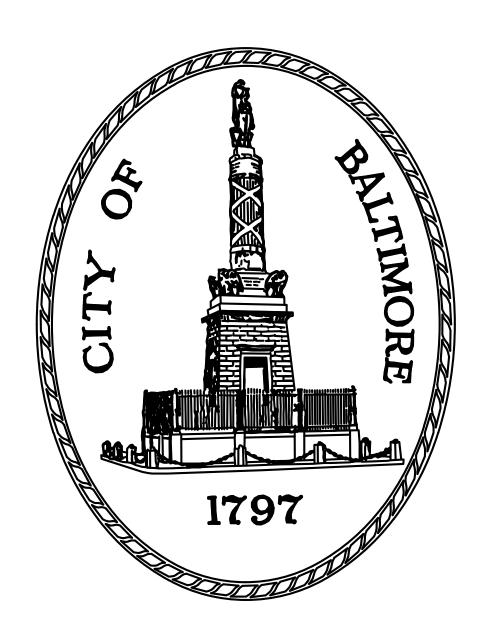
# CITY OF BALTIMORE DEPARTMENT OF GENERAL SERVICES CAPITAL PROJECTS DIVISION



CONTRACT NO. GS 23808

# EASTERN POLICE DISTRICT RESTROOMS RENOVATION AND ROOF REPLACEMENT

1620 EDISON HIGHWAY BALTIMORE, MD 21213

# FOR THE MAYOR AND CITY COUNCIL BRANDON M. SCOTT, MAYOR

	R	EVISIONS
NO	DATE	DESCRIPTION
FF	BRIIA	ARY 16, 2024

	PROFESS CERTIFIC							FEBRUARY 16, 2024
Architect SANDERS DESIGNS, P.A.  MEP Engineer MIN ENGINEERING, INC.  Structural Engineer MORABITO CONSULTANTS, IN	ARCHIT	ECT BALTIMORE POLICE DEPARTMENT						G-001
	LICENSE NO. <u>:</u> EXP. DATE: 21	8586 200 HOLLIDAY ST.	PROJECT MANAGER DESIGN SECTION	CONSTRUCTION MANAGER CONSTRUCTION SECTION	SECTION CHIEF, DESIGN SECTION	DIVISION CHIEF, DESIGN & CONSTRUCTION DIVISION	DIRECTOR, DEPARTMENT OF GENERAL SERVICES	SHEET 01 OF 50

AED

ALUM

APC

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BLDG

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BOD

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CONT

CPT

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DIM

DWG

EIFS

ELEV

EPS

EWC

FD

FEC

FHC

FIN

FOS

FRP

FTG

6

FOOTING

EQ

**COLUMN LINE** 

APPEARS

A3

(101A)

**—**—(A2)

DETAIL MARKER

ISOLATES DETAIL

APPEARS

ROOM MARKER

ROOM NUMBER

DOOR MARKER

ROOM NAME

**ELEVATION MARKER** 

**ELEVATION IDENTIFICATION** 

DETAIL IDENTIFICATION

SHEET WHERE DETAIL

DOOR NUMBER / OPENING MARK

SYMBOLS

WINDOW/STOREFRONT/

LOUVER MARKER

PARTITION MARKER

PARTITION TYPE

SHEET WHERE ELEVATION

**FACE-OF-CONSTRUCTION LINE** 

BUILDING SECTION MARKER

SECTION IDENTIFICATION

CUTS CONSTRUCTION

DRAWING LOCATION

A701

SHEET WHERE SECTION APPEARS

INTERIOR ELEVATION MARKER

SHEET WHERE ELEVATION APPEARS

**ELEVATION IDENTIFICATION** 

SCHEDULED ITEM MARKER

KEYNOTE MARKER

REVISION MARKER

REVISION IDENTIFICATION

HEIGHT / ELEVATION MARKER

ISOLATES AREA OF REVISION

DW

PROJECT LOCATION

**LOCATION MAP** ΑT GAUGE PROP PROPERTY LINE GALVANIZED GALV PLASTIC LAMINATE ALUMINUM COMPOSITE MATERIAL GB GYPSUM BOARD PLY, PLYWD PLYWOOD ADJACENT GWB GYPSUM WALL BOARD POLY POLYETHYLENE AUTOMATED EXTERNAL DEFIBRILLATOR GENL GENERAL PREFAB PREFABRICATED ABOVE FINISHED FLOOR PREP PREPARATION AUTHORITY HAVING JURISDICTION HOLLOW METAL AIR HANDLING UNIT HOSE BIBB PUR POLYURETHANE ANOD **ANODIZED** HANDICAPPED PVC POLYVINYL CHLORIDE ALUMINUM HOLLOW-CORE WOOD HIGH-DENSITY POLYETHYLENE OT HDPE ACOUSTICAL PANEL CEILING QUARRY TILE НО HOLD OPEN HORIZONTAL BALTIMORE GAS & ELECTRIC HIGH POINT RETURN AIR BUILDING HANDRAIL, HOUR RAD RADIUS BITUMINOUS HOLLOW STRUCTURAL SECTION RCP REFLECTED CEILING PLAN **BLOCK** HEIGHT **ROOF DRAIN** BEAM REFERENCE BO, BOT BOTTOM OF INSIDE DIAMETER REFRIG REFRIGERATOR BASIS OF DESIGN INSUL INSULATION REINF REINFORCING INT. INTR INTERIOR BRICK REQD REQUIRED **BUILT-UP ROOF** POLYISOCYANURATE REQUIRMENT(S) RAIN LEADER COURSES JAMB OPENING ROOM CABINET JOINT **ROUGH OPENING** CHALKBOARD ROOF TOP UNIT KNOCK DOWN CENTERLINE, COLUMN LINE REMOVE Rx, RX CEILING LINEAR FEET **CONTROL JOINT** SUPPLY AIR LAMINATE LAM CONCRETE MASONRY UNIT SAN SANITARY LAVATORY LAV COLUMN SCHEDULE **SCHED** LED LIGHT-EMITTING DIODE CONCRETE SOLID-CORE WOOD LEED LEADERSHIP IN ENERGY AND CONST CONSTRUCTION SECTION ENVIRONMENTAL DESIGN CONTINUOUS SHGC SOLAR HEAT-GAIN COEFFICIEN LONG LEG HORIZONTAL CARPET SHT SHEET LONG LEG VERTICAL CERAMIC TILE SIMILAR LEASE OUTLINE DRAWING STANDPIPE LEVEL OF DISCHARGE DIA, Ø DIAMETER SPECS SPECIFICATIONS LIMIT OF DISTURBANCE DISPENSER SQUARE LOW POINT DIMENSION STAINLESS STEEL LEVEL LVL DOWN STC STL SOUND TRANSMISSION CLASS LAMINATED VENEER LUMBER DOWNSPOUT STEEL DETAIL(S) **STRUCT** STRUCTURAL MACH MACHINE DRAWING SURROUNDED MANUF, MFR MANUFACTURER DISHWASHER SUSP SUSPENDED MASONRY SW STORM WATER MATL MATERIAL **EXHAUST FAN** STORM WATER MANAGEMENT MAXIMUM **EXTERIOR INSULATION FINISH SYSTEM** MARKERBOARD **EXPANSION JOINT** MDF MEDIUM DENSITY FIBERBOARD ELECTRICAL TONGUE & GROVE **MECH MECHANICAL** ELEVATOR TACKBOARD MIN MINIMUM TBD **ELEVATION** TO BE DETERMINED **MISCELLANEOUS** EDGE OF TRENCH DRAIN MASONRY OPENING TELEPHONE ETHYLENE PROPYLENE DIENE MONOMER MOUNTING THRESHOLD EXPANDED POLYSTYRENE TOP OF EQUAL MULL MULLION THERMOPLASTIC POLYOLEFIN EQUIP EQUIPMENT PRESSURE TREATED **ELECTRIC WATER COOLER** NIC NOT IN CONTRACT **ELECTRIC WATER HEATER** TYP TYPICAL NO, # NUMBER EX, EXIST EXISTING NOM NOMINAL UNDERWRITERS LABORATORIES EXP JT, EJ EXPANSION JOINT NOISE REDUCTION COEFFICIENT UNO NRC EXT, EXTR EXTERIOR UNLESS NOTED OTHERWISE NOT TO SCALE UON UNLESS OTHERWISE NOTED FIRE ALARM ANNUCIATOR PANEL FAAP OC, O/C ON CENTER FLOOR DRAIN VINYL ASBESTOS TILE OCC OCCUPANT FIRE DEPARTMENT CONNECTION VAPOR BARRIER **OUTSIDE DIAMETER** VCT VINYL COMPOSITION TILE FIRE EXTINGUISHER OH, OP HD OPPOSITE HAND **VERT** VERTICAL FIRE EXTINGUISHER CABINET OPER OPERABLE **VERIFY IN FIELD** FIRE HOSE CABINET OPG OPENING FINISHED, FINISH OPP OPPOSITE WHITEBOARD FLASH, FLG FLASHING WOOD FLOOR FL, FLR PAF POWER-ACTUATED FASTENER FACE OF WH WALL HYDRANT PART PARTITION FACE OF STUD WITH PORTABLE DOCUMENT FORMAT W/O PDF FIRE PROOFING WITHOUT PTD PAINTED FR, FRT FIRE RETARDENT TREATED WATERPROOFING PTN FIBERGLASS REINFORCED PLASTIC PARTITION WWF WELDED WIRE FABRIC PERIM PL, PL FOOT, FEET PERIMETER

PLATE

SANDERS DESIGNS, P.A. Architect 9727 GREENSIDE DRIVE, SUITE 202 COCKEYSVILLE, MARYLAND 21030

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CONSULTANTS

**GENERAL COVER SHEET** 

G-002 GENERAL NOTES & SYMBOLS G-003 ACCESSIBILITY STANDARDS G-004 CODE & LIFE SAFETY G-005 CODE MODIFICATION

AD-101 FIRST FLOOR PLAN: DEMOLITION AD-102 SECOND FLOOR PLAN: DEMOLITION AD-103 ROOF PLAN: DEMOLITION AD-111 FIRST FLOOR RCP: DEMOLITION AD-112 SECOND FLOOR RCP: DEMOLITION

AD-121 ENLARGED FIRST AND SECOND FLOOR PLANS: DEMOLITION A-101 FIRST FLOOR PLAN: NEW WORK

A-102 SECOND FLOOR PLAN: NEW WORK A-103 ROOF PLAN: NEW WORK A-111 FIRST FLOOR RCP: NEW WORK A-112 SECOND FLOOR RCP: NEW WORK

A-121 ENLARGED FIRST AND SECOND FLOOR PLAN: NEW WORK

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A-402 **ROOF DETAILS** A-403 **ROOF DETAILS** A-501 STAIR DETAILS A-601 SCHEDULES A-602 SCHEDULES

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STRUCTURAL

S-101 EXISTING ROOF FRAMING PLAN S-201 TYPICAL DETAILS AND GENERAL NOTES

**MECHANICAL** 

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M-601 **HVAC SCHEDULES** 

**PLUMBING** 

P-001 PLUMBING LEGEND, ABBREVIATIONS, & GENERAL NOTES P-101 BASEMENT FLOOR PLAN - PLUMBING DEMOLITION & NEW WORK P-102 FIRST FLOOR PLAN - PLUMBING DEMOLITION & NEW WORK P-103 SECOND FLOOR PLAN - PLUMBING DEMOLITION & NEW WORK P-104 ROOF PLAN - PLUMBING DEMOLITION & NEW WORK P-501 PLUMBING DETAILS

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E-001 ELECTRICAL GENERAL NOTES, SYMBOL LISTS, AND ABBREVIATIONS ED-101 **ROOF PLAN - POWER DEMOLITION** 

E-101 ROOF PLAN - POWER NEW WORK E-102 FIRST FLOOR PARTIAL PLAN - DEMOLITION AND NEW WORK

E-103 FIRST FLOOR PARTIAL PLAN - DEMOLITION AND NEW WORK E-104 SECOND FLOOR PARTIAL PLAN - DEMOLITION AND NEW WORK E-501

ELECTRICAL DETAILS

G01. THE FOLLOWING GENERAL NOTES APPLY TO ALL ARCHITECTURAL DRAWINGS.

G02. GENERAL CONTRACTOR: UNLESS NOTED OTHERWISE, ALL DIRECTIVES AND INSTRUCTIONS IN THESE DRAWINGS ARE TO THE GENERAL CONTRACTOR.

G03. CONTRACTOR SHALL PROVIDE WORK IN COMPLIANCE WITH

BALTIMORE CITY, MARYLAND CODE AND REQUIREMENTS. G04. DRAWINGS: ARE INTENDED TO GRAPHICALLY ILLUSTRATE THE OVERALL NATURE OF THE WORK, THE CONFIGURATION, ARRANGEMENT, AND LOCATION OF THE WORK AND IT'S PARTS, AND THE PHYSICAL DIMENSIONS OF THE WORK.

G05. FIELD CONDITIONS: CONDUCT AN INDEPENDENT SURVEY OF THE PROPOSED WORK AREA AND VERIFY ALL EXISTING FIELD CONDITIONS (DETAILS AND DIMENSIONS). IF CONDITIONS VARY FROM INFORMATION PROVIDED ON THIS DRAWING, CONTRACTOR SHOULD IMMEDIATELY NOTIFY ARCHITECT IN WRITING AND WAIT FOR DIRECTION BEFORE PROCEEDING FURTHER WITH THE WORK. INFORMATION SHOWN ON THIS DRAWING IS OBTAINED FROM RECORD DRAWINGS AND FIELD SURVEY AND IS INTENDED FOR REFERENCE ONLY.

G06. DIMENSIONS: ALL DIMENSIONS SHOWN IN THESE DRAWINGS FOR NEW WORK ARE TO BE CONFIRMED IN FIELD BY CONTRACTOR AND ANY DISCREPANCIES SHOULD BE IMMEDIATELY NOTIFIED TO THE ARCHITECT BEFORE PROCEEDING FURTHER.

G07. SET OF DRAWINGS: THE ARCHITECTURAL DRAWINGS ARE A PART OF A LARGER SET OF DRAWINGS WHICH, WHEN COMPLETE CONSISTS OF ALL DRAWINGS LISTED IN THE DRAWINGS SCHEDULE THE WORK DESCRIBED BY THE DRAWINGS OF ANY ONE DISCIPLINE MAY AFFECT THE WORK DESCRIBED ON DRAWINGS OF ANOTHER DISCIPLINE, THUS REQUIRING COORDINATION BETWEEN THE DRAWINGS OF THESE DISCIPLINES. PARTIAL SETS OF DRAWINGS ARE INCOMPLETE AND SHOULD NOT BE DISTRIBUTED OR UTILIZED BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES, VENDORS AND SUPPLIERS WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS BEFORE COMMENCING CONSTRUCTION AND TO ASSURE THAT ALL PARTIES ARE AWARE OF ALL REQUIREMENTS, REGARDLESS OF WHERE THE REQUIREMENTS OCCUR IN THE CONTRACT DOCUMENTS, WHICH MIGHT AFFECT THE WORK OF THAT PARTY.

G08. COORDINATION: COORDINATE ALL NEW WORK AMONG THE DRAWINGS OF ALL DISCIPLINES REPRESENTED IN THE CONTRACT DOCUMENTS.

G09. DIMENSIONING: UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF WALL/PARTITION STUDS, FACE OF CONCRETE WALLS, AND EDGE OF ROOF

G10. "ROOF LINE": REFERS TO TOP OF SUBSTRATE. ROOF SYSTEM IS INSTALLED ABOVE THE ROOF LINE.

G11. ROUGH-IN DIMENSIONS: VERIFY ALL FOR EQUIPMENT PROVIDED IN THIS CONTRACT, OR BY OTHERS. UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

G12. CUTTING AMONG TRADES: CUTTING INTO NEW / EXISTING WORK OF OTHER TRADES SHALL BE DONE BY THE TRADE REQUIRING THE CUTTING. ALL CUTTING SHALL BE DONE IN A NEAT MANNER USING SAWS WHERE POSSIBLE. ALL PATCHING AND PAINTING REQUIRED AS A RESULT OF THIS CUTTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE ADEQUATE TEMPORARY SUPPORT FOR WORK BEING CUT AND PATCHED TO PREVENT FAILURE. PROVIDE ADEQUATE PROTECTION OF OTHER WORK DURING CUTTING AND PATCHING TO PREVENT DAMAGE.

G13. FINISHES: PROPERLY PREPARE ALL SURFACES FOR NEW FINISHES. PATCH WITH SEAMS WHICH ARE DURABLE AND AS INVISIBLE AS POSSIBLE. COMPLY WITH SPECIFIC TOLERANCES FOR THE TYPE OF WORK BEING DONE.

G14. FIRE-STOPPING: ALL PENETRATIONS OF FIRE-RESISTANT RATED ASSEMBLIES SHALL BE SEALED WITH PROPER AND APPROVED THROUGH-PENETRATION FIRE-STOP SYSTEM AS RECOGNIZED BY. AND LISTED WITH, ACCEPTED NATIONAL TESTING LABORATORIES.

G15. DEVIATION: OBTAIN ARCHITECT'S SPECIFIC APPROVAL PRIOR TO DEVIATING FROM THE CONTRACT DOCUMENTS. THE ARCHITECT'S RESPONSIBILITY IS LIMITED TO THE ITEMS SHOWN ON THE ARCHITECTURAL DRAWINGS. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLY WITH STANDARD BUILDING AND CONSTRUCTION PRACTICES AND MANUFACTURER'S RECOMMENDATIONS FOR ALL ITEMS NOT SPECIFICALLY INDICATED AND DETAILED ON THE DRAWINGS. FOLLOW THE BEST TRADE PRACTICES AND ENGINEERING FOR THE ITEMS NOT SPECIFICALLY DETAILED AND INDICATED.

G19. GOVERNMENTAL REQUIREMENTS: ALL PARTS OF THE WORK INCLUDING MATERIALS, METHODS, ASSEMBLIES, ETC., MUST COMPLY WITH THE MINIMUM REQUIREMENTS OF THE GOVERNING REGULATIONS OF ALL FEDERAL, STATE, DISTRICT, AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PROJECT AS WELL AS THOSE GREATER REQUIREMENTS INDICATED BY THE CONTRACT DOCUMENTS. NO PART OF THE CONTRACT DOCUMENTS MAY BE CONSTRUED TO REQUIRE OR PERMIT WORK CONTRARY TO A GOVERNING REGULATION.

G20. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR FIXING AND PATCHING ANY ROOF LEAKS DISCOVERED DURING CONSTRUCTION, WHETHER CAUSED BY CONTRACTOR OR AN EXISTING CONDITION.

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DEPARTMENT OF **GENERAL SERVICES** CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS DESCRIPTION

**GEN NOTES &** SYMBOLS

> DOCUMENTS 2/16/24

**CONSTRUCTION** 

SHEET G-002

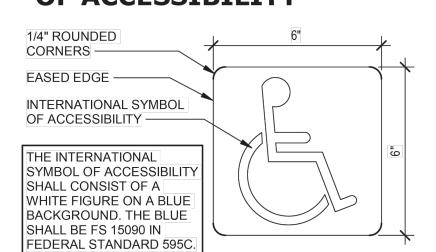
02 OF 50

**ABBREVIATIONS NOTES: GENERAL PROJECT** INDEX OF DRAWINGS

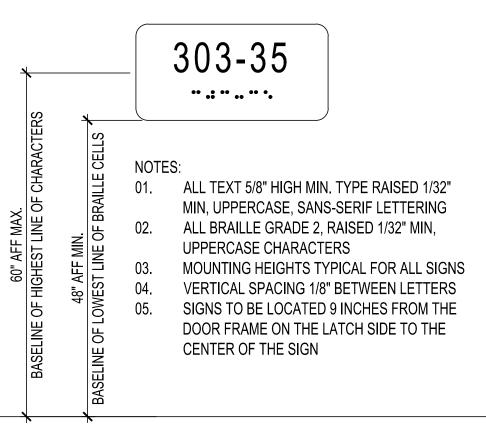
WELDED WIRE MESH

EXTRUDED POLYSTYRENE

#### **INTERNATIONAL SYMBOL OF ACCESSIBILITY**



#### SIGN REQUIREMENTS



#### **ACCESSIBILITY NOTES**

ACCESSIBILITY & USABILITY FOR THE PHYSICAL HANDICAPPED SHALL BE PROVIDED IN PUBLIC AREAS. THE PROVISIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC. (ANSI A 117.1) 2009 AND TITLE III OF THE 2010 AMERICANS WITH DISABILITIES ACT AS REQUIRED BY THE CODE, SHOWN GRAPHICALLY ON THIS SHEET AND IN NOTES BELOW.

#### **DOORS AND HARDWARE:**

- 1. EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF KEY OR SPECIAL KNOWLEDGE OF EFFORT. HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.
- 2. EVERY REQUIRED EXIT DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 3 FEET IN WIDTH AND NOT LESS THEN 6"-8" IN HEIGHT. WHEN INSTALLED IN EXIT DOORWAYS, EXIT DOORS SHALL BE CAPABLE OF OPERATING AT LEAST 90 DEGREES AND SHALL BE MOUNTED SO THAT THE CLEAR WIDTH OF THE EXITWAY IS NOT LESS THAN 32".
- 3. PER ADA SECTION 404.2, MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPENERS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. DOOR CLOSERS TO BE SET TO TAKE AT LEAST 5 SECONDS TO CLOSE FROM AN OPEN POSITION OF 70 DEGREES TO WITHIN 3" OF THE LATCH. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFOR TO OPERATE THE DOOR MAY BE INCREASED NOT TO EXCEED 15 POUNDS.
- 4. THE BOTTOM 10" OF ALL DOORS, EXCEPT AUTOMATIC AND SLIDING, SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. WHERE NARROW FRAME DOORS ARE USED, 1" HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR, WHICH WILL ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
- 5. THRESHOLDS SHALL NOT EXCEED 1/2" IN HIEGHT.
- 6. THE FLOOR OR LANDING ON EACH SIDE OF AN EXIT DOOR SHALL BE LEVEL. THE LEVEL AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60" AND A LENGTH OPPOSITE THE DIRECTION OF THE DOOR SWING OF 44"-48" IN LENGTH, DEPENDENT UPON DIRECTION OF APPROACH AND EXISTENCE OF LATCH AND CLOSER.
- 7. THE SPACE BETWEEN TWO CONSECTUIVE DOOR OPENINGS IN A VESTIBULE, SERVING OTHER THAN A REQUIRED EXIT STAIRWAY, SHALL PROVIDE A MINIMUM OF 48" OF CLEAR SPACE FROM ANY DOOR OPENING INTO SUCH VESTIBULE WHEN THE DOOR IS POSITIONED TO AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION. DOORS IN A SERIES SHALL SWING EITHER IN THE SAME DIRECTION OR AWAY FROM THE SPACE BETWEEN THE DOORS.

#### SIGNS AND IDENTIFICATIONS:

- 1. LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND A STROKE-WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND1:10, UTILIZING AN UPPERCASE "I" FOR MEASUREMENT. (703.2)
- 2. CHARACTERS, SYMBOLS, OR PICTOGRAPHS ON TACTILE SIGNS SHALL BE RAISED 1/32" (0,8 MM) MINIMUM. RAISED LETTERS AND NUMBERS SHALL BE SANS SERIF UPPERCASE CHARACTERS. RAISED CHARACTERS OR SYMBOLS SHALL BE AT LEAST 5/8" (16 MM) HIGH, BUT NO HIGHER THAN A NOMINAL 2" (51 MM). (703.3)

#### **AUDIBLE ALARMS**:

1. AUDIBLE EMERGENCY ALARMS SHALL PRODUCE A SOUND THAT EXCEEDS THE PREVAILING EQUIVALENT SOUND LEVEL IN THE ROOM OR SPACE BY AT LEAST 15 DECIBELS OR EXCEEDS ANY MAXIMUM SOUND LEVEL WITH A DURATION OF 30 SECONDS BY 5 DECIBELS, WHICHEVER IS LOUDER. SOUND LEVELS FOR ALARM SIGNALS SHALL NOT EXCEED 120 DECIBALS.

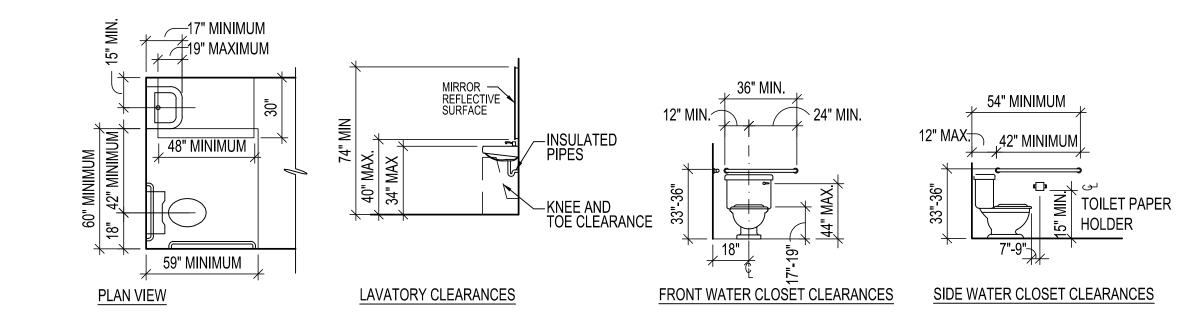
#### **VISUAL ALARMS:**

1. VISUAL ALARMS SHALL BE FLASHING LIGHTS ARRANGED TO FLASH IN CONJUNCTION WITH THE AUDIBLE EMERGENCY ALARMS. THE FLASHING FREQUENCY OF VISUAL ALARMS SHALL BE APPROXIMATELY 1 HZ. SPECIALIZED SYSTEMS USING ADVANCED TECHNOLOGY MAY BE SUBSTITUTED IF EQUIVALENT PROTECTION IS AFFORDED HANDICAPPED USERS OF THE BUILDING OR FACILITY.

#### **AUXILIARY ALARMS**:

1. SENSORY ALARMS PROVIDED FOR PERSONS WITH HEARING IMPAIRMENTS SHALL BE CONNECTED TO THE BUILDING EMERGENCY SYTEM OR THERE SHALL BE A STANDARD 1100-VOLT ELECTRICAL RECEPTACLE INTO WHICH AN ALARM UNIT CAN BE CONNECTED TO BE ACTIVATED BY THE BUILDING ALARM SYSTEM. INSTRUCTIONS FOR USE OF THE AUXILIARY ALARM OR CONNECTIONS SHALL BE PROVIDED.

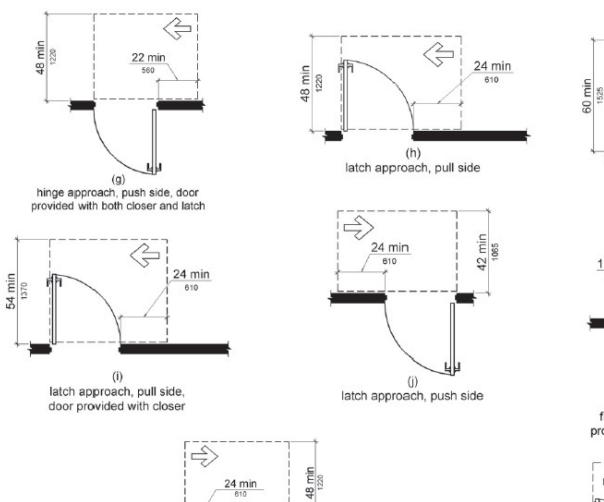
### TYPICAL TOILET ROOM CLEARANCES AND MOUNTING HEIGHTS:



#### **CLEAR FLOOR SPACE AT DOORS:**

180 degree turn

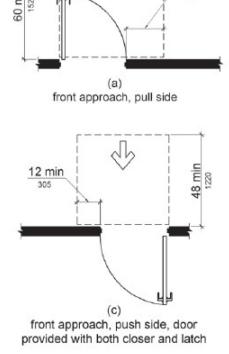
ACCESSIBILITY ROUTE REQUIREMENTS::



latch approach, push side,

door provided with closer

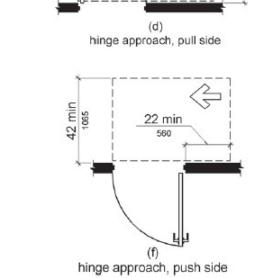




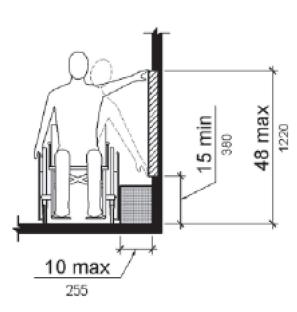
hinge approach, pull side

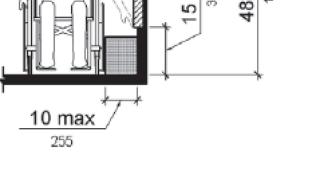
180 degree turn

front approach, push side



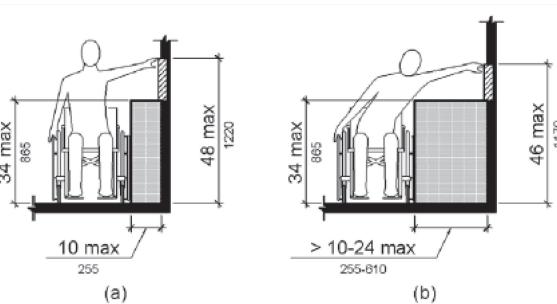
UNSTRUCTED SIDE REACH

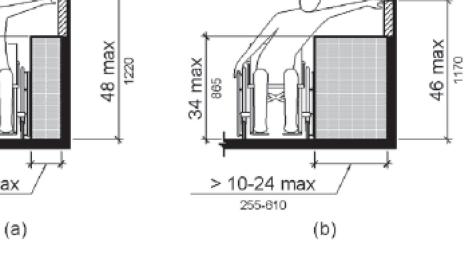




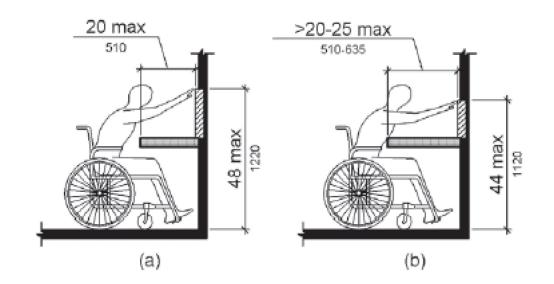
UNOBSTRUCTED FORWARD REACH

#### **OBSTRUCTED HIGH SIDE REACH**

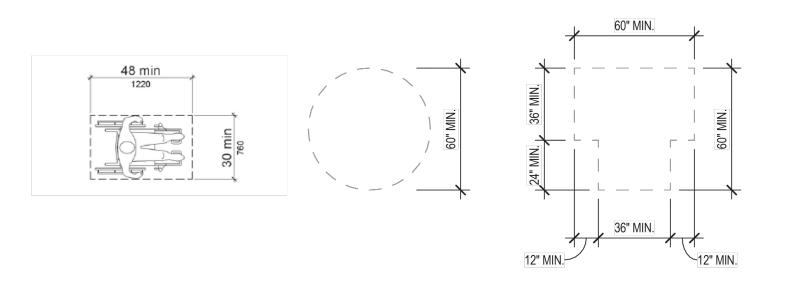




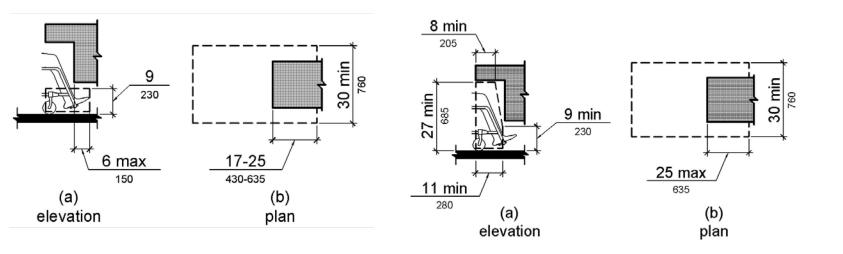
# OBSTRUCTED FORWARD REACH



### **CLEAR FLOOR AND TURN AROUND SPACES:**



#### TOE AND KNEE CLEARANCE REQUIREMENTS:



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**GENERAL SERVICES** CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS DESCRIPTION

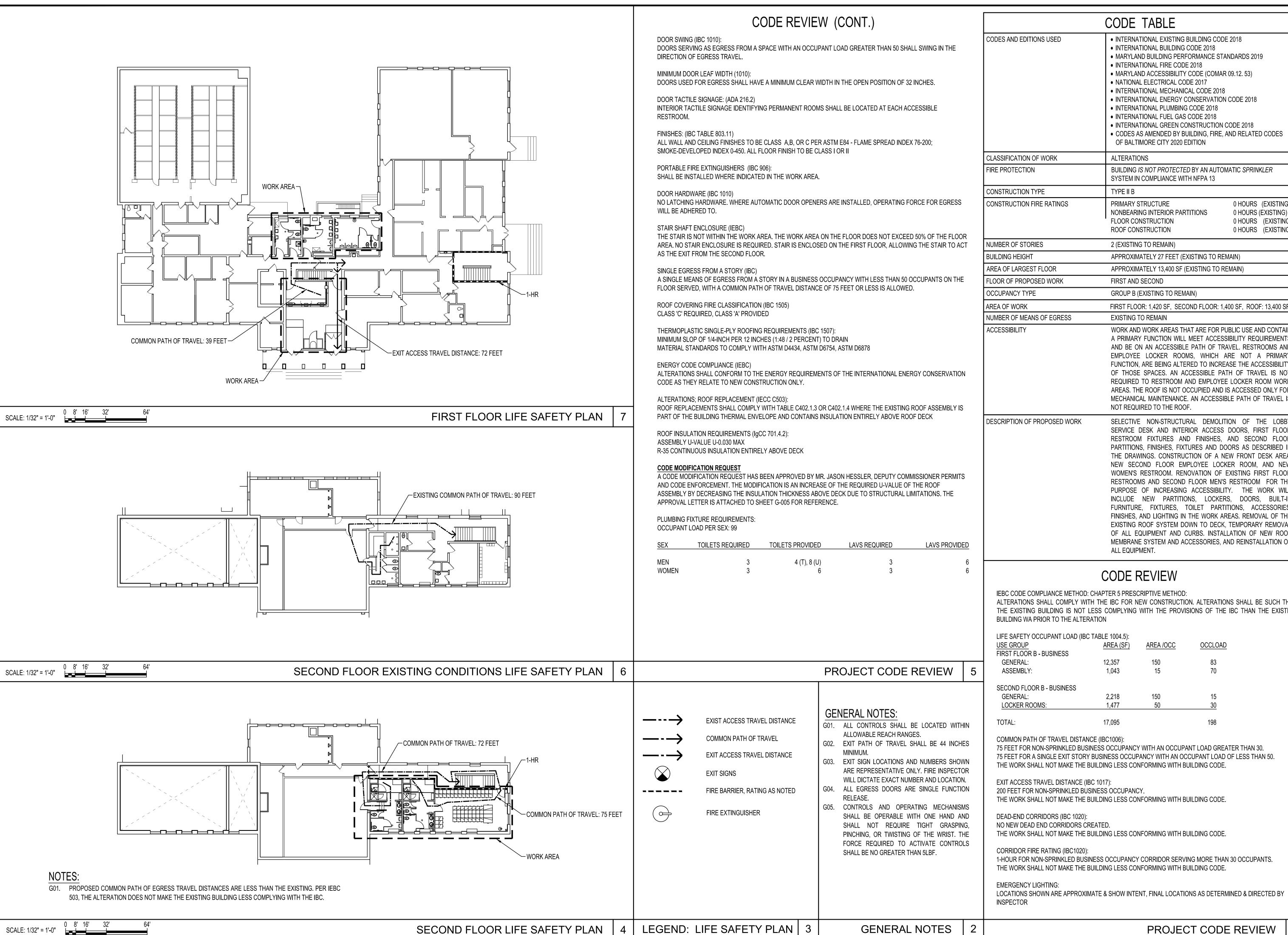
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**ACCESSIBILITY** GEN. NOTES

CONSTRUCTION **DOCUMENTS** 

2/16/24

SHEET G-003



• INTERNATIONAL EXISTING BUILDING CODE 2018 • MARYLAND BUILDING PERFORMANCE STANDARDS 2019 • MARYLAND ACCESSIBILITY CODE (COMAR 09.12. 53) • INTERNATIONAL ENERGY CONSERVATION CODE 2018 • INTERNATIONAL GREEN CONSTRUCTION CODE 2018 • CODES AS AMENDED BY BUILDING, FIRE, AND RELATED CODES BUILDING IS NOT PROTECTED BY AN AUTOMATIC SPRINKLER 0 HOURS (EXISTING) 0 HOURS (EXISTING) 0 HOURS (EXISTING) 0 HOURS (EXISTING) APPROXIMATELY 27 FEET (EXISTING TO REMAIN) APPROXIMATELY 13,400 SF (EXISTING TO REMAIN) FIRST FLOOR: 1,420 SF, SECOND FLOOR: 1,400 SF, ROOF: 13,400 SF WORK AND WORK AREAS THAT ARE FOR PUBLIC USE AND CONTAIN A PRIMARY FUNCTION WILL MEET ACCESSIBILITY REQUIREMENTS AND BE ON AN ACCESSIBLE PATH OF TRAVEL. RESTROOMS AND EMPLOYEE LOCKER ROOMS, WHICH ARE NOT A PRIMARY FUNCTION, ARE BEING ALTERED TO INCREASE THE ACCESSIBILITY OF THOSE SPACES. AN ACCESSIBLE PATH OF TRAVEL IS NOT REQUIRED TO RESTROOM AND EMPLOYEE LOCKER ROOM WORK AREAS. THE ROOF IS NOT OCCUPIED AND IS ACCESSED ONLY FOR MECHANICAL MAINTENANCE. AN ACCESSIBLE PATH OF TRAVEL IS SELECTIVE NON-STRUCTURAL DEMOLITION OF THE LOBBY SERVICE DESK AND INTERIOR ACCESS DOORS, FIRST FLOOR RESTROOM FIXTURES AND FINISHES, AND SECOND FLOOR PARTITIONS, FINISHES, FIXTURES AND DOORS AS DESCRIBED IN THE DRAWINGS. CONSTRUCTION OF A NEW FRONT DESK AREA, NEW SECOND FLOOR EMPLOYEE LOCKER ROOM, AND NEW WOMEN'S RESTROOM. RENOVATION OF EXISTING FIRST FLOOR RESTROOMS AND SECOND FLOOR MEN'S RESTROOM FOR THE PURPOSE OF INCREASING ACCESSIBILITY. THE WORK WIL INCLUDE NEW PARTITIONS, LOCKERS, DOORS, BUILT-FURNITURE. FIXTURES. TOILET PARTITIONS. ACCESSORIE

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CITY OF BALTIMORE

DEPARTMENT OF **GENERAL SERVICES** 

CAPITAL PROJECTS AND ENERGY

DIVISION

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ALTERATIONS SHALL COMPLY WITH THE IBC FOR NEW CONSTRUCTION. ALTERATIONS SHALL BE SUCH THAT THE EXISTING BUILDING IS NOT LESS COMPLYING WITH THE PROVISIONS OF THE IBC THAN THE EXISTING

75 FEET FOR NON-SPRINKLED BUSINESS OCCUPANCY WITH AN OCCUPANT LOAD GREATER THAN 30. 75 FEET FOR A SINGLE EXIT STORY BUSINESS OCCUPANCY WITH AN OCCUPANT LOAD OF LESS THAN 50.

1-HOUR FOR NON-SPRINKLED BUSINESS OCCUPANCY CORRIDOR SERVING MORE THAN 30 OCCUPANTS.

LOCATIONS SHOWN ARE APPROXIMATE & SHOW INTENT, FINAL LOCATIONS AS DETERMINED & DIRECTED BY

**CODE REVIEW AND NOTES** 

> CONSTRUCTION **DOCUMENTS**

> > 2/16/24

SHEET G-004

exceeding both requirements. Documentation shall be provided to the AHJ that indicates that the RECs associated with the on-site renewable energy system will be retained and retired by the owner. Where the building owner does not have ownership of the RECs associated with the onsite renewable energy system, the owner shall obtain and retire an equal or greater quantity of RECs.

of all on-site renewable energy systems. For equip-

ment listed in Section 701.4.7.3.2 (7.4.7.3.2) that are

also contained in Normative Appendix B, the

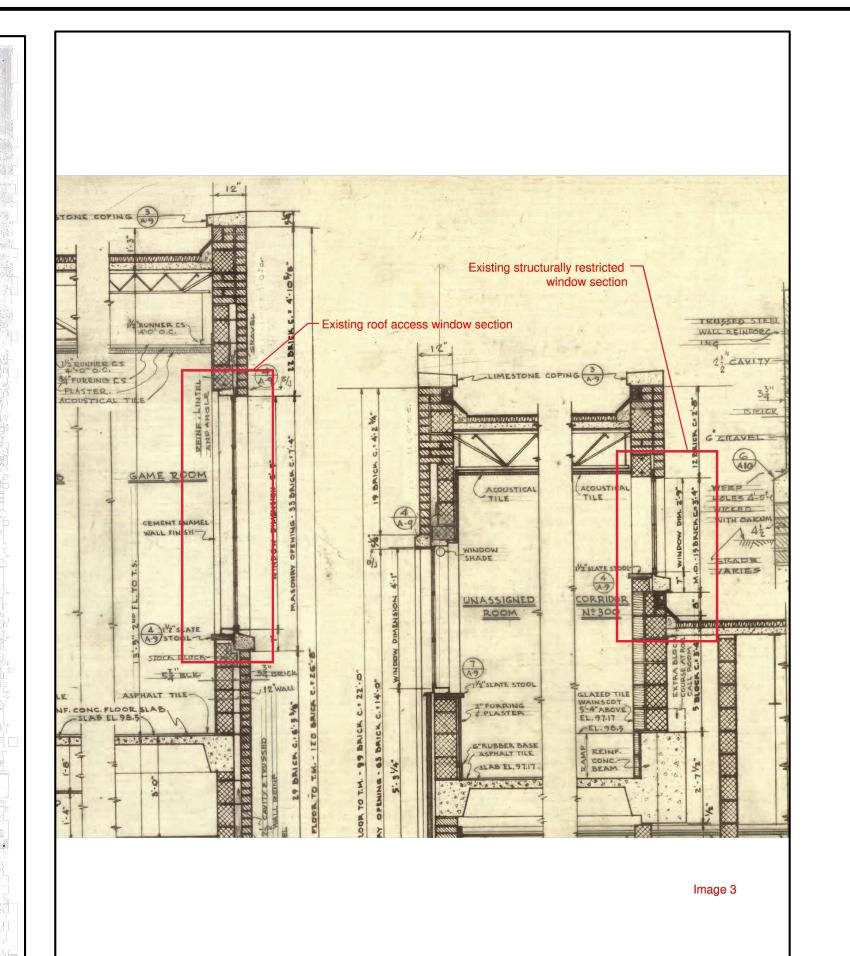
installed equipment shall comply by meeting or

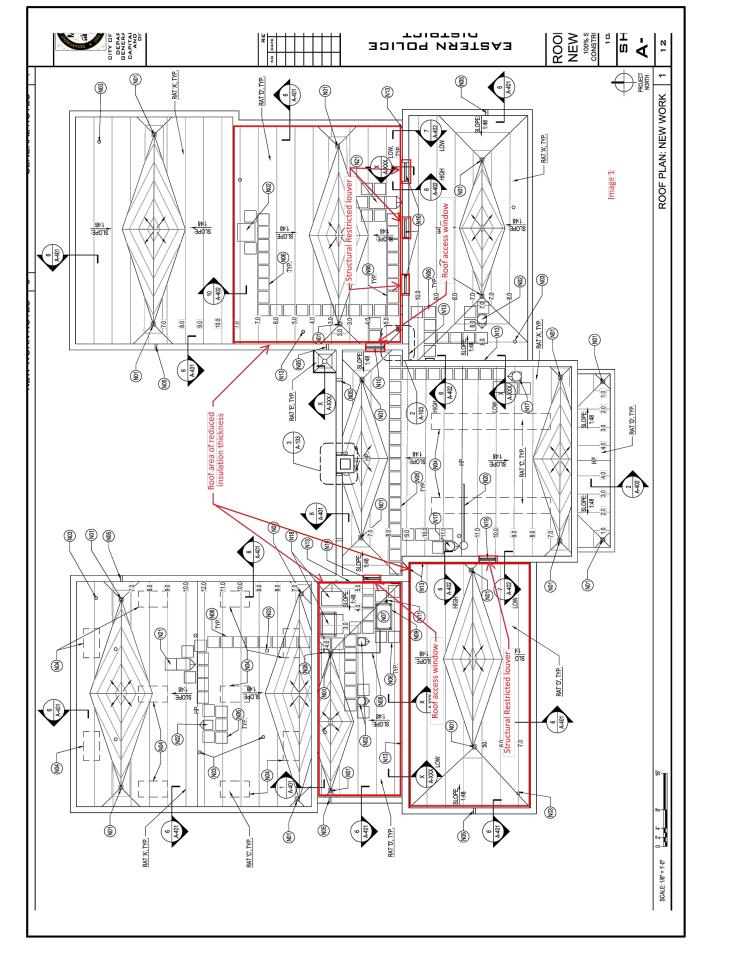
701.4.2 (7.4.2) Building Envelope. The building envelope shall comply with ANSI/ASHRAE/IES Standard 90.1, Section 5, with the following modifications and additions. 701.4.2.1 (7.4.2.1) Building Envelope Requirements. The building envelope shall comply with the require-

ments in ANSI/ASHRAE/IES Standard 90.1, Tables 5.5-0 through 5.5-8, with the following modifications to values in each table. For the opaque elements, each U-factor, C-factor, and F-factor in Tables 5.5-4 through 5.5-8 shall be reduced by 5%. The "Insulation Min. R. Value" column in ANSI/ASHRAE/IES Standard 90.1, Tables 5.5-4 through 5.5-8, shall not apply. For vertical fenestration and skylights, each U-factor shall be reduced by 5%. For skylights and east- and west-oriented vertical fenestration, each solar heat gain coeffi-cient (SHGC) in Tables 5.5-0 through 5.5-8 shall be

> 1. The U-factor, C-factor, or F-factor shall not be modified where the corresponding R-value requirement is designated as "NR" (no requirement) in ANSI/ASHRAE/IES Standard 90.1, Tables 5.5-4 through 5.5-8.

2018 INTERNATIONAL GREEN CONSTRUCTION CODE®





SANDERS DESIGNS

9727 GREENSIDE DRIVE, SUITE 202 | COCKEYSVILLE, MD 21030 | TEL: 410-560-2624 | FAX: 410-560-2722

13 November 2023

Mr. Jason Hessler, Deputy Commissioner Permits & Code Enforcement

Department of Housing and Community Development 417 East Fayette Street – Room 101 Baltimore, Maryland 21202

Re.: Request for Modification of Code

We are writing to request a modification of the building code for the re-roofing project of Eastern Police Station, 1620 Edison Highway, Baltimore, Maryland 21213.

The code sections in question are IgCC 2018 section 101.3.1 requiring new systems in existing buildings to comply with current IGCC standards, and section 701.4.2.1 requiring building envelope assemblies to have a U-value that is 5% less than the values presented in ASHRAE Standard 90.1 2016.

The ASHRAE Standard 90.1 requires a U-value of 0.032 for insulation entirely above deck; The U-value required by the IgCC is therefore 0.030. The insulation thickness required to meet U-0.030 is approximately 6.75 inches of polyisocyanurate insulation assuming an LTTR R-value of 5.0 for cold climates. The dead level roof deck will require tapered insulation added on top of this minimum to achieve the required 1/4 inch per 1 foot slope for the proposed TPO membrane. The new insulation thickness is about 5.25 inches thicker than existing. As a result of this additional insulation thickness, there are three sections of roof that have a conflict with existing window or louver sill heights due to the NRCA recommended up-turned base flashing height of 8 inches for membranes on flat roofs to account for snow build-up (Image 1, 2). It would be impossible to install the required thickness of insulation above the roof deck and avoid this conflict. The option to raise the window sills does not exist due to structural limitations and two of the windows' functioning as required roof top access (Image 3). The existing conditions are shown in the attached photographs (Image 4, 5, 6, 7).

To accommodate the existing conditions, we intend to install insulation at the following minimum thicknesses with additional sloped insulation for drainage:

For an area of 871 sf, we intend to install a minimum of 2 inches of polyisocyanurate with additional tapered insulation at 1/4 inch per 1 foot slope for drainage, achieving a maximum thickness of 5.25 inches at the window sill, and providing an average U-value of U-0.055. This will provide us with 6 inches of up-turned membrane flashing height at the window.

For an area of 1,752 sf, we intend to install a minimum of 3 inches of polyisocyanurate with additional tapered insulation at 1/4 inch per 1 foot slope for drainage, achieving a maximum thickness of 5.25 inches at the window sill, and providing an average U-value of U-0.039. This will provide us with 6 inches of up-turned membrane flashing height at the windows.

For an area of 1,429 sf, we intend to install a minimum of 5 inches of polyisocyanurate with additional tapered insulation at 1/4 inch per 1 foot slope for drainage, achieving a maximum thickness of 5.25 inches at the window sill, and providing an average U-value of U-0.033. This will provide us with 6 inches of up-turned membrane flashing height at the louver.

For the remainder of the roof area, 9,361 sf, the minimum insulation thickness will be 7-inches with additional tapered insulation, providing an average insulation thickness of 9 inches, providing an average U-value of 0.022.

Based on percentage, the total average roof U-value will be 0.0275, less than IgCC requirements.

BUILDINGS READY TODAY TO HANDLE THE DEMANDS OF TOMORROW

CITY OF BALTIMORE DEPARTMENT OF

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**GENERAL SERVICES** CAPITAL PROJECTS AND ENERGY DIVISION

SANDERS DESIGNS

0727 GREENSIDE DRIVE, SUITE 202 | COCKEYSVILLE, MD 21030 | TEL: 410-560-2624 | FAX: 410-560-2722

doors that are intended to operate on average at least 75

cycles per day shall not exceed a maximum U-factor of

1.20 Btu/h-ft<sup>2</sup> F (6.81 W/m<sup>2</sup>·K). Opening rate, closing

rate, and average cycles per day shall be included in

construction drawings. ANSI/ASHRAE/IES Standard

90.1, Sections 5.5.3.6 and 5.5.4.3, shall not apply for

high-speed doors complying with all criteria in this sec-

701.4.2.4 (7.4.2.4) Air Curtains. Where air curtains

are provided at building entrances or building entrance

vestibules, for the distance from the air-curtain dis-

charge nozzle to the floor, the air-curtain unit shall produce a minimum velocity of 6.6 ft/s (2.0 m/s), in

accordance with ANSI/AMCA 220, and be installed in

accordance with manufacturer's instructions. Auto-

matic controls shall be provided that will operate the air

curtain with the opening and closing of the door. Air

curtains and their controls shall comply with Section

701.4.2.5 (7.4.2.5) Vertical Fenestration Area. The

total vertical fenestration area shall be less than 40% of

the gross wall area. This requirement supersedes the

requirement in ANSI/ASHRAE/IES Standard 90.1,

701.4.2.6 (7.4.2.6) Permanent Projections. For Cli-

mate Zones 0 through 3 and Climate Zones 4B and 4C,

the vertical fenestration on the west, south, and east

shall be shaded by permanent projections that have an

area-weighted average projection factor (PF) of not

less than 0.50 for the first story above grade and 0.25 for other above-grade stories. The building is allowed

to be rotated up to 45 degrees to the nearest cardinal

orientation for purposes of calculations and showing

compliance. Where different windows or glass doors

have different PF values, each shall be evaluated sepa-

1001.3.1.2.1 (10.3.1.2.1).

Section 5.5.4.2.1.

