

MCC SCHEDULE												
MOTOR CONTROL CENTER: MCC		VOLTS: 480/277		HORIZONTAL BUS: 1000 AMP				VERTICAL BUS: 600 AMP				
MAIN O.C. DEVICE OR MLO: 1000 AMP CB		LOCATION: ELECTRICAL ROOM		PHASE(S): 3				WIRES: 4+1G				
ENCL. NEMA: 1		NOTES: 100% NEUTRAL & GROUND BUS										MIN. AIC: 65 KA
CIRCUIT NO.	SERVES	LOAD		PROTECTION		MOTOR STARTER				REMARKS		
		HP	FLA	P	SIZE FRAME	TRIP	DEVICE	TYPE	NEMA SIZE		CONTROL (1)	
A1	STORAGE TANK SUPPLY FAN 01-SF-01	30	40	3	100	100	MCP	FVNR	3	XFMR, NO/NC, LIGHTS, HOA	3 #6 & #8 IN 1" C	
A2	ODOR CONTROL ROOM EXHAUST FAN 02-EF-05	15	21	3	100	50	CB	-	-	NO/NC, LIGHTS	3 #10 & #10G IN 3/4" C	
A3	VERTICAL PUMP #1 02-VP-01	75	96	3	250	200	CB	-	-	NO/NC, LIGHTS	3 #1/0 & 3#6G VFD CABLE IN 2" C	
A4	SPACE	-	-	3	100	-	-	-	-	-	-	
B1	VERTICAL PUMP #2 02-VP-02	75	96	3	250	200	CB	-	-	NO/NC, LIGHTS	3 #1/0 & 3#6G VFD CABLE IN 2" C	
B2	BRIDGE CRANE HOIST 02-BC-01, TROLLEY 0-BC-02	7.5+5+5	13.2	3	100	25	CB	-	-	NO/NC, LIGHTS	3 #10 & #10G IN 3/4" C	
B3	SUBMERSIBLE PUMP #1 02-SP-01	15	21	3	100	50	MCP	RVSS	2	XFMR NO/NC, LIGHTS, HOA	3 #10 & #10G IN 3/4" C	
B4	SPACE	-	-	3	100	-	-	-	-	-	-	
C1	SUBMERSIBLE PUMP #2 02-SP-02	15	21	3	100	50	MCP	RVSS	2	XFMR NO/NC, LIGHTS, HOA	3 #10 & #10G IN 3/4" C	
C2	VERTICAL PUMP #3 02-VP-03	75	96	3	250	200	CB	-	-	NO/NC, LIGHTS	3 #1/0 & 3#6G VFD CABLE IN 2" C	
C3	SPACE	-	-	3	100	-	-	-	-	-	3 #12 & 12G IN 3/4" C	
C4	SPACE	-	-	3	100	-	-	-	-	-	-	
D1	VERTICAL PUMP #4 02-VP-04	75	96	3	250	200	CB	-	-	NO/NC, LIGHTS	3 #1/0 & 3#6G VFD CABLE IN 2" C	
D2	STORAGE TANK EXHAUST FAN 01-EF-01	30	40	3	100	100	MCP	FVNR	3	XFMR, NO/NC, LIGHTS, HOA	3 #6 & #8 IN 1" C	
D3	SPARE	-	-	3	100	15	MCP	FVNR	1	XFMR, NO/NC, LIGHTS, HOA	-	
D4	SPACE	-	-	3	100	-	-	-	-	-	-	
D5	EXHAUST FAN PUMP ROOM 02-EF-07	15	21	3	100	50	MCP	FVNR	2	XFMR, NO/NC, LIGHTS, HOA	3 #10 & 10G IN 3/4" C	
E1	100A, 480/277V, 3Ø, 4W PANELBOARD 'HA'	-	80	3	100	100	CB	-	-	NO/NC, LIGHTS	4 #3 & #8G IN 1 1/2" C	
E2	225A, 480/277V, 3Ø, 4W PANELBOARD 'HB' WITH 200A MCB	-	60	3	225	200	CB	-	-	NO/NC, LIGHTS	4 #4/0 & #4G IN 2 1/2" C *	
E3	PANEL RA VIA 30KVA TRANSFORMER	-	40	3	100	60	CB	-	-	NO/NC, LIGHTS	3 #6 & #10 IN 1" C	
E4	BOOSTER PUMP CONTROLS	-	-	-	-	-	-	-	-	-	-	
E5	ACCUMULATOR BOOSTER PUMP NO. 1, 02-BP-01	2	3.4	3	100	15	MCP	FVNR	1	XFMR, NO/NC, LIGHTS, HOA	3 #12 & 12G IN 3/4" C	
E6	ACCUMULATOR BOOSTER PUMP NO. 2, 02-BP-02	2	3.4	3	100	15	MCP	FVNR	1	XFMR, NO/NC, LIGHTS, HOA	3 #12 & 12G IN 3/4" C	
F1	PQM	-	-	-	-	-	-	-	-	-	-	
F2	SURGE PROTECTIVE DEVICE	-	-	-	100	60	CB	-	-	-	3 SETS OF (4-500KCMILL & 3/0G IN 4" DUCT)	
F3	INCOMING SERVICE	-	-	-	1000	1000	CB	-	-	NO/NC, LIGHTS	-	

