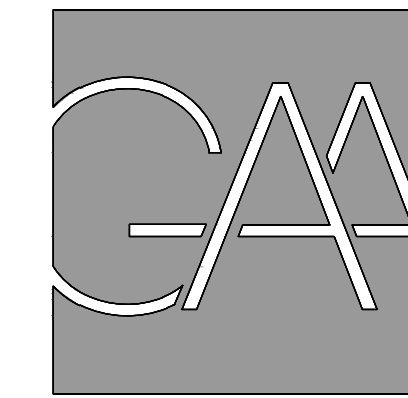


FAIRFAX COUNTY PUBLIC SCHOOL FAIRFAX, VA MMB-088-24

WOODSON FOOD SERVICE GENERATOR

BID/PERMIT DRAWINGS

05-14-2024



GAUTHIER
ALVARADO
ASSOCIATES

ARCHITECTURE | ENGINEERING | PLANNING
10201 FAIRFAX BOULEVARD, SUITE 225, FAIRFAX, VIRGINIA
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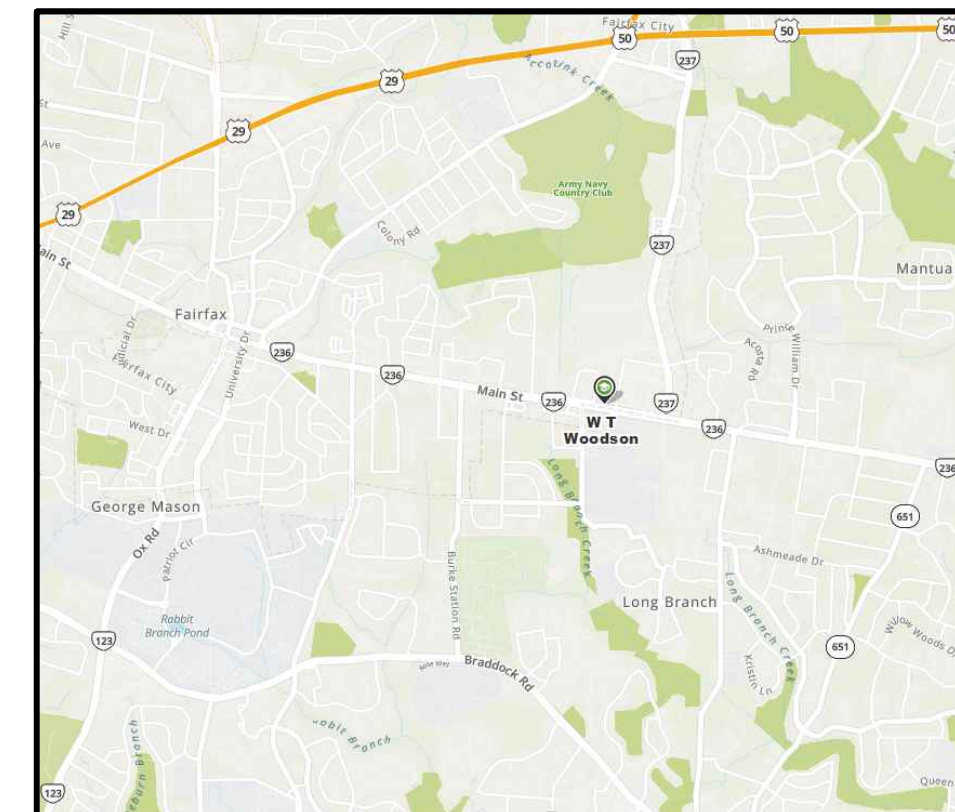
ABBREVIATIONS

ACM	ASBESTOS CONTAINING MATERIALS	JAN	JANITOR
ACS FLR	ACCESS FLOOR (ING)	JST	JOIST
ACS PNL	ACCESS PANEL	JT	JOINT
ACST	ACOUSTIC (AL)	L	LONG; LENGTH
AD	AREA DRAIN	LAB	LABORATORY
ADJ	ADJACENT; ADJUSTABLE	LAM	LAMINATE (D)
ADDL	ADDITIONAL	LAV	LAVATORY
ADDM	ADDENDUM	LBS	POUNDS
APC	ABOVE FINISH COUNTER	LF	LINEAR FEET
APF	ABOVE FINISH FLOOR	LPT	LOW POINT
AL	ALUMINUM	MACH	MACHINE
ALT	ALTERNATE	MAS	MASONRY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MATL	MATERIAL
APPROX	APPROXIMATE	MAX	MAXIMUM
ARCH	ARCHITECT (URAL)	MKR BD	MARKER BOARD
ASC	ABOVE SUSPENDED CEILING	MDF	MEDIUM DENSITY FIBERBOARD
ASPH	ASPHALT	MECH	MECHANICAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MED	MEDIUM
		MTL	METAL
		MFR	MANUFACTURER
BAL	BALANCE	MIN	MINIMUM; MINUTE
BD	BOARD	MISC	MISCELLANEOUS
BITUM	BITUMINOUS	MO	MASONRY OPENING; MOTOR OPERATED
BLDG	BUILDING	MTD	MOUNTED
BLKG	BLOCKING	MTG	MOUNTING
BOT	BOTTOM	N	NORTH
BRDG	BRIDGING	NIC	NOT IN CONTRACT
BS	BOTH SIDES	NO	NUMBER
BTWN	BETWEEN	NOM	NOMINAL
BUR	BUILT-UP ROOFING	NTS	NOT TO SCALE
CAB	CABINET	OC	ON CENTER
CAP	CAPACITY	OD	OUTSIDE DIAMETER
CHBD	CHARCBOARD	OPNG	OPENING
CI	CAST IRON	OPP	OPPOSITE
CJ	CONTROL JOINT	OVHD	OVERHEAD
CLG	CEILING	PART	PARTIAL
CLO	CLOSET	PL	PLATE
CLR	CLEAR	PLAM	PLASTIC LAMINATE
CMU	CONCRETE MASONRY UNIT	PLAS	PLASTER
CO	CASED OPENING	PLBG	PLUMBING
COL	COLUMN	PLYWD	PLYWOOD
CONC	CONCRETE	PNL	PANEL
CONN	CONNECTION	PTD	PAINTED
CONSTR	CONSTRUCTION	PTN	PARTITION
CONT	CONTINUOUS	PVC	POLYVINYL CHLORIDE
CONTR	CONTRACTOR	QT	QUARRY TILE
COORD	COORDINATE	R	RADIUS; RISER
CPT	CARPET (ED)	RD	ROOF DRAIN
CSK	COUNTER SUNK	REINF	REINFORCEMENT
CT	CERAMIC TILE	REQD	REQUIRED
CU	COPPER	RESIL	RESILIENT
CW	COLD WATER	REV	REVISION
D	DEPTH; DEEP	RM	ROOM
DBL	DOUBLE	RO	ROUGH OPENING
DET	DETAIL	RTU	ROOF TOP UNIT
DF	DRINKING FOUNTAIN	RWL	RAIN WATER LEADER
DIA	DIAMETER	S	SOUTH
DM	DIMENSION	SAPC	SUSPENDED ACOUSTICAL PANEL
DN	DOWN	SATC	SUSPENDED ACOUSTICAL TILE
DR	DOOR	SCHED	SCHEDULE (D)
DS	DOWNSPOUT	SCW	SOLID CORE WOOD
DWG	DRAWING	SECT	SECTION
E	EAST	SF	STOREFRONT; SQUARE FOOT
EA	EACH	SIM	SIMILAR
EE	EACH END	SQ	SQUARE
EF	EACH FACE	SST	STAINLESS STEEL
EJ	EXPANSION JOINT	ST	STREET
EL	ELEVATION	STD	SOUND TRANSMISSION CRITERIA
ELEC	ELECTRIC (AL)	STC	STANDARD
ELEV	ELEVATOR	STL	STEEL
EMER	EMERGENCY	STOR	STORAGE
ENCL	ENCLOSE (URE)	STRUCT	STRUCTURE (AL)
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	SUSP	SUSPENDED
EQ	EQUAL	SYMM	SYMMETRY (ICAL)
EQUIP	EQUIPMENT	T	TREAD
EW	EACH WAY	T&G	TONGUE AND GROOVE
EWC	ELECTRIC WATER COOLER	T/O	TOP OF
EXH	EXHAUST	TEL	TELEPHONE
EXIST	EXISTING	TEMP	TEMPERATURE; TEMPORARY
EXP	EXPOSED; EXPANSION	THK	THICK (NESS)
EXT	EXTERIOR; EXTINGUISHER	THRU	THROUGH
F	FAHRENHEIT	TK BD	TACK BOARD
FIO	FACE OF	TOW	TOP OF WALL
FA	FIRE ALARM	TRTD	TREATED
FD	FLOOR DRAIN	TV	TELEVISION
FDTN	FOUNDATION	TYP	TYPICAL
FE	FIRE EXTINGUISHER	UC	UNDER COUNTER
FH	FIRE HYDRANT	UGND	UNDERGROUND
FIN	FINISH (ED)	UL	UNDERWRITER'S LABORATORIES
FLASH	FLASHING	UON	UNLESS OTHERWISE NOTED
FLR	FLOOR	VCT	VINYL COMPOSITION TILE
FLUOR	FLUORESCENT	VERT	VERTICAL
FR	FIRE RESISTANT	VTR	VENT THRU ROOF
FRTW	FIRE RETARDANT TREATED WOOD	WVC	VINYL WALL COVERING
FT	FOOT; FEET	W	WIDTH; WASTE; WEST; WIRE
FTG	FOOTING	W/	WITH
FTR	FLUE THRU ROOF	W/O	WITHOUT
FURG	FURRING (ED)	WC	WATER CLOSET
GA	GAGE	WD	WOOD
GALV	GALVANIZED	WDW	WINDOW
GL	GLASS	WP	WATERPROOF (ING); WORK POINT
GYP	GYP-SUM	WT	WEIGHT
HB	HOSE BIBB	WWR	WELDED WIRE REINFORCING
HC	HANDICAP	XFMR	TRANSFORMER
HCM	HOLLOW CORE WOOD		
HDW	HARDWARE		
HM	HOLLOW METAL		
HORIZ	HORIZONTAL		
HPT	HIGH POINT		
HT	HEIGHT		
HVAC	HEATING/VENTILATING/AIR CONDITIONING		
HW	HOT WATER		
ID	INSIDE DIAMETER		
INCL	INCLUDE (D), (ING)		
INFO	INFORMATION		
INSUL	INSULATION; INSULATED		
INT	INTERIOR		

GENERAL NOTES

- PERFORM WORK IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL GOVERNING ORDINANCES, CODES AND REGULATIONS.
- ALL MATERIALS SHALL COMPLY WITH APPLICABLE CODES, ORDINANCES AND REGULATIONS.
- VISIT AND BECOME FAMILIAR WITH THE SITE AND BUILDING PRIOR TO BID. INCLUDE THE COST OF ALL WORK DESCRIBED IN THE CONTRACT DOCUMENTS AND THAT IS REQUIRED OR REASONABLY IMPLIED TO ACHIEVE THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.
- NOTIFY THE ARCHITECT OF ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE NEW WORK, OF ANY OMISSIONS OR CONFLICTS IN THE DRAWINGS AND ANY RESTRICTIONS RELATED TO THE EXECUTION OF THE WORK INCLUDING THE COORDINATION WITH OTHER TRADES.
- FIELD VERIFY ALL CONDITIONS AND DIMENSIONS INDICATED AND NOTIFY THE ARCHITECT OF ANY VARIATION PRIOR TO THE PURCHASING OF MATERIALS, FABRICATION OR CONSTRUCTION OF ANY ITEM.
- PROTECT EXISTING BUILDING FROM WEATHER DURING EXECUTION OF THE WORK; AND PROTECT EXISTING ADJACENT AREAS FROM DAMAGE DURING EXECUTION OF THE WORK. ALL ITEMS DAMAGED DURING THE WORK SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- ADJACENT AREAS OF THE EXISTING FACILITY WILL REMAIN IN OPERATION WHILE WORK IS BEING DONE. ALL WORK SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE, AND SHALL BE SEQUENCED AND PERFORMED IN A MANNER TO MINIMIZE ANY IMPACTS ON EXISTING FACILITY OPERATIONS.
- PROTECT EXISTING GRASS AND PLANTING AREAS. RESTORE ANY AREA DAMAGED BY THE WORK TO ORIGINAL CONDITION.
- BUILDING SHALL BE WEATHER-TIGHT AT END OF EACH DAY.
- EXISTING UNDERGROUND UTILITIES ARE SHOWN FROM AVAILABLE RECORDS, THIS DOES NOT CONSTITUTE A GUARANTEE OF THEIR ACTUAL LOCATIONS.
- SURFACED STREETS AND SURFACED PARKING AREAS SHALL BE MAINTAINED IN A CLEAN CONDITION - MUD AND DUST FREE - AT ALL TIMES; AND, ADEQUATE MEANS SHALL BE PROVIDED TO CLEAN TRUCKS AND OTHER EQUIPMENT USING SURFACED STREETS AND PARKING AREAS.

