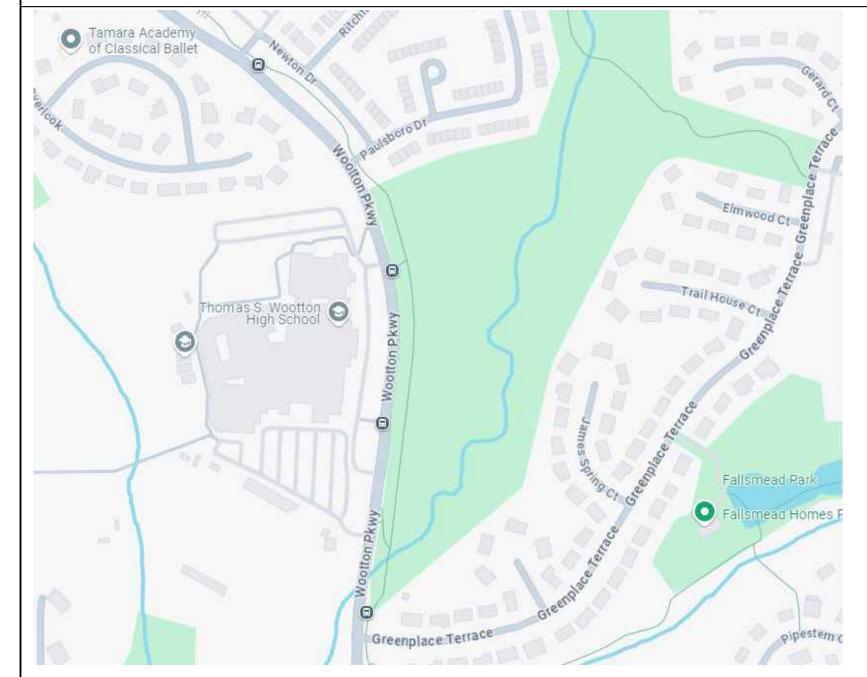
Generator and Electrical Equipment Replacement THOMAS S. WOOTTON HIGH SCHOOL

2100 WOOTTON PARKWAY, ROCKVILLE, MD 20850 Montgomery County Public Schools

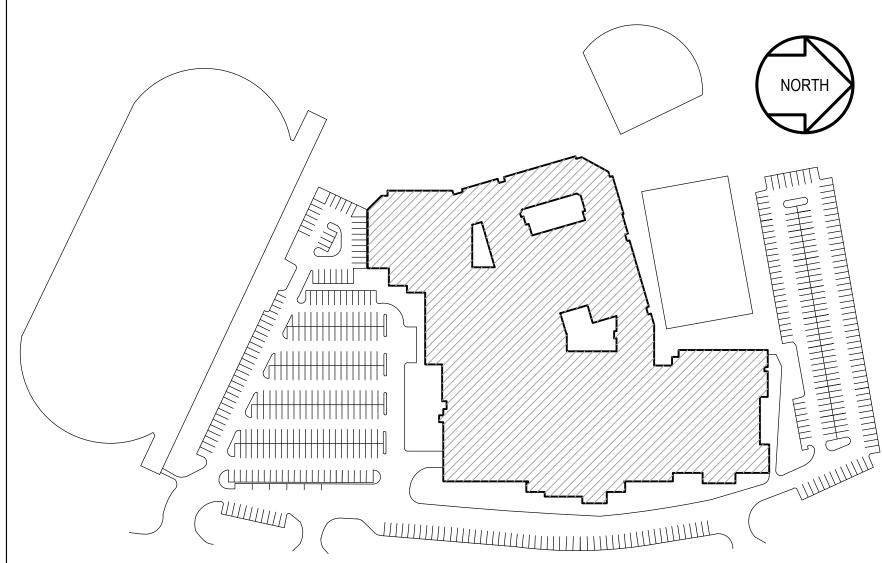
11155 RED RUN BOULEVARD, SUITE 310 BALTIMORE, MARYLAND 21117 PHONE: 410.265.6100

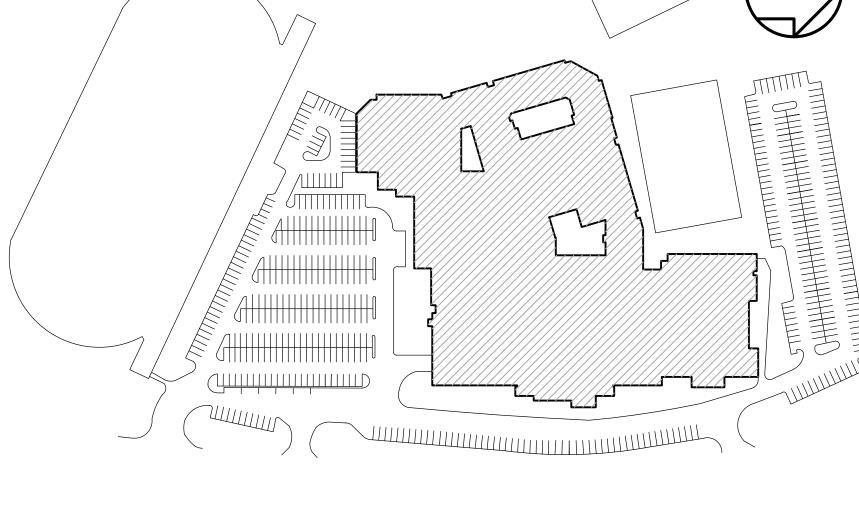
15871 CRABBS BRANCH WAY ROCKVILLE, MARYLAND 20855 PHONE: 301.590.0071

VICINITY PLAN



SITE PLANS





BOARD OF EDUCATION

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DISTRICT 2 STUDENT MEMBER OF THE BOARD

CODE ANALYSIS

	ANALYSIS ONAL BUILDING CODE/20	
	EXISTING BLDG	PROPOSED ALTERATION
IBC OCCUPANCY CLASSIFICATION	E	THE SCOPE OF THIS WORK IS
TYPE OF CONSTRUCTION	IIB	TO REPLACE EXISTING GENERATOR AND REVISE
NUMBER OF STORIES ABOVE GRADE	3	NORMAL LIGHTING CIRCUITS IN TOILET ROOMS, BOILER
HIGH RISE (Y/N)	N	ROOM AND ELEC ROOM TO EMERGENCY LIGHTING.
FIRE ALARM (Y/N)	Y	THERE IS NO INCREASE IN
FULLY SPRINKLERED (Y/N)	Υ	FLOOR AREA, NO SITE CHANGES, NO CHANGE IN
TOTAL BUILDING FLOOR AREA	295,620 SF	CLASSIFICATION OR TYPE OF CONSTRUCTION.
	1	

DRAWING INDEX

T-1 TITLE SHEET

STRUCTURAL

S0.01 GENERAL NOTES \$1.00 LOWER LEVEL PARTIAL FRAMING PLAN

MECHANICAL

DIAGRAMS, SYMBOLS AND ABBREVIATIONS PART LOWER LEVEL PLAN - DEMOLITION AND NEW WORK

ELECTRICAL

SYMBOLS LIST, ABBREVIATIONS, AND DETAILS

LOWER LEVEL REFERENCE DRAWING

PART UPPER LEVEL PLANS - DEMOLITION AND NEW WORK

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 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

THE SCOPE OF WORK INDICATED ON THIS SHEET II IS INTENDED AS A BRIEF SUMMARY FOR GENERAL INFORMATIONAL 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.

PROFESSIONAL CERTIFICATION

These contract documents for Thomas Wootton High 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

Maryland Professional Engineer Registration No. 24861



hereby certify that these documents were prepared or approved by me, and that I am a duly licensed rofessional engineer under the laws of the state o Maryland, License No. 24861, Expiration date: 02-24-2026.

> Mechanical & Electrical **Consulting Engineers**

Baltimore, Maryland 21117

tel 410-265-6100 jamesposey.com

James Posey

11155 Red Run Boulevard, Suite 310

Associates

Engineering Your Vision

APPLICABLE CODES & STANDARDS

INTERNATIONAL BUILDING CODE INTERNATIONAL MECHANICAL CODE

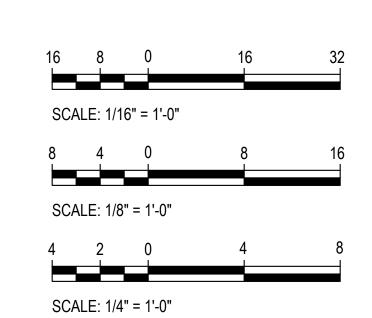
INTERNATIONAL PLUMBING CODE WITH WSSC AMENDMENTS

ENERGY STANDARD FOR BUILDINGS EXCEPT LOW RISE RESIDENTIAL BUILDINGS

NATIONAL ELECTRICAL CODE

ASHRAE 2017-2020 HANDBOOKS

GRAPHIC SCALES



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

Tag		Description	
	BIE	DOCUMENTS	02/
PSC No			
Scale		AS NOTED	
Project N	10	8047-24	
Date		FEBRUARY 19,	202
Drawing	Title		
l			

TITLE SHEET

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2. GENERAL

1. THE FOLLOWING CODES AND STANDARDS, INCLUDING ALL SPECIFICATION REFERENCED WITHIN, SHALL APPLY TO THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT.

a. MARYLAND BUILDING PERFORMANCE STANDARDS: 2021 INTERNATIONAL BUILDING CODE 2021 INTERNATIONAL EXISTING BUILDING CODE, 2021 INTERNATIONAL RESIDENTIAL CODE b. "MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES" (ASCE/SEI 7-16) AMERICAN SOCIETY OF CIVIL ENGINEERS.

2. ADDITIONAL CODES FOR MATERIALS SHALL BE FOUND IN THE APPROPRIATE SECTIONS THAT FOLLOW. SEE THOSE SECTIONS FOR THE APPLICABLE CODES

B. DESIGN LOADS

GENERAL STRUCTURAL NOTES

A. BUILDING CODES AND STANDARDS

C. LOCAL AMENDMENTS.

GRAVITY - SUPERIMPOSED DEAD LOADS (IN ADDITION TO STRUCTURE DEAD LOADS,

ROOF C. LIMITED STRUCTURAL ALTERATIONS DO NOT INCREASE THE STRESS OF THE EXISTING GRAVITY LOAD RESISTING ELEMENTS BY MORE THAN 5 PERCENT. REFRENCE 2018 IEBC 806.2.

2. GRAVITY - LIVE LOADS LIVE LOAD REDUCTION (LLR) APPLIED PER CODE

CONCENTRATED (POUNDS) 100 PSF (INCLUDES PARTITIONS) a. FRAMED FLOOR AREAS

3. GRAVITY - ROOF LIVE LOADS

CONCENTRATED 30 PSF MINIMUM (SNOW LOAD IS USED 300 POUNDS WHEN GREATER THAN 30 PSF) b. ROOF SNOW LOAD (PLUS DRIFTING WHERE APPLICABLE)

(1) Pg= 25 (2) Pf = 18.9(3) Ce = 0.9 (4) | = 1.0 (5) Ct = 1.2

4. LATERAL LOADS - WIND

a. ULTIMATE WIND SPEED (3-SECOND GUST) b. NOMINAL WIND SPEED C. RISK CATEGORY: II d. EXPOSURE CATEGORY: B e. INTERNAL PRESSURE COEFFICIENT: GCpi = +/- 0.18 F: LIMITED STRUCTURAL ALTERATIONS DO NOT AFFECT THE DEMAND/CAPACITY RATIO OF THE EXISTING LATERAL LOAD RESISTING ELEMENTS THEREFORE A LATERAL ANALYSIS WILL NOT BE PERFORMED. REFERENCE 2018 IEBC 806.3

5. LATERAL LOADS - SEISMIC

a. RISK CATEGORY: b. SEISMIC IMPORTANCE FACTOR: IE = 1 C. MAPPED SPECTRAL RESPONSE ACCELERATIONS : (1) SS = 0.135 (2) 51 = 0.043 d. SPECTRAL RESPONSE COEFFICIENTS : (1) SDS = 0.072(2) SD1 = 0.023 e. SEISMIC DESIGN CATEGORY: A F. BASIC SEISMIC-FORCE-RESISTING SYSTEM: N/A g. DESIGN BASE SHEAR: N/A h. SEISMIC RESPONSE COEFFICIENT: CS = N/A i. RESPONSE MODIFICATION FACTOR: R = N/Aj. ANALYSIS PROCEDURE: N/A k: LIMITED STRUCTURAL ALTERATIONS DO NOT AFFECT THE DEMAND/CAPACITY RATIO OF THE EXISTING LATERAL LOAD RESISTING ELEMENTS THEREFORE A LATERAL ANALYSIS WILL NOT

C. FOUNDATION / EARTH WORK / GEOTECHNICAL REPORT

BE PERFORMED. REFERENCE 2018 IEBC 806.3

1. DESIGN DATA:

a. FOUNDATIONS HAVE BEEN DESIGNED FOR 3000 PSF IN ACCORDANCE WITH THE INFORMATION SHOWN ON THE EXISTING BUILDING DRAWINGS. THE OWNER HAS PROVIDED NO NEW GEOTECHNICAL REPORT FOR THIS PROJECT AND THUS HAS ACCEPTED THE RISK.

b. ALL EXTERIOR FOUNDATIONS AND/OR FOUNDATIONS SUBJECT TO FROST SHALL BEAR A MINIMUM OF 2'-6" BELOW GRADE. FOUNDATIONS SHALL STEP DOWN AS REQUIRED TO MAINTAIN THIS MINIMUM BELOW GRADE. IN CASE OF CONFLICT, NOTIFY THE ARCHITECT AND RGA IN ADVANCE OF ANY CONSTRUCTION TO ALLOW FOR ADJUSTMENT.

a. CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE FOUNDATION SYSTEM AS SHOWN PRIOR TO STARTING

WORK. SEE ALSO NOTES UNDER THE "CONSTRUCTION" SECTION. b. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES, EXISTING STRUCTURES, ETC., WHETHER INDICATED OR NOT, WHICH MAY BE AFFECTED BY THE CONSTRUCTION PROCESS. C. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS

WITHOUT THE STRUCTURAL ENGINEER'S APPROVAL d. BEARING ELEVATIONS INDICATED ON THE DRAWINGS ARE ESTIMATED FROM SOIL BEARING DATA INDICATED IN THE GEOTECHNICAL REPORT. PRIOR TO PLACING FOUNDATIONS, AN EXPERIENCED, QUALIFIED GEOTECHNICAL ENGINEER SHALL MAKE DETERMINATION OF FINAL BEARING ELEVATIONS AND VERIFICATION OF ALLOWABLE BEARING PRESSURE. SHOULD GEOTECHNICAL ENGINEER DETERMINE THAT BEARING ELEVATION MUST BE LOWERED TO ACHIEVE DESIGN SOIL BEARING CAPACITY CONTRACTOR SHALL UNDERCUT AND REPLACE WITH LEAN CONCRETE OR COMPACTED STRUCTURAL FILL

APPROVAL IS GIVEN BY THE GEOTECHNICAL ENGINEER F. FOLLOWING REQUIRED STRIPPING OPERATIONS. ANY PROOFROLLING SHALL BE AS DIRECTED BY AN EXPERIENCED, QUALIFIED GEOTECHNICAL ENGINEER. THE PURPOSE OF THE PROOFROLLING WILL BE TO LOCATE ANY ISOLATED AREAS OF SOFT OR LOOSE SOILS REQUIRING IMPROVEMENT OR REPLACEMENT. SOFT AREAS SHALL BE UNDERCUT AND REPLACED BY PROPERLY COMPACTED MATERIALS.

e. CONCRETE FOR FOUNDATIONS SHALL BE POURED ON THE SAME DAY SUBGRADE

g. ALL SHORING, SHEETING, AND DEWATERING SHALL BE THE TOTAL RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION SHALL DESIGN SHEETING AND SHORING. ALL SUBMITTALS SHALL BEAR THE ENGINEER'S SEAL AND SIGNATURE

3. BACKFILL

a. ALL BACKFILL SHALL BE ACCOMPLISHED USING MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER, WITH OPTIMUM MOISTURE CONTENT FOR COMPACTING AND SHALL BE FREE OF DEBRIS.

b. NO BACKFILL MATERIAL SHALL BE PLACED AGAINST FOUNDATION WALLS UNTIL THE UPPER FLOORS BRACING THE WALLS ARE IN PLACE FOR AT LEAST 3 DAYS AND A MINIMUM OF 75% F'C, OR ADEQUATE TEMPORARY BRACING, AS DESIGNED BY THE CONTRACTOR'S ENGINEER, IS INSTALLED. THE CONTRACTOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION SHALL DESIGN ANY REQUIRED BRACING. ALL SUBMITTALS SHALL BEAR THE ENGINEER'S SEAL AND SIGNATURE C. WHERE THE FINAL GRADE ELEVATIONS ARE APPROXIMATELY EQUAL ON BOTH SIDES OF A WALL, BACKFILL IN LIFTS TO MAINTAIN LEVEL ELEVATIONS WITHIN 12

ON BOTH SIDES AT ANY TIME. d. NO BACKFILL MATERIAL SHALL BE PLACED AGAINST RETAINING WALLS UNTIL THE WALLS ARE IN PLACE FOR AT LEAST 7 DAYS AND A MINIMUM OF 75% I'C IS ACHIEVED, OR ADEQUATE TEMPORARY BRACING, AS DESIGNED BY THE CONTRACTOR'S ENGINEER, IS INSTALLED. THE CONTRACTOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION SHALL DESIGN ANY REQUIRED BRACING. ALL SUBMITTALS SHALL BEAR THE ENGINEER'S SEAL AND SIGNATURE.

