

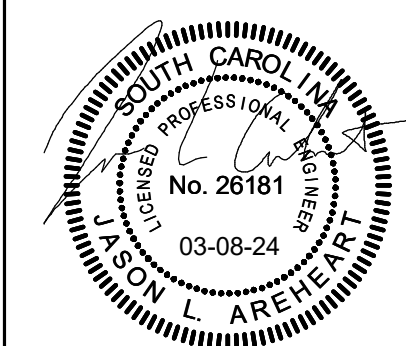
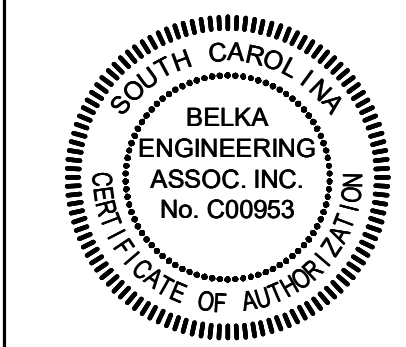
MIDLANDS TECHNICAL COLLEGE - SALUDA HALL GENERATOR

1260 LEXINGTON DRIVE, WEST COLUMBIA, SC 29170

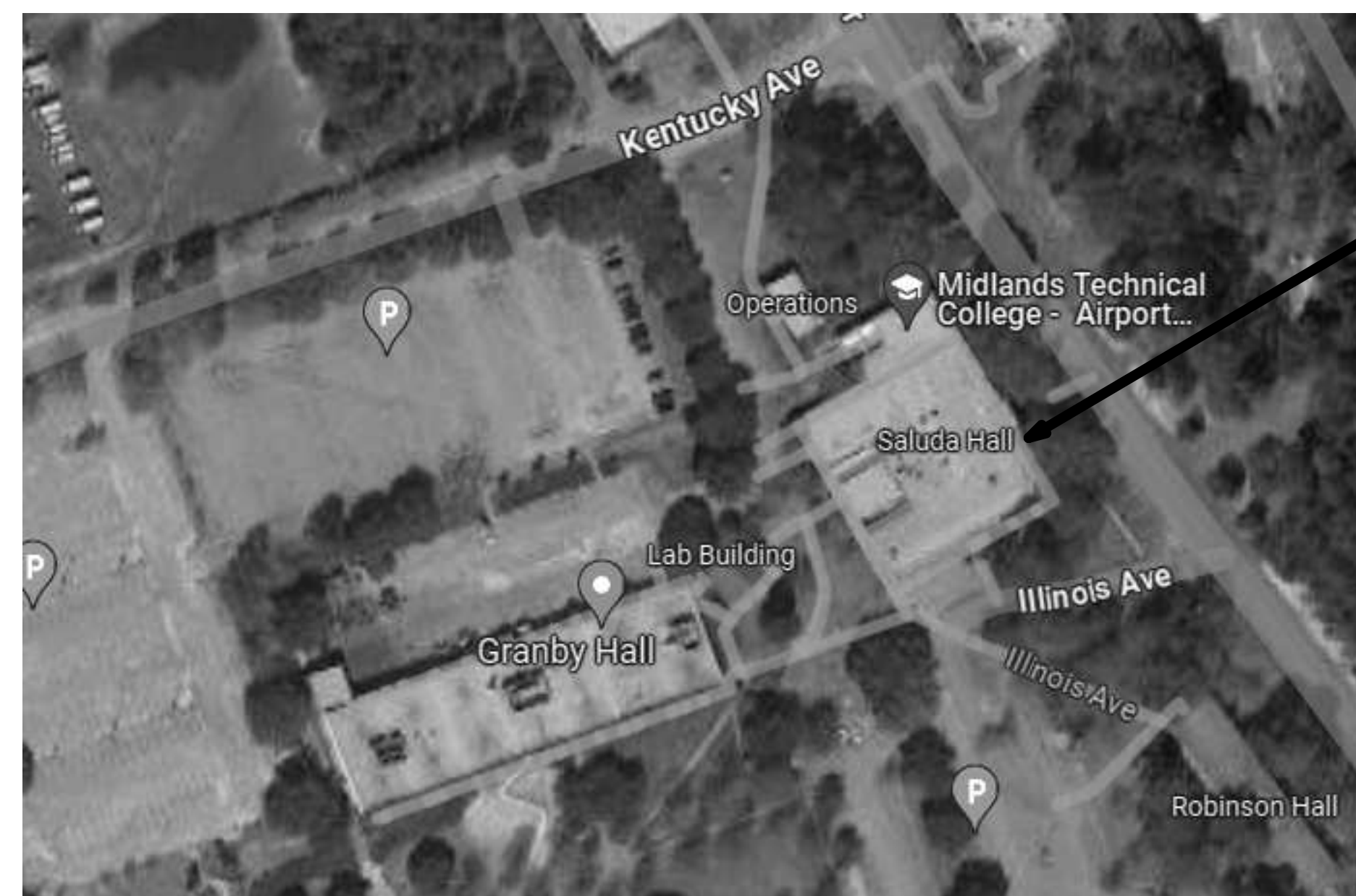
H59-N273-JM



CONSTRUCTION DOCUMENTS



LIST OF APPLICABLE CODES & STANDARDS
NFPA 70 - NATIONAL ELECTRIC CODE
NFPA 110 - STANDARD FOR EMERGENCY AND STANDBY POWER SYSTEMS
IFGC - INTERNATIONAL FUEL GAS CODE



LOCATION MAP

PROJECT SITE

SHEET INDEX	
#	SHEET NAME
E001	ELECTRICAL NOTES & LEGENDS
E002	ELECTRICAL ONE-LINE DIAGRAM
E003	ELECTRICAL PANEL SCHEDULES
E101	ELECTRICAL RENOVATION PLAN
P101	FIRST FLOOR PLAN, NOTES, AND DETAILS

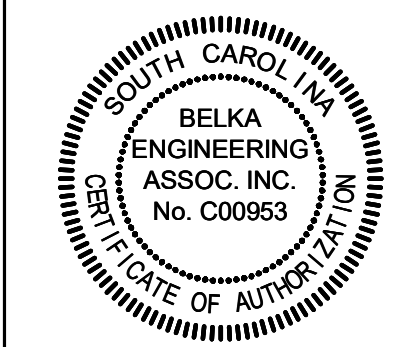
2021 Edition

TABLE 11 - ELECTRICAL INFORMATION	
SERVICE TRANSFORMER:	<input type="checkbox"/> By Utility Company <input checked="" type="checkbox"/> By Agency If by Agency: 225 KVA Primary 208V 3P Voltage/Phase
ELECTRICAL SERVICE INFORMATION:	Service Voltage/Phase: 208 V/ 120 Amperes: 1200 Service Entrance Conductors Size: 500KCMIL Quantity per Phase: 3 Total Connected Load: EXISTING KVA Estimated Demand Factor: _____ Estimated Maximum Demand: EXISTING Amperes Available Fault Current in Symmetrical Amperes: 10862 Amperes Interrupting Capacity of Service Overcurrent Device: EXISTING Amperes Grounding Electrode System Components: <input type="checkbox"/> Metal In-ground Support Structure(s) <input type="checkbox"/> Metal Underground Water Pipe <input type="checkbox"/> Ground Ring <input checked="" type="checkbox"/> Concrete-Enclosed Electrode <input type="checkbox"/> Plate Electrodes <input checked="" type="checkbox"/> Rod and Pipe Electrodes <input type="checkbox"/> Other Local Metal Underground Systems or Structures <input type="checkbox"/> Other Listed Electrodes, please specify _____
EMERGENCY SERVICE INFORMATION:	Generator 1: <input type="checkbox"/> Emergency <input type="checkbox"/> Standby <input checked="" type="checkbox"/> Op. Standby 208V/3P Voltage/Phase Natural Gas Fuel 96 KVA Generator 2: <input type="checkbox"/> Emergency <input type="checkbox"/> Standby <input type="checkbox"/> Op. Standby <input type="checkbox"/> Integral Battery _____ Fuel _____ KVA Exit/Emergency Egress Lighting Backup Power <input checked="" type="checkbox"/> Battery <input type="checkbox"/> Generator Fire Alarm System: <input checked="" type="checkbox"/> Manual <input type="checkbox"/> Auto <input type="checkbox"/> Manual/Auto <input type="checkbox"/> Addressable <input type="checkbox"/> Class A <input checked="" type="checkbox"/> Class B Fire Alarm System Method of Communication to Monitoring Station (please specify): Telephone Dialer Fire Alarm Pathway Survivability: <input checked="" type="checkbox"/> Level 0 <input type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 Carbon Monoxide Detection Required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Emergency Responder Radio Coverage Enhancement Req.? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
LIGHTNING PROTECTION SYSTEM PROVIDED:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