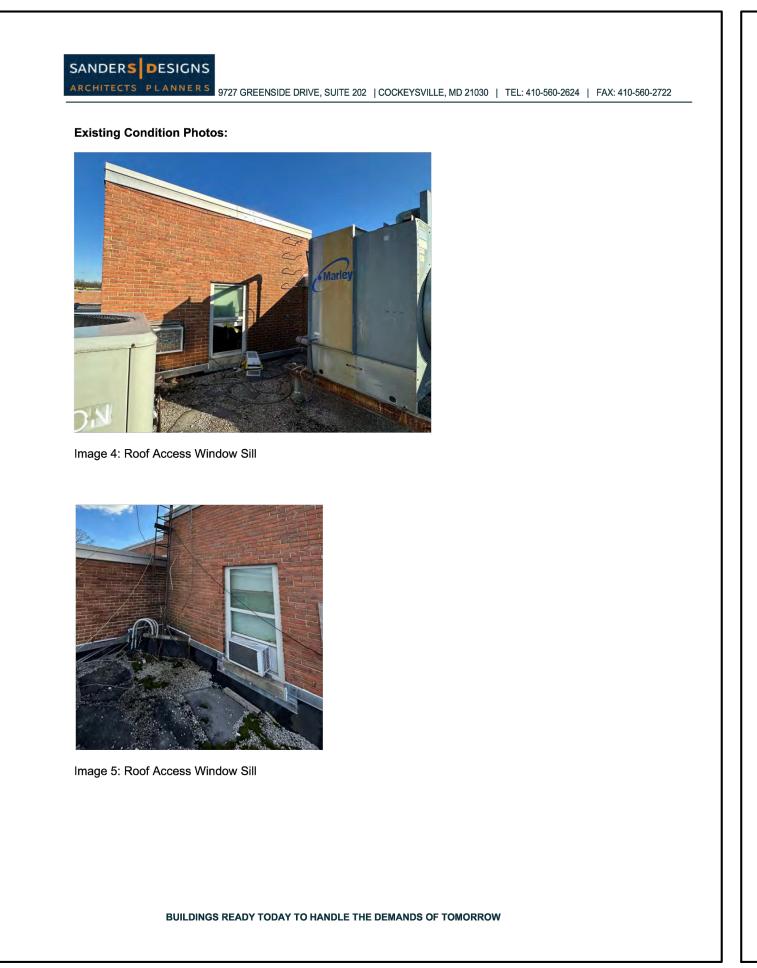


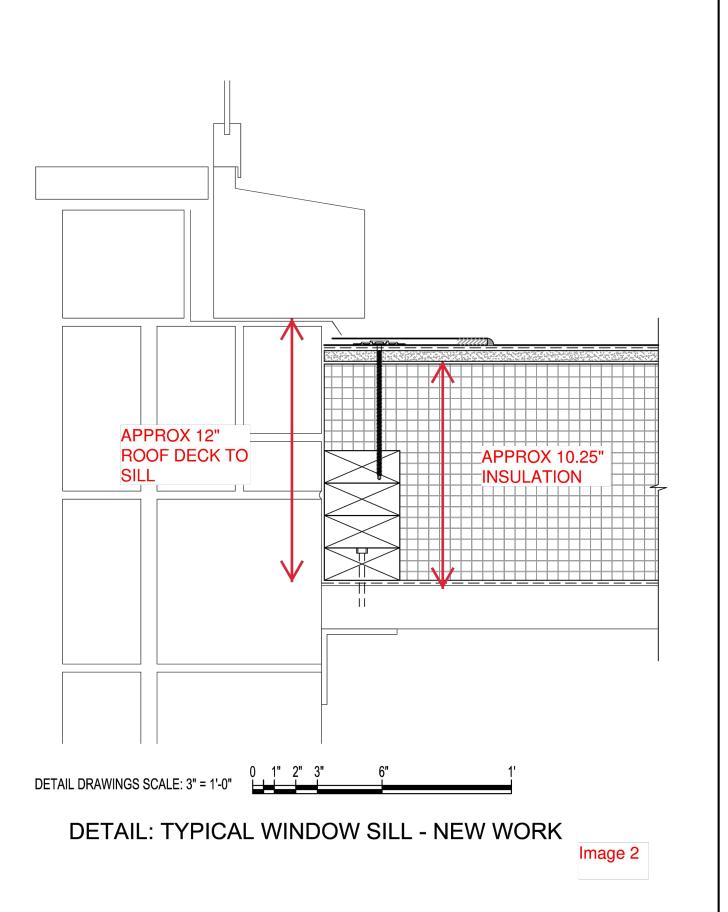
Image 6: Structurally Restricted Window Sills

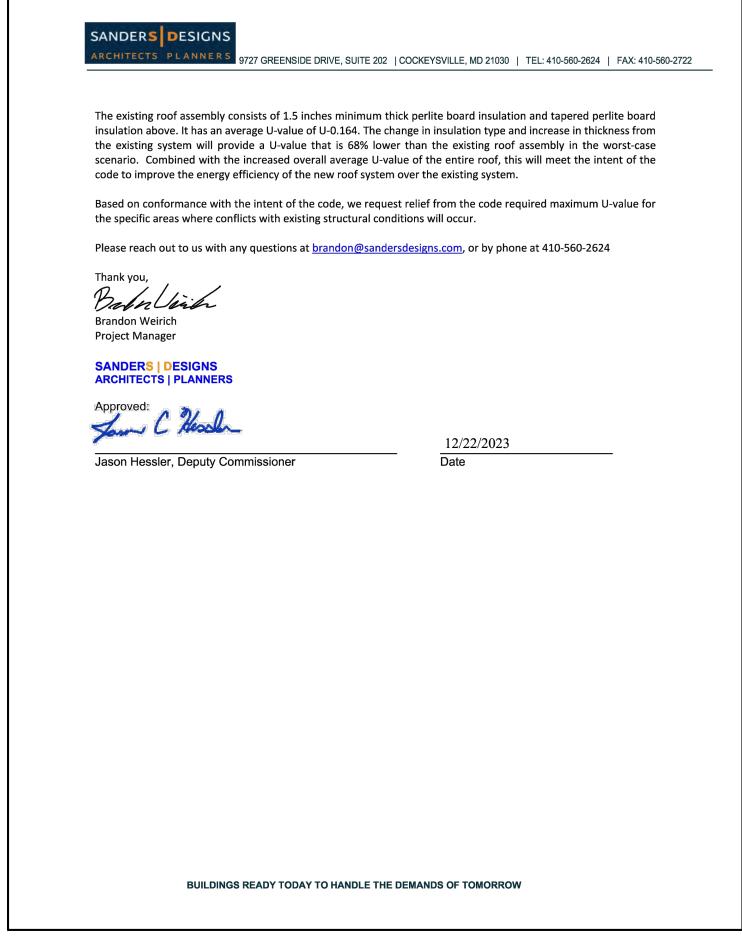


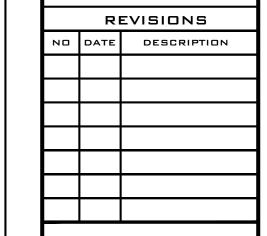
Image 6: Structurally Restricted Louver Sill

BUILDINGS READY TODAY TO HANDLE THE DEMANDS OF TOMORROW







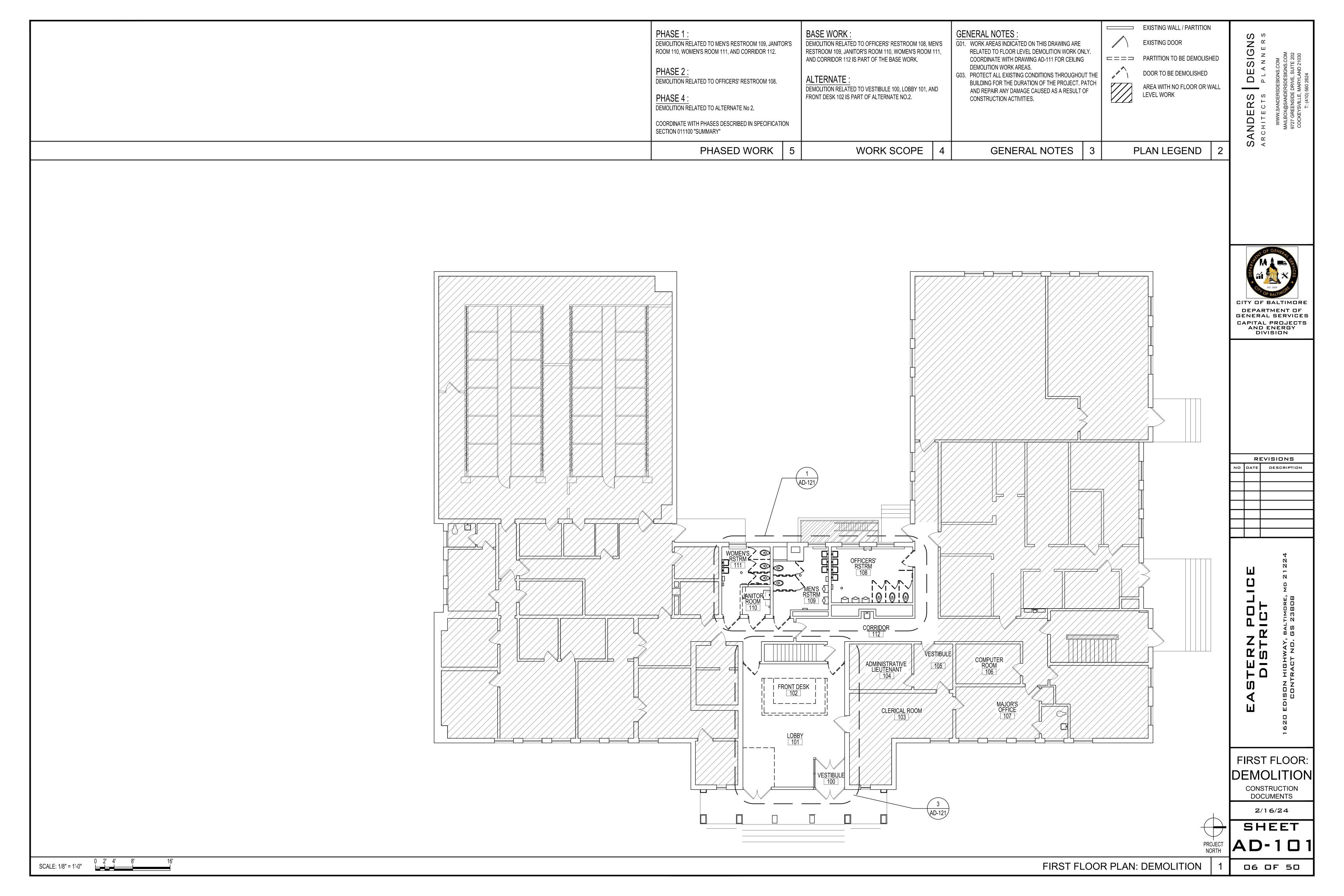


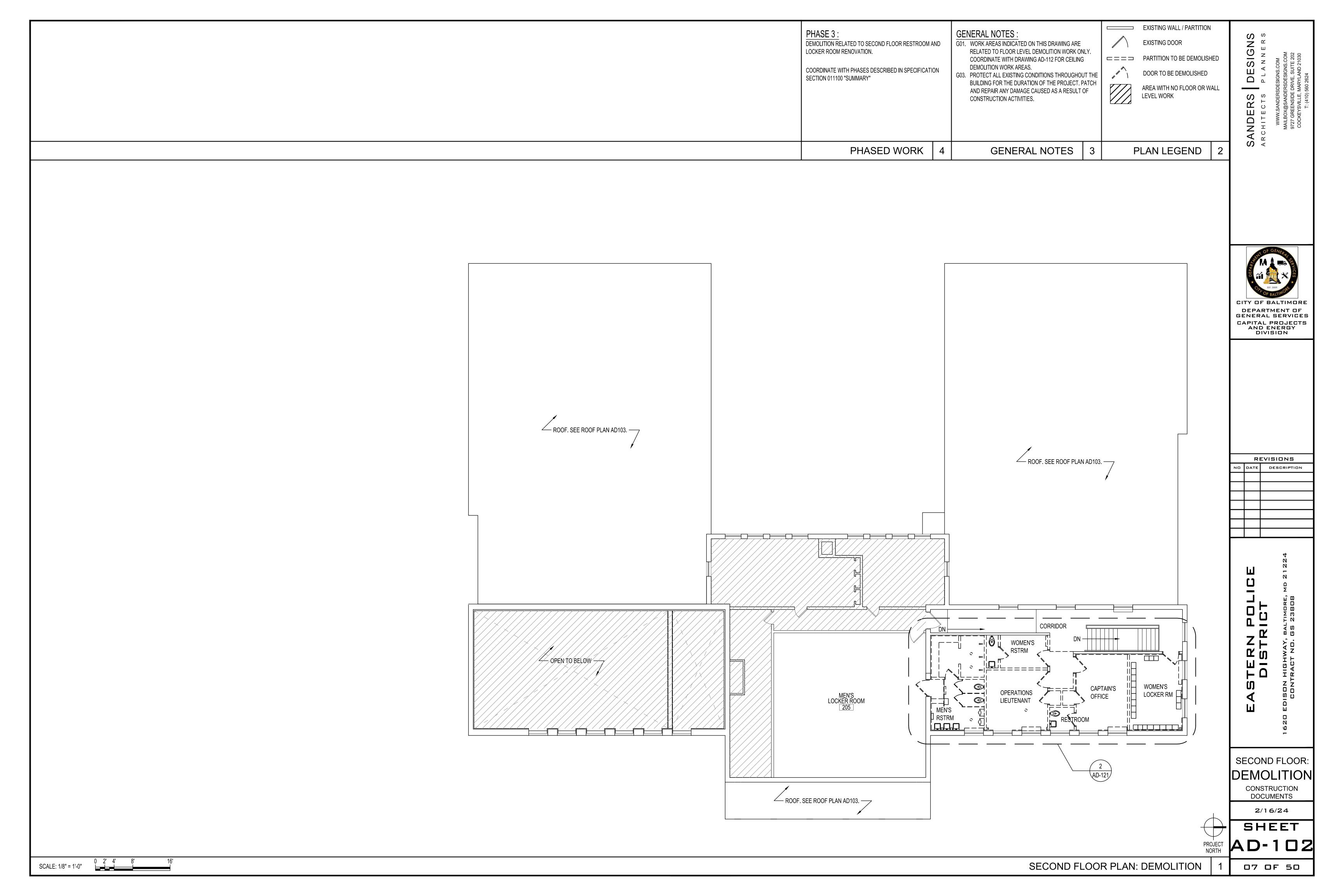
CODE **MODIFICATION** 

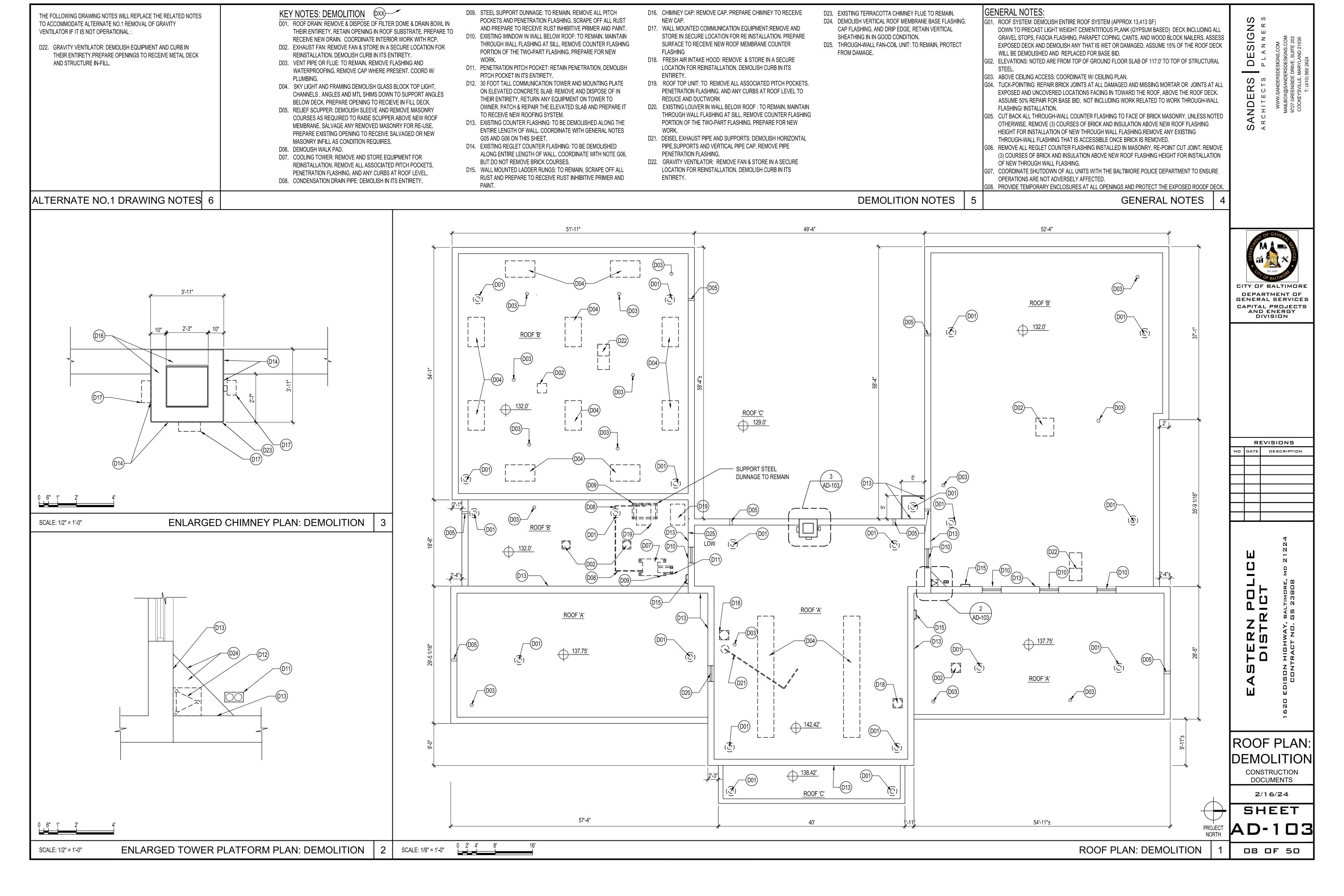
> CONSTRUCTION **DOCUMENTS**

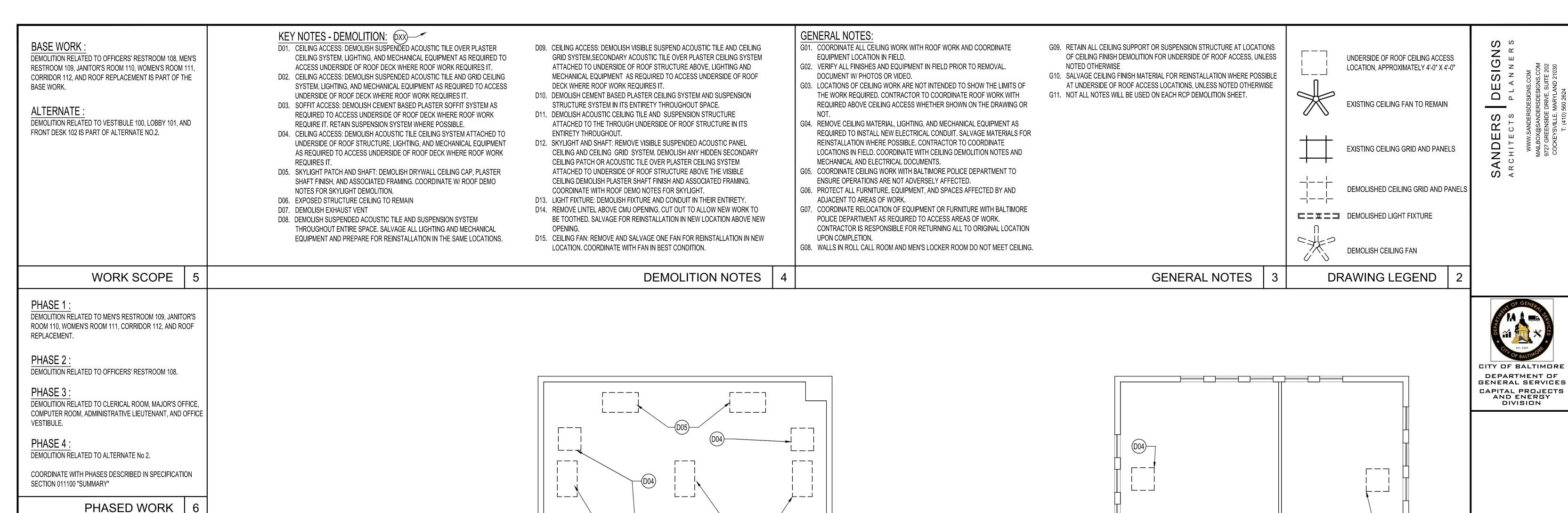
2/16/24 SHEET

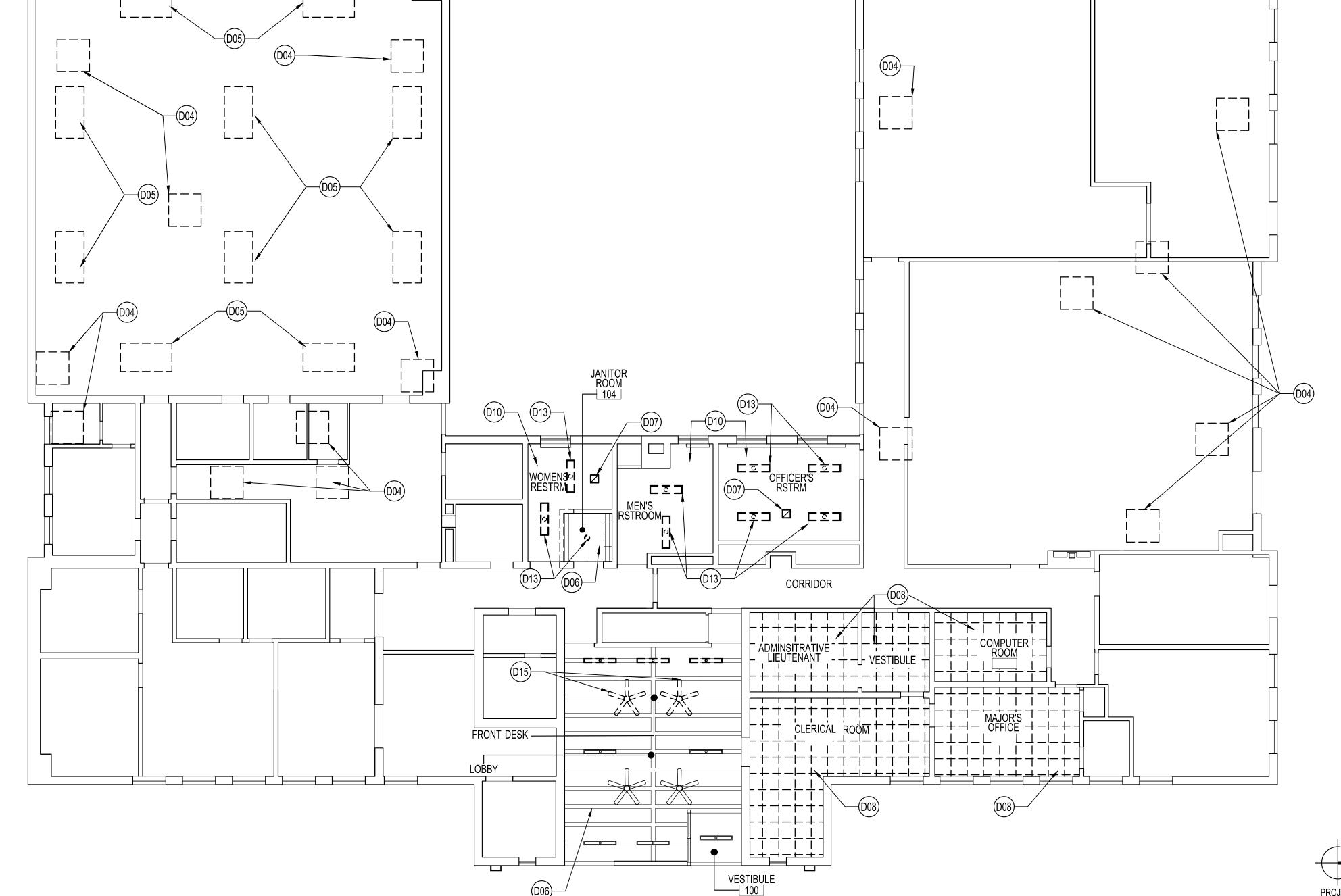
G-005











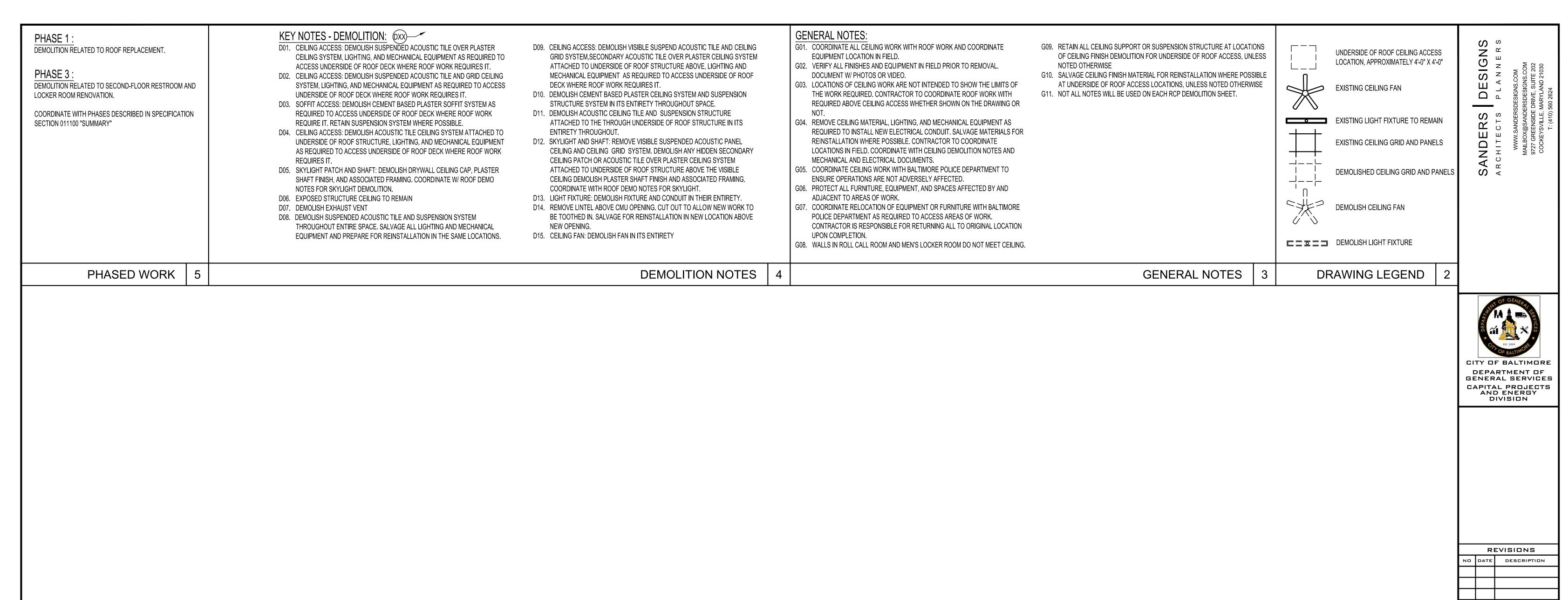
REVISIONS DESCRIPTION RCP: DEMOLITION CONSTRUCTION **DOCUMENTS** 2/16/24

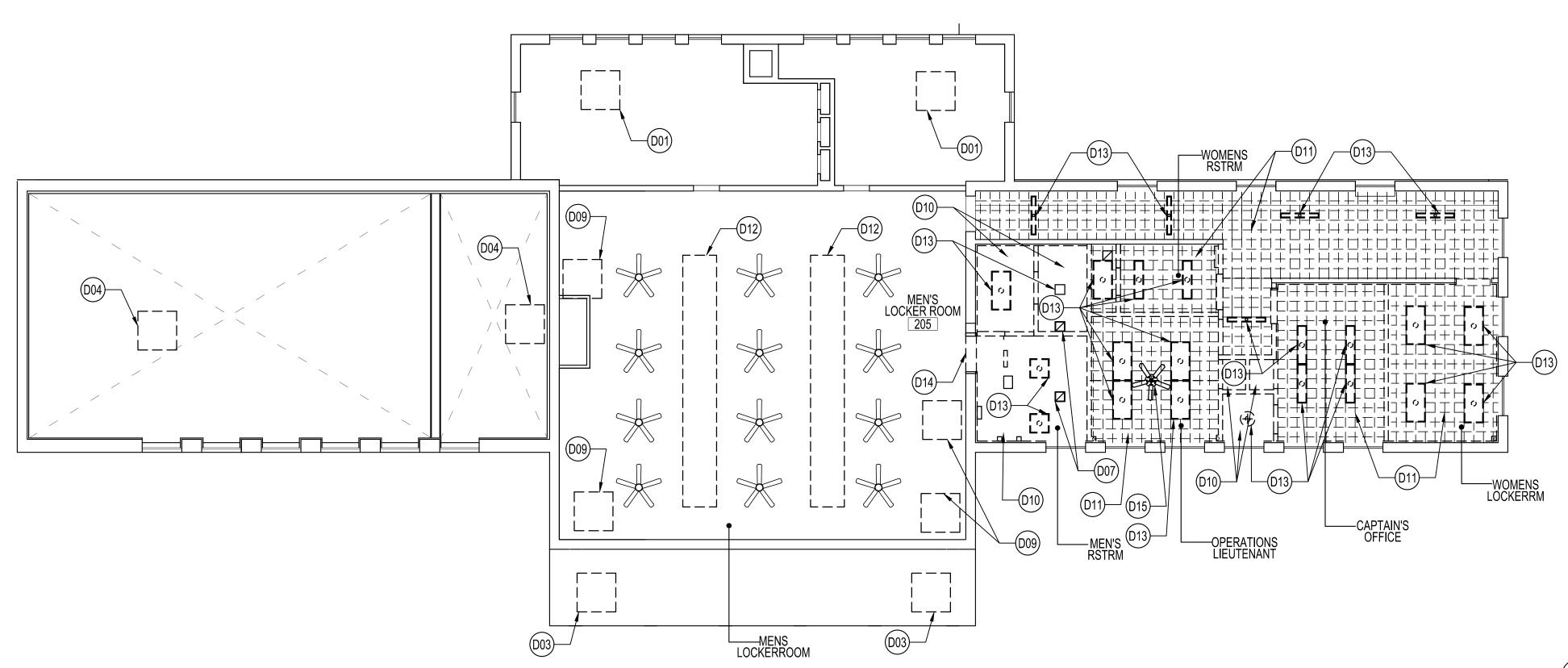
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09 OF 50

FIRST FLOOR RCP: DEMOLITION

SCALE: 1/8" = 1'-0" 0 2' 4' 8' 16'





POL RCP: DEMOLITION CONSTRUCTION

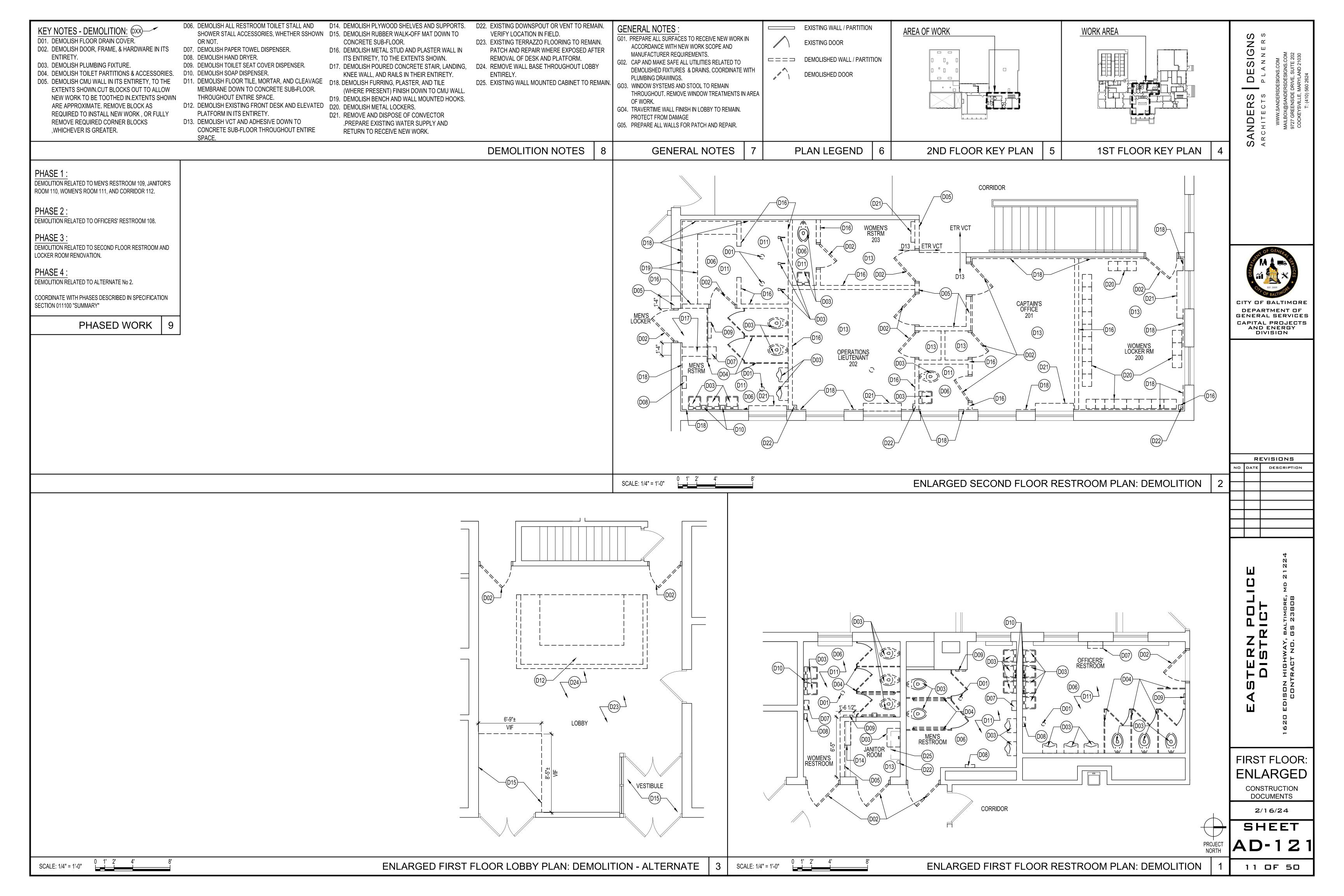
2/16/24 SHEET

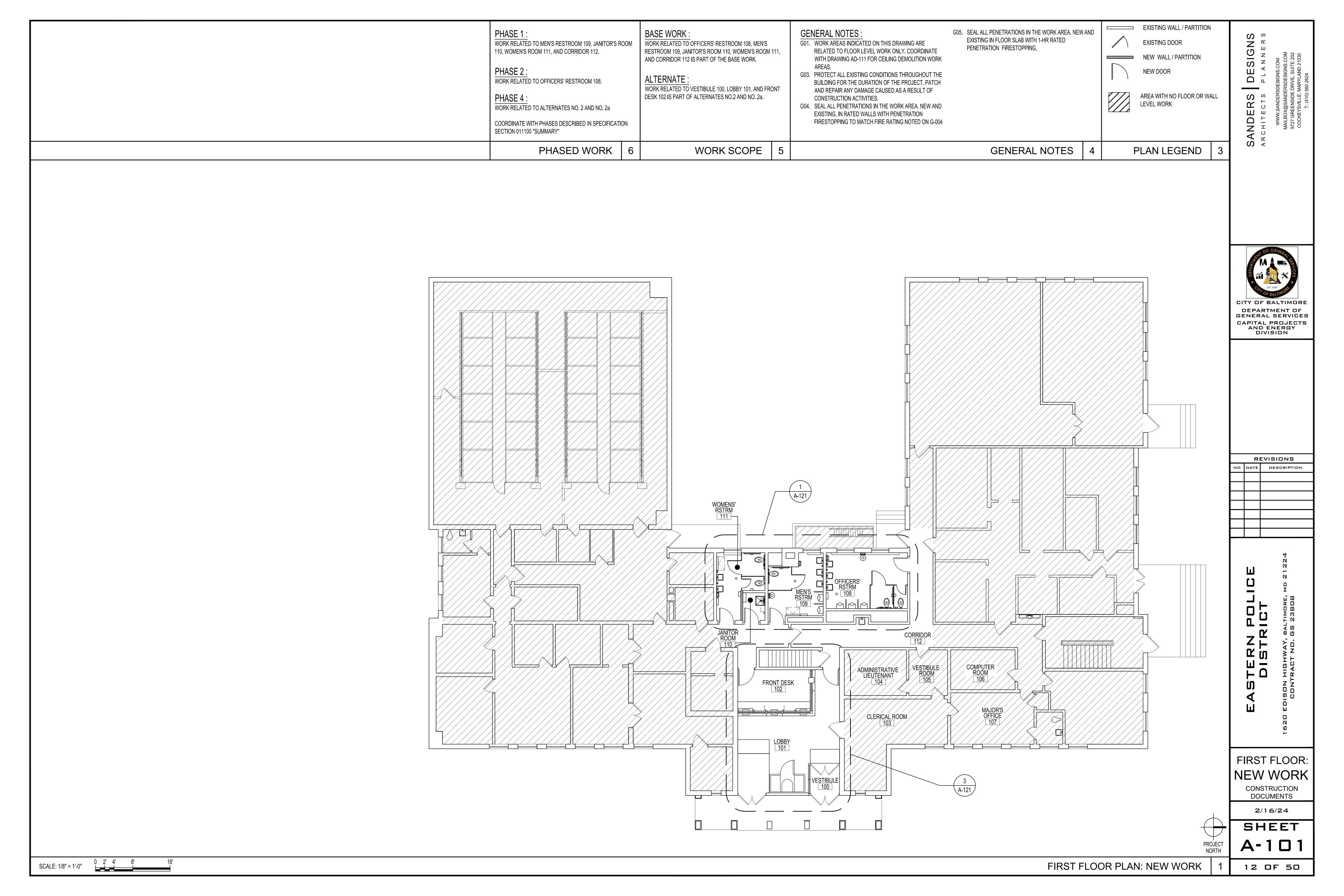
DOCUMENTS

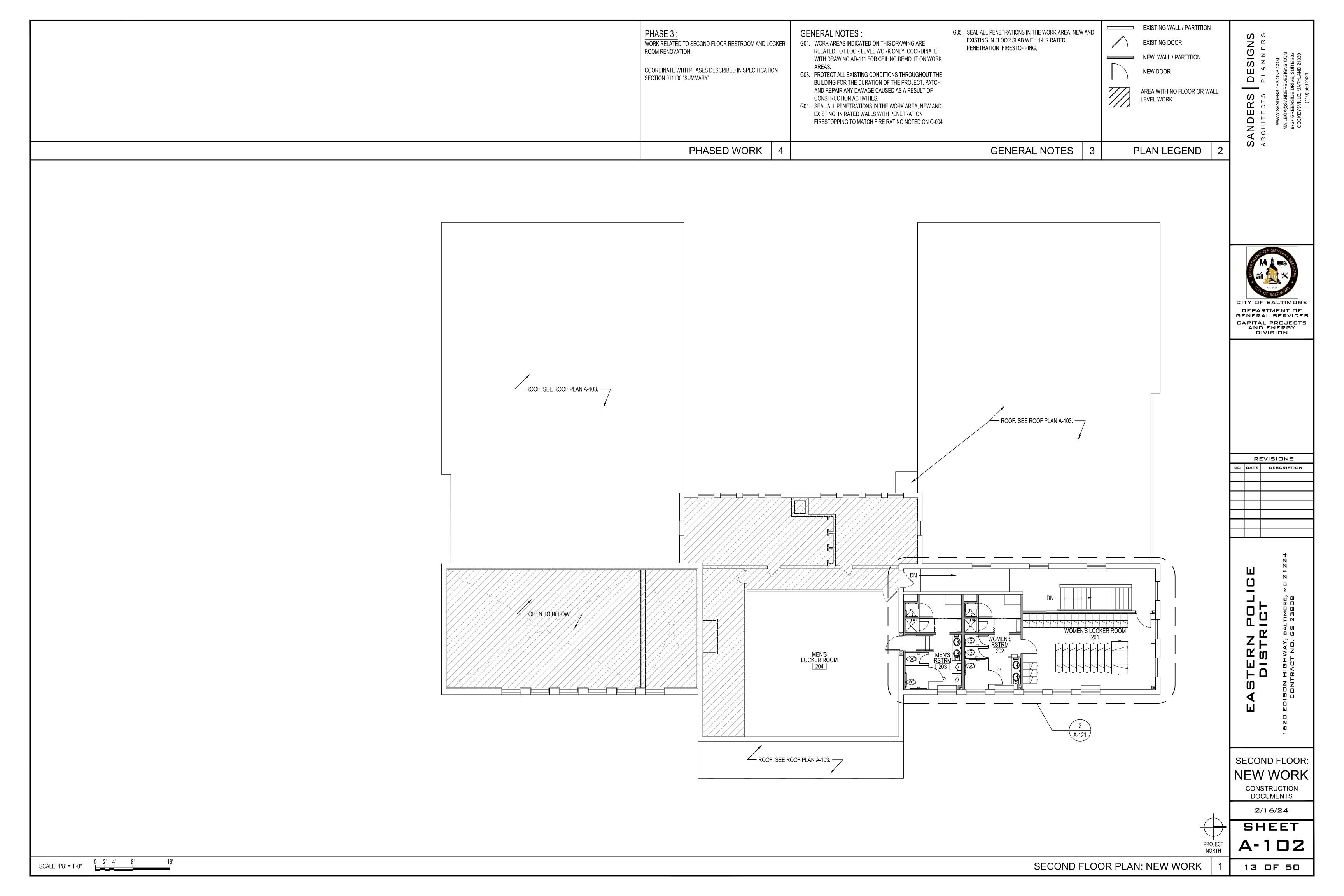
SECOND FLOOR RCP: DEMOLITION

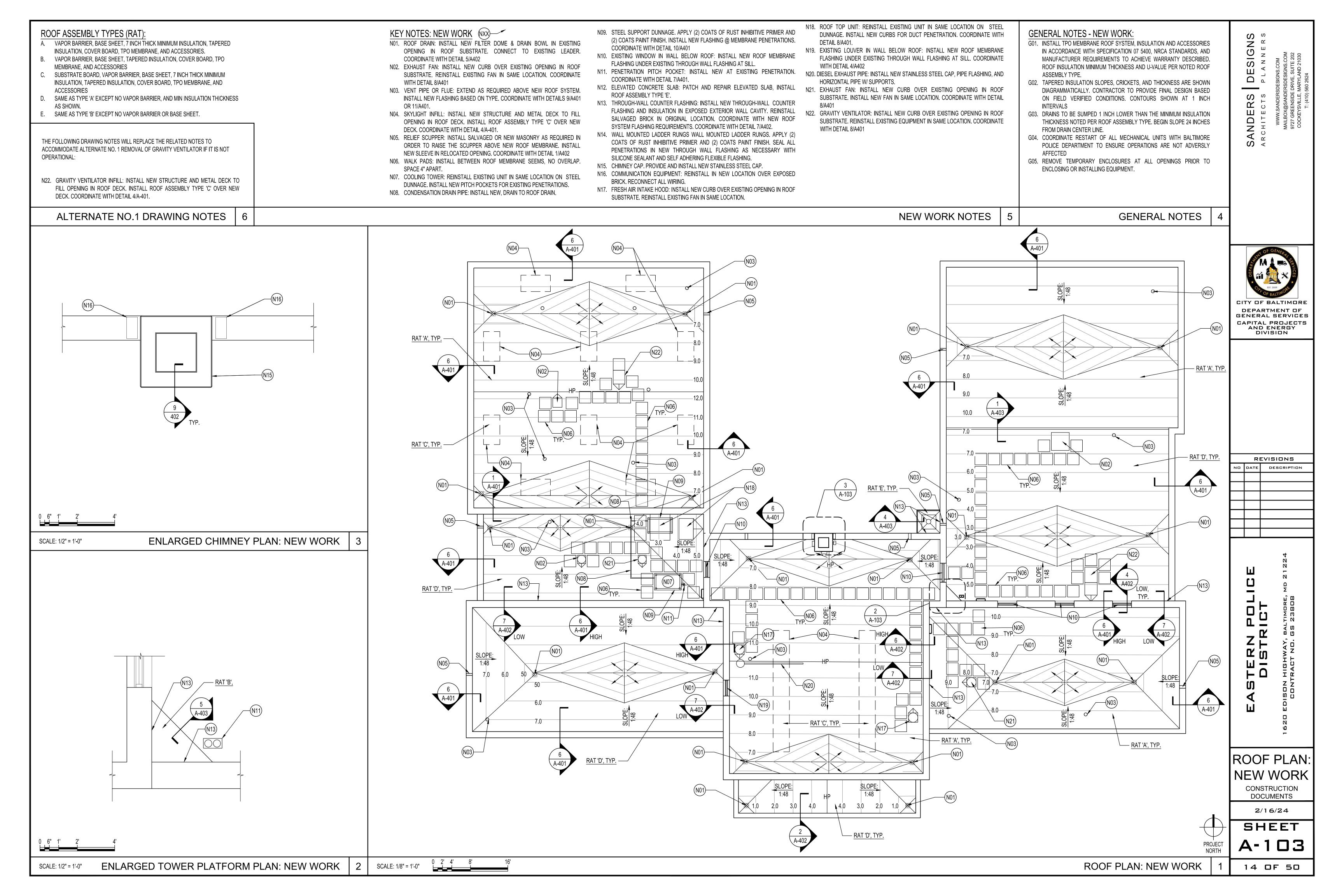
10 OF 50

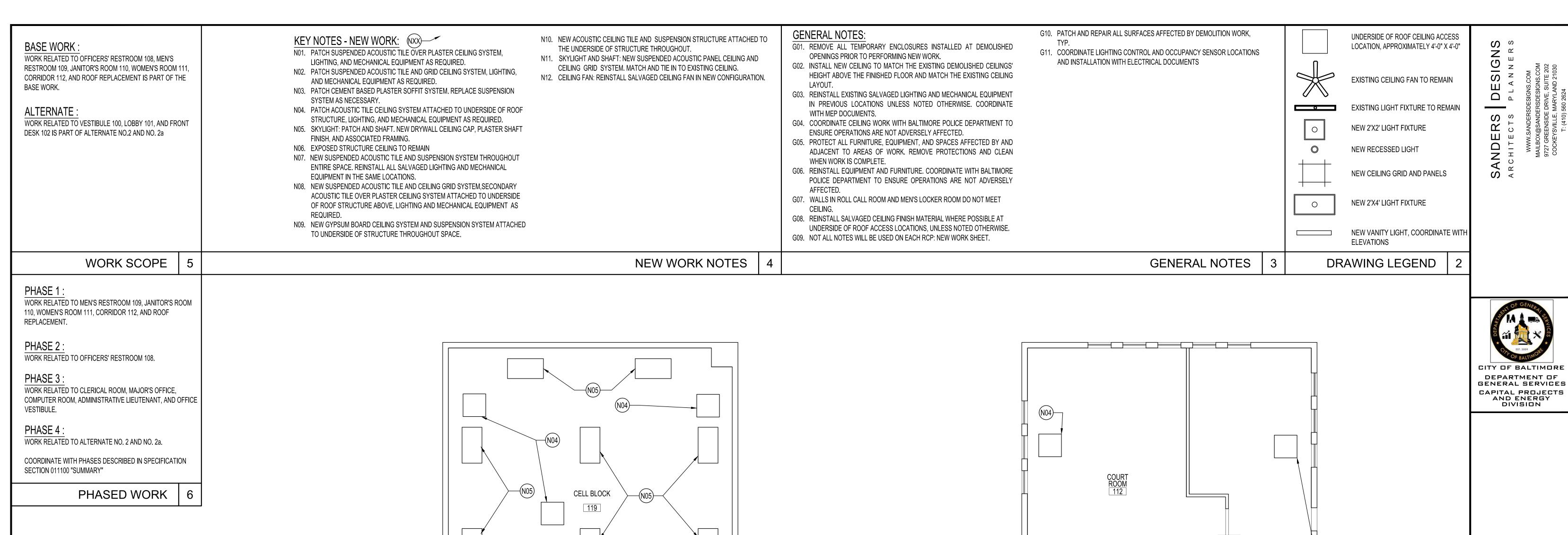
SCALE: 1/8" = 1'-0"

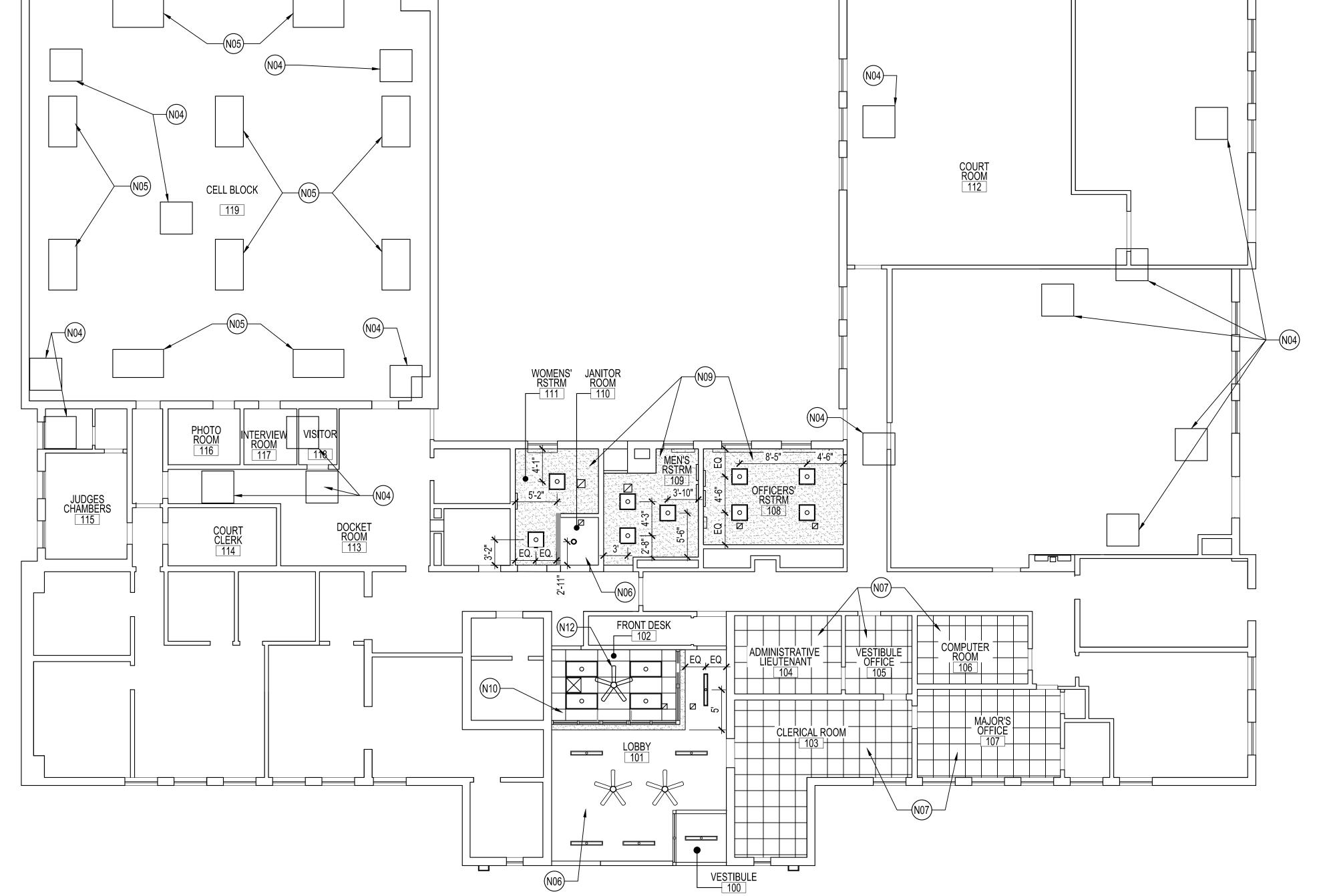












REVISIONS DESCRIPTION PO TERN DISTR RCP:

**NEW WORK** CONSTRUCTION

DOCUMENTS

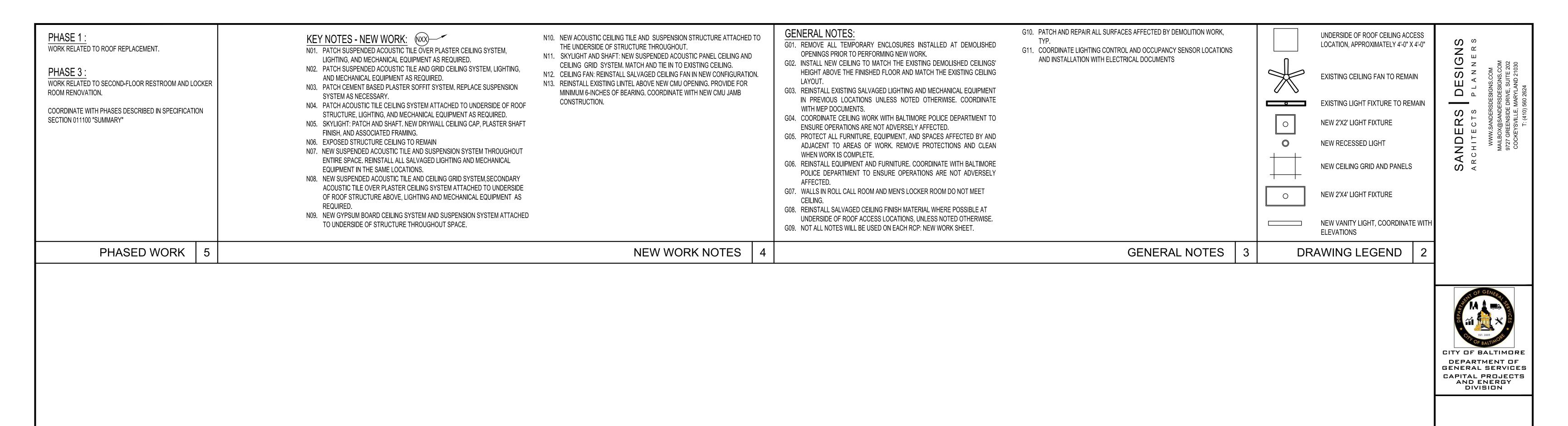
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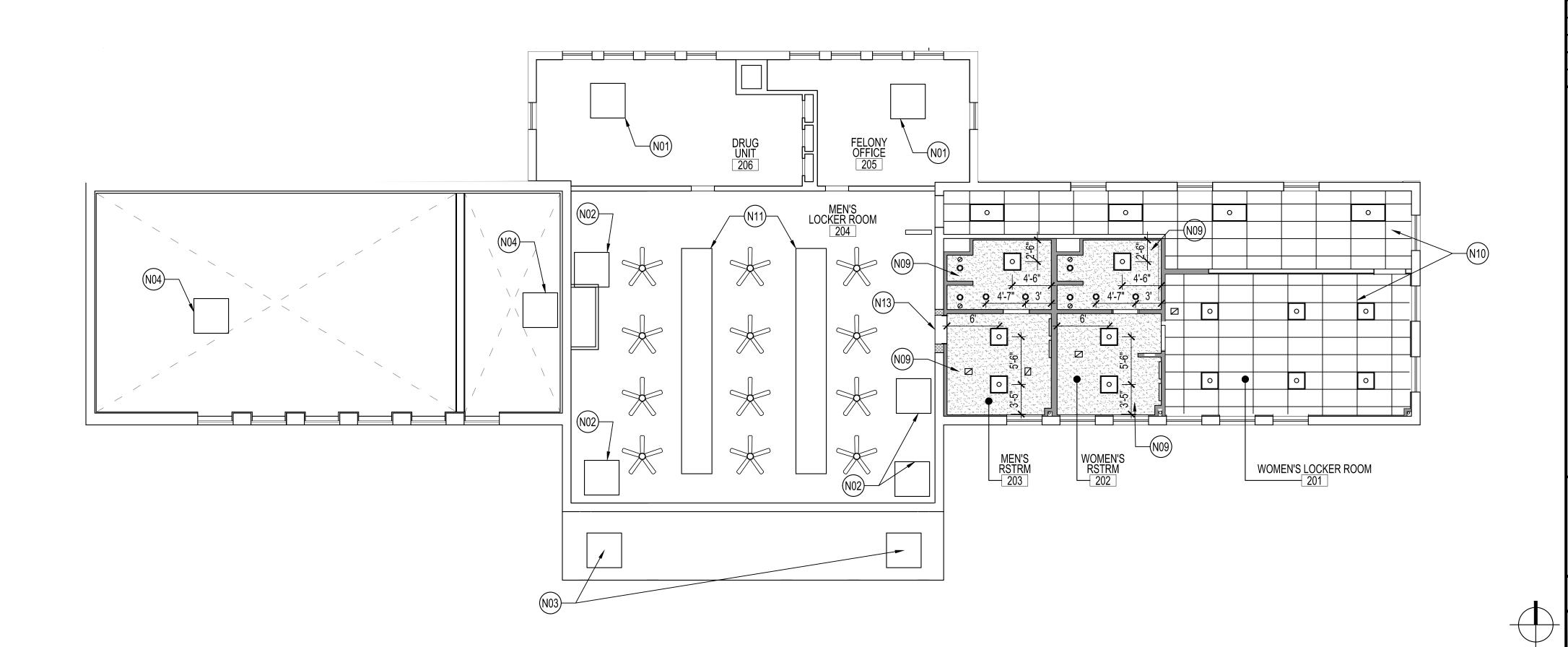
FIRST FLOOR RCP: NEW WORK

15 OF 50

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



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



TERN POLICE
DISTRICT
HIGHWAY, BALTIMORE, MD 21224
RACT NO. GS 23808

REVISIONS

DESCRIPTION

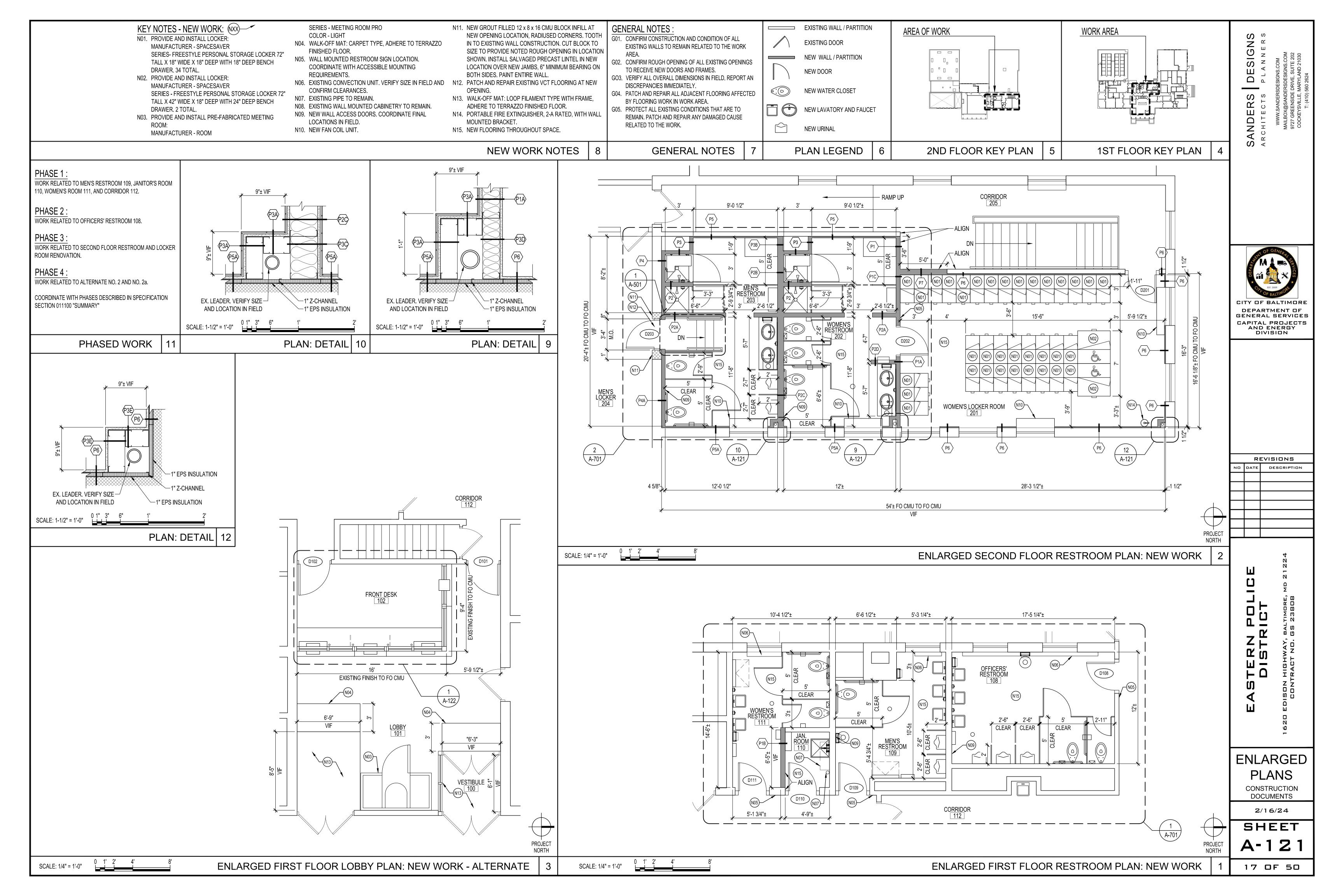
RCP: NEW WORK

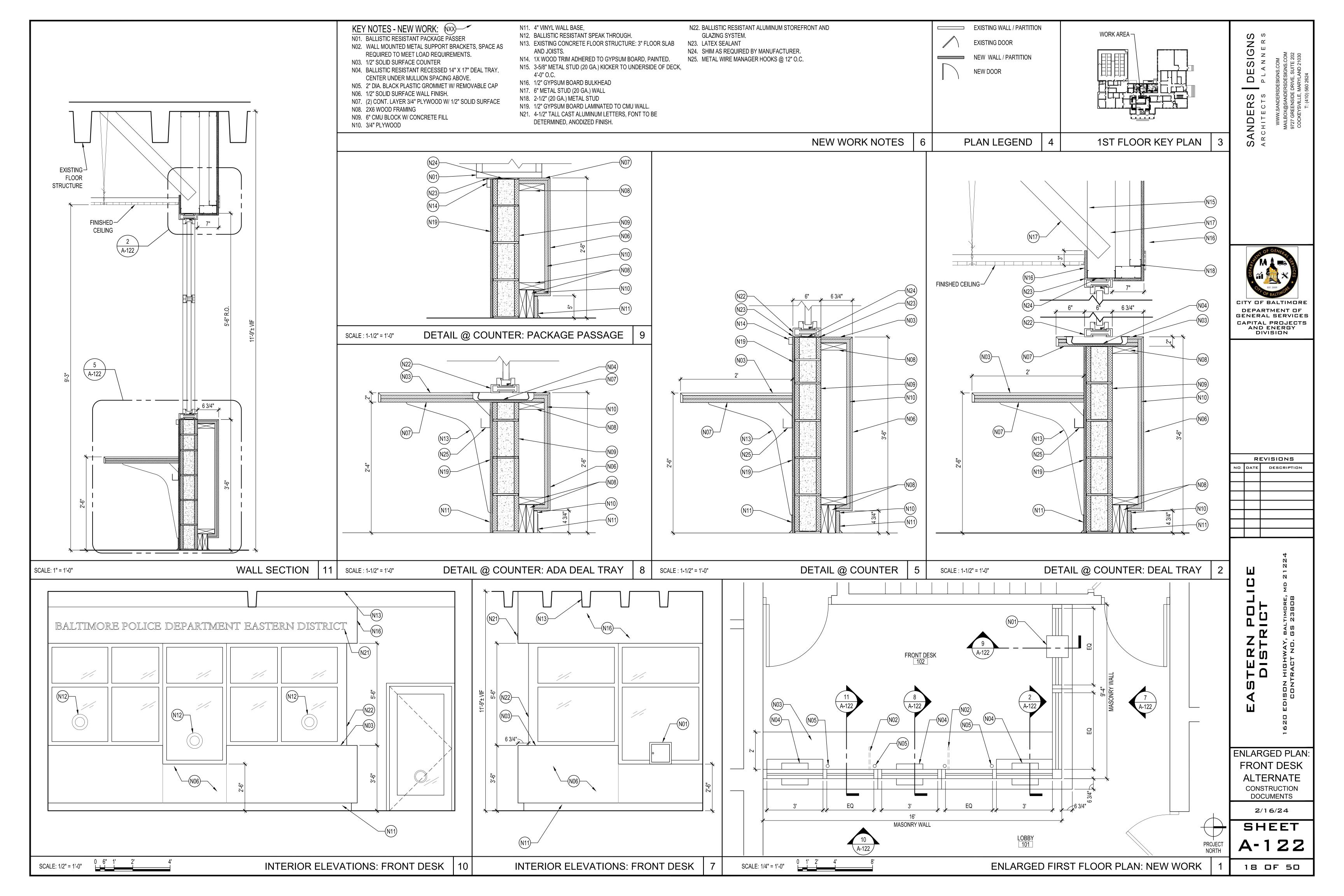
CONSTRUCTION DOCUMENTS

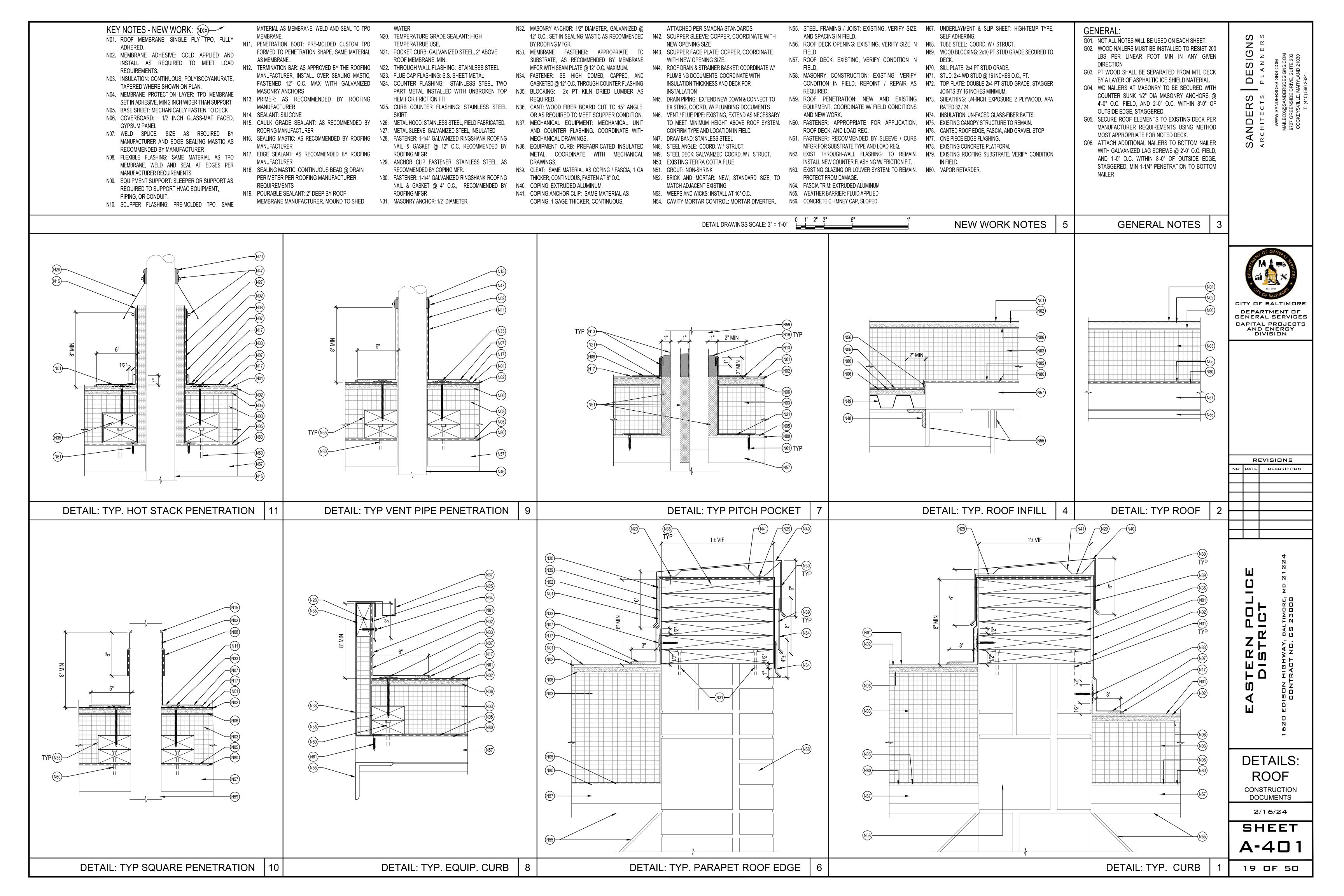
2/16/24

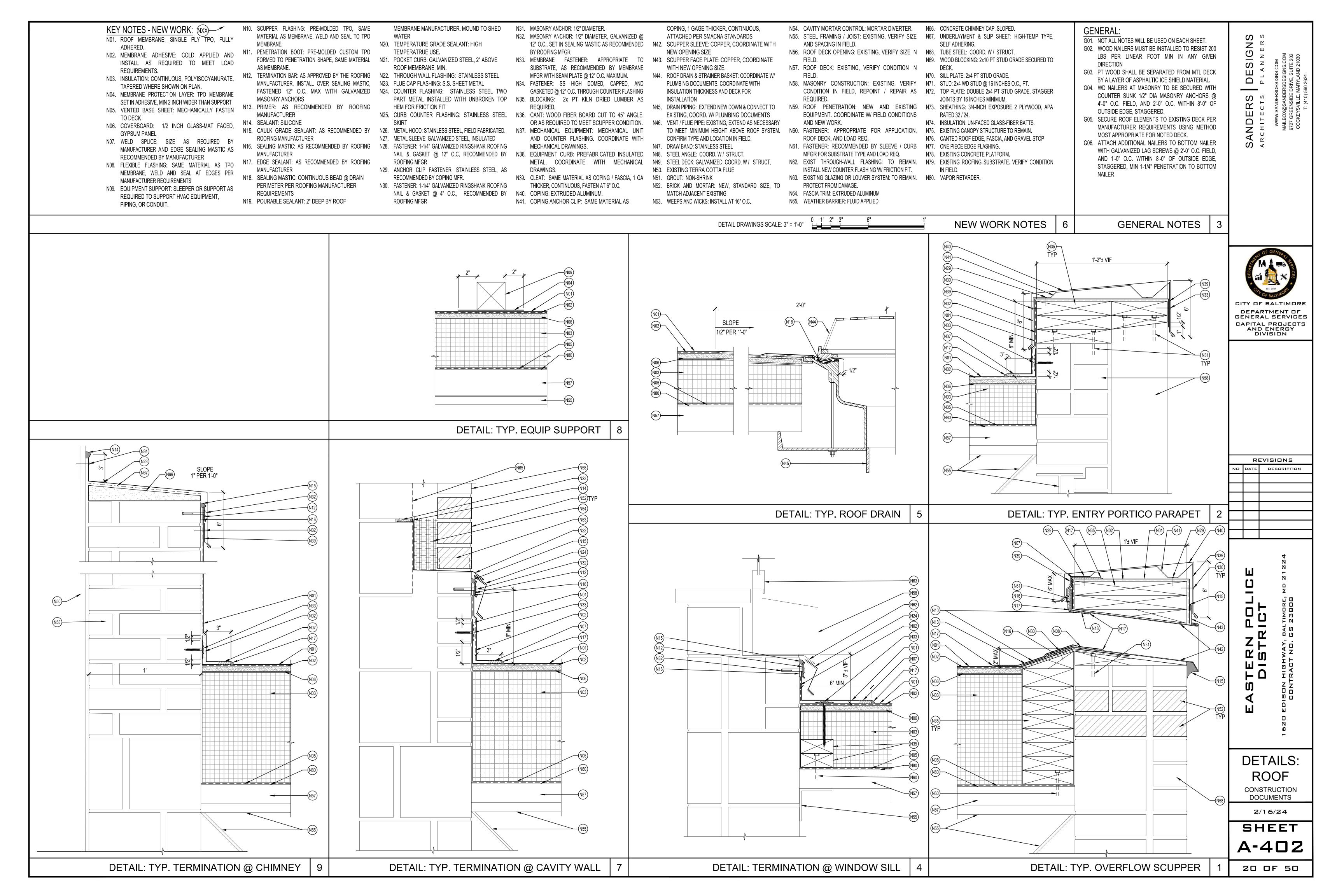
SHEET A-112

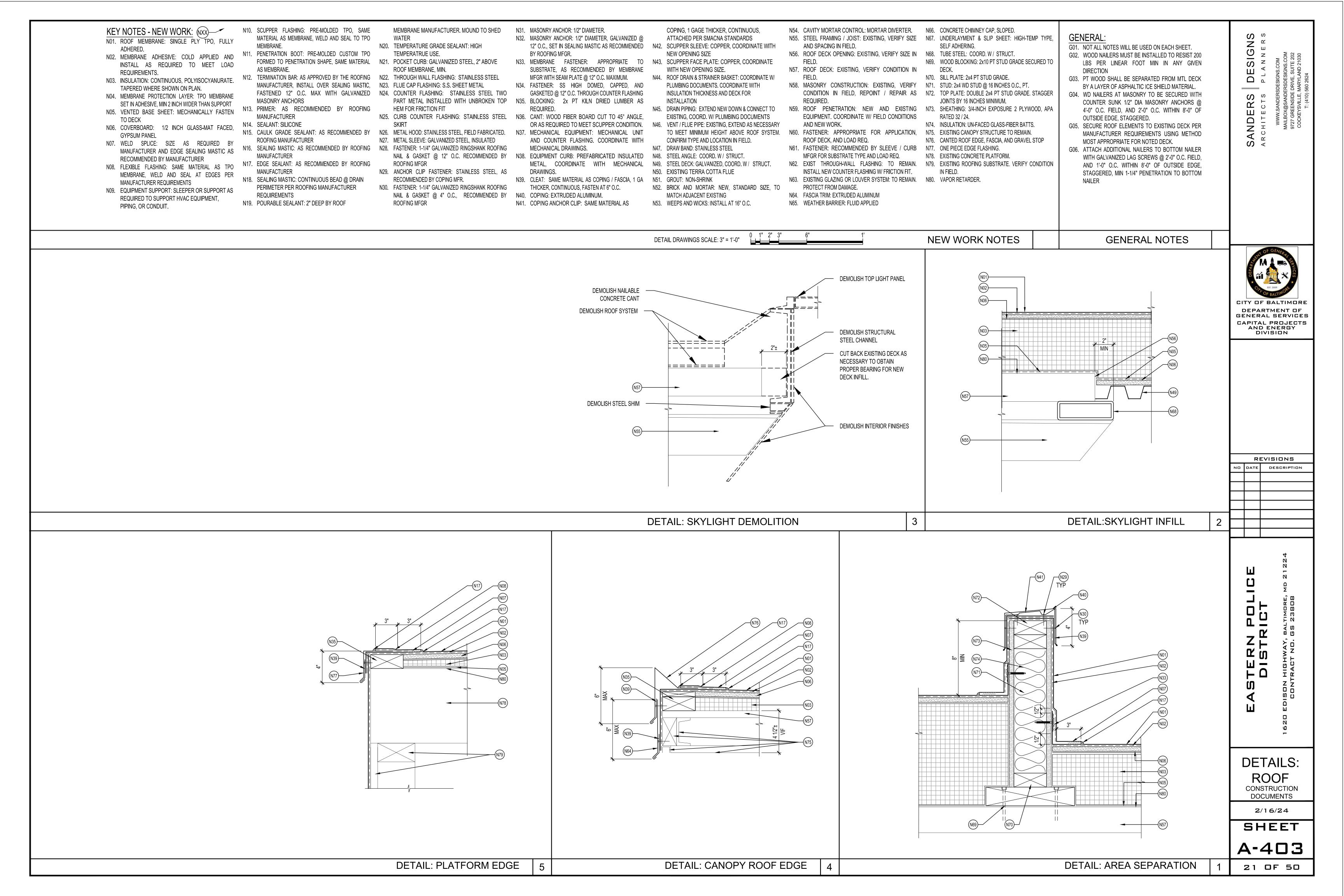
SECOND FLOOR RCP: NEW WORK

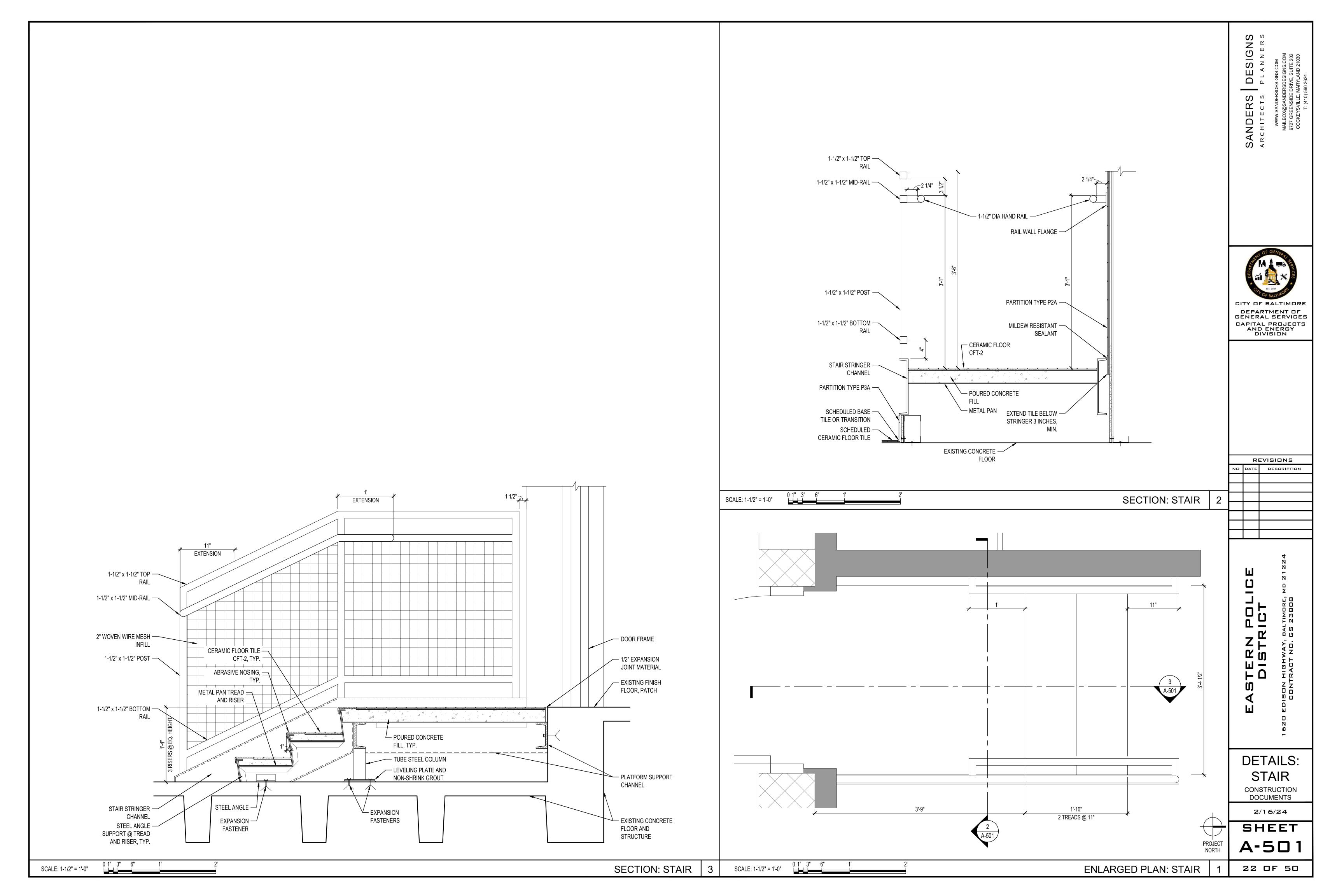


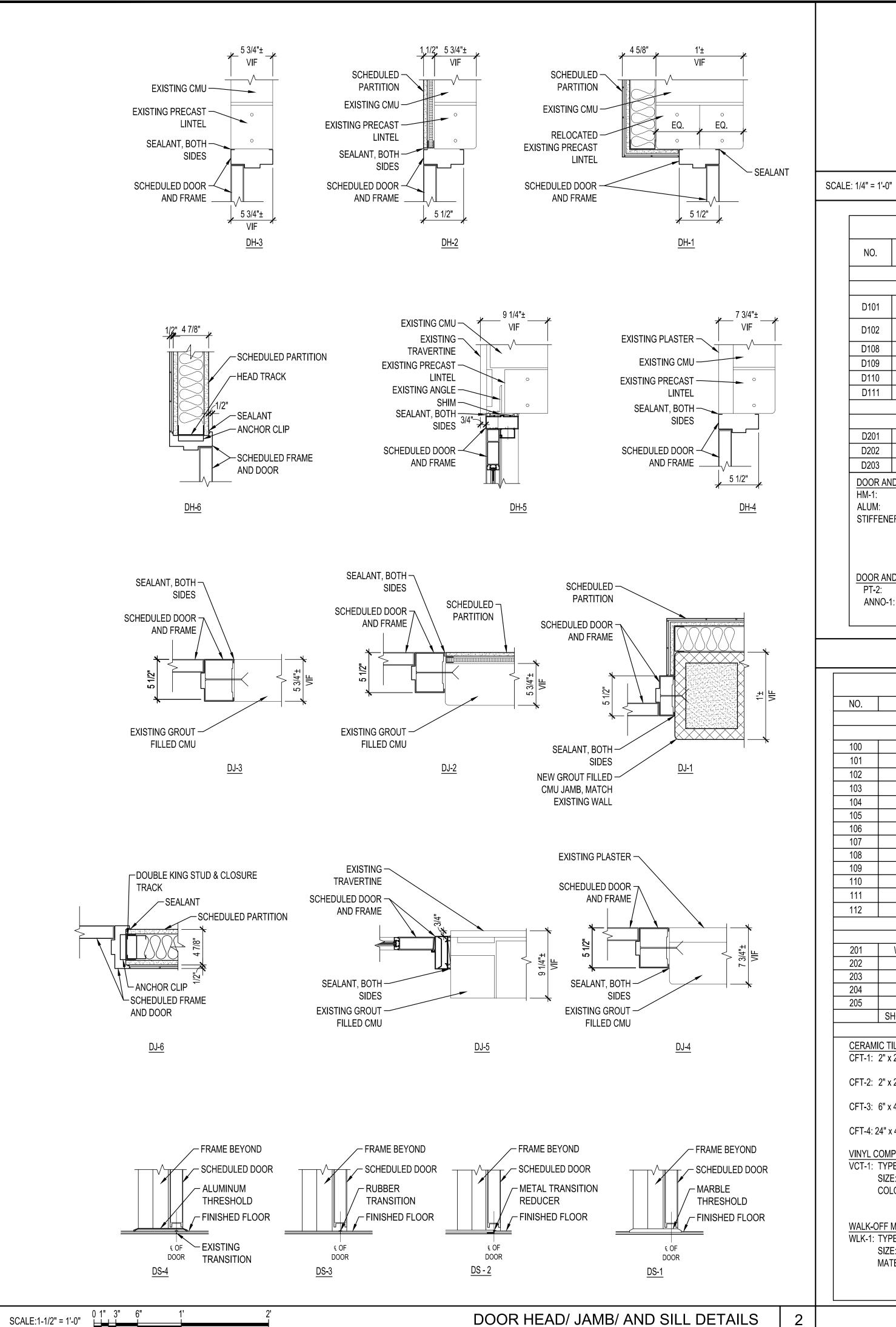


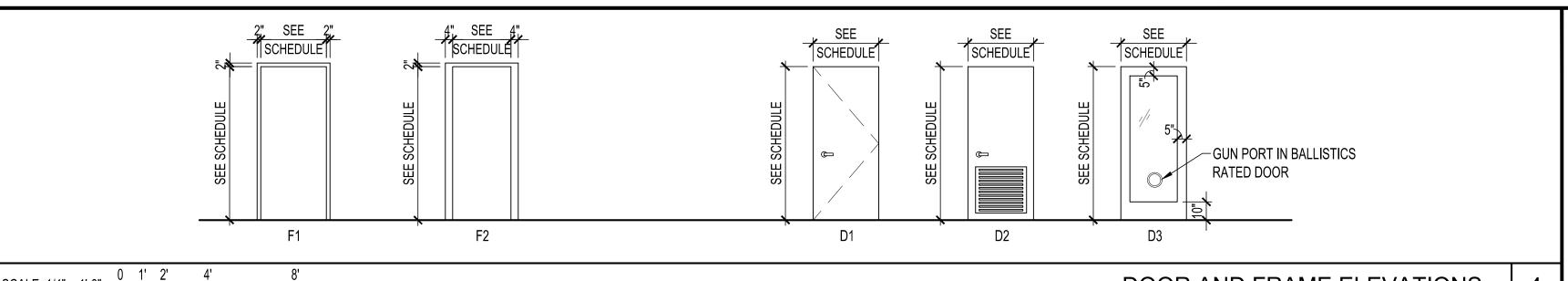












DOOR AND FRAME ELEVATIONS

	GENERAL				DOO	R				FF	RAME			DETAILS	3			
NO.	ROOMNAME	FIRE RATING	SIZE (W x H x T)	ELEV.	CORE	VENEER	FINISH.	GLAZING	GLAZING	ELEV	MATERIAL	FINISH	HEAD	JAMB	SILL	HRDWR SET#	SCHEDULE REMARKS	NO.
							FIRST F	LOOR										
D101	LOBBY	-	3'-4" x 6'-8" x 1-3/4"	D3	ALUM	ALUM	ANNO-1	SG-1	-	F1	ALUM	ANNO-1	DH-5	DJ-5	DS-4	HW-2	1,3	D101
D102	FRONT DESK	-	3'-4" x 6'-8" x 1-3/4"	D3	ALUM	ALUM	ANNO-1	GL-1	-	F1	ALUM	ANNO-1	DH-5	DJ-5	DS-3	HW-1	1	D102
D108	OFFICERS RESTROOM	-	3'-0" x 6'-8" x 1-3/4"	D1	HM-1	STIFFENERS	PT-2	-	-	F2	HM-1	PT-2	DH-3	DJ-3	DS-1	HW-3	1, 2	D108
D109	MENS ROOM	-	3'-0" x 6'-8" x 1-3/4"	D1	HM-1	STIFFENERS	PT-2	-	-	F2	HM-1	PT-2	DH-4	DJ-4	DS-1	HW-3	1, 2	D109
D110	JANITOR	-	3'-0" x 6'-8" x 1-3/4"	D1	HM-1	STIFFENERS	PT-2	-	-	F2	HM-1	PT-2	DH-4	DJ-4	DS-3	HW-4	1, 2	D110
D111	WOMENS RESTROOM	-	3'-0" x 6'-8" x 1-3/4"	D1	HM-1	STIFFENERS	PT-2	-	-	F2	HM-1	PT-2	DH-4	DJ-4	DS-1	HW-3	1, 2	D111
D201 D202	WOMENS LOCKER ROOM WOMENS RESTROOM	45 MIN -	3'-0" x 6'-8" x 1-3/4" 3'-0" x 6'-8" x 1-3/4"	D2 D2	HM-1 HM-1	STIFFENERS STIFFENERS	SECOND PT-2 PT-2	-	-	F2 F1	HM-1 HM-1	PT-2 PT-2	DH-2 DH-6	DJ-2 DJ-6	DS-2 DS-1	HW-5 HW-3	1, 2	D201
D202		-		D2				-	-		+						2	D202
D203	MENS RESTROOM		3'-0" x 6'-8" x 1-3/4"	D2	HM-1	STIFFENERS	PT-2	-	-	F1	HM-1	PT-2	DH-1	DJ-1	DS-2	HW-3	2	D203
HM-1: ALUM:	<u>D FRAME MATERIAL:</u> HOLLOW METAL  EXTRUDED ALUMINUM  RS: VERTICAL STEEL STIFFENER	COORD MARBLI COORD	TION STRIPS INATE WITH DOOR  THRESHOLD INATE WITH WALL V TROOM DOOR FLOOT	WIDTH. INS	STALL	GLAZING TYP GL-1: 1/4" FU SG-1: BALLI GLAS	JLLY TEMP STIC RESIS		R	HW HW HW	DWARE SCHE V-01: SEE SPE V-02: SEE SPE V-03: SEE SPE V-04: SEE SPE V-05: SEE SPE	CIFICATIONS CIFICATIONS CIFICATIONS CIFICATIONS	S S		<u>R</u>	<ol> <li>PACK FRAM INSULATION</li> <li>BULLET RES</li> </ol>	KISTING R.O SIZE E SOLID W/ MINERA SISTANT FRAME ANI STIC RESISTANCE,	D GLAZIN
PT <b>-</b> 2:	D FRAME FINISH: SEMI-GLOSS PAINT : COLOR ANODIZING																	

#### DOOR/FRAME SCHEDULE

	ROOM	FLOOR	BASE		WA	ALLS		CASE	WORK	TRIM	DOOR FRAME	CEILING	CEILING	REMARKS	ROOM
NO.	NAME		5,102	N	S	Е	W	CAB	TOP	7		O LILII 10	HEIGHT	112111111111	NUMBER
•				•						•			•		•
				_											
100	VESTIBULE	WLK-1	RWB-1	ETR		===		-	-	-	-	PT-3	ETR		100
101	LOBBY	ETR / WLK-1	RWB-1	ETR	ETR / PT-1 / SS-1	ETR	ETR / PT-1 / SS-1	-	SS-1	-	ANNO-1	PT-3	ETR		101
102	FRONT DESK	ETR	RWB-1	PT-1	ETR	PT-1	ETR	-	SS-1	BIRCH	ANNO-1	APC-2	9'-3"		102
103	CLERICAL ROOM	ETR	ETR	ETR	ETR	ETR	ETR	-	-	-	-	APC-1	8'-10"		103
104	ADMINISTRATIVE	ETR	ETR	ETR	ETR	ETR	ETR	-	-	-	-	APC-1	8'-10"		104
105	VESTIBULE	ETR	ETR	ETR	ETR	ETR	ETR	-	•	-	-	APC-1	8'-10"		105
106	COMPUTER ROOM	ETR	ETR	ETR	ETR	ETR	ETR	-	-	-	-	APC-1	8'-10"		106
107	MAJORS OFFICE	ETR	ETR	ETR	ETR	ETR	ETR	-	•	-	-	APC-1	8'-10"		107
108	OFFICERS RESTROOM	CFT-1 / CFT-4	ETR	ETR / PT-6	ETR / PT-6	ETR / PT-6	ETR / PT-6	-	•	-	PT-2	GYP / PT-4	9'-0"	1, 2	108
109	MEN'S RESTROOM	CFT-1 / CFT-4	ETR	ETR / PT-6	ETR / PT-6	ETR / PT-6	ETR / PT-6	-	•	=	PT-2	GYP / PT-4	9'-0"	1, 2	109
110	JANITOR ROOM	VCT-1	RWB-1	PT-5	PT-5	PT-5	PT-5	-	•	-	PT-2	PT-3	ETR		101
111	WOMEN'S RESTROOM	CFT-1	ETR/CWT-1	ETR / CWT-1 / PT-6	ETR / PT-6	ETR / CWT-1 / PT-6	ETR / PT-6	-	-	-	PT-2	GYP / PT-4	9'-0"	1	111
112	CORRIDOR	VCT-1	RWB-1	PT-1	PT-1	PT-1	PT-1	-	-	-	PT-2	GYP / PT-4	ETR		112

						SECOND FLO	OOR								
201	WOMENS LOCKER ROOM	CFT-3	RWB-1	PT-7	PT-7	PT-7	PT-7	-	-	-	PT-2	APC-3	8'-6"		201
202	WOMENS RESTROOM	CFT-2	CWT-2	CWT-2	CWT-2	CWT-2	CWT-2	SS-2	SS-3	-	PT-2	GYP / PT-4	8'-6"		202
203	MENS RESTROOM	CFT-2 / CFT-4	CWT-2	CWT-2	CWT-2	CWT-2	CWT-2	SS-2	SS-3	-	PT-2	GYP / PT-4	8'-6"		203
204	MENS LOCKER ROOM	ETR	RWB-1	PT-6	ETR	ETR	ETR	-	-	-	PT-2	ETR	ETR	2	204
205	CORRIDOR	ETR	RWB-1	ETR / PT-1	ETR / PT-1	ETR / PT-1	ETR / PT-1	-	-	-	PT-2	APC-1	8'-9"	1	205
	SHOWER STALLS / CHANGING	CFT-2	CWT-3	CWT-3	CWT-3	CWT-3	CWT-3	-	-	-	-	GYP / PT-4	8'-6"		

204	IVIENS LOCKER ROOM		KVVD-1	FI-0	LIK	LIK	LIK	-	_	_	P1=2	LIK	LIK		204
205	CORRIDOR	ETR	RWB-1	ETR / PT-1	ETR / PT-1	ETR / PT-1	ETR / PT-1	-	-	-	PT-2	APC-1	8'-9"	1	205
	SHOWER STALLS / CHANGING	CFT-2	CWT-3	CWT-3	CWT-3	CWT-3	CWT-3	-	-	-	-	GYP / PT-4	8'-6"		
CERAM	C TILE FLOORING:	P.	AINTS & PAINT S	YSTEM	CER	AMIC WALL TILE:		CASI	EWORK			GYPSU	M CEILING SYS	STEM	
CFT-1:	2" x 2" CERAMIC TILE	P <sup>.</sup>	T-1: FINISH - E	EGG SHELL	CWT	-1: SIZE: 4" x 4"		SS-1	: 1/2" SC	LID SURF	ACING	GYP:	1/2" THICK MC	)ISTURE RESIST	\NT
			COLOR - T	ΓBD	COL	OR:TBD			MATER	RIAL			<b>GYPSUM CEIL</b>	ING BOARD	
CFT-2:	2" x 2" CERAMIC TILE												SUSPENSION		
CET 2.	C" v 40" CEDAMIC TILE DI ANIZ	P	T-2: FINISH - S			T-2: TYPE: CUSHIONE	ED SUBWAY	SS-2		LID SURF	ACING			URAL METAL FRA	
GF 1-3:	6" x 48" CERAMIC TILE PLANK		COLOR - T	IRD		E: 4" x 12"			MATER	KIAL		<b>I</b>		TURER SUPPOR	l
CFT-4·2	4" x 48" CERAMIC TILE	p	T-3: FINISH - F	ΙΔΤ	COL	OR:TBD		SS-3	· 3/4" SC	LID SURF	ACING.		SYSTEM		
01 1 11.2	T X TO SELVIUMS TILL	'	COLOR - E		CWT	-3: TYPE: MOSAIC			MATEF		AOII10	REMAR	KS		
VINYL C	OMPOSITE FLOORING		3323			:: 1" x 6" SHEET						1. EXIS	TING GLAZED (	CMU TO REMAIN.	PAINT
	TYPE: TILE	P.	T-4: FINISH - F	FLAT	COL	OR:TBD			IOTIO DANIE		0)/07514	<b>I</b>		PAINTED CMU.	
	SIZE: 12x12		COLOR - V	WHITE				-	JSTIC PANE			<b>I</b>		CFT-4 TILE UNDE	
	COLOR: TBD				RUB	BER WALL BASE:		APC-	1: 2x2 PANE	re Milu (	טואפ	<b>I</b>		TO CENTER GRO	)U I
		P	T-5: FINISH - E			3-1: TYPE - RUBBER, (	COVED	ACP-	2: 2x4 PANE	LS WITH (	RID	LINE	UNDER URINAI	L SCREEN.	
WALK-C	FF MAT FLOORING		COLOR - T	ואט		SIZE - 4"		/ (0)		20 111111					
	TYPE: RECESSED	p	T-6: FINISH - E	GG SHELL				ACP-3	3: 2x4 MOIS	TURE RES	ISTANT PANELS	;			
	SIZE: ETR	'		MATCH EXISTING	TRIN	<u>1:</u>			WITH GRI	D					
	MATERIAL: RUBBER				BIRC	 CH: 1x2, PAINTED.									
		P.	T-7: FINISH - E	EGG SHELL											
		1			ı			1				ı			