MAPS



VICINITY MAP



LOCATION MAP

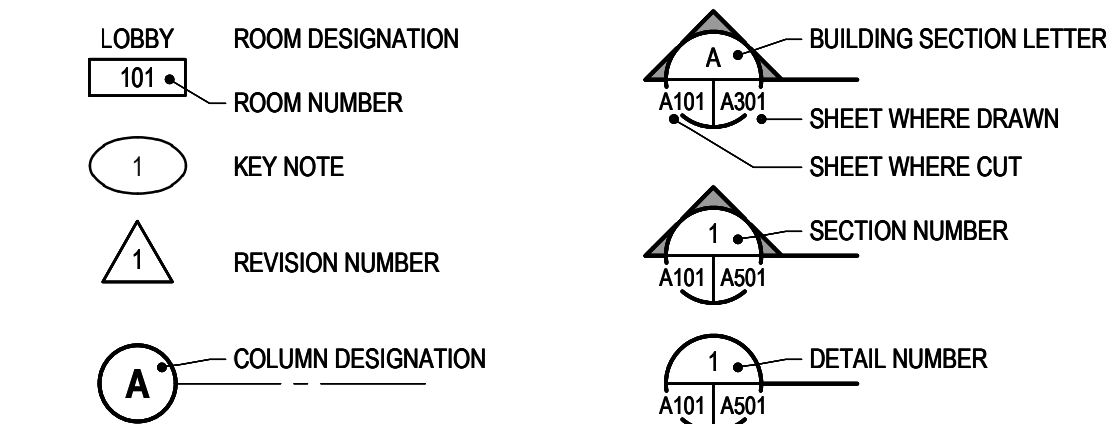
INDEX OF DRAWINGS

T001 COVER SHEET

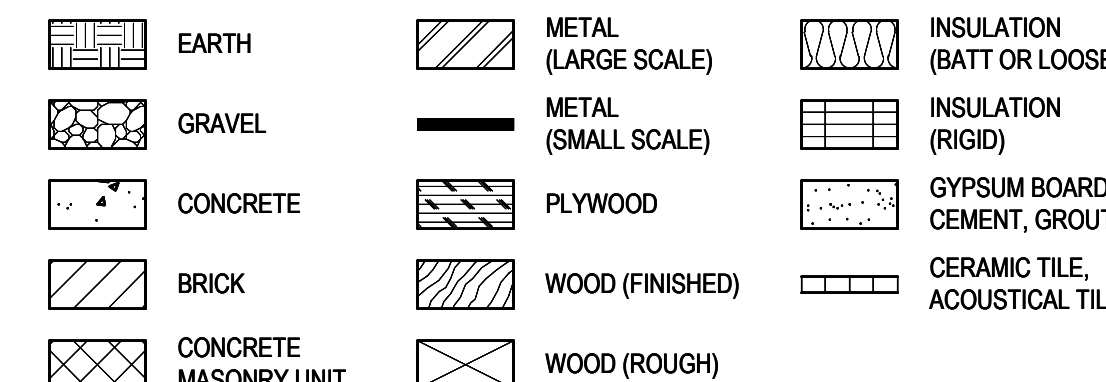
ELECTRICAL

- E001 COVER SHEET
- E101 DEMOLITION AND NEW WORK POWER PLAN
- E501 DETAILS
- E601 RISER DIAGRAMS AND SCHEDULES

SYMBOLS



MATERIALS



BUILDING DATA

APPLICABLE CODES
2018 VIRGINIA UNIFORM STATEWIDE BUILDING CODE
2018 VIRGINIA EXISTING BUILDING CODE, LEVEL 2 ALTERATIONS PER SECTION 603
2018 VIRGINIA FIRE PREVENTION CODE
2018 VIRGINIA PLUMBING CODE
2018 VIRGINIA ENERGY CONSERVATION CODE
2018 VIRGINIA MECHANICAL CODE
2017 NFPA 70 NATIONAL ELECTRIC CODE

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF ADDING 250KW/312KVA DIESEL OPTIONAL/STAND-BY GENERATOR TO EXISTING SITE.

BUILDING PURPOSE / FUNCTION
WAREHOUSE / STORAGE

CONTACTS

OWNER
CLIENT PROJECT MANAGER: LUCY DONG; 703-220-1053

ARCHITECT / ENGINEER
GAUTHIER, ALVARADO AND ASSOCIATES: AMANDA OSIECKI 703-241-2202

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DRAWING NUMBER

T001

ABBREVIATIONS		ELECTRICAL SYMBOLS	
GENERAL:		POWER	
(X) REMOVE	(R) RELOCATE	(E) EXISTING	
ABBREVIATIONS:			
A AMPERES	ADA AMERICANS WITH DISABILITIES ACT	AFF ABOVE FINISH FLOOR	AFG ABOVE FINISH GRADE
AHJ AUTHORITY HAVING JURISDICTION	AHU AIR HANDLING UNIT	AIC AMPERE INTERRUPTING CAPACITY	AL ALUMINUM
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE	ARCH ARCHITECT	ATS AUTOMATIC TRANSFER SWITCH	ATC AUTOMATIC TEMPERATURE CONTROL
AWG AMERICAN WIRE GAUGE	BFG BELOW FINISH GRADE	BLDG BUILDING	C CONDUIT
CAT CATALOG	CB CIRCUIT BREAKER	CBM CERTIFIED BALLAST MANUFACTURERS CIRCUIT	CL CENTERLINE
CLF CURRENT LIMITING FUSE	COL COLUMN	CPT CONTROL POWER TRANSFORMER	CT CURRENT TRANSFORMER
CU COPPER	DWG DRAWING	EC ELECTRICAL CONTRACTOR	ECB ENCLOSED CIRCUIT BREAKER
EF EXHAUST FAN	EM EMERGENCY	EMT ELECTRICAL METAL TUBING	EPO ELECTRIC POWER OFF
ETR EXISTING TO REMAIN	EWC ELECTRIC WATER COOLER	EX EXISTING	F FUSE
FA FIRE ALARM	FLA FULL LOAD AMPERES	FMC FLEXIBLE METAL CONDUIT	FT FEET
GND, G GROUND	GRMC GALVANIZED RIGID METAL CONDUIT	HOA HAND OFF AUTOMATIC SWITCH	IEEE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
IMC INTERMEDIATE METAL CONDUIT	INT INTERLOCK	KCMIL THOUSAND CIRCULAR MILS	KVA KILOVOLT AMPERES
KW KILOWATTS	LGT LIGHTING	LFMC LIQUID-TIGHT FLEXIBLE METAL CONDUIT	MAU MAKE-UP AIR UNIT
MC METAL CLAD CABLE	MCB MAIN CIRCUIT BREAKER	MCC MOTOR CONTROL CENTER	MCP MOTOR CIRCUIT PROTECTOR
MISC MISCELLANEOUS	MLO MAIN LUGS ONLY	NC NORMALLY CLOSED	NEC NATIONAL ELECTRIC CODE
NEMA NATIONAL ELECTRICAL CODE	NFPA NATIONAL FIRE PROTECTION ASSOCIATION	NO NORMALLY OPEN OR NUMBER NOT TO SCALE	NTS NOT TO SCALE
P POLE	PB PUSHBUTTON	PNL PANEL	PVC POLYVINYL CHLORIDE
PWR POWER	QTY QUANTITY	REL RELOCATE	REQ'D REQUIRED
REX REPLACE EXISTING	RMC RIGID METAL CONDUIT	RMS ROOT MEAN SQUARED	RNMC RIGID NON-METAL CONDUIT
RTU ROOF TOP UNIT	RX REMOVE EXISTING	SP SPARE	SW SWITCH
SYM SYMMETRICAL	TEL TELEPHONE	TMCB THERMAL MAGNETIC CIRCUIT BREAKER	UG UNDERGROUND OR UNDERGRADE
UL UNDERWRITERS LABORATORIES	V VOLT	VT VOLTAGE TRANSFORMER	W WIRE
WH WATER HEATER	WP WEATHERPROOF	XFMR TRANSFORMER	Δ DELTA
Y WYE	Ø PHASE		
WIRING			
		UNDERGROUND CONDUCTORS AND CONDUIT	
		CIRCUIT NO. 2 #12, 1 #12 GND IN 3/4" CONDUIT, U.O.N.	
		PANEL HOMERUN TO PANELBOARD.	
		CONDUIT TURNED UP	
		CONDUIT TURNED DOWN	

