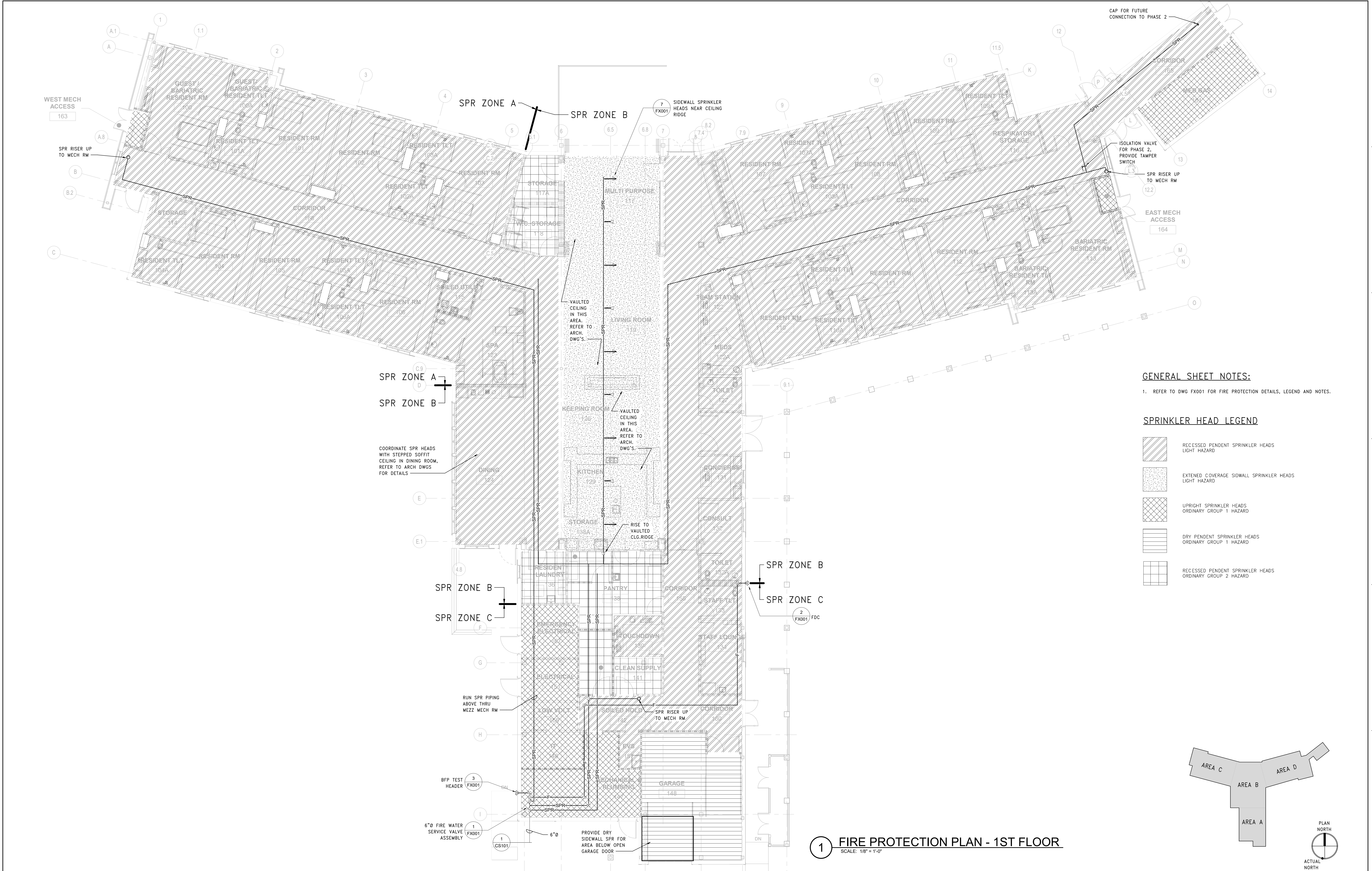
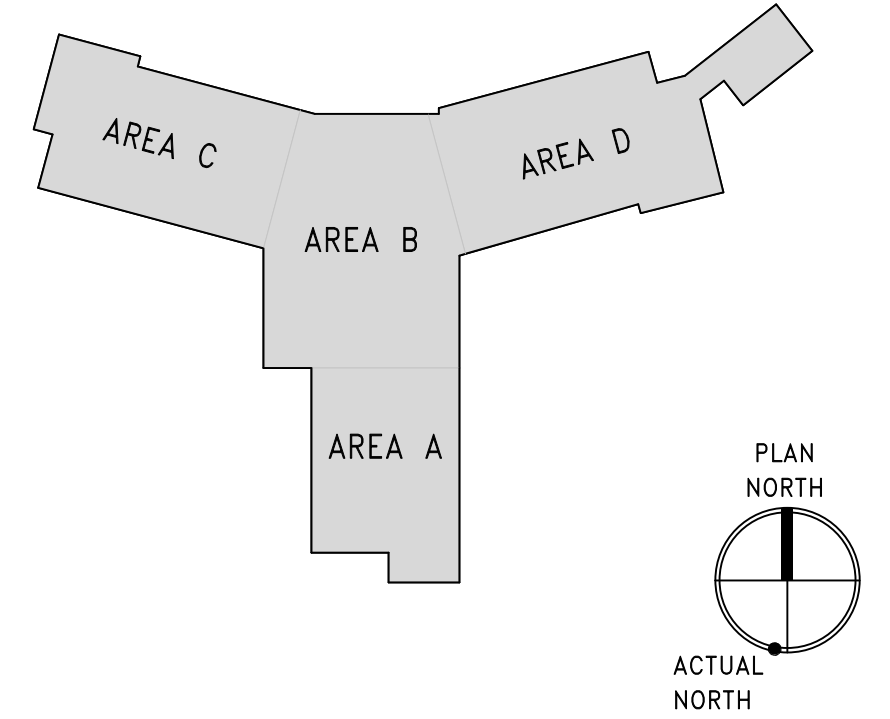
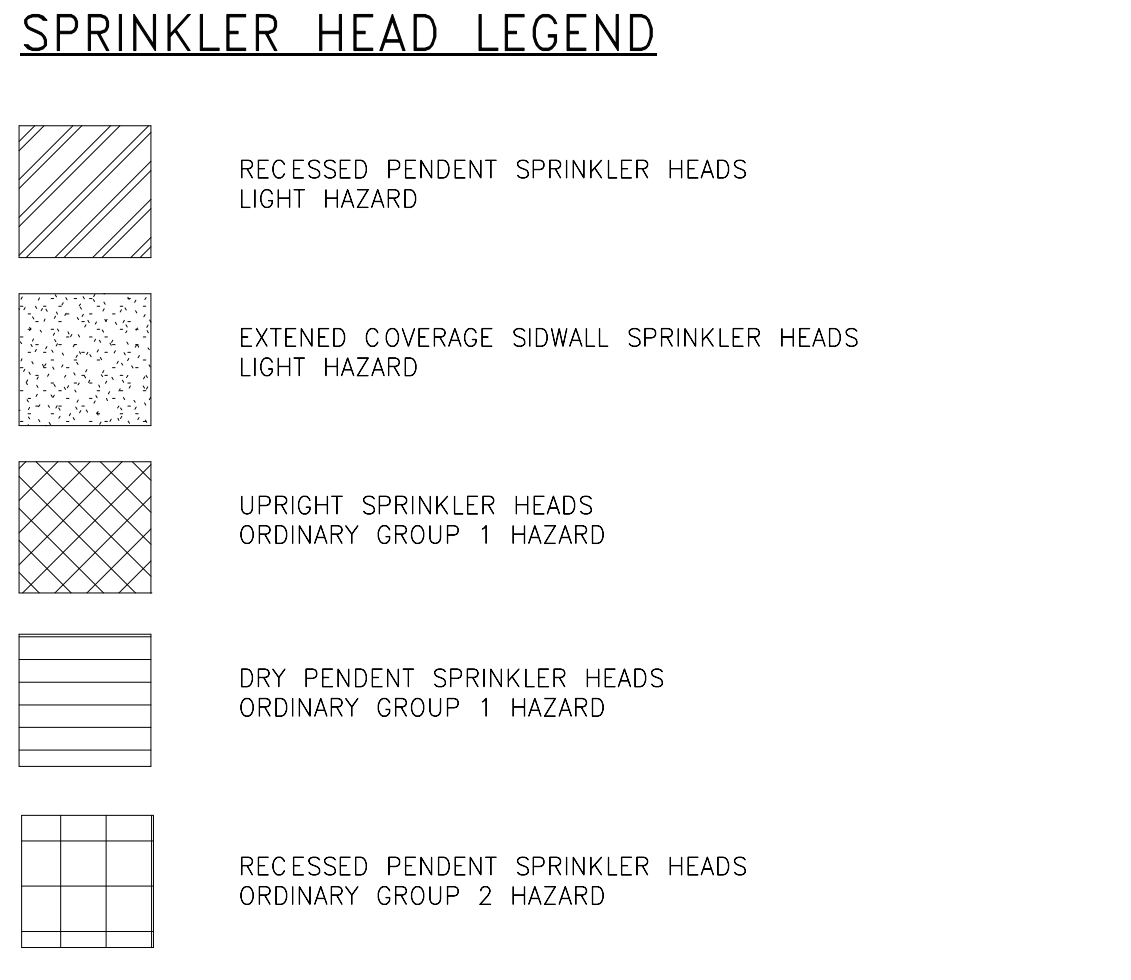


three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot
 2/8/2023 4:29:56 PM



GENERAL SHEET NOTES:
 1. REFER TO DWG FX001 FOR FIRE PROTECTION DETAILS, LEGEND AND NOTES.



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

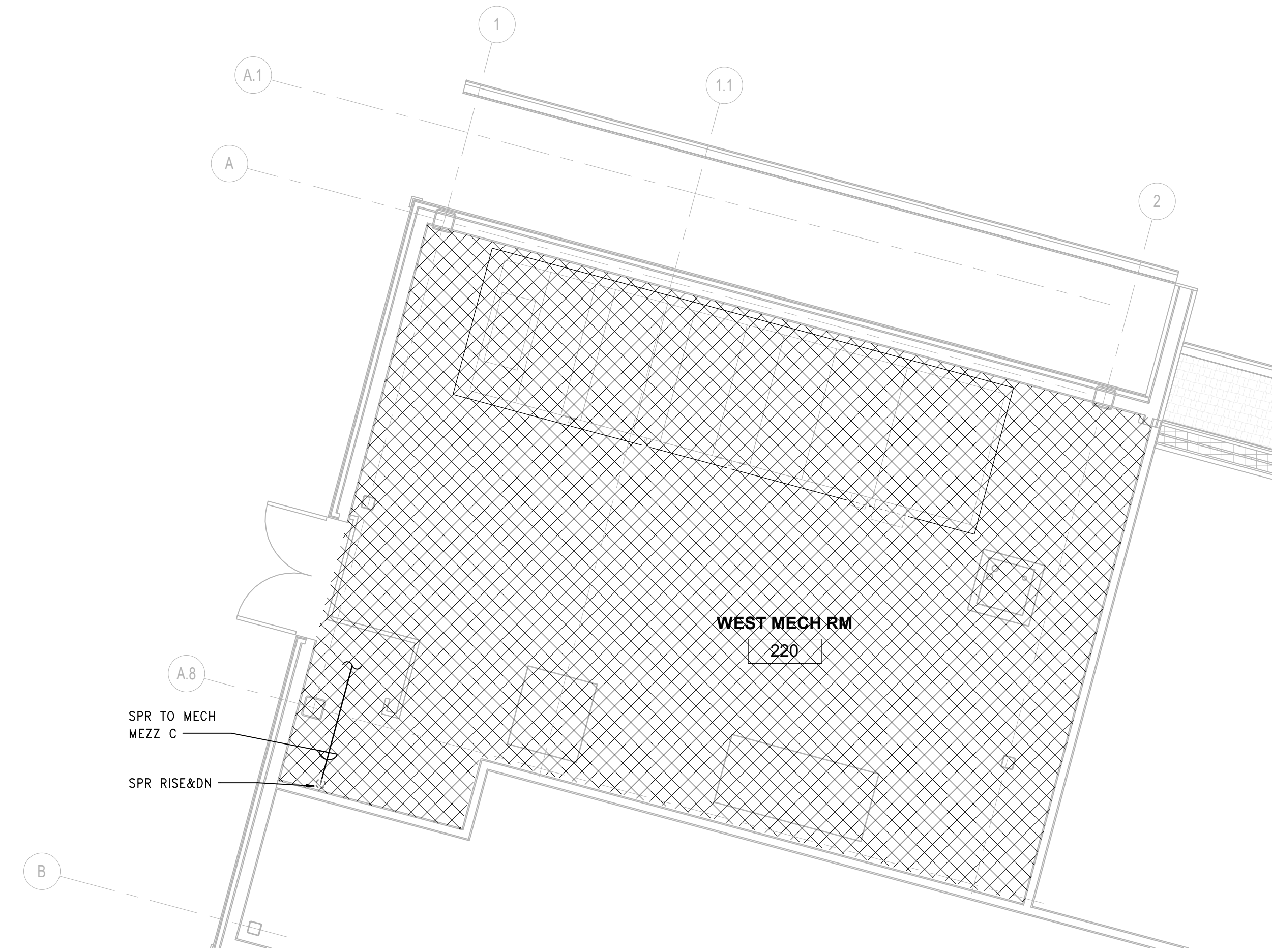
| | | | | | | | | | | | | | | | | |
|---|--|--|---|--|---|--|---|--|---|--|---|--|---|--|--|--|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER Revisions: _____ Date: _____ | CONSULTANT ARRAY-ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-5025 MR PROJECT NO. 0499-0124 | | MILLER-REMICK LLC PROFESSIONAL ENGINEER | | Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs | | Drawing Title FIRE PROTECTION PLAN 1ST FLOOR Approved: _____ | | Phase BID DOCUMENTS FULLY SPRINKLERED | | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) Location LEBANON, PENNSYLVANIA | | Project Number 595-601 Building Number CLC-1 Drawing Number FX111 | |
| | Gordon PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | | 6"Ø FIRE WATER SERVICE VALVE ASSEMBLY (FX001) RUN SPR PIPING ABOVE THRU MEZZ MECH RM BFP TEST HEADER (FX001) 6"Ø PROVIDE DRY SIDEWALL SPR FOR AREA BELOW OPEN GARAGE DOOR | | SPR ZONE A SPR ZONE B SPR ZONE C | | SPR ZONE B SPR ZONE C | | CAP FOR FUTURE CONNECTION TO PHASE 2 ISOLATION VALVE FOR PHASE 2, PROVIDE TAMPER SWITCH SPR RISER UP TO MECH RM EAST MECH ACCESS 164 | | WEST MECH ACCESS 163 SPR RISER UP TO MECH RM | | PLAN NORTH ACTUAL NORTH | | | |

GENERAL SHEET NOTES:

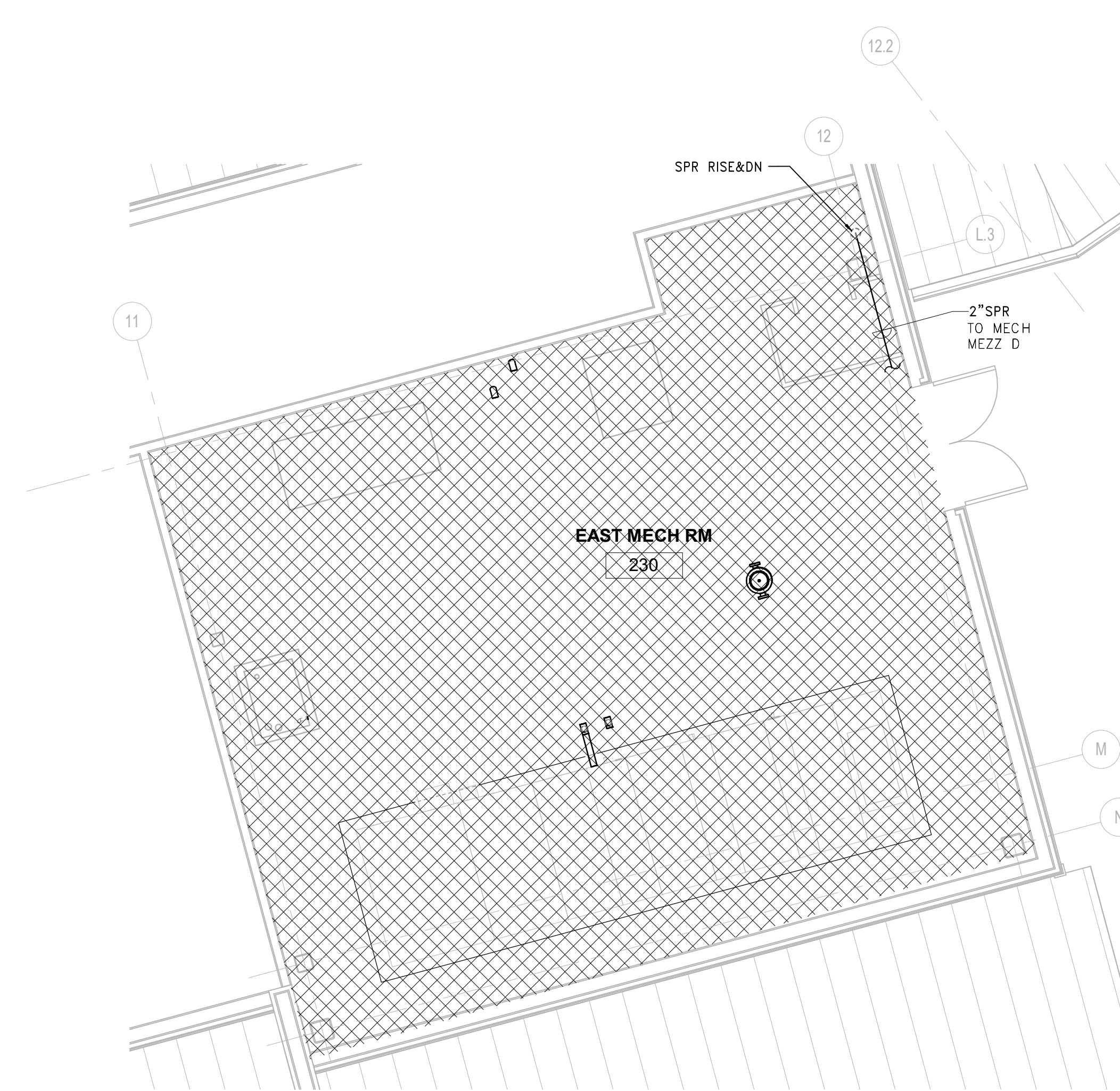
1. REFER TO DWG FX001 FOR FIRE PROTECTION DETAILS, LEGEND AND NOTES.

SPRINKLER HEAD LEGEND

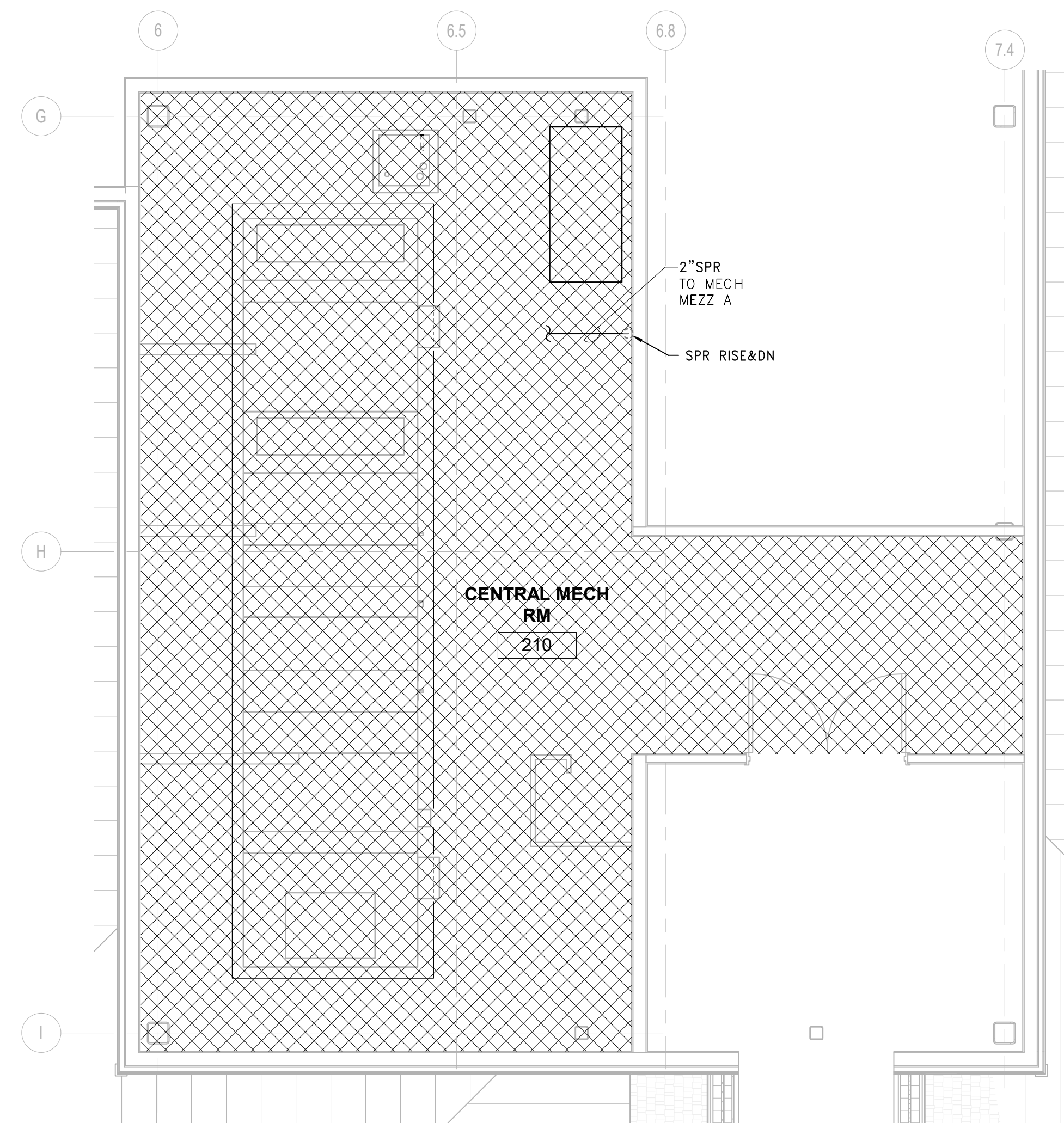
 UPRIGHT SPRINKLER HEADS
ORDINARY GROUP 1 HAZARD



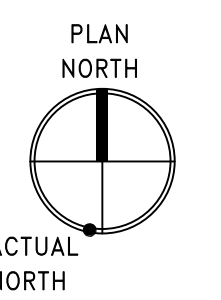
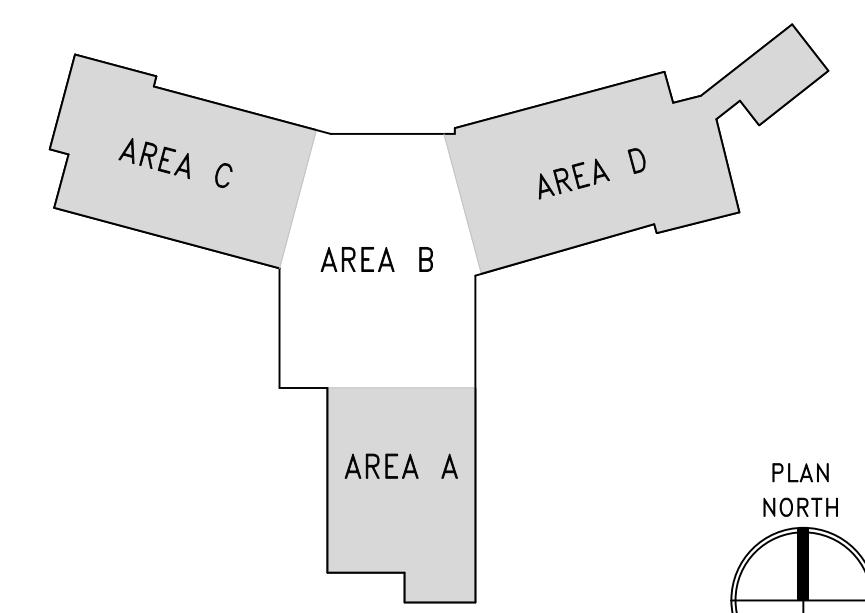
2 MECHANICAL MEZZANINE - AREA C
SCALE: 1/4" = 1'-0"



3 MECHANICAL MEZZANINE - AREA D
SCALE: 1/4" = 1'-0"



1 MECHANICAL MEZZANINE - AREA A
SCALE: 1/4" = 1'-0"



Scale bars for various increments: three inch = one foot, one and one half inch = one foot, one inch = one foot, three quarter inch = one foot, one half inch = one foot, three eighths inch = one foot, one quarter inch = one foot, one eighth inch = one foot.

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

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| Revisions: | Date: |
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PROGRAMMING AND PLANNING
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SURVEY AND MAPPING
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ENGINEER OF RECORD

Miller-Remick LLC
M.E.P. & Structural Engineering
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1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-6002
MR PROJECT NO. 0499-0124

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
FIRE PROTECTION ENLARGED PLANS MEZZANINE

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

| | | |
|--------------------------|--------------------|-----------------|
| Issue Date 2023-02-09 | Checked Checker | Drawn Author |
|--------------------------|--------------------|-----------------|

Project Number
595-601

Building Number
CLC-1

Drawing Number
FX401

PLUMBING ABBREVIATIONS

Table of plumbing abbreviations including symbols for pipe sizes (e.g., 1/2", 3/4", 1", 1 1/2", 2", 3", 4", 6", 8", 10", 12", 16") and corresponding abbreviations like A/E, AD, AFF, AFG, AG, AP, AS, ASD, ASHRAE, etc.

NOTE: ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE INDICATED ON THE DRAWINGS.

PLUMBING PIPING SYMBOLS

Table of plumbing piping symbols including line styles for existing to remain, to be removed, and various pipe types like domestic cold/hot water, medical air, compressed air, etc.

PLUMBING VALVE SYMBOLS

Table of plumbing valve symbols including balancing valve, thermostatic balancing valve, isolation valve, check valve, angle globe valve, etc.

GENERAL PLUMBING SYMBOLS

Table of general plumbing symbols including direction of pipe pitch, anchor, reducer, eccentric reducer, top/bottom connection, side connection, capped outlet, etc.

DRAWING SYMBOLS

Table of drawing symbols including key note symbols, detail numbers, section letters, building/equipment abbreviations, and pipe system/riser numbers.

GENERAL NOTES

- GENERAL
1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, INVERTS, PIPE SIZES AND MATERIALS, FLUID FLOW DIRECTION(S) AND CONDITIONS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO BEGINNING INSTALLATION OR FABRICATION WORK. (DO NOT SCALE DRAWINGS).

Professional stamps and project information including CONSULTANT (ARRAY architects, Gordon), ENGINEER OF RECORD (Miller-Remick LLC), Office of Construction and Facilities Management (VA), Drawing Title (PLUMBING ABBREVIATIONS, GENERAL NOTES & SYMBOLS), Phase (BID DOCUMENTS), Project Title (CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)), Location (LEBANON, PENNSYLVANIA), Issue Date (2023-02-09), Checked (MP), Drawn (pd), Drawing Number (P-001), Project Number (595-601), Building Number (CLC-1).

GENERAL SHEET NOTES:

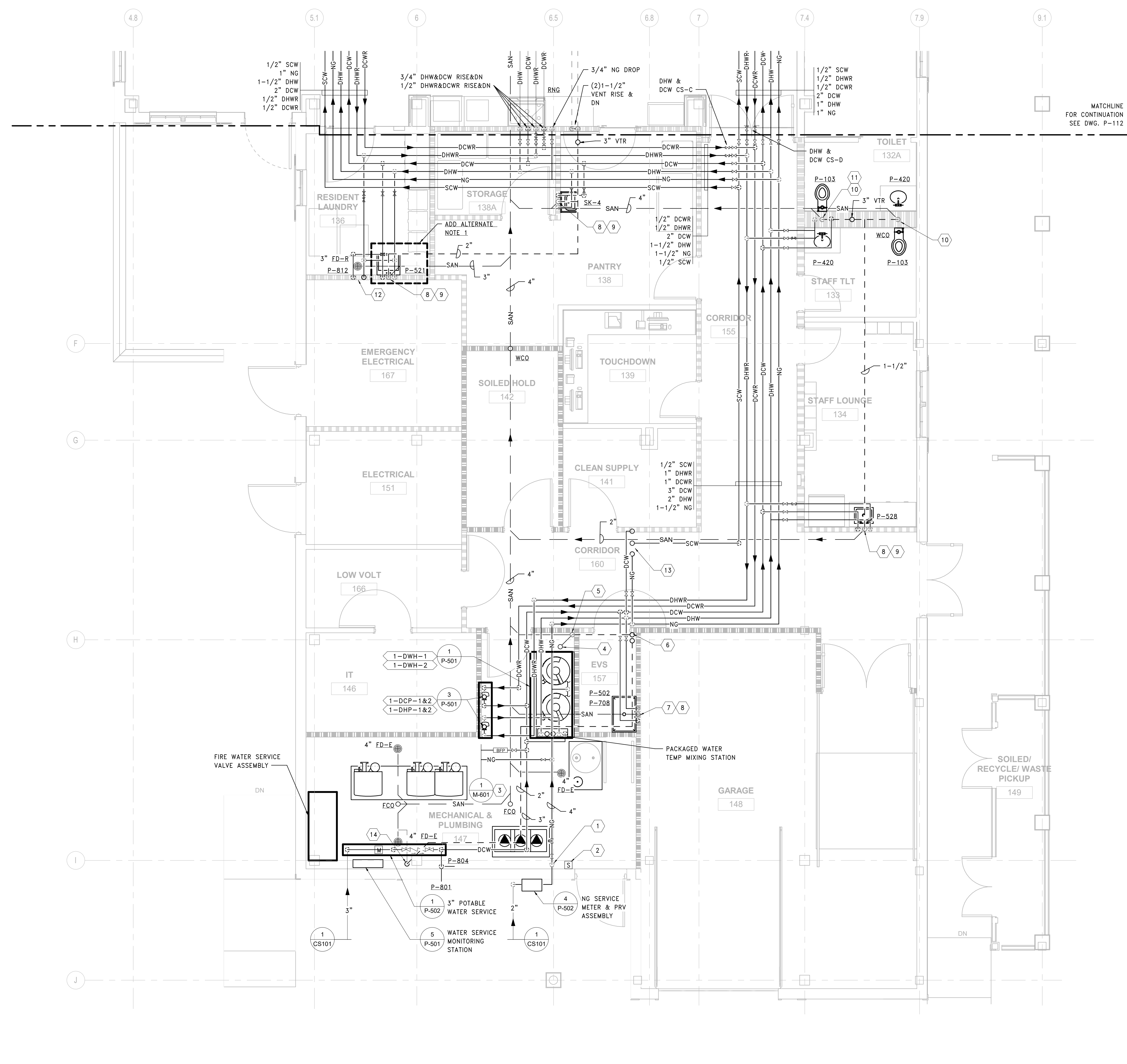
1. REFER TO DRAWING P-001 FOR PLUMBING ABBREVIATIONS, GENERAL NOTES AND SYMBOLS.
2. REFER TO P-500'S SERIES DRAWINGS FOR PLUMBING DETAILS.
3. REFER TO P-600'S SERIES DRAWINGS FOR PLUMBING RISER DIAGRAMS
4. REFER TO DRAWING P-701 FOR PLUMBING SCHEDULES

SHEET KEYNOTES:

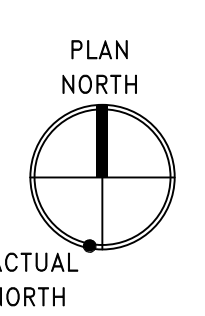
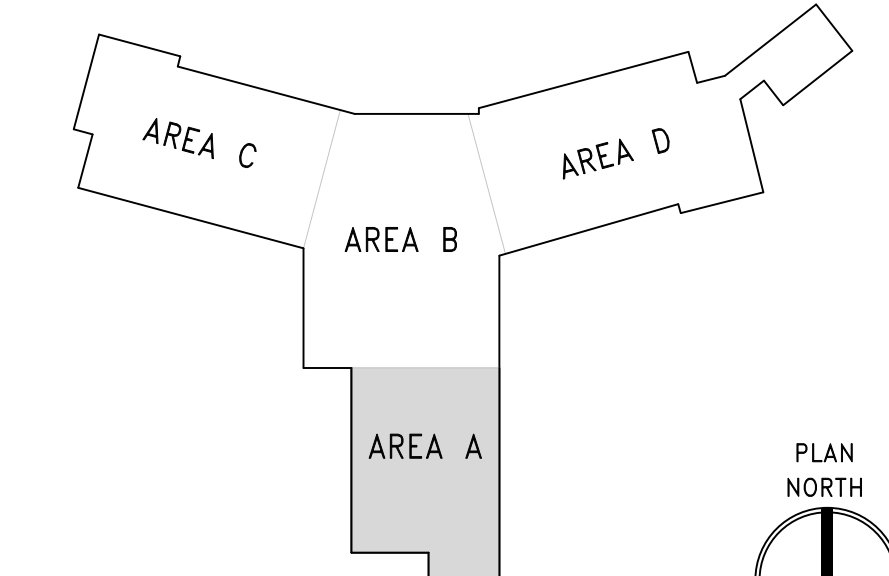
- 1 4" NG SERVICE TO BUILDING
- 2 EMERGENCY SHUT-OFF SWITCH SERVING ALL GAS-FIRED APPLIANCES
- 3 1" DCW & 3" NG TO HVAC BOILERS
- 4 4" SAN UP TO FD
- 5 4" SAN DN & 4" VENT RISE
- 6 4" & 2" VENT UP
- 7 3" SAN DN & 2" VENT RISE
- 8 1/2" DCW & DHW DROP
- 9 2" SAN DN & 1-1/2" VENT RISE
- 10 4" SAN DN & 2" VENT RISE
- 11 1-1/2" DCW & 1/2" DHW DROP
- 12 3/4" DCW & DHW DROP
- 13 1/2" SCW, 3/4" DCW & 1" NG UP TO MECH ROOM
- 14 2" VENT RISE & DN

ADD ALTERNATE NOTES:

1. ADD ALTERNATE NO 6: FIT-OUT RESIDENT LAUNDRY 136, SCOPE INDICATED REPRESENTS ADD ALTERNATE 6 SCOPE. BASE BID SCOPE SHALL PROVIDE PLUMBING FIXTURE ROUGH-IN ONLY.



3 PLUMBING PLAN - 1ST FLOOR
SCALE: 1/4" = 1'-0"



three inch = one foot
one and one half inch = one foot
one inch = one foot
three quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

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| Revisions: | Date: |
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CONSULTANT

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1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-5022
MR PROJECT NO: 0499-0124

MILLER-REMIK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
PLUMBING 1ST FLOOR, AREA A

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LEARNING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
Checker

Drawn
Author

Project Number
595-601

Building Number
CLC-1

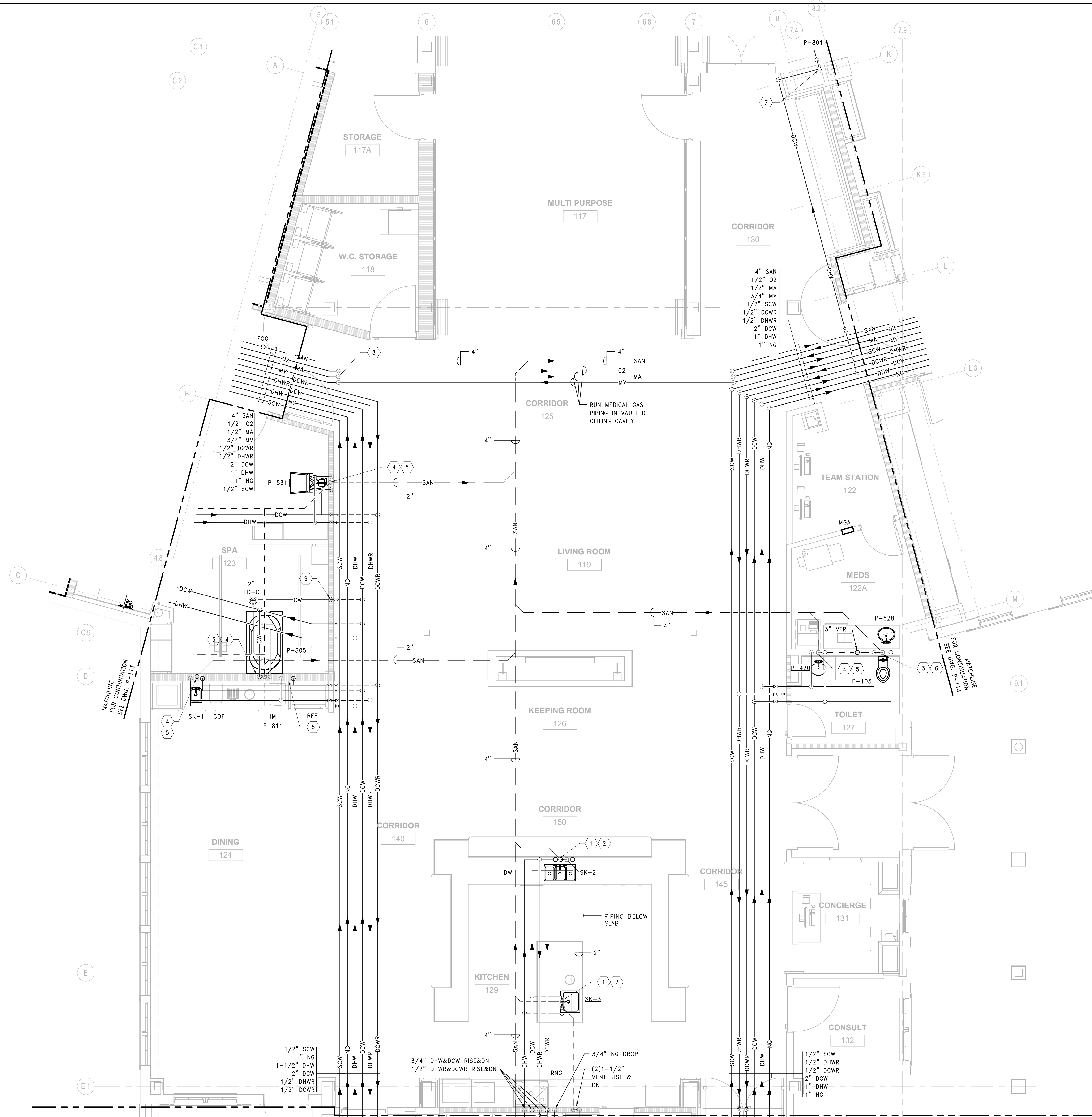
Drawing Number
P-111

GENERAL SHEET NOTES:

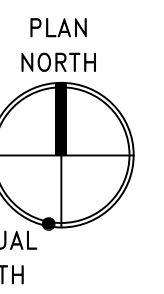
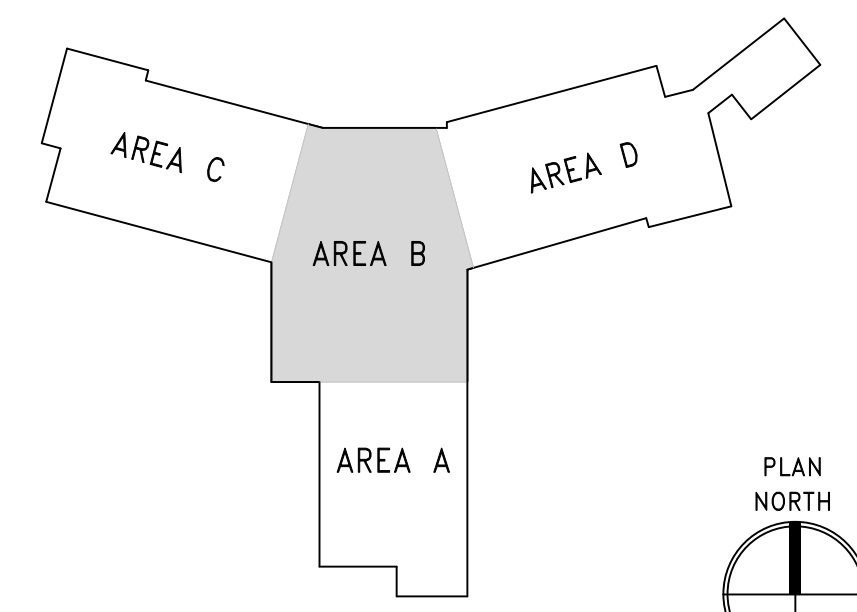
1. REFER TO DRAWING P-001 FOR PLUMBING ABBREVIATIONS, GENERAL NOTES AND SYMBOLS.
2. REFER TO P-500'S SERIES DRAWINGS FOR PLUMBING DETAILS.
3. REFER TO P-600'S SERIES DRAWINGS FOR PLUMBING RISER DIAGRAMS
4. REFER TO DRAWING P-701 FOR PLUMBING SCHEDULES

SHEET KEYNOTES:

- 1 2" SAN DN & 2" ISLAND VENT RISE & DN
- 2 1/2" DCW & DHW DN
- 3 4" SAN DN & 2" VENT RISE
- 4 2" SAN DN & 1-1/2" VENT RISE
- 5 1/2" DCW & DHW DROP
- 6 1" DCW & 1/2" DHW DROP
- 7 1/2" DCW DROP
- 8 MED GAS PIPING RISE IN CEILING SPACE ABOVE VAULTED CEILING
- 9 1/2" DCW RISE & DN TO TP-2, 1/2" CW BELOW SLAB TO FD



1 PLUMBING PLAN - 1ST FLOOR
SCALE: 1/4" = 1'-0"



three inch = one foot
one and one half inch = one foot
one inch = one foot
three quarter inch = one foot
one half inch = one foot
one quarter inch = one foot
three eighths inch = one foot
one eighth inch = one foot
one sixteenth inch = one foot

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| Revisions: | Date: |
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Gordon
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ENGINEER OF RECORD

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M.E.P. & Structural Engineering
A Service Disabled Veteran Owned Small Business
1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-5025
MR PROJECT NO: 0499-0124

MILLER-REMIK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
PLUMBING 1ST FLOOR, AREA B

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
Checker

Drawn
Author

Project Number
595-601

Building Number
CLC-1

Drawing Number
P-112

GENERAL SHEET NOTES:

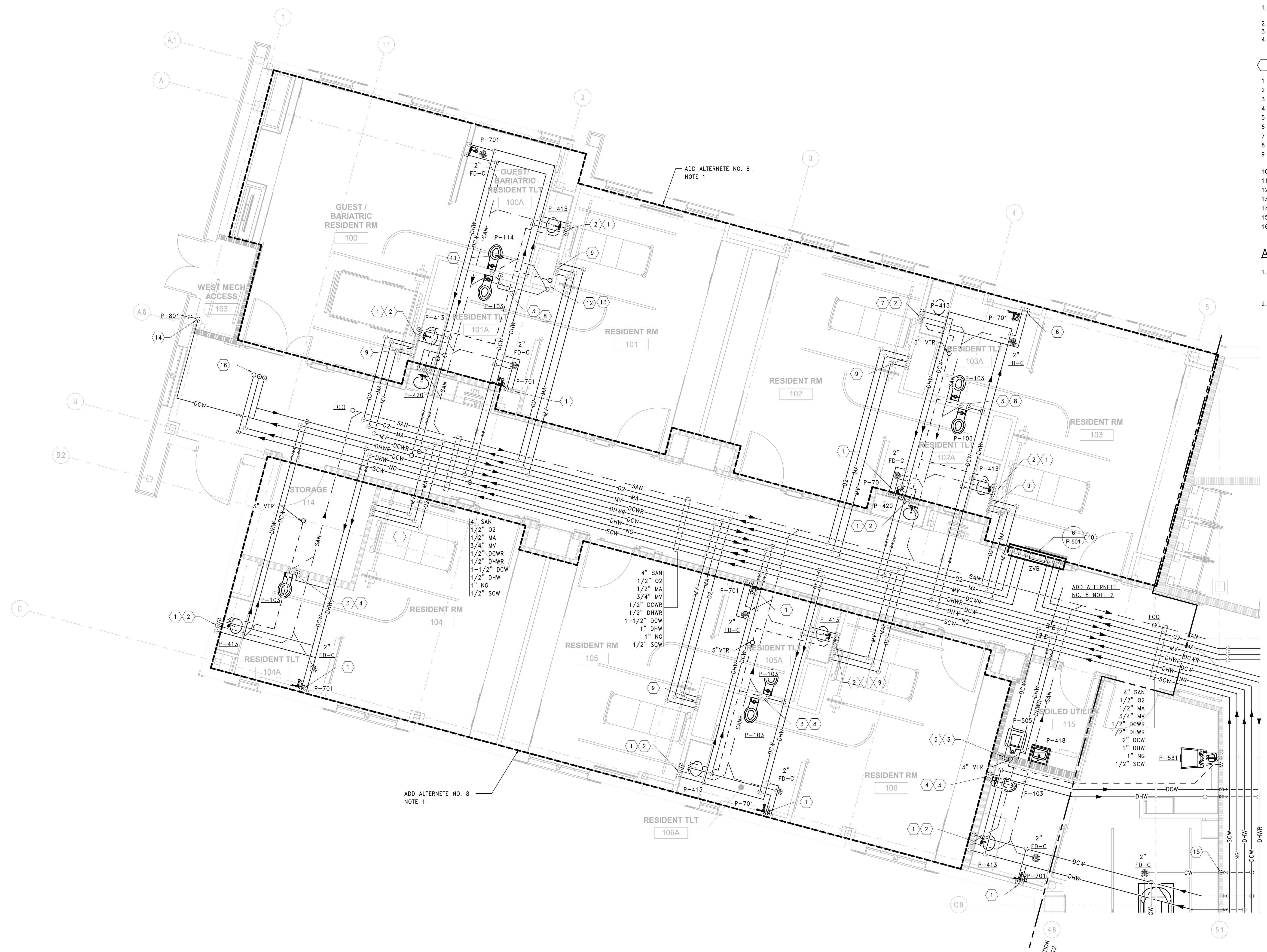
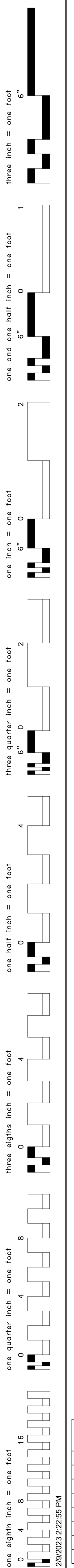
1. REFER TO DRAWING P-001 FOR PLUMBING ABBREVIATIONS, GENERAL NOTES AND SYMBOLS.
2. REFER TO P-500'S SERIES DRAWINGS FOR PLUMBING DETAILS.
3. REFER TO P-600'S SERIES DRAWINGS FOR PLUMBING RISER DIAGRAMS
4. REFER TO DRAWING P-701 FOR PLUMBING SCHEDULES

SHEET KEYNOTES:

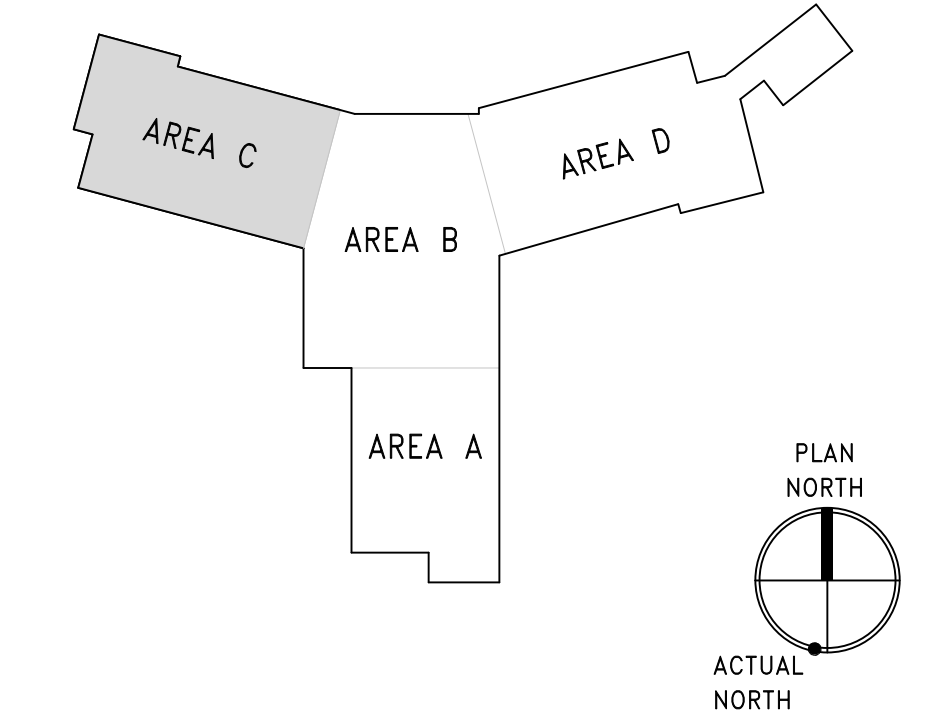
- 1 1/2" DCW & DHW DROP
- 2 2" SAN DN & 1-1/2" VENT RISE
- 3 4" SAN DN & 2" VENT RISE
- 4 1" DCW DROP
- 5 1" DCW & 1/2" DHW DROP
- 6 1/2" DCW & DHW DN
- 7 1-1/2" DCW & 1/2" DHW DROP
- 8 1-1/2" DCW DROP
- 9 3/4" MV, 1/2" MA & 1/2" O2 DROP TO HEAD WALL OUTLETS, REFER TO DETAILS 7 & 10/P-502
- 10 3/4" MV, 1/2" MA & 1/2" O2 TO & FROM ZVB
- 11 4" SAN UP TO FD
- 12 4" SAN DN & 4" VENT RISE
- 13 2" VENT UP
- 14 1/2" DCW DROP
- 15 1/2" DCW RISE & DN TO TP-2, 1/2" CW BELOW SLAB TO FD
- 16 1/2" SCW, 3/4" DCW & 1" NG UP TO MECH ROOM

ADD ALTERNATE NOTES:

1. ADD ALTERNATE NO 8: FIT OUT OF WESTERN WING RESIDENT ROOMS. SHELL WESTERN WING RESIDENT ROOMS AS PART OF BASE BID INCLUDING ALL UNDERSLAB PIPING TO BE INSTALLED AND CAPPED 6" ABOVE FLOOR, CAP ABOVE CEILING PIPING BRANCHES FROM COORIDOR MAINS TO 6" WITHIN ROOM.
2. ADD ALTERNATE NO 8: FIT OUT OF WESTERN WING RESIDENT ROOMS. SHELL WESTERN WING RESIDENT ROOMS AS PART OF BASE BID, SEPARATE AND CAP ENDS OF DHW & DHWR MAINS FOR FUTURE RESIDENT ROOM FITOUT.

