

COORDINATING PROFESSIONAL

I, ALEXANDER EASTMAN, AM THE COORDINATING PROFESSIONAL ON THE OPS MILLS ELECTRICAL SERVICE REPLACEMENT PROJECT.



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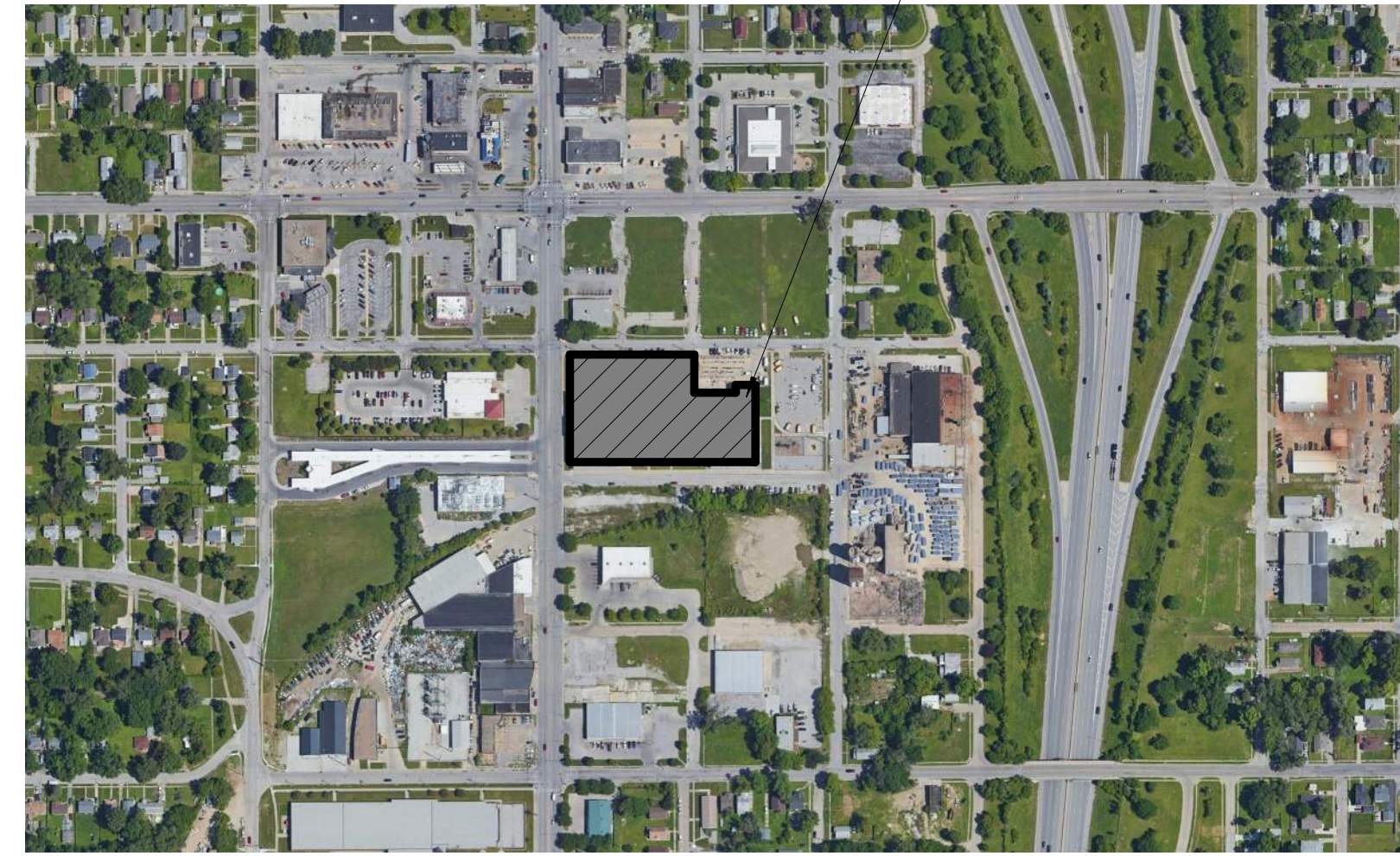
ELECTRICAL ENGINEER:
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CODES:

2018 International Building Code
2018 Omaha Plumbing Code and Chapter 49 Omaha Municipal Code
2012 International Mechanical Code and Chapter 40 Omaha Municipal Code
2018 International Existing Building Code
2017 National Electrical Code
2012 Life Safety Code and 2012 International Fire Code
2018 International Energy Conservation Code
2010 ADA Standards for Accessible Design
Nebraska Accessibility Guidelines (NAG)

PROJECT ADDRESS:

