ADDENDUM NO. 5

TO: PLANS AND SPECIFICATIONS FOR STATE OF MISSOURI

Renovate Mechanical / Electrical / Life-Safety / State Office Building
Jefferson State Office Building
205 Jefferson Street
Jefferson City, MO 65101
PROJECT NO. O1911-01

Bid Opening Date: 1:30 PM, Thursday, February 8, 2024 (Changed in Addendum #4)

Bidders are hereby informed that the construction Plans and/or Specifications are modified as follows:

SPECIFICATION CHANGES*:*

1. Section 233113 Metal Ducts Part 3.1 and 3.2

3.1 DUCT PRESSURE CLASS SCHEDULE

A. Static-Pressure Classes: Unless otherwise indicated, construct ducts according to the following:

1. All supply ductwork unless otherwise specified shall be constructed of gauges and reinforcements to 4" w.g. static pressure

2. All return, exhaust, outdoor air, relief and supply ductwork downstream of terminal units shall be constructed of gauges and reinforcement to 2" w.g. static pressure in SMACNA duct construction standards – latest edition Panels in all ducts 12" and larger shall be cross-broken or beaded on 12" centers. Note stack air handler ductwork outside of the mechanical room and downstream of the primary VAV's shall be 2" w.g. static pressure class.

3. Transfer Ducts: 1/2-inch wg.

3.2 DUCT MATERIAL SCHEDULE

A All ducts shall be constructed from sheets or rolls of G-90 or better galvanized steel, LFQ, Chemtreat unless otherwise indicated.

B Internal lining is required for basement TV studio only.

C Kitchen hood exhaust duct shall be minimum 16 gauge steel. Welded liquid tight and shall have no internal restrictions.

D. Kitchen Dishwasher exhaust (EF-2) shall be 3003-H14 series aluminum.

2. Section 23*8239 In-Room Terminal Equipment Section 2.2 K added:*

K. Fan Coil Unit Hook Up

A. Contractor to provide valves and specialties specified herein and in 230523Valves Two service valves and a manual balance valve are require regardless of memory function of balance valves.

B. One of the following piping and specialty configurations is acceptable (piping components installed in the order listed):

1. Supply service valve, balance valve, tee with integral drain, hard pipe or hose to coil, hard pipe or hose from the coil, tee with integral vent, control valve, service valve.

2. Supply service valve with integral drain (on coil side), balance valve, hard pipe or hose to coil, hard pipe or hose from the coil, control valve, service valve with integral vent (on coil side).

C. When hoses are used at the contractors option they shall meet the following:

1. Internal diameter of the hose shall be not less than 90% of the ID of copper pipe, for the pipe size on the drawings feeding the unit. Hose inner liner shall be EDPM rubber and shall be covered with stainless steel braid. Pressure rating shall not be less than 200 psig.

2. Hoses shall have one fixed end male NPT connection and one swivel end. The swivel shall be a gasket-less JIC 37°F flared female connection, with companion flare x NPT fitting. Connections shall be stainless steel or brass. Hose kits shall be 24" long. Hoses using gaskets or o-rings are not acceptable. Hoses shall be Twin City Hose, ACE Hose, Hosecraft USA, Chamflex, or approved equivalent meeting the above specifications.

D. Specialty Valves incorporating auxiliary ports for p/t, drain, vent, etc. may be utilized provided the arrangement meets the flow diagram and the products do not contain unions, gaskets, or o-rings. Valves shall be dezincification resistant brass and shall be rated for 200psig minimum at 200°F.

1. Service valve with integral drain /vent – Webstone Ball Drain, Cimberio Valve model 630B less strainer basket, or approved equivalent.

2. Service valve with NPT tapping, plus separate drain cocks – Apollo 7B-100, Cimberio 200MC, or approved equivalent.

3. Tee with integral drain /vent – Webstone T-drain, or approved equivalent.

DRAWING CHANGES:

1. Drawing G-002:
   a. **UPDATED** – People Move Diagram
2. Drawing A-100:
   a. ADD – Mechanical, Electrical, & Storage areas to scope.
   b. ADD - Show areas where existing housekeeping pads are to be removed.
   c. ADD – Demolition Keyed Note D60: REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION
   d. ADD – Demolition Keyed Note D61: REMOVE PORTION OF EXISTING CMU WALL TO ACCOMMODATE MECHANICAL DEMOLITION SCOPE (Mechanical Room)

e. ADD – Demolition General Note 25: FLOORS 2-13: BREAK CAULK AT EXISTING FAN COIL UNIT PLASTIC LAMINATE COUNTERTOPS IN ORDER TO GAIN ACCESS FOR SCHEDULED MECHANICAL WORK.

3. Drawing A-101:
   a. ADD – Soffit overhang at north exterior of building and Demolition Keyed Note D63: DASHED LINE DENOTES SOFFIT OVERHANG ABOVE; REMOVE EXISTING ACCESS PANELS ASSOCIATED WITH MECHANICAL SCOPE AND REINSTALL ACCESS PANELS AFTER WORK HAS BEEN COMPLETED
   b. ADD – Mechanical Room at back-of-house kitchen area to scope and show where existing housekeeping pad is scheduled to be removed (Demolition Keyed Note D60).
4. Drawing A-102:
   a. ADD – Second Floor (North Wall) - Demolition Keyed Note D64: REMOVE EXISTING LAMINATE COUNTERS AT FAN COIL UINTS (FCU) TO CUT AND INSTALL ADDITIONAL DIFFUSER PER MECHANICAL SCOPE
5. Drawing A-102 through A-107:
   a. ADD – Mechanical Rooms – existing housekeeping pad removal (Demolition Keyed Note D60).
6. Drawing A-108:
   a. ADD – Penthouse Demolition Plan (2/A-108) and show removal of existing housekeeping pad (Demolition Keyed Note D60).
7. Drawing A-120:
   a. ADD – Room Schedule: Rooms 009 – Mechanical/Electrical, 010 – Storage, & 011 – Mechanical.
   b. ADD – All rooms above to scope of work on plan.
   c. ADD – Architectural Keyed Note A13: PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING
   d. ADD – Architectural Keyed Note A28: INSTALL NEW CMU WALL AFTER MECHANCIAL WORK HAS BEEN COMPLETED IN THIS AREA
   e. ADD – Architectural Keyed Note A29: NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT
   f. ADD – Architectural General Note 27: FLOORS 2-13: REINSTALL ALL REMOVED PLASTIC LAMINATE COUNTERTOPS AT PERIMETER FAN COIL UNITS AND CAULK TO MATCH EXISTING.
8. Drawing A-121:
   a. ADD – Mechanical Room 100H to scope and show new equipment housekeeping pad.
   b. ADD – Mechanical Room 100H - Architectural Keyed Notes A13 & A29
9. Drawing A-122:

a. ADD – Second Floor (North Wall) – Architectural Keyed Note A31: CUT IN NEW SCHEDULED (24"X6") DIFFUSERS IN EXISTING PLASTIC LAMINAE COUNTER, AS INDICATED ON MECHANICAL DRAWINGS

10. Drawing A-122 through A-127:
    a. ADD – Even Floors (2, 4, 6, 8, 10, & 12) Mechanical Rooms: Architectural Keyed Note A13, to address areas where housekeeping pads have been removed and the existing slab will be painted.
    b. ADD – Odd Floors (3, 5, 7, 11, & 13) Mechanical Rooms – New housekeeping pads to scope of work and Architectural Keyed Note A29: NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT
    c. ADD – Seventh Floor Mechanical Room 700H – Architectural Keyed Note A13
    d. ADD – Odd Floors (3, 5, 11, & 13) Mechanical Rooms - Architectural Keyed Note A27: PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND FINISH FLOOR AS INDICATED ON FINISH PLANS
11. Drawing A-128:
    a. ADD – Architectural Penthouse Plan (2/A-128) and Architectural Keyed Note A30: PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND MATCH EXISTING SURROUNDING SLAB FINISH
12. Drawing M3.1
    a. ADD - Condensate Piping.
13. Drawing M3.2
    a. ADD - FCU Section.
    b. Adjust Piping.
14. Drawing M3.3
    a. ADD - FCU Section.
15. Drawing M3.12
    a. Add FCU-G in RM 1204.
16. Drawing M4.2
    a. Lover Designation added.
17. Drawing M5.0
    a. Added general note regarding valves at taps from the risers.
18. Drawing M5.1
    a. Added general note regarding valves at taps from the risers.
19. Drawing M5.6
    a. Phasing diagram adjusted.

20. Drawing M5.7
    a. Phasing diagram adjusted.
21. Drawing M6.0
    a. flex duct details adjusted.
22. Drawing M6.2
    a. Fan coil notes adjusted.
    b. Fan schedule notes adjusted.
    c. Air separator Schedule added.
23. Drawing M6.4
    a. Air Device Schedule adjusted.
24. Drawing MD3.0
    a. Piping above chillers shown demolished in 1st phase.
25. Drawing MD3.01
    a. Temporary Connection above chillers demolished.

GENERAL:

1. Pre-Bid Questions:

    a. G-002 - Show the Four Phase Schedule instead of the 5 Phase.
    Response: See attached sheet G-002 for updated Four Phase Schedule Move Diagram.

    b. If you have a mechanical room on each floor. Will there be access from outside to get into the space?
    Response: Contractor may coordinate access from E. Capitol Ave with the city. See attached permitting documentation.

    c. Loading Dock (Hatch and Construction Coordination) Will there be a designated area to load for construction?
    Response: Regular loading of materials at the loading dock will be available and will need to be coordinated with the building. Contractor may coordinate access from E. Capitol Ave with the city. See attached permitting documentation.

    d. Can there be a Perminant Dumpster?
    Response: Contractor's use of metered street parking for vehicle parking or dumpster placement will need to be secured through the City of Jefferson, MO, Department of Public Works. For meters on Capitol Ave or Jefferson Street the current rate is $1.00 per hour or $12.00 per day per space. For use of or blockage of the sidewalk the Contractor will need to apply for a permit for Right-of-Way Excavation. See attached form. For either of these requirements the contractor will need to reach out to the City of Jefferson, MO – Department of Public Works, (573)634-6410. See Attachment D for permitting documentation.

    e. How are people moving between floors?
    Response: See attached sheet G1 for updated Four Phase Schedule Move Diagram.

f. Alternates in the Asbestos Spec
Response: An updated Asbestos Spec has been provided in the attachments to align with the Alternates.

g. Asbestos in Mechanical Room
Response: Chiller and chiller piping will need to go. See attached asbestos report for base bid updates. See Sheet MD3.0 Keyed Note #3, MD3.2 Keyed Note #15, MD3.3 Keyed Note #14, and reference Hazardous Material Survey in Appendix.

h. What is the intent for elbows at diffusers? Spec section 233113.3.3.S calls for rigid elbows at all diffusers while spec Section 233300.2.9.H calls for Flexflow elbows, but the lay-in diffuser detail on M6.0 does not show any elbow or Flexflow.
Response: Provide Flex Flow - Detail updated Remove 233113.3.3.S in it's entirety.

i. What is the size of the existing relief louvers that get replaced with the 30”x36” relief louvers on floors 2-13?
Response: Existing louver is estimated at 24” x 30”.

j. Is the lower roof rated for scaffolding for access to floors 2-13 mechanical rooms and relief louvers? Or what is the preferred method for access to these areas?
Response: The lower roof above the dock is not desirable for access to floor 2-13. The structural capacity at the roof will likely not sustain the scaffolding and the items being moved between floors. See Addendum #5 General, items ‘c’, ‘b’, & ‘d’ for preferred E. Capital Method.

k. What is the intent of the duct construction for EF-2 that serves the dishwasher hood?
Response: EF-2 ductwork shall be 3003-H14 series aluminum. See updated 233113 Metal Ducts Specs.

l. What is the duct construction intent for the ductwork that is downstream of the N and S VAVs for each floor, but upstream of the individual VAV boxes serving certain areas of the floor?
Response: 2” pressure class. See updated 233113 specification.

m. Please confirm quantity of FCU-A. I’m coming up with 423 vs 419 shown on the schedule.
Response: 423 – Schedule Updated

n. Can you confirm what the ceiling & deck height will be on floors 2 through 13? In reviewing the duct size, external insulation spec and the basis of design light fixtures, we are concerned about having enough space. The bottom of the duct insulation will be 12.5” off of the deck and the light fixtures are 2-3/8” deep. Depending on the power connection of the light fixture, there could be an additional 1” of space required for conduit. That would require approximately 15” to 16” of room from the bottom of the deck. The main area of concern is in the corridors where the ductwork is 9” deep with 1.5” external insulation. The branch run outs reduce to 6” deep and we should be able to shift routing to avoid light fixtures.
Response: Hallway ceiling height is 7’6” and deck height is 8’9” AFF. Ductwork will need to be held tight to structure and insulation will be compressed in this area.

o. RFI question all the floors have Victaulic FIT fittings they are no longer available to buy

and should be replaced. The outcome is whole fire sprinkler system replacement per floor.
Response: See Addendum #4 Section General, Item # 1, b. Decision is to only wholistically replace all the heads. Go with non-recess, glass bulb, fast acting heads throughout. Victaulic FIT fittings to remain where existing.

p. RFI question is on the chase wall in the women's bathroom inside the chase with the louver getting enlarged. What are our plans for access into that inner chase for abatement as well as the 1" control line in the new work. I have attached M-3.2 for reference and clouded the area for your attention. I have drawn in the chase wall that we were unaware of and is not depicted on any plans.
Response: Piping and chase to remain.

q. On the Smoke Control system, Is the Fire Alarm contractor just providing alarm contact (relay upon on alarm) to the Control system I believe that it was said was done by C&C group for the smoke control and Pressurization. I do not see anything on the FA riser about Smoke Control and so I am assuming this to be the case as we all know HVAC/DOAS people are much more efficient at this than FA people are.
Response: The fire alarm system is the primary smoke control. The fire alarm panel is required to be UL 865 listed for smoke control.

r. Finish plan- Basement Drawing A-140 does not show any finish flooring work where Mechanical Plumbing & Electric house keeping pads are removed in Mech/Elec rooms. Existing floor epoxy finish to remain and concrete patches made where housekeeping pads are removed is the scope in the drawings? Please confirm this is the current flooring scope of work.
Response: Arcturis has updated demo plans (A-100 through A-108) to show location of housekeeping pad removal, based on the mechanical plans. Architectural sheets (A-120 through 128) have been updated to show locations of new housekeeping pads per the mechanical plans. Referenced architectural keyed notes A13, A27, & A29 shown in Drawing Updates.

s. Specification 261323 2.4 - specifies a load interrupter switchgear with circuit breakers. The one-line E0.4 only shows a load break switch and not a circuit breaker. Is a single fusible load break switch acceptable?
Response: MSG1 with the single fusible load break switch will need to be built to Ameren specifications. These specifications allow for either a drawout circuit breaker or fusible switch be provided as a main disconnect device.

t. Specification 261323 2.4.a - Is an arc-resistant enclosure required?
Response: MSG1 must be built to Ameren Specifications.

u. Specification 261326 2.4.E.1.a - notes that the 120VAC power source will be externally supplied. 261326 2.8 details an internal control power transformer requirement. Will control power be supplied by the customer or is an internal control power transformer required to be supplied by the equipment manufacturer?
Response: Control power transformers are allowed per the Ameren Switchgear Specifications.

v. Drawing E0.4 - For the panels that show sub-feed lugs (i.e. H2) the schedule shows a

225A main breaker, as well as a 225A sub-feed breaker and feed thru lugs. Can you confirm if both the sub-feed breaker and lugs are needed?
Response: Only the feed thru lugs are needed.

w. For Unit substations MSBA and MSBB, the plan view drawing (attached) shows the transformer ends installed right up against the wall. Is this correct? The transformers require clearance of at least 6 inches around the unit.
Response: Yes, the transformers will need the 6" clearance from the wall.

x. The switchboard lineups depicted in the plan view show center alignment with the transformer. Typically, we front align or rear align the switchboard. The switchboard depth is pretty close to the same depth as the transformer, so the front and rear are close to aligned anyway. Is that acceptable?
Response: This alignment is acceptable.

y. We are not listed as an approved manufacturer for the VFDs on this project. Can you approve us? Let me know if you need any information on our VFD.
Response: We will not be adding additional approved VFD manufacturers.

z. For MSG1 and MSG2, I assume this is metal clad switchgear for both? There are specifications for both options. MSG1 includes a main fusible switch and utility metering. Is the utility Ameren? If so, the utility section is required to be metal clad to meet Ameren requirements. A fusible switch on the other hand is a metal enclosed switchgear. We can couple a fusible switch in metal enclosed with a utility metering metal clad section, so this won't be a problem. I just want to make sure this is what you wanted. For MSG2, it looks to be metal clad switchgear with two feeder breakers. Please confirm, we could also do this in metal enclosed. For either of these offerings, it requires rear access for cable connections. Your plan view shows MSG2 up against the wall. This will not be allowed. Will this be a problem.
Response: The utility is Ameren. The MSG1 will need to meet Ameren switchgear construction requirements. Ameren specifications allow for either a draw out circuit breaker or fusible switch be provided as a main disconnect device. BOD for MSG2 is a metal clad switchgear. MSG2 will need to shift an additional approximately 2' off the wall to get the required working space.

aa. As an alternative, we can combine MSG1 and MSG2 into one lineup. Would that be acceptable? It would simplify your installation.
Response: While a single lineup would be better, we have space issues in the basement and cannot fit these into a single lineup.

bb. We noticed that the mechanical drawings show VAV boxes on each floor. The electrical drawings do not show the VAV boxes. Do these VAV boxes need power? Please advise on how we should proceed. Cost maybe associated based upon answer.
Response: VAV boxes will not require 120v power. Power will be provided from the controls contractor. Note that the existing DDC panels in the mechanical room will need to maintain its existing 120V circuiting.

cc. Addendum #3 addressed that most offices will require 2 data cables. Larger offices 618 and 1309 will require 6 cables. Do all 26 of the larger conference rooms require 6 drops? What about the 5 reception areas and 1 training room? Please advise on how we should

proceed. Cost may be associated based upon answer.
Response: For bidding purposes, assume the larger conference rooms and reception spaces will need 6 data drops. Include the 11 drops + WAP as currently shown in Training 1311.

dd. The glazed block restroom steam cleaning per the F9 note on the drawings is impractical for interior work therefore the cleaning methods in the Masonry specification are the methods we propose to bid on. Please confirm this is acceptable.
Response: *Steam clean using Prosoco – Concrete Floor Restorer, which is a degreaser/micro-etch product, or equivalent. (Arcturis to provide cutsheet for reference)*

ee. Are Hose Kits Acceptable?
Response: Additional Fan Coil Unit Hook-up Specifications added to 238239

ff. Is Schneider and acceptable manufacture for controls hardware.
Response: Schneider is approved.

SUBSTITUTION REQUESTS:

1. *Substitution Request - O1911-01 - Midwest Elec Sys*
   Response: *Substitution Approved*

ATTACHMENTS:

1. Attachment A - Drawings
   - Drawing G-002 (1 Page)
   - Drawing A-100 (1 Page)
   - Drawing A-101 (1 Page)
   - Drawing A-102 (1 Page)
   - Drawing A-102 through A-107 (1 Page)
   - Drawing A-108 (1 Page)
   - Drawing A-120 (1 Page)
   - Drawing A-121(1 Page)
   - Drawing A-122 (1 Page)
   - Drawing A-122 through A-127 (1 Page)
   - Drawing A-128 (1 Page)
   - Drawing M3.1 (1 Page)
   - Drawing M3.2 (1 Page)
   - Drawing M3.3 (1 Page)
   - Drawing M3.12 (1 Page)
   - Drawing M4.2 (1 Page)
   - Drawing M5.0 (1 Page)
   - Drawing M5.1 (1 Page)

- Drawing M5.6 (1 Page)
- Drawing M5.7 (1 Page)
- Drawing M6.0 (1 Page)
- Drawing M6.2 (1 Page)
- Drawing M6.4 (1 Page)
- Drawing MD3.0 (1 Page)
- Drawing MD3.01 (1 Page)

2. Attachment B – Updated Asbestos Documents

3. Attachment C – Masonry Cleaning (Restroom Walls)

4. Attachment D – Application for Street Cut and Right-Of-Way Excavation

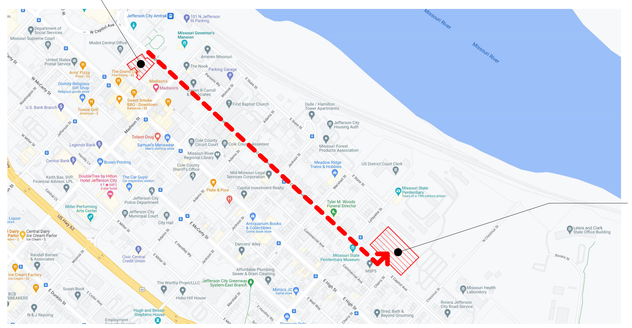
By the Order of:
Frank Cunningham
Division of Facilities Management,
Design and Construction
February 1, 2024

END ADDENDUM NO. 5

1 G-002 BASEMENT PLAN - ON-SITE STORAGE AREA
1" = 20'-0"

ROOM SCHEDULE - BASEMENT	
Number	Name
001	PRINT SHOP
002	OPEN OFFICE
003	OFFICE
004	OFFICE
005	OFFICE
006	OFFICE
007	OFFICE
008	STORAGE AREA
009	MECHANICAL/ELECTRICAL
010	STORAGE
011	MECHANICAL

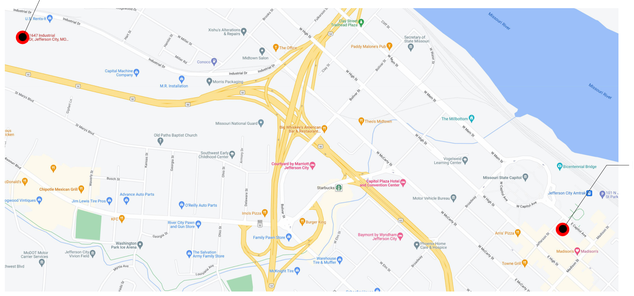
PROJECT SITE



UPPER LOT

2 G-002 MAP - 725 E CAPITAL AVE
1" = 1'-0"

1647 INDUSTRIAL DRIVE

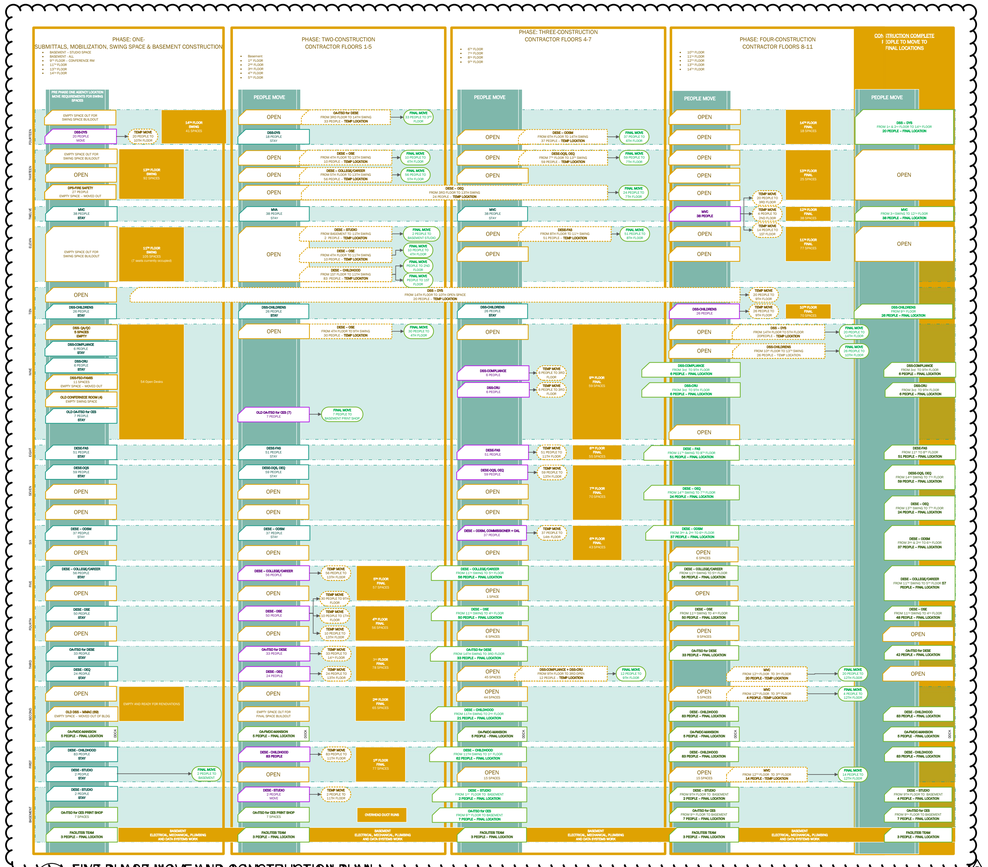


PROJECT SITE

3 G-002 MAP - 1647 INDUSTRIAL DRIVE
1" = 1'-0"

GENERAL NOTES: CONSTRUCTION STORAGE

1. SECURE OFF-SITE TRAILER PARKING IS AVAILABLE (FOR GC STORAGE) AT THE FOLLOWING LOCATIONS:
   A. UPPER LOT AT 725 E CAPITAL AVE. (ENTRANCE OFF CAPITOL AVENUE AT LAFAYETTE) AT STATE PENITENTIARY PROPERTY, JEFFERSON CITY, MO - REFERENCE MAP 2/G-002.
   B. 1647 INDUSTRIAL DRIVE, JEFFERSON CITY, MO - REFERENCE MAP 3/G-002.
2. FURNITURE AND MOVING CRATES REQUIRE CLIMATE-CONTROLLED STORAGE. REFERENCE FURNITURE DEMOLITION PLANS FOR ADDITIONAL INFORMATION.
3. ON-SITE STORAGE IN ROOM 008 BASEMENT LEVEL AT 205 JEFFERSON, JEFFERSON CITY, MO - REFERENCE PLAN 1/G-002.



3 G-002 FIVE PHASE MOVE AND CONSTRUCTION PLAN

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MICHAEL JOHN RATLIFF NUMBER A-6855 REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering Professional Engineering Corporation
Missouri State Certificate of Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

CM Archer Group, P.C. dba:
ARCHER-ELGIN
engineering ▪ surveying ▪ architecture
Corporate Authority:
CM Archer Group, P.C.:
E: 2003023612-D, LS: 2004017577-D, A-2016017179
Archer-Elgin Surveying & Engineering, LLC: E: 2011024035, LS: 2011025471, A-2012014618
110 East 6th Street, Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

RENOVATE MECHANICAL/ ELECTRICAL/LIFE-SAFETY/ STATE OFFICE BUILDING

JEFFERSON STATE OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

REVISION:Addendum 1 DATE:01/08/2024
REVISION:Addendum 2 DATE:01/17/2024
REVISION:Addendum 3 DATE:01/18/2024
REVISION:Addendum 4 DATE:01/25/2024
REVISION:Addendum 5 DATE:02/01/2024

ISSUE DATE: August 31, 2023

CAD DWG FILE: G-002
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
CONTRACTOR STORAGE & PROJECT PHASING

SHEET NUMBER:
G-002
2 OF 240
DATE : August 31, 2023

1 A-100 DEMOLITION PLAN - BASEMENT
3/32" = 1'-0"

GENERAL NOTES: DEMOLITION

1. PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT OWNER'S AND CLIENT'S PERSONNEL AND GENERAL PUBLIC FROM INJURY DUE TO SELECTIVE DEMOLITION WORK.
2. ERECT AND MAINTAIN DUST-PROOF PARTITIONS AND CLOSURES AS REQUIRED TO PREVENT SPREAD OF DUST OR FUMES TO OCCUPIED PORTIONS OF THE BUILDING. PROTECT MECHANICAL SYSTEM AS REQUIRED.
3. CONDUCT SELECTIVE DEMOLITION OPERATIONS AND DEBRIS REMOVAL IN A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES.
4. PROVIDE BYPASS CONNECTIONS AS NECESSARY TO MAINTAIN CONTINUITY OF SERVICE TO OCCUPIED AREAS OF THE BUILDING.
5. REVIEW/COORDINATE SCHEDULE OF WORK TO BE DEMOLISHED WITH OWNER TO LIMIT INTERRUPTIONS OF OCCUPIED SPACES.
6. MAINTAIN FIRE PROTECTION SERVICES DURING SELECTIVE DEMOLITION.
7. COVER AND PROTECT EQUIPMENT AND FIXTURES INDICATED "TO REMAIN" FROM SOILAGE OR DAMAGE.
8. LOCATE, IDENTIFY, STUB OFF, AND DISCONNECT UTILITY SERVICES THAT ARE NOT INDICATED TO REMAIN.
9. PERFORM SELECTIVE DEMOLITION WORK IN A SYSTEMATIC MANNER.
10. WHERE INDICATED ON DRAWINGS AS "SALVAGE AND STORE," CAREFULLY REMOVE INDICATED ITEMS, CLEAN, STORE, AND REUSE AS REQUIRED. DELIVER UNUSED ITEMS AT COMPLETION OF PROJECT TO CLIENT.
11. WHERE INDICATED ON DRAWINGS AS "SALVAGE AND DELIVER TO OWNER," CAREFULLY REMOVE INDICATED ITEMS, CLEAN, STORE, AND RETURN TO OWNER.
12. UNO REMOVE ALL EXISTING FLOORING (CARPET TILE, BROADLOOM CARPET, RESILIENT FLOORING, VINYL COMPOSITION TILE, ALL BASE, ETC.) WITHIN SCOPE OF WORK AREA. CLEAN AND PREPARE CONCRETE SLAB FLOOR AREA TO RECEIVE NEW FLOORING MATERIALS, INCLUDING REMOVAL OR SEALING OF ANY REMAINING EXISTING ADHESIVE AS REQUIRED, PATCHING CRACKS, AND LEVELING OF FLOOR TO MEET REQUIRED TOLERANCES FOR SCHEDULED FINISHES. PERFORM MOISTURE TESTING ON FLOOR TO DETERMINE IF EXTENSIVE FLOOR PREP IS REQUIRED.
13. UNO ALL EXISTING PARTITIONS, FIRE EXTINGUISHERS **(INCLUDING FIRE EXTINGUISHER SIGNAGE)** AND CABINETS, MILLWORK, DOORS, HARDWARE, SIDELITES, CLERESTORIES, ETC. TO REMAIN. (1)
14. REMOVE ALL HEADERS AT DOOR LOCATIONS WHERE DOORS ARE INDICATED TO BE REMOVED.
15. **UNO** REMOVE ALL EXISTING ACOUSTICAL CEILING TILE AND GRID, ALL CEILING SUSPENSION SYSTEMS, AND ALL CEILING ELEMENTS INSTALLED IN CEILINGS.
16. UNO REMOVE ALL EXISTING LIGHT FIXTURES.
17. UNO ALL EXISTING RECESSED RESTROOM ACCESSORIES TO REMAIN.
18. WHERE WALLS OR PARTITIONS ARE TO BE REMOVED, REMOVE OR RELOCATE ALL EXISTING ELECTRICAL WIRING, DATA CABLING, TELEPHONE LINES, CABLE LINES, SATELLITE LINES, CONDUIT, WIRE MOLD, RECEPTACLES AND SWITCH BOXES, ETC. LOCATED WITHIN DEMOLISHED PORTIONS.
19. REMOVE ELECTRICAL TERMINATIONS, BOXES, CONDUIT, AND WIRING BACK TO SOURCE PANEL.
20. UNO ALL EXISTING WINDOW TREATMENTS IN SCOPE OF WORK AREA TO REMAIN. REPAIR OR REPLACE ANY DAMAGED BLINDS WITH BUILDING STANDARD MANUFACTURER, STYLE, FUNCTION, MOUNTING METHOD, AND COLOR. COORDINATE WITH OWNER.
21. PREPARE EXISTING SLAB TO RECEIVE NEW FLOORING, INCLUDING REMOVAL OR SEALING OF ANY REMAINING EXISTING ADHESIVE AS REQUIRED.
22. SALVAGE AND STORE ALL DOORS, FRAMES, AND HARDWARE SCHEDULED FOR REMOVAL FOR POSSIBLE REUSE. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION. ALL UNUSED DOORS, FRAMES, AND HARDWARE TO BE TURNED OVER TO THE OWNER.
23. GC TO REMOVE, SALVAGE, AND STORE ALL EXISTING WALL MOUNTED TELEVISION MONITORS, WALL OR CEILING MOUNTED AUDIO VISUAL EQUIPMENT, AND WALL MOUNTED WHITE BOARDS.
24. **FLOORS 2 -13: REMOVE ALL EXISTING LAMINATE PANEL FRONTS AT EXISTING FAN COIL UNITS. REFERENCE MECHANICAL DRAWINGS FOR MORE INFORMATION.** (2)
25. **FLOORS 2-13: BREAK CAULK AT EXISTING FAN COIL UNIT PLASTIC LAMINATE COUNTERTOPS IN ORDER TO GAIN ACCESS FOR SCHEDULED MECHANICAL WORK.** (5)

D# KEYED NOTES - DEMOLITION

D30	REMOVE CARPET FROM STEPS AND LANDING ABOVE
D54	THIS ROOM TO ONLY RECEIVE SELECTIVE REMOVAL OF EXISTING CEILING GRID AND ACOUSTICAL TILES DUE TO SCHEDULED MECHANICAL WORK; REMOVE AND REINSTALL GRID AND TILES, AS REQUIRED; REFERENCE MECHANICAL SHEET MD3.0 FOR ADDITIONAL INFORMATION
D60	REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION (5)
D61	REMOVE PORTION OF EXISTING CMU WALL TO ACCOMMODATE MECHANICAL DEMOLITION SCOPE (5)
D65	GC TO REMOVE EXISTING CARPET AND WALL BASE PRIOR TO INSTALLING SWING SPACE FURNITURE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI — MICHAEL JOHN RATLIFF — NUMBER A-6855 — REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering Professional Engineering Corporation
Missouri State Certificate of Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

CM Archer Group, P.C. dba:
ARCHER-ELGIN
engineering ▪ surveying ▪ architecture
Corporate Authority:
CM Archer Group, P.C.:
E: 2003023612-D, LS: 2004017577-D, A-2016017179
Archer-Elgin Surveying & Engineering, LLC: E: 2011024038, LS: 2011025471 , A-2012014618
310 East 6th Street; Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

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JEFFERSON STATE OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION: Addendum 1 DATE: 01/08/2024
REVISION: Addendum 2 DATE: 01/17/2024
REVISION: Addendum 3 DATE: 01/18/2024
REVISION: Addendum 4 DATE: 01/25/2024
REVISION: Addendum 5 DATE: 02/01/2024

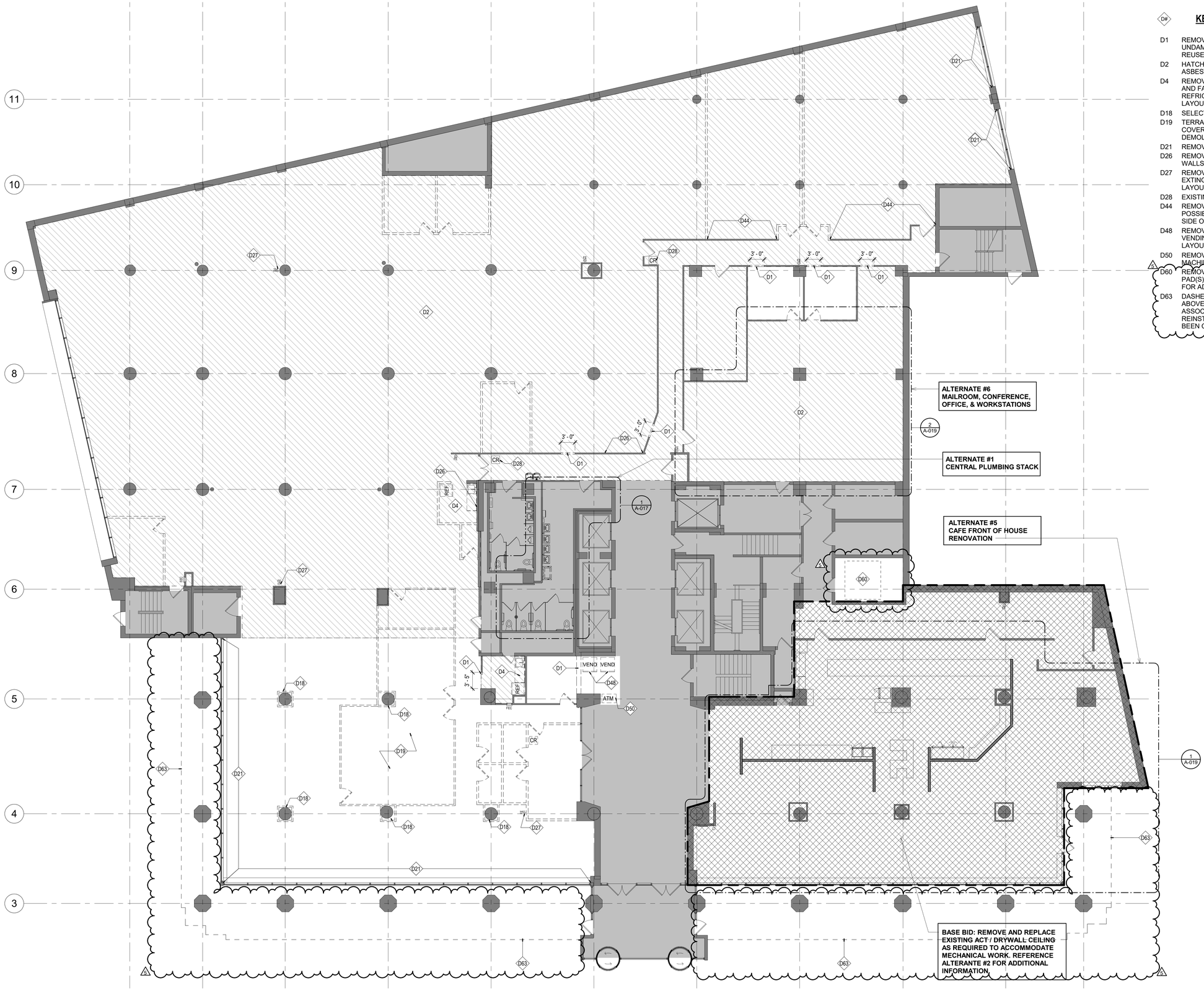
ISSUE DATE: August 31, 2023

CAD DWG FILE: A-100
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
DEMOLITION PLAN - BASEMENT & GENERAL NOTES

SHEET NUMBER:
A-100
23 OF 240
DATE : August 31, 2023

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH



1 A-101 DEMOLITION PLAN - FIRST FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

NOTE: GENERAL NOTES: DEMOLITION CAN BE FOUND ON SHEET A-100

KEYED NOTES - DEMOLITION

D1	REMOVE PORTION OF EXISTING WALL; UNDAMAGED WALL SYSTEM AND PANELS TO BE REUSED OR TURNED OVER TO OWNER
D2	HATCHED REGION INDICATES AREA TO RECEIVE ASBESTOS ABATEMENT
D4	REMOVE EXISTING MILLWORK / CABINETRY, SINK, AND FAUCET; REMOVE AND SALVAGE EXISTING REFRIGERATOR FOR POSSIBLE REUSE IN NEW LAYOUT
D18	SELECTIVELY REMOVE COLUMN FURRING
D19	TERRAZZO FLOORING UNDER EXISTING CARPET; COVER AND PROTECT TERRAZZO DURING DEMOLITION AND CONSTRUCTION
D21	REMOVE EXISTING WINDOW TREATMENTS
D26	REMOVE LAYER OF VINYL-FACED GYP BD AT ALL WALLS SCHEDULED TO REMAIN IN BREAK ROOM
D27	REMOVE AND SALVAGE EXISTING FIRE EXTINGUISHER/CABINET FOR REUSE IN NEW LAYOUT
D28	EXISTING CARD READER TO REMAIN
D44	REMOVE AND SALVAGE EXISTING CHAIR RAIL FOR POSSIBLE REUSE; REMOVE GYPSUM BOARD THIS SIDE OF PARTITION
D48	REMOVE, SALVAGE, AND STORE EXISTING VENDING MACHINES FOR REINSTALLATION IN NEW LAYOUT
D50	REMOVE, SALVAGE, AND STORE EXISTING ATM MACHINE FOR REINSTALLATION IN NEW LAYOUT
D60	REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION
D63	DASHED LINE DENOTES SOFFIT OVERHANG ABOVE; REMOVE EXISTING ACCESS PANELS ASSOCIATED WITH MECHANICAL SCOPE AND REINSTALL ACCESS PANELS AFTER WORK HAS BEEN COMPLETED

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MICHAEL JOHN RATLIFF NUMBER A-6855 REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering Professional Engineering Corporation
Missouri State Certificate of Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

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JEFFERSON CITY, MO 65101

PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

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DATE:01/18/2024
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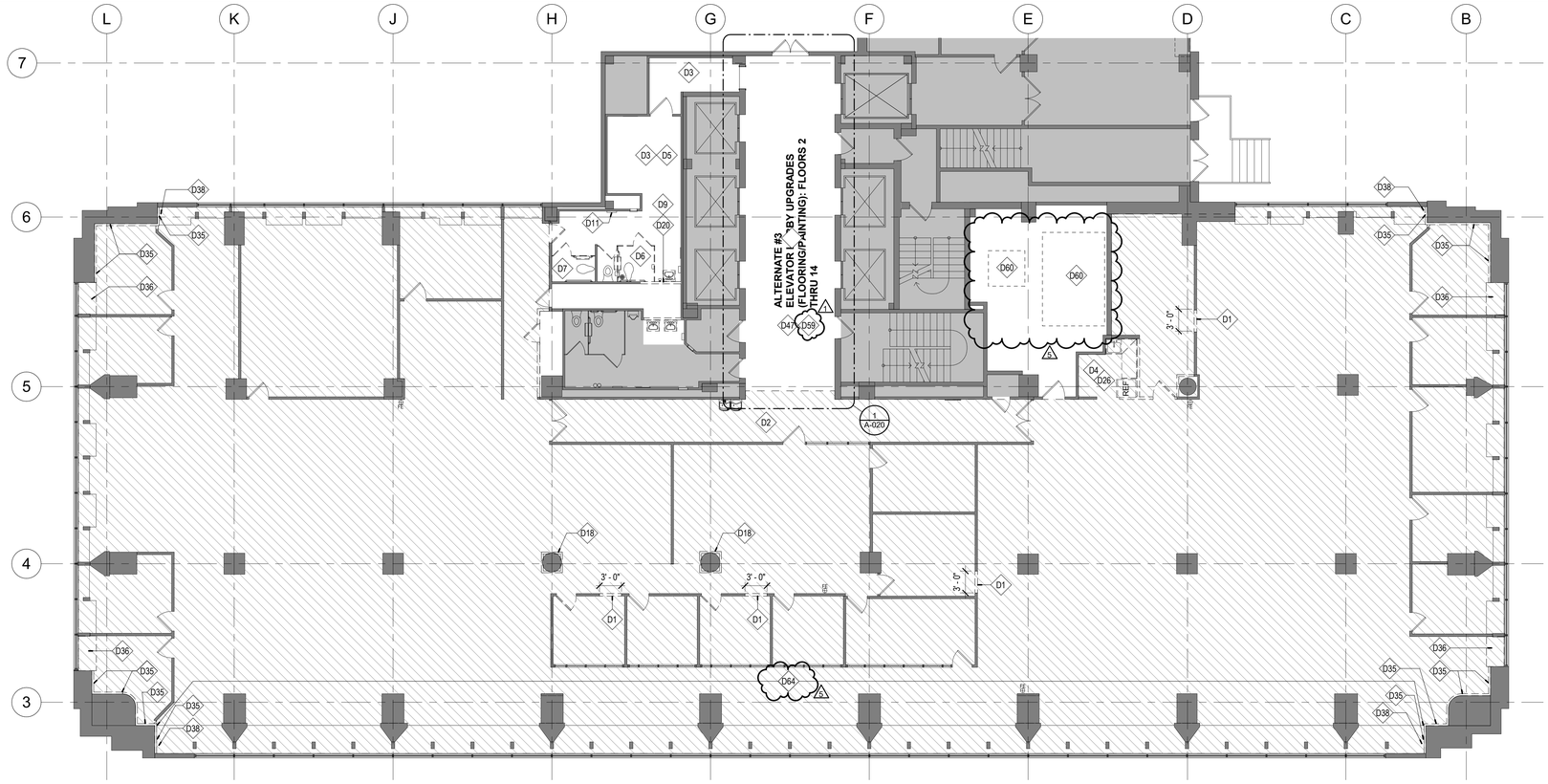
CAD DWG FILE: A-101
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

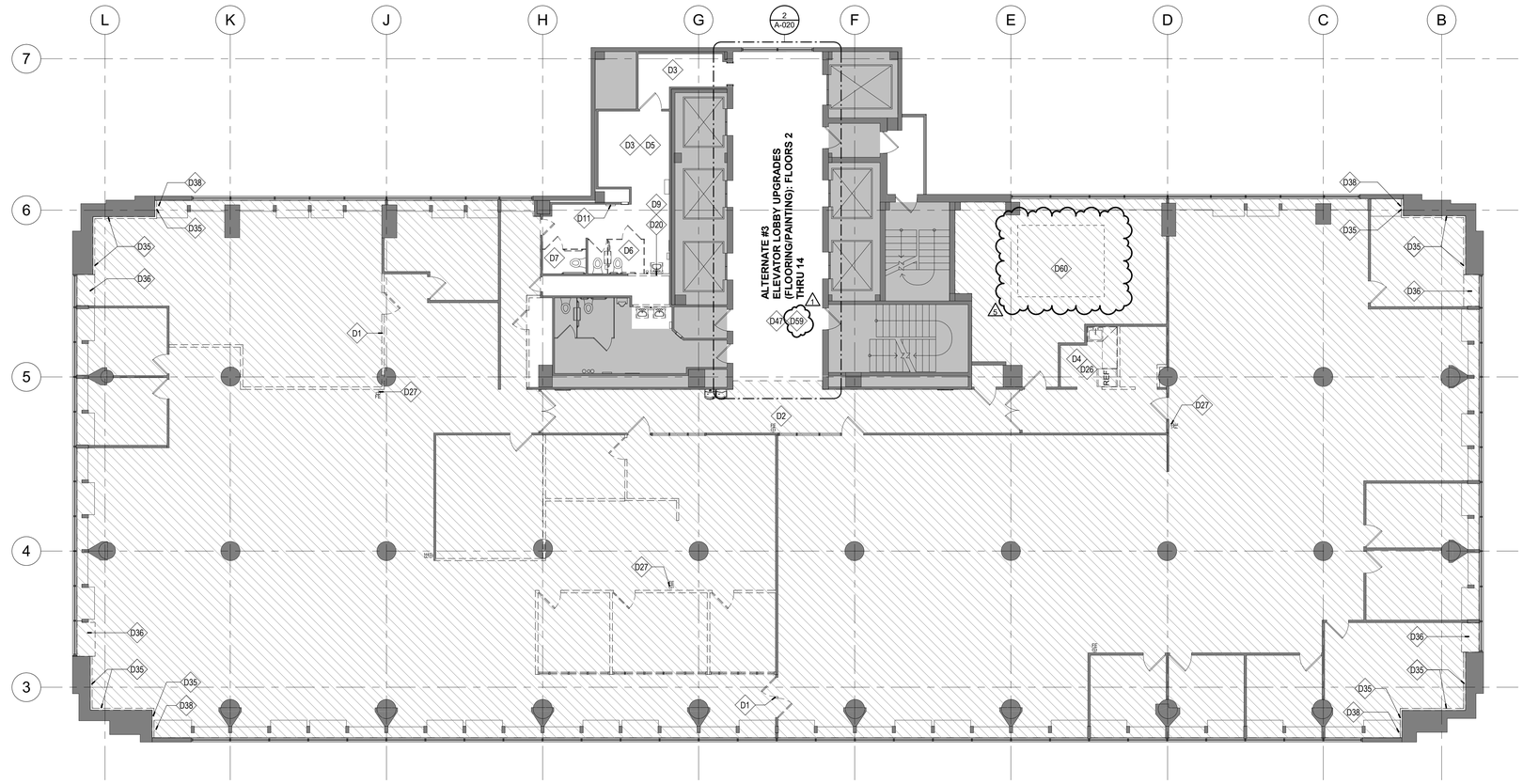
SHEET TITLE:
DEMOLITION PLAN - 1ST FLOOR

SHEET NUMBER:
A-101
24 OF 240
DATE : August 31, 2023

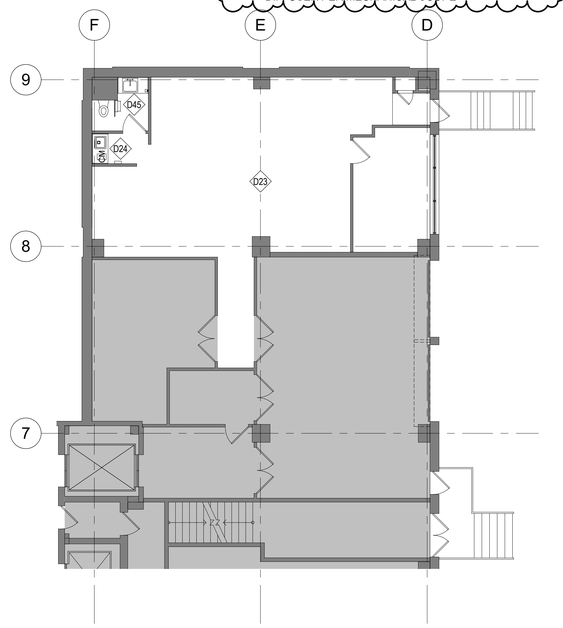


1 A-102 DEMOLITION PLAN - SECOND FLOOR
1/8" = 1'-0"

2 A-020



2 A-102 DEMOLITION PLAN - THIRD FLOOR
1/8" = 1'-0"



3 A-102 FLOOR PLAN - SECOND FLOOR DOCK AREA
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

NOTE: GENERAL NOTES: DEMOLITION CAN BE FOUND ON SHEET A-100

KEYED NOTES - DEMOLITION

D1	REMOVE PORTION OF EXISTING WALL; UNDAMAGED WALL SYSTEM AND PANELS TO BE REUSED OR TURNED OVER TO OWNER
D2	HATCHED REGION INDICATES AREA TO RECEIVE ASBESTOS ABATEMENT
D3	EXISTING FLOOR AND INTEGRAL COVE BASE TO REMAIN
D4	REMOVE EXISTING MILLWORK / CABINETRY, SINK, AND FAUCET; REMOVE AND SALVAGE EXISTING REFRIGERATOR FOR POSSIBLE REUSE IN NEW LAYOUT
D5	EXISTING TOILET FIXTURES TO REMAIN
D6	ADA STALL: REMOVE (2) SIDES OF EXISTING TOILET STALL; REMOVE & SALVAGE EXISTING GRAB BARS FOR POSSIBLE REUSE IN NEW LAYOUT; REMOVE AND DISPOSE OF EXISTING SANITARY DISPOSAL; REMOVE & SALVAGE EXISTING TOILET PAPER DISPENSER
D7	AMBULATORY STALL: REMOVE EXISTING TOILET STALL; REMOVE & SALVAGE EXISTING GRAB BARS FOR POSSIBLE REUSE IN NEW LAYOUT; REMOVE AND DISPOSE OF EXISTING SANITARY DISPOSAL; REMOVE & SALVAGE EXISTING TOILET PAPER DISPENSER
D9	REMOVE AND DISPOSE OF EXISTING WALL-HUNG LAVATORY; REMOVE AND SALVAGE EXISTING MIRROR AND SOAP DISPENSER FOR INSTALLATION IN NEW LAYOUT
D11	REMOVE AND SALVAGE EXISTING TOILET SEAT COVER DISPENSER FOR REINSTALLATION TO ACCESSIBLE HEIGHT
D18	SELECTIVELY REMOVE COLUMN FURRING
D20	SELECTIVELY REMOVE & SALVAGE GLAZED CMU WALL ABOVE EXISTING COVE BASE; KEEP COVE BASE IN TACK FOR NEW PARTITION; REFERENCE DEMO ELEVATION 3/A-103 FOR MORE INFORMATION ON THE MEN'S RESTROOM AND 4/A-103 FOR MORE INFORMATION ON THE WOMEN'S RESTROOM
D23	ALL EXISTING FLOORING, WALL BASE, AND FURNITURE TO REMAIN; COVER AND PROTECT EXISTING FURNITURE DURING CEILING AND LIGHTING DEMOLITION
D24	ALL EXISTING MILLWORK, ACCESSORIES, APPLIANCES, AND PLUMBING FIXTURES TO REMAIN AT THIS LOCATION; COVER AND PROTECT EXISTING ELEMENTS/EQUIPMENT DURING DEMOLITION AND CONSTRUCTION
D26	REMOVE LAYER OF VINYL-FACED GYP BD AT ALL WALLS SCHEDULED TO REMAIN IN BREAK ROOM
D27	REMOVE AND SALVAGE EXISTING FIRE EXTINGUISHER/CABINET FOR REUSE IN NEW LAYOUT
D35	REMOVE EXISTING EXTERIOR WALL FURRING; REFERENCE ARCHITECTURAL PLANS FOR MORE INFORMATION
D36	SELECTIVELY REMOVE PORTION OF EXISTING CABINET TO ACCOMMODATE NEW PIPING; REFERENCE ARCHITECTURAL PLAN FOR MORE INFORMATION
D38	CUT DOWN EXISTING CABINET TOP TO ACCOMMODATE 5" PIPE CAVITY RETURN; REFERENCE ARCHITECTURAL FOR MORE INFORMATION
D45	ALL EXISTING PLUMBING FIXTURES, ACCESSORIES, WALL & FLOOR FINISHES TO REMAIN; ALL EXISTING SUSPENDED CEILING & ACOUSTICAL TILES TO REMAIN
D47	EXISTING VINYL COMPOSITE TILE FLOORING TO REMAIN; COVER AND PROTECT DURING DEMOLITION AND CONSTRUCTION; REFERENCE ALTERNATE #3 FOR ADDITIONAL INFORMATION
D59	EXISTING WOOD CEILING AND GYP BD SOFFIT TO REMAIN AT ELEVATOR LOBBY
D60	REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION
D64	REMOVE EXISTING LAMINATE COUNTERS AT FAN COIL UINITS (FCU) TO CUT AND INSTALL ADDITIONAL DIFFUSER PER MECHANICAL SCOPE

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI · MICHAEL JOHN RATLIFF · NUMBER A-6855 · REGISTERED ARCHITECT

MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
Corporation
Missouri State Certificate of
Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

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110 East 6th Street, Rolla, Missouri 65401
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JEFFERSON CITY, MO 65101

PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

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REVISION:Addendum 5
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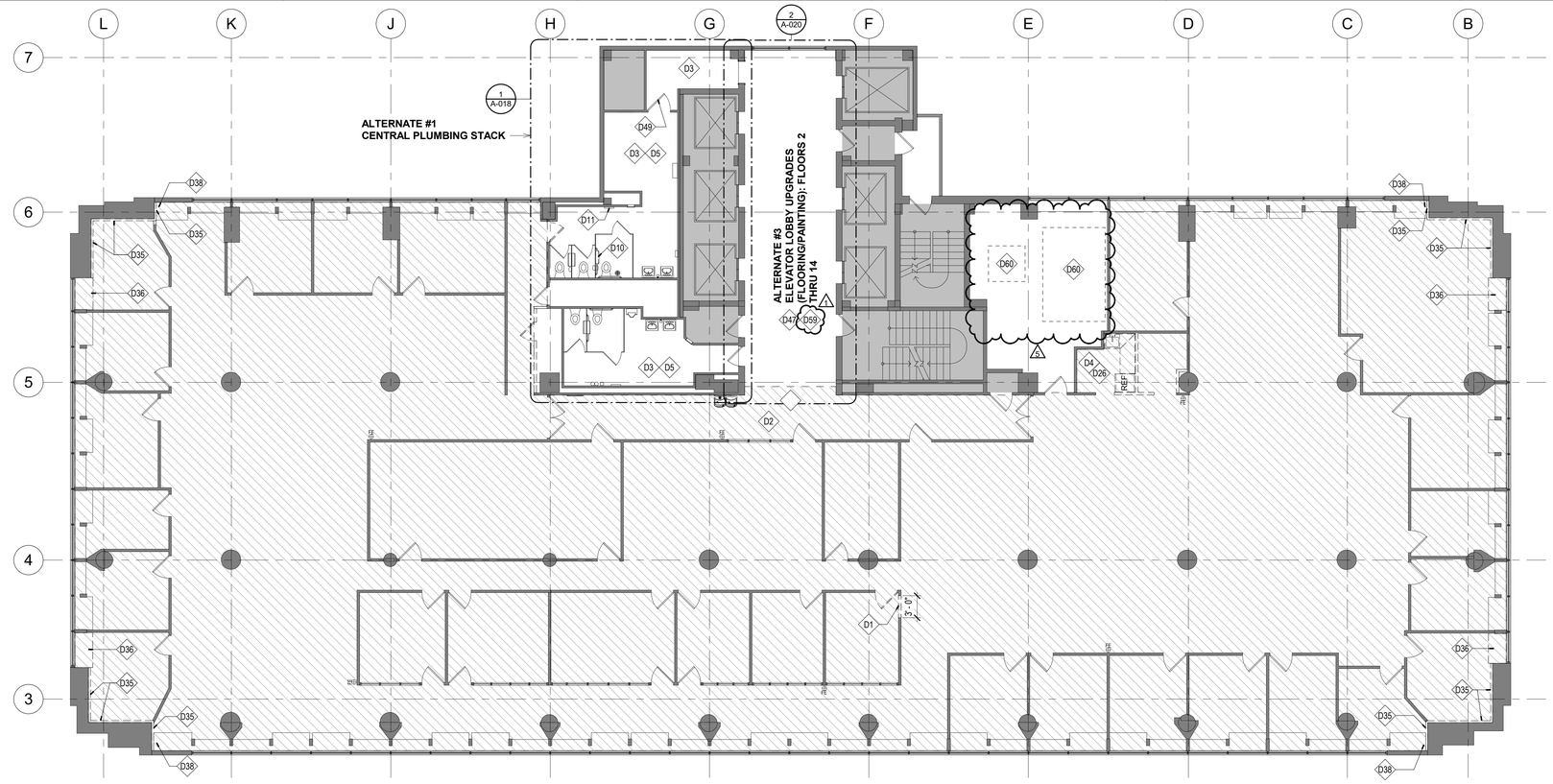
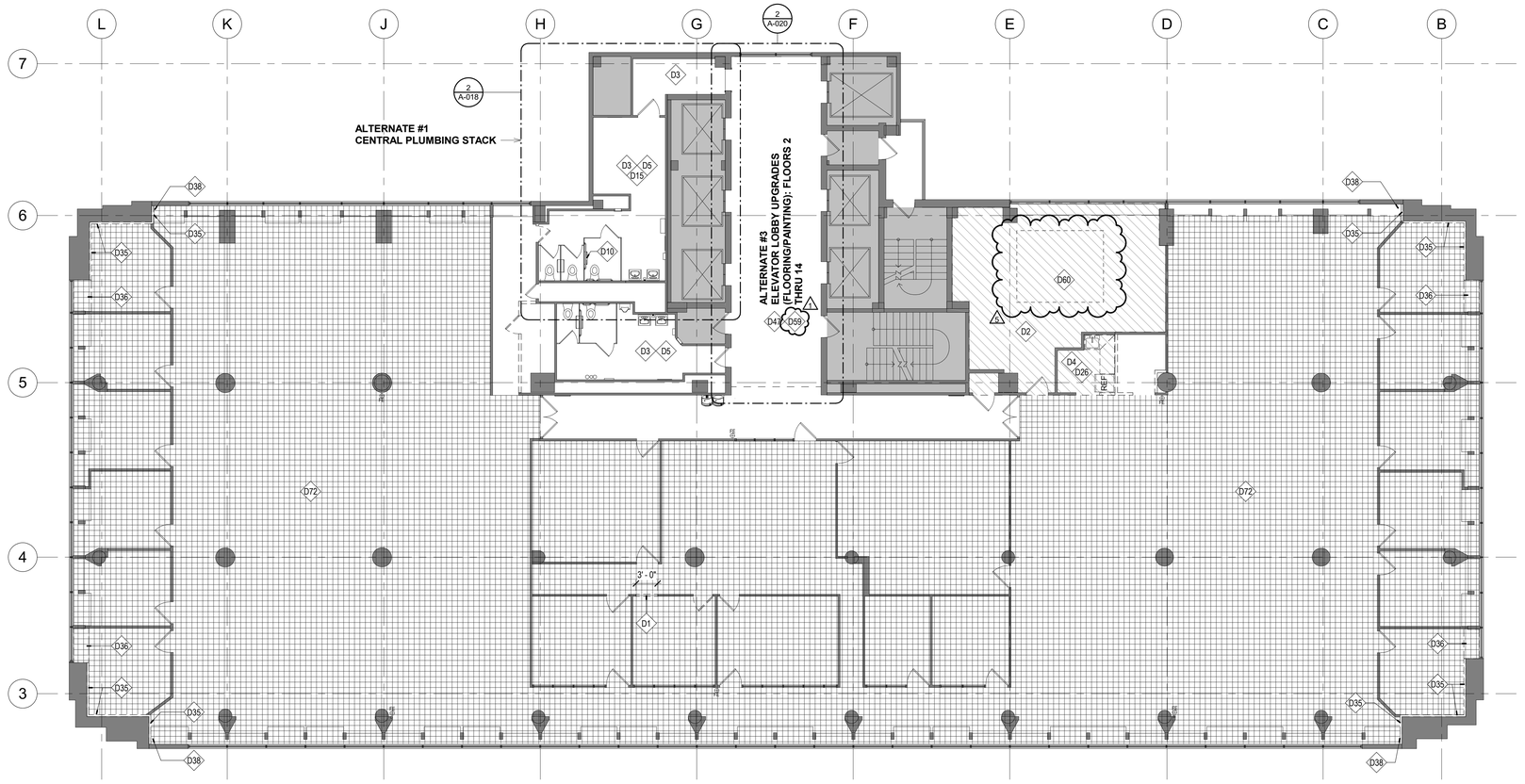
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
DEMOLITION PLAN -2ND & 3RD FLOORS