4. STRUCTURAL FILL

a. INSPECTION OF THE PLACEMENT OF COMPACTED STRUCTURAL FILL SHALL BE BY AN EXPERIENCED. QUALIFIED GEOTECHNICAL ENGINEER. b. APPROVED MATERIAL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES ON LOOSE THICKNESS. MOISTURE CONDITIONED AS REQUIRED TO ACHIEVE COMPACTION TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY OBTAINED IN ACCORDANCE WITH ASTM SPECIFICATION D-698 (STANDARD PROCTOR) FOR FILL

BELOW FOOTINGS. COMPACTION OF FILL SOILS USED AS SUBGRADE FOR SLABS-ON-GRADE CONSTRUCTION SHALL BE SIMILARLY COMPACTED TO 98% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-698 (STANDARD

D. CONSTRUCTION

1. GENERAL

(NOTE: "RGA" SHALL REFER TO RATHGEBER/GOSS ASSOCIATES, THE STRUCTURAL ENGINEER OF RECORD.)

a. THESE DRAWINGS REPRESENT THE COMPLETED PROJECT WHICH HAS BEEN DESIGNED FOR THE WEIGHTS OF MATERIALS AND FOR THE SUPERIMPOSED LOADS INDICATED ON THE DRAWINGS IN THE DESIGN LOADS SECTION OF THE GENERAL NOTES. I IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FORMWORK, STAGINGS, BRACING, SHEETING AND SHORING, RESHORING ETC. THIS INCLUDES ANY DESIGN REQUIRED FOR THE CONTRACTOR VEHICLES, FORKLIFTS, MATERIAL STORAGE, MOBILE CRANES, SCAFFOLDING, ETC. MEANS AND METHODS OF CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ANY DRAWINGS AND CALCULATIONS RELATED TO THE MEANS AND METHODS OF CONSTRUCTION (AS NOTED ABOVE) SHALL BE SUBMITTED TO RGA FOR REVIEW AND SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION AND RETAINED BY THE CONTRACTOR.

b. IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, DETAILS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.

C. WORK NOT INCLUDED ON THE DRAWINGS BUT IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES ELSEWHERE ON THE DRAWINGS SHALL BE

d. IMPLEMENTING JOB SITE SAFETY AND CONSTRUCTION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

e. DRAWINGS SHALL NOT BE SCALED TO OBTAIN LAYOUT INFORMATION OR DIMENSIONS. F. ALL DIMENSIONS LOCATING STRUCTURAL ELEMENTS AND SLAB EDGES, ETC., MUST BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS BY THE GENERAL CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCY.

g. ALL ASSEMBLIES AND PRE-ENGINEERED SYSTEMS THAT ARE SUPPORTED BY AND FIT WITHIN THE NEWLY CONSTRUCTED OR EXISTING STRUCTURE, SHALL BE FABRICATED AND INSTALLED ONLY FOLLOWING AN EXTENSIVE FIELD MEASUREMENT SURVEY AND CONSIDERATION OF: LIVE LOAD DEFLECTIONS; DEFLECTIONS DUE TO SPECIFIED SNOW, WIND AND EARTHQUAKE LOADS; AND LONG TERM (CREEP) MOVEMENT OF THE

PRIMARY STRUCTURE TO WHICH THEY ARE ATTACHED AND FIT BETWEEN h. ALL COSTS OF INVESTIGATION AND/OR REDESIGN, DUE TO THE CONTRACTOR MIS-LOCATION OF STRUCTURAL ELEMENTS OR OTHER LACK OF CONFORMANCE WITH THE PROJECT DOCUMENTS, SHALL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PROVIDE THEIR OWN ENGINEERING OR CONTRACT DIRECTLY WITH RGA FOR THESE SERVICES. IN THE LATTER CASE, RGA SHALL BE PAID BY THE CONTRACTOR FOR ITS TIME SPENT IN REVIEWING THE CONTRACTOR'S ENGINEER'S WORK IN RESOLVING EACH SUCH ISSUE.

I. CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, LAUNDRY AND FOOD SERVICE DRAWINGS FOR SIZE AND LOCATIONS OF OPENINGS SLEEVES, CONCRETE HOUSEKEEPING PADS, INSERTS, AND DEPRESSIONS NOT SHOWN ON STRUCTURAL DRAWINGS

. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DETAILED INFORMATION REGARDING FINISHES, FIREPROOFING, WATERPROOFING, ETC.

k. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF MASONRY AND DRYWALL NON-LOADBEARING PARTITIONS. PROVIDE SLIP CONNECTIONS THAT ALLOW VERTICAL MOVEMENT AT THE HEADS OF ALL SUCH PARTITIONS. UNLESS SHOWN ON THE DRAWINGS. THE CONNECTIONS SHALL BE DESIGNED TO SUPPORT THE TOP OF THE WALLS LATERALLY FOR THE CODE REQUIRED LATERAL LOAD. PROVIDE COMPRESSIBLE FIRESAFING AT THE TOP OF WALL AS REQUIRED BY ARCHITECTURAL DRAWINGS I. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, CONSTRUCTION SEQUENCE OF THE PRIMARY STRUCTURE SHALL BEGIN AT THE LOWEST LEVEL SHOWN AND PROGRESS UPWARD FROM THAT LEVEL.

2. SHOP DRAWINGS

a. UNAUTHORIZED REPRODUCTION OF ANY PORTION OF STRUCTURAL CONTRACT DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED.

b. IF AUTHORIZED BY RGA, USE OF ELECTRONIC FILES FOR PRODUCTION OF THESE PLANS AS SHOP DRAWINGS IS PERMITTED. THE GENERAL CONTRACTOR MUST SIGN AND RETURN RATHGEBER/GOSS ASSOCIATES' STANDARD CADD FILE INDEMNIFICATION LETTER PRIOR TO RECEIVING THE FILES.

C. SHOP DRAWINGS SUBMITTED FOR STRUCTURAL REVIEW WILL BE RETURNED BY RGA IN THE SAME FORMAT AS THEY ARE RECEIVED. ANY REPRODUCTION COST WILL BE AT THE EXPENSE OF THE CONTRACTOR. IF LOCAL JURISDICTION REQUIRES HARD COPIES TO BE SUBMITTED FOR RECORD IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PROVIDE DOCUMENTS.

d. SUBMIT SHOP DRAWINGS TO ALLOW AT LEAST 15 BUSINESS DAYS FOR STRUCTURAL REVIEW BEFORE DATE REVIEWED SUBMITTALS WILL BE NEEDED. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE SUBMITTAL PACKAGE IS COMPLETE AND SUBMITTED WITH AMPLE TIME FOR REVIEW. SHOP DRAWINGS SHAL BEAR THE CONTRACTOR'S STAMP OF APPROVAL WHICH SHALL CONSTITUTE CERTIFICATION THAT THE CONTRACTOR HAS VERIFIED ALL FIELD MEASUREMENTS CONSTRUCTION CRITERIA, MATERIALS AND SIMILAR DATA AND HAVE CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION AND COMPLIANCE WITH THE CONTRACT DOCUMENTS. LARGE OR COMPLEX SUBMITTALS MAY REQUIRE TIME IN EXCESS OF THE 15 BUSINESS DAYS FOR THE STRUCTURAL REVIEW INCLUDING THOSE IN EXCESS OF 3 SETS OF DRAWINGS.

e. CONTRACTOR SHALL FURNISH DIMENSIONED SHOP DRAWINGS AT ALL LEVELS LOCATING FLOOR AND ROOF EDGES FOR REVIEW BY THE ARCHITECT AND RGA A MINIMUM OF TWO WEEKS PRIOR TO FRAMING THESE LEVELS. F. CONTRACTOR SHALL FURNISH DIMENSIONED SHOP DRAWINGS AT ALL LEVELS SHOWING THE LOCATIONS OF ALL SLEEVES AND OPENINGS REQUIRED BY ALL TRADES A MINIMUM OF TWO WEEKS PRIOR TO SUBMITTING SLAB/DECK AND FRAMING SHOP DRAWINGS

3. EXISTING BUILDING

a. EXISTING BUILDING INFORMATION SHOWN IS BASED ON EXISTING BUILDING DRAWINGS. FIELD OBSERVATIONS, AND /OR ARCHITECTURAL DRAWINGS.

b. THE CONTRACTOR SHALL PROVIDE SURVEY OF ALL EXISTING BUILDING INFORMATION SHOWN (COLUMN CENTERLINES, SLAB EDGES, DIMENSIONS, ELEVATIONS, MEMBER SIZES, ETC.) AND NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES PRIOR TO SHOP DRAWING PRODUCTION AND FABRICATION.

C. NEW SLABS ARE TO BE AT THE SAME ELEVATIONS AS ADJACENT EXISTING SLABS UNLESS INDICATED OTHERWISE.

d. FOUNDATION ELEVATIONS OR COLUMN LENGTHS SHALL BE ADJUSTED WITH THE APPROVAL OF RGA TO ACHIEVE MATCHING SLAB ELEVATIONS. NEW FOUNDATIONS TO MATCH ADJACENT EXISTING UNLESS NOTED OTHERWISE. STEP FOUNDATIONS AS REQUIRED TO CORRESPOND WITH EXISTING CONDITIONS.

e. CONTRACTOR TO UTILIZE REBAR LOCATING TECHNOLOGY TO LOCATE EXISTING SLAB REINFORCING PRIOR TO PLACING CORE DRILLS. NO EXISTING REINFORCING TO BE CUT WITHOUT RGA PRIOR APPROVAL.

E. STRUCTURAL INSPECTION AND TESTING

1. THE CONTRACTOR WILL ENGAGE A TESTING AGENCY TO PROVIDE SERVICES INDICATED IN THE STRUCTURAL GENERAL NOTES AND IN THE CONTRACT SPECIFICATIONS.

2. AT A MINIMUM, THE INSPECTION WILL CONSIST OF VERIFYING CONFORMANCE OF

THE CONSTRUCTION WITH THE STRUCTURAL CONTRACT DOCUMENTS. 3. SEE SPECIFIC SECTION OF THESE NOTES, SPECIFICATIONS, AND PRODUCT MANUFACTURER'S GUIDELINES FOR TESTING AND INSPECTION SCOPE FOR CONCRETE, STEEL, MASONRY, LIGHTGAGE WOOD, POST-INSTALLED ANCHORS, FIBER-REINFORCED POLYMER AND ANY OTHER PROPRIETARY PRODUCTS UTILIZED.

4. THESE INSPECTION SERVICES DO NOT RELIEVE THE GENERAL CONTRACTOR OF RESPONSIBILITY FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. 5. WHERE SPECIAL INSPECTIONS ARE REQUIRED BY THE BUILDING CODE OR LOCAL JURISDICTION, THE CONTRACTOR'S TESTING AGENCY SHALL PERFORM THE SPECIAL

INSPECTIONS FOR THE SCOPE SHOWN IN THE BUILDING CODE. 6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE TESTING AGENCY SITE VISITS WITH CONSTRUCTION SCHEDULE SO THAT ALL REQUIRED INSPECTIONS OR TESTS CAN BE PERFORMED.

F. CONCRETE

a. "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318-14",

AMERICAN CONCRETE INSTITUTE.

b. "SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 301-10". C. "MANUAL OF STANDARD PRACTICE", CONCRETE REINFORGING STEEL INSTITUTE.

2. MATERIALS

a. THE FOLLOWING ASTM STANDARDS AND DESIGN STRESSES SHALL BE USED FOR THE APPROPRIATE MATERIALS USED IN THE CONSTRUCTION OF THIS PROJECT.

MEIGHT W/CM 28 DAYS (PCF) (MAX)* APPLICATION

SLABS-ON-GRADE (EXTERIOR) 4500 145 0.45

*PUMP MIXES: MAXIMUM WATER/CEMENT RATIO MUST BE MAINTAINED. IF ADDITIONAL WORKABILITY IS REQUIRED FOR PUMPED PLACEMENT. THE HIGH OR MID-RANGE WATER REDUCERS SHALL BE USED IN LIEU OF ADDITIONAL WATER. WATER HELD BACK AT THE PLANT SHALL BE NOTED ON THE BATCH TICKET AND RECORDED ON THE INSPECTOR'S REPORT WHEN SAMPLE CYLINDERS ARE MADE. b. CEMENT: ASTM C150; TYPE I OR III ASTM C150; TYPE II FOR CONCRETE IN CONTACT WITH EARTH. SINGLE SOURCE FOR DURATION OF PROJECT.

C. BLENDED HYDRAULIC CEMENT: ASTM C595; TYPE IL, IS, OR IP. SINGLE SOURCE FOR DURATION OF PROJECT ASTM C33 (NORMAL WEIGHT) ASTM C330 (STRUCTURAL LIGHTWEIGHT)

e. AIR: AIR-ENTRAINING ADMIXTURE TO COMPLY WITH ASTM C260.

*AIR CONTENT OF TROWEL FINISHED FLOORS SHALL NOT EXCEED 3%

F. REINFORCEMENT: DEFORMED REINFORCING BARS ASTM A615, GRADE 60 THREADED BAR AND COUPLER TAPERED-SHAPE PLATE DOWELS

SLAB ON GRADE (EXTERIOR)

DYWIDAG MEETING ACI 318-12.14.3.4 OR APPROVED EQUAL DIAMOND DOWEL SYSTEM MEETING ACI 360R-10 OR APPROVED EQUAL

ASTM C1107. EUCLID DRY PACK GROUT g. NON-SHRINK GROUT OR APPROVED EQUAL

3. CAST-IN-PLACE

a. REINFORCING STEEL CLEAR COVER SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE (1) NON-POST-TENSIONED CONCRETE:

- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH · CONCRETE EXPOSED TO EARTH OR WEATHER #6 BARS AND LARGER #5 BARS AND SMALLER

b. NO SPLICES OF REINFORGEMENT SHALL BE PERMITTED EXCEPT AS DETAILED OR AUTHORIZED BY THE STRUCTURAL ENGINEER. MAKE BARS CONTINUOUS AROUND CORNERS. WHEN PERMITTED, SPLICES SHALL BE MADE BY CONTACT TENSION LAP SPLICES, UNLESS OTHERWISE NOTED.