4311 N 30TH STREET OMAHA, NE 68111



VICINITY MAP

NOT TO SCALE

OPS MILLS ELECTRICAL SERVICE REPLACEMENT

4311 N 30TH STREET OMAHA, NE 68111

BCDM NO: 5444-02

SCHEDULE OF DRAWINGS

ARCHITECTURAL

A1-0 BASEMENT FLOOR PLAN

ELECTRICAL

ES1-0 ELECTRICAL PLANS

ES2-0 ELECTRICAL SCHEDULES AND DIAGRAMS

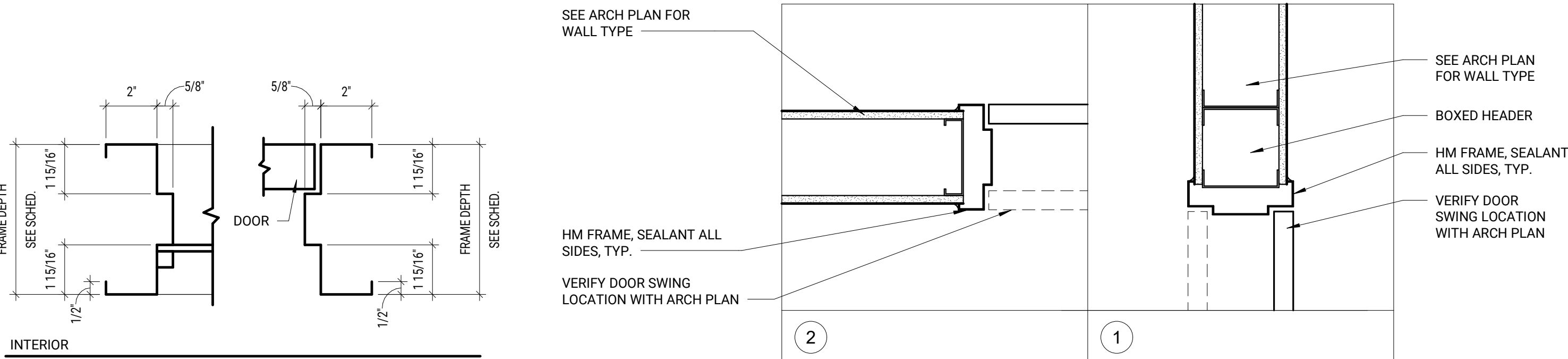
DOOR, FRAME, AND GLAZING GENERAL NOTES

- SEE DETAIL 2/A4-1 TYPICAL METAL FRAME DIMENSIONS AND PROFILES. WHEN HOLLOW METAL FRAMES WRAP GWB WALLS, THE THROAT DEPTH SHALL EQUAL THE THICKNESS OF THE DESIGNATED WALL TYPE SHOWN ON THE ARCHITECTURAL FLOOR PLAN AND WHEN HOLLOW METAL FRAMES WRAP CMU WALLS, THE THROAT DEPTH SHALL EXCEED THE THICKNESS OF THE WALL BY 1/8" WITH THE GAP CAULKED AND PAINTED TO MATCH THE WALL.
- ALL DOORS SHALL BE 1-3/4" THICK, U.N.O.
- ALL REMOVABLE GLAZING STOPS SHALL BE 5/8" HIGH AND 5/8" WIDE, U.N.O.
- ALL EXTERIOR FRAMES (SHOWN ON FRAME ELEVATIONS) ARE VIEWED FROM THE EXTERIOR UNLESS INDICATED OTHERWISE.
- SEE DOOR AND FRAME SCHEDULE FOR ACTUAL DOOR SIZES. COORDINATE FRAME DIMENSIONS WITH DOOR SIZES.
- SEE SHEET A4-1 FOR DETAILS LISTED IN SCHEDULE, U.N.O.
- SEE SPECIFICATIONS FOR FINISH OF WOOD DOORS.
- SEE SPECIFICATION SECTION 08 80 00 FOR DESCRIPTION OF GLASS TYPES SHOWN ON DOOR AND FRAME SCHEDULE (I.E. 'CTG').
- VERIFY ALL HARDWARE SIZES, CLEARANCES, POCKET DEPTHS, ETC. WITH HARDWARE SUPPLIER AND ADJUST ACCORDINGLY.
- G.C. TO FIELD VERIFY EXISTING WALL THICKNESSES AND WALL OPENINGS PRIOR TO SUBMITTING SHOP DRAWINGS. ADJUST DOOR/ FRAME SIZES AS REQ'D TO FIT W/ EXISTING FIELD VERIFIED CONDITIONS.
- GLASS AND STOPS AT INTERIOR HOLLOW METAL FRAMES OCCURRING BETWEEN CORRIDORS AND OCCUPIED ROOMS SHALL BE LOCATED AT THE CORRIDOR SIDE OF THE FRAME, U.N.O.
- WHERE THE CEILING RUNS INTO THE TOP OF THE FRAME, THE FRAME SHALL BE KNEE BRACED AT 4'-0" O.C. AT THE HEAD OF THE FRAME TO THE STRUCTURE ABOVE FOR LATERAL STABILITY. KNEE BRACING SHALL BE INSTALLED WITH A MAXIMUM ANGLE (FROM THE HORIZONTAL) OF 45 DEGREES.
- CAULK ALL JOINTS BETWEEN INTERSECTING FRAME MEMBERS THAT ARE NOT WELDED, WITH A PAINTABLE CAULK TO PROVIDE A SMOOTH AND UNIFORM APPEARANCE WHEN PAINTED.
- THE PERIMETER OF ALL FRAMES SHALL BE CAULKED AT BOTH THE EXTERIOR AND INTERIOR.
- SET ALL EXTERIOR FRAMES AND THRESHOLDS IN A CONTINUOUS BEAD OF CAULK AT SILLS.
- PROVIDE AND INSTALL THRU-WALL FLASHING AND WEEP HOLES ABOVE ALL EXTERIOR FRAME OPENINGS.

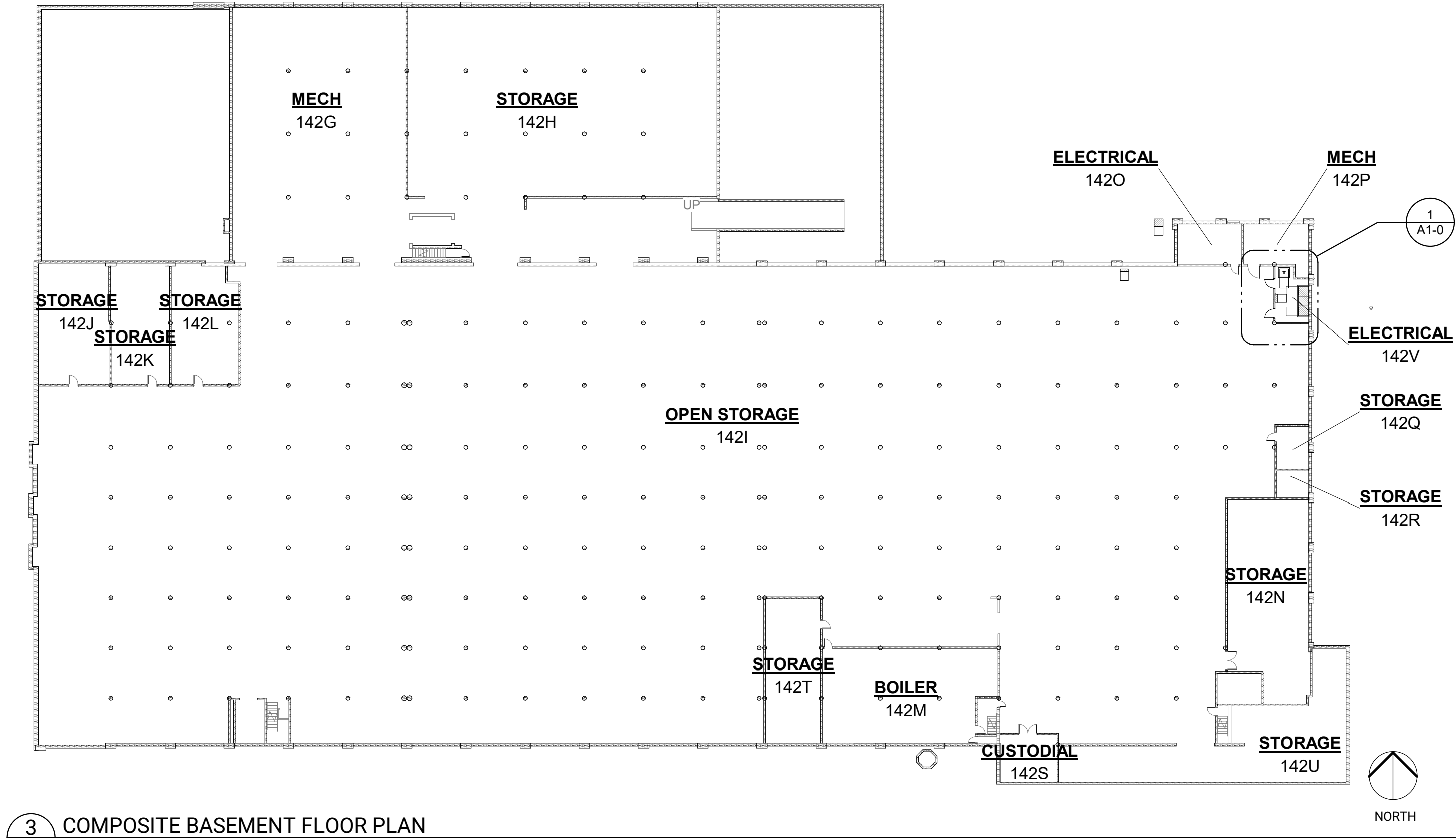
DOOR, FRAME AND GLAZING LEGEND

ALUM ALUMINUM
CMP COMPOSITE METAL PANEL
CTG CLEAR TEMPERED GLASS
CTIG CLEAR TEMPERED INSULATED GLASS
HM HOLLOW METAL
MIN MINUTE
P PAINT
PF PRE-FINISHED
PR PAIR
REV REVERSE
SIM SIMILAR
ST STAIN
TTIG TINTED TEMPERED INSULATED GLASS
U.N.O. UNLESS NOTED OTHERWISE
WD WOOD

