

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: VA DURHAM - PACU RENOVATION
Address: 508 FULTON ST. DURHAM, NC
Owner/Authorized Agent: Andreaka Watlington
DESIGNER: Atriax Group, PLLC
Architectural: Perkins Eastman Architects
Structural: Laurene Rickher Sorrell, PC
Plumbing: AME Consulting Engineers, PC
Mechanical: AME Consulting Engineers, PC
Fire Protection: AME Consulting Engineers, PC
Telecom: AME Consulting Engineers, PC
Electrical: AME Consulting Engineers, PC

2018 NC BUILDING CODE:
New Building Addition Renovation
Alteration: Prescriptive Level I Level II Level III
Change of Use

2018 NC EXISTING BUILDING CODE: EXISTING:
Alteration: Prescriptive Level I Level II Level III
Change of Use

BASIC BUILDING DATA
Construction Type: I-A I-B I-C I-D I-E I-F
Sprinklers: No Partial Yes
Standpipes: No Yes
Fire District: No Yes
Special Inspectors Required: No Yes

Table with 4 columns: FLOOR, EXISTING (SQ FT), NEW (SQ FT), SUB-TOTAL. Row 1: Fourth Floor, 2,599, 1,797, 4,396. Row 2: TOTAL, 4,396.

ALLOWABLE AREA
Primary Occupancy Classification(s):
Assembly A-1 A-2 A-3 A-4 A-5
Business B
Educational E
Factory F-1 Moderate F-2 Low
Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
Institutional I-1 Condition I-2 Condition I-3 Condition I-4
Mercantile M
Residential R-1 R-2 R-3 R-4
Storage S-1 Moderate S-2 Low High-piled
Utility and Miscellaneous U

Accessory Occupancy Classification(s):
Incidental Uses (Table 509)
Special Uses (Chapter 4 - List Code Sections)
Special Provisions (Chapter 5 - List Code Sections)
Mixed Occupancy: No Yes Separation: Hr. Exception:
Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building.
Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

Table with 5 columns: STORY NO., DESCRIPTION AND USE, BLDG AREA PER STORY (ACTUAL) AREA, TABLE 506.24 AREA, AREA FOR FRONTAGE INCREASE 1.5, ALLOWABLE AREA PER STORY OR UNLIMITED 2.3. Row 1: 1, BUSINESS, 4,396, UL, INCREASE 1.5, 2,3.

1 Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = (P)
b. Total Building Perimeter = (P)
c. Ratio (F/P) = (F/P)
d. W = Minimum width of public way = (W)
e. Percent of frontage increase if = 100(F/P - 0.25) x W/30 = (%)
2 Unlimited area applicable under conditions of Section 507.
3 Maximum Building Area = Total number of stories in the building x D (maximum 3 stories) (506.2).
4 The maximum area of open parking garages must comply with Table 405.5.4.
5 Frontage increase is based on the unprinted area value in Table 506.2.

ALLOWABLE HEIGHT
Table with 3 columns: ALLOWABLE, SHOWN ON PLANS, CODE REFERENCE 1. Row 1: Building Height in Feet (Table 504.3) 2. Row 2: Building Height in Stories (Table 504.4) 3.

1 Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.
2 The maximum height of air traffic control towers must comply with Table 412.3.1.
3 The maximum height of open parking garages must comply with Table 405.5.4.

FIRE PROTECTION REQUIREMENTS EXISTING
Table with 7 columns: BUILDING ELEMENT, FIRE SEPARATION DISTANCE (FEET), RECD, RATING PROVIDED (W/ REDUCTION), DETAIL # AND SHEET #, DESIGN # FOR RATED ASSEMBLY, SHEET # FOR RATED PENETRATION, SHEET # FOR RATED JOINTS. Rows include Structural Frame, Bearing Walls, Floor Construction, Roof Construction, Shaft Enclosures, Corridor Separation, etc.

PERCENTAGE OF WALL OPENING CALCULATIONS
Table with 4 columns: FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES, DEGREE OF OPENINGS PROTECTION (TABLE 705.5), ALLOWABLE AREA (%), ACTUAL SHOWN ON PLANS (%).

2018 NC Administrative Code and Policies
LIFE SAFETY SYSTEM REQUIREMENTS
Emergency Lighting: No Yes
Exit Signs: No Yes
Fire Alarm: No Yes
Smoke Detection Systems: No Yes Partial
Carbon Monoxide Detection: No Yes

LIFE SAFETY PLAN REQUIREMENTS
Life Safety Plan Sheet #:
Fire and/or smoke rated wall locations (Chapter 7)
Assumed and real property line locations (if not on the site plan)
Exterior wall opening area with respect to distance to assumed property lines (705.6)
Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
Occupant loads for each area
Exit access travel distances (1017)
Common path of travel distances (Tables 1006.2.1 & 1006.3.2)(1)
Dead end lengths (1020.4)
Clear exit widths for each exit door
Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
Actual occupant load for each exit door

ACCESSIBLE DWELLING UNITS (SECTION 1107) EXISTING / NOT APPLICABLE
Table with 7 columns: TOTAL UNITS, ACCESSIBLE UNITS REQUIRED, ACCESSIBLE UNITS PROVIDED, TYPE A UNITS REQUIRED, TYPE A UNITS PROVIDED, TYPE B UNITS REQUIRED, TYPE B UNITS PROVIDED, TOTAL ACCESSIBLE UNITS PROVIDED.

ACCESSIBLE PARKING (SECTION 1106) EXISTING
Table with 5 columns: LOT OR PARKING AREA, TOTAL # OF PARKING SPACES REQUIRED, # OF ACCESSIBLE SPACES PROVIDED, REGULAR WITH 9 ACCESS AISLE, VAN SPACES WITH 13' ACCESS AISLE, 8 ACCESS AISLE, TOTAL # ACCESSIBLE PROVIDED.

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1) EXISTING
Table with 10 columns: USE, WATERCLOSETS (MALE FEMALE UNISEX), URINALS, LAVATORIES (MALE FEMALE UNISEX), SHOWERS / TUBS, DRINKING FOUNTAINS (REGULAR ACCESSIBLE).

SPECIAL APPROVALS
Special approval (Local Jurisdiction, Department of Insurance, OSC, DPI, DHS, etc., describe below)

EXISTING ENERGY SUMMARY
ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: No Yes (The remainder of this section is not applicable)
Exempt Building: No Yes (Provide code or statutory reference)
Climate Zone: 3A 4A 5A
Method of Compliance: Energy Code Performance Prescriptive
ASHRAE 90.1 Performance Prescriptive
(If "Other" specify source here)

THERMAL ENVELOPE (Prescriptive method only)
Roof Assembly (each assembly)
Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Skylights in each assembly:
U-Value of skylight:
total square footage of skylights in each assembly:
Ceiling Assembly (each assembly)
Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Skylights in each assembly:
U-Value of skylight:
total square footage of skylights in each assembly:
Exterior Walls (each assembly)
Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Openings (windows or doors with glazing)
U-Value of assembly:
Solar heat gain coefficient:
projection factor:
Door R-Values:
Walls below grade (each assembly)
Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Floors slab on grade
Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Horizontal/vertical requirement:
slab heated.

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)
EXISTING

DESIGN LOADS:
Importance Factors: Snow (S) Seismic (IE)
Live Loads: Roof Mezzanine Floor
Ground Snow Load:
Wind Load: Ultimate Wind Speed Exposure Category

SEISMIC DESIGN CATEGORY: A B C D
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5)
Spectral Response Acceleration SS %g S1 %g
Site Classification (ASCE 7): A B C D E F
Data Source: Field Test Presumptive Historical Data
Basic structural system: Bearing Wall Building Frame Moment Frame Inverted Pendulum
Analysis Procedure: Simplified Equivalent Lateral Force Dynamic
Architectural, Mechanical, Components anchored? Yes No
LATERAL DESIGN CONTROL: Earthquake Wind
SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) psf
Presumptive Bearing capacity psf
Pile size, type, and capacity

EXISTING 2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT Prescriptive
Thermal Zone
winter dry bulb: 17.5°F
summer dry bulb: 93.2°F
Interior design conditions
winter dry bulb: 70°F
summer dry bulb: 75°F
relative humidity: 50% R.H.
Building heating load: EXISTING - NO CHANGE
Building cooling load: EXISTING - NO CHANGE
Mechanical Spacing Conditioning System
Unitary
description of unit: MODULAR ROOFTOP AIR HANDLING UNIT
heating efficiency: REFER TO MECHANICAL DRAWING SCHEDULES
cooling efficiency: REFER TO MECHANICAL DRAWING SCHEDULES
size category of unit: REFER TO MECHANICAL DRAWING SCHEDULES
Chiller
Size category, if oversized, state reason:
List equipment efficiencies:

EXISTING 2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

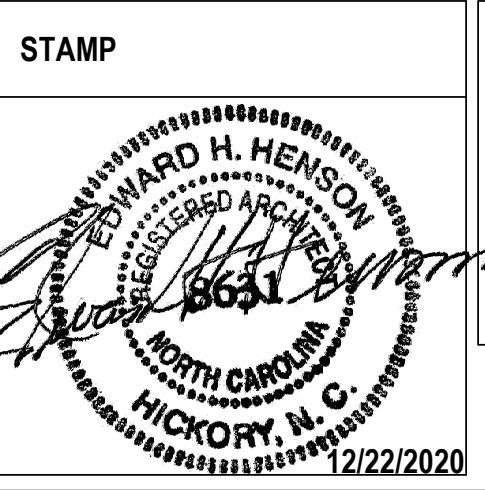
ELECTRICAL SUMMARY
ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance: Energy Code Performance Prescriptive
ASHRAE 90.1 Performance Prescriptive
Lighting schedule (each fixture type)
lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
total interior wattage specified vs. allowed (whole building or space by space)
total exterior wattage specified vs. allowed
Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
C406.2 More Efficient HVAC Equipment Performance
C406.3 Reduced Lighting Power Density
C406.4 Enhanced Digital Lighting Controls
C406.5 On-Site Renewable Energy
C406.6 Dedicated Outdoor Air System
C406.7 Reduced Energy Use in Service Water Heating

100% BID DOCUMENTS

Table with 2 columns: Revisions, Date.

CONSULTANT
AME CONSULTING ENGINEERS
PERKINS EASTMAN
LAURENE, RICKHER & SORRELL, P.C.

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Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

Drawing Title: CODE SUMMARY
Approved: Andreaka Watlington

Phase: CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Project Title: EXPAND PACU
Project Number: 558-17-150
Building Number:
Location: DURHAM VAMC DURHAM, NC
Issue Date: 12/22/2020
Checked: EH
Drawn: HP
Drawing Number: G-002 2 of 78

ICRA REQUIREMENTS

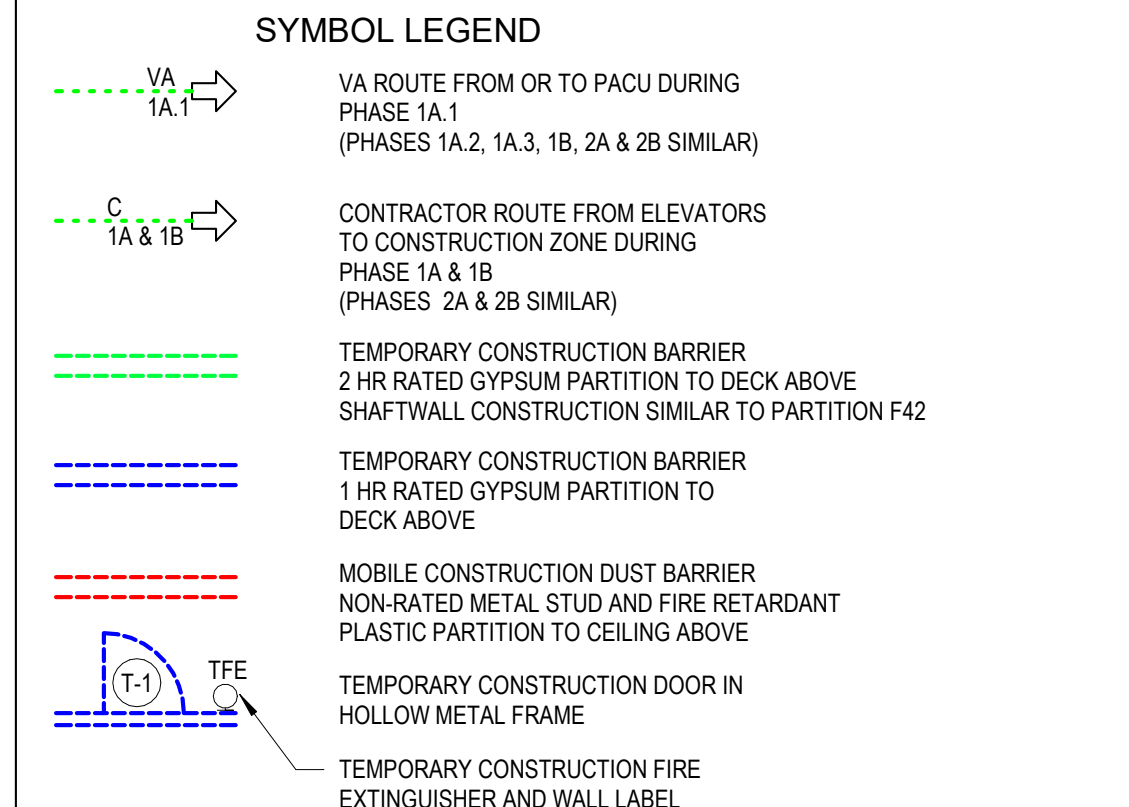
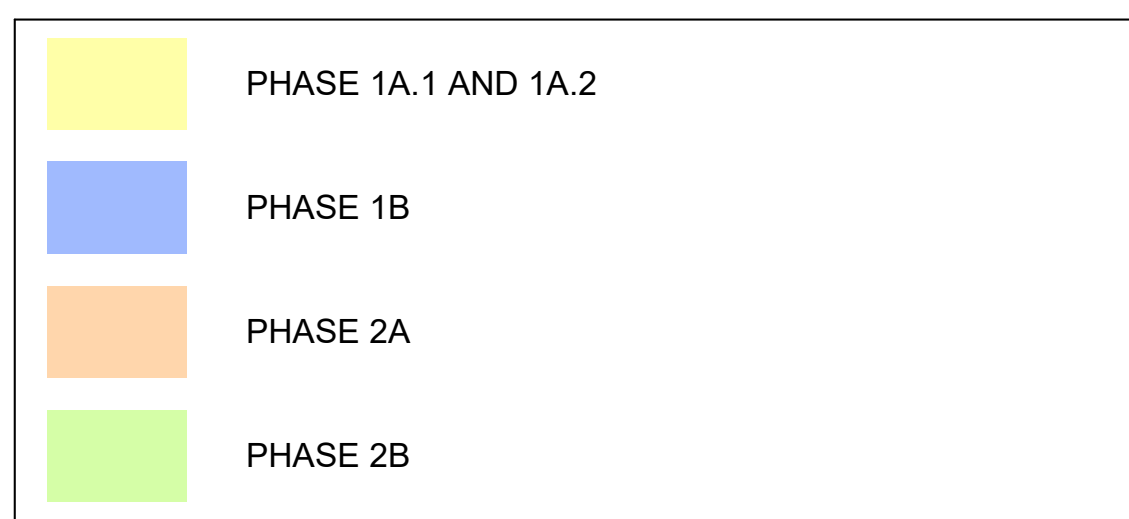
REFER TO SPECIFICATION SECTION 01.35.26

INFECTION CONTROL
 A. INFECTION CONTROL IS CRITICAL IN ALL MEDICAL CENTER FACILITIES. INTERIOR CONSTRUCTION ACTIVITIES CAUSING DISTURBANCE OF EXISTING DUST OR CREATING NEW DUST SHALL BE CONDUCTED WITHIN VENTILATION-CONTROLLED AREAS THAT MINIMIZE THE FLOW OF AIRBORNE PARTICLES INTO PATIENT AREAS. EXTERIOR CONSTRUCTION ACTIVITIES CAUSING DISTURBANCE OF SOIL OR CREATING DUST IN SOME OTHER MANNER SHALL BE CONTROLLED.
 B. AN AHA ASSOCIATED WITH INFECTION CONTROL SHALL BE PERFORMED BY VA PERSONNEL IN ACCORDANCE WITH FGI GUIDELINES (I.E. INFECTION CONTROL RISK ASSESSMENT (ICRA)). THE ICRA PROCEDURE FOUND ON THE AMERICAN SOCIETY FOR HEALTHCARE ENGINEERING (ASHE) WEBSITE WILL BE UTILIZED. RISK CLASSIFICATIONS OF CLASS II OR LOWER WILL REQUIRE APPROVAL BY THE COR BEFORE BEGINNING ANY CONSTRUCTION WORK. RISK CLASSIFICATIONS OF CLASS III OR HIGHER WILL REQUIRE A PERMIT BEFORE BEGINNING ANY CONSTRUCTION WORK. THE INFECTION CONTROL PERMITS WILL BE POSTED OUTSIDE THE APPROPRIATE CONSTRUCTION AREAS DURING THE ENTIRE LENGTH OF THE PROJECT. MORE THAN ONE PERMIT MAY BE ISSUED FOR A CONSTRUCTION PROJECT IF THE WORK IS LOCATED IN SEPARATE AREAS REQUIRING SEPARATE CLASSES. THE REQUIRED INFECTION CONTROL PRECAUTIONS WITH EACH CLASS ARE AS FOLLOWS:
 A. DURING CONSTRUCTION WORK:
 I. OBTAIN PERMIT FROM THE COR.
 II. ISOLATE HVAC SYSTEM IN AREA WHERE WORK IS BEING DONE TO PREVENT CONTAMINATION OF DUCT SYSTEM. ENSURE THAT THE HVAC DEPARTMENT IS NOTIFIED BEFORE ANY WORK BEGINS THAT INVOLVES REMOVING OR ISOLATING THE HVAC SYSTEM.
 III. COMPLETE ALL CRITICAL BARRIERS (I.E. SHEETROCK, PLYWOOD, PLASTIC, TO SEAL AREA FROM NON-WORK AREA OR IMPLEMENT CONTROL CURTAIN METHOD) WITH PLASTIC COVERING AND SEALED CONNECTION TO WORK SITE WITH HEPA VACUUM FOR VACUUMING PRIOR TO EXIT) BEFORE CONSTRUCTION BEGINS. INSTALL CONSTRUCTION BARRIERS AND CEILING PROTECTION CAREFULLY, OUTSIDE OF NORMAL WORK HOURS.
 IV. MAINTAIN NEGATIVE AIR PRESSURE WITHIN WORK SITE UTILIZING HEPA EQUIPPED AIR FILTRATION UNITS.
 V. SEAL HOLES, PIPES, CONDUTS, AND PUNCTURES.
 VI. CONSTRUCT ANTEROOM AND REQUIRE ALL PERSONNEL TO PASS THROUGH THIS ROOM SO THEY CAN BE VACUUMED USING A HEPA VACUUM CLEANER BEFORE LEAVING WORK SITE OR THEY CAN WEAR CLOTH OR PAPER COVERALLS THAT ARE REMOVED EACH TIME THEY LEAVE WORK SITE.
 VII. ALL PERSONNEL ENTERING WORK SITE ARE REQUIRED TO WEAR SHOE COVERS. SHOE COVERS SHALL BE CHANGED EACH TIME THE WORKER EXITS THE WORK AREA.
 B. UPON COMPLETION:
 I. DO NOT REMOVE BARRIERS FROM WORK AREA UNTIL COMPLETED PROJECT IS INSPECTED BY THE COR.
 II. REMOVE CONSTRUCTION BARRIERS AND CEILING PROTECTION CAREFULLY TO MINIMIZE SPREADING OF DIRT AND DEBRIS ASSOCIATED WITH CONSTRUCTION, OUTSIDE OF NORMAL WORK HOURS.
 III. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINERS.
 IV. COVER TRANSPORT RECEPTACLES OR CARTS. TAPE COVERING UNLESS SOLID LID. DISPOSE OF WASTE IN COR APPROVED OUTSIDE TRASH/ROLL-OFF DUMPSTER.
 V. VACUUM WORK AREA WITH HEPA FILTERED VACUUM.
 VI. WET MOP AREA WITH CLEANER/DISINFECTANT.
 VII. UPON COMPLETION, RESTORE HVAC SYSTEM WHERE WORK WAS PERFORMED.
 VIII. RETURN PERMIT TO THE COR.
 C. BARRIERS SHALL BE ERRECTED AS REQUIRED BASED UPON CLASSIFICATION (CLASS III AND IV REQUIRES BARRIERS) AND SHALL BE CONSTRUCTED AS FOLLOWS:
 1. CLASS III AND IV - CLOSED DOOR WITH MASKING TAPE APPLIED OVER THE FRAME AND DOOR IS ACCEPTABLE FOR PROJECTS THAT CAN BE CONTAINED IN A SINGLE ROOM.
 2. CONSTRUCTION, DEMOLITION OR RECONSTRUCTION NOT CAPABLE OF CONTAINMENT WITHIN A SINGLE ROOM SHALL HAVE THE FOLLOWING BARRIERS ERRECTED AND MADE PRESENTABLE ON HOSPITAL OCCUPIED SIDE:
 I. CLASS III AND IV (WHERE DUST CONTROL IS THE ONLY HAZARD, AND AN AGREEMENT IS REACHED WITH THE COR AND MEDICAL CENTER) - AIRTIGHT FLAME RETARDANT 6 MIL OR GREATER PLASTIC BARRIER THAT EXTENDS FROM THE FLOOR TO CEILING. SEAMS SHALL BE SEALED WITH DUCT TAPE TO PREVENT DUST AND DEBRIS FROM ESCAPING.
 II. CLASS III AND IV - DRYWALL BARRIER ERRECTED WITH JOINTS COVERED OR SEALED TO PREVENT DUST AND DEBRIS FROM ESCAPING.
 III. CLASS III AND IV - SEAL ALL PENETRATIONS IN EXISTING BARRIER AIRTIGHT.
 IV. CLASS III AND IV - BARRIERS AT PENETRATION OF CEILING ENVELOPES, CHASES AND CEILING SPACES TO STOP MOVEMENT AIR AND DEBRIS.
 V. CLASS IV ONLY - ANTEROOM OR DOUBLE ENTRANCE ENVELOPES THAT ALLOW WORKERS TO REMOVE PROTECTIVE CLOTHING OR VACUUM OFF EXISTING CLOTHING.
 VI. CLASS III AND IV - AT ELEVATORS SHAFTS OR STAIRWAYS WITHIN THE FIELD OF CONSTRUCTION, OVERLAPPING FLAP MINIMUM OF TWO FEET WIDE OF POLYETHYLENE ENCLOSURES FOR PERSONNEL ACCESS.
 D. PRODUCTS AND MATERIALS:
 1. SHEET PLASTIC: FIRE RETARDANT POLYSTYRENE, 6-MIL THICKNESS MEETING LOCAL FIRE CODES. HAS FLOOR ROLL AT THE BOTTOM TO ASSIST WITH NEGATIVE PRESSURE SEAL.
 2. BARRIER DOORS: SELF CLOSING, ONE-HOUR, TWO-HOUR, FIRE-RATED, SOLID CORE WOOD IN STEEL FRAME, PAINTED.
 3. DUST PROOF: ONE-HOUR, TWO-HOUR, FIRE-RATED, DRYWALL.
 4. HIGH EFFICIENCY PARTICULATE AIR-EQUIPPED FILTRATION MACHINE RATED AT 95% CAPTURE OF 0.3 MICRONS INCLUDING POLLEN, MOULD SPORES AND DUST PARTICLES. HEPA FILTERS SHOULD HAVE ASHRAE 85 OR OTHER PRE-FILTER TO EXTEND THE USEFUL LIFE OF THE HEPA. PROVIDE BOTH PRIMARY AND SECONDARY FILTRATION UNITS. MAINTENANCE OF EQUIPMENT AND REPLACEMENT OF THE HEPA FILTERS AND OTHER FILTERS WILL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 5. EXHAUST HOSES: HEAVY DUTY, FLEXIBLE STEEL REINFORCED, VENTILATION BLOWER HOSE.
 6. ADHESIVE WALK-OFF MATS (I.E., STICKY MATS): PROVIDE MINIMUM SIZE MATS OF 24 INCHES X 36 INCHES THE COR. UPON EVALUATION OF THE PROJECT, MAY REQUIRE BAY MAT/WET MAT/STICKY MAT COMBO TO PREVENT CONTAMINATES FROM BEING INTRODUCED IN PATIENT SENSITIVE AREAS.
 7. DISINFECTANT: HOSPITAL-APPROVED DISINFECTANT OR EQUIVALENT PRODUCT.
 8. PORTABLE CEILING ACCESS MODULE.

E. BEFORE ANY CONSTRUCTION ON SITE BEGINS, ALL CONTRACTOR PERSONNEL INVOLVED IN THE CONSTRUCTION OR RENOVATION ACTIVITY SHALL BE EDUCATED AND TRAINED IN INFECTION PREVENTION MEASURES ESTABLISHED BY THE MEDICAL CENTER.
 F. A DUST CONTROL PROGRAM WILL BE ESTABLISHED AND MAINTAINED AS PART OF THE CONTRACTOR'S INFECTION PREVENTIVE MEASURES IN ACCORDANCE WITH THE FGI GUIDELINES FOR DESIGN AND CONSTRUCTION OF HEALTHCARE FACILITIES. PRIOR TO START OF WORK, PREPARE A PLAN DETAILING PROJECT-SPECIFIC DUST PROTECTION MEASURES WITH ASSOCIATED PRODUCT DATA, INCLUDING PERIODIC STATUS REPORTS, AND SUBMIT FOR REVIEW FOR COMPLIANCE WITH CONTRACT REQUIREMENTS IN ACCORDANCE WITH SECTION 01.33.23, SHOP DRAWINGS.
 G. MEDICAL CENTER INFECTION CONTROL PERSONNEL WILL MONITOR FOR AIRBORNE DUST (E.G. ASPERGILLIOSIS) DURING CONSTRUCTION. A BASELINE OF CONDITIONS WILL BE ESTABLISHED BY THE MEDICAL CENTER PRIOR TO THE START OF WORK AND PERIODICALLY DURING THE CONSTRUCTION STAGE TO DETERMINE IMPACT OF CONSTRUCTION ACTIVITIES ON INDOOR AIR QUALITY WITH SAFE THRESHOLDS ESTABLISHED.
 H. IN GENERAL, THE FOLLOWING PREVENTIVE MEASURES SHALL BE ADOPTED DURING CONSTRUCTION TO KEEP DOWN DUST AND PREVENT MOULD:
 1. CONTRACTOR SHALL VERIFY THAT CONSTRUCTION EXHAUST TO EXTERIOR IS NOT REINTRODUCED TO THE MEDICAL CENTER THROUGH INTAKE VENTS, OR BUILDING OPENINGS. HEPA FILTRATION IS REQUIRED WHERE THE EXHAUST DUST MAY REENTER THE MEDICAL CENTER.
 2. EXHAUST HOSES SHALL BE EXHAUSTED SO THAT DUST IS NOT REINTRODUCED TO THE MEDICAL CENTER.
 3. ADHESIVE WALK-OFF CARPET WALK-OFF MATS SHALL BE USED AT ALL INTERIOR TRANSITIONS FROM THE CONSTRUCTION AREA TO OCCUPIED MEDICAL CENTER AREA. THESE MATS SHALL BE CHANGED AS OFTEN AS REQUIRED TO MAINTAIN CLEAN WORK AREAS DIRECTLY OUTSIDE CONSTRUCTION AREA AT ALL TIMES.
 4. VACUUM AND WET MOP ALL TRANSITION AREAS FROM CONSTRUCTION TO THE OCCUPIED MEDICAL CENTER AT THE END OF EACH WORKDAY. VACUUM SHALL UTILIZE HEPA FILTRATION. MAINTAIN SURROUNDING AREA FREQUENTLY.
 5. REMOVE DEBRIS AS IT IS CREATED. TRANSPORT THESE OUTSIDE THE CONSTRUCTION AREA IN CONTAINERS WITH TIGHTLY FITTING LIDS.

5. THE CONTRACTOR SHALL NOT HAUL DEBRIS THROUGH PATIENT CARE AREAS WITHOUT PRIOR APPROVAL OF THE COR AND THE MEDICAL CENTER. WHEN APPROVED, DEBRIS SHALL BE HAULED IN ENCLOSED DUST PROOF CONTAINERS OR WRAPPED IN PLASTIC AND SEALED WITH DUCT TAPE. NO SHARP OBJECTS SHOULD BE ALLOWED TO CUT THROUGH THE PLASTIC. WIRE DOWN THE EXTERIOR OF THE CONTAINERS WITH A DAMP RAG TO REMOVE ALL EQUIPMENT, TOOLS, MATERIAL, ETC. TRANSPORTED THROUGH OCCUPIED AREAS SHALL BE MADE FREE FROM DUST AND MOISTURE BY VACUUMING AND WIPE DOWN.
 6. THERE SHALL BE NO STANDING WATER DURING CONSTRUCTION. THIS INCLUDES WATER IN EQUIPMENT DRIP PANS AND OPEN CONTAINERS WITHIN THE CONSTRUCTION AREAS. ALL ACCIDENTAL SPILLS SHALL BE CLEANED UP AND DRIED WITHIN 12 HOURS. REMOVE AND DISPOSE OF POROUS MATERIALS THAT REMAIN DAMP FOR MORE THAN 72 HOURS.
 7. AT COMPLETION, REMOVE CONSTRUCTION BARRIERS AND CEILING PROTECTION CAREFULLY, OUTSIDE OF NORMAL WORK HOURS, VACUUM AND CLEAN ALL SURFACES FREE OF DUST AFTER THE REMOVAL.
 I. FINAL CLEANUP:
 1. UPON COMPLETION OF PROJECT, OR AS WORK PROGRESSES, REMOVE ALL CONSTRUCTION DEBRIS FROM ABOVE CEILING, VERTICAL SHAFTS AND UTILITY CHASES THAT HAVE BEEN PART OF THE CONSTRUCTION.
 2. PERFORM HEPA VACUUM CLEANING OF ALL SURFACES IN THE CONSTRUCTION AREA. THIS INCLUDES WALLS, CEILING, CABINETS, FURNITURE (BUILT-IN OR FREE-STANDING), PARTITIONS, FLOORING, ETC.
 3. ALL NEW AIR DUCTS SHALL BE CLEANED PRIOR TO FINAL INSPECTION.
 J. EXTERIOR CONSTRUCTION
 1. CONTRACTOR SHALL VERIFY THAT DUST WILL NOT BE INTRODUCED INTO THE MEDICAL CENTER THROUGH INTAKE VENTS, OR BUILDING OPENINGS. HEPA FILTRATION ON INTAKE VENTS IS REQUIRED WHERE DUST MAY BE INTRODUCED.
 2. DUST CREATED FROM DISTURBANCE OF SOIL SUCH AS FROM VEHICLE MOVEMENT WILL BE WETTED WITH USE OF A WATER TRUCK AS NECESSARY.
ALL CUTTING, DRILLING, GRINDING, SANDING, OR DISTURBANCE OF MATERIALS SHALL BE ACCOMPLISHED WITH TOOLS EQUIPPED WITH EITHER LOCAL EXHAUST VENTILATION (I.E. VACUUM SYSTEMS) OR WET SUPPRESSION CONTROLS.

PHASING LEGEND

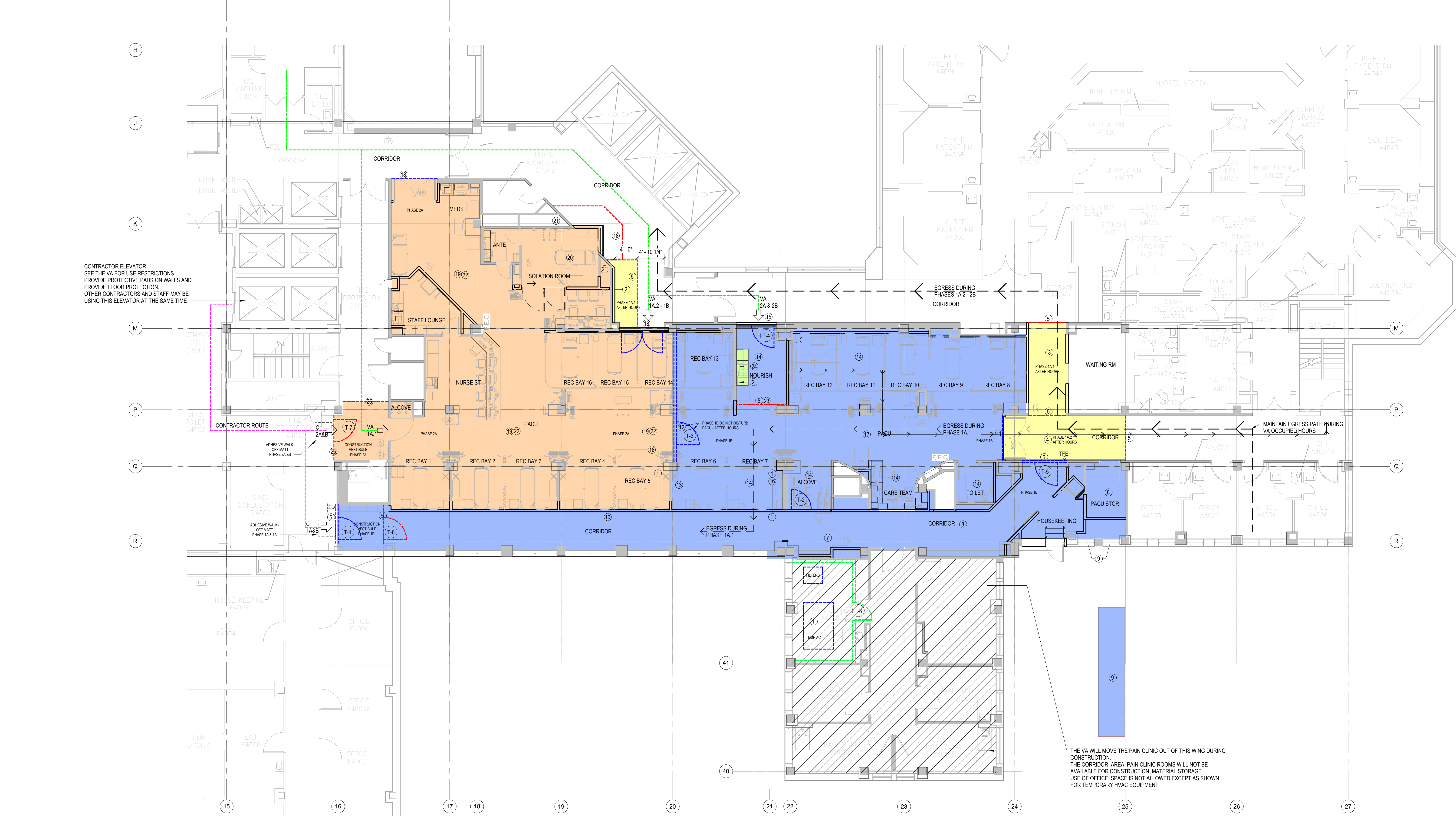


PHASING KEYED NOTES

- EXISTING SUMMARY:**
 EXISTING PACU + 9 TREATMENT BAYS AND A SMALL ISO ROOM
- PHASE 1A.1**
 1. MAINTAIN EXISTING HVAC INTO EXISTING PACU. SEE MECHANICAL FOR TEMPORARY HEATING AND AIR CONDITIONING REQUIRED DUE TO CEILING CONGESTION. MEANS AND METHODS BY CONTRACTOR.
 2. RELOCATE EXISTING ELECTRICAL PANELS INTO NEW FURRED WALL. PROVIDE TEMPORARY MOBILE CONSTRUCTION DUST WALLS TO ISOLATE CONSTRUCTION. VA ACCESS TO EXISTING PACU SHALL BE THRU THE EXISTING WEST DOOR IN PHASE 1A.1
 3. CLOSE OFF ACCESS TO WAITING ROOM WITH TEMPORARY MOBILE CONSTRUCTION DUST WALLS AND INSTALL NEW CORRIDOR LINK ON WEEKEND WORK.
- PHASE 1A.2**
 4. WORK IN THIS CORRIDOR WILL BE WEEKEND WORK. MAINTAIN EGRESS AT ALL OCCUPIED PERIODS. WHEN ITEM 3 ABOVE IS COMPLETE, EGRESS SHIFTS NORTH
 5. TEMPORARY MOBILE CONSTRUCTION DUST WALL. PHASE 1A.1B
- PHASE 1B**
 6. INSTALL 1 HR RATED CONSTRUCTION BARRIER AND 45 MIN DOOR. SEE DOORS BELOW
 7. INSTALL CROSS CORRIDOR SMOKE BARRIER DOOR
 8. CLOSES SMALL STORAGE ROOM, SHOWER ROOM, 1 OFFICE, PART OF CORRIDOR AND WAITING TO BUILD A REAR CORRIDOR CONNECTION, HOUSE KEEPING, PACU STORAGE AND DUCT CHASE
 9. INSTALL NEW ROOF TOP UNIT. CONNECT TO ELECTRICAL, CHILLED WATER ETC. EXTEND DUCT THRU EXTERIOR WINDOW AND INFILL WITH BRICK.
 10. REBUILD SOUTH PACU WALL INTO THE EXISTING CORRIDOR SO THAT IT DOES NOT DISTURB EXISTING PACU
 11. NEW DOOR & WALL TO SEPARATE PACU CONSTRUCTION FROM CORRIDOR.
 12. TEMPORARY 1 HOUR RATED CONSTRUCTION BARRIER WITH CONTRACTOR DOOR - AFTER HOURS ONLY. DO NOT DISTURB PACU OPERATIONS.
 13. UPGRADE EXISTING WALL TO 1 HOUR
 14. CONSTRUCT 8 NEW TREATMENT BAYS, PATIENT LIFTS, SMALL NURSE STATION, AND RENOVATE PATIENT TOILET/NOURISHMENT MILLWORK INSTALLED IN THIS PHASE
 15. INSTALL 48" TEMPORARY DOOR IN NEW PARTITION TO PROVIDE ACCESS TO PACU PHASE 1B
 16. DISCONNECT TEMPORARY HVAC IN PACU EXPANSION AREA 1B AND RUN OFF NEW ROOF TOP UNIT. TEMPORARY HVAC CONTINUES IN PHASE 2A AREA.
- PHASE 2A SUMMARY:**
 17. OPEN UP 8 NEW TREATMENT BAYS FROM PHASE 1B AND CLOSE DOWN EXISTING PACU
 18. TEMPORARY CONSTRUCTION BARRIER TO CLOSE OFF THE EXISTING PACU. CONTRACTOR ACCESS THRU EXISTING WEST PACU SINGLE DOOR.
 19. RENOVATE EXISTING PACU AREA
 20. COMPLETE ROOF TOP ISOLATION FAN AND DUCT ROUTE TO ISOLATION ROOM
 21. SEE MECHANICAL FOR SHAFY CONSIDERATIONS
 25. TEMPORARY MOBILE CONSTRUCTION DUST WALLS
- PHASE 2B SUMMARY:**
 22. OPEN UP RENOVATED EXISTING PACU
 23. ADD TEMPORARY MOBILE CONSTRUCTION DUST WALL TO INSTALL NOURISHMENT MILLWORK
 24. INSTALL NOURISHMENT MILLWORK AND SECURE OR REMOVE DOOR TO CORRIDOR

PHASING TEMPORARY DOORS

- T-1**
 HM OR SOLID CORE WD DOOR, 4'-0" X 7'-0" X 1 3/4", 45 MIN RATED WITH NARROW LITE, CLOSER, STOREROOM FUNCTION, CONTRACTOR KEY, RATED HOLLOW METAL FRAME, SMOKE/SOUND SEALS, 1 1/2 PR 5" X 4 1/2" BALL BEARING HINGES. SET IN 1 HOUR RATED TEMPORARY CONSTRUCTION BARRIER SIMILAR TO PARTITION TYPE A41 WITH 3" SOUND BATTS. BARRIER TO EXTEND TO DECK ABOVE
- T-2**
 HM OR SOLID CORE WD DOOR, 3'-6" X 7'-0" X 1 3/4", 45 MIN RATED WITH NARROW LITE, CLOSER, STOREROOM FUNCTION, CONTRACTOR KEY, RATED HOLLOW METAL FRAME, SMOKE/SOUND SEALS, 1 1/2 PR 5" X 4 1/2" BALL BEARING HINGES. SET IN NEW 1 HOUR RATED SMOKE BARRIER PARTITION TYPE A41 WITH 3" SOUND BATTS. PARTITION TO EXTEND TO DECK ABOVE. SEE PARTITION SCHEDULE SHEET A-002
- T-3**
 HM OR SOLID CORE WD DOOR, 4'-0" X 7'-0" X 1 3/4", 45 MIN RATED WITH NARROW LITE, CLOSER, STOREROOM FUNCTION, CONTRACTOR KEY, RATED HOLLOW METAL FRAME, SMOKE/SOUND SEALS, 1 1/2 PR 5" X 4 1/2" BALL BEARING HINGES. SET IN 1 HOUR RATED TEMPORARY CONSTRUCTION BARRIER SIMILAR TO PARTITION TYPE - WITH 3" SOUND BATTS. BARRIER TO EXTEND TO DECK ABOVE. 4'-0" WIDTH TO ACCOMMODATE EQUIPMENT MOVEMENT BETWEEN PHASE 1 & 2
 THIS WORK SHALL NOT DISTURB PACU OPERATIONS. SHALL BE AFTER HOURS
- T-4**
 HM OR SOLID CORE WD DOOR, 4'-0" X 7'-0" X 1 3/4", 45 MIN RATED WITH NARROW LITE, AUTO DOOR OPERATOR, CRUSH PAD ACTUATORS, STOREROOM FUNCTION, ELECTRIC STRIKE, CONTRACTOR AND VA KEYS, RATED HOLLOW METAL FRAME, SMOKE/SOUND SEALS, 1 1/2 PR 5" X 4 1/2" BALL BEARING HINGES. SET IN NEW 1 HOUR RATED SMOKE BARRIER PARTITION TYPE A41 WITH 3" SOUND BATTS. PARTITION TO EXTEND TO DECK ABOVE
- T-5**
 HM OR SOLID CORE WD DOOR, 4'-0" X 7'-0" X 1 3/4", 45 MIN RATED WITH NARROW LITE, CLOSER, STOREROOM FUNCTION, CONTRACTOR KEY, RATED HOLLOW METAL FRAME, SMOKE/SOUND SEALS, 1 1/2 PR 5" X 4 1/2" BALL BEARING HINGES. SET IN 1 HOUR RATED TEMPORARY CONSTRUCTION BARRIER SIMILAR TO PARTITION TYPE A41 WITH 3" SOUND BATTS. BARRIER TO EXTEND TO DECK ABOVE
- T-6**
 HM OR SOLID CORE WD DOOR, 4'-0" X 7'-0" X 1 3/4", 45 MIN RATED WITH NARROW LITE, CLOSER, STOREROOM FUNCTION, CONTRACTOR KEY, RATED HOLLOW METAL FRAME, SMOKE/SOUND SEALS, 1 1/2 PR 5" X 4 1/2" BALL BEARING HINGES. SET IN 1 HOUR RATED TEMPORARY CONSTRUCTION BARRIER SIMILAR TO PARTITION TYPE A41 WITH 3" SOUND BATTS. BARRIER TO EXTEND TO DECK ABOVE
- T-6/T-7**
 TEMPORARY CONSTRUCTION VESTIBULE DOOR, DUST TIGHT PER ICRA
- T-8**
 HM DOOR, 3'-0" X 7'-0" X 1 3/4", 90 MIN RATED WITH CLOSER, STOREROOM FUNCTION, CONTRACTOR KEY, RATED HOLLOW METAL FRAME, 1 1/2 PR 4 1/2" X 4 1/2" HINGES. SET IN 2 HOUR RATED TEMPORARY CONSTRUCTION BARRIER SIMILAR TO PARTITION TYPE T-4 (5/4" THICKNESS). BARRIER TO EXTEND TO DECK ABOVE. REMOVE EXISTING PAIN CLINIC DOOR AND RE-INSTALL AT THE END OF CONSTRUCTION.



FOURTH FLOOR PLAN - PHASING

CONTRACTOR NOTES:
 1. ALWAYS MAINTAIN A SAFE AND SECURE SITE.
 2. PROVIDE ACTIVE CONSTRUCTION SIGNAGE AT EACH CONSTRUCTION POINT OF ENTRY
 3. REFER TO ICRA REQUIREMENTS.

Revisions:	Date:

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 12/22/2020

Office of Construction and Facilities Management
 VA U.S. Department of Veterans Affairs

Drawing Title
PHASING PLAN

Approved:
 Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Project Number
558-17-150

Building Number

Location
DURHAM VAMC DURHAM, NC

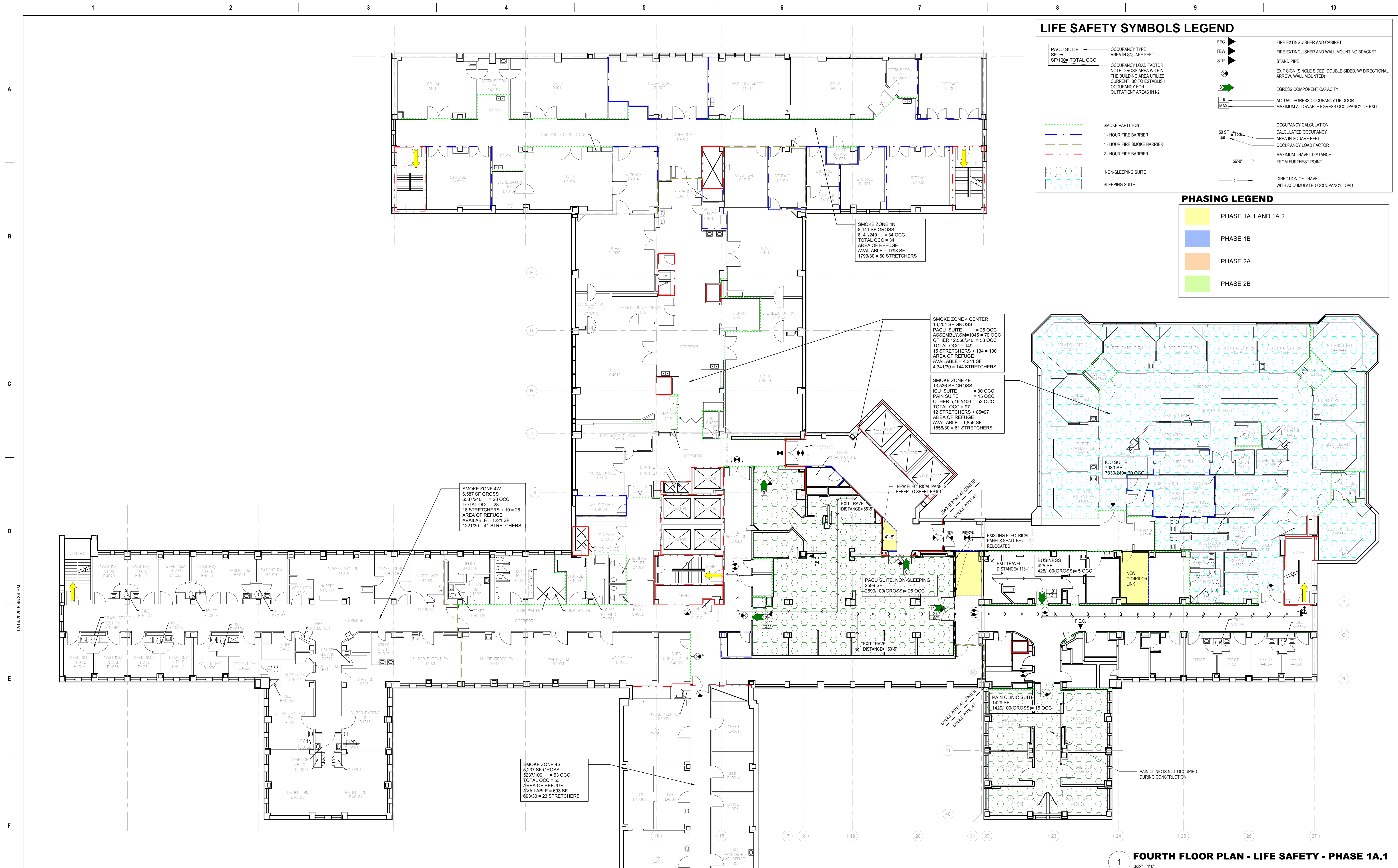
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G-100 3 of 78

Issue Date
 12/22/2020

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LIFE SAFETY SYMBOLS LEGEND

	PACU SUITE		OCCUPANCY TYPE
	SF/100 TOTAL OCC		AREA IN SQUARE FEET
	OCCUPANCY LOAD FACTOR		CURRENT IBC TO ESTABLISH OCCUPANCY FOR OUTPATIENT AREAS IN 1-2
	SMOKE PARTITION		FIRE EXTINGUISHER AND CABINET
	1-HOUR FIRE BARRIER		FIRE EXTINGUISHER AND WALL MOUNTING BRACKET
	1-HOUR FIRE SMOKE BARRIER		STAND PIPE
	2-HOUR FIRE BARRIER		EXIT SIGN (SINGLE SIDED, DOUBLE SIDED, W/ DIRECTIONAL ARROW, WALL MOUNTED)
	NON-SLEEPING SUITE		EGRESS COMPONENT CAPACITY
	SLEEPING SUITE		ACTUAL EGRESS OCCUPANCY OF DOOR
			MAXIMUM ALLOWABLE EGRESS OCCUPANCY OF EXIT
			OCCUPANCY CALCULATION
			CALCULATED OCCUPANCY AREA IN SQUARE FEET
			OCCUPANCY LOAD FACTOR
			MAXIMUM TRAVEL DISTANCE FROM FURTHEST POINT
			DIRECTION OF TRAVEL WITH ACCUMULATED OCCUPANCY LOAD

PHASING LEGEND

	PHASE 1A.1 AND 1A.2
	PHASE 1B
	PHASE 2A
	PHASE 2B

1 FOURTH FLOOR PLAN - LIFE SAFETY - PHASE 1A.1
3/22 + 1'-0"

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Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title
LIFE SAFETY PLAN - PHASE 1A.1

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

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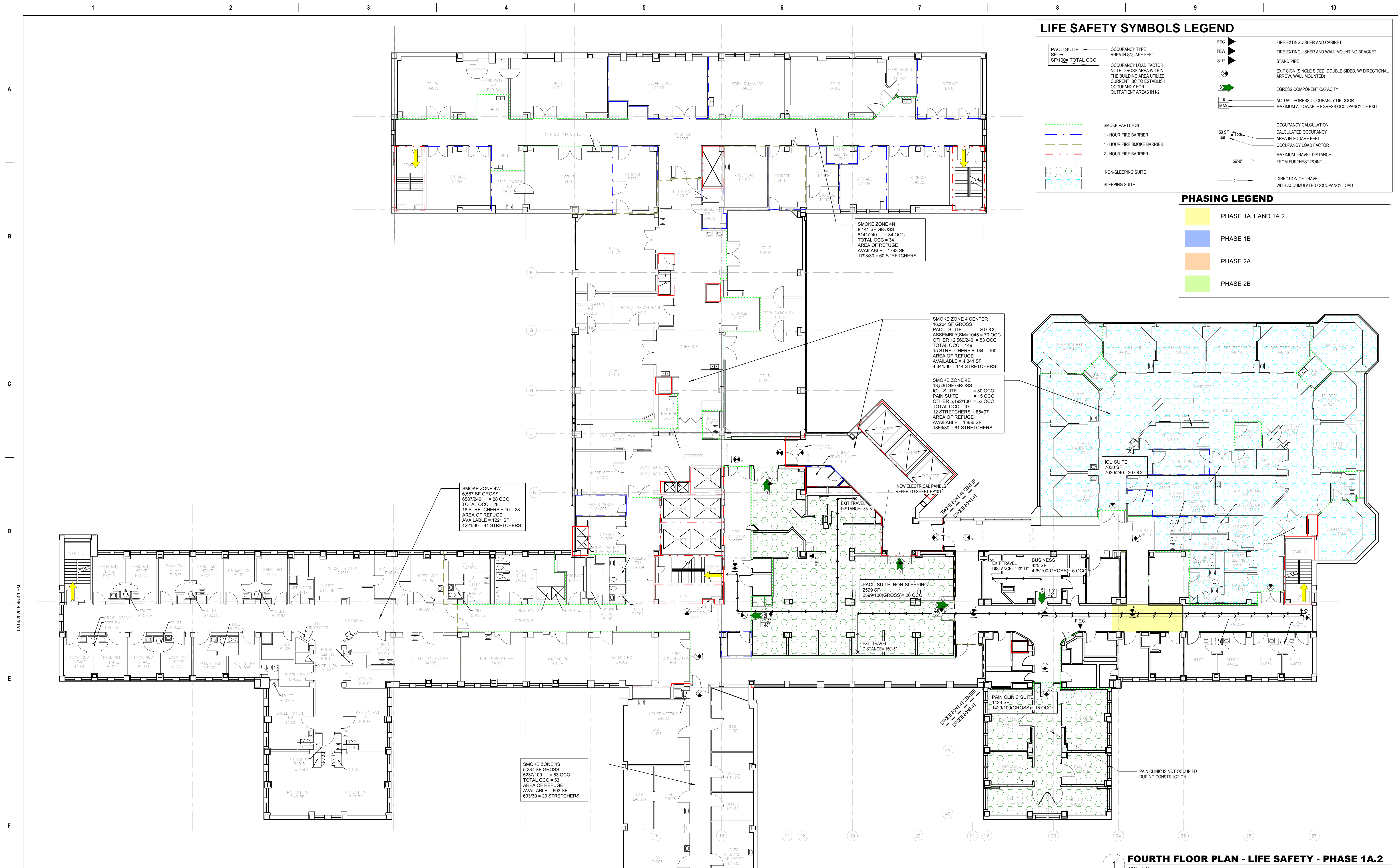
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Project Number
558-17-150

Building Number

Drawing Number
G-101
4 of 78

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LIFE SAFETY SYMBOLS LEGEND

	PACU SUITE		OCCUPANCY TYPE
	SF/100 TOTAL OCC		AREA IN SQUARE FEET
	OCCUPANCY LOAD FACTOR		CURRENT IBC TO ESTABLISH OCCUPANCY FOR OUTPATIENT AREAS IN 1-2
	SMOKE PARTITION		FIRE EXTINGUISHER AND CABINET
	1-HOUR FIRE BARRIER		FIRE EXTINGUISHER AND WALL MOUNTING BRACKET
	1-HOUR FIRE SMOKE BARRIER		STAND PIPE
	2-HOUR FIRE BARRIER		EXIT SIGN (SINGLE SIDED, DOUBLE SIDED, W/ DIRECTIONAL ARROW, WALL MOUNTED)
	NON-SLEEPING SUITE		EGRESS COMPONENT CAPACITY
	SLEEPING SUITE		ACTUAL EGRESS OCCUPANCY OF DOOR
			MAXIMUM ALLOWABLE EGRESS OCCUPANCY OF EXIT
			OCCUPANCY CALCULATION
			CALCULATED OCCUPANCY
			AREA IN SQUARE FEET
			OCCUPANCY LOAD FACTOR
			MAXIMUM TRAVEL DISTANCE FROM FURTHEST POINT
			DIRECTION OF TRAVEL WITH ACCUMULATED OCCUPANCY LOAD

PHASING LEGEND

	PHASE 1A.1 AND 1A.2
	PHASE 1B
	PHASE 2A
	PHASE 2B

1 FOURTH FLOOR PLAN - LIFE SAFETY - PHASE 1A.2
3/32" = 1'-0"

Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
LIFE SAFETY PLAN - PHASE 1A.2

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

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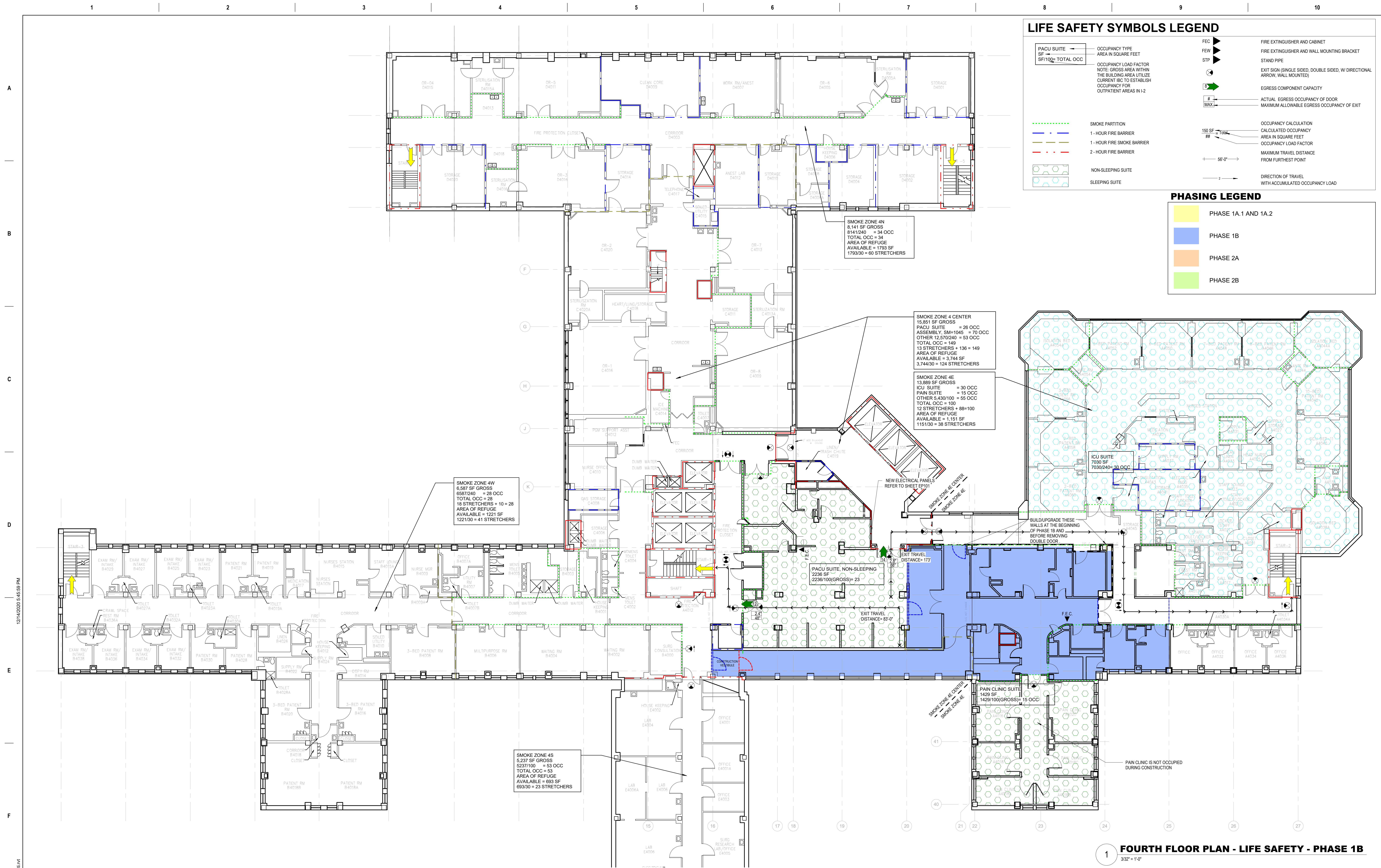
Project Number
558-17-150

Building Number

Drawing Number
G-102
5 of 78

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LIFE SAFETY SYMBOLS LEGEND

	PACU SUITE		OCCUPANCY TYPE		FIRE EXTINGUISHER AND CABINET
	SF/100 TOTAL OCC		AREA IN SQUARE FEET		FIRE EXTINGUISHER AND WALL MOUNTING BRACKET
	OCCUPANCY LOAD FACTOR		STAND PIPE		EXIT SIGN (SINGLE SIDED, DOUBLE SIDED, W/ DIRECTIONAL ARROW, WALL MOUNTED)
	NOTE: GROSS AREA WITHIN THE BUILDING AREA UTILIZE CURRENT IBC TO ESTABLISH OCCUPANCY FOR OUTPATIENT AREAS IN 1-2		EGRESS COMPONENT CAPACITY		ACTUAL EGRESS OCCUPANCY OF DOOR
	SMOKE PARTITION		MAXIMUM ALLOWABLE EGRESS OCCUPANCY OF EXIT		OCCUPANCY CALCULATION
	1-HOUR FIRE BARRIER		CALCULATED OCCUPANCY AREA IN SQUARE FEET		OCCUPANCY LOAD FACTOR
	1-HOUR FIRE SMOKE BARRIER		MAXIMUM TRAVEL DISTANCE FROM FURTHEST POINT		DIRECTION OF TRAVEL WITH ACCUMULATED OCCUPANCY LOAD
	2-HOUR FIRE BARRIER				
	NON-SLEEPING SUITE				
	SLEEPING SUITE				

PHASING LEGEND

	PHASE 1A.1 AND 1A.2
	PHASE 1B
	PHASE 2A
	PHASE 2B

1 FOURTH FLOOR PLAN - LIFE SAFETY - PHASE 1B
3/32" = 1'-0"

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Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title
LIFE SAFETY PLAN - PHASE 1B

Approved:
Andreka Watlington

Phase
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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

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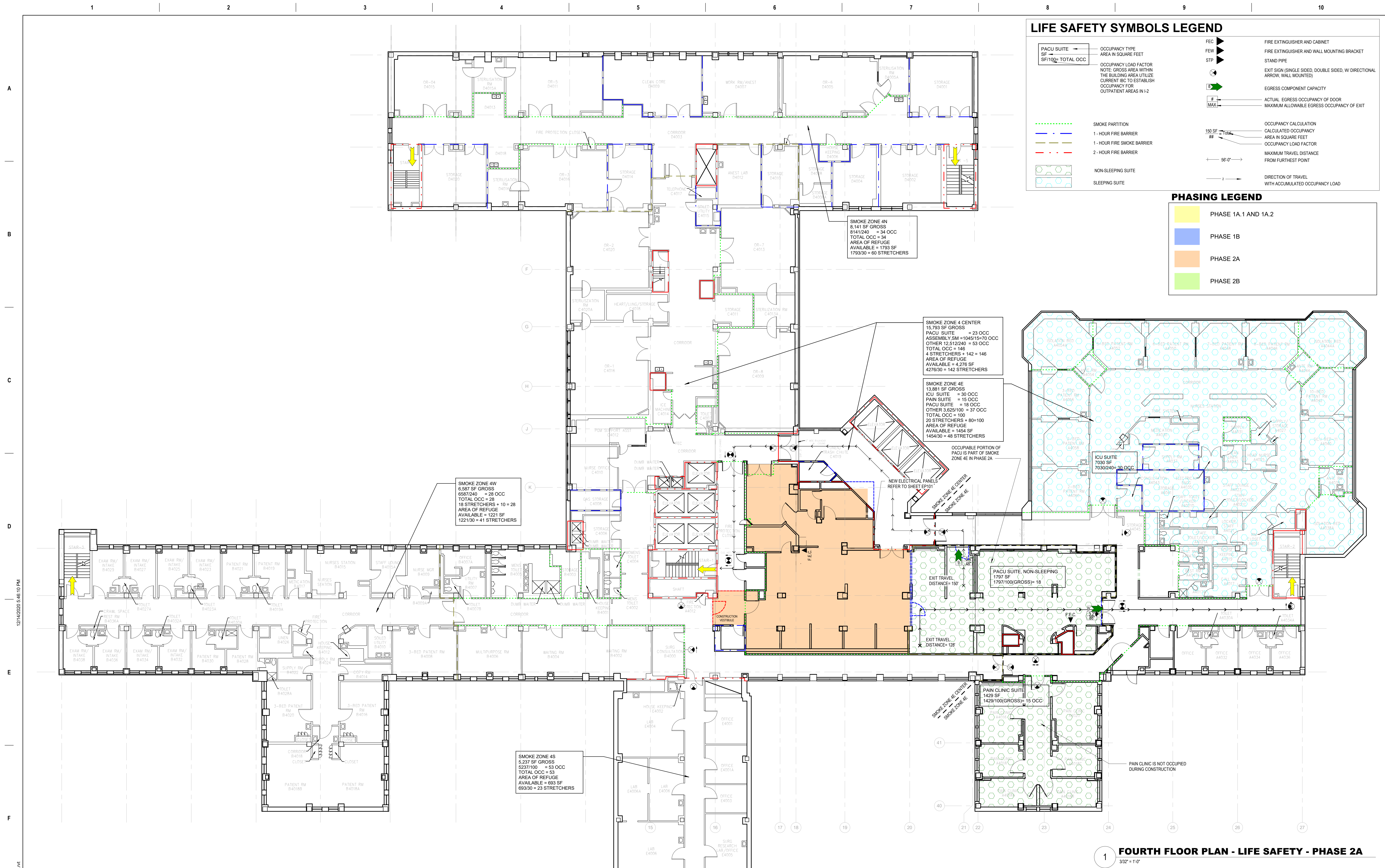
Project Number
558-17-150

Building Number

Drawing Number
G-103

6 of 78

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1 **FOURTH FLOOR PLAN - LIFE SAFETY - PHASE 2A**
3/32" = 1'-0"

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VA U.S. Department of Veterans Affairs

Drawing Title
LIFE SAFETY PLAN - PHASE 2A

Approved:
Andreka Watlington

Phase
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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

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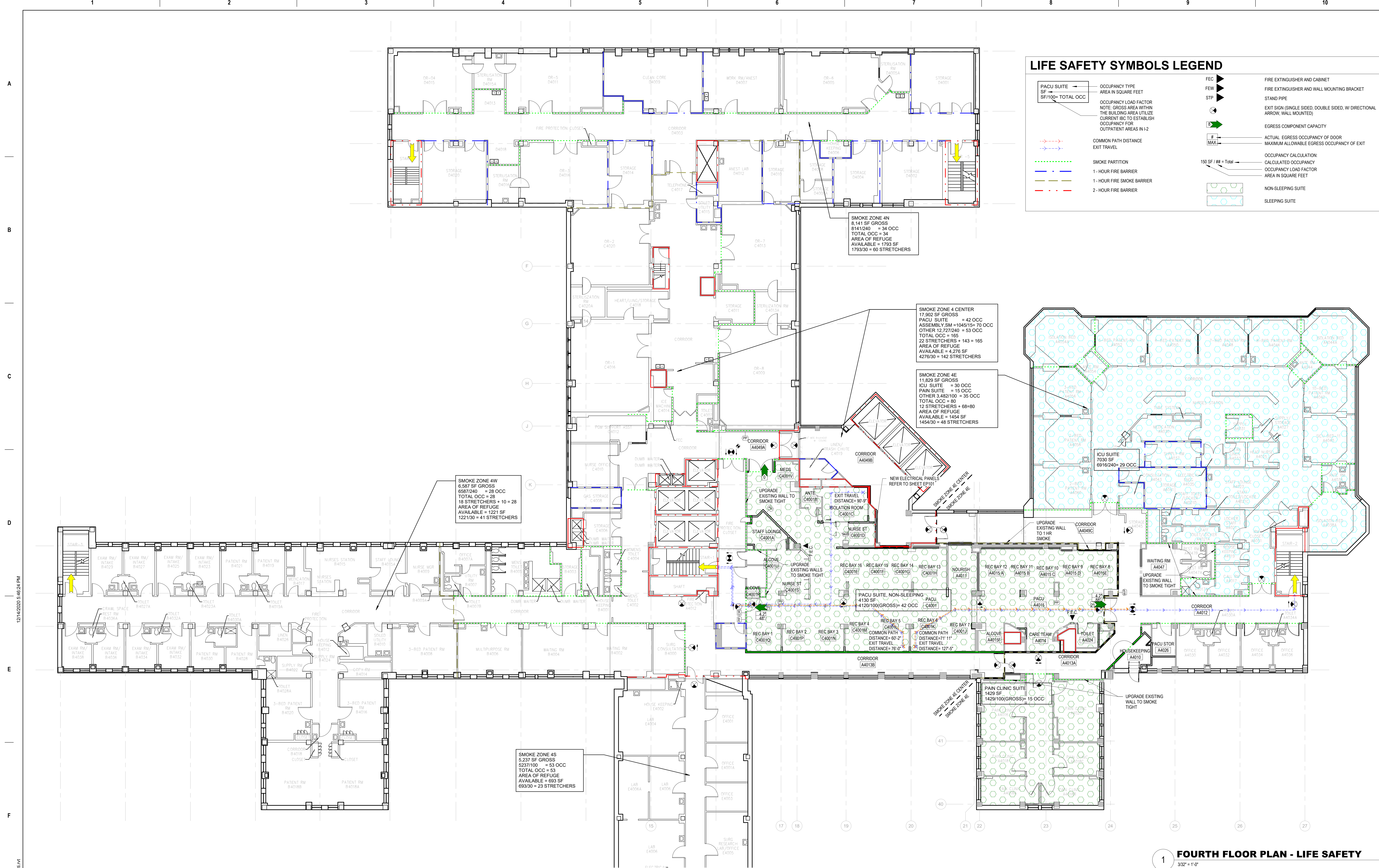
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Project Number
558-17-150

Building Number

Drawing Number
G-104
7 of 78

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LIFE SAFETY SYMBOLS LEGEND

	PACU SUITE		OCCUPANCY TYPE		FIRE EXTINGUISHER AND CABINET
	AREA IN SQUARE FEET		FIRE EXTINGUISHER AND WALL MOUNTING BRACKET		STAND PIPE
	OCCUPANCY LOAD FACTOR		EXIT SIGN (SINGLE SIDED, DOUBLE SIDED, W/ DIRECTIONAL ARROW, WALL MOUNTED)		EGRESS COMPONENT CAPACITY
	COMMON PATH DISTANCE		ACTUAL EGRESS OCCUPANCY OF DOOR		MAXIMUM ALLOWABLE EGRESS OCCUPANCY OF EXIT
	SMOKE PARTITION		OCCUPANCY CALCULATION		CALCULATED OCCUPANCY
	1-HOUR FIRE BARRIER		OCCUPANCY LOAD FACTOR		AREA IN SQUARE FEET
	1-HOUR FIRE SMOKE BARRIER		NON-SLEEPING SUITE		SLEEPING SUITE
	2-HOUR FIRE BARRIER				

SMOKE ZONE 4W
 6,587 SF GROSS
 = 28 OCC
 TOTAL OCC = 28
 18 STRETCHERS + 10 = 28
 AREA OF REFUGE
 AVAILABLE = 1221 SF
 1221/30 = 41 STRETCHERS

SMOKE ZONE 4N
 8,141 SF GROSS
 8141/240 = 34 OCC
 TOTAL OCC = 34
 AREA OF REFUGE
 AVAILABLE = 1793 SF
 1793/30 = 60 STRETCHERS

SMOKE ZONE 4 CENTER
 17,902 SF GROSS
 PACU SUITE = 42 OCC
 ASSEMBLY SM = 1045/15 = 70 OCC
 OTHER 12,727/240 = 53 OCC
 TOTAL OCC = 165
 22 STRETCHERS + 143 = 165
 AREA OF REFUGE
 AVAILABLE = 4,276 SF
 4276/30 = 142 STRETCHERS

SMOKE ZONE 4E
 11,829 SF GROSS
 ICU SUITE = 30 OCC
 PAIN SUITE = 15 OCC
 OTHER 3,482/100 = 35 OCC
 TOTAL OCC = 80
 12 STRETCHERS + 68-80
 AREA OF REFUGE
 AVAILABLE = 1454 SF
 1454/30 = 48 STRETCHERS

SMOKE ZONE 4S
 5,237 SF GROSS
 5237/100 = 53 OCC
 TOTAL OCC = 53
 AREA OF REFUGE
 AVAILABLE = 693 SF
 693/30 = 23 STRETCHERS

FOURTH FLOOR PLAN - LIFE SAFETY
 1 3/32" = 1'-0"

Revisions:	Date:

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 12/22/2020

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
 LIFE SAFETY PLAN - COMPLETE

Approved:
 Andreka Watlington

Phase
 100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
 VA DURHAM - PACU RENOVATION

Location
 DURHAM VAMC DURHAM, NC

Issue Date
 12/22/2020

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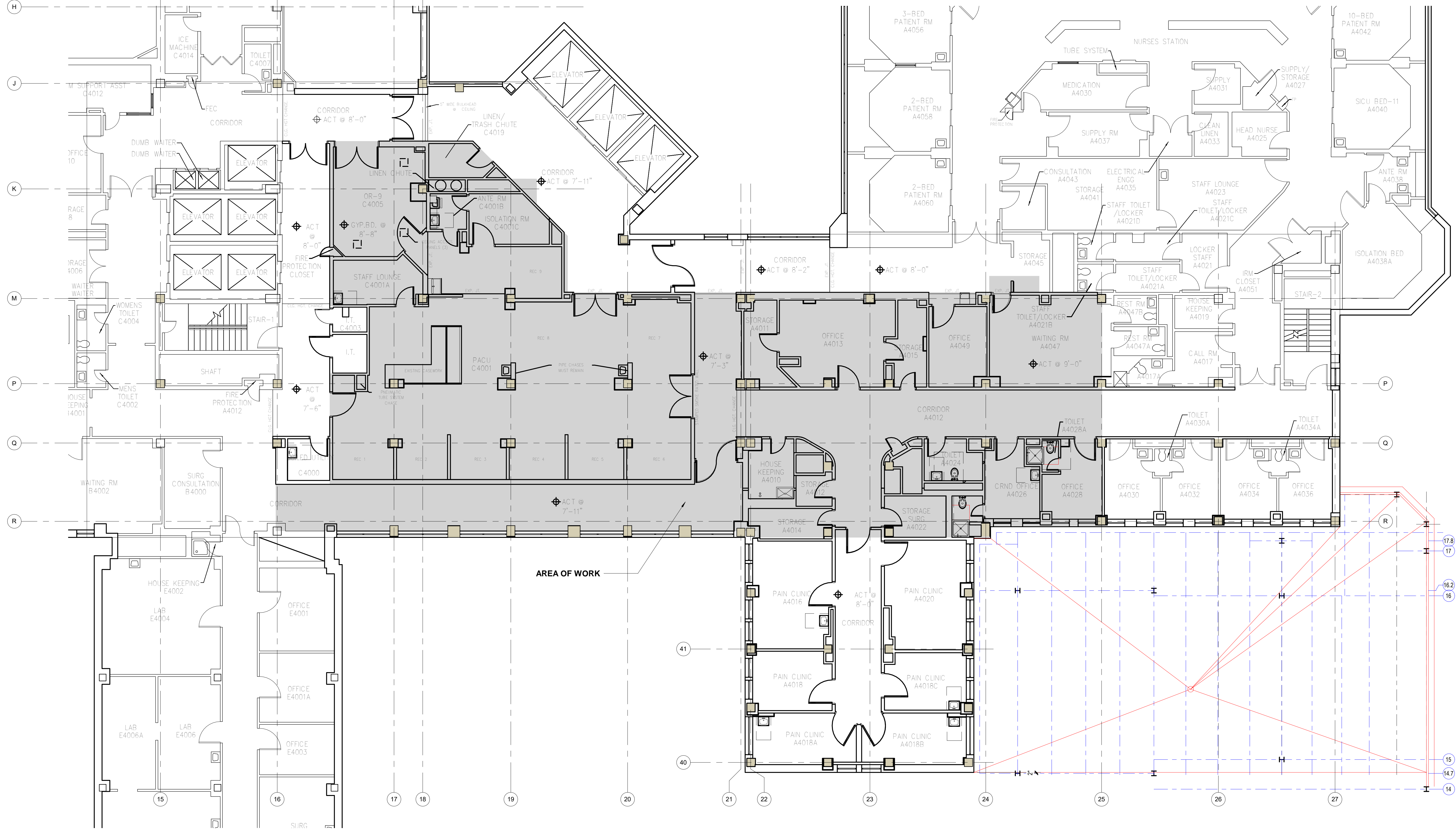
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Project Number
 558-17-150

Building Number

Drawing Number
 G-105
 8 of 78

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1 **FOURTH FLOOR PLAN - EXISTING**
1/8" = 1'-0"

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12/22/2020

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
FOURTH FLOOR PLAN - EXISTING

Approved:
Andreka Watlington

Phase
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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

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Project Number
558-17-150

Building Number

Drawing Number
**AE101
9 of 78**

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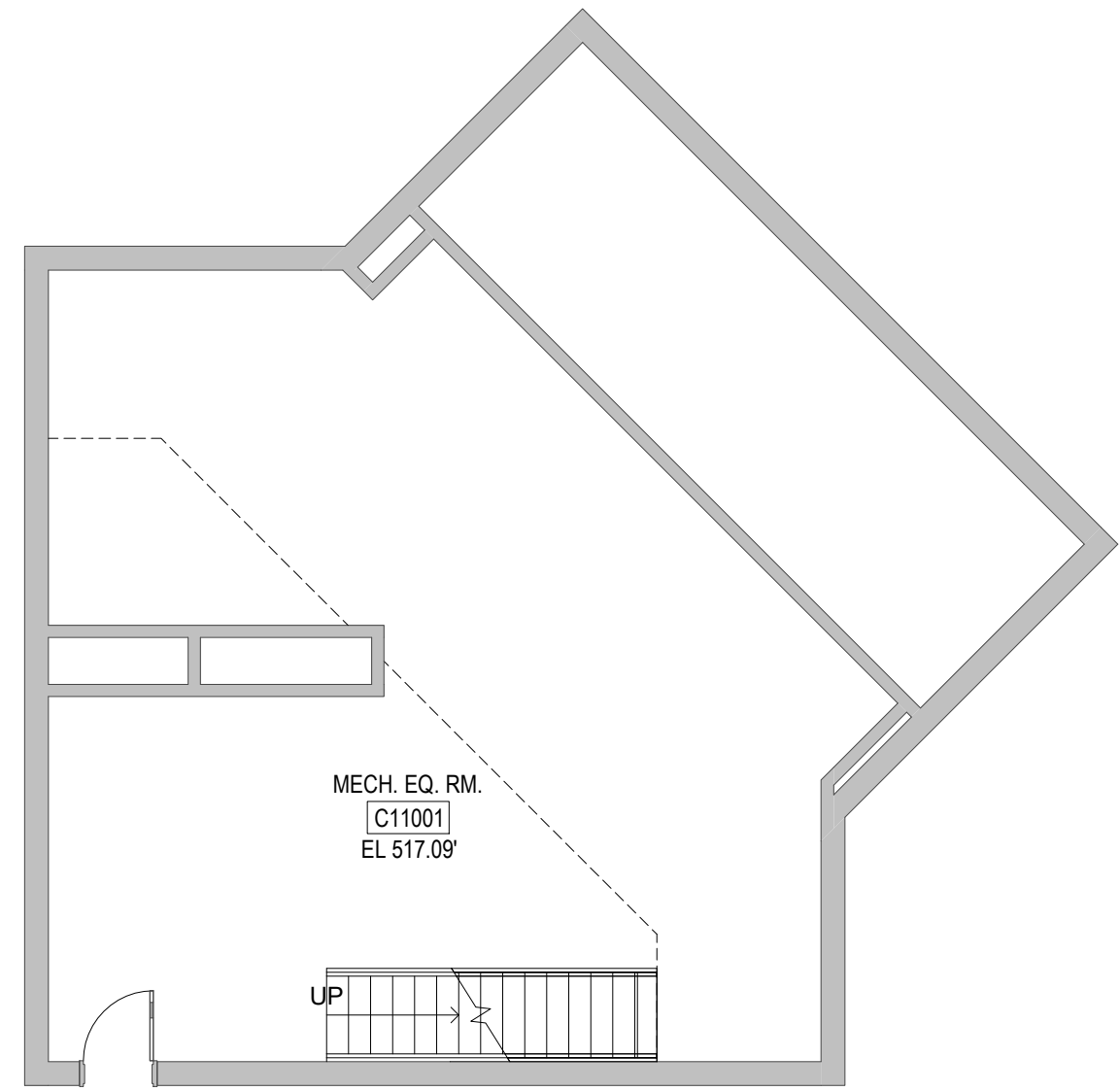
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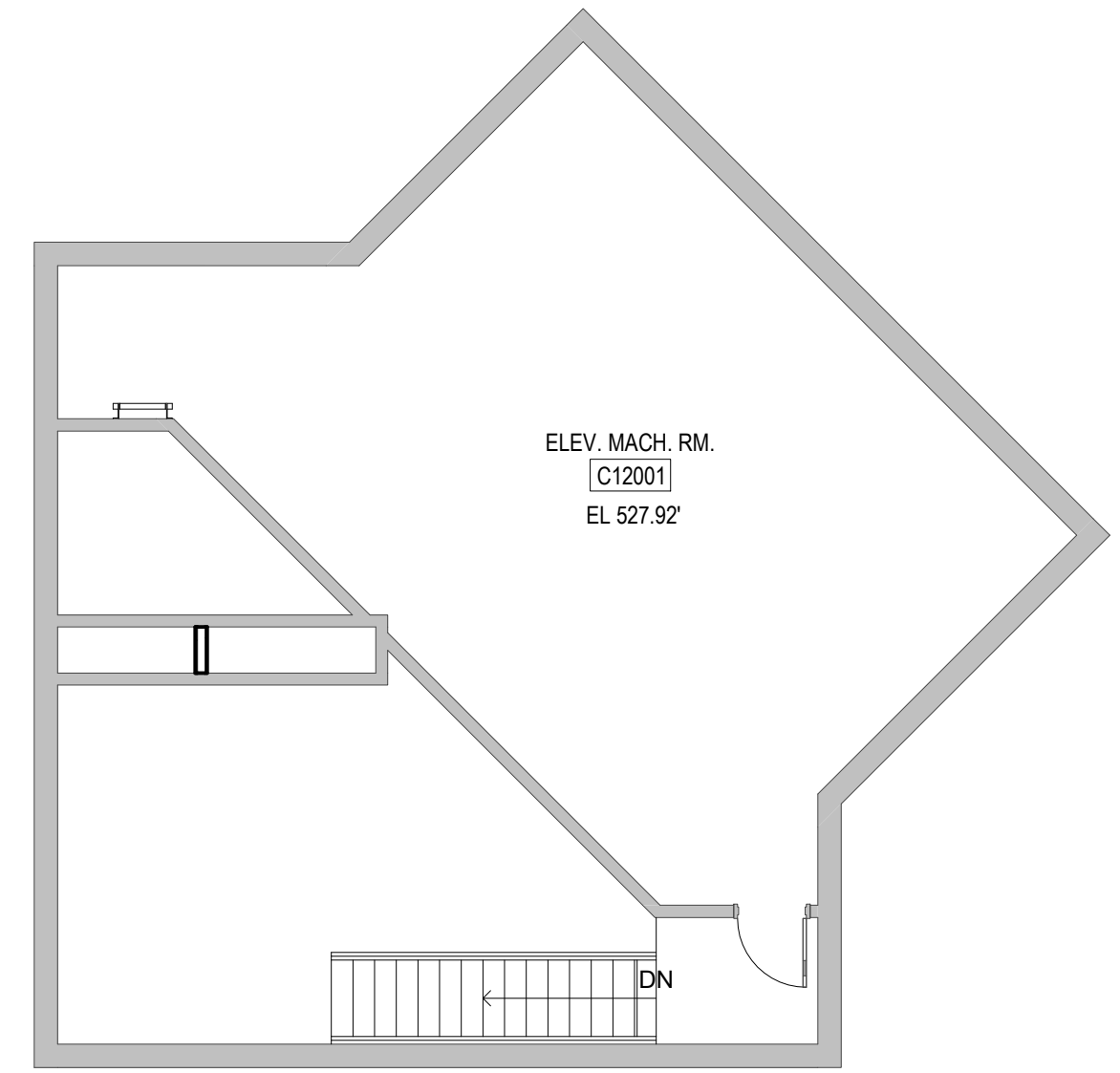
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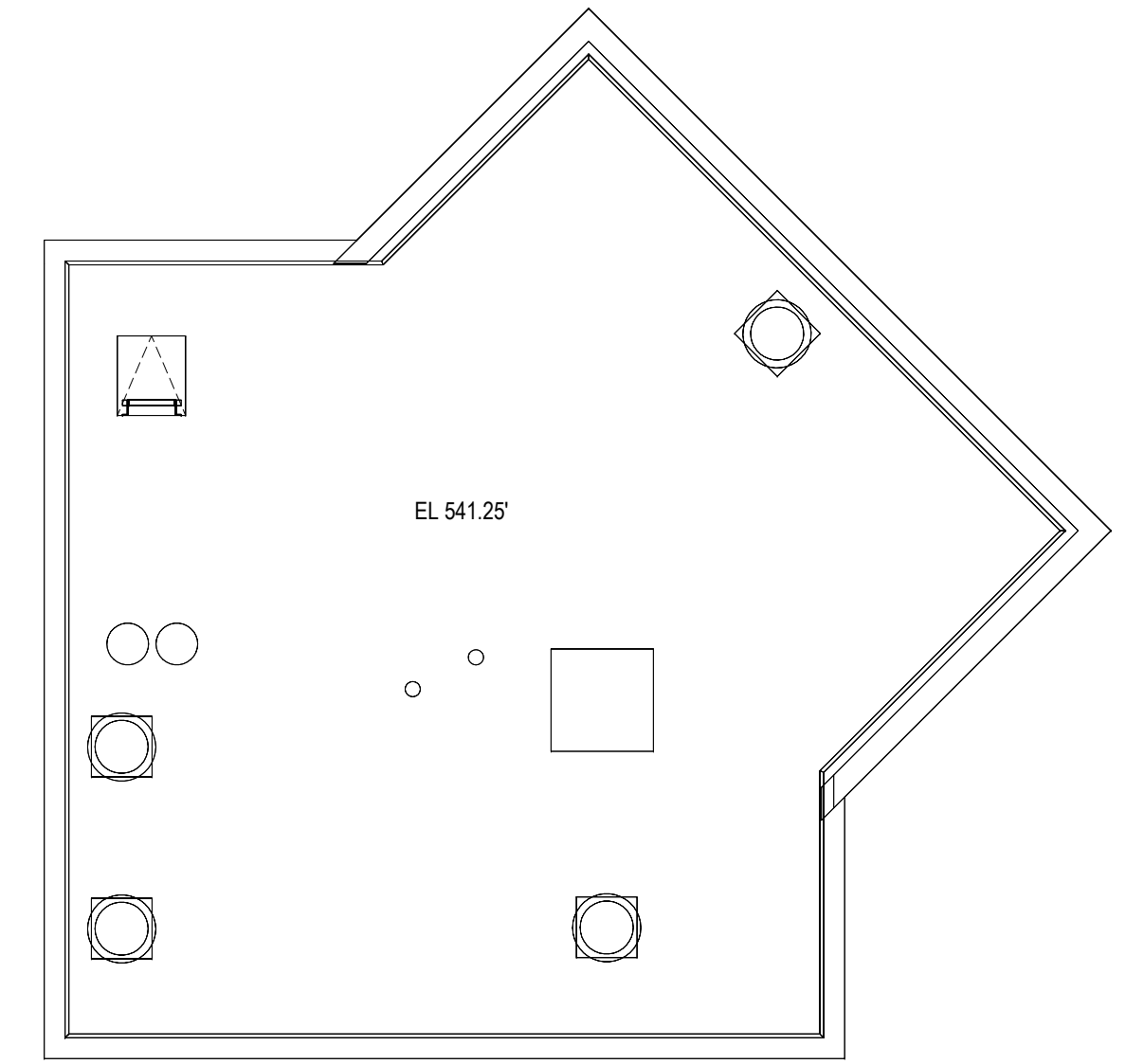
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1 **EXISTING MECH EQ ROOM**
1/8" = 1'-0"
REFERENCE PLAN FOR MEP, REFER TO MEP DRAWINGS.



2 **EXISTING ELEV MACH ROOM**
1/8" = 1'-0"
REFERENCE PLAN FOR MEP, REFER TO MEP DRAWINGS.



3 **EXISTING ROOF PLAN**
1/8" = 1'-0"
REFERENCE PLAN FOR MEP, REFER TO MEP DRAWINGS.

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Revisions:	Date:

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Office of
Construction
and Facilities
Management

VA U.S. Department of
Veterans Affairs

Drawing Title
**EXISTING MECH ROOM & ELEV
MACH ROOM & ROOF PLAN**

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date 12/22/2020	Checked BM	Drawn MK
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Project Number 558-17-150	Building Number
Drawing Number AE102 10 of 78	

DEMOLITION LEGEND

	EXISTING PARTITIONS, EQUIPMENT, ETC. (SHOWN DASHED) TO BE REMOVED
	EXISTING DOOR AND FRAME TO BE REMOVED
	EXISTING CONSTRUCTION TO REMAIN
	EXISTING STRUCTURAL SLAB AND STEEL FRAMING TO BE REMOVED

DEMOLITION KEYED NOTES

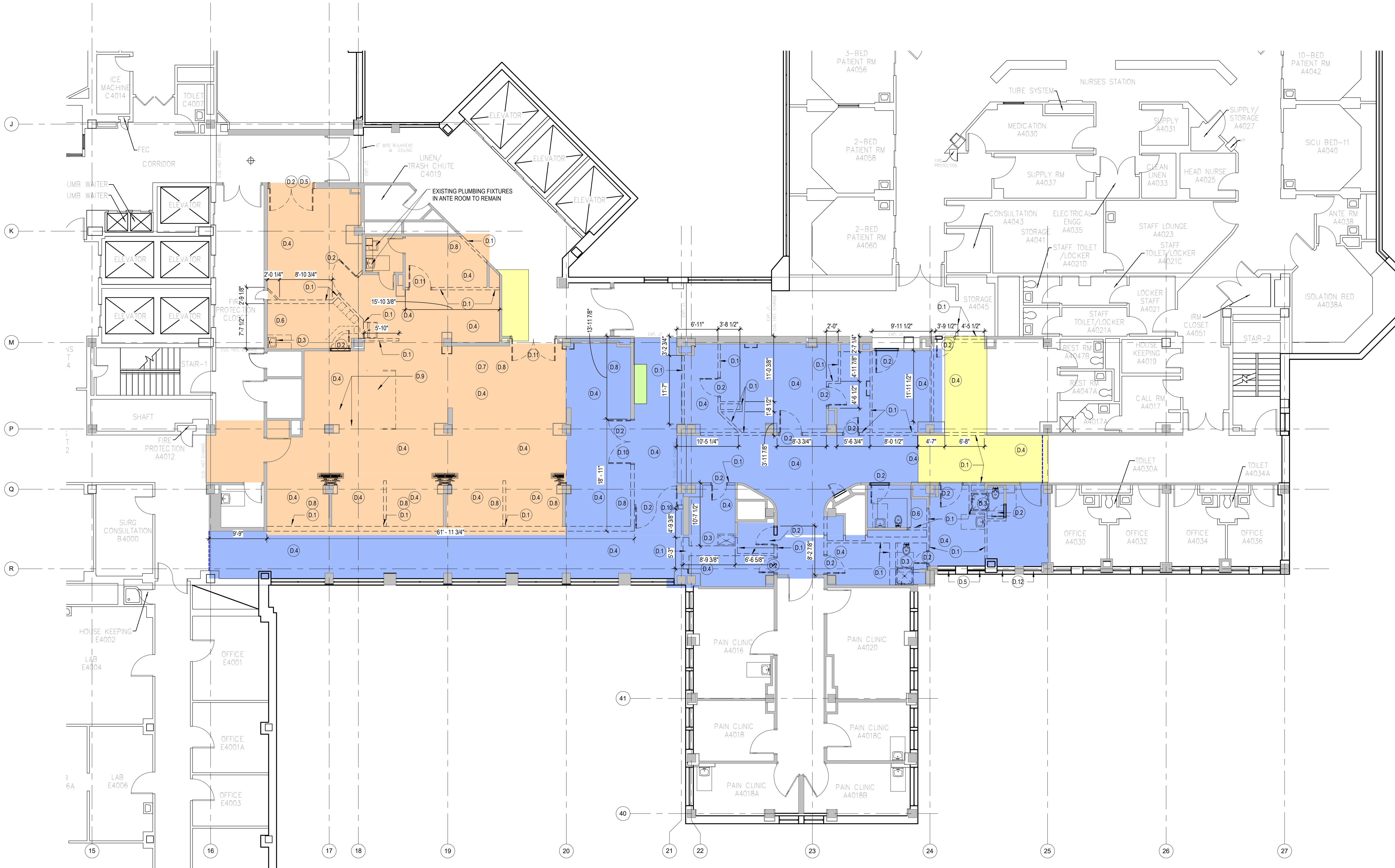
D.1	DEMO EXISTING WALL, ABANDON AND REMOVE SERVICES AND ASSOCIATED CEILING AREAS
D.2	DEMO EXISTING DOOR AND FRAME
D.3	DEMO EXISTING PLUMBING FIXTURES AND CT FLOOR AND WALL TILE
D.4	REMOVE EXISTING FLOOR, WALL AND CEILING FINISH FOR NEW FINISH APPLICATION
D.5	REMOVE EXISTING WINDOWS AND PIER BETWEEN; REMOVE SILL FOR NEW INFILL
D.6	TURN OVER DOOR HARDWARE, AUTO OPERATORS AND ACCESS CONTROL TO OWNER
D.7	REMOVAL TO BE COMPLETED BY BARRIER FREE
D.8	REMOVE EXISTING BOOM AND TERMINATE SERVICES FOR EXTENSION TO NEW HEADWALLS
D.9	REMOVE EXISTING MILLWORK AND TURN OVER TO THE OWNER, DEMO LOW WALL
D.10	DEMO EXISTING ACCESS CONTROL & DOOR HARDWARE AND TURN OVER TO OWNER
D.11	DEMO DOOR AND TURN OVER HARDWARE TO THE OWNER
D.12	REMOVE EXISTING WINDOWS FOR NEW DUCTS AND BUILD NEW INFILL

GENERAL DEMOLITION NOTES

- DISCOVERY OF UTILITIES OR CONDITIONS LOCATED DIFFERENTLY FROM THAT INDICATED OR THAT ARE NOT IDENTIFIED SHALL BE REPORTED TO THE CONTRACTING OFFICER.
- EXISTING EQUIPMENT, CASEWORK, ACCESSORIES, AND FURNISHINGS AND OTHER DEBRIS REMOVED SHALL BE LEGALLY DISPOSED OF.
- EXTENSIONS OF EXISTING WALLS AND PATCHED WALLS OPENING SHALL AS A MINIMUM, MATCH THE INTEGRITY OF ADJACENT CONSTRUCTION INCLUDING LEVEL OF FINISH UNLESS INDICATED OTHERWISE.
- PROVIDE TEMPORARY PARTITIONS/ INFECTION CONTROL BARRIERS PRIOR TO THE BEGINNING OF WORK FOR EACH PHASE. REMOVE TEMPORARY PARTITIONS/ DOORS AT THE END OF EACH PHASE.

PHASING LEGEND

	PHASE 1A.1 AND 1A.2
	PHASE 1B
	PHASE 2A
	PHASE 2B



1 **FOURTH FLOOR PLAN - DEMOLITION**
1/8" = 1'-0"

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Revisions:	Date:

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STAMP

WILLIAM W. RICKHER
Professional Engineer
No. 5248
12/22/2020

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
FOURTH FLOOR PLAN - DEMOLITION

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
BM

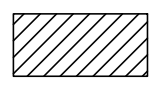


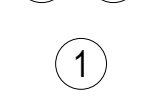


Drawn
MK

Project Number
558-17-150

Building Number

Drawing Number
AD101
11 of 78





ASBESTOS ABATEMENT LEGEND

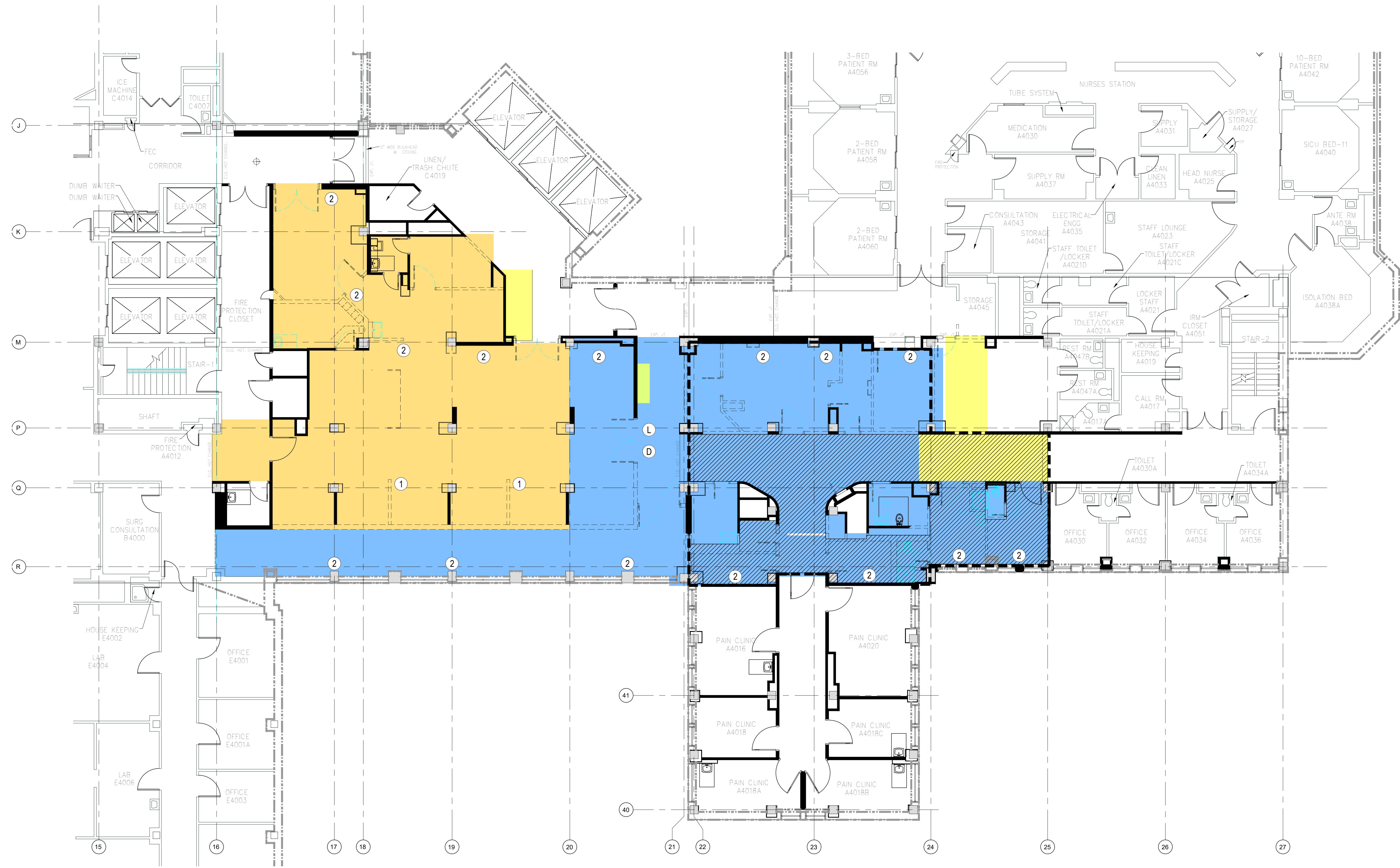
-  REMOVE AND DISPOSE OF ASBESTOS-CONTAINING FLOOR TILE AND FLOOR TILE MASTIC WHERE SHOWN ON THE DRAWING.
-  REMOVE AND DISPOSE OF ASBESTOS-CONTAINING PIPE INSULATION AND FITTINGS INSIDE CONTAINMENT BOUNDARIES. DEMOLISH CHASES IN ORDER TO ACCESS AND REMOVE ASBESTOS-CONTAINING PIPE INSULATION AND FITTINGS.
-  REMOVE AND DISPOSE OF ASBESTOS-CONTAINING DUCT MASTIC LOCATED INSIDE CONTAINMENT BOUNDARIES.
-  APPROXIMATE LOCATION OF DECONTAMINATION UNIT AND LOAD-OUT WILL BE DETERMINED PRIOR TO EACH PHASE.
-  DO NOT DISTURB ASBESTOS-CONTAINING PIPE INSULATION THAT EXISTS IN CONCRETE CHASE.
-  DO NOT DISTURB ASBESTOS-CONTAINING BLACK WATERPROOFING MASTIC LOCATED AT PERIMETER WALLS.

GENERAL NOTES AND SEQUENCING

1. THIS DRAWING ACCOMPANIES ASBESTOS ABATEMENT TECHNICAL SPECIFICATIONS.
2. ASBESTOS ABATEMENT MUST BE PERFORMED INSIDE BOUNDARIES INDICATED ON THIS DRAWING.
3. THE ABATEMENT CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE PRIOR TO BIDDING TO CONFIRM THE SCOPE OF THE WORK. BOUNDARIES AND LOCATIONS ARE APPROXIMATE. ANY QUANTITIES LISTED BY THE DESIGNER IN THE PLANS AND SPECIFICATIONS ARE DONE SO AS APPROXIMATIONS. THE ACTUAL QUANTITIES OF ASBESTOS-CONTAINING MATERIALS TO BE ENCOUNTERED ARE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR.
4. ABATEMENT OPERATIONS WILL BE PERFORMED UTILIZING A NEGATIVE PRESSURE ENCLOSURE. THE ENCLOSURE SHALL CONSIST OF A 3-STAGE DECONTAMINATION UNIT, CRITICAL BARRIERS, SPLASH GUARDS AND NEGATIVE PRESSURE AS DESCRIBED IN THE TECHNICAL SPECIFICATIONS.
5. THE SCOPE OF WORK FOR THIS PROJECT INCLUDES THE REMOVAL AND DISPOSAL OF APPROXIMATELY 1,000 SQUARE FEET OF ASBESTOS-CONTAINING FLOOR TILE AND FLOOR TILE MASTIC, 140 LINEAR FEET OF ASBESTOS-CONTAINING PIPE INSULATION AND FITTINGS, AND 300 LINEAR FEET OF ASBESTOS-CONTAINING DUCT MASTIC LOCATED INSIDE CONTAINMENT BOUNDARY.
6. FOLLOWING ABATEMENT OPERATIONS AND SUCCESSFUL VISUAL INSPECTION OF EACH CONTAINMENT, AGGRESSIVE TEM AIR CLEARANCE TESTING WILL BE PERFORMED AND SENT TO THE LABORATORY FOR ANALYSIS (24-HOUR TURNAROUND TIME).
7. CONTRACTOR SHALL USE A "LOW" TO "NO" ODOR SOLVENT SUCH AS TWIN CHEMICAL EXTRA MAIN LOW ODOR SOLVENT OR EQUIVALENT FOR REMOVAL OF ASBESTOS-CONTAINING FLOORING MASTIC. SOLVENT SHALL BE NEUTRALIZED PER MANUFACTURER DIRECTION PRIOR TO NEW FLOORING INSTALLATION. COORDINATION BETWEEN THE ABATEMENT CONTRACTOR AND FLOORING CONTRACTOR SHALL BE MADE IN ORDER TO ENSURE COMPATIBILITY OF THE MASTIC REMOVAL SOLVENT WITH NEW FLOORING ADHESIVE.