ELECTRICAL GENERAL NOTES AND SPECIFICATIONS	
A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING:	
1. 2018 VIRGINIA CONSTRUCTION CODE	
2. OSHA 29 CFR PART. 1926 - SAFETY AND HEALTH REGULATIONS	
3. NFPA 70 - NATIONAL ELECTRICAL CODE (2017 EDITION)	
4. NFPA 101: LIFE SAFETY CODE (2012 EDITION)	
5. NFPA 110: STANDARD FOR EMERGENCY AND STAND-BY POWER SYSTEMS (2016)	
6. REGULATIONS OF ALL APPLICABLE CODES	
B. SCOPE	
PROVIDE (FURNISH AND INSTALL) ALL LABOR, MATERIALS, SUPPLIES, PERMITS, TOOLS, EQUIPMENT, DEVICES AND APPLIANCES, AND PERFORM ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF COMPLETE ELECTRICAL SYSTEMS AND SATISFACTORY OPERATION OF ALL WORK AS SHOWN ON THE DRAWINGS OR HEREINAFTER SPECIFIED. THE SCOPE SHALL INCLUDE BUT SHALL NOT BE LIMITED TO THE FOLLOWING:	
1. PERMITS AND CERTIFICATES	
2. ELECTRICAL SYSTEMS AND EQUIPMENT	
3. TESTING OF EQUIPMENT SYSTEMS AND MATERIALS	
4. GENERAL PROVISIONS FOR ELECTRICAL WORK	
5. DEMOLITION	
C. GENERAL PROVISIONS FOR ELECTRICAL WORK	
1. DOCUMENTS: DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF WORK AND SYSTEMS. THE INTENT OF THIS DESIGN IS TO PROVIDE COMPLETE, PROPER, TESTED, ADJUSTED BALANCED AND FULLY ACCEPTABLE SYSTEMS AND EQUIPMENT TO THE OWNER FOR HIS SUCCESSFUL USE. REFER TO DRAWINGS OF OTHER DISCIPLINES TO VERIFY LOCATION OF EQUIPMENT, ETC.	
2. MATERIAL AND EQUIPMENT SHALL BE UL, NEMA, ANSI, IEEE, ADA & CBM APPROVED FOR INTENDED SERVICE. QUALITY OF MATERIAL: NEW, FREE FROM DEFECTS. MATERIAL AND INSTALLATION SHALL MEET REQUIREMENTS OF NATIONAL AND STATE ELECTRICAL CODE.	
3. THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY EXAMINE ALL CONTRACTOR DOCUMENTS TO HAVE A COMPLETE UNDERSTANDING OF THE SCOPE OF THE PROJECT AND ALL EXISTING CONDITIONS, BEFORE SUBMITTING HIS PROPOSAL. ANY QUESTIONS, DISCREPANCIES, OR IRREGULARITIES THAT THE CONTRACTOR MAY HAVE ABOUT THE PROJECT, OR THAT MAY EXIST, SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING AND RESOLVED PRIOR TO BIDDING THE WORK, ORDERING MATERIALS, OR THE INSTALLATION OF WORK. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM ALL WORK AND TO PERFORM ALL MATERIALS AND EQUIPMENT REQUIRED FOR A COMPLETE AND SATISFACTORY INSTALLATION AS INTENDED BY THE ENGINEER.	
4. MAINTAIN RECORD DRAWINGS ON SITE. RECORD SET MUST BE COMPLETE AND CURRENT AND AVAILABLE FOR INSPECTION WHEN REQUISITIONS FOR PAYMENT ARE SUBMITTED.	
5. GUARANTEE WORK IN WRITING FOR TWO YEARS FROM DATE OF FINAL ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIALS OR INSTALLATION AT NO COST TO OWNER DURING THE GUARANTEE PERIOD. CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE AT NO COST TO OWNER. SUBMIT GUARANTEE TO OWNER BEFORE FINAL PAYMENT.	
6. COORDINATE ALL ELECTRICAL ITEMS WITH EXISTING FIELD CONDITIONS. LOCATIONS SHOWN ARE APPROXIMATE AND MAY REQUIRE MINOR ADJUSTMENT IN THE FIELD TO SATISFY THE DESIGN INTENT.	
7. DAMAGE TO EXISTING FACILITIES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED IMMEDIATELY BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.	
8. THE LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND REQUIRE COORDINATION WITH ALL OTHER TRADES AND VERIFICATION OF EXISTING CONDITIONS. ROUTING OF CONDUIT IS DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW ALL REQUIRED OFFSETS AND DETAILS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING ASSOCIATED EQUIPMENT AND CONDITIONS. COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE ENGINEER AND THE OWNER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER TRADES' DRAWINGS AND SPECIFICATIONS AND COORDINATING WITH ALL OTHER TRADES DURING BIDDING AND CONSTRUCTION.	
9. ADJACENT AREAS OF THE EXISTING FACILITY WILL REMAIN IN OPERATION WHILE WORK IS BEING DONE. ALL WORK SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE, AND SHALL BE SEQUENCED AND PERFORMED IN A MANNER TO MINIMIZE ANY IMPACTS ON EXISTING FACILITY OPERATIONS CLEAN ALL OCCUPIED SPACES EACH DAY OF DUST AND DEBRIS. PROVIDE FIRE STOPPING AT ALL WALL AND FLOOR ASSEMBLY PENETRATIONS.	
D. ELECTRICAL DEMOLITION	
1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUITY OF ALL POWER, CONTROL, AND COMMUNICATION FUNCTIONS TO ALL AREAS AFFECTED BY DEMOLITION AND/OR NEW CONSTRUCTION.	
2. CONTRACTOR SHALL NOT CUT ANY ACTIVE ELECTRICAL OR COMMUNICATIONS LINES DURING CONSTRUCTION. IF THE CONTRACTOR ACCIDENTALLY CUTS A LINE, THEN THEY SHALL CONTACT THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH FURTHER WORK.	
3. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.	
4. ELECTRICAL EQUIPMENT AND DEVICES WITHIN DEMOLITION AREA SHOWN TO BE DEMOLISHED OR RELOCATED, SHALL BE DEMOLISHED ALONG WITH ALL ASSOCIATED FEEDER/BRANCH CIRCUITS, AND CONDUITS UNLESS OTHERWISE NOTED. WIRING SHALL BE REMOVED BACK TO SOURCE. REMOVE ALL CONDUITS ASSOCIATED WITH DEMOLISHED EQUIPMENT EXCEPT CONDUITS CONCEALED IN WALLS OR FLOOR SLABS. CONTRACTOR SHALL DISCONNECT, MAKE SAFE, AND REMOVE ALL ASSOCIATED ELECTRICAL EQUIPMENT AND ALL ASSOCIATED CIRCUITRY WITHIN THIS AREA. REMOVE ALL DEMOLISHED ITEMS AND DEBRIS FROM THE WORK SITE AND DISPOSE OF PROPERLY. FIELD VERIFY ALL SUPPLY CIRCUITS FOR DEMOLISHED AND RELOCATED EQUIPMENT. UPDATE ALL PANELBOARD DIRECTORIES. IDENTIFY ALL SPARE CIRCUIT BREAKER POSITIONS AND SHOW DATE WHEN SPARE WAS CONFIRMED.	
5. DISCONNECT AND MAKE SAFE ANY EQUIPMENT TO BE REMOVED BY OTHERS (I.E. MOTORS, ETC.). COORDINATE REMOVAL OF EQUIPMENT WITH OTHER TRADES PRIOR TO DEMOLITION.	
6. IN ANY AREA REQUIRING THE PERFORMANCE OF ANY TRADE'S WORK, CAREFULLY REMOVE AND STORE ANY OR ALL ELECTRICAL ITEMS IN PATH OF WORK, REINSTALLING AND RECONNECTING SAME AS REQUIRED, IN ACCORDANCE WITH THE PLANS AND/OR AS DIRECTED AFTER COMPLETION OF OTHER TRADES' WORK IN THAT AREA.	
7. PRIOR TO THE START OF DEMOLITION, CONTRACTOR SHALL FIELD VERIFY ALL BRANCH CIRCUITS AND MAINTAIN THOSE CIRCUITS THAT EXTEND OUTSIDE OF THE SCOPE OF WORK.	
8. AFTER RENOVATING EXISTING ELECTRICAL WORK, THE CONTRACTOR SHALL INSURE THAT ALL REMAINING AND NEW EQUIPMENT WILL OPERATE PROPERLY.	
9. ALL ELECTRICAL WORK INDICATED TO REMAIN SHALL BE SUITABLY PROTECTED TO PREVENT ANY DAMAGE.	
10. WHERE ELECTRICAL SYSTEMS PASS THROUGH RENOVATED AREAS TO SERVE OTHER PORTIONS OF THE PREMISES, SYSTEMS SHALL BE SUITABLY PROTECTED TO PREVENT DAMAGE OR RELOCATED AND THE SYSTEMS RESTORED TO NORMAL OPERATION. ANY OUTAGES IN SYSTEMS SHALL BE COORDINATED WITH OWNER. RESTORE POWER TO EXISTING TO REMAIN EQUIPMENT IF INTERRUPTED BY DEMOLISHED CIRCUITS IN THE AREA.	
11. CONTRACTOR SHALL THOROUGHLY TRACE AND IDENTIFY ALL CIRCUITING BEING DEMOLISHED PRIOR TO DEMOLITION.	
12. OWNER SHALL HAVE SALVAGE RIGHTS TO EXISTING REMOVED PANELS AND TRANSFORMERS. ANY ITEMS REJECTED BY OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.	
13. COORDINATION AND REPAIR: WHERE EXISTING ELECTRICAL WORK INTERFERES WITH NEW WORK AND WHERE SUCH INSTALLATIONS ARE TO REMAIN IN USE, THE INSTALLATION SHALL BE DISCONNECTED AND/OR RECONNECTED TO COORDINATE WITH THE WORK INDICATED ON THE CONTRACT DRAWINGS AND AS SPECIFIED.	
E. MATERIALS	
1. WIRING	
1.1. RACEWAYS: ELECTRICAL METALLIC TUBING INSTALLED INDOOR EXCEPT WHERE EXPOSED, SUBJECT TO DAMAGE, AND CONDUIT OUTDOORS SHALL BE RIGID GALVANIZED STEEL. CONDUIT BELOW GRADE SHALL BE PVC (SCHEDULE 40), USE RACEWAY NO SMALLER THAN 3/4". SUBSTANTIALLY SUPPORT RACEWAY BY STRAPS, CLAMPS OR HANGERS AND TWISTED WIRE ATTACHMENTS SHALL NOT BE ACCEPTABLE. DO NOT SUPPORT RACEWAYS FROM OTHER PIPES OR IN A MANNER TO PREVENT THE REMOVAL OF OTHER PIPES. PROVIDE EXPANSION JOINTS FOR RACEWAYS OVER 100 FEET IN LENGTH OR RACEWAYS AT CROSSING BUILDING EXPANSION JOINTS. INSTALL ALL PULL BOXES IN SPACES THAT WILL BE ACCESSIBLE AFTER COMPLETION OF THE WORK. RIGIDLY MOUNT ALL BOXES AND PROVIDE WITH SUITABLE SCREW FASTENED COVERS. PLUG OPEN KNOCKOUTS OR HOLES IN BOXES NOT USED FOR CONDUIT, WITH SUITABLE BLANKING DEVICE. PULL BOXES SHALL BE FABRICATED FROM GALVANIZED STEEL AND BE EQUIPPED WITH A SCREW ON COVER. LABEL ALL CIRCUITS INSIDE PULL BOXES. EQUIPMENT CONNECTIONS SHALL BE MADE UTILIZING FLEXIBLE METAL CONDUIT FOR INTERIOR USE AND LIQUID TIGHT FLEXIBLE CONDUIT FOR EXTERIOR USE.	
1.2. CONDUCTORS (600 VOLTS), UNLESS OTHERWISE SPECIFIED, PROVIDE COPPER CONDUCTORS TYPE THHN OR THWN-2 INSULATION (90 DEGREES C). CONDUCTORS SHALL BE STRANDED COPPER FOR NO. 8 AWG AND LARGER, SOLID FOR NO. 10 AND SMALLER. COMPLY WITH NEMA WC 70. PROVIDE #12 AWG COPPER MINIMUM BRANCH CIRCUIT WIRE SIZE AND #14 AWG COPPER MINIMUM CONTROL CIRCUIT WIRE SIZE. PROVIDE CONDUCTORS CONTINUOUS FROM OUTLET BOX. NO SPLICES SHALL BE PERMITTED IN FEEDERS OR BRANCH CIRCUITS. NO GREASE, OIL OR LUBRICANT OTHER THAN POWDERED SCAMSTONE OR APPROVED PULLING COMPOUND SHALL BE USED TO FACILITATE THE PULLING OF CONDUCTORS. METAL-CLAD, TYPE MC CABLING WITH INSULATED GROUND IS ACCEPTABLE FOR USE OF SINGLE BRANCH CIRCUITS CONCEALED IN CEILINGS, WALLS, AND PARTITIONS.	
1.3. ALL LIGHT AND RECEPTACLE CIRCUITS OVER 75 FEET FROM PANEL TO LAST OUTLET FOR 20A, 120V BRANCH CIRCUITS AND OVER 175 FEET FOR 20A, 277V CIRCUITS SHALL USE 10 AWG CONDUCTORS.	
1.4. FLEXIBLE METAL CONDUIT: USE FLEXIBLE METAL CONDUIT IN LIEU OF EMT WHERE VIBRATING CONDITIONS EXIST BETWEEN CONNECTIONS AND TERMINAL POINTS. ALL FITTINGS USED MUST BE SPECIFICALLY DESIGNED FOR THE FLEXIBLE METAL CONDUIT. USE LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC) FOR CONNECTION OF VIBRATING EQUIPMENT OUTDOORS OR IN WET LOCATIONS.	
1.5. OUTLET BOXES: SHALL BE MINIMUM 2 1/8" DEEP. NEMA OS 1, DESIGNED FOR THE FIXTURE OR DEVICE MOUNTING. BOXES SHALL BE GALVANIZED STEEL. BOXES SHALL BE FURNISHED WITH PLATES, ADAPTERS, CONNECTORS, ETC AS REQUIRED. SECURELY MOUNT ALL BOXES FLUSH IN FINISHED WALL AND CEILING. MANUFACTURERS: STEEL CITY, RACO, CROUSE HINDS OR APPROVED EQUAL.	
1.6. JUNCTION BOXES: SHALL BE 4" SQUARE x 2 1/8" DEEP MINIMUM. NEMA OS 1, DESIGNED FOR THE FIXTURE OR DEVICE MOUNTING. BOXES SHALL BE GALVANIZED STEEL. BOXES SHALL BE FURNISHED WITH PLATES, ADAPTERS, CONNECTORS, ETC AS REQUIRED. SECURELY MOUNT ALL BOXES FLUSH IN FINISHED WALL AND CEILING. MANUFACTURERS: STEEL CITY, RACO, CROUSE HINDS OR APPROVED EQUAL.	
1.7. IDENTIFY AND COLOR-CODE CONDUCTORS AND CABLES FOR PHASE AND VOLTAGE-LEVEL IDENTIFICATION, 600V OR LESS: USE COLORS LISTED BELOW FOR UNGROUNDED FEEDER AND BRANCH-CIRCUIT CONDUCTORS:	
COLORS FOR 480/277-V CIRCUITS:	COLORS FOR 208/120-V CIRCUITS:
a. PHASE A: BROWN	a. PHASE A: BLACK
b. PHASE B: ORANGE	b. PHASE B: RED
c. PHASE C: YELLOW	c. PHASE C: BLUE
NEUTRAL: GREY	NEUTRAL: WHITE
EQUIPMENT GROUNDS: GREEN-YELLOW	EQUIPMENT GROUNDS: GREEN
2. COMMUNICATION CABLING	
2.1. UTP CABLE: 100-OHM, FOUR PAIR UTP WITH A BLUE THERMOPLASTIC JACKET. COMPLY WITH TIA/EIA-568-B.2, CATEGORY 6 OR HIGHER.	
2.2. JACKS: 100-OHM, BALANCED, TWISTED PAIR CONNECTOR. FOUR PAIR, EIGHT POSITION MODULAR. COMPLY WITH TIA/EIA-568-B.1. STAINLESS STEEL FACE PLATE. TWO PORT-CONNECTOR ASSEMBLIES MOUNTED IN SINGLE FACEPLATE.	
ALL COMMUNICATIONS CABLING RUN IN CONDUIT SHALL BE NON-PLENUM ALL CABLING EXPOSED, RUN ABOVE CEILINGS, SHALL BE PLENUM RATED. ALL DATA DROPS SHALL BE LABELED TO MATCH EXISTING.	
3. PANELBOARDS	
3.1. BRANCH OVERCURRENT PROTECTIVE DEVICES: MOLDED-CASE, THERMAL-MAGNETIC, BOLT-ON CIRCUIT BREAKERS, UL 489, WITH INTERRUPTING CAPACITY TO MEET AVAILABLE FAULT CURRENTS.	
3.2. IDENTIFICATION: ENGRAVED, LAMINATED ACRYLIC OR MELAMINE LABEL. ADHESIVE BACKED, WITH WHITE LETTERS ON A DARK-GRAY BACKGROUND. MINIMUM LETTER HEIGHT SHALL BE 3/8 INCH. EQUIPMENT TO BE LABELED: PANEL BOARDS, ELEC. CABINETS, PULL BOXES, DISC. SWITCHES AND ENCLOSURES.	
3.3. PROVIDE CIRCUIT BREAKERS FOR HVAC EQUIPMENT HAVING MOTORS (GROUP OR INDIVIDUAL) MARKED FOR USE WITH HACR TYPE AND UL LISTED AS HACR TYPE.	
4. CONTRACTOR SHALL SUBMIT FOR APPROVAL. SHOP DRAWINGS FOR ALL EQUIPMENT AND MATERIALS USED ON THE PROJECT. SUBMITTALS SHALL BE APPROVED BY THE ENGINEER BEFORE PURCHASE OF MATERIALS.	
F. EXECUTION	
1. INTERRUPTION OF EXISTING ELECTRIC SERVICE: DO NOT INTERRUPT ELECTRIC SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY ELECTRIC SERVICE ACCORDING TO REQUIREMENTS INDICATED.	
• NOTIFY OWNER NO FEWER THAN SEVEN DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF ELECTRIC SERVICE.	
• DO NOT PROCEED WITH INTERRUPTION OF ELECTRIC SERVICE WITHOUT OWNER'S WRITTEN PERMISSION.	
• COMPLY WITH NFPA 70E.	
2. PERMANENTLY LABEL ALL NEW ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, DEVICE DESIGNATION AND SUPPLY CIRCUIT DESIGNATION. UPDATE PANEL DIRECTORIES TO INCLUDE NEW CIRCUIT INFORMATION RESULTING FROM THIS PROJECT.	
• PROVIDE EQUIPMENT IDENTIFICATION AT ALL EQUIPMENT WITH BACK LETTERS ON WHITE FIELD. INDICATE EQUIPMENT FED FROM.	
• PROVIDE ARC FLASH WARNING LABEL ON ALL SERVICEABLE EQUIPMENT PER NFPA 70E.	
• PERMANENTLY LABEL ALL EMERGENCY SYSTEM EQUIPMENT WITH MULTIPLE SOURCES PER NFPA 70E.	
• PERMANENTLY LABEL ALL EQUIPMENT WITH MULTIPLE SOURCES PER NFPA 70E. IDENTIFY ALL SOURCES PROVIDED AND ANY EQUIPMENT FED.	
• CONDUCTOR IDENTIFICATION AND SCHEDULE SHALL BE POSTED AT EACH PANELBOARD. IDENTIFY EACH SPARE CONDUCTOR AT EACH END WITH IDENTITY NUMBER AND LOCATION OF OTHER END OF CONDUCTOR, AND IDENTIFY AS SPARE.	
• PROVIDE ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT, PANELS, CONTROLLERS, SUCH THAT ALL SYSTEMS HAVE POWER AT COMPLETION OF THE PROJECT.	
• THE CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS AT SITE. ALL CHANGES TO THE DRAWING SHALL BE MARKED IN RED AND INITIATED BY PROJECT ENGINEER. THE CONTRACTOR SHALL DELIVER THE RECORD SET TO THE PROJECT ENGINEER UPON COMPLETION OF THE PROJECT.	
3. PROVIDE TEMPORARY POWER AND LIGHTING FOR ALL TRADES AS REQUIRED TO COMPLETE THE PROJECT. ALL TEMPORARY AND INTERIM EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING, BUT NOT LIMITED TO, NFPA 110 AND NFPA 70E.	
4. PROVIDE FIRE SEALANT FOR PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS TO MAINTAIN THE APPLICABLE FIRE RATING. ALL PENETRATIONS OF CORRIDOR WALLS INTO CLASS ROOMS SHALL BE MINIMUM ONE HOUR FIRE RATED THROUGH WALL PENETRATIONS. ALL FIREPROOFING FOR ELECTRICAL PENETRATION SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.	
5. UPON COMPLETION OF THE WORK, ALL EQUIPMENT SHALL BE THOROUGHLY CLEANED AND LEFT IN FIRST-CLASS OPERATING CONDITION.	
6. PROTECT ALL EQUIPMENT PROVIDED UNTIL THE FINAL ACCEPTANCE OF THE JOB.	
7. TEST AND INSPECTION	
7.1. AT THE TIME OF FINAL INSPECTION AND TEST, ALL CONNECTIONS TO PANELBOARDS AND EQUIPMENT CONNECTED MUST TEST FREE OF SHORT CIRCUITS AND GROUNDS.	
7.2. CORRECT ANY EQUIPMENT OR SYSTEMS THAT DO NOT TEST SATISFACTORILY.	
8. WARRANTY: GUARANTEE ENTIRE ELECTRICAL INSTALLATION (LABOR AND MATERIAL) FOR ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY OWNER REPRESENTATIVE.	