DOOR AND FRAME SCHEDULE - ELECTRICAL SERVICE REPLACEMENT																
DOOR NO.	DOOR					FRAME						HDWR. TYPE	LABEL	GLAZING	REMARKS	DOOR NO.
	WIDTH	HEIGHT	TYPE	MAT.	FINISH	TYPE	DEPTH	MAT.	FINISH	HEAD	JAMB					
142V	3'-0"	7'-0"	F	HM	P-2	A	5 7/8"	HM	P-2	1	2	1	60 MIN	---		142V
142V.1	3'-0"	7'-0"	F	HM	P-2	A	5 7/8"	HM	P-2	1	2	1	60 MIN	---		142V.1



HOLLOW METAL FRAME ELEVATIONS

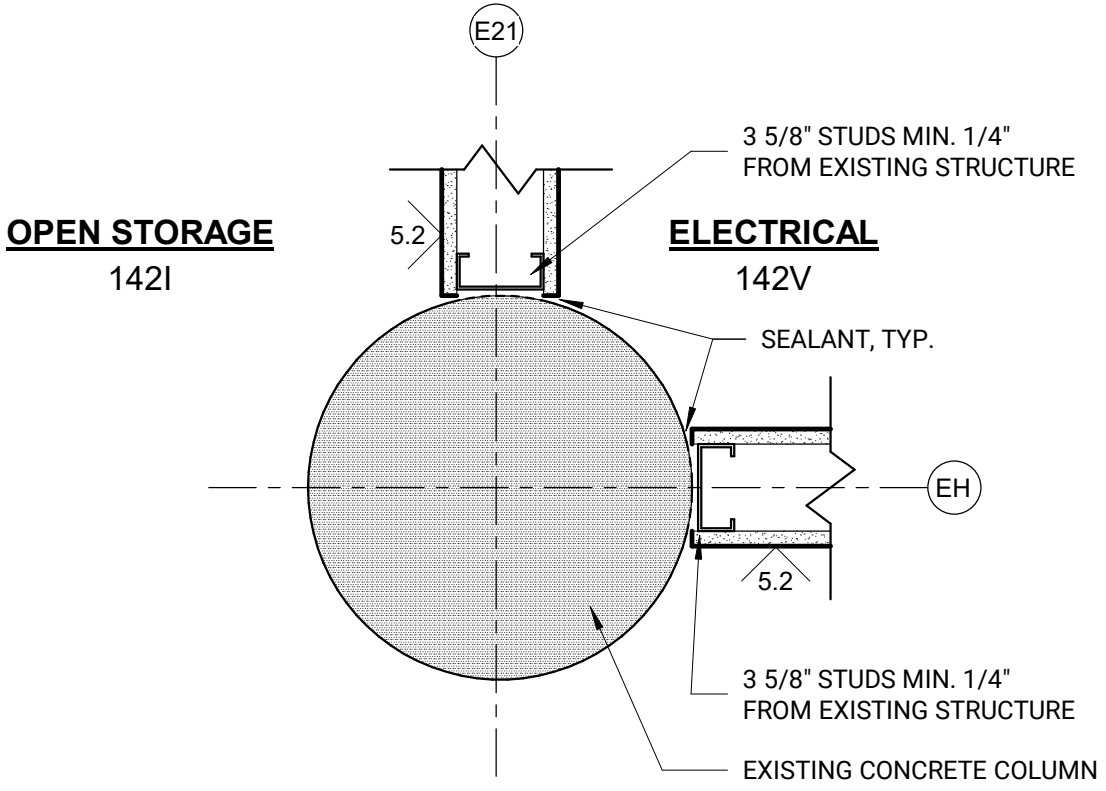
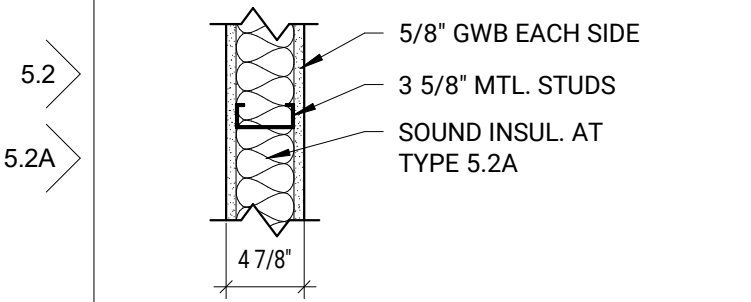


COMPOSITE BASEMENT FLOOR PLAN

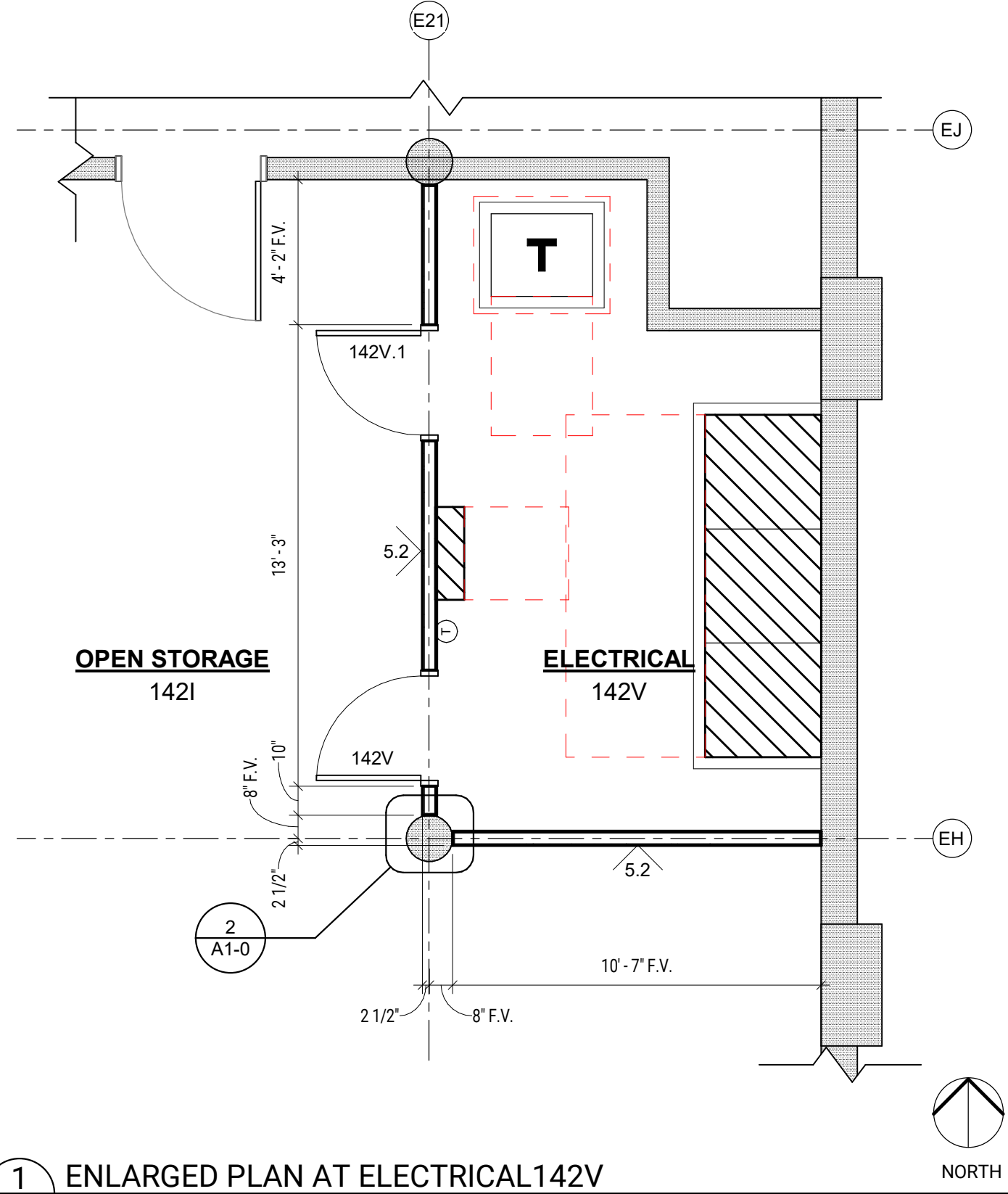
ROOM FINISH SCHEDULE - ELECTRICAL SERVICE REPLACEMENT									
ROOM NO.	NAME	FLOOR	BASE	WALLS				CEILING	REMARK
				NORTH	EAST	SOUTH	WEST	MATERIAL	
142V	ELECTRICAL	EXISTING	VB-1	P-1	P-1	P-1	P-1	EXISTING EXP. STR	

