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POST BID ADDENDUM #1

Date: November 08, 2019
Project Title: Waverly F. Akins Office Building and Wake County Courthouse
Emergency Power Replacement
RFP/Bid No. 19-067
Owner: County of Wake
HDM
Project No.: 18001.05

The following items modify, add, or delete from the construction documents, plans and specifications for this project dated August 30, 2019.

This addendum consists of 16 sheets. 1 (8.5 x 11) sheet and 15 (36 x 24) sheets.

Specifications:

1. Specification 16231 – “Packaged Engine Generators” – Part 2, Section 2.3, Paragraph H.1 – change the 600 kW to 400 kW minimum capacity.

Drawings:

1. Drawing M001 – “Generator Schedule” – WCCH Generator change the genset rating to 400.
2. Drawings E001, E002, E003, E004, E005, E006, E100, E101, E200, E201, E202, E203, E204, E205, and E206 delete and replace with attached.

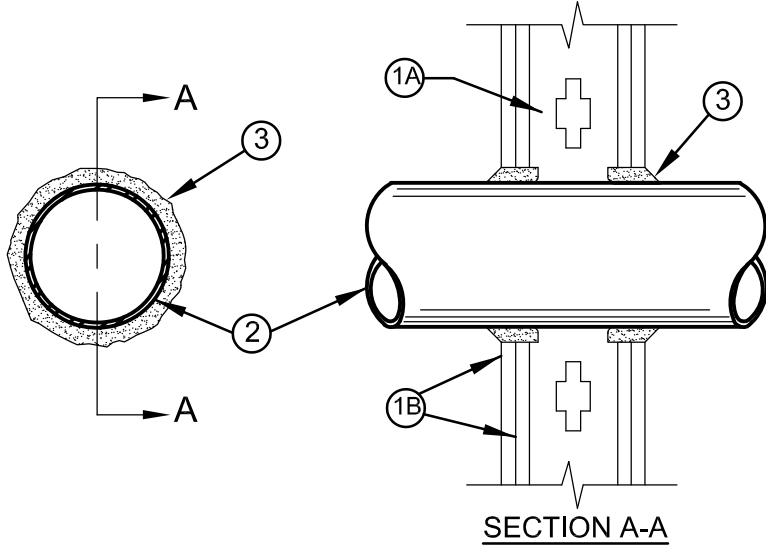
End of Post Bid Addendum

GENERATOR INFORMATION			
GENERATOR NAME	CAPACITY (kW)	BREAKER #/(AMPS)	AREA SERVED
WCCH GENERATOR #1	400	#1Ø 400	WCCH ELEVATORS
		#2Ø 400	WCCH STAIR PRESS/EXIST EOC
		#3Ø 400	FUTURE EOC
WCGB GENERATOR #3 (DATA CENTER)	300	#1Ø 400	WCGB DATA CENTER
		#2Ø 400	FUTURE EOC
WCGB GENERATOR #2 (EMERGENCY POWER)	300	#1Ø 400	WCGB EMERG POWER, ELEVATORS
		#2Ø 400	WCGB DATA CENTER (BACK-UP)

System No.W-L-1001

June 15, 2005

F Ratings - 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings - 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient - less than 1 CFM/sq ft
L Rating At 400 F - less than 1 CFM/sq ft



1. **Wall Assembly** - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

- A. **Studs** - Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.
- B. **Gypsum Board*** - Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).

2. **Through Penetrant** - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (0 mm) (point contact) to max 2 in. (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

- A. **Steel Pipe** - Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. **Iron Pipe** - Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
- C. **Conduit** - Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing
- D. **Copper Tubing** - Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing
- E. **Copper Pipe** - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
- F. **Through Penetrating Product*** - **Flexible Metal Piping** - The following types of steel flexible metal gas piping may be used:

1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

TITEFLEX CORP
A BUNDY CO

3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG INC

3. **Fill/Void or Cavity Material*** - **Caulk or Sealant** - Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall.
The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table.
The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam in. (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0*, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

*When copper pipe is used, T Rating is 0 hr.

3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant,

*Bearing the UL Classification Marking

FIRE SEAL DETAIL - UNINSULATED

NO SCALE

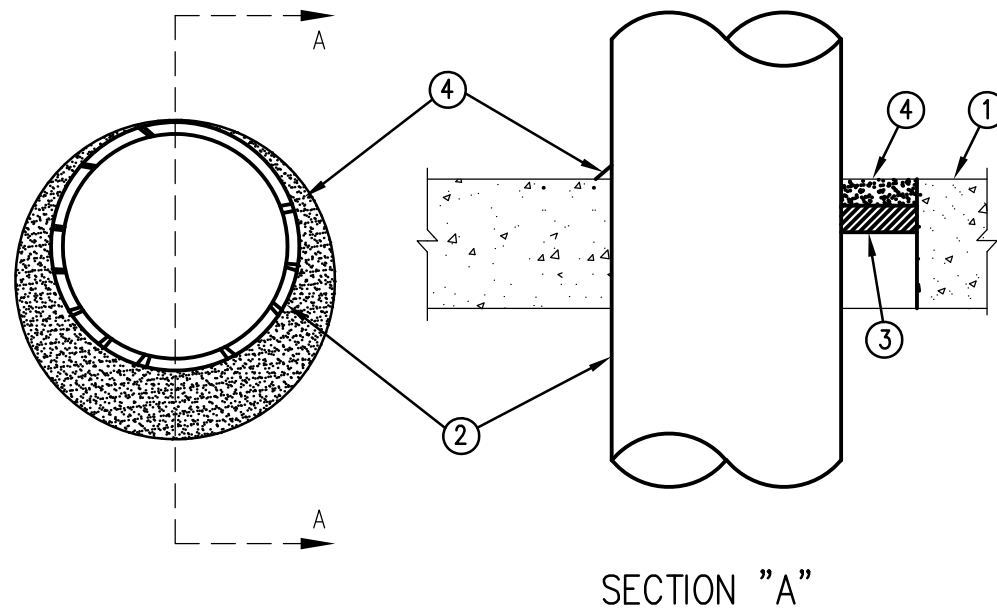
PHASING PLAN

BUILD A FIRE RATED ROOM FOR WCCH GENERATOR.
PROVIDE WCCH GENERATOR.
PROVIDE FEEDER TO WCCH NORTH GENERATOR AUTOMATIC TRANSFER SWITCH.
PROVIDE FEEDER TO WCCH SOUTH GENERATOR AUTOMATIC TRANSFER SWITCH.
DEMOLISH EXISTING WCCH NORTH GENERATOR.
DEMOLISH EXISTING WCCH SOUTH GENERATOR.
PROVIDE PANEL MDP IN WCGB.
PROVIDE WCGB ATS-1, WCGB ATS-2 AND WCGB ATS-3.
PROVIDE FEEDER TO WCGB ATS-2 AND WCGB ATS-3 FROM PANEL MDP.
PROVIDE TRANSFORMERS T-2 AND T-3.
PROVIDE PANELS OBEL AND OBEL.
PROVIDE PANEL ERHE.
PROVIDE FEEDER FOR PANEL ERHE FROM PANEL OBEL.
PROVIDE TRANSFORMERS T-ERA.
PROVIDE TRANSFORMER T-ERB AND DISCONNECT SWITCH DS-ERB.
PROVIDE FEEDER TO EXISTING BREAKERS FOR ELEVATORS #5 AND #6 FROM TRANSFORMER T-ERB.
PROVIDE FEEDER TO EXISTING PANEL ELEVEQ FROM TRANSFORMER T-ERA.
PROVIDE PANEL PHLE.
PROVIDE TRANSFORMERS T-PHA AND T-PHB.
PROVIDE PANEL PHLE.
PROVIDE PANEL PHLE.
PROVIDE FEEDER FOR PANEL PHLE FROM PANEL OBEL.
PROVIDE FEEDERS TO EXISTING BREAKERS FOR ELEVATORS 1 THROUGH 4 FROM PANEL PHLE.
PROVIDE FEEDER TO EXISTING PANEL ELEVEQ FROM PANEL PHLE.
PROVIDE FEEDER TO EXISTING PANEL 14C FROM PANEL PHLE.
PROVIDE CIRCUITS TO GRAPHIC COMPUTERS ON 15 FLOOR FROM PANEL PHLE.
PROVIDE FEEDER TO JUNCTION BOX FOR EXISTING PANELS E1GLE AND EM3LE FROM PANEL OBEL.
PROVIDE FEEDER TO EXISTING PANEL EMG FROM PANEL OBEL.
PROVIDE FEEDER TO EXISTING PANEL EM FROM PANEL OBEL.
PROVIDE FEEDER TO EXISTING DISCONNECT SERVING SEC UPS FROM PANEL OBEL.
PROVIDE FEEDER TO EXISTING EXISTING DISCONNECT SWITCH FEEDING PANEL E1-MD FROM PANEL OBEL.
PROVIDE CIRCUITS TO WCGB FIRE PUMP CONTROLLER AND JACKET HEATER FROM PANEL OBEL.
PROVIDE TEMPORARY FEEDER TO ATS-1 FROM A TEMPORARY GENERATOR.
DEMOLISH WCGB EMERGENCY POWER GENERATOR (GENERAC).
DEMOLISH WCGB EMERGENCY POWER ATS (GENERAC).
DEMOLISH WCGB EMERGENCY POWER PANEL EGPE.
PROVIDE NEW WCGB EMERGENCY POWER GENERATOR.
PROVIDE FEEDER TO WCGB ATS-3 FROM NEW WCGB EMERGENCY GENERATOR.
PROVIDE FEEDER TO WCGB ATS-1 FROM NEW WCGB EMERGENCY GENERATOR.
PROVIDE FEEDER FROM TRANSFORMER T-3 TO EXISTING DATA CENTER GENERATOR ATS LOCATION IN WCGB BASEMENT.
REMOVE DATA CENTER GENERATOR ATS AND USE ATS ENCLOSURE AS A JUNCTION BOX TO CONNECT NEW FEEDER FROM TRANSFORMER T-3 TO EXISTING FEEDER SERVING EXISTING PANEL EM1 IN DATA CENTER.
DEMOLISH WCGB DATA CENTER GENERATOR.
DEMOLISH WCGB DATA CENTER GENERATOR.
PROVIDE FEEDER TO WCGB ATS-3 FROM WCGB DATA CENTER GENERATOR.

System No.C-AJ-1001

March 05, 2007

F Ratings - 3Hr
T Ratings - 0
W Rating - Class 1 (See Item 4)



1. **Floor or Wall Assembly** - Min 4-1/2 in. (114 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of circular through opening is 32-1/2 in. (826 mm). See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

1A. **Steel Sleeve** (Optional, not shown) - Nom 12 in. (305 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe sleeve cast into concrete floor or wall. Sleeve to be flush with or project max 2 in. (51 mm) from top surface of floor or from both surfaces of wall. As an alternate, nom 12 in. (305 mm) diam (or smaller) sleeve fabricated from nom 0.019 in. (0.48 mm) thick galv steel cast or grouted into floor or wall assembly flush with floor or wall surfaces.

2. **Through Penetrant** - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (0 mm, point contact) to max 1-3/8 in. (35 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

- A. **Steel Pipe** - Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- A1. **Iron Pipe** - Nom 30 in. (762 mm) diam (or smaller) ductile iron pressure pipe.
- B. **Conduit** - Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit
- C. **Conduit** - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing

3. **Packing Material** - Polyethylene backer rod or nom 1 in. (25 mm) thickness of tightly-packed ceramic (alumina silica) fiber blanket, mineral wool batt or glass fiber insulation material used as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of solid concrete or concrete block wall as required to accommodate the required thickness of caulk fill material (Item 4). As an alternate when max pipe size is 10 in. (254 mm) diam and when max annular space is 1 in. (25 mm), a min 1 in. (25 mm) thickness of tightly-packed ceramic fiber blanket or mineral wool batt packing material may be recessed min 1/2 in. (13 mm) from bottom surface of floor or from either side of solid concrete wall.

4. **Fill, Void or Cavity Material*** - **Caulk or Sealant** - Applied to fill the annular space to the min thickness shown in the following table:

Max Pipe Diam in. (mm)	Max Annular Space In. (mm)	Packing Mtl Type (a)	Min Caulk Thkns In. (mm)
10 (254)	1 (25)	BR,CF,GForMW	1/2 (13) (b)
10 (254)	1 (25)	GForMW	1/2 (13) (c)
10 (254)	1 (25)	GForMW	1/2 (13) (c)

(a) BR = Polyethylene backer rod.

CF = Ceramic fiber blanket.

GF = Glass fiber insulation.

MW = Mineral-wool batt.

(b) Caulk installed flush with top surface of floor or both surfaces of wall.

(c) Caulk installed flush with bottom surface of floor or one surface of solid (non-concrete block) wall.

3M COMPANY - CP 25WB+ or FB-3000 WT
(Note: W Rating applies only when FB-3000 WT is used on top surface of floor and when it laps onto concrete for sleeved opening.)

*Bearing the UL Classification Marking

FIRE SEAL DETAIL - UNINSULATED

NO SCALE

GENERAL DEMOLITION NOTES - ELECTRICAL

- DRAWINGS ARE BASED ON EXISTING PLANS AND/OR FIELD INVESTIGATION WITHOUT DEMOLITION. CONTRACTOR SHALL VISIT THE BUILDING, FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND EXAMINE ALL RELATED DRAWINGS TO AVOID CONFLICTS.
- ALL EXISTING ELECTRICAL WORK SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO BEGINNING ANY WORK. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN HIS FIELD INVESTIGATION AND THESE DRAWINGS.
- CONTRACTOR SHALL EXERCISE CARE IN REMOVING; DEMOLITION ITEMS, ITEMS TO BE SALVAGED AND ITEMS TO BE RELOCATED. CONTRACTOR SHALL REPAIR OR REPLACE AT HIS COST ANY DAMAGE CAUSED TO EXISTING CONSTRUCTION AND EQUIPMENT TO REMAIN.
- ALL MATERIALS REMOVED UNDER DEMOLITION (NOT TO BE RELOCATED OR TURNED OVER TO OWNER) SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
- ALL EXISTING CONDUIT THAT WILL NOT BE REUSED SHALL BE REMOVED WHERE IT WILL BE EXPOSED AFTER COMPLETION OF THE CONSTRUCTION. CONDUIT MAY BE ABANDONED IN WALLS ONLY. CONTRACTOR SHALL REMOVE ALL WIRING FROM ABANDONED CONDUITS, DISCONNECT FROM ALL POWER SOURCES AND PROVIDE BLANK PLATES ON ALL ABANDONED OUTLETS. CUT-OFF ABANDONED CONDUIT (2") BELOW FINISHED FLOOR. CUT AND PATCH TO MATCH EXISTING FINISH.
- MAINTAIN CONTINUITY OF ALL EXISTING CIRCUITS TO REMAIN OR PORTIONS THEREOF AFFECTED BY NEW WORK.
- MAINTAIN EXISTING SYSTEMS INDICATED TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.
- CONTRACTOR SHALL COORDINATE ALL INTERRUPTION OF SYSTEMS SERVICES.
- PROVIDE ALL ELECTRICAL DEMOLITION WORK NECESSARY TO INSTALL NEW WORK. CONTRACTOR SHALL REROUTE AND RECONNECT ANY CIRCUITS THAT WILL REMAIN IN USE BUT INTERFERES WITH NEW CONSTRUCTION.
- CONTRACTOR SHALL REMOVE ALL STARTERS, DISCONNECT SWITCHES AND ASSOCIATED CONDUIT AND WIRING FOR ALL EQUIPMENT TO BE REMOVED BY OTHERS.
- CONTRACTOR SHALL COORDINATE THE OWNER'S CONTINUING OCCUPANCY OF PORTIONS OF EXISTING BUILDING, PARTIAL OCCUPANCY OF COMPLETED WORK AND THE USE OF ELEVATORS AND STAIRS.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY IF SUSPECTED HAZARDOUS MATERIALS ARE ENCOUNTERED.
- CONTRACTOR SHALL PROVIDE TEMPORARY WEATHER PROTECTION, DURING SELECTIVE DEMOLITION OF EXISTING CONSTRUCTION ON EXTERIOR SURFACES AND NEW CONSTRUCTION, TO PREVENT WATER LEAKAGE AND DAMAGE TO STRUCTURE AND INTERIOR AREAS.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SUPPORTS AS REQUIRED TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED. STRENGTHEN OR ADD NEW SUPPORTS WHEN REQUIRED DURING PROGRESS OF SELECTIVE DEMOLITION.
- NEATLY CUT OPENINGS AND HOLES PLUMB, SQUARE AND TRUE TO DIMENSIONS REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION. TO MINIMIZE DISTURBANCE OF ADJACENT SURFACES. USE HAND TOOLS OR SMALL POWER TOOLS DESIGNED FOR SAWING OR GRINDING, NOT HAMMERING AND CHOPPING. TEMPORARILY COVER OPENINGS TO REMAIN.
- DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SPIN AS DUCT AND PIPE INTERIORS. VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STARTING FLAME-CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND PORTABLE FIRE-SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS.
- MAINTAIN ADEQUATE VENTILATION WHEN USING CUTTING TORCHES.

REVISION 1 CHANGES

- CONDUIT AND WIRING ROUTING SHOWN SPACED APART FOR CLARITY. COORDINATE EXACT ROUTING WITH ENGINEER.
- E003 PANEL EM1 TO UPS-1 EXISTING TO REMAIN.
- E004 EXISTING AND NEW EQUIPMENT SCHEDULES UPDATED AS MARKED.
- E004 WCGB ATS-1 CONNECTION TO WCCH SWITCHBOARD REMOVED FROM PROJECT.
- E004 WCGB UPS-1 GENERATOR AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 WCGB EMERGENCY POWER GENERATOR AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 WCGB ATS-1 AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 WCGB ATS-2 AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 PANEL OBEL AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 TRANSFORMER T-2 AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 PANEL OBEL AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 WCGB ATS-3 AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 TRANSFORMER T-3 AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 DISCONNECT SWITCH DS-3 AND ASSOCIATED FEEDERS/CONNECTIONS MOVED TO SHEET 005.
- E004 "WCCH GENERATOR" RENAMED TO "WCCH GENERATOR #1".
- E005 EXISTING AND NEW EQUIPMENT SCHEDULES UPDATED AS MARKED.
- E005 UPS-1 CONNECTION (FEEDER 25) TO DS-1 REMOVED FROM PROJECT.
- E005 FEEDER 33 REMOVED FROM PROJECT.
- E005 PANEL DC AND ASSOCIATED FEEDERS/CONNECTIONS REMOVED FROM PROJECT.
- E005 TRANSFORMER T-1 AND ASSOCIATED FEEDERS/CONNECTIONS REMOVED FROM PROJECT.
- E005 DISCONNECT SWITCH DS-1 AND ASSOCIATED FEEDERS/CONNECTIONS REMOVED FROM PROJECT.
- E005 PANEL DCA AND ASSOCIATED FEEDERS/CONNECTIONS REMOVED FROM PROJECT.
- E005 "WCGB UPS-1 GENERATOR" RENAMED TO "WCGB GENERATOR #2".
- E005 "WCGB EMERGENCY POWER GENERATOR" RENAMED TO "WCGB GENERATOR #3".
- E005 WCGB ATS-1 EMERGENCY SIDE CONNECTS TO WCGB GENERATOR #3.
- E005 WCGB ATS-1 LOAD SIDE CONNECTS TO PANEL OBEL.
- E005 WCGB ATS-1 NORMAL SIDE CONNECTS TO PANEL MDP.
- E005 WCGB ATS-2 EMERGENCY SIDE CONNECTS TO WCGB GENERATOR #3.
- E005 WCGB ATS-2 LOAD SIDE CONNECTS TO TRANSFORMER T-3.
- E005 WCGB ATS-2 NORMAL SIDE CONNECTS TO WCGB ATS-3 LOAD SIDE.
- E005 WCGB ATS-3 EMERGENCY SIDE CONNECTS TO WCGB GENERATOR #2.
- E005 WCGB ATS-3 LOAD SIDE CONNECTS TO WCGB ATS #2 NORMAL SIDE.
- E005 WCGB ATS-3 NORMAL SIDE CONNECTS TO PANEL MDP.
- E006 EXIST PANELBOARD SCHEDULE LPL-FJ ADDED.
- E101 36" x 36" x 6" PULLBOX REMOVED FROM PROJECT.
- E200 WCCH GENERATOR EQUIPMENT CONNECTIONS TO OBEL REMOVED.
- E200 WCCH GENERATOR EQUIPMENT CONNECTIONS ADDED TO EXIST PANEL LPL-FJ.

