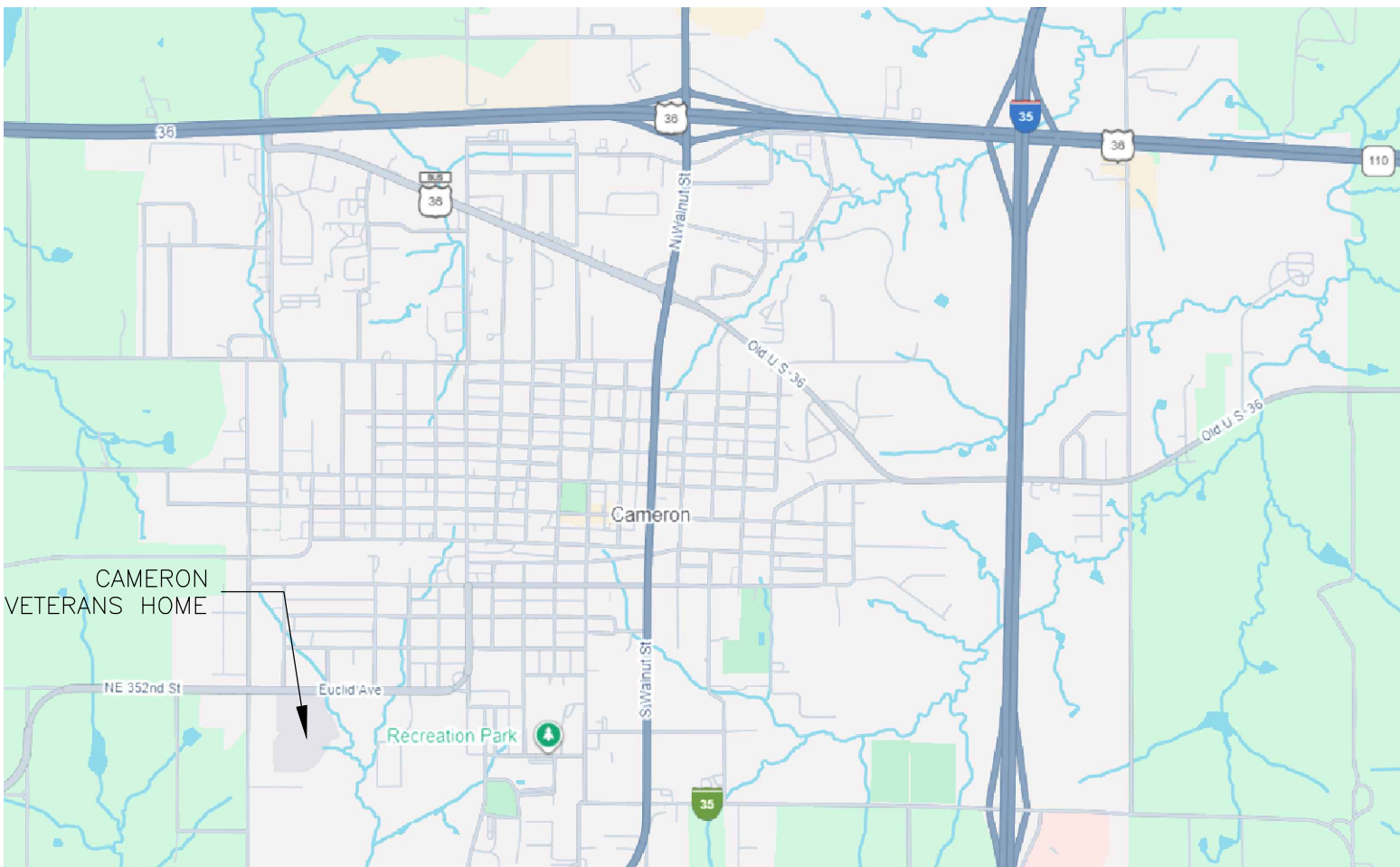


HVAC IMPROVEMENTS FOR INFECTION CONTROL CAMERON VETERANS HOME CAMERON, MISSOURI

OWNER: STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

DEPARTMENT OF
MISSOURI VETERANS
COMMISSION

PROJECT
MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION



1 PROJECT LOCATION MAP

DESIGNER: STATE OF MISSOURI - OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN
AND CONSTRUCTION: 301 W. HIGH STREET,
JEFFERSON CITY, MO. 65102

PROJECT NUMBER: U2301-01

ASSET NUMBER: 8136805001
SITE NUMBER: 6805

SHEET NUMBER:

G-001

1 OF 26 SHEETS
OCTOBER 24, 2025



Tracie L. Siebeneck - Engineer
MO# PE-2013019114

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DOCUMENTS

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF
PUBLIC SAFETY/
VETERANS COMMISSION

HVAC IMPROVEMENTS FOR
INFECTION CONTROL

CAMERON VETERANS
HOME
1111 EUCLID AVENUE
CAMERON, MO 64429

PROJECT # U2301-01
SITE # 6805
ASSET # 8136805001

REVISION: _____
DATE: _____
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DATE: _____
ISSUE DATE: 10/24/2025

CAD DWG FILE: G_U2301-01
DRAWN BY: TS/AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
GENERAL NOTES
AND DRAWING
INDEX

SHEET NUMBER:

G-002

2 OF 26 SHEETS
10/24/2025

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2	G-002	GENERAL NOTES AND DRAWING INDEX
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4	AD-102	DEMOLITION REFLECTED CEILING PLAN
5	A-101	RENOVATION REFLECTED CEILING PLAN
6	A-102	RENOVATION REFLECTED CEILING PLAN
7	A-501	SOFFIT DETAILS
8	F-101	FIRE PROTECTION PLAN
9	MD-101	MECHANICAL DEMOLITION PLAN - BASEMENT
10	MD-102	MECHANICAL DEMOLITION PLAN - LOUNGE A156
11	MD-103	MECHANICAL DEMOLITION PLAN - LOUNGE A146
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19	M-501	MECHANICAL DETAILS
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26	E-601	ELECTRICAL PANEL SCHEDULES

GENERAL NOTES

1. ROOF IS BEING REPLACED AND WILL BE UNDER A NEW WARRANTY. COORDINATE WITH ROOF MANUFACTURER TO ENSURE ROOF WARRANTY REMAINS IN EFFECT.
2. 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.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MOVING EXISTING FURNITURE OUT OF AREAS OF WORK PRIOR TO THE START OF DEMOLITION, AND MOVING FURNITURE BACK INTO THE SPACES AFTER CONSTRUCTION IS COMPLETE. PROTECT FURNITURE FROM DAMAGE.
4. THE CONTRACTOR SHALL ENGAGE A PRIVATE AND PUBLIC UTILITY LOCATE SERVICE IN AREAS WHERE EXCAVATION OR TRENCHING WILL TAKE PLACE. MISSOURI ONE CALL DOES NOT LOCATE ON THIS ENTIRE PROPERTY AS IT IS CONSIDERED PRIVATE PROPERTY. THERE COULD BE PRIVATE UTILITIES THAT ARE NOT SHOWN.
5. REMOVE SIDEWALK AS NEEDED TO ROUTE NATURAL GAS PIPE AND ELECTRICAL CONDUIT TO NEW EQUIPMENT. REPLACE SIDEWALK WITH LIKE MATERIALS AND CONSTRUCTION. REFER TO SHEET M-103 FOR ADDITIONAL INFORMATION.
6. 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.
7. HYDRONIC PIPE SHALL BE CLEANED AND FLUSHED PRIOR TO PLACING INTO OPERATION. OBTAIN CLEANING AND FLUSHING PROCEDURES AND CHEMICALS FROM OWNER'S WATER TREATMENT SERVICES COMPANY (WALTER LOUIS FLUID TECHNOLOGIES, 217-223-2017, ROGER SMITH, DENNIS GIER). CLEANING CHEMICALS SHALL BE A BLEND OF INORGANIC PHOSPHATE, CORROSION INHIBITOR, DISPERSANT, AND OIL EMULSIFIER APPROVED FOR DISPOSAL IN SANITARY SEWER SYSTEM.

APPLICABLE CODES:

GENERAL CONSTRUCTION:

- IBC - INTERNATIONAL BUILDING CODE; 2012
- ADA STANDARDS FOR ACCESSIBLE DESIGN; 2010

FIRE PROTECTION:

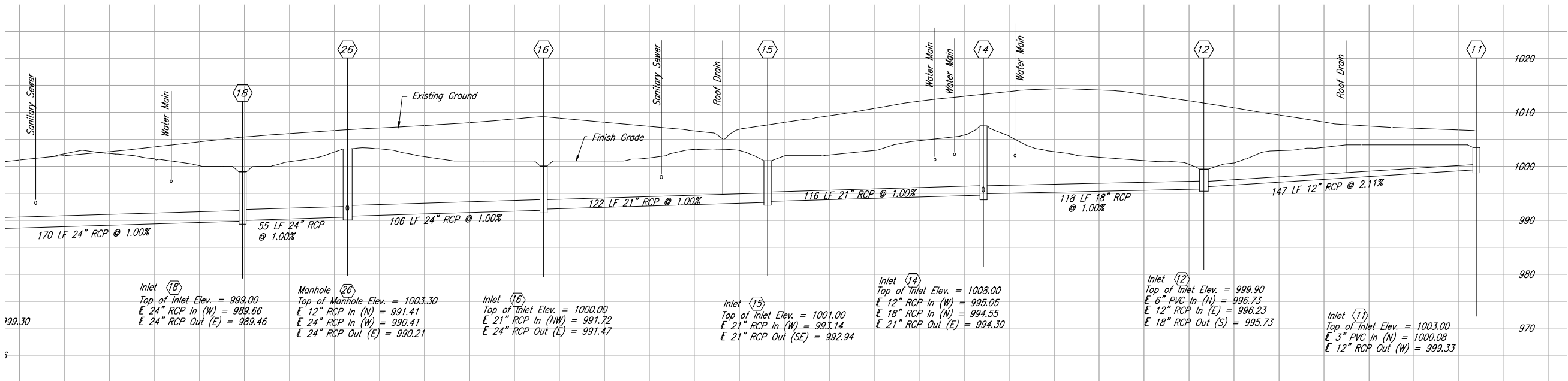
- NFPA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS; 2010
- NFPA 70 - NATIONAL ELECTRIC CODE (NEC) AS PERTAINING TO SPRINKLER SYSTEMS; 2011

MECHANICAL:

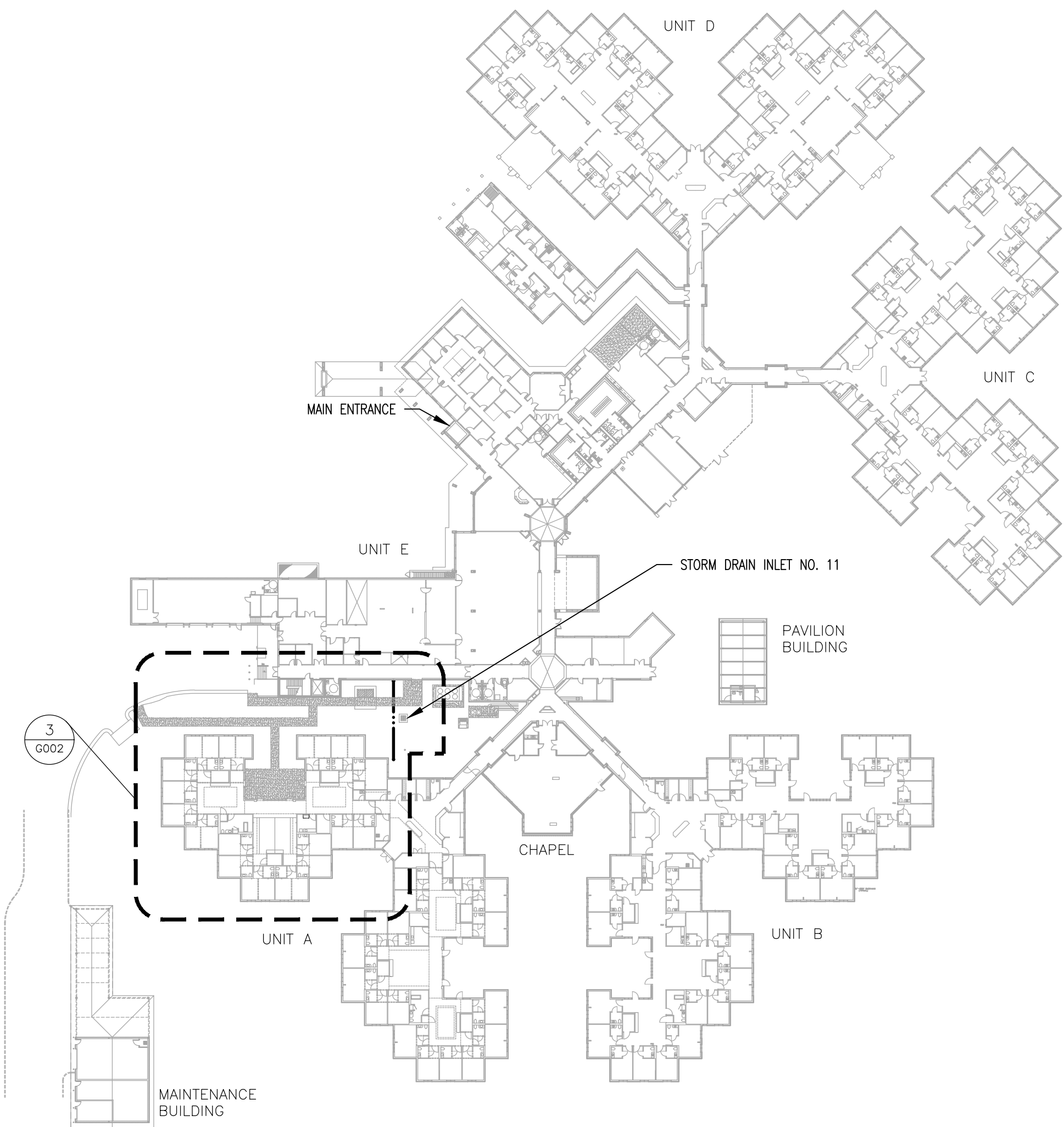
- IMC - INTERNATIONAL MECHANICAL CODE; 2012
- IFGC - INTERNATIONAL FUEL GAS CODE; 2012

ELECTRICAL:

- NFPA 70 - NATIONAL ELECTRIC CODE (NEC); 2011
- NFPA 101 - LIFE SAFETY CODE AS PERTAINING TO EMERGENCY EXIT SIGNS AND LIGHTING ALONG THE PATH OF EGRESS; 2012

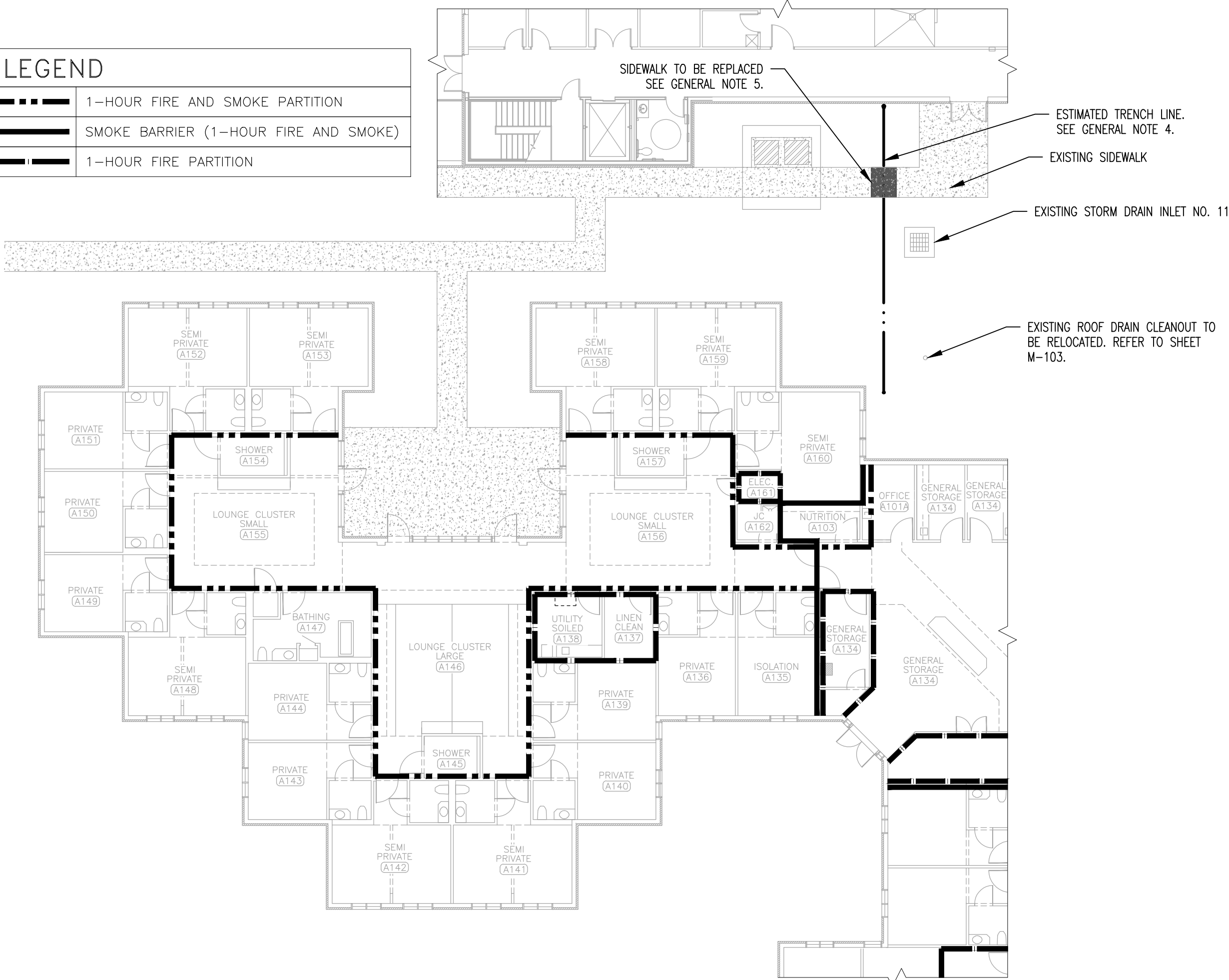


1 EXISTING STORM DRAIN ELEVATION (FOR REFERENCE ONLY)

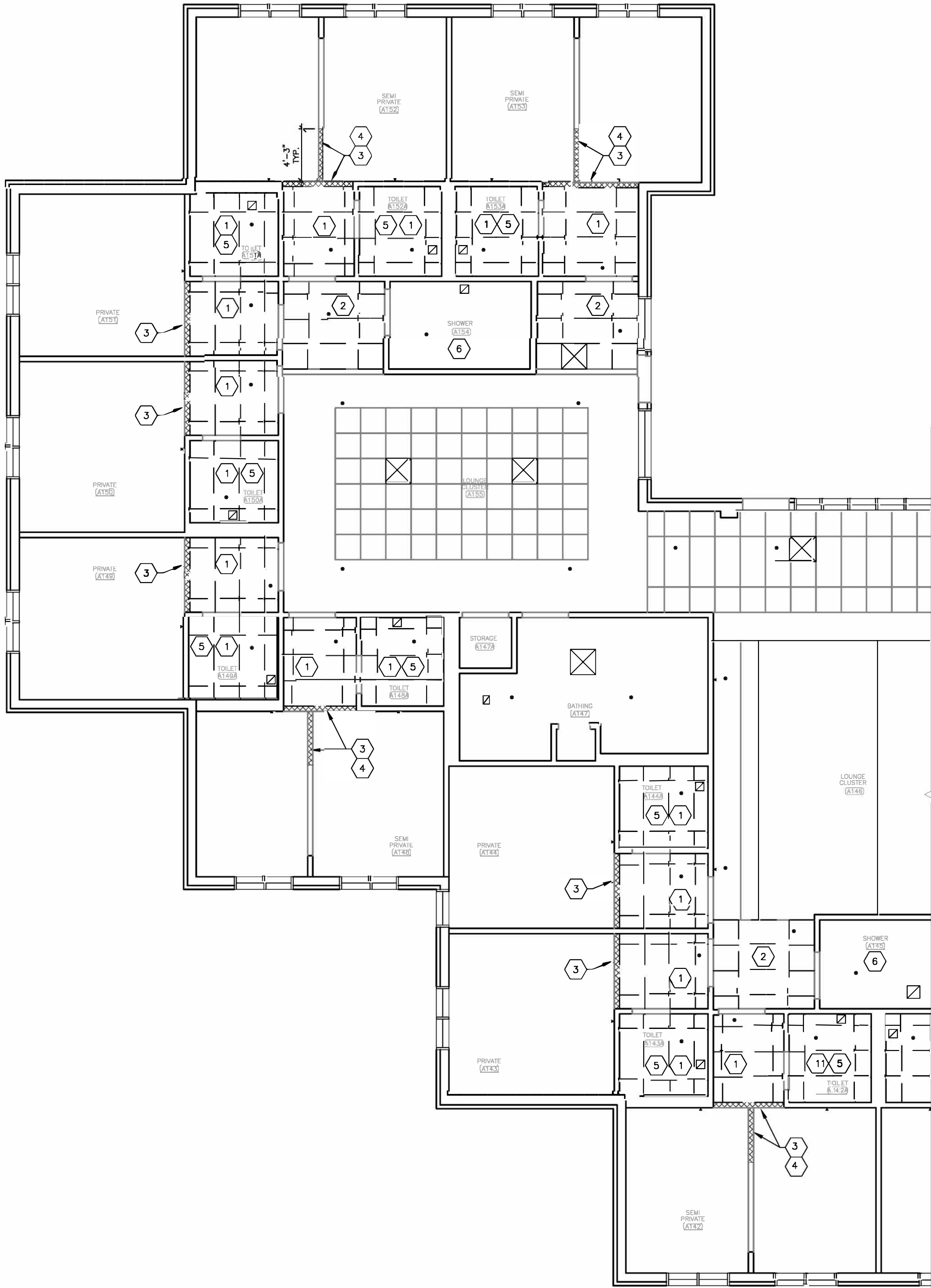


2 OVERALL SITE PLAN
SCALE: 1/64\"/>

LEGEND	
	1-HOUR FIRE AND SMOKE PARTITION
	SMOKE BARRIER (1-HOUR FIRE AND SMOKE)
	1-HOUR FIRE PARTITION



3 ENLARGED PLAN
SCALE: 1/16\"/>

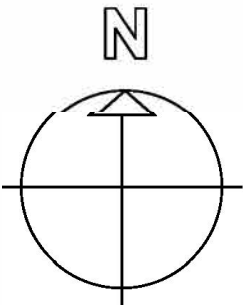
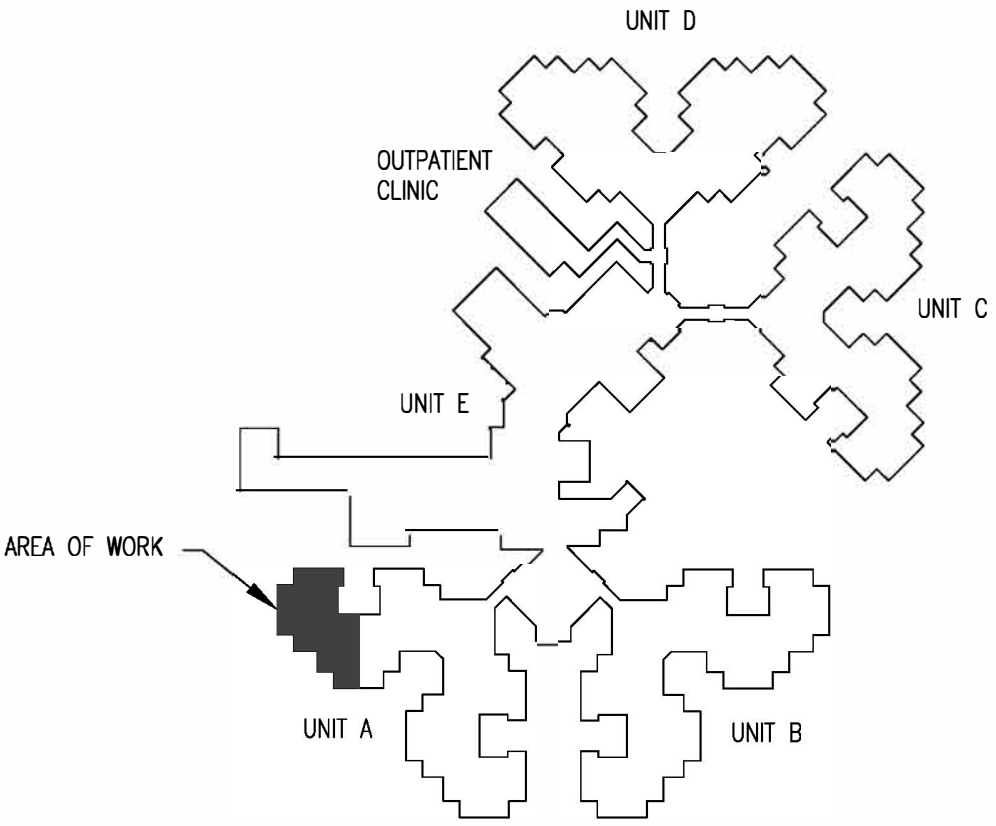


1 REFLECTED CEILING PLAN — DEMO
SCALE: 3/16" = 1'-0"

- GENERAL NOTES:**
1. VERIFY DIMENSIONS OF EXISTING SPACE PRIOR TO BID.
 2. PROTECT EXISTING FIXTURES AND MATERIAL FROM DAMAGE DURING DEMOLITION AND INSTALLATION.
 3. COORDINATE PATHS THROUGH BUILDING FOR DELIVERY OF CONSTRUCTION MATERIAL AND WORKERS WITH FACILITY STAFF PRIOR TO COMMENCEMENT OF WORK.
 4. COORDINATE WITH FACILITY STAFF WHEN REMOVING FURNITURE TO DETERMINE EXACT LAYOUT FOR ACCURATE REPLACEMENT.
 5. REPAIR ANY DAMAGE INCURRED DURING DEMOLITION AND INSTALLATION.

- DEMOLITION KEYNOTES:**
1. REMOVE EXISTING ACOUSTIC CEILING TILES AND SUSPENDED GRID SYSTEM TO EXTENTS SHOWN. RELINQUISH FULL AND UNDAMAGED ACOUSTIC CEILING TILES TO OWNER.
 2. REMOVE EXISTING ACOUSTIC CEILING TILES TO EXTENTS SHOWN. SALVAGE FOR REUSE.
 3. REMOVE EXISTING DRYWALL SOFFIT STUDS TO EXTENTS SHOWN. COORDINATE REMOVAL OF ATTACHED LIGHT FIXTURES AND SPRINKLER HEADS WITH MEP DRAWINGS.
 4. REMOVE EXISTING CURTAIN TRACK AND ATTACHED CURTAINS. RELINQUISH CURTAINS TO OWNER.
 5. VERIFY AND NOTE EXISTING CEILING HEIGHT FOR NEW CEILING TO BE INSTALLED AT SAME HEIGHT.
 6. COORDINATE POTENTIAL REMOVAL OF EXISTING CEILING AS NEEDED; REFER TO MEP DRAWINGS AND SUBSEQUENT MEANS AND METHODS DETERMINED BY INSTALLING CONTRACTOR.

SYMBOL LEGEND:	
	RETURN AIR DEVICE
	SUPPLY AIR DEVICE
	FIRE SPRINKLER HEAD - PENDANT TYPE
	FIRE SPRINKLER HEAD - SIDEWALL TYPE
	SOFFIT DEMO



2 KEYPLAN
SCALE: N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



Brad M. Schaefer - Architect
MO# A-2009027294

BID DOCUMENTS

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DEPARTMENT OF
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CAMERON VETERANS
HOME
1111 EUCLID AVENUE
CAMERON, MO 64429

PROJECT # U2301-01
SITE # 6805
ASSET # 8136805001

REVISION: _____
DATE: _____
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REVISION: _____
DATE: _____
ISSUE DATE: 10/24/2025

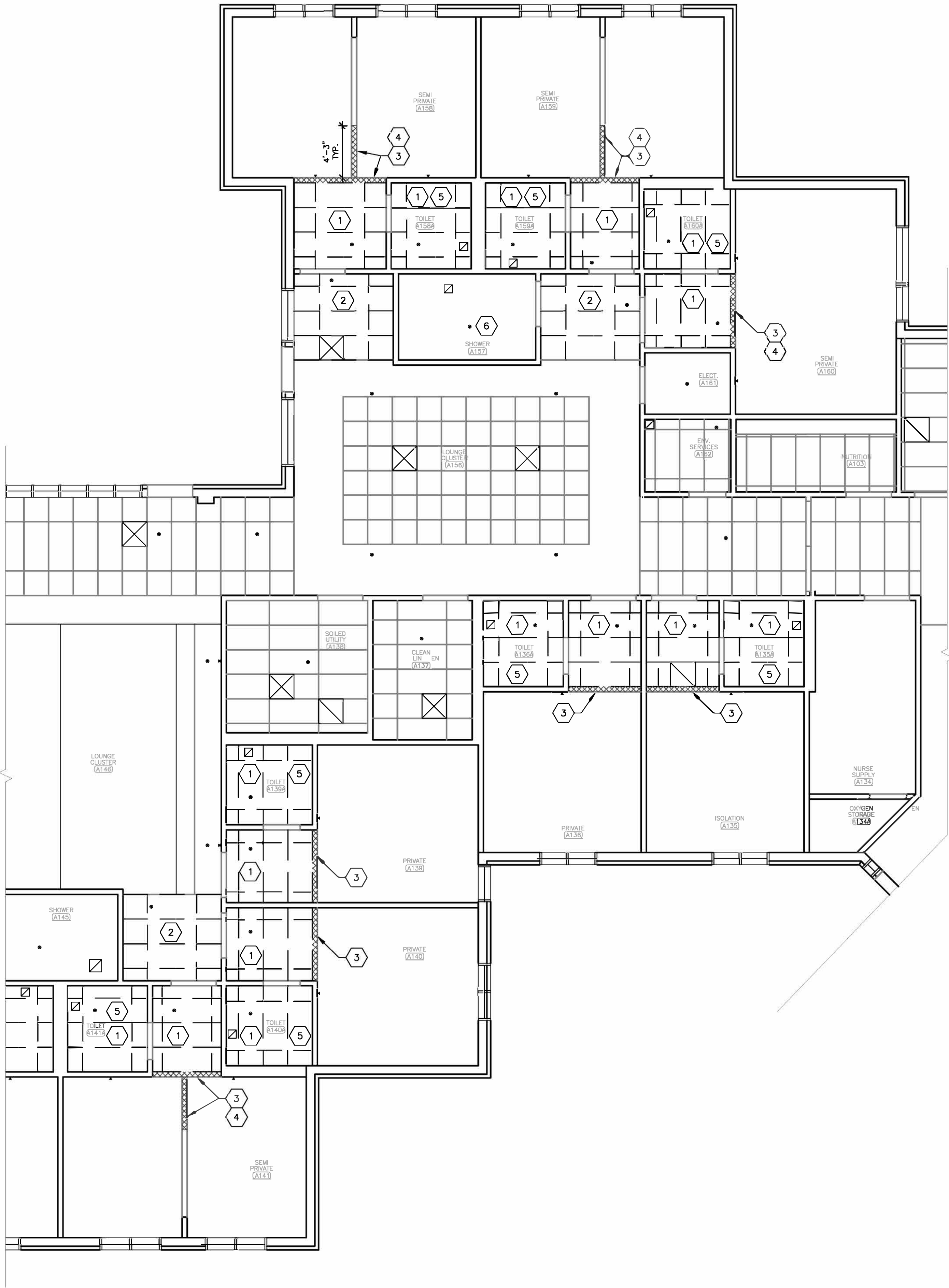
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DRAWN BY: CL
CHECKED BY: BMS
DESIGNED BY: CL

SHEET TITLE:
DEMOLITION
REFLECTED
CEILING PLAN

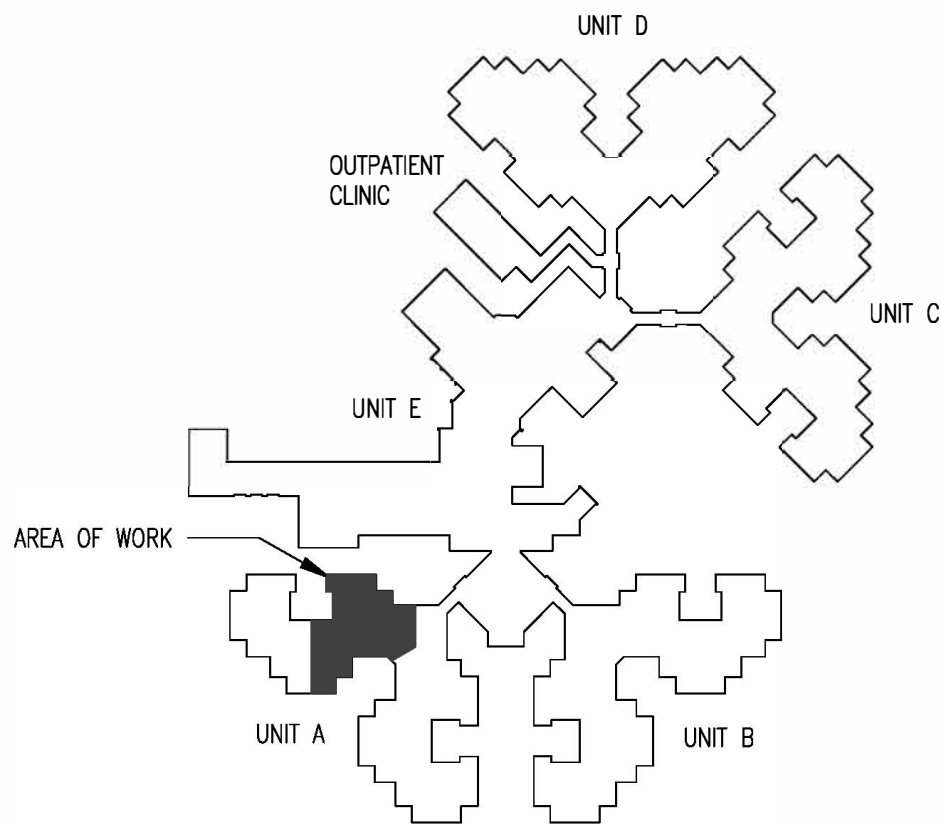
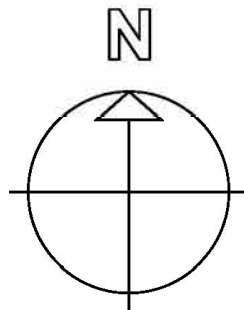
SHEET NUMBER:

AD-101

3 OF 26 SHEETS
10/24/2025



1 REFLECTED CEILING PLAN - DEMO
SCALE: 3/16" = 1'-0"



2 KEYPLAN
SCALE: N.T.S.

- GENERAL NOTES:**
1. VERIFY DIMENSIONS OF EXISTING SPACE PRIOR TO BID.
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 3. COORDINATE PATHS THROUGH BUILDING FOR DELIVERY OF CONSTRUCTION MATERIAL AND WORKERS WITH FACILITY STAFF PRIOR TO COMMENCEMENT OF WORK.
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 3. REMOVE EXISTING DRYWALL SOFFIT STUDS TO EXTENTS SHOWN. COORDINATE REMOVAL OF ATTACHED LIGHT FIXTURES AND SPRINKLER HEADS WITH MEP DRAWINGS.
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SYMBOL LEGEND:	
	RETURN AIR DEVICE
	SUPPLY AIR DEVICE
	FIRE SPRINKLER HEAD - PENDANT TYPE
	FIRE SPRINKLER HEAD - SIDEWALL TYPE
	SOFFIT DEMO

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



Brad M. Schaefer - Architect
MO# A-2009027294

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ASSET # 8136805001

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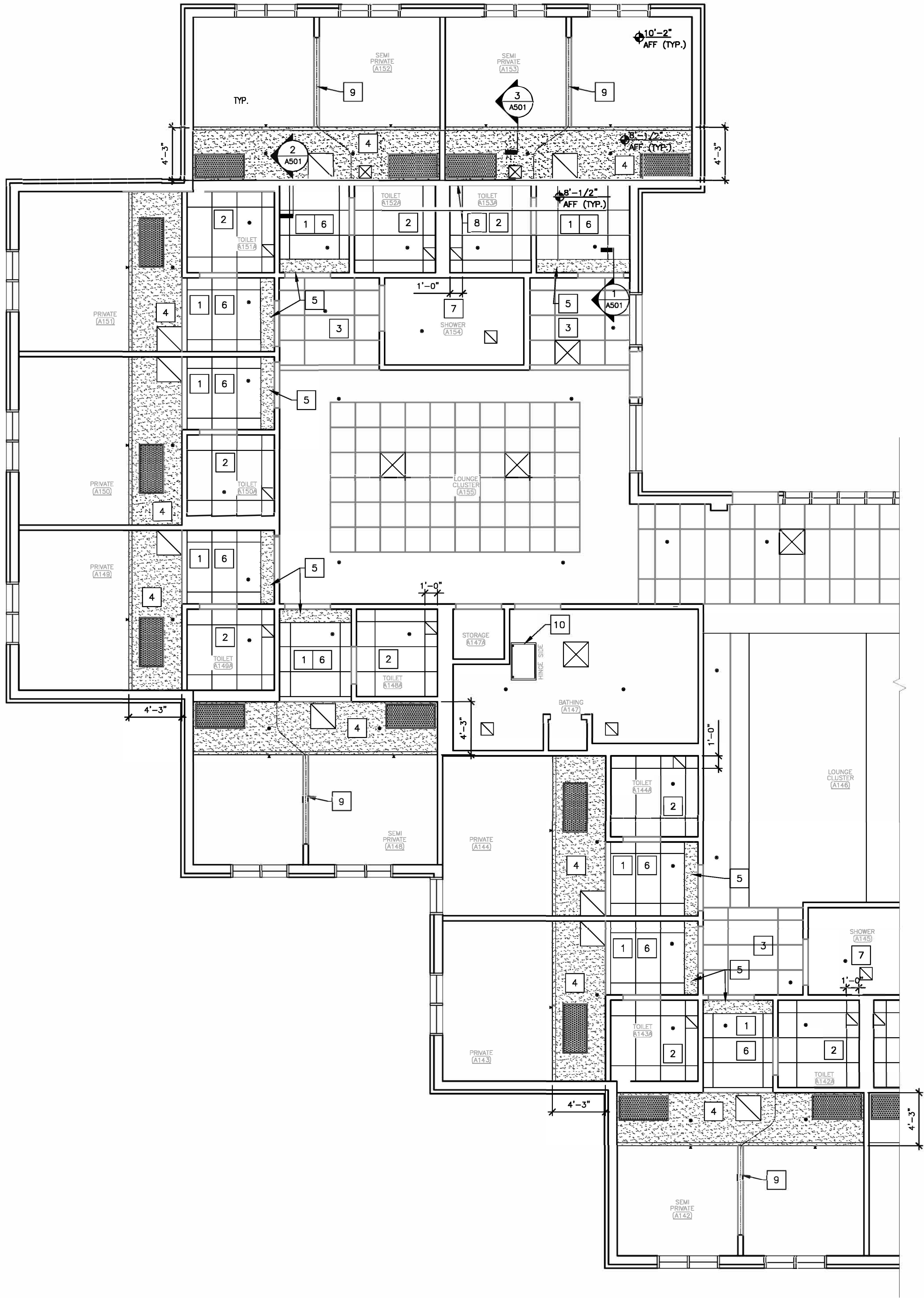
CAD DWG FILE: A-U2301-01
DRAWN BY: CL
CHECKED BY: BMS
DESIGNED BY: CL

SHEET TITLE:
DEMOLITION
REFLECTED
CEILING PLAN

SHEET NUMBER:

AD-102

4 OF 26 SHEETS
10/24/2025

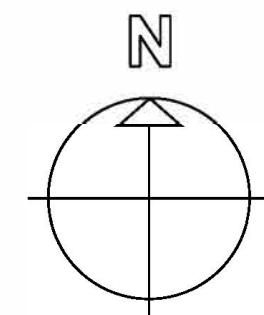
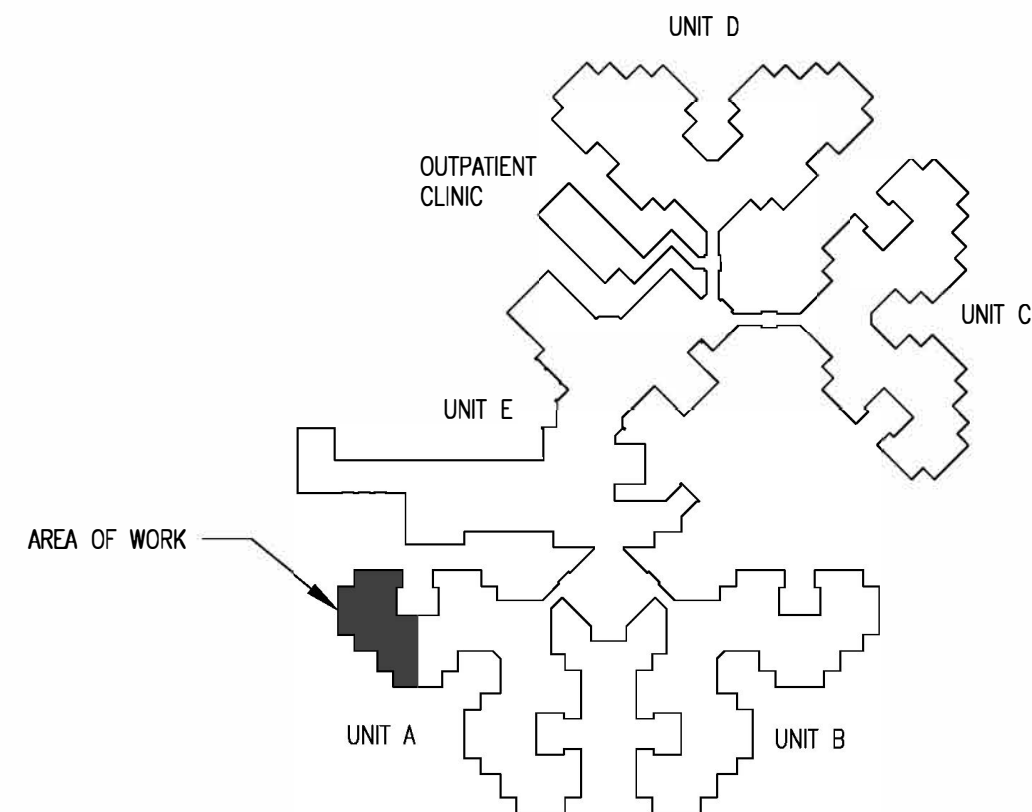


1 REFLECTED CEILING PLAN – RENO
SCALE: 3/16" = 1'-0"

- GENERAL NOTES:**
1. VERIFY DIMENSIONS OF EXISTING SPACE PRIOR TO BID.
 2. PROTECT EXISTING FIXTURES AND MATERIAL FROM DAMAGE DURING DEMOLITION AND INSTALLATION.
 3. COORDINATE PATHS THROUGH BUILDING FOR DELIVERY OF CONSTRUCTION MATERIAL AND WORKERS WITH FACILITY STAFF PRIOR TO COMMENCEMENT OF WORK.
 4. COORDINATE WITH FACILITY STAFF WHEN REMOVING FURNITURE TO DETERMINE EXACT LAYOUT FOR ACCURATE REPLACEMENT.
 5. REPAIR ANY DAMAGE INCURRED DURING DEMOLITION AND INSTALLATION.

- RENOVATION KEYNOTES:**
1. INSTALL NEW SUSPENSION SYSTEM CEILING GRID AND 2'x4' LAY-IN ACOUSTIC CEILING TILES WITH FACTORY APPLIED GASKET, TO EXTENTS SHOWN BY GRID. INSTALL AT TYPICAL HEIGHT INDICATED.
 2. INSTALL NEW SUSPENSION SYSTEM CEILING GRID AND 2'x4' LAY-IN ACOUSTIC CEILING TILES WITH FACTORY APPLIED GASKET, TO EXTENTS SHOWN BY GRID. INSTALL AT SAME HEIGHT AS THE REMOVED GRID.
 3. REINSTALL SALVAGED ACOUSTIC CEILING TILES.
 4. INSTALL NEW STEEL STUD SOFFIT WITH GYPSUM BOARD AT TYPICAL HEIGHT INDICATED. PAINT EXPOSED GYPSUM BOARD TO LEVEL 4 FINISH. SEE A-501 FOR DETAILS.
 5. INSTALL NEW STEEL STUD SOFFIT WITH GYPSUM BOARD. INSTALLATION HEIGHT TO BE AT TOP OF EXISTING DOOR FRAME. PAINT EXPOSED GYPSUM BOARD TO LEVEL 4 FINISH. SEE A-501 FOR DETAILS.
 6. REPAIR AND PAINT EXPOSED WALL SURFACE WITHIN AREA OF CEILING GRID INSTALLATION, TO LEVEL 4 FINISH.
 7. PATCH, SEAL, AND PAINT CEILING AS NEEDED FOR WORK COORDINATED ON MEP DRAWINGS USING LIKE FINISHES APPROPRIATE FOR MOISTURE EXPOSURE IN SHOWER ROOM.
 6. PATCH HOLES IN DRYWALL ABOVE SUSPENDED CEILING. COMPLY WITH 1-HOUR FIRE RATING.
 9. INSTALL NEW CUBICLE CURTAIN TRACK AND CURTAIN.
 10. INSTALL NEW 24"X36" AIRTIGHT/WATERTIGHT ACCESS PANEL ON ATTIC STRUCTURE ABOVE SUSPENDED CEILING. COORDINATE WITH MECHANICAL CONTRACTOR FOR FINAL LOCATION. REFER TO ACCESS PANEL SCHEDULE ON SHEET A-501.

SYMBOL LEGEND:	
	FAN FILTER UNIT
	RETURN AIR DEVICE
	SUPPLY AIR DEVICE
	FIRE SPRINKLER HEAD - PENDANT TYPE
	FIRE SPRINKLER HEAD - SIDEWALL TYPE
	CUBICLE CURTAIN TRACK
	GYPSUM BOARD



2 KEYPLAN
SCALE: N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



Brad M. Schaefer - Architect
MO# A-2009027294

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DIVISION OF FACILITIES
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DEPARTMENT OF
PUBLIC SAFETY/
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HVAC IMPROVEMENTS FOR
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1111 EUCLID AVENUE
CAMERON, MO 64429

PROJECT # U2301-01
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ASSET # 8136805001

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CAD DWG FILE: A-U2301-01
DRAWN BY: CL
CHECKED BY: BMS
DESIGNED BY: CL

SHEET TITLE:
RENOVATION
REFLECTED
CEILING PLAN

SHEET NUMBER:

A-101

5 OF 26 SHEETS
10/24/2025



Brad M. Schaefer - Architect
MO# A-2009027294

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DOCUMENTS

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DRAWN BY: CL
CHECKED BY: BMS
DESIGNED BY: CL

SHEET TITLE:
RENOVATION
REFLECTED
CEILING PLAN

SHEET NUMBER:

A-102

6 OF 26 SHEETS
10/24/2025

GENERAL NOTES:

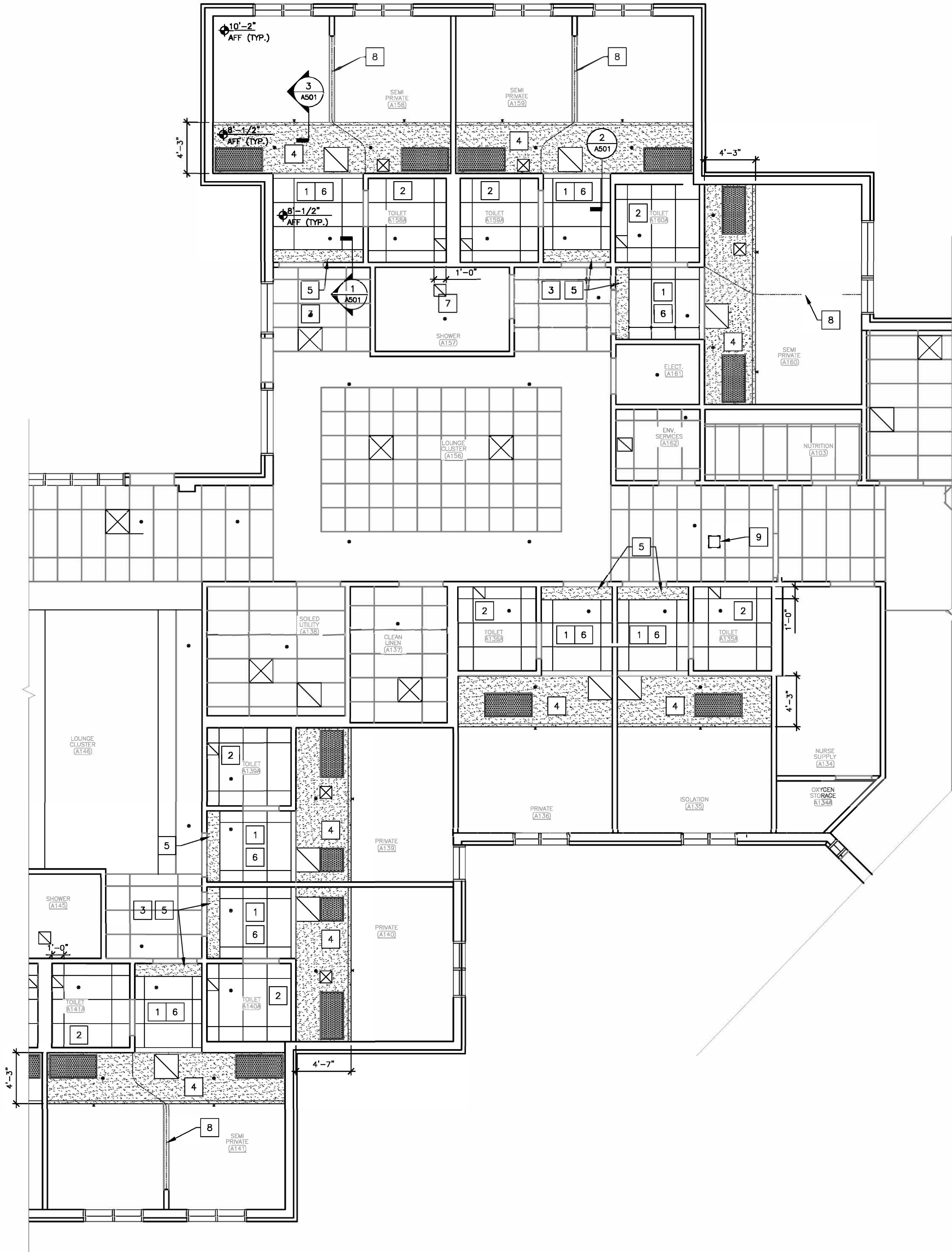
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RENOVATION KEYNOTES:

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7. PATCH, SEAL, AND PAINT CEILING AS NEEDED FOR WORK COORDINATED ON MEP DRAWINGS USING LIKE FINISHES APPROPRIATE FOR MOISTURE EXPOSURE IN SHOWER ROOM.
8. INSTALL NEW CUBICLE CURTAIN TRACK AND CURTAIN.
9. INSTALL NEW 12"X12" AIRTIGHT/WATERTIGHT ACCESS PANEL ON ATTIC STRUCTURE ABOVE SUSPENDED CEILING. COORDINATE WITH MECHANICAL CONTRACTOR FOR FINAL LOCATION. REFER TO ACCESS PANEL SCHEDULE ON SHEET A-501.

SYMBOL LEGEND:

	FAN FILTER UNIT
	RETURN AIR DEVICE
	SUPPLY AIR DEVICE
	FIRE SPRINKLER HEAD - PENDANT TYPE
	FIRE SPRINKLER HEAD - SIDEWALL TYPE
	CUBICLE CURTAIN TRACK
	GYPSUM BOARD

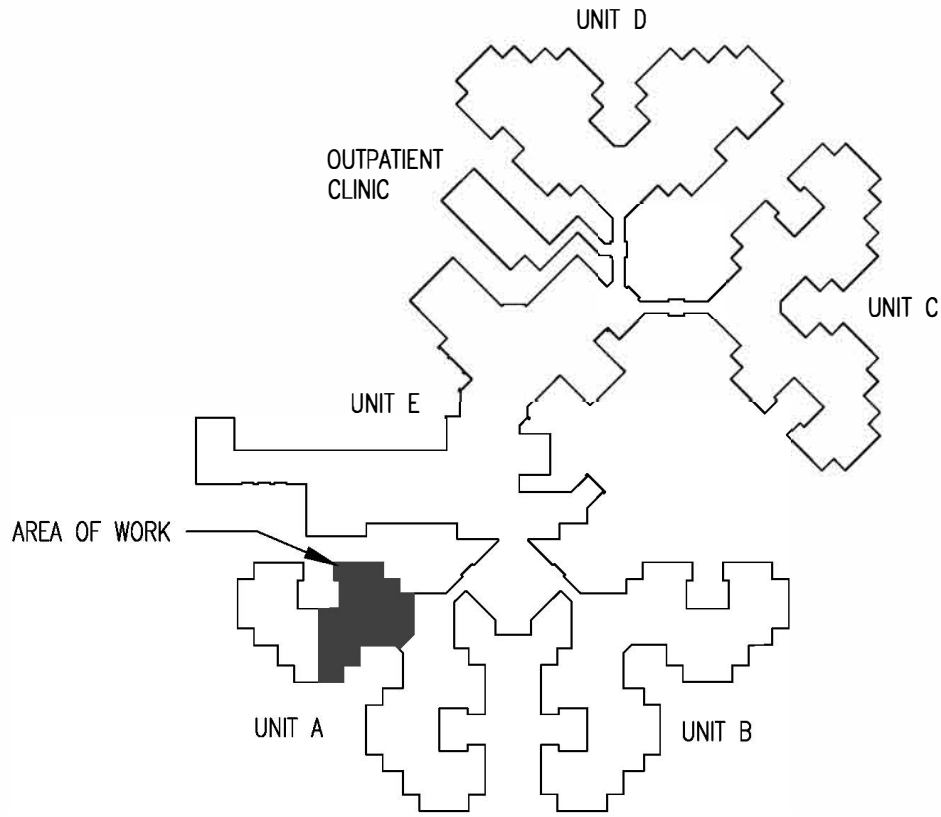
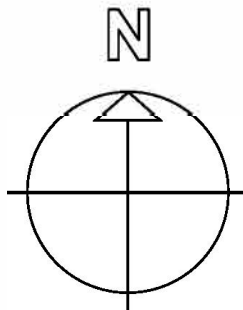


1 REFLECTED CEILING PLAN - RENO

SCALE: 3/16" = 1'-0"

2 KEYPLAN

SCALE: N.T.S.



BID DOCUMENTS

**DEPARTMENT OF
PUBLIC SAFETY/
VETERANS COMMISSION**

PROJECT # U2301-01
SITE # 6805
ASSET # 8136805001

ISSUE DATE: 10/24/2025

SHEET TITLE:

SHEET NUMBER:

7 OF 26 SHEETS
10/24/2025



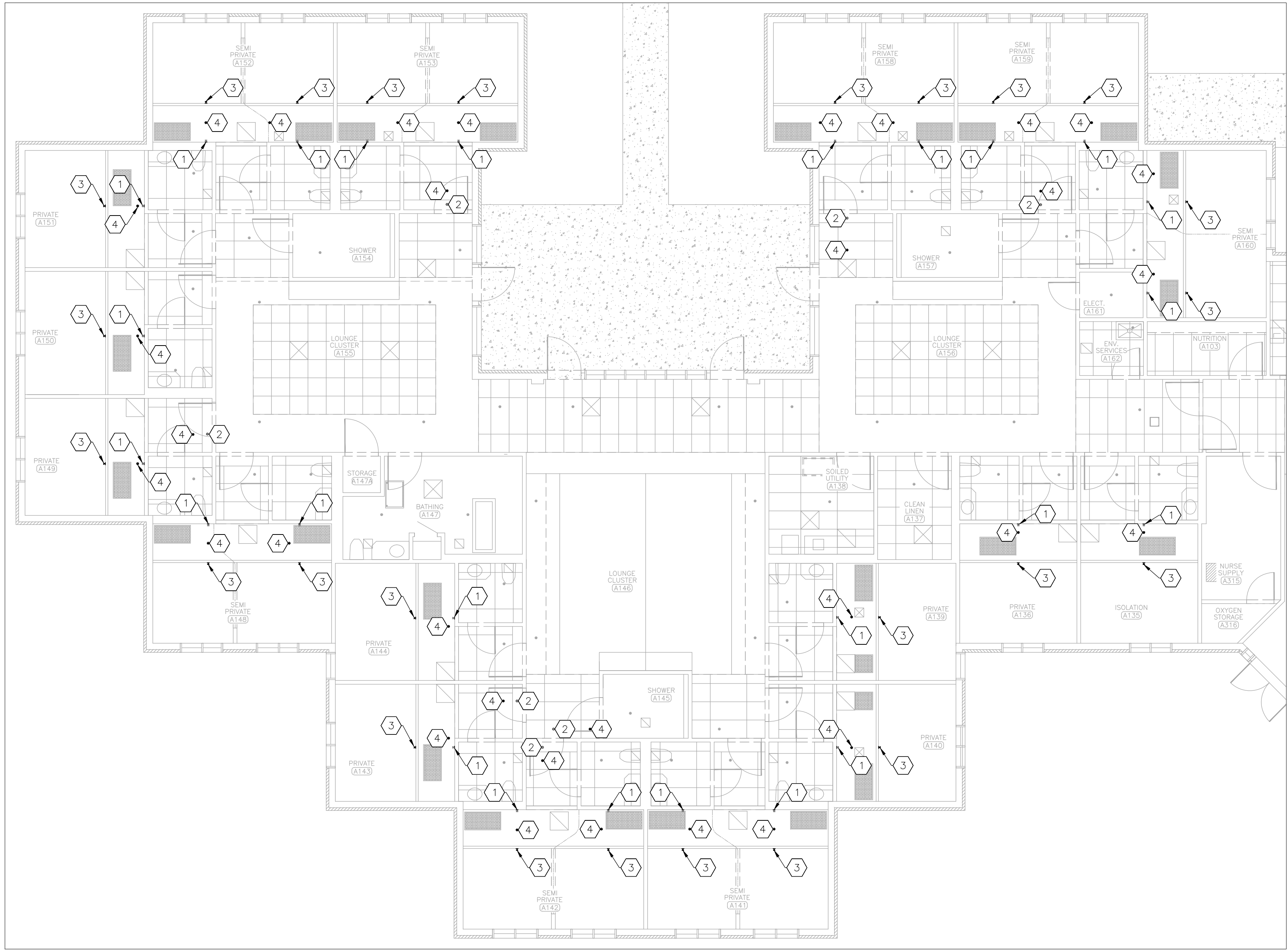
1. PRODUCTS LISTED ARE BASIS OF DESIGN, FOLLOW ALL MANUFACTURERS RECOMMENDED INSTALLATION SPECIFICATIONS.

GENERAL NOTES

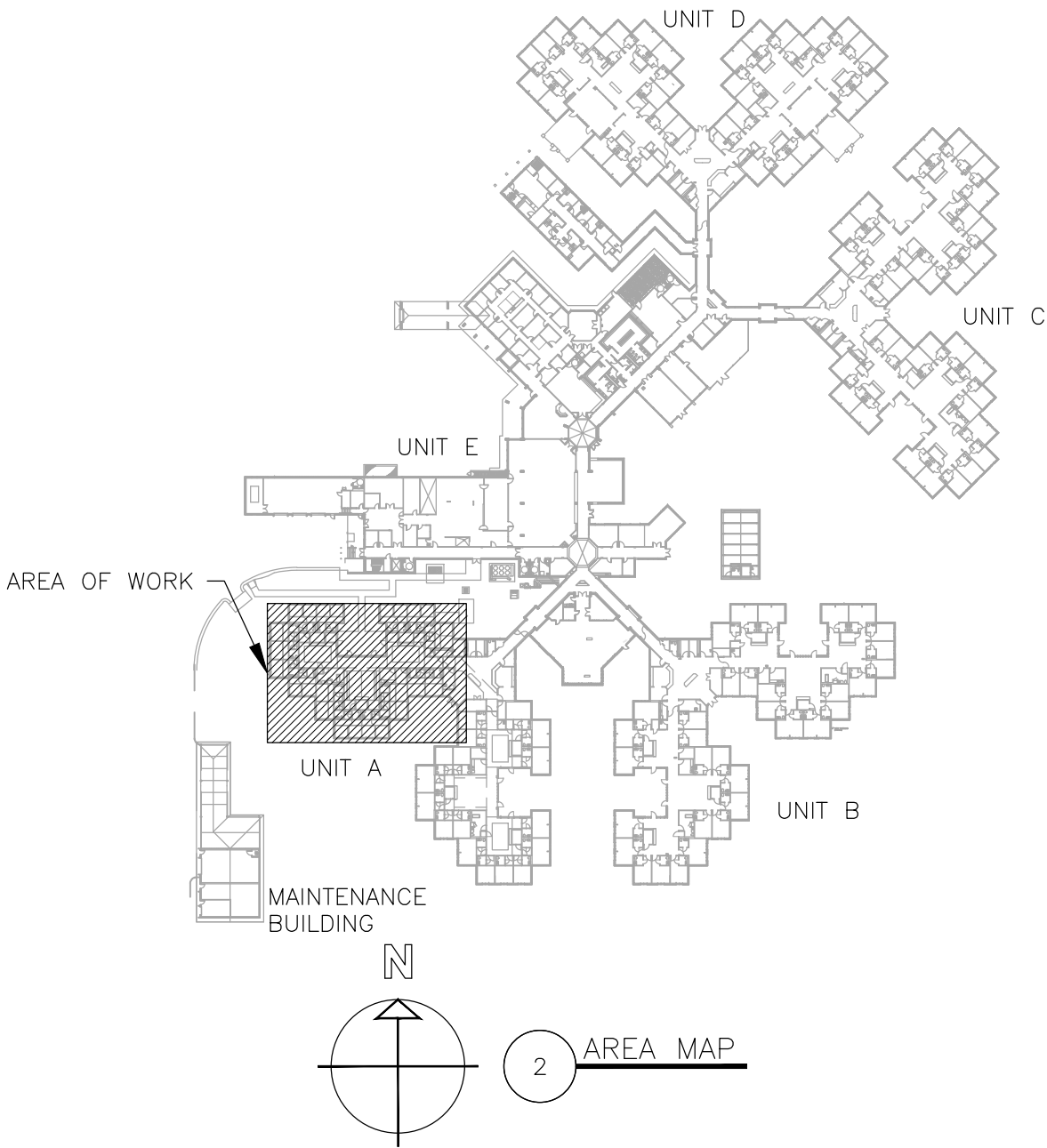
- 1
- FABRICATION, INSTALLATION, AND TESTING OF ALL FIRE PROTECTION DEVICES SHALL BE DONE IN ACCORDANCE WITH ALL MANUFACTURER INSTALLATION GUIDELINES. REFER TO SHEET G-002 FOR APPLICABLE CODES AND STANDARDS.
- 2
- DRAWINGS AND PLANS ARE FROM FIELD TAKE-OFF AND ORIGINAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING PRIOR TO BIDDING AND/OR CONSTRUCTION.
- 3
- CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLISHED MATERIAL, AS WELL AS REPAIRING ANY DAMAGE TO ANY SURFACE IN THE AREA OF CONSTRUCTION THAT IS A RESULT OF CONSTRUCTION ACTIVITY. SURFACE SHALL BE REPAIRED AND FINISHED TO MATCH EXISTING CONDITIONS.
- 4
- COORDINATE WITH OWNER TO SHUT OFF FIRE ALARMS AND FIRE SUPPRESSION SYSTEM IN WORK AREA PRIOR TO BEGINNING CONSTRUCTION. CONSTRUCTION SHALL BE DONE SUCH THAT THE FIRE ALARM AND FIRE SUPPRESSION SYSTEMS ARE ACTIVE OVERNIGHT.
- 5
- DELEGATED DESIGN: LOCATION OF NEW SPRINKLER HEADS ARE FOR REFERENCE ONLY. FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND PROVIDING COMPLETE, FUNCTIONAL, AND CODE COMPLIANT SYSTEM.

NOTES

- 1
- DEMOLISH SIDE-WALL TYPE FIRE SPRINKLER HEAD. EXTEND PIPE TO NEW SPRINKLER HEAD LOCATION AS NEEDED.
- 2
- DEMOLISH PENDENT TYPE FIRE SPRINKLER HEAD TO BE RELOCATED. DEMOLISH PIPE AS NEEDED TO COMPLETE THE WORK.
- 3
- PROVIDE AND INSTALL SIDE-WALL TYPE FIRE SPRINKLER HEAD, ESCUTCHEON, AND ALL REQUIRED PIPE. ALL MATERIALS SHALL MATCH EXISTING FINISH AND PERFORMANCE.
- 4
- PROVIDE AND INSTALL PENDENT TYPE FIRE SPRINKLER HEAD, ESCUTCHEON, AND ALL REQUIRED PIPE. ALL MATERIALS SHALL MATCH EXISTING FINISH AND PERFORMANCE.