SHEET NUMBER:
A-102
25 OF 240
DATE : August 31, 2023



1 A-103 DEMOLITION PLAN - FOURTH FLOOR
1/8" = 1'-0"



2 A-103 DEMOLITION PLAN - FIFTH FLOOR
1/8" = 1'-0"

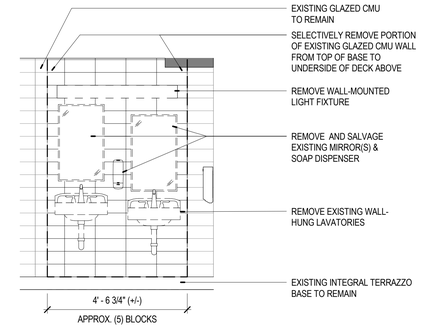
SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

NOTE: GENERAL NOTES: DEMOLITION CAN BE FOUND ON SHEET A-100

KEYED NOTES - DEMOLITION

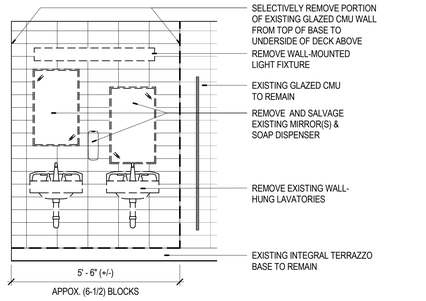
D# | KEYED NOTES - DEMOLITION

- D1 REMOVE PORTION OF EXISTING WALL; UNDAMAGED WALL SYSTEM AND PANELS TO BE REUSED OR TURNED OVER TO OWNER
- D2 HATCHED REGION INDICATES AREA TO RECEIVE ASBESTOS ABATEMENT
- D3 EXISTING FLOOR AND INTEGRAL COVE BASE TO REMAIN
- D4 REMOVE EXISTING MILLWORK / CABINETRY, SINK, AND FAUCET; REMOVE AND SALVAGE EXISTING REFRIGERATOR FOR POSSIBLE REUSE IN NEW LAYOUT
- D5 EXISTING TOILET FIXTURES TO REMAIN
- D10 REMOVE AND SALVAGE EXISTING TOILET PAPER DISPENSER FOR REINSTALLATION AT ACCESSIBLE MOUNTING HEIGHT
- D11 REMOVE AND SALVAGE EXISTING TOILET SEAT COVER DISPENSER FOR REINSTALLATION TO ACCESSIBLE HEIGHT
- D15 ALL EXISTING WATER CLOSETS, TOILET PARTITIONS, AND TOILET STALL ACCESSORIES TO REMAIN
- D26 REMOVE LAYER OF VINYL-FACED GYP BD AT ALL WALLS SCHEDULED TO REMAIN IN BREAK ROOM
- D35 REMOVE EXISTING EXTERIOR WALL FURRING; REFERENCE ARCHITECTURAL PLANS FOR MORE INFORMATION
- D36 SELECTIVELY REMOVE PORTION OF EXISTING CABINET TO ACCOMMODATE NEW PIPING; REFERENCE ARCHITECTURAL PLAN FOR MORE INFORMATION
- D38 CUT DOWN EXISTING CABINET TOP TO ACCOMMODATE 5" PIPE CAVITY RETURN; REFERENCE ARCHITECTURAL FOR MORE INFORMATION
- D47 EXISTING VINYL COMPOSITE TILE FLOORING TO REMAIN; COVER AND PROTECT DURING DEMOLITION AND CONSTRUCTION; REFERENCE ALTERNATE #3 FOR ADDITIONAL INFORMATION
- D49 REMOVE EXISTING DOOR CLOSER; REFERENCE ARCHITECTURAL PLAN AND DOOR SCHEDULE FOR MORE INFORMATION
- 1 D59 EXISTING WOOD CEILING AND GYP BD SOFFIT TO REMAIN AT ELEVATOR LOBBY
- 2 D60 REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION
- D72 EXISTING CARPET TO REMAIN WHERE HATCH OCCURS



3 A-103 DEMO ELEVATION - TYP MEN'S RESTROOM LAVATORY WALL
1/2" = 1'-0"

NOTE: THIS APPLIES TO MEN'S RESTROOMS ON FLOORS 2 & 3; AND FLOORS 4-13 - REFERENCE ALTERNATE #1



4 A-103 DEMO ELEVATION - TYP WOMEN'S RESTROOM LAVATORY WALL
1/2" = 1'-0"

NOTE: THIS APPLIES TO WOMEN'S RESTROOMS ON FLOORS 2 & 3; AND FLOORS 4-13 - REFERENCE ALTERNATE #1

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MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MICHAEL JOHN RATLIFF NUMBER A-6855 REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
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ARCTURIS
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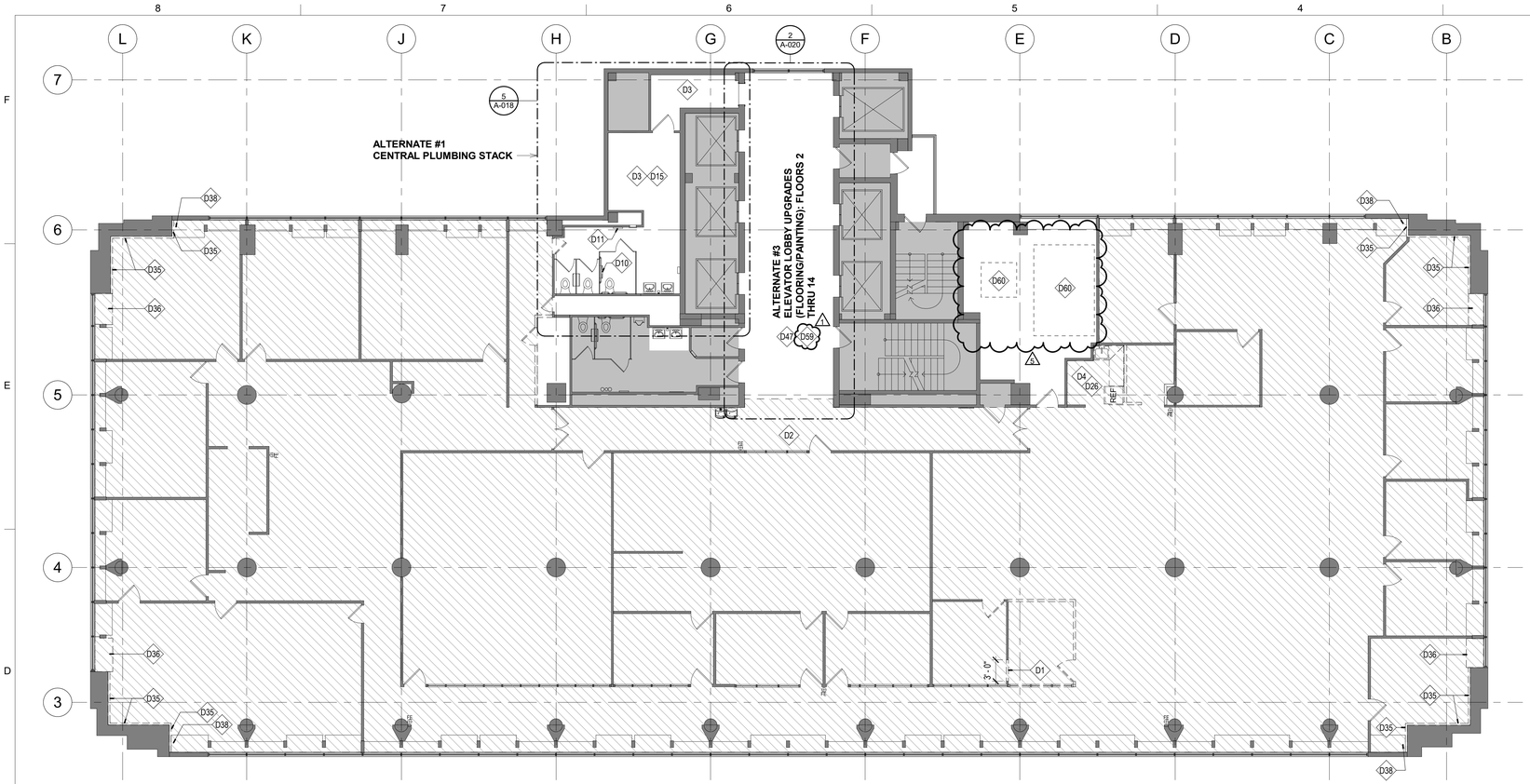
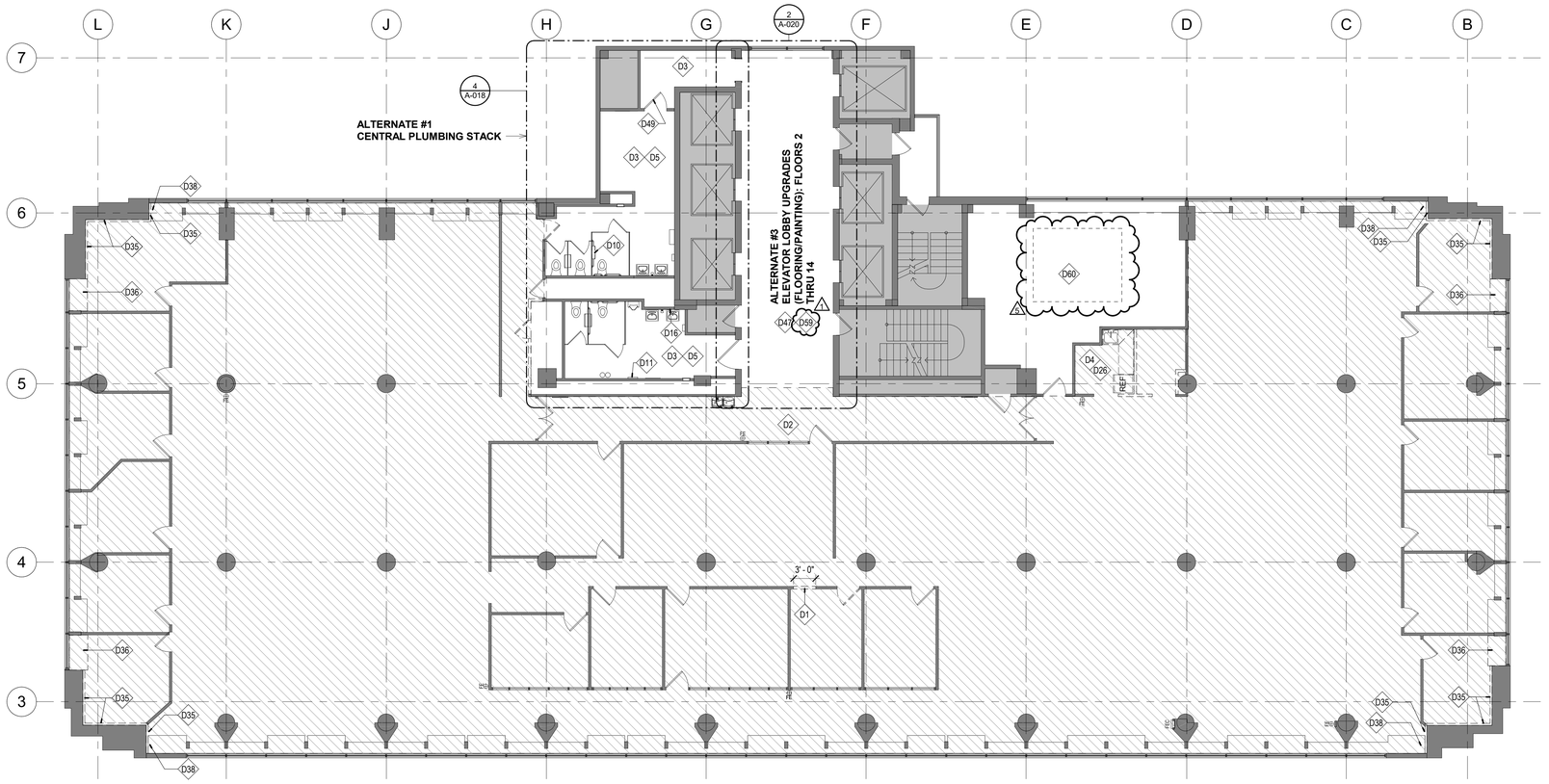
CAD DWG FILE: A-103
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
DEMOLITION PLAN - 4TH & 5TH FLOORS

SHEET NUMBER:
A-103
26 OF 240
DATE : August 31, 2023



1 A-104 DEMOLITION PLAN - SIXTH FLOOR
1/8" = 1'-0"



2 A-104 DEMOLITION FLOOR - SEVENTH FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

NOTE: GENERAL NOTES: DEMOLITION CAN BE FOUND ON SHEET A-100

KEYED NOTES - DEMOLITION

D#

- D1 REMOVE PORTION OF EXISTING WALL; UNDAMAGED WALL SYSTEM AND PANELS TO BE REUSED OR TURNED OVER TO OWNER
- D2 HATCHED REGION INDICATES AREA TO RECEIVE ASBESTOS ABATEMENT
- D3 EXISTING FLOOR AND INTEGRAL COVE BASE TO REMAIN
- D4 REMOVE EXISTING MILLWORK / CABINETRY, SINK, AND FAUCET; REMOVE AND SALVAGE EXISTING REFRIGERATOR FOR POSSIBLE REUSE IN NEW LAYOUT
- D5 EXISTING TOILET FIXTURES TO REMAIN
- D10 REMOVE AND SALVAGE EXISTING TOILET PAPER DISPENSER FOR REINSTALLATION AT ACCESSIBLE MOUNTING HEIGHT
- D11 REMOVE AND SALVAGE EXISTING TOILET SEAT COVER DISPENSER FOR REINSTALLATION TO ACCESSIBLE HEIGHT
- D15 ALL EXISTING WATER CLOSETS, TOILET PARTITIONS, AND TOILET STALL ACCESSORIES TO REMAIN
- D16 REMOVE AND SALVAGE EXISTING WALL-MOUNTED MIRROR FOR REINSTALLATION AT ACCESSIBLE HEIGHT
- D26 REMOVE LAYER OF VINYL-FACED GYP BD AT ALL WALLS SCHEDULED TO REMAIN IN BREAK ROOM
- D35 REMOVE EXISTING EXTERIOR WALL FURRING; REFERENCE ARCHITECTURAL PLANS FOR MORE INFORMATION
- D36 SELECTIVELY REMOVE PORTION OF EXISTING CABINET TO ACCOMMODATE NEW PIPING; REFERENCE ARCHITECTURAL PLAN FOR MORE INFORMATION
- D38 CUT DOWN EXISTING CABINET TOP TO ACCOMMODATE 5" PIPE CAVITY RETURN; REFERENCE ARCHITECTURAL FOR MORE INFORMATION
- D47 EXISTING VINYL COMPOSITE TILE FLOORING TO REMAIN; COVER AND PROTECT DURING DEMOLITION AND CONSTRUCTION; REFERENCE ALTERNATE #3 FOR ADDITIONAL INFORMATION
- D49 REMOVE EXISTING DOOR CLOSER; REFERENCE ARCHITECTURAL PLAN AND DOOR SCHEDULE FOR MORE INFORMATION
- D59 EXISTING WOOD CEILING AND GYP BD SOFFIT TO REMAIN AT ELEVATOR LOBBY
- D60 REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI
MICHAEL JOHN RATLIFF
NUMBER A-6855
REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
Corporation
Missouri State Certificate of
Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

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Corporate Authority:
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E: 2003023612-D, LS: 2004017577-D,
A-2016017179
Archer-Elgin Surveying & Engineering,
LLC: E: 2011024035, LS: 2011025471,
A-2012014618
110 East 6th Street, Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

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JEFFERSON STATE
OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

REVISION:Addendum 1
DATE:01/08/2024
REVISION:Addendum 2
DATE:01/17/2024
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DATE:01/18/2024
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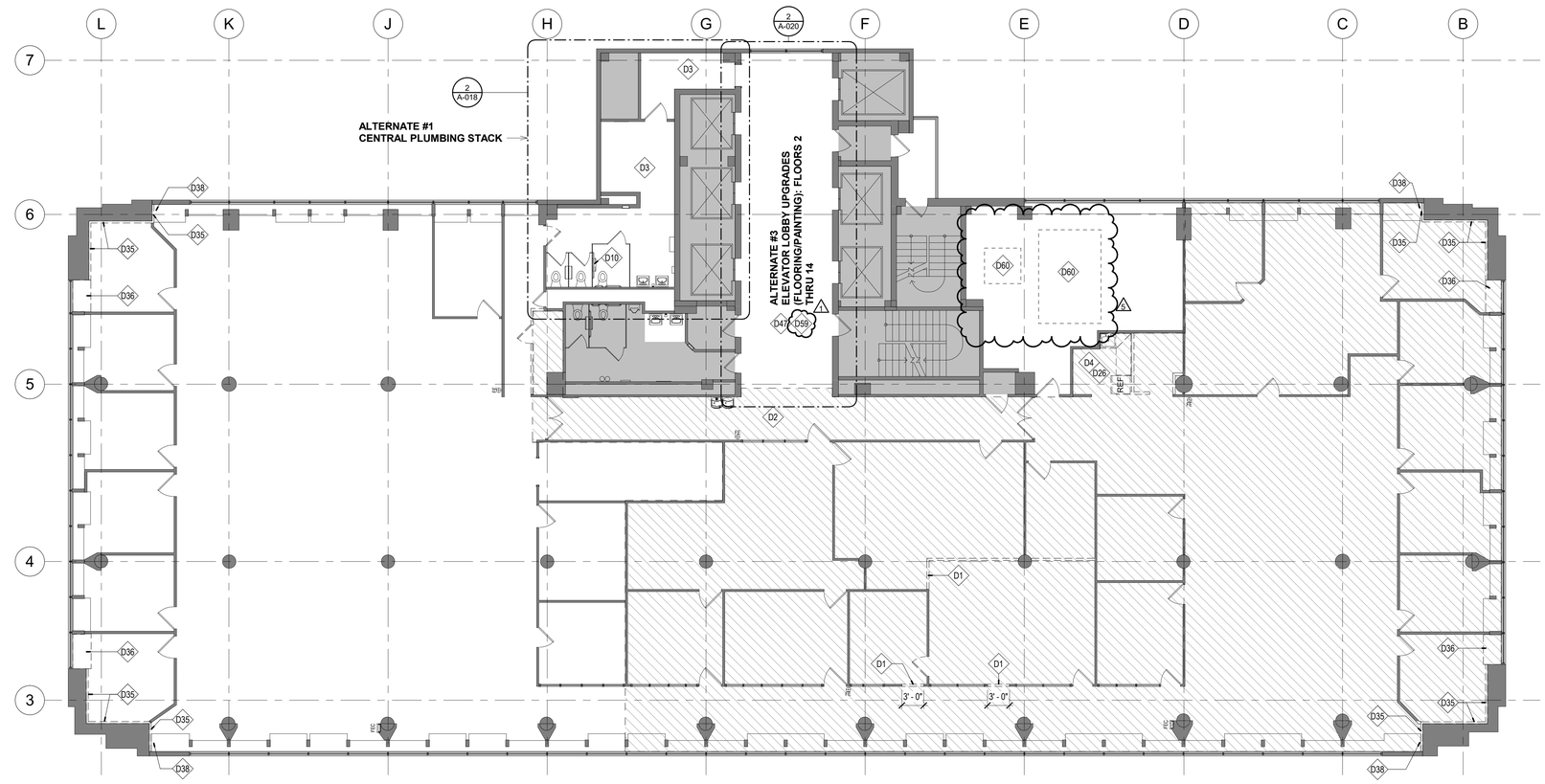
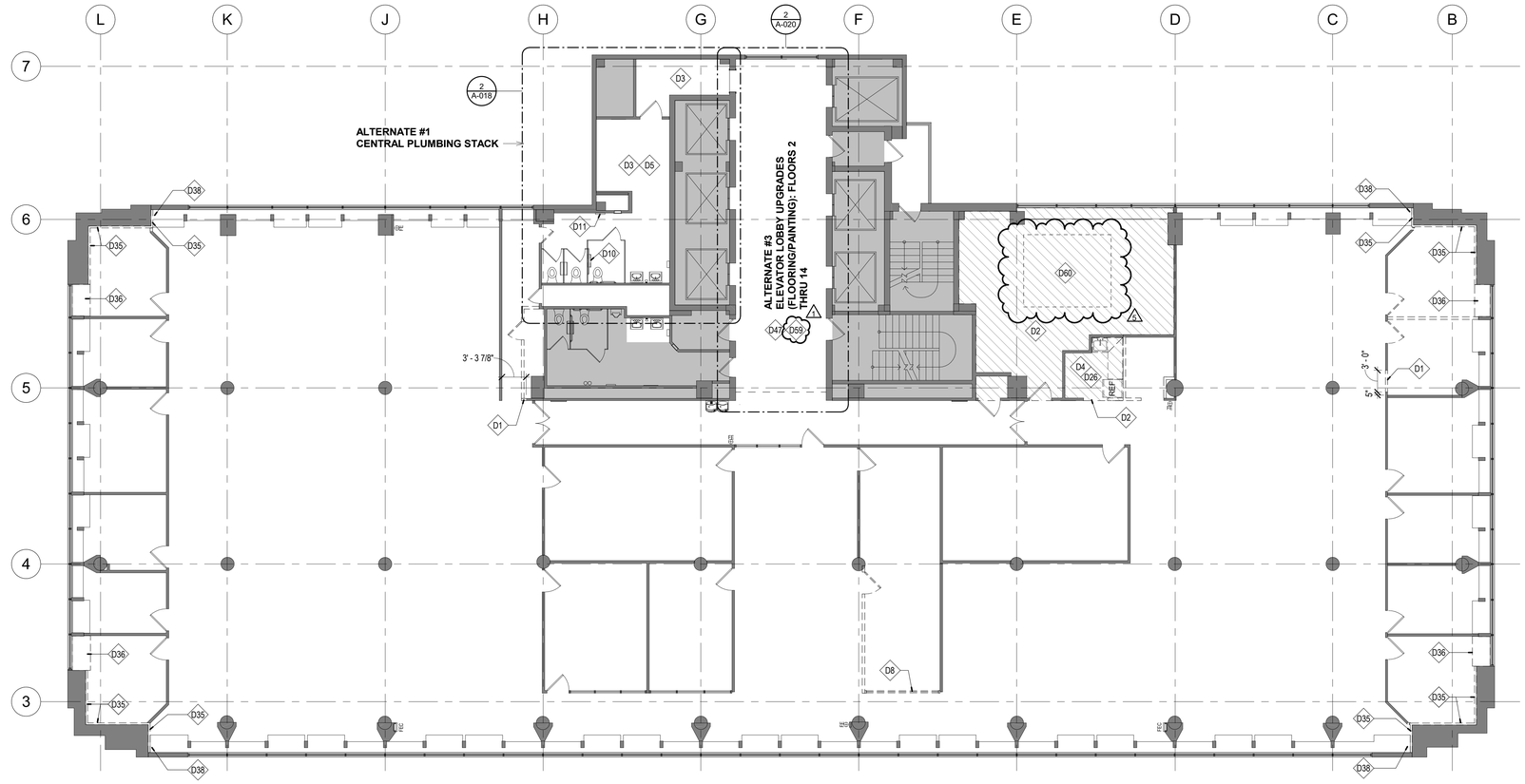
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
DEMOLITION PLAN -
6TH & 7TH FLOORS

SHEET NUMBER:
A-104
27 OF 240
DATE : August 31, 2023



1 A-105 DEMOLITION PLAN - EIGHTH FLOOR
1/8" = 1'-0"



2 A-105 DEMOLITION PLAN - NINTH FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

NOTE: GENERAL NOTES: DEMOLITION CAN BE FOUND ON SHEET A-100

KEYED NOTES - DEMOLITION

D#	
D1	REMOVE PORTION OF EXISTING WALL; UNDAMAGED WALL SYSTEM AND PANELS TO BE REUSED OR TURNED OVER TO OWNER
D2	HATCHED REGION INDICATES AREA TO RECEIVE ASBESTOS ABATEMENT
D3	EXISTING FLOOR AND INTEGRAL COVE BASE TO REMAIN
D4	REMOVE EXISTING MILLWORK / CABINETRY, SINK, AND FAUCET; REMOVE AND SALVAGE EXISTING REFRIGERATOR FOR POSSIBLE REUSE IN NEW LAYOUT
D5	EXISTING TOILET FIXTURES TO REMAIN
D8	REMOVE, SALVAGE, AND STORE EXISTING GLASS PARTITION FOR REINSTALLATION IN 13TH FLOOR BUILD OUT; STORE ALL UNUSED GLASS PARTITIONS IN BASEMENT, TURN OVER TO OWNER
D10	REMOVE AND SALVAGE EXISTING TOILET PAPER DISPENSER FOR REINSTALLATION AT ACCESSIBLE MOUNTING HEIGHT
D11	REMOVE AND SALVAGE EXISTING TOILET SEAT COVER DISPENSER FOR REINSTALLATION TO ACCESSIBLE HEIGHT
D26	REMOVE LAYER OF VINYL-FACED GYP BD AT ALL WALLS SCHEDULED TO REMAIN IN BREAK ROOM
D35	REMOVE EXISTING EXTERIOR WALL FURRING; REFERENCE ARCHITECTURAL PLANS FOR MORE INFORMATION
D36	SELECTIVELY REMOVE PORTION OF EXISTING CABINET TO ACCOMMODATE NEW PIPING; REFERENCE ARCHITECTURAL PLAN FOR MORE INFORMATION
D38	CUT DOWN EXISTING CABINET TOP TO ACCOMMODATE 5" PIPE CAVITY RETURN; REFERENCE ARCHITECTURAL FOR MORE INFORMATION
D47	EXISTING VINYL COMPOSITE TILE FLOORING TO REMAIN; COVER AND PROTECT DURING DEMOLITION AND CONSTRUCTION; REFERENCE ALTERNATE #3 FOR ADDITIONAL INFORMATION
1 D59	EXISTING WOOD CEILING AND GYP BD SOFFIT TO REMAIN AT ELEVATOR LOBBY
2 D60	REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION

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MICHAEL JOHN RATLIFF
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MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
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ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
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PROJECT # **O1911-01**
SITE # **1001**
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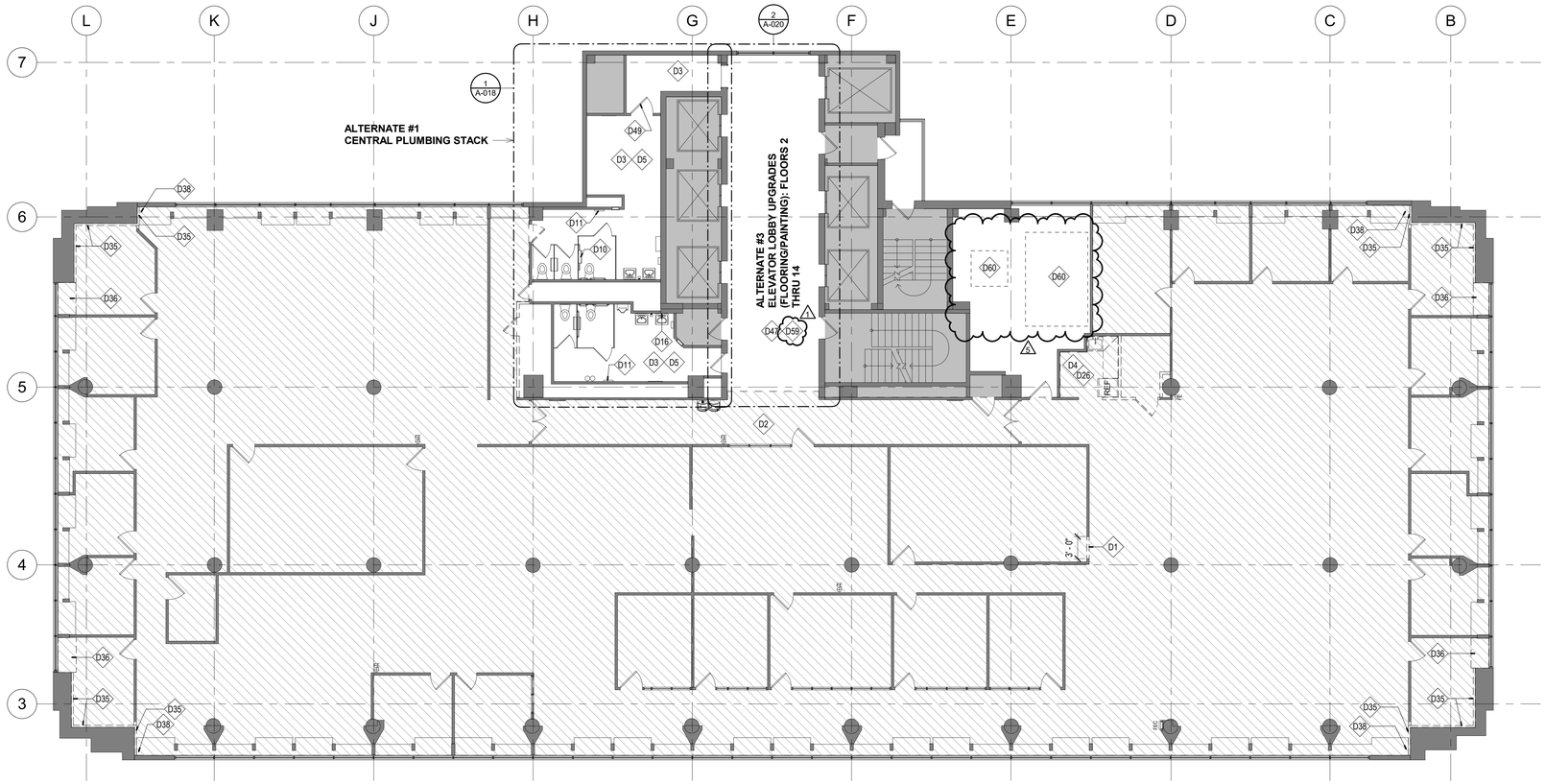
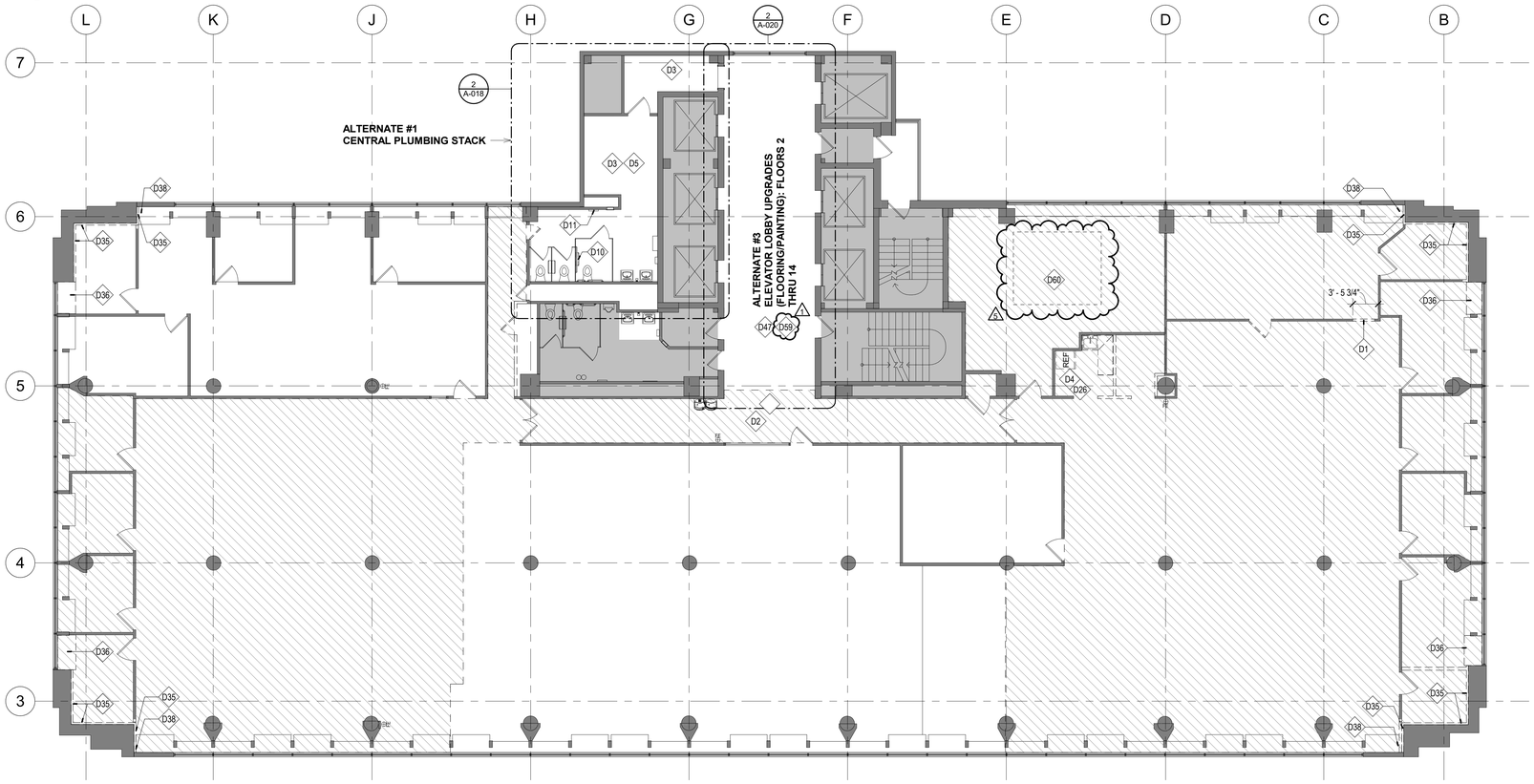
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
DEMOLITION PLAN -
8TH & 9TH FLOORS

SHEET NUMBER:
A-105
28 OF 240
DATE : August 31, 2023



1 A-106 DEMOLITION PLAN - TENTH FLOOR
1/8" = 1'-0"



2 A-106 DEMOLITION FLOOR - ELEVENTH FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

NOTE: GENERAL NOTES: DEMOLITION CAN BE FOUND ON SHEET A-100

KEYED NOTES - DEMOLITION

D1	REMOVE PORTION OF EXISTING WALL; UNDAMAGED WALL SYSTEM AND PANELS TO BE REUSED OR TURNED OVER TO OWNER
D2	HATCHED REGION INDICATES AREA TO RECEIVE ASBESTOS ABATEMENT
D3	EXISTING FLOOR AND INTEGRAL COVE BASE TO REMAIN
D4	REMOVE EXISTING MILLWORK / CABINETRY, SINK, AND FAUCET; REMOVE AND SALVAGE EXISTING REFRIGERATOR FOR POSSIBLE REUSE IN NEW LAYOUT
D5	EXISTING TOILET FIXTURES TO REMAIN
D10	REMOVE AND SALVAGE EXISTING TOILET PAPER DISPENSER FOR REINSTALLATION AT ACCESSIBLE MOUNTING HEIGHT
D11	REMOVE AND SALVAGE EXISTING TOILET SEAT COVER DISPENSER FOR REINSTALLATION TO ACCESSIBLE HEIGHT
D16	REMOVE AND SALVAGE EXISTING WALL-MOUNTED MIRROR FOR REINSTALLATION AT ACCESSIBLE HEIGHT
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D35	REMOVE EXISTING EXTERIOR WALL FURRING; REFERENCE ARCHITECTURAL PLANS FOR MORE INFORMATION
D36	SELECTIVELY REMOVE PORTION OF EXISTING CABINET TO ACCOMMODATE NEW PIPING; REFERENCE ARCHITECTURAL PLAN FOR MORE INFORMATION
D38	CUT DOWN EXISTING CABINET TOP TO ACCOMMODATE 5" PIPE CAVITY RETURN; REFERENCE ARCHITECTURAL FOR MORE INFORMATION
D47	EXISTING VINYL COMPOSITE TILE FLOORING TO REMAIN; COVER AND PROTECT DURING DEMOLITION AND CONSTRUCTION; REFERENCE ALTERNATE #3 FOR ADDITIONAL INFORMATION
D49	REMOVE EXISTING DOOR CLOSER; REFERENCE ARCHITECTURAL PLAN AND DOOR SCHEDULE FOR MORE INFORMATION
D59	EXISTING WOOD CEILING AND GYP BD SOFFIT TO REMAIN AT ELEVATOR LOBBY
D60	REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI
MICHAEL JOHN RATLIFF
NUMBER A-6855
REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
Corporation
Missouri State Certificate of
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ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

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Archer-Elgin Surveying & Engineering,
LLC: E: 2011024035, LS: 2011025471,
A-2012014618
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PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

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DATE:01/25/2024
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DATE:02/01/2024

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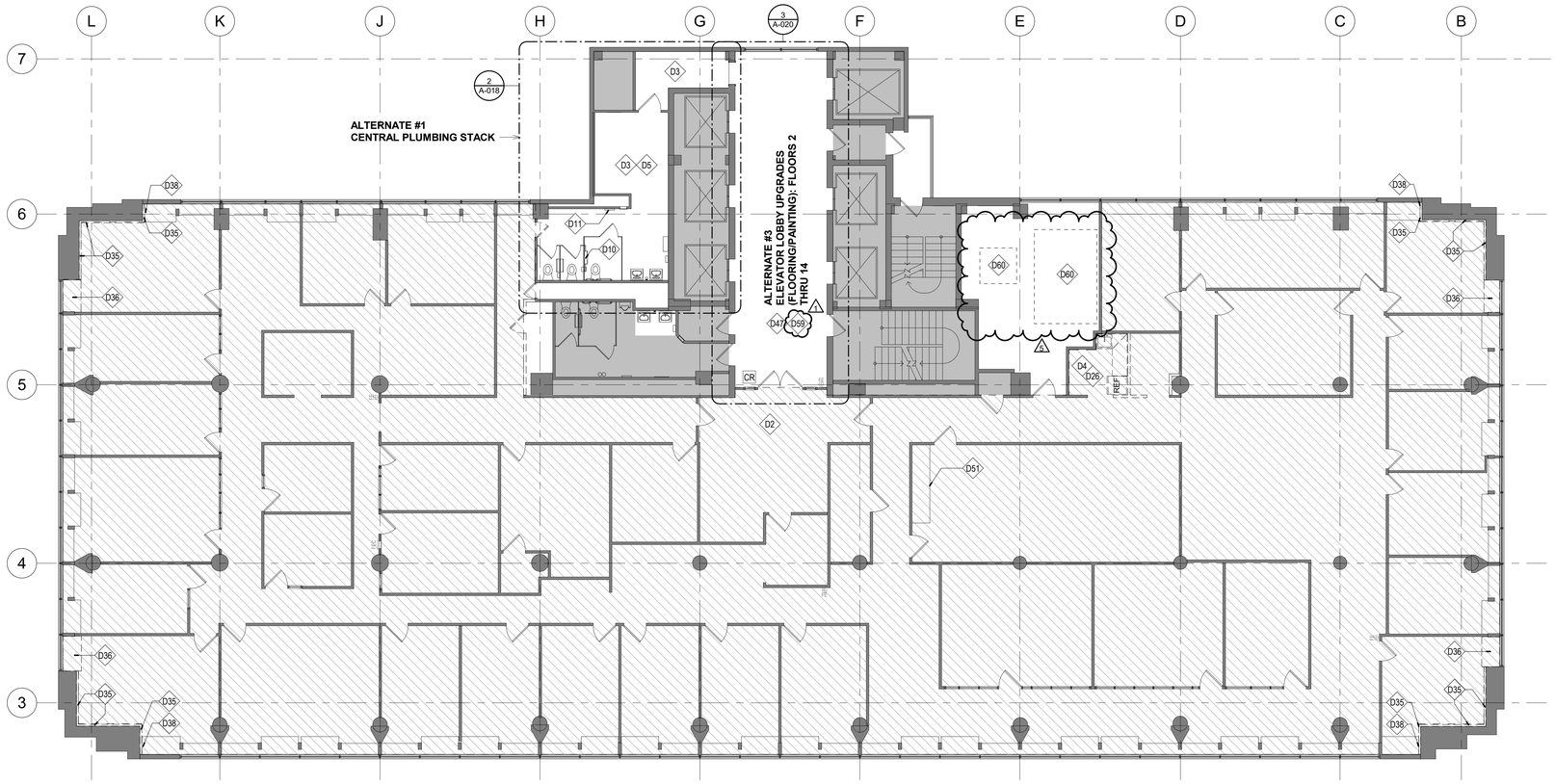
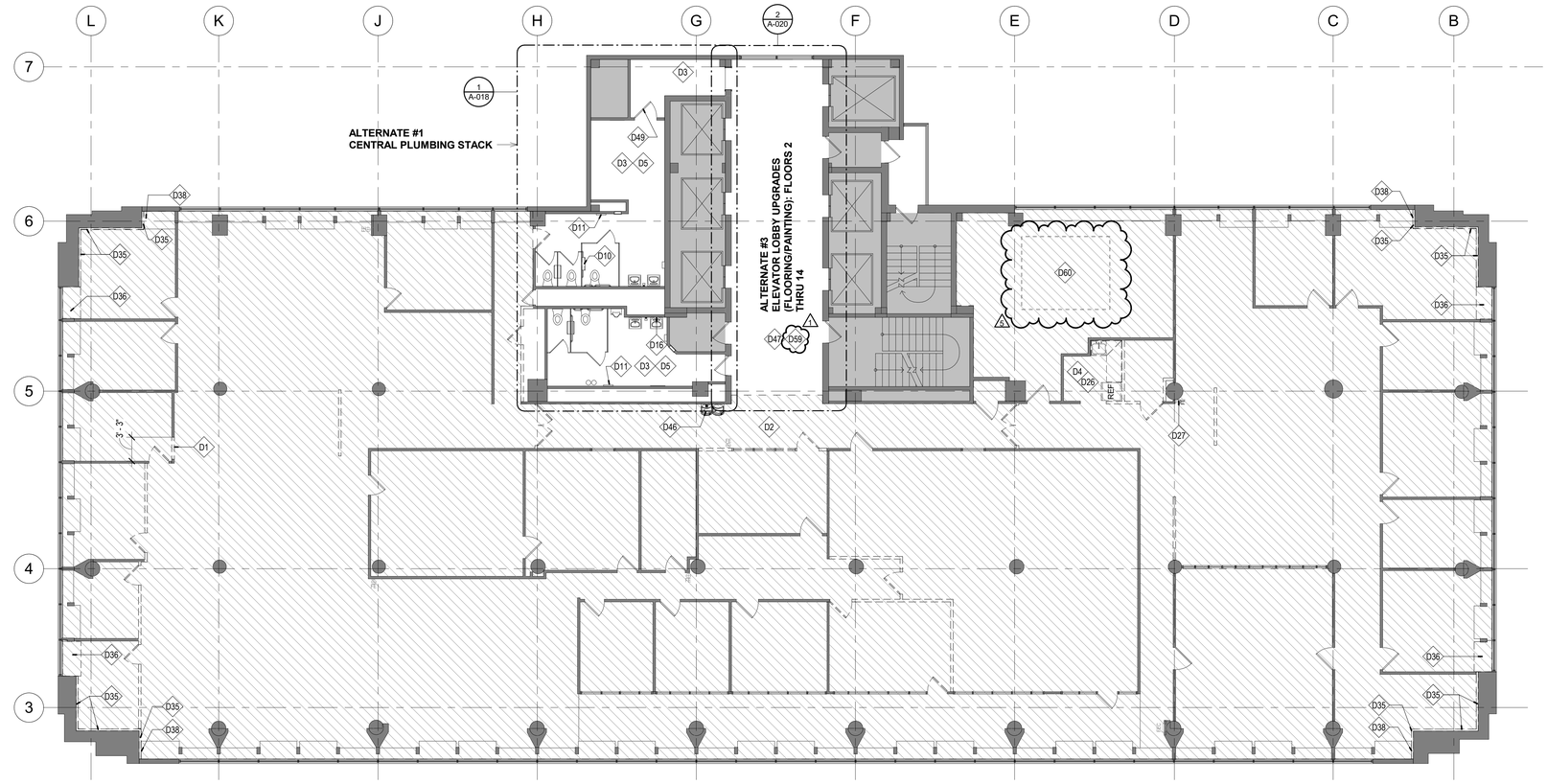
CAD DWG FILE: A-106
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
DEMOLITION PLAN -
10TH & 11TH FLOORS

SHEET NUMBER:
A-106
29 OF 240
DATE : August 31, 2023



1 A-107 DEMOLITION PLAN - TWELFTH FLOOR
1/8" = 1'-0"



2 A-107 DEMOLITION PLAN - THIRTEENTH FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

NOTE: GENERAL NOTES: DEMOLITION CAN BE FOUND ON SHEET A-100

KEYED NOTES - DEMOLITION

D1	REMOVE PORTION OF EXISTING WALL; UNDAMAGED WALL SYSTEM AND PANELS TO BE REUSED OR TURNED OVER TO OWNER
D2	HATCHED REGION INDICATES AREA TO RECEIVE ASBESTOS ABATEMENT
D3	EXISTING FLOOR AND INTEGRAL COVE BASE TO REMAIN
D4	REMOVE EXISTING MILLWORK / CABINETRY, SINK, AND FAUCET; REMOVE AND SALVAGE EXISTING REFRIGERATOR FOR POSSIBLE REUSE IN NEW LAYOUT
D5	EXISTING TOILET FIXTURES TO REMAIN
D10	REMOVE AND SALVAGE EXISTING TOILET PAPER DISPENSER FOR REINSTALLATION AT ACCESSIBLE MOUNTING HEIGHT
D11	REMOVE AND SALVAGE EXISTING TOILET SEAT COVER DISPENSER FOR REINSTALLATION TO ACCESSIBLE HEIGHT
D16	REMOVE AND SALVAGE EXISTING WALL-MOUNTED MIRROR FOR REINSTALLATION AT ACCESSIBLE HEIGHT
D26	REMOVE LAYER OF VINYL-FACED GYP BD AT ALL WALLS SCHEDULED TO REMAIN IN BREAK ROOM
D27	REMOVE AND SALVAGE EXISTING FIRE EXTINGUISHER/CABINET FOR REUSE IN NEW LAYOUT
D35	REMOVE EXISTING EXTERIOR WALL FURRING; REFERENCE ARCHITECTURAL PLANS FOR MORE INFORMATION
D36	SELECTIVELY REMOVE PORTION OF EXISTING CABINET TO ACCOMMODATE NEW PIPING; REFERENCE ARCHITECTURAL PLAN FOR MORE INFORMATION
D38	CUT DOWN EXISTING CABINET TOP TO ACCOMMODATE 5" PIPE CAVITY RETURN; REFERENCE ARCHITECTURAL FOR MORE INFORMATION
D46	REMOVE EXISTING DRINKING FOUNTAINS; REFERENCE PLUMBING DOCUMENTS FOR MORE INFORMATION; PATCH AND REPAIR EXISTING WALL & FINISHES
D47	EXISTING VINYL COMPOSITE TILE FLOORING TO REMAIN; COVER AND PROTECT DURING DEMOLITION AND CONSTRUCTION; REFERENCE ALTERNATE #3 FOR ADDITIONAL INFORMATION
D49	REMOVE EXISTING DOOR CLOSER; REFERENCE ARCHITECTURAL PLAN AND DOOR SCHEDULE FOR MORE INFORMATION
D51	CUSTOM CABINET: COVER AND PROTECT DURING DEMOLITION AND CONSTRUCTION
D59	EXISTING WOOD CEILING AND GYP BD SOFFIT TO REMAIN AT ELEVATOR LOBBY
D60	REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI
MICHAEL JOHN RATLIFF
NUMBER A-6855
REGISTERED ARCHITECT
2/9/2024

MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
Corporation
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ARCTURIS
701 Market St. Suite 1300
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CAD DWG FILE: A-107
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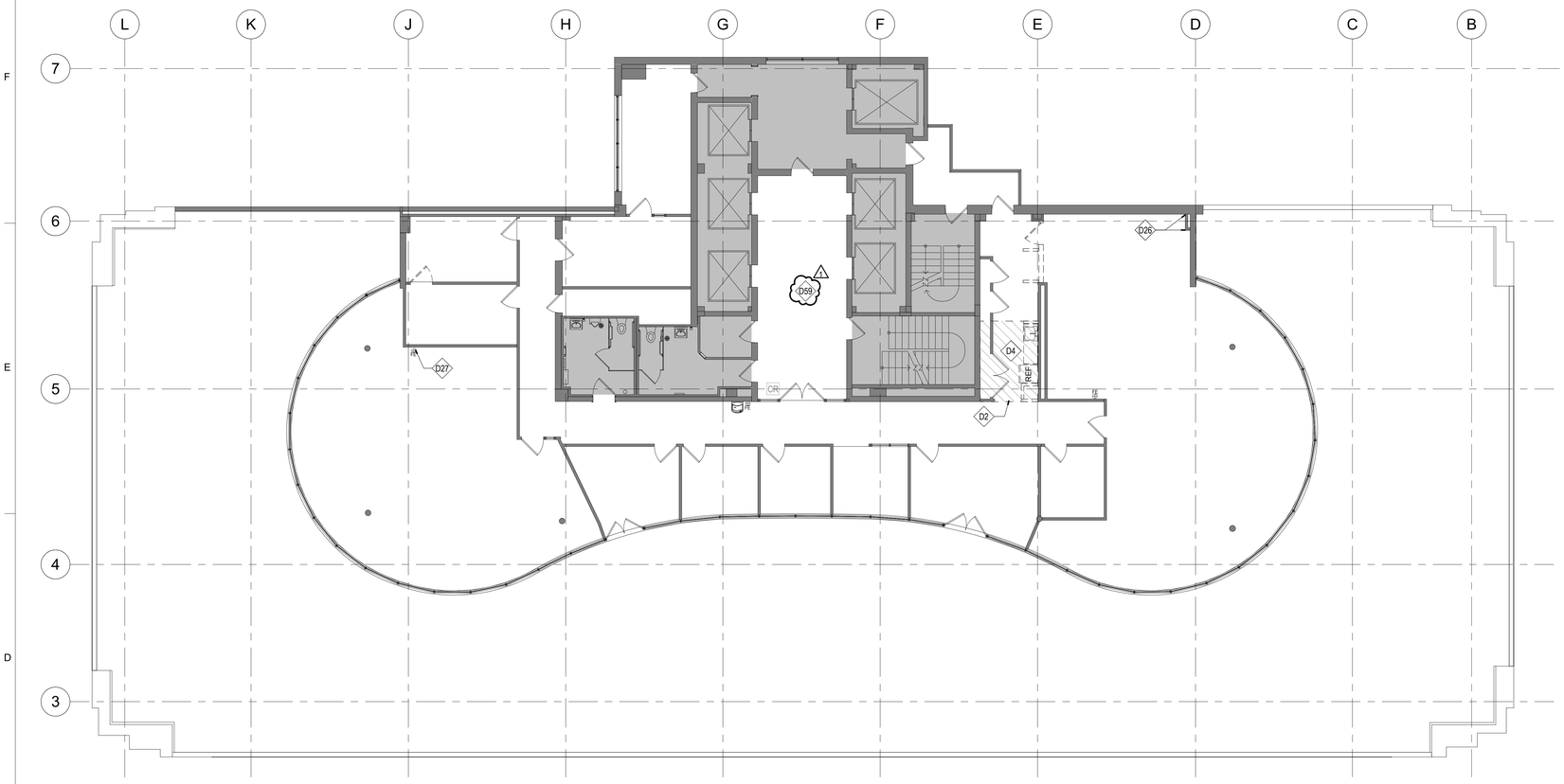
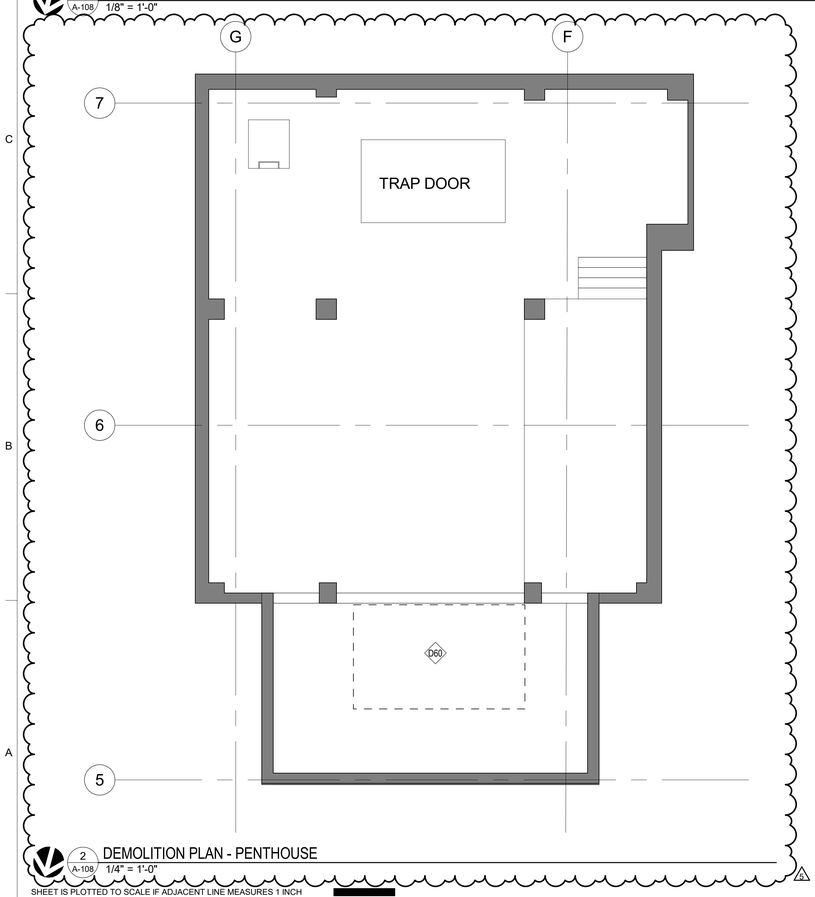
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
DEMOLITION PLAN -
12TH & 13TH FLOORS

SHEET NUMBER:
A-107
30 OF 240
DATE : August 31, 2023



1 A-108 DEMOLITION FLOOR - FOURTEENTH FLOOR
1/8" = 1'-0"



2 A-108 DEMOLITION PLAN - PENTHOUSE
1/4" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

NOTE: GENERAL NOTES: DEMOLITION CAN BE FOUND ON SHEET A-100

KEYED NOTES - DEMOLITION

D# KEYED NOTES - DEMOLITION

D2	HATCHED REGION INDICATES AREA TO RECEIVE ASBESTOS ABATEMENT
D4	REMOVE EXISTING MILLWORK / CABINETRY, SINK, AND FAUCET; REMOVE AND SALVAGE EXISTING REFRIGERATOR FOR POSSIBLE REUSE IN NEW LAYOUT
D26	REMOVE LAYER OF VINYL-FACED GYP BD AT ALL WALLS SCHEDULED TO REMAIN IN BREAK ROOM
D27	REMOVE AND SALVAGE EXISTING FIRE EXTINGUISHER/CABINET FOR REUSE IN NEW LAYOUT
1 D59	EXISTING WOOD CEILING AND GYP BD SOFFIT TO REMAIN AT ELEVATOR LOBBY
2 D60	REMOVE EXISTING CONCRETE HOUSEKEEPING PAD(S); REFERENCE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION

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MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MICHAEL JOHN RATLIFF NUMBER A-6855 REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
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ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
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DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
DEMOLITION PLAN - 14TH FLOOR