PHASING LEGEND

-  PHASE 1A.1 AND 1A.2
-  PHASE 1B
-  PHASE 2A
-  PHASE 2B



1 FOURTH FLOOR PLAN - ABATEMENT
1/8" = 1'-0"

100% BID DOCUMENTS

Revisions: _____ Date: _____	CONSULTANT  2900 Yonkers Road Raleigh, North Carolina 27604 (919) 833-2520 www.MatrixHSC.com	ARCHITECT/ENGINEER OF RECORD 	STAMP Office of Construction and Facilities Management  U.S. Department of Veterans Affairs	Drawing Title FOURTH FLOOR PLAN - ASBESTOS ABATEMENT	Phase 100% BID DOCUMENTS	Project Title VA DURHAM - PACU RENOVATION	Project Number 558-17-150
				Approved: _____	FULLY SPRINKLERED	Location DURHAM VAMC DURHAM, NC	Building Number AB101
							Drawing Number 12 of 78

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A

B

C

D

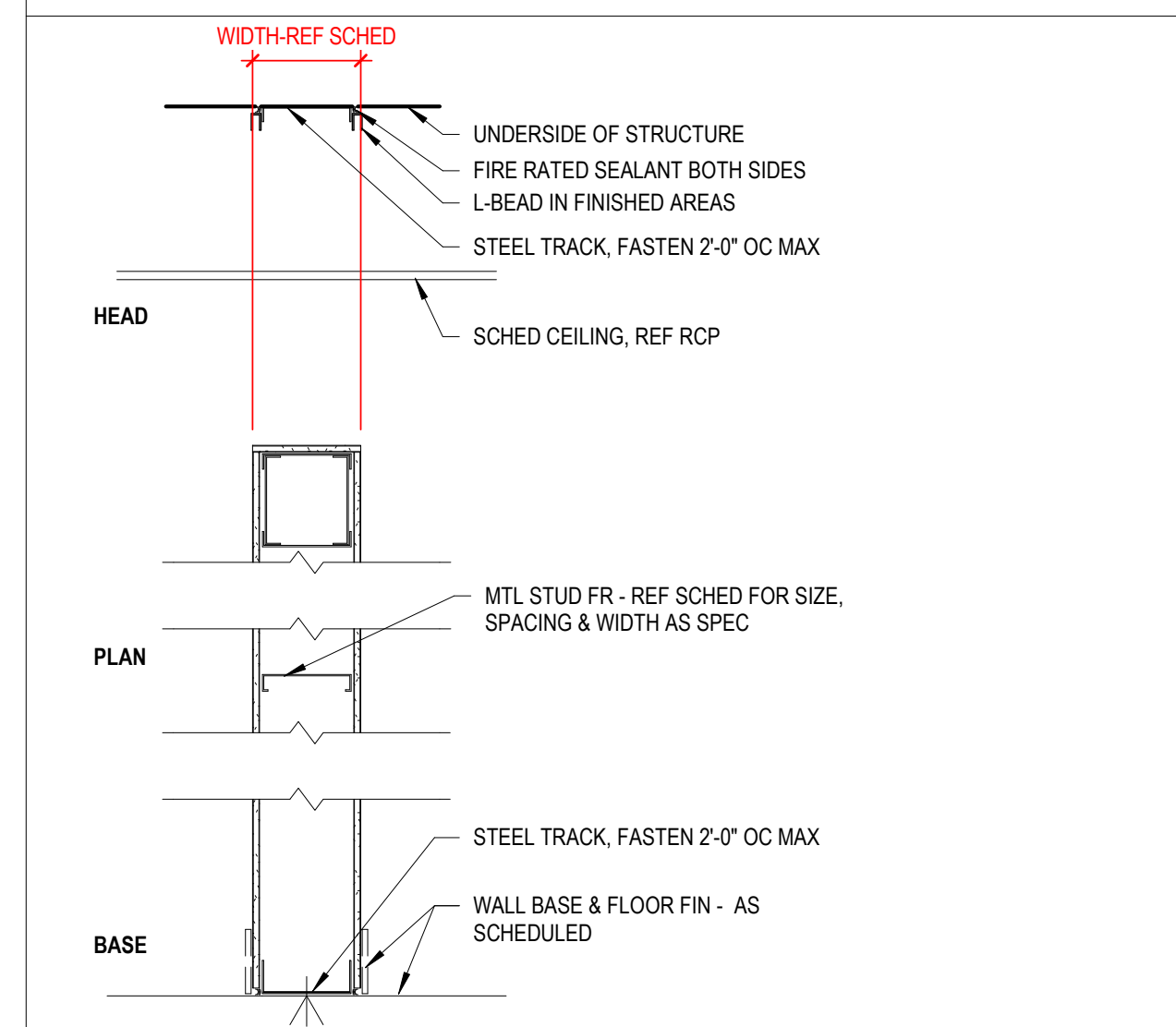
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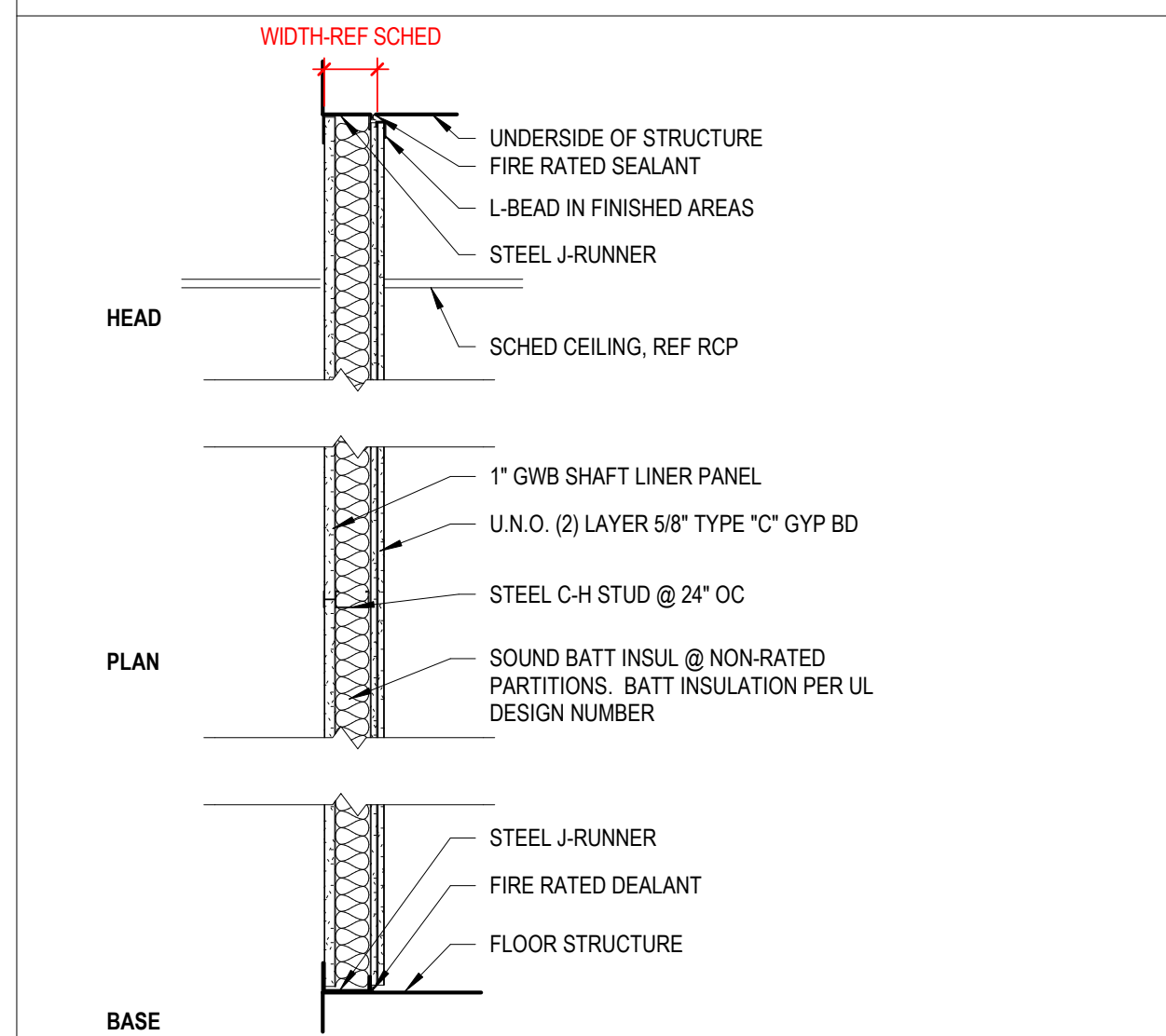
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TYPE Q - PARTIAL HEIGHT GWB PARTITION



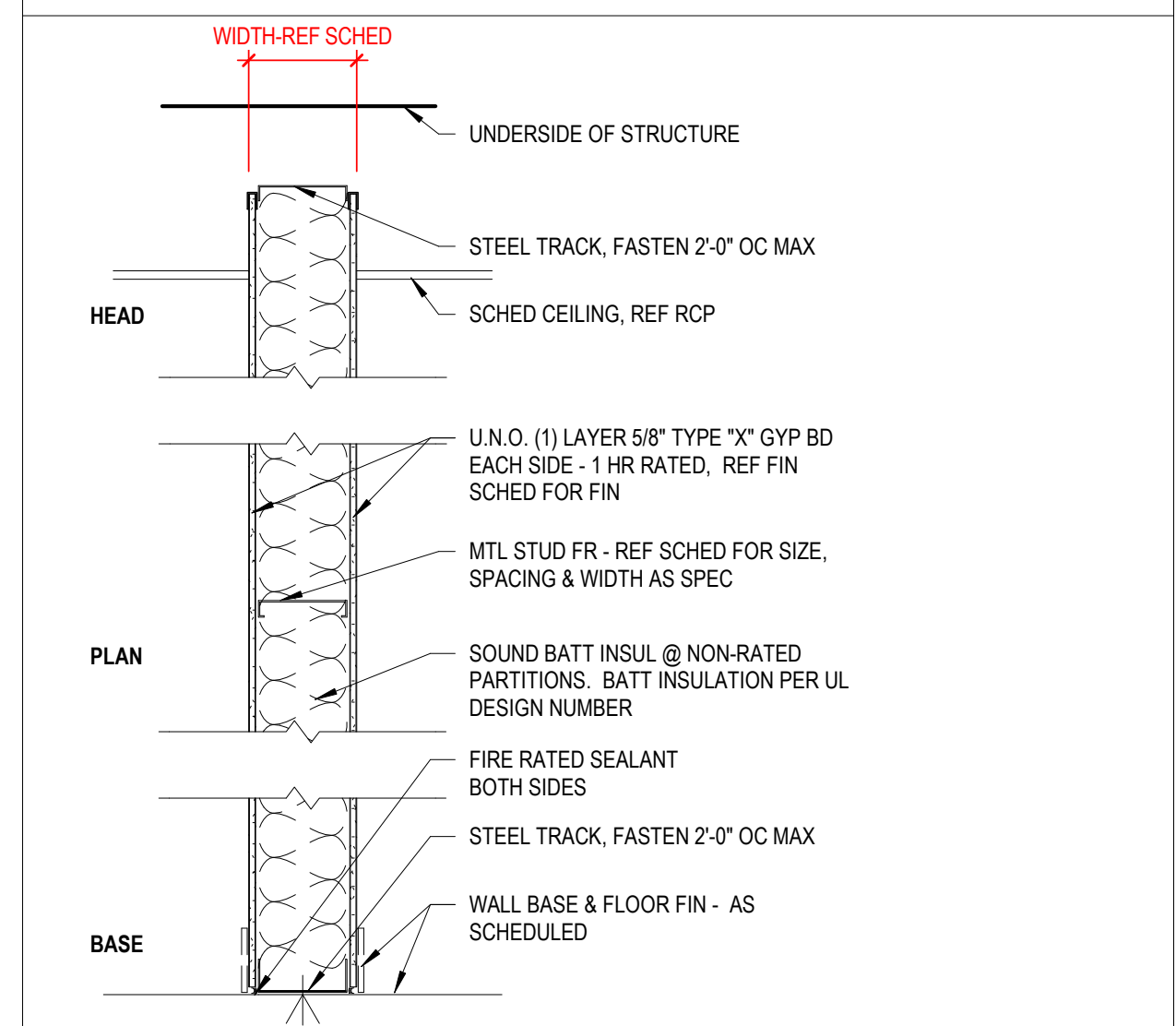
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
Q40	5 1/4"	4"		0 hr	45	Yes	

TYPE F - SHAFT WALL



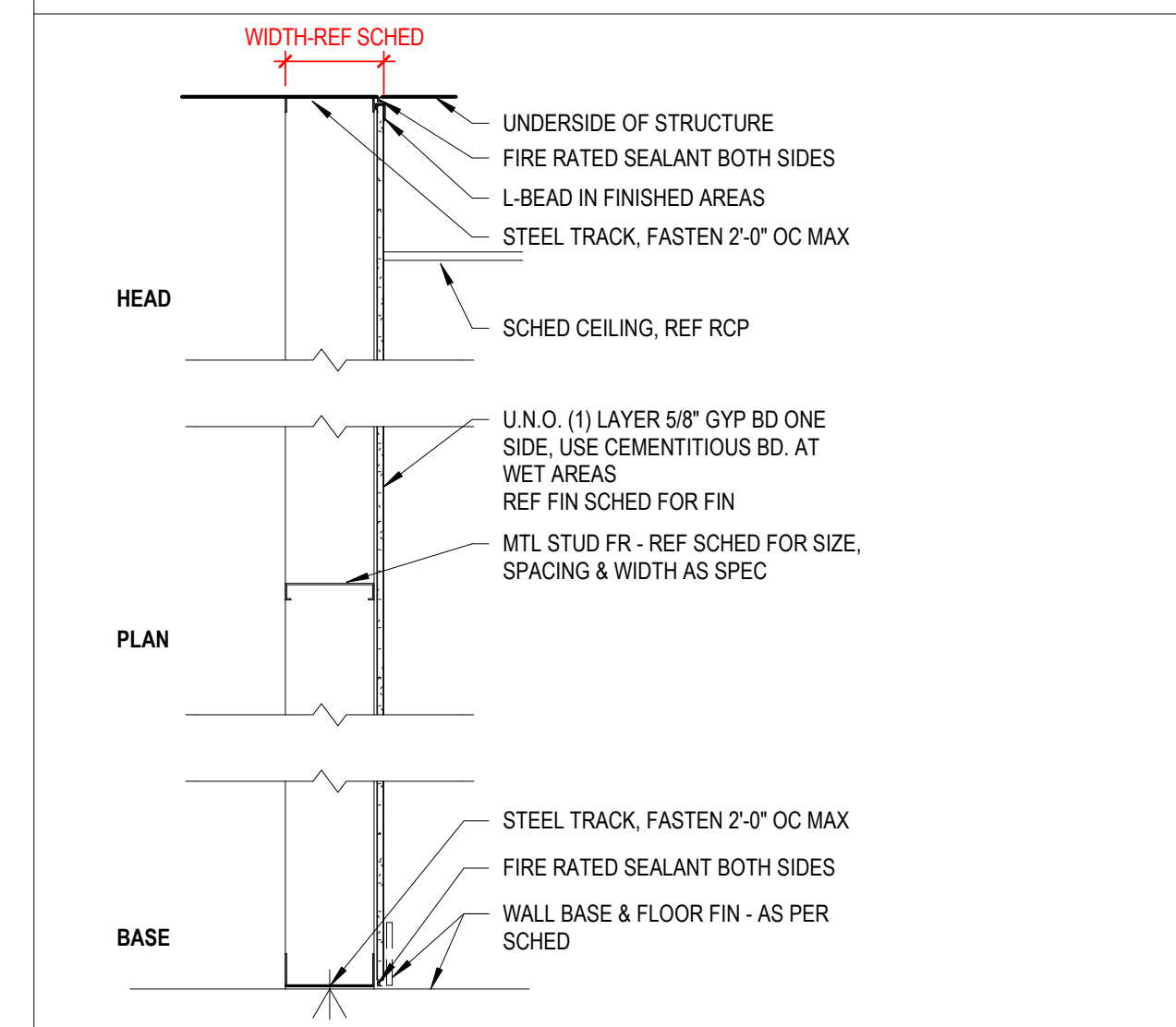
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
F41	4 5/8"	4"	U415	1 hr	48	Yes	Type X Gypsum Board
F42	5 1/4"	4"	U415	2 hr	48	Yes	Type X Gypsum Board

TYPE E - PARTIAL HEIGHT GWB PARTITION



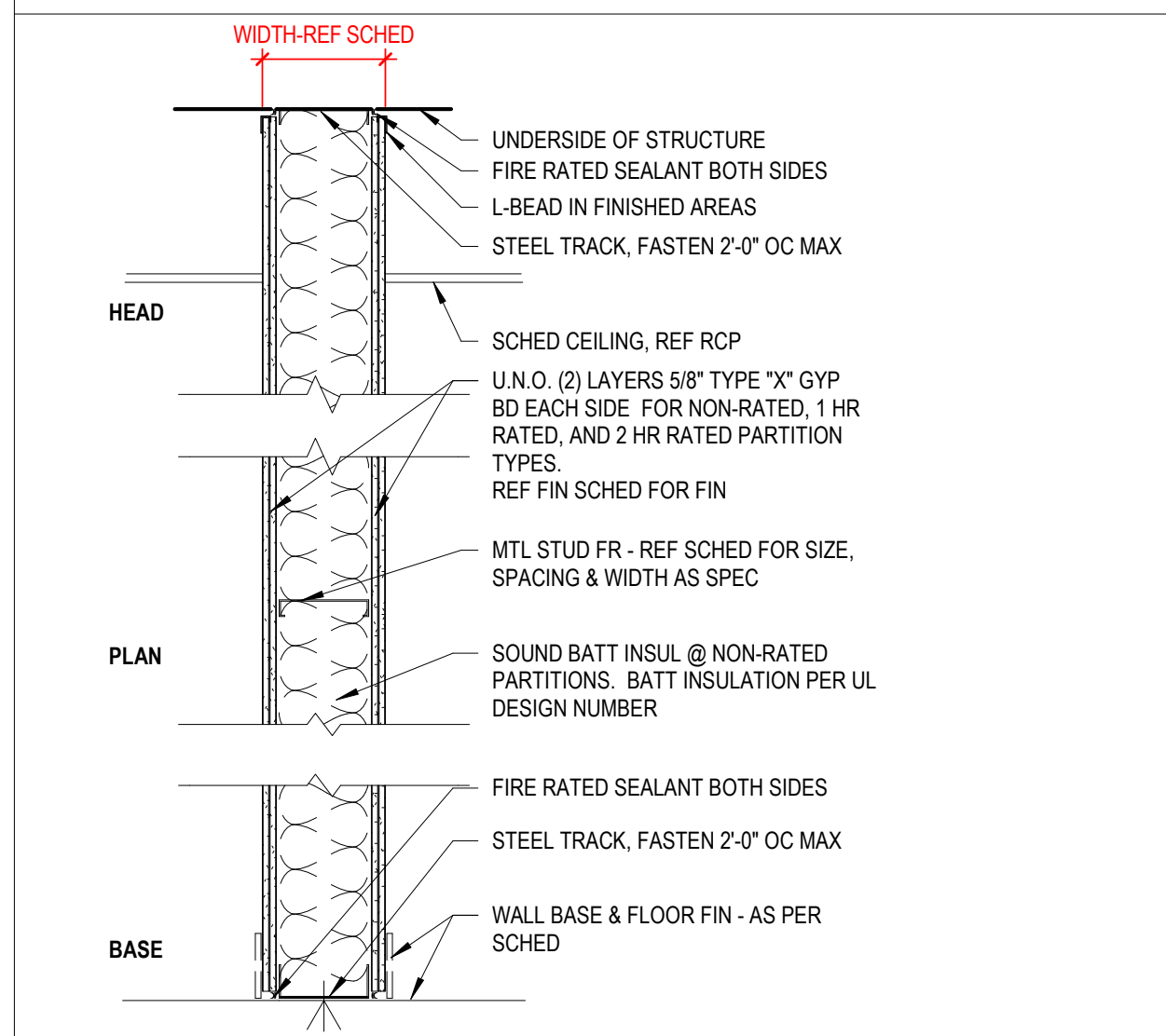
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
E40	5 1/4"	4"		0 hr	45	Yes	

TYPE D - FULL HT. SINGLE SIDED PARTITION



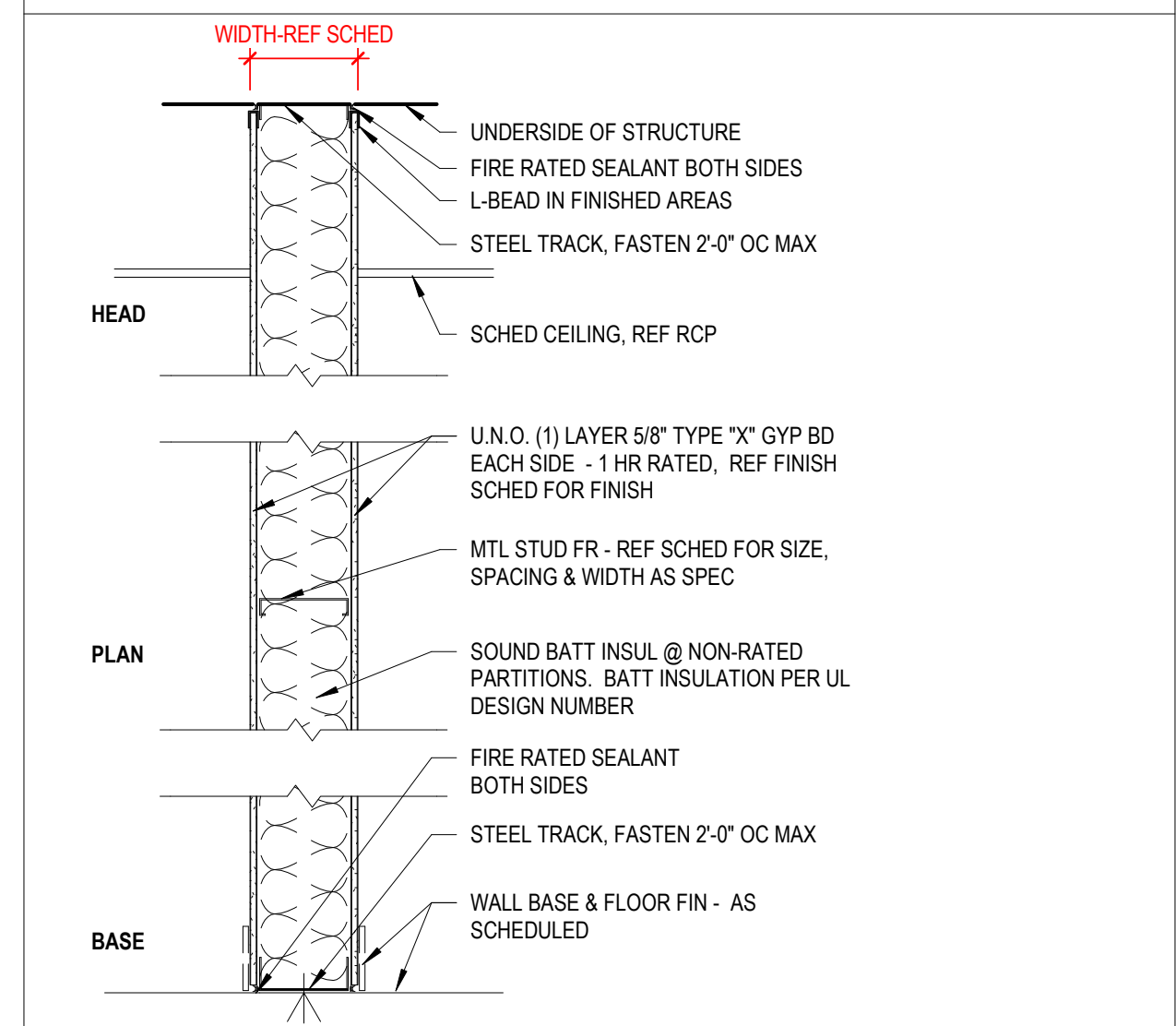
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
D00	1 1/2"	7/8"		0 hr			
D10	2 1/4"	1 5/8"		0 hr			
D20	3 1/8"	2 1/2"		0 hr	Yes		
D30	4 1/4"	3 5/8"		0 hr	Yes		
D40	4 5/8"	4"		0 hr	Yes		

TYPE B - FULL HEIGHT GWB PARTITION



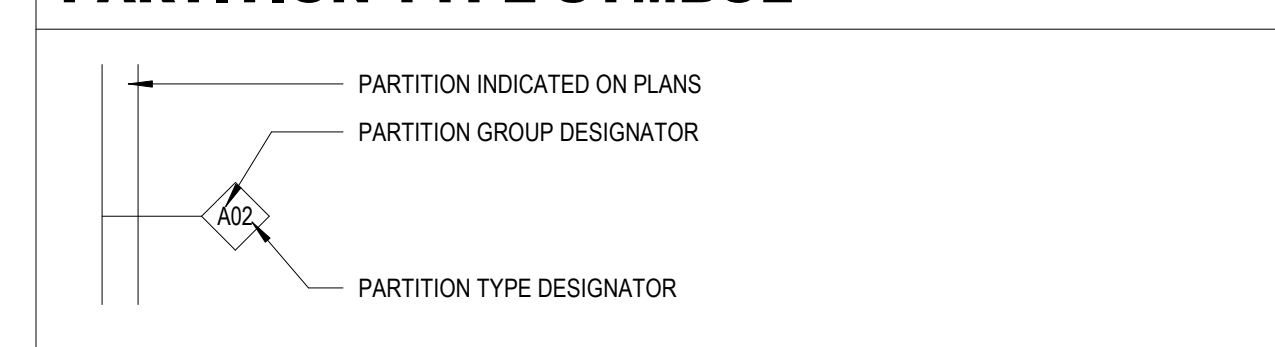
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
B42	6 1/2"	4"	U419	2 hr	55	Yes	Type X Gypsum Board

TYPE A - FULL HEIGHT GWB PARTITION



TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
A40	5 1/4"	4"				Yes	
A41	5 1/4"	4"	U419	1 hr	Yes	Yes	Type X Gypsum Board
A60	7 1/4"	6"		0 hr	45	Yes	

PARTITION TYPE SYMBOL



PARTITION TYPE NOTES

- REFER TO FLOOR PLANS FOR PARTITION TYPE LOCATIONS.
- IN ALL BATHROOMS PROVIDE MOISTURE RESISTANT GYP. BD. ON ALL WALLS AND CEILINGS. COORDINATE HEIGHTS OF GYP. BD. WITH CEILING HEIGHTS AND WITH PARTITION DETAILS INDICATED.
- IN ALL ROOMS OTHER THAN BATHROOMS WHICH CONTAIN SINKS OR OTHER PLUMBING FIXTURES PROVIDE MOISTURE RESISTANT GYP. BD. ON THE WET WALL AND RETURN 4'-0" ON THE SIDE WALLS.
- ALL GYPSUM BOARD SHALL BE 5/8" THICK, UNO, AT FIRE RATED ASSEMBLIES, PROVIDE TYPE 'X' GYP. BD. MINIMUM, OR AS REQUIRED BY FIRE RATED ASSEMBLY.
- FOR FIRE RATED ASSEMBLIES, OBTAIN AND FULLY CONFORM TO DESIGN REQUIREMENTS OF UNDERWRITERS LABORATORIES, INCULC FOR EACH PARTITION ASSEMBLY, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY A DETAIL OR NOTE, AS ALLOWED BY UL DESIGN.
- FIRE-RESISTANCE-RATED & STC-RATED PARTITIONS SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE TESTED ASSEMBLY UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY DETAIL OR NOTE.
- STC-RATED PARTITION CONSTRUCTION SHALL HAVE ALL PENETRATIONS AND INTERSECTIONS SEALED AIR TIGHT WITH ACOUSTICAL SEALANT.
- SEPARATE METALLIC OUTLETS OR SWITCH BOXES LOCATED ON OPPOSITE SIDES OF WALLS OR PARTITIONS BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES (U.L. INC.).
- REFER TO SPECIFICATIONS FOR VERTICAL PARTITION SPACING CRITERIA AND METAL STUD GAUGES, UNO.
- REFER TO FINISH SCHEDULE AND REFLECTED CEILING PLANS FOR THE CEILING TYPE AND HEIGHT. COORDINATE HEIGHTS OF GYP. BD. WITH CEILING HEIGHTS AND WITH PARTITION DETAILS INDICATED.
- REFER TO FINISH SCHEDULE, INTERIOR ELEVATIONS, INTERIOR DETAILS AND ARCHITECTURAL CASEWORK DETAILS FOR WALL FINISHES AND WALL MOUNTED ACCESSORIES TO COORDINATE BLOCKING REQUIREMENTS.
- PROVIDE ADEQUATE BACKUP AND BLOCKING FOR ALL WALL OR CEILING MOUNTED EQUIPMENT, ARCHITECTURAL WOODWORK, CASEWORK, LIGHTING, OR OTHER VA MISCELLANEOUS ITEMS & MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT TO ASSURE A PROPER INSTALLATION. ALL BLOCKING TO BE NON COMBUSTIBLE.
- ALL DOOR OPENINGS ARE TO BE 4 INCHES FROM ADJACENT WALL UNO.
- REFER TO LIFE SAFETY PLANS AND THE PROJECT CODE ANALYSIS SUMMARY FOR FURTHER WALL, FLOOR/CEILING ASSEMBLY RATING REQUIREMENTS.
- MAINTAIN CONTINUOUS SMOKE/FIRE RATED PARTITION AT INTERSECTIONS OF RATED WALLS AND NON-RATED WALLS. WRAP GYPSUM BOARD AT JAMBS AND HEAD OF NON-RATED DOORWAYS AND OPENINGS IN RATED WALLS AS REQUIRED TO MAINTAIN WALL RATING.
- ALL PARTITION THICKNESSES SHOWN ARE ACTUAL DIMENSIONS. FINISHED FACES OF PARTITIONS TO RUN FLUSH, CONTINUOUS AND SMOOTH, UNO.
- ALL GYP. BD. WALL AND CEILING CONTROL JOINTS SHALL BE PROVIDED PER THE PROJECT SPECIFICATIONS. COORDINATE ALL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
- ALL GYP. BD. WALL AND CEILING CONTROL JOINTS AT RATED CONDITIONS SHALL BE INSTALLED PER GYPSUM ASSOCIATION GUIDELINES (GA-234-08). UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY DETAIL OR NOTE. COORDINATE ALL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
- REFER TO STRUCTURAL DRAWINGS FOR SPECIFICATIONS & REINFORCEMENT REQUIREMENTS OF MASONRY PARTITIONS.
- REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.
- IN ALL ELECTRICAL ROOMS, INSTALL FRT PLYWOOD FLOOR TO CEILING ON ALL WALLS IN ADDITION TO WALL TYPE REQUIREMENTS. COORDINATE WITH ELECTRICAL CONTRACTOR.
- IN ALL LOW VOLTAGE & TELEDATA ROOMS, INSTALL FRT PLYWOOD FLOOR TO CEILING ON ALL WALLS IN ADDITION TO WALL TYPE REQUIREMENTS. COORDINATE WITH LOW VOLTAGE CONTRACTOR.

Revisions:	Date:

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 WILLIAM W. RICKHER
 5248
 12/22/2020

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
 PARTITION TYPES

Approved:
 Andreka Watlington

Phase
 100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
 VA DURHAM - PACU RENOVATION

Project Number
 558-17-150

Building Number

Location
 DURHAM VAMC DURHAM, NC

Drawing Number
 A-002
 14 of 78

Issue Date
 12/22/2020

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 BM

Drawn
 MK

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UL Product iQ™
HXBN.HW-D-0060 - Joint Systems

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
Authorities Having Jurisdiction should be consulted before construction.
Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements.

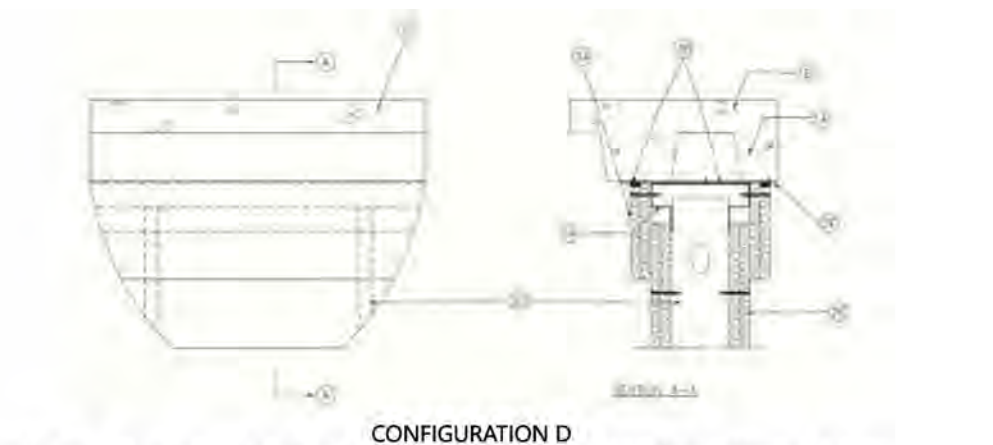
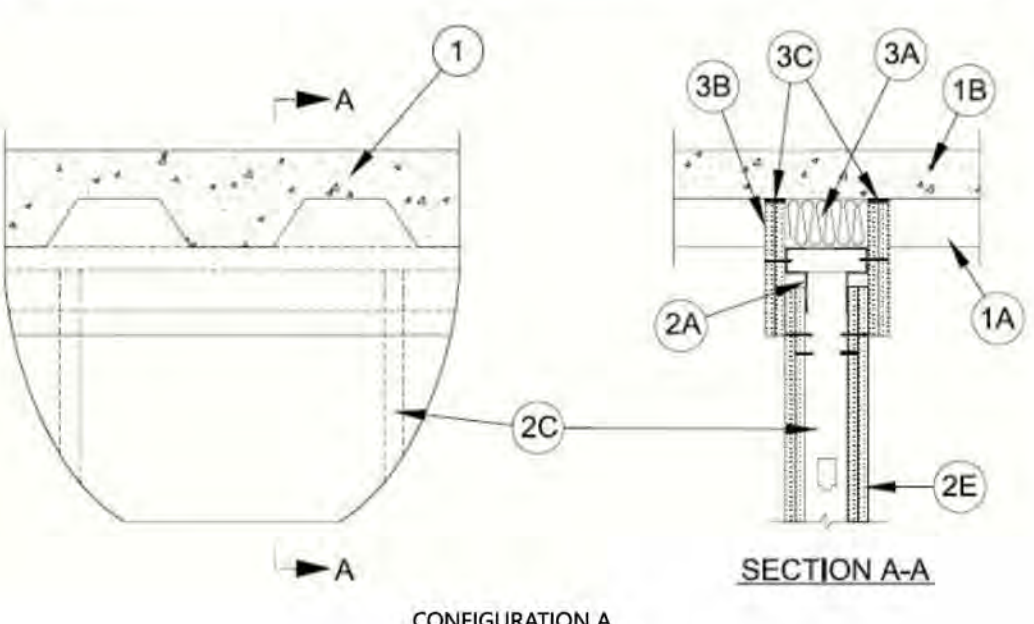
HXBN - Joint Systems
HXBN7 - Joint Systems Certified for Canada

See General Information for Joint Systems
See General Information for Joint Systems Certified for Canada

System No. HW-D-0060

February 04, 2020

Table with columns for ANS/UL2079 and CAN/ULC 5115, detailing assembly ratings, fire ratings, and movement capabilities.



1. Floor Assembly - The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the UL Fire Resistance Directory.

7A. Roof Assembly - As an alternate to Item 1, the fire-rated roof assembly shall be constructed of the materials and in the manner described in the individual P700, P800 or P900 series Roof-Ceiling Designs in the UL Fire Resistance Directory.

1B. Floor Assembly - As an alternate to Item 1, min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete or any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.

2. Wall Assembly - The 1, 2 or 3 hr fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory.

A. Light Gauge Framing* - Deflection Trak - Deflection track of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2C) and with offset legs to accommodate wall cladding (Item 3A).

FIRE TRAK COP - Shadowline

permanent form. In addition, when sound isolation clips (Item 2A1) are used, mineral wool batt insulation, cut to a thickness 25 percent greater than the gap, shall be compressed and installed to fill the entire space between the top of the ceiling trak and the underside of the floor or roof, between and around the isolation clips, flush with both sides of the ceiling trak.

B. Wall Cladding - Strips of the gypsum board material cut to the contour of the steel floor units and attached to the deflection trak. The number of layers, board type and thickness and fastener type shall be as specified for the gypsum board in the individual Wall and Partition Design in the UL Fire Resistance Directory.

C. Fill, Void or Cavity Material* - Full depth of fill material installed on each side of the wall between the top of the wall cladding and the surface of the steel floor units, flush with each surface of the cladding.

A/D FIRE PROTECTION SYSTEMS INC - A/D FireBarrier Seal N/S

EGS NELSON FIRESTOP - ES 1399 Sealant

GRABBER CONSTRUCTION PRODUCTS INC - GrabberGuard EFC, GrabberGuard FIC

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS611A or FS-ONE MAX Intumescent Sealant

NATIONAL GYPSUM CO - FS-90

NUCO INC - Self Seal GG-200

PASSIVE FIRE PROTECTION PARTNERS - 3600EX, 4100NS, 4800DW

RECTORSEAL - Metacaulk 835+, Metacaulk 1000, Bilstop 500+Caulk, Biotherm 100, FS1900, FS4000

SPECIFIED TECHNOLOGIES INC - SpecSeal ES Sealant

TREMCO INC - TREMstop Acrylic

UNITED STATES GYPSUM CO - FC, R/C

B. Fill, Void or Cavity Material* - Full depth of fill material installed on each side of the wall between the top of the wall cladding and the bottom of the concrete floor, flush with each surface of the cladding.

A/D FIRE PROTECTION SYSTEMS INC - A/D FireBarrier Seal N/S

EGS NELSON FIRESTOP - ES 1399 Sealant

GRABBER CONSTRUCTION PRODUCTS INC - GrabberGuard EFC, GrabberGuard FIC

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS611A, FS-ONE or FS-ONE MAX Intumescent Sealant

NATIONAL GYPSUM CO - FS-90

NUCO INC - Self Seal GG-200

PASSIVE FIRE PROTECTION PARTNERS - 3600EX, 4100NS, 4800DW

RECTORSEAL - Metacaulk 835+, Metacaulk 1000, Bilstop 500+Caulk, Biotherm 100, FS1900, FS4000

SPECIFIED TECHNOLOGIES INC - SpecSeal ES Sealant

TREMCO INC - TREMstop Acrylic

UNITED STATES GYPSUM CO - FC, R/C

Firestop Configuration D

3. Joint System - Max separation between the top of the bottom flange of the deflection trak and top of gypsum board (at the time of installation of the joint system) is 1 in. (25 mm) or 2 in. (51 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width of 1 in. (25 mm) or 100% compression from its installed width of 2 in. (51 mm).

A. Wall Cladding - Strips of the gypsum board material attached to the deflection trak. The number of layers, board type and thickness and fastener type shall be as specified for the gypsum board in the individual Wall and Partition Design in the UL Fire Resistance Directory.

B. Fill, Void or Cavity Material* - Full depth of fill material installed on each side of the wall between the top of the wall cladding and the bottom of the concrete floor, flush with each surface of the cladding.

A/D FIRE PROTECTION SYSTEMS INC - A/D FireBarrier Seal N/S

DAP PRODUCTS INC - DAP Firestop Sealant

EGS NELSON FIRESTOP - ES 1399 Sealant

GRABBER CONSTRUCTION PRODUCTS INC - GrabberGuard EFC, GrabberGuard FIC

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS611A, FS-ONE or FS-ONE MAX Intumescent Sealant

NATIONAL GYPSUM CO - FS-90

NUCO INC - Self Seal GG-200

PASSIVE FIRE PROTECTION PARTNERS - 3600EX, 4100NS, 4800DW

RECTORSEAL - Metacaulk 835+, Metacaulk 1000, Bilstop 500+Caulk, Biotherm 100, FS1900, FS4000

SPECIFIED TECHNOLOGIES INC - SpecSeal ES Sealant

TREMCO INC - TREMstop Acrylic

UNITED STATES GYPSUM CO - FC, R/C

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Firestop Configuration C

3. Joint System - Max separation between the top of the bottom flange of the deflection trak and top of gypsum board (at the time of installation of the joint system) is 1 in. (25 mm) or 2 in. (51 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width of 1 in. (25 mm) or 100% compression from its installed width of 2 in. (51 mm).

A. Wall Cladding - Strips of the gypsum board material attached to the deflection trak. The number of layers, board type and thickness and fastener type shall be as specified for the gypsum board in the individual Wall and Partition Design in the UL Fire Resistance Directory.

A1. Packing Material - (Not Shown) - When sound isolation clips (Item 2A1) are used, min 4 pcf (64 kg/m³) density mineral wool batt insulation, cut to a thickness 25 percent greater than the gap, shall be compressed and installed to fill the entire space between the top of the ceiling trak and the underside of the floor or roof, between and around the isolation clips, flush with both sides of the ceiling trak.

UL Product iQ™
HXBN.BW-S-0003 - Joint Systems

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
Authorities Having Jurisdiction should be consulted before construction.
Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements.

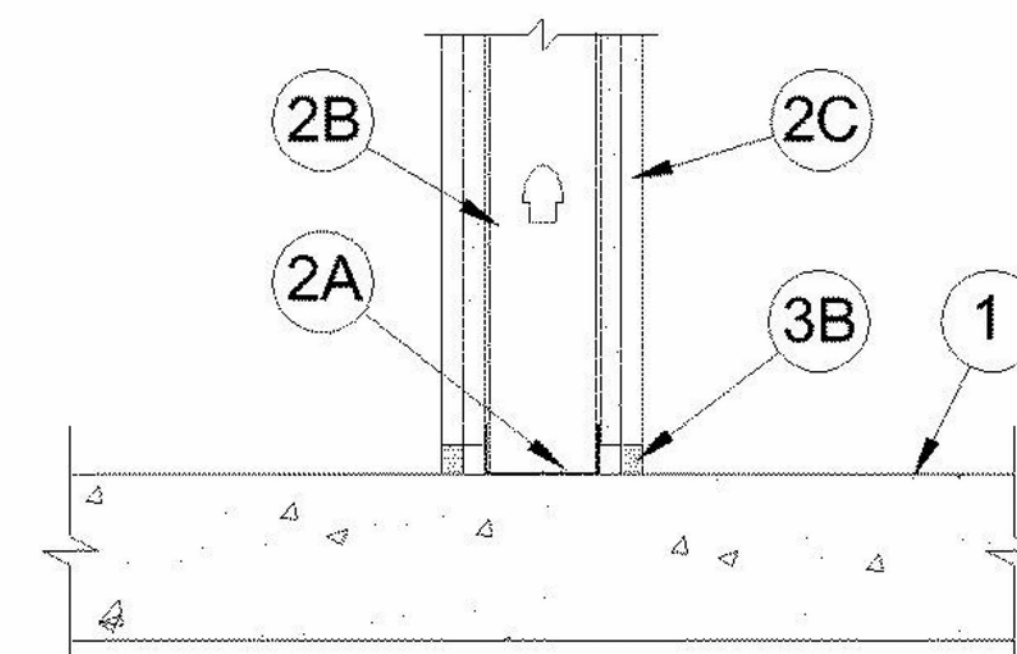
HXBN - Joint Systems

See General Information for Joint Systems

System No. BW-S-0003

November 18, 2008

Assembly Ratings - 1 and 2 Hr (See Item 2)
L Rating At Ambient - Less Than 1 CFM/Lin Ft (See Item 3B)
L Rating At 400°F - Less Than 1 CFM/Lin Ft (See Item 3B)
Joint Width - 3/4 in. Max



1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.

2. Wall Assembly - The 1 or 2 hr fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory.

A. Steel Floor Runner - Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with min 1-1/4 in. (32 mm) flanges. Runners secured with steel fasteners spaced 12 in. (305 mm) OC.

B. Studs - Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC.

C. Gypsum Board* - Gypsum board installed to a min total thickness of 5/8 in. (16 mm) or 1-1/4 in. (32 mm) on each side of wall for a 1 or 2 hr fire rated wall, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

3. Joint System - Max separation between top of floor and bottom of gypsum board is 3/4 in. (19 mm). The joint system consists of a packing material and a fill material, as follows:

A. Packing Material - (Optional, Not Shown) - Mineral wool batt insulation, polyethylene backed rod or glass fiber insulation firmly packed into the gap between the bottom of the gypsum board and the top of the concrete floor and recessed from each surface of the wall to accommodate the required thickness of fill material.

B. Fill, Void or Cavity Material* - Sealant - Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall.

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The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service.

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Table with 2 columns: Revisions, Date. Includes revision history.

CONSULTANT: AME CONSULTING ENGINEERS, PERKINS EASTMAN, LAURENE, RICKHER & SORRELL, P.C.

ARCHITECT/ENGINEER OF RECORD: Atriax Group, 102 3rd Avenue, NE, PO Box 1629, Hickory, NC 28603

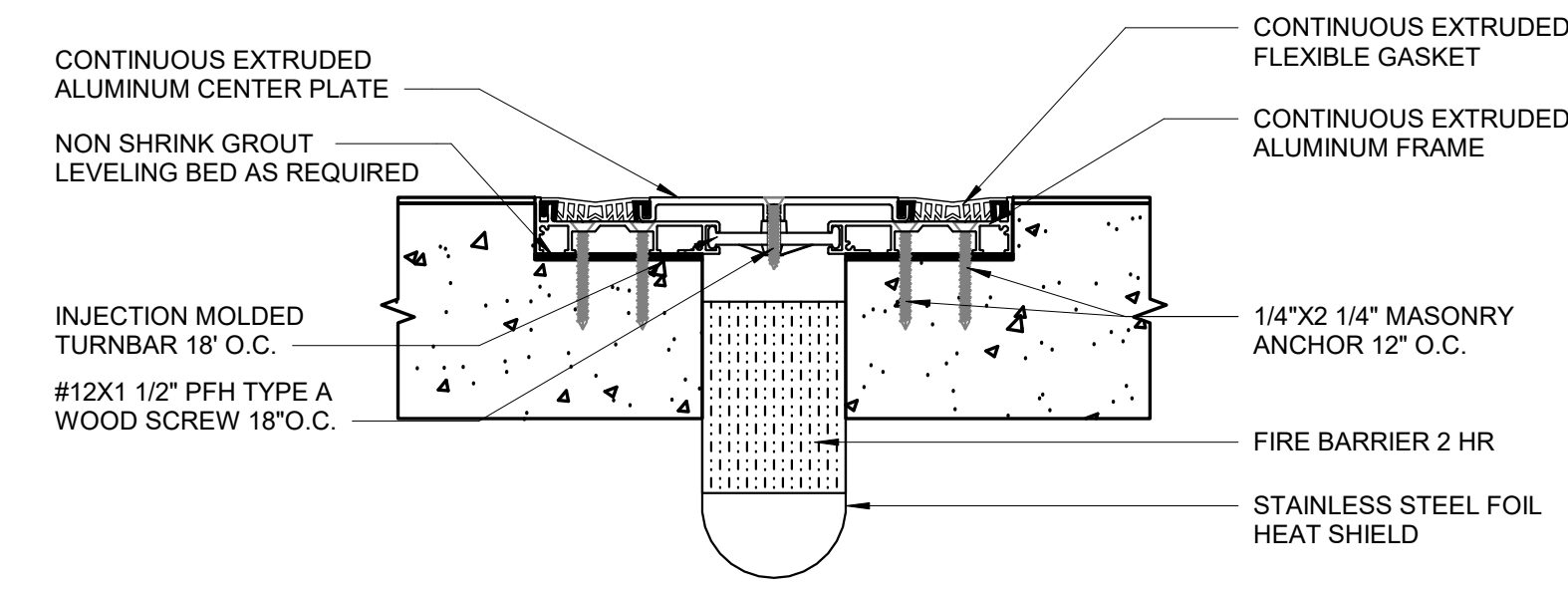
Office of Construction and Facilities Management, U.S. Department of Veterans Affairs

Drawing Title: UL DESIGN ASSEMBLY, Approved: Andreaka Watlington

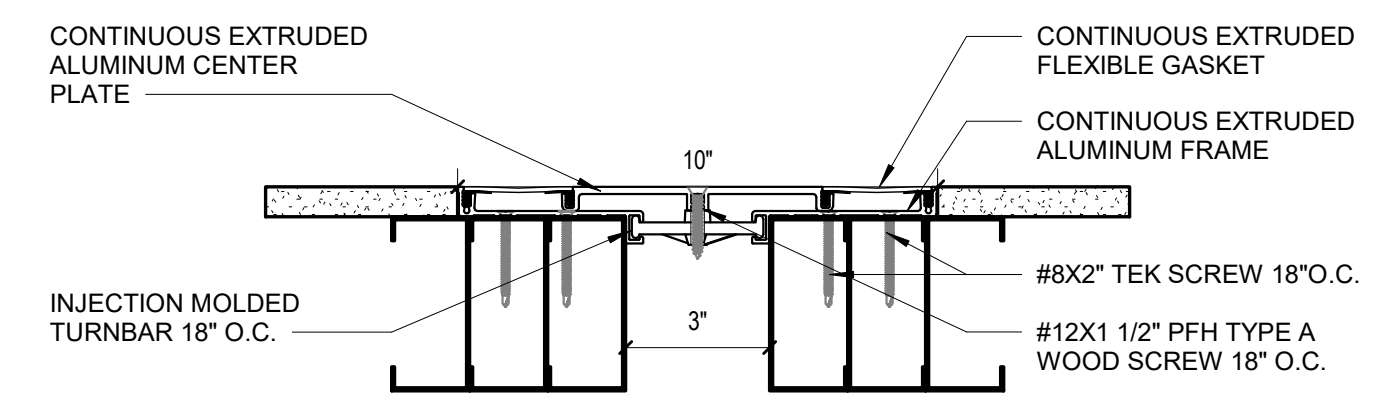
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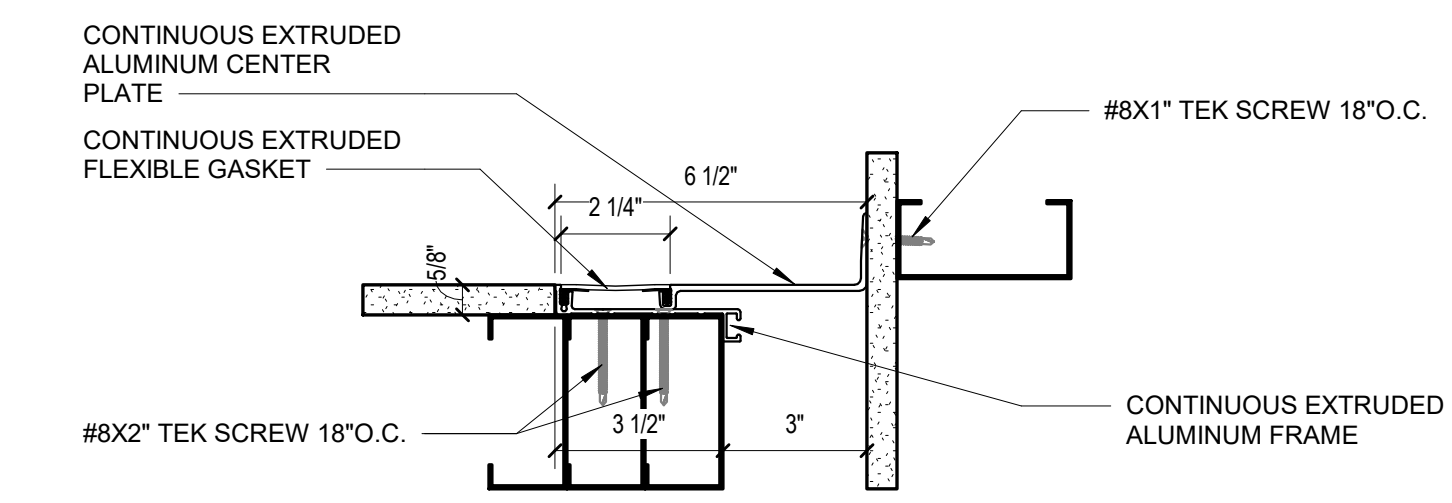
Project Number: 558-17-150, Building Number, Drawing Number: A-005 17 of 78



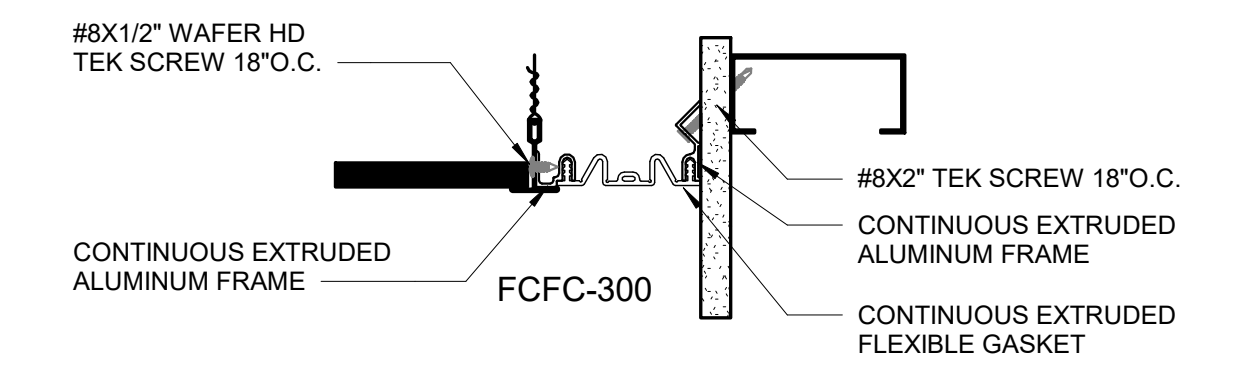
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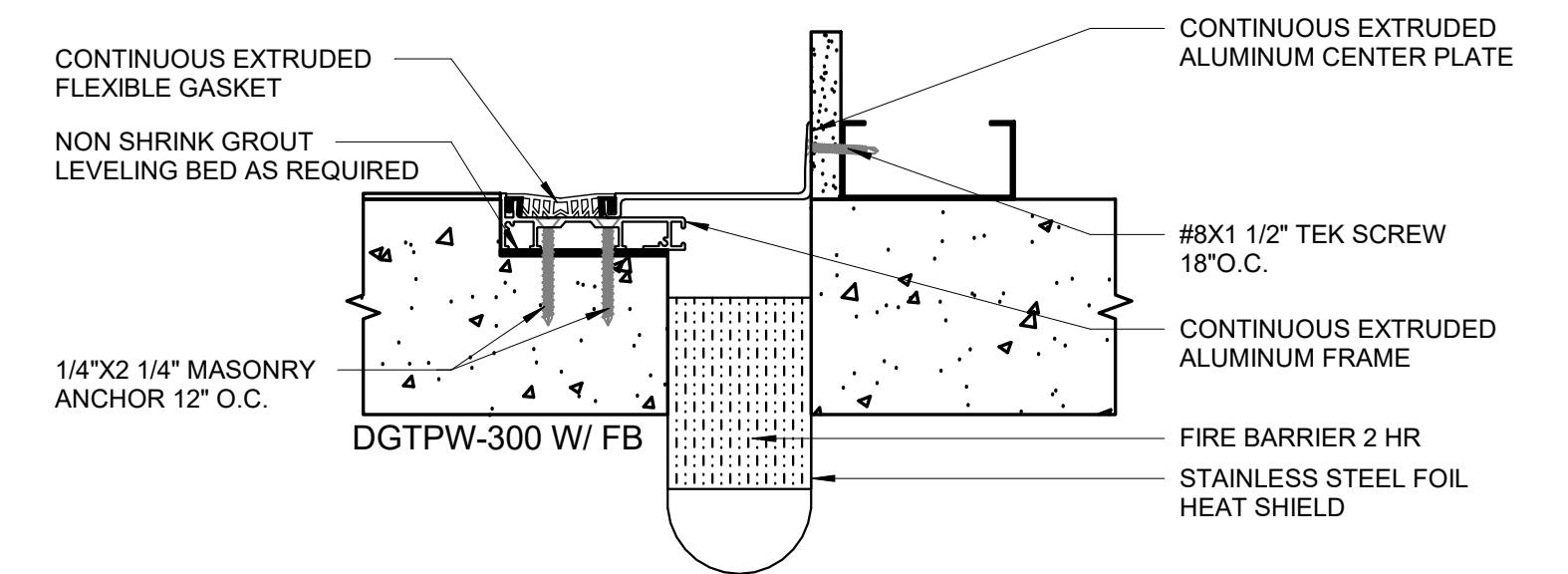
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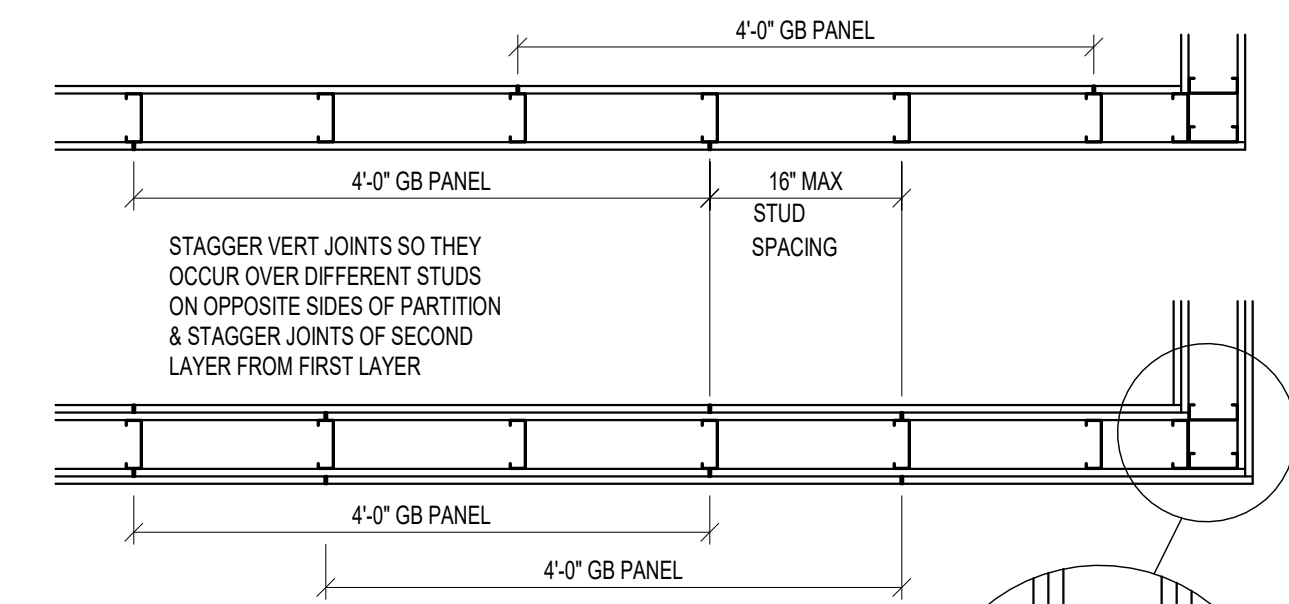
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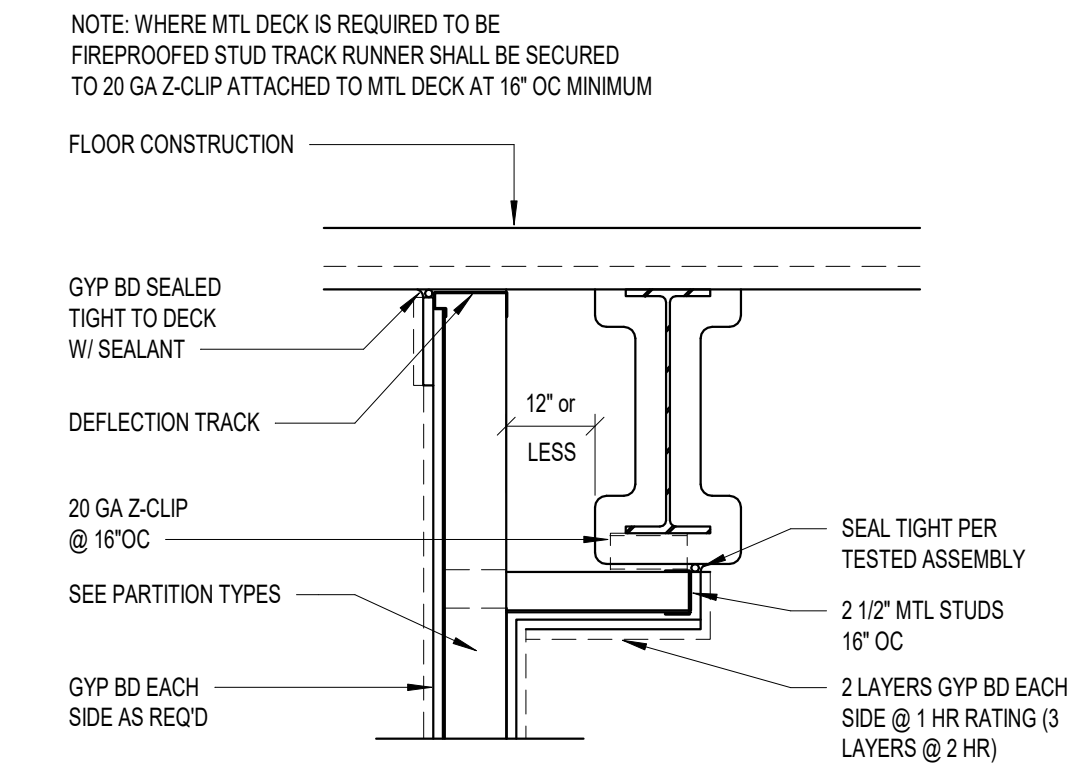
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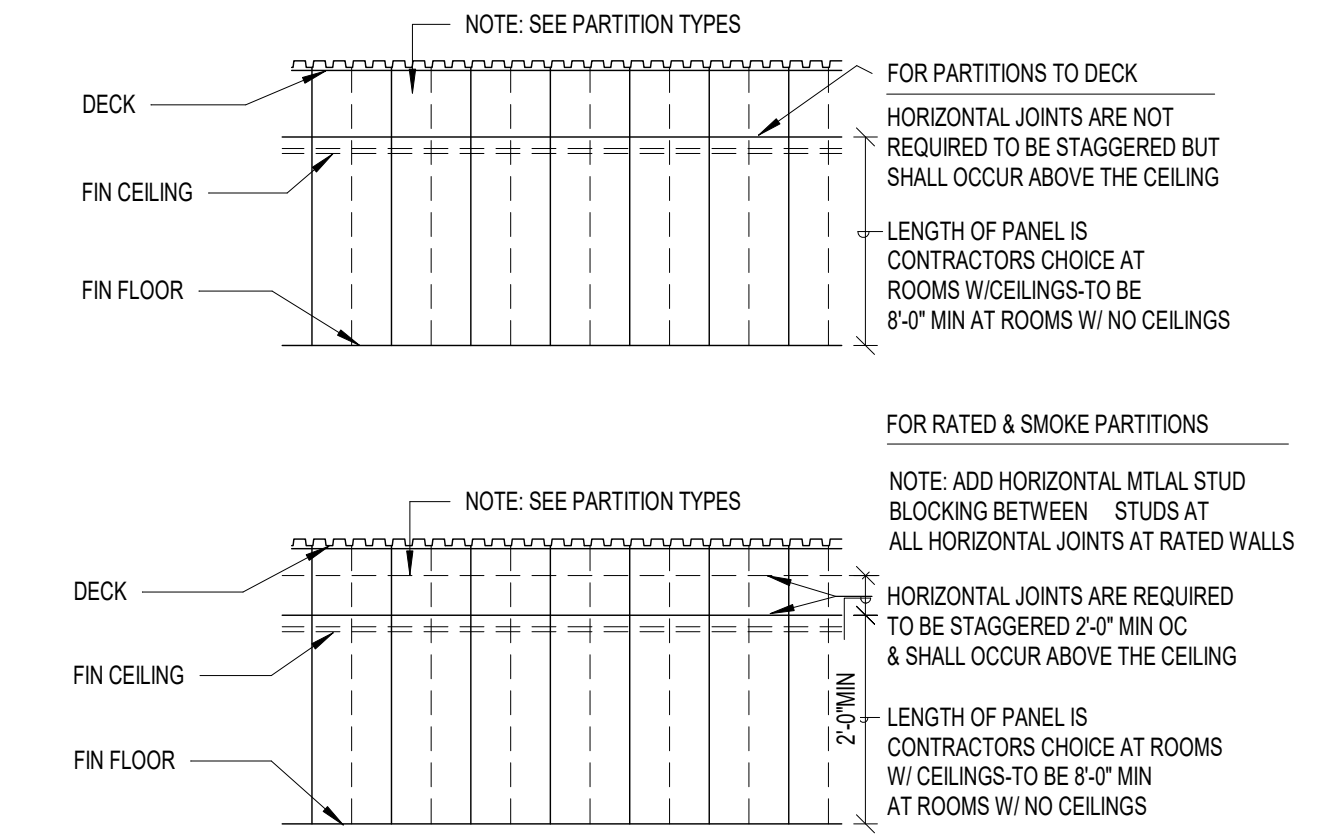
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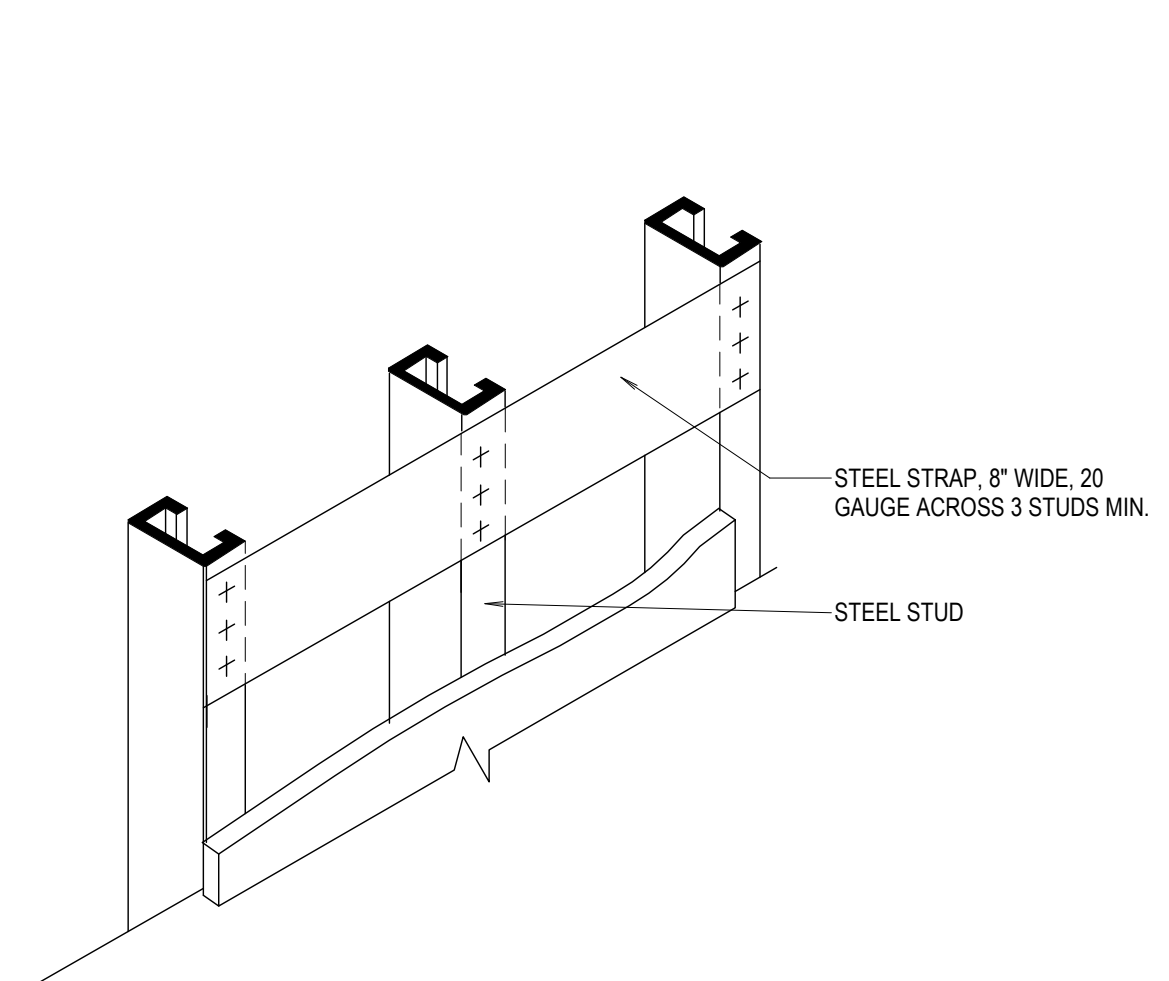
6 DRYWALL RATED PARTITIONS TYP.
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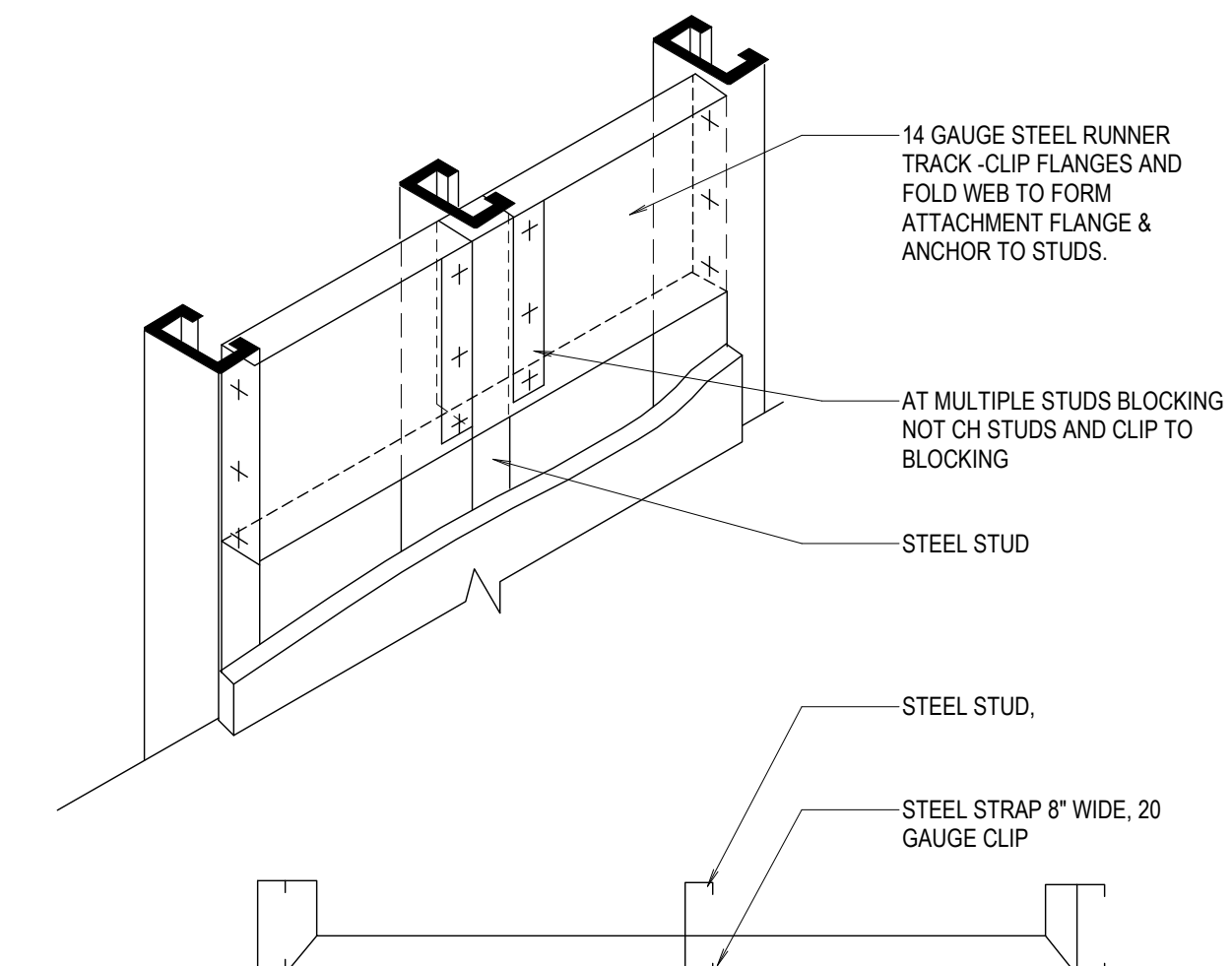
7 DETAIL WALL WITHIN 12\"/>



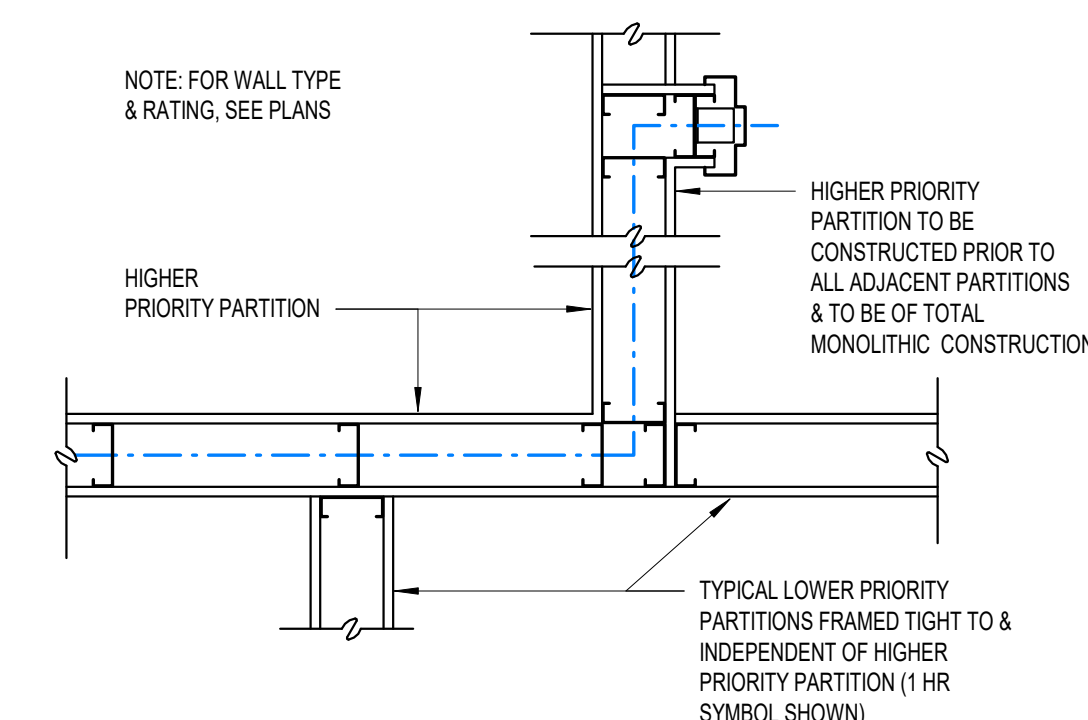
8 LOCATION OF JOINTS IN DRYWALL PARTITIONS TYP.
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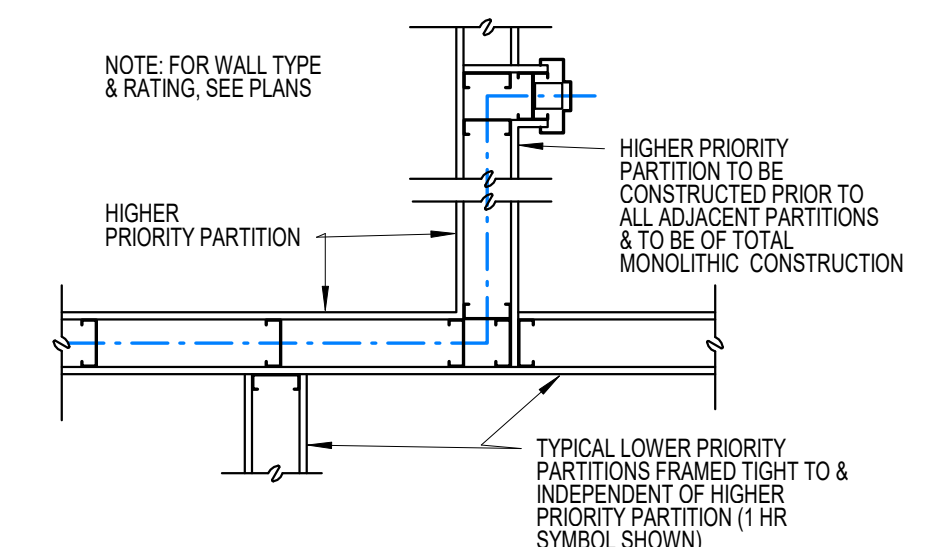
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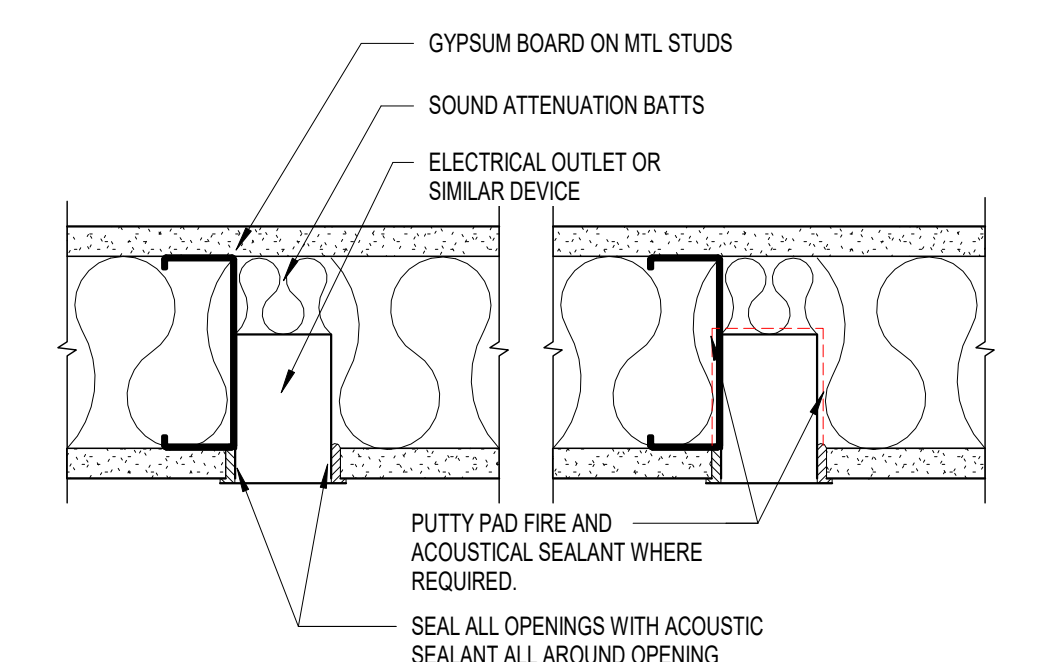
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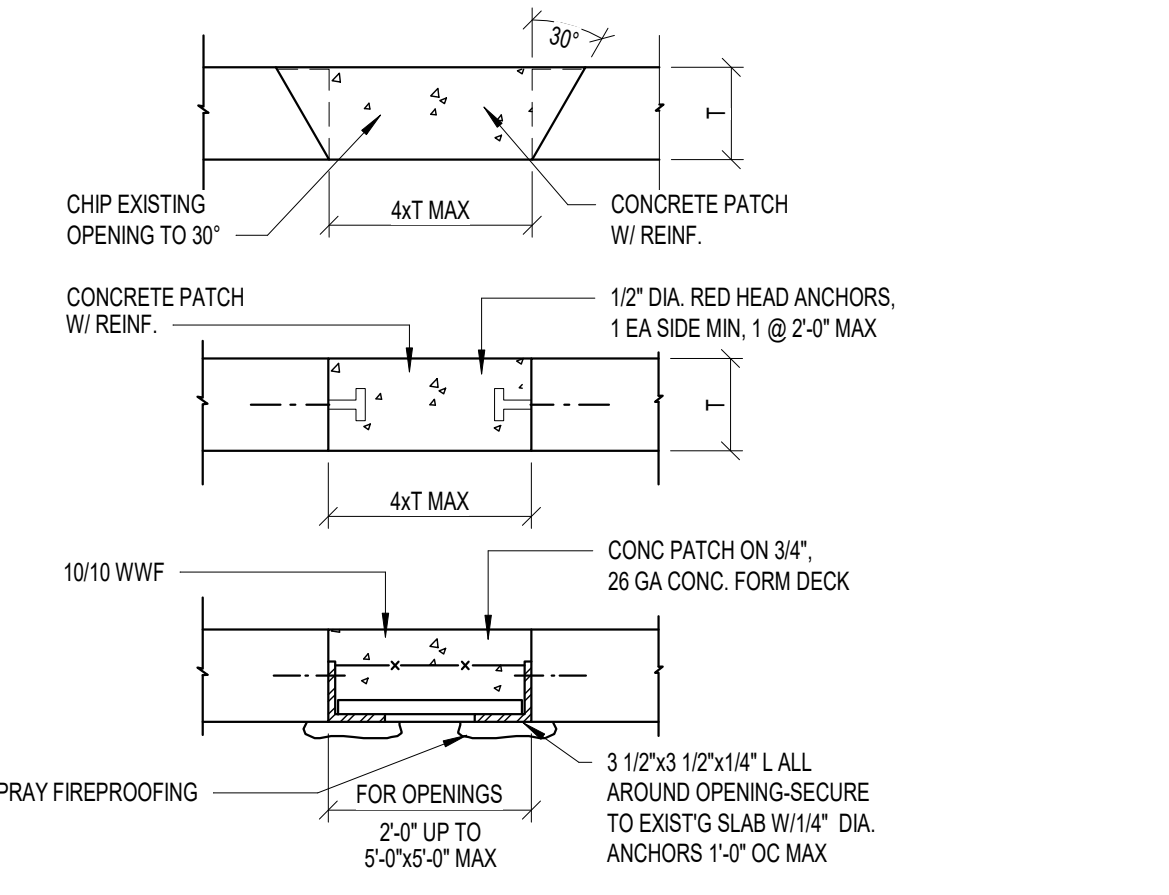
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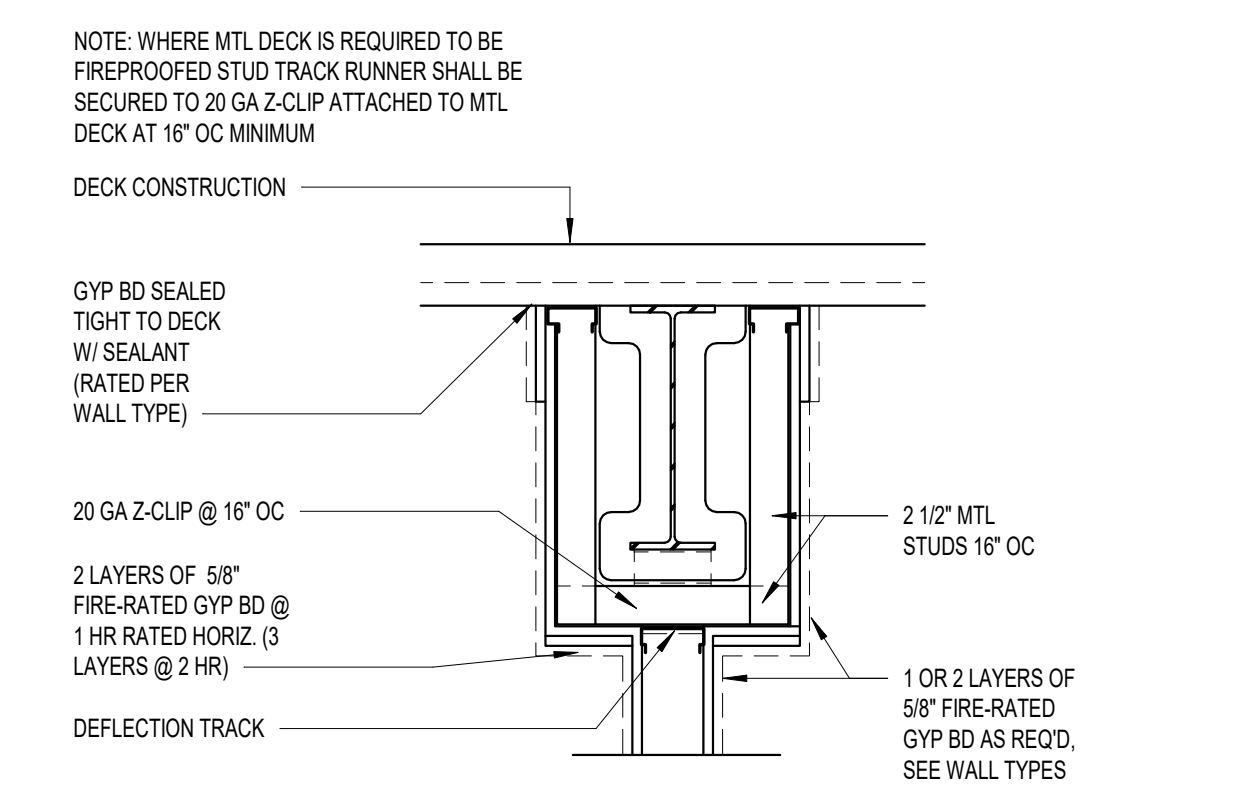
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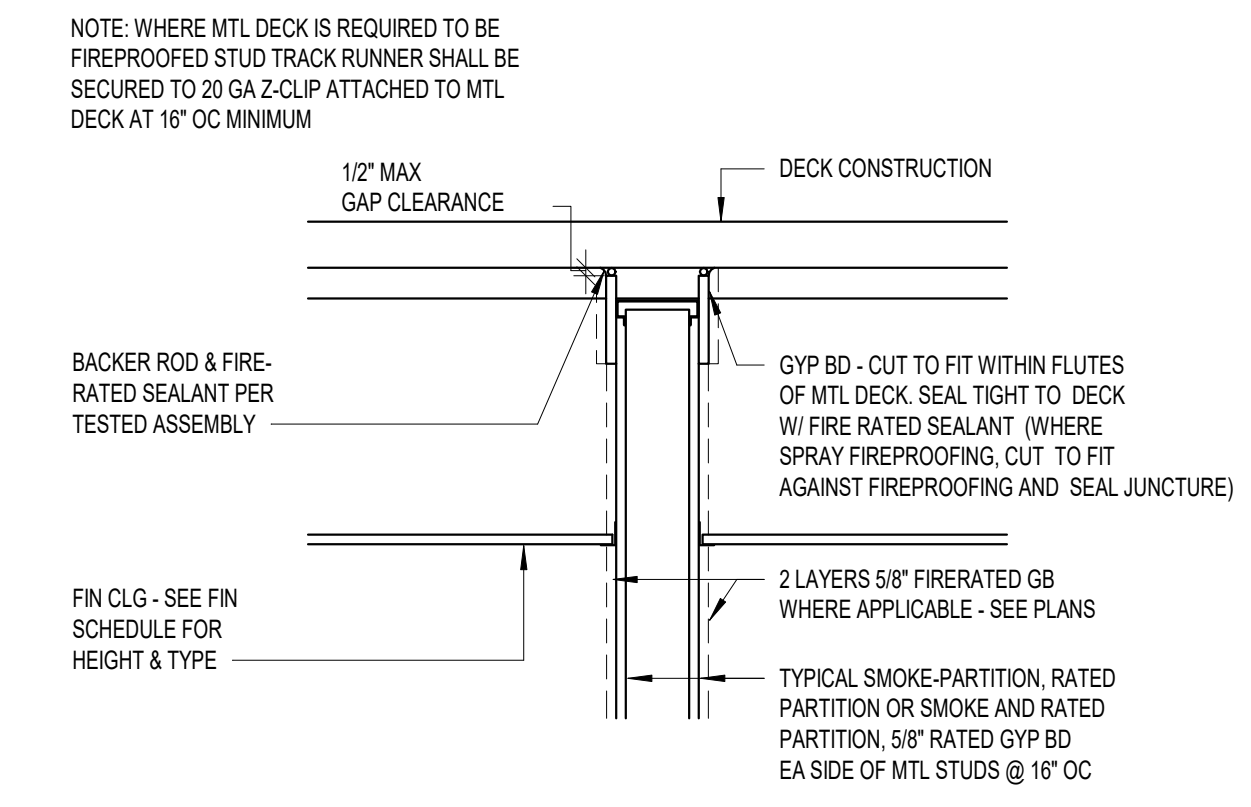
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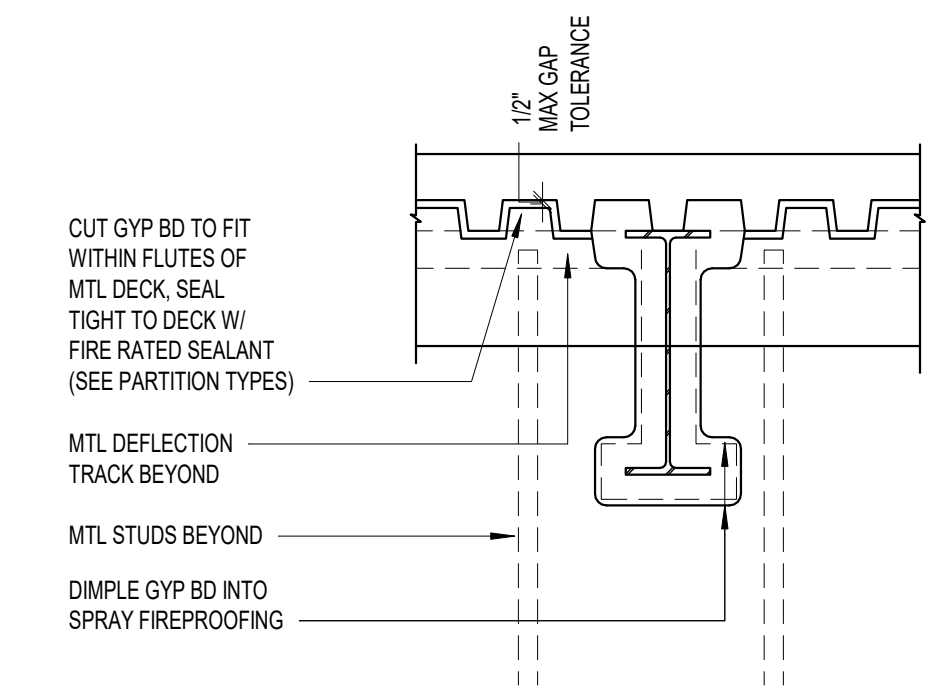
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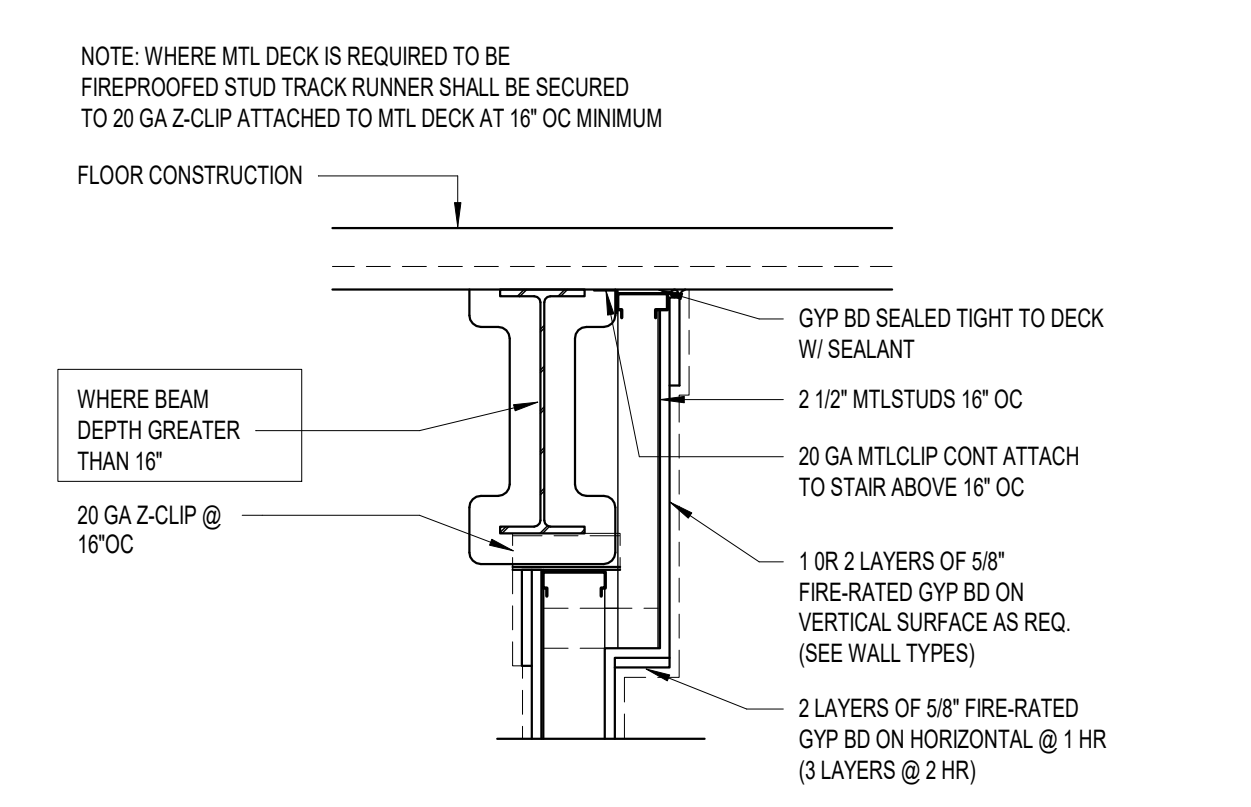
15 RATED WALL OR SMOKE WALL UNDER BEAM (JOIST SIM) TYP.
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16 TYPICAL RATED PARTITION DETAIL TYP.
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17 RATED WALLS PERPENDICULAR TO FLUTES OF METAL DECK TYP.
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18 RATED WALLS UNDER BEAM TYP.
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WILLIAM W. RICKHER
Professional Engineer
No. 5248
12/22/2020

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
TYPICAL DETAILS

Approved:
Andreka Watlington

Phase
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Project Title
VA DURHAM - PACU RENOVATION

Project Number
558-17-150

Building Number

Location
DURHAM VAMC DURHAM, NC

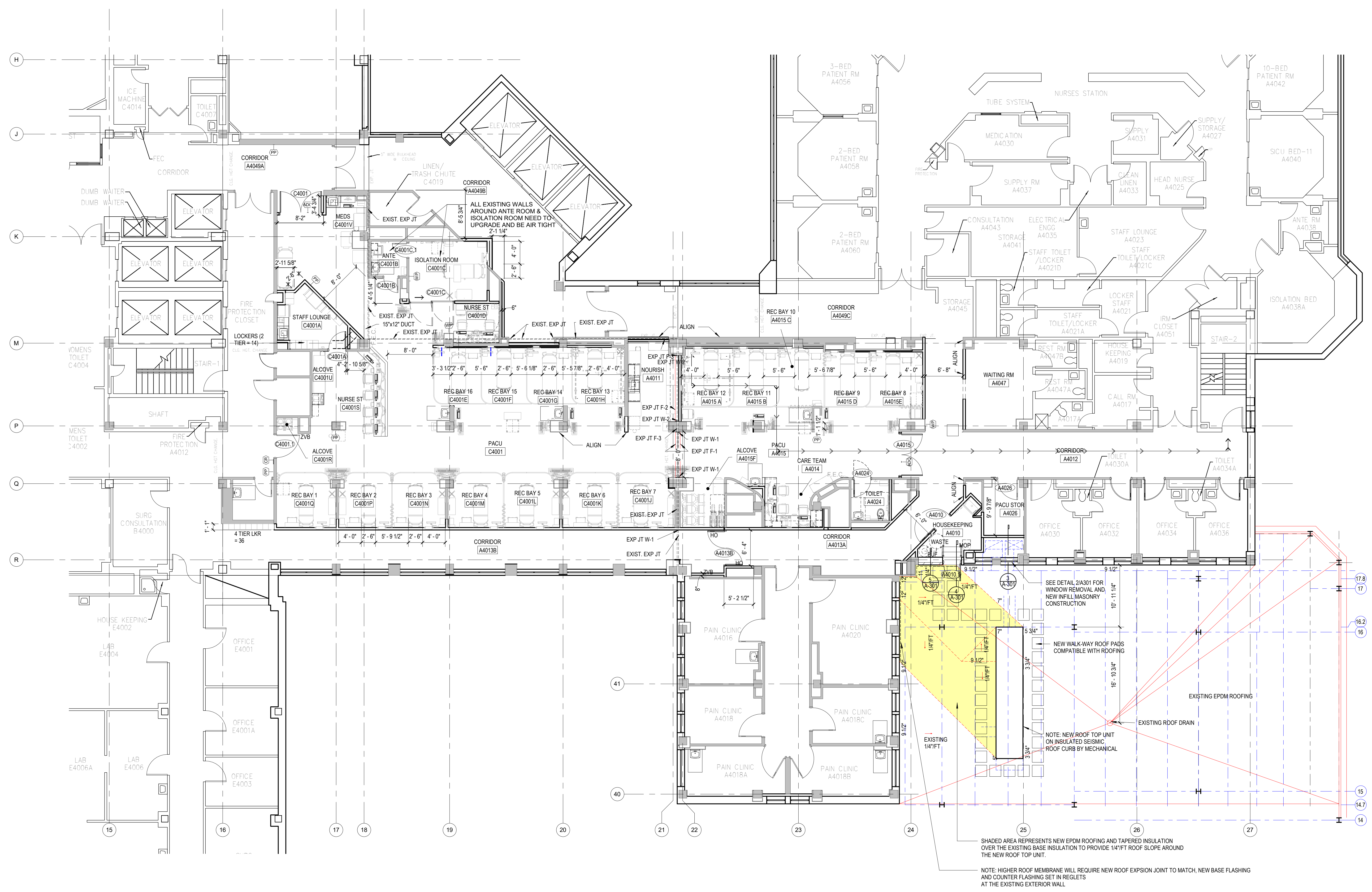
Issue Date
12/22/2020

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MK

Drawing Number
A-006
18 of 78

- GENERAL CONSTRUCTION NOTES**
- DIMENSIONS ARE TO COLUMN CENTERLINES, FACE OF INTERIOR GYPSUM BOARD PARTITION, INSIDE FACE OF EXTERIOR WALLS, FACE OF MASONRY WALLS AND FACE OF EXISTING WALLS UNLESS OTHERWISE NOTED. PATCH FIREPROOFING WHERE DAMAGED OR REMOVED BY ADJACENT CONSTRUCTION.
 - PROVIDE STEEL BACKING PLATES OR FIRE RETARDANT WOOD BLOCKING FOR WALL MOUNTED EQUIPMENT INCLUDING ACCESSORIES, MILLWORK, HANDRAILS AND GRAB BARS.
 - PATCH AND REPAIR WALLS, FLOOR SLABS AND ROOF PENETRATIONS AS REQUIRED, TO MAINTAIN REQUIRED ASSEMBLY RATINGS.
 - REFER TO SHEET A-001 FOR TYPICAL MOUNTING HEIGHTS.
 - SYSTEMS CASEWORK TO BE PROVIDED BY OWNER UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO COMPLY WITH APPLICABLE CODES REQUIRED BY AUTHORITY HAVING JURISDICTION (AHJ).



