

Generator and Electrical Equipment Replacement JUDITH A. RESNIK ELEMENTARY SCHOOL

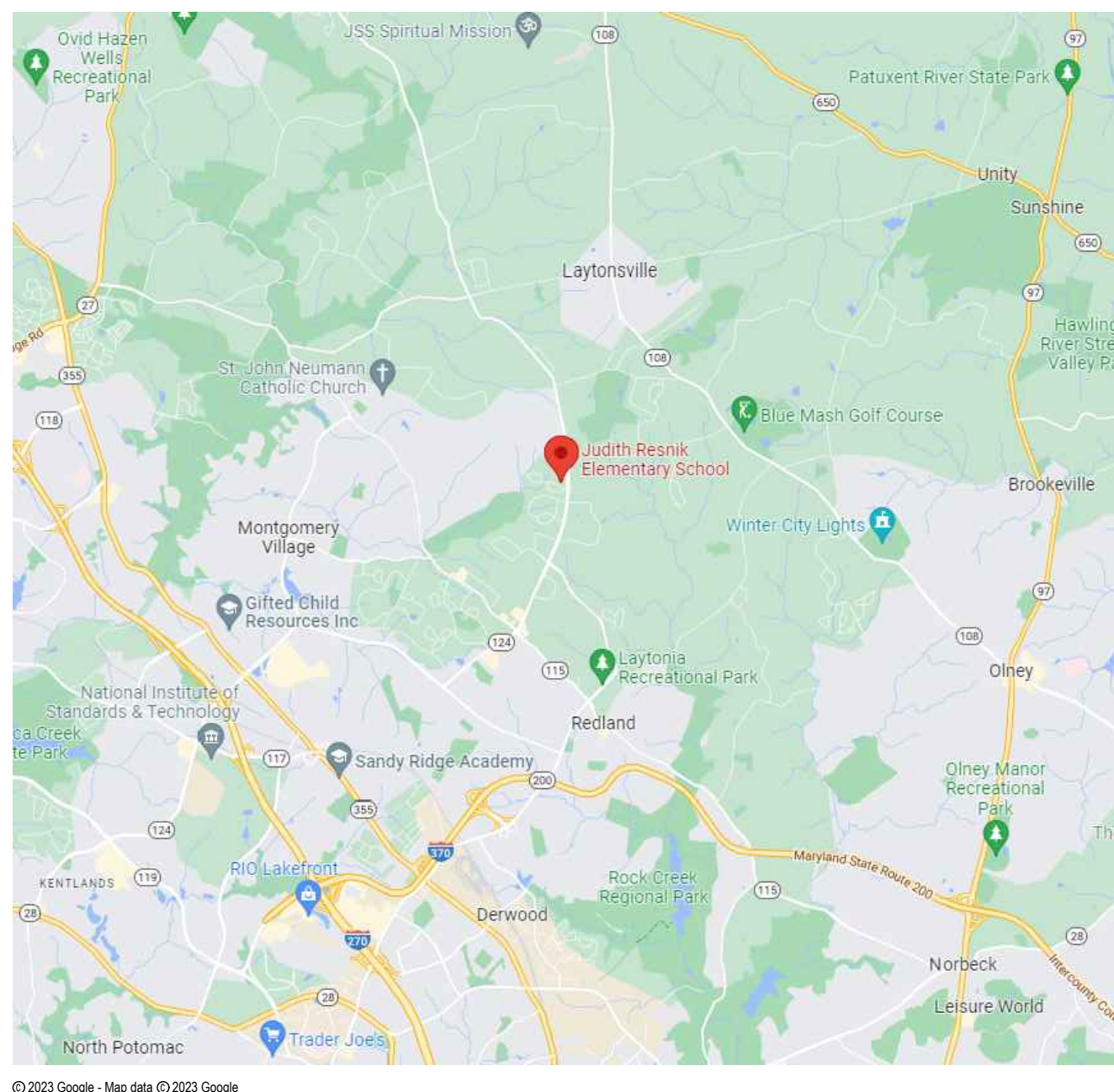
7301 HADLEY FARMS DRIVE, GAITHERSBURG, MD 20879
Montgomery County Public Schools

MECHANICAL AND ELECTRICAL ENGINEERS

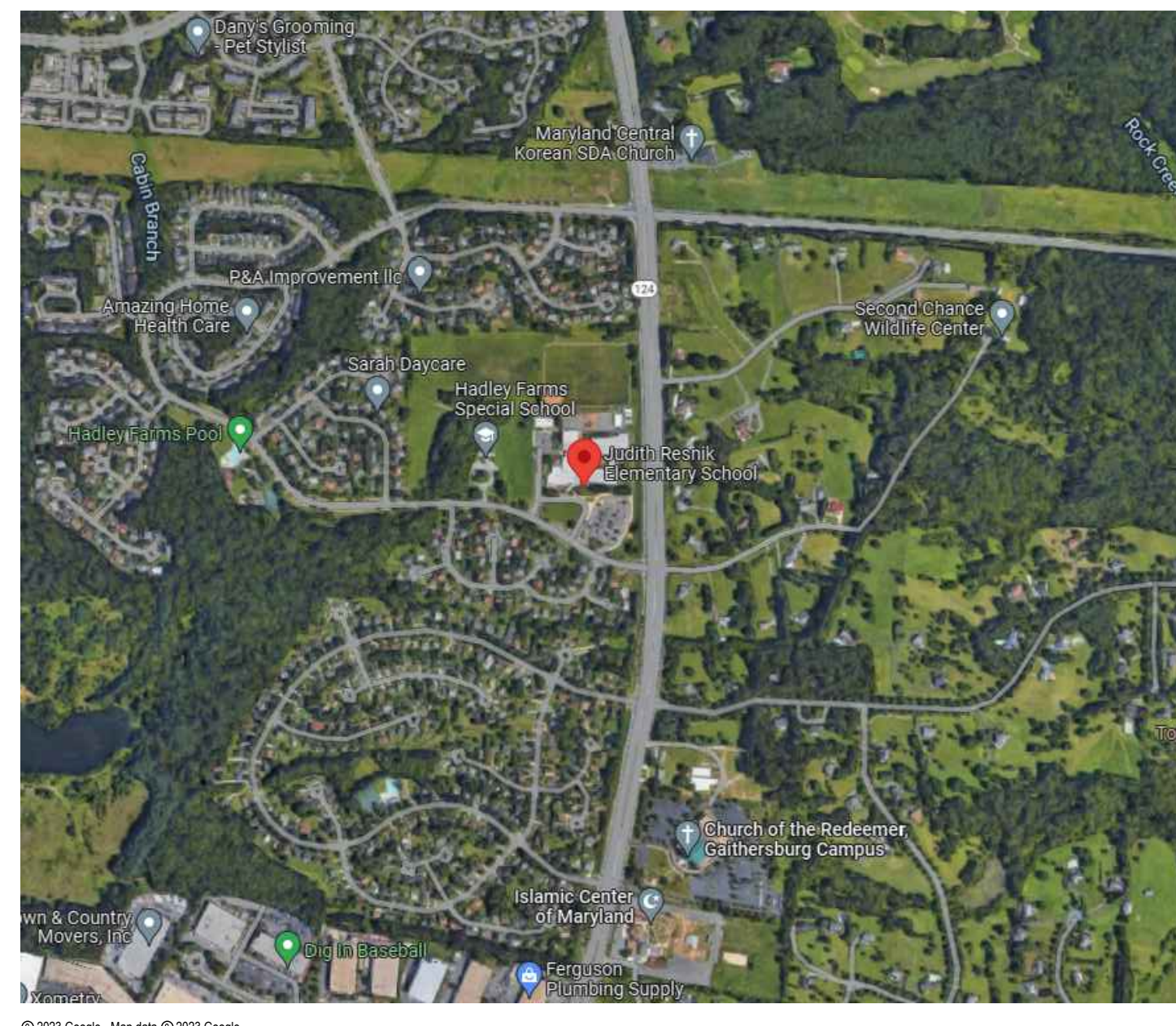
JAMES POSEY ASSOCIATES, INC.
11155 RED RUN BOULEVARD, SUITE 310
BALTIMORE, MARYLAND 21117
PHONE: 410.265.6100

GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
7301 HADLEY FARMS DRIVE
GAITHERSBURG, MD 20879
MONTGOMERY COUNTY PUBLIC SCHOOLS

VICINITY PLAN



AERIAL SITE PLAN



DRAWING INDEX

T-1 TITLE SHEET

MECHANICAL

- M-1 DIAGRAMS, SYMBOLS AND ABBREVIATIONS
- M-2 PART FLOOR PLAN - AREA B - DEMOLITION
- M-3 PART FLOOR PLAN - AREA B - NEW WORK

ELECTRICAL

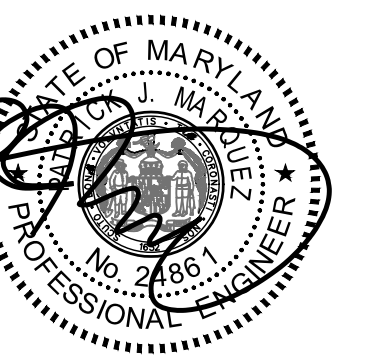
- E-0 SYMBOLS LIST, ABBREVIATIONS, DIAGRAMS, AND DETAILS
- E-1 PART FLOOR PLAN - AREA A - DEMOLITION
- E-2 PART FLOOR PLAN - AREA B - DEMOLITION
- E-3 PART FLOOR PLAN - AREA C - DEMOLITION
- E-4 PART FLOOR PLAN - AREA D - DEMOLITION
- E-5 PART FLOOR PLAN - AREA A - NEW WORK
- E-6 PART FLOOR PLAN - AREA B - NEW WORK
- E-7 PART FLOOR PLAN - AREA C - NEW WORK
- E-8 PART FLOOR PLAN - AREA D - NEW WORK
- E-9 SCHEDULES AND DIAGRAMS

PROFESSIONAL CERTIFICATION

These contract documents for Judith A. Resnik Elementary School were prepared under my supervision and to the best of my knowledge, information, and belief, they comply with the relevant building codes of the State of Maryland.

02/06/23 (Date)

Maryland Professional Engineer Registration No. 24861



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland. License No. 24861, Expiration date 02-24-2024.



James Posey Associates
Engineering Your Vision
Mechanical & Electrical Consulting Engineers
11155 Red Run Boulevard, Suite 310
Baltimore, Maryland 21117
tel 410-265-6100
jamesposey.com

APPLICABLE CODES & STANDARDS

- 2018 IBC: INTERNATIONAL BUILDING CODE
- 2018 IMC: INTERNATIONAL MECHANICAL CODE
- 2018 IPC: INTERNATIONAL PLUMBING CODE WITH WSSC AMENDMENTS
- ASHRAE 90.1: ENERGY STANDARD FOR BUILDINGS EXCEPT LOW RISE RESIDENTIAL BUILDINGS.
- NEC 2017: NATIONAL ELECTRICAL CODE
- ASHRAE 2017-2020 HANDBOOKS.

SCOPE OF WORK

SCOPE OF WORK GENERALLY CONSISTS OF THE FOLLOWING OVER TWO PHASES. PHASE 1 SHALL CONSIST OF THE FOLLOWING:

- PROVIDE CONDUITS AND RACEWAYS FOR NEW GENERATOR.
- PROVIDE CONDUITS AND RACEWAYS FOR NEW DEVICES AND CONNECTIONS TO EXISTING EQUIPMENT. FINAL CONNECTIONS TO NEW DEVICES AND EXISTING EQUIPMENT SHALL BE PERFORMED DURING THE SECOND SUMMER.
- PROVIDE NEW CONCRETE PAD FOR NEW GENERATOR.
- CONNECT LIGHTING FIXTURES IN TOILET ROOMS ON NORMAL CIRCUITS TO EXISTING EMERGENCY LIGHTING CIRCUITS, WHERE INDICATED ON DRAWINGS.

PROJECT SCOPE SHALL INCLUDE THE WORK FOR PHASE 2:

- PROVIDE NEW GENERATOR AND ASSOCIATED EQUIPMENT.
- CONNECT EXISTING BOILERS AND ASSOCIATED PUMPS TO THE NEW STANDBY PANELBOARD.
- CONNECT EXISTING KITCHEN REFRIGERATION EQUIPMENT TO NEW STANDBY PANELBOARD.
- CONNECT EXISTING INTERCOMMUNICATIONS/PUBLIC ADDRESS SYSTEM TO THE NEW STANDBY PANELBOARD.
- CONNECT EXISTING MAIN TELECOM ROOM RECEPTACLES TO THE NEW STANDBY PANELBOARD.
- CONNECT NORMAL LIGHTING FIXTURES IN THE MAIN MECHANICAL ROOM/BOILER ROOM AND MAIN ELECTRICAL ROOM TO THE NEW EMERGENCY PANELBOARD.
- CONNECT LIGHTING FIXTURES IN TOILET ROOMS ON NORMAL CIRCUITS TO THE NEW EMERGENCY PANELBOARD, WHERE INDICATED ON DRAWINGS.

THE SCOPE OF WORK INDICATED ON THIS SHEET IS INTENDED AS A BRIEF SUMMARY FOR GENERAL INFORMATION PURPOSES ONLY, AND DOES NOT NECESSARILY INCLUDE ALL OF THE WORK REQUIRED. THE CONTRACTOR SHALL PROVIDE MATERIALS AND LABOR AS REQUIRED TO COMPLETE THE WORK AS INDICATED IN THE CONTRACT DOCUMENTS.

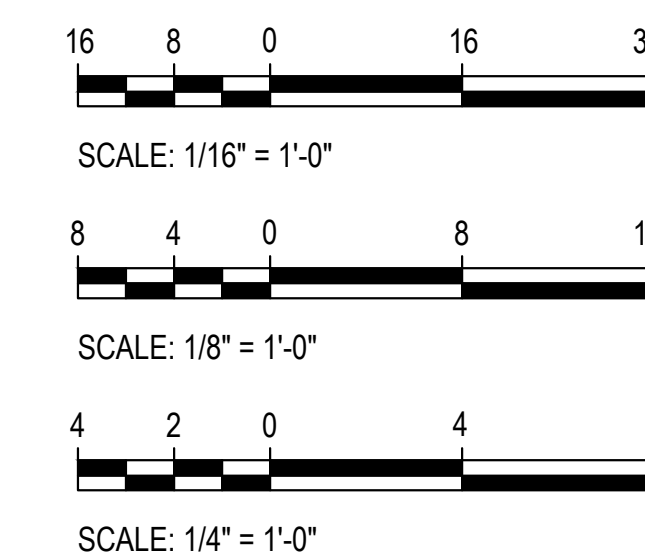
BOARD OF EDUCATION

DR. MONIFA B. MCKNIGHT	SUPERINTENDENT
GARY MOSEMAN	DIRECTOR I, DIVISION OF DESIGN & CONSTRUCTION
MS. BRENDA WOLFF	DISTRICT 5
KARLA SILVESTRE	PRESIDENT / AT-LARGE
GRACE RIVERA-OVEN	DISTRICT 1
MRS. SHEBRA L. EVANS	VICE PRESIDENT / DISTRICT 4
LYNNE HARRIS	AT-LARGE
JULIE YANG	DISTRICT 3
MRS. REBECCA SMONDROWSKI	DISTRICT 2
MR. ARVIN KIM	STUDENT MEMBER

CODE ANALYSIS

CODE ANALYSIS (FROM INTERNATIONAL BUILDING CODE 2018)		
	EXISTING BLDG	PROPOSED ALTERATION
IBC OCCUPANCY CLASSIFICATION	E	THE SCOPE OF THIS WORK IS TO REPLACE EXISTING GENERATOR AND REVISE NORMAL LIGHTING CIRCUITS IN TOILET ROOMS, BOILER ROOM AND ELEC ROOM TO EMERGENCY LIGHTING. THERE IS NO INCREASE IN FLOOR AREA, NO SITE CHANGES, NO CHANGE IN CLASSIFICATION OR TYPE OF CONSTRUCTION.
TYPE OF CONSTRUCTION	IIB	
NUMBER OF STORIES ABOVE GRADE	1	
HIGH RISE (Y/N)	N	
FIRE ALARM (Y/N)	Y	
FULLY SPRINKLERED (Y/N)	Y	
TOTAL BUILDING FLOOR AREA	78,547 SF	

GRAPHIC SCALES



CAUTION: EXCEPT WHERE DIMENSIONS ARE INDICATED, GRAPHIC SCALE MUST BE USED.

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023

Drawing Title
TITLE SHEET

Sheet No.

T-1

MECHANICAL SYMBOLS AND ABBREVIATIONS			
— G —	LOW PRESSURE GAS PIPE	Ø	INDICATES DIAMETER
— G (2 PSI) —	MEDIUM PRESSURE GAS PIPE	A/D	ACCESS DOOR
⊥	PIPE CAP OR PLUG	AAV	AUTOMATIC AIR VENT
— —	UNION	ABV	ABOVE
⊘	SHUT-OFF VALVE	AFF	ABOVE FINISHED FLOOR
⊘	SOLENOID VALVE	BLDG	BUILDING
⊘	PRESSURE REDUCING / REGULATING VALVE	BLW	BELOW
(M)	METER	BTUH	BRITISH THERMAL UNITS PER HOUR
+	GAUGE COCK / TEST PORT	CFH	CUBIC FEET PER HOUR
□	CONCENTRIC REDUCER	CFM	CUBIC FEET PER MINUTE
□	ECCENTRIC REDUCER	CLG	CEILING
→	FLOW DIRECTION ARROW	CONC	CONCRETE
⊥	STRAINER	CW	DOMESTIC COLD WATER PIPE
●	POINT OF CONNECTION, NEW TO EXISTING	DIA	DIAMETER
●	DEMOLITION WORK TERMINATION POINT	EA	EXHAUST AIR
①	SYMBOL FOR SPECIFIC NOTE, NOTE APPLIES TO DRAWING ON WHICH IT OCCURS.	ETR	EXISTING TO REMAIN
③	DETAIL OR DIAGRAM NO. 3 SHOWN ON DRAWING M1	EX	EXISTING
		EXH	EXHAUST FLOOR
		FL	FLOOR
		FT	FEET
		G	GAS PIPE
		GALV	GALVANIZED
		IN	INCH, INCHES
		MAX	MAXIMUM
		MBH	THOUSAND BTU'S PER HOUR
		MCPS	MONTGOMERY COUNTY PUBLIC SCHOOLS
		MCH	MECHANICAL
		MFR	MANUFACTURER
		MIN	MINIMUM
		NC	NORMALLY CLOSED
		NIC	NOT IN CONTRACT
		NO	NORMALLY OPEN
		OA	OUTDOOR AIR
		PSI	POUNDS PER SQUARE INCH
		RX	REMOVE EXISTING
		TYP	TYPICAL
		UON	UNLESS OTHERWISE NOTED

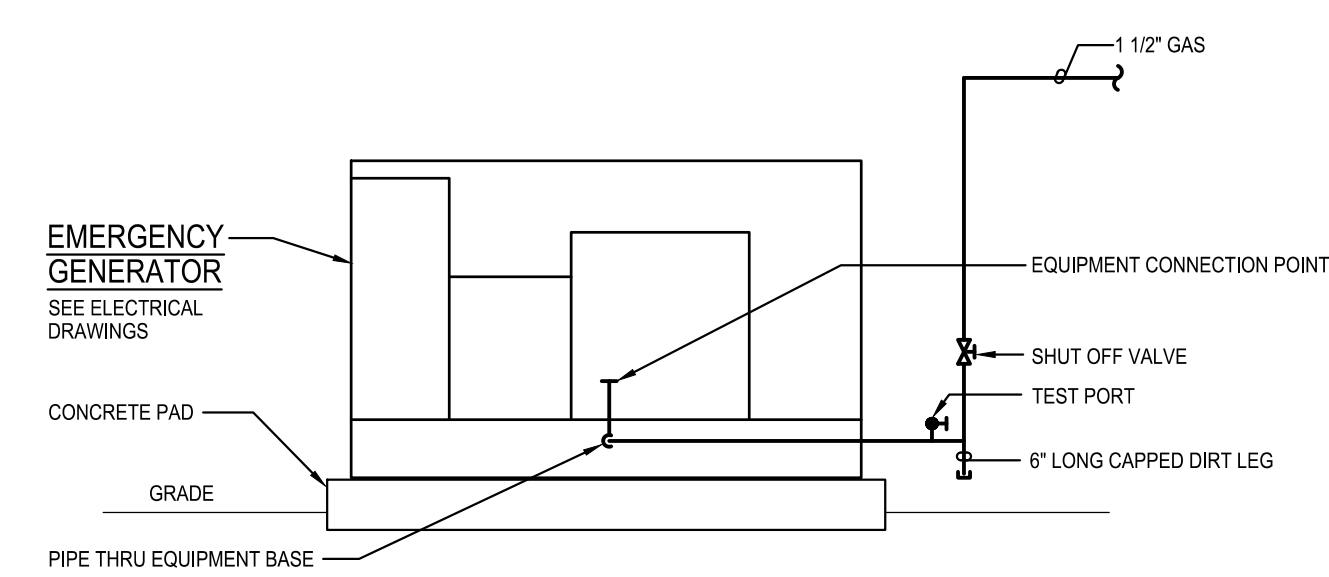
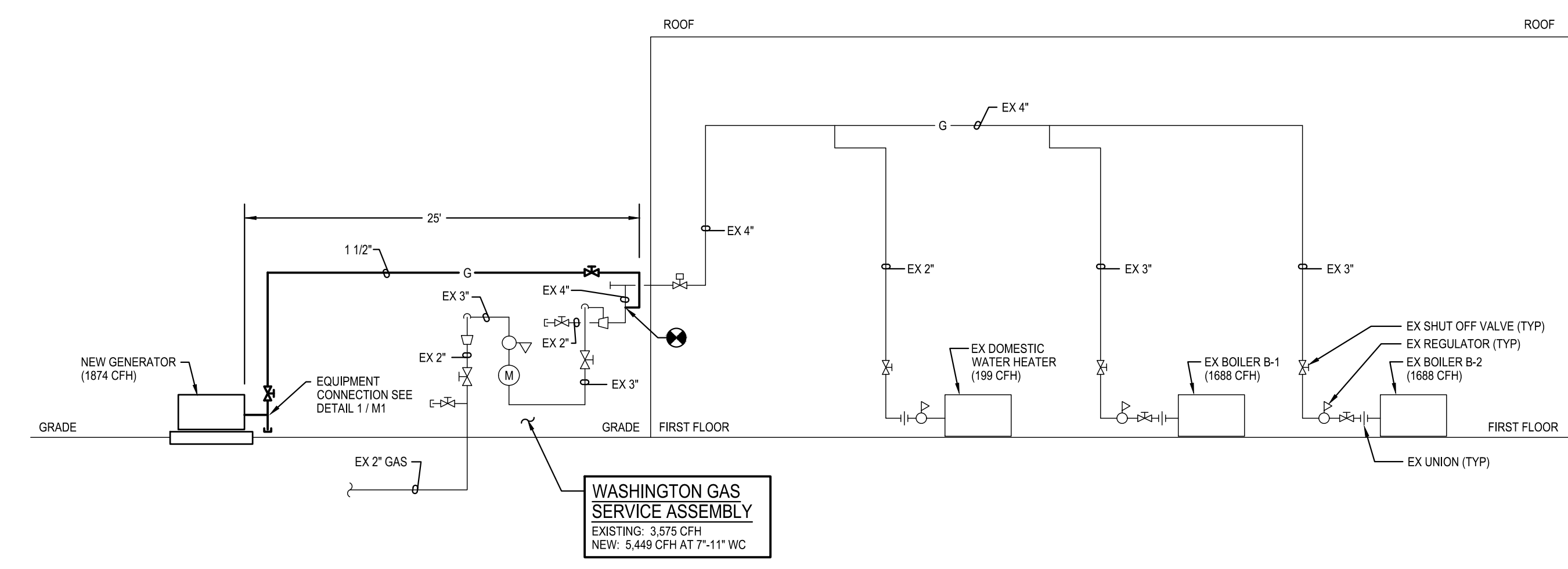


DIAGRAM ①
M-1
EQUIPMENT CONNECTION
NOT TO SCALE



ABOVE GROUND PIPE: SCHEDULE 40 STEEL PIPE
PIPE AND VENT REGULATORS PER IFGC 2018
408, 410.2 AND 410.3

DIAGRAM ②
M-1
GAS RISER
NOT TO SCALE

GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT

JUDITH A. RESNIK ELEMENTARY SCHOOL
7301 HADLEY FARMS DRIVE
GAITHERSBURG, MD 20879

MONTGOMERY COUNTY PUBLIC SCHOOLS



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 33986, Expiration date 01-16-2025.