COLOR - MATCH EXISTING

DESIGNS PLANNERS SANDERS



REVISIONS DESCRIPTION

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SCHEDULES

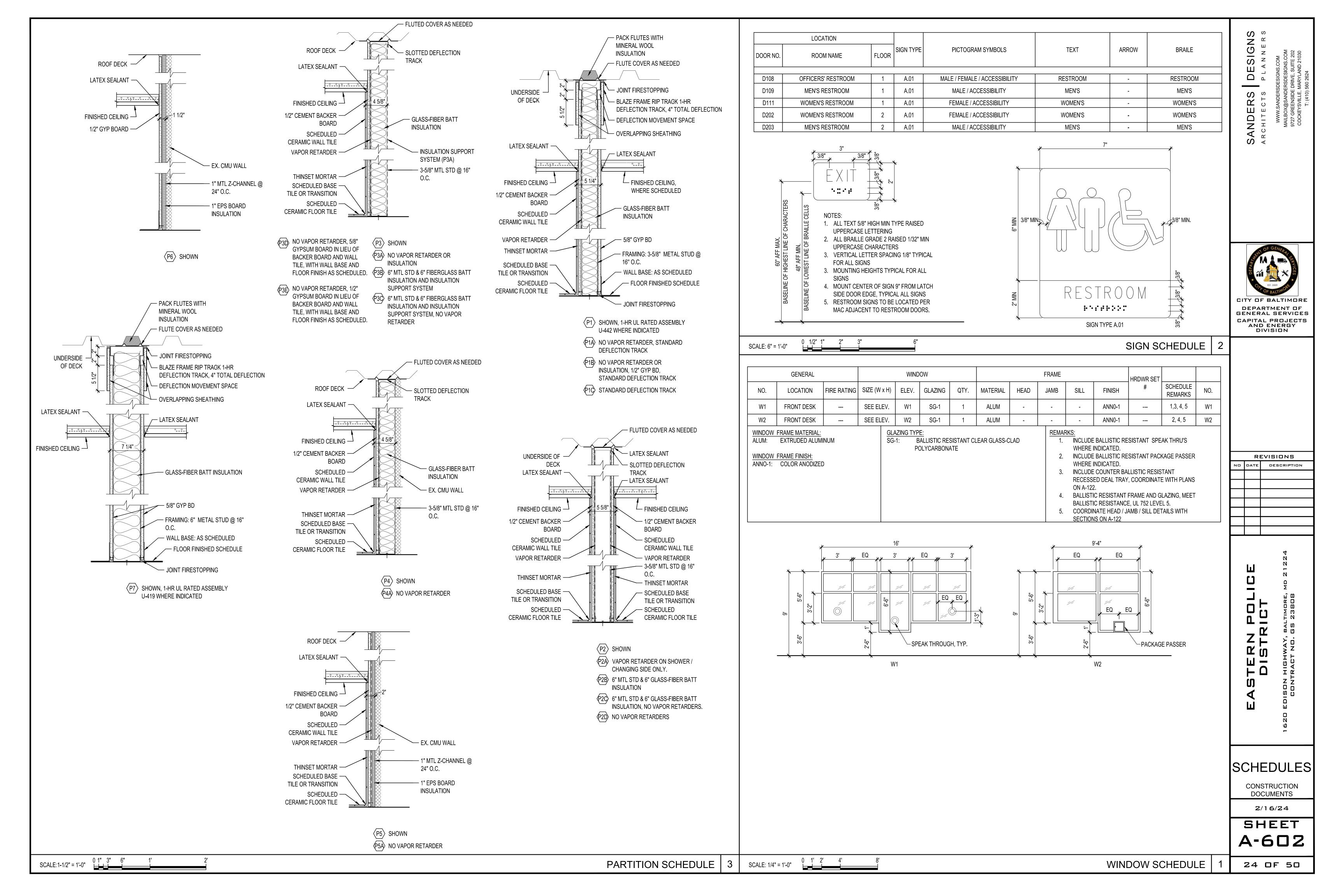
CONSTRUCTION **DOCUMENTS** 

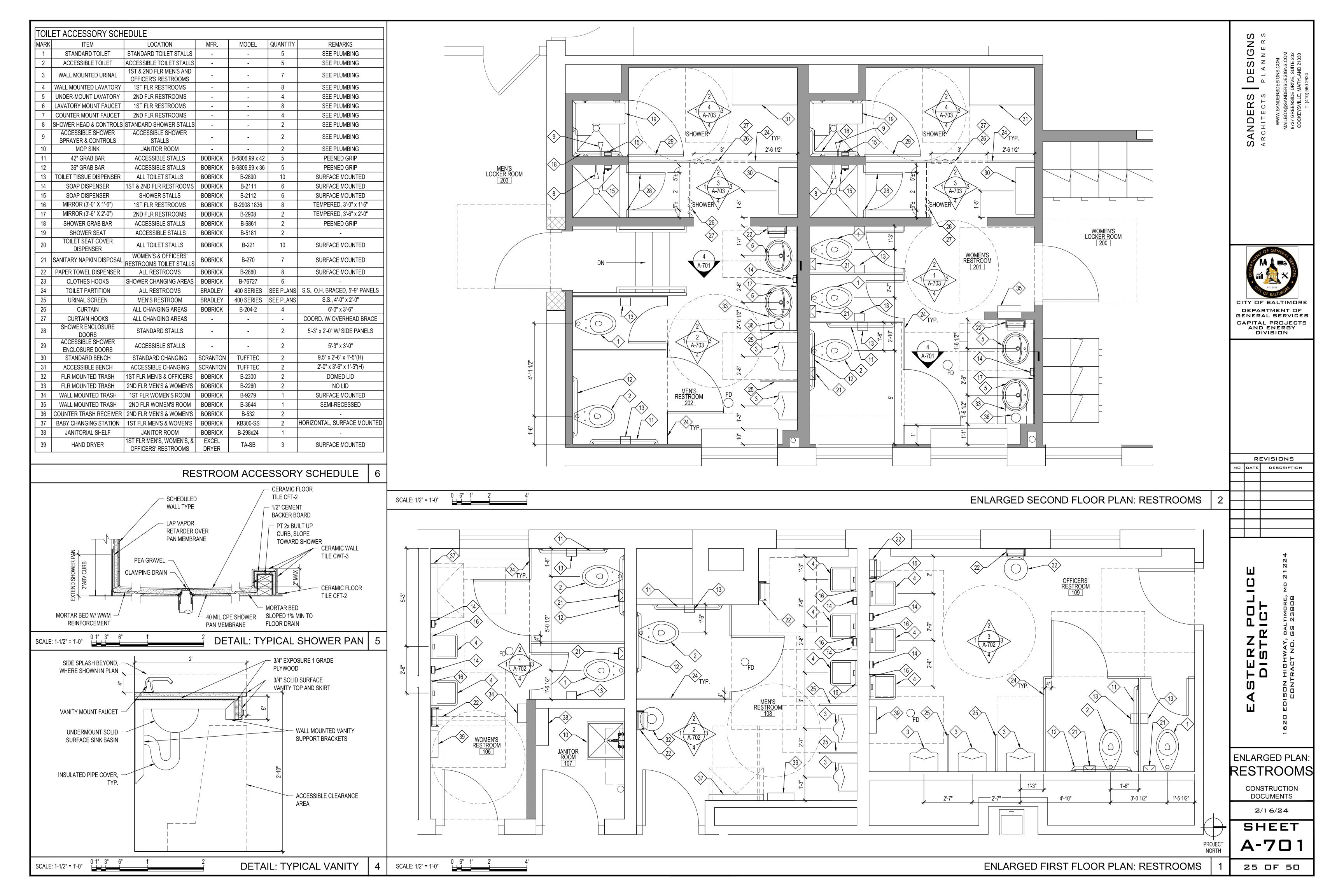
2/16/24 SHEET

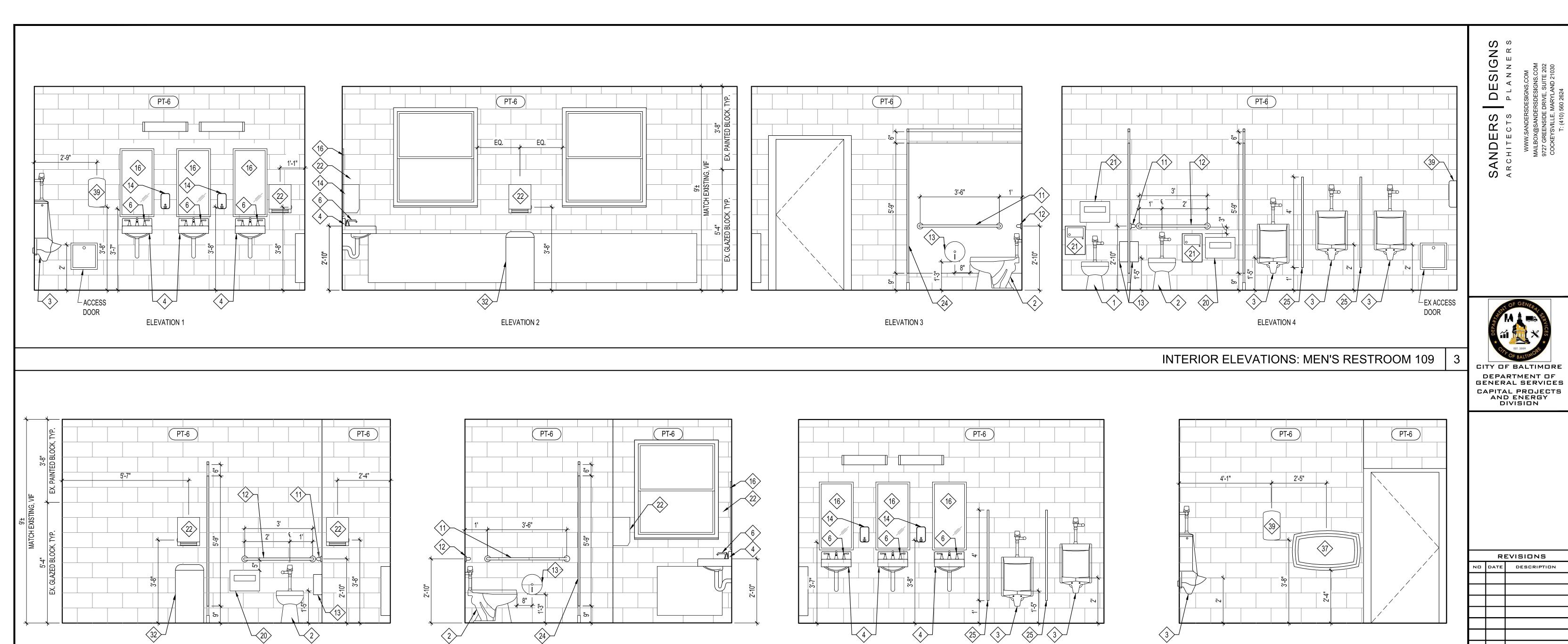
23 OF 50

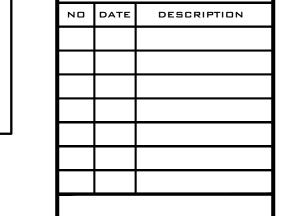
KEY TO FINISH SCHEDULE

A-601





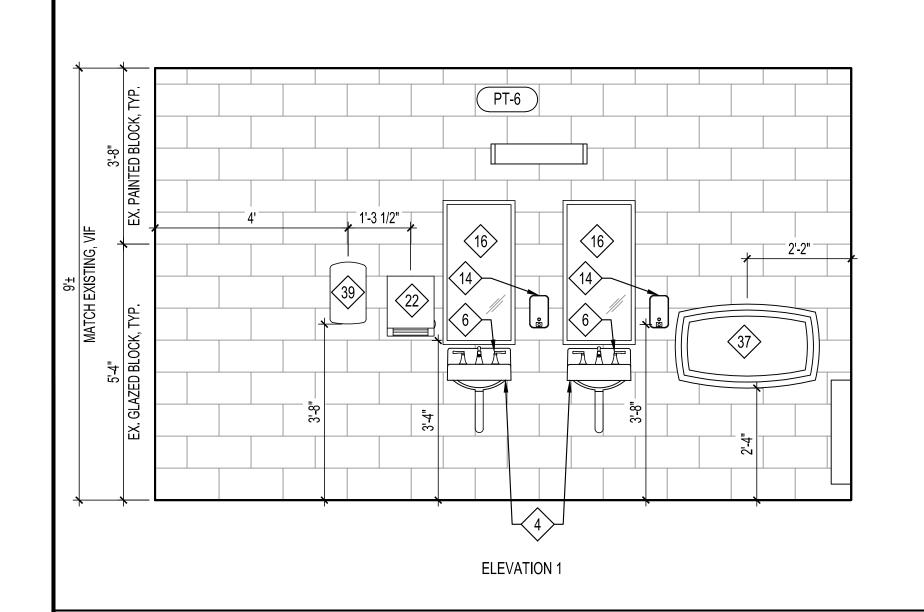




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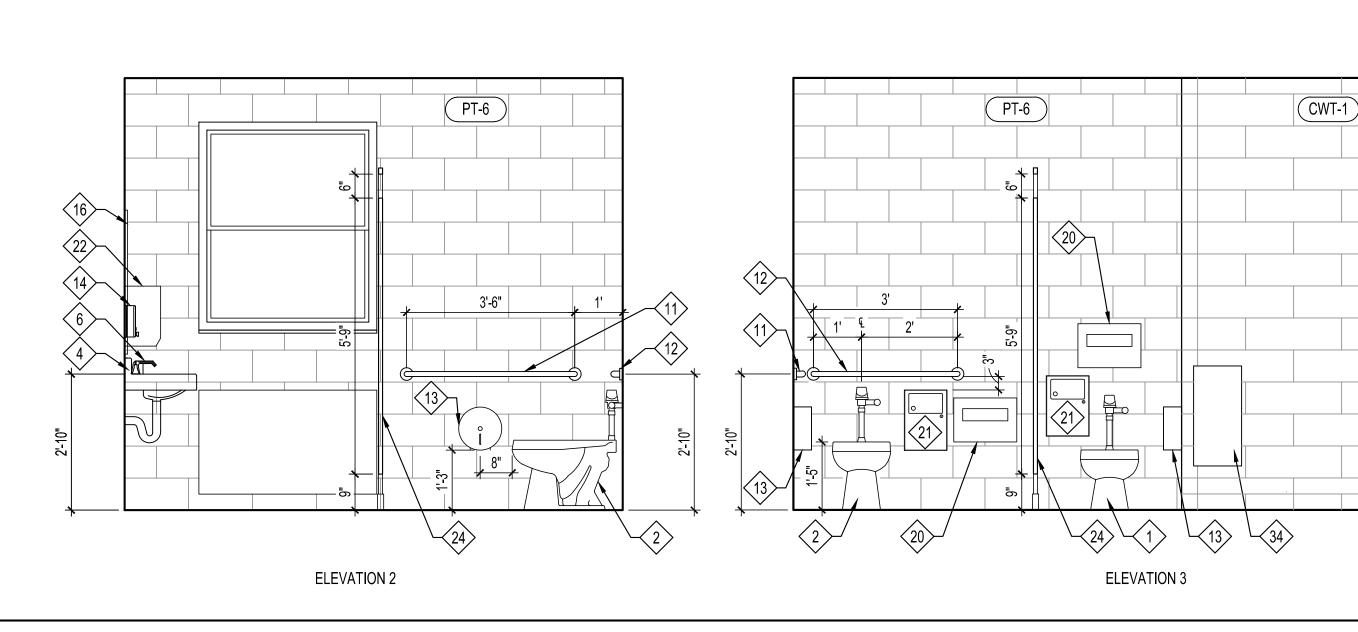
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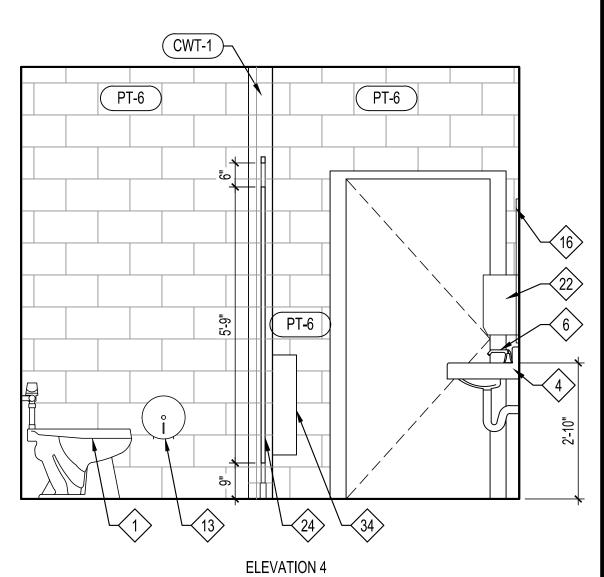
INTERIOR ELEVATIONS: MEN'S RESTROOM 108



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

ELEVATION 1





INTERIOR

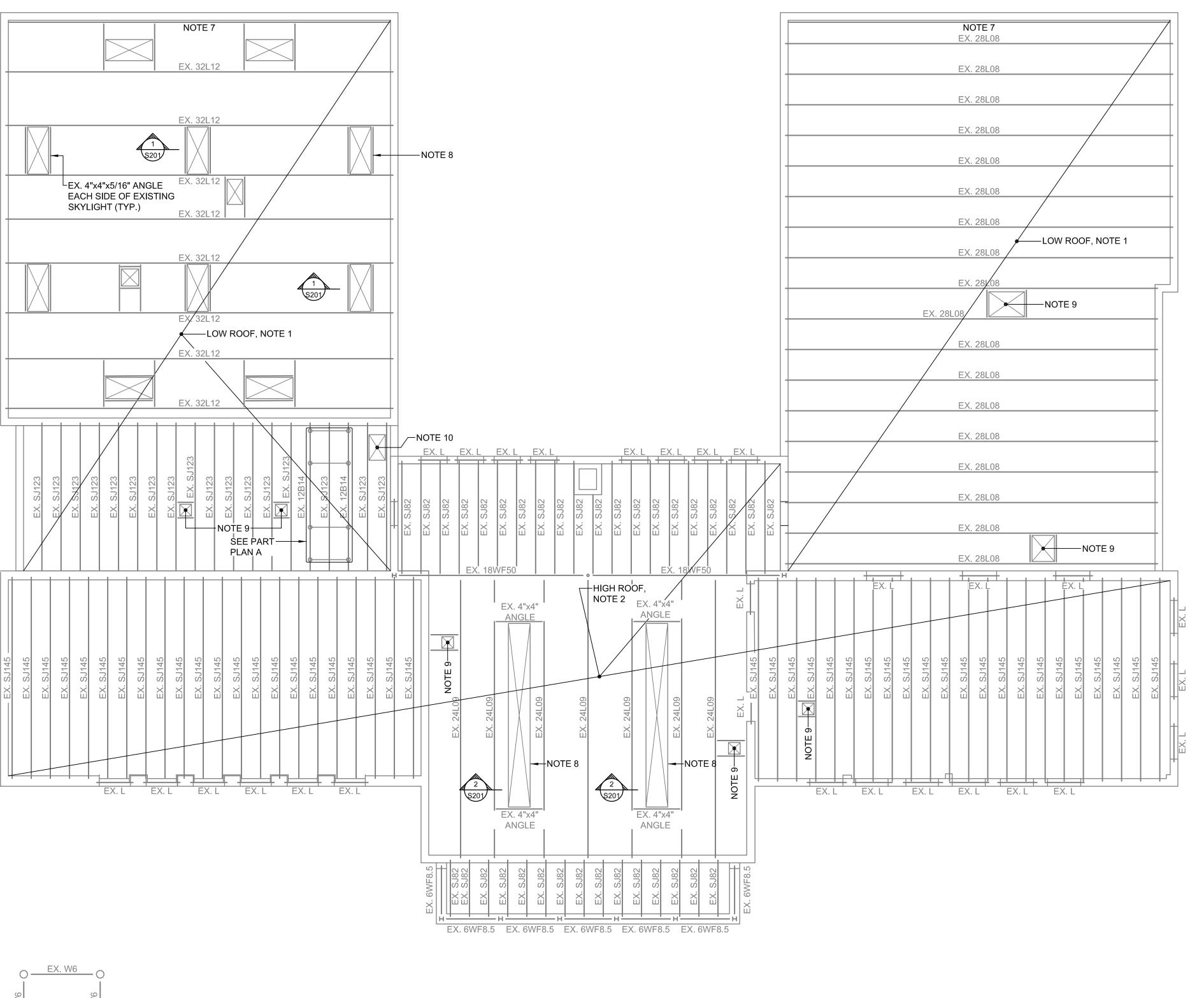
**ELEVATIONS** CONSTRUCTION DOCUMENTS

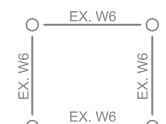
> 2/16/24 SHEET

A-702

INTERIOR ELEVATIONS: WOMEN'S RESTROOM 106



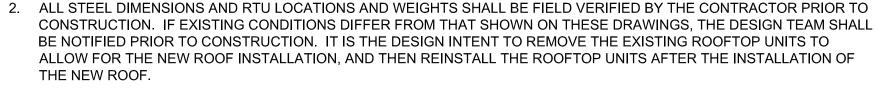




#### RTU SUPPORT FRAMING PLAN

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

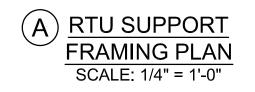
1. EXISTING CONDITIONS ARE SHOWN AS HALFTONE AND ARE BASED ON DRAWINGS BY FINNEY, DODSON, SMEALLIE, ORRICK, AND ASSOCIATES DATED OCTOBER 9, 1959 AND LIMITED SITE SURVEY. IF EXISTING CONDITIONS DIFFER THAN WHAT IS SHOWN ON THESE DRAWINGS, ENGINEER SHALL BE CONTACTED PRIOR TO CONSTRUCTION.



3. ALL EXISTING STEEL MUST BE SCRAPED OF ALL RUST WITH WIRE BRUSHES AND BLOWN OFF WITH COMPRESSED AIR. THE EXISTING STEEL SHALL BE PAINTED WITH TWO (2) COATS OF RUST INHIBITIVE PRIMER SUCH AS "RUST BULLET" OR APPROVED EQUAL. IF MORE THAN 1/16" THICKNESS OF THE STEEL IS REMOVED DURING THE SCRAPING PROCESS, THE STEEL POSTS / BEAMS MUST BE REPLACED IN KIND.

EX. 6B15

EX. 6B15



EXISTING ROOF FRAMING PLAN

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

1. EXISTING ROOF DECK IS 3" PRECAST GYPSUM PLANK ON BULB TEES AT 30 3/4"o/c SUPPORTED BY STEEL BAR JOISTS.

2. EXISTING ROOF DECK IS 2" PRECAST GYPSUM PLANK ON BULB TEES AT 30 3/4"o/c SUPPORTED BY STEEL BAR JOISTS.

3. WALL TYPES ARE NOTED THUS:

EXISTING WALLS.

- 4. CONTRACTOR SHALL PROVIDE SUFFICIENT VENTILATION AND TAKE ALL NECESSARY PRECAUTIONS PRIOR TO WELDING INSIDE EXISTING BUILDING. ALL WELDS SHALL BE E70-XX ELECTRODES AND BE COMPLETED BY CERTIFIED WELDER. PRIOR TO WELDING NEW STEEL TO EXISTING JOISTS, FINISH PAINT ON EXISTING BAR JOISTS SHALL BE REMOVED TO BARE METAL.
- 5. CONTRACTOR SHALL COORDINATE ALL DIMENSIONS & ELEVATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS PRIOR TO CONSTRUCTION. FIELD VERIFY ALL DIMENSIONS AS REQUIRED PRIOR TO CONSTRUCTION.
- 6. EXISTING CONDITIONS ARE SHOWN AS HALFTONE AND ARE BASED ON DRAWINGS BY FINNEY, DODSON, SMEALLIE, ORRICK, AND ASSOCIATES DATED OCTOBER 9, 1959. IF CONDITION DIFFERS THAN WHAT IS SHOWN ON THESE DRAWINGS, ENGINEER SHALL BE CONTACTED PRIOR TO CONSTRUCTION.
- 7. EXISTING DOUBLE 3"x3"x1/4" ANGLE FOR BRIDGING AND DECK SUPPORT.
- 8. EXISTING SKYLIGHT TO BE DEMOLISHED / REMOVED AND CLOSED WITH 1 1/2" x 22 GAUGE ROOF DECK. SEE DETAIL 2 ON S201.
- 9. EXISTING ROOF PENETRATIONS FOR EXHAUST FANS / INTAKE HOODS TO REMAIN.
- 10. EXISTING DUCT PENETRATION TO REMAIN.

PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

LICENSE No.  $\frac{16110}{7/19/24}$ , EXPIRATION DATE:  $\frac{7/19/24}{1}$ .

PROFESSIONAL CERTIFICATION. I HERE BY CERTIFY THAT THESE DOCUMENTS WERE

DESIGNS PLANNERS

SANDERS



GENERAL SERVICES CAPITAL PROJECTS AND ENERGY DIVISION



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REVISIONS

ASTERN POLICE DISTRICT

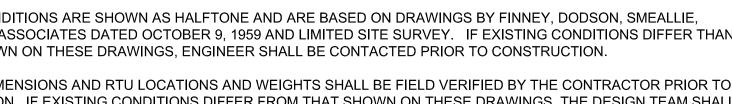
**EXISTING ROOF** FRAMING PLAN

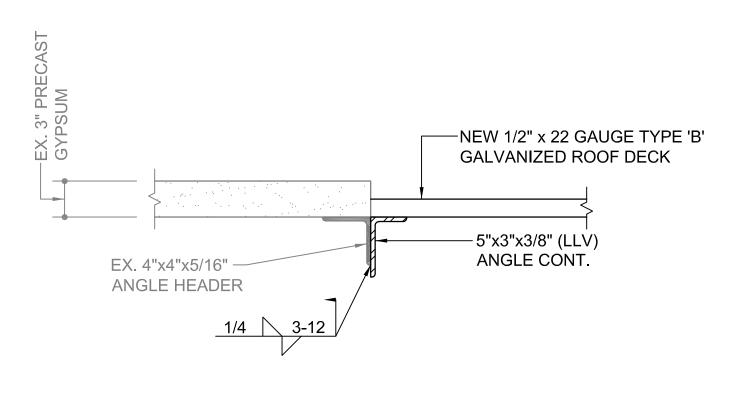
CONSTRUCTION DOCUMENTS

2/16/24

SHEET S101

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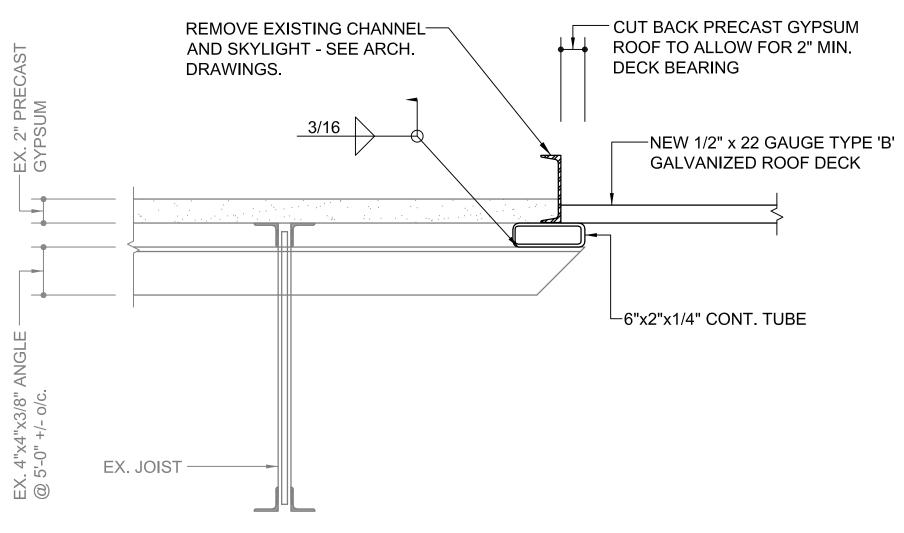


# SKYLIGHT CLOSURE AND / OR GRAVITY VENTILATOR ENCLOSURE

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

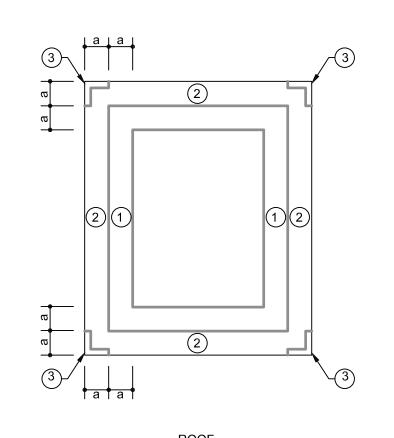
EX. RTU-

EX. PIPE POST



(2) SKYLIGHT CLOSURE

ULTIMATE CON	IPONENTS & CLA	DDING WIND PRESSU	JRES (PSF)
		ROOF	
COMPONENT	ZONE	PRES (+VE)	PRES (-VE)
<=10 SF	1	10.5*	-41.1
20 SF	1	9.8*	-38.4
50 SF	1	9.0*	-34.8
>100 SF	1	8.3*	-32.1
<=10 SF	2	10.5*	-54.3
20 SF	2	9.8*	-50.8
50 SF	2	9.0*	-46.2
>100 SF	2	8.3*	-42.7
<=10 SF	3	10.5*	-74.0
20 SF	3	9.8*	-67.0
50 SF	3	9.0*	-57.8
>100 SF	3	8.3*	-50.8



\*THE FINAL NET DESIGN WIND PRESSURE, INCLUDING ALL PERMITTED REDUCTIONS, USED IN THE DESIGN SHALL NOT BE LESS THAN 16PSF ACTING IN EITHER DIRECTION.

1. EDGE DISTANCE 'a' = 7'-0"

2. \*EFFECTIVE TRIBUTARY AREA: SPAN LENGTH MULTIPLIED BY AN EFFECTIVE WIDTH THAT NEED NOT BE LESS THAN 1/3 THE SPAN LENGTH.

NEGATIVE VALUE DENOTES PRESSURE ACTING AWAY FROM THE SURFACE.

NOMINAL (UNFACTORED) PRESSURES MAY BE OBTAINED BY MULTIPLYING THE VALUES IN THE CHART BY 0.60.

POSITIVE AND NEGATIVE PARAPET PRESSURES SHALL BE ADDITIVE WHEN EVALUATING OVER-ALL ACTION OF PARAPET.

POST EXTENSION AT RTU PLATFORM SCALE: 1 1/2" = 1'-0"

 SEE NOTES 1-3 OF RTU SUPPORT FRAMING PLAN ON SHEET S101.



#### GENERAL NOTES

CONTRACTORS RESPONSIBILITIES:

1. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE, AND TO ENSURE THE STABILITY OF THE BUILDING AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS, DURING ERECTING. THIS INCLUDES THE ADDITION OF ANY SHORING, SHEETING, TEMPORARY GUYS, BRACING, OR TIEDOWNS THAT MIGHT BE NECESSARY. SUCH MATERIAL IS NOT SHOWN ON THE DRAWINGS. IF APPLIED, THEY SHALL BE REMOVED AS CONDITIONS PERMIT AND SHALL REMAIN THE CONTRACTOR'S PROPERTY 2. CONTRACTOR SHALL VERIFY CONDITION IN THE FIELD AND IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF ANY CONDITIONS NOT AS ASSUMED; HE SHALL TAKE FIELD MEASUREMENTS AS REQUIRED AND BE RESPONSIBLE FOR THE SAME.

3. CONTRACTOR SHALL COORDINATE WITH ALL RELATED TRADES FOR DETAILING, FABRICATION AND ERECTION PRIOR TO SUBMITTING SHOP DRAWINGS FOR APPROVAL. 4. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ETC. REQUIREMENTS. DISCREPANCIES AND/OR INTERFERENCES SHALL BE REPORTED TO THE ARCHITECT/ENGINEER IMMEDIATELY. 5. THE ENGINEER HAS NO EXPERTISE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOBSITE SAFETY DURING CONSTRUCTION.

6. PROCESSING AND/OR APPROVED SUBMITTALS MADE BY THE CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO CONSTRUCTION METHODS OF SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, SHALL NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY THE ENGINEER OF ANY RESPONSIBILITY OF EACH CONTRACTOR TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. 7. THE ENGINEER IS NOT ENGAGED IN AND DOES NOT SUPERVISE CONSTRUCTION.

1. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS OR AFTER APPROVAL FROM THE STRUCTURAL ENGINEER. 2. CONTRACTOR SHALL FOLLOW THE TYPICAL DETAILS SHOWN ON DRAWINGS FOR TYPICAL CONDITIONS. THE TYPICAL DETAILS SHOWN ON THESE DRAWINGS APPLY THROUGHOUT THE BUILDING, UNO.

1. WELDS SHALL CONFORM TO ALL THE PROVISIONS OF THE STRUCTURAL WELDING CODE, AWS D1.1 OF THE AMERICAN WELDING SOCIETY. 2. WELDING ELECTRODES AND FLUXES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI. 3. IN SINGLE ANGLE CONNECTIONS, THE ANGLE TO SUPPORT CONNECTION SHALL RESIST BOTH THE SHEAR AND MOMENT RESULTING FROM THE SUPPORTED BEAM REACTION ECCENTRICITY 4. PROVIDE SHOP AND FIELD INSPECTION OF ALL STRUCTURAL STEEL BY A TESTING LABORATORY APPROVED BY THE STRUCTURAL ENGINEER.

1. ALL METAL DECKING SHALL BE DESIGNED, FABRICATED, AND ERECTED PER THE "SPECIFICATION OF THE STEEL DECK INSTITUTE", EXCEPT AS NOTED HEREIN. 2. STEEL ROOF & COMPOSITE DECK AND ALL ACCESSORIES SHALL BE FORMED OF ZINC COATED STEEL SHEETS CONFORMING TO ASTM A-653, SQ (Fy = 50 KSI) FOR GALVANIZED DECK UNITS OR ASTM A-1008 (Fy = 50 KSI) FOR PAINTED DECK UNITS. SLAB FORM DECKS SHALL HAVE Fy = 60 KSI. 3. GALVANIZED UNITS SHALL CONFORM TO ASTM A-924, COATING CLASS G-60 FOR INTERIOR FLOOR DECK AND CLASS G-90 FOR EXTERIOR FLOOR DECK AND ALL ROOF DECK 4. PAINTED UNITS SHALL BE A BAKED-ON RUST INHIBITIVE PAINT COMPRISING OF A 2 COAT SYSTEM OF CHROMATE PRIMER AND ACRYLIC

5. ALL UNITS SHALL SPAN CONTINUOUS OVER A MINIMUM OF 3 SUPPORTS. 6. ALL METAL DECK UNITS SHALL BE WELDED TO THE STEEL FRAMING AT 12" o/c MAXIMUM UNLESS SPECIFIED AT A CLOSER SPACING BY THE

7. METAL DECK AND/OR SLAB FORM WITH A THICKNESS LESS THAN 22 GAUGE SHALL BE WELDED WITH WELDING WASHERS. 8. ALL SIDE LAPS SHALL BE CONNECTED USING SHEET METAL SCREWS OR WELDS AT 24" o/c MAXIMUM.

9. ALL WELDS AND BURNED AREAS SHALL BE THOROUGHLY CLEANED AND PAINTED WITH AN APPROVED PRIMER. 10. WHEN ROOF DECK SLOPE IS PERPENDICULAR TO SUPPORT MEMBERS (BEAM, JOISTS, TRUSS, ETC.) SPAN PROVIDE CONTINUOUS BENT PLATE OR STEEL SHIMS BY STRUCTURAL STEEL FABRICATOR TO ASSURE FULL DECK BEARING AT SUPPORT. 11. NO CONDUIT SHALL BE PLACED IN CONCRETE SLAB ON METAL DECK.

1. ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED IN ACCORDANCE WITH THE BUILDING CODE AND ALL LOCAL ORDINANCES. 2. THE OWNER SHALL HIRE AN EXPERIENCED QUALIFIED INSPECTOR TO PERFORM ALL REQUIRED INSPECTION WORK.

3. INSPECTION SHALL CONSIST OF VISUAL OBSERVATIONS OF MATERIALS, EQUIPMENT OR CONSTRUCTION WORK FOR THE PURPOSE OF ASCERTAINING THAT THE WORK IS IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE DESIGN INTENT. 4. PERFORM VISUAL INSPECTION OF WELDS IN ACCORDANCE WITH AWS D1.1

a. VERIFY QUALIFICATIONS OF WELDERS. b. VERIFY WELDING PROCEDURE QUALIFICATION AND EQUIPMENT.

c. VERIFY WELD MATERIALS AND STORAGE FACILITIES.

d. INSPECT JOINT FIT-UP PRIOR TO WELDING. e. MEASURE 25 PERCENT OF FILLET WELDS

5. PERFORM NON-DESTRUCTIVE TESTING OF ALL COMPLETE PENETRATION WELDS IN ACCORDANCE WITH ASTM E164 6. THE ENGINEER WILL NOT PERFORM THE REQUIRED INSPECTION AS PART OF THIS PRESENT CONTRACT WITH THE ARCHITECT/OWNER. HOWEVER, IF DESIRED, MORABITO CONSULTANTS, INC. MAY BE HIRED UNDER A SEPARATE CONTRACT TO PERFORM THIS INSPECTION WORK. 7. UNDER THIS PRESENT CONTRACT, THE ENGINEER MAY PERFORM CONSTRUCTION ADMINISTRATION SERVICES OR VISIT THE SITE TO ASCERTAIN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. HOWEVER, SUCH SERVICES OR SITE VISITS SHALL NOT BE RELIED UPON BY OTHERS AS INSPECTION OR ACCEPTANCE OF THE WORK, NOR SHOULD IT BE CONSTRUED TO RELIEVE THE CONTRACTOR IN ANY WAY FROM HIS OBLIGATIONS AND RESPONSIBILITIES UNDER THE CONSTRUCTION CONTRACT.

8. IT IS AGREED THAT IF THE OWNER DOES NOT ENGAGE MORABITO CONSULTANTS OR AN INDEPENDENT THIRD PARTY INSPECTION AGENCY, THEN THE OWNER WILL DEFEND, INDEMNIFY AND HOLD HARMLESS MORABITO CONSULTANTS, INC., FROM ANY CLAIM OR SUIT WHATSOEVER INCLUDING BUT NOT LIMITED TO ALL PAYMENTS, EXPENSES OR COSTS INVOLVED, ARISING FROM OR ALLEGED TO HAVE ARISEN FROM THE CONTRACTOR'S PERFORMANCE OR THE FAILURE OF THE CONTRACTOR'S WORK TO CONFORM TO THE DESIGN INTENT AND THE CONTRACT 9. MORABITO CONSULTANTS, INC., AGREES TO BE RESPONSIBLE FOR ITS OWN OR ITS EMPLOYEES' NEGLIGENT ACTS, ERRORS OR OMISSIONS.

1. ALL DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES SHOWN ON THE DRAWINGS ARE OBTAINED FROM AVAILABLE SOURCES, AND ARE NOT GUARANTEED TO BE TRUE AND EXACT. THE GENERAL CONTRACTOR SHALL VERIFY THESE DIMENSIONS AND ELEVATIONS BY ACTUAL FIELD MEASUREMENTS PRIOR TO FABRICATION OF ANY MATERIALS AND START OF ANY WORK, AND REPORT ANY DISCREPANCIES TO THE

2. FOR ADDITIONAL INFORMATION ON THE EXISTING CONSTRUCTION, THE CONTRACTOR SHALL REFER TO DRAWINGS OF THE EXISTING 3. IN AS MUCH AS THE REMODELING AND/OR REHABILITATION OF AN EXISTING BUILDING REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS CANNOT BE VERIFIED WITHOUT EXPENDING GREAT SUMS OF ADDITIONAL MONEY, OR DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE BUILDING, THE OWNER AGREES THAT, EXCEPT FOR NEGLIGENCE ON THE PART OF MORABITO CONSULTANTS. THE OWNER WILL HOLD HARMLESS AND INDEMNIFY MORABITO

CONSULTANTS FOR AND AGAINST ANY AND ALL CLAIMS, DAMAGES, AWARDS, AND COSTS OF DEFENSE ARISING OUT OF DEFICIENCIES IN THE ORIGINAL BUILDING STRUCTURE.

LOAD LIMITATIONS: 1. CONSTRUCTION ACTIVITIES SHALL NOT EXCEED THE FOLLOWING LOAD LIMITATIONS:

TYPICAL FLOOR 50 PSF TYPICAL ROOF 20 PSF

EVALUATED BY AN INDEPENDENT ENGINEER TO BE HIRED BY THE CONTRACTOR AND SUBMITTED TO THE ARCHITECT/ENGINEER-OF-RECORD

1. THE CONTRACTOR ACKNOWLEDGES THESE PLANS AND SPECIFICATIONS PREPARED BY MORABITO CONSULTANTS, INC., AS INSTRUMENTS OF 2. NEVERTHELESS, THE PLANS AND SPECIFICATIONS PREPARED UNDER THIS AGREEMENT SHALL REMAIN THE PROPERTY OF MORABITO

3. THE CONTRACTOR AGREES TO HOLD HARMLESS AND INDEMNIFY MORABITO CONSULTANTS, INC., AGAINST ALL DAMAGES, CLAIMS, AND LOSSES INCLUDING DEFENSE COSTS, ARISING OUT OF ANY REUSE OF THE PLANS AND SPECIFICATIONS WITHOUT THE WRITTEN AUTHORIZATION OF MORABITO CONSULTANTS, INC.

DESIGN DATA:

BUILDING CODE: THE INTERNATIONAL BUILDING CODE - IBC 2018

STRUCTURAL STEEL:

Fy = 36,000 PSI, UNO RECTANGULAR & SQUARE HSS ASTM A-500 GR. C Fy = 50,000 PSI, UNO

ROOF WIND PRESSURE BASED ON BASE DESIGN WIND SPEED OF 130 MPH, RISK CATEGORY IV.

SIGN 

ANDERS

PROFESSIONAL CERTIFICATION. I HERE BY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,



LICENSE No.  $\frac{16110}{7/19/24}$ , EXPIRATION DATE:  $\frac{7/19/24}{1}$ .

CAPITAL PROJECTS AND ENERGY DIVISION



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REVISIONS NO DATE DESCRIPTION

STERN POLICE DISTRICT

TYPICAL DETAILS AND GENERAL NOTES

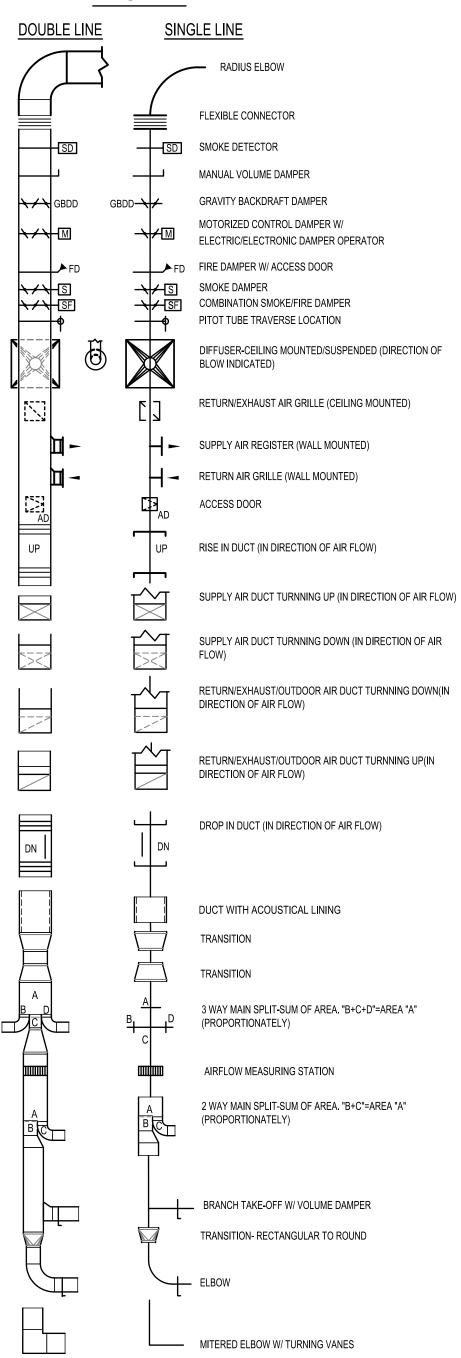
CONSTRUCTION DOCUMENTS

2/16/24

SHEET

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#### **LEGEND**



EXISTING EQUIPMENT TO BE REMOVED

DEMOLITION OF DUCT

HVA	C LEGEND	& ABBREVIATIONS
SYMBOL	ABBREVIATION	DESCRIPTION
	SUPPLY PIPING RETRUN PIPING	NEW PIPING (DARK LINED)
1 1/2" EX — — — — — — — — — — — — — — — — — —	SUPPLY PIPING RETRUN PIPING	EXISTING PIPING (LIGHT LINED)
——————————————————————————————————————	RX	EXISTING TO BE REMOVED
— — 2" CD — — —	CD	CONDENSATE DRAIN
2" HS	HS	HEATING HOT WATER SUPPLY
— — 2" HR — — —	HR	HEATING HOT WATER RETURN
2" G	G	GAS PIPING
2" R —	R	REFRIGERANT
		PIPE TURNING UP
<del></del> ∋		PIPE TURNING DOWN
	CW	DOMESTIC COLD WATER
	CHR	CHILLED WATER RETURN
	CHS	CHILLED WATER SUPPLY
		UNION
-MTM	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
—>>— ———		SHUT-OFF VALVE
<del>э</del> н		ISOLATION VALVE IN VERTICAL
<b>──</b> >>	BV	BALANCING VALVE
_ <b>\bar{\bar{\bar{\bar{\bar{\bar{\bar{</b>	CV	CHECK VALVE
—————————————————————————————————————		AUTOMATIC CONTROL VALVE- 2 WAY
<del></del> \$		AUTOMATIC CONTROL VALVE- 3 WAY
X	PRV	PRESSURE REDUCING VALVE
		STRAINER WITH HOSE END DRAIN VALVE WITH CAP & CHAIN
		DRAIN VALVE
<b>-</b> ₽Ž		PRESSURE RELIEF VALVE
<del>&gt;</del>		STRAINER
Q		THERMOMETER
q		PRESSURE GAUGE
	FCO/CO	FLOOR CLEANOUT/CLEANOUT
	FD	FLOOR DRAIN
T		THERMOSTAT/TEMPERATURE SENSOR
		CONNECTION OF NEW TO EXISTING
•		EXTENT OF DEMOLITION
<b>(00)</b>		DRAWING NOTE NUMBER
/1		AIR DISTRIBUTION DEVICE SCHEDULE
80		AIRFLOW CFM
	Х	EXISTING

HVA	C ABBREVIATIONS
ABBREVIATION	DESCRIPTION
AC	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR  AMPERE
AHU	AIR HANDLING UNIT
AS	AIR SEPARATOR
ВТИН	BRITISH THERMAL UNIT PER HOUR
CKTS	CIRCUITS
CONC.	CONCRETE
CO	CLEAN OUT  CUBIC FEET PER MINUTE
СР	CIRCULATING PUMP
СТ	COOLING TOWER
CUH	CABINET UNIT HEATER
CWP	CHILLED WATER PUMP
(E/L) DB	DRY BULB (ENTERING/LEAVING)
DIA, Ø	DIRECT DIGITAL CONTROL  DIAMETER
EA	EXHAUST AIR
EAD	EXHAUST AIR DUCT
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATE
EF ENT	EXHAUST FAN ENTERING
ERV	ENTERING  ENERGY RECOVERY VENTILATOR
EL	ELEVATION
ELEC	ELECTRICAL
EUH	ELECTRIC UNIT HEATER
ET	EXPANSION TANK
EXT.	EXTERNAL FINE TEMPERATURE
EX., EXIST.	ENTERING WATER TEMPERATURE EXISTING
F	FAHRENHEIT
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FFWH	FAN FORCED WALL HEATER
FPM GA	FEET PER MINUTE  GAUGE
GAL	GALLONS
GBDD	GRAVITY BACKDRAFT DAMPER
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HP	HORSEPOWER / HEAT PUMP
HWP	HEATING WATER CIRCULATING PUMP FREQUENCY HERTZ
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTUH
MCA MIN.	MINIMUM CIRCUIT AMPERE MINIMUM
MOCP	MAXIMUM OVER CURRENT
	CIRCUIT PROTECTION
N.C.	NORMAL CLOSED
N.O.	NORMAL OPEN
No	NUMBER
OA OAD	OUTDOOR AIR OUTDOOR AIR DUCT
PD	PRESSURE DROP
PH, Ø	PHASE (ELECTRICAL)
PRV	POWER ROOF VENTILATOR
PSI	POUNDS PER SQUARE INCH
PSIG	PSI GAUGE
RA RAD	RETURN AIR RETURN AIR DUCT
RAG	RETURN AIR DUCT RETURN AIR GRILLE
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
RX	REMOVE EXISITNG
SA	SUPPLY AIR
SAD SENS.	SUPPLY AIR DUCT SENSIBLE
SP SP	STATIC PRESSURE
TAD	TRANSFER AIR DUCT
TEMP	TEMPERATURE
TS	TEMPERATURE SENSOR
TYP.	TYPICAL
U/G	UNDERGROUND
V WB	VOLTS OR VENT WET BULB
WC	WATER COLUMN
W/	WITH

#### **HVAC GENERAL NOTES:**

- . ALL MECHANICAL EQUIPMENT AND INSTALLATIONS SHALL CONFORM WITH THE REQUIREMENTS OF THE LATEST INTERNATIONAL MECHANICAL CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL ENERGY CONSERVATION CODE WITH ASHRAE 90.1-2010, NFPA, IqCC 2015 GREEN CONSTRUCTION CODE, UNDERWRITERS LABORATORIES AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
- 2. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND PAY ALL FEES RELATIVE TO THE INSTALLATION OF HIS
- 3. ALL THE REMAINING WALL OPENINGS AFTER THE DEMOLITION OF MECHANICAL SYSTEMS, INCLUDING HVAC, SHALL BE PATCHED TO MATCH THE ADJACENT CONSTRUCTION MATERIALS OF THE NEW ARCHITECTURAL PLAN.
- 4. ALL SURFACES DAMAGED IN THE COURSE OF THE WORK SHALL BE RESTORED TO THE ORIGINAL CONDITION AND IN ACCORDANCE TO DRAWINGS AND SPECIFICATIONS.
- 5. REMOVE ALL SUPERFLUOUS/ABANDONED HANGERS, SUPPORTS, PIPING, DUCTWORK, ETC,.
- 6. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN. COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL DRAWING TO PREVENT DUPLICITY OF WORK.
- 7. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH ELECTRICAL CONTRACTOR FOR EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS.
- 8. ALL REQUIRED CONTROL POWER, SUCH AS CIRCUIT BREAKER, CONDUIT AND CONDUCTORS NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL CONTROL WORK. WIRING IN HVAC PLENUM SPACES SHALL BE INSTALLED ACCORDING TO CODE REQUIREMENTS.
- 9. UNLESS NOTED OTHERWISE, TRANSFORMERS, CONTROL POWER, AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- 10. ALL FANS SUPPLYING MORE THAN 2000 CFM OF AIR TO ANY SPACE AND ALL RECIRCULATING FAN SYSTEMS SERVING AREAS OF EGRESS SHALL BE INSTALLED WITH SMOKE DETECTORS IN THE SUPPLY AND RETURN DUCTWORK. THE SMOKE DETECTOR SHALL BE WIRED BY HVAC CONTROL/MECHANICAL CONTRACTOR TO STOP THE FAN UPON DETECTION OF SMOKE, AND SIGNAL THE BUILDING FIRE ALARM CONTROL PANEL (IF BUILDING IS SO EQUIPPED). SMOKE DETECTOR TROUBLE CONDITIONS SHALL BE INDICATED VISUALLY OR AUDIBLY IN A NORMALLY OCCUPIED AREA AND SHALL BE IDENTIFIED AS AIR DUCT DETECTOR TROUBLE, THE SMOKE DETECTOR SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR, MOUNTED IN THE DUCT BY THE MECHANICAL CONTRACTOR, AND WIRED TO FIRE ALARM SYSTEM BY THE ELECTRICAL CONTRACTOR.
- 11. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE
- 12. ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS AFTER ACCEPTANCE
- 13. ALL HVAC COMPRESSORS SHALL HAVE 5-YEAR MANUFACTURER'S WARRANTY.
- 14. AIR DISTRIBUTION DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL AS RECOMMENDED IN SMACNA PRESSURE DUCT CONSTRUCTION STANDARDS, LATEST EDITION. ALL JOINTS AND SEAMS IN ALL SHEET METAL DUCTWORK SHALL BE SEALED WITH LOW VOC DUCT SEALER. DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR
- 15. SHEET METAL SUPPLY, RETURN, & OUTDOOR AIR DUCTWORK SHALL BE INSULATED WITH 2" THICK FIBERGLASS DUCT INSULATION (MINIMUM R-6/AS INDICATED ON SPECIFICATION) WITH FOIL VAPOR BARRIER. EXHAUST DUCTWORK SHALL BE SHEET METAL AND SHALL NOT BE INSULATED UNLESS NOTED OTHERWISE.
- 16. SHEET METAL DUCTWORK SHOWN AS BEING INTERNALLY LINED SHALL BE LINED WITH LOW VOC, FIBER FREE, ELASTOMERIC DUCTLINER (MINIMUM R VALUE = 6 OR AS REQUIRED BY APPLICABLE ENERGY CODE), ARMACELL AP ARMAFLEX FS SA/SPIRALFLEX OR EQUAL. DUCT LINER WHERE INDICATED ON THE DRAWINGS AND A MINIMUM OF 10 FEET UPSTREAM AND DOWNSTREAM OF A FAN INLET OR OUTLET. UNLESS OTHERWISE INDICATED, DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS. DO NOT INSTALL INSULATION ON DUCTWORK THAT IS
- 17. FLEXIBLE DUCTWORK SHALL BE THERMAFLEX M-KE (U.L. 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT) OR EQUAL. PROVIDE THERMAFLEX M-KE R-8 (R VALUE - 6 MINIMUM OR AS REQUIRED BY LOCAL ENERGY CODE) IN CONCEALED SPACES. AIR CONNECTORS ARE NOT ACCEPTABLE. SIZE TO MATCH DEVICE NECK, PROVIDE ROUND GALVANIZED STEEL DUCT. RUNOUTS TO MAINTAIN A MAXIMUM FLEXIBLE DUCT LENGTH OF 4'-0". FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK WHEN REQUIRED.
- 18. ALL DUCTWORK AND PIPING SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND ATTACHMENT TO STRUCTURE SHALL BE AS PER SMACNA STANDARDS. INSTALLATION SHALL COMPLY WITH ASCE/SEI 10-7 STANDARD.
- 19. ROUND DUCTWORK SHALL BE CONNECTED TO MAIN DUCTS WITH SPIN-IN FITTINGS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK.
- 20. PORTIONS OF DUCTWORK VISIBLE THROUGH AIR DISTRIBUTION DEVICES IN FINISHED AREAS SHALL BE PAINTED FLAT
- 21. AN AUXILIARY GALVANIZED/NONMETALLIC DRAIN PAN SHALL BE PROVIDED FOR ALL OF AIR HANDLING UNITS WITH COOLING COILS, UNLESS OTHERWISE INDICATED. PROVIDE ELECTRONIC WATER LEVEL DETECTION DEVICE FOR EACH DRAIN PAN, WATER GARD ELECTRONIC CONDENSATION CONTROL SYSTEM INCLUDING WATER GARD CONTROL BOARD, MAGNETIC/CLIP ON SENSOR, 24V TRANSFORMER, AND INTERLOCK WIRING, TO SHUT-OFF THE AHU PRIOR TO OVERFLOW OF THE DRAIN PAN.
- 22. ALL AIR CONDITIONING CONDENSATE DRAIN LINES FROM EACH COOLING UNIT SHALL BE PIPED FULL SIZE OF THE UNIT DRAIN OUTLET, WITH "P" TRAP, AND ROUTED TO NEAREST STORM DRAIN OR TO THE OUTSIDE ON GRADE. CONDENSATE PIPING LOCATED IN CEILING RETURN AIR PLENUM SHALL BE COPPER TUBE TYPE "M" AND SOLDER FITTINGS. THE HORIZONTAL COPPER PIPING SHALL BE APPLIED WITH 1/2" THICK ELASTOMERIC PIPE INSULATION. SCHEDULE 40 PVC PIPE WITH SOLVENT FITTINGS SHALL BE ALLOWED WHERE THE CEILING SPACE IS NOT USED FOR A RETURN AIR PLENUM OR FOR CONDENSATE DRAIN ON ROOF.
- 23. AFTER CONSTRUCTION, THE ENTIRE HVAC SYSTEM SHALL BE TESTED, ADJUSTED, AND BALANCED IN ACCORDANCE WITH AABC OR NEBB STANDARDS, TO DELIVER THE AIR AND WATER FLOW QUANTITIES SHOWN ON THE DRAWINGS. SUBMIT CERTIFIED TEST AND BALANCE REPORTS TO ENGINEER FOR APPROVAL. ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR INSULATION IS APPLIED.
- 24. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
- 25. PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEM. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS OR NECESSARY TO ACCESS DAMPERS, VALVES, CLEANOUTS, ETC. COORDINATE EXACT LOCATION OR ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS.
- 26. MOUNT THE TOP OF OPERABLE PARTS OF THERMOSTATS AT FULLY BELOW 4'-0" ABOVE FINISHED FLOOR IN COMPLIANCE WITH ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER ASSEMBLIES FOR ALL PUBLIC AREA THERMOSTATS.
- 27. LOCATIONS OF GRILLES, REGISTERS, & DIFFUSERS SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE EXACT LOCATIONS WITH LIGHTS, CEILING GRID, ETC. AND ARCHITECTURAL REFLECTED CEILING PLAN.
- 28. CONCEAL ALL THE PIPING AND AIR DISTRIBUTION DUCTWORK ABOVE CEILING, INTERIOR PARTITION, OR IN THE CHASES EXCEPT MECHANICAL ROOM. DO NOT RUN ANY PIPING OR DUCT IN EXTERIOR WALL.
- 29. HVAC CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER CONTRACTORS BEFORE INSTALLATION OF HIS WORK IN CEILING SPACES AND OTHER AREAS WHERE CONFLICTION MAY OCCUR.
- 30. ALL DUCTWORK SHOWN ARE DIAGRAMMATIC. PROVIDE ALL MATERIALS AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE. THE MECHANICAL CONTRACTOR SHALL FABRICATE DUCTWORK BASED ON FIELD REQUIREMENTS IN ACCORDANCE WITH THE SMACNA DUCT CONSTRUCTION STANDARDS. NO ADDITIONAL COST WILL BE ALLOWED FOR THESE OFFSET AND TRANSITION FITTINGS THAT ARE REQUIRED FOR A COMPLETE WORKING SYSTEM. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT.
- 31. ALL NEW MATERIALS EXPOSED WITHIN PLENUMS SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
- 32. ALL ROOFTOP MOUNTED EQUIPMENT SHALL BE INSTALLED LEVEL ON, AND ANCHORED TO, MINIMUM 14" HIGH INSULATED ROOF CURBS, UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL COORDINATE ROOF SLOPE AND ACTUAL CURB HEIGHTS WITH ARCHITECTURAL DRAWINGS. ALL REFERENCES TO ROOF HEIGHTS REFER TO HEIGHTS ABOVE FINISHED
- 33. ALL WORK SHALL BE COORDINATED AND PERFORMED WITH PRIOR APPROVAL FROM THE OWNER TO SUIT HIS OPERATING CONDITIONS. NOTIFY THE OWNER IN WRITING AT LEAST 7 DAYS IN ADVANCE OF ANY SHUTDOWN OF WATER, HVAC, ELECTRICAL SERVICE, OR ANY OTHER UTILITY. UPON RECEIPT OF APPROVAL FROM THE OWNER, SHUTDOWNS SHALL BE PERFORMED BETWEEN THE HOURS AS DIRECTED, AND SHALL BE ACCOMPLISHED AT NO ADDITIONAL COST TO THE
- 34. ALL MECHANICAL EQUIPMENT SHALL BE LABELED WITH BAKELITE NAMEPLATE WITH 3/8" HEIGHT WHITE LETTERS ON A BLACK BACKGROUND, NAMEPLATE SHALL SHOW EQUIPMENT TAG USED ON THESE DRAWINGS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

- 35. IDENTIFICATION: COMPLY WITH ANSI A 13.1 FOR LETTERING SIZE, COLOR FIELD, COLORS AND VIEWING ANGLES. PROVIDE IDENTIFICATION MATERIALS AS DESCRIBED BELOW (REFER TO THE SPECIFICATION FOR ADDITIONAL REQUIREMENTS): 35.1. PIPING - SNAP-ON TYPE PLASTIC
- DUCTWORK PLASTIC STICK-ON TYPE 35.3. VALVE TAGS - 1-1/2" DIAMETER BRASS TYPE WITH FRAMED AND LAMINATED VALVE CHART MOUNTED IN MECHANICAL
- 35.4. EQUIPMENT ENGRAVED STOCK MELAMINE PLASTIC LAMINATE 2-1/2" 4" MINIMUM TO 4-1/2" X 6" FOR LARGER
- 35.5. GAS PIPING: APPLY YELLOW PAINT TO ALL GAS DISTRIBUTION PIPING, PRESSURE REGULATORS, AND SPECIALTY
- 36. FLEXIBLE DUCTWORK: 36.1. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL NOT EXCEED 4'-0". USE ROUND METAL DUCTWORK WITH INSULATION WHERE NECESSARY TO MAINTAIN THE FLEXIBLE DUCT LENGTH WITHIN MAXIMUM ACCEPTABLE
- 36.2. FLEXIBLE DUCT SHALL BE FACTORY GLASS-FIBER-INSULATED ASSEMBLY WITH VAPOR BARRIER JACKET AND MAXIMUM THERMAL CONDUCTANCE OF 0.23 BTU/HR./SQ.FT./°F. IT SHALL BE CONSTRUCTED OF MACHINE WOUND SPIRAL ALUMINUM HELIX OR REINFORCED ALUMINUM FOIL FABRIC MECHANICALLY LOCKED INTO ALUMINUM SPIRAL
- 36.3. FLEXIBLE DUCT SHALL BE SUITABLE FOR A 3" W.C. POSITIVE WORKING PRESSURE.
- 36.4. MANUFACTURERS: THERMAFLEX M-KC. ACCEPTABLE ALTERNATE GENFLEX TYPE IHPL. 36.5. FLEXIBLE DUCT SHALL BE CONNECTED TO SHEET METAL DUCTWORK WITH STAINLESS STEEL DUCT CLAMP WITH SWIVEL ACTION SCREW OR 100% NYLON SELF-LOCKING DUCT CLAMP BY PANDUIT CORPORATION OR EQUAL. •• SPIN-IN DUCT CONNECTION (SEE DETAIL PROVIDED WHEN APPLICABLE) WITH ROUND DAMPER SHALL BE PROVIDED AT ALL CONNECTIONS BETWEEN NEW FLEXIBLE DUCTWORK AND SHEET METAL DUCTWORK EXCEPT CONNECTIONS DOWNSTREAM OF VOLUME DAMPERS.