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PROJECT TITLE

**FAIRFAX COUNTY
PUBLIC SCHOOLS**

**9515 MAIN ST, FAIRFAX, VA
22031**

**WOODSON FOOD
SERVICES
GENERATOR**

REVISIONS

NO.	DATE	DESCRIPTION

GAA PROJECT NO. 735E45
DRAWN BY ADM
CHECKED BY ACO
DATE MAY 14, 2024

DRAWING TITLE

**ELECTRICAL
COVER SHEET**

PROJECT STATUS
BID/PERMIT DRAWINGS

DRAWING NUMBER

E001

DATE: 05/21/24
TIME: 11:48
SCALE: NOT TO SCALE



**G A U T H I E R
A L V A R A D O
A S S O C I A T E S**

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NO.	DATE	DESCRIPTION

GAA PROJECT NO. 735E45

DRAWN BY ADM

CHECKED BY ACO

DATE MAY 14, 2024

DRAWING TITLE

**ELECTRICAL
DEMOLITION AND NEW WORK
POWER PLAN**

PROJECT STATUS

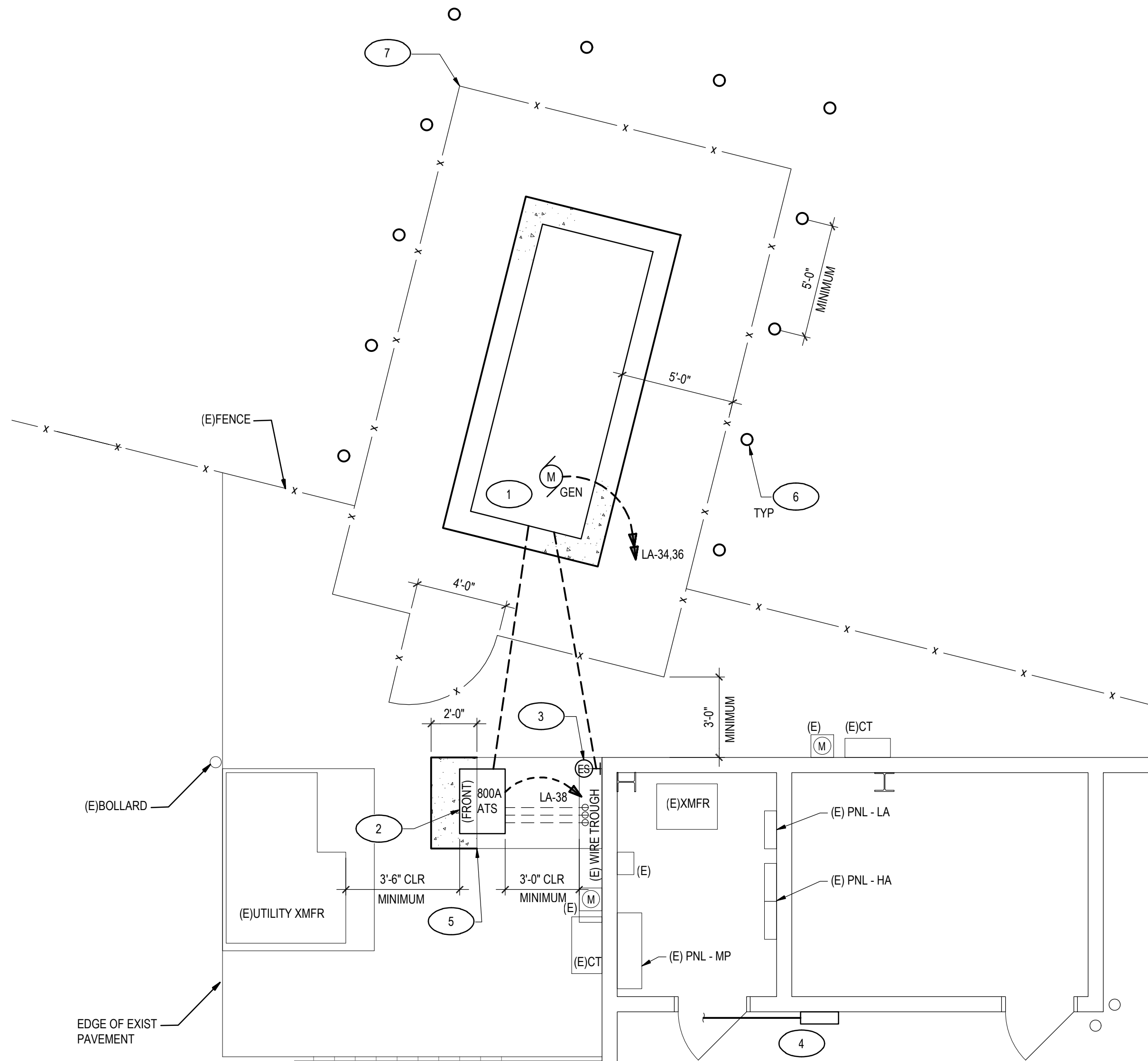
BID/PERMIT DRAWINGS

DRAWING NUMBER

E101

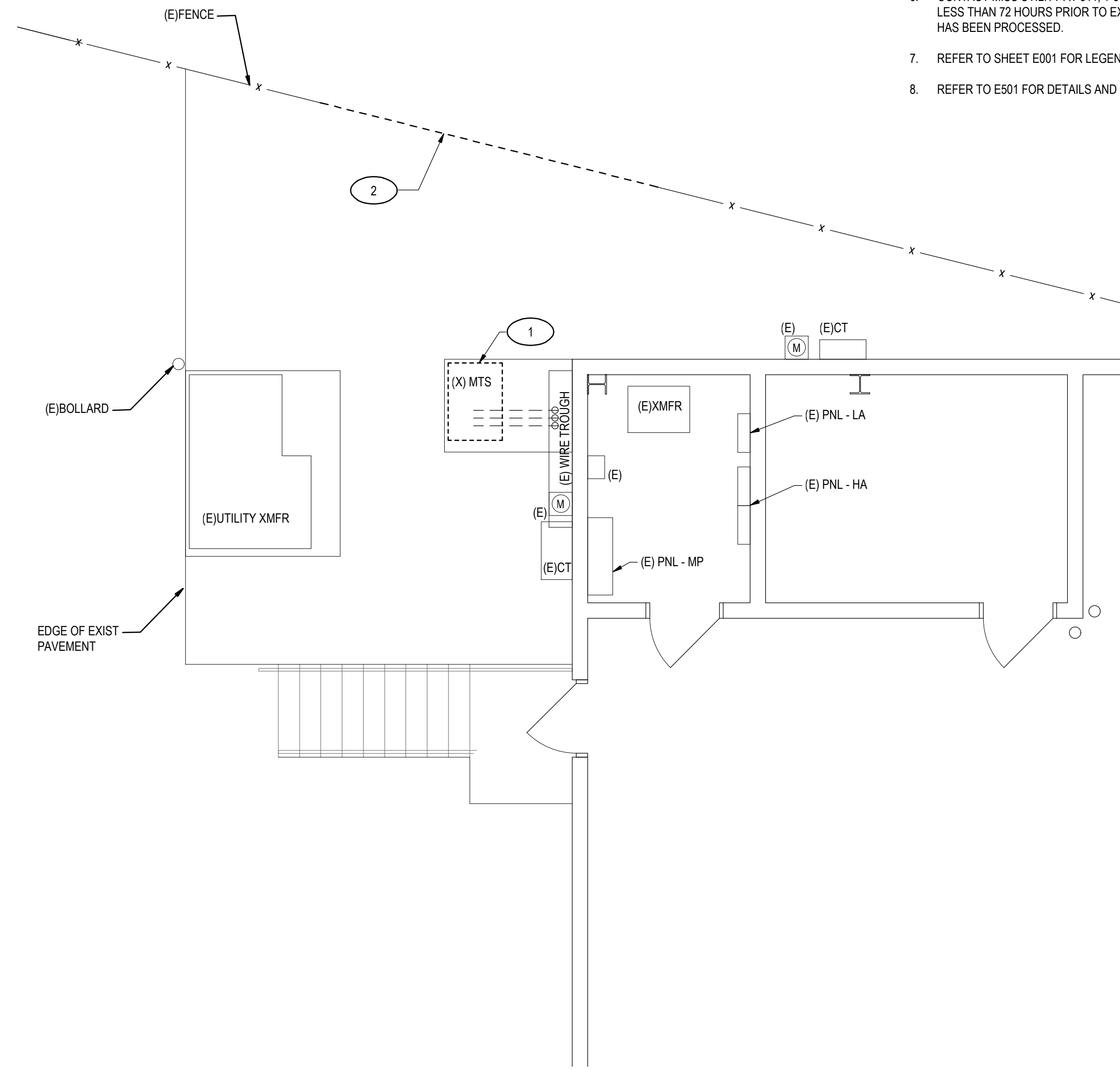
GENERAL NOTES:

- INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS IN DETAIL OR DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- ALL ELECTRICAL ITEMS ARE EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
- COORDINATE INSTALLATION OF UNDERGROUND ELECTRIC CONDUIT WITH OTHER UTILITIES AS FOLLOWS:
 - MAINTAIN A MINIMUM OF 12" HORIZONTAL AND VERTICAL SEPARATION BETWEEN ELECTRIC/COMMUNICATION AND OTHER UTILITIES. FOR GAS LINE CROSSINGS, RUN ELECTRIC/COMM LINES BELOW GAS LINES. FOR ALL OTHER UTILITY CROSSINGS, RUN ELECTRIC/COMM ABOVE OTHER UTILITIES.
 - MAINTAIN A 12" MINIMUM HORIZONTAL AND VERTICAL SEPARATION BETWEEN ELECTRIC AND COMMUNICATION LINES. RUN ELECTRIC BELOW COMMUNICATIONS WHEN THE TWO CROSS EACH OTHER.
- DIRECT BURIED UNDERGROUND CONDUIT BURIAL DEPTH SHALL BE 24" MINIMUM. SEE TYPICAL DETAIL ON E501.
- CONTACT MISS UTILITY AT 811, 1-800-552-7001, OR HTTP://WWW.MISSUTILITYOFVIRGINIA.COM NO LESS THAN 72 HOURS PRIOR TO EXCAVATION AND DO NOT DISTURB THE SOIL UNTIL DIG TICKET HAS BEEN PROCESSED.
- REFER TO SHEET E001 FOR LEGEND, ABBREVIATIONS, AND GENERAL PROJECT NOTES.
- REFER TO E501 FOR DETAILS AND E601 FOR RISER DIAGRAMS AND PANELBOARD SCHEDULE.