* THE CABLE SHALL RUN IN 2 1/2" CONDUIT WITHIN THE BUILDING, 4" UNDERGROUND DUCT OUTSIDE THE BUILDING & IN 1-3" SURFACE MOUNTED PVC COATED RGS CONDUIT IN STORAGE TANK. PROVIDE EXPLOSION PROOF SEAL WHILE ENTERING AND LEAVING STORAGE AREA.

DRAWING NOTES

- REFER DRAWING E00.01 FOR ABBREVIATIONS, SYMBOL AND GENERAL NOTES.
- REFER DRAWING E02.01 FOR MCC ONE LINE DIAGRAM
- REFER DRAWING E02.02 FOR MCC ELEVATION.

(X) SPECIFIC NOTES

- REFER TO 'I' DRAWINGS FOR CONTROL REQUIREMENTS.



CITY OF CUMBERLAND MARYLAND

ENGINEERING DEPARTMENT

PROJECT TITLE

PHASE I
CSO STORAGE FACILITY AT THE
WASTEWATER TREATMENT PLANT



Whitman, Reardon & Associates, LLP
801 South Carolina Street, Baltimore, Maryland 21201

DRAWING TITLE

**PUMP
STATION/VENTILATION
BUILDING MOTOR
CONTROL CENTER
SCHEDULE**

GRAPHIC SCALE

FOR LIST OF DRAWINGS SEE SHEET 2. FOR GENERAL LEGEND AND ABBREVIATIONS SEE SHEET 3 AND REFER TO NOTE 23.

REVISION	No.	DATE

REFERENCE DRAWING	No.

FIELD BOOK REF.	BOOK	PAGE

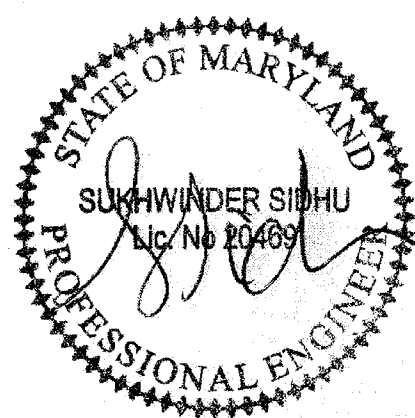
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DRAWN BY: KKK	FIELD BOOK No.:
CHECKED BY: SSS	TRACED BY:

SCALE	HORIZONTAL:
	VERTICAL:

DATE: JULY 2016 DWG.: E02.06

CITY PROJ. No. SHEET 110 OF 136

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Aug 10, 2016 - 2:03pm



CITY OF CUMBERLAND MARYLAND

ENGINEERING DEPARTMENT

PROJECT TITLE

PHASE I CSO STORAGE FACILITY AT THE WASTEWATER TREATMENT PLANT



Whitman, Requardt & Associates, LLP

DRAWING TITLE

PUMP STATION/VENTILATION BUILDING GROUNDING DETAILS

GRAPHIC SCALE

FOR LIST OF DRAWINGS SEE SHEET 2. FOR GENERAL LEGEND AND ABBREVIATIONS SEE SHEET 3 AND REFER TO NOTE 23.

REVISION	No.	DATE

REFERENCE DRAWING	No.