1 FOURTH FLOOR PLAN - NEW CONSTRUCTION
1/8" = 1'-0"

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
FOURTH FLOOR PLAN - NEW CONSTRUCTION

Approved:
Andreka Watlington

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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

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558-17-150

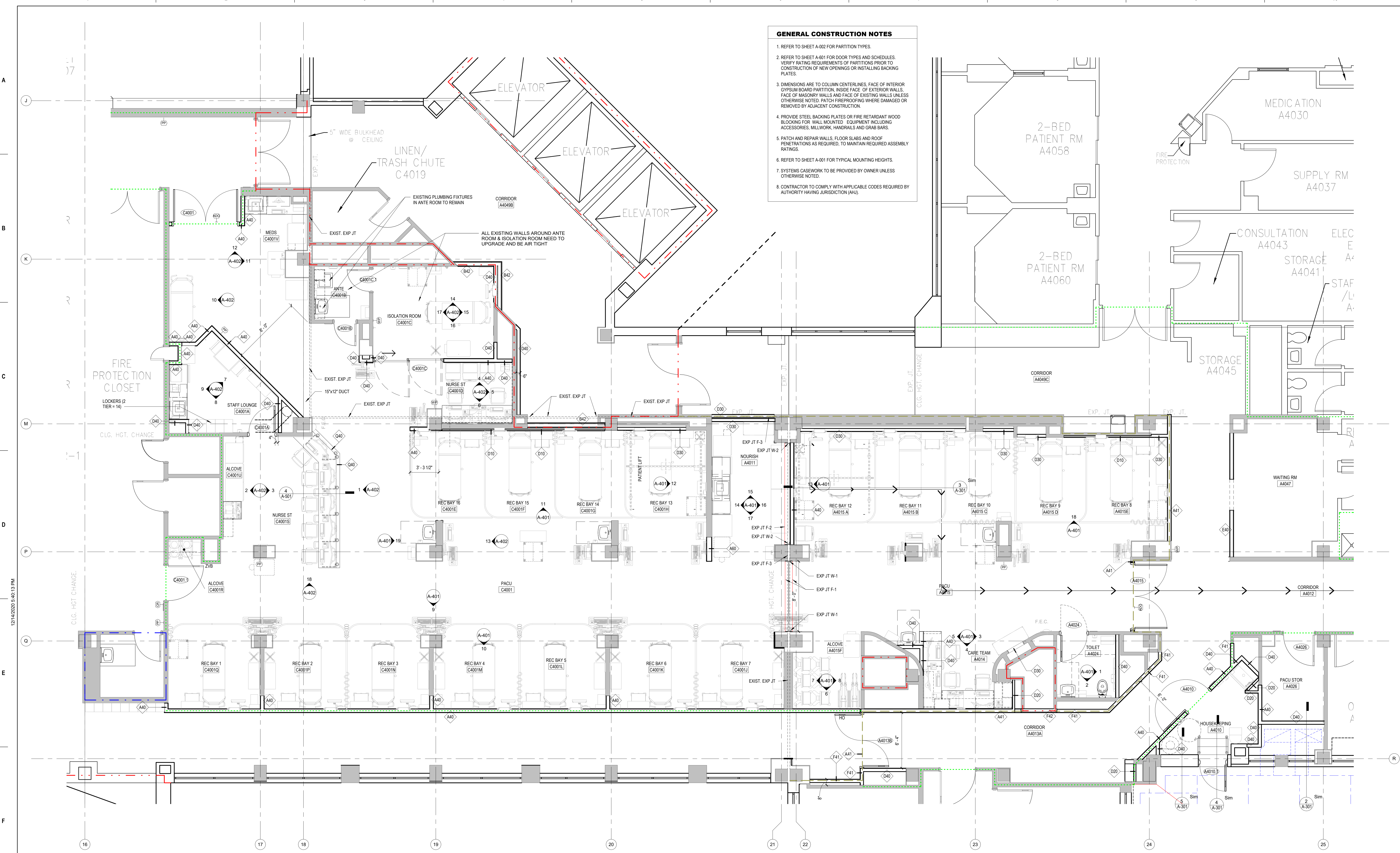
Building Number

Drawing Number
**A-101
19 of 78**

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GENERAL CONSTRUCTION NOTES

- REFER TO SHEET A-002 FOR PARTITION TYPES.
- REFER TO SHEET A-001 FOR DOOR TYPES AND SCHEDULES. VERIFY RATING REQUIREMENTS OF PARTITIONS PRIOR TO CONSTRUCTION OF NEW OPENINGS OR INSTALLING BACKING PLATES.
- DIMENSIONS ARE TO COLUMN CENTERLINES, FACE OF INTERIOR GYPSUM BOARD PARTITION, INSIDE FACE OF EXTERIOR WALLS, FACE OF MASONRY WALLS AND FACE OF EXISTING WALLS UNLESS OTHERWISE NOTED. PATCH FIREPROOFING WHERE DAMAGED OR REMOVED BY ADJACENT CONSTRUCTION.
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1 ENLARGED FOURTH FLOOR PLAN - NEW CONSTRUCTION
1/4" = 1'-0"

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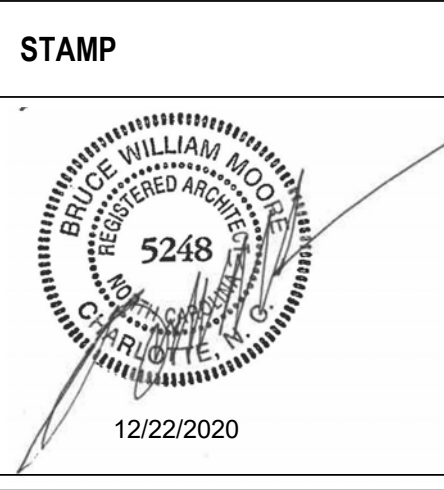
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VA U.S. Department of Veterans Affairs

Drawing Title
ENLARGED FOURTH FLOOR PLAN - NEW CONSTRUCTION

Approved:
Andreka Watlington

Phase
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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

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Project Number
558-17-150

Building Number

Drawing Number
**A-102
20 of 78**

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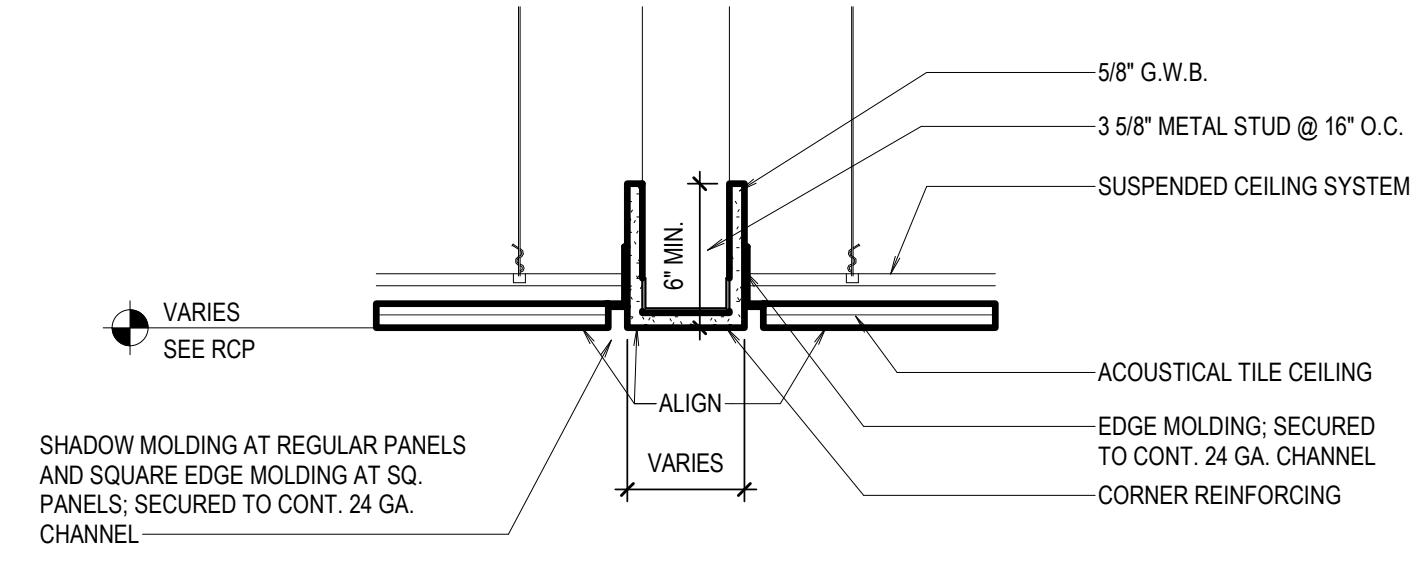
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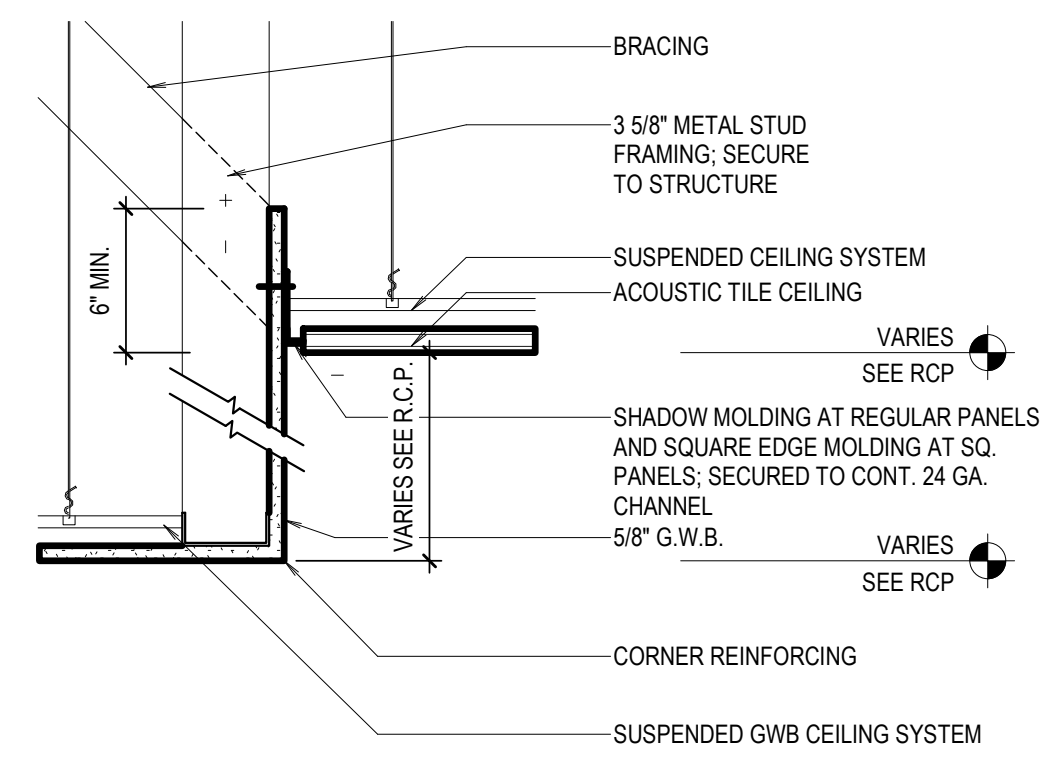
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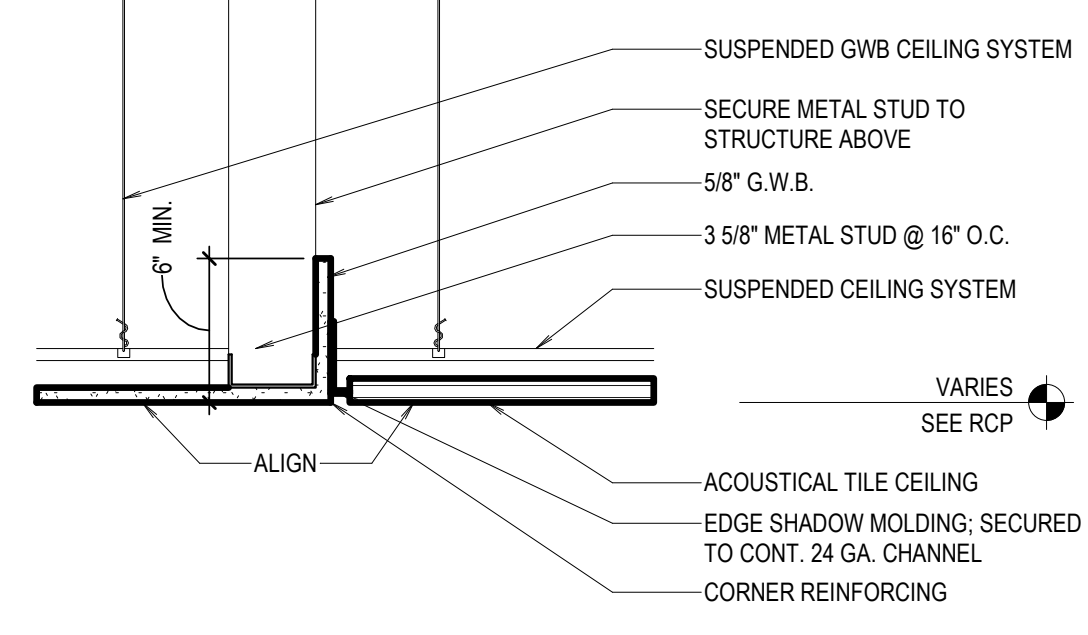
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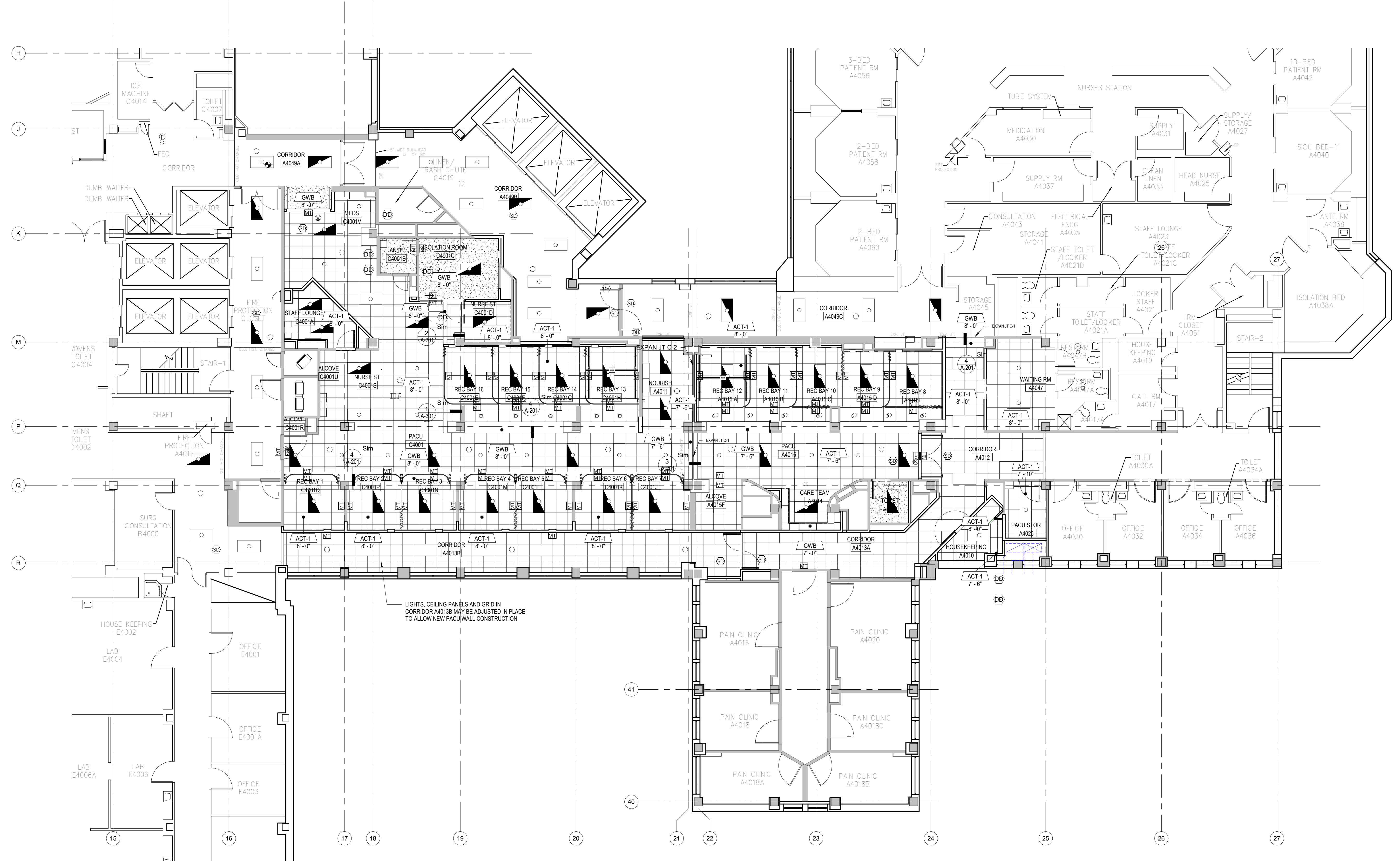
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3 CEILING TRANSITION - GWB TO ACT
1 1/2" = 1'-0"



4 CEILING TRANSITION - GWB TO ACT (FLUSH)
1 1/2" = 1'-0"



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1 FOURTH FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"
NOTE: SEE ELECTRICAL DRAWING FOR LEGEND

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Professional Engineer
No. 5248
12/22/2020

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
FOURTH FLOOR REFLECTED CEILING PLAN

Approved:
Andreka Watlington

Phase
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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

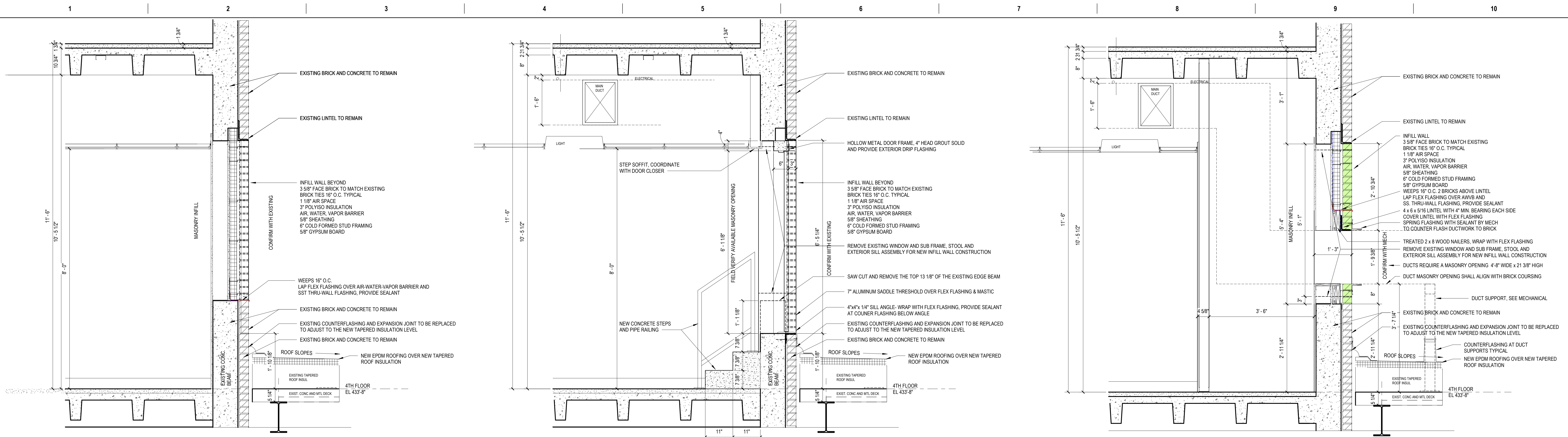
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558-17-150

Building Number

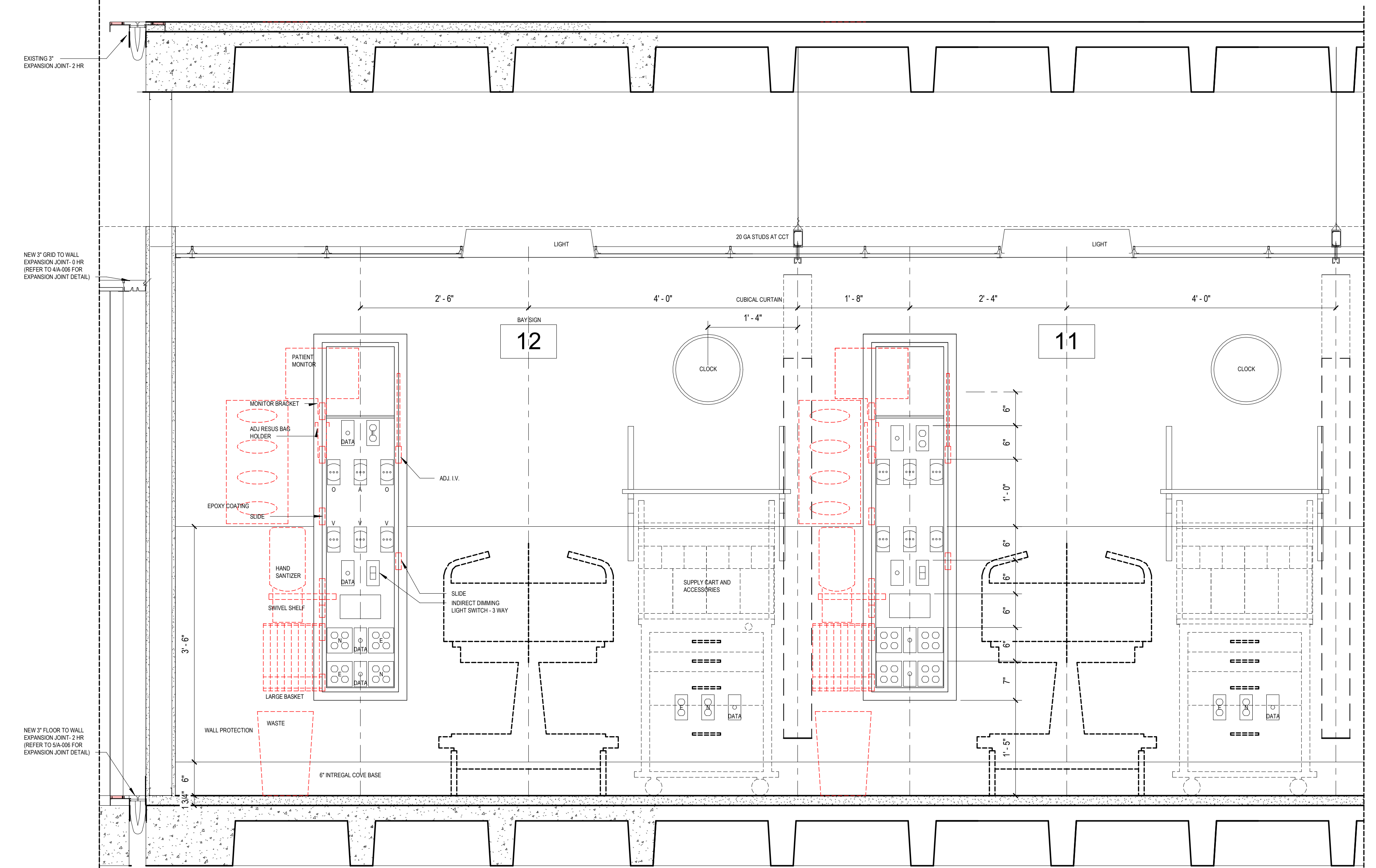
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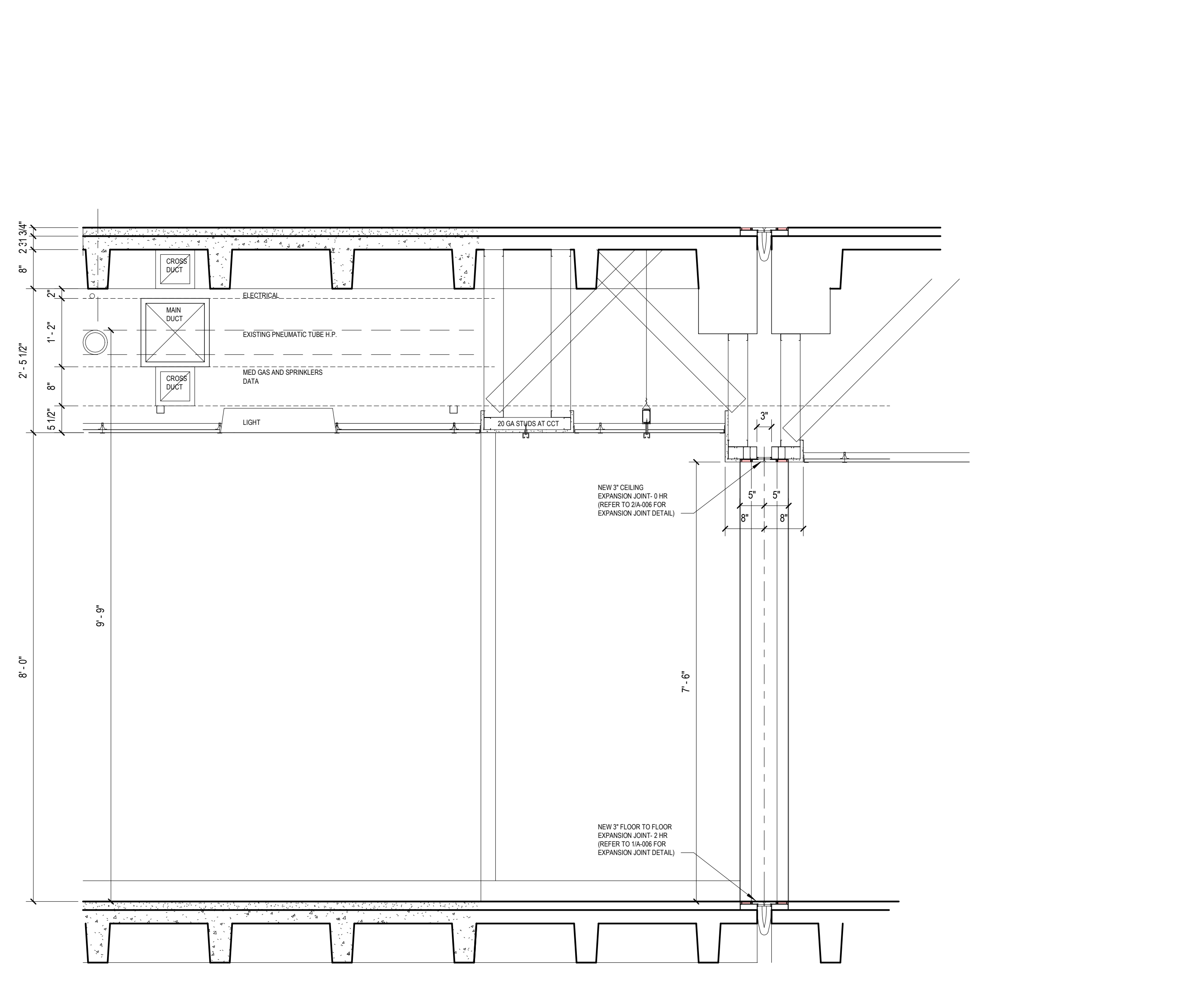
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3/4" = 1'-0"

4 ROOF ACCESS DOOR
3/4" = 1'-0"

2 WINDOW INFILL
3/4" = 1'-0"



3 VERTICAL HEADWALL DETAIL
1" = 1'-0"



1 CEILING CLEARANCE DETAIL
3/4" = 1'-0"

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Revisions:	Date:

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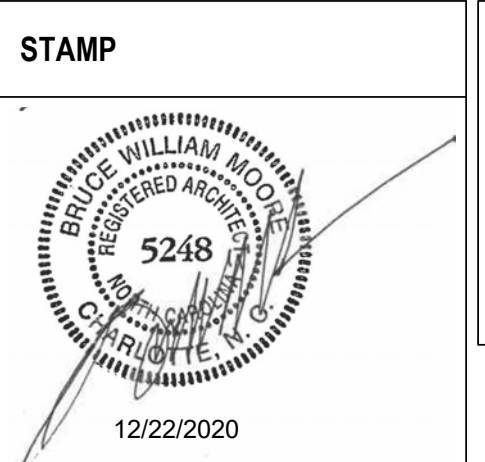
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Drawing Title SECTIONS
Approved: Andreka Watlington

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Project Title VA DURHAM - PACU RENOVATION
Location DURHAM VAMC DURHAM, NC
Issue Date 12/22/2020
Checked BM
Drawn MK

Project Number 558-17-150
Building Number
Drawing Number A-301 22 of 78

100% BID DOCUMENTS

A

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C

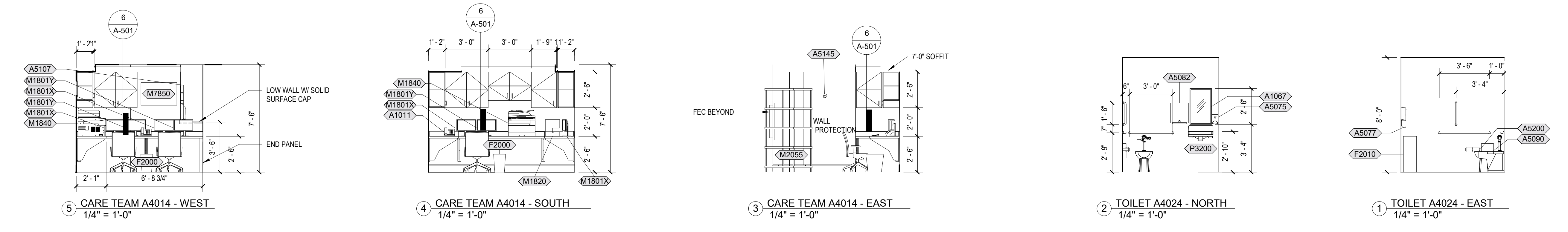
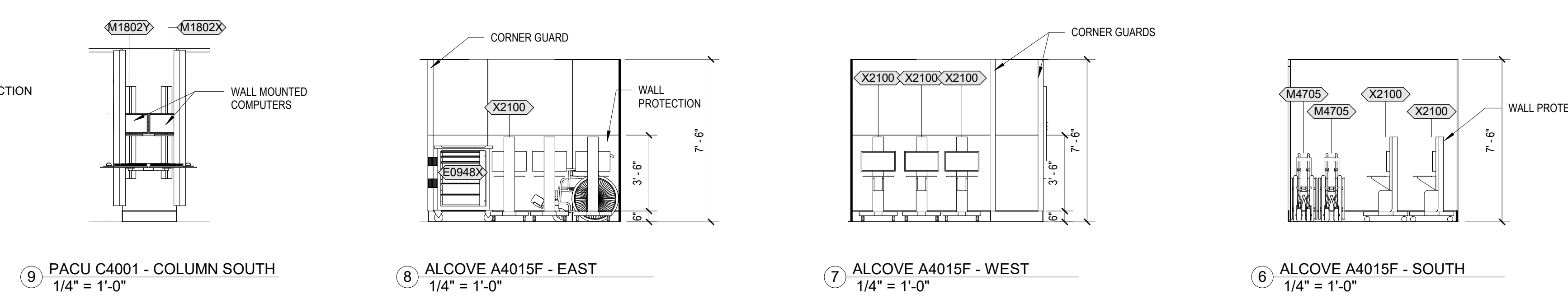
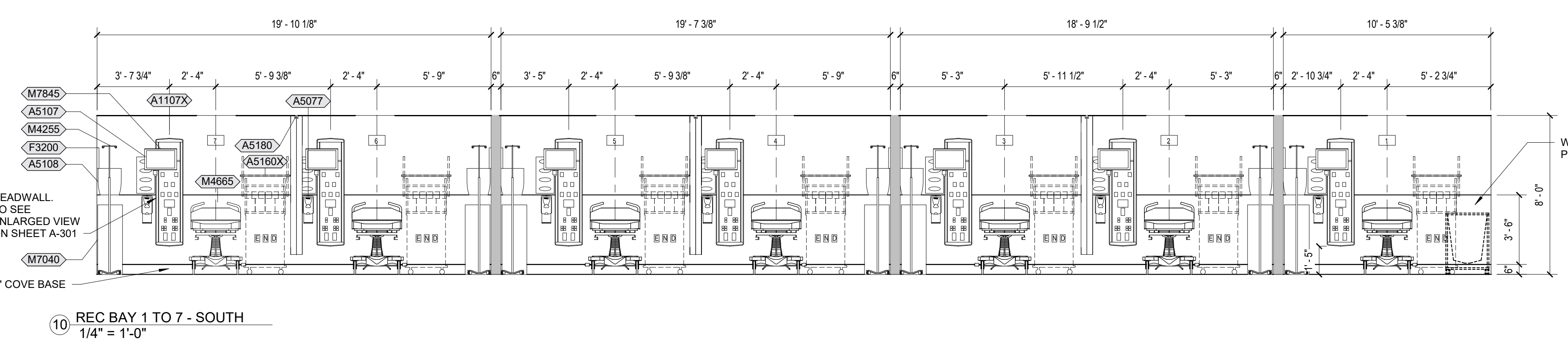
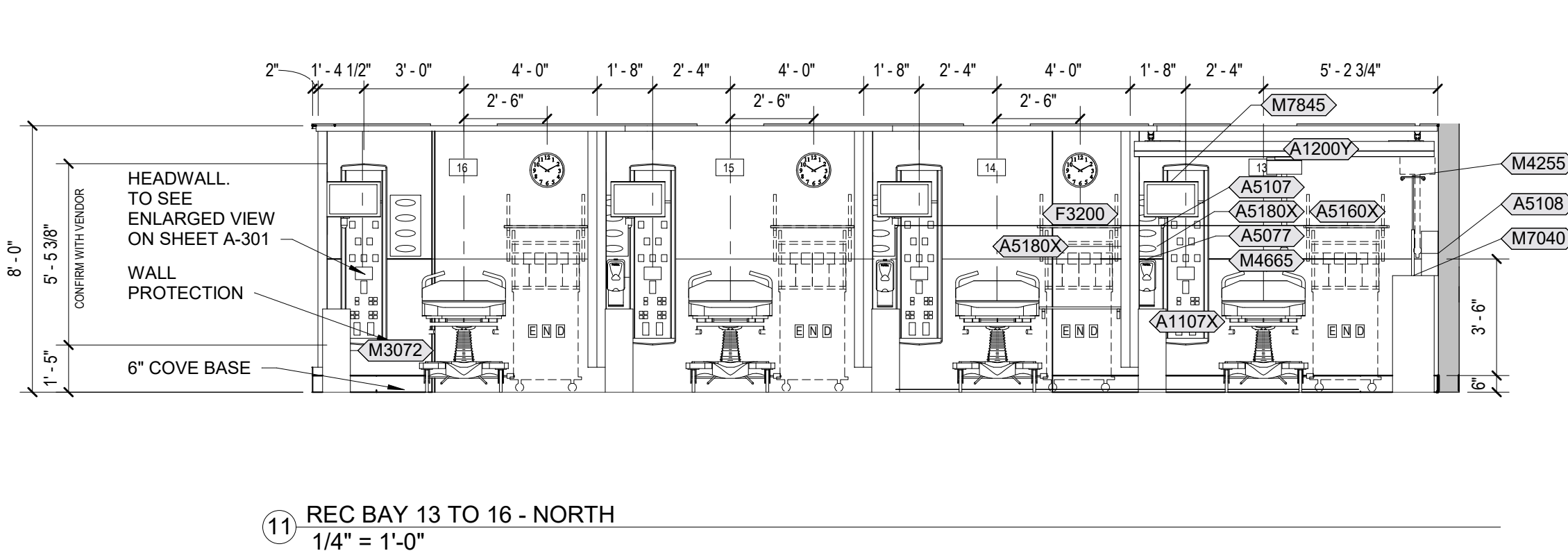
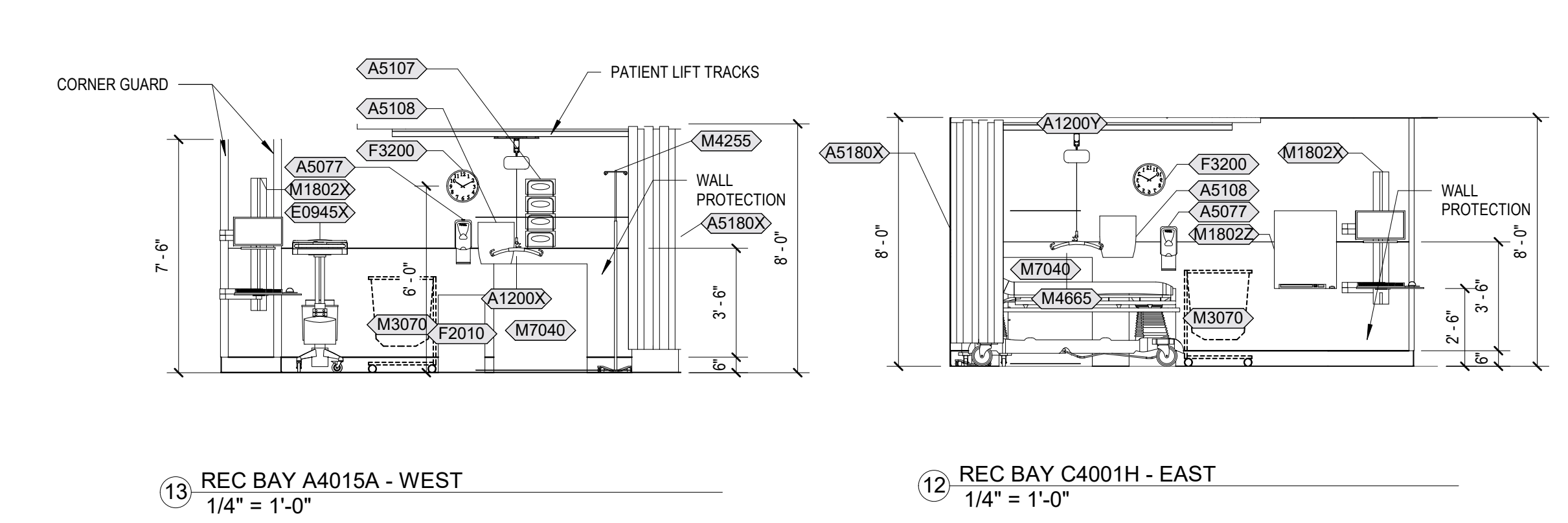
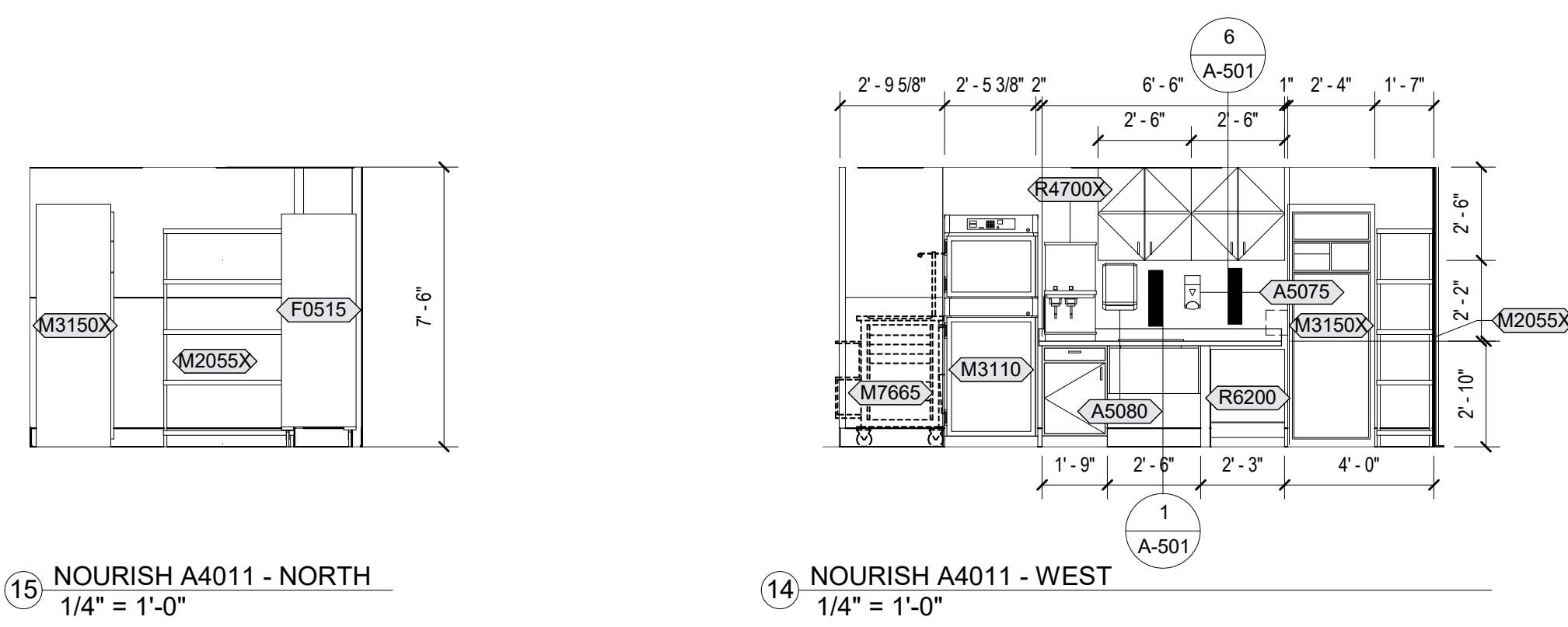
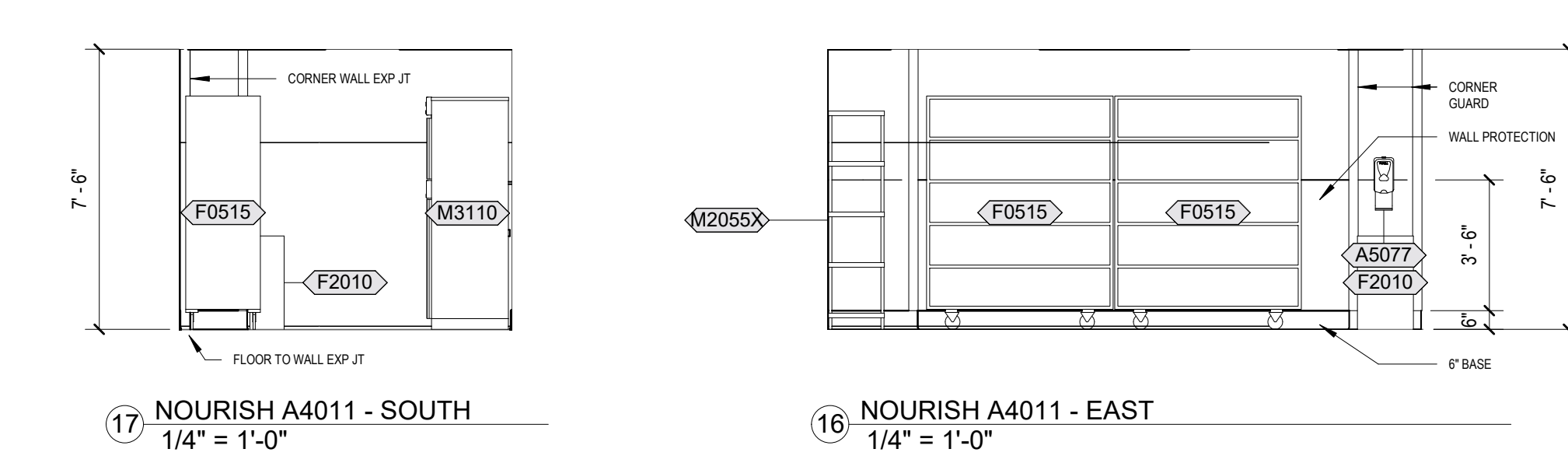
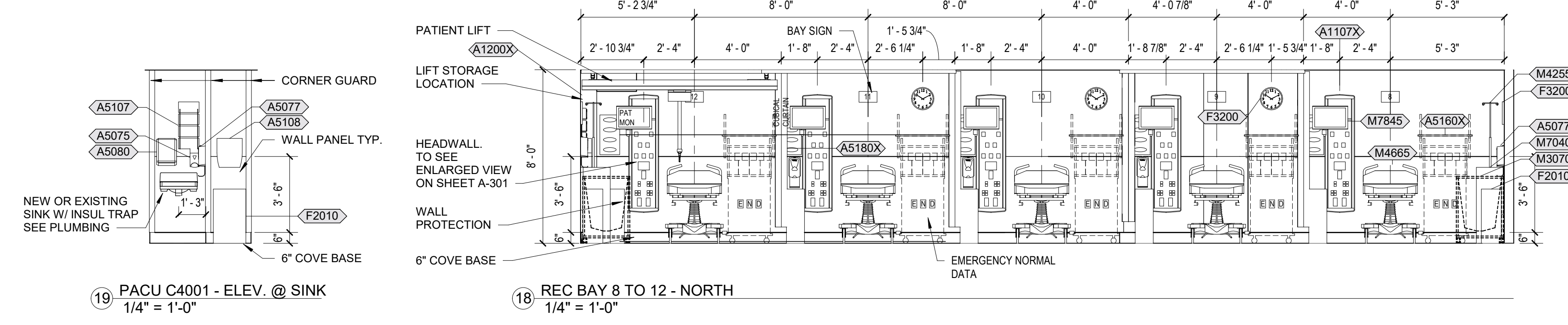
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Revisions:	Date:

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WILLIAM W. HARRIS
Professional Engineer
No. 5248
12/22/2020

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
INTERIOR ELEVATIONS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
BM

Drawn
MK

Project Number
558-17-150

Building Number

Drawing Number
A-401
23 of 78

A

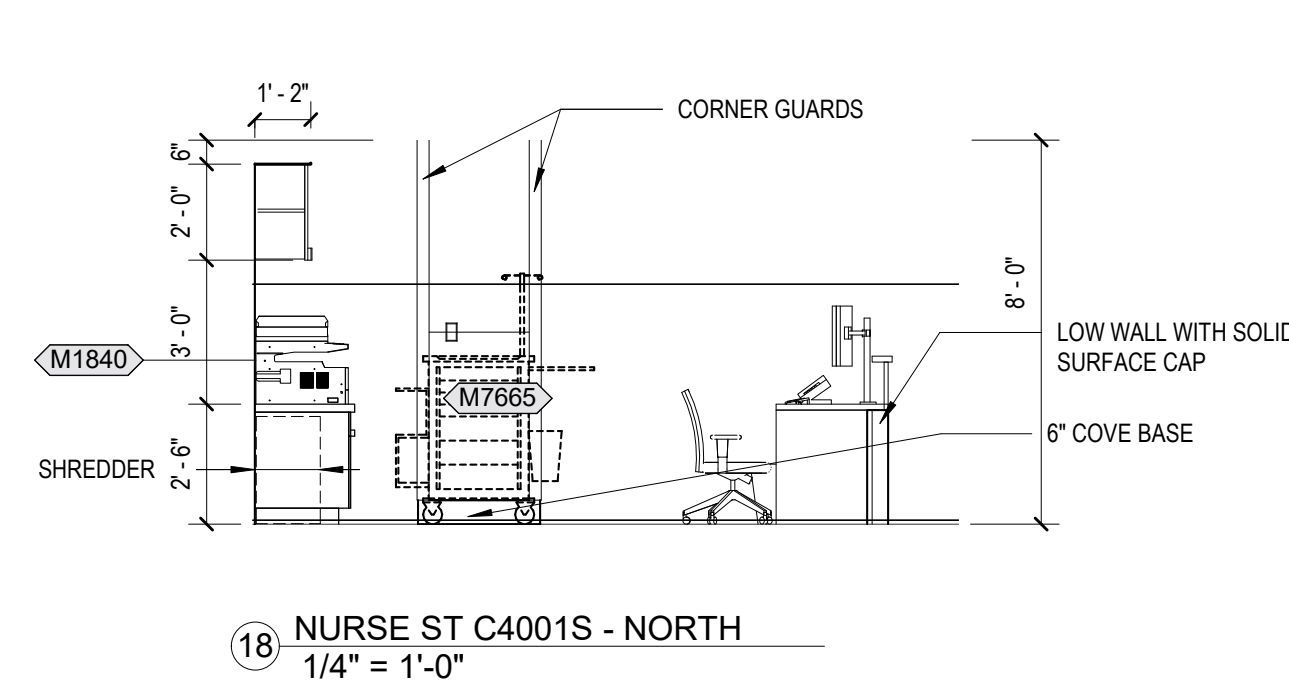
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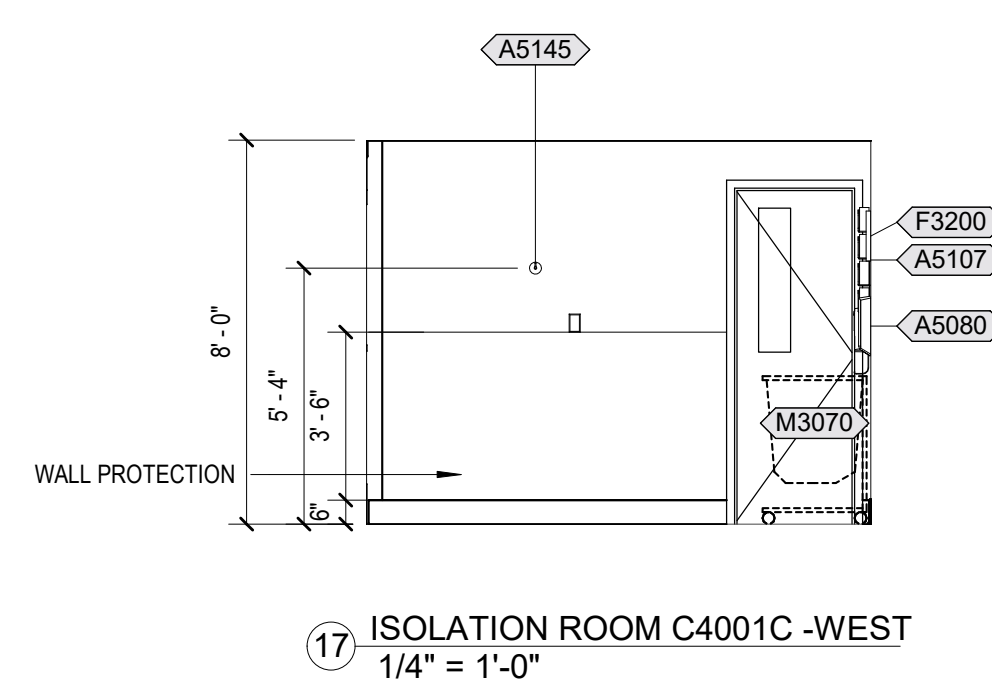
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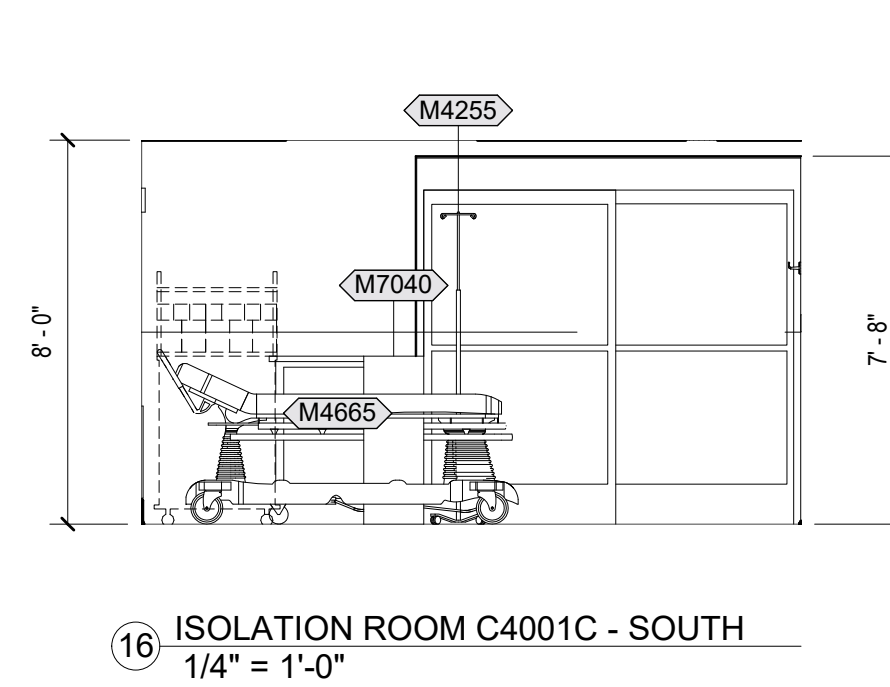
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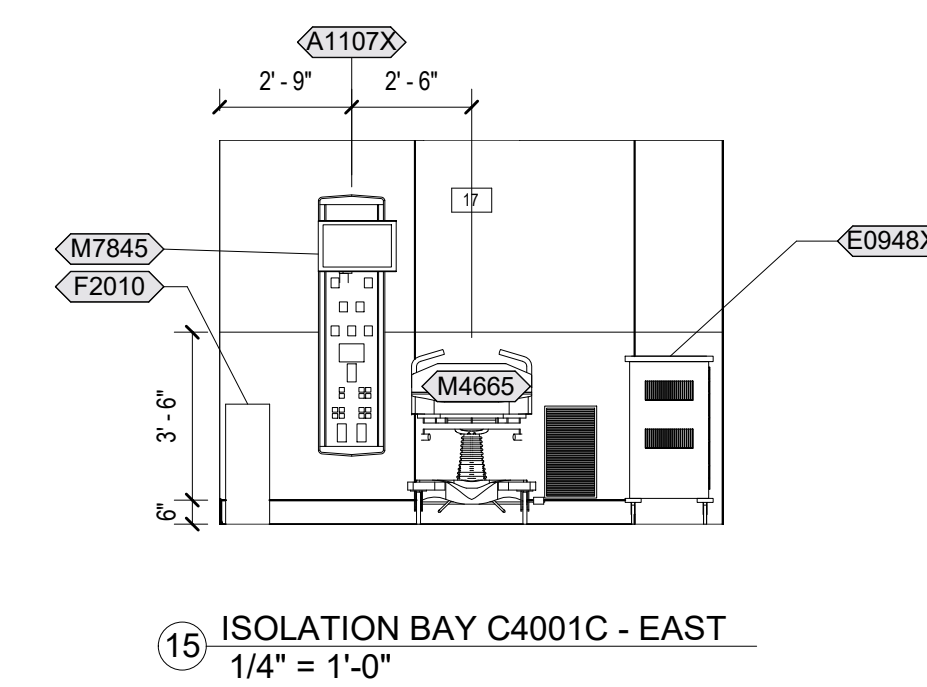
18 NURSE ST C4001S - NORTH
1/4" = 1'-0"



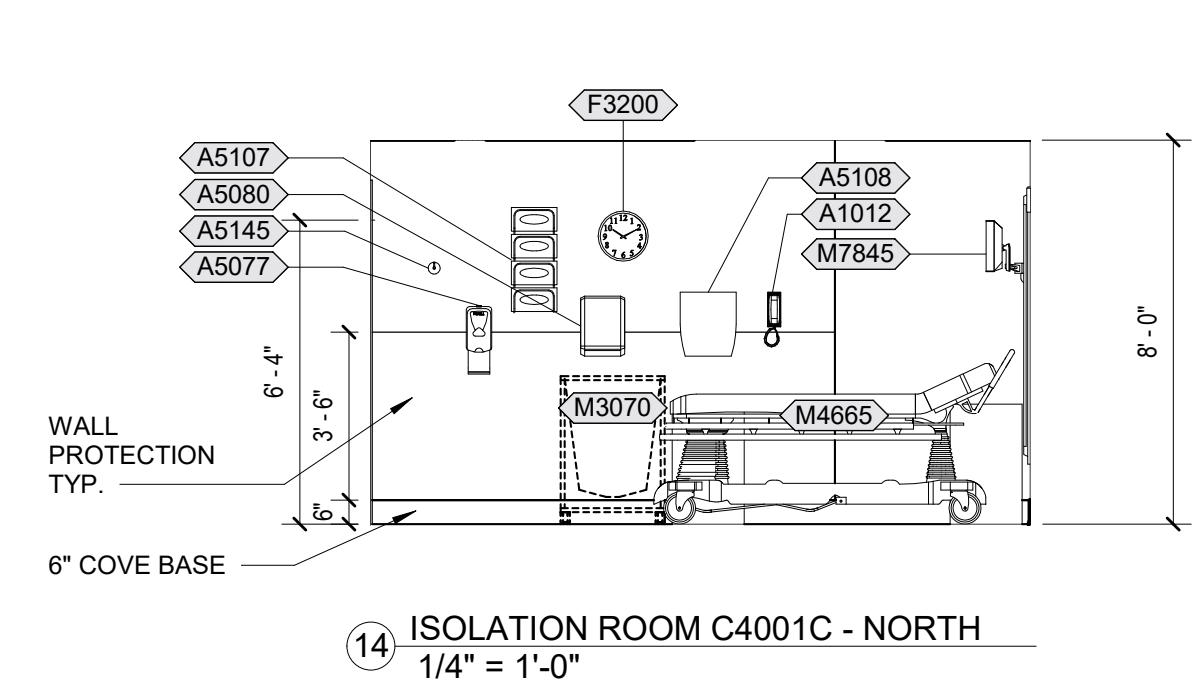
17 ISOLATION ROOM C4001C - WEST
1/4" = 1'-0"



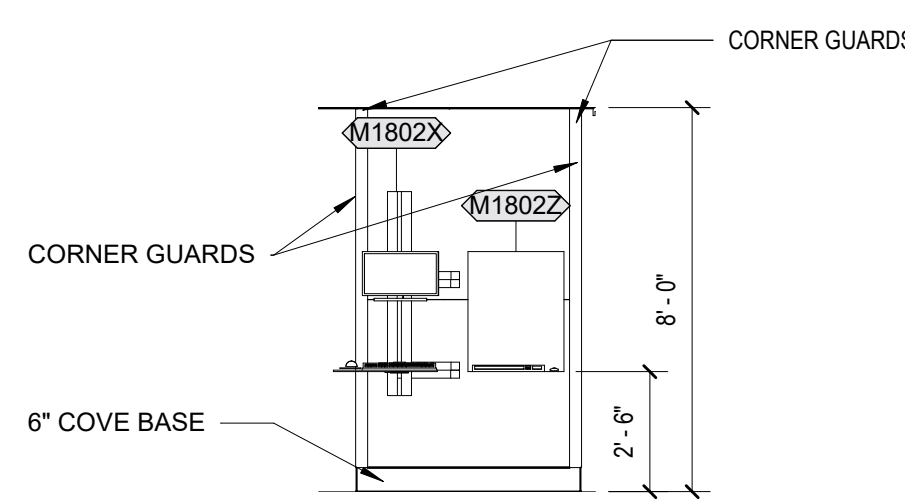
16 ISOLATION ROOM C4001C - SOUTH
1/4" = 1'-0"



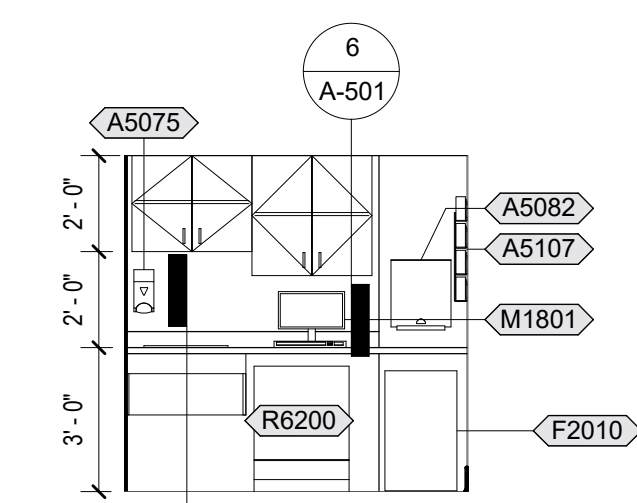
15 ISOLATION BAY C4001C - EAST
1/4" = 1'-0"



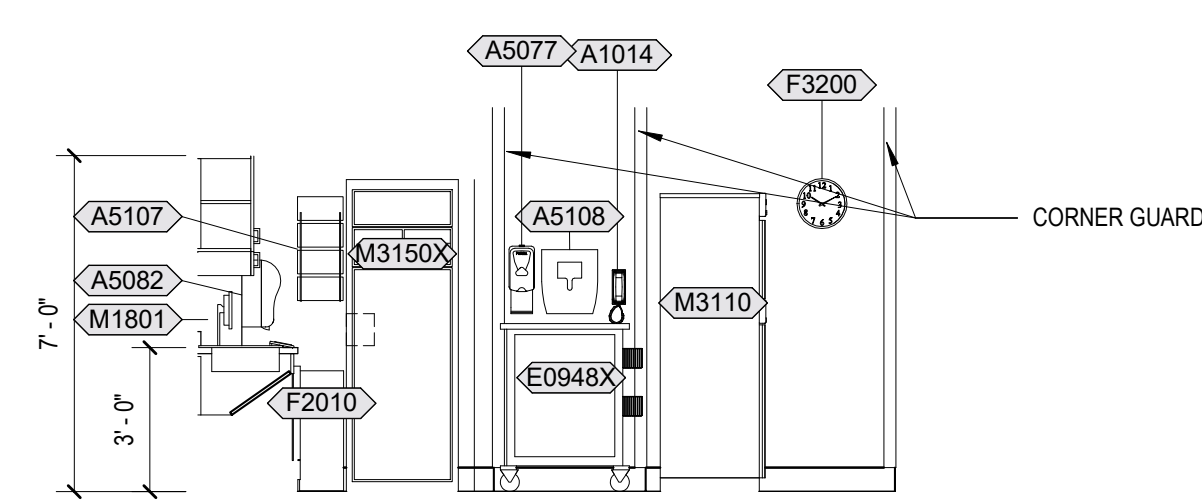
14 ISOLATION ROOM C4001C - NORTH
1/4" = 1'-0"



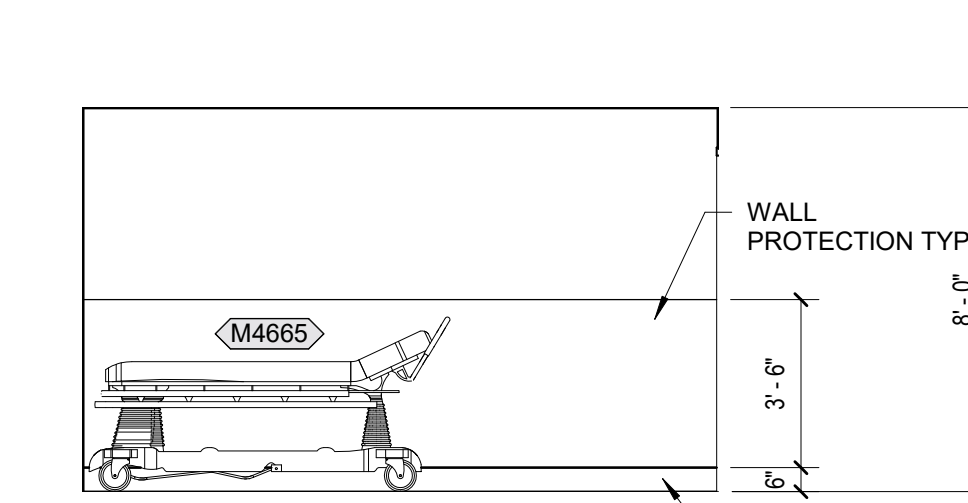
13 PACU C4001 - ELEV @ COLUMN - WEST
1/4" = 1'-0"



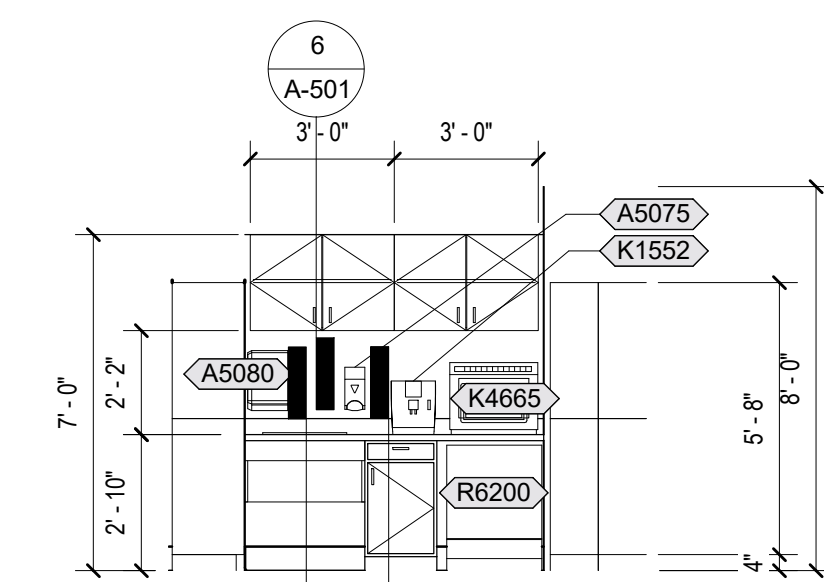
12 MEDS C4001V - NORTH
1/4" = 1'-0"



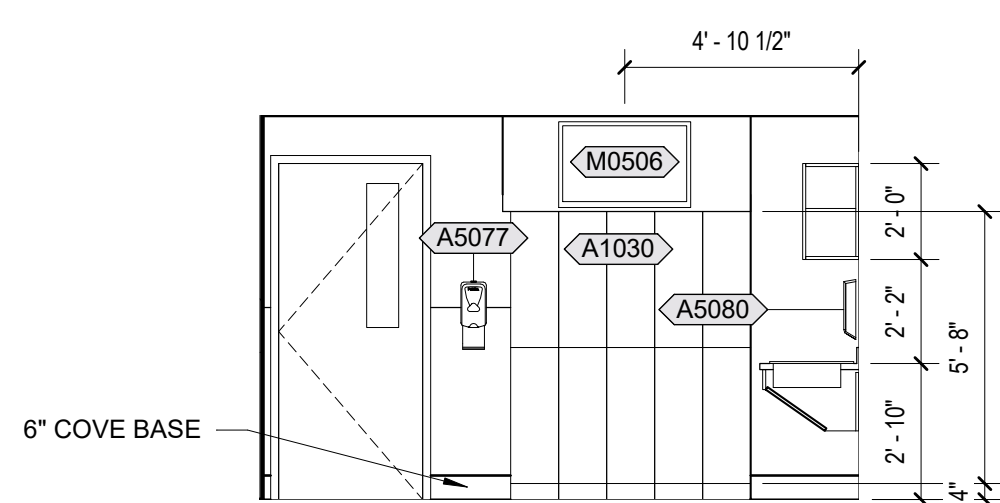
11 MEDS C4001V - EAST
1/4" = 1'-0"



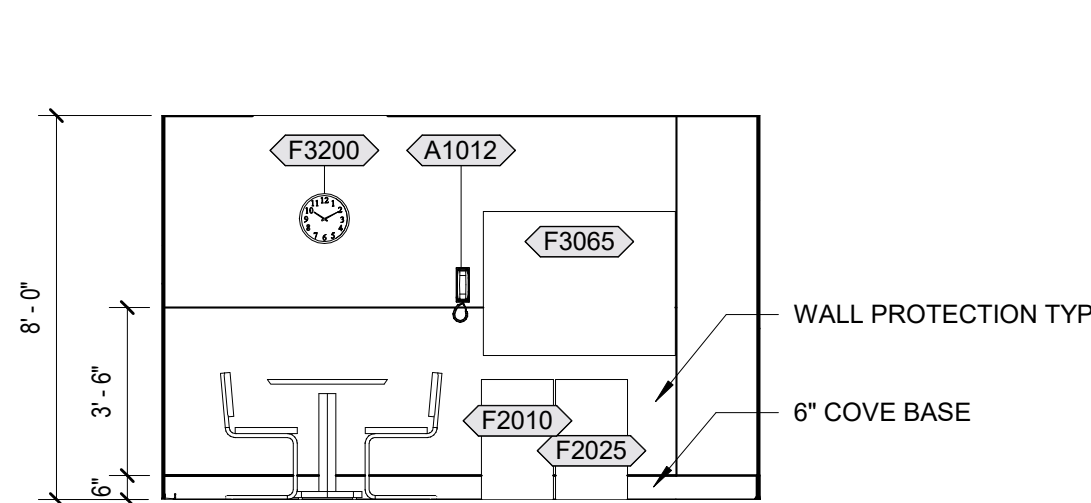
10 PACU C4001 - CORRIDOR WEST
1/4" = 1'-0"



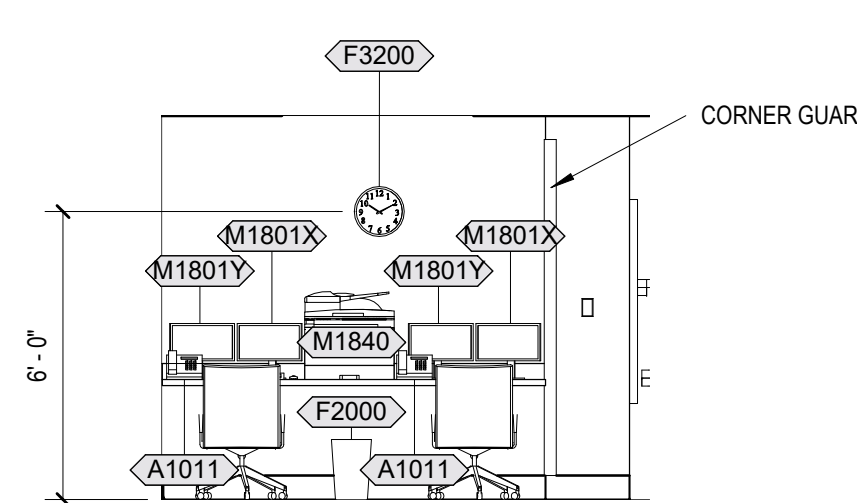
9 STAFF LOUNGE C4001A - WEST
1/4" = 1'-0"



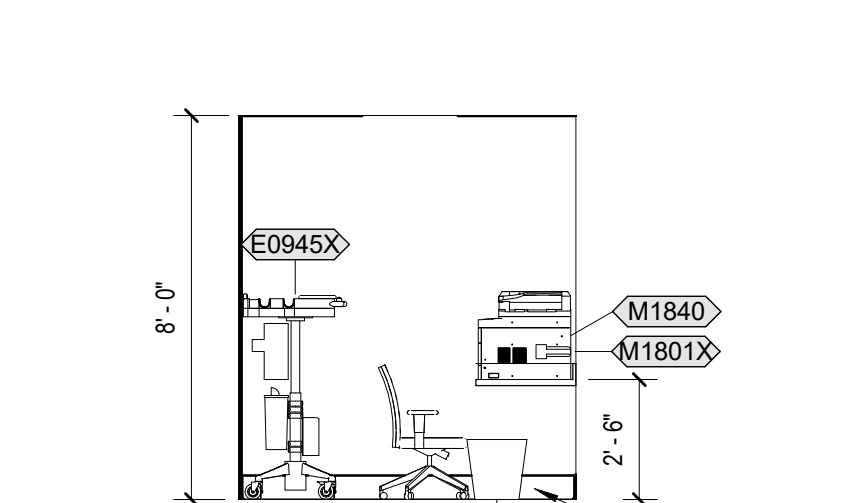
8 STAFF LOUNGE C4001A - SOUTH
1/4" = 1'-0"



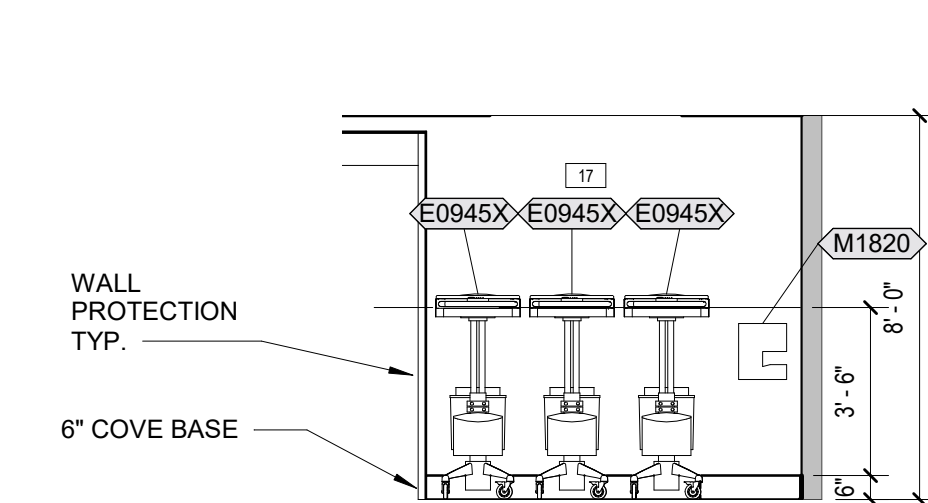
7 STAFF LOUNGE C4001A - NORTH EAST
1/4" = 1'-0"



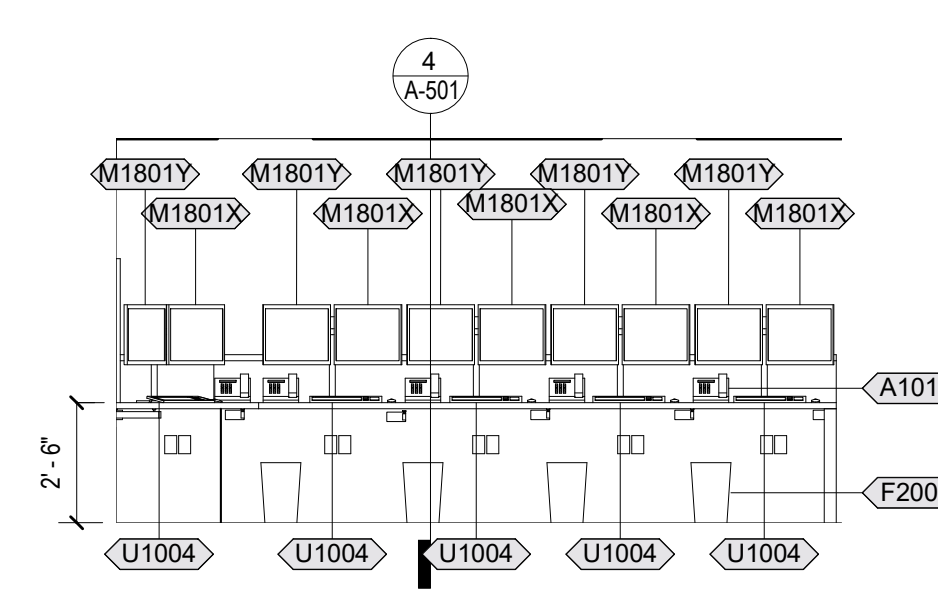
6 NURSE ST C4001D - SOUTH
1/4" = 1'-0"



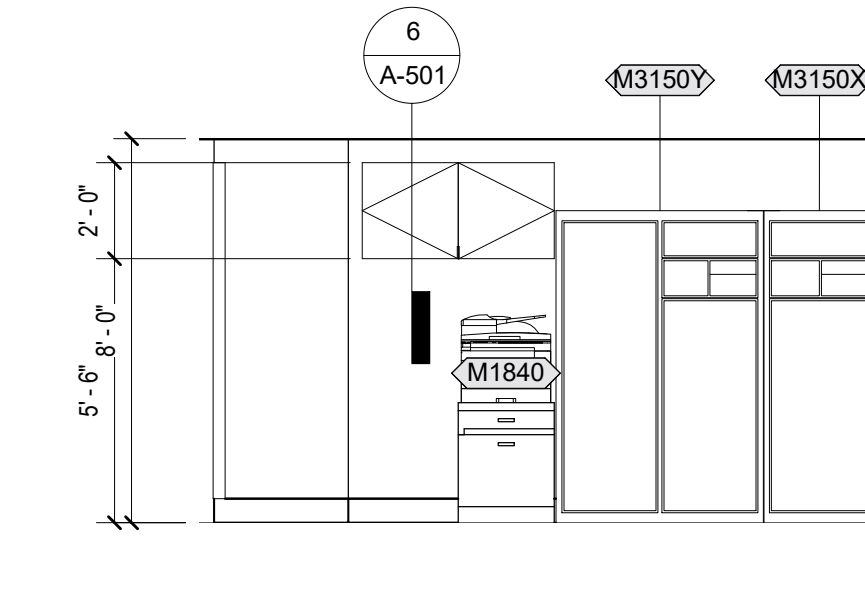
5 NURSE ST C4001D - EAST
1/4" = 1'-0"



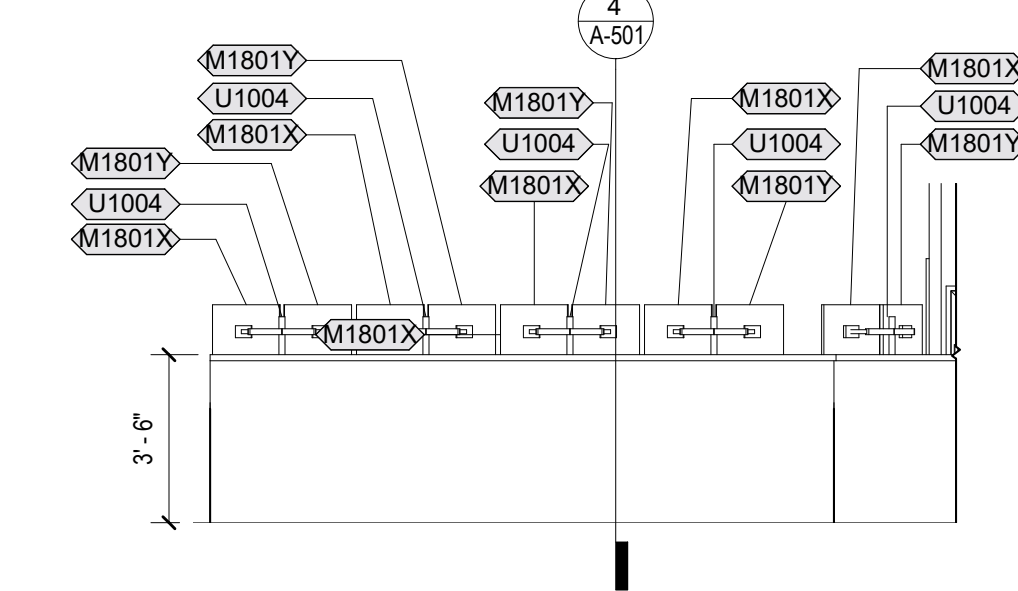
4 NURSE ST C4001D - NORTH
1/4" = 1'-0"



3 NURSE ST C4001S - EAST
1/4" = 1'-0"



2 ALCOVE C4001U - WEST
1/4" = 1'-0"



1 NURSE ST C4001S - WEST
1/4" = 1'-0"

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WILLIAM W. RICKHER
Professional Engineer
5248
12/22/2020

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
INTERIOR ELEVATIONS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
BM

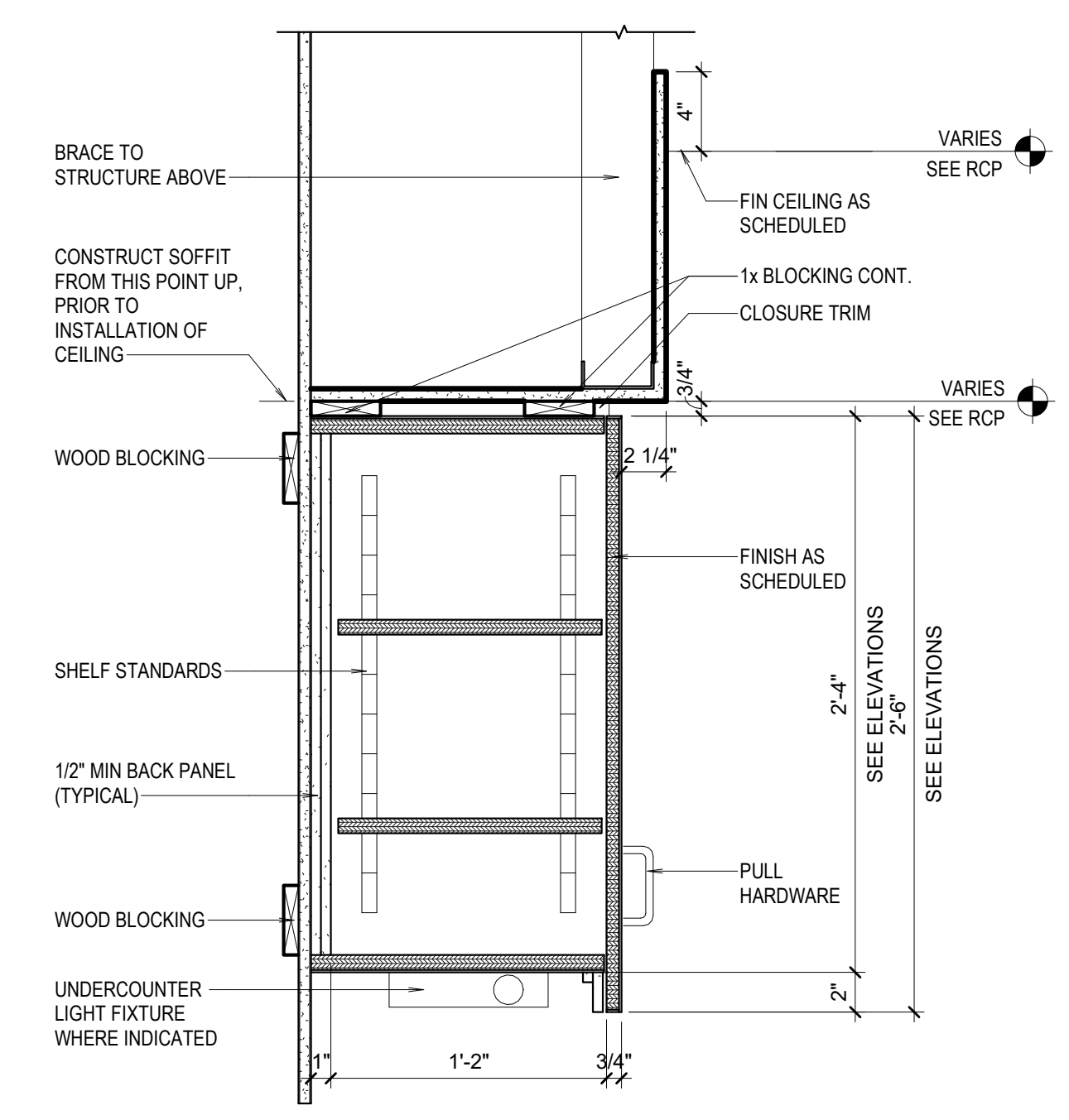
Drawn
MK

Project Number
558-17-150

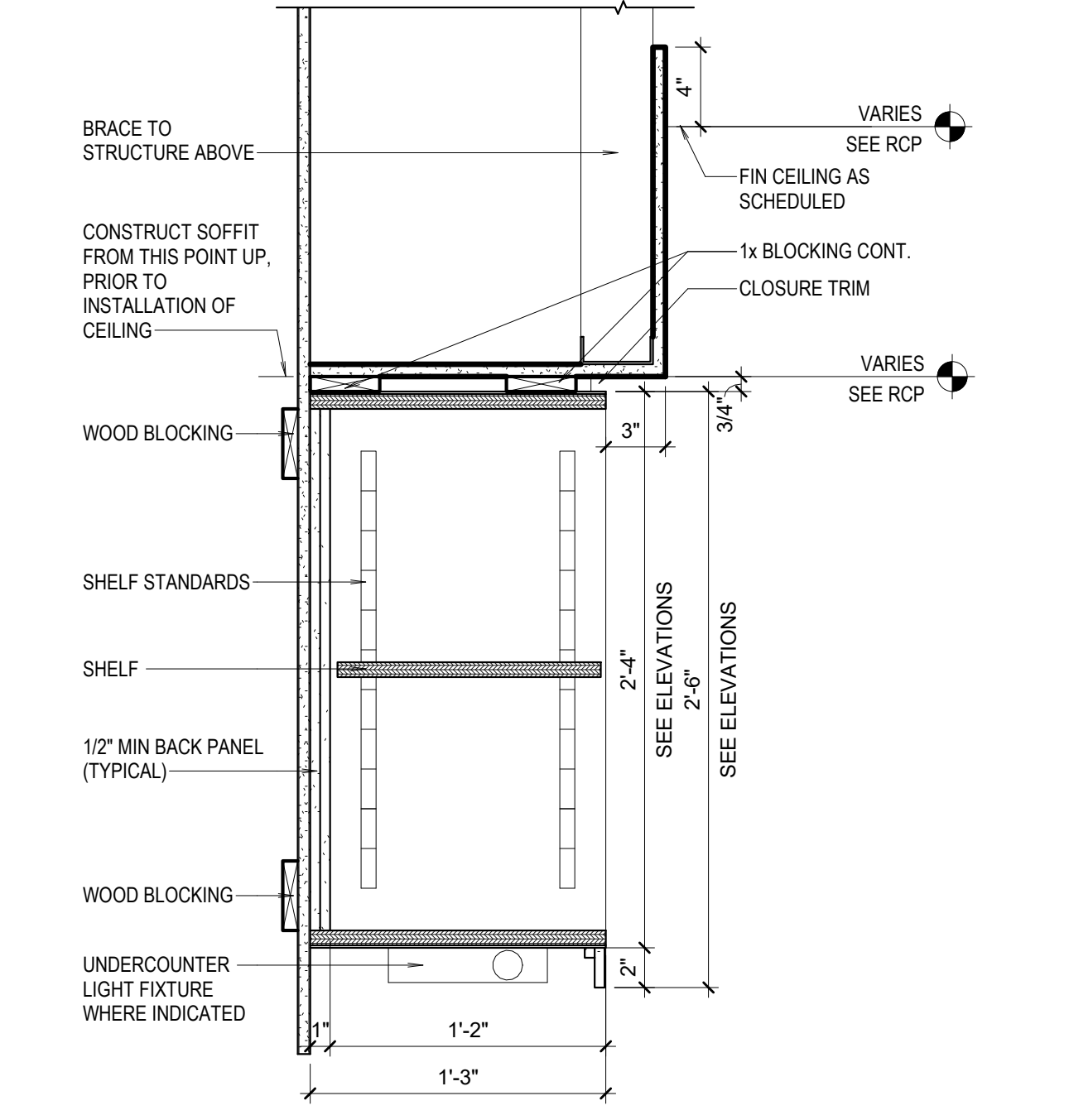
Building Number

Drawing Number
A-402
24 of 78

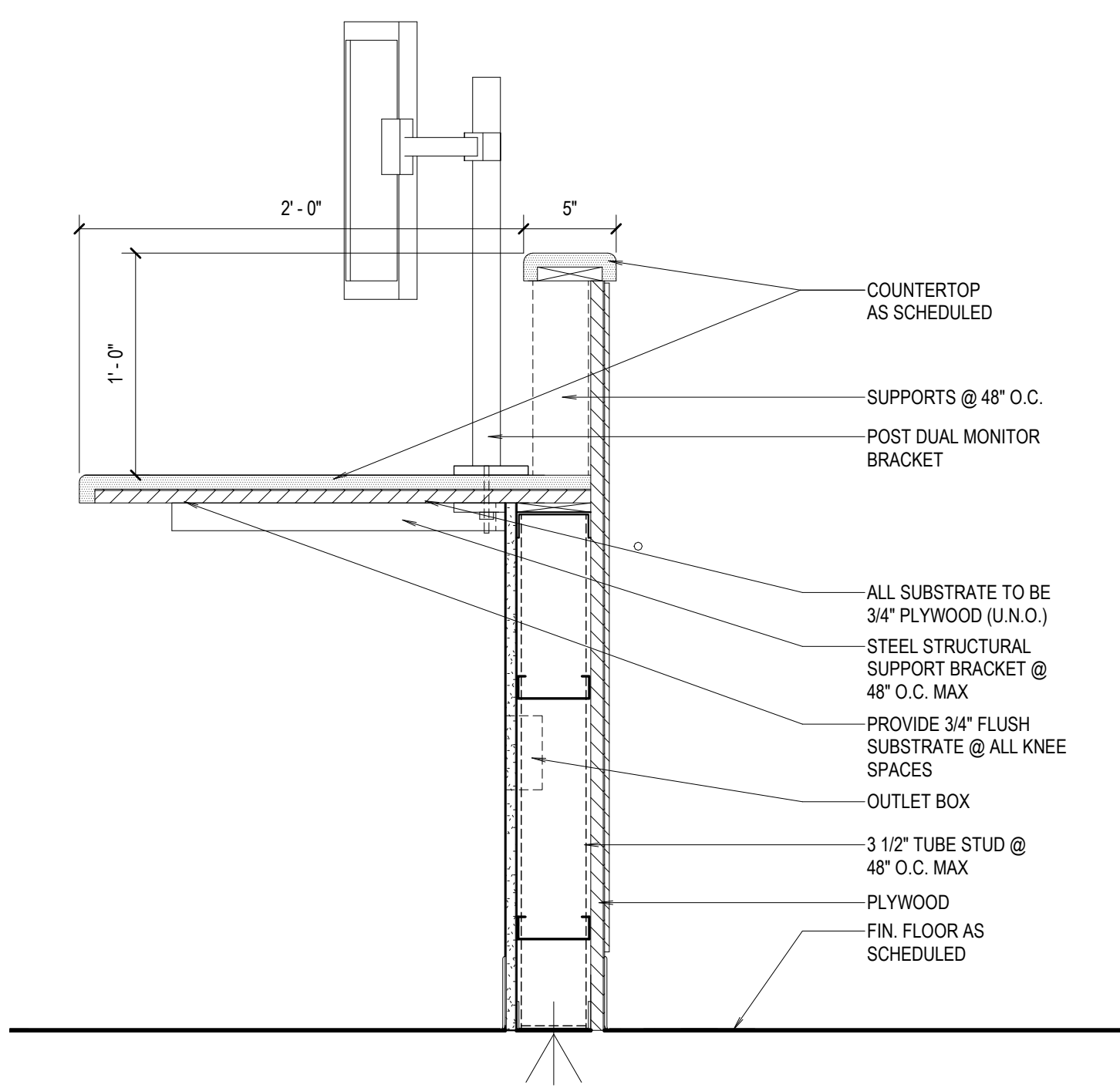
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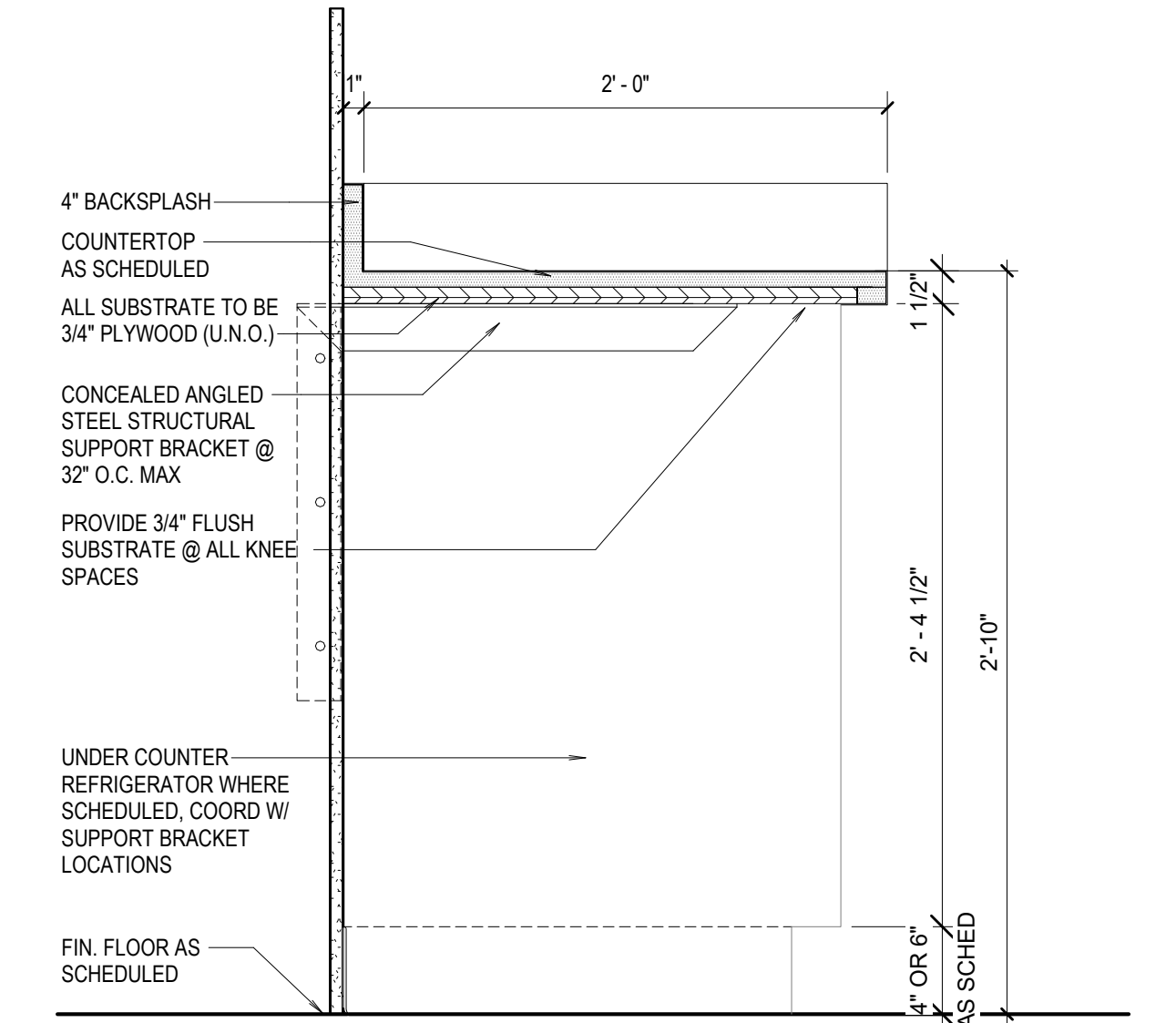
6 UPPER CABINET W/ DOORS
1 1/2" = 1'-0"



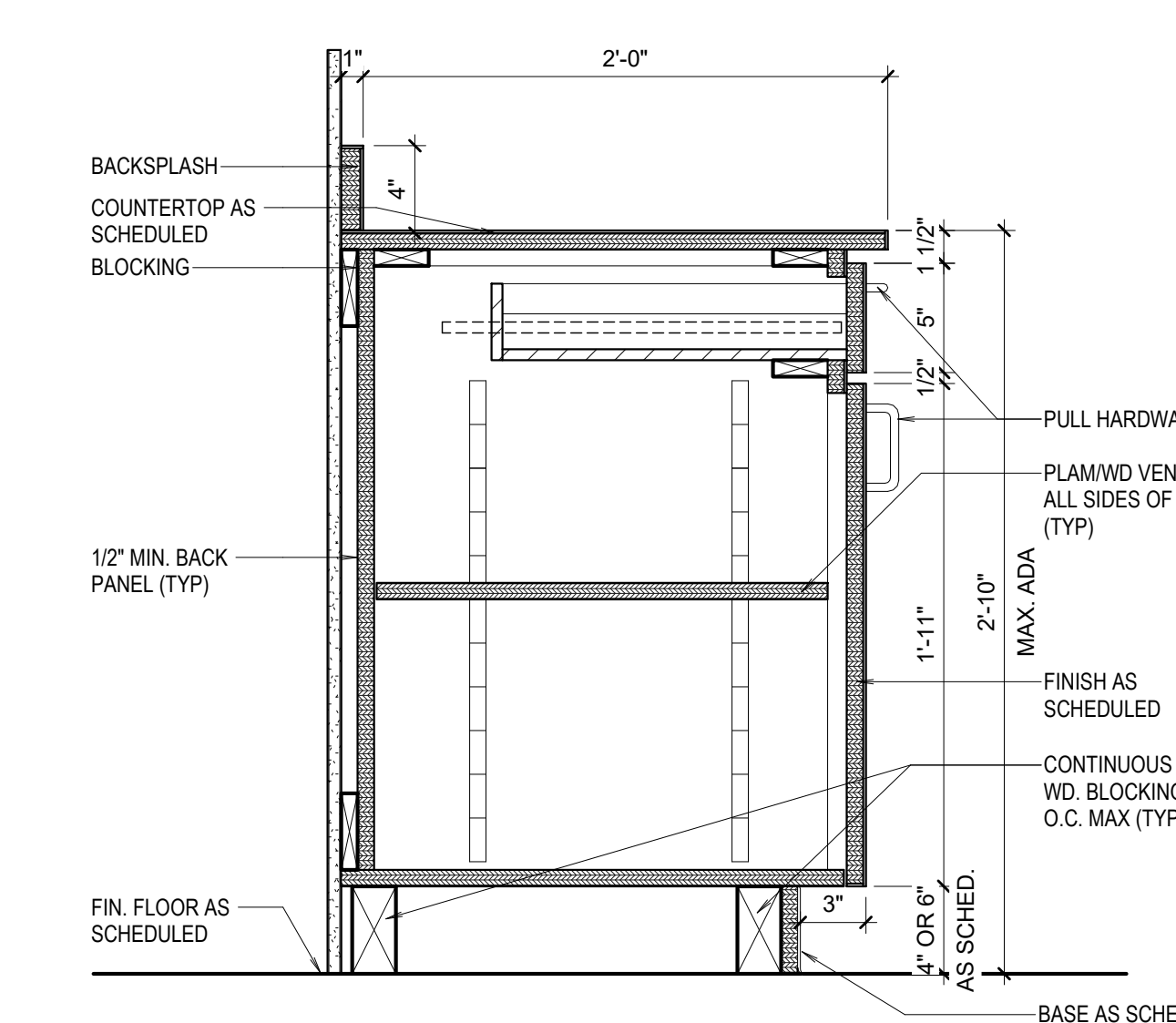
5 OPEN UPPER CABINET W/ SHELF
1 1/2" = 1'-0"



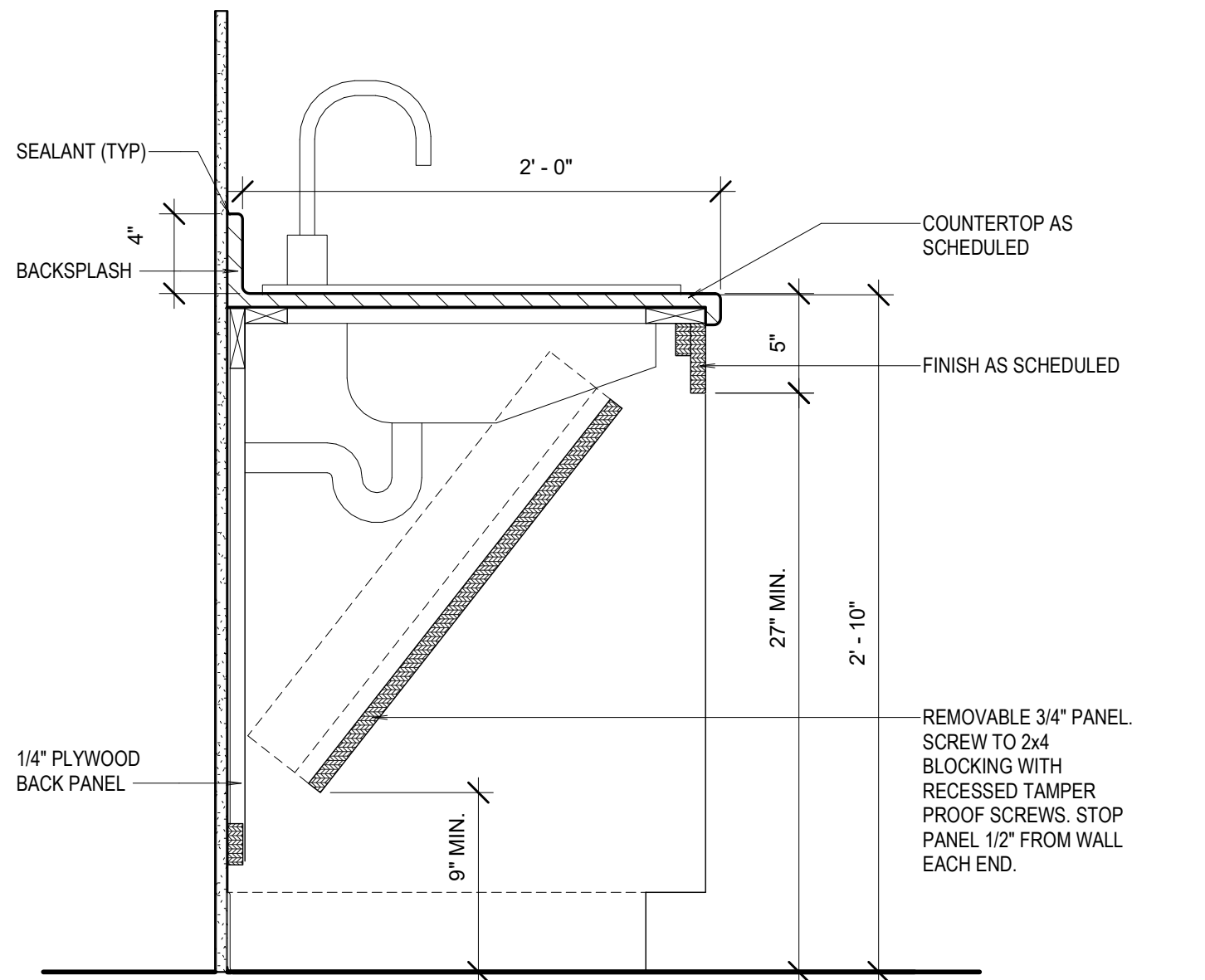
4 DETAIL @ NURSE STATION
1 1/2" = 1'-0"



3 COUNTERTOP W/ KNEE SPACE
1 1/2" = 1'-0"



2 BASE CABINET W/ DOORS & PENCIL DRAWER
1 1/2" = 1'-0"



1 ADA SINK W/ REMOVABLE PANEL
1 1/2" = 1'-0"

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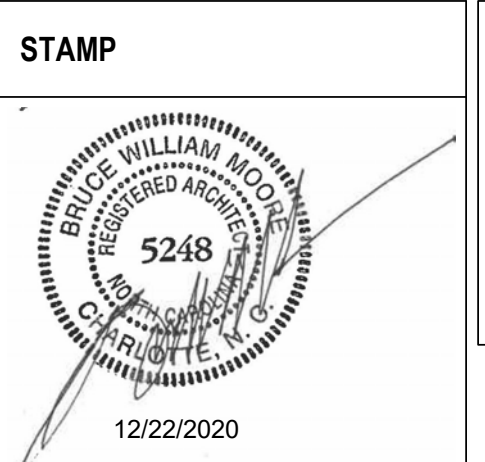
AME CONSULTING ENGINEERS
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
TYPICAL MILLWORK DETAIL

Approved:
Andreka Watlington

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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

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Project Number
558-17-150

Building Number

Drawing Number
A-501

25 of 78

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ABBREVIATIONS

DOOR:
 AL = ALUMINUM
 HM = HOLLOW METAL
 NV = NARROW VISION

GLAZING:
 T = 1/4" TEMPERED GLASS (GL-1)
 F = FIRE GLASS PER RATING (GL-4)

HARDWARE:
 ADD = AUTO DOOR OPENER
 EL = ELECTRIC LATCH
 LL = LEAD LINED
 RR = REMOTE RELEASE
 ES = ELECTRIC STRIKE

DOOR / FRAME FINISH:
 ST = STAINED
 PT = PAINTED

FRP = FIBERGLASS REINFORCED PANEL
 WP = WOOD

CR = CARD READER
 KP = KEYPAD
 PP = PUSH PAD
 WP = WAVE PAD

NOTE: RATED DOORS

WHERE A DOOR IS NOTED AS RATED, IT SHALL DESIGNATE A RATED ASSEMBLY WHICH SHALL INCLUDE DOOR, FRAME, HARDWARE AND ALL PARTS OF THE DOOR. ALL ITEMS MAKING UP THE TOTAL ASSEMBLY SHALL BE RATED AND/OR LISTED WITH TESTING AGENCY RECOGNIZED BY THE LOCAL GOVERNING BUILDING AUTHORITY AND WITH ALL COMPONENTS MEETING THE LABEL REQUIREMENTS FOR THAT RATING LISTING.

SUGGESTED HARDWARE LOCATIONS

DOOR KNOB: C/L OF KNOB - 39 5/16" FROM FINISHED FLOOR
 DEAD BOLT: C/L OF BOLT - 42" WHERE NO DOOR KNOB
 - 44" WHERE DOOR KNOB

DOOR PULL: C/L OF GRIP - 42" FROM FINISHED FLOOR
 PUSH PLATE: C/L OF PLATE - 45" FROM FINISHED FLOOR
 PUSH BARS: C/L OF BAR - 40" FROM FINISHED FLOOR

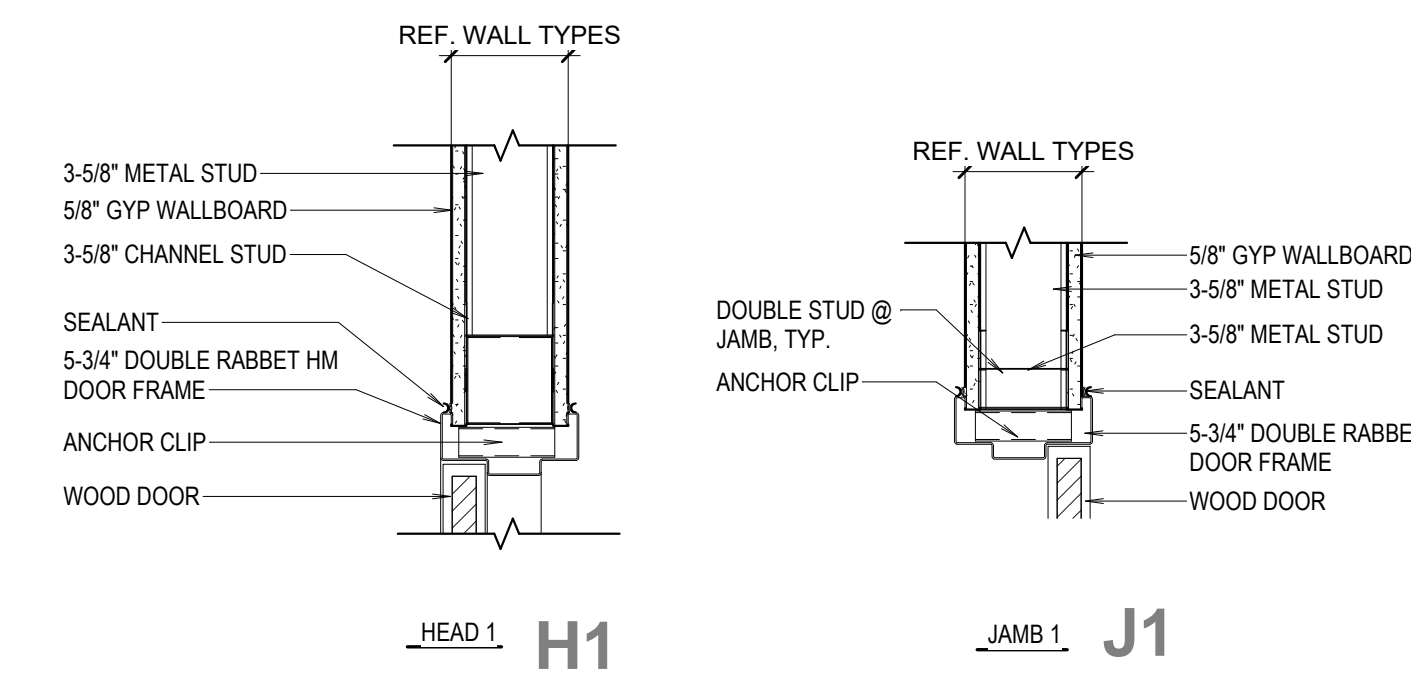
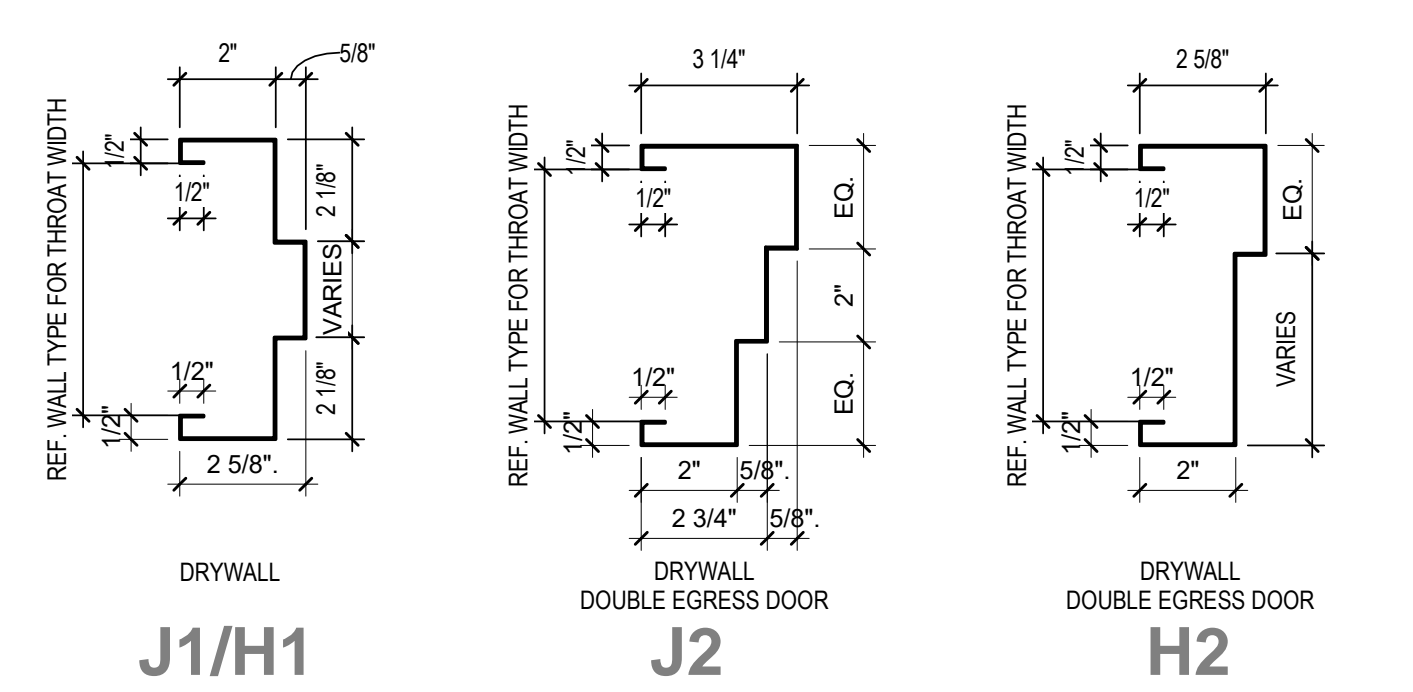
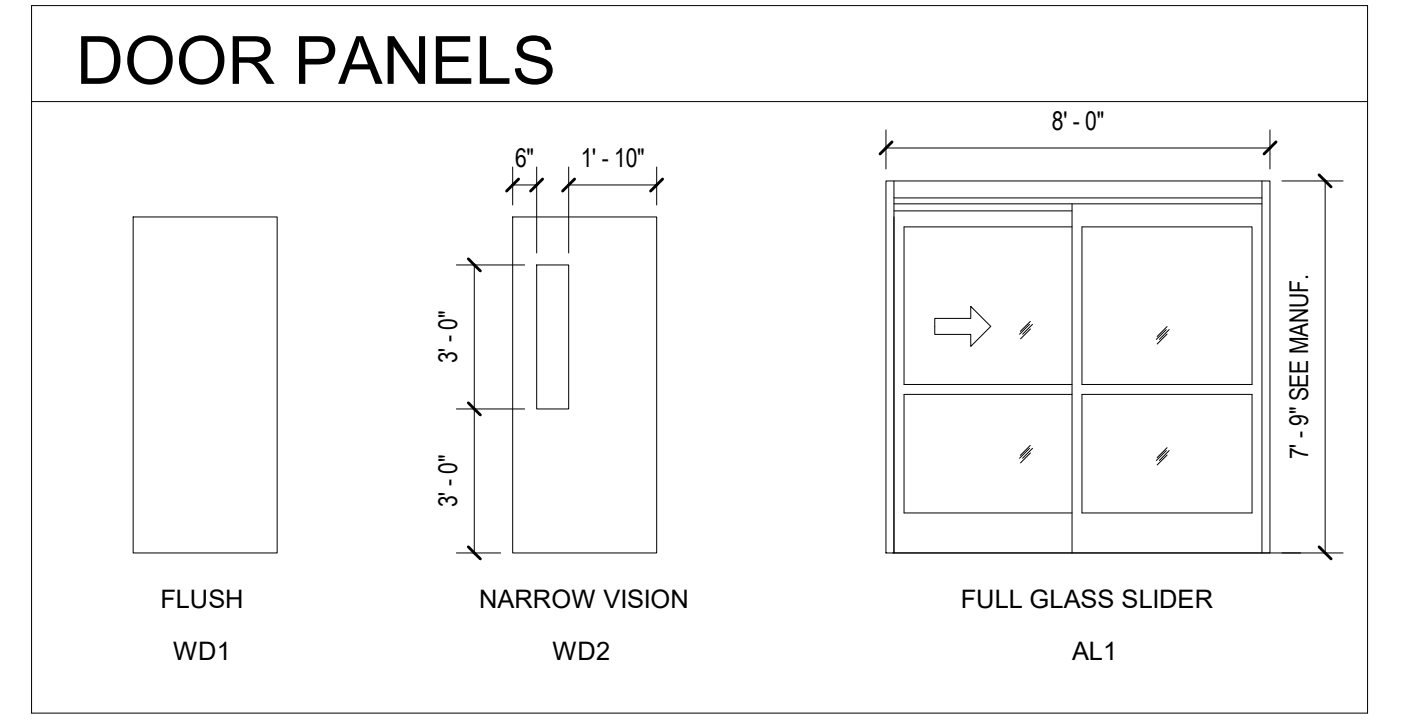
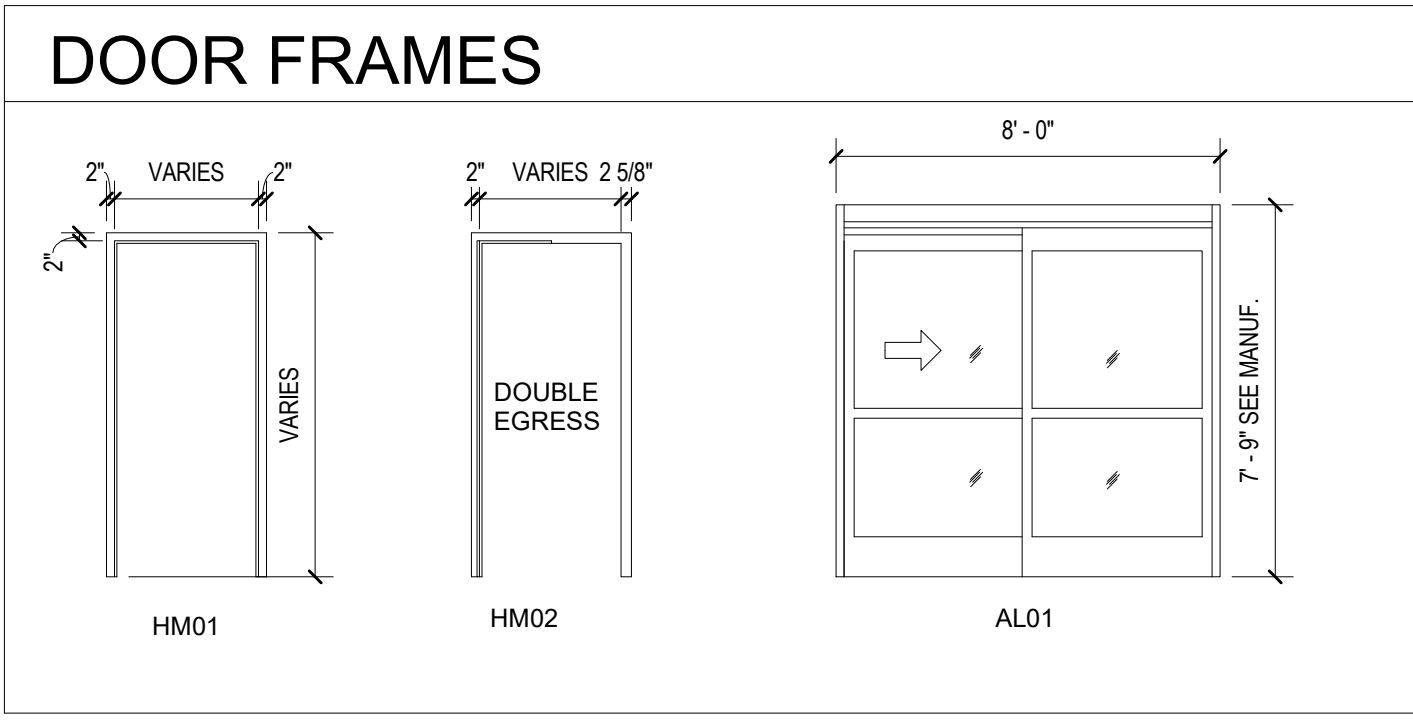
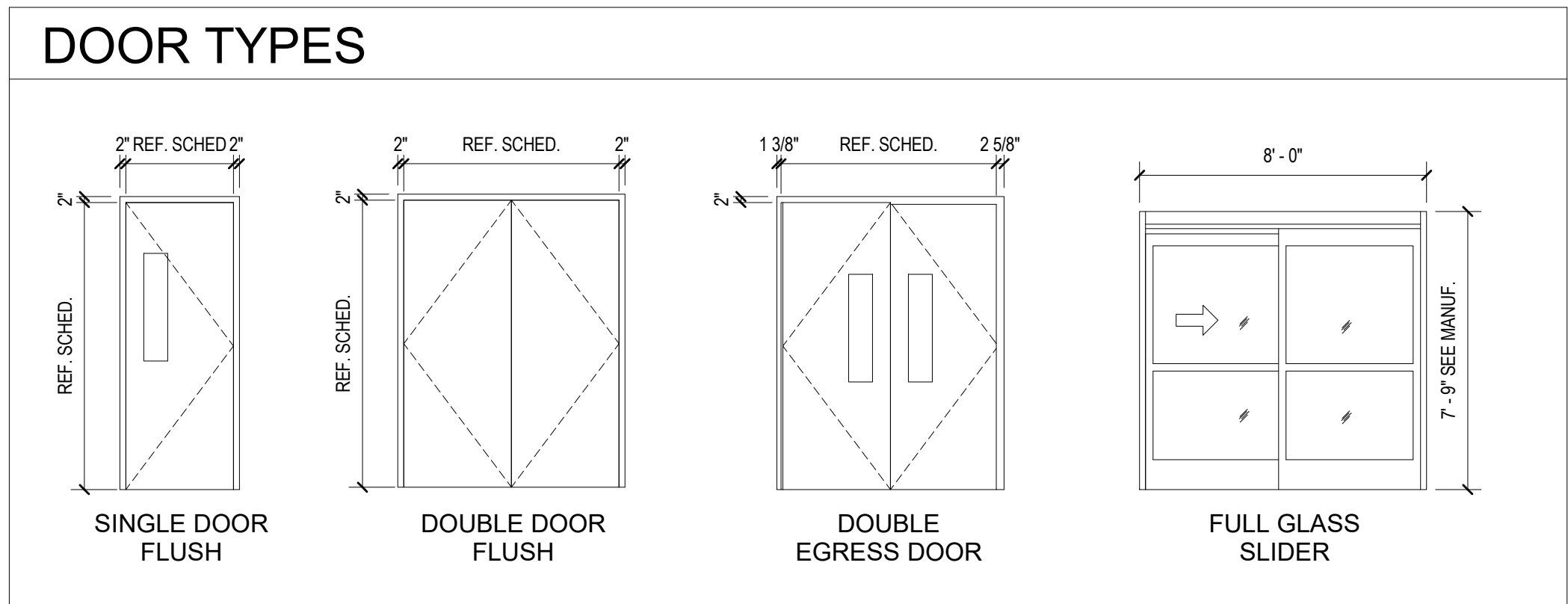
HOSPITAL ARM PULLS: C/L OF LOWER BASE - 45" FROM FINISHED FLOOR
 HOSPITAL LATCH: C/L OF LATCH - 45 3/4" FROM FINISHED FLOOR

EXIT DEVICES:
 PUSH BAR: C/L OF TOUCH BAR - 40" FROM FINISHED FLOOR
 LEVER BAR: C/L OF CROSS BAR - 36" FROM FINISHED FLOOR

NOTE: ALL CONDITIONS SHOWN ARE NOT NECESSARILY IN THIS PROJECT.