C. NO WELDING OF REINFORCING SHALL BE PERMITTED UNLESS SPECIFICALLY CALLED FOR OR APPROVED BY THE STRUCTURAL ENGINEER.

d. PROVIDE PLASTIC TIPPED BOLSTERS AND CHAIRS AT ALL LOCATIONS WHERE THE CONCRETE SURFACE IN CONTACT WITH THE BOLSTERS OR CHAIRS IS EXPOSED e. CONSTRUCTION JOINTS AND CONTROL JOINTS IN SLABS ON GRADE SHALL BE ARRANGED TO LIMIT MAXIMUM LENGTH BETWEEN JOINTS TO 15'-O" IN ANY

F. ALL FORMWORK, SHORING, AND RESHORING, SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION. ALL DRAWING AND CALCULATION SUBMISSIONS FOR THESE SYSTEMS SHALL BEAR THEIR ENGINEER'S SEAL AND SIGNATURE. g. NO SLEEVES SHALL BE PLACED THROUGH ANY CONCRETE ELEMENT UNLESS

SHOWN ON THE STRUCTURAL DRAWINGS, APPROVED SLEEVING SHOP DRAWINGS OR SPECIFICALLY AUTHORIZED IN WRITING BY RGA. h. ALL INSERTS AND SLEEVES SHALL BE CAST-IN-PLACE WHENEVER FEASIBLE DRILLED OR POWDER ACTUATED FASTENERS WILL BE PERMITTED ONLY WHEN

PROVEN TO THE SATISFACTION OF THE STRUCTURAL ENGINEER THAT THE FASTENERS WILL NOT SPALL THE CONCRETE NOR DAMAGE ANY STRUCTURAL ELEMENT AND HAVE THE SAME CAPACITY AS CAST-IN-PLACE INSERTS. I. CORE DRILLING OF FOUNDATIONS, BEAMS, JOISTS, SLABS, COLUMNS OR ANY POST-TENSIONED MEMBERS SHALL NOT BE PERMITTED UNLESS AUTHORIZED IN

WRITING BY RGA. CONTRACTOR TO LOCATE ALL EXISTING REINFORCING IN CONCRETE MEMBERS SCHEDULED FOR DRILLING. j. CHAMFER ALL EXPOSED CONCRETE CORNERS, 3/4" x 3/4" MINIMUM, UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.

K. THE CONCRETE SLABS SHALL BE FINISHED, WITHIN A.C.I. TOLERANCE, TO THE ELEVATIONS INDICATED ON THE DRAWINGS AND FOR THE FLATNESS REQUIREMENTS SHOWN IN THE DRAWINGS OR SPECIFICATIONS. CONTRACTOR SHALL PROVIDE, AT THEIR COST, ADDITIONAL CONCRETE AS REQUIRED DUE TO FORMWORK AND FRAMING DEFLECTION TO ACHIEVE THE FINISHED TOP OF SLAB ELEVATION.

4. INSPECTION AND TESTING

a. THE CONTRACTOR WILL ENGAGE A TESTING AGENCY TO PROVIDE SERVICES AS INDICATED BELOW AND SUBMIT REPORTS.

b. CAST-IN-PLACE CONCRETE: (1) THE AGENCY SHALL INSPECT THE FORM WORK AND REINFORCING STEEL PLACEMENT FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS AND SHOP DRAWINGS. THE AGENCY SHALL MONITOR ALL STRUCTURAL CONCRETE PLACEMENT FOR CONFORMANCE WITH APPLICABLE ACI REQUIREMENTS. (2) SAMPLE FRESH CONCRETE IN ACCORDANCE WITH ASTM C172. MOLD TEST CYLINDERS IN ACCORDANCE WITH ASTM C31.

(3) THE FOLLOWING NUMBER OF 4" DIAMETER X 8" LONG TEST CYLINDERS SHALL BE CAST FOR EACH DAY'S POUR OR EACH 100 CUBIC YARDS, WHICHEVER RESULTS IN MORE TEST CYLINDERS.

FOR STRUCTURAL CONCRETE: 3 @ 7 DAYS, LAB CURED 3 @ 28 DAYS, LAB CURED 3 @ 56 DAYS, LAB CURED

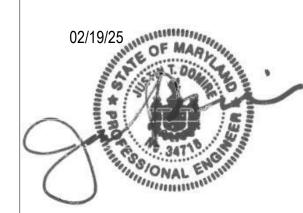
(4) THE AGENCY WILL MAKE ADDITIONAL TESTS OF IN-PLACE CONCRETE AT THE CONTRACTOR'S EXPENSE WHEN THE TEST RESULTS INDICATE SPECIFIED CONCRETE STRENGTHS HAVE NOT BEEN ATTAINED, AS DIRECTED BY THE STRUCTURAL ENGINEER



Mechanical & Electrical Consulting Engineers 11155 Red Run Boulevard, Suite 310 Baltimore, Maryland 21117

tel 410-265-6100

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RATHGEB ER/ Consulting Structural Engineers 15871 Crabbs Branch Way Rockville, Maryland 20855 RGA PROJECT #24001.86

KEY PLAN (N)

Description BID DOCUMENTS 02/19/25

PSC No AS NOTED Project No FEBRUARY 19, 2025

GENERAL NOTES

Drawing Title

S0.01

- NEW CHAIN LINK FENCE AND CONNECTION TO CONCRETE

#5@12" *O.*C. T&B

CAST SLAB OVER 4" CRUSHED

STONE (COMPACTED)

- #4 DOWELS TO MATCH SPACING OF VERTICAL

REINFORCING

NOTES:

1) VERIFY ALL BASE AND PAD LOCATIONS, DIMENSIONS, AND ADEQUACY

WITH THE ELECTRICAL ENGINEER AND THE INDIVIDUAL EQUIPMENT REQUIREMENTS. MECHANICAL ENGINEER TO SPECIFY ISOLATION DATA.

2) EQUIPMENT MANUFACTURER SHALL SPECIFY ANCHORAGES.

8" 10" 8" 2#5 CONT

EXTERIOR CONCRETE PAD FOR EQUIPMENT

SCALE: 3/4" = 1'-0"

- UNDISTRUBED SOIL (TYP.)

SLAB BY OTHERS

NEW 4,500 PSI CONCRETE PAD

FINISH GRADE

- EQUIPMENT (SEE ELECTRICAL DRAWINGS)

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KEY PLAN N

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Description **BID DOCUMENTS** 02/19/25

PSC No AS NOTED FEBRUARY 19, 2025

> LOWER LEVEL PARTIAL FRAMING PLAN

S1.00

EXISTING MASONRY - EXISTING MECH UNIT. NEW GENERATOR MAX WEIGHT 7466 LBS CONRETE PAD EDGE OF SLAB - CONTROL JOINT PER DETAIL 4 / 51.00 _ - -- - - - - - - - - - - - - - - -CHILLER - EXISTING COOLING TOWER - EXISTING MASONRY

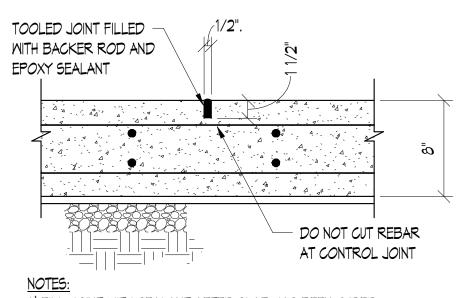
1 LOWER FLOOR

SCALE: 1/4" = 1'-0"

- EQUIPMENT (SEE MECHANICAL, ELECTRICAL AND CIVIL DRAWINGS) —#5@12" *O.*C. T&B - FINISH GRADE - NEW 4,500 PSI CONCRETE PAD CAST SLAB OVER 4" CRUSHED -STONE (COMPACTED) UNDISTRUBED SOIL (TYP.) -2#5 CONT. —

1) VERIFY ALL BASE AND PAD LOCATIONS, DIMENSIONS, AND ADEQUACY WITH THE ELECTRICAL ENGINEER AND THE INDIVIDUAL EQUIPMENT REQUIREMENTS. MECHANICAL ENGINEER TO SPECIFY ISOLATION DATA. 2) EQUIPMENT MANUFACTURER SHALL SPECIFY ANCHORAGES.

3 EXTERIOR CONCRETE PAD FOR EQUIPMENT SCALE: 3/4" = 1'-0"



3) SEE PLAN FOR LOCATION OF JOINTS.

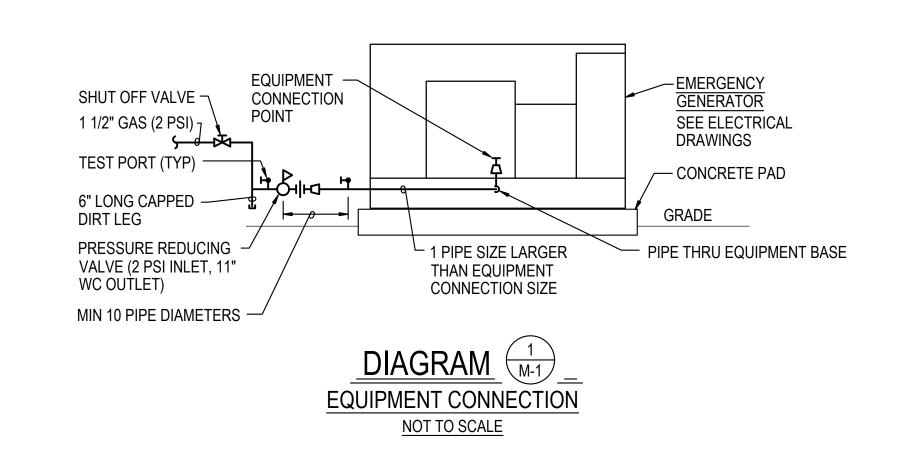
SLAB ON GRADE CONTROL JOINT

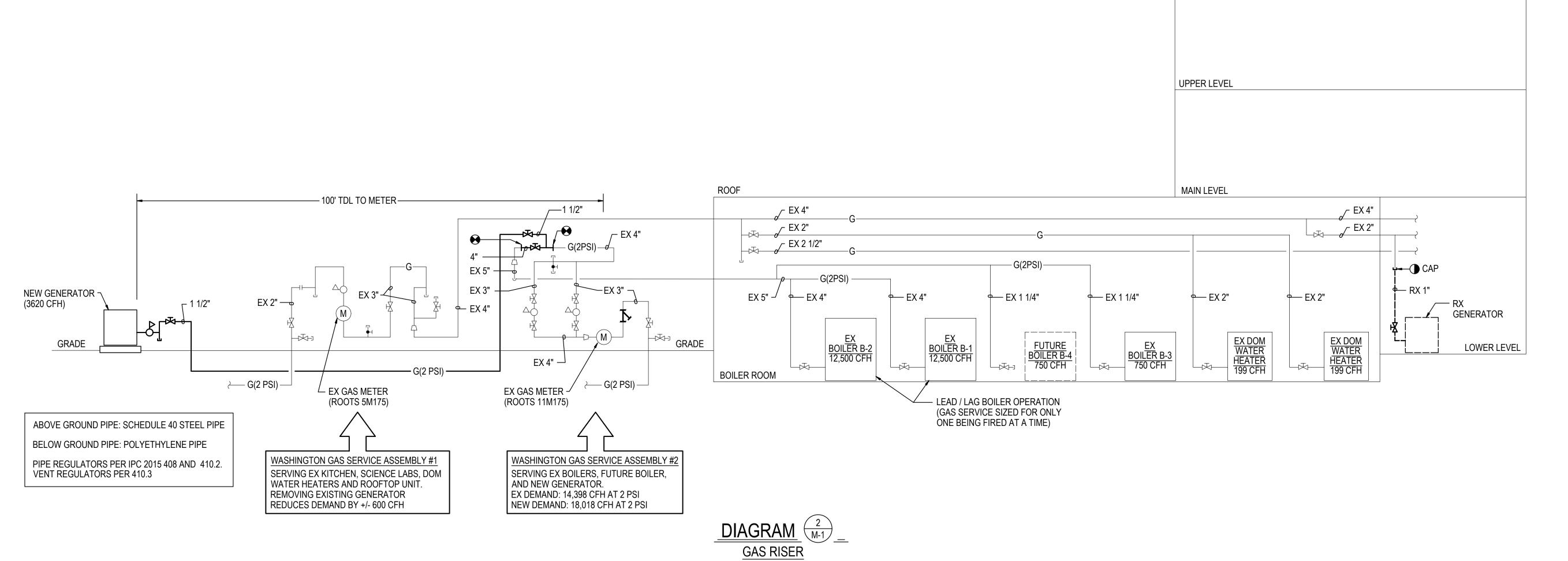
SCALE: 1 1/2" = 1'-0"

TOOLED JOINT FILLED — WITH BACKER ROD AND 1) FILL JOINT WITH SEALANT AFTER SLAB HAS BEEN CURED. 2) CONSTRUCTION JOINT MAY REPLACE CONTROL JOINT.

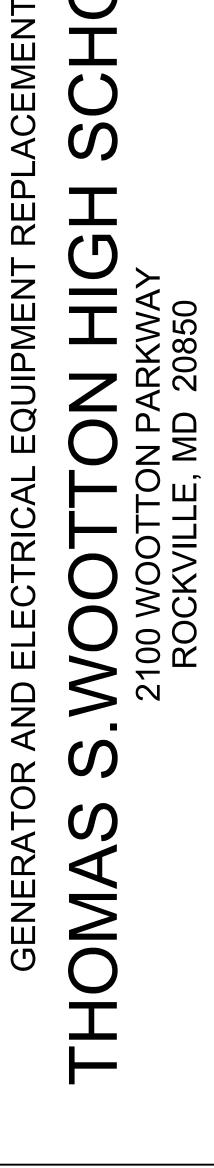
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MECHANICAL SYMBOLS AND ABBREVIATIONS ø INDICATES DIAMETER ----- G ----- LOW PRESSURE GAS PIPE A/D ACCESS DOOR — G (2 PSI) — MEDIUM PRESSURE GAS PIPE AAV AUTOMATIC AIR VENT —— LP —— LIQUIFIED PETROLEUM GAS PIPE ABV ABOVE □ PIPE CAP OR PLUG AFF ABOVE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



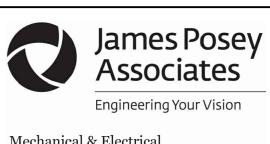


NOT TO SCALE



OF MARI PATRICK SPO PRICK SPO PRICK

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: 01-16-2027.



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Consulting Engineers

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Baltimore, Maryland 21117
tel 410-265-6100
jamesposey.com

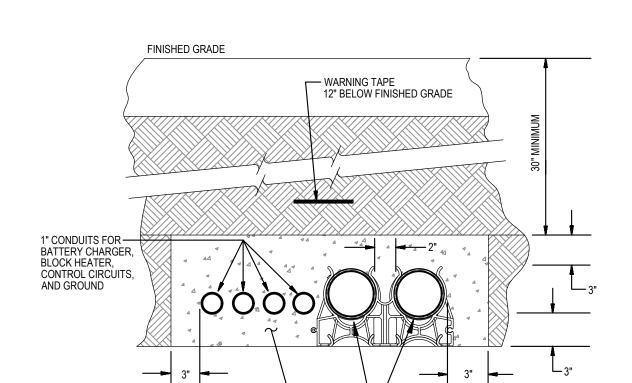
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	BIE	DOCUMENTS	02/19/25
PSC No			
Scale		AS NOTED	
Project N	No	8047-24	
Date		FEBRUARY 19,	2025

DIAGRAMS, SYMBOLS AND ABBREVIATIONS

Sheet No:

M-1





NOT TO SCALE

2 DETAIL
E-0 GENERATOR DUCTBANK
NOT TO SCALE

GENERATOR PVC CONDUIT

3000 PSI WITH PEA GRAVEL -

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.

