ADDENDUM NO. 01

TO: PLANS AND SPECIFICATIONS FOR STATE OF MISSOURI

HVAC Improvements for Infection Control
Warrensburg Veterans Home
Warrensburg, Missouri
PROJECT NO.: U2301-07

Bid Opening Date: 1:30PM, Thursday, October 16, 2025 (Unchanged)

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

SPECIFICATION CHANGES:

1. No Specification Changes.

DRAWINGS CHANGES:

1. Sheet G-002
    a. REVISE general note 2 to read: CONTRACTOR SHALL PROVIDE TEMPORARY SHIPPING/ STORAGE CONTAINERS ON SITE FOR FURNITURE FOR THE DURATION OF DEMOLITION AND CONSTRUCTION, TO BE REMOVED FROM SITE UPON COMPLETION OF THE PROJECT. LOCATION OF TEMPORARY STORAGE CONTAINERS TO BE COORDINATED WITH OWNER. CONTRACTOR MAY STORE EXISTING FURNITURE WITHIN AREAS OF WORK INSTEAD OF STORAGE CONTAINERS IF ADEQUATE PROTECTION IS PROVIDED TO COVER FURNITURE ENTIRELY SO THAT FURNITURE REMAINS UNDAMAGED AND CLEAN.
2. Sheet MD-102
    a. Add keynote 9.
3. Sheet MD-103
    a. Add keynote 11.
4. Sheet M-101
    a. Revise location of new Pressure Sensor Displays.
    b. Revise Renovation Note 6.
5. Sheets M-104, M-105, and M-106
    a. Revise FFU-1A and FFU-1B to add balance dampers on second outlet.
6. Sheet M-601

a. Revise schedule notes.

7. Sheet M-602

    a. Revise Sequence of Operation Alarms.

8. Sheet E-101

    a. REVISE location of existing 2-pole exhaust fan contactor from the north wall in Mechanical Room A315 to on the AHU-4 next to the supply fan starter.

9. Sheet E-102

    a. REVISE drawing to add existing contactor location on AHU-4.

    b. REVISE construction note 2 to read: ELC TO PROVIDE WIRE AND CONDUIT AND CONNECT POWER TO NEW FACTORY PROVIDED DISCONNECT AS SHOWN. RUN POWER THROUGH NEW CONTACTOR IN MECHANICAL ROOM A315. SEE NOTE 15.

    c. ADD construction note 15: ELC TO ADD 4-POLE CONTACTOR IN EXISTING CONTACTOR ENCLOSURE. MAKE ALL WIRING CONNECTIONS TO NEW EXHAUST FANS AS SHOWN. CONTACTOR TURNS EXHAUST FANS ON WHEN AHU-4 IS ON. CIRCUITING FOR POWER TO CONTACTOR TO REMAIN. IF ENCLOSURE DOES NOT HAVE ROOM FOR A NEW 4-POLE CONTACTOR, ELC TO PROVIDE AND INSTALL ADDITIONAL ENCLOSURE AS NEEDED.

GENERAL COMMENTS:

1. The Pre-Bid Meeting was held October 2, 2025, followed by a walk-through of the site. The Pre-Bid Meeting sign-in sheet is attached.
2. Bidders needing additional site inspection should contact Aaron Snyder at (616) 334-9849 to schedule a time.
3. Please contact Mandy Roberson, Contract Specialist, at 573-522-0074 or Mandy.Roberson@oa.mo.gov, for questions about bidding procedures and MBE\WBE\SDVE goals and submittal requirements.
4. The deadline for technical questions is End of Business (5PM) on October 8, 2025.
5. Changes to, or clarification of, the bid documents are only made as issued in the addenda.
6. All correspondence with respect to this project must include the State of Missouri project number as indicated above.
7. Current Planholders list available online at: https://www.oafmdcplanroom.com/projects/3012/details/u2301-07-hvac-improvements-for-infection-control-warrensburg-veterans-homeProspective Bidders contact American Document Solutions, 1400 Forum Blvd Suite 1C, Columbia MO 65201, 573-446-7768 to order official plans and specifications.
8. **All bids shall be submitted on the bid form without additional terms and conditions, modifications, or stipulations. Each space on the bid form shall be properly filled including a bid amount for the alternates. Failure to do so will result in rejection of the bid.**
9. **MBE/WBE/SDVE participation requirements can be found in DIVISION 00. The MBE/WBE/SDVE participation goals are 0%/0%/3%, respectively. Only certified firms as of the bid opening date can be used to satisfy the MBE/WBE/SDVE participation goals for this project. If a bidder is unable to meet a participation goal, a Good Faith**

Effort Determination Form must be completed. Failure to complete this process will result in rejection of the bid.

QUESTIONS RECEIVED AND ANSWERED:

1. Q: Could the gas tie in be in a more accessible location near the Middle of the Mechanical room.
   A: There is no plan to change the location for tapping the gas line. We need to come off the high pressure line before any other equipment.
2. Q: The AHU upgrading motors and VFD's, shown in the electrical plans, sheet E102, replace motor's and VFD's: Will there be a code variance? The location does not have the minimum safe clearance for the new VFD located in the space.
   A: We understand the NEC working clearances are not meet, and we will be given a variance due to existing conditions.
3. Q: Who is the existing fire alarm company at this facility?
   A: Simplex system that is serviced by Johnson Controls
4. Q: Will it be permitted to store the furniture in the confines of the site if measures such as plastic/zip walls are used to protect it?
   A: It would be acceptable to take measures to protect the furniture on site, rather than storing them in a separate storage pod, if you are confident you would avoid damage.
5. Q: Is the use of Procore in lieu of eBuilder acceptable if it is offered at no cost to the owner?
   A: This will not be an option. All project management will be through Trimble Unity Construct (formerly e-Builder).

ATTACHMENTS:

A. Pre-Bid Meeting Sign-In Sheet (5 Pages)
B. Plan sheets MD-102, MD-103, M-101, M-104, M-105, M-106, M-601, M-602, E-101, E-102

END ADDENDUM 01

Pre-Bid Meeting Attendance Sheet
HVAC Improvements for Infection Control, Warrensburg Veterans Home
Warrensburg, Missouri

Project No. U2301-07
October 2, 2025

Name & Title	Company Name	Phone	E-Mail Address
Ryan Abbott Project Manager RA	PMU/OA	(573) 298-1967	Ryan.Abbott@oa.mo.gov
Tracie Siebeneck Professional Engineer	PDU/OA	(573) 508-9480	Tracie.Siebeneck@oa.mo.gov
Alex Haffley Associate Engineer	PDU/OA	(573) 508-8917	Alexander.Haffley@oa.mo.gov
Cara Luttrell Designer	PDU/OA	(573) 508-2845	Cara.Luttrell@oa.mo.gov
John Gentges Construction Project Technician	CA/OA		John.Gentges@oa.mo.gov
Shane Bullock SB Construction Project Specialist	Missouri Veterans Commission	(573) 522-4229	shane.bullock@mvc.dps.mo.gov
Brittney Owens Director of Social Work	Missouri Veterans Commission/ Warrensburg Veterans Home	(660) 429-4601	Bittney.Owens@mvc.dps.mo.gov

Pre-Bid Meeting Attendance Sheet
HVAC Improvements for Infection Control, Warrensburg Veterans Home
Warrensburg, Missouri

Project No. U2301-07
October 2, 2025

Name & Title	Company Name	Phone	E-Mail Address
Jason Sanders	All Pro Electrical Tech Inc.	660-747-0090	jsanders@allproelectrical.com
Michael Ashcraft	MSI Constructors	417-881-0903	estimating@msiconstructors.com
Tom Eiberger	Eiberger Const	816-985-3169	mary@eibergerconstruction.com
Mark Skinner	Midwest Engineering & Design	573-875-0045	MSkinner@mwengineering.com
Asa Bowling maint supervisor	Movet	660 864 1565	Asa.Bowling@mvc.dps.mo.gov
Mike Lesneski	CAMM Construction	816 564 3918	mike@cammconstructioninc.com

Pre-Bid Meeting Attendance Sheet
HVAC Improvements for Infection Control, Warrensburg Veterans Home
Warrensburg, Missouri

Project No. U2301-07
October 2, 2025

Name & Title	Company Name Type of Contracting	MBE/WBE/ SDVE Status	Phone	E-Mail Address of Attendee and E-Mail Address of Individual filling out Bid Documents
Jeff Bates, PM	SMS Electrical		816-957-5300	jbates@SMSElectric.com
Shawn Ryan	M & S Elec.		816-521-9929	Shawn@Mandselectric.net
Kenny Clay	TRICOUNTY ELECTRICAL		816 269 0824	KCLAY@TRICOUNTYELECTRICAL.COM
Chuck Paszkiewicz	Martin Mech		816-215-1817	chuckp+martinkc.com
Ken Porting	United Mechanical Services		573 298 4499	Ken.Porting@unitedmechserv.com
CHRIS TEBBE PM	VAZQUEZ COMMERCIAL CONTRACTING		816.392.0086	christe vazquezcc.com

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HVAC Improvements for Infection Control, Warrensburg Veterans Home
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Project No. U2301-07
October 2, 2025

Name & Title	Company Name & Type of Contracting	MBE/WBE/ SDVE Status	Phone	E-Mail Address of Attendee & E-Mail Address of Individual filling out Bid Documents
Donnie Funk	SCS Demo	N/A	816-935-0977	dfunk@scs-kc.com
Stuart Smith	Ambassador Drywall	N/A	811 278 0277	Smithambassador@gmail.com
Joe Reynolds	Childress Painting	WBE	816-966-1700	joe@childresspainting.com
Juan de Leon	Citadel Electric	N/A	8162151744	JdeLeon@citadelelectric.com
Drake Remington	Pro-Mechanical	WBE	816 598 6311	drake@pro-mechanical.net
Aaron Snyder MVH Warrensburg Maintenance	MVH - Burg		660 334 9849	aaron.Snyder@mvc.dps.mo.gov

Pre-Bid Meeting Attendance Sheet
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Warrensburg, Missouri

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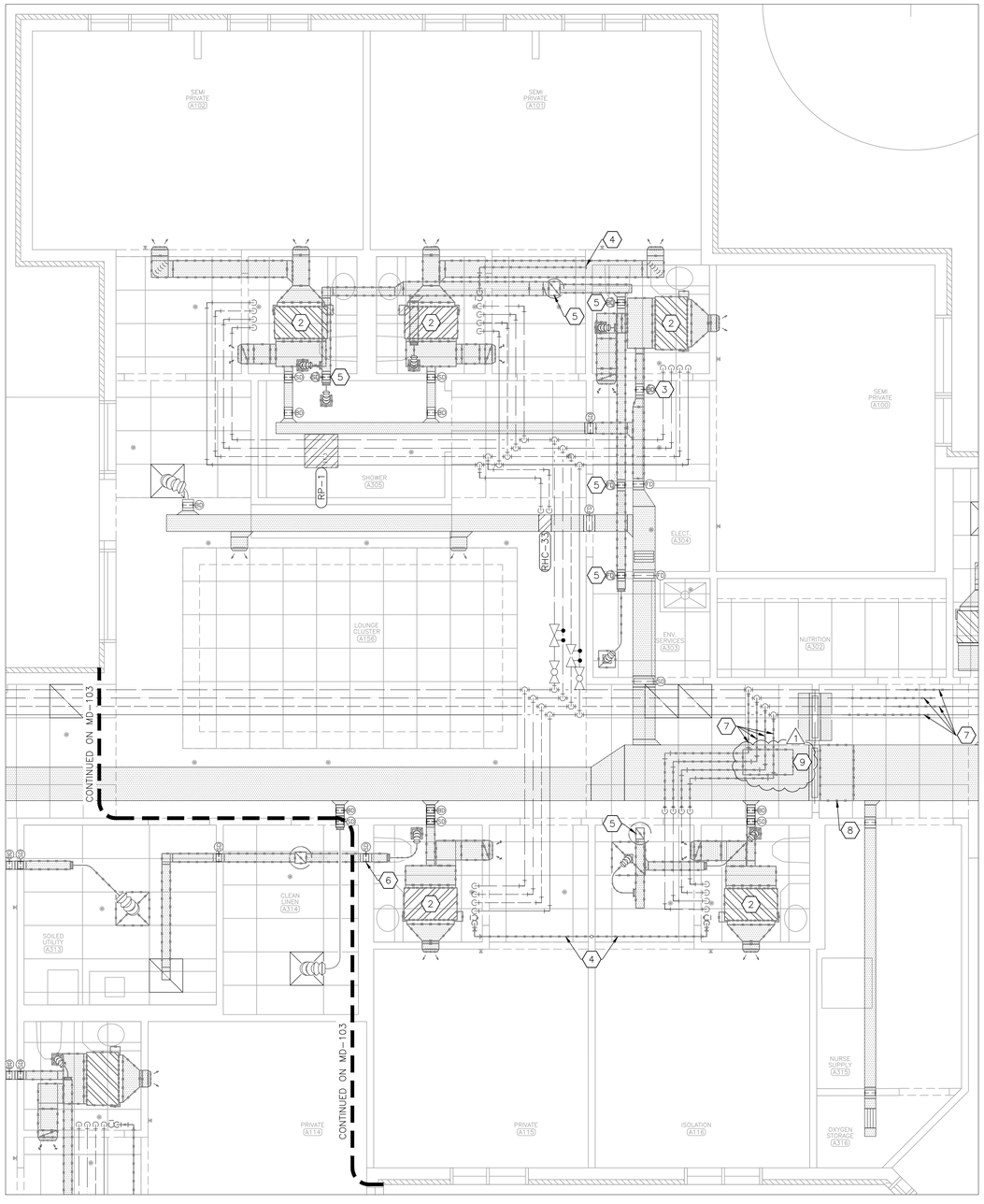
October 2, 2025

Name & Title	Company Name Type of Contracting	MBE/WBE/ SDVE Status	Phone	E-Mail Address of Attendee and E-Mail Address of Individual filling out Bid Documents
Justin Riemensnider Senior PM	Onsite Construction Group General Contractor	SDVE	573 480 2220	Justin@onsite-cg.com
Matt Johnson Owner	Johnson Mech HVAC		573-433-0195	Matt@JMCHVAC.com
Daron Pissott Owner	Mid-Missouri Plumbing Plumbing		573-286-4746	Mid.Mo.Plumbing@Gmail.com



1 MECHANICAL DEMOLITION PLAN – LOUNGE CLUSTER A156
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES

(N) INDICATES KEYED NOTES

1 REFER TO MD-101 FOR GENERAL DEMOLITION NOTES.

(2) DEMOLISH EXISTING FAN COIL UNIT, ALL ASSOCIATED DUCT, AND AIR DEVICES AS SHOWN. CONTROLS SHALL REMAIN FOR USE IN NEW CONSTRUCTION.

(3) DEMOLISH BALANCE DAMPER AND ASSOCIATED DUCT AS SHOWN.

(4) DEMOLISH CONDENSATE DRAIN PIPE AS SHOWN OR AS NEEDED FOR CEILING TO BE RAISED IN NEW CONSTRUCTION.