FIELD BOOK REF.	BOOK	PAGE

DESIGNED BY:	SURVEYED BY:
KKK	
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KKK	
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SCALE	HORIZONTAL:	VERTICAL:
	NONE	NONE

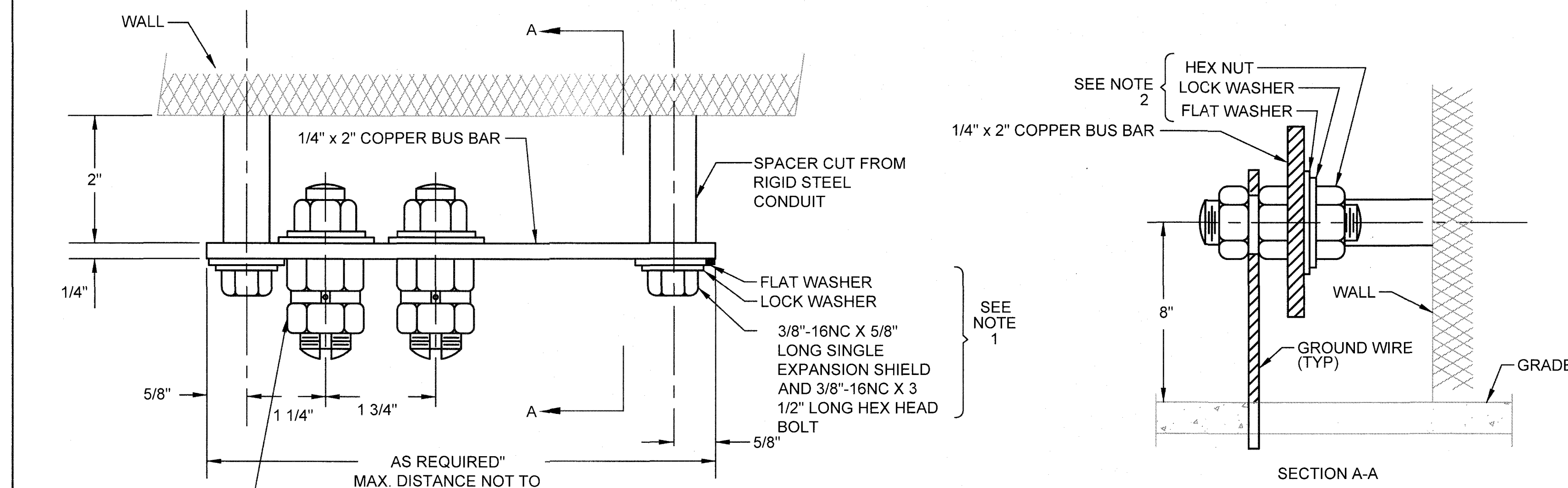
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CITY PROJ. No.	SHEET
01-10-WWTP	111 OF 136