LEGEND

LEGEND NOTES:

- ALL DARK AND DASHED SYMBOLS INDICATE EQUIPMENT AND/OR DEVICES TO BE REMOVED OR LOCATED UNDERGROUND AS NOTED.
- ALL DARK AND SOLID SYMBOLS INDICATE NEW EQUIPMENT AND/OR DEVICES TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- ALL LIGHT AND SOLID SYMBOLS INDICATE EQUIPMENT AND/OR DEVICES THAT ARE EXISTING TO REMAIN.
- ALL LIGHT AND DASHED SYMBOLS INDICATE EQUIPMENT AND/OR DEVICES THAT WILL BE ADDED IN THE FUTURE.
- MOUNTING HEIGHTS GIVEN BELOW SHALL BE FOLLOWED UNLESS NOTED ON THE FLOOR PLANS, SCHEDULES OR SHOWN DIFFERENT IN THE ARCHITECTURAL ELEVATIONS. ALL HEIGHTS ARE TO CENTER OF THE DEVICE.

- S SINGLE POLE SWITCH, 20A, 48" AFF.
- ⌚ DUPLEX CONVENIENCE RECEPTACLE, 20A, 125 VOLTS, 3 WIRE GROUNDING TYPE, 4" SQUARE BOX WITH SINGLE GANG RING AND COVER UNLESS NOTED OTHERWISE, 18" AFF EXCEPT AS NOTED.
- ⊕ EQUIPMENT CONNECTION
- ⊙ JUNCTION BOX
- ⊙ POINT OF DEMOLITION LIMIT
- ⊙ POINT OF CONNECTION
- ⚠ REVISION DESIGNATION
- ⚡ DEMOLITION NOTE DESIGNATION
- ⚡ NEW WORK NOTE DESIGNATION
- ⚡ GENERAL NOTE
- ⚡ EQUIPMENT NOTE DESIGNATION
- ⚡ BRANCH CIRCUIT CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING. WIRE SIZE #12 UNLESS NOTED OTHERWISE.
- ↗ L-1 INDICATES CIRCUIT HOMERUN TO PANEL. LETTER & NUMBERS INDICATE PANEL DESIGNATION & CIRCUIT BREAKER NUMBER.
- ↗ CONDUIT RISER UP
- ↘ CONDUIT RISER DOWN

⊠ 30A 20AF DISCONNECT SWITCH FUSIBLE OR NON-FUSIBLE, 600V, 3 POLE SWITCH & FUSE (IF ANY) AS NOTED.

⊠ REMOTE ANNUNCIATOR

⊠ TRANSFORMER, KVA AS NOTED

⊠ PULLBOX

▨ PANELBOARD, 120/208 VOLTS, SEE SCHEDULE

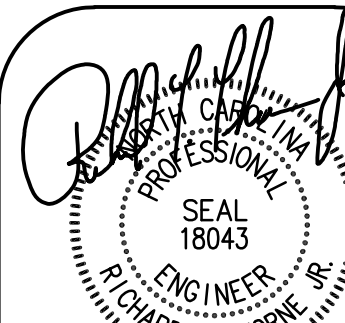
▨ PANELBOARD, 277/480 VOLTS, SEE SCHEDULE

W/W WIREWAY

⊠ ENCLOSED CIRCUIT BREAKER

--- 2 HOUR FIRE RATED BARRIER

A OR AMP AMPERE(S)
AFF ABOVE FINISHED FLOOR
AIC AMPERE INTERRUPTING CAPACITY
AFG ABOVE FINISHED GRADE
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
ATS AUTOMATIC TRANSFER SWITCH
BKR BREAKER
C CONDUIT
CKT CIRCUIT
CT CURRENT TRANSDUCER
DIA DIAMETER
EF EXHAUST FAN
EST ESTIMATE
ELEV ELEVATOR
FLA FIRE ALARM CONTROL PANEL
FAC FULL LOAD AMPS
G GROUND
GEN GENERATOR
GFCI GROUND-FAULT CIRCUIT INTERRUPTER
IN INCH(-ES)
KAIC THOUSAND AMPERE INTERRUPTING CAPACITY
KCMIL THOUSAND CIRCULAR MILS
KVA THOUSAND VOLT AMPERES
KW KILOWATT
MAX MAXIMUM
MCA MINIMUM CIRCUIT AMPACITY
MCB MAIN CIRCUIT BREAKER
MEZZ MEZZANINE
MIN MINIMUM
MLO MAIN LUGS ONLY
NEC NATIONAL ELECTRICAL CODE (NFPA 70)
NEMA NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION
NFPA NATIONAL FIRE PROTECTION ASSOCIATION
NO NUMBER
NRTL NATIONALLY RECOGNIZED TESTING LABORATORIES
P POLE
PH PENTHOUSE
PNL PANEL
PRI PRIMARY
REC RECEPTACLE
SEC SECONDARY
VT VOLTAGE TRANSDUCER
W WATT(S) OR WIRE
Y WYE



HDMA#18001.05

08/30/19

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No License No. C-1656

HDMA
ASSOCIATES, INC.
Professional Engineering Services

WAVERLY F AKINS OFFICE BUILDING
AND WAKE COUNTY COURTHOUSE
EMERGENCY POWER REPLACEMENT
336 FAYETTEVILLE STREET MALL
RALEIGH, NC 27602

REVISIONS
DESCRIPTION:
DATE: 11-08-19
POST BID ADDENDUM
SHEETS CHANGED:
E001-E006; E100-
E101; E200-E206

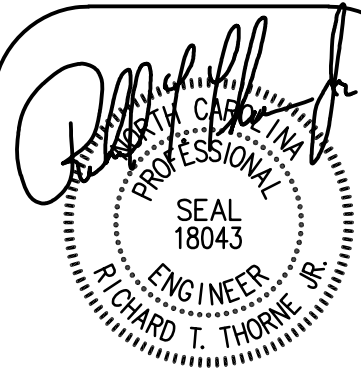
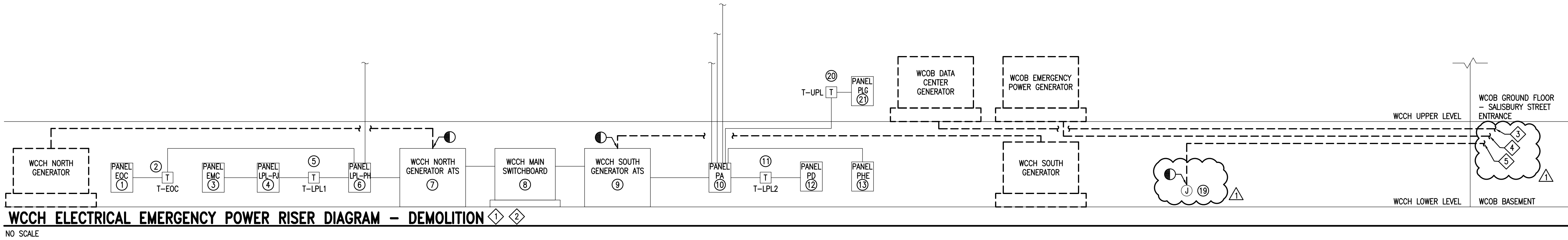
DATE: 08/30/19
JOB NUMBER: 18001.05
DRAWN: RCM
DESIGNED: RTT
CHECKED: RTT

E001

EXISTING EQUIPMENT SCHEDULE		
MARK	NAME	DESCRIPTION
①	PANEL EOC	255A MLO, 120/208V
②	TRANSFORMER T-EOC	75KVA, 480V PRI, 120/208V SEC
③	PANEL EMC	125A MLO, 120/208V
④	PANEL LPL-PJ	100A MCB, 120/208V
⑤	TRANSFORMER T-LPL1	30KVA, 480V PRI, 120/208V SEC
⑥	PANEL LPL-PH	600A MCB, 277/480V
⑦	WCCH NORTH GENERATOR ATS	600A, 277/480V
⑧	WCCH MAIN SWITCHBOARD	4,000A 277/480V
⑨	WCCH SOUTH GENERATOR ATS	400A, 277/480V
⑩	PANEL PA	400A MLO, 277/480V
⑪	TRANSFORMER T-LPL2	15KVA, 480V PRI, 120/208V SEC
⑫	PANEL PD	60A MCB, 120/208V
⑬	PANEL PHE	100A MLO, 277/480V
⑭	PANEL 6-PE	600A MLO, 277/480V
⑮	PANEL 6-PD	225A MLO, 277/480V
⑯	PANEL 6-PC	225A MLO, 277/480V
⑰	PANEL PHPC	300A MCB, 277/480V
⑱	PANEL PHPA	225A MLO, 277/480V
⑲	JUNCTION BOX CONNECTION	WCOB FIRE PUMP CONTROLLER AND JACKET HEATER CONNECTION
⑳	TRANSFORMER T-UPL	15KVA, 480V PRI, 120/208V SEC
㉑	PANEL PLG	40A MCB, 120/208V

GENERAL NOTES

- ① SEE FLOOR PLANS FOR DEMOLITION WORK. SEE PHASING PLAN FOR WORK SEQUENCE.
- ② ALL EQUIPMENT EXISTING TO REMAIN, UNLESS OTHERWISE INDICATED.
- ③ FROM WCOB EMERGENCY POWER PANEL EGPE.
- ④ TO WCOB EMERGENCY POWER GENERATOR ATS.
- ⑤ TO WCOB DATA CENTER GENERATOR ATS.



HDMA#18001.05 08/30/19

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WAVERLY F AKINS OFFICE BUILDING
AND WAKE COUNTY COURTHOUSE
EMERGENCY POWER REPLACEMENT
336 FAYETTEVILLE STREET MALL
RALEIGH, NC 27602

REVISIONS
DATE: 11-08-19
DESCRIPTION:
POST BID ADDENDUM
SHEETS CHANGED:
E001-E006, E100,
E101, E200-E206

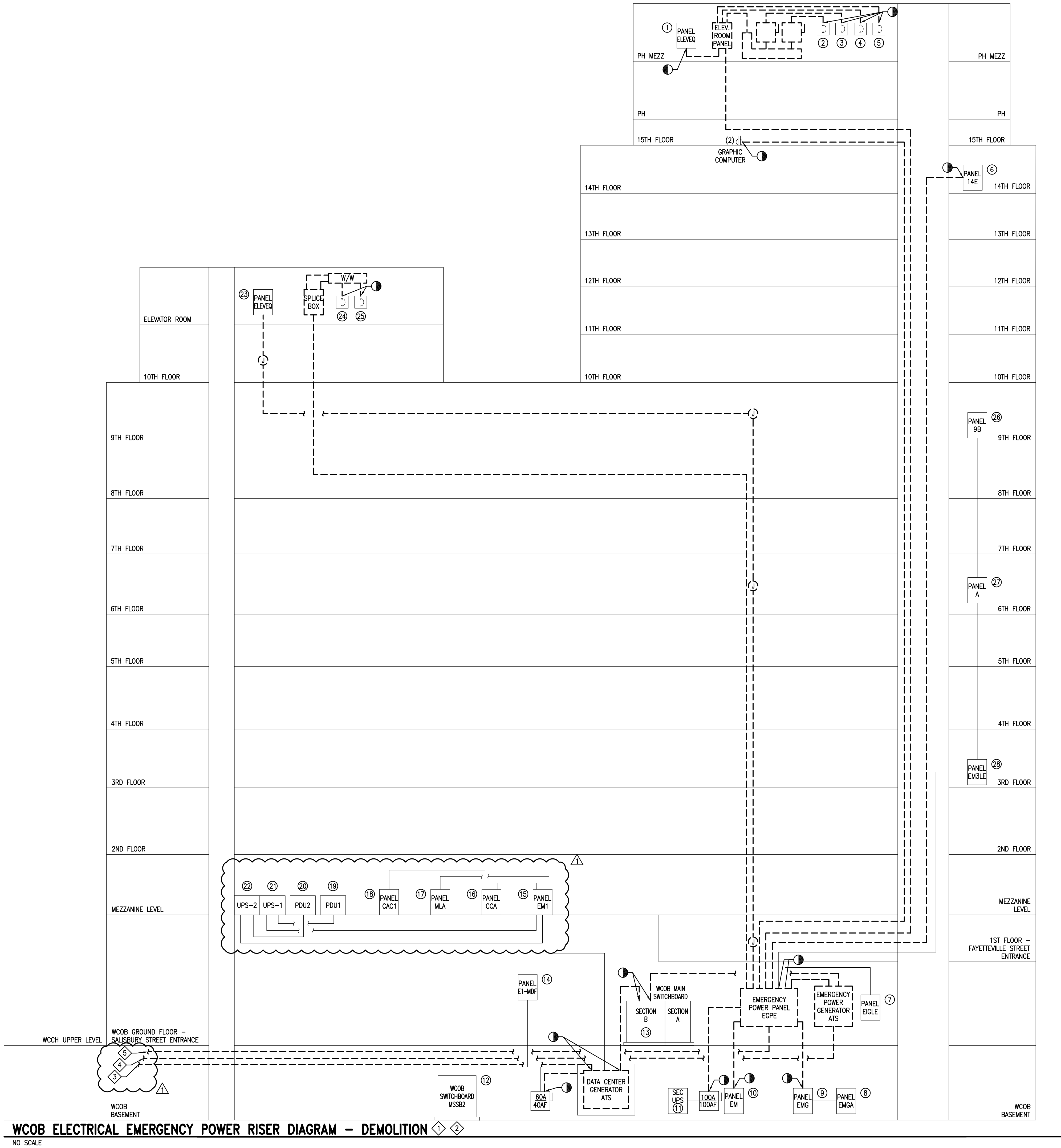
DATE: 08/30/19
JOB NUMBER: 18001.05
DRAWN: RCM
DESIGNED: RTT
CHECKED: RTT

E002

EXISTING EQUIPMENT SCHEDULE		
MARK	NAME	DESCRIPTION
①	PANEL ELEVEQ	60A MCB, 120/208V ELEV #1, 2, 3 & 4
②	ELEV #2	150A, EXISTING CIRCUIT BREAKER WITH SHUNT TRIP
③	ELEV #1	150A, EXISTING CIRCUIT BREAKER WITH SHUNT TRIP
④	ELEV #3	150A, EXISTING CIRCUIT BREAKER WITH SHUNT TRIP
⑤	ELEV #4	150A, EXISTING CIRCUIT BREAKER WITH SHUNT TRIP
⑥	PANEL 14E	60A MLO, 120/208V
⑦	PANEL EIGLE	60A MLO, 120/208V
⑧	PANEL EMGA	60A MLO, 120/208V
⑨	PANEL EMG	60A MLO, 120/208V
⑩	PANEL EM	100A MCB, 120/208V
⑪	SEC UPS	20KVA, 120/208V
⑫	WCOB SWITCHBOARD MSSB2	1,600A MCB, 277/480V, 3Φ, 4W
⑬	WCOB MAIN SWITCHBOARD SECTION A & SECTION B	4,000A 208Y/120V, 3Φ, 4W
⑭	PANEL E1-MDF	60A MCB, 120/208V
⑮	PANEL EM1	800A MCB 120/208V, 3Φ, 4W
⑯	PANEL CCA	600A MLO 120/208V, 3Φ, 4W
⑰	PANEL MLA	225A MLO 120/208V, 3Φ, 4W
⑱	PANEL CAC1	225A MLO 120/208V, 3Φ, 4W
⑲	PANEL PDU1	(2) 225A MCB, 120/208V
⑳	PANEL PDU2	(3) 225A MCB, 120/208V
㉑	UPS-1	75 KVA, 208V INPUT, 120/208V OUTPUT
㉒	UPS-2	75 KVA, 208V INPUT, 120/208V OUTPUT
㉓	PANEL ELEVEQ	100A MLO, 120/208V ELEV #5 & 6
㉔	ELEV #5	175A, EXISTING CIRCUIT BREAKER WITH SHUNT TRIP
㉕	ELEV #6	175A, EXISTING CIRCUIT BREAKER WITH SHUNT TRIP
㉖	PANEL 9B	60A MCB, 120/208V
㉗	PANEL A	60A MCB, 120/208V
㉘	PANEL EM3LE	60A MCB, 120/208V

GENERAL NOTES

- ① SEE FLOOR PLANS FOR DEMOLITION WORK. SEE PHASING PLAN FOR WORK SEQUENCE.
- ② ALL EQUIPMENT EXISTING TO REMAIN, UNLESS OTHERWISE INDICATED.
- ③ TO FIRE PUMP CONTROLLER AND JACKET HEATER.
- ④ TO WCOB EMERGENCY POWER GENERATOR.
- ⑤ TO WCOB DATA CENTER GENERATOR.