DOOR SCHEDULE

WT	To Room: Name	To Room: Number	Door Type Mark	DOOR						FRAME		Door_Glass Type	Door_Fire Rating	Hardware	Comments
				Width	Height	Thickness	Material	Finish	Type	Material	Finish				
C4001C.1	ANTE	C4001B	3Q	2' - 6"	7' - 0"	1 3/4"	WD	ST	HM01	HM	PT	-	0	EXIST	EXISTING DOOR
C4001B	ANTE	C4001B	3Q	2' - 6"	7' - 0"	1 3/4"	WD	ST	HM01	HM	PT	-	0	EXIST	EXISTING DOOR
C4001.1	PACU	C4001	1X	4' - 0"	7' - 0"	1 3/4"	WD	ST	HM01	HM	PT	-	SMOKE	EXIST	EXISTING DOOR- CR
C4001	PACU	C4001	2VV-NN	7' - 4"	7' - 0"	1 3/4"	HM	ST	HM01	HM	PT	-	SMOKE	A1	ADO, CR, PP
C4001A	STAFF LOUNGE	C4001A	1S	3' - 0"	7' - 0"	1 3/4"	WD	ST	HM01	HM	PT	-	0	1Q	AUTO DOOR BOT
A4015	CORRIDOR	A4012	2VV-NN	7' - 4"	7' - 0"	1 3/4"	HM	ST	HM01	HM	PT	-	45MIN-SMOKE	A1	ADO, WP, PP, F
A4026	PACU STOR	A4026	1U	3' - 6"	7' - 0"	1 3/4"	WD	ST	HM01	HM	PT	-	SMOKE	4A	CLASS, ADO, CR, PP, ES
A4010	HOUSEKEEPING	A4010	2U-180	3' - 6"	7' - 0"	1 3/4"	HM	ST	HM01	HM	PT	-	SMOKE	5B	STORERM, 180
A4013B	CORRIDOR	A4013A	2SS-NN	6' - 0"	7' - 0"	1 3/4"	HM	ST	HM02	HM	PT	F	20MIN-SMOKE	A2	HOLD OPEN, TIE TO FA, NV
A4024	TOILET	A4024	1S	3' - 0"	7' - 0"	1 3/4"	WD	ST	HM01	HM	PT	-	0	2K	EMERGENCY SWING FRAME
C4001C	ISOLATION ROOM	C4001C	ICU DR	8' - 0"	7' - 8"	1 3/4"	AL	CLEAR ANOD	AL01	CLEAR ANOD	CLEAR ANOD	T	0	BY MANUFACTURER	ADO, WP, AIR TIGHT GASKET
A4010.1	HOUSEKEEPING	A4010	1S	3' - 0"	6' - 1"	1 3/4"	HM	PT	HM01	HM	PT	-	0	E3	STORERM, CLOSER, OVERHEAD STOP, INSULATED, TO ROOF, PAINT VA BRONZE, DRIP, DPS



2 **GWB BUCK TYPES**
1/2" = 1'-0"

1 **GWB HEAD AND JAMB DETAILS**
1/2" = 1'-0"

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Professional Engineer Seal for William Sorrell, No. 5248, State of North Carolina, expires 12/22/2020.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
DOOR FRAMES AND SCHEDULE

Approved:
Andreka Watlington

Phase
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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

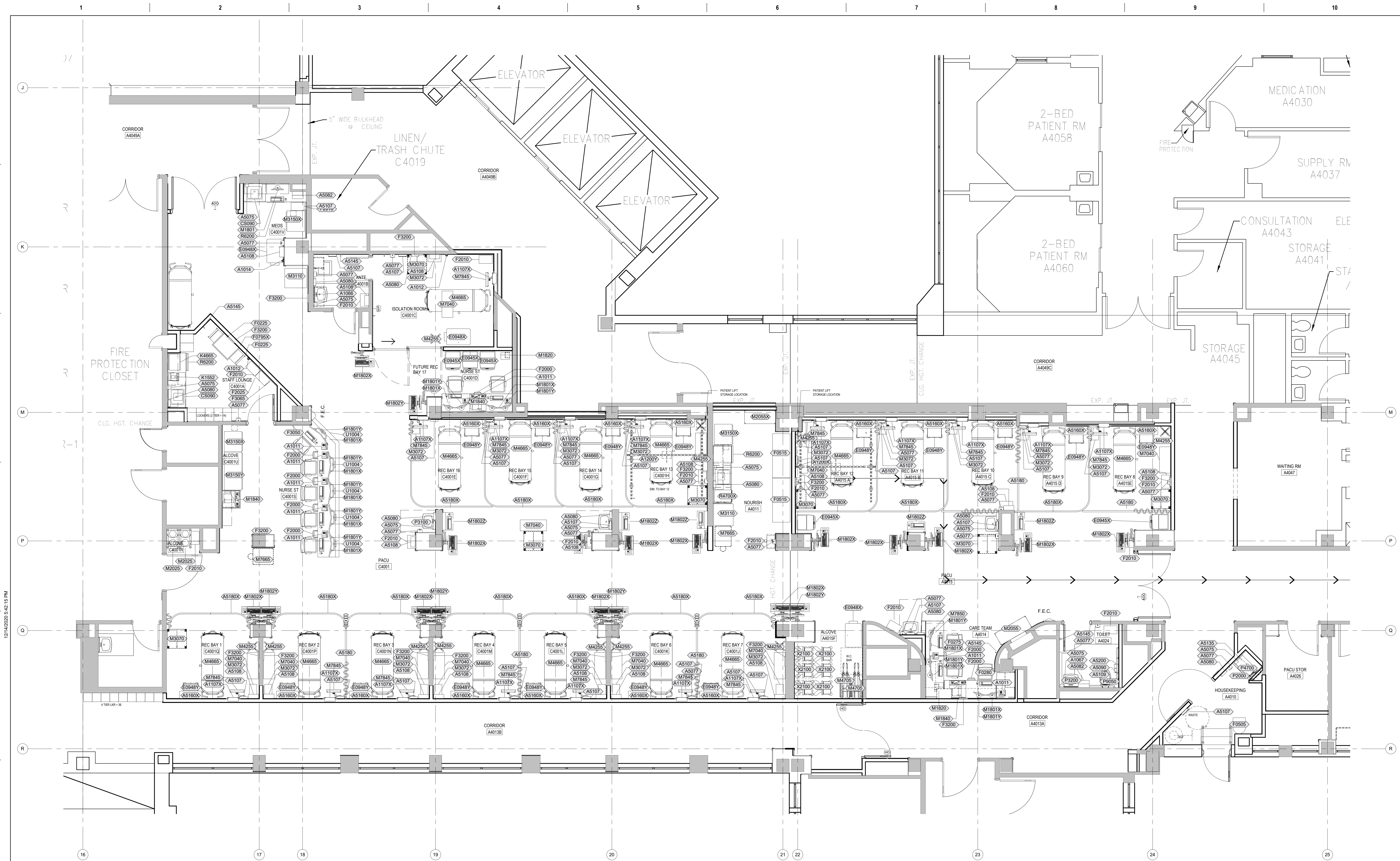
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Project Number
558-17-150

Building Number

Drawing Number
A-601
26 of 78



1 **FOURTH FLOOR PLAN - NEW CONSTRUCTION- EQUIPMENT**
1/4" = 1'-0"

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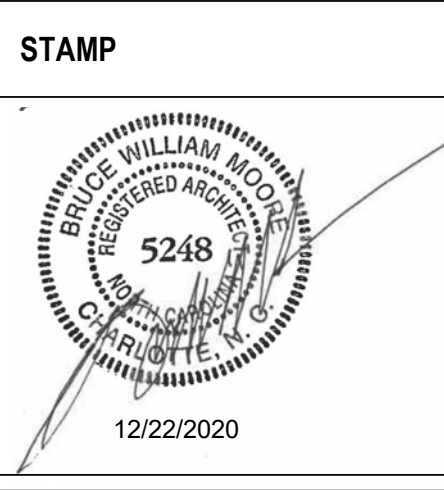
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VA U.S. Department of Veterans Affairs

Drawing Title
FOURTH FLOOR EQUIPMENT PLAN

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

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MK

Project Number
558-17-150

Building Number

Drawing Number
A-701
27 of 78

ABBREVIATIONS OF UTILITIES ON JSN# SCHEDULES

Table with columns for Utility 1: Plumbing (Water and Drainage), Utility 2: Electrical, Utility 3: Medical Gas, Utility 4: Miscellaneous Gas, Utility 5: Non-Medical Gas, Utility 6: Miscellaneous Gas, and Acquisition Code Legend.

Main equipment schedule table with columns: Room Number, Room Name, Type Mark, Comments, UTILITY 1 Water Drain, UTILITY 2 Elec, UTILITY 3 MedGas, UTILITY 4 MacGas, UTILITY 5 NonMedGas, UTILITY 6 Misc, ACQINS, Description, Count.

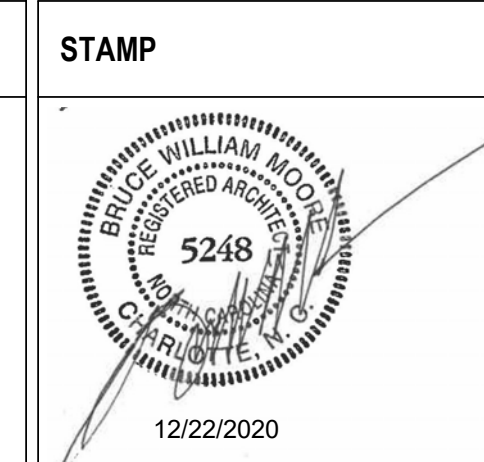
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100% BID DOCUMENTS

Revisions table with columns: Revisions, Date.

CONSULTANT logos for AME CONSULTING ENGINEERS, PERKINS EASTMAN, and LAURENE, RICKHER & SORRELL, P.C.

ARCHITECT/ENGINEER OF RECORD logo for Atriax GROUP.



Office of Construction and Facilities Management logo, U.S. Department of Veterans Affairs.

Drawing Title: EQUIPMENT SCHEDULE. Approved: Andreka Watlington.

Phase: 100% BID DOCUMENTS. Fully Sprinklered.

Project Title: VA DURHAM - PACU RENOVATION. Project Number: 558-17-150. Building Number: Drawing Number: A-703 29 of 78.

ABBREVIATIONS OF UTILITIES ON JSN# SCHEDULES

Table with 6 columns: UTILITY 1: PLUMBING (WATER AND DRAINAGE), UTILITY 2: ELECTRICAL, UTILITY 3: MEDICAL GAS, UTILITY 4: MISCELLANEOUS GAS, UTILITY 5: NON-MEDICAL GAS, UTILITY 6: MISCELLANEOUS GAS. Each column lists codes and descriptions for various utility types.

Main project schedule table with columns: Room Number, Room Name, Type Mark, Comments, UTILITY codes (UTL_1 to UTL_6), ACQINS, and Description. It lists various equipment and materials like rail systems, dispensers, shelves, carts, clocks, frames, stretchers, and monitors across multiple rooms (REC BAY).

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Revisions table with columns for Revisions and Date.

CONSULTANT logo for AME CONSULTING ENGINEERS and PERKINS EASTMAN LAURENE, RICKHER & SORRELL, P.C.

ARCHITECT/ENGINEER OF RECORD logo for Atriax GROUP.

STAMP: Professional Engineer seal for William J. H. 5248, dated 12/22/2020.

Office of Construction and Facilities Management logo, U.S. Department of Veterans Affairs.

Drawing Title: EQUIPMENT SCHEDULE. Approved by: Andreka Watlington.

Phase: 100% BID DOCUMENTS. Fully Sprinklered.

Project Title: VA DURHAM - PACU RENOVATION. Location: DURHAM VAMC, DURHAM, NC. Issue Date: 12/22/2020.

Project Number: 558-17-150. Building Number: A-705. Drawing Number: 31 of 78.

ABBREVIATIONS OF UTILITIES ON JSN# SCHEDULES. Table with columns for Utility 1 (Plumbing), Utility 2 (Electrical), Utility 3 (Medical Gas), Utility 4 (Miscellaneous Gas), Utility 5 (Non-Medical Gas), Utility 6 (Miscellaneous Gas), and Acquisition Code Legend.

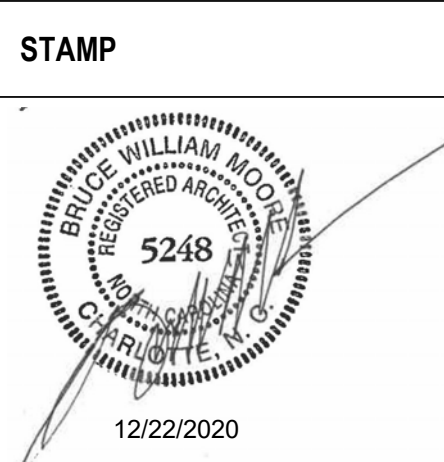
Main equipment schedule table with columns: Room Number, Room Name, Type Mark, Comments, UTILITY codes (1-6), ACQINS, Description, and Count. Lists various medical equipment like rail systems, dispensers, and monitors across multiple rooms.

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Revisions table with columns for Revisions and Date.

CONSULTANT logos for AME CONSULTING ENGINEERS, PERKINS EASTMAN, and LAURENE, RICKHER & SORRELL, P.C.

ARCHITECT/ENGINEER OF RECORD logo for Atriax GROUP.



Office of Construction and Facilities Management logo, U.S. Department of Veterans Affairs.

Drawing Title: EQUIPMENT SCHEDULE. Approved by Andreka Watlington.

Phase: 100% BID DOCUMENTS. Fully Sprinklered.

Project Title: VA DURHAM - PACU RENOVATION. Location: DURHAM VAMC, DURHAM, NC. Issue Date: 12/22/2020.

Project Number: 558-17-150. Building Number. Drawing Number: A-706, 32 of 78.

ABBREVIATIONS OF UTILITIES ON JSN# SCHEDULES
UTILITY 1: PLUMBING (WATER AND DRAINAGE)
UTILITY 2: ELECTRICAL
UTILITY 3: MEDICAL GAS
UTILITY 4: MISCELLANEOUS GAS
UTILITY 5: NON-MEDICAL GAS
UTILITY 6: MISCELLANEOUS GAS
ACQUISITION CODE LEGEND

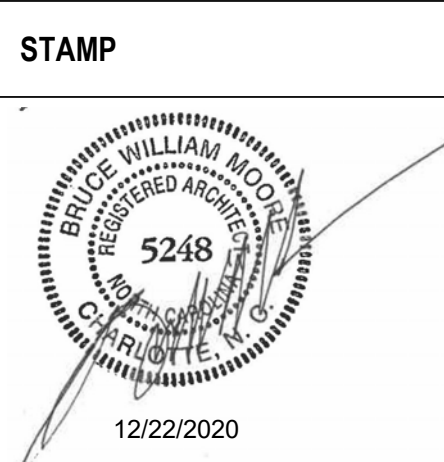
Main table with columns: Room Number, Room Name, Type Mark, Comments, UTIL_1_Water Drain, UTIL_2_Elec, UTIL_3_MedGas, UTIL_4_MedGas, UTIL_5_NonMedGas, UTIL_6_Misc, ACQINS, Description, Count. Rows include REC BAY 2, REC BAY 1, ALCOVE, NURSE ST, MEDS, and ALCOVE.

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Revisions table with columns: Revisions, Date.

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AME CONSULTING ENGINEERS
PERKINS EASTMAN
LAURENE, RICKHER & SORRELL, P.C.

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Atriax GROUP
www.atriaxgroup.com



Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

Drawing Title: EQUIPMENT SCHEDULE
Approved: Andreka Watlington

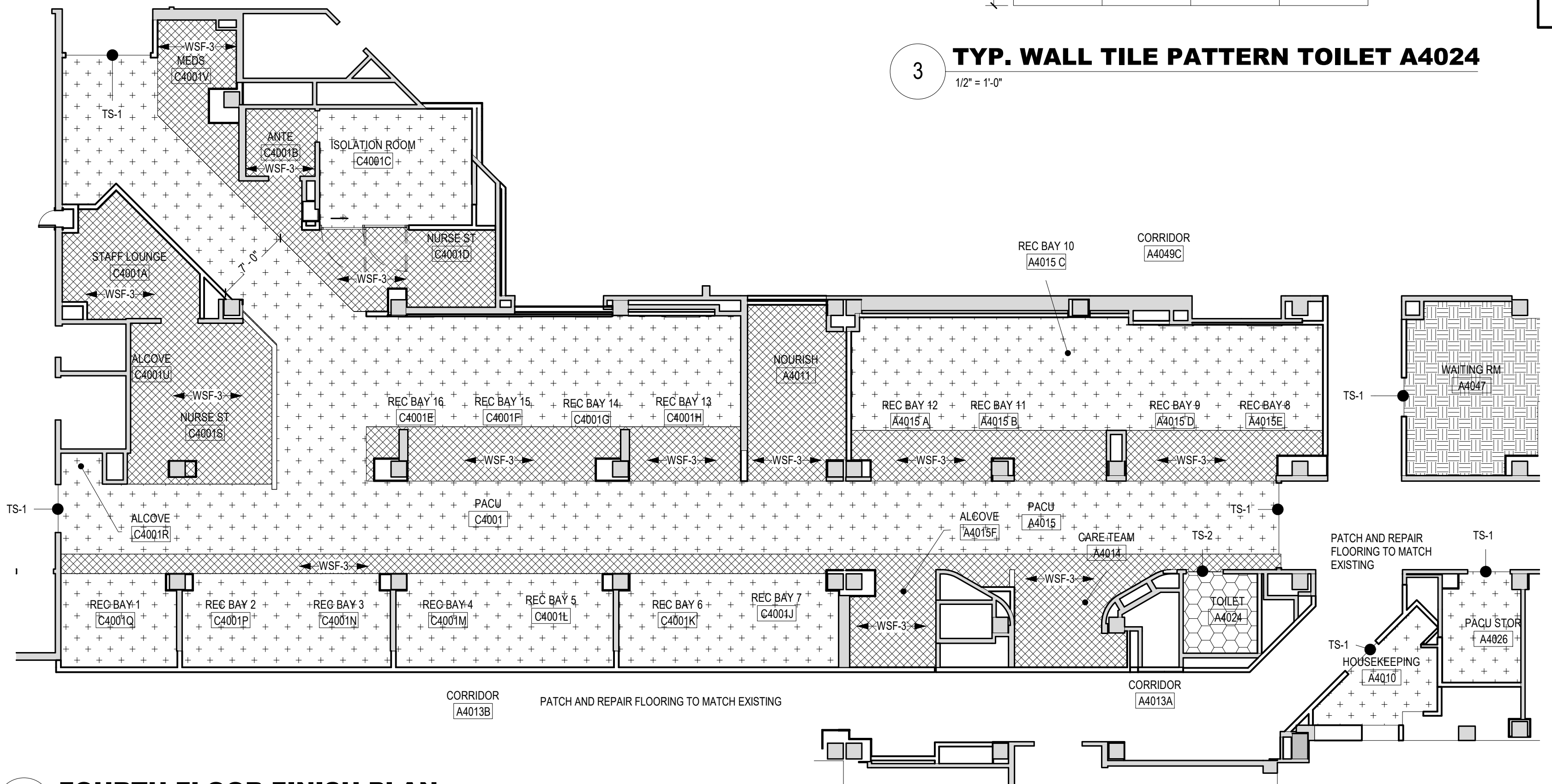
Phase: 100% BID DOCUMENTS
FULLY SPRINKLERED

Project Title: VA DURHAM - PACU RENOVATION
Project Number: 558-17-150
Building Number:
Location: DURHAM VAMC, DURHAM, NC
Drawing Number: A-707
Issue Date: 12/22/2020
Checked: BM, Drawn: MK
33 of 78

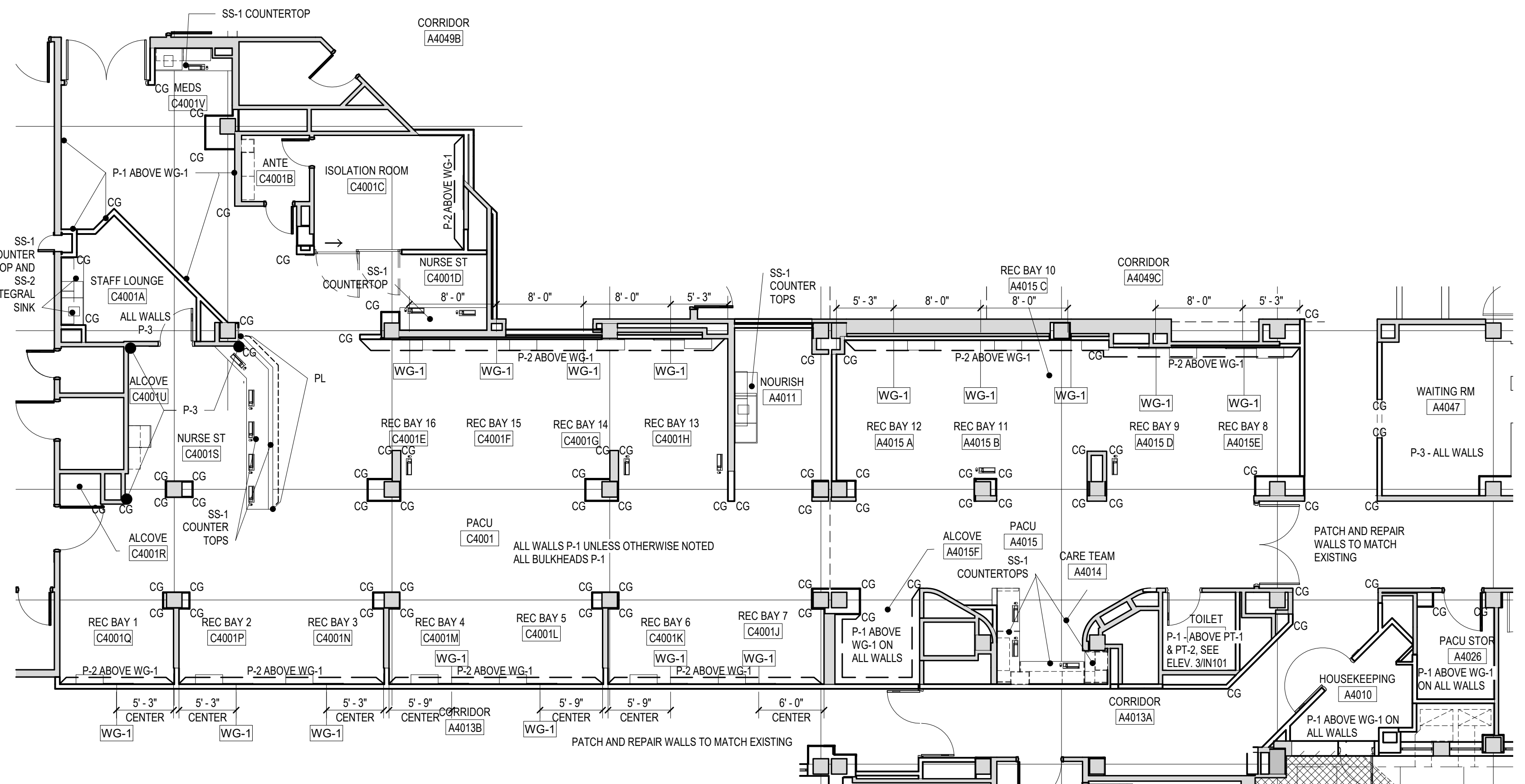
A B C D E F

FINISH LEGEND	
WSF-1 (Came)	
WSF-2 (Fox Cub)	
PT-3	
CPT	

3 TYP. WALL TILE PATTERN TOILET A4024
1/2" = 1'-0"



2 FOURTH FLOOR FINISH PLAN
1/8" = 1'-0"



1 FOURTH FLOOR WALL FINISH PLAN
1/8" = 1'-0"

FINISH LEGEND							
SYMBOL	MANUFACTURER	PRODUCT NAME/NUMBER	FINISH	COLOR	SIZE	MANUFACTURER'S CONTACT	REMARKS
TILE							
PT-1	DALTILE	UNITY	POLISHED	BEIGE P401	12" X 24"	Alessandra Cerza ITS - Intertec Tile and Stone its.intertec@gmail.com (704) 495-0405	INSTALLATION PATTERN: BRICK. ENSURE ALL TILE IS LEVEL BETWEEN THE WALL TILE AND ACCENT TILE. SEE RESTROOM ELEVATION DETAILS. USE 1/8" GROUT JOINT.
PT-2	DALTILE	UNITY	POLISHED TEXTURED UNPOLISHED	BEIGE P402	DECORATIVE ACCENT 12" X 12" SHEET		USE 1/8" GROUT JOINT.
PT-3	DALTILE	ANCHORAGE	UNPOLISHED	BROWN AC09	12" X 12"		COVE BASE S-36C9TA.
PT-4	DALTILE	UNITY	POLISHED	BEIGE P401	6" X 12"		
EDGE PROTECTION FOR TILE							
MT	SCHLUTER	TRENDLINE JOLLY	TEXTURED COLOR-COATED ALUMINUM (TS)	TSI (IVORY)	100 (10MM - 3/8")	STEVE BRASINGTON sbrasington@schluter.com	A 100 + TSI USE FOR FINISHING AT TOP OF TILE ON WALL IN RESTROOMS.
GROUT							
G-1	LATICRETE	EPOXY		23 ANTIQUE WHITE			USE WITH PT-1 AND PT-2.
G-2	LATICRETE	EPOXY		35 MOCHA			USE WITH PT-3.
FLOOR TRANSITION STRIP							
TS-1	JOHNSONITE	CTA-XX-N		FAWN #80	1/8" TO 1/8" MATERIAL	EMMA MALTBÄ emma.maltba@tarkett.com 910.988.4167	TRANSITION FROM CARPET TO VCT. TRANSITION FROM WSF TO VCT.
TS-2	SCHLUTER	RENO-U	SATIN ANOD. ALU. (AE)		3/8" H	STEVE BRASINGTON sbrasington@schluter.com	AEU 100 TRANSITION FROM PORCELAIN TILE TO WELDED SHEET FLOOR.
ACOUSTICAL CEILING TILE							
ACT	ARMSTRONG	ULTIMA HEALTH ZONE #1935		WHITE	2' X 2'	ANGELA DUNPHY aedunphy@armstrong.com 704.846.7479	SEE RCP FOR AREAS RECEIVING ACOUSTICAL CEILING TILE. INSTALL ON 15/16" GRID, WHITE.
RESILIENT SHEET FLOORING							
WSF-1	FORBO	MARMOLEUM FRESCO		CAMEL 3876	79" WIDE	PAT BLIDE pat.blide@forbo.com 704.658.8229	WSF INTEGRAL BASE 6". PROVIDE COLOR MATCHING HEAT WELDING ROD.
WSF-2	FORBO	MARMOLEUM STRIATO TEXTURA		FOX CUB E5236	79" WIDE		WSF INTEGRAL BASE 6". PROVIDE COLOR MATCHING HEAT WELDING ROD. INSTALL GRAIN PATTERN THE DIRECTION THAT ARROWS INDICATE.
CARPET TILE							
CPT	MANNINGTON COMMERCIAL	DESIGN LOCAL COLLECTION PHILADELPHIA		BALLARD 85332	18" X 36"	KEITH WALL keith_wall@mannington.com 704.488.1383	INSTALLATION PATTERN: MONOLITHIC.
RESILIENT BASE							
VB	ROPPE	TRADITIONAL VINYL WALL BASE		FAWN #140	4" HIGH	STEVE SLOAN sesloan@roppe.com 336.260.3783	USE IN WAITING ROOM.
PAINT							
P-1	SHERWIN WILLIAMS HARMONY	LOW VOC INTERIOR LATEX	EGGSHELL	MEDICI IVORY SW7558		TERRY KRAUS tkraus@inprocorp.com 1.800.222.5556 x5483	ALL WALLS UNLESS OTHERWISE NOTED AND BULKHEADS
P-2	PPG ARCHITECTURAL COATINGS	LOW VOC INTERIOR LATEX	EGGSHELL	SERIOUSLY SAND PPG1085-3			REC BAY HEADWALLS ABOVE WG-1
P-3	SHERWIN WILLIAMS	LOW VOC INTERIOR LATEX	EGGSHELL	QUIETUDE SW6212			STAFF LOUNGE AND WAITING ROOM
P-4	PPG ARCHITECTURAL COATINGS	LOW VOC INTERIOR LATEX	EGGSHELL	GYPSPUM PPG1006-1			HARD CEILINGS
P-5	SHERWIN WILLIAMS	LOW VOC INTERIOR LATEX	SEMI-GLOSS	MATCH WALL COLOR			DOOR TRIM
DOOR PROTECTION							
DP							MATCH EXISTING.
WALL PROTECTION							
CG	INPRO CORPORATION	150F FLUSH MOUNT CORNER GUARD		OATMEAL 0239	3" WINGS, FULL HEIGHT	TERRY KRAUS tkraus@inprocorp.com 1.800.222.5556 x5483	ALL OUTSIDE CORNERS TO RECEIVE CORNER GUARDS. ALL CORNER GUARDS START ABOVE SCHEDULED WALL BASE AND ARE FULL HEIGHT.
WG-1	INPRO CORPORATION	PALLADIUM RIGID SHEET 406		OATMEAL 0239	4' X 8' SHEET .060" THICKNESS		USE MATCHING RIGID SHEET TRIM.
LAMINATE							
PL	WILSONART	PLASTIC LAMINATE	TEXTURED GLOSS	SHAKER CHERRY 7935K-07		ADAM HUGHES ahughes@web-don.com 919.606.1514	FRONT OF MAIN NURSE STATION
SOLID SURFACE							
SS-1	CORIAN	SOLID SURFACE COUNTERTOP		SAVANNAH	1/2" THICK; 30" W X 144" L	BARBARA DAVIS bdavis@chbriggs.com 704.301.8078	USE ON TRANSACTION COUNTER AT MAIN NURSE STATION, MEDS, NOURISH AREA, AND STAFF LOUNGE.
SS-2	CORIAN	SOLID SURFACE		CAMEO WHITE			STAFF LOUNGE INTEGRAL BOWL SINK.
CURTAINS							
CC	ARC-COM	MED-ARC SHORELINE AC-33275X		SEAFOAM #6			PRIVACY CURTAINS.

GENERAL NOTE:
ALL MANUFACTURER MATERIALS ARE FOR BASIS OF DESIGN. ALTERNATES MAY BE SUGGESTED BY THE CONTRACTOR AND REQUIRE VA COR APPROVAL.

100% BID DOCUMENTS

Revisions:	Date:

CONSULTANT

AME
CONSULTING ENGINEERS
705 EAST MOREHEAD STREET
CHARLOTTE, NC 28202-704-295-4263
NC LICENSE NO. C-2848
AME PROJECT NO.: 17116

PERKINS EASTMAN
LAURENE, RICKHER & SORRELL, P.C.
Consulting Structural Engineers
8771 RED BANK BLVD. SUITE 5100
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EMAIL: rickher@perkins.com WEB: www.perkins.com

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STAMP

EDWARD H. HEISLER
Professional Engineer
No. 1222/2020
HICKORY, N.C.

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
FOURTH FLOOR FINISH PLANS AND SCHEDULE

Approved:
Andreka Watlington

Phase
CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title
EXPAND PACU

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

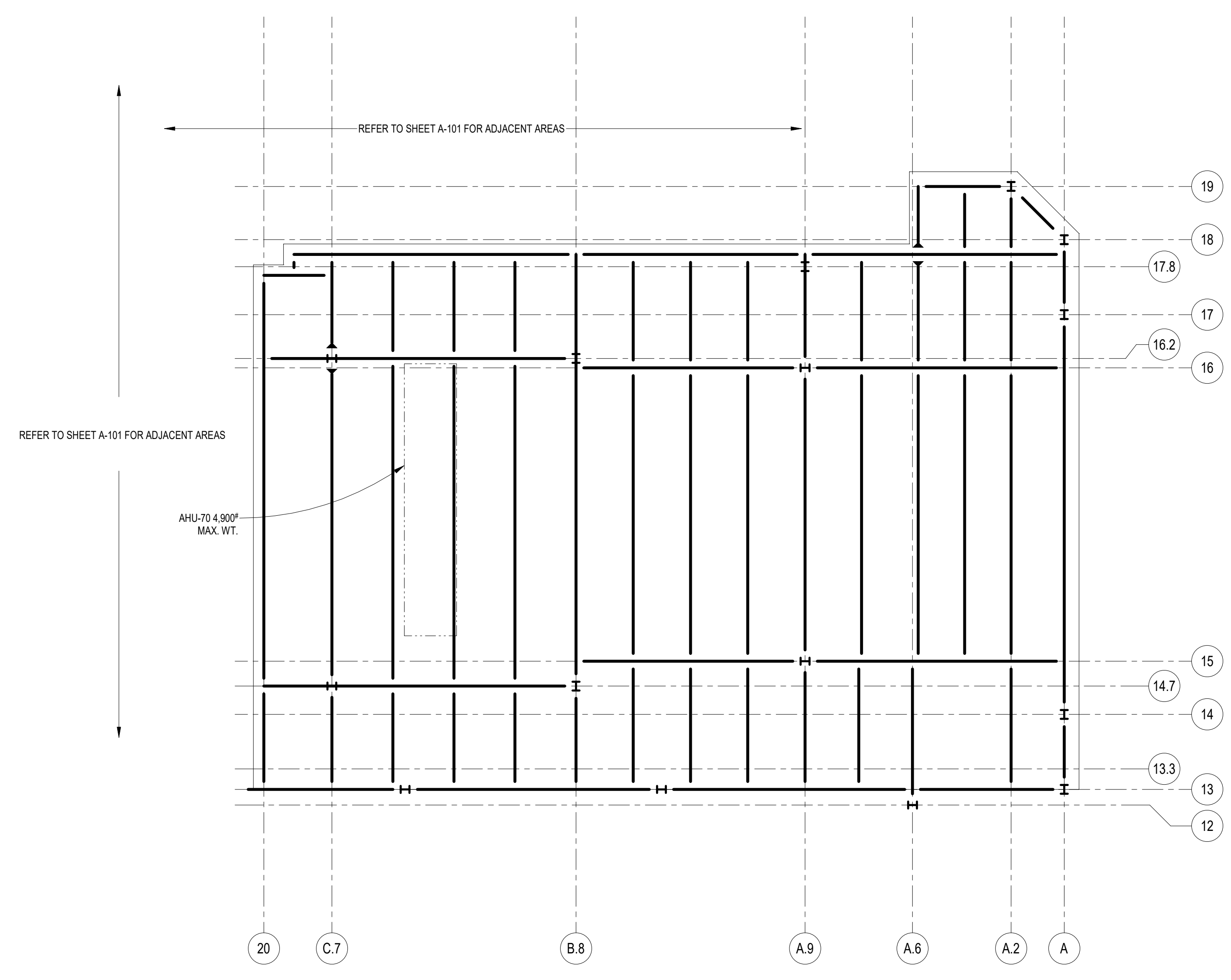
Checked
EH

Drawn
HP

Project Number
558-17-150

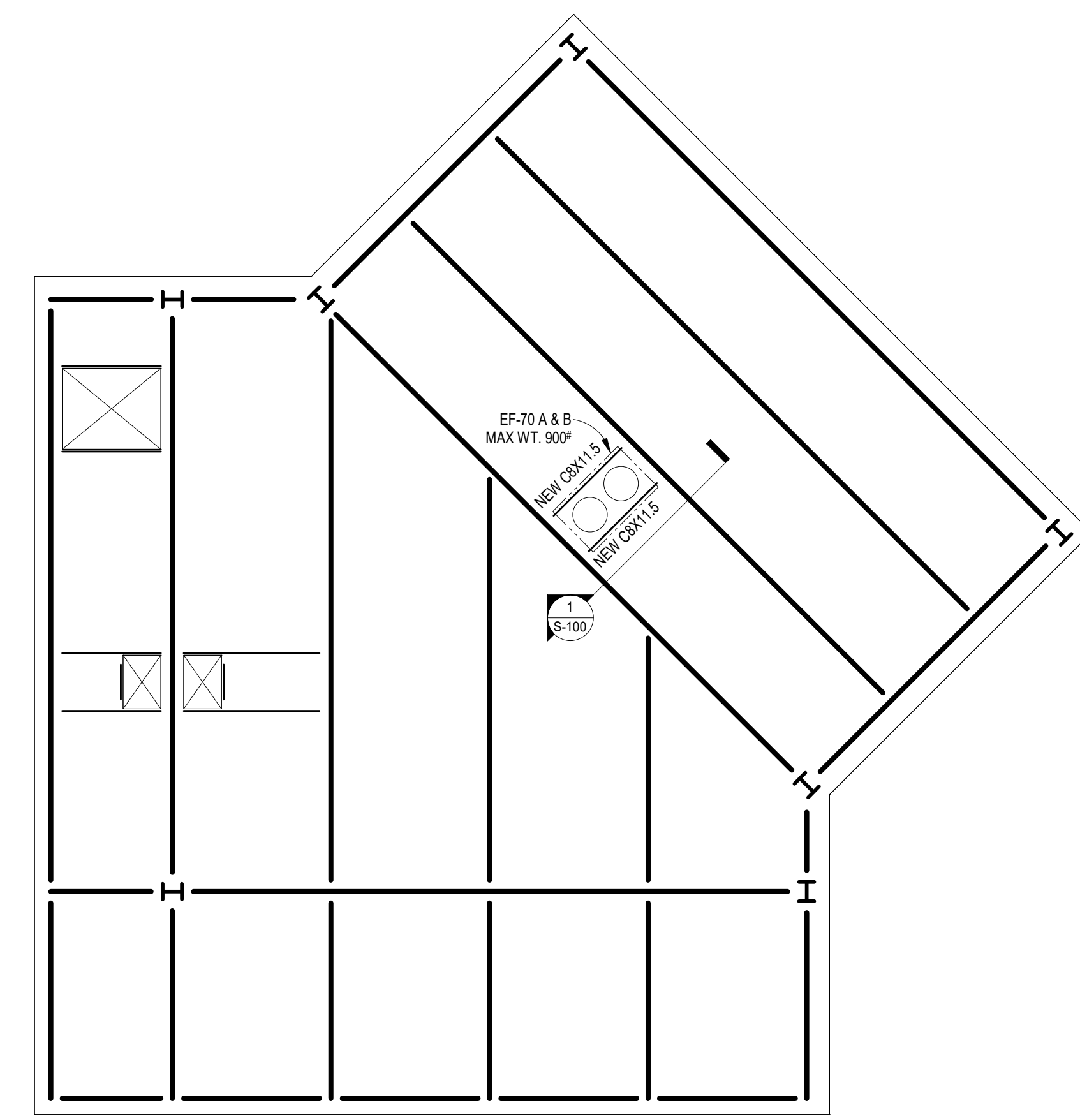
Building Number

Drawing Number
IN101
34 of 78



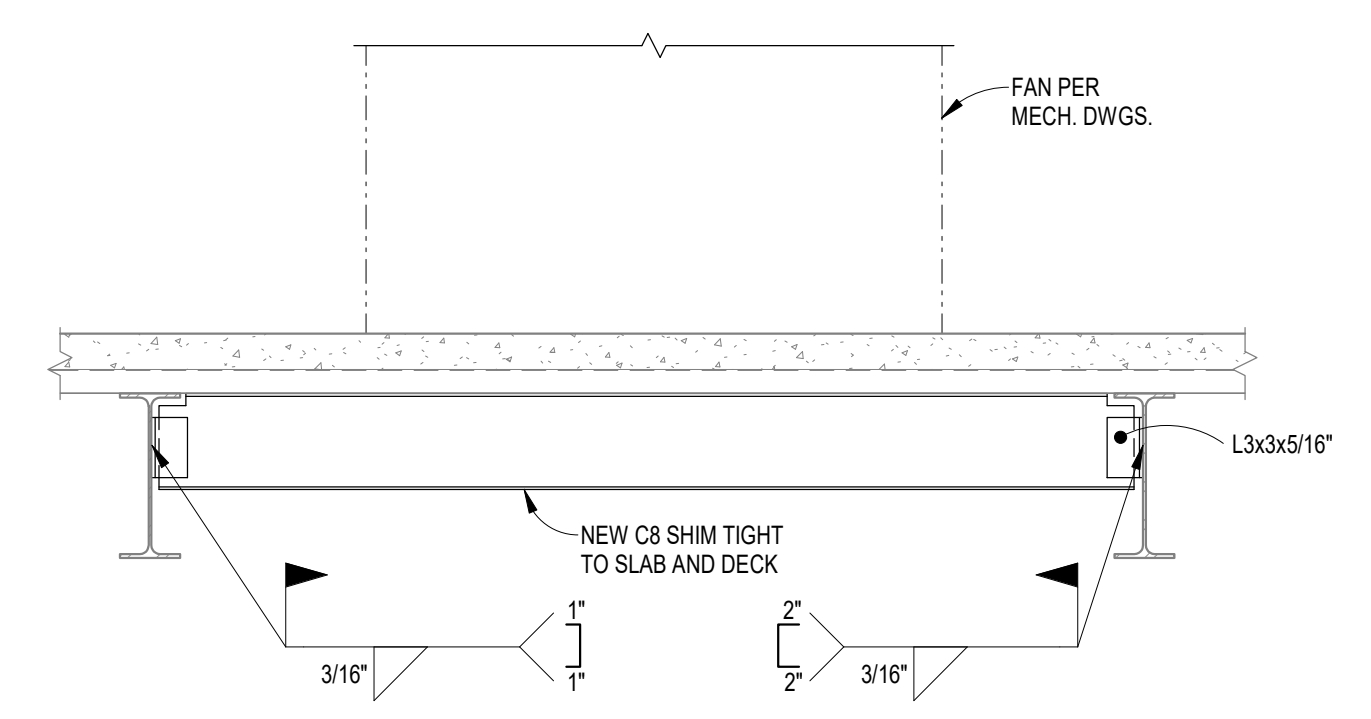
AHU STRUCTURAL FRAMING PLAN
1/8" = 1'-0"

NOTE: 1) CURB TO BE PROVIDED BY AHU SUPPLIER. CURB MUST BEAR DIRECTLY OVER EXISTING STEEL BEAMS.



NOTE: 1) FAN SUPPLIER SHALL PROVIDE ALL TIE DOWNS FOR FAN LATERAL SUPPORT. 2) FAN TIE DOWNS TO BE ATTACHED DIRECTLY TO STEEL BMS OR USE THROUGH-BOLT CONNECTION IN SLAB. 3) STEEL CHANNELS TO BE ASTM A36 STEEL.

FAN ROOF FRAMING PLAN
3/16" = 1'-0"



NOTE: LOCATE NEW C3'S UNDER NEW FAN UNIT

SECTION
3/4" = 1'-0"

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Revisions:	Date:

CONSULTANT

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CONSULTING ENGINEERS
705 EAST MOREHEAD STREET
CHARLOTTE, NC 28202-704-295-4263
NC LICENSE NO.: C-2848
AME PROJECT NO.: 17116

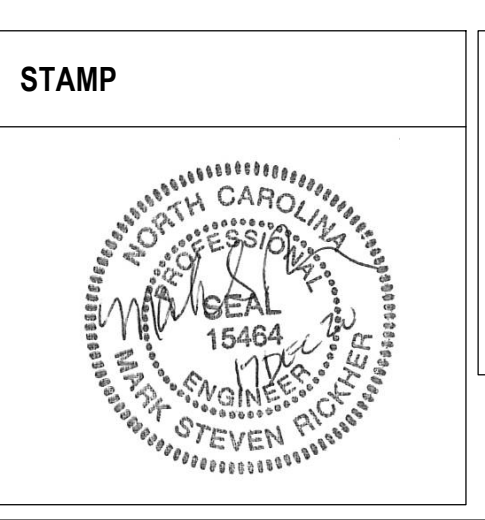
PERKINS EASTMAN
520 WEST SIXTH STREET
CHARLOTTE, NC 28202
T: 704.960.0501
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LAURENE, RICKHER & SORRELL, P.C.
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EMAIL: rma@lrsc.com WEB: www.lrsc.com

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title FRAMING PLANS
Approved: Andreka Watlington

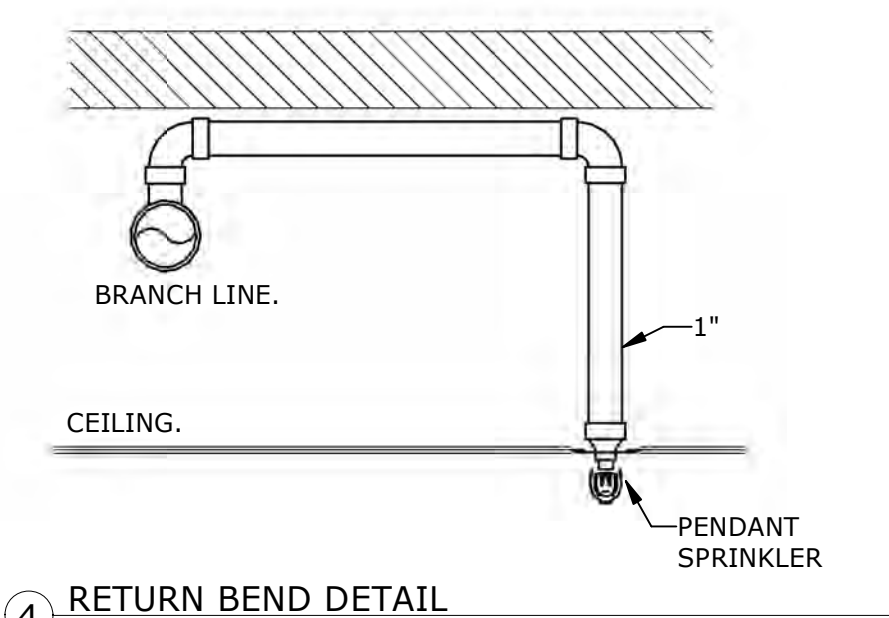
Phase CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Project Title EXPAND PACU	Location DURHAM VAMC DURHAM, NC
Issue Date 12/22/2020	Checked MSR
Drawn JAR	

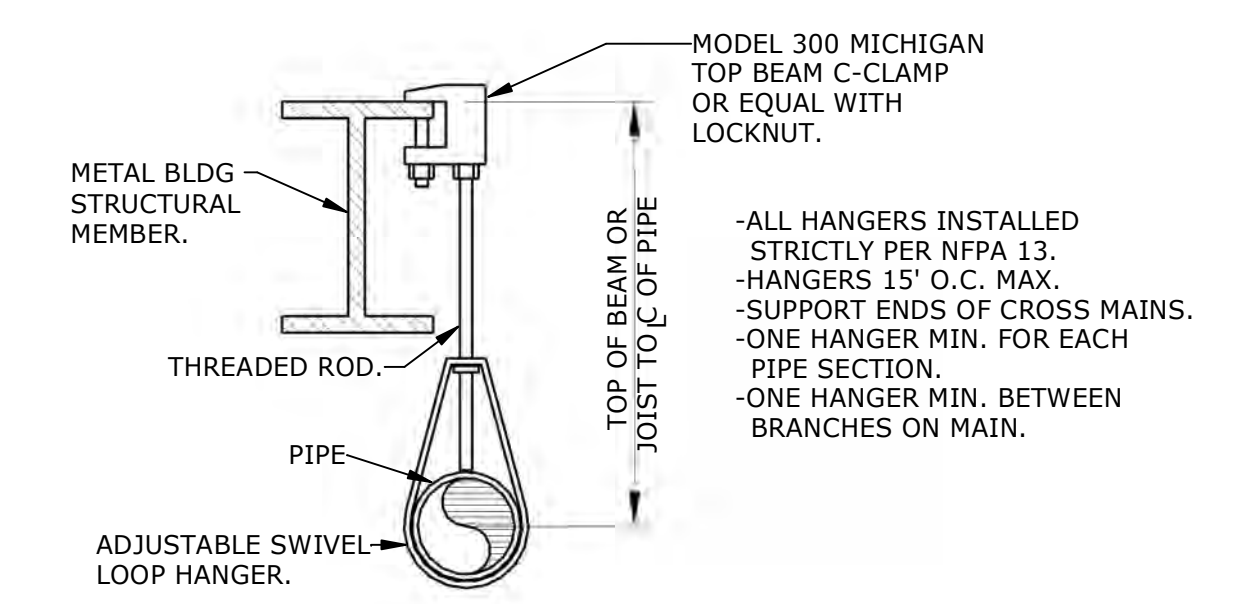
Project Number 558-17-150
Building Number
Drawing Number S-100
35 of 78

100% BID DOCUMENTS

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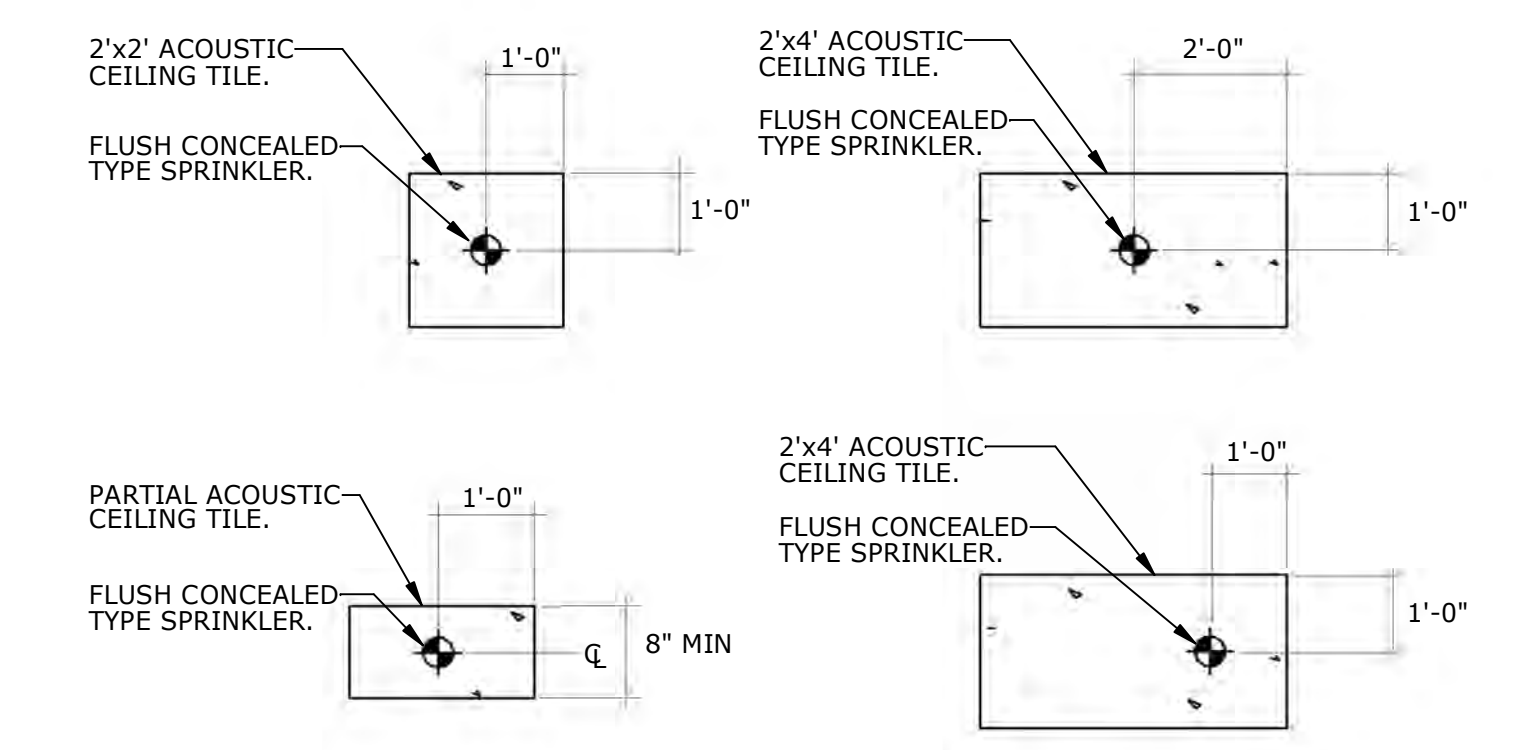


4 RETURN BEND DETAIL
NTS

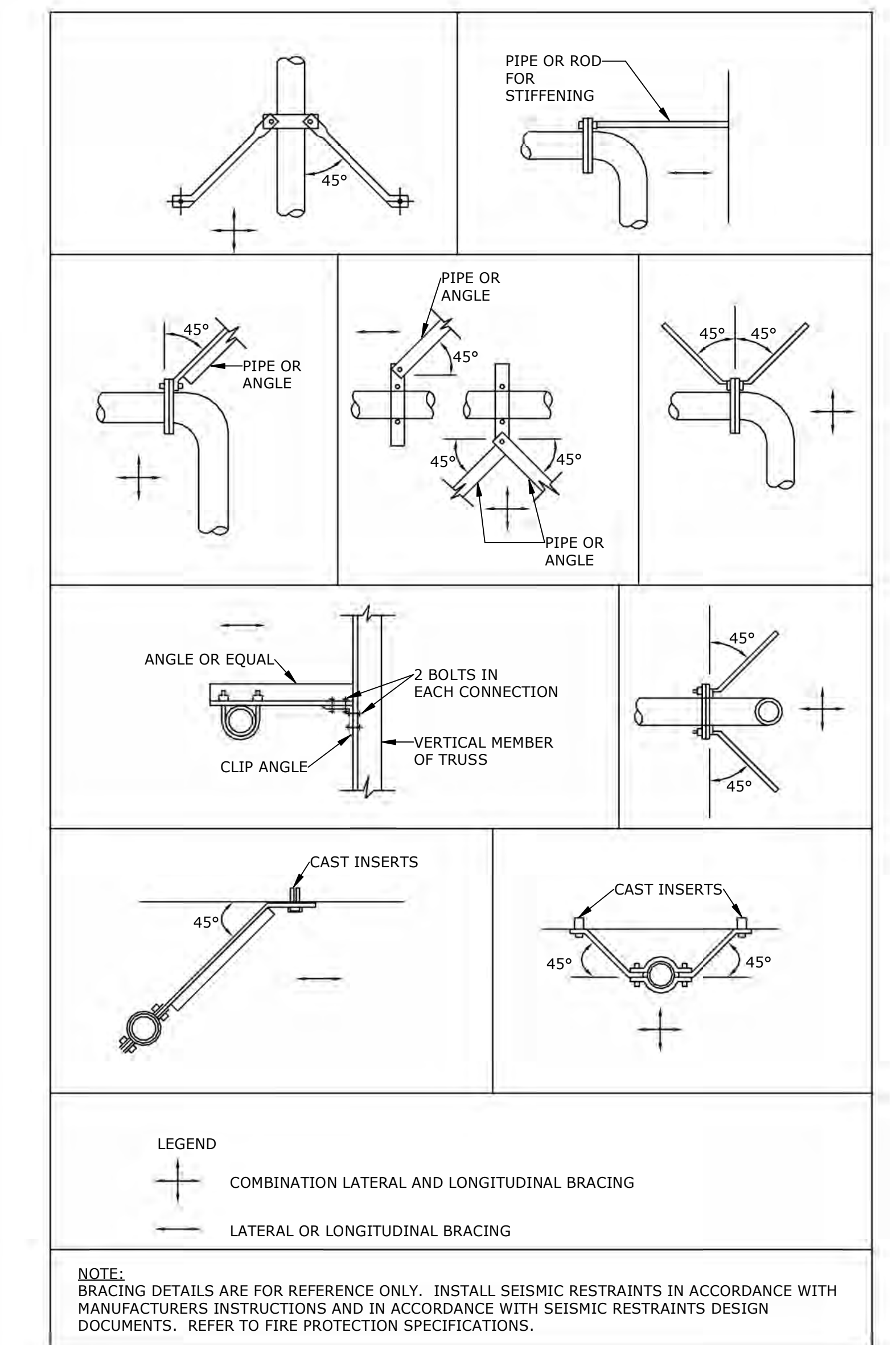


1 TYPICAL PIPE HANGER DETAIL
NTS

-ALL HANGERS INSTALLED STRICTLY PER NFPA 13.
-HANGERS 15' O.C. MAX.
-SUPPORT ENDS OF CROSS MAINS.
-ONE HANGER MIN. FOR EACH PIPE SECTION.
-ONE HANGER MIN. BETWEEN BRANCHES ON MAIN.



2 SPRINKLER LOCATIONS
NTS



3 TYPICAL SEISMIC SWAY BRACING DETAILS
NTS

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Revisions:	Date:

CONSULTANT

705 EAST MOREHEAD STREET
CHARLOTTE, NC 28202-704-295-4263
NC LICENSE NO.: C-2848
AME PROJECT NO.: 17116

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STAMP

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
FIRE PROTECTION - DETAILS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

Drawn
JCF

Project Number
558-17-150

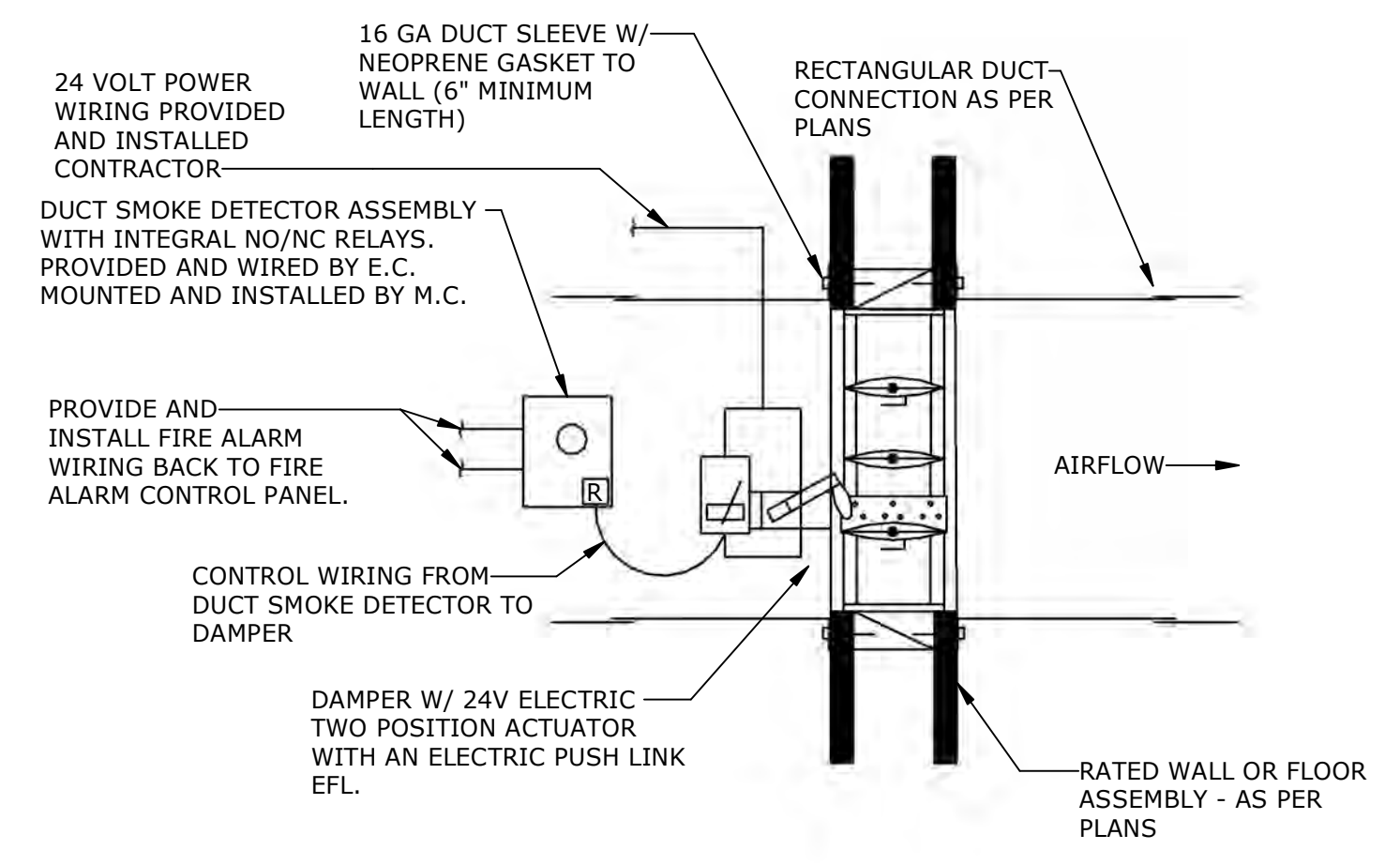
Building Number

Drawing Number
F-002
37 of 78

100% BID DOCUMENTS

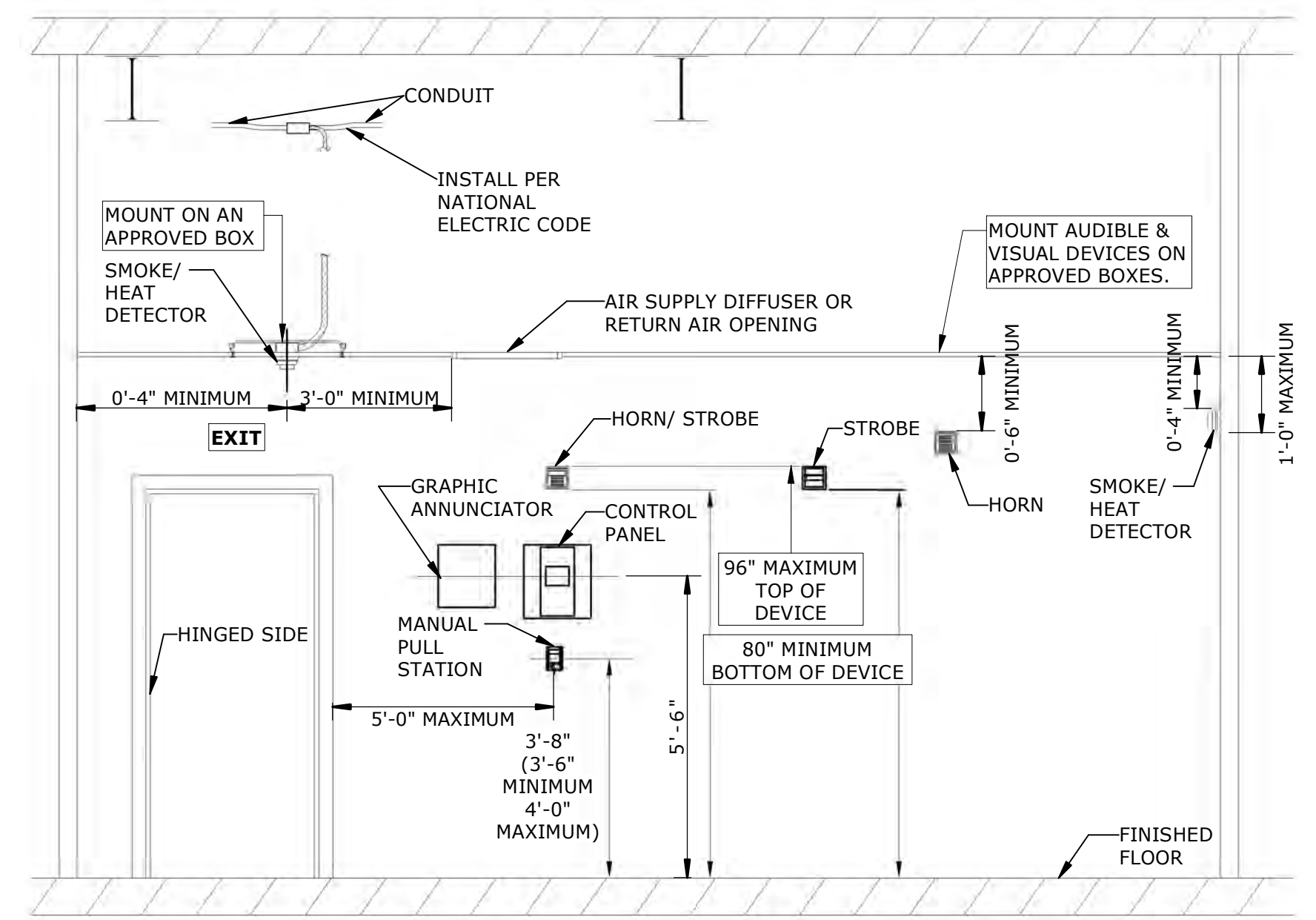
12/17/2020 9:03:23 AM
C:\Users\mhall\Documents\VA Durham - MEPPF_R19_ameengineers.rvt
AME PROJECT NO.: 17116

SYMBOL LEGEND	
TYPE	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL, SURFACE MOUNTED AT 60" AFF TO TOP OF CABINET, UON.
NAC	FIRE ALARM NOTIFICATION APPLIANCE POWER EXTENDER PANEL. SURFACE MOUNTED AT 60" AFF TO TOP OF CABINET, UON.
F	FIRE ALARM MANUAL PULL STATION, SEMI-FLUSH MOUNTED 46" AFF, UON.
V F	FIRE ALARM VISUAL (STROBE) APPLIANCE, WALL MOUNTED AT 80" AFF, OR 6" BELOW FINISHED CEILING, WHICHEVER IS LOWER, UON. SUBSCRIPT INDICATES CANDELA VALUE. 'CLG' INDICATES CEILING MOUNTED.
SD	FIRE ALARM SYSTEM CEILING MOUNTED SMOKE DETECTOR.
FR	FIRE ALARM SYSTEM ADDRESSABLE SHUTDOWN CONTROL RELAY, OR MONITORING MODULE AS REQUIRED.
DO	FIRE ALARM SYSTEM DOOR HOLD OPEN DEVICE.
S	FIRE ALARM SPEAKER.
DD	FIRE ALARM SYSTEM DUCT SMOKE DETECTOR ASSEMBLY WITH WIRING PER MANUFACTURERS RECOMMENDATIONS. PROVIDE SMOKE DETECTOR, HOUSING, SAMPLING TUBE, SHUTDOWN RELAY, AND REMOTE LABELED KEY TEST SWITCH WITH INDICATOR LIGHT. PROVIDE ACCESS PANELS WHERE UNITS ARE LOCATED ABOVE INACCESSIBLE CEILINGS. REFER TO DAMPER DETAIL THIS SHEET FOR ADDITIONAL INFORMATION. SUBSCRIPT 'FS' INDICATES FIRE/SMOKE DAMPER. SUBSCRIPT 'SD' INDICATES SMOKE DAMPER.

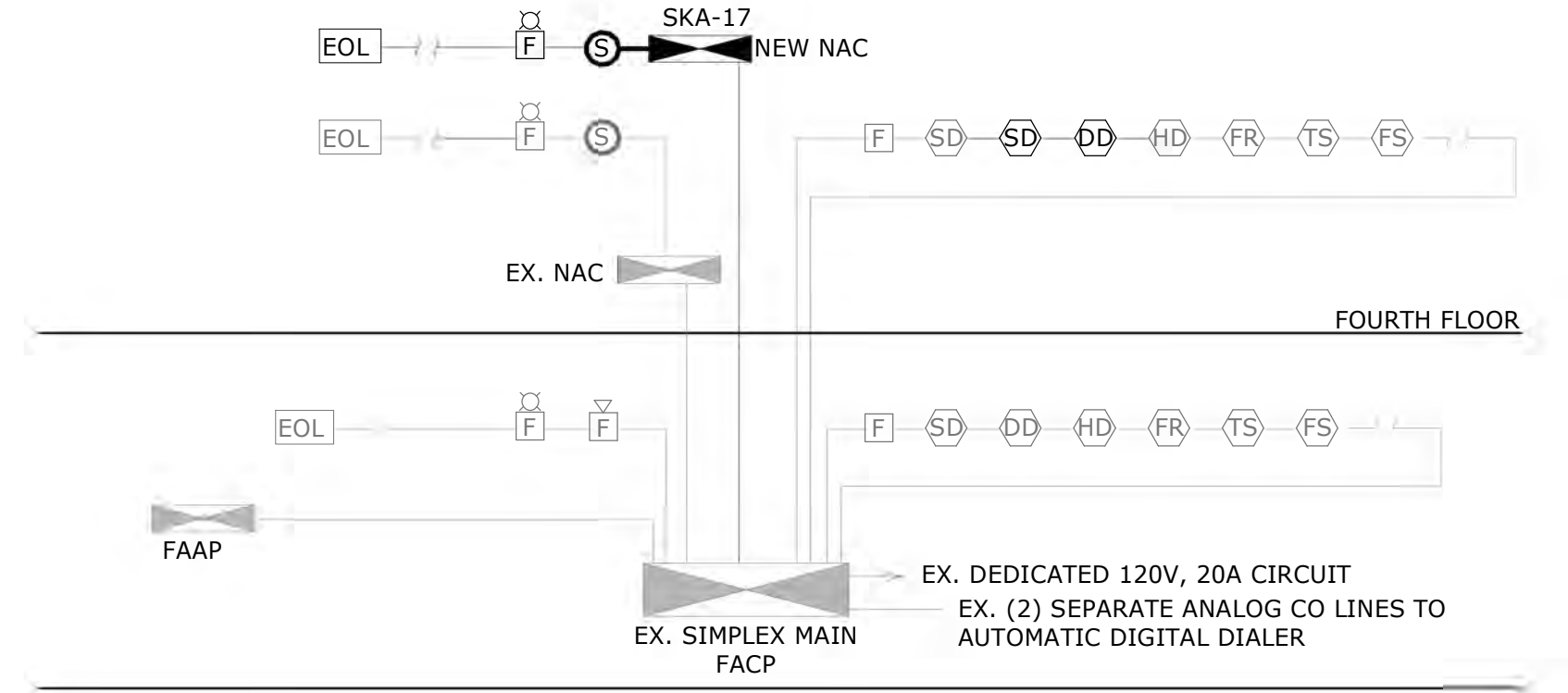


- NOTES:
- CONTRACTOR SHALL COORDINATE SAMPLING TUBE LENGTH AND DUCTWORK SHAPE.
 - PROVIDE CONTROL WIRING FROM DUCT SMOKE DETECTOR RELAYS LOCATED NEAR ALL ASSOCIATED FIRE/SMOKE DAMPERS AND HVAC EQUIPMENT TO DAMPER MOTORS AND HVAC EQUIPMENT SHUTDOWN CONTROL INPUTS.
 - PROVIDE/INSTALL ALL NECESSARY 24V HVAC CONTROL POWER, RELAYS, WIRING, AND CONDUIT.
 - IF CONTRACTOR REQUIRES ADDITIONAL LINE VOLTAGE CIRCUITS FOR CONTROL POWER OR ADDITIONAL CONTROL PANELS OTHER THAN WHAT IS SHOWN ON DRAWINGS, CONTRACTOR SHALL ABSORB ALL COSTS INCLUDING ELECTRICAL AND DATA CONNECTIONS/CABLING.
 - CONTRACTOR SHALL PROVIDE/INSTALL DUCT SMOKE DETECTOR REMOTE INDICATOR LIGHT/AUDIBLE DEVICE FLUSH IN CEILING OR WALL MOUNTED NEAR ASSOCIATED DUCT SMOKE DETECTOR.
 - CONTRACTOR SHALL COORDINATE WITH CONTROLS CONTRACTOR TO DETERMINE PROPER SHUTDOWN SEQUENCE FOR FIRE/SMOKE DAMPERS AND HVAC EQUIPMENT.

3 DAMPER DETAIL NTS



2 NFPA 72 AND ABA DEVICE INSTALLATION REQUIREMENTS NTS



- FIRE ALARM NOTES:
- PROVIDE ALL REQUIRED WIRING, INITIATING DEVICE CIRCUIT CARDS, RELAYS, PROGRAMMING, POWER EXTENDERS, POWER SUPPLIES, AMPLIFIERS, ANCILLIARY DEVICES, ETC. PER MANUFACTURER'S DIRECTION FOR A COMPLETE FUNCTIONING SYSTEM.
 - FIRE ALARM SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH 2017 NFPA 72, STATE BUILDING CODE REQUIREMENTS, AND DRAWING SPECIFICATION.
 - VERIFY COMPONENT TYPES AND QUANTITIES WITH THE ELECTRICAL PLANS.
 - ALL WIRING SHALL BE IN 3/4" CONDUIT, FACTORY PAINTED RED.
 - SYSTEM SHALL BE ADDRESSABLE. PROVIDE MONITORING MODULES FOR SIGNALING DEVICES AS REQUIRED.
 - FIRE ALARM TERMINAL CABINET DESIGNATION SHALL REPRESENT ALL REQUIRED POWER EXTENDERS, BATTERY CABINETS, ETC.
 - PROVIDE CLASS "A" WIRING SYSTEM FOR INITIATING DEVICE LOOPS AND CLASS "B" WIRING SYSTEMS FOR INDICATING DEVICE LOOPS.
 - ALL FIRE ALARM A/V DEVICES SHALL BE WHITE.
 - LOCATE SMOKE DETECTORS AT LEAST THREE FEET AWAY FROM HVAC DIFFUSER.
 - FIRE ALARM NOTIFICATION APPLIANCES SHALL BE IDENTIFIED PER SMOKE ZONES SHOWN ON PLANS. ANY DEVICES MOVED FROM ONE ZONE TO THE OTHER SHALL BE REVISED TO INDICATE NEW SMOKE ZONE.

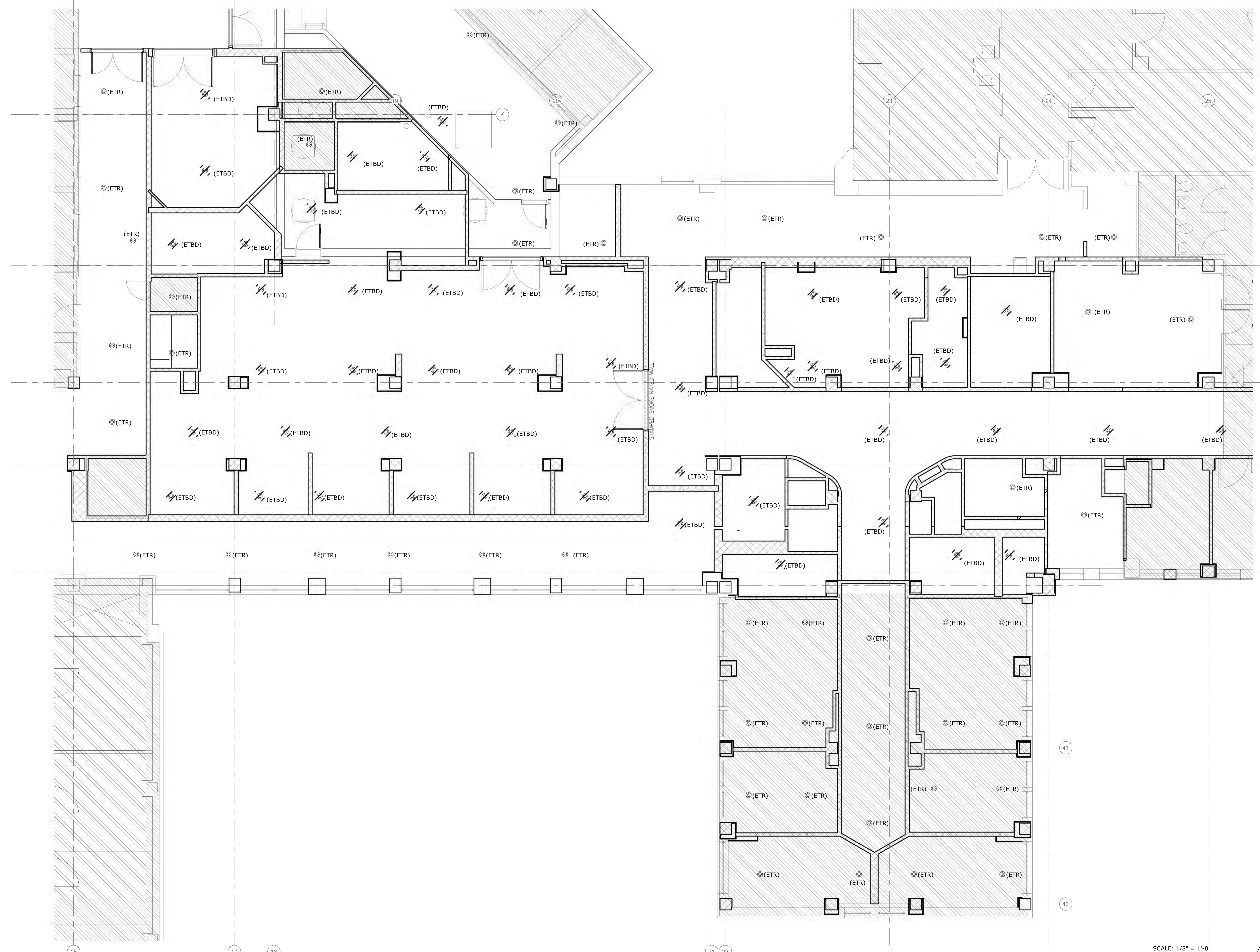
1 FIRE ALARM RISER DIAGRAM NTS

100% BID DOCUMENTS

<p>CONSULTANT</p> <p>AME CONSULTING ENGINEERS 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116</p> <p>PERKINS EASTMAN 520 WEST SIXTH STREET CHARLOTTE, NC 28202 T: 704.362.4602</p> <p>LAURENE, RICKHER & SORRELL, P.C. 8731 RED OAK BLVD. SUITE 300 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-252-0480 FAX: 704-252-3969 EMAIL: rick@rspsc.net WEB: www.rspsc.net</p>		<p>ARCHITECT/ENGINEER OF RECORD</p> <p>Atriax GROUP Atriax, pllc 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com</p>		<p>STAMP</p>	<p>Office of Construction and Facilities Management</p> <p>VA U.S. Department of Veterans Affairs</p>	<p>Drawing Title</p> <p>FIRE ALARM - RISER</p> <p>Approved:</p> <p>Andreka Watlington</p>	<p>Phase</p> <p>100% BID DOCUMENTS</p> <p>FULLY SPRINKLERED</p>	<p>Project Title</p> <p>VA DURHAM - PACU RENOVATION</p> <p>Location</p> <p>DURHAM VAMC DURHAM, NC</p> <p>Issue Date</p> <p>12/22/2020</p> <p>Checked</p> <p>SBT</p> <p>Drawn</p> <p>GMT</p>	<p>Project Number</p> <p>558-17-150</p> <p>Building Number</p> <p></p> <p>Drawing Number</p> <p>F-601 38 of 78</p>
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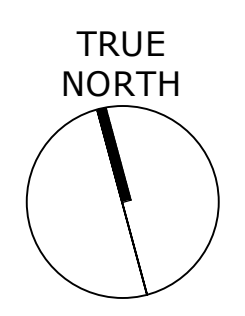
EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/12/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.



1 FIRE PROTECTION - FOURTH FLOOR PLAN - DEMOLITION
3/16" = 1'-0"

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



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100% BID DOCUMENTS

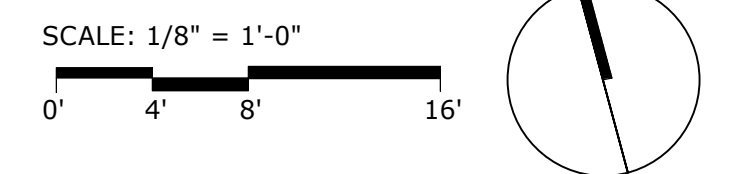
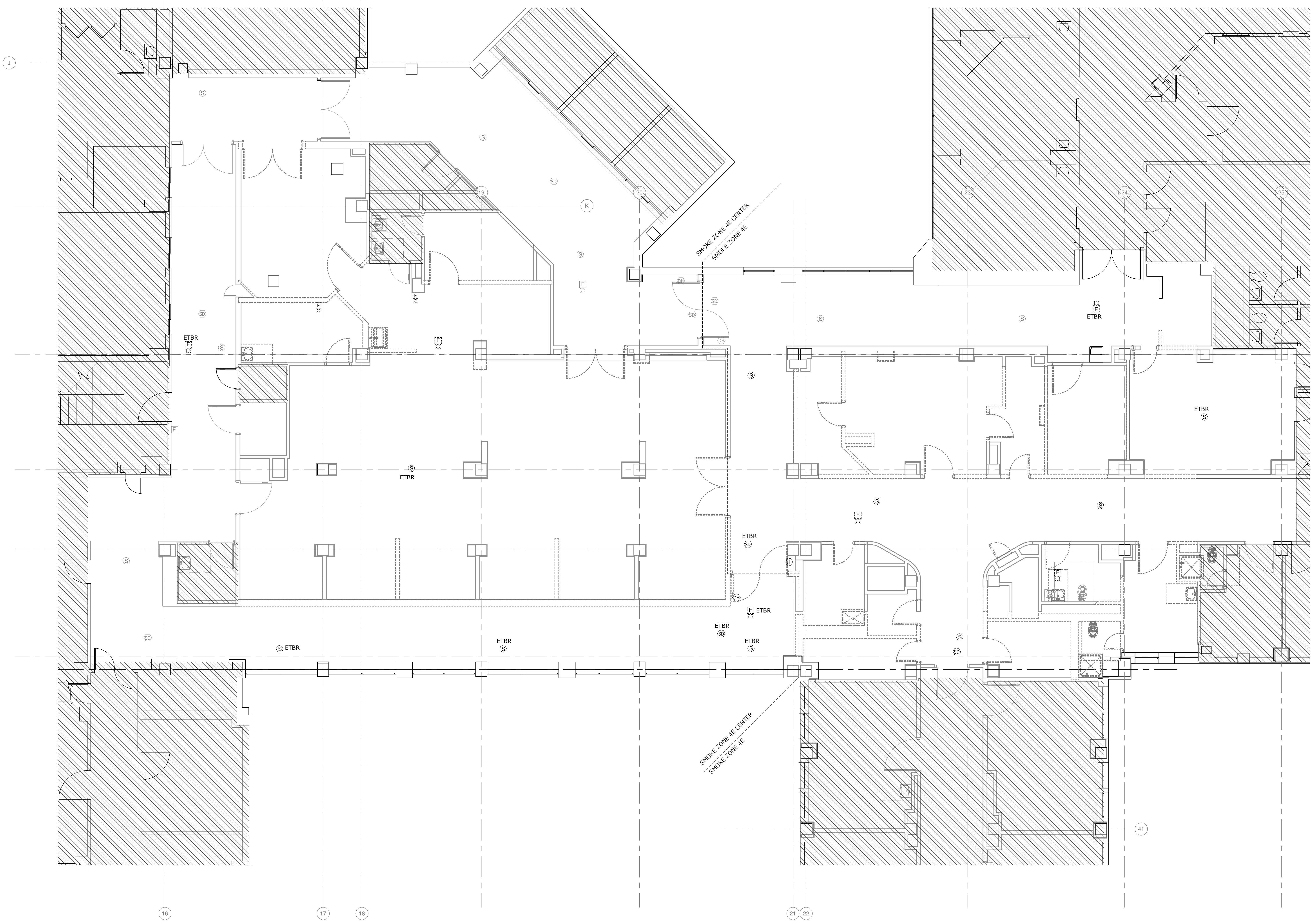
<p>CONSULTANT</p> <p>AME CONSULTING ENGINEERS 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116</p>		<p>PERKINS EASTMAN 520 WEST SIXTH STREET CHARLOTTE, NC 28202 T: 704.960.0501 F: 704.362.4602</p>		<p>LAURENE, RICKHER & SORRELL, P.C. Consulting Structural Engineers 8731 RED OAK BLVD., SUITE 300 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-252-0480 FAX: 704-522-3999 EMAIL: rickher@lrspe.com WEB: www.lrspe.com</p>		<p>ARCHITECT/ENGINEER OF RECORD</p> <p>Atriax GROUP Atriax, pllc 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com</p>		<p>STAMP</p>		<p>Office of Construction and Facilities Management</p> <p>VA U.S. Department of Veterans Affairs</p>		<p>Drawing Title FIRE PROTECTION - FOURTH FLOOR PLAN - DEMOLITION</p> <p>Approved: Andreka Watlington</p>		<p>Phase 100% BID DOCUMENTS</p> <p>FULLY SPRINKLERED</p>		<p>Project Title VA DURHAM - PACU RENOVATION</p> <p>Location DURHAM VAMC DURHAM, NC</p>		<p>Project Number 558-17-150</p> <p>Building Number</p> <p>Drawing Number FD101 39 of 78</p>	
<p>Revisions:</p>		<p>Date:</p>		<p>Issue Date 12/22/2020</p>		<p>Checked FFR</p>		<p>Drawn JCF</p>		<p>Project Number 558-17-150</p>		<p>Building Number</p>		<p>Drawing Number FD101 39 of 78</p>					

EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.

ELECTRICAL - DEMOLITION NOTES

- A IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE EXISTING EQUIPMENT AS REQUIRED TO ACCOMPLISH THE NEW WORK AS SHOWN OR REASONABLY IMPLIED. THE CONTRACTOR SHALL REFER TO THE NEW ARCHITECTURAL, PLUMBING, FIRE PROTECTION, MECHANICAL, ELECTRICAL, ETC. PLANS FOR WORK SHOWN TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED.
- B WHEN REMOVING ELECTRICAL EQUIPMENT AND SYSTEMS, ALL PRECAUTIONS SHALL BE TAKEN TO PREVENT STRUCTURAL DAMAGE TO THE BUILDING. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ANY STRUCTURAL SUPPORTS REQUIRED, TEMPORARY OR PERMANENT.
- C THE CONTRACTOR SHALL EXERCISE CARE SO THAT ONLY THAT CONSTRUCTION INDICATED OR REASONABLY IMPLIED TO BE REMOVED SHALL BE DEMOLISHED. THE EXISTING CONSTRUCTION TO REMAIN SHALL BE LEFT INTACT AND UNDAMAGED. THE CONTRACTOR SHALL PROTECT ALL ADJACENT SURFACES AND MATERIALS AS REQUIRED TO PREVENT DAMAGE.
- D THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEMOLITION AND CONSTRUCTION DEBRIS GENERATED. TAKE CARE TO PREVENT EXCESSIVE LOADING OF FLOOR ASSEMBLIES.
- E THE CONTRACTOR SHALL COORDINATE/SCHEDULE ALL POWER INTERRUPTIONS WITH THE OWNER AND POWER COMPANY IN WRITING.
- F WHEN EXISTING ELEMENTS OF ELECTRICAL EQUIPMENT AND SYSTEMS ARE REMOVED, ALL REMAINING OPENINGS IN THE SLAB/WALL SHALL BE FILLED IN BY THE CONTRACTOR TO MATCH ADJACENT.
- G REMOVE ALL MISCELLANEOUS ELECTRICAL FIXTURES AND EQUIPMENT RETAINING ITEMS TO BE IDENTIFIED FOR SALVAGE AND STORAGE AT THE DIRECTION OF THE OWNER.
- H THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION TO MAINTAIN THE INTEGRITY AND OPERATION OF EXISTING LIFE SAFETY AND EMERGENCY EGRESS EQUIPMENT.
- I THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION TO MAINTAIN ACCESS TO ALL MEANS OF EGRESS CORRIDORS, DOORWAYS, AND STAIRS.
- J THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION TO PERMIT EFFECTED AREAS TO CONTINUE TO FUNCTION TO THE GREATEST EXTENT POSSIBLE.
- K THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL FLUORESCENT AND HID LAMPS. THE CONTRACTOR SHALL PROVIDE VERIFICATION OF PROPER LAMP DISPOSAL UPON OWNER REQUEST.
- L THE CONTRACTOR SHALL PROPERLY HANDLE AND DISPOSE OF ALL PCB CONTAINING EQUIPMENT SUCH AS BALLASTS, TRANSFORMERS, AND POTTING COMPOUNDS THROUGH PROPER AUTHORITIES.
- M THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES, FIXTURES, WIRING, AND ROUGH-IN IN WALLS, FLOORS OR CEILING TO BE DEMOLISHED. THE CONTRACTOR SHALL REMOVE EXISTING ELECTRICAL DEVICES, LIGHTING FIXTURES, SYSTEMS DEVICE, ASSOCIATED WIRING, AND CONDUIT BACK TO SOURCE OR NEAREST DEVICE TO REMAIN, UNLESS OTHERWISE NOTED. IF EXISTING CIRCUIT HAS DOWNSTREAM DEVICES TO REMAIN, CONTRACTOR SHALL REFEED THESE ITEMS ACCORDINGLY THROUGH ALTERNATE PATH.
- N THE ELECTRICAL CONTRACTOR SHALL DETERMINE THE EXTENT TO WHICH EXISTING CONDUIT AND THE WIRING WILL HAVE TO BE RE-ROUTED, RELOCATED, OR RECONNECTED, AND THE AMOUNT OF ADDITIONAL WORK WHICH MAY BE REQUIRED DUE TO THIS CONTRACT WITHOUT ADDITIONAL CHARGES TO THE OWNER.
- O PRIOR TO ANY DEACTIVATION AND RELOCATION OF DEMOLITION WORK, ARRANGE A CONFERENCE WITH ARCHITECT AND THE OWNER'S REPRESENTATIVE IN THE FIELD TO INSPECT EACH OF THE ITEMS TO BE DEACTIVATED, REMOVED OR RELOCATED. CARE SHALL BE TAKEN TO PROTECT ALL EQUIPMENT DESIGNATED TO BE RELOCATED AND REUSED OR TO REMAIN OPERATIONAL AND BE INTEGRATED WITH THE NEW SYSTEMS.
- P CONTRACTOR SHALL INSPECT AND IDENTIFY ANY CONDUIT AND/OR CONDUCTORS THAT MAY BE EMBEDDED IN WALLS TO BE DEMOLISHED OR LOCATED IN THE DEMOLITION AREA AND RELOCATE THESE TO NEW LOCATIONS PRIOR TO THE START OF DEMOLITION. BID PRICE SHALL INCLUDE CONDUIT AND CONDUCTORS AND LABOR FOR ANY THAT MUST BE REMOVED OR RELOCATED.
- Q NO WORK IN HATCHED AREAS. E.C. TO MAINTAIN ALL CIRCUITS IN THIS AREA DURING CONSTRUCTION.
- R ALL WORK SHOWN LIGHT AND SOLID IS EXISTING TO REMAIN. ALL WORK SHOWN BOLD AND/OR DASHED IS EXISTING TO BE DEMOLISHED.
- S DEVICES/EQUIPMENT NOTED AS ETBR ON THE DEMOLITION PLAN(S) SHALL BE REMOVED AND RELOCATED TO THE NEW LOCATION AS INDICATED ON THE NEW LIGHTING/POWER/SYSTEMS PLAN(S). DEVICES/EQUIPMENT NOTED AS ETBR ON THE NEW LIGHTING/POWER/SYSTEMS PLAN(S) INDICATES THE NEW LOCATION FOR THE RELOCATED EXISTING DEVICE/EQUIPMENT.
- T REFER TO ARCHITECTURAL PLANS FOR PHASING.
- U FIRE ALARM NOTIFICATION APPLIANCES SHALL BE IDENTIFIED PER SMOKE ZONES SHOWN ON PLANS. ANY DEVICES MOVED FROM ONE ZONE TO THE OTHER SHALL BE REVISED TO INDICATE NEW SMOKE ZONE.
- V ALL EXISTING NURSE CALL DEVICES SHALL BE REMOVED AND RELOCATED.



1 FIRE ALARM - FOURTH FLOOR - DEMOLITION PLAN
3/16" = 1'-0"

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Revisions:	Date:

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AME PROJECT NO.: 17116

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
FIRE ALARM - FOURTH FLOOR PLAN - DEMOLITION

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
SBT

Drawn
GMT

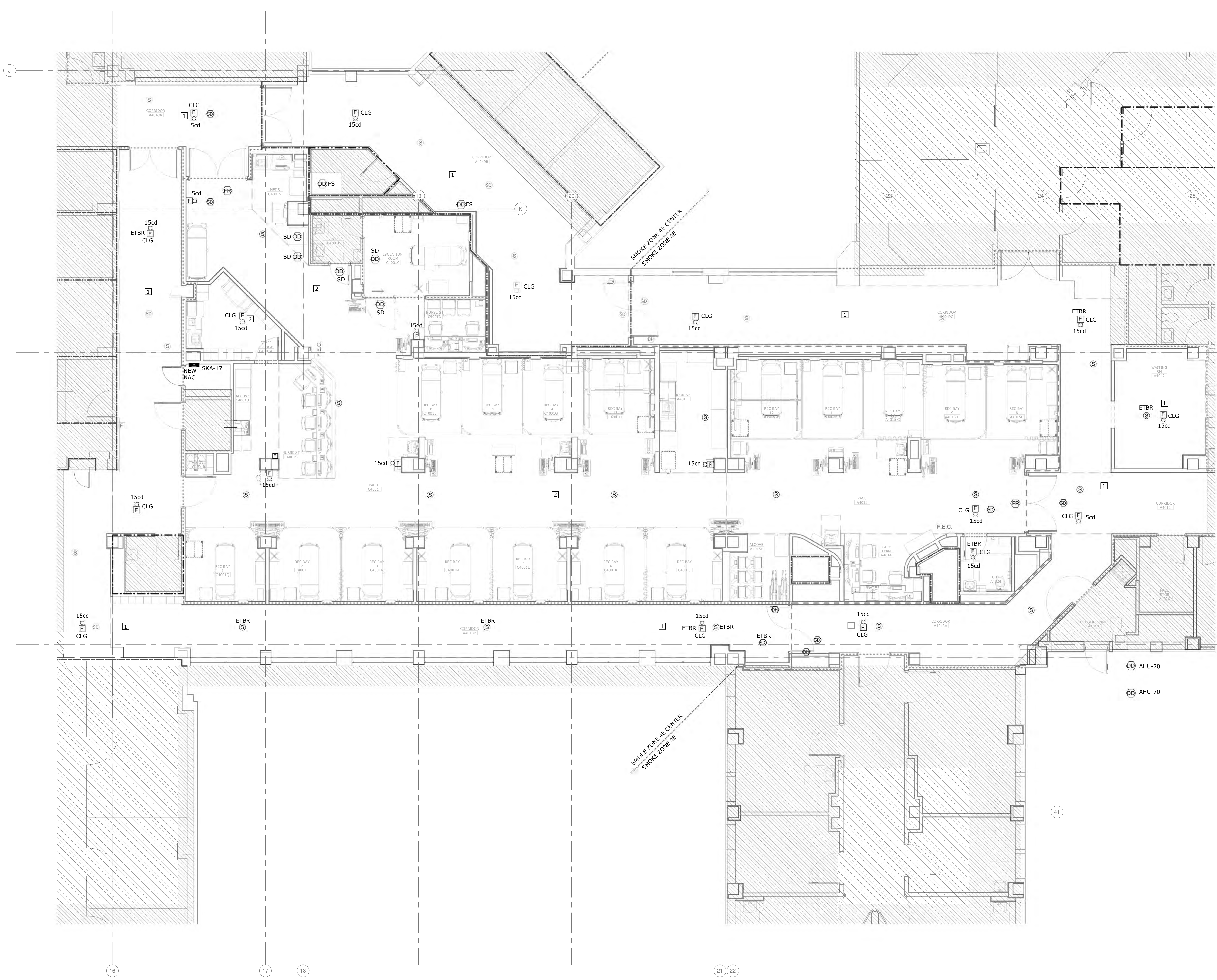
Project Number
558-17-150

Building Number

Drawing Number
FD102
40 of 78

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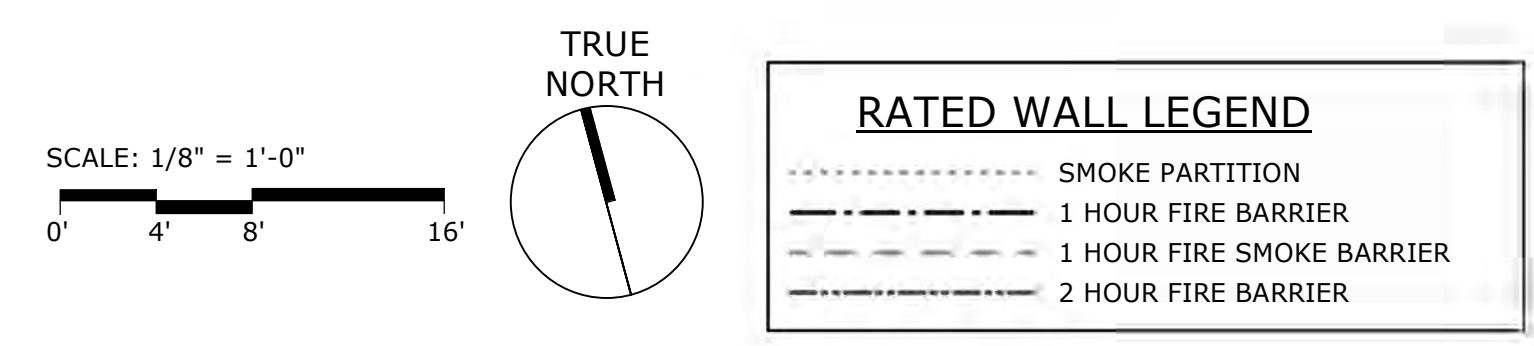
EXISTING CONDITIONS NOTE

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- GENERAL NOTES**
- A CONTRACTOR SHALL NOT INSTALL J-BOXES, OUTLETS, DEVICES, ETC. BACK TO BACK THROUGHOUT THIS FACILITY.
 - B THE DRAWINGS ARE DIAGRAMMATIC. THE TELECOMMUNICATIONS INSTALLATION SHALL BE COORDINATED WITH ALL OTHER TRADES TO REDUCE INTERFERENCES BETWEEN ALL ELECTRICAL DEVICES AND ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL AND FIRE PROTECTION.
 - C ALL DEVICES SHALL BE FLUSH MOUNTED, UNLESS OTHERWISE NOTED. COORDINATE DEVICE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
 - D ALL WIRING LOCATED IN RETURN AIR PLENUMS SHALL BE ROUTED IN CONDUIT OR SHALL BE PLENUM RATED CABLE. COORDINATE REQUIREMENTS WITH HVAC CONTRACTOR.
 - E COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHT OF ALL DEVICES WITH ARCHITECTURAL INTERIOR CASEWORK ELEVATIONS AND EQUIPMENT LAYOUTS PRIOR TO ROUGH-IN.
 - F REFER TO ARCHITECTURAL PLANS FOR PHASING.
 - G REFER TO SHEET F-601 FOR SYMBOL LEGEND AND DAMPER DETAIL.
 - H FIRE ALARM NOTIFICATION APPLIANCES SHALL BE IDENTIFIED PER SMOKE ZONES SHOWN ON PLANS. ANY DEVICES MOVED FROM ONE ZONE TO THE OTHER SHALL BE REVISED TO INDICATE NEW SMOKE ZONE.
 - I EXISTING RESPONDER 5 NURSE CALL DEVICES SHALL BE REMOVED AND RELOCATED. CONTRACTOR SHALL INSTALL NEW RESPONDER V NURSE CALL DEVICES AND UPDATE THE PROGRAMMING OF THE NURSE CALL SYSTEM.

- ELECTRICAL - KEYED NOTES - SYSTEMS**
- 1 DEVICES IN THIS AREA SHALL BE SERVED FROM EXISTING FIRE ALARM NAC.
 - 2 DEVICES IN THIS AREA SHALL BE SERVED FROM NEW FIRE ALARM NAC.

1 FIRE ALARM - FOURTH FLOOR- NEW WORK
3/16" = 1'-0"



RATED WALL LEGEND

---	SMOKE PARTITION
---	1 HOUR FIRE BARRIER
---	1 HOUR FIRE SMOKE BARRIER
---	2 HOUR FIRE BARRIER

Revisions:	Date:

CONSULTANT

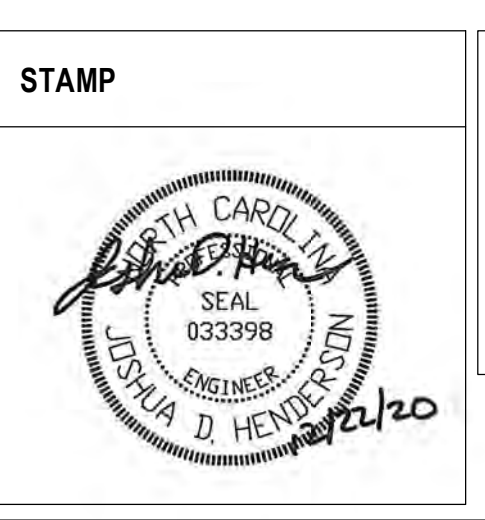
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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
FIRE ALARM - FOURTH FLOOR PLAN - FIRE ALARM

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

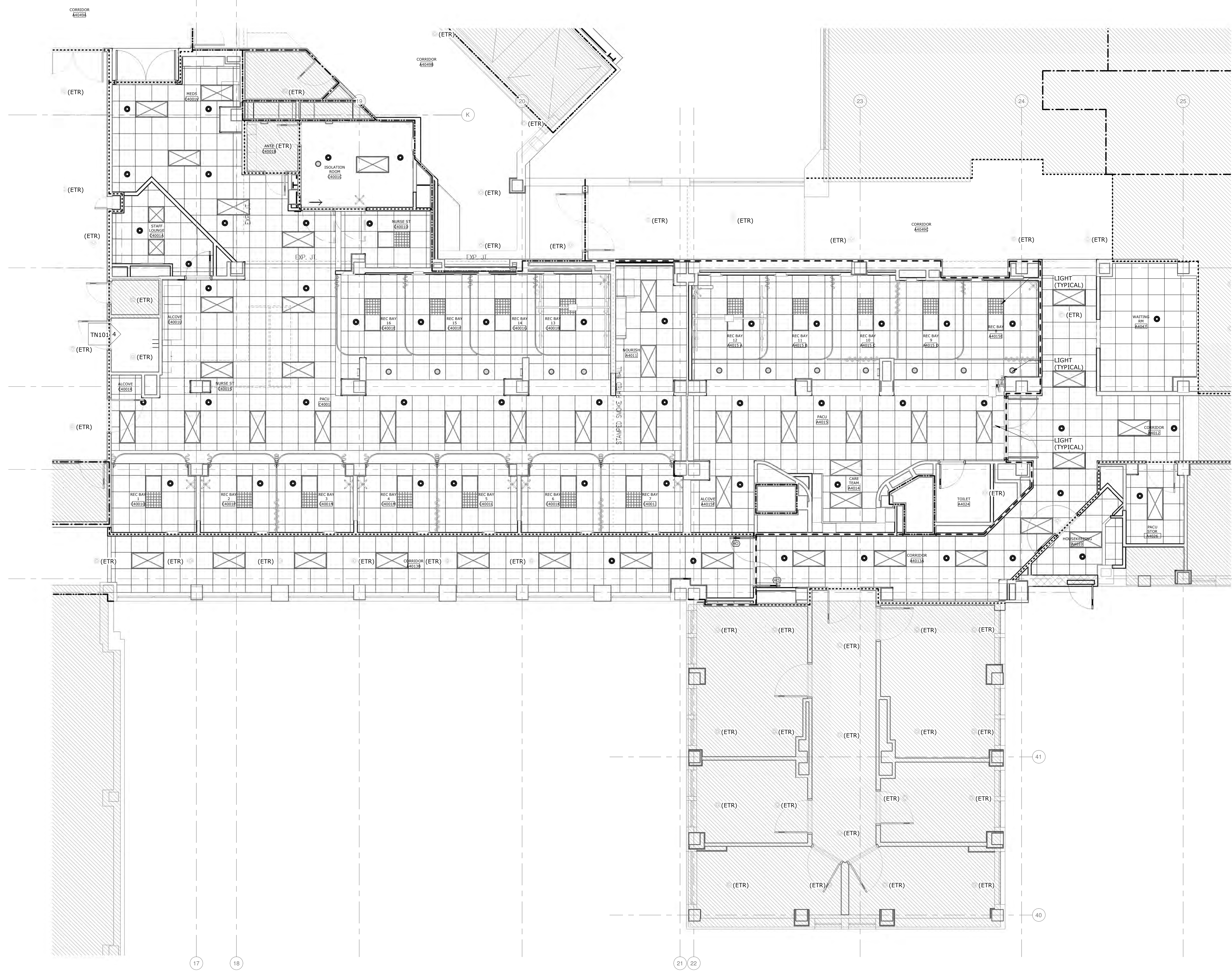
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Project Title VA DURHAM - PACU RENOVATION	Project Number 558-17-150
Location DURHAM VAMC DURHAM, NC	Building Number
Issue Date 12/22/2020	Checked SBT
Drawn GMT	Drawing Number FA201 41 of 78

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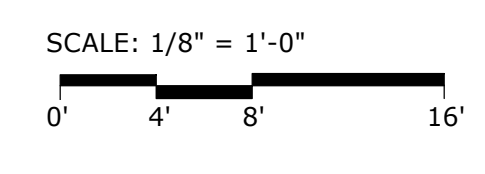
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1 FIRE PROTECTION - FOURTH FLOOR PLAN - NEW WORK
 3/16" = 1'-0"



RATED WALL LEGEND	
	SMOKE PARTITION
	1 HOUR FIRE BARRIER
	1 HOUR FIRE SMOKE BARRIER
	2 HOUR FIRE BARRIER

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Revisions: _____ Date: _____	CONSULTANT 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116	PERKINS EASTMAN 520 WEST SIXTH STREET CHARLOTTE, NC 28202 T: 704.960.0501 F: 704.362.4602	LAURENE, RICKHER & SORRELL, P.C. Consulting Structural Engineers 8731 REDD BANK BLVD., SUITE 300 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-252-0488 FAX: 704-522-3969 EMAIL: mail@lrscpc.net WEB: www.lrscpc.net	ARCHITECT/ENGINEER OF RECORD Atriax, pllc 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com	STAMP 	Office of Construction and Facilities Management 	Drawing Title FIRE PROTECTION - FOURTH FLOOR PLAN - NEW WORK Approved: Andreka Watlington	Phase 100% BID DOCUMENTS FULLY SPRINKLERED	Project Title VA DURHAM - PACU RENOVATION Location DURHAM VAMC DURHAM, NC Issue Date 12/22/2020 Checked FFR Drawn JCF	Project Number 558-17-150 Building Number Drawing Number FX201 42 of 78
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COORDINATION DRAWINGS

- 1. A MEETING SHALL BE ARRANGED BY THE CONTRACTOR AND TAKE PLACE PRIOR TO STARTING THE COORDINATION DRAWINGS. THIS MEETING SHALL INCLUDE AT A MINIMUM THE VA COR, CONTRACTOR, AND KEY SUBCONTRACTORS TO CONFIRM THE REQUIREMENTS OF THE COORDINATION DRAWINGS PRIOR TO THEM BEING SUBMITTED.
2. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES SO THAT THE FOLLOWING LISTS OF ITEMS CAN BE INDICATED ON A COMMON SET OF PLANS: FLOOR PLANS AND SECTIONS ARE TO BE DRAWN TO SCALE IN ALL CONGESTED AREAS SUCH AS 44012 CORRIDOR, 44013A CORRIDOR, DUCT CHASES PLAN EAST AND WEST OF EAST & WEST OF 44014 CARE TEAM ROOM 44026 PACU STORAGE, 44010 HOUSEKEEPING, C4001 PACU, DUCT CHASES PLAN NORTH OF C4001B ANTE AND C4001C ISOLATION ROOM, ETC. THESE SHALL BE SUBMITTED COLLECTIVELY FROM ALL DISCIPLINES INTO ONE OVERALL DOCUMENT FOR REVIEW BY THE ENGINEER ON AN AS NEEDED BASIS OR WHERE SPECIFICALLY DIRECTED WITHIN THE CONTRACT DOCUMENTS. THESE COORDINATION DRAWINGS SHALL BE SUBMITTED FOR REVIEW PRIOR TO ANY OTHER INDIVIDUAL PRODUCT DATA OR FABRICATION DRAWINGS. SHOW THE FOLLOWING AT A MINIMUM:
CEILING
FLOOR
ROOF OR FLOOR DECKING ABOVE
STRUCTURAL ELEMENTS
LIGHT FIXTURES
LARGE ELECTRICAL/TELECOM CONDUITS/PULL BOXES/CABLE TRAY
HVAC DUCTWORK
HVAC EQUIPMENT ABOVE CEILING, INDICATING SERVICE CLEARANCES
HVAC PIPING
PLUMBING PIPING
SPRINKLER PIPING
MOUNTING RACKS AND SUPPORT ASSEMBLIES FOR ASSOCIATED PIPING/DUCTWORK
3. IT IS IMPORTANT TO NOTE THAT DUCTWORK/PIPING/CABLE TRAY, ETC. CANNOT BE FABRICATED UNTIL COORDINATION DRAWINGS HAVE BEEN COMPLETED, SUBMITTED, AND APPROVED. ANY MATERIAL PROCUREMENT OR INSTALLATION WORK COMMENCED PRIOR TO APPROVAL IS TAKEN AT THE RISK OF THE CONTRACTOR AND MAY HAVE TO BE MODIFIED/MOVED AT THEIR COST.

