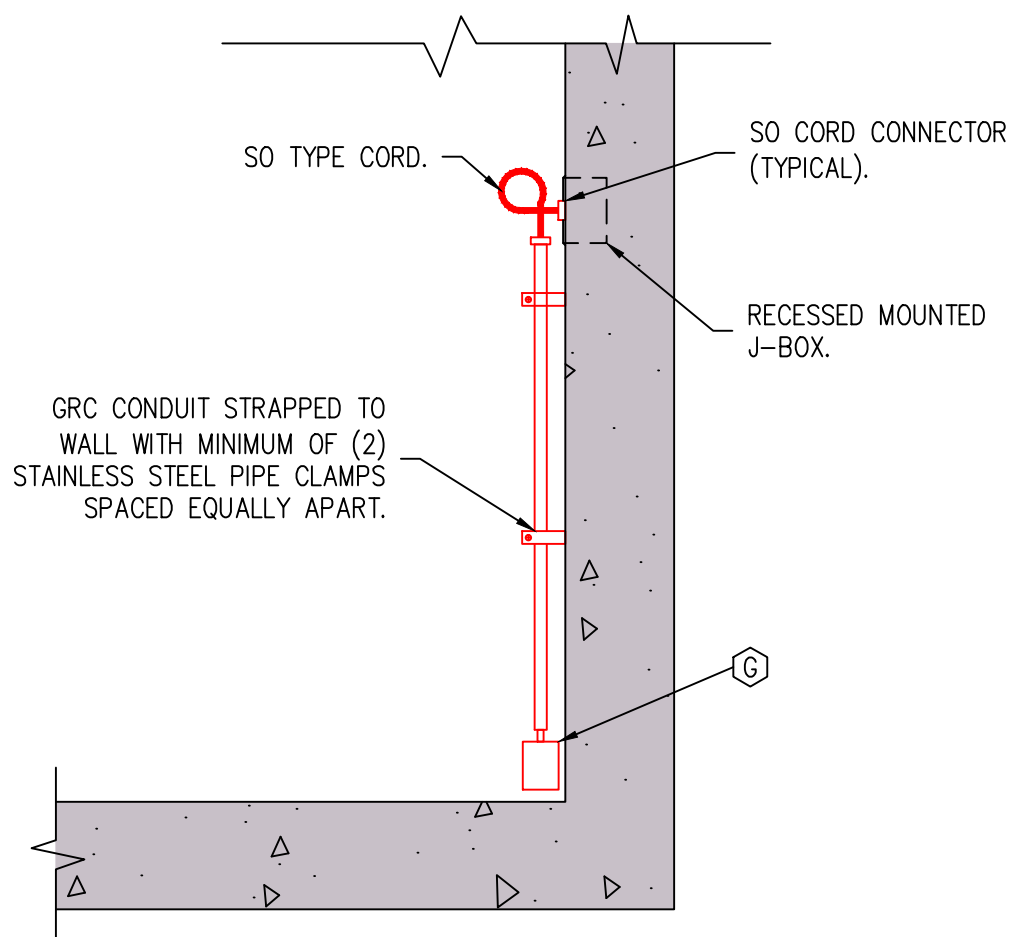
GROUND ROD DETAIL

NO SCALE



WTP FLOOD SWITCH DETAIL

NOT TO SCALE

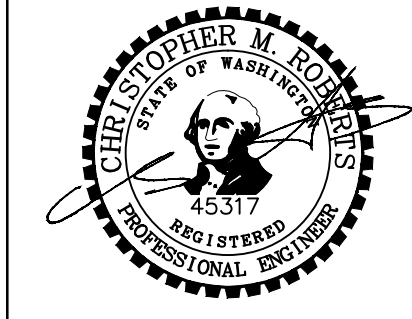


WELL BUILDING FLOOD SWITCH DETAIL

NOT TO SCALE



SIGNED: 02/15/11



SIGNED: 02/15/11



DOUGLAS AND SHOP WELL PUMP STATIONS AND
GROUNDWATER TREATMENT PLANT

ELECTRICAL DETAILS SHEET NO. 1



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454 West Horton Road

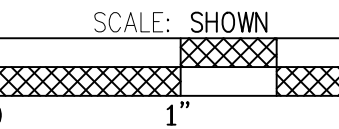
BOTHELL 425.951.5400
12100 NE 195th Street, Suite 100