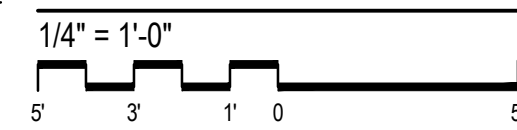


SYMBOLS:

--- UNDERGROUND ELECTRICAL FEEDER AND BRANCH CIRCUIT CONDUIT, SEE DETAIL ON E501.



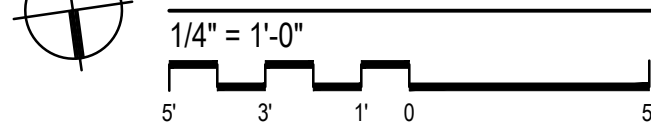
DEMOLITION POWER PLAN



DEMOLITION PLAN NOTES:

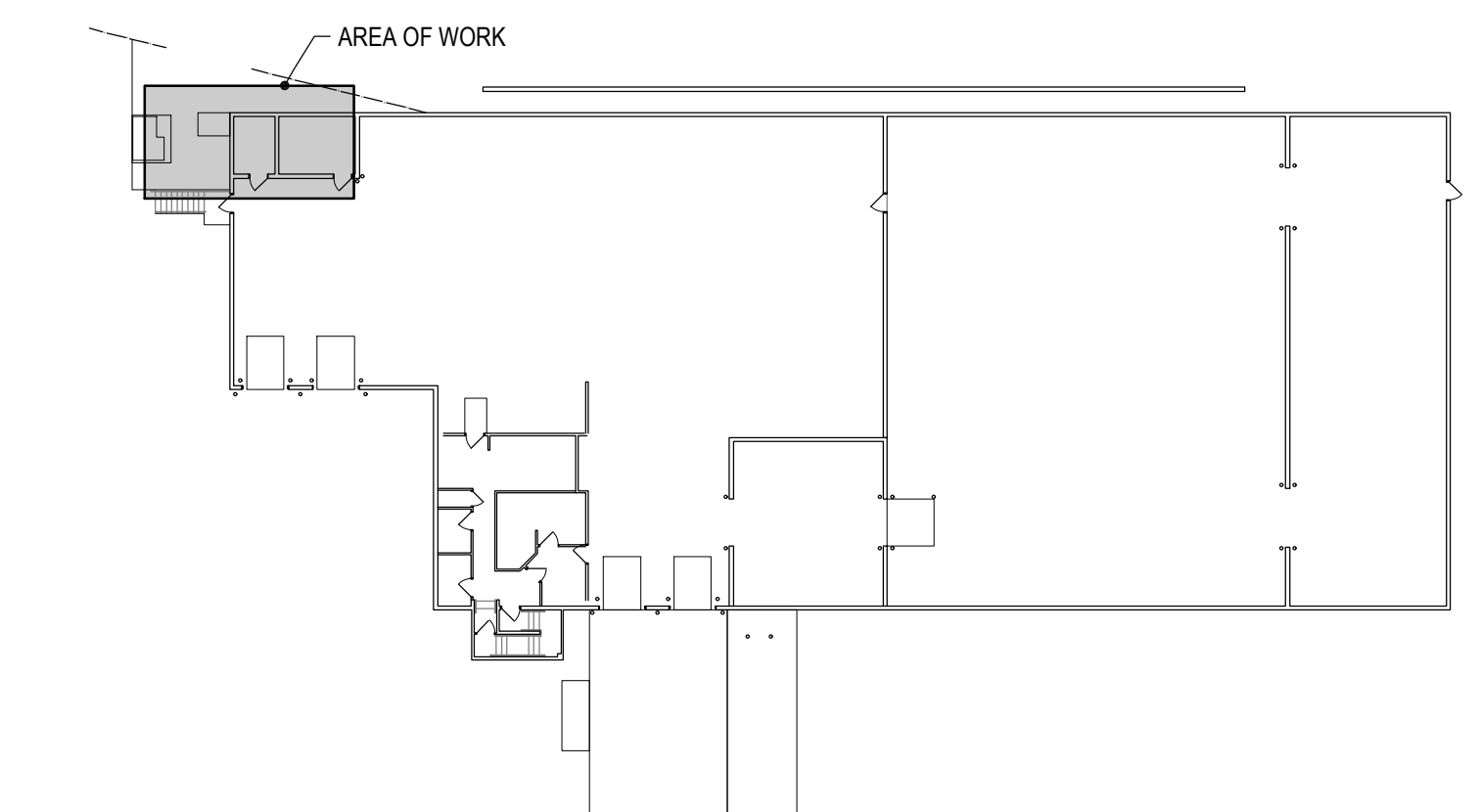
- DISCONNECT AND REMOVE EXISTING MANUAL TRANSFER SWITCH. MAINTAIN EXISTING FEEDER WIRING AND CONDUIT.
- REMOVE PORTION OF EXISTING FENCE.

POWER PLAN



PLAN NOTES:

- 250KW/312KVA OPTIONAL/STAND-BY DIESEL GENERATOR, SEE DETAIL 1/E501.
- SERVICE ENTRANCE RATED, 800A, 3-POLE, AUTOMATIC TRANSFER SWITCH (ATS) IN NEMA 3R ENCLOSURE, PAD MOUNTED. SEE RISER DIAGRAM ON E601. PERMANENTLY LABEL EQUIPMENT (NEC 702) PER NFPA 70. COORDINATE STUB-UPS IN EXISTING PAD WITH PURCHASED EQUIPMENT.
- PROVIDE REMOTE MANUAL STOP BUTTON IN WEATHERPROOF ENCLOSURE ON BUILDING WALL PER NFPA 110.
- WALL MOUNTED REMOTE GENERATOR ANNUNCIATOR PANEL (RGAP). EXTEND CONDUIT FROM GENERATOR WHERE ENTERS THE BUILDING. COORDINATE LOCATION WITH OWNER.
- EXTEND EXISTING CONCRETE PAD FOR NEW EQUIPMENT, SEE TYPICAL DETAIL ON E501. COORDINATE PAD WITH PURCHASED EQUIPMENT.
- BOLLARDS SPACED AT 5'-0" OC MAX, TYPICAL. SEE DETAIL ON E501.
- CHAIN LINK FENCE, SEE DETAIL 10/E501. COORDINATE EXTENT OF FENCING WITH PURCHASED EQUIPMENT. MAINTAIN 5'-0" CLEARANCE MINIMUM BETWEEN GENERATOR AND METAL FENCE. CONNECT TO EXISTING FENCE LINE.



KEY PLAN



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PUBLIC SCHOOLS**

9515 MAIN ST, FAIRFAX, VA
22031

**WOODSON FOOD
SERVICES
GENERATOR**

REVISIONS

NO.	DATE	DESCRIPTION

GAA PROJECT NO. 735E45

DRAWN BY ADM

CHECKED BY ACO

DATE MAY 14, 2024

DRAWING TITLE

**ELECTRICAL
DETAILS**

PROJECT STATUS

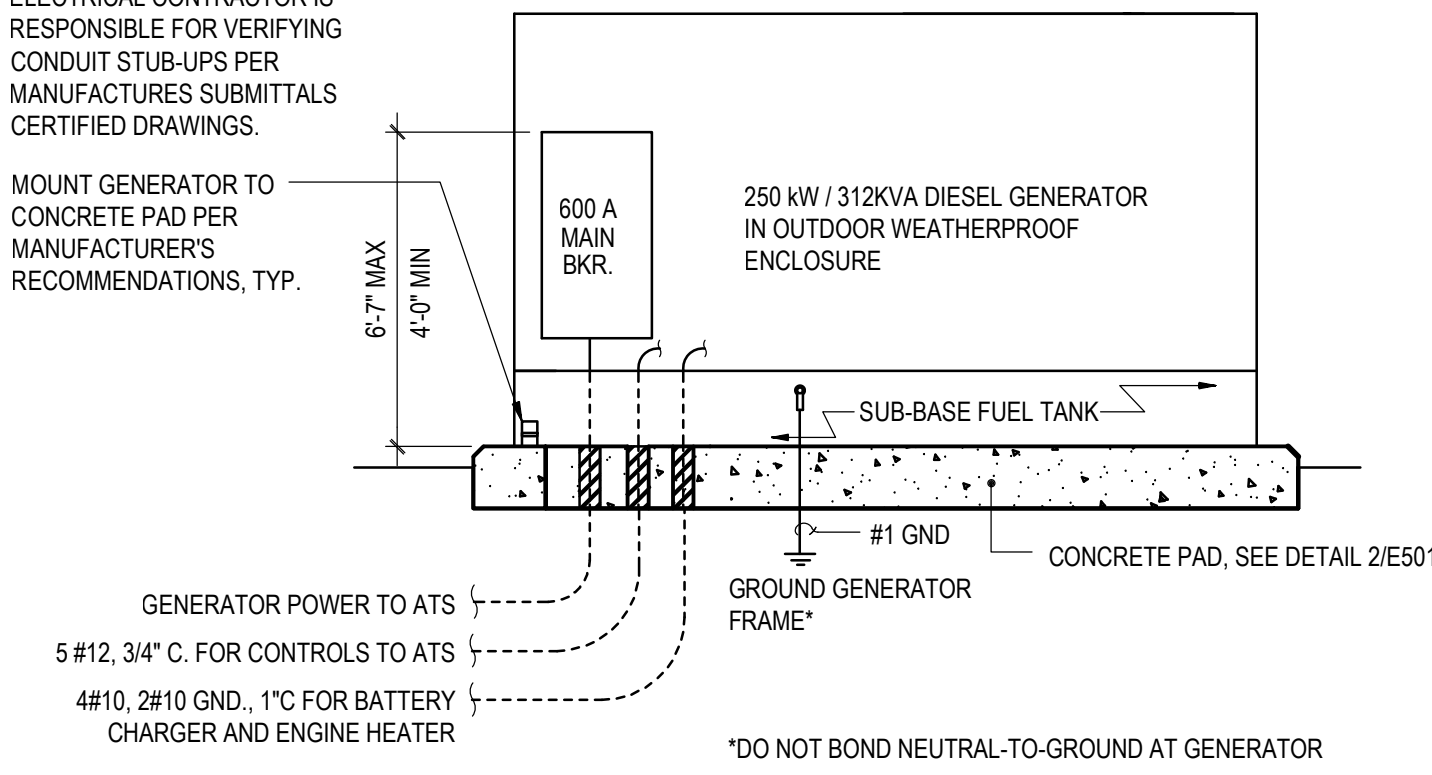
BID/PERMIT DRAWINGS

DRAWING NUMBER

E501

NOTE: ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING CONDUIT STUB-UPS PER MANUFACTURER'S SUBMITTALS CERTIFIED DRAWINGS.

MOUNT GENERATOR TO CONCRETE PAD PER MANUFACTURER'S RECOMMENDATIONS, TYP.