FIRE PROTECTION LEGEND	
	FIRE SPRINKLER HEAD WITH ESCUTCHEON - PENDENT TYPE - NEW
	FIRE SPRINKLER HEAD WITH ESCUTCHEON - TO BE REMOVED - SIDE-WALL TYPE - NEW
	FIRE SPRINKLER HEAD WITH ESCUTCHEON - SIDE-WALL TYPE - TO BE REMOVED



1 FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0"

2 AREA MAP

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



Tracie L. Siebeneck - Engineer
MO# PE-2013019114

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HVAC IMPROVEMENTS FOR
INFECTION CONTROL

CAMERON VETERANS
HOME
1111 EUCLID AVENUE
CAMERON, MO 64429

PROJECT # U2301-01
SITE # 6805
ASSET # 8136805001

REVISION: _____
DATE: _____
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DATE: _____
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DATE: _____
ISSUE DATE: 10/24/2025

CAD DWG FILE: F_U2301-01
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CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:

FIRE
PROTECTION
PLAN

SHEET NUMBER:

F-101

8 OF 26 SHEETS
10/24/2025

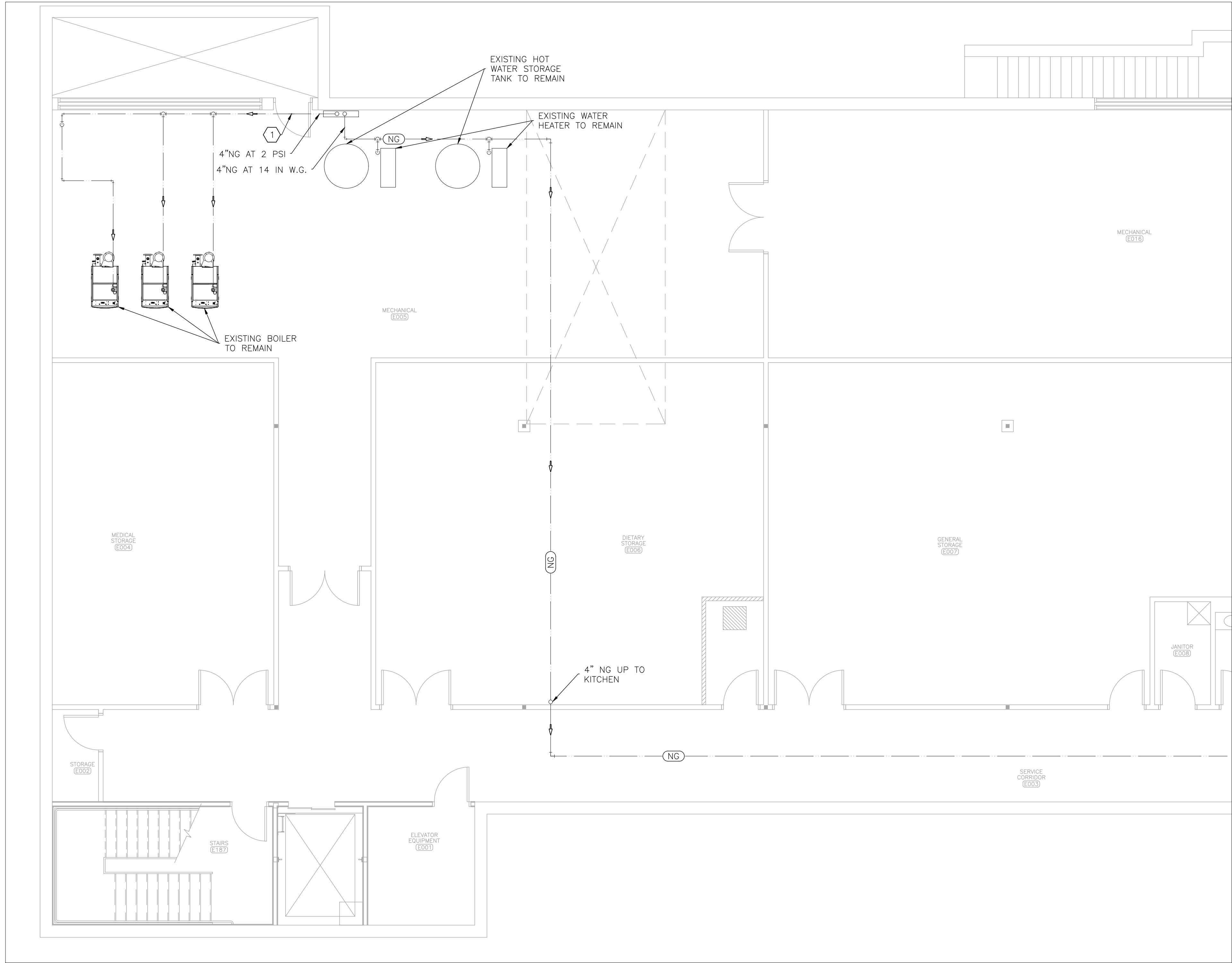
GENERAL DEMOLITION NOTES

- DEMOLITION DRAWINGS AND PLANS ARE FROM FIELD TAKE-OFF AND ORIGINAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING PRIOR TO BIDDING AND/OR CONSTRUCTION.
- COVER ALL OPENINGS INTO THE BUILDING FROM THE WORK AREA. ENSURE DEBRIS IS REMOVED FROM THE CONSTRUCTION AND DEMOLITION AREA AND AIR BORN DEBRIS IS NOT ALLOWED TO TRAVEL TO THE REMAINDER OF THE BUILDING. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLISHED MATERIAL.
- COORDINATE WITH EXISTING SYSTEMS WHICH SHALL REMAIN IN OPERATION DURING DEMOLITION AND CONSTRUCTION PHASES. INSTALL TEMPORARY CAPS AT TERMINATION POINTS OF EXISTING DUCTWORK/PIPES TO REMAIN DURING DEMOLITION PHASES.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY SURFACE IN THE AREA OF CONSTRUCTION THAT IS A RESULT OF CONSTRUCTION ACTIVITY. SURFACE SHALL BE REPAIRED AND FINISHED TO MATCH EXISTING CONDITIONS.
- REMOVE ALL UNUSED DUCTWORK AND AIR DEVICES EXCEPT AS NOTED.
- ALL BALANCE, FIRE, AND SMOKE DAMPERS TO REMAIN EXCEPT AS NOTED.

DEMOLITION NOTES

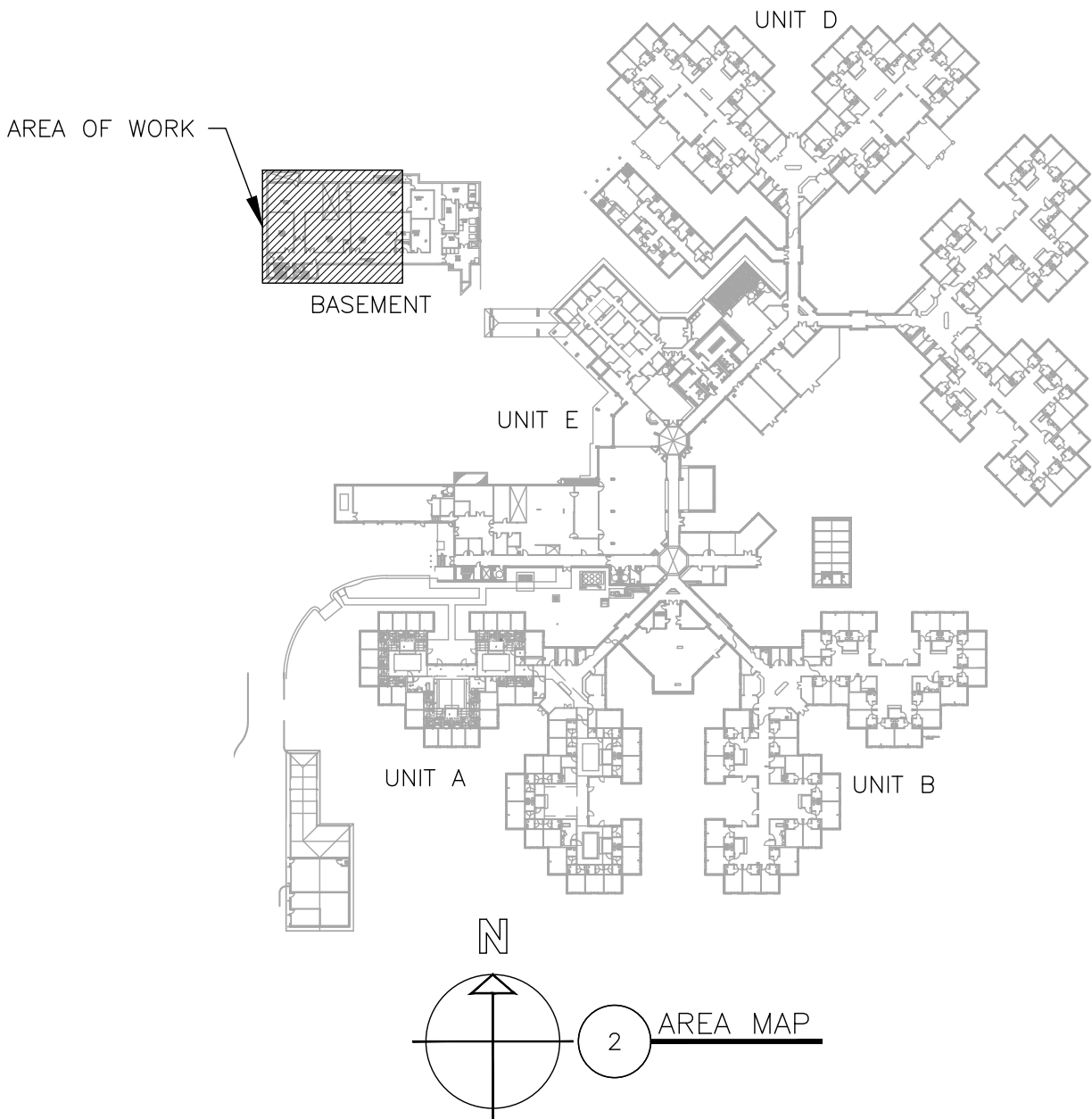
- 1 DEMOLISH SECTION OF NATURAL GAS PIPE FOR INSTALLATION OF NEW BRANCH. PERFORM WORK TO MINIMIZE DOWNTIME OF EXISTING BOILERS TO REMAIN. REFER TO SHEET M-102 FOR BRANCH PIPE SIZE.

INDICATES KEYED NOTES



1 MECHANICAL DEMOLITION PLAN -- BASEMENT
SCALE: 3/16" = 1'-0"

HVAC LEGEND	
	DIRECTION OF FLOW
	EQUIPMENT -- EXISTING
	NATURAL GAS PIPE (NG) -- EXISTING
	EXISTING MATERIALS TO BE REMOVED



STATE OF MISSOURI
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CAD DWG FILE: M_U2301-01
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SHEET TITLE:
MECHANICAL
DEMOLITION PLAN
BASEMENT

SHEET NUMBER:

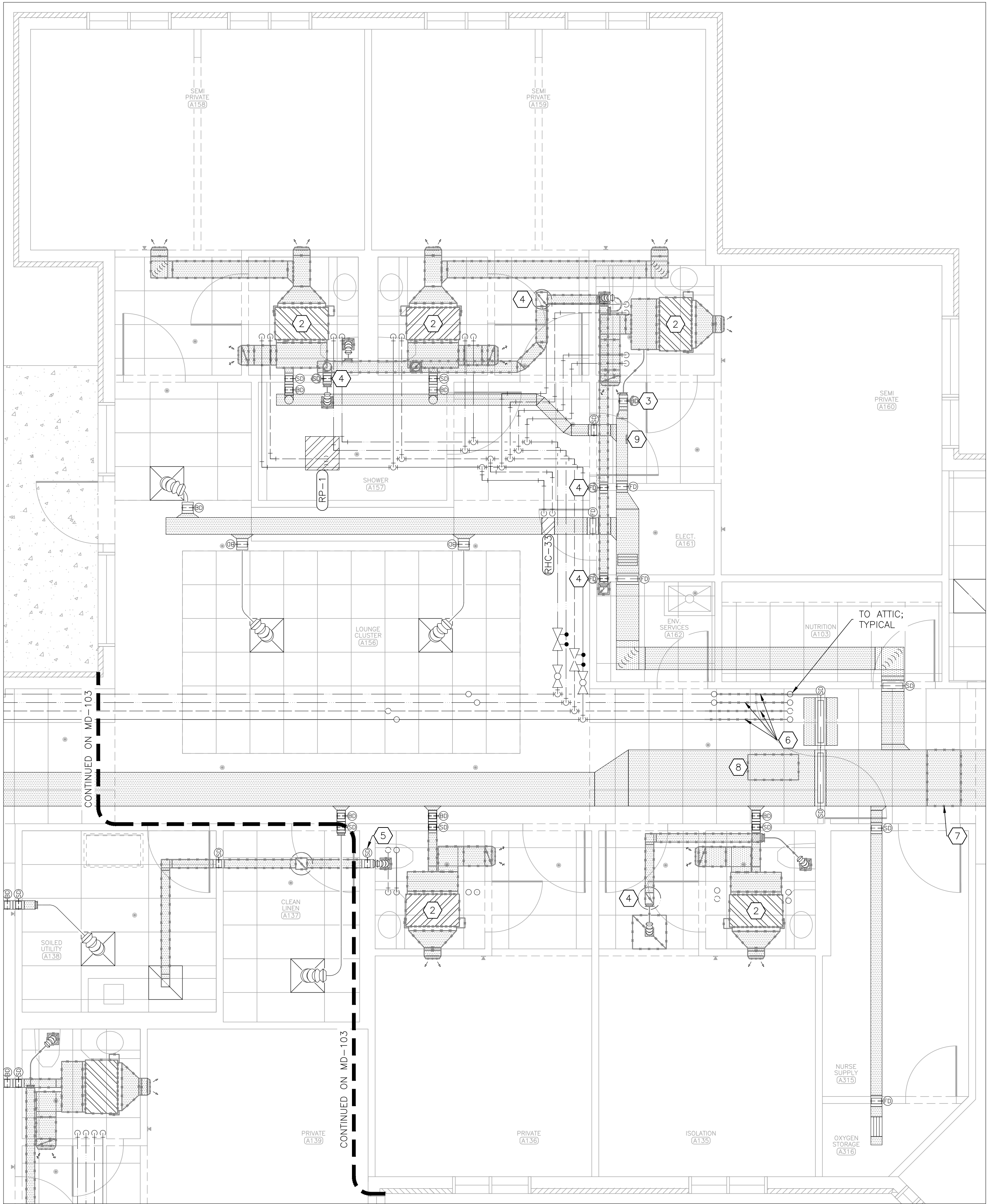
MD-101

9 OF 26 SHEETS
10/24/2025

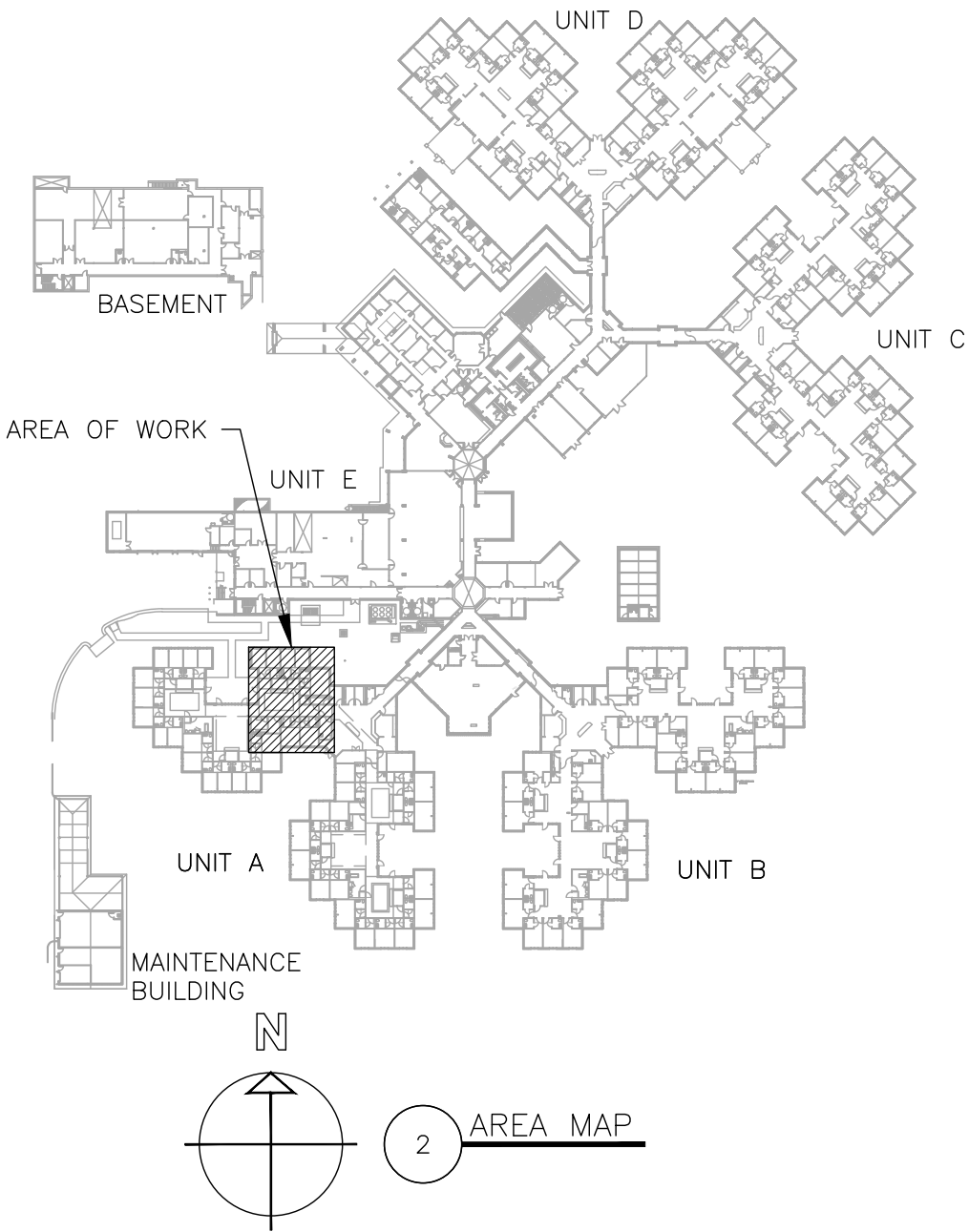
DEMOLITION NOTES

INDICATES KEYED NOTES

- 1 REFER TO MD-101 FOR GENERAL DEMOLITION NOTES.
- 2 DEMOLISH EXISTING FAN COIL UNIT AND ALL ASSOCIATED DUCT AND AIR DEVICES AS SHOWN. CONTROLS SHALL REMAIN FOR USE IN NEW CONSTRUCTION. TEMPORARILY RETAIN ALL FAN COIL UNITS FOR OWNER TO SELECT TWO OF EACH SIZE TO USE AS STOCK. CONTRACTOR TO DISPOSE OF REMAINING UNITS.
- 3 DEMOLISH BALANCE DAMPER, SMOKE DAMPER, AND ASSOCIATED DUCT AS SHOWN. PROVIDE AND INSTALL INSULATED SHEET METAL CAP ON DUCT TO REMAIN.
- 4 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.
- 5 SMOKE DAMPER TO REMAIN FOR USE IN NEW CONSTRUCTION.
- 6 DEMOLISH HYDRONIC PIPE AS SHOWN.
- 7 DEMOLISH DUCT AS SHOWN OR AS NEEDED TO COMPLETE THE WORK.
- 8 CREATE PENETRATION IN EXISTING DUCT FOR NEW MAKE-UP AIR UNIT (MAU-3) DUCT ROUTING. REFER TO SHEET M-104 FOR PENETRATION SIZE.
- 9 CREATE PENETRATION IN EXISTING DUCT FOR NEW BRANCH. REFER TO SHEET M-104 FOR PENETRATION SIZE.



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



2 AREA MAP

HVAC LEGEND	
	DIRECTION OF FLOW
	EXISTING EQUIPMENT LABEL
	FIRE DAMPER
	SMOKE DAMPER
	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
	EQUIPMENT -- EXISTING
	SUPPLY AIR -- EXISTING
	RETURN AIR -- EXISTING
	CHILLED WATER SUPPLY -- EXISTING
	CHILLED WATER RETURN -- EXISTING
	HEATING WATER SUPPLY -- EXISTING
	HEATING WATER RETURN -- EXISTING
	EXISTING MATERIALS TO BE REMOVED

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DRAWN BY: TS/AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:

MECHANICAL
DEMOLITION PLAN
LOUNGE A156

SHEET NUMBER:

MD-102

10 OF 26 SHEETS
10/24/2025



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CAD DWG FILE: M_U2301-01
DRAWN BY: TS/AH
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SHEET TITLE:

MECHANICAL
DEMOLITION PLAN
LOUNGE A146

SHEET NUMBER:

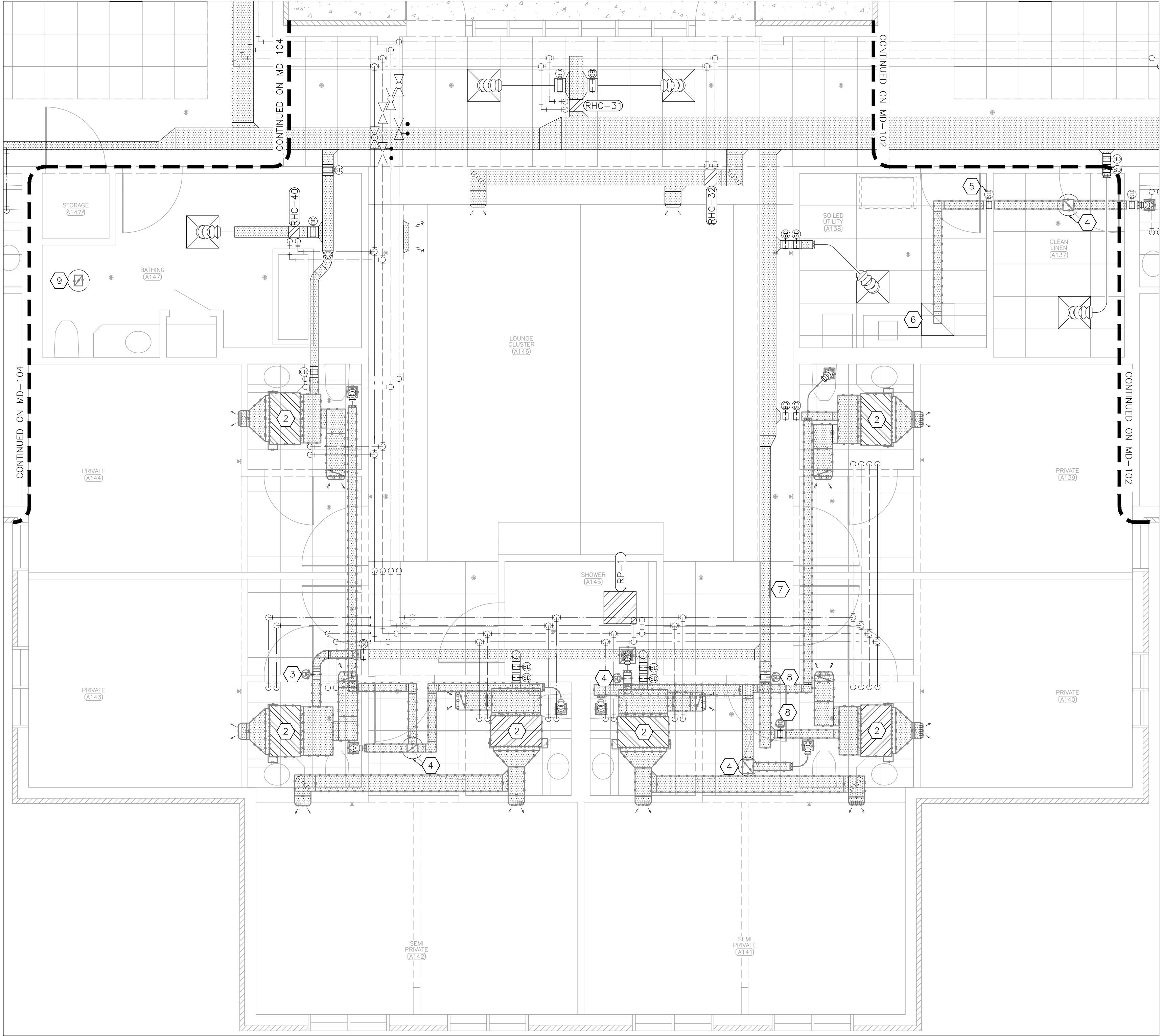
MD-103

11 OF 26 SHEETS
10/24/2025

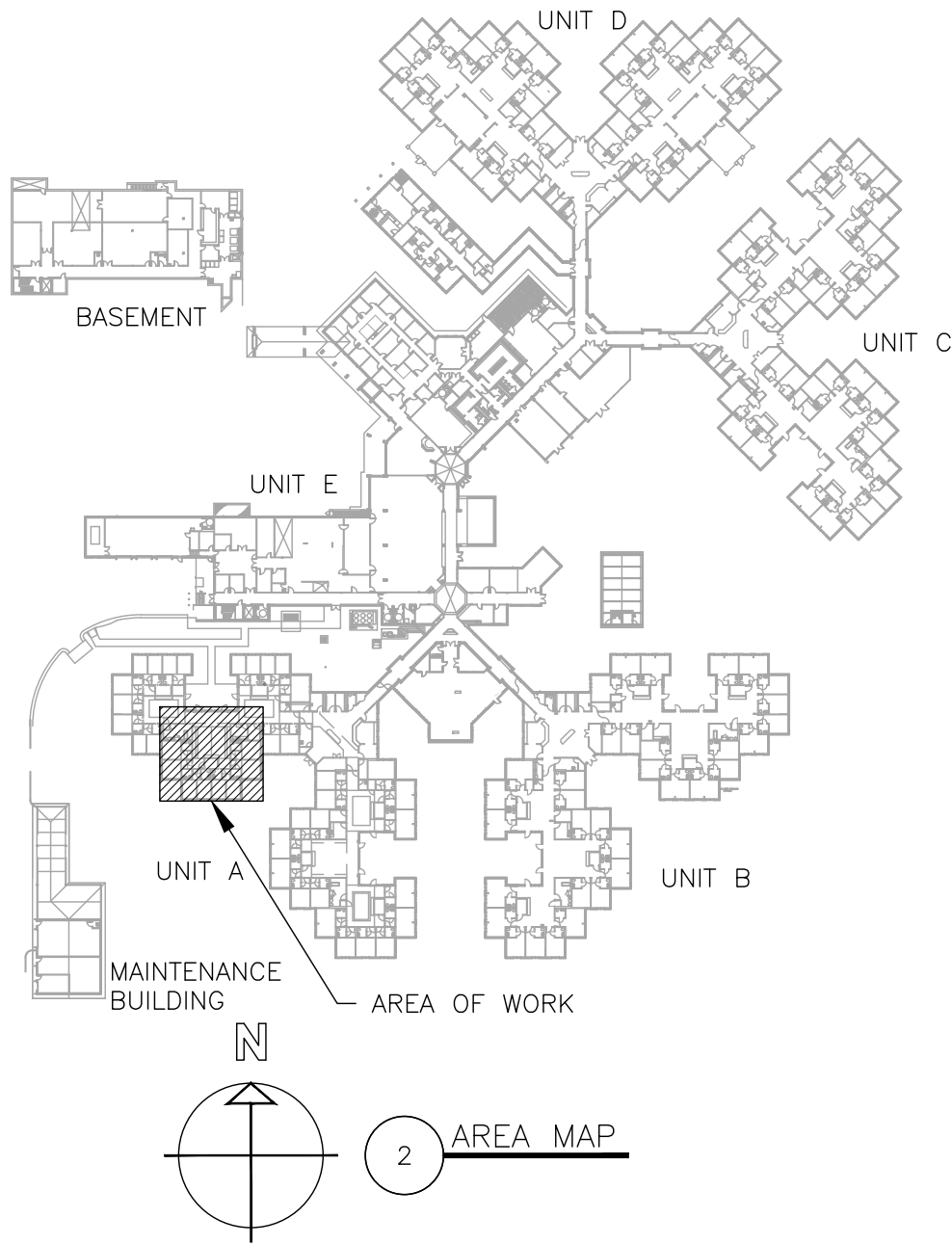
DEMOLITION NOTES

INDICATES KEYED NOTES

- 1 REFER TO MD-101 FOR GENERAL DEMOLITION NOTES.
- 2 DEMOLISH EXISTING FAN COIL UNIT AND ALL ASSOCIATED DUCT AND AIR DEVICES AS SHOWN. CONTROLS SHALL REMAIN FOR USE IN NEW CONSTRUCTION. TEMPORARILY RETAIN ALL FAN COIL UNITS FOR OWNER TO SELECT TWO OF EACH SIZE TO USE AS STOCK. CONTRACTOR TO DISPOSE OF REMAINING UNITS.
- 3 DEMOLISH BALANCE DAMPER AND ASSOCIATED DUCT AS SHOWN.
- 4 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.
- 5 SMOKE DAMPER TO REMAIN FOR USE IN NEW CONSTRUCTION.
- 6 EXHAUST AIR DEVICE TO REMAIN FOR USE IN NEW CONSTRUCTION.
- 7 CREATE PENETRATION IN EXISTING DUCT FOR NEW BRANCH. REFER TO SHEET M-105 FOR PENETRATION SIZE.
- 8 DEMOLISH BALANCE DAMPER, SMOKE DAMPER, AND ASSOCIATED DUCT AS SHOWN. PROVIDE AND INSTALL INSULATED SHEET METAL CAP ON DUCT TO REMAIN.
- 9 DEMOLISH EXHAUST FAN, DEMOLISH ALL ASSOCIATED DUCT AND AIR DEVICES. PENETRATION TO BE REUSED IN NEW CONSTRUCTION.



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

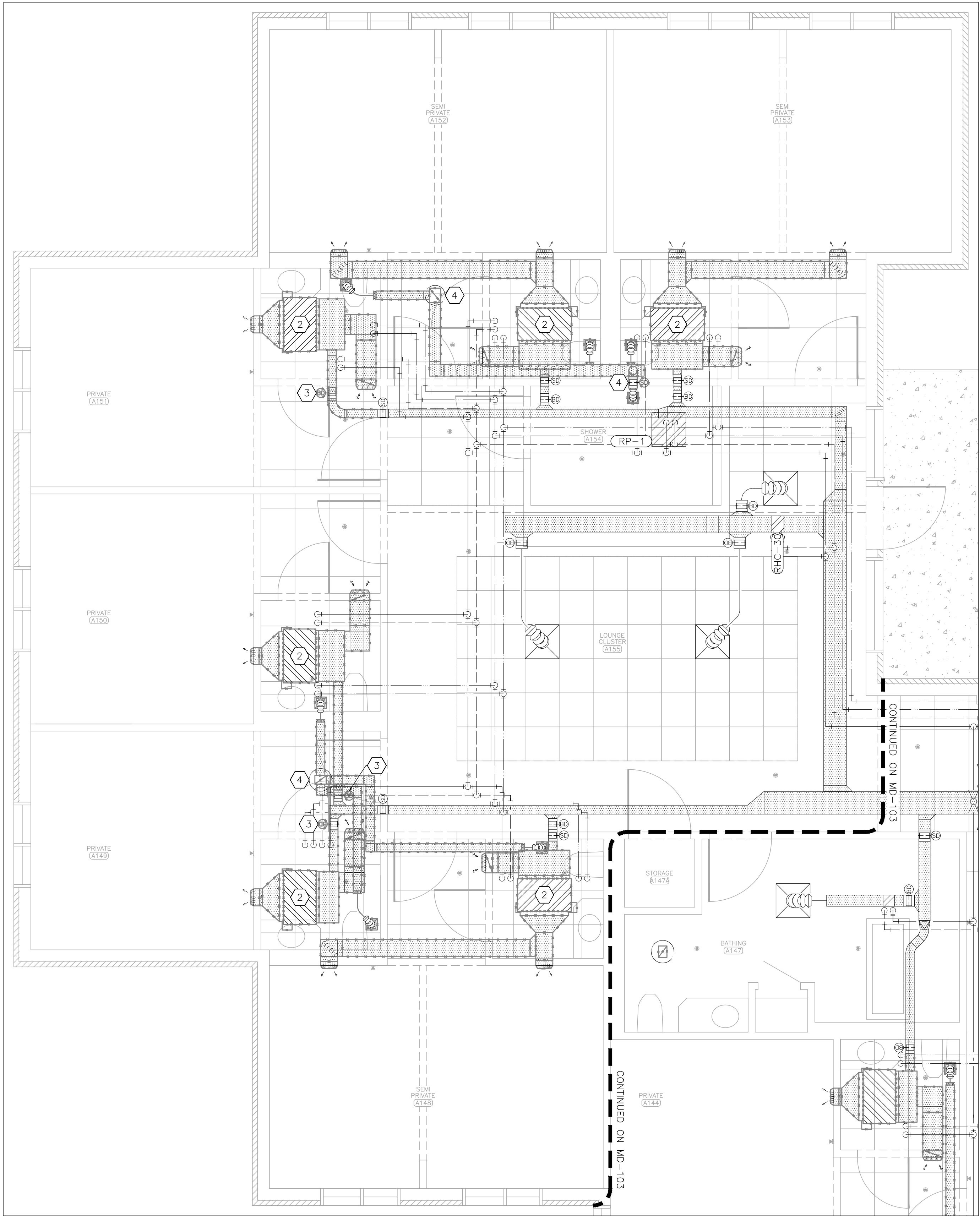


HVAC LEGEND	
	DIRECTION OF FLOW
	EXISTING EQUIPMENT LABEL
	FIRE DAMPER
	SMOKE DAMPER
	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
	EQUIPMENT — EXISTING
	SUPPLY AIR — EXISTING
	RETURN AIR — EXISTING
	CHILLED WATER SUPPLY — EXISTING
	CHILLED WATER RETURN — EXISTING
	HEATING WATER SUPPLY — EXISTING
	HEATING WATER RETURN — EXISTING
	EXISTING MATERIALS TO BE REMOVED

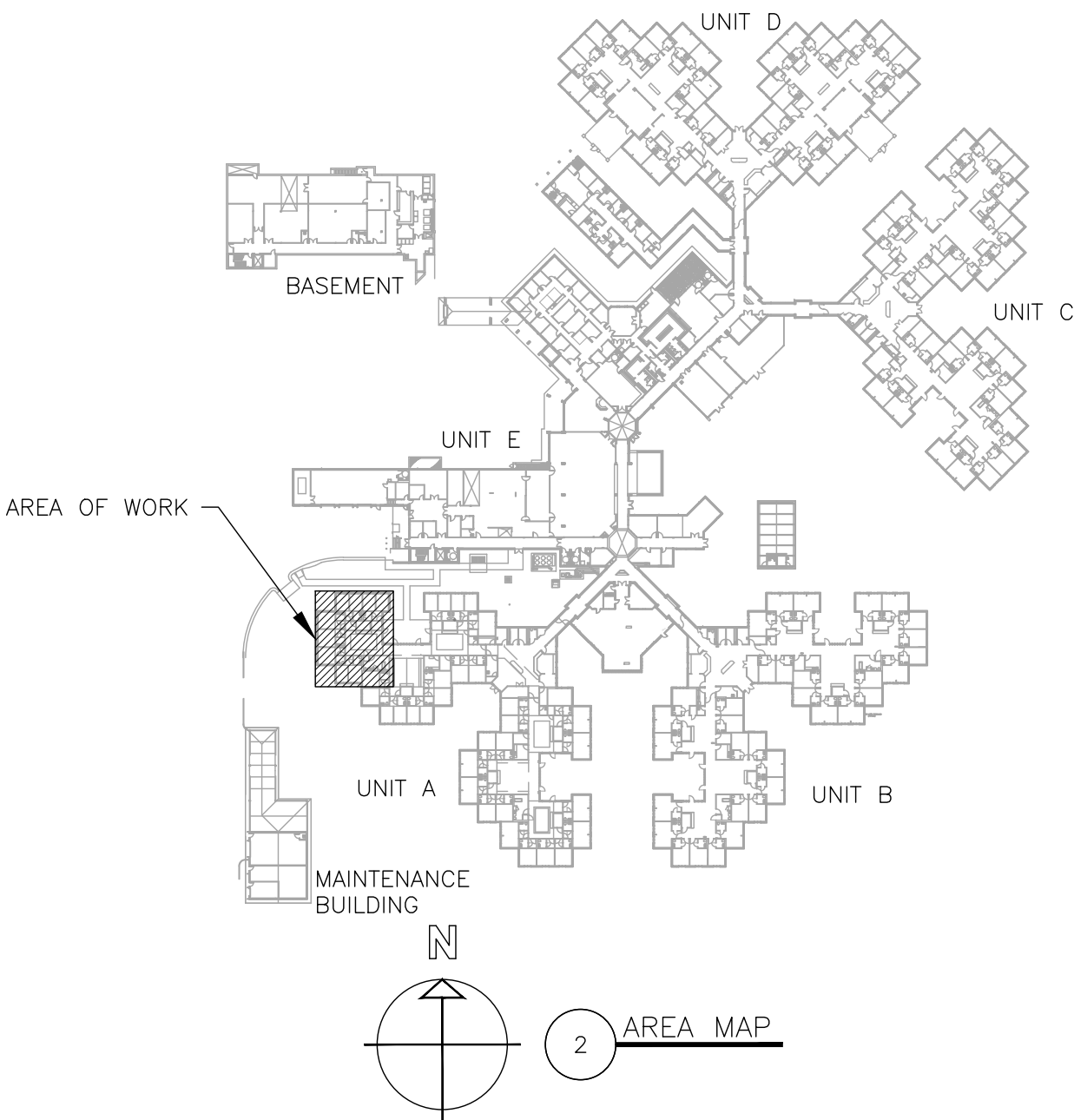
DEMOLITION NOTES

INDICATES KEYED NOTES

- 1
- REFER TO MD-101 FOR GENERAL DEMOLITION NOTES.
- 2
- DEMOLISH EXISTING FAN COIL UNIT AND ALL ASSOCIATED DUCT AND AIR DEVICES AS SHOWN. CONTROLS SHALL REMAIN FOR USE IN NEW CONSTRUCTION. TEMPORARILY RETAIN ALL FAN COIL UNITS FOR OWNER TO SELECT TWO OF EACH SIZE TO USE AS STOCK. CONTRACTOR TO DISPOSE OF REMAINING UNITS.
- 3
- DEMOLISH BALANCE DAMPER AND ASSOCIATED DUCT AS SHOWN.
- 4
- 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.