MIDLANDS TECHNICAL COLLEGE - SALUDA HALL
GENERATOR
1260 LEXINGTON DRIVE, WEST COLUMBIA, SC 29170
COLUMBIA, SOUTH CAROLINA
PROJECT TITLE SHEET

REV	
JOB No.	H59-N273-JM
DATE:	03.08.24
DRAWN BY:	DMS
CHECK BY:	JLA
SHEET	NUMBER

T001



MIDLANDS TECHNICAL COLLEGE - SALUDA HALL
 GENERATOR
 1260 LEXINGTON DRIVE, WEST COLUMBIA, SC 29170
 ELECTRICAL NOTES & LEGENDS

REV	
JOB No.	H59-N273-JM
DATE:	03.08.24
DRAWN BY:	DMS
CHECK BY:	JLA
SHEET	NUMBER

E001

ELECTRICAL SYMBOL LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	
	SINGLE RECEPTACLE (WALL MOUNTED @ 18" AFF)		SURGE PROTECTION DEVICE
	DUPLEX RECEPTACLE (WALL MOUNTED @ 18" AFF)		ELECTRICAL METERING DEVICE
	DUPLEX RECEPTACLE (GFI TYPE @ 18" AFF)		ELECTRICAL UTILITY METER & C/T CABINET
	DUPLEX RECEPTACLE (6" ABOVE COUNTER)		PANELBOARD (SURFACE MOUNTED)
	DUPLEX RECEPTACLE (GFI TYPE @ 6" ABOVE COUNTER)		PANELBOARD (RECESS MOUNTED)
	QUAD RECEPTACLE (WALL MOUNTED @ 18" AFF)		CONTROL PANEL (SURFACE MOUNTED)
	QUAD RECEPTACLE (GFI TYPE @ 18" AFF)		CONTROL PANEL (RECESS MOUNTED)
	QUAD RECEPTACLE (6" ABOVE COUNTER)		REMOTE GFCI TEST SWITCH WITH INDICATOR LIGHT & DEAD FRONT PANEL (NO RECEPTACLE)
	QUAD RECEPTACLE (GFI TYPE @ 6" ABOVE COUNTER)		PUSH BUTTON CONTROL
	MULTI-PHASE RECEPTACLE (AS NOTED ON PLAN)		LIGHT SWITCH, SINGLE POLE
	JUNCTION BOX (WALL MTD)		MOTOR RATED SNAP SWITCH IN NEMA 1 ENCLOSURE
	JUNCTION BOX (CEILING)		KEY NOTE CALLOUT (REFER TO KEY NOTES ON SHEET)
	JUNCTION BOX (FLOOR MOUNTED)		DISCONNECT SWITCH (REFER TO NOTES ON CONNECTION SCHEDULE)
	PHONE OR DATA OUTLET (WALL MOUNTED @ 18" AFF) SEE COMMUNICATIONS RISER FOR ADDITIONAL INFO		MOTOR CONNECTION (AS NOTED)
	PHONE OR DATA OUTLET (MTD ABOVE COUNTER) SEE COMMUNICATIONS RISER FOR ADDITIONAL INFO		HANDHOLE

ABBREVIATIONS	
ABR	DESCRIPTION
(E)	EXISTING
AFC	ABOVE FINISHED CEILING
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
BAS	BUILDING AUTOMATION SYSTEM
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BOB	BOTTOM OF DEVICE
CBG	COMMUNICATIONS BACK BOARD
cd	CANDELA
CLG	CEILING
ECB	ENCLOSED CIRCUIT BREAKER
EF	EXHAUST FAN
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FDS	FUSED DISCONNECT SWITCH
FSD	FIRE/SMOKE DAMPER
GBB	GROUND BUSS BAR
GFCI	GROUND-FAULT CIRCUIT-INTERRUPTING
GFI	GROUND-FAULT INTERRUPTING
GP	GENERAL PURPOSE
HP	HEAT PUMP
ICP	IRRIGATION CONTROL PANEL
IG	ISOLATED GROUND
J-BOX	JUNCTION BOX
LCS	LIGHTING CONTROL SYSTEM
NEC	NATIONAL ELECTRIC CODE
NFDS	NON-FUSED DISCONNECT SWITCH
OC	ON CENTER
RFAP	REMOTE FIRE ALARM ANNUNCIATOR PANEL
RTU	ROOF TOP UNIT
SD	SMOKE DETECTOR
SPD	SURGE PROTECTION DEVICE
TGB	TELEPHONE GROUNDING BUSS BAR
UNO	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR
VFD	VARIABLE FREQUENCY DRIVE
W/	WITH
WH	WATER HEATER
WP	WEATHERPROOF
XFMR	TRANSFORMER

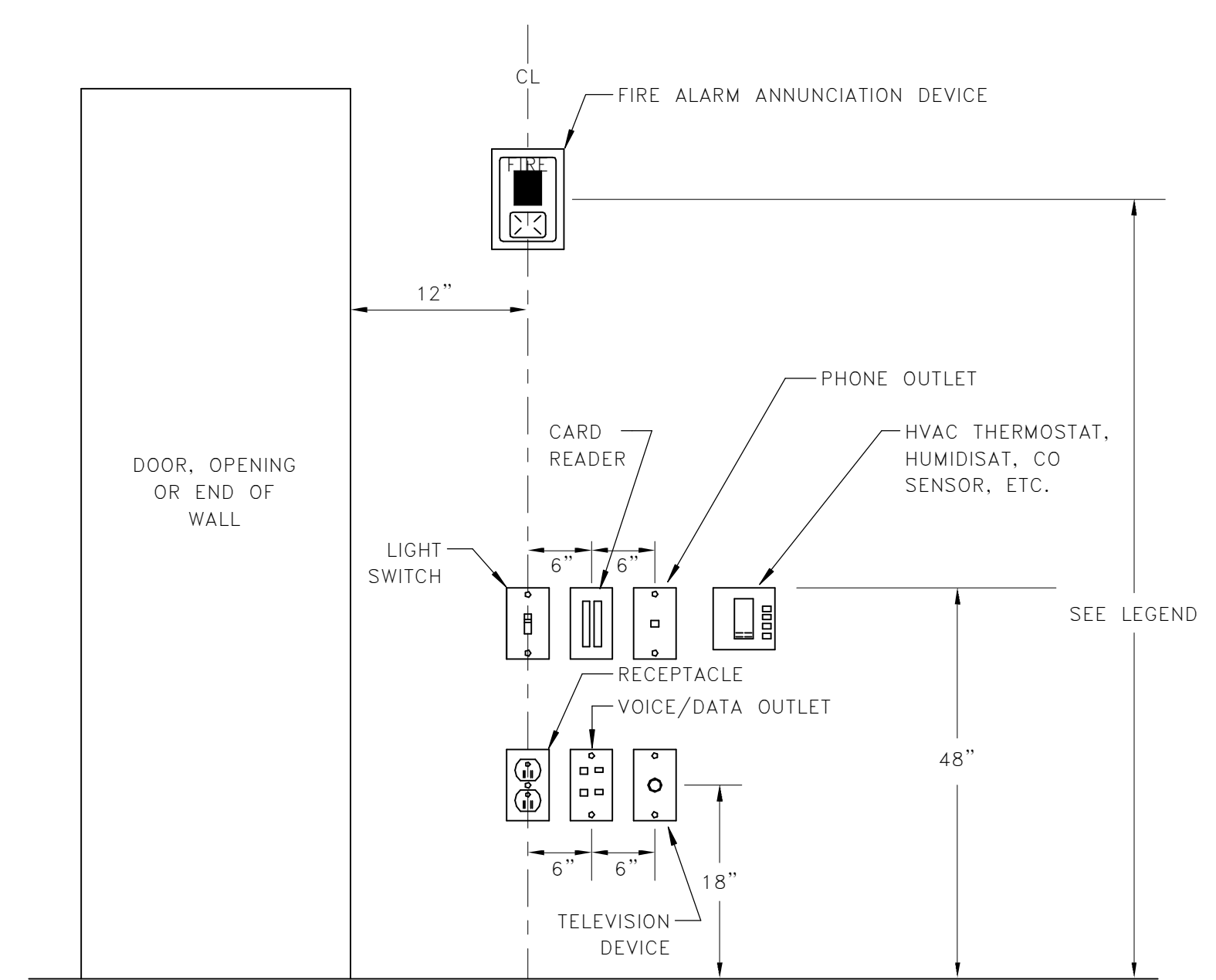
DEMOLITION/RENOVATION NOTATION	
*	IF NO ANNOTATION IS SHOWN ASSUME EXISTING TO REMAIN IN PLACE FOR SOLID LINES AND DEMOLISH FOR DASHED LINES.
*	DEVICES AND EQUIPMENT NOT SHOWN SHALL BE ASSUMED TO BE EXISTING TO REMAIN IN PLACE.
E	EXISTING FIXTURE OR DEVICE TO REMAIN IN PLACE.
R	EXISTING FIXTURE OR DEVICE TO BE REMOVED BY THE ELECTRICAL CONTRACTOR. MAINTAIN CONTINUITY OF REMAINING PORTIONS OF BRANCH CIRCUIT.
RE	EXISTING DEVICE TO BE REMOVED BY THE ELECTRICAL CONTRACTOR. EXISTING CIRCUIT SHALL BE RETAINED. PROVIDE NEW DEVICE AS SHOWN ON RENOVATION PLANS.
RN	RELOCATED FIXTURE (NEW LOCATION).
RR	EXISTING FIXTURE TO BE RELOCATED BY THE ELECTRICAL CONTRACTOR TO NEW LOCATION SHOWN ON RENOVATION PLAN.

