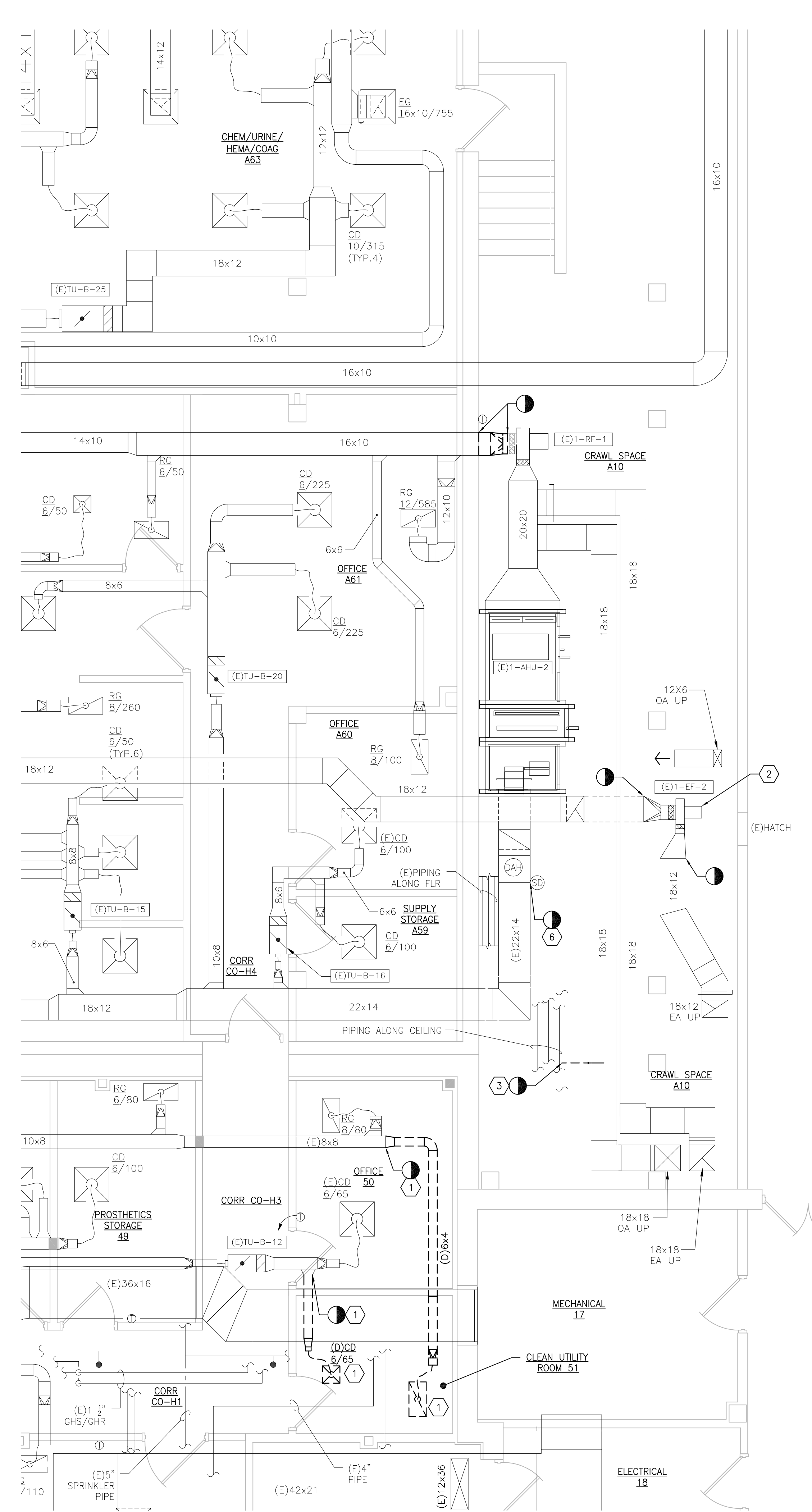


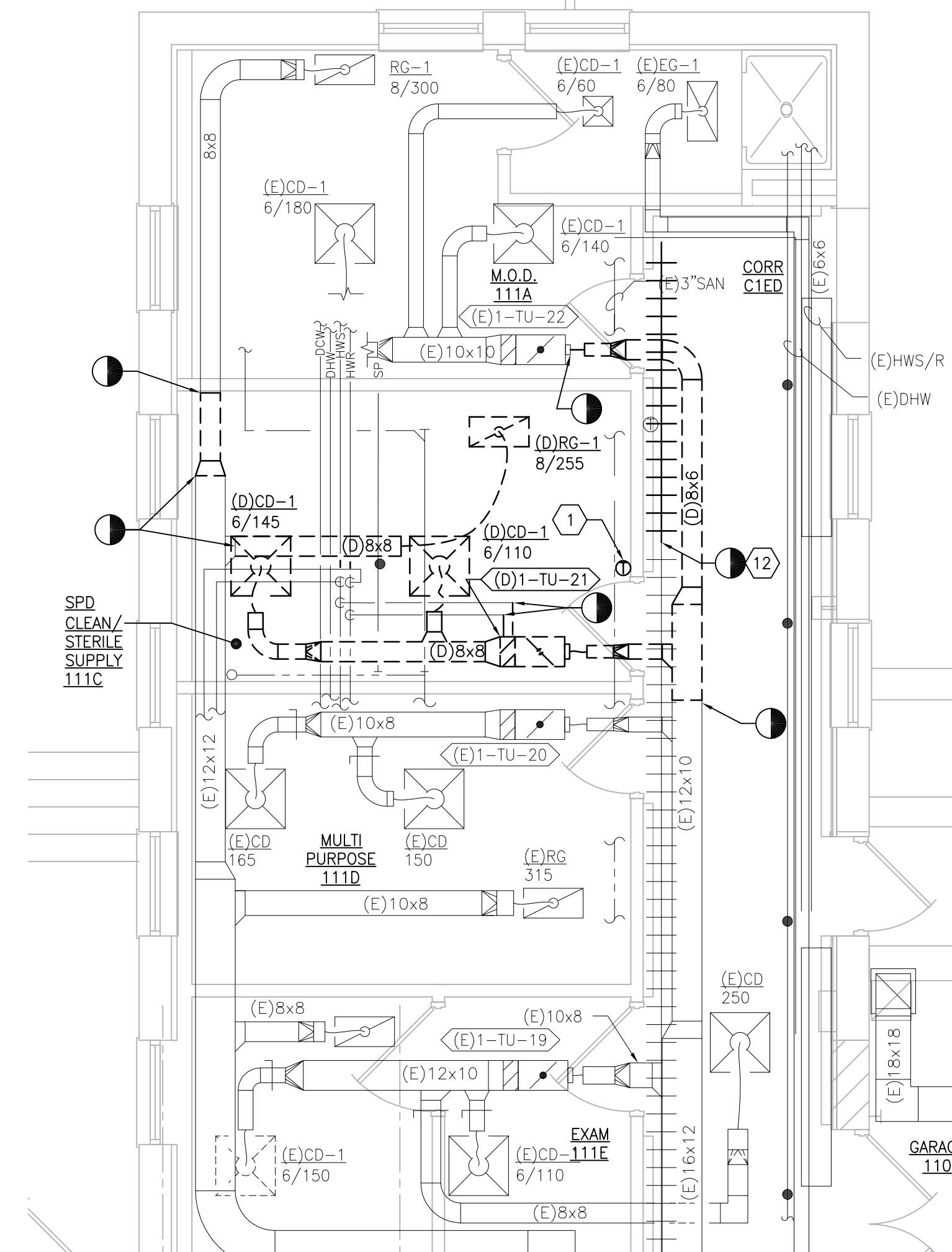
GENERAL SHEET NOTES:

1. REFERENCE SPECIFICATION 02 82 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
3. ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
4. MODIFY SPRINKLER PIPING IF REQUIRED TO INSTALL NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
5. MAINTAIN SERVICE CLEARANCE ON NEW AND EXISTING EQUIPMENT. REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUALS FOR ADDITIONAL INFORMATION.
6. ADHERE TO ALL ICRA REQUIREMENTS LISTED ON G1501 AND IN SPECIFICATIONS. THE ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. PROTECT ALL EQUIPMENT IN THE ROOM FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
7. AVOID ALL CEILING OR WALL MOUNTED DEVICES (I.E. SIGNAGE, LIGHT FIXTURE, NURSE CALL) WHEN LOCATING ICRA BARRIERS. WHEN EXISTING DEVICE(S) CANNOT BE AVOIDED, TEMPORARILY RELOCATE THE DEVICE(S) AND REINSTALL AFTER WORK IS COMPLETED AS APPROVED BY THE COR.
8. REMOVE AND REINSTALL EXISTING CEILING AND LIGHTING SYSTEMS AFFECTED BY INDICATED WORK. REPLACE ANY CEILING TILES DAMAGED BY WORK PERFORMED. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION.
9. TAKE PREDEMOLITION READINGS OF ALL ROOM AIR INLETS AND OUTLETS OF ANY SYSTEM THE WILL BE MODIFIED AND SUBMIT TO THE VA AND ENGINEER FOR RECORD PRIOR TO STARTING ANY NEW WORK. BALANCE THE NEW SYSTEMS AND REBALANCE THE EXISTING ASSOCIATED AHU SYSTEM TO THE NEW AIR QUANTITIES. AFTER THE NEW WORK IS COMPLETE REBALANCE THE EXISTING SYSTEM, AS REQUIRED, AND MEASURE ALL ROOM AIR INLETS AND OUTLETS TO VERIFY THAT THE PREDEMOLITION AIRFLOWS HAVE BEEN MAINTAINED. SUBMIT FOR APPROVAL. REFERENCE SPECIFICATIONS FOR TESTING AND BALANCING REQUIREMENTS.
10. ALL DUCTWORK PENETRATIONS SHALL BE SAW CUT. REFERENCE STRUCTURAL DEMOLITION DETAILS FOR ADDITIONAL INFORMATION.
11. CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

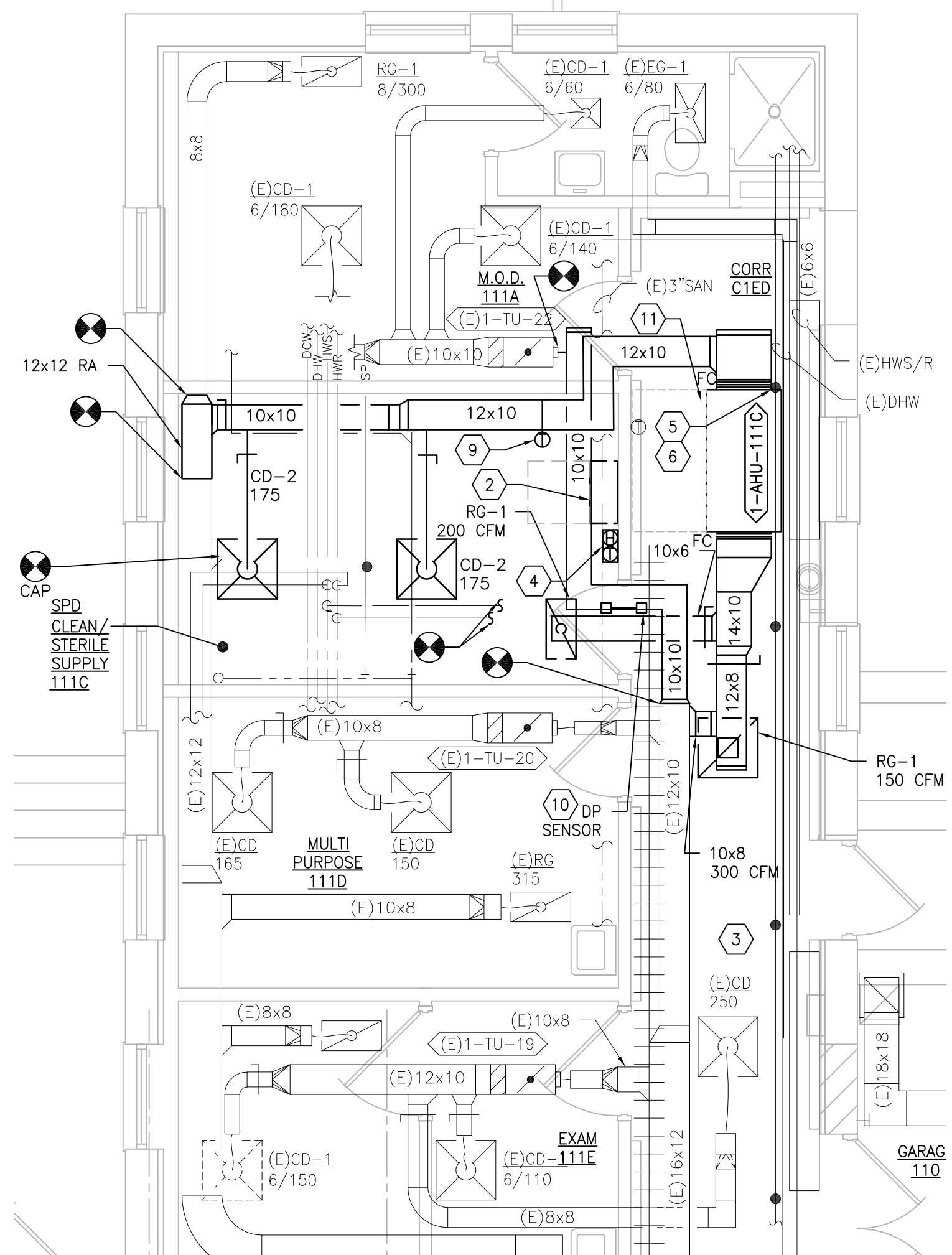
KEYNOTES:

1. DEMOLISH DUCTWORK, HANGERS AND ALL APPURTENANCES (TYPICAL). PATCH EXISTING WALL OPENINGS WITH MATCHING MATERIALS AS REQUIRED OR REUSE EXISTING WALL OPENING AS MUCH AS POSSIBLE.
2. REMOVE AND REINSTALL EXISTING EXHAUST FAN 1-EF-2 AS REQUIRED TO ALLOW INSTALL OF (N)1-AHU-51. RECORD EXHAUST AIRFLOW READINGS AND SUBMIT TO ENGINEER PRIOR TO REMOVING 1-EF-2. REINSTALL 1-EF-2. DUCTWORK, RESEAL ALL EXHAUST DUCTWORK AND BALANCE TO ITS ORIGINAL CFM. COORDINATE SHUT DOWN WITH THE COR. WORK SHALL BE PERFORMED AFTER HOURS IN A SINGLE SHUT DOWN.
3. RELOCATE (E)SPRINKLER PIPE, HEADS, FITTINGS, ETC. AS REQUIRED TO ALLOW INSTALLATION OF NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
4. MOUNT FACTORY PREWIRED AHU CONTROL PANEL ON THE WALL. COORDINATE WITH THE COR AND THE EXISTING ROOM CONDITIONS FOR FINAL LOCATION. PROVIDE NEW INTERCONNECTING LENGTH WIRING AND CONDUIT AS REQUIRED. EXTEND AND INTEGRATE INTO BAS LOCAL CONTROLLER LABEL NAE-1A IN ROOM A05A MECHANICAL.
5. TEMPERATURE AND HUMIDITY SENSOR FURNISHED BY AHU MANUFACTURER.
6. RELOCATE EXISTING SMOKE DETECTOR AND CONDUITS. COORDINATE WITH ELECTRICAL CONTRACTOR. RELOCATE DETECTOR IN DUCT RISE BETWEEN ELBOWS.
7. REFERENCE 2/M-504 FOR ADDITIONAL AHU INFORMATION. PROVIDE 4" HOUSEKEEPING PAD, 8" SUPPLEMENTAL STEEL NOT REQUIRED FOR THIS INSTALLATION.
8. INSTALL DIFFERENTIAL PRESSURE SENSOR THROUGH WALL CENTERED ABOVE DOOR. INSTALL ROOM PRESSURE MONITOR OUTSIDE ROOM NEAR ROOM NAME AND NUMBER LABEL.
9. DISCHARGE AIR TEMPERATURE SENSOR FURNISHED BY AHU MANUFACTURER.
10. FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH NEW WORK PARTICULARLY THE NEW WALL PENETRATION.

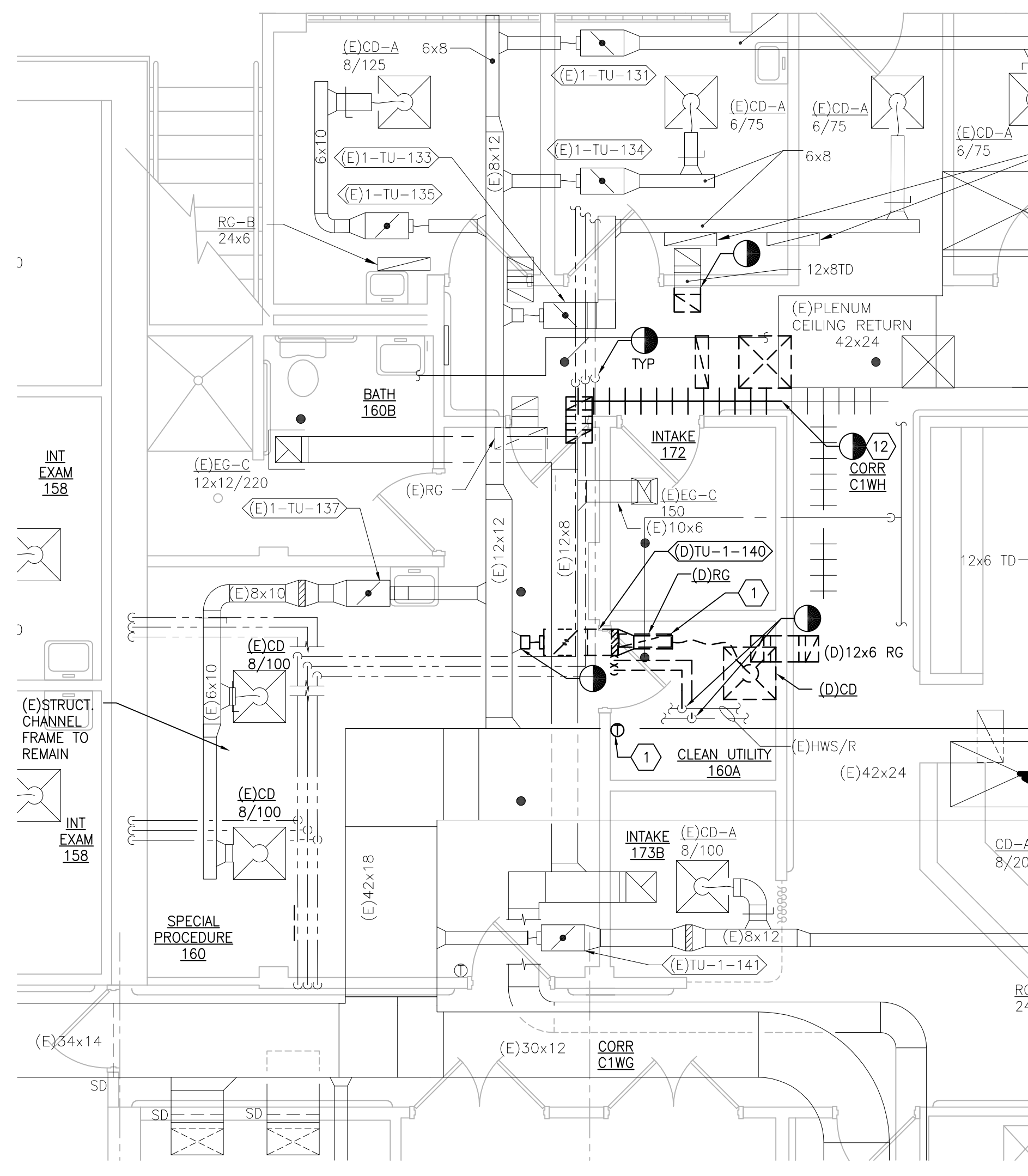




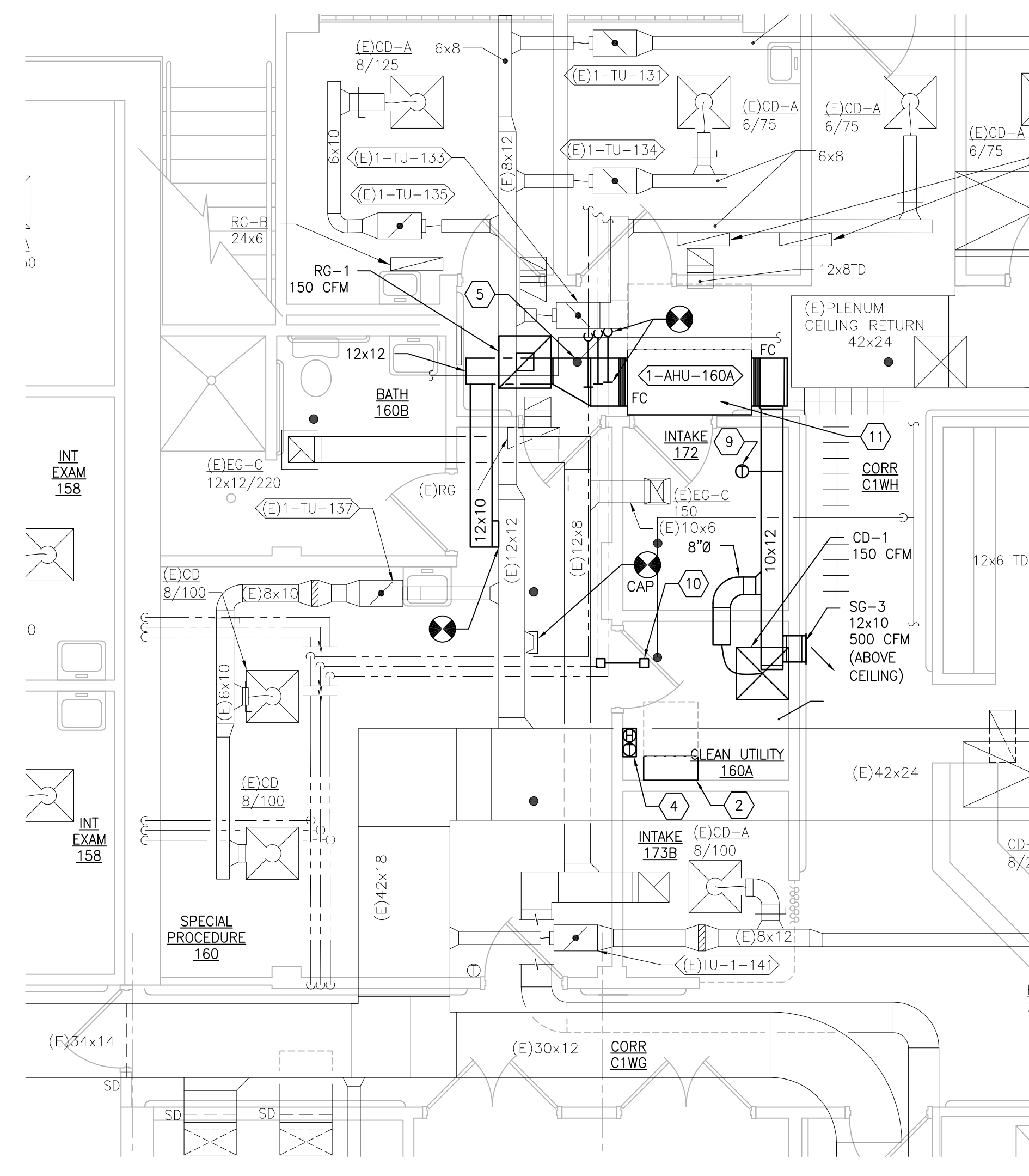
1 BUILDING 1 FIRST FLOOR ROOM 111C - DEMOLITION
SCALE: 1/4" = 1'-0"



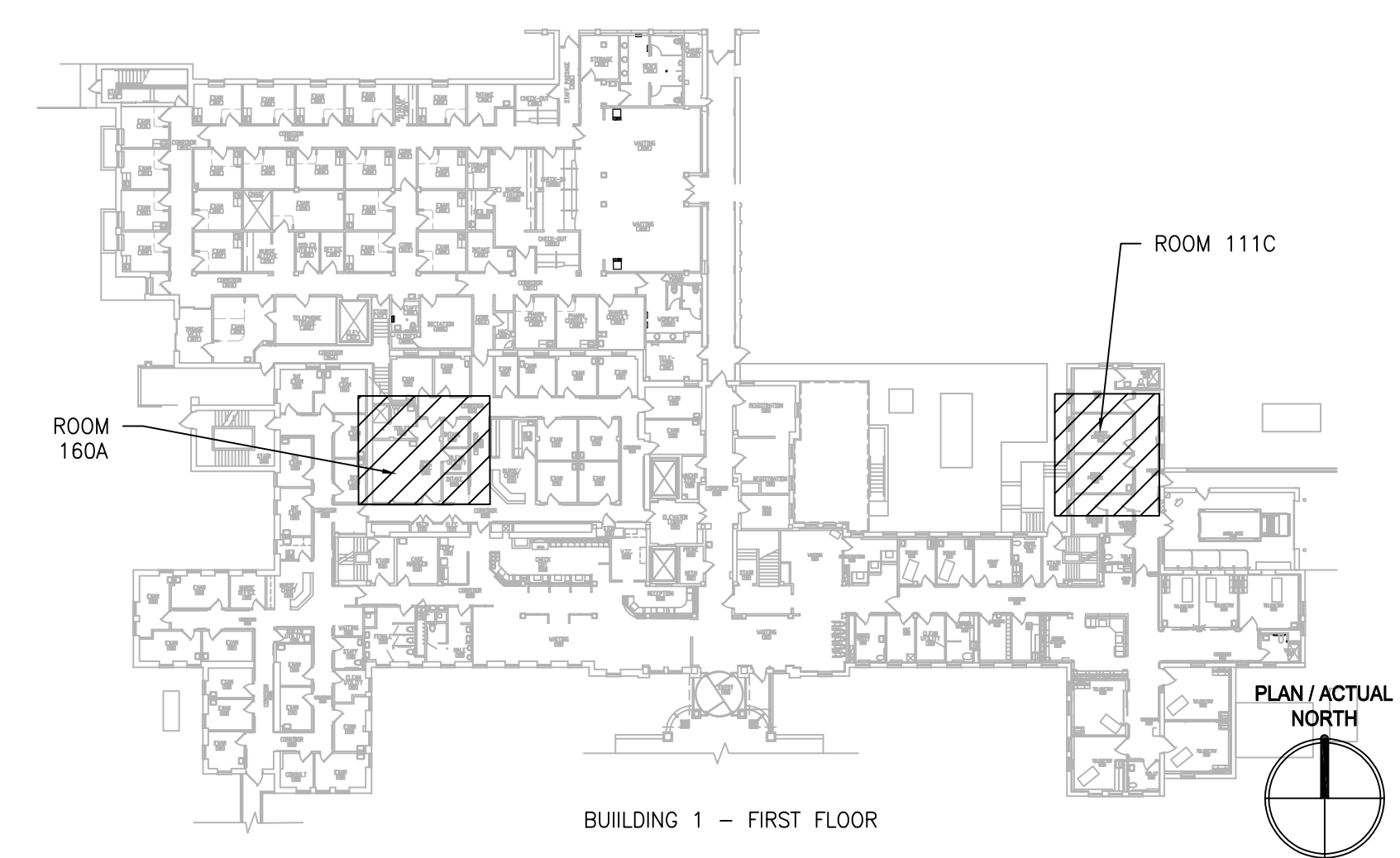
2 BUILDING 1 FIRST FLOOR ROOM 111C - NEW WORK
SCALE: 1/4" = 1'-0"



3 BUILDING 1 FIRST FLOOR ROOM 160A - DEMOLITION
SCALE: 1/4" = 1'-0"



4 BUILDING 1 FIRST FLOOR ROOM 160A - NEW WORK
SCALE: 1/4" = 1'-0"



KEYPLAN
SCALE: NTS

GENERAL SHEET NOTES:

1. REFERENCE SPECIFICATION 02 82 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
3. ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
4. MODIFY SPRINKLER PIPING IF REQUIRED TO INSTALL NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
5. MAINTAIN SERVICE CLEARANCE ON NEW AND EXISTING EQUIPMENT. REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUALS FOR ADDITIONAL INFORMATION.
6. ADHERE TO ALL ICRA REQUIREMENTS LISTED ARCHITECTURAL SET. THE ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. PROTECT ALL EQUIPMENT IN THE ROOM FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
7. AVOID ALL CEILING OR WALL MOUNTED DEVICES (I.E. SIGNAGE, LIGHT FIXTURE, NURSE CALL) WHEN LOCATING ICRA BARRIERS. WHEN EXISTING DEVICE(S) CANNOT BE AVOIDED, TEMPORARILY RELOCATE THE DEVICE(S) AND REINSTALL AFTER WORK IS COMPLETED AS APPROVED BY THE COR.
8. REMOVE AND REPLACE EXISTING CEILINGS REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
9. TAKE PREDEMOLITION READINGS OF ALL ROOM AIR INLETS AND OUTLETS OF ANY SYSTEM THE WILL BE MODIFIED AND SUBMIT TO THE VA AND ENGINEER FOR RECORD PRIOR TO STARTING ANY NEW WORK. BALANCE THE NEW SYSTEMS AND REBALANCE THE EXISTING ASSOCIATED AHU SYSTEM TO THE NEW AIR QUANTITIES. AFTER THE NEW WORK IS COMPLETE REBALANCE THE EXISTING SYSTEM, AS REQUIRED, AND MEASURE ALL ROOM AIR INLETS AND OUTLETS TO VERIFY THAT THE PREDEMOLITION AIRFLOWS HAVE BEEN MAINTAINED. SUBMIT FOR APPROVAL. REFERENCE SPECIFICATIONS FOR TESTING AND BALANCING REQUIREMENTS.
10. ALL DUCTWORK PENETRATIONS SHALL BE SAW CUT. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
11. CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