SHEET NUMBER:
A-108
31 OF 240
DATE : August 31, 2023

1 A-120 FLOOR PLAN - BASEMENT
3/32" = 1'-0"

GENERAL NOTES: ARCHITECTURAL

1. WHERE WORK OR EQUIPMENT IS INDICATED AS 'NOT IN CONTRACT (NIC)' IN THE DOCUMENTS, SUCH WORK OR EQUIPMENT SHALL BE PROVIDED OUTSIDE THE CONTRACT SCOPE REPRESENTED IN THESE DOCUMENT. THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH NIC ITEMS AND COOPERATE TO AFFECT THE IMPLEMENTATION OF SUCH WORK OR INSTALLATION.
2. DETAILS NOT SHOWN ARE TO BE SIMILAR IN CHARACTER TO THOSE DRAWN. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED THE CONTRACTOR IS TO OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
3. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN. LARGE SCALE DETAILS GOVERN OVER SMALL SCALE.
4. WHERE EXISTING WALLS, PARTITIONS, COLUMNS, FLOORS, BULKHEADS, SURFACES, OR FINISHES ARE REMOVED OR PARTIALLY DEMOLISHED, EACH TRADE IS RESPONSIBLE FOR PATCHING OR REFINISHING OF EXISTING CONSTRUCTION REQUIRED BY THAT TRADE'S WORK ON THE PROJECT. THIS WORK MUST BE DONE IN A MANNER WHICH WILL ACCEPT NEW FINISHES.
5. ALL NEW, EXISTING, AND MODIFIED PARTITIONS TO RECEIVE A LEVEL FOUR (4) DRYWALL FINISH PRIOR TO APPLICATION OF PAINT TO SURFACE TO AVOID PAINT FLASHING. WALL FINISH LEVEL BASED ON GA-214-17 "RECOMMENDED LEVELS OF GYPSUM BOARD FINISH." REFER TO PARTITION TYPES FOR ADDITIONAL INFORMATION.
6. PARTITIONS ARE DIMENSIONED TO FACE OF PARTITION UNLESS NOTED OTHERWISE.
7. INSTALL MOISTURE RESISTANT GYP BOARD AT ALL WET WALLS, INCLUDING BUT NOT LIMITED TO RESTROOM AND SINK LOCATIONS. PROVIDE GYP TILE BACKER BOARD AT ALL WALLS TO RECEIVE CERAMIC TILE.
8. UNO EDGE OF DOOR TO BE LOCATED 5" OFF PERPENDICULAR WALL. PROVIDE BACK-TO-BACK OR NESTED STUDS AT BOTH SIDES OF ALL NEW JAMB LOCATIONS. NESTED STUD GAUGE TO MATCH PARTITION TYPE IN WHICH IT OCCURS OR 20 GA, WHICHEVER GAUGE IS HEAVIER.
9. PROVIDE BLOCKING IN STUD WALLS BEHIND ITEMS (CABINETS, MILLWORK, MARKER BOARDS, ETC.) SUPPORTED BY WALLS, OF SIZES, LENGTHS AND HEIGHTS AS REQUIRED. ATTACH BLOCKING TO STUDS WITH TYPE, SIZE, NUMBER AND SPACING OF ANCHORS AS REQUIRED TO PROPERLY SUPPORT LOADS OF ITEMS SUPPORTED. WHERE WOOD BLOCKING IS USED IT IS TO BE FIRE RETARDANT TREATED. WHERE METAL IS USED PROVIDE MIN 1/8 INCH THICK PLATE, WELDED, SCREWED OR BOLTED TO METAL STUD FRAMING. IF PLATES ARE NOT LOCATED COMPLETELY BEHIND ITEMS SUPPORTED, LET PLATES INTO STUDS OR OTHERWISE CONFIGURE SO THAT THERE ARE NO VISIBLE BULGES IN SURFACE OF FINISHED GYPSUM BOARD DUE TO THICKNESS OF PLATES BETWEEN STUDS AND GYPSUM BOARD.
10. ALL MATERIALS USED IN FIRE-RATED ASSEMBLIES SHALL BE APPROVED BY UL OTHER RECOGNIZED STANDARD FOR USE IN SUCH ASSEMBLIES.
11. ALL FIRESTOP SYSTEMS TO MEET UL TESTED SYSTEMS. SYSTEMS MUST BE SUBMITTED TO AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION. GC IS TO KEEP A COPY OF ALL APPROVED SYSTEMS ON SITE FOR DURATION OF PROJECT. ALL INSTALLED SYSTEMS MUST BE LABELED AND DOCUMENTED. DOCUMENTATION IS TO BE SUBMITTED TO OWNER AND ARCHITECT UPON COMPLETION OF THE PROJECT.
12. PROVIDE THROUGH PENETRATION FIRESTOP SYSTEMS FOR ALL ITEMS PENETRATING FIRE-RATED ASSEMBLIES. PENETRATIONS TO BE DESIGNED, TESTED, AND FIRE-RESISTANCE RATED TO RESIST FOR A PRESCRIBED PERIOD OF TIME THE SPREAD OF FIRE THROUGH PENETRATIONS. PROVIDE UL-LISTED ASSEMBLIES AS REQUIRED.
13. PROVIDE AND INSTALL ADA COMPLIANT BUILDING STANDARD FIRE EXTINGUISHERS AS REQUIRED BY AND IN ACCORDANCE WITH NFPA LIFE SAFETY CODE AND LOCAL BUILDING FIRE SAFETY CODE AND REGULATIONS.
14. PREPARE EXISTING FLOOR SLABS FOR INSTALLATION OF SPECIFIED FLOOR FINISHES. PREPARE EXISTING FLOOR SLABS TO BE SMOOTH AND LEVEL BEFORE INSTALLATION OF FINISH FLOOR MATERIALS, WITH MAXIMUM DEVIATION OF 1/4" IN 10'-0". NO FLOOR PREPARATION ALLOWANCES WILL BE ACCEPTED.
15. ALL BUILDING ACCESSIBILITY IS DESIGNED AND SHALL BE IN ACCORDANCE WITH IBC, ANSI 117.1 AND ADAAG, WHICHEVER STANDARD PROVIDES THE GREATEST DEGREE OF ACCESSIBILITY FOR ANY GIVEN BUILDING ELEMENT.
16. FOR ALL DOORS HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. LEVER- OPERATED MECHANISMS, PUSH-TYPE MECHANISMS, AND U-SHAPED HANDLES ARE ACCEPTABLE DESIGNS. WHEN SLIDING DOORS ARE FULLY OPEN, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES. HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" AFF.
17. ALL BUILDING ENTRANCES / EXITS ARE ACCESSIBLE.
18. ACCESSIBLE DOORS SHALL HAVE A LANDING ON BOTH SIDES. LANDINGS SHALL BE NO MORE THAN 1/2 INCH BELOW THE TOP OF THE DOOR THRESHOLD.
19. EACH GLAZING UNIT SHALL BEAR THE MANUFACTURER'S LABEL DESIGNATING THE TYPE AND THICKNESS OF GLASS. GLAZING LOCATED WITHIN 24" OF A DOOR AND LESS THAN 60" AFF SHALL BE SAFETY GLAZED.
20. INSTALL ALL APPLIANCES SHOWN IN DOCUMENTS. COORDINATE LOCATION AND SIZE OF ALL APPLIANCES AND ALL PLUMBING AND ELECTRICAL CONNECTIONS REQUIRED.
21. TO PREVENT GALVANIC ACTION BETWEEN DISSIMILAR METALS, WHERE DISSIMILAR METALS COME INTO CONTACT WITH EACH OTHER, WHERE METALS COME INTO CONTACT WITH WOOD, CONCRETE OR MASONRY, WHERE RUNOFF FROM A METAL SURFACE FLOWS OVER A DISSIMILAR METAL, OR WHERE NON-PASSIVE METAL FASTENERS PENETRATE DISSIMILAR METALS, BREAK THE CONTACT BETWEEN MATERIALS WITH A HEAVY WATERPROOF PAPER OR FELT, A HEAVY COAT OF BITUMINOUS COATING OR AN ELASTOMERIC FILM UNLESS OTHER SEPARATOR IS INDICATED IN THE CONTRACT DOCUMENTS.
22. STEEL EXPOSED TO WATER AND/OR EXTERIOR WEATHER CONDITIONS IS TO BE GALVANIZED UNLESS INDICATED OTHERWISE. WHERE CUTTING, FASTENING, ANCHORAGE OR CONNECTION CONDITIONS RESULT IN BREAKS IN THE GALVANIZING COATING, RESTORE COATING OR APPLY ADDITIONAL COMPATIBLE PROTECTIVE COATING TO MAINTAIN INTEGRITY OF PROTECTION.
23. SHEET METAL FLASHING SHALL BE OF APPROPRIATE THICKNESS AND SIZES, AND DETAILED, CONFIGURED AND INSTALLED SO AS TO ALLOW FOR ACCEPTABLE THERMAL MOVEMENTS WITHOUT VISIBLE DISTORTIONS, LEAKS OR FAILURES OF THE FLASHING SYSTEM'S ABILITY TO PERFORM AS REQUIRED BY THE CONTRACT DOCUMENTS.
24. REFER TO CONSULTANTS DRAWINGS FOR ADDITIONAL INFORMATION.
25. **PROVIDE AND INSTALL NEW LAMINATE FRONTS AT ALL EXISTING FAN COIL UNITS ON FLOORS 2-13. COORDINATE ALL WORK WITH MECHANICAL SCOPE AND REFERENCE DETAIL 8/A-502 FOR MORE INFORMATION. LAMINATE TO MATCH EXISTING, PROVIDE LAMINATE OPTIONS FOR FMDC TO SELECT CLOSEST MATCH TO EXISTING.**
26. **AREAS SCHEDULED FOR REMOVAL OF EXISTING FLOOR OUTLET DEVICES: CONTRACTOR TO INFILL WITH CONCRETE AND PATCH SLAB AT NEW RECESSED THREADED CONDUIT PLUG AND PROVIDE FLOOR LEVELING. PROVIDE AN ALLOWANCE FOR 520 TOTAL FLOOR OUTLET DEVICES. REFERENCE ELECTRICAL SCOPE FOR MORE INFORMATION.**
27. **FLOORS 2-13: REMOVAL ALL REMOVED PLASTIC LAMINATE COUNTERTOPS AT PERIMETER FAN COIL UNITS AND CAULK TO MATCH EXISTING.**

KEYED NOTES - ARCHITECTURAL

A13 PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING

A28 INSTALL NEW CMU WALL AFTER MECHANICAL WORK HAS BEEN COMPLETED IN THIS AREA

A29 NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT

ROOM SCHEDULE - BASEMENT

Number	Name
001	PRINT SHOP
002	OPEN OFFICE
003	OFFICE
004	OFFICE
005	OFFICE
006	OFFICE
007	OFFICE
008	STORAGE AREA
009	MECHANICAL/ELECTRICAL
010	STORAGE
011	MECHANICAL

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI · MICHAEL JOHN RATLIFF · NUMBER A-6855 · REGISTERED ARCHITECT

MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
Corporation
Missouri State Certificate of
Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

CM Archer Group, P.C. dba:
ARCHER-ELGIN
engineering • surveying • architecture
Corporate Authority:
CM Archer Group, P.C.:
E: 2003023612-D, LS: 2004017577-D,
A-2016017179
Archer-Elgin Surveying & Engineering,
LLC: E: 2011024035, LS: 2011025471,
A-2012014618
110 East 6th Street, Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

**OFFICE OF ADMINISTRATION
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RENOVATE MECHANICAL/ ELECTRICAL/LIFE-SAFETY/ STATE OFFICE BUILDING

JEFFERSON STATE OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

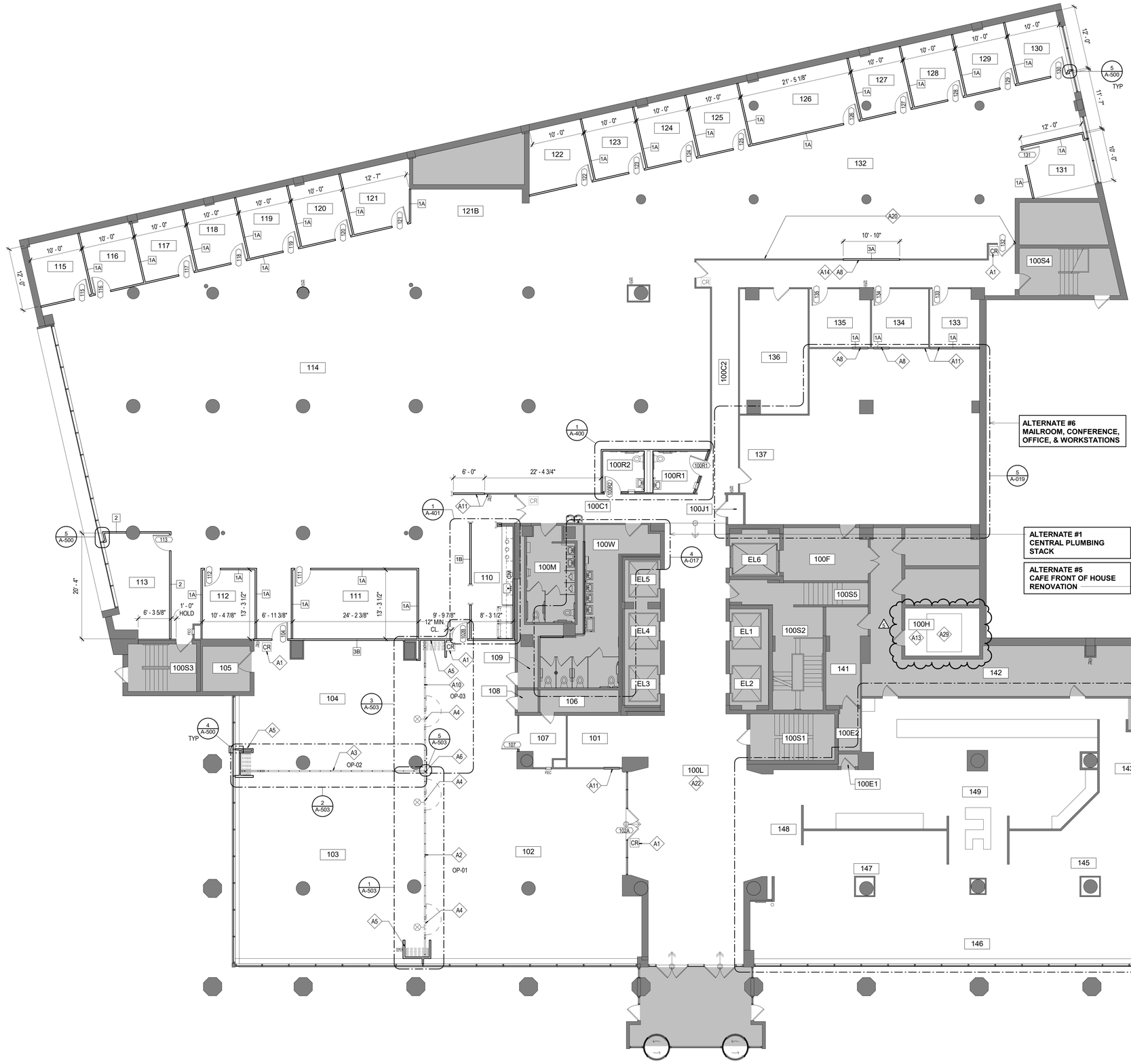
REVISION:Addendum 1
DATE:01/08/2024
REVISION:Addendum 2
DATE:01/17/2024
REVISION:Addendum 3
DATE:01/18/2024
REVISION:Addendum 4
DATE:01/25/2024
REVISION:Addendum 5
DATE:02/01/2024

ISSUE DATE: August 31, 2023

CAD DWG FILE: A-120
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
FLOOR PLAN - BASEMENT & GENERAL NOTES

SHEET NUMBER:
A-120
41 OF 240
DATE : August 31, 2023



1 A-121 FLOOR PLAN - FIRST FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

KEYED NOTES - ARCHITECTURAL

A1	CARD READER SHOWN ON THIS PLAN FOR LOCATION PURPOSES ONLY
A2	NEW OPERABLE WALL SYSTEM; PANEL LAYOUT OP-01
A3	NEW OPERABLE WALL SYSTEM; PANEL LAYOUT OP-02
A4	EGRESS DOOR IN OPERABLE WALL SYSTEM
A5	DRYWALL POCKET TO HOUSE OPERABLE WALL
A6	ALL THREE OPERABLE WALLS TO CONNECT HERE
A8	INFILL EXISTING PARTITION
A10	NEW OPERABLE WALL SYSTEM; PANEL LAYOUT OP-03
A11	ALIGN NEW WALL WITH EXISTING
A13	PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING
A14	INSTALL SALVAGED CHAIR RAIL ON THIS SIDE OF PARTITION TO ALIGN WITH EXISTING; PROVIDE NEW IF REQUIRED TO MATCH EXISTING
A20	INSTALL PREFINISHED GYPSUM BOARD ONLY ON THIS SIDE OF PARTITION
A22	EXISTING TERRAZZO TO REMAIN. PROTECT AS REQUIRED DURING ALL CONSTRUCTION PHASES
A29	NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT

ROOM SCHEDULE - 1ST FLOOR

Number	Name
100C1	CORRIDOR
100C2	CORRIDOR
100C3	CONFERENCE
100E1	ELEC CLOSET
100E2	DATA/ELECTRICAL
100F	FREIGHT ELEVATOR LOBBY
100H	MECHANICAL ROOM
100J1	JANITOR CLOSET
100J2	JANITOR CLOSET
100L	ELEVATOR LOBBY
100M	MEN'S RESTROOM
100R1	ADA RESTROOM
100R2	ADA RESTROOM
100S1	STAIRWELL
100S2	STAIRWELL
100S3	STAIRWELL
100S4	STAIRWELL
100S5	STAIRWELL
100W	WOMEN'S RESTROOM
101	VENDING ROOM
102	MULTI-PURPOSE
103	MULTI-PURPOSE
104	BOARD ROOM
105	ELECTRICAL
106	PLUMBING/ ELECTRICAL
107	ELECTRICAL
108	ELECTRICAL
109	PLUMBING/ ELECTRICAL
110	BREAK ROOM
111	CONFERENCE
112	OFFICE
113	FIRE COMMAND CENTER
114	OPEN OFFICE
115	OFFICE
116	OFFICE
117	OFFICE
118	OFFICE
119	OFFICE

ROOM SCHEDULE - 1ST FLOOR

Number	Name
120	OFFICE
121	OFFICE
121B	PRINT/COPY BAR
122	OFFICE
123	OFFICE
124	OFFICE
125	OFFICE
126	CONFERENCE
127	OFFICE
128	OFFICE
129	OFFICE
130	OFFICE
131	OFFICE
132	OPEN OFFICE
133	DATA ROOM
134	WELLNESS ROOM
135	WELLNESS ROOM
136	VIDEO CONFERENCE
137	OPEN OFFICE
141	STORAGE
142	KITCHEN
EL1	ELEVATOR
EL2	ELEVATOR
EL3	ELEVATOR
EL4	ELEVATOR
EL5	ELEVATOR
EL6	SERVICE ELEVATOR

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MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering Professional Engineering Corporation
Missouri State Certificate of Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

CM Archer Group, P.C. dba:
ARCHER-ELGIN
engineering ▪ surveying ▪ architecture
Corporate Authority:
CM Archer Group, P.C.:
E: 2003023612-D, LS: 2004017577-D, A-2016017179
Archer-Elgin Surveying & Engineering, LLC: E: 2011024035, LS: 2011025471, A-2012014618
110 East 6th Street, Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

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PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

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CHECKED BY: EA
DESIGNED BY: JC

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FLOOR PLAN - 1ST FLOOR

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A-121
42 OF 240
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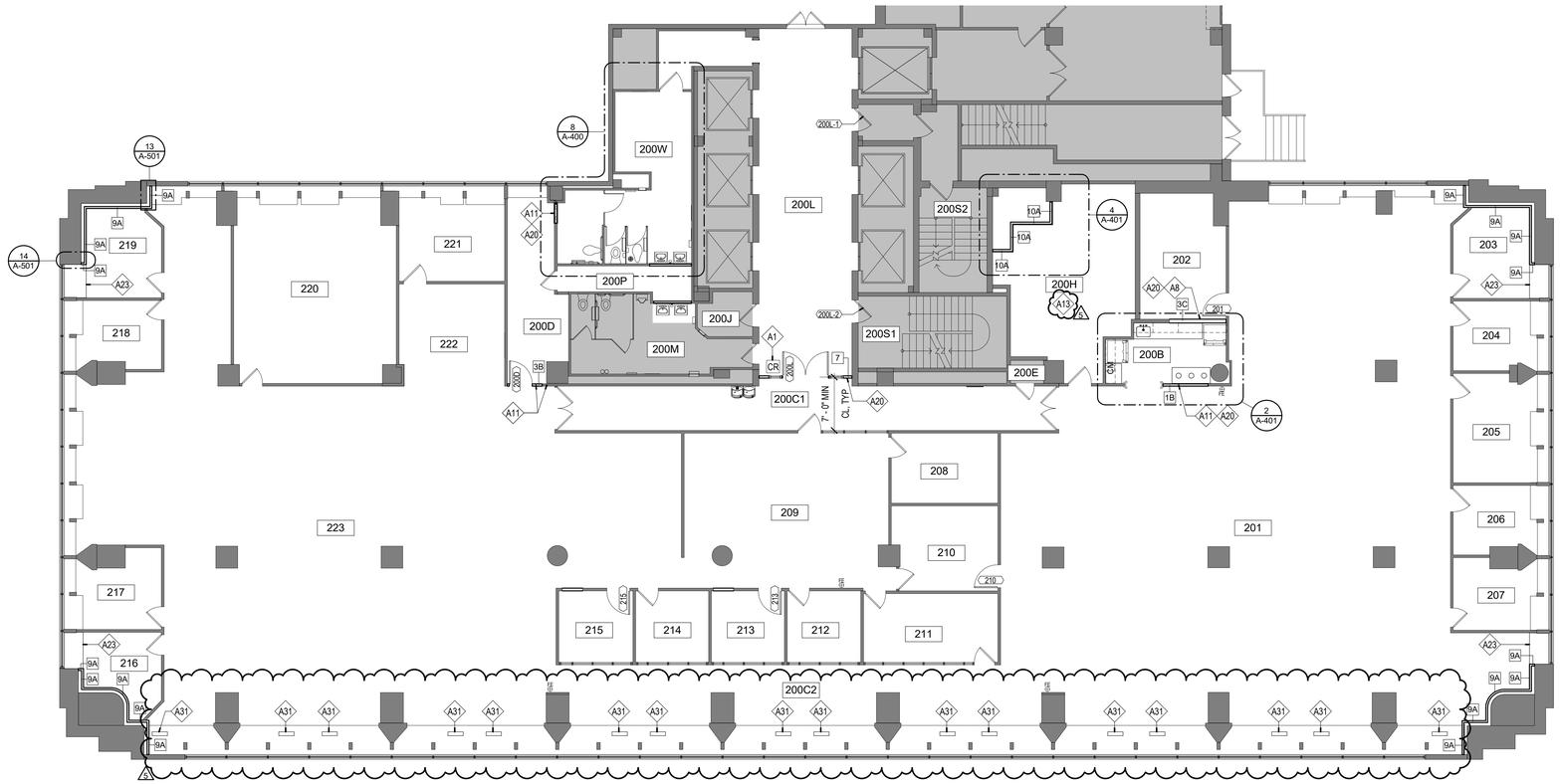
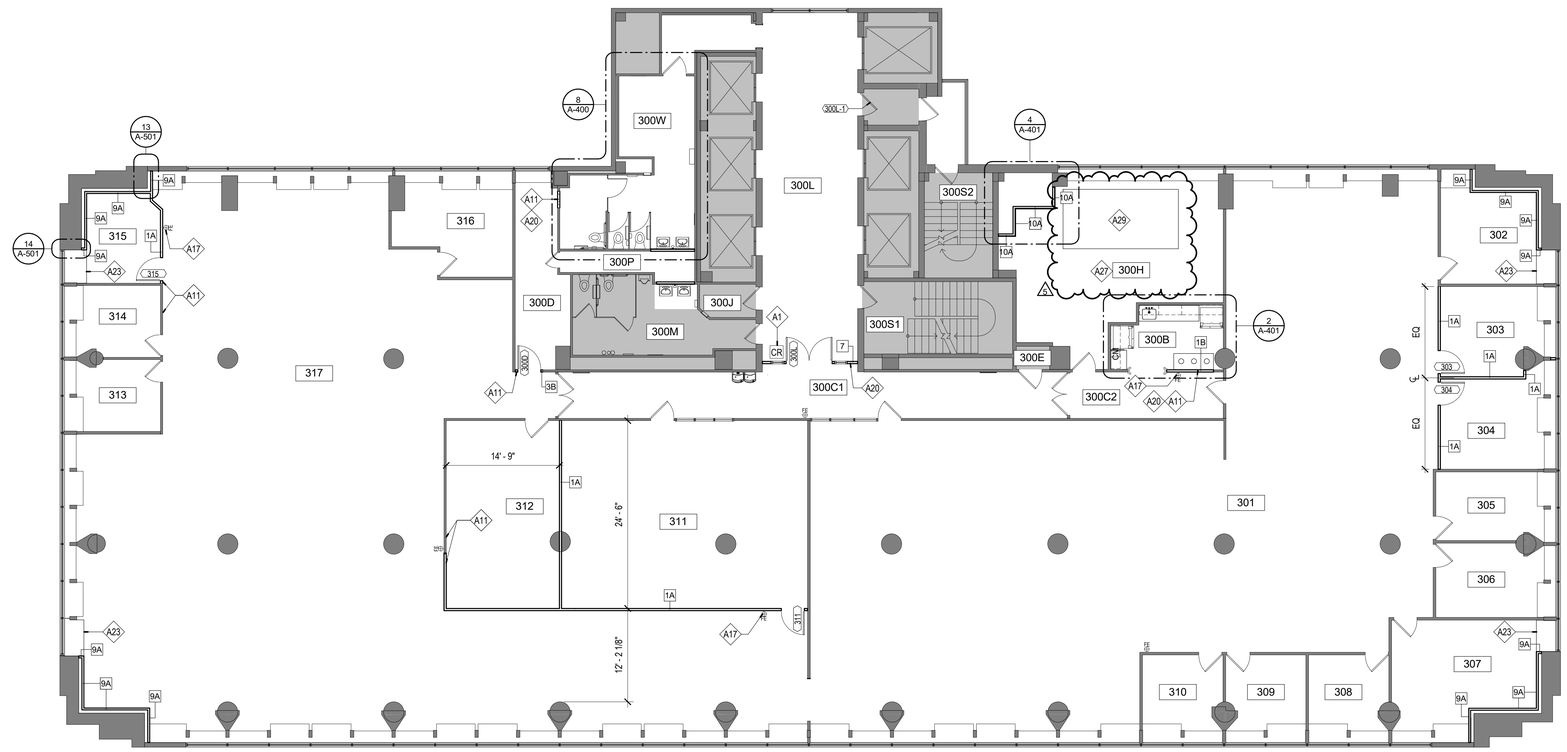


1 A-122 FLOOR PLAN - SECOND FLOOR
1/8" = 1'-0"



2 A-122 FLOOR PLAN - THIRD FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

KEYED NOTES - ARCHITECTURAL

A1	CARD READER SHOWN ON THIS PLAN FOR LOCATION PURPOSES ONLY
A8	INFILL EXISTING PARTITION
A11	ALIGN NEW WALL WITH EXISTING
A13	PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING
A17	INSTALL RELOCATED/NEW FIRE EXTINGUISHER/CABINET AT THIS LOCATION; ALL NEW TO MATCH EXISTING BUILDING STANDARDS; PROVIDE AND INSTALL FE SIGNAGE
A20	INSTALL PREFINISHED GYPSUM BOARD ONLY ON THIS SIDE OF PARTITION
A23	INSTALL NEW FCU PANEL FRONT AT THIS LOCATION; REFERENCE DETAIL 8/A-502 FOR MORE INFORMATION
A27	PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND FINISH FLOOR AS INDICATED ON FINISH PLANS
A29	NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT
A31	CUT IN NEW SCHEDULED (24"X6") DIFFUSERS IN EXISTING PLASTIC LAMINAE COUNTER, AS INDICATED ON MECHANICAL DRAWINGS

ROOM SCHEDULE - 2ND FLOOR

Number	Name
200B	BREAK ROOM
200C1	CORRIDOR
200C2	CORRIDOR
200D	DATA
200E	ELECTRICAL CLOSET
200H	MECHANICAL
200J	JANITOR CLOSET
200L	ELEVATOR LOBBY
200M	MEN'S RESTROOM
200P	PLUMBING CHASE
200S1	STAIRWELL
200S2	STAIRWELL
200W	WOMEN'S RESTROOM
201	OPEN OFFICE
202	CONFERENCE
203	OFFICE
204	OFFICE
205	OFFICE

ROOM SCHEDULE - 2ND FLOOR

Number	Name
206	OFFICE
207	OFFICE
208	OFFICE
209	RECEPTION
210	OFFICE
211	OFFICE
212	OFFICE
213	OFFICE
214	OFFICE
215	OFFICE
216	OFFICE
217	OFFICE
218	OFFICE
219	OFFICE
220	CONFERENCE
221	OFFICE
222	OPEN OFFICE
223	OPEN OFFICE

ROOM SCHEDULE - 3RD FLOOR

Number	Name
300B	BREAK ROOM
300C1	CORRIDOR
300C2	CORRIDOR
300D	DATA
300E	ELECTRICAL CLOSET
300H	MECHANICAL ROOM
300J	JANITOR CLOSET
300L	ELEVATOR LOBBY
300M	MEN'S RESTROOM
300P	PLUMBING CHASE
300S1	STAIRWELL
300S2	STAIRWELL
300W	WOMEN'S RESTROOM
301	OPEN OFFICE
302	OFFICE

ROOM SCHEDULE - 3RD FLOOR

Number	Name
303	OFFICE
304	OFFICE
305	OFFICE
306	OFFICE
307	CONFERENCE
308	OFFICE
309	OFFICE
310	OFFICE
311	CONFERENCE
312	CONFERENCE
313	OFFICE
314	OFFICE
315	OFFICE
316	OFFICE
317	OPEN OFFICE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI · MICHAEL JOHN RATLIFF · NUMBER A-6855 · REGISTERED ARCHITECT

MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
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ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
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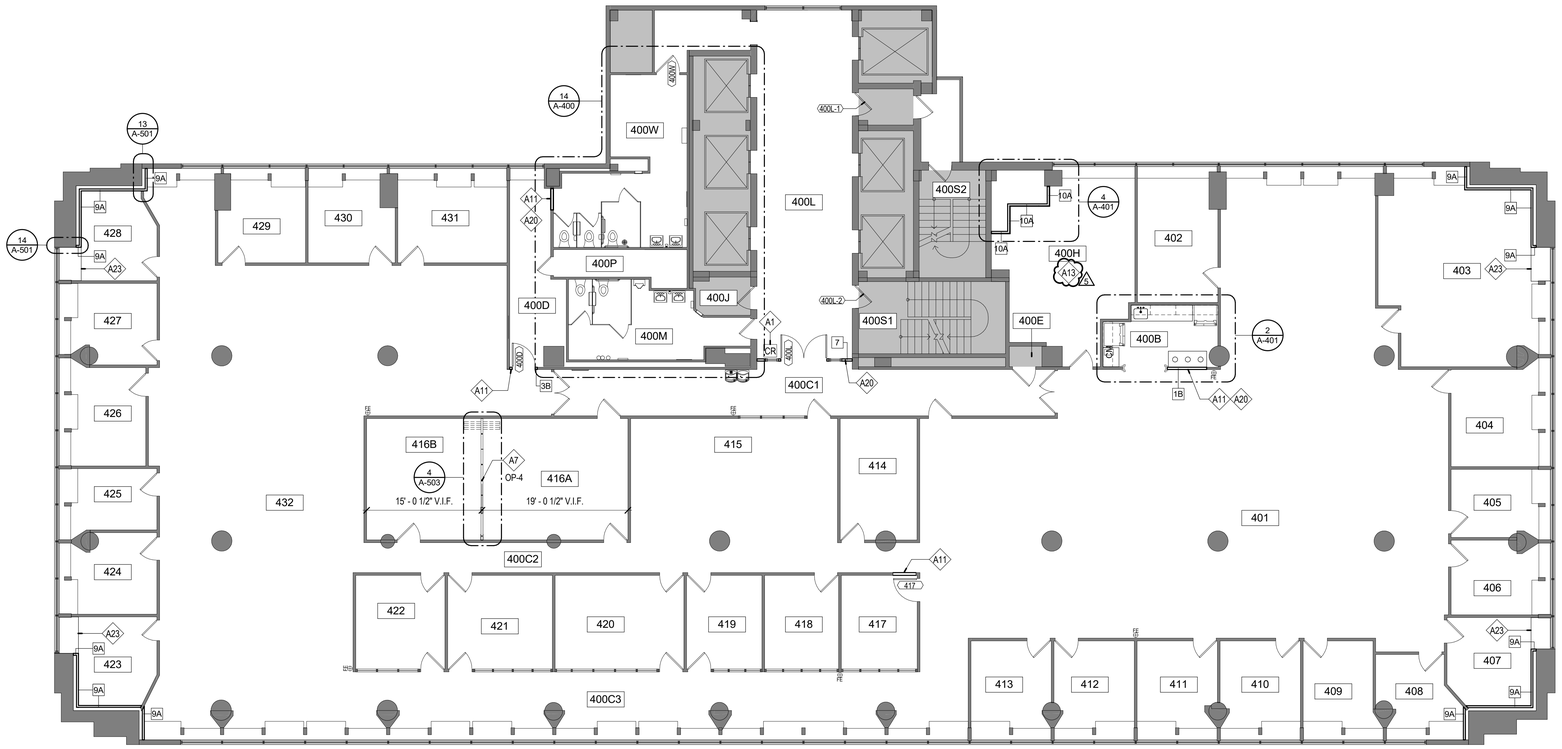
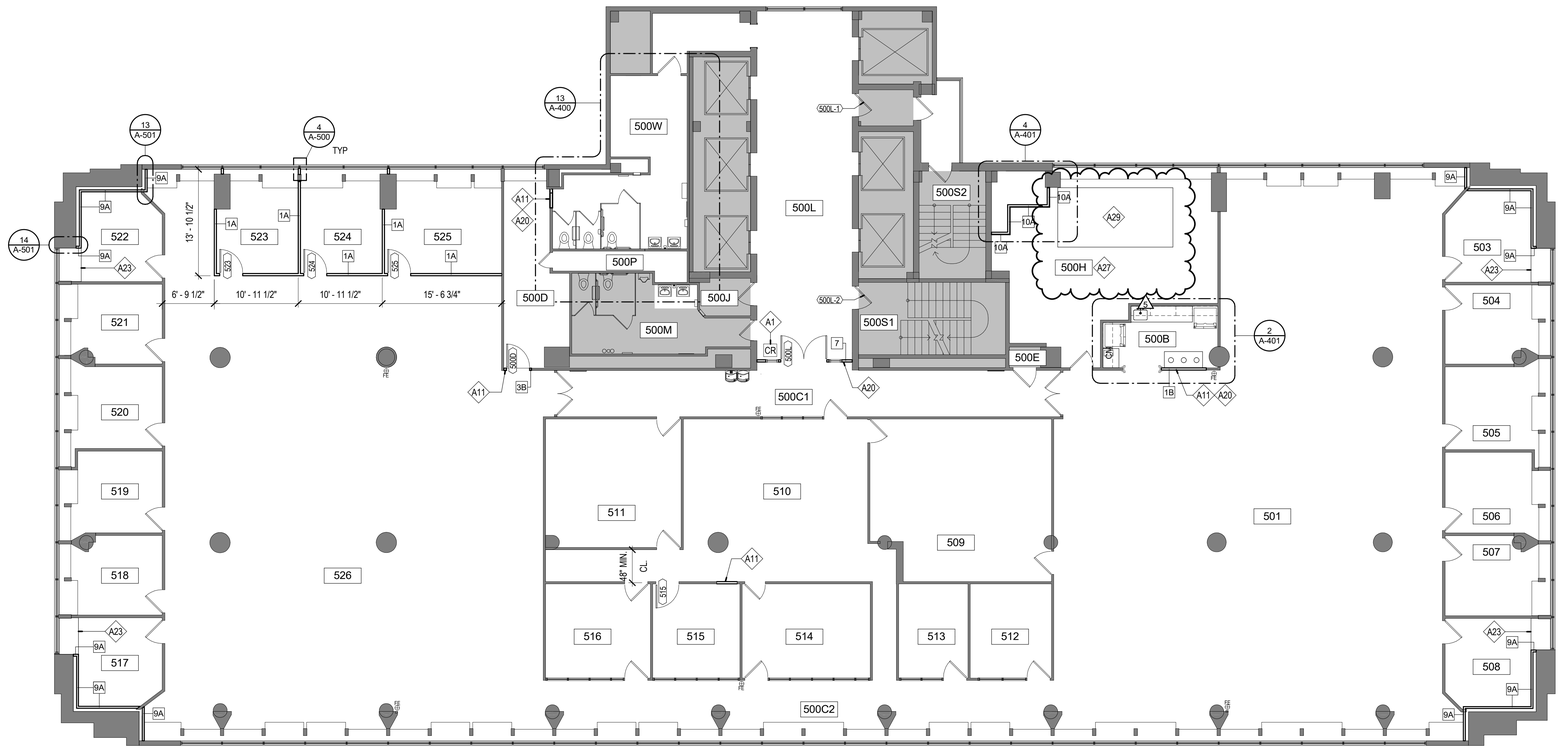
FLOOR PLAN - 2ND & 3RD FLOORS

SHEET NUMBER:
A-122
43 OF 240
DATE : August 31, 2023



1 A-123 FLOOR PLAN - FOURTH FLOOR
1/8" = 1'-0"



2 A-123 FLOOR PLAN - FIFTH FLOOR
1/8" = 1'-0"

KEYED NOTES - ARCHITECTURAL

A#	
A1	CARD READER SHOWN ON THIS PLAN FOR LOCATION PURPOSES ONLY
A7	NEW OPERABLE WALL SYSTEM TO REPLACE EXISTING; PANEL LAYOUT OP-04
A11	ALIGN NEW WALL WITH EXISTING
A13	PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING
A20	INSTALL PREFINISHED GYPSUM BOARD ONLY ON THIS SIDE OF PARTITION
A23	INSTALL NEW FCU PANEL FRONT AT THIS LOCATION; REFERENCE DETAIL 8/A-502 FOR MORE INFORMATION
A27	PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND FINISH FLOOR AS INDICATED ON FINISH PLANS
A29	NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT

ROOM SCHEDULE - 4TH FLOOR

Number	Name
400B	BREAK ROOM
400C1	CORRIDOR
400C2	CORRIDOR
400C3	CORRIDOR
400D	DATA/ELECTRICAL
400E	ELECTRICAL CLOSET
400H	MECHANICAL ROOM
400J	JANITOR CLOSET
400L	ELEVATOR LOBBY
400M	MEN'S RESTROOM
400P	PLUMBING CHASE
400S1	STAIRWELL
400S2	STAIRWELL
400W	WOMEN'S RESTROOM
401	OPEN OFFICE
402	OFFICE
403	CONFERENCE
404	CONFERENCE
405	OFFICE
406	OFFICE
407	OFFICE
408	OFFICE
409	OFFICE
410	OFFICE

ROOM SCHEDULE - 4TH FLOOR

Number	Name
411	OFFICE
412	OFFICE
413	OFFICE
414	OFFICE
415	RECEPTION
416A	CONFERENCE
416B	CONFERENCE
417	OFFICE
418	OFFICE
419	OFFICE
420	OFFICE
421	OFFICE
422	OFFICE
423	OFFICE
424	OFFICE
425	OFFICE
426	OFFICE
427	OFFICE
428	OFFICE
429	OFFICE
430	OFFICE
431	OFFICE
432	OPEN OFFICE

ROOM SCHEDULE - 5TH FLOOR

Number	Name
500B	BREAK ROOM
500C1	CORRIDOR
500C2	CORRIDOR
500D	DATA
500E	ELECTRICAL CLOSET
500H	MECHANICAL ROOM
500J	JANITOR CLOSET
500L	ELEVATOR LOBBY
500M	MEN'S RESTROOM
500P	PLUMBING CHASE
500S1	STAIRWELL
500S2	STAIRWELL
500W	WOMEN'S RESTROOM
501	OPEN OFFICE
502	OPEN OFFICE
503	OFFICE
504	OFFICE
505	OFFICE
506	OFFICE
507	OFFICE

ROOM SCHEDULE - 5TH FLOOR

Number	Name
508	OFFICE
509	CONFERENCE
510	RECEPTION
511	CONFERENCE
512	OFFICE
513	OFFICE
514	OFFICE
515	OFFICE
516	OFFICE
517	OFFICE
518	OFFICE
519	OFFICE
520	OFFICE
521	OFFICE
522	OFFICE
523	OFFICE
524	OFFICE
525	OFFICE
526	OPEN OFFICE

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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MICHAEL J. RATLIFF
MO #6855

MCCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering Professional Engineering Corporation
Missouri State Certificate of Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

CM Archer Group, P.C. dba:
ARCHER-ELGIN engineering ▪ surveying ▪ architecture
Corporate Authority:
CM Archer Group, P.C.:
E: 2003023612-D, LS: 2004017577-D, A-2016017179
Archer-Elgin Surveying & Engineering, LLC: E: 2011024035, LS: 2011025471, A-2012014618
110 East 6th Street, Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

OFFICE OF ADMINISTRATION
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RENOVATE MECHANICAL/ ELECTRICAL/LIFE-SAFETY/ STATE OFFICE BUILDING

JEFFERSON STATE OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

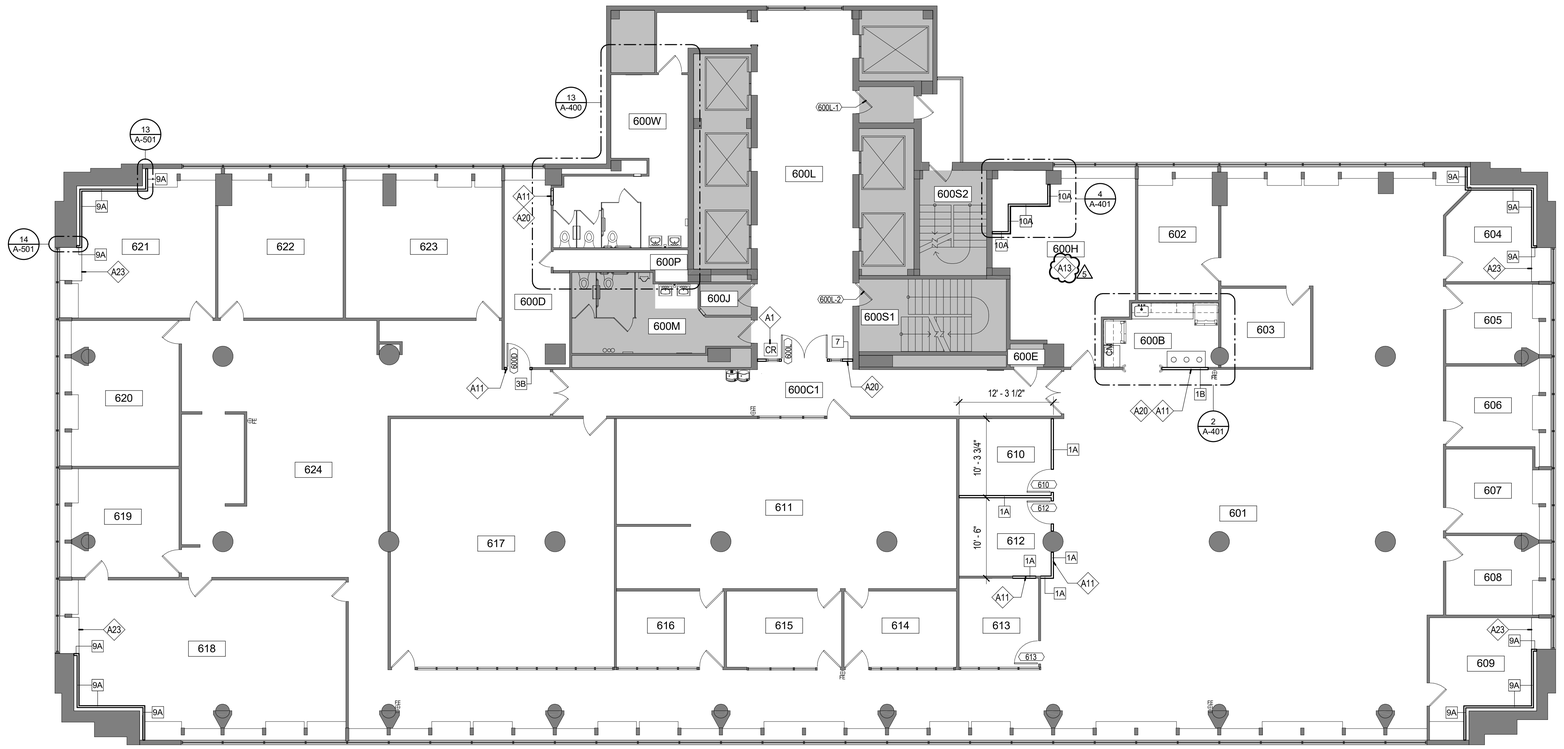
REVISION:Addendum 1 DATE:01/08/2024
REVISION:Addendum 2 DATE:01/17/2024
REVISION:Addendum 3 DATE:01/18/2024
REVISION:Addendum 4 DATE:01/25/2024
REVISION:Addendum 5 DATE:02/01/2024

ISSUE DATE: August 31, 2023

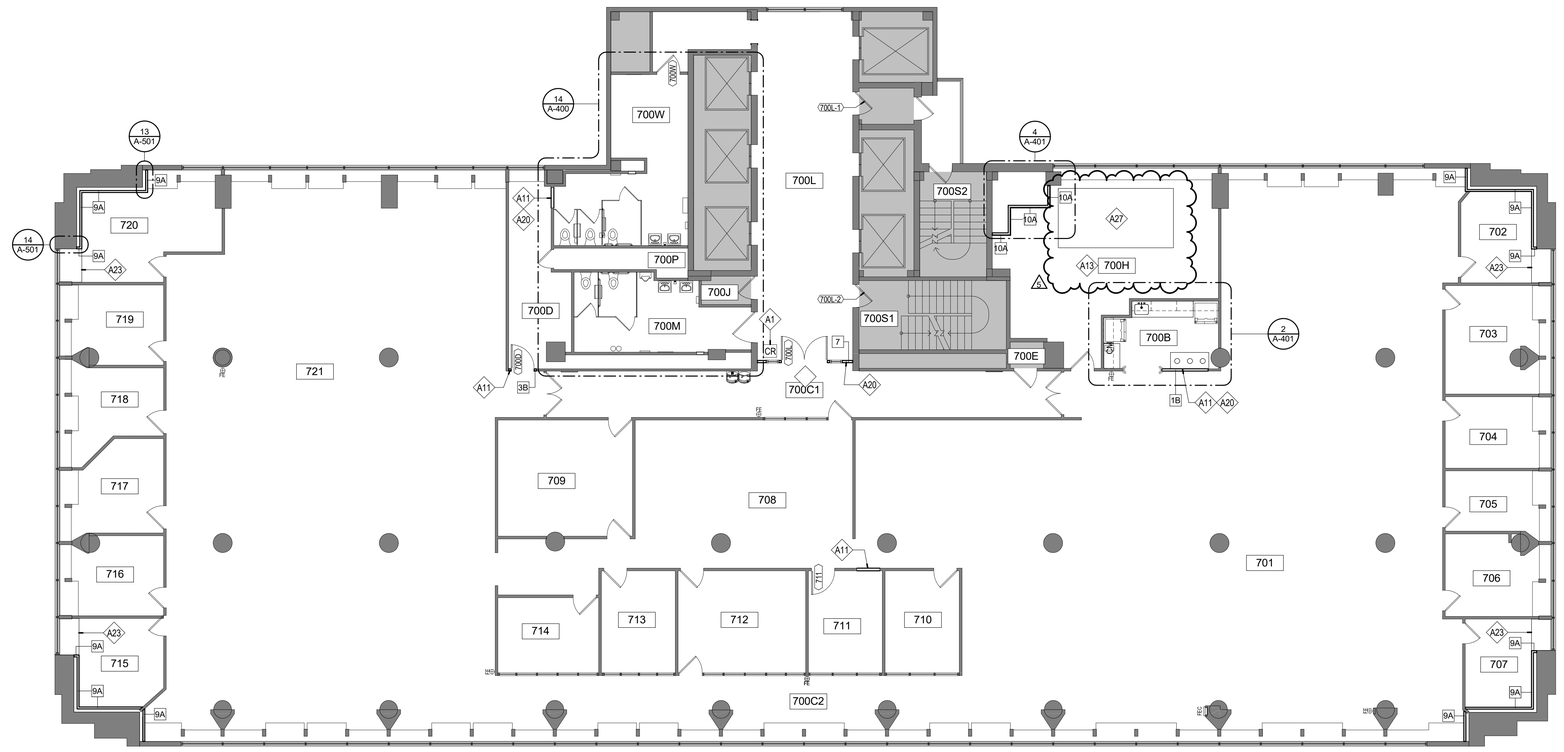
CAD DWG FILE: A-123
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
FLOOR PLAN - 4TH & 5TH FLOORS

SHEET NUMBER:
A-123
44 OF 240
DATE : August 31, 2023



1 A-124 FLOOR PLAN - SIXTH FLOOR
1/8" = 1'-0"



B A-124 FLOOR PLAN - SEVENTH FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

KEYED NOTES - ARCHITECTURAL

A1 CARD READER SHOWN ON THIS PLAN FOR LOCATION PURPOSES ONLY

~~A11 ALIGN NEW WALL WITH EXISTING~~

A13 PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING

A20 INSTALL PREFINISHED GYPSUM BOARD ONLY ON THIS SIDE OF PARTITION

A23 INSTALL NEW FCU PANEL FRONT AT THIS LOCATION; REFERENCE DETAIL 8/A-502 FOR MORE INFORMATION

A27 PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND FINISH FLOOR AS INDICATED ON FINISH PLANS

ROOM SCHEDULE - 6TH FLOOR

Number	Name
600B	BREAK ROOM
600C1	CORRIDOR
600C2	CORRIDOR
600D	DATA
600E	ELECTRICAL CLOSET
600H	MECHANICAL ROOM
600J	JANITOR CLOSET
600L	ELEVATOR LOBBY
600M	MEN'S RESTROOM
600P	PLUMBING CHASE
600S1	STAIRWELL
600S2	STAIRWELL
600W	WOMEN'S RESTROOM
601	OPEN OFFICE
602	OFFICE
603	OFFICE
604	OFFICE
605	OFFICE
606	OFFICE
607	OFFICE

ROOM SCHEDULE - 6TH FLOOR

Number	Name
608	OFFICE
609	OFFICE
610	OFFICE
611	RECEPTION
612	OFFICE
613	OFFICE
614	CONFERENCE
615	OFFICE
616	OFFICE
617	CONFERENCE
618	OFFICE
619	OFFICE
620	OFFICE
621	OFFICE
622	OFFICE
623	CONFERENCE
624	OPEN OFFICE

ROOM SCHEDULE - 7TH FLOOR

Number	Name
700B	BREAK ROOM
700C1	FREE STANDING FURNITURE
700C2	CORRIDOR
700D	DATA
700E	ELECTRICAL CLOSET
700H	MECHANICAL ROOM
700J	JANITOR CLOSET
700L	ELEVATOR LOBBY
700M	WOMEN'S RESTROOM
700P	PLUMBING CHASE
700S1	STAIRWELL
700S2	STAIRWELL
700W	WOMEN'S RESTROOM
701	OPEN OFFICE
702	OFFICE
703	OFFICE
704	OFFICE

ROOM SCHEDULE - 7TH FLOOR

Number	Name
705	OFFICE
706	OFFICE
707	OFFICE
708	RECEPTION
709	CONFERENCE
710	OFFICE
711	OFFICE
712	OFFICE
713	OFFICE
714	OFFICE
715	OFFICE
716	OFFICE
717	OFFICE
718	OFFICE
719	OFFICE
720	OFFICE
721	OPEN OFFICE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MICHAEL JOHN RATLIFF NUMBER A-6855 REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering Professional Engineering Corporation
Missouri State Certificate of Authority #000087

ARCTURIS
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St. Louis, MO 63101
T 314-206-7100
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SITE # **1001**
ASSET # **3101001057**

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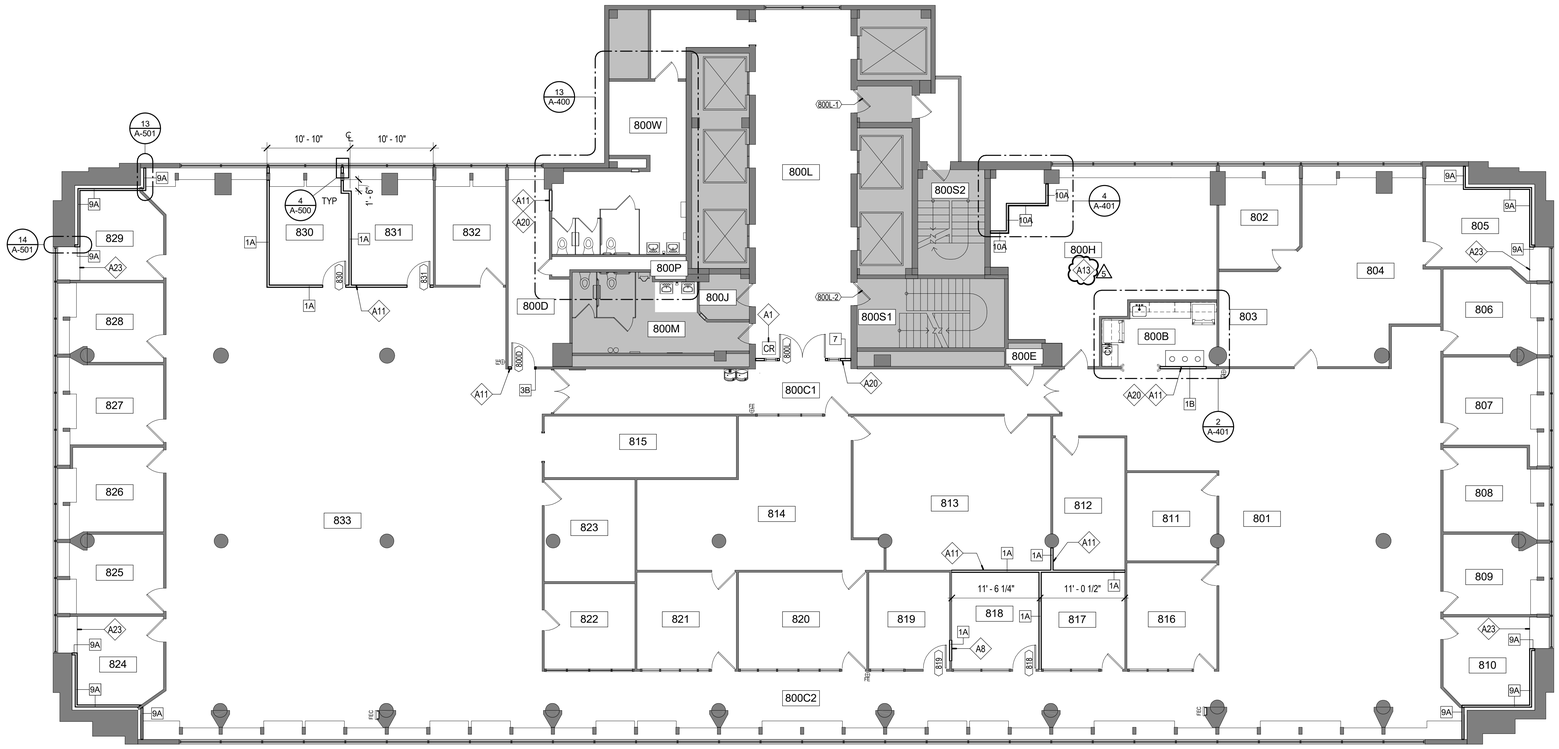
REVISION:Addendum 4 DATE:01/25/2024
REVISION:Addendum 5 DATE:02/01/2024

ISSUE DATE: August 31, 2023

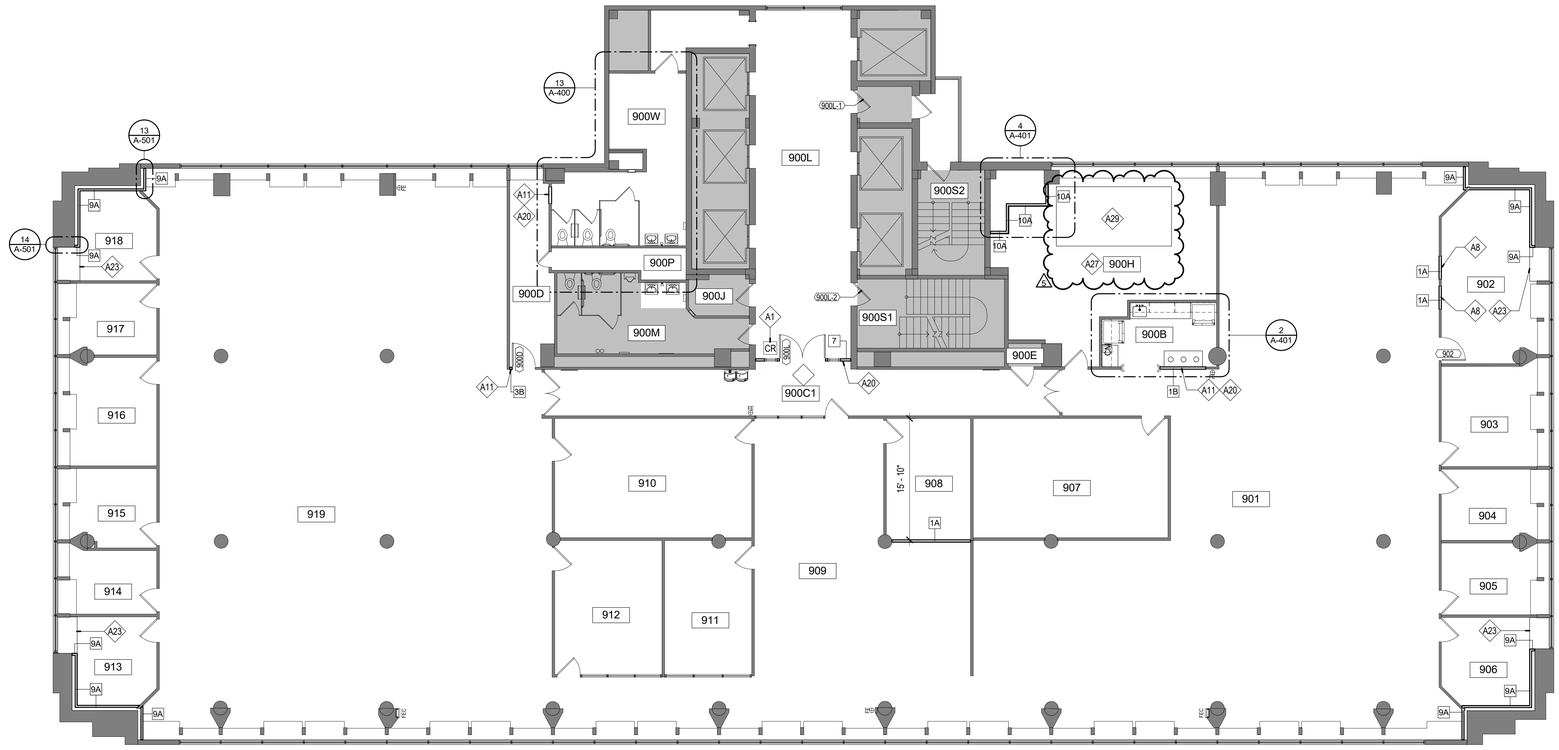
CAD DWG FILE: A-124
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
FLOOR PLAN - 6TH & 7TH FLOORS

SHEET NUMBER:
A-124
45 OF 240
DATE : August 31, 2023



1 A-125 FLOOR PLAN - EIGHTH FLOOR
1/8" = 1'-0"



2 A-125 FLOOR PLAN - NINTH FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

KEYED NOTES - ARCHITECTURAL

A1	CARD READER SHOWN ON THIS PLAN FOR LOCATION PURPOSES ONLY
A8	INFILL EXISTING PARTITION
A11	ALIGN NEW WALL WITH EXISTING
A13	PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING
A20	INSTALL PREFINISHED GYPSUM BOARD ONLY ON THIS SIDE OF PARTITION
A23	INSTALL NEW FCU PANEL FRONT AT THIS LOCATION; REFERENCE DETAIL 8/A-502 FOR MORE INFORMATION
A27	PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND FINISH FLOOR AS INDICATED ON FINISH PLANS
A29	NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT

ROOM SCHEDULE - 8TH FLOOR

Number	Name
800B	BREAK ROOM
800C1	CORRIDOR
800C2	CORRIDOR
800D	DATA
800E	ELECTRICAL CLOSET
800H	MECHANICAL ROOM
800J	JANITOR CLOSET
800L	ELEVATOR LOBBY
800M	MEN'S RESTROOM
800P	PLUMBING CHASE
800S1	STAIRWELL
800S2	STAIRWELL
800W	WOMEN'S RESTROOM
801	OPEN OFFICE
802	OFFICE
803	CONFERENCE
804	OPEN OFFICE
805	OFFICE
806	OFFICE
807	OFFICE
808	OFFICE
809	OFFICE
810	OFFICE

ROOM SCHEDULE - 8TH FLOOR

Number	Name
811	OFFICE
812	OFFICE
813	CONFERENCE
814	RECEPTION
815	STORAGE
816	OFFICE
817	OFFICE
818	OFFICE
819	OFFICE
820	OFFICE
821	OFFICE
822	OFFICE
823	OFFICE
824	OFFICE
825	OFFICE
826	OFFICE
827	OFFICE
828	OFFICE
829	OFFICE
830	OFFICE
831	OFFICE
832	OFFICE
833	OPEN OFFICE