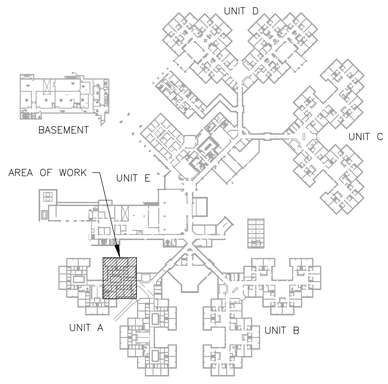
(5) DEMOLISH EXHAUST FAN. UNLESS OTHERWISE NOTED, DEMOLISH ALL ASSOCIATED DUCT, SMOKE DAMPERS, AND AIR DEVICES. SEAL CEILING/ROOF AND WALL PENETRATIONS TO MATCH EXISTING FINISH AND PERFORMANCE. ENSURE ALL FIRE/SMOKE WALLS AND PARTITIONS ARE SEALED IN ACCORDANCE WITH THEIR RATING.

(6) SMOKE DAMPER TO REMAIN FOR USE IN NEW CONSTRUCTION.

(7) DEMOLISH HYDRONIC PIPE AS SHOWN.

(8) DEMOLISH DUCT AS SHOWN OR AS NEEDED TO COMPLETE THE WORK.

1 (9) CREATE PENETRATION IN EXISTING DUCT FOR NEW MAKE-UP AIR UNIT (MAU-3) DUCT ROUTING. REFER TO SHEET M-104 FOR PENETRATION SIZE.



2 AREA MAP

HVAC LEGEND

	DIRECTION OF FLOW
RHC-##	EXISTING EQUIPMENT LABEL
FD	FIRE DAMPER
SD	SMOKE DAMPER
BD	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
	EQUIPMENT – EXISTING
	SUPPLY AIR – EXISTING
	RETURN AIR – EXISTING
	EXHAUST AIR – EXISTING
	CHILLED WATER SUPPLY – EXISTING
	CHILLED WATER RETURN – EXISTING
	HEATING WATER SUPPLY – EXISTING
	HEATING WATER RETURN – EXISTING
	EXISTING MATERIALS TO BE REMOVED

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

STATE OF MISSOURI
TRACIE L SIEBENECK
NUMBER PE-2013019114
PROFESSIONAL ENGINEER

Tracie L. Siebeneck - Engineer
MO# PE-2013019114

BID DOCUMENTS

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF PUBLIC SAFETY/ VETERANS COMMISSION

HVAC IMPROVEMENTS FOR INFECTION CONTROL

WARRENSURG VETERANS HOME
1300 VETERANS DRIVE,
WARRENSBURG, MO 64093

PROJECT # U2301-07
SITE # 6806
ASSET # 8136806001

REVISION: ADDENDUM NO.1 (1)
DATE: 10/09/2025
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2025

CAD DWG FILE: M_U2301-07
DRAWN BY: AH
CHECKED BY: TS
DESIGNED BY: TS/AH

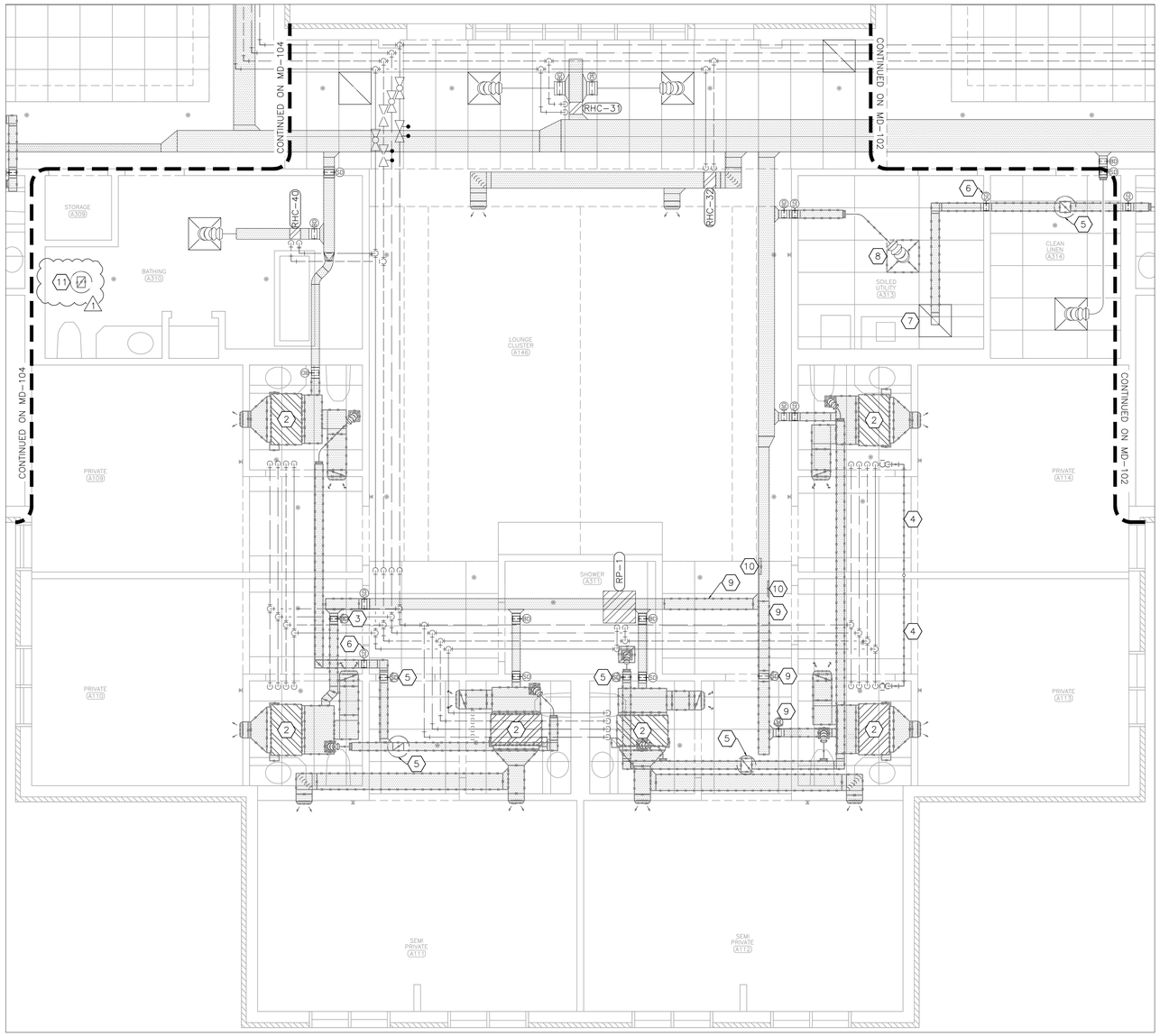
SHEET TITLE:

MECHANICAL DEMOLITION PLAN LOUNGE A156

SHEET NUMBER:

MD-102

10 OF 26 SHEETS
08/01/2025



1 MECHANICAL DEMOLITION PLAN – LOUNGE CLUSTER A146
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES

(N) INDICATES KEYED NOTES

1 REFER TO MD-101 FOR GENERAL DEMOLITION NOTES.

(2) DEMOLISH EXISTING FAN COIL UNIT, ALL ASSOCIATED DUCT, AND AIR DEVICES AS SHOWN. CONTROLS SHALL REMAIN FOR USE IN NEW CONSTRUCTION.

(3) DEMOLISH BALANCE DAMPER AND ASSOCIATED DUCT AS SHOWN.

(4) DEMOLISH CONDENSATE DRAIN PIPE AS SHOWN OR AS NEEDED FOR CEILING TO BE RAISED IN NEW CONSTRUCTION.

(5) DEMOLISH EXHAUST FAN. UNLESS OTHERWISE NOTED, DEMOLISH ALL ASSOCIATED DUCT, SMOKE DAMPERS, AND AIR DEVICES. SEAL CEILING/ROOF AND WALL PENETRATIONS TO MATCH EXISTING FINISH AND PERFORMANCE. ENSURE ALL FIRE/SMOKE WALLS AND PARTITIONS ARE SEALED IN ACCORDANCE WITH THEIR RATING.

(6) SMOKE DAMPER TO REMAIN FOR USE IN NEW CONSTRUCTION.

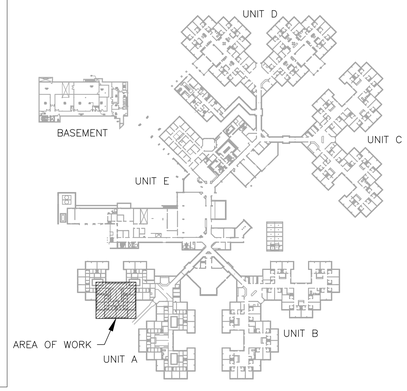
(7) EXHAUST AIR DEVICE TO REMAIN FOR USE IN NEW CONSTRUCTION.

(8) REMOVE AND RETAIN AIR DEVICE. DEMOLISH ASSOCIATED DUCT BACK TO SMOKE DAMPER AS SHOWN. SMOKE DAMPER TO REMAIN.

(9) DEMOLISH BALANCE DAMPER, SMOKE DAMPER, AND ASSOCIATED DUCT AS SHOWN. PROVIDE AND INSTALL INSULATED SHEET METAL CAP ON DUCT TO REMAIN.

(10) CREATE PENETRATION IN EXISTING DUCT FOR NEW BRANCH.

1 (11) DEMOLISH EXHAUST FAN. DEMOLISH ALL ASSOCIATED DUCT AND AIR DEVICES. PENETRATION TO BE USED IN NEW CONSTRUCTION.



2 AREA MAP

HVAC LEGEND

	DIRECTION OF FLOW
RHC-##	EXISTING EQUIPMENT LABEL
FD	FIRE DAMPER
SD	SMOKE DAMPER
BD	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
	EQUIPMENT – EXISTING
	SUPPLY AIR – EXISTING
	RETURN AIR – EXISTING
	EXHAUST AIR – EXISTING
	CHILLED WATER SUPPLY – EXISTING
	CHILLED WATER RETURN – EXISTING
	HEATING WATER SUPPLY – EXISTING
	HEATING WATER RETURN – EXISTING
	EXISTING MATERIALS TO BE REMOVED

STATE OF MISSOURI
MIKE KEHOE, GOVERNOR

STATE OF MISSOURI
TRACIE L SIEBENECK
NUMBER PE-2013019114
PROFESSIONAL ENGINEER

Tracie L. Siebeneck - Engineer
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ASSET # 8136806001

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CAD DWG FILE: M_U2301-07
DRAWN BY: AH
CHECKED BY: TS
DESIGNED BY: TS/AH

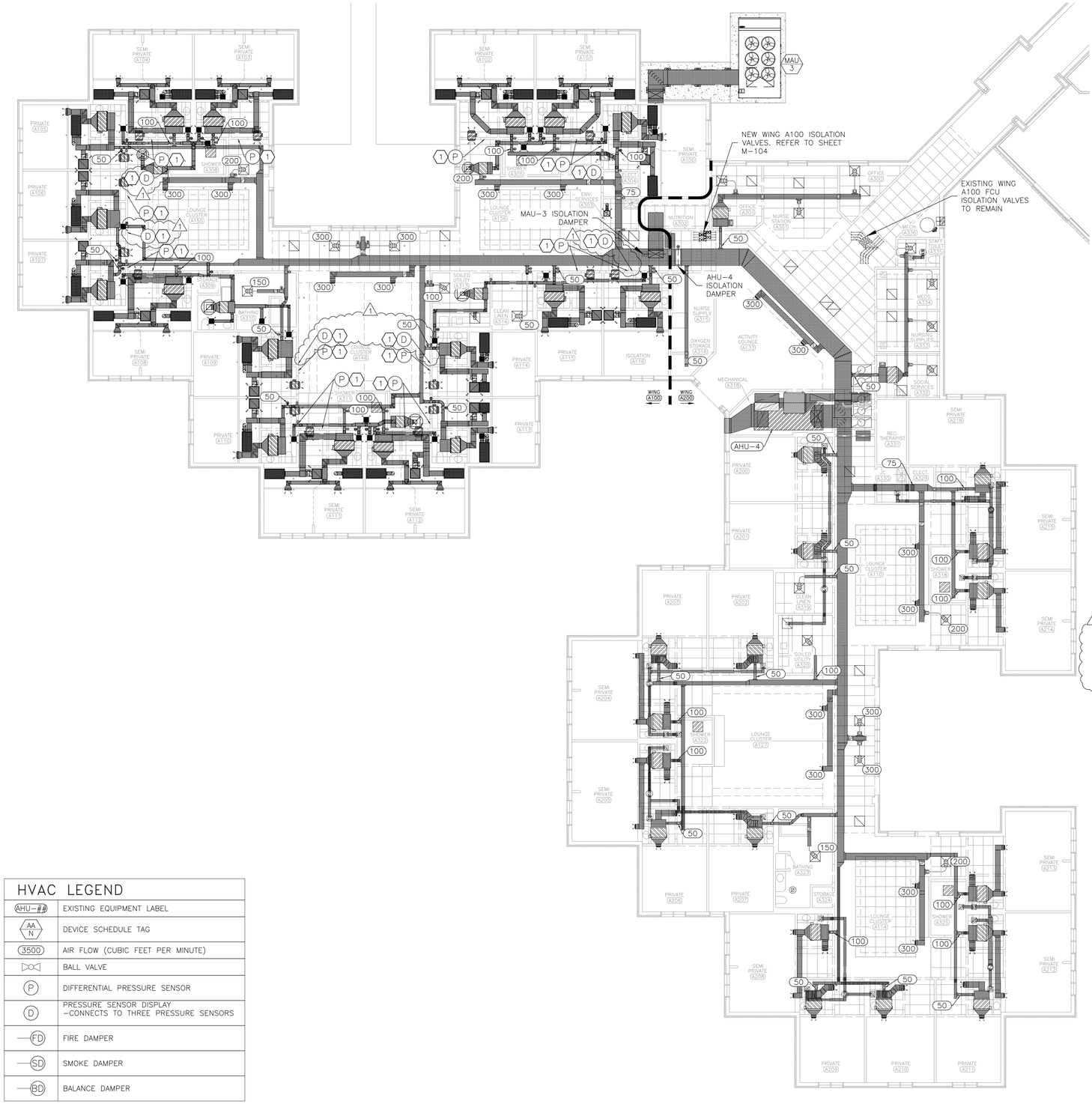
SHEET TITLE:

MECHANICAL DEMOLITION PLAN LOUNGE A146

SHEET NUMBER:

MD-103

11 OF 26 SHEETS
08/01/2025



GENERAL RENOVATION NOTES

1. FABRICATION, INSTALLATION, AND TESTING OF ALL HVAC SYSTEMS SHALL BE IN ACCORDANCE WITH ALL MANUFACTURER INSTALLATION GUIDELINES. REFER TO SHEET G-002 FOR APPLICABLE CODES AND STANDARDS.
2. ALL METALLIC AND FLEXIBLE DUCTS SHALL BE CONSTRUCTED AND INSTALLED AS SPECIFIED IN THE IMC AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
3. DUCT HAS BEEN DESIGNED TO FIT IN THE SPACE AVAILABLE AND TO AVOID CONFLICTS. CONTRACTOR SHALL FIELD VERIFY FOR ANY UNFORESEEN CONFLICTS PRIOR TO FABRICATING DUCT. CONTRACTOR SHALL COORDINATE WITH OTHER DISCIPLINES TO ENSURE ADEQUATE SPACE IS AVAILABLE FOR DUCT. IF DUCT IS ROUTED ABOVE OTHER DUCT, COORDINATE ELEVATION OF EACH DUCT PRIOR TO INSTALLATION TO ENSURE IT WILL FIT IN THE SPACE AVAILABLE. DESIGN INSULATION THICKNESS IS 1.5 INCH.
4. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL LINE VOLTAGE WIRING AND CONDUIT. COORDINATE WITH ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL CONDUIT FOR LOW VOLTAGE WIRING.
5. THIRD PARTY, AABC OR NEBB CERTIFIED TESTING, ADJUSTING, AND BALANCING CONTRACTOR SHALL TEST AND BALANCE ALL SYSTEMS TO SPECIFIED VALUES AND PREPARE A BALANCE REPORT PER ASHRAE STANDARD 111 OR EQUAL. REPORT SHALL BE SENT TO THE ENGINEER FOR APPROVAL PRIOR TO FINAL COMPLETION. BALANCE DAMPERS ARE REQUIRED ON ALL SUPPLY AND EXHAUST AIR DEVICES.
6. ALL DUCTWORK WITH TWO DIMENSION <WxD> INDICATES RECTANGULAR DUCT. ALL <D@> INDICATES ROUND DUCT. DIMENSIONS ARE INCHES MEASURED INSIDE. PROVIDE STANDARD TURNING VANES OR CURVED ELBOW WITH SQUARE THROAT ON RECTANGULAR DUCTS. ROUND DUCT SHALL MAINTAIN A CENTERLINE TURNING RADIUS OF 1.5 X DUCT DIAMETER. FLEXIBLE DUCT SHALL BE 5 FEET MAXIMUM LENGTH AND BE SUPPORTED TO MINIMIZE STATIC PRESSURE DROP.
7. ALL INSULATION SHALL MEET THE ASTM E 84 FLAME/SMOKE SPREAD INDEX OF 25/50 MAXIMUM. DUCT SEAMS SHALL BE SEALED.
8. PROVIDE SUITABLE SUPPORTS FOR STABILITY OF ALL HVAC DEVICES AND DUCT. AIR HANDLING EQUIPMENT SHALL BE PROVIDED WITH FLEXIBLE SUPPLY AND RETURN AIR DUCT CONNECTORS AT UNITS. HORIZONTAL UNITS SHALL BY SUPPORTED FROM THE STRUCTURE ABOVE THE UNIT.
9. PROVIDE A TRAPPED CONDENSATE DRAIN PIPE FOR ALL EVAPORATORS. CONDENSATE PIPE SHALL BE 0.75 INCH INSIDE DIAMETER. SLOPE IN THE DIRECTION OF DISCHARGE A MINIMUM OF 1/8" PER FOOT. CONDENSATE PIPE SHALL BE INSULATED. CONNECT TO EXISTING CONDENSATE DRAIN SYSTEM.

RENOVATION NOTES

(N) INDICATES KEYED NOTES

(1) CONTROLS CONTRACTOR SHALL PROVIDE THROUGH THE WALL PRESSURE SENSOR TSI MODEL 800243 OR EQUAL AND LOCATE NEXT TO DOOR OF EACH BEDROOM. PROVIDE TSI DISPLAY MODEL RPM20 OR EQUAL. ROUTE CONTROL WIRING AS NEEDED TO MONITOR THE THREE NEAREST PRESSURE SENSORS. CAREFULLY FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS. CONTROLS CONTRACTOR SHALL PROVIDE AND INSTALL 120V TO 24V TRANSFORMER REQUIRED TO PROVIDE 24V POWER TO PRESSURE MONITORING SYSTEM.

2. PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITIES, TESTING AND BALANCING CONTRACTOR SHALL TEST EXISTING AIRFLOW FOR AHU-4 AND ALL FAN COIL UNITS IN WING A100 AND WING A200. PROVIDE EXISTING AIRFLOW RATES FOR ALL SUPPLY, RETURN, AND EXHAUST IN EACH SPACE. BUILDING PRESSURE SHALL BE MEASURED AT EACH OUTSIDE DOOR AND AT THE ENTRANCE TO EACH WING. PROVIDE A REPORT TO THE ENGINEER. REPORT SHALL INCLUDE THE FLOOR PLAN WITH AN AIRFLOW LABELED FOR EACH INLET AND OUTLET AND PRESSURE LABELED AT EACH DOOR. LABELS SHALL BY TYPE WRITTEN AND CLEARLY INDICATE WHICH AIR DEVICE OR DOOR THEY ARE ASSOCIATED WITH.
3. A PRE-BALANCE MEETING IS REQUIRED BEFORE TESTING AND BALANCING ACTIVITIES FOR NEW CONSTRUCTION TAB WORK. REFER TO SECTION 230593 FOR ADDITIONAL REQUIREMENTS.
4. GENERAL CONTRACTOR SHALL COMPLETE GASKETED LAY-IN CEILING INSTALLATION FOR ONE BEDROOM/BATHROOM AS EARLY IN CONSTRUCTION AS POSSIBLE. UPON COMPLETION, TESTING AND BALANCING CONTRACTOR SHALL PERFORM BLOWER DOOR TESTING ON BEDROOM. COVER ALL SUPPLY AND EXHAUST AIR OPENINGS IN THE SPACE PRIOR TO PERFORMING TEST. REMAINING ROOMS SHALL NOT RECEIVE CEILING INSTALLATION UNTIL BLOWER DOOR TEST REPORT IS APPROVED.
5. WITH MAKE UP AIR UNIT (MAU-3) OFF, MAU-3 ISOLATION DAMPER CLOSED, AND AIR HANDLER (AHU-4) ISOLATION DAMPER OPEN, TAB CONTRACTOR SHALL TEST AND BALANCE AHU-4 TO AIRFLOWS SHOWN. AHU-4 SUPPLY FAN SPEED IS CONTROLLED BY DUCT STATIC PRESSURE. PROVIDE DUCT STATIC PRESSURE SETPOINT TO CONTROLS CONTRACTOR. AFTER THE STATIC PRESSURE SETPOINT IS ESTABLISHED, TEST THE ENTIRE SYSTEM AGAIN WITH MAKE UP AIR UNIT (MAU-3) ON, MAU-3 ISOLATION DAMPER OPEN, AND AIR HANDLER (AHU-4) ISOLATION DAMPER CLOSED. CONFIRM THE AIRFLOW TO EACH SPACE HAS NOT CHANGED.

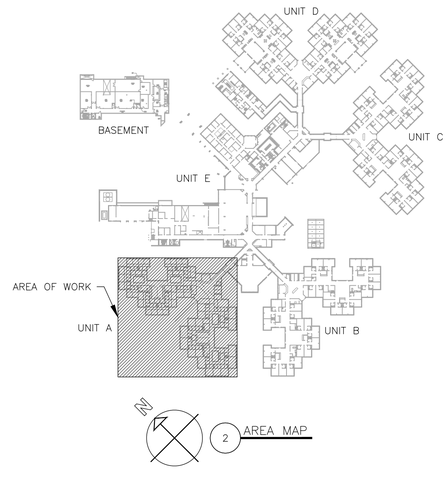
(1)
6. AFTER COMPLETION OF TAB PROCEDURE FROM NOTE 5, TAB CONTRACTOR SHALL COORDINATE WITH CONTROLS CONTRACTOR TO PLACE SYSTEM INTO AIRBORNE INFECTION ISOLATION MODE (AIIM) AND BALANCE WING A100 TO PROVIDE A NEGATIVE PRESSURE RELATIONSHIP FROM THE LIVING ROOM TO EACH BEDROOM OF -0.01 IN WG (MINIMUM). ENSURE BUILDING IS NOT NEGATIVE RELATIVE TO OUTSIDE. DURING THIS TEST, TAB IS NOT REQUIRED IN WING A200. SEE SEQUENCE OF OPERATION ON SHEET M-602 AND SECTION 230593 FOR ADDITIONAL INFORMATION. CONFIRM WITH ENGINEER FOR ANY REQUIRED CLARIFICATION PRIOR TO TAB ACTIVITIES.

7. TEST AND BALANCE FAN COIL UNITS IN WING A100 WITH AHU-4 OPERATING AND MAU-3 OFF. CONFIRM AIRFLOWS HAVE NOT CHANGED DURING AIIM.
8. TEST AND BALANCE EXHAUST FANS IN WING A100 WITH HEPA FILTERS INSTALLED IN FILTER BOXES TO ESTABLISH DESIGN AIRFLOW. REMOVE FILTERS AND TEST AGAIN TO ENSURE EXHAUST FAN SPEED ADJUSTS BASED ON DUCT PRESSURE AND EXHAUST AIRFLOW HAS NOT CHANGED.
9. REFER TO SHEETS M-104, M-105, AND M-106 FOR SUPPLY AND EXHAUST AIR DEVICE FLOW RATES WITHIN EACH ROOM.

HVAC LEGEND

(AHU-##)	EXISTING EQUIPMENT LABEL
AA N	DEVICE SCHEDULE TAG
(3500)	AIR FLOW (CUBIC FEET PER MINUTE)
	BALL VALVE
(P)	DIFFERENTIAL PRESSURE SENSOR
(D)	PRESSURE SENSOR DISPLAY -CONNECTS TO THREE PRESSURE SENSORS
FD	FIRE DAMPER
SD	SMOKE DAMPER
BD	BALANCE DAMPER

(1) MECHANICAL TESTING AND BALANCING PLAN
SCALE: 3/32" = 1'-0"



(2) AREA MAP

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

TRACIE L SIEBENECK
NOTARY PUBLIC
NUMBER
PE-2013019114
PROFESSIONAL ENGINEER
STATE OF MISSOURI

Tracie L. Siebeneck - Engineer
MO# PE-2013019114

BID DOCUMENTS

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF PUBLIC SAFETY/
VETERANS COMMISSION

HVAC IMPROVEMENTS FOR INFECTION CONTROL

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1300 VETERANS DRIVE,
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PROJECT # U2301-07
SITE # 6806
ASSET # 8136806001

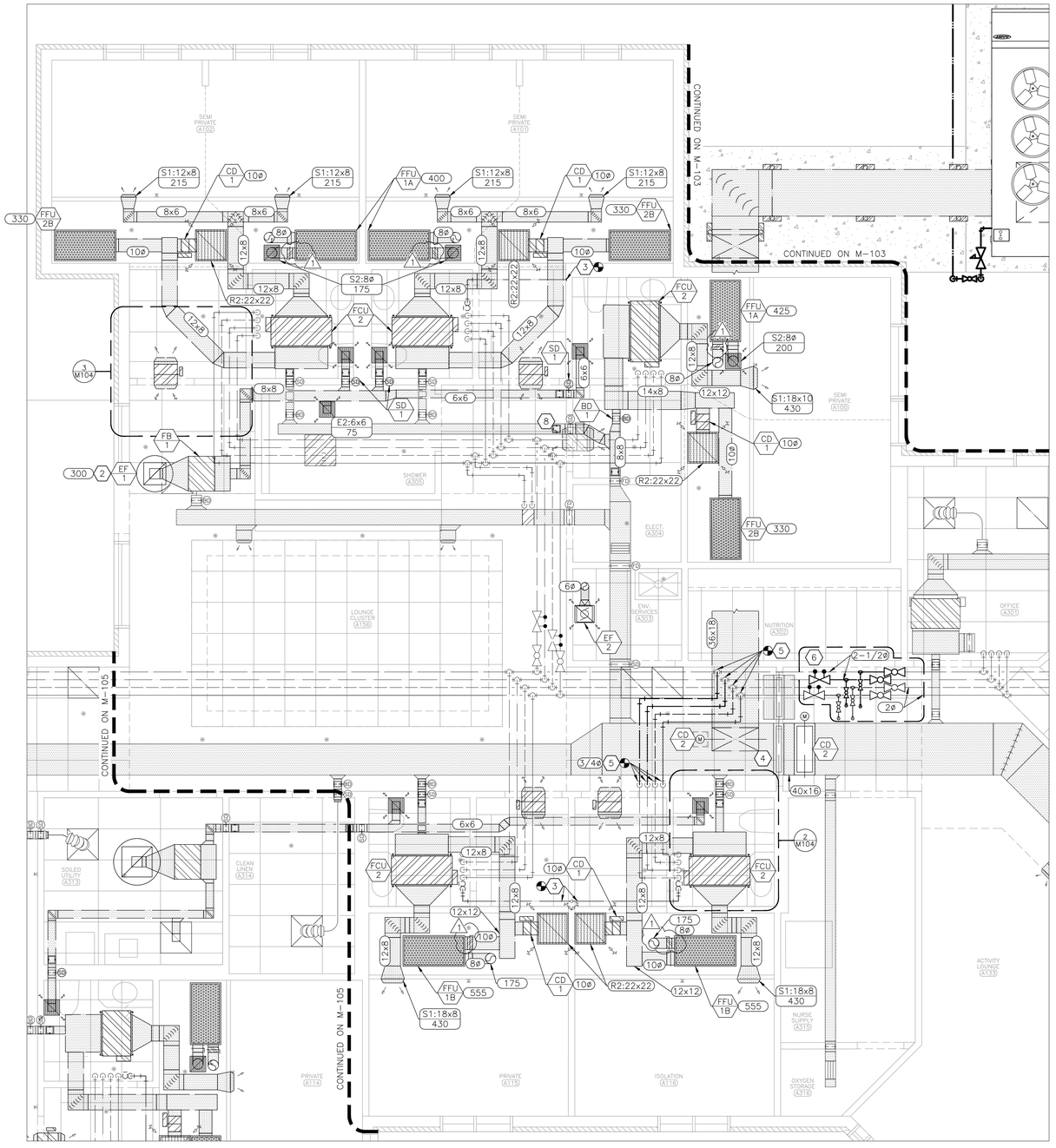
REVISION: ADDENDUM NO.1 (1)
DATE: 10/09/2025
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/01/2025

CAD DWG FILE: M_U2301-07
DRAWN BY: AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
MECHANICAL TESTING AND BALANCING PLAN

SHEET NUMBER:
M-101

13 OF 26 SHEETS
08/01/2025



1 MECHANICAL RENOVATION PLAN – LOUNGE CLUSTER A156
SCALE: 1/4" = 1'-0"

RENOVATION NOTES

(N) INDICATES KEYED NOTES

1 REFER TO M–101 FOR GENERAL RENOVATION NOTES. LOCATE ALL CONTROL DAMPERS (CD–1) SUCH THAT THE ACTUATOR IS ACCESSIBLE FROM THE LAYIN CEILING OF THE BEDROOM ENTRY. PROVIDE ACCESS DOOR AD–2 FOR ALL DUCT MOUNTED SMOKE OR FIRE DAMPERS.

(2) ROUTE EXHAUST DUCT THROUGH ATTIC TO ROOF AND INSTALL NEW EXHAUST FAN WITH ASSOCIATED ROOF CURB. REFER TO DETAIL 1 OF SHEET M–601 FOR ROOF CURB INSTALLATION.

(3) PROVIDE AND INSTALL NEW CONDENSATE DRAIN PIPE ABOVE NEW CEILING HEIGHT. ROUTE AS SHOWN AND CONNECT TO EXISTING DRAIN PIPE.