1 MECHANICAL DEMOLITION PLAN — LOUNGE CLUSTER A155
SCALE: 1/4" = 1'-0"



2 AREA MAP

HVAC LEGEND	
	DIRECTION OF FLOW
	EXISTING EQUIPMENT LABEL
	FIRE DAMPER
	SMOKE DAMPER
	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
	EQUIPMENT — EXISTING
	SUPPLY AIR — EXISTING
	RETURN AIR — EXISTING
	CHILLED WATER SUPPLY — EXISTING
	CHILLED WATER RETURN — EXISTING
	HEATING WATER SUPPLY — EXISTING
	HEATING WATER RETURN — EXISTING
	EXISTING MATERIALS TO BE REMOVED

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MIKE KEHOE,
GOVERNOR



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PROJECT # U2301-01
SITE # 6805
ASSET # 8136805001

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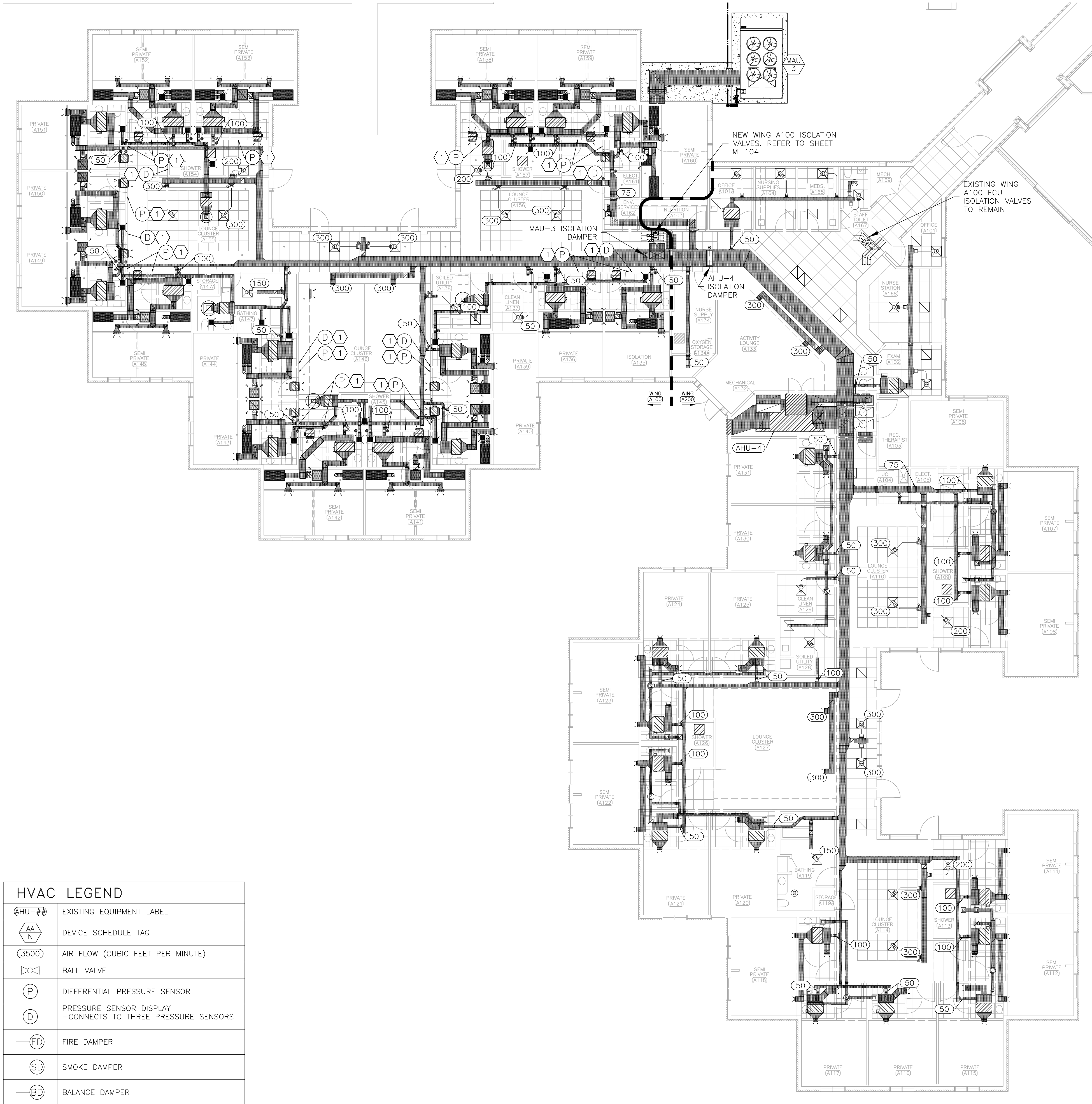
CAD DWG FILE: M_U2301-01
DRAWN BY: TS/AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
MECHANICAL
DEMOLITION PLAN
LOUNGE A155

SHEET NUMBER:

MD-104

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10/24/2025



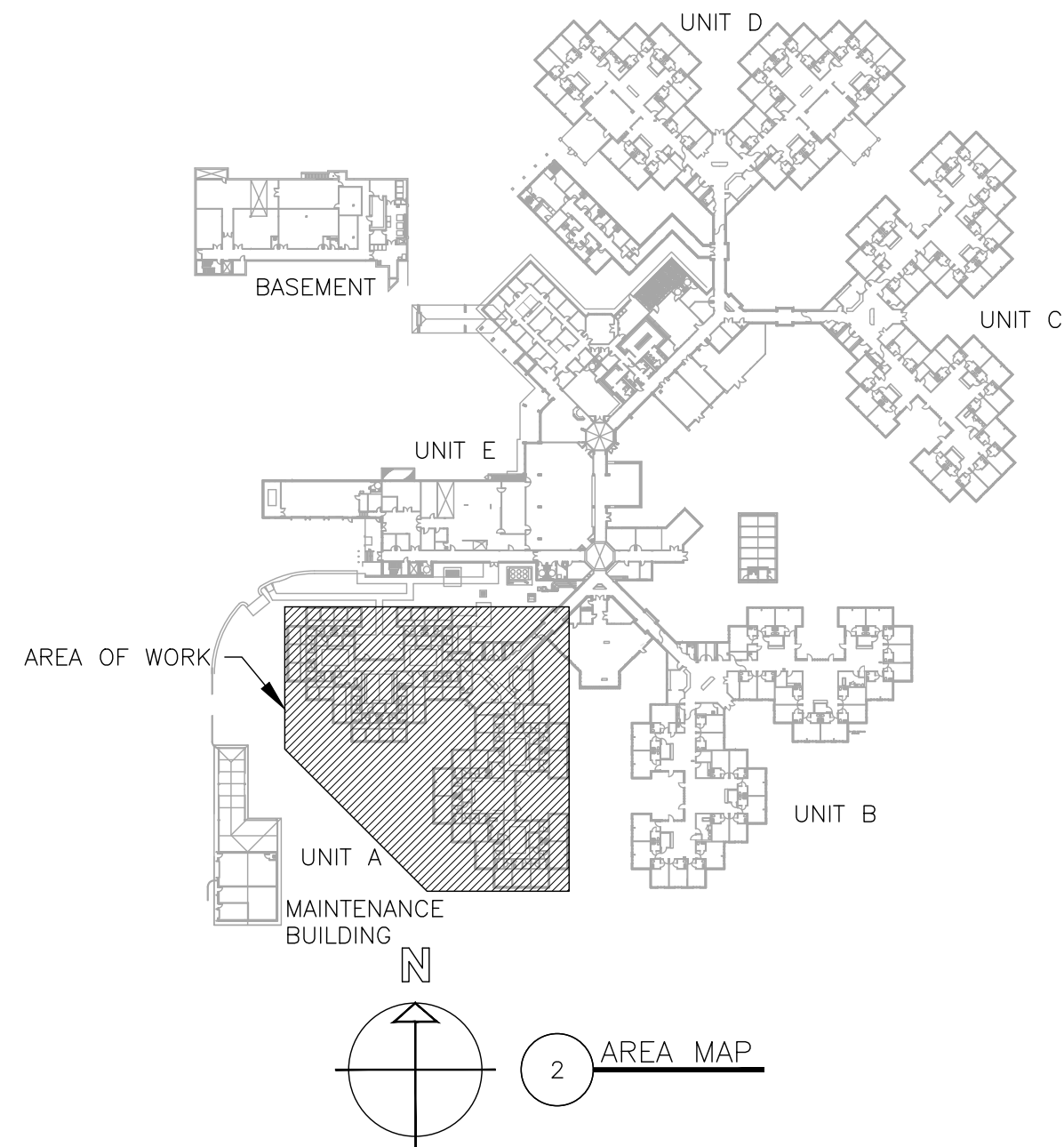
HVAC LEGEND	
	EXISTING EQUIPMENT LABEL
	DEVICE SCHEDULE TAG
	AIR FLOW (CUBIC FEET PER MINUTE)
	BALL VALVE
	DIFFERENTIAL PRESSURE SENSOR
	PRESSURE SENSOR DISPLAY —CONNECTS TO THREE PRESSURE SENSORS
	FIRE DAMPER
	SMOKE DAMPER
	BALANCE DAMPER

GENERAL RENOVATION NOTES

- 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.
- ALL METALLIC AND FLEXIBLE DUCTS SHALL BE CONSTRUCTED AND INSTALLED AS SPECIFIED IN THE IMC AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- 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.
- 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.
- 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.
- 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.
- ALL INSULATION SHALL MEET THE ASTM E 84 FLAME/SMOKE SPREAD INDEX OF 25/50 MAXIMUM. DUCT SEAMS SHALL BE SEALED.
- 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.
- 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

- CONTROLS CONTRACTOR SHALL PROVIDE THROUGH THE WALL PRESSURE SENSOR TSI MODEL 800243 OR EQUAL AND LOCATE NEXT TO DOOR/ BEDROOM. PROVIDE TSI DISPLAY 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.
- 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.
- A PRE-BALANCE MEETING IS REQUIRED BEFORE TESTING AND BALANCING ACTIVITIES FOR NEW CONSTRUCTION TAB WORK. REFER TO SECTION 230593 FOR ADDITIONAL REQUIREMENTS.
- 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.
- 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.
- 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.
- TEST AND BALANCE FAN COIL UNITS IN WING A100 WITH AHU-4 OPERATING AND MAU-3 OFF. CONFIRM AIRFLOWS HAVE NOT CHANGED DURING AIIM.
- 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.
- REFER TO SHEETS M-104, M-105, AND M-106 FOR SUPPLY AND EXHAUST AIR DEVICE FLOW RATES WITHIN EACH ROOM.



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CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
MECHANICAL
TESTING AND
BALANCING PLAN

SHEET NUMBER:

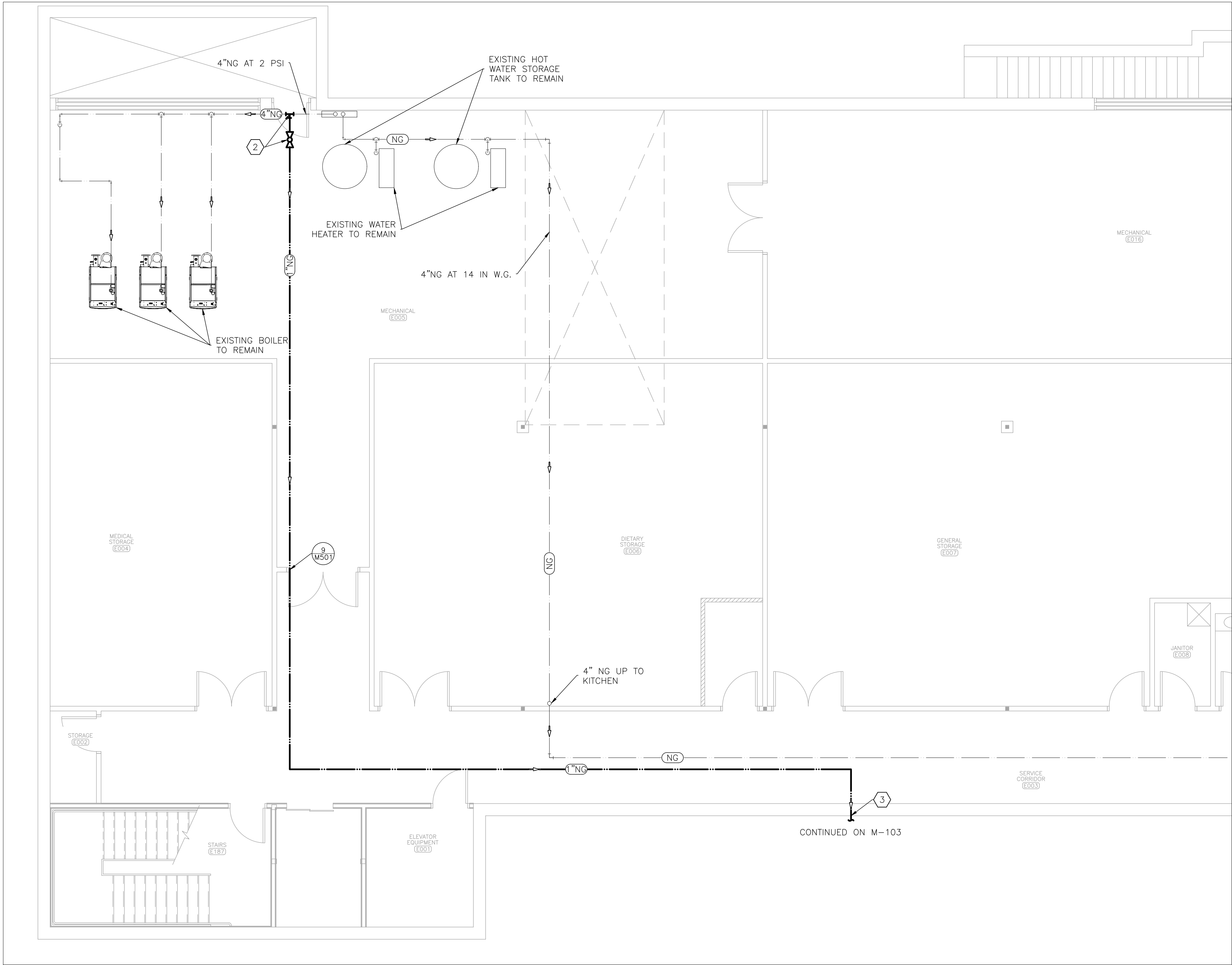
M-101

13 OF 26 SHEETS
10/24/2025

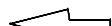
RENOVATION NOTES

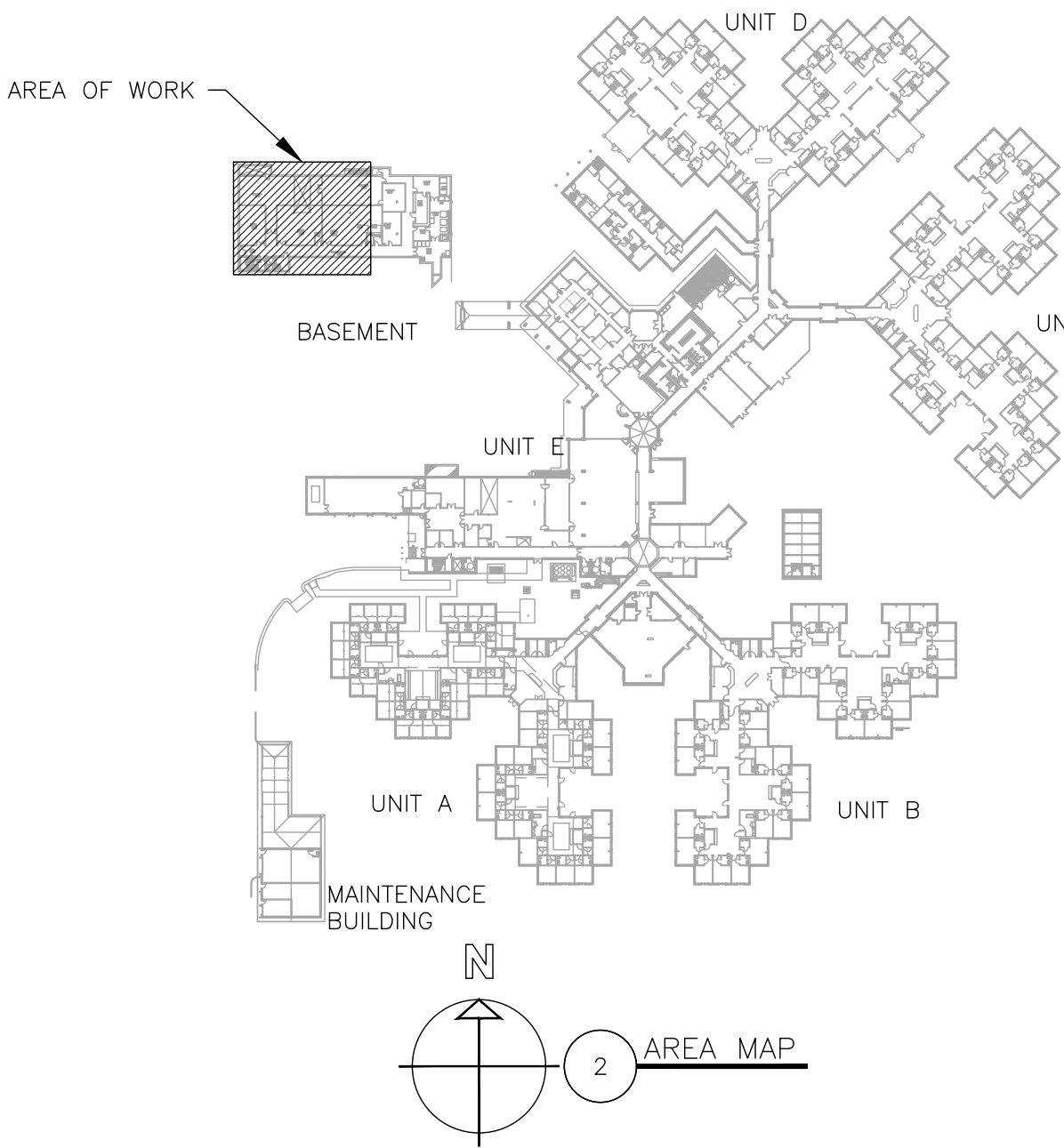
INDICATES KEYED NOTES

- 1
- REFER TO M-101 FOR GENERAL RENOVATION NOTES.
- 2
- PROVIDE AND INSTALL BRANCH PIPE WITH ISOLATION VALVE FOR NEW MAKE-UP AIR UNIT INSTALLATION. PERFORM WORK TO MINIMIZE DOWNTIME OF EXISTING BOILERS TO REMAIN.
- 3
- ROUTE NATURAL GAS PIPE ABOVE CEILING TO EXTERIOR WALL. USE EXISTING TRAPEZE HANGERS IN SERVICE CORRIDOR E003. PENETRATE WALL BELOW GRADE. REFER TO SHEET M-103 FOR CONTINUATION.



1 MECHANICAL RENOVATION PLAN - BASEMENT
SCALE: 3/16" = 1'-0"

HVAC LEGEND	
	DIRECTION OF FLOW
	DETAIL REFERENCE, NUMBER/SHEET



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CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
MECHANICAL
RENOVATION PLAN
BASEMENT

SHEET NUMBER:

M-102

14 OF 26 SHEETS
10/24/2025

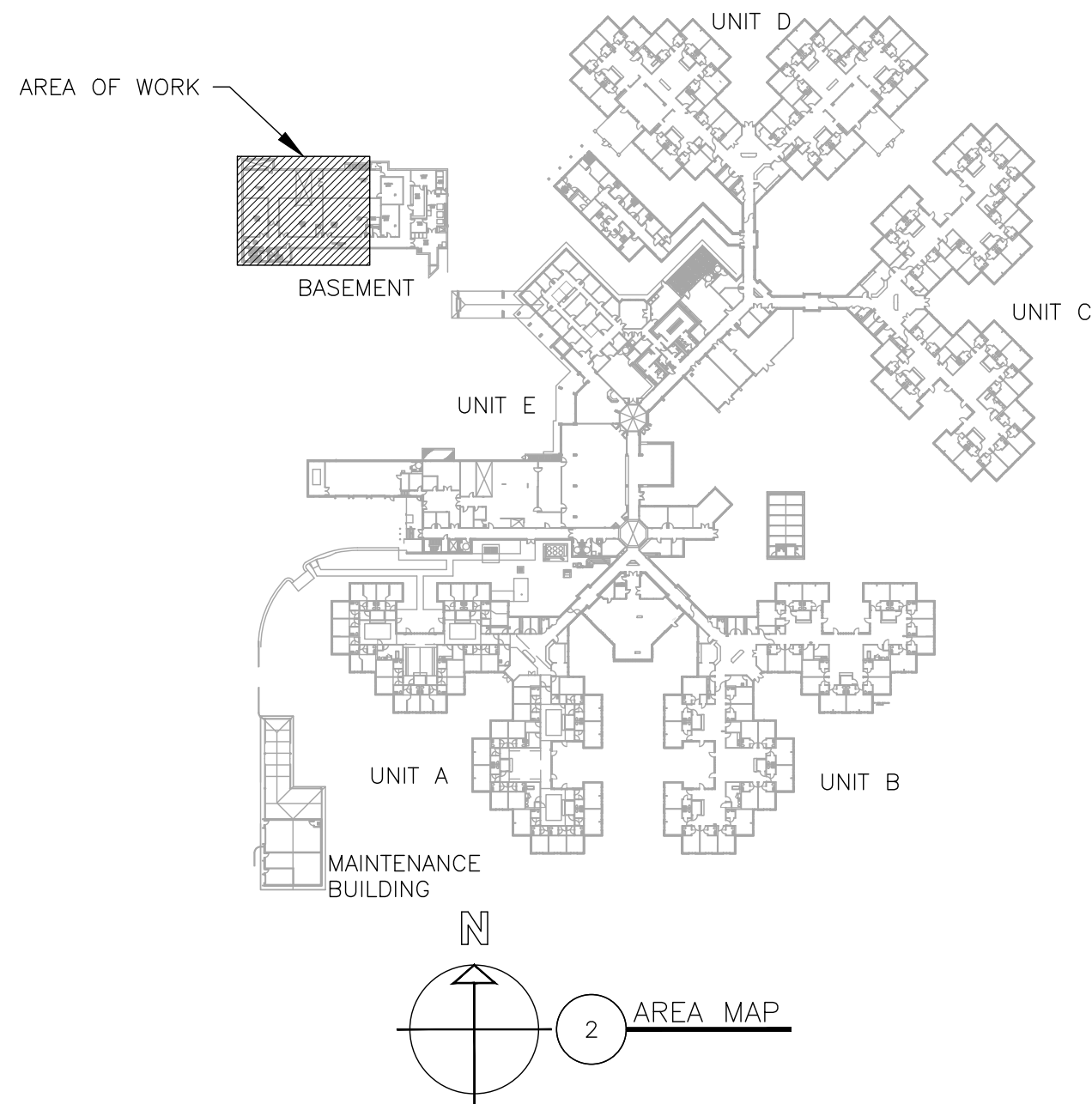
BID DOCUMENTS

15 OF 26 SHEETS
10/24/2025

 INDICATES KEYED NOTES

-
- MECHANICAL FLOOR PLAN - SECOND FLOOR
- CONTINUED ON M-102
- EXISTING STORM DRAIN INLET. REFER TO DETAILS 1 AND 2 ON SHEET G-002.
- CONTINUED ON M-104
- SEMI PRIVATE (A159)
- SEMI PRIVATE (A160)
- MAU 3
- 36x18
- 5 S
- 1 M501
- 2 M501
- 3 M501
- 4 M501
- 5 M501
- 6 M501
- 7 M501

HVAC LEGEND	
	DIRECTION OF FLOW
	DEVICE SCHEDULE TAG
	DETAIL REFERENCE, NUMBER/SHEET
	DUCT SIZE—RECTANGULAR (INCHES X INCHES)
	NATURAL GAS PIPE SIZE (INCHES DIAMETER)
	DUCT SMOKE DETECTOR
	BALL VALVE
	PRESSURE REGULATOR
	EQUIPMENT — NEW
	OUTDOOR AIR — NEW
	NATURAL GAS PIPE — NEW

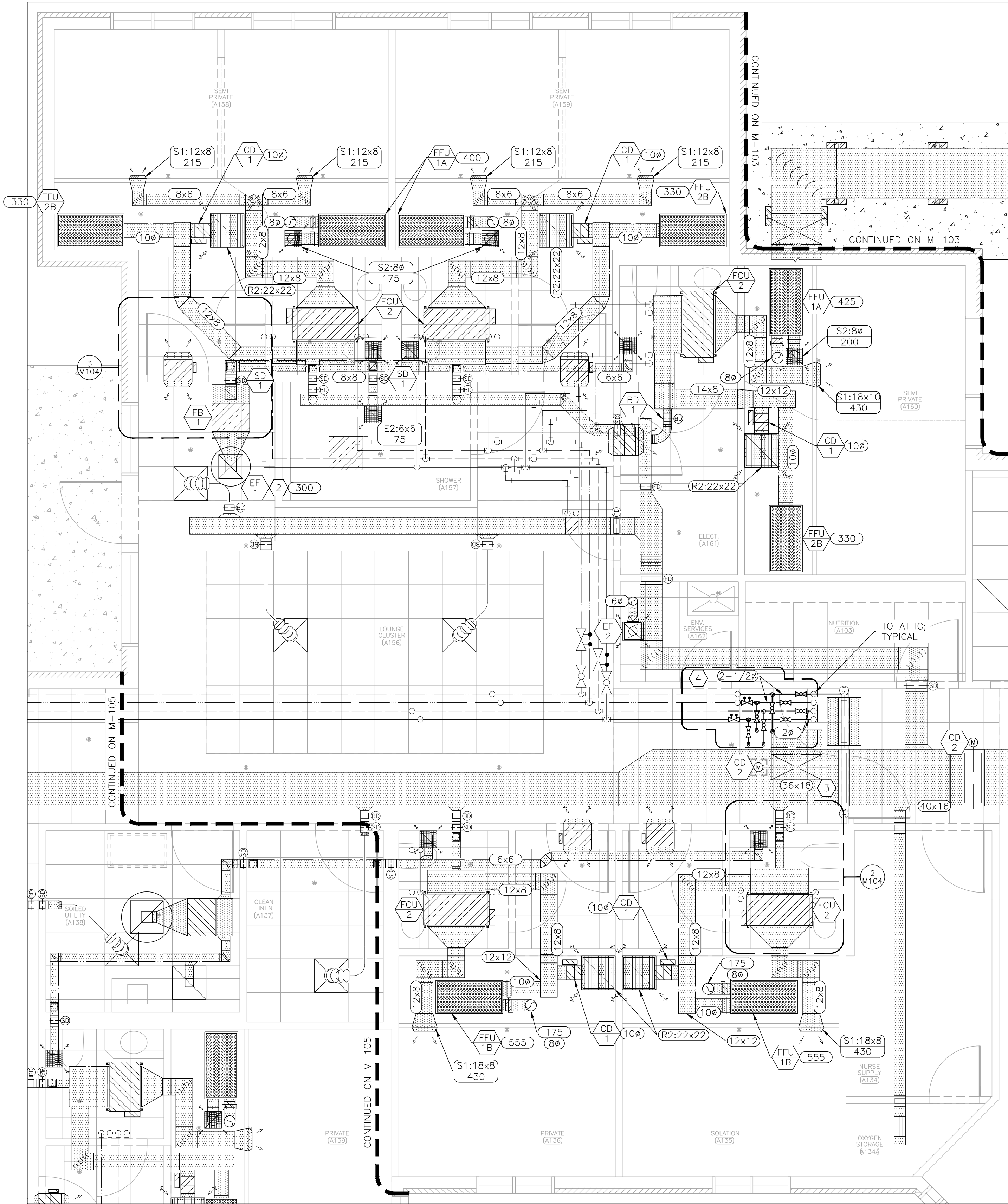


1 MECHANICAL RENOVATION PLAN - MAKE-UP AIR UNIT INSTALLATION
SCALE: 1/4" = 1'-0"

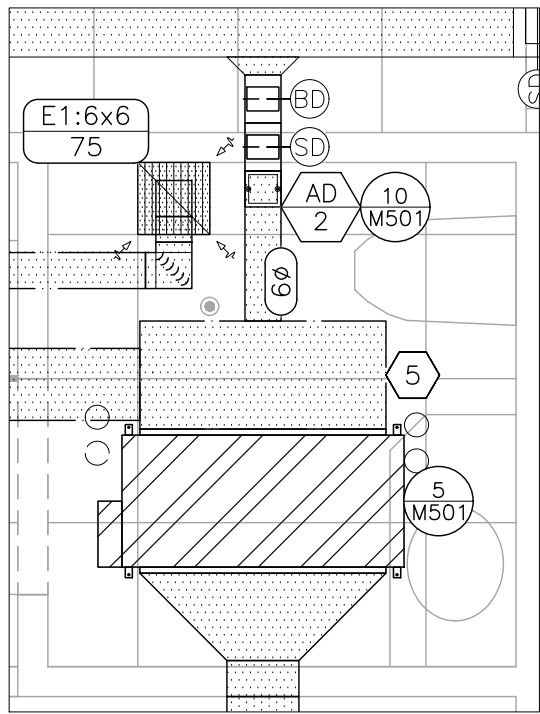
RENOVATION NOTES

INDICATES KEYED NOTES

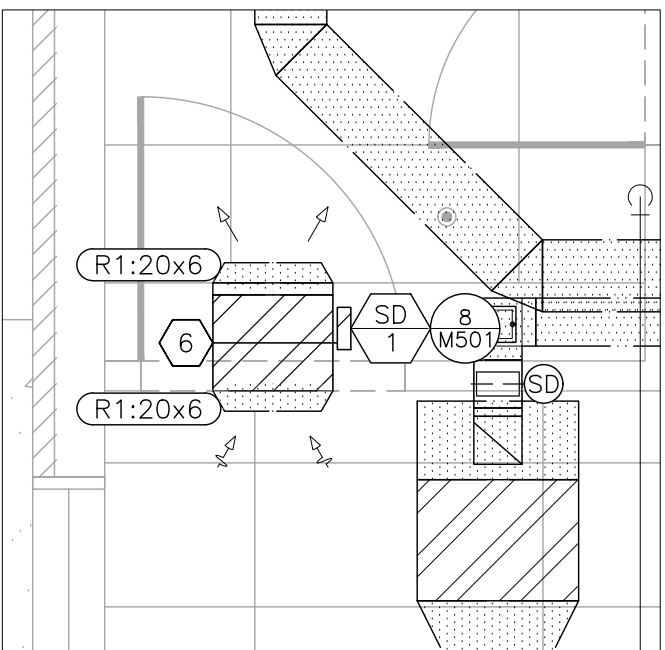
- 1
- REFER TO M-101 FOR GENERAL RENOVATION NOTES. LOCATE ALL CONTROL DAMPERS (CD-1) SUCH THAT THE ACTUATOR IS ACCESSIBLE FROM THE LAYIN CEILING OF THE BEDROOM ENTRY. PROVIDE ACCESS DOOR AD-2 FOR ALL DUCT MOUNTED SMOKE OR FIRE DAMPERS.
- 2
- ROUTE EXHAUST DUCT THROUGH ATTIC TO ROOF AND INSTALL NEW EXHAUST FAN WITH ASSOCIATED ROOF CURB. REFER TO DETAIL 1 OF SHEET M-601 FOR ROOF CURB INSTALLATION.
- 3
- 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.
- 4
- 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.
- 5
- SIZE EQUAL TO FAN COIL UNIT RETURN DUCT OPENING AND TO ALLOW FOR RETURN BRANCH DUCT CONNECTION.
- 6
- COORDINATE WITH GENERAL CONTRACTOR TO MODIFY FRAMING ABOVE DOOR AS NEEDED FOR TRANSFER GRILLE INSTALLATION.