ROOM SCHEDULE - 9TH FLOOR

Number	Name
900B	BREAK ROOM
900C1	CORRIDOR
900D	DATA
900E	ELECTRICAL CLOSET
900H	MECHANICAL ROOM
900J	JANITOR CLOSET
900L	ELEVATOR LOBBY
900M	MEN'S RESTROOM
900P	PLUMBING CHASE
900S1	STAIRWELL
900S2	STAIRWELL
900W	WOMEN'S RESTROOM
901	OPEN OFFICE
902	OFFICE
903	OFFICE
904	OFFICE

ROOM SCHEDULE - 9TH FLOOR

Number	Name
905	OFFICE
906	OFFICE
907	CONFERENCE
908	OFFICE
909	RECEPTION
910	CONFERENCE
911	CONFERENCE
912	CONFERENCE
913	OFFICE
914	OFFICE
915	OFFICE
916	OFFICE
917	OFFICE
918	OFFICE
919	OPEN OFFICE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MICHAEL JOHN RATLIFF NUMBER A-6855 REGISTERED ARCHITECT

MICHAEL J. RATLIFF
MO #6855

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PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

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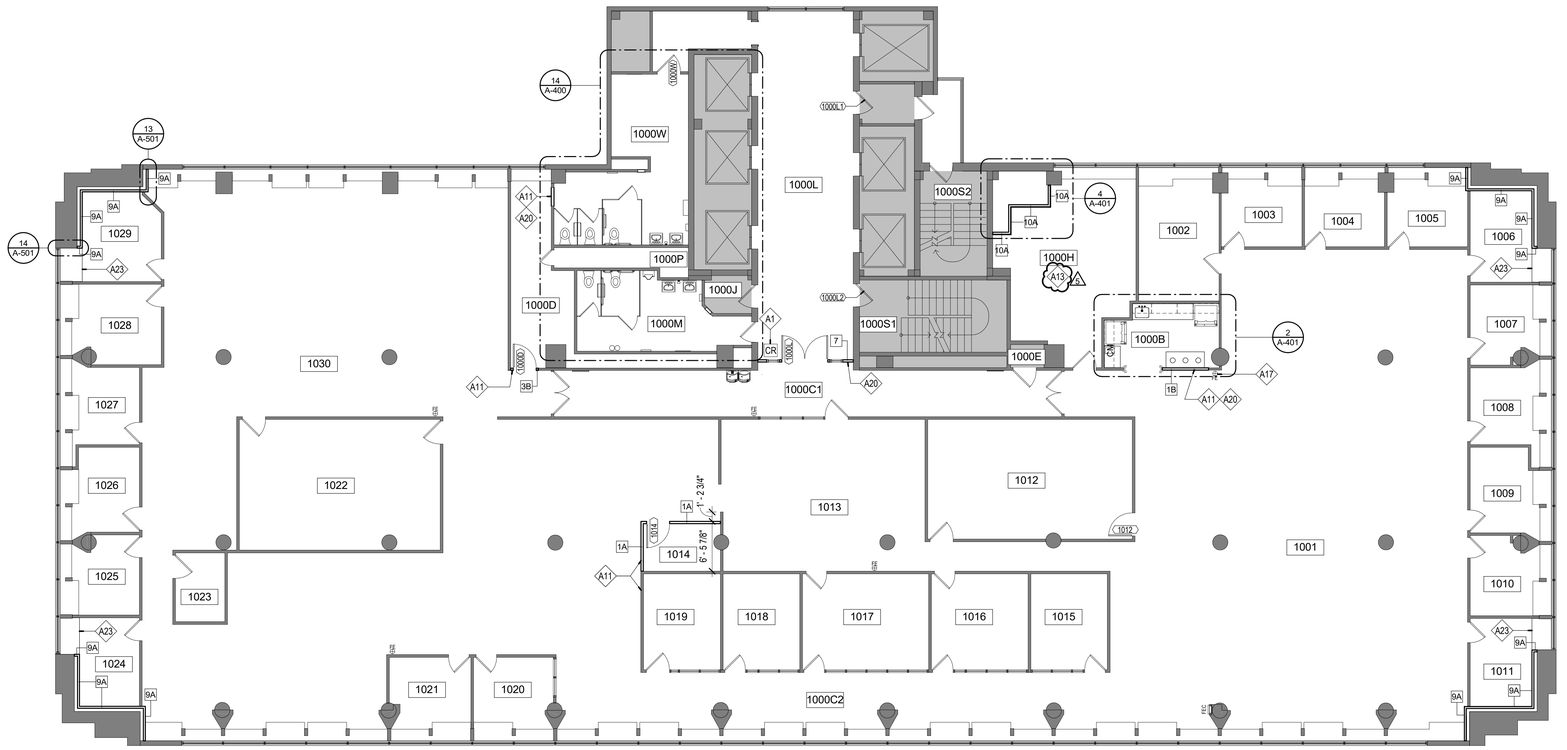
DATE:01/25/2024
REVISION:Addendum 5
DATE:02/01/2024

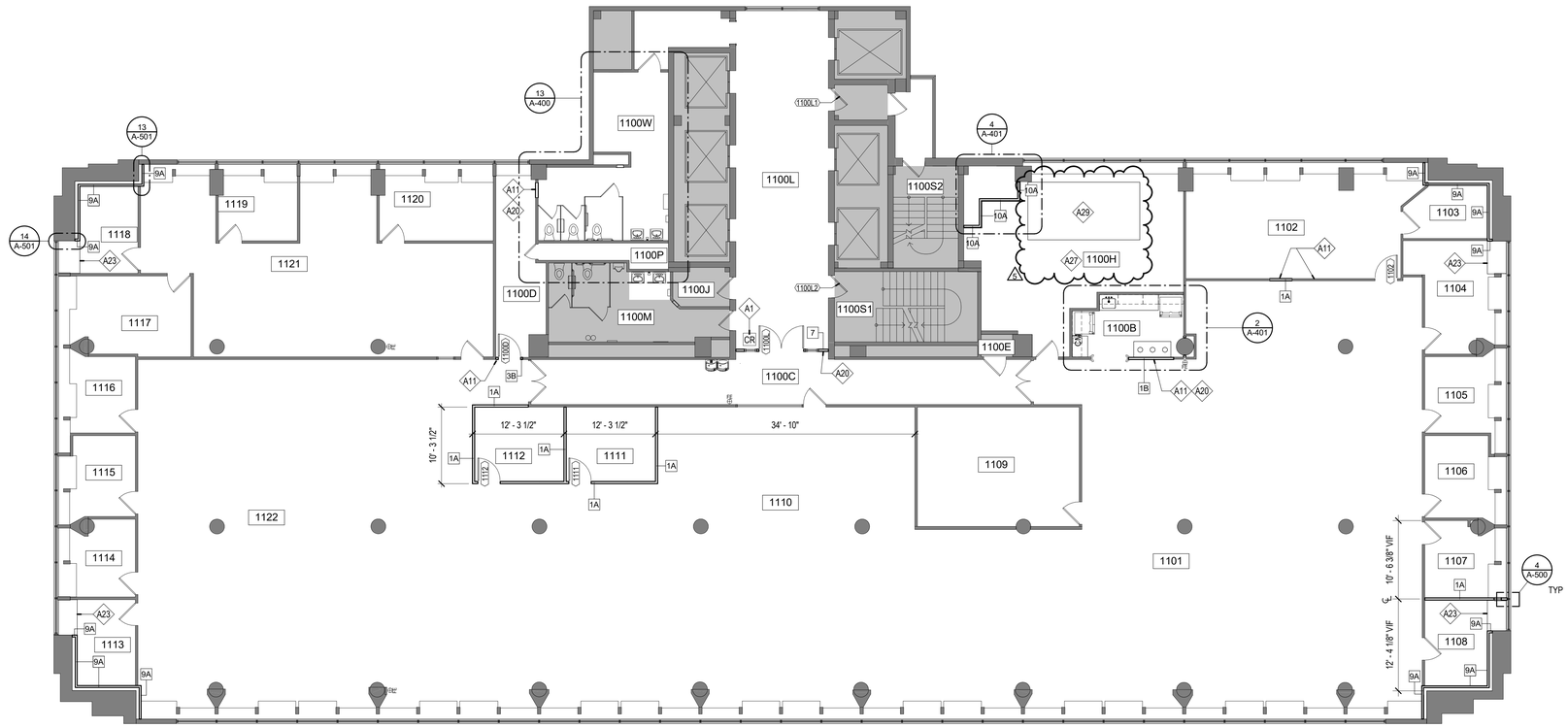
ISSUE DATE: August 31, 2023

CAD DWG FILE: A-125
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
FLOOR PLAN - 8TH & 9TH FLOORS

SHEET NUMBER:
A-125
46 OF 240
DATE : August 31, 2023





KEYED NOTES - ARCHITECTURAL

A#

A1 CARD READER SHOWN ON THIS PLAN FOR LOCATION PURPOSES ONLY

A11 ALIGN NEW WALL WITH EXISTING

A13 PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING

A17 INSTALL RELOCATED/NEW FIRE EXTINGUISHER/CABINET AT THIS LOCATION; ALL NEW TO MATCH EXISTING BUILDING STANDARDS; PROVIDE AND INSTALL FE SIGNAGE

A20 INSTALL PREFINISHED GYPSUM BOARD ONLY ON THIS SIDE OF PARTITION

A23 INSTALL NEW FCU PANEL FRONT AT THIS LOCATION; REFERENCE DETAIL 8/A-502 FOR MORE INFORMATION

A27 PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND FINISH FLOOR AS INDICATED ON FINISH PLANS

A29 NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT

ROOM SCHEDULE - 10TH FLOOR

Number	Name
1000B	BREAK ROOM
1000C1	CORRIDOR
1000C2	CORRIDOR
1000D	DATA
1000E	ELECTRICAL CLOSET
1000H	MECHANICAL ROOM
1000J	JANITOR CLOSET
1000L	ELEVATOR LOBBY
1000M	MEN'S RESTROOM
1000P	PLUMBING CHASE
1000S1	STAIRWELL
1000S2	STAIRWELL
1000W	WOMEN'S RESTROOM
1001	OPEN OFFICE
1002	OFFICE
1003	OFFICE
1004	OFFICE
1005	OFFICE
1006	OFFICE
1007	OFFICE
1008	OFFICE

ROOM SCHEDULE - 10TH FLOOR

Number	Name
1009	OFFICE
1010	OFFICE
1011	OFFICE
1012	CONFERENCE
1013	RECEPTION
1014	STORAGE
1015	OFFICE
1016	OFFICE
1017	OFFICE
1018	OFFICE
1019	OFFICE
1020	OFFICE
1021	OFFICE
1022	CONFERENCE
1023	STORAGE
1024	OFFICE
1025	OFFICE
1026	OFFICE
1027	OFFICE
1028	OFFICE
1029	OFFICE
1030	OPEN OFFICE

ROOM SCHEDULE - 11TH FLOOR

Number	Name
1100B	BREAK ROOM
1100C	CORRIDOR
1100D	DATA
1100E	ELECTRICAL CLOSET
1100H	MECHANICAL ROOM
1100J	JANITOR CLOSET
1100L	ELEVATOR LOBBY
1100M	MEN'S RESTROOM
1100P	PLUMBING CHASE
1100S1	STAIRWELL
1100S2	STAIRWELL
1100W	WOMEN'S RESTROOM
1101	OPEN OFFICE
1102	CONFERENCE
1103	STORAGE
1104	OFFICE
1105	OFFICE

ROOM SCHEDULE - 11TH FLOOR

Number	Name
1106	OFFICE
1107	OFFICE
1108	OFFICE
1109	CONFERENCE
1110	OPEN OFFICE
1111	OFFICE
1112	OFFICE
1113	OFFICE
1114	OFFICE
1115	OFFICE
1116	OFFICE
1117	CONFERENCE
1118	OFFICE
1119	OFFICE
1120	OFFICE
1121	OPEN OFFICE
1122	OPEN OFFICE

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MICHAEL JOHN RATLIFF NUMBER A-6855 REGISTERED ARCHITECT

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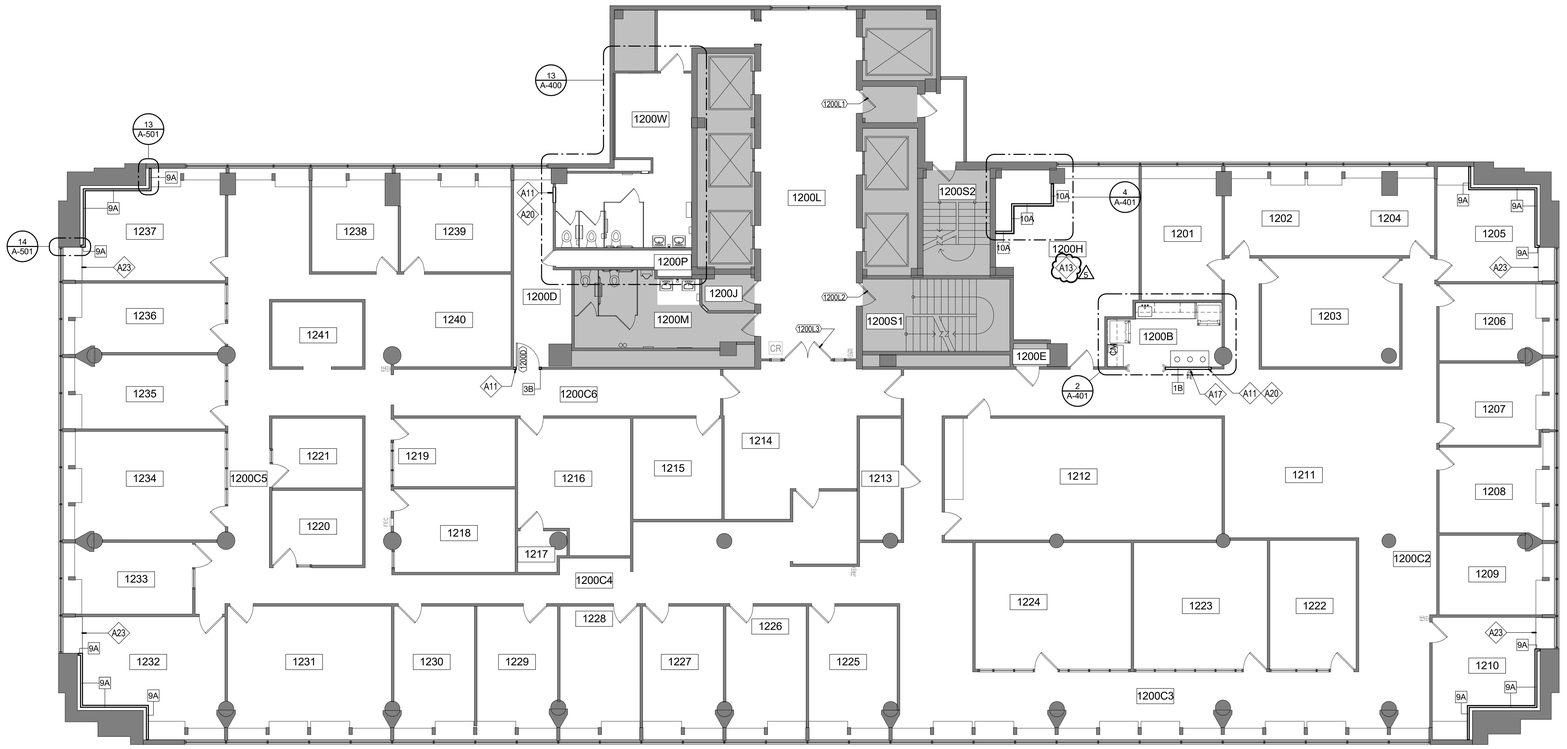
REVISION:Addendum 4
DATE:01/25/2024
REVISION:Addendum 5
DATE:02/01/2024

ISSUE DATE: August 31, 2023

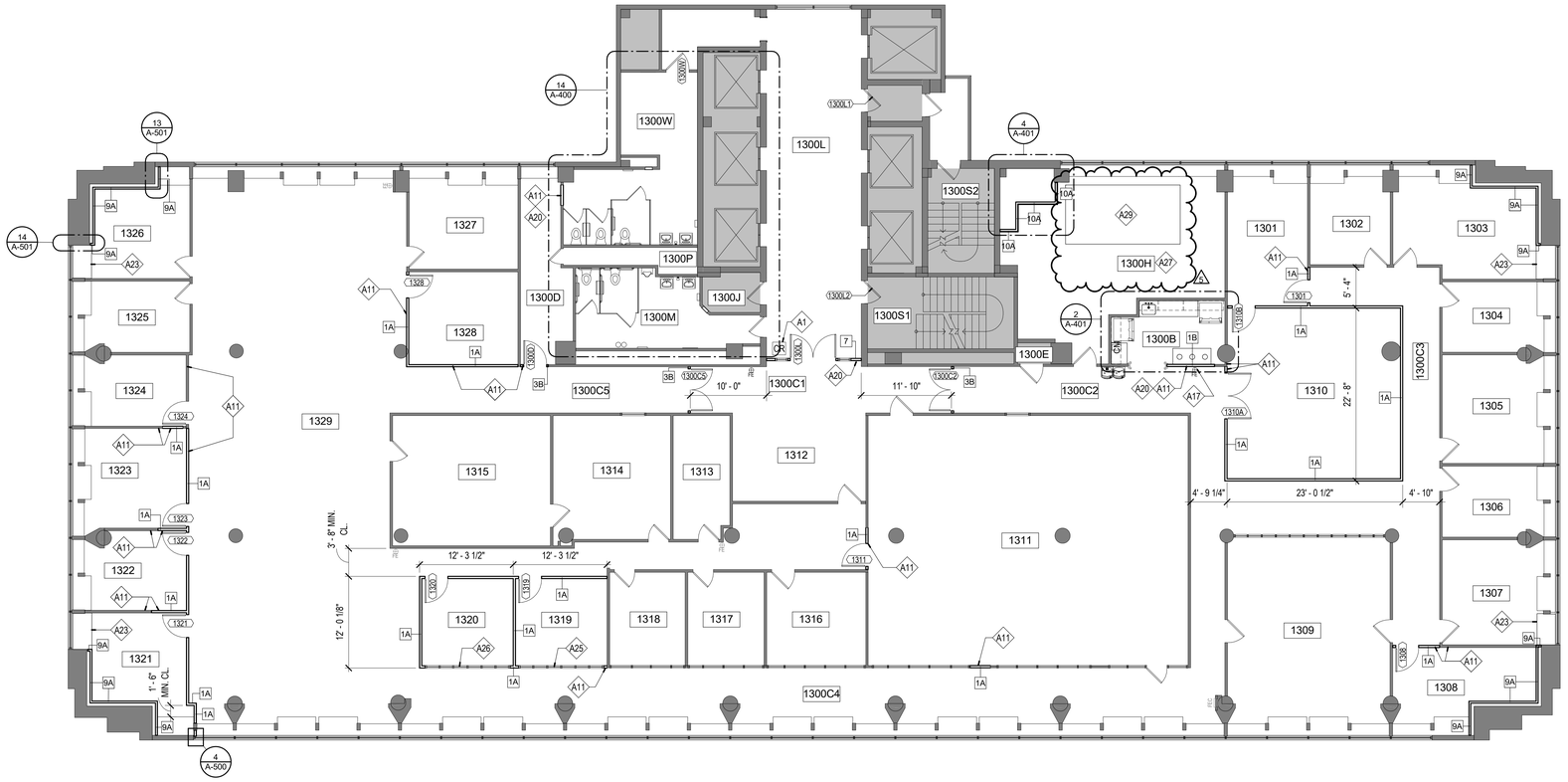
CAD DWG FILE: A-126
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
FLOOR PLAN - 10TH & 11TH FLOORS

SHEET NUMBER:
A-126
47 OF 240
DATE : August 31, 2023



1 A-127 FLOOR PLAN - TWELFTH FLOOR
1/8" = 1'-0"



2 A-127 FLOOR PLAN - THIRTEENTH FLOOR
1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

KEYED NOTES - ARCHITECTURAL

A## KEYED NOTES - ARCHITECTURAL

- A1 CARD READER SHOWN ON THIS PLAN FOR LOCATION PURPOSES ONLY
- A11 ALIGN NEW WALL WITH EXISTING
- A13 PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND PAINT FLOOR TO MATCH EXISTING
- A17 INSTALL RELOCATED/NEW FIRE EXTINGUISHER/CABINET AT THIS LOCATION; ALL NEW TO MATCH EXISTING BUILDING STANDARDS; PROVIDE AND INSTALL FE SIGNAGE
- A20 INSTALL PREFINISHED GYPSUM BOARD ONLY ON THIS SIDE OF PARTITION
- A23 INSTALL NEW FCU PANEL FRONT AT THIS LOCATION; REFERENCE DETAIL 8/A-502 FOR MORE INFORMATION
- A25 RELOCATE AND INSTALL EXISTING GLASS PARTITION SALVAGED FROM 11TH FLOOR DEMOLITION TO THIS LOCATION; FIELD VERIFY GLASS PARTITION SIZING
- A26 PROVIDE AND INSTALL NEW GLASS PARTITION TO MATCH ADJACENT SALVAGED GLASS PARTITION
- A27 PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND FINISH FLOOR AS INDICATED ON FINISH PLANS
- A29 NEW 3-1/2" HOUSE KEEPING PAD - COORDINATE SIZE WITH EQUIPMENT

ROOM SCHEDULE - 12TH FLOOR

Number	Name
1200B	BREAK ROOM
1200C1	CORRIDOR
1200C2	CORRIDOR
1200C3	CORRIDOR
1200C4	CORRIDOR
1200C5	CORRIDOR
1200C6	CORRIDOR
1200D	DATA
1200E	ELECTRICAL CLOSET
1200H	MECHANICAL ROOM
1200J	JANITOR CLOSET
1200L	ELEVATOR LOBBY
1200M	MEN'S RESTROOM
1200P	PLUMBING CHASE
1200S1	STAIRWELL
1200S2	STAIRWELL
1200W	WOMEN'S RESTROOM
1201	OFFICE
1202	OFFICE
1203	OFFICE
1204	OFFICE
1205	OFFICE
1206	OFFICE
1207	OFFICE
1208	OFFICE
1209	OFFICE
1210	OFFICE
1211	CONFERENCE
1212	CONFERENCE

ROOM SCHEDULE - 12TH FLOOR

Number	Name
1213	STORAGE
1214	RECEPTION
1215	OFFICE
1216	OFFICE
1217	STORAGE
1218	OFFICE
1219	OFFICE
1220	OFFICE
1221	OFFICE
1222	OFFICE
1223	OFFICE
1224	OFFICE
1225	OFFICE
1226	OFFICE
1227	OFFICE
1228	OFFICE
1229	OFFICE
1230	OFFICE
1231	OFFICE
1232	OFFICE
1233	OFFICE
1234	OFFICE
1235	OFFICE
1236	OFFICE
1237	OFFICE
1238	OFFICE
1239	OFFICE
1240	OPEN OFFICE
1241	PRINT / COPY

ROOM SCHEDULE - 13TH FLOOR

Number	Name
1300B	BREAK ROOM
1300C1	CORRIDOR
1300C2	CORRIDOR
1300C3	CORRIDOR
1300C4	CORRIDOR
1300C5	CORRIDOR
1300D	DATA
1300E	ELECTRICAL CLOSET
1300H	MECHANICAL ROOM
1300J	JANITOR CLOSET
1300L	ELEVATOR LOBBY
1300M	MEN'S RESTROOM
1300P	PLUMBING CHASE
1300S1	STAIRWELL
1300S2	STAIRWELL
1300W	WOMEN'S RESTROOM
1301	OFFICE
1302	OFFICE
1303	OFFICE
1304	OFFICE
1305	OFFICE
1306	OFFICE
1307	OFFICE

ROOM SCHEDULE - 13TH FLOOR

Number	Name
1308	MASK CALIBRATION
1309	CONFERENCE
1310	STORAGE
1311	TRAINING
1312	RECEPTION
1313	PHONE/DATA
1314	STORAGE
1315	STORAGE
1316	OFFICE
1317	OFFICE
1318	OFFICE
1319	OFFICE
1320	OFFICE
1321	INTERVIEW ROOM
1322	INTERVIEW ROOM
1323	OFFICE
1324	OFFICE
1325	OFFICE
1326	OFFICE
1327	OFFICE
1328	OFFICE
1329	OPEN OFFICE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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LLC: E: 2011024035, LS: 2011025471,
A-2012014618
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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

RENOVATE MECHANICAL/ ELECTRICAL/LIFE-SAFETY/ STATE OFFICE BUILDING

JEFFERSON STATE OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

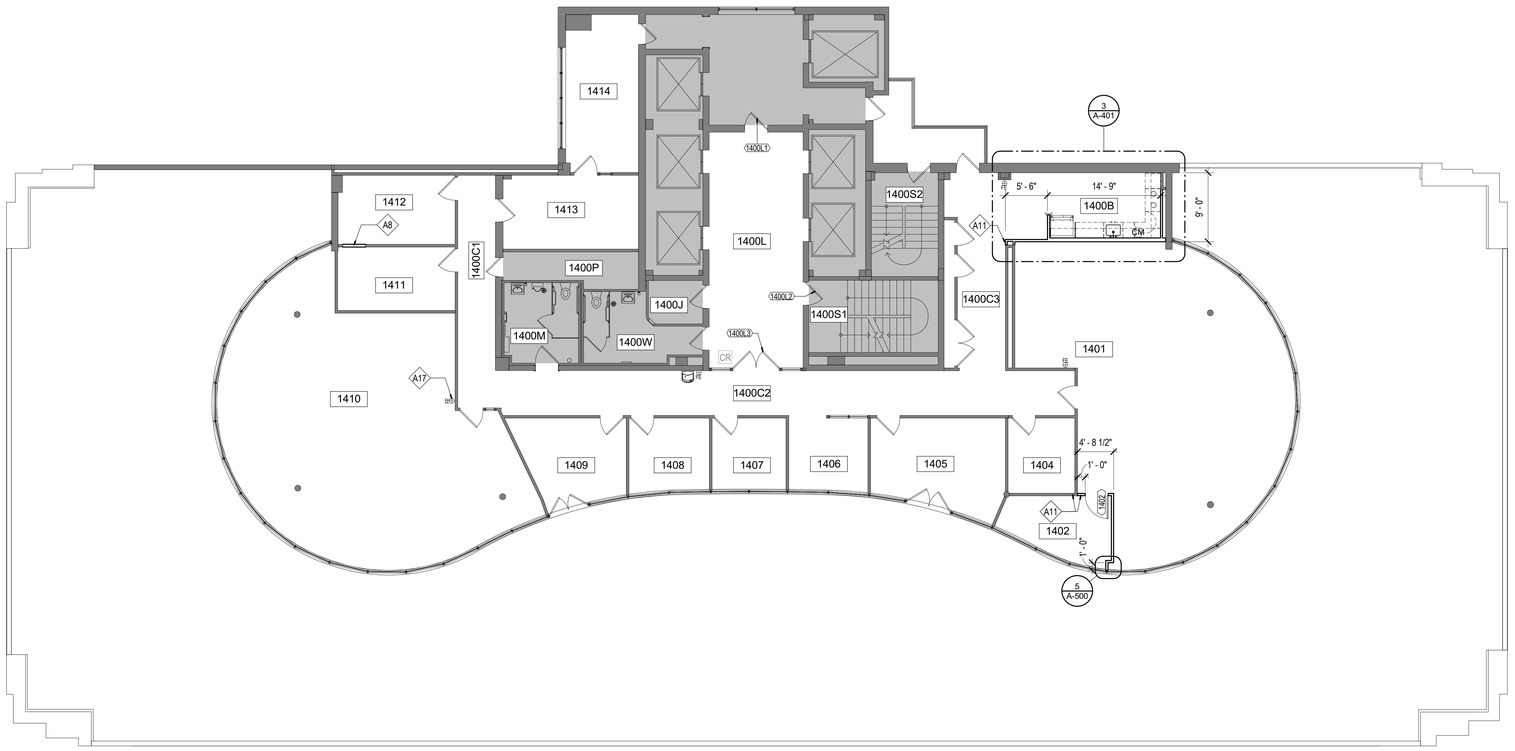
REVISION:Addendum 1 DATE:01/08/2024
REVISION:Addendum 2 DATE:01/17/2024
REVISION:Addendum 3 DATE:01/18/2024
REVISION:Addendum 4 DATE:01/25/2024
REVISION:Addendum 5 DATE:02/01/2024

ISSUE DATE: August 31, 2023

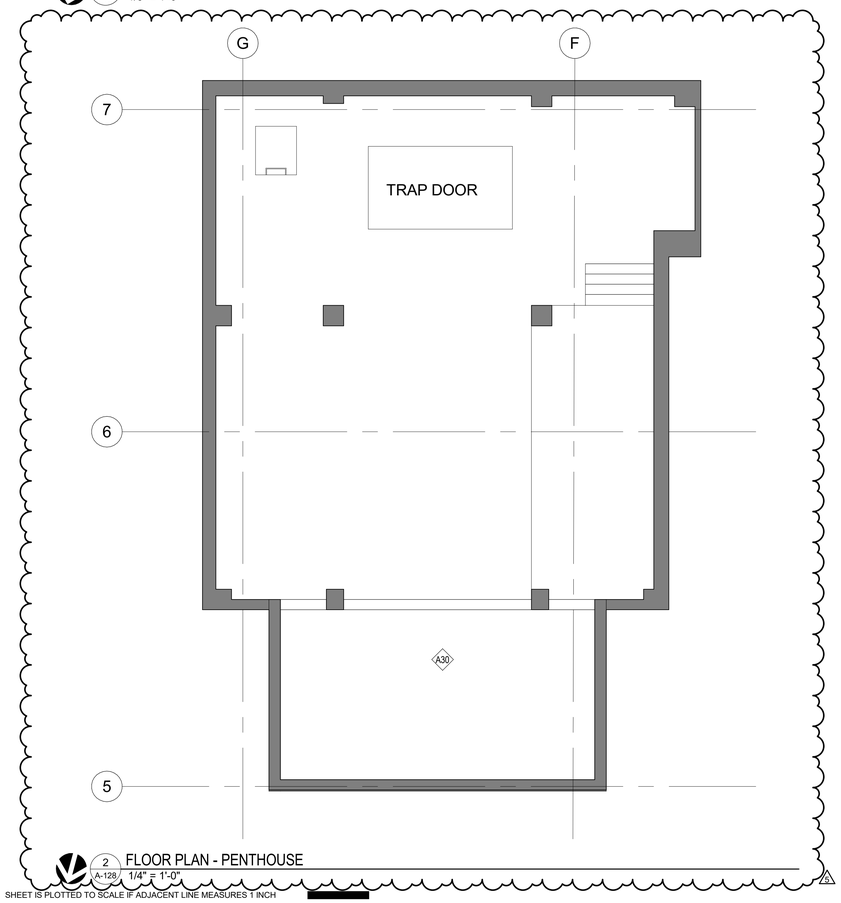
CAD DWG FILE: A-127
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
FLOOR PLAN - 12TH & 13TH FLOORS

SHEET NUMBER:
A-127
48 OF 240
DATE : August 31, 2023



1 A-128 FLOOR PLAN - FOURTEENTH FLOOR
1/8" = 1'-0"



2 A-128 FLOOR PLAN - PENTHOUSE
1/4" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

KEYED NOTES - ARCHITECTURAL

A8 INFILL EXISTING PARTITION
A11 ALIGN NEW WALL WITH EXISTING
A17 INSTALL RELOCATED/NEW FIRE EXTINGUISHER/CABINET AT THIS LOCATION; ALL NEW TO MATCH EXISTING BUILDING STANDARDS; PROVIDE AND INSTALL FE SIGNAGE
A30 PATCH, REPAIR, AND LEVEL CONCRETE SLAB WHERE DEMOLITION OF EXISTING HOUSEKEEPING EQUIPMENT PADS HAS OCCURRED; GRIND SMOOTH AND MATCH EXISTING SURROUNDING SLAB FINISH

ROOM SCHEDULE - 14TH FLOOR

Number	Name
1400B	BREAK ROOM
1400C1	CORRIDOR
1400C2	CORRIDOR
1400C3	CORRIDOR
1400J	JANITOR CLOSET
1400L	ELEVATOR LOBBY
1400M	MEN'S RESTROOM
1400P	PLUMBING CHASE
1400S1	STAIRWELL
1400S2	STAIRWELL
1400W	WOMEN'S RESTROOM
1401	OPEN OFFICE

ROOM SCHEDULE - 14TH FLOOR

Number	Name
1402	OFFICE
1404	OFFICE
1405	OFFICE
1406	OFFICE
1407	OFFICE
1408	OFFICE
1409	OFFICE
1410	TRAINING
1411	OFFICE
1412	PUBLIC SAFETY & DATA ROOM
1413	STORAGE
1414	CONFERENCE

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI MICHAEL JOHN RATLIFF NUMBER A-6855 REGISTERED ARCHITECT
MICHAEL J. RATLIFF
MO #6855

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
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St. Louis, MO 63101
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PROJECT # **O1911-01**
SITE # **1001**
ASSET # **3101001057**

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REVISION:Addendum 2
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REVISION:Addendum 3
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REVISION:Addendum 4
DATE:01/25/2024
REVISION:Addendum 5
DATE:02/01/2024

ISSUE DATE: August 31, 2023

CAD DWG FILE: A-128
DRAWN BY: AR
CHECKED BY: EA
DESIGNED BY: JC

SHEET TITLE:
FLOOR PLAN - 14TH FLOOR

SHEET NUMBER:
A-128
49 OF 240
DATE : August 31, 2023

KEYED NOTES

1. INSTALL 12" ROUND ADAPTOR TO RETURN GRILL EXTEND 12"Ø FLEX DUCT 6' PAST OPENING FOR SOUND TRAP.
2. NEW PIPING TO BE INSTALLED AS PART OF BASE BID.
3. NEW DUCTWORK TO BE INSTALLED AS PART OF BASE BID.
4. SPLIT SYSTEM ONLY TO BE INSTALLED FOR ALTERNATE #6.
5. REFRIGERANT PIPING FROM CRAHU-1 IN BASEMENT UP TO CU-1 ON ROOF. REFER TO INSTALLATION INSTRUCTIONS FOR PIPE SLOPING AND PIPE SIZES.
6. CONNECT NEW CONDENSATE PIPING FROM 2ND FLOOR FAN COIL UNITS TO EXISTING CONDENSATE PIPING/RISER.

FIRST FLOOR PLAN - MECHANICAL

1/8" = 1'-0"

N

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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PHILIP J WENTZ
MO STATE LIC. E-29111

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PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:1-ADDENDUM 4
DATE:01-25-2024
REVISION:5-ADDENDUM 5
DATE:02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

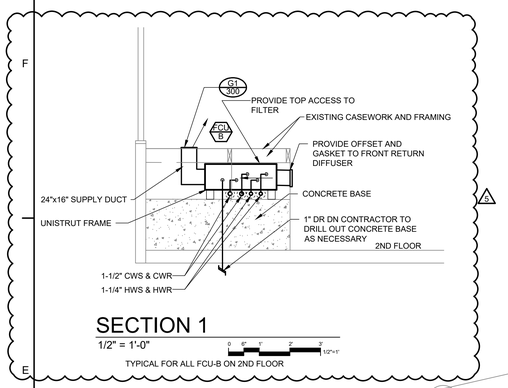
CAD DWG FILE:M3.1-075107.001
DRAWN BY: AM
CHECKED BY: EP
DESIGNED BY: JW

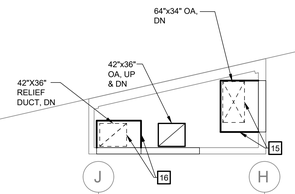
SHEET TITLE:
FIRST FLOOR PLAN -MECHANICAL

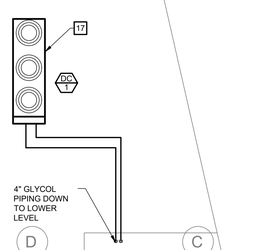
SHEET NUMBER:
M3.1

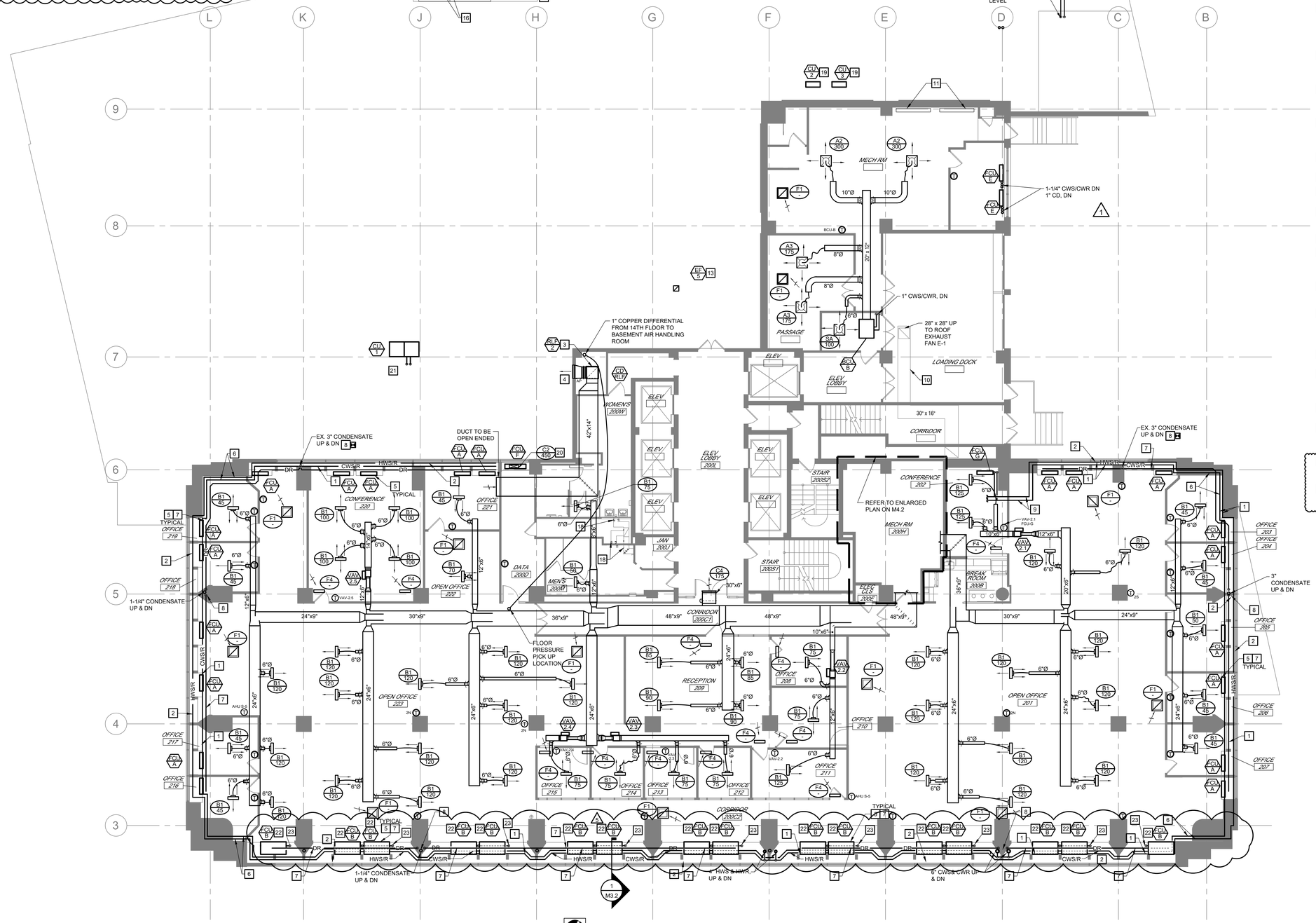
95 OF 244 SHEETS

DATE : August 31, 2023









1 M3.2

SECOND FLOOR PLAN - MECHANICAL

1/8" = 1'-0"

N

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

KEYED NOTES

1. CHILLED AND HEATING WATER LINES ROUTED IN CASEWORK. REFER TO SHEET M3.3 SECTION 1 FOR ADDITIONAL INFORMATION.
2. INSULATE 5" TALL CAVITY IN INSULATED PANEL TO PROVIDE FREEZE PROTECTION FOR HYDRONIC PIPING.
3. INSTALL RELIEF FAN ON THE FLOOR. DUCT TO DROP INTO TOP OF UNIT WITH A FLEX CONNECTION. INSTALL IN CONTROL DAMPER IN THE VERTICAL.
4. CONTRACTOR TO ENLARGE EXISTING LOUVER TO 30"x36' AND CONNECT DUCT FROM RELIEF FAN TO NEW LOUVER.
5. REMOVE LAMINATE FRONT REMOVABLE PANEL OF FAN COIL UNIT ENCLOSURE. REUSE TOP OF CASEWORK. REPLACE FCU FRONT PANEL. SEE A502 FOR DETAILS.
6. CONTRACTOR TO DEMOLISH EXISTING GYPSUM PARTITION TO ROUTE HEATING AND CHILLED WATER LINES. CONTRACTOR TO INSTALL NEW GYPSUM PARTITION TO CONCEAL NEW LINES. LINES TO BE INSTALLED ON BUILDING SIDE OF INSULATION.
7. CONTRACTOR TO REPAIR SOFFIT AS REQUIRED TO PIPE CONDENSATE FROM FAN COIL UNITS ON THIS FLOOR AND TO TIE-IN CONDENSATE FROM THE FAN COIL UNITS ABOVE.
8. ROUTE 1" CONDENSATE DRAIN FROM NEARBY FAN COIL UNITS TO CONDENSATE RISER.RECONNECT INTO EXISTING 3" CONDENSATE DRAIN RISER.
9. EXTEND CHILLED AND HEATING WATER SUPPLY AND RETURN LINES INTO MECHANICAL ROOM, REFER TO ENLARGED PLAN ON M4.1 FOR CONTINUATION.
10. EXISTING KITCHEN EXHAUST DUCTWORK TO REMAIN.
11. EXISTING FIN TUBE.
12. RECONNECT INTO EXISTING CHILLED WATER AT THIS LOCATION.
13. INSTALL NEW EXHAUST FAN (EF-5) ON NEW ROOF CURB OPENING. PATCH ROOF TO MATCH EXISTING CONDITIONS.
14. NOT USED.
15. CONNECT NEW 64"x34" OUTSIDE AIR TO EXISTING OUTSIDE AIR LOUVER AND PLENUM BOX. CONTRACTOR TO EXTEND PLENUM BOX AS NECESSARY FOR NEW DUCT.
16. ROUTE NEW 42"x36" RELIEF DUCT TO EXISTING LOUVER. CONTRACTOR TO EXTEND PLENUM BOX AS NECESSARY FOR NEW DUCT.
17. NEW DRY COOLER TO BE LOCATED AT LOCATION OF EXISTING GENERATOR BEING DEMOLISHED. CONTRACTOR TO COORDINATE FINAL LOCATION WITH STRUCTURAL DRAWINGS AND ENGINEER.
18. EXISTING EXHAUST RISER, AND RUN OUTS TO RESTROOMS AND JANITOR CLOSET TO REMAIN.
19. CONTRACTOR TO INSTALL CONDENSING UNIT AS PART OF ALTERNATE #6. CONTRACTOR TO PROVIDE ALL NECESSARY EQUIPMENT RAILS, REFRIGERANT PIPING, AND PIPE CURB.
20. PROVIDE 12" TALL 22"x5" DUCT CAP. INSTALL DIFFUSER IN FRONT FACE OF DUCT.
21. REFRIGERANT PIPING DOWN TO CRAHU IN LOWER LEVEL. CONTRACTOR TO INSTALL PIPE CURB AT ROOF PENETRATION AND SEAL WATER TIGHT.
22. REFER TO SECTION 1 ON THIS SHEET FOR DIFFUSER TYPE AND LOCATION FOR FAN COIL UNIT.
23. 1" CONDENSATE DOWN TO FIRST FLOOR. SEE SHEET M3.1 FOR CONTINUATION.

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MICHAEL L. PARSON, GOVERNOR

PHILIP J WENTZ
MO STATE LIC. E-29111

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
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JEFFERSON CITY, MO 65101

PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:1-ADDENDUM 4
DATE:01-25-2024
REVISION:5-ADDENDUM 5
DATE:02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

CAD DWG FILE:M3.2-075107.001
DRAWN BY: ADL
CHECKED BY: EP
DESIGNED BY: EP

SHEET TITLE:
SECOND FLOOR PLAN - MECHANICAL

SHEET NUMBER:
M3.2

97 OF 244 SHEETS

DATE : August 31, 2023

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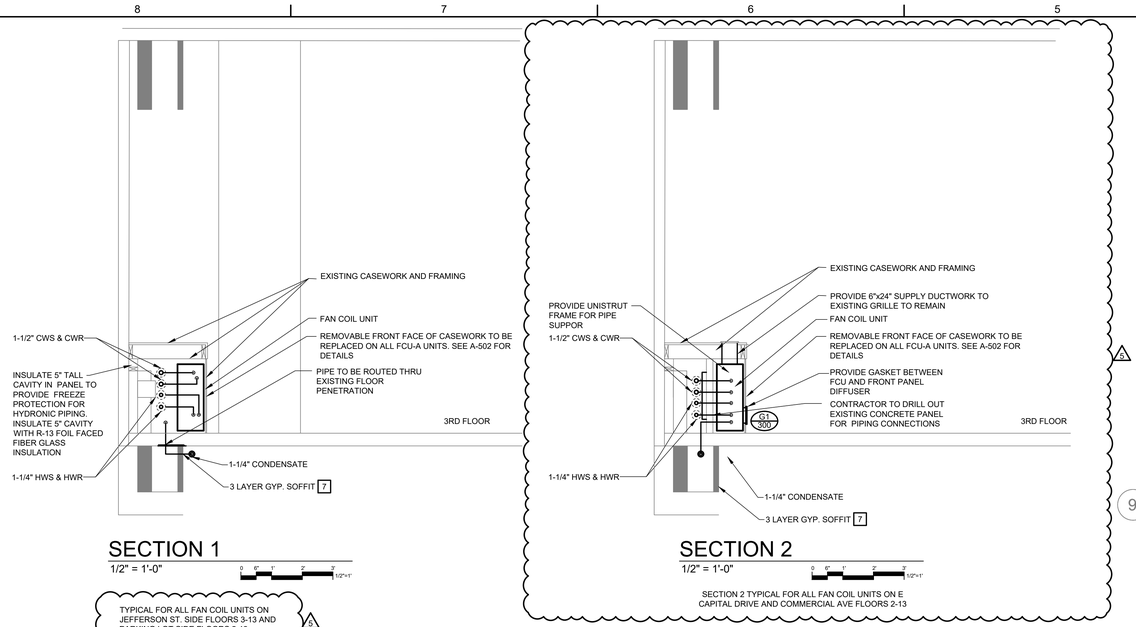

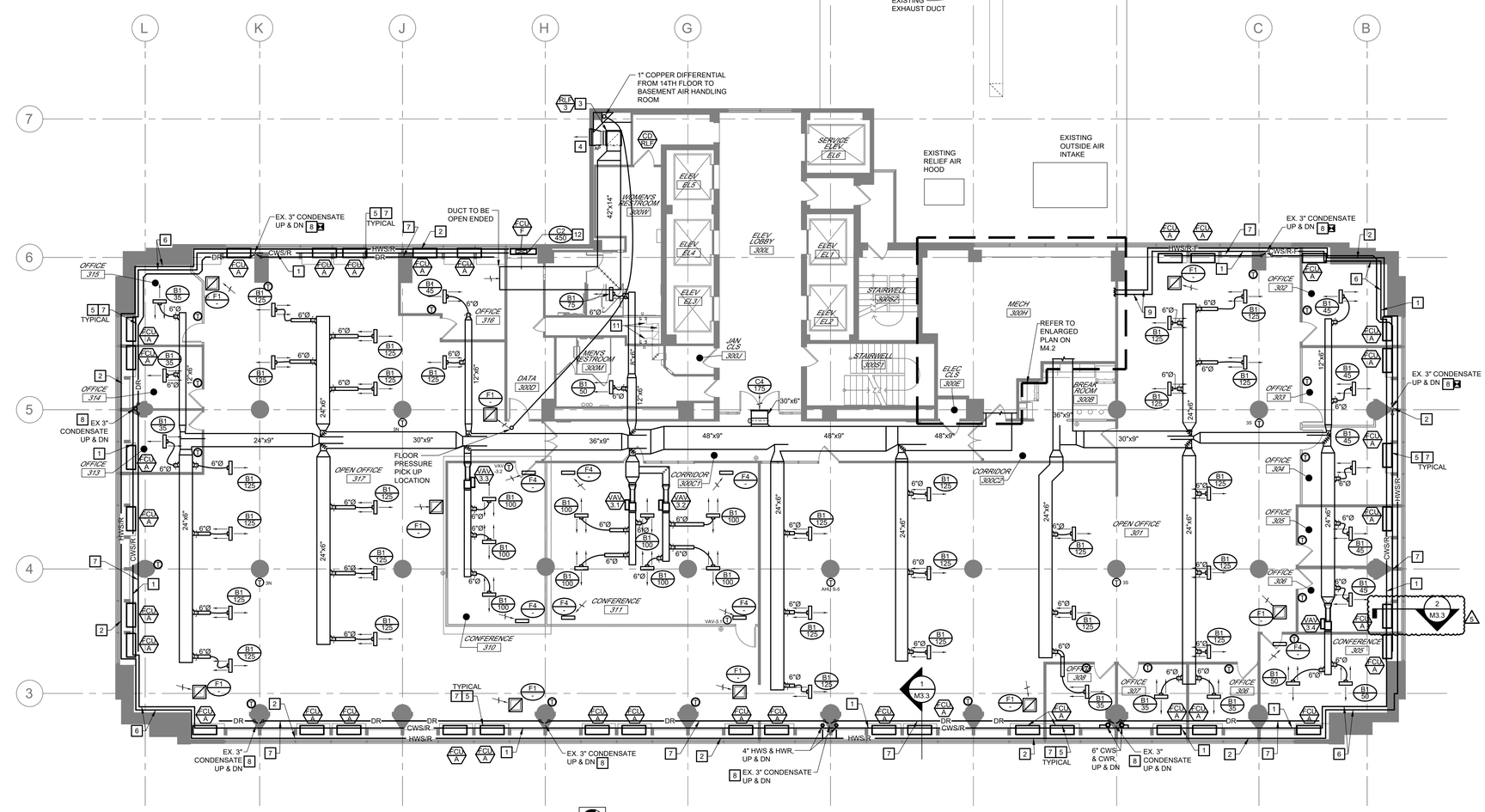

KEYED NOTES

1. CHILLED AND HEATING WATER LINES ROUTED IN CASEWORK, REFER TO SECTION 1 THIS SHEET FOR ADDITIONAL INFORMATION.
2. INSULATE 5" TALL CAVITY IN INSULATED PANEL TO PROVIDE FREEZE PROTECTION FOR HYDRONIC PIPING.
3. INSTALL RELIEF FAN AT FLOOR LEVEL. DUCT TO DROP INTO TOP OF UNIT WITH A FLEX CONNECTION, INSTALL IN CONTROL DAMPER IN THE VERTICAL.
4. CONTRACTOR TO ENLARGE EXISTING LOUVER TO 30"x36' AND CONNECT DUCT FROM RELIEF FAN TO NEW LOUVER.
5. REMOVE LAMINATE FRONT REMOVABLE PANEL OF FAN COIL UNIT ENCLOSURE. REUSE TOP OF CASEWORK, REPLACE FCU FRONT PANEL. SEE A502 FOR DETAILS.
6. CONTRACTOR TO DEMOLISH EXISTING GYPSUM PARTITION TO ROUTE HEATING AND CHILLED WATER LINES. CONTRACTOR TO INSTALL NEW GYPSUM PARTITION TO CONCEAL NEW LINES. LINES TO BE INSTALLED ON BUILDING SIDE OF INSULATION.
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8. ROUTE 1" CONDENSATE DRAIN FROM NEARBY FAN COIL UNITS TO CONDENSATE RISER.RECONNECT INTO EXISTING 3" CONDENSATE DRAIN RISER.
9. EXTEND CHILLED AND HEATING WATER SUPPLY AND RETURN LINES INTO MECHANICAL ROOM, REFER TO ENLARGED PLAN ON M4.1 FOR CONTINUATION.
10. REPLACE EXISTING FAN SCOPE, ALTERNATE #2.
11. EXISTING EXHAUST RISER, AND RUN OUTS TO RESTROOMS AND JANITOR CLOSET TO REMAIN.
12. PROVIDE 12" TALL 22"x5" DUCT CAP. INSTALL DIFFUSER IN FRONT FACE OF DUCT.