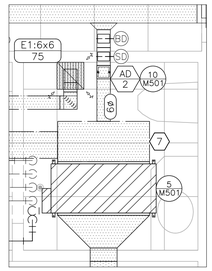
(4) ROUTE DUCT IN ATTIC SPACE TO PENETRATE CEILING ABOVE EXISTING SUPPLY DUCT. ROUTE TO CONNECT WITH EXISTING SUPPLY DUCT. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE ACCESS DOOR IN ATTIC ABOVE ACTUATOR FOR FUTURE ACCESS TO ACTUATOR AND DAMPER. REFER TO ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION.

(5) ROUTE NEW HYDRONIC PIPE AS SHOWN.

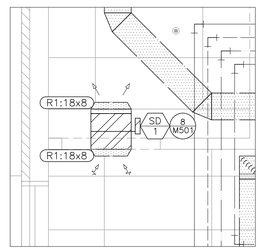
(6) PROVIDE AND INSTALL ISOLATION BALL VALVES ON THE CHILLED AND HEATING WATER SUPPLY AND RETURN PIPES. INSTALL BALANCE VALVES ON EACH RETURN PIPE. INSTALL 1 INCH PIPE TEE ON TOP OF PIPE AS SHOWN WITH BALL VALVE AND HOSE BIBB FOR CONNECTION TO PORTABLE PUMP FOR CLEANING AND FLUSHING.

(7) SIZE EQUAL TO FAN COIL UNIT RETURN DUCT OPENING AND TO ALLOW FOR RETURN BRANCH DUCT CONNECTION.

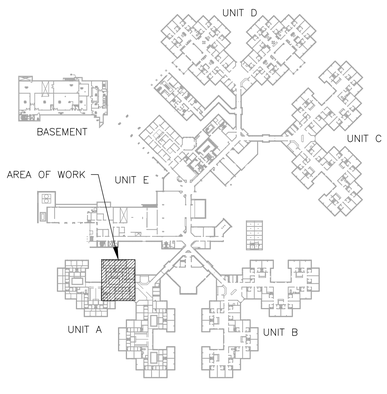
(8) PROVIDE AND INSTALL DUCT ACCESS DOOR (AD–2) IN EXISTING DUCT.



2 TYPICAL FAN COIL UNIT INSTALLATION
SCALE: 3/8" = 1'-0"



3 TYPICAL TRANSFER GRILLE INSTALLATION
SCALE: 3/8" = 1'-0"



4 AREA MAP

HVAC LEGEND

⟵	DIRECTION OF FLOW
◔	CONNECT TO EXISTING EQUIPMENT
M####	DETAIL REFERENCE, NUMBER/SHEET
FD	FIRE DAMPER
SD	SMOKE DAMPER
BD	BALANCE DAMPER
M	CONTROL DAMPER – MOTORIZED
⋈	BALANCING VALVE
⋈	BALL VALVE
AA #	DEVICE SCHEDULE TAG
S1:6ø 50	AIR DEVICE: NECK SIZE (INCHES)/CFM
R1:18x30	RETURN AIR DEVICE: NECK SIZE (INCHES)
12x12	DUCT SIZE–RECTANGULAR (INCHES X INCHES)
8ø	DUCT SIZE–ROUND (INCHES DIAMETER)
3/4ø	PIPE SIZE (INCHES DIAMETER)
3500	AIR FLOW (CUBIC FEET PER MINUTE)
	EQUIPMENT – EXISTING
	EQUIPMENT – NEW
	SUPPLY AIR – EXISTING
	SUPPLY AIR – NEW
	RETURN AIR – EXISTING
	RETURN AIR – NEW
	EXHAUST AIR – EXISTING
	EXHAUST AIR – NEW
	OUTSIDE AIR – NEW
	CHILLED WATER SUPPLY – NEW
	CHILLED WATER SUPPLY – EXISTING
	CHILLED WATER RETURN – NEW
	CHILLED WATER RETURN – EXISTING
	HEATING WATER SUPPLY – NEW
	HEATING WATER SUPPLY – EXISTING
	HEATING WATER RETURN – NEW
	HEATING WATER RETURN – EXISTING
	CONDENSATE DRAIN PIPE – NEW

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

STATE OF MISSOURI
TRACIE L SIEBENECK
NUMBER PE-2013019114
PROFESSIONAL ENGINEER

Tracie L. Siebeneck - Engineer
MO# PE-2013019114

BID DOCUMENTS

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF PUBLIC SAFETY/ VETERANS COMMISSION

HVAC IMPROVEMENTS FOR INFECTION CONTROL

WARRENSURG VETERANS HOME
1300 VETERANS DRIVE,
WARRENSBURG, MO 64093

PROJECT # U2301-07
SITE # 6806
ASSET # 8136806001

REVISION: ADDENDUM NO.1 (1)
DATE: 10/09/2025
REVISION:
DATE:
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DATE:
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CHECKED BY: TS
DESIGNED BY: TS/AH

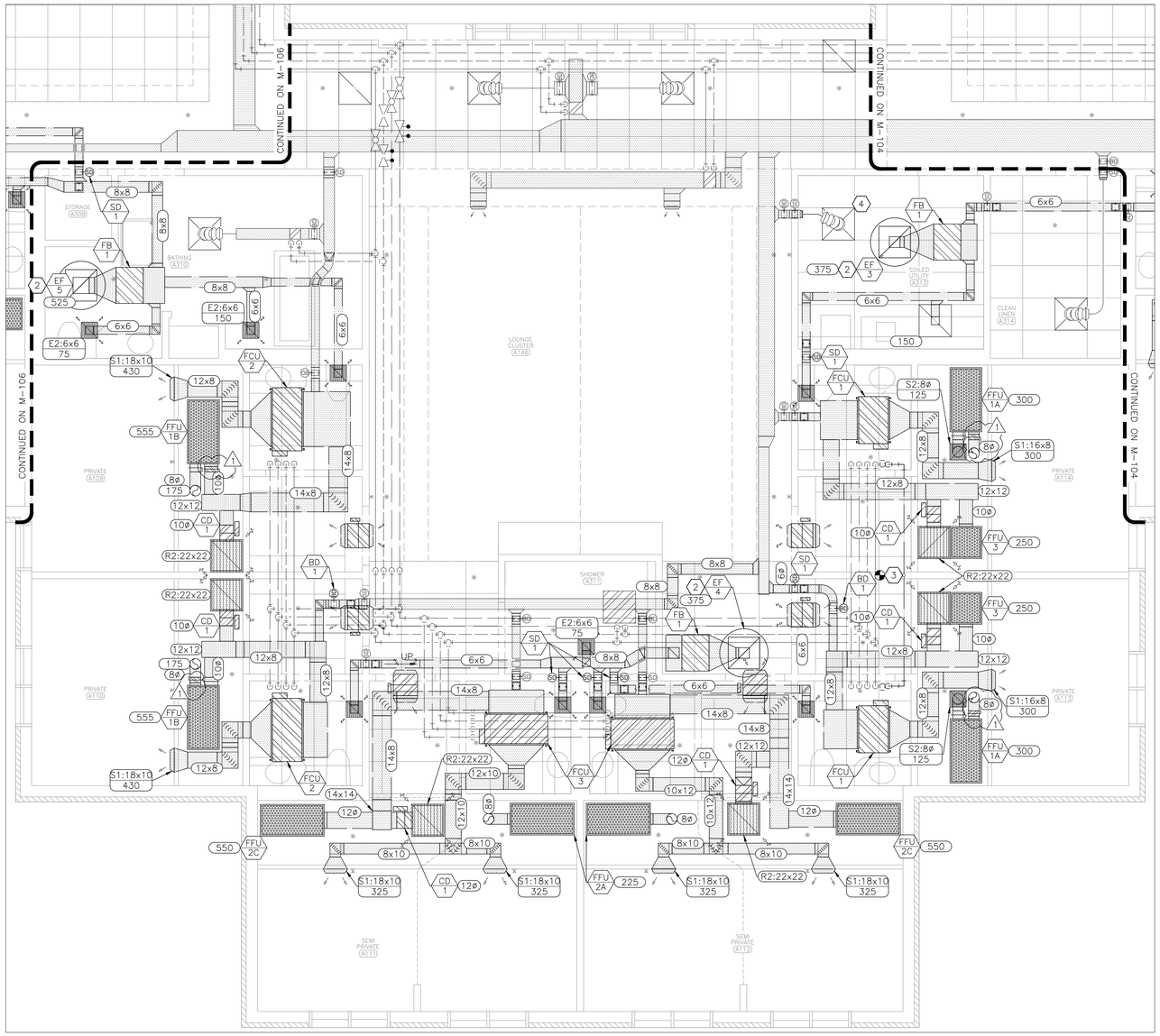
SHEET TITLE:

MECHANICAL RENOVATION PLAN LOUNGE A156

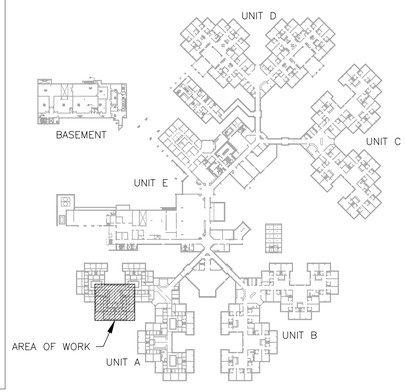
SHEET NUMBER:

M-104

16 OF 26 SHEETS
08/01/2025



1 MECHANICAL RENOVATION PLAN – LOUNGE CLUSTER A146
SCALE: 1/4" = 1'-0"



2 AREA MAP

RENOVATION NOTES

N INDICATES KEYED NOTES

1 REFER TO M–101 FOR GENERAL RENOVATION NOTES. LOCATE ALL CONTROL DAMPERS (CD–1) SUCH THAT THE ACTUATOR IS ACCESSIBLE FROM THE LAYIN CEILING OF THE BEDROOM ENTRY. PROVIDE ACCESS DOOR AD–2 FOR ALL DUCT MOUNTED SMOKE OR FIRE DAMPERS. REFER TO M–104 DETAIL 2 FOR TYPICAL FAN COIL UNIT INSTALLATION AND DETAIL 3 FOR TYPICAL TRANSFER GRILLE INSTALLATION.

2 ROUTE EXHAUST DUCT THROUGH ATTIC TO ROOF AND INSTALL NEW EXHAUST FAN WITH ASSOCIATED ROOF CURB. REFER TO DETAIL 1 OF SHEET M–601 FOR ROOF CURB INSTALLATION.

3 PROVIDE AND INSTALL NEW CONDENSATE DRAIN PIPE ABOVE NEW CEILING HEIGHT. ROUTE AS SHOWN AND CONNECT TO EXISTING DRAIN PIPE.

4 INSTALL RETAINED SUPPLY AIR DEVICE IN NEW LOCATION. ROUTE DUCT BACK TO EXISTING SMOKE DAMPER AS SHOWN.

HVAC LEGEND

	DIRECTION OF FLOW
	CONNECT TO EXISTING EQUIPMENT
FD	FIRE DAMPER
SD	SMOKE DAMPER
BD	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
AA #	DEVICE SCHEDULE TAG
S1:6ø 50	AIR DEVICE: NECK SIZE (INCHES)/CFM
R1:18x30	RETURN AIR DEVICE: NECK SIZE (INCHES)
12x12	DUCT SIZE–RECTANGULAR (INCHES X INCHES)
8ø	DUCT SIZE–ROUND (INCHES DIAMETER)
3500	AIR FLOW (CUBIC FEET PER MINUTE)
	EQUIPMENT – EXISTING
	EQUIPMENT – NEW
	SUPPLY AIR – EXISTING
	SUPPLY AIR – NEW
	RETURN AIR – EXISTING
	RETURN AIR – NEW
	EXHAUST AIR – NEW
	CHILLED WATER SUPPLY – EXISTING
	CHILLED WATER RETURN – EXISTING
	HEATING WATER SUPPLY – EXISTING
	HEATING WATER RETURN – EXISTING
	CONDENSATE DRAIN PIPE – NEW

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PROJECT # U2301-07
SITE # 6806
ASSET # 8136806001

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DRAWN BY: AH
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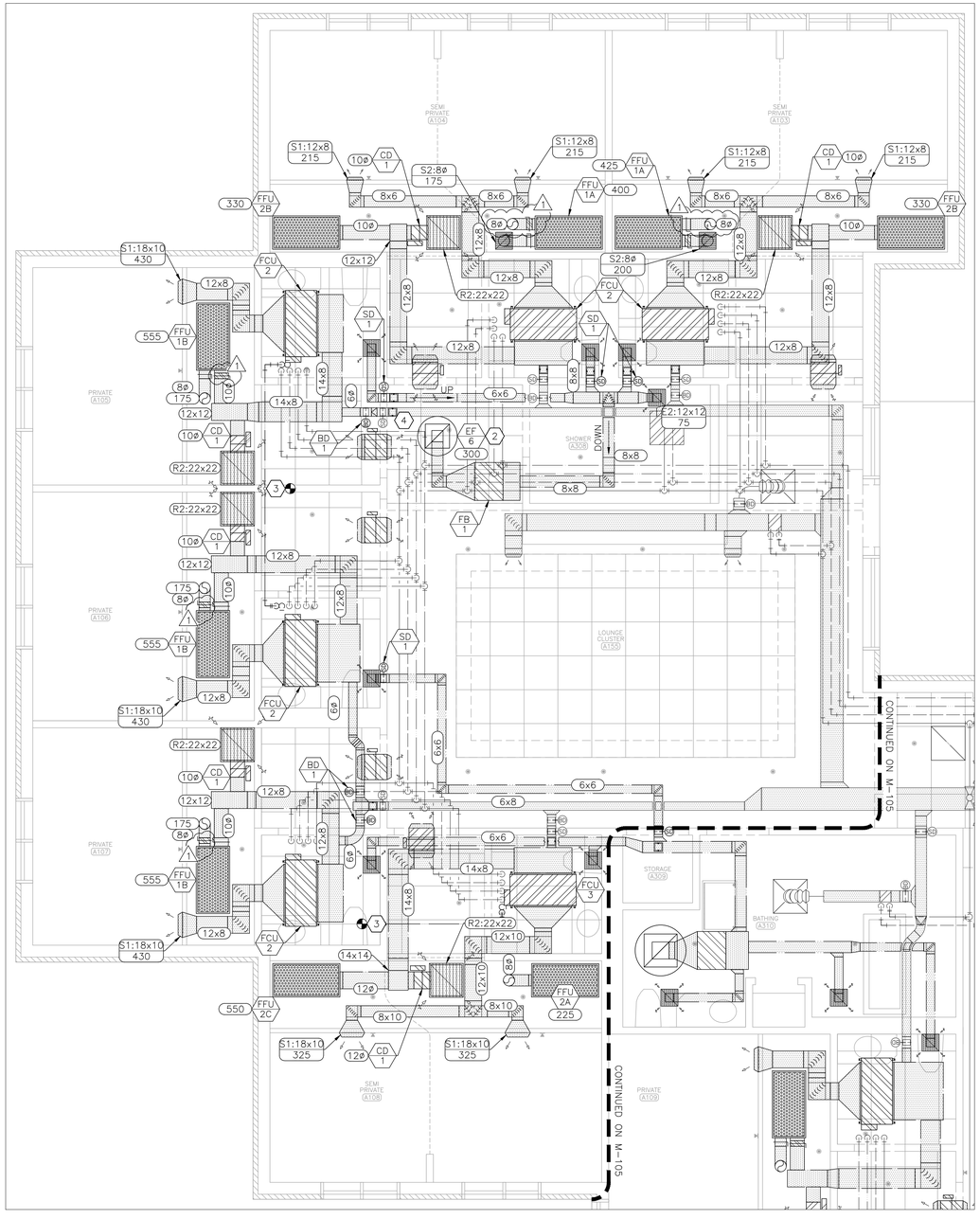
SHEET TITLE:
MECHANICAL RENOVATION PLAN LOUNGE A146

SHEET NUMBER:
M-105

17 OF 26 SHEETS
08/01/2025



1 MECHANICAL RENOVATION PLAN – LOUNGE CLUSTER A155
SCALE: 1/4" = 1'-0"

RENOVATION NOTES

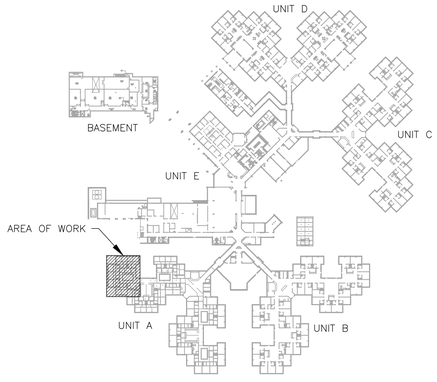
(N) INDICATES KEYED NOTES

1 REFER TO M–101 FOR GENERAL RENOVATION NOTES. LOCATE ALL CONTROL DAMPERS (CD–1) SUCH THAT THE ACTUATOR IS ACCESSIBLE FROM THE LAYIN CEILING OF THE BEDROOM ENTRY. PROVIDE ACCESS DOOR AD–2 FOR ALL DUCT MOUNTED SMOKE OR FIRE DAMPERS. REFER TO M–104 DETAIL 2 FOR TYPICAL FAN COIL UNIT INSTALLATION AND DETAIL 3 FOR TYPICAL TRANSFER GRILLE INSTALLATION.