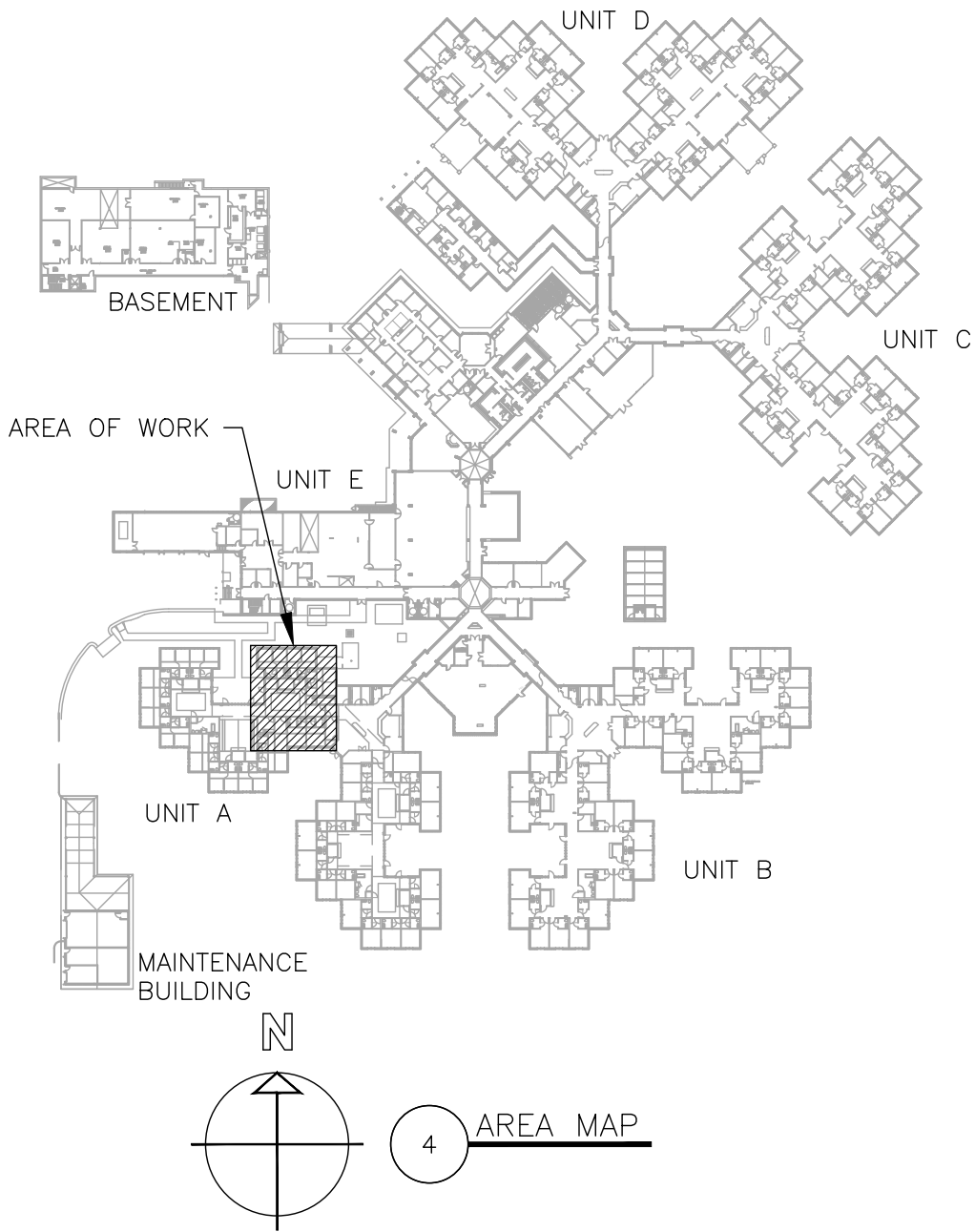
1 MECHANICAL RENOVATION PLAN -- LOUNGE CLUSTER A156
SCALE: 1/4" = 1'-0"



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
	DETAIL REFERENCE, NUMBER/SHEET
	FIRE DAMPER
	SMOKE DAMPER
	BALANCE DAMPER
	CONTROL DAMPER -- MOTORIZED
	BALANCING VALVE
	BALL VALVE
	DEVICE SCHEDULE TAG
	AIR DEVICE: NECK SIZE (INCHES)/CFM
	RETURN AIR DEVICE: NECK SIZE (INCHES)
	DUCT SIZE--RECTANGULAR (INCHES X INCHES)
	DUCT SIZE--ROUND (INCHES DIAMETER)
	PIPE SIZE (INCHES DIAMETER)
	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
	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

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



Tracie L. Siebenek - Engineer
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HVAC IMPROVEMENTS FOR
INFECTION CONTROL

CAMERON VETERANS
HOME
1111 EUCLID AVENUE
CAMERON, MO 64429

PROJECT # U2301-01
SITE # 6805
ASSET # 8136805001

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10/24/2025

CAD DWG FILE: M_U2301-01
DRAWN BY: TS/AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
MECHANICAL
RENOVATION PLAN
LOUNGE A156

SHEET NUMBER:

M-104

16 OF 26 SHEETS
10/24/2025

RENOVATION NOTES

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.



Tracie L. Siebeneck - Engineer
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ISSUE DATE: 10/24/2025

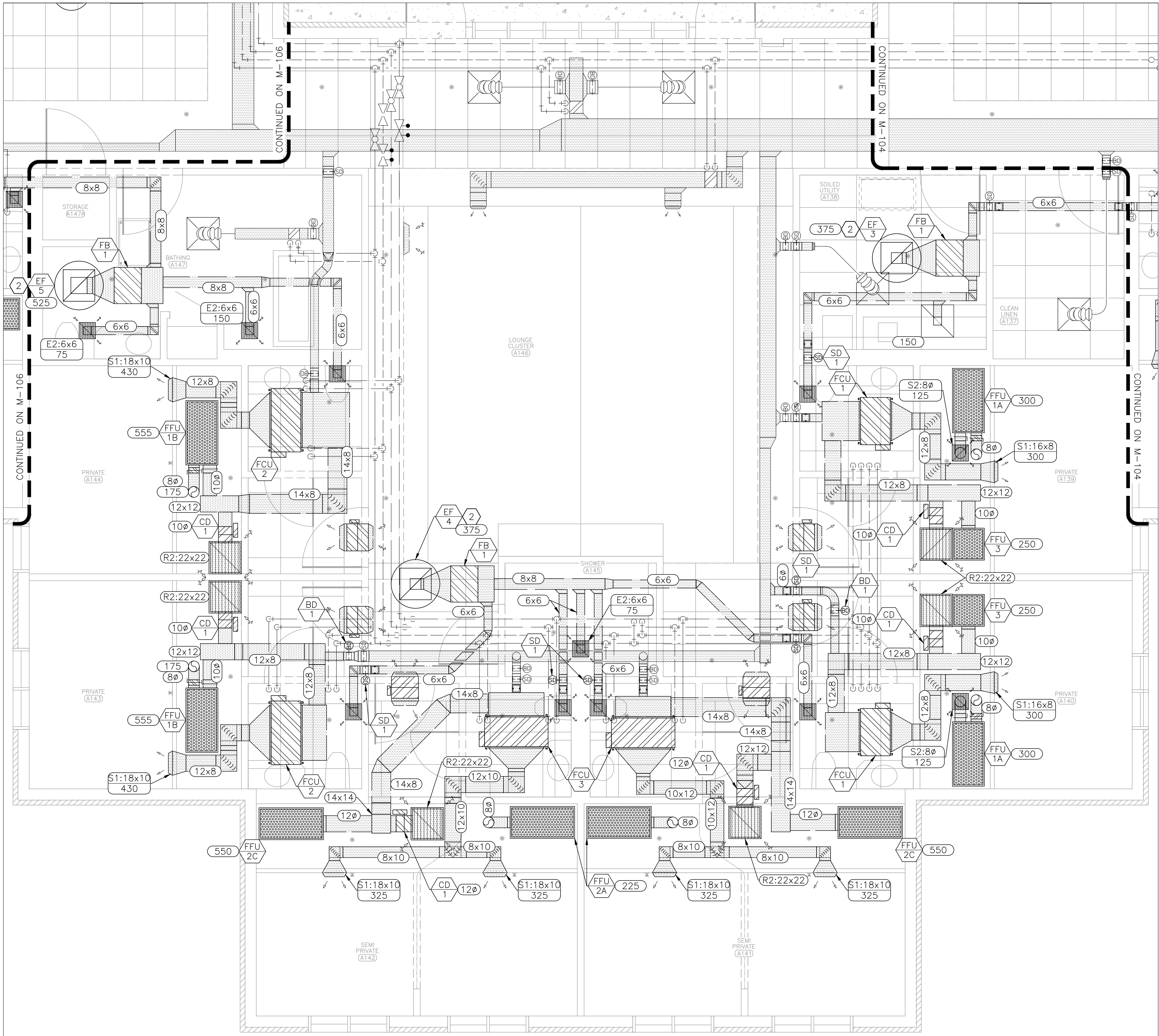
CAD DWG FILE: M_U2301-01
DRAWN BY: TS/AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
MECHANICAL
RENOVATION PLAN
LOUNGE A146

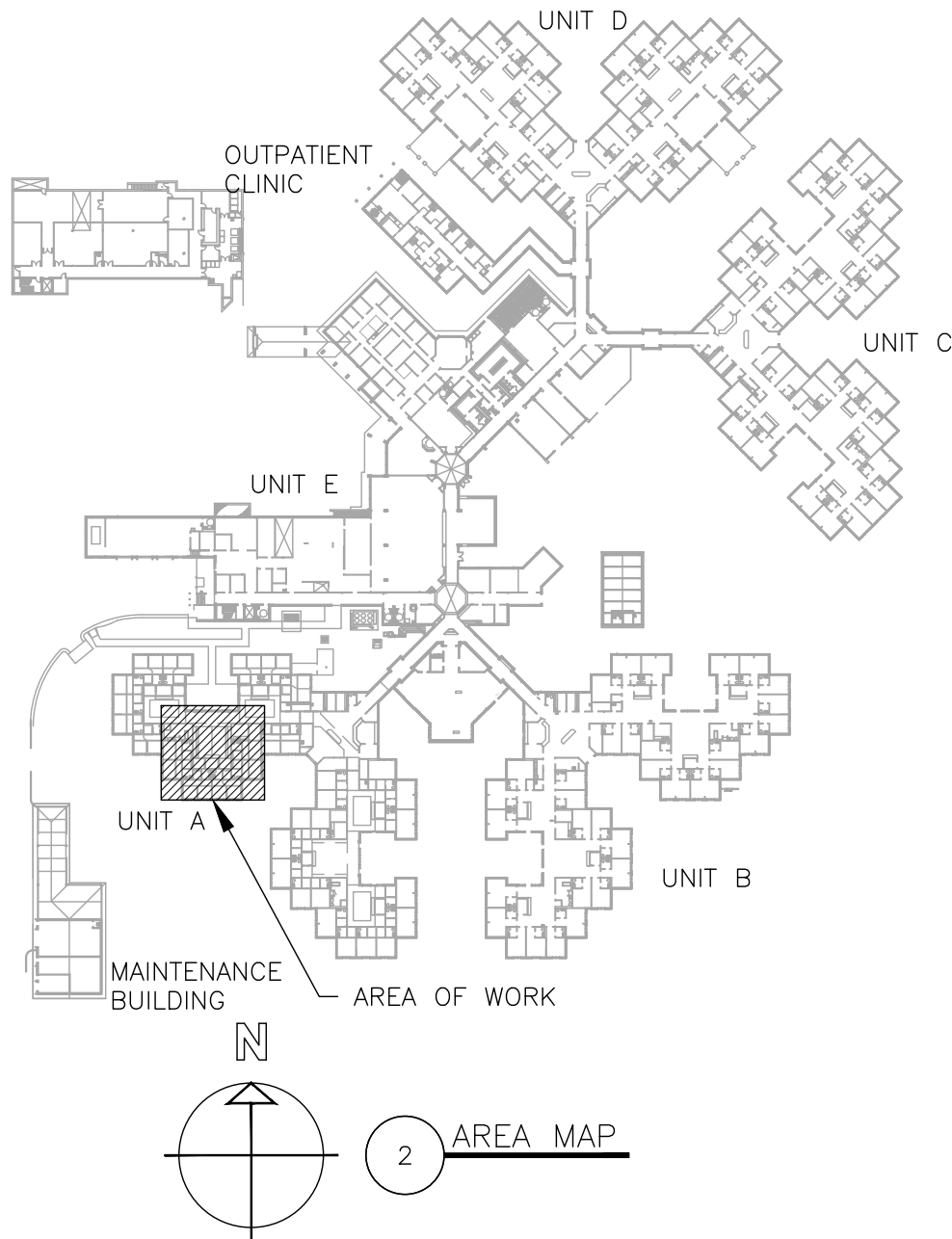
SHEET NUMBER:

M-105

17 OF 26 SHEETS
10/24/2025



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

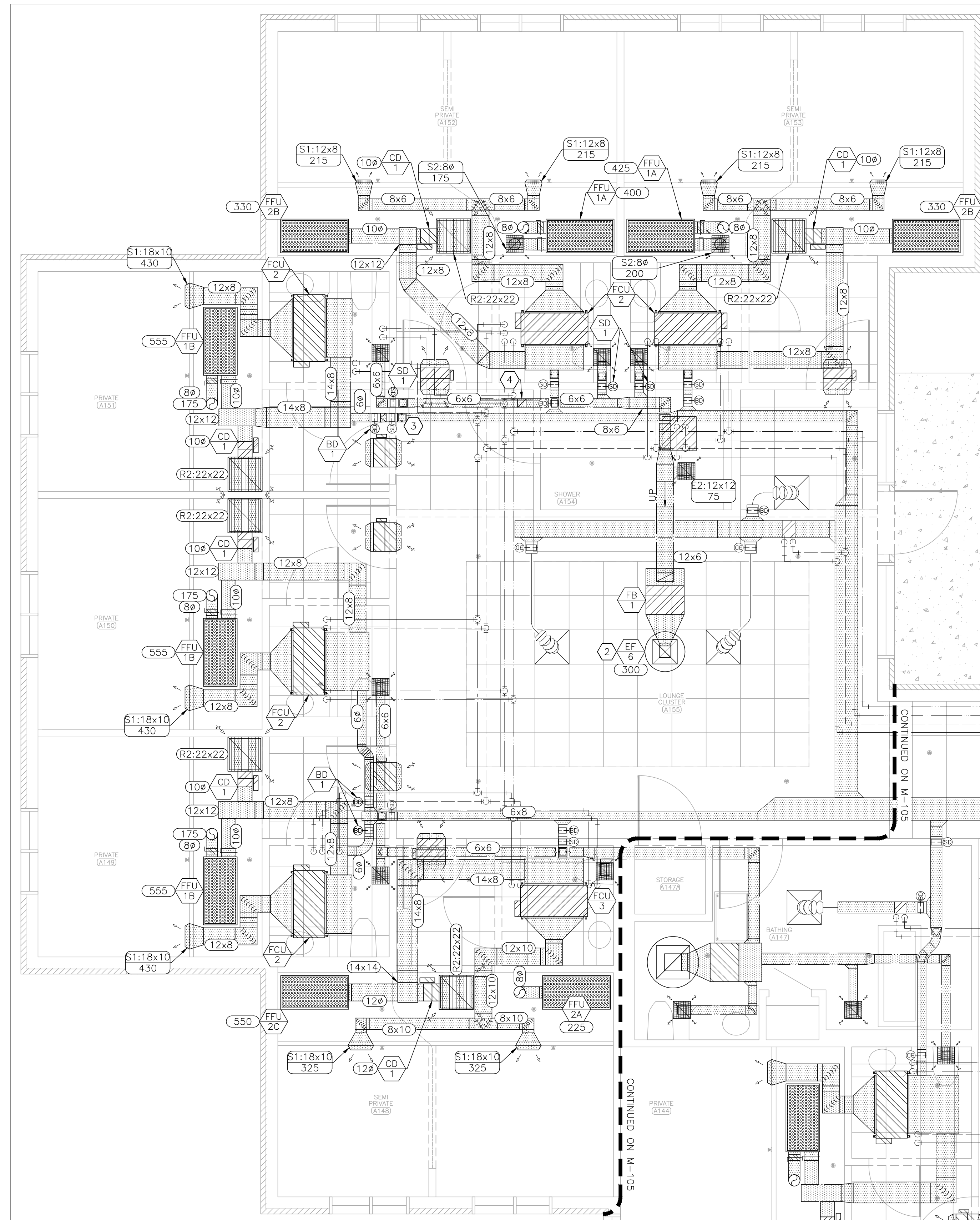


HVAC LEGEND	
	DIRECTION OF FLOW
	FIRE DAMPER
	SMOKE DAMPER
	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
	DEVICE SCHEDULE TAG
	AIR DEVICE: NECK SIZE (INCHES)/CFM
	RETURN AIR DEVICE: NECK SIZE (INCHES)
	DUCT SIZE-RECTANGULAR (INCHES X INCHES)
	DUCT SIZE-ROUND (INCHES DIAMETER)
	AIR FLOW (CUBIC FEET PER 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

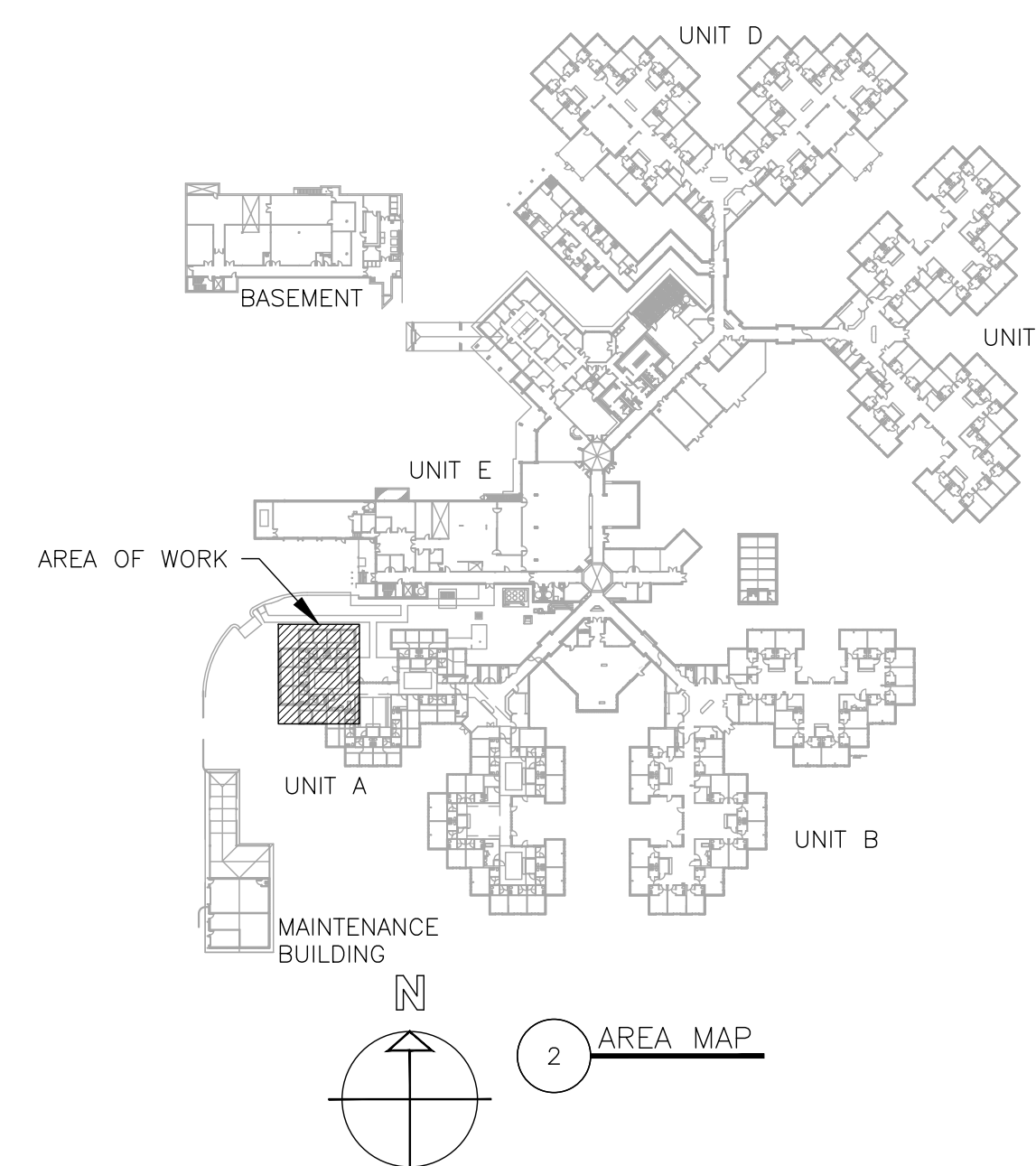
RENOVATION NOTES

 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 DUCT ACCESS DOOR (AD-2) IN EXISTING DUCT.
- 4 ROUTE DUCT ABOVE PIPE THEN TRANSITION DOWN TO GO UNDER OUTDOOR AIR DUCT AND TO EXHAUST FAN (EF-6).



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



HVAC LEGEND

	DIRECTION OF FLOW
	FIRE DAMPER
	SMOKE DAMPER
	BALANCE DAMPER
	BALANCING VALVE
	BALL VALVE
	DEVICE SCHEDULE TAG
	AIR DEVICE: NECK SIZE (INCHES)/CFM
	RETURN AIR DEVICE: NECK SIZE (INCHES)
	DUCT SIZE—RECTANGULAR (INCHES X INCHES)
	DUCT SIZE—ROUND (INCHES DIAMETER)
	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

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HVAC IMPROVEMENTS FOR
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SITE # 6805
ASSET # 8136805001

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DATE: _____
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DATE: _____
ISSUE DATE: 10/24/2025

CAD DWG FILE: M U2301-01
 DRAWN BY: TS/AH
 CHECKED BY: TS
 DESIGNED BY: TS/AH

SHEET TITLE:

MECHANICAL
RENOVATION PLAN
LOUNGE A155

SHEET NUMBER:

M-106

18 OF 26 SHEETS
10/24/2025



Tracie L. Siebeneck - Engineer
MO# PE-2013019114

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DRAWN BY: TS/AH
CHECKED BY: TS
DESIGNED BY: TS/AH

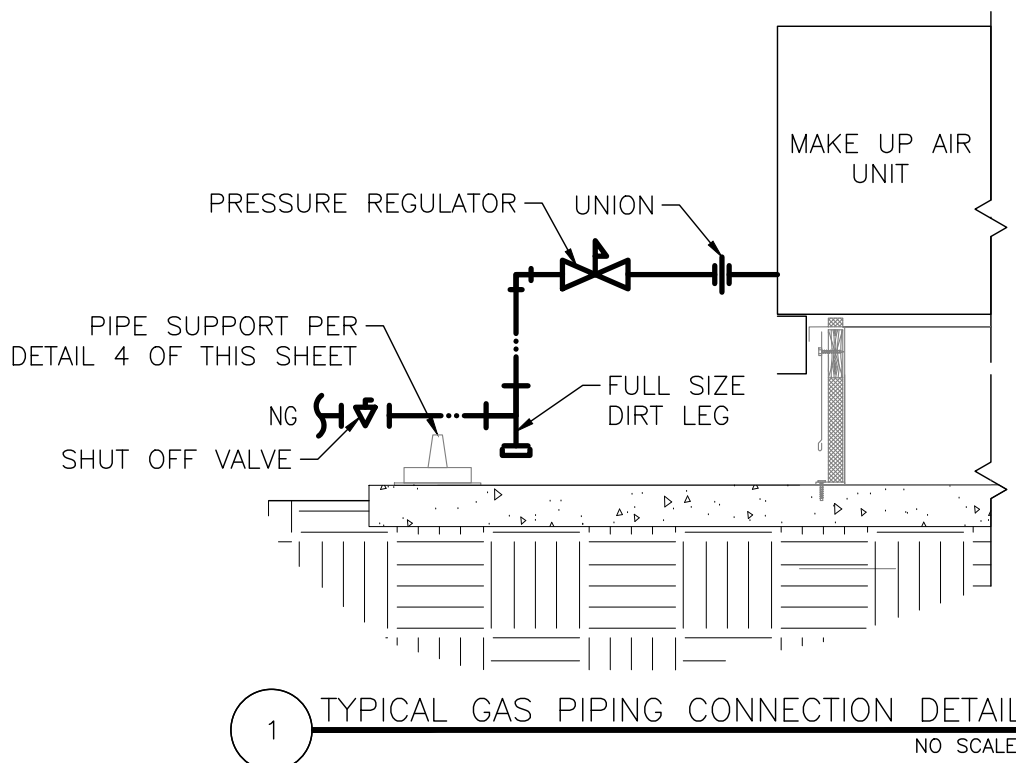
SHEET TITLE:

MECHANICAL
DETAILS

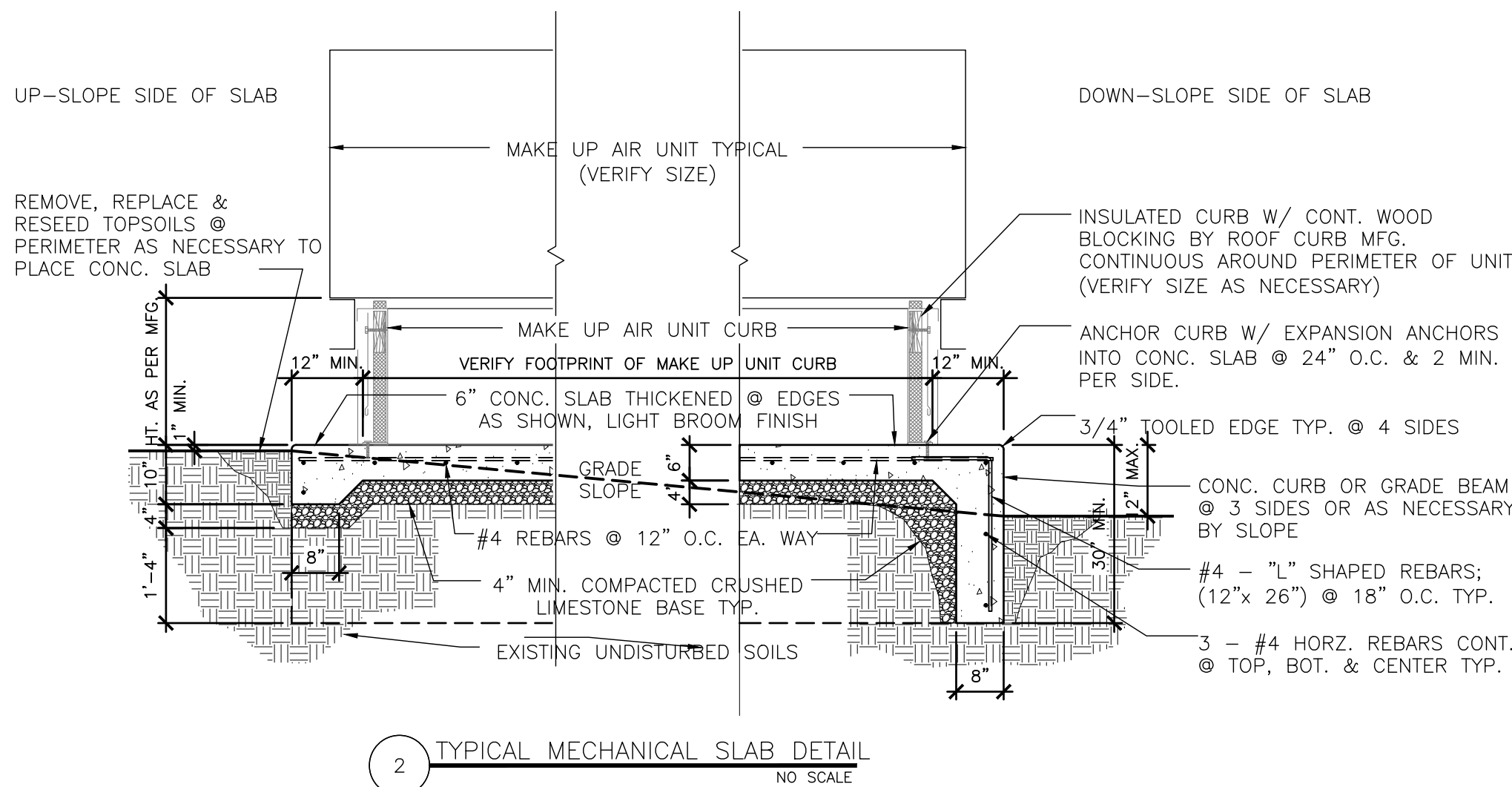
SHEET NUMBER:

M-501

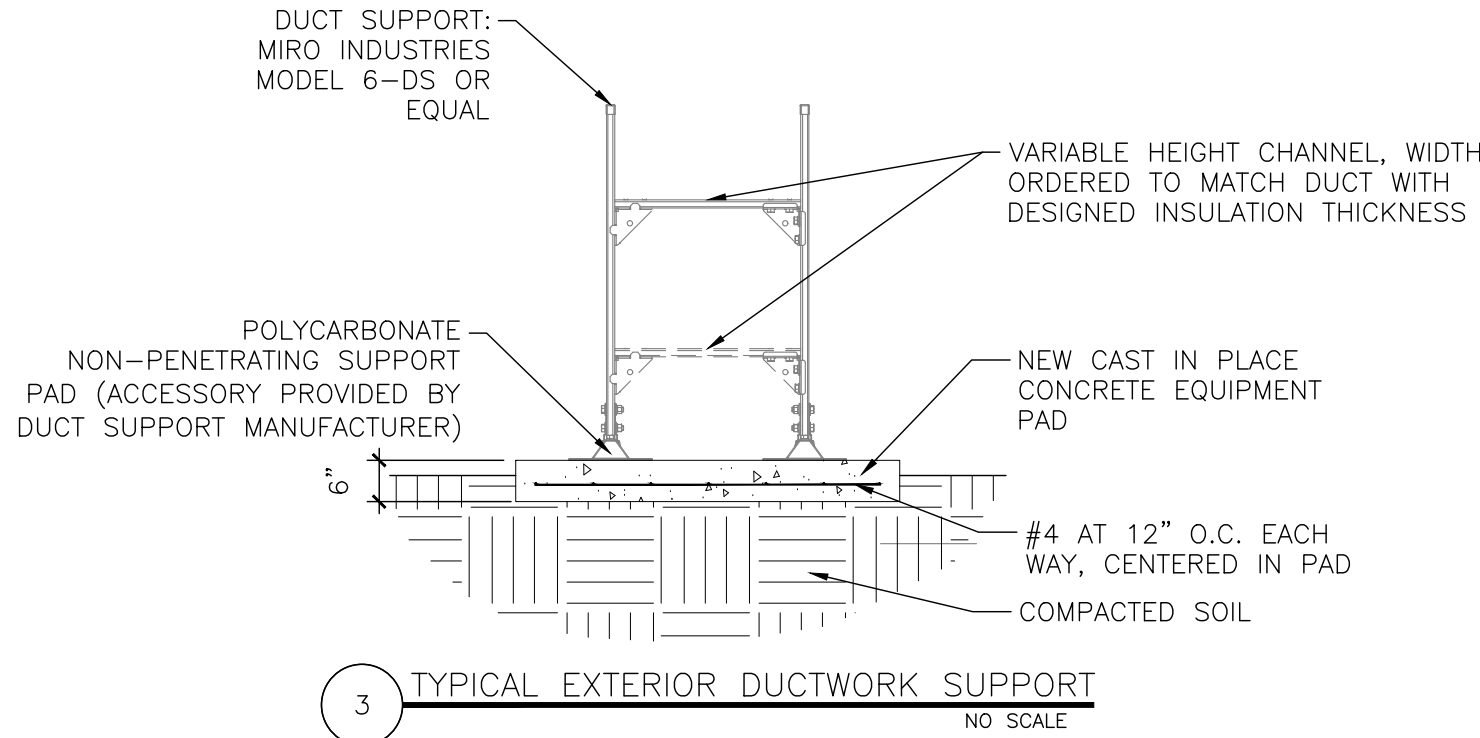
19 OF 26 SHEETS
10/24/2025



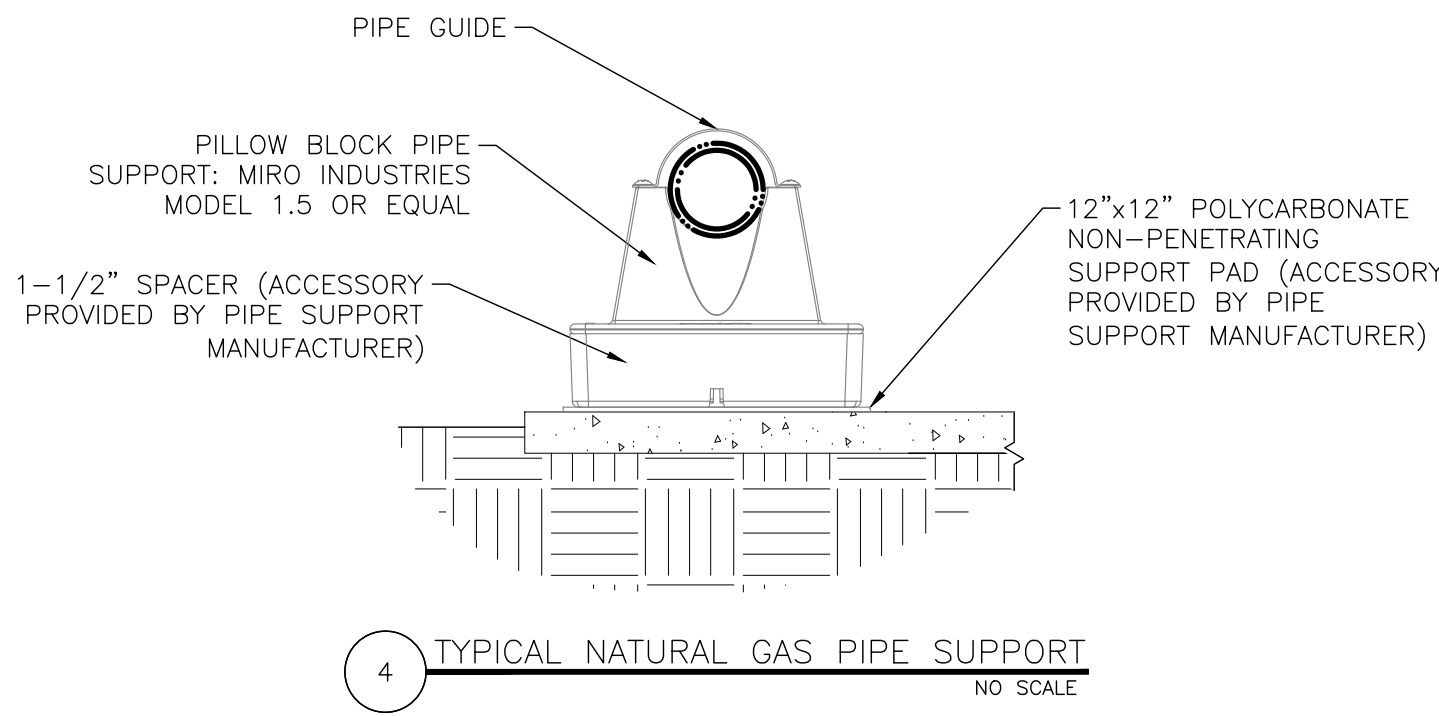
1 TYPICAL GAS PIPING CONNECTION DETAIL
NO SCALE