Mechanical & Electrical
Consulting Engineers
11155 Red Run Boulevard, Suite 310
Baltimore, Maryland 21117
tel 410-265-6100
jamesposey.com

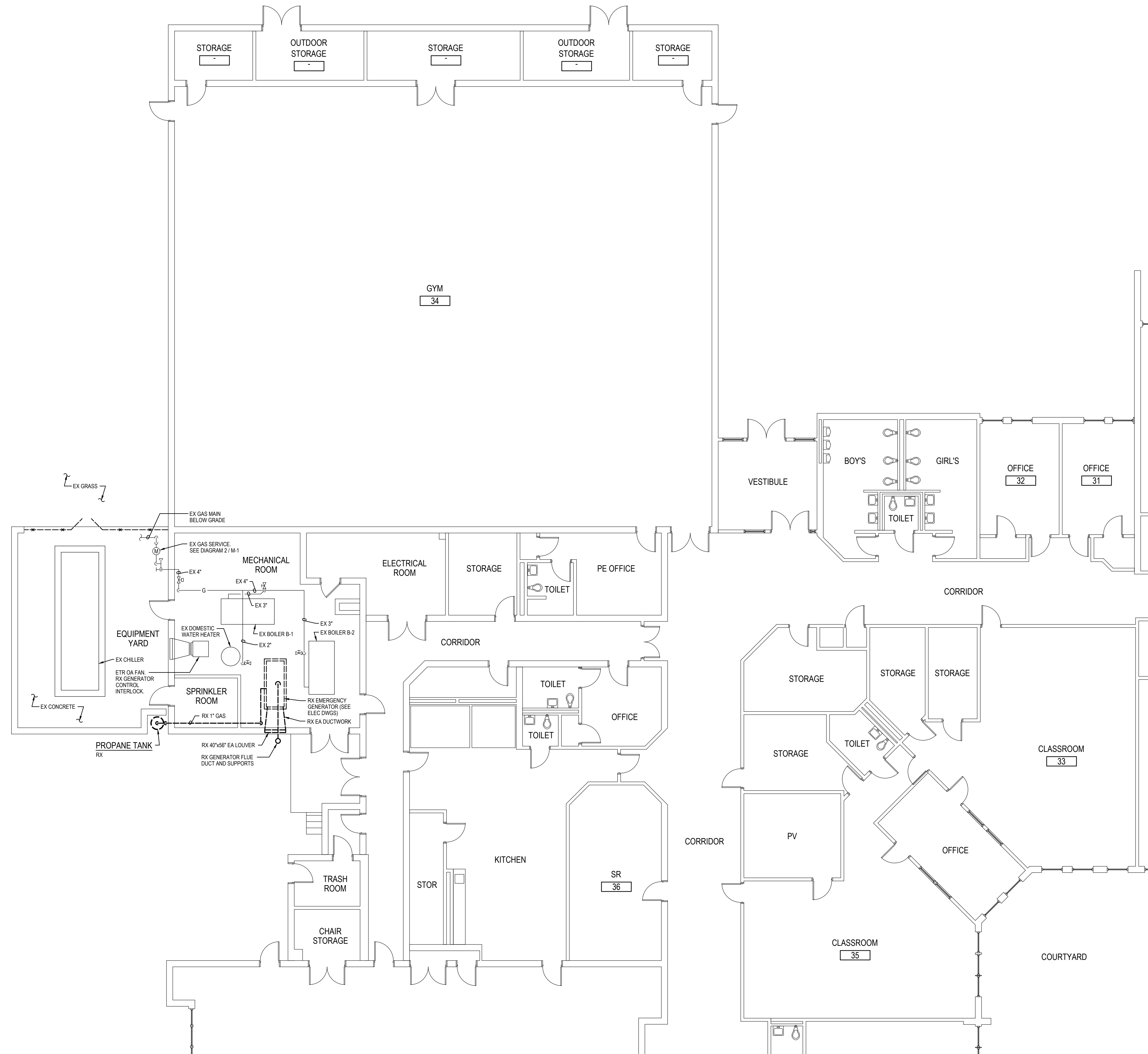
Tag	Description	Date
	BID SET	02/06/23

PSC No	
Scale	AS NOTED
Project No	7754-22
Date	FEBRUARY 6, 2023

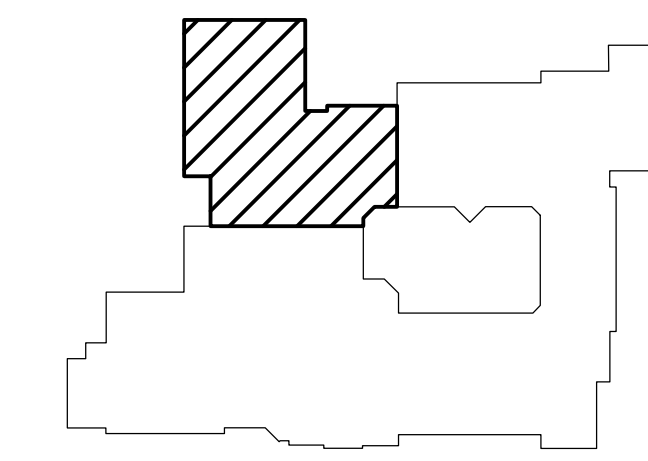
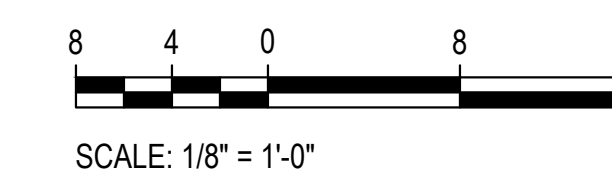
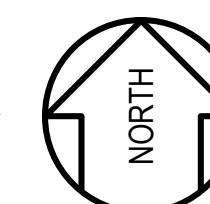
Drawing Title
DIAGRAMS, SYMBOLS AND ABBREVIATIONS

Sheet No:
M-1

- 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 EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PRESENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
 - DEMOLITION SHALL INCLUDE REMOVAL AND OFF-SITE DISPOSAL OF MATERIALS. DO NOT ABANDON IN PLACE ANY MECHANICAL AND RELATED ELECTRICAL COMPONENTS UNLESS OTHERWISE NOTED ON DRAWINGS.
 - UNLESS OTHERWISE NOTED, MECHANICAL/PLUMBING ITEMS SHOWN HEAVY DASHED (---) SHALL BE REMOVED AND MECHANICAL/PLUMBING ITEMS SHOWN LIGHT SOLID (—) SHALL REMAIN.
 - NEW GENERATOR AND GAS PIPING TO BE INSTALLED BEFORE EXISTING ARE REMOVED. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL PHASING INFORMATION.

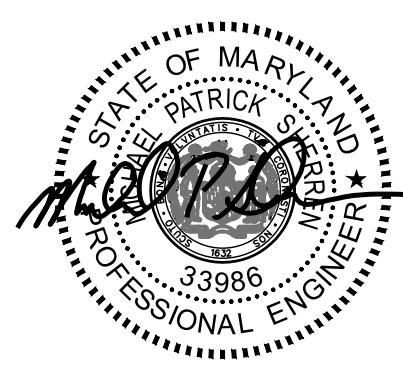


1
M-2
PART FLOOR PLAN - AREA B
DEMOLITION
SCALE: 1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
 7301 HADLEY FARMS DRIVE
 GAITHERSBURG, MD 20879
 MONTGOMERY COUNTY PUBLIC SCHOOLS



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland. License No. 33986, Expiration date 01-16-2025.

James Posey Associates
Engineering Your Vision

Mechanical & Electrical Consulting Engineers
 11155 Red Run Boulevard, Suite 310
 Baltimore, Maryland 21117
 tel 410-265-6100
 jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

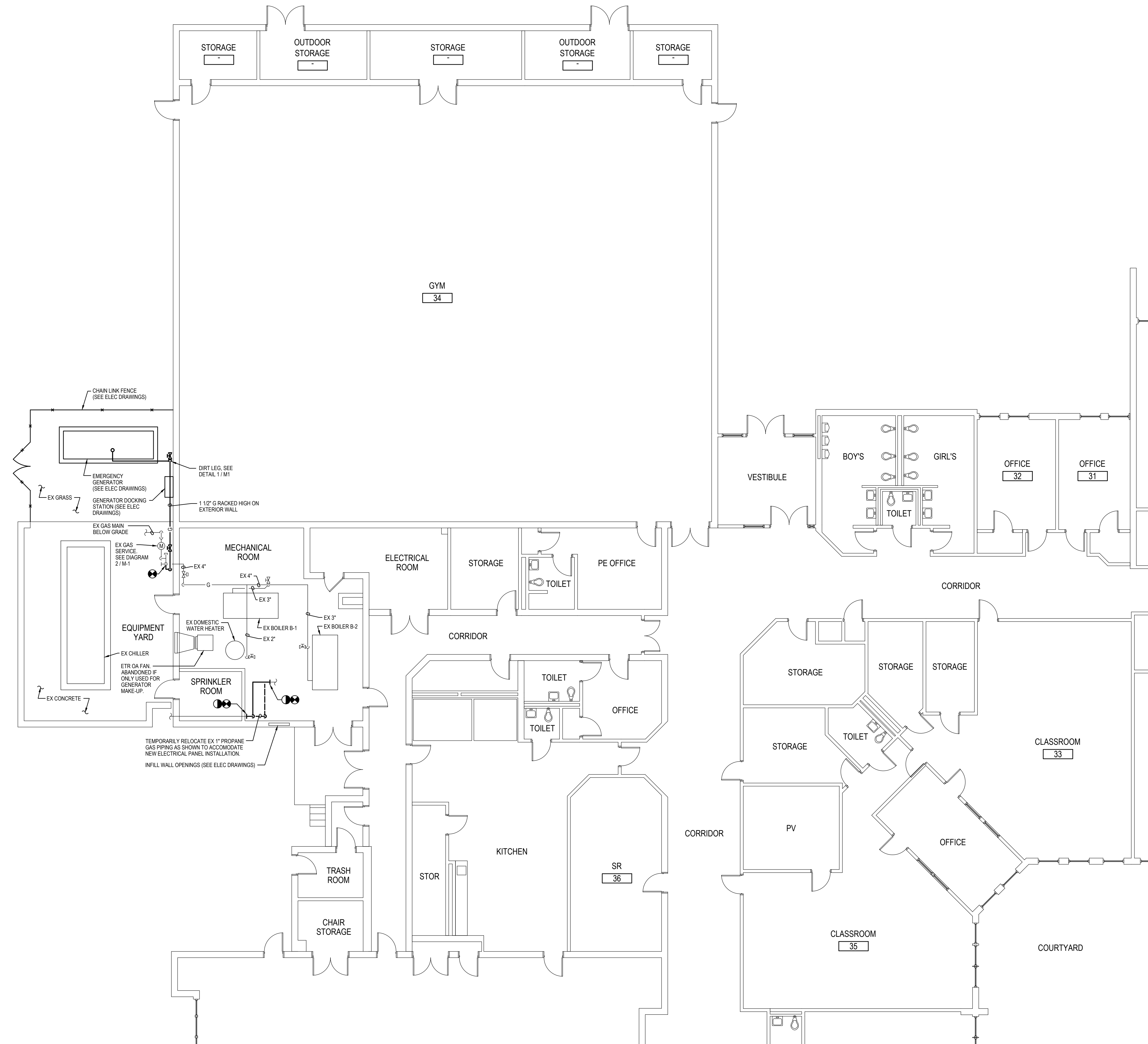
PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023

Drawing Title
PART FLOOR PLAN AREA B DEMOLITION

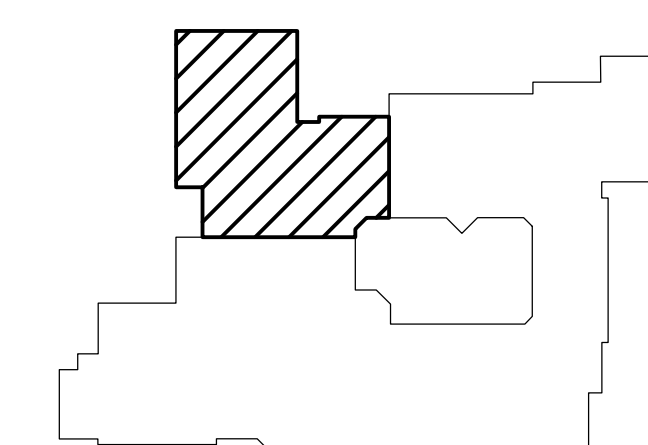
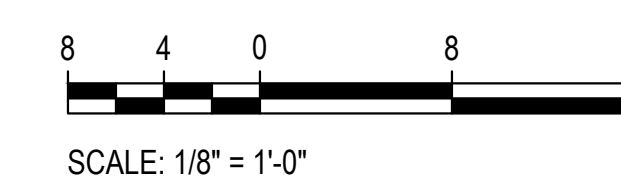
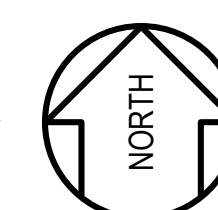
Sheet No:
M-2

GENERAL NOTES:

- A. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- B. DO NOT LOCATE PIPING ABOVE ELECTRICAL PANELS OR EQUIPMENT.
- C. UNLESS OTHERWISE NOTED, MECHANICAL/PLUMBING ITEMS SHOWN HEAVY (---) SHALL BE NEW AND MECHANICAL/PLUMBING ITEMS SHOWN LIGHT (---) ARE EXISTING TO REMAIN.
- D. NEW GENERATOR AND GAS PIPING TO BE INSTALLED BEFORE EXISTING ARE REMOVED. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL PHASING INFORMATION.

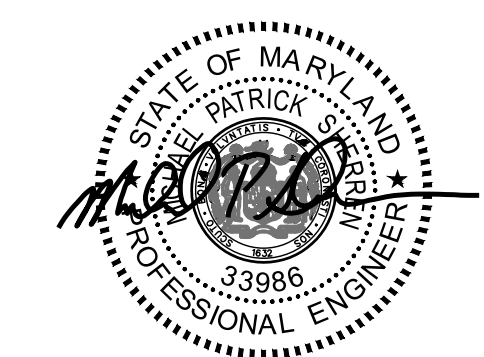


1
M-3
PART FLOOR PLAN - AREA B
NEW WORK
SCALE: 1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
 7301 HADLEY FARMS DRIVE
 GAITHERSBURG, MD 20879
 MONTGOMERY COUNTY PUBLIC SCHOOLS



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland. License No. 33986, Expiration date 01-16-2025.

James Posey Associates
Engineering Your Vision

Mechanical & Electrical Consulting Engineers
 11155 Red Run Boulevard, Suite 310
 Baltimore, Maryland 21117
 tel 410-265-6100
 jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023

Drawing Title
PART FLOOR PLAN AREA B NEW WORK

Sheet No:
M-3



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland. License No. 24681, Expiration date 02-24-2024.

James Posey Associates
 Engineering Your Vision

Mechanical & Electrical Consulting Engineers
 11155 Red Run Boulevard, Suite 310
 Baltimore, Maryland 21117
 tel 410-265-6100
 jamesposey.com

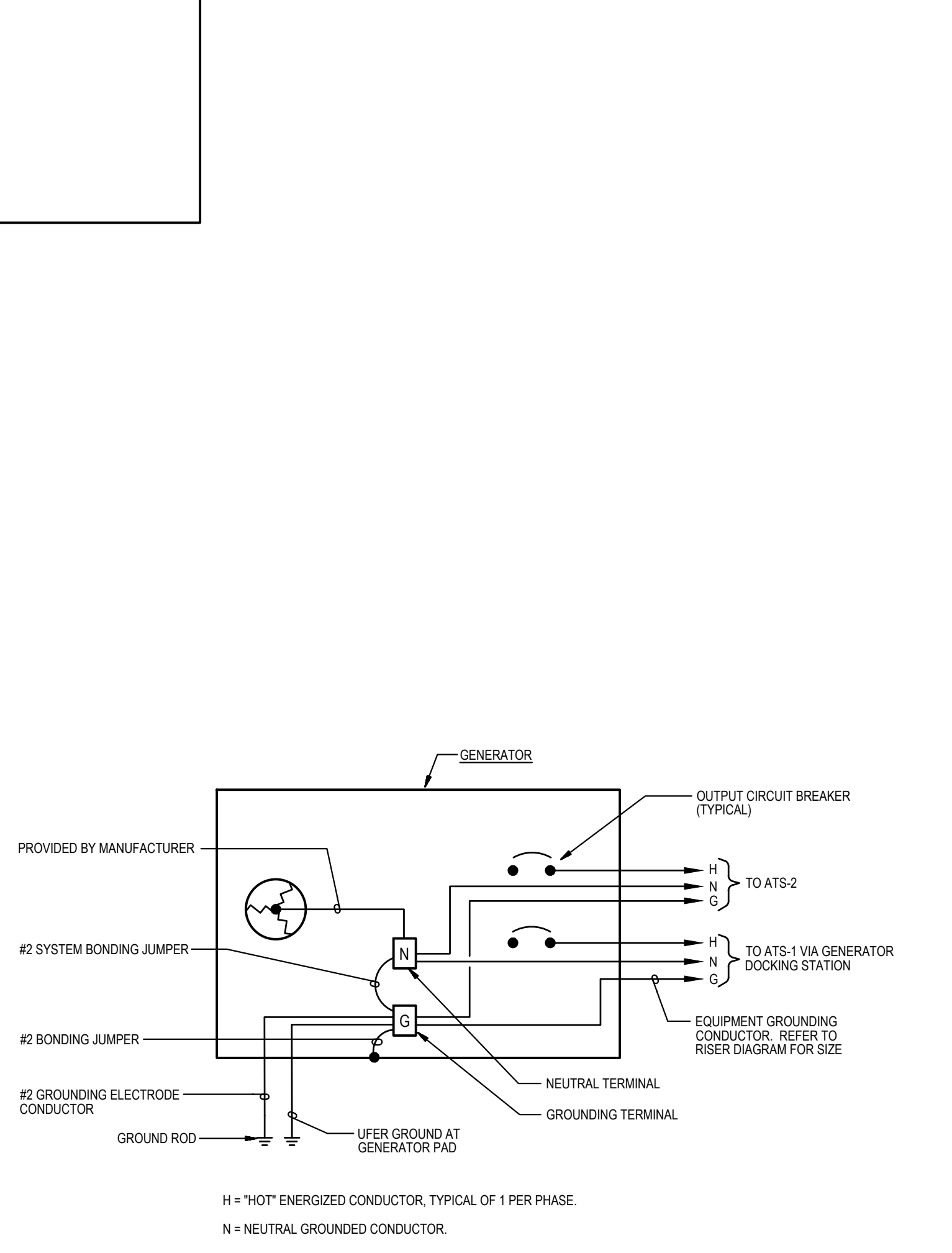
Tag	Description	Date
	BID SET	02/06/23
PSC No		
Scale	AS NOTED	
Project No	7754-22	
Date	FEBRUARY 6, 2023	