1 GENERATOR DETAIL

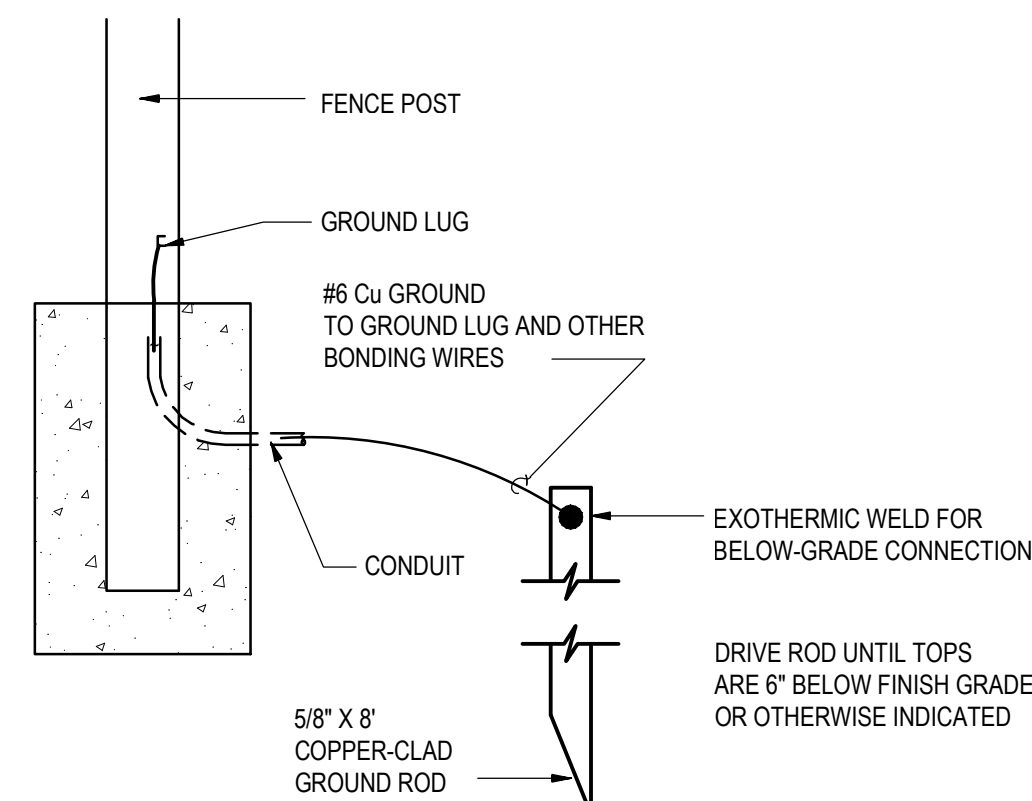
E501 NOT TO SCALE

REMOTE ANNUNCIATOR PANEL, LEVEL 1 (NFPA 110, TABLE 5.6.5.2)			
INDICATOR FUNCTION (AT BATTERY VOLTAGE)	C.V.	S	R.A
1. ENGINE OVERCRANK			
2. LOW WATER TEMPERATURE			
3. HIGH ENGINE TEMPERATURE, PRE-ALARM			
4. HIGH ENGINE TEMPERATURE			
5. LOW LUBE OIL PRESSURE			
6. ENGINE OVERSPEED			
7. LOW FUEL MAIN TANK			
8. LOW COOLANT LEVEL			
9. EPS SUPPLYING LOAD			
10. CONTROL SWITCH NOT IN AUTOMATIC POSITION			
11. HIGH BATTERY VOLTAGE			
12. LOW CRANKING VOLTAGE			
13. LOW BATTERY VOLTAGE			
14. BATTERY CHARGER AC FAILURE			
15. LAMP TEST			
16. CONTACTS FOR LOCAL AND REMOTE COMMON ALARM			
17. AUDIBLE ALARM SILENCING SWITCH			
18. REMOTE EMERGENCY STOP			
19. GENERATOR FAULT (TROUBLE)			
20. MAIN GENERATOR CB IN "OFF/TRIP" POSITION*			
21. BUILDING ON NORMAL POWER *			
22. FUEL LEAK			
23. SPACE			
24. SPACE			

KEY:
C.V. = CONTROL PANEL-MOUNTED VISUAL INDICATION
S = SHUTDOWN OF EPS
R.A = REMOTE ALARM
X = REQUIRED EPS = EMERGENCY POWER SYSTEM
PROVIDE LAMP TEST SWITCH
* NON NFPA REQUIRED ALARM

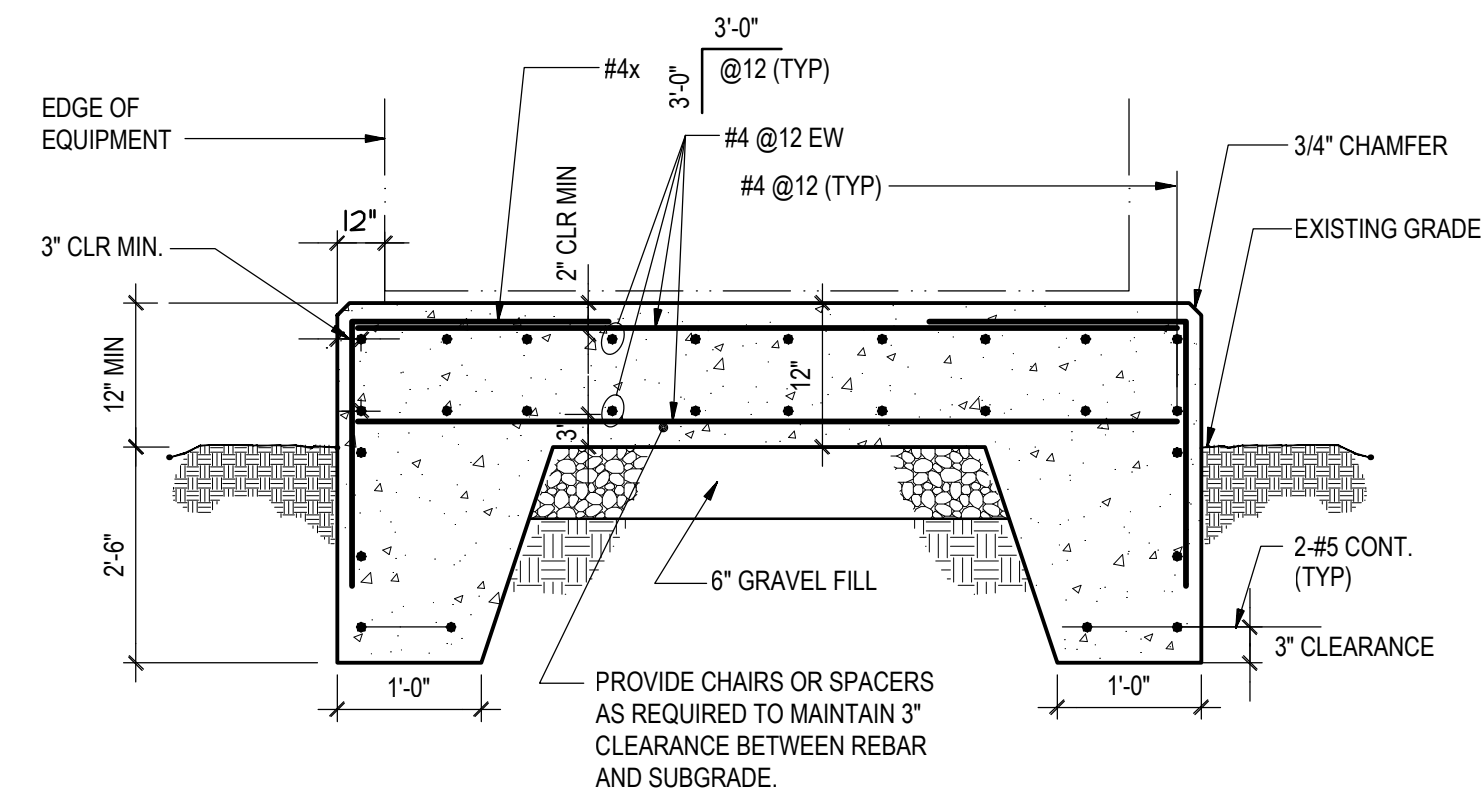
4 REMOTE GENERATOR ANNUNCIATOR PANEL (RGAP)

E501 NOT TO SCALE



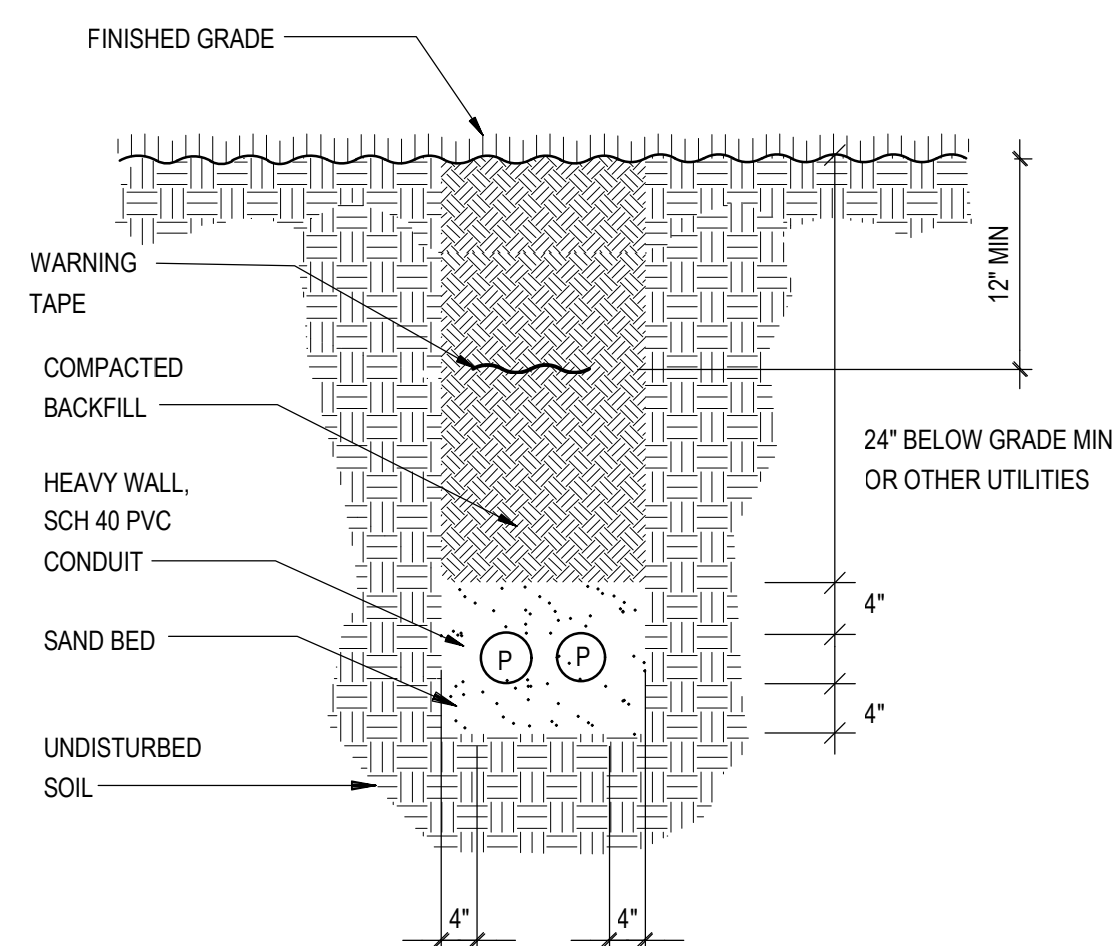
8 TYPICAL FENCE POST GROUNDING DETAIL

E501 NOT TO SCALE



2 GENERATOR CONCRETE PAD DETAIL

E501 NOT TO SCALE



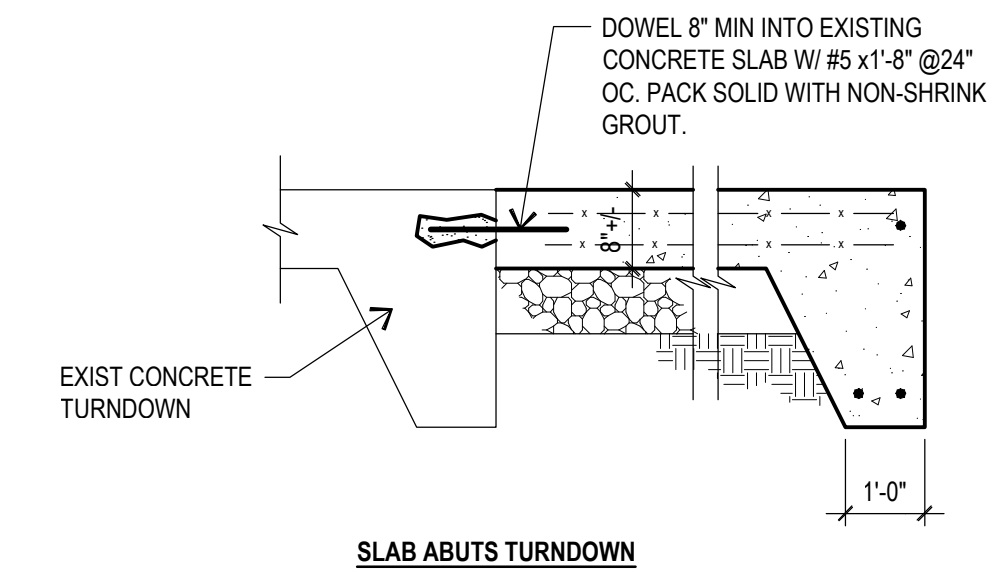
5 TYPICAL DETAIL FOR UNDERGROUND ELECTRICAL CONDUIT INSTALLATION

E501 NOT TO SCALE

CONCRETE PADS NOTES:

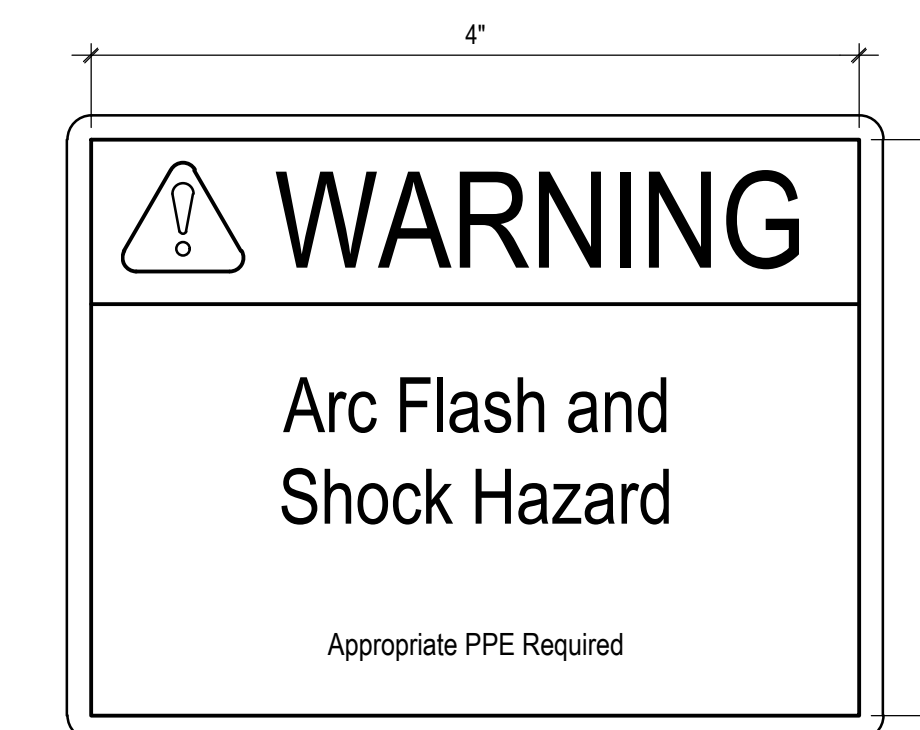
- FOUNDATION:**
- ASSUMED SOIL BEARING VALUE 1500 PSF
 - CONCRETE SLAB-ON-GRADE TO BE POURED OVER 6" GRAVEL FILL. COMPACT FILL TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED PER ASTM D-698.
- CONCRETE:**
- CONCRETE STRENGTHS:

ITEM	STRENGTH	WEIGHT
SLABS-ON-GRADE, FOOTINGS	4500 psi	145 pcf
 - MAXIMUM WATER/CEMENT RATIO: 0.45 W/CM
 - CONCRETE MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 3/4"
 - CONCRETE SHALL BE AIR ENTRAINED TO ACHIEVE AN AIR CONTENT OF 6%
 - REINFORCING BARS: ASTM A-615, GRADE 60.
 - CONCRETE PROTECTION FOR REINFORCING: FOOTINGS = 3"
 - PROVIDE 1/2" CHAMFER ON CONCRETE CORNERS THAT WILL BE EXPOSED TO VIEW.
 - CAST IN PLACE CONCRETE WORK SHALL COMPLY WITH ACI 318-14.
 - USE AIR-ENTRAINING ADMIXTURE IN ALL CONCRETE EXPOSED TO FREEZING AND THAWING.