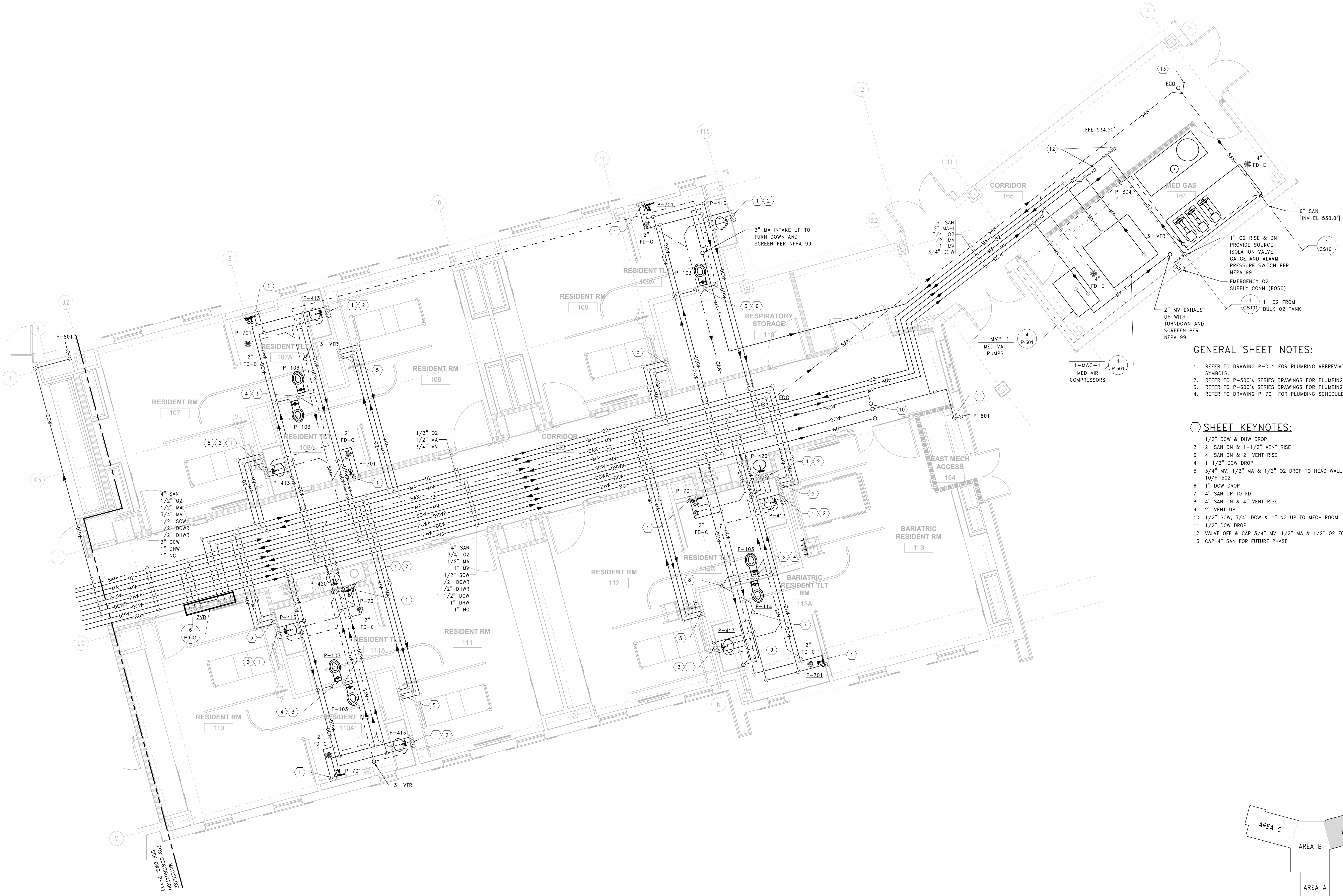


1 PLUMBING PLAN - 1ST FLOOR
SCALE: 1/4" = 1'-0"



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|---|---|--|---|--|---|--|---|--|--|--|---|---------------------------------|--|--------------------------------|---|--|----------------------------------|--|
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| | | | | | | | | | | | Fully Sprinklered FULLY SPRINKLERED | | Location LEBANON, PENNSYLVANIA | | Building Number CLC-1 | | | |
| | | | | | | | | | | | | Issue Date 2023-02-09 | | Drawing Number P-113 | | | | |

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 one quarter inch = one foot
 three eighths inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot



GENERAL SHEET NOTES:

1. REFER TO DRAWING P-001 FOR PLUMBING ABBREVIATIONS, GENERAL NOTES AND SYMBOLS.
2. REFER TO P-500'S SERIES DRAWINGS FOR PLUMBING DETAILS.
3. REFER TO P-600'S SERIES DRAWINGS FOR PLUMBING RISER DIAGRAMS
4. REFER TO DRAWING P-701 FOR PLUMBING SCHEDULES

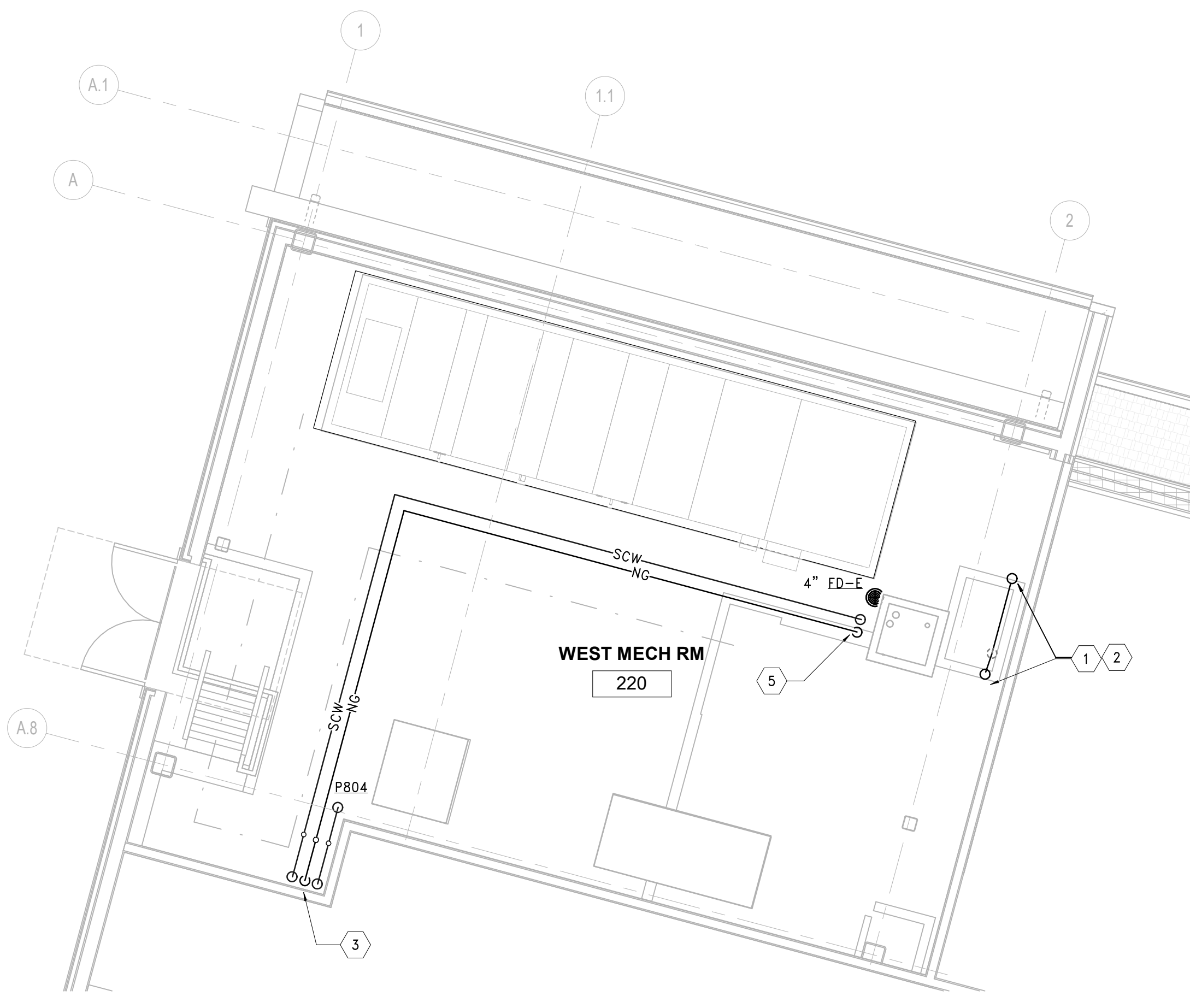
SHEET KEYNOTES:

- 1 1/2" DCW & DHW DROP
- 2" SAN DN & 1-1/2" VENT RISE
- 4" SAN DN & 2" VENT RISE
- 1-1/2" DCW DROP
- 3/4" MV, 1/2" MA & 1/2" O2 DROP TO HEAD WALL OUTLETS, REFER TO DETAILS 7 & 10/P-502
- 1" DCW DROP
- 4" SAN UP TO FD
- 4" SAN DN & 4" VENT RISE
- 2" VENT UP
- 1/2" SCW, 3/4" DCW & 1" NG UP TO MECH ROOM
- 1/2" DCW DROP
- VALVE OFF & CAP 3/4" MV, 1/2" MA & 1/2" O2 FOR FUTURE PHASE
- CAP 4" SAN FOR FUTURE PHASE

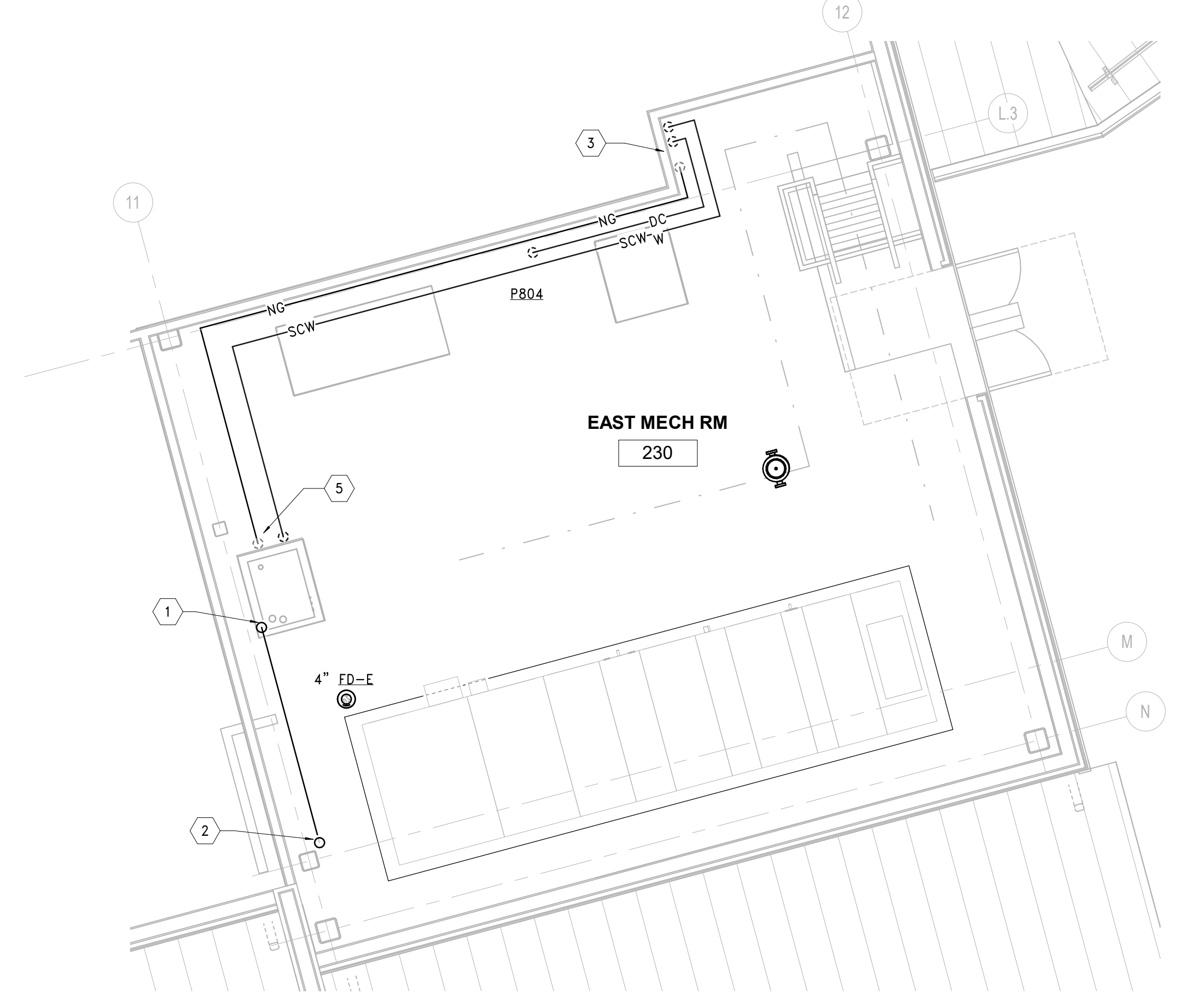
1 PLUMBING PLAN - 1ST FLOOR
 SCALE: 1/4" = 1'-0"

| | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---|--|--|--|---|--|--|--|---|--|--------------------------|--|--|--|---------------------------|--|--------------------------|--|-------------------------|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER 2/8/2023 2:25:02 PM Revisions: _____ Date: _____ | CONSULTANT ARRAY-ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | | ENGINEER OF RECORD PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-6022 MR PROJECT NO. 0499-0124 | | MILLER-REMICK LLC PROFESSIONAL ENGINEER | | Office of Construction and Facilities Management U.S. Department of Veterans Affairs | | Drawing Title PLUMBING 1ST FLOOR, AREA D Approved: _____ | | Phase BID DOCUMENTS | | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) | | Project Number 595-601 | | | | |
| | | | | | | | | | Fully Sprinklered FULLY SPRINKLERED | | Location LEBANON, PENNSYLVANIA | | Issue Date 2023-02-09 | | Checked _____ Checker | | Drawn _____ Author | | Building Number CLC-1 | | Drawing Number P-114 |

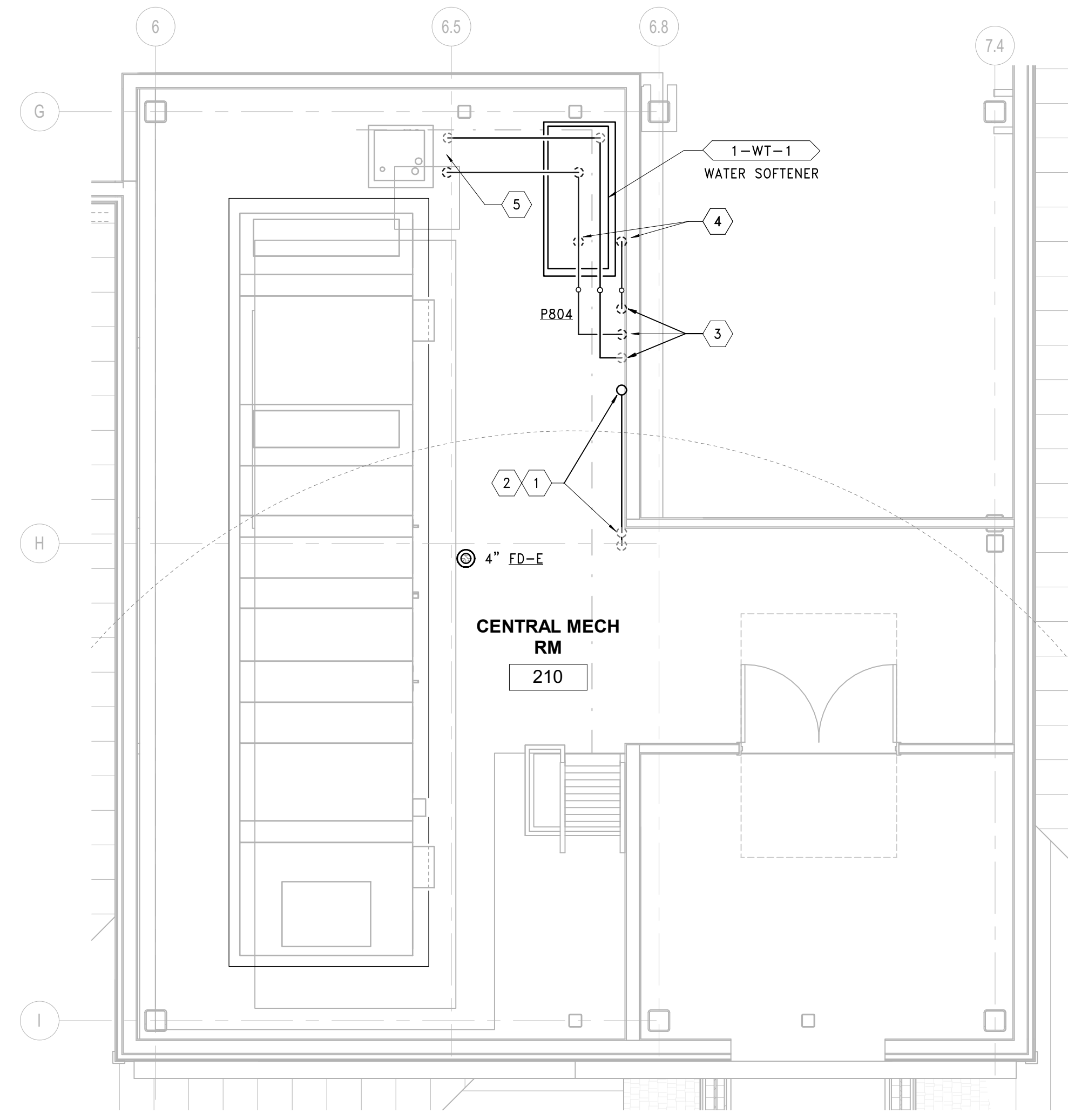
three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
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2 MECHANICAL MEZZANINE - AREA C
 SCALE: 1/4" = 1'-0"



3 MECHANICAL MEZZANINE - AREA D
 SCALE: 1/4" = 1'-0"



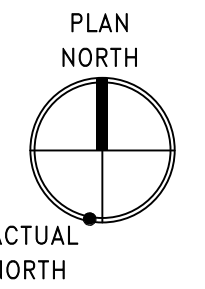
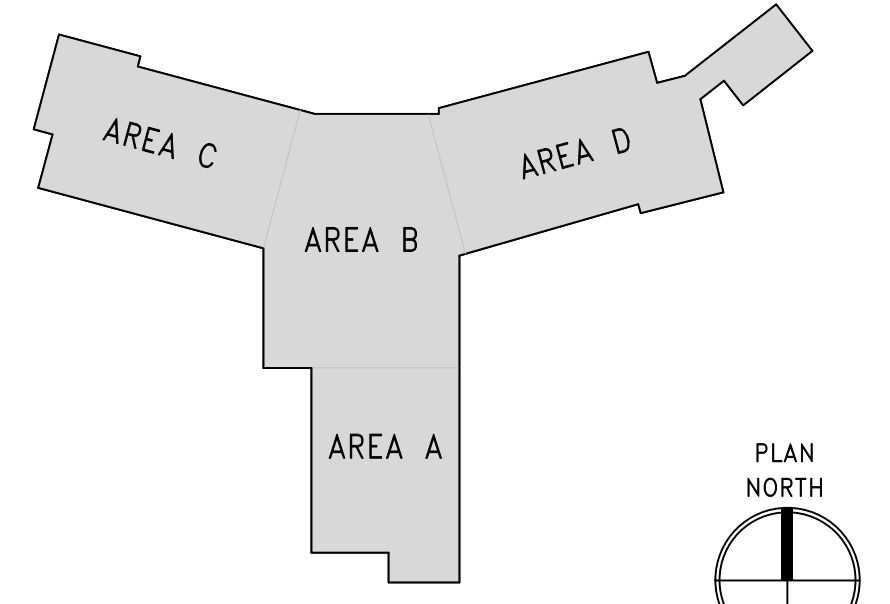
1 MECHANICAL MEZZANINE - AREA A
 SCALE: 1/4" = 1'-0"





GENERAL SHEET NOTES:

- REFER TO DRAWING P-001 FOR PLUMBING ABBREVIATIONS, GENERAL NOTES AND SYMBOLS.
- REFER TO P-500'S SERIES DRAWINGS FOR PLUMBING DETAILS.
- REFER TO P-600'S SERIES DRAWINGS FOR PLUMBING RISER DIAGRAMS
- REFER TO DRAWING P-701 FOR PLUMBING SCHEDULES

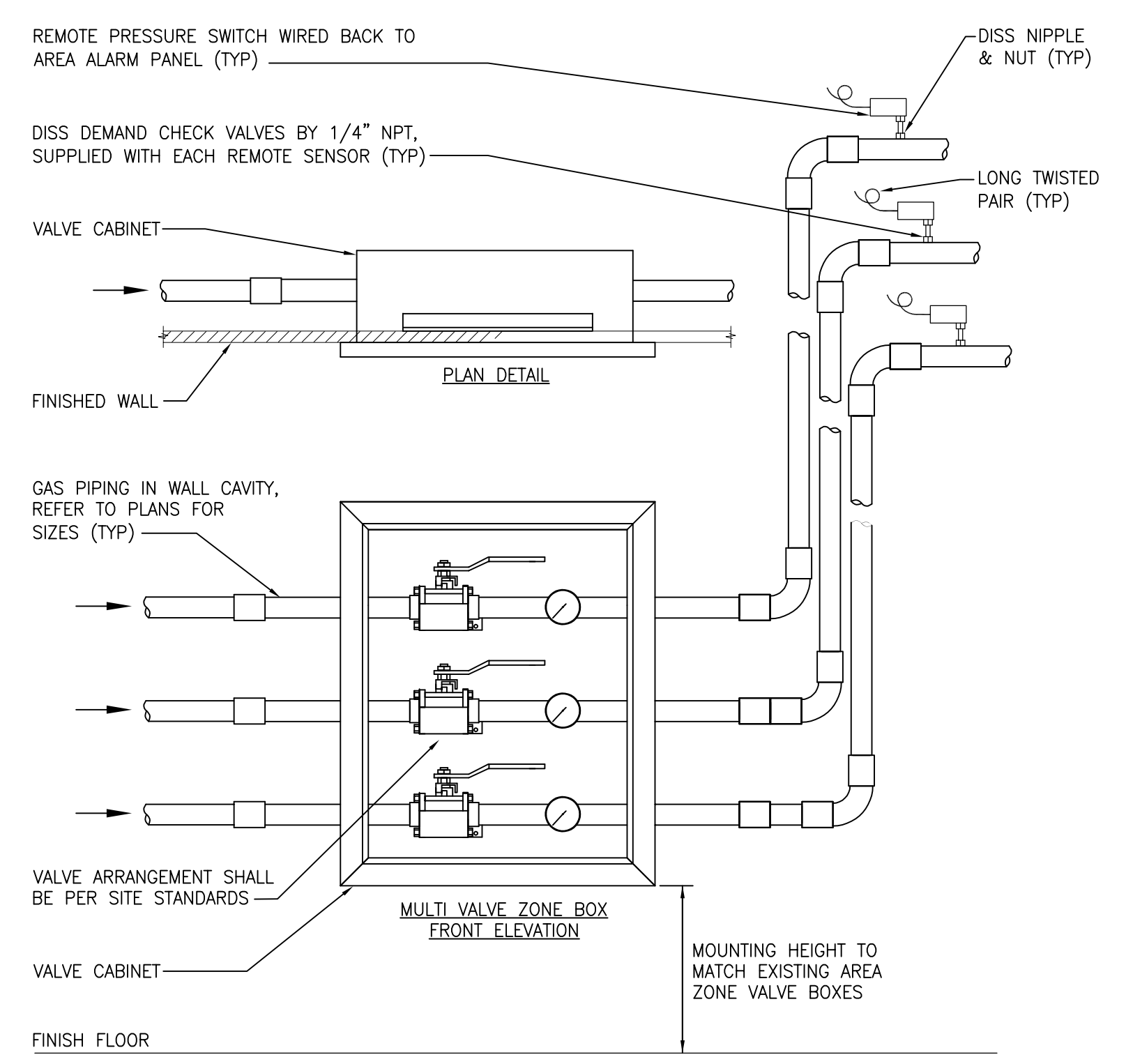
SHEET KEYNOTES:

- 2" VENT RISE & DN
- 4" VENT DN & VTR
- 1/2" SCW, 3/4" DCW & 1" NG DN
- 1/2" SCW & 1/2" DCW DROP TO WT-1
- 1/2" SCW & 1" NG DROP TO CSG

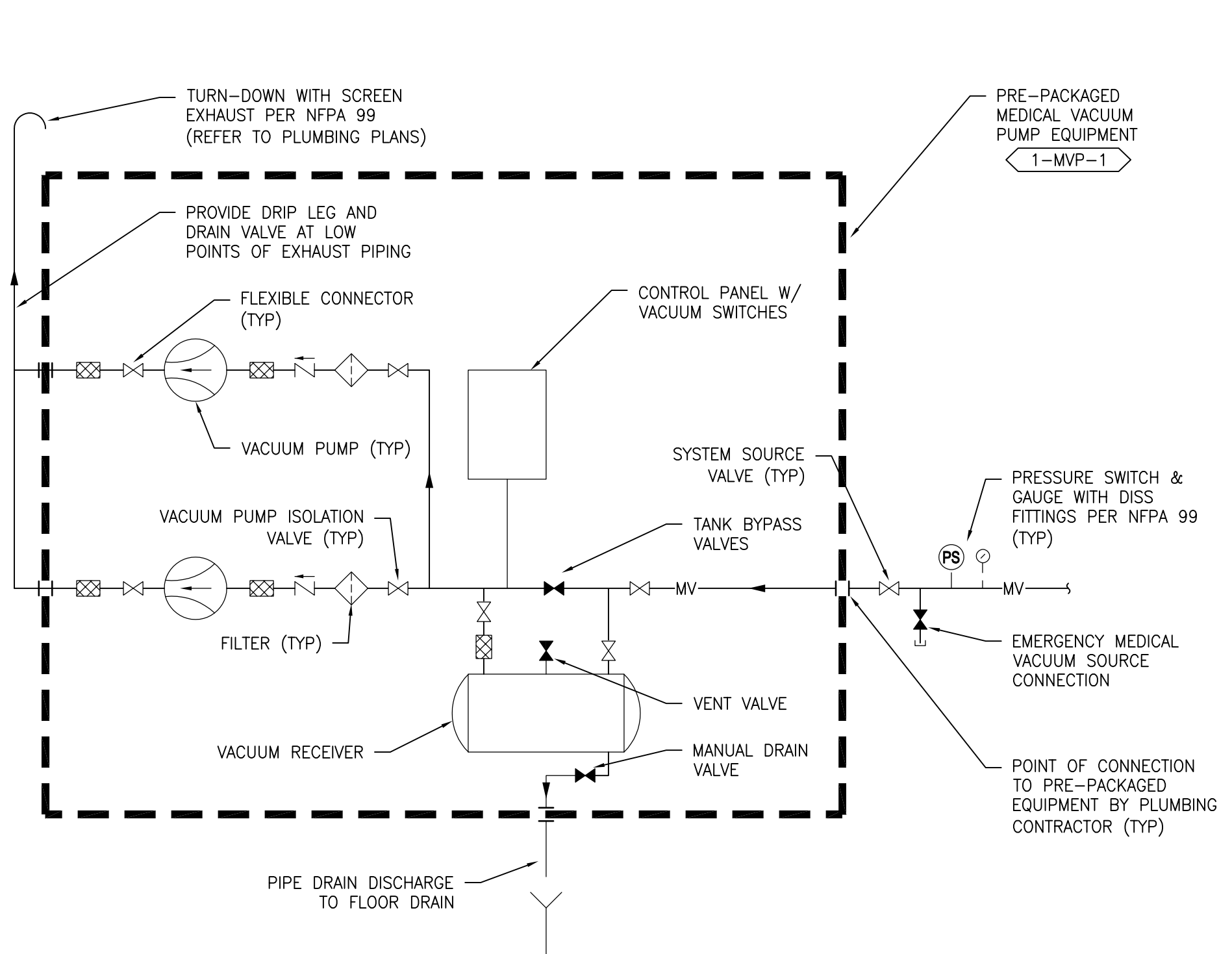


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|---|---|--|---|--|---|--|---|--|---|--|---|--|-------------------------|--|---|--|---------------------------|--|
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| | Fully Sprinklered | | Location LEBANON, PENNSYLVANIA | | Issue Date 2023-02-09 | | Checked Checker | | Drawn Author | | Building Number CLC-1 | | Drawing Number P-401 | | | | | |

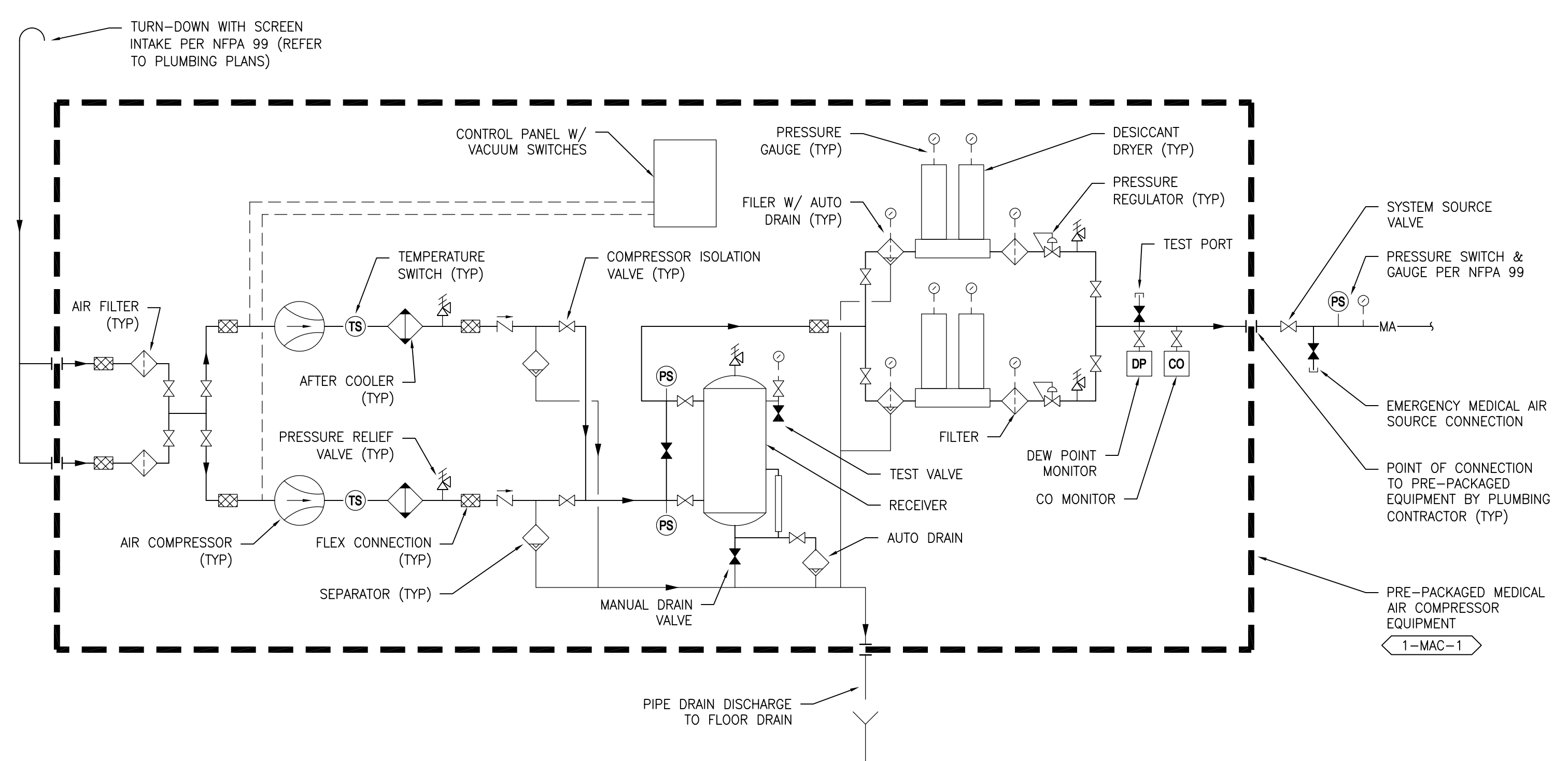
three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot



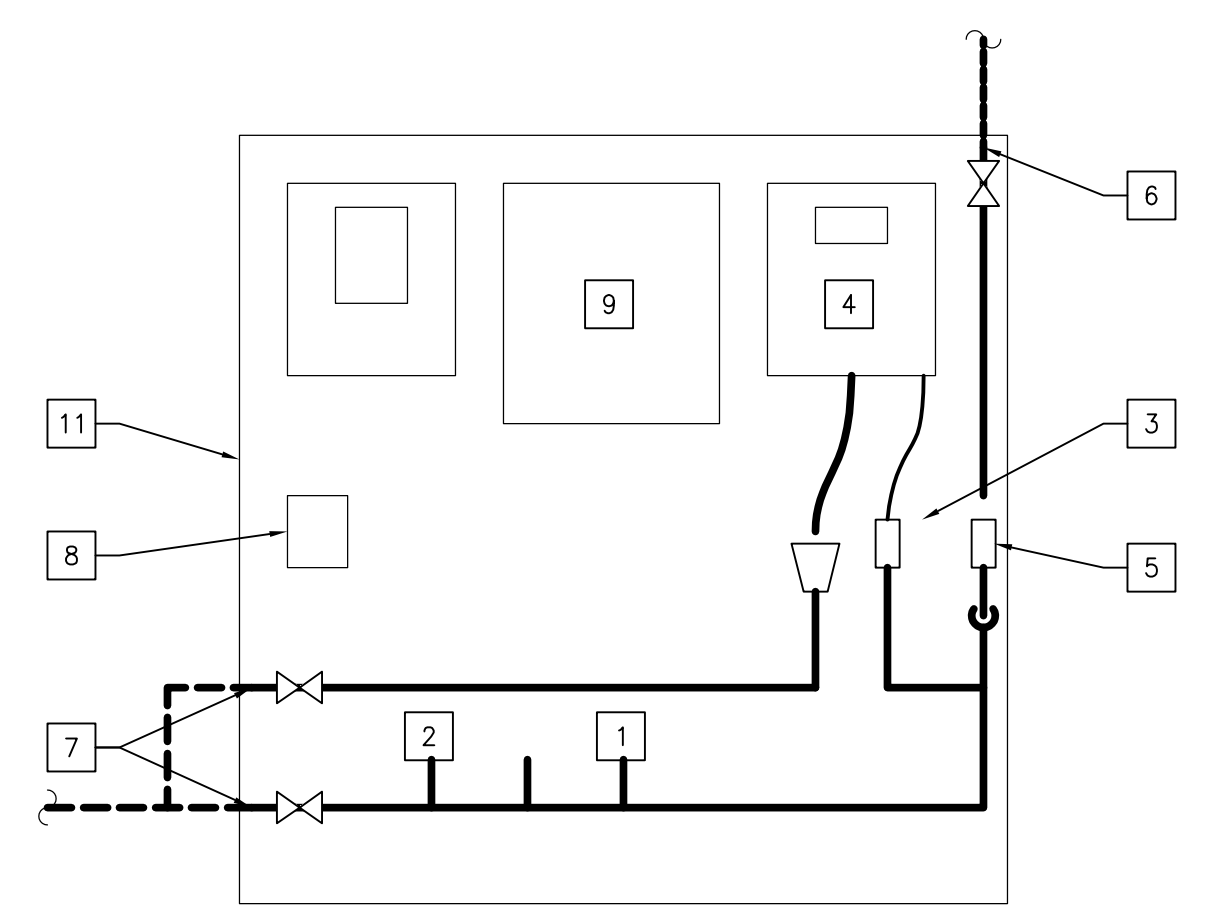
6 MED GAS ZONE VALVE BOX DETAIL
SCALE: NTS



4 DUPLEX MEDICAL VACUUM PUMPS FLOW DIAGRAM
SCALE: NTS

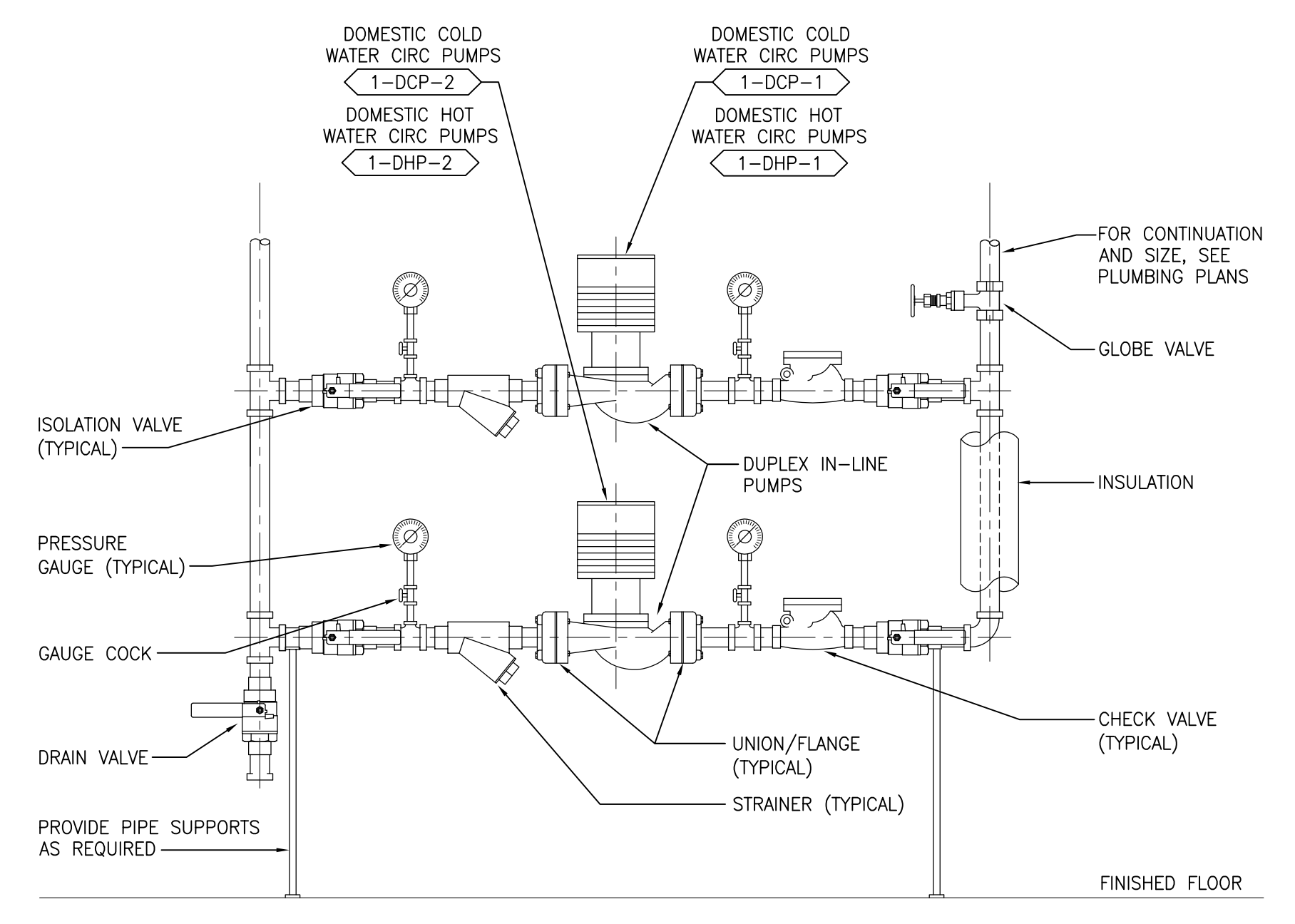


2 DUPLEX MEDICAL AIR COMPRESSOR FLOW DIAGRAM
SCALE: NTS



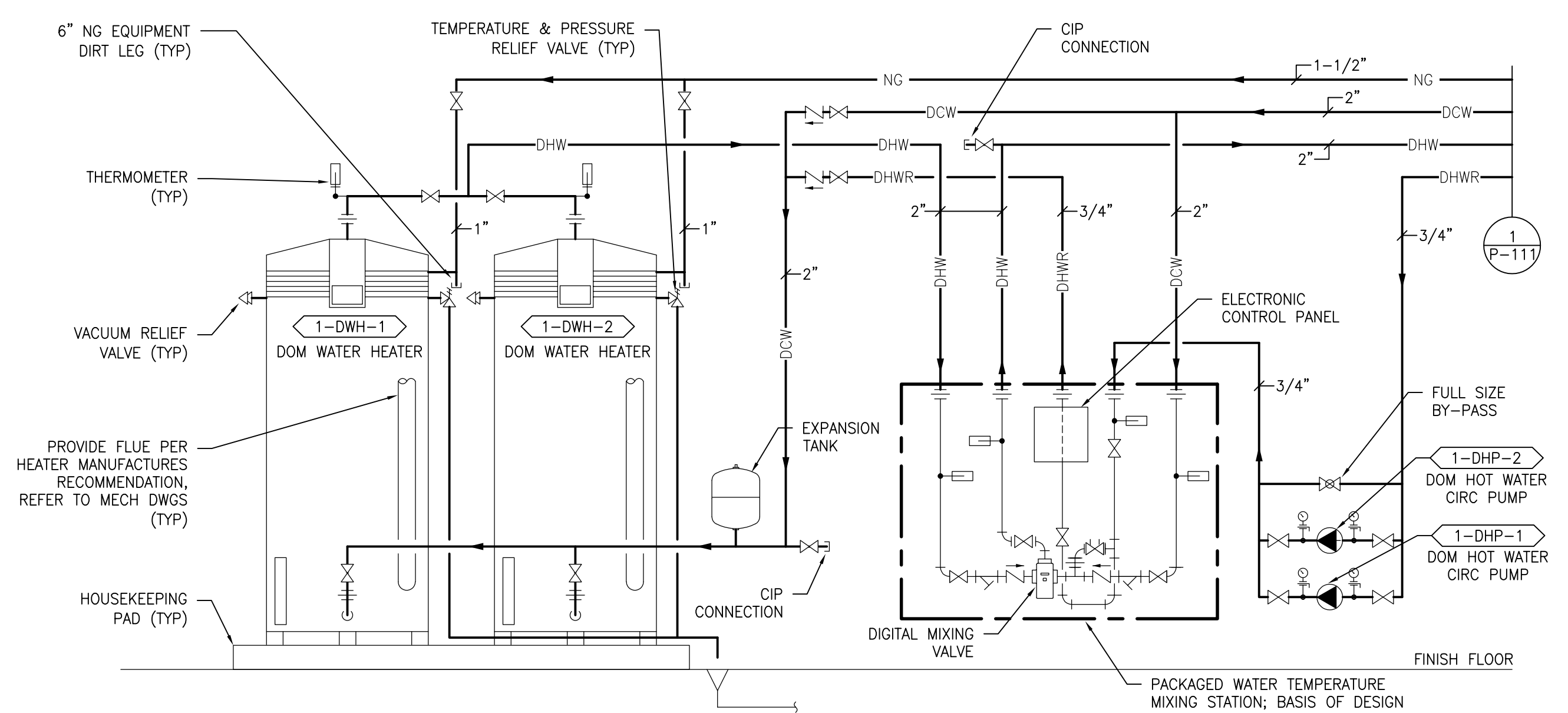
- 1 DETAIL KEYNOTES:**
1. pH SENSORS
 2. CONDUCTIVITY SENSORS
 3. ORP (CHLORINE) SENSORS
 4. CHLORINE MONITOR
 5. TEMPERATURE SENSORS
 6. WATER SAMPLING CONNECTION (REFER TO PLANS)
 7. DRAIN CONNECTION (REFER TO PLANS)
 8. 110V ELECTRIC POWER SUPPLY
 9. DATA LOGGING DEVICE WITH SECURE INTERNET CONNECTION
 10. PRE-PACKAGED MONITORING SYSTEM SKID
 11. [Unlabeled callout]

5 WATER MONITORING SKID
SCALE: NONE
BASIS OF DESIGN: PHIGENICS PWA ADVANCED MONITORING SYSTEM WITH 1 YEAR SERVICE AGREEMENT



3 TYPICAL DOMESTIC WATER CIRCULATING PUMP DETAIL
SCALE: NONE

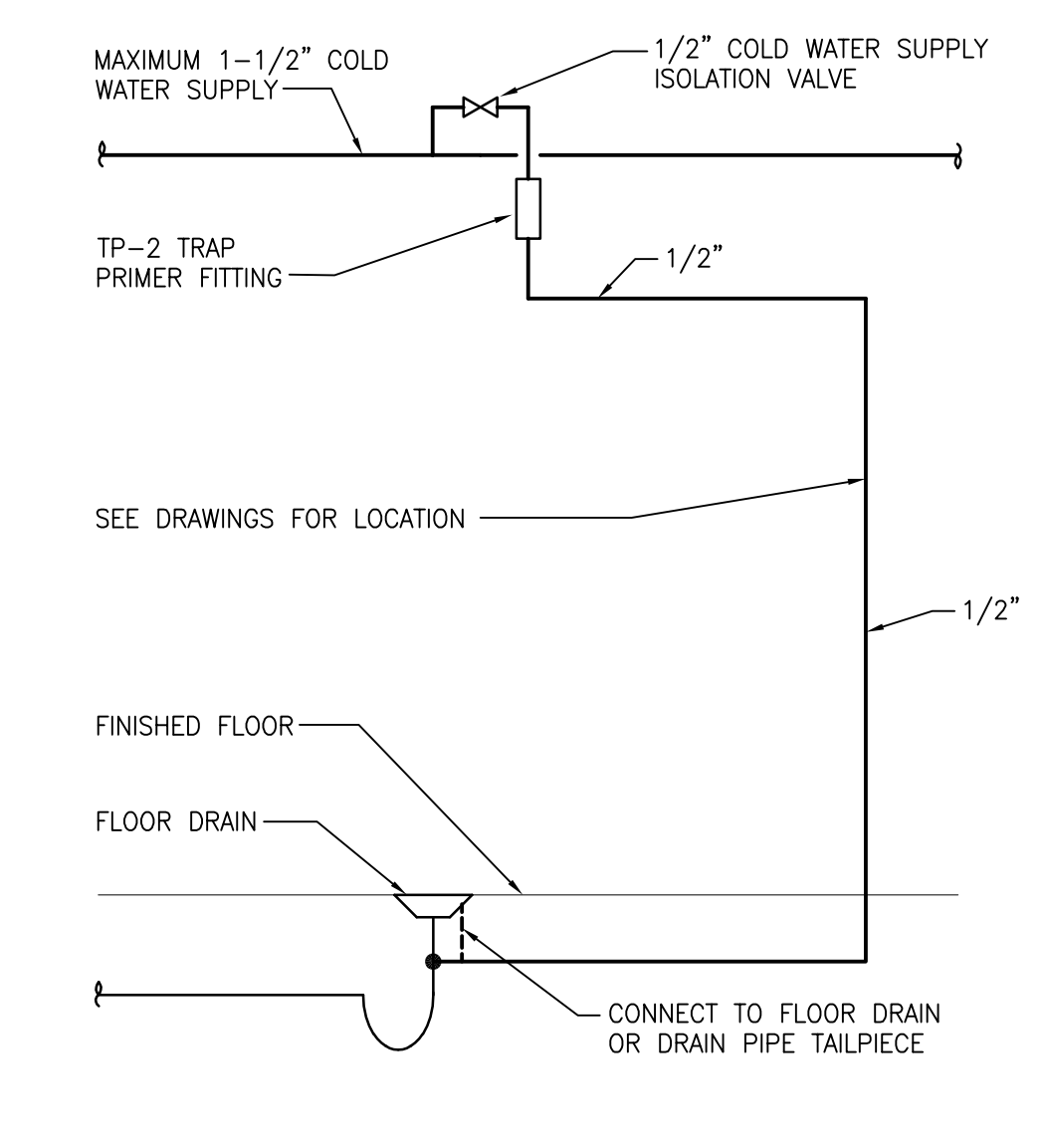
THE BUILDING VRF CONTRACTOR WILL CONNECT THE DOMESTIC WATER RECIRCULATING PUMPS INTEGRAL CONTROLLER TO REPORT ALL AVAILABLE FAILURE NOTICES AND DIAGNOSTIC ERRORS TO THE BUILDING VRF SYSTEM. ALL POINTS AND ALARMS SHALL BE ADJUSTABLE AT THE PUMP CONTROLLER.