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:5-ADDENDUM 5
DATE:02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

CAD DWG FILE:M3.3-075107.001
DRAWN BY: AM
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:
THIRD
FLOOR PLAN
-MECHANICAL

SHEET NUMBER:
M3.3

98 OF 244 SHEETS

DATE : August 31, 2023

KEYED NOTES

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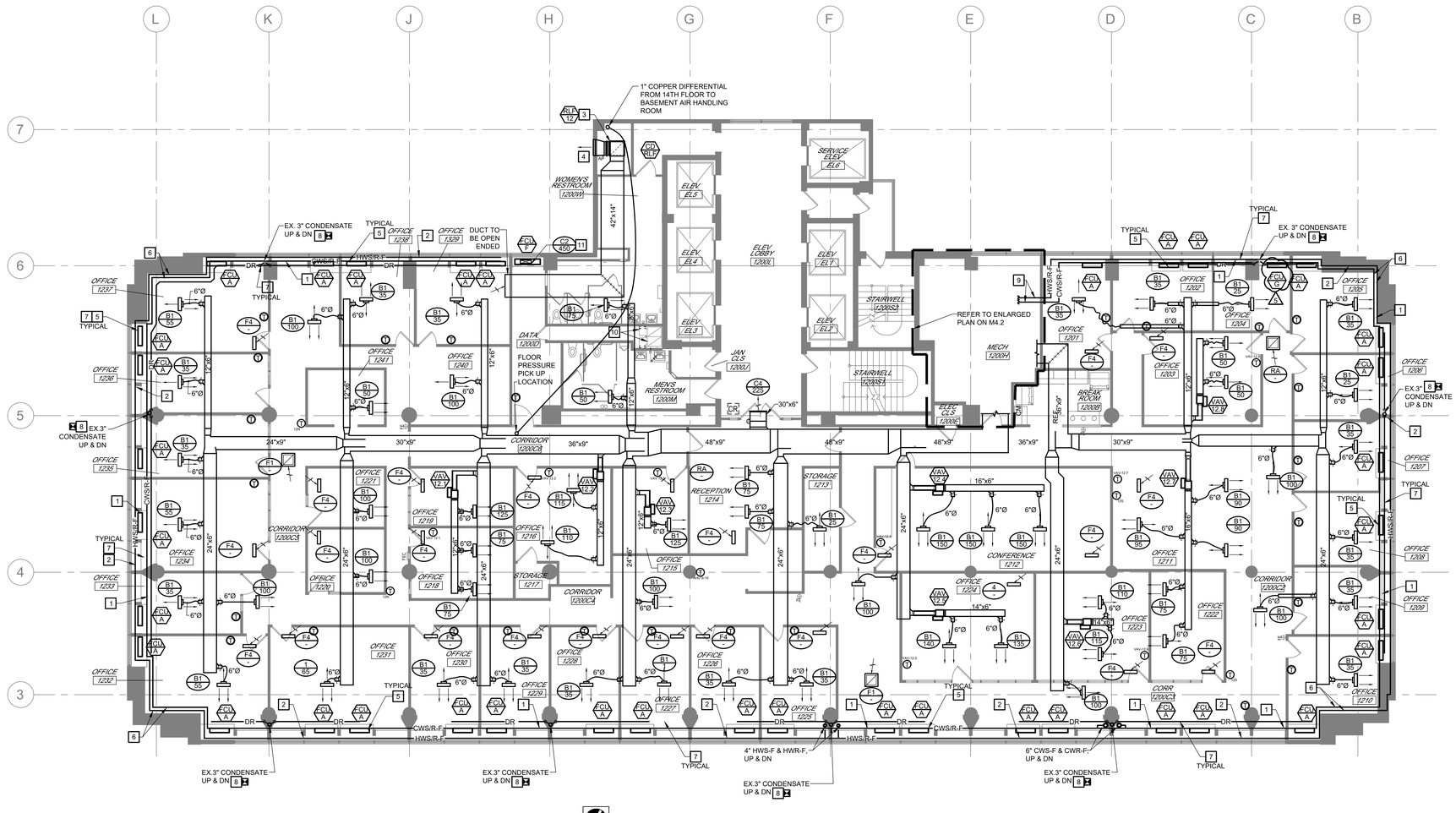

N

TWELFTH FLOOR PLAN - MECHANICAL

1/8" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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REVISION:
DATE:

ISSUE DATE:

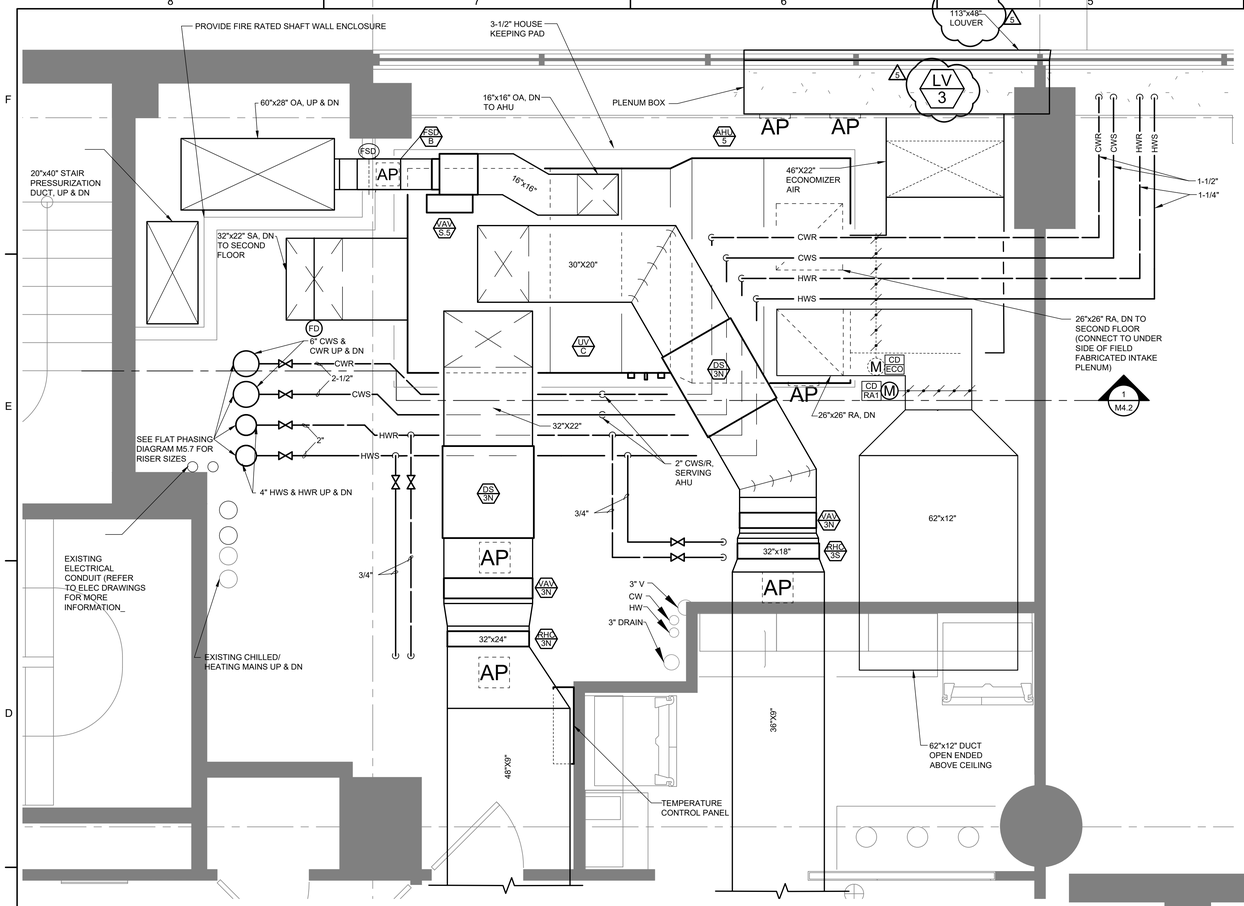
CAD DWG FILE:M3.12
DRAWN BY: AM
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:
TWELFTH
FLOOR PLAN
-MECHANICAL

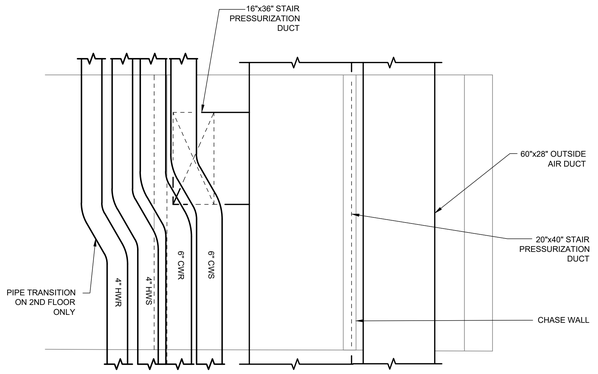
SHEET NUMBER:
M3.12

107 OF 244 SHEETS

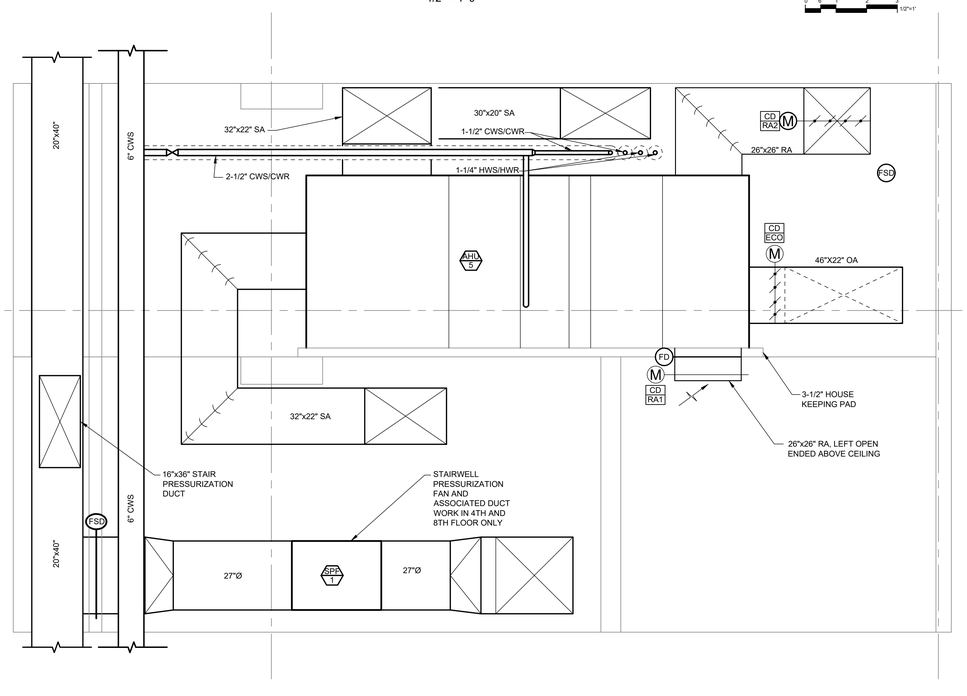
DATE : August 31, 2023



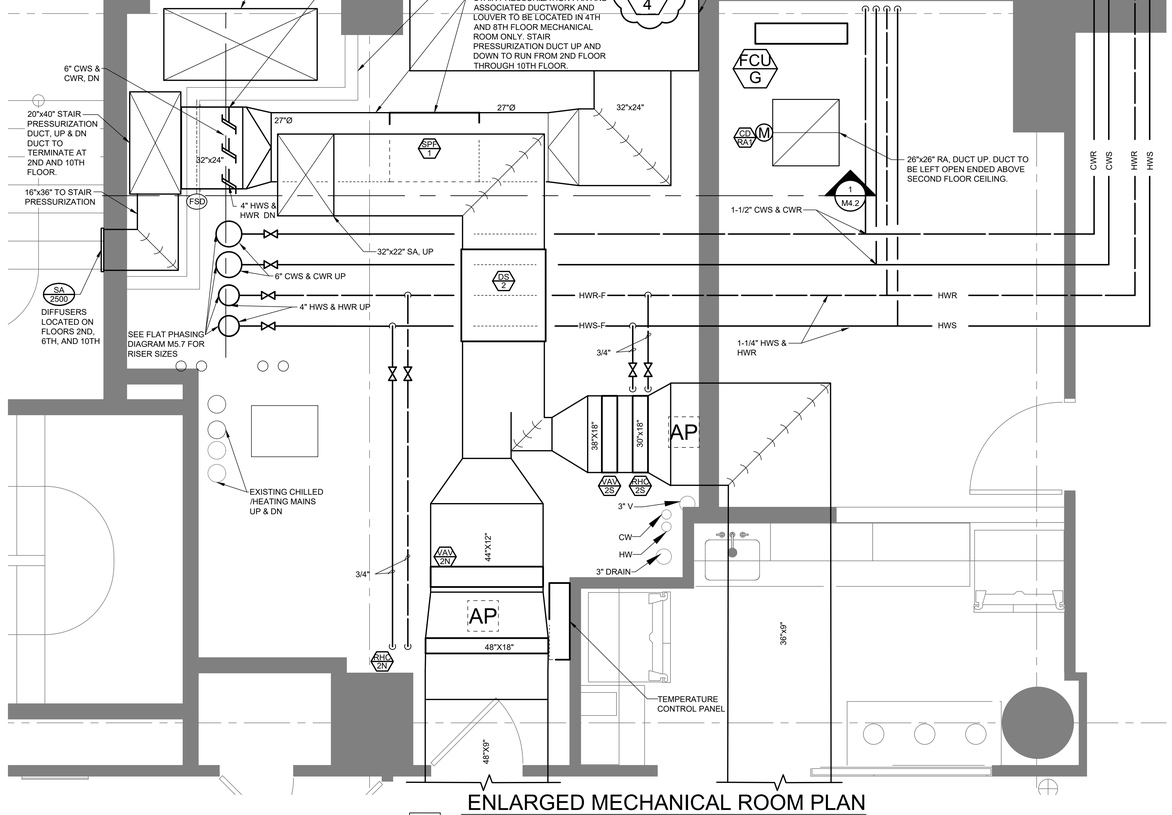
MECHANICAL ROOM PLAN THIRD FLOOR
3RD, 5TH, 7TH, 9TH, 11TH, 13TH FLOORS ONLY
1/2" = 1'-0"



SECTION 2
1/2" = 1'-0"



SECTION 1
1/2" = 1'-0"



ENLARGED MECHANICAL ROOM PLAN
2ND, 4TH, 6TH, 8TH, 10TH, 12TH FLOORS ONLY
1/2" = 1'-0"

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

S:\075107.001 JEFF CITY OFFICE BLDG HVAC SYSTEM DESIGN\MECH\M4.2 - 075107.001.dwg 2024-2-1 15:38 Ailtteken

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T 314-645-6232
MEP Engineers:
McClure Engineering
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ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
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A-2016017179
Archer-Elgin Surveying & Engineering,
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A-2012014618
319 East 6th Street, Rolla, Missouri 65401
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RENOVATE MECHANICAL/ ELECTRICAL/LIFE-SAFETY/ STATE OFFICE BUILDING

JEFFERSON STATE OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:5-ADDENDUM 5
DATE:02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

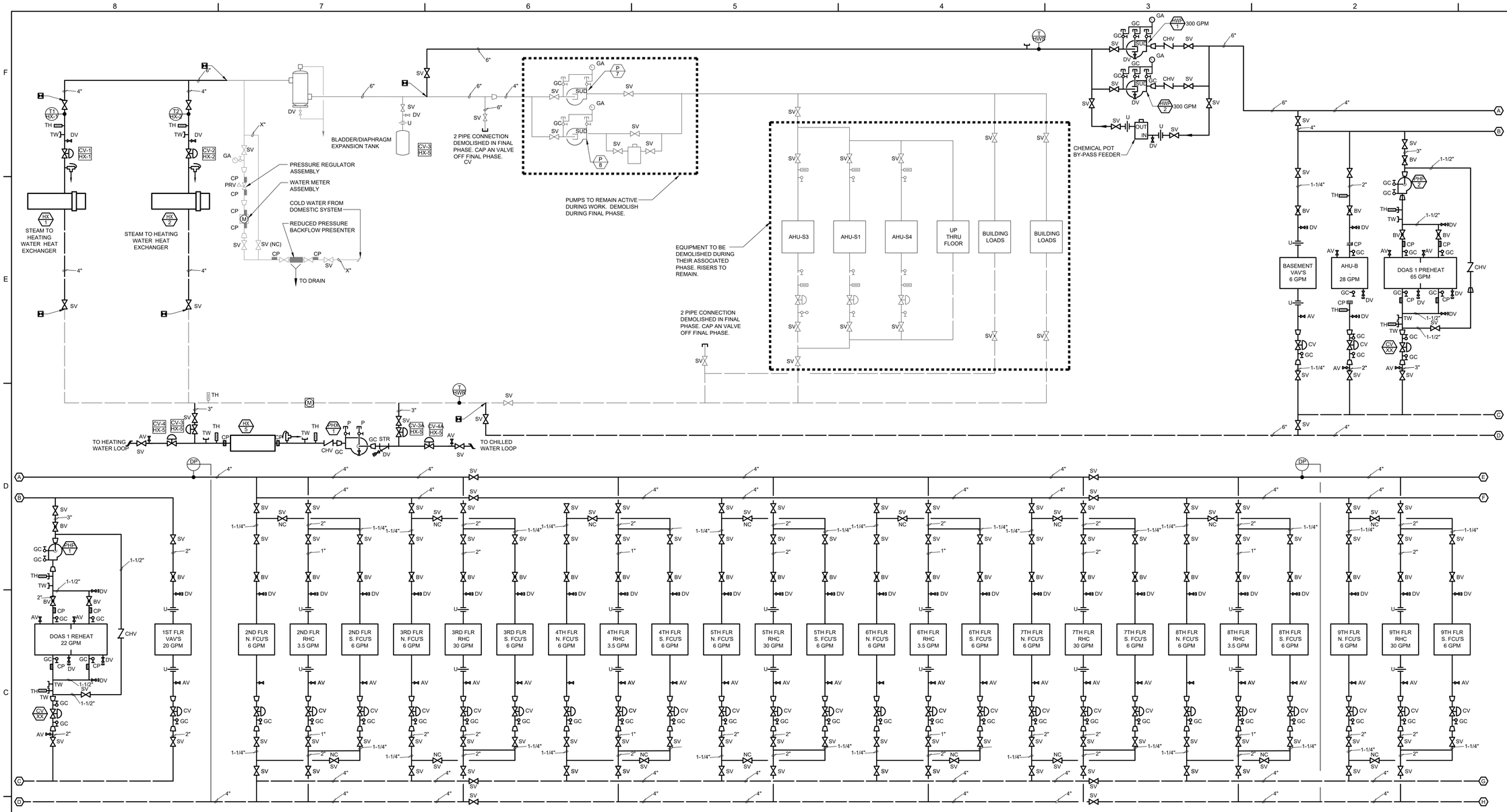
CAD DWG FILE:M4.1-075107.001
DRAWN BY: AM
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:
ENLARGED MECHANICAL ROOM PLANS

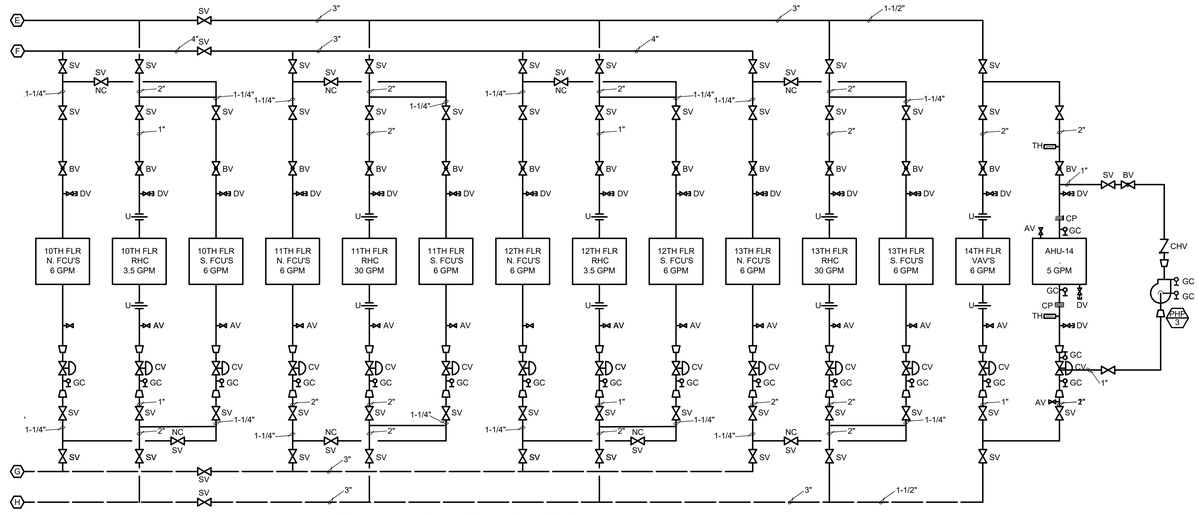
SHEET NUMBER:
M4.2

113 OF 244 SHEETS

DATE : August 31, 2023



HEATING WATER FLOW DIAGRAM
NO SCALE

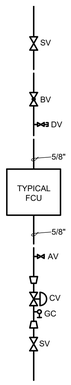


HEATING WATER FLOW DIAGRAM
NO SCALE

HEATING WATER FLOW DIAGRAM NOTES:

1. PROVIDE SERVICE VALVES, MANUAL BALANCE VALVES, AND DRAIN VALVE AT EACH HORIZONTAL RISER

HEATING WATER FLOW POINTS LIST LOCATED ON SHEET M5.2



TYPICAL FAN COIL UNIT
NO SCALE

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

S:\07\5107.001 JEFF CITY OFFICE BLDG HVAC SYSTEM DESIGN\MECH\M5.0 - 075107.001.dwg 2024-2-1 15:38 Ailtteken

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JEFFERSON CITY, MO 65101

PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:5-ADDENDUM 5
DATE:02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

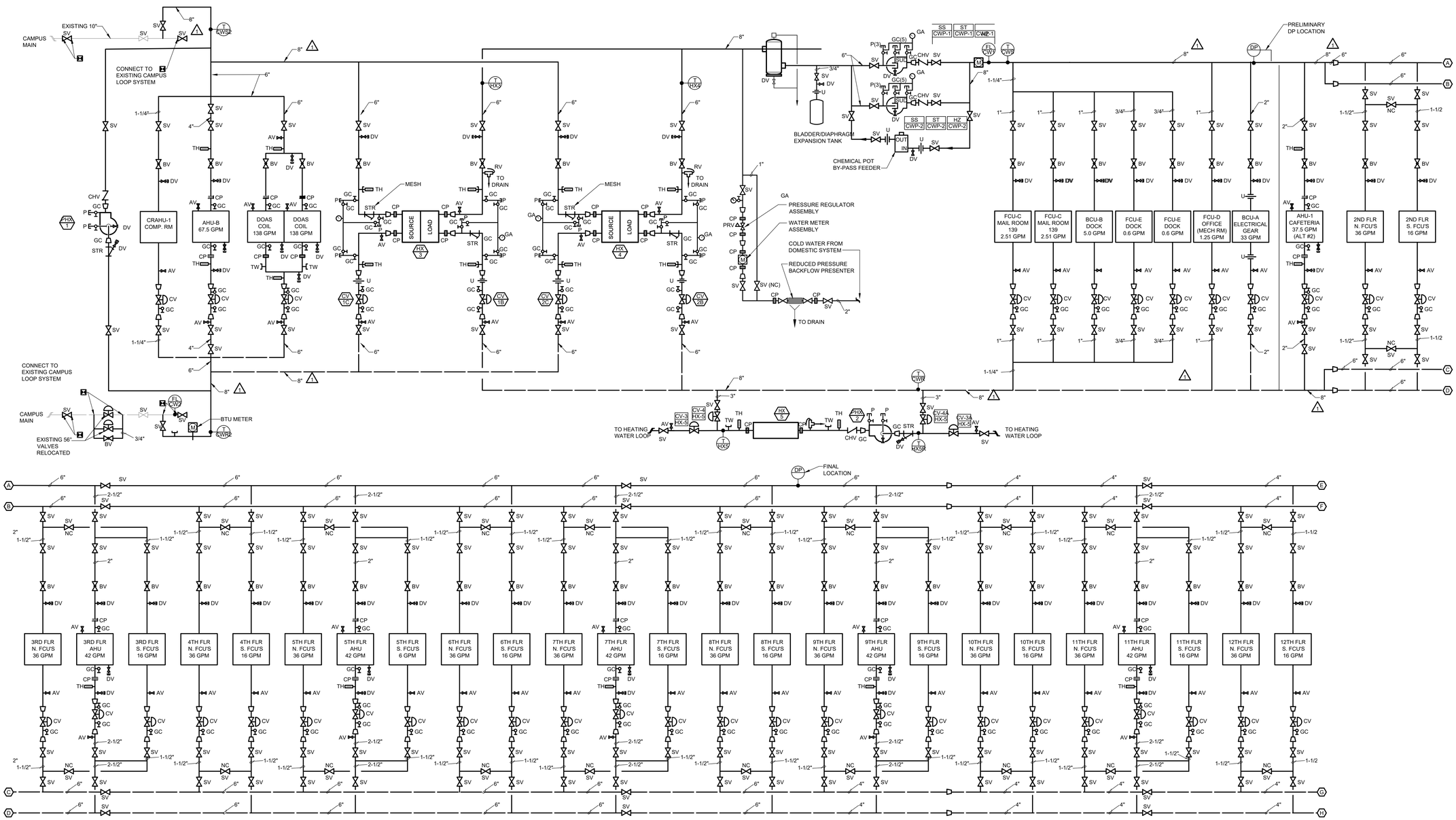
ISSUE DATE:

CAD DWG FILE:M5.0
DRAWN BY: AM
CHECKED BY: FP
DESIGNED BY: JW

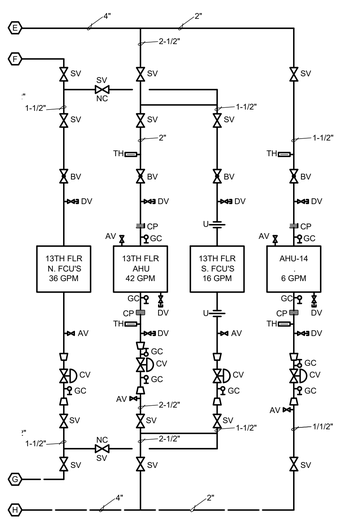
SHEET TITLE:
HEATING WATER FLOW DIAGRAM

SHEET NUMBER:
M5.0
114 OF 244 SHEETS

DATE : August 31, 2023



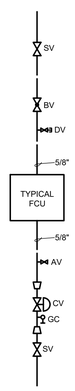
CHILLED WATER FLOW DIAGRAM
N.T.S



CHILLED WATER FLOW DIAGRAM NOTES:

1. PROVIDE SERVICE VALVES, MANUAL BALANCE VALVES, AND DRAIN VALVE AT EACH HORIZONTAL RISER

CHILLED WATER FLOW POINTS LIST LOCATED ON SHEET M5.2



TYPICAL FAN COIL UNIT
N.T.S

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:1-ADDENDUM 4
DATE:01-25-2024
REVISION:5-ADDENDUM 5
DATE:02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

CAD DWG FILE:M5.1-075107.001
DRAWN BY: AM
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:
CHILLED WATER FLOW DIAGRAM

SHEET NUMBER:
M5.1
115 OF 244 SHEETS

DATE : August 31, 2023

PHASE 4

S-11 PENTHOUSE AHU

ROOF

1-1/2" HWS/HWR

2" CWS/CWR

14TH FL

1-1/4" HWS/HWR

S-10

2-1/2" CWS/CWR

13TH FL

1-1/2" CWS/CWR

1-1/4" HWS/HWR

1-1/2" CWS/CWR

12TH FL

1-1/4" HWS/HWR

S-9

2-1/2" CWS/CWR

11TH FL

1-1/2" CWS/CWR

1-1/4" HWS/HWR

1-1/2" CWS/CWR

3" HWS/HWR

3" HWS/HWR

4" CWS/CWR

10TH FL

4" CWS/CWR

1-1/4" HWS/HWR

PHASE 3

S-8

2-1/2" CWS/CWR

9TH FL

1-1/2" CWS/CWR

1-1/4" HWS/HWR

1-1/2" CWS/CWR

40 x 28

8TH FL

1-1/4" HWS/HWR

S-7

2-1/2" CWS/CWR

7TH FL

1-1/2" CWS/CWR

1-1/4" HWS/HWR

1-1/2" CWS/CWR

6TH FL

PHASE 2

1-1/4" HWS/HWR

S-6

2-1/2" CWS/CWR

5TH FL

1-1/2" CWS/CWR

1-1/4" HWS/HWR

1-1/2" CWS/CWR

4TH FL

1-1/4" HWS/HWR

S-5

2-1/2" CWS/CWR

3RD FL

1-1/2" CWS/CWR

1-1/4" HWS/HWR

1-1/2" CWS/CWR

6" CWS/CWR

6" CWS/CWR

2ND FL

S-2

2-1/2" CWS/CWR

1ST FL

6" CWS/CWR

4" HWS/HWR

BASE-MENT

DOAS-1

FROM PLANT

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

S:\075107.001 JEFF CITY OFFICE BLDG HVAC SYSTEM DESIGN\MECH\M5.6-M5.7 - 075107.001.dwg 2024-2-1 15:41 Aliteken

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PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION: 5-ADDENDUM 5
DATE: 02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

CAD DWG FILE: M5.6-M5.7 - 075107.001
DRAWN BY: DC
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:

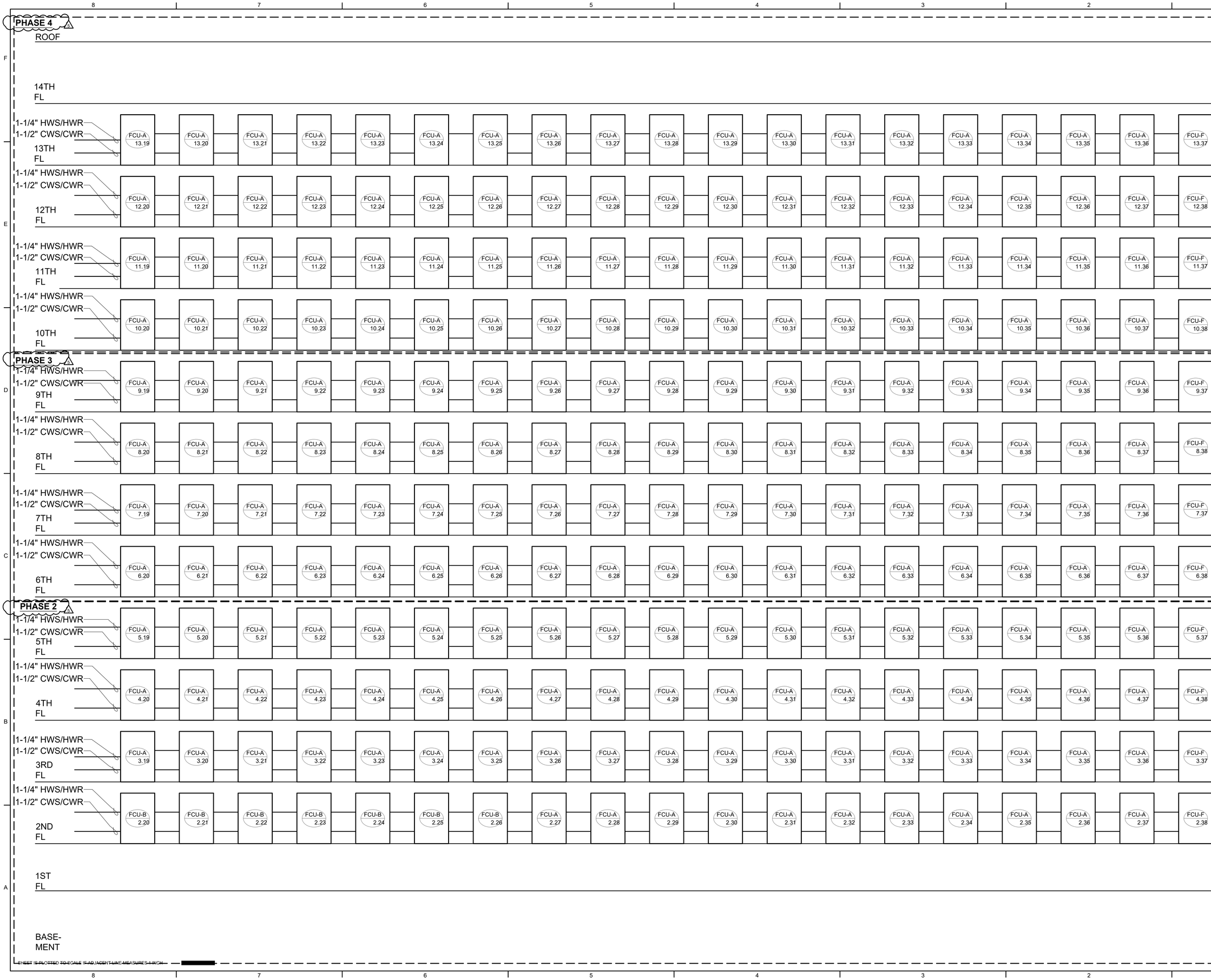
FLAT PHASING DIAGRAM

SHEET NUMBER:

M5.6

120 OF 244 SHEETS

DATE : August 31, 2023



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OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION: 5-ADDENDUM 5
DATE: 02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

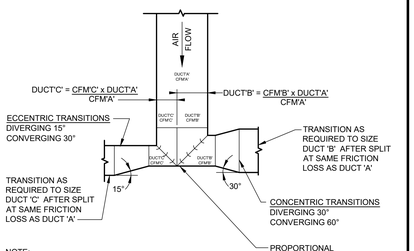
CAD DWG FILE: M5.6-M5.7 - 075107.001
DRAWN BY: DC
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:
FLAT PHASING DIAGRAM

SHEET NUMBER:
M5.7

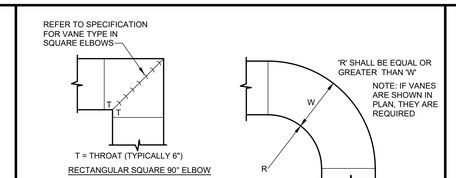
121 OF 244 SHEETS

DATE : August 31, 2023

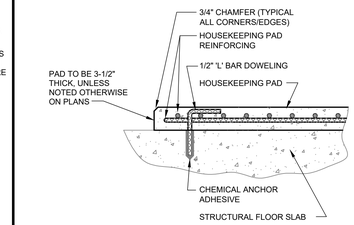


NOTE:
SPLIT WIDTH OF EITHER DUCT 'B' AND/OR 'C' SHOULD NOT BE LESS THAN 6" WIDE

DETAIL: M-0006A
SCALE: NONE
DUCTWORK
PROPORTIONAL FITTING & TRANSITIONS

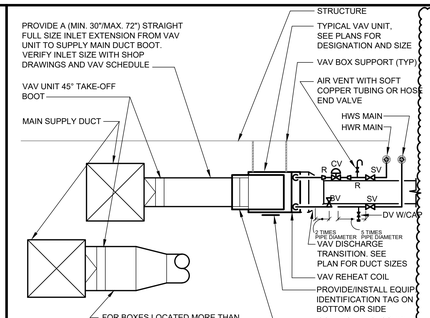


DETAIL: M-0006B
SCALE: NONE
DUCTWORK
BRANCH RECTANGULAR 90° ELBOWS



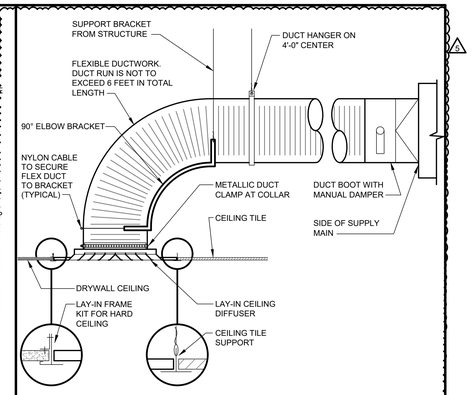
NOTES:
1. FOR F_p, SEE SPECIFICATIONS FOR VALUE. FOR DOWELING ARRANGEMENT IN CONCRETE, REFER TO ASHRAE 'A PRACTICAL GUIDE TO SEISMIC RESTRAINT' (LATEST EDITION)
2. CONCRETE PAD LENGTH BY WIDTH IS TO BE AT LEAST 3" LARGER IN EACH DIRECTION OF EQUIPMENT, 6" WIDER THAN ANCHOR POINTS, OR AS REQUIRED BY MANUFACTURER'S ANCHOR BOLT DISTANCE TO EDGE OF PAD, WHICHEVER IS GREATER.

DETAIL: M-0007A
SCALE: NONE
CONCRETE
HOUSEKEEPING PAD

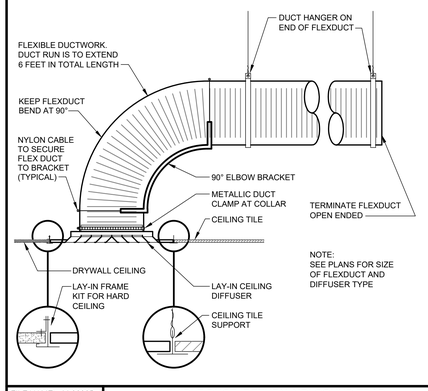


NOTES:
1. VAV BOX AND HEATING WATER PIPING IS TO BE INSTALLED TO ALLOW FOR 36" CLEARANCE IN FRONT OF CONTROL ENCLOSURE.
2. DROP RUNOUTS FROM HEATING WATER MAINS OFF THE BOTTOM OF THE PIPES.
3. BOTTOM OF BOX IS TO BE INSTALLED WITHIN 24" OF FINISHED CEILING, WHEN POSSIBLE.

DETAIL: M-0010A
SCALE: NONE
VAV BOX WITH REHEAT COIL
(WITH RECTANGULAR SUPPLY MAIN)

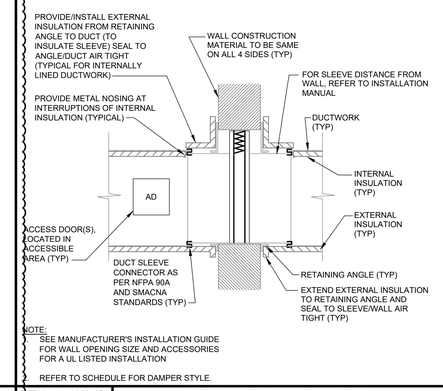


FILE NAME: M-0009B
SCALE: NONE
LAY-IN DIFFUSER/GRILLE
INSTALLATION (WITH ELBOW BRACKET)



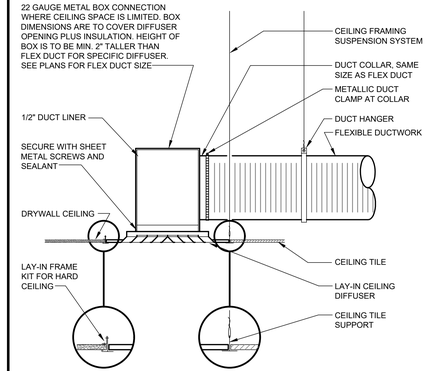
NOTE:
SEE PLANS FOR SIZE OF FLEXDUCT AND DIFFUSER TYPE

FILE NAME: M-0009D
SCALE: NONE
FLEXIBLE DUCT (RETURN AIR) SOUND TRAP
INSTALLATION (WITH FLEXRIGHT ELBOW BRACKET)

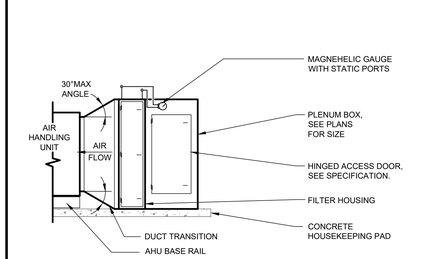


NOTE:
1. SEE MANUFACTURER'S INSTALLATION GUIDE FOR WALL OPENING SIZE AND ACCESSORIES FOR A UL LISTED INSTALLATION
2. REFER TO SCHEDULE FOR DAMPER STYLE.

DETAIL: M-0013B
SCALE: NONE
FIRE DAMPER INSULATION DETAIL
(TYPE B)

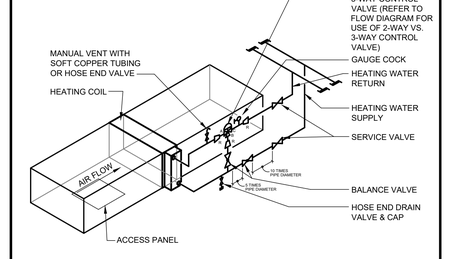


DETAIL: M-0017
SCALE: NONE
LIMITED CEILING HEIGHT DIFFUSER/GRILLE WITH
PLENUM BOX INSTALLATION



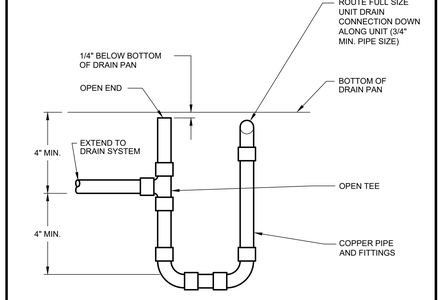
NOTE:
1. THE FILTER AND PLENUM MAY SIT DIRECTLY ON THE PAD PROVIDED THE TOP OF THE FILTER SECTION IS EQUAL TO OR GREATER THAN THE TOP OF THE UNIT.
2. DUCT TRANSITION (FROM UNIT TO FILTER HOUSING), FILTER HOUSING, AND PLENUM BOX ARE TO BE EXTERNALLY INSULATED WITH RIGID BOARD INSULATION UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR RIGID BOARD TYPE AND THICKNESS.

DETAIL: M-0020
SCALE: NONE
AHU FILTER HOUSING AND PLENUM
(FILTER HOUSING TALLER THAN UNIT OPENING)

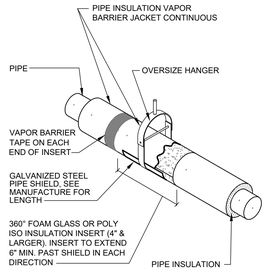


NOTES:
1. PIPING MAY APPROACH THE COIL FROM THE ENTERING OR LEAVING AIR SIDE.
2. COILS WITH 2-WAY VALVES TO BE SIMILAR.
3. COILS TO BE FLANGED TO THE DUCT SYSTEM TO ALLOW VERTICAL OR HORIZONTAL REMOVAL. COILS, CASING, HEADERS, AND U-BENDS ARE TO BE EXTERNALLY INSULATED.
4. DROP RUNOUTS FROM HEATING WATER MAINS OFF THE BOTTOM OF THE PIPES WHEN PRACTICAL.
5. TRANSITION DUCT TO COIL SIZE WITH ANGLES NOT GREATER THAN 30° FOR CONVERGING FLOW AND 20° FOR DIVERGING FLOW.
6. INSULATE COIL HEADER AND RETURN BENDS. REFER TO SPECIFICATIONS.

DETAIL: M-0016
SCALE: NONE
DUCT MOUNTED
REHEAT COIL PIPING CONNECTION

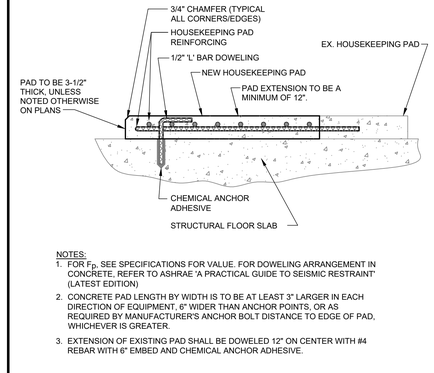


DETAIL: M-0021A
SCALE: NONE
DRAW THROUGH AHU CONDENSATE DRAIN



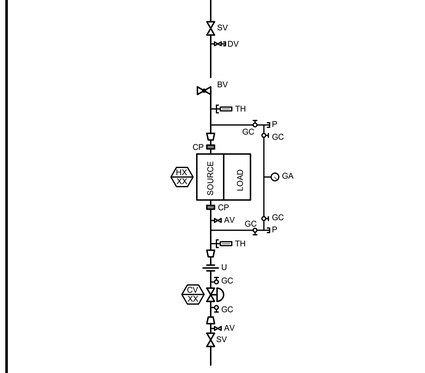
NOTE: SEE SPECIFICATION FOR APPLICABLE PIPE SIZES AND SERVICES

DETAIL: M-0022A
SCALE: NONE
PIPE HANGER SUPPORT
WITH INSERT

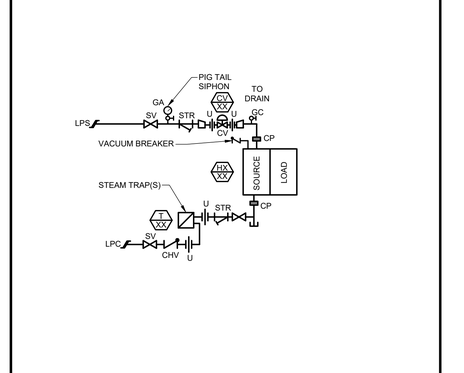


NOTES:
1. FOR F_p, SEE SPECIFICATIONS FOR VALUE. FOR DOWELING ARRANGEMENT IN CONCRETE, REFER TO ASHRAE 'A PRACTICAL GUIDE TO SEISMIC RESTRAINT' (LATEST EDITION)
2. CONCRETE PAD LENGTH BY WIDTH IS TO BE AT LEAST 3" LARGER IN EACH DIRECTION OF EQUIPMENT, 6" WIDER THAN ANCHOR POINTS, OR AS REQUIRED BY MANUFACTURER'S ANCHOR BOLT DISTANCE TO EDGE OF PAD, WHICHEVER IS GREATER.
3. EXTENSION OF EXISTING PAD SHALL BE DOWELED 12" ON CENTER WITH #4 REBAR WITH 6" EMBED AND CHEMICAL ANCHOR ADHESIVE.

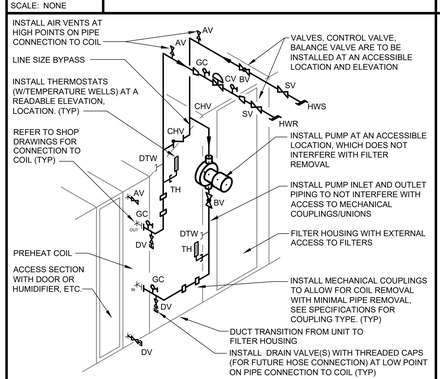
DETAIL: M-0007B
SCALE: NONE
EXISTING CONCRETE
HOUSEKEEPING PAD EXTENSION



DETAIL: FL-01A
SCALE: NONE
HEAT EXCHANGER PIPING
(SHELL & TUBE/PLATE & FRAME - WATER SIDE)



DETAIL: FL-07
SCALE: NONE
HEAT EXCHANGER
(STEAM SOURCE)



NOTE:
REFER TO FLOOR PLANS AND FLOW DIAGRAMS FOR PIPE SIZES, PUMP DESIGNATION, ETC.

FILE NAME: M-0045E
SCALE: NONE
AIR HANDLING UNIT PREHEAT COIL WITH SECONDARY PUMP
INSTALLATION SCHEMATIC (SINGLE COIL)

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

PHILIP J WENTZ
MO STATE LIC. E-29111

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
Corporation
Missouri State Certificate of
Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

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CM Archer Group, P.C.:
E: 2003023612-D, LS: 2004017577-D,
A-2016017179
Archer-Elgin Surveying & Engineering,
LLC: E: 2011024038, LS: 2011025471 ,
A-2012014618
310 East 6th Street, Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

OFFICE OF ADMINISTRATION
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RENOVATE MECHANICAL/ ELECTRICAL/LIFE-SAFETY/ STATE OFFICE BUILDING

JEFFERSON STATE OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:5-ADDENDUM 5
DATE:02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

CAD DWG FILE:M6.0-075107.001
DRAWN BY: AM
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:
MECHANICAL DETAILS

SHEET NUMBER:
M6.0
123 OF 244 SHEETS

DATE : August 31, 2023

FAN SCHEDULE

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	FAN TYPE	AIRFLOW (CFM)	FSP (IN. W.C.)	RPM	WHEEL DIAM. (IN.)	FAN DISCHARGE	MOTOR BHP	MOTOR HP	MOTOR RPM	MOTOR VOLTS/PH	UNIT CONTROL	ACCESSORIES	NOTES
EF-1	ROOF	KITCHEN HOOD H-1	GREENHECK USF-22	UTILITY FAN	4,050	1.30	921	22.0	UBD	2.35	3	1750	460/3	VFD	3,5,6,8,9	A,B,E
EF-2	KITCHEN	KITCHEN - DISHWASHER H-2	GREENHECK SQ-120-VG	IN-LINE CENTRIFUGAL	350	0.75	1460	11.0	HM	0.25	1/2	1750	115/1	ECM (MANUAL)	2,6	E
EF-3	ROOF	TOILET EXHAUST	GREENHECK USF-12-B1	ROOF EXHAUSTER	3,600	2.00			DBD	2.9	5	1750	460/3	VFD	2,3,5,6,7	A
EF-4	ROOF	TOILET EXHAUST	GREENHECK USF-12-B1	ROOF EXHAUSTER	3,600	2.00			DBD	2.9	5	1750	460/3	VFD	2,3,5,6,7	A,D
EF-5	ROOF	TOILET EXHAUST	GREENHECK G-060-VG	ROOF EXHAUSTER	100	0.40	1533		DBD	0.02	1/15	1750	115/1	ECM (MANUAL) RIB	2,3,5	A
SPF-1	4TH FLOOR MECH ROOM	STAIRWELL PRESSURIZATION	GREENHECK AX-72	AXIAL FAN	7,500	1.50	1750	28.0	HM	4.5	5	1750	460/3	STARTER	2,5,6	C
SPF-2	8TH FLOOR MECH ROOM	STAIRWELL PRESSURIZATION	GREENHECK AX-72	AXIAL FAN	7,500	1.50	1750	28.0	HM	4.5	5	1750	460/3	STARTER	2,5,6	C
RF-1	BASEMENT	BASEMENT / 1ST FLOOR	GREENHECK USF-36-B4	UTILITY FAN	17,000	1.25	690	36.0	UBD	6.4	7 1/2	1750	460/3	VFD	5,6	A
RF-2	CAFETERIA	TRANSFER TO KITCHEN	GREENHECK AX-63	AXIAL FAN	7,800	1.25	1650		HM	2.9	3	1750	460/3	VFD	5,6	A
RF-11	PENTHOUSE	14TH FLOOR	GREENHECK USF-120	IN-LINE CENTRIFUGAL	6,000	1.25	1650	20.0	HM	2.1	3	1750	460/3	VFD	5,6	A
RLF-2	MECH CLOSET	SECOND FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-3	MECH CLOSET	THIRD FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-4	MECH CLOSET	FOURTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-5	MECH CLOSET	FIFTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-6	MECH CLOSET	SIXTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-7	MECH CLOSET	SEVENTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-8	MECH CLOSET	EIGTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-9	MECH CLOSET	NINTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-10	MECH CLOSET	TENTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-11	MECH CLOSET	ELEVENTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-12	MECH CLOSET	TWELTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A
RLF-13	MECH CLOSET	THIRTEENTH FLOOR	GREENHECK BSQ-180	IN-LINE CENTRIFUGAL	5,300	0.75	1450	18.5	HM	2.2	3	1750	460/3	VFD	5,6	A

FAN TYPE:
CENTRIFUGAL
IN-LINE CENTRIFUGAL
ROOF EXHAUSTER
UTILITY FAN
PROPELLER FAN
MIXED FLOW IN-LINE
AXIAL FAN

FAN DISCHARGE:
THD - TOP HORIZONTAL DISCHARGE
BHD - BOTTOM HORIZONTAL DISCHARGE
TAU - TOP ANGULAR DISCHARGE
BH - BOTTOM ANGULAR DISCHARGE
UBD - UP BLAST DISCHARGE
DBD - DOWN BLAST DISCHARGE
HM - HORIZONTAL MOUNT

ACCESSORIES:
1. GRAVITY BACKDRAFT DAMPER
2. MOTORIZED DAMPER
3. ROOF CURB
4. ACOUSTIC ROOF CURB
5. FACTORY MOUNTED DISCONNECT
6. 2" SPRING VIBRATION ISOLATORS
7. WEATHER HOOD
8. WELDED SCROLL
9. PERMATECTOR RESIN FAN COATING

NOTES:
A. ALL FANS WITH VFD DRIVES SHALL HAVE INVERTER DUTY MOTORS, OTHERWISE A PREMIUM EFFICIENCY MOTOR SHALL BE PROVIDED REFER TO MOTOR SPECIFICATIONS FOR MORE DETAIL.
B. FAN SHALL BE UL 762 RATED FOR GREASE LADEN EXHAUST. PROVIDE WITH APPROPRIATE ACCESSORIES.
C. FAN SHALL BE CONTROLLED VIA FIRE ALARM RELAY 5
D. COUNTERCLOCK WISE ROTATION
E. FAN IN ALTERNATE #2 SCOPE

PUMP SCHEDULE

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	TYPE	PUMP DATA FLOW (GPM)	PUMP DATA HEAD (FT.)	MOTOR DATA BHP	MOTOR DATA HP	MOTOR DATA RPM	MOTOR DATA VOLTS/PH	UNIT CONTROL	IMPELLER DIA. (IN.)	NOTES
CWP-1	BASEMENT	CHILLED WATER	BELL AND GOSSETT E-1510 3EB	END-SUCTION	520	88	14.8	20	1800	460/3	VFD	11	1,2
CWP-2	BASEMENT	CHILLED WATER	BELL AND GOSSETT E-1510 3EB	END-SUCTION	520	88	14.8	20	1,800	460/3	VFD	11	1,2
HWP-1	BASEMENT	HEATING WATER	BELL AND GOSSETT E-1510 2.5 BB	END SUCTION	300	75	7.33	10	1,800	460/3	VFD	9.5	1,2
HWP-2	BASEMENT	HEATING WATER	BELL AND GOSSETT E-1510 2.5 BB	END SUCTION	300	75	7.33	10	1,800	460/3	VFD	8.75	1,2
PHP-1	BASEMENT	AHU-B FREEZE PROTECTION	BELL AND GOSSETT E-90	INLINE	27	10	0.2	1/4	1,800	115/1	RIB		
PHP-2	BASEMENT	DOAS FREEZE PROTECTION	BELL AND GOSSETT E-90	IN-LINE	60	10	0.2	1/3	1,800	115/1	RIB		
PHP-3	14TH FLOOR	AHU-14 FREEZE PROTECTION	BELL AND GOSSETT ECOCIRC 20-18	INLINE	6	8	0.2	1/10	1,800	115/1	RIB		
PHX-1	BASEMENT	CHILLED WATER HX	BELL AND GOSSETT ECOCIRC SL 70-145	INLINE	10	50	0.9	2	3,600	208/1	ECM	4	
PHX-2	BASEMENT	HX-5	BELL AND GOSSETT E-80 2.5x2.5x7B	INLINE	130	30	1.4	2	1,800	480/3	VFD	4	
DCP-1	BASEMENT	DRY COOLER	BELL AND GOSSETT E1510 2BD	END SUCTION	130	50	2.93	5	1,800	480/3	VFD	7.375	1,2

NOTES:
1. SELF FLUSHING SEAL
2. HEAVY DUTY BASEPLATE

FAN COIL UNIT SCHEDULE

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	TOTAL COUNT	AIRFLOW (CFM)	UNIT CONFIGURATION	TYPE	COOLING COIL TOTAL CAPACITY (BTUH)	COOLING COIL SENS CAPACITY (BTUH)	COOLING COIL EAT DB/WB (°F)	COOLING COIL EWT (°F)	COOLING COIL MAX. FLOW (GPM)	COOLING COIL MAX WPD (FT.)	HEATING COIL TOTAL CAPACITY (BTUH) [KW]	HEATING COIL EAT (°F)	HEATING COIL EWT (°F)	HEATING COIL MAX. FLOW (GPM)	HEATING COIL MAX WPD (FT.)	FAN DATA ESP (IN.)	FAN DATA MOTOR POWER (WATTS)	FAN DATA VOLTS/PH	ELECTRICAL FLA	ELECTRICAL MCA	RETURN INLET LOCATION	SUPPLY DISCHARGE LOCATION	PIPING CONNECTION	FILTER	NOTES
FCU-A	FLOORS 2-13	FLOORS 2-13	TRANE FCAB048	423	300	VERTICAL CONCEALED	4-PIPE	6.0	5.0	75/62.5	47.5	1.25	5	6	68	140	0.3	5	.2	64	277/1	2	2.75	FRONT	TOP DUCTED	SEE PLANS	YES	1,3,4,5,6
FCU-B	FLOOR 2	FLOOR 2	TRANE FCCB040	16	300	HORIZONTAL CONCEALED	4-PIPE	6.0	5.0	75/62.5	47.5	1.25	5	6	68	140	0.3	5	.2	64	277/1	2	2.75	BACK DUCTED	FRONT DUCTED	SEE PLANS	YES	1,2,3,4,5,7
FCU-C	FLOOR 1	MAIL RM 139	TRANE FCDB080	2	650	HORIZONTAL EXPOSED	2-PIPE	15.1	13.7	75/62.5	47.5	2.51	5						-	154	115/1	3.1	3.88	BOTTOM	FRONT	SEE PLANS	YES	3,4,5
FCU-D	BASEMENT	FACILITIES	TRANE FCDB030	1	200	HORIZONTAL CONCEALED	2-PIPE	6.0	5.0	75/62.5	47.5	1.25	5	6	68	140	0.3	5	.2	64	277/1	2	2.75	BACK DUCTED	FRONT DUCTED	SEE PLANS	YES	3,4,5
FCU-E	2ND FLOOR	DOCK	TRANE FCBB030	2	200	VERTICAL EXPOSED	2-PIPE	3.3	3.2	75/62.5	47.5	0.6	5	[5 KW]	68	-	-	-	.2	40	277/1			FRONT	TOP	SEE PLANS	YES	3,4,5
FCU-F	FLOOR 2-13	DATA ROOM	TRANE FCAB060	12	450	VERTICAL CONCEALED	2-PIPE	10.0	9.0	75/62.5	47.5	1.25	5						.3	64	277/1	2	2.75	FRONT	TOP DUCTED	SEE PLANS	YES	3,4,5
FCU-G	FLOOR 2	CONFERENCE 202, 1204	TRANE FCCB040	2	300	VERTICAL EXPOSED	4-PIPE	6.0	5.0	75/62.5	47.5	1.25	5	6	68	140	0.3	5	.2	64	277/1	2	2.75	FRONT	TOP DUCTED	SEE PLANS	YES	1,3,4,5

NOTES:
1. PROVIDE DUCT FLANGES FOR RETURN.
2. PROVIDE DUCT FLANGES FOR SUPPLY.
3. PROVIDE FACTORY MOUNTED DISCONNECT
4. 0-10 V ECM MOTOR
5. DDC CONTROLLER BY CONTROLS
6. MAX DIMENSIONS 28" W x 10"D x 27" T
7. MAX DIMENSIONS 27"W x 10-1/4" H x 27" L

SPLIT SYSTEM UNIT SCHEDULE

INDOOR UNIT: UNIT DESIGNATION	SERVICE	MODEL NO.	SUPPLY CFM	ESP	RATED COOLING CAP (MBH)	ENTERING AIR (°F) dB / wB	HEATING CAP. (MBH)	ENTERING AIR (°F) dB / wB	OUTDOOR UNIT: UNIT DESIGNATION	MODEL NO.	COMPRESSOR DATA QTY.	COMPRESSOR DATA TYPE	COMPRESSOR DATA REFRIGERANT TYPE	AMBIENT (dB) LOW °F	AMBIENT (dB) HIGH °F	EFF. SEER	SINGLE POINT POWER VOLT	PHASE	HZ	MCA	MOCP	NOTES
CU-1	1412 PUBLIC SAFETY DATA ROOM	TRANE TPKA0A0121IA00A	385	-	12	80/67	15	70	HP-1	TRANE TRUYA0121KA70NA	1	SCROLL	R-410a	5	95	18	208	1	60	11	28	1,2
CU-2	140	TRANE NTXWPH06	305		6	80/67	12	70	HP-2	TRANE NTXSPH06B112	1	SCROLL	R-410a	5	95	19	208	1	60	10	15	2,3
CU-3	137	TRANE NTXWPH12B	385	-	12	80/67	15	70	HP-3	TRANE NTXSPH12B112	1	SCROLL	R-410a	5	95	18	208	1	60	10	15	2,3

NOTES:
1 LOW AMBIENT KIT
2 CONDENSATE PUMP
3 BID ALTERNATE #6

FILTER HOUSING SCHEDULE

UNIT DESIG.	SERVES	MANUFACTURER & MODEL NO.	AIRFLOW (CFM)	PRE FILTERS NO.	PRE FILTERS SIZE (IN.)	PRE FILTERS DEPTH (IN.)	PRE FILTERS MERV	PRE FILTERS MAX CLEAN APD (IN. W.G.)	PRE FILTERS MODEL NUMBER	FINAL FILTERS NO.	FINAL FILTERS SIZE (IN.)	FINAL FILTERS DEPTH (IN.)	FINAL FILTERS MERV	FINAL FILTERS MAX CLEAN APD (IN. W.G.)	FINAL FILTERS MODEL NUMBER	NOMINAL HOUSING SIZE	NOTES
FH-AHUB	AHU-B	GLIDEPACK MULTITRACK 25	17,000	12	24 x 24	2	8	0.3	FARR 30/30	12	24 x 24	12	13	0.27	DURAVIL ES2	93.5" x 75.75"	1,2
FH-D1	DOAS-1	GLIDEPACK MULTITRACK 25	24,000	15	24 X 24	2	8	0.3	FARR 30/30	12	24 X 24	15	13	0.27	DURAVIL ES2	117.5" x 75.75"	1,2
FH-AHU1	AHU-1	BLC 07FB	5,700	3 (F) 3 (H)	24 x 24, 12 X 12	2	8	0.3	FARR 30/30	3 (F) 3 (H)	24 x 24, 12 X 12	4	13	0.27	DURAVIL ES2	70"X38"	1,2
FH-AHU3	AHU-3	GLIDEPACK MULTITRACK 25	10,500	8	24 X 24	2	8	0.3	FARR 30/30	8	24 X 24	12	13	0.27	DURAVIL ES2	93.5" x 51.5"	1,2
FH-AHU-5	AHU-5	GLIDEPACK MULTITRACK 25	10,500	8	24 X 24	2	8	0.3	FARR 30/30	8	24 X 24	12	13	0.27	DURAVIL ES2	93.5" x 51.5"	1,2
FH-AHU7	AHU-7	GLIDEPACK MULTITRACK 25	10,500	8	24 X 24	2	8	0.3	FARR 30/30	8	24 X 24	12	13	0.27	DURAVIL ES2	93.5" x 51.5"	1,2
FH-AHU9	AHU-9	GLIDEPACK MULTITRACK 25	10,500	8	24 X 24	2	8	0.3	FARR 30/30	8	24 X 24	12	13	0.27	DURAVIL ES2	93.5" x 51.5"	1,2
FH-AHU11	AHU-11	GLIDEPACK MULTITRACK 25	10,500	8	24 X 24	2	8	0.3	FARR 30/30	8	24 X 24	12	13	0.27	DURAVIL ES2	93.5" x 51.5"	1,2
FH-SAHU13	AHU-13	GLIDEPACK MULTITRACK 25	10,500	8	24 X 24	2	8	0.3	FARR 30/30	8	24 X 24	12	13	0.27	DURAVIL ES2	93.5" x 51.5"	1,2

NOTES:
1. AIR PRESSURE DROP BASED ON NOMINAL 500 FPM CATALOGUE DATA
2. PROVIDE PRE FILTER AND FINAL FILTER MAGNEHELIC GAUGES

AIR SEPARATOR SCHEDULE

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	PIPE SIZE	NOTES
AS-1	BASEMENT MECHANICAL ROOM	BUILDING CHILLED WATER	SPIROVENT DIRT VHN-0800-FA	8"	1

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

PHILIP J WENTZ
MO STATE LIC. E-29111

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
Corporation
Missouri State Certificate of
Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

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A-2016017179
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LLC: E: 2011024038, LS: 2011025471 ,
A-2012014618
319 East 6th Street, Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

RENOVATE MECHANICAL/ ELECTRICAL/LIFE-SAFETY/ STATE OFFICE BUILDING

JEFFERSON STATE OFFICE BUILDING
205 JEFFERSON STREET
JEFFERSON CITY, MO 65101

PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:5-ADDENDUM 5
DATE:02-01-2024
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE:

CAD DWG FILE:M6.0-075107.001
DRAWN BY: AM
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:
MECHANICAL SCHEDULES

SHEET NUMBER:
M6.2
125 OF 244 SHEETS

DATE : August 31, 2023

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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CONDENSING UNIT SCHEDULE

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	AMBIENT DB (°F)	MIN. COOLING CAPACITY (MBH)	COMPRESSOR DATA			ELECTRICAL DATA					WEIGHT (LBS.)	NOTES
						QTY.	TYPE	REFRIGERANT TYPE	VOLTS/PH	FLA/RLA	MCA	MOP	DISC INCLUDED		
CU-2	ROOF	S-11	TRANE TTA0724DAA	95	72.0	2	SCROLL	R-410A	480/3	11.4	14	15	N	307	1

NOTES:
1. UNIT TO BE SUPPLIED WITH HAIL GUARDS.