3 TYPICAL CONCRETE PAD EXTENSION

E501 NOT TO SCALE

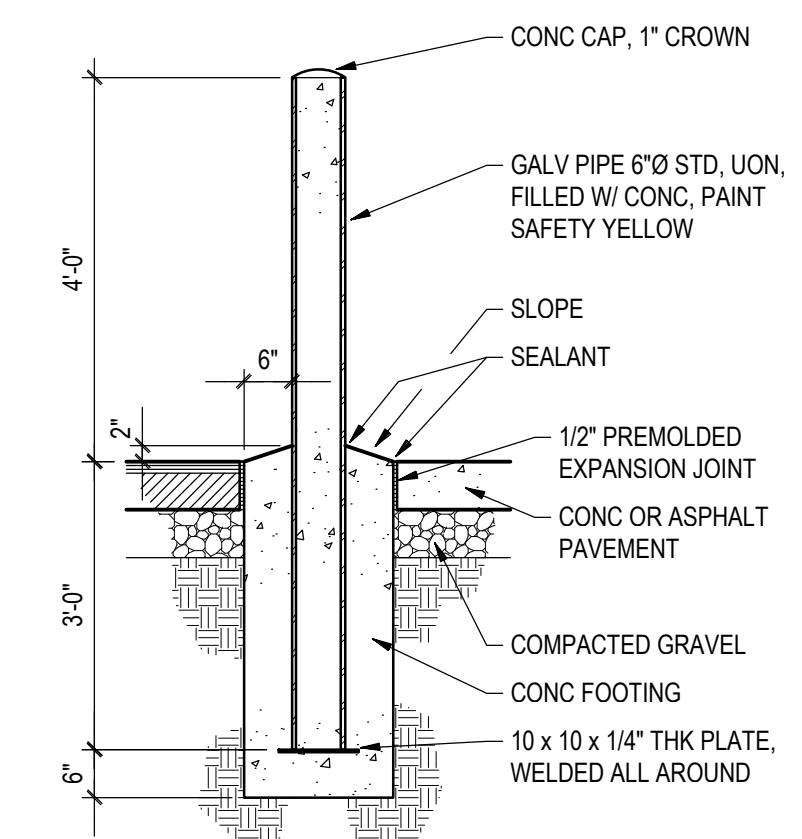


NOTES:

- PROVIDE SELF ADHESIVE VINYL LABEL AFFIX TO ELECTRICAL EQUIPMENT TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS PRIOR TO EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE OF THE EQUIPMENT.
- LABEL FORMAT AND TEXT SHALL BE IN ACCORDANCE TO FIGURE.

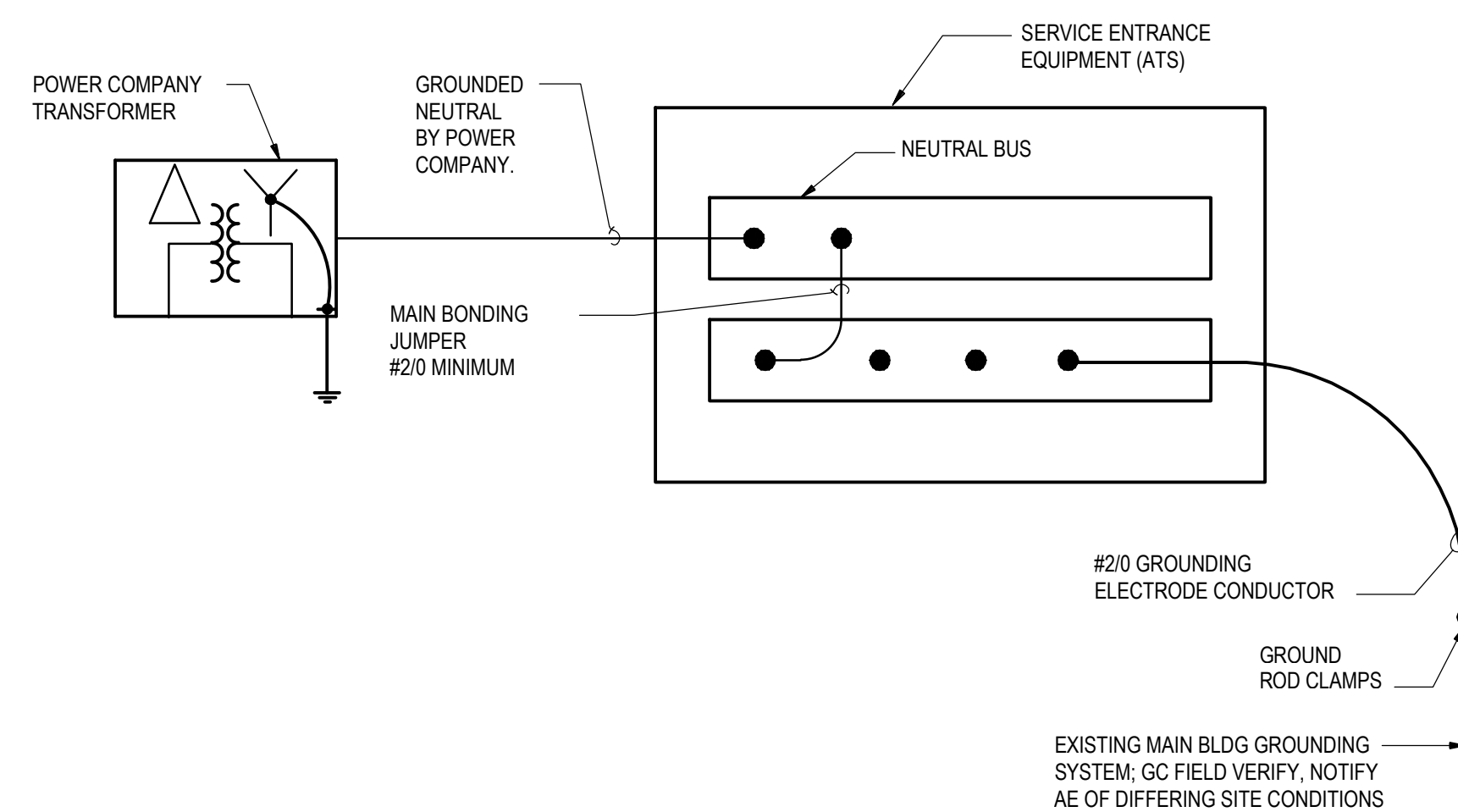
6 TYPICAL ARC FLASH DETAIL

E501 NOT TO SCALE



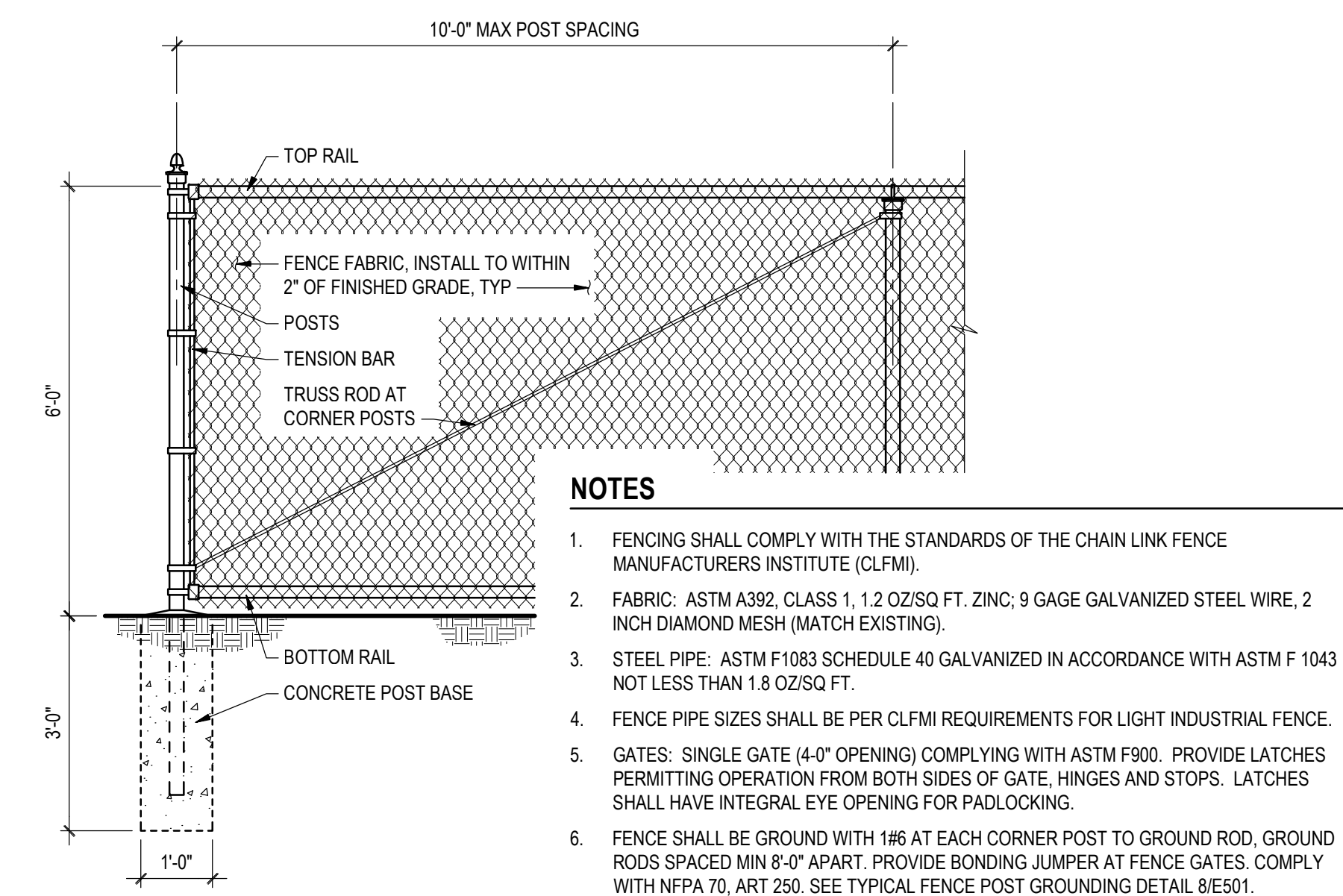
7 EXTERIOR BOLLARD DETAIL

E501 NOT TO SCALE



9 GROUNDING AND BONDING SYSTEM DIAGRAM

E501 NTS



10 TYPICAL CHAIN LINK FENCE DETAIL

E501 1/2" = 1'-0"