TYPICAL WALL TYPE SCHEDULE

METAL STUDS



PLAN DETAIL AT ELECTRICAL 142V



ENLARGED PLAN AT ELECTRICAL 142V



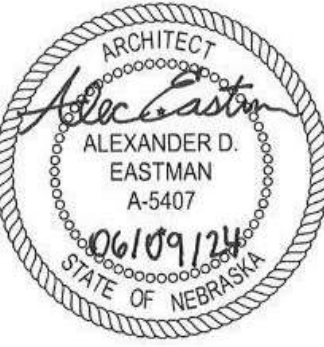
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OPS MILLS ELECTRICAL SERVICE REPLACEMENT

4311 N 30TH STREET
OMAHA, NE 68111

OMAHA PUBLIC SCHOOLS

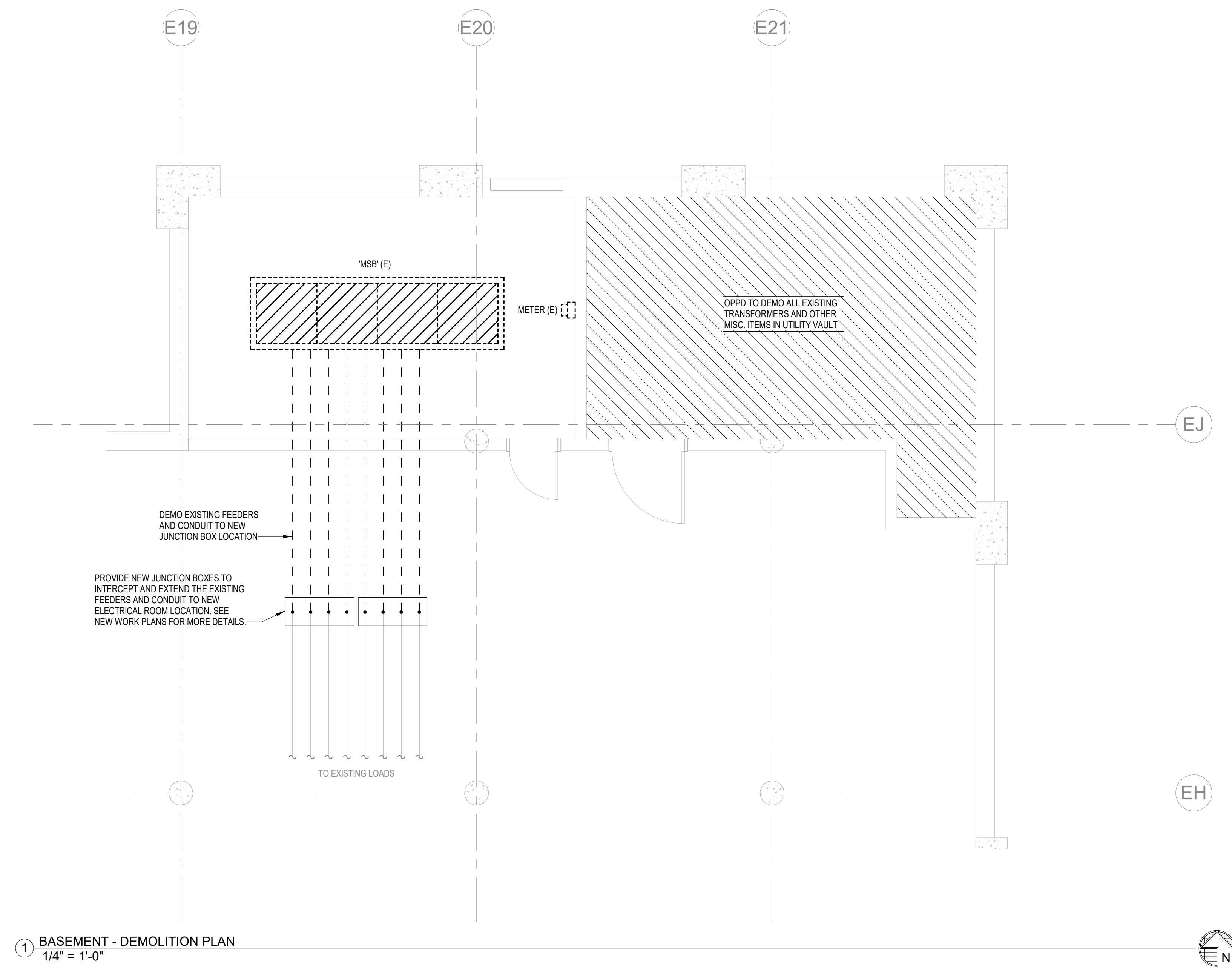
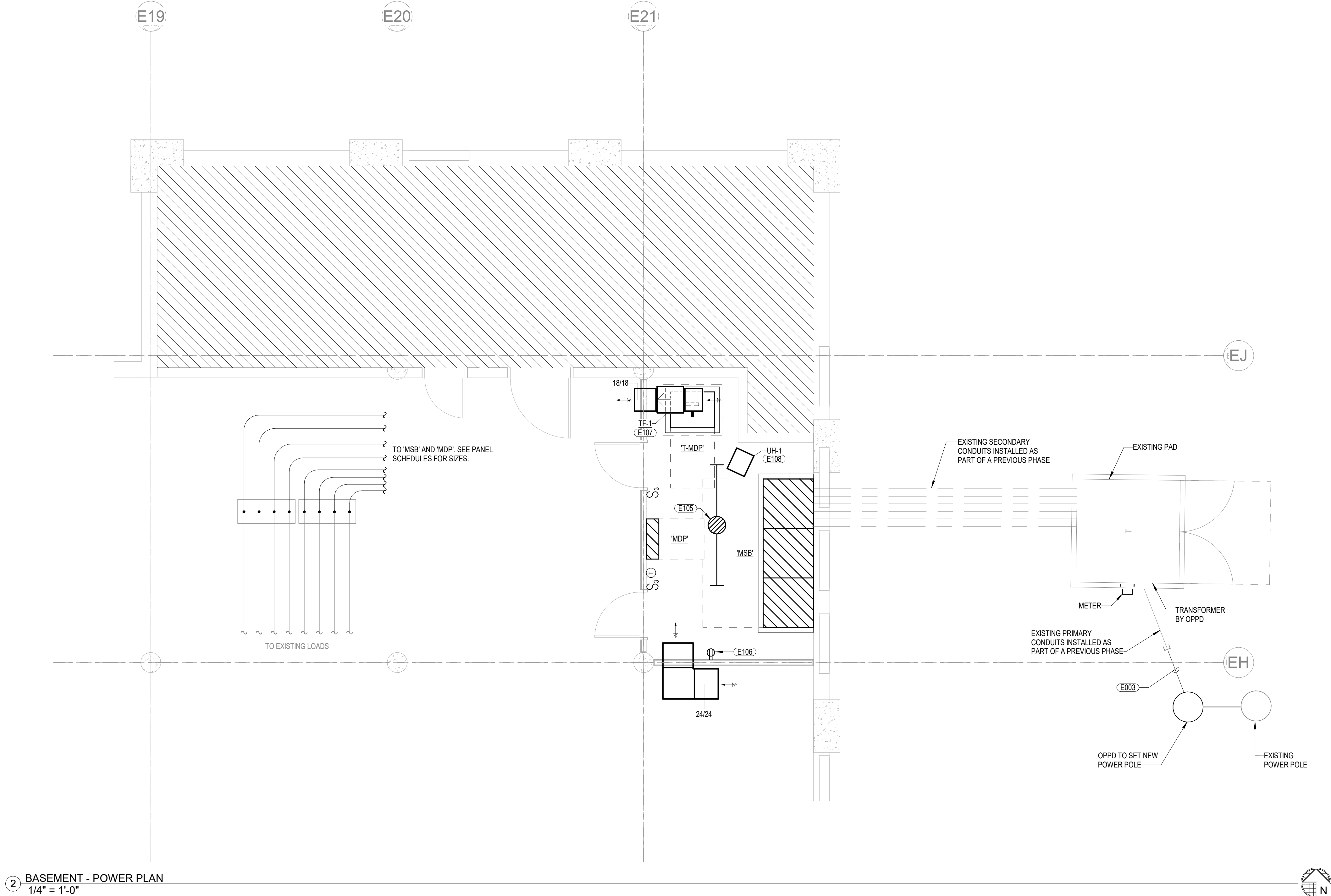
BASEMENT FLOOR PLAN