MECHANICALLY FASTEN SIGN TO FRONT OF GENERATOR DOCKING STATION

DETAIL

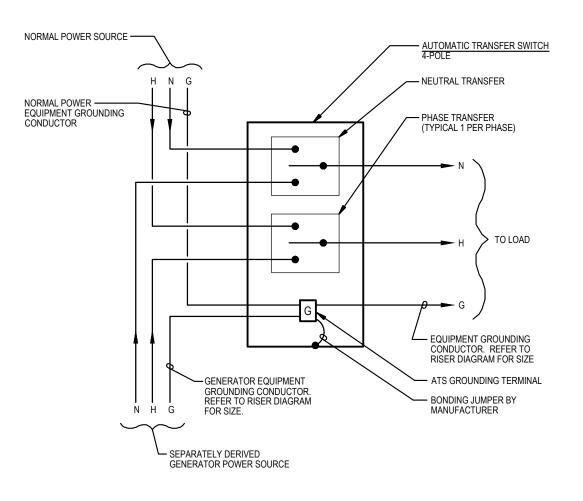
PLACARD AT GENERATOR DOCKING STATION

NOT TO SCALE

EMERGENCY AND STANDBY POWER
300KW, 277/480 VOLTS, 3-PHASE, 4-WIRE
NATURAL GAS GENERATOR
LOCATED OUTDOORS
OUTSIDE COOLING TOWER ENCLOSURE

MECHANICALLY FASTEN SIGN TO FRONT OF MAIN SWITCHBOARD

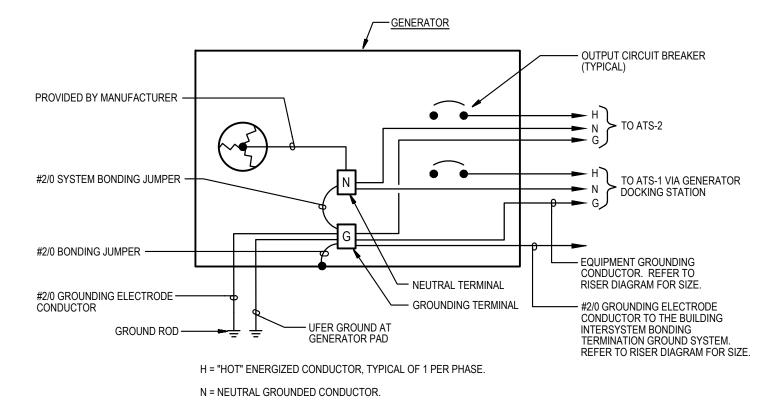
4 DETAIL
E-0 PLACARD AT MAIN SERVICE
NOT TO SCALE



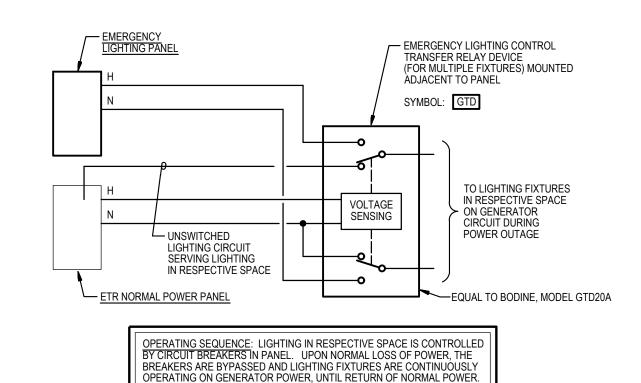
H = "HOT" ENERGIZED CONDUCTOR, TYPICAL OF 1 PER PHASE.

N = NEUTRAL GROUNDED CONDUCTOR.

5 DIAGRAM
E-0 AUTOMATIC TRANSFER SWITCH GROUND WIRING



6 DIAGRAM
E-0 GENERATOR GROUNDING WIRING
NOT TO SCALE



TIGHTING CONTROLS DIAGRAM

GENERATOR TRANSFER DEVICE FOR MULTIPLE LIGHTING FIXTURES

NO SCALE

GENERAL

① DENOTES REFERENCE TO SPECIFIC NOTE ON DRAWING.

DETAIL, DIAGRAM, OR PLAN NUMBER.

DRAWING NUMBER WHERE DETAIL, DIAGRAM, OR PLAN IS LOCATED.

1/E-0 DETAIL REFERENCE: DETAIL, DIAGRAM, OR PLAN NUMBER/DRAWING NUMBER.

EXISTING CEILING TYPE: ACOUSTICAL TILE CEILING WITH ACOUSTICAL PANELS ON SUSPENDED METAL GRID CEILING SYSTEM.

EXISTING CEILING TYPE: GYPSUM BOARD DRYWALL CEILING.

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.

LIGHTING AND LIGHTING CONTROLS

CEILING OUTLET AND LUMINAIRE (LIGHTING FIXTURE) ON GENERATOR CIRCUIT, TYPE AS DESIGNATED.

EXIT SIGN, TYPE AS DESIGNATED, CEILING MOUNTED OR WALL MOUNTED 8'-0" ABOVE FLOOR, WITH OR WITHOUT DIRECTIONAL ARROWS AS INDICATED. SHADED AREA INDICATES STENCIL FACE. CIRCUIT TO EXIT SIGN SHALL BE UNSWITCHED.

EMERGENCY BATTERY LIGHTING UNIT, WALL MOUNTED 7'-6" ABOVE FLOOR, TYPE AS DESIGNATED.

THREE-WAY TOGGLE SWITCH, WALL MOUNTED 48" ABOVE FLOOR TO TOP OF BOX.

ABBREVIATIONS

A, AMP	AMPERE(S)	LTG	LIGHTING
A/C	AIR-CONDITIONING	MCPS	MONTGOMERY COUNTY PUBLIC SCHOOLS
AF	ABOVE FLOOR	MDF	MAIN DISTRIBUTION FRAME
AHU	AIR-HANDLING UNIT	MIN	MINIMUM
AIC	AMPERES INTERRUPTING CAPACITY	N	NEUTRAL
ATC	ACOUSTICAL TILE CEILING	NEMA	NATIONAL ELECTRICAL
ATS	AUTOMATIC TRANSFER SWITCH		MANUFACTURERS ASSOCIATION
BLDG	BUILDING	NO.	NUMBER
BSO	BUILDING SERVICES OFFICE	Р	POLE(S) OR PUMP
С	CONDUIT	P/A	PUBLIC ADDRESS
CB	CIRCUIT BREAKER	PE	PHYSICAL EDUCATION
CIRC	CIRCULATION	PH	PHASE
CT	CURRENT TRANSFORMERS	PSI	POUNDS PER SQUARE INCH
CUST	CUSTODIAL	PVC	POLYVINYL CHLORIDE
ELEC	ELECTRICAL	REC	RECEPTACLE
EM	EMERGENCY	REFRIG	REFRIGERATOR
ETR	EXISTING TO REMAIN	RM	ROOM
EX	EXISTING	RX	REMOVE EXISTING
FACP	FIRE ALARM CONTROL PANEL	SERV	SERVICES
G	GROUND, GFCI (RECEPTACLE)	SPD	SURGE PROTECTIVE DEVICE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	STOR	STORAGE
GWB	GYPSUM WALL BOARD	TYP	TYPICAL
Н	HOT	V	VOLT(S)
HP	HORSEPOWER	VEST	VESTIBULE
			\\\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

VFD

VARIABLE FREQUENCY DRIVE

XFMR TRANSFORMER

& AND

WP WEATHERPROOF & WEATHER-RESISTANT

KELVIN (LIGHTING COLOR TEMPERATURE)

LIGHT-EMITTING DIODE (LIGHTING)

LUMEN(S) (LIGHT OUTPUT)

KILOVOLT-AMPERES

KILOWATTS

EXISTING TO REMAIN CEILING OUTLET AND LIGHTING FIXTURE.

EXISTING

DISCONNECT AND REMOVE ENCLOSED SWITCH (DISCONNECT/SAFETY SWITCH).

ELECTRICAL SYMBOLS AND ABBREVIATIONS

DEMOLITION

DISCONNECT AND REMOVE EXISTING HOMERUN WIRING IN CONDUIT BACK TO SOURCE.

DISCONNECT AND REMOVE EXISTING FLUORESCENT LIGHTING FIXTURE.

DISCONNECT AND REMOVE PANELBOARD OR CABINET AS INDICATED.

DISCONNECT AND REMOVE EXISTING WIRING IN CONDUIT

DISCONNECT AND REMOVE TRANSFORMER.

DISCONNECT AND REMOVE RECEPTACLE.

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 MOUNTED EXIT SIGN.

EXISTING TO REMAIN CEILING MOUNTED EXIT SIGN.

S_E S_{3_E} EXISTING TO REMAIN LINE-VOLTAGE TOGGLE SWITCH.

EXISTING TO REMAIN LIGHTING OCCUPANCY SENSOR.

H-C-H

EXISTING TO REMAIN LIGHTING CONTROL SWITCH PACK.

EXISTING TO REMAIN POWER COMPANY METER.

EXISTING TO REMAIN PANELBOARD, 277/480V OR 120/208V, SURFACE OR RECESSED MOUNTED,

EXISTING TO REMAIN EQUIPMENT CABINET AS INDICATED.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 CEILING MOUNTED JUNCTION BOX.

EXISTING MOTOR CONNECTION.

EXISTING EQUIPMENT CONNECTION.

EXISTING TO DEMAIN ENCLOSED SWITCH (DISCONNECT/SAFETY SWITCH)

EXISTING TO REMAIN ENCLOSED SWITCH (DISCONNECT/SAFETY SWITCH).
 S_{MF} EXISTING TO REMAIN MOTOR STARTER.

EXISTING TO REMAIN COMBINATION MOTOR STARTER.

VFD EXISTING TO REMAIN VARIABLE FREQUENCY DRIVE.

EXISTING TO REMAIN SURFACE MOUNTED RECEPTACLE.

EXISTING TO REMAIN RECESSED MOUNTED RECEPTACLE.

EXISTING TO REMAIN RECEPTACLE ON GENERATOR CIRCUIT.

■ EXISTING TO REMAIN EMERGENCY GAS SHUT-DOWN PUSH-BUTTON.

POWER

HOMERUN TO PANELBOARD. NUMBER OF HASH MARKS INDICATES NUMBER OF CONDUCTORS. WHERE NO HASH MARKS APPEAR, PROVIDE TWO (2) CONDUCTORS PLUS GROUND. 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. PROVIDE GROUND WIRES IN CONDUITS.

------ WIRING IN SURFACE METAL RACEWAY.

WIRING IN CONDUIT CONTINUED.

──────────────WIRING IN CONDUIT TURNING UP.

JUNCTION BOX WITH COVER PLATE, CEILING OR WALL MOUNTED.

ELECTRIC PANELBOARD 120/208V, SURFACE MOUNTED.

ELECTRIC PANELBOARD 277/480V, SURFACE MOUNTED.

BOX OR CABINET AS INDICATED, SURFACE MOUNTED.

TRANSFORMER.

ATS AUTOMATIC TRANSFER SWITCH.

CB 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.

HARD-WIRED ELECTRICAL CONNECTION. CONNECT TO EQUIPMENT AS NOTED.

SPD SURGE PROTECTIVE DEVICE.

TAMPER-RESISTANT DUPLEX RECEPTACLE (NEMA 5-20R) ON GENERATOR STANDBY POWER CIRCUIT, SURFACE WALL-MOUNTED 48" ABOVE FLOOR TO TOP OF BOX.

TAMPER-RESISTANT DOUBLE-DUPLEX (QUADRUPLEX) RECEPTACLE (NEMA 5-20R) ON GENERATOR STANDBY POWER CIRCUIT, SURFACE WALL-MOUNTED 16" ABOVE FLOOR TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED TO BE MOUNTED AT TOP OF DATA RACK.

TAMPER-RESISTANT DOUBLE-DUPLEX (QUADRUPLEX) RECEPTACLE (NEMA 5-20R) ON GENERATOR STANDBY POWER CIRCUIT, SURFACE WALL-MOUNTED 48" ABOVE FLOOR TO BOTTOM OF BOX,

TAMPER-RESISTANT DUPLEX RECEPTACLE (NEMA 5-20R), WEATHER-RESISTANT AND GFCI-TYPE WITH WEATHERPROOF WHILE-IN-USE COVER, ON GENERATOR STANDBY POWER CIRCUIT, SURFACE MOUNTED 24" ABOVE FLOOR TO BOTTOM OF BOX.

GENERATOR TRANSFER DEVICE. REFER TO DIAGRAM 7/E-0.

FIRE DETECTION AND ALARM

MM MONITOR MODULE.

.....

Professional Certification.

I hereby certify that these decuments were professional certification.

EMEN.

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ag Description Date
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Project No 8047-24