EAST WENATCHEE 509.886.2900
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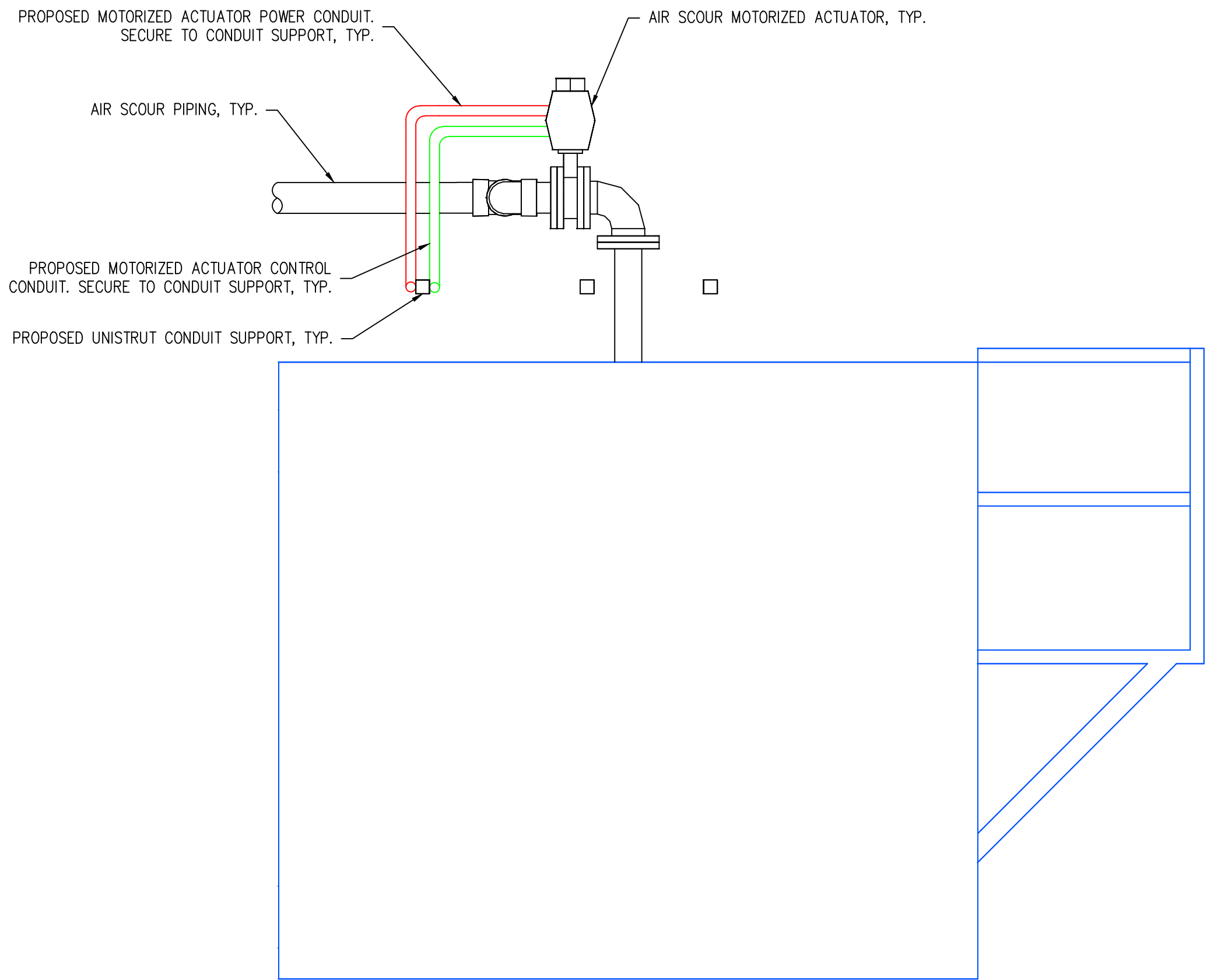