Drawing Title
SYMBOLS LIST, ABBREVIATIONS, DIAGRAMS AND DETAILS

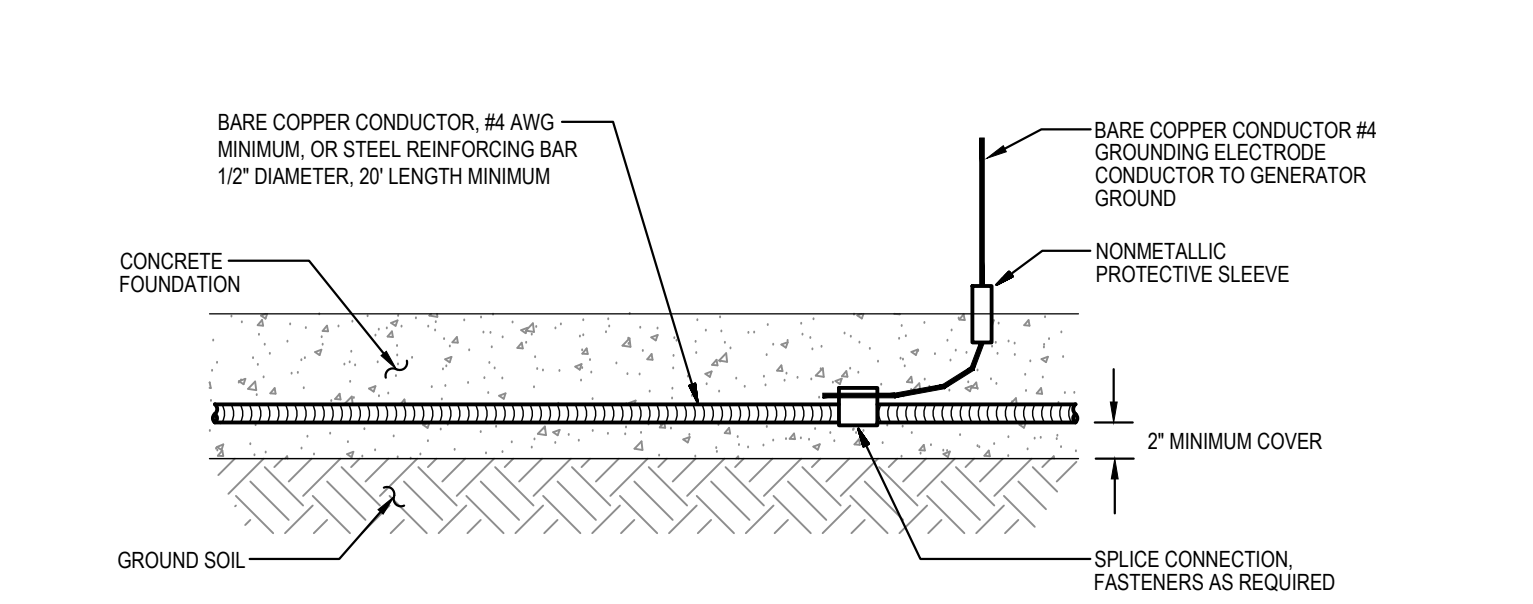
Sheet No:
E-0

ELECTRICAL SYMBOLS AND ABBREVIATIONS

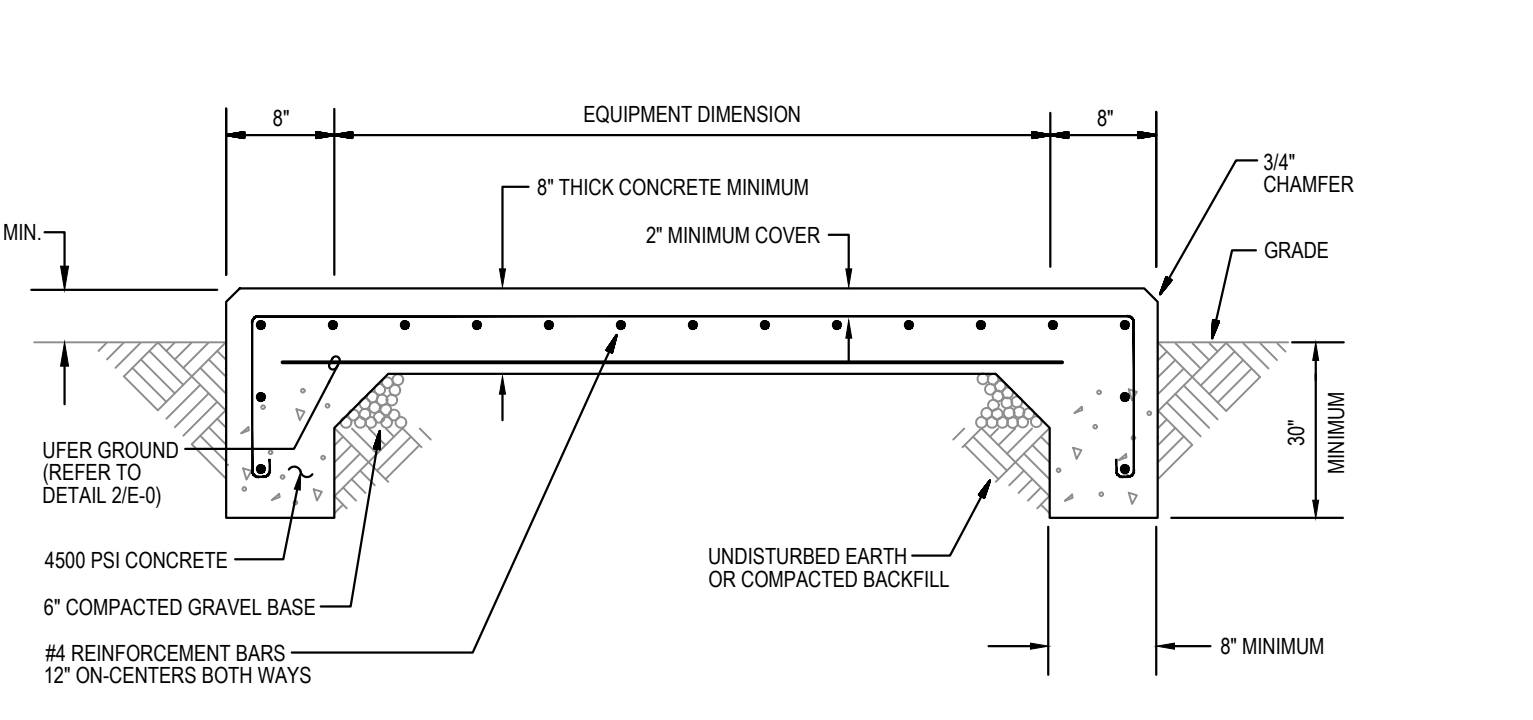
GENERAL	
	DENOTES REFERENCE TO SPECIFIC NOTE ON DRAWING.
	DETAIL, DIAGRAM OR PLAN NUMBER
	DRAWING NUMBER WHERE DETAIL, DIAGRAM OR PLAN IS LOCATED.
	DETAIL, DIAGRAM OR PLAN REFERENCE: DETAIL, DIAGRAM OR PLAN NUMBER/DRAWING NUMBER
NOTES:	
A.	PROVIDE DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT.
B.	THE EXISTING FACILITY WILL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE USER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORK HOURS.
DEMOLITION	
	DISCONNECT AND REMOVE EXISTING WIRING IN CONDUIT, UNLESS OTHERWISE NOTED.
	DISCONNECT AND REMOVE EXISTING HOMERUN WIRING IN CONDUIT BACK TO SOURCE.
	DISCONNECT AND REMOVE PANELBOARD OR CABINET AS INDICATED.
	DISCONNECT AND REMOVE TRANSFORMER.
	DISCONNECT AND REMOVE ENCLOSED SWITCH (DISCONNECT/SAFETY SWITCH).
	DISCONNECT AND REMOVE EXISTING DUPLEX OR DOUBLE-DUPLEX (QUAD) RECEPTACLE.
EXISTING	
	EXISTING TO REMAIN CEILING OUTLET AND LIGHTING FIXTURE.
	EXISTING TO REMAIN WALL OUTLET AND LIGHTING FIXTURE.
	EXISTING TO REMAIN CEILING OUTLET AND LIGHTING FIXTURE ON GENERATOR POWER CIRCUIT, OR PREVIOUSLY ON NORMAL POWER CIRCUIT AND CHANGED TO GENERATOR POWER CIRCUIT.
	EXISTING TO REMAIN WALL OUTLET AND LIGHTING FIXTURE ON GENERATOR POWER CIRCUIT, OR PREVIOUSLY ON NORMAL POWER CIRCUIT AND CHANGED TO GENERATOR POWER CIRCUIT.
	EXISTING TO REMAIN WALL MOUNTED SWITCH.
	EXISTING TO REMAIN 277/480V PANELBOARD, SURFACE OR RECESSED MOUNTED.
	EXISTING TO REMAIN EQUIPMENT CABINET AS INDICATED OR 120/208V PANELBOARD, SURFACE OR RECESSED MOUNTED.
	EXISTING TO REMAIN TRANSFORMER.
	EXISTING TO REMAIN WIRING IN CONDUIT.
	EXISTING TO REMAIN WIRING IN CONDUIT CONTINUED.
	EXISTING TO REMAIN HOMERUN WIRING IN CONDUIT BACK TO SOURCE.
	EXISTING TO REMAIN MOTOR CONNECTION.
	EXISTING EQUIPMENT CONNECTION TO BE RECONNECTED WHERE INDICATED.
	EXISTING TO REMAIN ENCLOSED SWITCH (DISCONNECT/SAFETY SWITCH).
	EXISTING TO REMAIN MOTOR STARTER.
	EXISTING TO REMAIN DUPLEX RECEPTACLE.
	EXISTING TO REMAIN QUADRUPLEX (DOUBLE-DUPLEX) RECEPTACLE.
POWER	
	HOMERUN TO PANELBOARD. NUMBER OF HASH MARKS INDICATES NUMBER OF WIRES PLUS GROUND WIRE. REFER TO PANEL SCHEDULES FOR CONDUCTOR SIZES. PROVIDE GROUND WIRES IN CONDUITS.
	HOMERUN TO PANELBOARD, RUN BELOW GRADE OR BELOW ROOF. NUMBER OF HASH MARKS INDICATES NUMBER OF WIRES PLUS GROUND WIRE. REFER TO PANEL SCHEDULES FOR CONDUCTOR SIZES. PROVIDE GROUND WIRES IN CONDUITS.
	WIRING IN CONDUIT RUN CONCEALED IN CEILING SPACE ABOVE CEILINGS AND EXPOSED IN OPEN CEILINGS, UNLESS OTHERWISE NOTED. WIRING IN CONDUIT DESIGNATED WITH "EM" DENOTE EMERGENCY LIGHTING CIRCUIT. PROVIDE GROUND WIRES IN CONDUITS.
	WIRING IN CONDUIT RUN BELOW GRADE OR BELOW ROOF.
	WIRING IN CONDUIT CONTINUED.
	JUNCTION BOX WITH BLANK COVER PLATE.
	ELECTRIC PANELBOARD (277/480V), SURFACE MOUNTED.
	TRANSFORMER.
	ELECTRIC PANELBOARD (120/208V), SURFACE MOUNTED.
	EQUIPMENT CABINET AS NOTED.
	AUTOMATIC TRANSFER SWITCH.
	ENCLOSED CIRCUIT BREAKER.
	ENCLOSED SWITCH (DISCONNECT/SAFETY SWITCH) IN NEMA TYPE 1 ENCLOSURE, UNLESS OTHERWISE NOTED. MOUNT 5'-6" ABOVE FLOOR TO TOP OF ENCLOSURE, UNLESS OTHERWISE NOTED. RATING AND FUSING AS INDICATED.
	MOTOR CONNECTION.
	HARD-WIRED ELECTRICAL CONNECTION. CONNECT TO EQUIPMENT AS NOTED.
	SURGE PROTECTIVE DEVICE IN NEMA TYPE 1 ENCLOSURE, UNLESS OTHERWISE NOTED.
	DUPLEX RECEPTACLE (NEMA 5-20R) ON GENERATOR STANDBY POWER CIRCUIT, SURFACE WALL-MOUNTED 16" ABOVE FLOOR TO BOTTOM OF BOX.
	DUPLEX RECEPTACLE (NEMA 5-20R) ON GENERATOR STANDBY POWER CIRCUIT, SURFACE WALL-MOUNTED 48" ABOVE FLOOR TO TOP OF BOX. RECEPTACLES DESIGNATED WITH A "WP" SHALL BE WEATHER-RESISTANT AND GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLE (NEMA 5-20R) WITH WEATHERPROOF WHILE-IN-USE COVER. RECEPTACLES DESIGNATED WITH A "HT" SHALL BE HOSPITAL GRADE TYPE.
	DOUBLE-DUPLEX (QUADRUPLEX) RECEPTACLE (NEMA 5-20R) ON GENERATOR STANDBY POWER CIRCUIT, SURFACE WALL-MOUNTED 48" ABOVE FLOOR TO TOP OF BOX.
FIRE DETECTION AND ALARM	
	MONITORING MODULES. PROVIDE FIRE ALARM WIRING IN CONDUIT AND CONNECT MONITORING MODULES TO EXISTING FIRE DETECTION AND ALARM SYSTEM FOR "GENERATOR RUN" AND "GENERATOR FAULT". MAKE CONNECTIONS NECESSARY FOR COMPLETE INSTALLATION. RE-PROGRAM FIRE ALARM CONTROL PANEL AS REQUIRED.



3
E-0
DIAGRAM
GENERATOR GROUNDING WIRING
 NOT TO SCALE



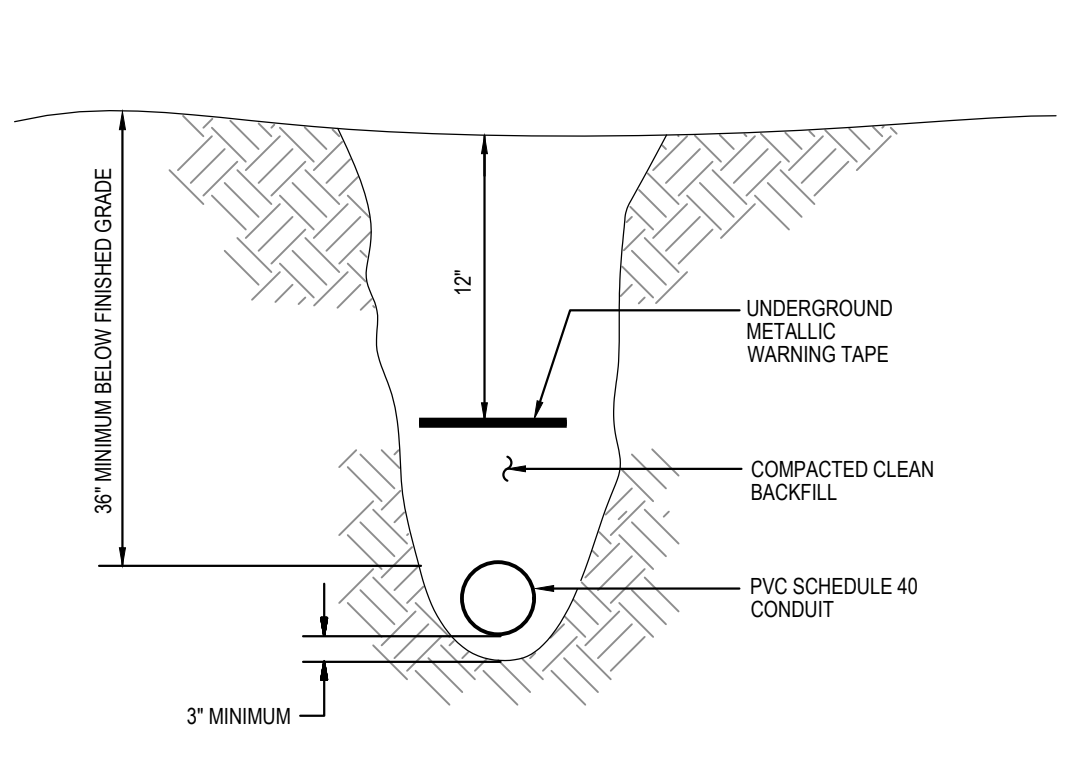
2
E-0
DETAIL
TYPICAL UFER GROUND
 NOT TO SCALE



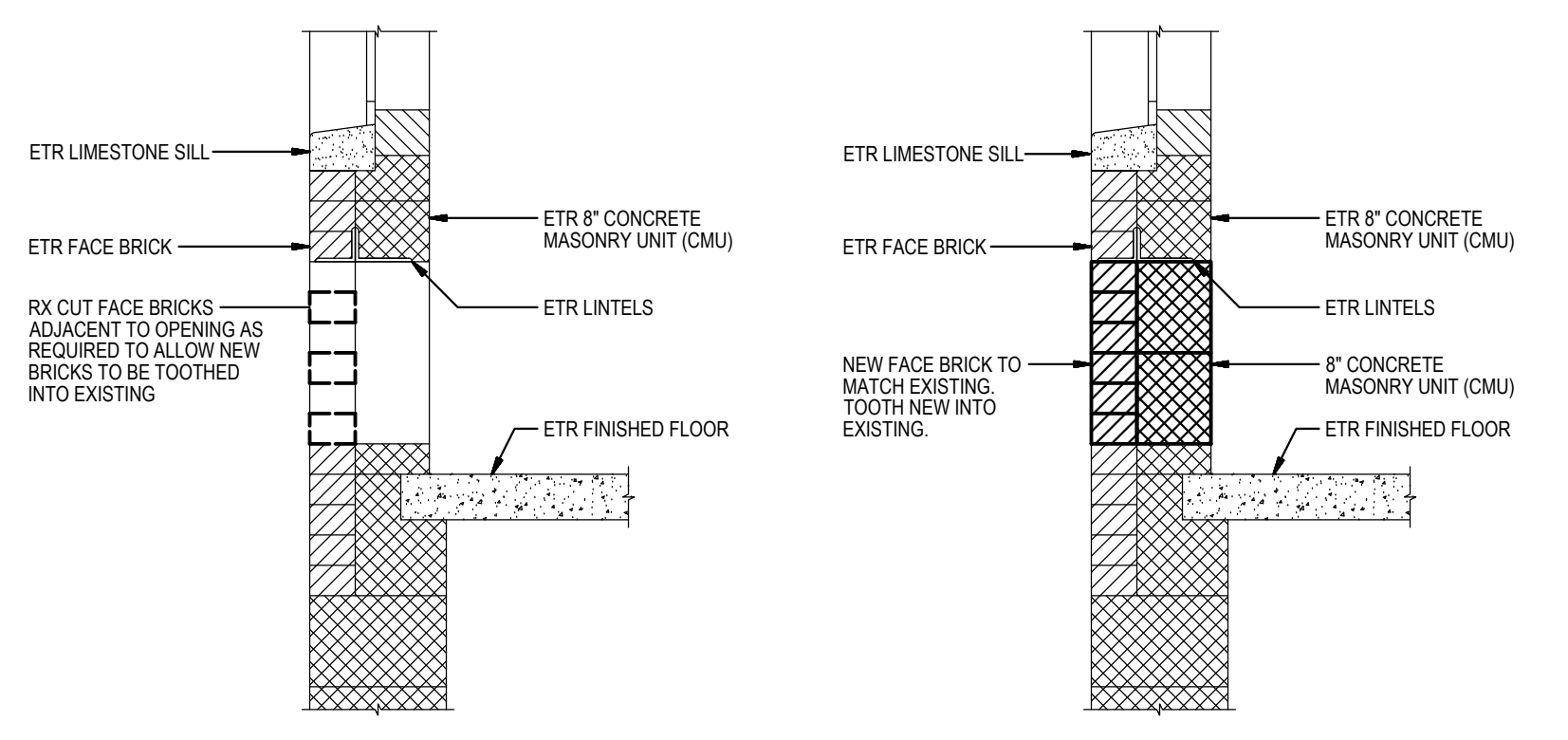
1
E-0
DETAIL
GENERATOR CONCRETE PAD
 NOT TO SCALE

ABBREVIATIONS

A	AMP	AMPERE(S)	MCPS	MONTGOMERY COUNTY PUBLIC SCHOOLS
AIC	AMPERES INTERRUPTING CAPACITY		MIN	MINIMUM
ATS	AUTOMATIC TRANSFER SWITCH		N	NEUTRAL
C	CONDUIT		NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CB	CIRCUIT BREAKER		P	POLE(S) OR PUMP
CKT	CIRCUIT		PA	PUBLIC ADDRESS
CT	CURRENT TRANSFORMERS		PSI	POUNDS PER SQUARE INCH
DIST	DISTRIBUTION		PVC	POLYVINYL CHLORIDE
EM	EMERGENCY		REC	RECEPTACLE
ETR	EXISTING TO REMAIN		REFRIG	REFRIGERATOR
EX	EXISTING		RX	REMOVE EXISTING
FAAP	FIRE ALARM ANNUNCIATOR PANEL		SPD	SURGE PROTECTIVE DEVICE
FACP	FIRE ALARM CONTROL PANEL		STOR	STORAGE
G	GROUND		V	VOLTS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER		VFD	VARIABLE FREQUENCY DRIVE
H	HOT		W	WIRE(S)
HP	HORSEPOWER		XFMR	TRANSFORMER
KVA	KILOVOLT-AMPERES		Ø	PHASE
KW	KILOWATTS			
LTG	LIGHTING			



8
E-0
DETAIL
DIRECTLY-BURIED CONDUIT
 NOT TO SCALE



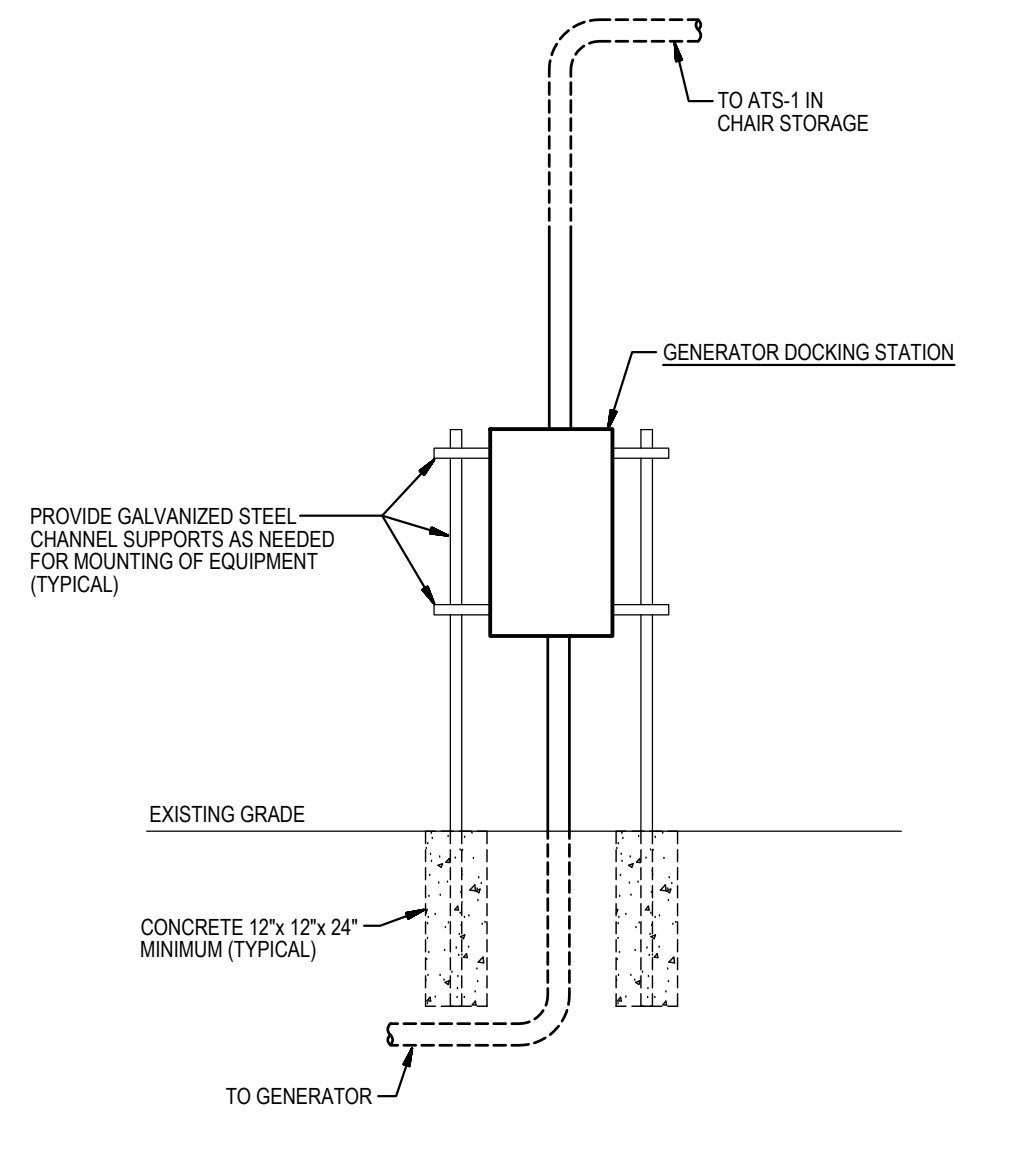
7
E-0
DETAIL
TYPICAL INFILL AT EXISTING MASONRY WALL OPENING
 NOT TO SCALE

GENERATOR DOCKING STATION
 FOR CONNECTIONS TO A TEMPORARY PORTABLE GENERATOR
 CONFIGURE TEMPORARY PORTABLE GENERATOR WITH GENERATOR NEUTRAL CONNECTED TO GENERATOR GROUND. GENERATOR SHALL BE A SEPARATELY DERIVED SYSTEM.