Professional Engineer
SEAL
18043
RICHARD T. THORNE, JR.
HDM#18001.05 08/30/19

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HDM ASSOCIATES, INC.
Professional Engineering Services

WAVERLY F AKINS OFFICE BUILDING
AND WAKE COUNTY COURTHOUSE
EMERGENCY POWER REPLACEMENT
336 FAYETTEVILLE STREET MALL
RALEIGH, NC 27602

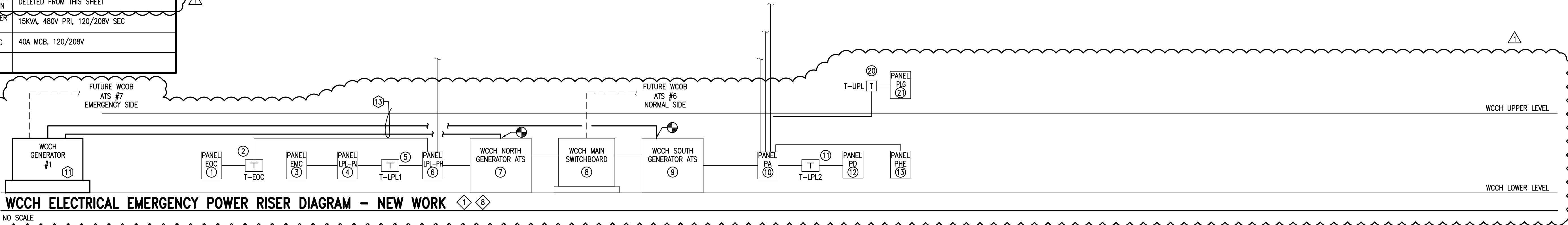
REVISIONS
DATE: 11-08-19
DESCRIPTION:
POST BID ADDENDUM
SHEETS CHANGED:
E001-E006, E100,
E101, E200-E206

DATE: 08/30/19
JOB NUMBER: 18001.05
DRAWN: DMG
DESIGNED: RTT
CHECKED: RTT

E003

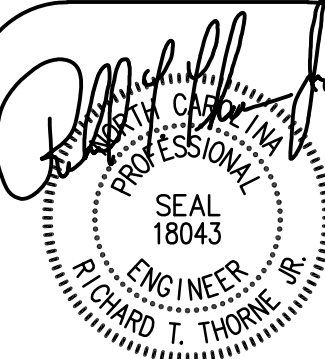
NEW EQUIPMENT SCHEDULE		
MARK	NAME	DESCRIPTION
①	WCOB GENERATOR #3	DELETED FROM THIS SHEET
②	WCOB GENERATOR #2	DELETED FROM THIS SHEET
③	WCOB ATS-1	DELETED FROM THIS SHEET
④	WCOB ATS-2	DELETED FROM THIS SHEET
⑤	PANEL OBEH	DELETED FROM THIS SHEET
⑥	TRANSFORMER T-2	DELETED FROM THIS SHEET
⑦	PANEL OBEL	DELETED FROM THIS SHEET
⑧	WCOB ATS-3	DELETED FROM THIS SHEET
⑨	TRANSFORMER T-3	DELETED FROM THIS SHEET
⑩	DISCONNECT SWITCH DS-3	DELETED FROM THIS SHEET
⑪	WCCH GENERATOR #1	400 kW, 277/480V (3-400A BREAKER)
⑫	FEEDER	DELETED FROM THIS SHEET
⑬	FEEDER	4-600 KCMIL, 1#3G, 4°C
⑭	FEEDER	DELETED FROM THIS SHEET
⑮	FEEDER	DELETED FROM THIS SHEET
⑯	FEEDER	DELETED FROM THIS SHEET
⑰	FEEDER	DELETED FROM THIS SHEET
⑱	FEEDER	DELETED FROM THIS SHEET
⑲	FEEDER	DELETED FROM THIS SHEET
⑳	FEEDER	DELETED FROM THIS SHEET
㉑	FEEDER	DELETED FROM THIS SHEET
㉒	FEEDER	DELETED FROM THIS SHEET

EXISTING EQUIPMENT SCHEDULE		
MARK	NAME	DESCRIPTION
①	PANEL EOC	255A MLO, 120/208V
②	TRANSFORMER T-EOC	75KVA, 480V PRI, 120/208V SEC
③	PANEL EMC	125A MLO, 120/208V
④	PANEL LPL-PJ	100A MCB, 120/208V
⑤	TRANSFORMER T-LPL1	30KVA, 480V PRI, 120/208V SEC
⑥	PANEL LPL-PH	600A MCB, 277/480V
⑦	WCCH NORTH GENERATOR ATS	600A, 277/480V
⑧	WCCH MAIN SWITCHBOARD	4,000A 277/480V
⑨	WCCH SOUTH GENERATOR ATS	400A, 277/480V
⑩	PANEL PA	400A MLO, 277/480V
⑪	TRANSFORMER T-LPL2	15KVA, 480V PRI, 120/208V SEC
⑫	PANEL PD	60A MCB, 120/208V
⑬	PANEL PHE	100A MLO, 277/480V
⑭	PANEL 6-PE	600A MLO, 277/480V
⑮	PANEL 6-PD	225A MLO, 277/480V
⑯	PANEL 6-PC	225A MLO, 277/480V
⑰	PANEL PHPC	300A MCB, 277/480V
⑱	PANEL PHPA	225A MLO, 277/480V
⑲	JUNCTION BOX CONNECTION	DELETED FROM THIS SHEET
㉑	TRANSFORMER T-UPL	15KVA, 480V PRI, 120/208V SEC
㉒	PANEL PLG	40A MCB, 120/208V



GENERAL NOTES

- SEE FLOOR PLANS FOR NEW WORK. SEE PHASING PLAN FOR WORK SEQUENCE.
- DELETED.
- DELETED.
- DELETED.
- DELETED.
- DELETED.
- DELETED.
- ALL EQUIPMENT EXISTING TO REMAIN, UNLESS OTHERWISE INDICATED.
- DELETED.
- DELETED.
- DELETED.
- DELETED.
- DELETED.



HDMA#18001.05 08/30/19

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EMERGENCY POWER REPLACEMENT
336 FAYETTEVILLE STREET MALL
RALEIGH, NC 27602

REVISIONS
DATE: 11-08-19
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POST BID ADDENDUM
SHEETS CHANGED:
E001-E006, E100,
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DESIGNED: RTT
CHECKED: RTT

E004

EXISTING PANELBOARD LPL-PJ SCHEDULE															
100A MCB, 120/208 V, 3 PHASE,, 4 WIRE 10 KAIC MINIMUM SURFACE MOUNT															
LOAD SERVED	LOAD(AMPS)			BKR TRIP	CKT NO	PHASE			CKT NO	BKR TRIP	LOAD(AMPS)			LOAD SERVED	
	A	B	C			A	B	C			A	B	C		
UNKNOWN	++			60	1				2	30	2.5		FAYETTEVILLE MALL SECURITY		
		++		2P	3				4	30		12.5	FAYETTEVILLE MALL X-RAY		
SPACE			++		5				6	20			FAYETTEVILLE MALL X-RAY		
SPACE					7				8	20	0.8		CAMERA LOWER LEVEL		
SPACE					9				10	20		0.8	CAMERA PARKING LEVEL		
SHERIFF OFFICE 12TH FLOOR			++	100	11				12	20			SPACE		
	++			2P	13				14	20	5.0		WCCH GENERATOR BATT CHARGER		
SPACE					15				16	20		5.0	WCCH GENERATOR SCADA SYSTEM		
UNKNOWN			++	20	17				18	20			EXIT SIDE GATE		
DAYTANK GENERAC	0.8			20	19				20	20	1.7		ENTRANCE SIDE GATE		
CONTROL WCOB FAN		1.7		20	21				22	20		1.7	ENTRANCE DOOR CONTROL		
DAYTANK NORTH GENERATOR			0.8	20	23				24	15			4.8	WCCH GENERATOR ALTERNATOR	
SPARE				20	25				26	2P	4.8			HEATER	
SPARE				100	27				28	20		14.4		WCCH GENERATOR JACKET	
				2P	29				30	2P			14.4	HEATER	
REC & LIGHTS GENERATOR RM	2.5			20	31				32	70	66.7			PANEL EMC	
REC & LIGHTS GENERATOR RM		2.5		20	33				34	3P		61.7			
REC & LIGHTS GENERATOR RM			2.5	20	35				36				50.0		
MAIN BREAKER				100	37				38					SPACE	
				3P	39				40					SPACE	
					41				42					SPACE	
TOTAL	3.3	4.2	3.3							81.5	96.1	80.9	TOTAL		
				TOTAL	CONNECTED	AMPS	A: 85	B: 100	C: 84						

PANELBOARD MDP SCHEDULE														
1200A MLO, 277/480 V, 3 PHASE, 4 WIRE 65 KVA MINIMUM SURFACE MOUNT														
LOAD SERVED	LOAD(AMPS)			BKR TRIP	CKT NO	PHASE			CKT NO	BKR TRIP	LOAD(AMPS)			LOAD SERVED
	A	B	C			A	B	C			A	B	C	
WCOB ATS-1 4-600KCMIL, 1#3G, 4°C	386.0			400 3P	1				2	400 3P	337.0			WCOB ATS-3 4-600KCMIL, 1#3G, 4°C
		392.0			3				4		339.0			
			381.0		5				6			331.0		
SPACE					7				8				SPACE	
SPACE					9				10				SPACE	
SPACE					11				12				SPACE	
SPACE					13				14				SPACE	
SPACE					15				16				SPACE	
SPACE					17				18				SPACE	
SPACE					19				20				SPACE	
SPACE					21				22				SPACE	
SPACE					23				24				SPACE	
SPACE					25				26				SPACE	
SPACE					27				28				SPACE	
SPACE					29				30				SPACE	
SPACE					31				32				SPACE	
SPACE					33				34				SPACE	
SPACE					35				36				SPACE	
CHILLER	272			700 3P	37				38				SPACE	
3-500 KCMIL, 1#1/0G, 4°C		272			39				40				SPACE	
			272		41				42				SPACE	
TOTAL	658.0	664.0	653.0							337.0	339.0	331.0	TOTAL	
TOTAL				CONNECTED	AMPS			A:995	B:1,003		C:984			

PANELBOARD PHHE SCHEDULE													
400A MLO 2, 277/480 V, 3 PHASE, 4 WIRE			35 KAIC MINIMUM SURFACE MOUNT										
LOAD SERVED	LOAD(AMPS)			BKR TRIP	PHASE			BKR TRIP	LOAD(AMPS)			LOAD SERVED	
	A	B	C		A	B	C		A	B	C		
TRANSFORMER T-PHA	30.3			70 3P	1			2	225 3P	159.6			TRANSFORMER T-PHB
		26.0		3			4			159.6			
			17.3	5			6				159.6		
SPACE				7			8					SPACE	
SPACE				9			10					SPACE	
SPACE				11			12					SPACE	
SPACE				13			14					SPACE	
SPACE				15			16					SPACE	
SPACE				17			18					SPACE	
SPACE				19			20					SPACE	
SPACE				21			22					SPACE	
SPACE				23			24					SPACE	
SPACE				25			26					SPACE	
SPACE				27			28					SPACE	
SPACE				29			30					SPACE	
TOTAL	30.3	26.0	17.3							159.6	159.6	159.6	TOTAL
TOTAL				CONNECTED	AMPS	A: 190	B: 186	C: 177					

PANELBOARD PHEL SCHEDULE														
600A MCB , 120/208 V, 3 PHASE, 4 WIRE 22 KAIC MINIMUM SURFACE MOUNT														
LOAD SERVED	LOAD(AMPS)			BKR TRIP	CKT NO	PHASE			CKT NO	BKR TRIP	LOAD(AMPS)			LOAD SERVED
	A	B	C			A	B	C			A	B	C	
ELEV #1	92.0			150	1				2	150	92.0			ELEV #3
		92.0		3P	3				4	3P		92.0		
			92.0		5				6				92.0	
ELEV #2	92.0			150	7				8	150	92.0			ELEV #4
		92.0		3P	9				10	3P		92.0		
			92.0		11				12				92.0	
SPACE					13				14					SPACE
SPACE					15				16					SPACE
SPACE					17				18					SPACE
SPACE					19				20					SPACE
SPACE					21				22					SPACE
SPACE					23				24					SPACE
SPACE					25				26					SPACE
SPACE					27				28					SPACE
SPACE					29				30					SPACE
TOTAL	184.0	184.0	184.0								184.0	184.0	184.0	TOTAL
TOTAL					CONNECTED	AMPS	A: 368	B: 368	C: 368					

PANELBOARD PHLE SCHEDULE																	
150A MCB , 120/208 V, 3 PHASE,			4 WIRE			22 KAC MINIMUM SURFACE MOUNT											
LOAD SERVED	LOAD(AMPS)			BKR TRIP	CKT NO	PHASE			CKT NO	BKR TRIP	LOAD(AMPS)			LOAD SERVED			
	A	B	C			A	B	C			A	B	C				
GRAPHIC COMPUTER 15TH FLOOR	10.0			20	1				2	20				SPARE			
SPARE				20	3				4	20				SPARE			
GRAPHIC COMPUTER 15TH FLOOR			10.0	20	5				6	20				SPARE			
PANEL ELEVEQ	30.0			60	7				8	60	30.0			PANEL 14E			
		30.0		2P	9				10	3P		30.0					
SPACE					11				12				30.0				
SPACE					13				14					SPACE			
SPACE					15				16					SPACE			
SPACE					17				18					SPACE			
SPACE					19				20					SPACE			
SPACE					21				22					SPACE			
SPACE					23				24					SPACE			
SPACE					25				26					SPACE			
SPACE					27				28					SPACE			
SPACE					29				30					SPACE			
TOTAL	40.0	30.0	10.0								30.0	30.0	30.0	TOTAL			
TOTAL			CONNECTED			AMPS			A:70			B:60			C:40		

PANELBOARD OBEH SCHEDULE														
400A MCB , 277/480 V, 3 PHASE, 4 WIRE 65 KAIC MINIMUM SURFACE MOUNT														
LOAD SERVED	LOAD(AMPS)			BKR TRIP	CKT NO	PHASE			CKT NO	BKR TRIP	LOAD(AMPS)			LOAD SERVED
	A	B	C			A	B	C			A	B	C	
PANEL ERHE	101.0			225	1				2	176	95.0			TRANSFORMER T-2
		101.0		3P	3				4	3P		105.0		
			108.0		5				5			96.0		
PANEL PHHE	190.0			350	7				8					SPACE
		186.0		3P	9				10					
			177.0		11				12					
SPACE					13				14					SPACE
SPACE					15				16					SPACE
SPACE					17				18					SPACE
SPACE					19				20					SPACE
SPACE					21				22					SPACE
SPACE					23				24					SPACE
SPACE					25				26					SPACE
SPACE					27				28					SPACE
SPACE					29				30					SPACE
TOTAL	291.0	287.0	285.0								95.0	105.0	96.0	TOTAL
TOTAL CONNECTED AMPS A: 386 B: 392 C: 381														

PANELBOARD OBEL SCHEDULE														
400A MCB			120/208 V, 3 PHASE,			4 WIRE			KAIC MINIMUM			MOUNT		
LOAD SERVED	LOAD(AMPS)			BKR TRIP	CKT NO	PHASE			BKR TRIP	CKT NO	LOAD(AMPS)			LOAD SERVED
	A	B	C			A	B	C			A	B	C	
PANEL E1-MDF	18.0			60	1				2	20	5.0			FIRE PUMP CONTROL PANEL
		18.0		3P	3				4	20		8.3		FIRE PUMP JACKET HEATER
			18.0		5				6	20				SPARE
PANEL EMG	28.0			60	7				8	60	20.0			PANEL EIGLE
		44.0		3P	9				10	3P		20.0		
			40.0		11				12				20.0	
SEC UPS	55.5			100	13				14	100	82.0			PANEL EM
		55.5		3P	15				16	3P		86.0		
			55.5		17				18				72.0	
SPACE					19				20	60	10.0			PANEL EM3LE
SPACE					21				22	3P		10.0		
SPACE					23				24				10.0	
SPACE					25				26					SPACE
SPACE					27				28					SPACE
SPACE					29				30					SPACE
SPACE					31				32					SPACE
SPACE					33				34					SPACE
SPACE					35				36					SPACE
SPACE					37				38					SPACE
SPACE					39				40					SPACE
SPACE					41				42					SPACE
TOTAL	101.5	117.5	113.5								117.0	124.3	102.0	TOTAL
TOTAL CONNECTED AMPS A:219 B:242 C:216														

PANELBOARD ERHE SCHEDULE														
225A MLO , 277/480 V, 3 PHASE, 4 WIRE 35 KAIC MINIMUM SURFACE MOUNT														
LOAD SERVED	LOAD(AMPS)			BKR TRIP	CKT NO	PHASE A B C			CKT NO	BKR TRIP	LOAD(AMPS)			LOAD SERVED
	A	B	C			A	B	C						
TRANSFORMER T-ERA	15.6			45	1				2	175	85.0			TRANSFORMER T-ERB
		15.6		3P	3				4	3P		85.0		
			23.4		5				6				85.0	
SPACE					7				8					SPACE
SPACE					9				10					SPACE
SPACE					11				12					SPACE
SPACE					13				14					SPACE
SPACE					15				16					SPACE
SPACE					17				18					SPACE
SPACE					19				20					SPACE
SPACE					21				22					SPACE
SPACE					23				24					SPACE
SPACE					25				26					SPACE
SPACE					27				28					SPACE
SPACE					29				30					SPACE
TOTAL	15.6	15.6	23.4								85.0	85.0	85.0	TOTAL
TOTAL					CONNECTED		AMPS		A: 101		B: 101		C: 108	


EXISTING PANELBOARD PLG SCHEDULE																
40A MCB			120/208 V, 3 PHASE, 4 WIRE			14 KVA MINIMUM SURFACE MOUNT										
LOAD SERVED		LOAD(AMPS)			BKR TRIP	CKT NO	PHASE			CKT NO	BKR TRIP	LOAD(AMPS)			LOAD SERVED	
		A	B	C			A	B	C			A	B	C		
REC GENERATOR ROOM	3.0				20	1	A	B	C	2	20				SPARE	
REC GENERATOR ROOM		3.0			20	3				4	20		5.0		BATTERY CHARGER (WOOB EMERGENCY POWER GEN)	
DAY TANK PUMP (WOOB UPS-1 GEN RM)			5.0		20	5				6	20			5.0	BATTERY CHARGER (WOOB UPS-1 GEN RM)	
DAY TANK PUMP (WOOB EMERGENCY POWER GEN)	5.0				20	7				8	20	14.4			JACKET HEATER (WOOB UPS-1 GEN RM)	
REC GENERATOR ROOM		3.0			20	9				10	2P		14.4		#12, #12G, 3/4"	
BATTERY CHARGER (WOOB EMERGENCY POWER GEN)			5.0		20	11				12	20			14.4	JACKET HEATER (WOOB EMERGENCY POWER GEN)	
SPACE						13				14	2P	14.4			#12, #12G, 3/4"	
ALTERNATOR HEATER (WOOB UPS-1 GEN RM)		4.8			15	15				16	15		4.8		ALTERNATOR HEATER (WOOB EMERGENCY POWER GEN)	
#2#12, #12G, 3/4"					2P	17				18	2P			4.8	#2#12, #12G, 3/4"	
TOTAL	8.0	10.8	14.8									28.8	24.2	24.2	TOTAL	
		TOTAL		CONNECTED	AMPS	A: 37			B: 35			C: 39				

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EMERGENCY POWER REPLACEMENT
336 FAYETTEVILLE STREET MALL
RALEIGH, NC 27602