DRAWING IS NOT TO SCALE
IF BAR IS NOT 2" LONG

PLOT:	24	DWG NO:	E18
ENGINEER:	MWB		
REVIEWED:	CMR		
DATE:	MAR 25, 2011	SHEET NO:	68
CLIENT:	FER		

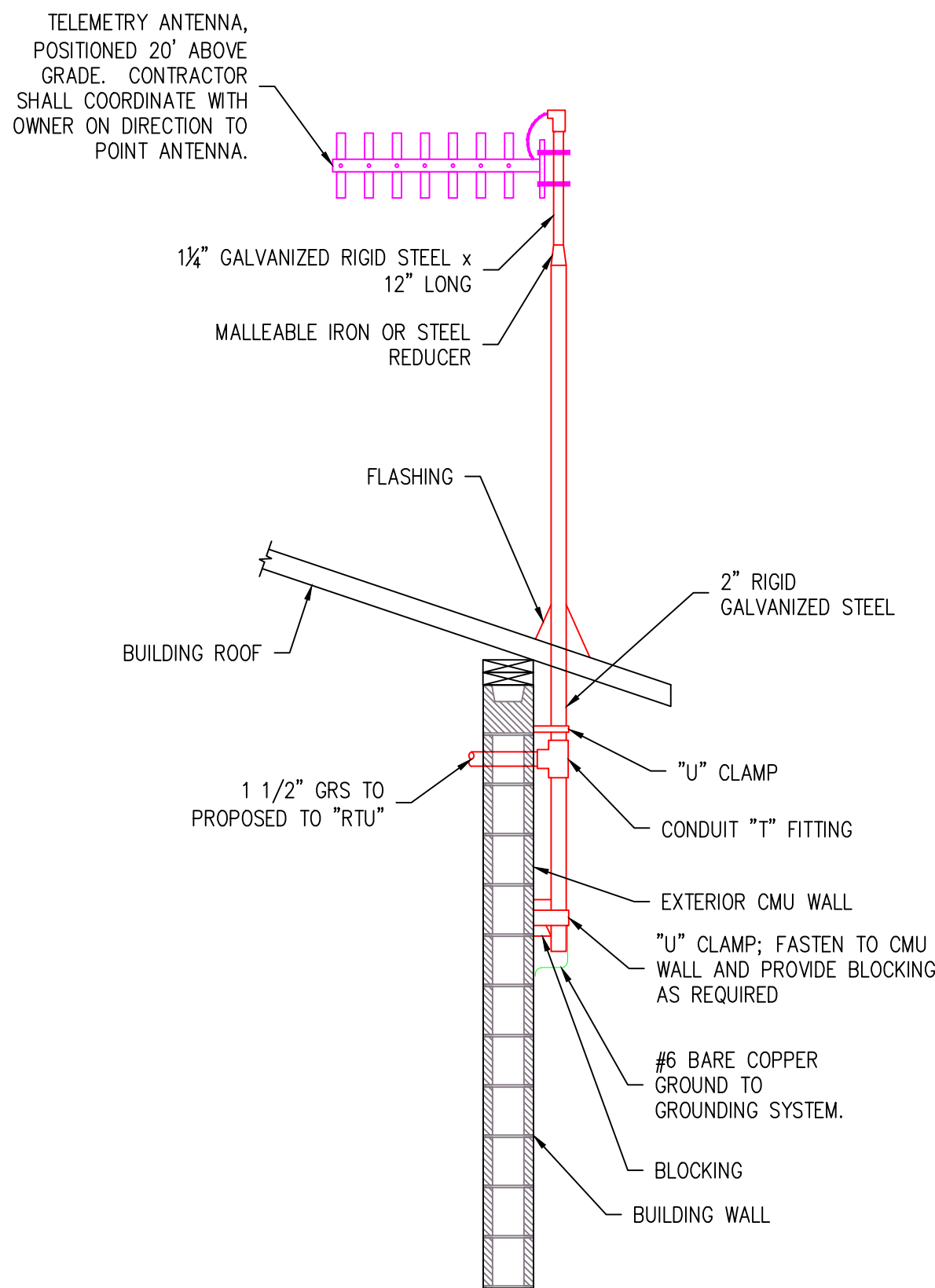
JOB NO.: 410-069
FILENAME: GWTP-D-ELEC17