A1-0

CONSTRUCTION DOCUMENTS
BCDM NO. 5444-02
09 JUNE, 2024

LEFT BINDING EDGE

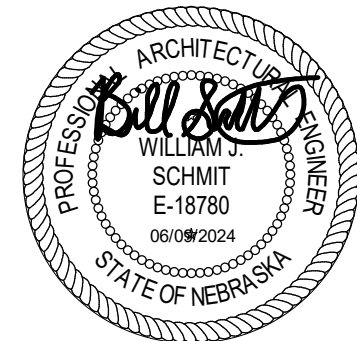
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KEYNOTES

- E003 PROVIDE (2) 4" UNDERGROUND PRIMARY CONDUITS PER OPDP'S SPECIFICATIONS AND REQUIREMENTS TO NEW POWER POLE LOCATION. INTERCEPT AND CONNECT TO EXISTING CONDUITS STUBBED OUT FROM PAD DURING PREVIOUS PHASE.
- E105 PROVIDE LITHONIA CSS L86 AL04 MVOLT 40K 80CRI IETWCP LIGHT FIXTURE AND (2) 3-WAY LIGHT SWITCHES FOR ELECTRICAL ROOM. CONNECT TO BASEMENT LIGHTING CIRCUIT.
- E106 CONNECT RECEPTACLE TO NEAREST CONVENIENCE RECEPTACLE CIRCUIT.
- E107 PROVIDE FINAL CONNECTION TO INTEGRAL DISCONNECT LOCATED ON TRANSFER PAN. PROVIDE 2#12#120-1/2" TO NEW 201 CIRCUIT BREAKER IN NEAREST 208/120V ELECTRICAL PANEL.
- E108 PROVIDE KING UNIT HEATER, MODEL K8P12307, OR EQUIVALENT. MOUNT TO CEILING OR WALL. SET PIC-A-WATT HEATING ELEMENT TO 1900W AND PROVIDE WARNING LABEL ON UNIT HEATER TO NOT CHANGE THE HEATING ELEMENT WATTAGE. PROVIDE 2#12#120-1/2" TO NEW 201 CIRCUIT BREAKER IN NEAREST 208/120V ELECTRICAL PANEL.

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#	Description	Date
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OPS MILLS ELECTRICAL SERVICE REPLACEMENT

4311 N 30TH STREET
OMAHA, NE 68111

OMAHA PUBLIC
SCHOOLS

ELECTRICAL PLANS

ES1-0

CONSTRUCTION DOCUMENTS
BCDM NO. 5444-00
09 JUNE 2024

MEI PROJECT NO. 22168

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do not scale drawings. verify all dimensions and clearances from architectural, structural, shop and other appropriate drawings or in site. lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes and verify no-interference with other work. do not fabricate prior to verification of clearance for all trades.

LEFT BINDING EDGE
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DRY-TYPE TRANSFORMER SCHEDULE - SERVICE REPLACEMENT							
MARK	TRANSFORMER TYPE	KVA	VOLTAGE		MOUNTING	GROUNDING ELECTRODE	REMARKS
			PRIMARY	SECONDARY			
T-MDP	GENERAL PURPOSE	225 KVA	480 V	208Y/120V	FLOOR	#3/0-1" C	