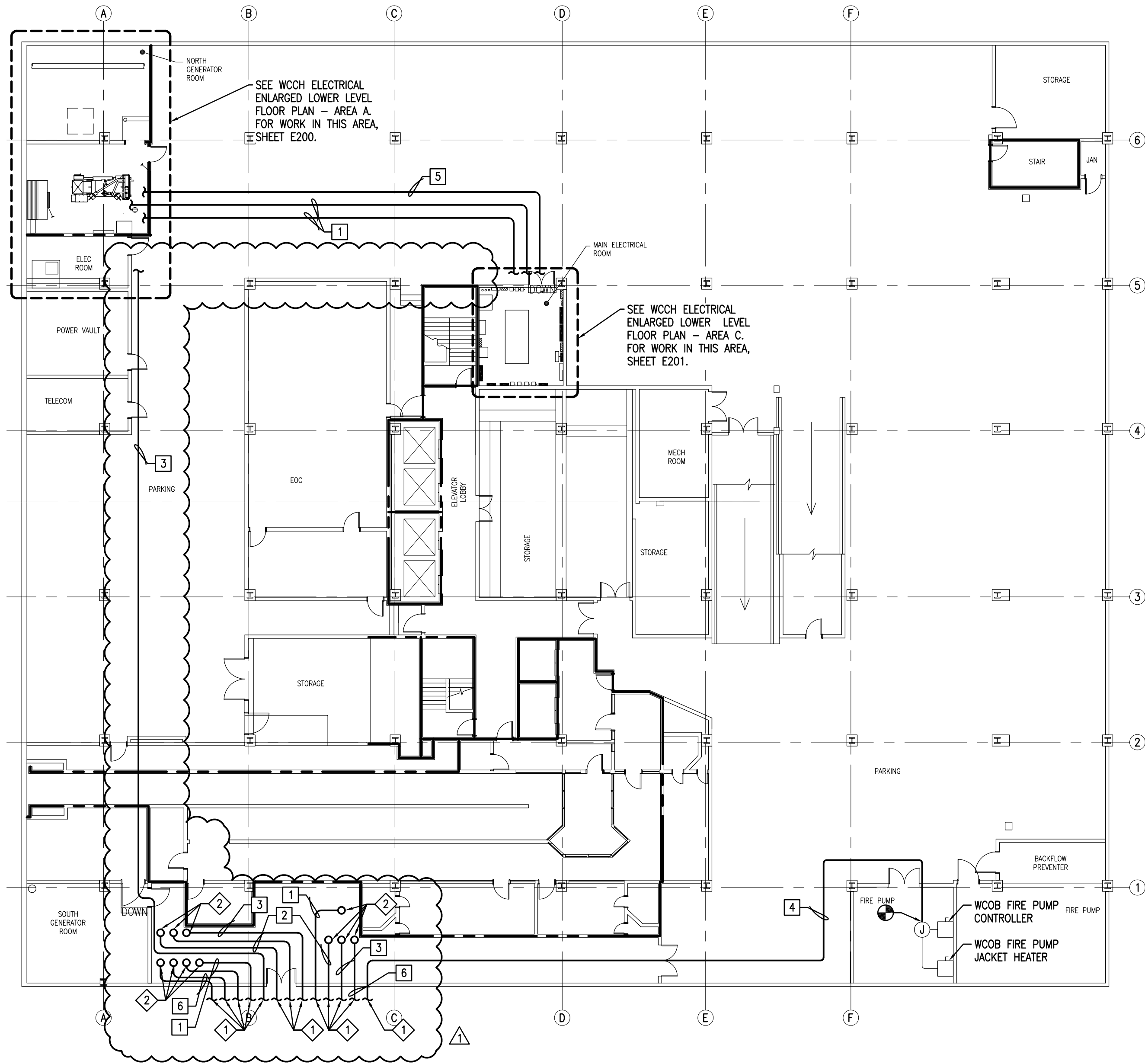
RALEIGH, NC 27602

DATE: 11-08-19  DESCRIPTION: POST BID ADDENDUM,
SHEETS CHANGED:
E001-E006, E100,
E101, E200-E206

DATE: 08/30/19
JOB NUMBER: 18001.05
DRAWN: RCM
DESIGNED: RTT
CHECKED: RTT

E006

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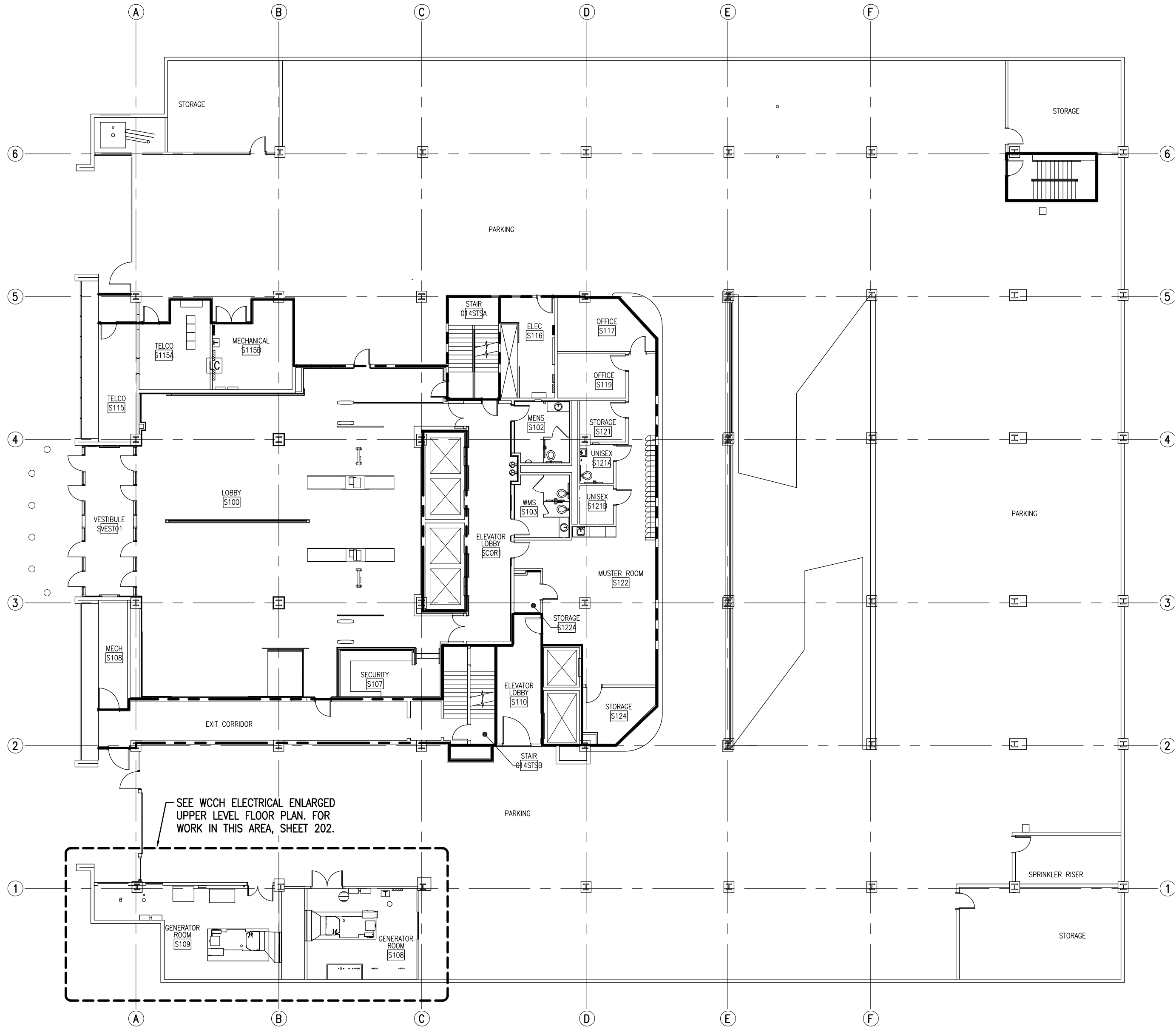
WCCH ELECTRICAL LOWER LEVEL FLOOR PLAN - OVERALL
SCALE: 1/16" = 1'-0"

WORK NOTES

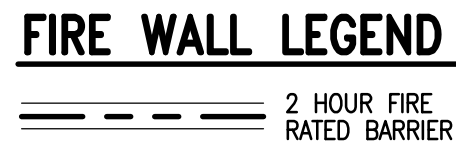
- 1 PROVIDE 4-600 KCMIL, 1#3G, 4" CONDUIT.
- 2 PROVIDE 3#12, 3/4" CONDUIT FOR ENGINE START.
- 3 PROVIDE 4#12, 1-16 AWG IT OVERALL SHIELDED INSTRUMENTATION TRAY CABLE (BELDEN 9386), 3/4" CONDUIT.
- 4 PROVIDE 4#10, 2#10G, 3/4" CONDUIT TO PANEL OBEL.
- 5 PROVIDE (2) 3#12, 3/4" CONDUIT FOR ENGINE START.
- 6 PROVIDE 3/4" CONDUIT WITH DATA WIRING TO WCOB ATS AND GENERATOR DEMARC PANEL.

GENERAL NOTES

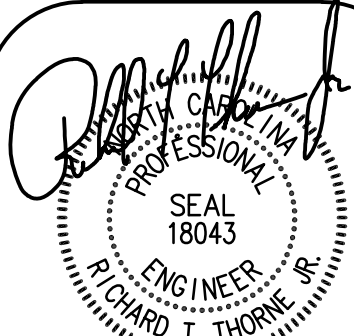
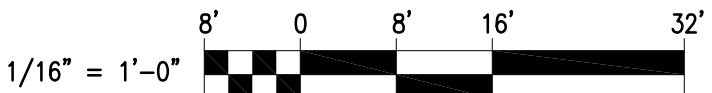
- 1 SEE WCOB ELECTRICAL BASEMENT FLOOR PLAN - OVERALL FOR CONTINUATION, SHEET E101.
- 2 SEE WCCH ELECTRICAL ENLARGED UPPER LEVEL FLOOR PLAN - NEW WORK FOR CONTINUATION, SHEET E202.



WCCH ELECTRICAL UPPER LEVEL FLOOR PLAN - OVERALL
SCALE: 1/16" = 1'-0"



GRAPHIC SCALE



HDMA#18001.05 08/30/19

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**WAVERLY F AKINS OFFICE BUILDING
AND WAKE COUNTY COURTHOUSE
EMERGENCY POWER REPLACEMENT**
336 FAYETTEVILLE STREET MALL
RALEIGH, NC 27602

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DRAWN: RCM
DESIGNED: RTT
CHECKED: RTT

E100



- E101

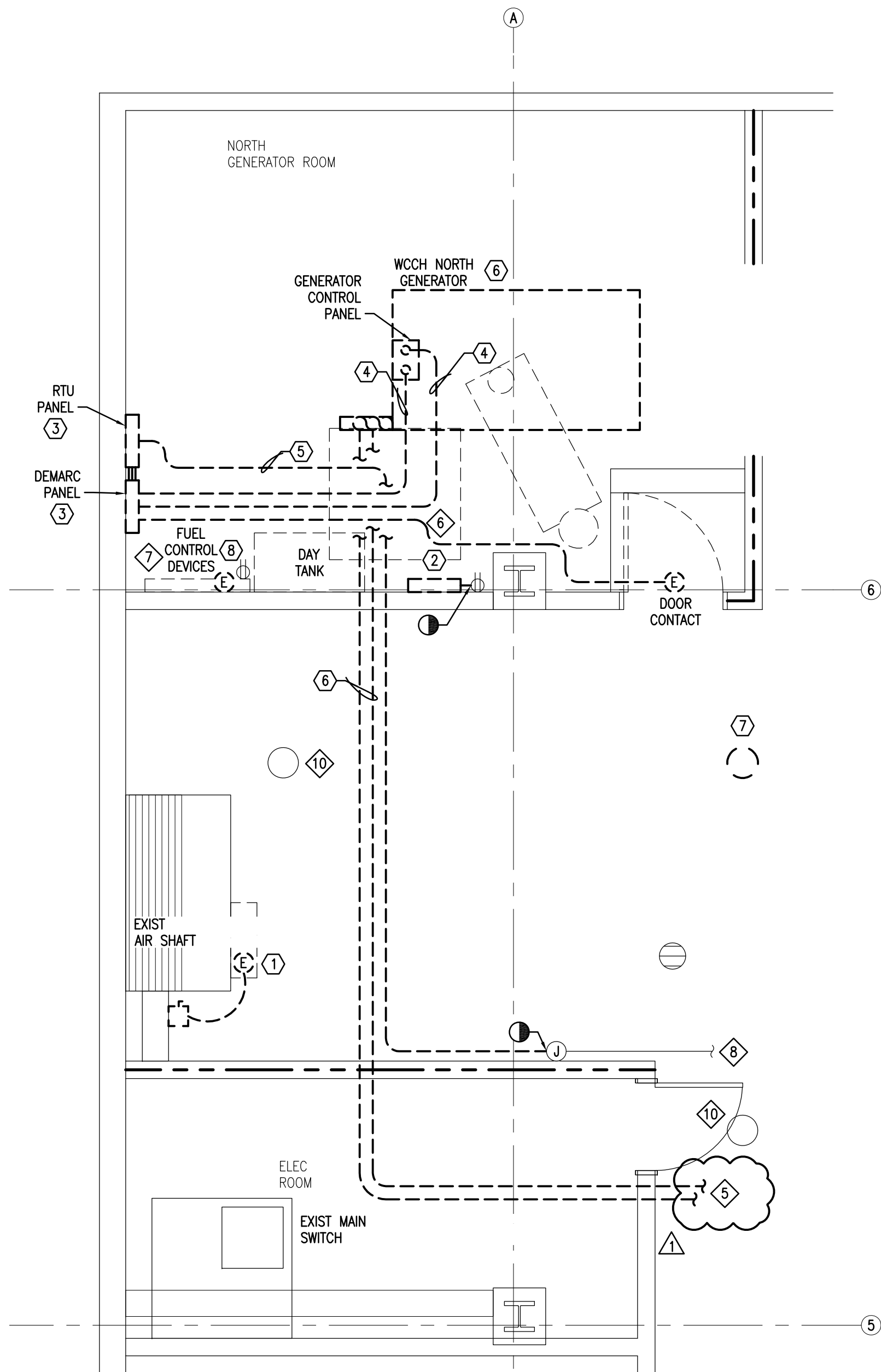
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EXISTING FUEL CONTROL DEVICES PHOTO – NORTH GENERATOR ROOM
NO SCALE



EXISTING NORTH GENERATOR ROOM PHOTO
NO SCALE



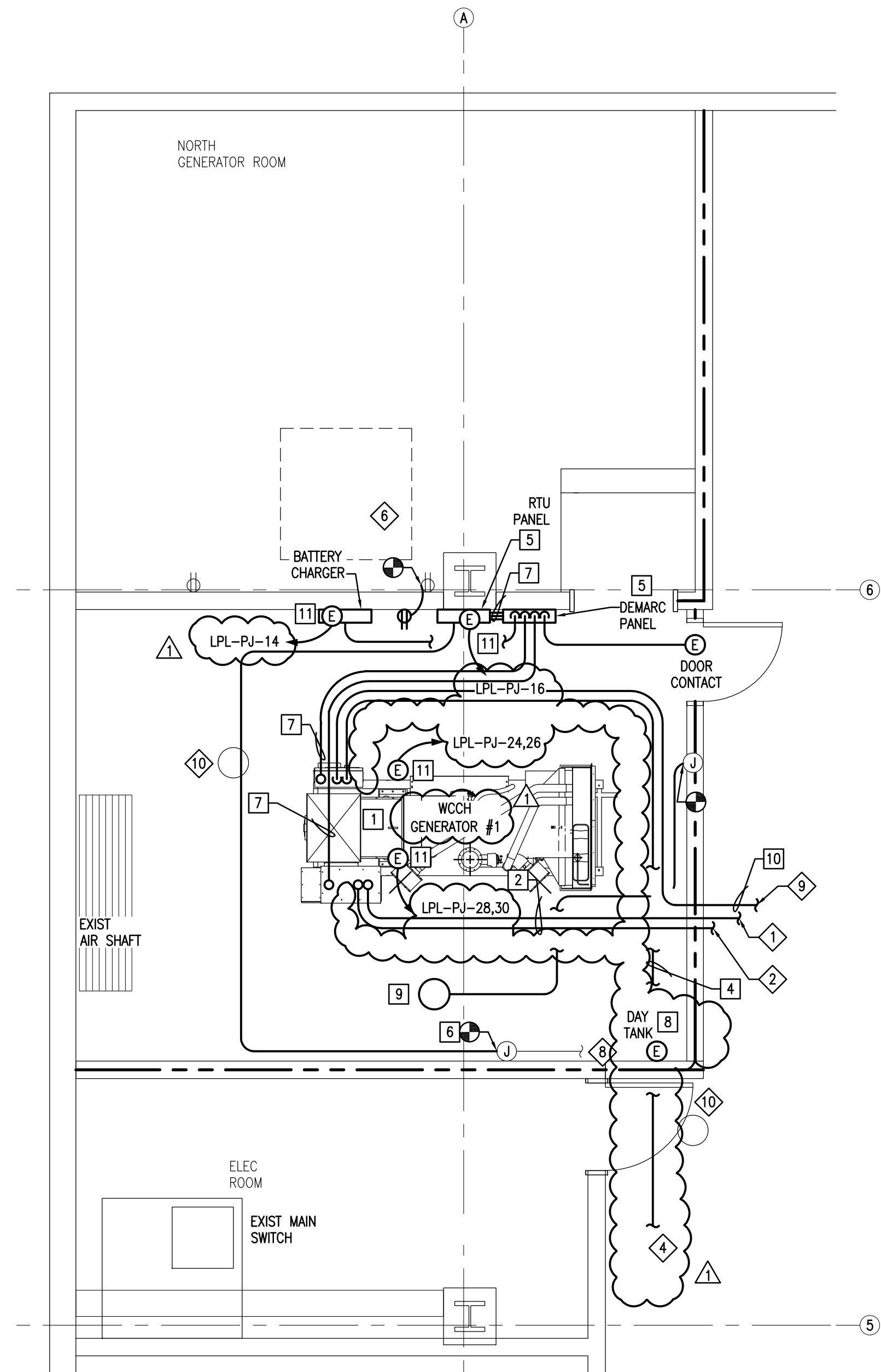
WCCH ELECTRICAL ENLARGED LOWER LEVEL
FLOOR PLAN – AREA A – DEMOLITION
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES

- 1 REMOVE EXHAUST FAN ELECTRICAL CONNECTION WITH ASSOCIATED DISCONNECT, CONDUIT AND WIRING BACK TO SOURCE.
- 2 REMOVE BATTERY CHARGER WITH ASSOCIATED CONDUIT AND WIRING TO SOURCE.
- 3 REMOVE DEMARC AND RTU PANELS WITH ASSOCIATED CONDUIT AND WIRING AS INDICATED. SAVE PANELS FOR REUSE IN NEW WORK. SEE WCCH ELECTRICAL ENLARGED LOWER LEVEL FLOOR PLAN – AREA A – NEW WORK FOR NEW LOCATION.
- 4 REMOVE CONDUIT AND WIRING BETWEEN DEMARC PANEL AND GENERATOR CONTROL PANEL.
- 5 PULL DATA WIRING BACK TO JUNCTION BOX INDICATED. MAINTAIN DATA WIRING AND JUNCTION BOX FOR CONNECTION IN NEW WORK. REMOVE DATA CONDUIT TO POINT INDICATED.
- 6 REMOVE WCCH NORTH GENERATOR COMPLETE WITH ASSOCIATED CONDUIT AND WIRING BACK TO WCCH NORTH GENERATOR ATS IN MAIN ELECTRICAL ROOM. SEE WCCH ELECTRICAL EMERGENCY POWER RISER DIAGRAM – DEMOLITION AND PHASING PLAN FOR WORK SEQUENCE.
- 7 REMOVE LIGHT FIXTURE AND SAVE FOR REUSE IN NEW WORK. MAINTAIN JUNCTION BOX AND CIRCUIT FOR CONNECTION IN NEW WORK. SEE NEW WORK PLAN FOR NEW LOCATION.
- 8 REMOVE ELECTRICAL CONNECTION TO FUEL CONTROL DEVICES. MAINTAIN CIRCUIT FOR REUSE IN NEW WORK.

GENERAL NOTES

- 1 TO WCCH SOUTH GENERATOR ATS IN MAIN ELECTRICAL ROOM. SEE WCCH ELECTRICAL LOWER LEVEL FLOOR PLAN – OVERALL FOR CONTINUATION, SHEET E100.
- 2 TO WCCH NORTH GENERATOR ATS IN MAIN ELECTRICAL ROOM. SEE WCCH ELECTRICAL LOWER LEVEL FLOOR PLAN – OVERALL FOR CONTINUATION, SHEET E100.
- 3 DELETED.
- 4 TO WCCH REMOTE ANNUNCIATOR IN FIRE COMMAND CENTER IN WCOB BASEMENT. SEE WCCH ELECTRICAL LOWER LEVEL FLOOR PLAN – OVERALL FOR CONTINUATION, SHEET E100.
- 5 TO WCCH NORTH GENERATOR ATS IN MAIN ELECTRICAL ROOM. SEE WCCH ELECTRICAL ENLARGED LOWER LEVEL FLOOR PLAN – AREA C – DEMOLITION FOR CONTINUATION, SHEET E201.
- 6 OPENING THROUGH CEILING TO LOUVER ON UPPER LEVEL FLOOR PLAN.
- 7 EXISTING FUEL CONTROL DEVICES: CONTROL PANEL, DISCONNECT SWITCH AND JUNCTION BOX. SEE EXISTING FUEL CONTROL DEVICES PHOTO – NORTH GENERATOR ROOM.
- 8 TO TELCO ROOM.
- 9 TO WCCH NORTH AND SOUTH GENERATOR ATS IN MAIN ELECTRICAL ROOM. SEE WCCH ELECTRICAL LOWER LEVEL FLOOR PLAN – OVERALL FOR CONTINUATION, SHEET E100.
- 10 LIGHT FIXTURE TO REMAIN.