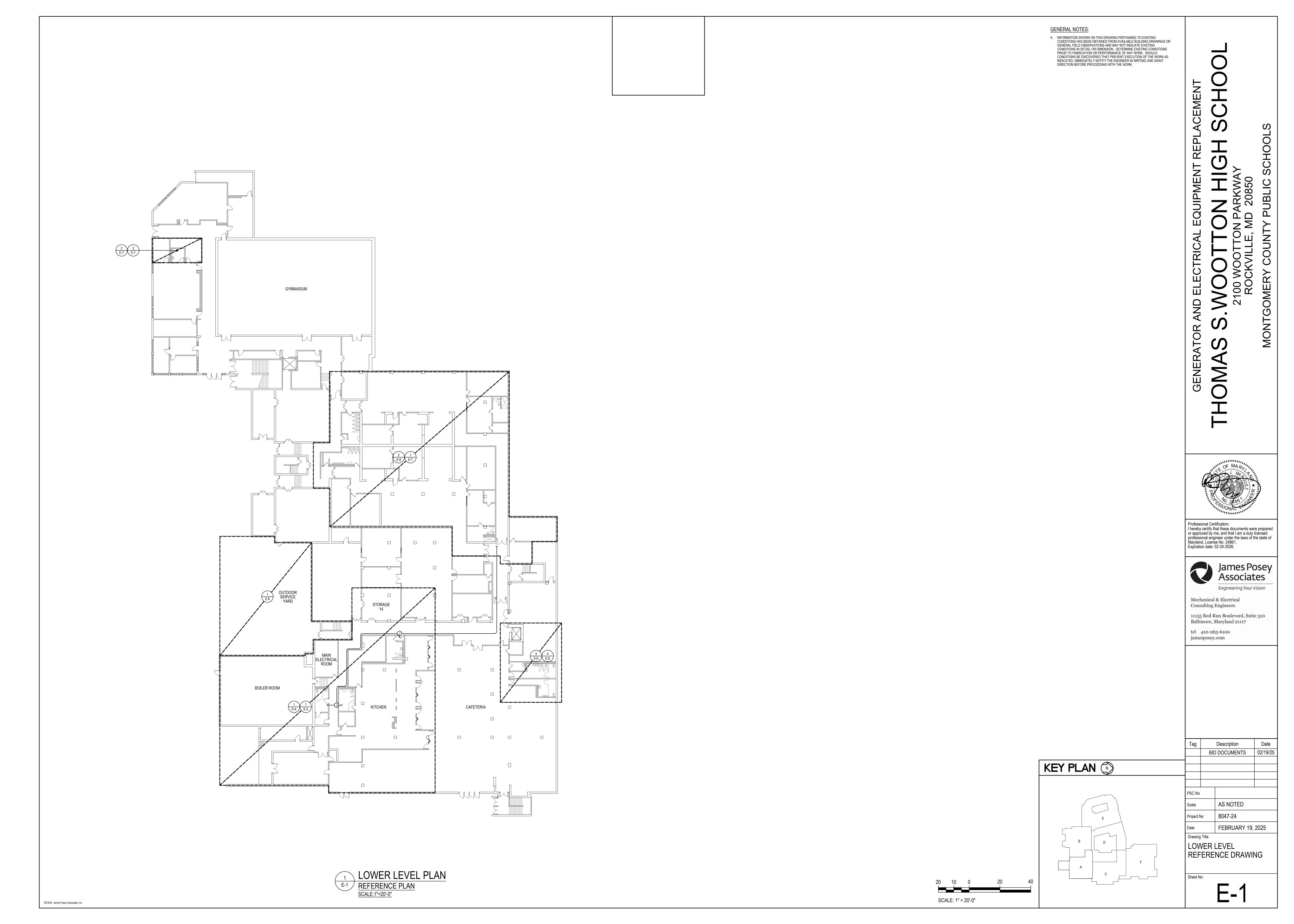
Date FEBRUARY 19, 2025

SYMBOLS LIST,
ABBREVIATIONS
AND DETAILS

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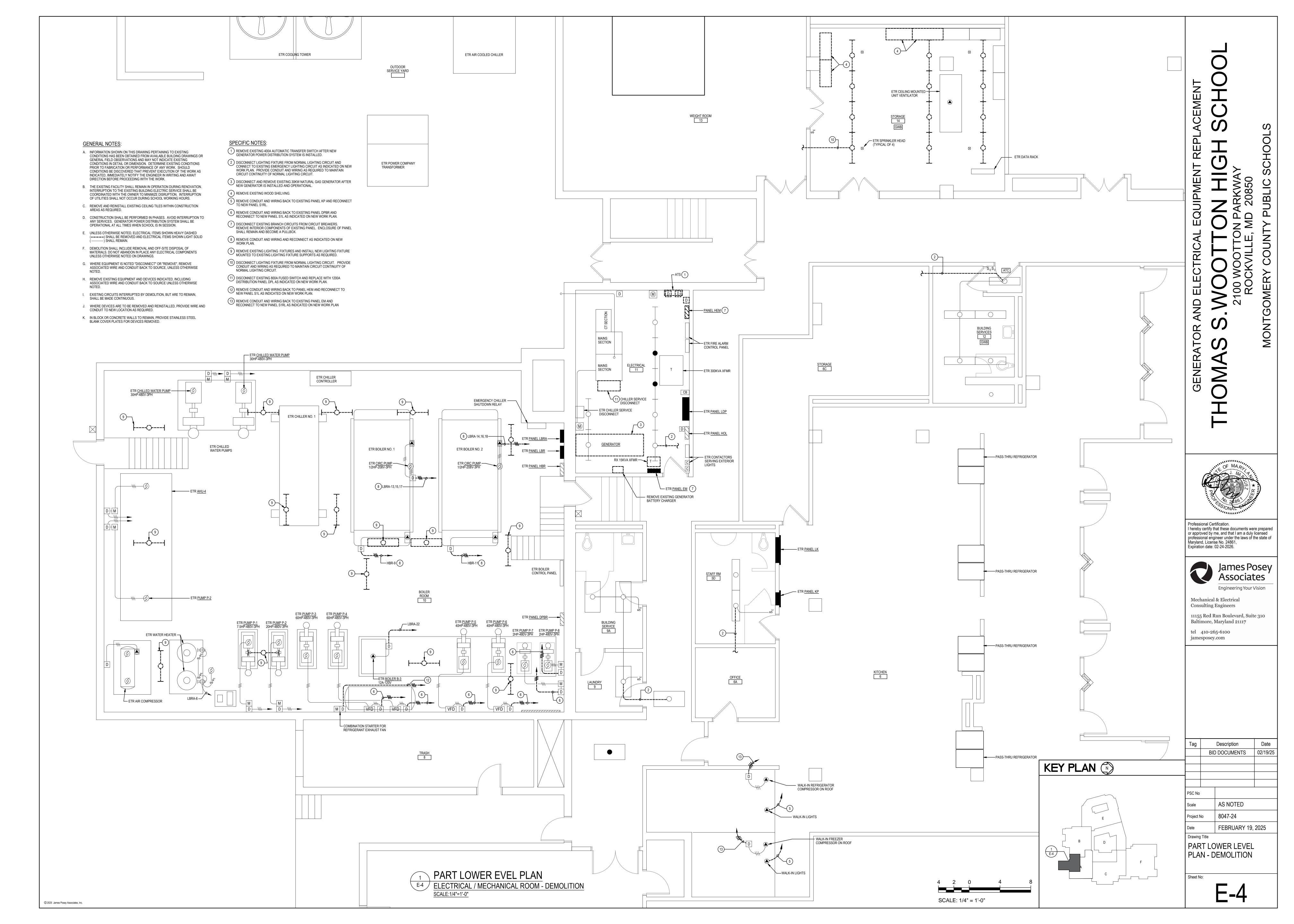
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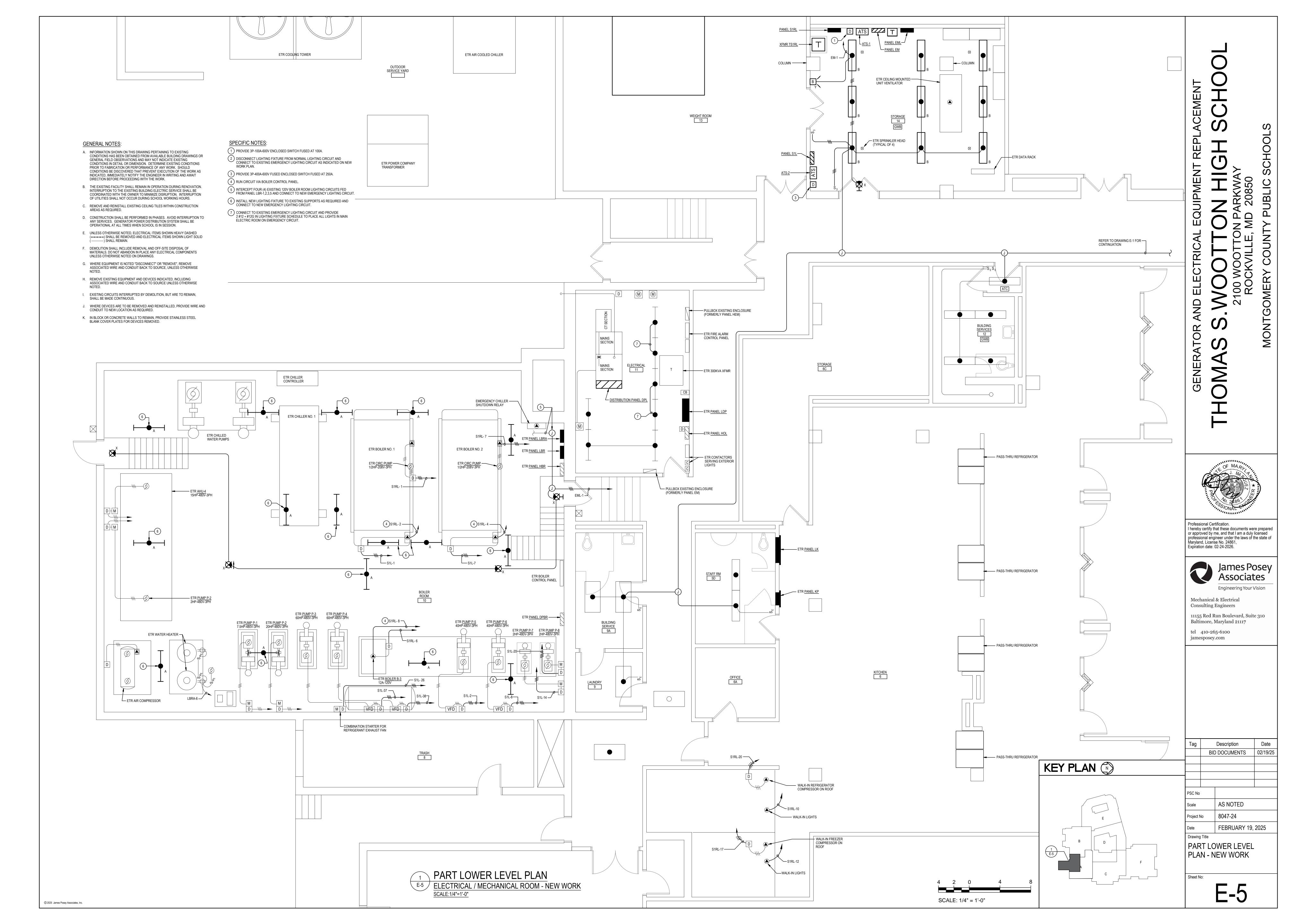
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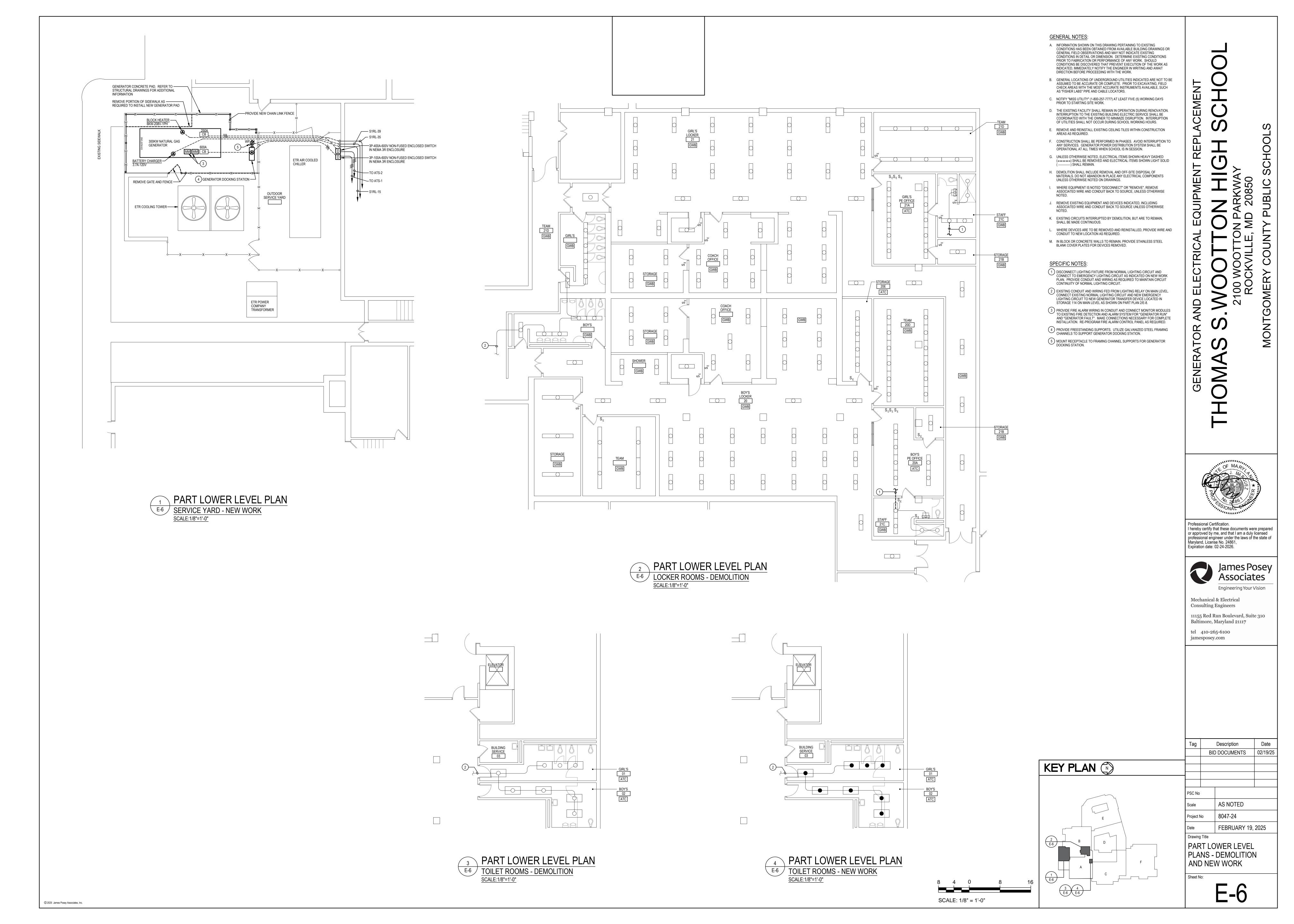


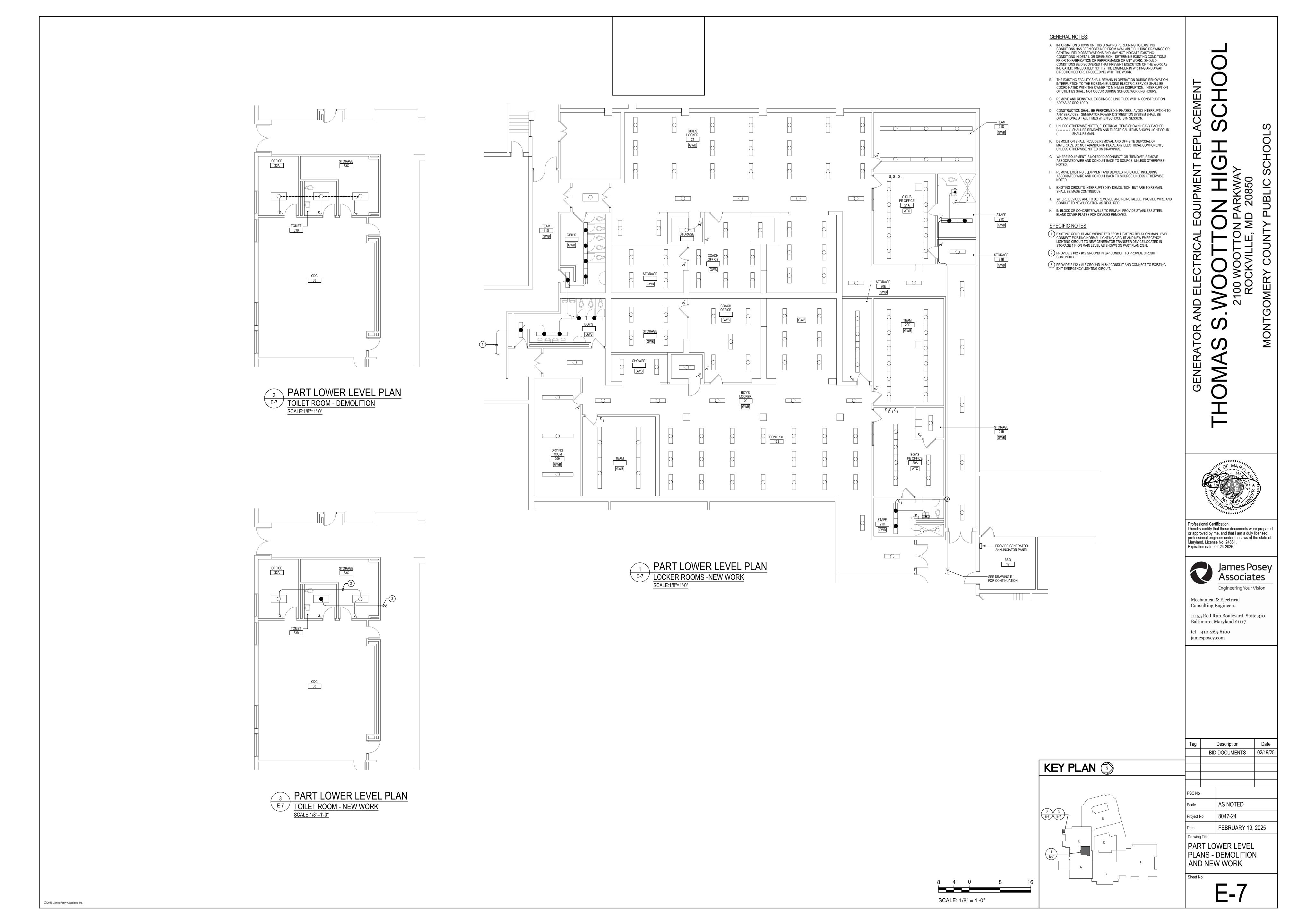


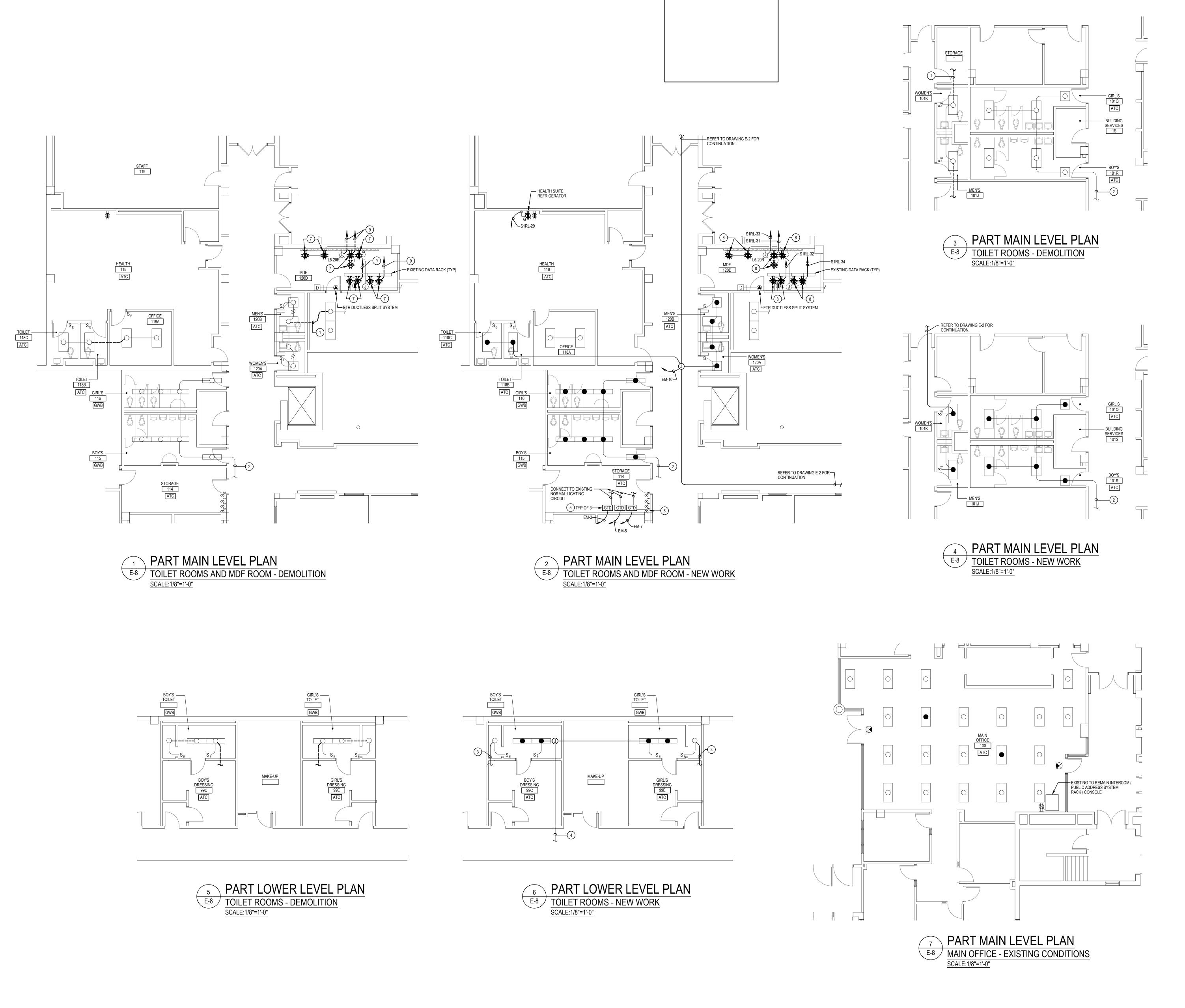












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GENERAL NOTES:

- 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 (— ŚHALL REMAIN.
- F. DEMOLITION SHALL INCLUDE REMOVAL AND OFF-SITE DISPOSAL OF MATERIALS. DO NOT ABANDON IN PLACE ANY ELECTRICAL COMPONENTS

G. WHERE EQUIPMENT IS NOTED "DISCONNECT" OR "REMOVE", REMOVE

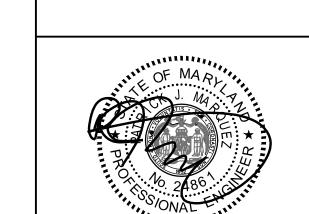
- UNLESS OTHERWISE NOTED ON DRAWINGS.
- ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE, UNLESS OTHERWISE H. REMOVE EXISTING EQUIPMENT AND DEVICES INDICATED, INCLUDING
- ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE
- I. EXISTING CIRCUITS INTERRUPTED BY DEMOLITION, BUT ARE TO REMAIN,
- SHALL 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 LIGHTING FIXTURE FROM NORMAL LIGHTING CIRCUIT AND CONNECT TO EXISTING EMERGENCY LIGHTING CIRCUIT AS INDICATED ON NEW WORK PLAN. PROVIDE CONDUIT AND WIRING AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY OF NORMAL LIGHTING CIRCUIT.
- (2) EXISTING CONDUIT AND WIRING FED FROM LIGHTING RELAY ON MAIN LEVEL. CONNECT EXISTING NORMAL LIGHTING CIRCUIT AND NEW EMERGENCY LIGHTING CIRCUIT TO NEW GENERATOR TRANSFER DEVICE LOCATED IN STORAGE 114 ON MAIN LEVEL AS SHOWN ON PART PLAN 2/E-8.
- 3 PROVIDE 2 #12 + #12 GROUND IN 3/4" CONDUIT TO PROVIDE CIRCUIT CONTINUITY.
- PROVIDE 2 #12 + #12 GROUND IN 3/4" CONDUIT AND CONNECT TO EXISTING EXIT EMERGENCY LIGHTING CIRCUIT.

KEY PLAN 🕦

- 5 PROVIDE GENERATOR TRANSFER DEVICE AND CONNECT TO EXISTING NORMAL LIGHTING CIRCUIT AND NEW EMERGENCY LIGHTING CIRCUIT.
- 6 EXISTING MOMENTARY SWITCH SERVING EXISTING GROUP TOILET ROOMS ON LOWER LEVEL, MAIN LEVEL AND UPPER LEVEL.
- 7 REMOVE EXISTING BLACK QUAD RECEPTACLES AND REPLACE WITH RED RECEPTACLES AS INDICATED ON NEW WORK PLAN.
- 8 PROVIDE RED QUAD RECEPTACLES AND LABEL EXISTING COVER PLATE WITH RECEPTACLE CIRCUIT NUMBER.
- 9 DISCONNECT AND REMOVE CONDUIT AND WIRING BACK TO SOURCE AND CONNECT TO NEW GENERATOR CIRCUIT AS INDICATED ON NEW WORK PLAN.



Professional Certification.
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11155 Red Run Boulevard, Suite 310 Baltimore, Maryland 21117 tel 410-265-6100 jamesposey.com

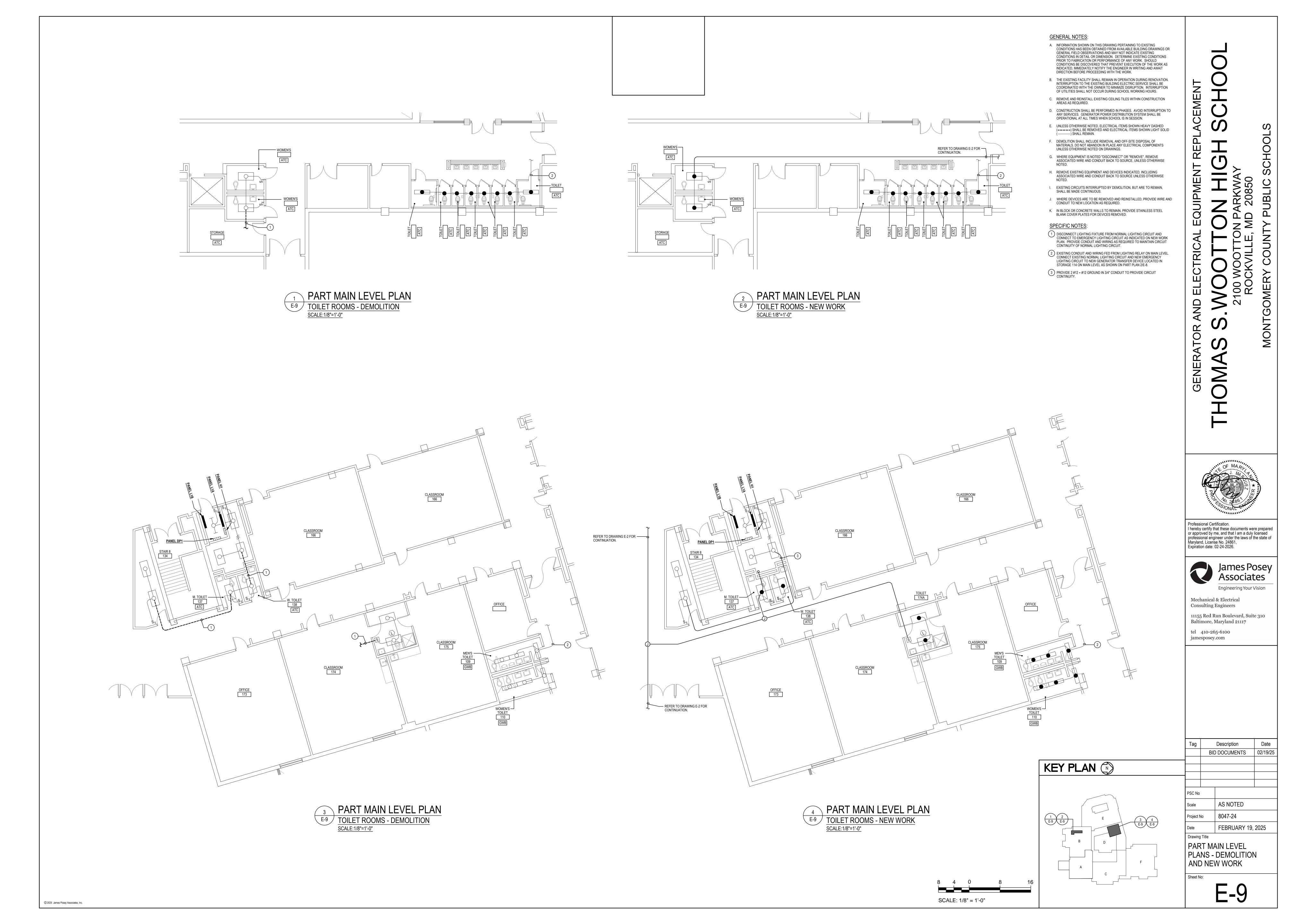
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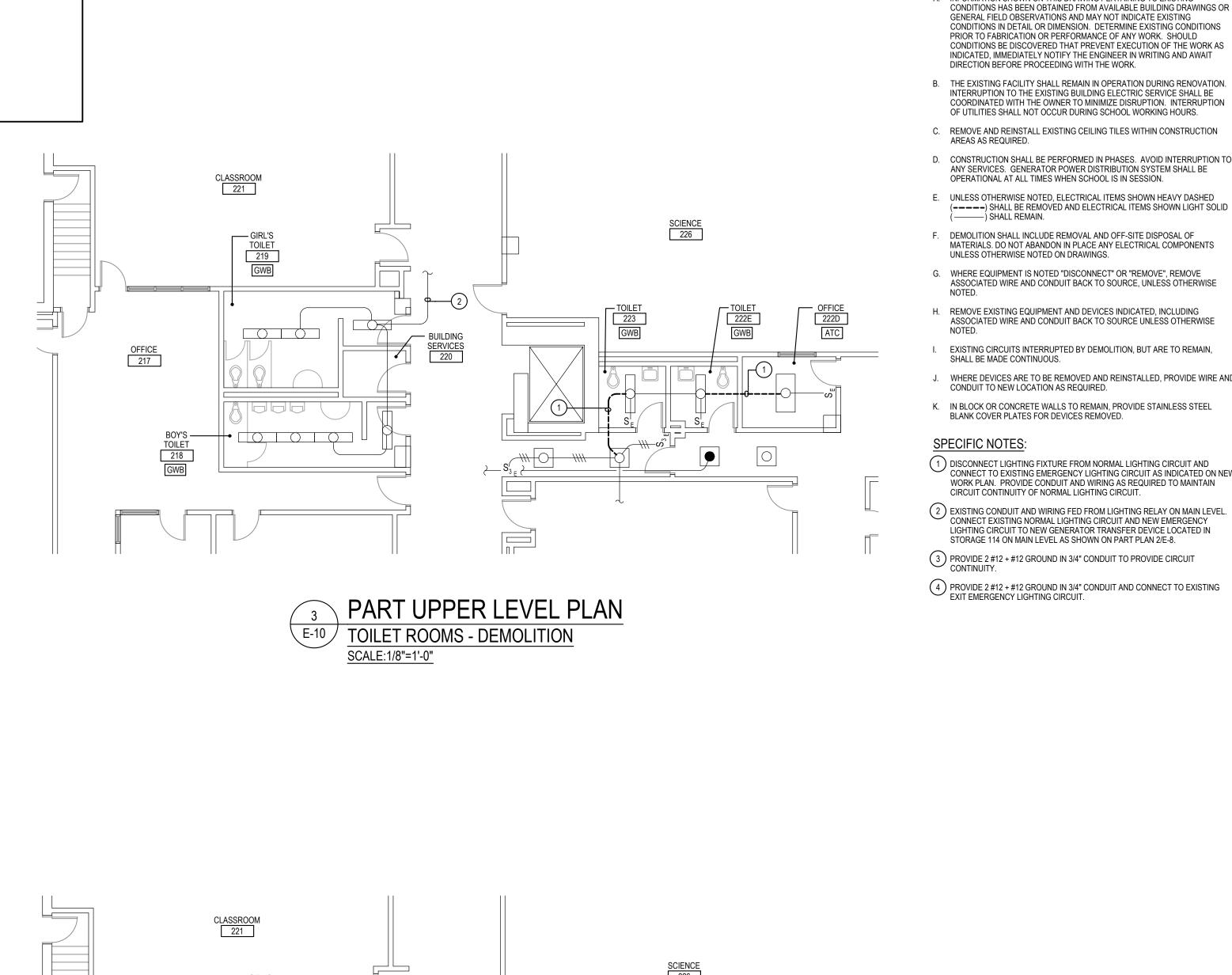
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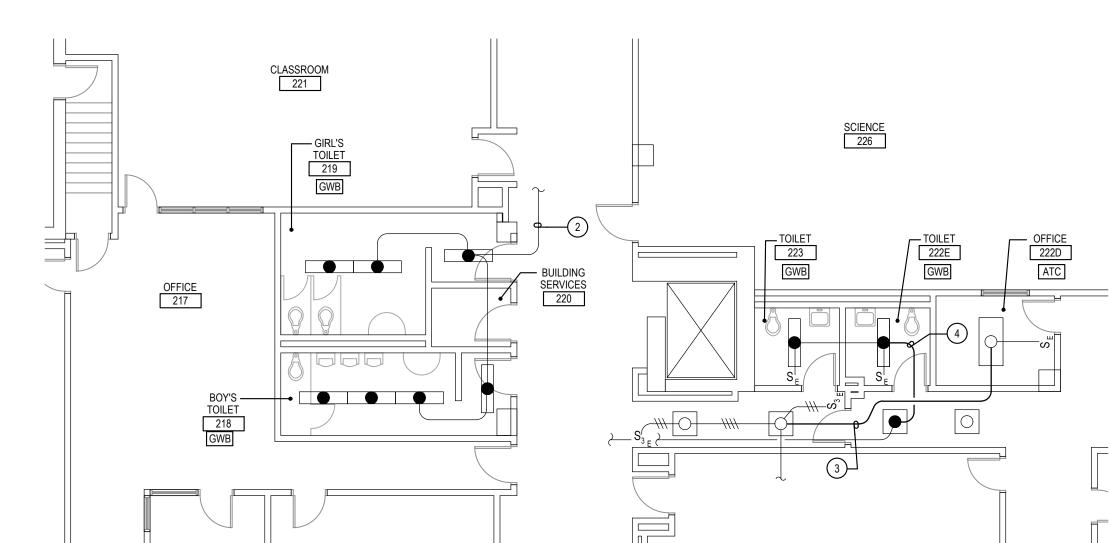
AS NOTED FEBRUARY 19, 2025 Drawing Title

PART MAIN LEVEL PLANS - DEMOLITION AND NEW WORK

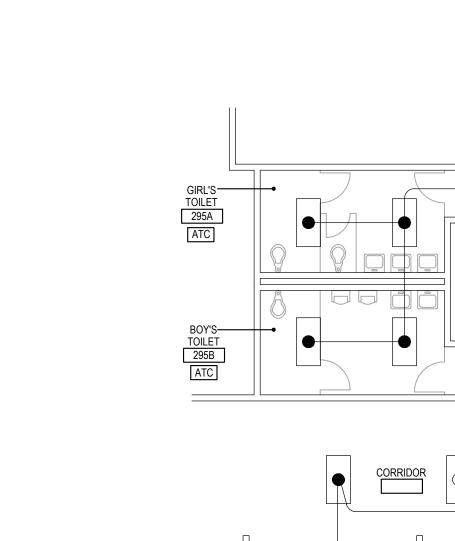
E-8







PART UPPER LEVEL PLAN TOILET ROOMS - NEW WORK SCALE:1/8"=1'-0"



PART UPPER LEVEL PLAN E-10 TOILET ROOMS - DEMOLITION SCALE:1/8"=1'-0"

PART MAIN LEVEL PLAN

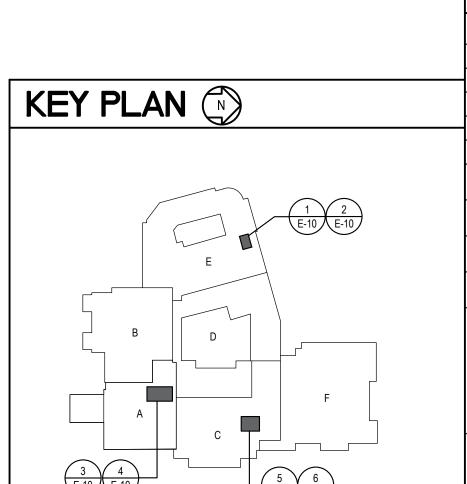
TOILET ROOMS - DEMOLITION



PART MAIN LEVEL PLAN

E-10 TOILET ROOMS - 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

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.