- GENERAL "ELECTRICAL" NOTES**
- BRANCH CIRCUIT WIRING SHALL BE NO. 12 AWG UNLESS NOTED OTHERWISE. WHERE CONDUCTOR AND RACEWAY SIZE ARE SHOWN AT HOMERUN, SUCH SIZE SHALL BE USED FOR THE ENTIRE CIRCUIT. EXCEPTION: FINAL CONNECTION TO DEVICES, IN OUTLET BOXES, IS NOT REQUIRED TO BE LARGER THAN NO. 12 AWG.
 - 20A/120V BRANCH CIRCUITS EXCEEDING 100' IN LENGTH FROM PANEL TO FARTHEST DEVICE OR FIXTURE SHALL USE NO. 10 CONDUCTORS AND 3/4" C.
 - PRIOR TO ROUGH-IN, COORDINATE THE LOCATION AND MOUNTING HEIGHT OF ALL WALL AND CEILING MOUNTED DEVICES WITH THE ARCHITECTURAL ELEVATIONS, MILLWORK SHOP DRAWINGS, AND EXISTING CONDITIONS. IN THE EVENT OF A CONFLICT, NOTIFY THE ARCHITECT. MINOR ADJUSTMENTS IN DEVICE LOCATION, I.E. 5'-0" IN ANY DIRECTION SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
 - PROVIDE FLEXIBLE CONDUIT FOR ALL CONDUITS CROSSING EXPANSION JOINTS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF EXPANSION JOINTS.
 - OUTLET BOXES FOR SWITCHES, RECEPTACLES, ETC MOUNTED ON OPPOSITE SIDES OF FIRE RATED PARTITIONS SHALL NOT BE MOUNTED IN THE SAME WALL CAVITY. SEPARATE WALL PENETRATIONS BY MOUNTING ON OPPOSITE SIDES OF WALL STUDS OR OTHER VERTICAL STRUCTURAL MEMBER IN THE WALL.
 - RACEWAYS SHALL BE INSTALLED CONCEALED IN NEW WALL CONSTRUCTION ABOVE CEILINGS, BELOW FLOOR, AND IN OTHER CAVITIES TO THE GREATEST EXTENT POSSIBLE. WHERE EXPOSED RACEWAYS MUST BE USED, LAYOUT RACEWAYS TO MINIMIZE THE NUMBER OF VERTICAL RUNS.
 - FEEDER CONDUITS AND BRANCH CIRCUIT ROUTING SHALL COMPLY WITH DETAILS ON DRAWINGS AND SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES BEFORE AND DURING CONSTRUCTION.
 - THE ARRANGEMENT, GROUPING, AND ROUTING OF BRANCH CIRCUITS SHALL BE PROVIDED AT THE CONTRACTOR'S DISCRETION IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICE FOR ELECTRICAL WORK, THE NATIONAL ELECTRICAL CODE REQUIREMENTS, LOCAL ORDINANCES, AND THE FOLLOWING:
 B.1 A COMMON NEUTRAL SHALL NOT BE INSTALLED IN A HOMERUN FOR 2 OR 3 BRANCH CIRCUITS UNLESS DIRECTION IS PROVIDED BY THE ENGINEER IN WRITING FOR A SPECIFIC APPLICATION.
 B.2 MULTIPLE SINGLE-POLE BRANCH CIRCUITS (UP TO 3 HOTS, 3 NEUTRALS, 1 GROUND) RATED FOR 30-AMPS OR LESS MAY BE PULLED INTO A SINGLE RACEWAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING THE RACEWAYS AND DERATING CONDUCTORS PER NEC ARTICLE 310.15.
 B.3 BRANCH CIRCUIT, FEEDER & COMMUNICATION CIRCUITS SHALL BE ROUTED OVERHEAD UNLESS PRIOR APPROVAL HAS BEEN GRANTED BY THE ARCHITECT AND ENGINEER.
 B.4 A GROUND CONDUCTOR SHALL BE PROVIDED IN ALL RACEWAYS UNLESS NOTED OTHERWISE.
 - PROVIDE EXPANSION JOINT COUPLINGS ANYWHERE A CONDUIT PASSES THROUGH A BUILDING EXPANSION JOINT.
 - COORDINATE THE ROUTING OF UNDERGROUND CONDUCTORS/CONDUIT WITH STRUCTURAL FOOTINGS AND UNDERGROUND UTILITIES.
 - THE USE OF MC CABLE IS NOT ALLOWED.
 - SEAL ALL EXISTING AND NEW FIRE RATED WALL AND FLOOR PENETRATIONS IN THE CONSTRUCTION AREA WHEREVER ON THE ELECTRICAL DRAWINGS THE WORD "PROVIDE" IS USED, IT SHALL BE INFERRED TO MEAN "FURNISH AND INSTALL".
 - ELECTRICAL CONTRACTOR SHALL PROVIDE WATER PROOFING FOR ALL CONDUIT ENTERING BUILDING.

- GENERAL "POWER" NOTES**
- ALL BRANCH CIRCUITS INDICATED ON THESE PLANS TO BE LARGER THAN NO. 12 AWG SHALL BE SIZED AS INDICATED FOR THE ENTIRE LENGTH OF THE CIRCUIT.
 - PROVIDE AND INSTALL AN ENGRAVED LAMINATED PLASTIC NAMEPLATE ON EACH ITEM OF ELECTRICAL EQUIPMENT.
 - PROVIDE NEMA CONFIGURATION RECEPTACLES TO MATCH PLUGS ON EQUIPMENT FURNISHED.
 - PROVIDE LABEL ON FACEPLATES USING 1/8" HIGH BLACK LETTERS ON COVER PLATE OF ALL RECEPTACLES, SWITCHES & WALL MOUNTED DEVICES IN THE AREA OF WORK INDICATING PANEL AND BRANCH CIRCUIT TO WHICH EACH DEVICE IS CONNECTED.

- GENERAL EXISTING CONDITION NOTES**
- AREAS OF WORK EXIST FOR THIS PROJECT WHICH ARE NOT ACCESSIBLE OR HAVE LIMITED ACCESS DURING DESIGN. AS SUCH CONTRACTOR SHALL VERIFY ALL UTILITIES IN AREA OF WORK BEFORE DEMOLITION OF ANY SERVICE. ANY ELECTRICAL COMPONENTS NOT SHOWN SHALL BE IDENTIFIED AND THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED AS SOON AS POSSIBLE. NO ELECTRICAL REWORK SHALL BE COMMENCED WITHOUT COORDINATION OF BOTH ARCHITECT AND ENGINEER.
 - IN AREAS WHERE THE EXISTING CEILINGS ARE NOT SLATED TO BE REMOVED, THE CONTRACTOR SHALL WORK THRU THE EXISTING CEILINGS (SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR AREA OF WORK). THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED TILE OR GRID THAT IS A RESULT OF THEIR WORK.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A FIRESTOP SYSTEM IN ALL PENETRATIONS OF FIRE-RATED WALLS CREATED BY THE REMOVAL OF EXISTING ELECTRICAL CONDUIT OR CABLES, AS WELL AS THOSE CREATED BY NEWLY INSTALLED CONDUITS AND SLEEVES.
 - SUPPORT ALL EXISTING CONDUITS AND JUNCTION BOXES ABOVE THE CEILING PER NEC IN THE CONSTRUCTION AREA.
 - REMOVE ALL ABANDONED CONDUIT, WIRE, AND COMMUNICATION CABLES ABOVE THE CEILING IN THE CONSTRUCTION AREA.
 - PROVIDE JUNCTION BOX COVER PLATES ON ALL EXISTING JUNCTION BOXES ABOVE THE CEILING IN THE CONSTRUCTION AREA.
 - SUPPORT ALL EXISTING COMMUNICATION CABLES ABOVE THE CEILING IN THE CONSTRUCTION AREA
 - WHERE INFORMATION SHOWN ON THESE DRAWINGS CONFLICTS WITH VERIFIED FIELD CONDITIONS, IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER

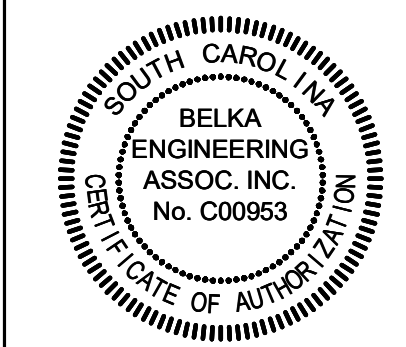
- GENERAL "DEMOLITION" NOTES**
- ALL ELECTRICAL EQUIPMENT TO BE REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIALS UNTIL RELEASED BY OWNER'S PROJECT MANAGER. MATERIALS THAT OWNER'S PROJECT MANAGER CHOOSES TO RETAIN SHALL BE DELIVERED BY THE CONTRACTOR TO A LOCATION DESIGNATED BY THE PROJECT MANAGER. ALL OTHER MATERIALS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
 - REMOVE ALL EXPOSED ABANDONED COMMUNICATION CABLE FOUND DURING THE CONSTRUCTION PROCESS. SUPPORT ALL EXISTING REMAINING CABLE PER THE NEC.
 - ELECTRICAL DEVICES NOT SHOWN ON WALLS TO BE DEMOLISHED SHALL BE DEMOLISHED AT NO ADDITIONAL COST TO OWNER.
 - ELECTRICAL DEVICES NOT SHOWN ON CEILINGS OR WALLS TO REMAIN SHALL REMAIN IN PLACE. PROTECT FROM DAMAGE DURING CONSTRUCTION
 - ELECTRICAL DEVICES NOT SHOWN ON CEILINGS TO BE REMOVED SHALL BE TEMPORARILY DISCONNECTED AND REMOVED DURING DEMOLITION AND RE-INSTALLED ON NEW CEILING IN SAME LOCATION.



- NOTE:**
- DEVICES SHOWN WITHIN 48" OF EACH OTHER ON ALL ELECTRICAL PLANS SHALL BE ALIGNED PER THIS DETAIL. IF DEVICES ARE SHOWN IN MIDDLE OF WALL, THEN CENTER DEVICES ON WALL.
 - DEVICES ABOVE COUNTER SHALL BE MAXIMUM OF 44" TO TOP OF DEVICE. SEE ELEVATIONS FOR ADDITIONAL INFORMATION.

1 DEVICE ALIGNMENT DETAIL
 E001 NOT TO SCALE

BELKA
 ENGINEERING ASSOCIATES
 2519A PLATT SPRINGS RD | WEST COLUMBIA, SC
 (803) 731-0650 Office | (803) 467-7657 Cell
 CONTACT: JASON AREHEART
 JAREHEART@BEA-Consulting.com



MIDLANDS TECHNICAL COLLEGE - SALUDA HALL
 GENERATOR
 1260 LEXINGTON DRIVE, WEST COLUMBIA, SC 29170
 ELECTRICAL ONE-LINE DIAGRAM

MAIN LUGS DISTRIBUTION SYSTEMS							REMARKS
PANEL	DISTRIBUTION	PHASE	# OF WIRES	MAINS	SCCR	FED FROM	
GEN	208 V/3-0	3	4	400 A	10000	ATS	

SURGE PROTECTION DEVICE SCHEDULE										
PANEL	DISTRIBUTION	PHASE	# OF WIRES	FED FROM	SURGE CURRENT RATING	SURGE COUNTER	VISIBLE & AUDIBLE ALARM	NETWORK MONITORING	MOUNTING BASIS	DESIGN
SPD	208 V/3-0	3	4	GEN	200KA / PHASE	YES	YES	NO	SURFACE	ASCO 440 SERIES

TRANSFER SWITCH SCHEDULE							
PANEL	DISTRIBUTION	PHASE	# OF WIRES	MAINS	WCR	FED FROM	REMARKS
ATS	208 V/3-0	3	4	400 A	50000	SE	

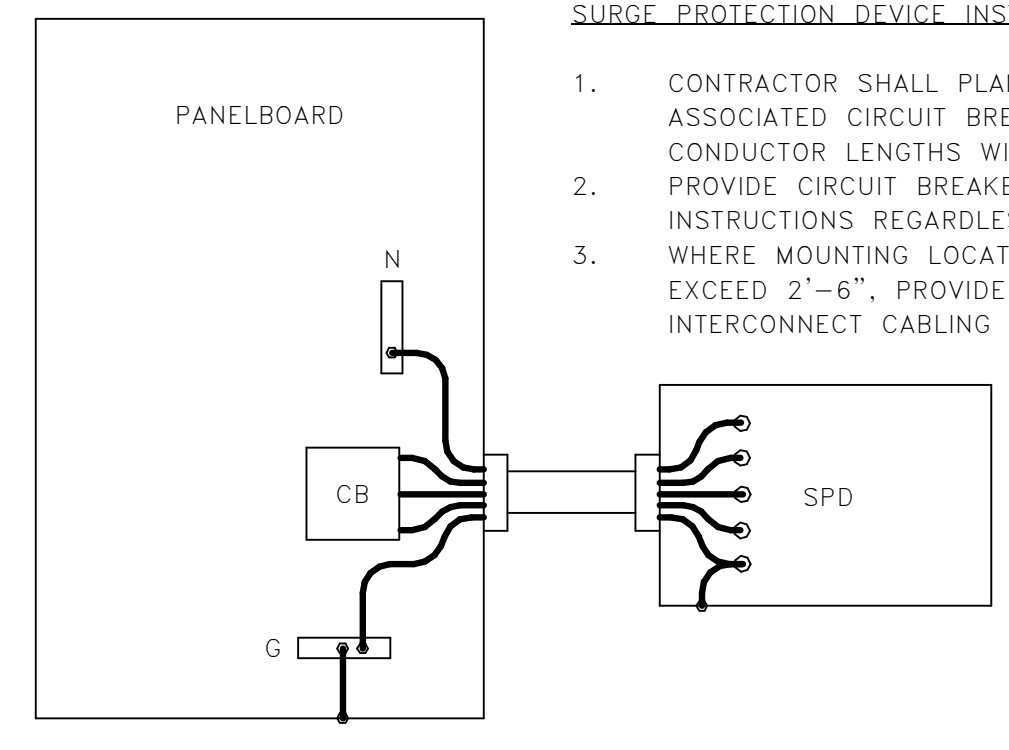
DIAGRAM PROVIDES OVERALL VIEW OF BUILDING GROUNDING SYSTEM. EQUIPMENT SHALL BE GROUNDED BASED ON ITS PORTION OF THIS DIAGRAM.

GROUNDING NOTES:

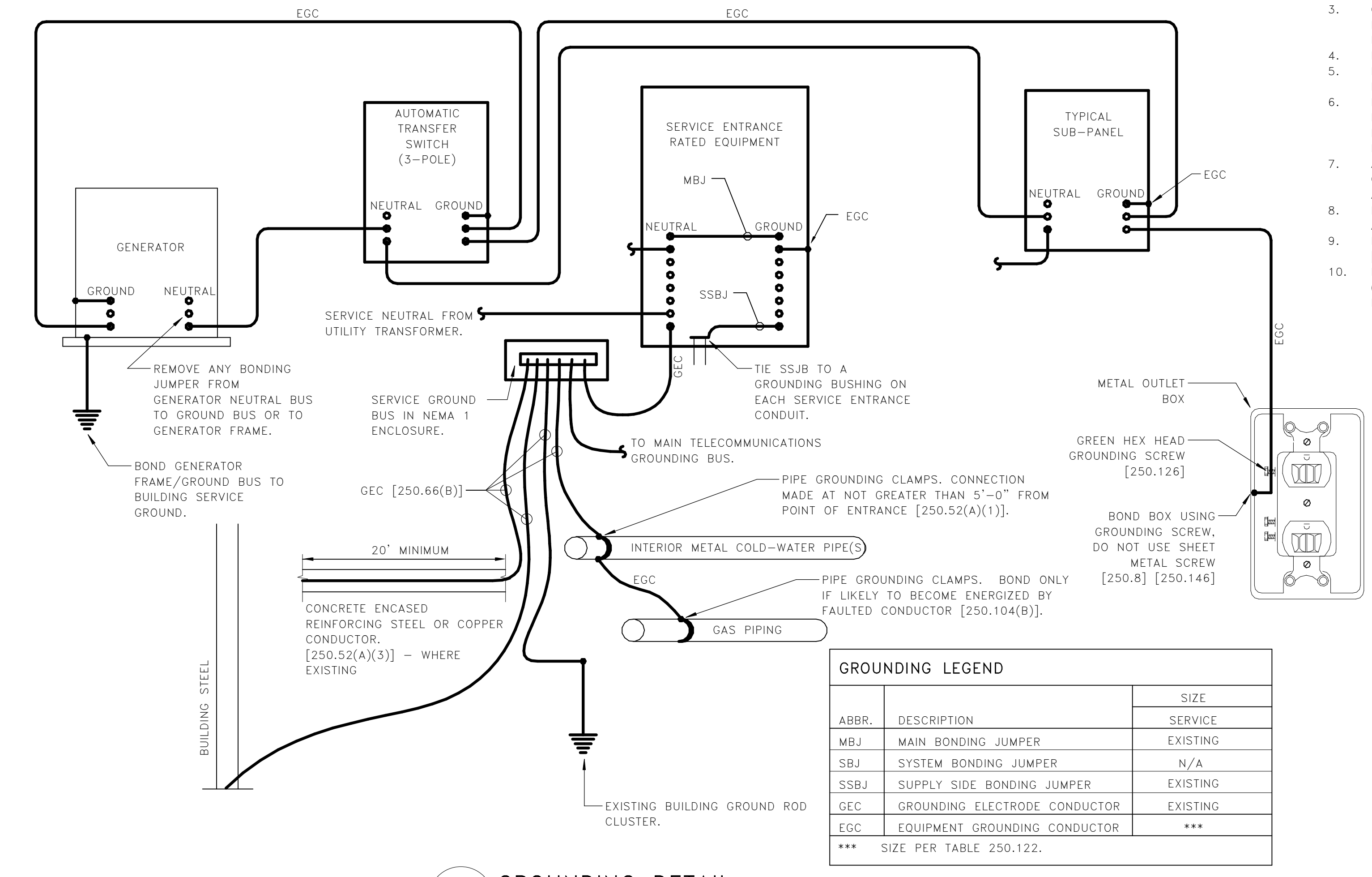
- NUMBERS IN BRACKETS REFER TO SPECIFIC SECTIONS OF THE NATIONAL ELECTRICAL CODE.
- ALL UNDERGROUND OR OTHERWISE INACCESSIBLE GROUND CONNECTIONS AND SPLICES SHALL BE EXOTHERMICALLY WELDED [250.68].
- GROUND ELECTRODE FOR SEPARATELY DERIVED SYSTEMS SHALL BE THE NEAREST METAL WATER PIPE OR STRUCTURAL METAL IF EITHER IS NOT AVAILABLE. PROVIDE GROUNDING CONDUCTOR BACK TO MAIN GROUND BUS AT SERVICE ENTRANCE.
- PROVIDE A GROUND WIRE IN ALL CONDUITS.
- EARTH SHALL NOT BE USED AS THE SOLE GROUND RETURN PATH FOR ANY EQUIPMENT POWERED UNDER THIS PROJECT.
- NO ALUMINUM SHALL BE USED FOR GROUNDING WORK WITHOUT THE SPECIFIC WRITTEN PERMISSION OF THE ENGINEER. EXCEPTION: ALUMINUM BUILDING STRUCTURAL MATERIALS SHALL BE BONDED WITH LISTED ALUMINUM EQUIPMENT WITH ALUMINUM TO COPPER CONNECTORS FOR ROUTING COPPER EGC'S.
- ALL METAL ENCLOSURES AND RACEWAYS SHALL BE BONDED TO GROUND [250.86]. FOR CIRCUITS OVER 250V PROVIDE BOND PER [250.97]. STANDARD LOCKNUTS ARE NOT ACCEPTABLE.
- PROVIDE EGC CONNECTED TO ANY JUNCTION BOX WHERE SPLICE IS MADE [250.148] OR WHERE A DEVICE IS INSTALLED.
- PROVIDE BOND TO EXPOSED METAL ON ALL MOTORS, PUMPS, AND LIGHTING FIXTURES PER [250.112].
- DRIVE A GROUND ROD AT GENERATOR AND BOND TO THE GENERATOR FRAME. REMOVE STRAP (SYSTEM BONDING JUMPER) BETWEEN GENERATOR NEUTRAL BUS AND GENERATOR FRAME. NEUTRAL BUS AND CONDUCTORS SHALL BE ISOLATED FROM THE GENERATOR FRAME.

SURGE PROTECTION DEVICE INSTALLATION NOTES:

- CONTRACTOR SHALL PLAN AND ARRANGE MOUNTING OF SPD AND ASSOCIATED CIRCUIT BREAKER TO ALLOW FOR SHORTEST POSSIBLE CONDUCTOR LENGTHS WITH NO BENDS IN THE LINE CONDUCTORS.
- PROVIDE CIRCUIT BREAKER SIZE AND WIRE SIZE PER SPD MANUFACTURER'S INSTRUCTIONS REGARDLESS OF WHAT IS SHOWN IN PANEL.
- WHERE MOUNTING LOCATIONS AVAILABLE REQUIRE CONDUCTOR LENGTHS TO EXCEED 2'-6". PROVIDE MANUFACTURER'S HIGH PERFORMANCE INTERCONNECT CABLING ASSEMBLY INSTEAD OF STANDARD CONDUCTORS.