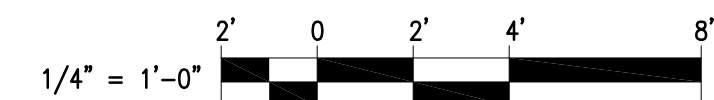


WCCH ELECTRICAL ENLARGED LOWER LEVEL
FLOOR PLAN – AREA A – NEW WORK
SCALE: 1/4" = 1'-0"

NEW WORK NOTES

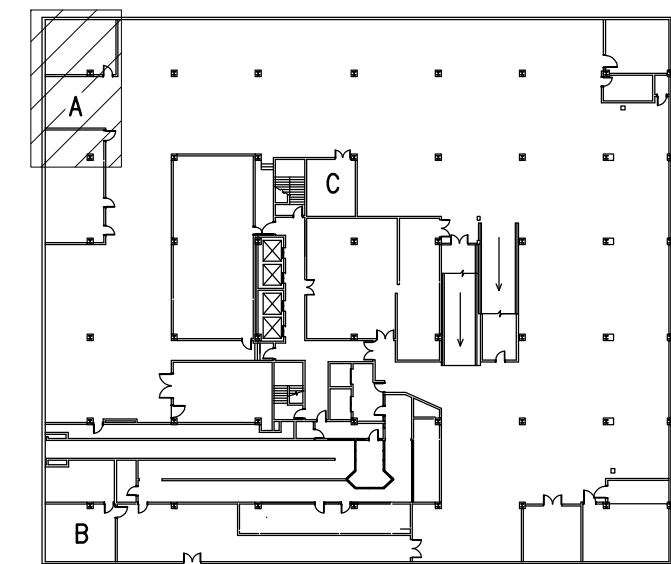
- 1 PROVIDE WCCH GENERATOR #1 AS INDICATED AND SPECIFIED. SEE WCCH ELECTRICAL EMERGENCY POWER RISER DIAGRAM – NEW WORK AND PHASING PLAN FOR WORK SEQUENCE.
- 2 PROVIDE 4-600 KCMIL, 1#3G, 4" CONDUIT.
- 3 DELETED FROM THIS SHEET.
- 4 PROVIDE 4#12, 1-16 AWG IT OVERALL SHIELDED INSTRUMENTATION TRAY CABLE (BELDEN 9366), 3/4" CONDUIT.
- 5 NEW LOCATION OF SAVED DEMARC AND RTU PANELS. PROVIDE VT AND CT IN GENERAL CONTROL PANEL AND OUTPUT BREAKERS AS REQUIRED FOR SCADA SYSTEM. CONNECT TO NEW GENERATOR. COORDINATE EXACT REQUIREMENTS IN FIELD. SEE THREE PHASE POWER MONITORING FOR SCADA INPUTS AND GENERATOR DIGITAL INPUTS.
- 6 PROVIDE CONDUIT FOR ROUTING EXISTING DATA WIRING TO RTU PANEL. REPULL WIRE TO RTU PANEL.
- 7 PROVIDE CONDUIT AND WIRING FOR SCADA SYSTEM. SEE TYPICAL SCADA SITE LAYOUT.
- 8 PROVIDE ELECTRICAL CONNECTION TO DAY TANK. EXTEND EXISTING FUEL CONTROL DEVICES CIRCUIT AND CONNECT.
- 9 NEW LOCATION FOR SAVED LIGHT FIXTURE. PROVIDE 2#12, 1#12G, 3/4C TO JUNCTION BOX AND CONNECT.
- 10 PROVIDE (2) 3#12, 3/4" CONDUIT TO EACH NORTH AND SOUTH ATS IN MAIN ELECTRICAL ROOM FOR ENGINE START.
- 11 PROVIDE ELECTRICAL CONNECTION WITH DEVICE BOX, CONDUIT AND WIRING AS SHOWN. CONNECT TO CIRCUIT INDICATED.

GRAPHIC SCALE

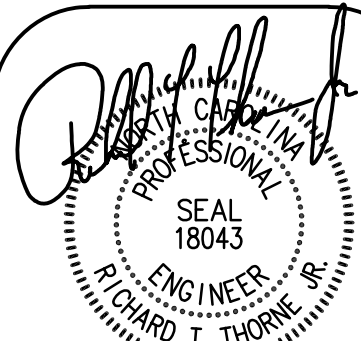


FIRE WALL LEGEND

2 HOUR FIRE RATED BARRIER



KEY PLAN – LOWER LEVEL
NO SCALE



HDMA#18001.05 08/30/19

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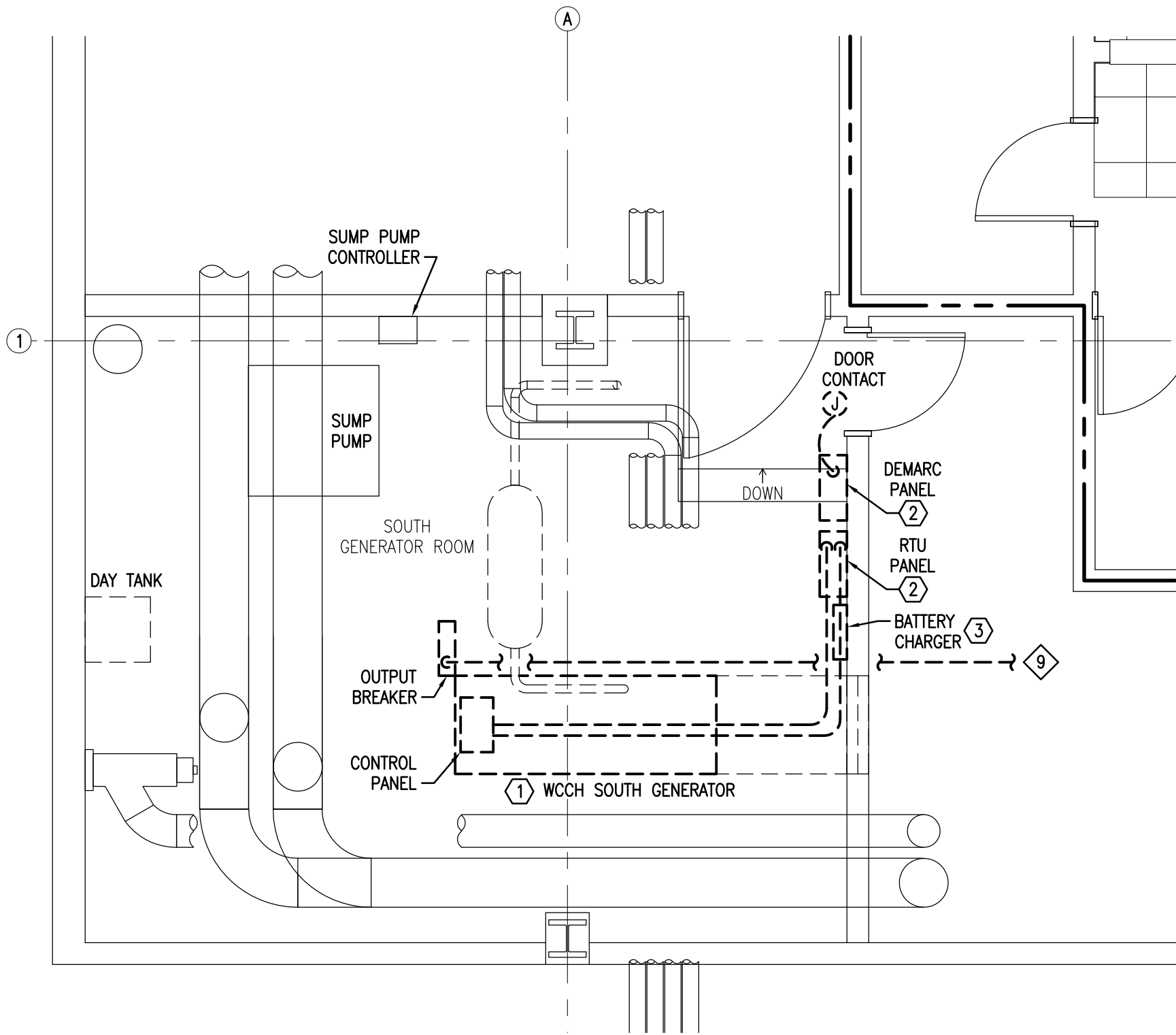
WAVERLY F AKINS OFFICE BUILDING
AND WAKE COUNTY COURTHOUSE
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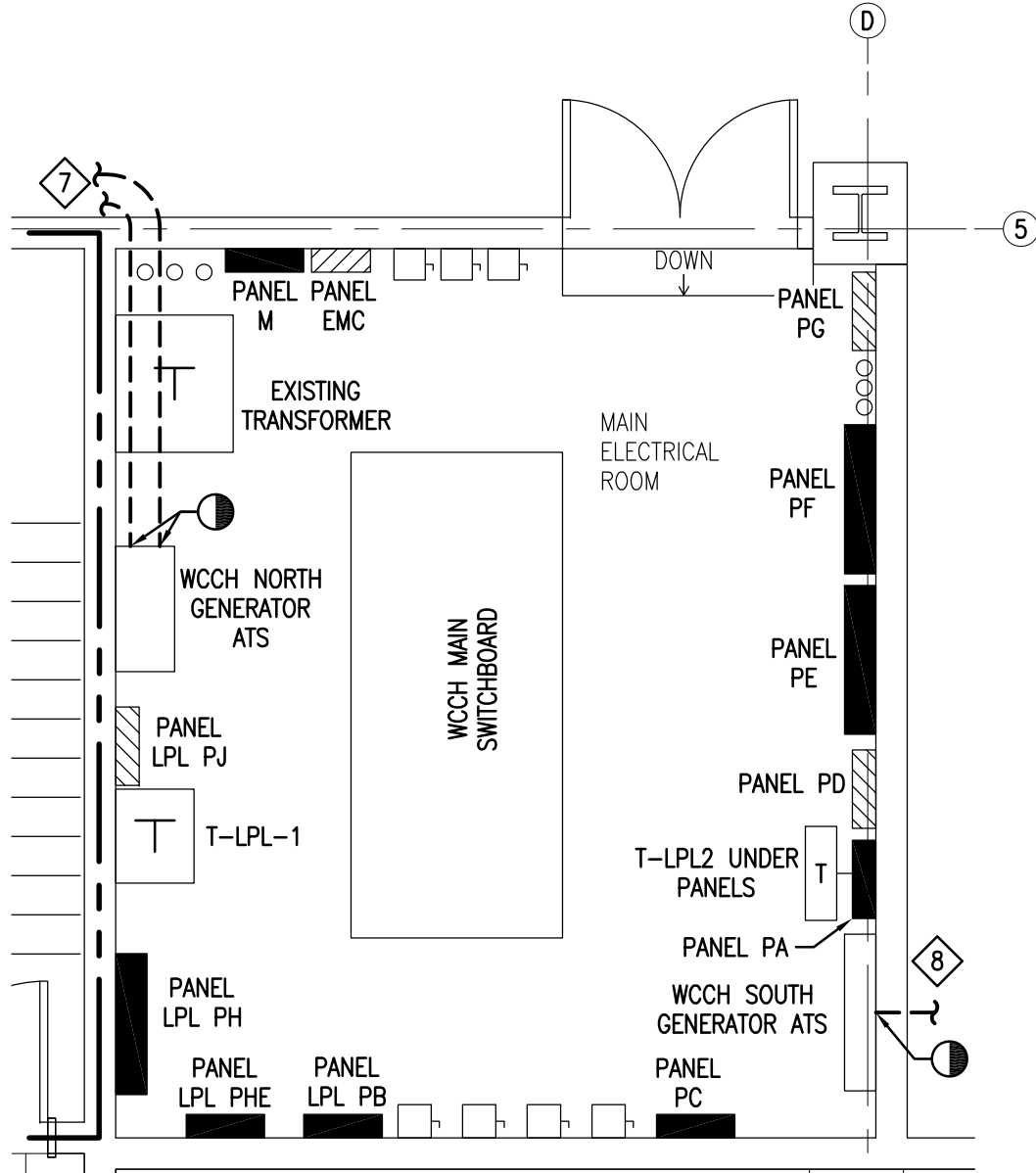
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JOB NUMBER: 18001.05
DRAWN: DMG
DESIGNED: RTT
CHECKED: RTT

E200

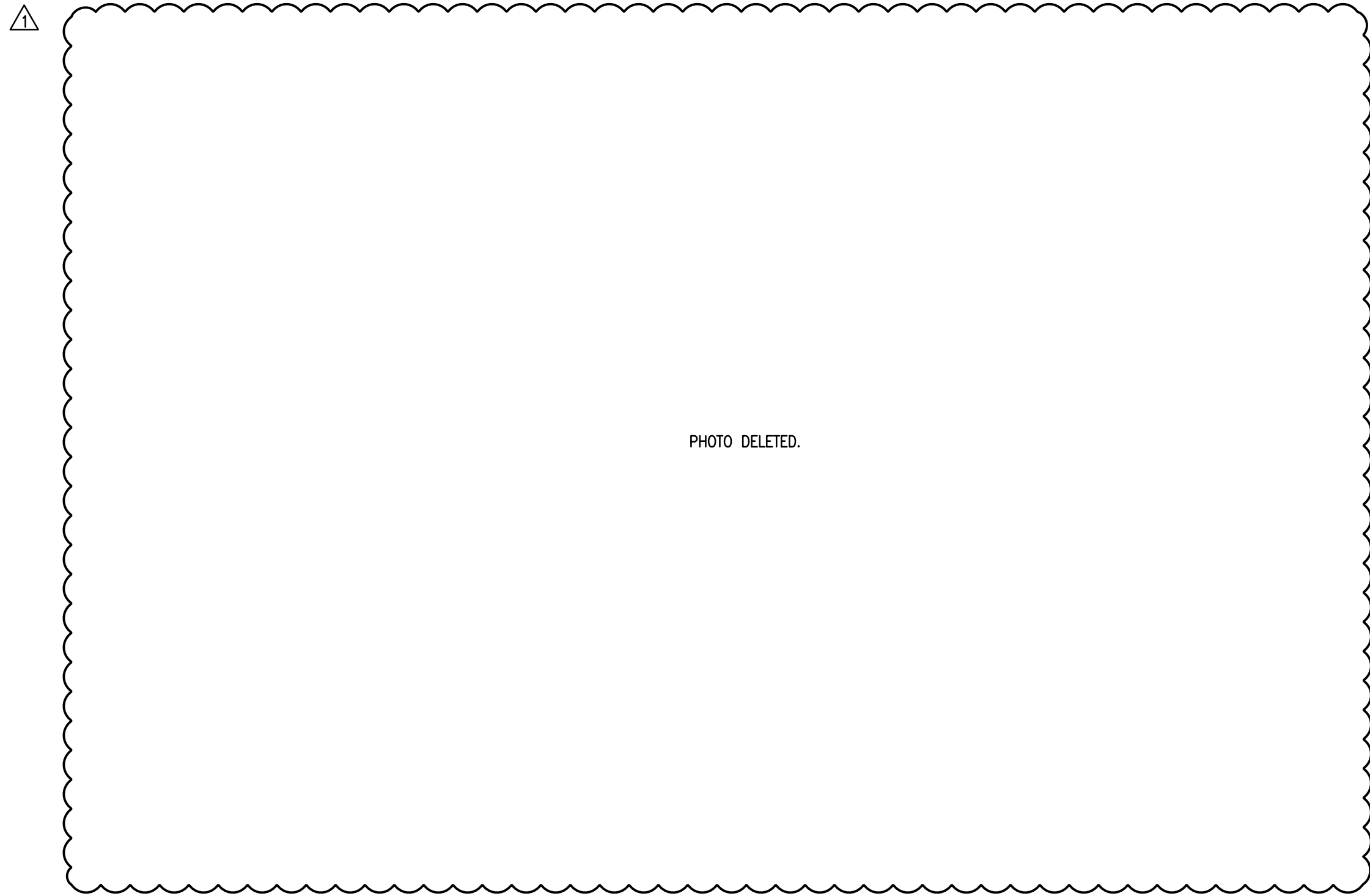
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WCCH ELECTRICAL ENLARGED LOWER LEVEL FLOOR PLAN - AREA B - DEMOLITION
SCALE: 1/4" = 1'-0"



WCCH ELECTRICAL ENLARGED LOWER LEVEL FLOOR PLAN - AREA C - DEMOLITION
SCALE: 1/4" = 1'-0"



DEMOLITION NOTES

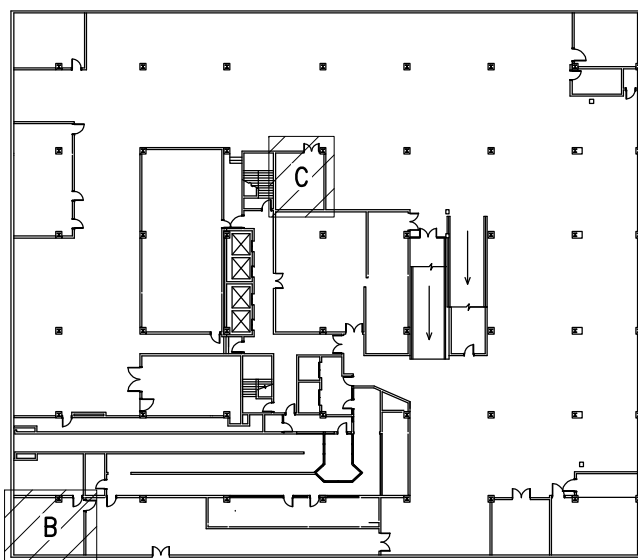
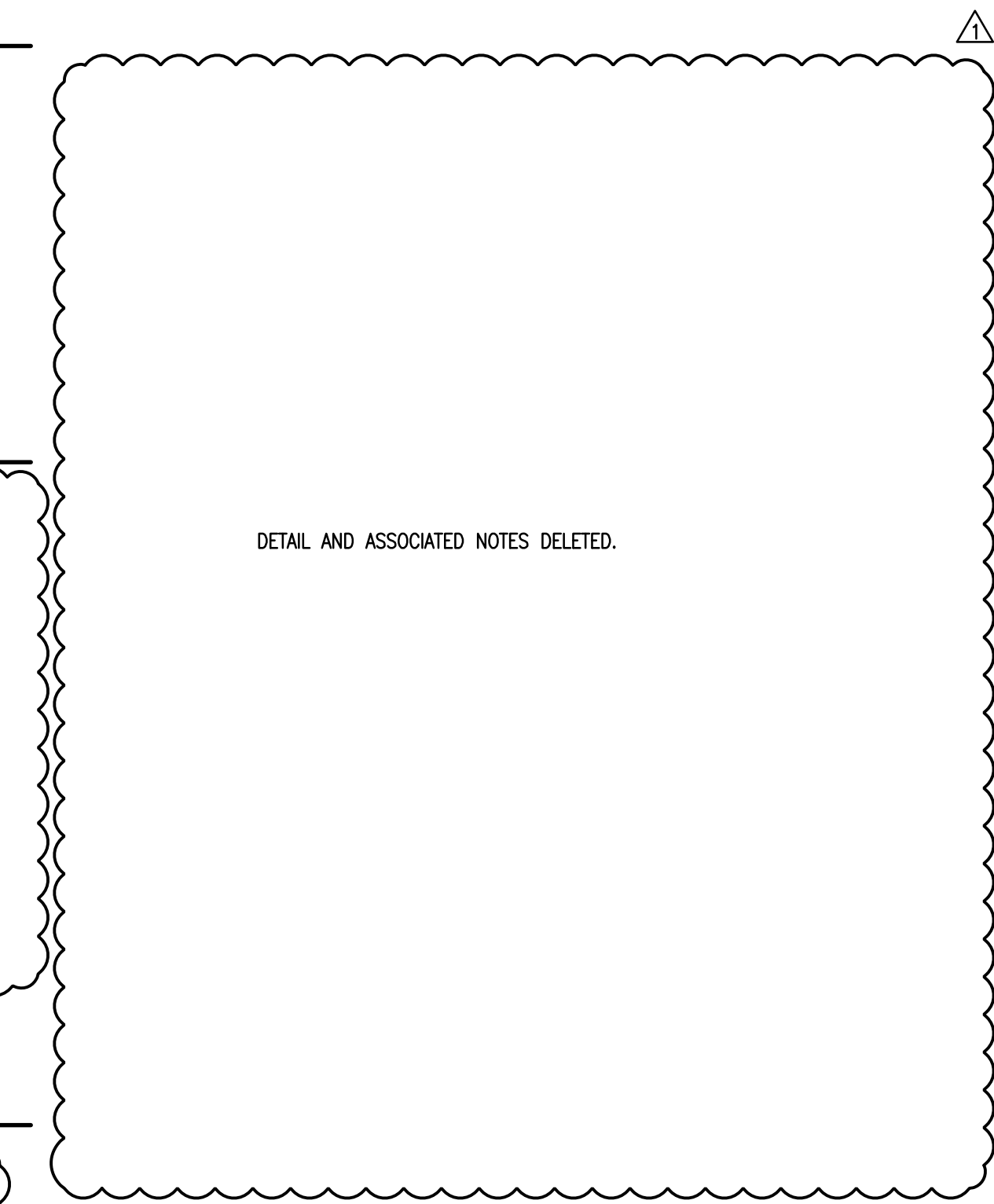
- 1 REMOVE WCCH SOUTH GENERATOR COMPLETE WITH ASSOCIATED CONDUIT AND WIRING BACK TO WCCH SOUTH GENERATOR ATS IN MAIN ELECTRICAL ROOM. SEE WCCH ELECTRICAL EMERGENCY POWER RISER DIAGRAM - DEMOLITION AND PHASING PLAN FOR WORK SEQUENCE.
- 2 REMOVE DEMARC AND RTU PANELS WITH ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE. TURN PANELS OVER TO OWNER.
- 3 REMOVE BATTERY CHARGER WITH ASSOCIATED CONDUIT AND WIRING TO SOURCE.