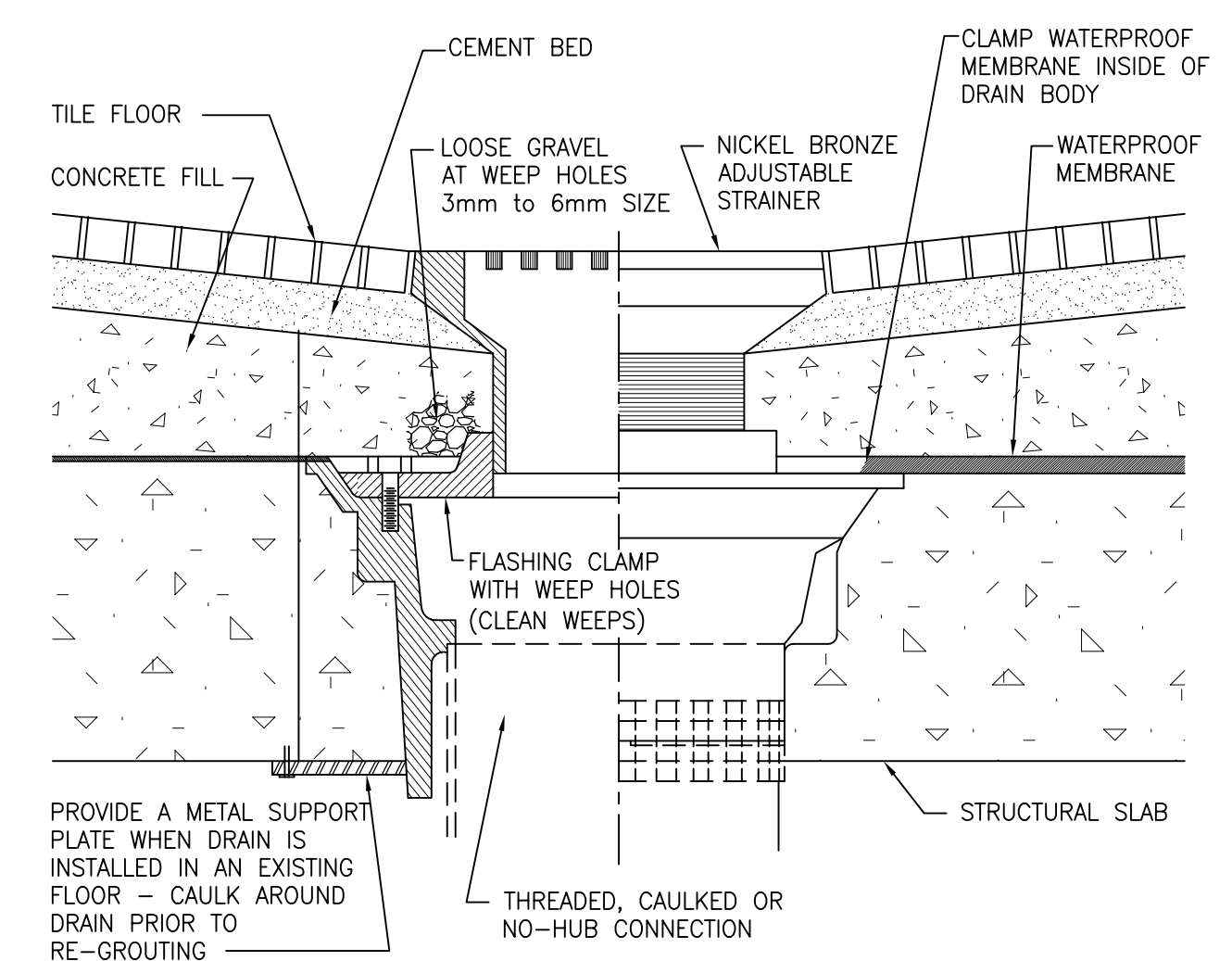
1 DOMESTIC WATER HEATER DETAIL
SCALE: NTS

| | | | | | | | | | | | | | | | | | | | |
|---|--|---|--|---|--|---|--|---|--|---|--|---|--|------------------------|--|--|--|---------------------------|--|
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| Revisions: | | Date: | | Building Number CLC-1 | | Drawing Number P-501 | | Location LEBANON, PENNSYLVANIA | | Issue Date 2023-02-09 | | Checked MP | | Drawn pd | | | | | |

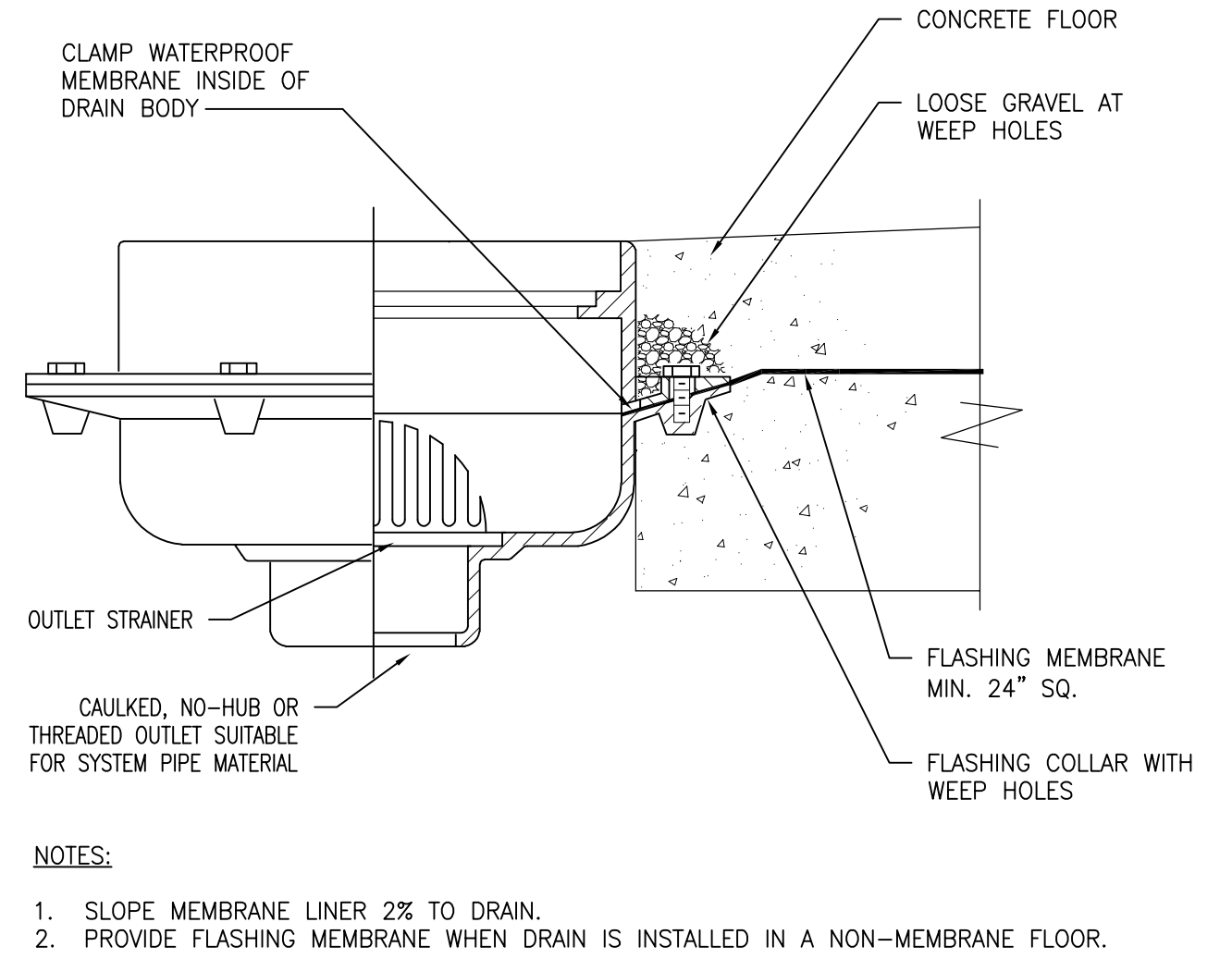
three inch = one foot
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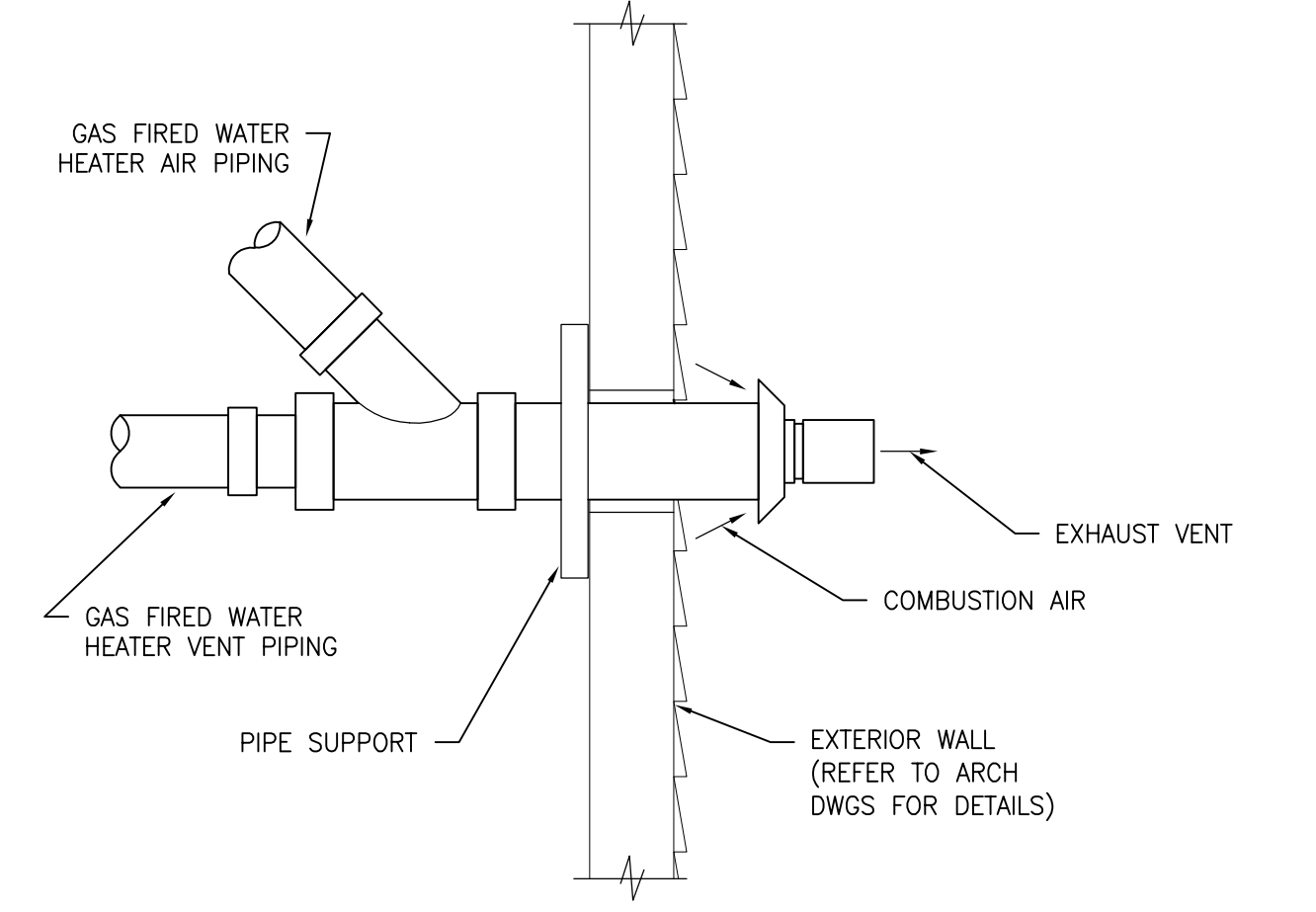
12 TRAP PRIMER TP-2 DETAIL
SCALE: NONE



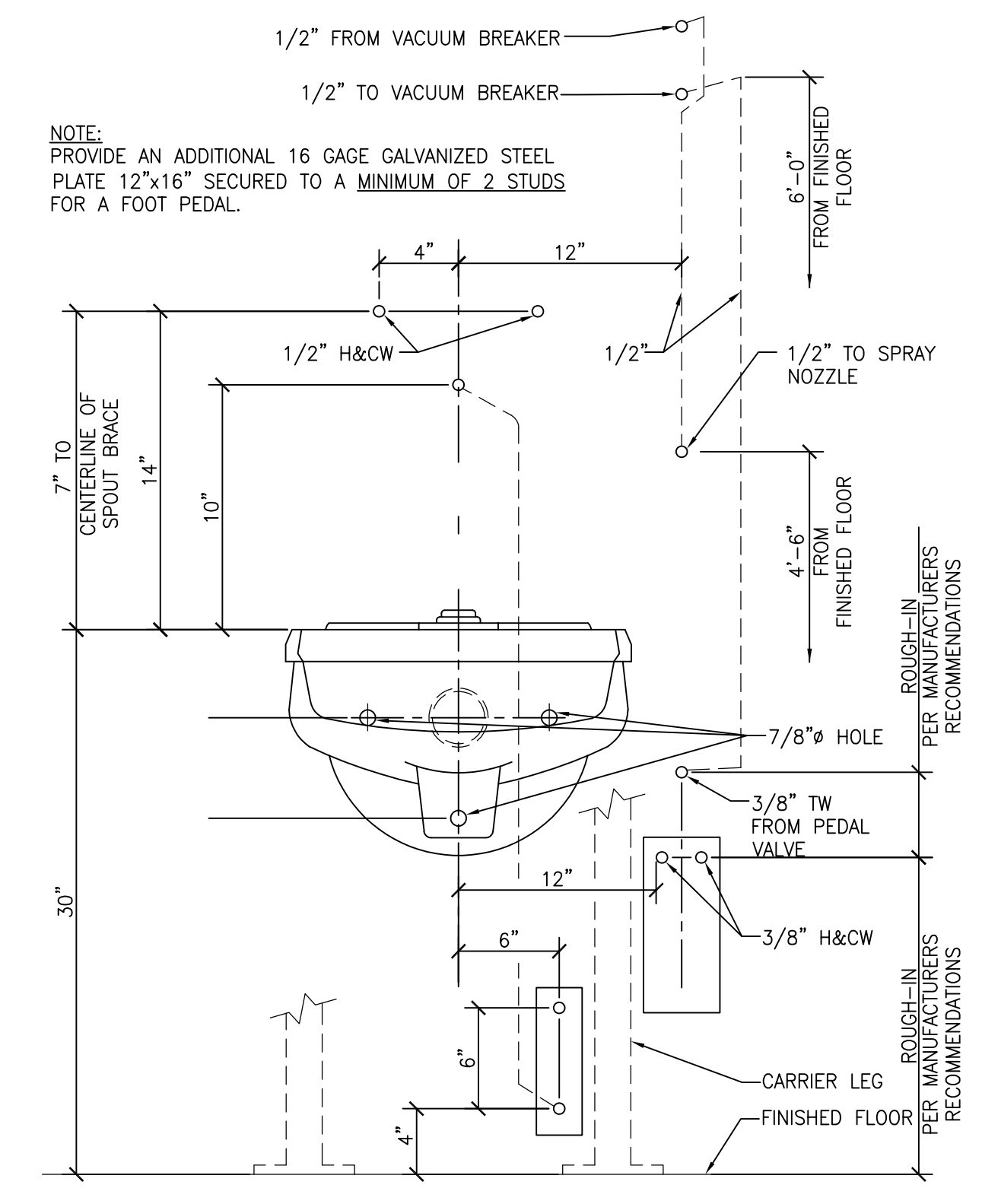
9 TYPE "C" FLOOR DRAIN DETAIL
SCALE: NONE



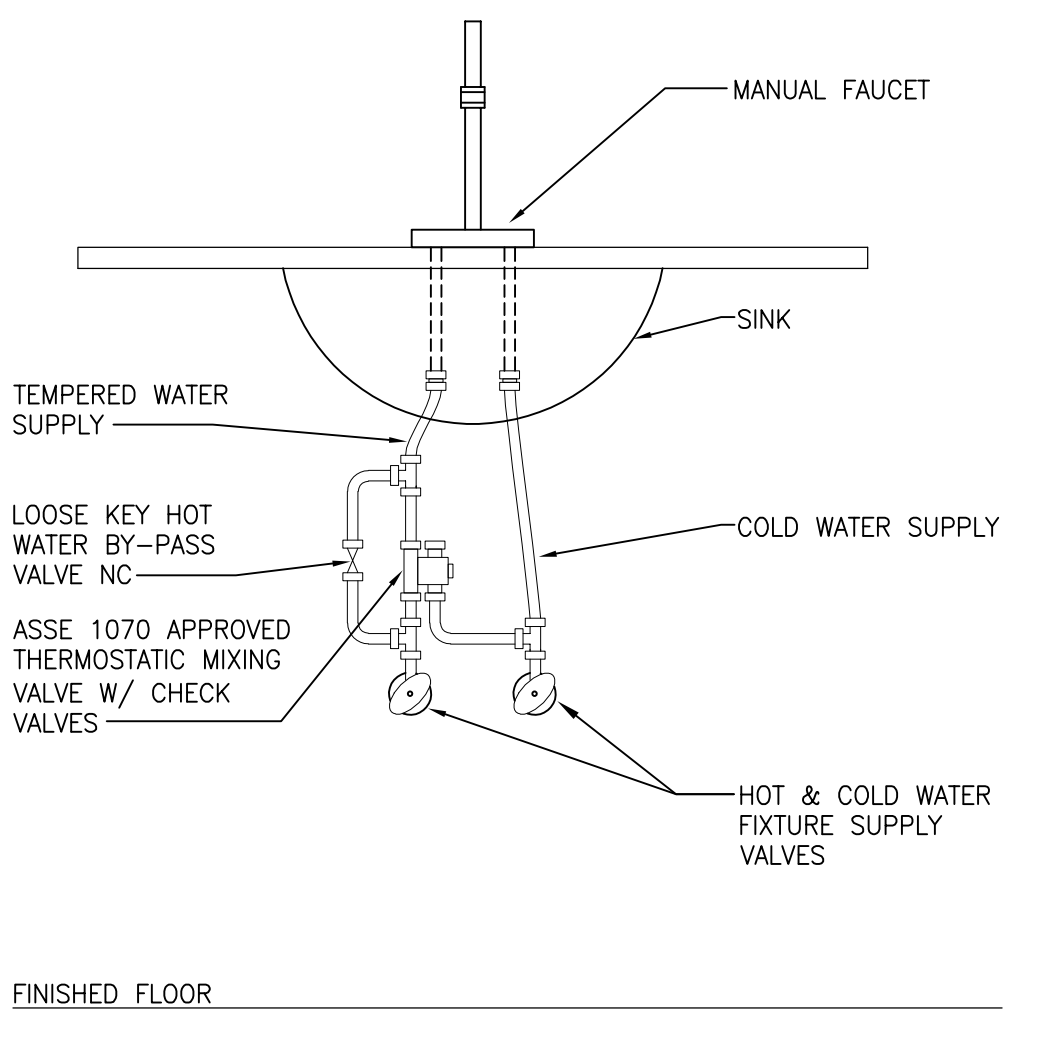
6 TYPE "E" FLOOR DRAIN DETAIL
SCALE: NONE



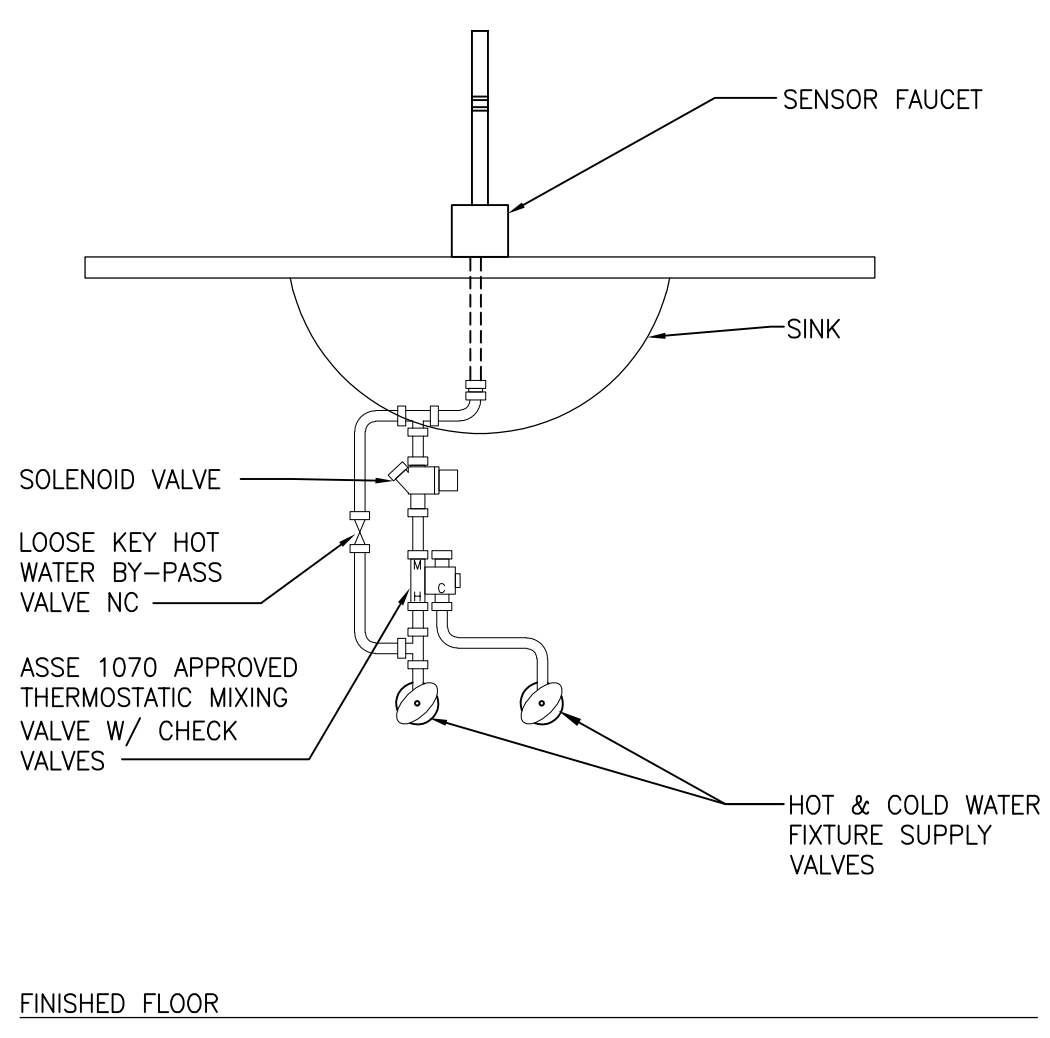
3 GAS FIRED WATER HEATER VENT DETAIL
SCALE: NONE



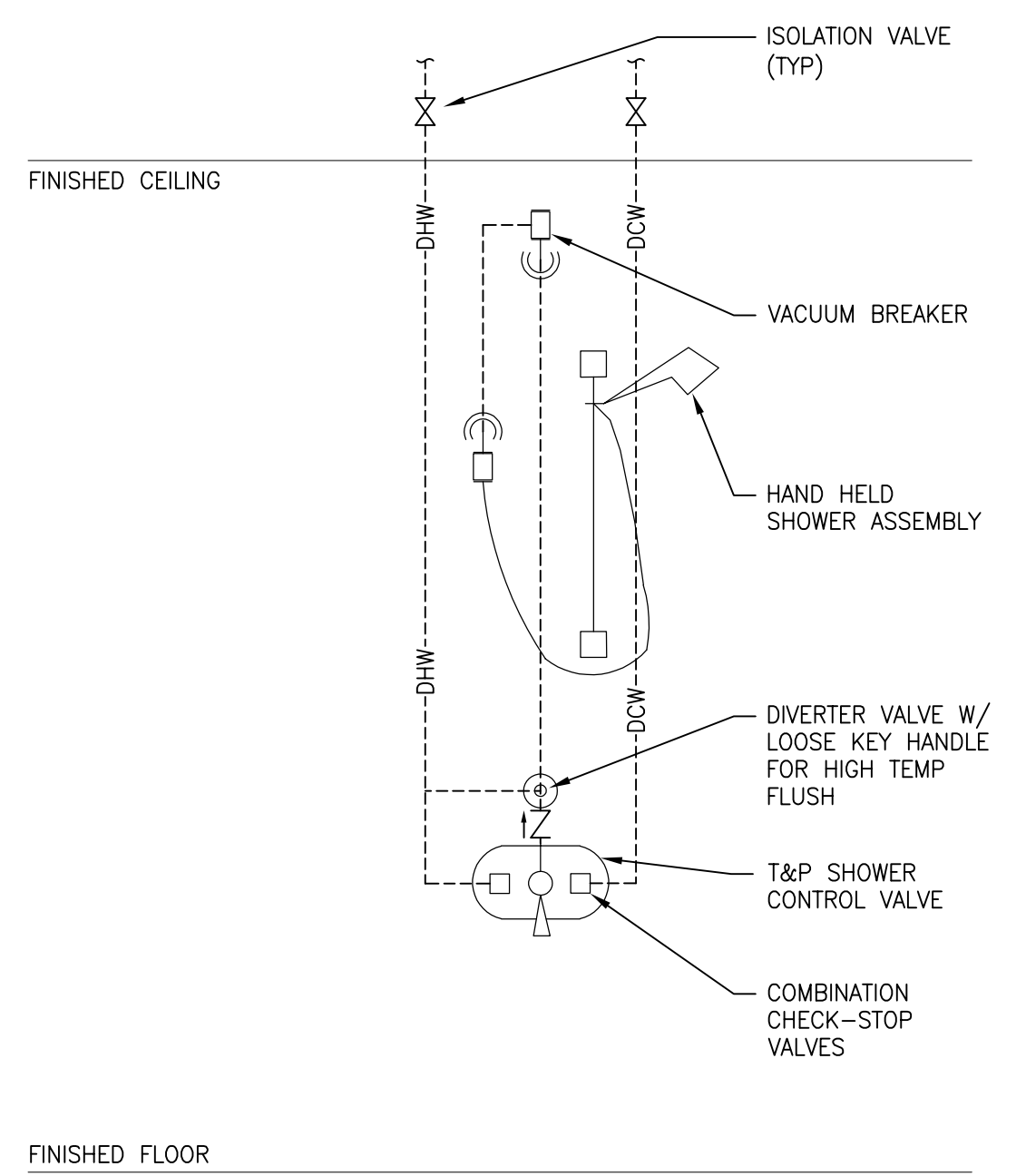
11 TYPICAL CLINIC SINK ROUGH-IN DETAIL
SCALE: NONE



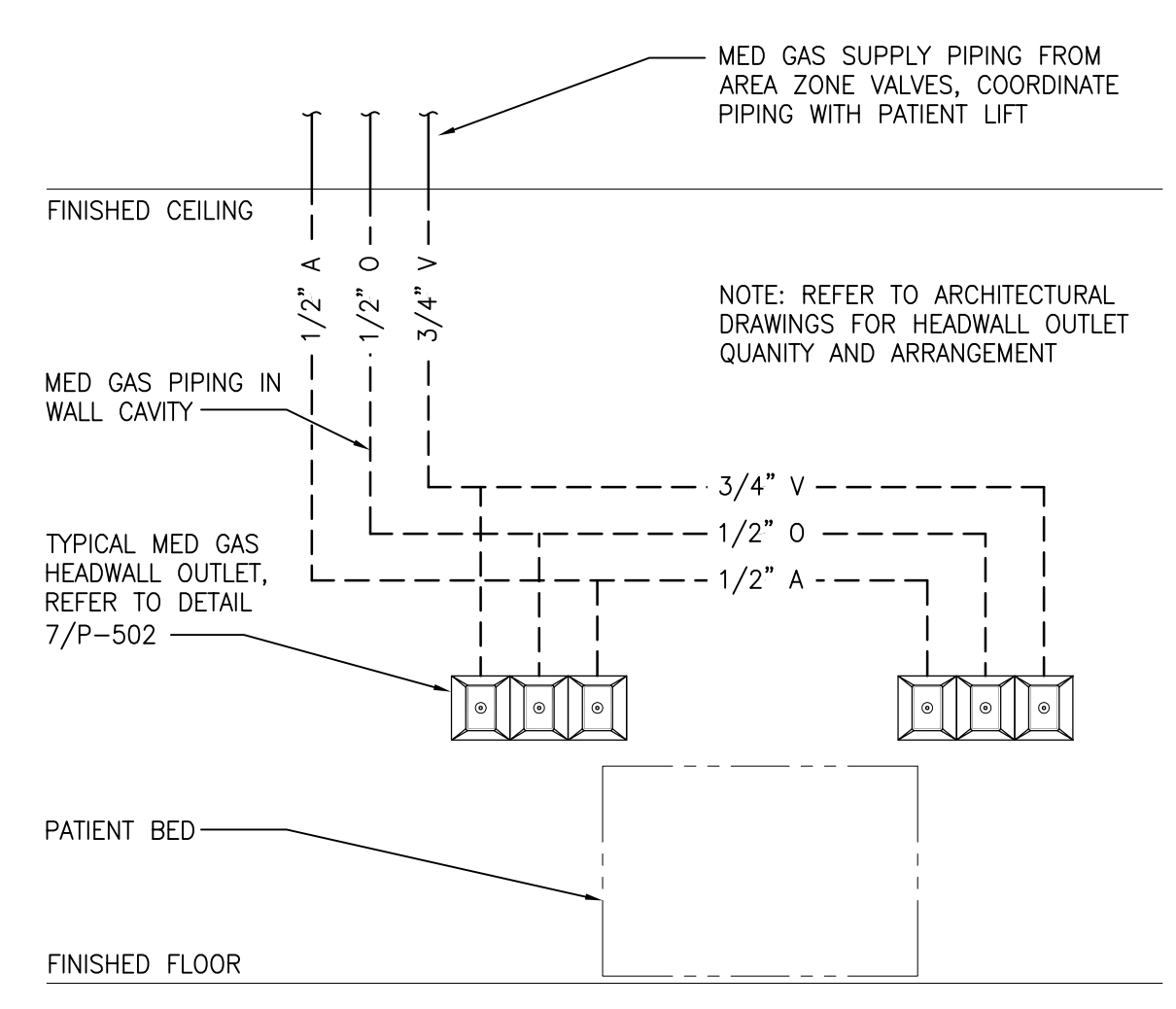
8 TYPICAL MANUAL FAUCET DETAIL
SCALE: NONE



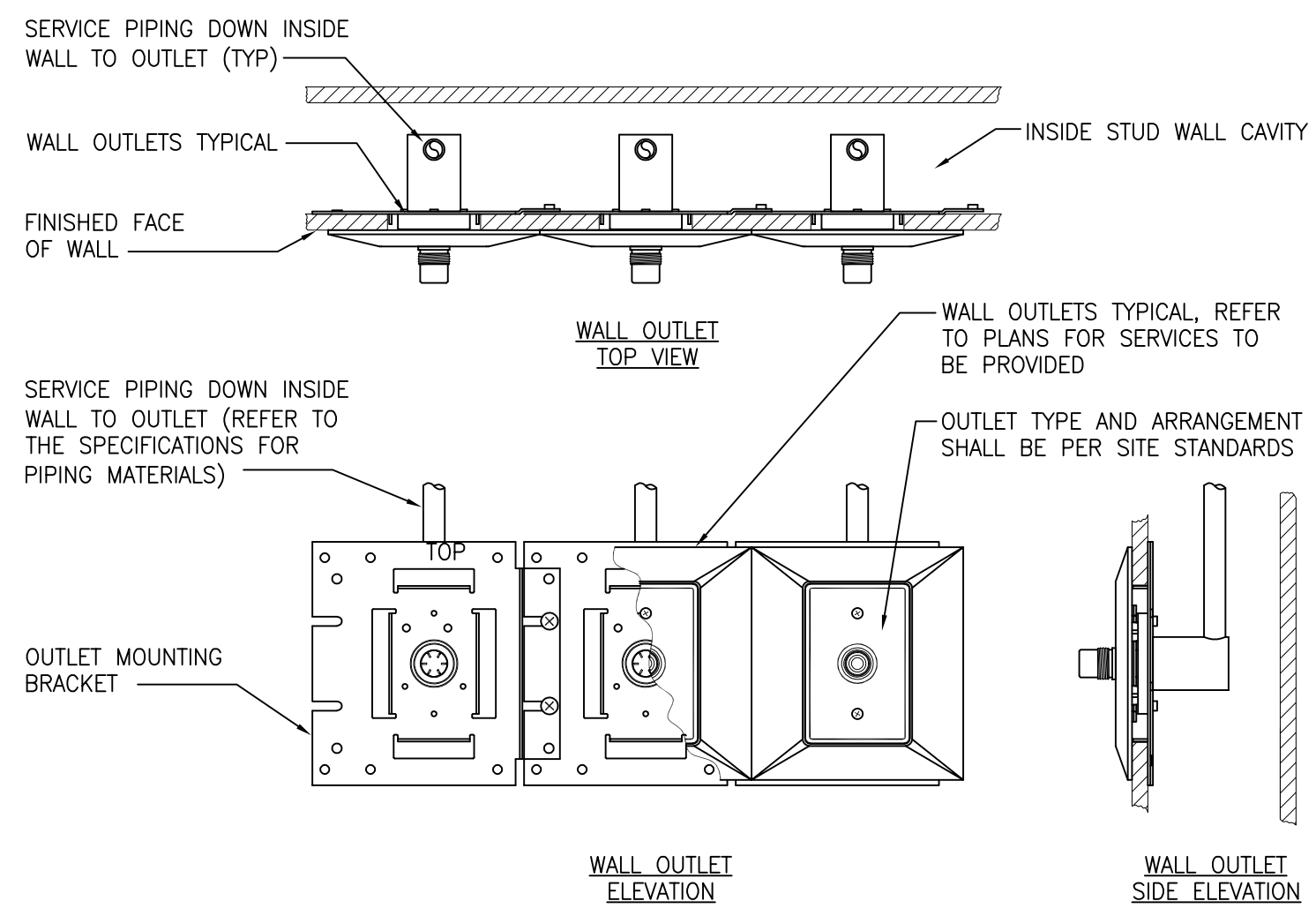
5 TYPICAL SENSOR FAUCET DETAIL
SCALE: NONE



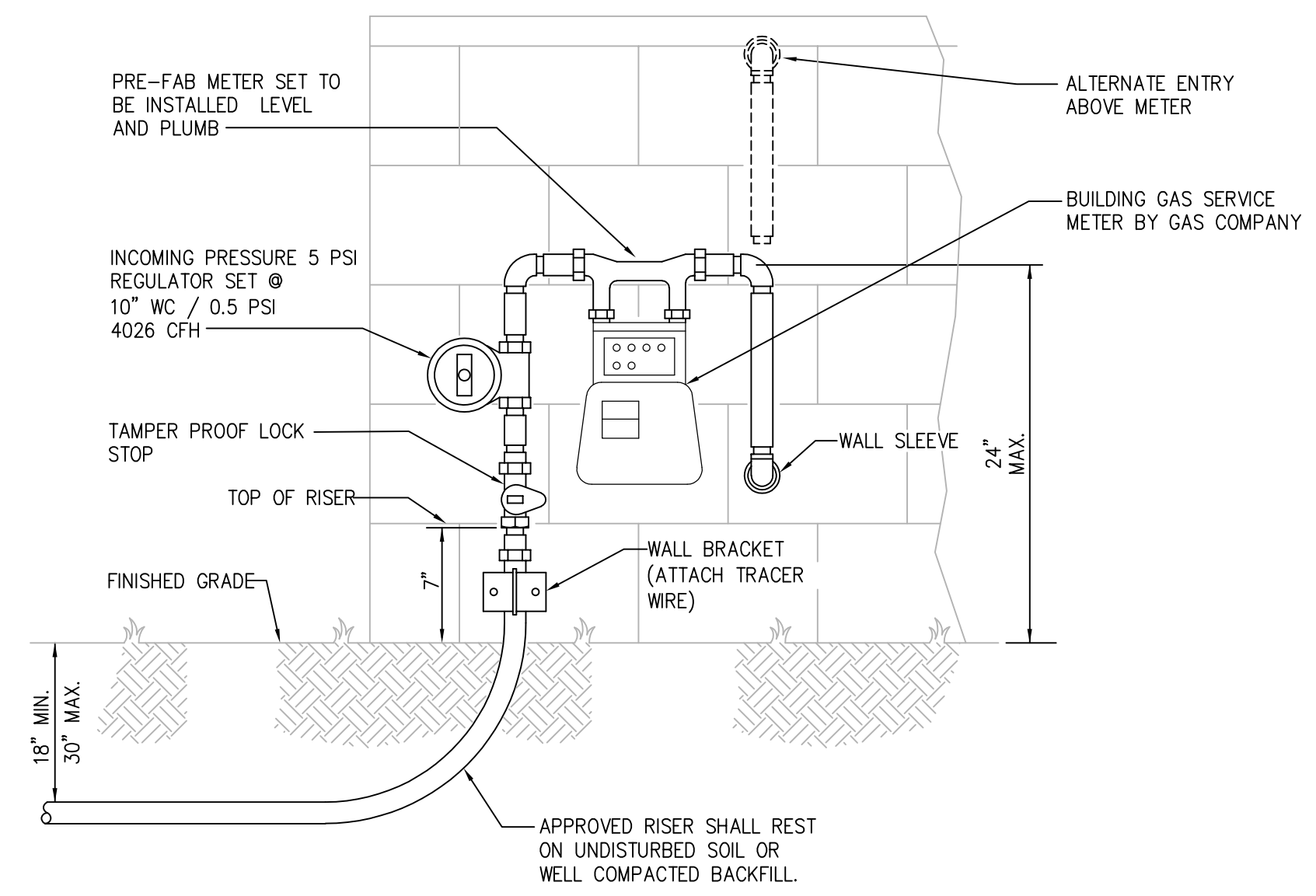
2 TYPICAL SENSOR FAUCET DETAIL
SCALE: NONE



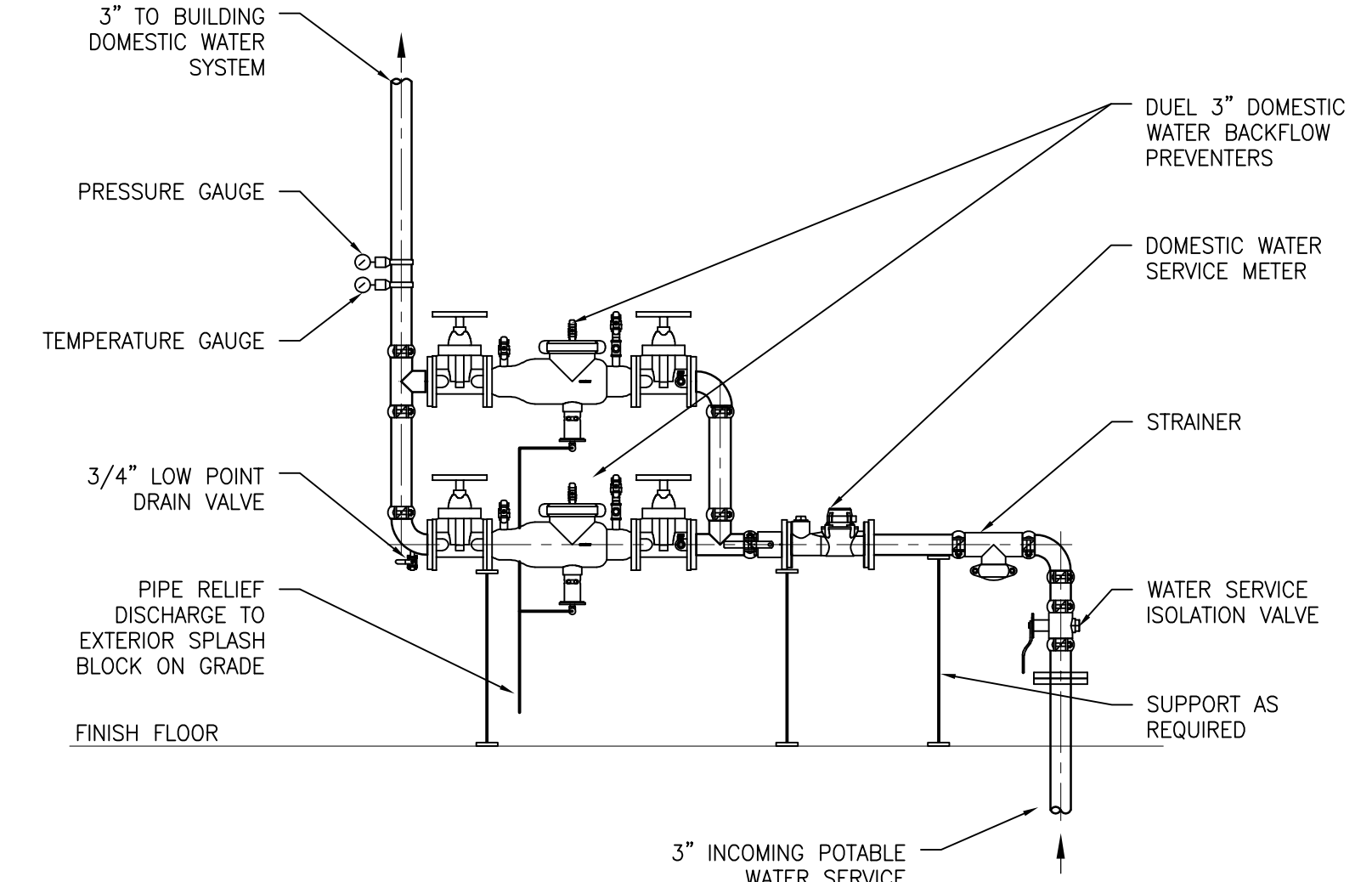
10 TYPICAL HEADWALL MED GAS DETAIL
SCALE: NONE



7 TYPICAL MED GAS WALL OUTLET DETAIL
SCALE: NTS



4 NATURAL GAS METER ASSEMBLY DETAIL
SCALE: NONE

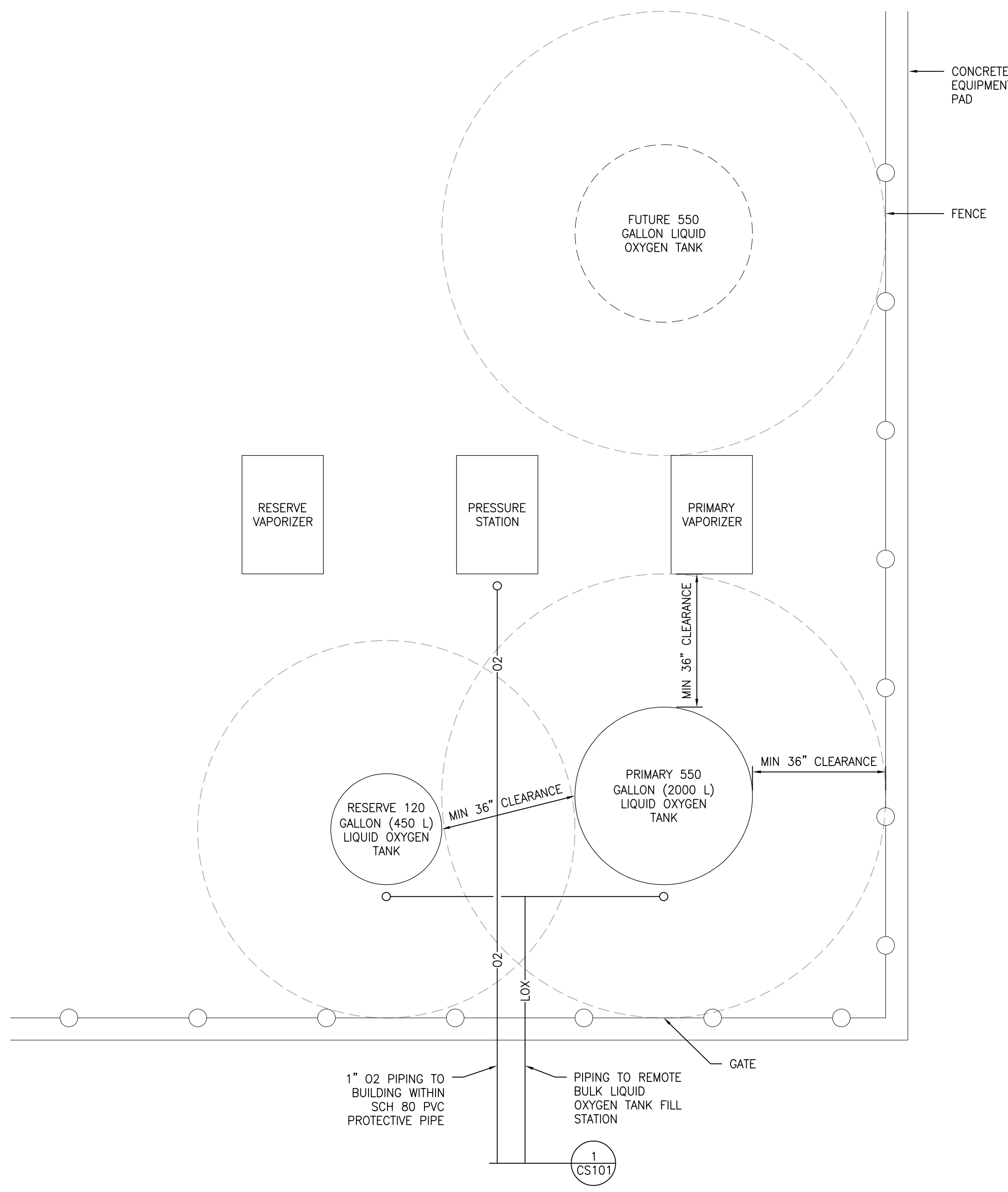


1 BUILDING WATER SERVICE PIPING DETAIL
SCALE: NONE

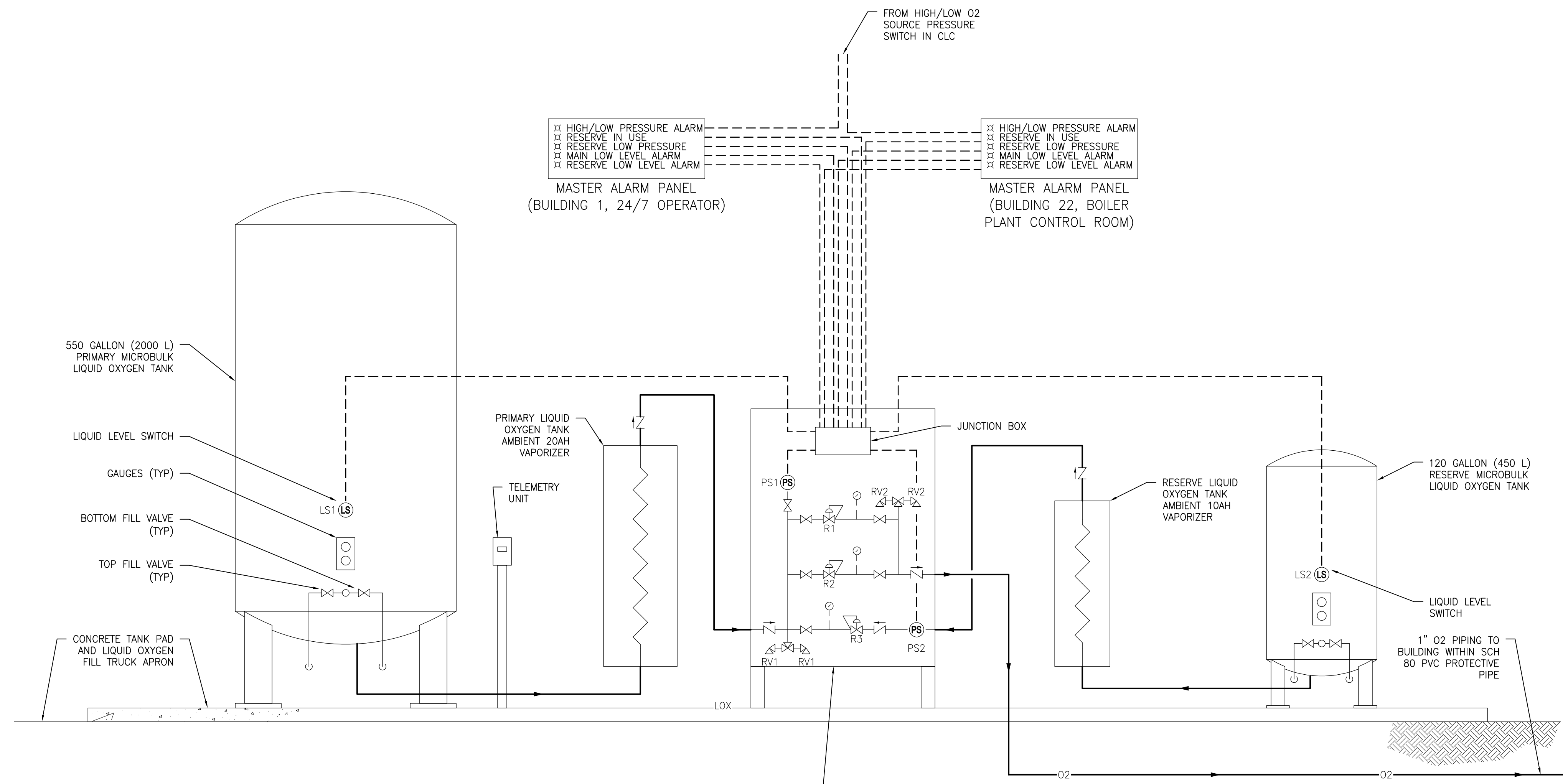
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| Revisions: | | PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | | WALL OUTLET TOP VIEW WALL OUTLET ELEVATION WALL OUTLET SIDE ELEVATION | | Approved: | | Fully Sprinklered | | Location LEBANON, PENNSYLVANIA | | Issue Date 2023-02-09 | | Checked MP | | Drawn pd | |
| Date: | | Date: | | Date: | | Date: | | Date: | | Date: | | Date: | | Date: | | | |

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot

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 B
 C
 D
 E
 F



2 MEDICAL BULK OXYGEN PLAN
 SCALE: NONE



- NOTES:
1. NEW ALARM ANNUCIATOR PANELS TO BE FURNISHED AND INSTALLED BY MEDICAL GAS PROVIDER.
 2. ALL SIGNAL WIRING TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
 3. FINAL TERMINATIONS OR SIGNAL WIRING BY MEDICAL GAS PROVIDER.