4 SPD DETAIL
E002 NOT TO SCALE

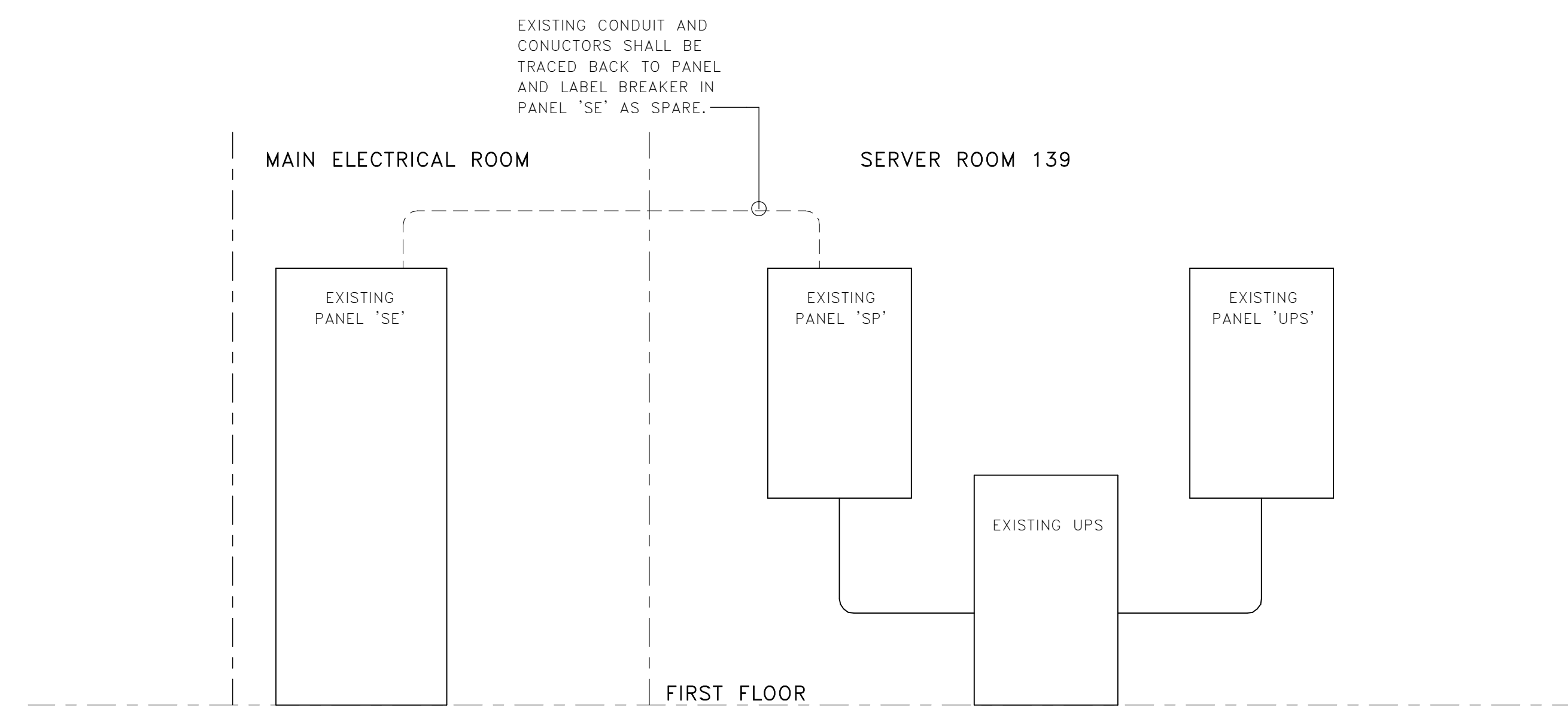


GROUNDING LEGEND

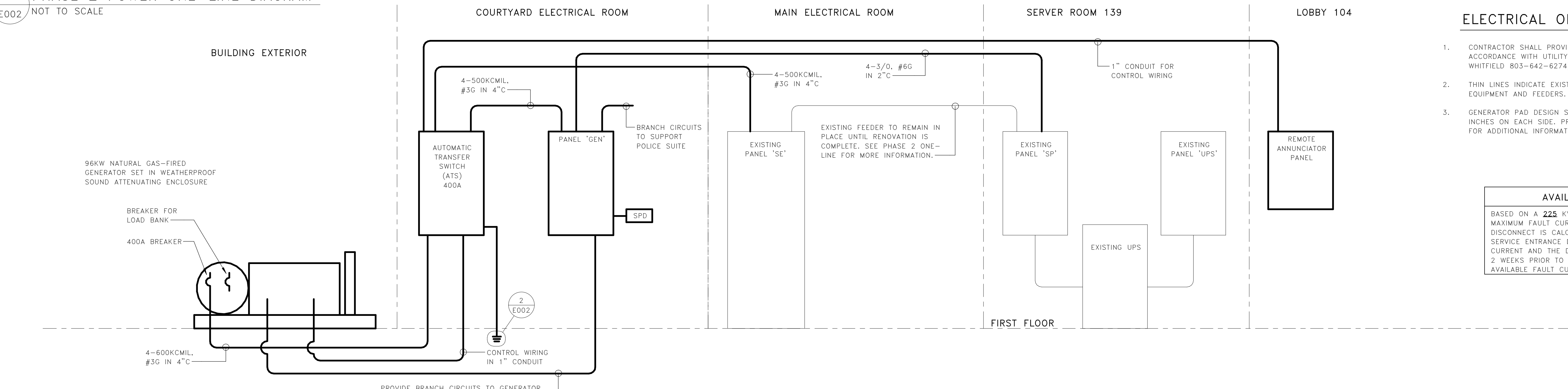
ABBR.	DESCRIPTION	SIZE
MBJ	MAIN BONDING JUMPER	EXISTING
SBJ	SYSTEM BONDING JUMPER	N/A
SSBJ	SUPPLY SIDE BONDING JUMPER	EXISTING
GEC	GROUNDING ELECTRODE CONDUCTOR	EXISTING
EGC	EQUIPMENT GROUNDING CONDUCTOR	***

*** SIZE PER TABLE 250.122.

2 GROUNDING DETAIL
E002 NOT TO SCALE



1 PHASE 2 POWER ONE-LINE DIAGRAM
E002 NOT TO SCALE



3 RENOVATED POWER ONE-LINE DIAGRAM
E002 NOT TO SCALE

ELECTRICAL ONE-LINE GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED COMPONENTS TO MAKE UTILITY CONNECTION IN ACCORDANCE WITH UTILITY COMPANY'S REQUIREMENTS. COORDINATE ALL WORK WITH DOMINION GAS (BRAO WHITFIELD 803-642-6274)
- THIN LINES INDICATE EXISTING EQUIPMENT AND FEEDERS TO REMAIN. WIDE LINES INDICATE NEW EQUIPMENT AND FEEDERS.
- GENERATOR PAD DESIGN SHALL BE BY GENERATOR MANUFACTURER. PAD SHALL OVERLAP EQUIPMENT BY 4 INCHES ON EACH SIDE. PROVIDE TOE DOWN IN PAD DESIGN TO ACCOMMODATE GRADES. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.

AVAILABLE FAULT CURRENT

BASED ON A 225 KVA 5.75 %Z UTILITY TRANSFORMER THE MAXIMUM FAULT CURRENT AVAILABLE AT THE SERVICE ENTRANCE DISCONNECT IS CALCULATED TO BE 8,873 AMPS. LABEL THE SERVICE ENTRANCE DISCONNECT WITH THIS MAXIMUM FAULT CURRENT AND THE DATE OF INSTALLATION. CONTACT ENGINEER 2 WEEKS PRIOR TO SUBSTANTIAL COMPLETION TO CONFIRM THE AVAILABLE FAULT CURRENT PRIOR TO LABELING EQUIPMENT.



REV	DATE	DESCRIPTION

JOB No. H59-N273-JM
 DATE: 03.08.24
 DRAWN BY: DMS
 CHECK BY: JLA
 SHEET NUMBER

E002

PLOT DATE: Issue Date



CONSIDERABLE EFFORT HAS BEEN MADE TO DETERMINE THE EXTENT OF UNDERGROUND UTILITIES. SOME LOCATIONS ARE ACTUAL FIELD MEASUREMENTS AND SOME ARE TAKEN FROM UTILITY RECORDS. THIS PLAN DOES NOT WARRANT THAT UTILITIES ARE SHOWN ACCURATELY NOR THAT ALL UTILITIES ARE SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES PRIOR TO BEGINNING DIGGING OPERATIONS. CALL PALMETTO UTILITIES LOCATION SERVICE AT 811 A MINIMUM OF 3 WORKING DAYS BEFORE DIGGING. ANY UTILITIES DAMAGED OR DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THE CONNECTION POINTS OF NEW UTILITIES TO EXISTING UTILITIES PRIOR TO BEGINNING NEW CONSTRUCTION.