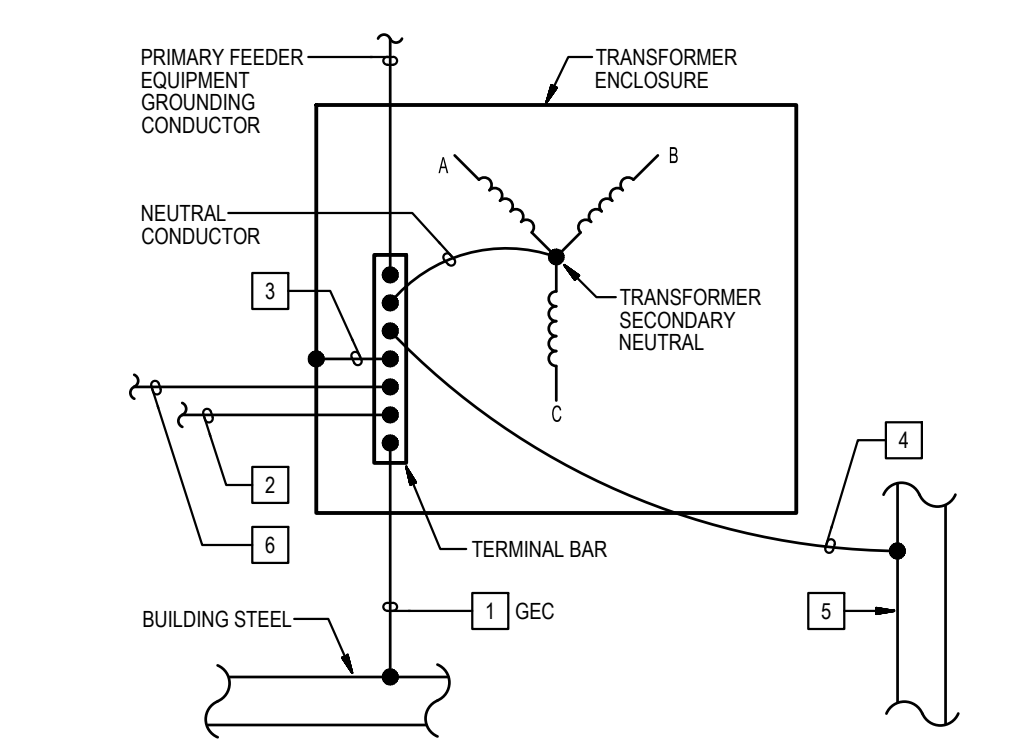
6
E-0
DETAIL
PLACARD AT GENERATOR DOCKING STATION
 NOT TO SCALE

EMERGENCY AND STANDBY POWER
 150KW, 277/480 VOLTS, 3-PHASE, 4-WIRE
 NATURAL GAS GENERATOR
 LOCATED OUTDOORS
 NEXT TO LOADING DOCK AND
 MECHANICAL ROOM

5
E-0
DETAIL
PLACARD AT MAIN SERVICE
 NOT TO SCALE

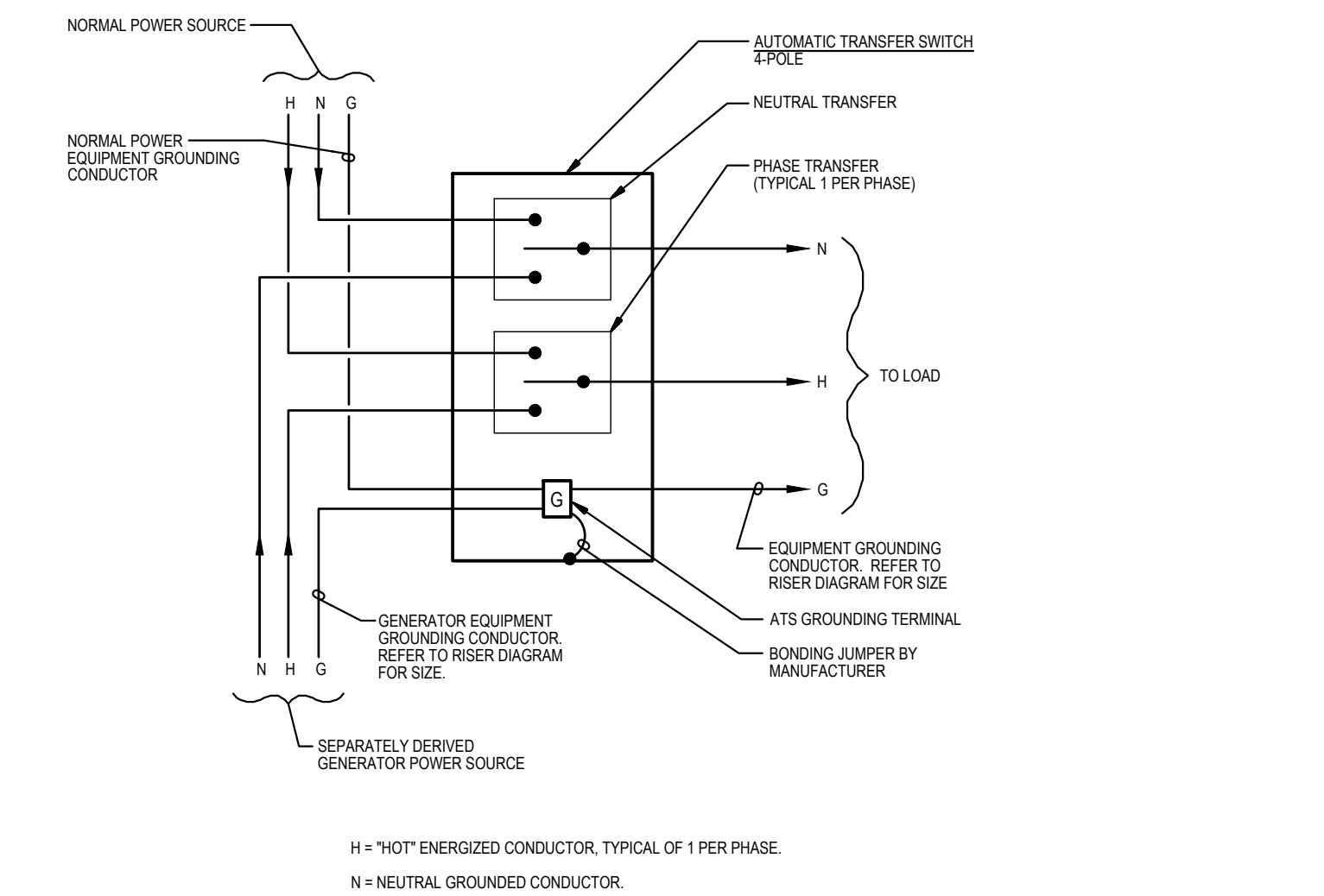


10
E-0
DETAIL
ELECTRICAL EQUIPMENT ELEVATION
 NOT TO SCALE



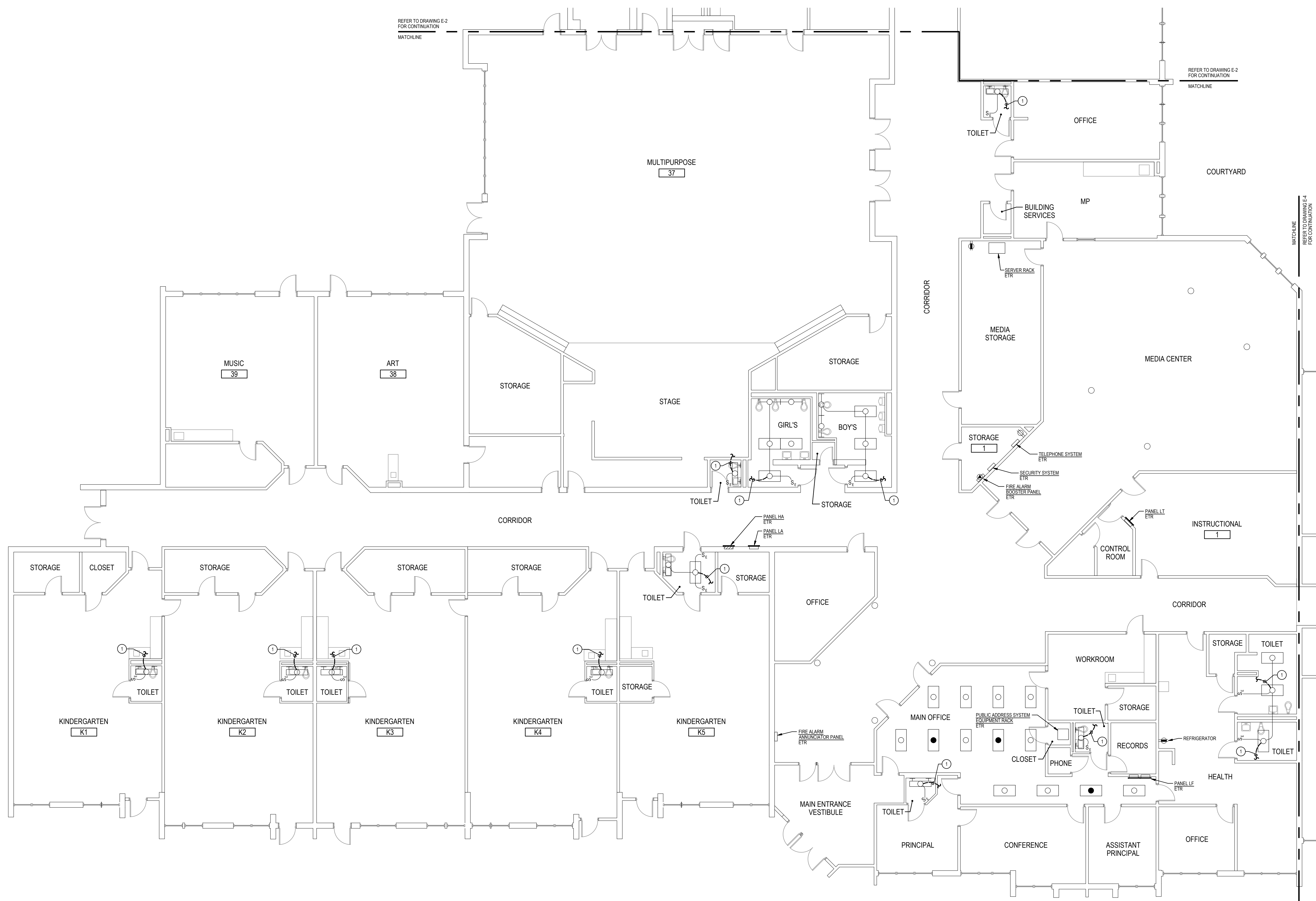
- DETAIL NOTES:**
- GROUNDING ELECTRODE CONDUCTOR (GEC), SIZED PER SCHEDULE OF TRANSFORMERS ON DRAWING E7.
 - SUPPLY-SIDE BONDING JUMPER, 2017 NEC TABLE 250.130(C)(1), SIZED PER SCHEDULE OF TRANSFORMERS ON DRAWING E7, TO EQUIPMENT GROUND BAR OF PANELBOARD SUPPLIED BY TRANSFORMER.
 - SYSTEM BONDING JUMPER, SIZED PER SUPPLY-SIDE BONDING JUMPER.
 - SYSTEM BONDING CONDUCTOR, SIZED PER PER SUPPLY-SIDE BONDING JUMPER.
 - METAL WATER PIPING SYSTEM (TYPICAL FOR EACH SYSTEM IN AREA SERVED BY TRANSFORMER).
 - NEUTRAL CONDUCTOR, TO NEUTRAL BUS BAR (ISOLATED NEUTRAL TERMINAL) OF PANELBOARD SUPPLIED BY TRANSFORMER.

9
E-0
DETAIL
TRANSFORMER GROUNDING & BONDING
 NOT TO SCALE

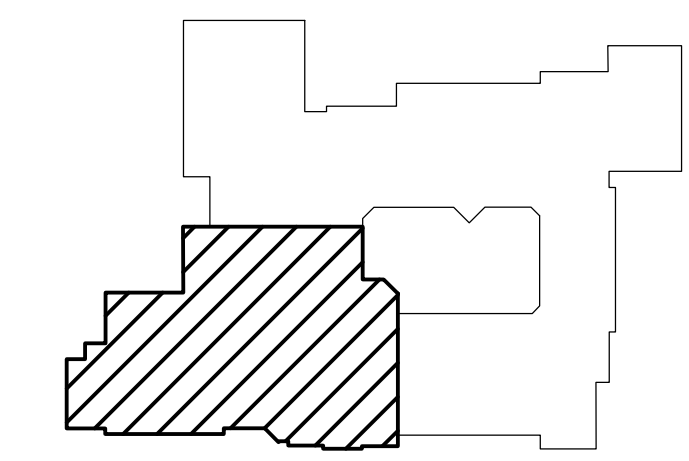
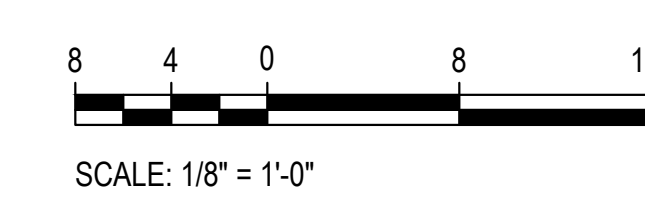
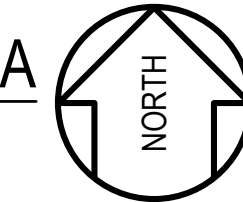


4
E-0
DIAGRAM
AUTOMATIC TRANSFER SWITCH GROUND WIRING
 NOT TO SCALE

- 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 EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
 - THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
 - REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
 - CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.
 - UNLESS OTHERWISE NOTED, ELECTRICAL ITEMS SHOWN HEAVY DASHED (---) SHALL BE REMOVED AND ELECTRICAL ITEMS SHOWN LIGHT SOLID (___) SHALL REMAIN.
 - DEMOLITION SHALL INCLUDE REMOVAL AND OFF-SITE DISPOSAL OF MATERIALS. DO NOT ABANDON IN PLACE ANY ELECTRICAL COMPONENTS UNLESS OTHERWISE NOTED ON DRAWINGS.
 - WHERE EQUIPMENT IS NOTED "DISCONNECT" OR "REMOVE", REMOVE ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
 - REMOVE EXISTING EQUIPMENT AND DEVICES INDICATED, INCLUDING ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
 - EXISTING CIRCUITS INTERRUPTED BY DEMOLITION, BUT ARE TO REMAIN, SHALL BE MADE CONTINUOUS.
 - WHERE DEVICES ARE TO BE REMOVED AND REINSTALLED, PROVIDE WIRE AND CONDUIT TO NEW LOCATION AS REQUIRED.
 - IN BLOCK OR CONCRETE WALLS TO REMAIN, PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR DEVICES REMOVED.
- SPECIFIC NOTES:**
- DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRING SERVING EXISTING LIGHTING FIXTURES.



1
E-1
PART FLOOR PLAN - AREA A
DEMOLITION
SCALE: 1/8" = 1'-0"



KEY PLAN
NOT TO SCALE



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 24861, Expiration date 02-24-2024.

James Posey Associates
Engineering Your Vision

Mechanical & Electrical
Consulting Engineers
1155 Red Run Boulevard, Suite 310
Baltimore, Maryland 21117
tel 410-265-6100
jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023

Drawing Title
**PART FLOOR PLAN
AREA A
DEMOLITION**

Sheet No:
E-1

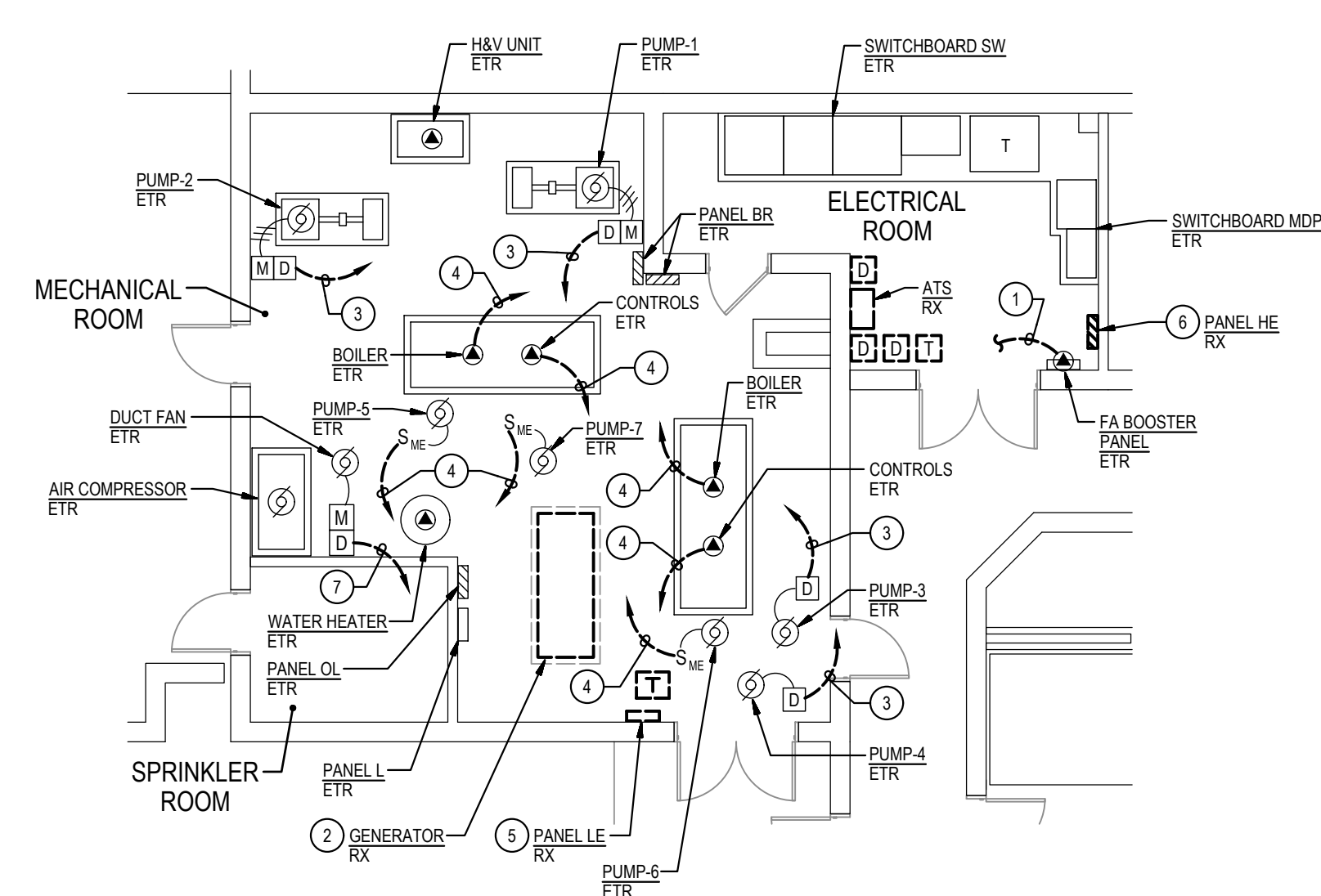
GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
 7301 HADLEY FARMS DRIVE
 GAITHERSBURG, MD 20879
 MONTGOMERY COUNTY PUBLIC SCHOOLS