(2) ROUTE EXHAUST DUCT THROUGH ATTIC TO ROOF AND INSTALL NEW EXHAUST FAN WITH ASSOCIATED ROOF CURB. REFER TO DETAIL 1 OF SHEET M–601 FOR ROOF CURB INSTALLATION.

(3) PROVIDE AND INSTALL NEW CONDENSATE DRAIN PIPE ABOVE NEW CEILING HEIGHT. ROUTE AS SHOWN AND CONNECT TO EXISTING DRAIN PIPE.

(4) PROVIDE AND INSTALL DUCT ACCESS DOOR (AD–2) IN EXISTING DUCT.



2 AREA MAP

HVAC LEGEND	
	DIRECTION OF FLOW
	CONNECT TO EXISTING EQUIPMENT
FD	FIRE DAMPER
SD	SMOKE DAMPER
BD	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
AA #	DEVICE SCHEDULE TAG
S1:6ø 50	AIR DEVICE: NECK SIZE (INCHES)/CFM
R1:18x30	RETURN AIR DEVICE: NECK SIZE (INCHES)
12x12	DUCT SIZE–RECTANGULAR (INCHES X INCHES)
8ø	DUCT SIZE–ROUND (INCHES DIAMETER)
3500	AIR FLOW (CUBIC FEET PER MINUTE)
	EQUIPMENT – EXISTING
	EQUIPMENT – NEW
	SUPPLY AIR – EXISTING
	SUPPLY AIR – NEW
	RETURN AIR – EXISTING
	RETURN AIR – NEW
	EXHAUST AIR – NEW
	CHILLED WATER SUPPLY – EXISTING
	CHILLED WATER RETURN – EXISTING
	HEATING WATER SUPPLY – EXISTING
	HEATING WATER RETURN – EXISTING
	CONDENSATE DRAIN PIPE – NEW

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MIKE KEHOE, GOVERNOR

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DESIGNED BY: TS/AH

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MECHANICAL RENOVATION PLAN LOUNGE A155

SHEET NUMBER:

M-106

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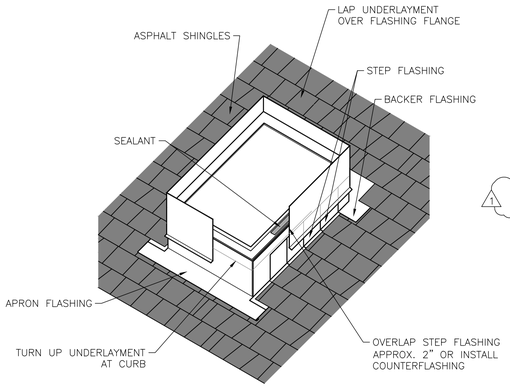
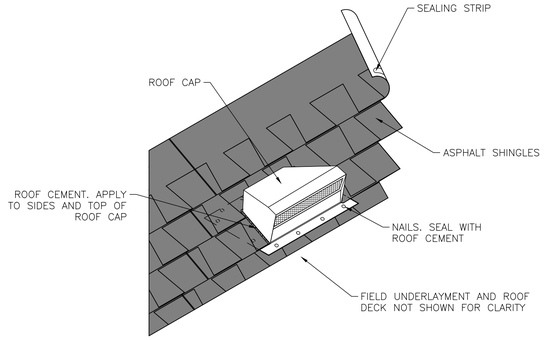
08/01/2025



1 EXHAUST FAN ROOF CURB INSTALLATION
NO SCALE



2 EXHAUST ROOF CAP INSTALLATION
NO SCALE

MAKE UP AIR UNIT SCHEDULE

					COOLING							HEATING					ELECTRICAL				
MARK	MANUFACTURER	MODEL	OUTDOOR AIRFLOW (CFM)	ESP (IN WG)	CAPACITY TOTAL (MBH)	CAPACITY SENSIBLE (MBH)	EAT (db°F/wb°F)	COIL LAT (db°F/wb°F)	REHEAT COIL CAPACITY (MBH)	REHEAT COIL LAT (db°F/wb°F)	EER/IEER	CAPACITY TOTAL (MBH)	INPUT (MBH)	EAT (db°F/wb°F)	COIL LAT (db°F/wb°F)	TURNDOWN RATIO	VOLTS PHASE	MCA	MOP	WEIGHT (LBS)	NOTES
MAU-3	AAON	RNA-040-D-A-3	4910-6000	1	465.3	294.8	94.6/73.3	46.1/46	179.4	75/58.2	9.99/13.23	486	600	4.9/4.9	79.8/50.2	10.0:1	480/3	96	110	5990	1,2,3,4,5,6,7

NOTES
1. DESIGN CONDITIONS: SUMMER (COOLING): 94.6/73.3°F; SUMMER (DEHUMIDIFICATION) 86/76.8°F; WINTER 4.9°F
2. DESIGN AIRFLOW IS 4910 CFM, UNIT SHALL HAVE CAPACITY UP TO 6000 CFM; TAB: ADJUST TO AIRFLOW REQUIRED TO ACHIEVE -0.01 IN WG BEDROOM NEGATIVE PRESSURE (MINIMUM)
3. PROVIDE TERMINAL STRIP FOR FIELD SUPPLIED DDC CONTROLS BY OTHERS
4. PROVIDE VARIABLE CAPACITY COMPRESSOR WITH MODULATING HOT GAS REHEAT; STAINLESS STEEL DRAIN PAN; STAINLESS STEEL HEAT EXCHANGER; SUPPLY BLOWER WITH FACTORY VFD; ECM CONDENSOR FAN; CONDENSOR COIL GUARDS
5. PROVIDE FACTORY MOUNTED, NON-FUSED DISCONNECT; FACTORY INSTALLED CONVENIENCE OUTLET; MOTORIZED OUTDOOR AIR DAMPER
6. PROVIDE UV LIGHTING FOR COIL SANATIZING; 30% EFFICIENT PREFILTER, MERV 14 FINAL FILTER
7. PROVIDE FACTORY INSULATED, HORIZONTAL DISCHARGE ROOF CURB FOR CONCRETE PAD MOUNTING

FAN COIL UNIT SCHEDULE

				FAN DATA			COOLING COIL DATA						HOT WATER COIL DATA							
MARK	MANUFACTURER	MODEL	AIRFLOW (CFM)	ESP	MOTOR (HP)	MOTOR AMPS	CAPACITY TOTAL (MBH)	CAPACITY SENSIBLE (MBH)	GPM	EWT/LWT (°F)	EAT (db°F/wb°F)	COIL LAT (db°F/wb°F)	CAPACITY TOTAL (MBH)	GPM	EWT/LWT (°F)	EAT (db°F)	COIL LAT (db°F)	VOLTS PHASE	LENGTH x WIDTH x HEIGHT (INCHES)	NOTES
FCU-1	ENGINEERED AIR	HFC4	314	0.5	0.17	3.7	13.48	8.91	2.3	44/54	80/67	53.7/52.9	19.5	2.7	180/165.2	62	119.6	120/1	22x35x10.5	1,2
FCU-2	ENGINEERED AIR	HFC6	440	0.5	0.17	3.7	18.01	12.27	3.6	44/54	80/67	54.2/53.6	27.09	2.9	180/160.9	62	119.0	120/1	22x47x10.5	1,2
FCU-3	ENGINEERED AIR	HFC6	655	0.5	0.17	3.7	22.21	16.27	3.8	44/55.7	80/67	57.3/56.3	32.13	2.2	180/150.1	62	107.4	120/1	22x47x10.5	1,2

NOTES
1. PROVIDE WITHOUT AIR FILTER
2. PROVIDE RIGHT OR LEFT HAND CONFIGURATION AS SHOWN ON PLANS; STAINLESS STEEL DRAIN PAN; FACTORY MOUNTED AIR VENT; CONDENSATE OVERFLOW SWITCH; FACTORY MOUNT DISCONNECT

FAN FILTER UNITS SCHEDULE

MARK	MANUFACTURER	MODEL	SIZE (INCHES)	FILTERS	EXTERNAL STATIC PRESSURE (IN WG)	EXHAUST RETURN DUCT SIZE (INCH)	VOLTAGE/PHASE	DESCRIPTION	NOTES
FFU-1A	PRICE	PURAFLO DUAL OUTLET	24x48	MERV 8 HEPA	0.20-0.25	8 Ø 8 Ø	208/1	HOUSING: ALUMINUM PLENUM; ROOMSIDE ACCESS FOR FILTER REPLACEMENT AND MAINTENANCE; FILTER: EXTRUDED ALUMINUM FRAME WITH URETHANE GEL; CONSTANT FLOW	1,2,3,4
FFU-1B	PRICE	PURAFLO DUAL OUTLET	24x48	MERV 8 HEPA	0.20-0.25	8 Ø 10 Ø	208/1	HOUSING: ALUMINUM PLENUM; ROOMSIDE ACCESS FOR FILTER REPLACEMENT AND MAINTENANCE; FILTER: EXTRUDED ALUMINUM FRAME WITH URETHANE GEL; CONSTANT FLOW	1,2,3,4
FFU-2A	PRICE	PURAFLO SINGLE OUTLET	24x48	MERV 8 HEPA	0.20-0.25	8 Ø	208/1	HOUSING: ALUMINUM PLENUM; ROOMSIDE ACCESS FOR FILTER REPLACEMENT AND MAINTENANCE; FILTER: EXTRUDED ALUMINUM FRAME WITH URETHANE GEL; CONSTANT FLOW	1,2,3
FFU-2B	PRICE	PURAFLO SINGLE OUTLET	24x48	MERV 8 HEPA	0.20-0.25	10 Ø	208/1	HOUSING: ALUMINUM PLENUM; ROOMSIDE ACCESS FOR FILTER REPLACEMENT AND MAINTENANCE; FILTER: EXTRUDED ALUMINUM FRAME WITH URETHANE GEL; CONSTANT FLOW	1,2,3
FFU-2C	PRICE	PURAFLO SINGLE OUTLET	24x48	MERV 8 HEPA	0.20-0.25	12 Ø	208/1	HOUSING: ALUMINUM PLENUM; ROOMSIDE ACCESS FOR FILTER REPLACEMENT AND MAINTENANCE; FILTER: EXTRUDED ALUMINUM FRAME WITH URETHANE GEL; CONSTANT FLOW	1,2,3
FFU-3	PRICE	PURAFLO SINGLE OUTLET	24x24	MERV 8 HEPA	0.20-0.25	10 Ø	208/1	HOUSING: ALUMINUM PLENUM; ROOMSIDE ACCESS FOR FILTER REPLACEMENT AND MAINTENANCE; FILTER: EXTRUDED ALUMINUM FRAME WITH URETHANE GEL; CONSTANT FLOW	1,2,3,5

NOTES ***FAN FILTER UNITS ARE SOLE SOURCE ONLY***
1. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH, PRICE HOSPITAL GRADE MOUNTING FRAME MODEL HGMF
2. PROVIDE HANGER BRACKETS, BROAN NUTONE ROOF CAP MODEL 634 OR EQUAL FOR ALL EXHAUST DUCT
3. PROVIDE BACnet FLOW CONTROLLER WITH MOTOR AND FILTER STATUS
4. PROVIDE ADDITIONAL BALANCE DAMPER BD-1 AND METROPOLITAN AIR TECHNOLOGY UNIVERSAL DAMPER DRIVE MODEL RT-WGA OR EQUAL FOR REMOTE BALANCE DAMPER OPERATION
5. PROVIDE BACnet FLOW CONTROLLER SERVICE TOOL TO OWNER; PROVIDE TWO TOTAL SERVICE TOOLS WITH PROJECT

FILTER BOX SCHEDULE

MARK	MANUFACTURER	MODEL	DIMENSIONS LxWxD	FILTERS	MAXIMUM AIRFLOW ACROSS FILTER (CFM)	INLET/OUTLET SIZE (INCHxINCH)	DESCRIPTION
FB-1	CANARM HVAC	HFB-12	26-13/16"x20-1/8" x12-1/5"	MERV 8 HEPA	930	22-1/2x10-1/2"	HOUSING: SHEET METAL FRAME; SIDE ACCESS FOR FILTER REPLACEMENT AND MAINTENANCE; FILTER: EXTURDED ALUMINUM FRAME WITH SEAMLESS GASKET

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	AIRFLOW (CFM)	ESP (IN WG)	VOLTS/PHASE	HP	WEIGHT (LBS)	NOTES
EF-1	PENNBARRY	PRD-080	300	0.64	120/1	1/6	38	1,2
EF-2	PENNBARRY	Z8-GP	75	0.25	120/1	1/10	20	3,4
EF-3	PENNBARRY	PRD-150	375	0.92	120/1	1/2	53	1,2
EF-4	PENNBARRY	PRD-150	375	0.92	120/1	1/2	53	1,2
EF-5	PENNBARRY	PRD-150	525	1.5	120/1	1/2	53	1,2,5
EF-6	PENNBARRY	PRD-080	300	0.64	120/1	1/6	38	1,2

NOTES
1. PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, FACTORY MOUNT DISCONNECT, AND MANUFACTURER INSULATED ROOF CURB FOR SLOPED ROOF INSTALLATION
2. UNIT TO BE CONTROLLED BY STATIC PRESSURE SENSOR TO MAINTAIN CONSTANT FLOWRATE
3. PROVIDE ALUMINUM PERFORATED GRILLE WITH WHITE FINISH
4. PROVIDE ROOF CAP FOR SLOPED ROOF INSTALLATION, ROOF CAP SHALL HAVE BIRD SCREEN AND BACKDRAFT DAMPER; REFERENCE DETAIL 2, M-601
5. PROVIDE FACTORY MOUNT VFD TO CONVERT PROVIDED 120V/1Ø TO 203V/3Ø