NEW WORK NOTES

- 1 DELETED FROM THIS SHEET.
- 2 DELETED FROM THIS SHEET.
- 3 DELETED FROM THIS SHEET.
- 4 DELETED FROM THIS SHEET.
- 5 DELETED FROM THIS SHEET.
- 6 DELETED.

GENERAL NOTES

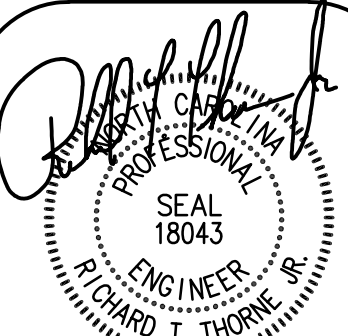
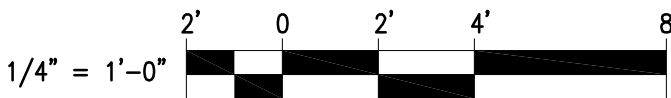
- 1 DELETED.
- 2 SEE WCCH ELECTRICAL LOWER LEVEL FLOOR PLAN - OVERALL FOR CONTINUATION, SHEET E100.
- 3 DELETED.
- 4 DELETED.
- 5 DELETED FROM THIS SHEET.
- 6 DELETED FROM THIS SHEET.
- 7 FEEDER FROM WCCH NORTH GENERATOR. SEE WCCH ELECTRICAL ENLARGED LOWER LEVEL FLOOR PLAN - AREA A - DEMOLITION, SHEET E200.
- 8 FEEDER FROM WCCH SOUTH GENERATOR. SEE WCCH ELECTRICAL ENLARGED LOWER LEVEL FLOOR PLAN - AREA B - DEMOLITION, THIS SHEET.
- 9 FEEDER TO WCCH SOUTH GENERATOR ATS IN MAIN ELECTRICAL ROOM, THIS SHEET.



KEY PLAN - LOWER LEVEL
NO SCALE

FIRE WALL LEGEND	
---	2 HOUR FIRE RATED BARRIER

GRAPHIC SCALE



HDMA#18001.05 08/30/19

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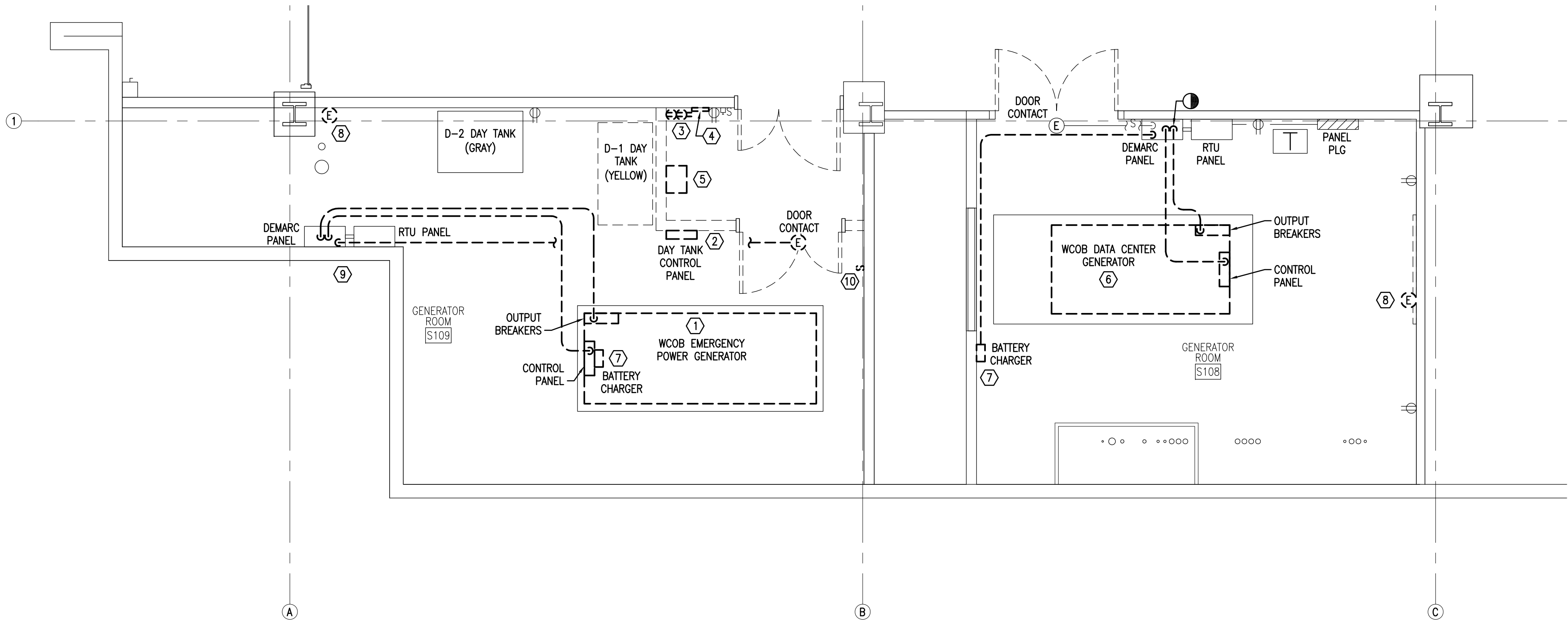
**WAVERLY F AKINS OFFICE BUILDING
AND WAKE COUNTY COURTHOUSE
EMERGENCY POWER REPLACEMENT**
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RALEIGH, NC 27602

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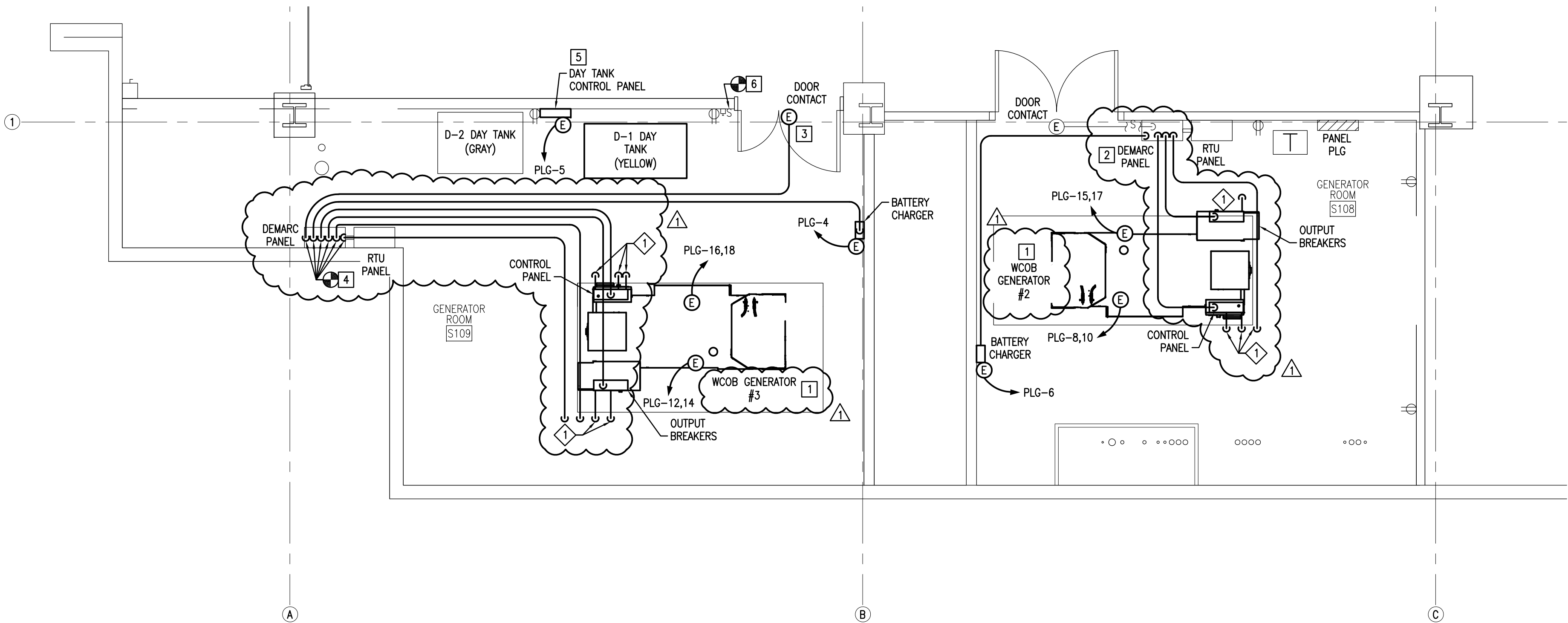
DATE: 08/30/19
JOB NUMBER: 18001.05
DRAWN: RCM
DESIGNED: RTT
CHECKED: RTT

E201

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WCCH ELECTRICAL ENLARGED UPPER LEVEL FLOOR PLAN - DEMOLITION
SCALE: 1/4" = 1'-0"



WCCH ELECTRICAL ENLARGED UPPER LEVEL FLOOR PLAN - NEW WORK
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES

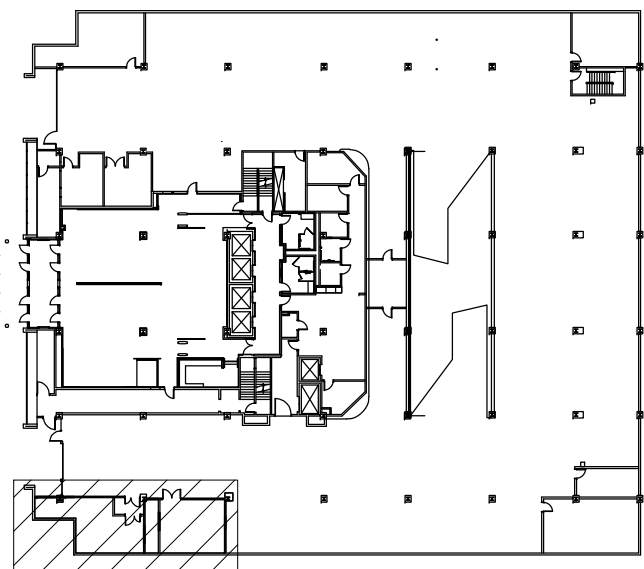
- 1 REMOVE GENERATOR WITH ASSOCIATED CONDUIT AND WIRING BACK TO EMERGENCY POWER PANEL GENERATOR ATS ON GROUND FLOOR. SEE PHASING PLAN FOR SEQUENCE OF WORK.
- 2 REMOVE DAY TANK CONTROL PANEL WITH ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE. SAVE PANEL FOR RELOCATION. SEE WCCH ELECTRICAL ENLARGED UPPER LEVEL FLOOR PLAN - NEW WORK FOR NEW LOCATION.
- 3 REMOVE RECEPTACLE. MAINTAIN CIRCUIT FOR DEVICES TO REMAIN.
- 4 REMOVE ABANDONED INTERCOM WITH ASSOCIATED WIRING BACK TO SOURCE.
- 5 REMOVE COUNTER PANEL WITH ASSOCIATED CONDUIT AND WIRING.
- 6 REMOVE GENERATOR WITH ASSOCIATED CONDUIT AND WIRING BACK TO DATA CENTER GENERATOR ATS IN BASEMENT. SEE PHASING PLAN FOR WORK SEQUENCE.
- 7 REMOVE BATTERY CHARGER WITH ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE.
- 8 REMOVE ELECTRICAL CONNECTION TO DAMPER WITH ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE.
- 9 REMOVE CONDUIT AND WIRING BETWEEN DEMARC PANEL, GENERATOR CONTROL PANEL, OUTPUT BREAKER AND DOOR CONTACT.
- 10 REMOVE LIGHT SWITCH. CONNECT CIRCUIT TO EXISTING LIGHT SWITCH NEXT TO DOOR.

GENERAL NOTES

- 1 SEE WCCH ELECTRICAL LOWER LEVEL FLOOR PLAN - OVERALL, SHEET E100.
- 2 DELETED.

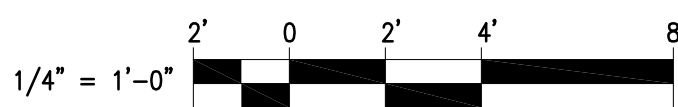
NEW WORK NOTES

- 1 PROVIDE 300KW, 277/480V GENERATOR AS SPECIFIED. SEE ELECTRICAL FLOOR PLANS AND WCCH AND WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - NEW WORK. SEE PHASING PLAN FOR WORK SEQUENCE.
- 2 PROVIDE CT AND VT IN GENERATOR OUTPUT BREAKERS AND CONTROL PANEL WITH CONDUIT AND WIRING TO DEMARC PANEL. PROVIDE 3/4" CONDUIT WITH DATA WIRING TO WCOB ATS-3. SEE THREE PHASE POWER MONITORING FOR SCADA INPUTS AND GENERATOR DIGITAL INPUT POINTS.
- 3 PROVIDE DOOR CONTACT. CONNECT TO SCADA SYSTEM.
- 4 PROVIDE CT AND VT IN GENERATOR OUTPUT BREAKERS AND CONTROL PANEL WITH CONDUIT AND WIRING TO DEMARC PANEL. PROVIDE 3/4" CONDUIT WITH DATA WIRING TO WCOB ATS-2 AND WCOB ATS-1. SEE THREE PHASE POWER MONITORING FOR SCADA INPUTS AND GENERATOR DIGITAL INPUT POINTS.
- 5 NEW LOCATION OF SAVED DAY TANK CONTROL PANEL.
- 6 EXTEND CIRCUIT TO GENERATOR ROOM LIGHTS AND CONNECT TO SWITCH.



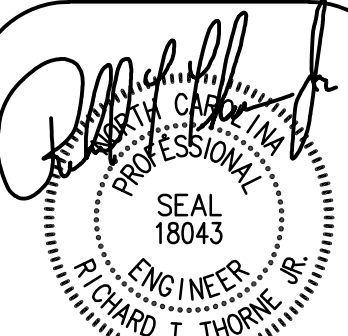
KEY PLAN - UPPER LEVEL

GRAPHIC SCALE



FIRE WALL LEGEND

--- 2 HOUR FIRE RATED BARRIER



HDMA#18001.05 08/30/19

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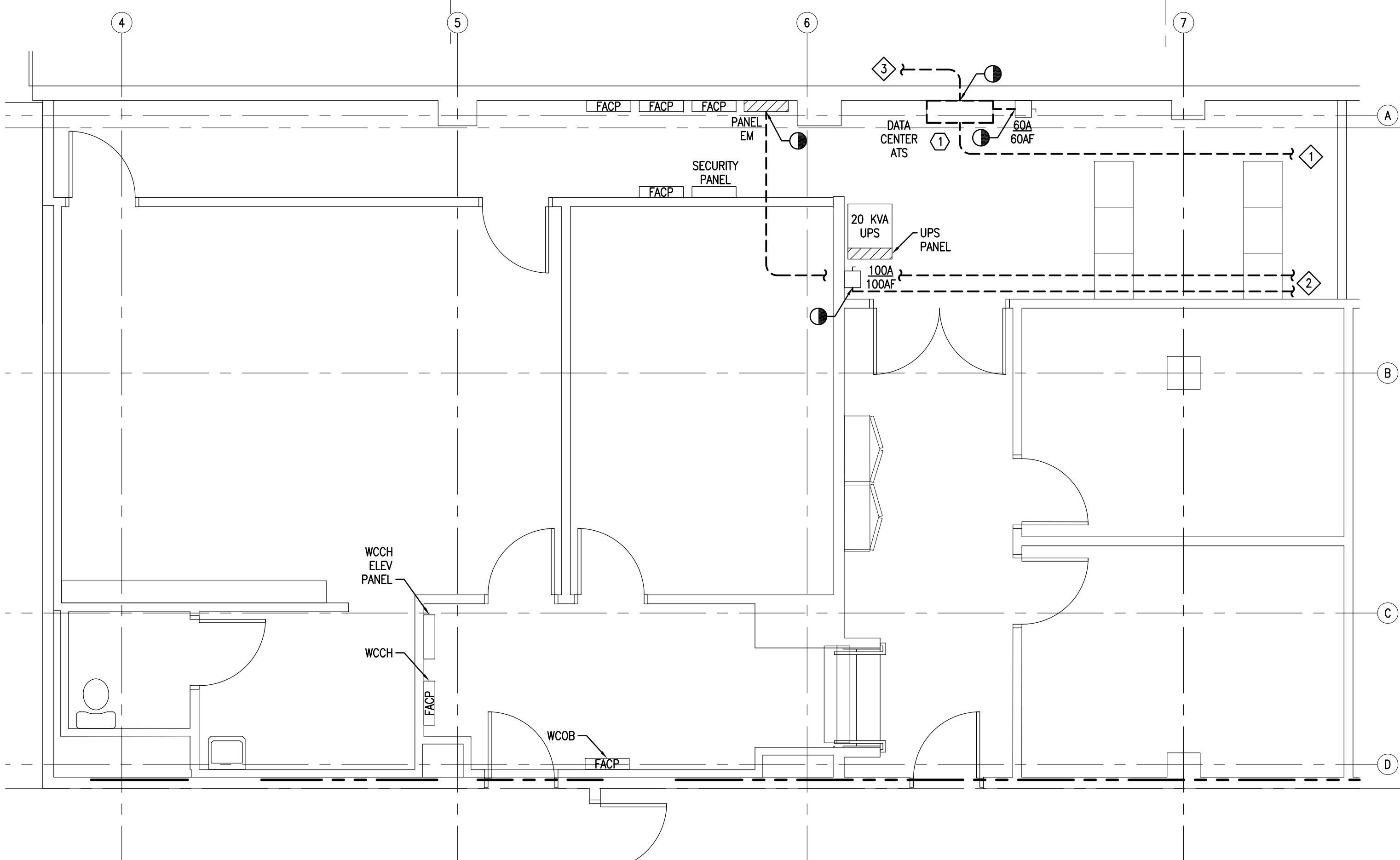
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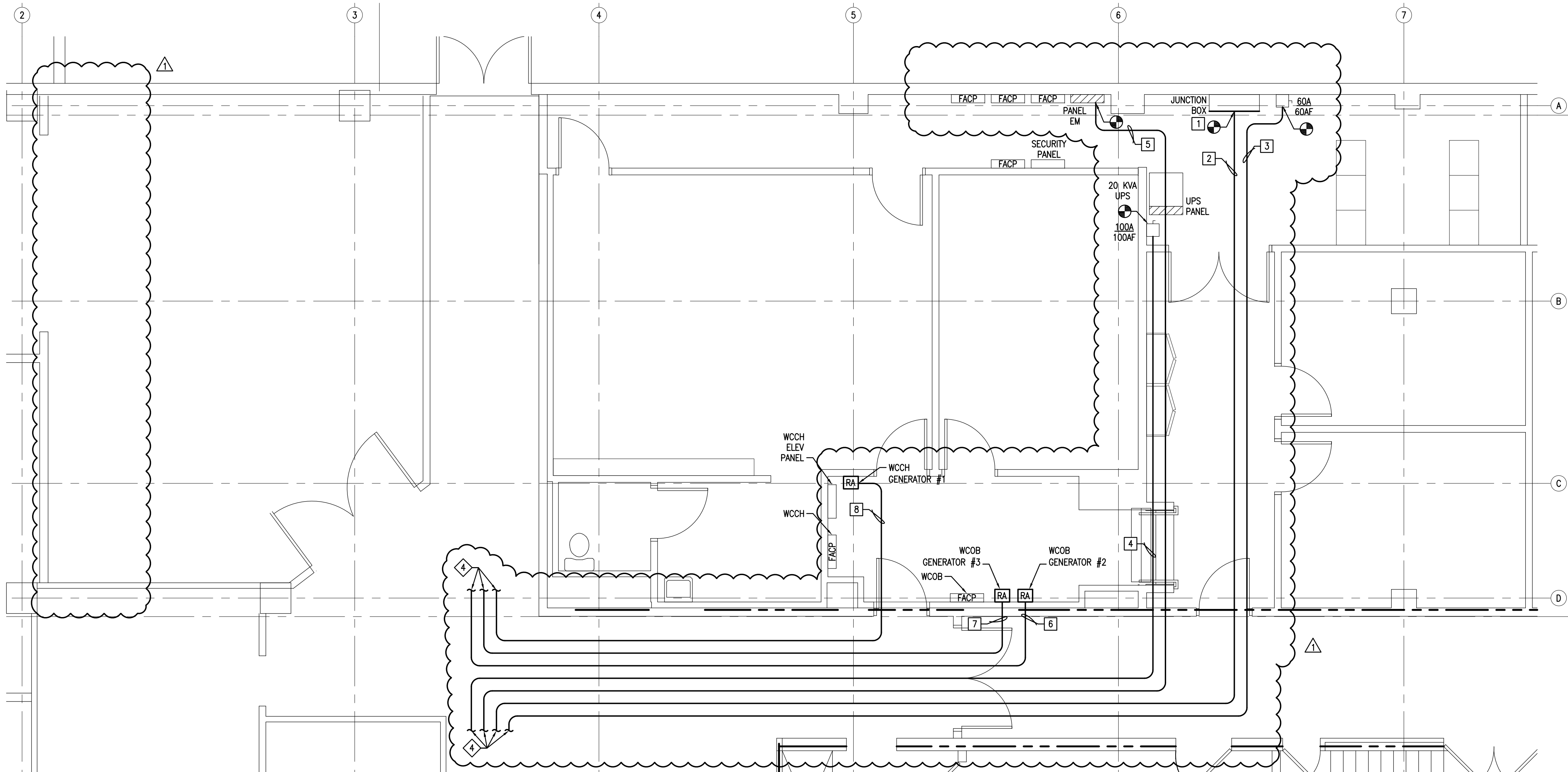
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DRAWN: RCM
DESIGNED: RTT
CHECKED: RTT