NO.	REVISION	BY	REVIEW	DATE
1	REVISED PER ADDENDUM NO. 1	MWB	CMR	03/25/11

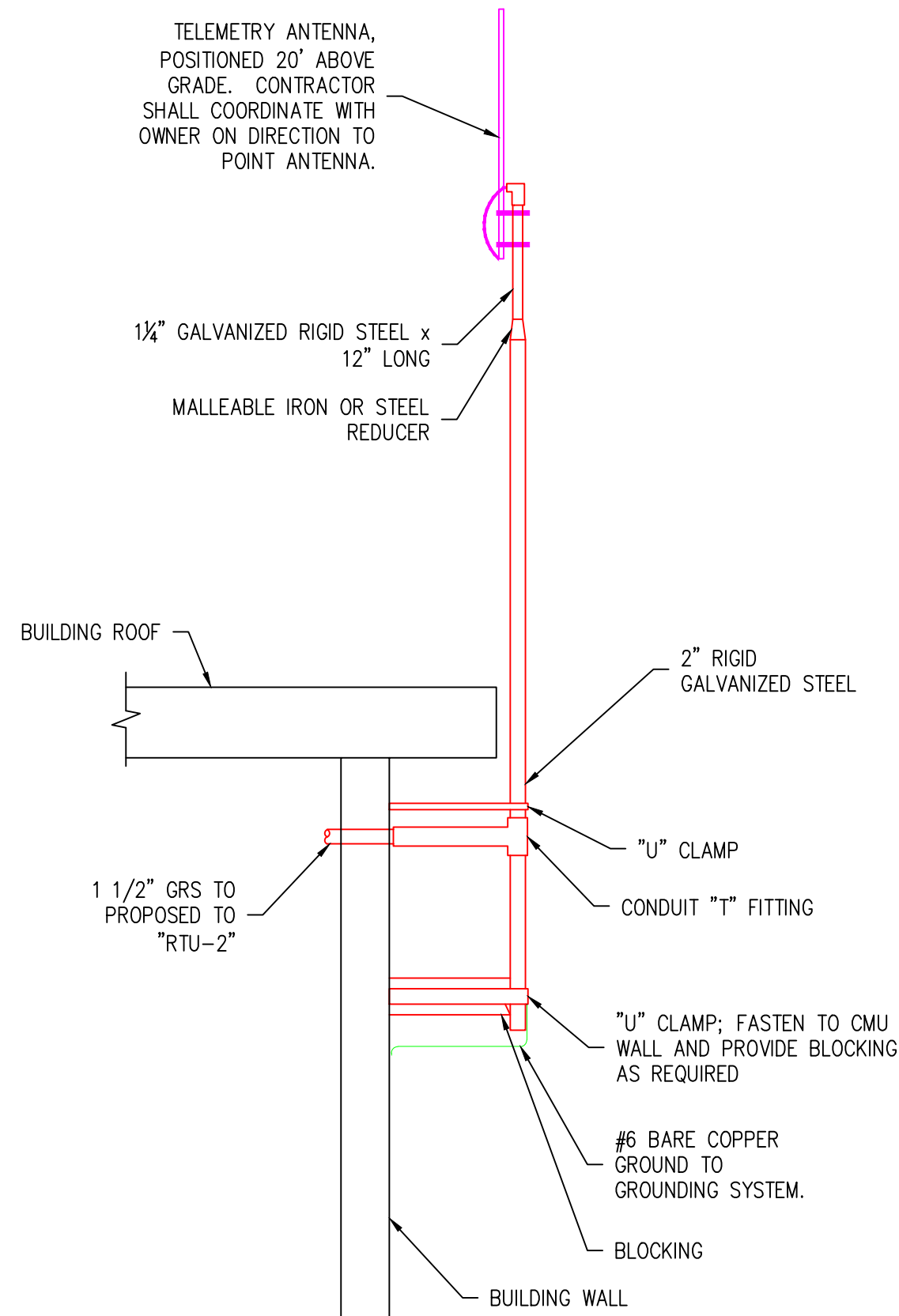