H. REMOVE EXISTING EQUIPMENT AND DEVICES INDICATED, INCLUDING ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE

. EXISTING CIRCUITS INTERRUPTED BY DEMOLITION, BUT ARE TO REMAIN,

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 LIGHTING FIXTURE FROM NORMAL LIGHTING CIRCUIT AND CONNECT TO EXISTING EMERGENCY LIGHTING CIRCUIT AS INDICATED ON NEW WORK PLAN. PROVIDE CONDUIT AND WIRING AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY OF NORMAL LIGHTING CIRCUIT.

2 EXISTING CONDUIT AND WIRING FED FROM LIGHTING RELAY ON MAIN LEVEL. CONNECT EXISTING NORMAL LIGHTING CIRCUIT AND NEW EMERGENCY LIGHTING CIRCUIT TO NEW GENERATOR TRANSFER DEVICE LOCATED IN STORAGE 114 ON MAIN LEVEL AS SHOWN ON PART PLAN 2/E-8.

3 PROVIDE 2 #12 + #12 GROUND IN 3/4" CONDUIT TO PROVIDE CIRCUIT CONTINUITY.

PROVIDE 2 #12 + #12 GROUND IN 3/4" CONDUIT AND CONNECT TO EXISTING EXIT EMERGENCY LIGHTING CIRCUIT.

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: 02-24-2026.

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

SCALE: 1/8" = 1'-0"

AS NOTED FEBRUARY 19, 2025

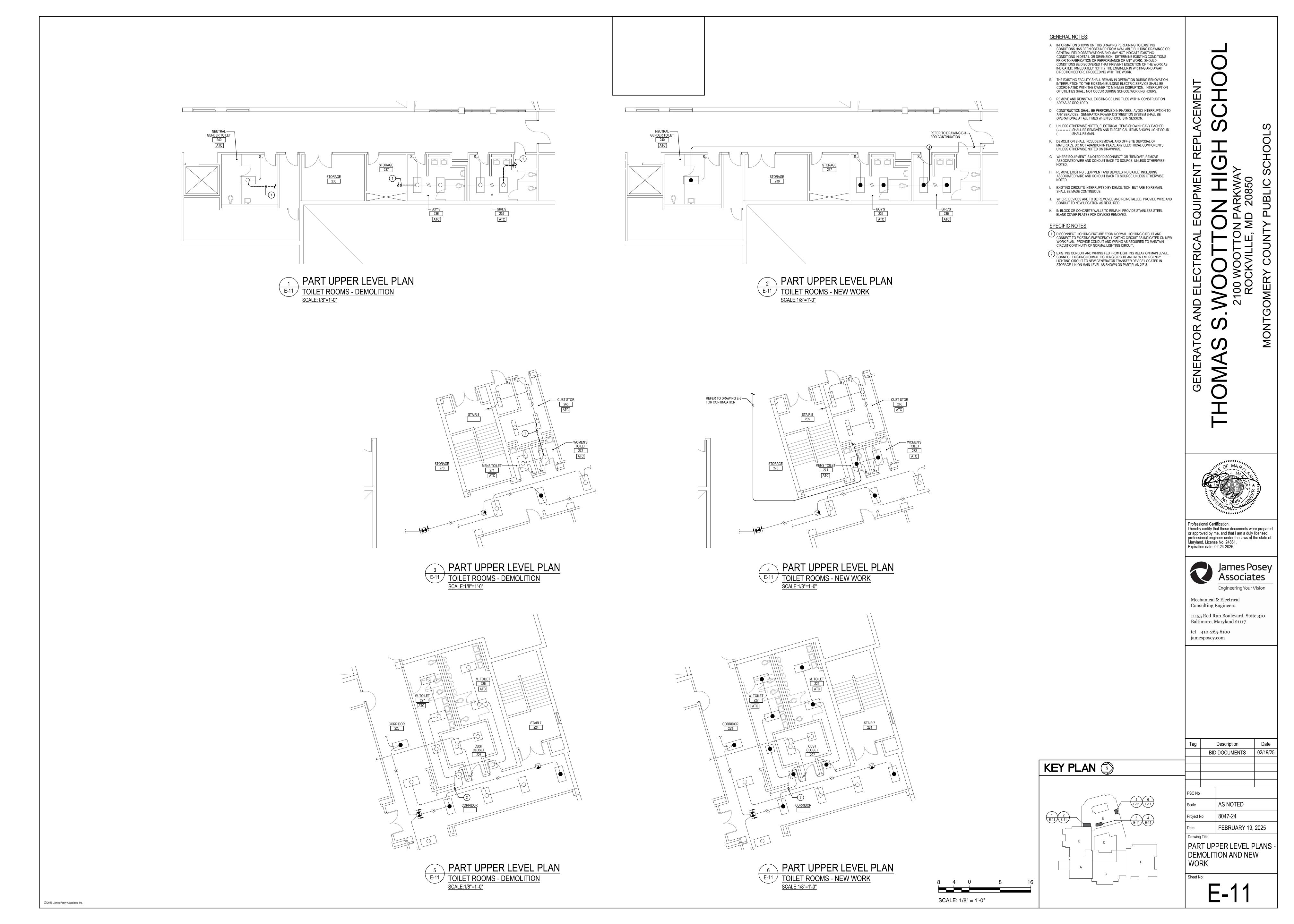
Description

BID DOCUMENTS

PART MAIN AND UPPER LEVEL PLANS - DEMOLITION AND NEW WORK

E-10

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- B. THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING RENOVATION.
- D. CONSTRUCTION SHALL BE PERFORMED IN PHASES. AVOID INTERRUPTION TO
- E. UNLESS OTHERWISE NOTED, ELECTRICAL ITEMS SHOWN HEAVY DASHED
- F. DEMOLITION SHALL INCLUDE REMOVAL AND OFF-SITE DISPOSAL OF

SPECIFIC NOTES:

UPPER LEVEL

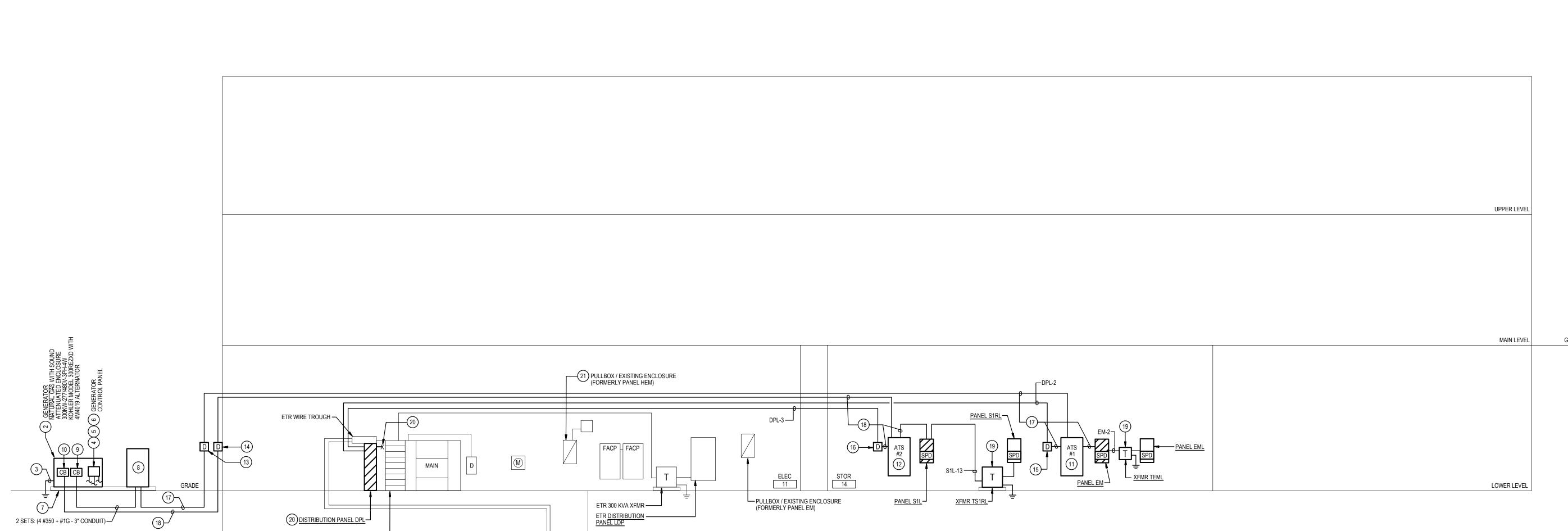
MAIN LEVEL

LOWER LEVEL

- SHOWN ON PART PLAN 1/E-7.
- AS PER GENERATOR MANUFACTURER'S RECOMMENDATIONS
- ADDITIONAL INFORMATION.
- SHALL BE SIZED FOR 600A. PROVIDE SIGN ON FRONT OF OF GENERATOR

- PROVIDE 4P-260A AUTOMATIC TRANSFER SWITCH (ATS) TO SERVE STAND-BY LOADS. ATS SHALL HAVE A MINIMUM UL 1008 WITHSTAND AND CLOSING RATING OF 65KAIC. PROVIDE NAMEPLATE ON FRONT OF ATS TO READ "STANDBY ATS-2".
- PROVIDE 3P-100A-600V NON-FUSED ENCLOSED SWITCH IN NEMA 3R ENCLOSURE TO SERVE GENERATOR EMERGENCY (LIFE-SAFETY) LOADS.
- PROVIDE 3P-400A-600V NON-FUSED ENCLOSED SWITCH IN NEMA 3R ENCLOSURE, TO SERVE GENERATOR STANDBY LOADS.
- PROVIDE 3P-100A-600V FUSED ENCLOSED SWITCH FUSED AT 100A TO SERVE GENERATOR EMERGENCY (LIFE-SAFETY) LOADS.
- PROVIDE 3P-400A-600V FUSED ENCLOSED SWITCH, FUSED AT 250A TO SERVE GENERATOR STANDBY LOADS.
- (17) PROVIDE 4 #2 + #8 GROUND IN 1 1/2" CONDUIT.
- (18) PROVIDE 4 #250 + #4 GROUND IN 2 1/2" CONDUIT.
- REFER TO SCHEDULE OF TRANSFORMERS ON THIS DRAWING FOR ADDITIONAL INFORMATION ON TRANSFORMER AS NOTED, AND FOR NUMBER AND SIZE OF WIRE AND CONDUCTOR FRIMARY AND SECONDARY FEEDERS FOR TRANSFORMER AS NOTED.
- TAP EXISTING SWITCHBOARD AND PROVIDE 4 SETS: (4 #350 + #3/0 GROUND). COORDINATE OUTAGES WITH POWER COMPANY AND OWNER. CONNECT EXISTING FEEDER SERVING ETR DISTRIBUTION PANEL DPBR TO NEW BREAKER IN PANEL DPL. PROVIDE 2 SETS: (4 #350 + #1 GROUND) TO MATCH EXISTING
- REMOVE EXISTING PANEL INTERIOR COMPONENTS AND LEAVE EXISTING PANEL ENCLOSURE TO BE USED AS A PULLBOX. DISCONNECT EXISTING BRANCH CIRCUITS FROM CIRCUIT BREAKERS. REMOVE INTERIOR COMPONENTS OF EXISTING PANEL. ENCLOSURE OF PANEL SHALL REMAIN AND BECOME A PULLBOX. PROVIDE CONDUIT AND WIRING TO MATCH EXISTING TO CONNECT REMAINING CIRCUITS TO NEW PANEL. REMOVE EXISTING 800A SERVICE DISCONNECT #2 SERVING PANEL DPBR AND ASSOCIATED WIRING BACK TO SWITCHBOARD AND ASSOCIATED BUS TAP. RECONNECT FEEDERS SERVING PANEL DPBR TO NEW PANEL DPL AS
- DISCONNECT AND REMOVE ENCLOSED SWITCH AND ASSOCIATED CONDUIT AND WIRING BACK TO SWITCHBOARD AND ASSOCIATED BUS TAP. COORDINATE OUTAGE WITH OWNER AND POWER COMPANY.

INDICATED ON NEW WORK POWER RISER DIAGRAM.



1) RX EXISTING 15KVA XFMR

NOT TO SCALE

POWER RISER DIAGRAM - DEMOLITION

POWER RISER DIAGRAM - NEW WORK

1 21 RX PANEL HEM

ETR 300 KVA XFMR ———

ETR DISTRIBUTION —

ETR WIREWAY -

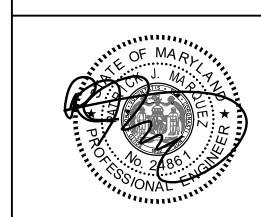
277/480V-3PH-4W-3000A-65K

ETR SWITCHBOARD MDP GENERAL ELECTRIC 277/480V-3PH-4W-3000A-65K

	SCHEDULE OF TRANSFORMERS														
TRANSFO DESIG.	RMER KVA	LOCATION		//ARY DER	SECONDARY TAP WIRING & CONDUIT (NOTE A)	GROUNDING ELECTRODE CONDUCTOR	EQUIPMENT SERVED	XFMR TYPE (NOTE B)	NOTES						
TS1RL	45	STORAGE 14	S1L-	13	4 #1/0 + #6 SSBJ - 2"C	#6	PANEL S1RL	DOE							
TEML	9	STORAGE 14	EM-2	2	4 #8 + #8 SSBJ - 3/4"C	#8	PANEL EML	RE							

TRANSFORMER GENERAL NOTES:

- A. TRANSFORMER SECONDARY TAP: CONDUCTORS INDICATED REFLECT PHASE, NEUTRAL (IN WYE-CONFIGURATION), AND SUPPLY-SIDE BONDING JUMPER (SSBJ) IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC) ARTICLES 450, 240.21, AND 250.30.
- B. TRANSFORMER TYPES: GENERAL PURPOSE DOE 2016 (DOE); RESIN ENCAPSULATED (RE)
- C. TRANSFORMER SHALL HAVE 480-VOLT, 3-PHASE, DELTA PRIMARY AND 120/208-VOLT, 3-PHASE, WYE/GROUNDED SECONDARY.



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: 02-24-2026.



Mechanical & Electrical **Consulting Engineers** 11155 Red Run Boulevard, Suite 310 Baltimore, Maryland 21117

tel 410-265-6100

jamesposey.com

Tag		Description	Da
	BIE	DOCUMENTS	02/19
PSC No			
Scale		AS NOTED	
Project N	Jo.	8047-24	

FEBRUARY 19, 2025

POWER RISER DIAGRAMS

		LIG	HTING F	IXTUR	E (LUMINA	IRE) SCHEDULE				
Ε	DESCRIPTION	DESCRIPTION LAMP NOMINAL DESIGN LUMENS NOMINAL WAXIMUM WATTAGE (EFFICACY) MANUFACTURER CATALOG NO.								NOTE
	NOMINAL 4'-LONG SEMI-FROSTED ROUND LENSED STRIP LIGHT, STEEL HOUSING, WHITE FINISH, ACRYLIC LENS, 0-10V DRIVER	LED	7000 LM 3500K	31.8 W (157 LM/W)	LITHONIA	CLX L48 7000LM SEF RDL MVOLT GZ10 35K 80CRI	METALUX 4SNLED SERIES COLUMBIA MPS4 SERIES	120/277	PENDANT	1
	NOMINAL 4'-LONG WRAPAROUND, STEEL HOUSING, WHITE FINISH, ACRYLIC LENS, 0-10V DRIVER	LED	4325 LM 3500K	42 W (110 LM/W)	LITHONIA	FMLWL 48 835 ZT MVOLT	METALUX NWS SERIES COLUMBIA RLW SERIES	120/277	CEILING SURFACE	
	EXIT SIGN WITH DIE CAST ALUMINUM HOUSING, WHITE FINISH, RED LETTERING.	RED LED	-	1.2W	LITHONIA	LE P W R	SURE-LITE CX SERIES DUAL-LITE SE SERIES	120/277	AS INDICATED	2, 3
	EMERGENCY BATTERY LIGHTING UNIT, LITHIUM BATTERY, WHITE FINISH.	LED	1100LM	.47W	LITHONIA	ELM6L UVOLT LTP	SURE-LITE APEL SERIES DUAL-LITE LZ SERIES	120/277	WALL SURFACE 7'-6"AF	

LIGHTING FIXTURE GENERAL NOTES:

- A. MANUFACTURERS FOUND TO OFFER PRODUCTS SIMILAR TO THE BASIS-OF-DESIGN PRODUCT, INCLUDING PERFORMANCE, APPEARANCE, AND QUALITY. LISTED EQUALS, OR SUBSTITUTIONS, SHALL COMPLY WITH MINIMUM PERFORMANCE CRITERIA LISTED. ADDITIONAL DOCUMENTATION AND CALCULATIONS DEMONSTRATING COMPLIANCE SHOULD BE MADE AVAILABLE UPON REQUEST.
- B. LIGHTING FIXTURES SHALL BE PROVIDED WITH 3500K COLOR TEMPERATURE FOR INTERIOR FIXTURES AND 4000K COLOR TEMPERATURE FOR EXTERIOR FIXTURES, UNLESS OTHERWISE NOTED IN SCHEDULE ABOVE, WITHIN +/- 100K, AND WITHIN THREE MACADAM ELLIPSES. COLOR RENDERING INDEX (CRI) SHALL BE 80 OR GREATER, UNLESS OTHERWISE NOTED IN SCHEDULE ABOVE.