SHEET KEYNOTES:

1. DEMOLISH DUCTWORK, HANGERS AND ALL APPURTENANCES TYPICAL. PATCH EXISTING WALL OPENING WITH MATCHING MATERIALS AS REQUIRED OR REUSE EXISTING WALL OPENING AS MUCH AS POSSIBLE.
2. MOUNT FACTORY PRE-WIRED AHU CONTROL PANEL ON THE WALL. COORDINATE WITH THE COR AND THE EXISTING ROOM CONDITIONS FOR FINAL LOCATION. PROVIDE NEW INTERCONNECTING WIRING AND CONDUIT AS REQUIRED IF LENGTH OF FACTORY WIRING IS NOT SUFFICIENT. EXTEND AND INTEGRATE INTO BAS LOCAL CONTROLLER LABEL WAE-1A IN BASEMENT ROOM A05A MECHANICAL.
3. LOWER CEILING FROM 7'-11" TO 7'-7" AFF.
4. TEMPERATURE AND HUMIDITY SENSOR FURNISHED BY AHU MANUFACTURER.
5. RELOCATE EXISTING SEMI-RECESSED SPRINKLER HEAD AND ASSOCIATED PIPING AS REQUIRED FOR NEW EQUIPMENT.
6. REROUTE PORTION OF EXISTING 1-1/2" SPRINKLER MAIN TIGHT TO UNDERSIDE OF DECK TO ALLOW INSTALLATION OF NEW EQUIPMENT. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
7. MEDICAL GAS PIPING TO BE REROUTED. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS. COORDINATE SHUT DOWN WITH COR CERTIFY PIPING PRIOR TO PLACING IN SERVICE.
8. DEMOLISH (E)PIPING AND ALL APPURTENANCES. RE-ROUTE PIPING AS REQUIRED TO ALLOW INSTALLATION OF NEW EQUIPMENT.
9. DISCHARGE AIR TEMPERATURE SENSOR FURNISHED BY AHU MANUFACTURER.
10. PROVIDE DIFFERENTIAL PRESSURE SENSOR INSTALLED THROUGH WALL AND CENTERED ABOVE DOOR. PROVIDE ROOM PRESSURE MONITOR INSTALLED OUTSIDE ROOM NEAR ROOM NAME AND NUMBER LABEL.
11. RELOCATE EXISTING FIRE ALARM JUNCTION BOX, ELECTRICAL JUNCTION BOX, AND CEILING MOUNTED SPEAKERS AS REQUIRED FOR NEW EQUIPMENT. MAINTAIN REQUIRED CLEARANCES.
12. REMOVE EXISTING PORTION OF CABLE TRAY ABOVE CEILING. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

MEP Engineers + Architects
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ENGINEER OF RECORD

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M.E.P. & Structural Engineering
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FAX: (856)439-9000
MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DEMOLITION / NEW WORK PLAN FIRST FLOOR - BUILDING 1

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
MR

Drawn
PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 49, 50, 51, 111, 116

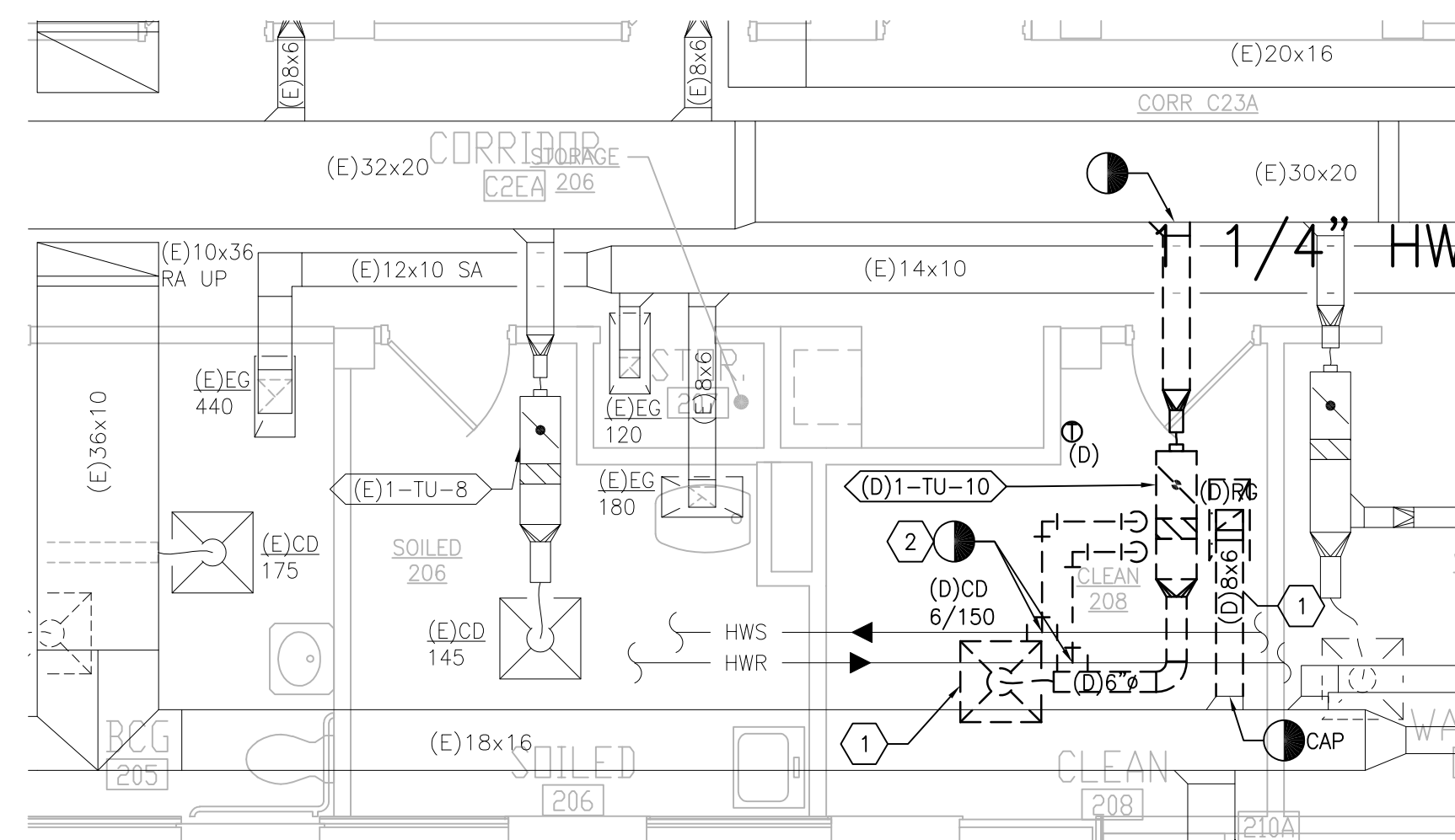
Drawing Number
1-MH111

GENERAL SHEET NOTES:

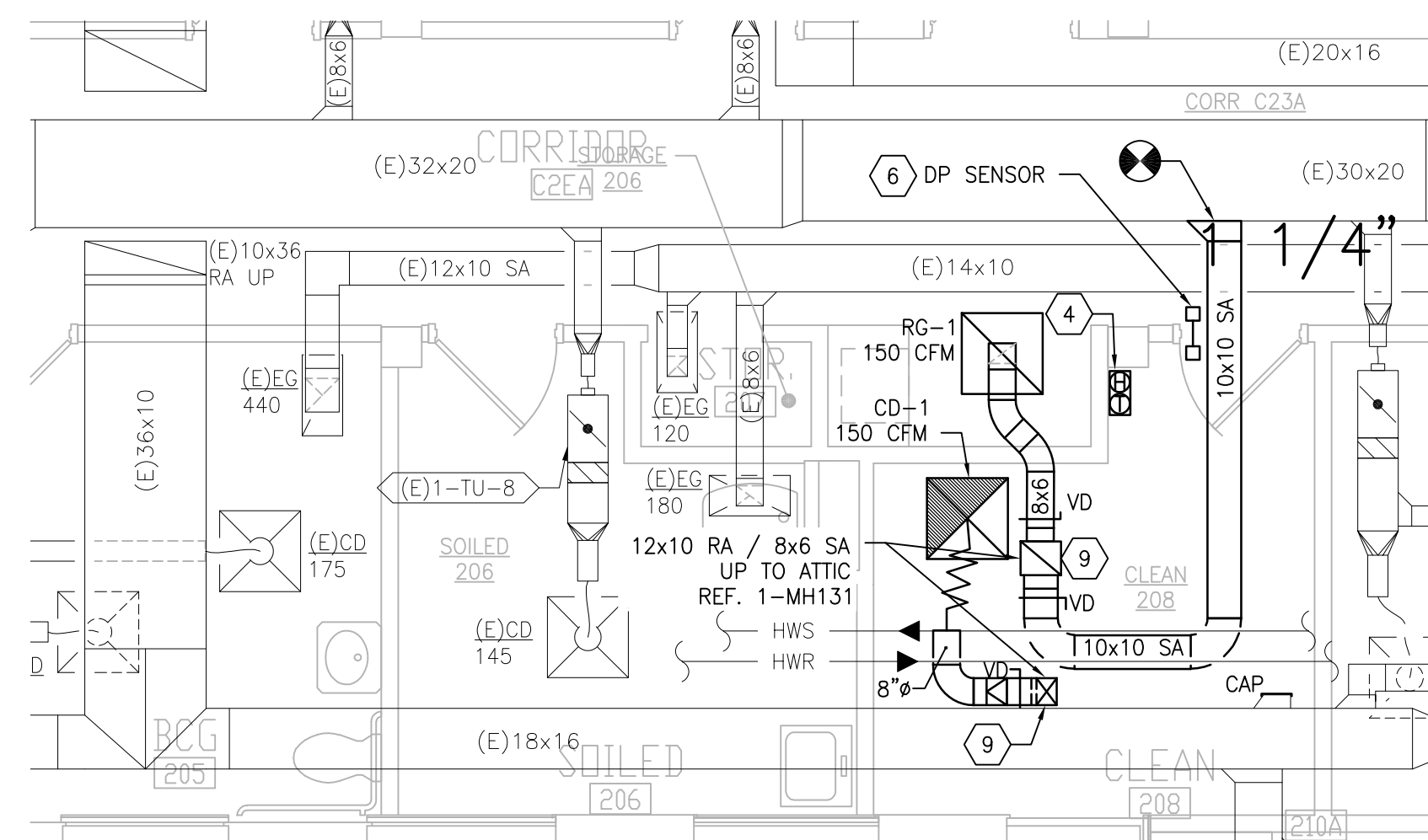
- REFERENCE SPECIFICATION 02 82 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
- COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
- ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
- MODIFY SPRINKLER PIPING IF REQUIRED TO INSTALL NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
- MAINTAIN SERVICE CLEARANCE ON NEW AND EXISTING EQUIPMENT. REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUALS FOR ADDITIONAL INFORMATION.
- ADHERE TO ALL ICRA REQUIREMENTS LISTED IN THE ARCHITECTURAL SET. THE ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. PROTECT ALL EQUIPMENT IN THE ROOM FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
- AVOID ALL CEILING OR WALL MOUNTED DEVICES (I.E. SIGNAGE, LIGHT FIXTURE, NURSE CALL) WHEN LOCATING ICRA BARRIERS. WHEN EXISTING DEVICE(S) CANNOT BE AVOIDED, TEMPORARILY RELOCATE THE DEVICE(S) AND REINSTALL AFTER WORK IS COMPLETED AS APPROVED BY THE COR.
- REMOVE AND REPLACE EXISTING CEILINGS REFER TO THE ARCHITECTURAL DRAWING FOR ADDITIONAL INFORMATION.
- TAKE PREDEMOLITION READINGS OF ALL ROOM AIR INLETS AND OUTLETS OF ANY SYSTEM THE WILL BE MODIFIED AND SUBMIT TO THE VA AND ENGINEER FOR RECORD PRIOR TO STARTING ANY NEW WORK. BALANCE THE NEW SYSTEMS AND REBALANCE THE EXISTING ASSOCIATED AHU SYSTEM TO THE NEW AIR QUANTITIES. AFTER THE NEW WORK IS COMPLETE REBALANCE THE EXISTING SYSTEM, AS REQUIRED, AND MEASURE ALL ROOM AIR INLETS AND OUTLETS TO VERIFY THAT THE PREDEMOLITION AIRFLOWS HAVE BEEN MAINTAINED. SUBMIT FOR APPROVAL. REFERENCE SPECIFICATIONS FOR TESTING AND BALANCING REQUIREMENTS.
- ALL DUCTWORK PENETRATIONS SHALL BE SAW CUT. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
- CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

SHEET KEYNOTES:

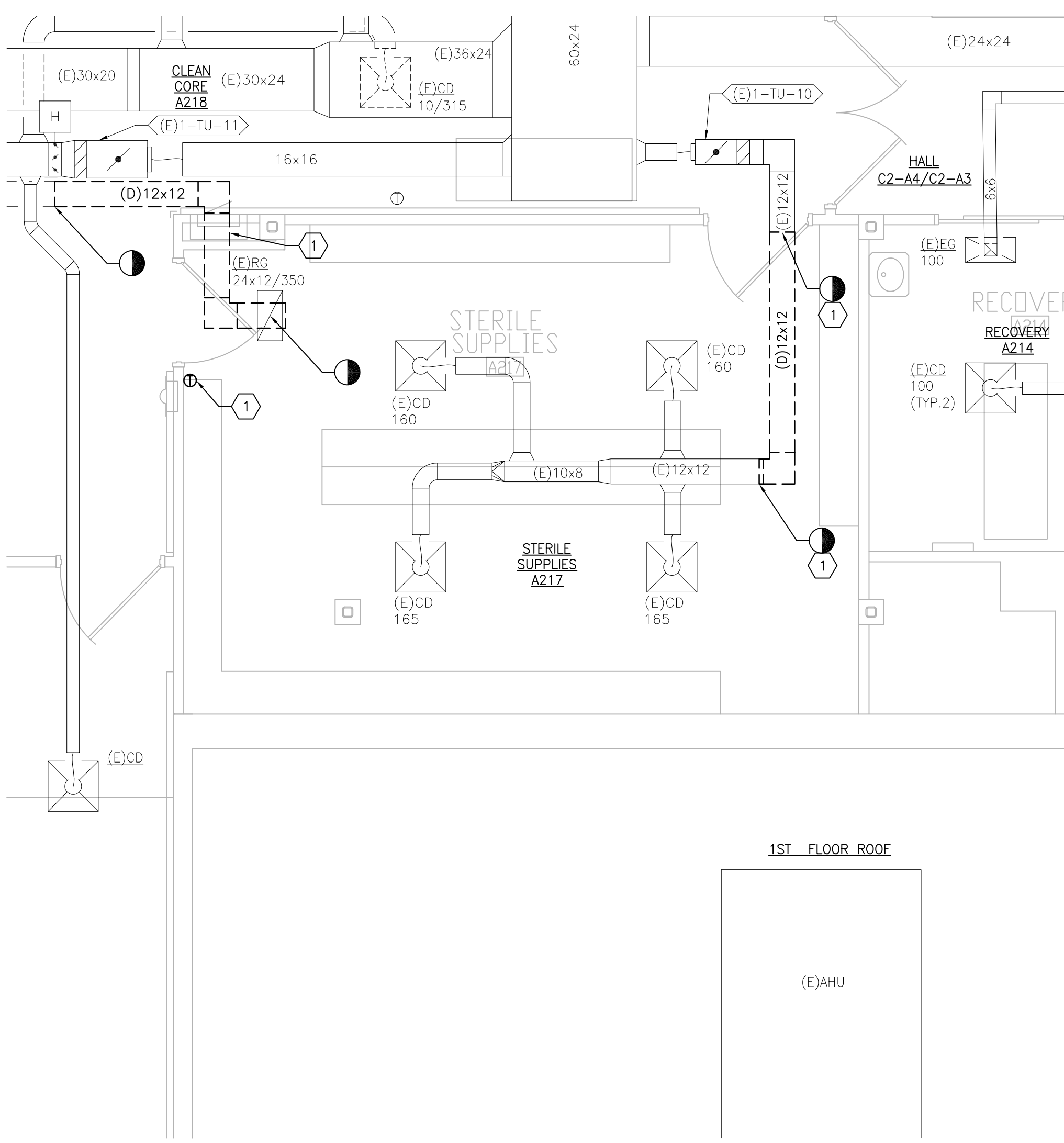
- DEMOLISH DUCTWORK, HANGERS AND ALL APPURTENANCES TYPICAL. PATCH EXISTING WALL OPENING WITH MATCHING MATERIALS AS REQUIRED OR REUSE EXISTING WALL OPENING AS MUCH AS POSSIBLE.
- DEMOLISH PIPING, HANGERS AND ALL APPURTENANCES TYPICAL. REFERENCE 1-MP121 FOR NEW WORK.
- SUPPLY AND RETURN DUCT LOCATED OUTDOORS MUST BE DOUBLE-WALL INSULATED AND MADE WEATHER TIGHT.
- TEMPERATURE AND HUMIDITY SENSOR FURNISHED BY AHU MANUFACTURER.
- PROVIDE CUSTOM INSULATED CURB TO SUPPORT AHU AND TO ALLOW SIDE DUCT CONNECTIONS THROUGH THE CURB. REFERENCE 5/M-504 FOR ADDITIONAL INFORMATION.
- PROVIDE DIFFERENTIAL PRESSURE SENSOR INSTALLED THROUGH WALL AND CENTERED ABOVE DOOR. PROVIDE ROOM PRESSURE MONITOR INSTALLED OUTSIDE ROOM NEAR ROOM NAME AND NUMBER LABEL.
- DISCHARGE AIR TEMPERATURE SENSOR FURNISHED BY AHU MANUFACTURER.
- PROVIDE AUXILIARY DIFFERENTIAL PRESSURE MONITORING PANEL INSTALLED OUTSIDE ROOM NEAR ROOM NAME AND NUMBER LABEL.
- FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH NEW WORK PARTICULARLY THE NEW FLOOR AND WALL PENETRATIONS. COORDINATE THIS WITH FLOORS ABOVE AND BELOW AND ROOF CONDITIONS.



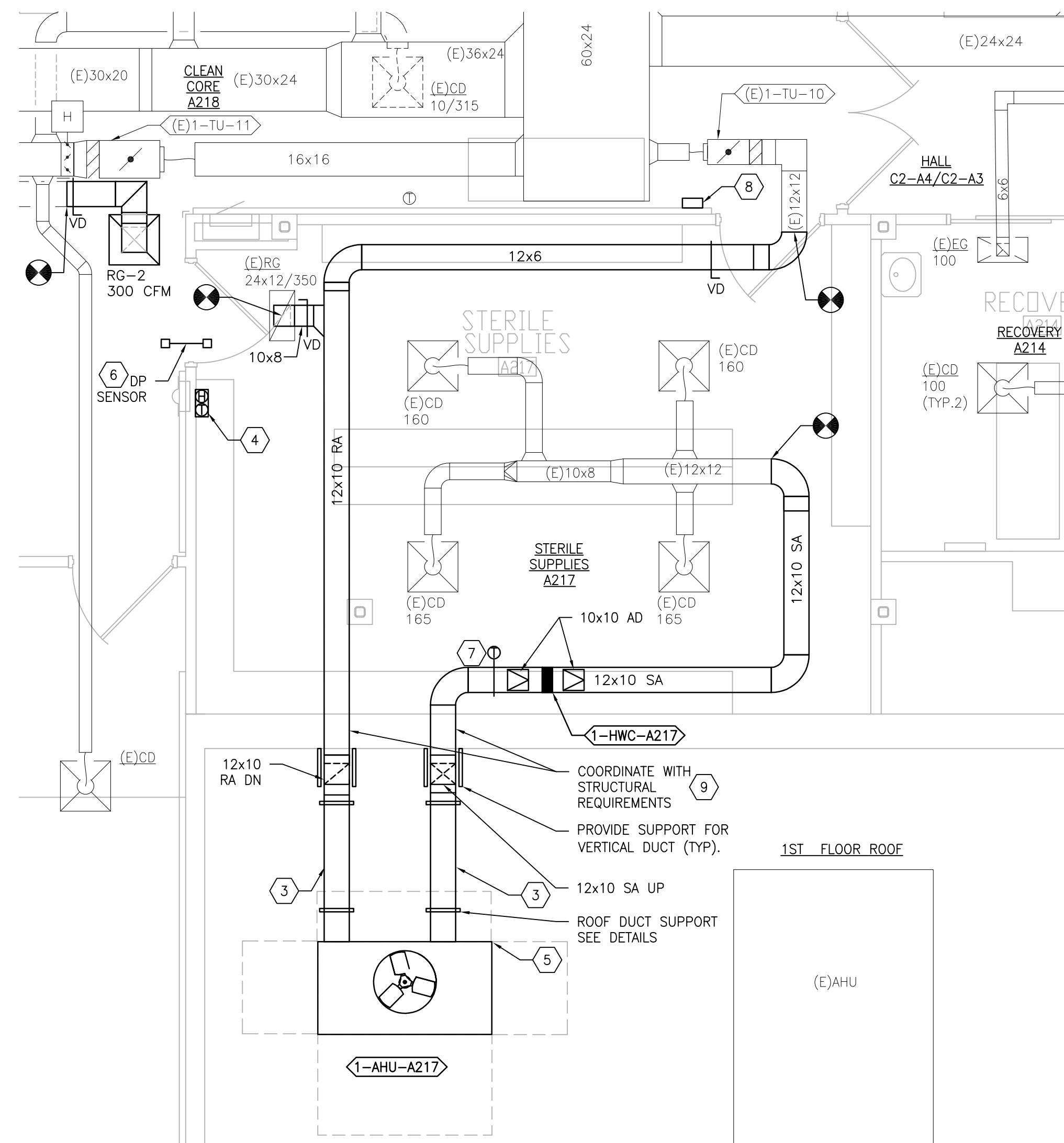
1 BUILDING 1 SECOND FLOOR ROOM 208 - DEMOLITION
SCALE: 1/4" = 1'-0"



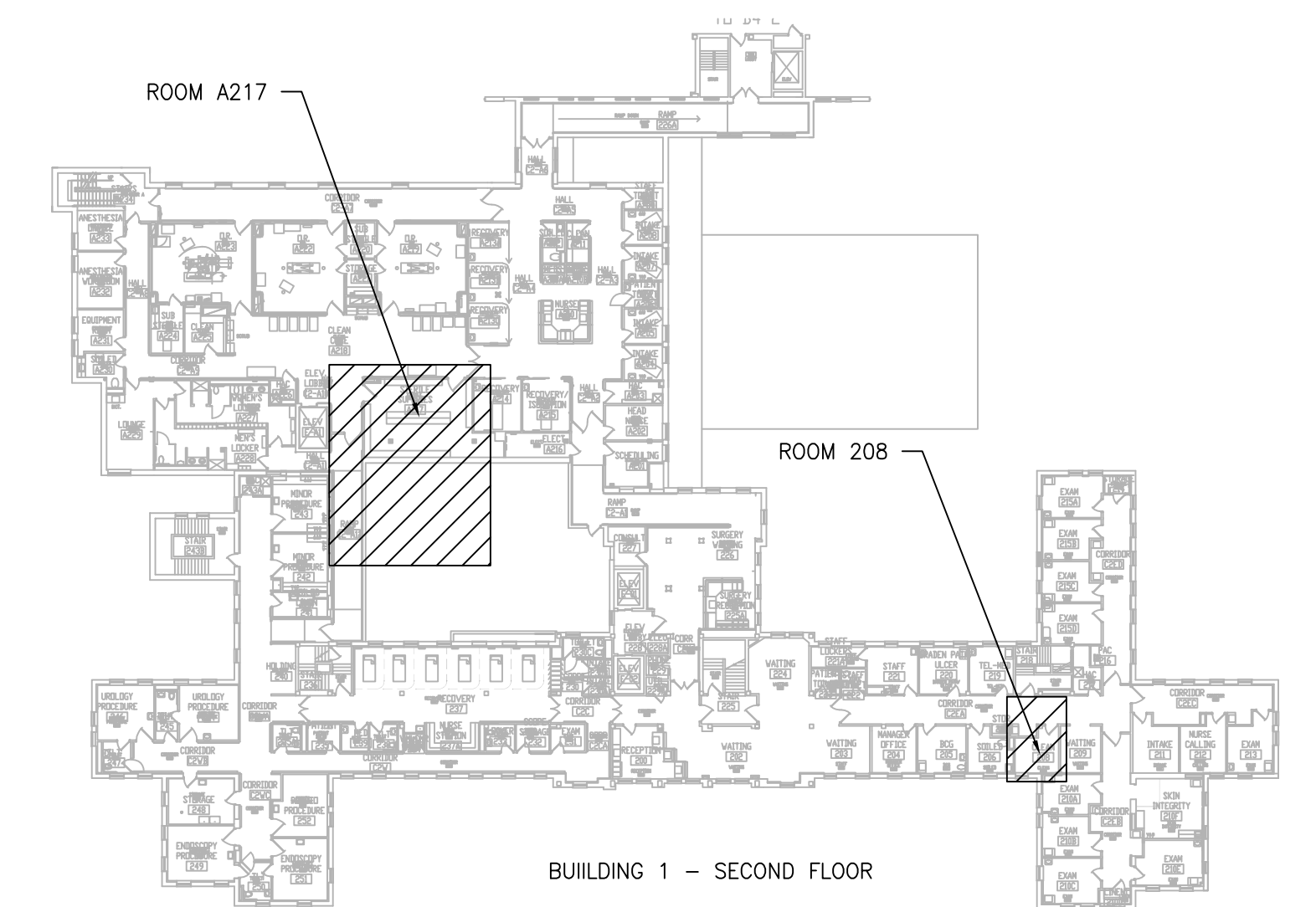
2 BUILDING 1 SECOND FLOOR ROOM 208 - NEW WORK
SCALE: 1/4" = 1'-0"



3 BUILDING 1 SECOND FLOOR ROOM A217 - DEMOLITION
SCALE: 1/4" = 1'-0"



4 BUILDING 1 SECOND FLOOR ROOM A217 - NEW WORK
SCALE: 1/4" = 1'-0"



KEYPLAN
SCALE: NTS

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM



MEP Engineers + Architects
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ENGINEER OF RECORD



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PHONE: (856) 429-4000
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MR PROJECT NO. 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management



Drawing Title
MECHANICAL DEMOLITION / NEW WORK PLAN SECOND FLOOR - BUILDING 1

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
MR

Drawn
PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

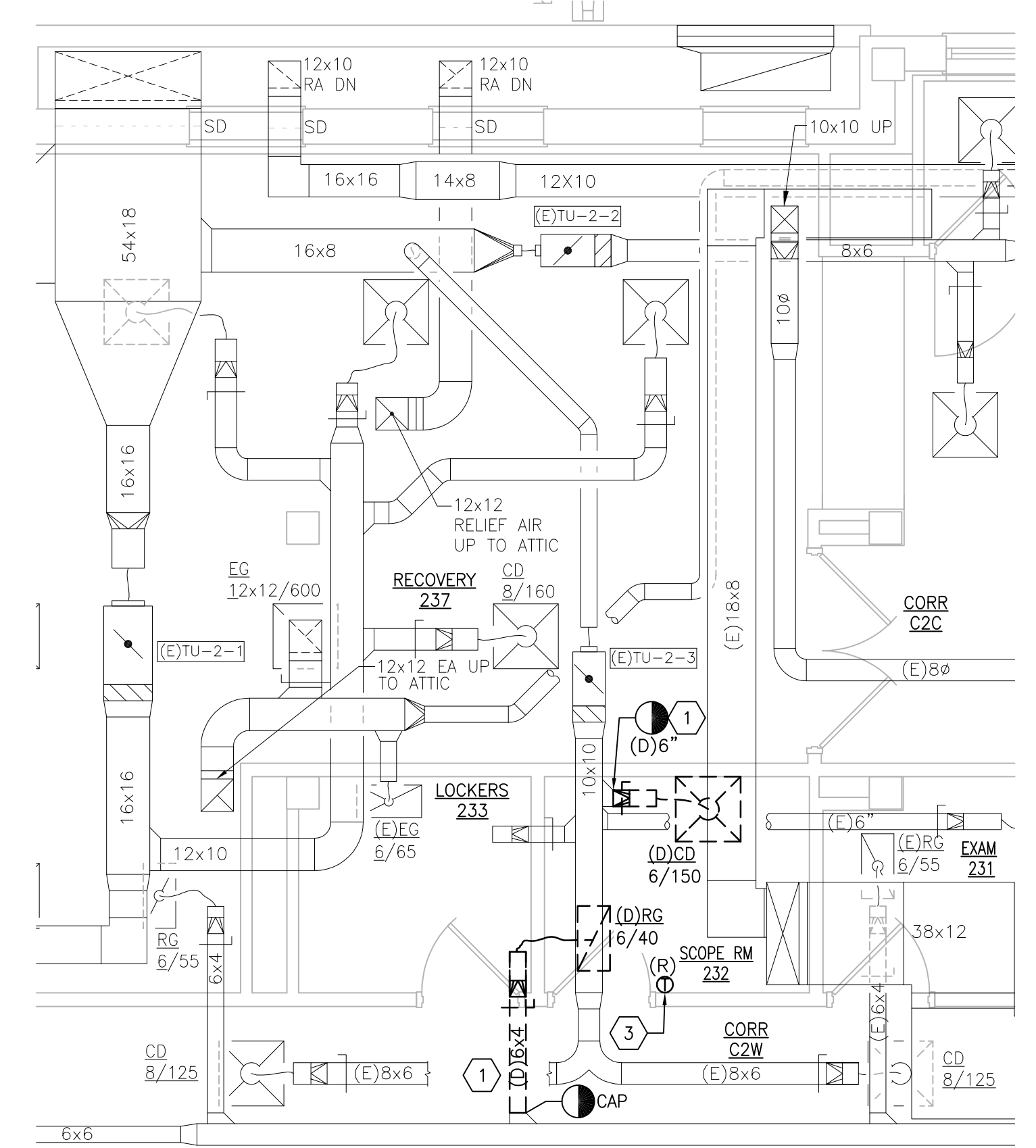
Drawing Number
1-MH121

GENERAL SHEET NOTES:

1. REFERENCE SPECIFICATION 02 82 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
3. ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
4. MODIFY SPRINKLER PIPING IF REQUIRED TO INSTALL NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
5. MAINTAIN SERVICE CLEARANCE ON NEW AND EXISTING EQUIPMENT. REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUALS FOR ADDITIONAL INFORMATION.
6. ADHERE TO ALL ICRA REQUIREMENTS LISTED IN THE ARCHITECTURAL SET. THE ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. PROTECT ALL EQUIPMENT IN THE ROOM FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
7. AVOID ALL CEILING OR WALL MOUNTED DEVICES (I.E. SIGNAGE, LIGHT FIXTURE, NURSE CALL) WHEN LOCATING ICRA BARRIERS. WHEN EXISTING DEVICE(S) CANNOT BE AVOIDED, TEMPORARILY RELOCATE THE DEVICE(S) AND REINSTALL AFTER WORK IS COMPLETED AS APPROVED BY THE COR.
8. REMOVE AND REPLACE EXISTING CEILING REFER TO THE ARCHITECTURAL DRAWING FOR ADDITIONAL INFORMATION.
9. TAKE PREDEMOLITION READINGS OF ALL ROOM AIR INLETS AND OUTLETS OF ANY SYSTEM THAT WILL BE MODIFIED AND SUBMIT TO THE VA AND ENGINEER FOR RECORD PRIOR TO STARTING ANY NEW WORK. BALANCE THE NEW SYSTEMS AND REBALANCE THE EXISTING ASSOCIATED AHU SYSTEM TO THE NEW AIR QUANTITIES. AFTER THE NEW WORK IS COMPLETE REBALANCE THE EXISTING SYSTEM, AS REQUIRED, AND MEASURE ALL ROOM AIR INLETS AND OUTLETS TO VERIFY THAT THE PREDEMOLITION AIRFLOWS HAVE BEEN MAINTAINED. SUBMIT FOR APPROVAL. REFERENCE SPECIFICATIONS FOR TESTING AND BALANCING REQUIREMENTS.
10. ALL DUCTWORK PENETRATIONS SHALL BE SAW CUT. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
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SHEET KEYNOTES:

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2. DEMOLISH PIPING, HANGERS AND ALL APPURTENANCES TYPICAL. REFERENCE DRAWING 1-MH121 FOR NEW WORK.
3. RELOCATE EXISTING THERMOSTAT TO CORRIDOR C2W TO FURNISH (E)TU-2-3.
4. TEMPERATURE AND HUMIDITY SENSOR FURNISHED BY AHU MANUFACTURER.
5. PROVIDE DIFFERENTIAL PRESSURE SENSOR INSTALLED THROUGH WALL AND CENTERED ABOVE DOOR. PROVIDE ROOM PRESSURE MONITOR INSTALLED OUTSIDE ROOM NEAR ROOM NAME AND NUMBER LABEL.
6. FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH NEW WORK PARTICULARLY THE NEW FLOOR PENETRATIONS. COORDINATE THIS WITH FLOORS ABOVE.