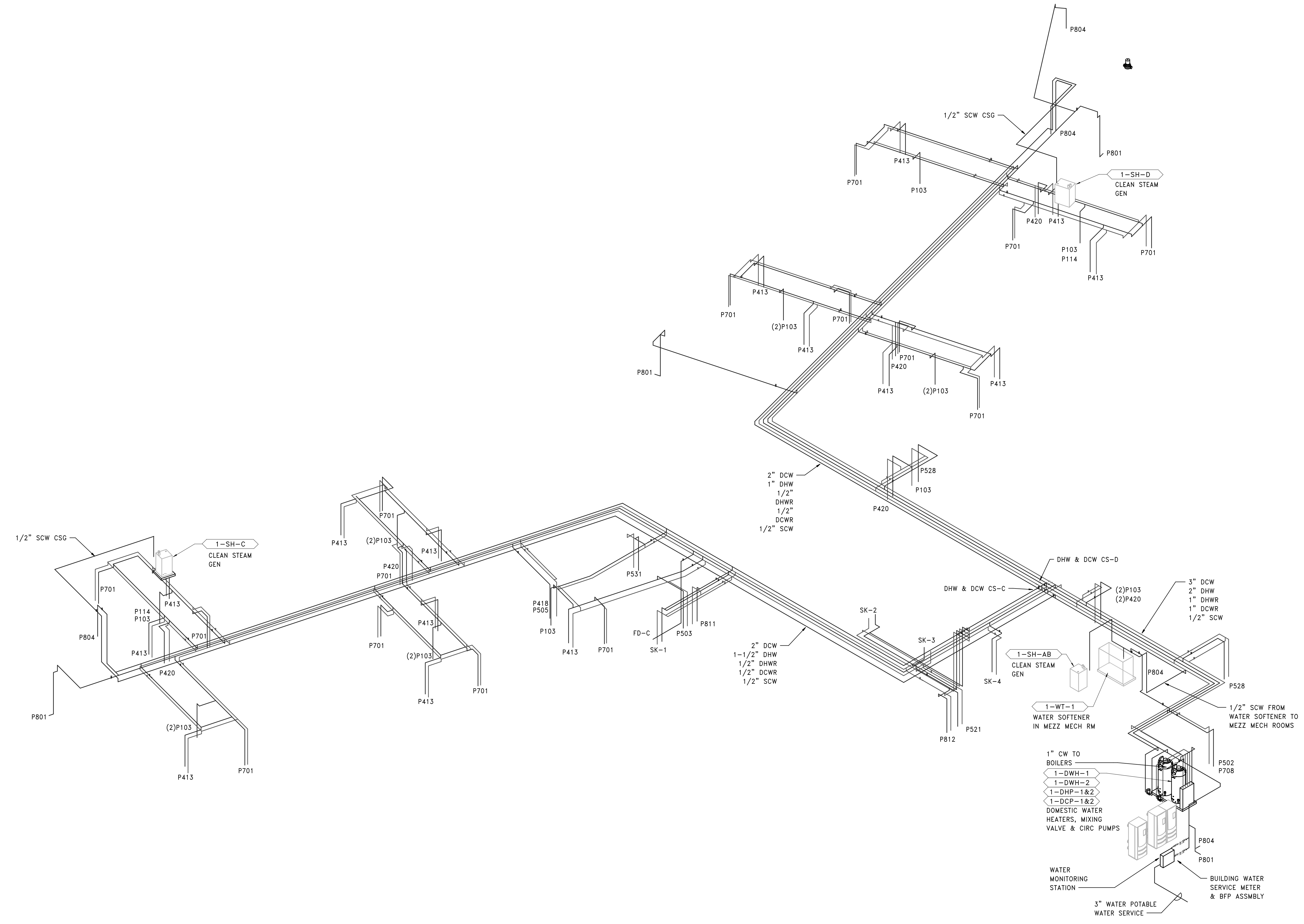
- MEDICAL OXYGEN CONTROL CABINET
- PS1 - RESERVE IN-USE PRESSURE SWITCH
 - PS2 - RESERVE LOW PRESSURE SWITCH
 - R1 - MAIN FINAL LINE REGULATOR
 - R2 - BACK-UP FINAL LINE REGULATOR
 - R3 - RESERVE SYSTEM REGULATOR
 - RV1 - RELIEF VALVE (350 PSI)
 - RV2 - RELIEF VALVE (75 PSI)

1 MEDICAL BULK OXYGEN FLOW DIAGRAM
 SCALE: NONE

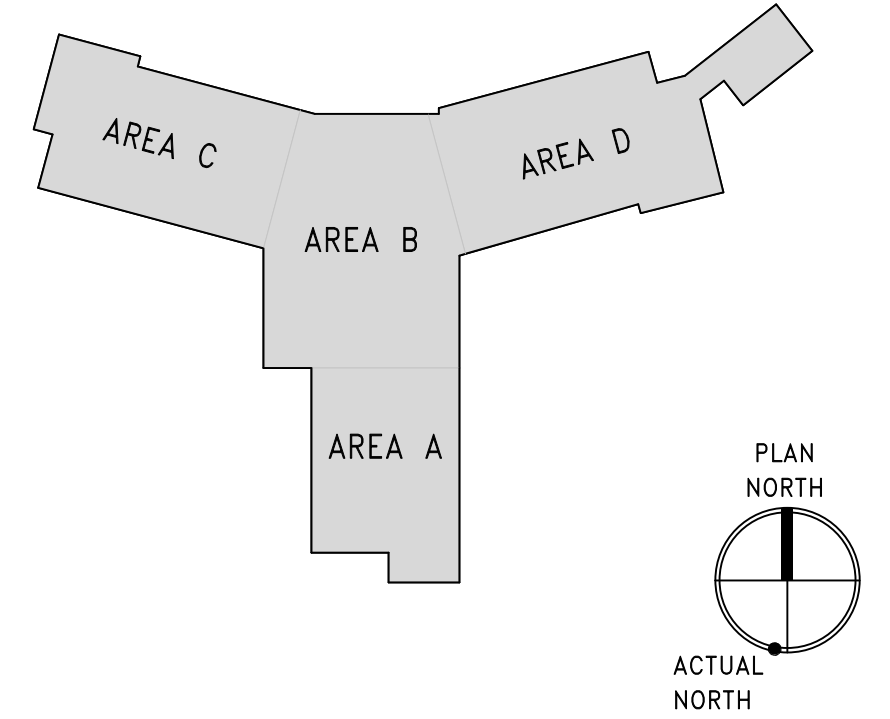
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| | Revisions: | Date: | Checked MP | Drawn pd | Date 2023-02-09 | Project Number 595-601 Building Number CLC-1 Drawing Number P-503 | | | |

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one eighth inch = one foot
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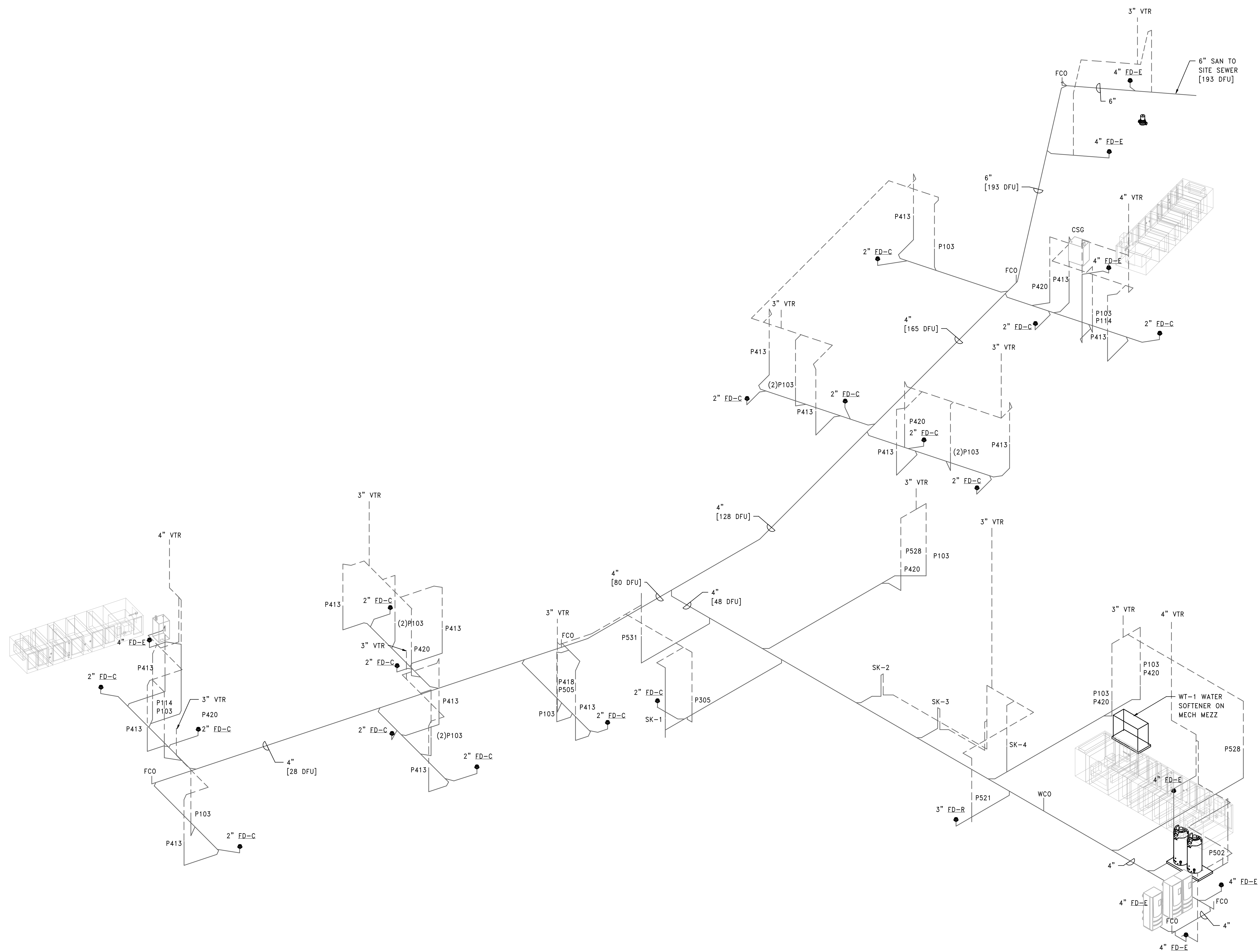
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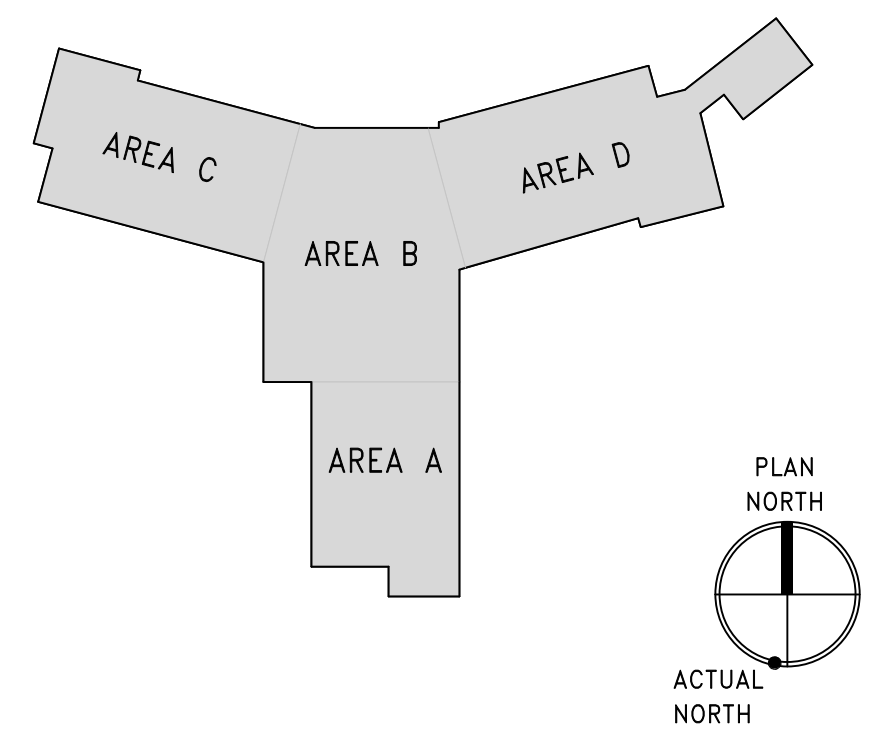
1 RISER DIAGRAM DOMESTIC WATER
 SCALE:



| | | | | | | | | | | | | | | | | | | |
|--|---|--|---|--|---|--|---|--|--|--|---|--|--|--|---|--|---------------------------|--|
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| | Building Number CLC-1 | | Drawing Number P-601 | | Location LEBANON, PENNSYLVANIA | | Issue Date 2023-02-09 | | Checked PD | | Drawn SP | | Fully Sprinklered FULLY SPRINKLERED | | Building Number CLC-1 | | | |



1 RISER DIAGRAM SANITARY WASTE
SCALE:



three inch = one foot
one and one half inch = one foot
one inch = one foot
three quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

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28/02/2023 12:51 PM

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ARRAY-ARCHITECTS.COM
1 West Elm Street, Ste 500
Conshohocken, PA 19428
o: 610-270-0599
f: 601-270-0995

Gordon
148 S Queen St, Suite 201
Martinsburg, WV 25401
Phone: 304-725-8456
www.gordon.us.com

PROGRAMMING AND PLANNING
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
SURVEY AND MAPPING
SECURITY CONSULTING

ENGINEER OF RECORD

Miller-Remick LLC
M.E.P. & Structural Engineering
A Service Disabled Veteran Owned Small Business
1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
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MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
PLUMBING RISER DIAGRAMS SANITARY WASTE

Approved: _____

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

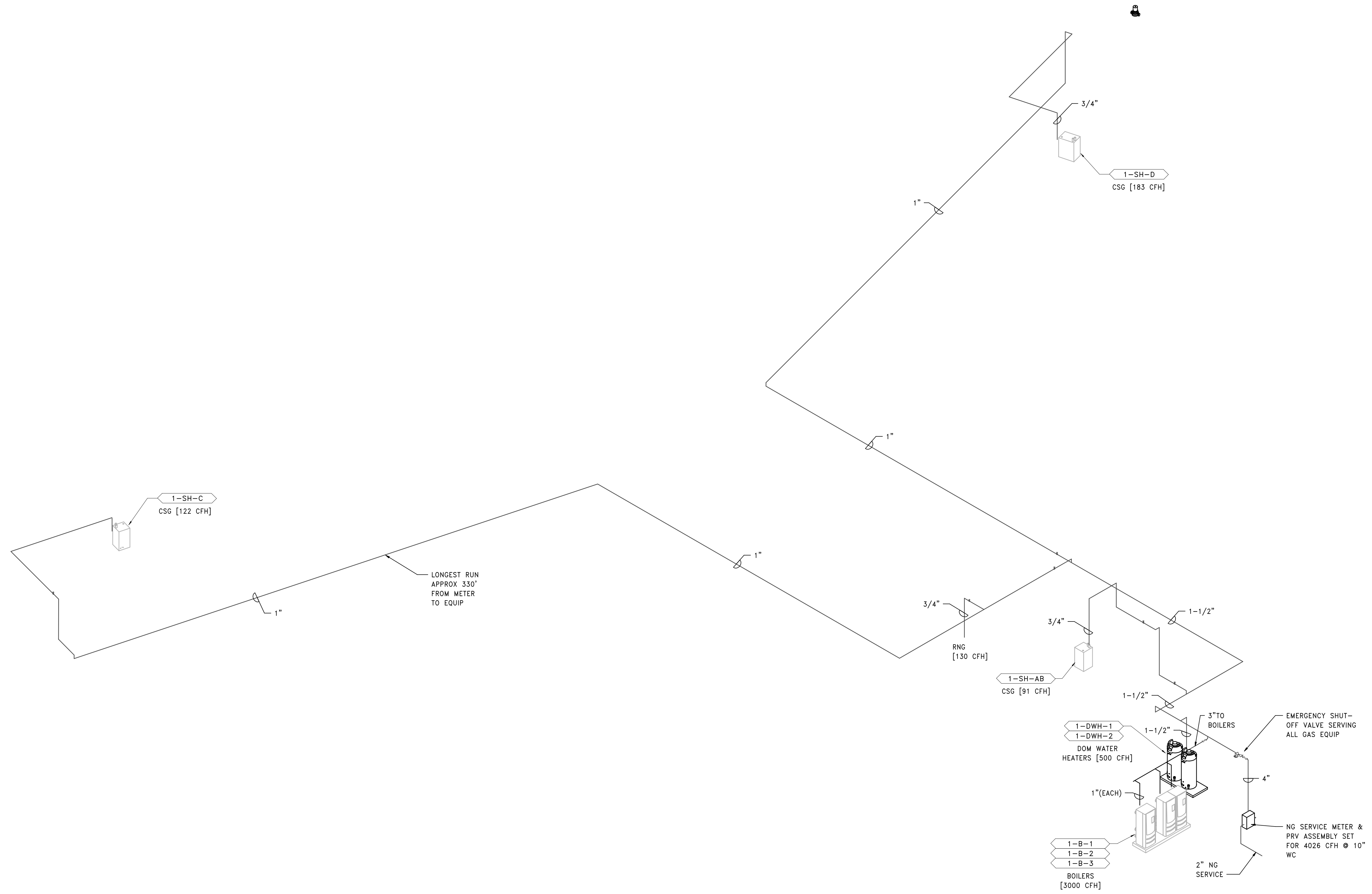
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| 2023-02-09 | PD | SP |

Project Number
595-601

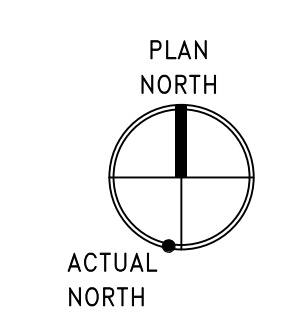
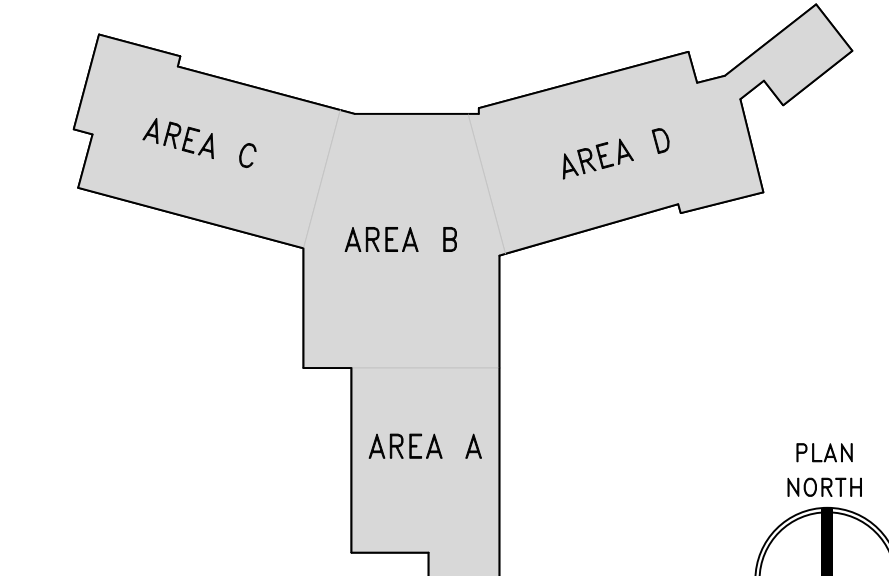
Building Number
CLC-1

Drawing Number
P-611

three inch = one foot
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 one inch = one foot
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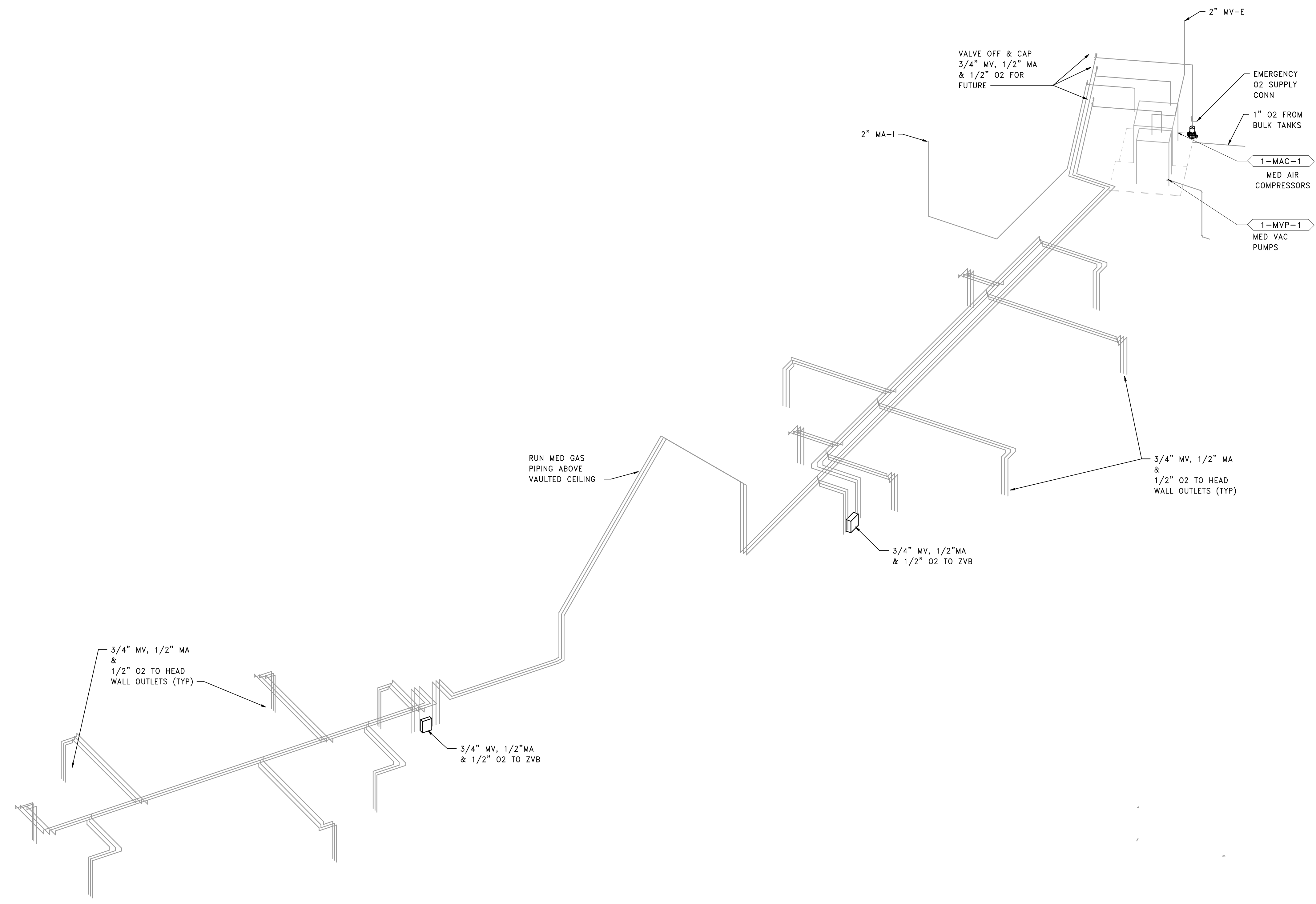


1 RISER DIAGRAM NATURAL GAS
 SCALE:

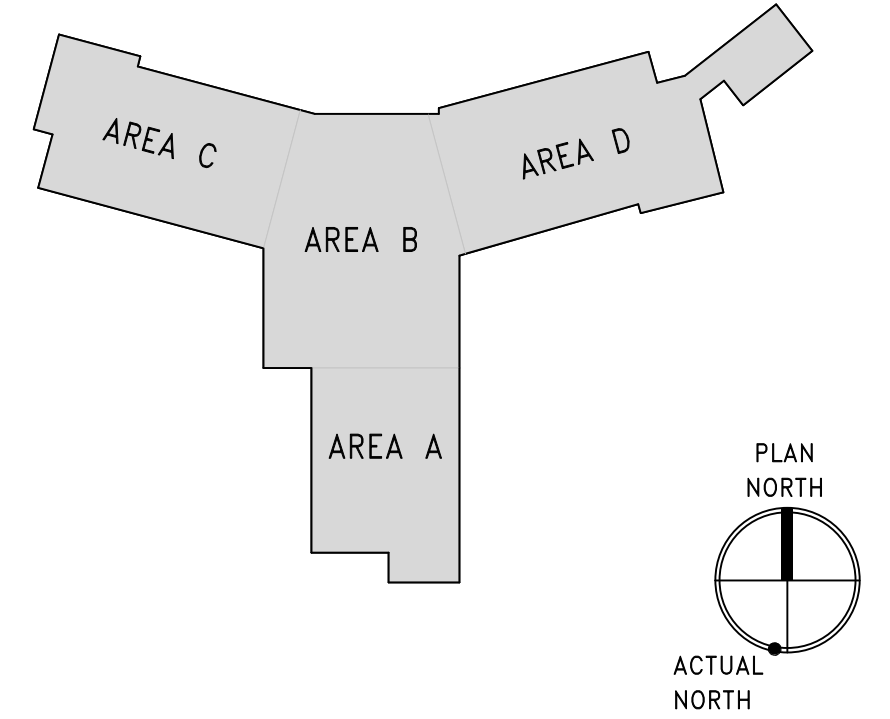


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| | Checked 2023-02-09 Checker | Drawn _____ Author | | | | | | | |

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 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot



1 RISER DIAGRAM MEDICAL GASES
 SCALE:



| | | | | | | | | | | | | | | | | | | |
|--|---|-------|--|--|--|--|--|--|---|--|--|--|-------------------------|--|---|--|---|--|
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 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one eighth inch = one foot
 one eighth inch = one foot

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| AIR COMPRESSOR SCHEDULE | | | | | | | | | | | | | |
|-------------------------|-------------|-------------------------|-----------------------|-----------------|-------------------|--------------------|---------------|------------------------|---------------|-------|------|-----------------------------------|----------------|
| MARK | LOCATION | AREA AND/OR BLDG SERVED | SYSTEM AND/OR SERVICE | TYPE | DISCHARGE AIRFLOW | DISCHARGE PRESSURE | RECEIVER SIZE | ELECTRIC POWER (60 Hz) | | | | BASIS OF DESIGN OR APPROVED EQUAL | REMARKS |
| | | | | | CFM | PSIG | GAL | NO MOTORS | POWER EACH HP | PHASE | VOLT | | |
| 1-MAC-1 | MED GAS 000 | ENTIRE BUILDING | MED COMPRESSED AIR | OIL-LESS SCROLL | 25 | 55 | 120 | 2 | 7.5 | 3 | 480 | BEACON MEDAES SAS SERIES | DUPLEX PACKAGE |

| VACUUM PUMP SCHEDULE | | | | | | | | | | | | | |
|----------------------|-------------|-------------------------|-----------------------|----------------------|---------------|-----------------|-------------------------------------|----------------|---------------|-------|------|-----------------------------------|----------------|
| MARK | LOCATION | AREA AND/OR BLDG SERVED | SYSTEM AND/OR SERVICE | TYPE UNIT | RECEIVER SIZE | VACUUM PRESSURE | CFM DELIVERY @ VACUUM PRESSURE (SI) | ELECTRIC POWER | | | | BASIS OF DESIGN OR APPROVED EQUAL | REMARKS |
| | | | | | GAL | in Hg | SCFM | NO. PUMPS | POWER EACH HP | PHASE | VOLT | | |
| 1-MVP-1 | MED GAS 000 | ENTIRE BUILDING | MED VACUUM | OIL-LESS ROTARY VANE | 80 | 19 | 8 | 2 | 2 | 3 | 480 | BEACON MEDAES VDV SERIES | DUPLEX PACKAGE |

| WATER SOFTENER SCHEDULE | | | | | | | | | | | | | | | |
|-------------------------|---------------------------|-------------------------|----------------------------------|-----------------------|----------------------|----------------|----------------|---------------------|------------------|-----------------------------|----------------|-------|------|-----------------------------------|---------|
| MARK | LOCATION | AREA AND/OR BLDG SERVED | SYSTEM AND/OR SERVICE | TYPE | CONTINUOUS FLOW RATE | PEAK FLOW RATE | INLET PRESSURE | BACK WASH FLOW RATE | TANK SIZE (DIAM) | SALT CAPACITY OF BRINE TANK | POWER REQUIRED | | | BASIS OF DESIGN OR APPROVED EQUAL | REMARKS |
| | | | | | GPM | GPM | PSIG | GPM | IN | LB | AMP | PHASE | VOLT | | |
| 1-WT-1 | CENTRAL MECHANICAL RM 210 | ENTIRE BUILDING | HUMIDIFICATION CLEAN STEAM WATER | CARBON FILTER | - | - | 80 | 4.2 | 9 x 48 | - | 5 | 1 | 120 | DRISTEEM DC-948 | --- |
| | | | | DUPLEX WATER SOFTENER | - | - | 80 | 2.2 | 9 X 48 (EA) | - | 5 | 1 | 120 | DRISTEEM WD-948 | --- |
| | | | | BRINE TANK | - | - | - | - | 18 X 40 | - | - | - | - | - | - |

| PLUMBING PUMP SCHEDULE | | | | | | | | | | | | | | | | | |
|------------------------|--------------------------------|-------------------------|---------------------------------|--------|-------------------|----------|---------|---------------|---------|------------------|------------|------|-------|------|-----------------------------------|------------------------|---------|
| MARK | LOCATION | AREA AND/OR BLDG SERVED | SYSTEM AND/OR SERVICE | TYPE | CIRCULATING FLUID | | | | | ELECTRICAL MOTOR | | | | | BASIS OF DESIGN OR APPROVED EQUAL | REMARKS | |
| | | | | | FLUID | FLOW GPM | HEAD FT | NPSH AVAIL FT | TEMP °F | SP. GR. | MIN. % EFF | HP | PHASE | VOLT | | | MAX RPM |
| 1-DHP-1 | MECHANICAL & PLUMBING ROOM 147 | ENTIRE BUILDING | DOMESTIC HOT WATER CIRCULATION | INLINE | POTABLE WATER | 5 | 10 | - | 180 | 1 | 70 | 0.09 | 1 | 115 | VARIBLE | BELL&GOSSET ECOCIRC XL | --- |
| 1-DHP-2 | | | | INLINE | POTABLE WATER | 5 | 10 | - | 180 | 1 | 70 | 0.09 | 1 | 115 | VARIBLE | BELL&GOSSET ECOCIRC XL | --- |
| 1-DCP-1 | MECHANICAL & PLUMBING ROOM 147 | ENTIRE BUILDING | DOMESTIC COLD WATER CIRCULATION | INLINE | POTABLE WATER | 5 | 10 | - | 80 | 1 | 70 | 0.09 | 1 | 115 | VARIBLE | BELL&GOSSET ECOCIRC XL | --- |
| 1-DCP-2 | | | | INLINE | POTABLE WATER | 5 | 10 | - | 80 | 1 | 70 | 0.09 | 1 | 115 | VARIBLE | BELL&GOSSET ECOCIRC XL | --- |

| GAS FIRED WATER HEATER SCHEDULE | | | | | | | | | | | | | | | | |
|---------------------------------|--------------------------------|-------------------------|-----------------------|--------------------|------------------|-----------------------|-----------------------------------|----------------------|----------------------|----------|------------------|------------|------|-----------------------------------|----------------------|-----|
| MARK | LOCATION | AREA AND/OR BLDG SERVED | SYSTEM AND/OR SERVICE | TYPE | STORAGE CAPACITY | RECOVERY @ 90 °F RISE | TIME TO RECOVER CONTENTS, MINUTES | RELIEF VALVE SETTING | FUEL | | | ELECTRICAL | | BASIS OF DESIGN OR APPROVED EQUAL | REMARKS | |
| | | | | | GAL | GPH | PSIG | TYPE | INLET PRESSURE IN WG | FLOW CFH | NOMINAL POWER HP | PHASE | VOLT | | | |
| 1-DWH-1 | MECHANICAL & PLUMBING ROOM 147 | ENTIRE BUILDING | DOMESTIC HOT WATER | CONDENSING STORAGE | 100 | 323 | 18 | 100 | NATURAL GAS | 5 TO 14 | 250 | NA | 1 | 120 | AO SMITH BTH-250A MX | --- |
| 1-DWH-2 | | | | | 100 | 323 | 18 | 100 | NATURAL GAS | 5 TO 14 | 250 | NA | 1 | 120 | AO SMITH BTH-250A MX | --- |

| MEDICAL GAS ALARM PANEL SCHEDULE | | | | | | | | | | |
|----------------------------------|------------------|---------------|-------|-------------|--|-------------|------------|----------|---------------|--------|
| MARK | LOCATION | TYPE OF PANEL | GAGES | TEST BUTTON | ABNORMAL SERVICE PRESSURE INDICATOR LIGHTS | | | | | |
| | | | | | CARBON DIOXIDE | MEDICAL AIR | MED VACUUM | NITROGEN | NITROUS OXIDE | OXYGEN |
| MSA | TEAM STATION 122 | AREA ALARM | YES | YES | NO | YES | YES | NO | NO | YES |

| KITCHEN EQUIPMENT CONNECTION SCHEDULE | | | | | | | | | | | |
|---------------------------------------|-------------|-----------------------|------------|-----------|------------|-----------|----------------|-------------|----|----|---|
| MARK | LOCATION | EQUIPMENT DESCRIPTION | WASTE PIPE | VENT PIPE | COLD WATER | HOT WATER | PURIFIED WATER | NATURAL GAS | - | - | REMARKS |
| | | | IN | IN | IN | IN | IN | IN | IN | IN | |
| SK-1 | DINNING 124 | SINK | 1.5 | 1.5 | .5 | .5 | - | - | - | - | REFER TO KITCHEN EQUIPMENT DRAWINGS |
| SK-2 | KITCHEN 129 | 3 COMP SINK | 1.5 | 1.5 | .5 | .5 | - | - | - | - | --- |
| SK-3 | KITCHEN 129 | SINK | 1.5 | 1.5 | .5 | .5 | - | - | - | - | --- |
| SK-4 | PANTRY 138 | HAND SINK | 1.5 | 1.5 | .5 | .5 | - | - | - | - | --- |
| COF | DINNING 124 | COFFEE MAKER | - | - | .5 | - | - | - | - | - | PROVIDE WATER FILTER |
| IM | DINNING 124 | ICE/WATER DISP | - | - | .5 | - | - | - | - | - | PROVIDE WATER FILTER |
| REF | DINNING 124 | REFRIGERATOR | - | - | .5 | - | - | - | - | - | PROVIDE WATER FILTER |
| DW | KITCHEN 129 | DISHWASHER | .75 | - | .5 | .5 | - | - | - | - | DISCHARGE TO SINK TRAP |
| RNG | KITCHEN 129 | RANGETOP | - | - | - | - | - | .5 | - | - | BURNER RATING 130 CFH 5" W.C. WITH SOLENOID SHUT OFF VALVE LINKED TO HOOD |

| PLUMBING FIXTURE SCHEDULE | | | | | | | | | | | |
|---------------------------|-------------------------|------------|-----------|------------|-----------|---------------------|---------------------|---------------------|-----------------|-----------------------------------|--|
| MARK | DESCRIPTION | WASTE PIPE | VENT PIPE | COLD WATER | HOT WATER | WASTE FIXTURE UNITS | WATER FIXTURE UNITS | WRIST BLADE HANDLES | ELECTRIC SENSOR | BASIS OF DESIGN OR APPROVED EQUAL | REMARKS |
| | | IN | IN | IN | IN | | | | | | |
| P-103 | WATER CLOSET | 4 | 2 | 1.25 | | 4 | 10 | NO | YES | | WALL HUNG |
| P-114 | WATER CLOSET, BARIATRIC | 4 | 2 | 1.25 | | 4 | 10 | NO | YES | | FLOOR MOUNTED, WALL DISCHARGE |
| P-305 | BATHTUB | 1.5 | 1.5 | .75 | .75 | 2 | 2 | NO | NO | AMERICAN STANDARD 2848 119 | WALK-IN |
| P-413 | LAVATORY | 1.5 | 1.5 | .5 | .5 | 1 | 1 | YES | NO | | INTEGRAL BOWL & COUNTERTOP, WITH WATER TEMPERATURE LIMITING DEVICE |
| P-418 | LAVATORY | 1.5 | 1.5 | .5 | .5 | 1 | 1 | NO | YES | | WALL HUNG, WITH WATER TEMPERATURE LIMITING DEVICE |
| P-420 | LAVATORY | 1.5 | 1.5 | .5 | .5 | 1 | 1 | NO | YES | | COUNTERTOP, WITH WATER TEMPERATURE LIMITING DEVICE |
| P-502 | MOP RECEPTOR | 3 | 1.5 | .75 | .75 | 2 | 4 | NO | NO | | FLOOR MOUNTED |
| P-505 | CLINIC SINK | 4 | 2 | 1 | .5 | 5 | 10 | NO | NO | | WALL HUNG |
| P-521 | LAUNDRY TUB | 1.5 | 1.5 | .5 | .5 | 3 | 2 | NO | NO | | WITH WATER TEMPERATURE LIMITING DEVICE |
| P-528 | SINK | 1.5 | 1.5 | .5 | .5 | 3 | 2 | NO | NO | | COUNTERTOP, WITH WATER TEMPERATURE LIMITING DEVICE |
| P-531 | SHAMPOO SINK | 1.5 | 1.5 | .5 | .5 | 3 | 2 | NO | NO | | TILTING BOWL, SPRAY HEAD, WITH WATER TEMPERATURE LIMITING DEVICE |
| P-701 | SHOWER | 2 | 1.5 | .5 | .5 | 2 | 4 | NO | NO | | --- |
| P-708 | EMERGENCY EYEWASH | - | - | .5 | .5 | - | - | NO | NO | | WITH WATER TEMPERATURE LIMITING DEVICE |
| P-801 | WALL HYDRANT | - | - | .5 | - | - | - | NO | NO | | NON-FREEZE |
| P-804 | HOSE BIBB | - | - | .5 | - | - | - | NO | NO | | --- |
| P-811 | ICE MACH BOX | 1.5 | 1.5 | .5 | - | - | - | NO | NO | | --- |
| P-812 | WASH MACH BOX | 2 | 1.5 | .5 | .5 | 3 | 4 | NO | NO | | --- |

| | |
|---|-------|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER | |
| Revisions: | Date: |

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MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
PLUMBING SCHEDULES

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
MP

Drawn
pd

Project Number
595-601

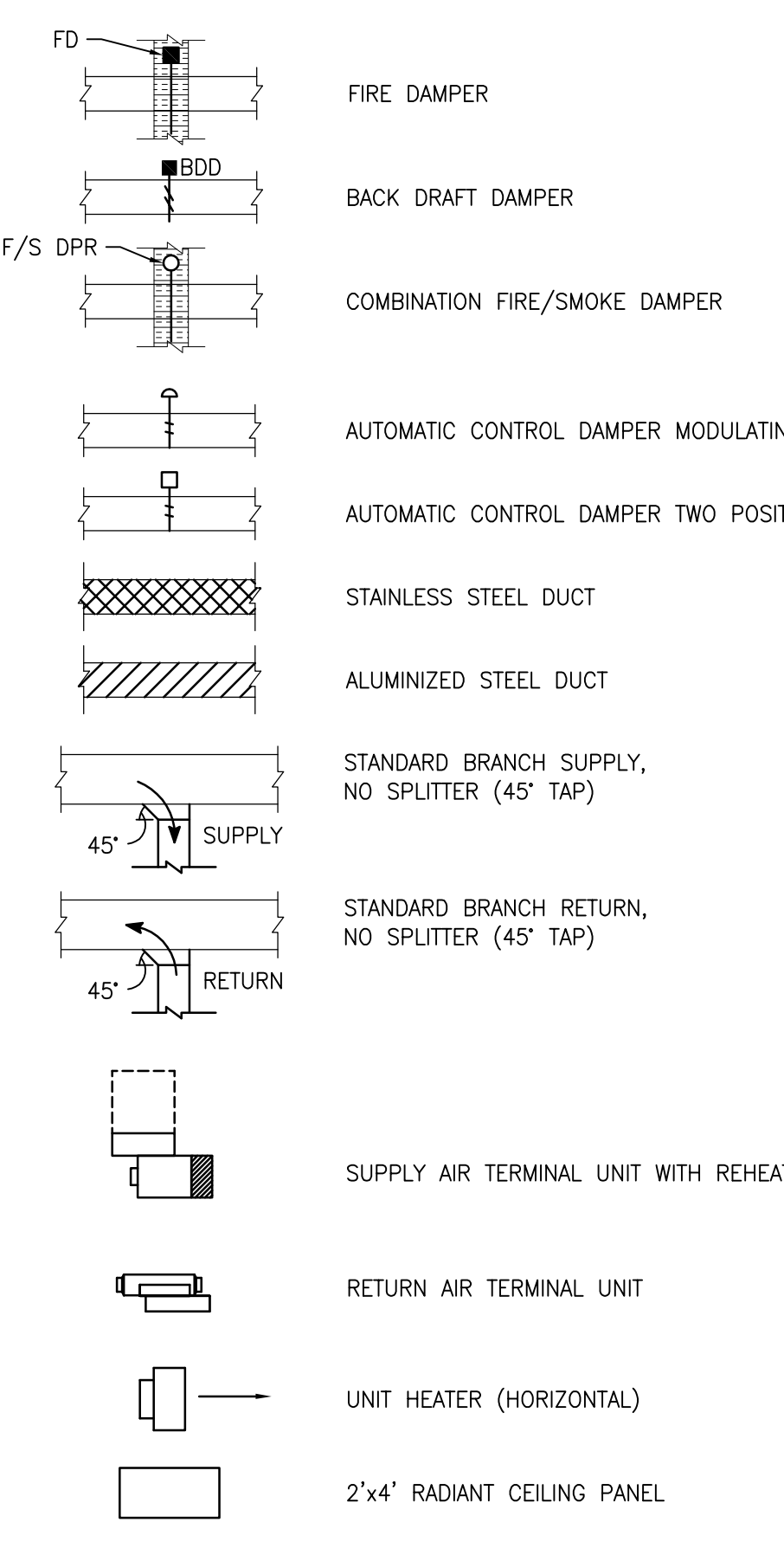
Building Number
CLC-1

Drawing Number
P-701

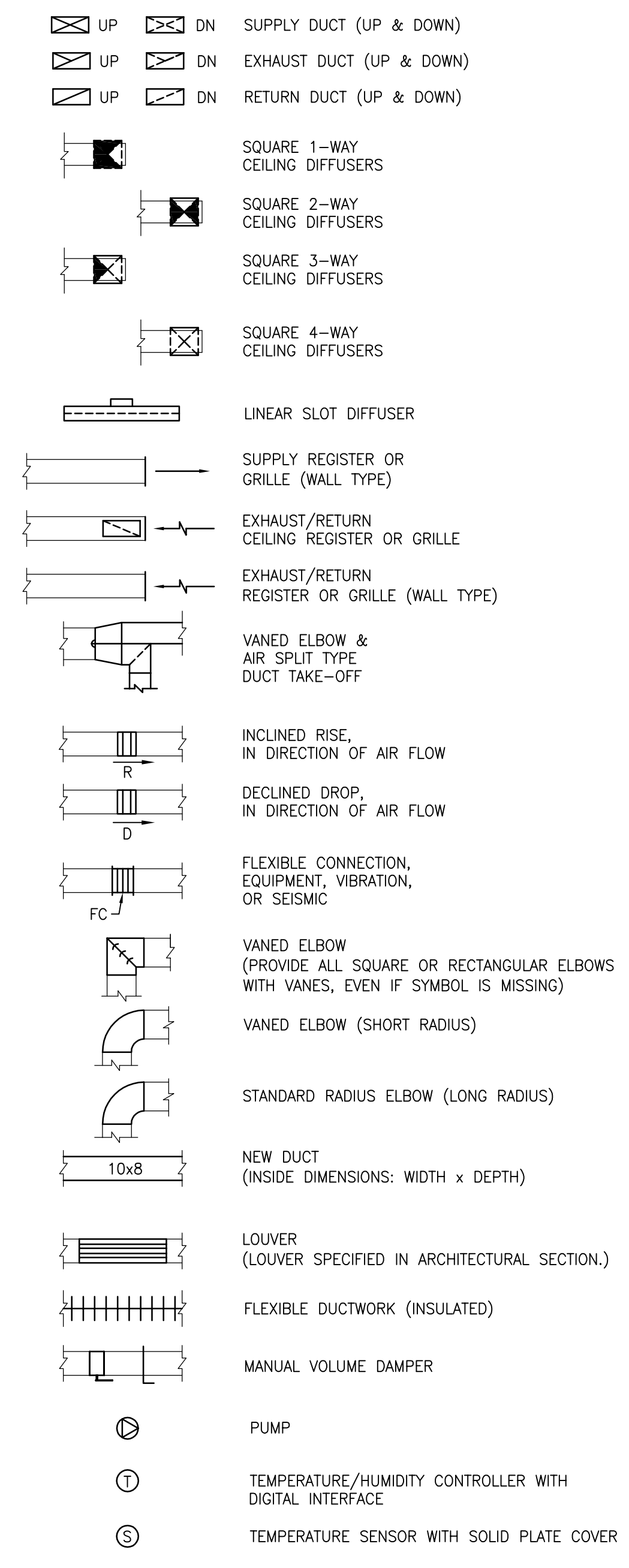
MECHANICAL ABBREVIATIONS

Table of mechanical abbreviations including AABC, A/E, AB, AC, ACOH, ACU, AD, AF, AFT, AFD, AHU, AMP, AP, APD, ARI, AS, ASME, AV, B, BAS, BCF, BD, BDD, BFP, BHP, BW, BOD, BPH, BTU, CC, CD, CENT, CFM, CU, CFC, CG, CI, CO, CO2, COR, COP, CP, CV, CW, CCWC, DB, DB, DDC, DEG, DHW, DIA, DMPR, DPT, DR, EA, EAT, EC, ECC, EEM, EER, EF, EG, EGS, EGT, EH, ELEC, ENT, EQPM, ER, ESP, ET, EWT, EX, EXH, F, F&T, F/SD, FA, FA, FC, FOU, FOW, FD, FD, FLR, FM, FPM, FPS, FS, FSTAT, FT, FT-LB, FV, G, GA, GAL, GCR, GCS, GLY, GPD, GPH, GPM, GS, H, HC, HD, HOA, HP, HFF, HSTAT, HUM, HWC, HWP, HWR, HWS, HZ, I/O, IAQ, IBT, ICF, ID, IN, IN, IN, IN, IN, IN-LB, IPLV, IS, KW, KWH, LAT, LBS/HR, LF, LST, LH, LPR, LPS, LSD, LVG, LWA, LWT, MA, MAT, MAX, MB, MBH, MCA, MCR, MER, MERV, MHP, MIN, MOD, MOV, MSS, MTD, MV, NA, NC, NC, NEBB, NG, NO, NO, NO, NOM, NPLV, NPSH, NTS, OA, OAI, OD, OED, P, PC, PC, PCF, PD, PEF, PG, POW, PPH, PPM, PSI, PSIA, P/S, P/T, RA, RAT, RCP, RDS, REA, REF, RF, RG, RH, RHC, RLA, RLM, RR, RV, SA, SAT, SAV, SCFM, SCW, SD, SD, SDPR, SEN, SF, SG, SH, SP, SP GR, SPS, SQ FT, SQ IN, SQ W, SRV, SS, TAB, TD, TDH, TDS, TG, TP, TSP, TSTAT, TUR, TUS, TYP, U/C, UH, UL, V, VAV, VD, VFD, VHA, VI, VIF, W, WAG, WB, WC, WEF, WF, WG, WMS, WPD, XFER

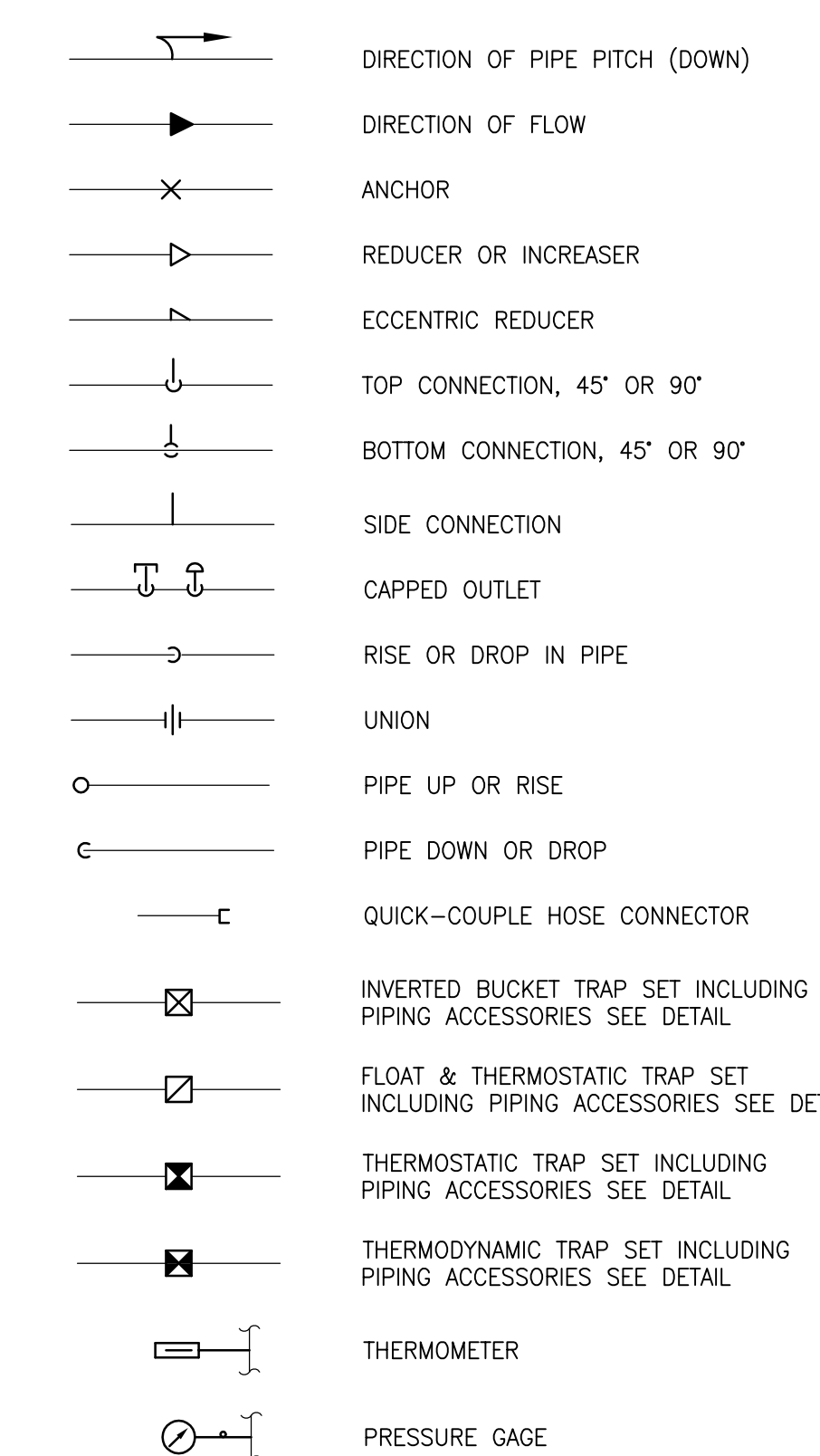
MECHANICAL SYMBOLS (CONTINUED)