SPECIFIC NOTES:

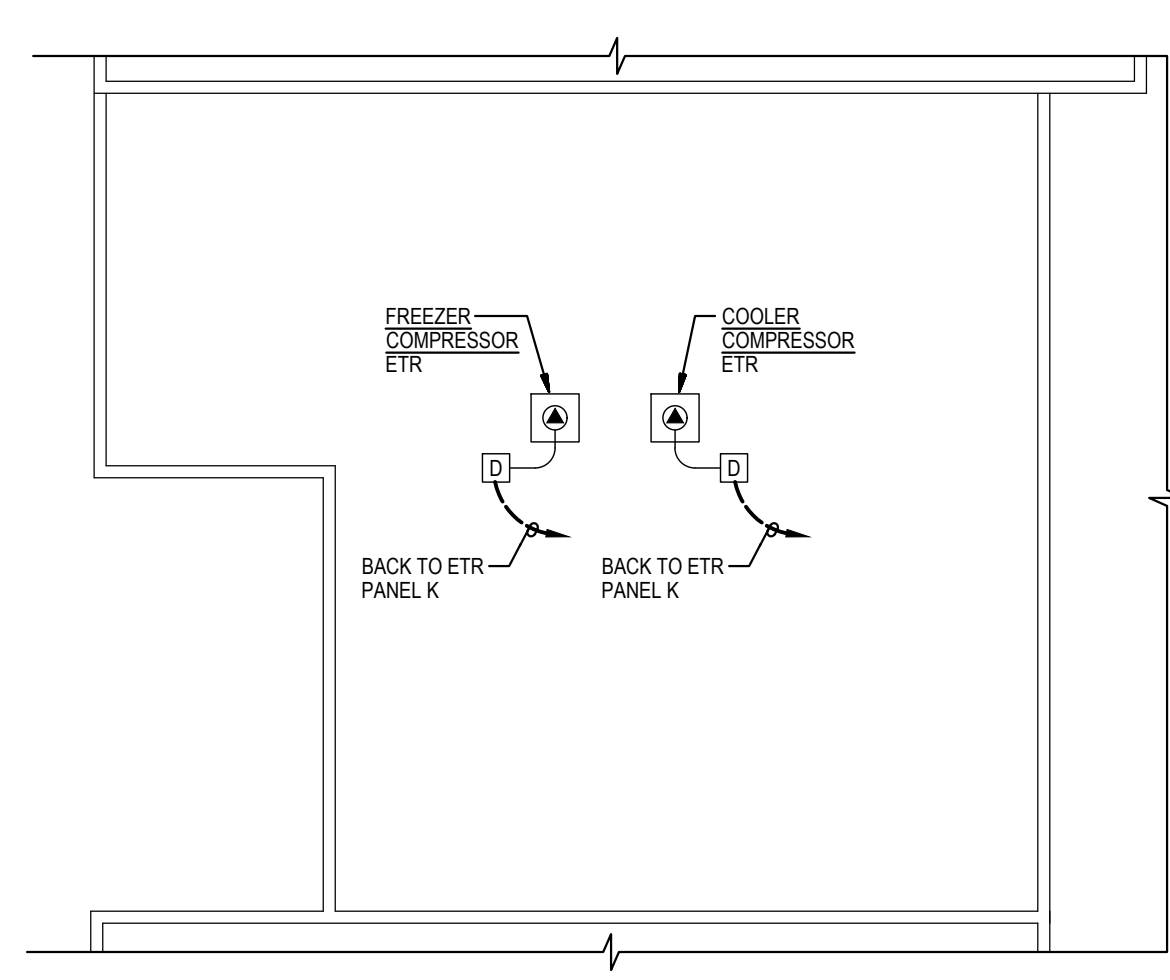
- 1 DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRING SERVING EXISTING LIGHTING FIXTURE(S)
- 2 DISCONNECT AND REMOVE EXISTING GENERATOR, INCLUDING BLOCK HEATER, BATTERY CHARGER, CONTROLS, AND HOUSEKEEPING PAD. PATCH EXISTING FLOOR TO MATCH EXISTING.
- 3 REMOVE EXISTING HOMERUN CONDUIT AND WIRING BACK TO EXISTING PANEL BR.
- 4 REMOVE EXISTING HOMERUN CONDUIT AND WIRING BACK TO EXISTING PANEL LE.
- 5 DISCONNECT EXISTING BRANCH CIRCUITS FROM CIRCUIT BREAKERS. EXISTING CIRCUITS SHALL REMAIN. REMOVE INTERIOR COMPONENTS (BUSBAR, CIRCUIT BREAKERS) OF EXISTING PANEL LE. ENCLOSURE OF EXISTING PANEL LE SHALL REMAIN AND BECOME A PULLBOX.
- 6 REMOVE PORTION OF EXISTING BRANCH CIRCUITS HE-7, HE-8, HE-10, HE-11, HE-12, HE-13, AND HE-15 TO ABOVE ACCESSIBLE CEILING SPACE FOR SPLICING TO NEW PANEL. REFER TO NEW WORK PLANS FOR ADDITIONAL INFORMATION.
- 7 REMOVE EXISTING HOMERUN CONDUIT AND WIRING BACK TO EXISTING PANEL HE.

GENERAL NOTES:

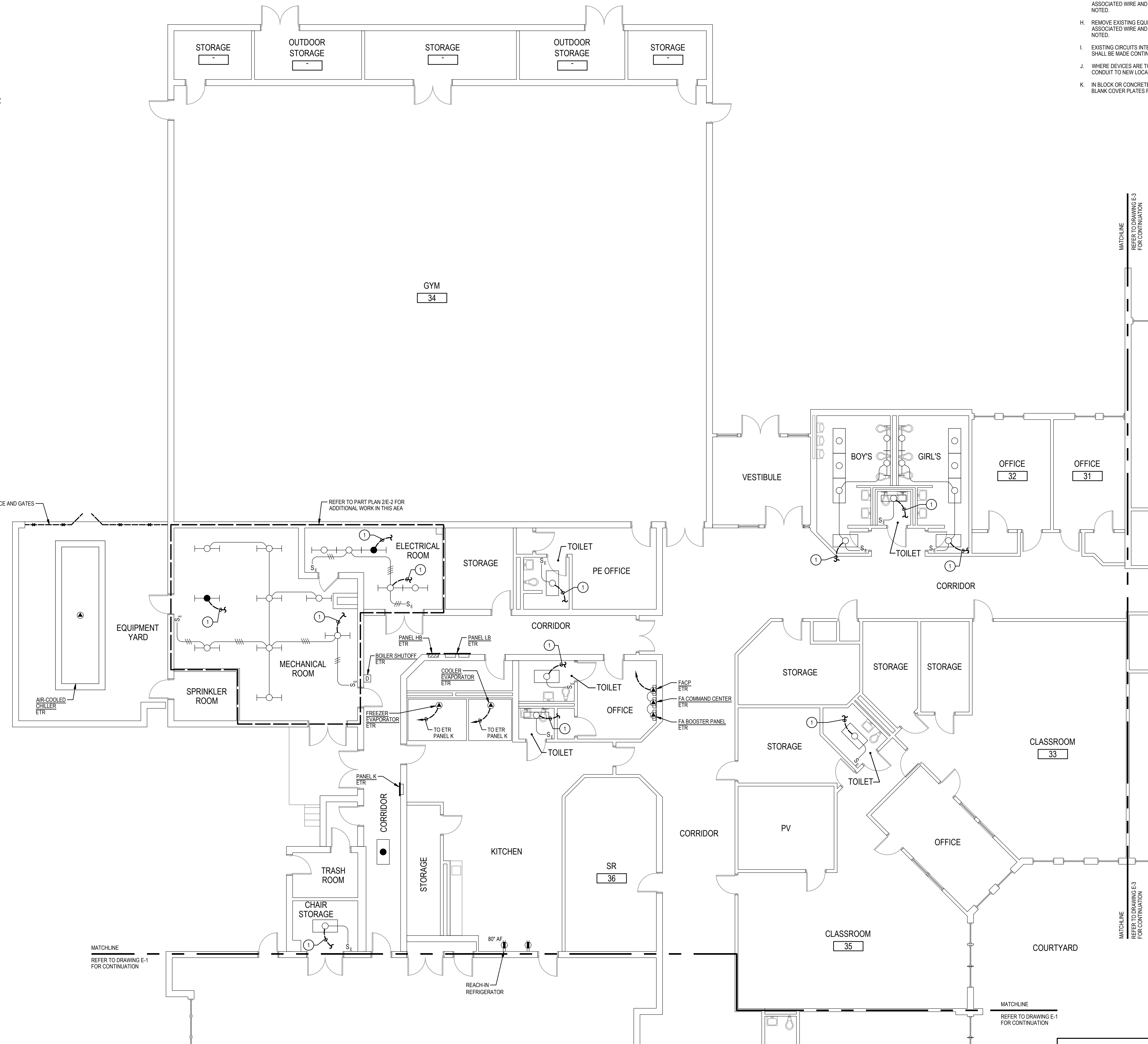
- A. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- B. THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
- C. REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
- D. CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.
- E. UNLESS OTHERWISE NOTED, ELECTRICAL ITEMS SHOWN HEAVY DASHED (---) SHALL BE REMOVED AND ELECTRICAL ITEMS SHOWN LIGHT SOLID (—) SHALL REMAIN.
- F. DEMOLITION SHALL INCLUDE REMOVAL AND OFF-SITE DISPOSAL OF MATERIALS. DO NOT ABANDON IN PLACE ANY ELECTRICAL COMPONENTS UNLESS OTHERWISE NOTED ON DRAWINGS.
- G. WHERE EQUIPMENT IS NOTED "DISCONNECT" OR "REMOVE", REMOVE ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
- H. REMOVE EXISTING EQUIPMENT AND DEVICES INDICATED, INCLUDING ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
- I. EXISTING CIRCUITS INTERRUPTED BY DEMOLITION, BUT ARE TO REMAIN, SHALL BE MADE CONTINUOUS.
- J. WHERE DEVICES ARE TO BE REMOVED AND REINSTALLED, PROVIDE WIRE AND CONDUIT TO NEW LOCATION AS REQUIRED.
- K. IN BLOCK OR CONCRETE WALLS TO REMAIN, PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR DEVICES REMOVED.



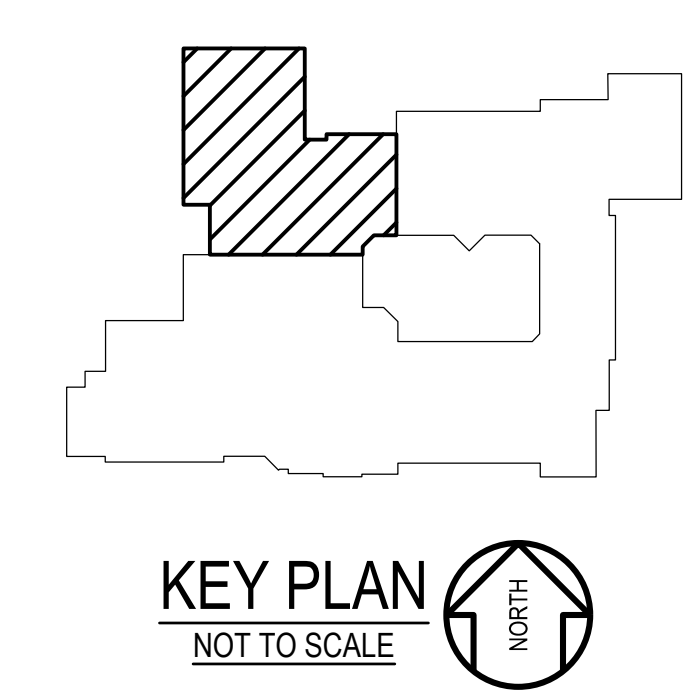
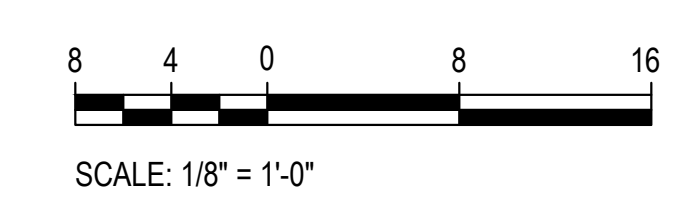
2
E-2
PART FLOOR PLAN - AREA B
DEMOLITION
SCALE: 1/8" = 1'-0"



3
E-2
PART ROOF PLAN - AREA B
DEMOLITION
SCALE: 1/16" = 1'-0"



1
E-2
PART FLOOR PLAN - AREA B
DEMOLITION
SCALE: 1/8" = 1'-0"



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 24681, Expiration date 02-24-2024.

James Posey Associates
 Engineering Your Vision
 Mechanical & Electrical Consulting Engineers
 11155 Red Run Boulevard, Suite 310
 Baltimore, Maryland 21117
 tel 410-265-6100
 jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023
Drawing Title	PART FLOOR PLAN AREA B DEMOLITION
Sheet No.	E-2



- GENERAL NOTES:**
- A. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
 - B. THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
 - C. REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
 - D. CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.
 - E. UNLESS OTHERWISE NOTED, ELECTRICAL ITEMS SHOWN HEAVY DASHED (---) SHALL BE REMOVED AND ELECTRICAL ITEMS SHOWN LIGHT SOLID (—) SHALL REMAIN.
 - F. DEMOLITION SHALL INCLUDE REMOVAL AND OFF-SITE DISPOSAL OF MATERIALS. DO NOT ABANDON IN PLACE ANY ELECTRICAL COMPONENTS UNLESS OTHERWISE NOTED ON DRAWINGS.
 - G. WHERE EQUIPMENT IS NOTED "DISCONNECT" OR "REMOVE", REMOVE ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
 - H. REMOVE EXISTING EQUIPMENT AND DEVICES INDICATED, INCLUDING ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
 - I. EXISTING CIRCUITS INTERRUPTED BY DEMOLITION, BUT ARE TO REMAIN, SHALL BE MADE CONTINUOUS.
 - J. WHERE DEVICES ARE TO BE REMOVED AND REINSTALLED, PROVIDE WIRE AND CONDUIT TO NEW LOCATION AS REQUIRED.
 - K. IN BLOCK OR CONCRETE WALLS TO REMAIN, PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR DEVICES REMOVED.
- SPECIFIC NOTES:**
- ① DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRING SERVING EXISTING LIGHTING FIXTURES.

GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT

JUDITH A. RESNIK ELEMENTARY SCHOOL

7301 HADLEY FARMS DRIVE
GAITHERSBURG, MD 20879

MONTGOMERY COUNTY PUBLIC SCHOOLS

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 24861, Expiration date 02-24-2024.

James Posey Associates
Engineering Your Vision

Mechanical & Electrical Consulting Engineers

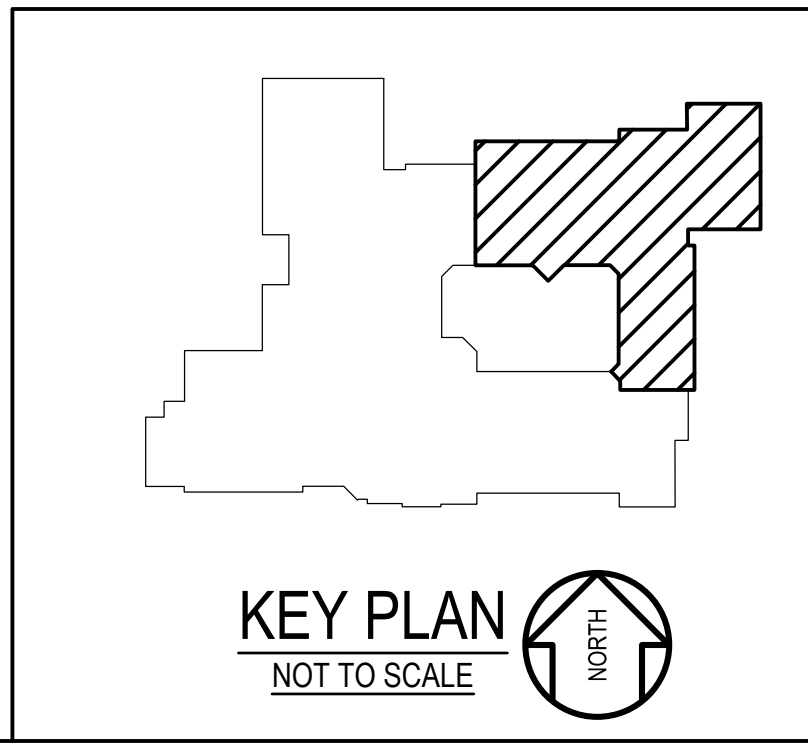
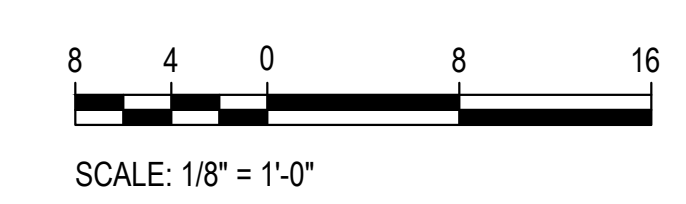
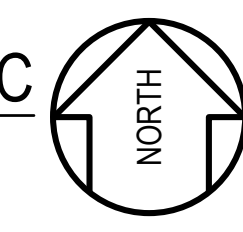
11155 Red Run Boulevard, Suite 310
Baltimore, Maryland 21117

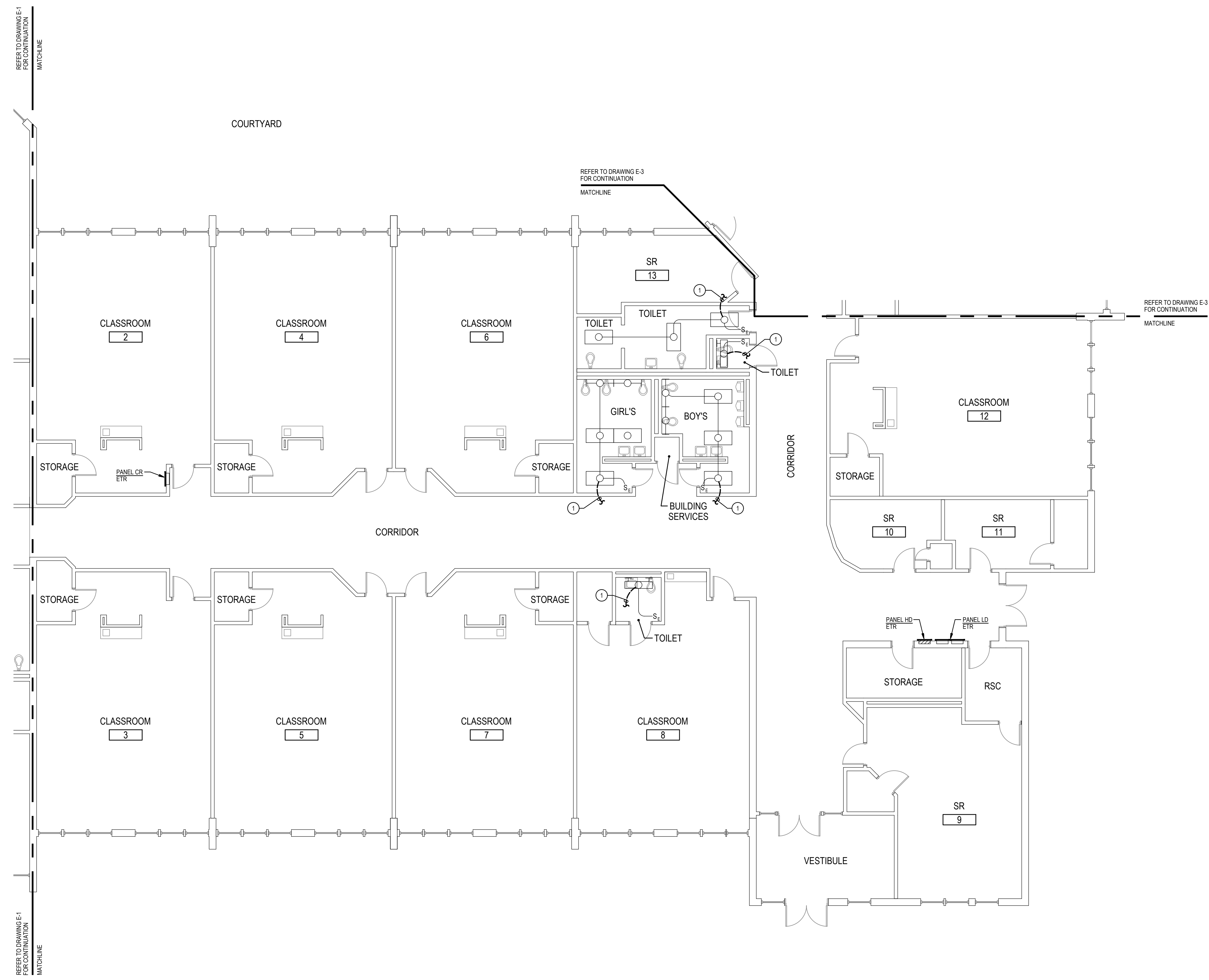
tel 410-265-6100
jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023
Drawing Title	PART FLOOR PLAN AREA C DEMOLITION
Sheet No.	E-3