#### **DUCT CLEANING PROCEDURE:**

- 1. CLEAN EXISTING DUCT WORK BEFORE TESTING, ADJUSTING, AND BALANCING. CLEAN EXHAUST DUCTWORK FROM AIR DEVICE TO 5 FEET INSIDE DUCTWORK AND FROM EXHAUST FANS TO 5 FEET INSIDE DUCTWORK. USE VACUUM-COLLECTION DEVICES THAT ARE OPERATED CONTINUOUSLY DURING CLEANING, CONNECT VACUUM DEVICE TO DOWNSTREAM END OF DUCT SECTIONS SO AREAS BEING CLEANED ARE UNDER NEGATIVE PRESSURE, CLEANING METHODS THAT REQUIRE MECHANICAL AGITATION DEVICES TO DISLODGE DEBRIS THAT IS ADHERED TO INTERIOR SURFACES OF HVAC SYSTEM COMPONENTS SHALL BE EQUIPPED TO SAFELY REMOVE THESE DEVICES, CLEANING METHODS SHALL NOT DAMAGE THE INTEGRITY OF HVAC SYSTEM COMPONENTS OR DAMAGE POROUS SURFACE MATERIALS SUCH AS DUCT AND PLENUM LINERS.
- 2. CLEAN ALL EXISTING AIR DEVICES, INCLUDING EXISTING DOOR LOUVERS, THAT ARE EXISTING TO REMAIN. MECHANICALLY CLEAN DUCT SYSTEMS TO REMOVE ALL VISIBLE CONTAMINANTS SO THAT THE SYSTEMS ARE CAPABLE OF PASSING THE HVAC SYSTEM CLEANLINESS TESTS (SEE NADCA ACR 2006).
- 3. DEBRIS REMOVED FROM THE HVAC SYSTEM SHALL BE DISPOSED OF ACCORDING TO APPLICABLE FEDERAL, STATE, AND LOCAL

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DEPARTMENT OF **GENERAL SERVICES** CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS DESCRIPTION

MECHANICAL LEGEND, ABBREVIATIONS, &

CONSTRUCTION DOCUMENTS

GENERAL NOTES

2/16/24

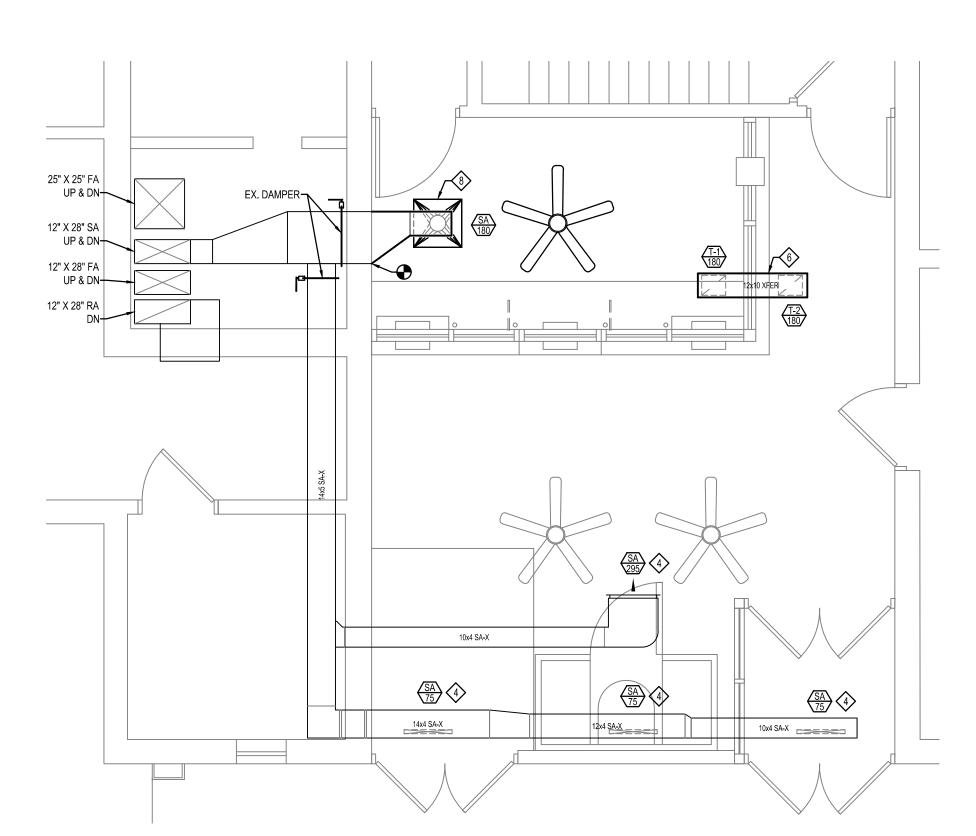
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ABOVE LEGENDS AND ABBREVIATIONS ARE STANDARD, ALL SYMBOLS DO NOT NECESSARILY APPEAR ON THE DRAWINGS.

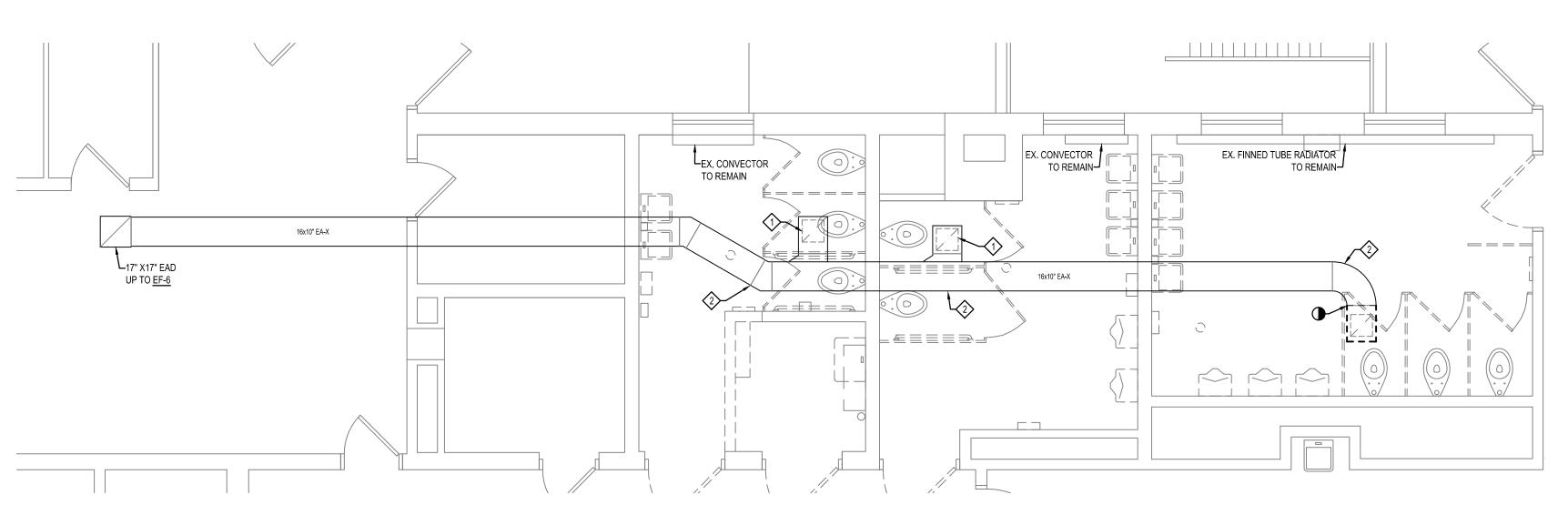
1 FIRST FLOOR PARTIAL PLAN - HVAC - DEMOLITION - ADD ALTERNATE

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



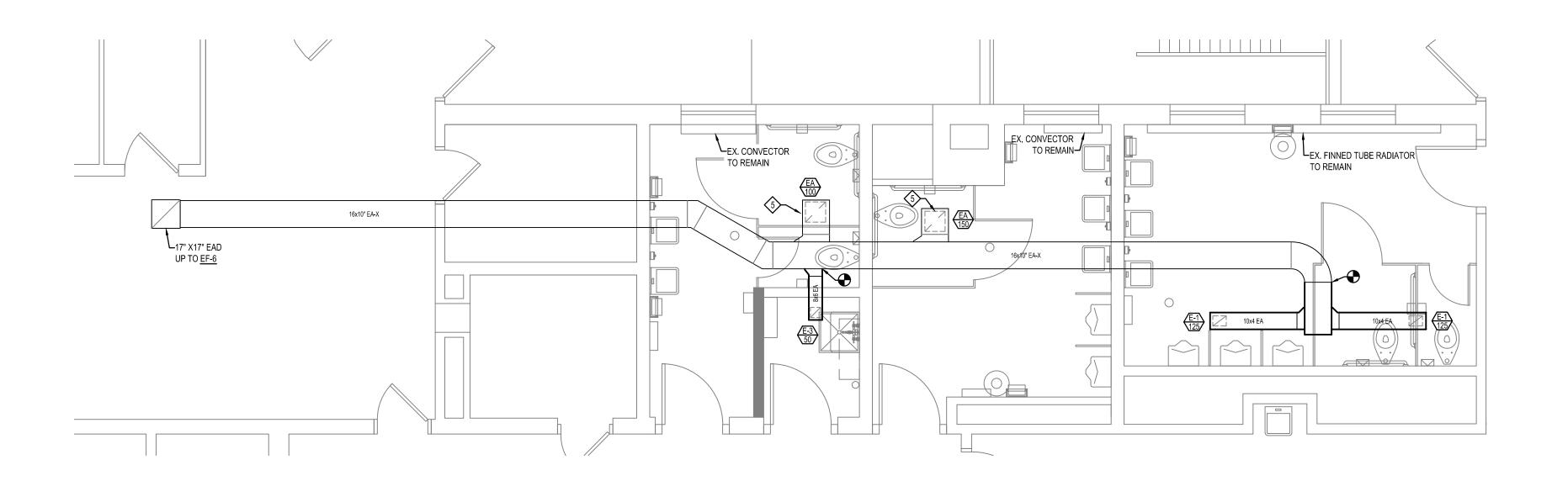
FIRST FLOOR PARTIAL PLAN - HVAC - NEW WORK - ADD ALTERNATE

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



Pirst Floor Partial Plan - HVAC - DEMOLITION

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



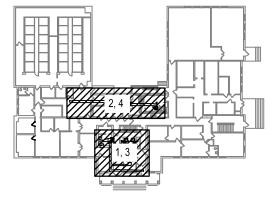
FIRST FLOOR PARTIAL PLAN - HVAC - NEW WORK

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- COVER ALL ROOF OPENINGS DURING CONSTRUCTION TO PROTECT THE BUILDING FROM THE AMBIENT.
- 3. DEMOLITION OF HVAC AND PLUMBING EQUIPMENT REQUIRES MODIFICATION OF CEILING BELOW FOR ACCESS AND THEN PATCH THE CEILING OPENING PER ARCHITECTURAL DESIGN AFTER WORK HAS BEEN COMPLETED TO MATCH THE EXISTING SURROUNDING SURFACE. COORDINATE WITH OTHER TRADES AS REQUIRED FOR MECHANICAL DEMOLITION AND NEW WORK WITH NO ADDITIONAL COST TO THE OWNER.
- 4. THE EXISTING HVAC CONTROL SYSTEM SHALL REMAIN. HOWEVER, CONTRACTOR SHALL PROVIDE NEW RIB RELAY, MOTOR STARTER, CONTACTS, AND ALL COMMUNICATION WIRING (OR EXTEND WIRING IF POSSIBLE) AS REQUIRED FOR RE-INSTALLATION OF POWER ROOF VENTILATORS, ROOF TOP UNITS AND COOLING TOWER. TEST ALL EXISTING HVAC CONTROL SYSTEMS TO MAKE SURE ALL INSTALLED EQUIPMENT ON ROOF ARE OPERATIONAL.
- 5. NEW DUCT AND EXHAUST FAN CONNECTIONS TO THE EXISTING DUCTWORK REQUIRE MODIFICATION TO THE CEILING BELOW FOR ACCESS. IT IS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES AS REQUIRED FOR MECHANICAL NEW WORK WITH NO ADDITIONAL COST TO THE OWNER.
- 6. ALL EXISTING DUCTWORK, PIPING AND WIRING CONNECTING THE EXHAUST FANS, INTAKE HOODS AND OTHER EQUIPMENTS ON ROOF FROM THE CEILING BELOW SHALL BE PROVIDED WITH NEW DUCTWORK, PIPING OR WIRING EXTENSION AS REQUIRED TO RE-CONNECT THE EQUIPMENTS WITH EXTENDED ROOF HEIGHTS.

#### DRAWING NOTES:

- 1. EXISTING AIR DEVICES SHALL BE REPLACED WITH THE SAME SIZE, ALUMINUM GRILLE.
  CONTRACTOR TO VERIFY THE GRILLE TYPE AND DIMENSION AT THE FIELD. REFER TO
  ARCHITECTURAL DRAWING FOR NEW CEILING BEFORE ORDERING.
- 2. EXISTING EXHAUST DUCT TO REMAIN. HAND-CLEAN FIRST5-FEET OF DUCTWORK. REFER TO GENERAL DUCT CLEANING PROCEDURE PROVIDED ON DRAWING MP-01.
- 3. REMOVE EXISTING CEILING FAN.
- 4. BALANCE TO CFM INDICATED.
- 5. PROVIDE NEW ALUMINUM AIR DEVICE TO MATCH WITH EXISTING SIZE / DIMENSION. COORDINATE WITH NEW CEILING. BALANCE TO CFM INDICATED.
- 6. PROVIDE TRANSFER AIR DUCT AND AIR DEVICES.
- 7. REMOVE EXISTING CEILING FAN AND REINSTALL AT THE LOCATION SHOWN ON NEW WORK PLAN.
- 8. PROVIDE 24"X24" SUPPLY AIR DEVICE. REFER TO ARCHITECTURAL CEILING PLAN FOR LOCATION



AREA OF WORK

FIRST FLOOR KEY PLAN

NOT TO SCALE

FIRST FLOOR PLAN HVAC DEMOLITION & NEW WORK
CONSTRUCTION

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SANDERS

CITY OF BALTIMORE

DEPARTMENT OF GENERAL SERVICES

CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS

DESCRIPTION

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SECOND FLOOR PARTIAL PLAN - HVAC- DEMOLITION

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

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SECOND FLOOR PARTIAL PLAN - HVAC- NEW WORK

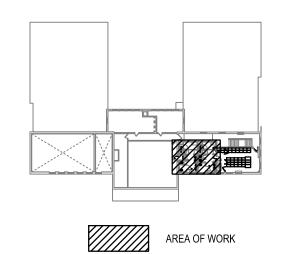
O2 SCALE: 1/4" = 1'-0"

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- 4. THE EXISTING HVAC CONTROL SYSTEM SHALL REMAIN. HOWEVER, CONTRACTOR SHALL PROVIDE NEW RIB RELAY, MOTOR STARTER, CONTACTS, AND ALL COMMUNICATION WIRING (OR EXTEND WIRING IF POSSIBLE) AS REQUIRED FOR RE-INSTALLATION OF POWER ROOF VENTILATORS, ROOF TOP UNITS AND COOLING TOWER. TEST ALL EXISTING HVAC CONTROL SYSTEMS TO MAKE SURE ALL INSTALLED EQUIPMENT ON ROOF ARE OPERATIONAL.
- 5. NEW DUCT AND EXHAUST FAN CONNECTIONS TO THE EXISTING DUCTWORK REQUIRE MODIFICATION TO THE CEILING BELOW FOR ACCESS. IT IS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES AS REQUIRED FOR MECHANICAL NEW WORK WITH NO ADDITIONAL COST TO THE OWNER.
- 6. ALL EXISTING DUCTWORK, PIPING AND WIRING CONNECTING THE EXHAUST FANS, INTAKE HOODS AND OTHER EQUIPMENTS ON ROOF FROM THE CEILING BELOW SHALL BE PROVIDED WITH NEW DUCTWORK, PIPING OR WIRING EXTENSION AS REQUIRED TO RE-CONNECT THE EQUIPMENTS WITH EXTENDED ROOF HEIGHTS.

#### DRAWING NOTES:

- 1. REMOVE EXISTING EXHAUST AIR DUCTWORK AND ASSOCIATED AIR DEVICES, HANGERS.
- 2. REMOVE EXISTING FINNED TUBE RADIATOR. REMOVE EXISTING HOT WATER SUPPLY AND HOT WATER RETURN PIPE UP TO MAIN PIPE AND CAP. PATCH THE FLOOR OPENING.
- 3. REMOVE EXISTING CONVECTOR. REMOVE EXISTING HOT WATER SUPPLY AND HOT WATER RETURN PIPE UP TO MAIN PIPE AND CAP. PATCH THE FLOOR OPENING.
- 4. REMOVE EXISTING FAN COIL UNIT. REUSE EXISTING DUAL TEMPERATURE SUPPLY AND DUAL TEMPERATURE RETURN PIPE, AND AIR INTAKE OPENING FOR NEW VENTILATOR.
- 5. PROVIDE NEW FAN COIL UNIT. PROVIDE NEW DUAL TEMPERATURE SUPPLY AND DUAL TEMPERATURE RETURN PIPE AND CONDENSATE PIPE AND CONNECT TO UNIT.
- 6. PROVIDE NEW FAN COIL UNIT. EXTEND EXISTING DUAL TEMPERATURE SUPPLY AND RETURN PIPES AND CONDENSATE PIPE TO FCU COIL. REUSE EXISTING AIR INTAKE OPENING AND CONNECT TO FRESH AIR INTAKE OF UNIT VENTILATOR.
- 7. PROVIDE 24" X 24" DOOR AIR TRANSFER LOUVER.



SECOND FLOOR KEY PLAN

NOT TO SCALE

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CITY OF BALTIMORE

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GENERAL SERVICES

CAPITAL PROJECTS

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REVISIONS
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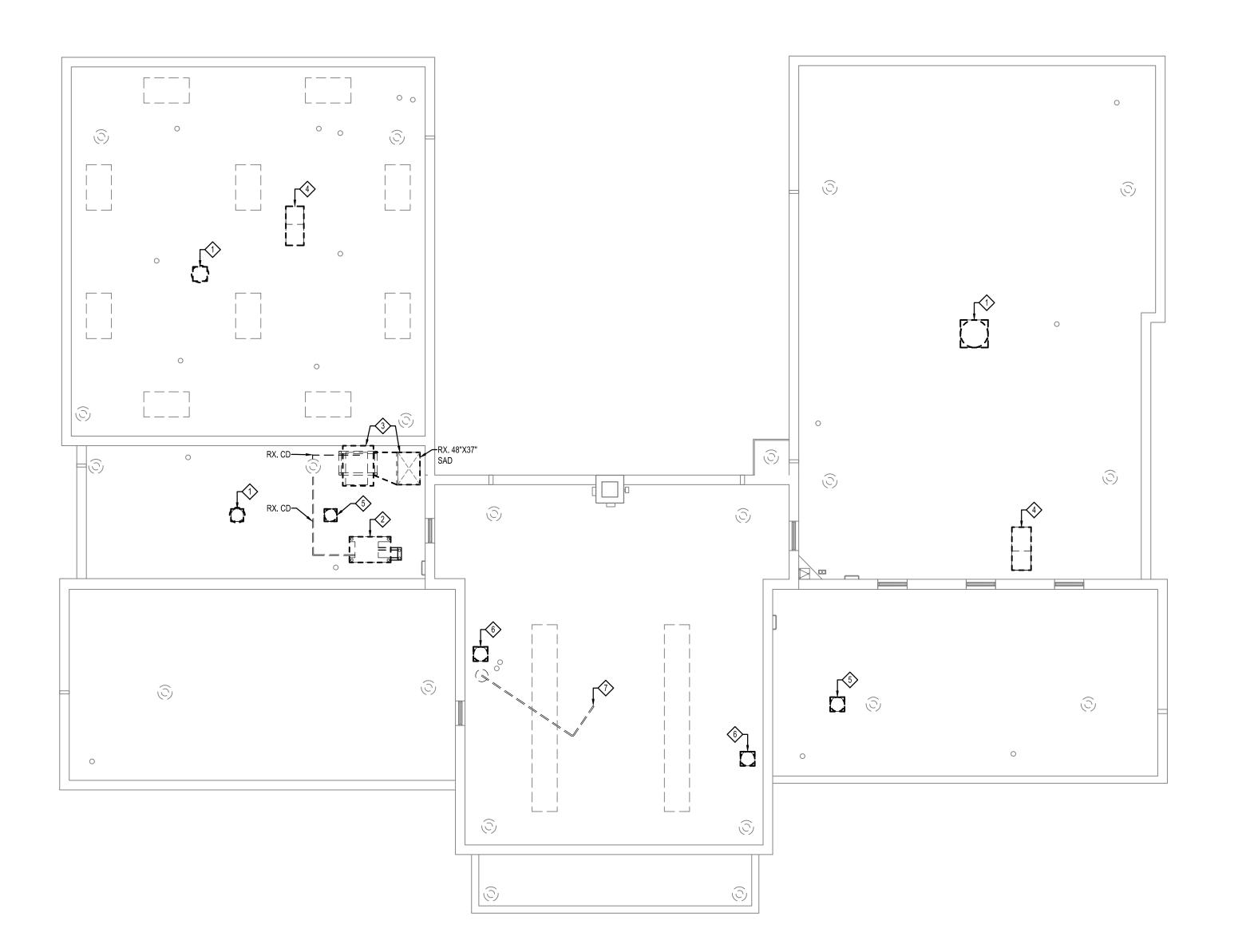
SECOND FLOOR PLAN -HVAC -

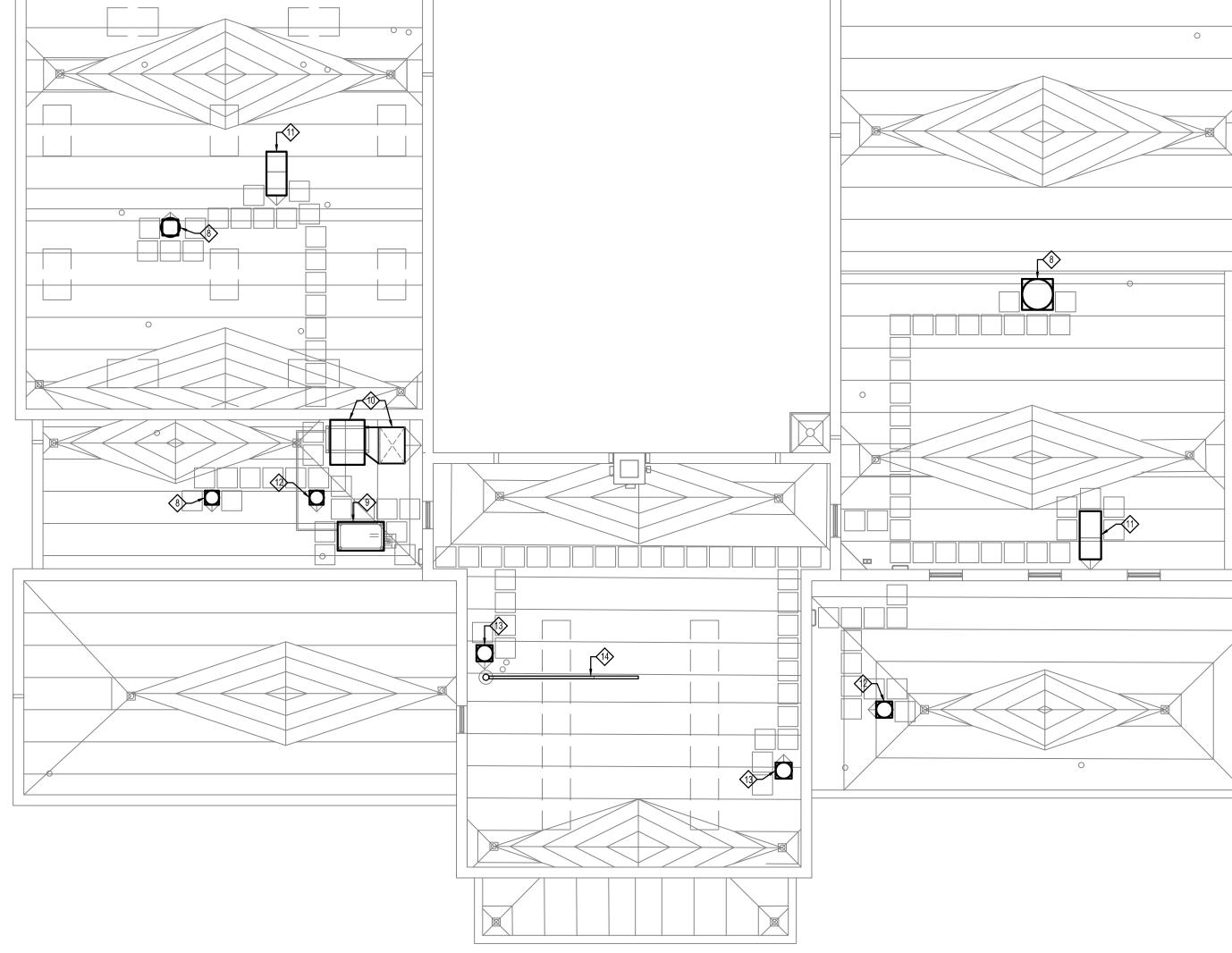
HVAC -DEMOLITION & NEW WORK

CONSTRUCTION DOCUMENTS

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2/16/24





**ROOF PLAN - HVAC - NEW WORK** SCALE: 3/32" = 1' - 0"

# **GENERAL NOTES:**

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- 4. THE EXISTING HVAC CONTROL SYSTEM SHALL REMAIN. HOWEVER, CONTRACTOR SHALL PROVIDE NEW RIB RELAY, MOTOR STARTER, CONTACTS, AND ALL COMMUNICATION WIRING (OR EXTEND WIRING IF POSSIBLE) AS REQUIRED FOR RE-INSTALLATION OF POWER ROOF VENTILATORS, ROOF TOP UNITS AND COOLING TOWER, TEST ALL EXISTING HVAC CONTROL SYSTEMS TO MAKE SURE ALL INSTALLED EQUIPMENT ON ROOF ARE OPERATIONAL.

5. NEW DUCT AND EXHAUST FAN CONNECTIONS TO THE EXISTING DUCTWORK REQUIRE MODIFICATION TO THE CEILING BELOW FOR ACCESS. IT IS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES AS REQUIRED FOR MECHANICAL NEW WORK WITH NO ADDITIONAL COST TO THE OWNER.

**ROOF PLAN - HVAC - DEMOLITION** SCALE: 3/32" = 1' - 0"

6. ALL EXISTING DUCTWORK, PIPING AND WIRING CONNECTING THE EXHAUST FANS, INTAKE HOODS AND OTHER EQUIPMENTS ON ROOF FROM THE CEILING BELOW SHALL BE PROVIDED WITH NEW DUCTWORK, PIPING OR WIRING EXTENSION AS REQUIRED TO RE-CONNECT THE EQUIPMENTS WITH EXTENDED ROOF HEIGHTS.

#### **DRAWING NOTES:** $\otimes$

- 1. REMOVE EXISTING POWER EXHAUST FAN WITH ASSOCIATED ROOF CURB AND DISCONNECT FROM EXISTING DUCTWORK AND POWER, DURING THE ROOFING INSTALLATION, CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT EXISTING EXHAUST FAN FROM DIRT, DEBRIS, AND DAMAGE. ANY DAMAGE CAUSED BY CONTRACTOR TO EXISTING EXHAUST FAN SHALL BE REPAIRED TO OWNER'S SATISFACTION, PROVIDE FULL CLEANING SERVICE BEFORE INSTALLING THE EXHAUST FAN BACK ON THE NEW ROOF CURB, CLEANING SERVICE SHALL INCLUDE BACKDRAFT DAMPER, AUTOMATIC CONTROL DAMPER, AND ANY PART OF EXISTING DUCTWORK THAT IS ACCESSIBLE FROM ROOF OPENING PRIOR INSTALLATION OF EXHAUST FAN.
- 2. EXISTING COOLING TOWER TO BE TEMPORARILY REMOVED AND ITS ASSOCIATED PIPING, POWER AND SUPPORTS SHALL BE DISCONNECTED AT THE ROOF LEVEL. REMOVE CONDENSATE PIPING.
- 3. EXISTING ROOF TOP UNIT (RTU) TO BE TEMPORARILY REMOVED AND ITS ASSOCIATED POWER AND SUPPORTS SHALL BE DISCONNECTED. REMOVE ASSOCIATED EXTERIOR DUCTWORK, ROOF CURB AND CONDENSATE PIPING.
- 4. TEMPORARILY REMOVE EXISTING GRAVITY VENTILATOR WITH ASSOCIATED ROOF CURB AND DISCONNECT FROM EXISTING DUCTWORK. INSPECT IF THE EXISTING GRAVITY VENTILATOR IS OPERATIONAL AND WORKING WITH CURRENT HVAC SYSTEM BEFORE DEMOLITION. IF NOT OPERATIONAL, PROVIDE AN ALTERNATE BID FOR REMOVAL AND ROOF PATCH.
- REMOVE EXISTING ROOF MOUNTED EXHAUST FAN AND ROOF CURB. DISCONNECT FROM EXISTING DUCTWORK AND POWER, PREPARE EXISTING DUCTWORK FOR INSTALLATION OF NEW EXHAUST FAN. PROVIDE FULL CLEANING BEFORE INSTALLING NEW EXHAUST FAN AND ROOF CURB, CLEANING SERVICE SHALL INCLUDE BACKDRAFT DAMPER, AUTOMATIC CONTROL DAMPER, AND ANY PART OF EXISTING DUCTWORK THAT IS ACCESSIBLE FROM ROOF OPENING PRIOR INSTALLATION OF

- 6. TEMPORARILY REMOVE ROOF MOUNTED FRESH AIR INTAKE HOOD AND ROOF CURB.
- 7. REMOVE EXISTING 4" DIESEL EXHAUST PIPING AND SUPPORT.
- REINSTALL THE TEMPORARILY REMOVED EXHAUST FAN ON THE NEW ROOF CURB AND MAKE SURE THE FAN IS IN WORKING CONDITION.
- REINSTALL THE TEMPORARILY REMOVED COOLING TOWER AND ITS ASSOCIATED PIPING AS PER MANUFACTURER'S DIRECTIONS WITH ALL REQUIRED VALVES, FITTINGS AND CONDENSATE
- 10. REINSTALL THE TEMPORARILY REMOVED ROOF TOP UNIT. PROVIDE NEW DUCTWORK AND
- 13. REINSTALL THE TEMPORARILY REMOVED FRESH AIR INTAKE HOOD. PROVIDE ROOF CURB
- A MINIMUM HEIGHT OF 12 INCHES FOR THE HORIZONTAL PIPING ABOVE THE NEW ROOF

RECONNECT ALL POWER AND CONTROL WIRING. PROVIDE CLEANING SERVICE PRIOR TO INSTALLATION AND ALL REQUIRED SERVICES PER MANUFACTURER'S RECOMMENDATIONS.

PIPING. THE COOLING TOWER SHOULD BE CHECKED TO MAKE SURE ITS OPERATIONAL AFTER

CONNECT TO EXISTING DUCTWORK. PROVIDE CONDENSATE PIPING. THE RTU SHOULD BE CHECKED TO MAKE SURE ITS OPERATIONAL AFTER INSTALLATION.

- 11. REINSTALL THE TEMPORARILY REMOVED GRAVITY VENTILATOR AND ROOF CURB, RECONNECT TO THE EXISTING DUCTWORK.
- 12. INSTALL NEW EXHAUST FAN AND NEW ROOF CURB. RECONNECT TO EXISTING DUCTWORK. REFER TO ELECTRICAL DRAWINGS FOR RECONNECTION OF POWER.
- 14. PROVIDE NEW 4" DIESEL EXHAUST PIPING AND SUPPORT. EXTEND VERTICAL PIPING TO ACHIEVE

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CITY OF BALTIMORE DEPARTMENT OF GENERAL SERVICES CAPITAL PROJECTS AND ENERGY DIVISION

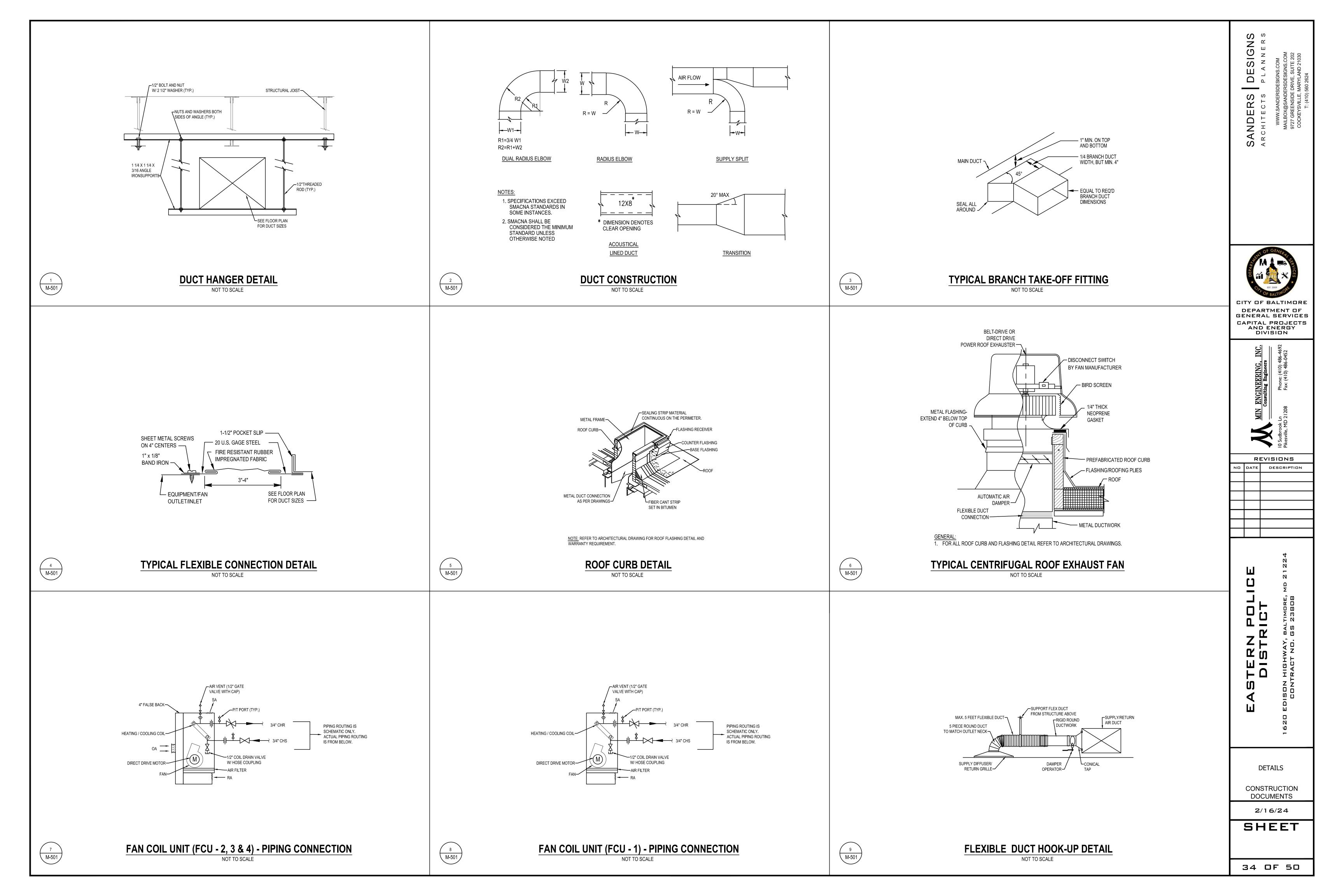
REVISIONS DESCRIPTION

ROOF PLAN -HVAC -**DEMOLITION & NEW WORK** 

CONSTRUCTION **DOCUMENTS** 

2/16/24

SHEET



							EXHAUS	T FAN (	(EF) SCI	HEDUL	E						
										ELECTRIC	AL DATA			MECHANICAL CONTRACTOR	BASIS C	F DESIGN	
UNIT NO.	LOCATION	SERVING AREA	TYPE	DRIVE	EXH. CFM EXT. SP INCHES W.C.	FAN RPM	BHP	SONES	MOTOR	V	PH	HZ	ECM DISCONN	SPEED THERMAL	INTERLOCK MANUFACTURER	MODEL NUMBER	NOTES
									HP	V	FII	112	MOTOR ECT	CONTROLLER OVERLOAD	UNIT NO. BAS	MODEL NOMBER	
EF-3	ROOF	SECOND FLOOR RESTROOMS & SHOWERS	DOWNBLAST CENTRIFUGAL	DIRECT	545 0.25	1,199	0.05	5.5	1/6	115	1	60	• •	• •	GREENHECK	G-095-VG	1,2,3,4
EF-6	ROOF	FIRST FLOOR RESTROOMS	DOWNBLAST CENTRIFUGAL	DIRECT	550 0.50	1,488	0.11	8.6	1/6	115	1	60	• •	• •	GREENHECK	G-095-VG	1,2,3,4

1. FIELD VERIFY EXACT SIZE OF OPENING IN ROOF PRIOR TO ORDERING.

2. EXTEND CONTROL WIRING AND SEQUENCE OF OPERATIONS FROM DEMOLISHED FAN TO FAN INSTALLED UNDER THIS CONTRACT.

3. PROVIDE INSULATED ROOF CURB. REFER TO ARCHITECTURAL DRAWING FOR ROOF CURB HEIGHT AND INSULATION REQUIREMENT.

4. PROVIDE GRAVITY BACKDRAFT DAMPER AND BIRD SCREEN.

						VERT	ICAL CA	BINET	FAN C	OIL U	NIT (F	CU) S(	CHEDULE							
			F.	ΔN		C	COOLING CAP	ACITY				Н	EATING CAPAC	CITY			ELECTRIC I	DATA		BASIS OF DESIGN
UNIT NO.	SERVING AREA	GPM	CFM	W	EAT, F DB/WB	LAT, F DB/WB	SENS. MBH	TOTAL MBH	EWT, F	LWT, F	EAT, F	LAT, F	HEATING LOAD, MBH	EWT, F	LWT, F	V	HZ	PH	WATT	TRANE MODEL NO.
FCU-1	MEN'S - 201	1.7	349	58	80 / 67	58.8 / 57.9	6.41	8.08	46	56	70	90	22.62	180	150	120	60	1	58	VERTICAL CABINET, FCBB04
FCU-2	WOMEN'S - 203	1.7	349	58	80 / 67	58.8 / 57.9	6.41	8.08	46	56	70	90	22.62	180	150	120	60	1	58	VERTICAL CABINET, FCBB04
FCU-3	LOCKER - 205	2.8	544	79	80 / 67	58.8 / 57.9	10.42	13.94	46	56	70	90	35.55	180	150	120	60	1	79	VERTICAL CABINET, FCBB06
FCU-4	LOCKER - 205	2.8	544	79	80 / 67	58.8 / 57.9	10.42	13.94	46	56	70	90	35.55	180	150	120	60	1	79	VERTICAL CABINET, FCBB06

1. PROVIDE FRONT STAMPED LOUVER INLET AND OUTLET.

2. NO AIR INTAKE OPENING FOR FCU-1.

3. CONNECT EXISTING WALL BOX TO THE UNIT FRESH AIR OPENING FOR FCU-2, -3, -4.

						A	AIR DEVIC	CE SCHEDU	ILE	
UNIT NO.			ZE		DESCRIPTION	Max. NC	DISCHARGE PATTERN	OPTIONS / REMARKS	GENERAL REQUIREMENTS	BASIS DESIGN PRICE OR EQUAL
	CFM RANGE	FACE								
		(IN)	(IN)						A DOADDED TYPE TO BE MATCHED MITH ADOLUTEOTUDAL OF UNIO DI AM	
S-1	101-230	24X24	8"ø	CSD	SQUARE PLAQUE DIFFUSER	20	ALL WAY		A. BOARDER TYPE TO BE MATCHED WITH ARCHITECTURAL CEILING PLAN.  B. PROVIDE 1/2" THICKNESS ALUMINUM FOIL BACKED FIBERGLASS INSULATION.	SPD
E-1	0 - 180	8X10	6X8	CEG	ALUMINUM LOUVERED GRILLE	30	NONE	•	A. BOARDER TYPE TO BE MATCHED WITH ARCHITECTURAL CEILING PLAN.	
									B. PROVIDE 45 DEGREE SIGHT PROOF LOUVERS.	630
									C. PROVIDE BACKPAN IN BLACK FINISH AND CONNECT TO EXHAUST AIR DUCT.	
E-2	0-130	8X8	6X6	DMEG	ALUMINUM LOUVERED GRILLE	30	NONE	OBD		630
E-3	11 - 35	5-7/8"∅ 4"Ø	A".cs	4"Ø CEG	WHITE PLASTIC ROUND DIFFUSER	25	ALL WAY		A. FOR WET ENVIRONMENT AND STORAGE APPLICATION.	ALDES ALGRILL
			4 Ø					-	B. FOR SUPPLY OR EXHAUST AIRFLOW APPLICATION	40100 SERIES
T-1	0-420	14X12	12X10	CTG	ALUMINUM LOUVERED GRILLE	30	NONE		A. PROVIDE 45 DEGREE SIGHT PROOF LOUVERS.	630
T-2	170 - 240	12X8	10X6	DMTG	ALUMINUM LOUVERED GRILLE	30	NONE		A. PROVIDE 45 DEGREE SIGHT PROOF LOUVERS.	630
BBREVIATIO	NS:								ACCESSORIES:	
SD: CEILING SUPPLY DIFFUSER WSR: WALL SUPPLY REGIS				REGISTER	DMSR: DUCT MOUNTED SUPPLY REGISTER			OBD : OPPOSED BLADE DAMPER		
EG: CEILING	EXHAUST GRILL	.E	WEG: WAI	WEG: WALL EXHAUST GRILLE			CT MOUNTED E	XHAUST GRILLE	LONG : BLADES PARALLEL TO LONG	
RG: CEILING RETURN GRILLE WRG				VRG: WALL RETURN GRILLE		DMRG: DUCT MOUNTED RETURN GRILLE			SHORT: BLADES PARALLEL TO SHORT	
TG: CEILING TRANSFER GRILLE			WTG: WAL	WTG: WALL TRANSFER GRILLE			CT MOUNTED T	RANSFER GRILLE		

DESIGNS PLANNERS

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CITY OF BALTIMORE DEPARTMENT OF GENERAL SERVICES CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS DESCRIPTION

SCHEDULES

CONSTRUCTION DOCUMENTS

SHEET

2/16/24

& @ °F # % Ø	DESCRIPTION
°F # % Ø	AND
# % Ø	AT
% Ø	DEGREES FAHRENHEIT
Ø	NUMBER
	PERCENT PHASE
ABV	ABOVE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECT / ARCHITECTURAL
ASME ASSE	AMERICAN SOCIETY OF SANITATION ENGINEERS  AMERICAN SOCIETY FOR TESTING MATERIALS
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS  AMERICAN SOCIETY FOR TESTING MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BEL	BELOW
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CONC.	CLEAN OUT CONCRETE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CUH	CABINET UNIT HEATER
CW	DOMESTIC COLD WATER
DIA, Ø	DIAMETER
DF	DRINKING FOUNTAIN
DWG	DRAWING
DWGS	DRAWINGS  EYHALIST AID
EA EF	EXHAUST AIR  EXHUAST FAN
EL	ELEVATION
ETC.	ETCETERA
EWT	ENTERING WATER TEMPERATURE
EX., EXIST.	EXISTING
FD FD	FAHRENHEIT ELOOP DRAIN
FL	FLOOR DRAIN FLOOR
FT	FOOT OR FEET
FTU	FINNED TUBE UNIT
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
HR	HOUR
HP	HORSE POWER  DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER  DOMESTIC HOT WATER RECIRCULATING
HZ	HERTZ
IBC	INTERNATIONAL BUILDING CODE
IN	INCH
IPC	INTERNATIONAL PLUMBING CODE
LAV	LAVATORY
MIN.	LEAVING WATER TEMPERATURE  MINIMUM
NFPA	NATIONAL FIRE PROTECTION ASSOCATION
No	NUMBER
NSF	NATIONAL SCIENCE FOUNDATION
PH	PHASE
PLUMB	PLUMBING  PARTS PER MILLION
	PARTS PER MILLION POUNDS PER SQUARE INCH
PPM	PSI GAUGE
	POLYVINYL CHLORIDE
PPM PSI	
PPM PSI PSIG PVC RX	REMOVE EXISTING
PPM PSI PSIG PVC RX SAN	REMOVE EXISTING SANITARY
PPM PSI PSIG PVC RX SAN SP	REMOVE EXISTING SANITARY STATIC PRESSURE
PPM PSI PSIG PVC RX SAN	REMOVE EXISTING SANITARY STATIC PRESSURE SPECIFICATIONS
PPM PSI PSIG PVC RX SAN SP	REMOVE EXISTING SANITARY STATIC PRESSURE
PPM PSI PSIG PVC RX SAN SP SPEC	REMOVE EXISTING SANITARY STATIC PRESSURE SPECIFICATIONS SERVICE SINK
PPM PSI PSIG PVC RX SAN SP SPEC SS TEMP	REMOVE EXISTING SANITARY STATIC PRESSURE SPECIFICATIONS SERVICE SINK TEMPERATURE
PPM PSI PSIG PVC RX SAN SP SPEC SS TEMP	REMOVE EXISTING SANITARY STATIC PRESSURE SPECIFICATIONS SERVICE SINK TEMPERATURE TRAP PRIMER
PPM PSI PSIG PVC RX SAN SP SPEC SS TEMP TP TYP.	REMOVE EXISTING  SANITARY  STATIC PRESSURE  SPECIFICATIONS  SERVICE SINK  TEMPERATURE  TRAP PRIMER  TYPICAL
PPM PSI PSIG PVC RX SAN SP SPEC SS TEMP TP TYP. U/G UFS V	REMOVE EXISTING SANITARY STATIC PRESSURE SPECIFICATIONS SERVICE SINK TEMPERATURE TRAP PRIMER TYPICAL UNDERGROUND UNDER FLOOR SLAB VENT
PPM PSI PSIG PVC RX SAN SP SPEC SS TEMP TP TYP. U/G UFS V	REMOVE EXISTING  SANITARY  STATIC PRESSURE  SPECIFICATIONS  SERVICE SINK  TEMPERATURE  TRAP PRIMER  TYPICAL  UNDERGROUND  UNDER FLOOR SLAB  VENT  VOLTS
PPM PSI PSIG PVC RX SAN SP SPEC SS TEMP TP TYP. U/G UFS V	REMOVE EXISTING SANITARY STATIC PRESSURE SPECIFICATIONS SERVICE SINK TEMPERATURE TRAP PRIMER TYPICAL UNDERGROUND UNDER FLOOR SLAB VENT

ABOVE LEGENDS AND ABBREVIATIONS ARE STANDARD. ALL SYMBOLS DO NOT NECESSARILY APPEAR ON THE DRAWINGS.