SEISMIC & WIND REQUIREMENTS FOR HVAC SYSTEMS

- INFORMATION FOR IBC-2015/ASCE 7-10
1. PER 2015 INTERNATIONAL BUILDING CODE, MECHANICAL EQUIPMENT AND COMPONENTS, INCLUDING THEIR SUPPORTS AND ATTACHMENTS, SHALL BE DESIGNED FOR SEISMIC FORCES IN ACCORDANCE WITH CHAPTER 13 OF ASCE 7-10.
2. EXTERIOR EQUIPMENT (INCLUDING ROOF CURBS AND ROOF RAILS) EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST THE WIND PRESSURES DETERMINED IN ACCORDANCE WITH CHAPTERS 26 THROUGH 29 OF ASCE 7-10.
3. WHERE DESIGN FOR SEISMIC AND WIND LOADS IS REQUIRED, THE MORE DEMANDING FORCE MUST BE USED.
4. REFERENCE THE STRUCTURAL DRAWINGS FOR SITE SPECIFIC INFORMATION ON SEISMIC DESIGN CATEGORY, WIND SPEED, ETC.
5. USE TABLE BELOW TO DETERMINE SEISMIC RESTRAINT REQUIREMENTS FOR EACH COMPONENT.
6. FOR ALL COMPONENTS REQUIRING SEISMIC RESTRAINT, THE COMPONENT SUPPORTS AND ATTACHMENTS SHALL BE DESIGNED BY A REGISTERED DESIGN PROFESSIONAL.
7. WHERE SEISMIC RESTRAINT IS REQUIRED, HOUSEKEEPING PADS NEEDED FOR THE INSTALLATION OF EQUIPMENT UNDER THIS CONTRACT MUST BE DESIGNED BY THE SEISMIC ENGINEER. DO NOT POUR ANY HOUSEKEEPING PADS PRIOR TO THE RECEIPT OF APPROVED SEISMIC SUBMITTAL.
8. SEISMIC RESTRAINTS FOR DUCTWORK, PIPING AND CONDUIT MUST BE SHOWN ON SEISMIC SUBMITTAL LAYOUT DRAWINGS SHOWING SPECIFIC RESTRAINT LOCATIONS ALONG WITH ACCOMPANYING DETAILS AND CALCULATIONS.

Table with columns for Component Identification, Seismic Restraint Requirement, and ASCE 7-10 Reference. Includes rows for Roof Mounted, Floor Mounted, Wall Mounted, and Suspended Equipment.

- TABLE NOTES:
1. FLEXIBLE CONNECTIONS REQUIRED FOR PIPE CONNECTIONS ONLY.
2. RESTRAINT IS NOT REQUIRED IF THE PIPING OR DUCTWORK IS SUPPORTED BY HANGERS WHERE EACH HANGER IS 12 INCHES OR LESS IN LENGTH FROM THE TOP OF THE PIPE OR DUCT TO THE SUPPORTING STRUCTURE.
3. ALL PIPING AND DUCTWORK, REGARDLESS OF SIZE, DESIGNED TO CARRY TOXIC, HIGHLY TOXIC, OR EXPLOSIVE GASES OR USED FOR SMOKE CONTROL MUST BE SEISMICALLY TRAINED.
4. COMPONENT CERTIFICATION MUST BE SUPPLIED BY THE EQUIPMENT MANUFACTURER AT THE TIME OF SUBMITTAL FOR REVIEW BY ENGINEER OF RECORD.

MECHANICAL GENERAL NOTES

- 1. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH HVAC DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
2. OVERHEAD PIPING AND DUCTWORK IN SPACES WITHOUT HUNG CEILINGS SHALL BE RUN AS CLOSE TO ROOF DECK AS PRACTICAL, AS CLOSE TO PARALLEL JOISTS AS POSSIBLE AND ABOVE LIGHTING FIXTURES TO CONCEAL PIPING.
3. OVERHEAD DUCTWORK AND PIPING IN SPACES WITH CEILINGS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
4. COORDINATE LOCATION OF GRILLES, REGISTERS, DIFFUSERS, THERMOSTATS AND OTHER WALL OR CEILING MOUNTED HVAC ACCESSORIES WITH REFLECTED CEILING PLAN, LIGHTING FIXTURE LAYOUT AND ACCESSORIES INSTALLED BY OTHER TRADES SO AS TO PRESENT A NEAT AND ATTRACTIVE INSTALLATION THROUGHOUT THE ENTIRE BUILDING.
5. ARRANGE PIPING AND DUCTWORK, PARTICULARLY ABOVE CEILING AS REQUIRED TO CLEAR STRUCTURE, DUCTS, CONDUITS, ETC. ALLOWING SPACE FOR PIPE HANGERS, ACCESS TO VALVES, FILTERS, AND MAINTENANCE OF EQUIPMENT.
6. EQUIPMENT WITH FILTERS SHALL BE INSTALLED SO THAT FILTERS CAN BE EASILY REMOVED AND REPLACED.
7. COORDINATE LOCATION AND INSTALLATION OF EQUIPMENT WITH OTHER TRADES.
8. DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DOORS, WINDOWS, ETC.
9. THERMOSTATS SHALL BE LOCATED IN THE ROOMS INDICATED. INSTALL AT 48" ABOVE FINISH FLOOR.
10. PIPING, DUCTWORK, VENTS, ETC., EXTENDING THROUGH EXTERIOR WALLS AND ROOF SHALL BE FLASHED AND COUNTER FLASHED IN A WEATHERPROOF MANNER.
11. PIPING AND DUCTWORK INSULATION SHALL RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS, ROOF AND PARTITIONS, UNLESS OTHERWISE INDICATED.
12. FLEXIBLE AIR DUCTS SHALL HAVE UL 181 LISTING, FIBERGLASS SCRIM, R-6 INSULATION, AND MAXIMUM DISTANCE OF 6'-0".
13. NO PIPING SHALL BE SMALLER THAN 3/4" UNLESS OTHERWISE NOTED.
14. PROVIDE UNION OR FLANGED CONNECTIONS AT EACH PIECE OF EQUIPMENT AND ON BOTH SIDES OF CONTROL VALVES AND PRESSURE REGULATING VALVES. PROVIDE SHUT-OFF VALVES ON BOTH SIDES OF AUTOMATIC VALVES.
15. PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATIONS. ADDITIONAL SUPPORTS OR HANGERS SHALL BE ADJACENT TO ELBOWS TO PREVENT WEIGHT OF PIPING BEING PLACED ON EQUIPMENT.
16. SIZE REFRIGERANT PIPING AND PROVIDE SUCTION RISER TRAPS ON VERTICAL RISES PER MANUFACTURER'S INSTRUCTIONS.
17. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE."
18. PROVIDE BEARING PLATES AND OTHER NECESSARY REINFORCEMENTS AT DUCTWORK SUPPORTS TO ENSURE THAT DUCT INSULATION MAINTAINS REQUIRED "R" VALUES.
19. PROVIDE ACCESS DOORS IN DUCTWORK WHERE INDICATED OR REQUIRED FOR ACCESS TO SYSTEM COMPONENTS INCLUDING THE FOLLOWING:
A. DAMPER MOTORS AND/OR MOTOR OPERATED DAMPERS
B. FILTERS
C. FIRE DAMPERS AND SMOKE DAMPERS
D. SMOKE DETECTORS
20. PROVIDE A MINIMUM OF THREE TIMES THE FAN DIAMETER OF STRAIGHT DUCTWORK OFF THE SUPPLY AIR FAN DISCHARGE BEFORE ANY TAKEOFFS OR ELBOWS.
21. PROVIDE EXTENDED VOLUME DAMPER CONTROL RODS SO THAT HANDLES ARE WELL CLEAR OF DUCT INSULATION.

MECHANICAL ABBREVIATIONS

Table with columns: Designation, Description. Lists abbreviations such as AD (ACCESS DOOR), ACV (AIR CONTROL VALVE), AFF (ABOVE FINISHED FLOOR), AHU (AIR HANDLING UNIT), etc.

MECHANICAL PIPING LEGEND

Table with columns: Designation, Description. Lists piping symbols and descriptions such as CW (CHILLED WATER SUPPLY), CWR (CHILLED WATER RETURN), DCW (DOMESTIC COLD WATER FOR MECHANICAL EQUIPMENT), etc.

EXISTING/DEMO/NEW LEGEND

Table with columns: Designation, Description. Lists symbols for existing/demo/new equipment, ductwork, piping, etc.

MECHANICAL SYMBOL LEGEND

Table with columns: Designation, Description. Lists mechanical symbols and descriptions such as supply air duct with turning vanes, return air duct with turning vanes, etc.

DUCT SEALING REQUIREMENTS

- 1. ALL DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH SEAL CLASS "A"
2. SEAL ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, WALL PENETRATIONS, AND DUCT CONNECTIONS. PRESSURE SENSITIVE TAPE SHALL NOT BE USED AS THE PRIMARY SEALANT, UNLESS IT HAS BEEN CERTIFIED TO COMPLY WITH UL-181V OR UL181B BY AN INDEPENDENT TESTING LABORATORY AND THE TAPE IS USED IN ACCORDANCE WITH THAT CERTIFICATION.
3. LONGITUDINAL SEAMS ARE JOINTS ORIENTED IN THE DIRECTION OF AIRFLOW. TRANSVERSE JOINTS ARE CONNECTIONS OF TWO DUCT SECTIONS ORIENTED PERPENDICULAR TO AIRFLOW. DUCT WALL PENETRATIONS ARE OPENINGS MADE BY ANY SCREW FASTENER, PIPE, ROD, OR WIRE. SPIRAL LOCK SEAMS IN ROUND DUCTS NEED NOT BE SEALED. ALL OTHER CONNECTIONS ARE CONSIDERED TRANSVERSE JOINTS, INCLUDING BUT NOT LIMITED TO SPIN-INS, TAPS AND OTHER BRANCH CONNECTIONS, ACCESS DOORS FRAMES AND JAMBS, DUCT CONNECTIONS TO EQUIPMENT, ETC.
4. DUCT LEAKAGE TESTING IS REQUIRED. REFER TO SECTION 3.2 IN SPECIFICATION 23 31 00.

PHASING & PRE-CONSTRUCTION NOTES

- 1. THE CONTRACTOR SHALL REVIEW THE PHASING REQUIREMENTS AND NOTES INDICATED ON PHASING DRAWINGS G-100. THE EXISTING PACU AREA SHALL REMAIN OCCUPIED MONDAY-SUNDAY. THE VA SHALL RELOCATE THE EXISTING PAN CLINIC DURING CONSTRUCTION.
2. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE.
3. PRIOR TO BIDDING, THE CONTRACTOR SHALL CAREFULLY EXAMINE AND FAMILIARIZE HIMSELF WITH THE PHASING REQUIREMENTS, EXISTING CONDITIONS, AND NEW WORK SHOWN ON THE CONSTRUCTION DOCUMENTS.
4. THE CONTRACTOR SHALL PROVIDE TEMPORARY HEATING & COOLING AS REQUIRED TO ALLOW THE AREAS INDICATED ON PHASING DRAWING G-100 TO REMAIN OCCUPIED DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL INCLUDE IN THEIR BID ALL WORK NEEDING TO BE DONE AFTER HOURS OR ON WEEKENDS (SUCH AS WORK IN BAYS 6 AND 13), ANY WORK REQUIRING SHUTDOWNS, ANY WORK THAT MAY REQUIRE OVERTIME, AND ANY NEED FOR TEMPORARY HEATING & COOLING.
6. THE SPACE ABOVE CEILING IS VERY CONGESTED WITH EXISTING MECHANICAL EQUIPMENT, DUCTWORK, MECHANICAL PIPING, PLUMBING PIPING, SPRINKLER PIPING, ELECTRICAL CONDUIT, LIGHTS, CABLE TRAYS, LOOSE CABLES, ABANDONED ITEMS, ETC.
7. ANY AIR INTAKES AND RETURNS ADJACENT TO WORK AREAS SHALL BE FILTERED FROM DUST AND DEBRIS WITH MINIMUM MERV 13 FILTRATION.
8. ALL PHASES UNDER CONSTRUCTION SHALL BE KEPT UNDER NEGATIVE PRESSURE (<0.1" W.C. MINIMUM) AND EXHAUSTED DIRECTLY OUTDOORS.

DUCT PRESSURE CLASS REQUIREMENTS

Table with columns: Duct System, Pressure Class. Lists requirements for Medium Pressure Supply, Low Pressure Supply, Low Pressure Return, and Low Pressure Exhaust.

EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS.

HEPA FILTER TESTING NOTES

- 1. CONTRACTOR SHALL PROVIDE TESTING OF HEPA FILTERS AFTER INSTALLATION PER VA REQUIREMENTS.
2. ALLOWANCES SHALL BE MADE FOR THE ABILITY TO PROVIDE AEROSOL PHOTOMETRY TESTS (COMMONLY KNOWN AS DOP/PAD TESTING) OF THE HEPA FILTERS IN SITU.
3. EQUIPMENT REQUIRING HEPA FILTER TESTING INCLUDES: AHU-20, FH-20

VARIABLE FREQUENCY DRIVE (VFD) NOTES

- 1. ALL VFD'S SHALL COMPLY WITH IEEE 519-2993.
2. VFD MANUFACTURER SHALL CONDUCT A HARMONIC ANALYSIS AND PROVIDE INPUT FILTERING AND SHIELDING AS REQUIRED TO LIMIT TOTAL DEMAND (HARMONIC CURRENT) DISTORTION, TOTAL HARMONIC VOLTAGE DEMAND, AND RADIO-FREQUENCY INTERFERENCE.
3. ALL VFD'S SHALL BE LIMITED TO A MAXIMUM 60 HZ.
4. THE TEST AND BALANCE FIRM MAY NOT INCREASE THE FREQUENCY ON ANY VFD ABOVE 60 HZ TO ACHIEVE THE AIR AND WATER FLOW RATES SHOWN ON THESE CONSTRUCTION DOCUMENTS.

TEST AND BALANCE NOTES

- 1. THE CONTRACTOR SHALL HIRE AN APPROVED TEST AND BALANCE AGENCY TO PERFORM A FULL TEST AND BALANCE OF THE RENOVATED AREAS AFTER CONSTRUCTION IS COMPLETE.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE TEST AND BALANCE OF ALL SYSTEMS WITHIN THE RENOVATED AREAS (INCLUDING EXISTING TO REMAIN EQUIPMENT) TO ACHIEVE THE AIR AND WATER FLOWS RATES INDICATED ON THESE CONSTRUCTION DOCUMENTS.
3. THESE DRAWINGS ARE BASED ON EXISTING DOCUMENTS AND LIMITED FIELD OBSERVATIONS. THE CONTRACTOR SHALL CONDUCT A TEST OF EXISTING SYSTEMS PRIOR TO STARTING WORK TO ESTABLISH AIRFLOWS FOR ALL EXISTING AIR DISTRIBUTION DEVICES AND TO VERIFY SUFFICIENT AIRFLOW IS AVAILABLE TO ACHIEVE THE AIRFLOWS INDICATED ON THESE DRAWINGS.

MECHANICAL CODE SUMMARY

NAME OF PROJECT: DURHAM VAMC EXPAND PACU
ADDRESS: 508 FULTON STREET DURHAM, NC 27705
OWNER/CONTACT PERSON: ANDREKA WATLINGTON
CODE ENFORCEMENT JURISDICTION: VAMC
BUILDING OCCUPANCY: 1-2
METHOD OF COMPLIANCE: PRESCRIPTIVE
EXTERIOR DESIGN CONDITIONS: WINTER DRY BULB: 17.5°F, SUMMER DRY BULB: 93.2°F

MECHANICAL SHEET INDEX

Table with columns: Sheet Number, Sheet Name. Lists sheets such as M-501 MECHANICAL - GENERAL NOTES AND LEGENDS, M-601 MECHANICAL - SCHEDULES & CALCULATIONS, etc.

Table with columns: Revisions, Date. Includes fields for revision number and date.

CONSULTANT: AME CONSULTING ENGINEERS, PERKINS EASTMAN

ARCHITECT/ENGINEER OF RECORD: Atriax, Inc., Office of Construction and Facilities Management

Drawing Title: MECHANICAL - GENERAL NOTES AND LEGENDS, Approved: Andreka Watlington

Phase: 100% BID DOCUMENTS, FULLY SPRINKLERED

Project Title: VA DURHAM - PACU RENOVATION, Project Number: 558-17-150, Drawing Number: M-001 43 of 78

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MODULAR CONSTANT VOLUME ROOFTOP AIR HANDLING UNIT SCHEDULE. Includes columns for GENERAL, STEAM-TO-STEAM HUMIDIFIER SECTION, SUPPLY FAN SECTION, CHILLED WATER COOLING COIL SECTION, and RETURN FAN SECTION. Includes a detailed cross-section diagram of the AHU-70 unit.

AIR DISTRIBUTION SCHEDULE. Table with columns: MARK, MANUFACTURER, MODEL, TYPE, PANEL SIZE, NECK SIZE, SYSTEM, INSTALLATION TYPE, MATERIAL, MAX. AIR (CFM), NOTES. Includes a callout diagram for air distribution.

FAN SCHEDULE. Table with columns: MARK, AREA SERVED, MANUFACTURER, MODEL, TYPE, FUNCTION, # OF FANS IN SYSTEM, AIRFLOW (CFM), S.P. (IN. WC.), DISCHARGE VELOCITY (FT/MIN), CONTROL, DRIVE TYPE, MOTOR (HP), VOLTAGE PHASE, INLET SOUND (dBA), SYSTEM WEIGHT (LBS.), NOTES.

DUCTLESS SPLIT SYSTEM COOLING-ONLY A/C UNIT SCHEDULE. Table with columns: MARK, AREA SERVED, MANUFACTURER, MODEL, NOMINAL TONS, SUPPLY AIR (CFM), FAN OUTDOOR AIR (CFM), ESP (IN. WG.), VOLTAGE/PHASE, MCA (A), MOC (A), MARK, MANUFACTURER, MODEL, DX COOLING (BTU/HOUR), HEATING (BTU/HOUR), VOLTAGE/PHASE, MCA (A), MOC (A), WEIGHT (LBS.).

FILTER HOUSING SCHEDULE. Table with columns: MARK, AREA SERVED, MANUFACTURER, MODEL, TYPE, AIRFLOW (CFM), HOUSING WIDTH (IN.), HOUSING DEPTH (IN.), HOUSING HEIGHT (IN.), FILTERS (#), FILTER SIZE (IN.), MIN. PD (IN. WG.), MAX. PD (IN. WG.), TYPE, EFFICIENCY (%), FILTER SIZE (IN.), MIN. PD (IN. WG.), MAX. PD (IN. WG.), TYPE, EFFICIENCY (%), MODEL, NOTES.

PACU VENTILATION CALCULATIONS (AHU-70). Large table with columns: ROOM NUMBER, ROOM NAME, FLOOR AREA (FT^2), CEILING HEIGHT (FT), ROOM VOLUME (FT^3), VA REQUIRED TOTAL AIR CHANGES (ACH), VA REQUIRED CALCULATED TOTAL AIRFLOW (CFM), ACTUAL SUPPLY AIRFLOW PROVIDED (CFM), VA REQUIRED OUTDOOR AIR CHANGES (ACH), VA REQUIRED CALCULATED OUTDOOR AIRFLOW PROVIDED (CFM), ACTUAL OUTDOOR AIRFLOW PROVIDED (CFM), ACTUAL RETURN AIRFLOW PROVIDED (CFM), ACTUAL EXHAUST AIRFLOW PROVIDED (CFM), PRESSURE RELATIONSHIP.

AIR CONTROL VALVE SCHEDULE. Table with columns: MARK, AREA SERVED, MANUFACTURER, MODEL, AIRFLOW TYPE, SYSTEM, INLET SIZE (IN.), MAX. AIRFLOW (CFM), MIN. AIRFLOW (CFM), MIN. PD (IN.), VOLTAGE, NOTES.

SINGLE DUCT CONSTANT VOLUME AIR TERMINAL UNITS W/ HOT WATER HEAT SCHEDULE. Table with columns: MARK, ASSOCIATED AHU, MANUFACTURER, MODEL, INLET SIZE (IN.), TYPE, PRIMARY AIRFLOW (MAX. CFM, MIN. CFM, SPD), HEAT (CFM), EAT (°F), LAT (°F), HOT WATER HEATING COIL (EWT LWT ROWS), RUNOUT SIZE (IN.), VALVE ASSEMBLY, VOLTAGE PHASE, NOTES.

Revisions table with columns: Revisions, Date.

CONSULTANT: AVE CONSULTING ENGINEERS and PERKINS EASTMAN LAURENE, RICKHER & SORRELL, P.C.

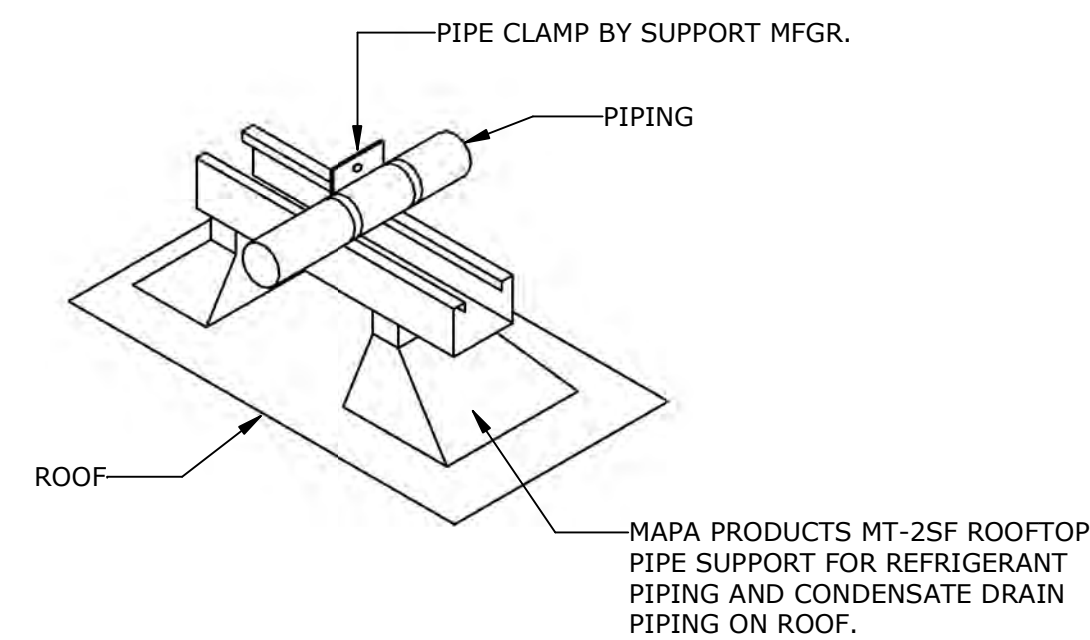
ARCHITECT/ENGINEER OF RECORD: Atriax Group, 102 3rd Avenue, NE, PO Box 1828, Hickory, NC 28603.

STAMP: Office of Construction and Facilities Management, U.S. Department of Veterans Affairs.

Drawing Title: MECHANICAL - SCHEDULES & CALCULATIONS. Approved: Andreaka Watlington.

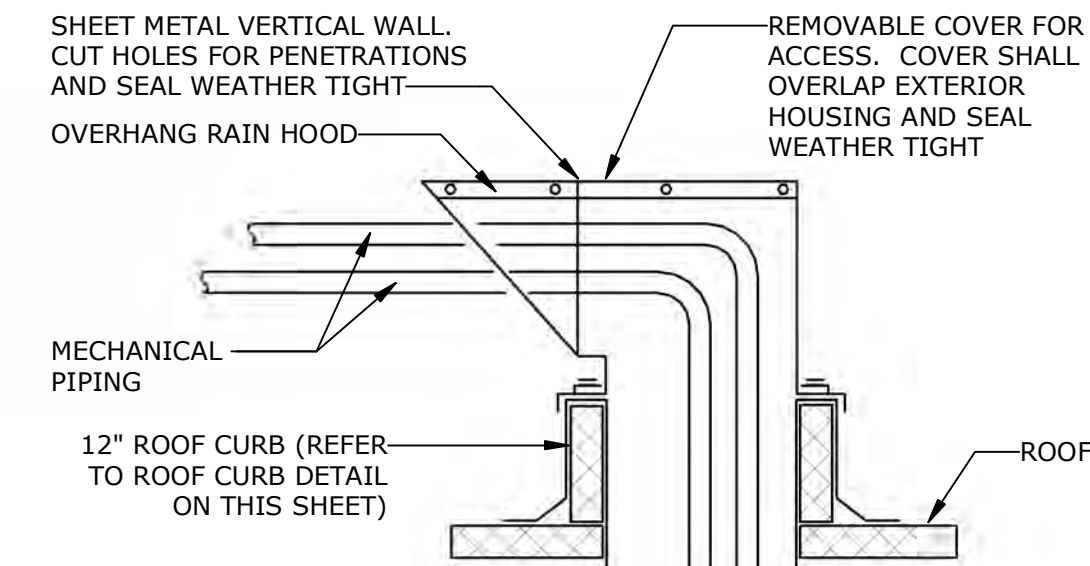
Phase: 100% BID DOCUMENTS. Location: DURHAM VAMC, DURHAM, NC.

Project Title: VA DURHAM - PACU RENOVATION. Project Number: 558-17-150. Drawing Number: M-601 45 of 78.



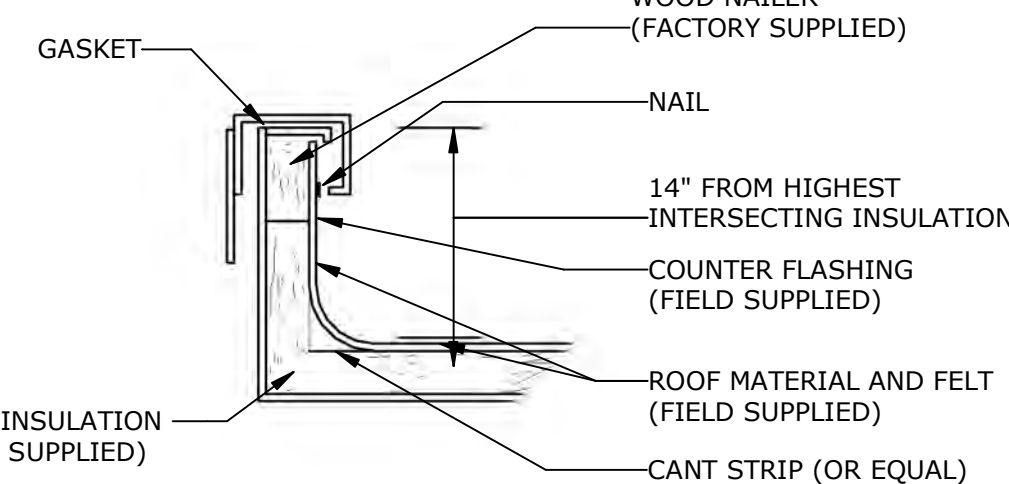
ROOF PIPE SUPPORT DETAIL
SCALE: N.T.S.

NOTES:
1. VERIFY WEIGHT CAPACITY OF PIPE PIER AND PROVIDE MULTIPLE PIERS AND BRIDGING STRUT AS REQUIRED FOR LARGER PIPING.
2. PROVIDE STRUT FRAME WITH BRACING FOR PIPING ELEVATED ABOVE ROOF.
3. FINISH PIPING INSULATION WITH 2 COATS OF UV RESISTANT COATING AS RECOMMENDED BY INSULATION MANUFACTURER.



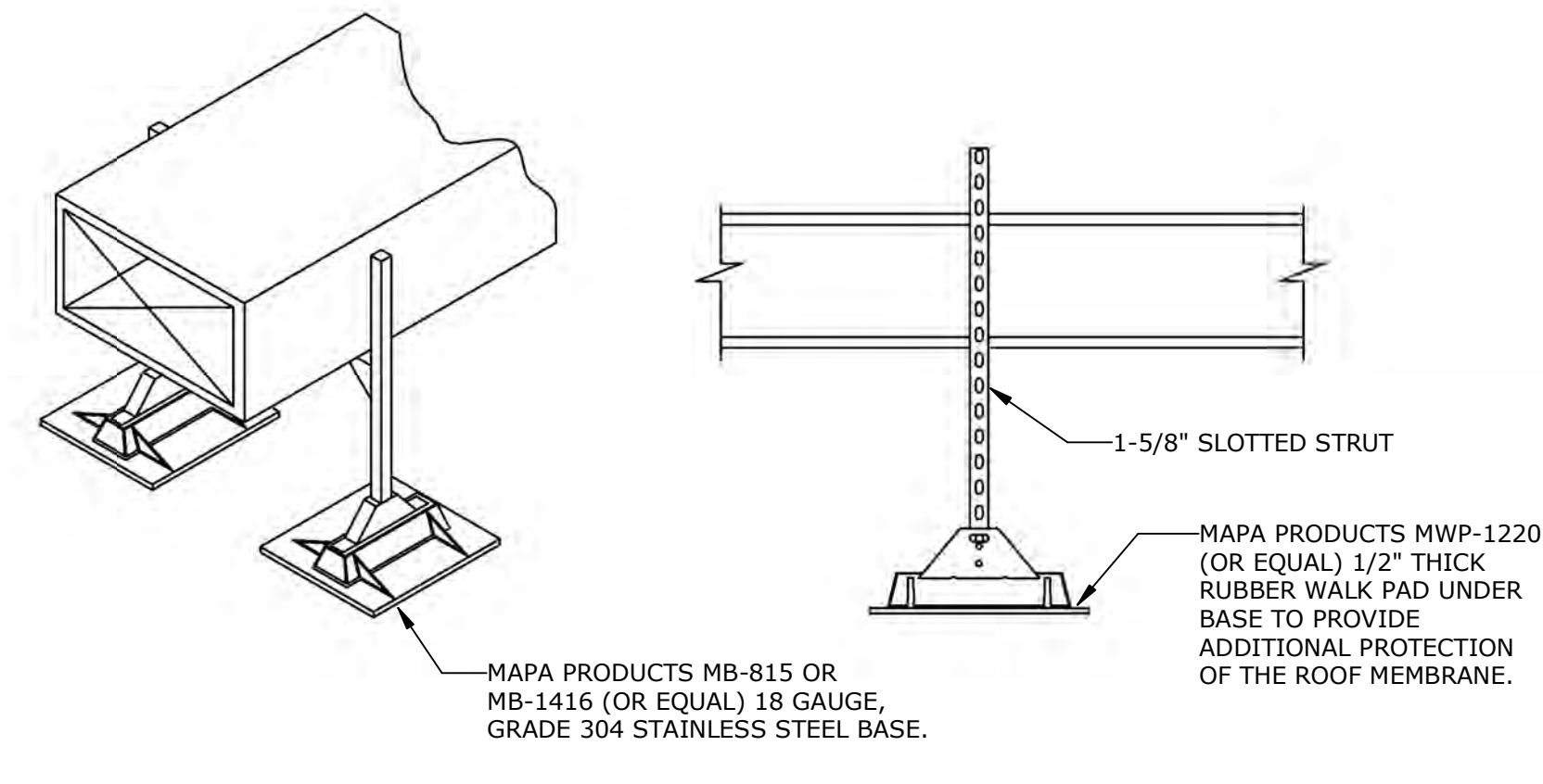
PIPE ROOF JACK DETAIL
SCALE: N.T.S.

NOTES:
1. SIZE OF PIPE ROOF JACK SHALL MATCH EXISTING DUCT CHASE DIMENSIONS.
2. CONSTRUCTION SHALL BE 22 GAUGE GALVANIZED SHEET METAL.
3. SEAL ALL SEAMS WEATHER TIGHT WITH SILICONE SEALANT.



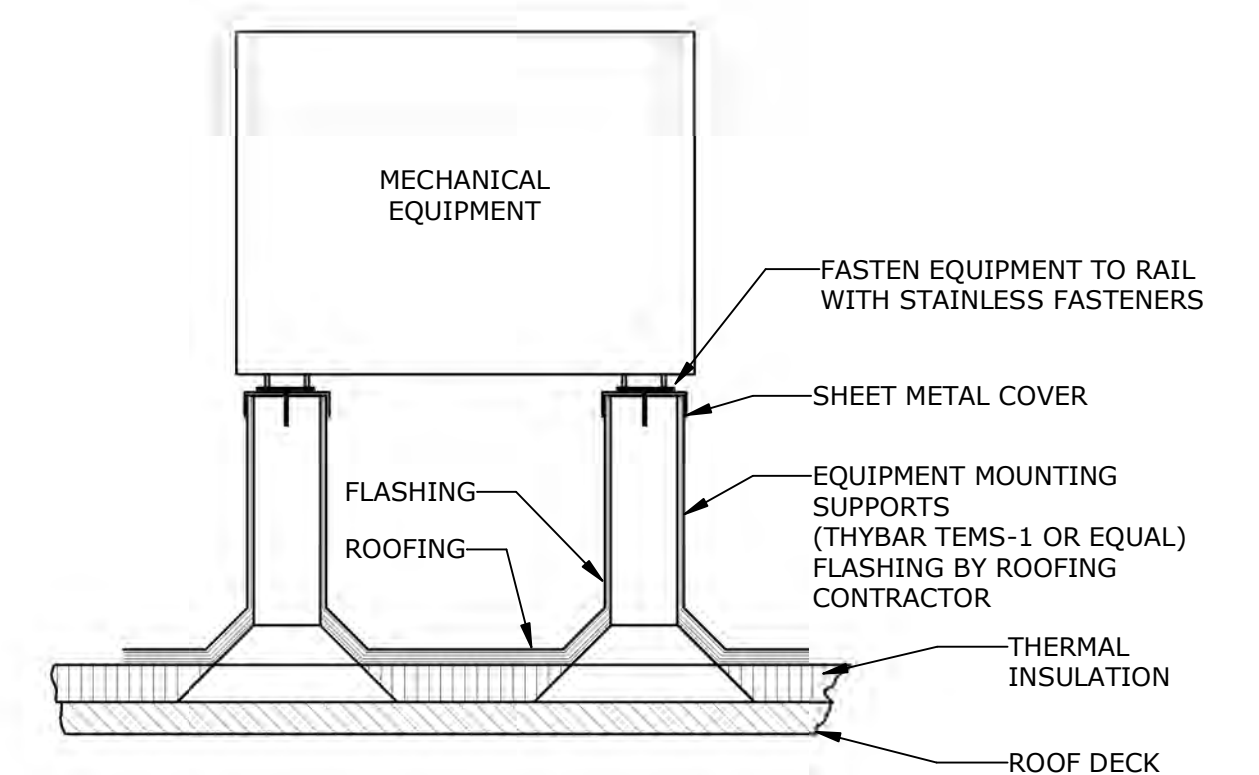
ROOF CURB DETAIL
SCALE: N.T.S.

NOTE: LEAVE ROOF DECKING INTACT INSIDE THE ROOF CURB. CUT HOLES ONLY LARGE ENOUGH FOR THE SUPPLY AND RETURN DUCTWORK. AFTER THE DUCTWORK HAS BEEN INSTALLED, CAULKING MUST BE USED TO SEAL THE LINE OF CONTACT BETWEEN THE DECKING AND CURB.

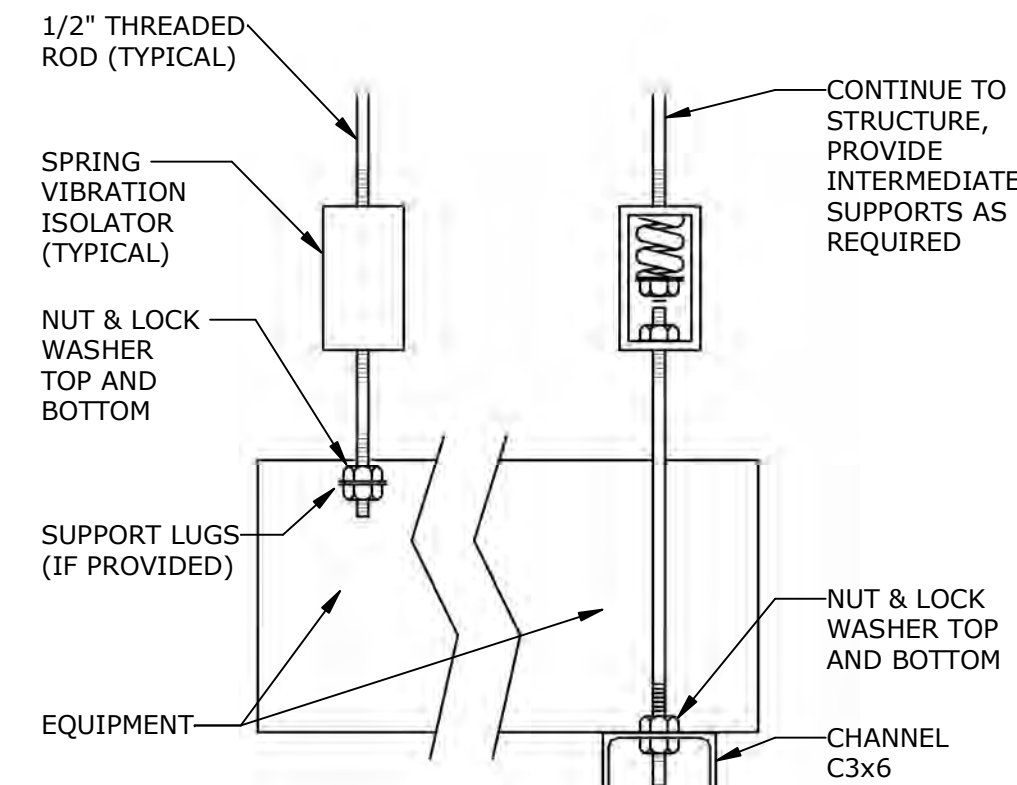


ROOF DUCT SUPPORT DETAIL
SCALE: N.T.S.

NOTES:
1. ADJUST CLEVIS HEIGHTS AS REQUIRED.
2. DO NOT EXCEED MANUFACTURER'S RECOMMENDED LOAD CAPACITY.
3. DESIGN BASED ON MAPA PRODUCTS MASTER BASE ASSEMBLY PLATFORM (OR EQUAL).

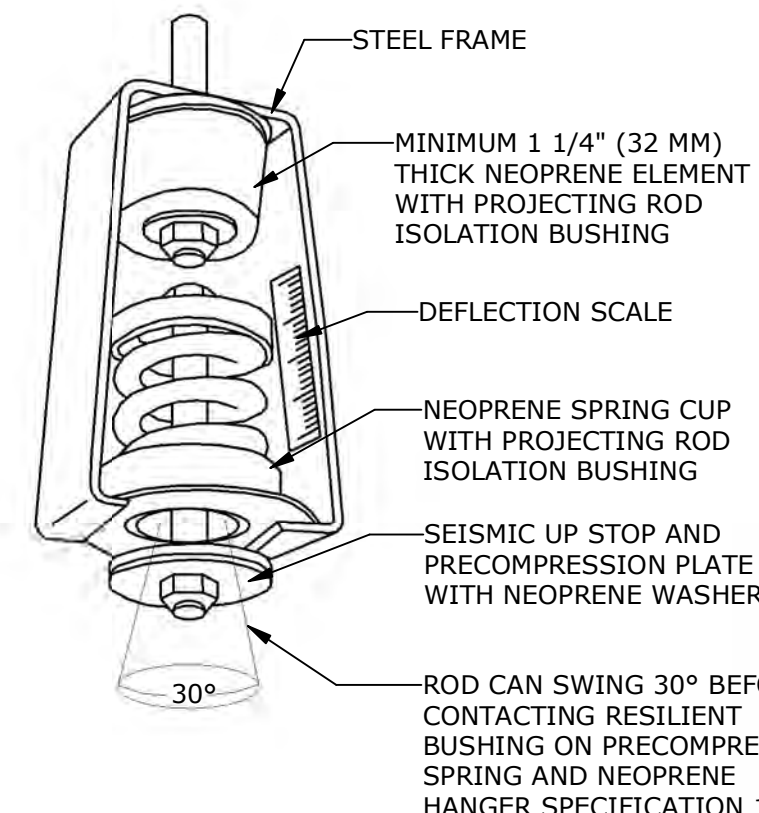


ROOF MECHANICAL EQUIPMENT ON RAILS DETAIL
SCALE: N.T.S.

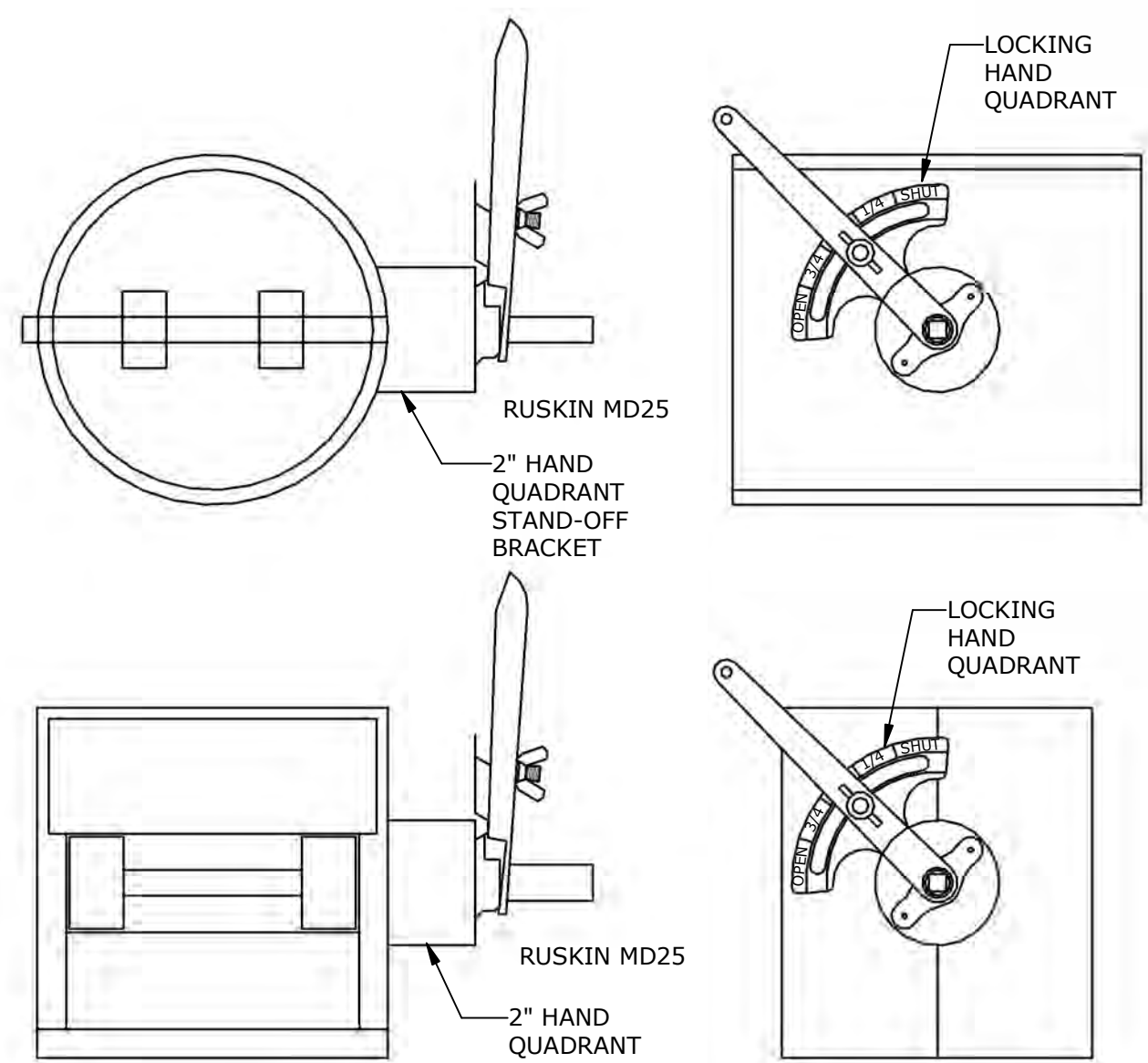


SUSPENDED EQUIPMENT SUPPORT DETAIL
SCALE: N.T.S.

NOTES:
1. SEISMIC RESTRAINTS SHALL BE BY MASON INDUSTRIES INC. OR APPROVED EQUAL. MANUFACTURER SHALL PROVIDE CALCULATIONS INDICATING SPACING AND SIZE OF HANGERS.
2. SEISMIC RESTRAINT DETAILS SHALL BE SEALED BY A STRUCTURAL ENGINEER REGISTERED IN NORTH CAROLINA AND SPECIALIZING IN SEISMIC DESIGN.
3. INSTALLATION OF SEISMIC RESTRAINTS SHALL BE INSPECTED BY THE MECHANICAL ENGINEER AND STRUCTURAL ENGINEER SPECIALIZING IN SEISMIC DESIGN (PRIOR TO INSTALLATION OF CEILING). STRUCTURAL ENGINEER SHALL PROVIDE CERTIFICATION THAT SEISMIC RESTRAINTS HAVE BEEN INSTALLED PROPERLY. CERTIFICATION SHALL BE PROVIDED TO THE ENGINEER, ARCHITECT, AND OWNER FOLLOWING INSPECTION AND ALSO SHALL BE INCLUDED IN MAINTENANCE MANUALS.

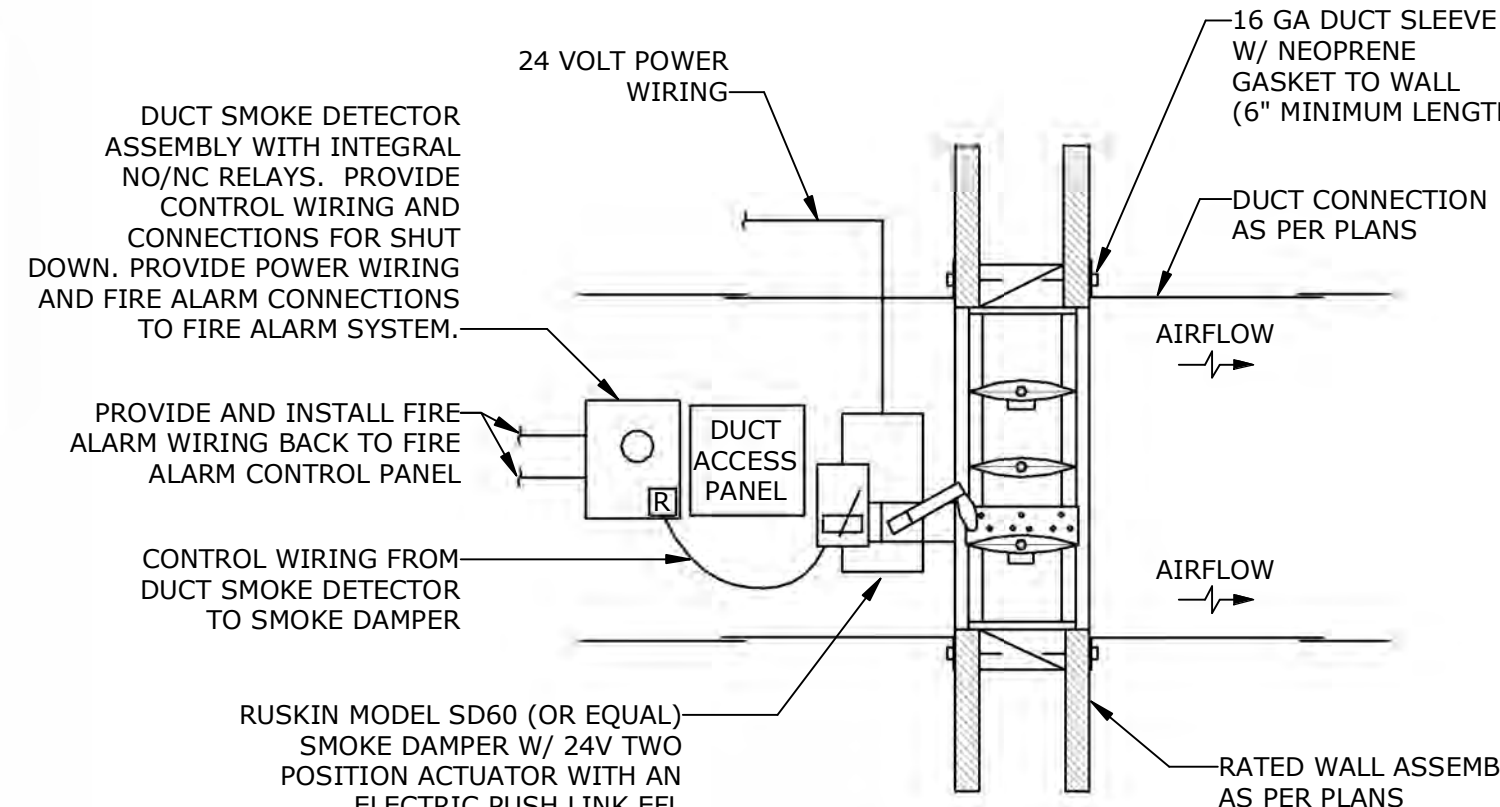


SEISMIC ISOLATION HANGER DETAIL
SCALE: N.T.S.



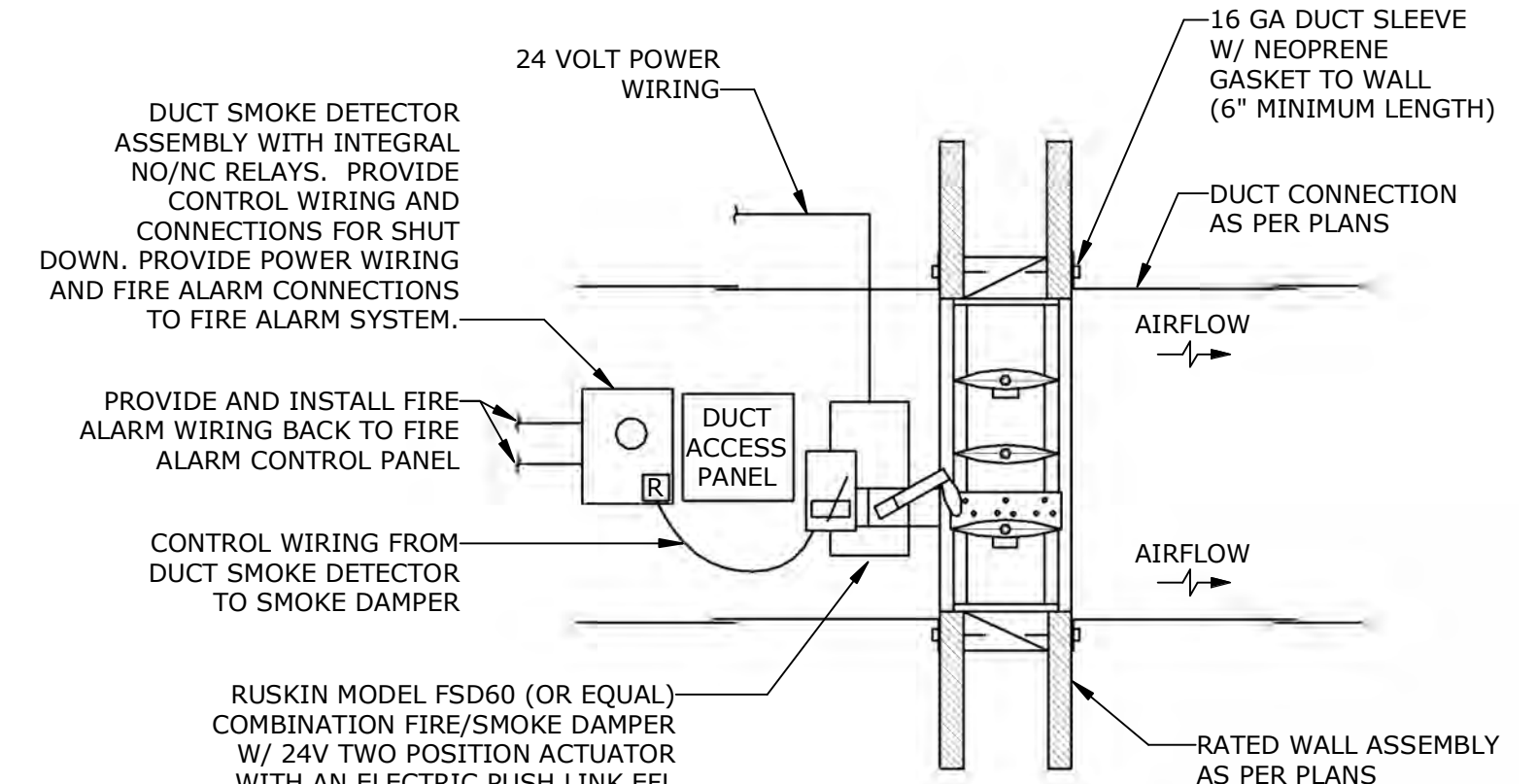
MANUAL VOLUME DAMPER DETAIL
SCALE: N.T.S.

MANUAL VOLUME DAMPER SHALL BE RUSKIN MODEL MD25 (RECTANGULAR) - RUSKIN MODEL MDR25 (ROUND) WITH 2" EXTENDED STAND OFF LOCKING HAND QUADRANT - OR EQUAL BY ANOTHER MANUFACTURER. INSULATION SHALL NOT COVER DAMPER LOCKING QUADRANT.



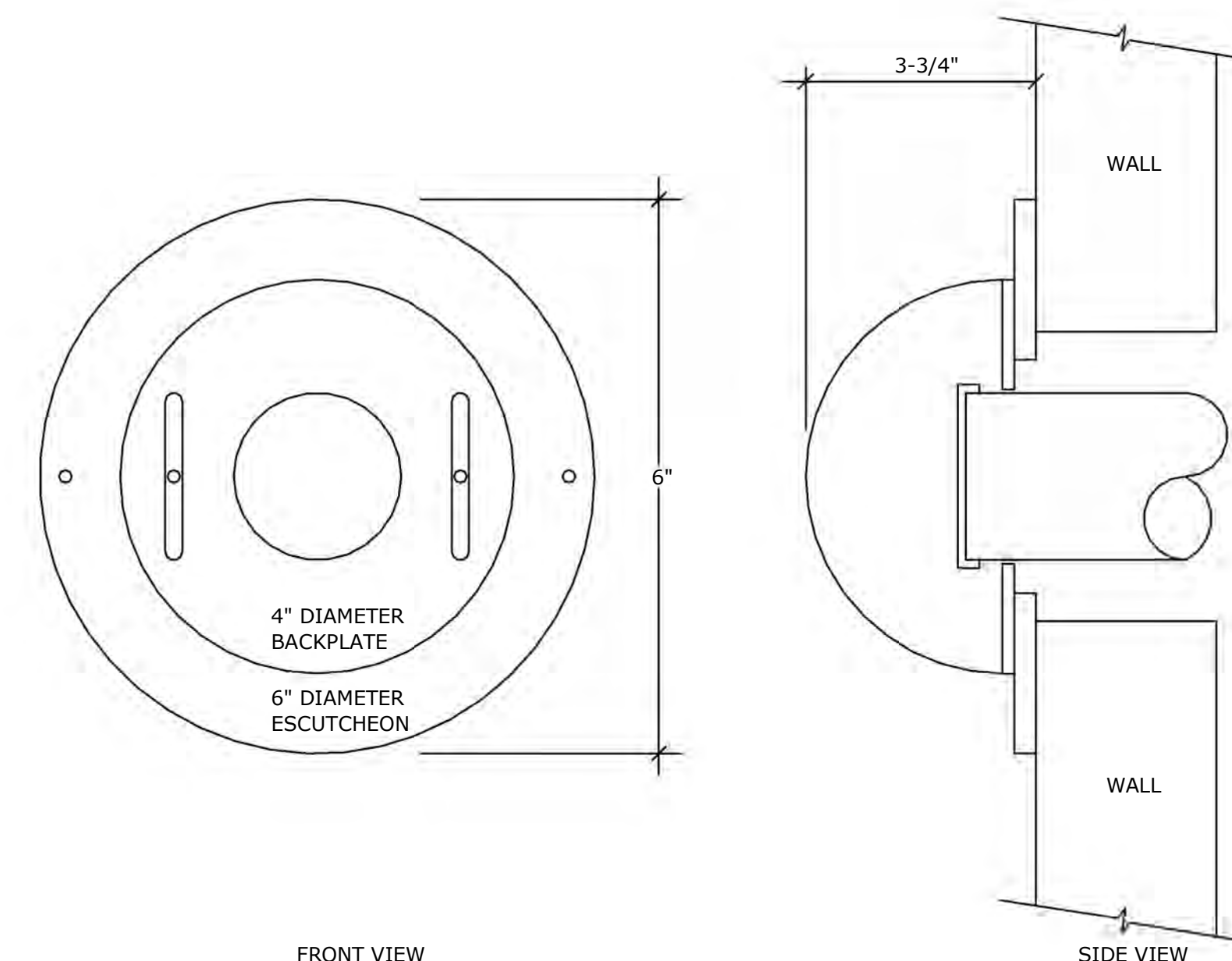
VERTICAL SMOKE DAMPER DETAIL
SCALE: N.T.S.

NOTES:
1. COORDINATE SAMPLING TUBE LENGTH AND DUCTWORK SHAPE.
2. PROVIDE CONTROL WIRING FROM DUCT SMOKE DETECTOR RELAYS LOCATED NEAR ALL ASSOCIATED SMOKE DAMPERS AND HVAC EQUIPMENT TO FANS, DAMPER MOTORS, AND HVAC EQUIPMENT SHUTDOWN CONTROL INPUTS.
3. PROVIDE/INSTALL ALL NECESSARY 24V CONTROL POWER, RELAYS, WIRING, AND CONDUIT.
4. PROVIDE AND INSTALL DUCT SMOKE DETECTOR REMOTE INDICATOR LIGHT/AUDIBLE DEVICE FLUSH IN CEILING OR WALL, MOUNTED NEAR ASSOCIATED DUCT SMOKE DETECTOR.
5. REFER TO CONTROLS DRAWINGS FOR SHUTDOWN SEQUENCES.
6. PROVIDE DUCT MOUNTED ACCESS DOOR.



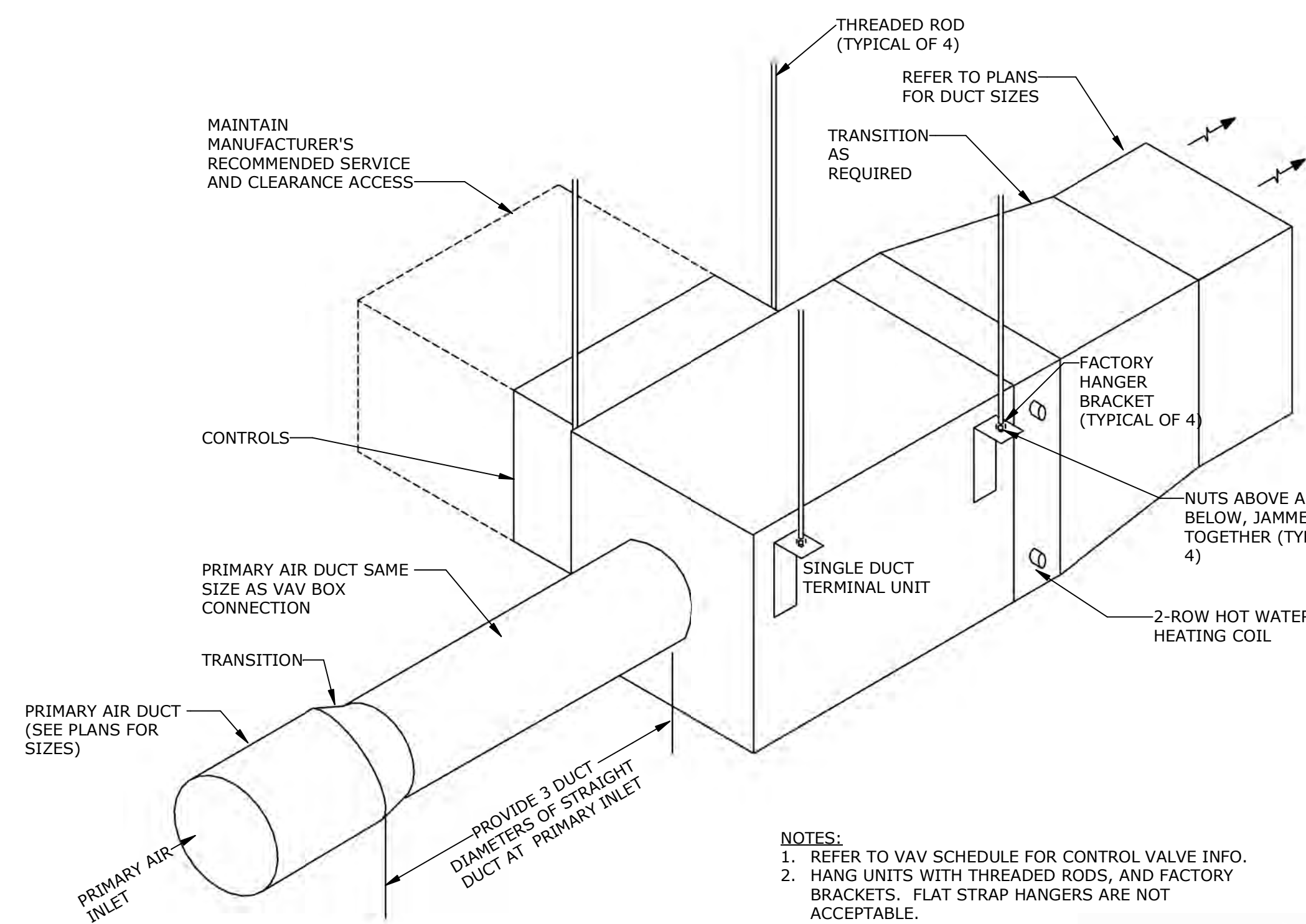
VERTICAL COMBINATION FIRE/SMOKE DAMPER DETAIL
SCALE: N.T.S.

NOTES:
1. COORDINATE SAMPLING TUBE LENGTH AND DUCTWORK SHAPE.
2. PROVIDE CONTROL WIRING FROM DUCT SMOKE DETECTOR RELAYS LOCATED NEAR ALL ASSOCIATED SMOKE DAMPERS AND HVAC EQUIPMENT TO FANS, DAMPER MOTORS, AND HVAC EQUIPMENT SHUTDOWN CONTROL INPUTS.
3. PROVIDE/INSTALL ALL NECESSARY 24V CONTROL POWER, RELAYS, WIRING, AND CONDUIT.
4. PROVIDE AND INSTALL DUCT SMOKE DETECTOR REMOTE INDICATOR LIGHT/AUDIBLE DEVICE FLUSH IN CEILING OR WALL, MOUNTED NEAR ASSOCIATED DUCT SMOKE DETECTOR.
5. REFER TO CONTROLS DRAWINGS FOR SHUTDOWN SEQUENCES.
6. PROVIDE DUCT MOUNTED ACCESS DOOR.



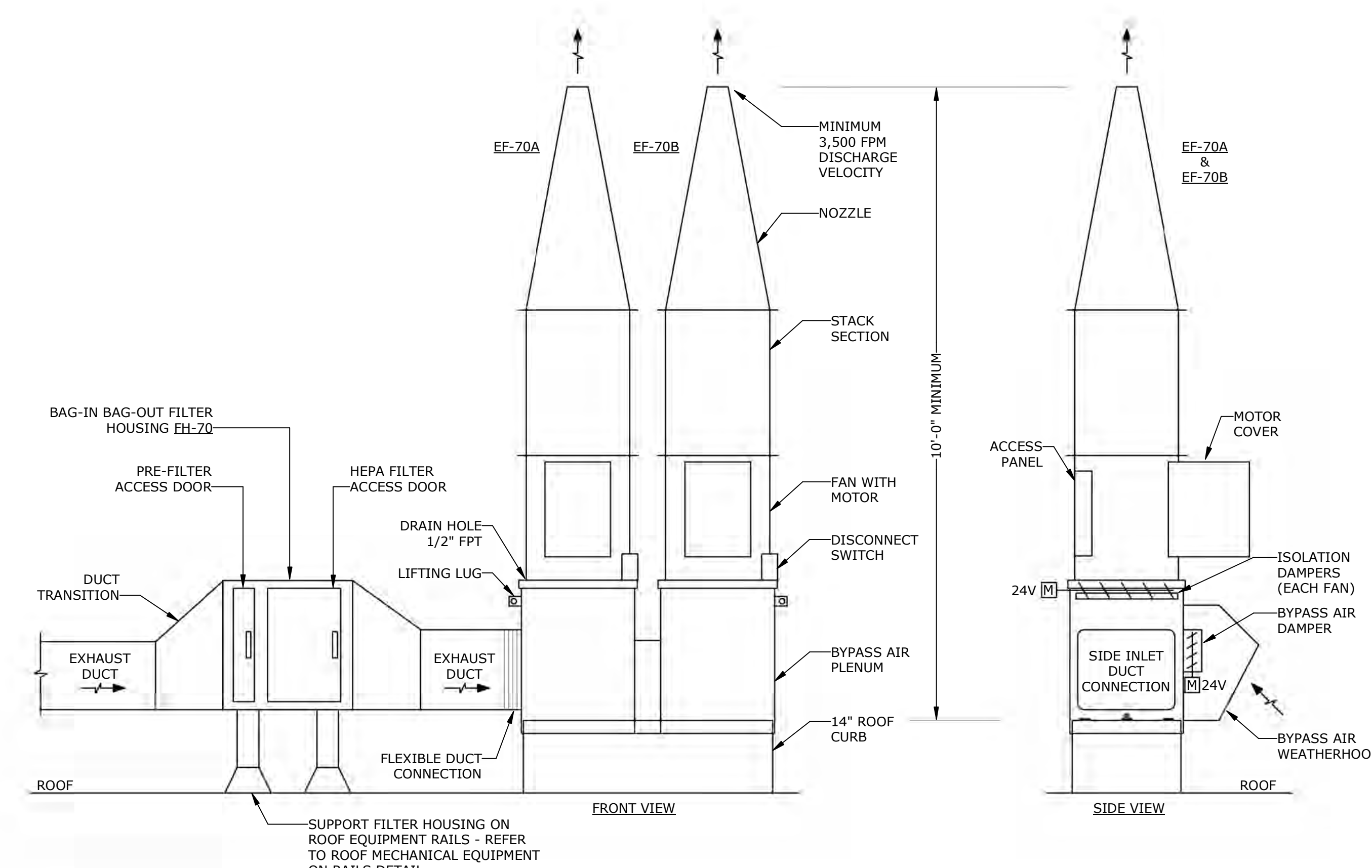
BALL-IN-THE-WALL VISUAL PRESSURE INDICATOR DETAIL
SCALE: N.T.S.

NOTES:
1. BASIS OF DESIGN IS AIRFLOW DIRECTION INCORPORATED (OR EQUAL) MODEL ADI-69-V-N (RED NEGATIVE PRESSURE INDICATOR). PROVIDE A NEGATIVE (RED) PRESSURE INDICATOR AS SHOWN ON THE ISOLATION ROOM CHEMATIC, CONTROLS, AND BALANCING ON M-501.
2. UNIT IS INSTALLED THROUGH WALL - LOCATE WHERE NO MECHANICAL SERVICES, ELECTRICAL SERVICES, OR STUDS EXIST IN WALL. ALLOW 6" O.D. WALL CLEARANCE FOR MOUNTING OF 6" O.D. ESCUTCHEON PLATE. SIZE OF WALL-HOLE DEPENDS ON WALL. MOUNTING PER SIDE: (2) S.S. SCREWS & 1/4" PLASTIC ANCHORS SUPPLIED BY MANUFACTURER. DOME & TUBE MATERIAL SHALL BE CLEAR POLYCARBONATE.



SINGLE DUCT VAV TERMINAL UNIT W/ HOT WATER HEATING COIL DETAIL
SCALE: N.T.S.

NOTES:
1. REFER TO VAV SCHEDULE FOR CONTROL VALVE INFO.
2. HANG UNITS WITH THREADED RODS, AND FACTORY BRACKETS. FLAT STRAP HANGERS ARE NOT ACCEPTABLE.



LAB EXHAUST FAN SYSTEM WITH BAG-IN BAG-OUT HEPA FILTER DETAIL
SCALE: N.T.S.

100% BID DOCUMENTS

Revisions:	Date:

CONSULTANT

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CONSULTING ENGINEERS
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CHARLOTTE, NC 28202-704-295-4263
NC LICENSE NO.: C-2848
AME PROJECT NO.: 17116

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STAMP

Professional Engineer Seal for Harold F. Roberts, State of North Carolina, License No. 10000.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL - DETAILS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

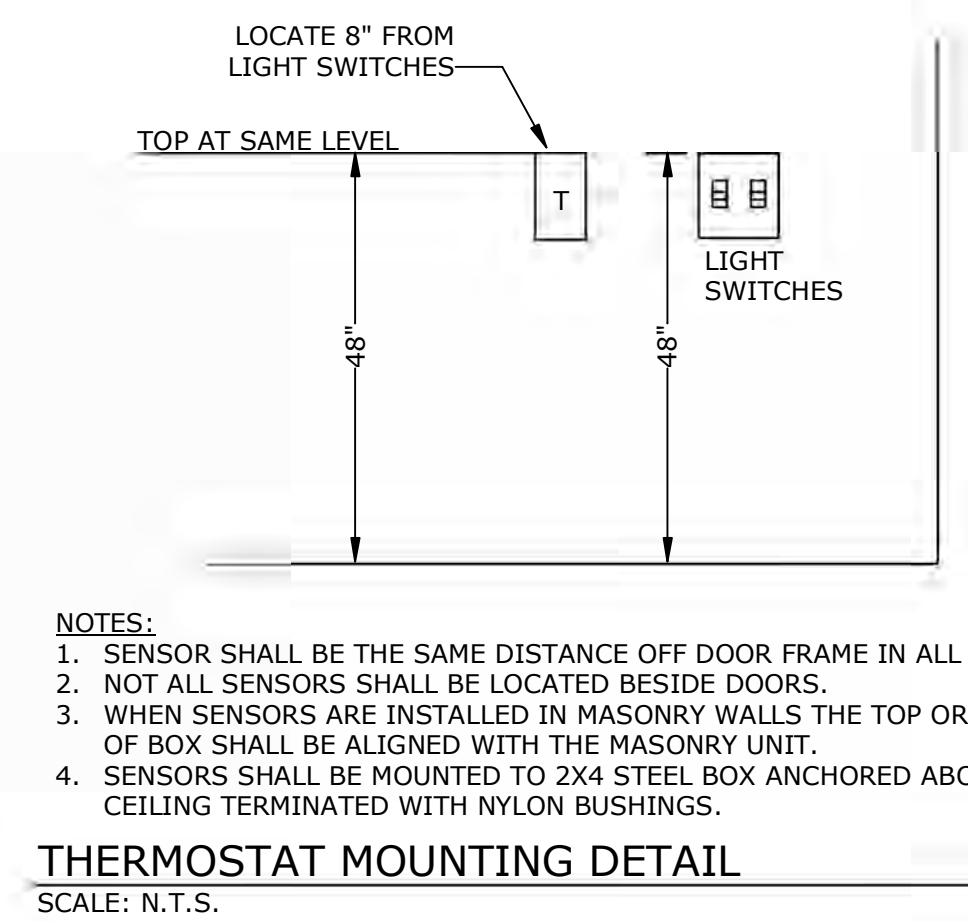
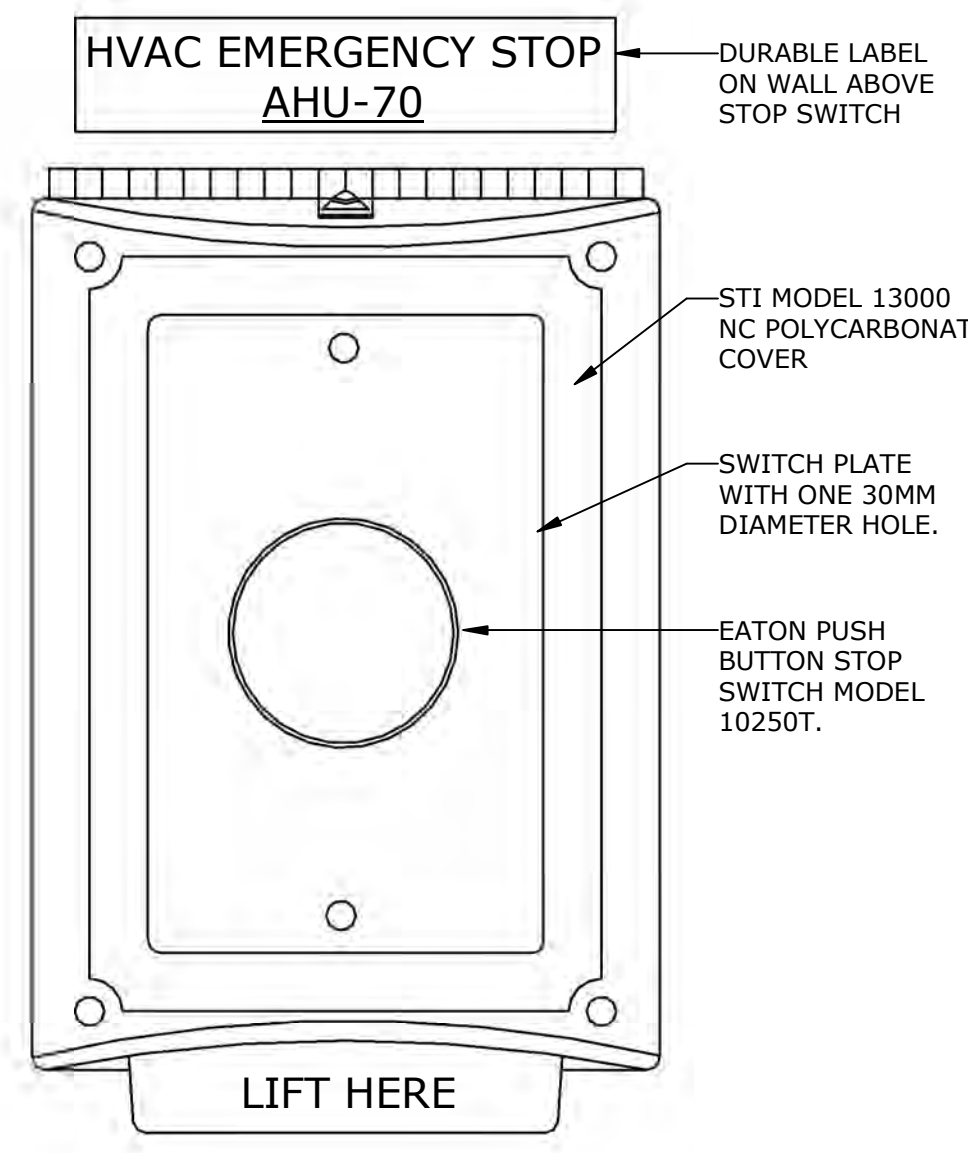
Drawn
WEB

Project Number
558-17-150

Building Number

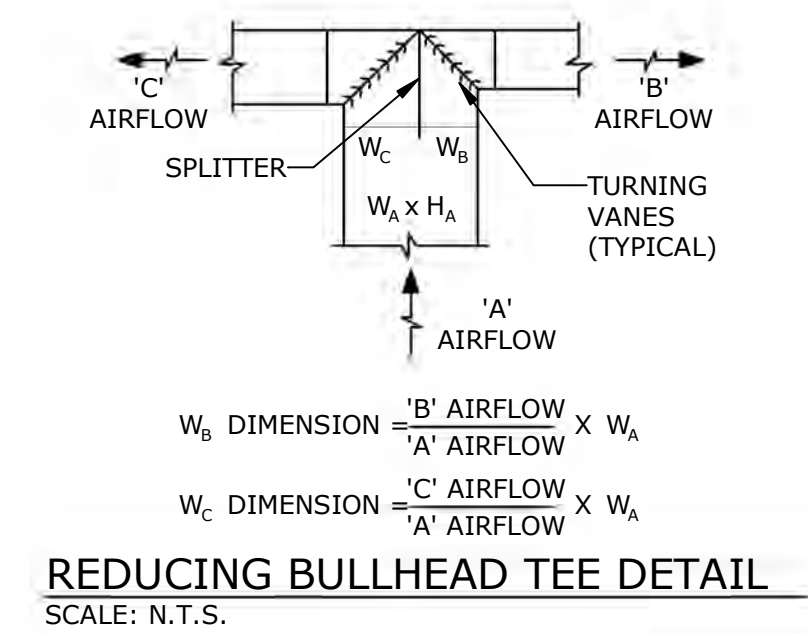
Drawing Number
M-701 46 of 78

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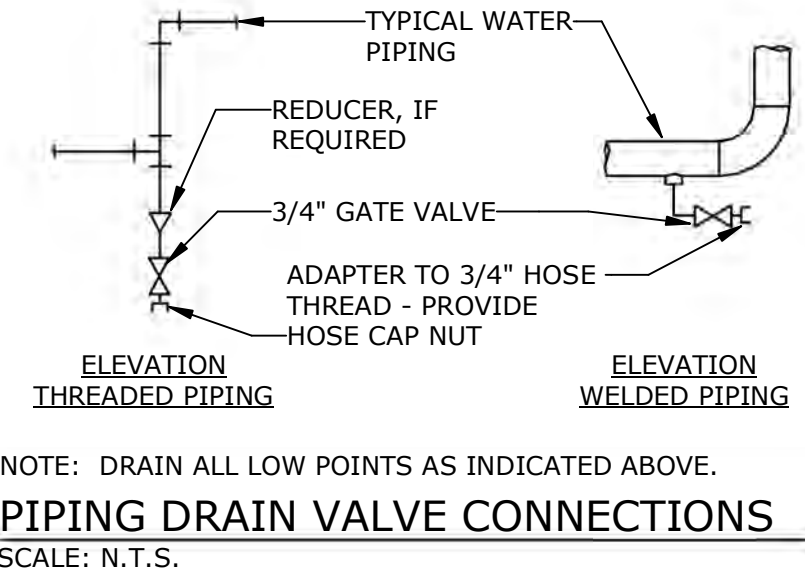


NOTES:
 1. SENSOR SHALL BE THE SAME DISTANCE OFF DOOR FRAME IN ALL ROOMS.
 2. NOT ALL SENSORS SHALL BE LOCATED BESIDE DOORS.
 3. WHEN SENSORS ARE INSTALLED IN MASONRY WALLS THE TOP OR BOTTOM OF BOX SHALL BE ALIGNED WITH THE MASONRY UNIT.
 4. SENSORS SHALL BE MOUNTED TO 2X4 STEEL BOX ANCHORED ABOVE CEILING TERMINATED WITH NYLON BUSHINGS.

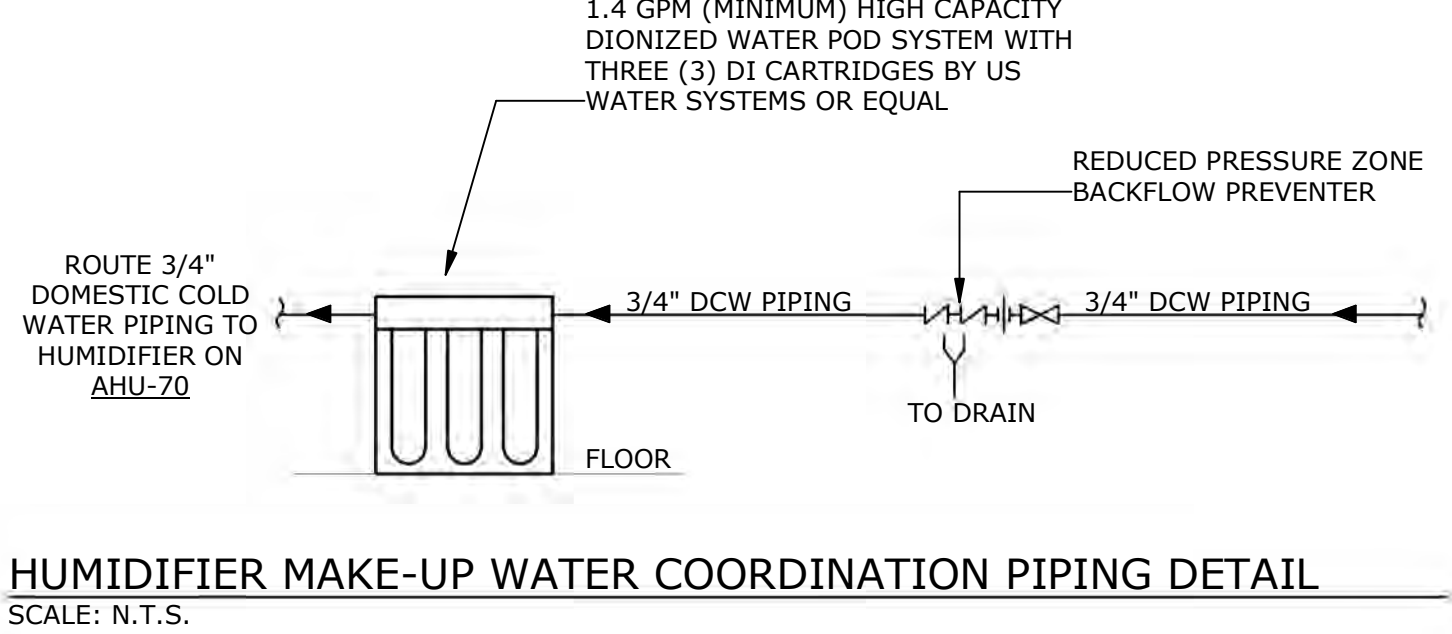
THERMOSTAT MOUNTING DETAIL
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REDUCING BULLHEAD TEE DETAIL
 SCALE: N.T.S.



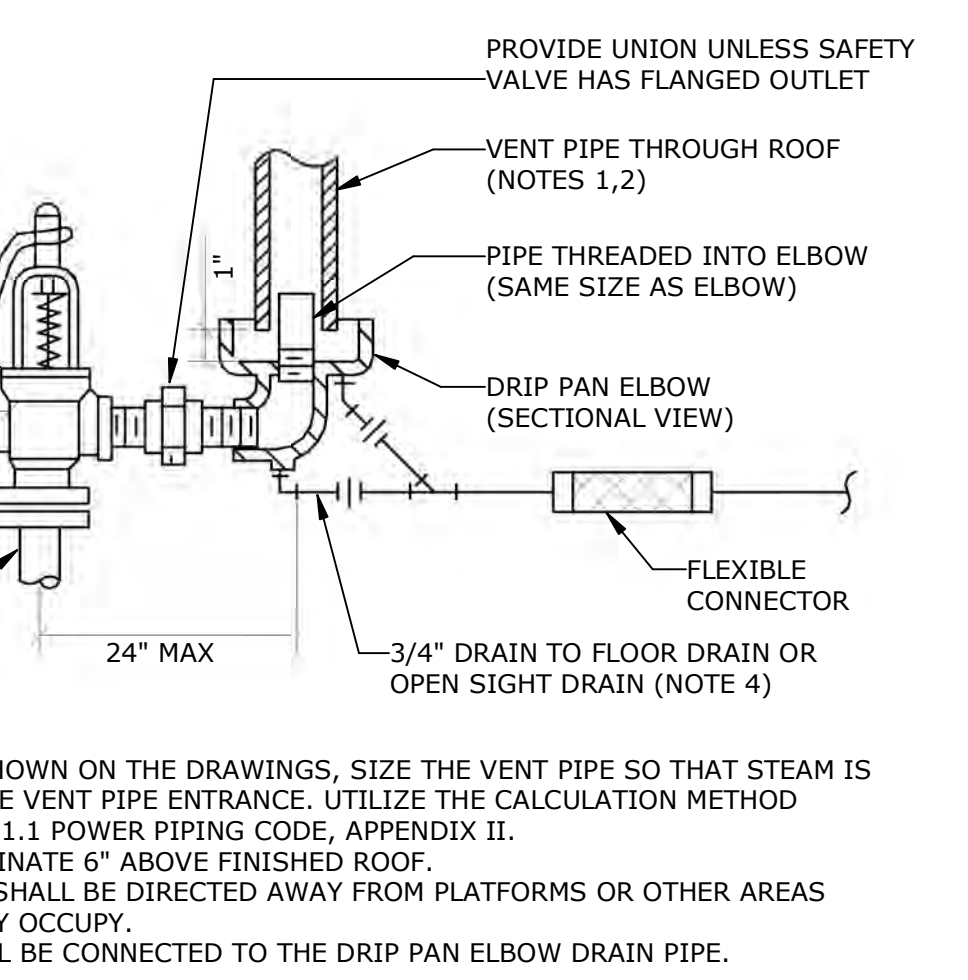
PIPING DRAIN VALVE CONNECTIONS
 SCALE: N.T.S.



HUMIDIFIER MAKE-UP WATER COORDINATION PIPING DETAIL
 SCALE: N.T.S.

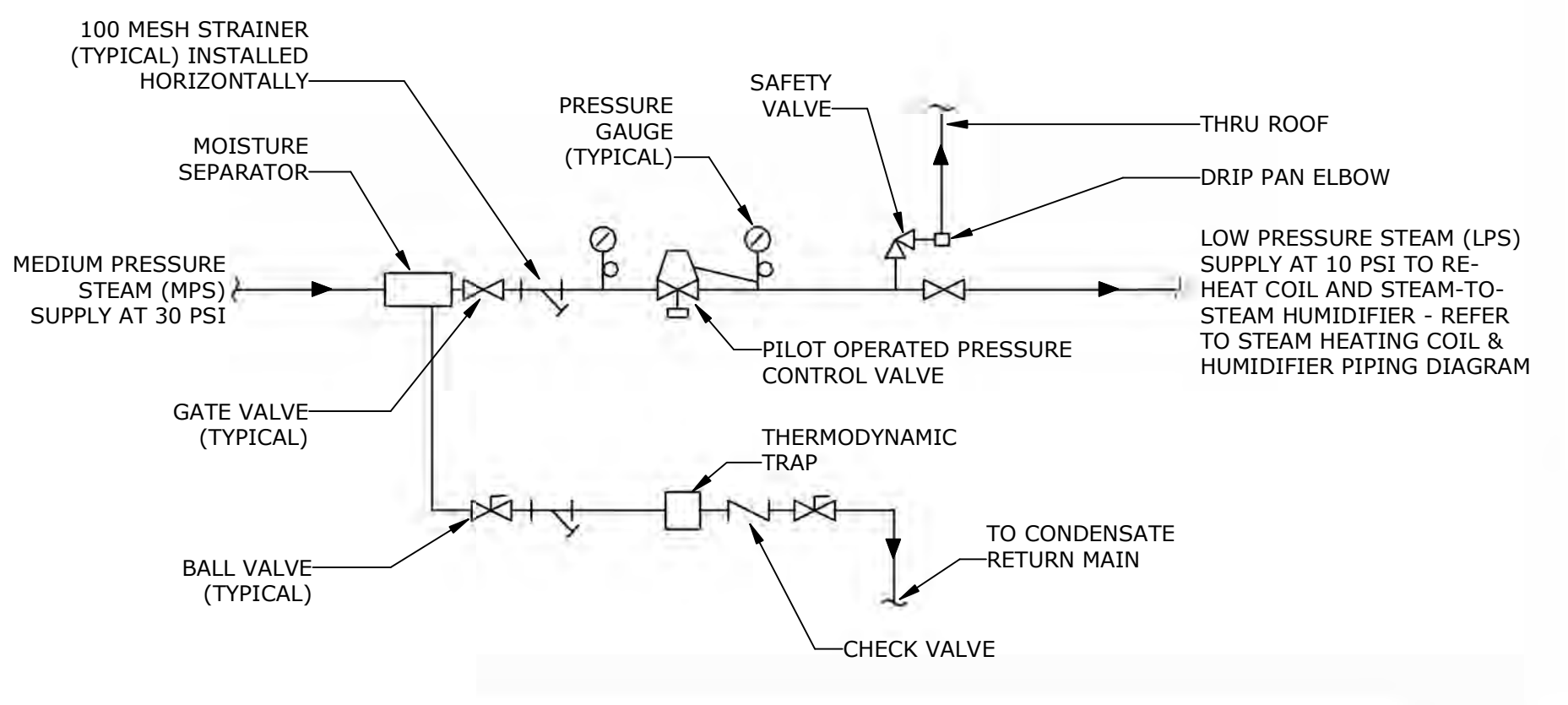
NOTES:
 1. INSTALL EMERGENCY STOP SWITCH IN A LISTED, METALLIC SINGLE GANG JUNCTION BOX IMMEDIATELY ADJACENT TO THE THERMOSTAT AT THE NURSE'S STATION C4001S - REFER TO DRAWING MP201 FOR LOCATION. THE CLEARANCE BETWEEN THE BOX AND SHEETROCK SHALL NOT EXCEED 1/8".
 2. PROVIDE UL "WALL OPENING PROTECTIVE MATERIALS" SYSTEM CLIV IN EACH NEW JUNCTION BOX. USE METACALK BOX GUARD INSERT OR EQUAL BY HILTI. INSTALL IN ACCORDANCE WITH THE UL LISTING.

HVAC EMERGENCY STOP SWITCH DETAIL
 SCALE: N.T.S.

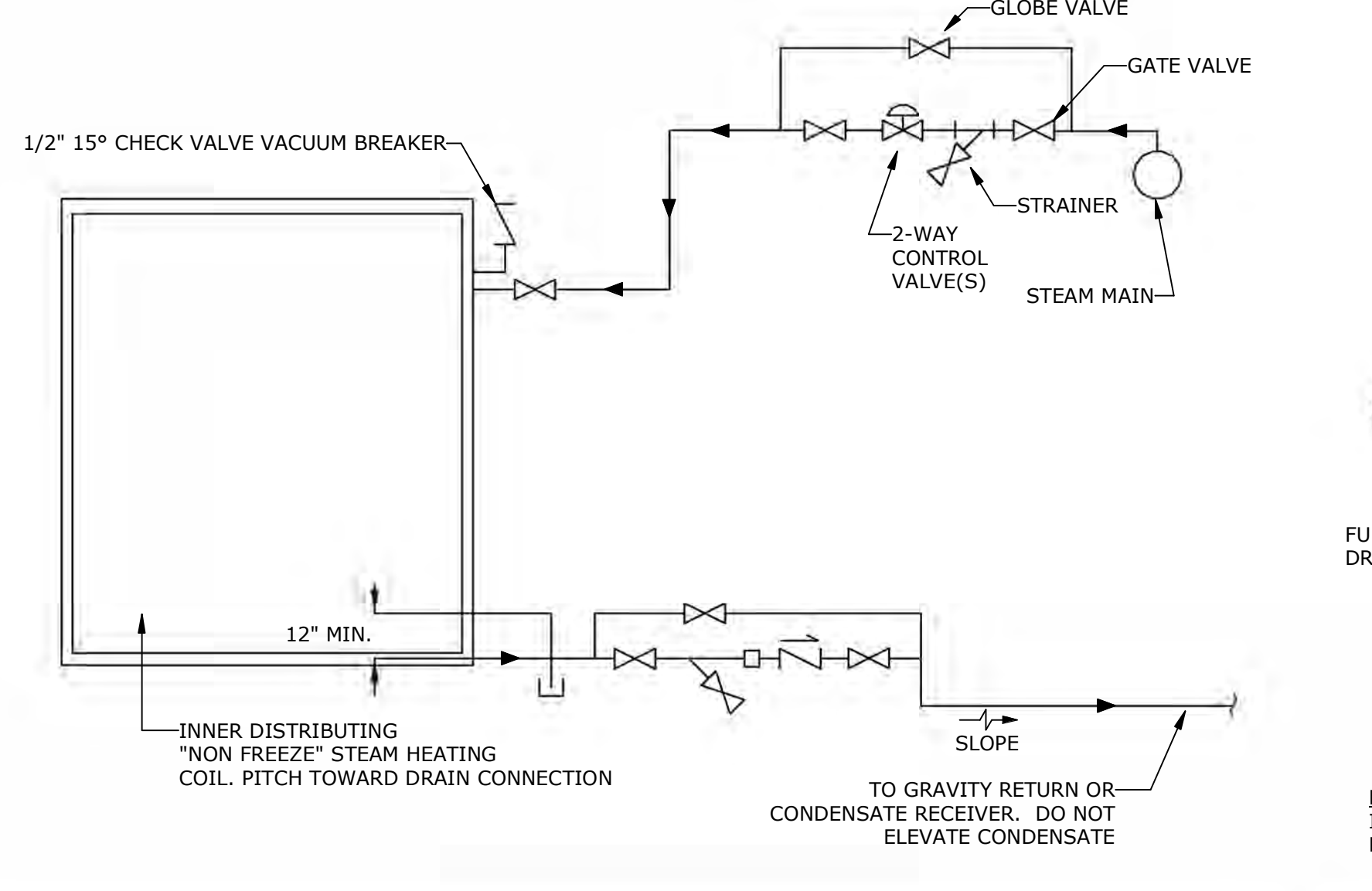


NOTES:
 1. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, SIZE THE VENT PIPE SO THAT STEAM IS NOT BLOWN OUT AT THE VENT PIPE ENTRANCE. UTILIZE THE CALCULATION METHOD CONTAINED IN ANSI B31.1 POWER PIPING CODE, APPENDIX II.
 2. VENT PIPE SHALL TERMINATE 6" ABOVE FINISHED ROOF.
 3. DISCHARGE OF DRAIN SHALL BE DIRECTED AWAY FROM PLATFORMS OR OTHER AREAS WHICH PERSONNEL MAY OCCUPY.
 4. NO OTHER DRAIN SHALL BE CONNECTED TO THE DRIP PAN DRAIN PIPE.

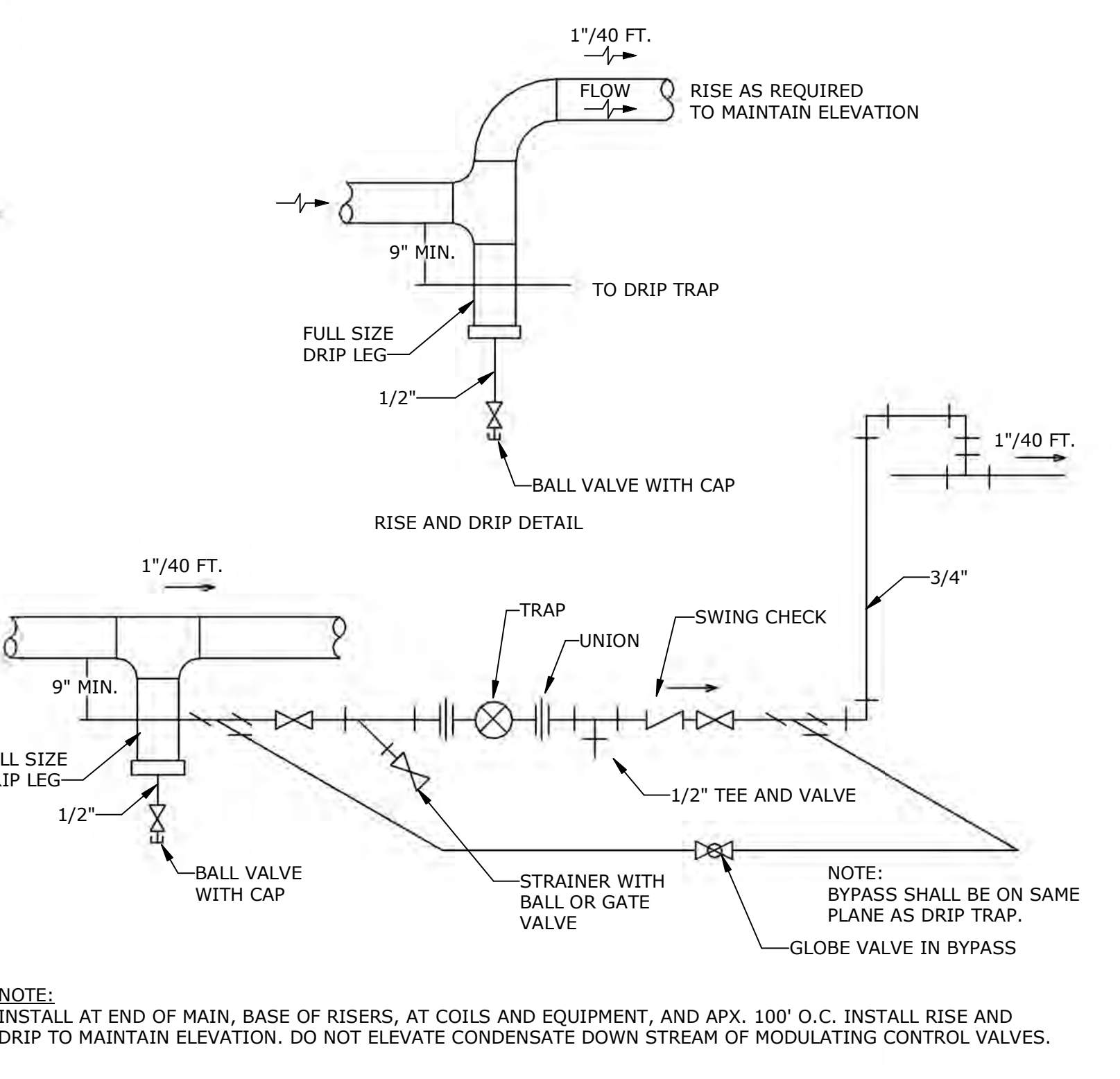
STEAM SAFETY VALVE DETAIL
 SCALE: N.T.S.



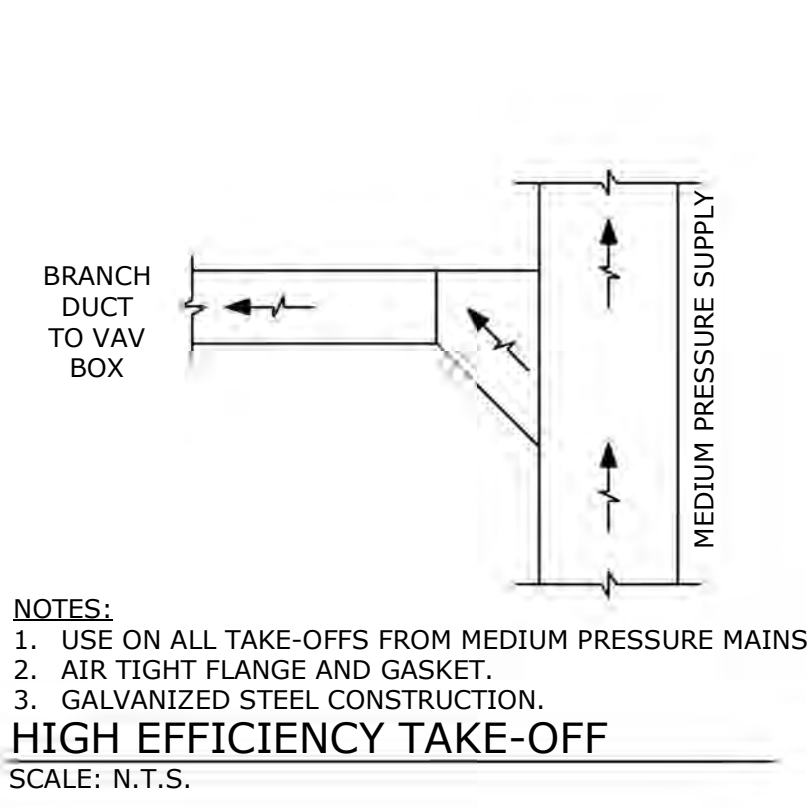
STEAM PRESSURE REDUCING VALVE DETAIL
 SCALE: N.T.S.



STEAM HEATING COIL & HUMIDIFIER PIPING DIAGRAM
 SCALE: N.T.S.

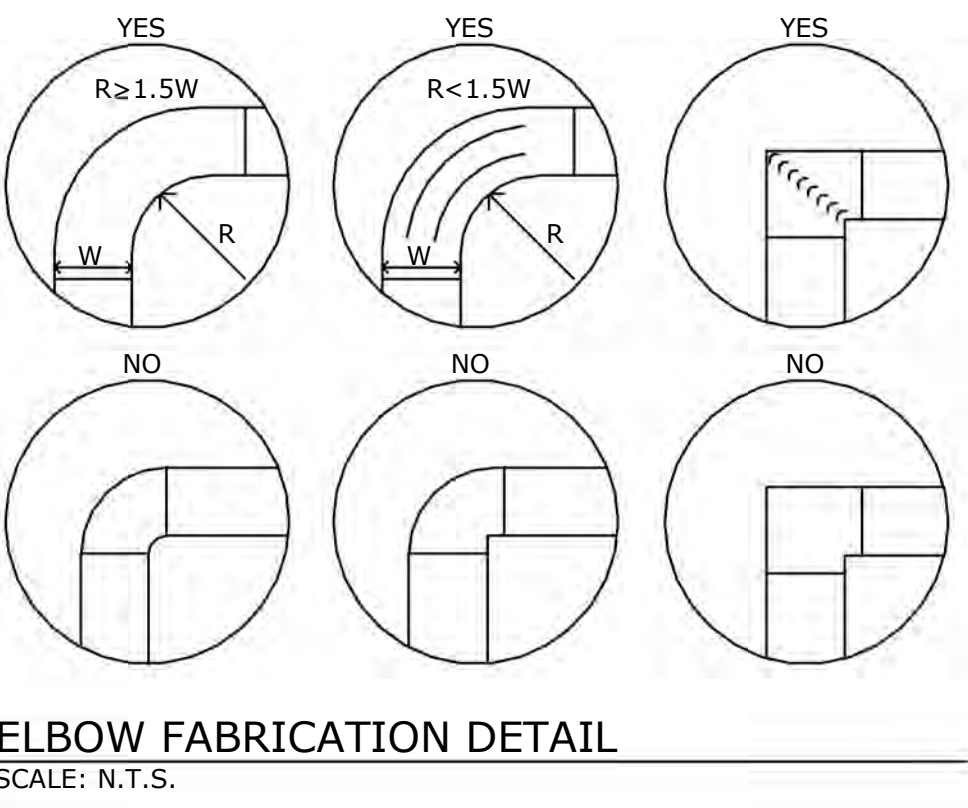


DRIP TRAP ASSEMBLY (DTA) DETAIL
 SCALE: N.T.S.

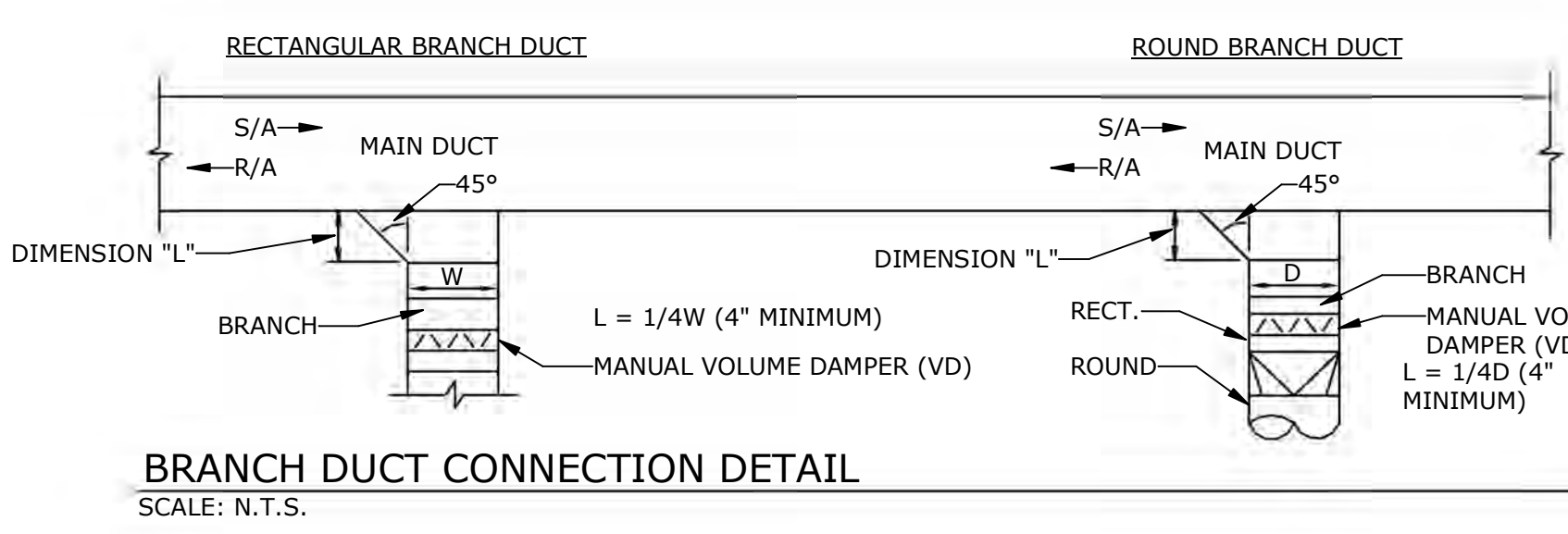


NOTES:
 1. USE ON ALL TAKE-OFFS FROM MEDIUM PRESSURE MAINS.
 2. AIR TIGHT FLANGE AND GASKET.
 3. GALVANIZED STEEL CONSTRUCTION.

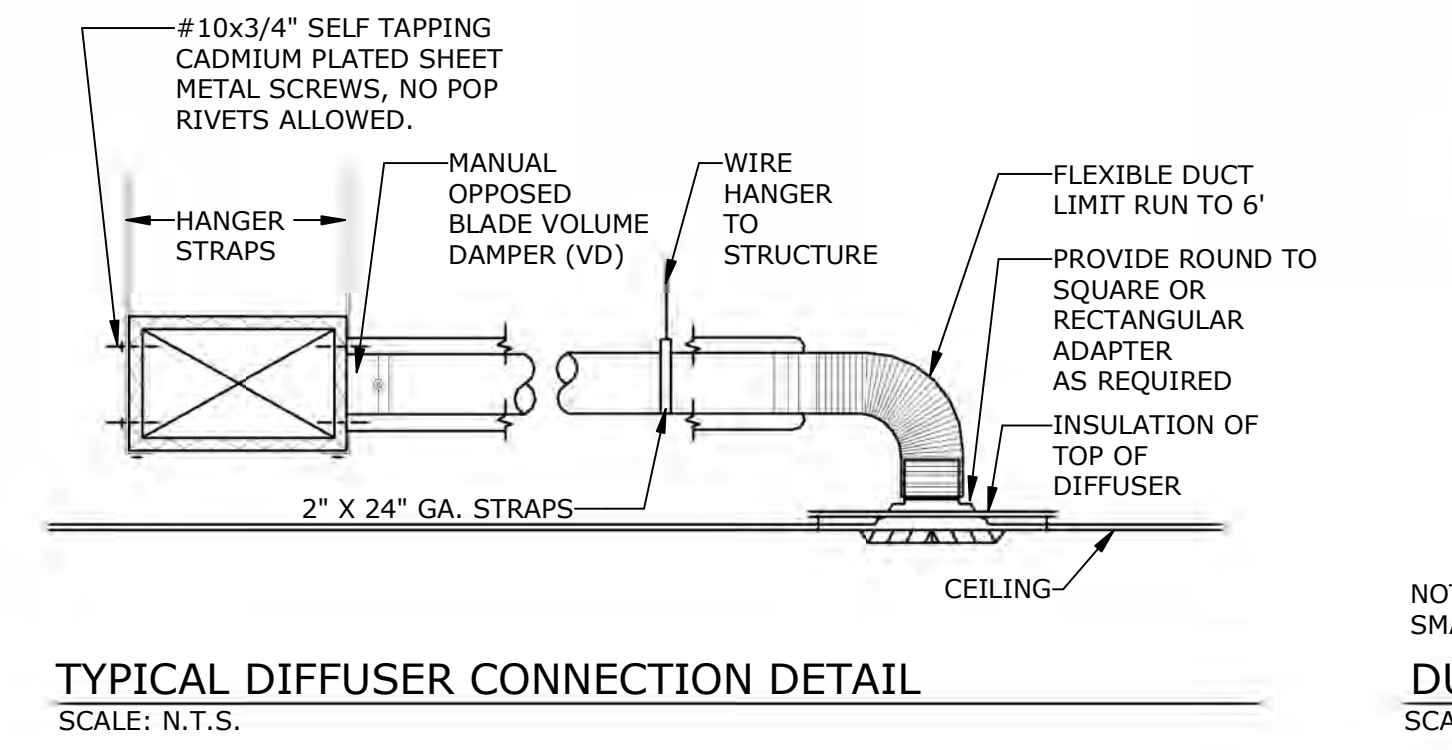
HIGH EFFICIENCY TAKE-OFF
 SCALE: N.T.S.