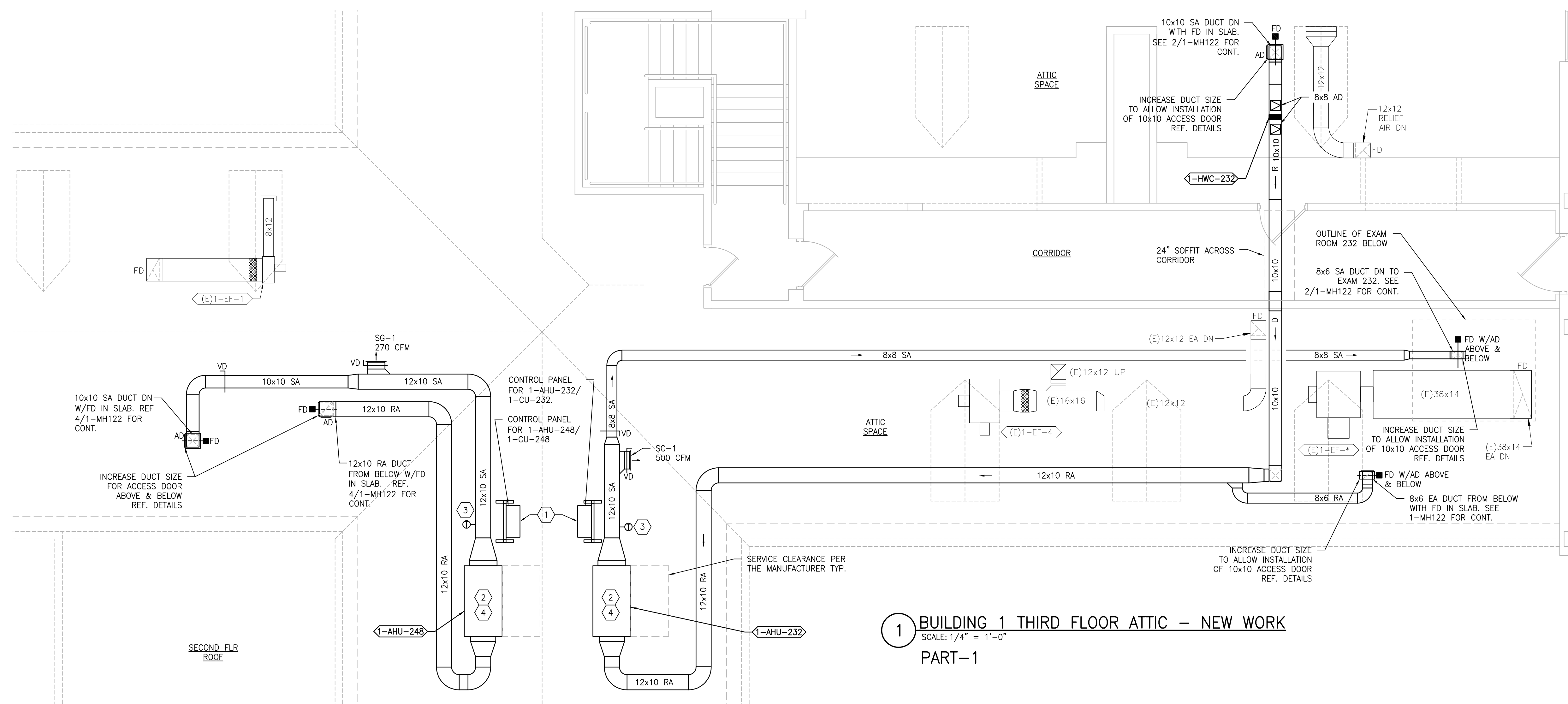


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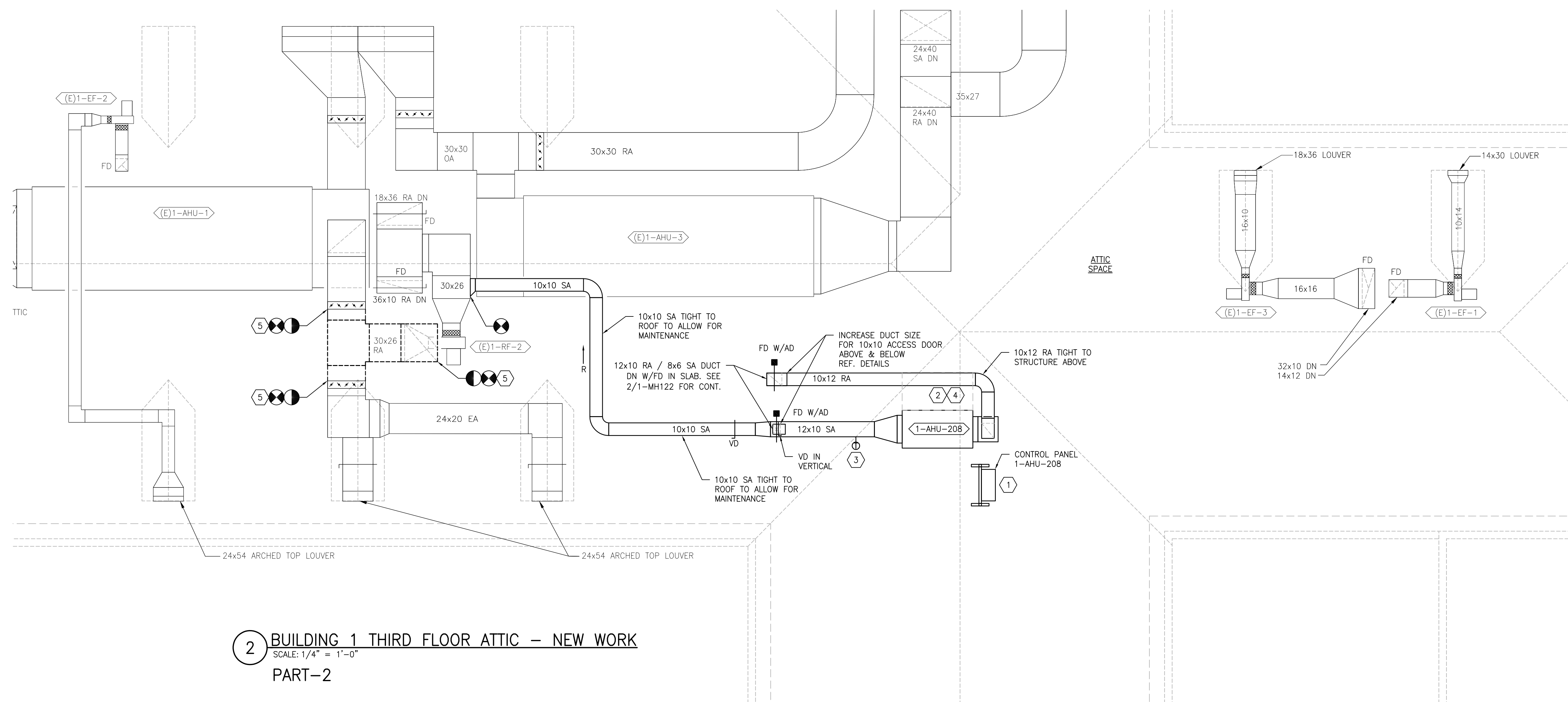
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- ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
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- AVOID ALL CEILING OR WALL MOUNTED DEVICES (I.E. SIGNAGE, LIGHT FIXTURE, NURSE CALL) WHEN LOCATING ICRA BARRIERS. WHEN EXISTING DEVICE(S) CANNOT BE AVOIDED, TEMPORARILY RELOCATE THE DEVICE(S) AND REINSTALL AFTER WORK IS COMPLETED AS APPROVED BY THE COR.
- REMOVE AND REPLACE EXISTING CEILING REFER TO THE ARCHITECTURAL DRAWING FOR ADDITIONAL INFORMATION.
- TAKE PREDEMOLITION READINGS OF ALL ROOM AIR INLETS AND OUTLETS OF ANY SYSTEM THE WILL BE MODIFIED AND SUBMIT TO THE VA AND ENGINEER FOR RECORD PRIOR TO STARTING ANY NEW WORK. BALANCE THE NEW SYSTEMS AND REBALANCE THE EXISTING ASSOCIATED AHU SYSTEM TO THE NEW AIR QUANTITIES. AFTER THE NEW WORK IS COMPLETE REBALANCE THE EXISTING SYSTEM, AS REQUIRED, AND MEASURE ALL ROOM AIR INLETS AND OUTLETS TO VERIFY THAT THE PREDEMOLITION AIRFLOWS HAVE BEEN MAINTAINED. SUBMIT FOR APPROVAL. REFERENCE SPECIFICATIONS FOR TESTING AND BALANCING REQUIREMENTS.
- ALL DUCTWORK PENETRATIONS SHALL BE SAW CUT. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
- CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

SHEET KEYNOTES:

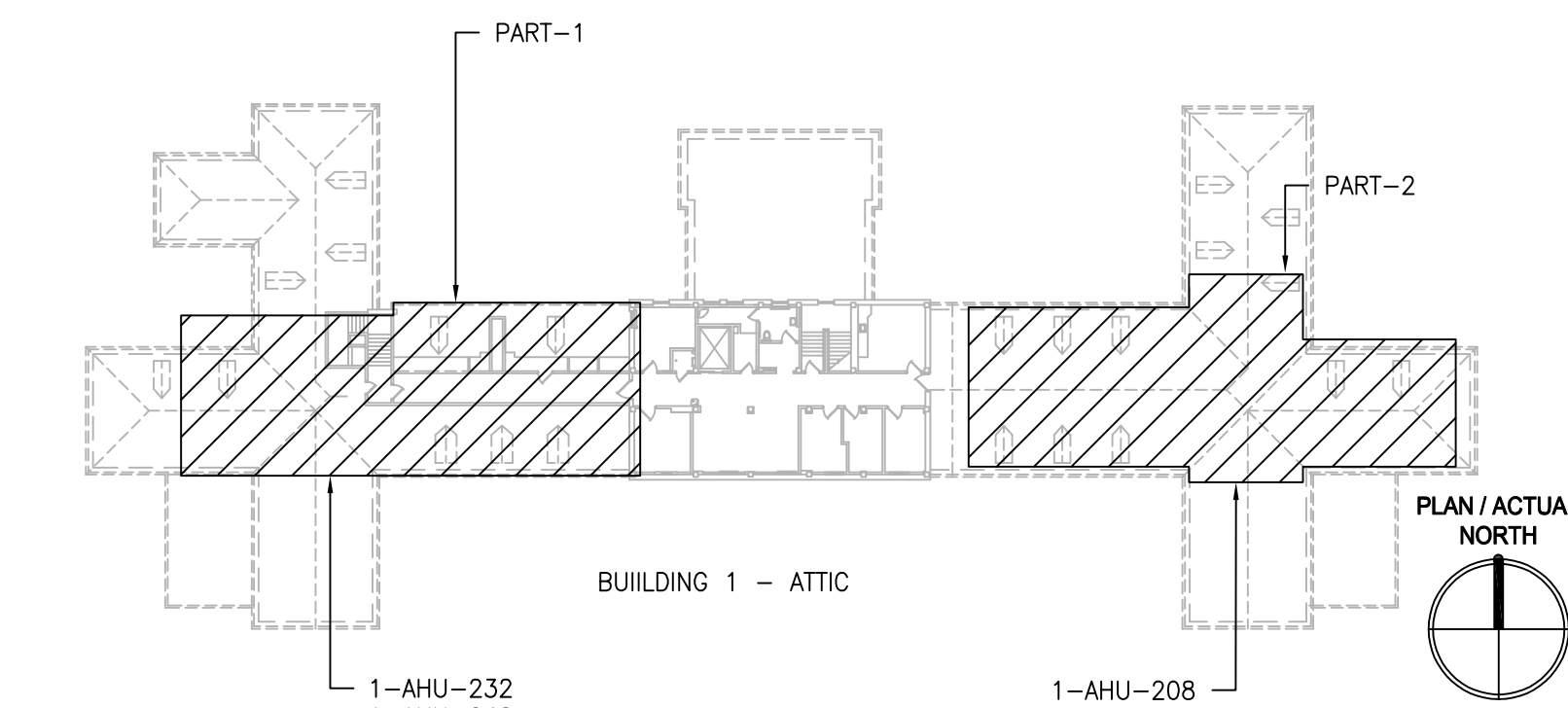
- MOUNT FACTORY PRE-WIRED ACON CONTROL PANEL ON A NEW UNISTRUT FRAME. COORDINATE WITH THE COR AND THE EXISTING CONDITIONS FOR FINAL LOCATION. EXTEND AND INTEGRATE INTO BAS LOCAL CONTROLLER LABEL NAE-1E DOWN TO ROOM 305A.
- REFERENCE MP DRAWINGS FOR THE REFRIGERATION & DRAIN PIPE ROUTING AND COORDINATE.
- DISCHARGE AIR TEMPERATURE SENSOR FURNISHED BY AHU MANUFACTURER.
- REFERENCE 2/M-504 FOR ADDITIONAL AHU INFORMATION.
- REMOVE (E)30x26 RETURN AIR DUCT TO ALLOW NEW AHU TO BE INSTALLED. REINSTALL AND REINSULATE (E)30x26 RETURN AIR DUCT.



1 BUILDING 1 THIRD FLOOR ATTIC - NEW WORK
SCALE: 1/4" = 1'-0"
PART-1



2 BUILDING 1 THIRD FLOOR ATTIC - NEW WORK
SCALE: 1/4" = 1'-0"
PART-2



KEYPLAN
SCALE: NTS

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM



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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management



Drawing Title
**MECHANICAL
NEW WORK PLAN
ATTIC - BUILDING 1**

Approved: Project Director

Phase
100% CONSTRUCTION
DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
**UPGRADE SPS HVAC &
ENVIRONMENTAL CONTROLS**

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	MR	PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51,
111, 116

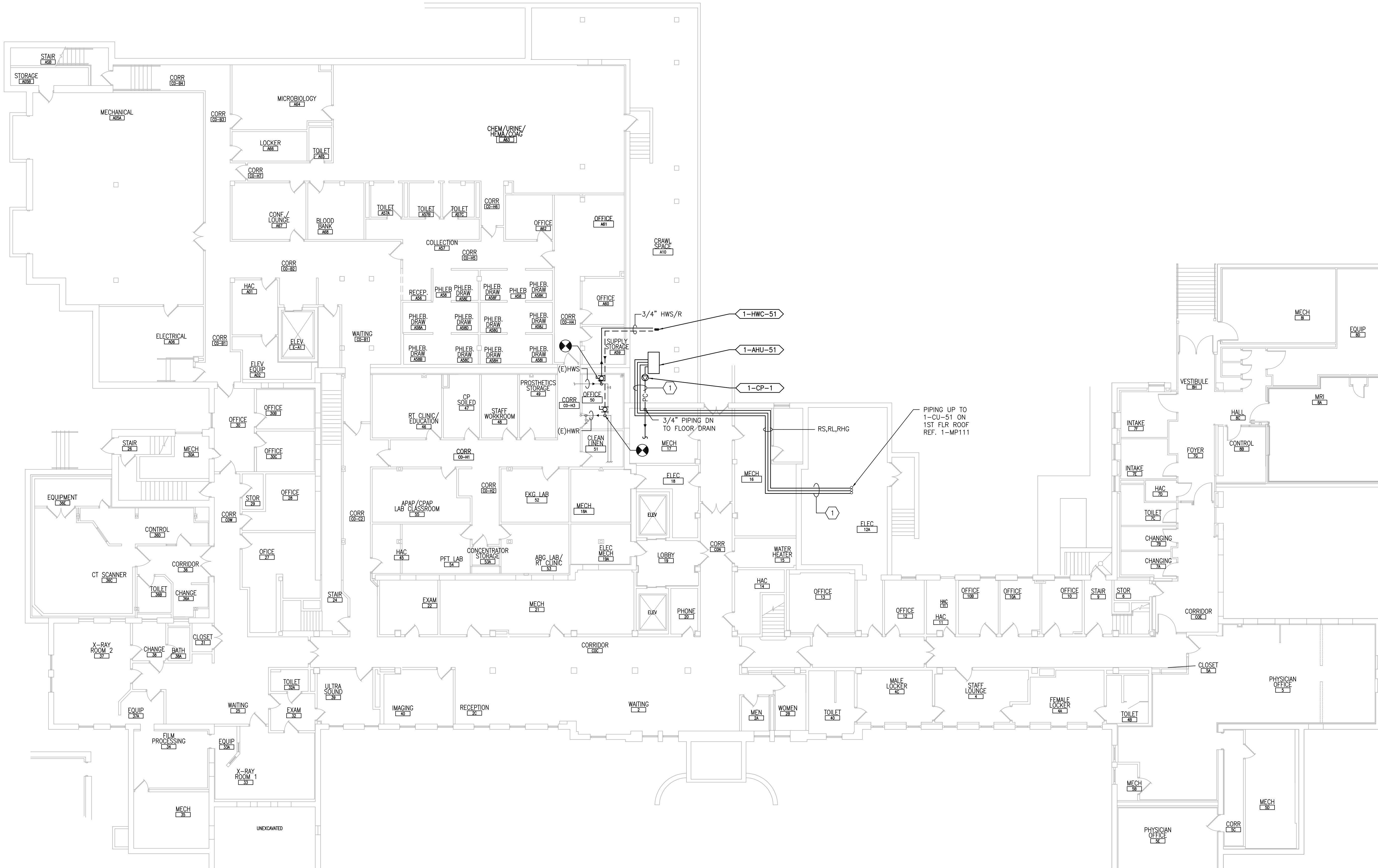
Drawing Number
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GENERAL SHEET NOTES:

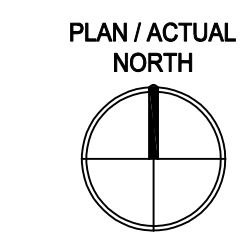
1. REFERENCE SPECIFICATION 02-82 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
3. ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
4. MODIFY SPRINKLER PIPING IF REQUIRED TO INSTALL NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
5. MAINTAIN SERVICE CLEARANCE ON NEW AND EXISTING EQUIPMENT. REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUALS FOR ADDITIONAL INFORMATION.
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SHEET KEYNOTES:

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1 BUILDING 1 -- BASEMENT PIPING PLAN
SCALE: 3/32" = 1'-0"



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NO.	DESCRIPTION	DATE

PROJECT TEAM

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ENGINEER OF RECORD

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL PIPING PLAN BASEMENT - BUILDING 1

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	MR	BJS

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

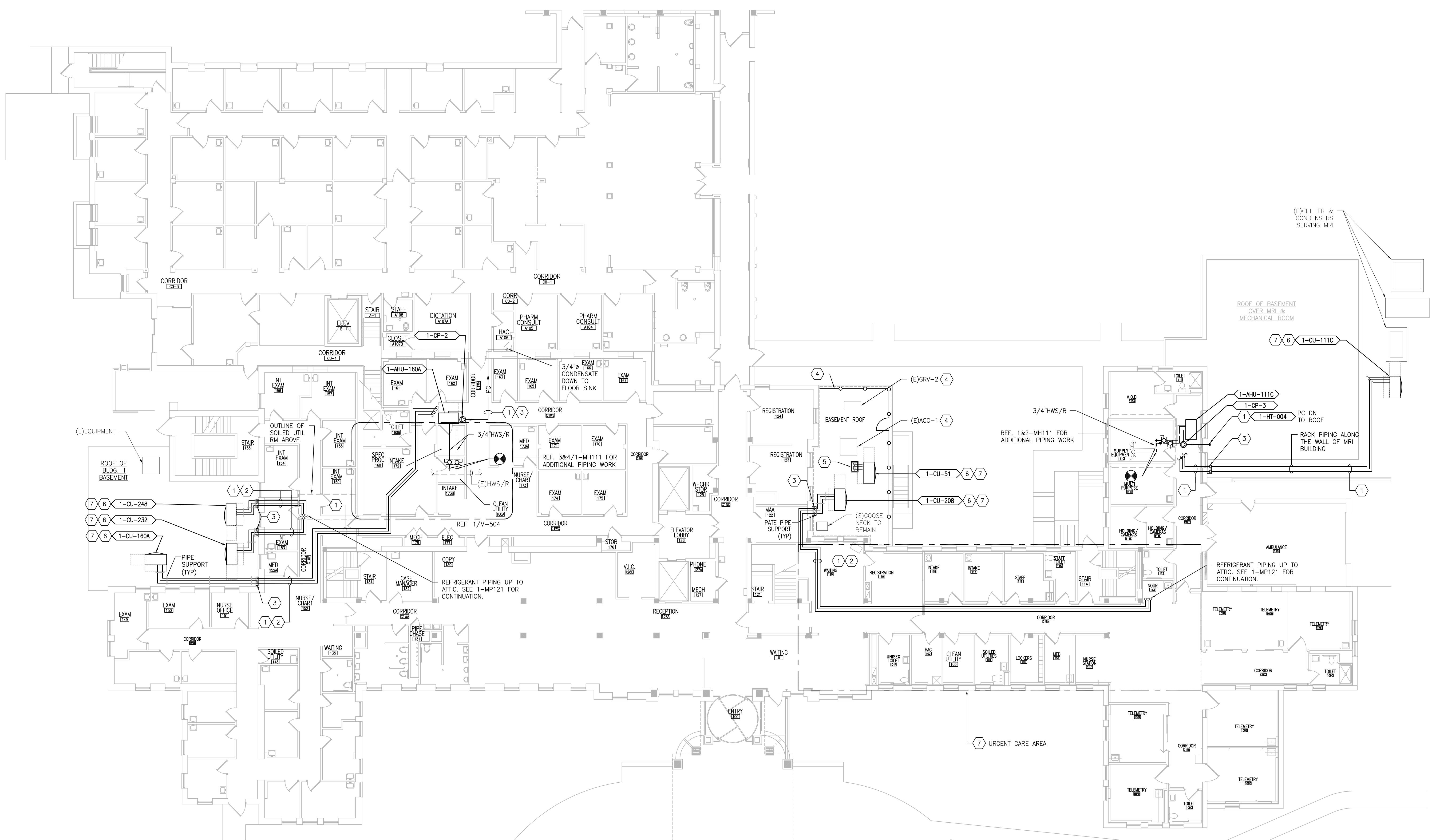
Drawing Number
1-MP101

GENERAL SHEET NOTES:

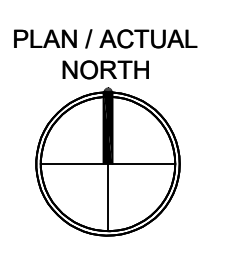
1. REFERENCE SPECIFICATION 02.82.11 APPENDIX A1 FOR ABATEMENT REPORT. CONTRACTOR TO ADHERE TO AND FOLLOW REPORT FOR ALL KNOWN ABATEMENT LOCATIONS.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK.
3. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
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SHEET KEYNOTES:

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4. RUN PIPING ABOVE CEILING
5. PENETRATE THE EXTERIOR WALL AS HIGH AS POSSIBLE ABOVE THE INTERIOR CEILING TO ELIMINATE THE NEED FOR AN INTERIOR ENCLOSURE FOR THE BUILDING.
6. AT THE TIME OF DESIGN ACC-1 AND GRV-2 WERE NOT INSTALLED. COORDINATE LOCATIONS WITH NEW CONDENSERS INCLUDING SERVICE CLEARANCE OF NEW EQUIPMENT AND EXISTING EQUIPMENT. REFERENCE STRUCTURAL PACKAGE FOR SAFETY RAIL REQUIREMENTS.
7. PROVIDE AND INSTALL PATE ROOF CURB WITH PCC-C CAP AND b-6 BOOTS OR APPROVED EQUAL. REFERENCE DETAIL 10/M-502.
8. CONDENSING UNIT IS SUPPORTED BY DUNNAGE 3'-0" ABOVE GRADE AND SUPPORTED 3'-0" ABOVE THE ROOF BY EQUIPMENT RAILS. PIPING OUTSIDE THE BUILDING IS PROTECTED BY A STRUCTURAL COVER FROM FALLING SNOW AND ICE. REFERENCE STRUCTURAL DRAWINGS FOR DUNNAGE AND PIPE COVER DETAILS.
9. MAINTAIN 4'-0" MINIMUM IN ALL DIRECTIONS FROM THE BUILDING TO PROTECT AGAINST FALLING SNOW AND ICE.
10. ICRA RATING IN THE URGENT CARE AREA IS CONSIDERED HIGH RISK. ICRA WALLS WITH IN THIS AREA MUST BE TAKEN DOWN AT THE END OF EACH DAY.