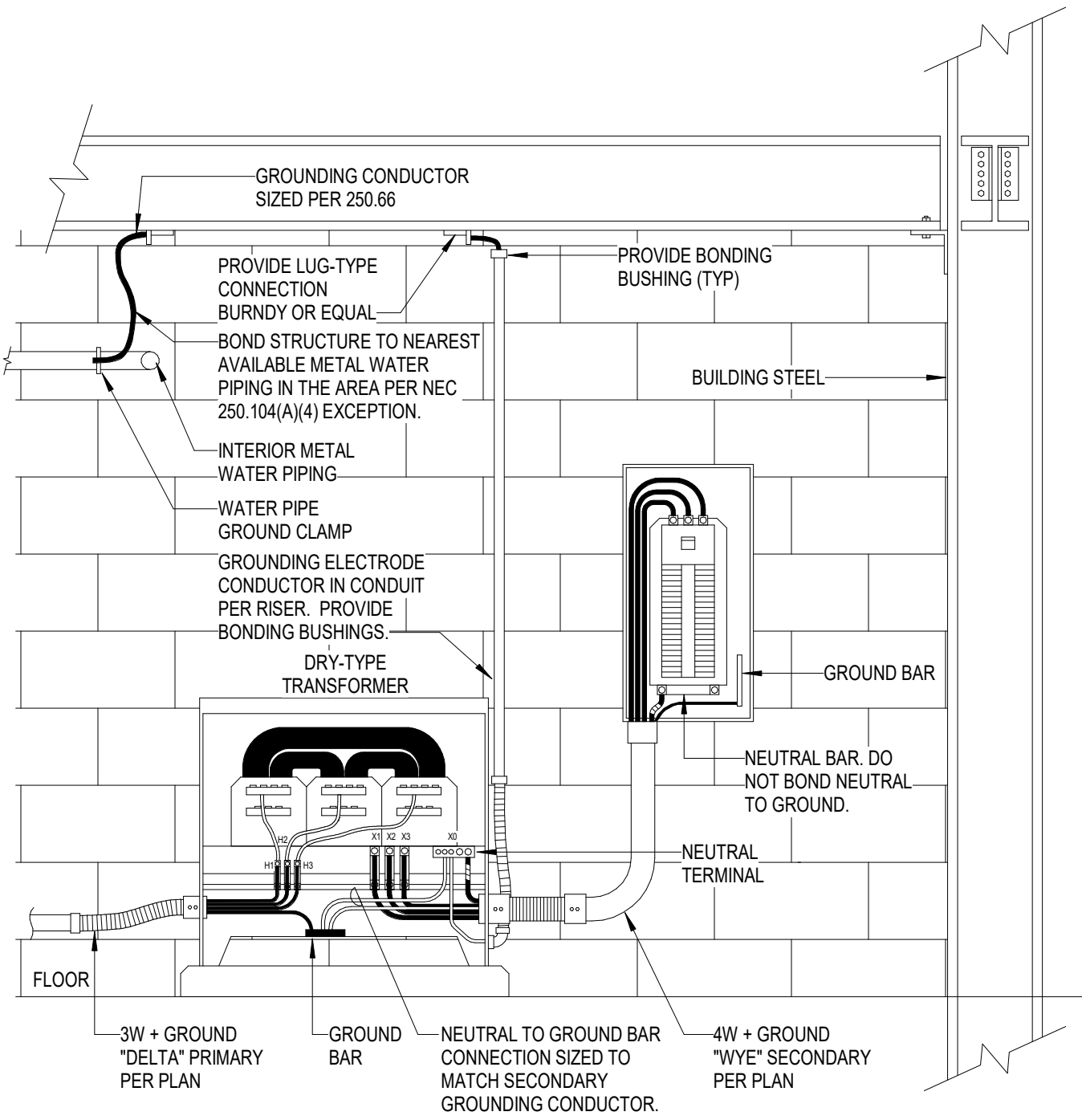
DISTRIBUTION PANEL SCHEDULE					
Panel: MDP		Rating: 800 A	A.I.C. Rating: 10000		
Remarks: MAIN CKT. BKR. W/GND. BAR		Volts: 120/208	Phas... 3		
Options:		Wires: 4	S.E. Rated: NO		
CKT	NAMEPLATE DESIGNATION	RATING	FEEDERS		
1	WEST X BSMT LTG SW	200 A 3	3#3/0, #6G-2"C		
2	EAST WALL BSMT LTG	200 A 3	3#3/0, #6G-2"C		
3	NEW LINE OFFICE LTG	200 A 3	3#3/0, #6G-2"C		
4	UNKNOWN LOAD	200 A 3	3#3/0, #6G-2"C		
5	ELEVATOR (NOTE 4)	0 A 3			
6	SPARE	200 A 3			
7	SPACE	100 A 3			
8	SPACE	100 A 3			
Notes: 1. THE CURRENT LIMITING PLUG IN THE CIRCUIT BREAKER OR THE BREAKER ITSELF MUST BE THE NEXT LOGICAL SIZE ABOVE THE SERVICE CONDUCTOR SIZE. 2. A PERMANENT "RED" ENGRAVED PHENOLIC PLATE MUST BE INSTALLED ON OR ABOVE THE MAIN CIRCUIT BREAKER WITH THE FOLLOWING INFORMATION: a. SERVICE SIZE - PER NEC b. ALL PROGRAMMED BREAKER SETTINGS. c. "CAUTION - ANY CHANGES TO THESE SETTINGS COULD BE A POTENTIAL RISK TO LIFE AND PROPERTY." 3. PROVIDE AN ARC ENERGY REDUCING MAINTENANCE SWITCH FOR EACH CIRCUIT BREAKER FRAME SIZE 1200 AMPS AND LARGER. 4. VERIFY EXISTING FUSE SIZING AND PROVIDE SAME AMPERAGE CIRCUIT BREAKER. PROVIDE SHUNT TRIP BREAKER WITH AUXILIARY CONTACTS WIRED IN PARALLEL WITH THE CONTACTS ON THE HOISTWAY DISCONNECT.					

SWITCHBOARD SCHEDULE					
Panel: MSB		Rating: 2000 A	A.I.C. Rating: 35000		
Remarks: MAIN CKT. BKR. W/GND. BAR		Volts: 480/277	Wires: 4 S.E. Rated: YES		
Options: WITH INTEGRAL SPD AND OWNER METERING		Phas... 3			
CKT	NAMEPLATE DESIGNATION	RATING	FEEDERS		
1	TRANSFORMER T-MDP	400 A 3	3#500KCMIL, #3G-3"C		
2	AREA A MAIN	400 A 3	4#600KCMIL, #3G-3"C		
3	AREA B MAIN (XFMR T-HB1)	400 A 3	4#600KCMIL, #3G-3"C		
4	AREA C MAIN	400 A 3	4#600KCMIL, #3G-3"C		
5	SPACE	400 A 3			
6	PANEL MA1	200 A 3	4#3/0, #6G-2"C		
7	PANEL MB1	200 A 3	4#3/0, #6G-2"C		
8	PANEL MC1	200 A 3	4#3/0, #6G-2"C		
9	PRINTING AND PUBLISHING T-PP1	175 A 3	3#2/0, #6G-2"C		
10	PANEL HPP	200 A 3	4#3/0, #6G-2"C		
11	RTU-1	100 A 3	3#1, #6G-1-1/2"C		
12	BOILER RM MAIN	100 A 3	4#2, #6G-1-1/4"C		
13	SPARE	125 A 3			
14	AC-1	100 A 3	3#6, #10G-1"C		
15	SPARE	100 A 3			
16	SPACE	100 A 3			
17	SPACE	100 A 3			
Notes: 1. THE CURRENT LIMITING PLUG IN THE CIRCUIT BREAKER OR THE BREAKER ITSELF MUST BE THE NEXT LOGICAL SIZE ABOVE THE SERVICE CONDUCTOR SIZE. 2. A PERMANENT "RED" ENGRAVED PHENOLIC PLATE MUST BE INSTALLED ON OR ABOVE THE MAIN CIRCUIT BREAKER WITH THE FOLLOWING INFORMATION: a. SERVICE SIZE - PER NEC b. ALL PROGRAMMED BREAKER SETTINGS. c. "CAUTION - ANY CHANGES TO THESE SETTINGS COULD BE A POTENTIAL RISK TO LIFE AND PROPERTY." 3. PROVIDE AN ARC ENERGY REDUCING MAINTENANCE SWITCH FOR EACH CIRCUIT BREAKER FRAME SIZE 1200 AMPS AND LARGER. 4. PROVIDE GFCI PROTECTION FOR MAIN CIRCUIT BREAKER.					