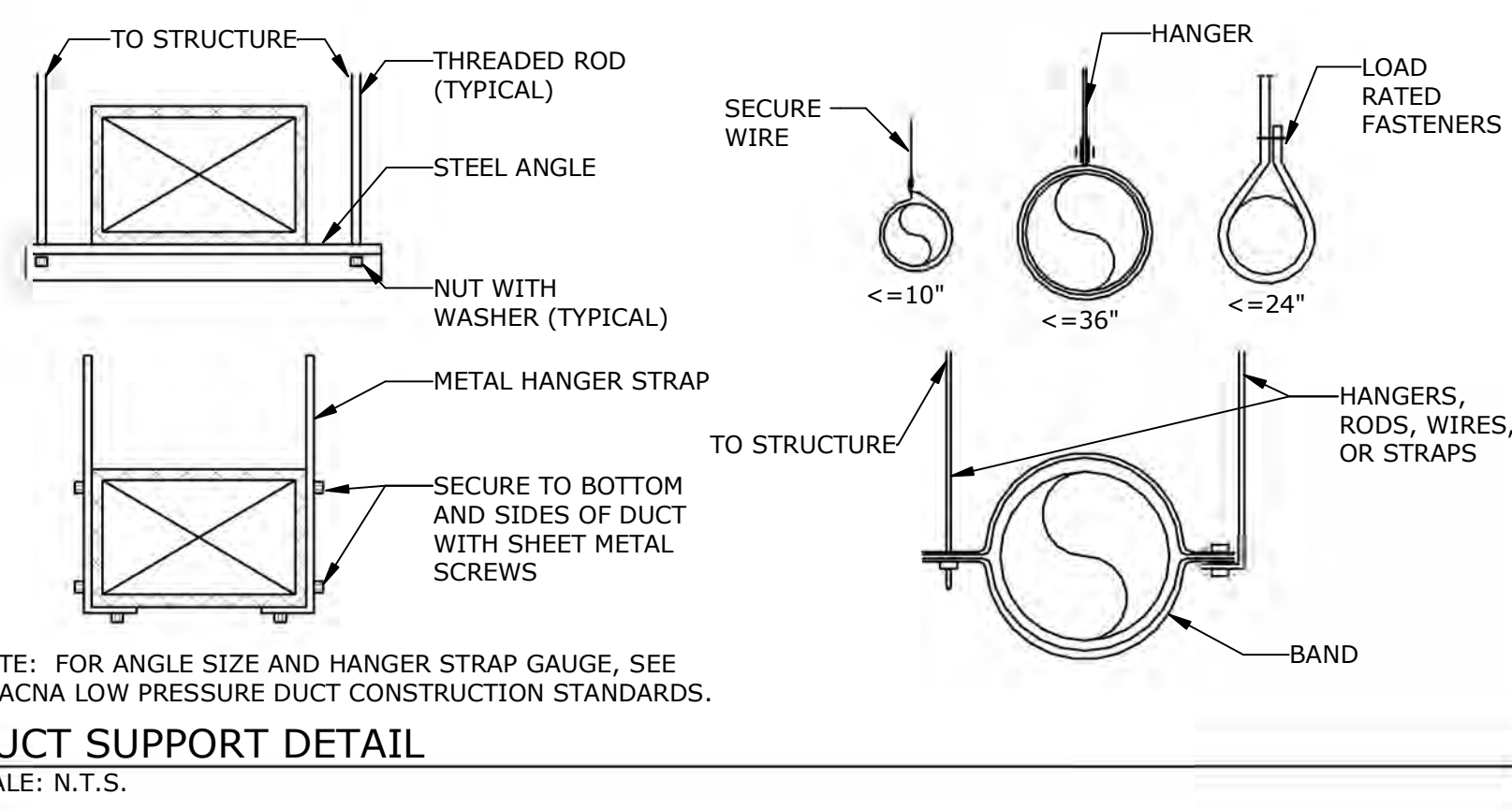
ELBOW FABRICATION DETAIL
 SCALE: N.T.S.



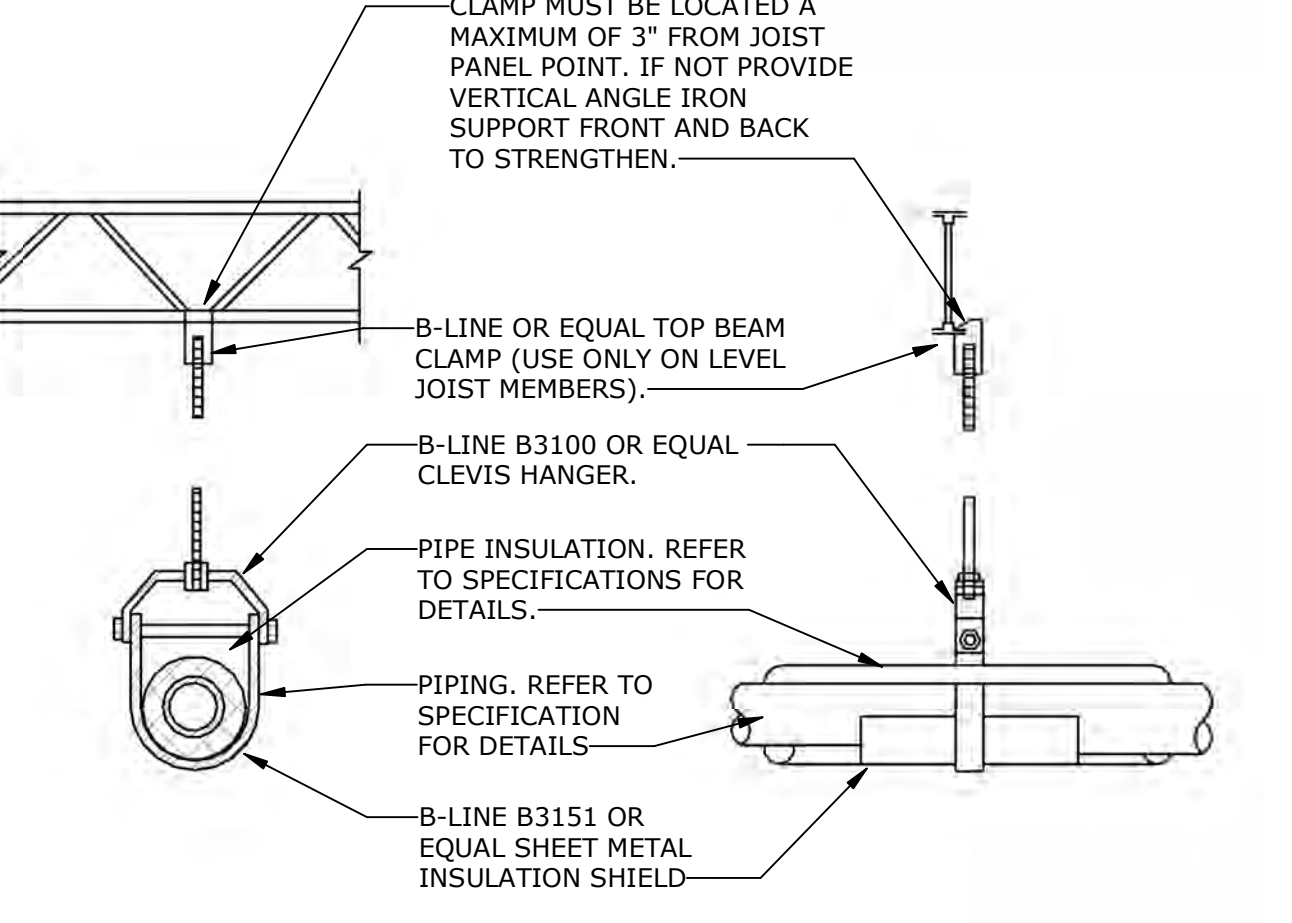
BRANCH DUCT CONNECTION DETAIL
 SCALE: N.T.S.



TYPICAL DIFFUSER CONNECTION DETAIL
 SCALE: N.T.S.

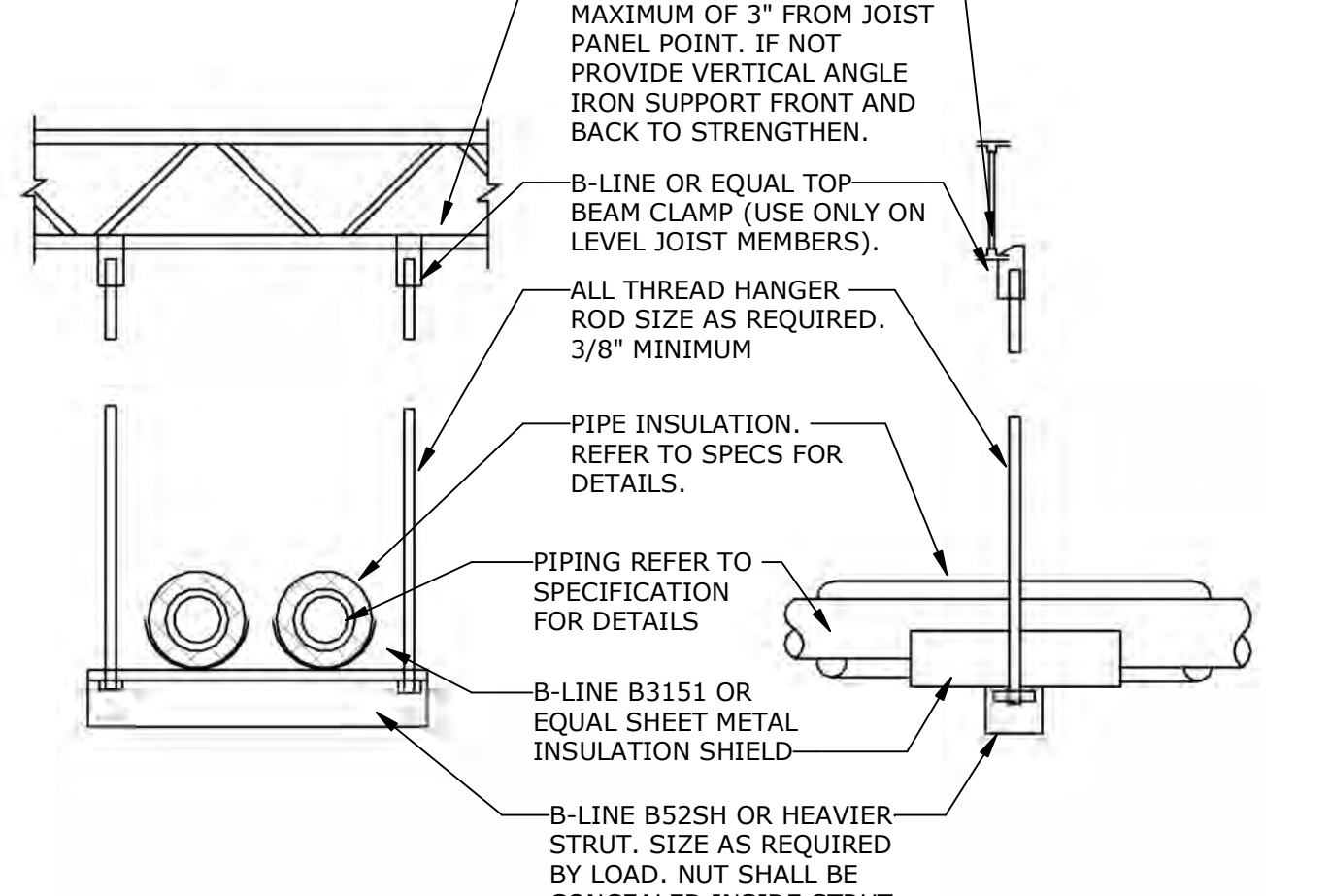


DUCT SUPPORT DETAIL
 SCALE: N.T.S.



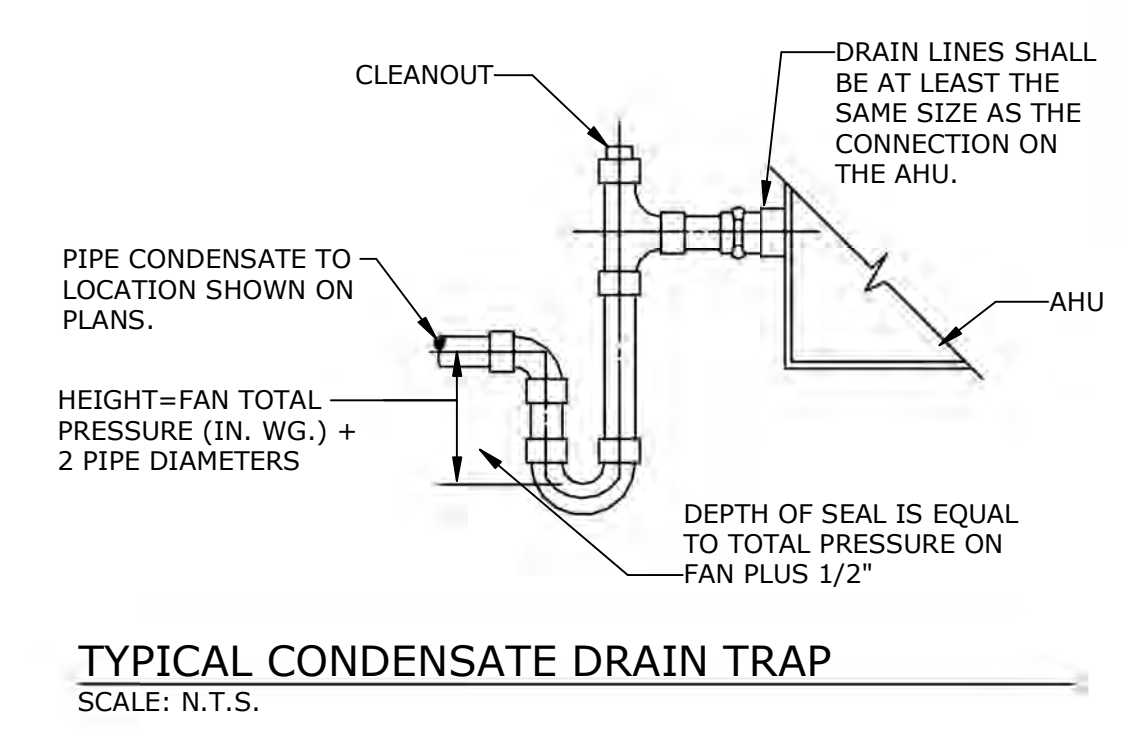
NOTES:
 1. PIPE HANGER SPACING SHALL BE IN ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE.
 2. PROVIDE UNISTRUT OR ANGLE IRON BRIDGING SPANNING MULTIPLE BAR JOIST AS REQUIRED.
 3. PRIME OR PAINT ALL HANGERS, PIPE WELDS, AND OTHER ITEMS SUBJECT TO RUSTING.

INDIVIDUAL PIPE HANGER DETAIL
 SCALE: N.T.S.

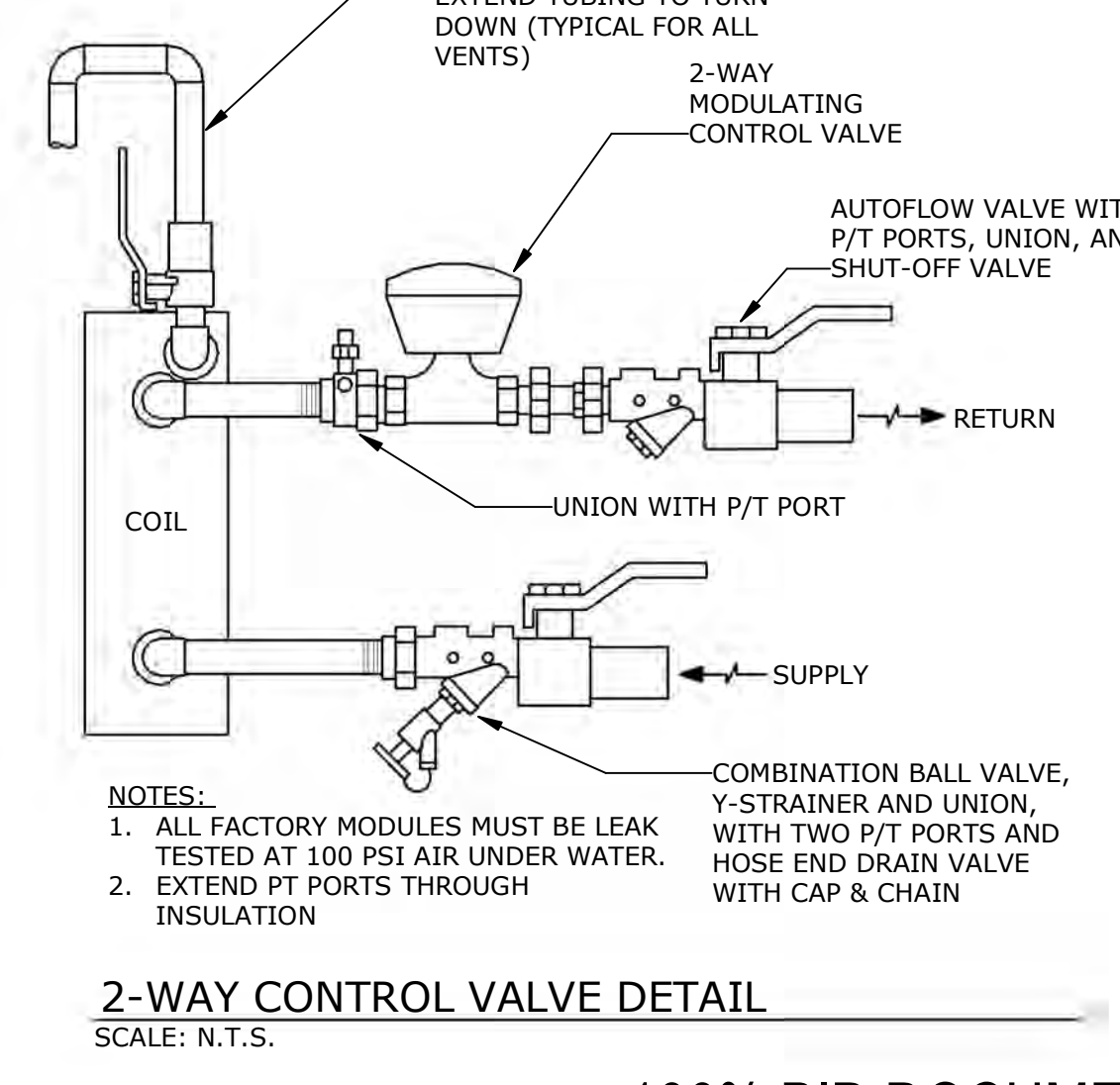


NOTES:
 1. PIPE HANGER SPACING SHALL BE IN ACCORDANCE WITH THE MECHANICAL CODE.
 2. PROVIDE UNISTRUT OR ANGLE IRON BRIDGING SPANNING MULTIPLE BAR JOIST AS REQUIRED.
 3. PRIME OR PAINT ALL HANGERS, PIPE WELDS, AND OTHER ITEMS SUBJECT TO RUSTING.

DETAIL - TRAPEZE PIPE HANGER
 SCALE: N.T.S.



TYPICAL CONDENSATE DRAIN TRAP
 SCALE: N.T.S.



NOTES:
 1. ALL FACTORY MODULES MUST BE LEAK TESTED AT 100 PSI AIR UNDER WATER.
 2. EXTEND PT PORTS THROUGH INSULATION.

2-WAY CONTROL VALVE DETAIL
 SCALE: N.T.S.

Revisions:	Date:

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Office of Construction and Facilities Management
 U.S. Department of Veterans Affairs

Drawing Title
 MECHANICAL - DETAILS

Approved:
 Andreka Watlington

Phase
 100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
 VA DURHAM - PACU RENOVATION

Project Number
 558-17-150

Building Number
 [Blank]

Location
 DURHAM VAMC DURHAM, NC

Drawing Number
 M-702
 47 of 78

Issue Date
 12/22/2020

Checked
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Drawn
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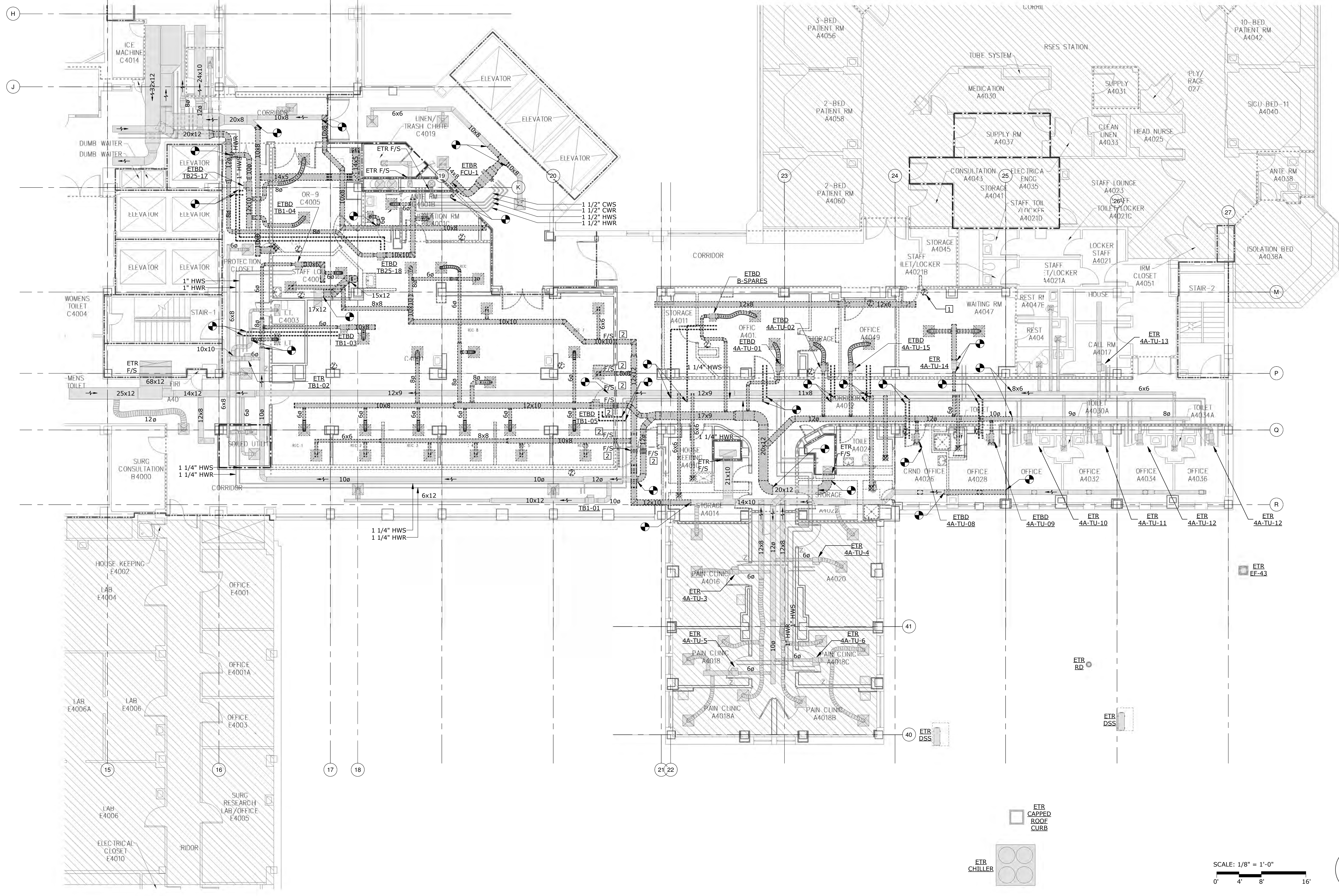
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EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.

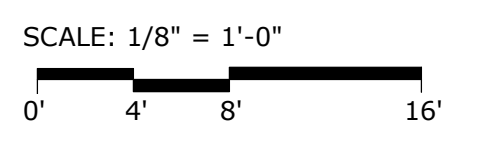
- KEY NOTES**
- ETBR ZONE TEMPERATURE SENSOR - REFER TO NEW WORK PLAN FOR NEW LOCATION.
 - ETBD COMBINATION FIRE/SMOKE DAMPER. ETBD ASSOCIATED DUCT SMOKE DETECTOR, ACTUATOR, DUCT ACCESS DOOR, AND CONTROLS.



GENERAL DEMOLITION NOTES

- EXISTING CONDITIONS, EQUIPMENT, MATERIALS, LOCATIONS, AND SIZES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS/SIZES AND NOTIFY ENGINEER OF ANY DISCREPANCIES IN WRITING PRIOR TO STARTING WORK.
- REFER TO PHASING & PRE-CONSTRUCTION NOTES ON M-001.
- DEMOLISH EQUIPMENT WHERE SHOWN. RELOCATE EQUIPMENT WHERE NOTED. REFER TO EXISTING/DEMO/NEW LEGEND ON M-001.
- ANY REMAINING SYSTEMS DAMAGED DURING THE DEMOLITION PHASE OF WORK SHALL BE RESTORED TO ORIGINAL CONDITION AT NO ADDITIONAL COST.
- CONTRACTOR SHALL REPAIR AND PATCH ALL EXISTING CONSTRUCTION ITEMS. ANY EXISTING HVAC SYSTEM ITEMS THAT ARE TO REMAIN ARE SHOWN ON THE NEW WORK PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE CONTINUITY OF THE EXISTING HVAC SYSTEMS TO REMAIN.
- CAP AND REPAIR EXISTING DUCT & PIPE OPENINGS FROM DEMOLITION NOT USED. SEAL AIR/WATER TIGHT AND PATCH INSULATION.
- PIPING IS SHOWN SPACED APART FOR CLARITY PURPOSES ONLY.
- ALL EQUIPMENT TO BE DEMOLISHED SHALL BE COORDINATED WITH THE VA COR. IT SHALL BE AT THE VA'S DISCRETION WHETHER TO DISPOSE OF THE EQUIPMENT OR SAVE IT FOR USE ON FUTURE PROJECTS.

MECHANICAL - FOURTH FLOOR PLAN - DEMOLITION
1/8" = 1'-0"



RATED WALL LEGEND

(Dashed line symbol)	SMOKE PARTITION
(Dotted line symbol)	1 HOUR FIRE BARRIER
(Dash-dot line symbol)	1 HOUR FIRE SMOKE BARRIER
(Solid line symbol)	2 HOUR FIRE BARRIER

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Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL - FOURTH FLOOR PLAN - DEMOLITION

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

Drawn
WEB

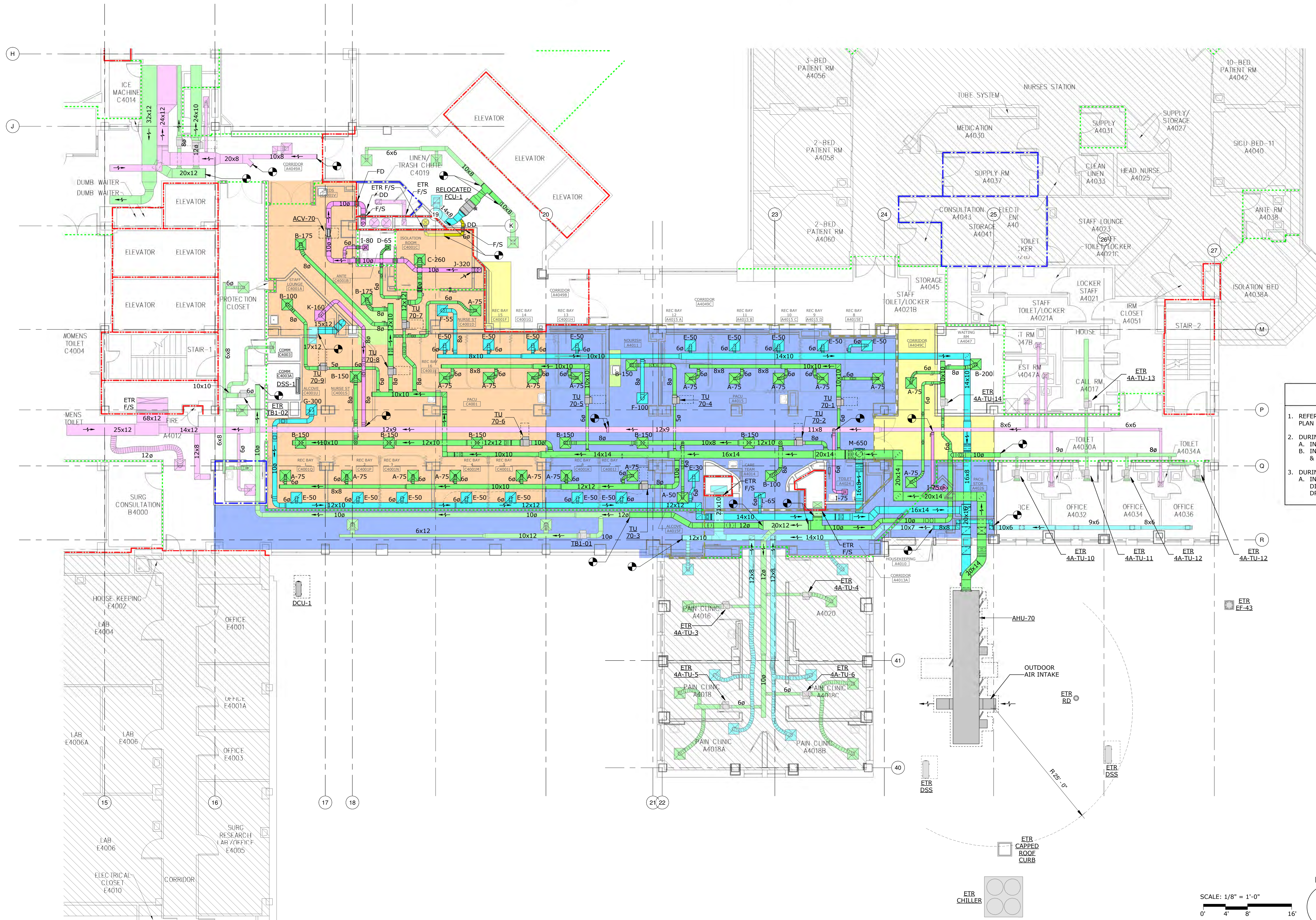
Project Number
558-17-150

Building Number

Drawing Number
MD101
48 of 78

EXISTING CONDITIONS NOTE

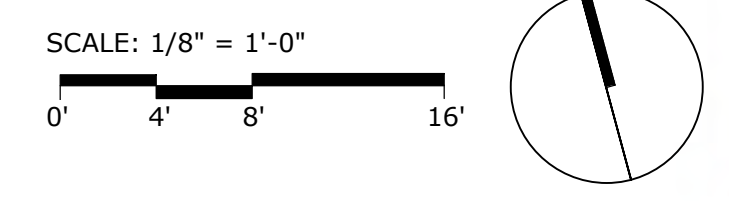
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- PHASING NOTES**
- REFER TO PHASING & PRE-CONSTRUCTION NOTES ON M-001 AND PHASING PLAN G-100
 - DURING PHASE 1B:
 - INSTALL TU-20-5 AND BALANCE FOR ONE SUPPLY DIFFUSER IN C4001H.
 - INSTALL TU-20-3 AND BALANCE FOR TWO SUPPLY DIFFUSERS IN C4001K & C4001J.
 - DURING PHASE 2A:
 - INSTALL THE REMAINING SUPPLY DUCTS & ASSOCIATED SUPPLY DIFFUSERS AND REBALANCE TO THE AIRFLOWS SHOWN ON THE DRAWINGS.



1 MECHANICAL - FOURTH FLOOR PLAN - PHASING
1/8" = 1'-0"



Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL - FOURTH FLOOR PLAN - PHASING

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Project Number
558-17-150

Building Number

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

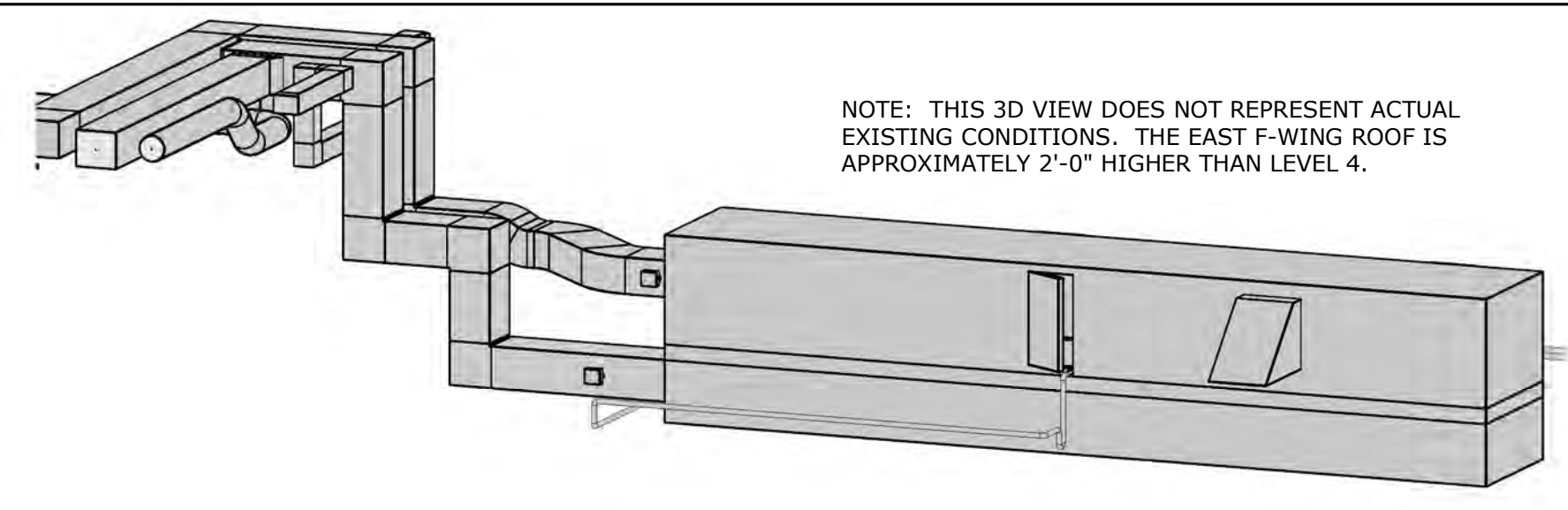
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Drawing Number
MH200

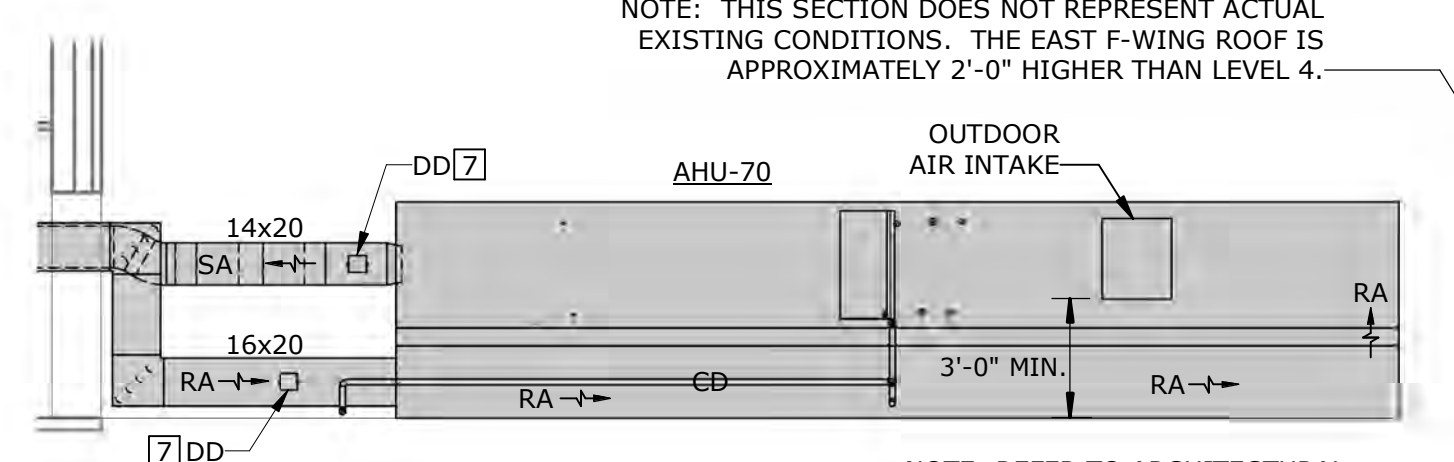
49 of 79

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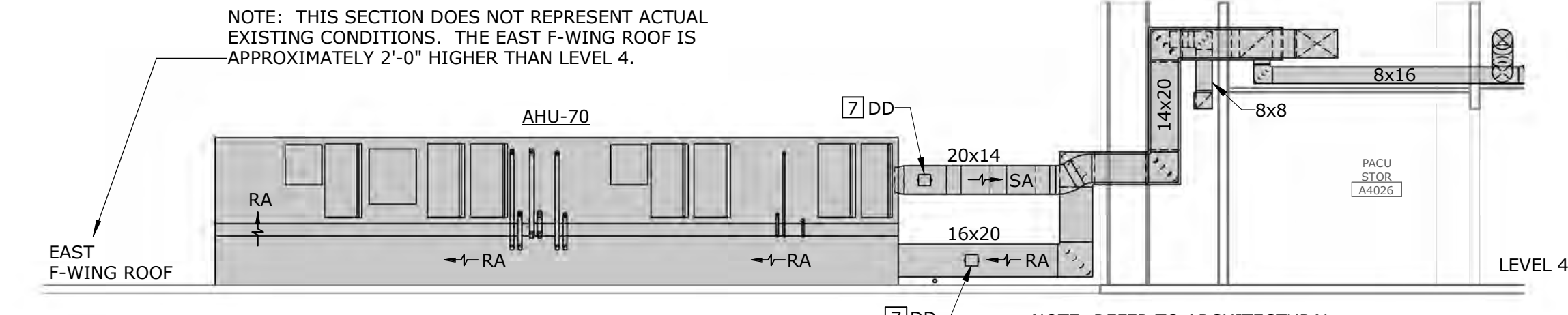
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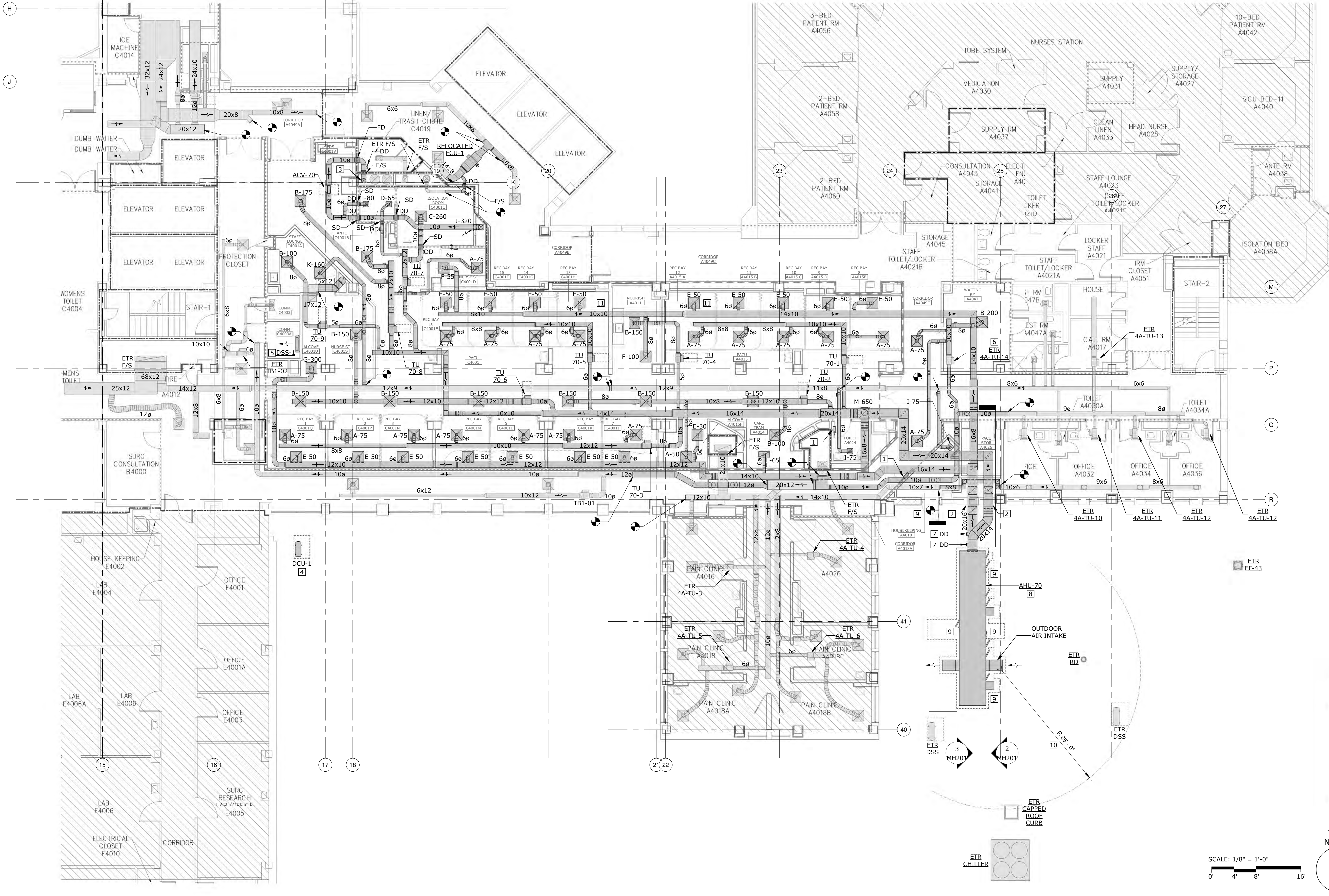
④ MECHANICAL 3D VIEW - AHU-70 NTS



③ MECHANICAL SECTION - AHU-70 LEFT 3/16" = 1'-0"



② MECHANICAL SECTION - AHU-70 RIGHT 3/16" = 1'-0"



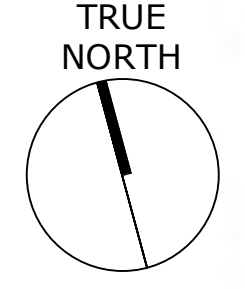
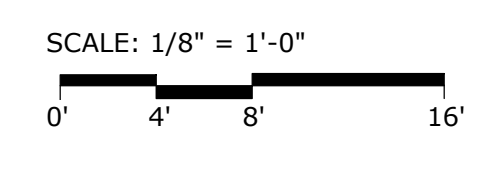
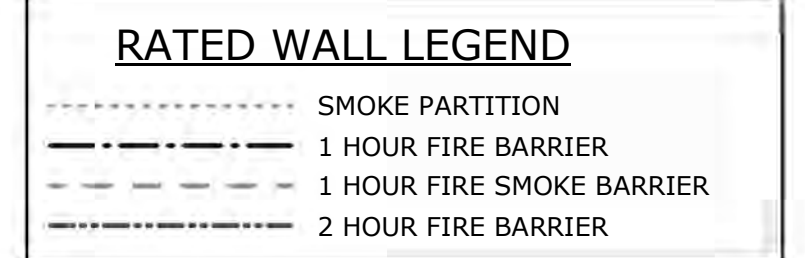
① MECHANICAL - FOURTH FLOOR PLAN - DUCT 1/8" = 1'-0"

- ### KEY NOTES
- UNDERCUT DOOR 3/4".
 - ROUTE NEW SUPPLY & RETURN DUCTS THROUGH EXTERIOR WALL AND TURN UP WHERE SHOWN. SEAL PENETRATIONS AIR/WATER TIGHT. REFER TO SECTION 2 ON SHEET A-301. CONTRACTOR SHALL EVALUATE EXISTING CONDITIONS INSIDE THE CHASE TO DETERMINE THE LARGEST POSSIBLE EXHAUST DUCT THAT CAN BE ROUTED UP TO THE ELEVATOR TOWER ROOF. THE MINIMUM EXHAUST DUCT SIZE SHALL BE 10"Ø. ROUTE NEW 10"Ø (MINIMUM) EXHAUST DUCT FROM FOURTH FLOOR PACU AREA UP TO ELEVATOR TOWER ROOF. REFER TO SHEET MH202 FOR CONTINUATION.
 - INSTALL OUTDOOR DUCTLESS CONDENSING UNIT ON ROOF WITH PREFABRICATED EQUIPMENT RAILS - REFER TO DETAIL ON M-701. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE THE EXACT LOCATION WITH THE VA COR, EXISTING ATRIUM SKYLIGHTS, EXISTING EQUIPMENT, VARYING ROOF ELEVATIONS, AND EXISTING CONDITIONS.
 - INSTALL INDOOR DUCTLESS AIR HANDLER ON WALL IN EXISTING C403A COMM ROOM. COORDINATE LOCATION AND HEIGHT WITH EXISTING EQUIPMENT AND OTHER TRADES.
 - REBALANCE AIRFLOWS ON ETR 4A-TU-14 FOR THE FOLLOWING: PRIMARY MAX = 350 CFM, PRIMARY MIN = 105 CFM, HEATING = 105 CFM.
 - CONTRACTOR SHALL PROVIDE AND INSTALL DUCT SMOKE DETECTOR ASSEMBLY.
 - INSTALL AHU-70 ON FACTORY 24" SEISMIC ROOF CURB. PROVIDE A CONTINUOUS FLEXIBLE GASKET AND SEALANT ON TOP OF THE ROOF CURB FOR AN AIR TIGHT SEAL - REFER TO DETAIL ON M-701.
 - CONTRACTOR SHALL FABRICATE AND FIELD INSTALL ALUMINUM STEPS AT ALL ACCESS DOORS ON AHU-70 AND OUTSIDE THE ROOF ACCESS DOOR IN A4010 HOUSEKEEPING. MAINTAIN 25'-0" MINIMUM DISTANCE FROM OUTDOOR AIR INTAKES ON AHU-70 TO ANY EXHAUST OR VENT DISCHARGE.
 - FIELD VERIFY AND COORDINATE ROUTING OF DUCTS WITH OVERHEAD PATIENT LIFTS IN A4015A REC BAY 12 AND C4001H REC BAY 13. RE-ROUTE DUCTS AS NECESSARY TO ACCOMMODATE THE PATIENT LIFTS.

- ### GENERAL NOTES
- EXISTING CONDITIONS, EQUIPMENT, MATERIALS, LOCATIONS, AND SIZES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS/SIZES AND NOTIFY ENGINEER OF ANY DISCREPANCIES IN WRITING PRIOR TO STARTING WORK.
 - CAP AND REPAIR EXISTING DUCT OPENINGS FROM DEMOLITION NOT USED. SEAL AIR TIGHT AND PATCH INSULATION. CONTRACTOR SHALL MATCH EXISTING DUCT AND INSULATION SYSTEMS.
 - INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS FOR VAV TERMINAL UNITS - REFER TO DETAIL ON M-702.
 - INSTALL 90° RADIUS ELBOWS WHERE SHOWN. INSTALL TURNING VANES ON ALL 90° MITERED ELBOWS.
 - DUCTWORK SHOWN IS SIZED AND ROUTED TO MAINTAIN ARCHITECT'S DESIRED CEILING HEIGHTS. CONTRACTOR IS RESPONSIBLE TO NOTIFY ENGINEER OF ANY DISCREPANCIES WHERE ARCHITECT'S DESIRED CEILING HEIGHTS CANNOT BE OBTAINED PRIOR TO DUCT FABRICATION/INSTALLATION.
 - PROVIDE MINIMUM 6" CLEARANCE FOR FLENUM INLETS ON VAV TERMINAL UNITS PER MANUFACTURER'S RECOMMENDATION.
 - CLEAN AND REPAIR EXISTING DUCTWORK & INSULATION WITHIN THE SCOPE OF PROJECT TO LIKE-NEW CONDITION.
 - COORDINATE THERMOSTAT LOCATIONS WITH OTHER TRADES AND EQUIPMENT PLANS.
 - RELOCATE OR RE-ROUTE DUCTS IN AREAS INDICATED WITH DASHED LINES TO MAINTAIN ARCHITECT'S DESIRED CEILING HEIGHTS.
 - MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES ON ALL MECHANICAL EQUIPMENT. ALL EQUIPMENT MUST BE ACCESSIBLE FOR MAINTENANCE.
 - LABEL ALL EXHAUST DUCTWORK, FILTER HOUSING, AND EXHAUST FAN SERVING THE ISOLATION ROOM "COMMUNICABLE DISEASE CONTAMINATED AIR"
 - CONTRACTOR SHALL OBTAIN ROOF WARRANTY INFORMATION PRIOR TO STARTING WORK. COORDINATE ALL WORK WITH ROOF INSTALLER AND FOLLOW PROCEDURES TO MAINTAIN ROOF WARRANTY.
 - USE ROOF ACCESS DOOR IN A4010 HOUSEKEEPING TO ACCESS EQUIPMENT ON ROOF. REFER TO DETAIL 4 ON SHEET A-301.

EXISTING CONDITIONS NOTE

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Revisions:	Date:

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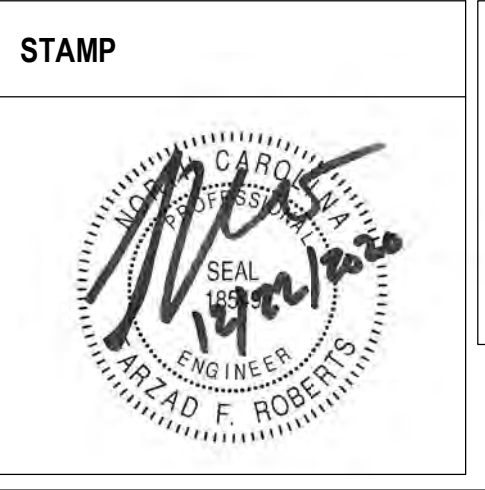
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VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL - FOURTH FLOOR PLAN - DUCT

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Project Number
558-17-150

Building Number

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

Drawn
WEB

Drawing Number
MH201 50 of 78

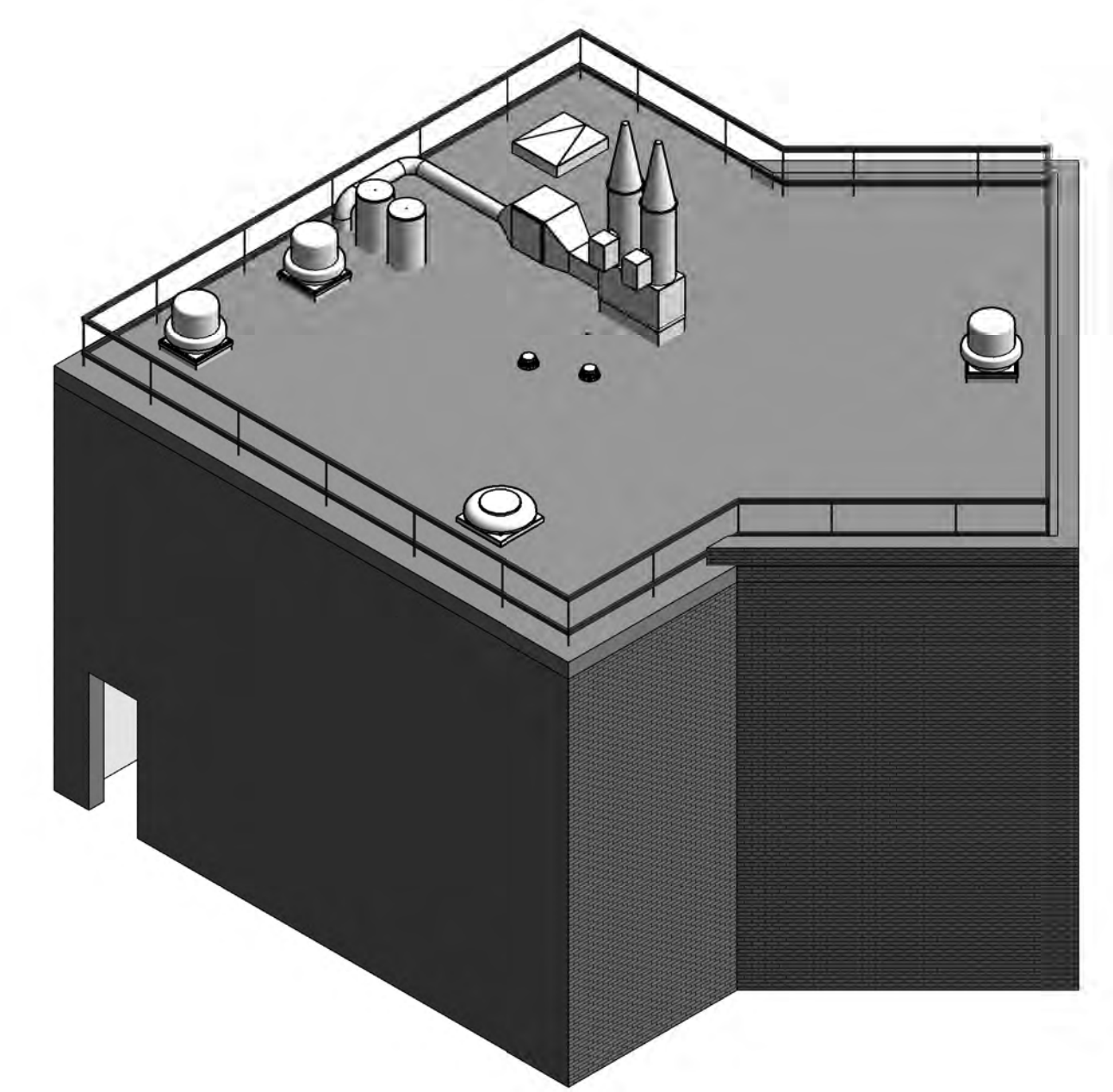
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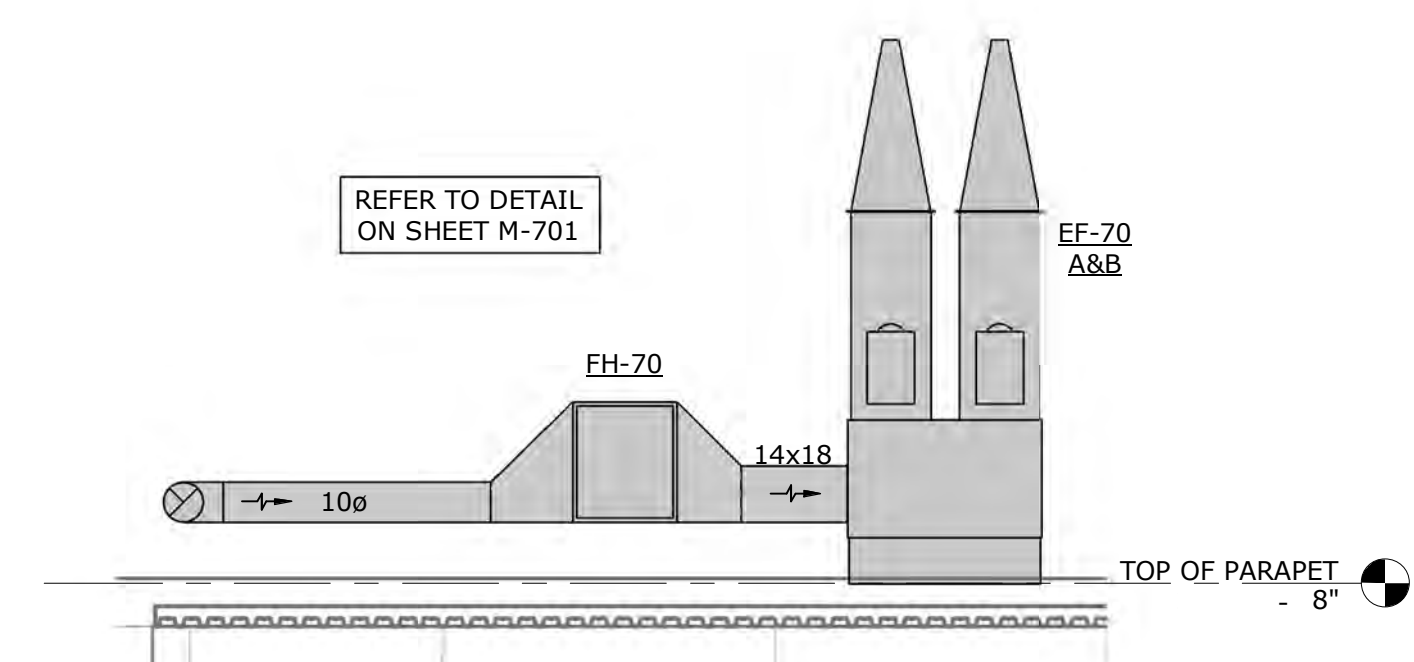
EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.

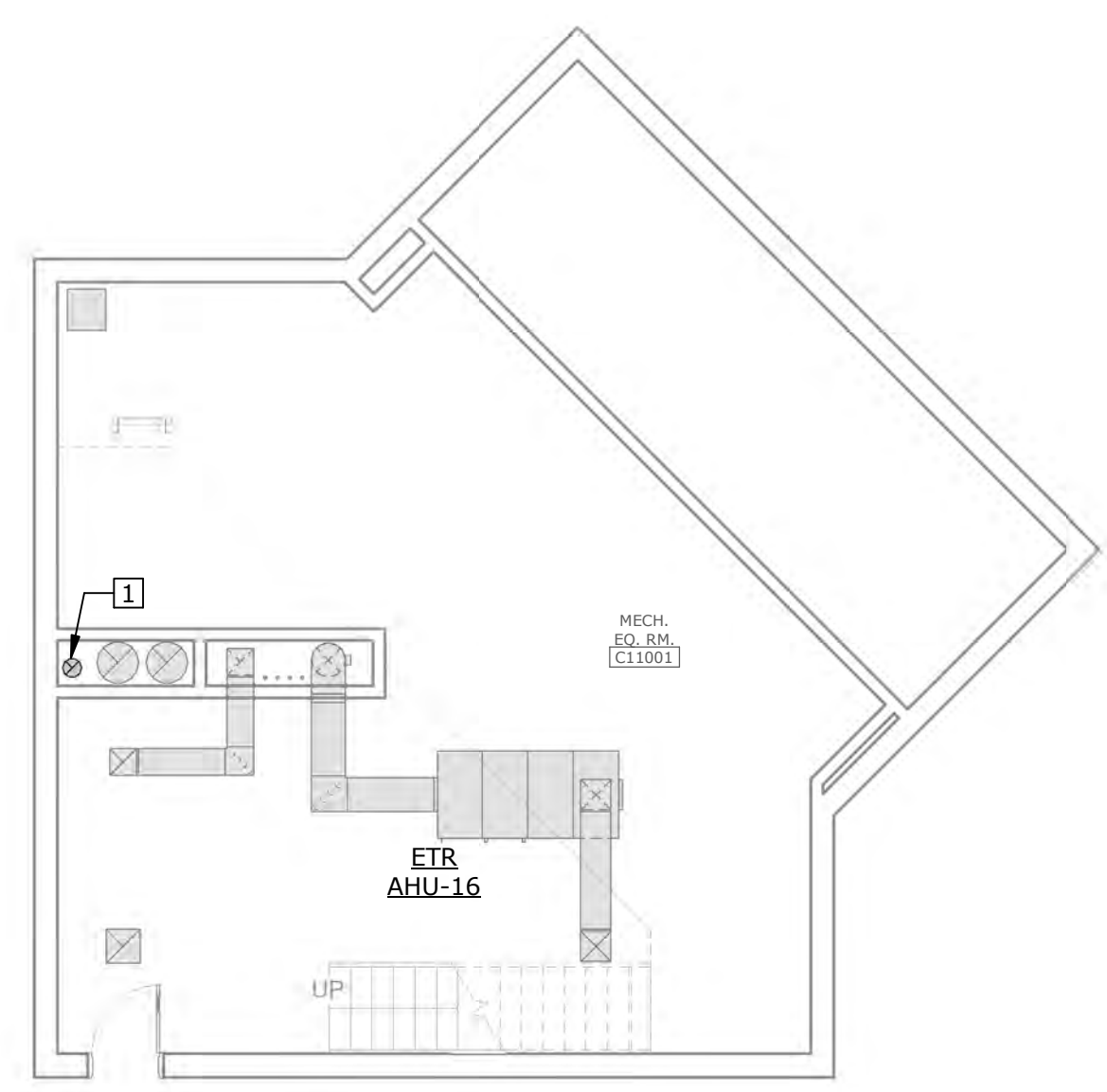
- KEY NOTES**
- CONTRACTOR SHALL EVALUATE EXISTING CONDITIONS INSIDE THE CHASE TO DETERMINE THE LARGEST POSSIBLE EXHAUST DUCT THAT CAN BE ROUTED DOWN TO THE FOURTH FLOOR PACU AREA. THE MINIMUM EXHAUST DUCT SIZE SHALL BE 10"Ø. IT IS INTENDED TO ROUTE A LARGER EXHAUST RISER DUCT (IF POSSIBLE) FOR FUTURE ISOLATION EXHAUST FROM OTHER FLOORS. ROUTE NEW 10"Ø (MINIMUM) EXHAUST DUCT FROM EF-70 A&B DOWN CHASE TO FOURTH FLOOR PACU AREA - REFER TO SHEET MH201 FOR CONTINUATION.
 - FIELD VERIFY AND COORDINATE EXACT LOCATION OF EF-70 A&B TO MAINTAIN A MINIMUM 25'-0" DISTANCE FROM THE EXHAUST STACK DISCHARGE TO THE OUTDOOR AIR INTAKE ON ETR GIH-1.



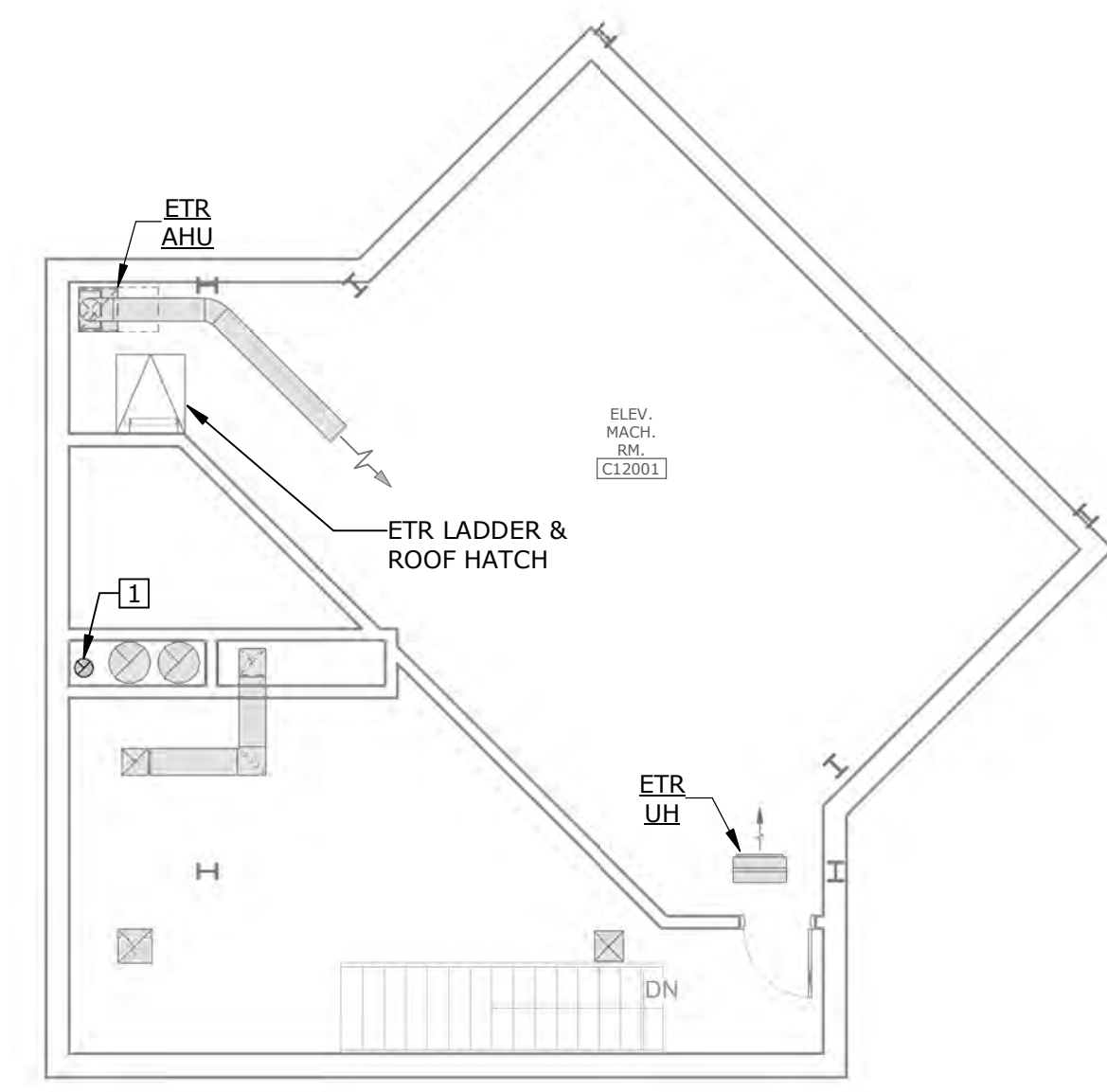
5 MECHANICAL 3D VIEW - ELEVATOR TOWER ROOF NTS



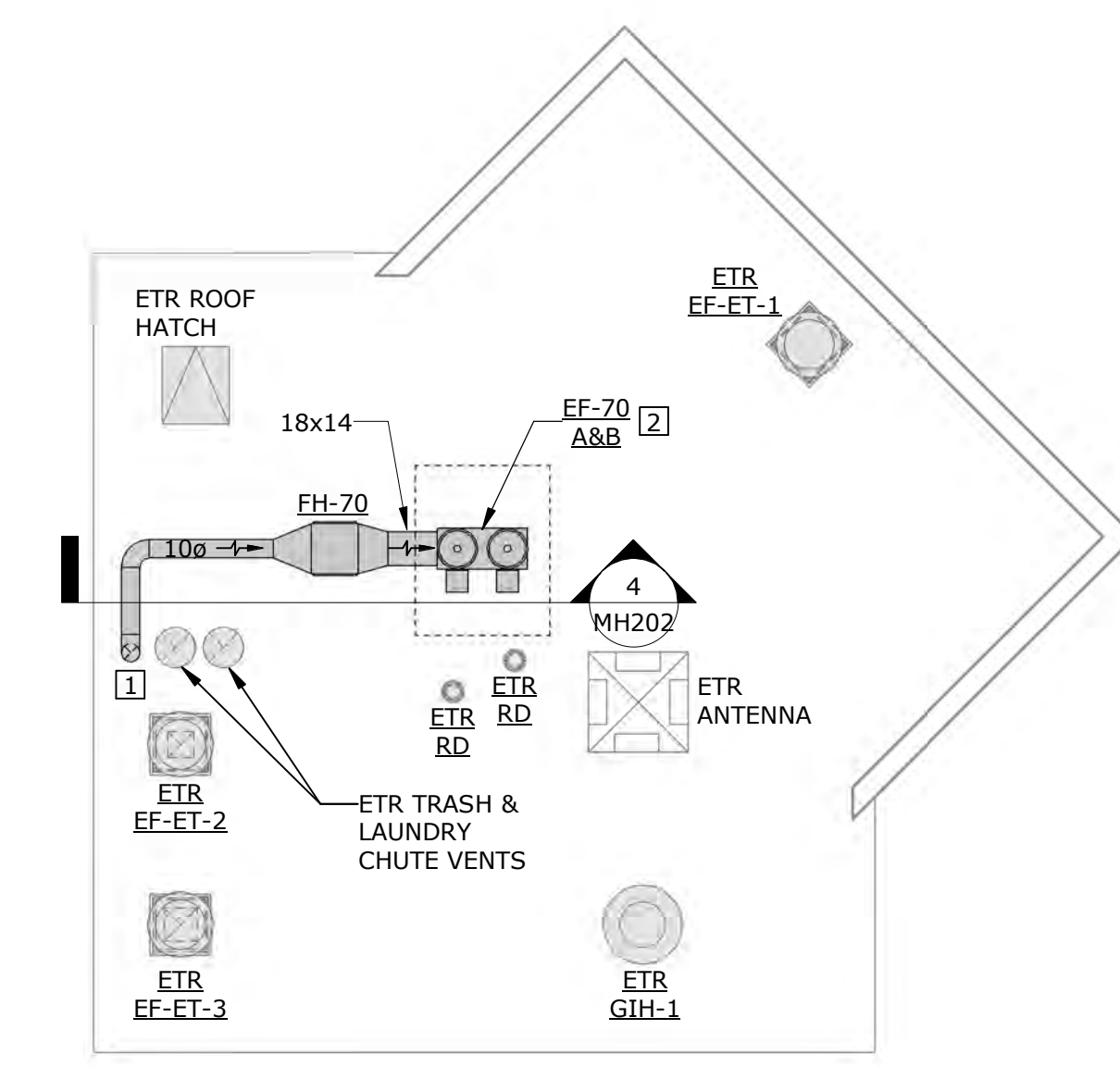
4 MECHANICAL SECTION - 2018 EF-1 1/4" = 1'-0"



1 MECHANICAL - ELEVATOR TOWER PLAN - MECHANICAL EQUIPMENT ROOM 1/8" = 1'-0"

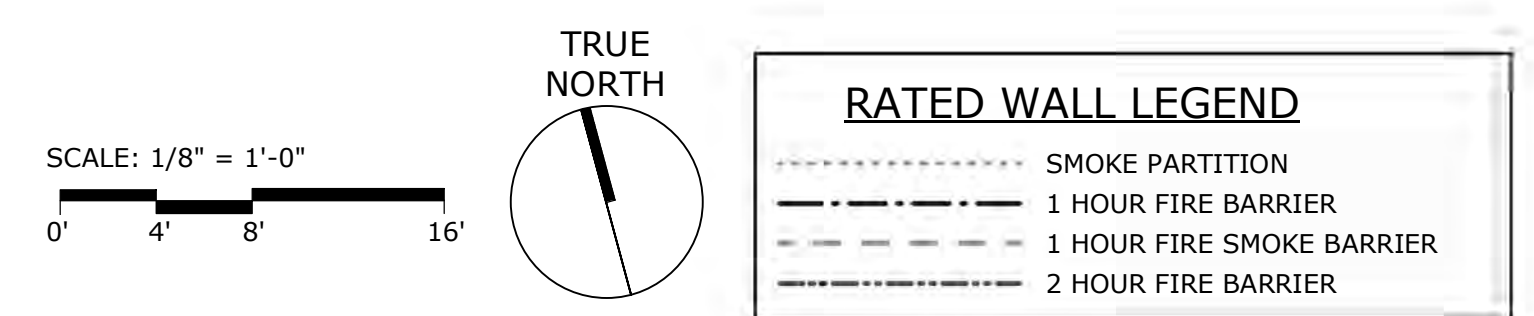


2 MECHANICAL - ELEVATOR TOWER PLAN - MACHINE ROOM 1/8" = 1'-0"



3 MECHANICAL - ELEVATOR TOWER PLAN - ROOF 1/8" = 1'-0"

- GENERAL NOTES**
- EXISTING CONDITIONS, EQUIPMENT, MATERIALS, LOCATIONS, AND SIZES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS/SIZES AND NOTIFY ENGINEER OF ANY DISCREPANCIES IN WRITING PRIOR TO STARTING WORK.
 - CAP AND REPAIR EXISTING DUCT OPENINGS FROM DEMOLITION NOT USED. SEAL AIR TIGHT AND PATCH INSULATION. CONTRACTOR SHALL MATCH EXISTING DUCT AND INSULATION SYSTEMS.
 - INSTALL 90° RADIUS ELBOWS WHERE SHOWN. INSTALL TURNING VANES ON ALL 90° MITERED ELBOWS.
 - DUCTWORK SHOWN IS SIZED AND ROUTED TO MAINTAIN ARCHITECT'S DESIRED CEILING HEIGHTS. CONTRACTOR IS RESPONSIBLE TO NOTIFY ENGINEER OF ANY DISCREPANCIES WHERE ARCHITECT'S DESIRED CEILING HEIGHTS CANNOT BE OBTAINED PRIOR TO DUCT FABRICATION/INSTALLATION.
 - PROVIDE MINIMUM 6" CLEARANCE FOR PLENUM INLETS ON VAV TERMINAL UNITS PER MANUFACTURER'S RECOMMENDATION.
 - CLEAN AND REPAIR EXISTING DUCTWORK & INSULATION WITHIN THE SCOPE OF PROJECT TO LIKE-NEW CONDITION.
 - RELOCATE OR RE-ROUTE DUCTS IN AREAS INDICATED WITH DASHED LINES TO MAINTAIN ARCHITECT'S DESIRED CEILING HEIGHTS.
 - CONTRACTOR SHALL OBTAIN ROOF WARRANTY INFORMATION PRIOR TO STARTING WORK. COORDINATE ALL WORK WITH ROOF INSTALLER AND FOLLOW PROCEDURES TO MAINTAIN ROOF WARRANTY.
 - MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES ON ALL MECHANICAL EQUIPMENT. ALL EQUIPMENT MUST BE ACCESSIBLE FOR MAINTENANCE.
 - INSTALL DUCTWORK ON ROOF SUPPORTS - REFER TO DETAIL ON M-701.
 - LABEL ALL EXHAUST DUCTWORK, FILTER HOUSING, AND EXHAUST FAN SERVING THE ISOLATION ROOM "COMMUNICABLE DISEASE CONTAMINATED AIR"



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Revisions:	Date:

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AME PROJECT NO.: 17116

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL - ELEVATOR TOWER PLAN - DUCT

Approved:
Andreka Watlington

Phase
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VA DURHAM - PACU RENOVATION

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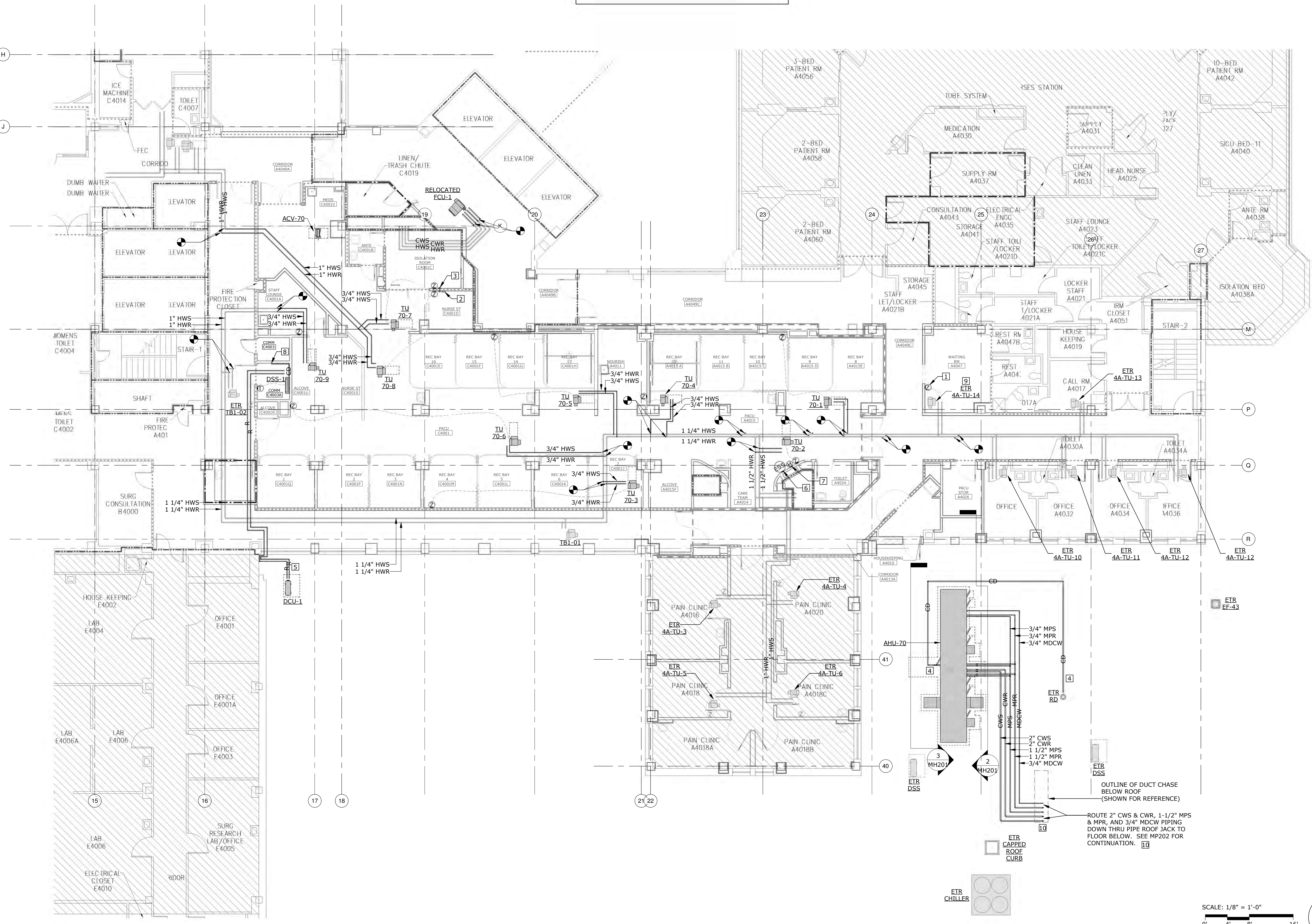
Drawing Number
MH202
51 of 78

EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.

- KEY NOTES**
1. RELOCATED ZONE TEMPERATURE SENSOR.
 2. INSTALL ROOM PRESSURE DISPLAY MODULE 4'-0" A.F.F.
 3. INSTALL BALL-IN-THE-WALL VISUAL PRESSURE INDICATOR 7'-0" A.F.F. - REFER TO DETAIL ON M-701.
 4. PROVIDE TRAP AND ROUTE CONDENSATE DRAIN PIPING (BY GRAVITY) TO EXISTING ROOF DRAIN - REFER TO DETAIL ON M-702 AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. CONDENSATE PIPE SHALL MATCH CONNECTION SIZE ON AHU-70.
 5. ROUTE REFRIGERANT PIPING FROM OUTDOOR CONDENSING UNIT TO RESPECTIVE INDOOR UNIT. FIELD VERIFY ROUTING WITH COR, EXISTING ATRIUM SKYLIGHTS, EXISTING EQUIPMENT, AND EXISTING CONDITIONS. REFRIGERANT PIPING SHALL BE SIZED AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR PIPING EXPOSED TO OUTDOORS, INSTALL AN ADDITIONAL 1" INSULATION AND FINISH ALUMINUM JACKETING.
 6. EMERGENCY STOP SWITCH TO SHUT DOWN AHU-70 AND CLOSE THE OUTDOOR AIR INTAKE DAMPERS. REFER TO DETAIL ON M-702 AND CONTROL SEQUENCE ON M-501.
 7. HUMIDITY SENSOR FOR AHU-70.
 8. ROUTE CONDENSATE DRAIN PIPING BY GRAVITY (MINIMUM 1% SLOPE) DOWN TO DRAIN BOX IN 64003A COMM ROOM - REFER TO PLUMBING DRAWING PL201.
 9. REBALANCE HEATING HOT WATER FLOW RATE ON ETR 4A-TU-14 FOR 0.5 GPM.
 10. PROVIDE PIPE ROOF JACK ON ROOF - REFER TO DETAIL ON M-701. SIZE OF PIPE ROOF JACK SHALL MATCH SIZE OF EXISTING DUCT CHASE BELOW.

- GENERAL NOTES**
- A. EXISTING CONDITIONS, EQUIPMENT, MATERIALS, LOCATIONS, AND SIZES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS/SIZES AND NOTIFY ENGINEER OF ANY DISCREPANCIES IN WRITING PRIOR TO STARTING WORK.
 - B. CAP AND REPAIR EXISTING PIPE OPENINGS FROM DEMOLITION NOT USED. SEAL WATER TIGHT AND PATCH INSULATION. CONTRACTOR SHALL MATCH EXISTING PIPE MATERIALS AND INSULATION SYSTEMS.
 - C. PROVIDE MINIMUM 6" CLEARANCE FOR PLENUM INLETS ON VAV TERMINAL UNITS PER MANUFACTURER'S RECOMMENDATION.
 - D. CLEAN AND REPAIR EXISTING PIPING & INSULATION WITHIN THE SCOPE OF PROJECT TO LIKE-NEW CONDITION.
 - E. COORDINATE THERMOSTATS, HUMIDITY SENSOR, AND EMERGENCY STOP SWITCH LOCATIONS WITH OTHER TRADES AND FURNITURE PLANS.
 - F. MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES ON ALL MECHANICAL EQUIPMENT. ALL EQUIPMENT MUST BE ACCESSIBLE FOR MAINTENANCE.
 - G. INSTALL ALL PIPING ON ROOF ON PIPE SUPPORTS - REFER TO DETAIL SHEETS.
 - H. INSTALL 5 WATTS/FT OF ELECTRIC HEAT TAPE ON ALL CWS, CWR, AND MDCW PIPING ABOVE THE ROOF AND INSIDE PIPE CABINETS. HEAT TAPE SHALL BE 120/10.
 - I. PIPING IS SHOWN SPACED APART FOR CLARITY PURPOSES ONLY.
 - J. CONTRACTOR SHALL OBTAIN ROOF WARRANTY INFORMATION PRIOR TO STARTING WORK. COORDINATE ALL WORK WITH ROOF INSTALLER AND FOLLOW PROCEDURES TO MAINTAIN ROOF WARRANTY.
 - K. USE ROOF ACCESS DOOR IN A4010 HOUSEKEEPING TO ACCESS EQUIPMENT ON ROOF. REFER TO DETAIL 4 ON SHEET A-301.



1 MECHANICAL - FOURTH FLOOR PLAN - PIPE & CONTROLS
1/8" = 1'-0"

Revisions:	Date:

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STAMP
Professional Engineer Seal for Michael F. Robertson, State of North Carolina, License No. 35082.

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL - FOURTH FLOOR PLAN - PIPE & CONTROLS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

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VA DURHAM - PACU RENOVATION

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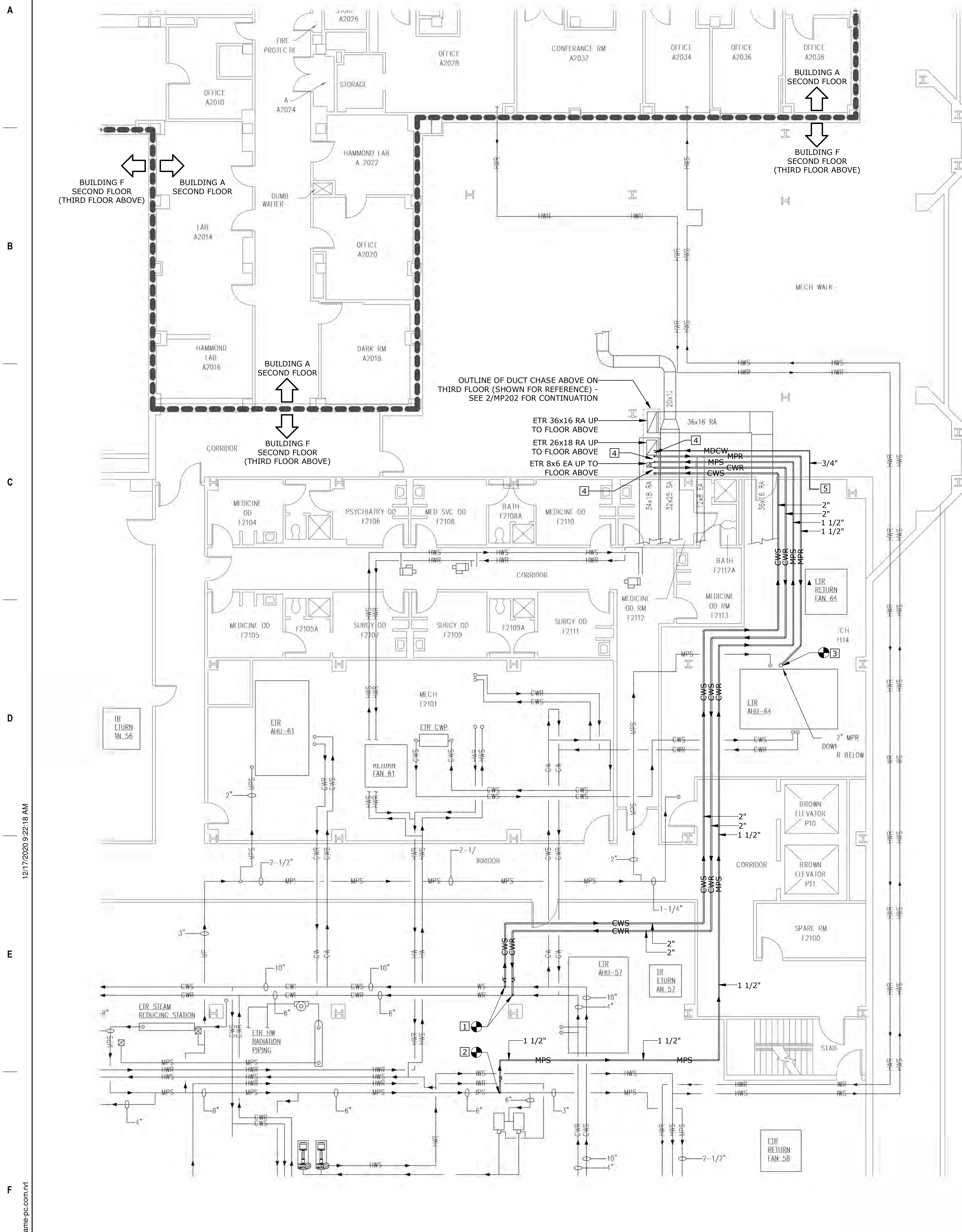
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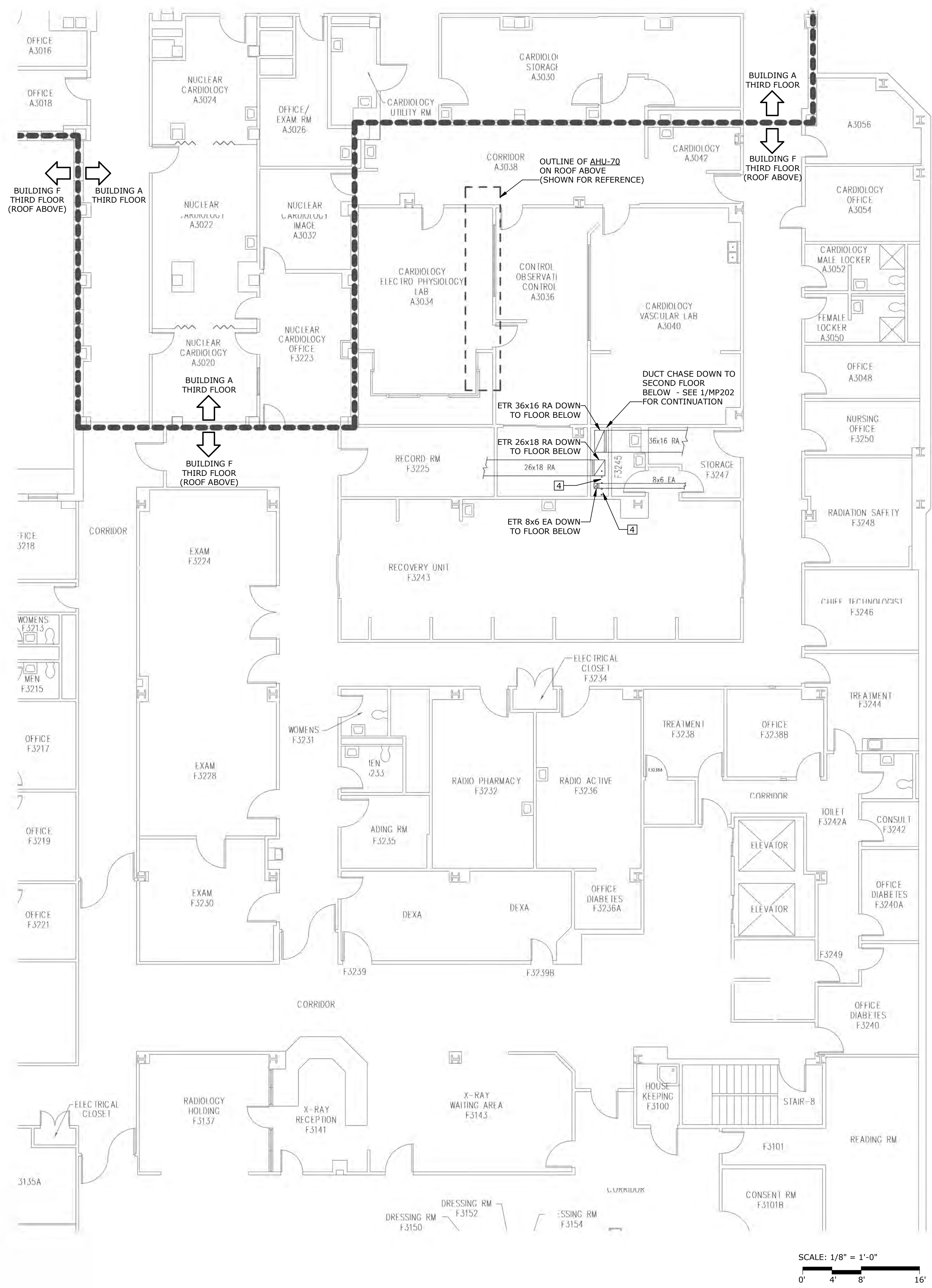
Building Number

Drawing Number
MP201
52 of 78

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1 MECHANICAL - SECOND FLOOR PLAN - PIPE
1/8" = 1'-0"



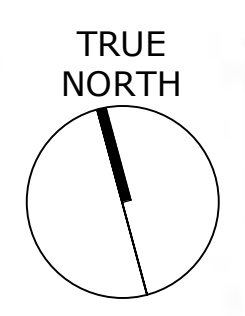
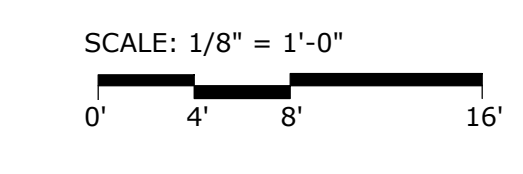
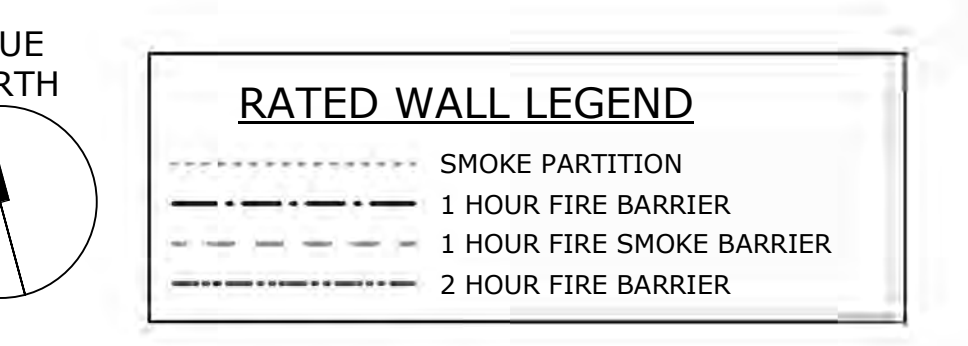
2 MECHANICAL - THIRD FLOOR PLAN - PIPE
1/8" = 1'-0"

- KEY NOTES**
- TIE NEW 2" CWS INTO EXISTING 10" CWS. TIE NEW 2" CWR INTO EXISTING 6" CWR. DO NOT TIE NEW PIPES INTO EXISTING PIPES THAT ARE SMALLER IN SIZE, CLOSER, MORE CONVENIENT, ETC. FIELD VERIFY AND COORDINATE EXACT TIE-IN LOCATIONS WITH EXISTING CONDITIONS. MATCH EXISTING PIPE MATERIALS AND INSULATION SYSTEMS. PROVIDE ISOLATION VALVES AS SHOWN.
 - TIE NEW 1-1/2" MPS INTO EXISTING 6" MPS. DO NOT TIE NEW PIPE INTO EXISTING PIPES THAT ARE SMALLER IN SIZE, CLOSER, MORE CONVENIENT, ETC. FIELD VERIFY AND COORDINATE EXACT TIE-IN LOCATIONS WITH EXISTING CONDITIONS. MATCH EXISTING PIPE MATERIALS AND INSULATION SYSTEMS. PROVIDE ISOLATION VALVES AS SHOWN.
 - TIE NEW 1-1/2" MPR INTO EXISTING 2" MPR NEAR ETR AHU-54. FIELD VERIFY AND COORDINATE EXACT TIE-IN LOCATION WITH EXISTING CONDITIONS.
 - ROUTE NEW 2" CWS, 2" CWR, 1-1/2" MPS, 1-1/2" MPR, AND 3/4" HDGW PIPES FROM SECOND FLOOR UP THROUGH EXISTING THIRD FLOOR DUCT CHASE AND CONTINUE UP THROUGH NEW PIPE ROOF JACK LOCATED ABOVE ON ROOF. FIELD VERIFY AND COORDINATE EXACT ROUTING WITH EXISTING DUCTS AND EQUIPMENT. RELOCATE/ROUTE EXISTING 8x6 EXHAUST DUCT AS REQUIRED TO ACCOMMODATE NEW PIPES. SEE MP201 FOR CONTINUATION.
 - ROUTE 3/4" HDGW PIPING TO BACKFLOW PREVENTER. REFER TO PLUMBING DRAWING PL302 FOR CONTINUATION. REFER TO MAKE-UP WATER COORDINATION PIPING DETAIL ON SHEET M-702. P.C. SHALL FIELD VERIFY TIE-IN LOCATION WITH 3/4" HDGW PIPING. MATCH EXISTING PIPE MATERIALS AND INSULATION SYSTEMS.

- GENERAL NOTES**
- EXISTING CONDITIONS, EQUIPMENT, MATERIALS, LOCATIONS, AND SIZES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS/SIZES AND NOTIFY ENGINEER OF ANY DISCREPANCIES IN WRITING PRIOR TO STARTING WORK.
 - ANY REMAINING SYSTEMS THAT ARE DAMAGED DURING NEW WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST.
 - CLEAN AND REPAIR EXISTING PIPING & INSULATION SYSTEMS FROM TIE-IN LOCATIONS TO LIKE-NEW CONDITION.
 - NEW PIPING SHALL MATCH EXISTING PIPE MATERIALS AND INSULATION SYSTEMS.
 - MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES ON ALL MECHANICAL EQUIPMENT. ALL EQUIPMENT MUST BE ACCESSIBLE FOR MAINTENANCE.
 - PIPING IS SHOWN SPACED APART FOR CLARITY PURPOSES ONLY.

EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR. ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.



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Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL - SECOND & THIRD FLOOR PLAN - PIPE & CONTROLS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

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VA DURHAM - PACU RENOVATION

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DURHAM VAMC DURHAM, NC

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MP202
53 of 78

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PLUMBING FIXTURE SCHEDULE table with columns: MARK, DESCRIPTION, CONNECTION SIZES (WASTE, VENT, CW, HW), MANUFACTURER, MODEL, TRIM, MOUNTING, NOTES.

ACCEPTABLE MANUFACTURERS table with columns: SPECIFIED PRODUCT, ACCEPTED MANUFACTURERS.

MEDICAL GAS EQUIPMENT table with columns: EQUIPMENT, MFG. & MODEL, REMARKS.

CONNECTION MATRIX table with columns: ROOM #, OXYGEN, VACUUM, MEDICAL AIR.

SEISMIC AND WIND REQUIREMENTS FOR PLUMBING SYSTEMS

- A. PER 2015 INTERNATIONAL BUILDING CODE, MECHANICAL EQUIPMENT AND COMPONENTS, INCLUDING THEIR SUPPORTS AND ATTACHMENTS, SHALL BE DESIGNED FOR SEISMIC FORCES IN ACCORDANCE WITH CHAPTER 13 OF ASCE 7-10.

SEISMIC DESIGN CATEGORY C RISK CATEGORY IV

Table with columns: COMPONENT IDENTIFICATION, SEISMIC RESTRAINT REQUIREMENT, ASCE 7-10 REFERENCE.

- TABLE NOTES: 1. FLEXIBLE CONNECTIONS REQUIRED FOR PIPE CONNECTIONS ONLY. 2. RESTRAINT IS NOT REQUIRED IF THE PIPING IS SUPPORTED BY HANGERS WHERE EACH HANGER IS 12 INCHES OR LESS IN LENGTH FROM THE TOP OF THE PIPE OR DUCT TO THE SUPPORTING STRUCTURE.

PLUMBING NEW/EXISTING LEGEND table with columns: DESIGNATION, DESCRIPTION.

PLUMBING PIPING LEGEND table with columns: DESIGNATION, DESCRIPTION.

PLUMBING SYMBOL LEGEND table with columns: DESIGNATION, DESCRIPTION.

EXISTING CONDITIONS NOTE: THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018.

PLUMBING ABBREVIATIONS table with columns: TYPE, DESCRIPTION.

- PLUMBING GENERAL NOTES: 1. ALL PLUMBING AND PLUMBING MATERIALS SHALL MEET THE REQUIREMENTS OF THE STATE AND LOCAL PLUMBING CODES. 2. SLOPES AND INVERT ELEVATIONS OF ALL INTERIOR PIPING SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED.

Revisions and Date table.

CONSULTANT: AVE CONSULTING ENGINEERS and PERKINS EASTMAN.

ARCHITECT/ENGINEER OF RECORD: Atriax Group.

Office of Construction and Facilities Management, U.S. Department of Veterans Affairs.

Drawing Title: PLUMBING - GENERAL NOTES, SCHEDULES AND LEGENDS. Approved: Andreka Watlington.

Phase: 100% BID DOCUMENTS. FULLY SPRINKLERED.

Project Title: VA DURHAM - PACU RENOVATION. Project Number: 558-17-150. Drawing Number: P-001 54 of 78.