1 BUILDING 1 - FIRST FLOOR PIPING PLAN
SCALE: 3/32" = 1'-0"



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NO.	DESCRIPTION	DATE

PROJECT TEAM

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL PIPING PLAN FIRST FLOOR - BUILDING 1

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	MR	BJS

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

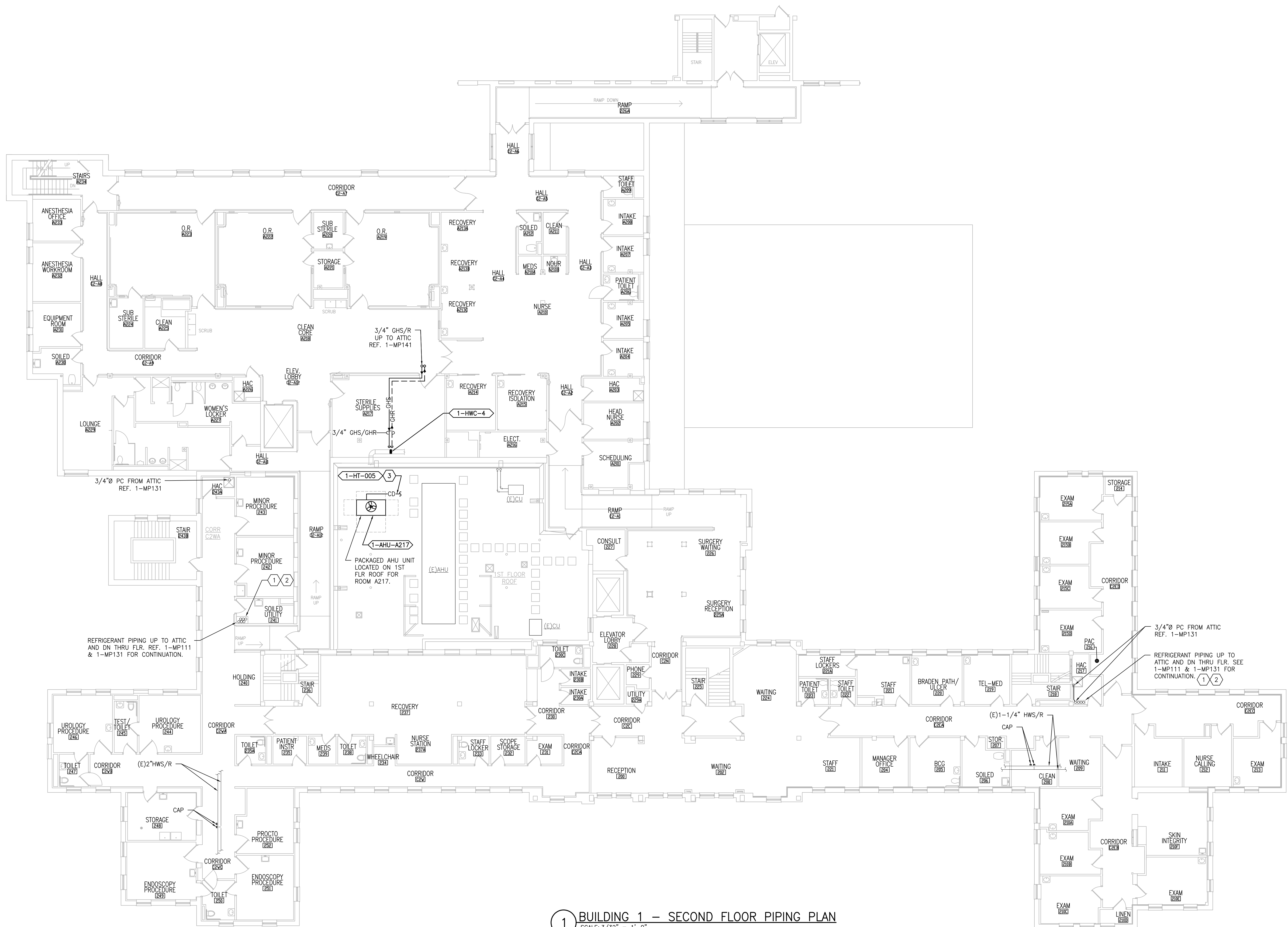
Drawing Number
1-MP111

GENERAL SHEET NOTES:

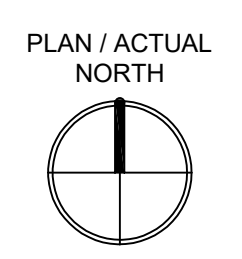
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SHEET KEYNOTES:

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2. PROVIDE ENCLOSURE FOR EXPOSED PIPING ON WALL. ENCLOSURE TYPE TO BE VERIFIED WITH COR BEFORE CONSTRUCTION (SEE DETAIL).
3. PROVIDE FULL SIZE CONDENSATE DRAIN WITH 4" DEEP TRAP. ROUTE TO NEAREST ROOF DRAIN. PROVIDE SPLASH BLOCK WITH EPDM SHEET. PROVIDE HEAT TRACE CIRCUIT PER SCHEDULE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.



1 BUILDING 1 - SECOND FLOOR PIPING PLAN
SCALE: 3/32" = 1'-0"



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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL PIPING PLAN SECOND FLOOR - BUILDING 1

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	MR	BJS

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

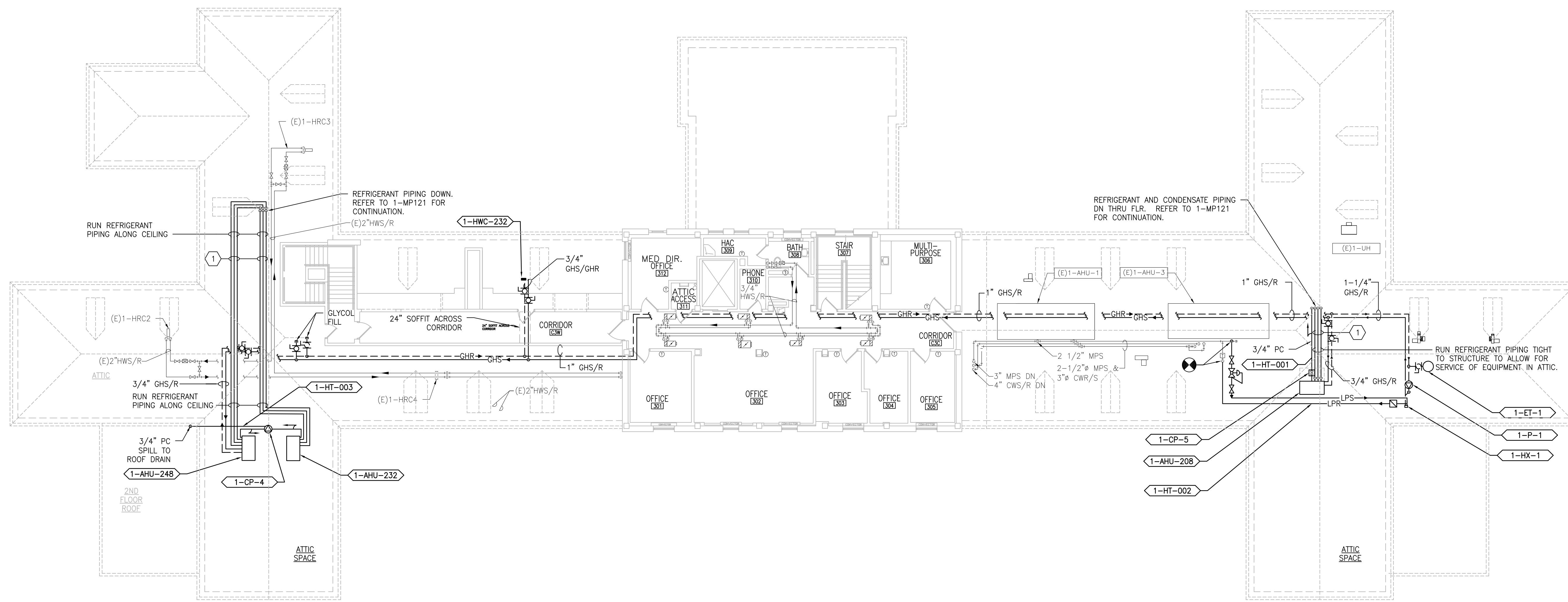
Drawing Number
1-MP121

GENERAL SHEET NOTES:

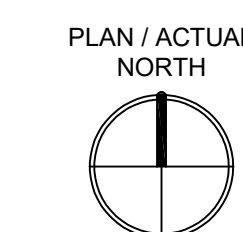
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10. ALL PIPING PENETRATIONS SHALL BE CORE DRILLED. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
11. INSTALLING CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING THE REFRIGERATION PIPING IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES. THE CONTRACTOR IS TO PROVIDE DETAILED PIPING LAYOUT TO THE MANUFACTURER FOR PIPE SIZING AND OTHER REQUIREMENTS. FINAL SHOP DRAWING APPROVAL IS BY THE ENGINEER. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR LEAK CHECKS, EVACUATION AND INITIAL REFRIGERATION CHARGE. THE INSTALLING CONTRACTOR SHALL PROVIDE EXTRA REFRIGERANT TO THE FACTORY START-UP TECHNICIAN FOR FINAL REFRIGERANT CHARGE. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR WIRING AND COMMUNICATIONS BETWEEN AHU'S AND CONDENSING UNITS.
12. CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

SHEET KEYNOTES:

1. MINIMUM PIPE SIZES FOR UP TO 50 EQUIVALENT FT. INCREASE PIPE SIZES AS REQUIRED TO ACCOMMODATE THE ACTUAL ROUTING:
 - SUCTION LINE 5/8" ø
 - LIQUID LINE 3/8" ø
 - HOT GAS REHEAT 3/8" ø
 - PUMPED CONDENSATE 3/4" ø
 - MINIMUM PIPE SIZES FOR OVER 60 EQUIVALENT FT. INCREASE PIPE SIZES AS REQUIRED TO ACCOMMODATE THE ACTUAL ROUTING:
 - SUCTION LINE 3/4" ø
 - LIQUID LINE 1/2" ø
 - HOT GAS REHEAT 1/2" ø
 - PUMPED CONDENSATE 3/4" ø
- INSTALL AND INSULATE PIPING ACCORDING TO SPECIFICATIONS AND AHU MANUFACTURER RECOMMENDATIONS. VERIFY PIPE SIZING WITH AHU MANUFACTURER. PIPING MUST BE SIZED TO MEET THE ACTUAL INSTALLATION CONDITIONS. INSTALL SUCTION LINE ACCUMULATOR AND 1/8" CAPILLARY TUBING FOR PURGE CIRCUIT. SEE AHU MANUFACTURER'S INSTALLATION INSTRUCTIONS.



1 BUILDING 1 – ATTIC PIPING PLAN
SCALE: 3/32" = 1'-0"



PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL PIPING PLAN ATTIC - BUILDING 1

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
MR

Drawn
BJS

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

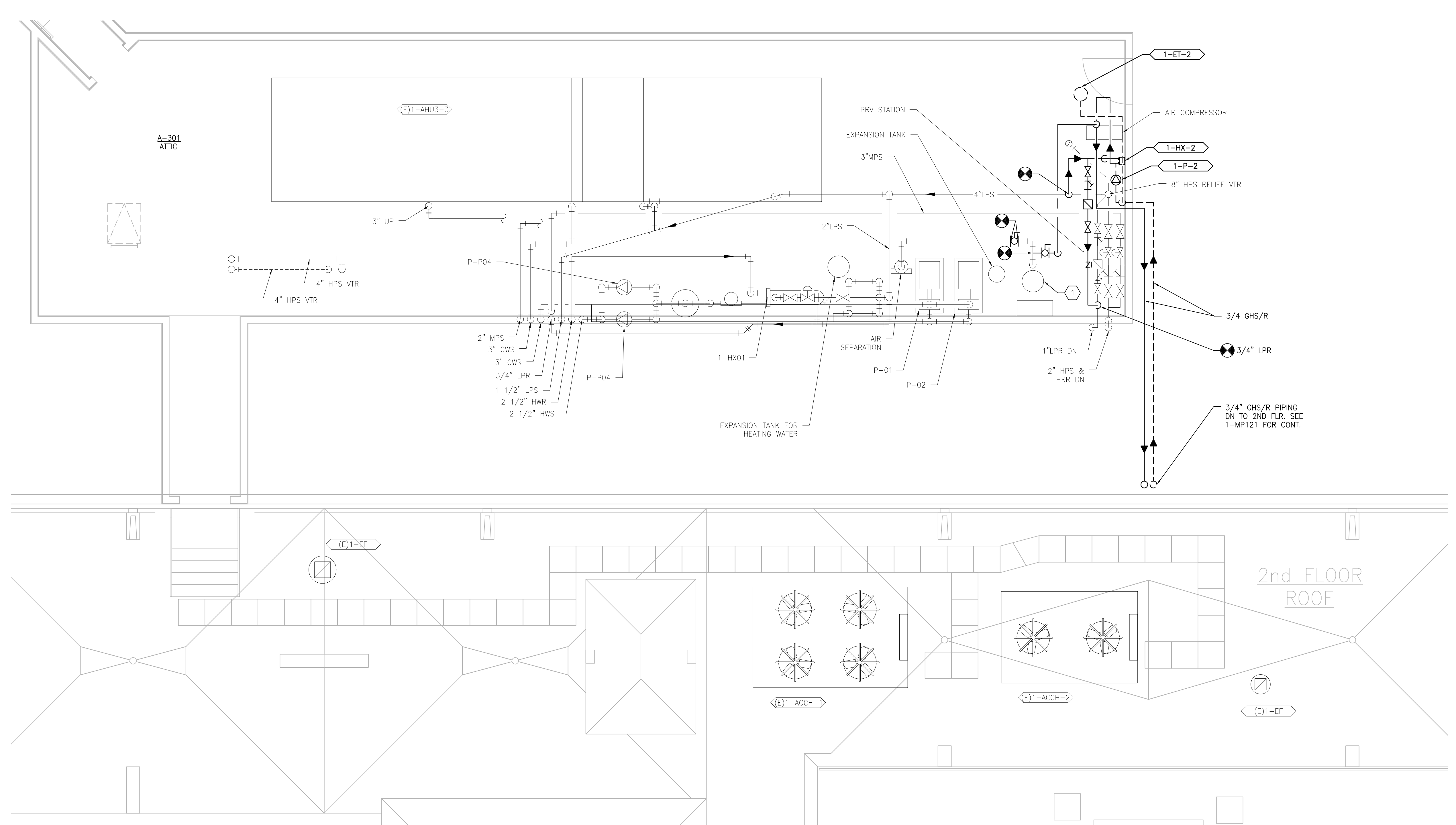
Drawing Number
1-MP131

GENERAL SHEET NOTES:

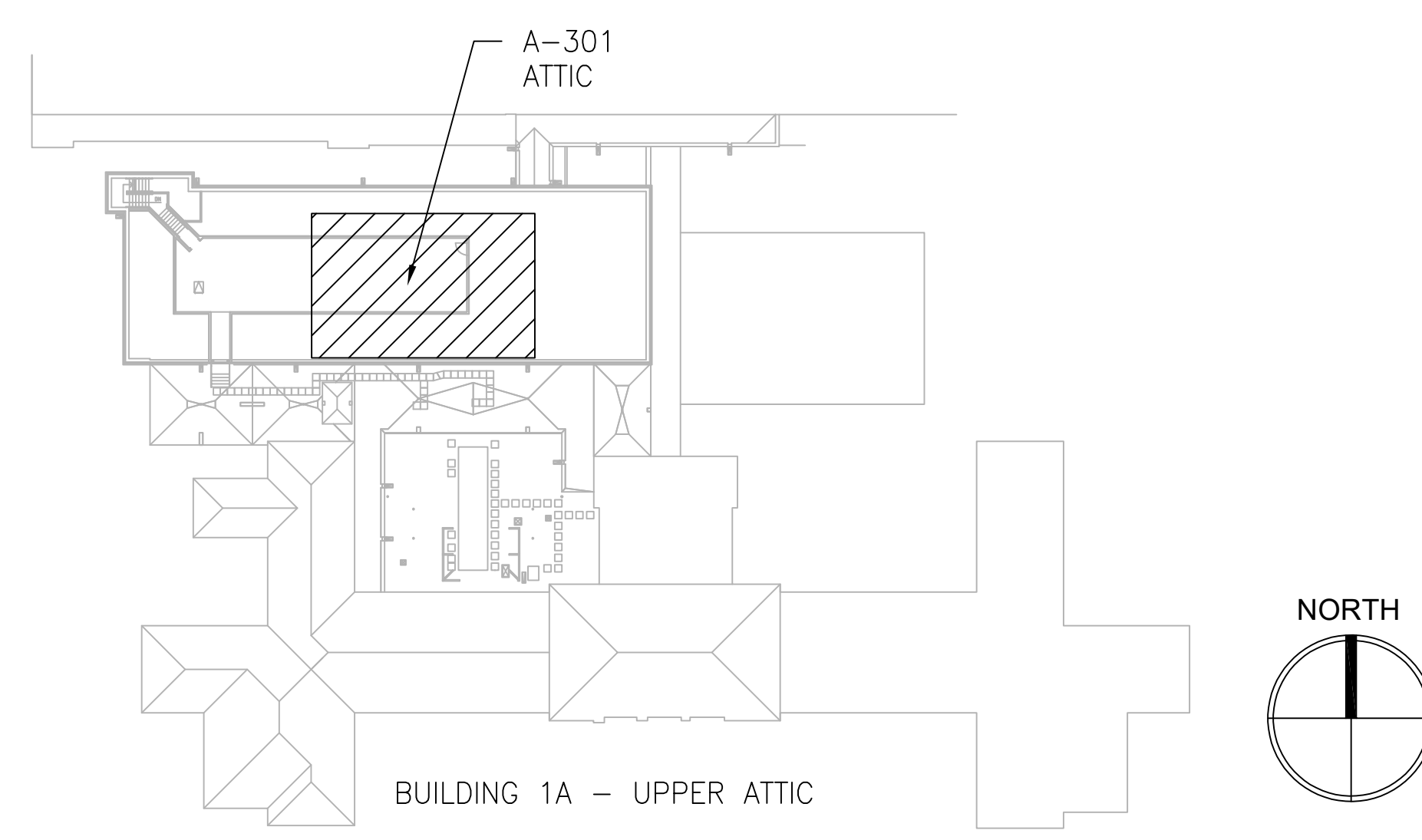
1. REFERENCE SPECIFICATION 02-82 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
3. ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
4. MODIFY SPRINKLER PIPING IF REQUIRED TO INSTALL NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
5. MAINTAIN SERVICE CLEARANCE ON NEW AND EXISTING EQUIPMENT. REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUALS FOR ADDITIONAL INFORMATION.
6. ADHERE TO ALL ICRA REQUIREMENTS LISTED IN THE ARCHITECTURAL SET. THE ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. PROTECT ALL EQUIPMENT IN THE ROOM FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
7. AVOID ALL CEILING OR WALL MOUNTED DEVICES (I.E. SIGNAGE, LIGHT FIXTURE, NURSE CALL) WHEN LOCATING ICRA BARRIERS. WHEN EXISTING DEVICE(S) CANNOT BE AVOIDED, TEMPORARILY RELOCATE THE DEVICE(S) AND REINSTALL AFTER WORK IS COMPLETED AS APPROVED BY THE COR.
8. REMOVE AND REPLACE EXISTING CEILING REFER TO THE ARCHITECTURAL DRAWING FOR ADDITIONAL INFORMATION.
9. NOT ALL PIPING COMPONENTS ARE SHOWN. REFER TO DETAILS AND SPECIFICATIONS FOR ALL REQUIRED VALVES, UNIONS, GAUGES, STRAINERS, ETC.
10. ALL PIPING PENETRATIONS SHALL BE CORE DRILLED. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
11. INSTALLING CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING THE REFRIGERATION PIPING IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES. THE CONTRACTOR IS TO PROVIDE DETAILED PIPING LAYOUT TO THE MANUFACTURER FOR PIPE SIZING AND OTHER REQUIREMENTS. FINAL SHOP DRAWING APPROVAL IS BY THE ENGINEER. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR LEAK CHECKS, EVACUATION AND INITIAL REFRIGERATION CHARGE. THE INSTALLING CONTRACTOR SHALL PROVIDE EXTRA REFRIGERANT TO THE FACTORY START-UP TECHNICIAN FOR FINAL REFRIGERANT CHARGE. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR WIRING AND COMMUNICATIONS BETWEEN AHU'S AND CONDENSING UNITS.
12. CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

SHEET KEYNOTES:

1. (E)PROPYLENE GLYCOL FILL TANK STATION. CONNECT TO HOT WATER SYSTEM.



1 BUILDING 1A -- UPPER ATTIC PIPING PLAN
SCALE: 3/32" = 1'-0"



PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

COMMANDER'S CHOICE COMMISSIONING

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL PIPING PLAN UPPER ATTIC - BUILDING 1A

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
MR

Drawn
BJS

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

Drawing Number
1-MP141

SEQUENCE OF OPERATION

GENERAL
 THE EXISTING HVAC SYSTEMS WILL CONTINUE TO OPERATE INDEPENDENT OF THE NEW SUPPLEMENTAL SYSTEM.

SUPPLEMENTAL HVAC SYSTEM CONTROL
 THE UNIT SHALL BE PROVIDED WITH A FACTORY PREWIRED AND TESTED EXTERNAL CONTROL PANEL. THE UNIT CONTROLLER SHALL BE CAPABLE OF CONTROLLING ALL FEATURES AND OPTIONS OF THE UNIT. THE CONTROLLER SHALL BE CAPABLE OF STAND-ALONE OPERATION WITH UNIT CONFIGURATION, SETPOINT ADJUSTMENT, SENSOR STATUS VIEWING, UNIT ALARM VIEWING, AND OCCUPANCY SCHEDULING WITHOUT DEPENDENCE ON THE JOHNSON CONTROLS BUILDING MANAGEMENT SYSTEM (BAS). THE CONTROLLER SHALL COMMUNICATE AND INTEGRATE WITH THE BAS SYSTEM VIA BACNET. ALL SETPOINTS SHALL BE VISIBLE AND RESETTABLE, ALL SENSOR READINGS SHALL BE VISIBLE. OCCUPIED AND UNOCCUPIED SCHEDULING SHALL BE RESETTABLE, THROUGH THE BAS SYSTEM VIA BACNET.

OCCUPIED/UNOCCUPIED
 OCCUPIED/UNOCCUPIED MODE SHALL BE BASED ON A COMMAND FROM THE BAS.

OCCUPIED MODE
 IN THE OCCUPIED MODE THE SUPPLY FAN SHALL RUN CONTINUOUSLY.

COOLING
 IF ROOM TEMPERATURE RISES ABOVE SETPOINT 72°F (ADJ.) AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE COMPRESSOR SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

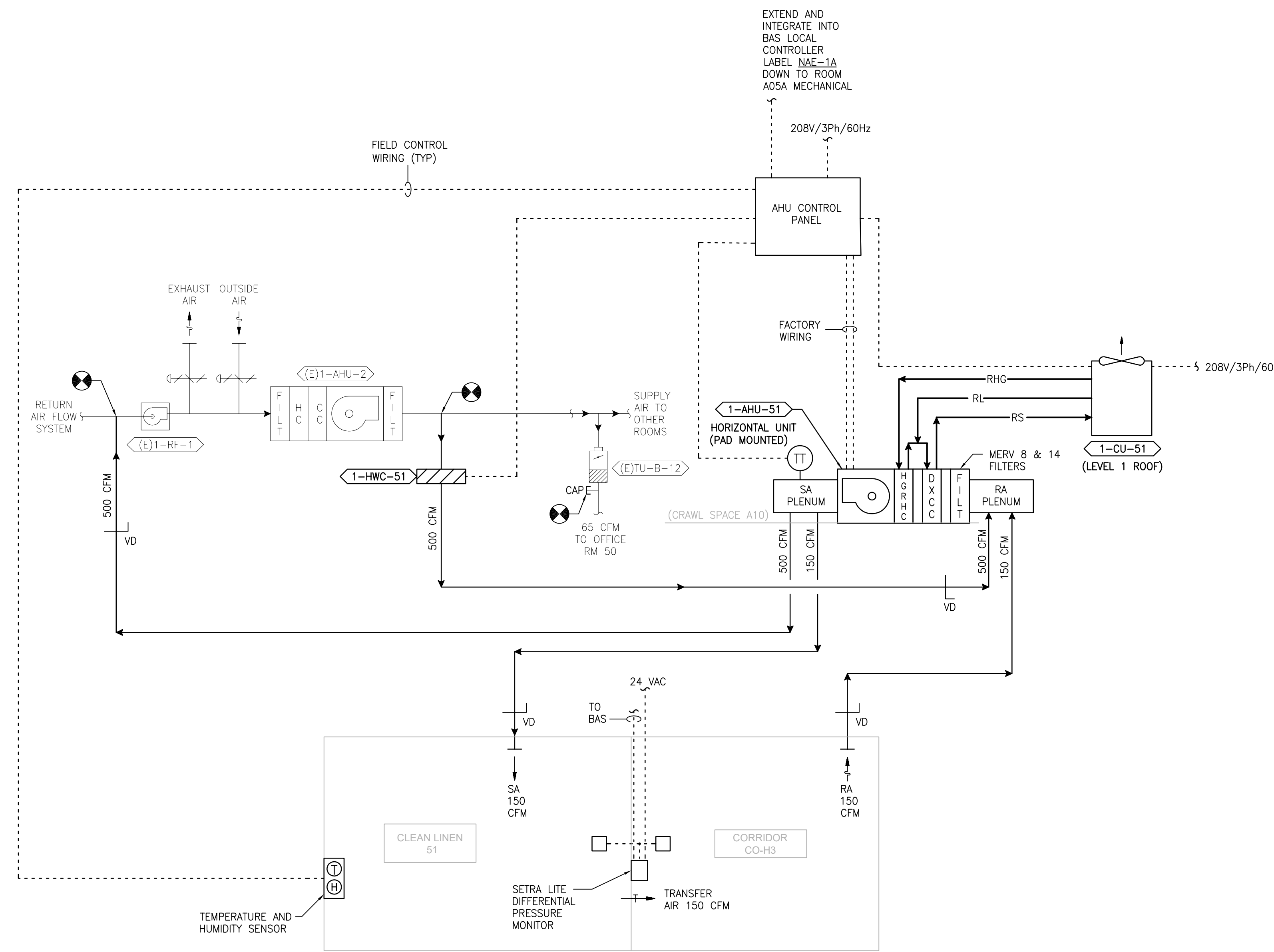
DEHUMIDIFYING
 IF ROOM RELATIVE HUMIDITY RISES ABOVE SETPOINT (55% RH) AS SENSED BY THE WALL MOUNTED HUMIDITY SENSOR THE SYSTEM SHALL OVERRIDE THE COOLING COIL SETPOINT AND MODULATE THE HOT GAS REHEAT COIL TO MAINTAIN ROOM TEMPERATURE AND HUMIDITY SETPOINTS. DEHUMIDIFICATION SHALL BE INITIATED ANYTIME IN THE OCCUPIED, UNOCCUPIED, COOLING OR HEATING MODE.

HEATING (ONLY PROVIDED ON SOME UNITS)
 IF ROOM TEMPERATURE FALLS BELOW SETPOINT AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE HEATING COIL SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

UNOCCUPIED MODE
 CONTROL SHALL BE THE SAME AS IN THE OCCUPIED MODE.

ROOM PRESSURE MONITOR
 THE ROOM PRESSURE MONITOR MANUFACTURED BY SETRA LITE SHALL MONITOR AND ALARM THE DIFFERENTIAL PRESSURE BETWEEN THE CLEAN / STERILE SATELLITE STORAGE ROOM AND THE ADJACENT ROOM LOCALLY AND AT BAS.

NEW TERMINAL UNIT CONTROL
 THE BAS CONTRACTOR SHALL PROVIDE CONTROL DEVICES AND SENSORS AS REQUIRED TO INCORPORATE THE NEW TERMINAL UNIT INTO THE EXISTING BAS. AIRFLOW SHALL BE CONTROLLED AT CONSTANT AS INDICATED. HOT WATER CONTROL VALVE SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE SETPOINT (69°F)



1 DIAGRAM 1-51
 SCALE: NONE

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NO.	DESCRIPTION	DATE

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 MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL AIRFLOW CONTROL DIAGRAM BASEMENT - BUILDING 1

Approved: Project Director

Phase
 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
 ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
 2022-07-15

Checked
 MR

Drawn
 PNL

Project Number
 656-18-300

Building Number
 1, 2, 3, 28, 29, 49, 50, 51, 111, 116

Drawing Number
1-M-801

SEQUENCE OF OPERATION

GENERAL
 THE EXISTING HVAC SYSTEMS WILL CONTINUE TO OPERATE INDEPENDENT OF THE NEW SUPPLEMENTAL HVAC SYSTEM.

SUPPLEMENTAL HVAC SYSTEM CONTROL
 THE UNIT SHALL BE PROVIDED WITH A FACTORY PREWIRED AND TESTED EXTERNAL CONTROL PANEL. THE UNIT CONTROLLER SHALL BE CAPABLE OF CONTROLLING ALL FEATURES AND OPTIONS OF THE UNIT. THE CONTROLLER SHALL BE CAPABLE OF STAND-ALONE OPERATION WITH UNIT CONFIGURATION, SETPOINT ADJUSTMENT, SENSOR STATUS VIEWING, UNIT ALARM VIEWING, AND OCCUPANCY SCHEDULING WITHOUT DEPENDENCE ON THE JOHNSON CONTROLS BUILDING MANAGEMENT SYSTEM (BAS). THE CONTROLLER SHALL COMMUNICATE AND INTEGRATE WITH THE BAS SYSTEM VIA BACNET. ALL SETPOINTS SHALL BE VISIBLE AND RESETTABLE, ALL SENSOR READINGS SHALL BE VISIBLE. OCCUPIED AND UNOCCUPIED SCHEDULING SHALL BE RESETTABLE, THROUGH THE BAS SYSTEM VIA BACNET.

OCCUPIED/UNOCCUPIED
 OCCUPIED/UNOCCUPIED MODE SHALL BE BASED ON A COMMAND FROM THE BAS.

OCCUPIED MODE
 IN THE OCCUPIED MODE THE SUPPLY FAN SHALL RUN CONTINUOUSLY.