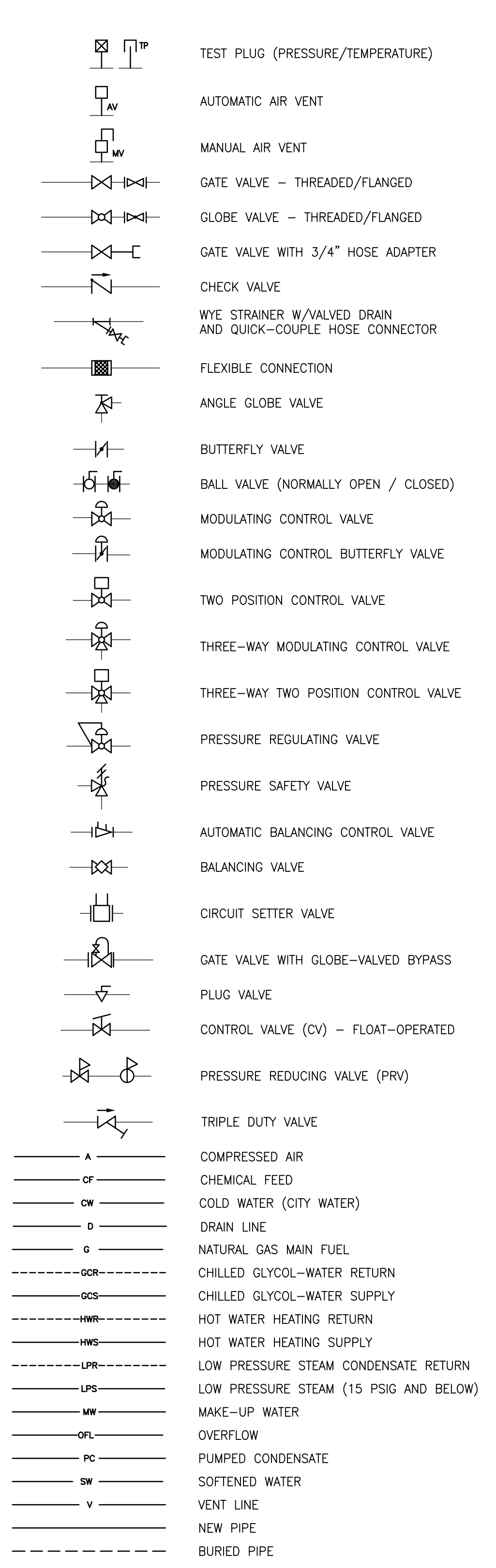
MECHANICAL SYMBOLS



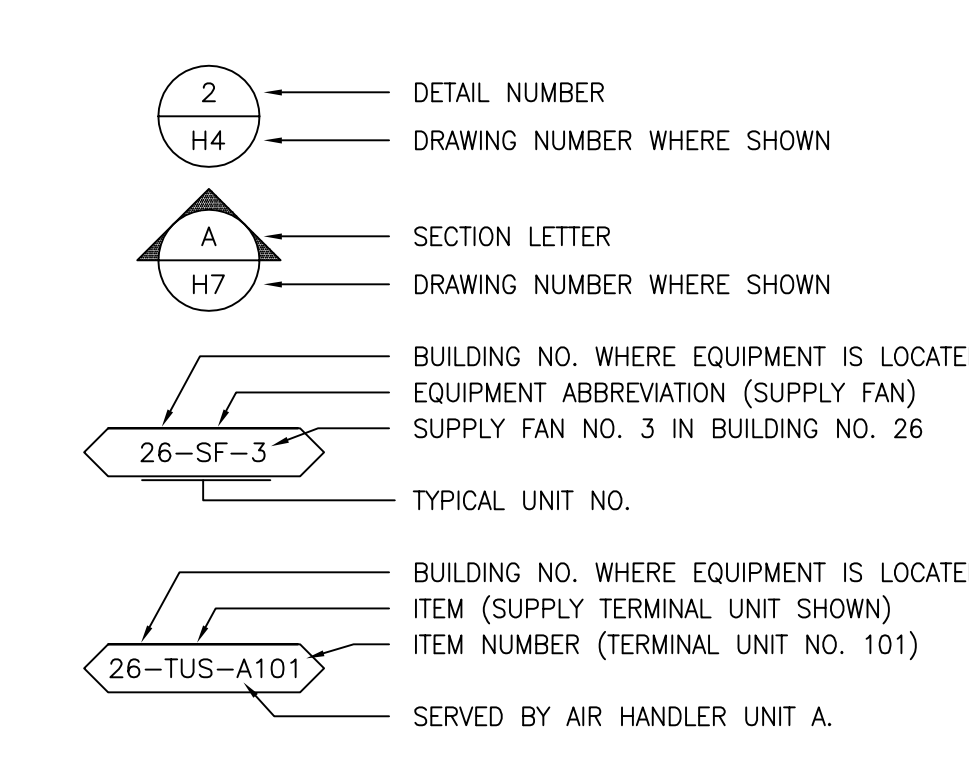
PIPING SYMBOLS



PIPING SYMBOLS (CONTINUED)



DRAWING SYMBOLS



HVAC NOTES AND CONDITIONS:

- 1. ALL DUCTWORK DIMENSIONS, AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS. CONTRACTOR SHALL INCREASE THE DUCT SIZE ACCORDINGLY TO ACCOMMODATE ACOUSTICAL DUCT LINING THICKNESS (UNLESS OTHERWISE NOTED). CONTRACTOR MAY ADJUST DUCT SIZES ACCORDINGLY TO SUIT FIELD CONDITIONS AS LONG AS THE DUCT FREE AREA AND STATIC PRESSURE DROP ARE EQUAL TO THE PROJECT DOCUMENTS.
2. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS.
3. ACCESS PANELS IN HARD SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. AND ANY OTHER ITEMS THAT REQUIRE MECHANICAL MAINTENANCE. ACCESS PANELS SHALL BE FURNISHED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS.
4. DIFFUSER, REGISTER AND GRILLE SIZES SHOWN ON FLOOR PLANS ARE NECK SIZES.
5. WATER PIPE CONNECTIONS TO AIR HEATING AND COOLING COILS SHALL BE MADE TO PROVIDE COUNTER FLOW BETWEEN WATER AND AIR.
6. CONTRACTOR SHALL PROVIDE ACCESS DOORS IN DUCTWORK FOR OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL FANS, VALVES, COLS AND MECHANICAL EQUIPMENT.
7. ADEQUATELY SIZED ACCESS PANELS SHOULD BE PROVIDED AT SMOKE DETECTORS, FIRE DAMPERS, SMOKE DAMPERS, HUMIDIFIERS, COLS AND OTHER DEVICES LOCATED IN THE DUCTWORK WHICH REQUIRE INSPECTION AND/OR MAINTENANCE.
8. CONTRACTOR SHALL PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS (SUPPLY, RETURN, VENTILATION AIR AND EXHAUST) CONNECTED TO ALL AIR HANDLING UNITS, FANS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AT THE POINT OF CONNECTION TO THE EQUIPMENT (UNLESS NOTED OTHERWISE).
9. SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES AND 45 DEGREE ENTRY OR CONICAL DUCT BRANCH CONNECTIONS SHALL BE USED THROUGHOUT.
10. ALL DUCTWORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN DUCTS, INCLUDING TRANSITIONS AROUND OBSTRUCTIONS, SHALL BE PROVIDED AT NO ADDITIONAL COST.
11. COORDINATE DIFFUSER, REGISTER, AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS, LIGHTING AND OTHER CEILING ITEMS AND MAKE MINOR DUCT MODIFICATIONS TO SUIT.
12. ALL INTERIOR AND EXTERIOR WALL OPENINGS, CEILING AND ROOF OPENINGS, DUCT AND PIPE THROUGH WALL PENETRATIONS, FRAMING, SLEEVES, WEATHERPROOFING AND FIRE SEALING SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.
13. CONTRACTOR SHALL PROVIDE AND INSTALL ALL FIRE DAMPERS IN ACCORDANCE WITH UL 555 AND MANUFACTURER'S REQUIREMENTS WHERE DUCTS PENETRATE FIRE RATED WALLS OR FLOORS. ALL FIRE DAMPERS SHALL BE UL LISTED AND LABELED CONSISTENT WITH THE WALLS OR FLOORS THAT ARE PENETRATED. PROVIDE ACCESS DOORS SIZED AND LOCATED TO FACILITATE TESTING AND RESETTING OF ALL FIRE DAMPERS.
14. CONTRACTOR SHALL TEST, ADJUST AND BALANCE THE COMPLETED SYSTEM. ALL BALANCING WORK SHALL BE DONE UNDER THE DIRECT SUPERVISION OF AN AABC OR NEBB-QUALIFIED SUPERVISOR WHO SHALL CERTIFY THE RESULTS.
15. TEST, ADJUST AND BALANCE WORK WILL DEMONSTRATE THAT ALL SYSTEMS OPERATE AS THEY WERE INTENDED TO. UPON COMPLETION OF THE WORK, A WRITTEN TEST & BALANCE REPORT WILL BE SUBMITTED TO THE OWNER. FORMS AND PROCEDURES UTILIZED FOR THIS WORK WILL BE AS PROPOSED BY THE AABC OR OTHER NATIONALLY RECOGNIZED ORGANIZATION ACCEPTABLE TO THE OWNER.
16. CONTRACTOR IS TO PROVIDE ALL REQUIRED SCAFFOLDING, LADDERS, RIGGING, HOISTING AND ALL OTHER EQUIPMENT REQUIRED FOR INSTALLATION.

GENERAL NOTES AND CONDITIONS

- 1. THESE DRAWINGS WERE PREPARED FROM INFORMATION TAKEN FROM THE AVAILABLE BUILDING DRAWINGS, ARCHITECTURAL BACKGROUNDS PROVIDED BY THE OWNER AND FIELD SURVEY INFORMATION COMPILED BY THE ENGINEERING DESIGN TEAM FOR THE PURPOSE OF ENGINEERING DESIGN. EXISTING CONDITIONS ARE SHOWN AS ACCURATELY AS POSSIBLE. THERE IS THE POSSIBILITY THAT CONDITIONS SHOWN ARE NOT EXACTLY AS EXISTING. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, LOCATIONS, SIZES AND CONDITIONS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO BEGINNING INSTALLATION OR FABRICATION WORK.
1.1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE PLANS AND SPECIFICATIONS, AS WELL AS ALL RELATED PROJECT PLANS AND SPECIFICATIONS FROM OTHER DISCIPLINES, TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE AND COORDINATED RESPONSIBILITIES.
1.2. SHOULD IT APPEAR THAT THE WORK INTENDED TO BE DESCRIBED OR RELATED WORK IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THE DRAWINGS, OR IN THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR NECESSARY CLARIFICATIONS, AND CONFORM TO THOSE CLARIFICATIONS INsofar AS THEY ARE CONSISTENT WITH THE ORIGINAL DRAWINGS AND SPECIFICATIONS. IN NO CASE SHALL WORK PROCEED IN UNCERTAINTY.
1.3. EQUIPMENT ARRANGEMENTS ARE DESIGNED TO SHOW PREFERRED CONFIGURATIONS TO SUIT KNOWN CONDITIONS. ACTUAL INSTALLATION BY CONTRACTOR MAY BE ALTERED AS REQUIRED TO SUIT FIELD CONDITIONS ENCOUNTERED DURING CONSTRUCTION WITHOUT COMPROMISING THE INTENT OF THE ORIGINAL DESIGN. COORDINATE ANY MODIFICATIONS WITH THE ENGINEER AND OWNER PRIOR TO STARTING WORK IN AREAS AFFECTED.
1.4. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT SITE PRIOR TO STARTING WORK.
1.5. DO NOT SCALE DRAWINGS.
2. BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES AS THE NATURE AND SCOPE OF THE WORK. THE SUBMISSION OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND ENSURE THAT ALL ALTERNATE PRICING INFORMATION NOTED WITHIN THE CONSTRUCTION DOCUMENTS HAVE BEEN INCLUDED WITHIN THE ORIGINAL BID SUBMISSION. LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED, OR FOR ANY DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD AN EXAMINATION BEEN MADE, WILL NOT BE ACCEPTED.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THAT ALL RULES AND REGULATIONS, INCLUDING THOSE WHICH MAY BE ISSUED BY THE OWNER, ARE BEING OBSERVED, PARTICULARLY WORKPLACE SAFETY AND THE CONDUCT OF ALL THOSE EMPLOYED DIRECTLY AND INDIRECTLY ON THE PREMISES, AND THE OWNER'S EMPLOYEES WHO MAY BE IMPACTED OR OTHERWISE AFFECTED BY THE CONTRACTOR'S WORK. THE CONTRACTOR SHALL INSTALL SIGNAGE, BARRIERS, AND OTHER MEANS TO PROVIDE WARNING AND PERSONNEL SAFETY. PLACEMENT OF THESE ITEMS WILL BE COORDINATED WITH THE OWNER AND HIS ONGOING OPERATIONS AND WILL PROMPTLY BE REVISED WHEN WORK IN A PARTICULAR AREA HAS BEEN COMPLETED.
3.1. DURING PERFORMANCE OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVISION AND MAINTENANCE OF WARNING SIGNS, LIGHT SIGNAL DEVICES, BARRICADES, GUARD RAILS, FENCES AND OTHER DEVICES, APPROPRIATELY LOCATED ON AND AROUND THE JOB SITE WHICH GIVE PROPER AND UNDERSTANDABLE WARNING TO PERSONS WITH REGARD TO HAZARDOUS CONDITIONS, EQUIPMENT AND OPERATIONS BEING PERFORMED IN CONJUNCTION WITH THE WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH OTHER TRADES FOR ITEMS IN THEIR SCOPE OF WORK WHICH COULD REQUIRE ADDITIONAL MECHANICAL/PLUMBING WORK, AND ITEMS THAT ARE NOT INDICATED ON THE DRAWINGS.
5. THIS INSTALLATION WILL CONFORM TO ALL CODES AND THE REQUIREMENTS OF FEDERAL, STATE, AND LOCAL REGULATORY AGENCIES HAVING JURISDICTION. IN PARTICULAR, THE WORK WILL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, ALL ITS SUBPARTS AND AMENDMENTS INVOKED BY THE STATE AND/OR AUTHORITY HAVING JURISDICTION AT THE LOCATION OF THE PROJECT [NFA 90A, NFA 96, NFA 99 AND NFA 101].
6. ALL WORK WILL BE LAWFULLY EXECUTED IN A NEAT AND PROFESSIONAL MANNER AND WILL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING CODES (ABOVE), INDUSTRY STANDARDS, AND IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
7. WORK UNDER THIS CONTRACT SHALL CONSIST OF THE CONTRACTOR PROVIDING ALL LABOR, MATERIALS, AND SERVICES, INCLUDING WORK NOT SPECIFICALLY SHOWN BUT REASONABLY IMPLIED. THIS SHALL INCLUDE CUTTING, PATCHING AND RESTORATION OF EXISTING SURFACES DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO PROVIDE ALL EQUIPMENT SHOWN OR SPECIFIED OR AN APPROVED EQUIVALENT. SUBSTITUTED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED UNTIL GIVEN WRITTEN APPROVAL BY THE A/E.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED FOR NONCOMPLIANCE WITH THESE CONTRACT DOCUMENTS. CONTRACTOR WILL NOT BE ALLOWED CHANGE ORDERS FOR PROBLEMS ARISING FROM NEGLECT OF PROVISIONS IN THESE CONDITIONS.
9. MAINTAIN ORDERLY HOUSEKEEPING DURING CONSTRUCTION, AND UPON SUBSTANTIAL COMPLETION PERFORM FINAL CLEANUP. REMOVE CONSTRUCTION RUBBISH, SCAFFOLDING, EQUIPMENT, TEMPORARY PROTECTION, TEMPORARY FIELD STRUCTURES, AND OTHER MATERIALS OR EQUIPMENT THAT WAS REQUIRED IN CONNECTION WITH THE CONSTRUCTION, BUT NOT A PERMANENT PART THEREOF.
10. THOSE PERFORMING WORK AS A CONTRACTOR MUST EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE OWNER IN WRITING, OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK. COMMENCEMENT OF WORK BY A TRADE ON A SURFACE OR CONSTRUCTION SHALL IMPLY ACCEPTANCE OF SUCH SURFACE OR CONSTRUCTION. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
11. THE CONTRACTOR SHALL SECURE ALL PERMITS AND APPLICATIONS AND PAY ANY AND ALL FEES AS REQUIRED. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND CERTIFICATES OF INSPECTION REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. DELIVER ALL PERMITS, CERTIFICATES AND APPROVALS TO THE OWNER AGENT PRIOR TO FINAL ACCEPTANCE OF THE WORK. THE CONTRACTOR MUST FILE NECESSARY DRAWINGS, PREPARE DOCUMENTS AND MAKE APPLICATIONS FOR EACH REQUIRED PERMIT AND INSPECTION, PRIOR TO COMMENCING WORK TO AVOID DELAYS DURING CONSTRUCTION.
12. AS DIRECTED BY THE OWNER, ALL EXISTING EQUIPMENT AND MATERIAL IN USABLE CONDITION THAT IS REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER, OR HANDLED AS INSTRUCTED BY THE OWNER. BE DISPOSED OF BY THE CONTRACTOR. ALL MATERIALS DEEMED FOR REMOVAL SHALL BE RECYCLED WHENEVER POSSIBLE, IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH WITHIN DIVISION 1 SPECIFICATIONS.
13. CONTRACTOR IS TO PROVIDE ALL REQUIRED SCAFFOLDING, LADDERS, RIGGING, HOISTING AND ALL OTHER EQUIPMENT REQUIRED FOR INSTALLATION.
14. ESTABLISH PASSAGE CLEARANCES REQUIRED TO DELIVER, INSTALL AND ERECT ALL REQUIRED EQUIPMENT. IF STRUCTURES, EQUIPMENT AND SYSTEMS MUST BE ALTERED TO PROVIDE PASSAGE OF EQUIPMENT, THE CONTRACTOR SHALL RESTORE STRUCTURES, EQUIPMENT AND SYSTEMS TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE, INCLUDING REMOVING AND REPLACEMENT OF ALL CEILING AS REQUIRED TO COMPLETE THE WORK.

PIPING NOTES:

- 1. CONTRACTOR TO INSTALL HIGH POINT VENTS AT ALL SYSTEM HIGH POINTS AND LOW POINT DRAINS AT SYSTEM LOW POINTS. VENTS AND DRAINS ARE REQUIRED TO FACILITATE SYSTEM DRAINING AND VENTING DURING TESTING AND START-UP.
2. UNIONS SHALL BE INSTALLED AT ALL EQUIPMENT. THE USE OF DIELECTRIC UNIONS MUST BE INSTALLED IN AREAS WHERE JOINING OF DISSIMILAR METALS (IE CARBON STEEL TO COPPER OR BRONZE, ETC.). THIS IS TO FACILITATE PIPING REMOVAL AND REASSEMBLY FOR FUTURE MAINTENANCE WORK AND/OR PREVENT GALVANIC CORROSION.
3. CONTRACTOR SHALL PROPERLY BRACE, ANCHOR, AND SUPPORT ALL PIPING, VALVES ETC. UNLESS SHOWN OTHERWISE, ALL PIPE HANGERS AND SUPPORTS SHALL BE DESIGNED, MANUFACTURED AND INSTALLED PER MSS SP-58, MSS SP-69 AND MSS SP-89.
4. ALL PIPES THAT PASS THROUGH EXTERIOR WALLS SHALL BE SLEEVED AND MADE WEATHER TIGHT.
5. ALL PIPING AND VALVES MUST BE PROPERLY IDENTIFIED AND LABELED PER ANSI 13.1, ENTITLED "SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS". ALL VALVES MUST BE IDENTIFIED AND TAGGED WITH WEATHERPROOF TAGS.
6. ALL PIPES OR TUBING WHICH PASS THROUGH RATED AND NON-RATED WALLS, FLOORS AND FOUNDATION WALLS, SHALL PASS THROUGH A SCHEDULE 40 CARBON STEEL PIPE SLEEVE. SLEEVES WHICH PASS THROUGH MASONRY SHALL BE GALVANIZED COATED. ALL SLEEVES SHALL BE INSTALLED FLUSH ON BOTH SIDES OF WALL PENETRATION.
NON-RATED WALL: THE SLEEVE SHALL BE SIZED TO ALLOW FREE PASSAGE OF INSULATED AND NON-INSULATED PIPES AND TUBING.
RATED WALL: PIPES WHICH PASS THROUGH FIRE-RATED WALLS & FLOOR SHALL USE THE APPROPRIATE CODE APPROVED, TESTED AND INSTALLATION METHOD OF SEALING WHILE MAINTAINING THE INTEGRITY OF THE WALL'S FIRE RATING(S).
EXTENSION WALLS & FOUNDATION WALLS: PIPES WHICH PASS THROUGH EXTENSION WALLS OR FOUNDATION WALLS SHALL BE SEALED AND MADE WATER TIGHT.
7. ALL VALVES SHALL BE ACCESSIBLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ACCESS DOORS AND COORDINATE THE GENERAL CONTRACTOR.
8. ALL HYDRONIC BRANCH PIPING TO MECHANICAL EQUIPMENT SHALL BE MINIMUM 3/4" DIA UNLESS INDICATED OTHERWISE.

PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER. CONSULTANT: ARRAY architects, INC. ENGINEER OF RECORD: Miller-Remick LLC. Office of Construction and Facilities Management. Drawing Title: MECHANICAL ABBREVIATIONS, NOTES & SYMBOLS. Phase: BID DOCUMENTS. Project Title: CONSTRUCT NEW COMMUNITY CENTER (CLC). Location: LEBANON, PENNSYLVANIA. Issue Date: 2023-02-09. Checked: PK. Drawn: MK. Drawing Number: M-001. VA FORM 08-6231

three inch = one foot
one and one half inch = one foot
one inch = one foot
three quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

GENERAL SHEET NOTES:

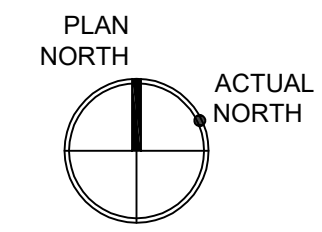
- 1. REFER TO CHILLED WATER CONNECTION SITE PLAN DRAWING NUMBER M-401 FOR ADDITIONAL INFORMATION.

SHEET KEYNOTES:

- 1. PROVIDE GLYCOL CHILLED WATER BYPASS BUTTERFLY VALVE WITH BLIND FLANGE FOR MAINTENANCE/EMERGENCY CONNECTION. REFER TO GLYCOL CHILLED WATER FLOW DIAGRAM FOR ADDITIONAL DETAILS
- 2. REFER TO SPECIFICATION 23 21 13 HYDRONIC PIPING AND MECHANICAL DETAILS ON DRAWING NUMBER M-505 FOR PIPING REQUIREMENTS.



1 MECHANICAL PLAN - SITE
SCALE: 1" = 50'-0"



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

| Revisions: | Date: |
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SURVEY AND MAPPING
SECURITY CONSULTING
148 S Queen St, Suite 201
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Phone: 304-725-8456
www.gordon.us.com

ENGINEER OF RECORD

Miller-Remick LLC
M.E.P. & Structural Engineering
A Service Disabled Veteran Owned
Small Business
1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-5002
MR PROJECT NO. 0499-0124

MILLER-REMIK LLC
PROFESSIONAL ENGINEER

**Office of
Construction
and Facilities
Management**

VA U.S. Department
of Veterans Affairs

Drawing Title
**MECHANICAL
SITE PLAN**

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
**CONSTRUCT NEW COMMUNITY
LIVING CENTER (CLC)**

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

Drawing Number
MS101

GENERAL SHEET NOTES:

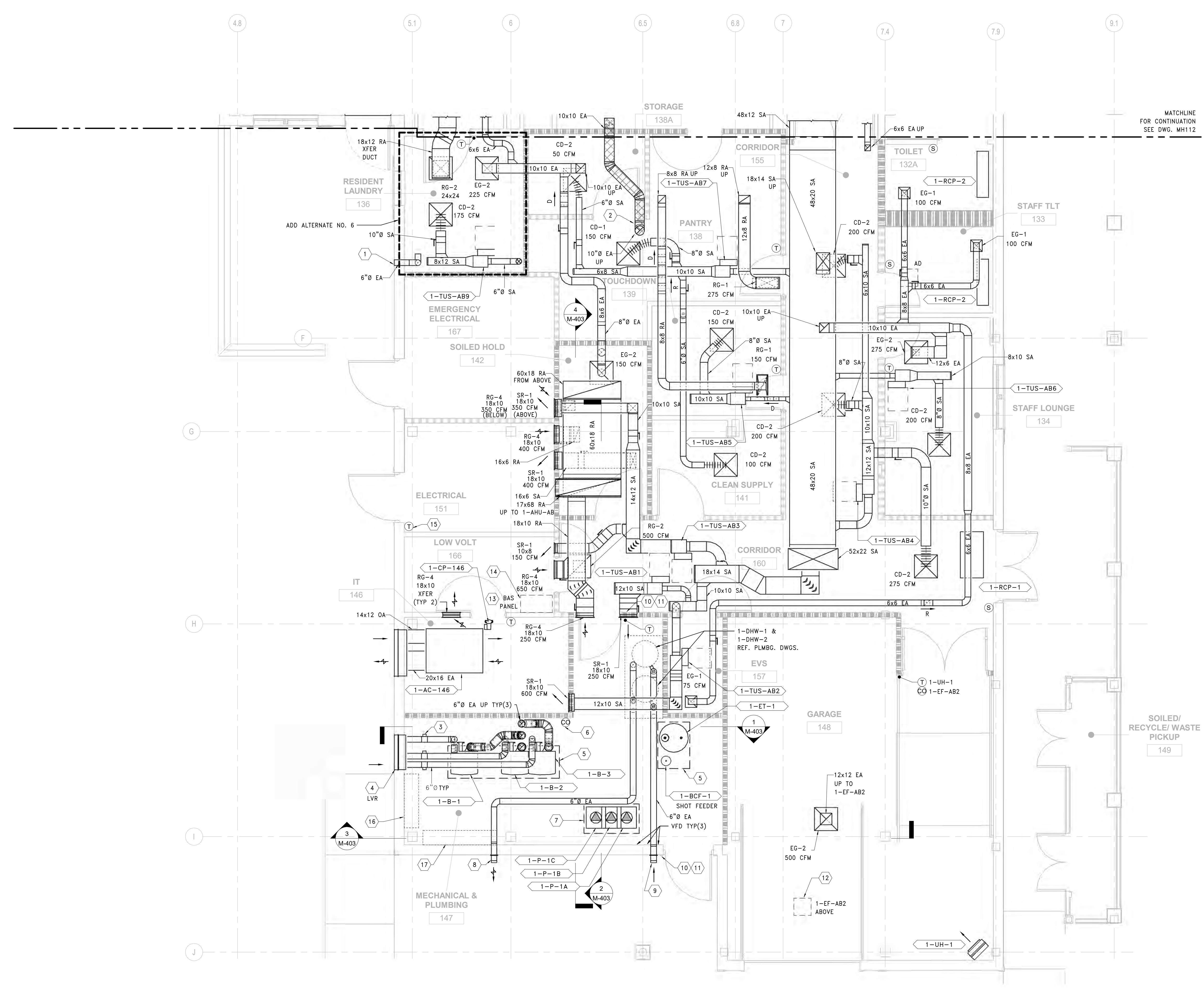
- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATIONS.
- REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

SHEET KEYNOTES:

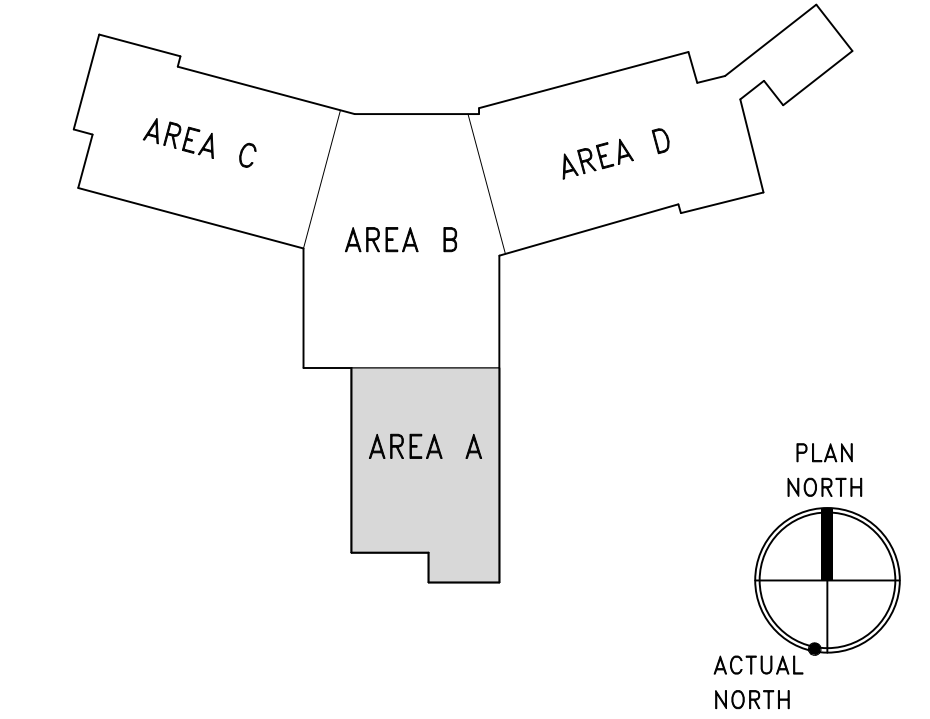
- ALUMINIZED DRYER EXHAUST VENT DUCTWORK, SIZING AND ROUTING PER DRYER MANUFACTURER'S RECOMMENDATIONS. TERMINATE THRU WALL MINIMUM 10'-0" AFF WITH STAINLESS-STEEL VENT CAP. SEAL WEATHERTIGHT.
- STAINLESS-STEEL KITCHEN EXHAUST DUCT, PROVIDE 2-HOUR FIRE WRAP WITH STAINLESS STEEL JACKET. PROVIDE CLEANOUTS AT EACH ELBOW. FINAL SIZING AND ROUTING PER KITCHEN HOOD MANUFACTURER'S RECOMMENDATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 6" DIA BOILER COMBUSTION AIR INTAKE DUCT SHALL BE STANDARD 22 GA G-90 GALVANIZED SINGLE WALL CONSTRUCTION WITH 2" INSULATED JACKET. SIZE AND ROUTE PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE LOW-LEAKAGE MOTORIZED AUTOMATIC CONTROL DAMPER, TYPICAL (3). INTEGRATE WITH BAS.
- ALUMINUM BOILER COMBUSTION AIR INTAKE LOUVER BY ARCHITECT; BOD: 36" x 18"; PROVIDE INSULATED BLANK OFF FOR UNUSED LOUVER PORTIONS AND SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. REFER TO ARCHITECTURAL ELEVATION DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. FINISH BY ARCHITECT.
- HOUSEKEEPING PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- LEL (LOWER EXPLOSIVE LIMIT) GAS DETECTOR, MOUNT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- HOUSEKEEPING PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- COMMON 6" DIA PVC HOT WATER HEATER EXHAUST. PROVIDE BACKFLOW PREVENTER AND ADAPTERS. TERMINATE THRU WALL WITH WALL PLATE AND STAINLESS-STEEL VENT CAP. ROUTE PER MANUFACTURER'S RECOMMENDATIONS.
- COMMON 6" DIA PVC HOT WATER HEATER COMBUSTION AIR INTAKE. ROUTE PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE THRU WALL WITH WALL PLATE, BIRDSCREEN, AND STAINLESS-STEEL VENT CAP. SEAL WEATHERTIGHT.
- AUDIBLE & VISUAL ALARM INDICATING DEVICE FOR THE NATURAL GAS/CARBON MONOXIDE GAS DETECTION SYSTEM. INSTALL AT EACH ENTRY DOOR TO MECHANICAL ROOM. "LD" = LEAK DETECTION.
- WARNING SIGNS: PLACE WARNING SIGNS INSIDE THE MECHANICAL ROOM AND AT EACH ENTRANCE DOOR. THE WARNING SIGN SHALL READ AS FOLLOWS: AUTHORIZED PERSONNEL ONLY - STAY OUT WHEN ALARM SOUNDS (FOR NATURAL GAS/CARBON MONOXIDE DETECTION). INCLUDE APPROPRIATE EMERGENCY CONTACT PHONE NUMBERS WHICH INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWINGS: POLICE, FIRE, AND MEDICAL. PLACE WARNING SIGNS ADJACENT TO ALL ALARM DEVICES.
- MINIMUM 18x18 CEILING ACCESS DOOR THIS LOCATION.
- NEW BAS PANEL. COORDINATE EXACT LOCATION WITH CONSTRUCTION MANAGER. COORDINATE POWER REQUIREMENTS WITH EC.
- PROVIDE BUILDING AUTOMATION SYSTEM PC WORKSTATION THIS SPACE. COORDINATE EXACT LOCATION WITH OWNER.
- LOCKING TEMPERATURE CONTROLLER ENCLOSURE WITH INSULATED WALL PLATE.
- INCOMING FIRE PROTECTION WATER SERVICE PIPING THIS AREA. MAINTAIN REQUIRED CLEARANCES.
- INCOMING WATER SERVICE PIPING THIS WALL. MAINTAIN REQUIRED CLEARANCES.

ADD ALTERNATE NO. 6 SHEET NOTES:

- ADD ALTERNATE NO. 6; FIT OUT ROOM 136 RESIDENT LAUNDRY. SCOPE INDICATED ON DRAWINGS REPRESENTS ADD ALTERNATE NO. 6.
 - A. BASE BID SCOPE: VAV BOX (1-TUS-AB9) AND ASSOCIATED DUCTWORK, ELBOWS, DIFFUSER, DAMPER, PIPING, VALVES, CONTROLS, THERMOSTAT, AND ACCESSORIES, ETC. SERVING ROOM 136 RESIDENT LAUNDRY SHALL NOT BE INSTALLED.
 - B. BASE BID SCOPE: CEILING EXHAUST GRILLE (EG-2) SERVING ROOM 136 RESIDENT LAUNDRY SHALL NOT BE INSTALLED - TERMINATE DUCT WITH OPEN WIRE MESH SCREEN AFTER FINAL BRANCH TAKEOFF. PROVIDE AIRFLOW VOLUME DAMPER AND BALANCE TO 150 CFM EXHAUST.
 - C. BASE BID SCOPE: 18x12 TRANSFER DUCT AND (2) ASSOCIATED TRANSFER RETURN GRILLES (RG-2) - LOCATED IN ROOM 136 RESIDENT LAUNDRY AND ROOM 140 CORRIDOR - SHALL NOT BE INSTALLED.
 - D. BASE BID SCOPE: 6" DIA ALUMINIZED DRYER EXHAUST VENT DUCTWORK, WALL PENETRATION, VENT CAP, AND ASSOCIATED ACCESSORIES, ETC. SERVING ROOM 136 RESIDENT LAUNDRY DRYER SHALL NOT BE INSTALLED.



1 DUCTWORK PLAN - 1ST FLOOR - AREA A
SCALE: 1/4" = 1'-0"



three eighths inch = one foot
 one eighth inch = one foot
 one quarter inch = one foot
 one half inch = one foot
 three quarters inch = one foot
 one inch = one foot
 one and one half inch = one foot
 two inch = one foot
 three inch = one foot
 four inch = one foot
 five inch = one foot
 six inch = one foot
 seven inch = one foot
 eight inch = one foot
 nine inch = one foot
 ten inch = one foot
 eleven inch = one foot
 twelve inch = one foot
 thirteen inch = one foot
 fourteen inch = one foot
 fifteen inch = one foot
 sixteen inch = one foot
 seventeen inch = one foot
 eighteen inch = one foot
 nineteen inch = one foot
 twenty inch = one foot
 twenty one inch = one foot
 twenty two inch = one foot
 twenty three inch = one foot
 twenty four inch = one foot
 twenty five inch = one foot
 twenty six inch = one foot
 twenty seven inch = one foot
 twenty eight inch = one foot
 twenty nine inch = one foot
 thirty inch = one foot
 thirty one inch = one foot
 thirty two inch = one foot
 thirty three inch = one foot
 thirty four inch = one foot
 thirty five inch = one foot
 thirty six inch = one foot
 thirty seven inch = one foot
 thirty eight inch = one foot
 thirty nine inch = one foot
 forty inch = one foot
 forty one inch = one foot
 forty two inch = one foot
 forty three inch = one foot
 forty four inch = one foot
 forty five inch = one foot
 forty six inch = one foot
 forty seven inch = one foot
 forty eight inch = one foot
 forty nine inch = one foot
 fifty inch = one foot
 fifty one inch = one foot
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 fifty three inch = one foot
 fifty four inch = one foot
 fifty five inch = one foot
 fifty six inch = one foot
 fifty seven inch = one foot
 fifty eight inch = one foot
 fifty nine inch = one foot
 sixty inch = one foot
 sixty one inch = one foot
 sixty two inch = one foot
 sixty three inch = one foot
 sixty four inch = one foot
 sixty five inch = one foot
 sixty six inch = one foot
 sixty seven inch = one foot
 sixty eight inch = one foot
 sixty nine inch = one foot
 seventy inch = one foot
 seventy one inch = one foot
 seventy two inch = one foot
 seventy three inch = one foot
 seventy four inch = one foot
 seventy five inch = one foot
 seventy six inch = one foot
 seventy seven inch = one foot
 seventy eight inch = one foot
 seventy nine inch = one foot
 eighty inch = one foot
 eighty one inch = one foot
 eighty two inch = one foot
 eighty three inch = one foot
 eighty four inch = one foot
 eighty five inch = one foot
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 eighty seven inch = one foot
 eighty eight inch = one foot
 eighty nine inch = one foot
 ninety inch = one foot
 ninety one inch = one foot
 ninety two inch = one foot
 ninety three inch = one foot
 ninety four inch = one foot
 ninety five inch = one foot
 ninety six inch = one foot
 ninety seven inch = one foot
 ninety eight inch = one foot
 ninety nine inch = one foot
 one hundred inch = one foot

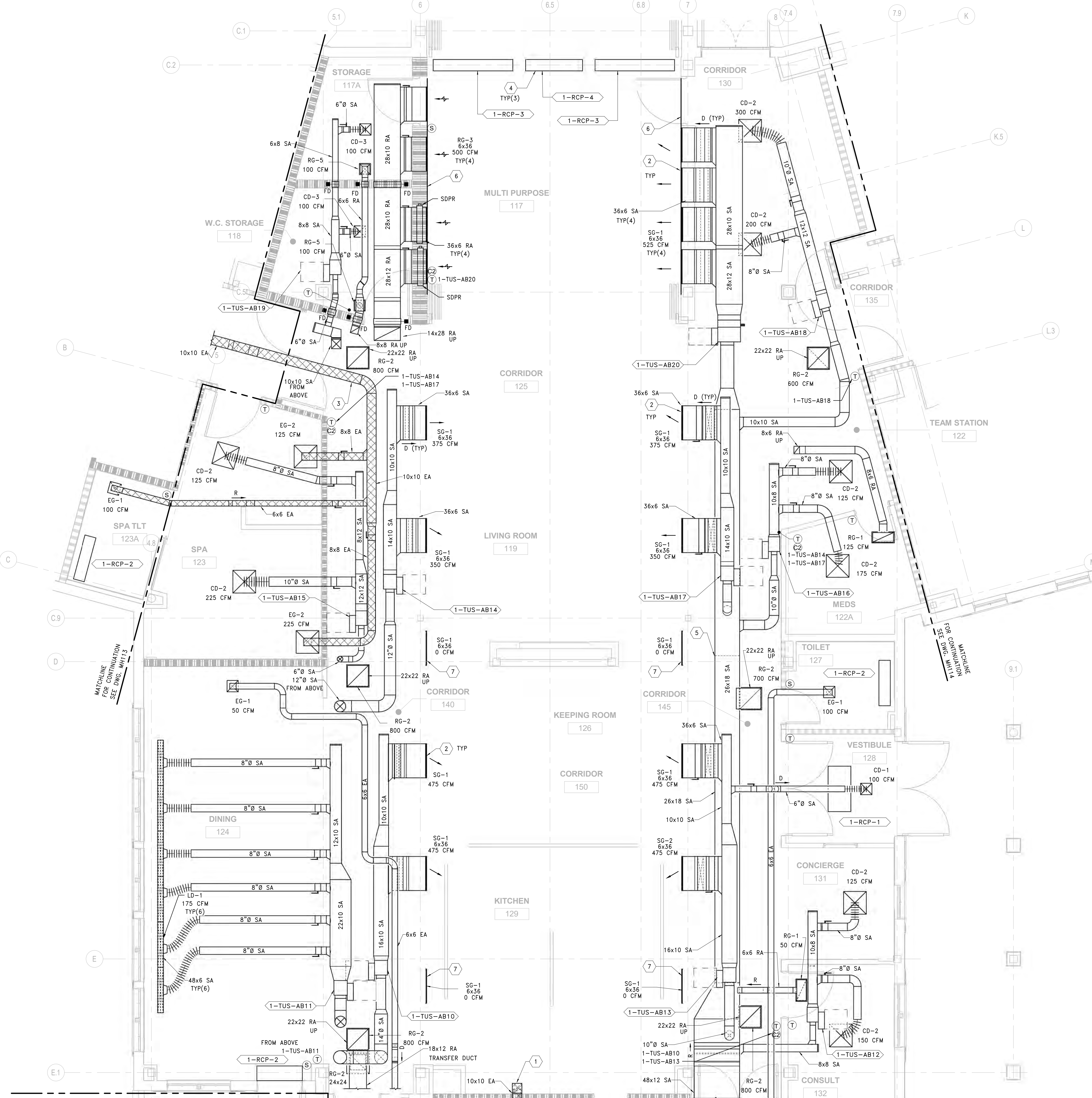
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|--|---|---|---|---|--|---|---|---|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER 28/02/2023 5:08:11 PM Revisions: _____ Date: _____ | CONSULTANT ARRAY-ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9022 MR PROJECT NO: 0499-0124 | MILLER-REMICK LLC PROFESSIONAL ENGINEER | Office of Construction and Facilities Management U.S. Department of Veterans Affairs | Drawing Title MECHANICAL DUCTWORK PLAN FIRST FLOOR - AREA A Approved: _____ | Phase BID DOCUMENTS FULLY SPRINKLERED | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) Location LEBANON, PENNSYLVANIA | Project Number 595-601 Building Number CLC-1 Drawing Number MH111 |
| | Issue Date 2023-02-09 | Checked PK | Drawn MK | | | | | |

GENERAL SHEET NOTES:

- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
- PROVIDE DUCT ACCESS DOORS FOR ALL DUCTED FIRE AND SMOKE DAMPERS INDICATED ON PLANS.
- REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

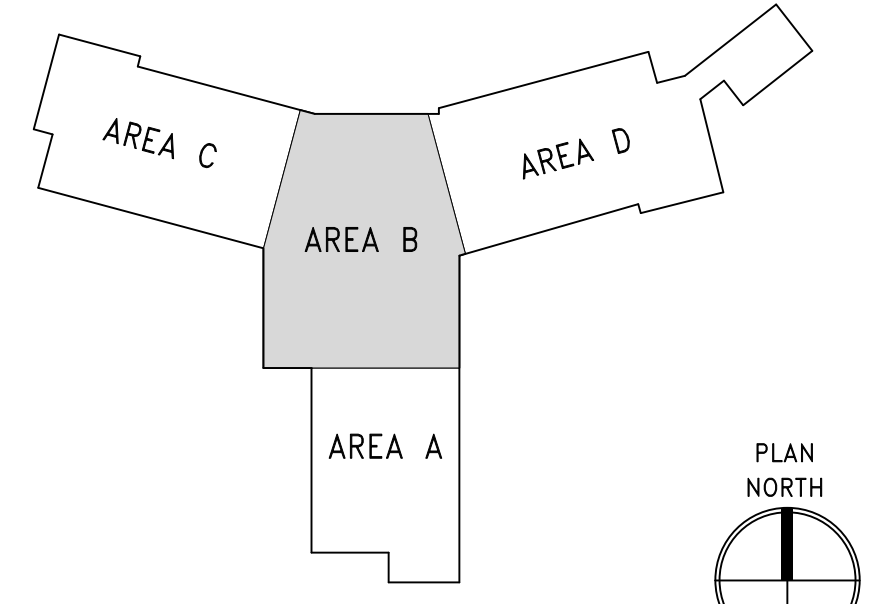
SHEET KEYNOTES:

- STAINLESS-STEEL KITCHEN EXHAUST DUCT. PROVIDE 2-HOUR FIRE WRAP WITH STAINLESS STEEL JACKET. PROVIDE CLEANOUTS AT EACH ELBOW. FINAL SIZING AND ROUTING PER KITCHEN HOOD MANUFACTURER'S RECOMMENDATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- DUCTED SIDEWALL GRILLE BELOW STRUCTURAL BEAM. COORDINATE THROW DIRECTION WITH LIGHTING AND AS INDICATED. FINISH, BORDER, AND FRAMING BY ARCHITECT TO MATCH ADJACENT SURFACES. REFER TO AIR DEVICE SCHEDULE FOR ADDITIONAL DETAILS.
- PROVIDE WELDED STAINLESS-STEEL WET EXHAUST DUCTWORK FOR LENGTH OF EXHAUST SYSTEM INDICATED. PITCH UPWARD IN DIRECTION OF AIRFLOW. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- RADIANT CEILING PANEL MOUNTED TO UNDERSIDE OF BEAM SOFFIT. PROVIDE INACTIVE ACCESS PANELS FOR INTERCONNECTING PIPING. PIPE IN SERIES.
- PROVIDE DUCT STATIC PRESSURE SENSOR THIS LOCATION. INTEGRATE WITH BAS.
- PROVIDE NON-DUCTED LINEAR AIR DEVICE GRILLE THIS LOCATION FOR CONTINUAL GRILLE APPEARANCE. PROVIDE BLANK-OFF SECTION PAINTED FLAT BLACK.
- PROVIDE NON-DUCTED LINEAR AIR DEVICE GRILLE THIS LOCATION TO MATCH DUCTED TYPE DEVICE HEIGHT AND SPACING ON WALL. PROVIDE BLANK-OFF PAINTED FLAT BLACK.



1 DUCTWORK PLAN - 1ST FLOOR - AREA B
SCALE: 1/4" = 1'-0"

MATCHLINE FOR CONTINUATION SEE DWG. MH111



three inch = one foot
one and one half inch = one foot
one inch = one foot
three quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one sixteenth inch = one foot

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

| Revisions: | Date: |
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ENGINEER OF RECORD

Miller-Remick LLC
M.E.P. & Structural Engineering
A Service Disabled Veteran Owned Small Business
1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-9002
MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DUCTWORK PLAN FIRST FLOOR - AREA B

Approved: _____

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

| Issue Date | Checked | Drawn |
|------------|---------|-------|
| 2023-02-09 | PK | MK |

Project Number
595-601

Building Number
CLC-1

Drawing Number
MH112

GENERAL SHEET NOTES:

- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
- OFFSET PATIENT LIFT RAIL SUPPORTS ABOVE CEILING TO ACCOMMODATE DUCT MAINS AND OTHER UTILITIES AS REQUIRED. COORDINATE EXACT LOCATION WITH PATIENT LIFT MANUFACTURER.
- REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

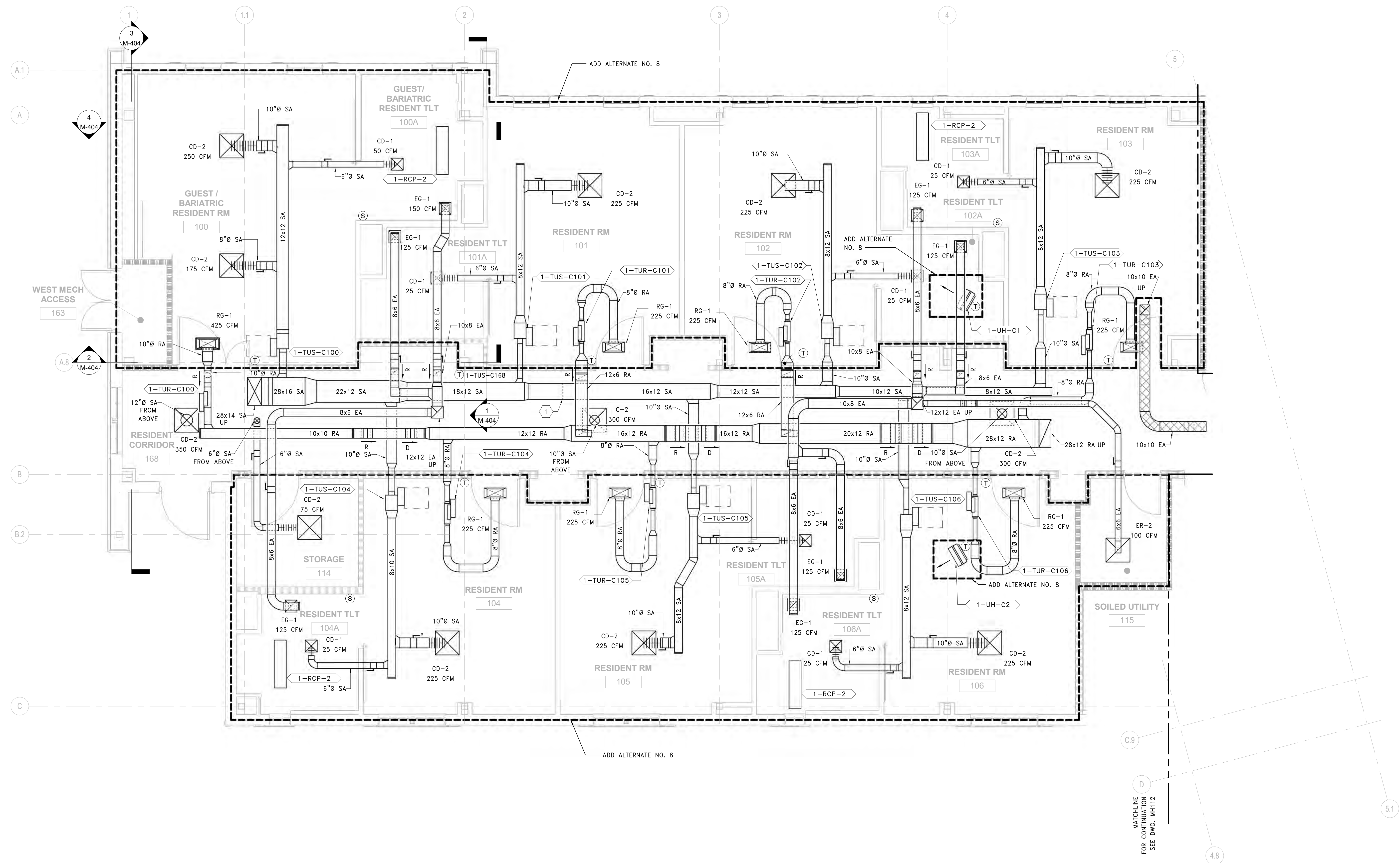
SHEET KEYNOTES:

- PROVIDE DUCT STATIC PRESSURE SENSOR THIS LOCATION. INTEGRATE WITH BAS.