△ FILTER ACTUATOR DETAIL
NO SCALE

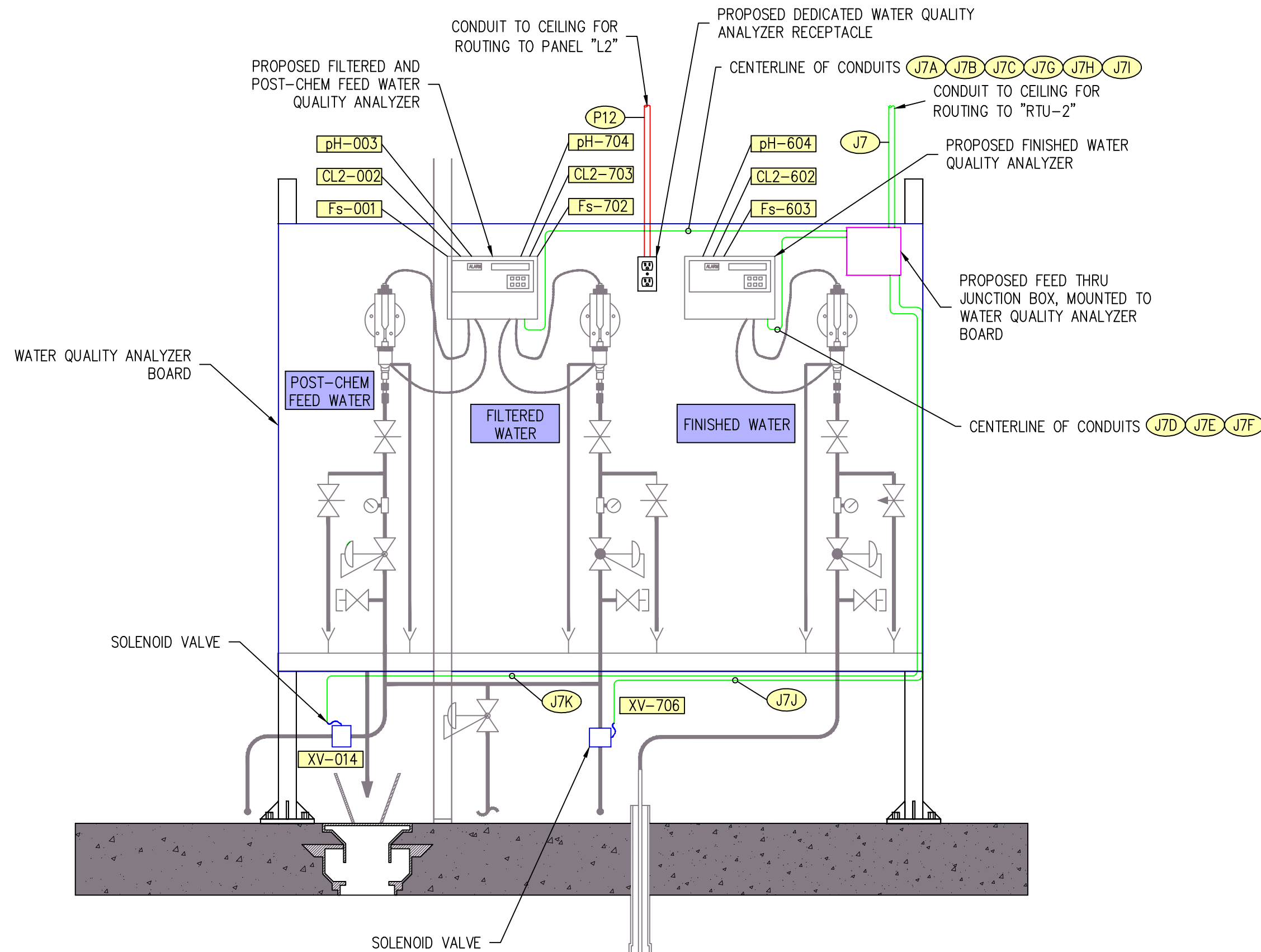
A
E13