SMOKE DAMPER SCHEDULE

MARK	MANUFACTURER	MODEL	SIZE (INCHxINCH)	TYPE	SPECIFICATION	NOTES
SD-1	POTTORFF	SD-141	MATCH DUCT	ACTUATED DYNAMIC TRIPLE-V SMOKE DAMPER	FRAME: 13 GAUGE CHANNEL FRAME; BLADES: 6"x16 GAUGE GALVANIZED STEEL-TRIPLE V; SLEEVE: 16"x18 GAUGE GALVANIZED STEEL	1

NOTES
1. PROVIDE BELIMO 120 VAC ACTUATOR MODEL FSLF120

DUCT ACCESS DOOR

MARK	MANUFACTURER	MODEL	SIZE (INCH x INCH)	TYPE	SPECIFICATION
AD-2	ACUDOR	CD-5080	6 x 6	DUCT ACCESS DOOR	DOOR: 24 GAUGE GALVANIZED STEEL; FRAME: 24 GAUGE GALVANIZED STEEL; GASKETING: 1/8" THICK BY 1/2" WIDE CLOSED NEOPRENE; CAM LATCH: SELF TIGHTENING

AIR DEVICE SCHEDULE

MARK	MANUFACTURER	MODEL	FACE SIZE (INCHxINCH)	TYPE	SPECIFICATION	NOTES
S1	PRICE	520D	SEE PLANS	SUPPLY SURFACE MOUNT LOUVERED	MATERIAL: STEEL; FINISH: WHITE; BLADES: DOUBLE DEFLECTION W/ 3/4 INCH BLADE SPACING AND PARALLEL TO LONG DIMENSION; DAMPER: INTEGRAL	1
S2	PRICE	SMD	14x14	SUPPLY SURFACE MOUNT LOUVERED	MATERIAL: STEEL; FINISH: WHITE; CORE: "1S", ONE WAY THROW; FRAME: SURFACE MOUNT TYPE 6 BEVELLED	2
R1	PRICE	535	SEE PLANS	RETURN SURFACE MOUNT LOUVERED	MATERIAL: STEEL; FINISH: WHITE; BLADES: SINGLE 45° DEFLECTION W/ 1/2 INCH BLADE SPACING AND PARALLEL TO LONG DIMENSION	
R2	PRICE	10FF	24x24	RETURN SURFACE MOUNT PERFORATED	MATERIAL: STEEL; FINISH: WHITE; FILTER FRAME: SURFACE MOUNT W/ BELOW CEILING ACCESS, 2 INCH FILTER MEDIA	3
E1	PRICE	PDDR	12x12	EXHAUST LAY-IN MOUNT PERFORATED	MATERIAL: STEEL; FINISH: WHITE	1
E2	PRICE	PDDR	12x12	EXHAUST SURFACE MOUNT PERFORATED	MATERIAL: STEEL; FINISH: WHITE; FRAME: SURFACE MOUNT STYLE 1	1
BD-1	POTTORFF	CD-10R	N/A	BALANCE DAMPER SINGLE BLADE ROUND	FRAME: 2"x20 GAUGE GALVANIZED STEEL; BLADES: 22 GAUGE GALVANIZED STEEL SQUARE/RECTANGULAR; AXLES: 3/8" SQUARE PLATED STEEL; LINKAGE: CONCEALED IN FRAME; BEARINGS: SYNTHETIC; CONTROL SHAFT: 3/8"x3" SQUARE DRIVE AXLE	4
CD-1	POTTORFF	CD-25R	N/A	CONTROL DAMPER SINGLE BLADE ROUND	FRAME: 12"x20 GAUGE GALVANIZED STEEL; BLADES: 14 GAUGE GALVANIZED STEEL ROUND; AXLES: 1/2" DIAMETER PLATED STEEL; CONTROL SHAFT: 1/2"x3" DRIVE AXLE	5
CD-2	POTTORFF	CD-52	N/A	CONTROL DAMPER OPPOSED BLADE RECTANGULAR	FRAME: 5"x1" 13 GAUGE GALVANIZED STEEL; BLADES: 6" HEAVY GAUGE, DUAL WALL EXTRUDED ALUMINUM AIRFOIL; AXLES: 1/2" DIAMETER PLATED STEEL; CONTROL SHAFT: 1/2"x6" DRIVE AXLE	5,6

NOTES
1. PROVIDE INTEGRAL OPPOSED BLADE BALANCE DAMPER
2. PROVIDE SQUARE TO ROUND ADAPTOR WITH FACE OPERABLE STEEL DAMPER MODEL SR3L
3. PROVIDE BELOW CEILING ACCESSIBLE 2 INCH FILTER FRAME; MECHANICAL CONTRACTOR SHALL PROVIDE MERV 13 FILTER
4. PROVIDE 1-1/2 INCH QUADRANT STANDOFF BRACKET FOR INSULATED DUCT
5. CONTROLS CONTRACTOR TO PROVIDE 24 VOLT ACTUATOR FOR ON/OFF CONTROL
6. PROVIDE FACTORY INSTALLED SLEEVE AND ACTUATOR STANDOFF BRACKET

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

TRACIE L SIEBENECK
NUMBER PE-2013019114
PROFESSIONAL ENGINEER
Tracie L. Siebeneck - Engineer
MO# PE-2013019114

BID DOCUMENTS

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF
PUBLIC SAFETY/
VETERANS COMMISSION

HVAC IMPROVEMENTS FOR INFECTION CONTROL

WARRENSURG VETERANS HOME
1300 VETERANS DRIVE,
WARRENSBURG, MO 64093

PROJECT # U2301-07
SITE # 6806
ASSET # 8136806001

REVISION: ADDENDUM NO.1 1
DATE: 10/09/2025
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ISSUE DATE: 08/01/2025

CAD DWG FILE: M_U2301-07
DRAWN BY: AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
MECHANICAL SCHEDULES AND DETAILS

SHEET NUMBER:
M-601

20 OF 26 SHEETS
08/01/2025

CONTROL NOTES

THIS FACILITY HAS AN EXISTING SCHNEIDER ELECTRIC BUILDING AUTOMATION SYSTEM. INTEGRATION OF EQUIPMENT CONTROL SHALL BE PROVIDED BY DYNAMIC CONTROLS INC.:

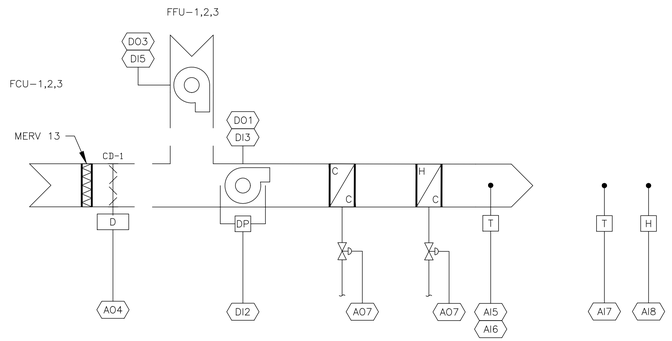
STEVE BEVERLY
1214 NE WINDSOR ST.
LEE'S SUMMIT, MO 64086
816.820.2815

CONTROLS CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROL ITEMS REQUIRED TO IMPLEMENT THE SEQUENCE OF OPERATION INCLUDING, BUT NOT LIMITED TO, CONTROLLERS, CONTROL WIRING, CONTROL DAMPER ACTUATORS, CONTROL VALVE ACTUATORS, AND ROOM PRESSURE SENSORS, EXCEPT SENSORS PROVIDED BY EQUIPMENT MANUFACTURER.

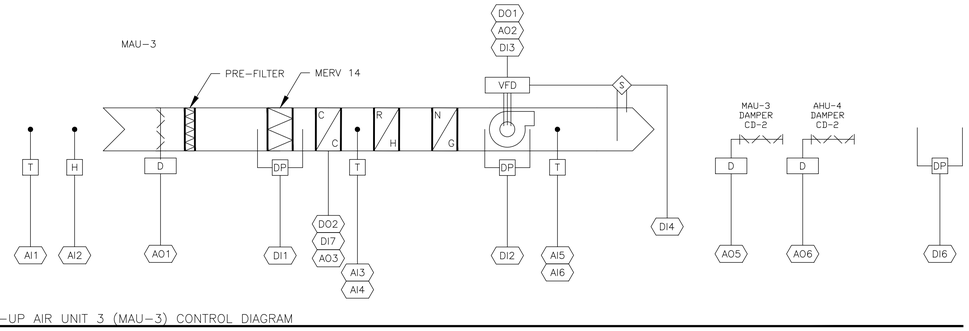
REFER TO RENOVATION NOTE 1 ON SHEET M-101 FOR ROOM PRESSURE SENSOR MODEL INFORMATION. REFER TO DETAIL 1 ON SHEET M-101 FOR ROOM PRESSURE SENSOR AND DISPLAY LOCATIONS.

CONTROLS CONTRACTOR SHALL PROVIDE ALL PROGRAMMING AND GRAPHICS REQUIRED TO INTEGRATE NEW EQUIPMENT INTO THE EXISTING CONTROLS SYSTEM:

1. PROVIDE A RADIO BUTTON TO SET WING A100 INTO AIRBORNE INFECTION ISOLATION MODE (AIIM). SEE SEQUENCE OF OPERATION FOR MORE INFORMATION.
2. PROVIDE A GRAPHIC FOR MAU-3 AND EACH FAN FILTER UNIT IN EACH ROOM (FFU-1A, FFU-1B, FFU-2A, FFU-2B, FFU-2C, AND FFU-3). UPDATE FAN COIL UNIT GRAPHIC TO SHOW ADDITIONAL CONTROL DAMPER. ALL GRAPHICS SHALL ACCURATELY REPRESENT INSTALLED EQUIPMENT.
3. PROVIDE A LINK FROM THE GRAPHIC TO A COPY OF THE SEQUENCE OF OPERATION WHICH SHALL ACCURATELY REPRESENT SEQUENCE PROGRAMMING.



2 FAN COIL UNITS (FCU-1,2,3) AND FAN FILTER UNITS (FFU-1,2,3) CONTROL DIAGRAMS



1 MAKE-UP AIR UNIT 3 (MAU-3) CONTROL DIAGRAM

CONTROL LEGEND

VFD	VARIABLE SPEED FAN
	CONSTANT SPEED FAN
	FILTER
F/C	REFRIGERANT/CHILLED WATER COOLING COIL
F/H	HOT WATER COIL
F/G	MODULATING HOT-GAS REHEAT COIL
	NATURAL GAS HEATING COIL
D	CONTROL DAMPER
T	TEMPERATURE SENSOR
H	RELATIVE HUMIDITY SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR
	CHILLED/HOT WATER CONTROL VALVE

SEQUENCE OF OPERATION

DEFINITIONS:

WING A100 – BEDROOMS, LIVING ROOMS, AND ALL ASSOCIATED ANTEROOMS SERVED BY AHU-4 DURING NORMAL OPERATION AND MAU-3 DURING AIRBORNE INFECTION ISOLATION OPERATION. BOUNDARY IS BETWEEN FIRE DOORS IN CORRIDOR.

WING A200 – BEDROOMS, LIVING ROOMS, AND ALL ASSOCIATED ANTEROOMS SERVED BY AHU-4 DURING NORMAL OPERATION AND DURING AIRBORNE INFECTION ISOLATION OPERATION. BOUNDARY IS BETWEEN FIRE DOORS IN CORRIDOR. FOR THE PURPOSE OF THIS PLAN SET, A200 INCLUDES ACTIVITY LOUNGE A133, NURSE STATION A301, AND ALL ASSOCIATED ANTEROOMS.

AIRBORNE INFECTION ISOLATION MODE (AIIM) – A STATE OF OPERATION FOR THE HVAC SYSTEM THAT CREATES A NEGATIVE PRESSURE RELATIONSHIP BETWEEN THE BEDROOMS, THE LIVING ROOMS, AND WING A200. HEPA FILTRATION IS PROVIDED FOR ALL EXHAUST AIR AND ALL AIR THAT IS RETURNED TO THE FAN COIL UNITS IN EACH BEDROOM. AIIM IS ESTABLISHED VIA A SETTING IN THE BUILDING AUTOMATION SYSTEM (BAS).

EQUIPMENT IN A100 SHALL OPERATE AS FOLLOWS DURING AIIM:

FAN COIL UNITS: SHALL OPERATE PER EXISTING SEQUENCE OF OPERATION TO MAINTAIN EXISTING SETPOINTS IN THE SPACE. FAN SHALL OPERATE CONTINUOUSLY.

CONTROL DAMPER IN DUCT FOR AHU-4 SHALL CLOSE AND CONTROL DAMPER IN DUCT FOR MAU-3 SHALL OPEN.

MAKEUP AIR UNIT (MAU-3): SHALL BE ENERGIZED AND FAN SHALL OPERATE CONTINUOUSLY.

FAN FILTER UNITS (FFU-1A, FFU-1B, FFU-2A, FFU-2B, FFU-2C, AND FFU-3): SHALL BE ENERGIZED AND FAN SHALL OPERATE CONTINUOUSLY PROVIDING HEPA FILTRATION.

RETURN AIR CONTROL DAMPERS (CD-1): SHALL MOVE TO A CLOSED POSITION TO PREVENT UNFILTERED RETURN AIR FROM ENTERING THE FAN COIL UNIT.

ROOM PRESSURE SENSORS: SHALL BE PLACED IN OCCUPIED MODE. WHEN SYSTEM IS NOT IN AIIM, SENSORS SHALL BE PLACED IN UNOCCUPIED MODE TO PREVENT UNNECESSARY ALARMS.

MAKEUP AIR UNIT (MAU-3) SEQUENCE OF OPERATION:

WHEN MAU IS ENERGIZED, THE SUPPLY FAN SHALL OPERATE CONTINUOUSLY AT THE DESIGN AIRFLOW AND THE UNIT SHALL HEAT OR COOL TO MAINTAIN MAU LEAVING AIR TEMPERATURE (LAT).

IF THE OUTDOOR AIR (OA) TEMPERATURE RISES ABOVE 72°F (ADJ), THE VARIABLE CAPACITY COMPRESSOR SHALL MODULATE TO PROVIDE A LAT OF 70°F (ADJ).

IF THE OA HUMIDITY RISES ABOVE 55%, THE VARIABLE CAPACITY COMPRESSOR SHALL MODULATE TO PROVIDE 55°F COOLING COIL LEAVING AIR TEMPERATURE AND THE MODULATING HOT GAS REHEAT SHALL MODULATE TO PROVIDE A MAU LEAVING AIR TEMPERATURE OF 70°F (ADJ).

IF THE OA TEMPERATURE FALLS BELOW 68°F, THE MODULATING NATURAL GAS HEATER SHALL ENERGIZE AND MODULATE TO PROVIDE A MAU LEAVING AIR TEMPERATURE OF 80°F (ADJ).

ALARMS:

IF THE MAU SMOKE DETECTOR IS ACTIVATED THE FAN SHALL SHUT DOWN VIA A HARD-WIRED INTERLOCK AND AN ALARM SHALL BE SENT TO THE FIRE ALARM CONTROL SYSTEM.