E202



WCOB ELECTRICAL ENLARGED BASEMENT FLOOR PLAN - AREA A - DEMOLITION
SCALE: 1/4" = 1'-0"



WCOB ELECTRICAL ENLARGED BASEMENT FLOOR PLAN - AREA A - NEW WORK
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES

- 1 REMOVE ATS WITH ASSOCIATED NORMAL AND EMERGENCY CONDUIT AND WIRING BACK TO SOURCE. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - DEMOLITION. MAINTAIN ENCLOSURE, LOAD SIDE CONDUIT AND WIRING FOR CONNECTION IN NEW WORK.

NEW WORK NOTES

- 1 PROVIDE NEW COVER FOR ENCLOSURE. CONNECT NEW FEEDER FROM DISCONNECT IN EXISTING SOUTH GENERATOR ROOM IN WCOB TO EXISTING WIRING SERVING PANEL-EM1 IN DATA CENTER.
- 2 PROVIDE (2) TWO SETS EACH 4-500 KCMIL, 1#1/0G, 4" CONDUIT. SEE WCOB ELECTRICAL BASEMENT FLOOR PLAN - OVERALL.
- 3 PROVIDE 4#6, 1#8G, 1" CONDUIT. SEE WCOB ELECTRICAL BASEMENT FLOOR PLAN - OVERALL.
- 4 PROVIDE 4#3, 1#6G, 1 1/4" CONDUIT. SEE WCOB ELECTRICAL BASEMENT FLOOR PLAN - OVERALL.
- 5 PROVIDE 4#1/0, 1#6G, 2" CONDUIT.

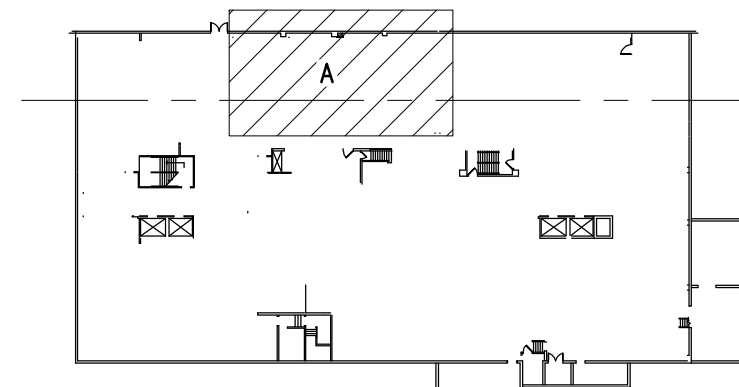
- 6 PROVIDE 4#12, 1-16AWG IT SHIELDED INSTRUMENTATION CABLE, 3/4" CONDUIT TO WCOB GENERATOR #2.
- 7 PROVIDE 4#12, 1-16AWG IT SHIELDED INSTRUMENTATION CABLE, 3/4" CONDUIT TO WCOB GENERATOR #3.
- 8 PROVIDE 4#12, 1-16AWG IT SHIELDED INSTRUMENTATION CABLE, 3/4" CONDUIT TO WCOB GENERATOR #1.
- 9 DELETED.
- 10 DELETED.
- 11 DELETED.
- 12 DELETED.
- 13 DELETED.
- 14 DELETED.

GENERAL NOTES

- 1 TO WCOB MAIN SWITCHBOARD SECTION B ON WCOB GROUND FLOOR. SEE WCOB ELECTRICAL ENLARGED GROUND FLOOR PLAN FOR CONTINUATION, SHEET E205.
- 2 TO PANEL EGPE ON WCOB GROUND FLOOR. SEE WCOB ELECTRICAL ENLARGED GROUND FLOOR PLAN FOR CONTINUATION, SHEET E205.
- 3 TO WCOB DATA CENTER GENERATOR. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - DEMOLITION, SHEET E003.
- 4 SEE WCOB ELECTRICAL BASEMENT FLOOR PLAN - OVERALL FOR CONTINUATION, SHEET E101.

FIRE WALL LEGEND

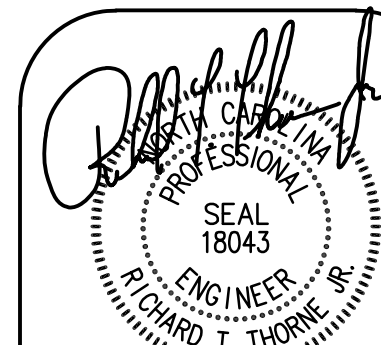
2 HOUR FIRE RATED BARRIER



KEY PLAN
NO SCALE

GRAPHIC SCALE

1/4" = 1'-0"



HDMA#18001.05

08/30/19

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NC LICENSE NO. C-188

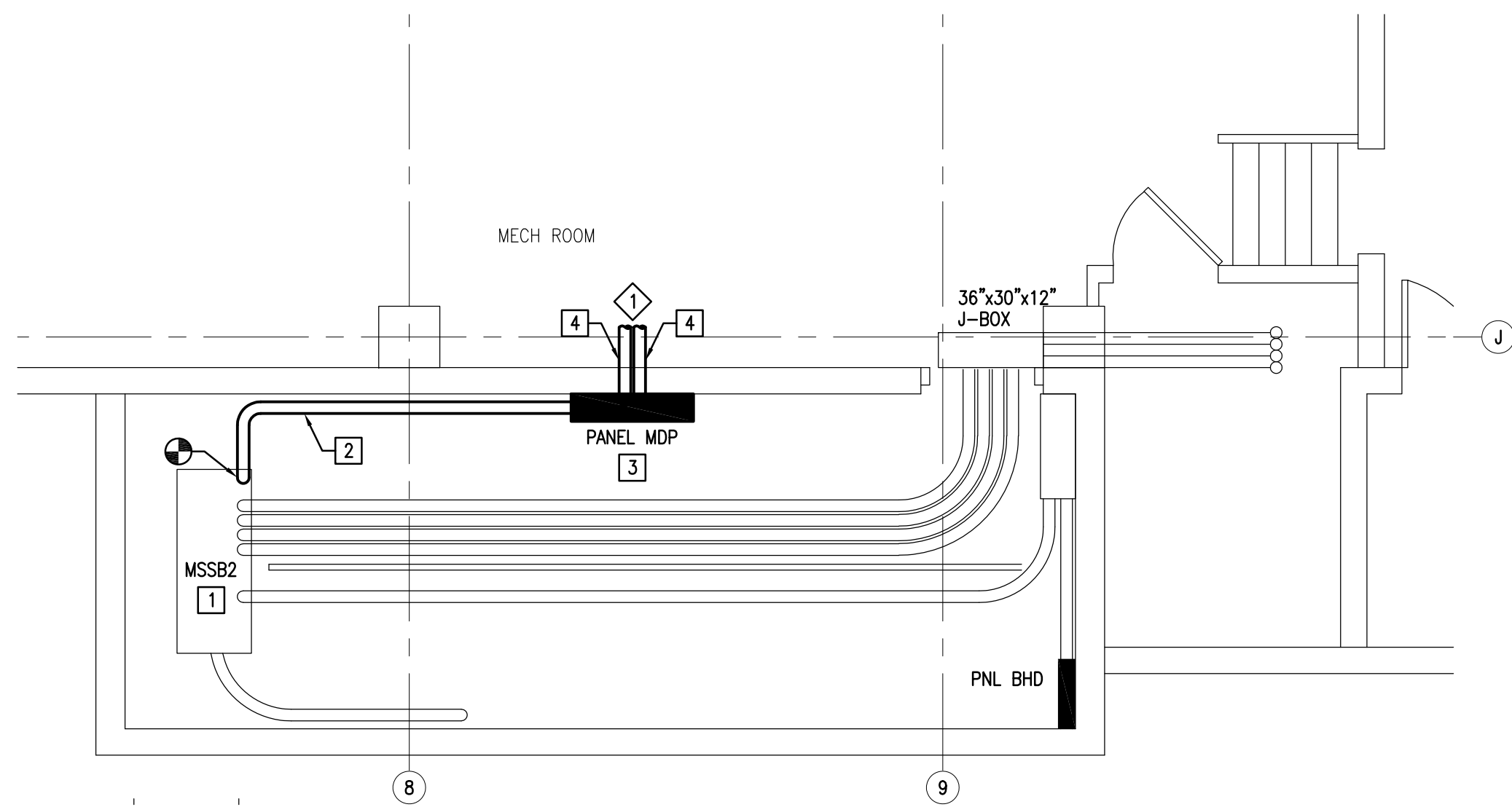
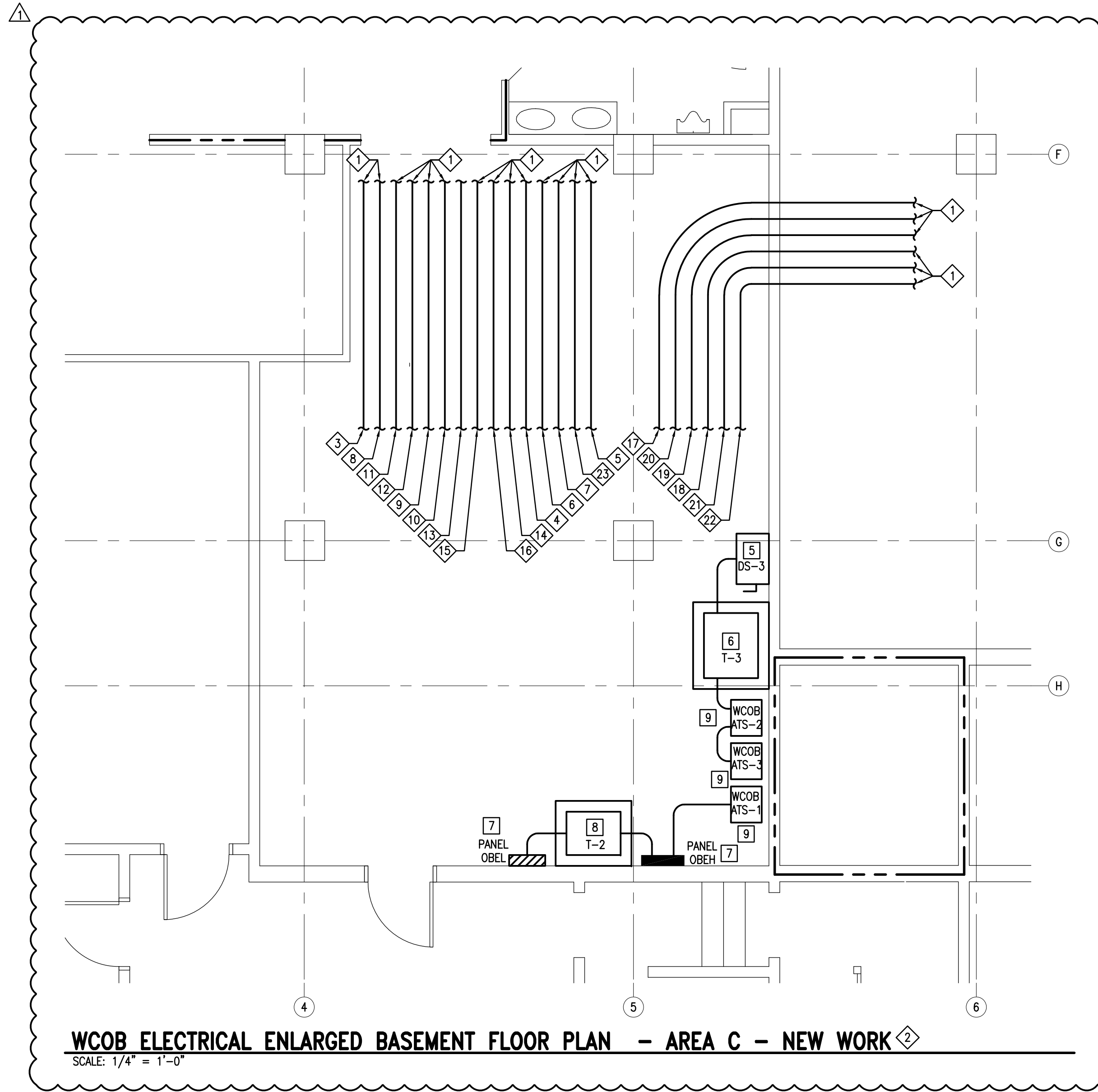
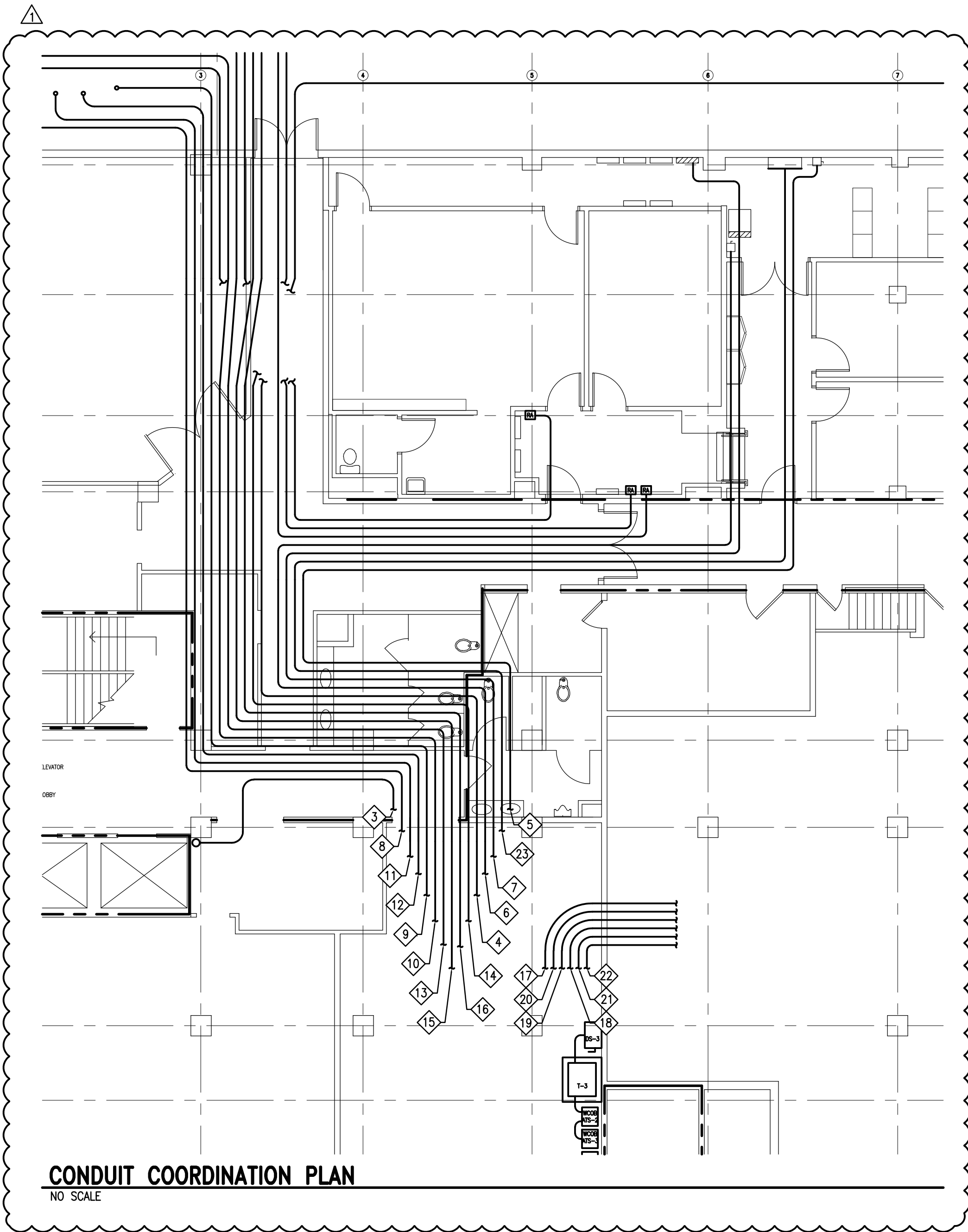
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Professional Engineering Services

**WAVERLY F AKINS OFFICE BUILDING
AND WAKE COUNTY COURTHOUSE
EMERGENCY POWER REPLACEMENT**
336 FAYETTEVILLE STREET MALL
RALEIGH, NC 27602

REVISIONS
DATE: 11-08-19
DESCRIPTION:
POST BID ADDENDUM
SHEETS CHANGED:
E001-E006, E100,
E101, E200-E206

DATE: 08/30/19
JOB NUMBER: 18001.05
DRAWN: DMG
DESIGNED: RTT
CHECKED: RTT

E203

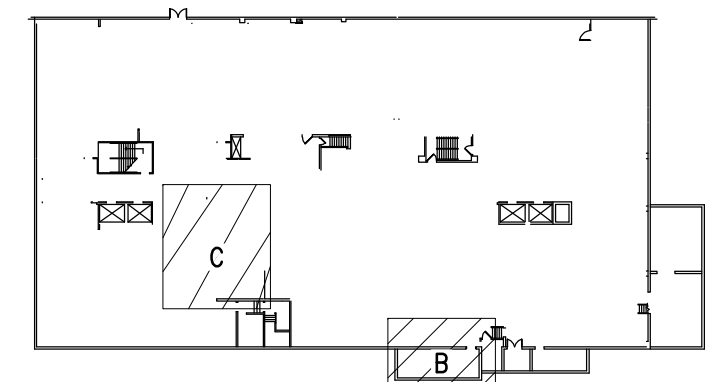


NEW WORK NOTES

- 1 REMOVE 700A BREAKER AND SAVE FOR REUSE. PROVIDE 1,200A SUBFEED LUGS IN REMOVED BREAKER POSITION.
- 2 PROVIDE (3) SETS OF 4-600 KCMIL, 1#3/0G, EACH SET IN 4" CONDUIT. FROM SUBFEED LUGS TO FEED NEW PANEL MDP.
- 3 PROVIDE PANEL MDP. SEE PANELBOARD SCHEDULE. INSTALL SAVED 700A BREAKER IN PANEL MDP. EXTEND EXISTING FEEDER (3-500 KCMIL, 1#1/0G, 4" CONDUIT) FOR SAVED 700A BREAKER AND CONNECT.
- 4 PROVIDE 4-600 KCMIL, 1#3G, 4" CONDUIT TO WCOB ATS-1 AND WCOB ATS-3. SEE WCOB ELECTRICAL BASEMENT FLOOR PLAN - OVERALL FOR CONTINUATION.
- 5 PROVIDE WALL MOUNTED DISCONNECT SWITCH. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - NEW WORK, FLOOR PLANS AND PHASING PLAN FOR WORK SEQUENCE.
- 6 PROVIDE 225 KVA TRANSFORMER, 480V PRIMARY AND 120/208V, 3PHASE 4 WIRE SECONDARY. PROVIDE 4" THICK CONCRETE EQUIPMENT PAD 6" LARGER THAN EQUIPMENT. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - NEW WORK AND PHASING PLAN FOR WORK SEQUENCE.
- 7 PROVIDE PANEL. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - NEW WORK, PANELBOARD SCHEDULE AND FLOOR PLANS. SEE PHASING PLAN FOR WORK SEQUENCE.
- 8 PROVIDE 112.5 KVA TRANSFORMER, 480V PRIMARY AND 120/208V, 3PHASE 4 WIRE SECONDARY. PROVIDE 4" THICK CONCRETE EQUIPMENT PAD 6" LARGER THAN EQUIPMENT. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - NEW WORK AND PHASING PLAN FOR WORK SEQUENCE.
- 9 PROVIDE WALL MOUNTED AUTOMATIC TRANSFER SWITCH AS SPECIFIED. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - NEW WORK AND FLOOR PLANS. SEE PHASING PLAN FOR WORK SEQUENCE.