DATE:	DWG:
JULY 2016	E02.07

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01-10-WWTP	111 OF 136

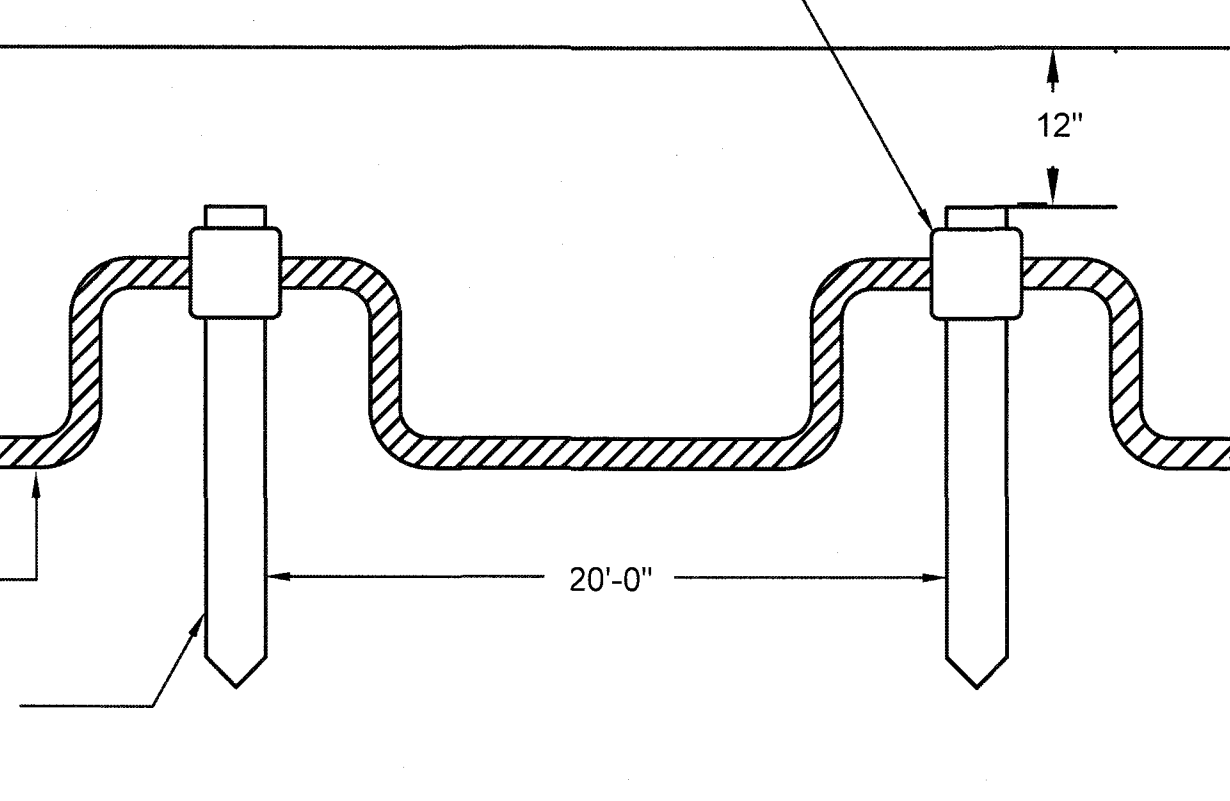
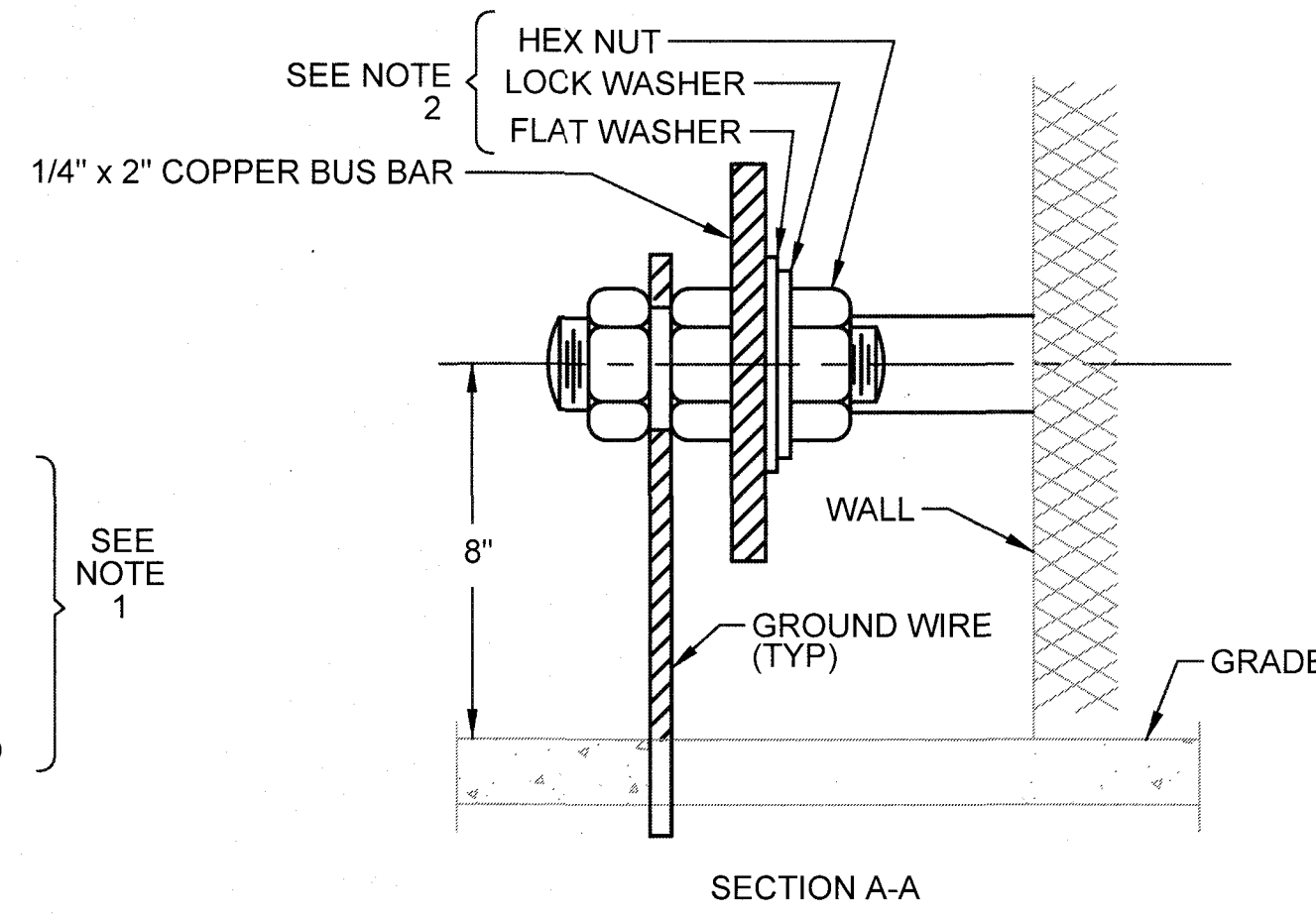
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1 PLAN E02.07 NOT TO SCALE