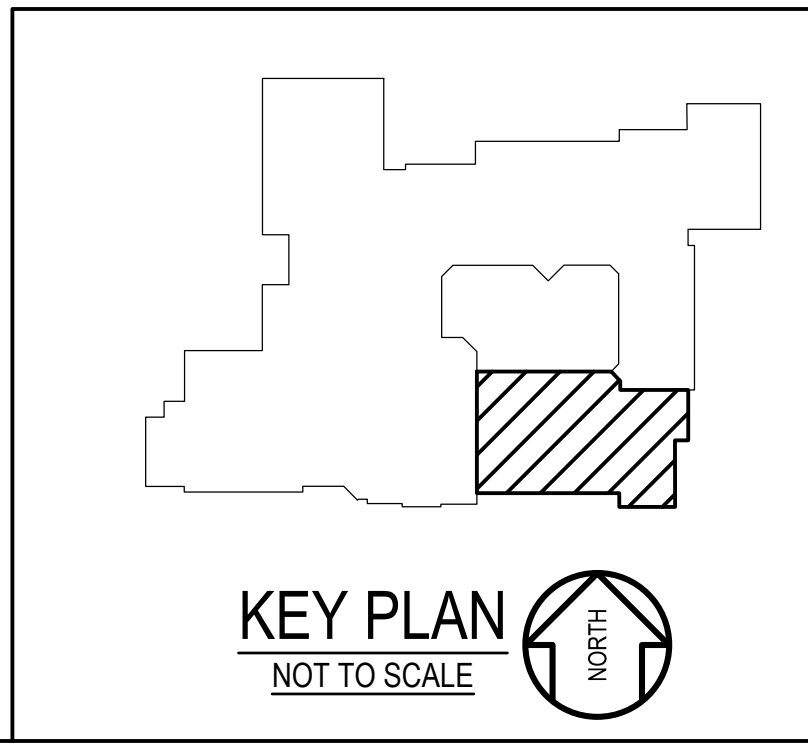
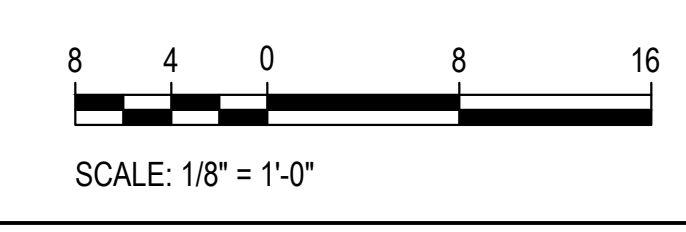
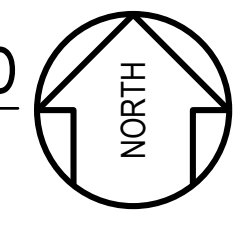
1
E-3
PART FLOOR PLAN - AREA C
DEMOLITION
SCALE: 1/8" = 1'-0"





- 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 EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
 - THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
 - REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
 - CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.
 - UNLESS OTHERWISE NOTED, ELECTRICAL ITEMS SHOWN HEAVY DASHED (---) SHALL BE REMOVED AND ELECTRICAL ITEMS SHOWN LIGHT SOLID (---) SHALL REMAIN.
 - DEMOLITION SHALL INCLUDE REMOVAL AND OFF-SITE DISPOSAL OF MATERIALS. DO NOT ABANDON IN PLACE ANY ELECTRICAL COMPONENTS UNLESS OTHERWISE NOTED ON DRAWINGS.
 - WHERE EQUIPMENT IS NOTED "DISCONNECT" OR "REMOVE", REMOVE ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
 - REMOVE EXISTING EQUIPMENT AND DEVICES INDICATED, INCLUDING ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
 - EXISTING CIRCUITS INTERRUPTED BY DEMOLITION, BUT ARE TO REMAIN, SHALL BE MADE CONTINUOUS.
 - WHERE DEVICES ARE TO BE REMOVED AND REINSTALLED, PROVIDE WIRE AND CONDUIT TO NEW LOCATION AS REQUIRED.
 - IN BLOCK OR CONCRETE WALLS TO REMAIN, PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR DEVICES REMOVED.
- SPECIFIC NOTES:**
- DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRING SERVING EXISTING LIGHTING FIXTURES.

1 PART FLOOR PLAN - AREA D
E-4 DEMOLITION
SCALE: 1/8" = 1'-0"



GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
 7301 HADLEY FARMS DRIVE
 GAITHERSBURG, MD 20879
 MONTGOMERY COUNTY PUBLIC SCHOOLS



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 24861, Expiration date 02-24-2024.

James Posey Associates
Engineering Your Vision

Mechanical & Electrical Consulting Engineers
 11555 Red Run Boulevard, Suite 310
 Baltimore, Maryland 21117
 tel 410-265-6100
 jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023
Drawing Title	PART FLOOR PLAN AREA D DEMOLITION
Sheet No.	E-4

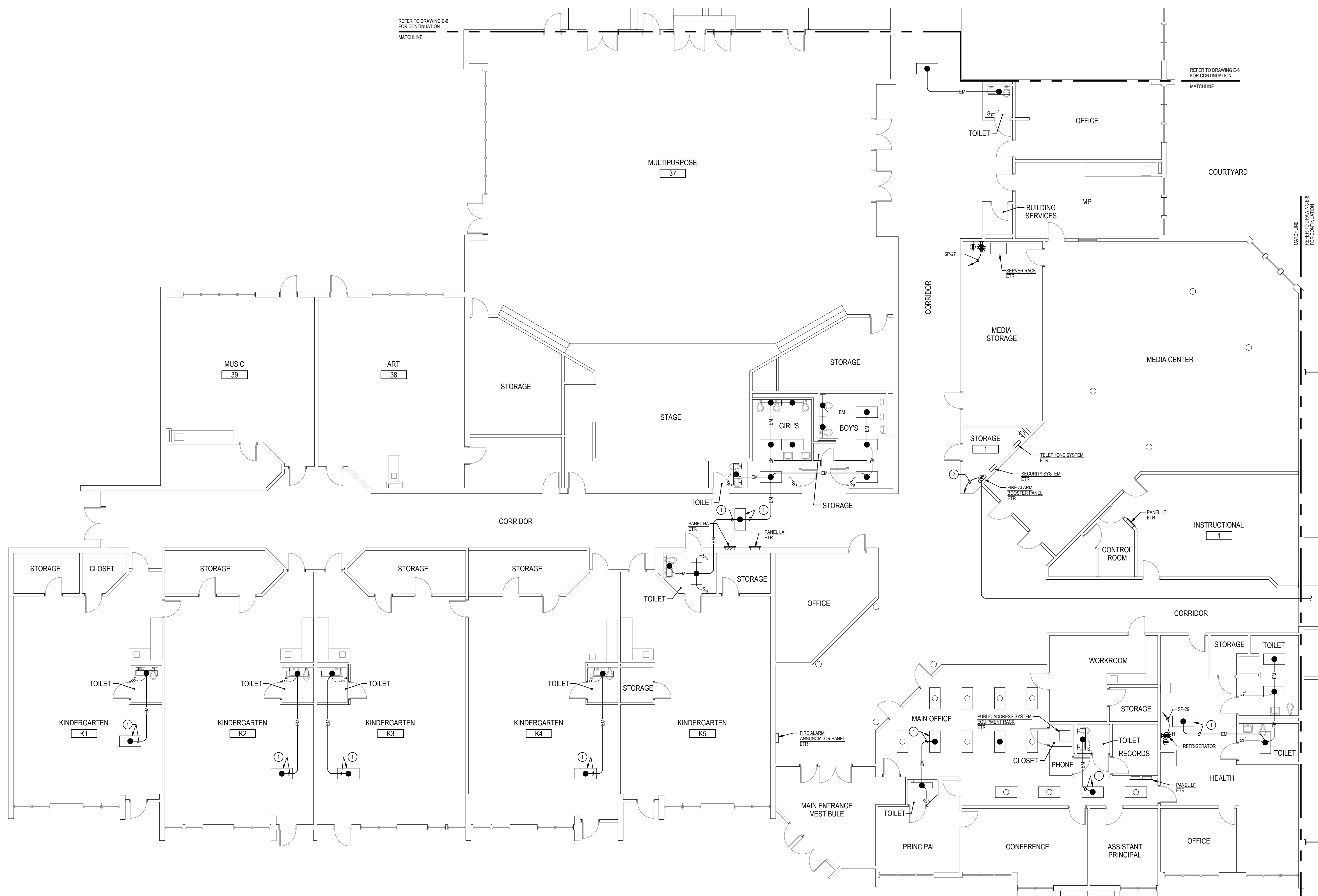
GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
 7301 HADLEY FARMS DRIVE
 GAITHERSBURG, MD 20879
 MONTGOMERY COUNTY PUBLIC SCHOOLS

GENERAL NOTES:

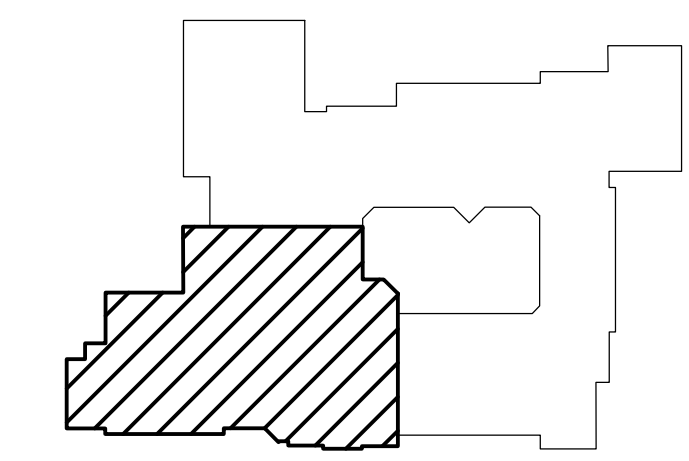
- INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
- REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
- CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.

SPECIFIC NOTES:

- PROVIDE 2 #12 - #12 GROUND IN 3/4" CONDUIT AND CONNECT TO NEAREST EXISTING UNSWITCHED EMERGENCY LIGHTING CIRCUIT.
- PROVIDE 2 #10 - #10 GROUND IN 3/4" CONDUIT AND CONNECT TO FIRE ALARM BOOSTER PANEL LOCATED IN AREA B ELECTRICAL ROOM. REFER TO DRAWING E-6 FOR ADDITIONAL INFORMATION.



1
 E-5
PART FLOOR PLAN - AREA A
 NEW WORK
 SCALE: 1/8" = 1'-0"



KEY PLAN
 NOT TO SCALE



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland. License No. 24861, Expiration date 02-24-2024.

James Posey Associates
 Engineering Your Vision

Mechanical & Electrical
 Consulting Engineers
 1155 Red Run Boulevard, Suite 310
 Baltimore, Maryland 21117
 tel 410-265-6100
 jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023

Drawing Title
**PART FLOOR PLAN
 AREA A
 NEW WORK**

Sheet No:
E-5

GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
 7301 HADLEY FARMS DRIVE
 GAITHERSBURG, MD 20879
 MONTGOMERY COUNTY PUBLIC SCHOOLS

SPECIFIC NOTES (ARCHITECTURAL):

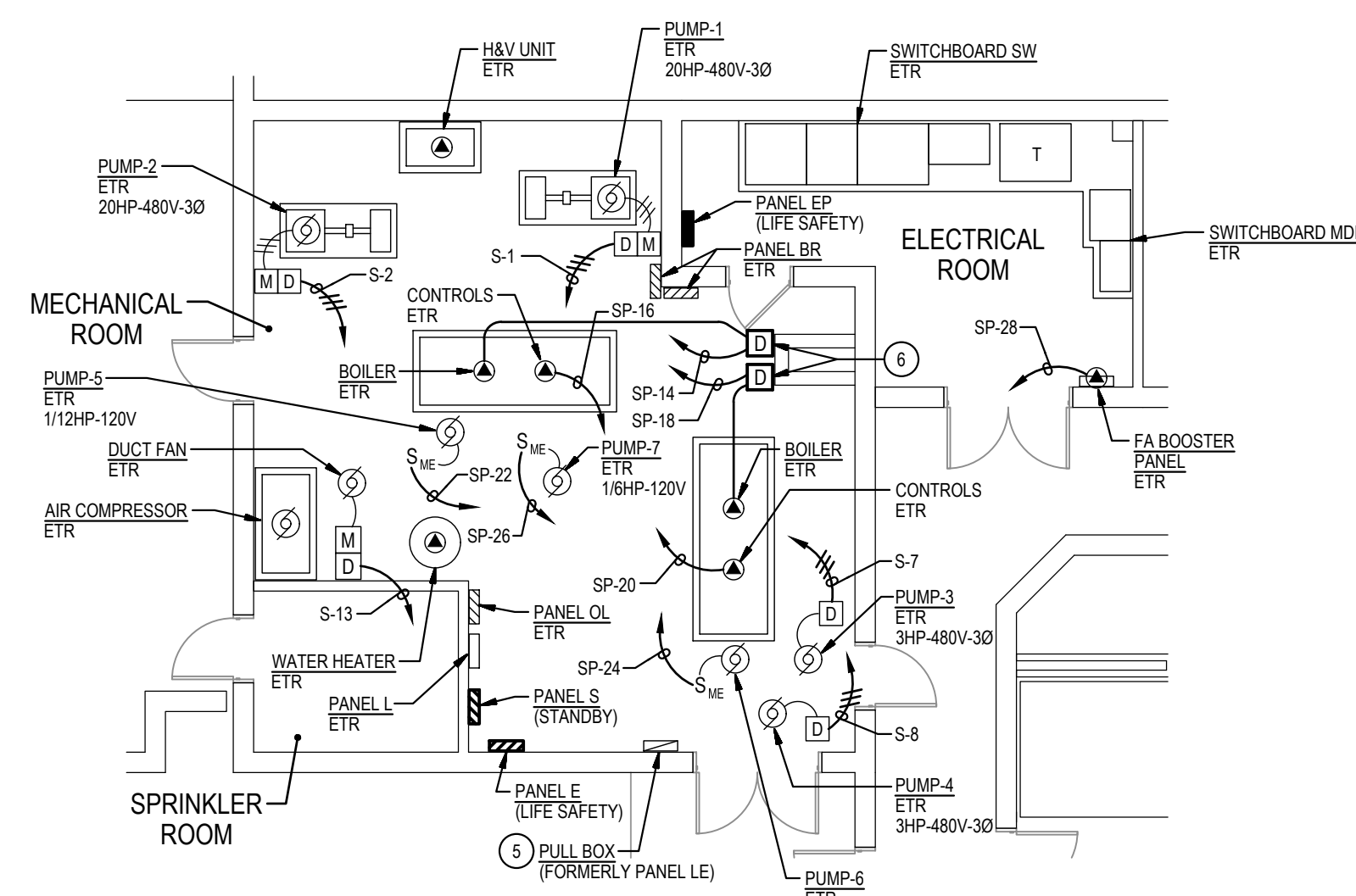
- INFILL EXISTING OPENING IN BRICK / CMU EXTERIOR WALL AT DEMOLISHED GENERATOR INTAKE LOUVER AND EXHAUST PIPE PRIME AND PAINT CMU WALL. PAINT WALL SURFACE TO NEAREST NATURAL BREAK LINES (OUTSIDE OR INSIDE CORNER) TO MATCH EXISTING ADJACENT SURFACE. SEE DETAIL 7E-6.

GENERAL NOTES:

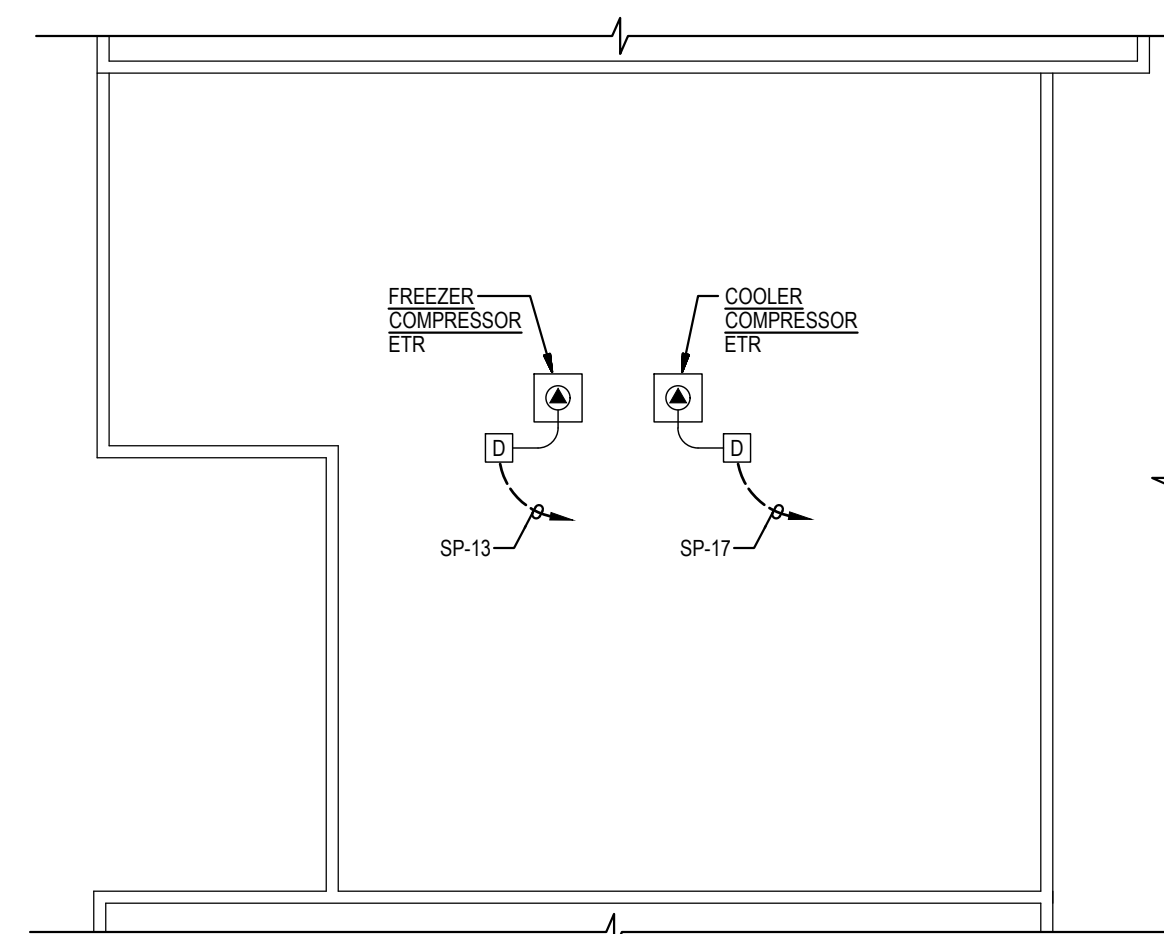
- INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRICAL SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
- REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
- CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.

SPECIFIC NOTES:

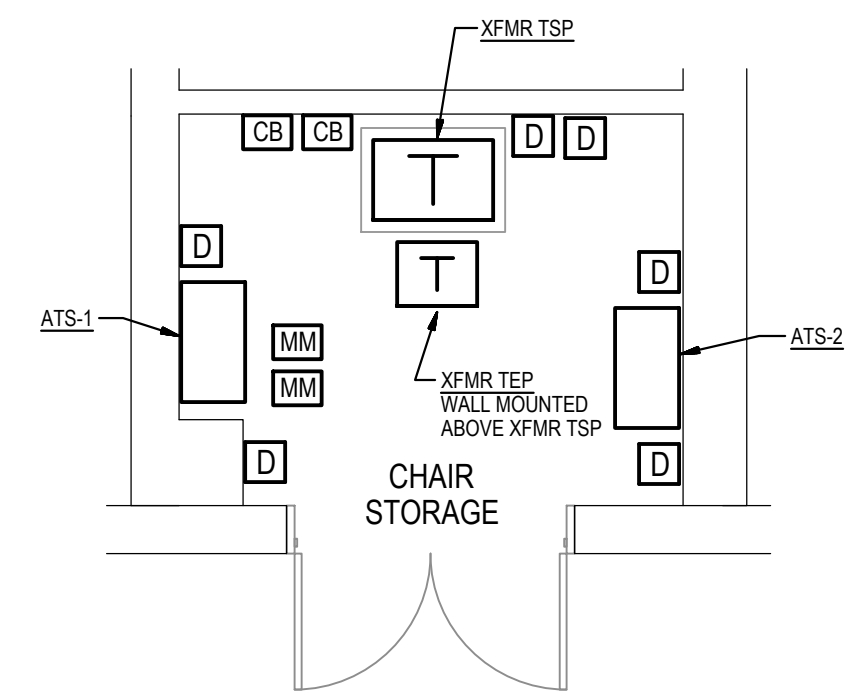
- PROVIDE 2 #12 x #12 GROUND IN 3/4" CONDUIT AND CONNECT TO NEAREST EXISTING UNSWITCHED EMERGENCY LIGHTING CIRCUIT.
- PROVIDE 6" x 2" TALL CHAIN LINK FENCE WITH 8" WIDE OPENING AND TWO 4" x 4" WIDE GATES.
- REFER TO POWER RISER DIAGRAM 2E-9 FOR CONNECTIONS AND ADDITIONAL INFORMATION ON ELECTRICAL EQUIPMENT AS NOTED. LOCATE GENERATOR SO THAT EXHAUST PIPE IS FURTHEST FROM BUILDING.
- ROUTE CONDUITS ON EXISTING EXTERIOR WALL ABOVE GENERATOR DOCKING STATION, BELOW EXISTING WALL LOUVER, AND INTO EXISTING MECHANICAL ROOM. COORDINATE LOCATIONS IN MECHANICAL ROOM WITH EXISTING CONDITIONS.
- UTILIZE PANELBOARD ENCLOSURE AS A PULLBOX TO INTERCEPT AND SPLICE EXISTING BRANCH CIRCUITS LE 1, 2, 3, 4, 6, 7, 8, 9, 10, AND 11 AND EXTEND TO PANEL SP. REFER TO SPECIFIC NOTE 5 ON DRAWING E-6 AND WIRING SCHEDULE FOR PANEL SP ON DRAWING E-9 FOR ADDITIONAL INFORMATION.
- PROVIDE 2P-30A-240V DISCONNECT SWITCH IN NEMA 1 ENCLOSURE, FUSED PER BOILER MANUFACTURER'S RECOMMENDATIONS.
- SPLICE EXISTING BRANCH CIRCUITS HE 7, 8, 10, 11, 12, 13, AND 15 TO ABOVE ACCESSIBLE CEILING SPACE FOR SPLICING TO NEW PANEL E. PROVIDE WIRING SIZED TO MATCH EXISTING. REFER TO WIRING SCHEDULE FOR PANEL E ON DRAWING E-9 FOR ADDITIONAL INFORMATION.
- COORDINATE EXACT LOCATION OF GENERATOR ANNUNCIATOR PANEL WITH MCPS.