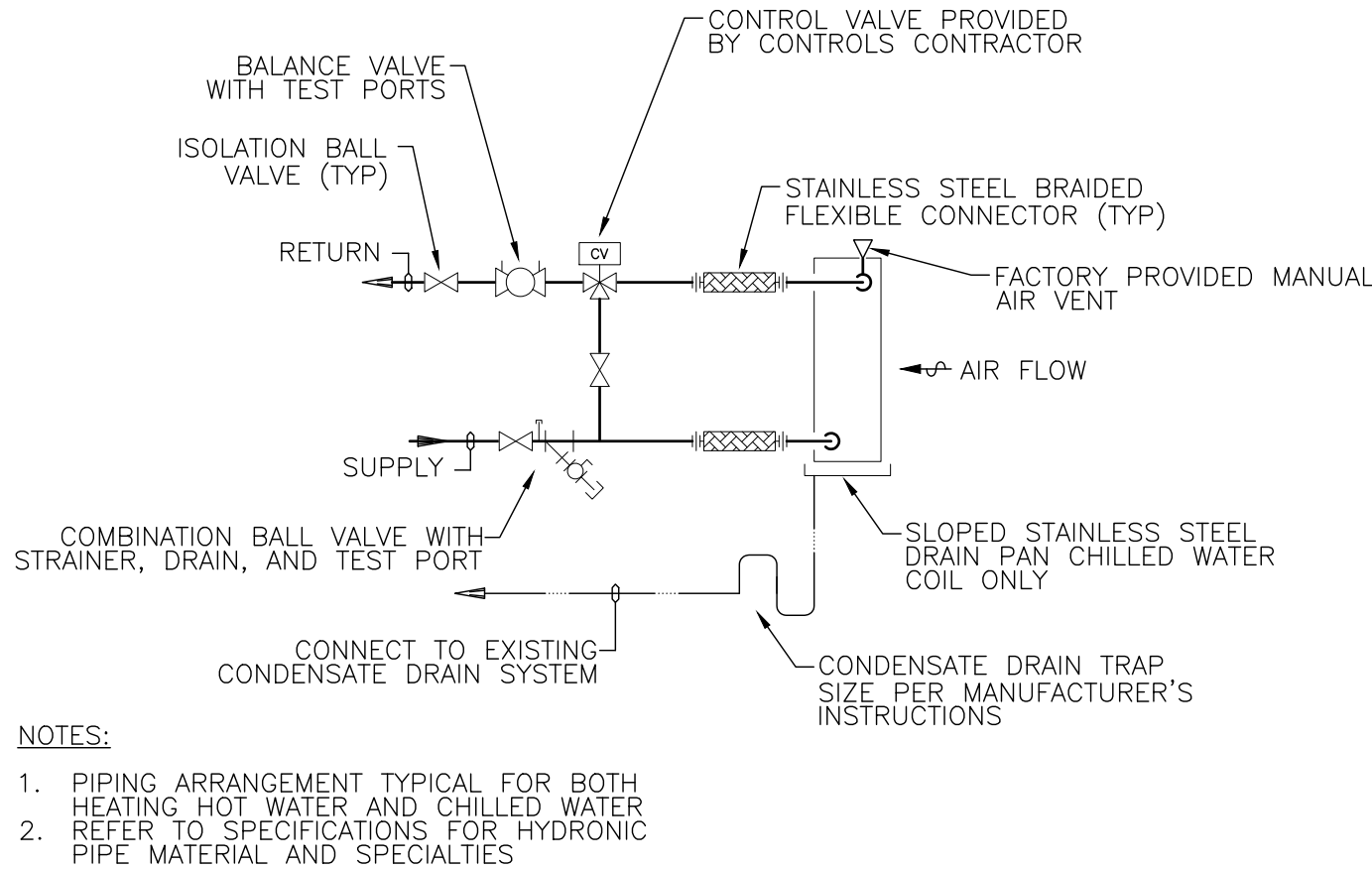
2 TYPICAL MECHANICAL SLAB DETAIL
NO SCALE



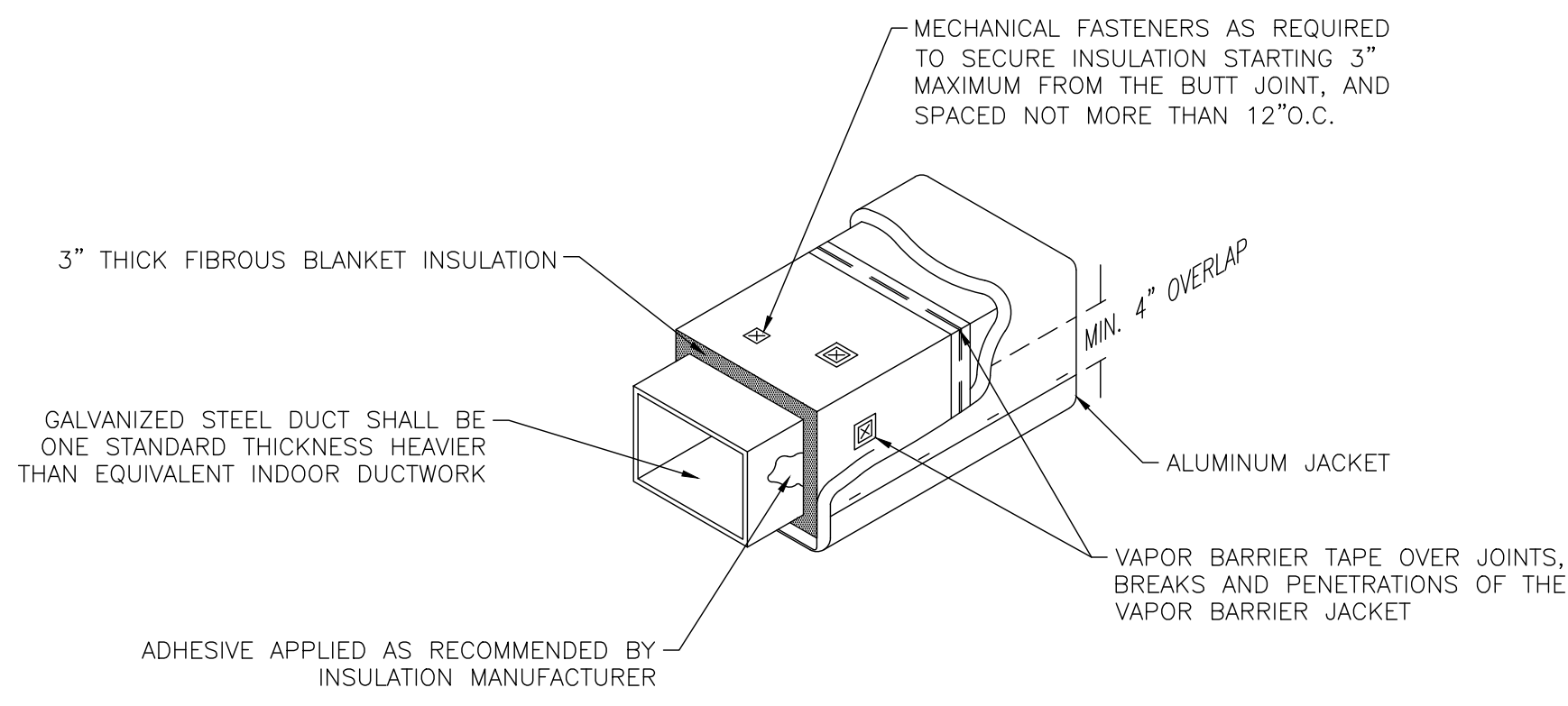
3 TYPICAL EXTERIOR DUCTWORK SUPPORT
NO SCALE



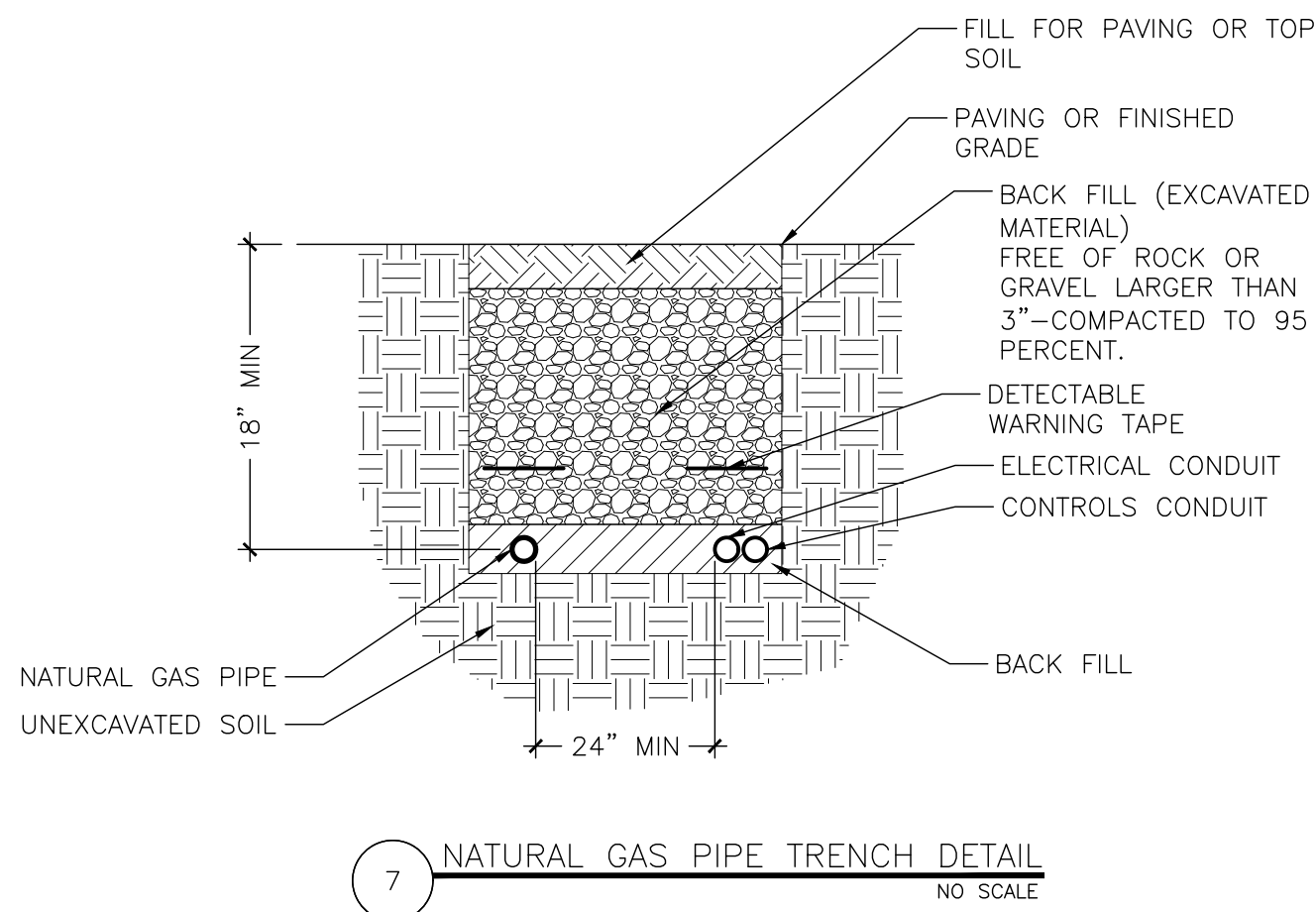
4 TYPICAL NATURAL GAS PIPE SUPPORT
NO SCALE



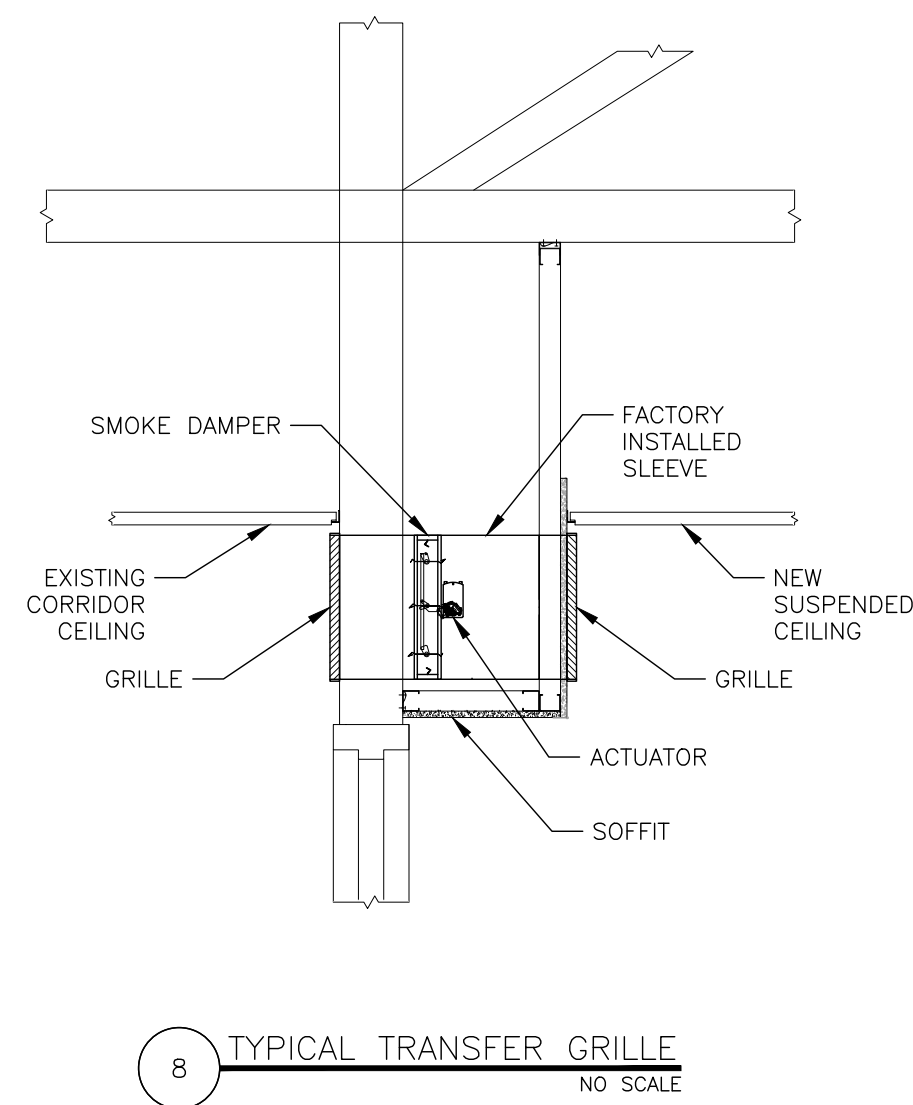
5 TYPICAL FAN COIL UNIT PIPING



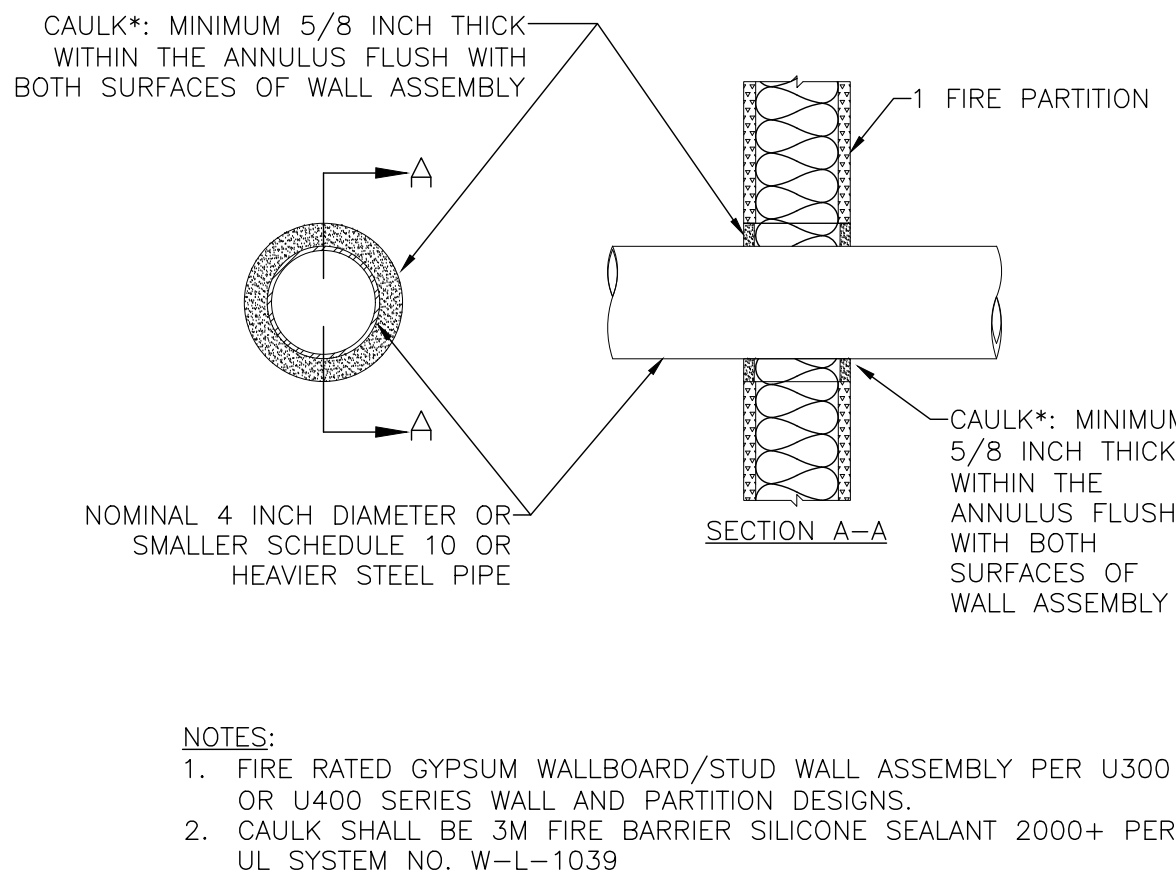
6 EXTERIOR DUCTWORK INSULATION DETAIL
NO SCALE



7 NATURAL GAS PIPE TRENCH DETAIL
NO SCALE

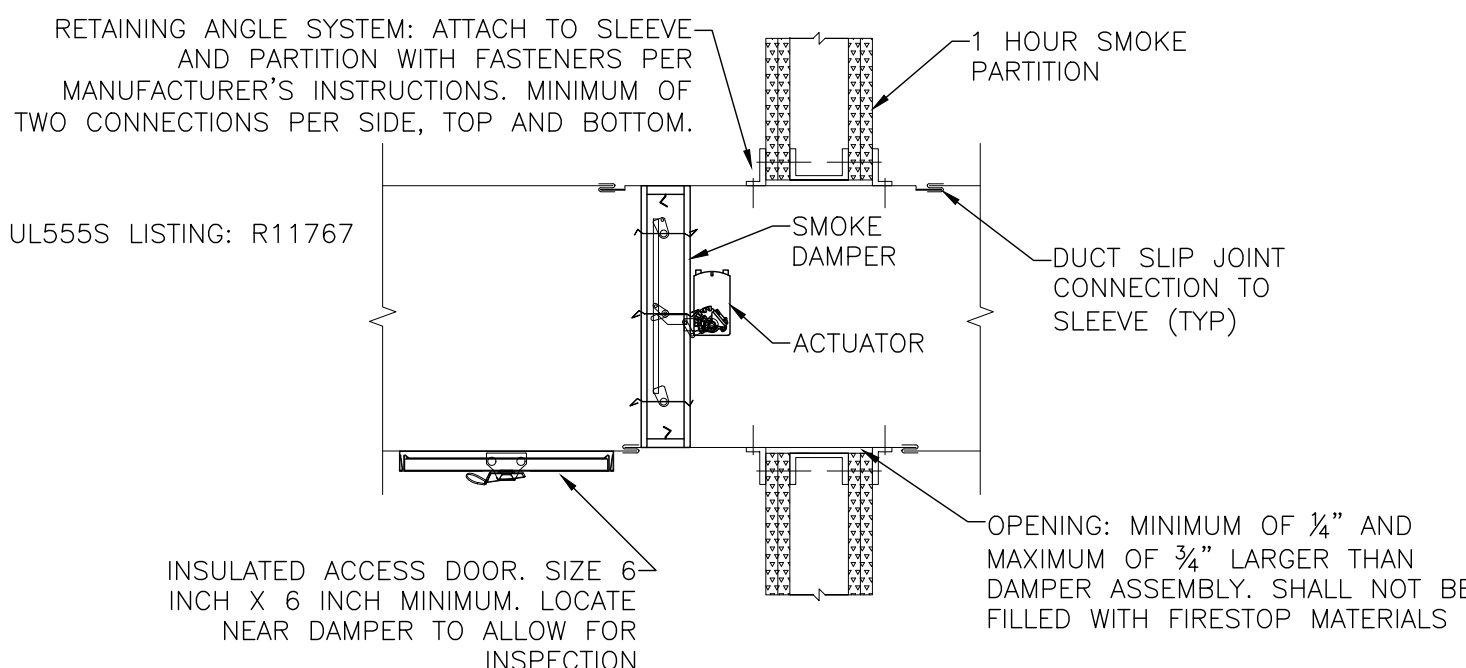


8 TYPICAL TRANSFER GRILLE
NO SCALE

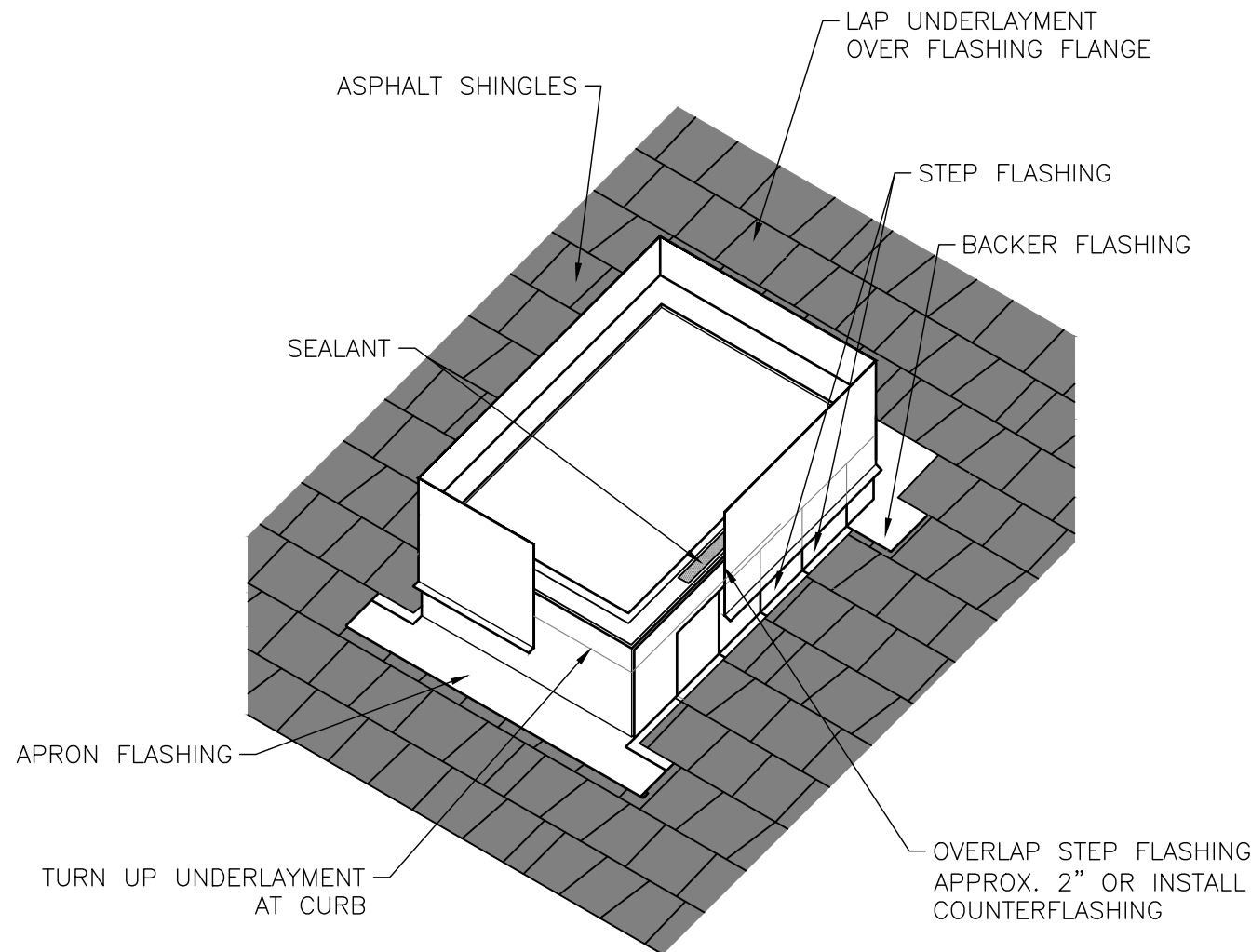


- NOTES:
1. FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY PER U300 OR U400 SERIES WALL AND PARTITION DESIGNS.
 2. CAULK SHALL BE 3M FIRE BARRIER SILICONE SEALANT 2000+ PER UL SYSTEM NO. W-L-1039

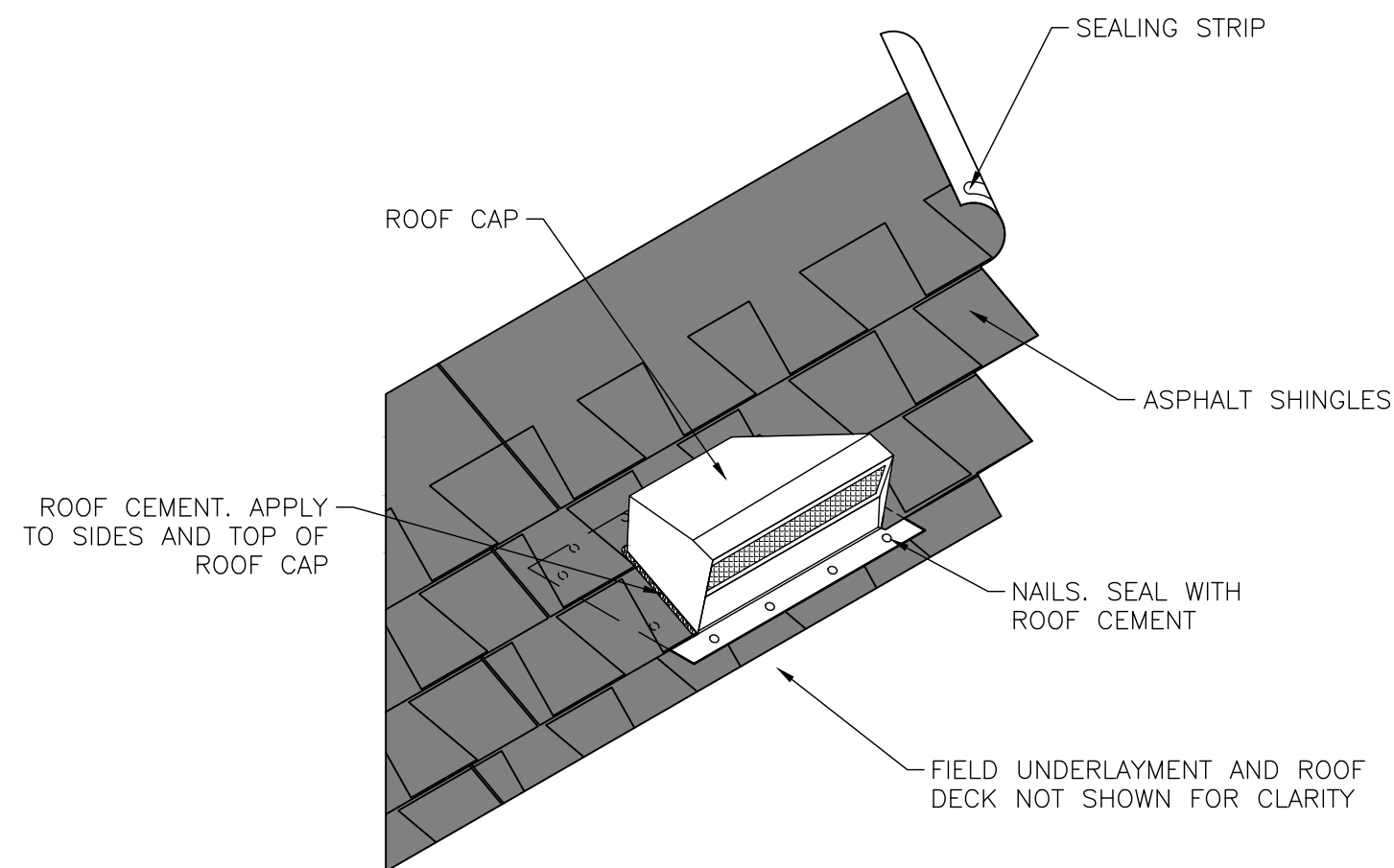
9 METALLIC PIPE PENETRATION OF FIRE RATED WALL ASSEMBLY
NO SCALE



10 SMOKE DAMPER INSTALLATION
NO SCALE



1 EXHAUST FAN ROOF CURB INSTALLATION
NO SCALE



2 EXHAUST ROOF CAP INSTALLATION
NO SCALE

MAKE UP AIR UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	OUTDOOR AIRFLOW (CFM)	ESP (IN WG)	COOLING							HEATING					ELECTRICAL			WEIGHT (LBS)	NOTES
					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		
MAU-3	AAON	RNA-040-D-A-3	4960-6000	1	501.4	270	94.5/77.1	50.1/50.0	154.6	75/60	9.99/13.23	486	600	1.6/0.0	76.5/47.6	10.0:1	480/3	96	110	5990	1,2,3,4,5,6,7
NOTES																					
1 DESIGN CONDITIONS: SUMMER (COOLING): 94.5/77.1°F; SUMMER (DEHUMIDIFICATION) 87.1/77.0°F; WINTER 1.6°F																					
2 DESIGN AIRFLOW IS 4960 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

MARK	MANUFACTURER	MODEL	AIRFLOW (CFM)	FAN DATA			COOLING COIL DATA						HOT WATER COIL DATA					VOLTS PHASE	LENGTH x WIDTH x HEIGHT (INCHES)	NOTES
				ESP	MOTOR (HP)	MOTOR AMPS	CAPACITY TOTAL (MBH)	CAPACITY SENSIBLE (MBH)	GPM	EWI/LWT (°F)	EAT (db°F/wb°F)	COIL LAT (db°F/wb°F)	CAPACITY TOTAL (MBH)	GPM	EWI/LWT (°F)	EAT (db°F)	COIL LAT (db°F)			
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; PROVIDE CONDENSATE PUMP FOR FCU IN ROOMS A135 AND A136																				
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)	VOLTS 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 OPERATION OF EACH BALANCE DAMPER									
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	DESCRIPTION
FB-1	CANARM HVAC	HFB-12	26-13/16"x20-1/8"x12-1/5"	MERV 8 HEPA	930	22-1/2"x10-1/2"	HOUSING: SHEET METAL FRAME; SIDE ACCESS FOR FILTER REPLACEMENT AND MAINTENANCE; FILTER: EXTRUDED 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	0.65	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	0.85	120/1	1/2	53	1,2
EF-4	PENNBARRY	PRD-150	375	0.85	120/1	1/2	53	1,2
EF-5	PENNBARRY	PRD-150	525	1.38	120/1	1/2	53	1,2,5
EF-6	PENNBARRY	PRD-080	300	0.65	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 230V/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"x11" 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 MODELS 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 - Engineer
MO# PE-2013019114

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HVAC IMPROVEMENTS FOR
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CAMERON VETERANS
HOME
1111 EUCLID AVENUE
CAMERON, MO 64429

PROJECT # U2301-01
SITE # 6805
ASSET # 8136805001

REVISION: _____
DATE: _____
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DATE: _____
ISSUE DATE: 10/24/2025

CAD DWG FILE: M_U2301-01
DRAWN BY: TS/AH
CHECKED BY: TS
DESIGNED BY: TS/AH

SHEET TITLE:
MECHANICAL
SCHEDULES AND
DETAILS

SHEET NUMBER:

M-601

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10/24/2025

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.