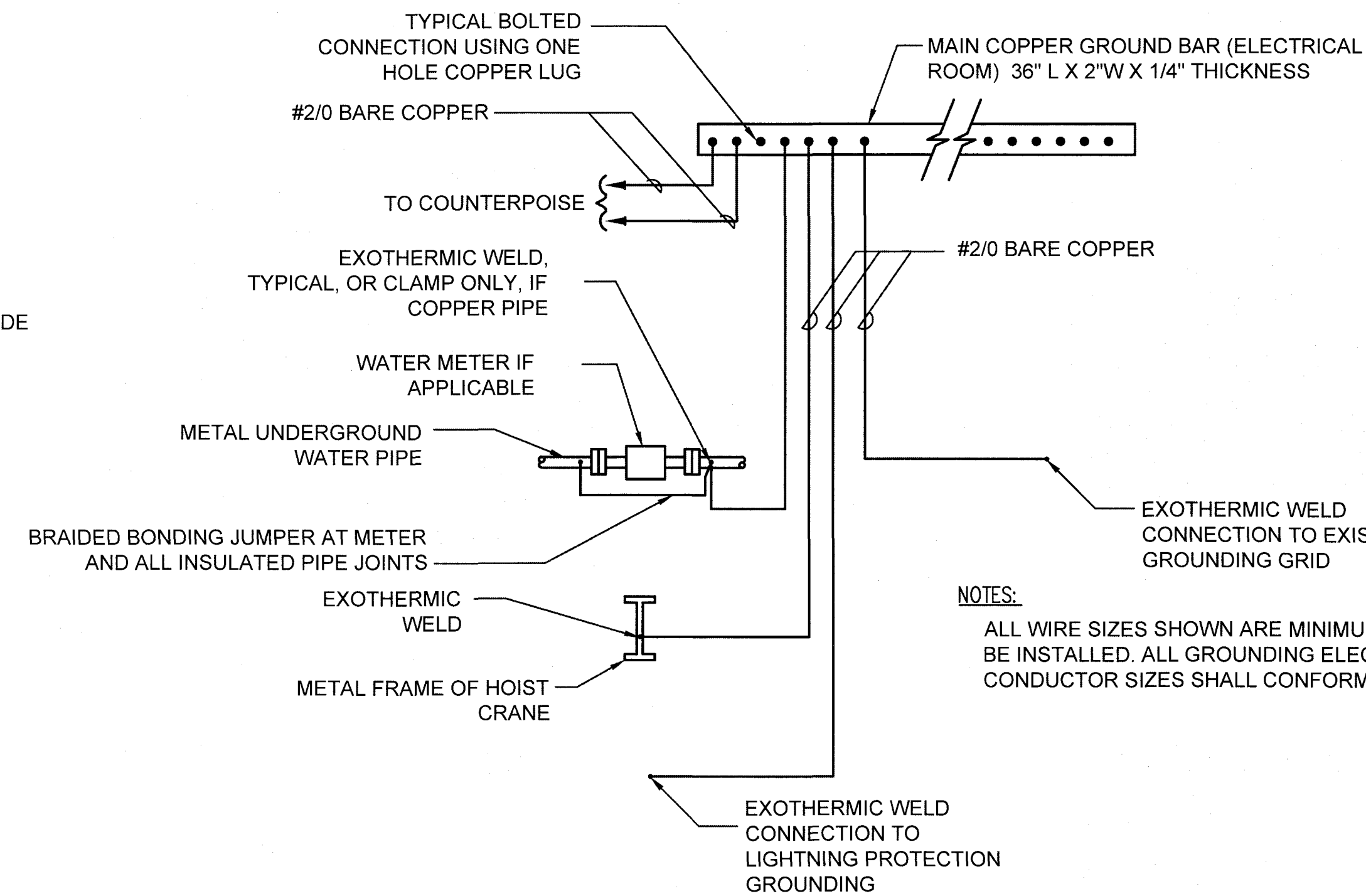
NOTES:

- BOLTS AND WASHERS USED TO SECURE THE GROUND BUS TO THE WALL SHALL BE CADMIUM STEEL OR 304 STAINLESS STEEL.
- BOLTS, NUTS, WASHERS TO CONNECT GROUND WIRE TO GROUND BUS SHALL BE STAINLESS STEEL.

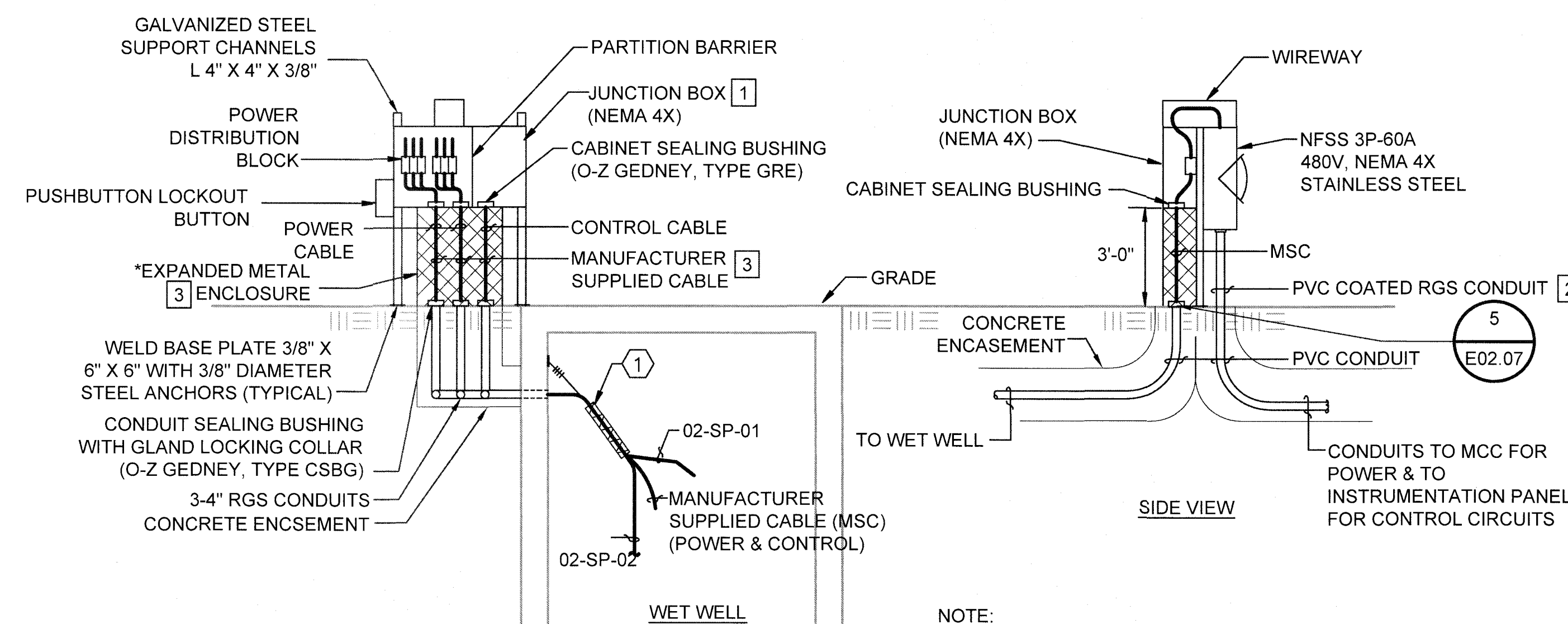


3 GROUNDING ROD INSTALLATION DETAIL E02.07 NOT TO SCALE

GROUNDING BAR DETAILS NOT TO SCALE



2 TYPICAL BUILDING GROUND ELECTRODE SYSTEM DETAIL E02.07 NOT TO SCALE



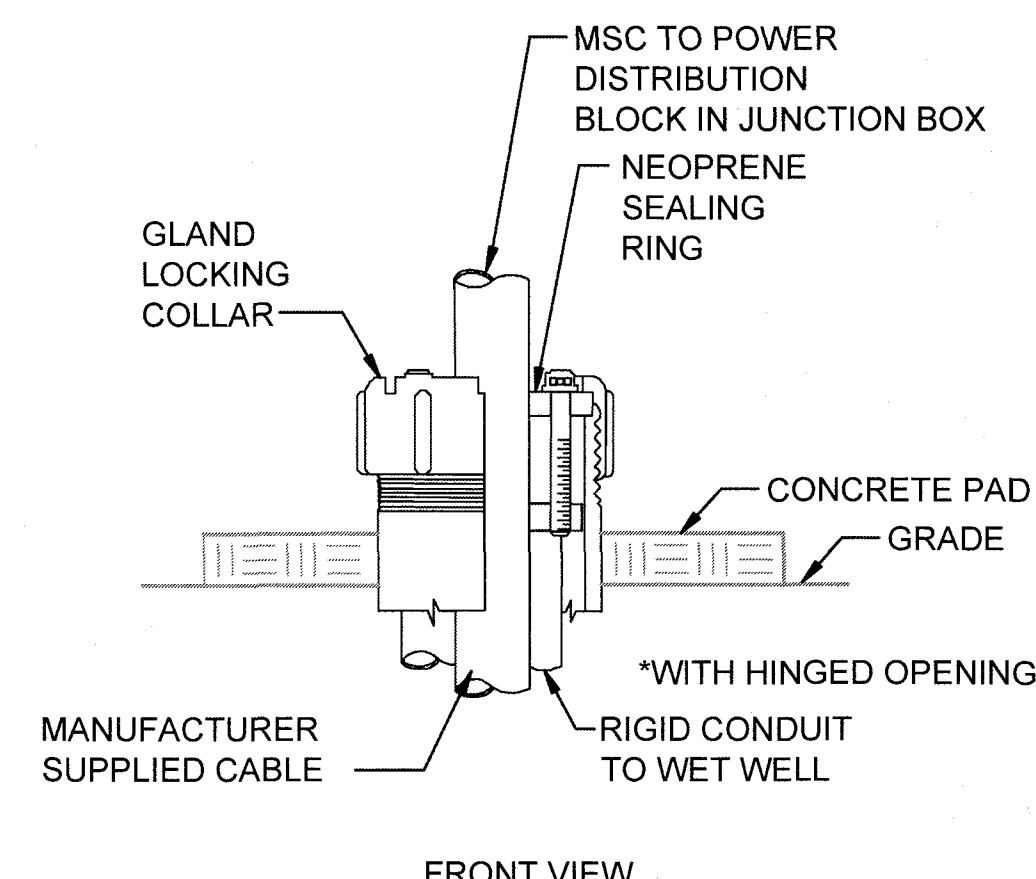
4 DETAIL - TO TERMINATE SUBMERSIBLE PUMP CABLE WITHOUT USING CONDUIT SEAL E02.07 NOT TO SCALE

- NOTE:
- HEAVY DUTY STAINLESS STEEL SUPPORT DOUBLE TYPE EYE SPLIT MESH LACE CLOSING CABLE SUPPORT. LOCATE CABLE SUPPORT ADJACENT TO ACCESS HATCH TO ALLOW REMOVAL FROM ABOVE WET WELL.

NOTE: TO ALLOW SUBMERSIBLE PUMP REMOVAL & MAINTAIN MANUFACTURER SUPPLIED CABLE INTEGRITY

SPECIFIC NOTES

- PROVIDE JUNCTION BOX WITH BARRIER BETWEEN POWER CONDUCTORS & CONTROL CONDUCTORS.
- TRANSITION FROM PVC CONDUIT TO PVC COATED RGS. ALL EXPOSED CONDUIT TO BE PVC COATED RGS.
- PROVIDE AN EXPANDED METAL PAD-LOCKABLE ENCLOSURE FOR PROTECTION OF MANUFACTURER SUPPLIED CABLES. ACCESSIBLE FROM WET WELL SIDE FOR PUMP REMOVAL.



5 DETAIL - CONDUIT SEALING BUSHING E02.07 NOT TO SCALE

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