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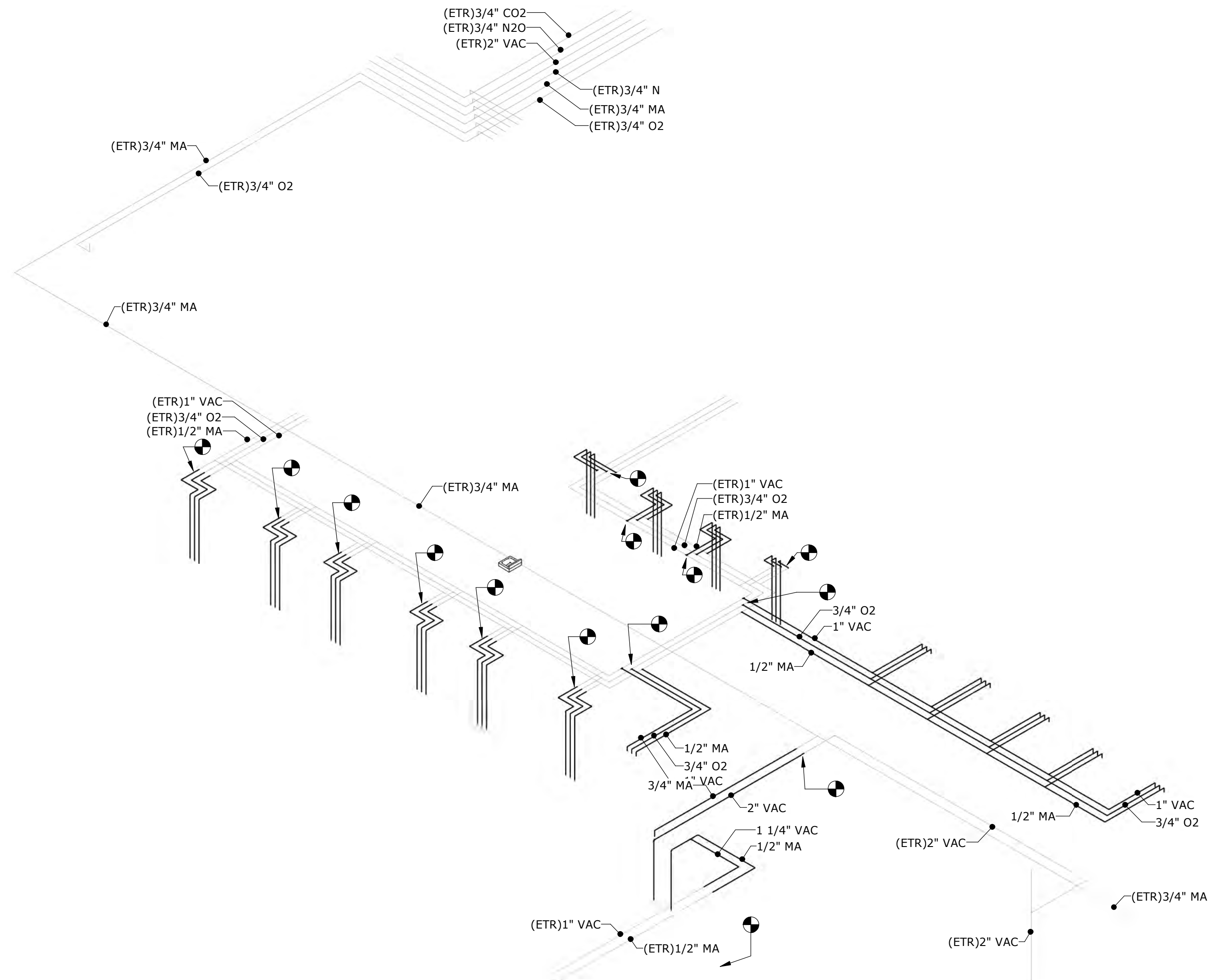
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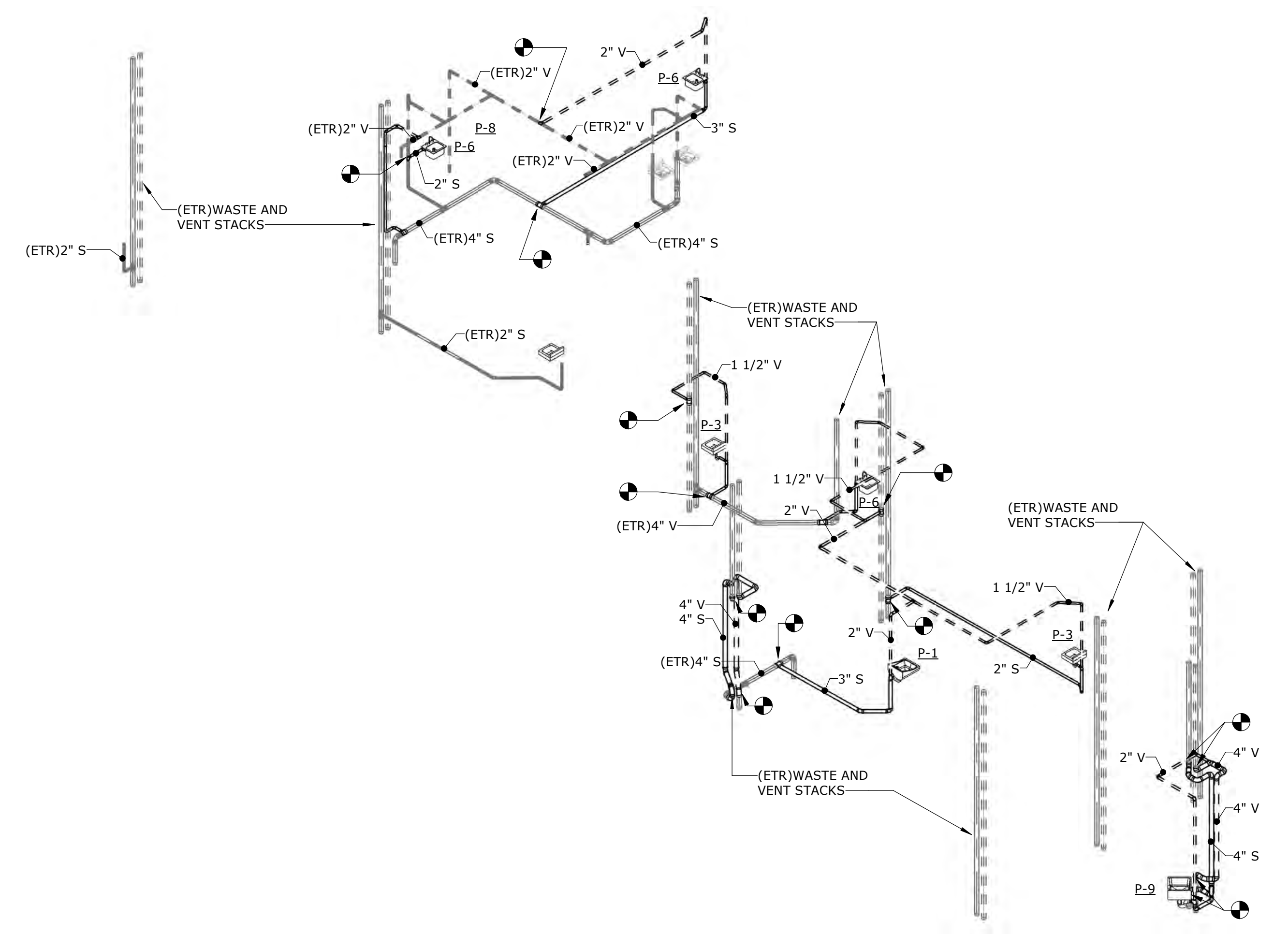
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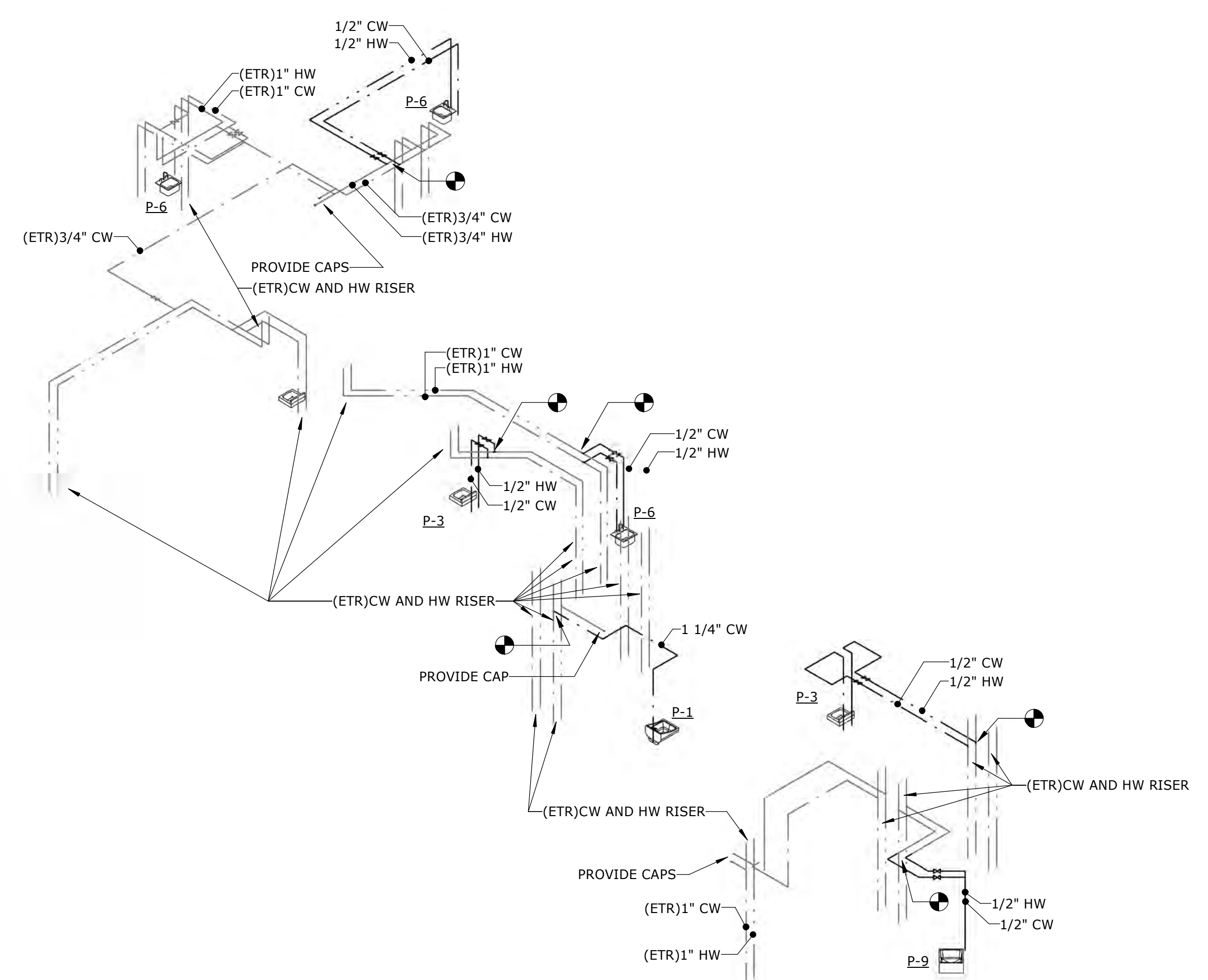
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1 MEDICAL GAS RISER SCHEMATIC
NTS



2 WASTE AND VENT RISER SCHEMATIC
NTS



3 WATER SUPPLY RISER SCHEMATIC
NTS

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Office of
Construction
and Facilities
Management

VA U.S. Department of
Veterans Affairs

Drawing Title
PLUMBING - RISERS

Approved:
Andreka Watlington

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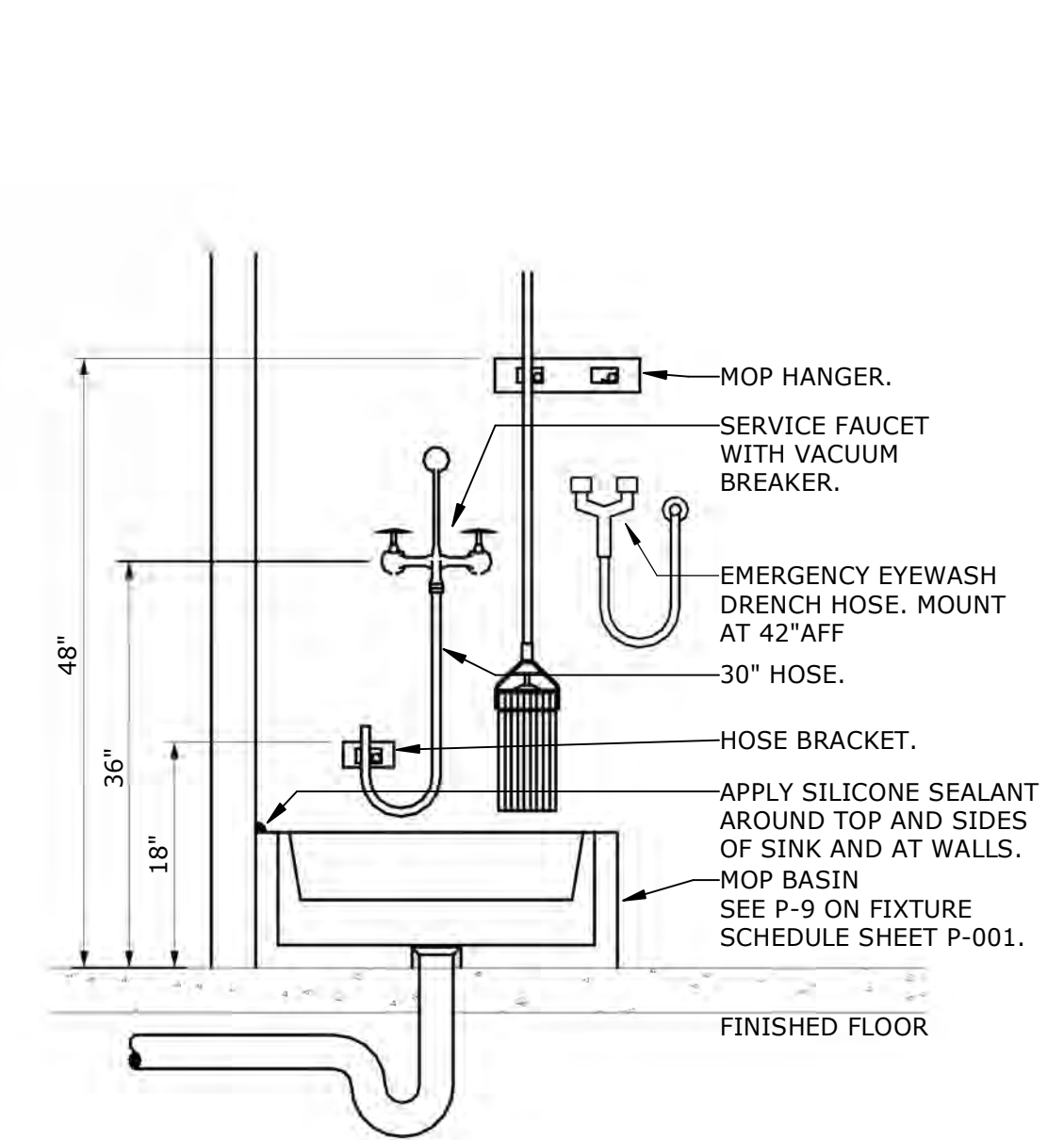
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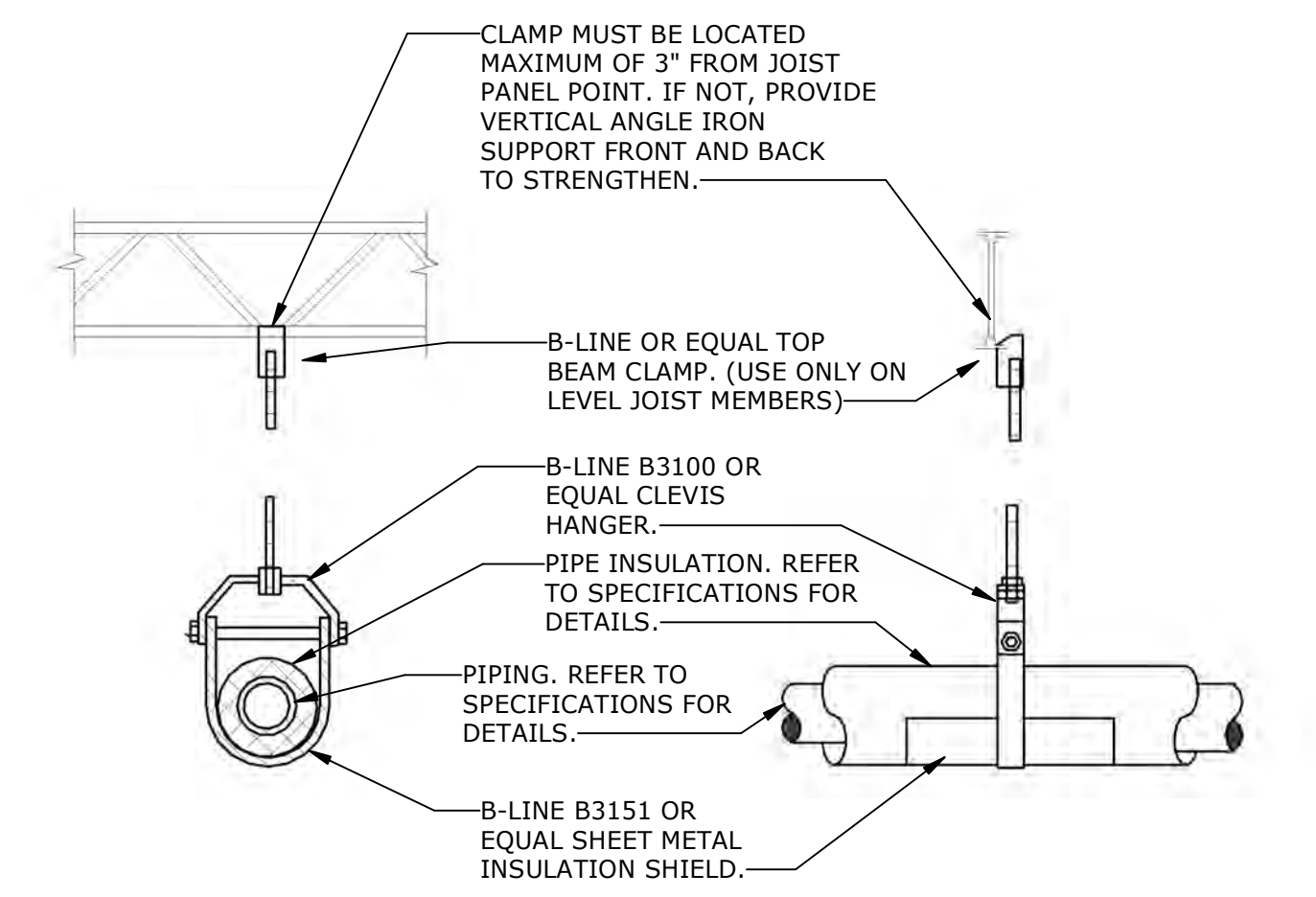
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**P-501
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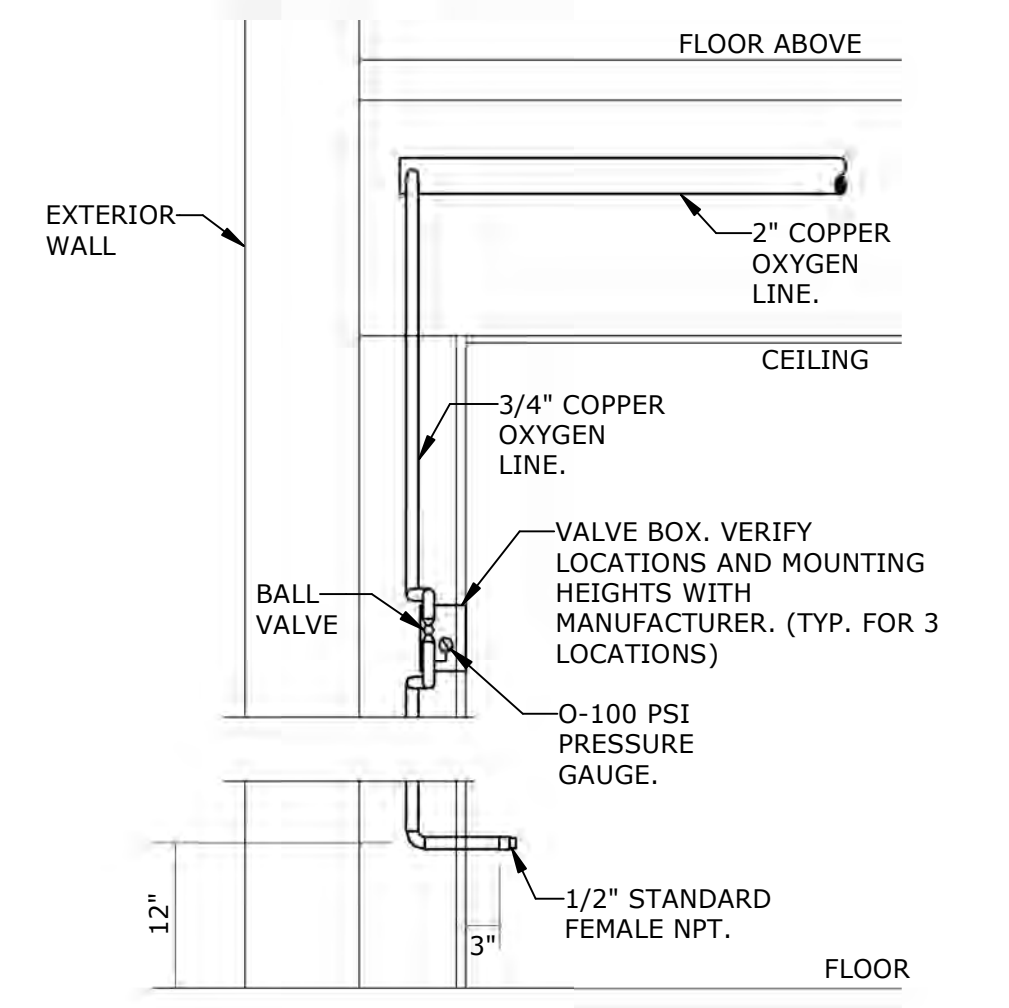


④ MOP BASIN AND ACCESSORIES DETAIL
NTS

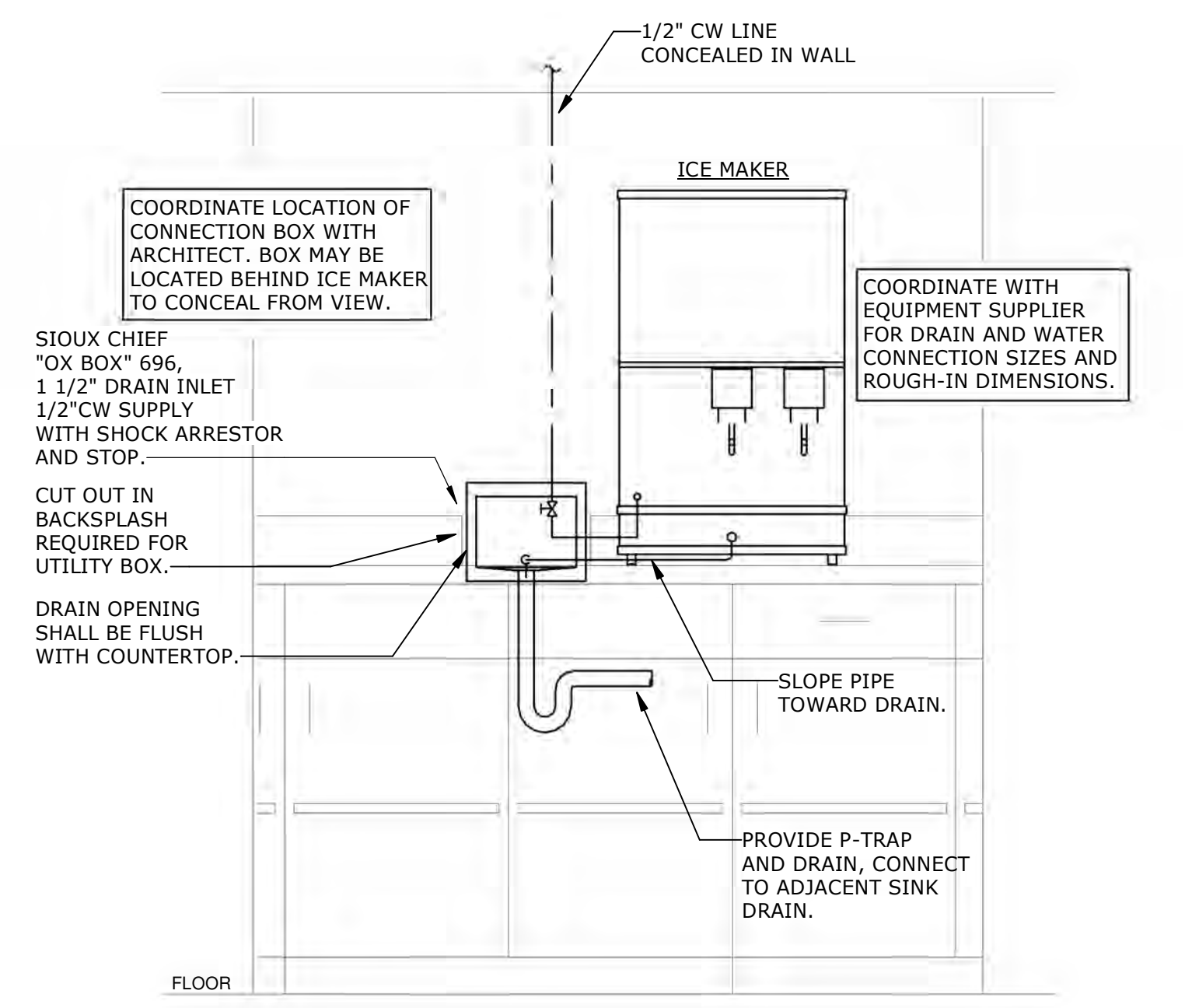


- NOTES:
- PIPE HANGER SPACING SHALL BE IN ACCORDANCE WITH 2015 INTERNATIONAL PLUMBING CODE.
 - PROVIDE UNISTRUT OR ANGLE IRON BRIDGING SPANNING MULTIPLE BAR JOISTS AS REQUIRED.
 - PRIME OR PAINT ALL HANGERS, PIPE WELDS, AND OTHER ITEMS SUBJECT TO RUSTING.

① INDIVIDUAL PIPE HANGER METAL FRAMING DETAIL
NTS



② OXYGEN SUPPLY LINE DETAIL
NTS



③ ICEMAKER CONNECTION BOX
NTS

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Revisions:	Date:

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AME PROJECT NO.: 17116

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STAMP

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title
PLUMBING - DETAILS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

Drawn
JCF

Project Number
558-17-150

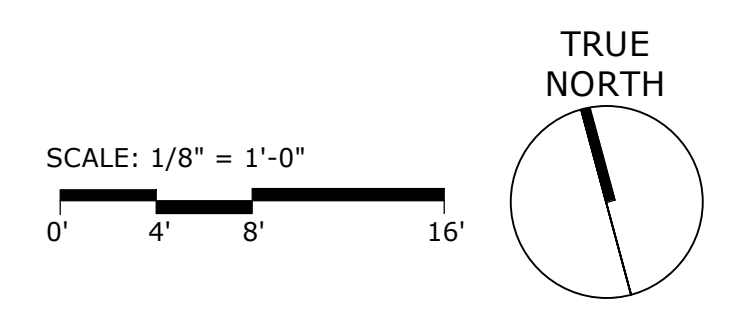
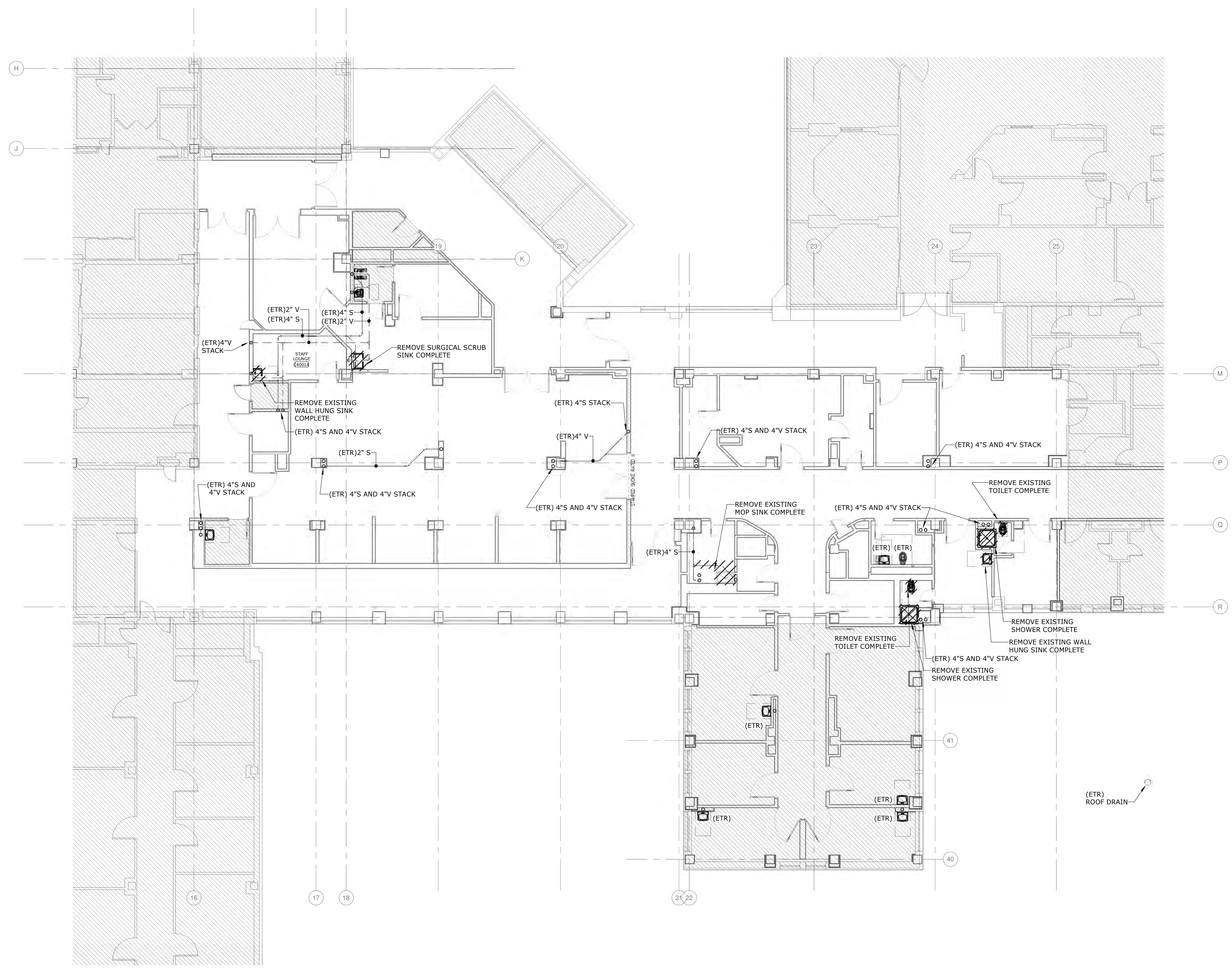
Building Number

Drawing Number
**P-701
56 of 78**

100% BID DOCUMENTS

EXISTING CONDITIONS NOTE

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1 PLUMBING - FOURTH FLOOR PLAN - WASTE AND VENT - DEMOLITION
1/8" = 1'-0"

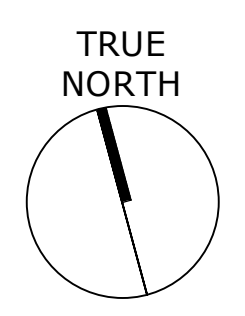
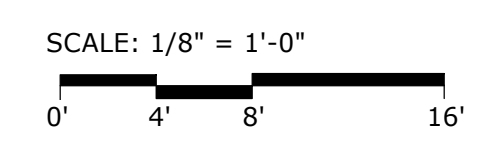
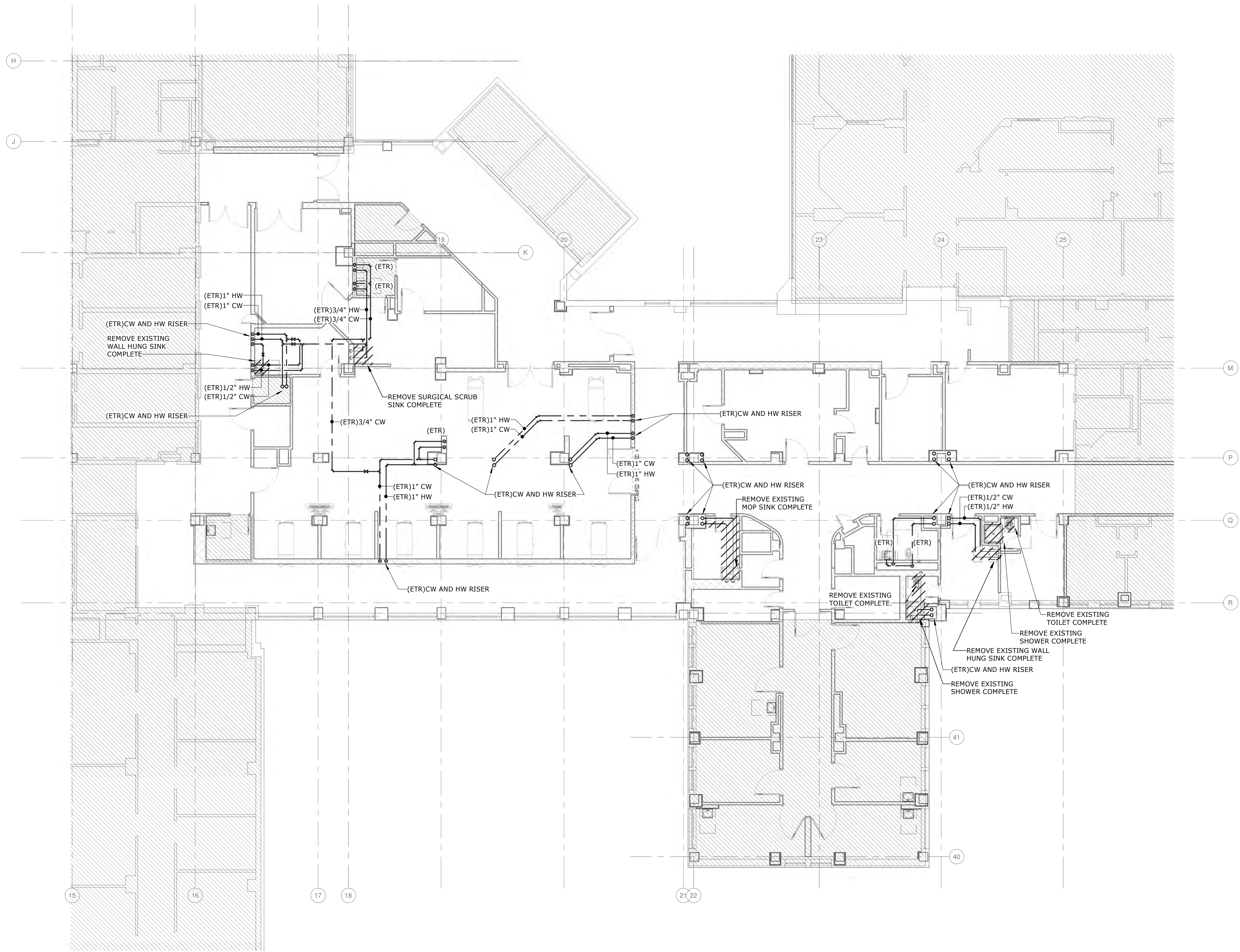
100% BID DOCUMENTS

<table border="1"> <tr> <td>Revisions:</td> <td>Date:</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Revisions:	Date:																	<p>CONSULTANT</p> <p>AME CONSULTING ENGINEERS 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116</p> <p>PERKINS EASTMAN 520 WEST SIXTH STREET CHARLOTTE, NC 28202 T: 704.960.0501 F: 704.362.4602</p> <p>LAURENE, RICKHER & SORRELL, P.C. Consulting Structural Engineers 8731 RED OAK BLVD., SUITE 300 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-252-0488 FAX: 704-522-2666 EMAIL: rick@rpsc.net WEB: www.rpsc.net</p>	<p>ARCHITECT/ENGINEER OF RECORD</p> <p>Atriax GROUP Atriax, pllc 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com</p>	<p>STAMP</p>	<p>Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs</p>	<p>Drawing Title PLUMBING - FOURTH FLOOR PLAN - WASTE AND VENT - DEMOLITION</p> <p>Approved: Andreka Watlington</p>	<p>Phase 100% BID DOCUMENTS</p> <p>FULLY SPRINKLERED</p>	<p>Project Title VA DURHAM - PACU RENOVATION</p> <p>Location DURHAM VAMC DURHAM, NC</p> <p>Issue Date 12/22/2020</p> <p>Checked FFR</p> <p>Drawn JCF</p>	<p>Project Number 558-17-150</p> <p>Building Number</p> <p>Drawing Number PD101 57 of 78</p>
	Revisions:	Date:																								

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EXISTING CONDITIONS NOTE

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1 PLUMBING - FOURTH FLOOR PLAN - WATER SUPPLY - DEMOLITION
1/8" = 1'-0"

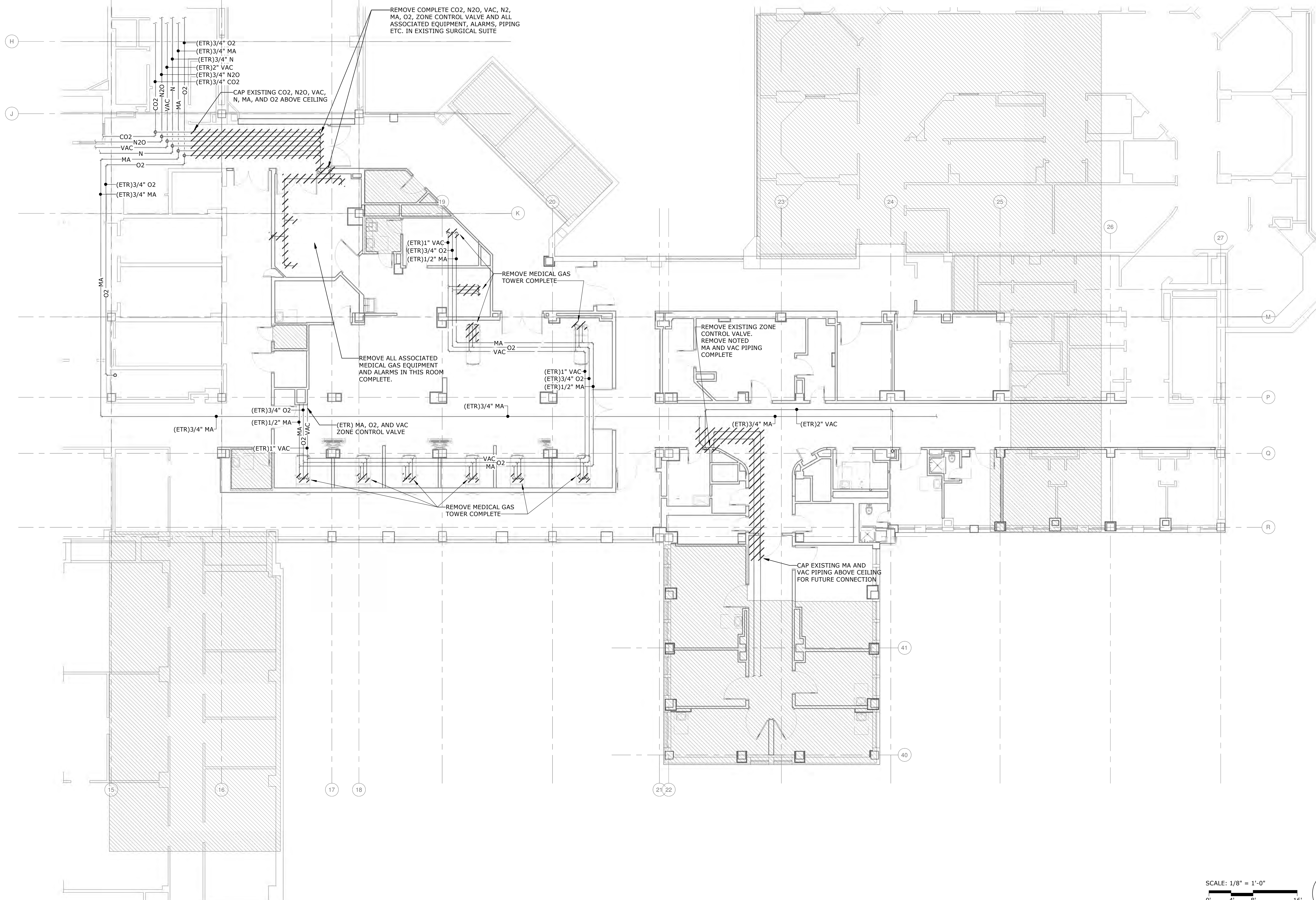
100% BID DOCUMENTS

CONSULTANT AME CONSULTING ENGINEERS 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116	PERKINS EASTMAN LAURENE, RICKHER & SORRELL, P.C. Consulting Structural Engineers 8731 RED OAK BLVD., SUITE 300 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-252-0488 FAX: 704-522-3969 EMAIL: mail@rpsc.net WEB: www.rpsc.net	ARCHITECT/ENGINEER OF RECORD Atriax GROUP Atriax, PLLC 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com	STAMP 	Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs	Drawing Title PLUMBING - FOURTH FLOOR PLAN - WATER SUPPLY - DEMOLITION	Phase 100% BID DOCUMENTS	Project Title VA DURHAM - PACU RENOVATION	Project Number 558-17-150
					Approved: Andreaka Watlington	Location DURHAM VAMC DURHAM, NC	Building Number	
Revisions:	Date:	Fully Sprinklered FULLY SPRINKLERED	Issue Date 12/22/2020	Checked FFR	Drawn JCF	Drawing Number PD102 58 of 78		

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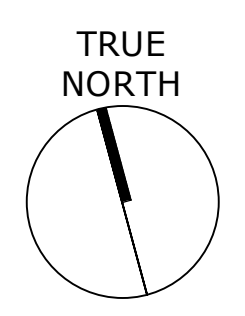
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1 PLUMBING - FOURTH FLOOR PLAN - MEDICAL GAS - DEMOLITION
1/8" = 1'-0"

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



100% BID DOCUMENTS

Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
PLUMBING - FOURTH FLOOR PLAN - MEDICAL GAS - DEMOLITION

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

Drawn
JCF

Project Number
558-17-150

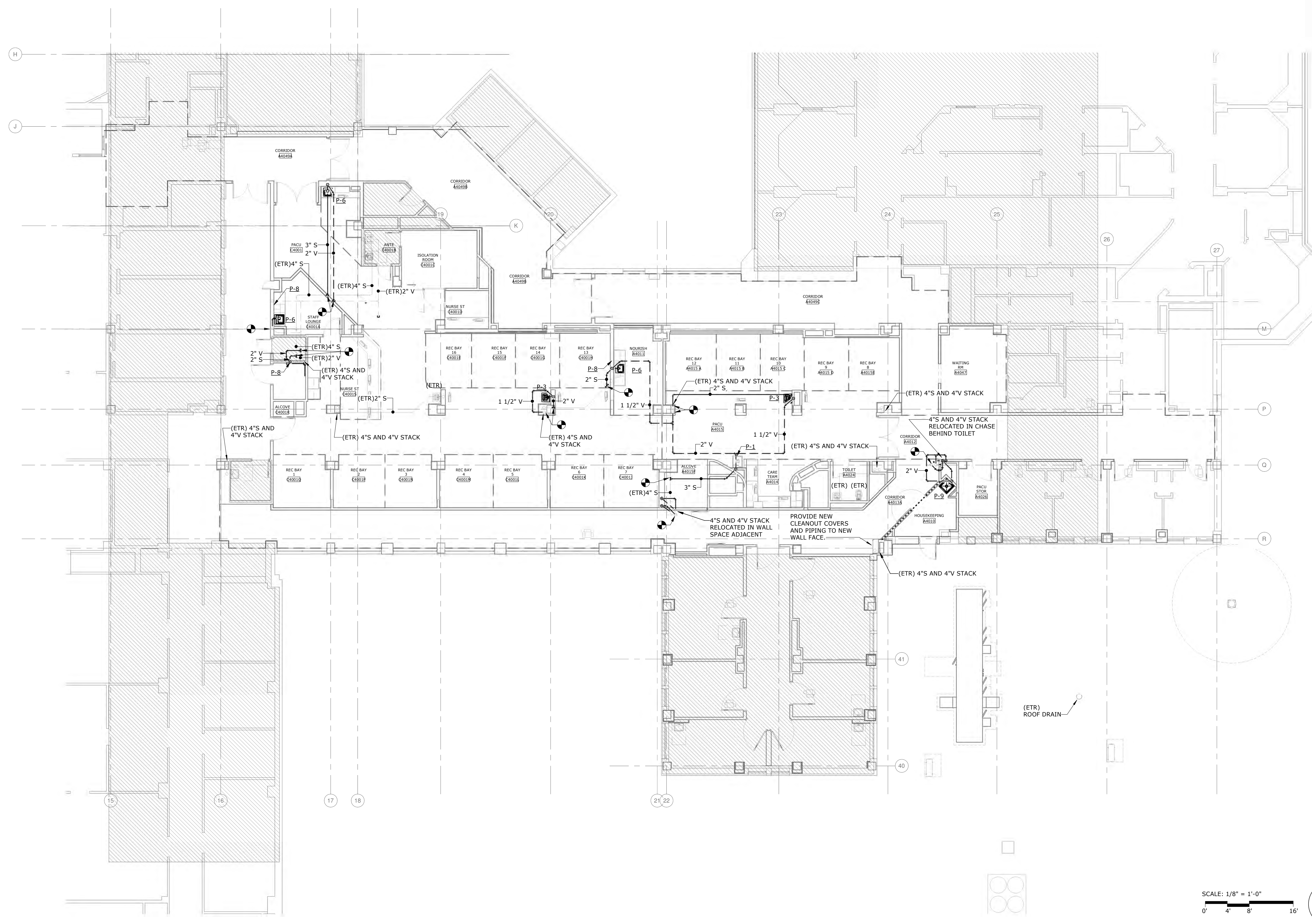
Building Number

Drawing Number
**PD103
59 of 78**

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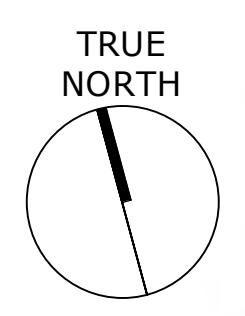
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1 PLUMBING - FOURTH FLOOR PLAN - WASTE AND VENT - NEW WORK
1/8" = 1'-0"

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



RATED WALL LEGEND	
-----	SMOKE PARTITION
-----	1 HOUR FIRE BARRIER
-----	1 HOUR FIRE SMOKE BARRIER
-----	2 HOUR FIRE BARRIER

100% BID DOCUMENTS

Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
PLUMBING - FOURTH FLOOR PLAN - WASTE & VENT - NEW WORK

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

Drawn
JCF

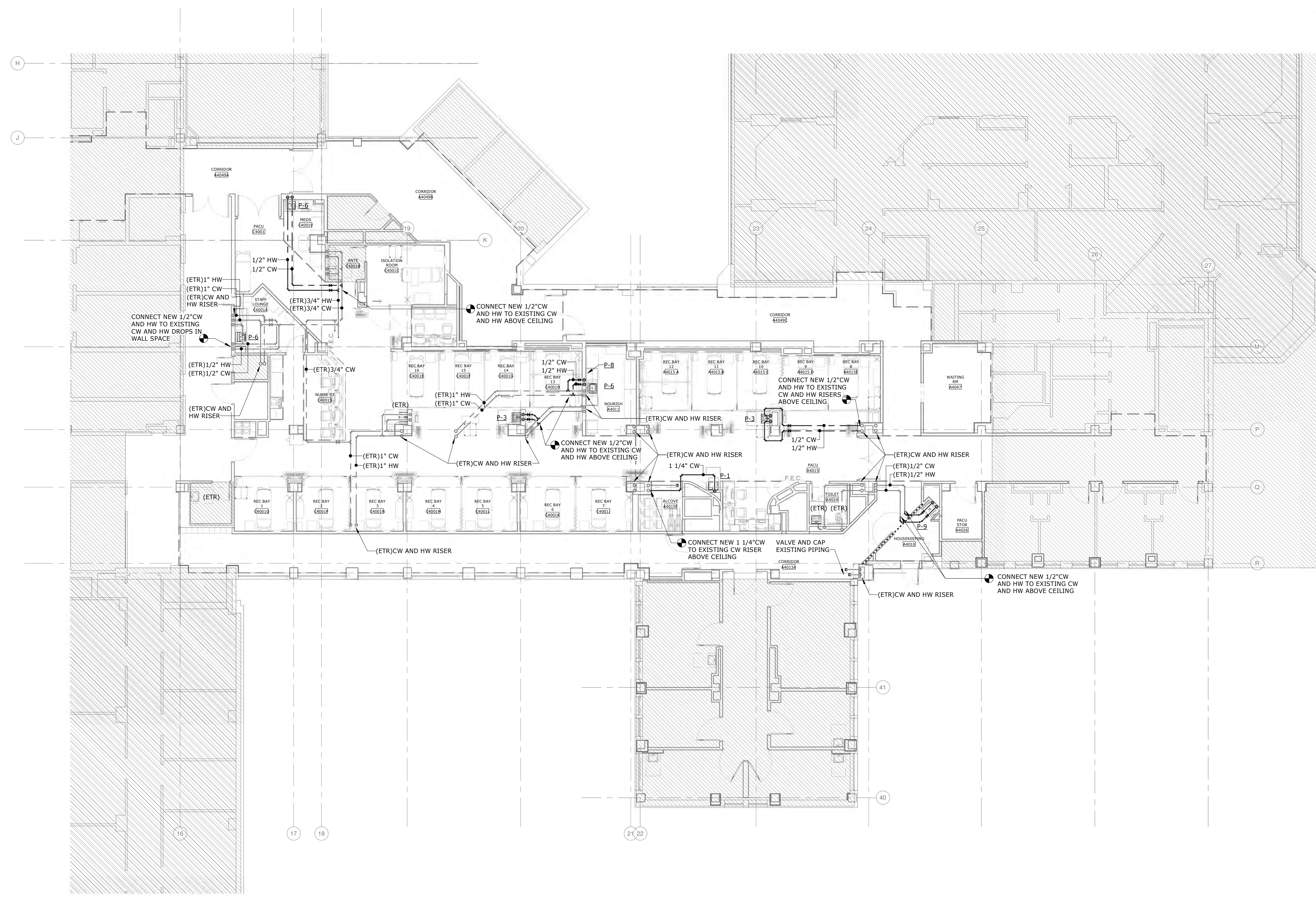
Project Number
558-17-150

Building Number

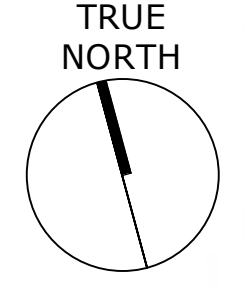
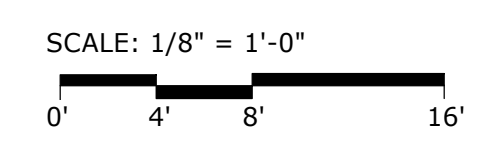
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PL201 60 of 78

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1 PLUMBING - FOURTH FLOOR PLAN - WATER SUPPLY - NEW WORK
1/8" = 1'-0"



RATED WALL LEGEND	
-----	SMOKE PARTITION
-----	1 HOUR FIRE BARRIER
-----	1 HOUR FIRE SMOKE BARRIER
-----	2 HOUR FIRE BARRIER

100% BID DOCUMENTS

Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

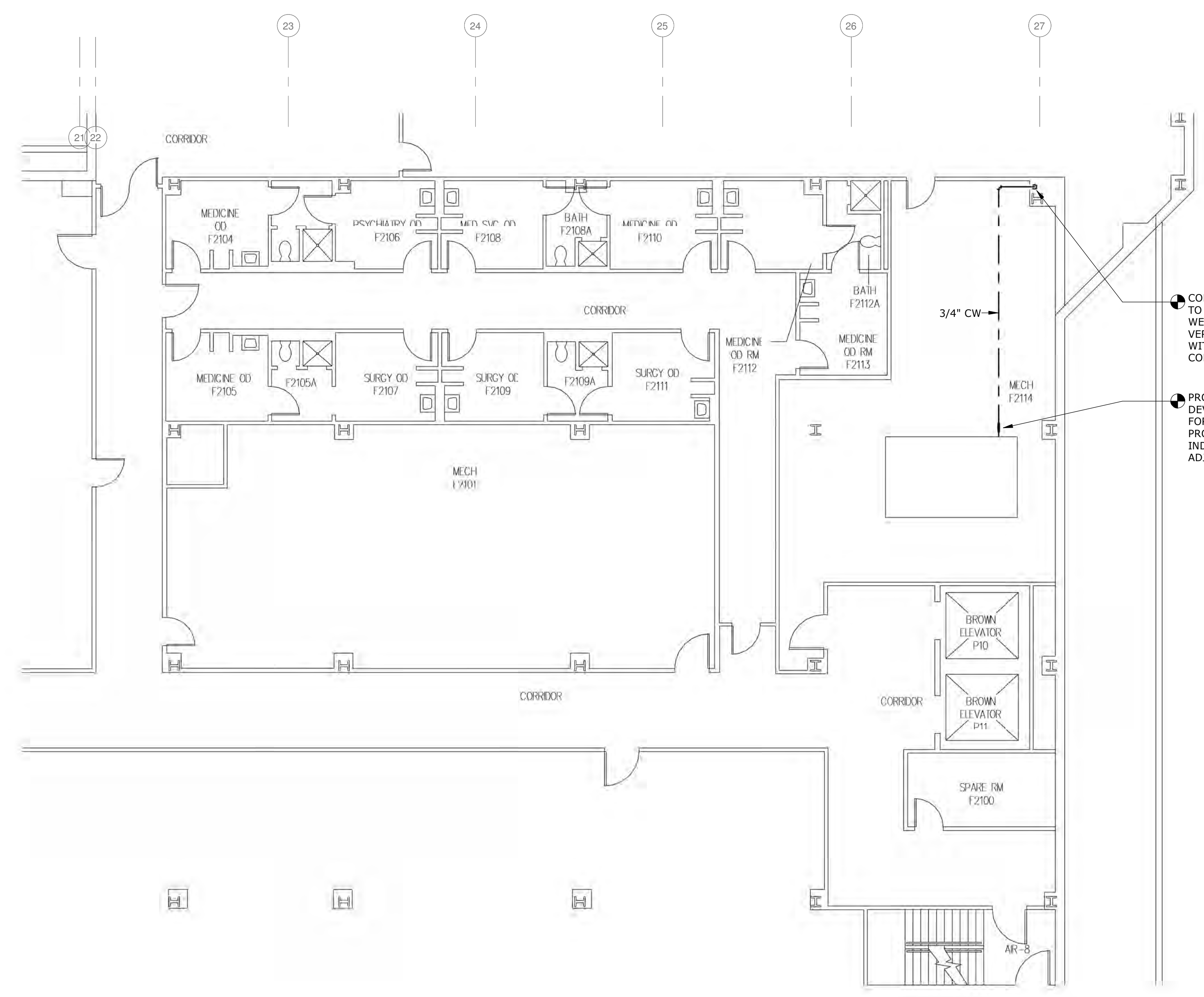
Drawing Title PLUMBING - FOURTH FLOOR PLAN - WATER SUPPLY - NEW WORK
Approved: Andreka Watlington

Phase 100% BID DOCUMENTS
FULLY SPRINKLERED

Project Title VA DURHAM - PACU RENOVATION	Project Number 558-17-150
Location DURHAM VAMC DURHAM, NC	Building Number
Issue Date 12/22/2020	Checked FFR
Drawn JCF	Drawing Number PL301 61 of 78

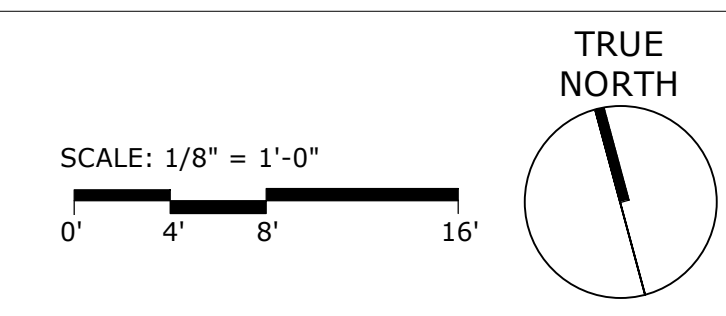
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- CONNECT NEW 3/4" CW TO EXISTING CW AT WET COLUMN. PC FIELD. VERIFY EXACT LOCATION WITH COR AND PRIOR TO COMMENCING WORK.
- PROVIDE RPZ TYPE BACKFLOW DEVICE EQUAL TO WATTS 009 FOR MECHANICAL MAKE-UP. PROVIDE FUNNEL DRAIN AND INDIRECT WASTE PIPING TO ADJACENT FLOOR DRAIN.

1 PLUMBING - SECOND FLOOR PLAN - WATER SUPPLY - NEW WORK
1/8" = 1'-0"



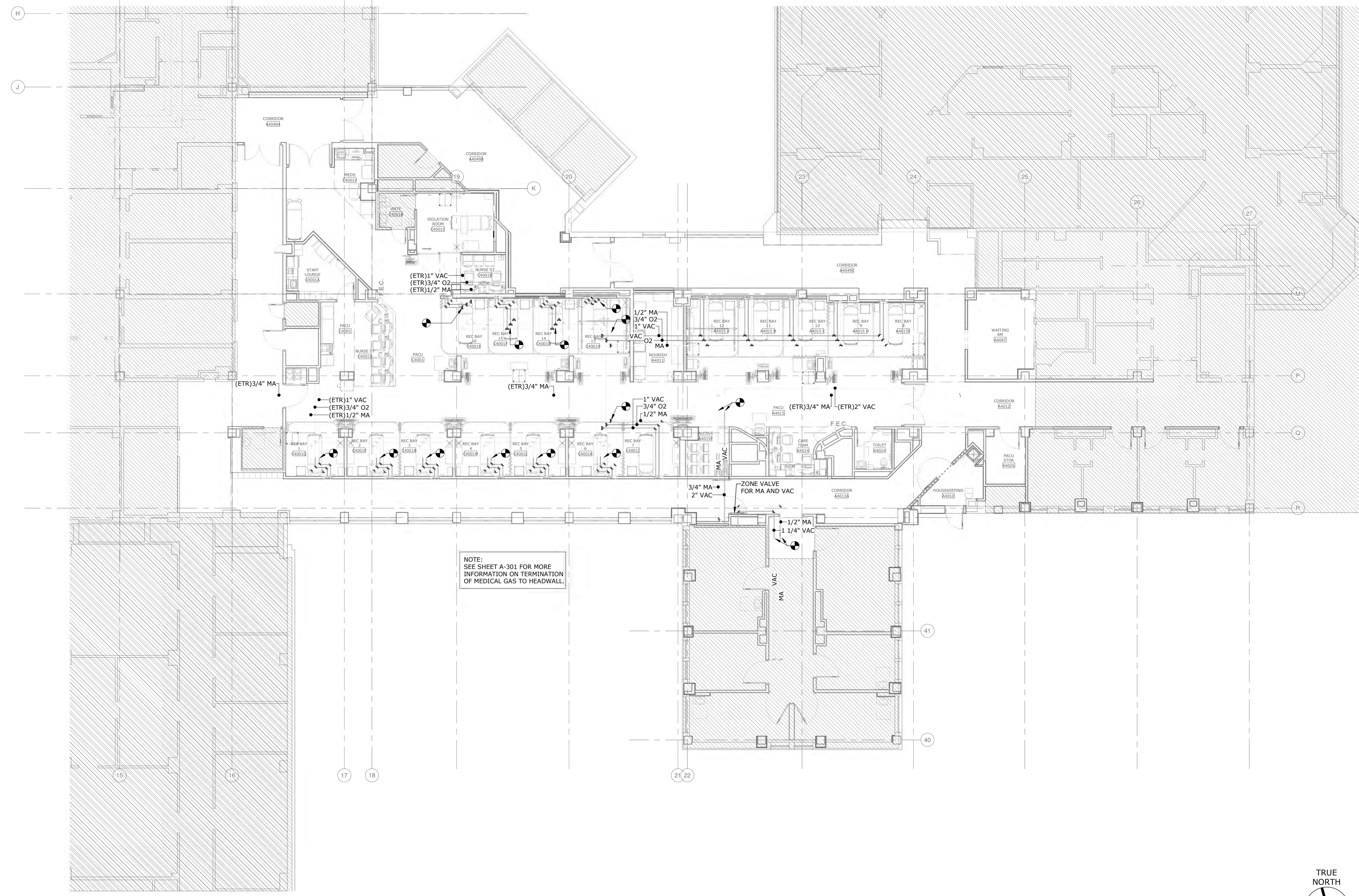
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Revisions: _____ Date: _____	CONSULTANT 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116	PERKINS EASTMAN 520 WEST SIXTH STREET CHARLOTTE, NC 28202 T: 704.960.0501 F: 704.362.4602	LAURENE, RICKHER & SORRELL, P.C. Consulting Structural Engineers 8751 RED OAK BLVD., SUITE 300 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-252-0480 FAX: 704-522-3969 EMAIL: rmal@rpsc.net WEB: www.rpsc.net	ARCHITECT/ENGINEER OF RECORD Atriax, pllc 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com	STAMP 	Office of Construction and Facilities Management 	Drawing Title PLUMBING - SECOND FLOOR PLAN - WATER SUPPLY - NEW WORK	Phase 100% BID DOCUMENTS	Project Title VA DURHAM - PACU RENOVATION	Project Number 558-17-150	
							Approved: Andreka Watlington	FULLY SPRINKLERED	Location DURHAM VAMC DURHAM, NC	Building Number _____	
								Issue Date 12/22/2020	Checked FFR	Drawn JCF	Drawing Number PL302 62 of 78

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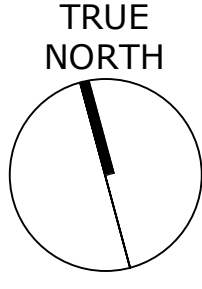
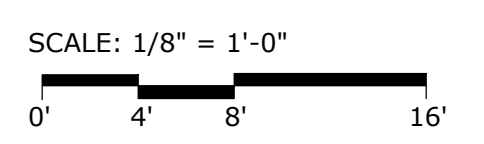
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NOTE:
SEE SHEET A-301 FOR MORE
INFORMATION ON TERMINATION
OF MEDICAL GAS TO HEADWALL.

1 PLUMBING - FOURTH FLOOR PLAN - MEDICAL GAS - NEW WORK
1/8" = 1'-0"



RATED WALL LEGEND	
	SMOKE PARTITION
	1 HOUR FIRE BARRIER
	1 HOUR FIRE SMOKE BARRIER
	2 HOUR FIRE BARRIER

100% BID DOCUMENTS

Revisions:	Date:

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Office of
Construction
and Facilities
Management

VA U.S. Department of
Veterans Affairs

Drawing Title
**PLUMBING - FOURTH FLOOR PLAN -
MEDICAL GAS - NEW WORK**

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
FFR

Drawn
JCF

Project Number
558-17-150

Building Number

Drawing Number
**PL401
63 of 78**

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SEISMIC AND WIND REQUIREMENTS FOR ELECTRICAL SYSTEMS

INFORMATION FOR NCSCB 2018/IBC-2015/ASCE 7-05

- A. ALL ROOF CURBS/ROOF RAILS INCLUDING THEIR ATTACHMENT TO THE EQUIPMENT AND STRUCTURE MUST BE EVALUATED FOR WIND LOADING... B. SEE EQUIPMENT SCHEDULES AND DETAILS FOR SPECIFIC COMPONENT IMPORTANCE FACTOR DESIGNATIONS... C. USE APPLICABLE TABLE BELOW TO DETERMINE SEISMIC RESTRAINT REQUIREMENTS FOR EACH MECHANICAL COMPONENT...

SEISMIC DESIGN CATEGORIES C

Table with 5 columns: COMPONENT IDENTIFICATION, SEISMIC RESTRAINT REQUIREMENT, ASCE 7-05 REFERENCE, SEISMIC RESTRAINT REQUIREMENT, ASCE 7-05 REFERENCE. Rows include ROOF MOUNTED, FLOOR MOUNTED, WALL MOUNTED, COMPONENT SUPPORTS, SINGLE CONDUIT, CABLE TRAY/BUS DUCT TRAPEZOID CONDUIT, COMPONENT CERTIFICATION, PENDANT, LAY-IN & CAN LIGHTS.

- GENERAL NOTES: A. ALL NON-STEEL CONDUIT (1.6" PVC) MUST BE RESTRAINED... B. RESTRAINT IS NOT REQUIRED FOR SUSPENDED 12 IN. OR LESS FROM THE STRUCTURE AND THE HANGERS ARE DETAILED TO AVOID SIGNIFICANT BENDING OF THE HANGERS AND THEIR ATTACHMENTS AND PROVISIONS ARE MADE FOR CONDUIT TO ACCOMMODATE EXPECTED DEFLECTIONS...

ELECTRICAL ENERGY CODE SUMMARY

(STATE ENERGY CODE, LATEST EDITION ADOPTED)

ELECTRICAL SYSTEM AND EQUIPMENT: METHOD OF COMPLIANCE: STATE ENERGY CODE: (X) PRESCRIPTIVE () PERFORMANCE

LUMINAIRE SCHEDULE: LAMP TYPE REQUIRED IN LUMINAIRE NUMBER OF LAMPS IN LUMINAIRE BALLAST TYPE USED IN THE LUMINAIRE NUMBER OF BALLASTS IN LUMINAIRE TOTAL WATTAGE PER LUMINAIRE

TOTAL INTERIOR WATTAGE ALLOWED VS. SPECIFIED 2400 VS 4000 EXTERIOR LIGHTING ZONE N/A TOTAL EXTERIOR WATTAGE ALLOWED VS. SPECIFIED N/A EXTERIOR LUMINAIRES >100 WATTS MUST HAVE A MINIMUM EFFICACY OF 60 LUMENS/WATT

PROJECT TOTAL SQUARE FOOTAGE: 4200 S.F.

STATE ENERGY CODE ADDITIONAL PRESCRIPTIVE COMPLIANCE SUMMARY: MUST COMPLY WITH ONE OF THE FOLLOWING SECTIONS:

- () C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE (X) C406.3 REDUCED LIGHTING POWER DENSITY () C406.4 ENHANCED DIGITAL LIGHTING CONTROLS () C406.5 ON-SITE RENEWABLE ENERGY () C406.6 DEDICATED OUTDOOR AIR SYSTEM () C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING

CALCULATION ABOVE INCLUDES REDUCED LIGHTING POWER DENSITY

COORDINATION DRAWINGS

- 1. A MEETING SHALL BE ARRANGED BY THE CONTRACTOR AND TAKE PLACE PRIOR TO STARTING THE COORDINATION DRAWINGS... 2. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES SO THAT THE FOLLOWING LISTS OF ITEMS CAN BE INDICATED ON A COMMON SET OF PLANS... 3. IT IS IMPORTANT TO NOTE THAT DUCTWORK/PIPING/CABLE TRAY, ETC. CANNOT BE FABRICATED UNTIL COORDINATION DRAWINGS HAVE BEEN COMPILED, SUBMITTED, AND APPROVED...

ABBREVIATIONS

Table with 2 columns: TYPE, DESCRIPTION. Rows include AMPERE, ALTERNATING CURRENT, AMPERE FRAME, ABOVE FINISHED CEILING, ABOVE FINISHED FLOOR, ABOVE FINISHED GRADE, AMPERE INTERRUPTING CURRENT, AMPERE, AREA OF RESCUE ASSISTANCE, AMPERE TRIP, AUTOMATIC TRANSFER SWITCH, AMERICAN WIRE GAUGE, BUILDING ENTRANCE TERMINAL, BELOW FINISHED CEILING, CONDUIT, CIRCUIT, CIRCUIT BREAKER, CEILING, CARD READER, CURRENT TRANSFORMER, ELECTRICAL CONTRACTOR, EXHAUST FAN, EXISTING TO BE DEMOLISHED, EXISTING TO REMAIN, EXISTING TO BE RELOCATED, ELECTRIC WATER COOLER, FIRE ALARM, FIRE ALARM ANNUNCIATOR PANEL, FIRE ALARM CONTROL PANEL, FLUORESCENT, FUSE/TRIP PER NAMEPLATE, FULL VOLTAGE NON-REVERSING, GROUND, GENERAL CONTRACTOR, GENERATOR, GROUND FAULT INTERRUPTER, HIGH INTENSITY DISCHARGE, HAND OFF AUTO, ISOLATED GROUND, INTERCOMMUNICATION, JUNCTION BOX, KILOVOLT AMPERES, KILOWATTS, LOW VOLTAGE, ALTERNATING CURRENT, MECHANICAL CONTRACTOR, MAIN CIRCUIT BREAKER, MOTOR CONTROL CENTER, MOTION DETECTOR, MICROPHONE, MAIN LUG ONLY, MAXIMUM OVERCURRENT PROTECTION, MAIN SWITCH BOARD, NEUTRAL, NATIONAL ELECTRICAL CODE, NOT IN CONTRACT, NOT TO SCALE, ON CENTER, OVERLOAD, POLE, PUBLIC ADDRESS, PUSHBUTTON SWITCH, PLUMBING CONTRACTOR, PANELBOARD, PHASE, RELOCATED DEVICE, REFRIGERATOR, ROOFTOP UNIT, REDUCED VOLTAGE NON-REVERSING, SLAB ON GRADE, SURGE PROTECTION DEVICE, SPEAKER, SWITCHBOARD, TIME CLOCK, TIME SWITCH, TELEPHONE TERMINAL BOARD, TYPICAL, UNLESS NOTED OTHERWISE, UNLESS OTHERWISE NOTED, VOLT(S), VARIABLE FREQUENCY DRIVE, VARIABLE SPEED DRIVE, WATTS OR WIRE, WIRE GUARD, WEATHERPROOF, TRANSFORMER, IMPEDANCE.

ABBREVIATIONS

Table with 2 columns: TYPE, DESCRIPTION. Rows include LOW VOLTAGE, ALTERNATING CURRENT, MECHANICAL CONTRACTOR, MAIN CIRCUIT BREAKER, MOTOR CONTROL CENTER, MOTION DETECTOR, MICROPHONE, MAIN LUG ONLY, MAXIMUM OVERCURRENT PROTECTION, MAIN SWITCH BOARD, NEUTRAL, NATIONAL ELECTRICAL CODE, NOT IN CONTRACT, NOT TO SCALE, ON CENTER, OVERLOAD, POLE, PUBLIC ADDRESS, PUSHBUTTON SWITCH, PLUMBING CONTRACTOR, PANELBOARD, PHASE, RELOCATED DEVICE, REFRIGERATOR, ROOFTOP UNIT, REDUCED VOLTAGE NON-REVERSING, SLAB ON GRADE, SURGE PROTECTION DEVICE, SPEAKER, SWITCHBOARD, TIME CLOCK, TIME SWITCH, TELEPHONE TERMINAL BOARD, TYPICAL, UNLESS NOTED OTHERWISE, UNLESS OTHERWISE NOTED, VOLT(S), VARIABLE FREQUENCY DRIVE, VARIABLE SPEED DRIVE, WATTS OR WIRE, WIRE GUARD, WEATHERPROOF, TRANSFORMER, IMPEDANCE.

GENERAL NOTES

- 1. ALL WORK SHALL CONFORM TO THE LATEST NATIONAL ELECTRICAL CODE, STATE CODE, & LOCAL AUTHORITY REQUIREMENTS... 2. THE CONTRACTOR SHALL VISIT THE PREMISES AND THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL DETAILS OF THE WORK AND WORKING CONDITIONS... 3. THE CONTRACTOR SHALL STUDY THE STRUCTURE AND FINISH CONDITIONS AFFECTING THEIR WORK AND SHALL COORDINATE WORK ACCORDINGLY... 4. PRIOR TO ACCOMPLISHING ANY WORK IN ANY AREA, ALL WORK SHALL BE PLANNED AND COORDINATED WITH OTHER TRADES AND THE OWNER... 5. PROPERLY SUPPORT ALL WORK AND EQUIPMENT INSTALLED UNDER THIS CONTRACT... 6. PROVIDE GREEN EQUIPMENT UNDERGROUND CONDUIT WORK WITH ALL FEEDER AND BRANCH CIRCUITS... 7. MOUNTING HEIGHTS INDICATED ARE TO THE CENTER OF THE DEVICE, OR EQUIPMENT UNLESS NOTED OTHERWISE... 8. COORDINATE ALL DEVICES AND OUTLETS ABOVE, OR BELOW WITH CASEWORK INSTALLATION AND THE ARCHITECT IN ORDER TO POSITION AT THE PROPER LOCATION AND HEIGHT... 9. THE CONTRACTOR SHALL USE THE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS... 10. COORDINATE MOUNTING HEIGHT AND LOCATION OF ALL WALL MOUNTED EQUIPMENT WITH ARCHITECTURAL ELEVATIONS... 11. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC... 12. RECEPTACLES LOCATED WITHIN 6'-0" OF A WATER SOURCE SHALL BE GFI TYPE.

EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.

SYMBOL LEGEND (NOTE: NOT ALL SYMBOLS ARE NECESSARILY USED ON PLANS)

Table with 4 columns: TYPE, DESCRIPTION, TYPE, DESCRIPTION. Rows include LIGHTING FIXTURE, FIRE ALARM CONTROL PANEL, FIRE ALARM NOTIFICATION APPLIANCE POWER EXTENDER PANEL, FIRE ALARM MANUAL PULL STATION, FIRE ALARM AUDIO/VISUAL (CHIME/STROBE) APPLIANCE, FIRE ALARM VISUAL (STROBE) APPLIANCE, FIRE ALARM SYSTEM CEILING MOUNTED SMOKE DETECTOR, FIRE ALARM SYSTEM ADDRESSABLE SHUTDOWN CONTROL RELAY, FIRE ALARM SYSTEM DOOR HOLD OPEN DEVICE, FIRE ALARM SYSTEM DUCT SMOKE DETECTOR ASSEMBLY, TELECOMMUNICATIONS BONDING CONDUCTOR, SWITCH, BRANCH CIRCUIT OR FEEDER WIRING RUN IN CONDUIT, TELECOMMUNICATIONS STYLE COPPER GROUND BAR, JUNCTION BOX, LIGHTING CONTROL SYSTEM, LIGHTING CONTROL SYSTEM, PAD MOUNTED TRANSFORMER, TELEPHONE OR DATA OUTLET, TELEVISION SYSTEM CATV OUTLET, PROVISIONS FOR PUSH PLATE, DOOR RELEASE ROUGH-IN, PANIC BUTTON ROUGH-IN MOUNTED UNDERCOUNTER, ELECTRIC STRIKE, SPEAKER, NURSE CALL DEVICE.

Table with 2 columns: Revisions, Date. Includes revision history for the drawing.

CONSULTANT: AVE CONSULTING ENGINEERS, PERKINS EASTMAN, LAURENE, RICKHER & SORRELL, P.C.

ARCHITECT/ENGINEER OF RECORD: Atriax, pllc, 102 3rd Avenue, NE, PO Box 1628, Hickory, NC 28603

Office of Construction and Facilities Management, U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - GENERAL NOTES AND LEGENDS, Approved: Andreka Watlington

Phase: 100% BID DOCUMENTS, FULLY SPRINKLERED

Project Title: VA DURHAM - PACU RENOVATION, Project Number: 558-17-150, Building Number, Drawing Number: E-001 64 of 78

A

B

C

D

E

F

System No. W-L-1062

F Ratings - 1 and 2 Hr
T Rating - 0 Hr
L Rating At Ambient - Less Than 1 CFM/sq ft
L Rating At 400 F - Less Than 1 CFM/sq ft

Section A-A

- Wall Assembly - The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - Studs - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.
 - Gypsum Board* - Thickness, type, number of layers and fasteners as required in the individual Wall and Partition Design. Max diam of opening in wood stud walls is 8 in. (203 mm). Max diam of opening in steel stud walls is 14 in. (356 mm). The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
- Through Penetrants - One metallic pipe, conduit or tubing to be installed within the firestop system. The space between pipe, conduit or tubing and periphery of opening shall be a min 0 in. (point contact) to a max 2 in. (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - Steel Pipe - Nom 12 in. (305 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
 - Iron Pipe - Nom 12 in. (305 mm) diam (or smaller) cast or ductile iron pipe.
 - Conduit - Nom 4 in. (102 mm) diam (or smaller) electrical metallic tubing, nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 1 in. (25 mm) diam (or smaller) flexible steel conduit.
 - Copper Tubing - Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - Copper Pipe - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
- Fill, Void or Cavity Material* - Caulk - Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. Min 3/8 in. (10 mm) diam bead of fill material applied at point contact location at the penetrant/gypsum board interface on both sides of wall. MOMENTIVE PERFORMANCE MATERIALS - Pensil 100 Caulk. SPECIFIED TECHNOLOGIES INC - Pensil 100 Sealant, Pensil 300 Sealant or SpecSeal Series SIL300 Sealant. *Bearing the UL Classification Mark

Specified Technologies Inc., 210 Evans Way Somerville, NJ 08876
Reproduced courtesy of Underwriters Laboratories, Inc.
Created or Revised: November 26, 2008
W-L-1062
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SYSTEM NO. C-AJ-1001

MARCH 05, 2007
F RATING - 3 HR
T RATING - 0 HR
W RATING - CLASS 1 (SEE ITEM 4)

SECTION A-A

- FLOOR OR WALL ASSEMBLY - MIN 4-1/2 IN. THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF CIRCULAR THROUGH OPENING IS 32-1/2 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- STEEL SLEEVE - (OPTIONAL, NOT SHOWN) - NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE SLEEVE CAST INTO CONCRETE FLOOR OR WALL. SLEEVE TO BE FLUSH WITH OR PROJECT MAX 2 IN. FROM TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL. AS AN ALTERNATE, NOM 12 IN. DIAM (OR SMALLER) SLEEVE FABRICATED FROM NOM 0.019 IN. THICK GALV STEEL CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY FLUSH WITH FLOOR OR WALL SURFACES.
- THROUGH - PENETRANT - ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN. (POINT CONTACT) TO MAX 1-3/8 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

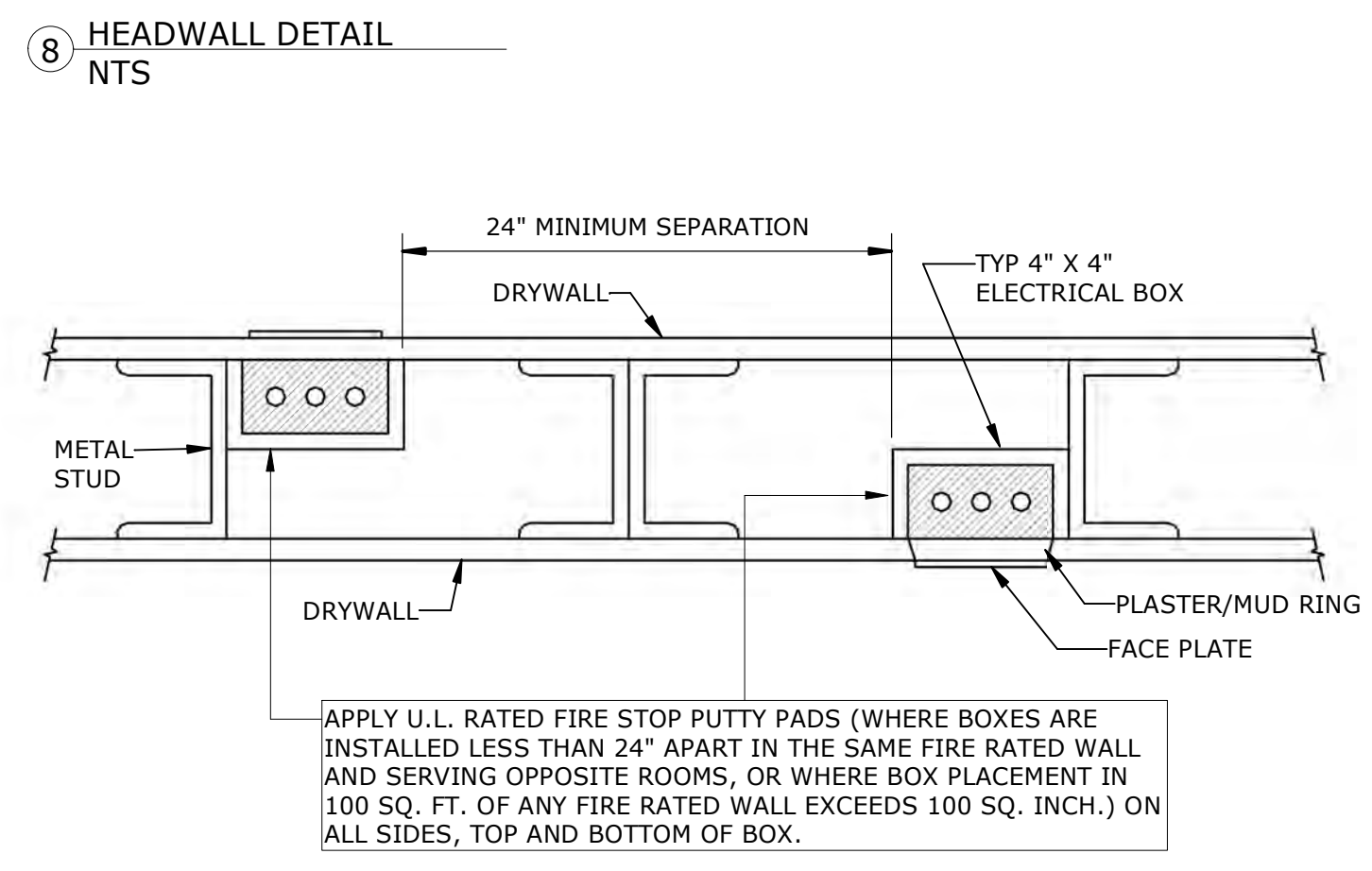
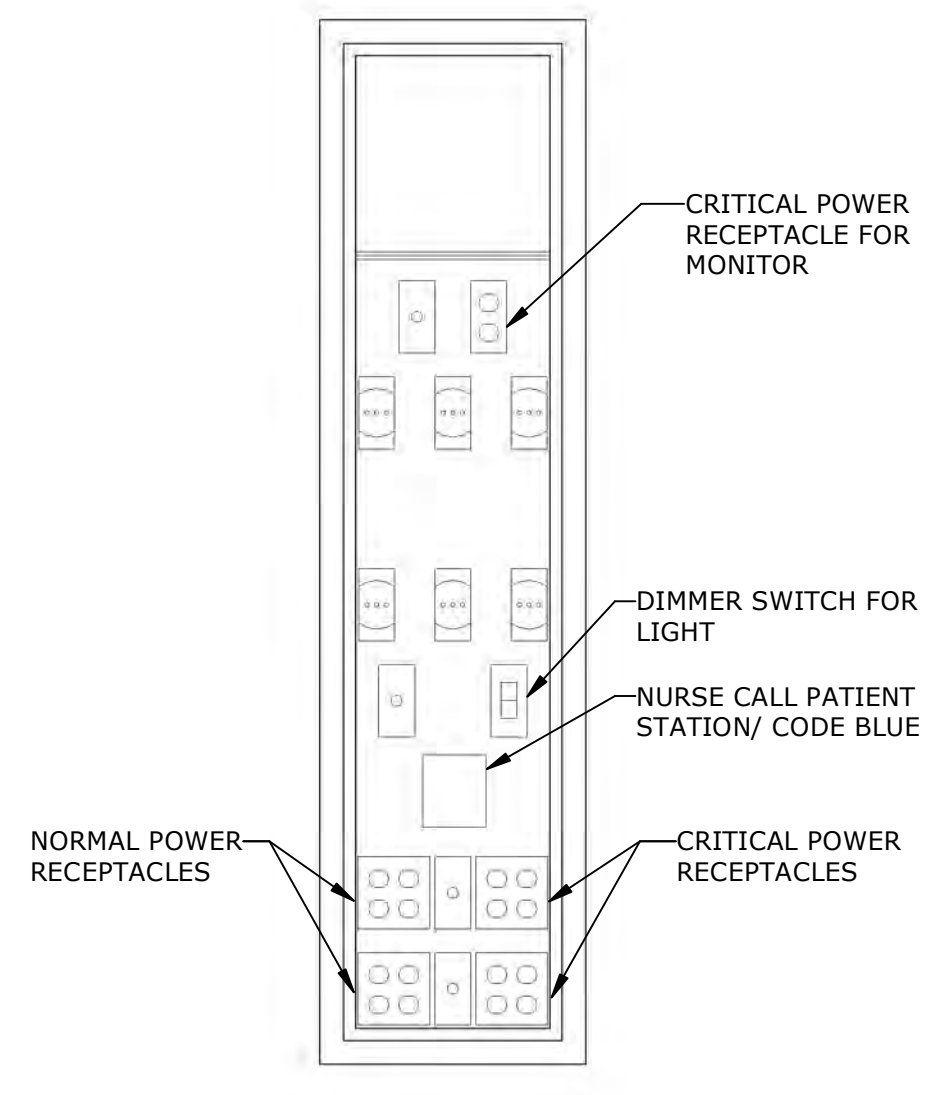
MAX PIPE DIAM IN.	MAX ANNULAR SPACE IN.	PACKING MATERIAL TYPE (A)	MIN. CAULK THKNS IN.
10	1	BR, CF, GF OR MW	1/2 (B)
10	1	CF OR MW	1/2 (C)
30	2-1/2	BR, CF, GF OR MW	1 (B)

 (A) BR= POLYETHYLENE BACKER ROD.
CF= CERAMIC FIBER BLANKET.
GF= GLASS FIBER INSULATION.
MW= MINERAL-WOOL BATT.
(B) CAULK INSTALLED FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL
(C) CAULK INSTALLED FLUSH WITH BOTTOM SURFACE OF FLOOR OR ONE SURFACE OF SOLID (NON-CONCRETE BLOCK) WALL
3M COMPANY - TYPE CP 25WB+ OR FB-3000 WT
(NOTE - W RATING APPLIES ONLY WHEN FB-3000 WT IS USED.)
*BEARING THE UL CLASSIFICATION MARKING.
- FILL, VOID OR CAVITY MATERIALS* - CAULK - APPLIED TO FILL THE ANNULAR SPACE TO THE MIN THICKNESS SHOWN IN THE FOLLOWING TABLE:

MAX PIPE DIAM IN.	MAX ANNULAR SPACE IN.	PACKING MATERIAL TYPE (A)	MIN. CAULK THKNS IN.
10	1	BR, CF, GF OR MW	1/2 (B)
10	1	CF OR MW	1/2 (C)
30	2-1/2	BR, CF, GF OR MW	1 (B)

 (A) BR= POLYETHYLENE BACKER ROD.
CF= CERAMIC FIBER BLANKET.
GF= GLASS FIBER INSULATION.
MW= MINERAL-WOOL BATT.
(B) CAULK INSTALLED FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL
(C) CAULK INSTALLED FLUSH WITH BOTTOM SURFACE OF FLOOR OR ONE SURFACE OF SOLID (NON-CONCRETE BLOCK) WALL
3M COMPANY - TYPE CP 25WB+ OR FB-3000 WT
(NOTE - W RATING APPLIES ONLY WHEN FB-3000 WT IS USED.)
*BEARING THE UL CLASSIFICATION MARKING.

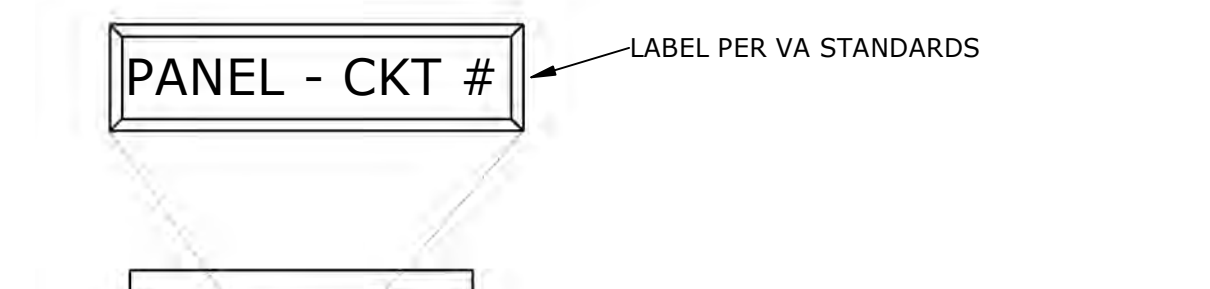
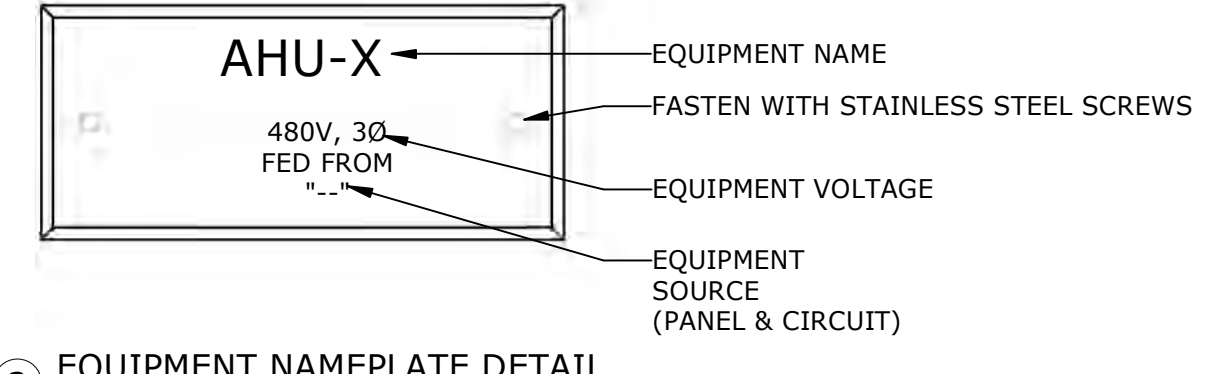
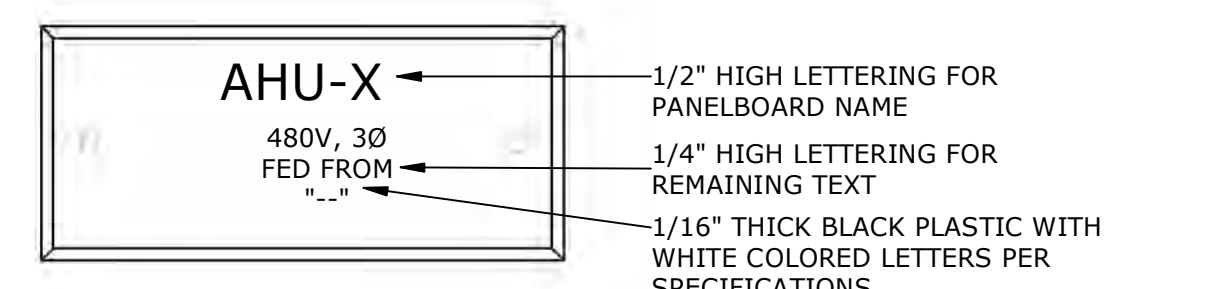
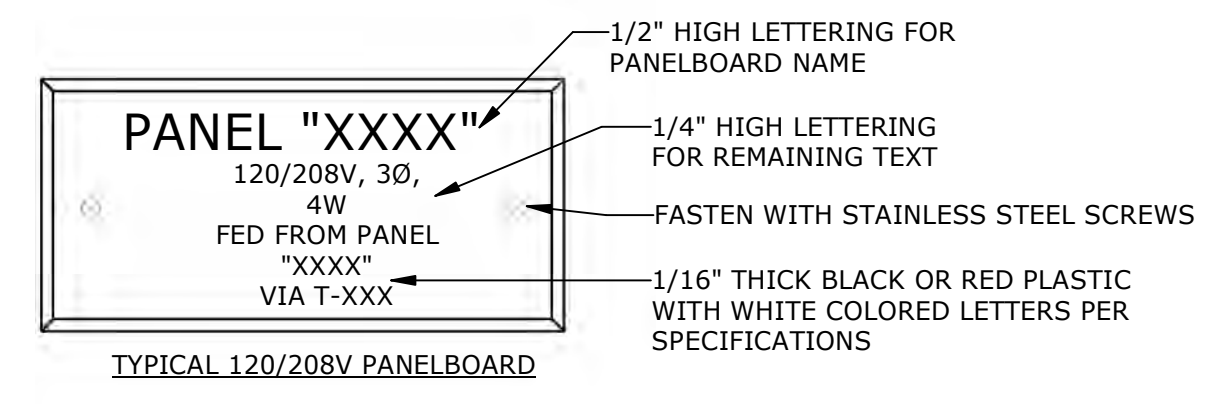
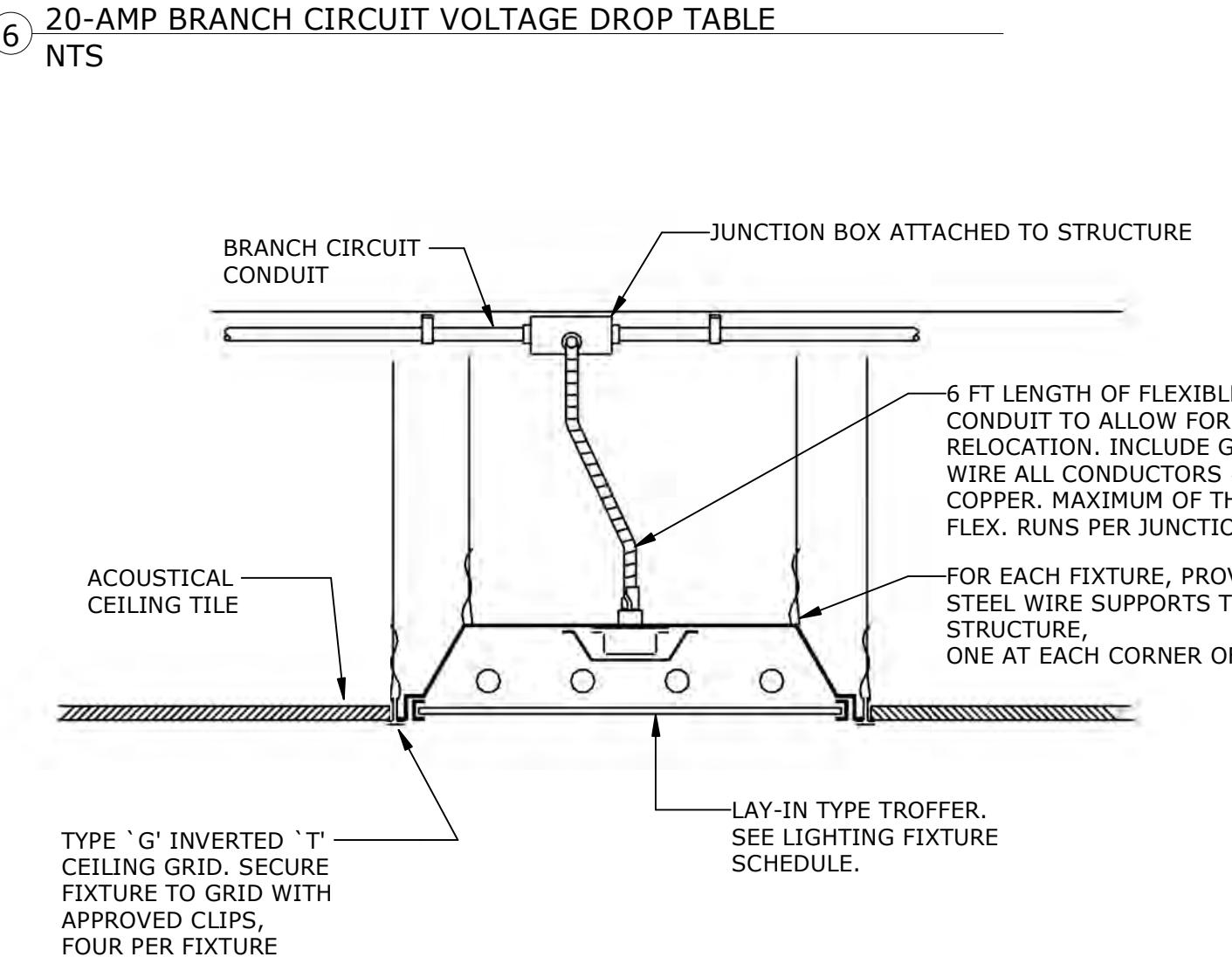
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20-AMP BRANCH CIRCUIT VOLTAGE DROP TABLE

CIRCUIT LENGTH	MIN. WIRE SIZE @ 120V	CIRCUIT LENGTH	MIN. WIRE SIZE @ 277V
0'-55'	#12	0'-130'	#12
56'-90'	#10	131'-215'	#10
91'-140'	#8	216'-325'	#8
141'-225'	#6	326'-525'	#6

NOTE: INCREASE GROUNDING CONDUCTOR SIZE IN ACCORDANCE WITH NEC 250.122(B).



100% BID DOCUMENTS

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL - DETAILS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
SBT

Drawn
GMT

Project Number
558-17-150

Building Number

Drawing Number
**E-501
65 of 78**

A

B

C

D

E

F

12/17/2020 8:44:17 AM C:\Users\mhall\Documents\VA Durham - MEPPF_R19_ameppf\meppf.r19_ameppf.rvt

LOAD SUMMARY

PANEL DESIGNATION:	DB
PANEL VOLTAGE:	208/120
PANEL PHASE/WIRE:	3/4
PANEL RATING: (AMPS)	800
PANEL OCPD: (AMPS)	-
EXIST LOAD: (KVA)	145.0
REMOVED LOAD: (KVA)	10.1
ADDED LOAD: (KVA)	19.4
TOTAL LOAD: (KVA)	154.3
TOTAL LOAD: (AMPS)	428.6

EXISTING LOADS BASED ON EXISTING CONNECTED LOADS AND ASSOCIATED NEC DEMAND FACTORS AS SHOWN IN ARTICLE 220.

LOAD SUMMARY

PANEL DESIGNATION:	EE
PANEL VOLTAGE:	208/120
PANEL PHASE/WIRE:	3/4
PANEL RATING: (AMPS)	800
PANEL OCPD: (AMPS)	800
EXIST LOAD: (KVA)	174.0
REMOVED LOAD: (KVA)	2.0
ADDED LOAD: (KVA)	3.0
TOTAL LOAD: (KVA)	175.0
TOTAL LOAD: (AMPS)	486.1

EXISTING LOADS BASED ON EXISTING CONNECTED LOADS AND ASSOCIATED NEC DEMAND FACTORS AS SHOWN IN ARTICLE 220.

LOAD SUMMARY

PANEL DESIGNATION:	EED
PANEL VOLTAGE:	208/120
PANEL PHASE/WIRE:	3/4
PANEL RATING: (AMPS)	1200
PANEL OCPD: (AMPS)	1200
EXIST LOAD: (KVA)	164.0
REMOVED LOAD: (KVA)	24.5
ADDED LOAD: (KVA)	40.0
TOTAL LOAD: (KVA)	179.5
TOTAL LOAD: (AMPS)	498.6

EXISTING LOADS BASED ON EXISTING CONNECTED LOADS AND ASSOCIATED NEC DEMAND FACTORS AS SHOWN IN ARTICLE 220.

LOAD SUMMARY

SWITCHBOARD DESIGNATION:	GEN
SWITCHBOARD VOLTAGE:	208/120
SWITCHBOARD PHASE/WIRE:	3/4
SWITCHBOARD RATING: (AMPS)	5000
SWITCHBOARD OCPD: (AMPS)	5000
EXIST LOAD: (KVA)	1422.8
REMOVED LOAD: (KVA)	26.5
ADDED LOAD: (KVA)	43.0
TOTAL LOAD: (KVA)	1439.3
TOTAL LOAD: (AMPS)	3998.1

EXISTING LOADS BASED ON EXISTING CONNECTED LOADS AND ASSOCIATED NEC DEMAND FACTORS AS SHOWN IN ARTICLE 220.

LOAD SUMMARY

SWITCHBOARD DESIGNATION:	SB1
SWITCHBOARD VOLTAGE:	208/120
SWITCHBOARD PHASE/WIRE:	3/4
SWITCHBOARD RATING: (AMPS)	4000
SWITCHBOARD OCPD: (AMPS)	4000
EXIST LOAD: (KVA)	716.4
REMOVED LOAD: (KVA)	36.6
ADDED LOAD: (KVA)	62.4
TOTAL LOAD: (KVA)	742.2
TOTAL LOAD: (AMPS)	2061.6

EXISTING LOADS BASED ON EXISTING CONNECTED LOADS AND ASSOCIATED NEC DEMAND FACTORS AS SHOWN IN ARTICLE 220.

EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR. ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.

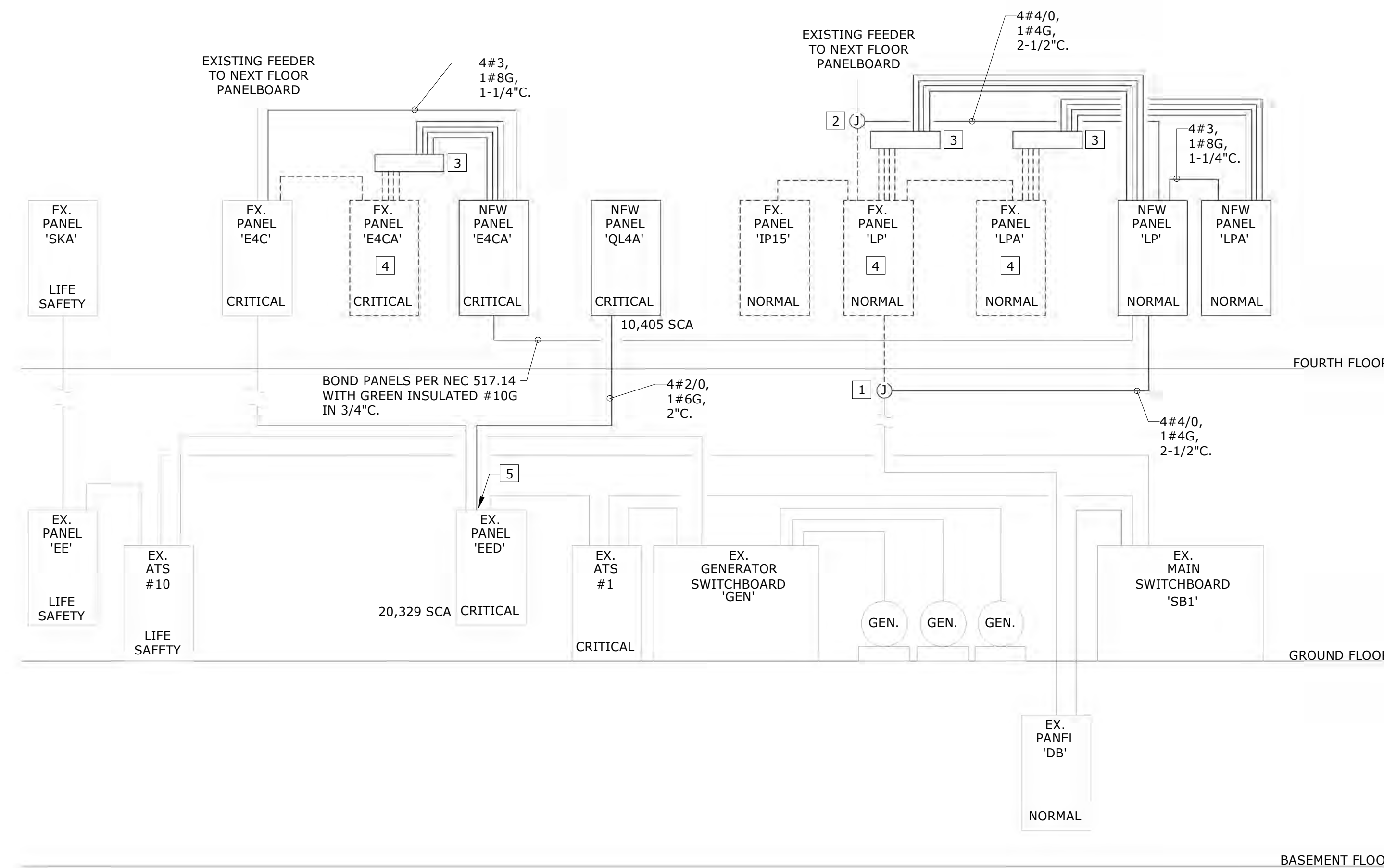
KEYED NOTES

- INTERCEPT EXISTING FEEDER ABOVE THIRD FLOOR CEILING AND PROVIDE NEW FEEDER FOR NEW PANEL 'LP'. SIZE JUNCTION BOX PER NEC AND PROVIDE ALL REQUIRED TERMINATIONS. IT'S THE CONTRACTORS RESPONSIBILITY TO VISIT THE SITE AND FIELD VERIFY EXACT LOCATION WITH OWNER AND EXISTING CONDITIONS TO AVOID EXISTING DUCTWORK, PIPING, ETC. PRIOR TO WORK.
- INTERCEPT EXISTING FEEDER ABOVE FOURTH FLOOR CEILING AND PROVIDE NEW FEEDER FROM PANEL 'LP' TO SERVE EXISTING PANEL ON FLOOR ABOVE. SIZE JUNCTION BOX PER NEC AND PROVIDE ALL REQUIRED TERMINATIONS. IT'S THE CONTRACTORS RESPONSIBILITY TO VISIT THE SITE AND FIELD VERIFY EXACT LOCATION WITH OWNER AND EXISTING CONDITIONS TO AVOID EXISTING DUCTWORK, PIPING, ETC. PRIOR TO WORK.
- PROVIDE NEW WIREWAY(S) TO RE-SERVE EXISTING BRANCH CIRCUITS FROM OLD PANEL LOCATION TO NEW PANEL LOCATION. SIZE WIREWAY(S) PER NEC AND PROVIDE ALL REQUIRED TERMINATIONS. IT'S THE CONTRACTORS RESPONSIBILITY TO VISIT THE SITE AND FIELD VERIFY EXACT LOCATION WITH OWNER AND EXISTING CONDITIONS TO AVOID EXISTING DUCTWORK, PIPING, ETC. PRIOR TO WORK.
- THE CONTRACTOR SHALL TRACE OUT ALL CIRCUITS FOR EXISTING PANELS BEING RELOCATED. ANY CIRCUITS THAT REMAIN SHALL BE REFEED FROM NEW PANELS.
- PROVIDE NEW 150A 3P BREAKER IN EXISTING SPACE. MATCH TYPE AND RATINGS OF PANEL.

SEQUENCE NOTES

- PANEL 'LP' AND 'LPA':
- INSTALL NEW PANEL 'LP' AND 'LPA'.
 - INSTALL NEW JUNCTION BOXES PER KEYED NOTES 1 & 2. MAKE CONNECTIONS.
 - INSTALL NEW WIREWAYS PER KEYED NOTE 3. EXTEND EXISTING BRANCH CIRCUITS THAT ARE TO REMAIN OVER TO NEW PANELS. MOVE CIRCUITS OVER ONE CIRCUIT AT A TIME.
 - ONCE ALL BRANCH CIRCUITS HAVE BEEN MOVED OVER TO NEW PANELS, REMOVE EXISTING PANELS AND ASSOCIATED CONDUITS AND WIRES IN IT'S ENTIRETY. TURN OVER PANELS TO VA.
- PANEL 'E4CA':
- INSTALL NEW PANEL 'E4CA'.
 - SERVE NEW PANEL FROM EXISTING SPARE 100A 3P CIRCUIT BREAKER IN PANEL 'E4C'.
 - INSTALL NEW WIREWAY PER KEYED NOTE 3. EXTEND EXISTING BRANCH CIRCUITS THAT ARE TO REMAIN OVER TO NEW PANEL. MOVE CIRCUITS OVER ONE CIRCUIT AT A TIME.
 - ONCE ALL BRANCH CIRCUITS HAVE BEEN MOVED OVER TO NEW PANEL, REMOVE EXISTING PANEL AND ASSOCIATED CONDUITS AND WIRES IN IT'S ENTIRETY. TURN OVER PANELS TO VA.

ALL SHUT DOWNS SHALL BE COORDINATED WITH THE COR AND THE CONTRACTOR SHALL GIVE A 3 WEEK NOTICE IN WRITING. ALL WORK DURING THE SHUT DOWNS SHALL OCCUR AFTER HOURS.



1 ELECTRICAL - RISER DIAGRAM NTS

100% BID DOCUMENTS

<p>CONSULTANT</p> <p>AME CONSULTING ENGINEERS 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116</p> <p>PERKINS EASTMAN 520 WEST SIXTH STREET CHARLOTTE, NC 28202 T: 704.960.0501 F: 704.362.4602</p> <p>LAURENE, RICKHER & SORRELL, P.C. Consulting Structural Engineers 8731 RED OAK BLVD. SUITE 300 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-252-0480 FAX: 704-522-3969 EMAIL: rick@rsnc.net WEB: www.rsnc.net</p>		<p>ARCHITECT/ENGINEER OF RECORD</p> <p>Atriax GROUP Atriax, pllc 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com</p>		<p>Office of Construction and Facilities Management</p> <p>U.S. Department of Veterans Affairs</p>		<p>Drawing Title ELECTRICAL - RISER DIAGRAM</p> <p>Phase 100% BID DOCUMENTS</p> <p>Project Title VA DURHAM - PACU RENOVATION</p> <p>Project Number 558-17-150</p>		<p>Location DURHAM VAMC DURHAM, NC</p> <p>Issue Date 12/22/2020</p> <p>Checked SBT</p> <p>Drawn GMT</p> <p>Drawing Number E-601 66 of 78</p>	
<p>Revisions: _____ Date: _____</p>		<p>STAMP</p>		<p>Approved: Andreka Watlington</p>		<p>FULLY SPRINKLERED</p>			

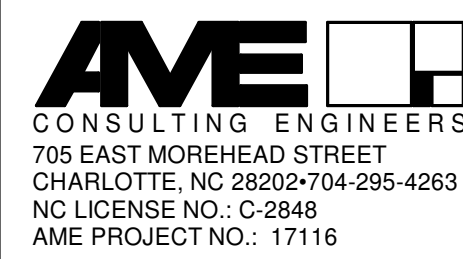




ELECTRICAL - EQUIPMENT CONNECTION SCHEDULE																		
CONNECTION DESIGNATION	EQUIP DESCRIPTION	LOAD INFORMATION								MOTOR CONTROLLER INFORMATION						PANEL NAME	CIRCUIT #	NOTE #:
		VOLTS	PHASE	HP	KVA	FLA	MCA	MOC	EMER. POWER REQ'D	FURNISHED BY	INSTALLED BY	TYPE	AMP RATING	TRIP/FUSE SIZE	DISCONNECT POLES			
AHU-70 (CONTROLS)	AIR HANDLING UNIT	120 V	1	-	0.2 KVA	2 A	2.5	20	YES	E.C.	E.C.	DISCONNECT SWITCH	30	-	1	3R	QL4A 13	1,5
AHU-70 (LIGHTS)	AIR HANDLING UNIT	120 V	1	-	0.2 KVA	2 A	2.5	20	YES	E.C.	E.C.	DISCONNECT SWITCH	30	-	1	3R	QL4A 12	1,8
AHU-70 (RETURN)	AIR HANDLING UNIT	208 V	3	3	3.2 KVA	9 A	10.6	20	YES	EQUIP. MANUF.	EQUIP. MANUF.	-	-	-	-	-	QL4A 2,4,6	1,3
AHU-70 (SUPPLY)	AIR HANDLING UNIT	208 V	3	5	5 KVA	14 A	17.1	35	YES	EQUIP. MANUF.	EQUIP. MANUF.	-	-	-	-	-	QL4A 1,3,5	1,3
DCU-1/DSS-1	DUCTLESS SPLIT SYSTEM	208 V	1	-	1.8 KVA	9 A	11	15	YES	E.C.	E.C.	FUSED DISCONNECT	30	FPN	2	3R/1	QL4A 8,10	1,4,6,7
EF-70 (CONTROLS)	EXHAUST FAN	120 V	1	-	0.2 KVA	2 A	2.5	20	YES	E.C.	E.C.	DISCONNECT SWITCH	30	-	1	3R	QL4A 15	1,5
EF-70 A&B	EXHAUST FAN	208 V	3	1.5	2.4 KVA	7 A	8.6	20	YES	EQUIP. MANUF.	EQUIP. MANUF.	-	-	-	-	-	QL4A 7,9,11	1,9

EQUIPMENT CONNECTION SCHEDULE NOTES:
 FPN: DENOTES FUSED/TRIP PER EQUIPMENT NAMEPLATE
 1. COORDINATE EXACT LOCATION AND FINAL CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
 2. COORDINATE EXACT LOCATION AND FINAL CONNECTION REQUIREMENTS WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
 3. HARD WIRE DIRECTLY TO UNIT.
 4. WIRE TO DISCONNECT/STARTER AND THEN TO CONTROL.
 5. WIRE TO DISCONNECT AND THEN TO CONTROLS.
 6. WIRE FIRST TO OUTDOOR UNIT, THEN CONTINUE SAME CIRCUIT TO INDOOR UNIT DISCONNECT THEN TO INDOOR UNIT.
 7. PROVIDE NEMA 3R FOR DCU'S AND NEMA 1 FOR DSS'S.
 8. WIRE TO DISCONNECT AND THEN TO LIGHT SWITCH.
 9. DUPLEX EXHAUST FAN, ONLY ONE EXHAUST FAN SHALL RUN AT A TIME. WIRE TO EACH VFD AND THEN TO EACH FAN.

ELECTRICAL - LUMINAIRE SCHEDULE									
TYPE	DESCRIPTION	MANUFACTURER: "MODEL" SERIES	# & TYPE BALLAST(S)	# & TYPE LAMP(S)	WATTAGE	VOLTS	MOUNTING	REMARKS	
D1	6" OPEN LED DOWNLIGHT, DIMMABLE	PRESCOLITE: 'LFGLD' SERIES OMEGA: 'OMGLD' SERIES GOTHAM: 'EVO' SERIES	N/A	1500 LUMEN MIN.	14 W	UNIV.	RECESSED CEILING	SELF FLANGED LOW IRIDESCENT ALUMINUM REFLECTOR, BAR HANGERS, PRE WIRED J-BOX.	
R2	2'x4' RECESSED ARCHITECTURAL LUMINAIRE	EATON: '24CZ' SERIES LITHONIA: '2VTL' SERIES LUMAX: 'LDLCLD' SERIES	N/A	4800 LUMEN MIN.	40 W	UNIV.	RECESSED CEILING	20 GAUGE STEEL HOUSING, WHITE FINISH. CURVED FROSTED VIRGIN ACRYLIC LENS. DIFFUSE CENTER SHIELD.	
R3	2'x4' RECESSED ARCHITECTURAL LUMINAIRE, DIMMABLE	EATON: '24CZ' SERIES LITHONIA: '2VTL' SERIES LUMAX: 'LDLCLD' SERIES	N/A	5500 LUMEN MIN.	45 W	UNIV.	RECESSED CEILING	20 GAUGE STEEL HOUSING, WHITE FINISH. CURVED FROSTED VIRGIN ACRYLIC LENS. DIFFUSE CENTER SHIELD.	
R4	2'x4' RECESSED ARCHITECTURAL LUMINAIRE, DIMMABLE	EATON: '24CZ' SERIES LITHONIA: '2VTL' SERIES LUMAX: 'LDLCLD' SERIES	N/A	4800 LUMEN MIN.	40 W	UNIV.	RECESSED CEILING	20 GAUGE STEEL HOUSING, WHITE FINISH. CURVED FROSTED VIRGIN ACRYLIC LENS. DIFFUSE CENTER SHIELD.	
R6	2'x4' RECESSED ARCHITECTURAL LUMINAIRE, DIMMABLE	EATON: '24CZ' SERIES LITHONIA: '2VTL' SERIES LUMAX: 'LDLCLD' SERIES	N/A	6500 LUMEN MIN.	57 W	UNIV.	RECESSED CEILING	20 GAUGE STEEL HOUSING, WHITE FINISH. CURVED FROSTED VIRGIN ACRYLIC LENS. DIFFUSE CENTER SHIELD.	
X1	THERMOPLASTIC LED EXIT SIGN	EATON: 'LPX' SERIES LITHONIA: 'LQM' SERIES LIGHTALARMS: 'GRANDE' SERIES	N/A	LED	5 W	UNIV.	WALL/CEILING/END/ PER PLANS	6" RED LETTERS, WHITE HOUSING, CHEVRONS AND FACES PER PLANS, AC ONLY, VOLTAGE DISCONNECT, 5 YEAR WARRANTY	

LUMINAIRE SCHEDULE NOTES:
 1. LIGHTING FIXTURES MANUFACTURER SHALL BE PROVIDED AS SPECIFIED, UNLESS PRE-APPROVED DURING BIDDING BY THE ARCHITECT/ENGINEER. DISTRIBUTOR SHALL BREAK OUT FIXTURE PRICING FROM VARIOUS LIGHTING AGENCIES AS REQUIRED TO MAINTAIN SPECIFIED PACKAGE.
 2. VERIFY TRIM REQUIREMENTS AND FINAL FIXTURE PLACEMENT WITH ARCHITECTURAL REFLECTED CEILING PLANS.
 3. VERIFY VOLTAGE REQUIREMENTS WITH RESPECT TO FLOOR PLAN CIRCUITING AND PANEL SCHEDULES.
 4. VERIFY ALL MOUNTING HEIGHTS ON WALL WITH ARCHITECT PRIOR TO INSTALLATION.
 5. LAMP COLOR SHALL BE 4000.
 6. INSTALL FIXTURE PER MANUFACTURER'S RECOMMENDATIONS.