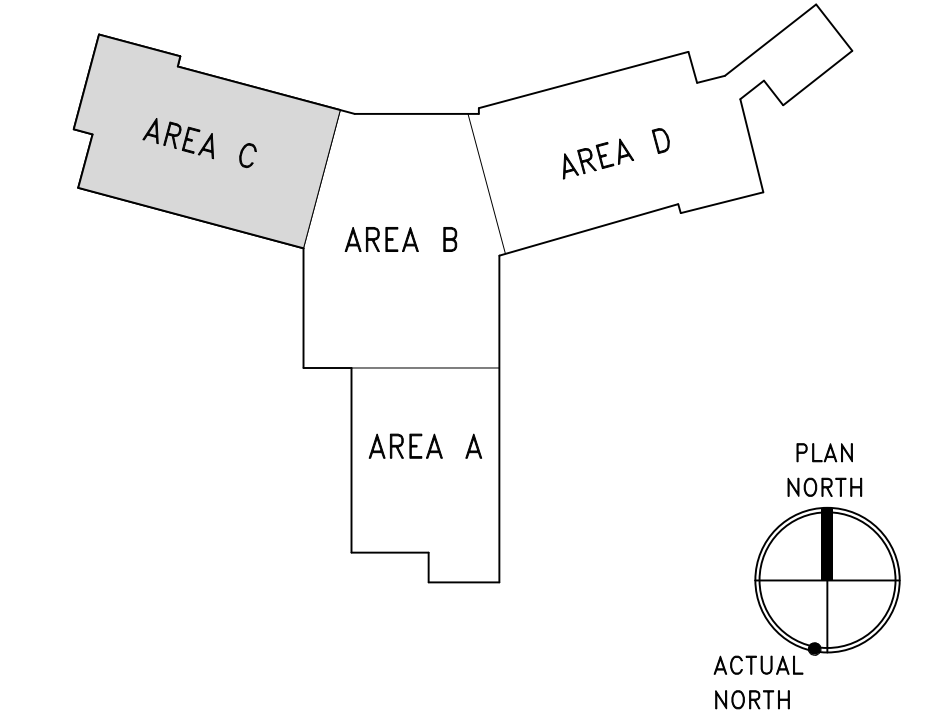
ADD ALTERNATE NO. 8 SHEET NOTES:

- ADD ALTERNATE NO. 8 FIT OUT WESTERN WING, SCOPE INDICATED ON DRAWINGS REPRESENTS ADD ALTERNATE NO. 8.
 - BASE BID: SUPPLY AND RETURN AIR TERMINAL UNITS (1-TUS-XXXX AND 1-TUR-XXXX) AND ASSOCIATED DUCTWORK, PIPING, VALVES, CONTROLS, AIR DEVICES AND ACCESSORIES, ETC. SERVED BY (1-AHU-C) SHALL NOT BE INSTALLED (WITH THE EXCLUSION OF SUPPLY TERMINAL UNIT (1-TUS-C168) ON 2ND FLOOR SERVING ROOM 168 CORRIDOR).
 - BASE BID: INSTALL HOT WATER UNIT HEATERS (1-UH-C1 AND 1-UH-C2). REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION. UNIT HEATERS SHALL NOT BE INSTALLED UNDER ADD ALTERNATE NO. 8.
 - BASE BID: RESIDENT TLT CEILING EXHAUST GRILLES, REGISTERS, ETC. SHALL NOT BE INSTALLED. TERMINATE ALL EXHAUST BRANCH DUCTWORK WITH OPEN ENDED DUCT AND WIRE MESH SCREEN UPSTREAM OF ROOM 168 RESIDENT CORRIDOR WALL. BALANCE EACH EXHAUST BRANCH TO AIRFLOW INDICATED BY ADD ALTERNATE BRANCH AIR DEVICE SHOWN. INSTALL (2) ADDITIONAL SPACE TEMPERATURE/HUMIDITY CONTROLLERS (1 FOR EACH SHELL SPACE - PLAN NORTH AND PLAN SOUTH). INSTALL EXHAUST FAN (1-ET-C). FAN SHALL ACTIVATE UPON RISE IN SPACE TEMPERATURE/HUMIDITY ABOVE 85°F / 75% RH. INTEGRATE CONTROLS WITH BAS.

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 28/02/23 12:00 PM

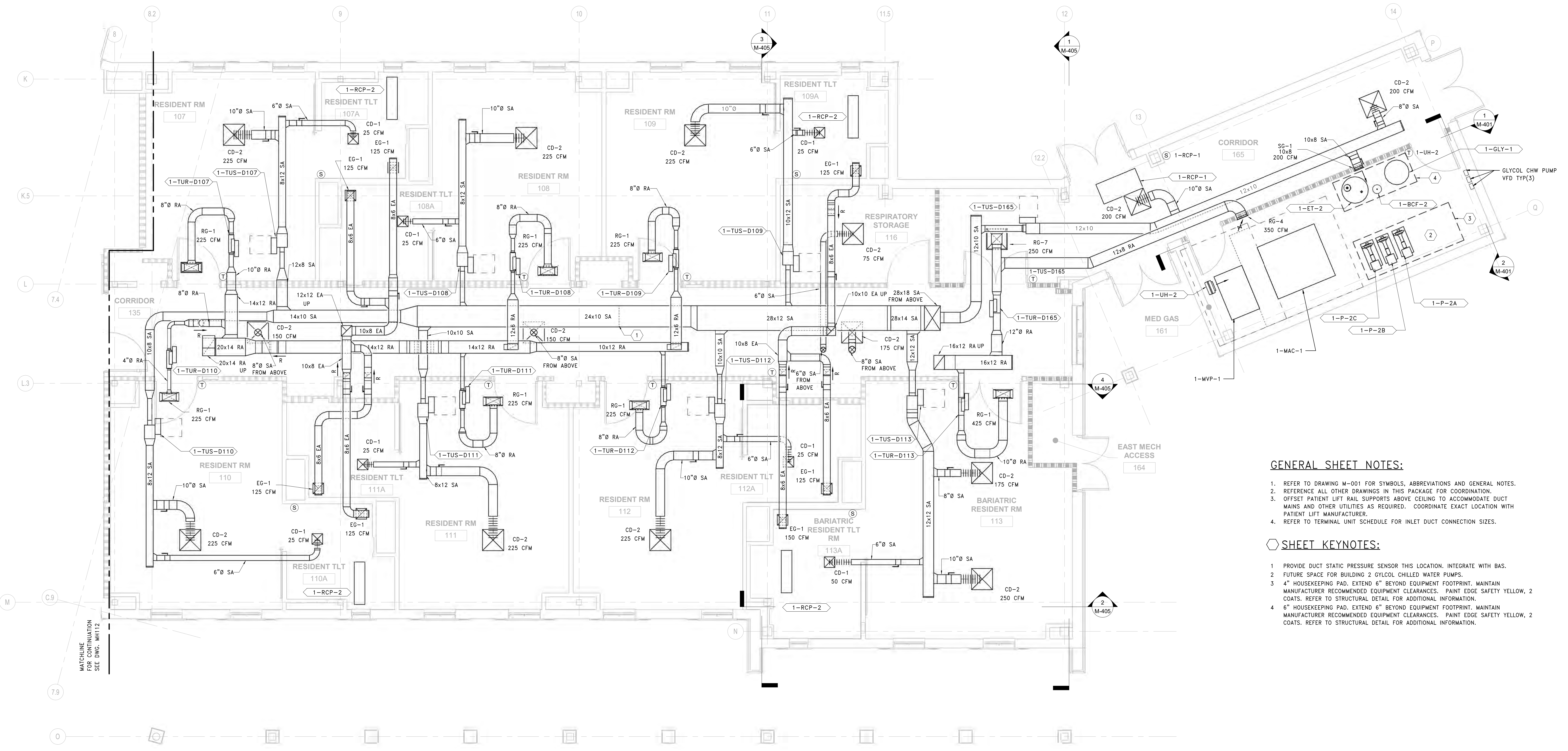


1 DUCTWORK PLAN - 1ST FLOOR - AREA C
 SCALE: 1/4" = 1'-0"



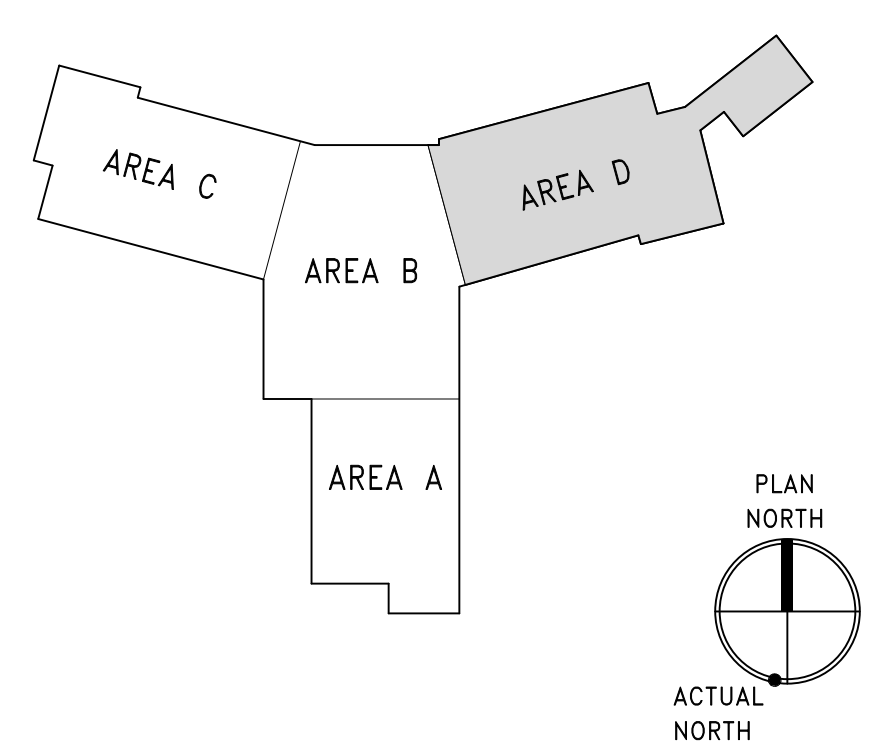
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|--|--|--|---|--|--|------------------------|--|----------------------------------|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER. Revisions: _____ Date: _____ | CONSULTANT ARRAY-ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9022 MR PROJECT NO: 0499-0124 | MILLER-REMICK LLC PROFESSIONAL ENGINEER | Office of Construction and Facilities Management U.S. Department of Veterans Affairs | Drawing Title MECHANICAL DUCTWORK PLAN FIRST FLOOR - AREA C Approved: _____ | Phase BID DOCUMENTS | Project Title CONSTRUCT NEW COMMUNITY CENTER (CLC) | Project Number 595-601 |
| | PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | Building Number CLC-1 | Location LEBANON, PENNSYLVANIA | Issue Date 2023-02-09 | Checked PK | Drawn MK | Drawing Number MH113 | |
| | FULLY SPRINKLERED | | | | | | | |

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighth inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot



- GENERAL SHEET NOTES:**
- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
 - REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
 - OFFSET PATIENT LIFT RAIL SUPPORTS ABOVE CEILING TO ACCOMMODATE DUCT MAINS AND OTHER UTILITIES AS REQUIRED. COORDINATE EXACT LOCATION WITH PATIENT LIFT MANUFACTURER.
 - REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.
- SHEET KEYNOTES:**
- PROVIDE DUCT STATIC PRESSURE SENSOR THIS LOCATION. INTEGRATE WITH BAS.
 - FUTURE SPACE FOR BUILDING 2 GYCOL CHILLED WATER PUMPS.
 - 4" HOUSEKEEPING PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
 - 6" HOUSEKEEPING PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.

1 DUCTWORK PLAN - 1ST FLOOR - AREA D
 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. Revisions: _____ Date: _____ | CONSULTANT ARRAY ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9028 MR PROJECT NO: 0499-0124 | | MILLER-REMICK LLC PROFESSIONAL ENGINEER | | Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs | | Drawing Title MECHANICAL DUCTWORK PLAN FIRST FLOOR - AREA D Approved: _____ | | Phase BID DOCUMENTS | | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) | | Project Number 595-601 | | | | | | |
| | GORDON PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | | | | | | Office of Construction and Facilities Management | | Fully Sprinklered | | Location LEBANON, PENNSYLVANIA | | Issue Date 2023-02-09 | | Checked PK | | Drawn MK | | Building Number CLC-1 | | Drawing Number MH114 |

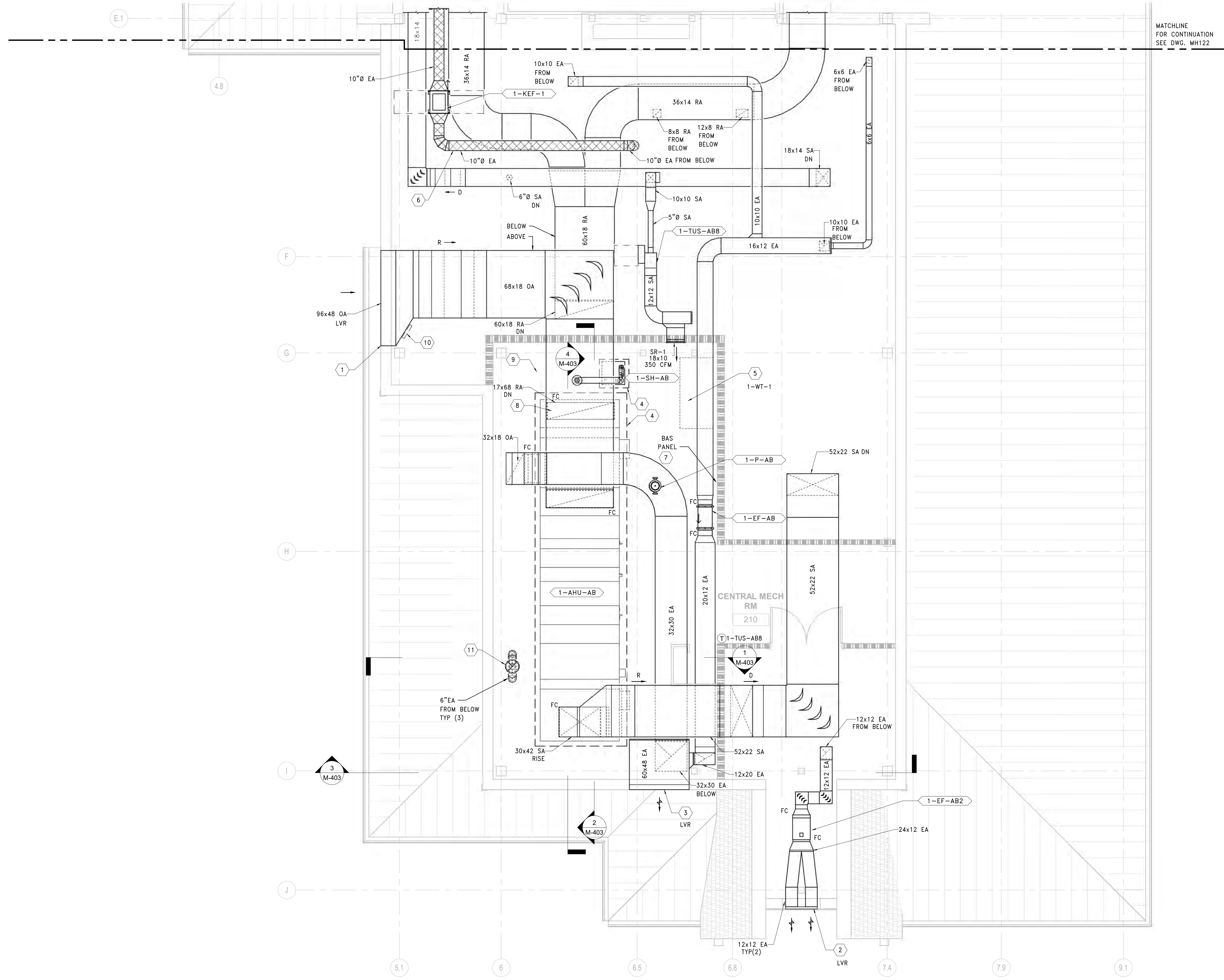
GENERAL SHEET NOTES:

1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
3. REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

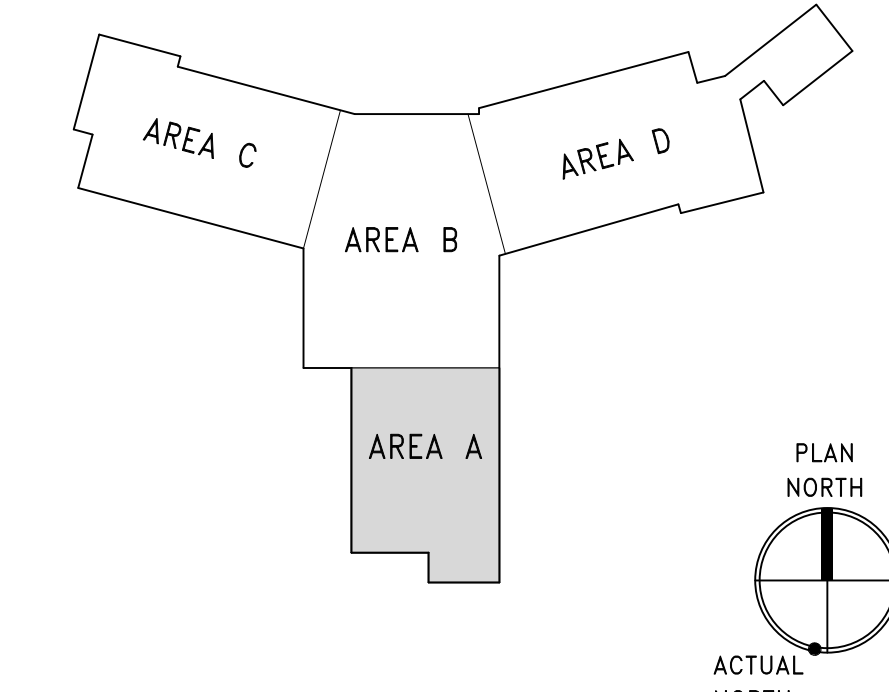
SHEET KEYNOTES:

- 1-AHU-AB ALUMINUM OA INTAKE LOUVER BY ARCHITECT; BOD: 96" x 48" DUCTED CONNECTION; 19.0 SQ FT FREE AREA THRU WALL. PROVIDE INSULATED BLANK OFFS FOR UNUSED LOUVER PORTIONS. PROVIDE SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. FINISH BY ARCHITECT.
- 2 GARAGE EXHAUST LOUVER BY ARCHITECT; BOD: 0.39 SQ FT MIN. FREE AREA THRU WALL. PROVIDE INSULATED BLANK OFFS FOR UNUSED LOUVER PORTIONS. PROVIDE SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. PROVIDE SPLIT PANTS FITTING TO ACCOMMODATE STRUCTURAL POST. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- 3 1-AHU-AB ALUMINUM EXHAUST LOUVER BY ARCHITECT; BOD: 60" x 48" DUCTED CONNECTION; 11.6 SQ FT FREE AREA THRU WALL. PROVIDE INSULATED BLANK OFFS FOR UNUSED LOUVER PORTIONS. PROVIDE SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 4 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- 5 STEAM GENERATOR WATER SOFTENER SKID PACKAGE (1-WT-1) THIS AREA. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
- 6 STAINLESS-STEEL KITCHEN EXHAUST DUCT. PROVIDE 2-HOUR FIRE WRAP WITH STAINLESS STEEL JACKET. PROVIDE CLEANOUTS AT EACH ELBOW. FINAL SIZING AND ROUTING PER KITCHEN HOOD MANUFACTURER'S RECOMMENDATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 7 NEW BAS PANEL. COORDINATE EXACT LOCATION WITH CONSTRUCTION MANAGER. COORDINATE POWER REQUIREMENTS WITH EC.
- 8 PROVIDE RETURN DUCT SMOKE DETECTOR. COORDINATE WITH EC AND FACP.
- 9 PROVIDE CONCENTRIC STEAM HUMIDIFIER VENT KIT THRU ROOF. SIZE AND ROUTING PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE MIN. 48" ABOVE ROOF. FINISH BY ARCHITECT.
- 10 PROVIDE MINIMUM SIZE 24x48 LOUVER ACCESS DOOR THIS LOCATION.
- 11 PROVIDE 6" TO 12" AL29-4C DOUBLE WALL COMMON VENT BOILER FLUE EXHAUST THRU ROOF. TERMINATE MINIMUM 48" ABOVE ROOF WITH RAIN CAP. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot



1 DUCTWORK PLAN - SECOND FLOOR - AREA A
 SCALE: 1/4" = 1'-0"



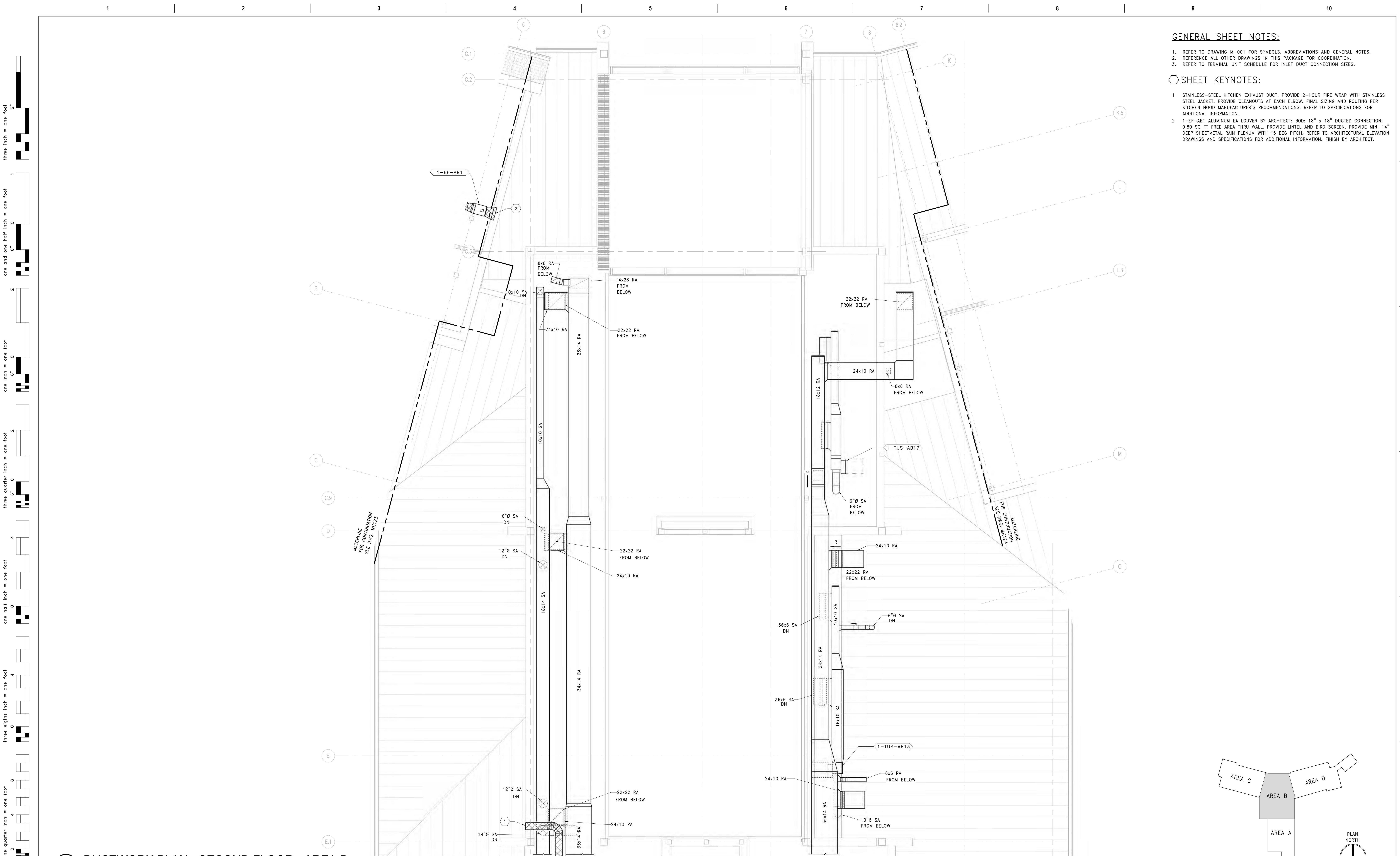
| | | | | | | | | | | | | | | |
|---|--|--|---|--|---|--|--|--|---|--|---|--|--|--|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER Revisions: _____ Date: _____ | CONSULTANT ARRAY architects, INC. 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9002 MR PROJECT NO: 0499-0124 | | MILLER-REMICK LLC PROFESSIONAL ENGINEER Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs | | Drawing Title MECHANICAL DUCTWORK PLAN SECOND FLOOR - AREA A Approved: _____ | | Phase BID DOCUMENTS FULLY SPRINKLERED | | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) Location LEBANON, PENNSYLVANIA Issue Date 2023-02-09 | | Project Number 595-601 Building Number CLC-1 Drawing Number MH121 | |
| | PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | | MILLER-REMICK LLC PROFESSIONAL ENGINEER | | Project Number 595-601 Building Number CLC-1 Drawing Number MH121 | | Checked PK Drawn MK | | | | | | | |

GENERAL SHEET NOTES:

1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
3. REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

SHEET KEYNOTES:

1. STAINLESS-STEEL KITCHEN EXHAUST DUCT. PROVIDE 2-HOUR FIRE WRAP WITH STAINLESS STEEL JACKET. PROVIDE CLEANOUTS AT EACH ELBOW. FINAL SIZING AND ROUTING PER KITCHEN HOOD MANUFACTURER'S RECOMMENDATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. 1-EF-AB1 ALUMINUM EA LOUVER BY ARCHITECT; BOD: 18" x 18" DUCTED CONNECTION; 0.80 SQ FT FREE AREA THRU WALL. PROVIDE LINTEL AND BIRD SCREEN. PROVIDE MIN. 14" DEEP SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. REFER TO ARCHITECTURAL ELEVATION DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. FINISH BY ARCHITECT.



1 DUCTWORK PLAN - SECOND FLOOR - AREA B
SCALE: 1/4" = 1'-0"

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot
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| Revisions: | Date: |
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ENGINEER OF RECORD

Miller-Remick LLC
M.E.P. & Structural Engineering
A Service Disabled Veteran Owned Small Business

1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-9002
MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DUCTWORK PLAN SECOND FLOOR - AREA B

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

Drawing Number
MH122

GENERAL SHEET NOTES:

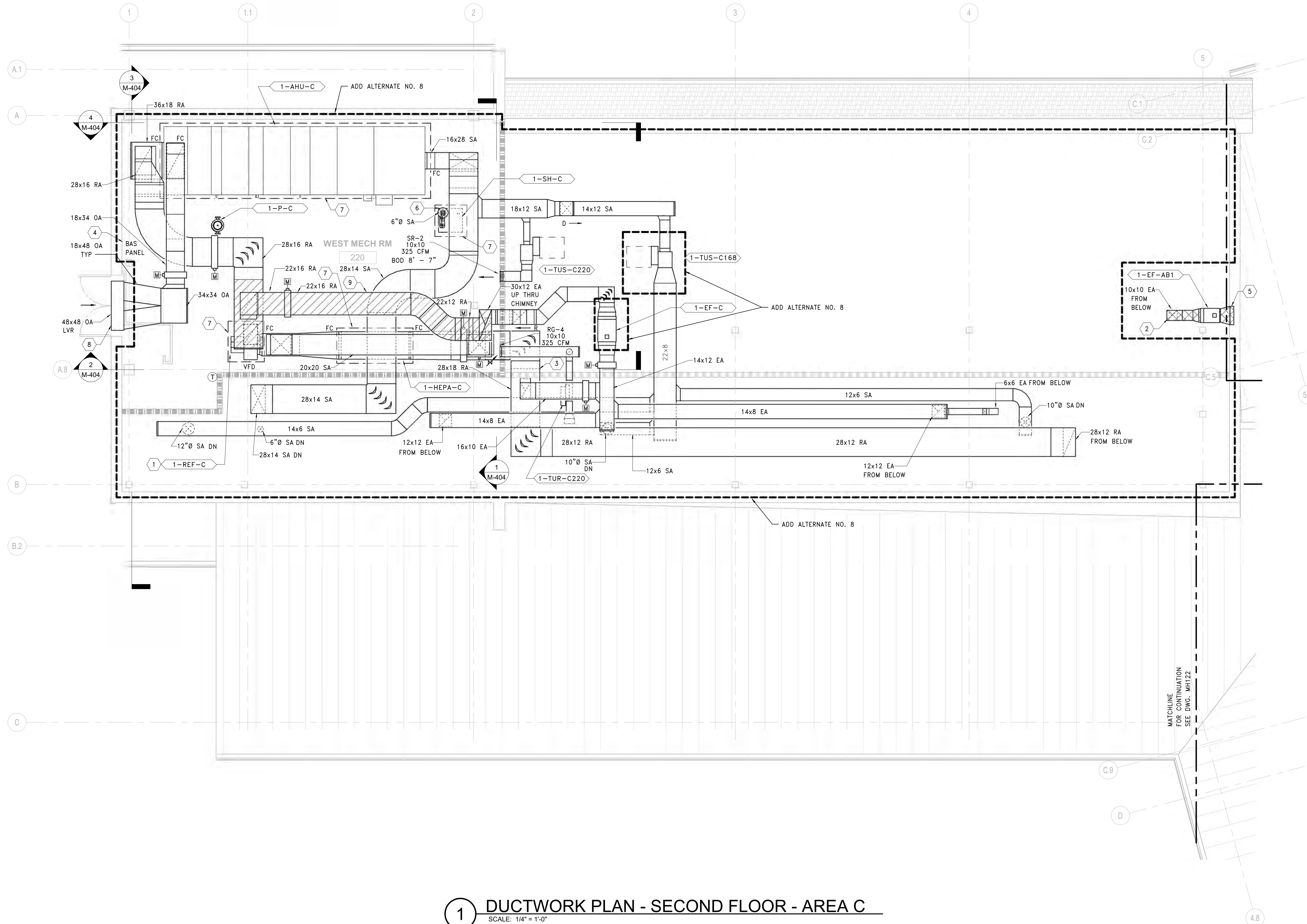
- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
- REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

SHEET KEYNOTES:

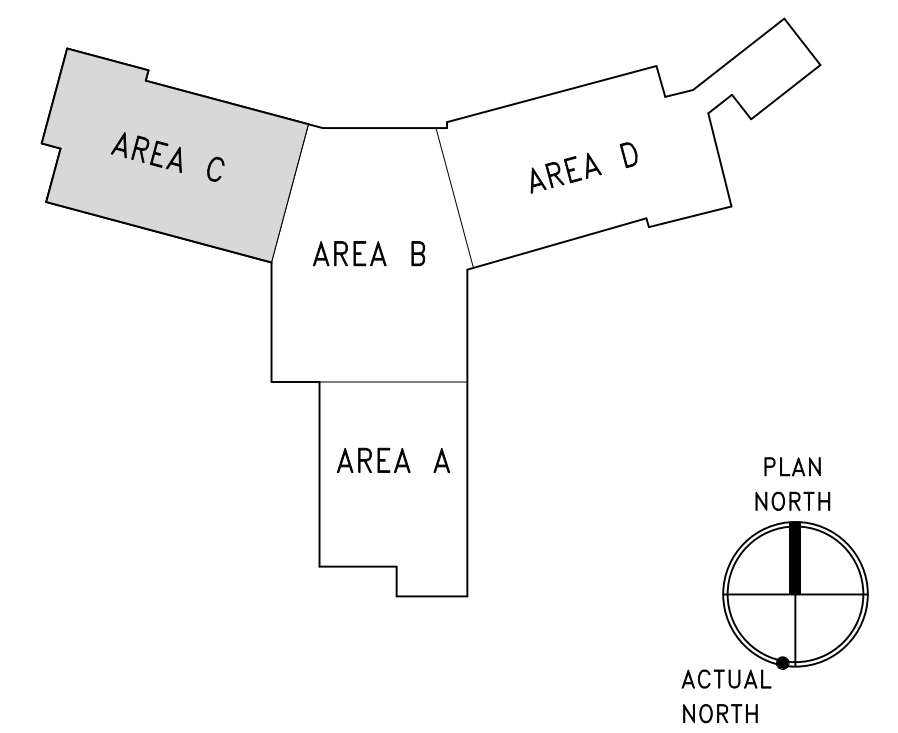
- PROVIDE FIELD INSTALLED EQUIPMENT SUPPORT PER MECHANICAL DETAIL.
- PROVIDE WELDED STAINLESS-STEEL WET EXHAUST DUCTWORK FOR LENGTH OF EXHAUST SYSTEM INDICATED. PITCH UPWARD IN DIRECTION OF AIRFLOW. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- PROVIDE RETURN DUCT SMOKE DETECTOR. COORDINATE WITH EC AND FACP.
- NEW BAS PANEL. COORDINATE EXACT LOCATION WITH CONSTRUCTION MANAGER. COORDINATE POWER REQUIREMENTS WITH EC.
- 1-EF-AB1 ALUMINUM EA LOUVER BY ARCHITECT; BOD: 18" x 18" DUCTED CONNECTION; 0.80 SQ FT FREE AREA THRU WALL. PROVIDE UNTEL AND BIRD SCREEN. PROVIDE MIN 14" DEEP SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. REFER TO ARCHITECTURAL ELEVATION DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. FINISH BY ARCHITECT.
- PROVIDE CONCENTRIC STEAM HUMIDIFIER VENT KIT THRU ROOF. SIZE AND ROUTING PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE MIN. 48" ABOVE ROOF. FINISH BY ARCHITECT.
- 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- 1-AHU-C ALUMINUM OA INTAKE LOUVER BY ARCHITECT; BOD: 48" x 48" DUCTED CONNECTION; 6.0 SQ FT FREE AREA THRU WALL. PROVIDE INSULATED BLANK OFFS FOR UNUSED LOUVER PORTIONS. PROVIDE SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. PROVIDE SPLIT PANTS FITTING TO ACCOMMODATE STRUCTURAL POST. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. FINISH BY ARCHITECT.
- PROVIDE ALUMINIZED CHIMNEY EXHAUST DUCTWORK DOWNSTREAM OF REF FAN AND UP THRU CHIMNEY AS INDICATED. ROUTE DUCTWORK WITH DOWNWARD PITCH TOWARD FAN 1/8 INCH PER FOOT FOR DRAINAGE.

ADD ALTERNATE NO. 8 SHEET NOTES:

- ADD ALTERNATE NO. 8 FIT OUT WESTERN WING. SCOPE INDICATED ON DRAWINGS REPRESENTS ADD ALTERNATE NO. 8.
 - BASE BID: AIR HANDLING UNIT (1-AHU-C) AND ASSOCIATED DUCTWORK, FITTINGS, ELBOWS, DAMPER, PIPING, VALVES, CONTROLS, AND ACCESSORIES, ETC. SHALL NOT BE INSTALLED (WITH THE EXCLUSION OF OUTDOOR AIR INTAKE LOUVER SIZE 48x48 LOCATED IN 220 WEST MECH RM PLAN WEST WALL). PROVIDE INSULATED BACK PAN AT LOUVER CONNECTION.
 - BASE BID: HEATING HOT WATER CIRCULATION PUMP (1-P-C) AND ASSOCIATED PIPING, VALVES, ELBOWS, CONTROLS, AND ACCESSORIES, ETC. SERVING 1-AHU-C HEATING HOT WATER COIL SHALL NOT BE INSTALLED.
 - BASE BID: RETURN EXHAUST FAN (1-REF-C) AND ASSOCIATED DUCTWORK, FILTER MODULE (1-HEPA-C), CONTROLS, AND ACCESSORIES, ETC. SHALL NOT BE INSTALLED.
 - BASE BID: EXHAUST FAN (1-EF-C) AND ASSOCIATED DUCTWORK, FITTINGS, ELBOWS, DAMPERS, CONTROLS, AND ACCESSORIES, ETC. SHALL BE INSTALLED. BYPASS DUCTWORK AND MOTORIZED DAMPER ROUTING TO HEPA FILTER MODULE (1-HEPA-C) SHALL NOT BE INSTALLED. REFER TO FAN SCHEDULE FOR ADDITIONAL ADD ALTERNATE NOTES.
 - BASE BID: BUILDING AUTOMATION SYSTEM (BAS) CONTROL PANEL IN 220 WEST MECH RM SHALL NOT BE INSTALLED. ALL CONTROLS FOR EQUIPMENT IN AREA C SHALL EXTEND FROM BAS PANEL IN ROOM 166 LOW VOLTAGE.
 - BASE BID: SUPPLY TERMINAL UNIT (1-TUS-C168) AND ASSOCIATED DUCTWORK, FITTINGS, ELBOWS, DAMPERS, CEILING AIR DEVICES, PIPING, VALVES, AND ACCESSORIES, ETC. SHALL BE INSTALLED. EXTEND 18x10 INSULATED BRANCH SUPPLY DUCTWORK FROM (1-AHU-AB) MAIN IN AREA B FROM FIRST FLOOR BELOW. REFER TO FIRST FLOOR BASE BID WORK FOR CONTINUATION.
 - BASE BID: PROVIDE SIZE 18x10 INSULATED SUPPLY DUCT FROM (1-AHU-AB) SUPPLY DUCT MAIN IN OPEN SPINE AREA, THROUGH ENTRY TO WESTERN WING AREA C TO SERVE SUPPLY TERMINAL UNIT (1-TUS-C168) IN WESTERN WING AREA C 2ND FLOOR MECHANICAL ATTIC. INCREASE SUPPLY DUCT MAIN DIMENSIONS AS REQUIRED TO MAINTAIN MAXIMUM 1200 FPM VELOCITY. ALL CEILING AIR DEVICES, DUCTWORK, DAMPERS, AND CONTROLS SERVING 168 CORRIDOR SHALL BE INSTALLED.



1 DUCTWORK PLAN - SECOND FLOOR - AREA C
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

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| Revisions: | Date: |
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CONSULTANT

ARRAY ARCHITECTS, INC.
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Conshohocken, PA 19428
o: 610-270-0599
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148 S Queen St, Suite 201
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ENGINEER OF RECORD

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M.E.P. & Structural Engineering
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CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-9002
MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DUCTWORK PLAN SECOND FLOOR - AREA C

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

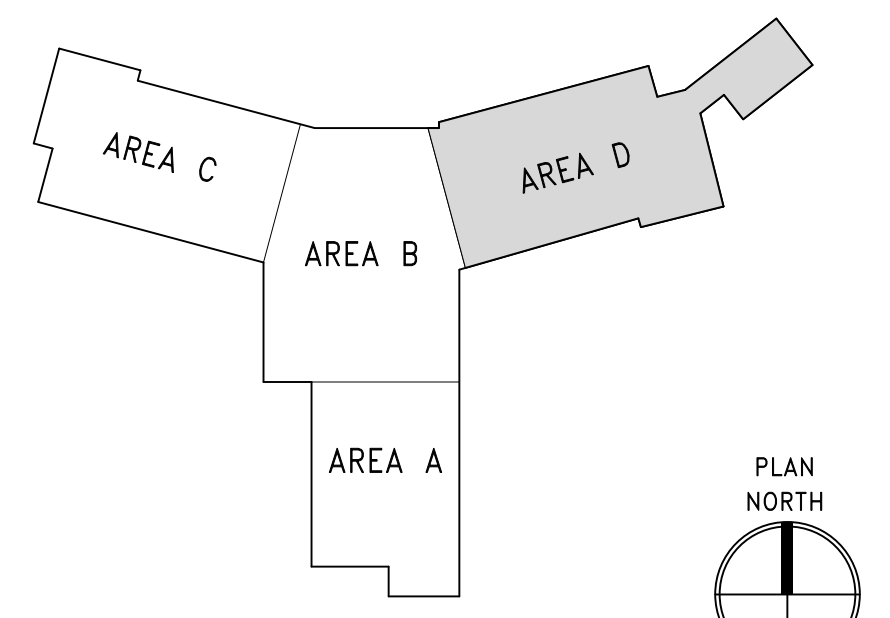
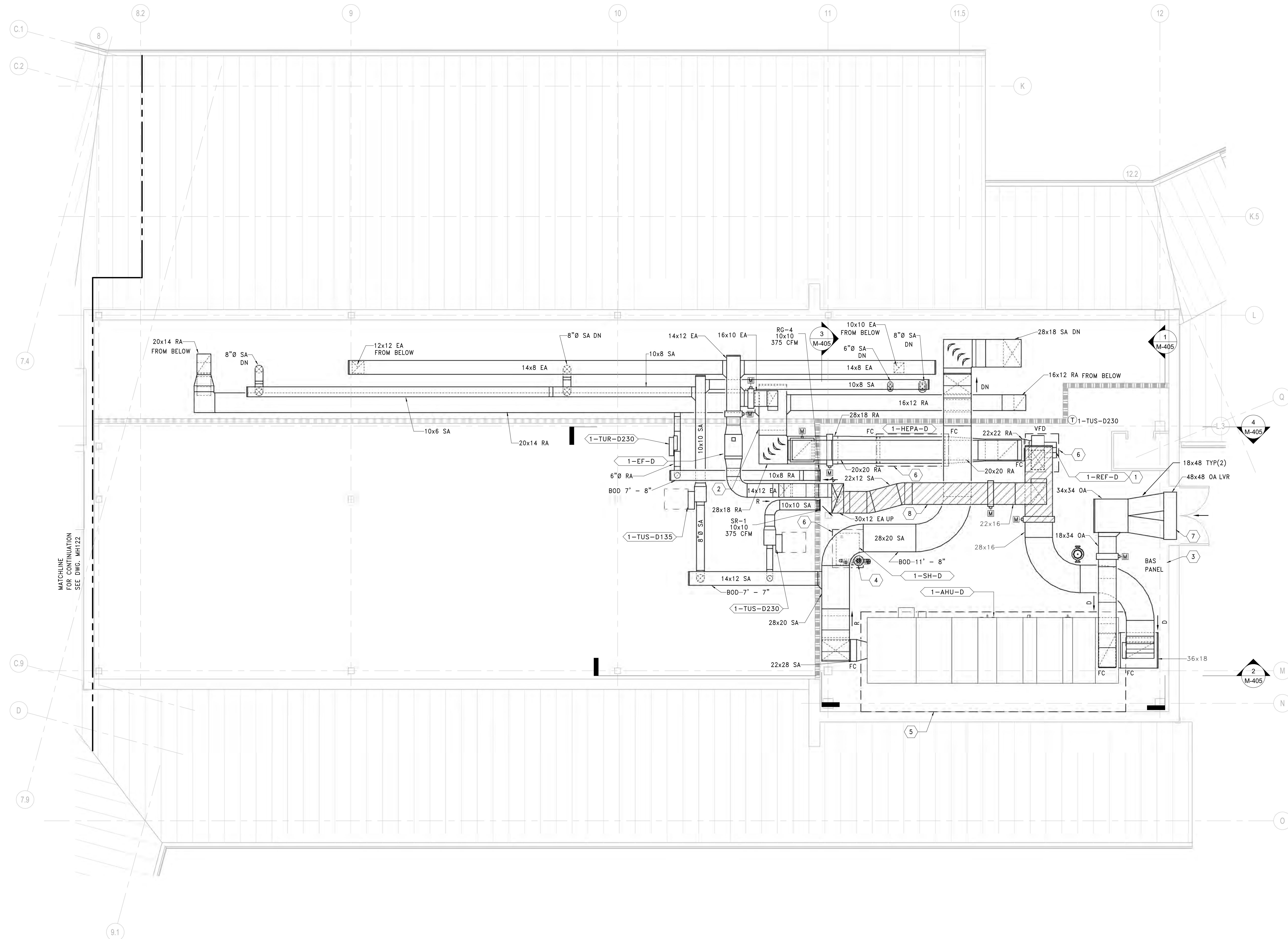
Drawing Number
MH123

GENERAL SHEET NOTES:

1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
3. REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

SHEET KEYNOTES:

1. PROVIDE FIELD INSTALLED EQUIPMENT SUPPORT PER MECHANICAL DETAIL.
2. PROVIDE RETURN DUCT SMOKE DETECTOR. COORDINATE WITH EC AND FACP.
3. NEW BAS PANEL. COORDINATE EXACT LOCATION WITH CONSTRUCTION MANAGER. COORDINATE POWER REQUIREMENTS WITH EC.
4. PROVIDE CONCENTRIC STEAM HUMIDIFIER VENT KIT THRU ROOF. SIZE AND ROUTING PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE MIN. 48" ABOVE ROOF. FINISH BY ARCHITECT.
5. 8" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT AND TO WALL TO COVER STRUCTURAL BEAM. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
6. 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
7. 1-AHU-D ALUMINUM OA INTAKE LOUVER BY ARCHITECT; BOD: 48" x 48" DUCTED CONNECTION; 6.33 SQ FT FREE AREA THRU WALL. PROVIDE INSULATED BLANK OFFS FOR UNUSED LOUVER PORTIONS. PROVIDE SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. PROVIDE SPLIT PANTS FITTING TO ACCOMMODATE STRUCTURAL POST. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. FINISH BY ARCHITECT.
8. PROVIDE ALUMINIZED CHIMNEY EXHAUST DUCTWORK DOWNSTREAM OF REF FAN AND UP THRU CHIMNEY AS INDICATED. ROUTE DUCTWORK WITH DOWNWARD PITCH TOWARD FAN 1/8 INCH PER FOOT FOR DRAINAGE.



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 one eighth inch = one foot

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

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| Revisions: | Date: |
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 f: 601-270-0995

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 FAX: (856)429-9002
 MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DUCTWORK PLAN SECOND FLOOR - AREA D

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Project Number
595-601

Building Number
CLC-1

Drawing Number
MH124

Location
LEBANON, PENNSYLVANIA

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| Issue Date | Checked | Drawn |
| 2023-02-09 | PK | MK |

GENERAL SHEET NOTES:

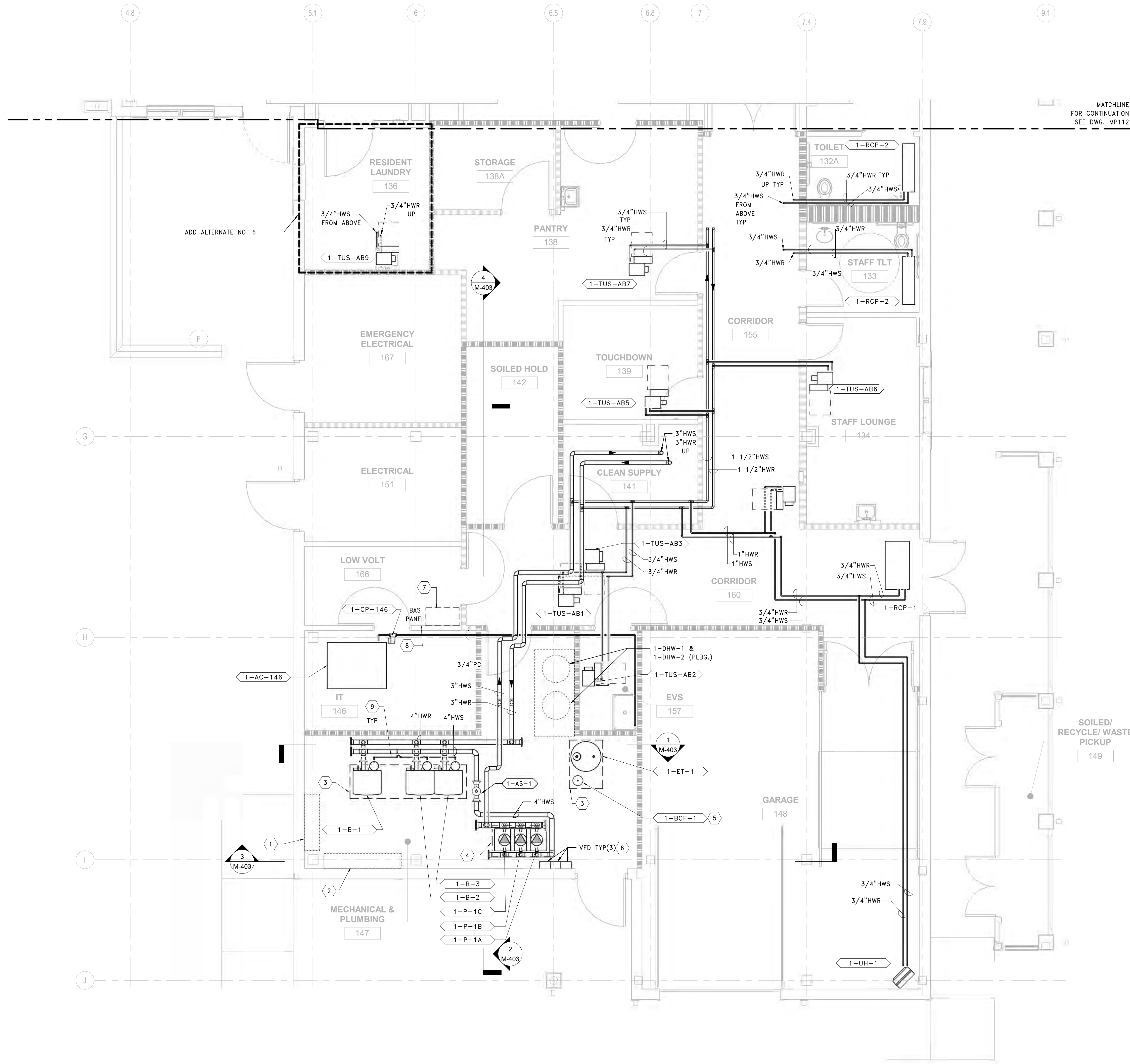
- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
- REFERENCE FLOOR PLANS ABOVE FOR HWS/R PIPING CONNECTIONS TO MAINS.
- ALL PIPING VALVES, SUPPORTS, ACCESSORIES, ETC. NOT SHOWN FOR CLARITY. PROVIDE AS REQUIRED.