PLUMBING LEGEND & ABBREVIATIONS							
SYMBOL	ABBREVIATION	DESCRIPTION					
		NEW PIPING (DARK LINED)					
		EXISTING PIPING (LIGHT LINED)					
		REMOVE TO POINT FOR RECONNECTION					
		REMOVE TO POINT AND CAP					
	RX	EXISTING TO BE REMOVED					
	CD	CONDENSATE DRAIN PIPING					
	CW	COLD WATER PIPING					
	HW	HOT WATER PIPING					
	HR	HOT WATER RETURN PIPING					
3" SAN	SAN	SOIL, WASTE PIPING					
2" V	V	VENT					
		PIPE TURNING UP					
<del></del> ∋		PIPE TURNING DOWN					
<del> </del>		UNION					
———— <u>—</u> ———		GATE/BALL VALVE					
<del>э</del> н		ISOLATION VALVE IN VERTICAL					
——⊚	FCO/CO	FLOOR CLEANOUT/CLEANOUT					
<del></del> }		PIPING CONTINUATION					
	FD	FLOOR DRAIN					
sa Q	SA	SHOCK ABSORBER/WATER HAMMER ARRESTOR					
TP	TP	TRAP PRIMER					
	WCO	WALL CLEANOUT					
<b></b>		DRAWING NOTE NUMBER					
•		CONNECTION OF NEW TO EXISTING					
•		DEMOLISH TO THIS POINT					
		EXISTING EQUIPMENT/FIXTURE TO BE REMOVED					
	P-X	PLUMBING FIXTURE DESIGNATION					
<b>\</b>	EA	EXHAUST AIR					

#### **PLUMBING GENERAL NOTES:**

- 1. PLUMBING INSTALLATION SHALL COMPLY WITH THE LATEST STATE, BALTIMORE CITY CODES, AND ALL UTILITY
- 2. PLUMBING WORK INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. PLUMBING CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND PAY ALL FEES RELATIVE TO THE INSTALLATION OF HIS WORK.
- 3. COORDINATE THE WORK WITH WORK OF OTHER TRADES AND FIELD CONDITIONS. CAREFULLY CHECK SPACE REQUIREMENTS AND UTILITIES TO INSURE ALL EQUIPMENT CAN BE INSTALLED IN THE SPACES ALLOTTED THERETO AND COORDINATE ALL NECESSARY UTILITY SERVICE REQUIREMENTS. THE INSTALLATION OF NEW WORK MAY REQUIRE A PHASED INSTALLATION SEQUENCE. COORDINATE, PROTECT AND SCHEDULE WORK WITH WORK OF OTHER TRADES IN ACCORDANCE WITH THE REQUIRED CONSTRUCTION SCHEDULE. INSTALL ALL WORK IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 4. ALL PIPING SHOWN IS SCHEMATIC. THE PLUMBING CONTRACTOR SHALL FABRICATE PIPING BASED ON FIELD REQUIREMENTS TO MAKE SURE A PROPER WATER DISTRIBUTION SYSTEM. NO ADDITIONAL COST WILL BE ALLOWED FOR THESE OFFSET AND TRANSITION FITTINGS THAT ARE REQUIRED FOR A COMPLETE WORKING SYSTEM IN ACCORDANCE WITH ALL OF THE REQUIREMENTS OF THE CODES AND REGULATIONS.
- 5. VALVES IN DOMESTIC WATER PIPING 2" AND SMALLER SHALL BE BRONZE BODY WITH TWO PIECES, FULL PORT STAINLESS STEEL BALL WITH EXTENDED LEVEL HANDLE. PVC VALVES SHALL NOT BE ACCEPTABLE.
- 7. PLUMBING CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEM. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS OR NECESSARY TO ACCESS VALVES, CLEANOUTS, ETC. COORDINATE EXACT LOCATION OR ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS. ACCESS DOOR/PANEL SHALL MAINTAIN THE SAME FIRE RATED CEILING/WALL CONSTRUCTIONS.
- 8. ALL VALVES INSTALLED IN LOCATIONS THAT ARE NOT ADJACENT TO THE FIXTURE OR APPLIANCE SHALL BE PROVIDED WITH A VALVE IDENTIFICATION. EACH RISER SHUT-0FF VALVE SHALL BE PROVIDED WITH A PLASTIC VALVE TAG/IDENTIFICATION TO SHOW THE UNITS NUMBER SERVED BY THE SHUT-OFF VALVE.
- 9. SEAL ALL WALL/FLOOR OPENING TO MAINTAIN THE INTEGRITY OF WALL OR FLOOR CONSTRUCTION REQUIREMENTS.
- 10. ALL NEW PLUMBING SHALL BE INSTALLED AS HIGH AS POSSIBLE UNDER BUILDING STRUCTURE AND MAINTAIN A MINIMUM OF 6'-8" CLEARANCE TO UNDERSIDE OF PIPES AND SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN EQUIPMENT ROOMS.
- 11. ALL PIPING SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. PIPING HUNG FROM JOISTS SHALL BE HUNG FROM THE TOP CHORDS OF THE JOISTS.
- 12. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL PLUMBING EQUIPMENT, FIXTURES, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL DRAWINGS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
- 13. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL PLUMBING EQUIPMENT WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN. UNLESS NOTED OTHERWISE, ELECTRICAL TRANSFORMERS AND LOW VOLTAGE WIRING REQUIRED FOR ALL PLUMBING SYSTEMS SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE REQUIREMENTS
- 14. ALL NEW MATERIALS SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 FEET AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 FEET WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
- 15. PROVIDE DIELECTRIC FITTINGS BETWEEN DISSIMILAR METAL CONNECTIONS.
- 16. THE ENTIRE PLUMBING PIPING SYSTEM SHALL BE TESTED, ADJUSTED, AND BALANCED IN ACCORDANCE WITH THE WSSC REQUIREMENTS. ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED. SUBMIT WATER TEST REPORTS TO ENGINEER FOR APPROVAL.
- 17. ALL PLUMBING EQUIPMENT, FIXTURES, AND PIPING SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS AFTER ACCEPTANCE BY OWNER.
- 18. FOR THE CONTINUOUS OPERATION OF PLUMBING SYSTEMS FOR THE OTHER OCCUPIED SPACES OF THE BUILDING, CONTRACTOR SHALL PROVIDE TEMPORARY CAPS AS REQUIRED FOR ALL THE PIPING WHERE THE DEMOLITION
- 19. SOLDER FOR DOMESTIC WATER PIPING SHALL BE LEAD FREE, HAVING A COMPOSITION SIMILAR TO 95.5% TIN, 4% COPPER AND 0.5% SILVER.
- 20. THE PORTABLE WATER PIPING SYSTEM SHALL BE CLEANED IN ACCORDANCE WITH THE PROCEDURE DESCRIBED
- a. CLEAN AND DISINFECT POTABLE DOMESTIC WATER PIPING AS FOLLOWS:
- PURGE NEW PIPING AND PARTS OF EXISTING DOMESTIC WATER PIPING THAT HAVE BEEN ALTERED, EXTENDED,
- b. USE PURGING AND DISINFECTING PROCEDURES PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR, IF METHODS ARE NOT PRESCRIBED, PROCEDURES DESCRIBED IN EITHER AWWA C651 OR AWWA C652 OR AS DESCRIBED BELOW:
- FLUSH PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS. • FILL SYSTEM OR PART THEREOF WITH WATER/CHLORINE SOLUTION WITH AT LEAST 50 PPM OF CHLORINE.
- ISOLATE WITH VALVES AND ALLOW TO STAND FOR 24 HOURS. • FILL SYSTEM OR PART THEREOF WITH WATER/CHLORINE SOLUTION WITH AT LEAST 200 PPM OF CHLORINE.
- ISOLATE AND ALLOW TO STAND FOR THREE HOURS. • FLUSH SYSTEM WITH CLEAN, POTABLE WATER UNTIL NO CHLORINE IS IN WATER COMING FROM SYSTEM AFTER
- c. SUBMIT WATER SAMPLES IN STERILE BOTTLES TO AUTHORITIES HAVING JURISDICTION. REPEAT PROCEDURES IF BIOLOGICAL EXAMINATION SHOWS CONTAMINATION.
- d. PREPARE AND SUBMIT REPORTS OF PURGING AND DISINFECTING ACTIVITIES TO ARCHITECT FOR APPROVAL.
- e. CLEAN INTERIOR OF DOMESTIC WATER PIPING SYSTEM. REMOVE DIRT AND DEBRIS AS WORK PROGRESSES.

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**GENERAL SERVICES** CAPITAL PROJECTS AND ENERGY DIVISION

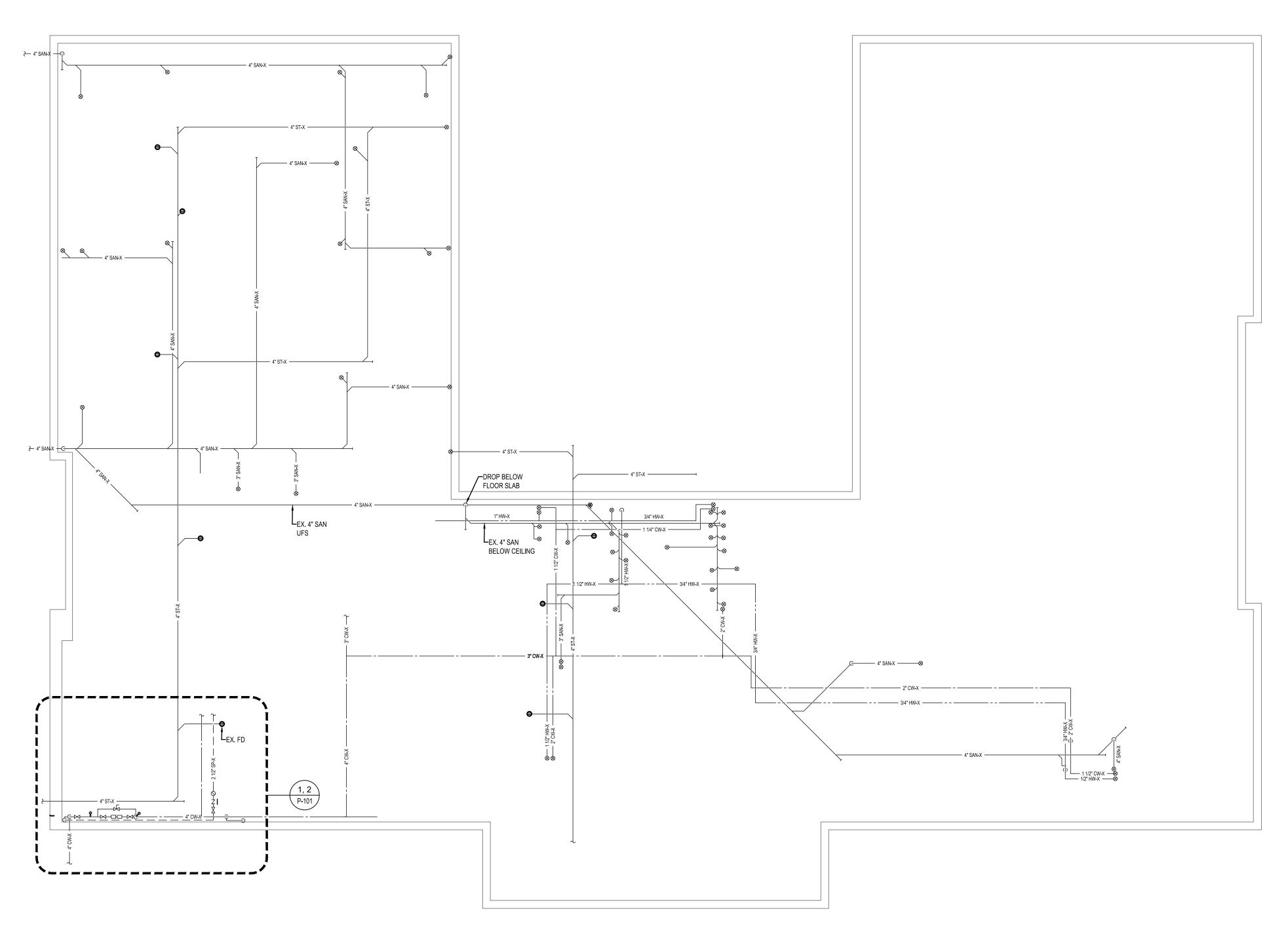
REVISIONS DESCRIPTION

PLUMBING LEGEND, ABBREVIATIONS, & **GENERAL NOTES** 

CONSTRUCTION **DOCUMENTS** 

2/16/24

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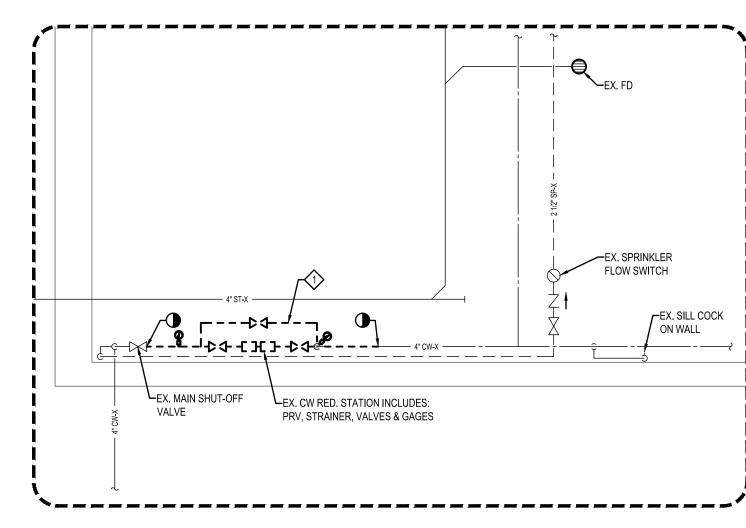


### **GENERAL NOTES:**

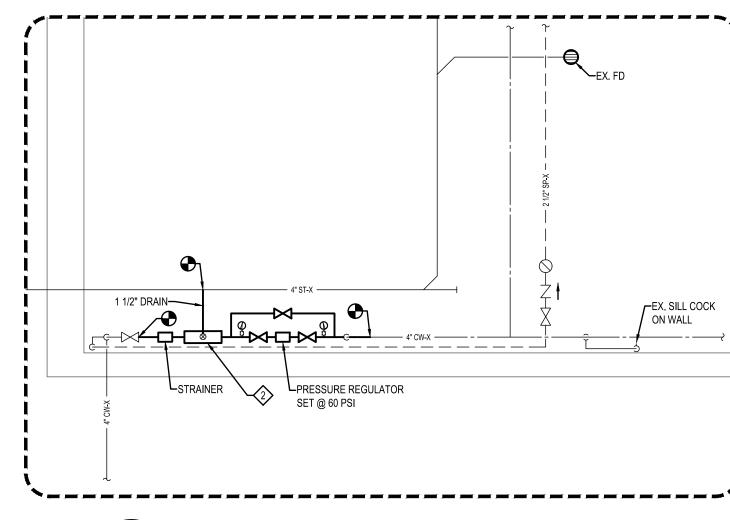
- 1. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS IN DETAIL OR DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. IF CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- 2. TEMPORARILY CAP ALL DEMOLISHED PIPING THAT ARE TO BE RE-CONNECTED TO PREVENT ACCIDENTAL FLOODING.
- 3. NEW ROOF DRAIN CONNECTIONS TO THE EXISTING STORM DRAIN PIPING REQUIRE MODIFICATION TO THE CEILING BELOW FOR ACCESS. IT IS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES AS REQUIRED FOR PLUMBING DEMOLITION AND NEW WORK WITH NO ADDITIONAL COST TO THE OWNER.

# **DRAWING NOTES**: ♦

- 1. REMOVE EXISTING PRESSURE REDUCING STATION INCLUDING PRESSURE REGULATOR, STRAINER, VALVES, GAGES.
- PROVIDE REDUCED PRESSURE ZONE BACKFLOW PREVENTER ASSEMBLY, WATTS SERIES 9940SY OR APPROVED EQUAL. PROVIDE AIR CAP DEVICE AND RUN 1 1/2" DRAIN PIPE TO THE NEAREST FLOOR DRAIN.



**PARTIAL PLAN - PLUMBING - DEMOLITION** SCALE: 1/4" = 1'-0"



PARTIAL PLAN - PLUMBING - NEW WORK SCALE: 1/4" = 1'-0"

DESIGNS PLANNERS SANDERS



CAPITAL PROJECTS AND ENERGY DIVISION

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	REVISIONS												
ND	DATE	DESCRIPTION											

BASEMENT FLOOR PLAN -PLUMBING -DEMOLITION & NEW WORK

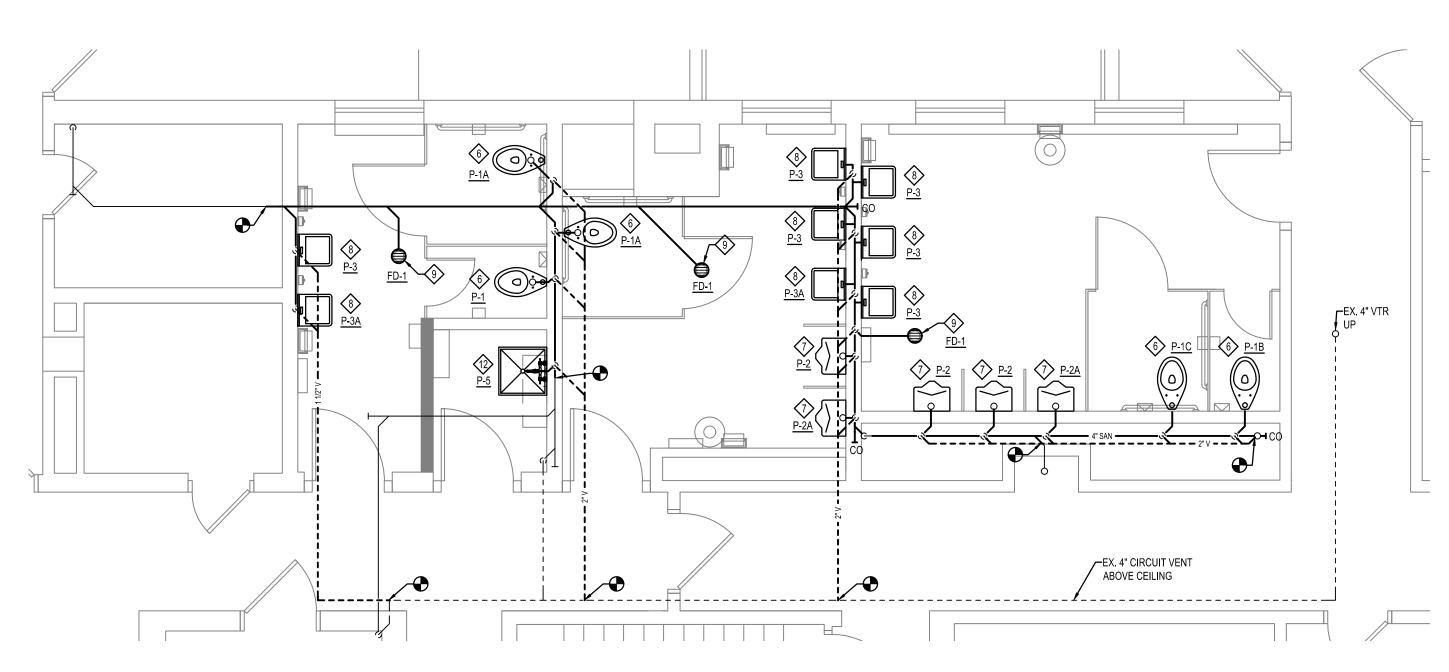
CONSTRUCTION **DOCUMENTS** 

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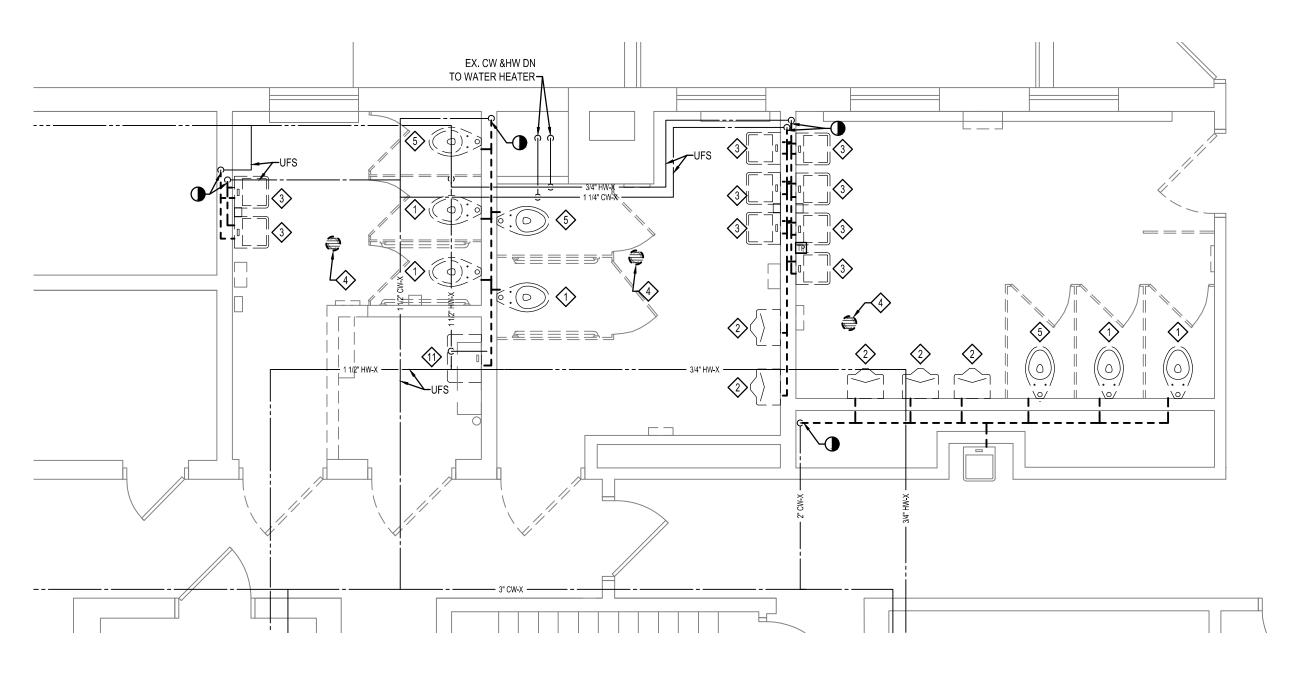
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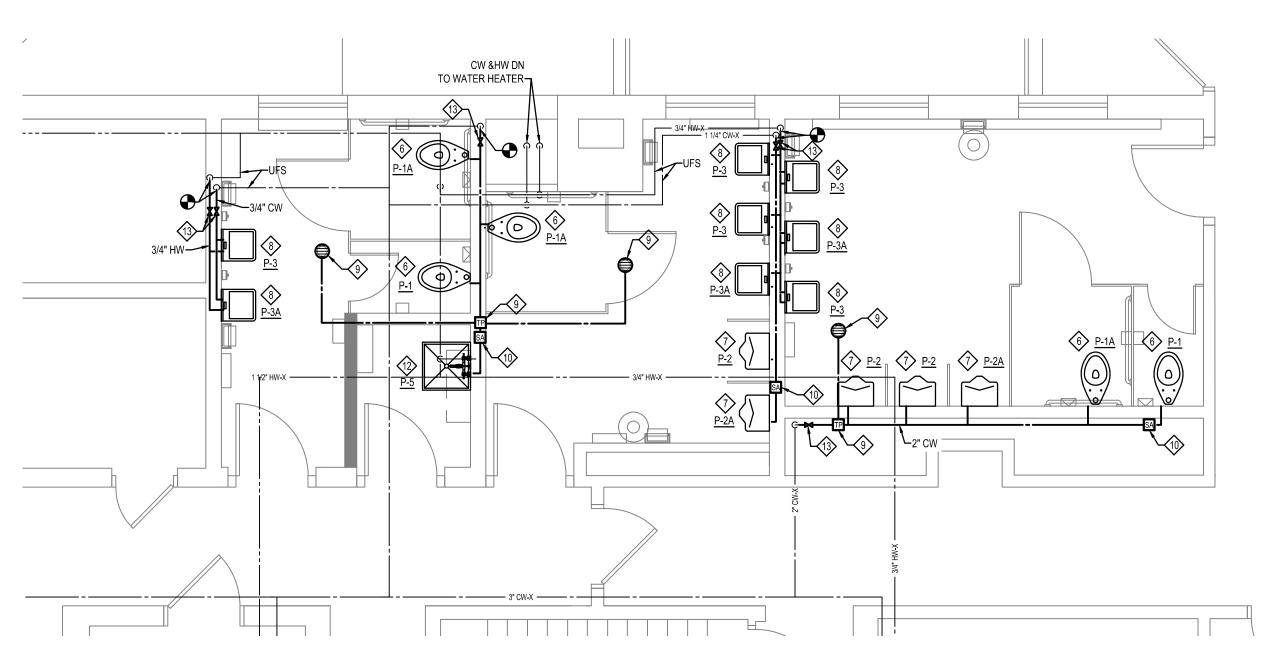
FIRST FLOOR PARTIAL PLAN - PLUMBING - SANITARY WASTE & VENT - DEMOLITION SCALE: 1/4" = 1'-0"



FIRST FLOOR PARTIAL PLAN - PLUMBING - SANITARY WASTE & VENT - NEW WORK SCALE: 1/4" = 1'-0"



FIRST FLOOR PARTIAL PLAN - PLUMBING - DOMESTIC CW & HW - DEMOLITION SCALE: 1/4" = 1'-0"



FIRST FLOOR PARTIAL PLAN - PLUMBING - DOMESTIC CW & HW - NEW WORK P-102 SCALE: 1/4" = 1'-0"

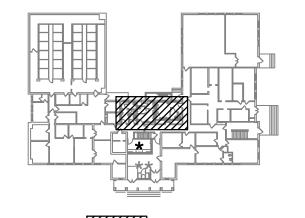
### **GENERAL NOTES:**

- INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS IN DETAIL OR DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. IF CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- 2. TEMPORARILY CAP ALL DEMOLISHED PIPING THAT ARE TO BE RE-CONNECTED TO PREVENT ACCIDENTAL FLOODING.
- 3. NEW ROOF DRAIN CONNECTIONS TO THE EXISTING STORM DRAIN PIPING REQUIRE MODIFICATION TO THE CEILING BELOW FOR ACCESS. IT IS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES AS REQUIRED FOR PLUMBING DEMOLITION AND NEW WORK WITH NO ADDITIONAL COST TO THE OWNER.

# **DRAWING NOTES:** $\otimes$

- 1. REMOVE EXISTING WATER CLOSET. REMOVE EXISTING SANITARY AND DOMESTIC WATER PIPING AS SHOWN.
- REMOVE EXISTING URINAL. REMOVE EXISTING SANITARY AND DOMESTIC WATER
- 3. REMOVE EXISTING LAVATORY. REMOVE EXISTING SANITARY AND DOMESTIC WATER
- 4. REMOVE EXISTING FLOOR DRAIN AND SANITARY PIPING UP TO MAIN.
- 5. REMOVE EXISTING WATER CLOSET. REMOVE EXISTING SANITARY UP TO BRANCH SANITARY AND CAP. REMOVE EXISTING DOMESTIC WATER PIPING UP TO EXISTING MAIN AND PROVIDE CAPS. PATCH WALL AND FLOOR TO MATCH EXISTING.
- 6. INSTALL WATER CLOSET IN LOCATION PER ARCHITECTURAL DRAWINGS. PROVIDE SANITARY AND DOMESTIC WATER PIPING.
- 7. INSTALL URINAL IN LOCATION PER ARCHITECTURAL DRAWINGS. PROVIDE SANITARY AND DOMESTIC WATER PIPING.
- INSTALL LAVATORY IN LOCATION PER ARCHITECTURAL DRAWINGS. PROVIDE SANITARY AND DOMESTIC WATER PIPING.
- 9. INSTALL FLOOR DRAIN, DRAIN TRAP AND SANITARY PIPING WITH TRAP PRIMER. PROVIDE 12"X12" ACCESS PANEL FOR TRAP PRIMER WHERE NO ACCESS CURRENTLY
- 10. PROVIDE SHOCK ABSORBER. PROVIDE 12"X12" ACCESS PANEL FOR SHOCK ABSORBER WHERE NO ACCESS CURRENTLY EXISTS.
- 11. REMOVE SERVICE SINK. REMOVE EXISTING SANITARY PIPING.
- 13. PROVIDE SHUT-OFF VALVE AND 12"X12" ACCESS PANEL.

PROVIDE MOP SINK.



FIRST FLOOR KEY PLAN

NOT TO SCALE

SANDERS



DEPARTMENT OF GENERAL SERVICES CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS DESCRIPTION

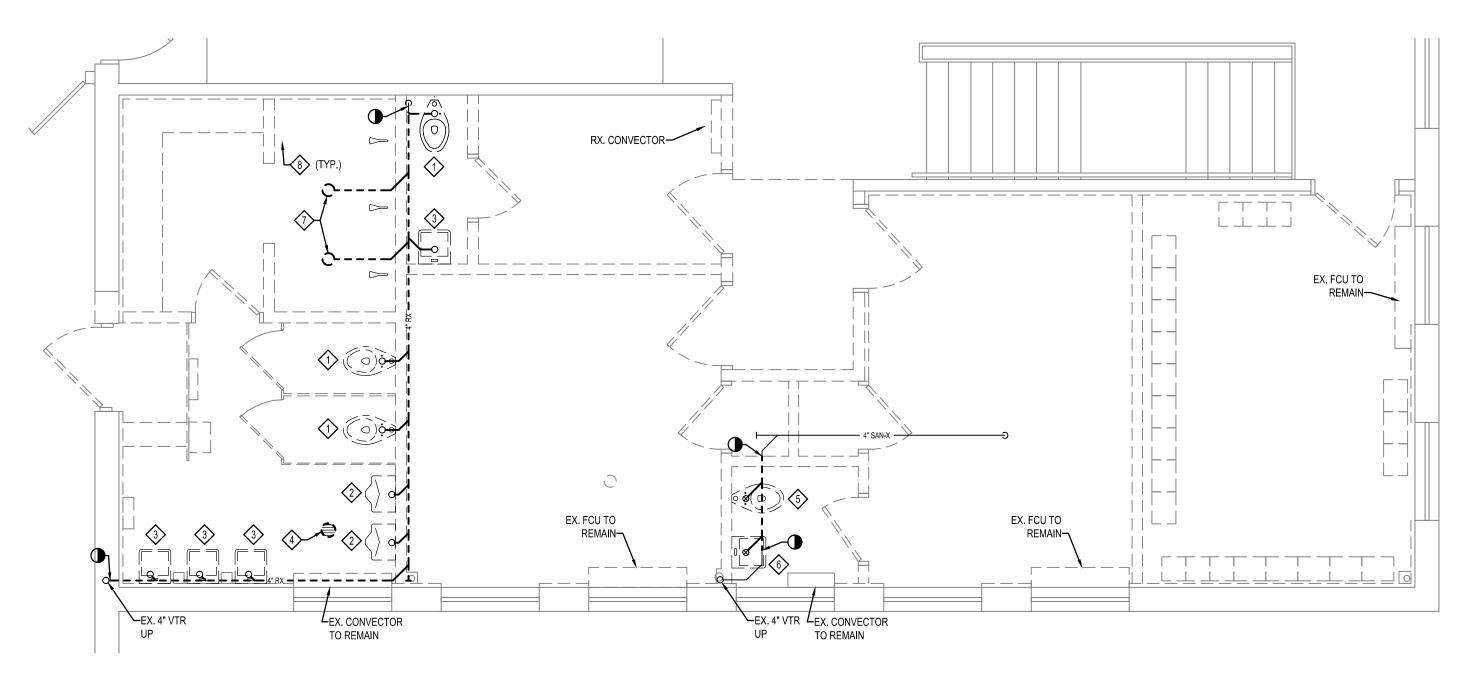
FIRST FLOOR PLAN -PLUMBING -

DEMOLITION & NEW WORK CONSTRUCTION

**DOCUMENTS** 

2/16/24

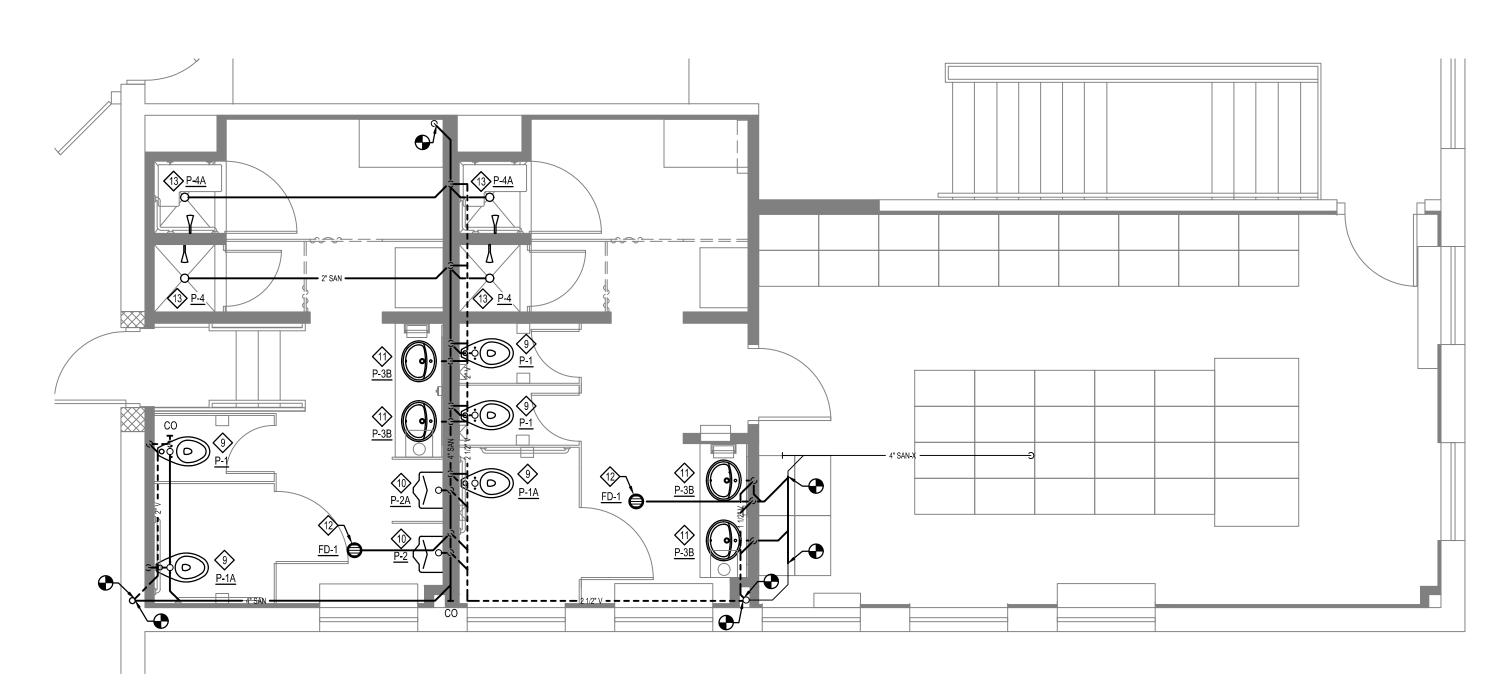
SHEET P-102



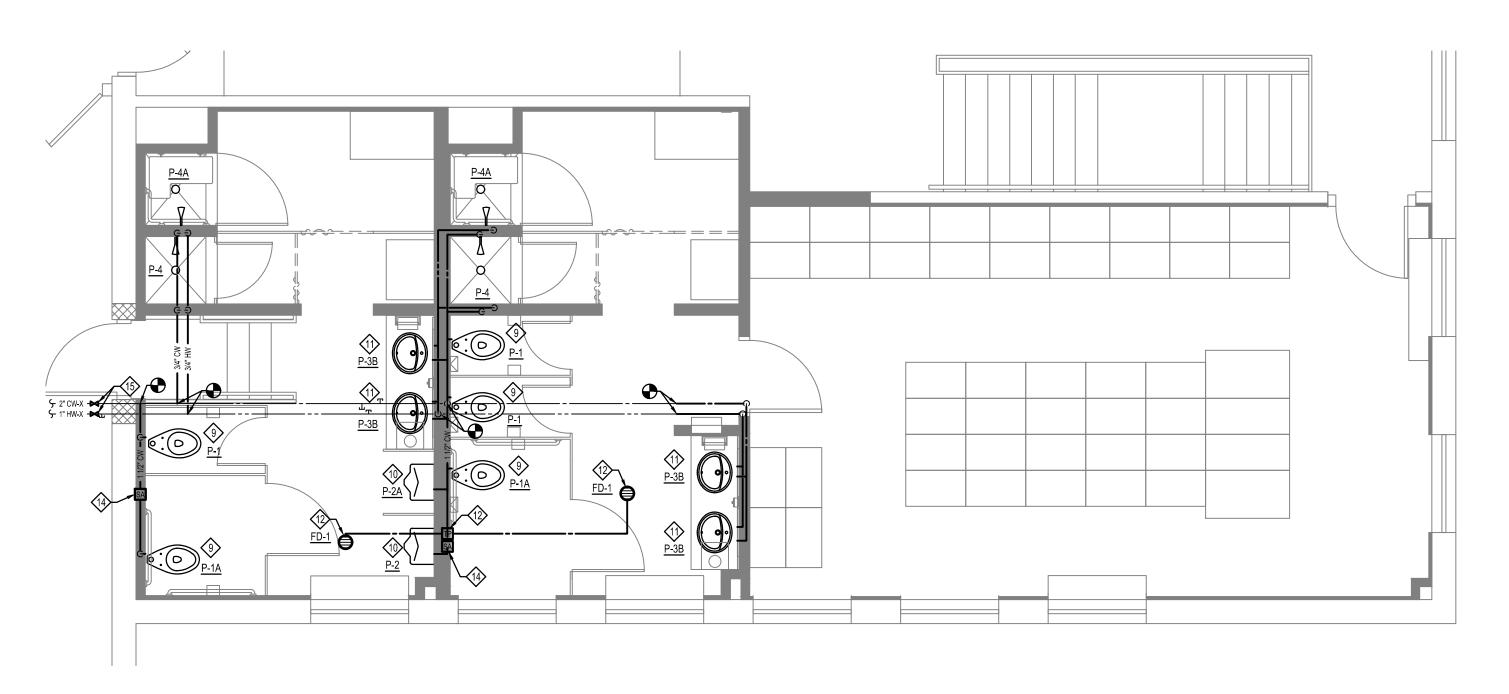
SECOND FLOOR PARTIAL PLAN - PLUMBING - SANITARY WASTE & VENT- DEMOLITION

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

2 SECOND FLOOR PARTIAL PLAN - PLUMBING - DOMESTIC CW & HW - DEMOLITION
SCALE: 1/4" = 1'-0"



3 SECOND FLOOR PARTIAL PLAN - PLUMBING - SANITARY WASTE & VENT- NEW WORK
P-103 SCALE: 1/4" = 1'-0"



4 SECOND FLOOR PARTIAL PLAN - PLUMBING - DOMESTIC CW & HW - NEW WORK

P-103 SCALE: 1/4" = 1'-0"

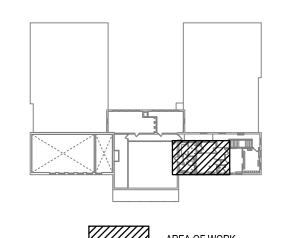
# **GENERAL NOTES:**

- 1. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS IN DETAIL OR DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. IF CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- 2. TEMPORARILY CAP ALL DEMOLISHED PIPING THAT ARE TO BE RE-CONNECTED TO PREVENT ACCIDENTAL FLOODING.
- 3. NEW ROOF DRAIN CONNECTIONS TO THE EXISTING STORM DRAIN PIPING REQUIRE MODIFICATION TO THE CEILING BELOW FOR ACCESS. IT IS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES AS REQUIRED FOR PLUMBING DEMOLITION AND NEW WORK WITH NO ADDITIONAL COST TO THE OWNER.

# **DRAWING NOTES:** $\otimes$

- REMOVE EXISTING WATER CLOSET. REMOVE EXISTING SANITARY AND DOMESTIC WATER PIPING AS SHOWN.
- 2. REMOVE EXISTING URINAL. REMOVE EXISTING SANITARY AND DOMESTIC WATER PIPING AS SHOWN.
- 3. REMOVE EXISTING LAVATORY. REMOVE EXISTING SANITARY AND DOMESTIC WATER PIPING AS SHOWN.
- 4. REMOVE EXISTING FLOOR DRAIN AND SANITARY PIPING UP TO MAIN.
- 5. REMOVE EXISTING WATER CLOSET. REMOVE EXISTING SANITARY UP TO BRANCH SANITARY AND CAP. REMOVE EXISTING DOMESTIC WATER PIPING UP TO EXISTING MAIN AND PROVIDE CAP. PATCH WALL AND FLOOR TO MATCH EXISTING.
- REMOVE EXISTING LAVATORY. REMOVE EXISTING SANITARY UP TO BRANCH SANITARY AND CAP. REMOVE EXISTING DOMESTIC WATER PIPING UP TO EXISTING MAIN AND PROVIDE CAPS. PATCH WALL AND FLOOR TO MATCH EXISTING.
- 7. REMOVE EXISTING SHOWER DRAIN AND SANITARY PIPING UP TO MAIN.

- 8. REMOVE EXISTING SHOWER HEAD ASSEMBLY. REMOVE EXISTING DOMESTIC WATER
- 9. INSTALL WATER CLOSET IN LOCATION PER ARCHITECTURAL DRAWINGS. PROVIDE SANITARY AND DOMESTIC WATER PIPING.
- INSTALL URINAL IN LOCATION PER ARCHITECTURAL DRAWINGS. PROVIDE SANITARY AND DOMESTIC WATER PIPING.
- 11. INSTALL LAVATORY IN LOCATION PER ARCHITECTURAL DRAWINGS. PROVIDE SANITARY AND DOMESTIC WATER PIPING.
- 12. INSTALL FLOOR DRAIN WITH PRIMER. PROVIDE 12"X12" ACCESS PANEL FOR TRAP PRIMER WHERE NO ACCESS CURRENTLY EXISTS.
- 13. INSTALL SHOWER SYSTEM AND DRAIN.
- 14. PROVIDE SHOCK ABSORBER WITH 12"X12" ACCESS PANEL.
- 15. PROVIDE SHUT-OFF VALVE WITH 12"X12" ACCESS PANEL.



SECOND FLOOR KEY PLAN

NOT TO SCALE

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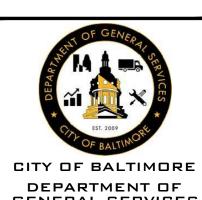
ARCHITECTS

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CITY OF BALTIMORE

DEPARTMENT OF
GENERAL SERVICES

CAPITAL PROJECTS

AND ENERGY
DIVISION

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REVISIONS

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EASTERN POLICE DISTRICT

SECOND FLOOR PLAN -PLUMBING -

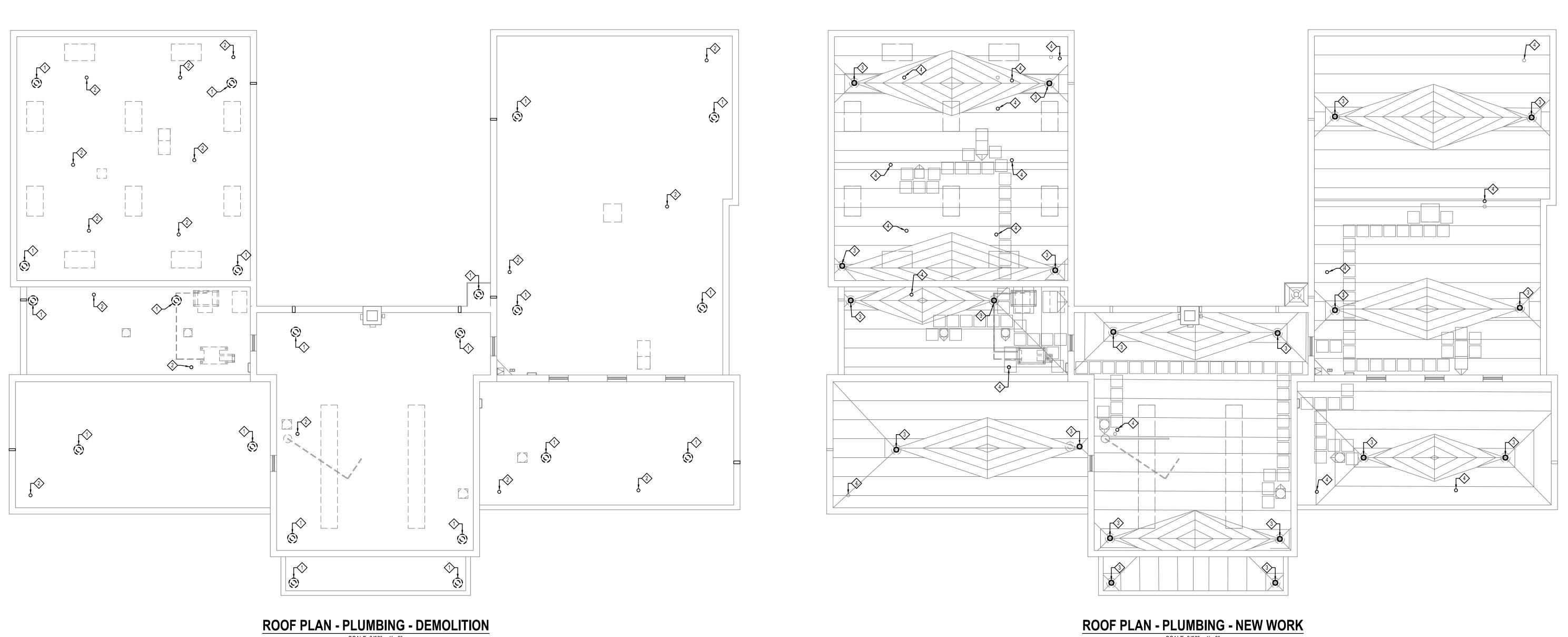
DEMOLITION & NEW WORK

CONSTRUCTION

CONSTRUCTION DOCUMENTS

2/16/24

SHEET P-103



### **GENERAL NOTES:**

PREVENT ACCIDENTAL FLOODING.

- 1. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS IN DETAIL OR DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. IF CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- 2. TEMPORARILY CAP ALL DEMOLISHED PIPING THAT ARE TO BE RE-CONNECTED TO
- 3. NEW ROOF DRAIN CONNECTIONS TO THE EXISTING STORM DRAIN PIPING REQUIRE MODIFICATION TO THE CEILING BELOW FOR ACCESS. IT IS CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER TRADES AS REQUIRED FOR PLUMBING DEMOLITION AND NEW WORK WITH NO ADDITIONAL COST TO THE OWNER.
- 4. REFER TO MECHANICAL DRAWINGS FOR MECHANICAL EQUIPMENT INFORMATION.

# **DRAWING NOTES:** $\otimes$

- 1. REMOVE EXISTING ROOF DRAIN AND DRAIN PIPING UP TO NEAREST HORIZONTAL
- 2. EXTEND EXISTING VENT THROUGH ROOF FOR NEW ROOF INSTALLATION.
- 3. PROVIDE NEW ROOF DRAIN, PIPING AND INSULATION UP TO EXISTING NEAREST INTERIOR HORIZONTAL JOINT.
- 4. EXTEND EXISTING VENT THROUGH ROOF PIPING AT LEAST 12" ABOVE NEW ROOF

SCALE: 3/32" = 1' - 0"

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SANDERS

CITY OF BALTIMORE

DEPARTMENT OF GENERAL SERVICES

CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS

DESCRIPTION

ROOF PLAN -PLUMBING -DEMOLITION & NEW WORK

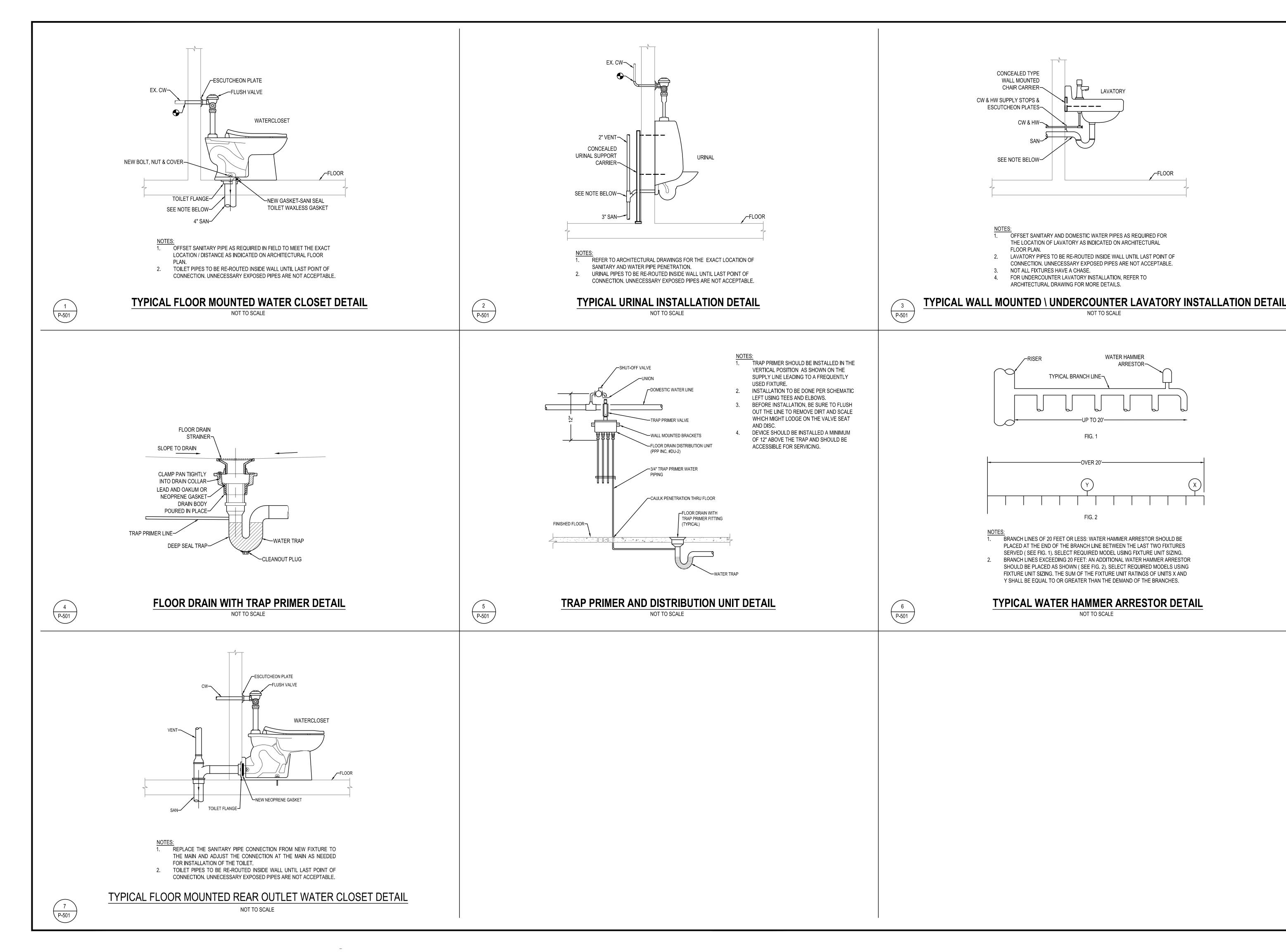
CONSTRUCTION DOCUMENTS

2/16/24

SHEET

1'-0" 40 OF 50

0 4' 8' 12' 20' SCALE: 3/32" = 1'-0"



DESIGNS PLANNER SANDERS

CITY OF BALTIMORE DEPARTMENT OF GENERAL SERVICES

CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS DESCRIPTION

**DETAILS** 

CONSTRUCTION DOCUMENTS

2/16/24

SHEET

### PLUMBING FIXTURE SPECIFICATIONS:

1. ALL PLUMBING FIXTURES MANUFACTURERS AND MODEL NUMBERS ARE LISTED TO PROVIDE A BASIS OF DESIGN AND MINIMUM QUALITY AND FLOW REQUIREMENTS. COMPARABLE PRODUCTS MEETING ALL REQUIREMENTS MAY BE SUBMITTED FOR CONSIDERATION.

### 2. P-1: WATER CLOSET - FLOOR MOUNTED

- A. WATER CLOSET: FLOOR MOUNTED VITREOUS CHINA, 1.28 GPF, ELONGATED BOWL, DIRECT-FED SIPHON JET ACTION,
- 1-1/2" TOP SPUD, AMERICAN STANDARD MODEL MADERA FLOWISE OR EQUAL.

  B. FLUSH VALVE: SIDE-MOUNTED CHROME TRIP LEVEL HANDLE. PROVIDE WATER CLOSET LEVER HANDLE MOUNTED
- ON THE WIDE OPEN SIDE OF COMPARTMENT. AMERICAN STANDARD MODEL 6047.121 OR EQUAL.
- C. SEAT: WHITE, PLASTIC, OPEN FRONT, LESS COVER, AMERICAN STANDARD NO. 5901.100D. PROVIDE ALL MISCELLANEOUS APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.

### 3. P-1A: WATER CLOSET - FLOOR MOUNTED - ADA

- A. WATER CLOSET: FLOOR MOUNTED VITREOUS CHINA, 1.28 GPF, ELONGATED BOWL, DIRECT-FED SIPHON JET ACTION, 1-1/2" TOP SPUD, AMERICAN STANDARD MODEL MADERA FLOWISE OR EQUAL.
- B. FLUSH VALVE: SIDE-MOUNTED CHROME TRIP LEVEL HANDLE. PROVIDE WATER CLOSET LEVER HANDLE MOUNTED ON THE WIDE OPEN SIDE OF COMPARTMENT. AMERICAN STANDARD MODEL 6047.121 OR EQUAL.
- C. SEAT: WHITE, PLASTIC, OPEN FRONT, LESS COVER, AMERICAN STANDARD NO. 5901.100
- D. PROVIDE ALL MISCELLANEOUS APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.

### 4. P-1B WATER CLOSET -FLOOR MOUNTED - REAR DISCHARGE

- A. WATER CLOSET: FLOOR MOUNTED REAR OUTLET, VITREOUS CHINA, 1.1 TO 1.6 GPF, ELONGATED BOWL, DIRECT-FED SIPHON JET ACTION, 1-1/2" TOP SPUD, AMERICAN STANDARD MODEL 3690.001 OR EQUAL.
- B. FLUSH VALVE: SIDE-MOUNTED CHROME TRIP LEVEL HANDLE. PROVIDE WATER CLOSET LEVER HANDLE MOUNTED
- ON THE WIDE OPEN SIDE OF COMPARTMENT. AMERICAN STANDARD MODEL 6047.121.002 OR EQUAL.

  C. SEAT: WHITE, PLASTIC, OPEN FRONT, LESS COVER, AMERICAN STANDARD NO. 5901.110
- D. PROVIDE ALL MISCELLANEOUS APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.