100% BID DOCUMENTS

CONSULTANT  705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116		ARCHITECT/ENGINEER OF RECORD  Atriax, pllc 102 3rd Avenue, NE PO Box 1628, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com		STAMP 	Office of Construction and Facilities Management  U.S. Department of Veterans Affairs	Drawing Title ELECTRICAL - SCHEDULES	Phase 100% BID DOCUMENTS	Project Title VA DURHAM - PACU RENOVATION	Project Number 558-17-150
Revisions: _____ Date: _____		PERKINS EASTMAN 520 WEST SIXTH STREET CHARLOTTE, NC 28202 F: 704.362.4602			Approved: Andreka Watlington	FULLY SPRINKLERED	Location DURHAM VAMC DURHAM, NC	Building Number _____	
					Issue Date 12/22/2020	Checked SBT	Drawn GMT	Drawing Number E-602 67 of 78	

EXISTING CONDITIONS NOTE

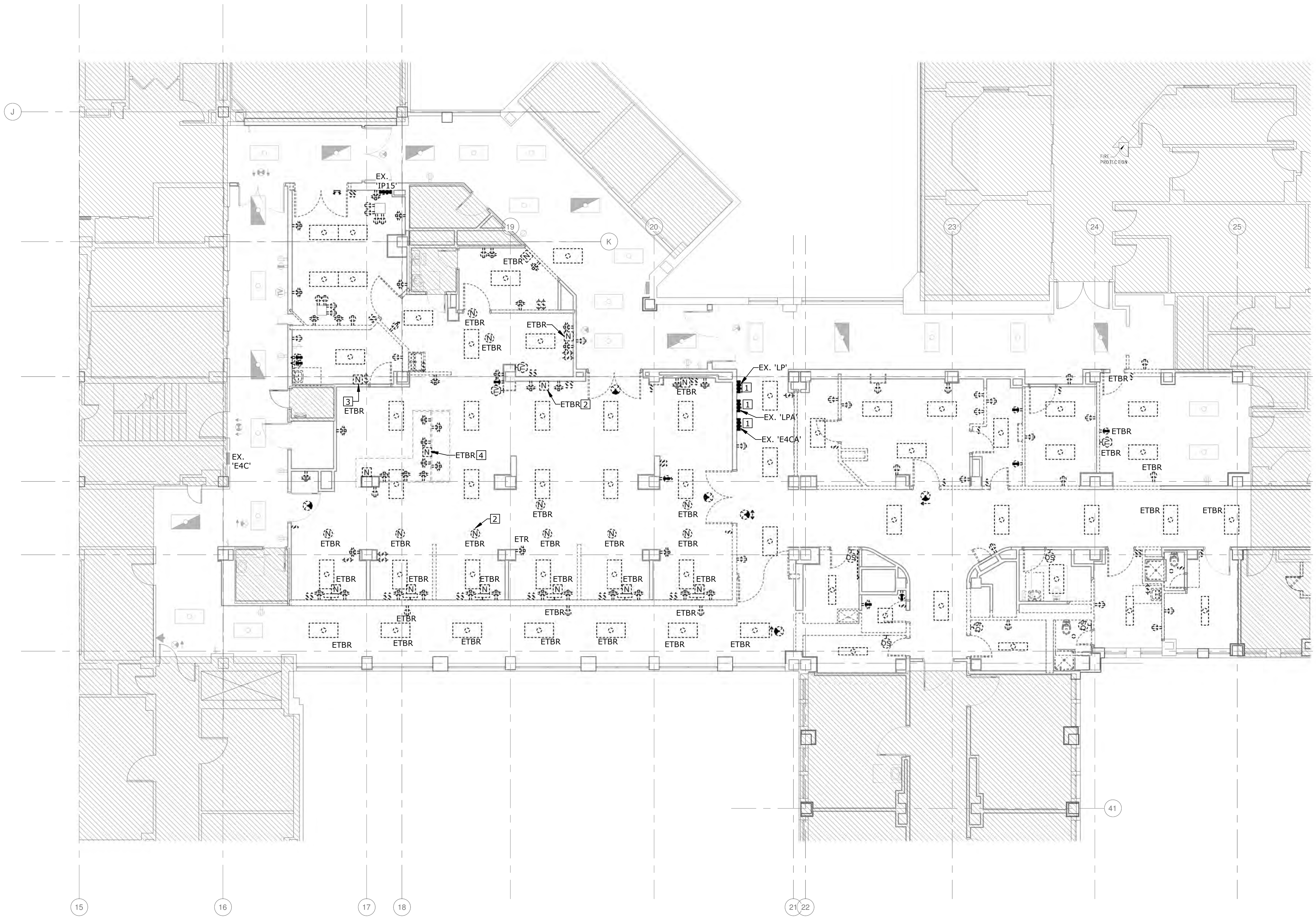
THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA CORP. ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.

ELECTRICAL - DEMOLITION NOTES

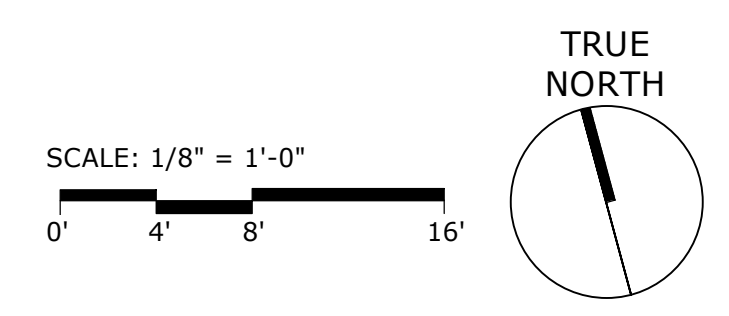
- A IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE EXISTING EQUIPMENT AS REQUIRED TO ACCOMPLISH THE NEW WORK AS SHOWN OR REASONABLY IMPLIED. THE CONTRACTOR SHALL REFER TO THE NEW ARCHITECTURAL, PLUMBING, FIRE PROTECTION, MECHANICAL, ELECTRICAL, ETC. PLANS FOR WORK SHOWN TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED.
- B WHEN REMOVING ELECTRICAL EQUIPMENT AND SYSTEMS, ALL PRECAUTIONS SHALL BE TAKEN TO PREVENT STRUCTURAL DAMAGE TO THE BUILDING. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ANY STRUCTURAL SUPPORTS REQUIRED, TEMPORARY OR PERMANENT.
- C THE CONTRACTOR SHALL EXERCISE CARE SO THAT ONLY THAT CONSTRUCTION INDICATED OR REASONABLY IMPLIED TO BE REMOVED SHALL BE DEMOLISHED. THE EXISTING CONSTRUCTION TO REMAIN SHALL BE LEFT INTACT AND UNDAMAGED. THE CONTRACTOR SHALL PROTECT ALL ADJACENT SURFACES AND MATERIALS AS REQUIRED TO PREVENT DAMAGE.
- D THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEMOLITION AND CONSTRUCTION DEBRIS GENERATED. TAKE CARE TO PREVENT EXCESSIVE LOADING OF FLOOR ASSEMBLIES.
- E THE CONTRACTOR SHALL COORDINATE/SCHEDULE ALL POWER INTERRUPTIONS WITH THE OWNER AND POWER COMPANY IN WRITING.
- F WHEN EXISTING ELEMENTS OF ELECTRICAL EQUIPMENT AND SYSTEMS ARE REMOVED, ALL REMAINING OPENINGS IN THE SLAB/WALL SHALL BE FILLED IN BY THE CONTRACTOR TO MATCH ADJACENT.
- G REMOVE ALL MISCELLANEOUS ELECTRICAL FIXTURES AND EQUIPMENT RETAINING ITEMS TO BE IDENTIFIED FOR SALVAGE AND STORAGE AT THE DIRECTION OF THE OWNER.
- H THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION TO MAINTAIN THE INTEGRITY AND OPERATION OF EXISTING LIFE SAFETY AND EMERGENCY EGRESS EQUIPMENT.
- I THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION TO MAINTAIN ACCESS TO ALL MEANS OF EGRESS CORRIDORS, DOORWAYS, AND STAIRS.
- J THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION TO PERMIT EFFECTED AREAS TO CONTINUE TO FUNCTION TO THE GREATEST EXTENT POSSIBLE.
- K THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL FLUORESCENT AND HID LAMPS. THE CONTRACTOR SHALL PROVIDE VERIFICATION OF PROPER LAMP DISPOSAL UPON OWNER REQUEST.
- L THE CONTRACTOR SHALL PROPERLY HANDLE AND DISPOSE OF ALL PCB CONTAINING EQUIPMENT SUCH AS BALLASTS, TRANSFORMERS, AND POTTING COMPOUNDS THROUGH PROPER AUTHORITIES.
- M THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES, FIXTURES, WIRING, AND ROUGH-IN IN WALLS, FLOORS OR CEILINGS TO BE DEMOLISHED. THE CONTRACTOR SHALL REMOVE EXISTING ELECTRICAL DEVICES, LIGHTING FIXTURES, SYSTEMS DEVICE, ASSOCIATED WIRING, AND CONDUIT BACK TO SOURCE OR NEAREST DEVICE TO REMAIN, UNLESS OTHERWISE NOTED. IF EXISTING CIRCUIT HAS DOWNSTREAM DEVICES TO REMAIN, CONTRACTOR SHALL REFEED THESE ITEMS ACCORDINGLY THROUGH ALTERNATE PATH.
- N THE ELECTRICAL CONTRACTOR SHALL DETERMINE THE EXTENT TO WHICH EXISTING CONDUIT AND THE WIRING WILL HAVE TO BE RE-ROUTED, RELOCATED, OR RECONNECTED, AND THE AMOUNT OF ADDITIONAL WORK WHICH MAY BE REQUIRED DUE TO THE PHYSICAL LOCATION OF THE CONDUIT AND WIRING SHALL BE PERFORMED UNDER THIS CONTRACT WITHOUT ADDITIONAL CHARGES TO THE OWNER.
- O PRIOR TO ANY DEACTIVATION AND RELOCATION OF DEMOLITION WORK, ARRANGE A CONFERENCE WITH ARCHITECT AND THE OWNER'S REPRESENTATIVE IN THE FIELD TO INSPECT EACH OF THE ITEMS TO BE DEACTIVATED, REMOVED OR RELOCATED. CARE SHALL BE TAKEN TO PROTECT ALL EQUIPMENT DESIGNATED TO BE RELOCATED AND REUSED OR TO REMAIN OPERATIONAL AND BE INTEGRATED WITH THE NEW SYSTEMS.
- P CONTRACTOR SHALL INSPECT AND IDENTIFY ANY CONDUIT AND/OR CONDUCTORS THAT MAY BE EMBEDDED IN WALLS TO BE DEMOLISHED OR LOCATED IN THE DEMOLITION AREA AND RELOCATE THESE TO NEW LOCATIONS PRIOR TO THE START OF DEMOLITION. BID PRICE SHALL INCLUDE CONDUIT AND CONDUCTORS AND LABOR FOR ANY THAT MUST BE REMOVED OR RELOCATED.
- Q NO WORK IN HATCHED AREAS. E.C. TO MAINTAIN ALL CIRCUITS IN THIS AREA DURING CONSTRUCTION.
- R ALL WORK SHOWN LIGHT AND SOLID IS EXISTING TO REMAIN. ALL WORK SHOW BOLD AND/OR DASHED IS EXISTING TO BE DEMOLISHED.
- S DEVICES/EQUIPMENT NOTED AS ETR ON THE DEMOLITION PLAN(S) SHALL BE REMOVED AND RELOCATED TO THE NEW LOCATION AS INDICATED ON THE NEW LIGHTING/POWER/SYSTEMS PLAN(S). DEVICES/EQUIPMENT NOTED AS ETBR ON THE NEW LIGHTING/POWER/SYSTEMS PLAN(S) INDICATES THE NEW LOCATION FOR THE RELOCATED EXISTING DEVICE/EQUIPMENT.
- T REFER TO ARCHITECTURAL PLANS FOR PHASING.
- U FIRE ALARM NOTIFICATION APPLIANCES SHALL BE IDENTIFIED PER SMOKE ZONES SHOWN ON PLANS. ANY DEVICES MOVED FROM ONE ZONE TO THE OTHER SHALL BE REVISED TO INDICATE NEW SMOKE ZONE.
- V ALL EXISTING NURSE CALL DEVICES SHALL BE REMOVED AND RELOCATED.

ELECTRICAL - KEYED NOTES - DEMOLITION

- 1 EXISTING PANEL SHALL BE REPLACED WITH NEW. THE CONTRACTOR SHALL TRACE OUT ALL CIRCUITS FOR EXISTING PANEL AND ANY CIRCUITS THAT REMAIN SHALL BE REFEED FROM NEW PANELS. REFER TO SHEET EP101, E-601 AND E-603 FOR ADDITIONAL INFORMATION.
- 2 NURSE CALL DEVICE TO BE REMOVED AND RELOCATED. TYPICAL OF 10.
- 3 NURSE CALL DUTY STATION DEVICE TO BE REMOVED AND RELOCATED. TYPICAL OF 5.
- 4 NURSE CALL CONSOLE TO BE REMOVED AND RELOCATED IN (2) PHASES.



1 ELECTRICAL - FOURTH FLOOR - DEMOLITION PLAN
1/8" = 1'-0"



Revisions:	Date:

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AME PROJECT NO.: 17116

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL - FOURTH FLOOR - DEMOLITION PLAN

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Project Number
558-17-150

Building Number

Location
DURHAM VAMC DURHAM, NC

Drawing Number
ED101
69 of 78

Issue Date
12/22/2020

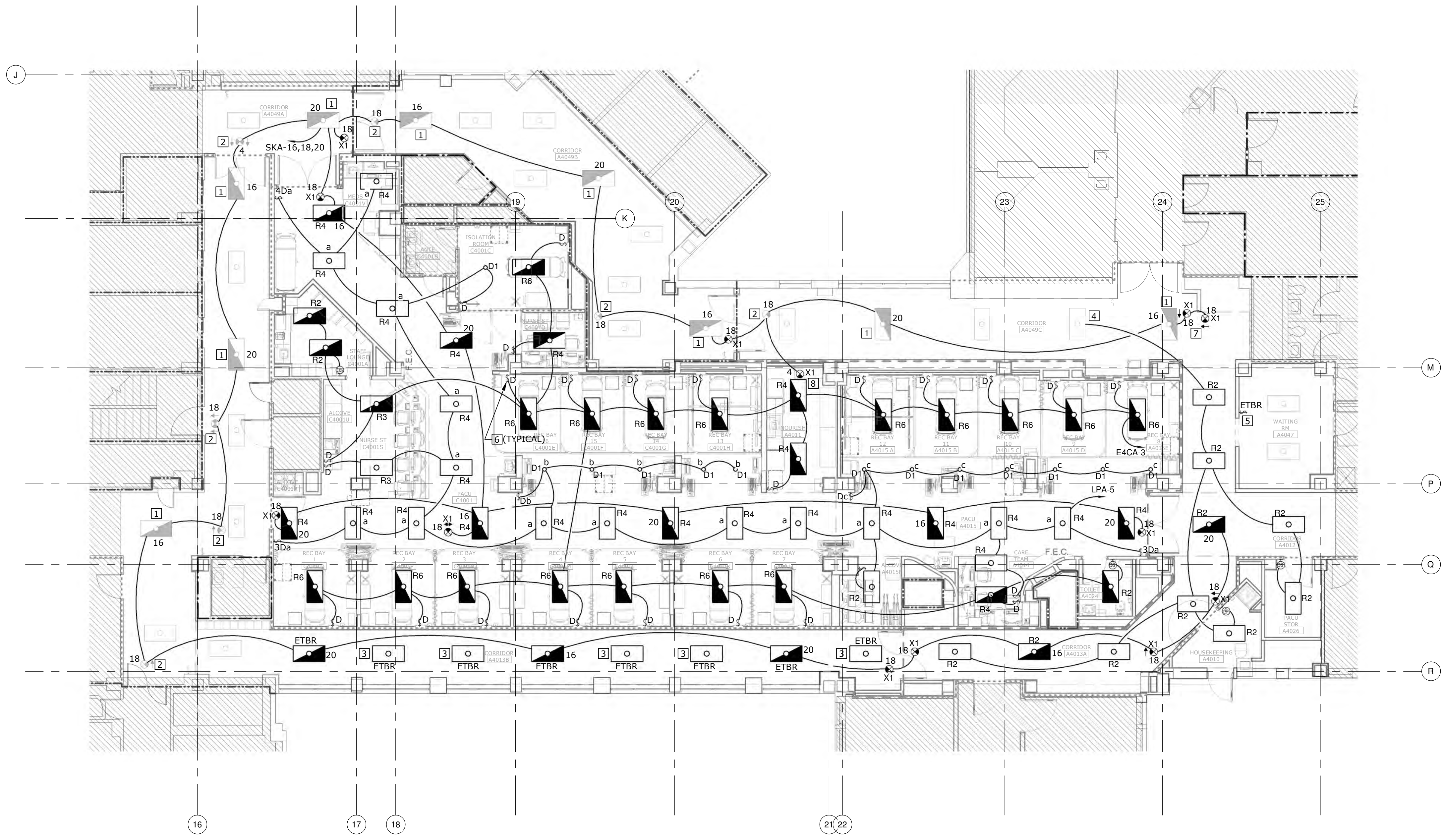
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EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.



ELECTRICAL - GENERAL NOTES - LIGHTING

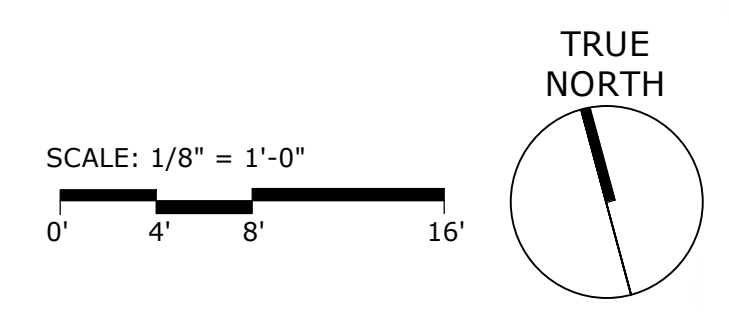
A HATCHED AREA IS NOT IN SCOPE OF WORK.
 B REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LUMINARIES AND CEILING TYPES. COORDINATE CEILING TYPES AND PROVIDE FIXTURE TRIM REQUIRED.
 C EXIT SIGNS AND 'NIGHT LIGHT' CIRCUITS SHALL BE UNSWITCHED AND CONNECTED TO A CONSTANT HOT CONDUCTOR AHEAD OF SWITCHING AND/OR RELAYS.
 D A CONSTANT HOT CONDUCTOR SHALL BE CONNECTED TO THE BATTERY BACK-UP OF ALL SWITCHED LIGHTING FIXTURES AHEAD OF SWITCHING AND/OR RELAYS.
 E REFER TO ARCHITECTURAL PLANS FOR PHASING.

ELECTRICAL - KEYED NOTES - LIGHTING

1 RE-WIRE EXISTING FIXTURE TO NEW LIFE SAFETY CIRCUIT SHOWN. THIS WORK SHALL BE DONE IN PHASE 1A.1.
 2 RE-WIRE EXISTING EXIT SIGN TO NEW LIFE SAFETY CIRCUIT SHOWN. THIS WORK SHALL BE DONE IN PHASE 1A.1.
 3 NEW LOCATION OF RELOCATED LIGHT FIXTURE. EXTEND AND RECONNECT EXISTING CIRCUIT. MATCH CONDUIT AND WIRE.
 4 CONNECT TO EXISTING NORMAL POWER LIGHTING SWITCH/LEG CIRCUIT SHOWN. FIELD VERIFY EXACT CIRCUIT NUMBER. WIRE WITH #12, 1# 12G, 3/4" C.
 5 NEW LOCATION OF RELOCATED LIGHT SWITCH. EXTEND AND RECONNECT EXISTING CIRCUIT. MATCH CONDUIT AND WIRE.
 6 SWITCHES LOCATED ON HEADWALL. REFER TO HEADWALL DETAIL ON SHEET E-501 FOR DEVICE LAYOUT.
 7 INSTALL DURING PHASE 1A.1.
 8 INSTALL DURING PHASE 2B AND REMOVE AFTER COMPLETION OF PHASE 2A.

RATED WALL LEGEND

---	SMOKE PARTITION
---	1 HOUR FIRE BARRIER
---	1 HOUR FIRE SMOKE BARRIER
---	2 HOUR FIRE BARRIER



1 ELECTRICAL - FOURTH FLOOR LIGHTING PLAN
 1/8" = 1'-0"

100% BID DOCUMENTS

CONSULTANT AME CONSULTING ENGINEERS 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO.: C-2848 AME PROJECT NO.: 17116 520 WEST SIXTH STREET CHARLOTTE, NC 28202 T: 704.940.0501 F: 704.362.4602	ARCHITECT/ENGINEER OF RECORD Atriax GROUP Atriax, PLLC 102 3rd Avenue, NE PO Box 1629, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com	STAMP 	Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs	Drawing Title ELECTRICAL - FOURTH FLOOR - LIGHTING PLAN	Phase 100% BID DOCUMENTS	Project Title VA DURHAM - PACU RENOVATION	Project Number 558-17-150
				Approved: Andreka Watlington	FULLY SPRINKLERED	Location DURHAM VAMC DURHAM, NC	Building Number EL101
Revisions: _____ Date: _____				Issue Date 12/22/2020	Checked SBT	Drawn GMT	Drawing Number 70 of 78

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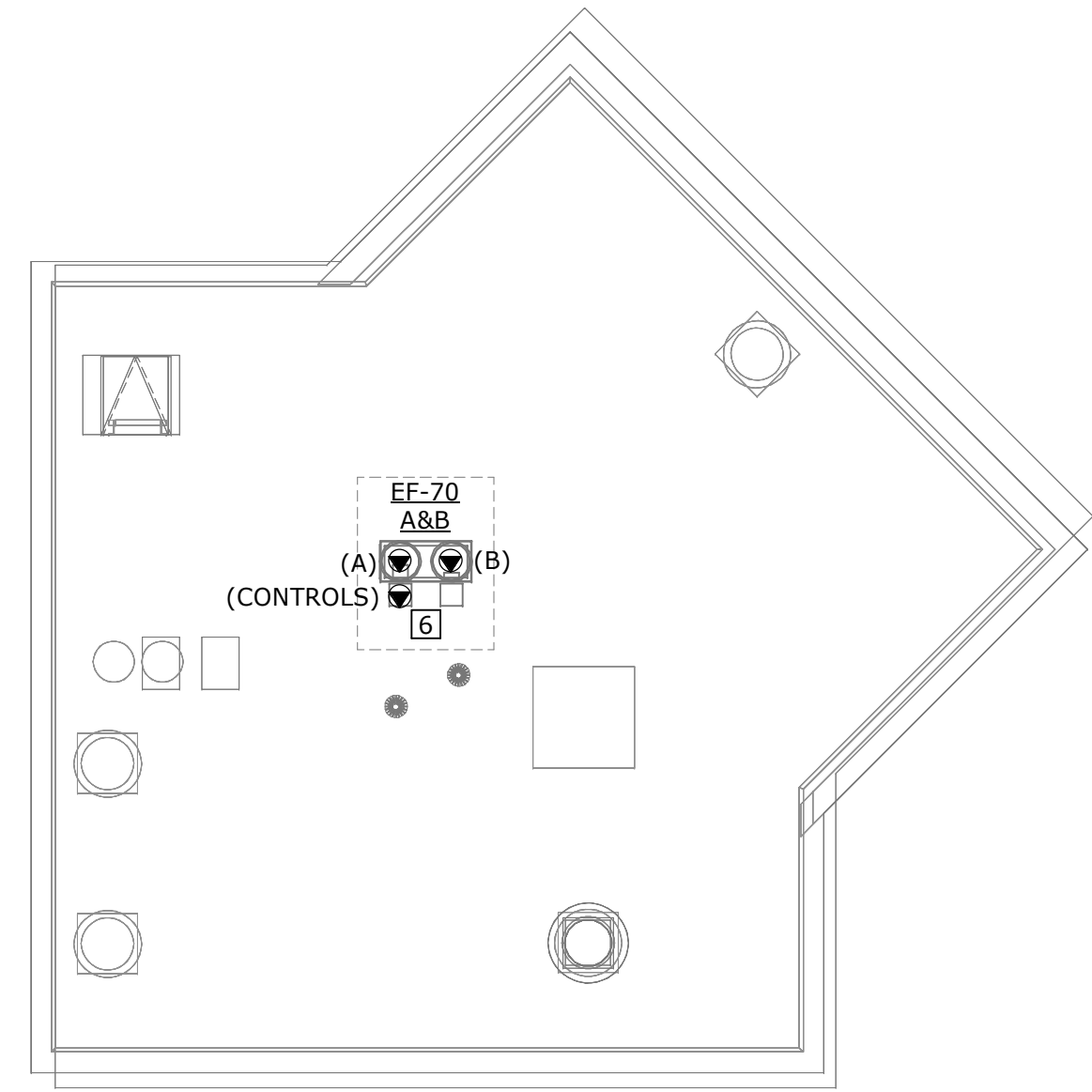
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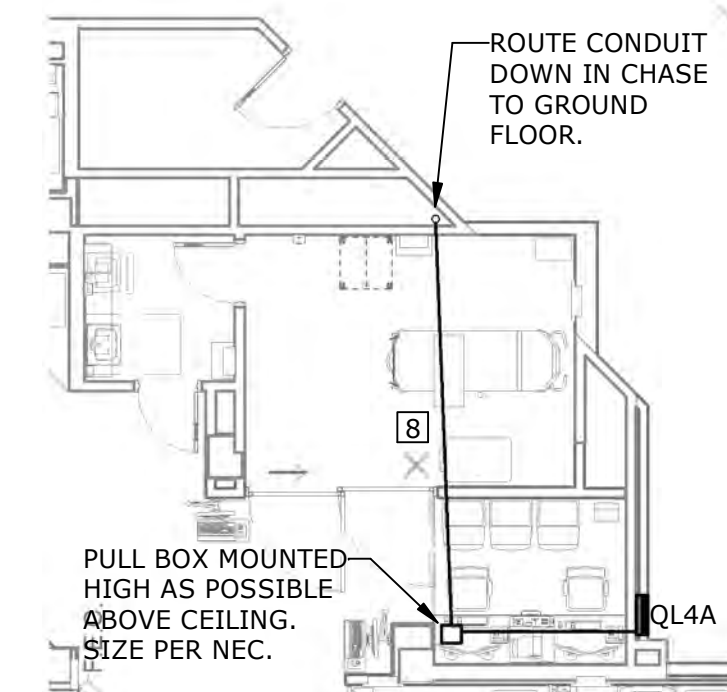
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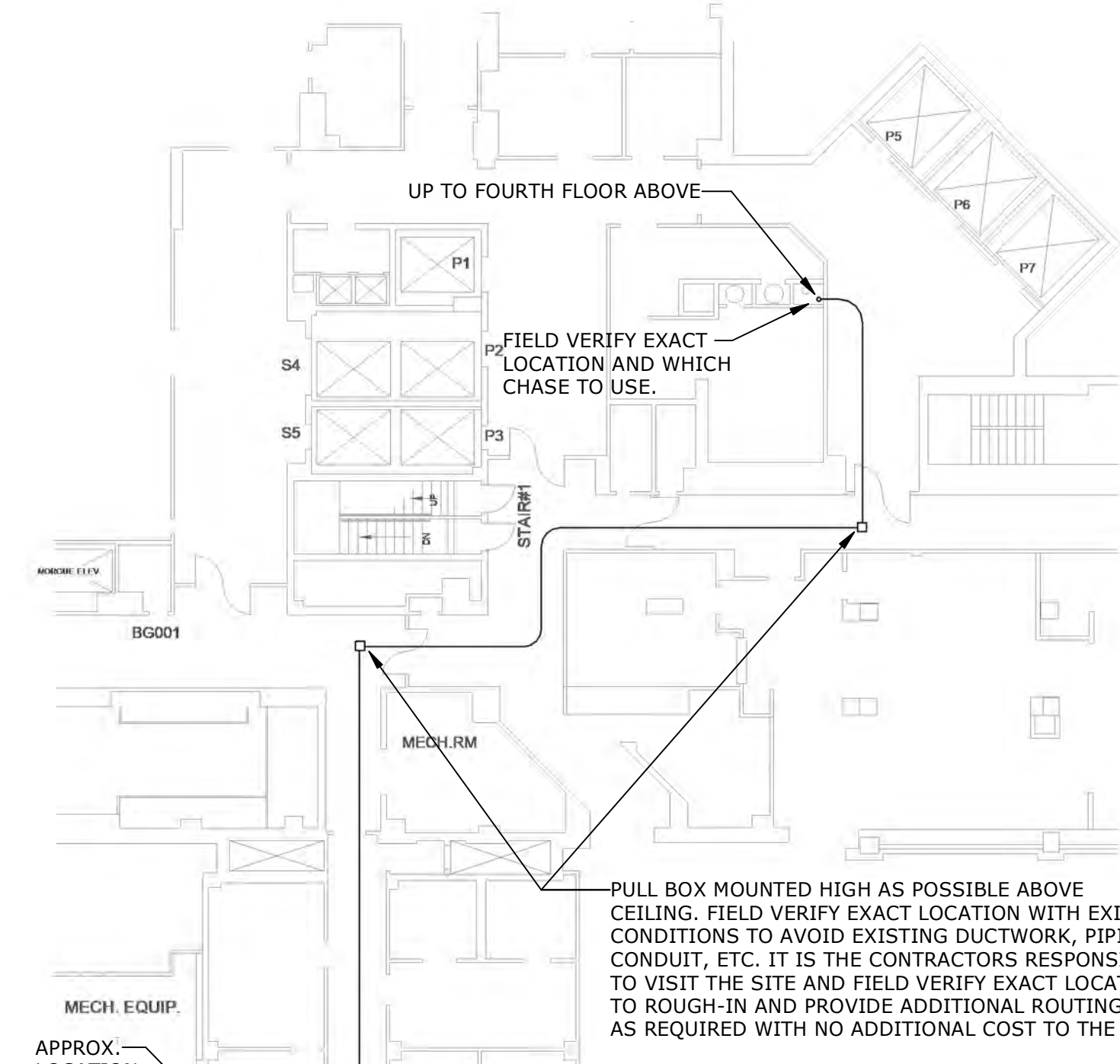
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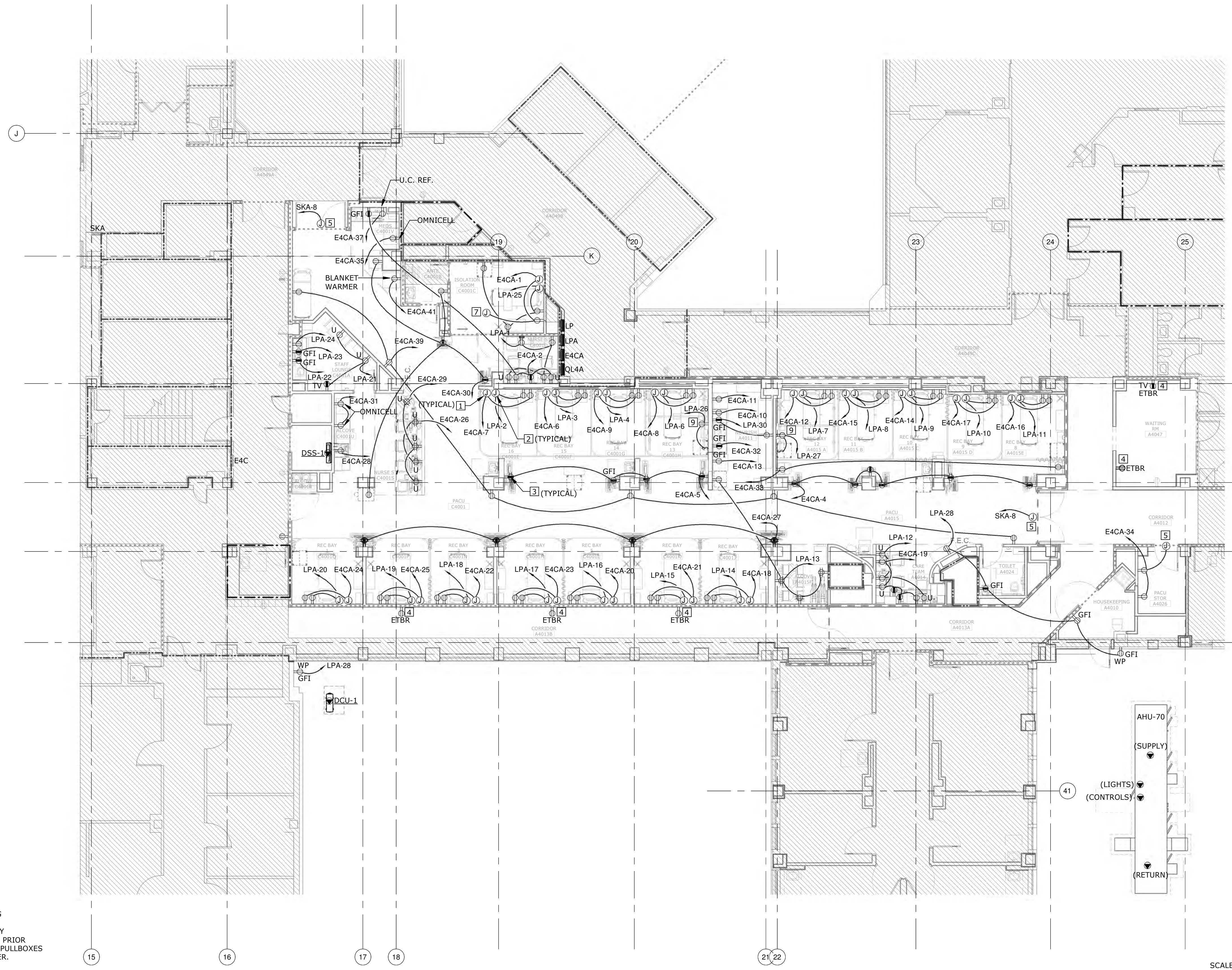
2 ELECTRICAL - ELEVATOR TOWER ROOF
1/8" = 1'-0"



3 ELECTRICAL - FOURTH FLOOR - ROUTING PLAN
1/8" = 1'-0"



4 ELECTRICAL - GROUND FLOOR - ROUTING PLAN
1/16" = 1'-0"



1 ELECTRICAL - FOURTH FLOOR - POWER PLAN
1/8" = 1'-0"

EXISTING CONDITIONS NOTE

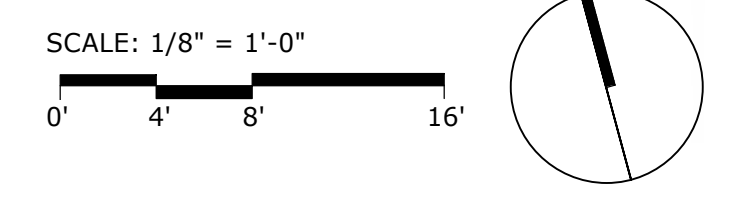
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- ELECTRICAL - GENERAL NOTES - POWER**
- A HATCH AREA IS NOT IN SCOPE OF WORK.
 - B CONTRACTOR SHALL NOT INSTALL J-BOXES, OUTLETS, DEVICES, ETC. BACK-TO-BACK THROUGHOUT THIS FACILITY.
 - C THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. THE ELECTRICAL INSTALLATION SHALL BE COORDINATED WITH ALL OTHER TRADES TO REDUCE INTERFERENCES BETWEEN THE ELECTRICAL DEVICES AND ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL AND FIRE PROTECTION WORK.
 - D ALL DEVICES SHALL BE FLUSH MOUNTED, UNLESS OTHERWISE NOTED. COORDINATE DEVICE MOUNTING HEIGHTS AND LOCATIONS WITH ARCHITECTURAL ELEVATIONS.
 - E REFER TO EQUIPMENT CONNECTION SCHEDULE FOR MECHANICAL, PLUMBING, FIRE PROTECTION, AND MISCELLANEOUS EQUIPMENT CONNECTION AND CIRCUITING INFORMATION.
 - F PROVIDE HOSPITAL GRADE RECEPTACLES IN ALL AREAS, UON.
 - G PROVIDE REDUNDANT GROUNDING IN ALL PATIENT CARE AREAS PER NEC 517.
 - H COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHT OF ALL DEVICES WITH ARCHITECTURAL INTERIOR CASEWORK ELEVATIONS AND EQUIPMENT LOCATIONS PRIOR TO ROUGH-IN.
 - I ALL NEW OR EXISTING RECEPTACLES WITHIN 6 FEET OF A SINK SHALL BE GFCI PROTECTED.
 - J REFER TO ARCHITECTURAL PLANS FOR PHASING.

- ELECTRICAL - KEYED NOTES - POWER**
- 1 NORMAL POWER CONNECTION TO HEADWALL SYSTEM. REFER TO HEADWALL DETAIL ON SHEET E-501 FOR DEVICE LAYOUT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S INSTALLATION DRAWINGS AND RECOMMENDATIONS.
 - 2 CRITICAL POWER CONNECTION TO HEADWALL SYSTEM. REFER TO HEADWALL DETAIL ON SHEET E-501 FOR DEVICE LAYOUT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S INSTALLATION DRAWINGS AND RECOMMENDATION.
 - 3 RECEPTACLE FOR COMPUTER AND MONITOR. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
 - 4 NEW LOCATION OF RELOCATED RECEPTACLE. EXTEND AND RECONNECT EXISTING CIRCUIT. MATCH CONDUIT AND WIRE.
 - 5 CONNECTION TO AUTOMATIC DOOR. COORDINATE EXACT REQUIREMENTS AND FINAL CONNECTION WITH EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
 - 6 ROUTE FEEDER ALONG SIMILAR ROUTING AS DUCTWORK BACK TO 4TH FLOOR PACU AREA. FIELD VERIFY EXACT ROUTING. PROVIDE PULL BOXES AS REQUIRED.
 - 7 CONNECTION TO CEILING MOUNTED EXAM LIGHT. COORDINATE EXACT REQUIREMENTS AND FINAL CONNECTION WITH EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
 - 8 ROUTE FEEDER HIGH AS POSSIBLE. FIELD VERIFY EXACT ROUTING TO AVOID DUCTWORK, PIPING, ETC. REPLACE ANY BROKEN CEILING TILE DURING THE INSTALLATION.
 - 9 SWITCHED RECEPTACLE MOUNTED CLOSE TO CEILING FOR LIFT. COORDINATE EXACT REQUIREMENTS AND FINAL CONNECTIONS WITH EQUIPMENT MANUFACTURER'S INSTALLATION DRAWINGS AND RECOMMENDATIONS PRIOR TO ROUGH-IN.

RATED WALL LEGEND

---	SMOKE PARTITION
---	1 HOUR FIRE BARRIER
---	1 HOUR FIRE SMOKE BARRIER
---	2 HOUR FIRE BARRIER



Revisions:	Date:

CONSULTANT

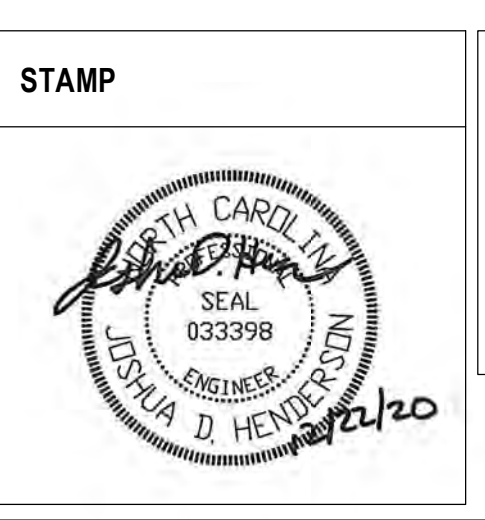
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL - FOURTH FLOOR - POWER PLAN

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Project Number
558-17-150

Building Number

Location
DURHAM VAMC DURHAM, NC

Drawing Number
EP101
71 of 78

Issue Date
12/22/2020

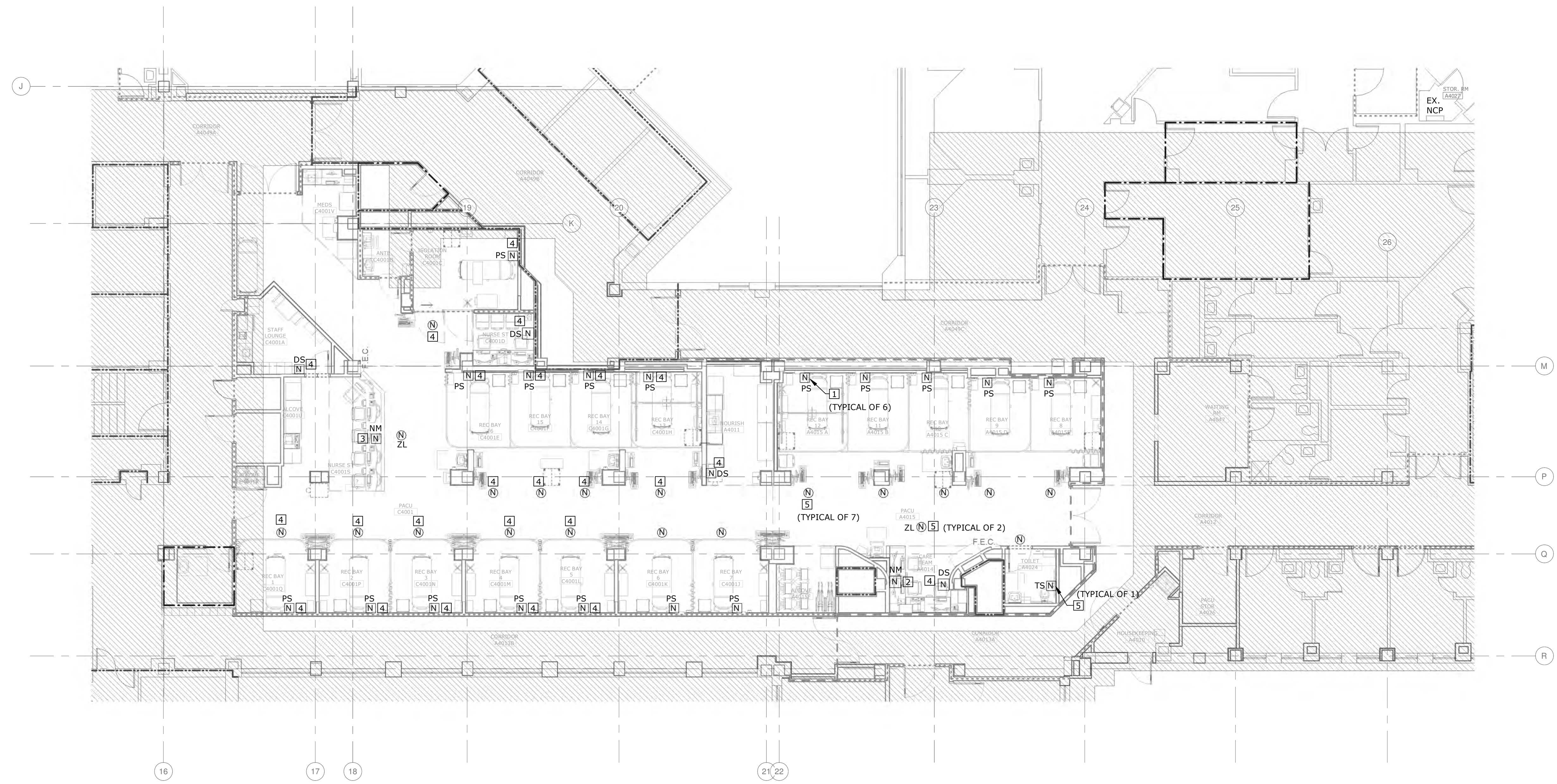
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EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.



1 NURSE CALL - FOURTH FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

- A CONTRACTOR SHALL NOT INSTALL J-BOXES, OUTLETS, DEVICES, ETC. BACK TO BACK THROUGHOUT THIS FACILITY.
- B THE DRAWINGS ARE DIAGRAMMATIC. THE TELECOMMUNICATIONS INSTALLATION SHALL BE COORDINATED WITH ALL OTHER TRADES TO REDUCE INTERFERENCES BETWEEN ALL ELECTRICAL DEVICES AND ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL AND FIRE PROTECTION.
- C ALL DEVICES SHALL BE FLUSH MOUNTED, UNLESS OTHERWISE NOTED. COORDINATE DEVICE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
- D ALL WIRING LOCATED IN RETURN AIR PLENUMS SHALL BE ROUTED IN CONDUIT OR SHALL BE PLENUM RATED CABLE. COORDINATE REQUIREMENTS WITH HVAC CONTRACTOR.
- E COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHT OF ALL DEVICES WITH ARCHITECTURAL INTERIOR CASEWORK ELEVATIONS AND EQUIPMENT LAYOUTS PRIOR TO ROUGH-IN.
- F REFER TO ARCHITECTURAL PLANS FOR PHASING.
- G REFER TO SHEET F-601 FOR SYMBOL LEGEND AND DAMPER DETAIL.
- H FIRE ALARM NOTIFICATION APPLIANCES SHALL BE IDENTIFIED PER SMOKE ZONES SHOWN ON PLANS. ANY DEVICES MOVED FROM ONE ZONE TO THE OTHER SHALL BE REVISED TO INDICATE NEW SMOKE ZONE.
- I EXISTING RESPONDER 5 NURSE CALL DEVICES SHALL BE REMOVED AND RELOCATED. CONTRACTOR SHALL INSTALL NEW RESPONDER V NURSE CALL DEVICES AND UPDATE THE PROGRAMMING OF THE NURSE CALL SYSTEM.

ELECTRICAL - KEYED NOTES - SYSTEMS

- 1 NURSE CALL SINGLE PATIENT STATION DEVICE FURNISHED AND INSTALLED BY CONTRACTOR AND LOCATED IN HEADWALL. REFER TO HEADWALL DETAIL ON SHEET E-501 FOR DEVICE LOCATION.
- 2 RELOCATE EXISTING RESPONDER V NURSE CALL CONSOLE TO THIS TEMPORARY LOCATION DURING PHASE 1B. RELOCATE TO PERMANENT LOCATION AFTER PHASE 2A IS COMPLETE. THIS NURSE CALL DEVICE IS PROVIDED AS PART OF ANOTHER CONTRACT. CONTRACTOR SHALL FURNISH AND INSTALL BOXES, CONDUITS AND WIRE BACK TO EXISTING HEADEND EQUIPMENT PANEL LOCATED IN STORAGE RM A4027. CONTRACTOR SHALL ALSO RE-INSTALL DEVICES.
- 3 NURSE CALL CONSOLE PERMANENT LOCATION.
- 4 THIS NURSE CALL DEVICE IS INSTALLED UNDER ANOTHER CONTRACT. CONTRACTOR SHALL RELOCATE THIS DEVICE AND REINSTALL AT NEW LOCATION SHOWN ON THIS PLAN. CONTRACTOR SHALL PROVIDE ALL BOXES, CONDUITS, WIRE, ETC FOR A FULLY FUNCTIONAL SYSTEM AND CONNECT TO THE EXISTING HEAD-END EQUIPMENT PANEL LOCATED IN STORAGE RM A4027.
- 5 NURSE CALL DEVICE FURNISHED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL FURNISH AND INSTALL ALL BOXES, CONDUITS, WIRE, POWER SUPPLIES, ETC. FOR A FULLY FUNCTIONAL SYSTEM. NURSE CALL DEVICES SHALL TIE INTO THE EXISTING HEAD-END EQUIPMENT PANEL LOCATED IN STORAGE RM A4027.

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

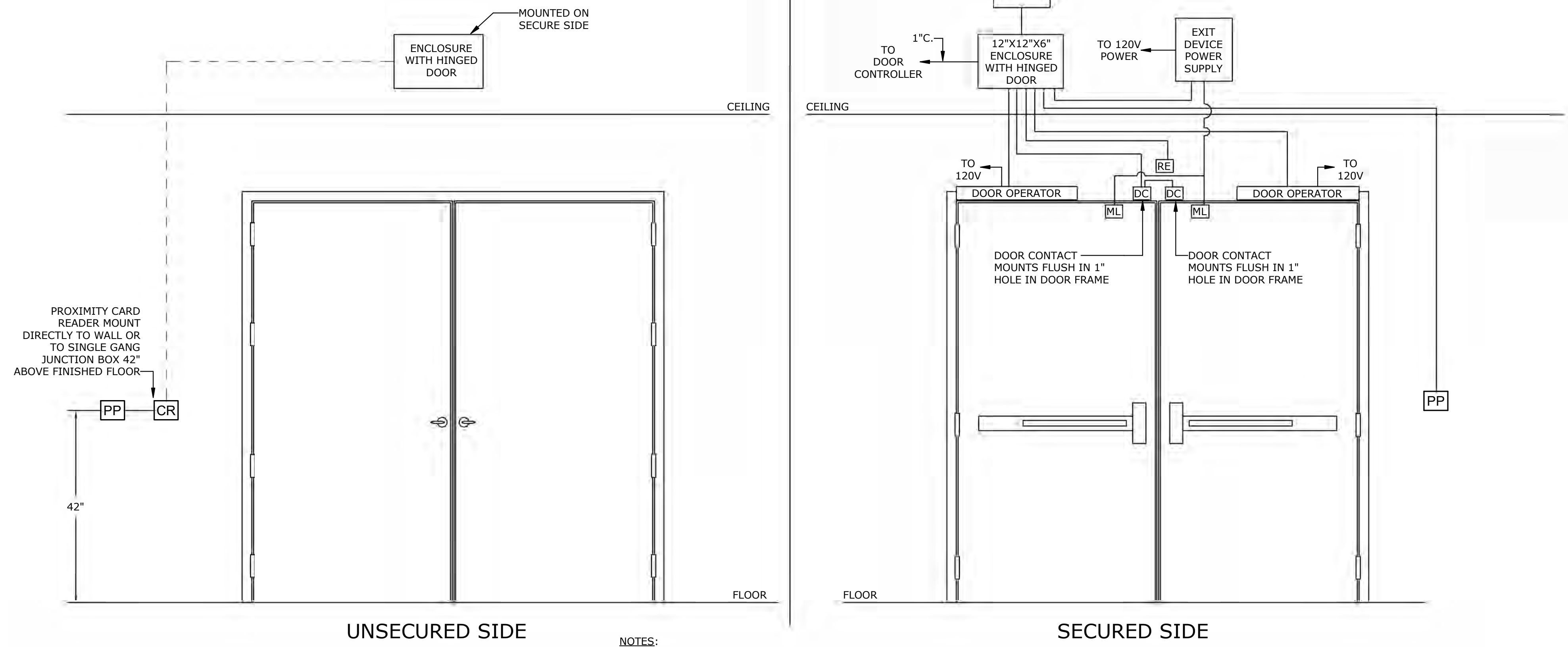
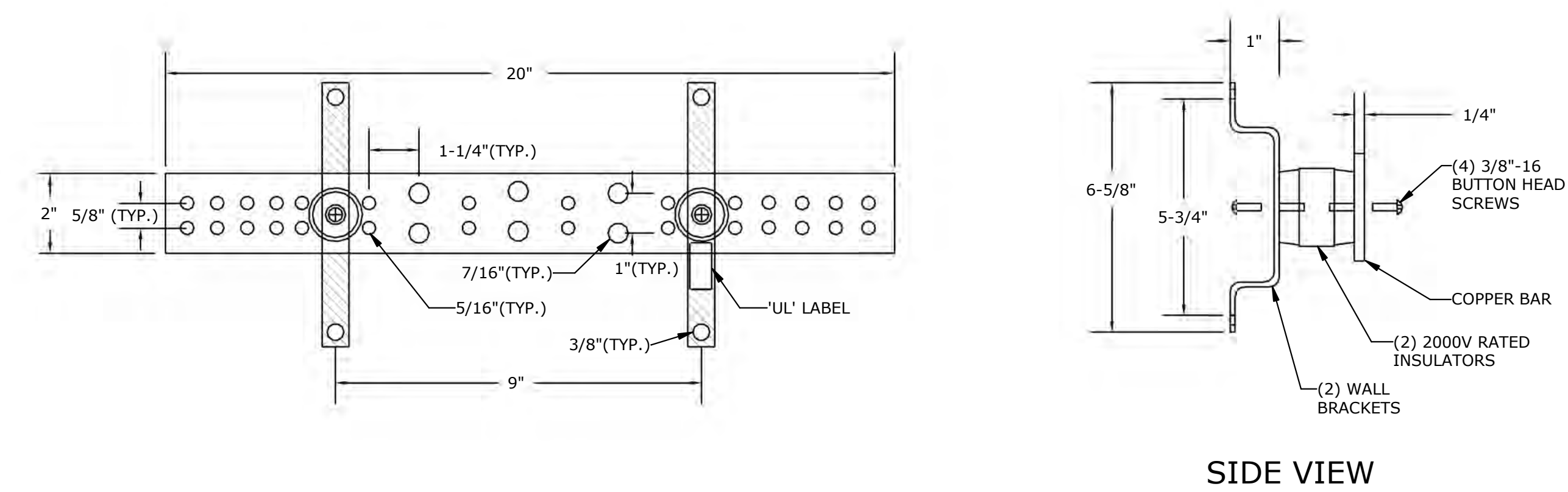
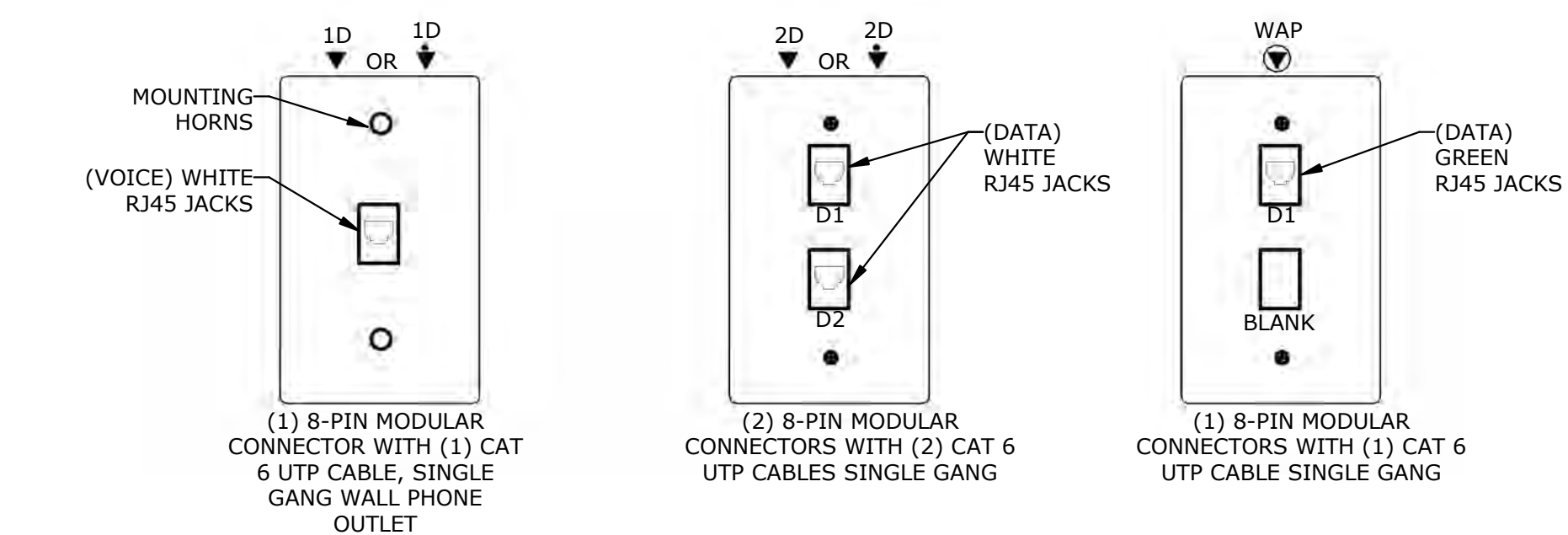
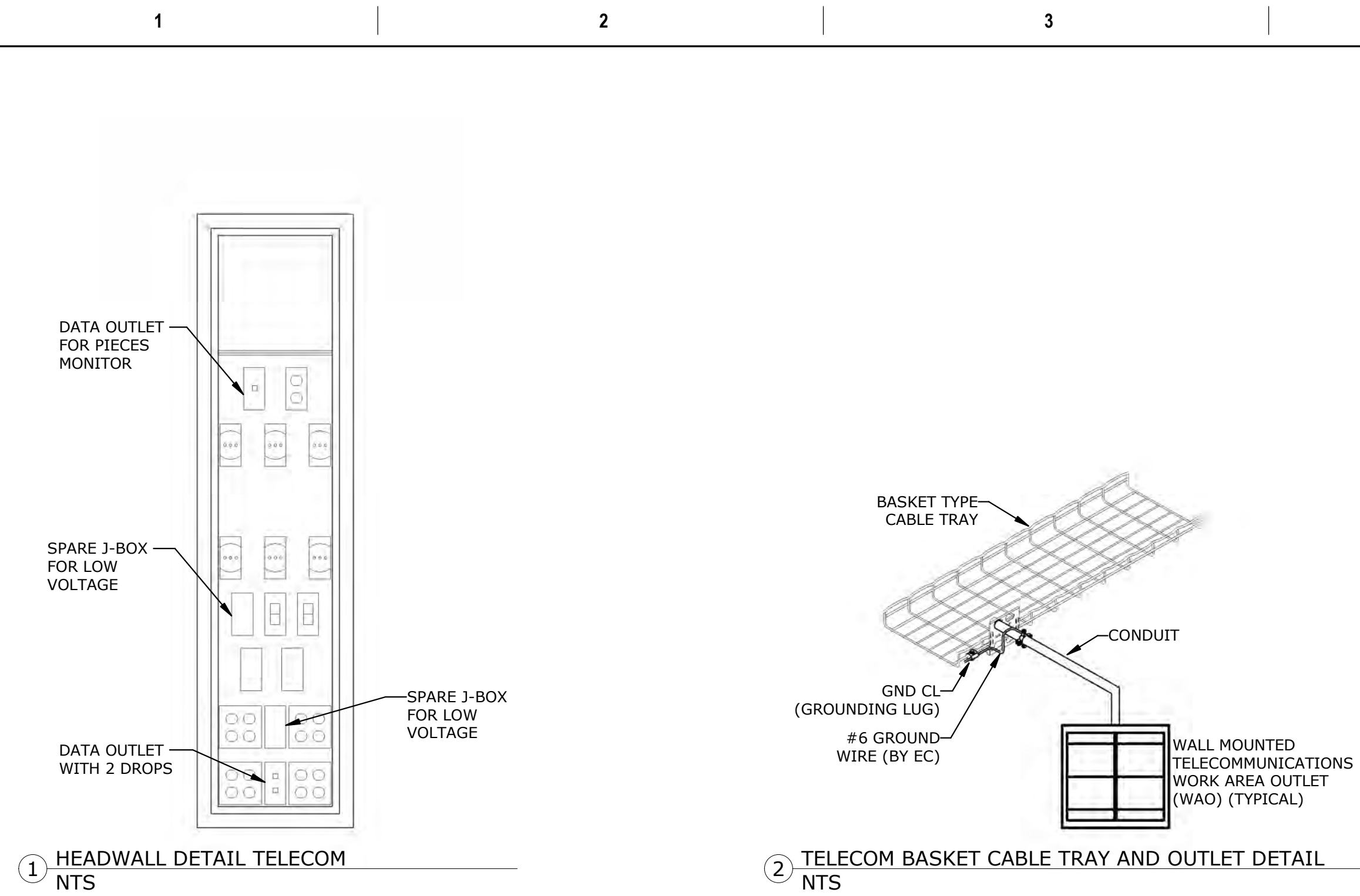
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RATED WALL LEGEND	
	SMOKE PARTITION
	1 HOUR FIRE BARRIER
	1 HOUR FIRE SMOKE BARRIER
	2 HOUR FIRE BARRIER

100% BID DOCUMENTS

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					<p>Approved:</p> <p>Andreka Watlington</p>	<p>FULLY SPRINKLERED</p>	<p>Location</p> <p>DURHAM VAMC DURHAM, NC</p>	<p>Drawing Number</p> <p>EY101 72 of 78</p>

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5 D11 - SECURITY DOOR TYPE D NTS

TELECOM BONDING AND GROUNDING GENERAL NOTES:

- A. TELECOM GROUNDING AND BONDING SHALL BE IAW TIA 607-D (2017).
- B. SIZE THE TBB CONDUCTOR PER THE TBB CHART ON THIS SHEET. THE CONDUCTORS SHALL NOT DECREASE IN SIZE AS THE GROUNDING PATH MOVES CLOSER TO EARTH.
- C. ALL BONDING AND GROUNDING CONNECTIONS SHALL BE LISTED FOR THE APPLICATION.
- D. THE SBB, AND EACH TBB SHALL BE GREEN OR MARKED WITH A DISTINCTIVE GREEN COLOR.
- E. BUILDING OR STRUCTURAL STEEL SHALL BE TESTED TO VERIFY ITS GROUND CONDUCTIVITY TO EARTH.
- F. WHEN AN ELECTRICAL PANEL BOARD IS LOCATED IN THE TELECOMMUNICATIONS ENTRANCE FACILITY THE PBB AND SBB SHALL BE MOUNTED AS CLOSE AS PRACTICAL TO THE PANEL WITHOUT VIOLATING REQUIRED ELECTRICAL CODE CLEARANCES. WHEN AN ELECTRICAL PANEL IS NOT LOCATED IN THE TELECOMMUNICATIONS ROOM THE PBB AND SBB SHALL BE LOCATED NEAR THE BACKBONE CABLING AND ASSOCIATED TERMINATIONS.

TELECOM BONDING AND GROUNDING KEYED NOTES:

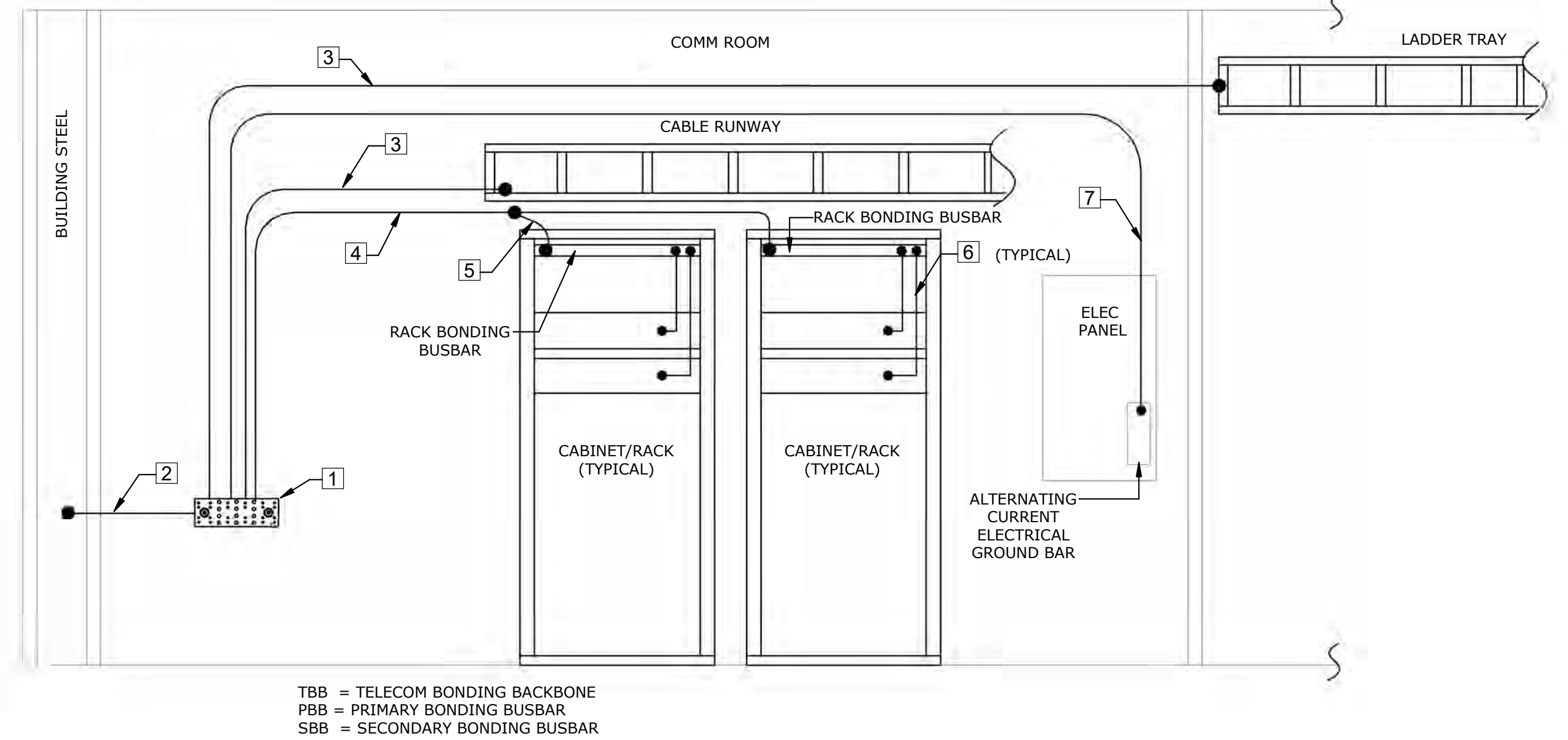
- 1. INSTALL SECONDARY BONDING BUSBAR (SBB) ADJACENT TO THE ELECTRICAL PANEL IF LOCATED IN THE SAME ROOM, OR NEAR THE BACKBONE CABLING AND ASSOCIATED TERMINATIONS. GROUND BAR SHALL BE SURFACE MOUNTED 18" BELOW CABLE RUNWAY AND TO THE TTB PLYWOOD WITH MINIMUM 2" STANDOFFS. SEE SECONDARY BONDING BUSBAR DETAILS FOR ADDITIONAL INFORMATION.
- 2. INSTALL #1 AWG, GREEN JACKET, THHN TYPE COPPER BONDING CONDUCTOR WITH 2-HOLE LONG BARREL IRREVERSIBLE CRIMP CONNECTORS ON BOTH ENDS, FROM THE SBB TO THE STRUCTURAL STEEL.
- 3. INSTALL GREEN JACKET, THHN TYPE COPPER TELECOM EQUIPMENT BONDING CONDUCTOR WITH 2-HOLE LONG BARREL IRREVERSIBLE CRIMP CONNECTORS ON EACH END TO BOND CABLE RUNWAY OR LADDER TRAY TO SECONDARY BONDING BUSBAR (SBB). SIZE THE CONDUCTOR IAW TIA-607-D (2017).
- 4. INSTALL #2 AWG, GREEN JACKET, THHN TYPE COPPER EQUIPMENT BONDING CONDUCTOR. USE 2-HOLE LONG BARREL IRREVERSIBLE CRIMP TYPE CONNECTORS TO BOND CONDUCTOR TO RACK MOUNTED BUSBAR AND SECONDARY BONDING BUSBAR (SBB).
- 5. INSTALL #6 AWG, GREEN JACKET, THHN TYPE COPPER EQUIPMENT BONDING CONDUCTOR. USE 2-HOLE LONG BARREL IRREVERSIBLE CRIMP TYPE CONNECTORS TO BOND CONDUCTORS TO RACK BONDING BUSBAR AND AN IRREVERSIBLE CRIMP CONNECTOR TO BOND TO THE EQUIPMENT CONDUCTOR.
- 6. INSTALL #12 AWG GREEN JACKET, THHN TYPE COPPER UNIT BONDING CONDUCTOR WITH 2-HOLE HOLE IRREVERSIBLE CRIMP CONNECTOR OR A MANUFACTURER APPROVED CONNECTOR FOR THE EQUIPMENT. MAINTAIN MINIMUM BEND RADIUS ON ALL CONDUCTORS.
- 7. INSTALL GREEN JACKET, THHN TYPE COPPER ALTERNATING CURRENT EQUIPMENT GROUND CONDUCTOR WITH 2-HOLE LONG BARREL IRREVERSIBLE CRIMP CONNECTORS ON BOTH ENDS, FROM THE NEAREST ELECTRICAL PANEL TO THE COMM ROOM OR TO THE ELECTRICAL PANEL IN THE ROOM (WHICHEVER ONE IS THE CLOSEST TO THE COMM ROOM) TO THE PRIMARY BONDING BUSBAR (PBB) OR TO SECONDARY BONDING BUSBAR (SBB). SIZE THE CONDUCTOR PER TIA-607-D (2017).

TELECOM BACKBONE BONDING (TBB) CONDUCTOR SIZE VS LENGTH TABLE

TBB/GE LINEAR LENGTH (FT)	TBB/GE SIZE (AWG)
LESS THAN 13	6
14-20	4
21-26	3
27-33	2
34-41	1
42-52	1/0
53-66	2/0
67-84	3/0
85-105	4/0
106-125	250 kcmil
126-150	300 kcmil
151-175	350 kcmil
176-250	500 kcmil
251-300	600 kcmil
GREATER THAN 301	750 kcmil

NOTES:
A. TBB SIZING TABLE PER LATEST EDITION OF TIA-607-D.
B. THE MINIMUM TBB CONDUCTOR SIZE SHALL BE A NO. 6 AMERICAN WIRE GAUGE (AWG).

6 TELECOM BONDING AND GROUNDING NTS



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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
TELECOM - DETAILS

Approved:
Andreka Watlington

Phase
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Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
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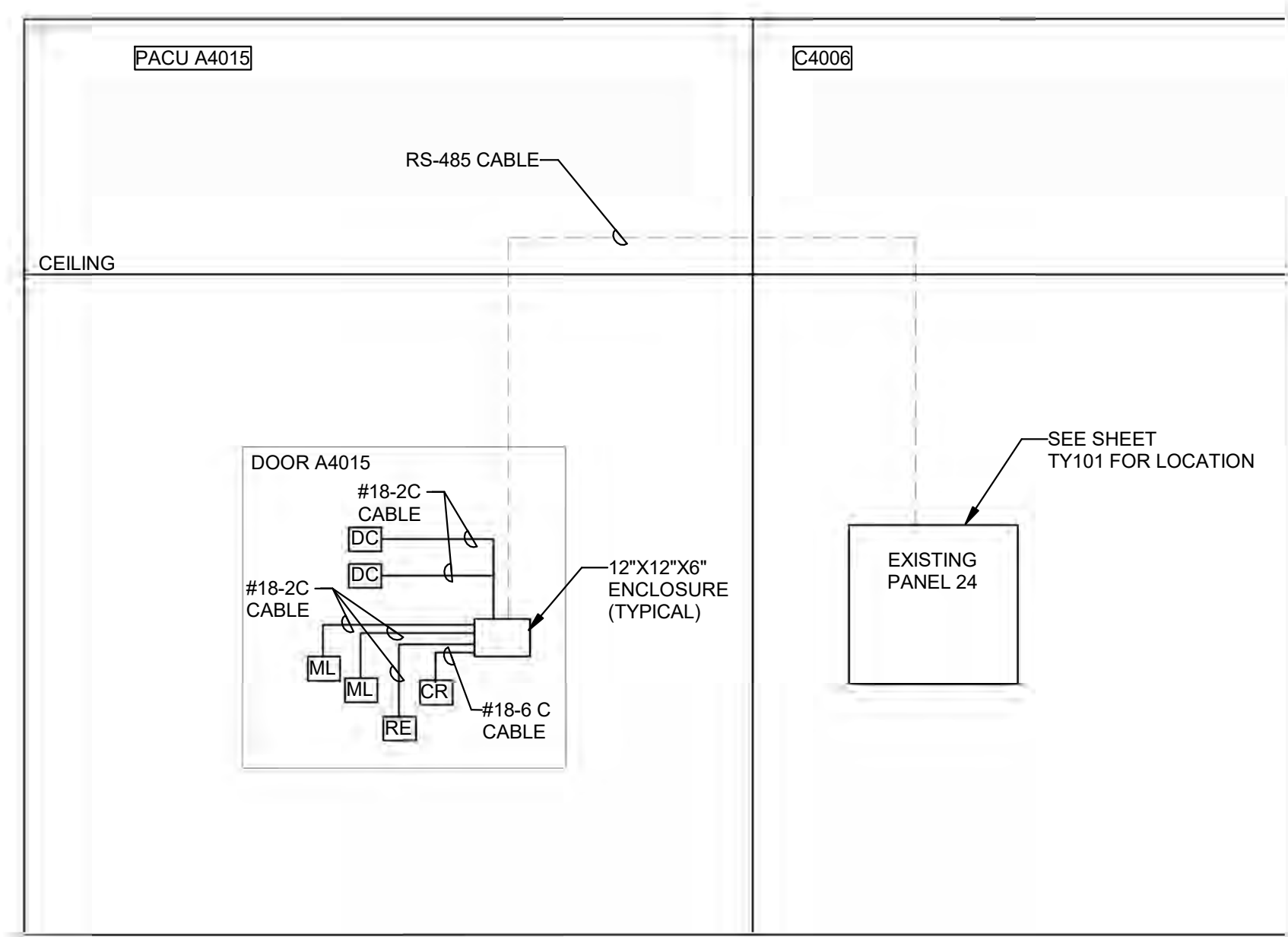
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558-17-150

Building Number

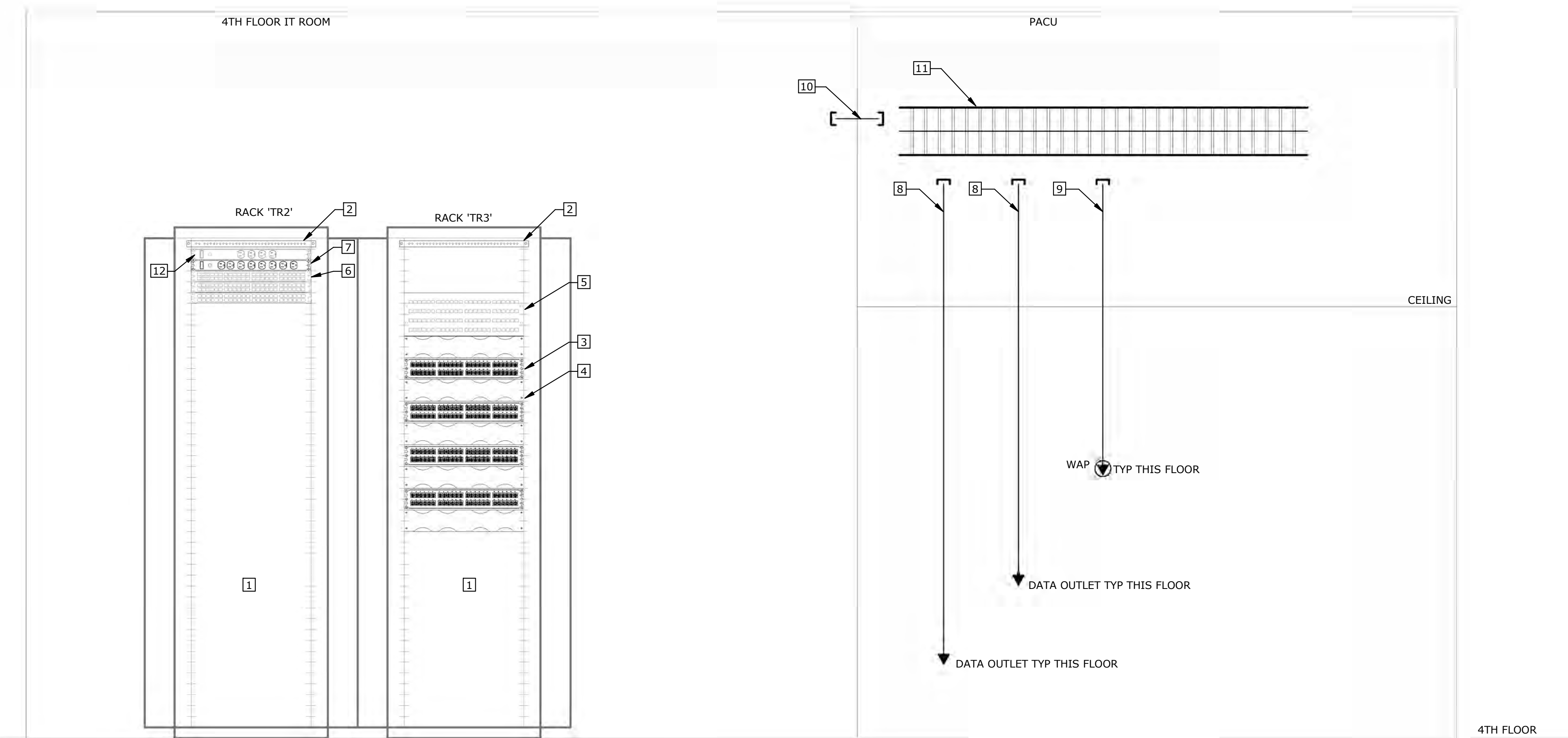
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2 SECURITY - ACCESS CONTROLS - RISER DIAGRAM
NTS



1 TELECOM - PARTIAL RISER DIAGRAM
NTS

- TELECOM RISER NOTES:**
- EXISTING 2-POST FLOOR MOUNTED RACK.
 - PROVIDE NEW HORIZONTAL RACK MOUNTED GROUND BAR. SEE GROUNDING DETAIL ON THIS SHEET FOR ADDITIONAL INFORMATION.
 - PROVIDE NEW MODULAR 48 PORT CAT6 PATCH PANEL FOR NEW DATA CABLING. (TYPICAL)
 - PROVIDE 2RU HORIZONTAL CABLE MANAGEMENT. (TYPICAL)
 - EXISTING 96 PORT PATCH PANEL.
 - EXISTING NETWORK SWITCH, TYPICAL.
 - PROVIDE POWER STRIP WITH 120V, SINGLE PHASE, CONTINUOUS DUTY WITH (8) 15 AMP GROUNDED RECEPTACLES WITH A 15FT CORD.
 - PROVIDE WHITE JACKET CAT-6 PLENUM RATED CABLES, IN 1" CONDUIT. INSTALL CONDUIT ABOVE ACCESSIBLE CEILING TO NEAREST LADDER CABLE TRAY. CONNECT CABLE FROM OUTLET TO PATCH PANEL IN TELECOM ROOM 'TR1' ON 4TH FLOOR. SEE SHEET TN101 FOR LOCATION OF TELECOM ROOM. PROVIDE 10FT SLACK LOOP IN TELECOM ROOM AND A 1FT LOOP ABOVE THE CEILING NEAR THE WORK AREA OUTLET. SEE FLOOR PLAN TN101 FOR CABLE COUNTS, (TYPICAL).
 - INSTALL GREEN JACKET CAT-6 PLENUM RATED CABLES FOR ALL AP LOCATIONS. ROUTE CABLING IN J-HOOKS BACK TO NEAREST LADDER CABLE TRAY. CONNECT CABLE FROM OUTLET TO PATCH PANEL IN TELECOM ROOM 'TR1' ON 4TH FLOOR. SEE SHEET TN101 FOR LOCATION OF TELECOM ROOM. PROVIDE 10FT SLACK LOOP IN THE TELECOM ROOM AND A 10FT LOOP ABOVE THE CEILING NEAR THE OUTLET. SEE FLOOR PLAN TN101 FOR CABLE COUNTS (TYPICAL).
 - WALL PENETRATION SLEEVES. SEE FLOOR PLAN ON SHEET TN101 FOR SIZE, LOCATION, AND QUANTITY.
 - LADDER TYPE CABLE TRAY.
 - EXISTING POWER STRIP.

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
TELECOM - RISER DIAGRAMS

Approved:
Andreka Watlington

Phase
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FULLY SPRINKLERED

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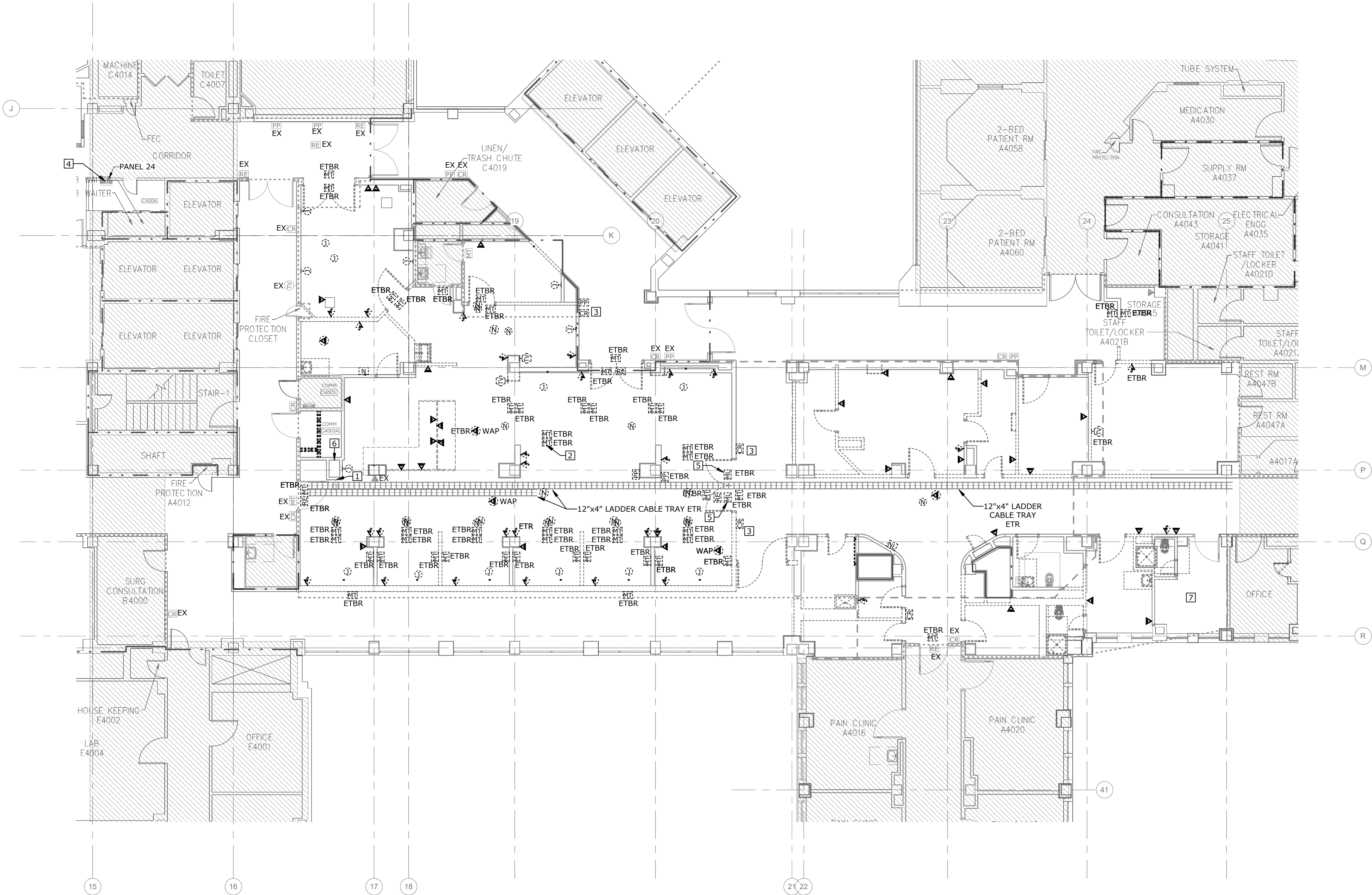
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558-17-150

Building Number

Drawing Number
T-601
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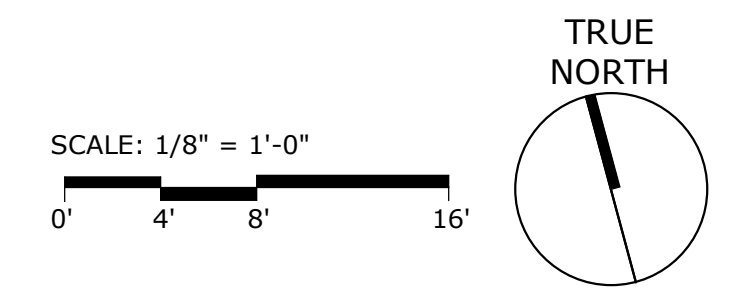
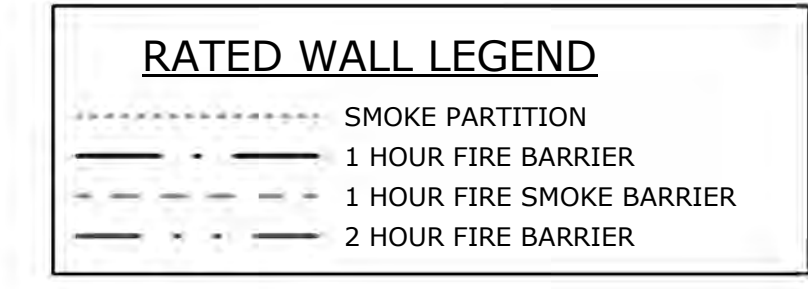
- # KEYED NOTES:
- EXISTING MEDICAL GAS PANEL TO REMAIN.
 - ALL REAL TIME LOCATION DEVICES SHALL BE REMOVED AND STORED. TYPICAL.
 - REMOVE ACCESS CONTROL DEVICES AND TURN OVER TO VA. COORDINATE REMOVAL OF DEVICES WITH ARCHITECTURAL PHASING PLAN.
 - REMOVE ACCESS CONTROL DEVICE CABLING BACK TO EXISTING ACCESS CONTROL PANEL 24.
 - REMOVE AND RELOCATE MAGNETIC LOCKS TO NEW DOUBLE DOORS. SEE TY101 SHEET FOR NEW LOCATION.
 - CONTRACTOR MUST GIVE THE VA ELECTRONICS SHOP 48 HOURS NOTICE TO SHUTDOWN THE PNEUMATIC TUBE SYSTEM PRIOR TO DEMOLITION.
 - REMOVE ALL TELECOM AND LEGACY OUTLETS IN THIS ROOM. PULL ALL CABLING BACK TO SOURCE.



1 TELECOM - FOURTH FLOOR PLAN - DEMOLITION
1/8" = 1'-0"

EXISTING CONDITIONS NOTE

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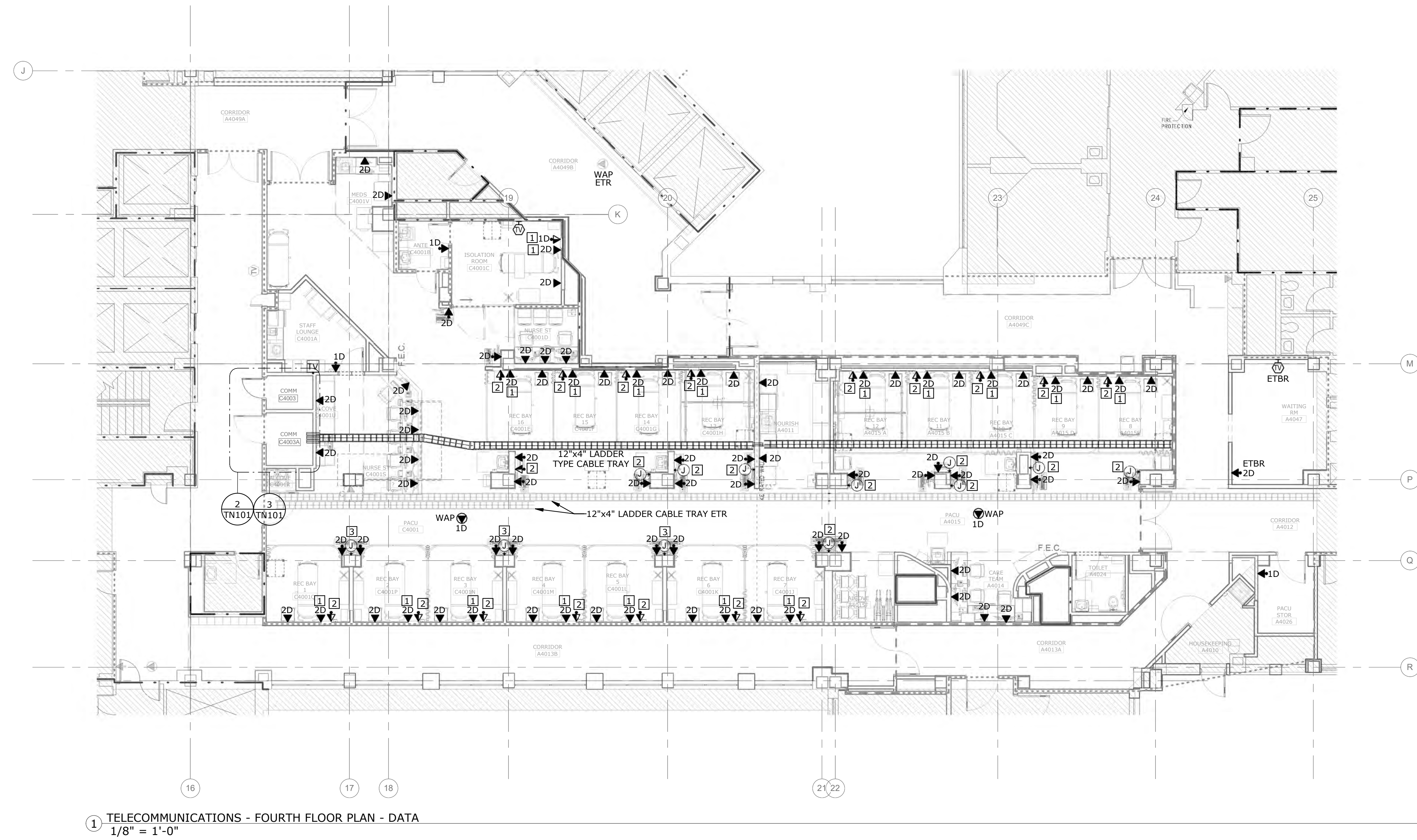
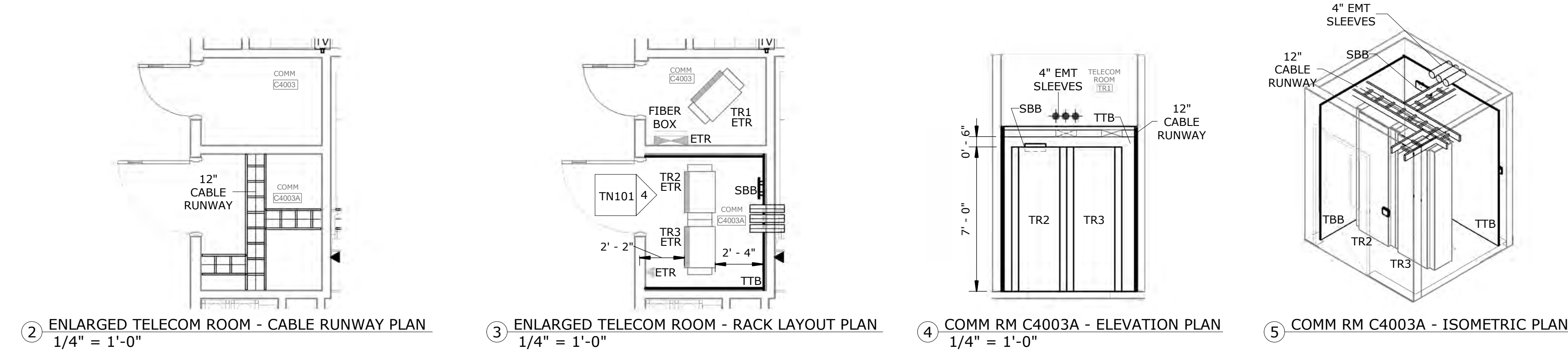
<p>CONSULTANT</p> <p>AME CONSULTING ENGINEERS 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO. C-2848 AME PROJECT NO.: 17116</p> <p>PERKINS EASTMAN 520 WEST SIXTH STREET CHARLOTTE, NC 28202 T: 704.960.0501 F: 704.362.4602</p> <p>LAURENE, RICKHER & SORRELL, P.C. 8731 RED OAK BLVD. SUITE 500 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-262-0486 FAX: 704-262-0999 EMAIL: rick@rpsnc.net WEB: www.rpsnc.net</p>		<p>ARCHITECT/ENGINEER OF RECORD</p> <p>Atriax GROUP Atriax, pllc 102 3rd Avenue, NE PO Box 1629, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com</p>		<p>STAMP</p> <p>BICSI REGISTERED COMMUNICATIONS DISTRIBUTION ENGINEER David R. Adams Reg. No. 181099R EXPIRES 12/31/21 RCDD 12/22/20</p>		<p>Office of Construction and Facilities Management</p> <p>VA U.S. Department of Veterans Affairs</p>		<p>Drawing Title</p> <p>TELECOM - FOURTH FLOOR PLAN - DEMOLITION</p> <p>Approved: Andreka Watlington</p>		<p>Phase</p> <p>100% BID DOCUMENTS</p>		<p>Project Title</p> <p>VA DURHAM - PACU RENOVATION</p>		<p>Project Number</p> <p>558-17-150</p>	
<p>Revisions:</p>		<p>Date:</p>		<p>Location</p> <p>DURHAM VAMC DURHAM, NC</p>		<p>Drawing Number</p> <p>TD101</p>		<p>Issue Date</p> <p>12/22/2020</p>		<p>Checked</p> <p>MCK</p>		<p>Drawn</p> <p>DRA</p>			
<p>VA FORM 08 - 6231</p>		<p>1</p>		<p>2</p>		<p>3</p>		<p>4</p>		<p>5</p>		<p>6</p>			
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GENERAL NOTES

- A CONTRACTOR SHALL NOT INSTALL J-BOXES, OUTLETS, DEVICES, ETC. BACK TO BACK THROUGHOUT THIS FACILITY.
- B THE DRAWINGS ARE DIAGRAMMATIC. THE TELECOMMUNICATIONS INSTALLATION SHALL BE COORDINATED WITH ALL OTHER TRADES TO REDUCE INTERFERENCES BETWEEN ALL ELECTRICAL DEVICES AND ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL AND FIRE PROTECTION.
- C ALL DEVICES SHALL BE FLUSH MOUNTED, UNLESS OTHERWISE NOTED. COORDINATE DEVICE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
- D ALL WIRING LOCATED IN RETURN AIR PLENUMS SHALL BE ROUTED IN CONDUIT OR SHALL BE PLENUM RATED CABLE. COORDINATE REQUIREMENTS WITH HVAC CONTRACTOR.
- E COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHT OF ALL DEVICES WITH ARCHITECTURAL INTERIOR CASEWORK ELEVATIONS AND EQUIPMENT LAYOUTS PRIOR TO ROUGH-IN.
- F REFER TO ARCHITECTURAL PLANS FOR PHASING.
- G REFER TO SHEET F-601 FOR SYMBOL LEGEND AND DAMPER DETAIL.
- H FIRE ALARM NOTIFICATION APPLIANCES SHALL BE IDENTIFIED PER SMOKE ZONES SHOWN ON PLANS. ANY DEVICES MOVED FROM ONE ZONE TO THE OTHER SHALL BE REVISED TO INDICATE NEW SMOKE ZONE.
- I EXISTING RESPONDER 5 NURSE CALL DEVICES SHALL BE REMOVED AND RELOCATED. CONTRACTOR SHALL INSTALL NEW RESPONDER 5 NURSE CALL DEVICES AND UPDATE THE PROGRAMMING OF THE NURSE CALL SYSTEM.

KEYED NOTES

- 1 DATA CABLEING AND FACEPLATES SHALL BE INSTALLED IN VERTICAL HEADWALL.
- 2 INSTALL 1" CONDUIT AND CAT6 CABLE FROM MONITOR J-BOX ON VERTICAL HEADWALL TO J-BOX LOCATED ON WALL NEAR PIECES WORKSTATION. TERMINATE BOTH ENDS OF CAT6 CABLE WITH RJ45 JACKS AND FACEPLATES. SEE HEADWALL DETAIL ON SHEET T-501 FOR MOUNTING LOCATIONS.
- 3 INSTALL BOTH 1" CONDUITS AND BOTH CAT6 CABLES FROM MONITOR J-BOXES ON VERTICAL HEADWALLS TO SINGLE 4-1/2"X16" BY 2-1/8" J-BOX LOCATED NEAR PIECES WORKSTATIONS. TERMINATE BOTH ENDS OF CAT6 CABLES WITH RJ45 JACKS AND FACEPLATES.

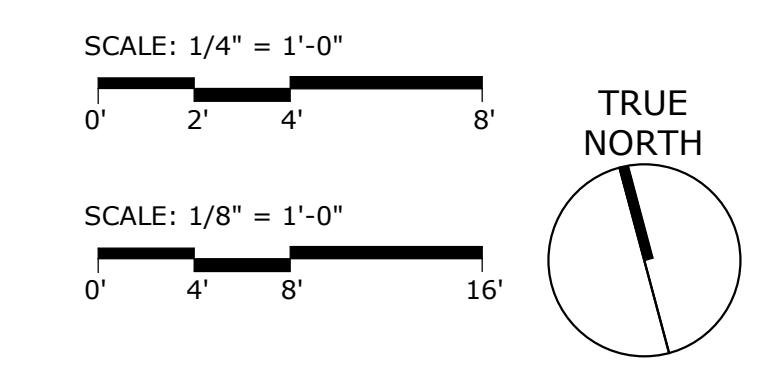


EXISTING CONDITIONS NOTE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE AS-BUILT RECORD DRAWINGS PROVIDED TO THE DESIGN TEAM AND FIELD INVESTIGATIONS CONDUCTED ON 10/1/2018. IT IS POSSIBLE EXISTING CONDITIONS HAVE CHANGED AND ARE DIFFERENT THAN WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONDUCT A THOROUGH SURVEY OF EXISTING CONDITIONS. DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE VA COR, ARCHITECT, AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE BID DATE. SUBMISSION OF A BID INDICATES THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND HAS INCLUDED ALL WORK NECESSARY TO COMPLETE THE PROJECT.

RATED WALL LEGEND

- SMOKE PARTITION
- 1 HOUR FIRE BARRIER
- 1 HOUR FIRE SMOKE BARRIER
- 2 HOUR FIRE BARRIER



100% BID DOCUMENTS

	<p>CONSULTANT</p> <p>AME CONSULTING ENGINEERS 705 EAST MOREHEAD STREET CHARLOTTE, NC 28202-704-295-4263 NC LICENSE NO. C-2848 AME PROJECT NO.: 17116</p>	<p>ARCHITECT/ENGINEER OF RECORD</p> <p>PERKINS EASTMAN LAURENE, RICKHER & SORRELL, P.C. Consulting Structural Engineers 8731 RED OAK BLVD. SUITE 500 CHARLOTTE, NORTH CAROLINA 28217 PHONE: 704-262-0486 FAX: 704-262-0999 EMAIL: rickher@perkins.com WEB: www.perkins.com</p>	<p>ARCHITECT/ENGINEER OF RECORD</p> <p>Atriax Atriax, pllc 102 3rd Avenue, NE PO Box 1629, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 www.atriaxgroup.com</p>	<p>STAMP</p> <p>REGISTERED COMMUNICATIONS DISTRIBUTION TECHNOLOGIST Andre R. Adams Reg. No. 181099R EXPIRES 12/31/21 RCDD 12/22/20</p>	<p>Office of Construction and Facilities Management</p> <p>VA U.S. Department of Veterans Affairs</p>	<p>Drawing Title TELECOM - FOURTH FLOOR PLAN - DATA</p> <p>Approved: Andreka Watlington</p>	<p>Phase 100% BID DOCUMENTS</p> <p>FULLY SPRINKLERED</p>	<p>Project Title VA DURHAM - PACU RENOVATION</p> <p>Location DURHAM VAMC DURHAM, NC</p>	<p>Project Number 558-17-150</p> <p>Building Number</p> <p>Drawing Number TN101 77 of 78</p>
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GENERAL NOTES

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KEYED NOTES

- 1 COORDINATE DEMOLITION AND INSTALLATION OF TEMPORARY ACCESS CONTROL DEVICES WITH ARCHITECTURAL PHASING PLAN. ACCESS CONTROL DEVICES SHOWN INSIDE RENOVATED AREA SHALL BE DEMOLISHED WHEN DOOR FRINGS REMOVED AT THE END OF PHASE 2A. SEE SHEET TD101 FOR ADDITIONAL INFORMATION.
- 2 COORDINATE DEMOLITION AND INSTALLATION OF TEMPORARY ACCESS CONTROL DEVICES WITH ARCHITECTURAL PHASING PLAN. ACCESS CONTROL DEVICES SHOWN INSIDE RENOVATED AREA SHALL BE DEMOLISHED WHEN DOOR IS REMOVED AT THE END OF PHASE 1B. SEE SHEET TD101 FOR ADDITIONAL INFORMATION.
- 3 COORDINATE DEMOLITION AND INSTALLATION OF NEW ACCESS CONTROL DEVICES WITH ARCHITECTURAL PHASING PLAN. ACCESS CONTROL DEVICES SHOWN INSIDE AREA SHALL BE INSTALLED WHEN DOOR IS INSTALLED DURING PHASE 1B.
- 4 EXISTING ACCESS CONTROL PANEL 24. NEW ACCESS CONTROL DEVICES SHALL TERMINATE IN THIS PANEL. EXISTING ACCESS CONTROL SYSTEM IS S2 SECURITY (LEVEL).
- 5 RELOCATE EXISTING MAGNETIC LOCKS TO THIS DOUBLE DOOR. SEE DOOR ELEVATION DETAIL FOR ROUGH-IN REQUIREMENTS.

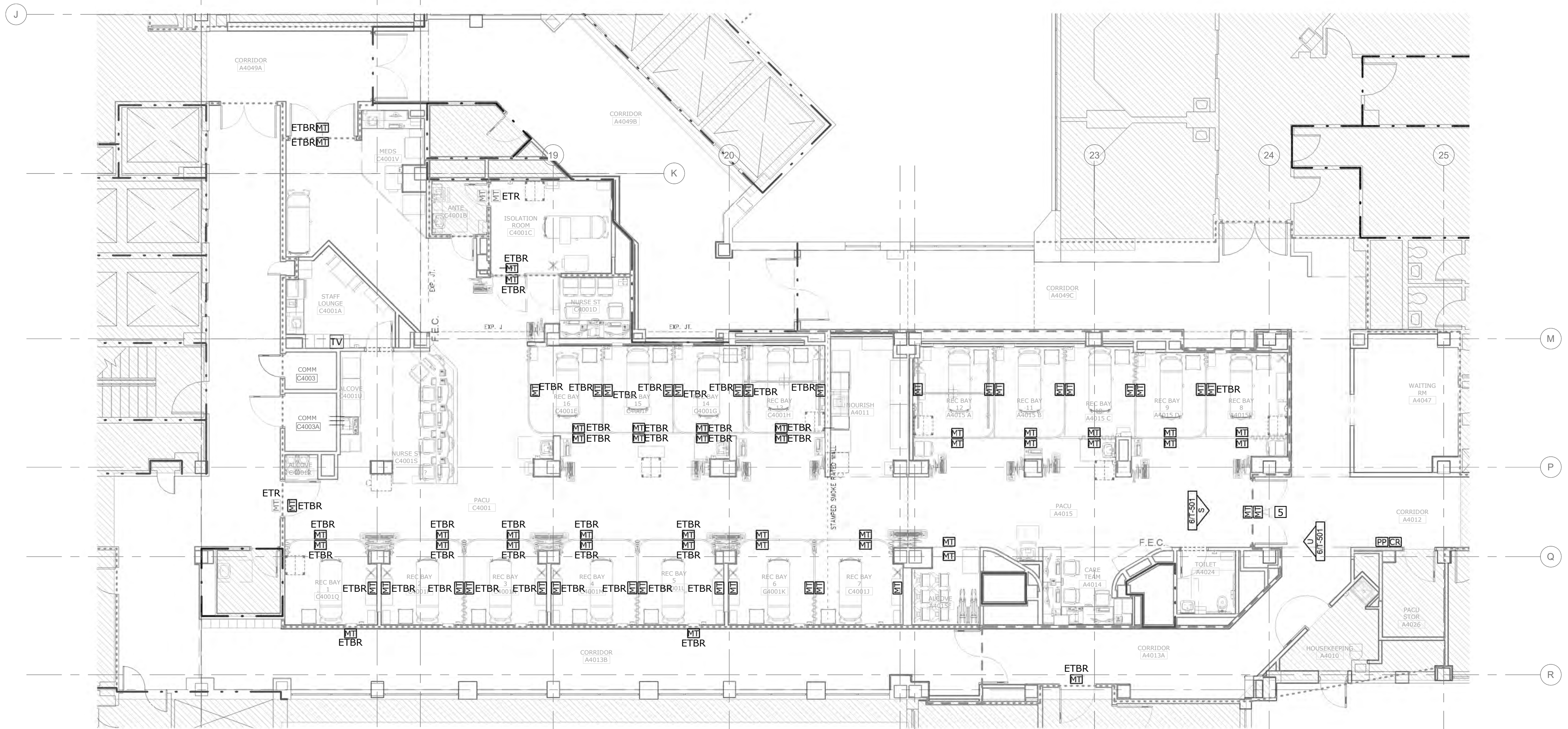
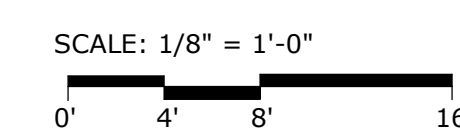
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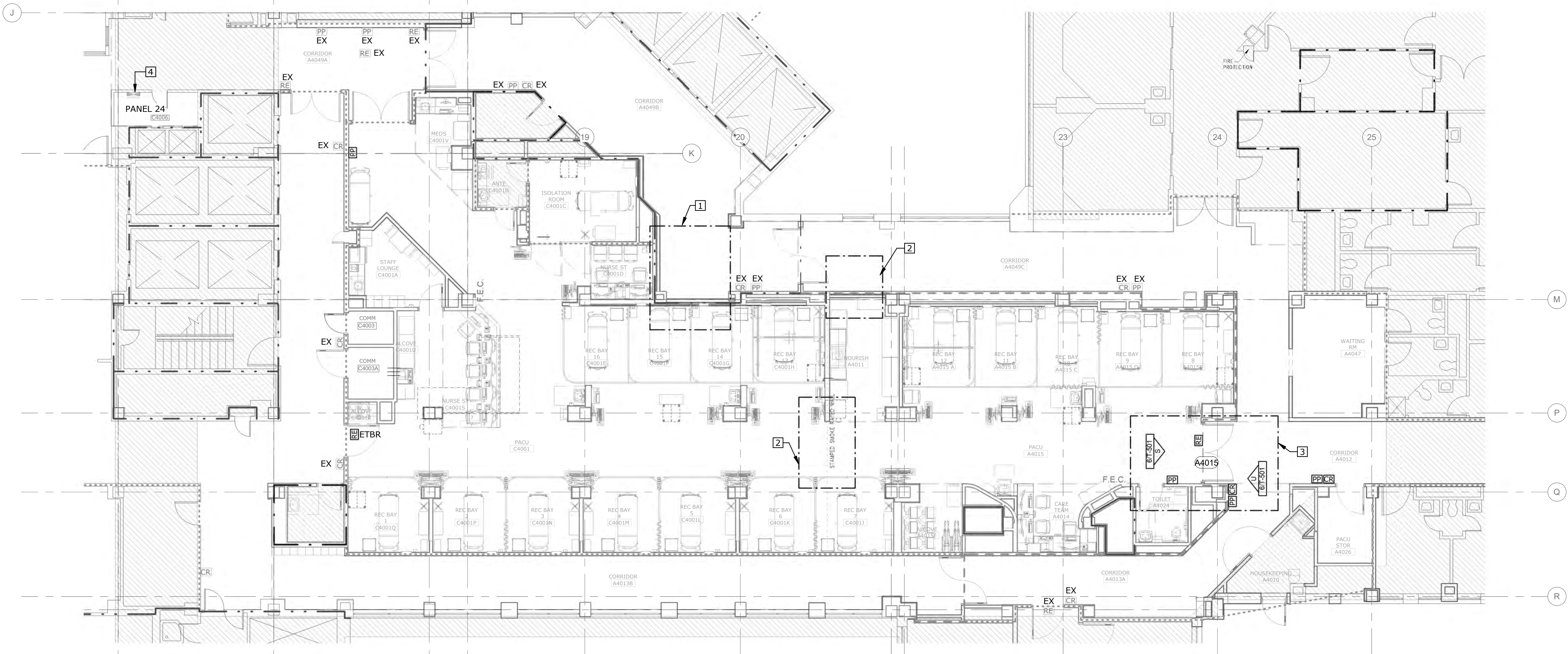
RATED WALL LEGEND

- SMOKE PARTITION
- 1 HOUR FIRE BARRIER
- 1 HOUR FIRE SMOKE BARRIER
- 2 HOUR FIRE BARRIER

TRUE NORTH



2 MEDICAL SYSTEMS - FOURTH FLOOR PLAN
1/8" = 1'-0"



1 SECURITY - FOURTH FLOOR PLAN
1/8" = 1'-0"

100% BID DOCUMENTS

Revisions:	Date:

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David R. Adams
Reg. No. 181099R
EXPIRES 12/31/21
RCD 12/22/20

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
TELECOM - FOURTH FLOOR PLAN - SECURITY/MEDICAL SYSTEMS

Approved:
Andreka Watlington

Phase
100% BID DOCUMENTS

FULLY SPRINKLERED

Project Title
VA DURHAM - PACU RENOVATION

Location
DURHAM VAMC DURHAM, NC

Issue Date
12/22/2020

Checked
MCK

Drawn
DRA

Project Number
558-17-150

Building Number

Drawing Number
TY101
78 of 78

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