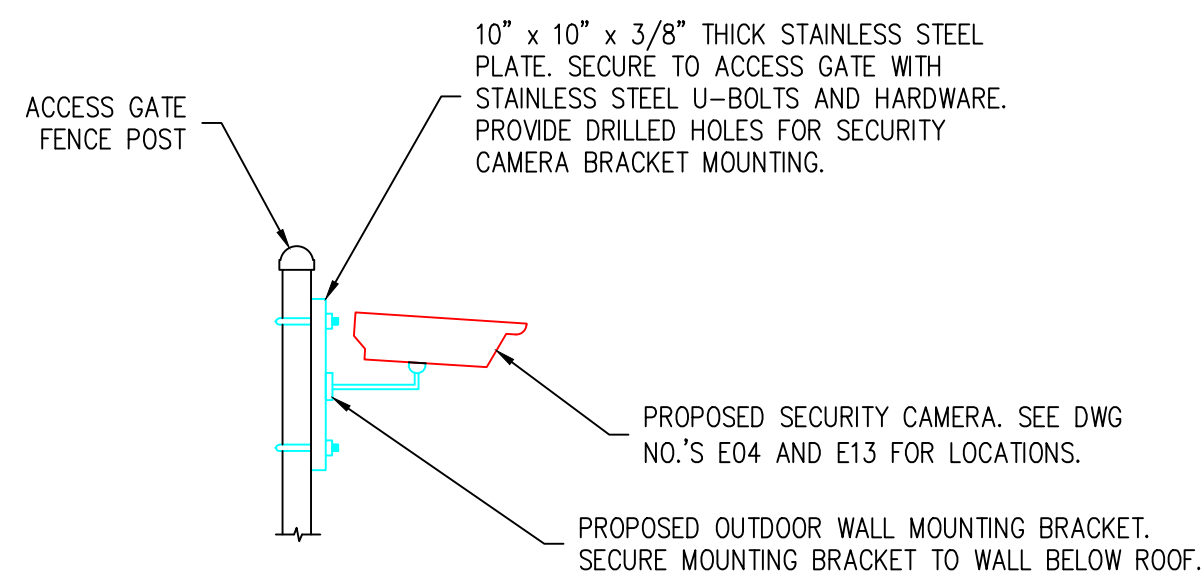
**ANTENNA INSTALLATION DETAIL -
WELL BUILDINGS**
NO SCALE