COOLING
 IF ROOM TEMPERATURE RISES ABOVE SETPOINT (72°F) AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE COMPRESSOR SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

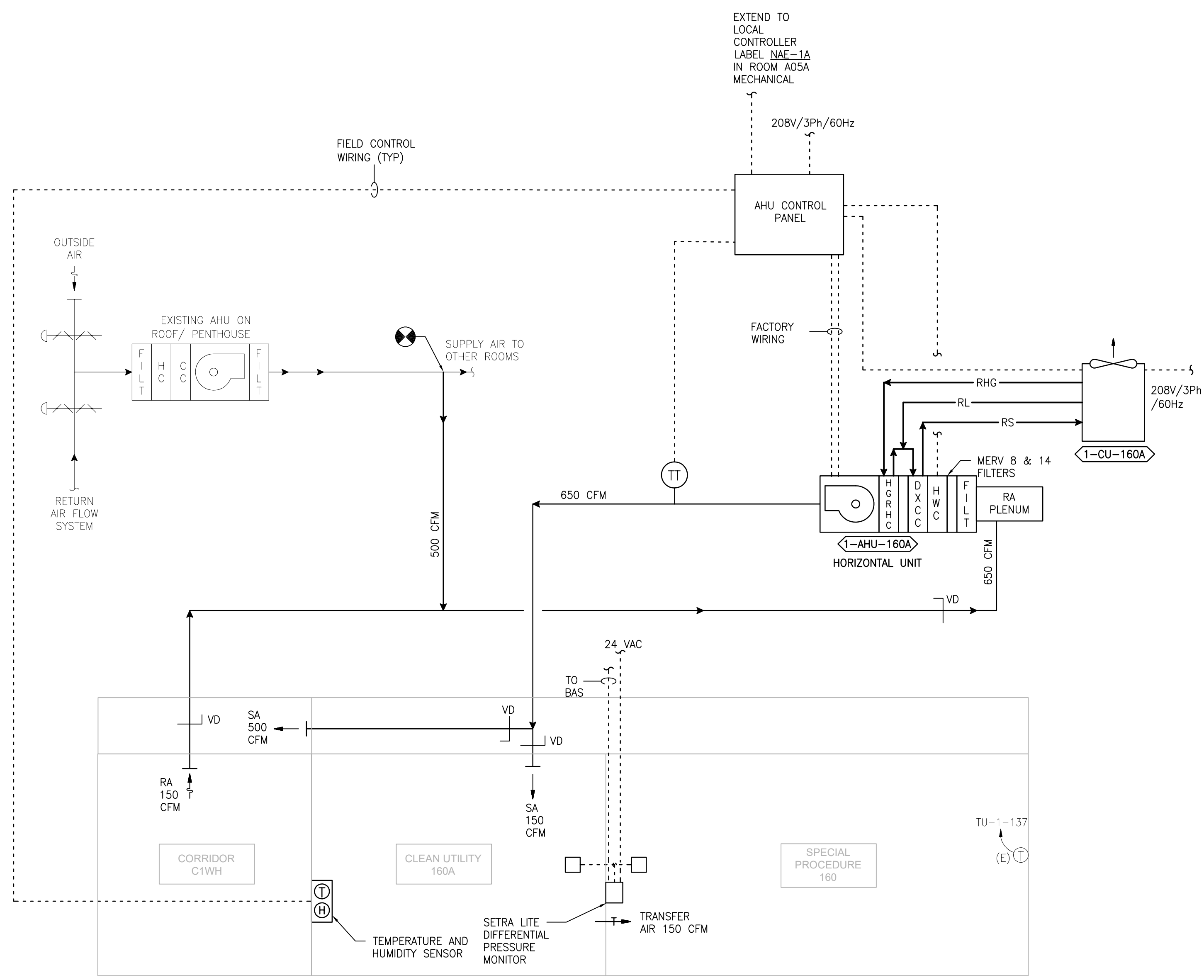
DEHUMIDIFYING
 IF ROOM RELATIVE HUMIDITY RISES ABOVE SETPOINT (55% RH) AS SENSED BY THE WALL MOUNTED HUMIDITY SENSOR THE SYSTEM SHALL OVERRIDE THE COOLING COIL SETPOINT AND MODULATE THE HOT GAS REHEAT COIL TO MAINTAIN ROOM TEMPERATURE AND HUMIDITY SETPOINTS. DEHUMIDIFICATION SHALL BE INITIATED ANYTIME IN THE OCCUPIED, UNOCCUPIED, COOLING OR HEATING MODE.

HEATING (ONLY PROVIDED ON SOME UNITS)
 IF ROOM TEMPERATURE FALLS BELOW SETPOINT AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE HEATING COIL SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

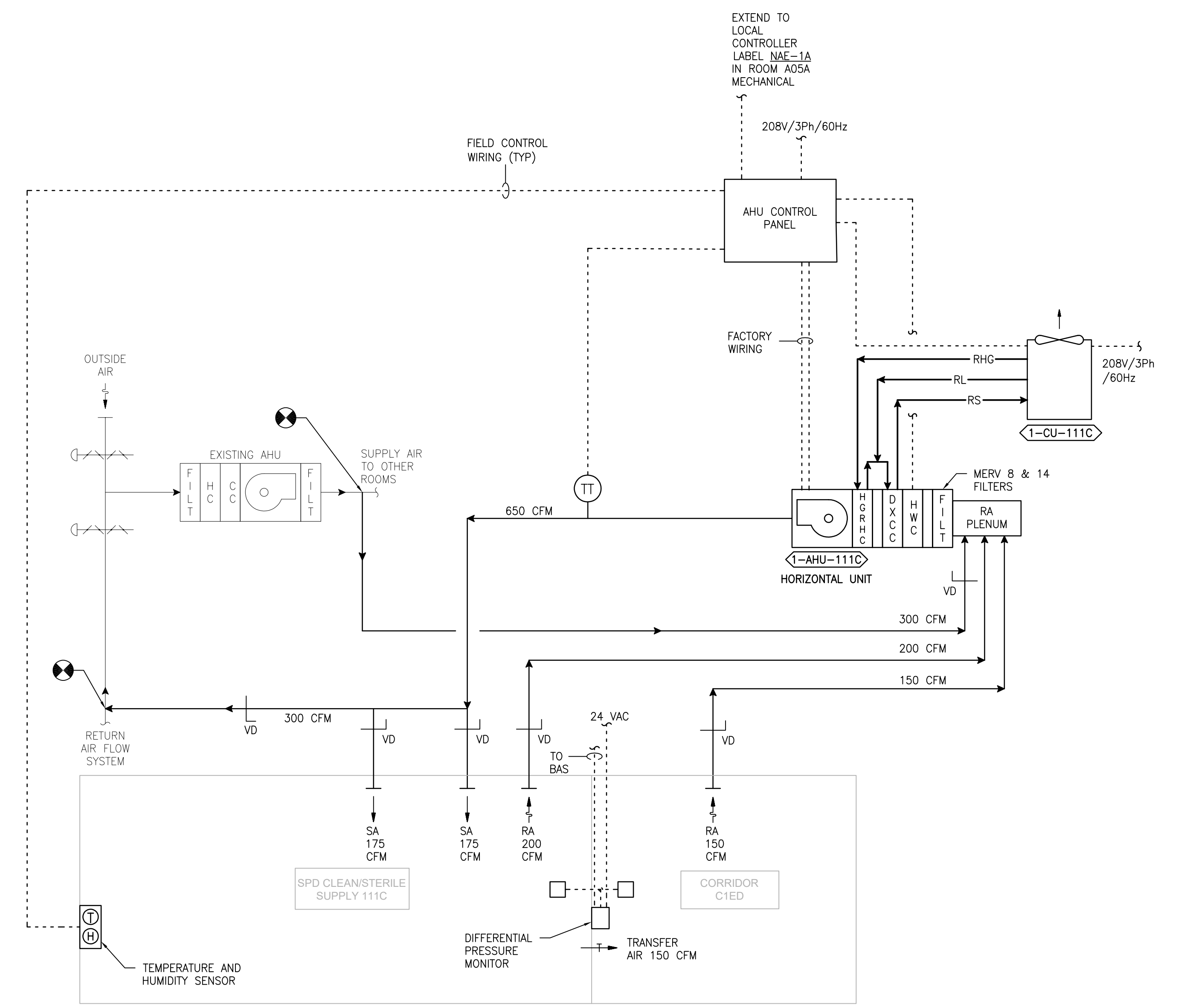
UNOCCUPIED MODE
 CONTROL SHALL BE THE SAME AS IN OCCUPIED MODE.

ROOM PRESSURE MONITOR
 THE ROOM PRESSURE MONITOR BY SETRA LITE SHALL MONITOR AND ALARM THE DIFFERENTIAL PRESSURE BETWEEN THE CLEAN / STERILE SATTELITE STORAGE ROOM AND THE ADJACENT ROOM LOCALLY AND AT THE BAS.

AUXILIARY DRAIN PAN ALARM
 ALL AHU'S SUSPENDED ABOVE FINISHED CEILINGS SHALL BE INSTALLED WITH AN AUXILIARY DRAIN PAN AND MOISTURE SENSOR. PROVIDE AN ALARM AT THE BAS TO INDICATE WATER IS DETECTED IN THE AUXILIARY DRAIN PAN AS A RESULT OF A BLOCKAGE IN THE PRIMARY COOLING COIL DRAIN.



2 DETAIL - 1- 160A
 SCALE: NONE



1 DETAIL - 1- 111C
 SCALE: NONE

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

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 MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

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

Drawing Title
MECHANICAL AIRFLOW CONTROL DIAGRAMS FIRST FLOOR - BUILDING 1

Approved: Project Director

Phase
 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
 2022-07-15

Checked
 MR

Drawn
 PNL

Project Number
 656-18-300

Building Number
 1, 2, 3, 28, 29, 49, 50, 51, 111, 116

Drawing Number
1-M-811

GENERAL
THE EXISTING HVAC SYSTEMS WILL CONTINUE TO OPERATE INDEPENDENT OF THE NEW SUPPLEMENTAL SYSTEM.

SUPPLEMENTAL HVAC SYSTEM CONTROL
THE UNIT SHALL BE PROVIDED WITH A FACTORY PREWIRED AND TESTED EXTERNAL CONTROL PANEL. THE UNIT CONTROLLER SHALL BE CAPABLE OF CONTROLLING ALL FEATURES AND OPTIONS OF THE UNIT. THE CONTROLLER SHALL BE CAPABLE OF STAND-ALONE OPERATION WITH UNIT CONFIGURATION, SETPOINT ADJUSTMENT, SENSOR STATUS VIEWING, UNIT ALARM VIEWING, AND OCCUPANCY SCHEDULING WITHOUT DEPENDENCE ON THE JOHNSON CONTROLS BUILDING MANAGEMENT SYSTEM (BAS). THE CONTROLLER SHALL COMMUNICATE AND INTEGRATE WITH THE BAS SYSTEM VIA BACNET. ALL SETPOINTS SHALL BE VISIBLE AND RESETTABLE, ALL SENSOR READINGS SHALL BE VISIBLE, OCCUPIED AND UNOCCUPIED SCHEDULING SHALL BE RESETTABLE, THROUGH THE BAS SYSTEM VIA BACNET.

OCCUPIED/UNOCCUPIED
OCCUPIED/UNOCCUPIED MODE SHALL BE BASED ON A COMMAND FROM THE BAS.

OCCUPIED MODE
IN THE OCCUPIED MODE THE SUPPLY FAN SHALL RUN CONTINUOUSLY.

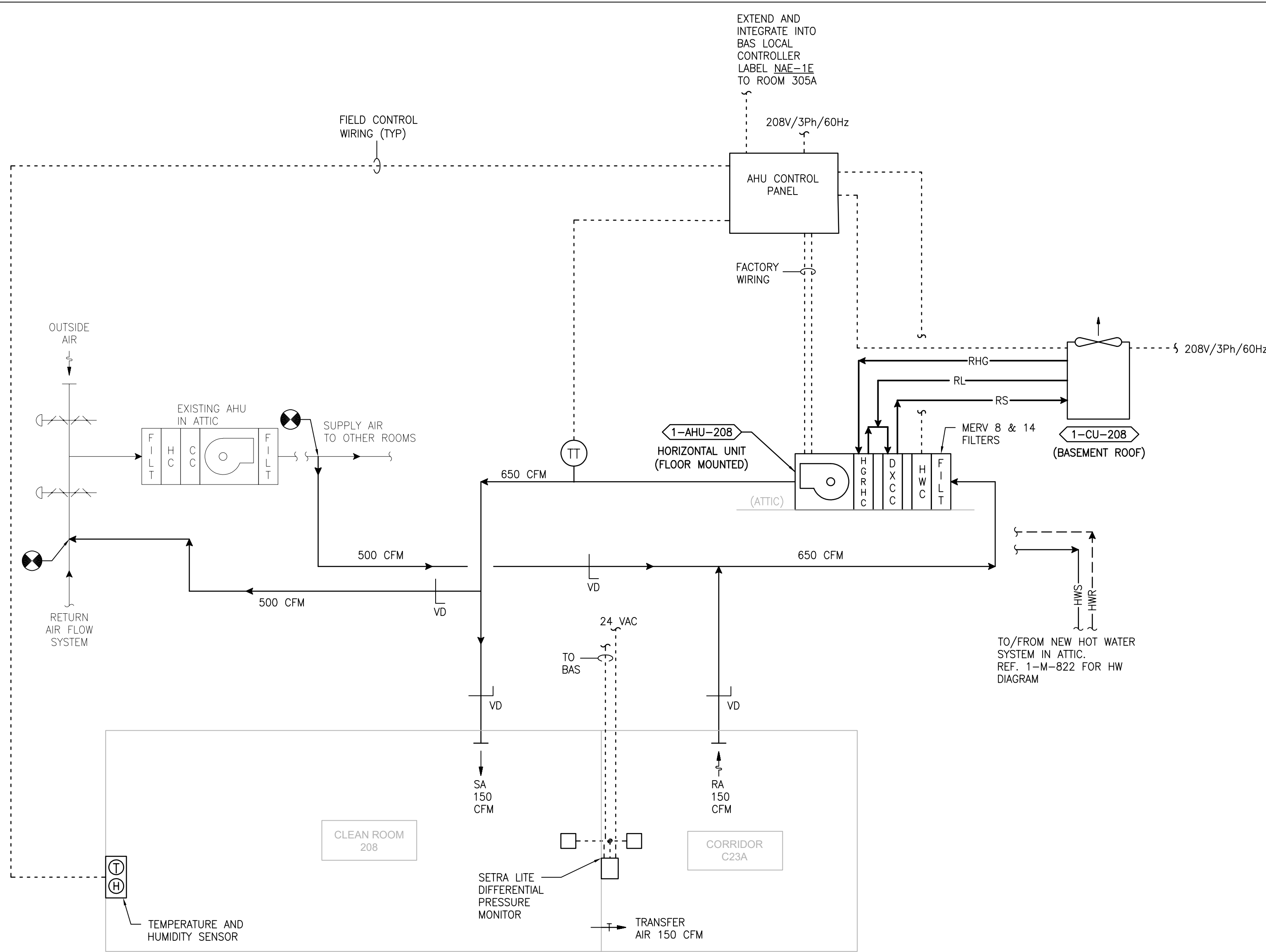
COOLING
IF ROOM TEMPERATURE RISES ABOVE SETPOINT (72°F) AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE COMPRESSOR SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

DEHUMIDIFYING
IF ROOM RELATIVE HUMIDITY RISES ABOVE SETPOINT (55% RH) AS SENSED BY THE WALL MOUNTED HUMIDITY SENSOR THE SYSTEM SHALL OVERRIDE THE COOLING COIL SETPOINT AND MODULATE THE HOT GAS REHEAT COIL TO MAINTAIN ROOM TEMPERATURE AND HUMIDITY SETPOINTS. DEHUMIDIFICATION SHALL BE INITIATED ANYTIME IN THE OCCUPIED, UNOCCUPIED, COOLING OR HEATING MODE.

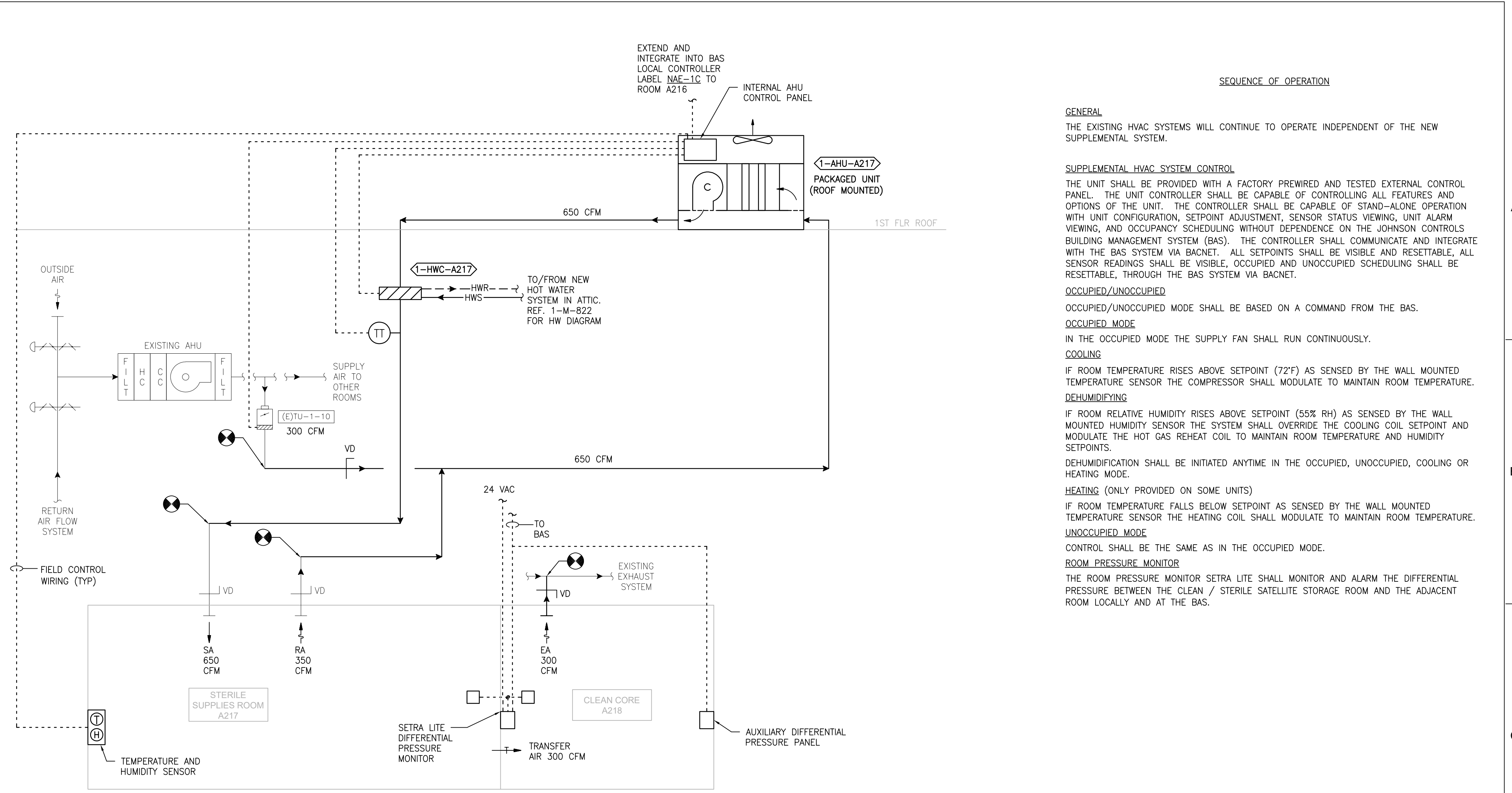
HEATING (ONLY PROVIDED ON SOME UNITS)
IF ROOM TEMPERATURE FALLS BELOW SETPOINT AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE HEATING COIL SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

UNOCCUPIED MODE
CONTROL SHALL BE THE SAME AS IN THE OCCUPIED MODE.

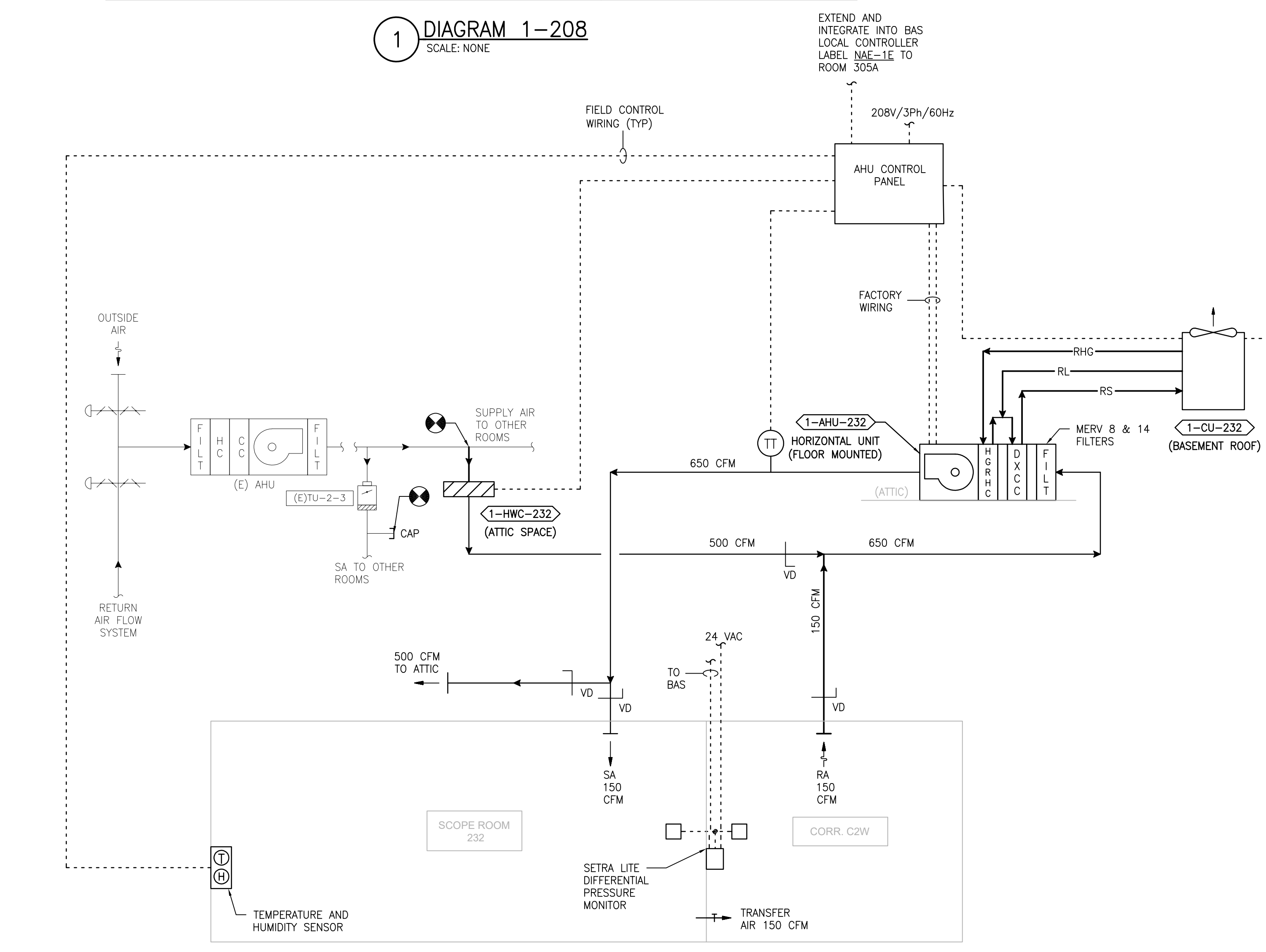
ROOM PRESSURE MONITOR
THE ROOM PRESSURE MONITOR SETRA LITE SHALL MONITOR AND ALARM THE DIFFERENTIAL PRESSURE BETWEEN THE CLEAN / STERILE SATELLITE STORAGE ROOM AND THE ADJACENT ROOM LOCALLY AND AT THE BAS.



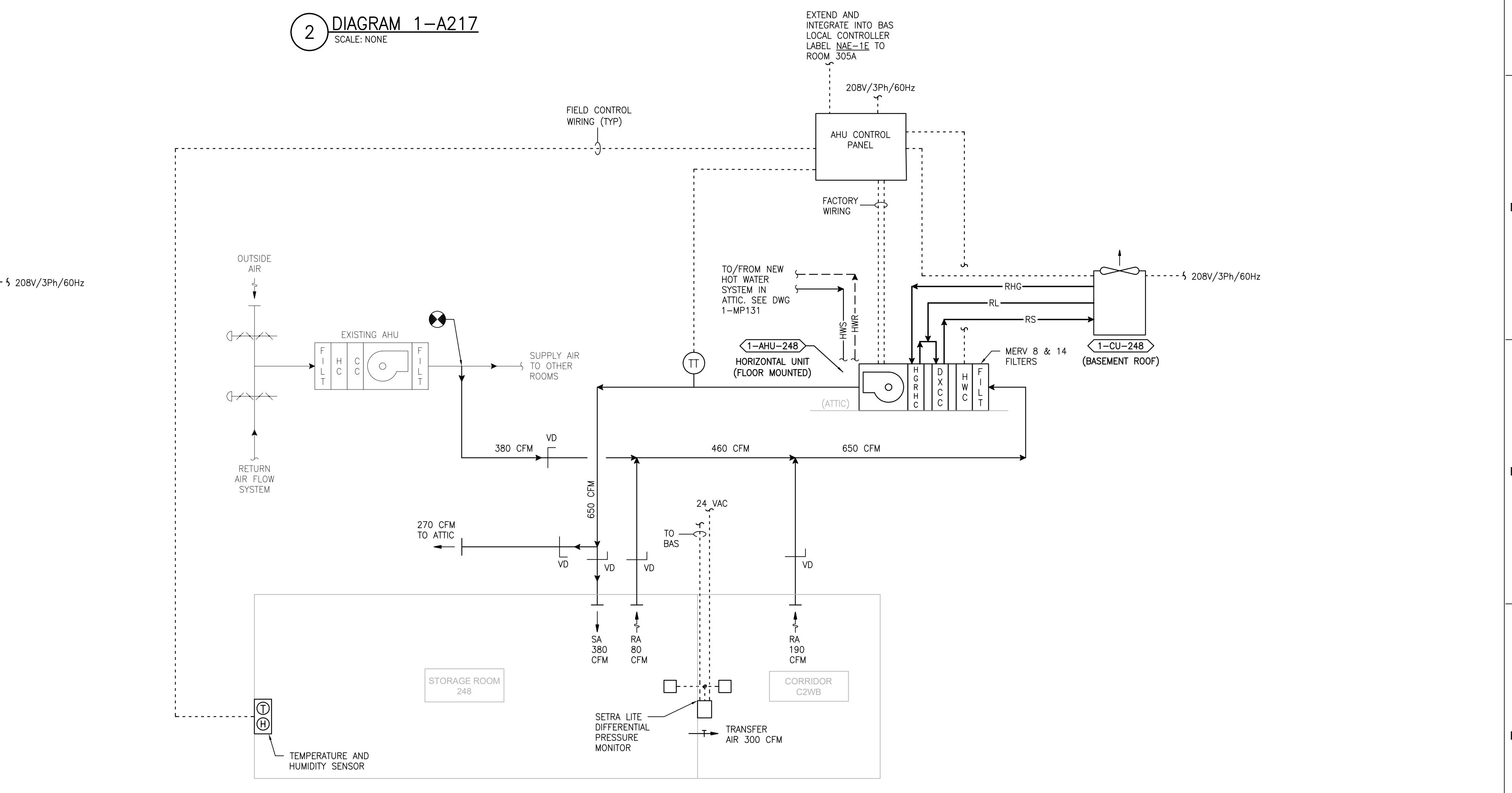
1 DIAGRAM 1-208
SCALE: NONE



2 DIAGRAM 1-A217
SCALE: NONE



3 DIAGRAM 1-232
SCALE: NONE



4 DIAGRAM 1-248
SCALE: NONE

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL AIRFLOW CONTROL DIAGRAMS SECOND FLOOR - BUILDING 1

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

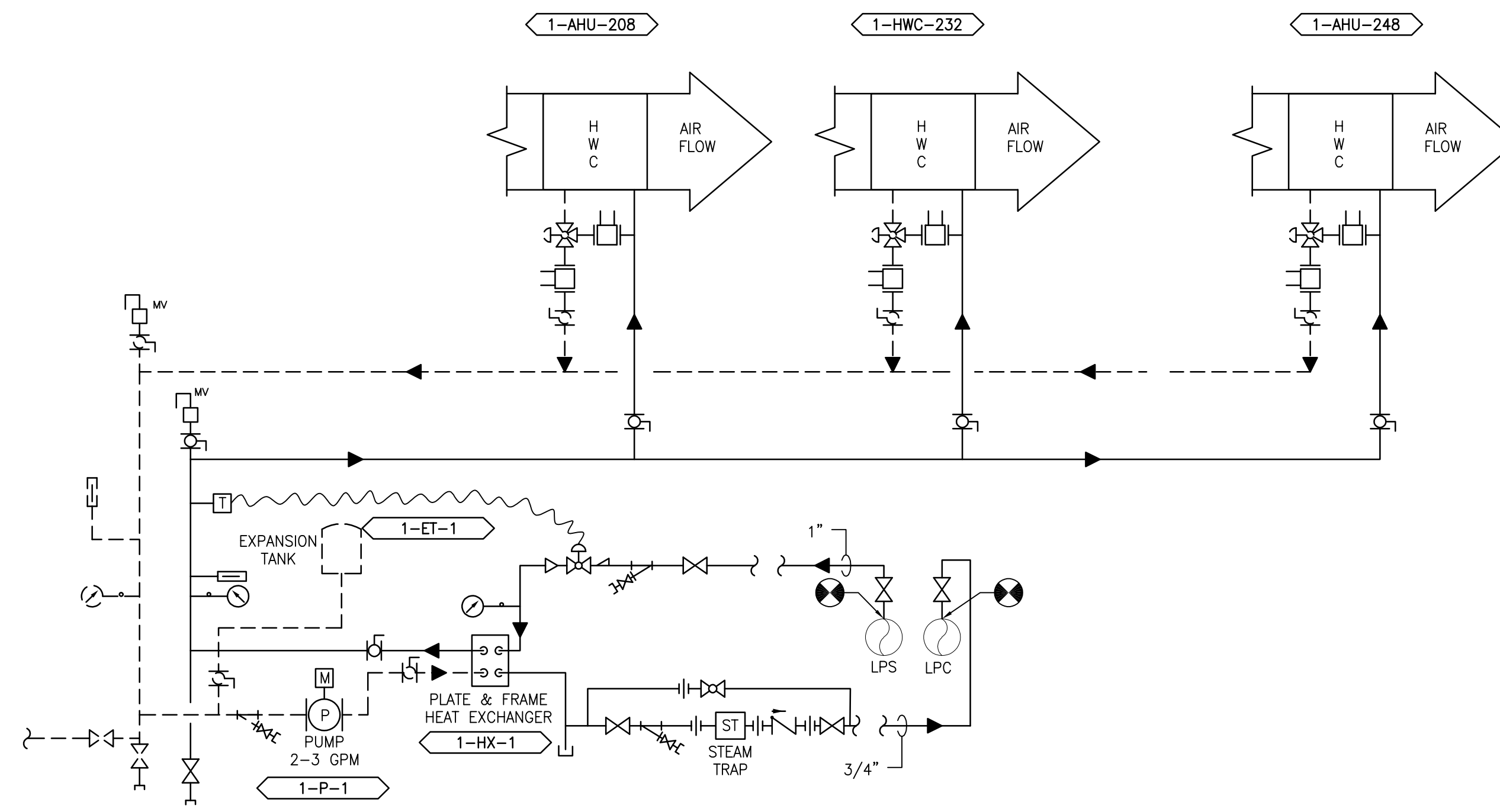
Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	MR	PNL