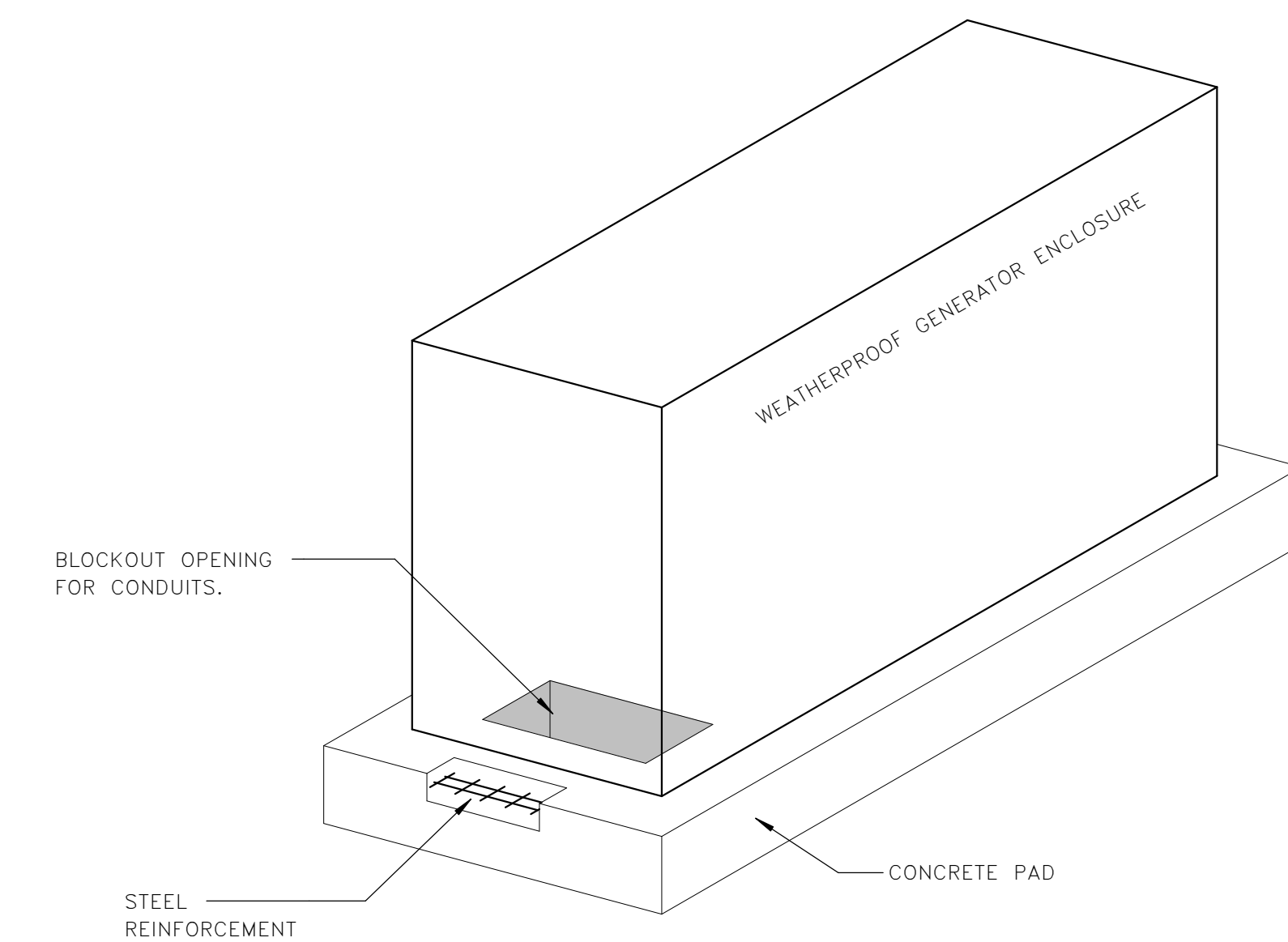
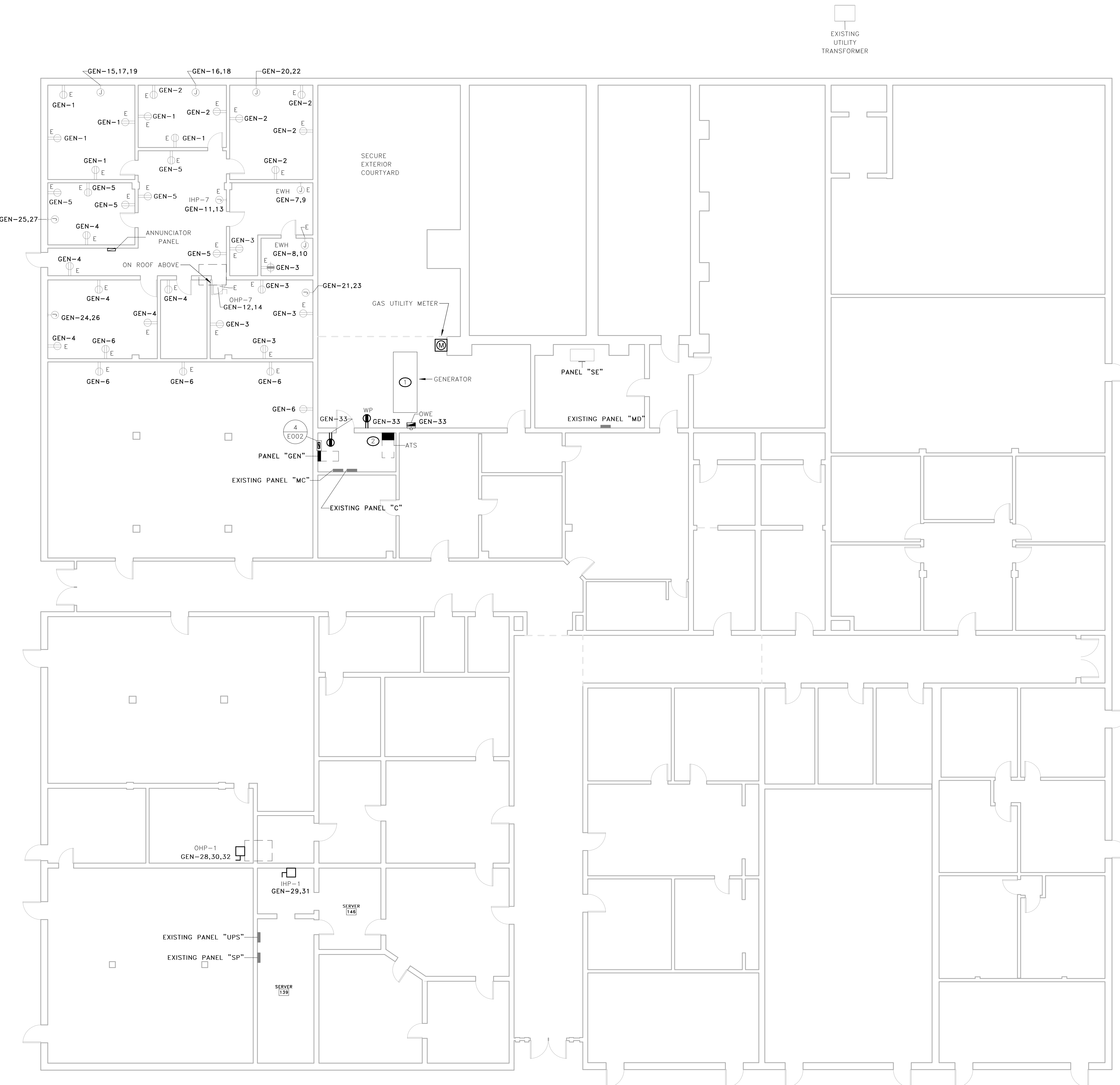
LIGHT FIXTURE SCHEDULE									
SYMBOL	FIXTURE SPECIFICATIONS				LAMPING		ELECTRICAL		MOUNTING REMARKS
	TYPE	DESCRIPTION	MANUFACTURER	CAT. #	LUMENS	COLOR TEMP	FIXT. LOAD	VOLTS	
	OWE	LED WALL PACK CONNECTED TO GENERATOR BACKED CIRCUIT	STONCO	ASW25-SCT-GT-8-PCB-BW	3000	4000K	25	120 V	WALL MTD AT 9" AFF

KEY NOTES

- EXISTING CONCRETE SHALL BE REMOVED AND NEW PAD SHALL BE PROVIDED PER SPECIFICATIONS. 3' CLEARANCE SHALL BE MAINTAINED ON EACH SIDE OF GENERATOR AND 4' FROM BUILDING.
- COORDINATE EXACT LOCATION OF ATIS SUCH THAT INCOMING FEEDER DOES NOT INTERFERE WITH EXISTING CONDUIT & PULLBOXES IN THIS APPROXIMATE LOCATION.

GENERAL NOTES

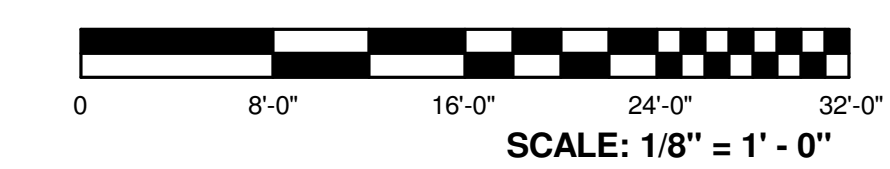
- INTENT IS NOT TO RE-CONNECT EVERY DEVICE, BUT TO EXTEND EXISTING BRANCH CIRCUITS TO PANEL AS IS.



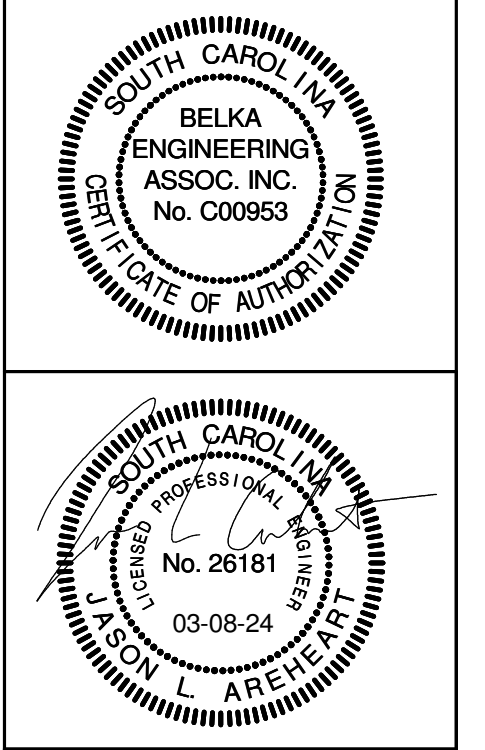
GENERATOR CONCRETE FOUNDATION MINIMUM GUIDELINES

- THE FOLLOWING ARE GENERAL GUIDELINES. CONSULT GENERATOR MANUFACTURER FOR THEIR PREFERRED GUIDELINES PRIOR TO WORK.
- CONCRETE BASE SHALL EXTEND A MINIMUM OF 12" BEYOND EQUIPMENT BASE ON ALL SIDES.
- FOUNDATION DEPTH (FD) SHALL BE CALCULATED BY THE FOLLOWING FORMULA.

$$FD = \frac{W}{D \times B \times L}$$
 WHERE:
 FD = FOUNDATION DEPTH (FT)
 W = TOTAL WEIGHT OF GENERATOR SET (LBS)
 D = DENSITY OF CONCRETE (150 LBS/SQFT)
 B = FOUNDATION WIDTH (FT)
 L = FOUNDATION LENGTH (FT)
- CONCRETE MIXTURE SHALL HAVE A MAXIMUM 4-INCH SLUMP AND 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- REINFORCE WITH NO. 8 GAUGE STEEL WIRE MESH, OR EQUIVALENT, HORIZONTALLY PLACED ON 6-INCH CENTERS. AN ALTERNATIVE METHOD PLACES NO. 6 REINFORCING BARS ON 12-INCH CENTERS HORIZONTALLY. BARS MUST BE CLEAR OF FOUNDATION SURFACES BY 3-INCHES MINIMUM.
- PROVIDE BLOCKOUT FOR CONDUIT RISERS INTO GENERATOR ENCLOSURE. COORDINATE EXACT LOCATION WITH GENERATOR MANUFACTURER SHOP DRAWINGS.