IF THE MAU FAN IS COMMANDED ON AND NO CURRENT IS REALIZED THROUGH A CURRENT RELAY SENSOR, AN ALARM SHALL BE GENERATED AT THE BAS. FFUs SHALL NOT ENERGIZE IF MAU FAN IS NOT OPERATING.

IF THE FFU FAN IS COMMANDED ON AND NO CURRENT IS REALIZED THROUGH A CURRENT RELAY SENSOR, AN ALARM SHALL BE GENERATED AT THE BAS.

1 IF THE FCU FAN IS COMMANDED ON AND NO CURRENT IS REALIZED THROUGH A CURRENT RELAY SENSOR, AN ALARM SHALL BE GENERATED AT THE BAS.

AHU-4

AIR HANDLING UNIT (AHU-4) SHALL OPERATE PER EXISTING SEQUENCE OF OPERATION TO MAINTAIN EXISTING SETPOINTS IN THE SPACE DURING NORMAL MODE AND AIRBORNE INFECTION ISOLATION MODE. DURING AIRBORNE INFECTION ISOLATION MODE OUTSIDE AIR DAMPER SHALL OPEN TO PROVIDE 90% OUTSIDE AIR.

SUPPLY FAN VFD AND RETURN FAN VFD SHALL BE CONTROLLED BY A DUCT PRESSURE SENSOR. WHEN THE DUCT DAMPER IS CLOSED TO WING A100, THE FANS SHALL SLOW BASED ON DUCT STATIC PRESSURE TO MAINTAIN AIRFLOW TO WING A200.

ANALOG INPUTS

AI1	OUTSIDE AIR TEMPERATURE
AI2	OUTSIDE AIR RELATIVE HUMIDITY
AI3	COOLING COIL (CC) LEAVING AIR TEMPERATURE
AI4	CC LEAVING AIR TEMPERATURE SETPOINT
AI5	UNIT LEAVING AIR TEMPERATURE
AI6	UNIT LEAVING AIR TEMPERATURE SETPOINT
AI7	ROOM AIR TEMPERATURE
AI8	ROOM AIR RELATIVE HUMIDITY

ANALOG OUTPUTS

AO1	OUTSIDE AIR DAMPER COMMAND
AO2	SUPPLY FAN SPEED
AO3	COMPRESSOR SPEED
AO4	FAN COIL RETURN AIR DAMPER COMMAND
AO5	MAU-3 ISOLATION DAMPER COMMAND
AO6	AHU-4 ISOLATION DAMPER COMMAND
AO7	CHILLED/HOT WATER VALVE COMMAND

DIGITAL INPUTS

DI1	FILTER PRESSURE DROP
DI2	SUPPLY FAN PRESSURE DROP
DI3	SUPPLY FAN STATUS
DI4	SMOKE DETECTOR STATUS
DI5	FAN FILTER UNIT STATUS
DI6	ROOM PRESSURE DIFFERENTIAL
DI7	COMPRESSOR STATUS

DIGITAL OUTPUTS

DO1	SUPPLY FAN START/STOP COMMAND
DO2	COMPRESSOR START/STOP COMMAND
DO3	FAN FILTER UNIT START/STOP COMMAND

STATE OF MISSOURI
MIKE KEHOE, GOVERNOR

STATE OF MISSOURI
TRACIE L SIEBENECK
NUMBER PE-2013019114
PROFESSIONAL ENGINEER
2025

Tracie L. Siebeneck - Engineer
MO# PE-2013019114

BID DOCUMENTS

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF PUBLIC SAFETY/ VETERANS COMMISSION

HVAC IMPROVEMENTS FOR INFECTION CONTROL

WARRENSURG VETERANS HOME
1300 VETERANS DRIVE,
WARRENSBURG, MO 64093

PROJECT # U2301-07
SITE # 6806
ASSET # 8136806001

REVISION: ADDENDUM NO.1 (1)
DATE: 10/09/2025
REVISION:
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ISSUE DATE: 08/01/2025

CAD DWG FILE: M_U2301-07
DRAWN BY: AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:

MECHANICAL CONTROLS DIAGRAMS

SHEET NUMBER:

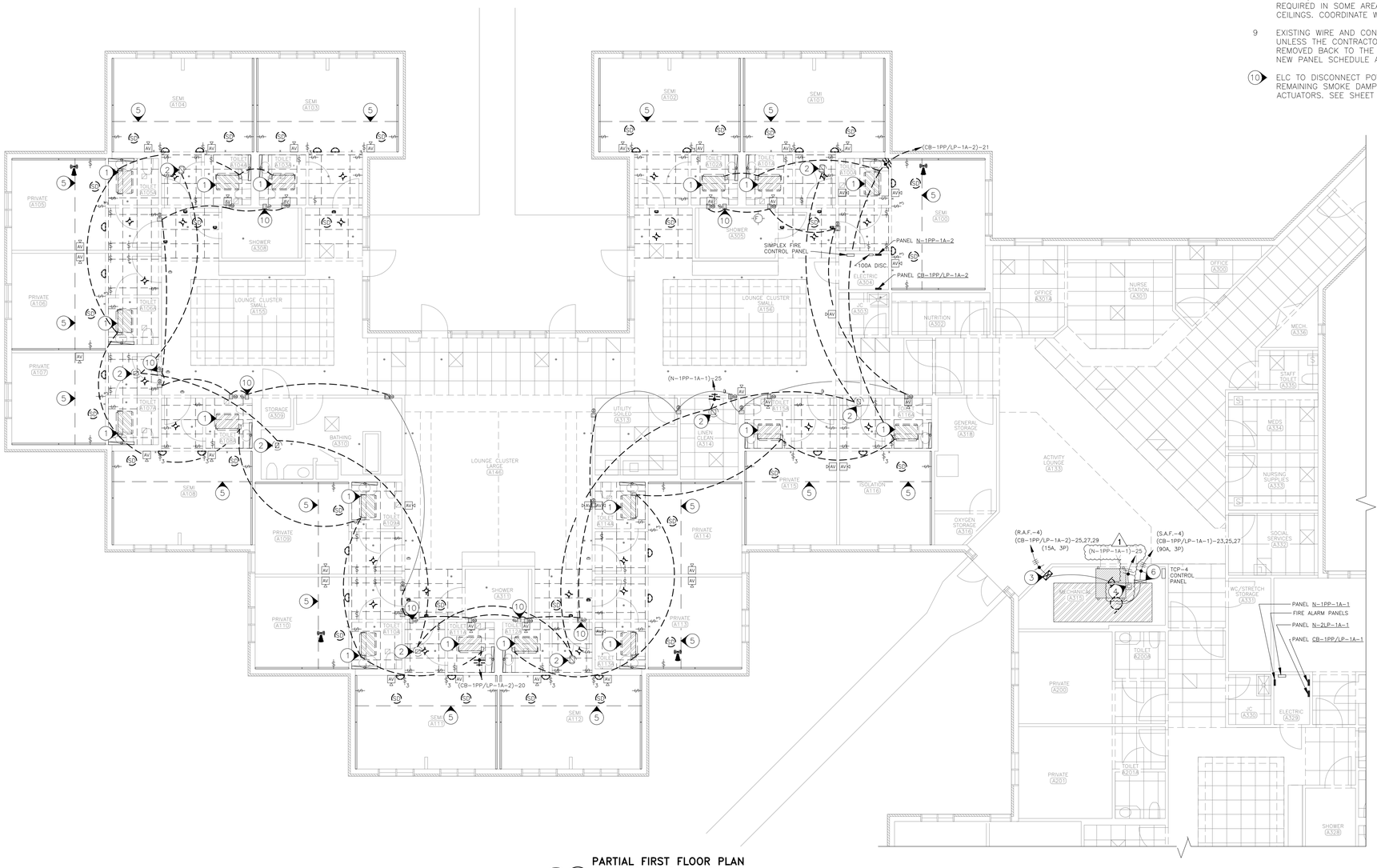
M-602

21 OF 26 SHEETS
08/01/2025

DEMOLITION NOTES

(N) INDICATES KEYED NOTES

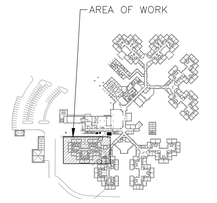
1. ELECTRICAL CONTRACTOR (ELC) TO REMOVE EXISTING POWER TO THIS FAN COIL UNIT. COORDINATE WITH MECHANICAL CONTRACTOR. REMOVE CONDUIT AND WIRE AND ALL APPURTENANCES BACK TO ELECTRICAL PANEL AND MARK BREAKER AS SPARE. CONTRACTOR MAY REUSE CONDUIT IF BENEFICIAL (TYPICAL)
2. ELC TO REMOVE POWER TO THIS EXHAUST FAN. COORDINATE WITH MECHANICAL CONTRACTOR. REMOVE CONDUIT AND WIRE AND ALL APPURTENANCES BACK TO ELECTRICAL PANEL UNLESS IT WILL BE USED IN THE NEW DESIGN.
3. REMOVE EXISTING RELIEF AIR FAN MOTOR STARTER AND POWER CONNECTION. (TO BE REPLACED WITH VFD IN SAME LOCATION)
4. EXISTING NEMA "0" SINGLE PHASE FULL VOLTAGE CONTACTOR. ALL EXHAUST FANS 47, 8, 9, & 10 ARE CIRCUITED TO HERE. CONTACTS ARE FED FROM PANEL (N-1PP-1A-1)-25. COIL IS ACTIVATED BY POWER ON AT AHU-4. COORDINATE WITH MECHANICAL ON NEW FAN ACTIVATION.
5. THERE WILL BE CEILING/ELECTRICAL DEMOLITION FOR A NEW SOFFIT (LOCATION FOR NEW FFU's) APPROXIMATELY 51" INTO EACH PATIENT ROOM. THE BOTTOM OF THE NEW SOFFIT IS TO MATCH THE EXISTING ENTRY CEILING HEIGHT. THERE ARE EXISTING WALL MOUNTED LIGHTS, SPRINKLER HEADS, CEILING MOUNTED SMOKE/CO2 SENSORS AND WIFI ACCESS POINTS THAT ARE IN AREA OF CONSTRUCTION IN SLIGHTLY DIFFERENT CONFIGURATIONS. POWER WIRING AND CONDUIT WILL NEED TO BE DISCONNECTED TO ALL THESE DEVICES. THESE DEVICES WILL BE RELOCATED TO A SIMILAR LOCATION IN NEW CEILING. ALL WIRE AND CONDUIT TO BE EXTENDED TO THE NEW DEVICE LOCATIONS. MOST OF THE FIRE ALARM STROBES ARE BELOW THE NEW SOFFIT LINE. IF THESE DEVICES ARE ABOVE THE NEW SOFFIT LINE, THEY TOO WILL NEED TO BE EXTENDED TO THE NEW LOCATION. NOT ALL ROOMS WERE VERIFIED. THE PLANS PROVIDED BY THE STATE WERE USED TO PLACE THE DEVICES AND MAY NOT BE ACCURATE OR COMPLETE. ELC TO VERIFY ALL DEVICES TO BE MOVED DURING BIDDING PHASE AND INCLUDED IN THE WORK. WIFI HAS BEEN ADDED SINCE THE PLANS WERE DRAWN.
6. EXISTING SUPPLY AIR FAN STARTER FOR AHU-4 IS TO BECOME A JUNCTION BOX AND REPLACED WITH NEW VFD ON WALL NEXT TO RAF-4 VFD. SEE E-102 FOR DETAILS.
7. IN EACH OF THE PATIENT RESTROOMS, THE EXISTING CEILING IS TO BE REMOVED TO ALLOW FOR NEW FCU LOCATIONS. GENERAL CONTRACTOR TO UPDATE SPRINKLER HEADS AS NEEDED TO MEET NEW CEILING AND SOFFIT LOCATIONS.
8. WHERE CEILINGS ARE SHOWN TO BE REMOVED, HEAVIER DASHED LINES, ELC TO RELOCATE ANY AND ALL ELECTRICAL DEVICES TO NEW CEILING. ALL DEVICES MAY NOT BE SHOWN. ELC TO VERIFY. REMOVE POWER IF NEEDED, CLEAN DEVICE AND RELOCATE INTO EXISTING CEILING. SOME ADDITIONAL WIRE AND CONDUIT MAY BE REQUIRED IN SOME AREAS. ELC TO PROVIDE AND INSTALL ALL WIRE AND CONDUIT TO DEVICES IN NEW CEILINGS. COORDINATE WORK WITH GENERAL CONTRACTOR.
9. EXISTING WIRE AND CONDUIT SHOWN FOR DEMOLITION SHALL BE REMOVED BACK TO THE ELECTRICAL PANELS UNLESS THE CONTRACTOR PLANS TO REUSE IN NEW DESIGN. ALL UNUSED WIRE AND CONDUIT TO BE TOTALLY REMOVED BACK TO THE PANEL. IF A BREAKER NOW HAS NO LOADS, MARK AS SPARE AND TURN OFF. RETYPE NEW PANEL SCHEDULE AND PLACE IN PROTECTIVE SLEEVE.
10. ELC TO DISCONNECT POWER TO THIS DUCT MOUNTED SMOKE DAMPER. REMOVE WIRE AND CONDUIT TO NEXT REMAINING SMOKE DAMPER. ALSO DEMO EXISTING WIRE TO MAKE NEW CONNECTIONS TO NEW SMOKE ACTUATORS. SEE SHEET E-102 FOR NEW SMOKE DAMPER LOCATIONS.



1 PARTIAL FIRST FLOOR PLAN ELECTRICAL DEMOLITION
SCALE: 1/8"=1'-0"

ELECTRICAL LEGEND

$	EXISTING LIGHT SWITCH (TO REMAIN)
$3	EXISTING 3-WAY LIGHT SWITCH (TO REMAIN)
AV	AUDIO/VISUAL DEVICE (TO REMAIN)
AV	AUDIO/VISUAL DEVICE (RELOCATE)
SD	SMOKE/CO2 DETECTOR (TO REMAIN)
SD	SMOKE/CO2 DETECTOR (RELOCATE)
	WIFI ACCESS POINT (RELOCATE)
	NURSE CALL LIGHT (TO REMAIN)
	NURSE CALL LIGHT (RELOCATE TO NEW CLG.)
	CAN LIGHT (TO BE RELOCATED TO NEW CLG.)
	EXISTING SURFACE MOUNTED PANELBOARD
	HOME RUN-SHORT STROKES INDICATE PHASE OR SWITCHED WIRES, LONG STROKE INDICATE NEUTRAL, LONG WITH DOT INDICATE GROUND
	CLG MTD SPKLR HEAD-(COORD. RELOCATION)
	WALL SPKLR HEAD (COORDINATE RELOCATION)
	DEMO EX FAN BY OTHERS(ELC DEMO POWER)
	MECHANICAL EQUIPMENT REMOVED BY OTHERS. (ELC TO REMOVE POWER)
	ELECTRICAL WIRE/CONDUIT (TO REMAIN)
	ELECTRICAL WIRE/CONDUIT (TO BE REMOVED)
	EXISTING CEILING GRID BEING REPLACED. ELC TO RELOCATE ALL ELECTRICAL DEVICES
	EXISTING MOTOR TO BE REMOVED/REPLACED
	EXISTING MOTOR STARTER TO BE REMOVED
	EXISTING DUCT SMOKE DAMPER (REMOVE)
	EXISTING DUCT SMOKE DAMPER (REMAINS)



2 KEY MAP
SCALE: 1"=400'

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

STATE OF MISSOURI
JAMES L. DOVE
NUMBER PE-2002016644
PROFESSIONAL ENGINEER
8-1-2025

Midwest Engineering & Design
3100 Brown Station Rd. Suite C
Columbia, MO. 65202
(573) 875-0045 Phone
(573) 875-0046 FAX
WWW.MOENGINEERING.COM
Midwest Engineering & Design
Missouri State Certificate of Authority #2010032467

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF
PUBLIC SAFETY/
VETERANS COMMISSION

HVAC IMPROVEMENTS FOR INFECTION CONTROL

WARRENSBURG VETERANS HOME
1300 VETERANS ROAD
WARRENSBURG, MO 64093

PROJECT # U2301-07
SITE # 6806
FACILITY # 8136806001

REVISION: ADDENDUM #1 1
DATE: 10/03/25
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ISSUE DATE: 08-01-25

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SHEET TITLE:

FIRST FLOOR ELECTRICAL DEMOLITION PLAN

SHEET NUMBER:

E-101

22 OF 26 SHEETS
08/01/2025

CONSTRUCTION NOTES

(N) INDICATES KEYED NOTES

1 (1) ELC TO EXTEND AND CONNECT POWER TO NEW FAN COIL UNITS FACTORY PROVIDED DISCONNECT.