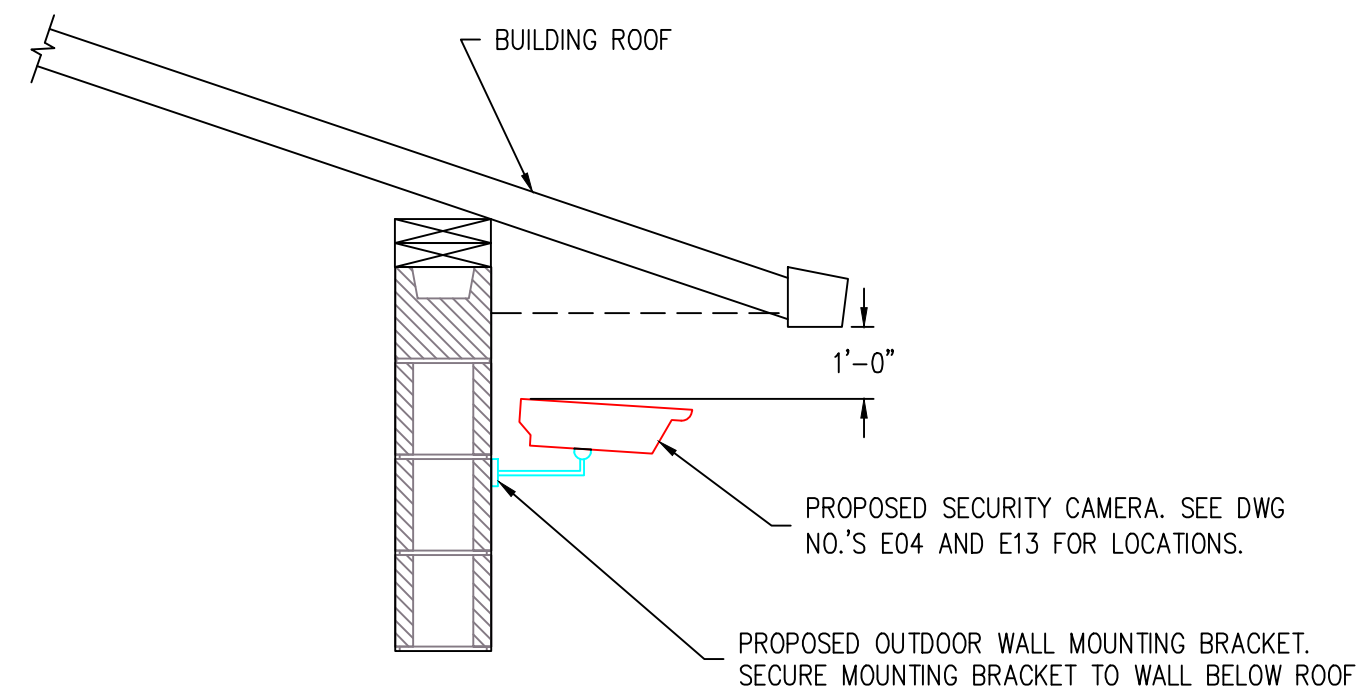
**ANTENNA INSTALLATION DETAIL -
WATER TREATMENT PLANT**
NO SCALE



WATER QUALITY ANALYZER BOARD DETAIL
1" = 1'-0"



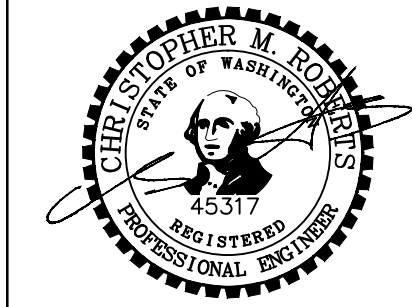
**SECURITY CAMERA ACCESS
GATE INSTALLATION DETAIL**
NO SCALE



**SECURITY CAMERA BUILDING
INSTALLATION DETAIL**
NO SCALE



SIGNED: 02/15/11



SIGNED: 02/15/11



DOUGLAS AND SHOP WELL PUMP STATIONS AND
GROUNDWATER TREATMENT PLANT

ELECTRICAL DETAILS SHEET NO. 2



RH2 ENGINEERING, INC.
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BOTHELL 425.951.5400
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2021 NW Mhyre Rd, Suite 107

TACOMA 253.272.3099
621 Pacific Avenue Suite 104

SCALE: SHOWN
0 1" 2"
DRAWING IS NOT TO SCALE
IF BAR IS NOT 2" LONG

PLOT:	24	DWG NO.	
ENGINEER:	MWB		E19
REVIEWED:	CMR		
DATE:	MAR 25, 2011		69
CLIENT:	FER		
JOB NO.:	410-069		75
FILENAME:	GWTP-D-ELEC17		

△	REVISED PER ADDENDUM NO. 1	MWB	CMR	03/25/11	
NO.	REVISION	BY	REVIEW	DATE	