BLOWER COIL UNIT SCHEDULE

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	TOTAL COUNT	AIRFLOW (CFM)	UNIT CONFIGURATION	COOLING COIL						ELECTRIC HEAT			FAN DATA			ELECTRICAL		RETURN INLET LOCATION	SUPPLY DISCHARGE LOCATION	PIPING CONNECTION	FILTER	NOTES
							TOTAL CAPACITY (BTUH)	SENS CAPACITY (BTUH)	EAT DB/WB (°F)	EWT (°F)	MAX. FLOW (GPM)	MAX WPD (FT.)	TOTAL CAPACITY KW	EAT (°F)	LAT (°F)	ESP (IN.)	MOTOR POWER (HP)	VOLTS/PH	MCA	MOCP					
BCU-A	BASEMENT	ELEC SERVICE	TRANE BCHE120	1	4,500	HORIZONTAL CONCEALED	198	183	87 / 65	47.5	33	16				.4	5	480/3	9.75	15	FRONT	TOP DUCTED	SEE PLANS	2" MERV 8	1,3,4,5
BCU-B	2ND FLOOR	DOCK SUPPORT	TRANE BCHE036	1	1,050	HORIZONTAL CONCEALED	25	23	75 / 62.5	47.5	5	5	5	68	83	.3	3/4	277/1	27.2	30	BACK DUCTED	FRONT DUCTED	SEE PLANS	2" MERV 8	1,2,3,4,5

NOTES:
1. PROVIDE DUCT FLANGES FOR RETURN.
2. PROVIDE DUCT FLANGES FOR SUPPLY.
3. PROVIDE FACTORY MOUNTED DISCONNECT.
4. ECM MOTOR
5. DDC CONTROLLER

TERMINAL REHEAT COIL SCHEDULE

UNIT DESIG.	AREA SERVED	HEATING COIL DATA										NOTES
		DESIGN AIRFLOW (CFM)	MIN. CAPACITY (MBH)	EAT (°F)	LAT (°F)	EWT (°F)	MAX. FLOW (GPM)	MAX. WPD (FT.)	APD @ MAX AIRFLOW (IN. W.C.)	SIZE W X H (IN.)	MIN. ROWS	MAX FPI	
RHC - 2N	NORTH EVEN STACK FLOORS	3,500	40	65	75	140	2.0	4	0.11	44" X 18"	1	7	1,2
RHC - 2S	SOUTH EVEN STACK FLOORS	2,500	27	65	75	140	1.5	4	0.12	30" X 18"	1	7	1,2
RHC - 3N	NORTH ODD STACK FLOORS	3,500	38	65	75	140	2.0	4	0.12	32" X 24"	1	7	1,3
RHC - 3S	SOUTH ODD STACK FLOORS	3,500	28	65	75	140	1.5	4	0.1	32" X 18"	1	7	1,3

NOTES:
1. .020" THICK 5/8" DIAMETER TUBE
2. COILS SERVING FLOORS 2,4,6,8,10,12
3. COILS SERVING FLOORS 3,5,7,9,11,13

AIR DEVICE SCHEDULE

UNIT DESIG.	SERVICE	MANUFACTURER & MODEL NO.	TYPE	THROW	NO. OF SLOTS	NECK SIZE (IN.)	FACE SIZE (IN.)	FINISH	NOTES
A1	SUPPLY	TITUS TDC	LOUVER	SEE PLANS	NA	12"	24"x24"	TBD BY ARCH	3
A2	SUPPLY	TITUS TDC	LOUVER	SEE PLANS	NA	10"	24"x24"	TBD BY ARCH	3
A3	SUPPLY	TITUS TDC	LOUVER	SEE PLANS	NA	8"	24"x24"	TBD BY ARCH	3
A4	SUPPLY	TITUS TDC	LOUVER	SEE PLANS	NA	6"	24"x24"	TBD BY ARCH	3
B1	SUPPLY	TITUS TBD-10	SLOT	SEE PLANS	2 @ 1"	6" ø	24" x 6"	TBD BY ARCH	3
C1	SUPPLY	TITUS 1700	SIDEWALL	SEE PLANS	NA	16"x36"	18"x38"	TBD BY ARCH	
C2	SUPPLY	TITUS 1700	SIDEWALL	SEE PLANS	NA	14"x10"	16"x12"	TBD BY ARCH	
C3	SUPPLY	TITUS 1700	SIDEWALL	SEE PLANS	NA	16"x8"	18"x12"	TBD BY ARCH	
C4	SUPPLY	TITUS 1700	SIDEWALL	SEE PLANS	NA	12"x6"	14"x8"	TBD BY ARCH	
C5	SUPPLY	TITUS 1700	SIDEWALL	SEE PLANS	NA	6"x4"	8"x6"	TBD BY ARCH	
D1	EXHAUST	TITUS TDC	LOUVER	NA	NA	6"x6"	12"x12"	TBD BY ARCH	1,3
D2	EXHAUST	TITUS TDC	LOUVER	NA	NA	21"x21"	24"x24"	TBD BY ARCH	1,3
F1	RETURN	TITUS TDC	LOUVER	NA	NA	18"X18"	24"X24"	TBD BY ARCH	3
F2	RETURN	TITUS TDC	LOUVER	NA	NA	15"x15".	24"X24"	TBD BY ARCH	3
F3	RETURN	TITUS TDC	LOUVER	NA	NA	12" DIA.	24"X24"	TBD BY ARCH	3
F4	RETURN	TITUS TBR-80	SLOT	SEE PLANS	2 -1"	-	24"x6"	TBD BY ARCH	3
F5	RETURN	TITUS 350RL	SIDEWALL	SEE PLANS	NA	12"x8"	14"x10"	TBD BY ARCH	
G1	SUPPLY	TITUS 350FL	SIDEWALL	SEE PLANS	NA	24"x6"	26"x8"	TBD BY ARCH	5

NOTES:
1. DIFFUSER SHALL BE ALUMINUM
2. PROVIDE BORDER FOR DRYWALL INSTALLATION
3. PROVIDE BORDER FOR LAY-IN INSTALLATION
4. GRILLE SHALL BE STAINLESS STEEL
5. FINISH COLOR TO BE SELECTED BY ARCHICTECT FROM MANUFACTURERS STANDARD COLORS.

STEAM TRAP SCHEDULE

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER MODEL NO.	SIZE (IN.)	TYPE	CONDENSATE (LBS./HR)	MAX. ALLOWABLE PRESSURE (PSIG)	OPERATING PRESSURE (PSIG)	DIFFERENTIAL PRESSURE (PSIG)	NOTES
T-1	HOT WATER PLANT	HEATING WATER	ARMSTRONG 30-A8	2	FT	10000	15	10	10	
T-2	HOT WATER PLANT	HEATING WATER	ARMSTRONG 30-A8	2	FT	10000	15	10	10	
T-3	HOT WATER PLANT	HEATING WATER	ARMSTRONG 30-A8	2	FT	12000	15	10	10	
T-4	HOT WATER PLANT	HEATING WATER	ARMSTRONG 30-A8	2	FT	12000	15	10	10	

TRAP TYPE
FT - FLOAT & THERMOSTATIC
IB - INVERTED BUCKET
TD - THERMOSTATIC
TH - THERMODYNAMIC

NOTES:

UV LIGHT SCHEDULE

UNIT DESIGNATION	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	BULB QTY AND LENGTH	VOLTS/PH	NOTES
UV-A	BASEMENT	S-1	STERIL-AIRE SE61, SE50	(4) 61, (4) 50	277/1	1
UV-B	BASEMENT	DOAS	STERIL-AIRE SE61	(8) 61	277/1	1
UV-C	STACK AHU'S	S5, S-6, S-7, S-8, S-9, S-10	STERIL AIRE SE42	(8) 42"	277/1	1

NOTES:
1 PROVIDE FACTORY MODULAR RACK MOUNTING KIT AND POWER SUPPLY

DX COIL SCHEDULE

UNIT DESIG.	AREA SERVED	HEATING COIL DATA									NOTES
		DESIGN AIRFLOW (CFM)	MIN. CAPACITY (MBH)	EAT (°F)	LAT (°F)	SUC TEMP (°F)	LIQUID TEMP (°F)	APD @ MAX AIRFLOW (IN. W.C.)	SIZE W X H (IN.)	MIN. ROWS	
RC-11	S-11 O.A.	800 CFM	67	95/78	55/54	45	115.0	0.5	18" X 18"	6	1,2

1.) DUAL INTERTWINED CIRCUITS
2.) MANUFACTURER TO PROVIDE FIELD INSTALLED SPORLAN SDR VALVE

HEAT EXCHANGER SCHEDULE

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	TYPE	(SOURCE)						(SERVICE)				MINIMUM TRANSFER SURFACE AREA (SQ. FT.)	NOTES
					EWT (°F)	LWT (°F)	FLOW (GPM)	STEAM SUPPLY (PSIG)	STEAM CAPACITY (LBS/HR)	MAX. PD (FT.)	EWT (°F)	LWT (°F)	FLOW (GPM)	MAX. PD (FT.)		
HX-1	BASEMENT	BUILDING HEATING WATER	BELL AND GOSSETT SU-107-2	SHELL AND TUBE	-	-	-	10	4,648	N/A	110	140	300	6.0	103.1	
HX-2	BASEMENT	BUILDING HEATING WATER	BELL AND GOSSETT SU-107-2	SHELL AND TUBE	-	-	-	10	4,648	N/A	110	140	300	6.0	103.1	
HX-3	BASEMENT	1-14 FLOOR CHILLED WATER	BELL AND GOSSETT GPX	PLATE AND FRAME	45	57	355	-	-	18	58	48	400	23.0	1277	1
HX-4	BASEMENT	1-14 FLOOR CHILLED WATER	BELL AND GOSSETT GPX	PLATE AND FRAME	45	57	355	-	-	18	58	48	400	23.0	1277	1
HX-5	BASEMENT	DRY COOLER	BELL AND GOSSETT GPX	PLATE AND FRAME	58	64	130	-	-	18	67	61	130	23.0	1277	1

NOTES:
1. PROVIDE EXTENDED RAIL FOR SERVICE

FLOW METERS

FLOW DIAGRAM PLAN ID	SYSTEM	SIZE (IN)	FLUID TEMP (F)	MAX FLOW (GPM)	EXPECTED FLOW (GPM)	BI-DIRECTIONAL	ENERGY METER	TEMP SENSOR	PIPE MATERIAL	POWER (V)	MANUFACTURER/ MODEL NO.	REMARKS
FL-CW1	TERCIARY CHILLED WATER	8	45	800	400	NO	YES	INSERTION	CARBON STEEL	24	DYNASONICS TFX 5000	1,2,3
FL-CW2	CHILLED WATER FROM ECC	8	45	1200	600	NO	YES	INSERTION	CARBON STEEL	24	DYNASONICS TFX 5000	1,2,3
FL-HW	BUILDING HEATING WATER	4	180	500	300	NO	YES	INSERTION	CARBON STEEL	24	DYNASONICS TFX 5000	1,2,3

NOTES:
1. 24V FOR ALL FLOW METERS.
2. METERS ARE BACNET IP AND REQUIRE AN ETHERNET CONNECTION
3. METER PROVIDED BY AND INSTALLED BY TEMPERATURE CONTROLS CONTRACTOR, METER, DISPLAY, AND INSERTION WELLS (WHERE REQUIRED) LOCATION TO BE COORDINATED WITH MECHANICAL PRIOR TO PIPE FABRICATION.

GLYCOL MAKE UP UNIT

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	TYPE	PUMP DATA			MOTOR DATA				NOTES
					FLOW (GPM)	HEAD (FT.)	BHP	HP	RPM	VOLTS/PH	UNIT CONTROL	
GMU-1	BASEMENT	DRY COOLER	BELL AND GOSSETT GMU-30	END-SUCTION	10	68	0.3	1/2	3600	115/1	STARTER	1

NOTES:
1. 55 GALLON TANK, STRAINER, PRESSURE GAUGES, EXPANSION TANK, LOW WATER CUTOFF

COMPUTER ROOM AIR CONDITIONING UNIT SCHEDULE

EXISTING UNIT DESIG.	LOCATION	SERVICE	MAUFACTURER & MODEL NO.	TOTAL AIRFLOW (CFM)	AHU TYPE	HUMIDIFIER	COOLING COIL DATA							DX COOLING COIL			REHEAT	FAN DATA					INDOOR UNIT ELECTRICAL DATA				UNIT SCCR kA	OUTDOOR CONDENSER ELECTRICAL DATA				NOTES
						CAPACITY (LB/HR)	TOTAL (BTUH)	SENSIBLE (BTUH)	DESIGN TEMP (F)	DESIGN RH (%)	EWT (F)	GPM	WPD (FT)	TOTAL (BTUH)	SENSIBLE (BTUH)	DESIGN TEMP (F)	MIN. CAP. (KW)	FAN DISCHARGE	FAN TYPE	ESP (IN. W.C.)	HP	NUMBER OF FANS	FLA	VOLTS/PH	MCA	OCP		FLA	VOLTS/PH	MCA	OCP	
CRAHU-1	LL COMPUTER ROOM	LL COMPUTER ROOM	LIEBERT PX018D21C80859	2,800	DOWNFLOW	7.7	68	60	75	45	45	15.7	7.8	63	57	75	12	BOTTOM- SIDE DISCHARGE RAISED FLOOR	PLENUM		1.5		30.5	480/3	36.8	40	65	1.4	480/3	1.8	15	1,2,3.4

GENERAL NOTES:
1. ECM SUPPLY FAN
2. LOW AMBIENT (-20F)
3. FLOOR STAND
4. CU-1 ON LOWER ROOF TO SUPPORT CRAHU-1

KEYED NOTES:

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

PHILIP J. WENTZ NUMBER E-29111 STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER

PHILIP J WENTZ
MO STATE LIC. E-29111

McCLURE ENGINEERING
1000 Clark Avenue
Saint Louis, Missouri 63102
T 314-645-6232
MEP Engineers:
McClure Engineering
Professional Engineering
Corporation
Missouri State Certificate of
Authority #000087

ARCTURIS
701 Market St. Suite 1300
St. Louis, MO 63101
T 314-206-7100
Architect:
Arcturis
Mo Cert. of Auth. #00246198

CM Archer Group, P.C. dba:
ARCHER-ELGIN
engineering ▪ surveying ▪ architecture
Corporate Authority:
CM Archer Group, P.C.:
E: 2003023612-D, LS: 2004017577-D,
A-2016017179
Archer-Elgin Surveying & Engineering,
LLC: E: 2011024038, LS: 2011025471 ,
A-2012014618
319 East 6th Street, Rolla, Missouri 65401
Phone: 573-364-6362 Fax: 573-364-4782
www.archer-elgin.com

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205 JEFFERSON STREET
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PROJECT # O1911-01
SITE # 1001
ASSET # 3101001057

REVISION:1-ADDENDUM 4
DATE:01-25-2024
REVISION:5-ADDENDUM 5
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REVISION:
DATE:
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DATE:

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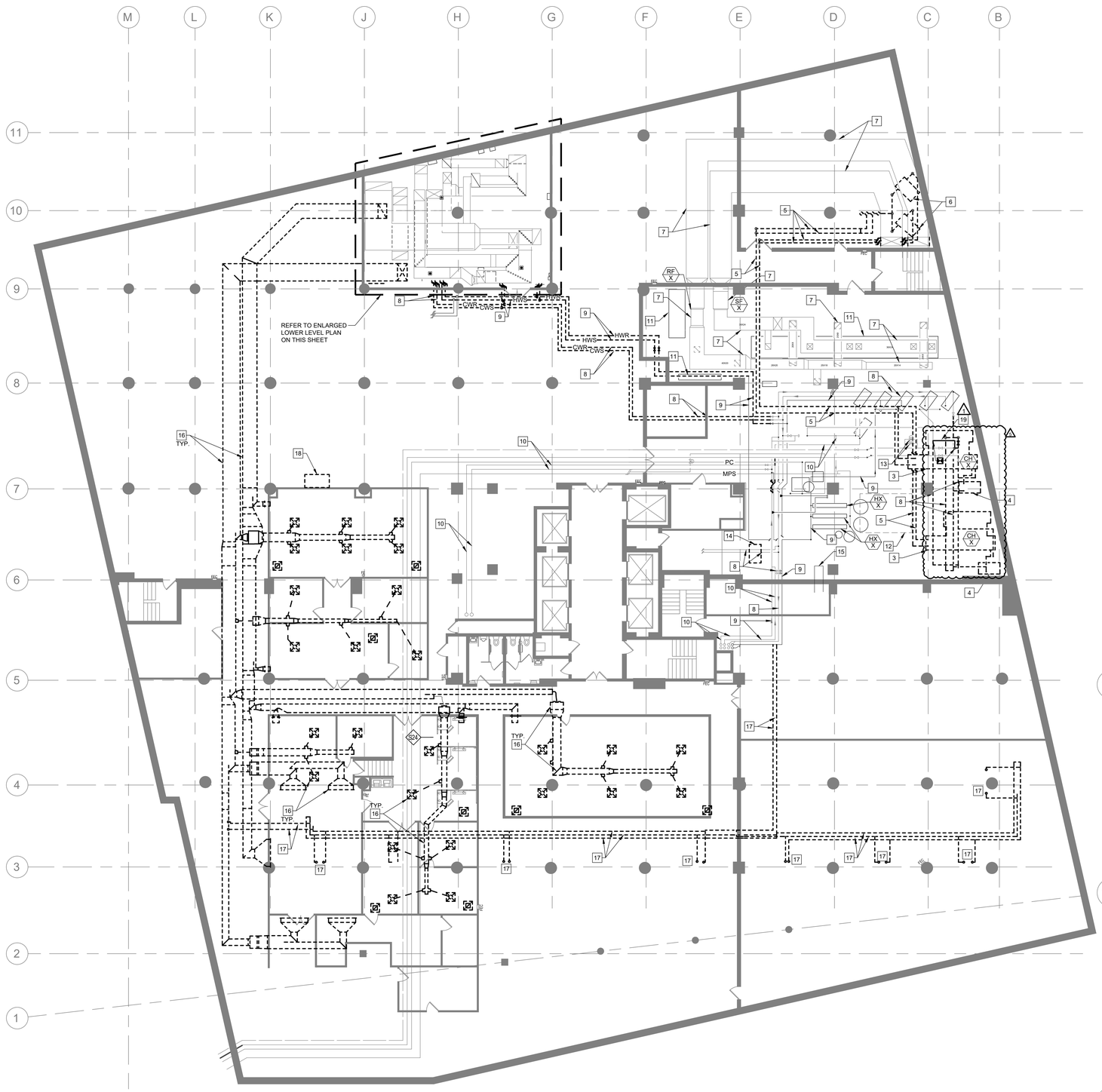
CHECKED BY: EP
DESIGNED BY: JW

SHEET TITLE:
MECHANICAL
SCHEDULES

SHEET NUMBER:
M6.4

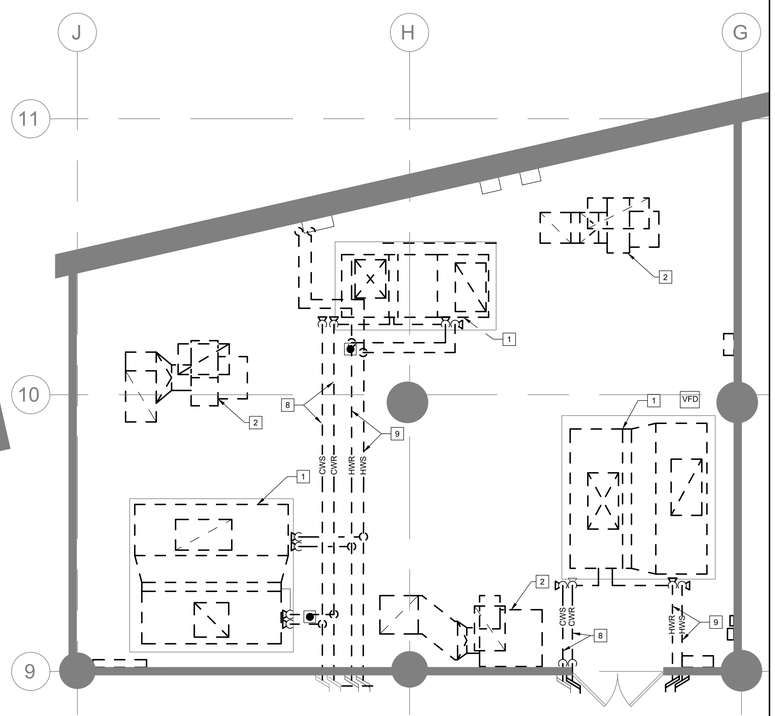
127 OF 244 SHEETS

DATE : August 31, 2023



BASEMENT FLOOR PLAN - MECHANICAL - PARTIAL DEMOLITION

3/32" = 1'-0"



BASEMENT AHU ROOM
FLOOR PLAN LOWER- MECHANICAL - DEMOLITION

1/4" = 1'-0"

GENERAL NOTES

1. EXISTING CHILLED WATER, HEATING WATER, AND CHANGEOVER HEAT/COOL SYSTEMS TO REMAIN ACTIVE UNTIL RENOVATION OF FLOORS 1-14 IS COMPLETE.
2. SEE MD3.01 FOR BASEMENT FLOOR FINAL BASEMENT PLAN.
3. PNEUMATIC CONTROL LINES REMAIN ACTIVE UNTIL FINAL PHASE OF THE PROJECT. SEAL ANY CONNECTIONS FROM REMOVED EQUIPMENT.

KEYED NOTES

1. DEMOLISH AIR HANDLER AND ALL ASSOCIATED PIPING. CONTRACTOR TO REMOVE ASSOCIATED CONCRETE HOUSEKEEPING PAD. CONTRACTOR TO DEMOLISH DUCTWORK TO ALLOW FOR NEW CONNECTION TO NEW AIR HANDLING UNIT, REFER TO NEW WORK ON M3.0 FOR ADDITIONAL INFORMATION.
2. DEMOLISH RETURN FAN. CONTRACTOR TO DEMOLISH DUCTWORK ALLOW FOR NEW CONNECTION TO NEW RETURN FAN. REFER TO NEW WORK ON M3.0 FOR ADDITIONAL INFORMATION. CONTRACTOR TO REMOVE ASSOCIATED CONCRETE HOUSEKEEPING PAD.
3. DEMOLISH CHILLER AND ALL ASSOCIATED PIPING AND ACCESSORIES AND ASBESTOS ABATEMENT. CONTRACTOR TO DEMOLISH HOUSE KEEPING PAD.
4. DEMOLISH CHILLER PUMP AND ALL ASSOCIATED PIPING AND ACCESSORIES. CONTRACTOR TO DEMOLISH HOUSE KEEPING PAD.
5. DEMOLISH CONDENSING WATER PIPING AND ALL ASSOCIATED VAVLES, SUPPORTS, AND HANGERS.
6. DEMOLISH CONDENSING WATER PUMPS AND ALL ASSOCIATED ACCESSORIES. CONTRACTOR TO DEMOLISH HOUSE KEEPING PAD.
7. DUCTWORK SERVING SWITCHGEAR TO REMAIN UNTIL FINAL PHASE.
8. CHILLED WATER SUPPLY AND RETURN LINES TO BE DEMOLISHED TO POINT SHOWN. DEMOLITION NOT TO OCCUR UNTIL AFTER TEMPORARY CONNECTION HAS BEEN MADE. (1)
9. HEATING WATER SUPPLY AND RETURN LINES AND PUMPS TO REMAIN UNTIL NEW SYSTEM IS ACTIVE ON ALL FLOORS.
10. CHILLED WATER SUPPLY AND RETURN LINES AND PUMPS TO REMAIN UNTIL NEW SYSTEM IS ACTIVE ON ALL FLOORS.
11. ELECTRICAL EQUIPMENT SHOWN FOR REFERENCE ONLY.
12. HATCH TO PAVED LOADING AREA ABOVE. DEMOLISH PAVEMENT AND OPEN HATCH TO REMOVE CHILLERS AND ELECTRICAL GEAR FROM BASEMENT.
13. EXISTING BUILDING CONTROL VALVE (56" VALVE) TO BE RELOCATED. REFER TO NEW WORK ON M3.0 FOR NEW LOCATION.
14. AIR COMPRESSOR TO BE DEMOLISHED IN FINAL PHASE OF PROJECT.
15. BLANK OFF EXISTING 24"x24" DUCT TO LOADING DOCK.
16. EXISTING DUCTWORK, VAVS, AND ALL ASSOCIATED HANGERS, DIFFUSERS, RUNOUTS, AND ACCESSORIES TO BE DEMOLISHED.
17. EXISTING HEATING WATER PIPING SERVING FIRST FLOOR FIN TUBE TO BE DEMOLISHED. CONTRACTOR TO DEMOLISH ALL HANGERS AND ACCESSORIES. FIN TUBE TO REMAIN, SEE NEW WORK FOR ADDITIONAL INFORMATION.
18. EXISTING CRAHU TO BE DEMOLISHED. ASSOCIATED DUCTWORK TO REMAIN AND BE RECONNECTED TO NEW CRAHU BEING INSTALLED AT SAME LOCATION. (1)
19. CONNECT NEW 8" TEMPORARY CHILLED WATER SUPPLY CONNECTION TO EXISTING CAMPUS MAIN AND ROUTE TO EXISTING BUILDING CHILLED WATER SUPPLY LINE. CONTRACTOR TO COORDINATE ANY REQUIRED SHUT DOWN WITH OWNER.

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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MO STATE LIC. E-29111

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BASMENT FLOOR PLAN-MECHANICAL PARTIAL DEMOLITION

SHEET NUMBER:
MD3.0

87 OF 244 SHEETS

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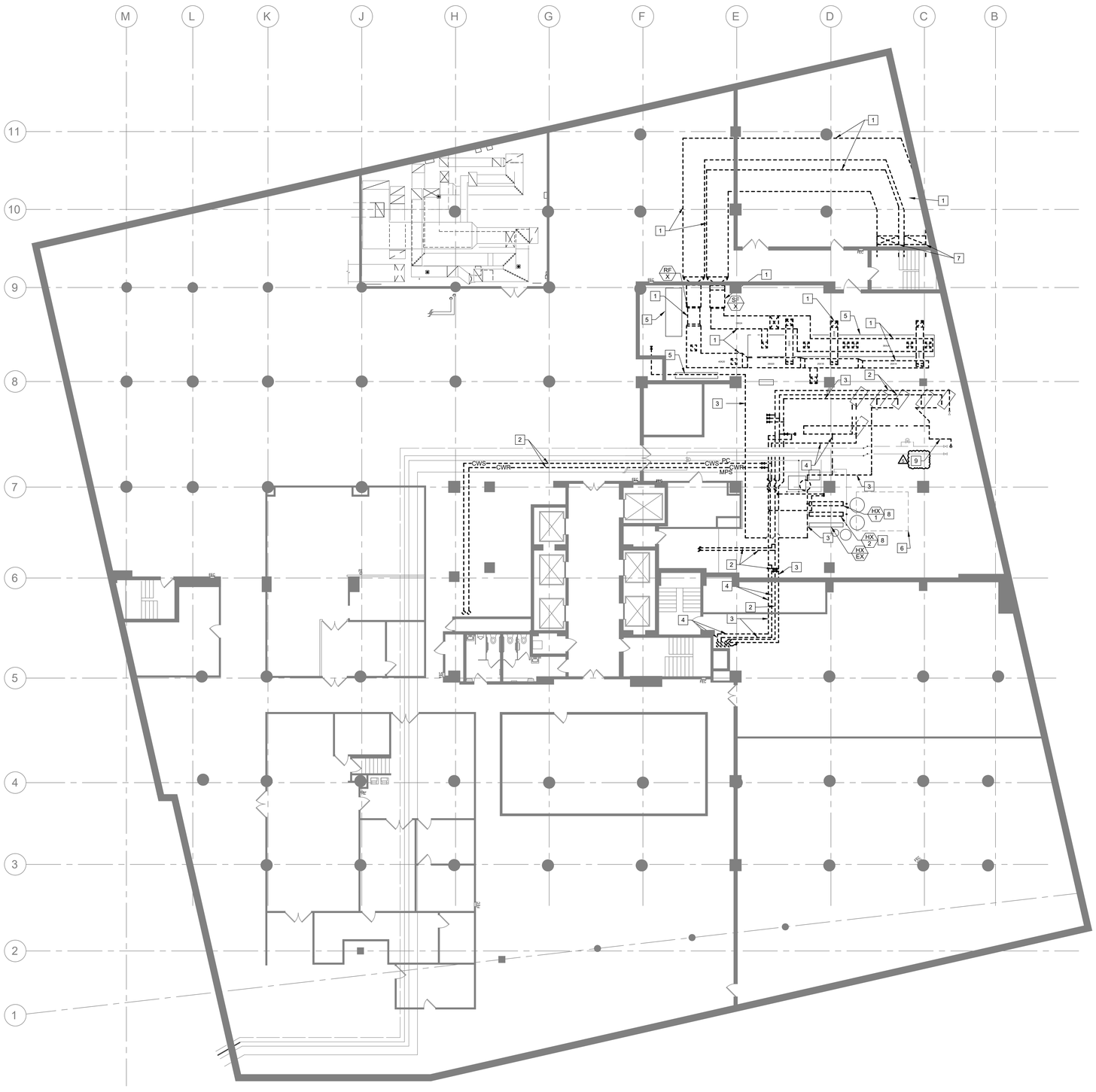

BASEMENT FLOOR PLAN - MECHANICAL - FINAL DEMOLITION

3/32" = 1'-0"

GENERAL NOTES

1. EXISTING CHILLED WATER, HEATING WATER, AND CHANGEOVER HEAT/COOL SYSTEMS TO REMAIN ACTIVE UNTIL RENOVATION OF FLOORS 1-14 IS COMPLETE.
2. PNEUMATIC CONTROL LINES REMAIN ACTIVE UNTIL FINAL PHASE OF THE PROJECT. SEAL ANY CONNECTIONS FROM REMOVED EQUIPMENT.

KEYED NOTES

1 DEMOLISH SUPPLY AND RETURN DUCTWORK AND ALL ASSOCIATED DIFFUSERS, HANGERS, AND SUPPORTS. DEMOLISH CEILING HUNG SUPPLY AND RETURN FANS.

2 DEMOLISH CHILLED WATER SUPPLY AND RETURN LINES AND ALL ASSOCIATED ACCESSORIES INCLUDING PUMPS. DEMOLITION OF THE EXISTING PIPING AND PIPING SUPPORTS TO OCCUR AFTER THE NEW SYSTEMS ARE INSTALLED, BALANCED AND ARE FUNCTIONING NORMALLY ON ALL FLOORS.

3 DEMOLISH HEATING WATER SUPPLY AND RETURN LINES AND ALL ASSOCIATED ACCESSORIES INCLUDING PUMPS. DEMOLITION OF THE EXISTING PIPING AND PIPING SUPPORTS TO OCCUR AFTER THE NEW SYSTEMS ARE INSTALLED, BALANCED AND ARE FUNCTIONING NORMALLY ON ALL FLOORS.

4 DEMOLISH CHILLED-HOT WATER SUPPLY AND RETURN LINES AND ALL ASSOCIATED ACCESSORIES INCLUDING PUMPS. DEMOLITION OF THE EXISTING PIPING AND PIPING SUPPORTS TO OCCUR AFTER THE NEW SYSTEMS ARE INSTALLED, BALANCED AND ARE FUNCTIONING NORMALLY ON ALL FLOORS.

5 ELECTRICAL EQUIPMENT TO BE DEMOLISHED IN FINAL PHASE. SEE ELECTRICAL DRAWINGS. SHOWN HERE FOR REFERENCE ONLY.

6 HATCH TO LOADING RAMP ABOVE FOR REFERENCE ONLY. SEE S1.1 FOR DETAILS.

7 PROVIDE SHEET R-12 INSULATED METAL BLANK OFF OF SUPPORTING LOUVERS.

8 EXISTING HEATING WATER HEAT EXCHANGER TO BE DEMOLISHED. DEMOLISH PIPING BACK TO SERVICE VALVE. REFER TO FLOW DIAGRAM ON M5.2

5 9 TEMPORARY CONNECT TO EXISTING CHILLED WATER MAINS NOT TO BE DEMOLISHED UNTIL FINAL CONNECTION IS MADE. CONTRACTOR TO COORDINATE SHUT DOWN WITH OWNER.

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

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PHILIP J WENTZ
MO STATE LIC. E-29111

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Saint Louis, Missouri 63102
T 314-645-6232
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ARCTURIS
701 Market St. Suite 1300
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BASMENT FLOOR
PLAN-MECHANICAL
-FINAL DEMOLITION

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ENVIRONMENTAL PROJECT MANUAL

JEFFERSON STATE OFFICE BUILDING
205 Jefferson Street
Jefferson City, Missouri 65101

Prepared for:

Ms. Sarah Dollar
Project Manager
McClure Engineering
1000 Clark Avenue
St. Louis, Missouri 63102
sdollar@mcclureeng.com

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Prepared by:

Professional Environmental Engineers, Inc.
2665 Scott Avenue, Suite B
St. Louis, Missouri 63103
Office: (314) 531-0060
Fax: (314) 531-0068

PE Project # 238.01.003

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PART 1 – GENERAL

1.1 SUMMARY OF WORK

A. Work to be Performed

The work consists of furnishing all labor, equipment, supplies and materials, employee training and testing, permits, agreements, registration and performance of all work in accordance with these specifications, drawings and applicable codes and regulations for the removal, transportation and disposal of selected asbestos containing materials (ACM) in conjunction with the Jefferson State Building located at 205 Jefferson Street, Jefferson City, MO 65101. Whenever there is a conflict or overlap between these specifications, regulations or codes, the most stringent provisions are applicable.

B. General Scope

The successful Contractor's scope of work includes, but is not limited to, the following

1. Bid and qualifications submittal;
2. Project plan and schedule preparation submittal and approval;
3. Pre-project documentation:
   * Personnel medicals
   * Asbestos, lead training verification
   * Respirator program verification
   * Equipment/supply specification submittals/approval
3. Insurance submittal and approval;
4. Facility baseline survey;
5. Regulatory notifications;
6. Removal area isolation;
7. Electrical and HVAC System isolation;
8. Decontamination system set-up;
9. Removal and disposal of selected ACMs as needed;
10. Project documentation;
11. Demobilization;
12. Project Closeout Documentation.

C. Site Description

The Jefferson State Office Building is a 14-story office building with basement and penthouse areas. The building has interior walls constructed of drywall, cinder block and concrete. The flooring materials consist of broadloom wall-to-wall carpet, carpet squares, 12" vinyl composite tile (VCT) floor tile, ceramic tile, terrazzo, mastic on concrete, painted concrete or bare concrete floors. The building has a forced air HVAC system with air handler rooms located on each floor. Some floors are known to have been abated of asbestos floor tile, but floor tile may still remain under existing wall partitions and mastics may have been left in-place.

D. General Requirements

It is the Owner's goal to remove selected ACMs from within building, therefore, the Contractor's base bid must be a comprehensive price that includes any and all eventualities to perform this scope of work. The quantities identified in the scope of work are estimates only. Therefore, it is mandatory that the bidder physically verify all asbestos quantities to ensure that their base bid is comprehensive and accurate.

An Alternate No. 3 pricing is requested for abatement of asbestos containing mastics located within the Elevator Lobby's on floors 2 thru 14. In addition, an Alternate No. 5 is requested for the abatement of asbestos containing mastics located within the cafeteria (Front of the House).

Note: *Asbestos containing mastics exist under some wall partitions throughout the building – scheduled demolition may take place prior to abatement activities. Wall partitions that have not been demolished prior to commencement of abatement activities will have the asbestos mastics to remain in-place.*

E. Environmental Work Requirements

In addition to General Requirements, the following specific work procedures and site activities shall be followed for the Jefferson State Building.

1. The contractor shall prepare all necessary documentation required under applicable federal, state, and local law, regulations, and requirements for management of environmentally impacted media.
2. The Owner shall provide the cost of the first set of clearance sampling relating to the asbestos clearance air testing. If the Contractor fails to meet the clearance criteria the first time, the Contractor shall be assessed all charges for the owner's representative's time and analytical expenses to conduct further asbestos clearance testing.
3. The Contractor shall have access to the work site during normal operating hours, 7:00 a.m. - 5:00 p.m., Monday through Friday.

4. The Owner shall be responsible to provide all water and electricity to perform asbestos abatement and related work in accordance with the requirements of this specification and the contract documents.
5. The Contractor shall perform OSHA compliance personnel air monitoring during all asbestos abatement work.
6. The Contractor shall be responsible for the security of the site and the owner will not be responsible for lost or stolen items.

F. Site Inspection

Professional Environmental Engineers, Inc. (PE) was contracted by McClure Engineering to perform an asbestos containing materials (ACM) survey of flooring materials at the Jefferson State Office Building located at 205 Jefferson Street, Jefferson City, Missouri. The survey included all fourteen floors of the building and the basement.

Mr. Matt Honerkamp conducted the ACM survey with the assistance of the building's maintenance staff. The survey was non-destructive in nature. The survey was performed from August 9 through August 11, 2021, while the building was occupied.

G. Base Bid Scope of Work

The quantities for the base bid are estimated to reflect both visual determinations of ACMs as well as estimated quantities behind wall partitions and pipe chases. The summary of identified ACMs to be included within the base bid, quantities and work practices to be utilized are presented within **Table 1**.

Table 1
Base Bid - Scope of Work
Jefferson State Office Building

Location	Description	Estimated Quantity	Work Practice
Basement Mechanical Room			
Mechanical Room	Chiller Insulation	560 SF	SECTION 0160
Mechanical Room	Mudded Fittings on Chiller Pipes	26 Large Fittings (20 LF)	SECTION 0162
First Floor			
First Floor - East Kitchenette & Hallway	12" Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	552 SF	SECTION 0158

Location	Description	Estimated Quantity	Work Practice
First Floor – NE Corner	Flooring Beneath Carpet Squares (Mastic = 9% Chrysotile)	10,580 SF	SECTION 0158
First Floor - Mail Room	Mastic Beneath Carpet (Mastic = 8 % Chrysotile)	1,790 SF	SECTION 0158
First Floor - DSS Office	Mastic Beneath Carpet Squares (Mastic = 6% Chrysotile)	325 SF	SECTION 0158
First Floor - DESE Conference Room	Mastic Beneath Carpet Squares (Mastic = 9% Chrysotile)	760 SF	SECTION 0158
Second Floor			
Second Floor	Mastic Beneath Carpet (Mastic = 9% Chrysotile)	12,600 SF	SECTION 0158
Second Floor – Coffee Shop	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158
Third Floor			
Third Floor - Mechanical Room	12” Beige Pattern Floor Tile/Mastic (Mastic = 6% Chrysotile)	529 SF	SECTION 0158
Third Floor	Floor Mastic (Mastic = 7 % Chrysotile)	12,300 SF	SECTION 0158
Third Floor – Coffee Shop	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158
Fourth Floor			
Fourth Floor	Floor Mastic (Mastic = 8 % Chrysotile)	12,300 SF	SECTION 0158
Fourth Floor – Coffee Shop	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158

Location	Description	Estimated Quantity	Work Practice
Fifth Floor			
Fifth Floor - Mechanical Room	12” Beige Pattern Floor Tile/Mastic (Mastic = 9% Chrysotile)	378 SF	SECTION 0158
Fifth Floor – Coffee Shop	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158
Sixth Floor			
Sixth Floor – Kitchenette	12” Brown Floor Tile/Mastic (Mastic = 7% Chrysotile)	72 SF	SECTION 0158
Sixth Floor	Floor Mastic (Mastic = 8 % Chrysotile)	12,300 SF	SECTION 0158
Seventh Floor			
Seventh Floor	Floor Mastic Beneath Carpet (Mastic = 9 % Chrysotile)	12,300 SF	SECTION 0158
Seventh Floor – Coffee Shop	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158
Eighth Floor			
Eighth Floor	Mastic Beneath Carpet (Mastic = 6 % Chrysotile)	6,725 SF	SECTION 0158
Eighth Floor – Coffee Shop	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158
Ninth Floor			
Ninth Floor - Mechanical Room	12” Beige Pattern Floor Tile/Mastic (Mastic = 7% Chrysotile)	378 SF	SECTION 0158
Ninth Floor – Kitchenette	12” Brown Floor Tile/Mastic	72 SF	SECTION 0158

Location	Description	Estimated Quantity	Work Practice
	(Mastic = 8% Chrysotile)		
Tenth Floor			
Tenth Floor	Mastic Beneath Carpet Squares (Mastic = 8% Chrysotile)	12,300 SF	SECTION 0158
Tenth Floor – Kitchenette	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158
Eleventh Floor			
Floor	Mastic Beneath Carpet Squares (Mastic = 9% Chrysotile)	8,000 SF	SECTION 0158
Eleventh Floor - Mechanical Room	12” Beige Pattern Floor Tile/Mastic (Mastic = 6% Chrysotile)	378 SF	SECTION 0158
Eleventh Floor - Caucus Room Entrance	Mastic Beneath Old Partition Wall (Mastic = 7% Chrysotile)	Throughout Building	SECTION 0158
Eleventh Floor – Kitchenette	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158
Twelfth Floor			
Twelfth Floor	Mastic Beneath Carpet Squares (Mastic = 9% Chrysotile)	12,300 SF	SECTION 0158
Eleventh Floor – Coffee Shop	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	72 SF	SECTION 0158
Thirteenth Floor			
Thirteenth Floor - Mechanical Room	12” Beige Pattern Floor Tile/Mastic (Mastic = 6% Chrysotile)	378 SF	SECTION 0158
Thirteenth Floor – SE Office	Old Carpet/Mastic Beneath Partition Wall (Mastic = 7% Chrysotile)	Throughout Building	SECTION 0158

Location	Description	Estimated Quantity	Work Practice
Thirteenth Floor	Mastic Beneath Carpet Squares (Mastic = 9% Chrysotile)	12,300 SF	SECTION 0158
Thirteenth Floor – Kitchenette	12” White Pattern Floor Tile/Mastic (Mastic = 7% Chrysotile)	72 SF	SECTION 0158
Fourteenth Floor			
Eleventh Floor – Coffee Shop	12” Brown Floor Tile/Mastic (Mastic = 8% Chrysotile)	200 SF	SECTION 0158

Table 2
Alternate No. 3 – Elevator Upgrades Scope of Work
Jefferson State Office Building

Location	Description	Estimated Quantity	Work Practice
Second Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Third Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Fourth Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Fifth Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Sixth Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158

Location	Description	Estimated Quantity	Work Practice
Seventh Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Eighth Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Ninth Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Tenth Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Eleventh Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Twelfth Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Thirteenth Floor - Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158
Fourteenth Floor – Elevator Lobby	12” Brown Floor Tile/Mastic (Mastic = 6% Chrysotile)	300 SF	SECTION 0158

Table 3
Alternate No. 5 – Front of the House Café Scope of Work
Jefferson State Office Building

Location	Description	Estimated Quantity	Work Practice
First Floor - Kitchen Area	12” White Pattern Mastic	1,086 SF (includes Kitchen)	SECTION 0158

1.2. CONDUCT OF WORK

A. Premises

The Contractor's work will be confined to the property addresses where work is being conducted. The Contractor will be responsible to take all precautions necessary to limit access to work areas and to protect building's occupants, and any adjacent properties during the removal period.

B. Use of the Site

The Contractor shall confine operations at the site to the areas permitted under the Contract and indicated in the scope of work and specification. The Contractor will conform to site rules and regulations affecting the work while engaged in project construction including the following:

1. Do not unreasonably encumber the site with materials or equipment. The building will be restricted to those individuals performing asbestos abatement activities. Keep the site free from accumulation of waste, rubbish or construction debris.

2. Open fires will not be permitted within the building enclosure or on the premises.

3. Protect all property within the work site. All and any damage is to be repaired at the Contractor's expense.

4. Seal all openings through the walls where they are penetrated by ducts, pipes, conduits, or any other openings where the work being performed could cause adjacent areas or other areas of the building to be contaminated. The Contractor shall be liable for all costs incurred to correct and remove any contamination of other areas due to negligence for any reason. The Owner shall assume no additional costs or obligations for requirements contained in this paragraph. Work practices utilized to contain asbestos during the abatement shall conform, where applicable, to the precautions and procedures are described within these Specifications. All other work practices and procedures included in this specification shall apply unless waived in writing by the Owner or Owner representative.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0110 – PROJECT COORDINATION

PART 1 – GENERAL

1.1 GENERAL REQUREMENTS

A. Coordination

Coordination with the Owner shall be made through the owner's representative to assure compliance from the Contractor in completing the work with a minimum of interference and inconvenience. The Contractor shall submit regulatory notification information to the Owner's representative for review. The Contractor shall submit schedules and plans to the Owner's representative to do the work and shall notify the representative at least two days in advance of changes and/or revisions in the schedule. The Contractor shall provide all labor and materials required to keep pace with the specified schedule requirements.

B. Access

The Contractor shall have access to the work site during normal operating hours, 7:00 a.m. - 5:00 p.m., Monday through Friday. Work hours other than as specified above shall be coordinated with building owner, general contractor and Owner's representative.

C. Summary

This section specifies administrative and supervisory requirements needed for project coordination:

1. Progress Meetings
2. Pre-Construction Meeting
3. Contractor Daily Log

1.2 PROGRESS MEETINGS

A. The Contractor shall attend regularly scheduled meetings with the owner's representative. These meetings shall include: review of overall project status and work schedules; memorandum on required coordination, activities, notices and reports; reporting unusual events and accidents; submissions of technical data on materials, products, personnel, governing regulations, and safety equipment required by the Contract Documents; inspection and testing requirements; purchases and deliveries; space and access limitations; manufacturer's recommendations; compatibility of materials; acceptability of substitutes; possible conflicts and compatibility problems; and performance requirements. The Contractor shall also keep the owner's authorized

representative advised of all abatement activities during the project. The Owner or his authorized representative shall have the right to restrict the Contractor's work to comply with their proper operation and function of the overall project.

1.3 PRE-CONSTRUCTION MEETING

A. Attendance

The Contractor and supervisory personnel, who provide on-site direction of the abatement activities, must attend a pre-start or pre-construction meeting. The owner's representative will be present at this meeting.

B. Information provided by the Contractor

Three (3) working days prior to this meeting, the Contractor shall provide all submittals as required by this specification for the asbestos abatement. In addition, the Contractor shall be prepared to provide detailed information concerning:

1. Preparation of the Work Area
2. Personal protection equipment including respiratory protection and protective clothing
3. Employees, including the Project Manager, who will participate in the project, including delineation of experience, training and assigned responsibilities during the project
4. Decontamination procedures for the abatement personnel, Work Area and equipment
5. Abatement methods and procedures to be used
6. Required OSHA air monitoring procedures and sampling protocols
7. Procedures for handling and transporting waste materials
8. Procedures for final decontamination and cleanup
9. A sequence of work and performance schedule

1.4 CONTRACTOR DAILY LOG

The Contractor shall maintain a daily log documenting the following items:

1. Meetings; purpose, attendees, brief discussion
2. Site visitations
3. Sign-in sheet (workers, visitors)
4. OSHA air monitoring tests and results
5. Regulatory inspections
6. Daily work schedule & activity summary
7. Containment sign-in sheets

A copy of the Contractor sign-in sheet, daily log of activities and OSHA air monitoring results will be given weekly to the owner's representative.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0120 – DEFINITIONS AND STANDARDS

PART 1 – GENERAL

1.1 DEFINITIONS

A. **General Explanation:** A substantial amount of specification language constitutes definitions for terms found in other contract documents, including the drawings. (Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon). Certain terms used in contract documents are defined in this article. Definitions and explanations of this section are not necessarily either complete or exclusive, but are general for the work to the extent they are not stated more explicitly in another element of contract documents. Other definitions are included in sections where applicable.

B. **General Requirements:** The provisions or requirements of Divisions 1 and 2 apply to entire work of Asbestos Abatement and, where so indicated, to other elements which are included in the project.

C. **Indicated:** The term "Indicated" is a cross-reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in contract documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated," it is for the purpose of helping readers locate a cross-reference, and no limitation of location is intended except as specifically noted.

D. **Directed, Requested, etc.:** Where not otherwise explained, terms such as "directed," "requested," "authorized," "selected," "approved," "required," "accepted," and "permitted" mean "directed by Owner's representative" and similar phrases. However, no such implied meaning will be interpreted to extend the Owner's representative's responsibility into Contractor's responsibility for construction supervision.

E. **Approve:** Where used in conjunction with the Owner's representative's response to submittals, requests, applications, inquiries, reports and claims by Contractor, the meaning of the term "approved" will be held to limitations of Owner's representative's responsibilities and duties as specified in General, Special and Supplementary Conditions. In no case will "approval" by Contracting Officer be interpreted as a release of Contractor from responsibilities to fulfill requirements of contract documents.

F. **Project Site:** The term "project site" is defined as the space available to Contractor for performance of the work, either exclusively or in conjunction with others performing other work as part of the project.

G. **Furnish:** Except as otherwise defined in greater detail, term "furnish" is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.

H. **Install:** Except as otherwise defined in greater detail, term "install" is used to describe operations at the project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations, as applicable in each instance.

I. **Provide:** Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.

J. **Installer:** The term "installer" is defined as the entity (person or firm) engaged by the Contractor, or its subcontractor or sub-subcontractor for performance of a particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (Installers) be expert in operations they are engaged to perform.

K. **Testing Laboratory:** The term "testing laboratory" is defined as an independent entity of the Contractor engaged to perform specific inspections or tests of the work, either at the project site or elsewhere; and to report and (if required) interpret results of those inspections or tests. The testing laboratory shall be a current, proficient, participant in National Institute for Occupational Safety and Health Proficiency Analytical Testing (NIOSH PAT) program, or be accredited by the required organizations (American Industrial Hygiene Association (AIHA) and the National Voluntary Laboratory Accreditation Program (NVLAP)).

L. **Owner's representative:** The owner's representative is the entity representing the owner for this project with the authority to stop the work upon verbal order if requirements of the contract documents are not met, or if the interests of the owner, safety of any person or the owner's property are jeopardized by the work. All references to Architect or Engineer in the contract documents shall in all cases refer to the owner's representative. The owner's representative will represent the owner during construction and until final payment is due. The owner's representative will advise and consult with the owner. The Owner's instructions to the Contractor shall be forwarded through the Owner's representative.

M. **Project Manager:** The Project Manager is the Contractor's representative at the work site. This person will generally be the competent person required by OSHA in 29 CFR 1926.

1.2 DEFINITIONS RELATIVE TO ASBESTOS ABATEMENT

A. **Aerosol:** A system consisting of particles, solid or liquid, suspended in air.

B. **Air Cell:** Insulation normally used on pipes and duct work that is comprised of corrugated cardboard which is frequently comprised of asbestos combined with cellulose or refractory binders.

C. **Air Filtration Device (AFD):** A local exhaust system, utilizing HEPA filtration capable of maintaining a negative pressure inside the work area and a constant air flow from adjacent areas into the work area and exhausting that air through HEPA filters outside the work area.

D. **Air Monitoring:** Measuring the fiber content of a specific volume of air.

E. **Amended Water:** Water to which a surfactant has been added to increase the surface tension too less than or equal to 35 dynes.

F. **Asbestos:** The asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite. For purposes of determining respiratory and worker protection, both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos. Chrysotile and amosite asbestos is present in the boiler insulation; chrysotile asbestos is in the pipe joint insulations, floor tile, mastics, etc.

G. **Asbestos-Containing Material (ACM):** Any material containing more than 1% by weight of asbestos of any type or mixture of types.

H. **Asbestos-Contaminated Material:** Any material, which is or is suspected of being or any material contaminated with an asbestos-containing material which is to be removed from a work area for disposal.

I. **Authorized Visitor:** The Owner's representative, testing lab personnel, the Architect/Engineer or a representative of any federal, state and local regulatory or other agency having authority over the project.

J. **Breathing Zone:** A hemisphere forward of the shoulders with a radius of approximately 9 to 12 inches.

K. **Ceiling Concentration:** The concentration of an airborne substance that shall not be exceeded.

L. **Certified Industrial Hygienist (CIH):** An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

M. **Clean Zone:** Areas outside of project scope that contains background levels of airborne particulate.

N. **Clearance Monitoring/Air Sampling:** Air Sampling conducted to verify that the clearance criteria have been achieved in compliance with applicable regulation and/or this specification.

O. **Compliance Air Sampling:** Air sampling conducted during the progress of work to verify airborne asbestos limits are not exceeded and that adequate respiratory protection measures are being used. Analysis by Phase Contrast Microscopy (PCM).

P. **Disposal Facility:** An off-site facility that receives for processing, to include recycling, reuse, recovery, incineration, treatment, land application, fuels recovery, dechlorination, stabilization, landfill, and/or disposal.

Q. **Full-Containment Work Area:** A Work Area which has been sealed, plasticized, and equipped with a Personnel Decontamination System, an Equipment Decontamination System and a Negative Pressure System.

R. **Critical Barrier:** Isolation barrier that isolates the work area from clean areas.

S. **Curtained Doorway:** A device to allow ingress or egress from one room to another while permitting one-way air movement between the rooms, typically constructed by placing three layered sheets of plastic over an existing or temporarily framed doorway. One sheet shall be secured at the top and left side, the second sheet at the top and right side, and the third sheet at the top. All sheets hang straight and maintain a seal over the doorway when not in use. Other effective designs are permissible.

T. **Curtained Doorway - One Way Type:** A device to allow ingress or egress from one room to another while permitting one-way air movement between the rooms, typically constructed by placing a sheet of plastic over an existing or temporarily framed doorway, securing at along the top, side and bottom of the doorway. A slit is provided in the plastic sheet and the edges are reinforced with duct tape. A second layer of plastic is placed on the dirty side of each doorway and secured at the top with weights applied to the bottom. Make-up air will flow through the doorway to the work area.

U. **Decontamination Zones:** Contained areas consisting of the vacuum zone and the shower/wet-cleaning zone arranged per Section 0185.

V. **Demolition:** The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.

W. Disposal Bag: 6-mil thick leak-tight plastic bags used for transporting asbestos waste from work site to the disposal site. Each is labeled per regulations as follows:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

and

RQ
HAZARDOUS SUBSTANCE
SOLID ASBESTOS
N.O.S.

X. Dust Controlled Work Area: A limited access work area typically used in large-scale glovebagging. This area is sealed, but not necessarily fully plasticized. This area is not equipped with a personnel decontamination system.

Y. Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.

Bridging encapsulant: an encapsulant that forms a flexible membrane on the surface of an in situ asbestos matrix.

Penetrating encapsulant: an encapsulant that saturates the in situ asbestos matrix to the substrate.

Removal encapsulant: a penetrating encapsulant specifically designed for removal of asbestos-containing materials.

Z. Encapsulation: Treatment of asbestos-containing materials, with an encapsulant to form an elastomeric, impact resistant membrane between the material and ambient air.

AA. Enclosure: The construction of an airtight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.

BB. Filter: A media component used to remove solid or liquid particles from varied media.

CC. Friable Asbestos Material: Material that contains more than 1.0% asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure.

DD. Glovebag Technique: A method for removing friable Asbestos Containing Material from HVAC ducts, short piping runs, valves, joints, elbows and other non-planar surfaces within a self-contained bag enclosure. The glovebag assembly is a manufactured or fabricated device consisting of a glovebag (typically constructed of 6-mil transparent polyethylene or polyvinylchloride plastic), two inward projecting long sleeves, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. All workers who are permitted to use the Glovebag Technique must be highly trained, experienced and skilled in this method.

EE. HEPA Filter: A High Efficiency Particulate Absolute (HEPA) filter capable of trapping and retaining 99.97% of fibers greater than 0.3 microns in length.

FF. HEPA Filter Vacuum Collection Equipment (or vacuum cleaner): High efficiency particulate air (absolute) filtered vacuum collection equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be of 99.97% efficiency for retaining fibers of 0.3 microns or larger.

GG. Limited-Containment Work Area: An isolated or controlled access Work Area is typically used with large-scale glovebagging and in the preparation of containment in contaminated areas. This area is sealed, but not necessarily fully plasticized. The area is not necessarily equipped with a Personnel Decontamination System connected directly to the Work Area but it is recommended. An Equipment Decontamination System is recommended but not mandatory. This area utilizes a negative pressure ventilation system.

HH. Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

II. Negative Pressure Ventilation System: A local exhaust system, utilizing HEPA filtration capable of maintaining a negative pressure inside the work area and a constant air flow from adjacent areas into the work area and exhausting that air through HEPA filters outside the work area.

JJ. Negative Pressure: Air pressure lower than surrounding areas, generally caused by exhausting air from a sealed space (work area).

KK. Personal Monitoring: Sampling of the asbestos fiber concentrations within the breathing zone of an employee.

LL. Plasticize: To cover floors, ceilings, and walls with plastic sheeting as herein specified.

MM. Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

NN. Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres. Shall be in accordance with OSHA Regulation 1910.1001(d), k OSHA regulation 1910.134 and ANSI Z88.2-1992. Respirators shall also be approved by NIOSH under the provisions of 30 CFR Part II.

OO. Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period.

PP. Trace Fiber Fixation: Encapsulation procedure conducted on all surfaces from which asbestos has been removed to permanently seal any remaining ACM.

QQ. Visible Emissions: Any emissions containing particulate material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

RR. Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos contaminated waste.

SS. Work Area: The area where asbestos related work or removal operations are performed which is defined and/or isolated to prevent the spread of asbestos dust, fibers or debris, and entry by unauthorized personnel. Work area is a Regulated Area as defined by 29 CFR 1926 as designated on drawings.

TT. Visible Debris: Any particulate asbestos material or residue that is visually detectable on a surface without the aid of instruments.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0125 – CODES AND REGULATIONS

PART 1 – GENERAL

1.1 DESCRIPTION

This section sets forth governmental regulations and industry standards, which are included and incorporated herein by reference and made a part of the specification. The Contractor is responsible for acquiring applicable permits for completion of work and shall send copies of all permits to the Owner's representative. The Contractor shall also meet all requirements of federal, state and local regulations.

A. General Applicability of Codes, Regulations, and Standards

Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith.

B. Contractor Responsibility

The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, state, and local regulations. The Contractor shall hold the Owner and owner's representative harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

C. Federal Requirements

Federal requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials include, but are not limited to, the following:

1. U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), including but not limited to:

Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations

Respiratory Protection
Title 29, Part 1910, Section 134 of the Code of Federal Regulations

Occupational Safety and Health Administration (OSHA) 29 CFR 1926.62 – Lead Standard

Construction Industry
Title 29, Part 1926, of the Code of Federal Regulations

Hazard Communication
Title 29, Part 1910, Section 1200 of the Code of Federal Regulations

Specifications for Accident Prevention Signs and Tags
Title 29, Part 1910, Section 145 of the Code of Federal Regulations

2. U.S. Environmental Protection Agency
Asbestos Abatement Project Rule
40 CFR Part 762, Subpart G of the Code of Federal Regulations

Regulation for Asbestos
Title 40, Part 61, Subpart A of the Code of Federal Regulations

National Emission Standard for Asbestos (NESHAPS)
Title 40, Part 61, Subpart M (Revised Subpart B)
of the Code of Federal Regulations

Resource Conservation and Recovery Act
Title 40, Part 261 of the Code of Federal Regulations

3. U.S. Department of Transportation (DOT), including but not limited to:
Hazardous Substance Title 29, Part 171 and 172 of the Code of Federal Regulations

4. **State Requirements, which govern asbestos abatement and hazardous waste transportation and disposal** work including but are not limited:
Missouri Department of Natural Resources (MDNR)
Missouri Department of Health 19 CSR 30-70.600-630 Lead Regulations.

5. **Local Requirements** - Abide by all local requirements that govern asbestos, lead abatement and underground storage tank removal work or hauling and disposal.

PART 2 – PRODUCTS (Not Used)
PART 3 – EXECUTION (Not Used)

SECTION 0130 – SUBMITTALS AND NOTIFICATIONS

PART 1 – GENERAL

1.1 QUALIFICATIONS

The Owner requires qualified contractors and subcontractors to perform all work under this contract. The Owner reserves the right to make final approval of the Contractor's qualifications for performing this work. To be considered "qualified" for performance of asbestos, lead abatement projects, the Contractor and his subcontractors must fulfill the following:

A. Registration

The Contractor and subcontractors must be registered per Section 0125 of this specification.

B. Worker Training

In accordance with 29 CFR 1926 and the Missouri Department of Natural Resources (MDNR), all workers must be trained in an approved class in the dangers inherent in handling asbestos, lead, proper work procedures, and personal and area protective measures. MDNR certificates for each worker, supervisor, or management person involved in the abatement project must be submitted to the owner's representative. The topics covered in the course must include the following (at a minimum):

- Methods of recognizing asbestos
- Health effects associated with asbestos
- Relationship between smoking and asbestos in producing lung cancer
- Nature of operations that could result in exposure to asbestos
- Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:
  - Engineering Controls
  - Work Practices
  - Respirators
  - Housekeeping Procedures
  - Hygiene Facilities
  - Protective Clothing
  - Decontamination Procedures
  - Emergency Procedures

- Waste Disposal Procedures
- Purpose, proper use, fitting, instructions, and limitations of respirators as required by 29 CFR 1910.134
- Appropriate work practices for the work to be conducted
- Requirements of medical surveillance program
- Review of 29 CFR 1926
- Negative air systems
- Work practices including hands-on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area

C. Superintendent Qualifications

The asbestos abatement site superintendent shall be in primary charge of the project and shall be available at all times during the abatement project. The superintendent shall also be on site at all times unless a competent supervisor is present on site, as determined by the owner's environmental representative. The superintendent shall have a minimum of five years of experience in asbestos abatement, with at least three years experience as site superintendent. Asbestos abatement site superintendents shall be licensed, accredited, and/or trained in accordance with applicable federal, state, local, and other requirements.