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MIDLANDS TECHNICAL COLLEGE - SALUDA HALL
GENERATOR
1260 LEXINGTON DRIVE, WEST COLUMBIA, SC 29170
ELECTRICAL RENOVATION PLAN

REV	
JOB No.	H59-N273-JM
DATE:	03.08.24
DRAWN BY:	DMS
CHECK BY:	JLA
SHEET	NUMBER

E101

PLOT DATE: Issue Date

NOTES TO SHEET

- 1. GAS METER (BY UTILITY COMPANY); 1212 CFH. OUTLET PRESSURE: 7" W.C. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY AND BUILDING OWNER FOR REQUIRED SERVICE.

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED ACCORDING TO ALL LOCAL, STATE, NATIONAL CODES, AND THE 2021 INTERNATIONAL FUEL GAS CODE.
2. DO NOT SCALE DRAWINGS. SEE ELECTRICAL DRAWINGS FOR EXACT DIMENSIONS, GENERATOR LOCATION, ETC.
3. COORDINATE CLOSELY WITH ALL WORK DONE UNDER OTHER DIVISIONS OF THE SPECIFICATIONS TO AVOID INTERFERENCE AND CONFLICT.
4. PROVIDE FOR ACCESS TO ALL EQUIPMENT REQUIRING CLEANING OR ADJUSTMENT.
5. ALL GAS-FIRED APPLIANCES SHALL BE PROVIDED WITH INDIVIDUAL PRESSURE REGULATING VALVES. REGULATORS SHALL BE SIZED FOR INLET AND OUTLET PRESSURE AS REQUIRED BY THE APPLIANCE.
6. THIS CONTRACTOR SHALL MAKE ALL CONNECTIONS TO GAS-FIRED GENERATOR. PROVIDE A SHUT-OFF VALVE FOR EACH APPLIANCE.

SPECIFICATIONS

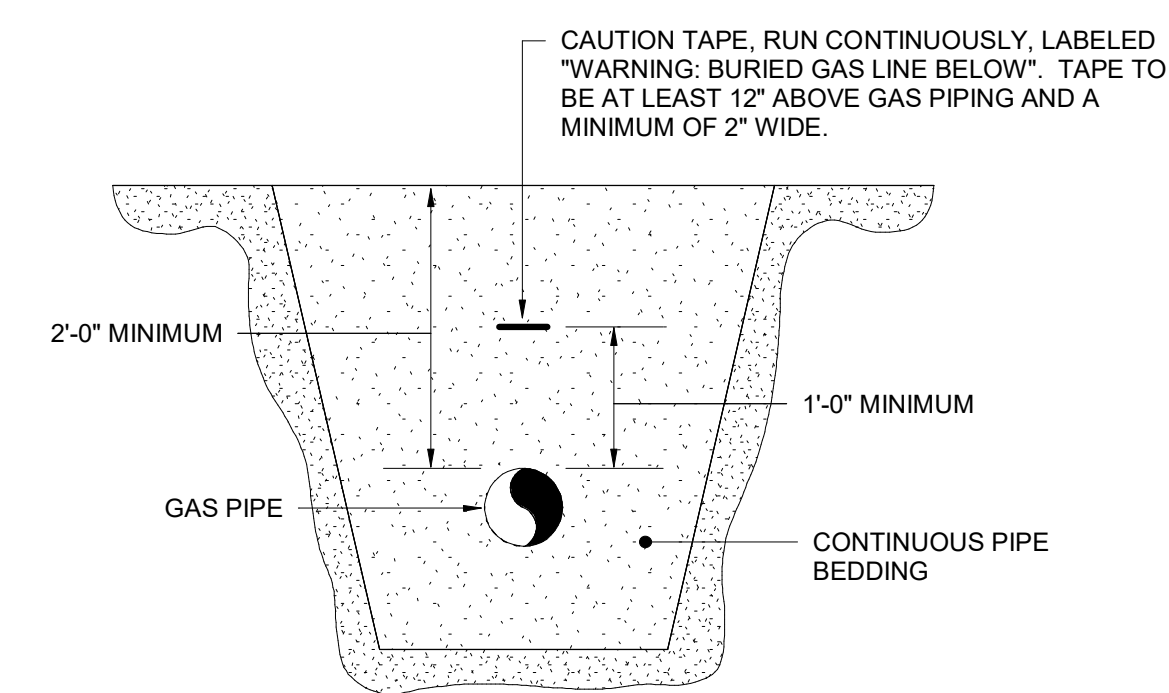
GAS PIPING:
ALL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH BLACK MALLEABLE IRON FITTINGS.

LEGEND

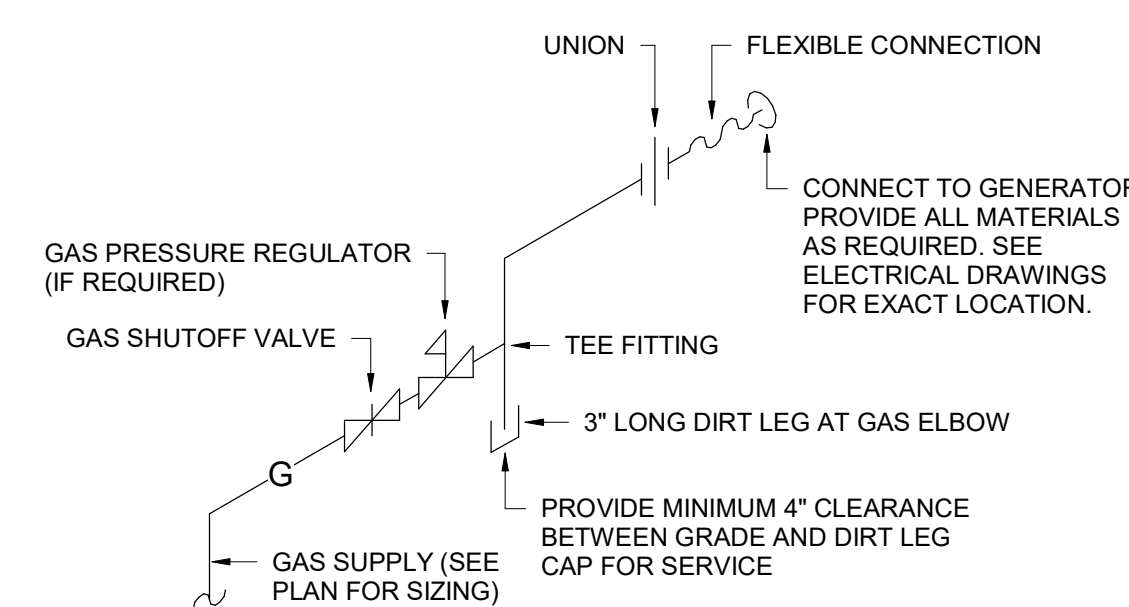
SYMBOL	DESCRIPTION
	GAS LINE
	PIPE TURNS TO AWAY



CONNECT TO GENERATOR
 1
 DROP DOWN BELOW GRADE
 2" (MINIMUM 2'-0" BELOW GRADE - SEE DETAIL)
 GENERATOR (SEE ELECTRICAL PLANS FOR EXACT LOCATION)

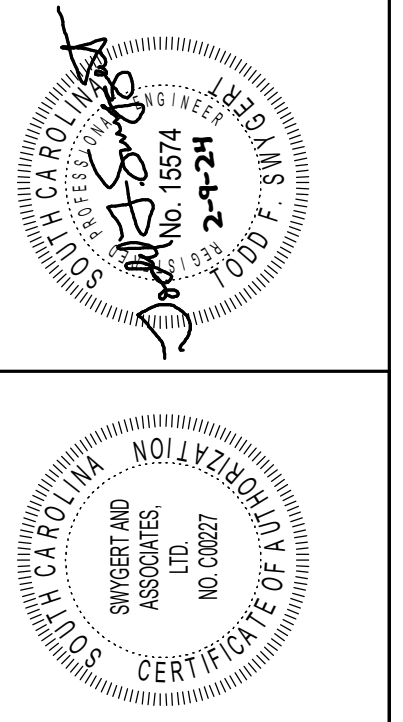


UNDERGROUND GAS PIPING DETAIL
NO SCALE



GAS CONNECTION DETAIL
NO SCALE

1 FIRST FLOOR PLAN
P101 1/8" = 1'-0"



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SW22209

MIDLANDS TECHNICAL COLLEGE - SALUDA HALL
GENERATOR
1260 LEXINGTON DRIVE, WEST COLUMBIA, SC 29170
FIRST FLOOR PLAN, NOTES, AND DETAILS

REV	
JOB No.	H59-N273-JM
DATE:	02.09.24
DRAWN BY:	DEM
CHECK BY:	TFS
SHEET	NUMBER

P101

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