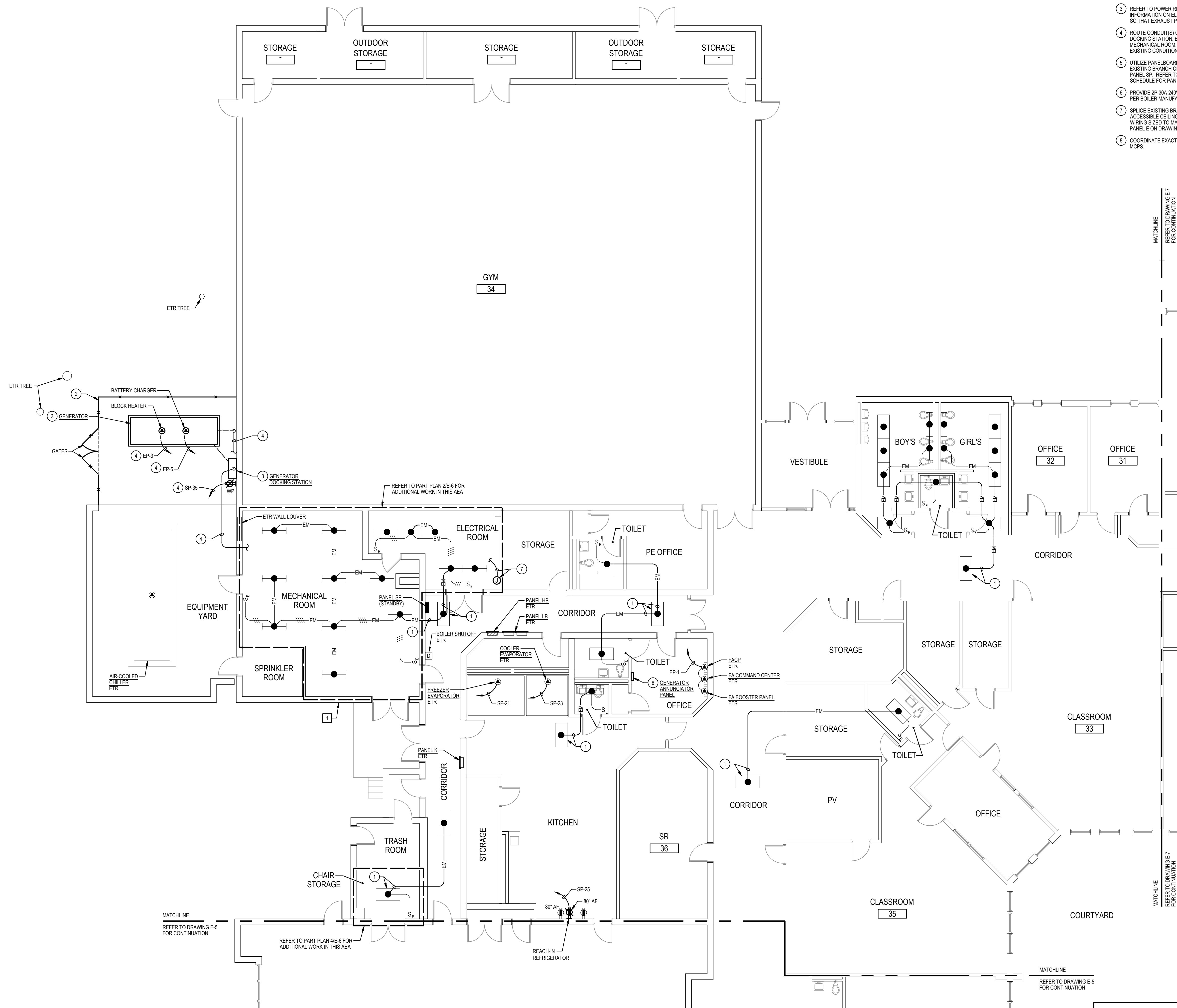
2
E-6
PART FLOOR PLAN - AREA B
NEW WORK
SCALE: 1/8" = 1'-0"



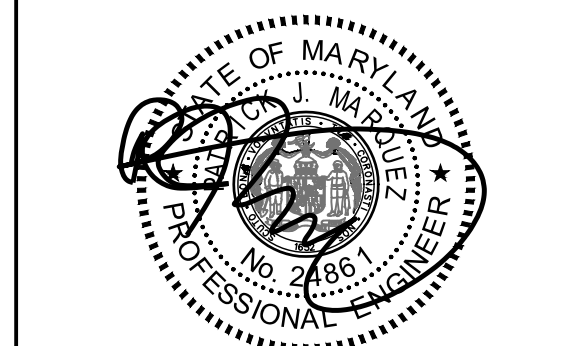
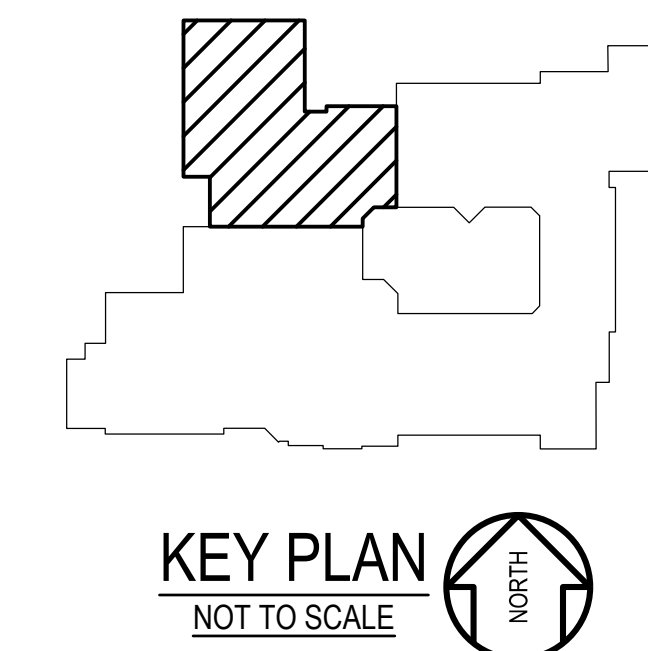
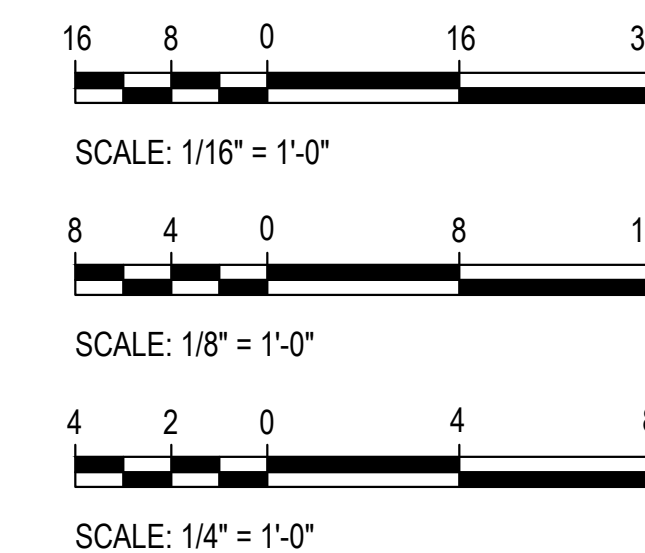
3
E-6
PART ROOF PLAN - AREA B
NEW WORK
SCALE: 1/16" = 1'-0"



4
E-6
PART FLOOR PLAN - AREA B
NEW WORK
SCALE: 1/4" = 1'-0"



1
E-6
PART FLOOR PLAN - AREA B
NEW WORK
SCALE: 1/8" = 1'-0"



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland. License No. 24681, Expiration date 02-24-2024.

James Posey Associates
Engineering Your Vision

Mechanical & Electrical
Consulting Engineers
11555 Red Run Boulevard, Suite 310
Baltimore, Maryland 21117
tel 410-265-6100
jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023

Drawing Title
PART FLOOR PLAN AREA B NEW WORK

Sheet No:
E-6



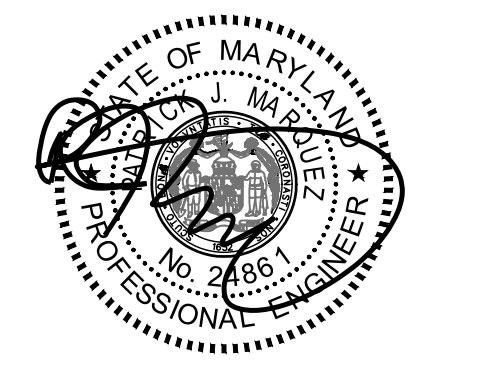
GENERAL NOTES:

- INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
- REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
- CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.

SPECIFIC NOTES:

- PROVIDE 2 #12 - #12 GROUND IN 3/4" CONDUIT AND CONNECT TO NEAREST EXISTING UNSWITCHED EMERGENCY LIGHTING CIRCUIT.
- PROVIDE 2 #10 - #10 GROUND IN 3/4" CONDUIT AND CONNECT TO FIRE ALARM BOOSTER PANEL LOCATED IN AREA B ELECTRICAL ROOM. REFER TO DRAWING E-6 FOR ADDITIONAL INFORMATION.

GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
 7301 HADLEY FARMS DRIVE
 GAITHERSBURG, MD 20879
 MONTGOMERY COUNTY PUBLIC SCHOOLS



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 24861, Expiration date 02-24-2024.

James Posey Associates
 Engineering Your Vision

Mechanical & Electrical Consulting Engineers
 11555 Red Run Boulevard, Suite 310
 Baltimore, Maryland 21117
 tel 410-265-6100
 jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023

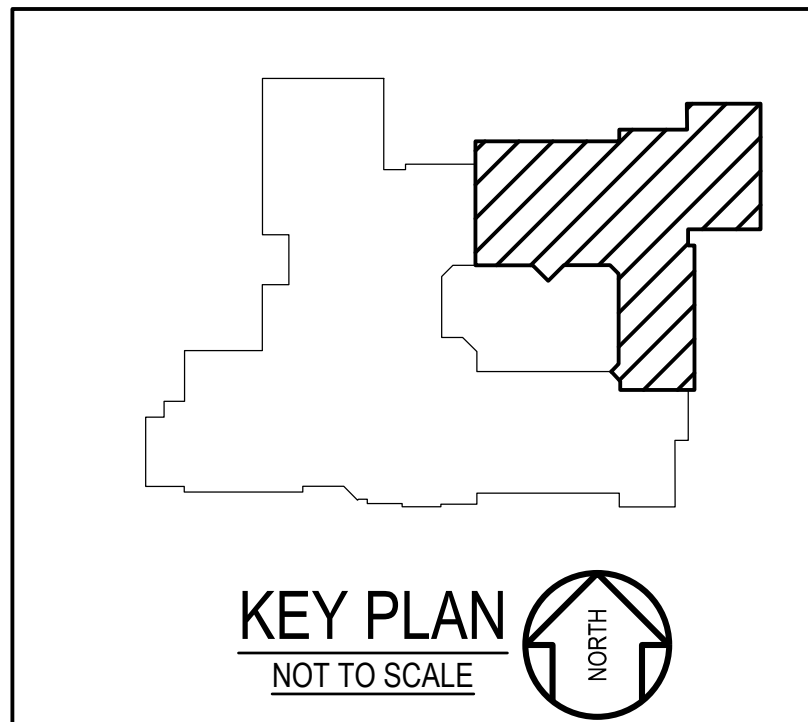
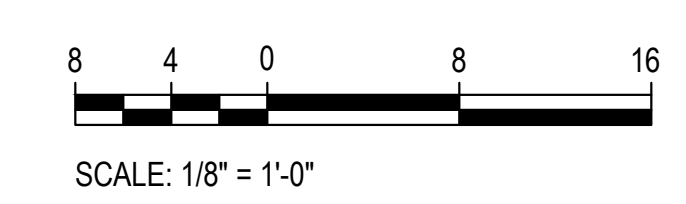
Drawing Title
PART FLOOR PLAN AREA C NEW WORK

Sheet No:
E-7

MATCHLINE
 REFER TO DRAWING E-8 FOR CONTINUATION

MATCHLINE
 REFER TO DRAWING E-8 FOR CONTINUATION

1
 E-7
PART FLOOR PLAN - AREA C
 NEW WORK
 SCALE: 1/8" = 1'-0"

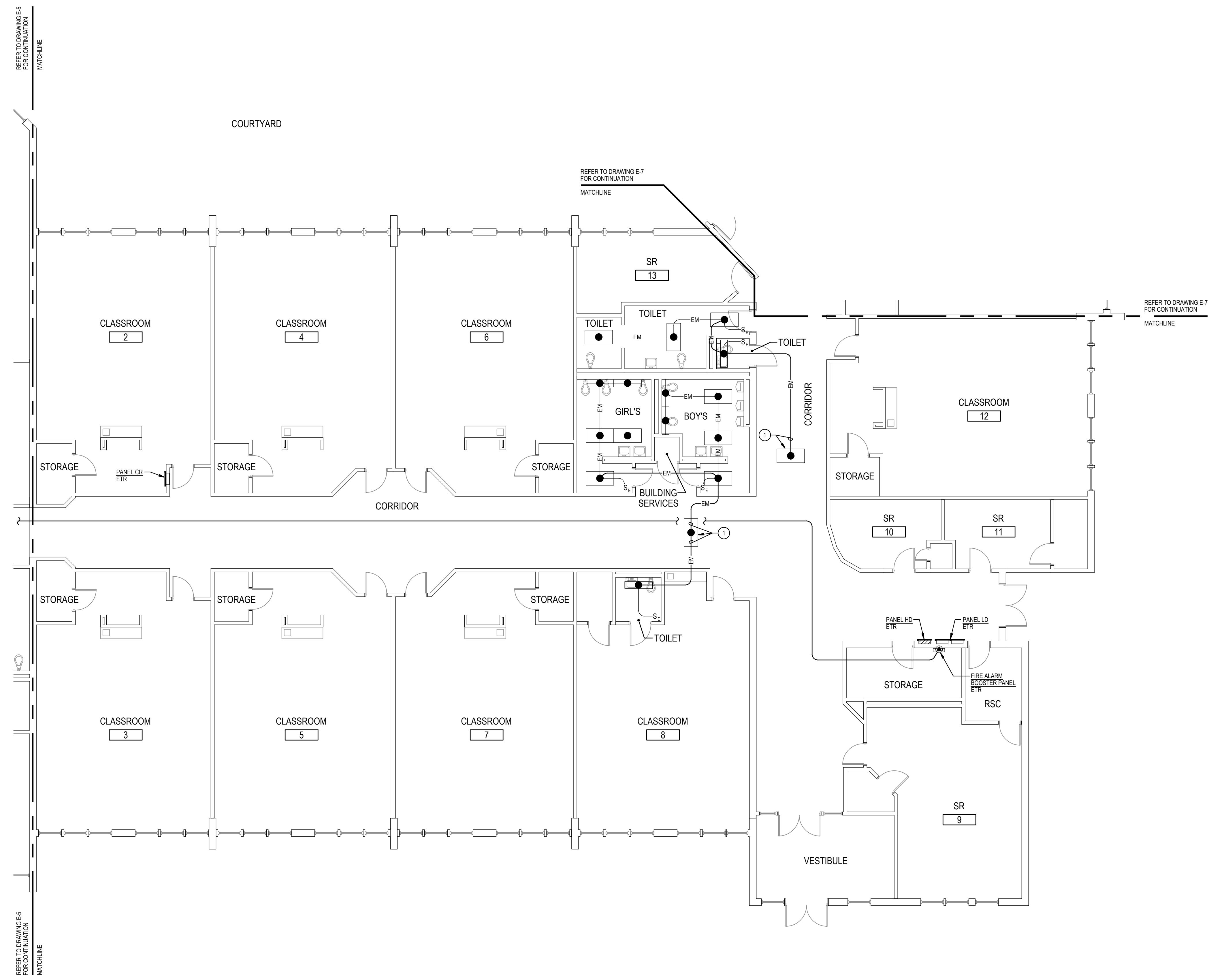


GENERAL NOTES:

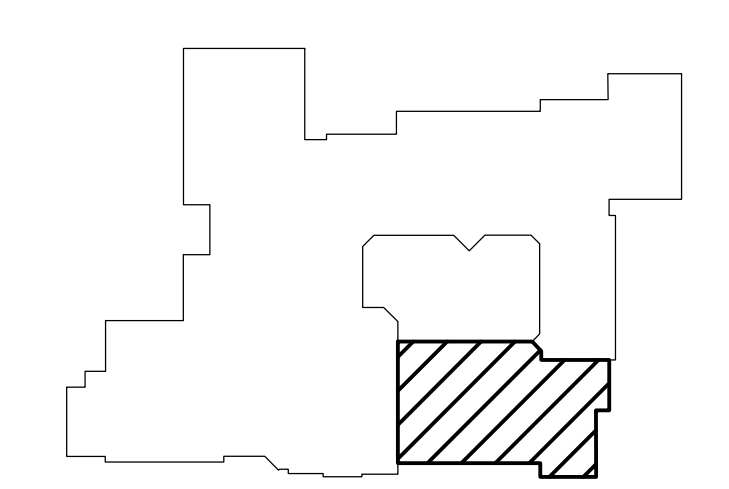
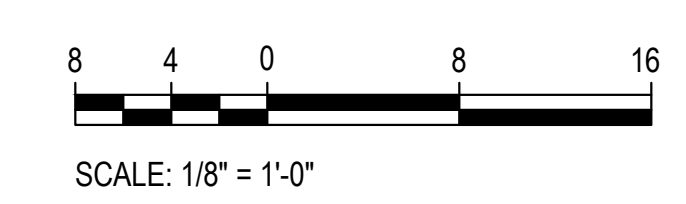
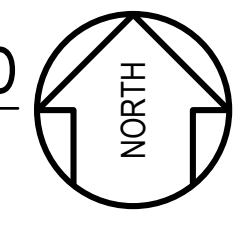
- A. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- B. THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
- C. REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
- D. CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.

SPECIFIC NOTES:

- 1 PROVIDE 2 #12 - #12 GROUND IN 3/4" CONDUIT AND CONNECT TO NEAREST EXISTING UNSWITCHED EMERGENCY LIGHTING CIRCUIT.

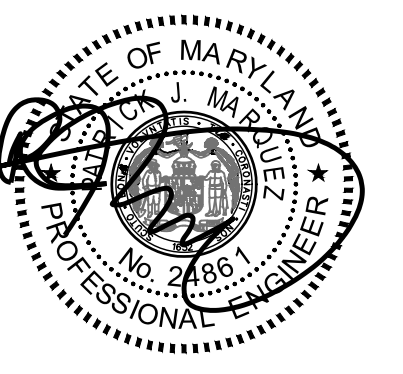


1 PART FLOOR PLAN - AREA D
E-8 NEW WORK
SCALE: 1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

GENERATOR AND ELECTRICAL EQUIPMENT REPLACEMENT
JUDITH A. RESNIK ELEMENTARY SCHOOL
 7301 HADLEY FARMS DRIVE
 GAITHERSBURG, MD 20879
 MONTGOMERY COUNTY PUBLIC SCHOOLS



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 24861, Expiration date 02-24-2024.