AD02-05



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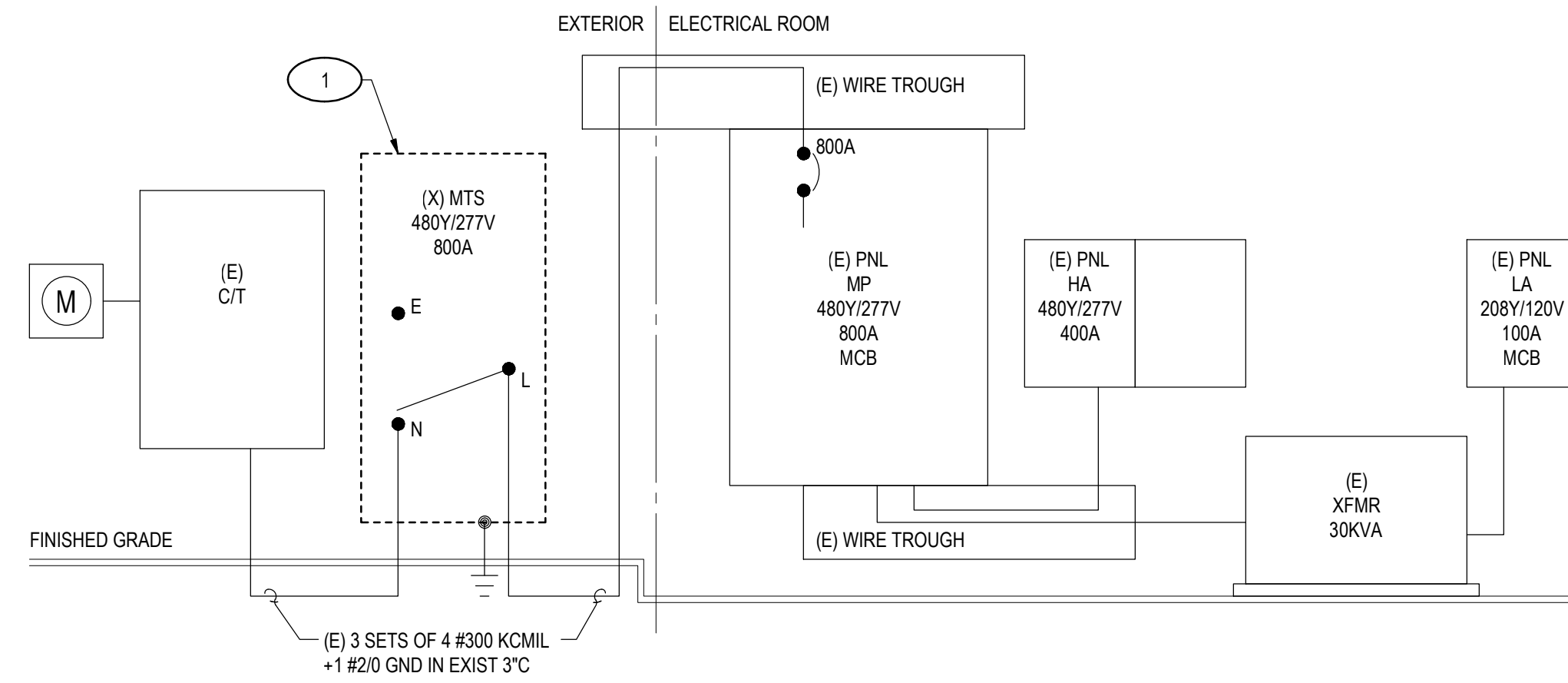
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PROJECT TITLE

**FAIRFAX COUNTY
PUBLIC SCHOOLS**

**9515 MAIN ST, FAIRFAX, VA
22031**

**WOODSON FOOD
SERVICES
GENERATOR**

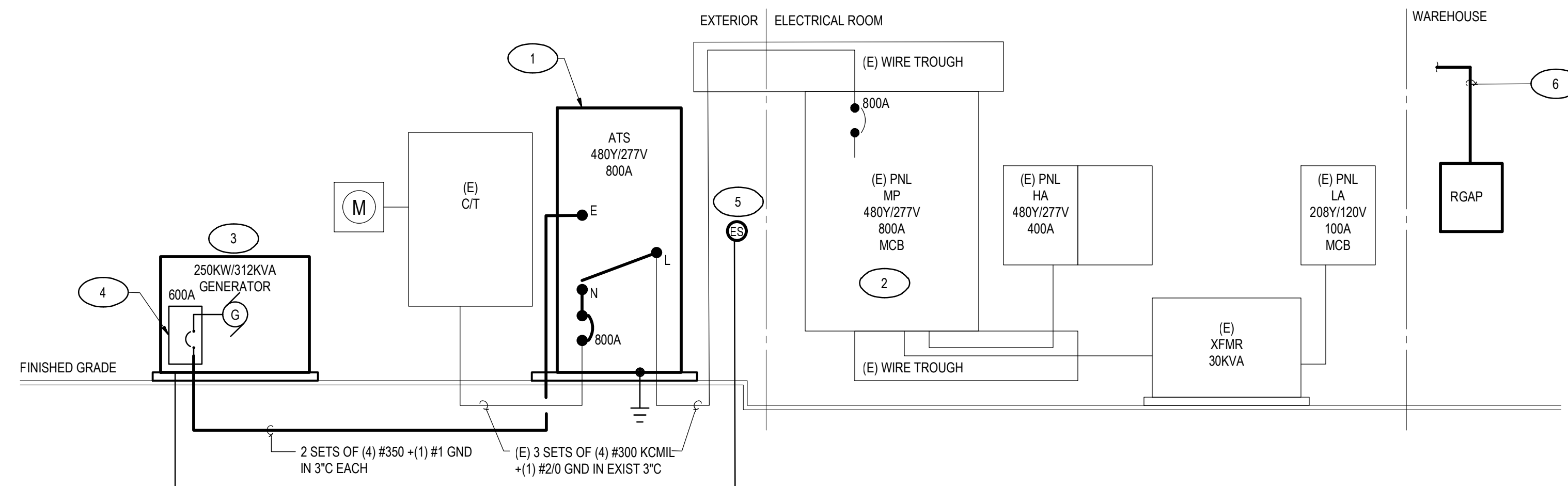
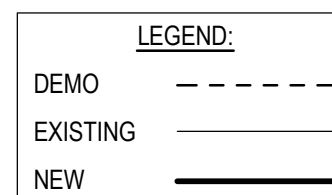


1 DEMOLITION POWER RISER DIAGRAM

NOT TO SCALE

DEMOLITION RISER DIAGRAM NOTES:

- 1 REMOVE EXISTING MANUAL TRANSFER SWITCH. MAINTAIN EXISTING FEEDER WIRING AND CONDUITS. GC SHALL FIELD VERIFY NEUTRAL-GROUND BOND AT EXISTING EQUIPMENT AND MAINTAIN MAIN GROUNDING SYSTEM FOR RECONNECTION TO NEW EQUIPMENT. NOTIFY AE OF DIFFERING SITE CONDITIONS.



2 MODIFIED POWER RISER DIAGRAM

NOT TO SCALE

MODIFIED RISER DIAGRAM NOTES:

- 1 SERVICE ENTRANCE RATED, 800A, 3-POLE, AUTOMATIC TRANSFER SWITCH (ATS) IN NEMA 3R ENCLOSURE. PAD MOUNTED. PERMANENTLY LABEL EQUIPMENT (NEC 702) PER NFPA 70. CONNECT TO EXISTING MAIN BUILDING GROUNDING SYSTEM. SEE SYSTEM GROUNDING DETAIL 9/E501. GC SHALL FIELD VERIFY MAIN BUILDING GROUNDING SYSTEM. NOTIFY AE OF DIFFERING SITE CONDITIONS.
- 2 GC SHALL FIELD VERIFY NEUTRAL-GROUND BOND DOES NOT OCCUR AT PANEL MP. IF OCCURS, DISCONNECT NEUTRAL-GROUND BOND AND RUN #20 GND BETWEEN PANEL GROUND BUS AND ATS GROUND BUS. NOTIFY AE OF DIFFERING SITE CONDITIONS.
- 3 250KW/312KVA OPTIONAL STAND-BY GENERATOR. PERMANENTLY LABEL SYSTEM EQUIPMENT (NEC 702) PER NFPA 70. SEE GENERATOR DETAIL 1/E501. **DO NOT** BOND NEUTRAL TO GROUND (NOT A SEPARATELY DERIVED SYSTEM).
- 4 600A, 600V ENCLOSED CIRCUIT BREAKER IN NEMA 3R ENCLOSURE.
- 5 REMOTE MANUAL STOP BUTTON IN WEATHERPROOF ENCLOSURE ON BUILDING WALL PER NFPA 110.
- 6 PROVIDE (4) 2-PAIR MULTI-CONDUCTOR SHIELDED CABLE (BELDEN OR MANUFACTURER'S RECOMMENDATION) IN 1" CONDUIT FROM REMOTE GENERATOR ANNUNCIATOR PANEL (RGAP) LOCATION TO GENERATOR. COORDINATE LOCATION OF RGAP WITH OWNER.

GENERAL NOTES:

- 1. GENERATOR SIZED FOR PEAK UTILITY DEMAND LOAD FOR PAST 12 MONTHS OF 156KW (188A ON 480Y/277V, 3-PH, 4W SERVICE)
- 2. CONTRACTOR SHALL VERIFY EXACT EQUIPMENT SIZES PRIOR TO INSTALLATION. EQUIPMENT SHALL BE LAID OUT FOR MOST EFFICIENT USE.
- 3. MOUNTING HEIGHTS FOR ALL EQUIPMENT SHALL BE IN COMPLIANCE WITH REQUIRED HEIGHTS PER NFPA 70.
- 4. ALL OUTSIDE EQUIPMENT SHALL BE NEMA 3R RATED.
- 5. PERMANENTLY LABEL SERVICE ENTRANCE EQUIPMENT PER NFPA 70.
- 6. PERMANENTLY LABEL SYSTEM EQUIPMENT (NEC 702) PER NFPA 70.
- 7. PROVIDE ARC FLASH WARNING LABEL ON ALL SERVICEABLE EQUIPMENT PER NFPA 70. SEE TYPICAL DETAIL E501.

WIRE AND CONDUIT SIZE	LOCATION: ELEC RM		PANEL LA			VOLTAGE: 208Y/120V, 3Ø, 4W		WIRE AND CONDUIT SIZE
	TYPE: GE SERIES A		(EXISTING)			100 A MCB		
MOUNTING: SURFACE		LOADS (kVA)		C/B		CIRCUIT DESCRIPTION		
C/B		Ø A	Ø B	Ø C	C/B	CIRCUIT DESCRIPTION		
20	1				20	1	REFRIGERATOR	
20	3				20	1	RECEPT BREAK ROOM	
20	5				20	1	RECEPT BREAK ROOM	
20	7				20	1	RECEPT FREEZER	
20	9				20	1	LIGHTING DOCK	
20	11				20	1	HEAT TRACE TANK	
20	13				14	3	RECEPT BATHROOMS	
20	15				20	1	HANDICAP LIFT	
20	17				18	1	GARAGE DOOR OPENER	
20	19				20	1	GARAGE DOOR OPENER	
20	21				20	1	RECEPT FORK LIFT	
30	23				20	1	HEAT TRACE TANK	
	25				20	1	HEAT VALVE BOX	
	27				20	1	HEAT VALVE BOX	
	29				20	1	GENERATOR HEATER	
	31				20	1	SPACE	
	33				30	2	SPACE	
	35			1.0	30	1	SPACE	
	37			1.0	30	1	SPACE	
	39			1.0	38	1	SPACE	
	41				40	1	SPACE	
					42	1	SPACE	
TOTAL KILOVOLT-AMPERES		1.00	1.00	1.00				
TOTAL CONNECTED LOAD:		3.00 kVA x 1000 ÷ √3 = 208 = 8 A						
LOAD	CONNECTED kVA	DEMAND FACTOR	COMPUTED kVA	REMARKS				
LIGHTING	0.00	1.0	0.00	CONTINUOUS				
RECEPTACLES	0.00	0.00	0.00	NON-CONTINUOUS				
MOTORS	0.00	1.0	0.00	NON-CONTINUOUS				
OTHER	3.00	1.0	3.00	NON-CONTINUOUS				
TOTAL	3.00		3.00					
MINIMUM FEEDER AMPACITY:		3.00 kVA** x 1000 ÷ √3 = 208 = 8 A						

* BASED ON NEC 220-44. (100% OF LOAD UP TO 10 kVA, PLUS 50% OF LOAD ABOVE 10 kVA)
** BASED ON NEC 215, 220, AND 430: (COMPUTED LIGHTING kVA x 125%) + (COMPUTED RECEPTACLE kVA x 100%) + (LARGEST MOTOR kVA x 125%) + (OTHER MOTOR kVA x 100%) + (COMPUTED OTHER LOADS x 100%)

GENERAL PANELBOARD NOTES:

- 1. EXISTING PANELBOARD DIRECTORIES ARE PROVIDED FROM AVAILABLE PANELBOARD SCHEDULES. ACTUAL BRANCH CIRCUIT HOMERUNS MAY VARY. CONTRACTOR SHALL VERIFY EXISTING BRANCH CIRCUITS AS NEEDED. UPDATE PANELBOARD BRANCH CIRCUIT DIRECTORIES TO REFLECT WORK DONE AND PROVIDE ROOM NUMBERS TO ALL CIRCUIT DIRECTORIES MODIFIED AS PART OF THIS PROJECT.
- 2. UPDATE ALL PANELBOARD LABELS MODIFIED AS PART OF THIS PROJECT TO INDICATE POWER SOURCE, VOLTAGE, AND COLOR CODES.

WIRE AND CONDUIT SCHEDULE	
No.	WIRE AND CONDUIT SIZES
1	(2) #10, (1) #10 GND IN 3/4" CONDUIT

- SCHEDULE NOTES:**
- 1 PROVIDE 30A, 1-POLE, BRANCH CIRCUIT BREAKER.

REVISIONS

NO.	DATE	DESCRIPTION

GAA PROJECT NO. 735E45
DRAWN BY ADM
CHECKED BY ACO
DATE MAY 14, 2024

DRAWING TITLE

**ELECTRICAL
RISER DIAGRAMS AND
SCHEDULES**

PROJECT STATUS
BID/PERMIT DRAWINGS

DRAWING NUMBER

E601