GENERAL NOTES

- 1 SEE WCOB ELECTRICAL BASEMENT FLOOR PLAN - OVERALL FOR CONTINUATION, SHEET E101.
- 2 CONDUIT AND WIRING ROUTING SHOWN SPACED APART FOR CLARITY. COORDINATE EXACT ROUTING WITH ENGINEER.
- 3 CONDUIT AND WIRING FROM PANEL OBEL TO PANEL ERHE (LOCATED IN WCOB WEST ELEVATOR PENTHOUSE).
- 4 CONDUIT AND WIRING FROM PANEL OBEL TO FIRE PUMP CONTROLLER AND JACKET HEATER (BOTH LOCATED IN WCOB LOWER LEVEL FIRE PUMP ROOM).
- 5 CONDUIT AND WIRING FROM PANEL OBEL TO 60A/60AF DISCONNECT SWITCH (LOCATED IN WCOB BASEMENT UPS ROOM) FOR PANEL E1-MDF.
- 6 CONDUIT AND WIRING FROM PANEL OBEL TO 100A/100AF DISCONNECT SWITCH (LOCATED IN WCOB BASEMENT UPS ROOM) FOR SEC UPS.
- 7 CONDUIT AND WIRING FROM PANEL OBEL TO PANEL EM (LOCATED IN WCOB BASEMENT UPS ROOM).
- 8 CONDUIT AND WIRING FROM ATS-1 TO WCOB GENERATOR #3 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR DATA CONNECTION.
- 9 CONDUIT AND WIRING FROM ATS-1 TO WCOB GENERATOR #3 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR POWER CONNECTION.
- 10 CONDUIT AND WIRING FROM ATS-1 TO WCOB GENERATOR #3 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR ENGINE START CONNECTION.
- 11 CONDUIT AND WIRING FROM ATS-2 TO WCOB GENERATOR #3 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR DATA CONNECTION.
- 12 CONDUIT AND WIRING FROM ATS-2 TO WCOB GENERATOR #3 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR POWER CONNECTION.
- 13 CONDUIT AND WIRING FROM ATS-2 TO WCOB GENERATOR #3 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR ENGINE START CONNECTION.
- 14 CONDUIT AND WIRING FROM ATS-3 TO WCOB GENERATOR #2 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR DATA CONNECTION.
- 15 CONDUIT AND WIRING FROM ATS-3 TO WCOB GENERATOR #2 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR POWER CONNECTION.
- 16 CONDUIT AND WIRING FROM ATS-3 TO WCOB GENERATOR #2 (LOCATED IN WCOB UPPER LEVEL GENERATOR ROOM) FOR ENGINE START CONNECTION.
- 17 CONDUIT AND WIRING FROM PANEL OBEL TO PANEL PHHE (LOCATED IN WCOB EAST ELEVATOR PENTHOUSE).
- 18 CONDUIT AND WIRING FROM PANEL OBEL TO PANEL EMG (LOCATED IN WCOB BASEMENT MECHANICAL ROOM).
- 19 CONDUIT AND WIRING FROM PANEL OBEL TO JUNCTION BOX (LOCATED IN WCOB GROUND FLOOR ELECTRICAL ROOM) FOR PANEL EM3LE.
- 20 CONDUIT AND WIRING FROM PANEL OBEL TO JUNCTION BOX (LOCATED IN WCOB GROUND FLOOR ELECTRICAL ROOM) FOR PANEL EIGLE.
- 21 CONDUIT AND WIRING FROM ATS-1 TO PANEL MDP (LOCATED IN WCOB ELECTRICAL ROOM).
- 22 CONDUIT AND WIRING FROM ATS-3 TO PANEL MDP (LOCATED IN WCOB ELECTRICAL ROOM).
- 23 CONDUIT AND WIRING FROM DS-3 TO JUNCTION BOX (LOCATED IN WCOB BASEMENT UPS ROOM) FOR PANEL EMT.



KEY PLAN

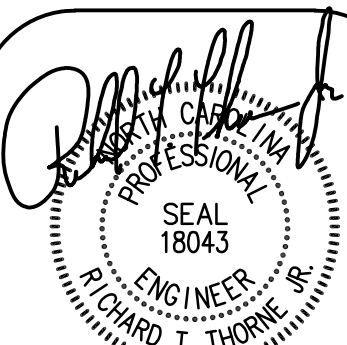
NO SCALE

FIRE WALL LEGEND

--- 2 HOUR FIRE RATED BARRIER

GRAPHIC SCALE

1/4" = 1'-0"



HDMA#18001.05

08/30/19

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NC LICENSE NO. C-188

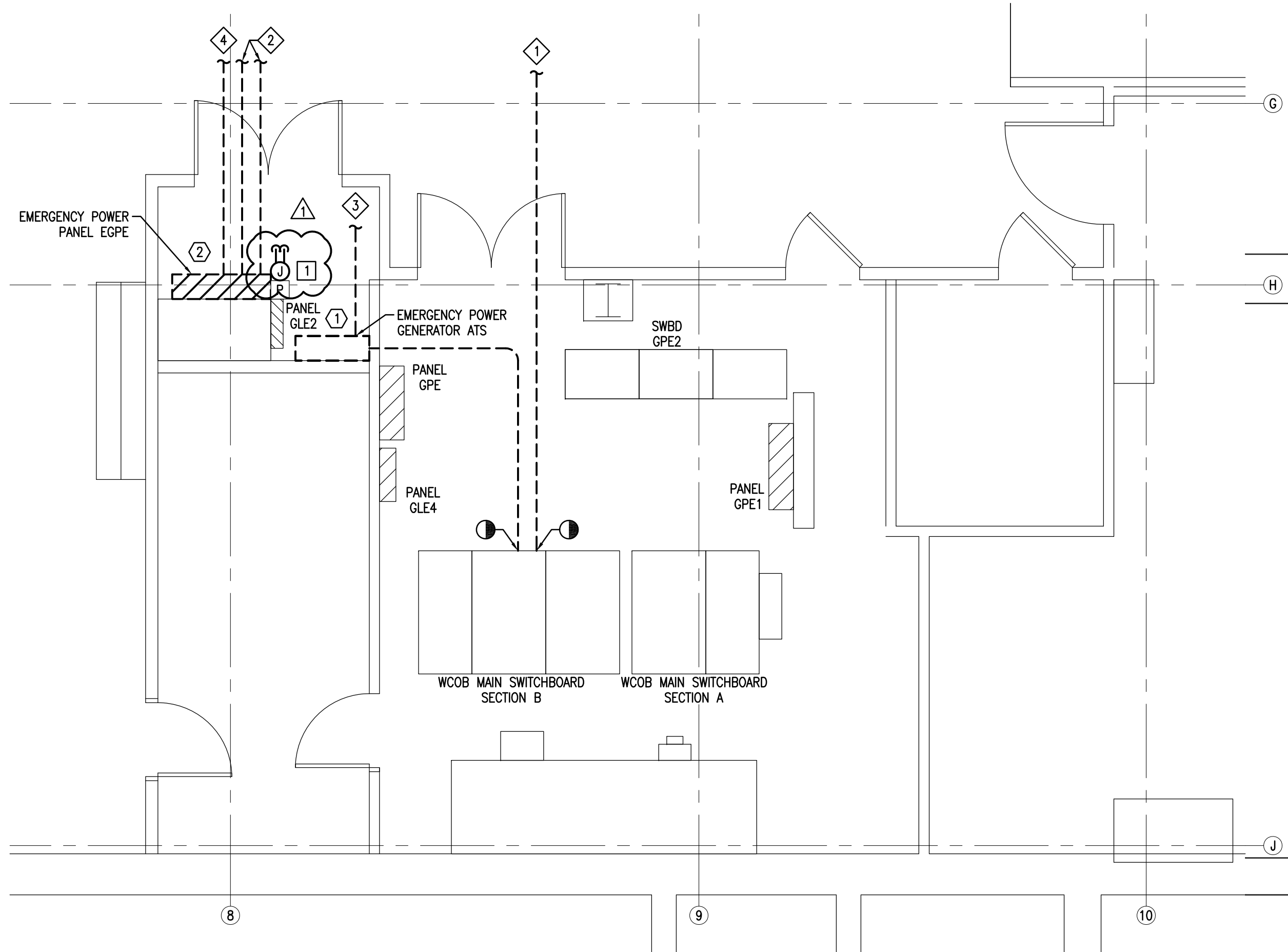
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E204



WCOB ELECTRICAL ENLARGED GROUND FLOOR PLAN
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES

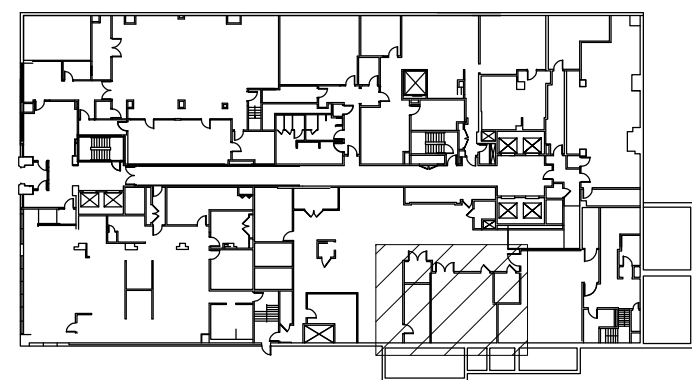
- 1 REMOVE EMERGENCY POWER GENERATOR ATS WITH ASSOCIATED CONDUIT AND WIRING BACK TO MAIN SWITCHBOARD SECTION B, EMERGENCY POWER GENERATOR AND EMERGENCY POWER PANEL EGPE. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - DEMOLITION AND PHASING PLAN FOR WORK SEQUENCE.
- 2 REMOVE EMERGENCY POWER PANEL EGPE WITH ALL ASSOCIATED BRANCH CONDUIT AND WIRING EXCEPT CIRCUITS TO PANELS EM3LE AND EIGLE. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - DEMOLITION AND PHASING PLAN FOR WORK SEQUENCE.

NEW WORK NOTES

- 1 PROVIDE 8" x 8" x 4" JUNCTION BOX FOR CONNECTION OF PANELS EIGLE AND EM3LE EXISTING FEEDERS TO PANEL OBEL. SEE WCOB ELECTRICAL BASEMENT FLOOR PLAN - OVERALL FOR NEW FEEDERS.

GENERAL NOTES

- 1 TO DATA CENTER GENERATOR ATS. SEE WCOB ELECTRICAL ENLARGED BASEMENT FLOOR PLAN - AREA A - DEMOLITION, SHEET E203.
- 2 TO PANEL EM AND 20 KVA UPS. SEE WCOB ELECTRICAL ENLARGED BASEMENT FLOOR PLAN - AREA A - DEMOLITION, SHEET E203.
- 3 TO WCOB EMERGENCY POWER GENERATOR. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - DEMOLITION, SHEET E002.
- 4 TO WCOB FIRE PUMP CONTROLLER AND JACKET HEATER COMMUNICATION. SEE WCOB ELECTRICAL EMERGENCY POWER RISER DIAGRAM - DEMOLITION, SHEET E002.



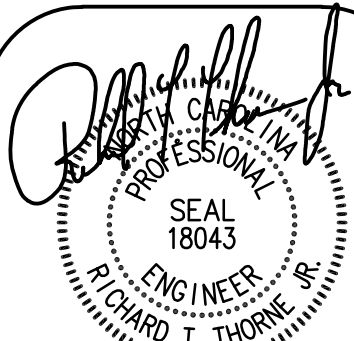
KEY PLAN - GROUND FLOOR
NO SCALE

FIRE WALL LEGEND

--- 2 HOUR FIRE RATED BARRIER

GRAPHIC SCALE

1/4" = 1'-0"



HDMA#18001.05 08/30/19

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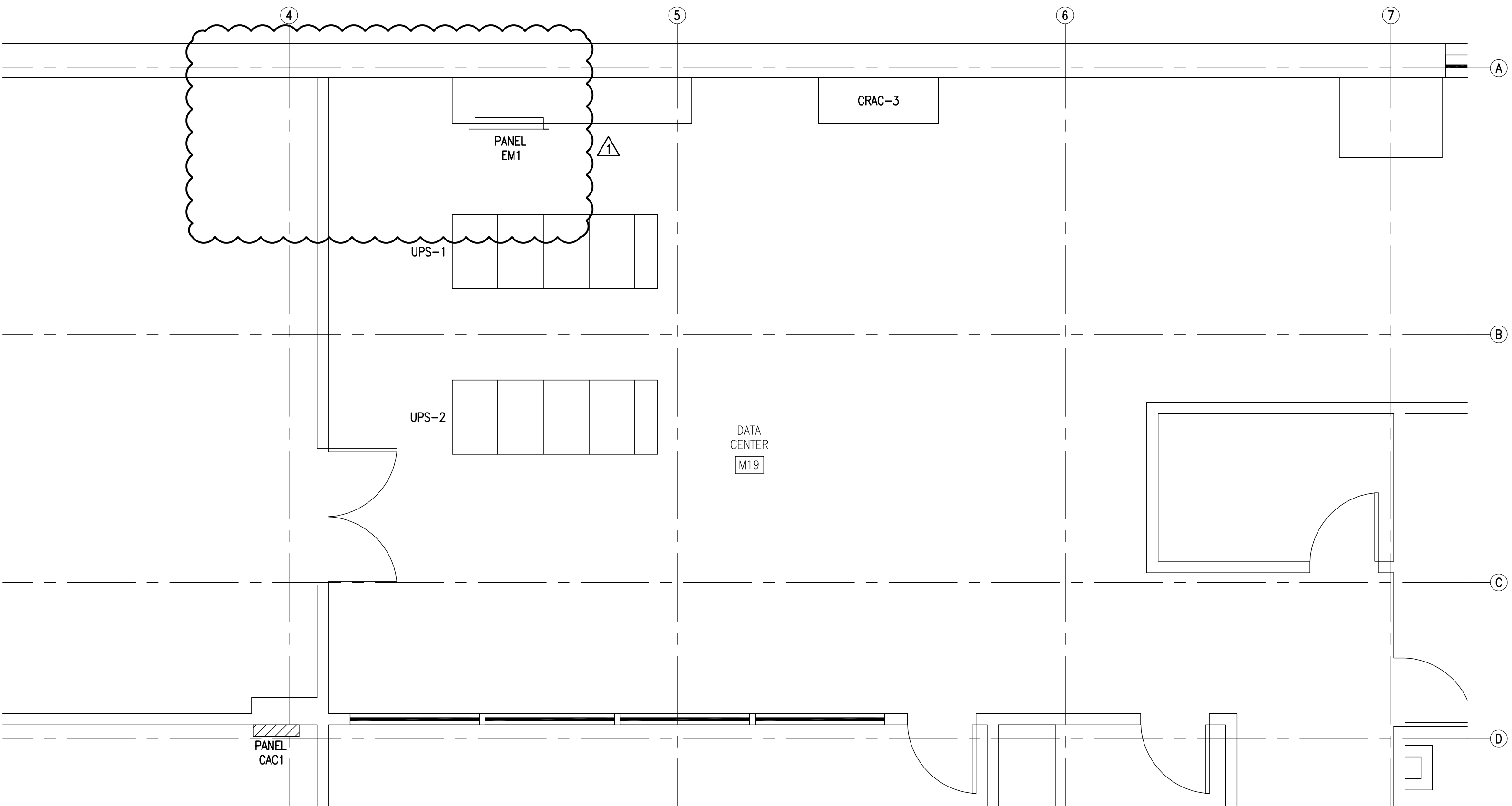
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E205



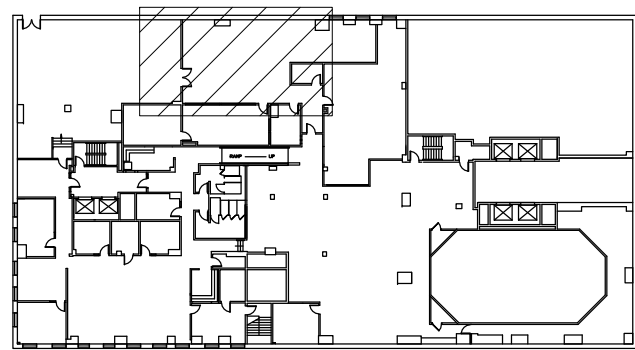
WCOB ELECTRICAL ENLARGED MEZZANINE FLOOR PLAN
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES

- 1 DELETED

NEW WORK NOTES

- 1 DELETED
2 DELETED
3 DELETED

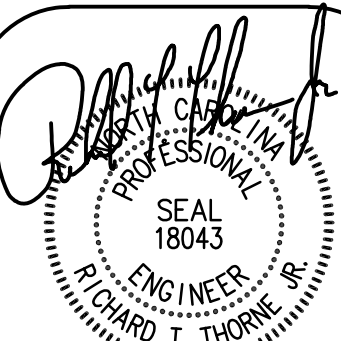
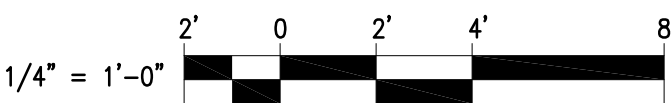


KEY PLAN - MEZZANINE
NO SCALE

FIRE WALL LEGEND

2 HOUR FIRE RATED BARRIER

GRAPHIC SCALE



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