### 5. P-1C: WATER CLOSET - FLOOR MOUNTED - REAR DISCHARGE - ADA

- A. WATER CLOSET: FLOOR MOUNTED REAR OUTLET, VITREOUS CHINA, 1.1 TO 1.6 GPF, ELONGATED BOWL,
- DIRECT-FED SIPHON JET ACTION, 1-1/2" TOP SPUD, AMERICAN STANDARD MODEL 3690.001 OR EQUAL.

  B. FLUSH VALVE: SIDE-MOUNTED CHROME TRIP LEVEL HANDLE. PROVIDE WATER CLOSET LEVER HANDLE MOUNTED
- ON THE WIDE OPEN SIDE OF COMPARTMENT. AMERICAN STANDARD MODEL 6047.121.002 OR EQUAL.

  D. WALL CARRIER (CMU / CONCRETE W
  SEAT: WHITE PLASTIC OPEN FRONT LESS COVER AMERICAN STANDARD NO. 5901.110

  HANGER PLATE AND ADJUSTABLE SI
- C. SEAT: WHITE, PLASTIC, OPEN FRONT, LESS COVER, AMERICAN STANDARD NO. 5901.110
  D. PROVIDE ALL MISCELLANEOUS APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.

### 6. <u>P-2: URINAL</u>

- A. URINAL: VITREOUS CHINA, ULTRA HIGH EFFICIENCY, FLUSHING RIM, WASHOUT FLUSH ACTION, EXTENDED SIDES
- FOR PRIVACY, 2 WALL HANGERS, WASHBROOK 0.125, AMERICAN STANDARD MODEL 6590.530 OR EQUAL.

  B. FLUSH VALVE: MANUAL DIAPHRAGM TYPE, AMERICAN STANDARD FLOWISE 0.125 GPF.
- C. STAINLESS STEEL STRAINER: 047068-0070A.
- D. PROVIDE ALL MISCELLANEOUS APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.
   E. REFER TO ARCHITECTURAL DRAWING FOR MOUNTING HEIGHT.

### 7. <u>P-2A: URINAL - ADA</u>

A. SIMILAR TO P-2. URINAL, FLUSH VALVE AND INSTALLATION SHALL BE ADA COMPLIANT. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.

### 8. P-3: LAVATORY - WALL HUNG

- A. WALL HUNG LAVATORY: WALL HUNG LAVATORY WITH VITREOUS CHINA, 20"X18" DIMENSIONS, 3 HOLES WITH FAUCET HOLES ON 4" CENTERS, FRONT OVERFLOW AND FOR USE WITH CONCEALED ARM CARRIER SYSTEM. AMERICAN STANDARD MODEL NO. 0355.012 OR EQUAL.
- B. FAUCET: SINGLE CONTROL LAVATORY FITTING, AN ALL METAL BODY WITH METAL LEVER HANDLE, CAST BRASS WATERWAY WITH FLEXIBLE HOSE CONNECTIONS, WASHERLESS CERAMIC DISC VALVE CARTRIDGE WITH INTEGRAL

- HOT LIMIT SAFETY STOP, METAL DRAIN BODY WITH STAINLESS STEEL CABLE ACTUATION. AMERICAN STANDARD MODEL NO. 7385.000 OR EQUAL.
- C. WALL CARRIER (FURRING WALL APPLICATIONS): FLOOR MOUNTED, SINGLE LAVATORY CARRIER WITH CONCEALED ARMS, STRUCTURAL UPRIGHTS AND WELDED FEET. BOLT TO THE FLOOR AND WALL FOR A PERMANENT INSTALLATION. JOSAM MODEL NO. 17100 OR EQUAL.
- D. WALL CARRIER (CMU / CONCRETE WALL APPLICATIONS): WALL-MOUNTED, SINGLE LAVATORY CARRIER WITH HANGER PLATE AND ADJUSTABLE SUPPORTING RODS. ATTACH TO WALL STUDS FOR A PERMANENT INSTALLATION. JOSAM MODEL NO. 17120 OR EQUAL.
- E. SUPPLIES: 3/8" CHROME-PLATED COPPER WITH STOPS.F. DRAIN: DRAIN SHALL HAVE CAST BRASS SOLID TOP, OPEN GRID, CLEANOUT PLUG, 1-1/4" X 1-1/2" CHROME-PLATED
- CAST BRASS P-TRAP TO WALL AND WALL ESCUTCHEON. JUST MANUFACTURING MODEL NO. J-115-FS OR EQUAL.

  G. PROVIDE ALL MISCELLANEOUS APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.

### 9. P-3A: LAVATORY - WALL HUNG - ADA

- A. SIMILAR TO P-3. LAVATORY, FAUCET AND INSTALLATION SHALL BE ADA COMPLIANT. REFER TO ARCHITECTURAL
- DRAWINGS FOR MOUNTING HEIGHT.

  B. ADA INSULATION COVERS: ONE TRAP PROTECTOR AND ONE SUPPLY STOP PROTECTOR, SATIN WHITE PVC RESIN.
  ANTIMICROBIAL. RESISTS THERMAL TRANSFER. AND IS ADA COMPLIANT. TRAP PROTECTOR FITS BOTH TUBULAR
  AND SEMI-CAST P TRAPS. ZURN MODEL NO. Z8946-NT OR EQUAL.

### 10. P-3B: LAVATORY - UNDERCOUNTER - ADA

A. UNDER MOUNT SINK, CAST POLYMER, FRONT OVERFLOW. BRADLEY TERREON MODEL NO. SL-T01 OR EQUAL.

### 11. <u>P-4: SHOWER</u>

- A. SHOWER ENCLOSURE AND PAN: PROVIDED UNDER ARCHITECTURAL DIVISION.
- B. SHOWER SYSTEM: LEAD FREE SHOWER TRIM SET INCLUDING LEAD FREE PRESSURE MIXING VALVE WITH LEVER HANDLE, INTEGRAL DIVERTER AND VOLUME CONTROL AND ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN. 1.5 GPM WALL SHOWER WITH IN-LINE VACUUM BREAKER.

C. RECEPTOR PAN DRAIN: 2" SHOWER DRAIN WITH DEEP SEAL TRAP AND 19 GAUGE STAINLESS STEEL STRAINER.

### 12. <u>P-4A: SHOWER - ADA</u>

- A. SHOWER ENCLOSURE AND PAN: PROVIDED UNDER ARCHITECTURAL DIVISION.
   B. SHOWER SYSTEM: LEAD FREE SHOWER TRIM SET INCLUDING LEAD FREE PRESSURE MIXING VALVE WITH LEVER HANDLE, INTEGRAL DIVERTER AND VOLUME CONTROL AND ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN. 1.5 GPM WALL SHOWER WITH IN-LINE VACUUM BREAKER. A SHOWER SPRAY UNIT WITH A HOSE 59 INCHES LONG
- C. RECEPTOR PAN DRAIN: 2" SHOWER DRAIN WITH DEEP SEAL TRAP AND 19 GAUGE STAINLESS STEEL STRAINER.

### 13. <u>P-5: MOP SINK</u>

- A. MOP BASIN: 24"X24" TERRAZZO MATERIAL, COMPRESSIVE STRENGTH NOT LESS THAN 3000 PSI AFTER FULL CURE, ALL EXPOSED TERRAZZO SURFACES SHALL BE GROUND SMOOTH, GROUTED, AND FACTORY SEALED TO RESIST STAINS AND MOISTURE, 6" DROP WITH STAINLESS STEEL CAP FOR EASY ACCESS FOR MOP BUCKETS AND OTHER SERVICE EQUIPMENT, STERN-WILLIAMS MODEL HL-1810-BP OR EQUAL.
- B. FAUCET: STRAIGHT-SPOUT, DUAL-LEVER-HANDLE, TWO-HOLE WIDESPREAD, WALL-MOUNT, BRAS BODY, 2.2 GPM. AMERICAN STANDARD MODEL NO. 8351 OR EQUAL.

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CITY OF BALTIMORE

DEPARTMENT OF

GENERAL SERVICES

CAPITAL PROJECTS

AND ENERGY

DIVISION

ENGINEERING, INC.

Consulting Engineers

Phone: (410) 486-4692

Fax: (410) 486-0452

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REVISIONS

NO DATE DESCRIPTION

FULLICE

ASTERN POL DISTRICT

SCHEDULES

CONSTRUCTION DOCUMENTS

2/16/24

42 OF 50

SHEET

PLUMBING FIXTURE SCHEDULE											
FIXTURE NO.	TYPE	CW	HW	SAN	VENT	WATER USAGE	NOTES				
P-1	WATER CLOSET: FLOOR MOUNTED	1-1/2"	-	4"	2"	1.28 GPF	1,2,4				
P-1A	WATER CLOSET: FLOOR MOUNTED - ADA	1-1/2"	-	4"	2"	1.28 GPF	1,2,4				
P-1B	WATER CLOSET: FLOOR MOUNTED REAR DISCHARGE	1-1/2"	-	4"	2"	1.28 GPF	1,2,4				
P-1C	WATER CLOSET: FLOOR MOUNTED REAR DISCHARGE - ADA	1-1/2"	-	4"	2"	1.28 GPF	1,2,4				
P-2	URINAL	1"	-	3"	2"	0.125 GPF	1,4				
P-2A	URINAL - ADA	1"	-	3"	2"	0.125 GPF	1,4				
P-3	LAVATORY: WALL MOUNTED	1/2"	1/2"	1-1/2"	1-1/2"	0.35 GPM	1,3,4				
P-3A	LAVATORY: WALL MOUNTED - ADA	1/2"	1/2"	1-1/2"	1-1/2"	0.35 GPM	1,3,4				
P-3B	LAVATORY: UNDERCOUNTER - ADA	1/2"	1/2"	1-1/2"	1-1/2"	0.35 GPM	1,3,4				
P-4	SHOWER	1/2"	1/2"	2"	1-1/2"	1.5 GPM	1,4				
P-4A	SHOWER - ADA	1/2"	1/2"	2"	1-1/2"	1.5 GPM	1,4				
P-5	MOP SINK	1/2"	1/2"	3"	1-1/2"	2.2 GPM	1,4				

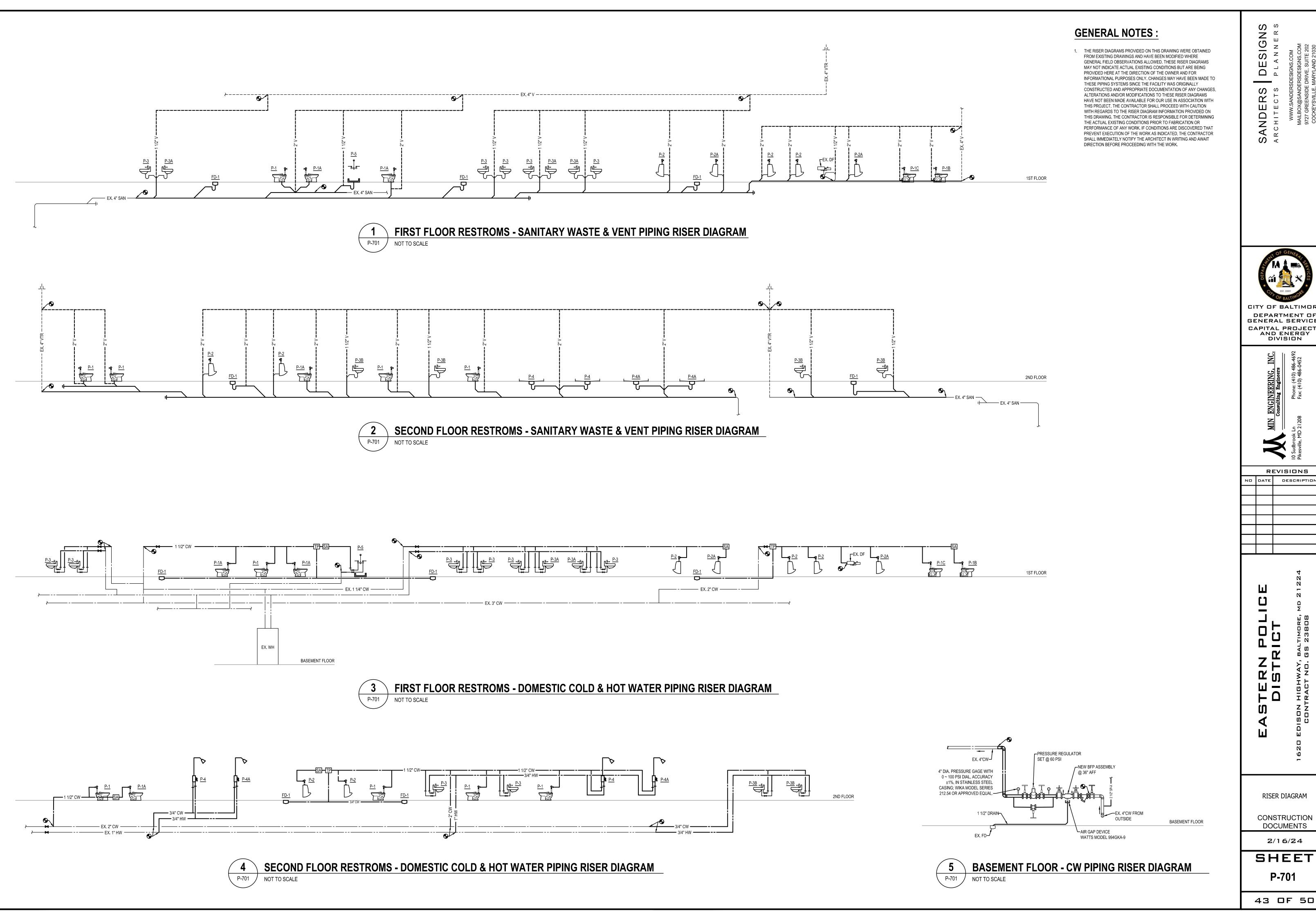
### NOTES

- 1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES. ALL ADA FIXTURES SHALL BE MOUNTED IN ACCORDANCE WITH ADA SPECIFICATIONS WHERE IDENTIFIED ON THE ARCHITECTURAL AND PLUMBING DRAWINGS (THIS NOTE APPLIES TO ALL ADA PLUMBING FIXTURES).
- 2. COORDINATE HEIGHT OF FLUSH VALVE WITH GRAB BAR. ENSURE THE FLUSH VALVE TRIP LEVER IS ON THE WIDER SIDE OF THE STALL.
- 3. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL PLUMBING FIXTURES AND ASSOCIATED WATER SUPPLY STOPS, P-TRAP AND PIPE CONNECTIONS.

SYMBOL	TYPE	MANUFACTURER MODEL NUMBER	DESCRIPTION																			
FD-1	FLOOR DRAIN, SHOWER DRAIN, MEDIUM DUTY TYPE	J.R. SMITH MODEL 2005	ADJUSTABLE STRAINEF PROVIDE WITH THE FO -P050: 1/2" TRAP PRIME -U: VANDAL PROOF SCF -SS: STAINLESS STEEL	DUCO CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE STRAINER HEAD, ROUND TOP, NO-HUB OUTLET. PROVIDE WITH THE FOLLOWING OPTIONS: -P050: 1/2" TRAP PRIMER CONNECTION AS INDICATED IN RISER DIAGRAM -U: VANDAL PROOF SCREWS FOR ALL FLOOR DRAINSSS: STAINLESS STEEL STRAINER SIZE AS INDICATED ON FLOOR PLANS AND RISER DIAGRAM.											ADJUSTABLE STRAINER HEAD, ROUND TOP, NO-HUB OUTLET. PROVIDE WITH THE FOLLOWING OPTIONS: -P050: 1/2" TRAP PRIMER CONNECTION AS INDICATED IN RISER DIAGRAM -U: VANDAL PROOF SCREWS FOR ALL FLOOR DRAINSSS: STAINLESS STEEL STRAINER							
RD-1	ROOF DRAIN	ZURN MODEL Z100-DP-EA	GUARD, TOP-SET DECK	DURA-COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD, TOP-SET DECK PLATE, ADJUSTABLE EXTENSION, SECONDARY CLAMPING COLLAR WITH O-RING AND LOW SILHOUETTE POLY-DOME STRAINER.																		
SA	SHOCK ABSORBER / WATER HAMMER ARRESTOR	WATTS LF15M2 SERIES	TYPE L COPPER BODY NPT THREADED CONNI	AS SHOWN ON																		
	WATER HAMMER ARRESTOR		# OF WSFU	CONNECTION SIZE, INCHES	SIZES	FLOOR PLAN																
		1-11	1/2	Α		3, 4, 5																
			12-32	3/4	В																	
			33-60	1	С																	
				61-113 1 D																		
TP	TRAP PRIMER VALVE	PRECISION PLUMBING MODEL P-1	WITH DISTRIBUTION UNIT COORDINATE WITH MEC	TRAP PRIMER WITH INTERNAL VACUUM BREAKER AND BACKFLOW PREVENT. SUPPLY WITH DISTRIBUTION UNIT. MAX 4 FLOOR DRAINS/FLOOR SINKS PER TRAP PRIMER. COORDINATE WITH MECHANICAL PLUMBING DRAWINGS FOR QUANTITY OF FLOOR DRAINS/FLOOR SINKS TO ENSURE ALL FLOOR DRAINS AND FLOOR SINKS ARE EQUIPPED																		

### OTES:

- 1. ALL FLOOR DRAINS TO BE PROVIDED WITH DEEP SEAL TRAPS. PROVIDE 1/2" COPPER TUBE BETWEEN TRAP PRIMER VALVE AND FLOOR DRAIN.
- 2. ADJUST EXISTING ROOF OPENING (OPEN AND FILL AS REQUIRED) TO ACCOMMODATE ROOF DRAIN.
- 3. SA SIZE BASED UPON THE NUMBER OF WATER SUPPLY FIXTURE UNITS (WSFU).
- 4. ALL PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 5. PROVIDE ALL MISCELLANEOUS APPURTENANCES FOR A COMPLETE INSTALLATION.



CITY OF BALTIMORE

DEPARTMENT OF GENERAL SERVICES CAPITAL PROJECTS AND ENERGY DIVISION

	RI	EVISIONS
NO	DATE	DESCRIPTION

RISER DIAGRAM

CONSTRUCTION DOCUMENTS

### GENERAL ELECTRICAL NOTES

- 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE FEDERAL/STATE/LOCAL CODES, INTERNATIONAL BUILDING CODE, NFPA 72 2016, NFPA 70 2014, IECC 2015, AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- 2. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. FURNISH AND INSTALL ALL REQUIRED JUNCTION BOXES, PULL BOXES, SURFACE/RECESSED DEVICE BOXES, FITTINGS, CONDUIT BODIES, SUPPORTS, ACCESS DOORS. HARDWARE, ACCESSORIES, ETC. REQUIRED FOR A COMPLETE AND WORKING ELECTRICAL SYSTEM, WHETHER OR NOT SUCH EQUIPMENT IS INDICATED ON THE DRAWINGS.
- 3. CONTRACTOR SHALL PERFORM SITE VISITS AND SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE PLANS. SPECIFICATIONS AND FIELD CONDITIONS. BEFORE SUBMITTING A BID OR BEFORE SUBMITTING A PRICE PROPOSAL. FIELD VERIFY ALL IMPORTANT DIMENSIONS.
- 4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER CONTRACTORS AND ALL OTHER TRADES BEFORE INSTALLATION OF HIS WORK IN CHASES, CEILING SPACES AND OTHER AREAS WHERE CONFLICT MAY OCCUR.
- 5. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL CONTRACT DOCUMENTS, SHOP DRAWINGS AND EQUIPMENT DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL OBTAIN A COPY OF ALL CONTRACT DOCUMENTS, INCLUDING ALL DRAWINGS AND ALL SPECIFICATIONS.
- 6. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, AND SHALL PAY ALL FEES RELATIVE TO THE INSTALLATION OF HIS WORK.
- 7. PROVIDE ALL EQUIPMENT, COMPONENTS AND DEVICES SHOWN ON THE POWER RISER DIAGRAMS, POWER ONE-LINE DIAGRAMS, BLOCK DIAGRAMS, AND SPECIAL SYSTEMS (INCLUDING, BUT NOT LIMITED TO: FIRE ALARM, SECURITY, TELEPHONE, DATA, CATV) RISER OR BLOCK DIAGRAMS WHETHER OR NOT SUCH EQUIPMENT, COMPONENTS AND DEVICES ARE INDICATED ON THE FLOOR PLANS.
- 8. THE ELECTRICAL CONTRACTOR SHALL PERFORM ALL CORE-DRILLING, CUTTING, DIGGING OR TRENCHING REQUIRED FOR THE ELECTRICAL INSTALLATION UNDER THE SUPERVISION OF THE GENERAL CONTRACTOR SUBJECT TO THE DIRECTION AND APPROVAL OF THE OWNER'S REPRESENTATIVE. DO NOT ENDANGER THE STABILITY OF THE STRUCTURE OR ANY PART THEREOF.
- 9. THE ELECTRICAL CONTRACTOR SHALL EXTEND WIRING AND CONDUIT TO ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS. BEFORE "ROUGH-IN" OF OUTLETS, THE LOCATION AND TYPE OF CONNECTIONS/OUTLET SHALL BE VERIFIED FROM SHOP DRAWINGS OF THE EQUIPMENT.
- 10. WHERE JUNCTION BOXES OR ELECTRICAL EQUIPMENT ARE REQUIRED TO BE INSTALLED ABOVE NON-ACCESSIBLE CEILINGS OR CONCEALED INSIDE WALLS. THE CONTRACTOR SHALL FURNISH AND INSTALL ACCESS DOORS TO MAKE THE JUNCTION BOXES OR ELECTRICAL EQUIPMENT ACCESSIBLE.
- 11. ALL ELECTRICAL EQUIPMENT SHALL BE UNDERWRITER'S LABORATORY (U.L.) LISTED AND LABELED. ALL EQUIPMENT SHALL BE NEW U.O.N.
- 12. EXACT LOCATION OF ALL EQUIPMENT AND ACCESSORIES SHALL BE VERIFIED IN THE FIELD AND COORDINATED WITH OTHER TRADES. ADJUST LOCATIONS TO SUIT FIELD CONDITIONS. COMPLY WITH CLEARANCES AS REQUIRED BY THE NEC, THE MANUFACTURER, AND APPLICABLE CODES.
- 13. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT.
- 14. COMPLY WITH ALL SAFETY REGULATIONS INCLUDING BUT NOT LIMITED TO OSHA, MOSHA AND ALL
- 15. CONTRACTOR SHALL FIELD VERIFY THE SWITCH AND/OR CIRCUIT BREAKER SOURCE OF EACH BRANCH OR FEEDER CIRCUIT BEFORE PERFORMING ANY WORK.
- 16. UNLESS OTHERWISE NOTED AS "EXISTING" OR "BY OTHERS" OR "NIC", ALL WORK, DEVICES AND EQUIPMENT ARE NEW AND SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
- 17. WHERE THE WORD "PROVIDE" IS USED, THIS SHALL MEAN "FURNISH AND INSTALL"
- 18. PROVIDE DEDICATED NEUTRAL WIRES FOR ALL BRANCH CIRCUITS.
- 19. ALL RACEWAY SHALL BE CONCEALED WHEREVER POSSIBLE. WHERE RACEWAY CANNOT BE CONCEALED, THE RACEWAY AND ASSOCIATED SUPPORTS SHALL BE PAINTED TO MATCH SURROUNDING WALLS OR CEILING.
- 20. CABLES AND RACEWAY SHALL RUN PARALLEL OR PERPENDICULAR TO WALL AND CEILING STRUCTURES (COLUMNS, JOISTS, SUPPORT BEAMS, ETC.) FOR A NEAT APPEARANCE.
- 21. PROVIDE HACR TYPE BREAKERS FOR HEATING, AIR CONDITIONING AND REFRIGERATION EQUIPMENT WHERE RECOMMENDED BY THE MANUFACTURER.
- 22. PROVIDE FIRESTOPPING AROUND PENETRATIONS OF FLOORS AND FIRE RATED WALLS. MAINTAIN THE FIRE RESISTANCE RATING OF THE FLOORS AND WALLS, INSTALL UL LISTED FIRESTOPPING MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. AND UL'S REQUIREMENTS.
- 23. WHEREVER NEW CIRCUIT BREAKERS ARE BEING INSTALLED INSIDE EXISTING PANELBOARDS, SAME MANUFACTURER AS THE EXISTING EQUIPMENT.
- 24. WHEREVER, NEW CIRCUIT BREAKERS ARE BEING PROVIDED AT EXISTING PANELBOARDS, SWITCHBOARDS, MCCs, OR SIMILAR EQUIPMENT, OR WHEREVER EXISTING BREAKERS ARE BEING RE-USED TO FEED NEW LOADS, THE SCHEDULES/LABELS ON THE EQUIPMENT SHALL BE REVISED TO
- 25. SOME MECHANICAL EQUIPMENT ARE PROVIDED BY THE MECHANICAL CONTRACTOR BUT INSTALLED, WIRED, AND CONNECTED BY THE ELECTRICAL CONTRACTOR. COORDINATE WITH MECHANICAL
- 26. 600V POWER WIRING SHALL BE THHN/THWN-2, COPPER CONDUCTOR. SEE SPECIFICATION WIRING AND CABLE SECTION FOR MORE DETAILS ABOUT WIRING.
- 27. DO NOT COMBINE SEPARATE BRANCH CIRCUITS IN THE SAME CONDUIT UNLESS OTHERWISE NOTED.
- 28. PROVIDE SLEEVES FOR ALL CABLE AND RACEWAY PENETRATIONS OF CONCRETE WALLS AND
- 29. JUNCTION BOXES AND CONDUIT BODIES SHOWN ON THE DRAWING ARE MINIMUM QUANTITY ONLY. PROVIDE ADDITIONAL JUNCTION BOXES AND CONDUIT BODIES AS REQUIRED BY THE NEC OR AS RECOMMENDED BY THE WIRE OR CABLE MANUFACTURER. DO NOT EXCEED THE MAXIMUM PULLING
- 30. PROVIDE GROUNDING AND BONDING OF ALL METALLIC RACEWAY, BOXES, TROUGH, WIREWAY, DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE NEC.
- 31. INSTALL ALL DEVICES AND EQUIPMENT ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND UL'S REQUIREMENTS.
- 32. CONNECTORS AND TERMINATIONS FOR CONDUCTORS SHALL BE COMPATIBLE WITH THE CONDUCTOR SIZE AND MATERIAL, AND SHALL BE UL LISTED AND NEC COMPLIANT.
- 33. WALL PLATES FOR SWITCHES AND RECEPTACLES IN DAMP AND DRY LOCATIONS SHALL BE PAINTED TO MATCH THE SURROUNDING WALL OR CEILING. NO PAINT SHALL TOUCH OR FALL ON OR INSIDE THE
- 34. WHERE THE SIZE OF A JUNCTION BOX, PULL BOX OR WIREWAY IS NOT INDICATED ON THE DRAWINGS, THE SIZE SHALL BE SELECTED IN ACCORDANCE WITH THE NEC. WHERE THE ENCLOSURE TYPE OF THE JUNCTION BOX, PULL BOX OR WIREWAY IS NOT INDICATED ON THE DRAWINGS, THE ENCLOSURE TYPE SHALL BE SUITABLE FOR THE ENVIRONMENT WHERE IT IS BEING INSTALLED IN ACCORDANCE WITH THE NEC AND OTHER APPLICABLE CODES.
- 35. A CONTRACTOR TO TRACE AND IDENTIFY ALL CIRCUITS, BOTH NORMAL AND EMERGENCY, SERVING DEMOLISHED RACEWAYS AND RECEPTACLES BEFORE DEMOLITION WORK BEGINS. IDENTIFY THE UNUSED CIRCUITS AS SPARE. PROVIDE TAGS ON SPARE CIRCUITS PER NEC.
- 36. PROVIDE UPDATES TO THE PANEL DIRECTORIES, INCLUDING ROOM NUMBERS.

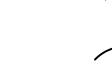
DEVICE BOXES, SWITCHES, RECEPTACLES, CONNECTIONS, AND WIRES

37. LABEL ALL DEVICES WITH CIRCUIT NUMBERS AND PANEL NAME.

# GENERAL ELECTRICAL DEMOLITION NOTES

- 1. REFER TO THE MECHANICAL PLUMBING DRAWINGS FOR THE DEMOLITIONS OF THE UNITS AND STORM DRAIN PIPES. THE ASSOCIATED CIRCUITS FOR THE REMOVED UNITS SHALL BE DISCONNECTED TO THE UNIT, TO REMAIN AND TO BE REUSED. DETACH ALL ASSOCIATED, DISCONNECTS, BOXES, CONDUITS AND WIRING FROM THE ROOF AND PARAPET, AND PROVIDE TEMPORARY SUPPORTS THEM FOR THE ROOF REPLACEMENTS. THE ASSOCIATED DISCONNECTS, CONDUIT AND WIRING WILL BE REINSTALLED BACK TO ORIGINAL LOCATIONS AND RECONNECTED TO THE ASSOCIATED UNITS.
- 2. REFER TO THE MECHANICAL AND PLUMBING DRAWINGS FOR THE PARTIAL DEMOLITIONS OF STORM DRAIN SYSTEMS INSIDE BUILDING. CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR FOR THE EXACT LOCATIONS AND AREAS OF THE PARTIAL DEMOLITIONS FOR THE PIPES. AND SHALL REMOVE AND DISCONNECT TO THE ALL ELECTRICAL DEVICES AT THE CEILING AT THOSE LOCATIONS AND AREAS. SHALL PROVIDE THE TEMPORARY SUPPORTS TO THE DEVICES FOR THE PIPE REPLACEMENTS. ALL ASSOCIATED WIRING AND CONDUIT SHALL REMAIN AND BE REUSED. THE REMOVED DEVICES SHALL BE REINSTALLED BACK TO THE ORIGINAL LOCATIONS AND RECONNECTED TO THE ASSOCIATED CIRCUITS
- 3. CONTRACTOR SHALL PROVIDE THE FIELD REPORT FOR THE EXISTING EQUIPMENT AND/OR DEVICES CONDITIONS AT THE CEILING AND CEILING SPACES WHERE THE STORM DRAIN PIPE REPLACED PRIOR TO REMOVING. THE FIELD REPORT SHALL BE INDICATED AND DESCRIBED THE EXISTING CEILING DEVICES/EQUIPMENT CONDITIONS THAT TO BE REMOVED. ANY UNREPORTED DAMAGED ELECTRICAL EQUIPMENT/DEVICES SHALL BE REPAIRED AND/OR REPLACED BY CONTRACTOR AT NO ADDITIONAL COSTE TO OWNER. ANY REPORTED DAMAGED ELECTRICAL EQUIPMENT/DEVICES SHALL BE COORDINATED WITH OWNER AND THE PROJECT MANAGER FOR REPLACEMENT AND/OR REPAIRING.
- 4. DETACH THE ALL EXISTING ELECTRICAL DEVICES/EQUIPMENT, AND ASSOCIATED WIRING AND CONDUIT FROM THE ROOF AND PARAPET FOR THE THE ROOF REPLACEMENT. PROVIDE TEMPORARY SUPPORTS TO DEVICES/EQUIPMENT, AND ASSOCIATED WIRING AND CONDUIT. THE DETACHED DEVICES/EQUIPMENT AND ASSOCIATED CONDUIT AND WIRING SHALL BE REINSTALLED BACK TO THE ORIGINAL LOCATIONS AND RECONNECTED TO THE ASSOCIATED CIRCUITS/UNITS.
- 5. KEEP EXISTING CIRCUITS CONTINUOUS FOR EXISTING DEVICES TO REMAIN. SPLICE, EXTEND, AND PROVIDE WIRING AND CONDUIT AS REQUIRED. REROUTE ALL REMAINING WIRING/CABLES AND CONDUIT
- 6. FOR EXISTING EQUIPMENT TO BE REMOVED, REMOVE DISCONNECTS, COMBINATION STARTERS, MANUAL STARTERS, AND WIRING/CONDUIT ASSOCIATED WITH THE EQUIPMENT ALL THE WAY UP TO THE SOURCE PANEL. SWITCHBOARD OR MOTOR CONTROL CENTER. UNLESS OTHERWISE NOTED. WHERE THE WIRING/CONDUIT ASSOCIATED WITH THE EQUIPMENT ALSO FEEDS EXISTING EQUIPMENT TO REMAIN. ONLY THAT PORTION OF THE WIRING/CONDUIT THAT FEEDS THE EQUIPMENT TO REMAIN SHALL REMAIN. SEAL ALL OPENINGS IN THE CONDUIT, JUNCTION BOXES, AND ENCLOSURES,
- 7. MAINTAIN AND RESTORE, IF INTERRUPTED BY REMOVALS, OR IN THE PATH OF NEW CONSTRUCTION, ALL CIRCUITS, CONDUIT AND FEEDERS PASSING THROUGH AND SERVING UNDISTURBED AREAS WHETHER
- 8. WHERE AN EXISTING DEVICE/EQUIPMENT IS BEING REMOVED, AND THE WIRING AND/OR CONDUIT ASSOCIATED WITH THE DEVICE/EQUIPMENT IS BEING DISCONNECTED AND MADE SAFE, THIS SHALL MEAN THAT THE EXISTING WIRING SHALL BE DISCONNECTED AT THE DEVICE/FOUIPMENT AND AT THE SOURCE (DISCONNECT SWITCH, TOGGLE SWITCH, FUSE OR BREAKER, WHICHEVER SOURCE IS CLOSEST TO THE LOAD). BOTH ENDS OF THE WIRING SHALL BE INSULATED WITH WIRE NUTS OR ELECTRICAL INSULATING

### SYMBOL LIST - NEW WORK DRAWING NOTES, "#" IS DRAWING NOTE NUMBER OR LETTER



ELECTRICAL WIRING AND CONDUIT HOMERUN TO PANEL. LETTER DENOTES PANEL DESIGNATION, NUMBER DENOTES CIRCUIT NUMBER. FOR WIRING AND CONDUIT INFORMATION, REFER TO PANEL SCHEDULE, ONE-LINE DIAGRAM, OR DRAWING NOTES. WIRING AND CONDUIT INFORMATION SHALL APPLY TO THE ENTIRE LENGTH OF THE CIRCUIT, THROUGH SWITCHES, DISCONNECTS, CONTROLLERS, STARTERS, JUNCTION BOXES OR OTHER INTERMEDIATE POINTS, ALL THE WAY UP TO THE FINAL LOAD AT THE END OF THE CIRCUIT, U.O.N. IF MORE THAN ONE ARROW IS INDICATED, THE NUMBER OF ARROWS INDICATE THE NUMBER OF CIRCUITS IN THE SAME CONDUIT.

ELECTRICAL WIRING AND CONDUIT U.O.N. REFER TO PANEL SCHEDULE,

INFORMATION. WIRING AND CONDUIT INFORMATION SHALL APPLY TO THE

ENTIRE LENGTH OF THE CIRCUIT, THROUGH SWITCHES, DISCONNECTS,

ONE-LINE DIAGRAM, OR DRAWING NOTES FOR WIRING AND CONDUIT

CONTROLLERS, STARTERS, JUNCTION BOXES OR OTHER INTERMEDIATE POINTS, ALL THE WAY UP TO THE FINAL LOAD AT THE END OF THE CIRCUIT, U.O.N.

NORTH ARROW (ARROW POINTING NORTH)

DUPLEX GFCI RECEPTACLE WALL MTD AT 18" AFF, U.O.N. WHERE FED FROM A 20A BREAKER, DUPLEX RECEPTACLE SHALL BE 20A, 120V, NEMA 5-20R. WHERE FED FROM A 15A BREAKER, DUPLEX RECEPTACLE SHALL BE 15A, 120V, NEMA

TELEPHONE OUTLET WALL MTD AT 18" AFF. 1-CATEGORY 6, RJ-45 JACK.

DATA OUTLET WALL MTD AT 18" AFF. 1-CATEGORY 6, RJ-45 JACK.

2 SETS OF DUPLEX RECEPTACLE WALL MTD AT 18" AFF, U.O.N. WHERE FED FROM A 20A BREAKER, DUPLEX RECEPTACLES SHALL BE 20A, 120V, NEMA 5-20R. WHERE FED FROM A 15A BREAKER, DUPLEX RECEPTACLES SHALL BE 15A, 120V, NEMA 5-15R.

SINGLE POLE TOGGLE SWITCH, 120/277V, 20A, 1 HP RATED (AT 120V), WALL MTD AT 44" AFF

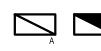
CEILING FAN SPEED CONTROL AND ON/OFF SWITCH AT 46" AFF. 120/277V, 20A, 100% COMPATIBLE WITH CEILING FAN.

MOTOR OR MECHANICAL/PLUMBING EQUIPMENT

ELECTRICAL JUNCTION BOX (SIZE PER NEC U.O.N.) AND/OR ELECTRICAL CONNECTION TO EQUIPMENT AND DEVICES

DISCONNECT SWITCH, SEE DRAWING NOTES FOR SWITCH DETAILS. SWITCH SHALL BE WALL MOUNTED AT 54" AFF TO TOP OF OPERATING HANDLE U.O.N.

**NEW POWER PANEL** 



LIGHTING FIXTURE, "XX" IS THE LIGHTING FIXTURE TYPE. SEE "LIGHTING FIXTURE SCHEDULE" FOR ADDITIONAL DETAILS, SYMBOLS AND FIXTURE TYPES.



LIGHTING FIXTURE, "XX" IS THE LIGHTING FIXTURE TYPE. SEE "LIGHTING FIXTURE SCHEDULE" FOR ADDITIONAL DETAILS. SYMBOLS AND FIXTURE TYPES.



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EXIT LIGHTING FIXTURE, "XX" IS THE LIGHTING FIXTURE TYPE. SEE "LIGHTING FIXTURE SCHEDULE" FOR ADDITIONAL DETAILS, SYMBOLS AND FIXTURE TYPES.

LOW VOLTAGE WALL SWITCH SENSOR, nLIGHT, MANUAL ON/OFF, DIM CONTROL. ; nWSX-PDT-LV-DX-WH-LT

LOW VOLTAGE WALL SWITCH SENSOR, nLIGHT, MANUAL ON/OFF. nWSX-PDT-LV-WH-LT

LOW VOLTAGE WALL SWITCH SENSOR, nLIGHT, MANUAL ON/OFF. : nPODM-WH-LT

LOW VOLTAGE CEILING OCCUPANCY SENSOR, nLIGHT. : nCM-RJB-LT

> POWER PACK RELAY 0-10V DIMMING, nLIGHT ; nIO-IS-LT

# SYMBOL LIST - EXISTING TO REMAIN

EXISTING POWER PANEL

EXISTING RECEPTACLE TO BE REMOVED

EXISTING MOTOR TO REMAIN OR TO BE REMOVED AND REINSTALLED IN PLACE

EXISTING SINGLE POLE TOGGLE SWITCH

### SYMBOL LIST - DEMOLITION

EXISTING RECEPTACLE TO BE REMOVED

EXISTING MOTOR TO BE REMOVED

EXISTING DISCONNECT SWITCH TO BE REMOVED

EXISTING LIGHTING FIXTURE TO BE REMOVED

EXISTING ELECTRICAL JUNCTION BOX (SIZE PER NEC U.O.N.) AND/OR

ELECTRICAL CONNECTION TO EQUIPMENT AND DEVICES

EXISTING SINGLE POLE TOGGLE SWITCH

### **ABBREVIATIONS**

AMERICANS WITH DISABILITIES ACT AMPERE FRAME ARC FAULT CIRCUIT INTERRUPTER ABOVE FINISHED FLOOR AUTHORITY HAVING JURISDICTION AIR HANDI ING UNIT AMPERE INTERRUPTING CAPACITY ALUMINUM AMERICAN NATIONAL STANDARDS INSTITUTE BARE GROUND CONDUCTOR BALTIMORE CITY PUBLIC SCHOOLS

BCPS CATEGORY CIRCUIT BREAKER CANDELA CIRCUIT CARBON MONOXIDE

C/T, CT DETAIL X/Y DIA, Ø ECB

EX., EXIST FACP FARAP

FVNR G, GND

KCMIL MCB MECH

MLO MOCP MOSHA MTD MTG NEMA NEUT

NFPA NICET

TEL, TELE TVSS

U/G U.O.N.

CB, C.B. COMPACT FLUORESCENT CURRENT TRANSFORMER COPPER DETAIL "X" ON DRAWING 'Y DIAMETER

DRAWING ENCLOSED CIRCUIT BREAKER FXHAUST FAN ELECTRICAL GROUND BAR ELECTRICAL METALLIC TUBING FIRE ALARM CONTROL PANEL FIRE ALARM REMOTE ANNUNCIATOR PANEL **FULL LOAD AMPERES** FAN COIL UNIT FRAME

FEET, FOOT FULL VOLTAGE NON-REVERSING FULL VOLTAGE REVERSING GAUGE GROUND FAULT CIRCUIT INTERRUPTER HORSEPOWER HERTZ

INTERNATIONAL BUILDING CODE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEER INSULATED GROUND CONDUCTOR INTERIOR JUNCTION BOX THOUSAND AMPERES THOUSAND AMPERE INTERRUPTING CAPACITY

THOUSAND CIRCULAR MIL KILOWATT LIGHTING METAL CLAD MINIMUM CIRCUIT AMPACITY MAIN CIRCUIT BREAKER MECHANICAL METAL HALIDE MINERAL INSULATED

MAIN LUGS ONLY MAXIMUM OVERCURRENT PROTECTION MARYLAND OCCUPATIONAL SAFETY AND HEALTH ACT MOUNTED MOUNTING NORMALLY CLOSED

> NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NATIONAL INSTITUTE FOR CERTIFICATION IN **ENGINEERING TECHNOLOGIES** NUMBER

NOT TO SCALE OVERCURRENT DEVICE OVERHEAD OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PHASE RECEPTACLE

RIGID GALVANIZED STEE ROOM ROOF TOP UNIT SOLID NEUTRAL STAINLESS STEEL TELEPHONE TELECOMMUNICATIONS GROUND BAR TELEPHONE TERMINAL BOARD TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNINTERRUPTIBLE POWER SUPPLY

UNLESS OTHERWISE NOTED UNIT VENTILATOR VOLTS VOLT AMPERE WATTS WIRELESS ACCESS POINT

UNDERWRITER'S LABORATORIES

UNDERGROUND

WEATHERPROOF

TRANSFORMER

# **ELECTRICAL DRAWING LIST**

E001 ELECTRICAL GENERAL NOTES, SYMBOL LISTS, AND ABBREVIATION

ED101 ROOF PLAN - POWER - DEMOLITION E101 ROOF PLAN - POWER - NEW WORK PLAN

E102 FIRST FLOOR PARTIAL PLAN - DEMOLITION AND NEW WORK E103 FIRST FLOOR PARTIAL PLAN - DEMOLITION AND NEW WORK

E501 ELECTRICAL DETAILS.

E104 SECOND FLOOR PARTIAL PLAN - DEMOLITION AND NEW WORK Ш 



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CITY OF BALTIMORE DEPARTMENT OF **GENERAL SERVICES** CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS DESCRIPTION

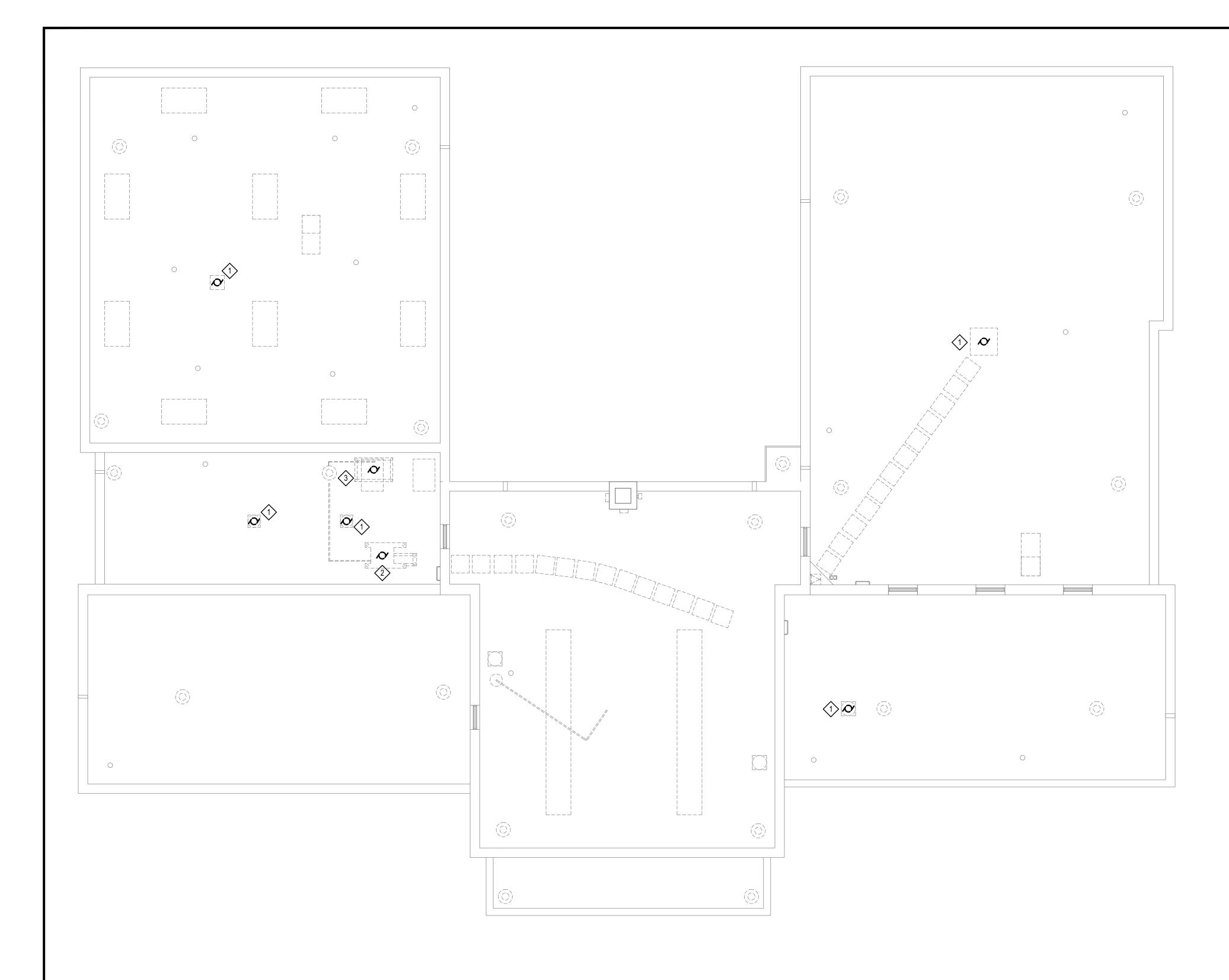
ELECTRICAL GENERAL NOTES SYMBOL LISTS, AND ABBREVIATIONS

CONSTRUCTION DOCUMENTS

2/16/24

E001

SHEET



# 1 ROOF PLAN - POWER - DEMOLITION SCALE: 1/8" = 1"-0"

# **GENERAL NOTES:**

- CONTRACTOR SHALL COORDINATE WITH OTHER DISCIPLINES FOR DEMOLITION PHASING.
  THE ELECTRICAL DEMOLITIONS ASSOCIATED WITH OTHER DISCIPLINES SHALL BE
  COORDINATED WITH ASSOCIATED DISCIPLINES PRIOR TO ANY DEMOLITIONS.
- 2. THE EXISTING CIRCUIT BREAKERS FEEDING THE REMOVED HVAC UNITS AND/OR ELECTRICAL EQUIPMENT/DEVICES ON ROOF SHALL BE TURNED OFF POSITION AND LOCKED WITH THE BREAKER LOCKOUTS AND PAD LOCKS DURING DEMOLITION AND NEW CONSTRUCTION UNTIL POWER RECONNECTED TO THE REINSTALLED UNITS AND.OR ELECTRICAL EQUIPMENT/DEVICES. ALL WIRING WILL BE RUN BELOW THE ROOF OR SUPPORT MOUNTED CONDUIT IN ORDER TO CLEAN-UP THE ROOF.
- CONTRACTOR SHALL FIELD VERIFY SIZES OF WIRING AND CONDUIT TO BE REMOVED AND
  TO BE RECONNECTED/SPLICED. THE SPLICED WIRING AND CONDUIT SHALL EQUAL TO THE
  EXISTING, BUT NOT LESS THAN WHAT IS REQUIRED BY NEC.
- 4. THE NEW JUNCTION BOXES PROVIDED TO SPLICE AND EXTEND TO EXISTING CIRCUITS FOR NEW WORKS SHALL BE LOCATED AT THE ACCESSIBLE CEILING SPACES/AREAS. JUNCTION BOXES SHALL BE CONCEALED IN CEILING SPACES OR LOCATED IN UTILITY ROOMS WHERE CONDUITS ARE EXPOSED.
- 5. CONTRACTOR SHALL FIELD VERIFY AND REPORT THE EXISTING LIGHTING FIXTURE CONDITIONS TO THE PROJECT MANAGER AND OWNER PRIOR TO REMOVING. ANY UNREPORTED DAMAGED EXISTING FIXTURES SHALL BE REPAIRED OR REPLACED BY CONTRACTOR AT NO ADDITIONAL COST. REPORTED DAMAGED LIGHTING FIXTURES TO BE COORDINATED WITH OWNER AND PROJECT MANAGER TO REPLACE/REPAIR.
- 6. ALL CABLES RELATED TO THE LIGHT TOWER SHALL BE GROUNDED AND BONDED.

# DRAWING NOTES: (#>

- 1. DISCONNECT POWER TO EX. EXHAUST FAN. ASSOCIATED DISCONNECT, WIRING AND CONDUIT TO REMAIN AND TO BE REUSED. PROVIDE TEMPORARY SUPPORTS TO DISCONNECT, WIRING AND CONDUIT FOR ROOF REPLACEMENT. REMOVE ASSOCIATED WIRING AND CONDUIT BACK TO THE ACCESSIBLE SECOND FLOOR CEILING SPACE AND PREPARE TO SPLICE AND EXTEND WIRING AND CONDUIT AS SHOWN ON DETAIL 1/E501.
- 2. DISCONNECT POWER TO EX. COOLING TOWER. ASSOCIATED DISCONNECT, WIRING AND CONDUIT TO REMAIN AND TO BE REUSED. PROVIDE TEMPORARY SUPPORTS TO DISCONNECT, WIRING AND CONDUIT FOR ROOF REPLACEMENT. REMOVE ASSOCIATED WIRING AND CONDUIT BACK TO THE ACCESSIBLE SECOND FLOOR CEILING SPACE AND PREPARE TO SPLICE AND EXTEND WIRING AND CONDUIT AS SHOWN ON DETAIL 1/E501.
- DISCONNECT POWER TO EX. ROOF TOP UNIT. ASSOCIATED DISCONNECT, WIRING AND CONDUIT TO REMAIN AND TO BE REUSED. PROVIDE TEMPORARY SUPPORTS TO DISCONNECT, WIRING AND CONDUIT FOR ROOF REPLACEMENT. REMOVE ASSOCIATED WIRING AND CONDUIT BACK TO THE ACCESSIBLE SECOND FLOOR CEILING SPACE AND PREPARE TO SPLICE AND EXTEND WIRING AND CONDUIT AS SHOWN ON DETAIL 1/E501.