LIGHTING FIXTURE SPECIFIC NOTES:

- 1. MOUNT AT SAME ELEVATION AS EXISTING LIGHTING FIXTURE.
- 2. PROVIDE REQUIRED HARDWARE & ACCESSORIES FOR EXIT SIGN MOUNTING (WALL, CEILING, SUSPENDED) AS INDICATED ON DRAWINGS. COORDINATE WITH ARCHITECTURAL PLANS.
- 3. PROVIDE SINGLE-FACE OR DOUBLE-FACE EXIT SIGN AS INDICATED ON DRAWINGS.

	277 / 480 VOLTS	1200 AMP MAIN	I BUS			SURFA	CE MOL	JNTED	
	3 PHASE 4 WIRE	1200 AMP MAIN		NOTE 1)		AIC RAT		
FEEDER	EQUIPMENT SERVED	FEEDER SIZE	CIRC	UIT BRE	AKER	CONNE	CTED LOA	AD (KVA)	NOTES
NO.			FRAME	POLE	AMP	ΑØ	ВØ	СØ	1
1	ETR PANEL DPBR	(NOTE 2)	600	3	600	109.3	109.3	109.3	
2	PANEL EM (VIA ATS-1)	4 #2 + #8G - 1 1/4"C	100	3	100	10.9	10.4	8.9	
3	PANEL S1L (VIA ATS-2)	4 #250 + #4G - 2 1/2"C	250	3	250	98.6	95.9	98.9	
4	SPACE AND PROVISIONS	-	250	3	-				
5	SPACE AND PROVISIONS	-	250	3	-				
6	SPACE AND PROVISIONS	-	100	3	-				
7	SPACE AND PROVISIONS	-	100	3	-				
8	SPACE AND PROVISIONS	-	100	3	-				
9	SPACE AND PROVISIONS	-	100	3	-				
10	SPACE AND PROVISIONS	-	100	3	-				
						218.8	215.6	217.1	
	CONNECTED LOAD = 651.	5 KVA							
	DEMAND LOAD = 397.	5 KVA				LOCATION	ELE	C 11	_

			WIRI	NG	SCH	HED	ULE	E: P	ANE	EL E	М (SE	E N	OTE 1)			
		277 / 480 VOLTS	3 PHAS	SE 4	4 VVIF	RΕ			225	5 AN	1PB	US		SURFACE MO	DUNTED		
CIR- CUIT	POLE	DESCRIPTION	WIRE/ CONDUIT	FL POLE	JSE AMP	A	۱Ø		4 / Ø Ø	С	Ø	CIR- CUIT	POLE	DESCRIPTION	WIRE/ CONDUIT	FU POLE	
1	1	LTG LOWER LEVEL TOILET RMS	#10-3/4"C	1	20	1.4	0.6					2	2	PANEL EML	3#10+	3	25
3	3	LTG GROUP TOILET ROOMS	#10-3/4"C	1	20			1.4	0.0			-	4	VIA XFMR TEML	#10G-		
5	5	LTG GROUP TOILET ROOMS	#10-3/4"C	1	20					1.4	0.0	-	6		3/4"C		
7	7	LTG GROUP TOILET ROOMS	#10-3/4"C	1	20	1.4							8	SPARE		1	20
9	9	ETR UNKNOWN	(NOTE 2)	1	20			2.0	1.5			10	10	LTG MAIN/UPPER LEVEL TOILET	#10-3/4"C	1	20
11	11	ETR UNKNOWN	(NOTE 2)	1	20					2.0	2.0	12	12	ETR LTG 1ST FL AREA C	(NOTE 2)	1	20
13	13	ETR UNKNOWN	(NOTE 2)	1	20	2.0	2.0					14	14	ETR LTG EXIT/LTS CAFETERIA	(NOTE 2)	1	20
15	15	ETR UNKNOWN	(NOTE 2)	1	30			1.5	2.0			16	16	ETR UNKNOWN	(NOTE 2)	1	20
17	17	ETR UNKNOWN	(NOTE 2)	1	20					1.5	2.0	18	18	ETR MAIN LEVEL LTG	(NOTE 2)	1	20
19	19	ETR UNKNOWN	(NOTE 2)	1	20	1.5	2.0					20	20	ETR UPPER LEVEL LTG	(NOTE 2)	1	20
	21	SPARE		1	20				2.0			22	22	ETR UNKNOWN	(NOTE 2)	1	20
	23	SPARE		1	20								24	SPARE		1	20
	25	SPARE		1	20								26	SPARE		1	20
	27	SPARE		1	20								28	SPARE		1	20
	29	SPARE		1	20								30	SPARE		1	20
	31	SPARE		1	20		-					-	32	SPACE AND PROVISIONS	-	1	-
	33	SPARE		1	20				-			-	34	SPACE AND PROVISIONS	-	1	-
	35	SPARE		1	20						-	-	36	SPACE AND PROVISIONS	-	1	-
	37	SPARE		1	20		-					-	38	SPACE AND PROVISIONS	-	1	-
	39	SPARE		1	20				-			-	40	SPACE AND PROVISIONS	-	1	-
	41	SPARE		1	20						-	-	42	SPACE AND PROVISIONS	-	1	-
	•	CONNECTED LOAD =	30.2	KVA		6.3 10	4.6 0.9	4.9 10	5.5).4	4.9 8	4.0 .9						
		DEMAND LOAD =	30.2	KVA										MAIN FUSE _	100	_AMPS	3
		MIN AIC RATING =	65,000	AMPS	SYMN	/IETRI	CAL							LOCATION	STORAG	E 14	-

		120 / 208 VOLTS	3 PHA			<u> </u>				NA C	IL R			SURFACE M	OUNTED		
	POLE	DESCRIPTION	WIRE/		ISE		~	KV/			~	CIR-	POLE	DESCRIPTION	WIRE/		JSE
CUIT		L TO DOW ED DOOM (MOTE O)	CONDUIT				Ø	B	Ø		Ø	CUIT		00405	CONDUIT	POLE	
1	1	LTG BOILER ROOM (NOTE 2)	#10-3/4"C	3	20	0.6								SPARE		1	
	3	SPARE		1	20								4	SPARE		1	
	5	SPARE		1	20								6	SPARE		1	:
	7	SPARE		1	20								8	SPARE		1	:
	9	SPARE		1	20								10	SPARE		1	:
	11	SPARE		1	20								12	SPARE		1	:
-	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	
						0.6	0.0	0.0	0.0	0.0	0.0						
		CONNECTED LOAD =	0.6	KVA		0	.6	0	.0	0.	.0						
				_	,							•		MAIN FUSE	35	AMPS	S
		DEMAND LOAD =	0.6	KVA												_	
				_													
		MIN AIC RATING =	14,000	AMPS	SYMM	1ETRIC	CAL							LOCATION	N STORAG	E 14	
			-	-											-		_

PANELBOARD NOTES: . PROVIDE FUSIBLE TYPE PANELBOARD AND INTEGRAL SURGE PROTECTIVE DEVICE. 2. INTERCEPT FOUR (4) EXISTING 120V BOILER ROOM LIGHTING CIRCUITS FED FROM PANEL LBR-1,2,3,5 AND CONNECT TO NEW EMERGENCY LIGHTING CIRCUIT.

		277 / 480 VOLTS	3 PHA	SE 4	1 VVIF	RE			25	AA C	1PB	US		SURFACE N	JOUNTED		
CIR-	POLE	DESCRIPTION	WIRE/		AKER			KVA	A/Ø				POLE	DESCRIPTION	WIRE/		AKER
CUIT			CONDUIT	POLE	AMP	_	Ø	В	Ø	С	Ø	CUIT			CONDUIT	POLE	AMP
1	1	BOILER 1	4#12+	3	20	2.9	13.8					2	2	PUMP P-5	3#2+	3	100
-	3		#12G-					2.9	13.8			-	4		#8G-		
-	5		3/4"C							2.9	13.8	-	6		1 1/4"C		
7	7	BOILER 2	4#12+	3	20	2.9	13.8					8	8	PUMP P-6	3#2+	3	100
-	9		#12G-					2.9	13.8			-	10		#8G-		
-	11		3/4"C							2.0	13.8	-	12		1 1/4"C		
13	13	PANEL S1RL	3#3+	3	90	11.2	5.6					14	14	PUMP P-7	3#12+	3	15
-	15	VIA XFMR TS1RL	#8G-					8.5	5.6			-	16		#10G-		
-	17		1 1/4"C							12.4	5.6	-	18		3/4"C		
	19	SPARE		1	20		5.6					20	20	PUMP P-8	3#10+	3	15
	21	SPARE		1	20				5.6			-	22		#10G-		
-	23	SPACE AND PROVISIONS	-	1	-					-	5.6	-	24		3/4"C		
-	25	SPACE AND PROVISIONS	-	1	-	-	2.0					26	26	EXIST REFRIGERANT	3#12+	3	20
-	27	SPACE AND PROVISIONS	-	1	-			-	2.0			-	28	EXHAUST FAN	#12G-		
-	29	SPACE AND PROVISIONS	-	1	-					-	2.0	-	30		3/4"C		
-	31	SPACE AND PROVISIONS	-	1	-	-							32	SPARE		1	20
-	33	SPACE AND PROVISIONS	-	1	-			-					34	SPARE		1	20
-	35	SPACE AND PROVISIONS	-	1	-					-			36	SPARE		1	20
37	37	PUMP P-3 (NOTE 2)	3#2+	3	150	20.4	20.4					38	38	PUMP P-4 (NOTE 2)	3 #2+	3	150
-	39		#6G-					20.4	20.4			-	40		#6G-		
-	41		1 1/4"C							20.4	20.4	-	42		1 1/4"C		
				•			61.2								'	•	•
		CONNECTED LOAD =	293.4	_KVA		98	3.6	95	5.9	98	3.9						
		DEMANDLOAD	407.0	12) (^										MAIN BREAKE	:R 250	_AMPS	5
		DEMAND LOAD =	137.8	_KVA													

		120 / 200 VOLTS					<u> </u>	<u> </u>		5 AM			.L I	IOTE 1)	NINTED		
∩ID	POLE	120 / 208 VOLTS DESCRIPTION	3 PHAS		KER	\ <u> </u>		KVA) AIV	ם או		POLE	SURFACE MO	WRE/	BRE	VKE
CUIT		DESCINE HON		POLE		Α	Ø	В		С	Ø	CUIT	FOLL	DESCRIPTION	CONDUIT	POLE	
1	1	BOILER 1 CIRC PUMP	3#10+	3	15	0.3	_					2	2	BOILER 1 CONTROL	#10-3/4"C	1	2
-	3		#10G-					0.3	0.6			4	4	BOILER 2 CONTROL	#10-3/4"C	1	2
-	5		3/4"C							0.3	1.4	6	6	BOILER 3	#10-3/4"C	1	2
7	7	BOILER 2 CIRC PUMP	3#10+	3	15	0.3	0.5					8	8	BOILER 3 CONTROL CIRCUIT	#10-3/4"C	1	2
-	9		#10G-					0.3	0.8			10	10	WALK-IN COOLER LTG & FAN	#10-3/4"C	1	2
-	11		3/4"C							0.3	0.8	12	12	WALK-IN FREEZER LIGHT	#10-3/4"C	1	2
	13	SPARE		1	20							14	14	SPARE		1	2
15	15	REC GENERATOR	#10-3/4"C	1	20			0.2				16	16	SPARE		1	2
17	17	EX WALK-IN FREEZER	3#12+	3	20					1.5	1.1	18	18	EX WALK-IN FREEZER	#10-3/4"C	1	2
-	19	COMPRESSOR	#12G-			1.5	1.1					20	20	EX WALK-IN COOLER	3#12+	3	2
-	21		3/4"C					1.5	1.1			-	22	COMPRESSOR	#12G-		
23	23	ETR P/A SYSTEM	(NOTE 2)	1	20					1.0	1.1	-	24		3/4"C		
25	25	ETR TELEPHONE OFFICE	(NOTE 2)	1	20	1.0	1.0					26	26	ETR BATTERY & ELEV LIGHT	(NOTE 2)	1	2
27	27	ETR FIRE ALARM	(NOTE 2)	1	20			1.0	1.0			28	28	ETR REFRIG MONITOR CHILLER	(NOTE 2)	1	
29	29	REC HEALTH REFRIG	#10-3/4"C	1	20					0.9	1.0	30	30	ETR PLUG	(NOTE 2)	1	2
31	31	REC MDF	#10-3/4"C	1	20	0.9	1.0					32	32	REC DATA RACK MDF	#10-3/4"C	1	
33	33	TWIST-LOCK REC MDF	#10-3/4"C	1	20			0.2	1.0			34	34	REC DATA RACK MDF	#10-3/4"C	1	
35	35	BLOCK HEATER	3#8+#10G	2	40					3.0			36	SPARE		1] :
-	37		-3/4"C			3.0							38	SPARE		1	2
39	39	BATTERY CHARGER	#8-1"C	1	20			0.5					40	SPARE		1] :
	41	SPARE		1	20								42	SPARE		1	2
	43	SPARE		1	20								44	SPARE		1	
	45	SPARE		1	20								46	SPARE		1] :
	47	SPARE		1	20								48	SPARE		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	
-	55	SPACE AND PROVISIONS	-	1	-	-	-					-	56	SPACE AND PROVISIONS	-	1	
-	57	SPACE AND PROVISIONS	-	1	-			-	-			-	58	SPACE AND PROVISIONS	-	1	
-	- 59 SI	SPACE AND PROVISIONS	-	1	-					-	-	-	60	SPACE AND PROVISIONS	-	1	
		CONNECTED LOAD =	32.1	KVA		7.0 11	4.2 1.2	4.0 8	4.5 .5	7.0 12							_
		DEMAND LOAD =	30.5	KVA										MAIN BREAKER	150	_AMPS	j
		MIN AIC RATING =	10,000	AMPS	SYMM	IETRIC	CAL							LOCATION	STOR ²	11	_

PANELBOARD NOTES:

1. PROVIDE INTEGRAL SURGE PROTECTIVE DEVICE.

PANELBOARD NOTES:

PROVIDE INTEGRAL SURGE PROTECTIVE DEVICE.
 PROVIDE SUB-FEED CIRCUIT BREAKER.

INTERCEPT AND SPLICE EXISTING BRANCH CIRCUIT AT PANELBOARD ENCLOSURE, PREVIOUSLY PANEL EM IN ELECTRICAL 11, TO BE USED AS A PULLBOX. PROVIDE WIRING IN CONDUIT WITH WIRING TO MATCH EXISTING WIRING AND MAKE CONNECTIONS.

8. WHERE EXISTING CIRCUITS SHARE A COMMON NEUTRAL, PROVIDE CIRCUIT BREAKER HANDLE TIES.

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: 02-24-2026.



Mechanical & Electrical **Consulting Engineers** 11155 Red Run Boulevard, Suite 310 Baltimore, Maryland 21117

tel 410-265-6100 jamesposey.com

Description BID DOCUMENTS 02/19/25

PSC No AS NOTED 8047-24 Project No FEBRUARY 19, 2025

Drawing Title SCHEDULES