D. Medical Examinations

The Contractor must provide medical examinations for all on-site workers. Examination shall, as a minimum, meet OSHA requirements as set forth in 29 CFR 1926. In addition, provide an evaluation of the individual's ability to work in environments capable of producing heat stress in the worker.

1.2 SUBMITTALS WITH BIDS

The Contractor must document and submit the following information with his bid:

A. Statement of Qualifications

1. Recent project references consisting of names and phone numbers of at least three clients. The client references should include building owners or property managers for abatement projects of similar or greater size and complexity.

2. Company history/profile.

3. Resume, qualifications, certifications, training and licenses of proposed project site superintendent(s) proposed for the project. (Do not send information for workers in the qualifications package).

4. List and explanation of all OSHA/EPA/State environmental regulatory violations of any type in the past 5 years, including contact person and telephone number of the regulatory agency. If no violations occurred, a written certification must be made to this effect and included in the qualification package.

5. Documentation from the worker compensation carrier of the company's experience modification rating for the last three years (2019, 2020 and 2021).

6. A listing of all legal judgments and settlements in which the Contractor was found guilty or liable, or they or their insurance carriers made any settlement or other payments associated with the claim.

7. Evidence that the Contractor maintains or holds all applicable licenses.

8. Evidence that the Contractor is capable of obtaining sufficient insurance and bonding for the project.

1.3 POST AWARD SUBMITTALS

The Contractor shall submit upon notification of award of this contract the following information within 10 days:

A. Project Schedule: The plan of activities to be used to conform to this specification and contract.

B. Certificate of Worker Acknowledgment: A signed copy of the Certificate of Worker's Acknowledgment found at the end of this section for each worker who is to be at the job site or entering the work area (see Attachment 1).

C. Training Program: A list of employees and the MDNR worker/supervisor training certificates for each on-site individual.

D. Report from Medical Examination: A report from a medical examination conducted within last 12 months as part of compliance with OSHA medical surveillance requirements for each worker who is to enter the work area. Submit, at a minimum, for each worker the following:

1. Name and Social Security Number.

2. Physicians Written Opinion from examining physician including at a minimum the following:

   - Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.

- Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.

- Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.

- Copy of information that was provided to physician in compliance with 29 CFR 1926.

- Statement that worker is able to wear and use the type of respiratory protection proposed for the project, and is able to work safely in an environment capable of producing heat stress in the worker.

E. **Product Data:** Safety Data Sheets (SDSs) sheets shall be provided for the following materials: aerosol spray adhesives, mastic removers, amended water solutions, and encapsulants.

G. **Respiratory Protection Program:** Submit level of respiratory protection intended for each operation required by the project.

H. **Health and Safety Plan:** The Contractor shall submit his health and safety plan, including personnel protection guidelines, emergency procedures, and contingency plan.

I. **Utilities:** Utility needs, necessary connections and locations for equipment to be used.

J. **Subcontractors:** The successful Contractor must submit name and qualifications and certification for any subcontractors and analytical laboratory to be utilized.

K. **Insurance:** The Contractor involved in abatement activities will be required to demonstrate adequate insurance coverage for the activities they perform. Contractors should be prepared to demonstrate coverage or obtain coverage for all risks associated with the abatement activities, including but not limited to worker's compensation, general liability, pollution liability, specific toxic substance liability, and other insurance, as applicable to the general partner's owner's representative or Contractor role and responsibilities. Acceptable confirmation of the Contractor(s) insurance coverage (e.g., insurance certificate) should be provided to the owner prior to contract execution. The Contractor shall be prepared to provide complete copies of their insurance policies upon request. In all cases, the approved abatement Contractor shall provide insurance certificates naming the partnership and any other applicable entity as additional insured prior to beginning work on the project.

L. Licenses, Permits and Registrations: Copies of all State and local licenses and registrations necessary to carry out the work of this contract.

M. Waste Disposal: Copy of state or local license for waste hauler. Name, address, and identification number of disposal sites for all asbestos wastes.

1.4 NOTICES

A. Requirements

1. The Contractor will prepare and submit all information required for notification prior to project start-up. No site work or demolition shall take place until approval is given.

2. The owner's representative must first approve any waivers requested by the Contractor from the regulatory requirements.

B. Prior to Disposal of the Asbestos Waste:

1. The Contractor shall provide the name and address of the disposal sites for all special/hazardous/asbestos wastes.

2. The Contractor shall provide a copy of all waste profiles.

3. The Contractor shall indicate means of transportation to the waste site special/hazardous/asbestos waste facilities.

4. The Owner shall provide laboratory results of asbestos sample analysis if needed by Contractor.

1.5 PERMITS

The Contractor shall obtain construction permits, where applicable, specifically for asbestos abatement.

1.6 LICENSES

The Contractor shall maintain current licenses as required by the MDNR and MDOH for the removal, transporting, disposal or other regulated activity relative to the work of this contract.

1.7 POSTING AND FILING OF REGULATIONS

The Contractor shall maintain a copy of applicable Federal, State and local regulations on the project site.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0135 – TESTING LABORATORIY SERVICES

PART 1 – GENERAL

1.1 DESCRIPTION

A. Air Monitoring

This section describes air monitoring to be carried out by the owner's representative to verify that the building air beyond the work area, outside environment and within the work area remain below specified limits. This section also sets forth-airborne fiber levels both inside and outside the work area as action levels, and describes the action required by the Contractor if an action level is met or exceeded.

1. Should any of the action limits be exceeded, the Contractor shall immediately cease asbestos abatement activities until the fault is corrected. Work shall not recommence until authorized by the Owner's representative. Air monitoring required by OSHA is the responsibility of the Contractor.

2. The owner's representative will monitor airborne fiber counts in the work area decontamination zones and clean area. The purpose of this air monitoring will be to detect airborne fiber counts which may significantly challenge the integrity of the work area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.

3. To determine if the elevated airborne fiber counts encountered during abatement operations have been maintained at an acceptable level and before the space is released and initial barriers are removed, the owner's representative will sample and analyze air per Section 0195.

4. The owner's representative may conduct additional compliance/certification air monitoring throughout the course of the project to verify the validity of Contractor's sample results.

B. Airborne Fiber Count Ceilings: Analysis by PCM - NIOSH 7400

Stop Action Level (f/cc)	Immediate Stop Level (f/cc)	Minimum Respirator	Minimum Protection Factor
0.1	1.0	Half-face	10
0.5	5.0	PAPR	100
1.0	10.0	Type C Supplied Air	1,000

1. Inside Work Area: Maintain an average airborne count in the work area in accordance with respiratory protection used noted above. If the fiber counts rise

above this figure for any sample taken, revise work procedures to lower fiber counts. If the fiber count exceeds allowable limits, stop all work, leave negative air system in operation undertake corrective action, and notify owner's representative. Do not recommence work until authorized in writing by owner's representative.

2. If airborne fiber counts exceed Immediate Stop Level given above for type of respiratory protection in use for any period of time, cease all work except corrective action. Do not recommence work until fiber counts fall below Stop Action Level given above for the type of respiratory protection in use. After correcting cause of high fiber levels, do not recommence work for 24 hours unless otherwise authorized, in writing, by owner's representative.

3. Outside Work Area: If any air sample taken outside of the work area exceeds the baseline or 0.01 fibers/cubic centimeter (f/cc), whichever is higher, immediately stop all work. If this air sample was taken inside the building and outside of critical barriers around the work area, immediately erect new critical barriers to isolate the affected area from the balance of the building.

4. Analytical Procedure: Sampling and analysis shall be as per NIOSH 582 (7400 Method). The following procedure will be used to resolve any disputes regarding fiber types when a project has been stopped due to excessive airborne fiber counts in any area. "Airborne Fibers" referred to above include all fibers regardless of composition as counted in the NIOSH 582 (7400 Method). If work has stopped due to high airborne fiber counts and the Contractor disputes the work stoppage, air samples will be secured in the same area by the owner's representative for analysis by transmission electron microscopy. The costs for all sampling required to resolve disputes are the responsibility of the Contractor.

1.2 SCHEDULE OF AIR SAMPLES

A. Before Start of Work (Baseline) Samples

The owner's representative will secure the following air samples to establish a baseline before start of work:

Location	Number of Samples	Analytical Procedure	Detection Limit (f/cc)	Minimum Volume (Liters)	Rate (Liters/ Minute)
Per Area	5	PCM	0.01	1200	2-10

Baseline is an action level expressed in fibers per cubic centimeter, which is the highest of the samples collected on cellulose ester filters, or 0.010 fibers per cubic centimeter. The number and frequency of baseline samples may be modified at the Owner's discretion.

B. Daily Samples

From start of site work through the work of Section 0190 – Project Decontamination, the owner's representative shall take samples on a daily or as needed basis. Samples will be collected on 25-mm cassettes with the following filter media: PCM: 0.8 micrometer mixed cellulose ester.

Location Sampled	Number of Samples	Analysis Method	Sampling Sensitivity (f/cc)	Minimum Volume (Liters)	Rate (LPM)
Clean Room	1	PCM	0.010	900	2-10
Critical Barriers	1	PCM	0.010	900	2-10
Inside Work Area	1	PCM	0.010	900	2-10
Negative Air Output	1	PCM	0.010	900	2-10

The number and frequency of samples may be modified at the Owner's discretion. If airborne fiber counts exceed allowed limits, additional samples will be taken as necessary to monitor fiber levels.

C. Clearance Samples

All final clearance samples shall be collected under dry conditions using aggressive techniques. Aggressive techniques should be conducted in accordance with Appendix M of the 1985 United States Environmental Protection Agency document "*Guidance for Controlling Asbestos-Containing Materials in Buildings*" (the Purple Book). All barriers, except critical barriers, shall be removed for final clearance, unless the abatement area is not isolated from adjacent areas, or aggressive techniques are likely to contaminate adjacent areas.

A minimum of two clearance samples shall be collected for each area clearance when the activities involve gross abatement of asbestos materials. For gross abatement areas greater than 5,000 square feet or 50,000 cubic feet, an additional sample is required for each additional 2,500 square feet or 25,000 cubic feet, whichever is more stringent (e.g., an enclosure of 10,000 square feet or 100,000 cubic feet would require 7 clearance samples).

The clearance criterion for all PCM clearance air samples is less than 0.01 fibers/cubic centimeter.

1.3 TESTING/MONITORING

A. Laboratory Testing

1. The environmental contractor shall provide the owner's representative with laboratory certifications.

2. The services of a testing laboratory shall be employed by the Contractor to perform laboratory analysis of the OSHA compliance air samples. A complete record, certified by the testing laboratory, of all Contractor air monitoring tests and results will be furnished to the owner's representative.

3. Written Reports: Copies of all OSHA compliance air monitoring test results will be posted at the job site on a daily basis.

B. Contractor Testing

The Contractor may conduct his own air monitoring and laboratory testing to determine airborne fiber counts both inside and outside the work area. The cost of such air monitoring and laboratory testing will be at the Contractor's expense.

C. Contractor Personal Monitoring

The Contractor shall perform air monitoring as required to meet OSHA requirements for maintenance of Time Weighted Average (TWA) fiber counts for types of respiratory protection provided. Data from this sampling will be provided to owner's representative verbally, on a daily basis to verify adequate respiratory protection. A complete record of all air monitoring and results will be provided to the owner's representative on laboratory letterhead on a weekly basis. Contractor must retain unused portions of all samples until project closeout (Section 0200).

The owner's representative has the right to perform personnel monitoring whenever it is considered necessary to document exposures to the workers and/or the general public. Personnel air monitoring may be used to supplement area monitoring inside the enclosure but may not be used in lieu of area monitoring required inside the enclosure.

D. Authority to Stop Job Activities

The owner's representative shall have the authority to stop any job activities that are not being performed satisfactorily or in accordance with applicable regulations and the requirements of this specification, without additional charges by the Contractor to the

owner's representative, or the Building Owner. This shall not relieve the Contractor from liability for violating these regulations or guidelines. The owner's representative is relying on the Contractor's expertise in the abatement of asbestos-containing waste materials. The Contractor shall be responsible for knowing these laws and regulations, and shall, at all times, comply with them.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0140 – TEMPORARY FACILITIES AND UTILITIES

PART 1 – GENERAL

1.1 DESCRIPTION OF REQUIREMENTS

The Contractor shall provide temporary connection to existing building utilities or provide temporary facilities as required herein or as necessary to carry out the work.

PART 2 – PRODUCTS

2.1 PRODUCTS

A. Materials and Equipment

The Contractor shall provide new or used materials and equipment that are undamaged and in serviceable condition. The Contractor shall provide only materials and equipment that are recognized as being suitable for the intended use, by compliance with appropriate standards.

1. Scaffolding

    a. Provide all scaffolding, ladders and/or staging, etc., as necessary to accomplish the work of this contract. Scaffolding may be of suspension type, or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding shall comply with all applicable OSHA provisions.

    b. Equip rungs of all metal ladders, etc., with an abrasive non-slip surface.

    c. Provide a nonskid surface on all scaffold surfaces subject to foot traffic.

2. Water Service

    a. Temporary Water Service Connection: All connections to the water system shall be at a location designated by the owner's representative and shall include backflow protection. Valves shall be temperature and pressure rated for operation of the temperatures and pressures encountered. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment. Leaking or dripping valves shall be piped to a drain or located over an existing sink or grade so that water will not damage existing finishes or equipment.

b. Water Hoses: Employ heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system to provide water into each work area and to each Decontamination Unit. Provide fittings as required to allow for connection to existing wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles and equipment.

3. Electrical Service

a. General: Comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service.

b. Temporary Power: Provide service from a distribution panel designated by the owner's representative. Subpanel and disconnect shall be sized and equipped to accommodate all electrical equipment required for completion of the work.

c. Voltage Differences: Provide identification warning signs at power outlets which are other than 110-120 volt power. Provide polarized outlets for plug-in type outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets.

d. Ground Fault Protection: Provide all receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment.

e. Electrical Power Cords: Use only grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Use single lengths or use waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas of work.

f. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage indicated or required for adequate illumination. Protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations. Provide exterior fixtures where fixtures are exposed to the weather or moisture.

4. First Aid

First Aid Supplies: Comply with governing regulations and recognized recommendations within the construction industry. This is to be included in Contractors Health and Safety Plan.

PART 3 – EXECUTION

3.1 EXECUTION

A. General: Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with the performance of the Work. Relocate, modify and extend services and facilities as required during the course of work so as to accommodate the entire work of the project.

1. Scaffolding

    a. During the erection and/or moving of scaffolding, care must be exercised so that the polyethylene floor covering is not damaged.

    b. Clean as necessary debris from non-slip surfaces.

    c. At the completion of abatement work, clean all construction aids within the work area, wrap in one layer of 6-mil polyethylene sheet and seal before removal from the work area.

2. Water Service

    a. General: Provide temporary water connections (at Contractor's expense) to a potable water supply. Supply hot and cold water to the Decontamination System in accordance with Section 0185.

    b. Maintain hose connections and outlet valves in leak proof condition. Where spillage or leakage might damage finish work below an outlet, provide a drip pan of suitable size to minimize the possibility of water damage. Drain water promptly from pans as it accumulates.

3. Electrical Service

    a. General: Provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of work during the construction period. Install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of work.

        i. Power Distribution System: Provide circuits of adequate size and proper characteristics for each use. In general, run wiring

overhead, and rise vertically where wiring will be least exposed to damage from construction operations.

ii. Ground Fault Circuit Interrupters (GFCI) shall protect all electrical power used in work areas.

4. Temporary Lighting

a. Provide lighting where natural lighting or existing building lighting does not meet the adequate light level:

b. Provide lighting in the Decontamination Unit as required.

5. Temporary Heat

a. General: Provide temporary heat where indicated or needed for performance of the Work.

b. Maintain a minimum temperature of 70 degrees F in the shower area of the decontamination unit.

6. Fire Extinguishers

Comply with the applicable recommendations of NFPA Standard 10 - "Standard for Portable Fire Extinguishers." Locate fire extinguishers where they are most convenient and effective for their intended purpose, but provide not less than one extinguisher in each Work Area, in Equipment Room, and one outside Work Area (or 5000 feet of work area) in Clean Room.

7. Sanitary Facilities

If necessary, the Contractor will provide one self-contained chemical toilet unit outside the work area for each 10 workers. Facilities shall be maintained throughout the duration of the site work.

SECTION 0145 – NEGATIVE PRESSURE SYSTEMS

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

A. Submittal Requirements

Before start of work, the Contractor shall submit design of negative air system to the Owner's representative for review. The Contractor shall not begin work until the submittal is returned with the Owner's representative's action stamp indicating that the submittal has been approved for unrestricted use. The Contractor shall include in the submittal, at a minimum, the following:

1. Number of air filtration devices (AFD) required to meet the 4 air changes/hour and the calculations necessary to determine the number of machines.

2. Description of projected air flow within work area and methods required to provide adequate air flow in all portions of the work area.

3. Description of methods of testing for correct airflow and pressure differentials.

4. Manufacturer's product data on the machines to be used and date verification of HEPA filters employed.

5. Location of the machines in the work space.

6. Method of supplying adequate power to the machines and designation of building electrical panel(s) which will be supplying the power.

7. Description of work practices to insure that airborne fibers travel downstream from workers.

8. Manufacturer's product data on equipment used to monitor pressure differential between inside and outside of work area.

B. Quality Assurance

The Contractor shall field test HEPA filters daily by smoke detection method to confirm proper operation.

The Contractor shall monitor pressure differential across Decontamination Unit by smoke detection method on a daily basis.

PART 2 – PRODUCTS

2.1 GENERAL

A. Negative Air Filtration Devices (AFD) - General: The Contractor shall supply the required number of AFD units to the site in accordance with these specifications. Each unit shall include the following:

1. Cabinet: Constructed of steel or other durable materials able to withstand damage from rough handling and transportation. The width of the cabinet should be less than 30 inches to fit through standard-size doorways. Cabinet shall be factory sealed to prevent asbestos-containing dust from being released during use, transport, or maintenance. Access to and replacement of all air filters shall be from intake end. Unit shall be mounted on casters or wheels.

2. Fans: Rate capacity of fan according to usable air-moving capacity under actual operating conditions.

3. HEPA Filters: The final filter shall be the HEPA type. The filter media (folded into closely pleated panels) must be completely sealed on all edges with a structurally rigid frame.

    a. A continuous rubber gasket shall be located between the filter and the filter housing to form a tight seal.

    b. Each filter shall be individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3 um dioctylphthalate (DOP) particles. Each filter shall bear a UL586 label to indicate ability to perform under specified conditions.

    c. Each filter shall be marked with: the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of test air flow.

4 . Prefilters: The prefilters protect the final filter by removing the larger particles, are required to prolong the operating life of the HEPA filter. Two stages of prefiltration are required. The first-stage prefilter shall be a low-efficiency type (e.g., for particles 10 um and larger). The second-stage (or intermediate) filter shall have a medium efficiency (e.g., effective for particles down to 5 um). Prefilters and intermediate filters shall be installed either on or in the intake grid of the unit and held in place with special housings or clamps.

5. Instrumentation: Each unit shall be equipped with a manometer to measure the pressure drop across filters and indicate when filters have become loaded and need to be changed. A table indicating the usable air-handling capacity for various static pressure readings on the manometer shall be affixed near the gauge for reference, or the manometer reading indicating at what point the filters should be changed, noting Cubic Feet per Minute (CFM) air delivery at that point. Provide units equipped with an elapsed time meter to show the total accumulated hours of operation.

6. Safety and Warning Devices: The unit shall have an electrical (or mechanical) lockout to prevent fan from operating without a HEPA filter. Units shall be equipped with automatic shutdown system to stop fan in the event of a major rupture in the HEPA filter or blocked air discharge. Warning lights are required to indicate normal operation, too high a pressure drop across the filters (i.e., filter overloading), and too low of a pressure drop (i.e., major rupture in HEPA filter or obstructed discharge).

7. Approved Electrical Components: The electrical components shall be approved by the National Electrical Manufacturers Association (NEMA) and Underwriter's Laboratories (UL). Each unit shall be equipped with overload protection sized for the equipment. The motor, fan, fan housing, and cabinet shall be grounded.

PART 3 – EXECUTION

3.1 GENERAL

A. Pressure Differential

Provide a fully operational negative air system within the work area maintaining continuously a pressure differential across work area. Demonstrate to the Owner’s representative the pressure differential by use of smoke tube testing.

B. Monitoring

At the beginning and end of each work day, test the pressure differential between the work area and the outside of the building by use of smoke tube testing.

C. Air Movement Calculations

Determine the number of AFD Units needed to achieve four air change/hour rate. Capacity of a unit for purposes of this section is the capacity in cubic feet per minute with fully loaded filters (pressure differential which causes loaded filter warning light to

come on) in the machines labeled operating characteristics (assume 75% operating efficiency).

Number of AFDs needed:

$$\frac{\text{Ventilation Requirement (CFM)}}{\text{Capacity of Unit with Loaded Filters (CFM)} \times 0.75}$$

Have available a minimum of one (1) additional unit as a backup in case of equipment failure or machine shutdown for filter changing.

D. Location of AFD Units

Locate the AFD unit(s) so that makeup air enters work area primarily through supplemental makeup air inlets and decontamination facilities, and traverses work area as much as possible. This may be accomplished by positioning the exhaust unit(s) at a maximum distance from the worker access opening or other makeup air sources.

E. Venting

Vent to the outside of the building.

F. Supplemental Makeup Air Inlets

Provide where required for proper air flow through the work space in locations approved by the owner's representative dampered inlets that allow air from outside the building into the work area. Locate makeup air inlets as needed to achieve air flow across work area. Cover air inlets with flaps to reseal automatically if the negative pressure system should shut down for any reason.

G. Electrical Service

Each AFD unit shall be serviced by a dedicated circuit with overload device tied into an existing building electrical panel which has sufficient spare capacity to accommodate the load. All electrical supply to the work areas will be protected by a Ground Fault Circuit Interrupter (GFCI).

H. Testing the System

Test negative pressure system before any asbestos-containing material is wetted or removed. After the work area has been prepared, the decontamination facility set up, and the exhaust unit(s) installed, start the unit(s) (one at a time). Demonstrate operation and testing of negative pressure system, air flow and pressure differential to the Owner's representative:

1. Plastic barriers and sheeting move lightly in toward work area,

2. Curtain of decontamination units move lightly in toward work area,

3. There is a noticeable movement of air through the decontamination unit. Use smoke tube daily to demonstrate air movement from Clean Room to Shower Room, from Shower Room to Vacuum Zone, and from Vacuum Zone to Work Area,

4. Use smoke tubes to demonstrate a positive motion of air across all areas in which work is to be performed.

I. Negative Pressure System

Modify the negative pressure system as necessary to successfully demonstrate the above.

J. Use of System during Abatement Operations

1. Start AFD units before beginning work (before any asbestos-containing material is disturbed). After abatement work has begun, run units continuously to maintain a constant negative pressure until decontamination of the work area is complete.

2. Do not shut down negative air system during encapsulating procedures, unless authorized by the Owner's representative in writing.

3. Start abatement work at a location farthest from the AFD units and proceed toward them. If an electric power failure occurs, immediately stop all abatement work and do not resume until power is restored and AFD units are operating again.

4. At completion of abatement work, allow AFD units to run as specified under Section 0190, to remove airborne fibers that may have been generated during abatement work and cleanup and to purge the work area with clean makeup air. The units may be required to run for a longer time after decontamination if dry or only partially wetted asbestos material was encountered during any abatement work.

K. Dismantling the System

When the final inspection and the results of final air tests indicate that the area has been decontaminated, AFD exhaust units shall be removed from the work area. Before removal from the work area, remove and properly dispose of pre-filter, and seal intake to the AFDs with 6-mil polyethylene to prevent environmental contamination from the filters.

SECTION 0150 – LOCAL AREA PROTECTION

PART 1 – GENERAL

1.1 DESCRIPTION

The local area is any area adjacent to the work area that is affected by this project. It includes:

- Adjacent buildings
- Staging and storage areas
- Areas isolated by critical barrier

1.2 SUBMITTALS

A. Standard Operating Procedures

B. Safety Plan with emergency phone numbers of fire department, rescue, hospital and ambulance services

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 GENERAL

A. Contact the fire control agencies to review procedures prior to start of work.

B. Contact the hospital facility to review procedures prior to start of work.

SECTION 0158 – FLOOR TILE AND MASTIC REMOVAL

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

A. Meet the requirements of Federal, State and Local regulations. A minimum of two certified asbestos workers shall perform the abatement of asbestos containing floor tiles and mastics in compliance with OSHA 29 CFR 1926.1101.

B. Identify with Consultant all existing damages to property and/or equipment in the work area and record extent of damage prior to commencement of work.

C. Isolate (totally) the asbestos abatement area from the rest of the building.

D. Permit access to work area only through the decontamination system.

E. Construct temporary walls (if necessary) using 2' x 4' framework and 6-mil sheeting to enclose the area. The existing walls shall also be protected using 6-mil poly sheeting.

F. Identify with the owner's representative all equipment that must remain in operation within the work area. Isolate such equipment so that continued operation will not damage it or spread contamination.

G. Individually clean and seal all light fixtures, non-asbestos piping, doorways, windows, and any other non-portable items. All non-portable items that must remain in the work area will be cleaned and covered with two layers of 6-mil poly sheeting and sealed with duct tape.

H. Individually clean and seal all openings to other spaces, including penetrations through slabs, empty holes, holes accommodating cable, pipe, conduit, etc. with 6-mil poly held securely in place with duct tape. For smaller openings, silicone caulk firestop and expanding foam may be used.

I. A three-chambered decontamination system shall be installed with two layers of polyethylene sheeting and standard triple-flapped polyethylene curtains separating the work zone, the decon chambers, and the clean room.

J. Air filtration devices shall be installed using HEPA filters to provide negative air and to prevent the accumulation of airborne fibers per Section 0145 – Negative Pressure Systems. A minimum of four (4) air changes per hour will be required for the work space.

K. A pre-abatement inspection shall be conducted by the owner's representative and written authorization shall be given to the Contractor. If authorization is not given, a "punch list"

of discrepancies shall be provided to the Contractor to be cleared before written authorization is given to start work.

L. Workers shall wear double tyveks with no street clothing underneath. When exiting the work area, workers shall remove the outside tyvek suit in the work zone, step into the first decon chamber and remove the inside tyvek suit. The worker will be able to enter the second chamber and exit the decon unit. Respiratory protection shall be worn in accordance with OSHA 29 CFR 1926.1101 - Respiratory Protection for Asbestos.

M. ACM to be removed within limited containment shall be thoroughly wetted with amended water prior to abatement and removed utilizing manual methods.

N. If any breaches in the containment occur, all work inside shall stop and the containment shall be repaired before recommencing abatement.

O. The Asbestos Abatement Contractor shall request a presealant inspection by the owner's representative when all visible ACM is removed from the work area and surface cleaning (Section 0190) has been performed. If the visual inspection is unacceptable, a "punch list" of discrepancies to be cleared will be provided before written authorization to proceed is given per Section 0190 - Project Decontamination.

P. When written authorization has been given, the entire work area shall be sprayed with an approved encapsulant prior to clearance air sampling.

Q. Clearance air sampling shall be conducted by the owner's representative in accordance with Section 0135 - Test Laboratory Services and Section 0195 - Work Area Clearance. Upon receipt of work area clearance results, the Contractor shall complete the containment area per Section 0200 – Project Closeout.

R. Upon receipt of acceptable work area clearance results, the Contractor shall complete the containment tear down and cleaning per Section 0200 – Project Closeout.

S. All asbestos containing materials removed from the work area shall be properly bagged, labeled, and disposed as asbestos waste in an approved landfill. The Contractor shall provide all required manifests and receipts (Section 0230).

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0160 – FULL CONTAINMENT

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

A. Contractor shall meet the requirements of Federal , State and Local regulations.

B. Identify with Consultant all existing damages to property and/or equipment in the work area and record extent of damage prior to commencement of work.

C. The asbestos abatement area shall be totally isolated from the rest of the building.

D. Permit access to work area only through the decontamination system. All other means of access shall be closed off, sealed and warning signs displayed.

E. Decontamination facilities shall be constructed by the abatement contractor to include a clean change room, a shower room, and an equipment room, utilizing standard triple flaps between each room. Each room shall be a minimum of 4' x 4' with two layers of 6-mil polyethylene (plastic) on all walls, floors, and ceiling. Contaminated water generated in the shower room shall be filtered using a minimum two-stage system of a 50 and a 0.5 micron filter prior to discharge.

F. Air filtration devices (AFDs) equipped with HEPA filters shall be supplied by the Contractor as per Section 0145 – Negative Pressure Systems. A minimum of four (4) air changes per hour are required in the work area. Air that has been exhausted from the enclosure shall be HEPA filtered and discharged outside of the building.

G. Contractor shall fill all penetrations through slabs, empty holes, holes accommodating cable, piping, HVAC duct, conduit, etc.

H. Individually clean and cover all windows. HEPA vacuum and wet-wipe all horizontal surfaces. Cover windows with one layer of clear 6-mil poly secured with duct tape and spray adhesive.

I. Cover entire inside surfaces of all walls, including the windows and doorways, with 1 layer of 6-mil poly sheeting secured with duct tape and spray adhesive. Cover entire ceiling surface with one layer of 6-mil poly and seal in the same manner.

J. The Consultant shall conduct a pre-abatement inspection. When pre-abatement requirements are met, written authorization to proceed with abatement shall be given to the Contractor. If authorization to proceed is not given, a "punch list" of items to address will be provided to the Contractor.

K. Material to be removed within full containment shall be thoroughly wetted and amended water prior to abatement. Personal Protective Equipment, including respiratory protection, shall be in accordance with OSHA 29 CFR 1926.1101.

L. The asbestos abatement Contractor shall request a pre-sealant inspection by the Consultant when all visible ACM is removed from the work area and surface cleaning has been performed. If the visual inspection is unacceptable, a "punch list" of discrepancies to be cleared will be provided before written authorization to proceed is given (Section 0190. Project Decontamination).

M. When written authorization has been given, the entire work area shall be sprayed with an approved encapsulant prior to clearance air sampling.

N. Clearance air sampling shall be conducted by the Consultant in accordance with Section 0135 - Test Laboratory Services and Section 0195 - Work Area Clearance. Upon receipt of work area clearance results, the Contractor shall complete the containment area per Section 0200 – Work Area Closeout.

O. All ACM removed from the work area shall be properly bagged, labeled, and disposed as asbestos waste in an approved landfill. The Contractor shall provide all required manifests and receipt (Section 2030).

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0162 – GLOVEBAGGING

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

A. The Contractor shall meet the requirements of Federal, State and Local regulations. A minimum of two certified asbestos workers shall perform the glovebag operation in compliance with OSHA 29 CFR 1926.1101.

B. When necessary to remove small amounts of asbestos insulation to perform repair work on the thermal system network, a glovebag is required to remove the ACM. Remove no more ACM than will fit into a single glovebag.

1. Secure work area by locking doors or setting up a temporary barrier. Do not block access to any emergency exits. Post the OSHA Regulated Area sign:

2. Shut off air-handling system in area where work is to be performed.

3. Properly-certified workers shall wear assigned, NIOSH-approved respirators and full-body disposable suits (including hoods).

4. Clean existing dust or debris from floor, furniture, equipment and other surfaces in immediate location of the work. Use HEPA vacuum and/or wet-cleaning techniques for this task.

5. Move furniture and equipment, if possible, or drape with 6-mil plastic (polyethylene) sheeting.

6. Cover work area with 6-mil plastic sheeting and extend approximately six feet beyond.

7. Prepare pipe insulation as follows: Wrap duct tape around pipe insulation approximately three feet apart so glovebag can be attached and removed without tearing cover on the insulation. This will remain in place once the glovebag has been removed.

8. Place glovebag around pipe by slitting bag up the side seams.

9. Seal seams which were slit with duct tape from top of pipe to top of glovebag.

10. Place any tools needed to remove insulation from pipe in glovebag.

11. Seal glovebag with tape along top, sealing front and back of bag together. Pipe should now run through bag above level of the gloves.

12. Place HEPA vacuum line in glovebag and secure. Turn on vacuum.

13. To remove a section of insulation, mist entire surface of the pipe within glovebag with amended water (a solution of 50 parts water and one part detergent).

14. Using a utility knife, cut canvas and insulation around circumference of pipe at ends of the section to be removed.

15. Using a utility knife, make a horizontal cut to connect the two cuts made in the previous step. During the cutting process, continue setting the material.

16. Pull insulation off pipe.

17. Clean pipe to remove any residual material. A nylon bristle brush might be needed to get all insulating material from the scale and rust left on pipe.

18. Once pipe is cleaned and all insulating material removed, seal exposed ends of insulation.

19. Remove tools from the bag before bag is removed from pipe by pulling arms inside out with tools in the gloves. Tape gloves in two areas, 2"- 4" apart and cut between tape. Clean tools with wipes in ACM disposal bag.

20. When tools have been removed, take glovebag off the pipe. Evacuate air from bag using HEPA vacuum. When air is removed, twist bag in the center and tape twisted portion with two pieces of duct tape to seal waste in the lower half of bag.

21. Cut twisted portion so bottom is separated from top of bag and remains sealed.

22. Cut horizontally along bag to remove remaining top portion of bag from pipe.

23. Place all waste in labeled ACM disposal bag.

24. After completing removal, wipe tools and equipment, including ladders, with wet cloths and move off plastic sheeting.

25. If plastic sheeting was used to drape unmovable objects, place in ACM disposal bag.

26. Workers shall vacuum and remove their disposable suits by turning them inside out. As each foot cover is removed, persons on plastic sheeting shall step off, leaving their suits on the plastic.

27. Mist plastic sheeting with amended water, fold over with contents toward center, and place in ACM disposal bag.

28. Clearance air sampling shall be conducted by the Consultant in accordance with Section 0135 - Test Laboratory Services and Section 0195 - Work Area Clearance (Glovebagging Clearance Criteria).

29. Workers shall thoroughly clean their respirators and face/head with wet wipes and place wipes in ACM disposal bag.

30. Using HEPA vacuum, collapse bag and seal with duct tape.

31. Double-bag ACM waste and place in temporary storage site.

32. All asbestos waste shall be disposed of as asbestos contaminated waste in accordance with Section 2030.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0168 – EMERGENCY ASBESTOS WORK PROCEDURES

PART 1 – GENERAL

1.1 EMERGENCY ASBESTOS WORK PROCEDURES

A. The Contractor shall meet all the requirements of Federal, State and local regulations.

B. Emergency work procedures for disturbance of asbestos containing materials.

C. If any asbestos containing materials are disturbed during the renovation process – the following procedures are to be implemented in order to decontaminate the area, protect the health and safety of the workers and dispose of the ACM in compliance with applicable regulations.

D. Immediately isolate the room that contains the asbestos containing materials with a minimum of barrier tape and close all doors and/or ventilation systems to the area.

E. Immediately contact a Missouri Licensed asbestos abatement contractor to perform an assessment and decontamination activities.

F. Only certified asbestos workers/supervisors shall be permitted in the isolated area. This includes workers and supervisors coming into contact with asbestos contaminated materials.

G. Personnel entering in the work area shall wear a minimum breathable disposable suit, half face negative pressure respirator with HEPA filters, safety glasses, hard hat, steel toe boots and appropriate hand protection. If necessary the workers shall also wear appropriate fall protection equipment.

H. The material shall be sprayed with amended water to prevent any visible emissions and removed utilizing manual methods.

I. Wet wipe and HEPA vacuum any visible debris and a site radius of 10 feet surrounding visible asbestos debris. All porous contaminated materials that can into contact with the asbestos shall be double bagged as asbestos waste.

J. Air sampling shall be conducted by the owner's representative in accordance with Section 0135 - Test Laboratory Services and Section 0195 - Work Area Clearance.

K. All asbestos containing materials removed from the work area shall be properly bagged, labeled, and disposed as asbestos waste in an approved landfill. The Contractor shall provide all required manifests and receipts (Section 0230).

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0175 – WORKER PROTECTION

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection (refer to Section 0130 for requirements for Training and Medical Exam).

PART 2 – PRODUCTS

2.1 EQUIPMENT

A. Protective Clothing

1. Coveralls: Provide disposable full-body coveralls, disposable underwear, and disposable head covers, and require that they be worn by all workers in the work area. Provide a sufficient number for all required changes for all workers in the work area, and a minimum of 3/day for visitors and regulatory officials.

2. Boots: Provide safety-toe footwear according to OSHA 1910.136 with non-skid soles that provide adequate foot protection for all workers. Do not allow boots to be removed from the work area after being contaminated with ACM unless thoroughly decontaminated.

3. Hard Hats: Provide head protection (hard hats) as required by OSHA 1910.135 for all workers. The environmental contractor shall several hard hats for visitors. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats of type with plastic strap type suspension. Require hard hats to remain in the work area throughout the work. Thoroughly clean, decontaminate and bag hats before removing them from work area at the end of the work.

4. Goggles: Provide eye protection (goggles) as required by OSHA 1910.133 for all workers involved in scraping, spraying, or any other activity which may potentially cause eye injury. Goggles are to remain in the work area until thoroughly decontaminated.

5. Gloves: Provide work gloves to all workers that provide adequate hand protection and require that they be worn at all times. Do not remove gloves from work area and dispose of as asbestos contaminated waste at the end of the work.

B. Additional Protective Equipment

Disposable coveralls, head covers, and footwear covers shall be provided by the Contractor for the Owner's representative and other authorized representatives who may inspect the job site.

PART 3 – EXECUTION

3.1 EXECUTION

A. General

Provide worker protection as required by the most stringent OSHA and/or EPA standards applicable to the work. The procedures herein are minimums to be adhered to regardless of fiber count in the work area.

B. Donning Protective Clothing

Each time work area is entered, remove all street clothes in the Changing Room of the Personnel Decontamination System and put on new disposable underwear, coverall, new head cover, booties and with appropriate respiratory protection.

C. Decontamination Procedures

1. Require all workers to adhere to the following personal decontamination procedures whenever they leave the work area:

2. Type C Supplied Air or Powered Air-Purifying Respirators: Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the work area:

    a. When exiting area, remove disposable underwear, coveralls, disposable head covers, and disposable footwear covers or boots in the vacuum zone. Deposit in labeled 6-mil bag for disposal.

    b. Using a HEPA vacuum, remove any debris adhering to body, hair, or respirator.

    c. Still wearing respirators, proceed to showers. (If using supplied air respirator, disconnect from airline and properly protect supply line.) Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is required as a minimum:

i. Thoroughly wet body including hair and face. If using a Powered Purifying Air-Respirator (PAPR), hold blower unit above head to keep canisters dry.

ii. With respirator face piece still in place, thoroughly wash body, hair, respirator face piece, and all parts of the respirator except the blower unit and battery pack on a PAPR. Pay particular attention to seal between face and respirator and under straps.

iii. Take a deep breath, hold it and/or exhale slowly, completely wet hair, face, and respirator. While still holding breath, remove respirator and hold it away from face before starting to breathe.

iv. Carefully wash facepiece of respirator inside and out. If using PAPR: shut down in the following sequence, first cap inlets to filter cartridges, and then turn off blower unit (this sequence will help keep debris which has collected on the inlet side of filter from dislodging and contaminating the outside of the unit). Thoroughly wash blower unit and hoses. Carefully wash battery pack with wet rag. Be extremely cautious of getting water in battery pack as this will short out and destroy battery.

v. Shower completely with soap and water.

vi. Rinse thoroughly.

vii. Rinse shower room walls and floor prior to exit.

d. Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

3. Air Purifying-Negative Pressure Respirators: Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the work area with a half or full face cartridge type respirator:

a. When exiting area, remove disposable underwear, coveralls, disposable headcovers, and disposable footwear covers or boots in the vacuum zone. Deposit in labeled 6-mil bag for disposal.

b. Using a HEPA vacuum, remove any debris adhering to body, hair, or respirator.

c. Still wearing respirators, proceed to showers. Showering is <u>mandatory</u>. Care must be taken to follow reasonable procedures in removing the respirator and filters to avoid asbestos fibers while showering. The following procedure is required as a minimum:

i. Thoroughly wet body from neck down.

ii. Wet hair as thoroughly as possible without wetting the respirator filter is using air purifying type respirator.

iii. Take a deep breath, hold it and/or exhale slowly, complete wetting of hair thoroughly wetting face, respirator and filter (air purifying respirator). While still holding breath, remove respirator and hold it away from face before starting to breathe.

iv. Dispose of wet filters from air purifying respirator.

v. Carefully wash facepiece of respirator inside and out.

vi. Shower completely with soap and water.

vii. Rinse thoroughly.

viii. Rinse shower room walls and floor prior to exit.

d. Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

D. Require that workers NOT eat, drink, smoke, chew gum or tobacco in the work area. To eat, chew, drink or smoke, workers shall follow the procedure described above, and then dress in street clothes before entering the non-work areas of the building.

SECTION 0180 – RESPIRATORY PROTECTION

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

A. Description of Work

Contractor will supply sufficient quantity of respiratory equipment.

1. Provide adequate protection against airborne concentrations of asbestos fibers, and;

2. Instruct and train each worker involved in asbestos abatement of ACM in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face, in the work area from the start of work until the work area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered.

B. Standards

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement. The following are incorporated:

OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 1910.134. 29 CFR 1926.1101

CGA - Compressed Gas Association, Inc., New York, Pamphlet G-7, "Compressed Air for Human Respiration," and Specification G-7.1 "Commodity Specification for Air."

CSA - Canadian Standard Association, Rexdal, Ontario, Standard Z180.1-1978, "Compressed Breathing Air."

ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1992.

NIOSH - National Institute for Occupational Safety and Health

MSHA - Mine Safety and Health Administration

C. Submittals

Before start of work, submit to the Owner's representative for review documents specifically outlining Contractor's respiratory protection plan, and a contingency plan to meet any elevated fiber concentrations. Do not begin work until these submittals are returned with the owner's representative's approval indicating that the submittal is returned for unrestricted use.

PART 2 – PRODUCTS

2.1 EQUIPMENT

A. Air Purifying Respirators

1. Respirator Bodies: Provide half face or full face type respirators. Equip full-face respirators with a nose cup or other anti-fogging device.

2. Filter Cartridges: Provide, at a minimum, HEPA type filters labeled with NIOSH and MSHA Certification and color coded in accordance with ANSI Z88.2-1992.

3. Non-permitted respirators: Do not use single use, disposable or quarter face respirators.

B. Powered Air Purifying Respirators (Half or Full Face Mask)

1. Supply a sufficient quantity of high efficiency respirator filters approved for asbestos so that workers can change filters at any time that flow through the face piece decreases to the level at which the manufacturer recommends filter replacement.

2. Require that HEPA elements in filter cartridges be protected from wetting during showering.

3. Require entire exterior housing of respirator including blower unit, filter cartridges, hoses, battery pack, face mask, belt, and cords to be washed each time a worker leaves the work area.

4. Caution should be used to avoid shorting battery pack during washing.

5. Provide an extra battery pack for each respirator so that one can be charging while one is in use.

C. Supplied Air Respirator Systems

1. Provide air used for breathing in Type "C" supplied air respiratory systems that meet or exceed standards set for Grade D or CSA Z180.1, whichever presents the more stringent quality standard.

2. Provide air used for breathing in Type "C" supplied air respiratory systems that meet or exceed standards.

3. Provide equipment capable of producing air of the quality and volume required by the job site conditions and crew size. Comply with provisions of this specification if more stringent than the governing standard.

4. Face Piece and Hose: Provide full face piece and hose by same manufacturer that has been certified by NIOSH/MSHA as an approved Type "C" respirator assembly operating in pressure demand mode with a positive pressure face-piece.

5. Auxiliary backup system: In atmospheres which contain sufficient oxygen (greater than or equal to 19.5% oxygen) provide a pressure-demand full face piece supplied air respirator equipped with an emergency escape system.

6. Escape air supply: In atmospheres which are oxygen deficient (less than 19.5% oxygen) provide a pressure-demand full face piece supplied air respirator incorporating an auxiliary self-contained breathing apparatus (SCBA) which automatically maintains an uninterrupted air supply in pressure demand mode with a positive pressure face piece.

7. Backup air supply: Provide a reservoir of compressed air located outside the work area which will automatically maintain a continuous uninterruptible source of air available to each connected face piece and hose assembly in the event of compressor shut-down, contamination of air delivered by compressor, power loss or other failure. Provide sufficient capacity in the back-up air supply to allow a minimum escape time of five minutes.

8. Warning device: Provide a warning device that will operate independently of the building's power supply. Locate so that alarm is clearly audible above the noise level produced by equipment and work procedures in use, in all parts of the work area and at the compressor. Connect alarm to warn of:

    a. Compressor shut down or other fault requiring use of backup air supply,

    b. Carbon Monoxide (CO) levels in excess of 5 ppm by volume.

9. Carbon Monoxide (CO) Monitor: Continuously monitor and record CO levels. Place monitors in the air line between compressor and backup air supply and between backup air supply and workers. Connect monitors so that they also sound an alarm as specified under "Warning Devices."

10. Compressor Shut Down: Interconnect monitors, alarms and compressor so that compressor is automatically shut down and the alarms sound if any of the following occur:

    a. CO concentrations exceed 5 ppm/v in the air line between the filter bank and backup air supply,

    b. Compressor temperature exceeds normal operating range.

11. Compressor Location: Locate compressor in a location that will supply air free of contaminants, and will not impede access to the building, and that will not cause a nuisance by virtue of noise or fumes to occupied portions of the building.

12. Air Intake: Locate air intake remotely from any source of automobile exhaust, any exhaust from motors, or buildings and other airborne contaminants.

13. After Cooler: Provide an after cooler at entry to filter system which is capable of reducing temperatures to outside ambient air temperatures.

14. Self Contained Breathing Apparatus (SCBA): Configure system to permit the recharging of 1/2 hour 2260 PSI SCBA cylinders.

PART 3 – EXECUTION

3.1 EXECUTION

A. General

1. Respiratory Protection Program: Provide all personnel, authorized visitors and inspectors with respiratory protective equipment approved by OSHA and NIOSH. Comply with ANSI Z88.2-1992. "Practices for Respiratory Protection" and OSHA 29 CFR 1910 and 1926. Respirators will be approved by NIOSH.

2. Require that a respirator be worn by anyone in a work area at all times, regardless of activity, until the area has been cleared for re-occupancy in accordance with Section 0195.

3. Regardless of Airborne Fiber Levels: Require that the minimum level of respiratory protection used be half-face air-purifying respirator with high efficiency filters.

B. Fit Testing

1. All respirator wearers shall have a current fit test on the respirators he/she uses, using one of the protocols listed in Appendix C of OSHA. The fit tests must have been performed within the past year.

2. Upon each wearing: Require that each time an air-purifying respirator is put on, it be checked for fit with a positive or negative pressure fit test in accordance with the manufacturer's instructions of ANSI Z88.2-1992.

3. Personnel wearing respiratory protection must have no facial hair that would interfere with the face to facepiece seal of the respirator.

SECTION 0190 – PROJECT DECONTAMINATION

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

A. Decontamination of the Work Area

1. The work consists of cleaning of the work barrier plastic, cleaning of the room surfaces to remove any contamination, and trace fiber fixation of all surfaces.

2. When in a limited-containment enclosure, the amount of equipment, furniture, material and surface cleaning will depend upon debris visible and condition of material before start of abatement. Where there is visible debris present and/or poor material condition, a surface cleaning will be mandatory. Visible debris and material condition has been evaluated and is specified in site work.

B. Operation of the Negative Pressure System

Operation of the negative pressure system is to continue through the Project Decontamination phase to remove airborne fibers generate by the work.

C. Work Area Clearance

Air testing and other requirements which must be met before release of Contractor and reoccupancy of the work area are specified in Sections 0135 and 0195.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 GENERAL

Work of this section includes the decontamination of surfaces and air in the Work Area which have been, or may have been, contaminated by elevated airborne asbestos fiber levels generated during abatement activities.

A. First Cleaning

1. First Cleaning: After removal of all asbestos materials, asbestos-contaminated materials and debris from the work area and receiving authorization from the Owner's representative, the Contractor should perform a cleaning of all surfaces of the work area including remaining sheeting, tools, and scaffolding by use of

damp-cleaning and mopping, and/or a HEPA filtered vacuum. Do not perform dry dusting or dry sweeping. Continue this cleaning until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces.

2. Perform a complete visual inspection of the entire work area including: decontamination unit, all plastic sheeting, seals over ventilation openings, doorways, windows, and other openings; look for debris from any sources, residue on surfaces, dust or other matter. If any such debris, residue, dust or other matter is found, repeat cleaning procedures and continue decontamination procedure. When the area is visually clean, complete the certification at the end of this section. If visual inspection reveals areas that are not sufficiently clean, the Owner's representative will prepare a "punch list" of tasks that need to be completed. Visual inspection is not complete until confirmed in writing by the Owner's representative.

B. Encapsulation

1. After receiving authorization from Owner's representative to perform trace fiber fixation of surfaces, encapsulation shall be performed. Maintain negative air system in operation during encapsulation work.

2. Following the application of trace fiber fixation material and receiving approval of Owner's representative, remove all working barrier sheeting and equipment decontamination unit, leaving only the following:

   a. Critical Barrier: which forms the sole barrier between the work area and other portions of the building or the outside.

   b. Critical Barrier Sheeting: over lighting fixtures and clocks, ventilation openings, doorways, convectors, speakers and other openings.

   c. Decontamination unit: for personnel in operating condition.

   d. Negative Pressure System: maintain in continuous operation.

B. Air Sampling

1. Phase Contrast Microscopy (PCM) for the ACM removal in work area: After the work area is found to be visually clean, PCM clearance samples will be taken and analyzed in accordance with procedures for PCM analysis.

   a. If the results of all PCM clearance samples are less than .010 fibers / cubic centimeter, the Contractor can then proceed with work area clearance procedures specified in Section 0195.

C. Completion of Abatement Work

Asbestos abatement work is complete upon meeting the PCM work area clearance criteria specified in Section 0195.

1. Remove equipment, materials from the work area.

2. Dispose of all asbestos containing waste material as specified in Section 0230.

If the abatement area does not pass the PCM work area clearance criteria, repeat cleaning procedures. The Contractor may take the PCM clearance samples that are above the clearance criteria and have them analyzed by Transmission Electron Microscopy (TEM) at the Contractor's expense. The clearance criteria for TEM samples shall be 70 structures / square millimeter. All TEM samples shall pass these clearance criteria.

D. Certificate of Visual Inspection

Following this section is a "Certificate of Visual Inspection." This certification is to be completed by the Contractor and certified by the Owner's representative.

SECTION 0195 – WORK AREA CLEARANCE CRITERIA

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

The work is completed when the work area is visually clean and airborne fiber concentrations are less then .010 fibers / cubic centimeter.

1.2 AGGRESSIVE SAMPLING

Before sampling pumps are started, the exhaust from a leaf-blower (with an approximate 1-horsepower electric motor) will be swept against all walls, ceilings, floors, ledges and other surfaces in the room. All final clearance samples shall be collected under dry conditions using aggressive techniques. Aggressive techniques should be conducted in accordance with Appendix M of the 1985 United States Environmental Protection Agency document "*Guidance for Controlling Asbestos-Containing Materials in Buildings*" (the Purple Book). All barriers, except critical barriers, shall be removed for final clearance, unless the abatement area is not isolated from adjacent areas, or aggressive techniques are likely to contaminate adjacent areas.

1.3 AIR SAMPLING

A. Phase Contrast Microscopy (PCM)

A minimum of five clearance samples shall be collected for each area clearance when the activities involve gross abatement of friable materials. For gross abatement areas greater than 5,000 square feet or 50,000 cubic feet, an additional sample is required for each additional 2,500 square feet or 25,000 cubic feet, whichever is more stringent (e.g., an enclosure of 10,000 square feet or 100,000 cubic feet would require 7 clearance samples).

For abatement activities involving limited quantities of friable materials (such as glove bag removal) or abatement of non-friable materials a minimum of two in-progress final air samples shall be collected.

B. Release Criteria

Decontamination of the work site is completed when all air samples are less than 0.010 fiber / cubic centimeters.

If the abatement area does not pass the PCM work area clearance criteria, repeat cleaning procedures. The Contractor may take the PCM clearance samples that are above the clearance criteria and have then analyzed by Transmission Electron

Microscopy (TEM) at the Contractor's expense. The clearance criteria for TEM samples shall be 70 structures / square millimeter. All TEM samples shall pass these clearance criteria.

If release criteria are met, remove the critical barriers separating the work area from the rest of the building and shut down negative pressure system (when necessary). Air filtration device intakes are to be completely sealed with 6-mil poly before moving to prevent discharge of embedded fibers.

1.4 LABORATORY TESTING

A. Phase Contract Microscopy (PCM)

The services of testing laboratory will be employed by the Owner to perform laboratory analysis of the daily air samples. A technician will be at the job site; samples will be sent daily so that verbal reports on air samples can be obtained by the morning of the third day following sample collection.

B. Reporting

A complete record certified by the testing laboratory, of all air monitoring tests and results will be furnished to the Owner, Owner's representative and the Contractor.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0200 – PROJECT CLOSEOUT

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

A. Definitions: Project closeout is the term used to describe certain collective project requirements, indicating completion of the Work, that are to be fulfilled near the end of the Contract time in preparation for final acceptance and occupancy by the Owner, as well as final payment to the Contractor and the normal termination of the Contract.

B. Inspection Procedures: Upon receipt of Contractor's request for inspection, the Owner's representative will either proceed with inspection or advise Contractor of unfulfilled prerequisites.

1. Following initial inspection, owner's representative will either prepare the certificate of substantial completion, or will advise Contractor of work that must be performed before the certificate will be issued. The Owner's representative will repeat the inspection when requested and when assured that the Work has been substantially completed.

2. Results of the completed inspection will form the initial "punch-list" of tasks needed to be completed for final acceptance.

C. Reinspection Procedure: The Owner's representative will reinspect the Work upon receipt of the Contractor's notice that the work, including the punch-list items resulting from earlier inspections, has been completed, except for those items whose completion has been delayed because of circumstances that are acceptable to the owner's representative.

1. Upon completion of reinspection, the owner's representative will either prepare a certificate of final acceptance, or will advise the Contractor of work that is incomplete or of obligations that have not been fulfilled, but are required for final acceptance.

2. If necessary, the reinspection procedure will be repeated. A fee will be credited to the building owner to pay for the owner's representative's services for each additional re-inspection.

D. Record Specifications: Maintain one complete copy of the Project Manual, including specifications and addenda, and one copy of other written construction documents such as change orders and similar modifications issued in printed form during construction. Mark these documents to show substantial variations in the actual work performed in comparison with the text of the specifications and modifications as issued.

Give particular attention to substitutions, selection of options and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation. Note related record drawing information and product data, where applicable. Upon completion of the work, submit record specifications to the Owner's representative.

D. Record Product Data: Maintain one copy of each product data submittal. Mark these documents to show significant variations in the actual Work performed in comparison with the submitted information. Include both variations in the products as delivered to the site, and variations from the manufacturer's instructions and recommendations for installation. Give particular attention to concealed products and portions of the work, which cannot otherwise be readily discerned at a later date by direct observation. Note related change orders and mark-up of record drawings and specifications. Upon Completion of mark-up, submit complete set of record product data to the Owner's representative.

E. Record Sample Submittal: Immediately prior to date or dates of substantial completion, the Contractor shall meet at the site with the Owner's representative and the owner's personnel, if desired, to determine which, if any, of the submitted samples that have been maintained by the Contractor during progress of the Work, are to be transmitted to the owner for record purposes. Comply with delivery to the Owner's sample storage space.

F. Miscellaneous Record Submittals: Refer to other sections of these specifications for requirements of miscellaneous recordkeeping and submittals in connection with the actual performance of the Work. Immediately prior to the date or dates of substantial completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Owner's representative for the owner's records.

G. Post Notifications: Prepare and transmit necessary post-project notifications to regulatory agencies.

H. Project Closeout Documentation: The Contractor shall provide copies of asbestos manifests, miscellaneous hazardous waste manifests, and bills of lading and manifests, results of any characterization analyses, all terminated bills of lading and manifests, CFC's reclamation documentation, CFC's used refrigerated agreement from cylinder disposal facility, daily logs, containment sign-in sheets, asbestos certifications/medical/fit test of all workers, asbestos worker certifications, OSHA air sampling results, copies of all revisions to notifications, post notification and daily sign-in sheets. The closeout documentation shall be provided to the owner's representative as soon as possible after the completion of the environmental work.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 CLEANING

A. Provide post clearance cleaning of the Work after written approval of satisfactory completion. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations.

1. Complete the following cleaning operations before requesting the owner's representative's inspection for certification of substantial completion.

2. Clean exposed hard-surfaced finishes affected by the work, to a dirt-free condition, free of dust, stains, films and similar distracting substances. Except as otherwise indicated, avoid disturbance of natural weathering of exterior surfaces. Restore reflective surfaces to original reflective condition.

B. Removal of Protection: Except as otherwise indicated or requested by the owner's representative, remove temporary protection devices and facilities which were installed during the course of the work to protect previously completed work during the remainder of the construction period.

C. Repair/Replacement of Damaged Materials: Repair or replace any damaged materials, surfaces, equipment, insulation, finishes or other items.

D. Compliance: Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at the site. Do not bury debris or excess materials on the owner's property unless specific written approval is granted by owner or owner's representative. Do not discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

SECTION 0205 - COMMENCEMENT OF WORK

PART 1 – GENERAL

1.1 COMMENCEMENT OF WORK

The Contractor shall not commence work unless the following requirements have been met. These requirements must be met each time abatement work is to begin in a new work area.

A. Enclosure Systems

The specified enclosure systems have been constructed, tested and approved.

B. Ventilation Systems

The specified ventilation systems are functioning adequately and have been periodically tested using smoke detection method for one (1) hour (see Section 0145).

C. Submissions

All pre-abatement submissions, notifications, posting and permits have been provided and are satisfactory to the Owner's representative.

D. Equipment

All equipment for abatement, cleanup and disposal are on hand.

E. Training

All worker training (and certification) is completed.

F. Written Permission

Contractor received written permission from the owner's representative.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0210 – DIFFERING SITE CONDITIONS

PART 1 – GENERAL

1.1 DESCRIPTION

Amounts and locations of ACM have been field surveyed to confirm its presence. The Contractor is responsible to field verify locations, amounts and conditions. Linear and square footage and number of fittings are approximations based on the field survey.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 0230 – ASBESTOS WASTE HANDLING

PART 1 – GENERAL

1.1 ASBESTOS PACKAGING AND STORAGE

A. Asbestos waste shall be double-bagged in 6-mil asbestos-labeled polyethylene bags and individually sealed airtight with duct tape. Materials which are likely to puncture 6-mil bags are to be packaged by other means to ensure seal integrity.

B. Disposal material shall be HEPA-vacuumed and/or wet wiped in the work area to remove gross contamination before transporting to the decontamination area.

C. Disposal containers will then be decontaminated with a fine water spray and wet-wiped in the equipment decontamination area.

D. Containers which have been thoroughly cleaned will be passed through the air locks of the equipment decontamination area into the clean zone.

E. All ACM removed from the work area shall be properly bagged, labeled, and disposed as special waste in an approved landfill.

F. Disposal material shall not be stored outside the designated staging area. Bags from the work area shall be taken directly to an enclosed truck or dumpster. Bagged asbestos shall not be transported in open trucks. Damaged bags or bags containing sharp materials that will puncture the containment bag must be contained in rigid containers (i.e. fiber drums). Drums shall be labeled with the same warning as the bags. Uncontaminated drums may be reused. Drums that have been contaminated as asbestos-containing waste shall be disposed in accordance with this specification and applicable regulations.

G. At the burial site, sealed plastic bags shall be carefully removed from the truck in a manner to prevent rupturing the bags. Personnel involved in the unloading of ACM bags must wear personal protective gear including respiratory protection. ACM bags shall be covered with suitable material immediately after receipt in the landfill.

H. A copy of the completed waste manifest, chain of custody form and landfill receipt will be provided to the owner's representative by the Contractor as soon as they are available.