SHEET KEYNOTES:

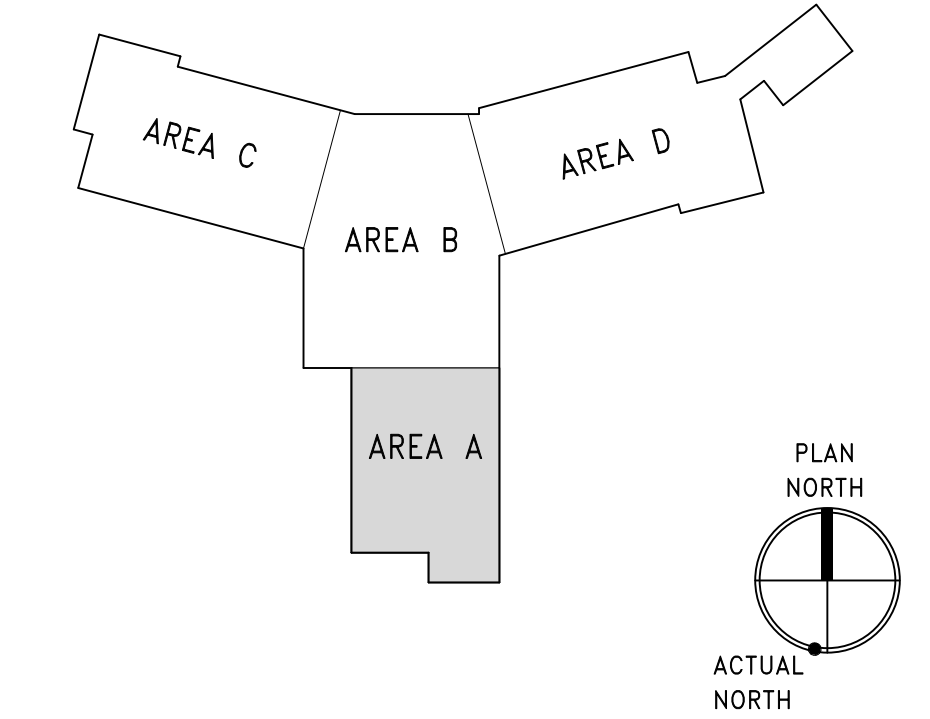
- INCOMING FIRE PROTECTION WATER SERVICE PIPING THIS AREA. MAINTAIN REQUIRED CLEARANCES.
- INCOMING WATER SERVICE PIPING THIS WALL. MAINTAIN REQUIRED CLEARANCES.
- 6" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- BYPASS CHEMICAL FEEDER SET ON FLOOR WITH LEG SUPPORTS SET WITH ANCHOR BOLTS. REFER TO MECHANICAL DETAILS FOR ADDITIONAL INFORMATION.
- WALL MOUNTED VARIABLE FREQUENCY DRIVE THIS LOCATION. COORDINATE WITH EC.
- PROVIDE BUILDING AUTOMATION SYSTEM PC WORKSTATION THIS SPACE. COORDINATE EXACT LOCATION WITH OWNER.
- NEW BAS PANEL. COORDINATE EXACT LOCATION WITH CONSTRUCTION MANAGER. COORDINATE POWER REQUIREMENTS WITH EC.
- PROVIDE INLINE CONDENSATE NEUTRALIZATION KIT PER BOILER. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. ROUTE TO NEAREST FLOOR DRAIN. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.

ADD ALTERNATE NO. 6 SHEET NOTES:

- ADD ALTERNATE NO. 6: FIT OUT ROOM 136 RESIDENT LAUNDRY. SCOPE INDICATED ON DRAWINGS REPRESENTS ADD ALTERNATE NO. 6.
 - A. BASE BID: VAV BOX (1-TUS-AB9) AND ASSOCIATED DUCTWORK, ELBOWS, DIFFUSER, DAMPER, PIPING, VALVES, CONTROLS, THERMOSTAT, AND ACCESSORIES, ETC. SERVING ROOM 136 RESIDENT LAUNDRY SHALL NOT BE INSTALLED.



1 PIPING PLAN - FIRST FLOOR - AREA A
SCALE: 1/4" = 1'-0"



three inch = one foot
one and one half inch = one foot
one inch = one foot
three quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

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| Revisions: | Date: |
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CONSULTANT

ARRAY architects
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SURVEY AND MAPPING
SECURITY CONSULTING
148 S Queen St, Suite 201
Martinsburg, WV 25401
Phone: 304-725-8456
www.gordon.us.com

ENGINEER OF RECORD

Miller-Remick LLC
M.E.P. & Structural Engineering
A Service Disabled Veteran Owned Small Business
1010 KINGS HIGHWAY SOUTH
CHERRY HILL, NEW JERSEY 08034
PHONE: (856)429-4000
FAX: (856)429-9022
MR PROJECT NO: 0499-0124

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 - AREA A

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

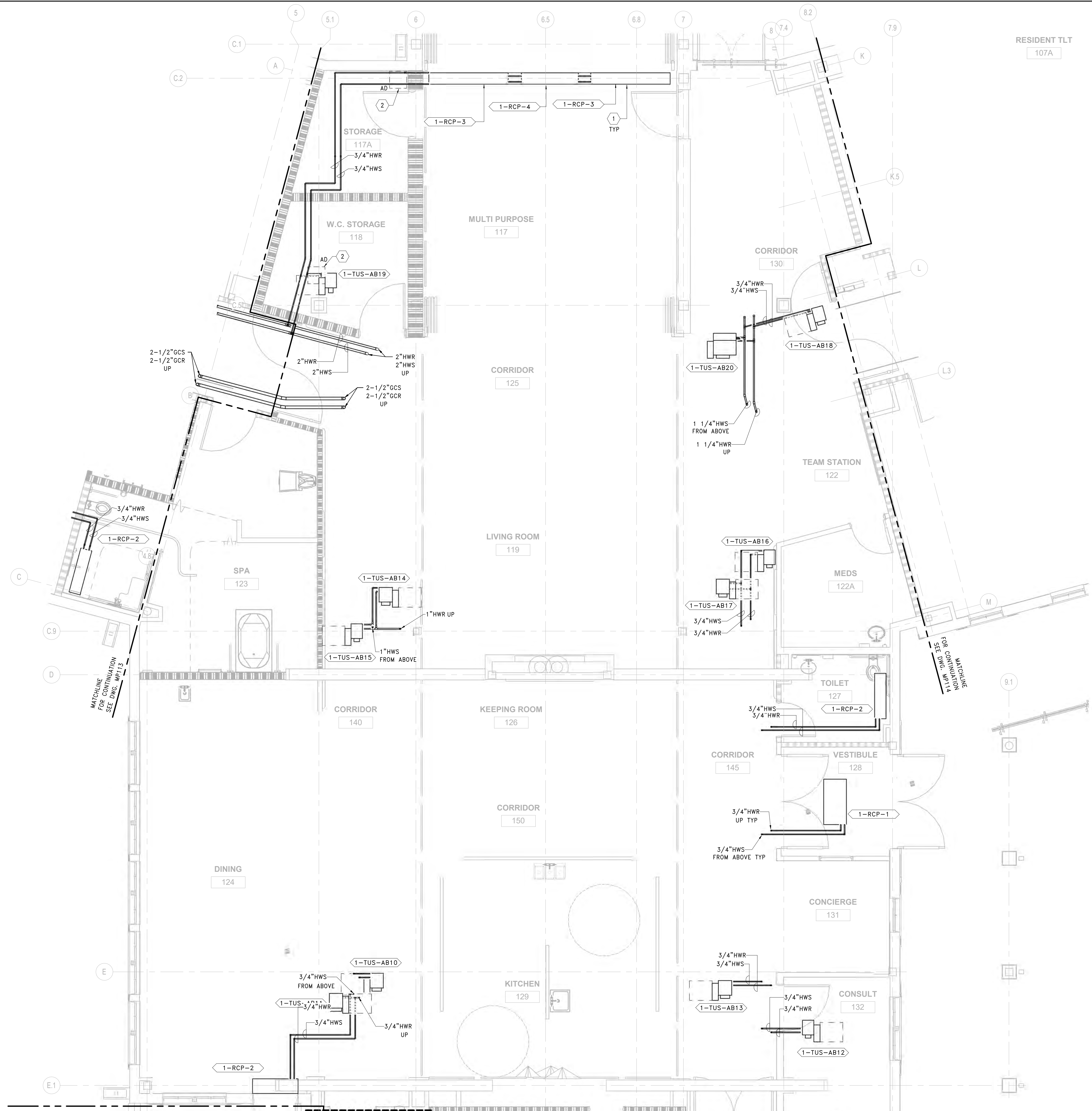
Drawing Number
MP111

GENERAL SHEET NOTES:

1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
3. REFERENCE FLOOR PLANS ABOVE FOR HWS/R PIPING CONNECTIONS TO MAINS.
4. ALL PIPING VALVES, SUPPORTS, ACCESSORIES, ETC. NOT SHOWN FOR CLARITY. PROVIDE AS REQUIRED.

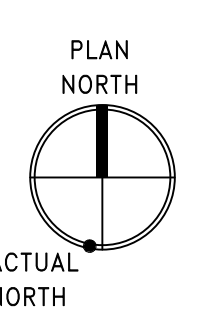
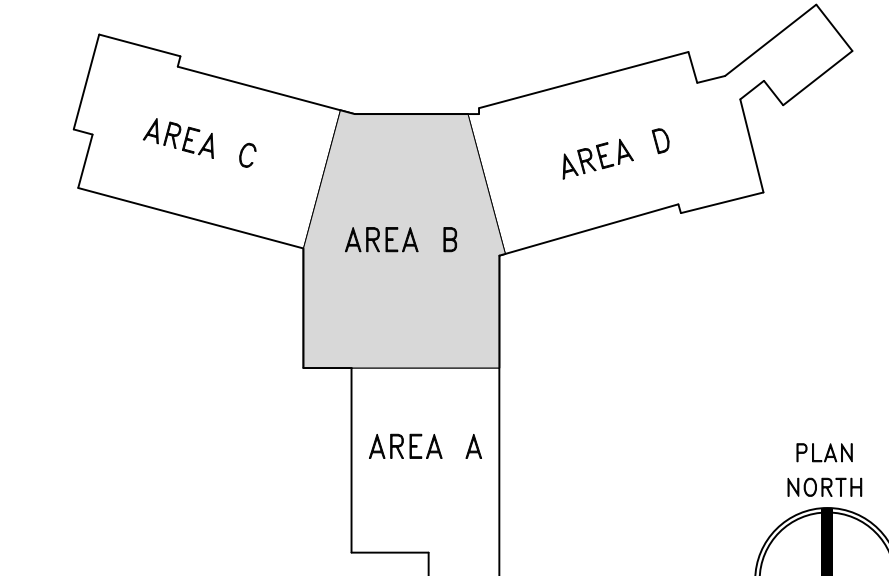
SHEET KEYNOTES:

1. RADIANT CEILING PANEL MOUNTED TO UNDERSIDE OF BEAM SOFFIT. PROVIDE INACTIVE ACCESS PANELS FOR INTERCONNECTING PIPING. PIPE IN SERIES.
2. MINIMUM 18x18 CEILING ACCESS DOOR THIS LOCATION.



1 PIPING PLAN - FIRST FLOOR - AREA B
SCALE: 1/4" = 1'-0"

MATCHLINE FOR CONTINUATION SEE DWG. MP111



three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot

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|---|-------|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER | |
| Revisions: | Date: |
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PHONE: (856)429-4000
FAX: (856)429-9026
MR PROJECT NO: 0499-0124

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 - AREA B

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

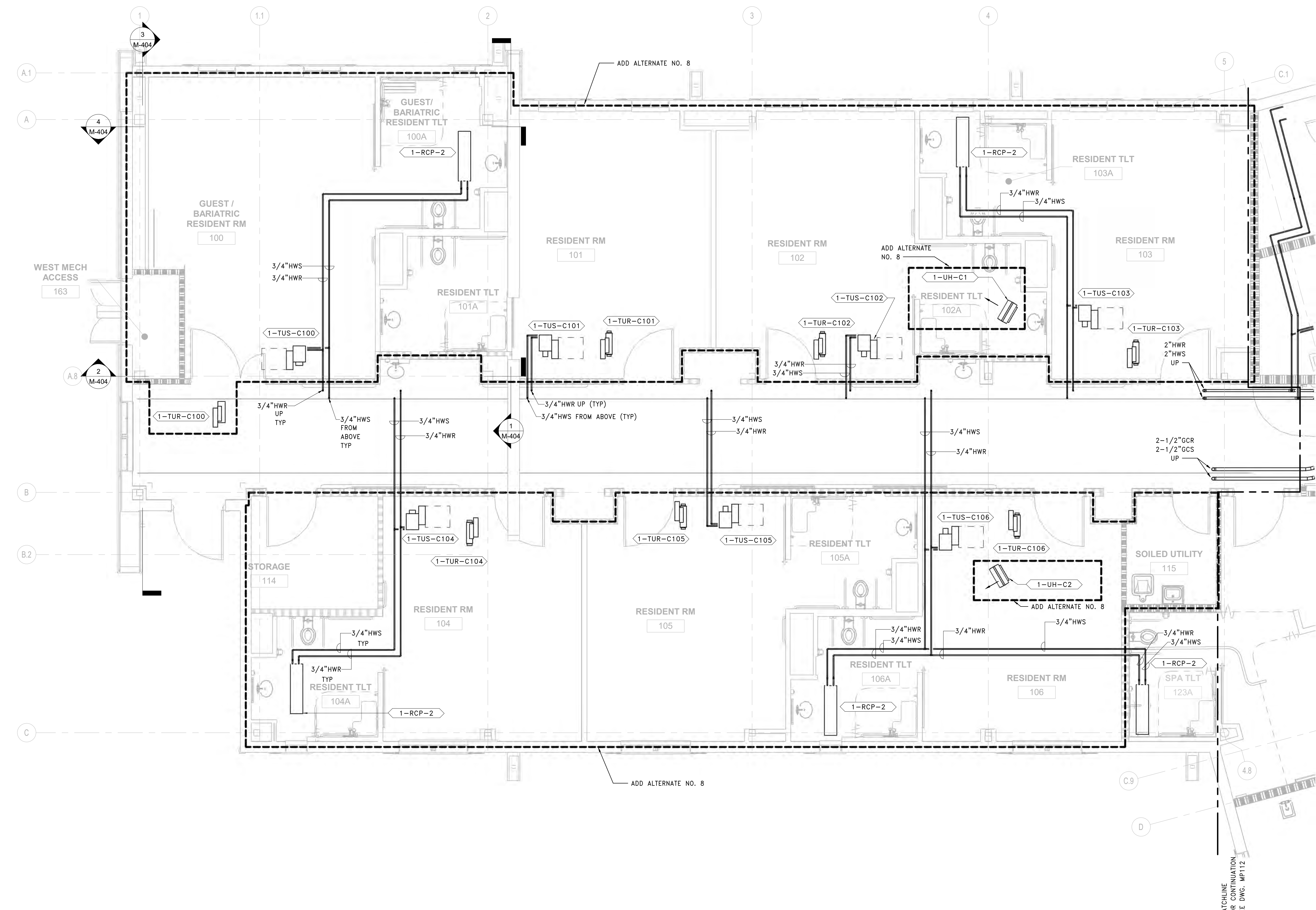
Drawing Number
MP112

GENERAL SHEET NOTES:

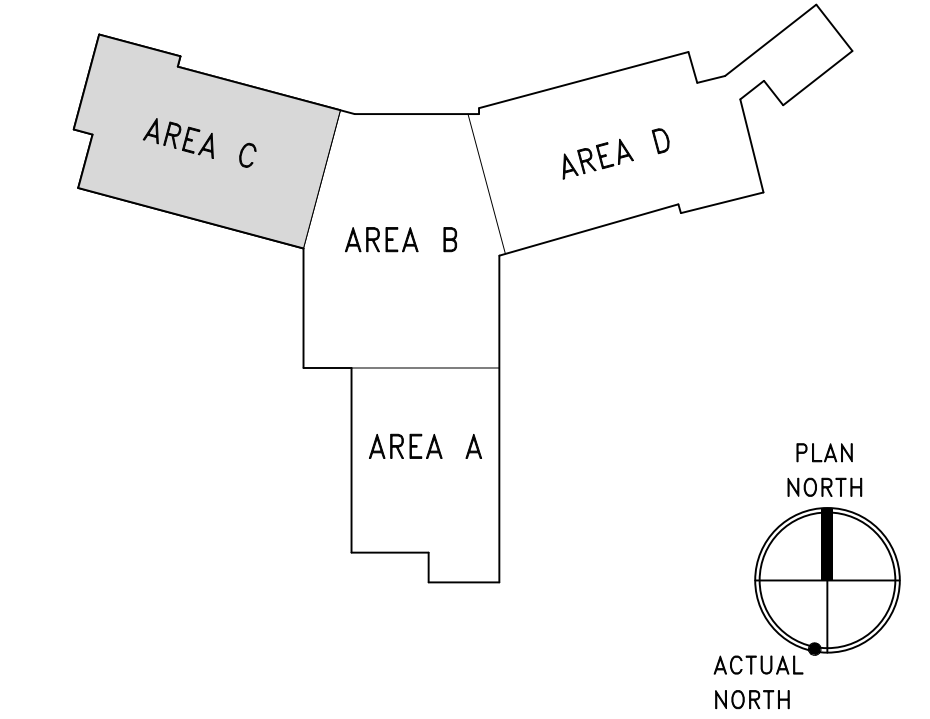
1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
3. REFERENCE FLOOR PLANS ABOVE FOR HWS/R PIPING CONNECTIONS TO MAINS.
4. ALL PIPING VALVES, SUPPORTS, ACCESSORIES, ETC. NOT SHOWN FOR CLARITY. PROVIDE AS REQUIRED.

ADD ALTERNATE NO. 8 SHEET NOTES:

1. ADD ALTERNATE NO. 8 FIT OUT WESTERN WING. SCOPE INDICATED ON DRAWINGS REPRESENTS ADD ALTERNATE NO. 8.
- A. BASE BID: SUPPLY AND RETURN AIR TERMINAL UNITS (1-TUS-XXXX AND 1-TUR-XXXX) AND ASSOCIATED DUCTWORK, PIPING, VALVES, CONTROLS, AIR DEVICES AND ACCESSORIES, ETC. SERVED BY 1-AHU-C SHALL NOT BE INSTALLED (WITH THE EXCLUSION OF SUPPLY TERMINAL UNIT 1-TUS-C168 ON 2ND FLOOR SERVING ROOM 168 CORRIDOR).
- B. BASE BID: CAP 2-1/2" CHILLED WATER SUPPLY AND RETURN PIPING MAINS AT ENTRY TO WESTERN WING AREA C.
- C. BASE BID: INSTALL HOT WATER UNIT HEATERS (1-UH-C1 AND 1-UH-C2). REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION. UNIT HEATERS SHALL NOT BE INSTALLED UNER ADD ALTERNATE NO. 8.
- D. BASE BID: CAP 2" HOT WATER SUPPLY AND RETURN PIPING MAINS AT ENTRY TO WESTERN WING AREA C AND PROVIDE NEW VALVED 1-1/2" HWS/R PIPING TO SERVE HW UNIT HEATERS (1-UH-C1 AND 1-UH-C2) AND SUPPLY TERMINAL UNIT 1-TUS-C168. EXTEND 1-1/4" HWS/R BRANCH PIPING FOR EACH UNIT HEATER AND 3/4" HWS/R BRANCH PIPING TO SUPPLY TERMINAL UNIT. PROVIDE ALL REQUIRED VALVES, CONTROLS, AND ACCESSORIES, ETC. REFER TO EQUIPMENT SCHEDULES FOR ADDITIONAL INFORMATION.
- E. BASE BID: EXTEND 3/4" HWS/R PIPING, ACCESSORIES, AND CONTROLS, ETC. SERVING RADIANT CEILING PANEL 1-RCP-2 IN ROOM 123A SPA TLT TO CAPPED 2" HWS/R MAINS IN 168 CORRIDOR.



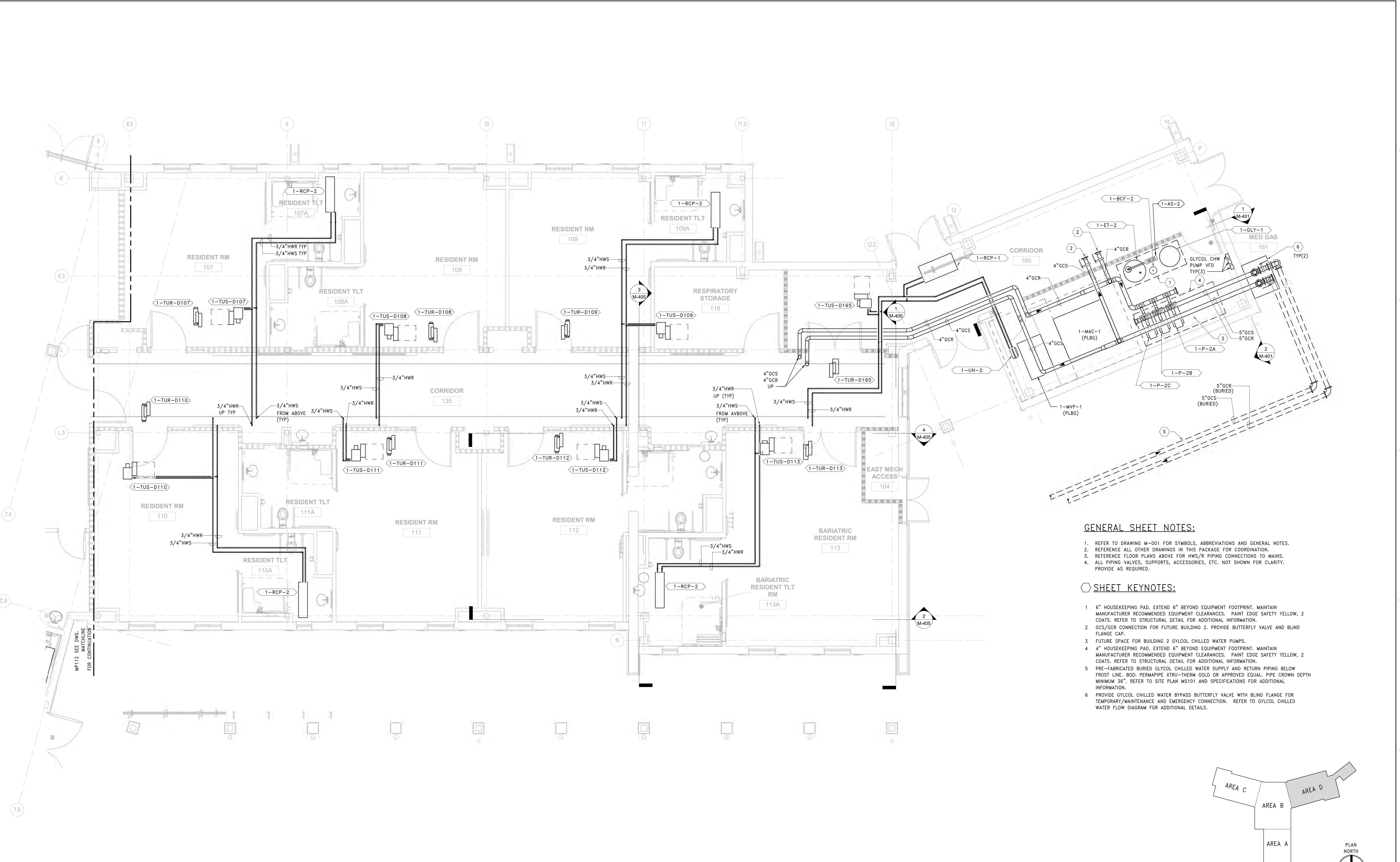
1 PIPING PLAN - FIRST FLOOR - AREA C
SCALE: 1/4" = 1'-0"



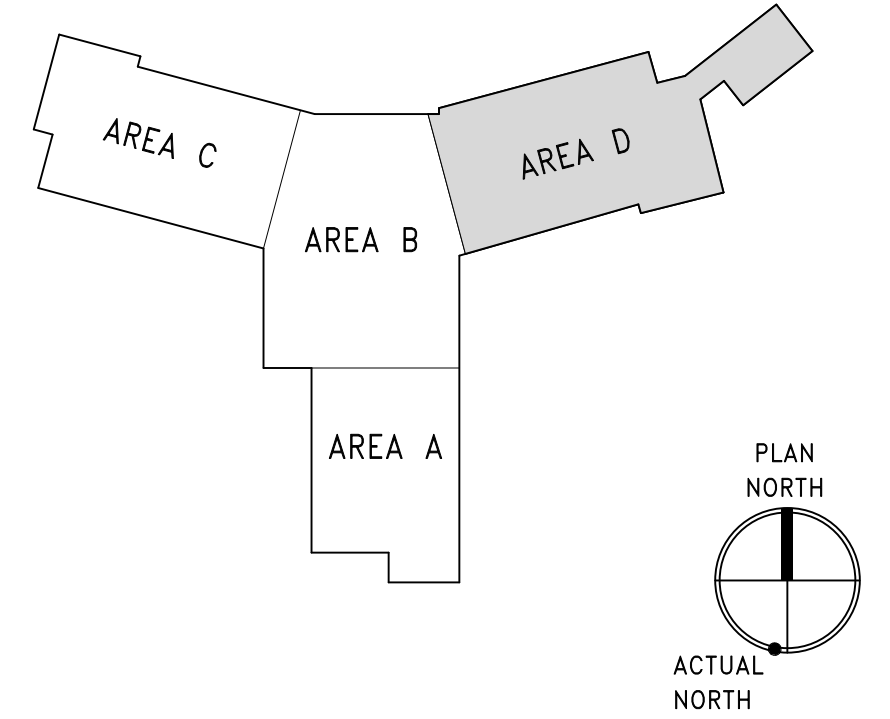
three inch = one foot
one and one half inch = one foot
one inch = one foot
three quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one sixteenth inch = one foot

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|--|---|---|---|---|--|--|---|--|---|--|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER 28/02/2023 5:00:15 PM Revisions: _____ Date: _____ | CONSULTANT ARRAY-ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | Gordon PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9002 MR PROJECT NO: 0499-0124 | MILLER-REMICK LLC PROFESSIONAL ENGINEER | Office of Construction and Facilities Management U.S. Department of Veterans Affairs | Drawing Title MECHANICAL PIPING PLAN FIRST FLOOR - AREA C Approved: _____ | Phase BID DOCUMENTS FULLY SPRINKLERED | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) Location LEBANON, PENNSYLVANIA | Project Number 595-601 Building Number CLC-1 Drawing Number MP113 | |
| | Issue Date 2023-02-09 | Checked PK | Drawn MK | | | | | | | |

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot



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 - REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
 - REFERENCE FLOOR PLANS ABOVE FOR HWS/R PIPING CONNECTIONS TO MAINS.
 - ALL PIPING VALVES, SUPPORTS, ACCESSORIES, ETC. NOT SHOWN FOR CLARITY. PROVIDE AS REQUIRED.
- SHEET KEYNOTES:**
- 6" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
 - GCS/GCR CONNECTION FOR FUTURE BUILDING 2. PROVIDE BUTTERFLY VALVE AND BLIND FLANGE CAP.
 - FUTURE SPACE FOR BUILDING 2 GLYCOL CHILLED WATER PUMPS.
 - 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
 - PRE-FABRICATED BURIED GLYCOL CHILLED WATER SUPPLY AND RETURN PIPING BELOW FROST LINE. BOD: PERMAPIPE XTRU-THERM GOLD OR APPROVED EQUAL. PIPE CROWN DEPTH MINIMUM 35". REFER TO SITE PLAN MS101 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - PROVIDE GLYCOL CHILLED WATER BYPASS BUTTERFLY VALVE WITH BLIND FLANGE FOR TEMPORARY/MAINTENANCE AND EMERGENCY CONNECTION. REFER TO GLYCOL CHILLED WATER FLOW DIAGRAM FOR ADDITIONAL DETAILS.



1 PIPING PLAN - FIRST FLOOR - AREA D
 SCALE: 1/4" = 1'-0"

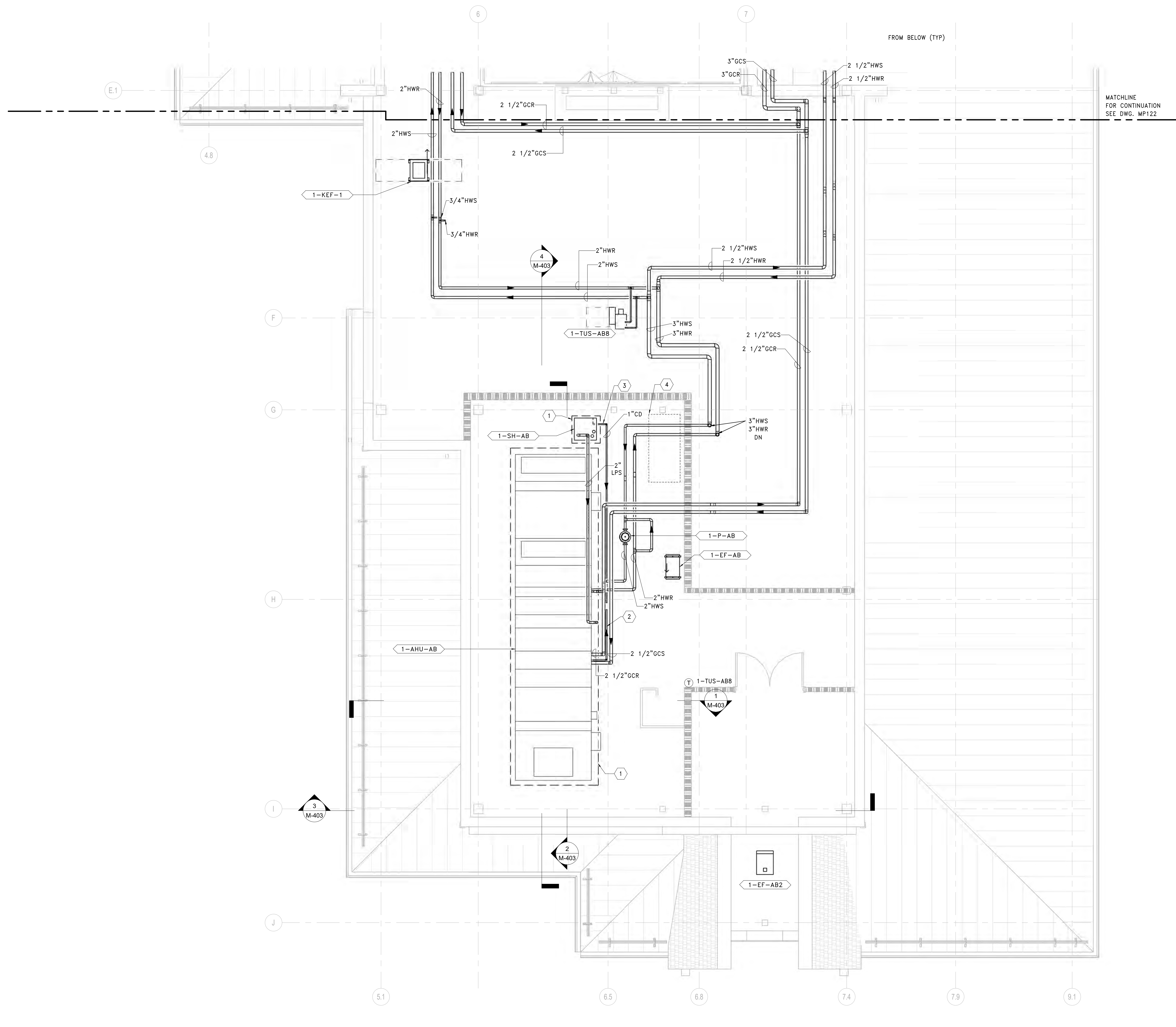
| | | | | | | | |
|---|---|---|---|---|--------------------------|---|--|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER. 28/02/2023 5:02:26 PM | CONSULTANT ARRAY ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | ENGINEER OF RECORD MILLER-REMIK LLC PROFESSIONAL ENGINEER PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9002 MR PROJECT NO: 0499-0124 | OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT U.S. Department of Veterans Affairs | Drawing Title MECHANICAL PIPING PLAN FIRST FLOOR - AREA D Approved: | Phase BID DOCUMENTS | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) | Project Number 595-601 Building Number CLC-1 Drawing Number MP114 |
| | Revisions: Date: | CONSULTANT GORDON PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | FULLY SPRINKLERED | Location LEBANON, PENNSYLVANIA | Issue Date 2023-02-09 | Checked PK | Drawn MK |

GENERAL SHEET NOTES:

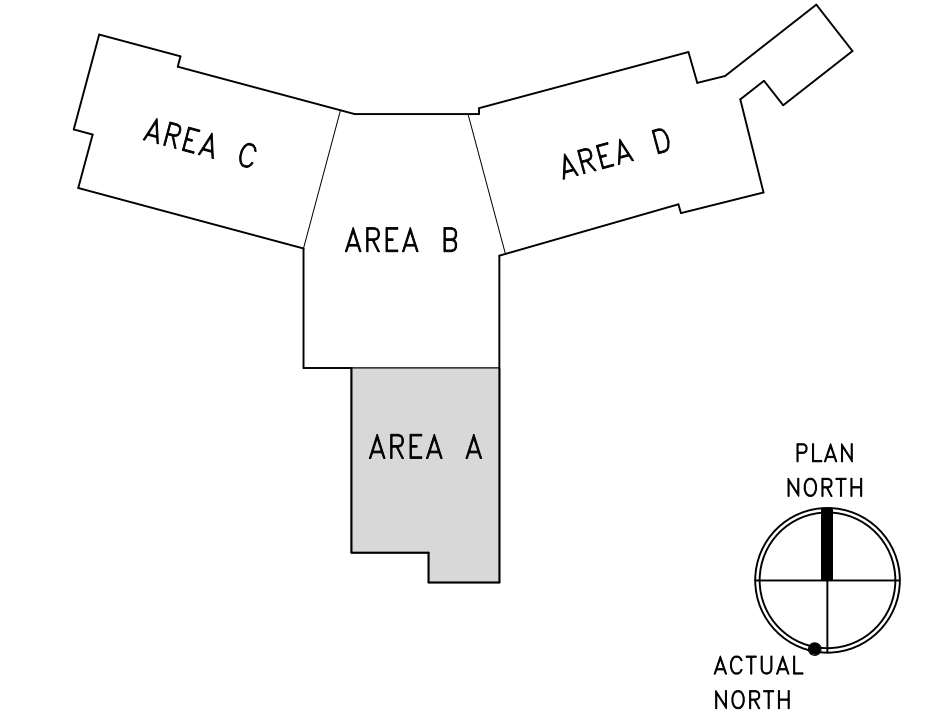
1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
3. REFERENCE FLOOR PLANS BELOW FOR HWS/R PIPING CONNECTIONS TO MAINS.
4. ALL PIPING VALVES, SUPPORTS, ACCESSORIES, ETC. NOT SHOWN FOR CLARITY. PROVIDE AS REQUIRED.

SHEET KEYNOTES:

1. 4" HOUSEKEEPING PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
2. PROVIDE FULL SIZE CONDENSATE DRAIN PIPING WITH MINIMUM 4" DEEP TRAP AND CLEANOUT. ROUTE TO NEAREST FLOOR DRAIN. MAINTAIN MINIMUM PITCH.
3. PROVIDE INLINE CONDENSATE NEUTRALIZATION KIT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. ROUTE TO NEAREST FLOOR DRAIN. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
4. STEAM GENERATOR WATER SOFTENER SKID PACKAGE (1-WT-1) THIS AREA. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.



1 PIPING PLAN - SECOND FLOOR - AREA A
SCALE: 1/4" = 1'-0"

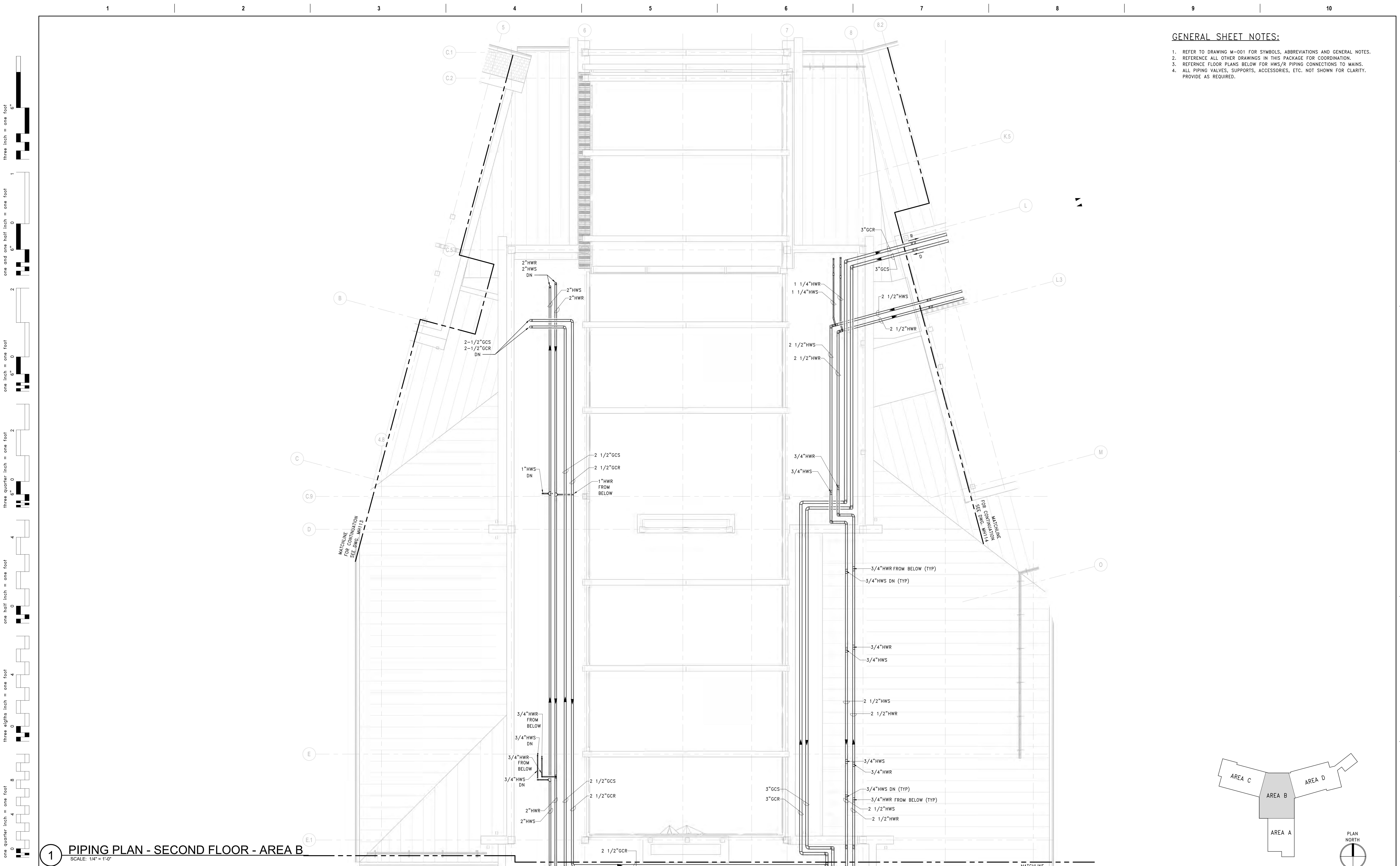


three inch = one foot
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 one inch = one foot
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 three quarter inch = one foot
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 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one eighth inch = one foot

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|---|---|---|--|---|-------------------------------|---|----------------------------------|---------------------------------|--|--------------------------------|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER. 28/02/2023 5:00:31 PM | CONSULTANT ARRAY architects, INC. ARRAY-ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9002 MR PROJECT NO: 0499-0124 | Office of Construction and Facilities Management U.S. Department of Veterans Affairs | Drawing Title MECHANICAL PIPING PLAN SECOND FLOOR - AREA A Approved: | Phase BID DOCUMENTS | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) | Project Number 595-601 | Building Number CLC-1 | Location LEBANON, PENNSYLVANIA | Drawing Number MP121 |
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GENERAL SHEET NOTES:

1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
3. REFERENCE FLOOR PLANS BELOW FOR HWS/R PIPING CONNECTIONS TO MAINS.
4. ALL PIPING VALVES, SUPPORTS, ACCESSORIES, ETC. NOT SHOWN FOR CLARITY. PROVIDE AS REQUIRED.



1 PIPING PLAN - SECOND FLOOR - AREA B
SCALE: 1/4" = 1'-0"

three inch = one foot
one and one half inch = one foot
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one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
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PHONE: (856)429-4000
FAX: (856)429-6026
MR PROJECT NO: 0499-0124

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 - AREA B

Approved: _____

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

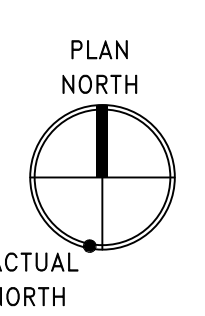
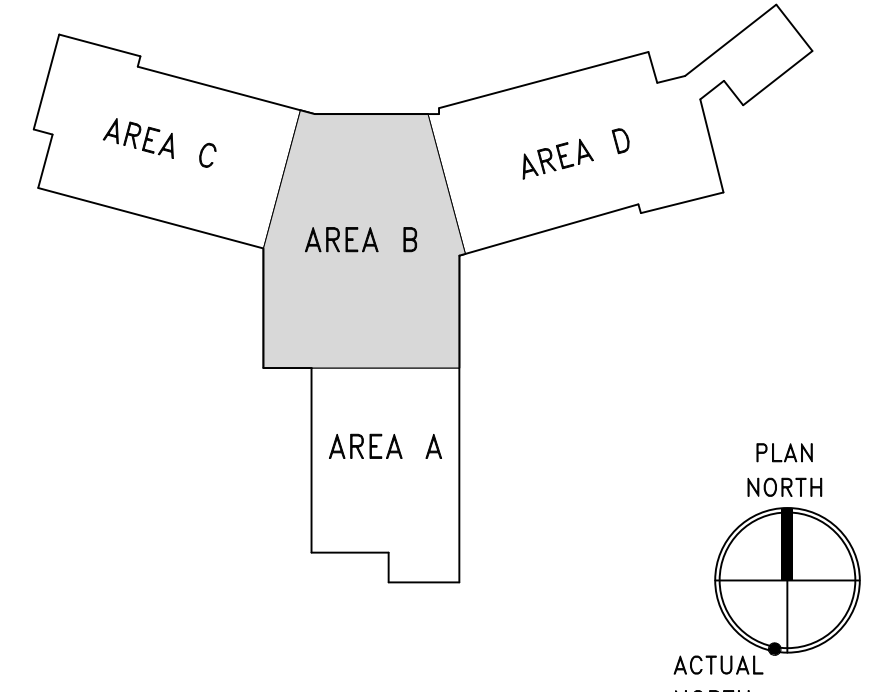
Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

Drawing Number
MP122



GENERAL SHEET NOTES:

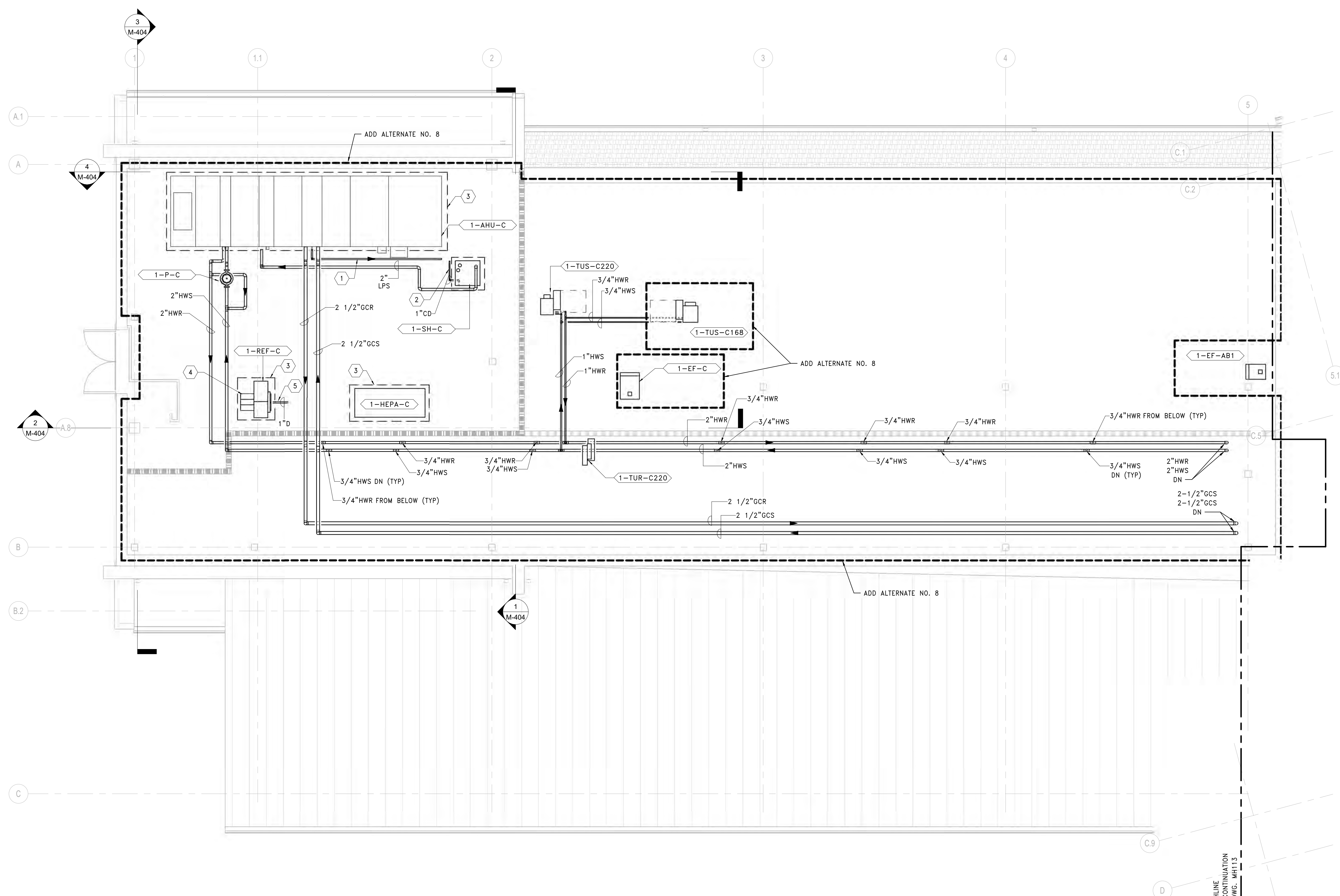
- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
- REFERENCE FLOOR PLANS BELOW FOR HWS/R PIPING CONNECTIONS TO MAINS.
- ALL PIPING VALVES, SUPPORTS, ACCESSORIES, ETC. NOT SHOWN FOR CLARITY. PROVIDE AS REQUIRED.

SHEET KEYNOTES:

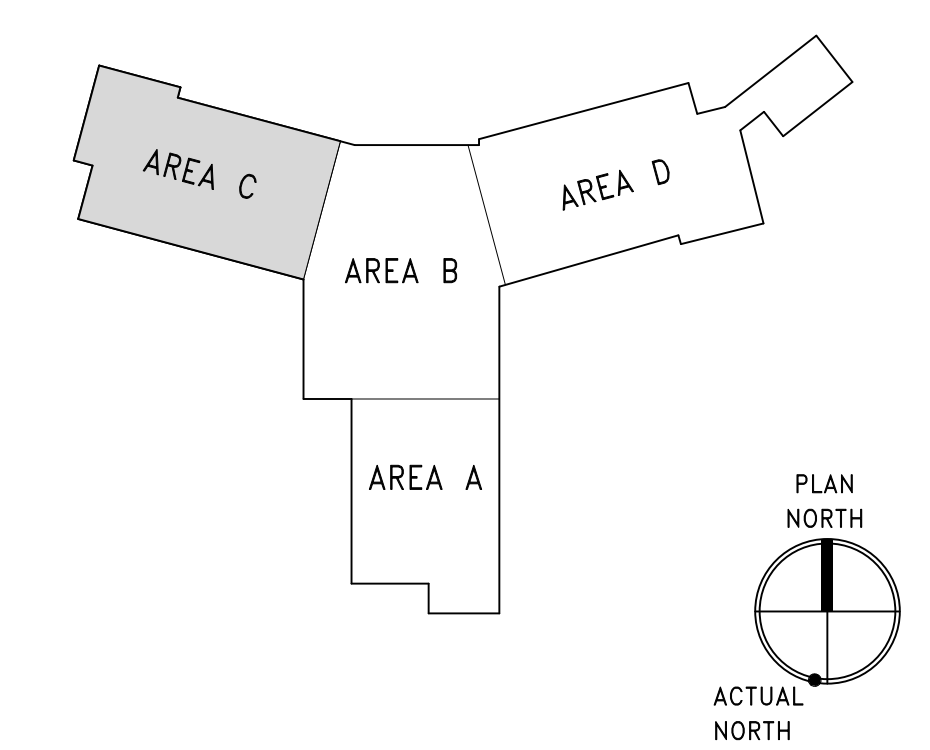
- PROVIDE FULL SIZE CONDENSATE DRAIN PIPING WITH MINIMUM 4" DEEP TRAP AND CLEANOUT. ROUTE TO NEAREST FLOOR DRAIN. MAINTAIN MINIMUM PITCH.
- PROVIDE INLINE CONDENSATE NEUTRALIZATION KIT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. ROUTE TO NEAREST FLOOR DRAIN. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
- 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- PROVIDE FIELD INSTALLED EQUIPMENT SUPPORT PER MECHANICAL DETAIL.
- PROVIDE 1" DRAIN CONNECTION AT BASE OF FAN UNIT. ROUTE TO NEAREST FLOOR DRAIN.