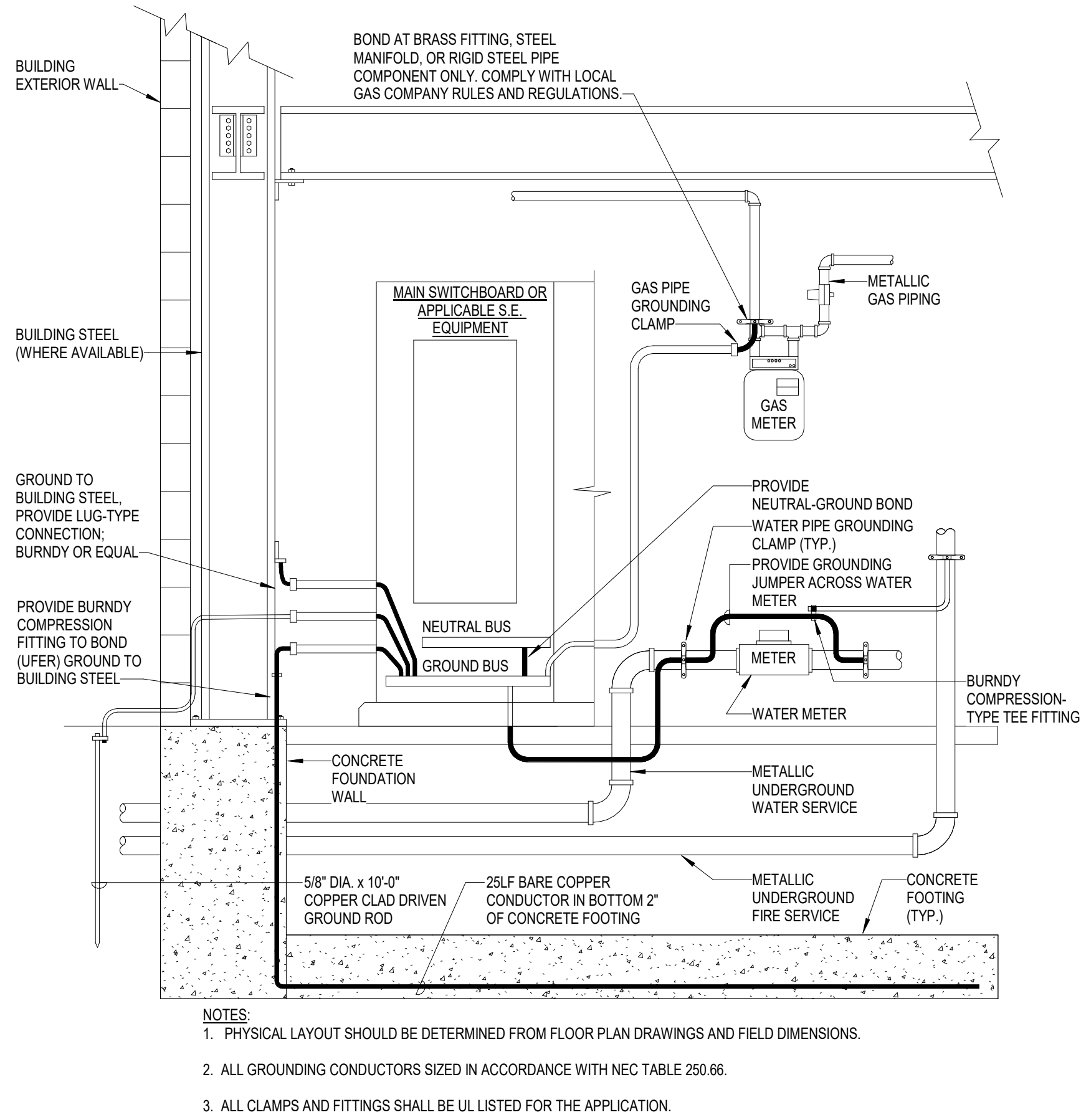
KEYNOTES	
ES01	PROVIDE JUNCTION BOX TO INTERCEPT AND EXTEND EXISTING OVERHEAD CONDUITS TO NEW ELECTRICAL EQUIPMENT. SEE PANEL SCHEDULES FOR CONDUIT AND FEEDER SIZES.
ES02	PROVIDE 3-1/2" THICK CONCRETE HOUSEKEEPING PAD WITH 3/4" CHAMFER EDGE AROUND ALL SIDES EXCEPT THOSE ABUTTING A WALL.
ES10	REMOVE DISTRIBUTION PANEL TDP THAT WAS INSTALLED IN PREVIOUS PHASE AND RECONNECT LOADS SERVED BY TDP TO NEW SWITCHBOARD MSB.

TRANSFER FAN SCHEDULE																			
REMARKS: 1. IN-LINE CENTRIFUGAL EXHAUST FAN. 2. PROVIDE WITH FACTORY INSTALLED SPEED CONTROLLER WITH MOTOR MOUNTED DIAL FOR SPECIFIC ADJUSTMENT. INTEGRAL DISCONNECT SWITCH MOUNTED TO SIDE PANEL. 3. CONTROL THRU WALL MOUNTED THERMOSTAT. 4. DIRECT DRIVE WITH EC MOTOR. 5. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT BY ONE OF THE FOLLOWING MANUFACTURERS: ACME, GREENHECK, COOK, TWIN CITY.																			
GENERAL					PHYSICAL SIZE					FAN					MOTOR				
PLAN TAG	MANUFACTURER (S)	MODEL	TYPE	ACC.	WALL OPENING SIZE	WEIGHT (lbs)	DIMENSIONS (D x W x H)	AIRFLOW (CFM)	E.S.P. (in-wg)	WHEEL TYPE	DIA. Ø	DRIVE	MAXIMUM RPM	SONES	HP	RPM	VOLTAGE / PHASE	TYPE	CONTROL DEVICE
TF-1	GREENHECK	SG-130-VG	(1)	(2)	18" x 18"	77	21" x 21" x 21"	1800 CFM	0.50	B.L.	13-125"	(4)	1725	10	0.75	1725	120 V / 1	ECM	(3)