I. All ACM disposal containers shall be labeled in accordance with OSHA and DOT requirements.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

APPENDIX A

SITE DRAWINGS

Legend

- 12" Brown Floor Tile Mastic (Sample Group 1)
- Flooring Beneath Carpet Squares (Sample Group 2) - Assumed Locations
- Mastic Beneath Carpet (Sample Group 4)
- Mastic Beneath Carpet Squares (Sample Group 10)
- 12" White Pattern Floor Tile Mastic (Sample Group 12)
- Mastic Beneath Carpet Squares Sample Group 15)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls

Asbestos Location Map
Jefferson State Office Building
205 Jefferson Street, Jefferson City, Missouri 65101

1st Floor		Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
Project No.	238.01.003	Drawn By: GW	

Legend

12" Brown Floor Tile Mastic
(Sample Group 5)

Mastic Beneath Carpet
(Sample Group 6)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing

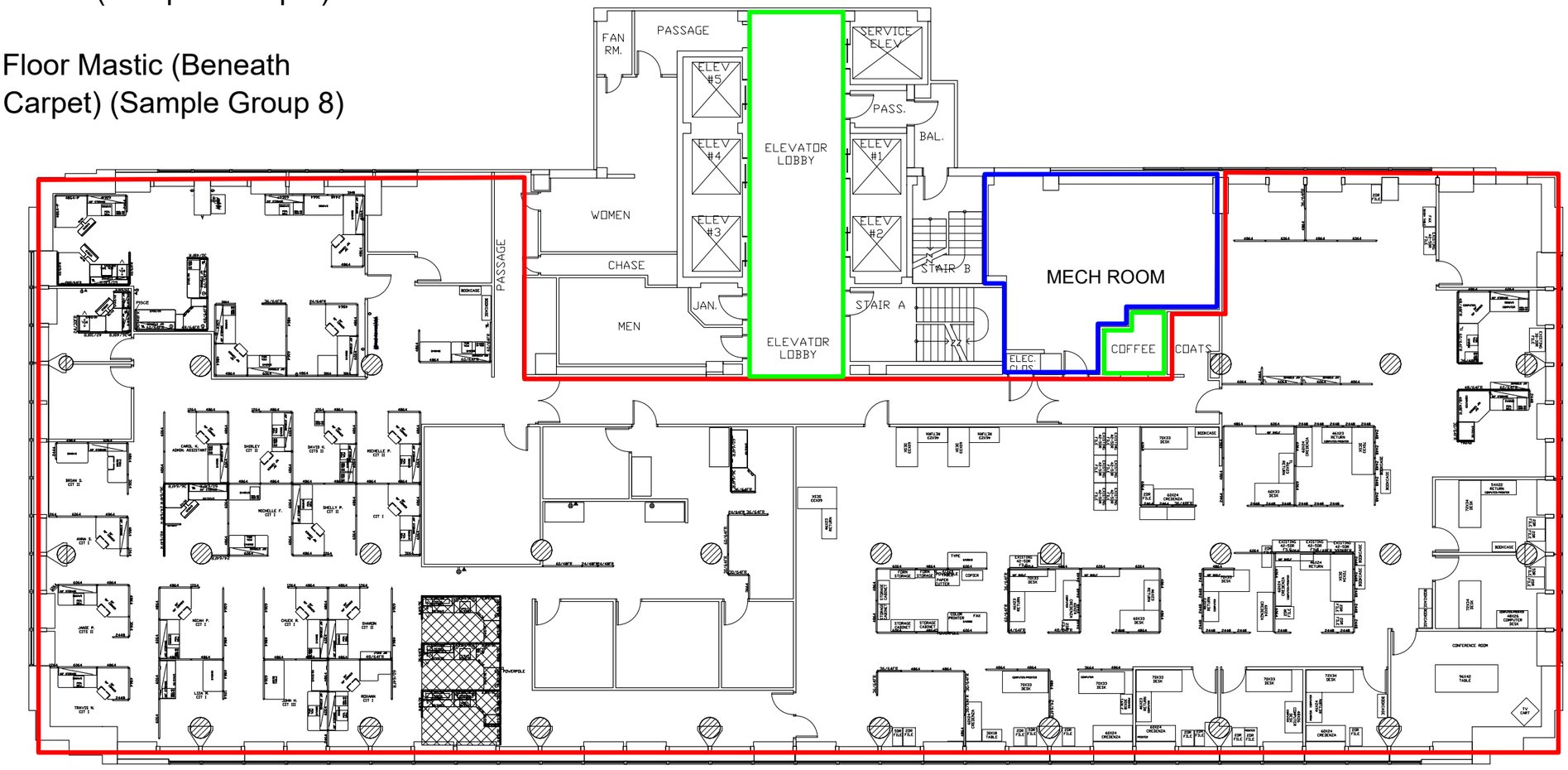
Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	2nd Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

Legend

- 12" Brown Floor Tile Mastic
- 12" Beige Pattern Floor Tile Mastic (Sample Group 7)
- Floor Mastic (Beneath Carpet) (Sample Group 8)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	3rd Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

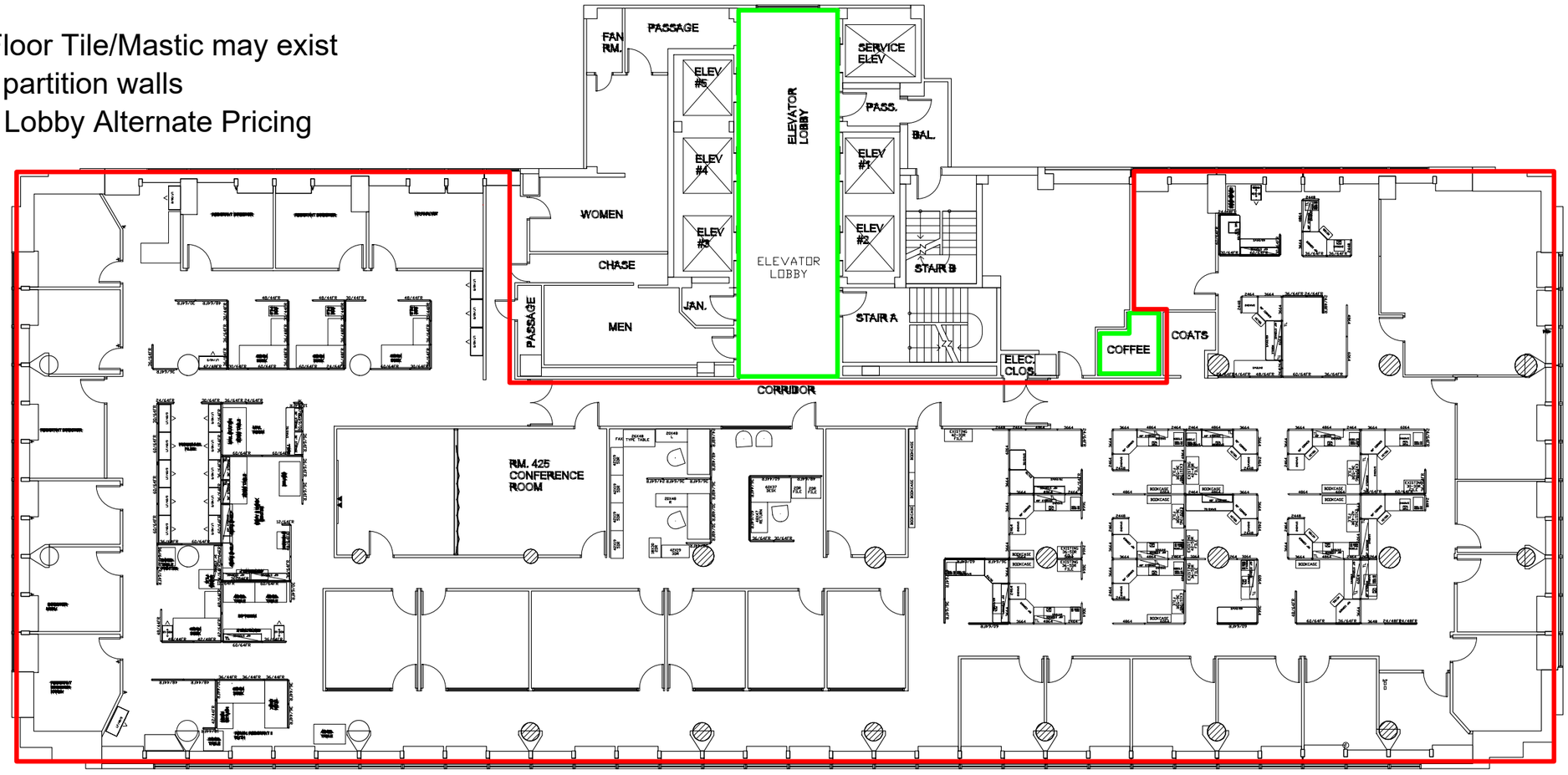
Legend

12" Brown Floor Tile Mastic

Floor Mastic (Beneath Carpet) (Sample Group 9)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	4th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

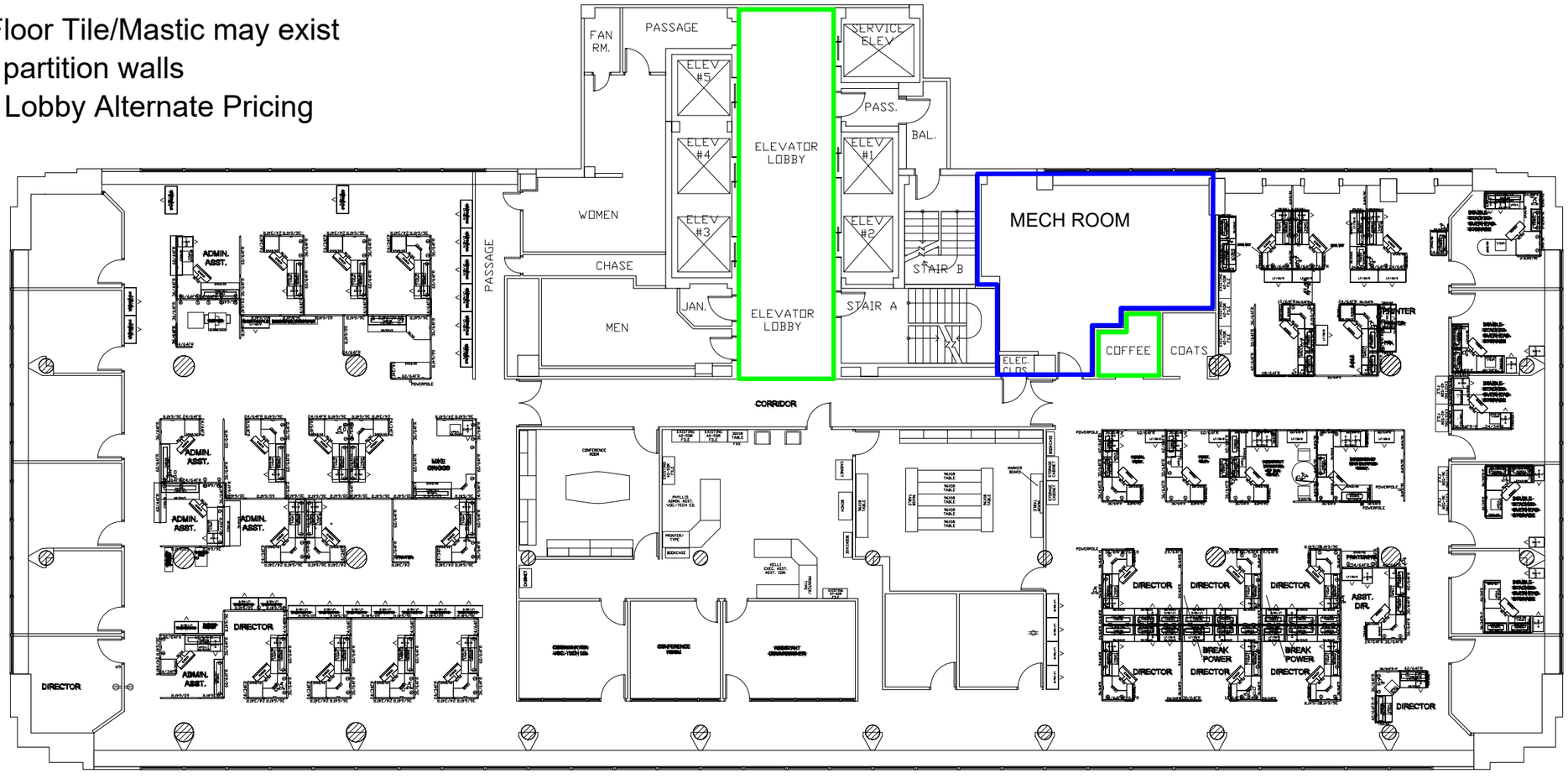
Legend

12" Brown Floor Tile Mastic

12" Beige Pattern Floor Tile Mastic (Sample Group 14)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	5th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

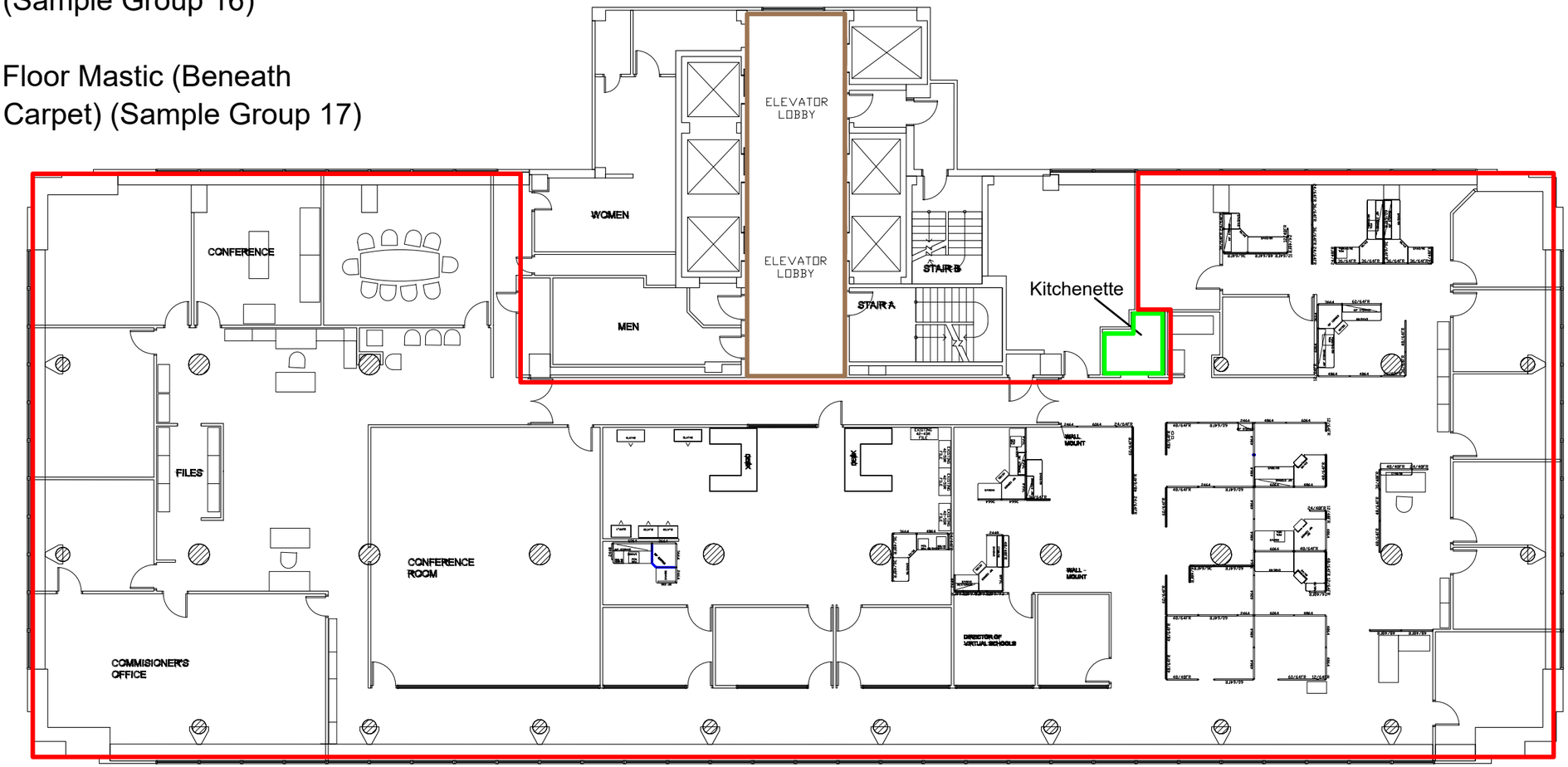
Legend

12" Brown Floor Tile Mastic (Sample Group 5)

12" Brown Floor Tile Mastic (Sample Group 16)

Floor Mastic (Beneath Carpet) (Sample Group 17)

Notes:
1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	6th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

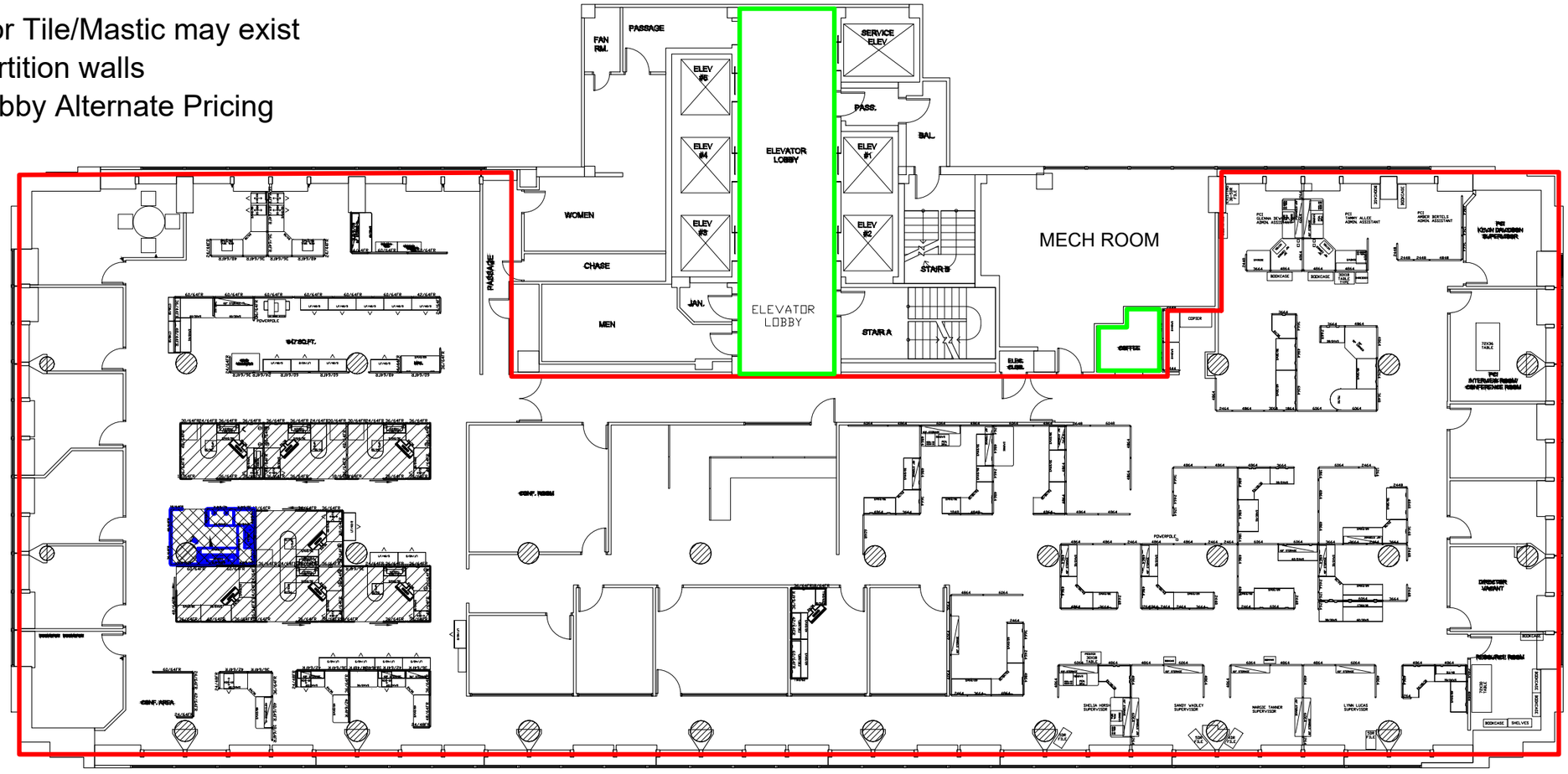
Legend

12" Brown Floor Tile Mastic

Floor Mastic (Beneath Carpet)
(Sample Group 18)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



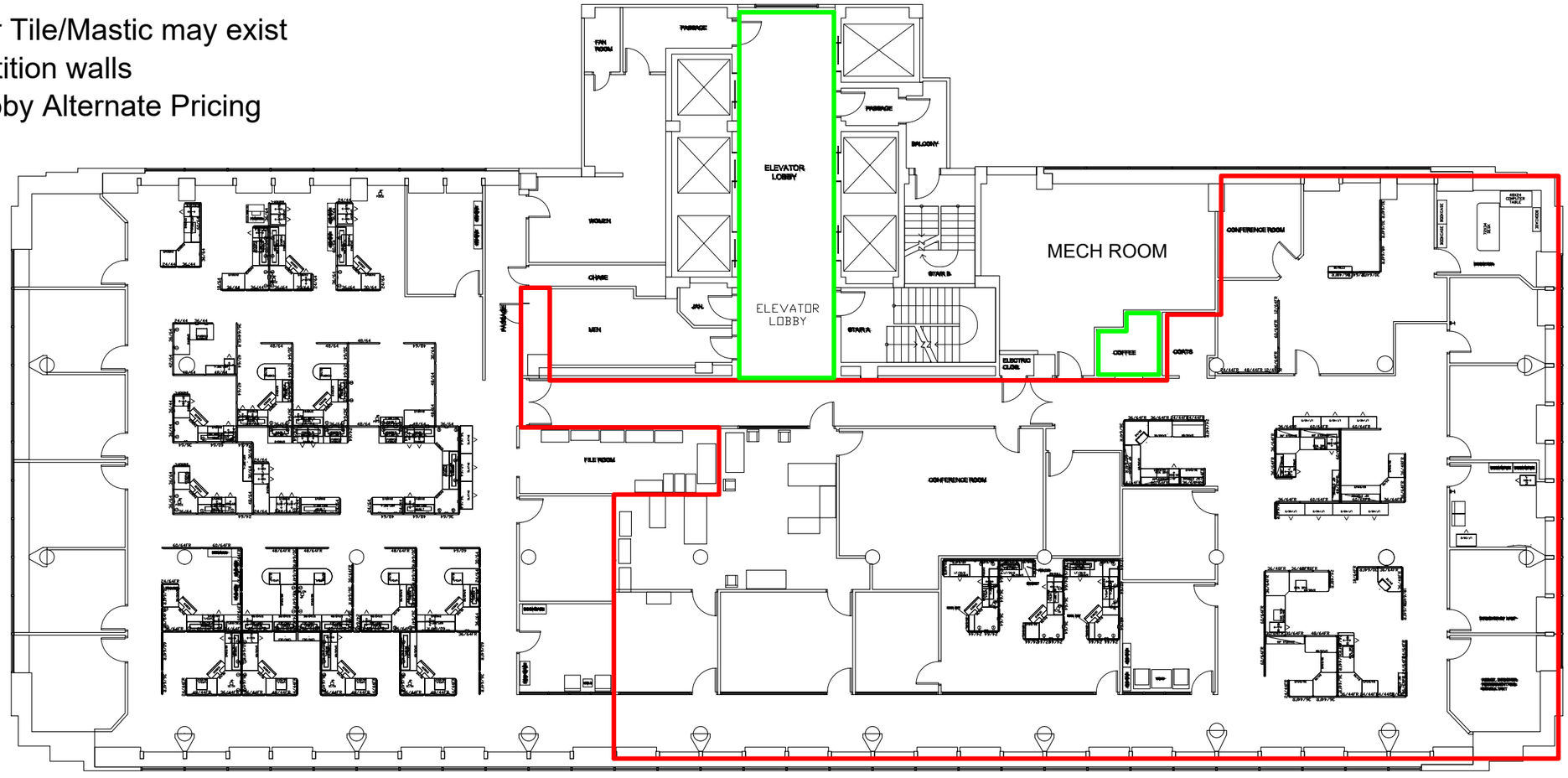
Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	7th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

Legend

12" Brown Floor Tile Mastic

Mastic Beneath Carpet
(Sample Group 19)

Notes:
1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map
Jefferson State Office Building
205 Jefferson Street, Jefferson City, Missouri 65101

8th Floor		Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
Project No.	238.01.003	Drawn By: GW	

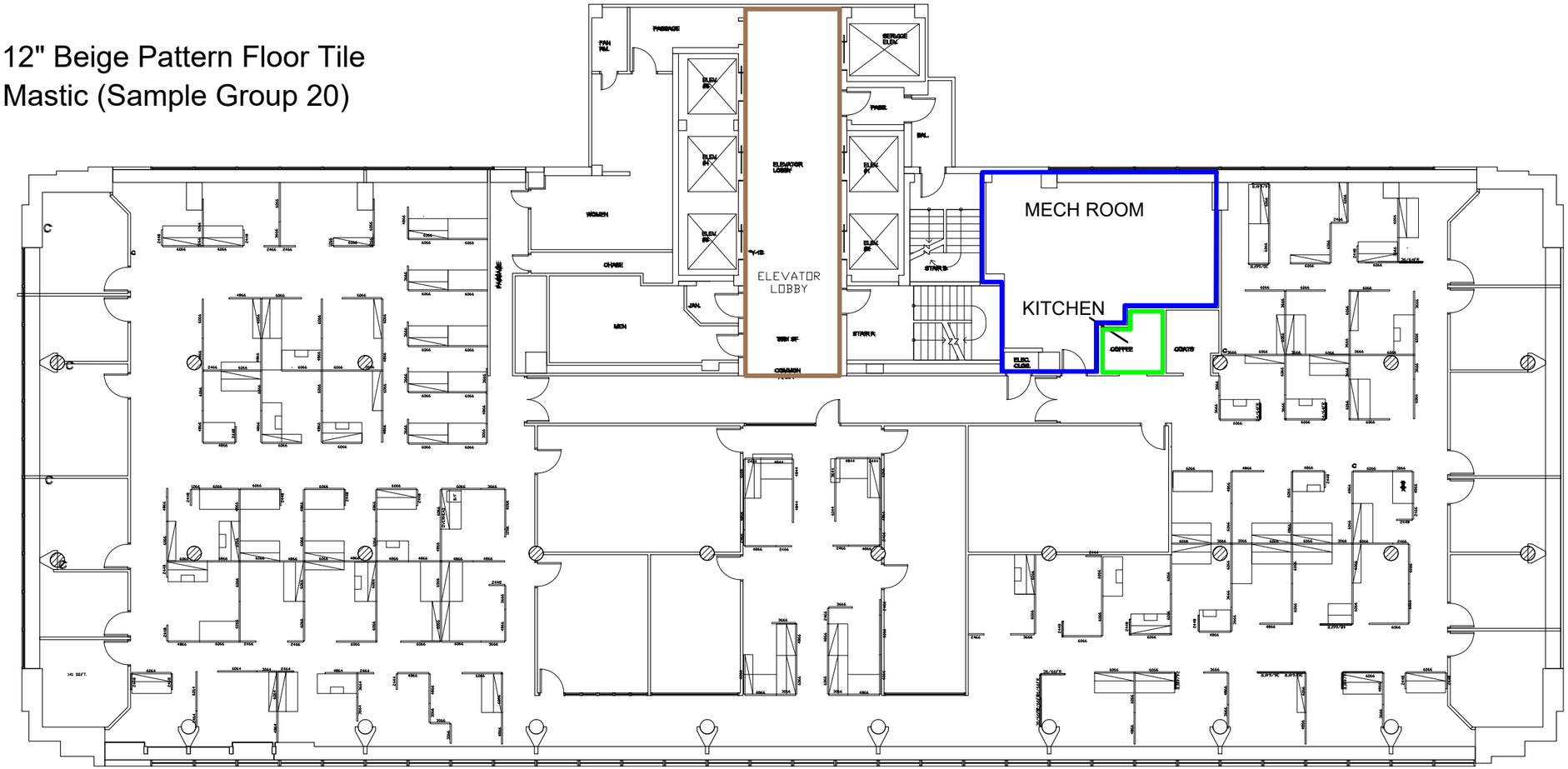
Legend

12" Brown Floor Tile Mastic (Sample Group 5)

12" Brown Floor Tile Mastic (Sample Group 16)

12" Beige Pattern Floor Tile Mastic (Sample Group 20)

Notes:
1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	9th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

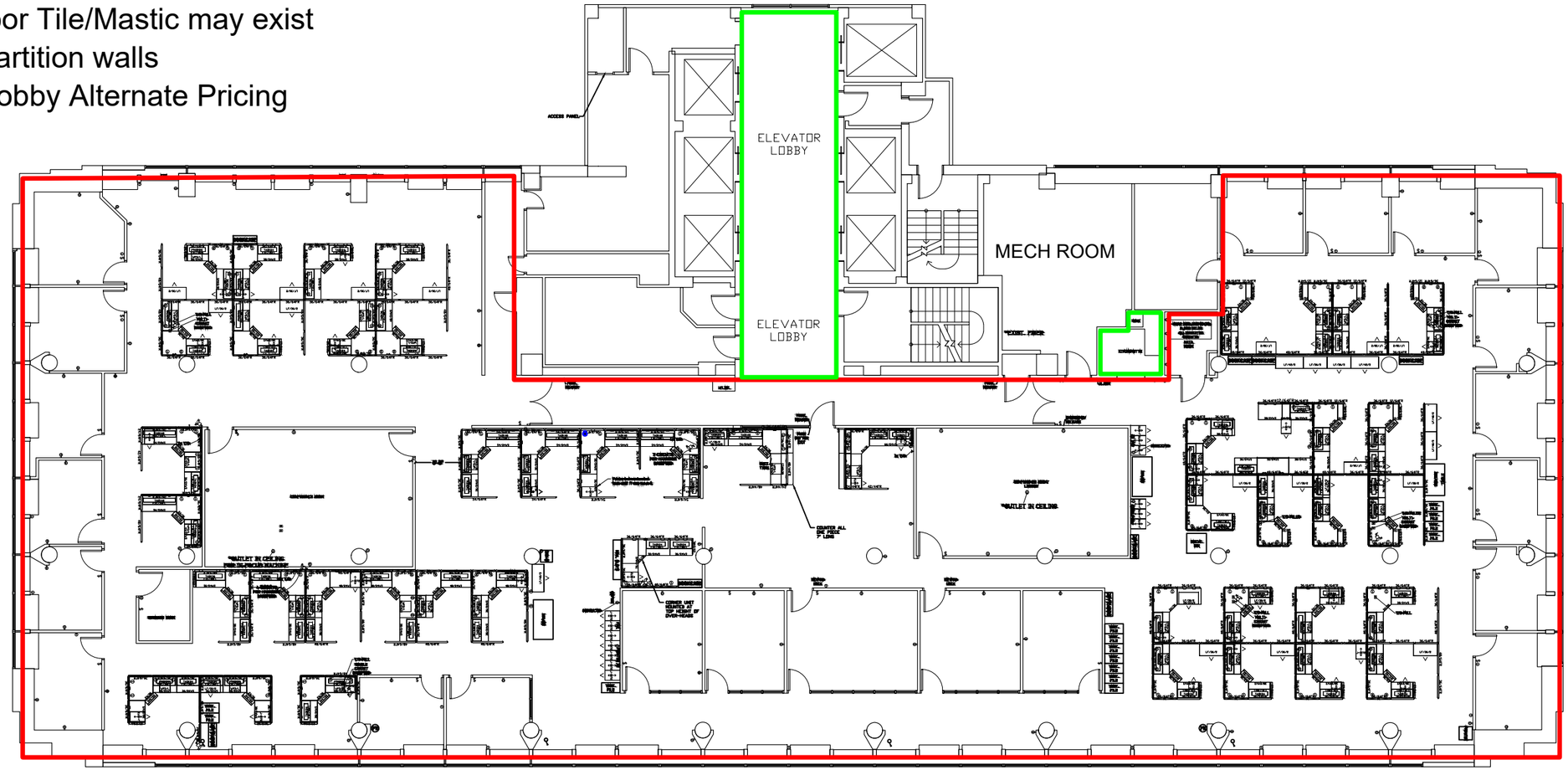
Legend

12" Brown Floor Tile Mastic

Mastic Beneath Carpet Squares (Sample Group 21)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	10th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

Legend

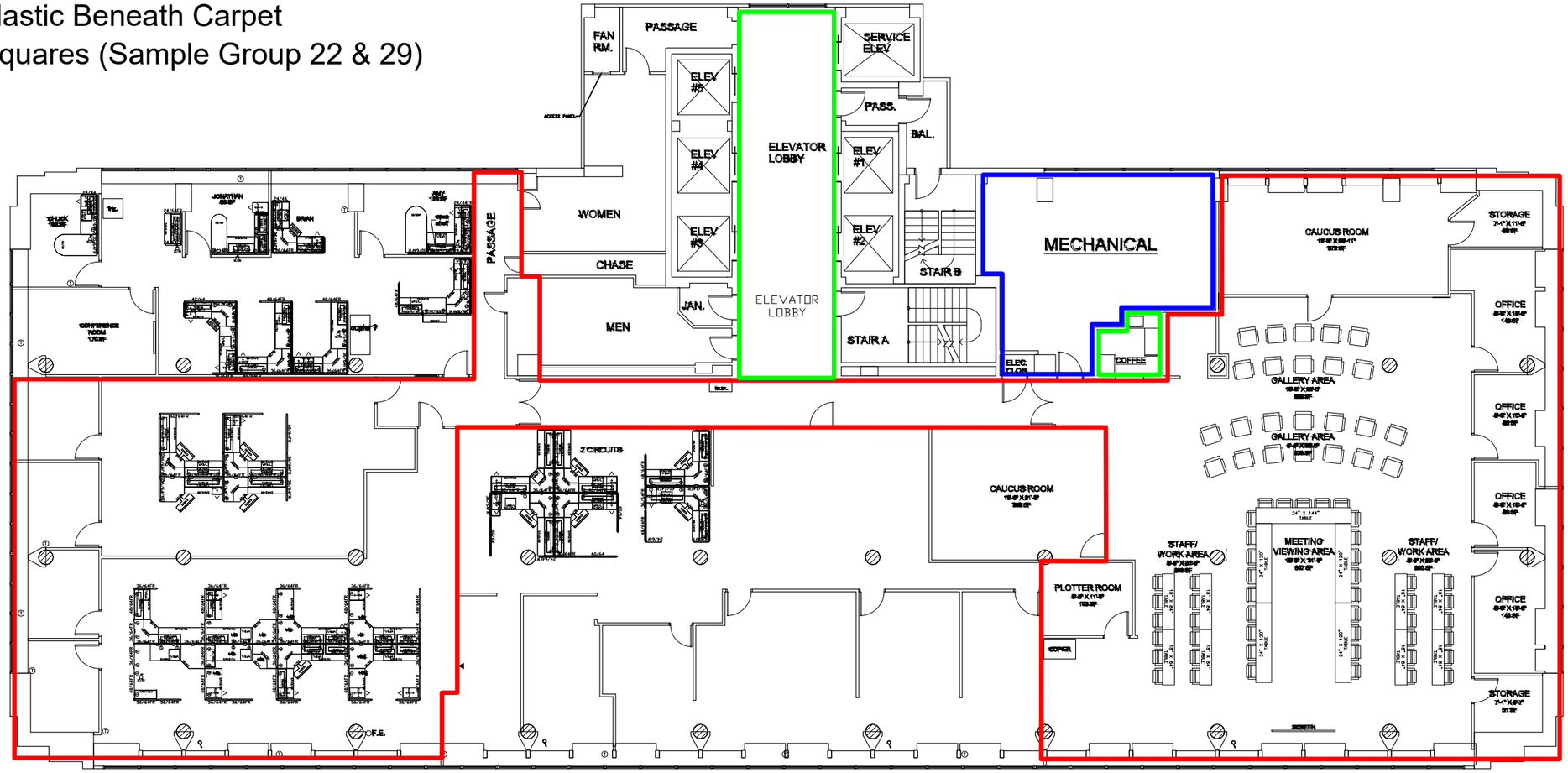
12" Brown Floor Tile Mastic

12" Beige Pattern Floor Tile Mastic (Sample Group 27)

Mastic Beneath Carpet Squares (Sample Group 22 & 29)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map
Jefferson State Office Building
205 Jefferson Street, Jefferson City, Missouri 65101

11th Floor

Date: 10/7/22

Project No. 238.01.003

Drawn By: GW

PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.

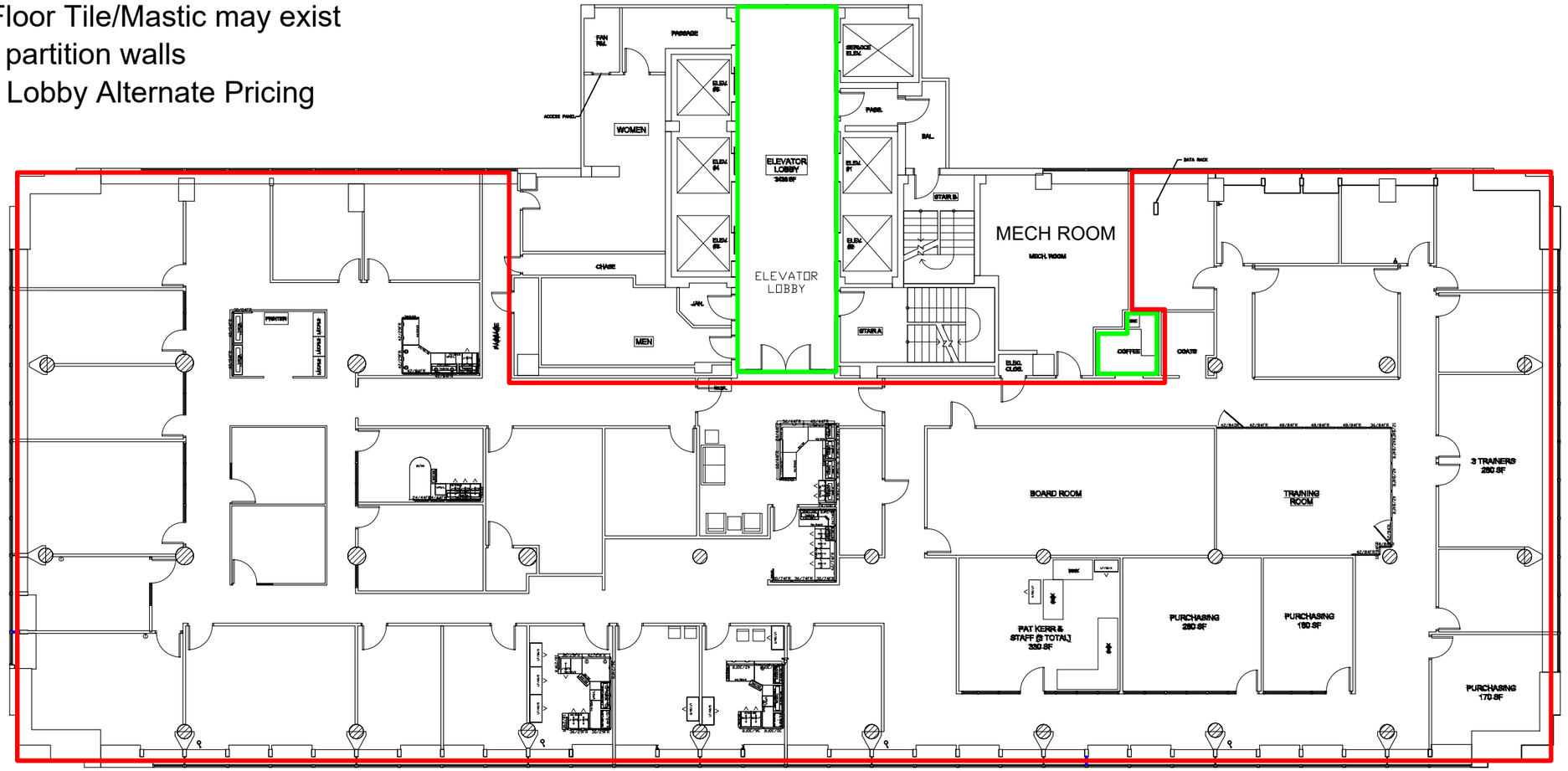
Legend

12" Brown Floor Tile Mastic

Floor Mastic Beneath Carpet Squares (Sample Group 30)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	12th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

Legend

12" Brown Floor Tile Mastic

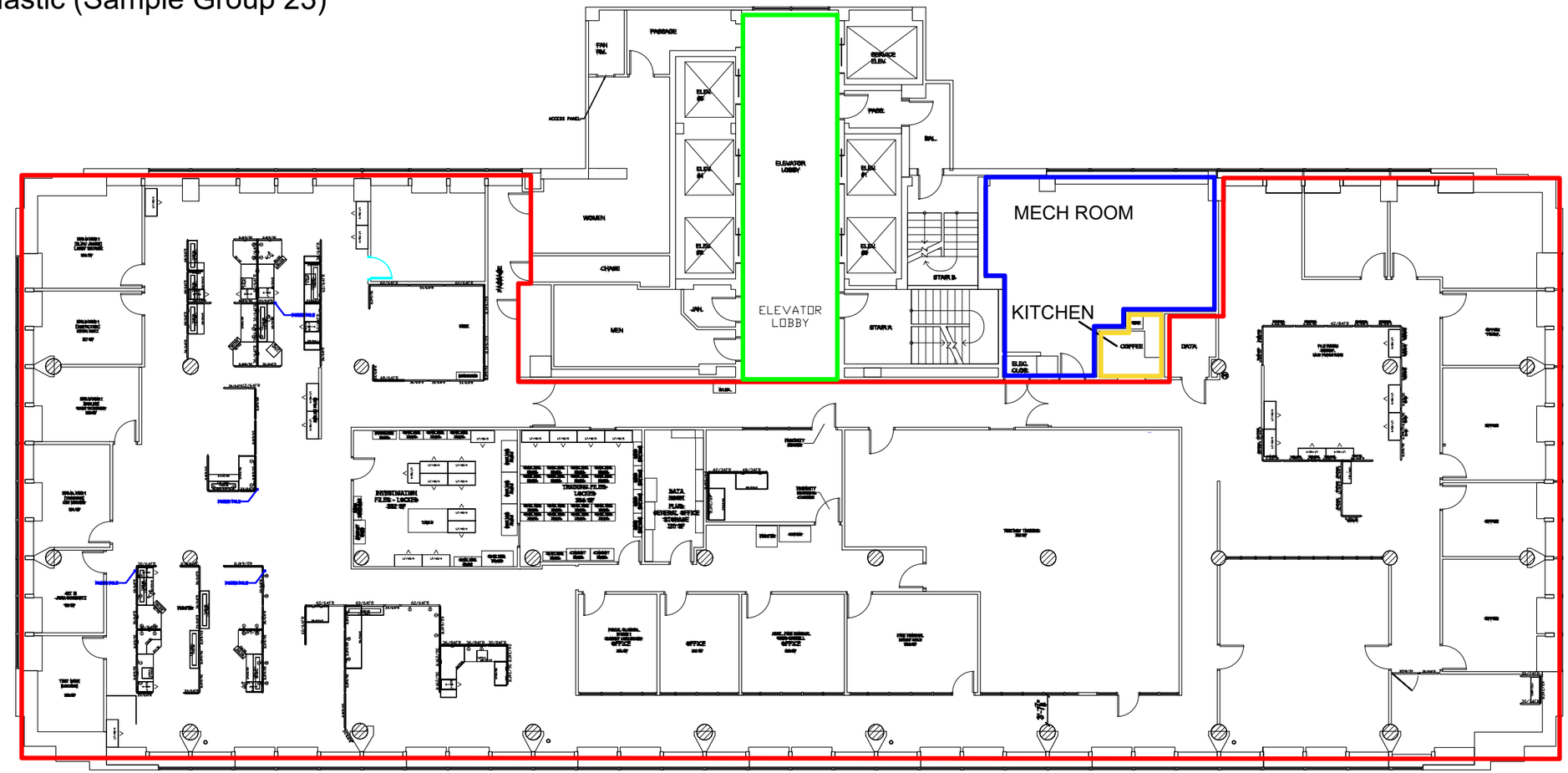
12" White Pattern Floor Tile Mastic (Sample Group 41)

12" Beige Pattern Floor Tile Mastic (Sample Group 23)

Mastic Beneath Carpet Squares (Sample Group 25)

Notes:

1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



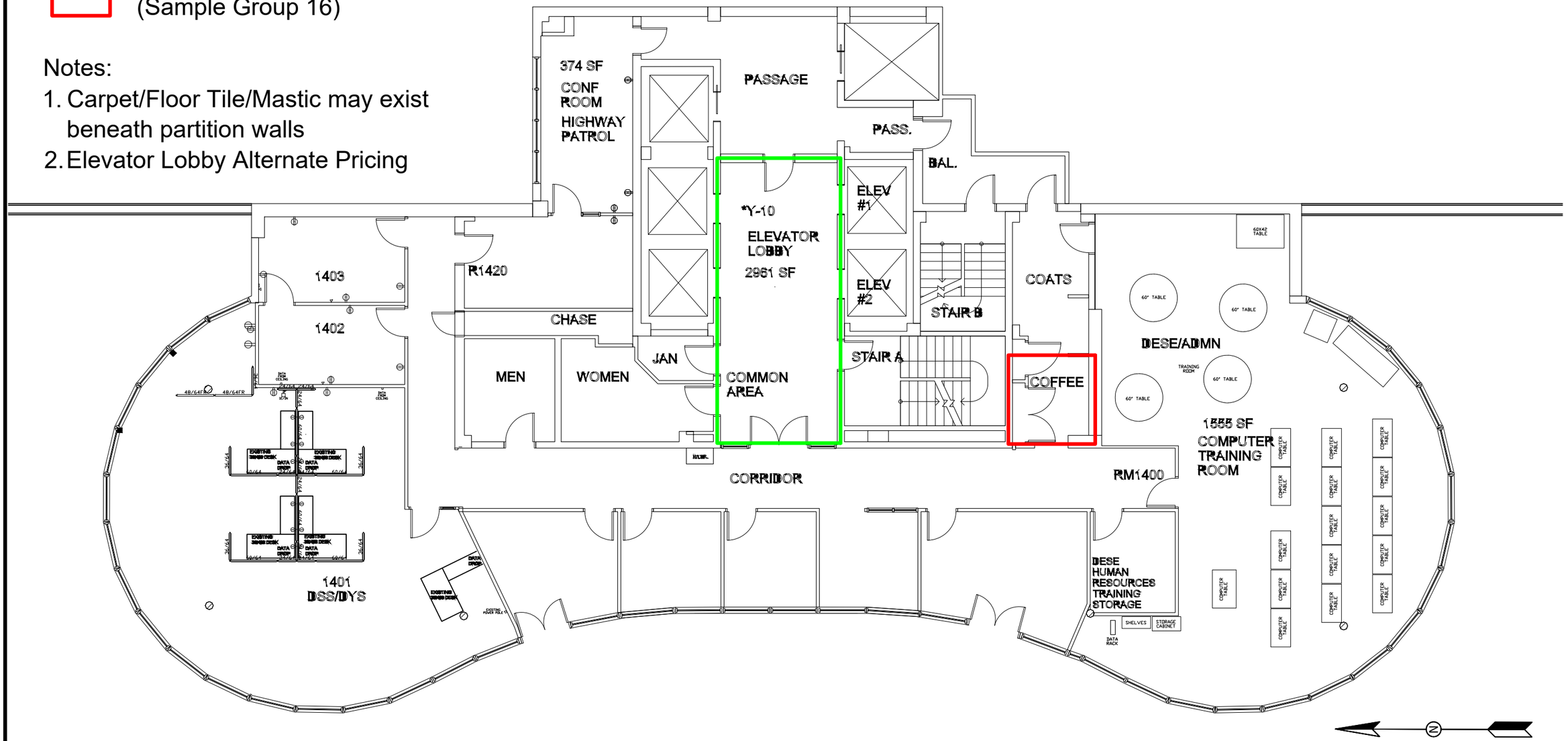
Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	13th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

Legend

12" Brown Floor Tile Mastic
(Sample Group 26)

12" Brown Floor Tile Mastic
(Sample Group 16)

Notes:
1. Carpet/Floor Tile/Mastic may exist beneath partition walls
2. Elevator Lobby Alternate Pricing



Asbestos Location Map Jefferson State Office Building 205 Jefferson Street, Jefferson City, Missouri 65101	14th Floor	Date: 10/7/22	PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
	Project No. 238.01.003	Drawn By: GW	

APPENDIX B

BID FORM

JEFFERSON STATE OFFICE BUILDING
205 Jefferson Street
Jefferson City, Missouri 65101
BID FORM

The contractor is requested to provide a lump-sum base bid for abatement of the selected asbestos containing materials from within building identified within Section 0105 – Summary of Work. It is mandatory that the bidder physically verify all quantities to ensure that the bidder's response is comprehensive and accurate. The quantities identified are estimates only.

The base bid as well as unit costs shall include all site mobilization, demobilization, removal, decontamination, transportation and disposal of asbestos materials. No change orders will be allowed after commencement of work.

Bidder agrees to perform all work necessary to complete the work as shown and as specified and as set forth in the Bidding Documents for the sum of:

Base Bid – Scope of Work

_____ *(Dollars) ($_____)*

Contractors Name

Authorized Agent

UNIT RATE SCHEDULE

Item	Material	Unit	Unit Rate
Asbestos Containing Materials			
1.	Floor Tile and Mastic	SF	
2.	Carpet and Mastic	SF	
3.	Mastic Removal	SF	

NOTES: SF - Square Feet

ALTERNATE NO. 3 – ELEVATOR UPGRADES PRICING

Location	Estimated Quantity	Cost
Second Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Third Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Fourth Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Fifth Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Sixth Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Seventh Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Eighth Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Ninth Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Tenth Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Eleventh Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Twelfth Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	
Thirteenth Floor - Elevator Lobby (Floor tile and Mastic)	300 SF	

Fourteenth Floor – Elevator Lobby (Floor tile and Mastic)	300 SF	

ALTERNATE NO. 5 – FRONT OF HOUSE CAFE PRICING

Location	Estimated Quantity	Cost
First Floor - Kitchen Area 12” White Pattern Mastic	1,086 SF (includes Kitchen)	

PROSOCO®

Consolideck®

CONCRETE FLOORING PRODUCTS

Concrete Floor Restorer

Non-etching Consolideck® Concrete Floor Restorer removes a wide variety of common stains and soiling from the oldest, dirtiest concrete floors. Once dry, cleaned floors are ready for traffic. They are also ready for repairs, hardening/densifying, and any other treatment aimed at improving appearance, performance and service-life.

Concrete Floor Restorer will not affect concrete color. It will remove most old floor waxes, skid marks, rust and other metallic stains, dirt, atmospheric soiling and more. It is ideal for any concrete floor that needs restoration cleaning, from industrial and commercial, to education, health and residential.

Concrete Floor Restorer gains its effectiveness from a blend of purified acids, oil and grease solvents, floor polish removers and wetting agents. Though designed for the many types of stains and soiling found on concrete floors, the cleaner is great for cleaning outside flatwork too.

Concrete Floor Restorer is compatible with all Consolideck® protective treatments, hardener/densifiers, and stains.

SAFETY INFORMATION

Always read full label and SDS for precautionary instructions before use. Use appropriate safety equipment and job site controls during application and handling.

24-Hour Emergency Information:
INFOTRAC at 800-535-5053

REGULATORY COMPLIANCE

VOC Compliance

Consolideck® Concrete Floor Restorer is compliant with all national, state and district VOC regulations.

ADVANTAGES

- **Improves color uniformity and enhances appearance.**
- **Contains no muriatic acid.**
- **Removes common construction stains and atmospheric dirt.**
- **Removes light oil and grease stains.**
- **Removes localized rust and other metallic staining on concrete.**
- **Removes waxes and sealants.**
- **Safe for most pigmented concrete.**
- **Water rinsable.**

Limitations

- Acidic contents may damage polished concrete, some non concrete and acid-sensitive surfaces.
- May damage previously color-stained surfaces.

TYPICAL TECHNICAL DATA

FORM	Clear, slight amber liquid
SPECIFIC GRAVITY	1.12
pH	0.20 concentrate 0.30 @ 1:3 dilution 0.56 @ 1:6 dilution
WT/GAL	9.39 lbs
ACTIVE CONTENT	not applicable
TOTAL SOLIDS	not applicable
VOC CONTENT	not applicable
FLASH POINT	>212° F (>100° C)
FREEZE POINT	<12° F (<–11° C)
SHELF LIFE	2 years in tightly sealed, unopened container

PREPARATION

Protect people, vehicles, property, plants, metal, all non masonry and acid-sensitive surfaces from contact with product, rinse residue, fumes and wind drift. Protect or divert auto and foot traffic. Clean when traffic is at a minimum.

Surface and Air Temperatures

Best air and surface temperatures for cleaning are 40°F (4°C) or above. Do not clean when temperatures are below freezing or will be overnight. If freezing conditions have existed, let the concrete thaw before cleaning.

Application to surfaces exposed to direct sunlight or high winds may cause rapid drying. When possible, clean when surfaces are shaded from direct sunlight. Wet hot surfaces with fresh water immediately before applying cleaner to remove loose soiling and reduce surface temperature.

Equipment

Apply with an acid-resistant mop or low-pressure sprayer (50 psi max) fitted with acid-resistant hoses and gaskets. Do not atomize. Pressure spraying above 50 psi drives the cleaner into the surface, making rinsing difficult and may cause stains.

Rinse with enough water to flush spent cleaner and dissolved soiling from the concrete surface and surface pores. Inadequate rinsing leaves residues which may stain the cleaned surface. Keep rinse psi low enough to flush the concrete without damage.

Pressure-washing equipment generating 400–1000 psi with a water-flow rate of 6–8 gallons per minute is the best water/pressure combination for rinsing porous concrete. Use a 15–45° fan spray tip. Heated water (150–180°F; 65–82°C) may improve cleaning efficiency. Use adjustable equipment for reducing water flow-rates and rinsing pressure as needed for sensitive concrete.

Rinsing pressures greater than 1000 psi and fan spray tips smaller than 15° may permanently damage sensitive concrete. Water flow-rates less than 6 gallons per minute may reduce cleaning productivity and contribute to uneven cleaning results.

Storage and Handling

Store in a cool, dry place with adequate ventilation. Always seal container after dispensing. Do not alter or mix with other chemicals, except as specified. Published shelf life assumes upright storage of factory-sealed containers in a dry place. Maintain temperature of 45–100°F (7–38°C). Do not double stack pallets. Dispose of unused product and container in accordance with local, state and federal regulations.

APPLICATION

Read "Preparation" and the Safety Data Sheet before use.

ALWAYS TEST a small area of each surface to confirm suitability, coverage rate and desired results before beginning overall application. Test with the same equipment, recommended surface preparation and application procedures planned for general application. Let surface dry thoroughly before inspection.

Dilution & Mixing

Test for proper dilution beginning with 1 part cleaner to 6 parts fresh water. Do not exceed 1 part cleaner to 3 parts fresh water. Use the mildest dilution that produces effective results.

Always pour cold water into an empty bucket first, then carefully add the cleaner. Never use hot water. Handle in plastic buckets only. Acidic materials and fumes attack metal.

Typical Coverage Rates

One gallon of prepared Concrete Floor Restorer will clean:

- approximately 50 sq.ft. (5 sq.m.) of porous, broom-finished concrete.
- up to 150 sq.ft. (14 sq.m.) of dense, trowel-finished concrete, or ground or polished floors.

Application Instructions

Multiple applications may etch acid-sensitive surfaces.

1. Apply cleaner evenly to a dry surface with an acid-resistant mop, applicator or low-pressure spray.
2. Let cleaner stay on the surface 3–5 minutes or until the stains dissolve. If treated surfaces are left unattended, keep people away from the cleaner. Scrubbing with an acid-resistant brush improves results. Do not let the cleaner dry on the surface. If it starts to dry, lightly wet the treated surface with fresh water, reapply the cleaner and scrub gently.
3. Rinse thoroughly with fresh water to get all residues off the surface. If pressure-rinsing equipment is not available, brush the surface while rinsing with plenty of clean water.

Cleanup

Clean tools and equipment using fresh water.

WARRANTY

The information and recommendations made are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application of our products, nor anticipate every variation encountered in masonry surfaces, job conditions and methods used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose.

PROSOCO, Inc. warrants this product to be free from defects. **Where permitted by law, PROSOCO makes no other warranties with respect to this product, express or implied, including without limitation the implied warranties of merchantability or fitness for particular purpose**. The purchaser shall be responsible to make his own tests to determine the suitability of this product for his particular purpose. PROSOCO's liability shall be limited in all events to supplying sufficient product to re-treat the specific areas to which defective product has been applied. Acceptance and use of this product absolves PROSOCO from any other liability, from whatever source, including liability for incidental, consequential or resultant damages whether due to breach of warranty, negligence or strict liability. This warranty may not be modified or extended by representatives of PROSOCO, its distributors or dealers.

CUSTOMER CARE

Factory personnel are available for product, environment and job-safety assistance with no obligation. Call 800-255-4255 and ask for Customer Care – technical support.

Factory-trained representatives are established in principal cities throughout the continental United States. Call Customer Care at 800-255-4255, or visit our web site at www.prosoco.com, for the name of the PROSOCO representative in your area.

BEST PRACTICES

Apply the cleaner "dry" without pre-wetting the floor.

In colder temperatures, increase dwell-time, not dilution strength. Always test.

Thorough rinsing of the cleaned surface at low pressure is crucial for best results. Six to 8 gallons per minute is ideal. Never exceed 1,000 psi during the rinse.

To remove deeply embedded oil and grease stains, test PROSOCO's Oil & Grease Stain Remover.

Ensure the cleaned floor stays clean by applying the appropriate Consolideck® protective treatments and conducting regularly scheduled maintenance cleaning.

Never go it alone. If you have problems or questions, contact your local PROSOCO distributor or field representative. Or call PROSOCO technical Customer Care, toll-free, at 800-255-4255.

City of Jefferson, Missouri - Department of Public Works

320 East McCarty Street, Jefferson City, Missouri 65101 (573) 634-6410

APPLICATION FOR STREET CUT AND RIGHT-OF-WAY EXCAVATION

PERMIT NO. _____ **Call 573-634-6410 before any work begins!**

PERMIT FEE _____ **Right-of-Way $55 per block** **Street Cut $215 per location** Amount Paid $ _____

(Acct. #10-100-440210) (payable to "City of Jefferson")

cash _____ check # _____ credit card _____

_____ Permit Fee will be doubled as penalty for failure to obtain permit prior to beginning construction.

LOCATION _____ Date of Application _____

Purpose _____ Date Work to Commence _____

_____ _____

Name of Home Owner/Applicant(s) Name of Contractor

_____ _____

Address of Home Owner/Applicant(s) Address of Contractor

_____ _____

City/State/Zip Code City/State/Zip Code

Phone No. _____ 24 hour Phone No. _____

***MUST COMPLY WITH CITY CODE**

If work involves directional boring, location of drilling mud disposal site is required.

Name of Disposal Location and Site Operator: _____

All work to be done in compliance with the laws and ordinances pertaining to said work, more specifically, Sections 32-70 through 32-79, Code of the City of Jefferson, Missouri.

*Sections 31-400 through 31-440 define Illicit Discharges. Improper disposal of drilling mud at fill sites without containment constitutes an Illicit Discharge.

All work will follow the City's Underground Utility Policy, which is available by request or at www.jeffersoncitymo.gov/

I have a copy of and understand the requirements for work on right-of-way.

E-mail Address: Applicant Signature: _____

VOID UNLESS WORK IS STARTED WITHIN ONE (1) MONTH

The City of Jefferson reserves the right to complete or have completed any work that is not done in a timely manner or to correct or have corrected any deficient work at the applicant's expense.