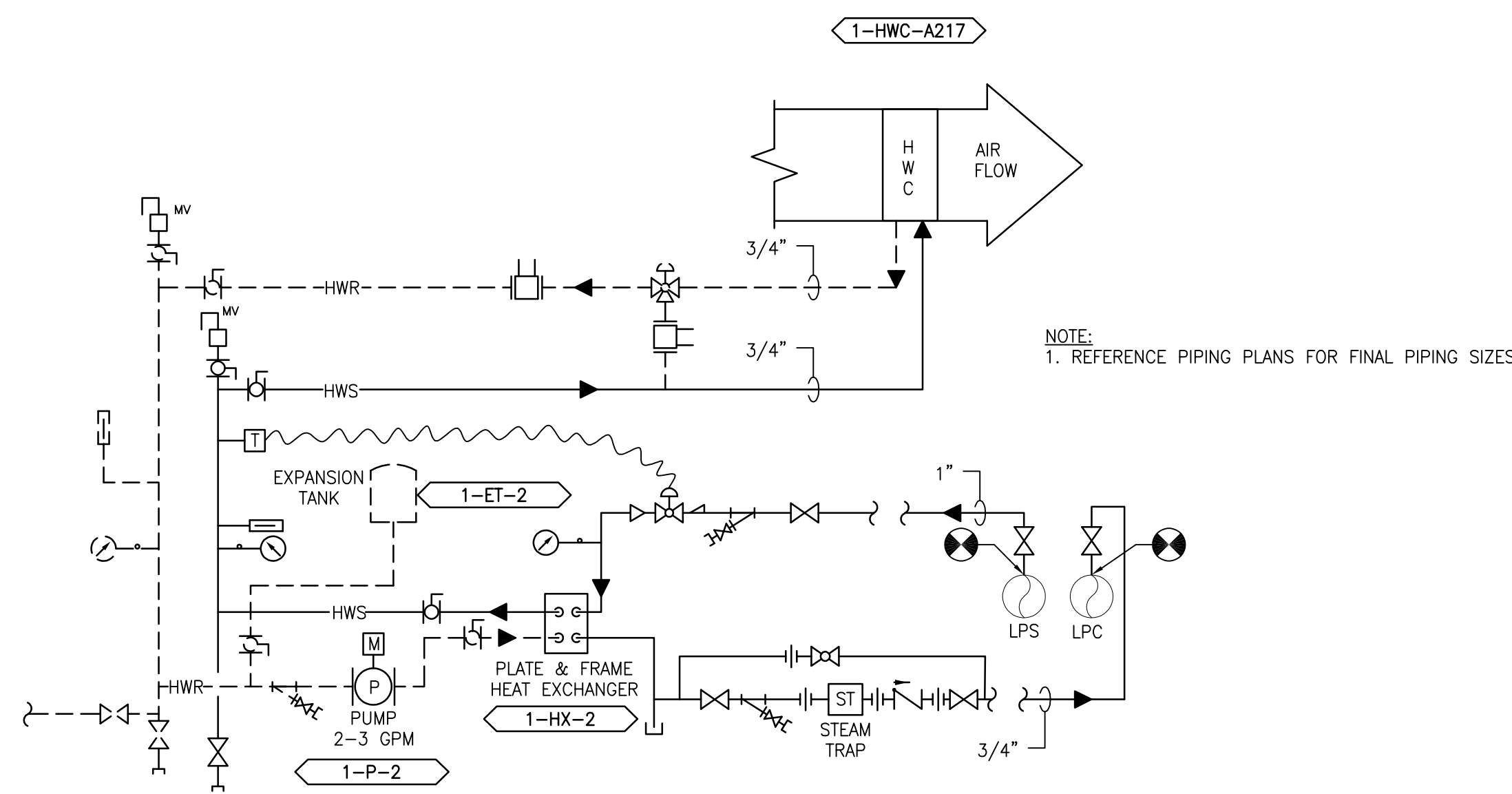
Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

Drawing Number
1-M-821



1 DIAGRAM 1-208 & 232 & 248
SCALE: NONE



2 DIAGRAM 1-A217
SCALE: NONE

NOTE:
1. REFERENCE PIPING PLANS FOR FINAL PIPING SIZES.

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM



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MR PROJECT NO: 0376-0011

MILLER-REMIK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management



Drawing Title
MECHANICAL
PIPING DIAGRAM
SECOND FLOOR - BUILDING 1

Approved: Project Director

Phase
100% CONSTRUCTION
DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC &
ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	MR	PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51,
111, 116

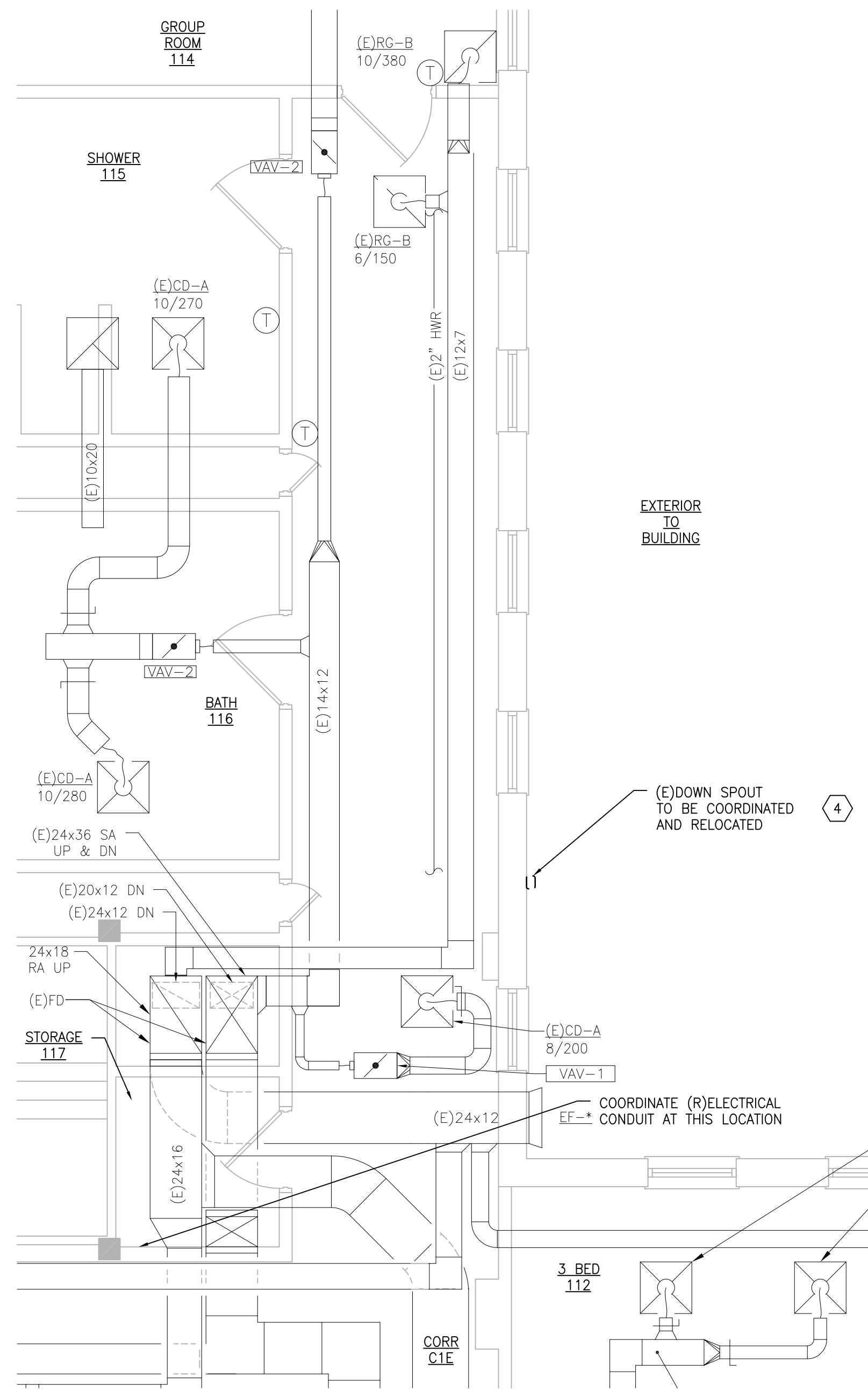
Drawing Number
1-M-822

GENERAL SHEET NOTES:

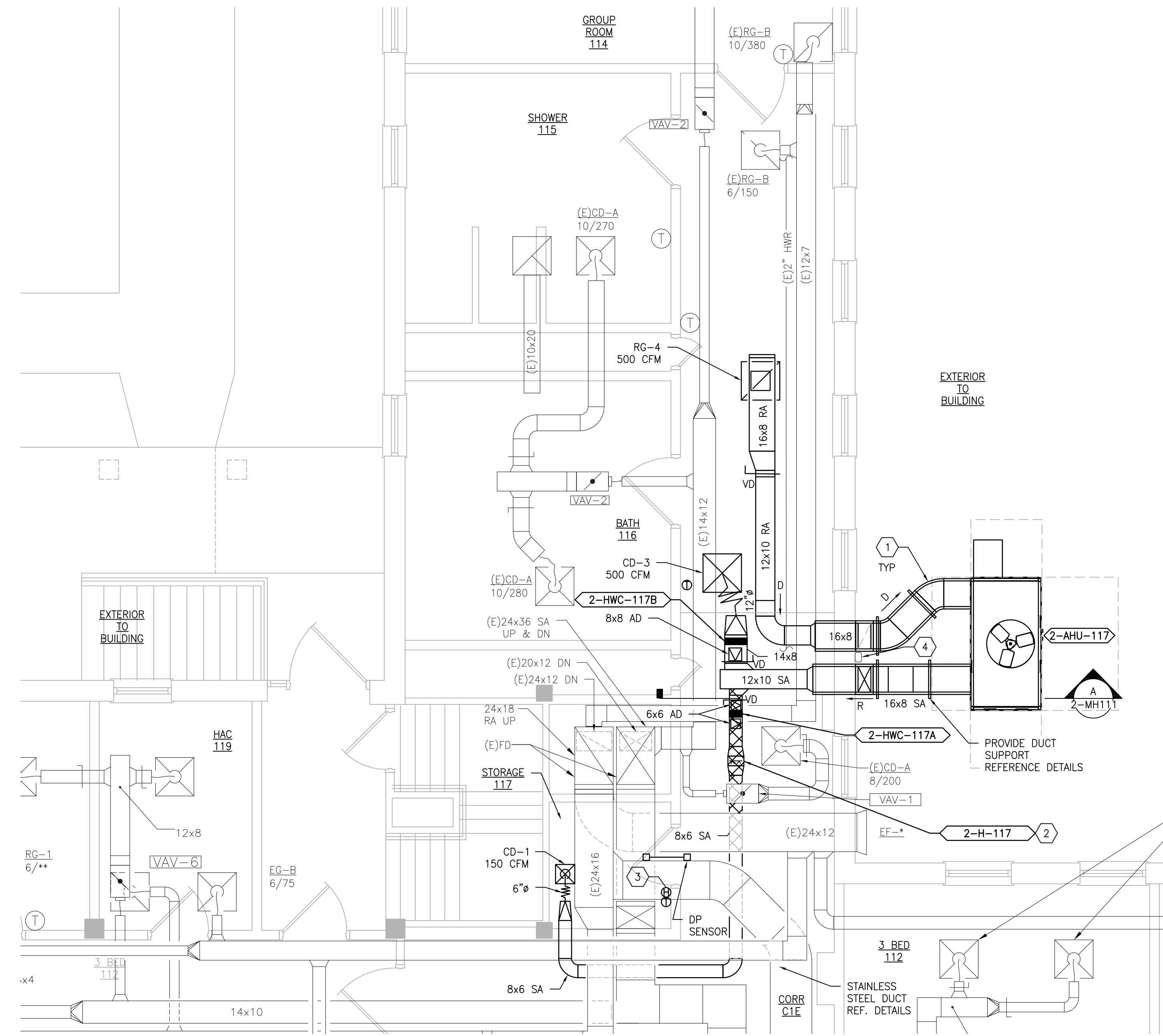
1. REFERENCE SPECIFICATION 02 82 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
3. ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
4. MODIFY SPRINKLER PIPING IF REQUIRED TO INSTALL NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
5. MAINTAIN SERVICE CLEARANCE ON NEW AND EXISTING EQUIPMENT. REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUALS FOR ADDITIONAL INFORMATION.
6. ADHERE TO ALL ICRA REQUIREMENTS LISTED IN THE ARCHITECTURAL SET. THE ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. PROTECT ALL EQUIPMENT IN THE ROOM FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
7. AVOID ALL CEILING OR WALL MOUNTED DEVICES (I.E. SIGNAGE, LIGHT FIXTURE, NURSE CALL) WHEN LOCATING ICRA BARRIERS. WHEN EXISTING DEVICE(S) CANNOT BE AVOIDED, TEMPORARILY RELOCATE THE DEVICE(S) AND REINSTALL AFTER WORK IS COMPLETED AS APPROVED BY THE COR.
8. REMOVE AND REPLACE EXISTING CEILINGS REFER TO THE ARCHITECTURAL DRAWING FOR ADDITIONAL INFORMATION.
9. TAKE PREDEMOLITION READINGS OF ALL ROOM AIR INLETS AND OUTLETS OF ANY SYSTEM THE WILL BE MODIFIED AND SUBMIT TO THE VA AND ENGINEER FOR RECORD PRIOR TO STARTING ANY NEW WORK. BALANCE THE NEW SYSTEMS AND REBALANCE THE EXISTING ASSOCIATED AHU SYSTEM TO THE NEW AIR QUANTITIES. AFTER THE NEW WORK IS COMPLETE REBALANCE THE EXISTING SYSTEM, AS REQUIRED, AND MEASURE ALL ROOM AIR INLETS AND OUTLETS TO VERIFY THAT THE PREDEMOLITION AIRFLOWS HAVE BEEN MAINTAINED. SUBMIT FOR APPROVAL. REFERENCE SPECIFICATIONS FOR TESTING AND BALANCING REQUIREMENTS.
10. ALL DUCTWORK PENETRATIONS SHALL BE SAW CUT. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
11. CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

SHEET KEYNOTES:

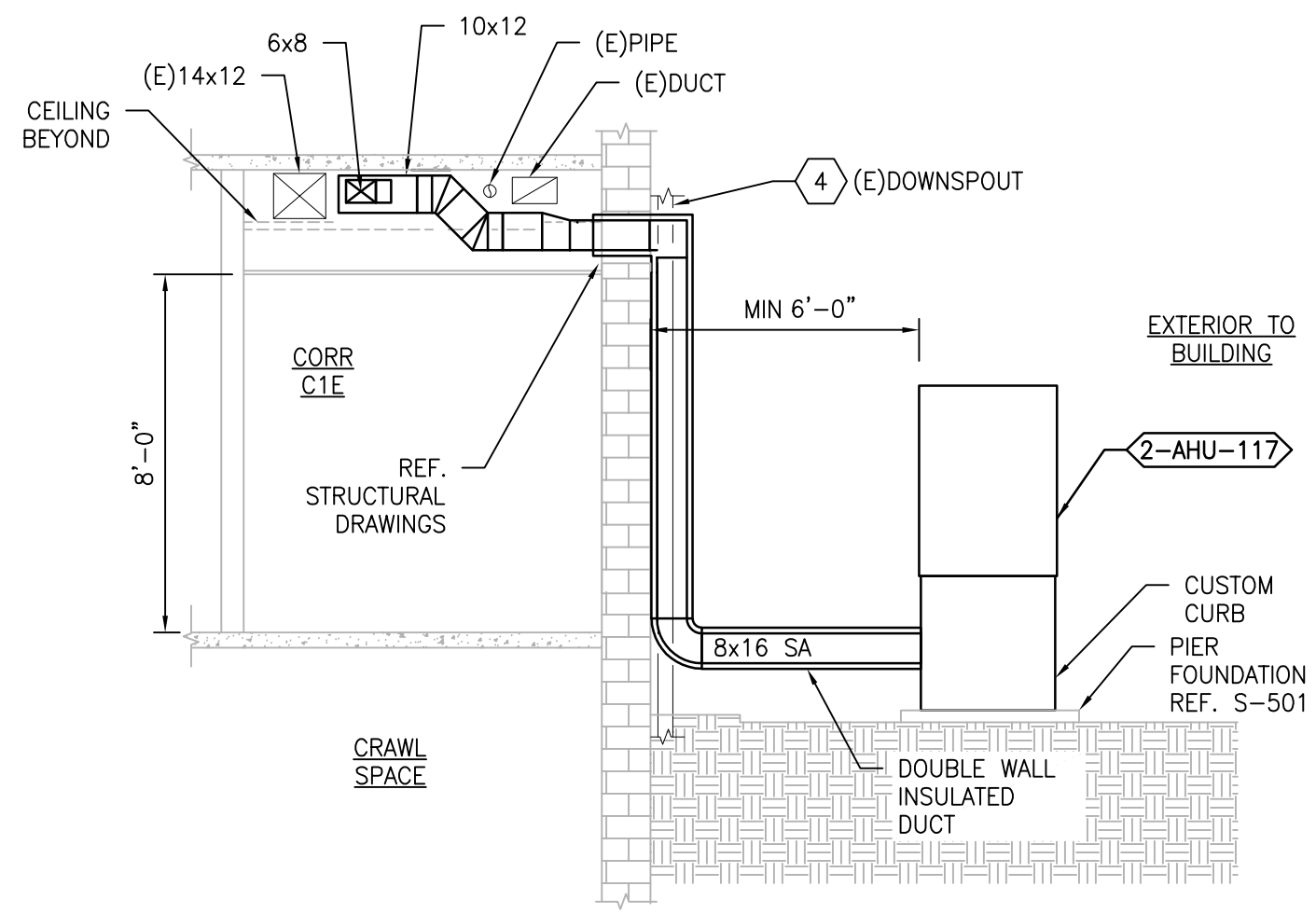
1. INSULATED DOUBLE WALL DUCT ON THE EXTERIOR OF THE BUILDING WITH DOUBLE WALL FLEXIBLE CONNECTION.
2. INSTALL HUMIDIFIER AND DUCT/PIPE AS INDICATED ON THE DRAWING DRAWING 2-MP111 AND 2-M-81. PROVIDE DRAINABLE STAINLESS STEEL DUCTWORK FOR PORTION SHOWN.
3. TEMPERATURE AND HUMIDITY SENSOR FURNISHED BY AHU MANUFACTURER.
4. RE-ROUTE (E)DOWNSPOUT TO INSTALL NEW DUCTWORK.



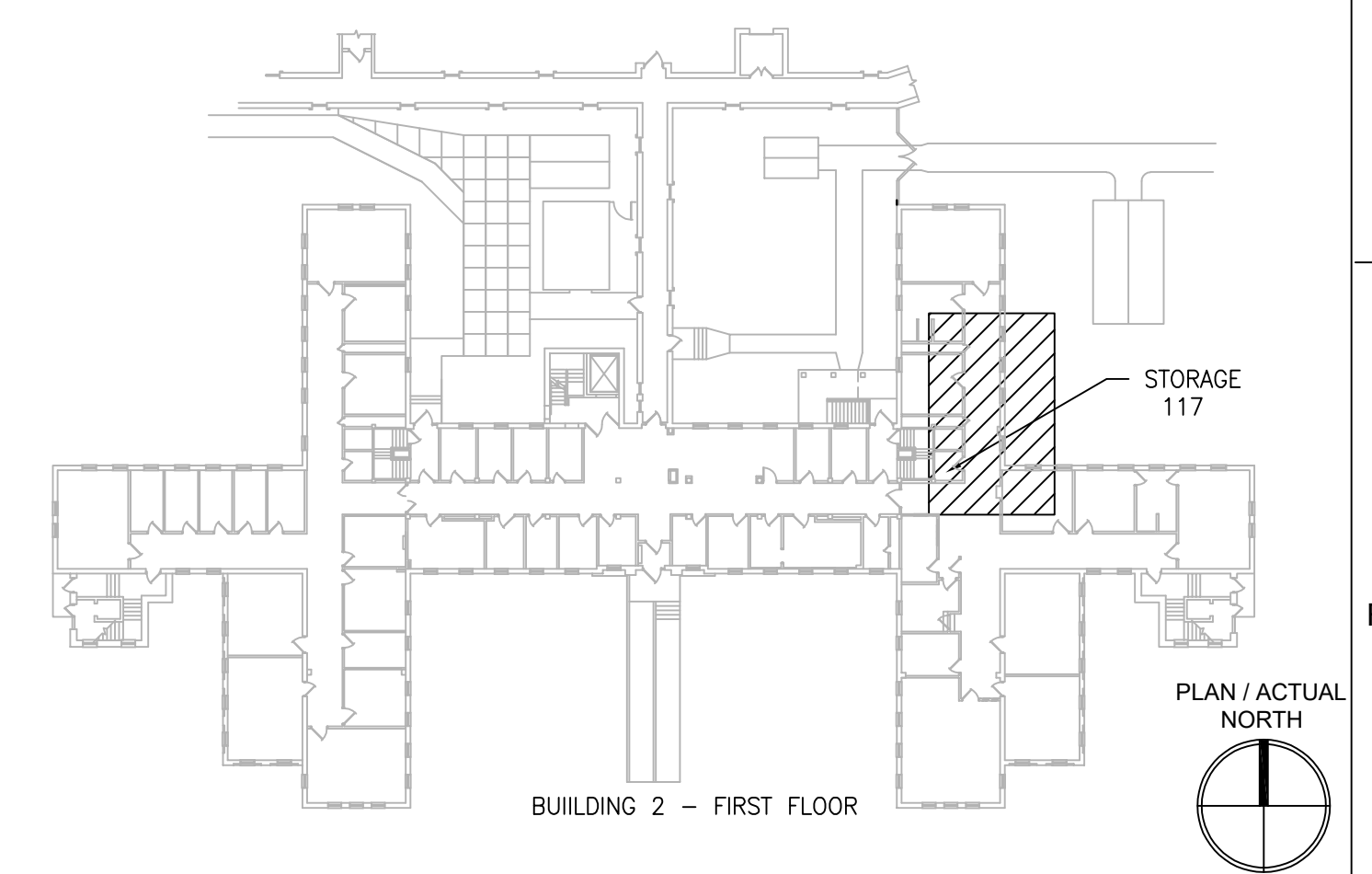
1 BUILDING 2 FIRST FLOOR ROOM 117 - DEMOLITION
SCALE: 1/4" = 1'-0"



2 BUILDING 2 FIRST FLOOR ROOM 117 - NEW WORK
SCALE: 1/4" = 1'-0"



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



KEYPLAN
SCALE: NTS

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

PROJECT TEAM

COMMISSIONER'S OFFICE

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1-866-267-6839

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 2

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
MR

Drawn
PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

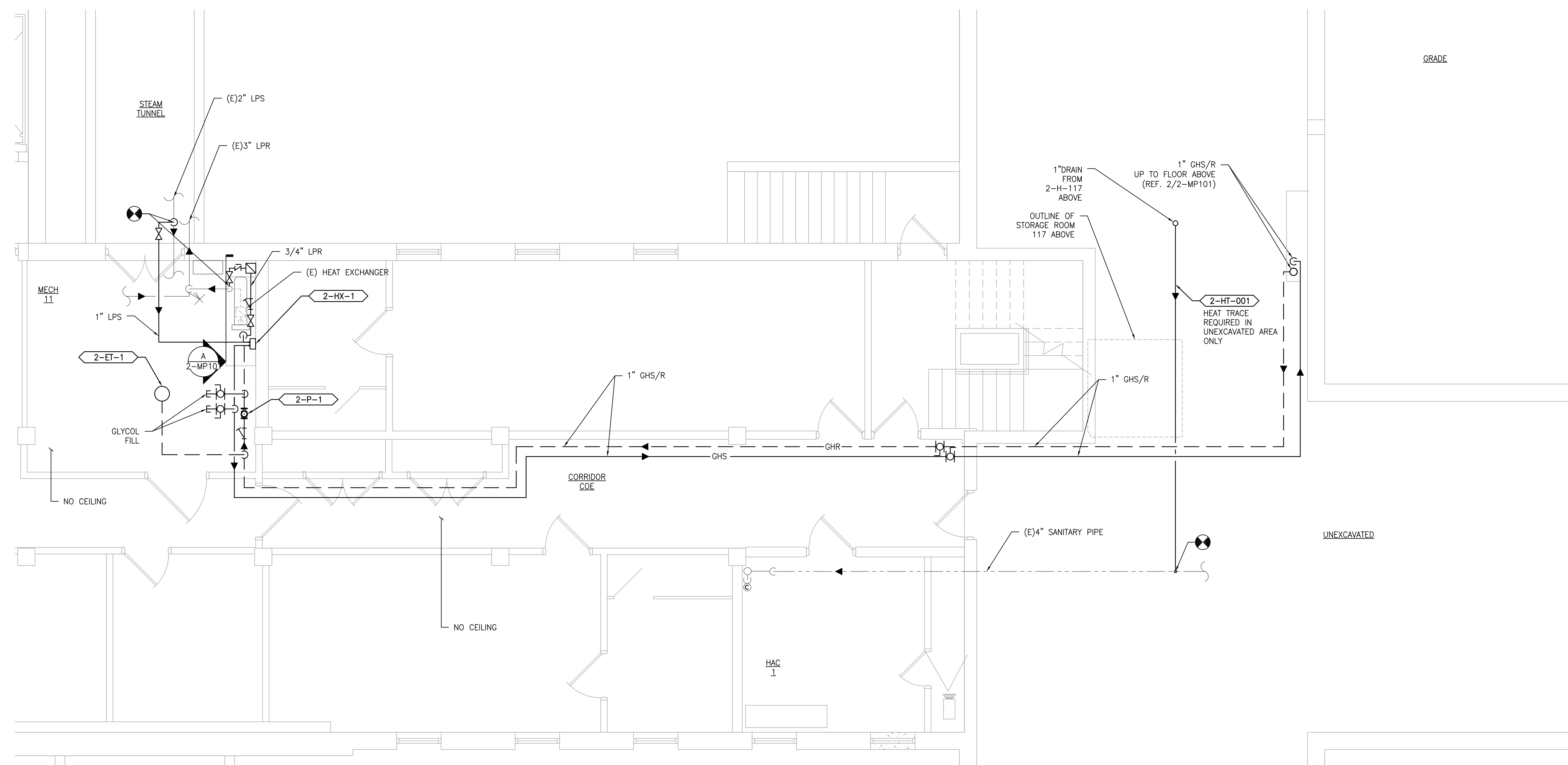
Drawing Number
2-MH111

GENERAL SHEET NOTES:

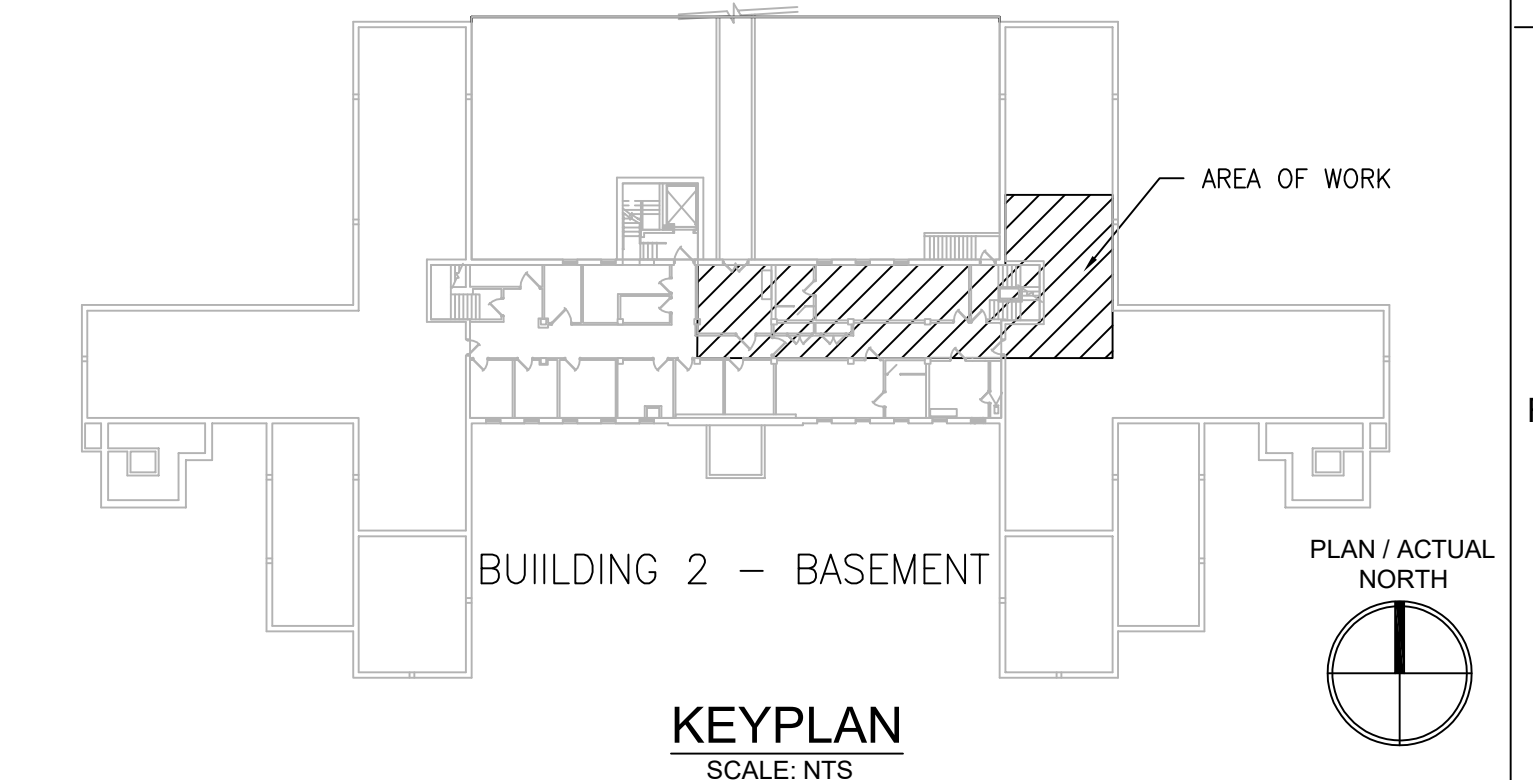
1. REFERENCE SPECIFICATION 02-B2 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
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8. REMOVE AND REPLACE EXISTING CEILING REFER TO THE ARCHITECTURAL DRAWING FOR ADDITIONAL INFORMATION.
9. NOT ALL PIPING COMPONENTS ARE SHOWN. REFER TO DETAILS AND SPECIFICATIONS FOR ALL REQUIRED VALVES, UNIONS, GAUGES, STRAINERS, ETC.
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SECTION A-A
SCALE: NONE
2-MP101



1 BUILDING 2 BASEMENT -- PARTIAL PIPING PLAN
SCALE: 1/4" = 1'-0"



KEYPLAN
SCALE: NTS

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NO.	DESCRIPTION	DATE

PROJECT TEAM

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Forest, VA 24551
1-866-267-6839

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL PARTIAL PIPING PLAN BASEMENT - BUILDING 2

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date	Checked	Drawn
2022-07-15	MR	PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

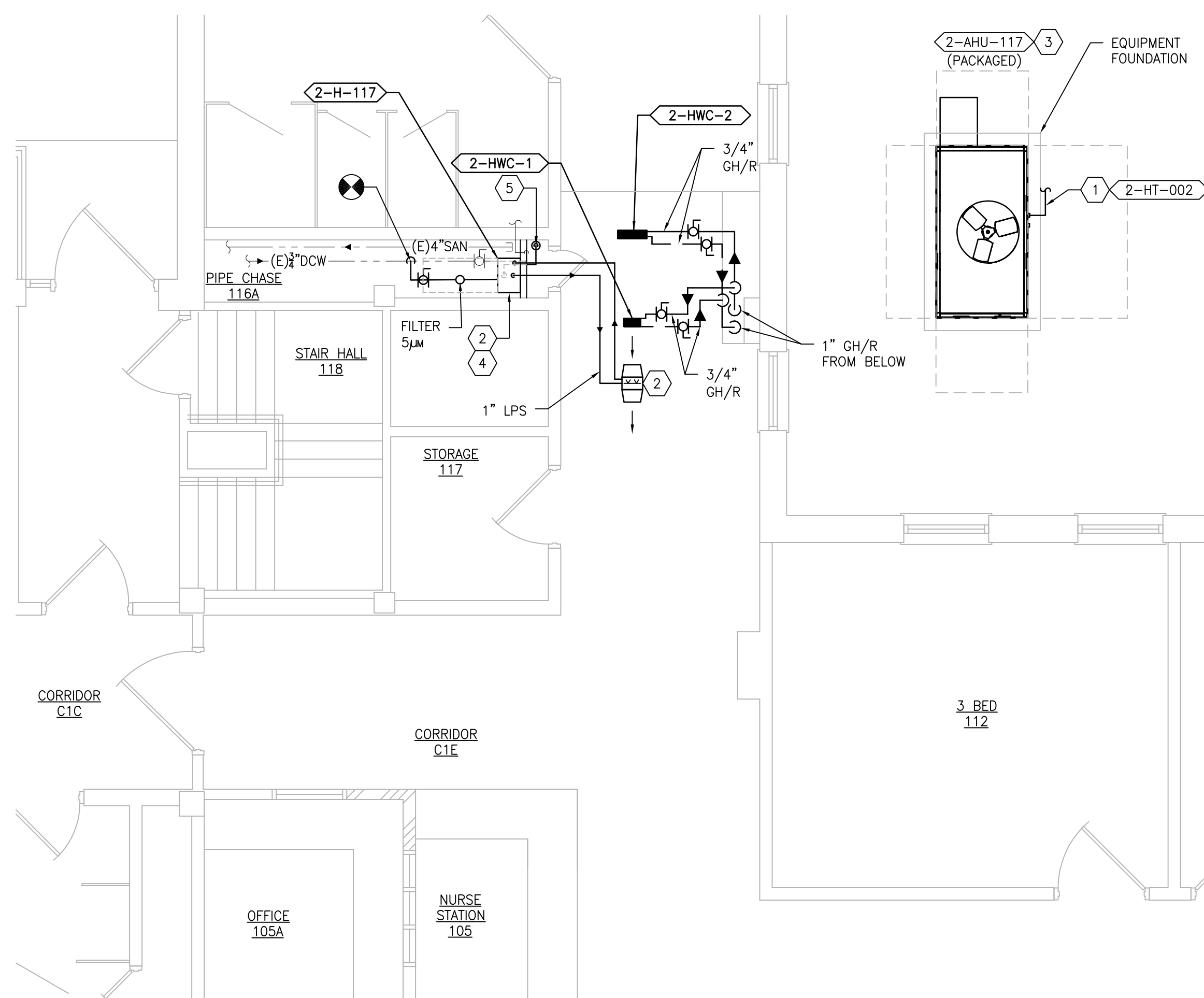
Drawing Number
2-MP101

GENERAL SHEET NOTES:

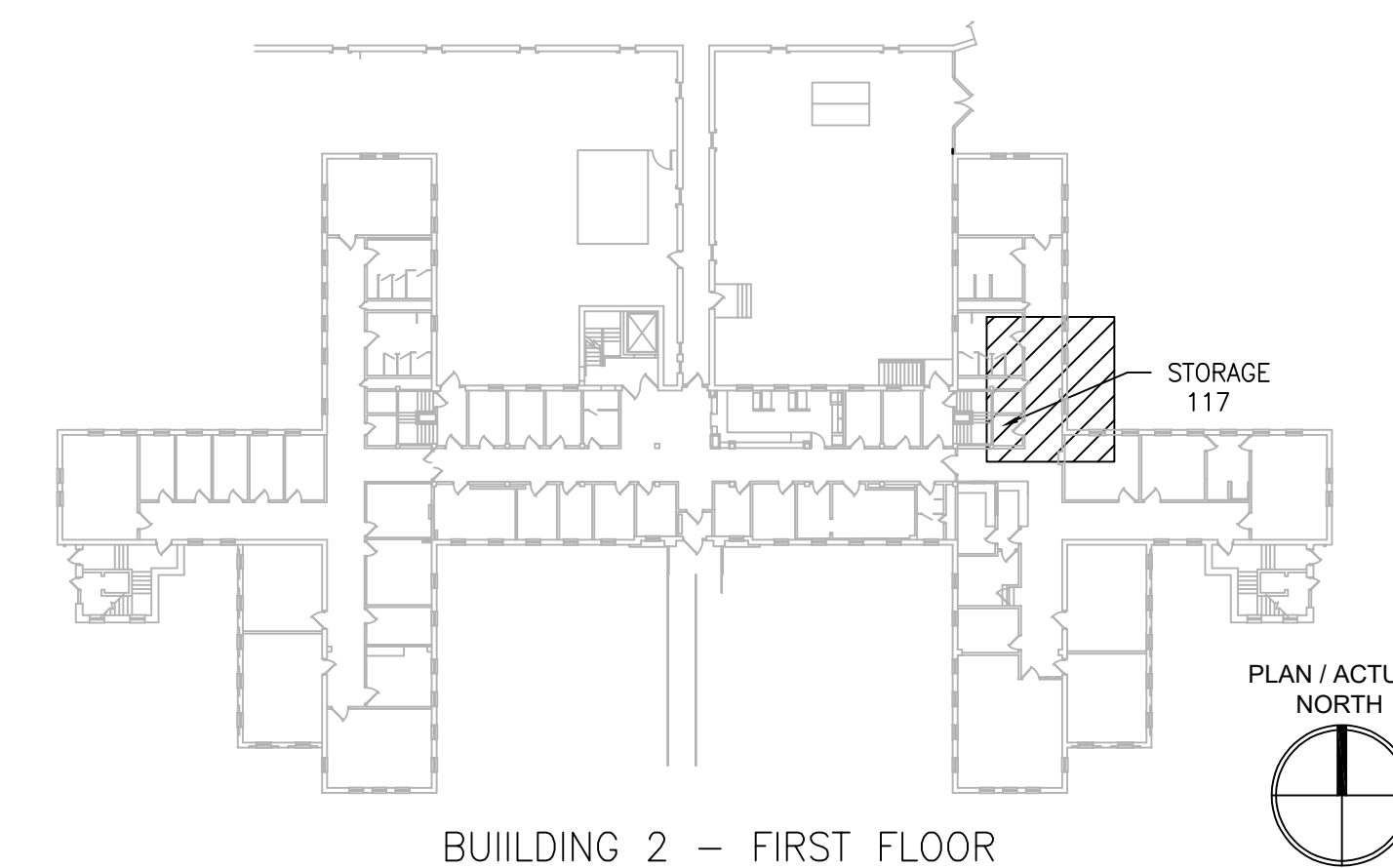
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12. CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

SHEET KEYNOTES:

1. PROVIDE FULL SIZED CONDENSATE DRAIN WITH 4" DEEP TRAP. PROVIDE HEAT TRACE PER SCHEDULE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. INSTALL HUMIDIFIER PIPE/DUCT AS INDICATED ON THE DETAILS DRAWING M-503/8 AND DRAWING 2-MH111.
3. MAINTAIN 6'-0" MINIMUM IN ALL DIRECTIONS FROM THE BUILDING TO PROTECT AGAINST FALLING SNOW AND ICE.
4. HANG HUMIDIFIER WITH UNI-STRUT HIGH IN CHASE. ALLOW 3' CLEAR SPACE IN FRONT OF HUMIDIFIER FOR SERVICE CLEARANCE.
5. 1" CONDENSATE TO FUNNEL DRAIN WITH AIR GAP DOWN TO FLOOR BELOW. ROUTE PER HUMIDIFIER MANUFACTURER'S RECOMMENDATIONS.



1 BUILDING 2 - FIRST FLOOR PARTIAL PIPING PLAN
SCALE: 1/4" = 1'-0"



KEYPLAN
SCALE: NTS

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NO.	DESCRIPTION	DATE

PROJECT TEAM



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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management



Drawing Title
**MECHANICAL
PARTIAL PIPING PLAN
FIRST FLOOR - BUILDING 2**

Approved: Project Director

Phase
100% CONSTRUCTION
DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
**UPGRADE SPS HVAC &
ENVIRONMENTAL CONTROLS**

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
MR

Drawn
PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51,
111, 116

Drawing Number
2-MP111

SEQUENCE OF OPERATION

GENERAL
 THE EXISTING HVAC SYSTEMS WILL CONTINUE TO OPERATE INDEPENDENT OF THE NEW SUPPLEMENTAL SYSTEM.

SUPPLEMENTAL HVAC SYSTEM CONTROL
 THE UNIT SHALL BE PROVIDED WITH A FACTORY PREWIRED AND TESTED EXTERNAL CONTROL PANEL. THE UNIT CONTROLLER SHALL BE CAPABLE OF CONTROLLING ALL FEATURES AND OPTIONS OF THE UNIT. THE CONTROLLER SHALL BE CAPABLE OF STAND-ALONE OPERATION WITH UNIT CONFIGURATION, SETPOINT ADJUSTMENT, SENSOR STATUS VIEWING, UNIT ALARM VIEWING, AND OCCUPANCY SCHEDULING WITHOUT DEPENDENCE ON THE JOHNSON CONTROLS BUILDING MANAGEMENT SYSTEM (BMS). THE CONTROLLER SHALL COMMUNICATE AND INTEGRATE WITH THE BMS SYSTEM VIA BACNET. ALL SETPOINTS SHALL BE VISIBLE AND RESETTABLE. ALL SENSOR READINGS SHALL BE VISIBLE. OCCUPIED AND UNOCCUPIED SCHEDULING SHALL BE RESETTABLE, THROUGH THE BMS SYSTEM VIA BACNET.

OCCUPIED/UNOCCUPIED
 OCCUPIED/UNOCCUPIED MODE SHALL BE BASED ON A COMMAND FROM THE BMS.

OCCUPIED MODE
 IN THE OCCUPIED MODE THE SUPPLY FAN SHALL RUN CONTINUOUSLY.

COOLING
 IF ROOM TEMPERATURE RISES ABOVE SETPOINT AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE COMPRESSOR SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

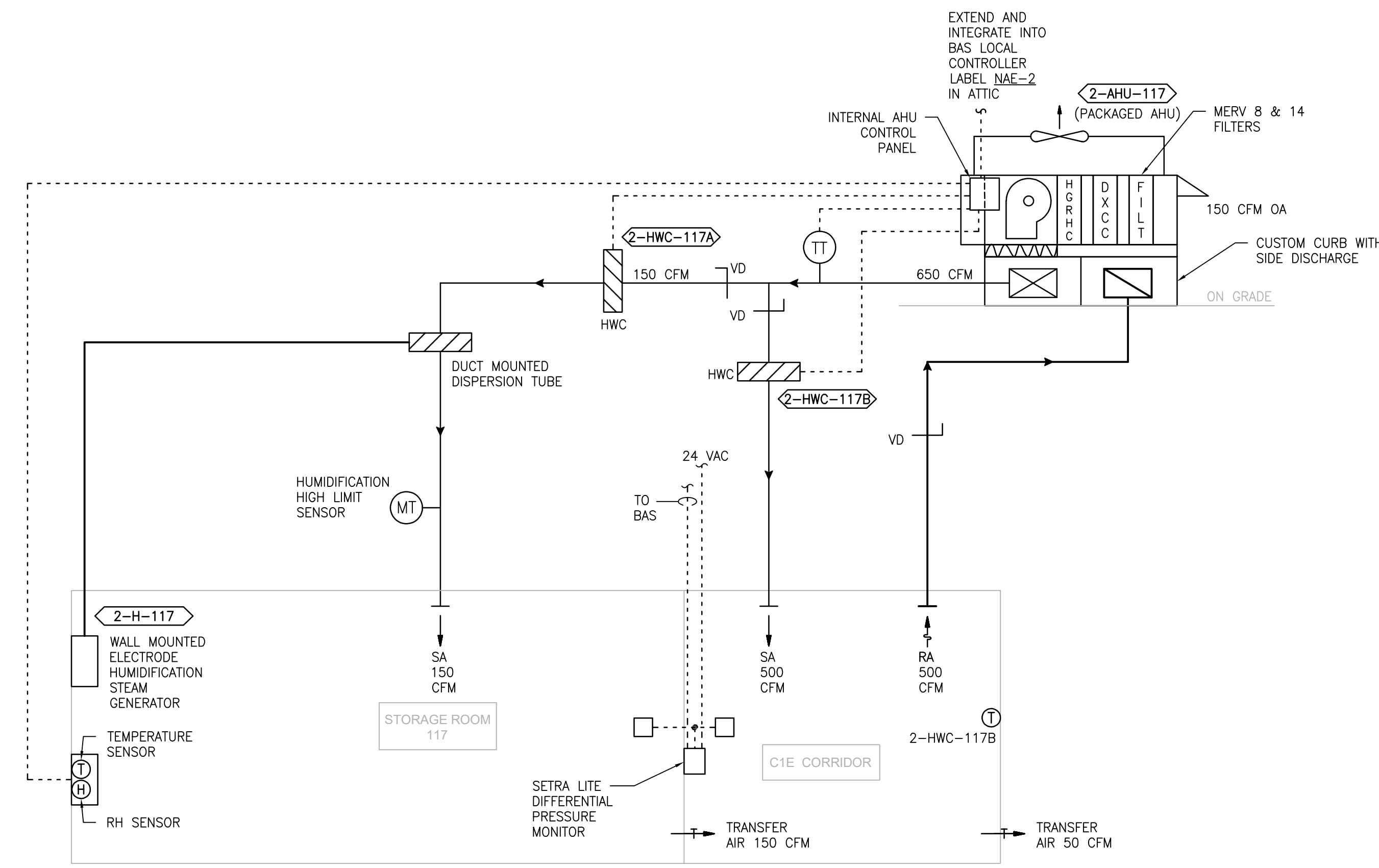
DEHUMIDIFYING
 IF ROOM RELATIVE HUMIDITY RISES ABOVE SETPOINT AS SENSED BY THE WALL MOUNTED HUMIDITY SENSOR THE SYSTEM SHALL OVERRIDE THE COOLING COIL SETPOINT AND MODULATE THE HOT GAS REHEAT COIL TO MAINTAIN ROOM TEMPERATURE AND HUMIDITY SETPOINTS. DEHUMIDIFICATION SHALL BE INITIATED ANYTIME IN THE OCCUPIED, UNOCCUPIED, COOLING OR HEATING MODE.

HEATING (ONLY PROVIDED ON SOME UNITS)
 IF ROOM TEMPERATURE FALLS BELOW SETPOINT AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE HEATING COIL SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

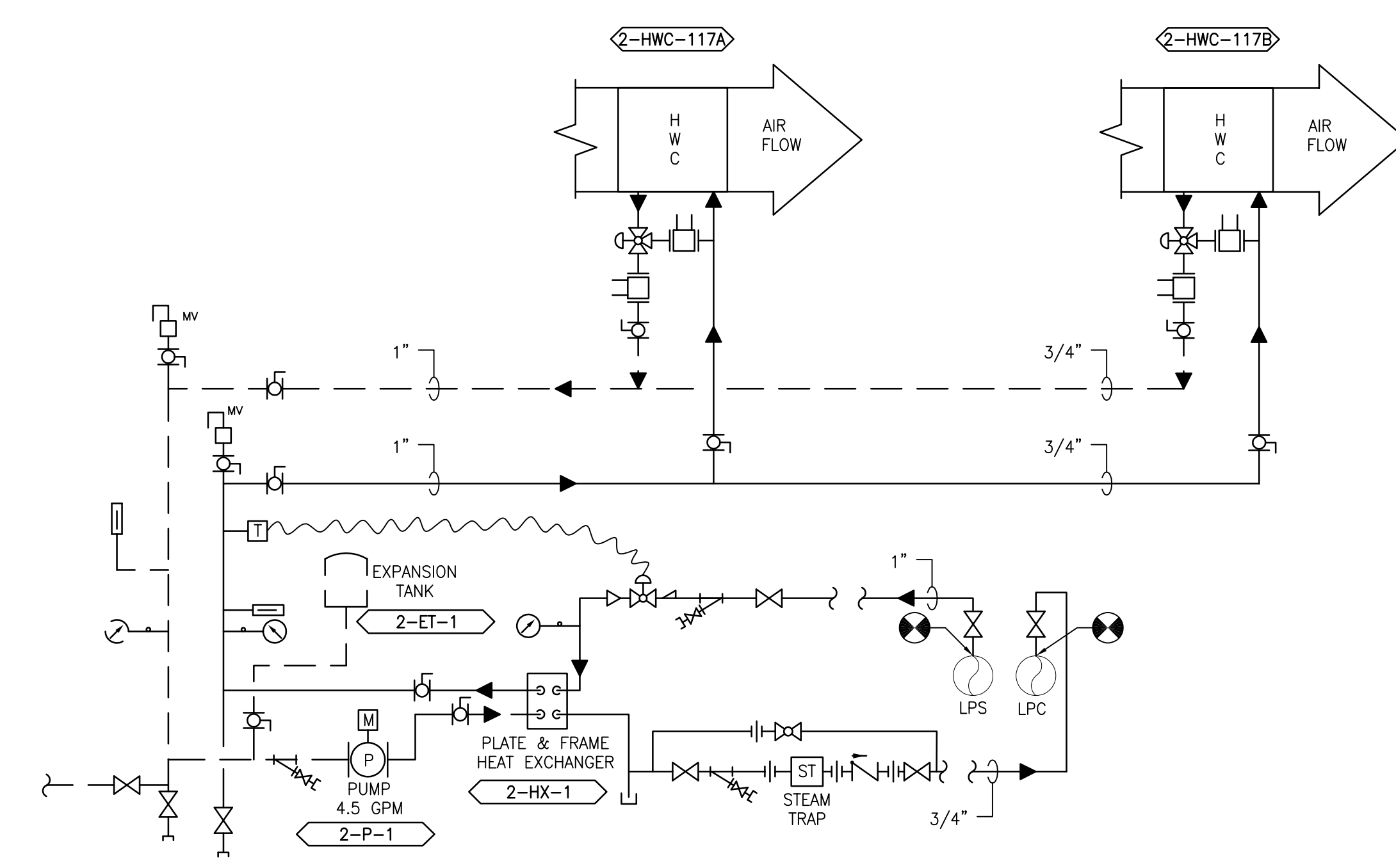
UNOCCUPIED MODE
 IN THE UNOCCUPIED MODE THE SUPPLY FAN SHALL RUN CONTINUOUSLY. IN THE UNOCCUPIED MODE THE UNIT SHALL OPERATE IF THE ROOM TEMPERATURE OR RELATIVE HUMIDITY LIMITS ARE REACHED.

ON A CALL FOR COOLING, DEHUMIDIFYING, OR HEATING THE CONTROL SHALL BE THE SAME AS IN THE OCCUPIED MODE.

ROOM PRESSURE MONITOR
 THE ROOM PRESSURE MONITOR SETRA LITE SHALL MONITOR AND ALARM THE DIFFERENTIAL PRESSURE BETWEEN THE CLEAN / STERILE SATELLITE STORAGE ROOM AND THE ADJACENT ROOM LOCALLY AND AT THE BAS.



1 DIAGRAM 1 - 117
 SCALE: NONE



2 DIAGRAM 2 - 217
 SCALE: NONE

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NO.	DESCRIPTION	DATE

PROJECT TEAM

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 1-866-267-6839

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 FAX: (856)429-9002
 MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
 MECHANICAL AIRFLOW CONTROL & PIPING DIAGRAM FIRST FLOOR - BUILDING 2

Approved: Project Director

Phase
 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
 UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
 ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
 2022-07-15

Checked
 MR

Drawn
 PNL

Project Number
 656-18-300

Building Number
 1, 2, 3, 28, 29, 49, 50, 51, 111, 116

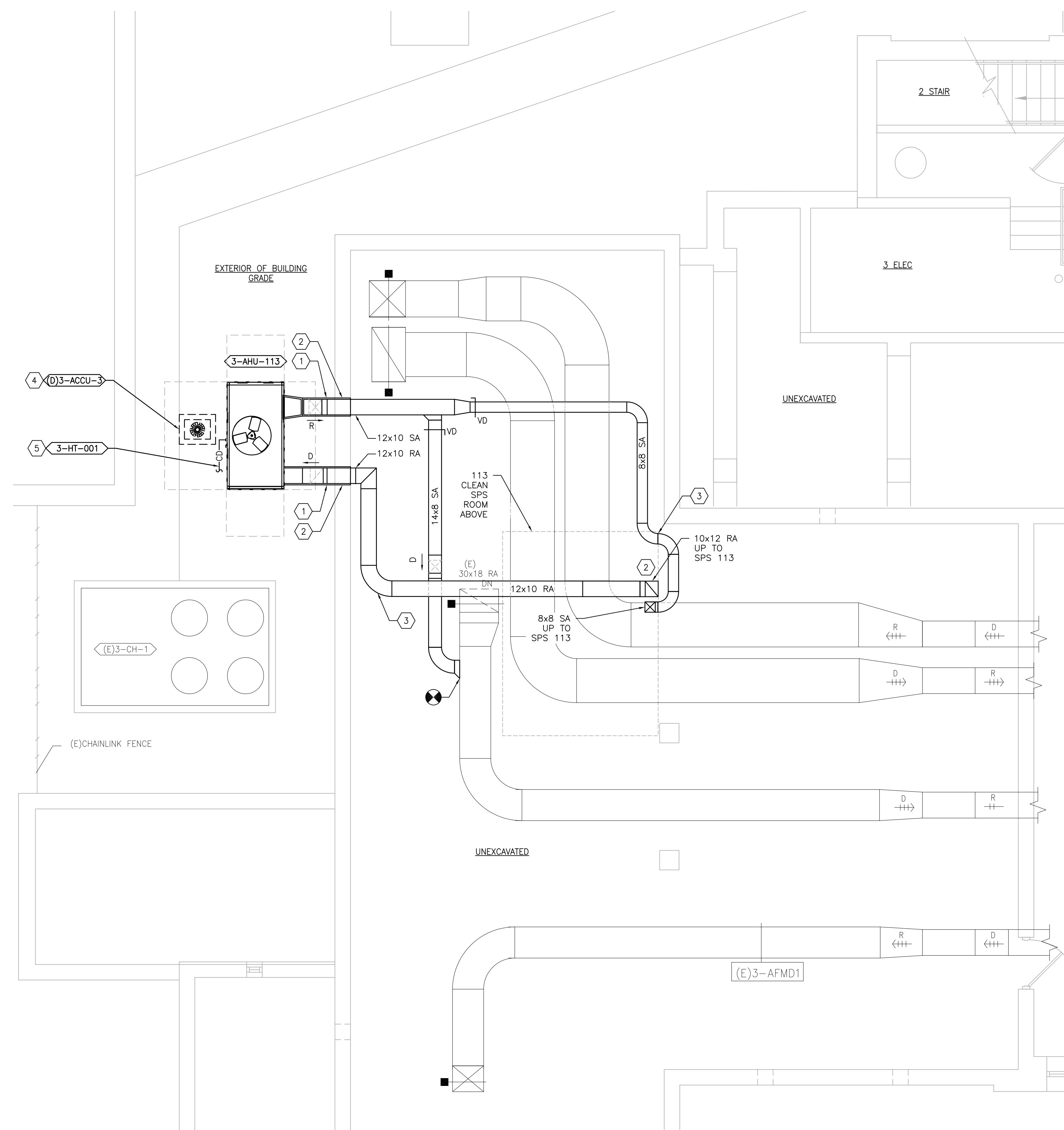
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GENERAL SHEET NOTES:

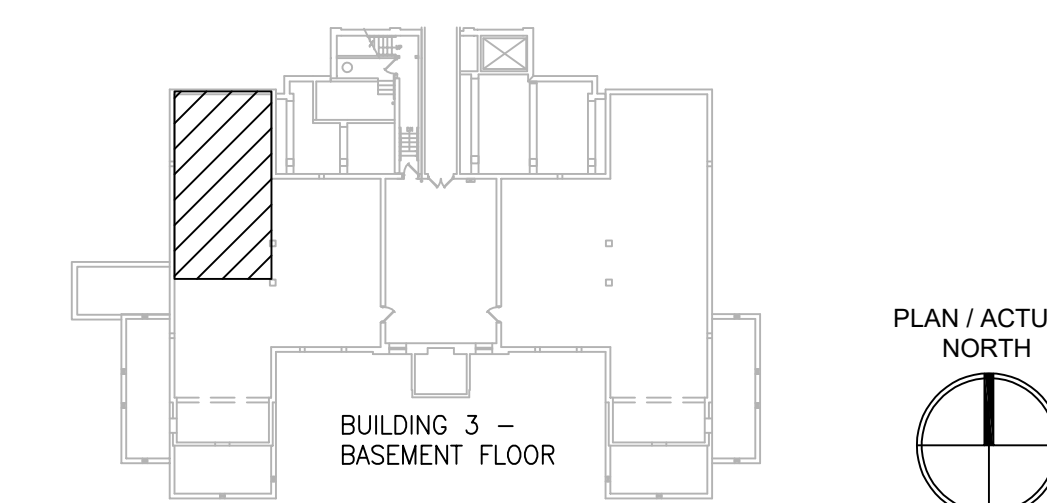
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SHEET KEYNOTES:

1. EXTERIOR DUCTWORK SHALL BE DOUBLE WALLED INSULATED CONSTRUCTION.
2. REFERENCE STRUCTURAL DRAWINGS FOR WALL AND FLOOR PENETRATIONS.
3. OFFSET NEW SUPPLY AND RETURN DUCTWORK AS REQUIRED TO FACILITATE INSTALLATION OF NEW WORK. RELOCATE EXISTING HANGERS AND SUPPORTS AS REQUIRED.
4. REMOVE EXISTING CONDENSING UNIT 3-ACCU-3 INCLUDING PIPING, EQUIPMENT PAD, HANGERS AND ALL APPURTENANCES.
5. PROVIDE FULL SIZED CONDENSATE DRAIN WITH 4" DEEP TRAP. PROVIDE HEAT TRACE PER SCHEDULE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.