James Posey Associates
Engineering Your Vision

Mechanical & Electrical Consulting Engineers
 1155 Red Run Boulevard, Suite 310
 Baltimore, Maryland 21117
 tel 410-265-6100
 jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

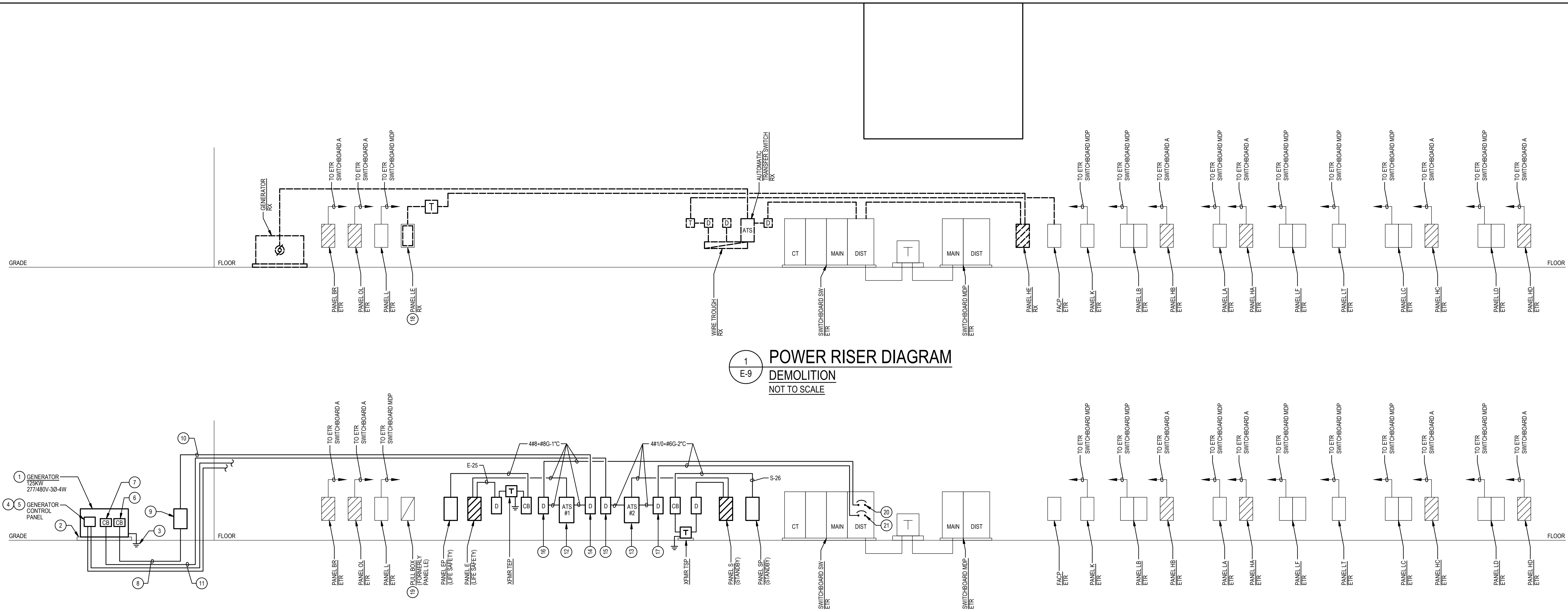
PSC No.	
Scale	AS NOTED
Project No.	7754-22
Date	FEBRUARY 6, 2023

Drawing Title
**PART FLOOR PLAN
 AREA D
 NEW WORK**

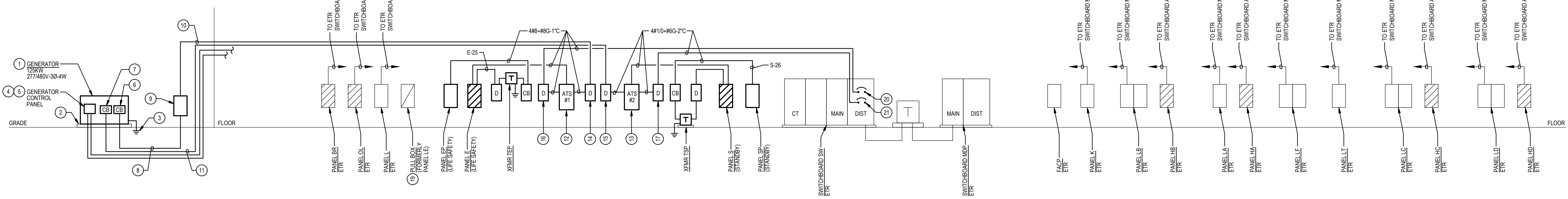
Sheet No:
E-8

- 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 EXISTING CONDITIONS IN DETAIL OR DIMENSION. DETERMINE EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND Awaiting DIRECTION BEFORE PROCEEDING WITH THE WORK.
 - THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION. INTERRUPTION TO THE EXISTING BUILDING ELECTRIC SERVICE SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION. INTERRUPTION OF UTILITIES SHALL NOT OCCUR DURING SCHOOL WORKING HOURS.
 - REMOVE AND REINSTALL EXISTING CEILING TILES WITHIN CONSTRUCTION AREAS AS REQUIRED.
 - CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO ANY SERVICES. GENERATOR POWER DISTRIBUTION SYSTEM SHALL BE OPERATIONAL AT ALL TIMES WHEN SCHOOL IS IN SESSION.
 - UNLESS OTHERWISE NOTED, ELECTRICAL ITEMS SHOWN HEAVY DASHED LINES SHALL BE REMOVED AND ELECTRICAL ITEMS SHOWN LIGHT SOLID LINES SHALL REMAIN.
 - DEMOLITION SHALL INCLUDE REMOVAL AND OFF-SITE DISPOSAL OF MATERIALS. DO NOT ABANDON IN PLACE ANY ELECTRICAL COMPONENTS UNLESS OTHERWISE NOTED ON DRAWINGS.
 - WHERE EQUIPMENT IS NOTED "DISCONNECT" OR "REMOVE", REMOVE ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
 - REMOVE EXISTING EQUIPMENT AND DEVICES INDICATED, INCLUDING ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
 - EXISTING CIRCUITS INTERRUPTED BY DEMOLITION, BUT ARE TO REMAIN, SHALL BE MAINTAINED.

- SPECIFIC NOTES:**
- PROVIDE TYPE 10 GENERATOR PER NFPA 110. THE GENERATOR SHALL BE ABLE TO PROVIDE GENERATOR POWER TO THE SCHOOL WITHIN 10 SECONDS AFTER A UTILITY POWER OUTAGE.
 - PROVIDE GENERATOR CONCRETE PAD. REFER TO DETAIL 1E-0 FOR ADDITIONAL INFORMATION.
 - REFER TO DIAGRAM 3E-0 FOR GENERATOR GROUNDING.
 - PROVIDE GENERATOR CONTROL WIRING IN CONDUIT BETWEEN GENERATOR CONTROL PANEL AND ASSOCIATED AUTOMATIC TRANSFER SWITCHES. MAKE CONNECTIONS NECESSARY FOR COMPLETE INSTALLATION. GENERATOR CONTROL WIRING SHALL BE AS PER GENERATOR MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE WIRING IN CONDUIT FROM GENERATOR CONTROL PANEL TO GENERATOR REMOTE ALARM ANNUNCIATOR PANEL. WIRING SHALL BE AS PER GENERATOR MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE 3P-200A ELECTRONIC TRIP CIRCUIT BREAKER TO SERVE GENERATOR EMERGENCY / LIFE SAFETY LOADS. MOUNT CIRCUIT BREAKER WITHIN GENERATOR ENCLOSURE AND MAKE CONNECTIONS NECESSARY FOR COMPLETE INSTALLATION. GENERATOR CONTROL WIRING SHALL BE AS PER GENERATOR MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE 3P-150A CIRCUIT BREAKER TO SERVE GENERATOR STANDBY LOADS. MOUNT CIRCUIT BREAKER WITHIN GENERATOR ENCLOSURE AND MAKE CONNECTIONS NECESSARY FOR COMPLETE INSTALLATION. GENERATOR CONTROL WIRING SHALL BE AS PER GENERATOR MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE 4 #10 - #6 GROUND IN 2" CONDUIT BETWEEN 3P-200A ELECTRONIC TRIP CIRCUIT BREAKER AT GENERATOR SERVING EMERGENCY / LIFE SAFETY LOADS AND GENERATOR DOCKING STATION. SIZE FOR LOAD BANK CONNECTION.
 - PROVIDE 200A GENERATOR DOCKING STATION IN NEMA TYPE 3R ENCLOSURE. EQUAL TO THYRISTOR DOCKING WITH 3P-150A CIRCUIT BREAKERS. MOUNT KEY INTERLOCKS FOR CONNECTIONS TO ATS-1 AND PORTABLE MOBILE GENERATOR. FEEDER FOR LOAD BANK CONNECTION SHALL BE SIZED FOR 200A. PROVIDE SIGN ON FRONT OF GENERATOR DOCKING STATION TO READ AS FOLLOWS: "SERVING EMERGENCY TRANSFER SWITCH (ATS-1) IN ELECTRICAL ROOM 12000V, 3-PHASE, 4-WIRE."
 - PROVIDE 4 #6 - #8 GROUND IN 1" CONDUIT.
 - PROVIDE 4 #10 - #6 GROUND IN 2" CONDUIT.
 - PROVIDE 4P-50A AUTOMATIC TRANSFER SWITCH (ATS) TO SERVE EMERGENCY / LIFE SAFETY LOADS. ATS SHALL HAVE A MINIMUM UL 1008 WITHSTAND AND CLOSING RATING OF 65K AC. PROVIDE NAMEPLATE ON FRONT OF ATS TO READ "EMERGENCY ATS".
 - PROVIDE 4P-150A AUTOMATIC TRANSFER SWITCH (ATS) TO SERVE STANDBY LOADS. ATS SHALL HAVE A MINIMUM UL 1008 WITHSTAND AND CLOSING RATING OF 65K AC. PROVIDE NAMEPLATE ON FRONT OF ATS TO READ "STANDBY ATS".
 - PROVIDE 3P-600A/400V NON-FUSED ENCLOSED SWITCH WITH NEUTRAL KIT IN NEMA TYPE 1 ENCLOSURE TO SERVE GENERATOR EMERGENCY / LIFE SAFETY LOADS.
 - PROVIDE 3P-200A/400V NON-FUSED ENCLOSED SWITCH WITH NEUTRAL KIT IN NEMA TYPE 1 ENCLOSURE TO SERVE GENERATOR STANDBY LOADS.
 - PROVIDE 3P-600A/400V FUSED ENCLOSED SWITCH WITH NEUTRAL KIT IN NEMA TYPE 1 ENCLOSURE. PROVIDE WITH 50A CURRENT LIMITING FUSES.
 - PROVIDE 3P-200A/400V FUSED ENCLOSED SWITCH WITH NEUTRAL KIT IN NEMA TYPE 1 ENCLOSURE. PROVIDE WITH 50A CURRENT LIMITING FUSES.
 - REFER TO SPECIFIC NOTE 5E-2 FOR ADDITIONAL INFORMATION.
 - REFER TO SPECIFIC NOTE 5E-4 FOR ADDITIONAL INFORMATION.
 - PROVIDE 3P-150A CIRCUIT BREAKER IN AVAILABLE SPACE IN EXISTING SWITCHBOARD SW. TYPE AND AIR RATING OF CIRCUIT BREAKER TO MATCH EXISTING.
 - PROVIDE 3P-150A CIRCUIT BREAKER IN AVAILABLE SPACE IN EXISTING SWITCHBOARD SW. TYPE AND AIR RATING OF CIRCUIT BREAKER TO MATCH EXISTING.



1 E-9 POWER RISER DIAGRAM DEMOLITION NOT TO SCALE



2 E-9 POWER RISER DIAGRAM NEW WORK NOT TO SCALE

WIRING SCHEDULE: PANEL E											
277 / 480 VOLTS				3 PHASE 4 WIRE				SURFACE MOUNTED			
CR./POLE CUT	DESCRIPTION	WIRE/ CONDUIT	BREAKER POLE/AMP	KVA / Ø			CR./POLE CUT	DESCRIPTION	WIRE/ CONDUIT	BREAKER POLE/AMP	
				AØ	BØ	CØ					
1	SPARE	1	20				2	SPARE	1	20	
3	SPARE	1	20				4	SPARE	1	20	
5	SPARE	1	20				6	SPARE	1	20	
7	LTG-MECH.ELEC. KITCHEN	#10-3/4"	1 20	2.8	2.1		8	LTG. EXIT SIGNS	#8-3/4"	1 20	
9	SPARE	1	20				10	LTG. MULTIPURPOSE	#10-3/4"	1 20	
11	LTG. GYM	#10-3/4"	1 20	1.7		0.3	1.8	12	LTG. EXIT SIGNS	#8-3/4"	1 20
13	LTG. EXIT SIGNS	#8-3/4"	1 20	1.7				14	SPACE AND PROVISIONS	-	1 -
15	LTG. EXIT SIGNS	#8-3/4"	1 20		1.9			16	SPACE AND PROVISIONS	-	1 -
-	17	SPACE AND PROVISIONS	-	1 -				18	SPACE AND PROVISIONS	-	1 -
-	19	SPACE AND PROVISIONS	-	1 -				20	SPACE AND PROVISIONS	-	1 -
-	21	SPACE AND PROVISIONS	-	1 -				22	SPACE AND PROVISIONS	-	1 -
-	23	SPACE AND PROVISIONS	-	1 -				24	SPACE AND PROVISIONS	-	1 -
25	XFMR TSP	3#12-3/4"	3 25	1.0				26	26 SURGE PROTECTIVE DEVICE	4#8+1"	3 30
-	27	(SERVING PANEL EP)	#12G-3/4"			1.0		28		#8G-1"	
-	29							30			

CONNECTED LOAD = 13.9 KVA
DEMAND LOAD = 13.9 KVA
MIN AIC RATING = 42,000 AMPS SYMMETRICAL

MAIN FUSE 50 AMPS
LOCATION MECHANICAL RM

NOTES:
(1) PROVIDE FUSIBLE BRANCH CIRCUIT PANELBOARD.
(2) PROVIDE PANELBOARD WITH INTEGRAL SURGE PROTECTION DEVICE.

WIRING SCHEDULE: PANEL S											
277 / 480 VOLTS				3 PHASE 4 WIRE				250 AMP BUS			
CR./POLE CUT	DESCRIPTION	WIRE/ CONDUIT	BREAKER POLE/AMP	KVA / Ø			CR./POLE CUT	DESCRIPTION	WIRE/ CONDUIT	BREAKER POLE/AMP	
				AØ	BØ	CØ					
1	PUMP P-1	3#6+1"	3 60	7.2	7.2		2	PUMP P-2	3#6+1"	3 60	
-	3						-	4			
-	5						-	6			
7	PUMP P-3	3#12+1"	3 15	1.3	1.3		8	PUMP P-4	3#12+1"	3 15	
-	9						-	10			
-	11						-	12			
13	DUCT FAN	3#12+1"	3 20	0.4			14	SPARE		1 20	
-	15				0.4		-	16	SPARE	1 20	
-	17					0.4	-	18	SPARE	1 20	
-	19	SPACE AND PROVISIONS	-	1 -			-	20	SPACE AND PROVISIONS	-	1 -
-	21	SPACE AND PROVISIONS	-	1 -			-	22	SPACE AND PROVISIONS	-	1 -
-	23	SPACE AND PROVISIONS	-	1 -			-	24	SPACE AND PROVISIONS	-	1 -
-	25	SPACE AND PROVISIONS	-	1 -			-	26	XFMR TSP	3#3+1"	3 90
-	27	SPACE AND PROVISIONS	-	1 -			-	28	(SERVING PANEL SP)	#8G-1"	
-	29	SPACE AND PROVISIONS	-	1 -			-	30		11/4"	

CONNECTED LOAD = 84.4 KVA
DEMAND LOAD = 84.4 KVA
MIN AIC RATING = 65,000 AMPS SYMMETRICAL

MAIN BREAKER 150 AMPS
LOCATION MECHANICAL RM

WIRING SCHEDULE: PANEL EP											
120 / 208 VOLTS				3 PHASE 4 WIRE				SURFACE MOUNTED			
CR./POLE CUT	DESCRIPTION	WIRE/ CONDUIT	BREAKER POLE/AMP	KVA / Ø			CR./POLE CUT	DESCRIPTION	WIRE/ CONDUIT	BREAKER POLE/AMP	
				AØ	BØ	CØ					
1	FACP	#10-3/4"	1 20	1.0			2	SPARE	1	20	
3	BLOCK HEATER	#10-1"	1 20				4	SPARE	1	20	
5	BATTERY CHARGER	#10-1"	1 20			0.5		6	SPARE	1 20	
7	SPARE	1	20				8	SPARE	1	20	
9	SPARE	1	20				10	SPARE	1	20	
11	SPARE	1	20				12	SPARE	1	20	
-	13	SPACE AND PROVISIONS	-	1 -			-	14	SPACE AND PROVISIONS	-	1 -
-	15	SPACE AND PROVISIONS	-	1 -			-	16	SPACE AND PROVISIONS	-	1 -
-	17	SPACE AND PROVISIONS	-	1 -			-	18	SPACE AND PROVISIONS	-	1 -

CONNECTED LOAD = 2.5 KVA
DEMAND LOAD = 2.5 KVA
MIN AIC RATING = 10,000 AMPS SYMMETRICAL

MAIN FUSE 50 AMPS
LOCATION ELECTRICAL RM

NOTES:
(1) PROVIDE FUSIBLE BRANCH CIRCUIT PANELBOARD.
(2) PROVIDE PANELBOARD WITH INTEGRAL SURGE PROTECTION DEVICE.

WIRING SCHEDULE: PANEL SP											
120 / 208 VOLTS				3 PHASE 4 WIRE				225 AMP BUS			
CR./POLE CUT	DESCRIPTION	WIRE/ CONDUIT	BREAKER POLE/AMP	KVA / Ø			CR./POLE CUT	DESCRIPTION	WIRE/ CONDUIT	BREAKER POLE/AMP	
				AØ	BØ	CØ					
1	FAN #5 (PLATFORM)	(2)	1 20	0.7	0.5		2	SOUND SYSTEM	(2)	1 20	
3	SECURITY SYSTEM	(2)	1 20		0.5	0.5		4	CABLE TV	(2)	1 20
5	SPARE	1	20				0.5	6	CABLE TV	(2)	1 20
7	GYM AMPLIFIER	(2)	1 20	0.5	0.5			8	MULTIPURPOSE AMPLIFIER	(2)	1 20
9	TELEPHONE SYSTEM	(2)	1 20			0.5	0.1	10	MECH SHUT-OFF SWITCH	(2)	1 20
11	CHILLER HEATER	(2)	1 20				1.5	12	SPARE	1	20
13	FREEZER COMPRESSOR	2#8+1"	2 40	3.0	0.5			14	BOLER	#10-3/4"	1 20
-	15					3.0	0.5	16	BOLER CONTROLS	#10-3/4"	1 20
17	COOLER COMPRESSOR	2#12+1"	2 20				1.5	18	BOLER	#10-3/4"	1 20
-	19				1.5	0.5		20	BOLER CONTROLS	#10-3/4"	1 20
21	FREEZER EVAPORATOR	#12-3/4"	1 20			1.0	0.3	22	PUMP-5	#10-3/4"	1 20
23	COOLER EVAPORATOR	#12-3/4"	1 20				1.0	24	PUMP-6	#10-3/4"	1 20
25	REACH IN REFRIGERATOR	#10-3/4"	1 20	1.0	0.8			26	PUMP-7	#10-3/4"	1 20
27	REC - SERVER	#8-3/4"	1 20			1.0	0.2	28	FA BOOSTER PANEL	#10-3/4"	1 20
29	REC - HEALTH (1)	#8-3/4"	1 20				0.2	30	SPARE	1	20
31	REC - STORAGE 4	#8-3/4"	1 20	0.4				32	SPARE	1	20
33	REC - STORAGE 4	#8-3/4"	1 20			0.4		34	SPARE	1	20
35	REC - BY GENERATOR	#10-3/4"	1 20				0.2	36	SPARE	1	20
37	SPARE	1	20					38	SPARE	1	20
39	SPARE	1	20					40	SPARE	1	20
41	SPARE	1	20					42	SPARE	1	20
-	43	SPACE AND PROVISIONS	-	1 -				44	SPACE AND PROVISIONS	-	1 -
-	45	SPACE AND PROVISIONS	-	1 -				46	SPACE AND PROVISIONS	-	1 -
-	47	SPACE AND PROVISIONS	-	1 -				48	SPACE AND PROVISIONS	-	1 -
-	49	SPACE AND PROVISIONS	-	1 -				50	SPACE AND PROVISIONS	-	1 -
-	51	SPACE AND PROVISIONS	-	1 -				52	SPACE AND PROVISIONS	-	1 -
-	53	SPACE AND PROVISIONS	-	1 -				54	SPACE AND PROVISIONS	-	1 -

CONNECTED LOAD = 23.4 KVA
DEMAND LOAD = 23.4 KVA
MIN AIC RATING = 10,000 AMPS SYMMETRICAL

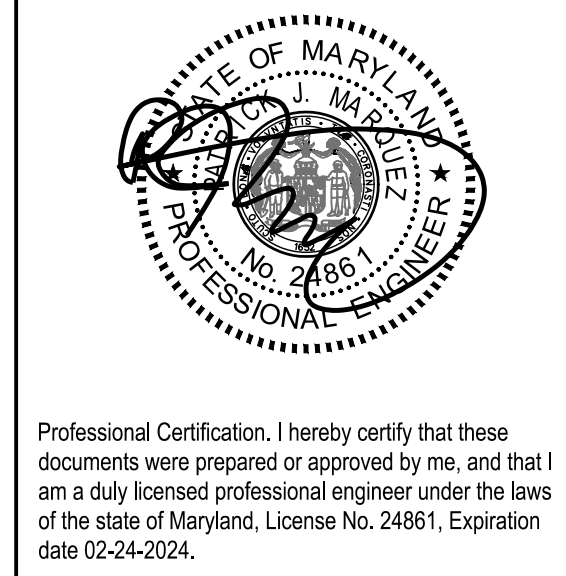
MAIN BREAKER 150 AMPS
LOCATION CORRIDOR

NOTES:
(1) PROVIDE GFCI-TYPE CIRCUIT BREAKER.
(2) INTERCEPT & SPLICE EXISTING BRANCH CIRCUIT AT PANELBOARD ENCLOSURE. PREVIOUSLY PANEL LE, TO BE USED AS A PULL BOX. MATCH EXISTING WIRING AND CONDUIT AND EXTEND WIRING AND CONDUIT FROM PANEL SP TO PANELBOARD ENCLOSURE.
(3) PROVIDE PANELBOARD WITH INTEGRAL SURGE PROTECTION DEVICE.

SCHEDULE OF TRANSFORMERS							
TRANSFORMER DESIG.	KVA	LOCATION	PRIMARY FEEDER	SECONDARY TAP WIRING & CONDUIT (NOTE A)	GROUNDING ELECTRODE CONDUCTOR	EQUIPMENT SERVED	NOTES
TSP	15	STORAGE	E-25	4 #8 + #8G - 1"	#8	PANEL EP	1
TSP	45	STORAGE	S-26	4 #10 + #6G - 2"	#6	PANEL SP	2

TRANSFORMER GENERAL NOTES:
A. TRANSFORMER SECONDARY TAP CONDUCTORS INDICATED REFLECT PHASE, NEUTRAL (IN WYE-CONFIGURATION), AND SUPPLY (SEE BONDING JUMPER (SSB)) IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC) ARTICLES 450.240.21, AND 250.30.
B. TRANSFORMER SHALL HAVE 480-VOLT, 3-PHASE, DELTA PRIMARY AND 120/208-VOLT, 3-PHASE, WYE SECONDARY.

TRANSFORMER SPECIFIC NOTES:
1. PROVIDE WALL MOUNT BRACKETS FOR MOUNTING ON MASONRY WALL.
2. PROVIDE ON 4" HIGH HOUSEKEEPING PAD.



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, License No. 24681, Expiration date 02-24-2024.

James Posey Associates
Engineering Your Vision
Mechanical & Electrical Consulting Engineers
11155 Red Run Boulevard, Suite 310
Baltimore, Maryland 21117
tel 410-265-6100
jamesposey.com

Tag	Description	Date
	BID SET	02/06/23

PSC No	
Scale	AS NOTED
Project No	7754-22
Date	FEBRUARY 6, 2023
Drawing Title	SCHEDULES AND DIAGRAMS
Sheet No	E-9