1 (2) ELC TO PROVIDE WIRE AND CONDUIT AND CONNECT POWER TO NEW FACTORY PROVIDED DISCONNECT AS SHOWN. RUN POWER THROUGH NEW CONTACTOR IN MECHANICAL ROOM A-315. SEE NOTE 15.

3 COORDINATE WITH MECHANICAL CONTROLS PROVIDER TO RUN CONDUIT FOR ALL LOW VOLTAGE WIRE.

(4) EXISTING AHU TO REMAIN. ELC TO SUPPLY AND INSTALL NEW 15HP MOTOR AS A DIRECT REPLACEMENT. MOTOR TO BE A 15HP, 1800RPM, PREMIUM EFFICIENT, VFD RATED, 208V, 3 PHASE 60 HERTZ, FACTORY INSTALLED AEGIS RING OR EQUAL WITH APPROPRIATE MOUNTING AND BRACKET. REUSE EXISTING PULLEY ABB/BALDOR OR EQUAL. ALL CONTROLS OTHER THAN STARTING SHALL REMAIN AS IS. COORDINATE WITH MECHANICAL. BREAKER TO REMAIN THE SAME (90A 3P) IN CB-1PP-LP-1A-1. ENSURE WIRE IS 3-#4 CU THHN AND 1 #6 CU GND IN 1 1/4" EMT.

(5) ELECTRICAL CONTRACTOR SHALL RUN NEW WIRE AND CONDUIT IN 3/4" EMT FROM NEW FFU DISCONNECT, (FACTORY PROVIDED), TO PANEL AS SHOWN.

(6) SUPPLY AND INSTALL NEW VFD FOR AHU-4 SUPPLY FAN WITH SHAFT GROUNDING RING. USE AFTER MARKET KIT FROM AEGIS TO ADD GROUND RINGS TO THE NEW VFD. VFD TO BE ABB 15HP 200-230V/3ϕ ACH 580-VCR-046A-2 OR EQUAL. ELC TO PROVIDE AND INSTALL ALL CONDUIT AND WIRE TO CONNECT VFD TO EXISTING AHU-4 FAN MOTOR. EXISTING STARTER TO BE CONVERTED TO JUNCTION BOX. EXTEND WIRE AND CONDUIT FROM THERE TO NEW VFD.

7 ELECTRICAL CONTRACTOR (ELC) IS TO SUPPLY AND INSTALL ALL LINE VOLTAGE WIRING AND CONDUIT. COORDINATE WITH MECHANICAL CONTRACTOR TO RUN ALL LOW VOLTAGE CONDUIT AS NEEDED. BALANCE DAMPERS HAVE NO CONTROLS. CONTROL DAMPERS AND EXHAUST FANS WILL BE CONTROLLED BY THE EXISTING BUILDING AUTOMATION SYSTEM. THE CONTROL DAMPERS WILL HAVE LOW VOLTAGE ACTUATORS. ELC SHALL PROVIDE ANY AND ALL CONDUIT AS NEEDED FOR THE MECHANICAL CONTRACTOR.

(8) SEE NOTE 1 ON SHEET E-103 FOR ELECTRICAL WIRE AND CONDUIT. IF ANY MECHANICAL ELECTRICAL EQUIPMENT SPECIFIED IN THE DRAWINGS IS SUBSTITUTED BY A CONTRACTOR, THAT CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE EQUIPMENT'S ELECTRICAL PROTECTION PER THE MANUFACTURER'S NAMEPLATE, AND THE CURRENT NEC, ALONG WITH ALL EXPENSES INCURRED DUE TO SAID SUBSTITUTION. THE CONTRACTOR WHO IS PROVIDING THE SUBSTITUTION SHALL COORDINATE WITH ALL DISCIPLINES AFFECTED BY THIS CHANGE.

(9) TYPICAL – MOUNT WALL LIGHTS ON OUTSIDE WALL OF NEW SOFFITS SIMILAR TO LOCATIONS OF EXISTING FIXTURES. COORDINATE EXACT LOCATIONS FOR LIGHTS, WIFI ACCESS POINTS AND SMOKE/CO2 SENSORS WITH OWNER AND NEW SPRINKLER HEAD LOCATIONS. EXTEND ALL WIRE AND CONDUIT AS NEEDED. COORDINATE WITH GENERAL CONTACTOR FOR SPRINKLER HEAD RELOCATIONS. REMOUNT ALL ENTRY WAY CAN LIGHTS AND NURSE CALLS INTO NEW CEILING AT SIMILAR LOCATIONS AS EXISTING. SEE SHEET E-101. GENERAL CONTRACTOR TO RELOCATE PARTITION CURTAINS AND RAILS AS NEEDED.

10 EXISTING LIGHT SWITCHES NOT SHOWN FOR CLARITY.

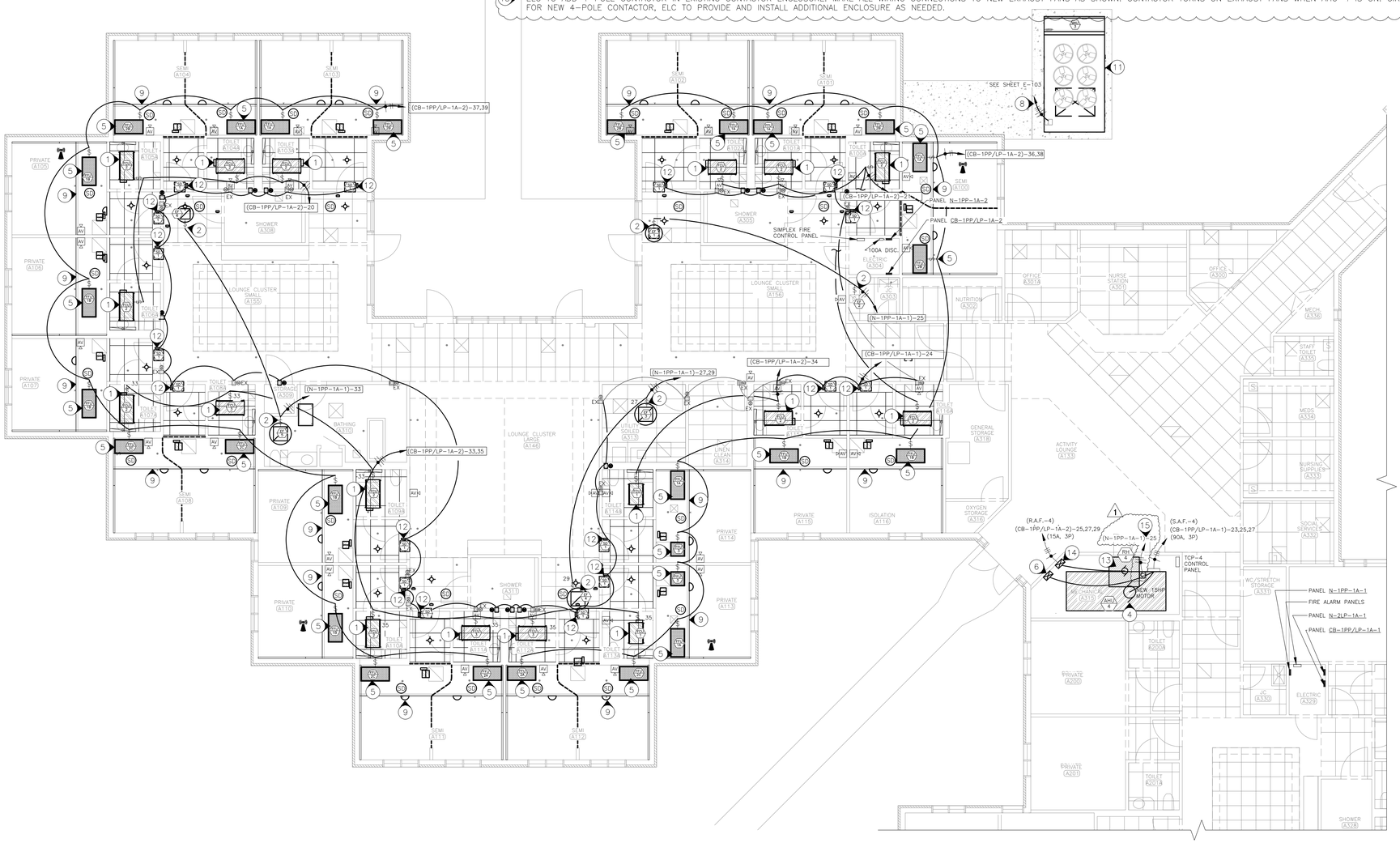
(11) ELECTRICAL CONTRACTOR TO SUPPLY AND INSTALL A NEW DUCT SMOKE DETECTOR FOR MAU-3 AND IT SHALL BE ADDRESSABLE. CONNECT TO EXISTING FIRE ALARM CONTROL PANEL FOR MONITORING. COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATION. COORDINATE WITH OWNER ON FIRE ALARM PANEL LOCATION.

(12) ELC TO PROVIDE 3/4" EMT AND (3) #12 CU FROM EXISTING SMOKE DAMPER JUNCTION BOX IN ELECTRICAL ROOM A329 TO EACH PATIENT ROOM SMOKE DAMPER ACTUATOR AND DAISY CHAIN ALL OTHER SMOKE DETECTORS AS SHOWN.
SEE DETAIL #4 ON SHEET E-501. POWER IS TO BE FROM EXISTING ELECTRICAL PANEL CB-1PP/LP-1A-1, CIRCUIT #24. ELC TO VERIFY.

(13) EXISTING RAF-4 TO REMAIN. ELC TO SUPPLY AND INSTALL NEW 3HP MOTOR AS A DIRECT REPLACEMENT. MOTOR TO BE A 3HP, PREMIUM EFFICIENT, VFD RATED, 208V, 3 PHASE 60 HERTZ, WITH APPROPRIATE MOUNTING AND BRACKET, ABB/BALDOR OR EQUAL. PULLEY MAY BE REUSED. FACTORY INSTALLED AEGIS RING OR EQUAL. REUSE EXISTING PULLEY. ALL CONTROLS OTHER THAN STARTING SHALL REMAIN AS IS. COORDINATE WITH MECHANICAL. BREAKER TO REMAIN THE SAME (15A 3P) IN CB-1PP-LP-1A-2 (25,27,29).

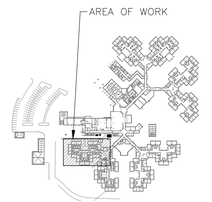
(14) SUPPLY AND INSTALL NEW VFD FOR RAF-4 RETURN AIR FAN WITH SHAFT GROUNDING RING. USE AFTER MARKET KIT FROM AEGIS TO ADD GROUND RINGS TO THE NEW VFD. VFD TO BE ABB 3HP 208V/3ϕ OR EQUAL. ELC TO PROVIDE AND INSTALL ALL CONDUIT AND WIRE TO CONNECT VFD TO EXISTING RAF-4 MOTOR.

1 (15) ELC TO ADD 4-POLE CONTACTOR IN EXISTING CONTACTOR ENCLOSURE. MAKE ALL WIRING CONNECTIONS TO NEW EXHAUST FANS AS SHOWN. CONTACTOR TURNS ON EXHAUST FANS WHEN AHU-4 IS ON. CIRCUITING FOR POWER TO CONTACTOR TO REMAIN. IF ENCLOSURE DOES NOT HAVE ROOM FOR NEW 4-POLE CONTACTOR, ELC TO PROVIDE AND INSTALL ADDITIONAL ENCLOSURE AS NEEDED.



1 PARTIAL FIRST FLOOR PLAN
ELECTRICAL RENOVATION
SCALE: 1/8"=1'-0"

ELECTRICAL LEGEND	
$	NEW FACTORY DISCONNECT SWITCH
	MECHANICAL EQUIPMENT
	NEW ELECTRICAL WIRE AND CONDUIT
	EXISTING SURFACE MOUNTED PANELBOARD
	HOME RUN-SHORT STROKES INDICATE PHASE OR SWITCHED WIRES, LONG STROKE INDICATE NEUTRAL, LONG WITH DOT INDICATE GROUND
	NEW/REUSED CEILING GRID – ELC TO REINSTALL ALL EXISTING LIGHTS AND DEVICES
	RELOCATED WIFI ACCESS DEVICE. ALL LOCATIONS NOT VERIFIED-ELC VERIFY
	RELOCATED CAN LIGHT
SD	RELOCATED SMOKE/O2 SENSOR
	RELOCATED NURSE CALL LIGHT
	NEW MOTOR – BY ELECTRICAL CONTRACTOR
	NEW VFD – BY ELECTRICAL CONTRACTOR
	NEW DUCT SMOKE DAMPER
EX	EXISTING DUCT SMOKE DAMPER (REMAINS)



2 KEY MAP
SCALE: 1"=400'

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

STATE OF MISSOURI
JAMES L. DOVE
NUMBER PE-2002016644
PROFESSIONAL ENGINEER
8-1-2025

Midwest Engineering & Design
3100 Brown Station Rd. Suite C
Columbia, MO. 65202
(573) 875-0045 Phone
(573) 875-0046 FAX
WWW.MOENGINEERING.COM
Midwest Engineering & Design
Missouri State Certificate of Authority #2010032467

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF
PUBLIC SAFETY/
VETERANS COMMISSION

HVAC IMPROVEMENTS FOR INFECTION CONTROL

WARRENSBURG VETERANS HOME
1300 VETERANS ROAD
WARRENSBURG, MO 64093

PROJECT # U2301-07
SITE # 6806
FACILITY # 8136806001

REVISION: ADDENDUM #1 1
DATE: 10/03/25
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08-01-25

CAD DWG FILE: MIFIC-e.dwg
DRAWN BY: MDS
CHECKED BY: JLD
DESIGNED BY: JLD

SHEET TITLE:

FIRST FLOOR ELECTRICAL RENOVATION PLAN

SHEET NUMBER:

E-102

23 OF 26 SHEETS
08/01/2025