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 A168, 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 (FCU-1, FCU-2, AND FCU-3): 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-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 54°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 76°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.

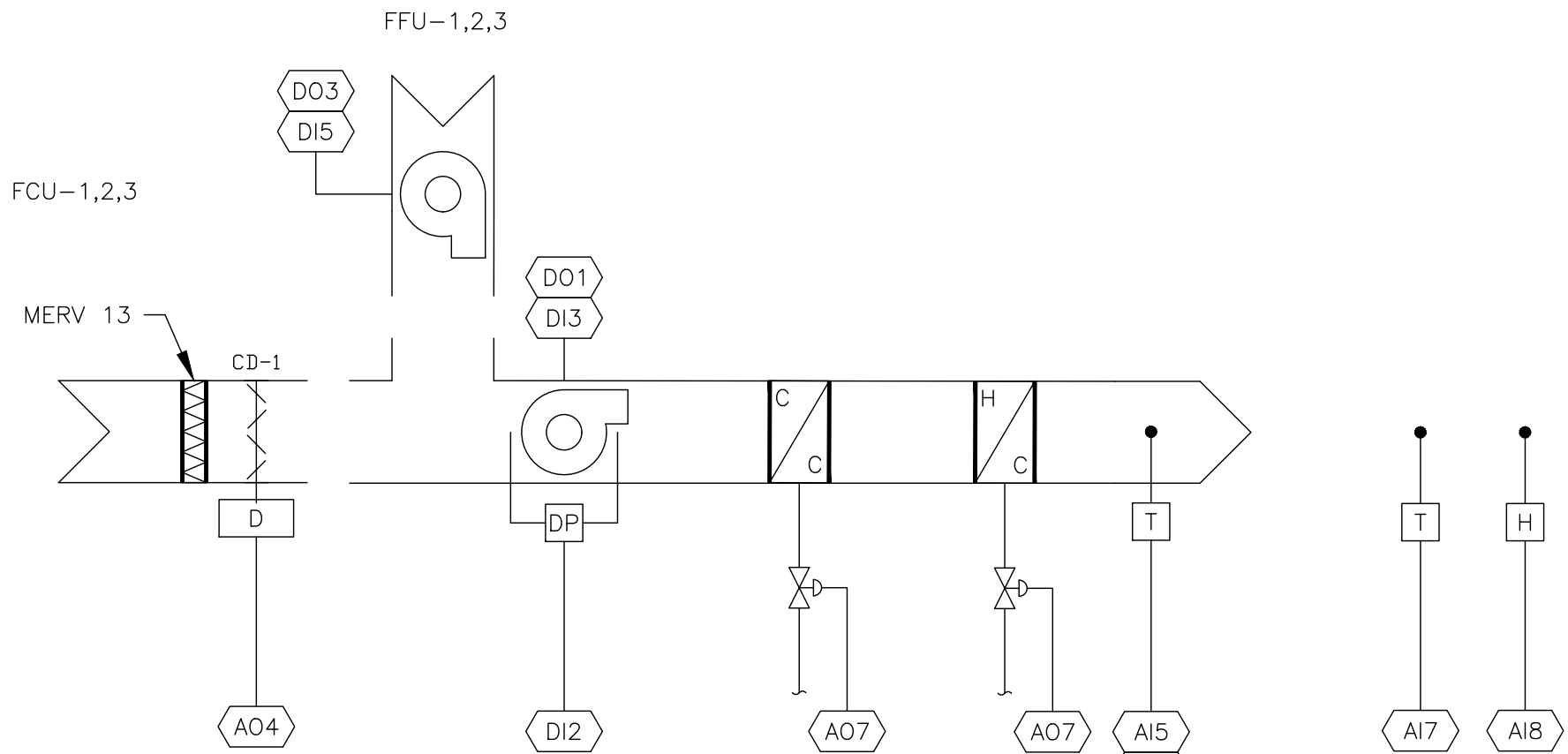
IF THE MAU FAN IS COMMANDED ON AND NO CURRENT IS REALIZED THROUGH A CURRENT RELAY SENSOR, AN ALARM SHALL BE GENERATED AT THE BAS. FFUs SHALL NOT ENERGIZE IF MAU FAN IS NOT OPERATING.

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.

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.

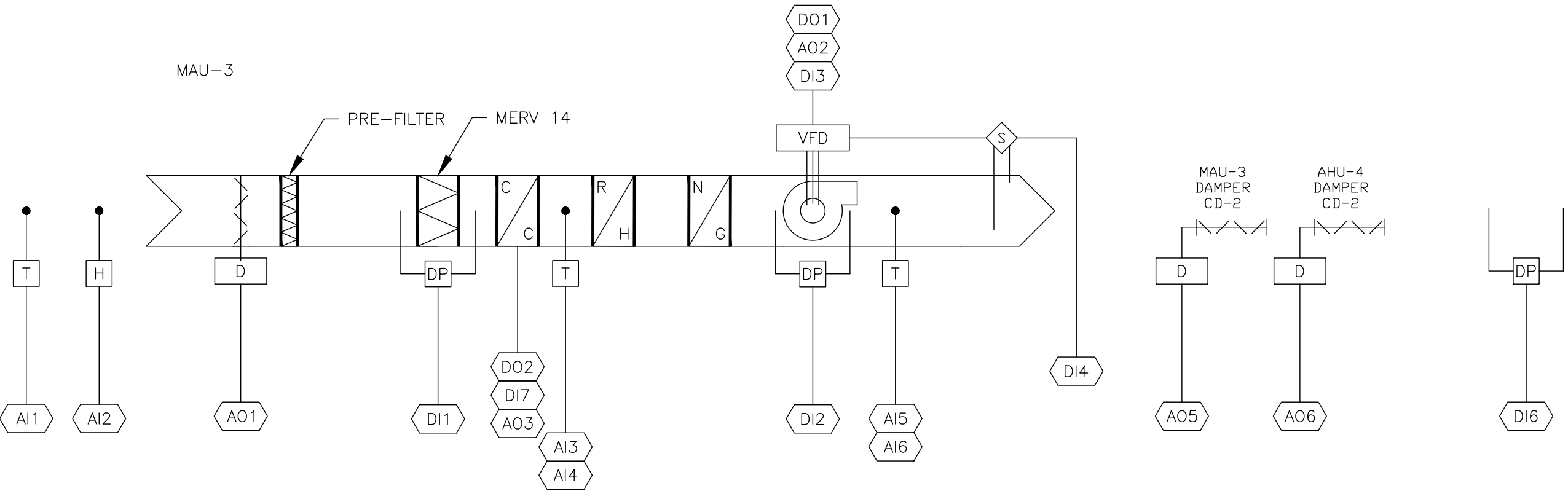
AHU-4
AIR HANDLING UNIT (AHU-4) SHALL OPERATE PER EXISTING SEQUENCE OF OPERATION TO MAINTAIN EXISTING SETPOINTS IN THE SPACE DURING NORMAL MODE AND AIRBORNE INFECTION ISOLATION MODE. DURING AIRBORNE INFECTION ISOLATION MODE OUTSIDE AIR DAMPER SHALL OPEN TO PROVIDE 90% OUTSIDE AIR.

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.



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

CONTROL LEGEND	
	VARIABLE SPEED FAN
	CONSTANT SPEED FAN
	FILTER
	REFRIGERANT/CHILLED WATER COOLING COIL
	HOT WATER COIL
	MODULATING HOT-GAS REHEAT COIL
	NATURAL GAS HEATING COIL
	CONTROL DAMPER
	TEMPERATURE SENSOR
	RELATIVE HUMIDITY SENSOR
	DIFFERENTIAL PRESSURE SENSOR
	CHILLED/HOT WATER CONTROL VALVE



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

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

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SHEET TITLE:

MECHANICAL
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DIAGRAMS

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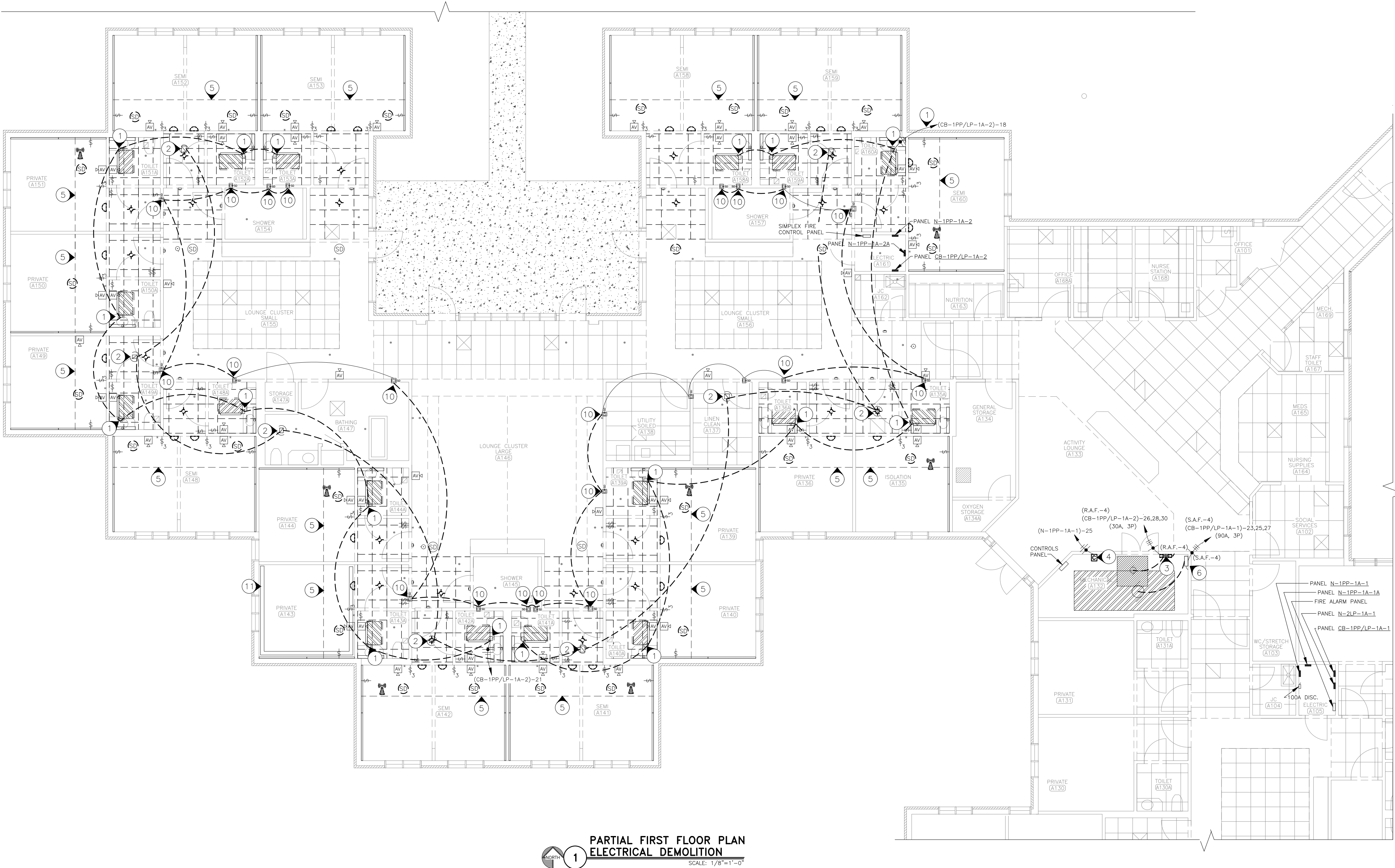
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DEMOLITION NOTES

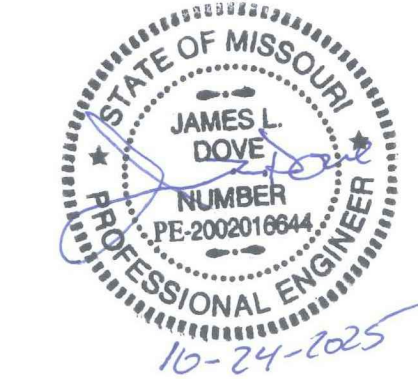
N INDICATES KEYED NOTES

- 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 OR CONTRACTOR MAY REUSE HOME RUNS AND OTHER CONDUIT IF BENEFICIAL AND IS CORRECTLY SUPPORTED PER THE CURRENT ADOPTED NATIONAL ELECTRIC CODE.
- 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 2 POLE CONTACTOR. ALL AREA EXHAUST FANS ARE CIRCUITED HERE. EXISTING 2-POLE CONTACTOR IS FED FROM PANEL (N-1PP-1A-1)-25. COIL IS ACTIVATED BY POWER ON AT AHU-4. KEEP EXISTING ENCLOSURE BUT REMOVE EXISTING 2 POLE CONTACTOR. REPLACE WITH NEW 4 POLE CONTACTOR FOR ALL NEW EXHAUST FANS.
- 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. ALL WIRING AND CONDUIT WILL NEED TO BE DISCONNECTED FROM 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. THE FIRE ALARM DEVICES 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. THERE ARE WALL MOUNTED LIGHTS IN THE ROOMS/RESTROOMS LOWER THAN THE CEILING THAT WILL REMAIN. THE PLANS SHOWING THESE DEVICES MAY NOT BE ENTIRELY ACCURATE OR COMPLETE. ELC TO VERIFY ALL DEVICES TO BE MOVED DURING BIDDING PHASE AND INCLUDED IN THE WORK.
- 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 NEW 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 DUCT MOUNTED SMOKE AND FIRE DAMPERS. REMOVE WIRE AND CONDUIT SHOWN AS A HEAVY DASHED LINE. SOME WIRE AND CONDUIT TO REMAIN BETWEEN EXISTING DEVICES. SEE SHEET E-102 FOR NEW SMOKE AND FIRE DAMPER LOCATIONS.
- 11
- IN THIS ROOM THERE IS AN EXISTING HOIST LIFT SYSTEM. ELC TO COORDINATE WITH STATE STAFF TO ENSURE THE POWER TO THE UNIT IS OFF BEFORE CONSTRUCTION OF SOFFIT BEGINS.



ELECTRICAL LEGEND	
⌘	EXISTING LIGHT SWITCH (TO REMAIN)
⌘ ₃	EXISTING 3-WAY LIGHT SWITCH (TO REMAIN)
▶AV	AUDIO/VISUAL DEVICE (ELC TO REVIEW LOCATION AND RELOCATE AS NEEDED)
SD	SMOKE/CO2 DETECTOR (TO REMAIN)
SD	SMOKE/CO2 DETECTOR (RELOCATE)
WIFI	WIFI ACCESS POINT (RELOCATE)
⌘	WALL MOUNTED LIGHTS (TO REMAIN)
⌘	WALL MOUNTED NURSE CALL LIGHT (REMAINS)
⌘	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)
⌘	EXHAUST FAN (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 DISCONNECT TO BE REMOVED
⌘	EXISTING SMOKE OR FIRE DAMPER (ELC TO REMOVE WIRE/CONDUIT AS NEEDED)
⌘	EXISTING MOTOR (TO REMAIN)
⌘	SECURITY CAMERA (TO REMAIN)

STATE OF MISSOURI
MIKE KEHOE,
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CAD DWG FILE: CIFIC-e.dwg
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DESIGNED BY: JLD

SHEET TITLE:
FIRST FLOOR
ELECTRICAL
DEMOLITION PLAN

SHEET NUMBER:

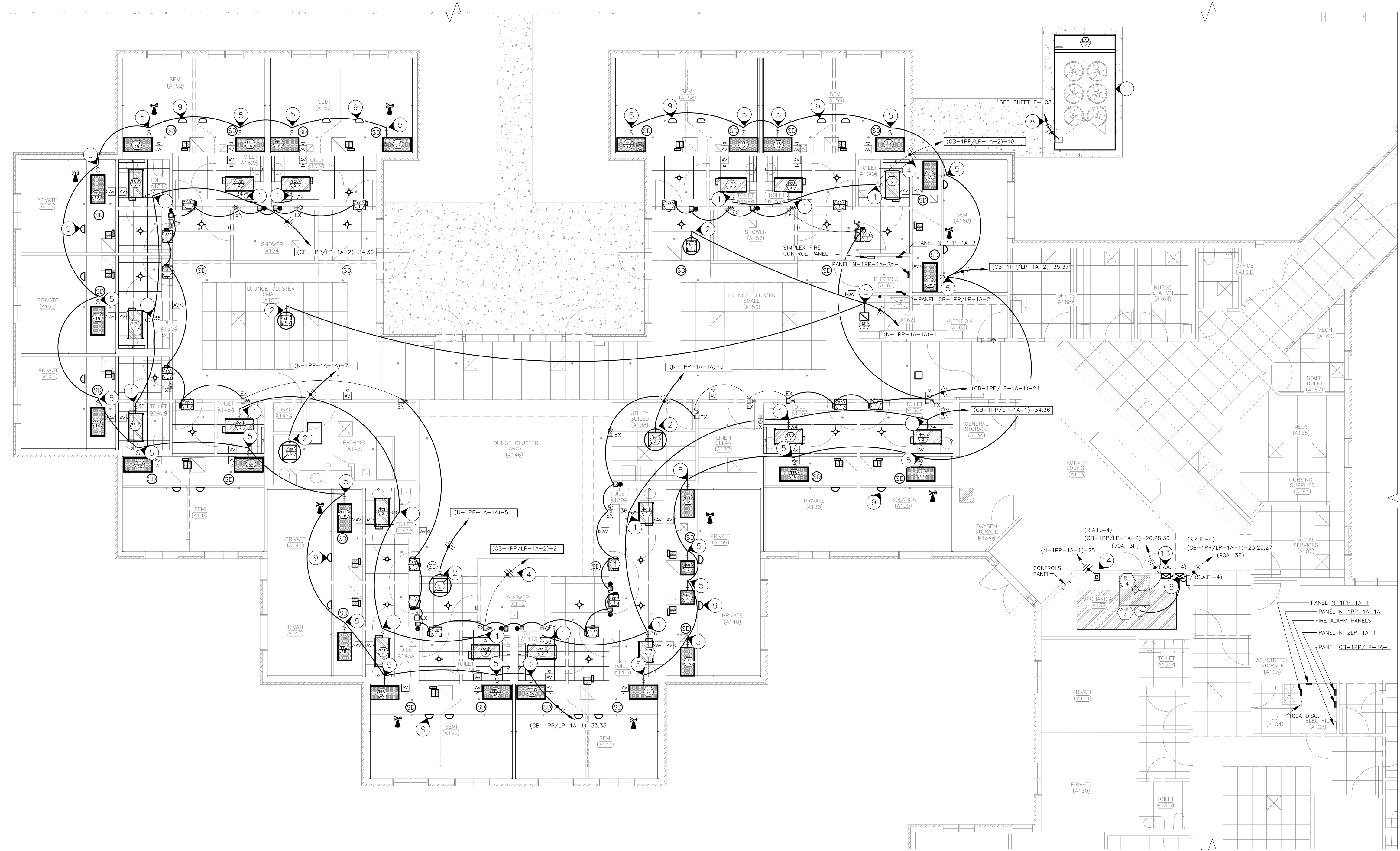
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CONSTRUCTION NOTES

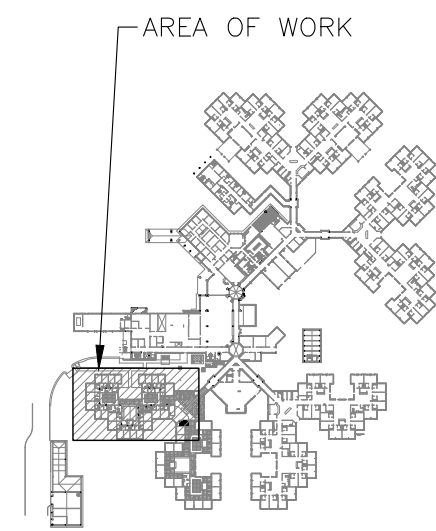
INDICATES KEYED NOTES

- 1 ELC TO EXTEND AND CONNECT POWER TO NEW FAN COIL UNITS FACTORY PROVIDED DISCONNECT. CIRCUIT AS SHOWN. ADD 20A 1-POLE BREAKERS, WIRE AND CONDUIT AS NEEDED. SEE E-601 FOR REFERENCE.
- 2 PROVIDE WIRE, CONDUIT AND POWER CONNECTION TO NEW EXHAUST FANS FACTORY PROVIDED DISCONNECT AS SHOWN. CIRCUIT AS SHOWN. COORDINATE WITH MECHANICAL ON ALL ELECTRICAL CONNECTIONS.
- 3 COORDINATE WITH MECHANICAL CONTRACTOR TO RUN ALL CONDUIT FOR ANY LOW VOLTAGE WIRE.
- 4 EXTEND EXISTING HOME RUN TO FACTORY PROVIDED DISCONNECT AND CIRCUIT AS SHOWN.
- 5 ELECTRICAL CONTRACTOR SHALL RUN NEW #10 CU THHN WIRE IN 3/4" EMT FROM NEW FFU DISCONNECT, (FACTORY PROVIDED), TO PANEL AS SHOWN. COORDINATE WITH CONTROLS CONTRACTOR TO PROVIDE ANY CONDUIT FOR LOW VOLTAGE WIRING.
- 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 MOTOR SHAFT. VFD TO BE ABB 15HP 200-230V/3Ø 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 EXISTING CIRCUIT AND CONNECT NEW VFD.
- 7 ELECTRICAL CONTRACTOR (ELC) IS TO SUPPLY AND INSTALL ALL LINE VOLTAGE WIRING, CONDUIT AND BREAKERS AS NEEDED. COORDINATE WITH MECHANICAL CONTRACTOR TO RUN CONDUIT FOR LOW VOLTAGE WIRING. 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 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. 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 ADDRESSABLE DUCT SMOKE DETECTOR FOR MAU-3. COORDINATE WITH MECHANICAL CONTRACTOR. CONNECT TO EXISTING FIRE ALARM CONTROL PANEL FOR MONITORING. COORDINATE WITH OWNER ON FIRE ALARM SYSTEM.
- 12 ELC TO PROVIDE 3/4" EMT AND (3) #10 CU THHN FROM EXISTING SMOKE DAMPER JUNCTION BOX IN ELECTRICAL ROOM A105 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. 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 MOTOR SHAFT. VFD TO BE ABB 3HP 208V/3Ø WITH STOP SWITCH OR APPROVED EQUAL. ELC TO PROVIDE AND INSTALL ALL CONDUIT AND WIRE TO CONNECT VFD TO EXISTING RAF-4 MOTOR AND CONTROLS. EXISTING CIRCUITING TO REMAIN.
- 14 ELC TO REMOVE EXISTING 2-POLE CONTACTOR, REPLACE WITH 4-POLE CONTACTOR IN SAME ENCLOSURE. MAKE ALL WIRING CONNECTIONS NEEDED. CONTACTOR TURNS ON EXHAUST FANS WHEN AHU-4 IS ON. CIRCUITING FOR POWER TO CONTACTOR TO REMAIN AS IS. IF ENCLOSURE DOES NOT HAVE ROOM FOR NEW 4-POLE CONTACTOR, ELC TO PROVIDE AND INSTALL AS NEEDED.
- 15 ELC TO LEAVE EXISTING SMOKE DETECTORS WIRED AND IN THE VICINITY DURING CONSTRUCTION AND BAG DEVICES TO KEEP CLEAN.



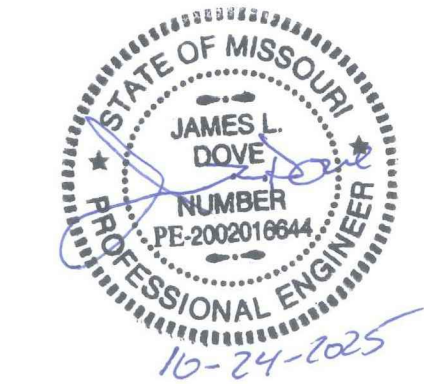
ELECTRICAL LEGEND

\$	NEW FACTORY MOUNTED DISCONNECT SWITCH
	NEW MECHANICAL EQUIP. (ELC TO CONNECT)
	NEW ELECTRICAL WIRE AND CONDUIT
	EXISTING 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-(EXTEND CIRCUIT)
	RELOCATED SMOKE/O2 SENSOR-(REINSTALL)
	EXISTING NURSE CALL LIGHT-(NO WORK)
	EXISTING MOTOR
	NEW VFD - BY ELECTRICAL CONTRACTOR
	NEW DUCT SMOKE DAMPER (CONNECT)
	EXISTING DUCT SMOKE DAMPER (CONNECT)



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

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



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OFFICE OF ADMINISTRATION
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DEPARTMENT OF
PUBLIC SAFETY/
VETERANS COMMISSION

HVAC IMPROVEMENTS FOR
INFECTION CONTROL

CAMERON VETERANS HOME
1111 EUCLID AVENUE
CAMERON MO 64429

PROJECT # U2301-01
SITE # 6805
FACILITY # 8136805001

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-24-25

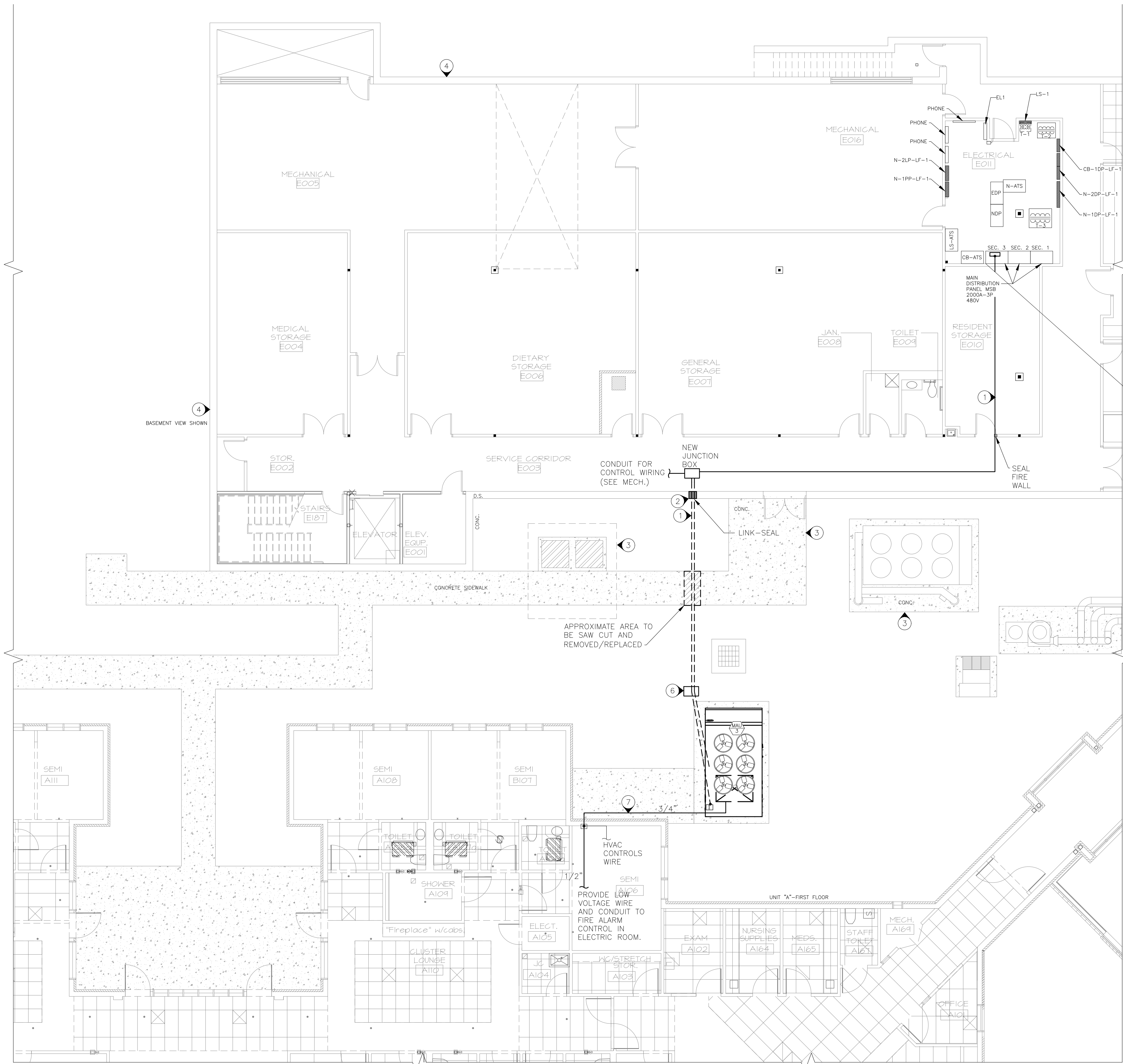
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CHECKED BY: JLD
DESIGNED BY: JLD

SHEET TITLE:
FIRST FLOOR
ELECTRICAL
RENOVATION PLAN

SHEET NUMBER:

E-102

23 OF 26 SHEETS
10/24/2025

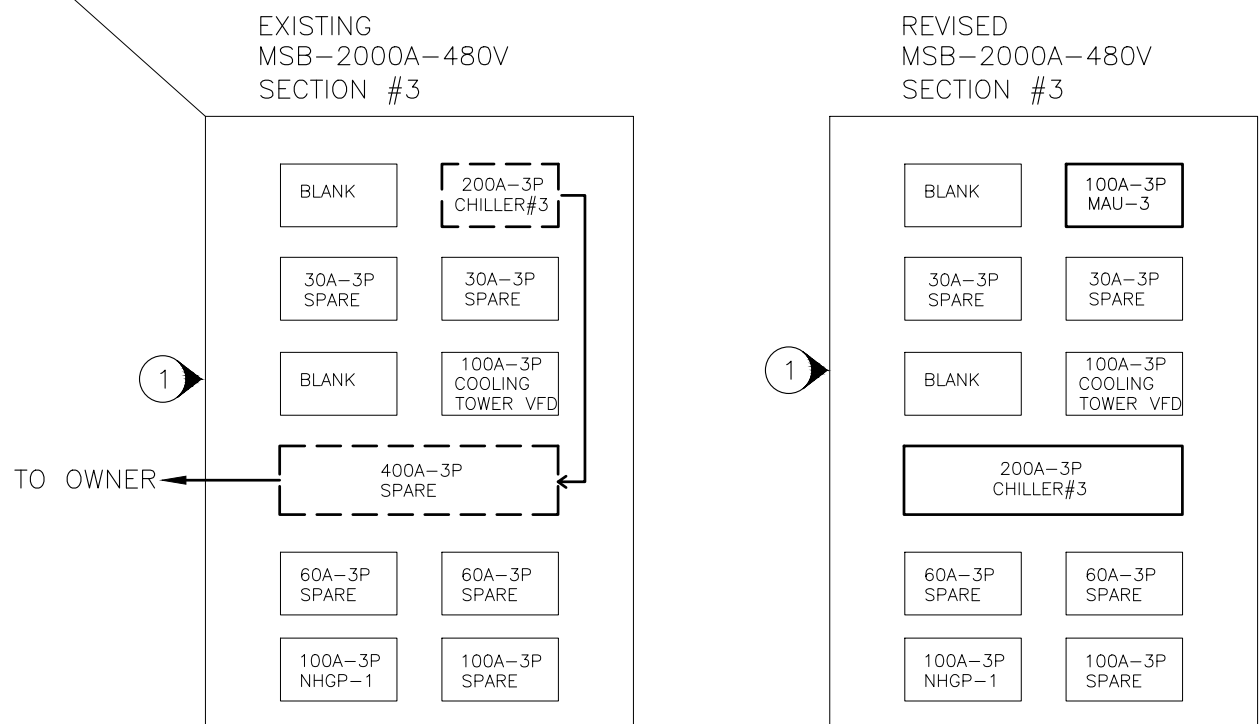


PARTIAL FIRST FLOOR/BASEMENT
ELECTRICAL RENOVATION
SCALE: 1/8"=1'-0"

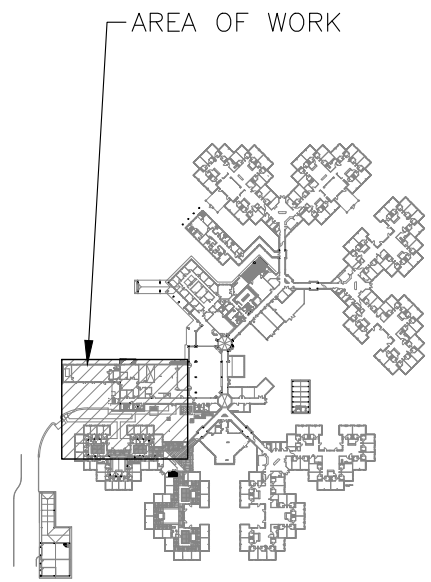
CONSTRUCTION NOTES

N INDICATES KEYED NOTES

- ELC TO RELOCATE EXISTING 200A FUSES, CONDUIT AND WIRE FOR CHILLER #3 TO THE 400A BUCKET BELOW IN SECTION 3 OF THE MSB. SPLICE EXISTING WIRE AS NEEDED WITH BARREL SPLICES TO EXTEND TO NEW BUCKET. REMOVE EXISTING 400A FUSES AND RETURN TO STATE MAINTENANCE DEPARTMENT. MOVE EXISTING 200A FUSES FROM ORIGINAL LOCATION TO THE 400A BUCKET FOR THE 200A CHILLER #3. (REFERENCE SHEET E-501) RUN (3)-1/0 CU THWN AND (1)-#6 CU GROUND IN 2" CONDUIT OUT TO HALLWAY THRU THE FIREWALL AND MEET UP WITH MECHANICAL'S NEW GAS LINE FOR MAU-3 BEFORE LEAVING BUILDING AND TRENCHED UNDERGROUND IN 2" PVC TO THE ELECTRICAL DISCONNECT IN MAU-3 WITH 12" MIN. CLEAR TO GAS LINE. ELC TO PROVIDE AND INSTALL NEW JUNCTION BOX IN HALLWAY NEAR LOCATION SHOWN. ELC TO PROVIDE AND INSTALL (1) 3/4" CONDUIT FOR MECHANICAL CONTROL WIRING NEXT TO 2" CONDUIT. ROUTE FROM NEW JUNCTION BOX TO MAU-3. COORDINATE WITH MECHANICAL TO PROVIDE LOW VOLTAGE CONDUIT TO LOCATION ON MECHANICAL SHEETS. SEAL FIREWALL IN HALLWAY TO 3M STANDARDS SHOWN ON E-501. COORDINATE WITH GENERAL CONTRACTOR TO REPAIR CONCRETE SIDEWALK AND SEED AND MULCH THE GRASSED AREAS.
- ELC TO SEAL FOUNDATION WALL PENETRATION WITH MODEL "C" LINK-SEAL MECHANICAL SEAL OR EQUAL. ENSURE PENETRATION IS LARGE ENOUGH FOR CONDUIT AND LINK-SEAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- ITEMS SHOWN IN THIS AREA WERE DRAWN FROM PHOTOGRAPHS AND ARE NOT GUARANTEED TO BE ACCURATE OR COMPLETE. ELC RESPONSIBLE FOR EQUIPMENT VERIFICATION IN THIS YARD AREA.
- THIS IS THE FIRST FLOOR LEVEL BUT THE BASEMENT FLOOR PLAN IS SHOWN BELOW FOR THE PURPOSES OF IDENTIFYING THE ROUTING OF THE ELECTRICAL WIRE AND CONDUIT FROM SB-1 TO THE NEW MAU-3. THIS MAY NOT BE ENTIRELY ACCURATE. ELC TO VERIFY ROUTING AND DISTANCES.
- FOR GAS LINE AND ELECTRIC LINE IN THE SAME TRENCH, LEAVE 12" CLEARANCE MIN. AROUND NEW ELECTRIC LINE. AFTER THE SIDEWALK TURN TO UTILITY CONNECTION BOX AND UP. COORDINATE WITH MECHANICAL TO CONNECT POWER TO UNIT. COORDINATE EXACT LOCATION WITH UNIT PROVIDED. REFERENCE TRENCH DETAIL ON MECHANICAL SHEETS. COORDINATE WITH GENERAL CONTRACTOR TO SAW CUT AND REMOVE EXISTING CONCRETE SIDEWALK, POUR NEW SIDEWALK, SEED AND MULCH THE AREA DISTURBED BY CONSTRUCTION.
- GROUND BOX AS NEEDED. BOX TO BE QUAZITE UNDERGROUND ENCLOSURE OR EQUAL, SIZED AS NEEDED.
- ELC TO PROVIDE AND INSTALL (1) 3/4" CONDUIT FOR SMOKE DETECTOR MONITORING. ROUTE OUT FROM JUNCTION BOX IN NEW SOFFIT ALONG NEW DUCT WORK AND TO UNIT. NEW MAKEUP AIR UNIT COMES STANDARD WITH A NON ADDRESSABLE SMOKE DETECTOR. ELC TO PROVIDE AN ADDRESSABLE MODULE AND ALL WIRE AND CONDUIT TO CONNECT TO EXISTING FIRE ALARM PANEL (SEE E-102). RUN 1/2" CONDUIT FROM ELC PROVIDED AND INSTALLED 4X4 JUNCTION BOX IN NEW SOFFIT TO FIRE ALARM PANEL. COORDINATE WITH OWNER AND MECHANICAL CONTRACTOR. COORDINATE WITH GENERAL CONTRACTOR TO SEAL PENETRATIONS TO WATER TIGHT SEAL.