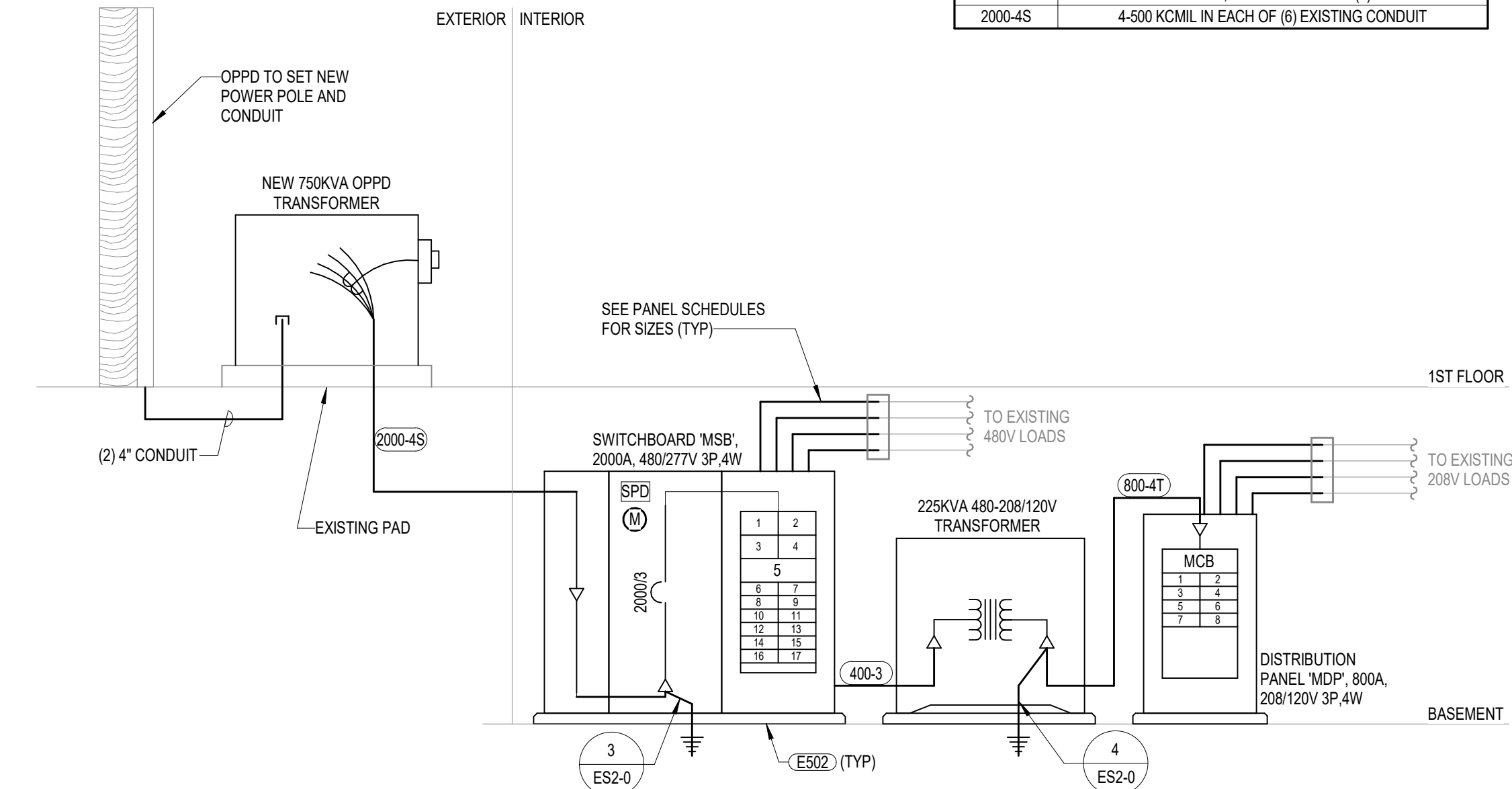
COPPER FEEDER SCHEDULE	
FEEDER	WIRE AND CONDUIT
304	4-#10, #10 G - 3-1/4"C
70-3	3-#4, #6 GND - 1-1/4"C
150-3	3-#10, #6 G - 1-1/2"C
150-4T	4-#10, #6 G - 2"C
175-3	3-#20, #6 G - 2"C
200-4	4-#10, #6 G - 2-1/2"C
400-3	3-600 KCMIL, #3 G - 3"C
400-4T	4-600 KCMIL, #10 G - 4"C
600-4	4-600 KCMIL, #1 G IN EACH OF (2) 3-1/2" C.
800-4T	4-600 KCMIL, #30 G IN EACH OF (2) 4"C
2000-4S	4-500 KCMIL IN EACH OF (6) EXISTING CONDUIT



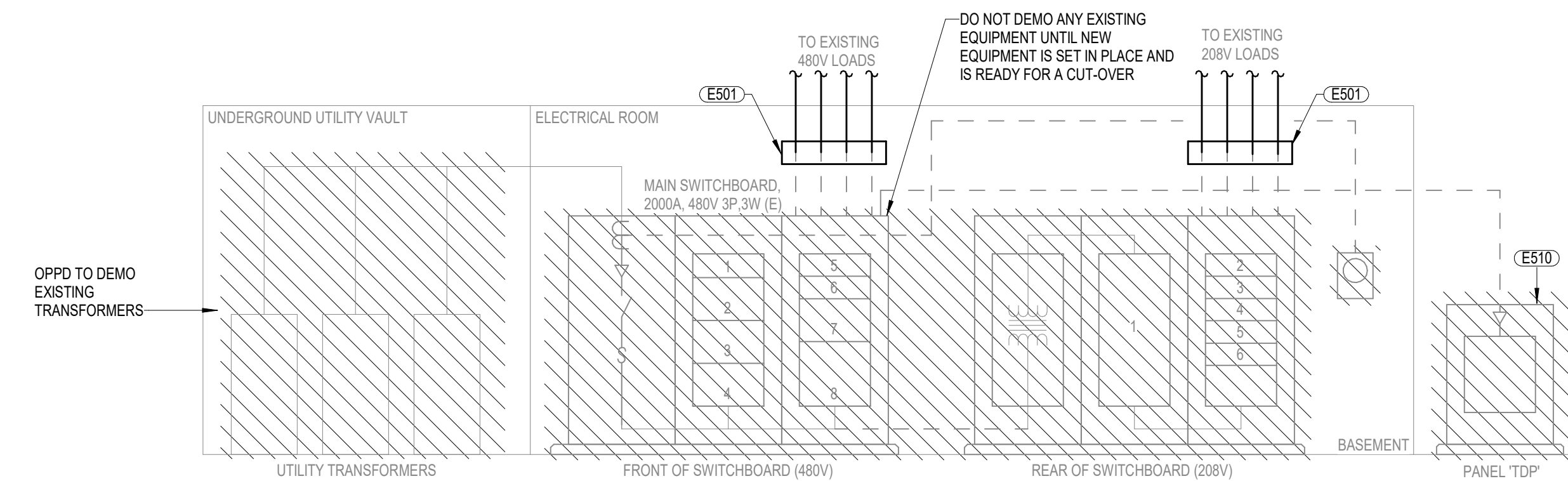
4 DRY-TYPE TRANSFORMER GROUNDING DETAIL
NOT TO SCALE



3 MAIN SERVICE GROUNDING DETAIL
NOT TO SCALE



2 PARTIAL ELECTRICAL RISER - NEW
1/4" = 1'-0"



1 PARTIAL ELECTRICAL RISER - EXISTING
1/4" = 1'-0"

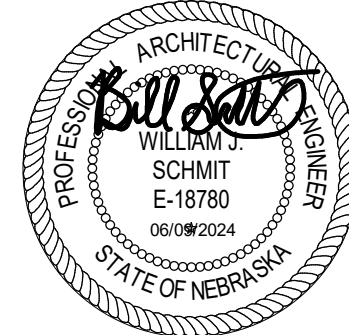
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BODM
architects

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4	RFP-001 - Layout	05/08/2024
#	Description	Date

OPS MILLS
ELECTRICAL
SERVICE
REPLACEMENT

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OMAHA, NE 68111

OMAHA PUBLIC
SCHOOLS

ELECTRICAL
SCHEDULES AND
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ES2-0

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