SANDERS DESIGNS
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CITY OF BALTIMORE

DEPARTMENT OF

GENERAL SERVICES

CAPITAL PROJECTS

AND ENERGY

DIVISION

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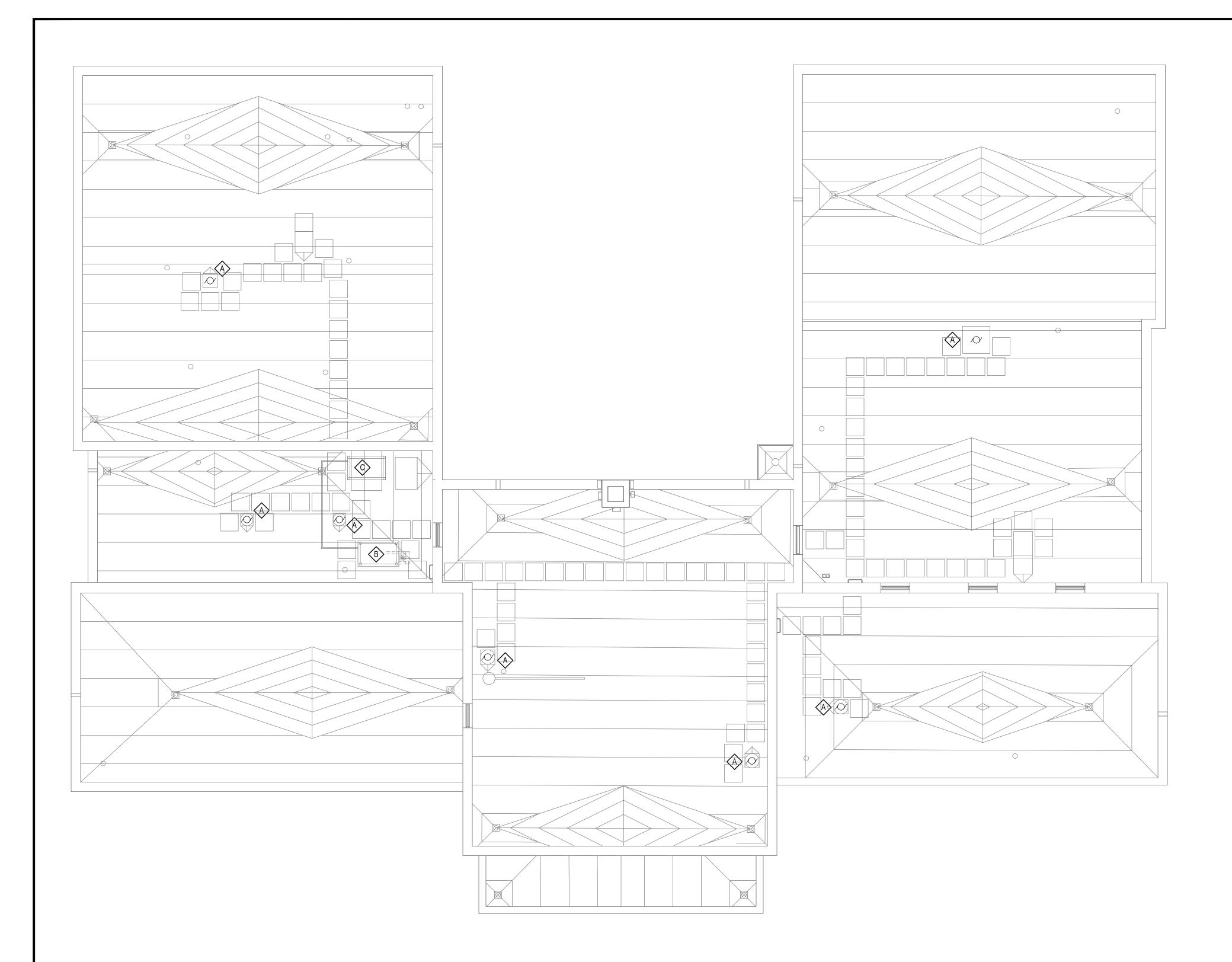
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ROOF PLAN - POWER
- DEMOLITION

CONSTRUCTION DOCUMENTS

2/16/24

SHEET ED101



1 ROOF PLAN - POWER - NEW WORK
SCALE: 1/8" = 1"-0"

# **GENERAL NOTES:**

- CONTRACTOR SHALL COORDINATE WITH OTHER DISCIPLINES FOR DEMOLITION PHASING.
  THE ELECTRICAL DEMOLITIONS ASSOCIATED WITH OTHER DISCIPLINES SHALL BE
  COORDINATED WITH ASSOCIATED DISCIPLINES PRIOR TO ANY DEMOLITIONS.
- 2. THE EXISTING CIRCUIT BREAKERS FEEDING THE REMOVED HVAC UNITS AND/OR ELECTRICAL EQUIPMENT/DEVICES ON ROOF SHALL BE TURNED OFF POSITION AND LOCKED WITH THE BREAKER LOCKOUTS AND PAD LOCKS DURING DEMOLITION AND NEW CONSTRUCTION UNTIL POWER RECONNECTED TO THE REINSTALLED UNITS AND.OR ELECTRICAL EQUIPMENT/DEVICES.
- CONTRACTOR SHALL FIELD VERIFY SIZES OF WIRING AND CONDUIT TO BE REMOVED AND
  TO BE RECONNECTED/SPLICED. THE SPLICED WIRING AND CONDUIT SHALL EQUAL TO THE
  EXISTING, BUT NOT LESS THAN WHAT IS REQUIRED BY NEC.
- 4. THE NEW JUNCTION BOXES PROVIDED TO SPLICE AND EXTEND TO EXISTING CIRCUITS FOR NEW WORKS SHALL BE LOCATED AT THE ACCESSIBLE CEILING SPACES/AREAS. JUNCTION BOXES SHALL BE CONCEALED IN CEILING SPACES OR LOCATED IN UTILITY ROOMS WHERE CONDUITS ARE EXPOSED.
- 5. CONTRACTOR SHALL FIELD VERIFY AND REPORT THE EXISTING LIGHTING FIXTURE CONDITIONS TO THE PROJECT MANAGER AND OWNER PRIOR TO REMOVING. ANY UNREPORTED DAMAGED EXISTING FIXTURES SHALL BE REPAIRED OR REPLACED BY CONTRACTOR AT NO ADDITIONAL COST. REPORTED DAMAGED LIGHTING FIXTURES TO BE COORDINATED WITH OWNER AND PROJECT MANAGER TO REPLACE/REPAIR.
- 6. ALL CABLES RELATED TO THE LIGHT TOWER SHALL BE GROUNDED AND BONDED.
- A CONTRACTOR TO TRACE AND IDENTIFY ALL CIRCUITS, BOTH NORMAL AND EMERGENCY, SERVING DEMOLISHED RACEWAYS AND RECEPTACLES BEFORE DEMOLITION WORK BEGINS. IDENTIFY THE UNUSED CIRCUITS AS SPARE. PROVIDE TAGS ON SPARE CIRCUITS PER NEC.
- 8. PROVIDE UPDATES TO THE PANEL DIRECTORIES, INCLUDING ROOM NUMBERS.
- 9. LABEL ALL DEVICES WITH CIRCUIT NUMBERS AND PANEL NAME.

# DRAWING NOTES:

- A. RECONNECT POWER TO EXHAUST FAN. SPLICE, EXTEND AND PROVIDE WIRING AND CONDUIT TO ASSOCIATED CIRCUIT. REMOTE TEMPORARY SUPPORTS. SEE DETAIL 2/E501 FOR DETAILS.
- B. RECONNECT POWER TO EX. COOLING TOWER. SPLICE, EXTEND AND PROVIDE WIRING AND CONDUIT TO ASSOCIATED CIRCUIT. REMOVE TEMPORARY SUPPORTS. SEE DETAIL 2/E501 FOR DETAILS.
- C. RECONNECT POWER TO EX. ROOF TOP UNIT. SLICE, EXTEND AND PROVIDE WIRING AND CONDUIT TO ASSOCIATED CIRCUIT. REMOVE TEMPORARY SUPPORTS. SEE DETAIL 2/E501 FOR DETAILS.

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Consulting Engines INC.

Consulting Engineers

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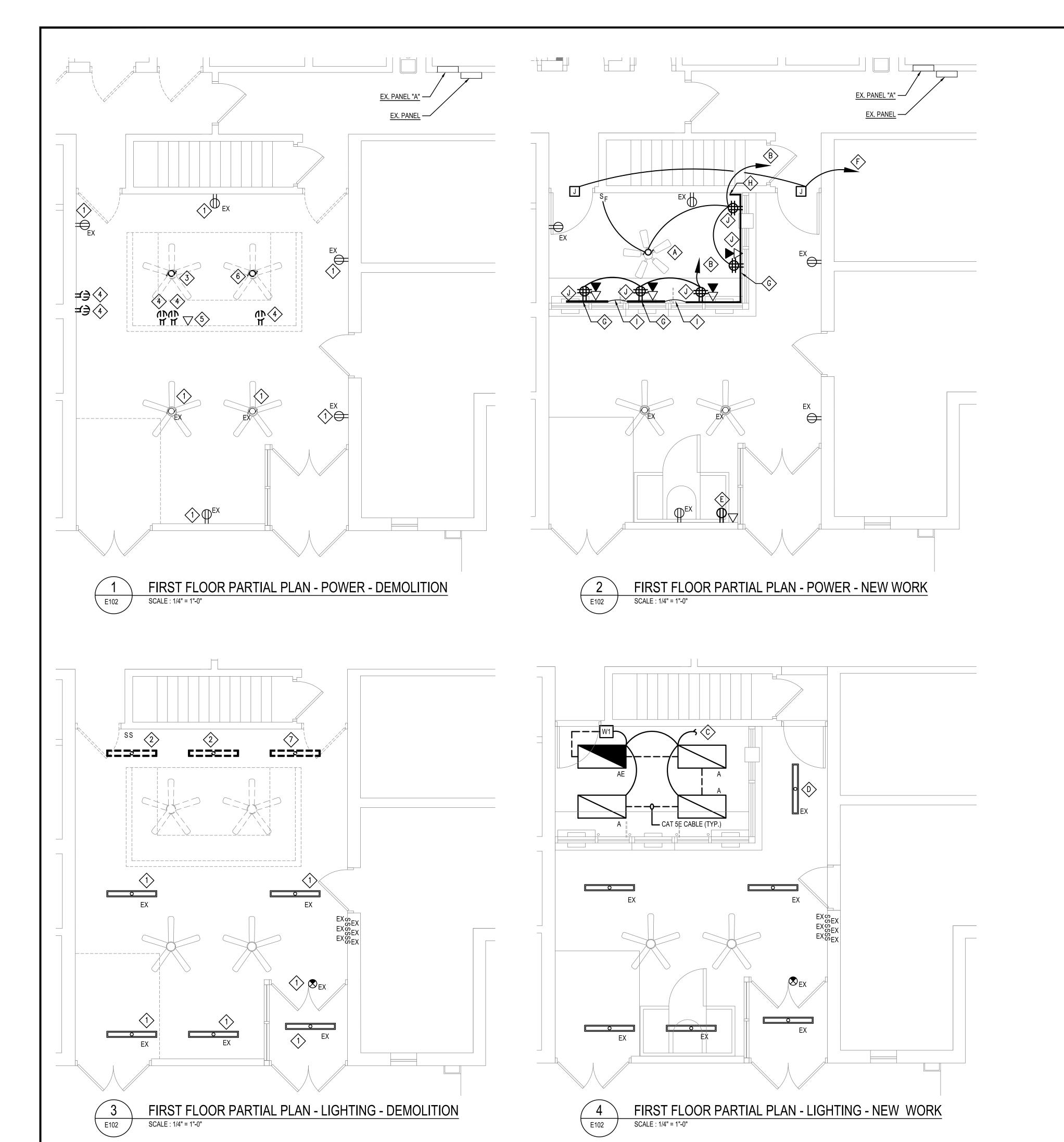
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> ROOF PLAN - POWER - NEW WORK

CONSTRUCTION DOCUMENTS

2/16/24

SHEET E101



# DRAWING NOTES:

- 1. EXISTING TO REMAIN.
- 2. REMOVE EXISTING LIGHTING AND ASSOCIATED CONTROLS. ASSOCIATED LIGHTING CIRCUIT TO REMAIN AND TO BE REUSED.
- 3. REMOVE EXISTING CEILING FAN AND ASSOCIATED WIRING, CONDUIT AND CONTROL SWITCH BACK TO SOURCE.
- 4. REMOVE EXISTING RECEPTACLE AND ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
- 5. REMOVE EXISTING DATA/TELEPHONE OUTLET AND ASSOCIATED WIRING,

CABLE, AND CONDUIT BACK TO SOURCE.

- 6. RELOCATE EXISTING CEILING FAN. ASSOCIATED WIRING AND CONDUIT TO BE REMOVED. SEE NEW WORK PLAN FOR NEW LOCATION OF FAN.
- 7. RELOCATE LIGHTING. ASSOCIATED WIRING AND CONDUIT TO BE

REMOVED. SEE NEW WORK PLAN FOR NEW LOCATION.

A. EXISTING CEILING FAN AT NEW LOCATION.

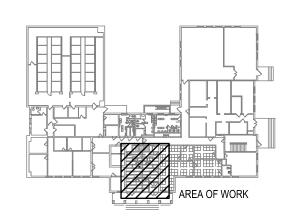
LIGHTING CIRCUIT.

BETWEEN WIREMOLD.

- B. PROVIDE 2#10 &#10G IN 3/4" C. TO EXISTING RECEPTION DESK RECEPTACLE CIRCUIT.
- C. SPLICE, EXTEND AND PROVIDE 2#10 &#10G IN 3/4" C. TO EXISTING
- D. EXISTING LIGHTING AT NEW LOCATION. PROVIDE 2#10 &#10G IN 3/4" C. CONNECT TO THE SAME AREA LIGHTING CIRCUIT.
- E. HOMERUN 2#10 &#10G IN 3/4" C TO 1P 20A TANDEM BREAKER AT EXISTING PANEL FOR MEETING ROOM. (ALTERNATE)
- F. HOMERUN 2#10 &#10G IN 3/4" C TO 1P 20A TANDEM BREAKER AT EXISTING PANEL FOR DOOR ACCESS AND LOCKS.
- G. WIREMOLD V4000 SERIES, DIVIDER FOR DATA AND POWER, RECEPTACLE AND DATA OUTLET TO BE MOUNTED ON THE WIREMOLD, 6" BELOW FROM THE BOTTOM OF DESK TO THE TOP OF WIREMOLD.
- H. WIREMOLD, V4000 SERIES, DOWN FROM THE ACCESSIBLE CEILING TO THE LEVEL AS 6" BELOW FORM BOTTOM OF DESK TO THE TOP OF WIREMOLD AND RUN UP TO THE DESK AS INDICATED ON DRAWING.
- I. PROVIDE 1 1/4" C AND 3/4" C FOR DATA CABLES AND POWER WIRING
- J. RECEPTACLES AND DATA OUTLETS TO BE MOUNTED IN WIREMOLD. RECEPTACLES AND DATA OUTLETS TO BE 100% FULLY COMPATIBLE WITH WIREMOLD, V4000 SERIES.
- K. REPLACE EXISTING CIRCUIT #12 AND 14 WITH FOUR (4) 1P 20A TANDEM BREAKERS FOR THE EXISTING CIRCUITS AND DOOR ACCESS SYSTEM AND A HAND DRYER.

### GENERAL NOTES:

 SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF LIGHTING FIXTURES ON THE CEILING.



KEY PLAN

NOT TO SCALE

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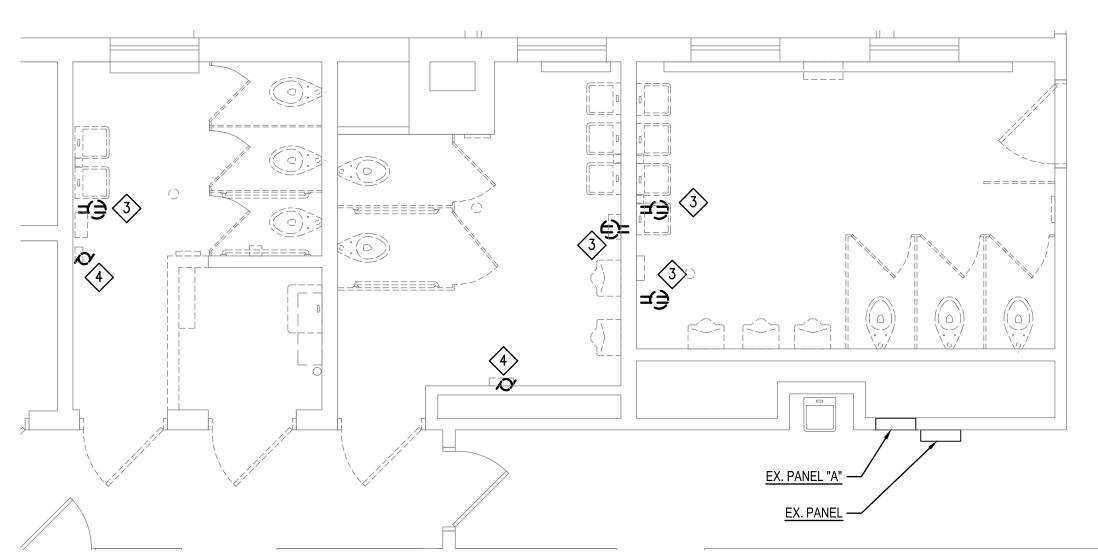
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FIRST FLOOR PARTIAL PLAN -DEMOLITION AND NEW WORK

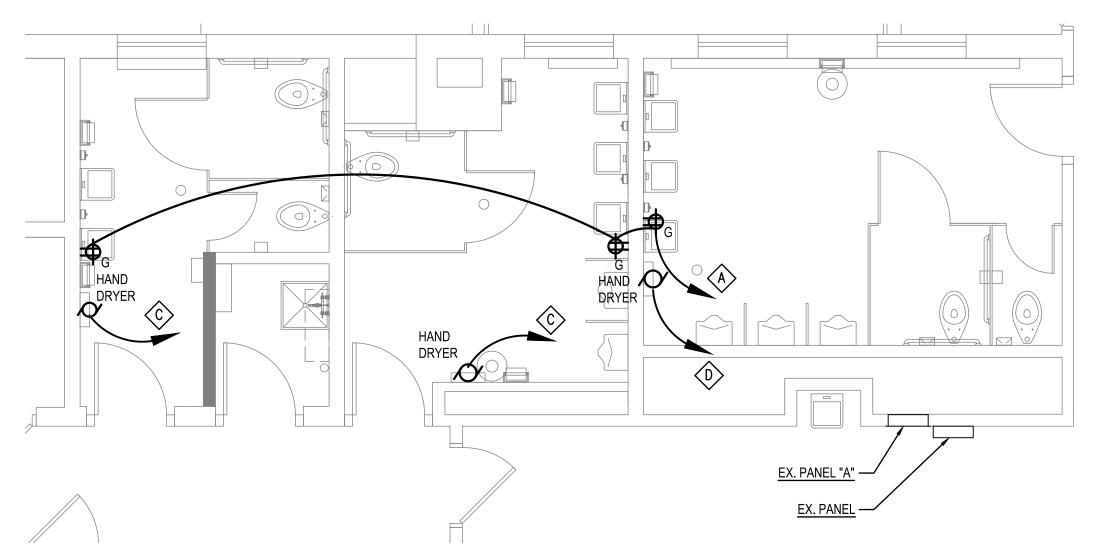
CONSTRUCTION DOCUMENTS

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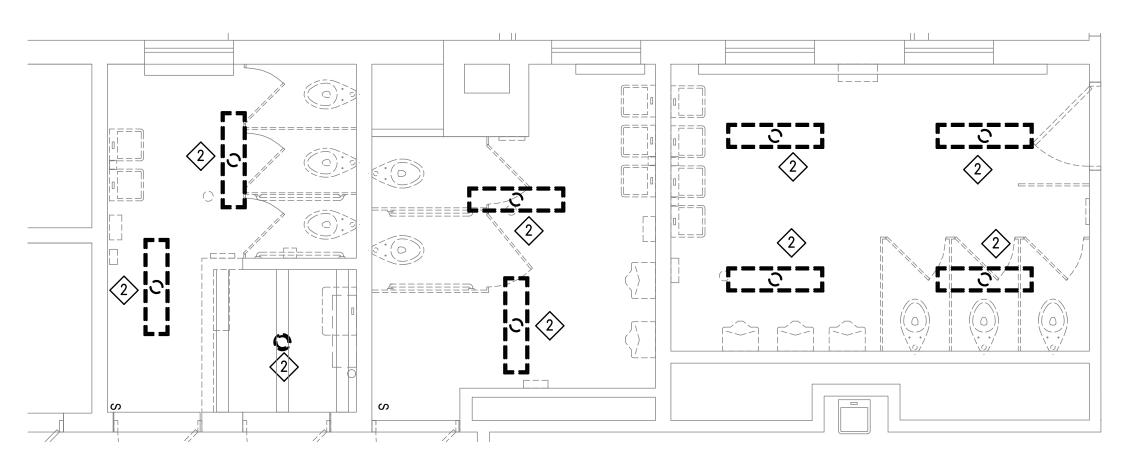
SHEET E102



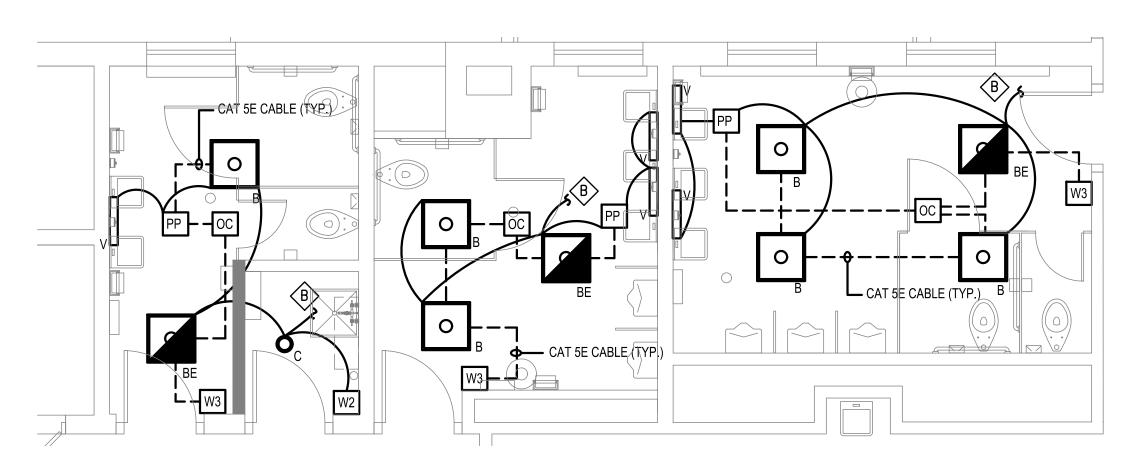
FIRST FLOOR PARTIAL PLAN - POWER - DEMOLITION SCALE : 1/4" = 1"-0"



FIRST FLOOR PARTIAL PLAN - POWER - NEW WORK SCALE : 1/4" = 1"-0" E103



FIRST FLOOR PARTIAL PLAN - LIGHTING - DEMOLITION E103 SCALE : 1/4" = 1"-0"



FIRST FLOOR PARTIAL PLAN - LIGHTING - NEW WORK E103 SCALE : 1/4" = 1"-0"

# DRAWING NOTES:

EXISTING TO REMAIN.

- 2. REMOVE EXISTING LIGHTING AND ASSOCIATED WIRING, CONDUIT AND CONTROL SWITCH BACK TO SOURCE.
- 3. REMOVE EXISTING RECEPTACLE AND ASSOCIATED WIRING BACK TO SOURCE. REUSE EXISTING CONDUIT FOR NEW RECEPTACLE CIRCUIT.
- 4. DISCONNECT POWER TO EXISTING HAND DRYER AND ASSOCIATED WIRING BACK TO SOURCE.
- A. PROVIDE NEW 2#10 &#10G 3/4" C TO BE EXTENDED TO EXISTING RECEPTACLE CIRCUIT CONDUIT AT EXISTING PANEL "A"
- B. TO EXISTING LIGHTING CIRCUIT.
- C. PROVIDE NEW 2#10 &#10G 3/4" C TO BE EXTENDED TO EXISTING HAND DRYER CIRCUIT.
- D. PROVIDE NEW 2#10 &#10G 3/4" C TO 1P 20A TANDEM BREAKER AT EX

### GENERAL NOTES:

SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF LIGHTING FIXTURES ON THE CEILING.



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FIRST FLOOR PARTIAL PLAN DEMOLITION AND NEW WORK

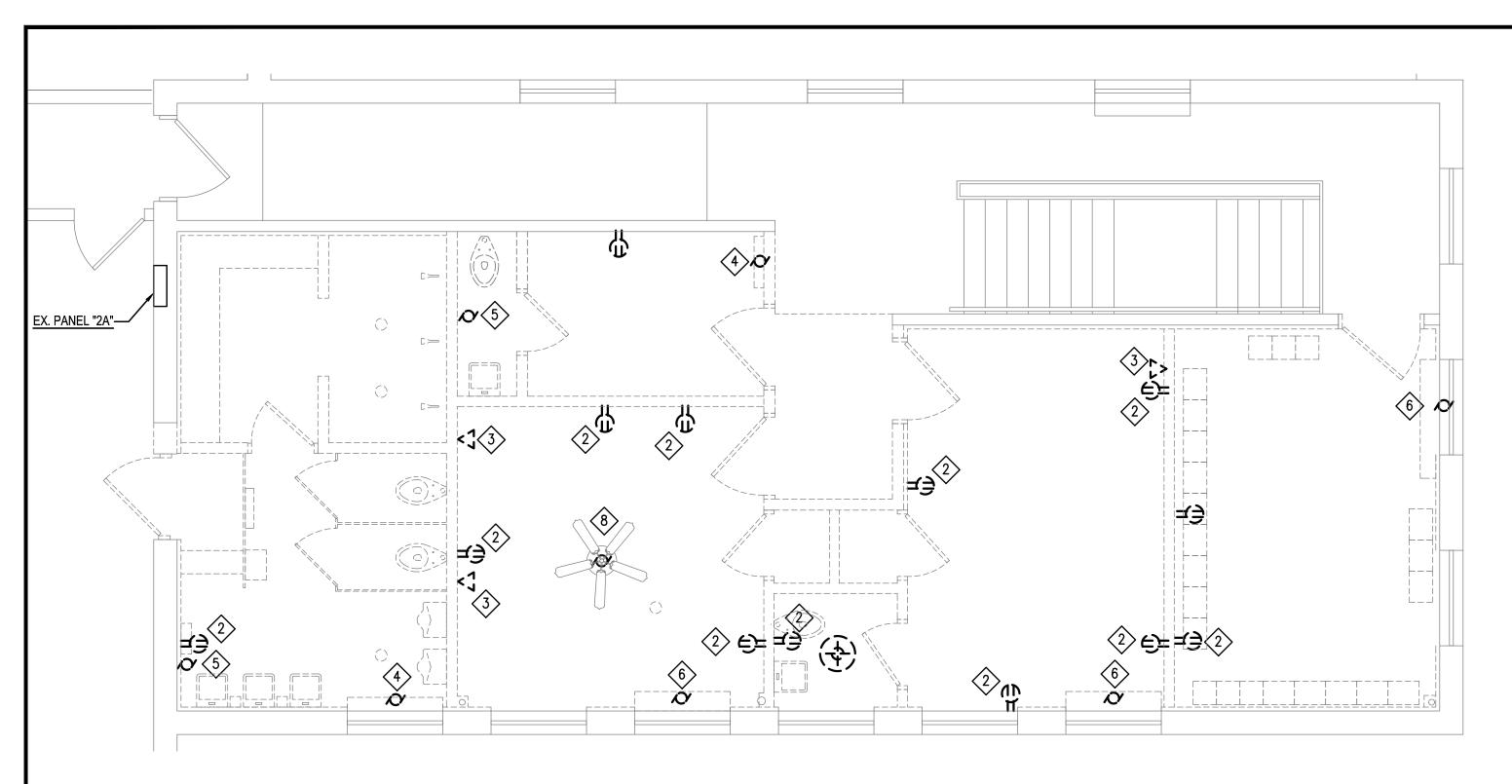
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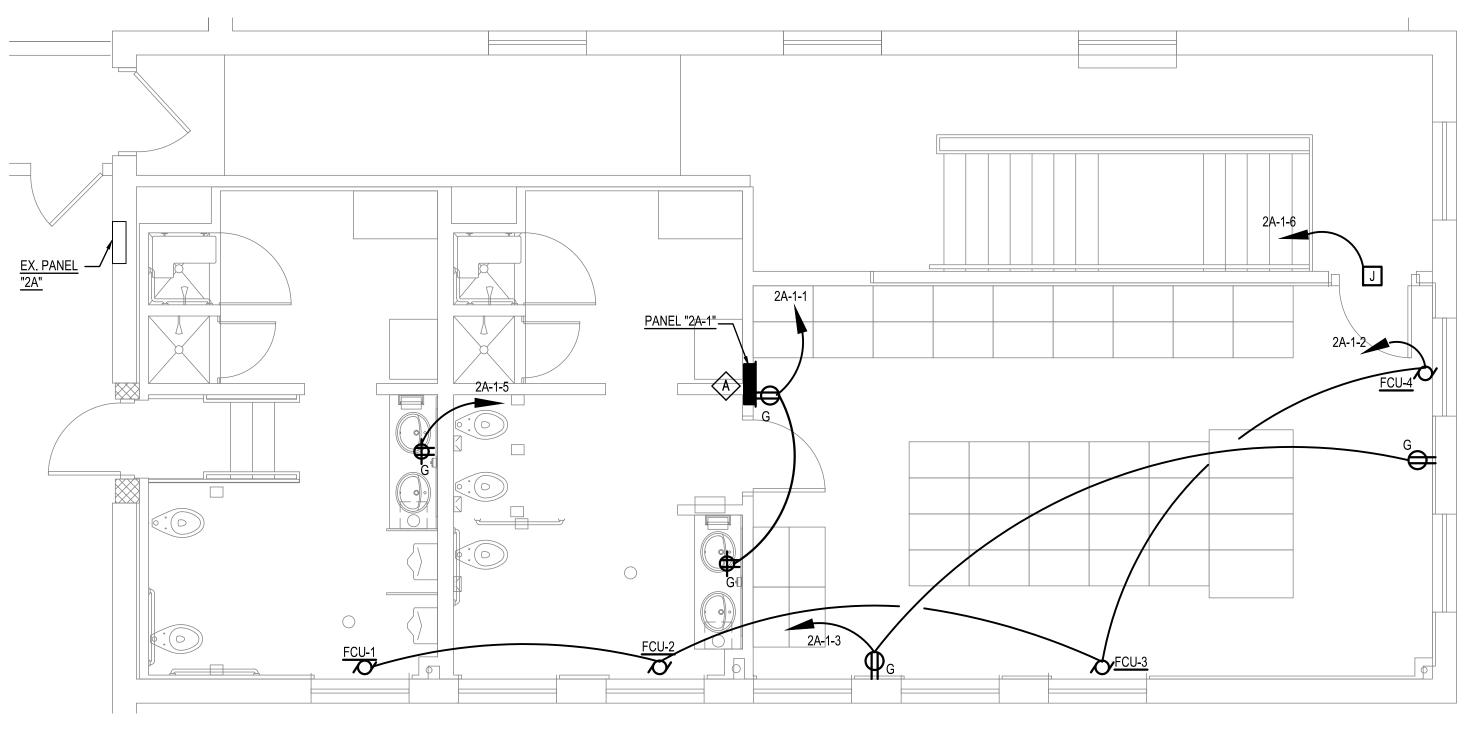
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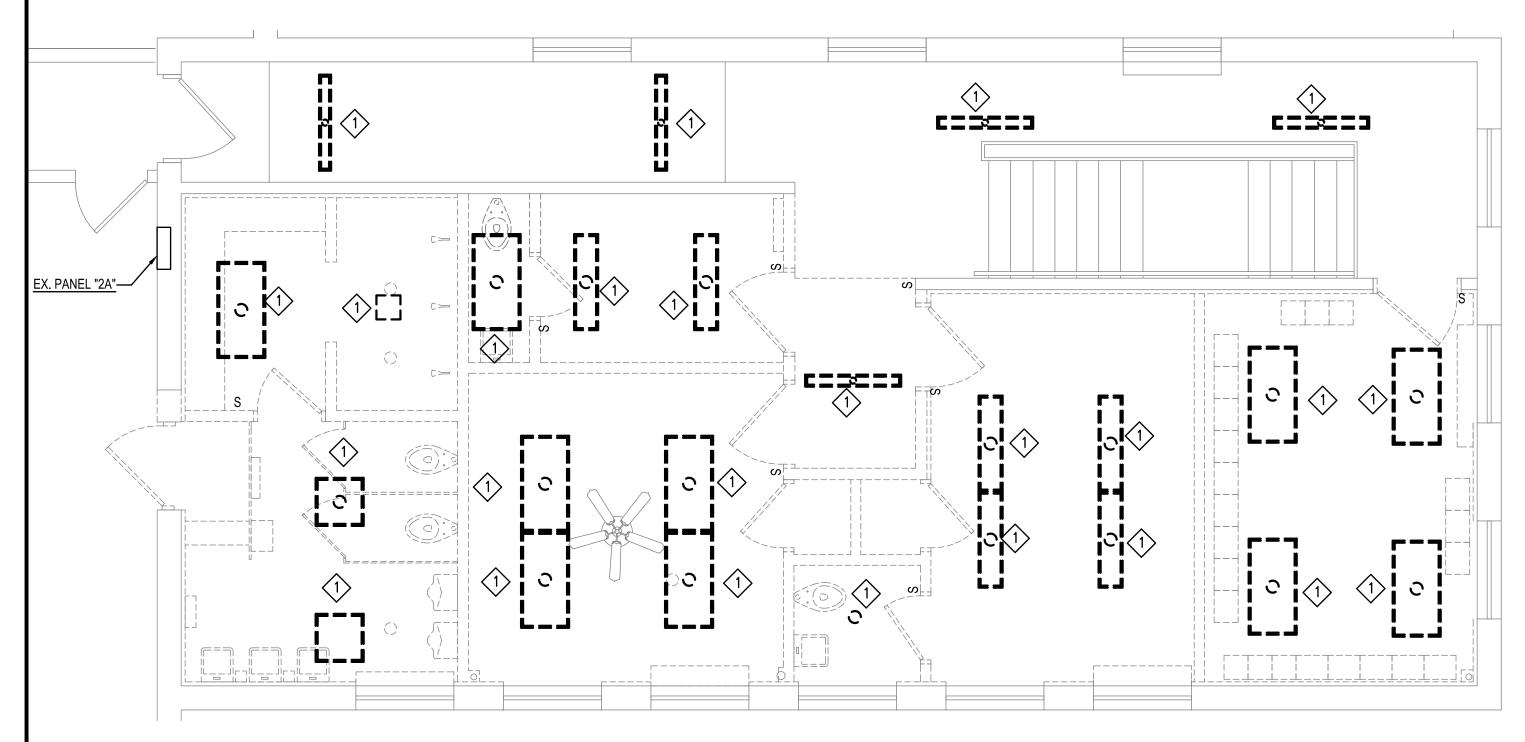


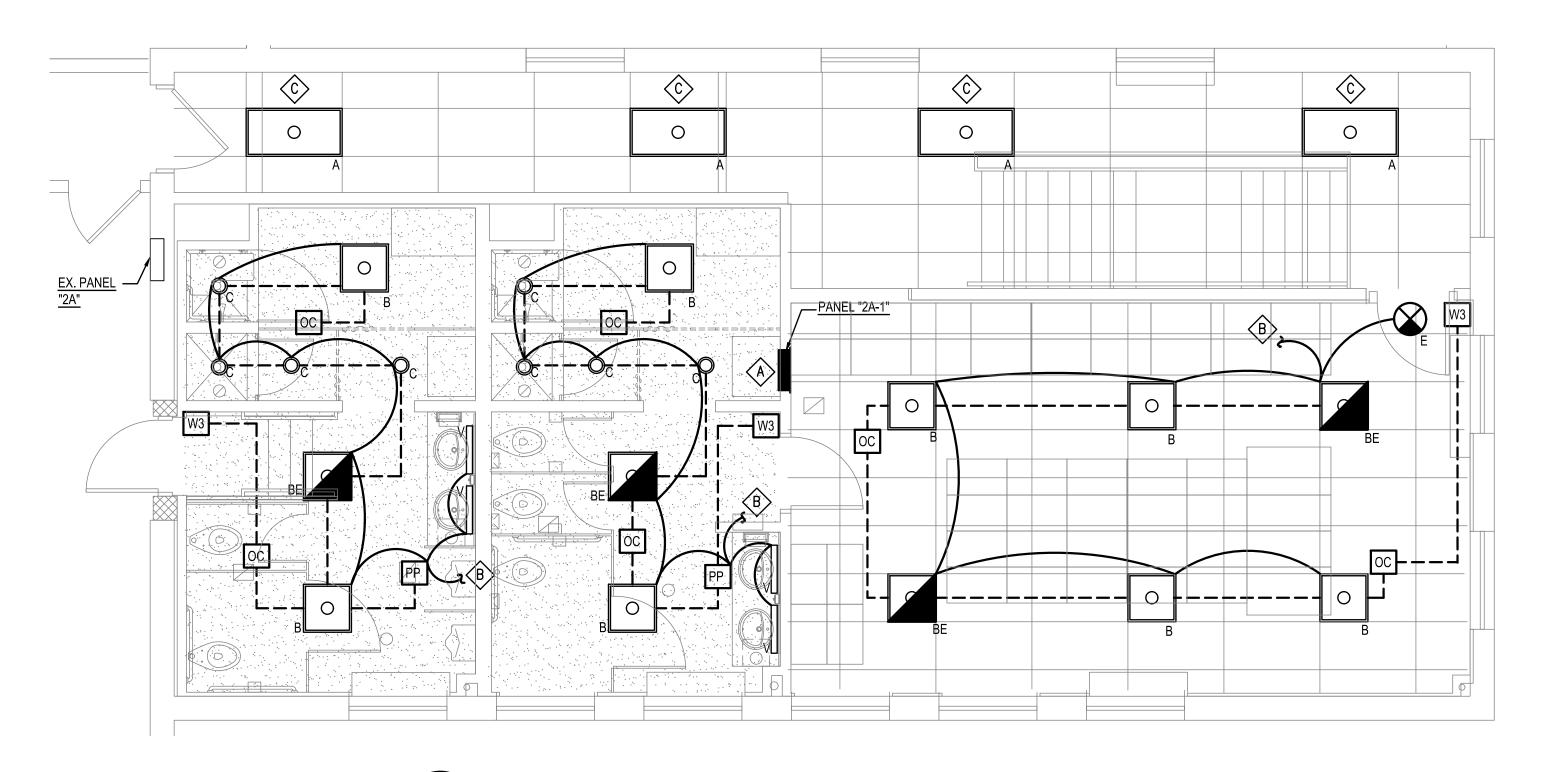




SECOND FLOOR PARTIAL PLAN - POWER - DEMOLITION SCALE : 1/4" = 1"-0"

SECOND FLOOR PARTIAL PLAN - POWER - NEW WORK SCALE : 1/4" = 1"-0"





SECOND FLOOR PARTIAL PLAN - LIGHTING - NEW WORK

E104

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

E104

A. PROVIDE 30 CIRCUIT NEW PANEL.

B. PROVIDE NEW 2#10 &#10G 3/4" C TO LIGHTING CIRCUIT AT PANEL "2A-1-4".

C. SPLICE AND EXTEND PROVIDE 2#10 &#10G 3/4" C TO EXISTING LIGHTING

SECOND FLOOR PARTIAL PLAN - LIGHTING - DEMOLITION SCALE : 1/4" = 1"-0"

# DRAWING NOTES:

- REMOVE EXISTING LIGHTING AND ASSOCIATED WIRING, CONDUIT AND CONTROL SWITCH BACK TO SOURCE.
- REMOVE EXISTING RECEPTACLE AND ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
- REMOVE EXISTING TELEPHONE/DATA OUTLET AND ASSOCIATED WIRING,
- CABLE, AND CONDUIT BACK TO SOURCE. 4. DISCONNECT POWER TO EXISTING CONVECTOR AND ASSOCIATED
- WIRING BACK TO SOURCE. 5. DISCONNECT POWER TO EXISTING HAND DRYER AND ASSOCIATED
- WIRING BACK TO SOURCE. 6. DISCONNECT POWER TO EXISTING FAN COIL UNIT AND ASSOCIATED
- WIRING BACK TO SOURCE. 7. DETACH EXISTING LIGHTING FROM EXISTING CEILING AND PROVIDE

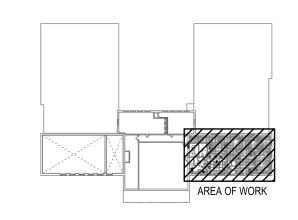
TEMPORARY SUPPORTS FOR CEILING REPLACEMENT.

8. REMOVE EXISTING CEILING FAN AND ASSOCIATED WIRING, CONDUIT AND CONTROL SWITCH BACK TO SOURCE.

- - FIXTURES ON THE CEILING.

# **GENERAL NOTES:**

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF LIGHTING



**KEY PLAN** NOT TO SCALE

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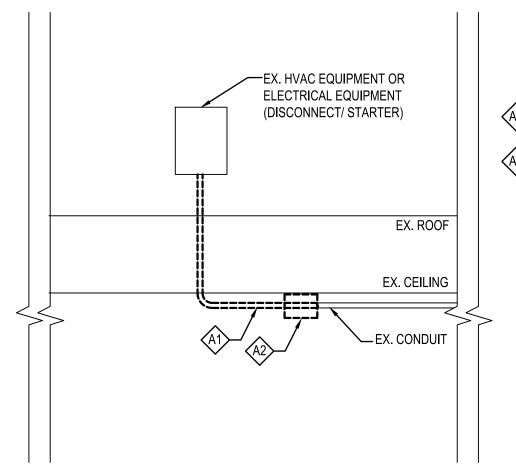
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SECOND FLOOR PARTIAL PLAN - DEMOLITION AND NEW WORK

> CONSTRUCTION DOCUMENTS

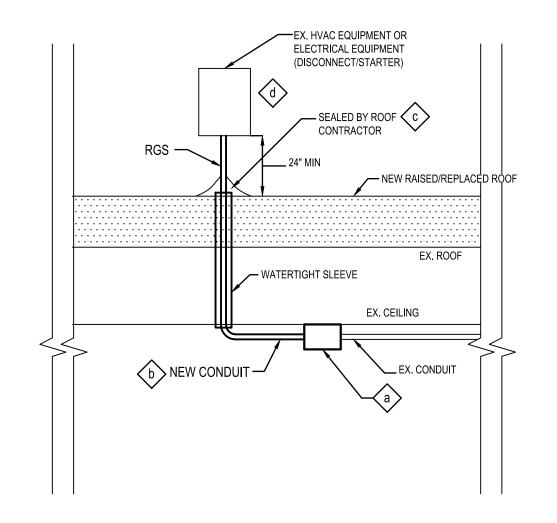
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# **DETAIL NOTES**

- REMOVE EXISTING SEGMENT OF CONDUIT AND ASSOCIATED WIRING AND CONDUIT AS REQUIRED TO LOCATION OF NEW JUNCTION BOX FOR SPLICE.
- CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF JUNCTION BOX AT ACCESSIBLE CEILING LOCATION



# **DETAIL NOTES**

- a. JUNCTION BOX LOCATED AT ACCESSIBLE CEILING SPACE. COORDINATE EXACT LOCATION AT THE FIELD. WHERE JUNCTION BOXES INSTALLED AT THE INACCESSIBLE CEILING SPACES, CEILING ACCESS PANELS SHALL BE PROVIDED AT THOSE LOCATIONS TO ACCESS THE JUNCTION BOXES PER CODES.
- b. SPLICE, EXTEND, AND PROVIDE WIRING AND CONDUIT TO EXISTING. WIRING AND CONDUIT SHALL EQUAL EXISTING BUT NOT LESS THAN WHAT IS REQUIRED BY THE NEC.
- c. COORDINATE ROOF PENETRATION SEAL REQUIREMENTS WITH ROOF CONTRACTOR AND PROVIDE ALL WORKS PER REQUIREMENTS.
- d. PROVIDE INDEPENDENT SUPPORTS.

### **GENERAL NOTES**

- 1. IF JUNCTION BOXES ARE NEEDED TO BE INSTALLED ON ROOF, JUNCTION BOXES SHALL BE 14" ABOVE FINISHED ROOF AND NEMA 3R ENCLOSURE WITH WATERTIGHT SEALS. SEE ARCHITECTURAL DRAWINGS FOR ROOF PENETRATIONS AND SEAL DETAILS. COORDINATE WITH GENERAL AND ROOF CONTRACTORS FOR ALL ROOF PENETRATIONS AND SUPPORTS INSTALLATIONS ON ROOF.
- DO NOT RUN CONDUIT ON ROOF SURFACE. WHEN RGS IS REQUIRED TO RUN ON ROOF SURFACE HORIZONTALLY, PROVIDE THE CONDUIT ROOF SUPPORTS FOR CONDUIT TO BE CLAMPED ON THESE SUPPORTS. THE CONDUIT SUPPORT TO BE COPPER B-LINE DB10 OR APPROVED EQUAL. THE SPACING OF THESE SUPPORTS SHALL MEET THE NEC REQUIREMENT (ARTICLE 344). WIRE INSTALLED IN ROOF CONDUIT SHALL BE CALCULATED THE CORRECTION FACTORS AND SIZED PER
- 3. WIRING AND CONDUIT FOR HVAC UNITS SHALL BE PENETRATED AND RUN THROUGH THE ASSOCIATED HAVC UNIT ROOF CURBS. COORDINATE WITH GENERAL AND HAVC CONTRACTORS FOR THE CONDUIT INSTALLATION IN THE ROOF CURBS.

PANEL "2A-1" 3¢, 4W, 208Y/120V,

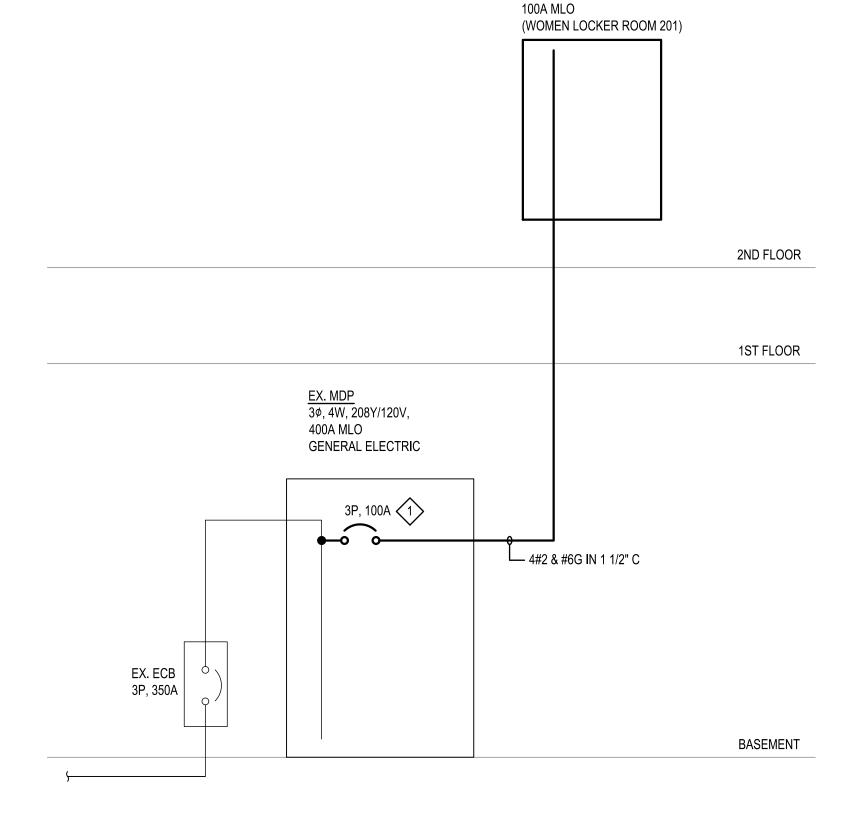


TYPICAL MOUNTING DETAIL FOR ROOFTOP EQUIPMENT/DEVICES E-501 NOT TO SCALE

LIGHTING FIXTURE SHEDULE											
SYMBOL	FIXTURE DESCRIPTION	MANUFACTURE	CATALOG #	NO.	LAMPS TYPE	VOLTS	VOLT AMPERES	LUMENS	MOUNTING		
A AE	2'x4' LED LIGHT	HT LITHONIA LIGHTING A : 2ALL4-40L-EZ1-LP835-N100 AE: 2ALL4-40L-EZ1-LP835-N100-E10WLCP		1	LED	MVOLT	32	3911.2	RECESSED		
o <sub>B</sub> ■ BE	2'x2' LED LIGHT	LITHONIA LIGHTING  B: 2ALL2-40L-EZ1-LP835-N100  BE: 2ALL2-40L-EZ1-LP835-N100-E10WLCP		1	LED	MVOLT	35	3891.6	RECESSED		
<b>o</b> <sub>C</sub>	LED DOWN LIGHT	GOTHAM LIGHTING	EVO6SH-35-25-DFR-SMO-MVOLT-EZ1-NLT-ELR	1	LED	MVOLT	25	2500	RECESSED		
<b>⊗</b> <sub>E</sub>	EXIT SIGN AND LIGHT COMBO WITH BATTERY PACK	LITHONIA LIGHTING	LHQM LED G M6	1	LED	MVOLT			RECESSED		
V	LED VANITY LIGHT	LITHONIA LIGHTING	FMVTSL 24IN MVOLT 30K 90CRI BN	1	LED	MVOLT	9.5	1302	ABOVE MIRROR		

- 1. PROVIDE LIGHTING FIXTURES INDICATED ON THE LIGHTING FIXTURE SCHEDULE OR APPROVED EQUAL. LIGHTING FIXTURES SUBJECT TO APPROVAL BY THE
- 2. MOUNTING HEIGHTS SHOWN ON THE SCHEDULE ARE MEASURED FROM THE FINISHED FLOOR OR GRADE TO THE BOTTOM OF THE FIXTURE U.O.N. 3. ALL LED SHALL BE COORDINATED COLOR TEMPERATURE WITH OWNER AND ARCHITECT. UNLESS OTHERWISE NOTED, PROVIDE 4000K COLOR TEMPERATURE
- 4. ALL WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLAN AND OWNER.
- 5. FINISH (ARCHITECT RAL) COLOR TO BE COORDINATED WITH ARCHITECTURAL PLAN AND OWNER.

					PA	INF	L	SCH		טע	LE								
PANELBOARD: 2A-	1			BUS RATING: 100A												MAIN OC:	MLO		
MIN AIC: 10H	(AIC FULLY RATED				VOLTS: LL: 208 LN: 120						120						PHASE:	3	
NCLOSURE NEMA: NE	MA 1				MOUNTING: RECESSED										WIRE:	4			
LOCATION: WOMEN'S LOCKER ROOM		<u> </u>		NOTE	ES:											FEED FROM:	3P 100A MDP		
CKT DESCRIPTION	ON LOAD	PANEL CONI	)   (	WIRE	<u> </u>	C.B.		PHASE		C.B	3.	WIR	E	COND	PANEL	LOAD	DES	SCRIPTION	CH
NO	(VA)	NOTES (INCH		POWER	FR	TR	Р	ABC	Р	TR	FR	POWER	GND	(INCH)	NOTES	(VA)			N
1 RECEP CIRCUIT	360	3/4"	#10	2#10	100		1		1	20	100	2#10	#10	3/4"		274	FAN COIL UNI	Т	
3 RECEP CIRCUIT	360	3/4"	#10	2#10	100	20	1	X	1	20	100	2#10	#10	3/4"		620	LIGHTING CIR	CUIT	
5 RECEP CIRCUIT	180	3/4"	#10	2#10	100	20	1	X	1	20	100	2#10	#10	3/4"		1000	DOOR ACCES	S+LOCK	
7 SPARE		-	-	-	100	20	1	X	1	20	100	-	-	-			SPARE		
9 SPARE		-	-	-	100	20	1	X	1	20	100	-	-	-			SPARE		
11 SPARE		-	-	-	100	20	1	X	1	20	100	-	-	-			SPARE		
13 SPARE		-	-	-	100	20	1	X	1	20	100	-	-	-			SPARE		
15 SPARE		-	-	-	100	20	1	X	1	20	100	-	-	-			SPARE		
17 SPARE		-	-	-	100	20	1	X	1	20	100	-	-	-			SPARE		
19 SPACE								X									SPACE		
21 SPACE								X									SPACE		
23 SPACE								X									SPACE		
25 SPACE								X									SPACE		
27 SPACE								X									SPACE		
29 SPACE								X									SPACE		;
CONNECTED LOAD PH	ASE: A= B= C=	= 9	34 VA 80 VA 80 VA	8	5 A 8 A 0 A														
TOTAL CONNECTED V	<b>A</b> :	2.5	B KVA																

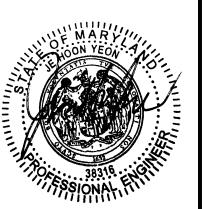


1. PROVIDE 3P 100A CB AT EXSTING SPACE #1. CB MC RATING TO MATCH THE EXISTING.



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CITY OF BALTIMORE DEPARTMENT OF **GENERAL SERVICES** CAPITAL PROJECTS AND ENERGY DIVISION

REVISIONS DESCRIPTION

ELECTRICAL DETAILS

CONSTRUCTION **DOCUMENTS** 

2/16/24

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