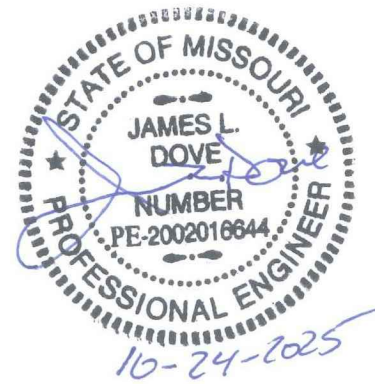


ELECTRICAL LEGEND	
---	NEW UNDERGROUND CONDUIT AND WIRE
---	NEW CONDUIT AND WIRE INSIDE OF BUILDING
///	EXISTING SURFACE MOUNTED PANELBOARD



KEY MAP
SCALE: 1"=400'

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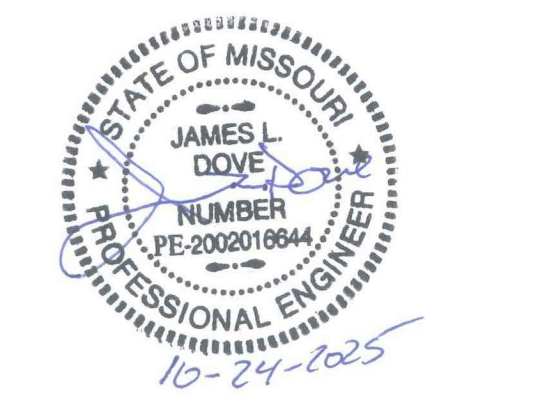
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CHECKED BY: JLD
DESIGNED BY: JLD

SHEET TITLE:
BASEMENT/FIRST
MAU-3 ELECTRICAL
RENOVATION PLAN

SHEET NUMBER:

E-103

24 OF 26 SHEETS
10/24/2025



OFFICE OF ADMINISTRATION
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MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF
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ISSUE DATE: 10-24-25

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DRAWN BY: MDS
CHECKED BY: JLD
DESIGNED BY: JLD

SHEET TITLE:
**ELECTRICAL
RISER AND FIRE
RATED DETAILS**

SHEET NUMBER:

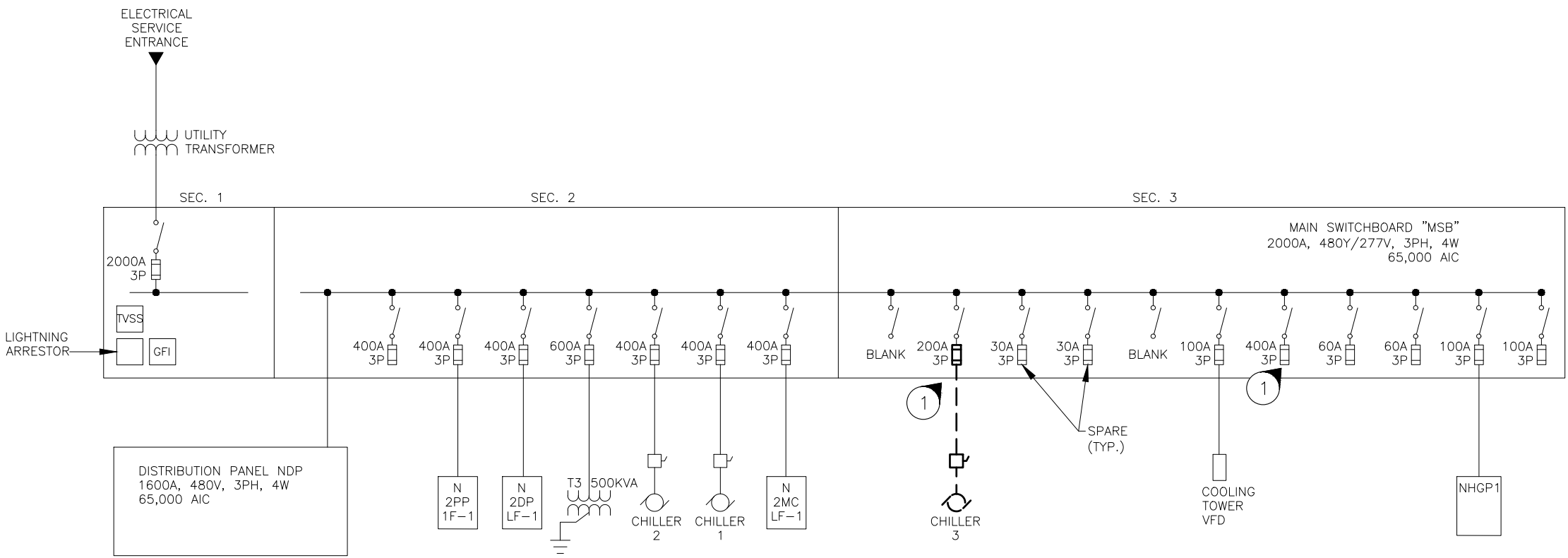
E-501

25 OF 26 SHEETS
10/24/2025

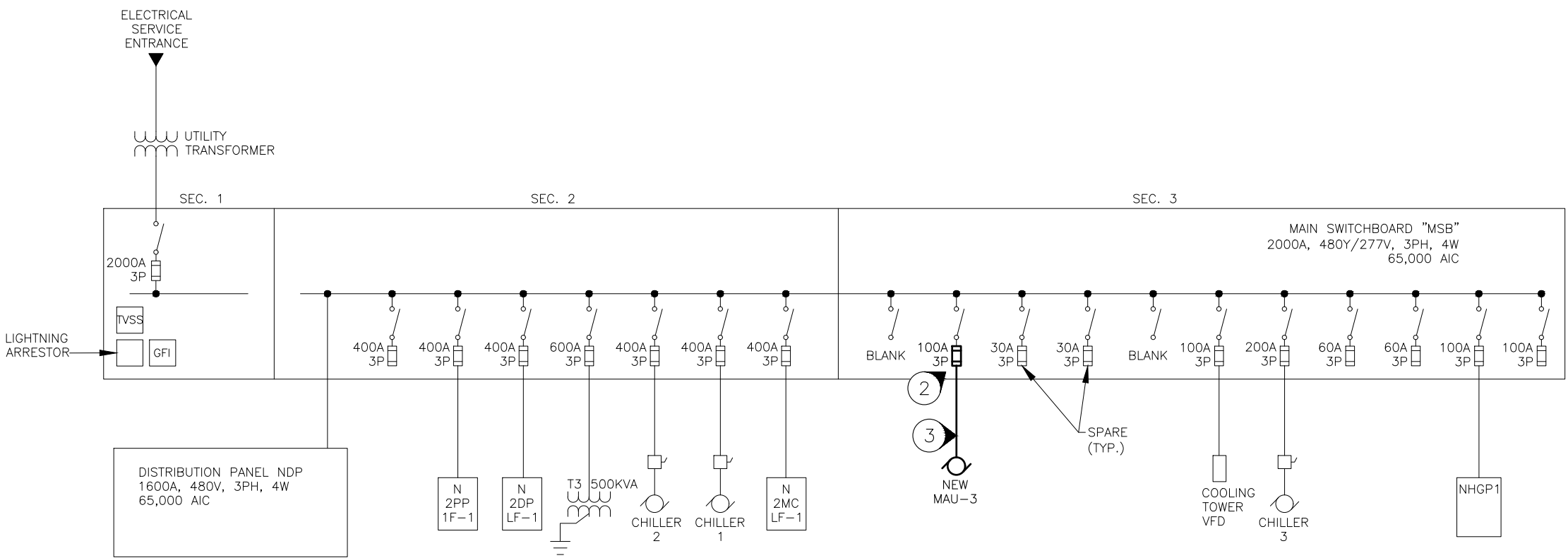
CONSTRUCTION NOTES

INDICATES KEYED NOTES

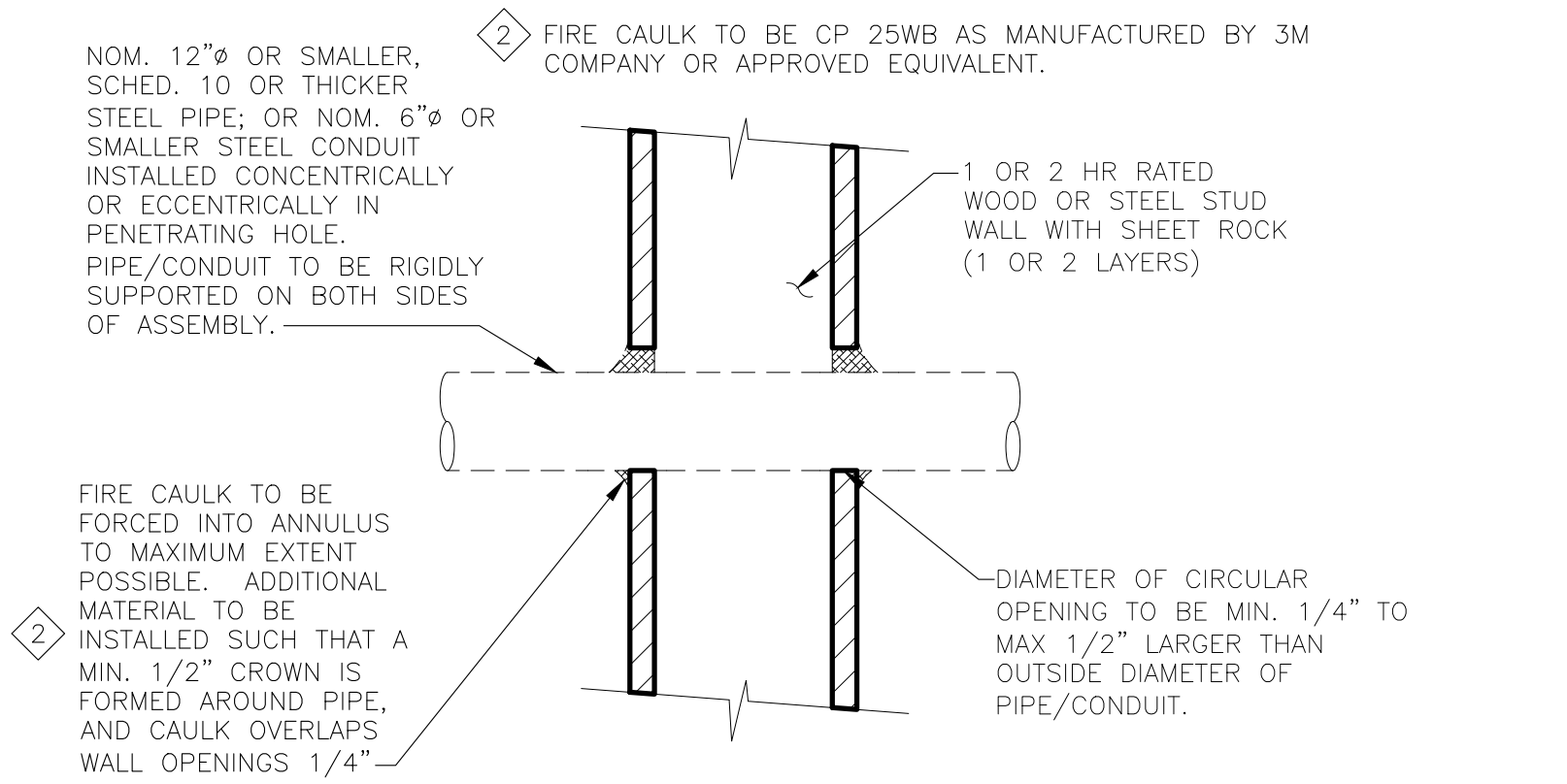
- ELC TO RELOCATE EXISTING 200A FUSES, CONDUIT AND WIRE FOR CHILLER #3 TO THE 400A BUCKET BELOW. SPLICE EXISTING WIRE AS NEEDED WITH BARREL SPLICES TO EXTEND TO NEW BUCKET. REMOVE EXISTING 400A FUSES AND RETURN TO STATE MAINTENANCE DEPARTMENT. MOVE EXISTING 200A FUSES FROM ORIGINAL LOCATION TO THE 400A BUCKET FOR THE 200A CHILLER #3.
- SUPPLY AND INSTALL (3) NEW 100A TYPE LPJ FUSES FOR NEW MAU-3.
- SUPPLY AND INSTALL (3)-1/0 CU THWN AND (1)-#6 CU GROUND IN 2" CONDUIT TO NEW MAU-3.
- COORDINATE ALL WORK WITH STATE MAINTENANCE STAFF AND WITH MECHANICAL CONTRACTOR.



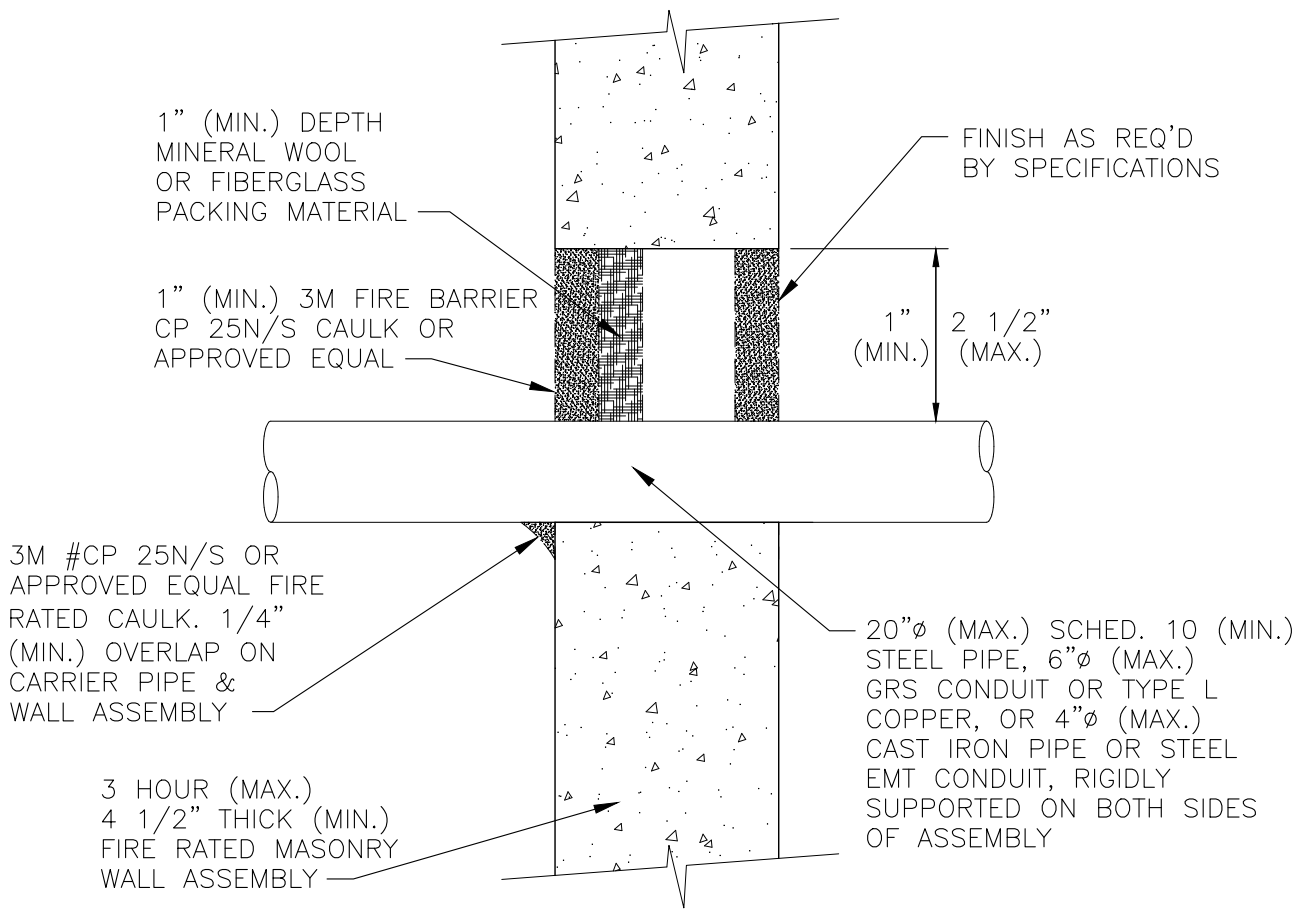
1 PARTIAL EXISTING ELECTRICAL RISER DIAGRAM
NO SCALE



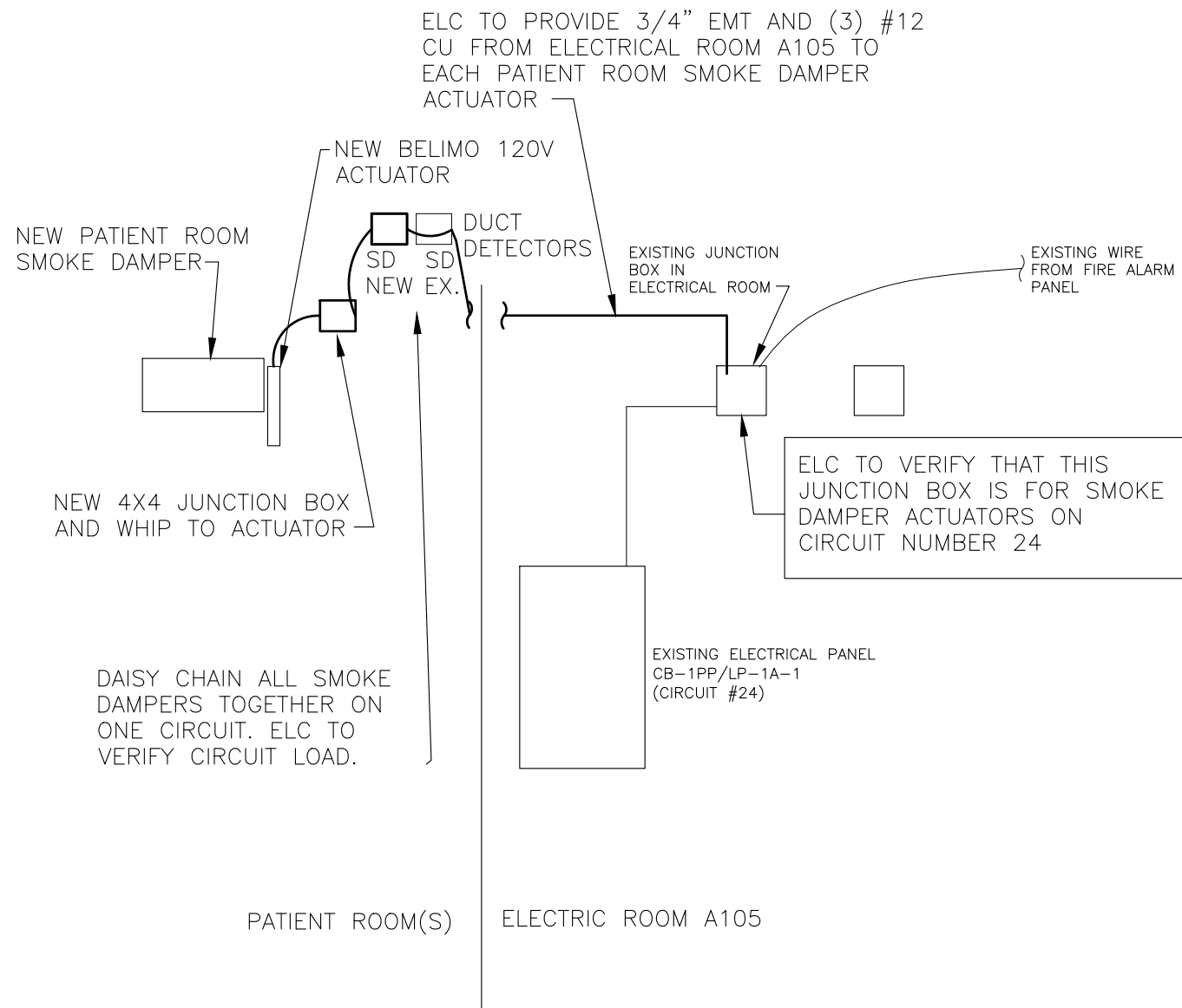
2 PARTIAL NEW ELECTRICAL RISER DIAGRAM
NO SCALE



3 UNINSULATED CONDUIT THRU 1-2 HR FIRE RATED GYPSUM WALL ASSEMBLY DETAIL
U.L. SYSTEM #W-L-1085 NO SCALE



4 CONDUIT THROUGH FIRE RATED MASONRY WALL DETAIL
U.L. SYSTEM #C-AJ -1001 NO SCALE



5 PATIENT ROOM SMOKE DAMPER CONNECTION DETAIL
NO SCALE

NOTES

- 1 ALL NEW OR REWORKED ELECTRICAL PANELS ARE TO HAVE NEW PANEL SCHEDULES. EACH SCHEDULE SHALL BE TYPED OUT AND PLACED IN PANEL WITH PROTECTIVE SLEEVE.
- 2 ONLY THE PANELS THAT WILL BE CHANGING ARE SHOWN ON THIS SHEET.

EXISTING PANELS WITH EXISTING LOADS

PANEL DESIGNATION: CB-1PP-LP-1A-1															
VOLTAGE: 208V 3PH 4WIRE				PANEL LOCATION: A WING ELECTRICAL ROOM A105				TOTAL VOLTAMPS THIS PANEL				0			
MANS: 225 A _CB X MLO				MOUNTING: _FLUSH X SURFACE				PANEL SPACES: 42				TOTAL CONNECTED LOAD (AMPS)		0	
CIRCUIT DESIGNATION		WIRE	TRIP	CONNECTED LOAD			CKT. NO.	CONNECTED LOAD			TRIP	WIRE	CIRCUIT DESIGNATION		
RECS RMA111		20A/1P		A	B	C	1 2	A	B	C	20A/1P		RECS RM A112		
RECS RMA115		20A/1P					3 4				20A/1P		RECS RM A116		
RECS RMA117		20A/1P					5 6				20A/1P		RECS RM A118		
RECS RMA120		20A/1P					7 8				20A/1P		RECS RM A121		
RECS RMA122		20A/1P					9 10				20A/1P		RECS RM A123		
RECS RMA124		20A/1P					11 12				20A/1P		RECS RM A125		
RECS RMA130		20A/1P					13 14				20A/1P		RECS RM A131		
RECS RMA106		20A/1P					15 16				20A/1P		RECS RM A107		
RECS RMA108		20A/1P					17 18				20A/1P		FCU A BUILD SE		
HEAD WALL LTS A WING SE		20A/1P					19 20				20A/1P		RECS RM A165		
FCU A BUILD SE		20A/1P					21 22				20A/1P		TEMP CONTROL PANEL #4		
AHU #4		90A/3P					23 24				20A/1P		F/S DAMPERS		
							25 26				20A/1P		FREEZE PUMP		
							27 28				20A/1P		FAAP		
DOOR POWER SUPPLIES		20A/1P					29 30				20A/1P		UNIT HEATER RM A169		
FACP		20A/1P					31 32				20A/1P		DOOR MONITORING CNTRL PANEL		
BLANK							33 34						BLANK		
BLANK							35 36						BLANK		
BLANK							37 38						BLANK		
BLANK							39 40						BLANK		
BLANK							41 42						BLANK		
				0				0					PHASE A 0		
					0				0				PHASE B 0		
						0				0			PHASE C 0		

EXISTING PANELS WITH NEW LOADS SHOWN BOLD

PANEL DESIGNATION: CB-1PP-LP-1A-1															
VOLTAGE: 208V 3PH 4WIRE				PANEL LOCATION: A WING ELECTRICAL ROOM A105				TOTAL VOLTAMPS THIS PANEL				4810			
MANS: 225 A _CB X MLO				MOUNTING: _FLUSH X SURFACE				PANEL SPACES: 42				TOTAL CONNECTED LOAD (AMPS)		13	
CIRCUIT DESIGNATION		WIRE	TRIP	CONNECTED LOAD			CKT. NO.	CONNECTED LOAD			TRIP	WIRE	CIRCUIT DESIGNATION		
RECS RMA111		20A/1P		A	B	C	1 2	A	B	C	20A/1P		RECS RMA112		
RECS RMA115		20A/1P					3 4				20A/1P		RECS RMA116		
RECS RMA117		20A/1P					5 6				20A/1P		RECS RMA118		
RECS RMA120		20A/1P					7 8				20A/1P		RECS RMA121		
RECS RMA122		20A/1P					9 10				20A/1P		RECS RMA123		
RECS RMA124		20A/1P					11 12				20A/1P		RECS RMA125		
RECS RMA130		20A/1P					13 14				20A/1P		RECS RMA131		
RECS RMA106		20A/1P					15 16				20A/1P		RECS RMA107		
RECS RMA108		20A/1P					17 18				20A/1P		FCU A BUILD SE		
HEAD WALL LTS A WING SE		20A/1P					19 20				20A/1P		RECS RMA165		
FCU A BUILD SE		20A/1P					21 22				20A/1P		TEMP CONTROL PANEL #4		
AHU #4		90A/3P					23 24				20A/1P	#10	F/S DAMPERS-ALL NEW SD		
							25 26				20A/1P		FREEZE PUMP		
							27 28				20A/1P		FAAP		
DOOR POWER SUPPLIES		20A/1P					29 30				20A/1P		UNIT HEATER RMA169		
FACP		20A/1P					31 32				20A/1P		DOOR MONITORING CNTRL PANEL		
FAN FILTER UNITS (FFU)		#10	20A/2P			1295	33 34			888	20A/1P	#10	FCU A BLDG EAST		
WEST		#10					1295 35 36			1332	20A/1P	#10	FCU A BLDG SE		
BLANK							37 38						BLANK		
BLANK							39 40						BLANK		
BLANK							41 42						BLANK		
				0				0					PHASE A 0		
						1295			888				PHASE B 2183		
							1295			1332			PHASE C 2827		

PANEL DESIGNATION: CB-1PP-LP-1A-2															
VOLTAGE: 208V 3PH 4WIRE				PANEL LOCATION: A WING ELECTRICAL ROOM A161				TOTAL VOLTAMPS THIS PANEL				0			
MANS: 225 A _CB X MLO				MOUNTING: _FLUSH X SURFACE				PANEL SPACES: 42				TOTAL CONNECTED LOAD (AMPS)		0	
CIRCUIT DESIGNATION		WIRE	TRIP	CONNECTED LOAD			CKT. NO.	CONNECTED LOAD			TRIP	WIRE	CIRCUIT DESIGNATION		
RECS RM A153		20A/1P		A	B	C	1 2	A	B	C	20A/1P		RECS RM A152		
RECS RM A151		20A/1P					3 4				20A/1P		RECS RM A150		
RECS RM A149		20A/1P					5 6				20A/1P		RECS RM A148		
RECS RM A144		20A/1P					7 8				20A/1P		RECS RM A143		
RECS RM A142		20A/1P					9 10				20A/1P		RECS RM A141		
RECS RM A140		20A/1P					11 12				20A/1P		RECS RM A139		
RECS RM A136		20A/1P					13 14				20A/1P		RECS RM A135		
RECS RM A160		20A/1P					15 16				20A/1P		RECS RM A159		
RECS RM A158		20A/1P					17 18				20A/1P		FCU A WING NW		
HEAD WALL LTS A WING NW		20A/1P					19 20				20A/1P		RECS RM A103		
FCU A WING NW		20A/1P					21 22				20A/1P		UNKNOWN		
F/S DAMPERS		20A/1P					23 24				20A/1P		NURSE CALL		
DOOR POWER SUPPLIES		20A/1P					25 26								
RECS RM A168A		20A/1P					27 28				30A/3P		RETURN AIR FAN		
UNKNOWN		20A/1P					29 30								
UNKNOWN		20A/1P					31 32				20A/1P		FACP		
UNKNOWN		20A/1P					33 34						BLANK		
BLANK							35 36						BLANK		
BLANK							37 38						BLANK		
BLANK							39 40						BLANK		
BLANK							41 42						BLANK		
				0				0					PHASE A	0	
					0				0				PHASE B	0	
						0				0			PHASE C	0	

PANEL DESIGNATION: CB-1PP-LP-1A-2													
VOLTAGE: 208V 3PH 4WIRE				PANEL LOCATION: A WING ELECTRICAL ROOM A161				TOTAL VOLTAMPS THIS PANEL				8048	
MANS: 225 A CB X MLO				MOUNTING: FLUSH X SURFACE				PANEL SPACES: 42				TOTAL CONNECTED LOAD (AMPS): 22	
CIRCUIT DESIGNATION		WIRE	TRIP	CONNECTED LOAD			CKT. NO.	CONNECTED LOAD			TRIP	WIRE	CIRCUIT DESIGNATION
				A	B	C		A	B	C			
RECS RMA153			20A/1P				1 2				20A/1P		RECS RMA152
RECS RMA151			20A/1P				3 4				20A/1P		RECS RMA150
RECS RMA149			20A/1P				5 6				20A/1P		RECS RMA148
RECS RMA144			20A/1P				7 8				20A/1P		RECS RMA143
RECS RMA142			20A/1P				9 10				20A/1P		RECS RMA141
RECS RMA140			20A/1P				11 12				20A/1P		RECS RMA139
RECS RMA136			20A/1P				13 14				20A/1P		RECS RMA135
RECS RMA160			20A/1P				15 16				20A/1P		RECS RMA159
RECS RMA158			20A/1P				17 18			1776	20A/1P	#10	(FCU) A WING-NORTH
HEAD WALL LTS A WING NW			20A/1P				19 20				20A/1P		RECS RMA103
(FCU) A WING SW		#10	20A/1P			1776	21 22				20A/1P		UNKNOWN
F/S DAMPERS			20A/1P				23 24				20A/1P		NURSE CALL
DOOR POWER SUPPLIES			20A/1P				25 26						
RECS RMA168A			20A/1P				27 28				30A/3P		RETURN AIR FAN
UNKNOWN			20A/1P				29 30						
UNKNOWN			20A/1P				31 32				20A/1P		FACP
UNKNOWN			20A/1P				33 34			1332	20A/1P	#10	(FCU) A WING-WEST
FAN FILTER UNITS (FFU)		#10	20A/2P			1138	35 36				20A/1P	#10	(FCU) A WING-WEST
NORTH		#10		1138			37 38						BLANK
BLANK							39 40						BLANK
BLANK							41 42						BLANK
				1138						0			PHASE A 1138
						1776				1332			PHASE B 3108
							1138				2664		PHASE C 3802