1 BUILDING 3 BASEMENT - DEMOLITION / NEW WORK PLAN
SCALE: 1/4" = 1'-0"



KEYPLAN
SCALE: NTS

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NO.	DESCRIPTION	DATE

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MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of
Construction
and Facilities
Management



Drawing Title
**MECHANICAL
DEMOLITION / NEW WORK PLAN
BASEMENT - BUILDING 3**

Approved: Project Director

Phase
100% CONSTRUCTION
DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
**UPGRADE SPS HVAC &
ENVIRONMENTAL CONTROLS**

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
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Checked
MR

Drawn
PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51,
111, 116

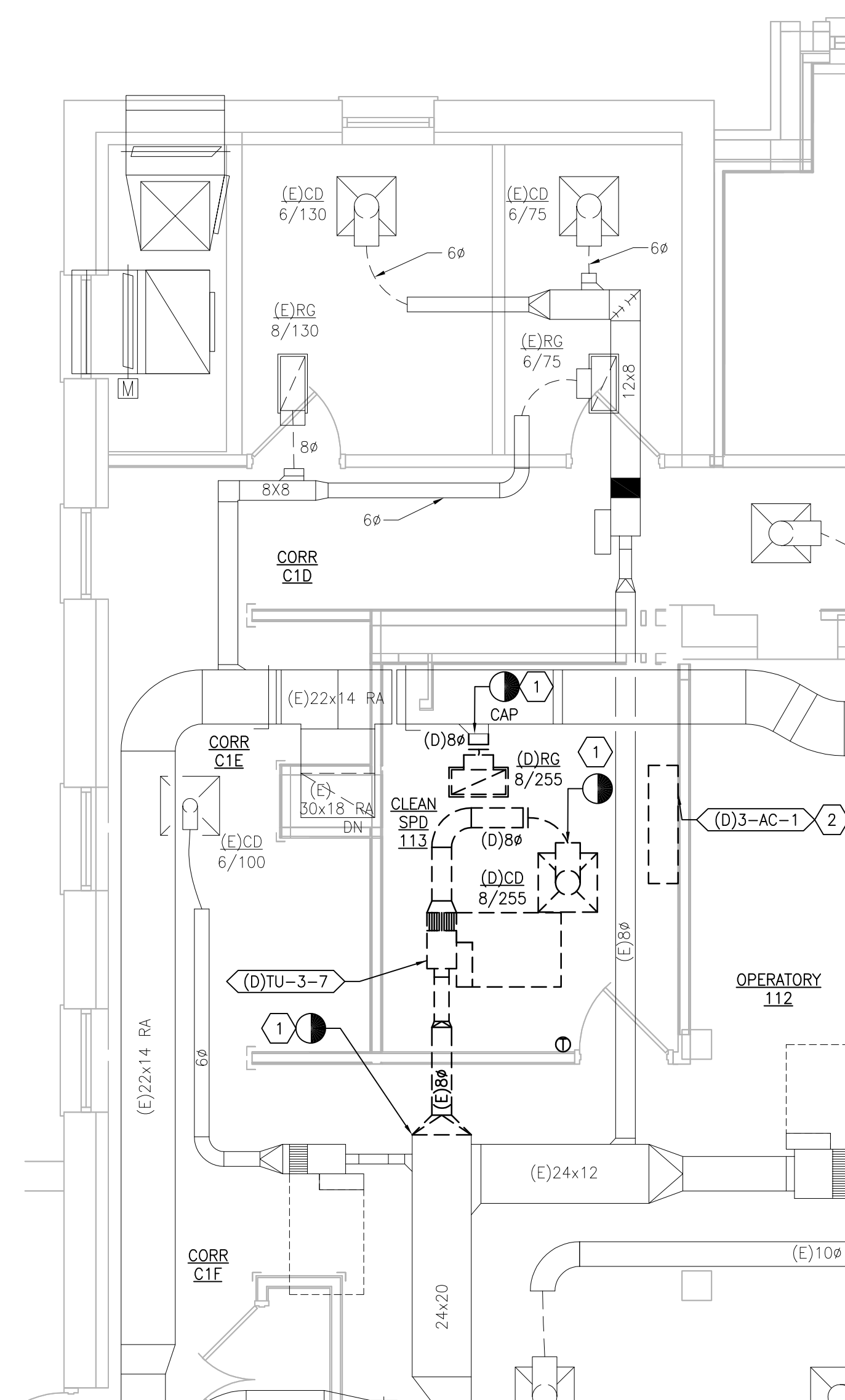
Drawing Number
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GENERAL SHEET NOTES:

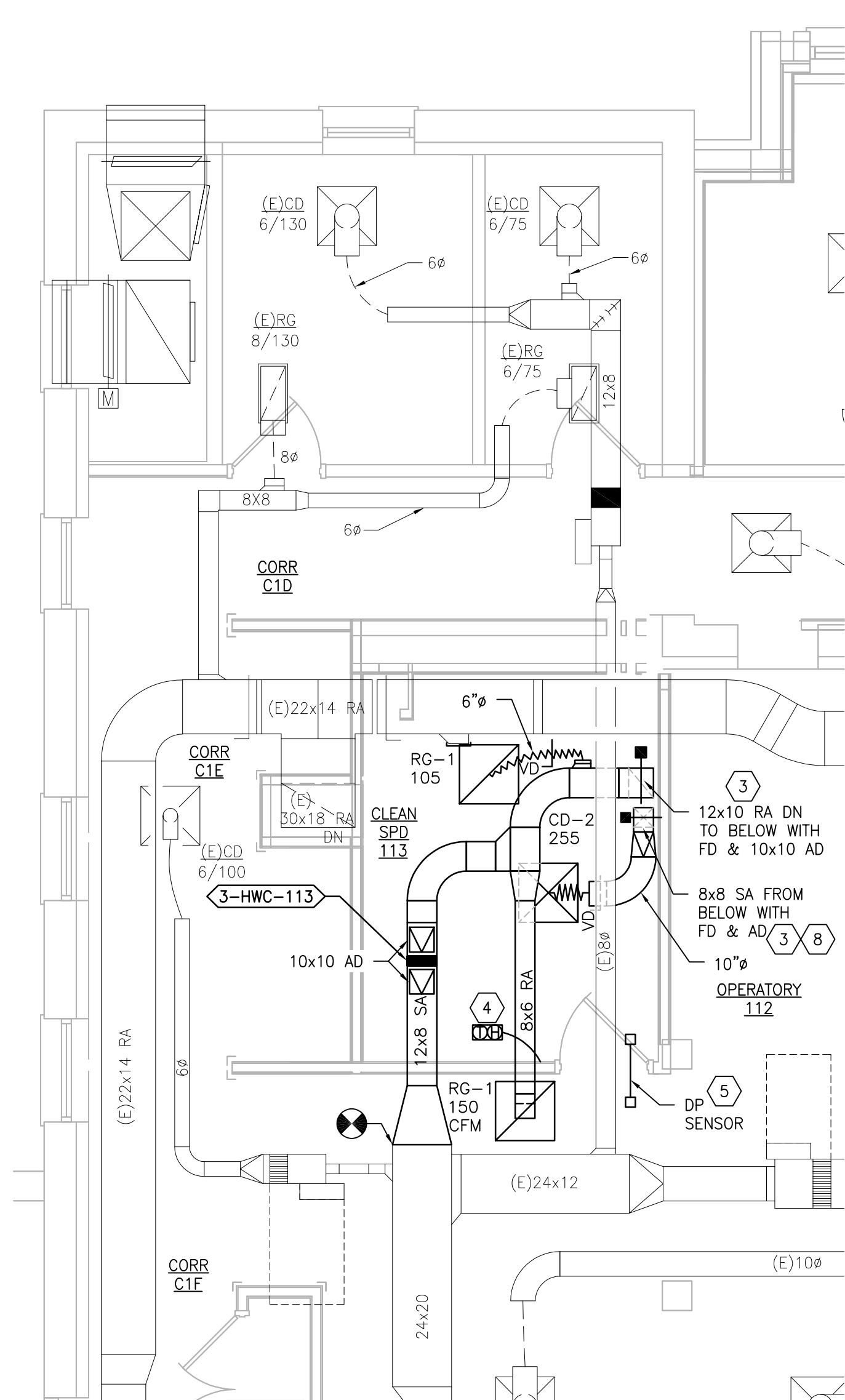
1. REFERENCE SPECIFICATION 02 82 13.13 FOR ABATEMENT WORK. THE VA TO PROVIDE APPLICABLE ABATEMENT REPORT.
2. COORDINATE INSTALLATION OF NEW PIPING AND NEW DUCTWORK. ALL LOCATIONS FOR DUCTWORK AND PIPING ARE APPROXIMATE. PROVIDE OFFSETS AS REQUIRED TO AVOID EXISTING OBSTACLES. RELOCATE EXISTING HANGERS AND COMPONENTS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT AND COMPONENTS.
3. ALL WALL PENETRATIONS TO BE TREATED AS AN 1 HOUR RATED WALL UNLESS OTHERWISE NOTED ON THE DRAWING. REPAIR AND PAINT THE WALLS/CEILING TO MATCH EXISTING CONDITIONS AFTER THE REMOVAL OF THE EXISTING EQUIPMENT OR INSTALLATION OF NEW WORK.
4. MODIFY SPRINKLER PIPING IF REQUIRED TO INSTALL NEW WORK. INSTALL AND SUPPORT PIPING PER NFPA 99, SPECIFICATIONS AND DRAWINGS.
5. MAINTAIN SERVICE CLEARANCE ON NEW AND EXISTING EQUIPMENT. REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUALS FOR ADDITIONAL INFORMATION.
6. ADHERE TO ALL ICRA REQUIREMENTS LISTED IN THE ARCHITECTURAL SET. THE ICRA LEVEL HAS BEEN DEFINED BY THE VA AS LEVEL 3 UNLESS OTHERWISE INDICATED. PROTECT ALL EQUIPMENT IN THE ROOM FROM DUST, DEBRIS AND PHYSICAL DAMAGE AT ALL TIMES.
7. AVOID ALL CEILING OR WALL MOUNTED DEVICES (I.E. SIGNAGE, LIGHT FIXTURE, NURSE CALL) WHEN LOCATING ICRA BARRIERS. WHEN EXISTING DEVICE(S) CANNOT BE AVOIDED, TEMPORARILY RELOCATE THE DEVICE(S) AND REINSTALL AFTER WORK IS COMPLETED AS APPROVED BY THE COR.
8. REMOVE AND REPLACE EXISTING CEILING REFER TO THE ARCHITECTURAL DRAWING FOR ADDITIONAL INFORMATION.
9. TAKE PREDEMOLITION READINGS OF ALL ROOM AIR INLETS AND OUTLETS OF ANY SYSTEM THE WILL BE MODIFIED AND SUBMIT TO THE VA AND ENGINEER FOR RECORD PRIOR TO STARTING ANY NEW WORK. BALANCE THE NEW SYSTEMS AND REBALANCE THE EXISTING ASSOCIATED AHU SYSTEM TO THE NEW AIR QUANTITIES. AFTER THE NEW WORK IS COMPLETE REBALANCE THE EXISTING SYSTEM, AS REQUIRED, AND MEASURE ALL ROOM AIR INLETS AND OUTLETS TO VERIFY THAT THE PREDEMOLITION AIRFLOWS HAVE BEEN MAINTAINED. SUBMIT FOR APPROVAL. REFERENCE SPECIFICATIONS FOR TESTING AND BALANCING REQUIREMENTS.
10. ALL DUCTWORK PENETRATIONS SHALL BE SAW CUT. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
11. CONTRACTOR CANNOT START ANY WORK PER SYSTEM (AHU) UNTIL THE COORDINATED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

SHEET KEYNOTES:

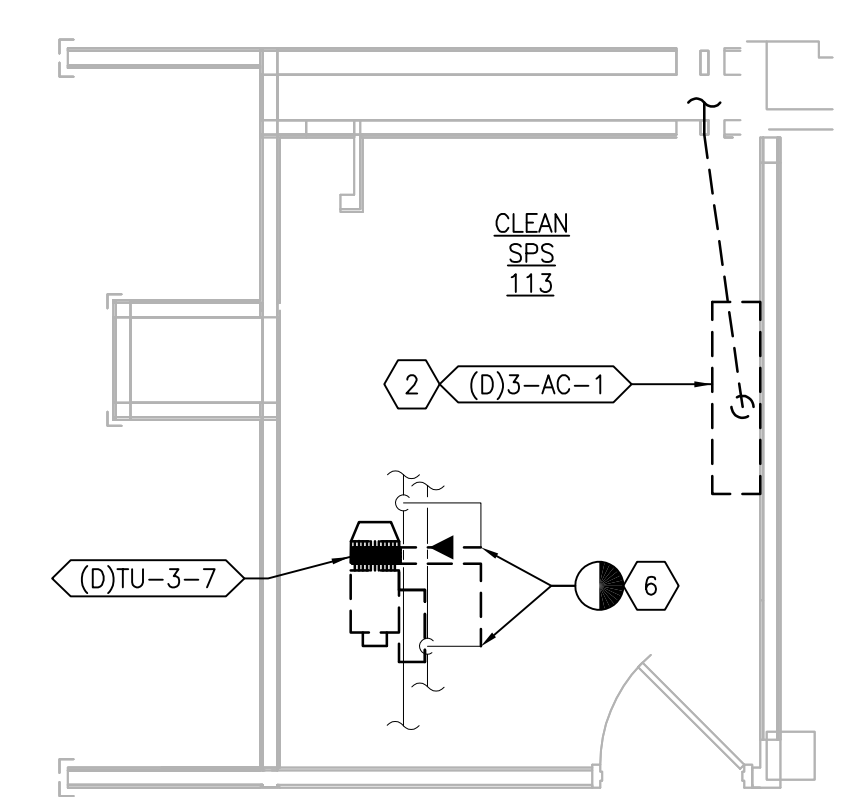
1. DEMOLISH DUCTWORK, HANGERS AND ALL APPURTENANCES TYPICAL PATCH EXISTING WALL OPENING WITH MATCHING MATERIALS AS REQUIRED OR REUSE EXISTING WALL OPENING AS MUCH AS POSSIBLE.
2. REMOVE EXISTING WALL MOUNT AIR CONDITIONER (3-ACC-1) AND ASSOCIATED CONDENSING UNIT (3-ACCU-1) AND TURN OVER TO VA. DEMOLISH ALL APPURTENANCES INCLUDING PIPING, WIRING HANGERS ETC. PATCH AND PAINT WALL TO MATCH EXISTING CONDITIONS.
3. REFERENCE STRUCTURAL DRAWINGS FOR WALL AND FLOOR PENETRATIONS.
4. TEMPERATURE AND HUMIDITY SENSOR FURNISHED BY AHU MANUFACTURER.
5. INSTALL DIFFERENTIAL PRESSURE SENSOR THROUGH THE WALL, CENTERED ABOVE THE DOOR. INSTALL ROOM PRESSURE MONITOR OUTSIDE ROOM NEAR ROOM NAME AND NUMBER LABEL.
6. DEMOLISH (E)3/4" HWS&R PIPING INCLUDING CONTROL VALVE, STRAINER AND COMPONENTS FOR DEMOLISHED TERMINAL UNIT.
7. CONNECT (N)3-HWC-113 TO (E)3/4" PIPING. REFERENCE DETAILS FOR REQUIRED PIPING COMPONENTS NOT SHOWN.
8. INCREASE DUCT SIZE TO ALLOW INSTALLATION OF 10x10 ACCESS DOOR. REFER TO DRAWING M-501 DETAIL 7 FOR MORE INFORMATION.



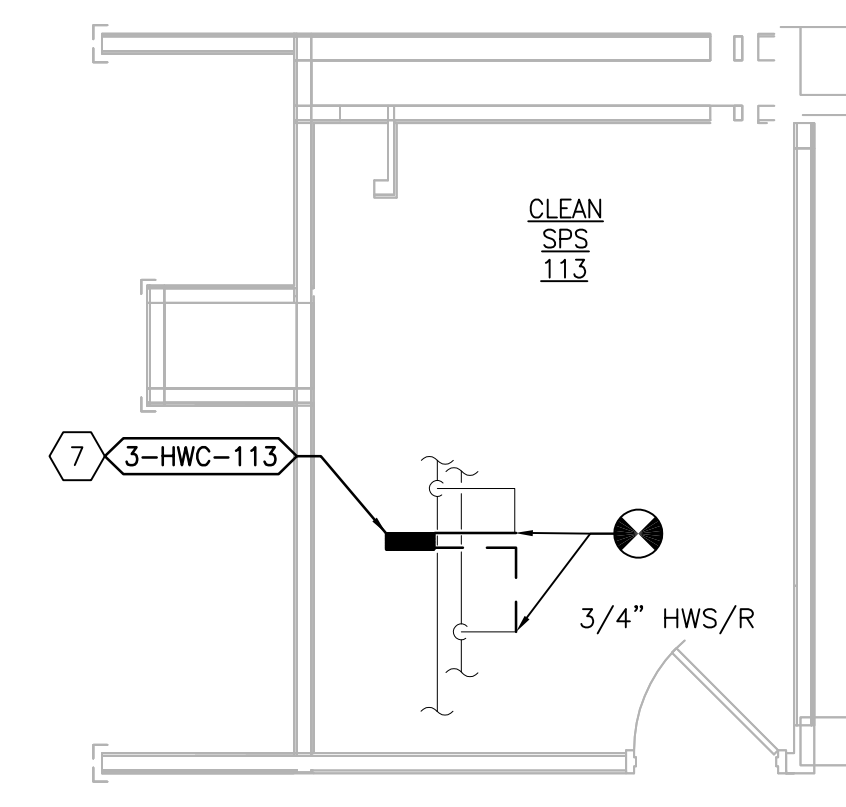
**1 BUILDING 3 FIRST FLOOR ROOM 113 -
DUCTWORK DEMOLITION PLAN**
SCALE: 1/4" = 1'-0"



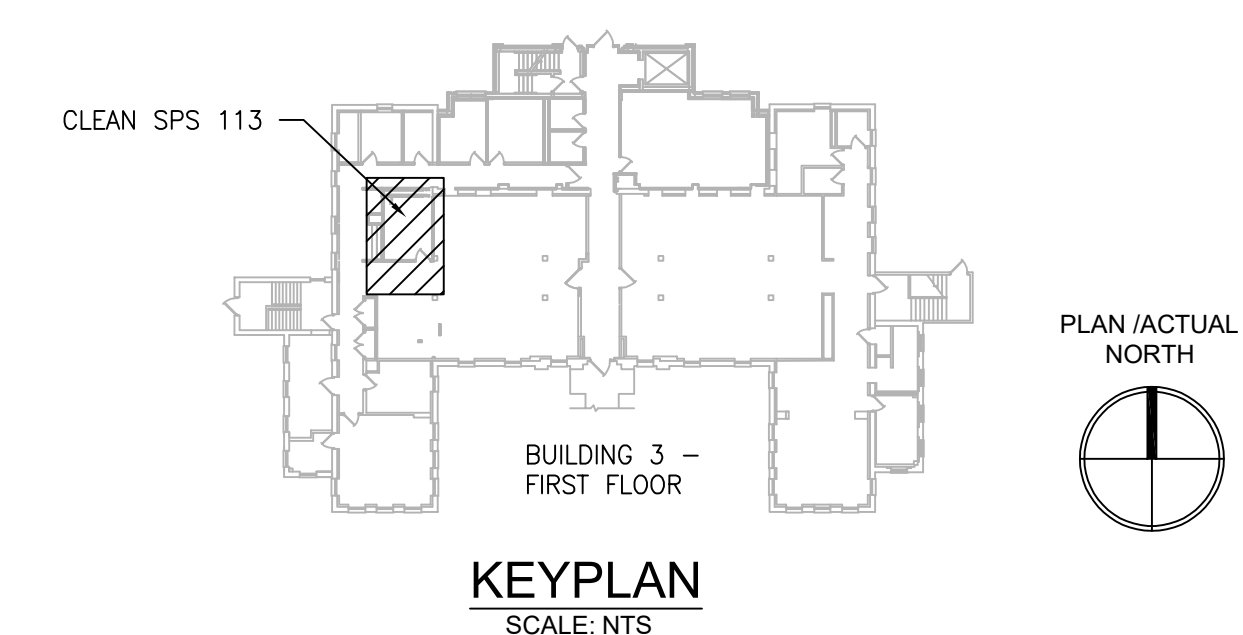
**2 BUILDING 3 FIRST FLOOR ROOM 113 -
DUCTWORK NEW WORK PLAN**
SCALE: 1/4" = 1'-0"



**3 BUILDING 3 FIRST FLOOR ROOM 113 -
PIPING DEMOLITION PLAN**
SCALE: 1/4" = 1'-0"



**4 BUILDING 3 FIRST FLOOR ROOM 113 -
PIPING NEW WORK PLAN**
SCALE: 1/4" = 1'-0"



PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

NO.	DESCRIPTION	DATE

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PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DEMOLITION / NEW WORK PLANS FIRST FLOOR - BUILDING 3

Approved: Project Director

Phase
100% CONSTRUCTION DOCUMENTS
NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
UPGRADE SPS HVAC & ENVIRONMENTAL CONTROLS

Location
ST. CLOUD VA MEDICAL CENTER, MN

Issue Date
2022-07-15

Checked
MR

Drawn
PNL

Project Number
656-18-300

Building Number
1, 2, 3, 28, 29, 49, 50, 51, 111, 116

Drawing Number
3-MH111

SEQUENCE OF OPERATION

GENERAL
 THE EXISTING HVAC SYSTEMS WILL CONTINUE TO OPERATE INDEPENDENT OF THE NEW SUPPLEMENTAL SYSTEM.

SUPPLEMENTAL HVAC SYSTEM CONTROL
 THE UNIT SHALL BE PROVIDED WITH A FACTORY PREWIRED AND TESTED EXTERNAL CONTROL PANEL. THE UNIT CONTROLLER SHALL BE CAPABLE OF CONTROLLING ALL FEATURES AND OPTIONS OF THE UNIT. THE CONTROLLER SHALL BE CAPABLE OF STAND-ALONE OPERATION WITH UNIT CONFIGURATION, SETPOINT ADJUSTMENT, SENSOR STATUS VIEWING, UNIT ALARM VIEWING, AND OCCUPANCY SCHEDULING WITHOUT DEPENDENCE ON THE JOHNSON CONTROLS BUILDING MANAGEMENT SYSTEM (BMS). THE CONTROLLER SHALL COMMUNICATE AND INTEGRATE WITH THE BMS SYSTEM VIA BACNET. ALL SETPOINTS SHALL BE VISIBLE AND RESETTABLE. ALL SENSOR READINGS SHALL BE VISIBLE. OCCUPIED AND UNOCCUPIED SCHEDULING SHALL BE RESETTABLE, THROUGH THE BMS SYSTEM VIA BACNET.

OCCUPIED/UNOCCUPIED
 OCCUPIED/UNOCCUPIED MODE SHALL BE BASED ON A COMMAND FROM THE BMS.

OCCUPIED MODE
 IN THE OCCUPIED MODE THE SUPPLY FAN SHALL RUN CONTINUOUSLY.

COOLING
 IF ROOM TEMPERATURE RISES ABOVE SETPOINT AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE COMPRESSOR SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

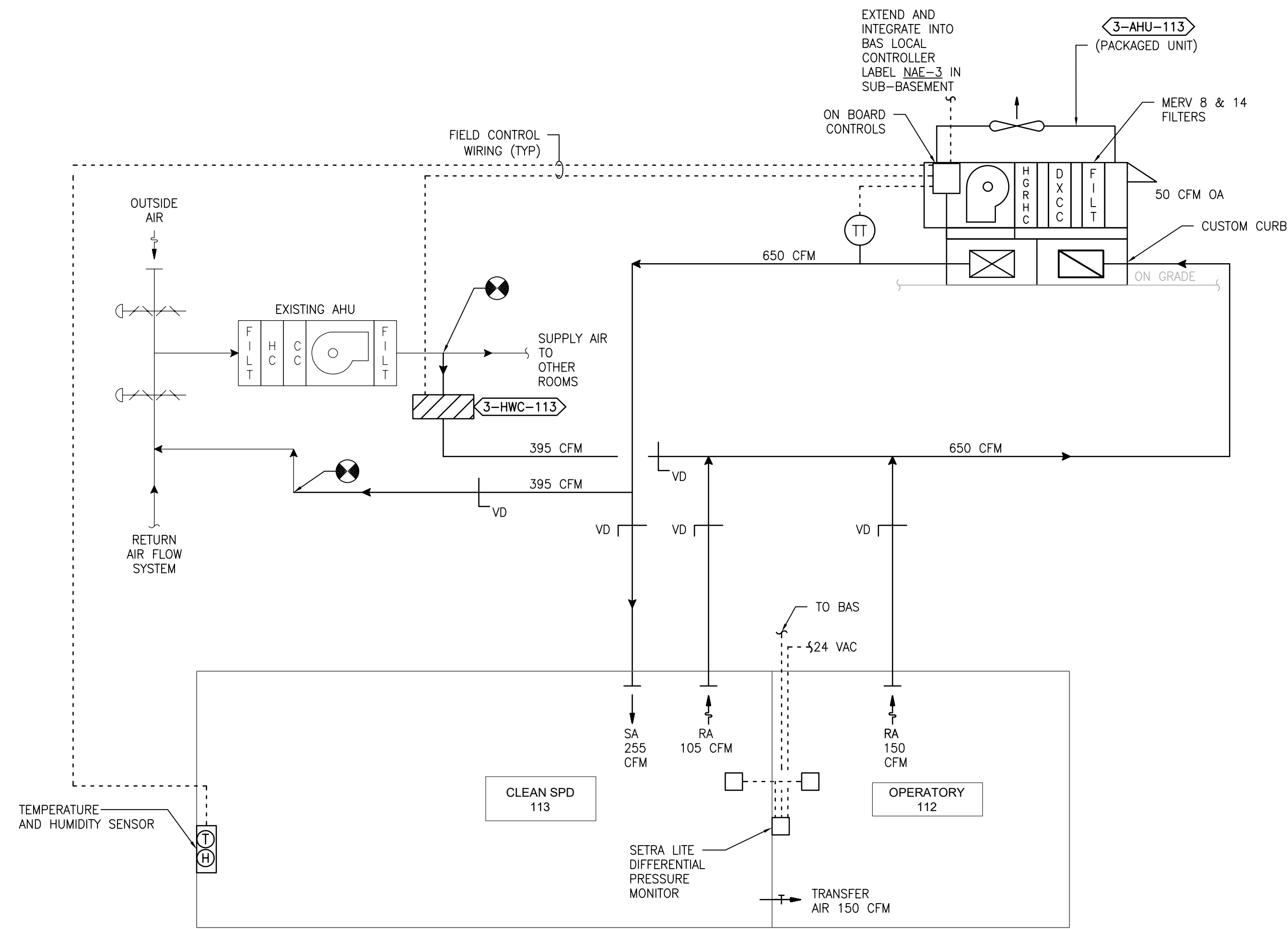
DEHUMIDIFYING
 IF ROOM RELATIVE HUMIDITY RISES ABOVE SETPOINT AS SENSED BY THE WALL MOUNTED HUMIDITY SENSOR THE SYSTEM SHALL OVERRIDE THE COOLING COIL SETPOINT AND MODULATE THE HOT GAS REHEAT COIL TO MAINTAIN ROOM TEMPERATURE AND HUMIDITY SETPOINTS. DEHUMIDIFICATION SHALL BE INITIATED ANYTIME IN THE OCCUPIED, UNOCCUPIED, COOLING OR HEATING MODE.

HEATING (ONLY PROVIDED ON SOME UNITS)
 IF ROOM TEMPERATURE FALLS BELOW SETPOINT AS SENSED BY THE WALL MOUNTED TEMPERATURE SENSOR THE HEATING COIL SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE.

UNOCCUPIED MODE
 IN THE UNOCCUPIED MODE THE SUPPLY FAN SHALL RUN CONTINUOUSLY.

IN THE UNOCCUPIED MODE THE UNIT SHALL OPERATE IF THE ROOM TEMPERATURE OR RELATIVE HUMIDITY LIMITS ARE REACHED.
 ON A CALL FOR COOLING, DEHUMIDIFYING, OR HEATING THE CONTROL SHALL BE THE SAME AS IN THE OCCUPIED MODE.

ROOM PRESSURE MONITOR
 THE ROOM PRESSURE MONITOR SETRA LITE SHALL MONITOR AND ALARM THE DIFFERENTIAL PRESSURE BETWEEN THE CLEAN / STERILE SATELLITE STORAGE ROOM AND THE ADJACENT ROOM LOCALLY AND AT THE BAS.



1 DIAGRAM 1 - 113
 SCALE: NONE

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 MR PROJECT NO: 0376-0011

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of
 Construction
 and Facilities
 Management



Drawing Title
**MECHANICAL
 AIRFLOW CONTROL DIAGRAM
 BUILDING 3**

Approved: Project Director

Phase
 100% CONSTRUCTION
 DOCUMENTS
 NOT FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
**UPGRADE SPS HVAC &
 ENVIRONMENTAL CONTROLS**

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 111, 116

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3-M-811