ADD ALTERNATE NO. 8 SHEET NOTES:

- ADD ALTERNATE NO. 8 FIT OUT WESTERN WING. SCOPE INDICATED ON DRAWINGS REPRESENTS ADD ALTERNATE NO. 8.
 - A. BASE BID: AIR HANDLING UNIT (1-AHU-C) AND ASSOCIATED DUCTWORK, FITTINGS, ELBOWS, DAMPER, PIPING, VALVES, CONTROLS, AND ACCESSORIES, ETC. SHALL NOT BE INSTALLED.
 - B. BASE BID: HOT WATER CIRCULATION PUMP (1-P-C) AND ASSOCIATED PIPING, VALVES, ELBOWS, CONTROLS, AND ACCESSORIES, ETC. SERVING 1-AHU-C PREHEAT HOT WATER COIL SHALL NOT BE INSTALLED.
 - C. BASE BID: HEPA EXHAUST FAN (1-HEPA-C) AND RETURN FAN (1-REF-C) SHALL NOT BE INSTALLED.
 - D. BASE BID: BUILDING AUTOMATION SYSTEM (BAS) CONTROL PANEL IN 220 WEST MECH RM SHALL NOT BE INSTALLED. ALL CONTROLS FOR EQUIPMENT IN AREA C SHALL EXTEND FROM BAS PANEL IN ROOM 166 LOW VOLTAGE.
 - E. BASE BID: EXHAUST FANS (1-EF-C AND 1-EF-AB1) SHALL BE INSTALLED.
 - F. BASE BID: SUPPLY TERMINAL UNIT 1-TUS-C168 AND ASSOCIATED PIPING, VALVES, AND ACCESSORIES, ETC. SHALL BE INSTALLED. REFER TO FIRST FLOOR BASE BID WORK FOR CONTINUATION.



1 PIPING PLAN - SECOND FLOOR - AREA C
SCALE: 1/4" = 1'-0"



three inch = one foot
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 three quarter inch = one foot
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| Revisions: | Date: |
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MR PROJECT NO: 0499-0124

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 - AREA C

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

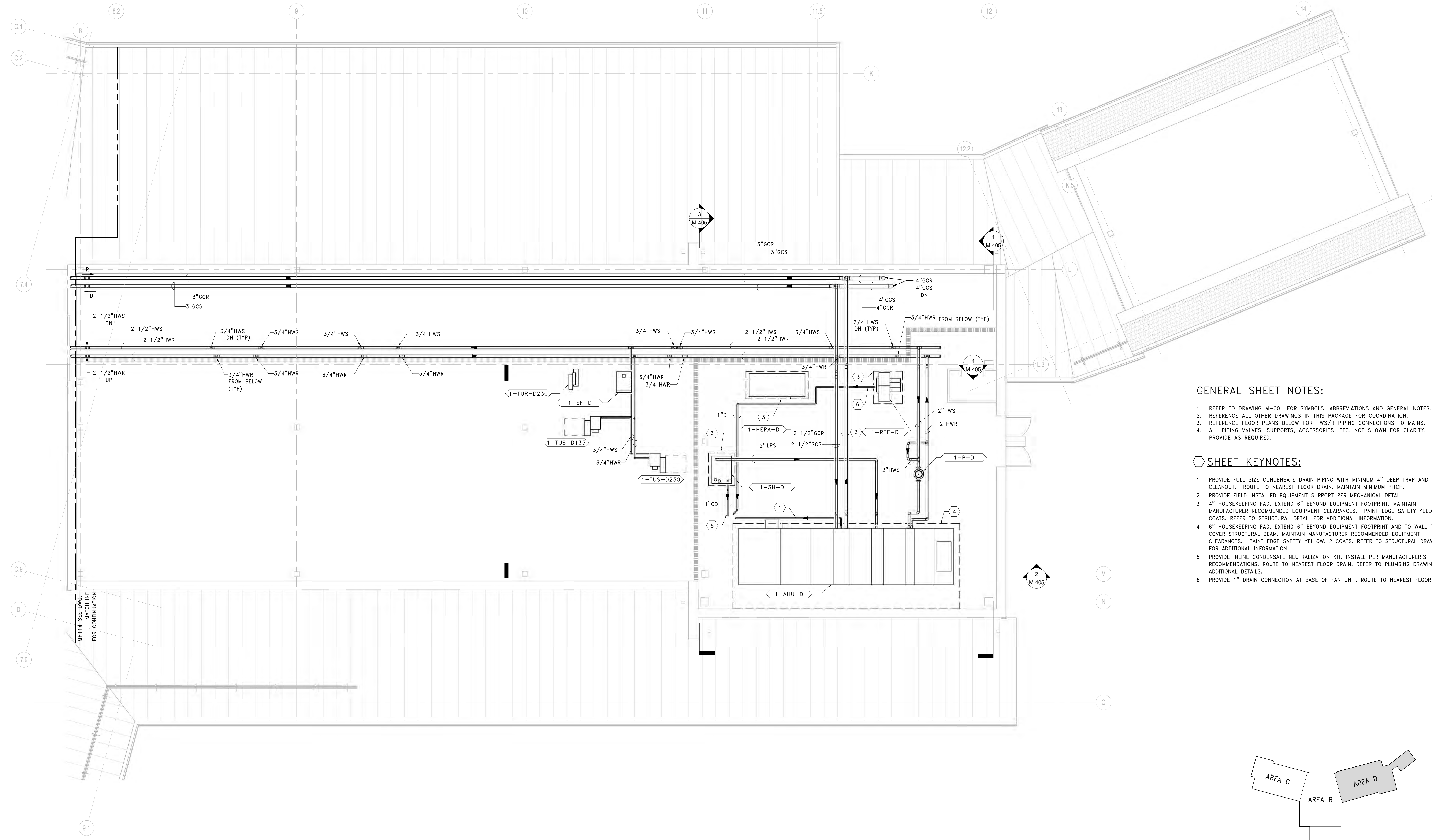
Drawn
MK

Project Number
595-601

Building Number
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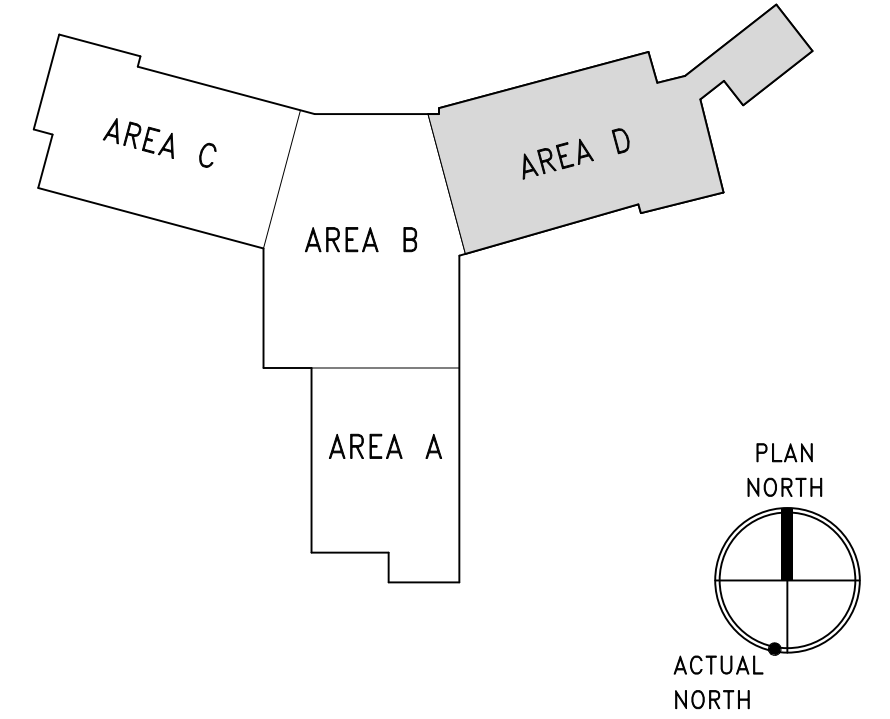
Drawing Number
MP123

three inch = one foot
one and one half inch = one foot
one inch = one foot
three quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



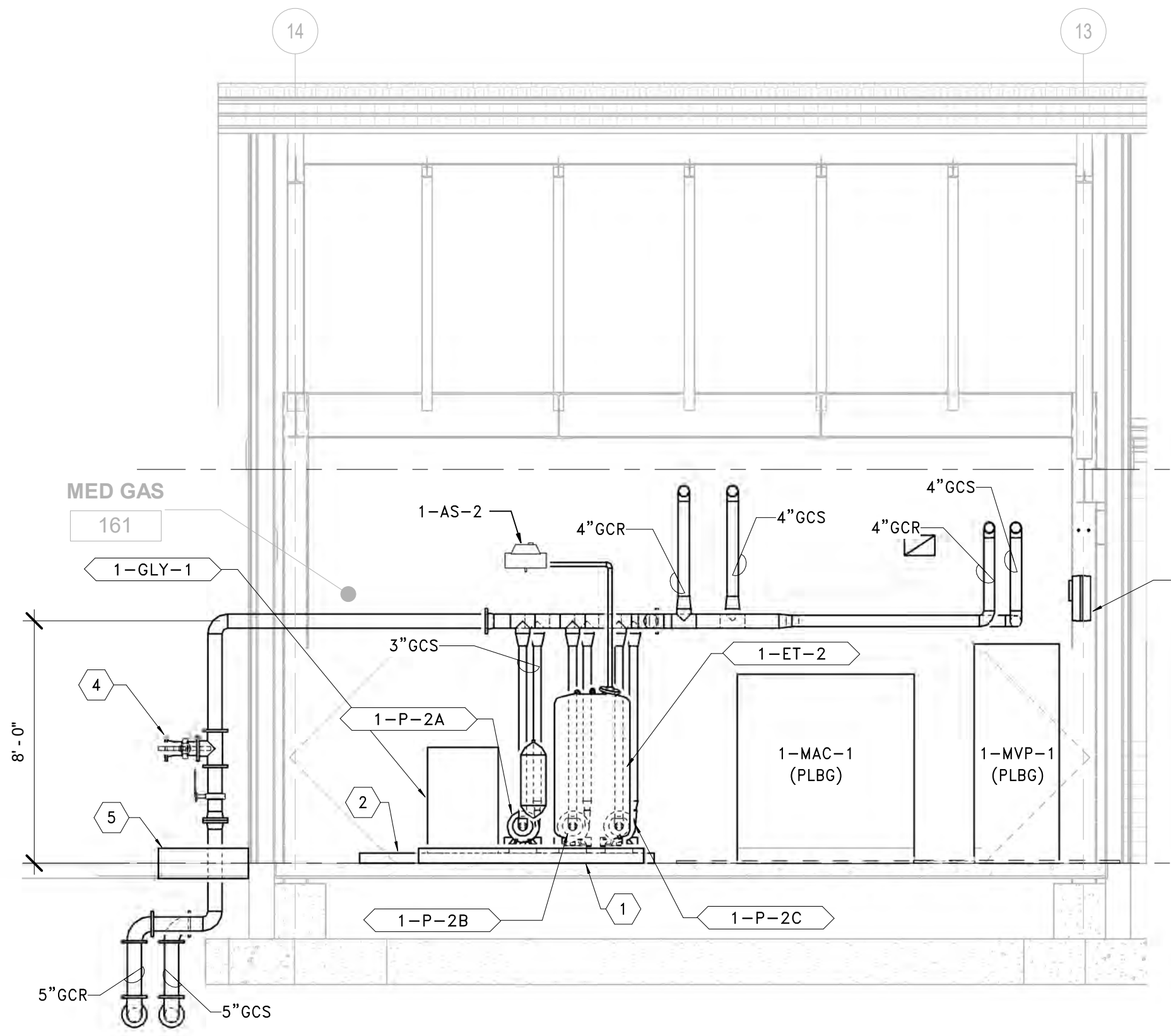
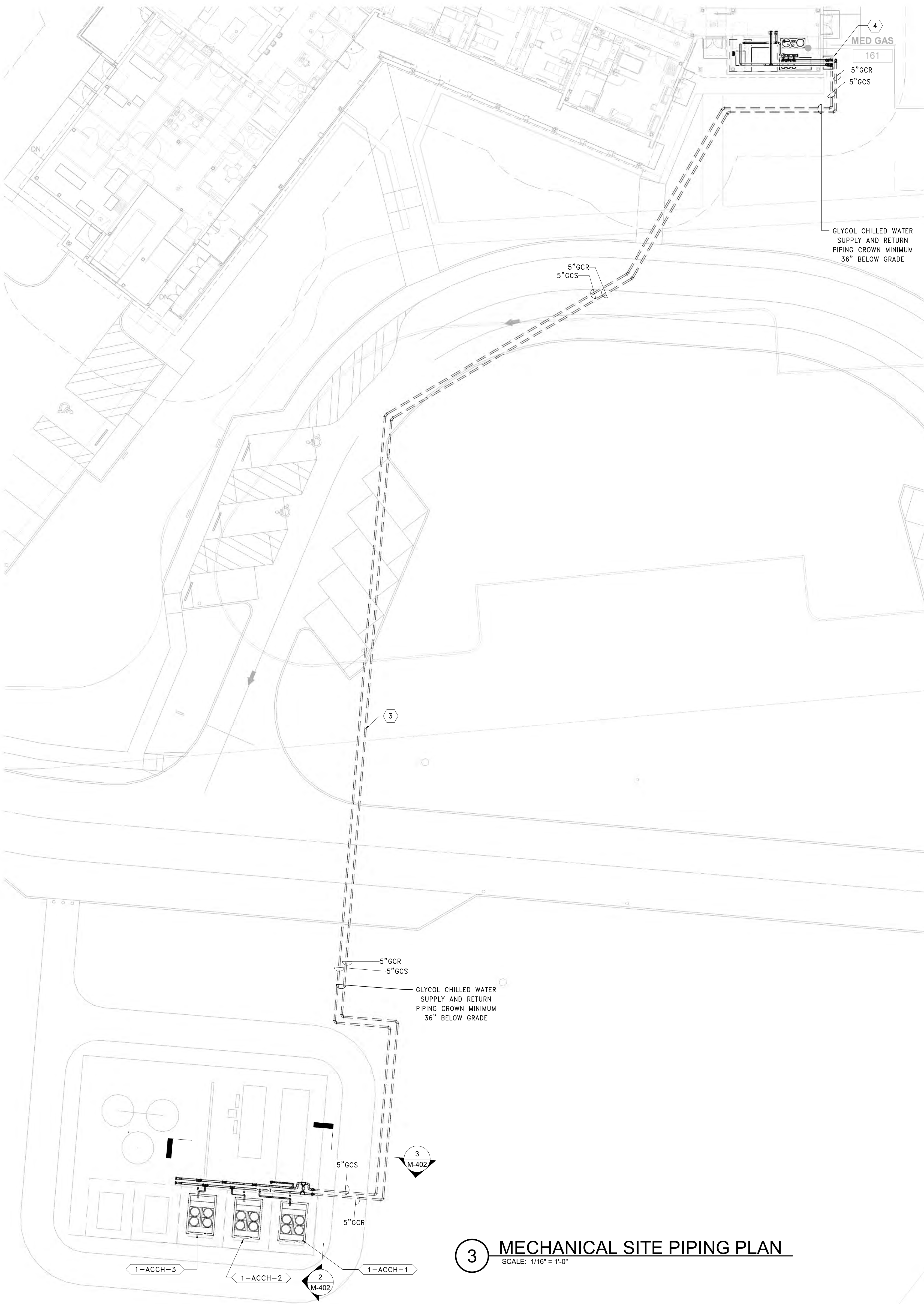
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 - REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
 - REFERENCE FLOOR PLANS BELOW FOR HWS/R PIPING CONNECTIONS TO MAINS.
 - ALL PIPING VALVES, SUPPORTS, ACCESSORIES, ETC. NOT SHOWN FOR CLARITY. PROVIDE AS REQUIRED.
- SHEET KEYNOTES:**
- PROVIDE FULL SIZE CONDENSATE DRAIN PIPING WITH MINIMUM 4" DEEP TRAP AND CLEANOUT. ROUTE TO NEAREST FLOOR DRAIN. MAINTAIN MINIMUM PITCH.
 - PROVIDE FIELD INSTALLED EQUIPMENT SUPPORT PER MECHANICAL DETAIL.
 - 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
 - 6" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT AND TO WALL TO COVER STRUCTURAL BEAM. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
 - PROVIDE IN-LINE CONDENSATE NEUTRALIZATION KIT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. ROUTE TO NEAREST FLOOR DRAIN. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
 - PROVIDE 1" DRAIN CONNECTION AT BASE OF FAN UNIT. ROUTE TO NEAREST FLOOR DRAIN.

1 PIPING PLAN - SECOND FLOOR - AREA D
SCALE: 1/4" = 1'-0"

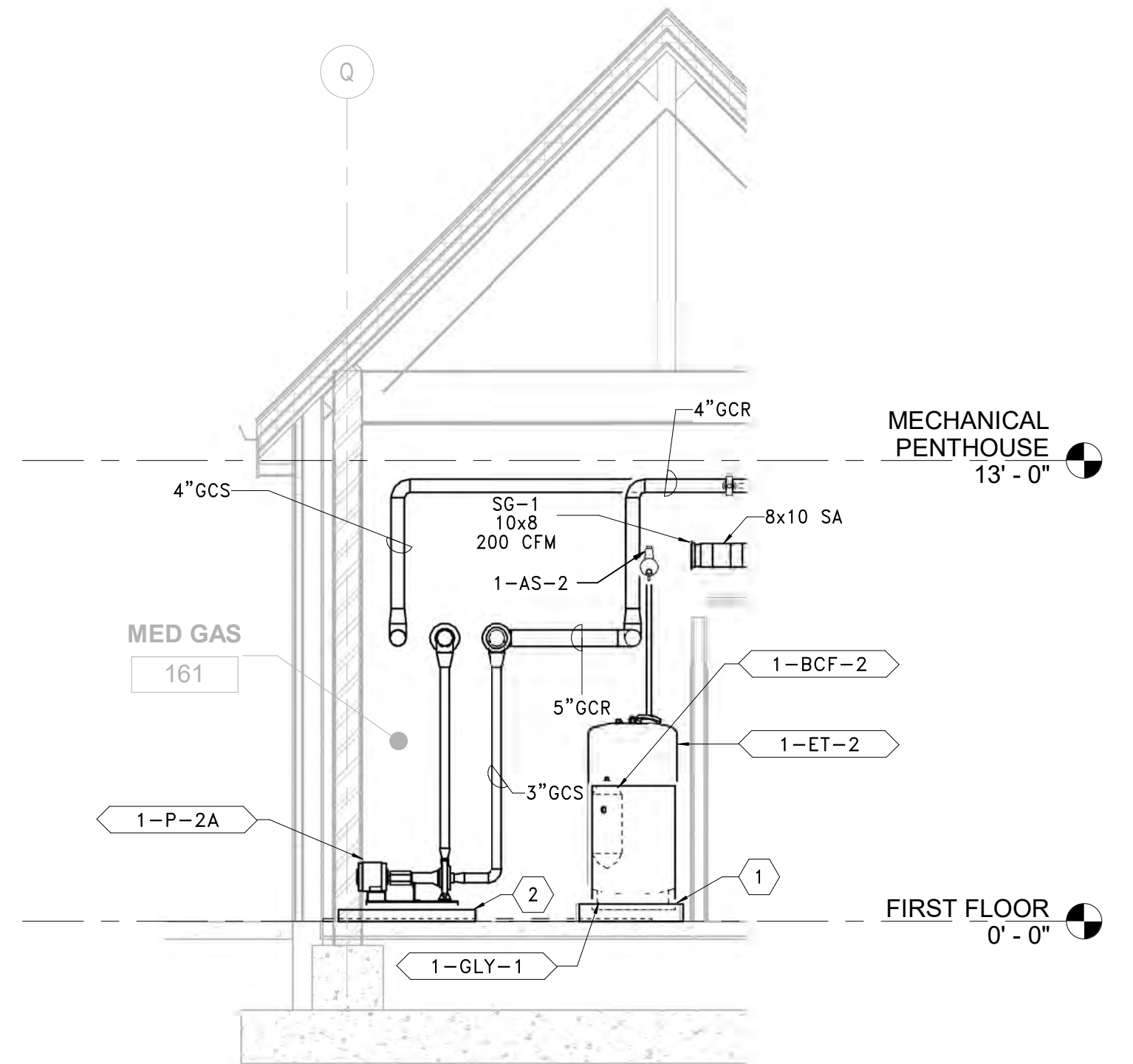


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|--|--|-------|---|--|--|--|---|--|---|--|---|--|----------------------------------|--|--------------------|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER. 28/02/23 15:10:38 PM | CONSULTANT ARRAY architects, INC. ARRAY-ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 | | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9002 MR PROJECT NO. 0499-0124 | | MILLER-REMICK LLC PROFESSIONAL ENGINEER Office of Construction and Facilities Management U.S. Department of Veterans Affairs | | Drawing Title MECHANICAL PIPING PLAN SECOND FLOOR - AREA D Approved: | | Phase BID DOCUMENTS FULLY SPRINKLERED | | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) | | Project Number 595-601 | | |
| | Revisions: | Date: | Gordon PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | | Building Number CLC-1 | | Drawing Number MP124 | | Location LEBANON, PENNSYLVANIA | | Issue Date 2023-02-09 | | Checked PK | | Drawn MK |

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 one quarter inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one eighth inch = one foot
 one eighth inch = one foot



1 161 MED GAS SECTION NORTH
 SCALE: 1/4" = 1'-0"



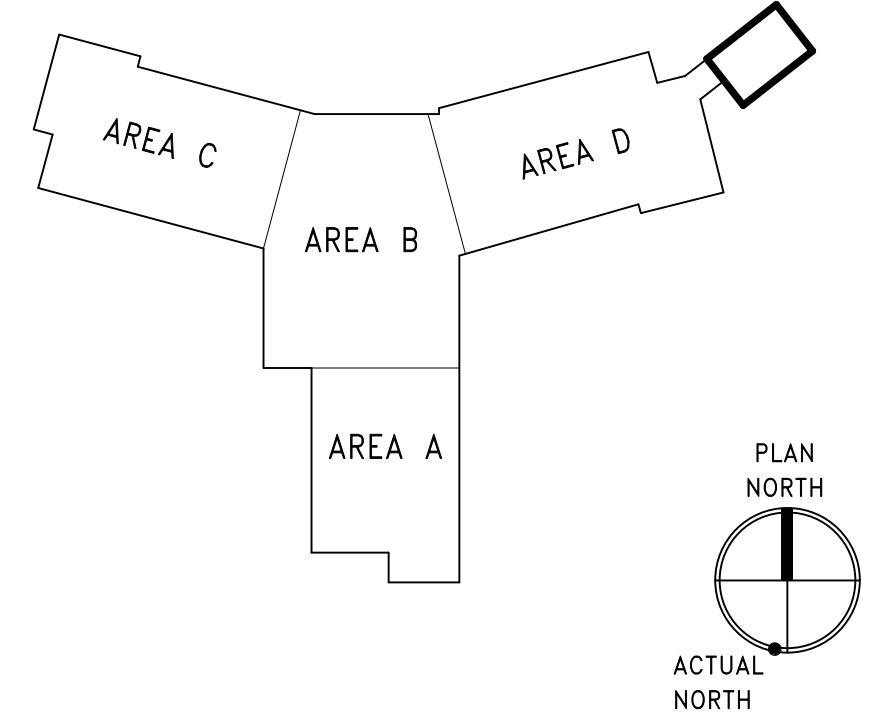
2 161 MED GAS SECTION WEST
 SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES:

1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.

SHEET KEYNOTES:

1. 6" HOUSEKEEPING PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
2. 4" HOUSEKEEPING PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
3. PRE-FABRICATED BURIED GLYCOL CHILLED WATER SUPPLY AND RETURN PIPING BELOW FROST LINE. BOB PERMAPPE XTRU-THERM GOLD OR APPROVED EQUAL PIPE CROWN DEPTH MINIMUM 36". REFER TO SITE PLAN MS101 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. PROVIDE GLYCOL CHILLED WATER BYPASS BUTTERFLY VALVE WITH BLIND FLANGE FOR TEMPORARY/MAINTENANCE AND EMERGENCY CONNECTION. REFER TO GLYCOL CHILLED WATER FLOW DIAGRAM FOR ADDITIONAL DETAILS.
5. EXTERIOR CONCRETE EQUIPMENT PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.



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| Revisions: | Date: |
| | |

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 www.gordon.us.com

ENGINEER OF RECORD

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 M.E.P. & Structural Engineering
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 CHERRY HILL, NEW JERSEY 08034
 PHONE: (856)429-4000
 FAX: (856)429-9002
 MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL CHILLED WATER CONNECTION SITE PLAN & MECHANICAL SECTIONS

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

Drawing Number
M-401

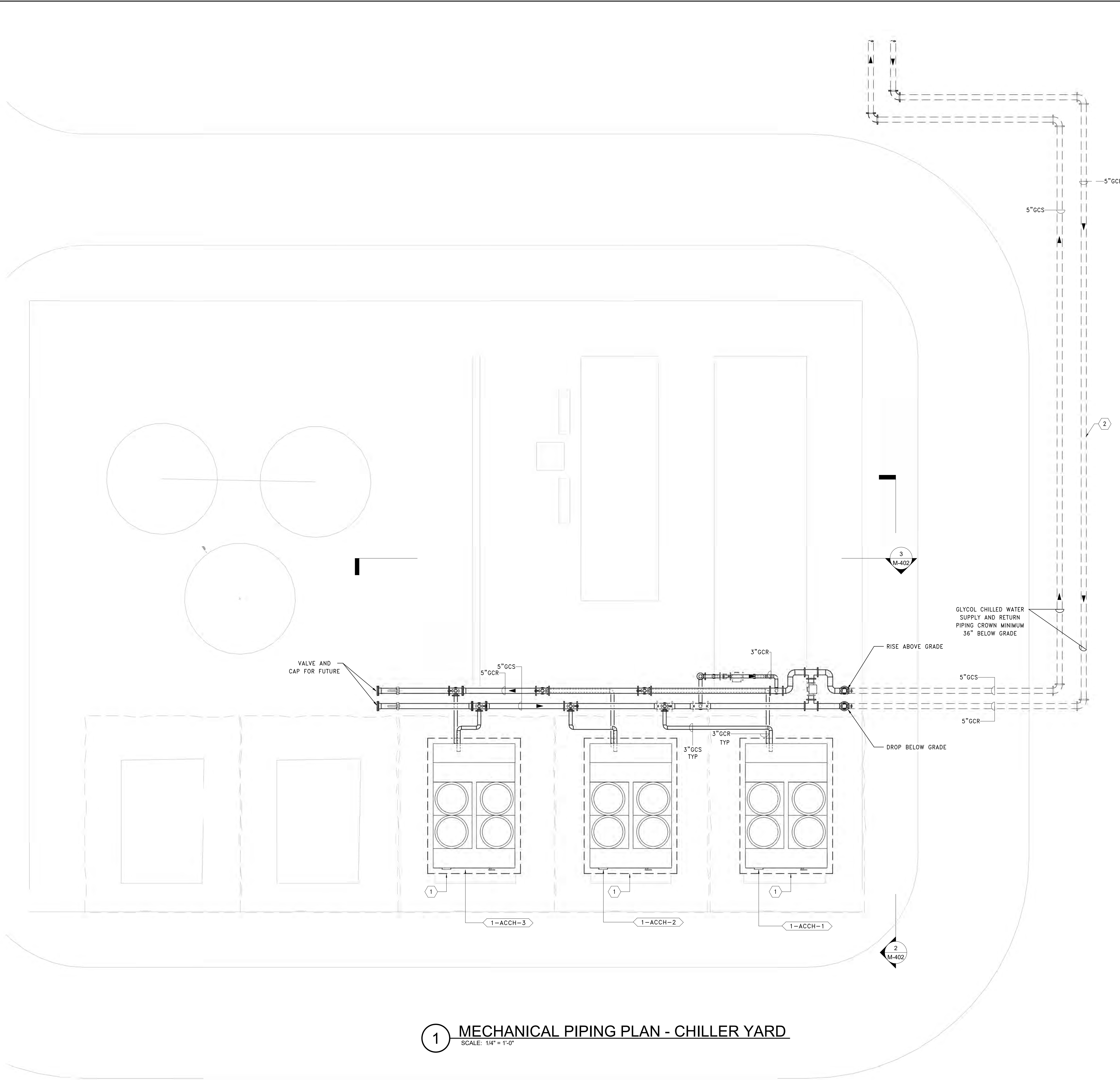
GENERAL SHEET NOTES:

- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.

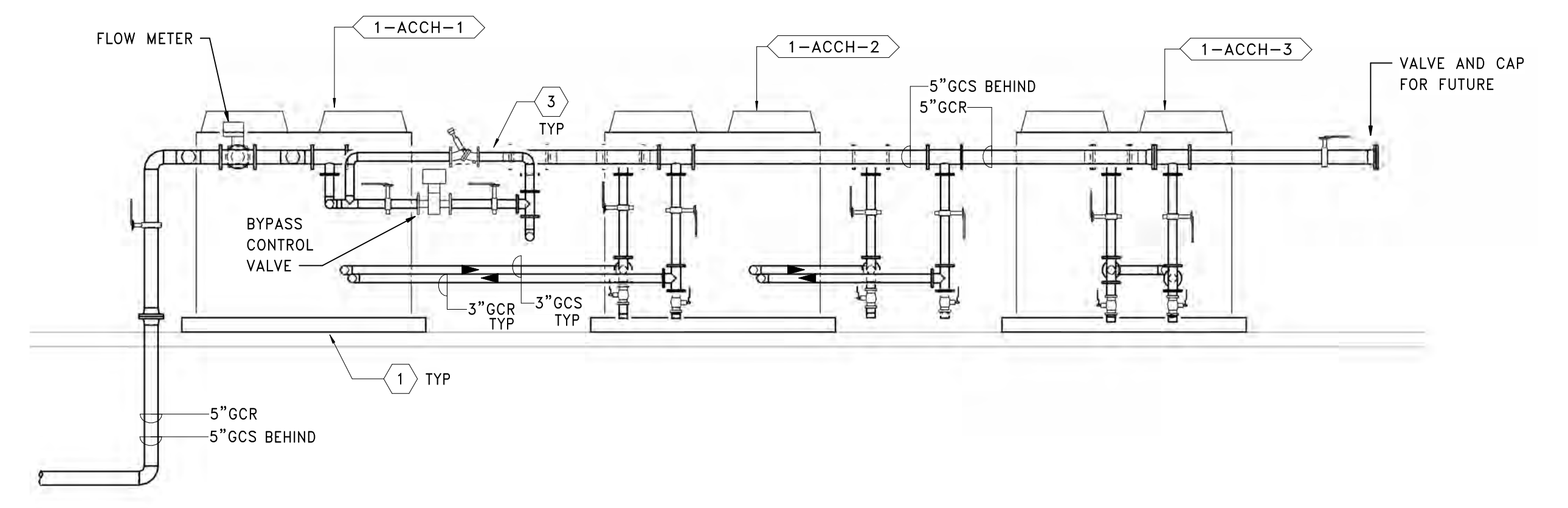
SHEET KEYNOTES:

- EXTERIOR CONCRETE EQUIPMENT PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- PRE-FABRICATED BURIED GLYCOL CHILLED WATER SUPPLY AND RETURN PIPING BELOW FROST LINE. BOD: PERMAPIPE XTRU-THERM GOLD OR APPROVED EQUAL. PIPE CROWN DEPTH MINIMUM 36". REFER TO SITE PLAN MS101 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- PROVIDE PIPING SUPPORT AND HEADER MANIFOLD PER SPECIFICATIONS.

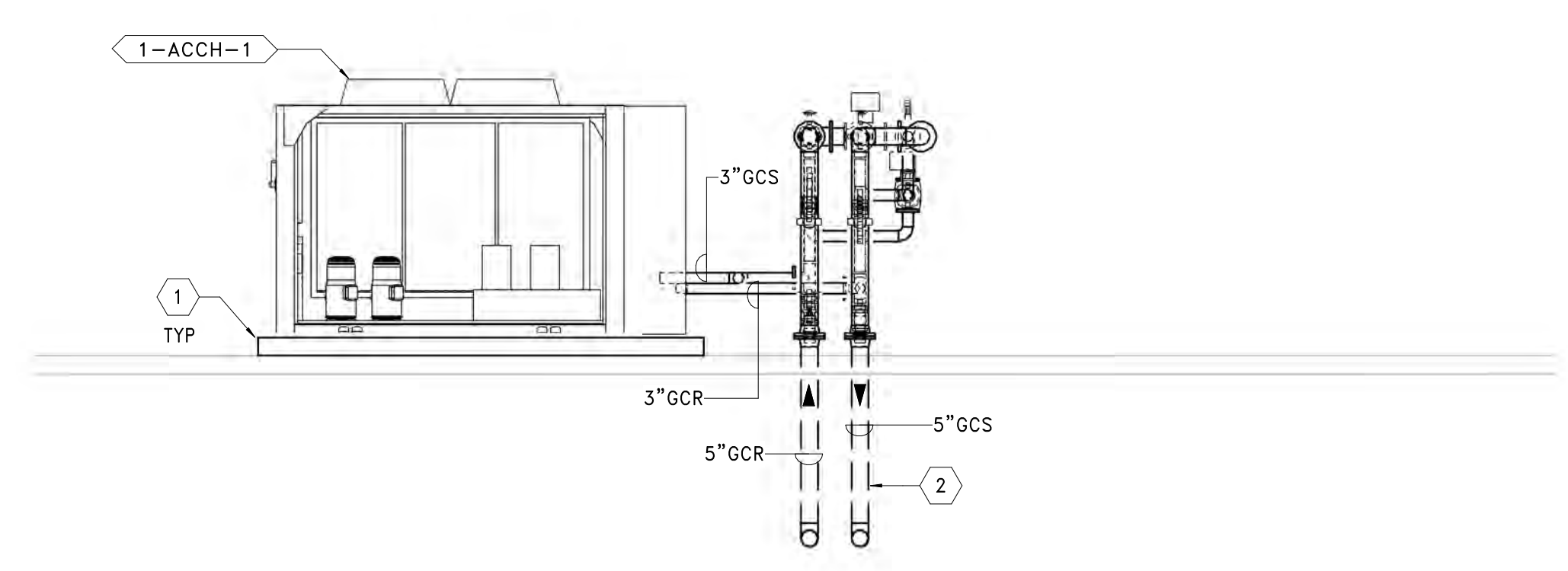
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 one half inch = one foot
 three eighths inch = one foot
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 one eighth inch = one foot
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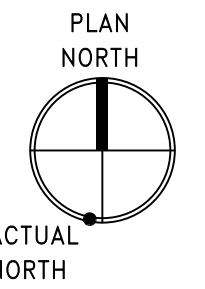
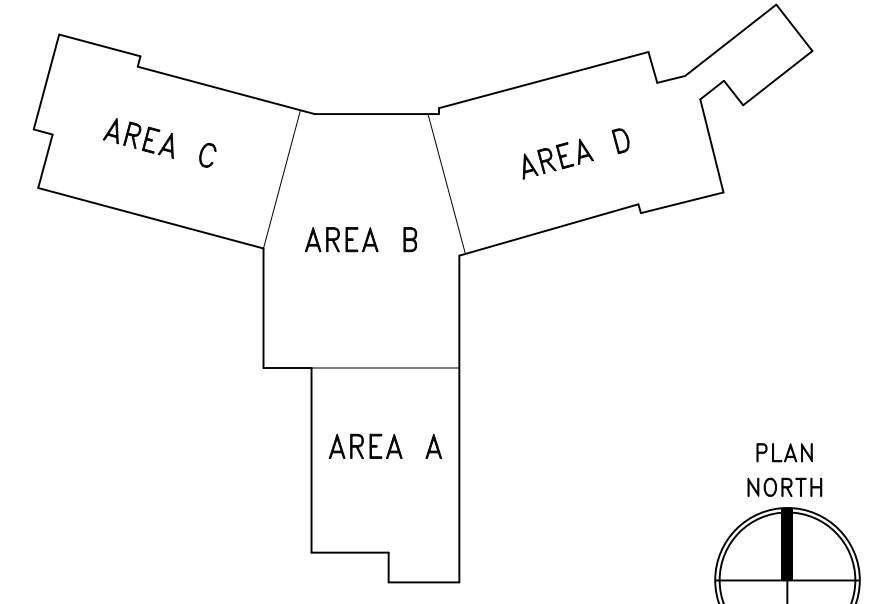
1 MECHANICAL PIPING PLAN - CHILLER YARD
 SCALE: 1/4" = 1'-0"



3 CHILLER YARD SECTION NORTH
 SCALE: 1/4" = 1'-0"



2 CHILLER YARD SECTION EAST
 SCALE: 1/4" = 1'-0"



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| Revisions: | Date: |
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 PHONE: (856)429-4000
 FAX: (856)429-9002
 MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
 PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL BUILDING 1 & 2 CHILLER YARD

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

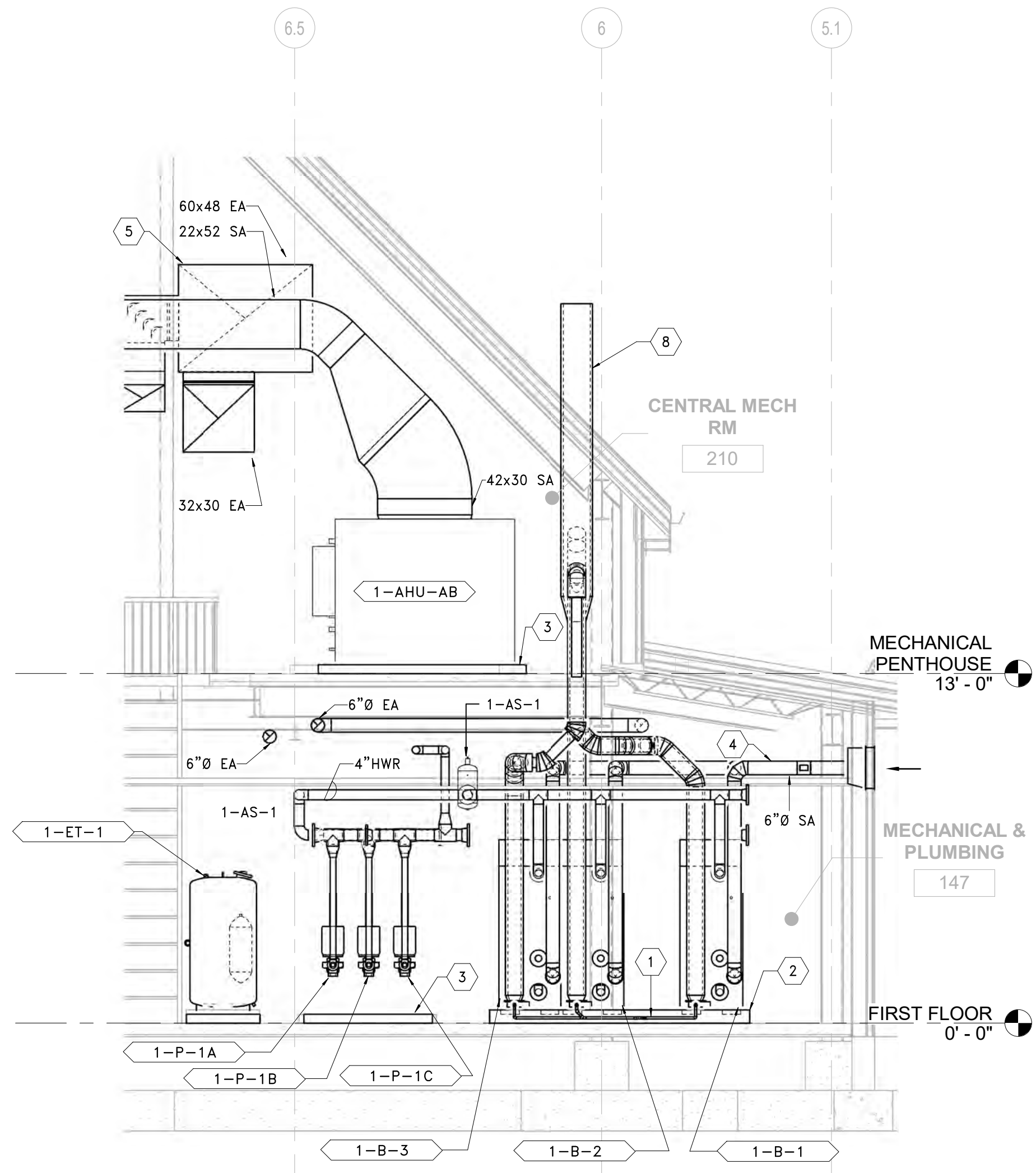
Drawing Number
M-402

GENERAL SHEET NOTES:

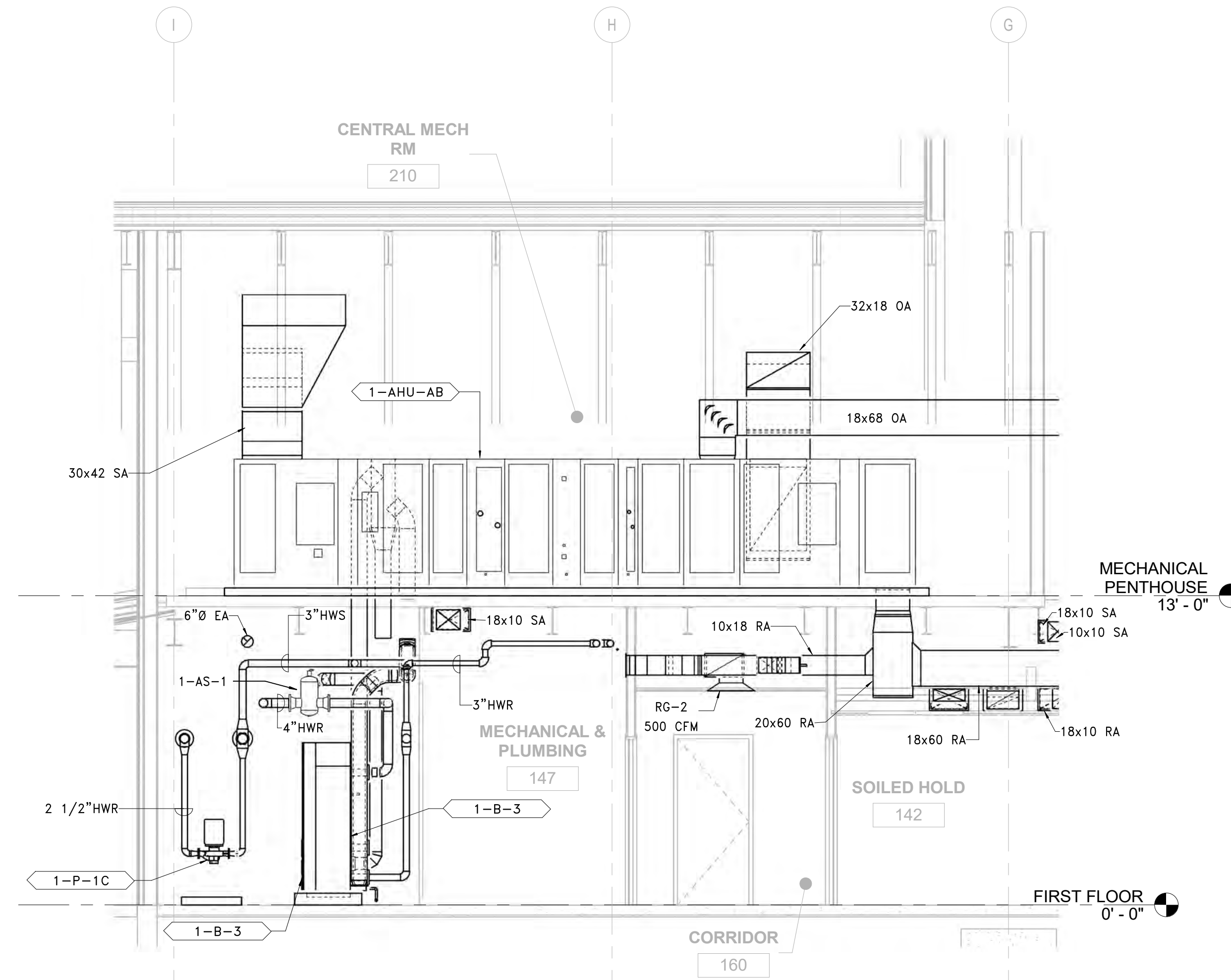
- REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
- REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
- REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

SHEET KEYNOTES:

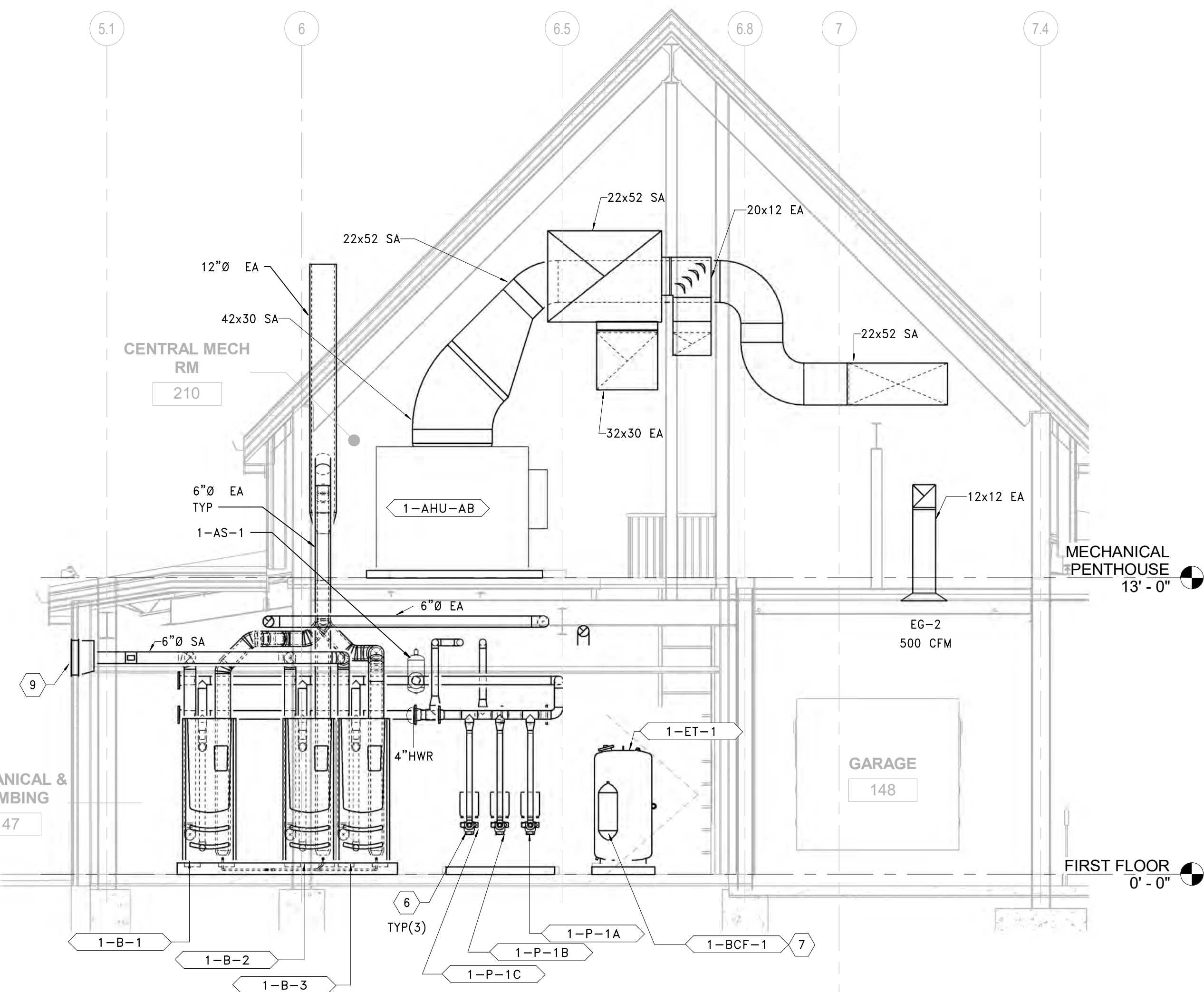
- PROVIDE INLINE CONDENSATE NEUTRALIZATION KIT PER BOILER. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. ROUTE TO NEAREST FLOOR DRAIN. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
- 6" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
- 6" DIA BOILER COMBUSTION AIR INTAKE DUCT SHALL BE STANDARD 22 GA G-90 GALVANIZED SINGLE WALL CONSTRUCTION WITH 2" INSULATED JACKET. SIZE AND ROUTE PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE LOW-LEAKAGE MOTORIZED AUTOMATIC CONTROL DAMPER. TYPICAL (3). INTEGRATE WITH BAS.
- 1-AHU-AB ALUMINUM EXHAUST LOUVER BY ARCHITECT; BOD: 60" x 48" DUCTED CONNECTION; 11.6 SQ FT FREE AREA THRU WALL. PROVIDE INSULATED BLANK OFFS FOR UNUSED LOUVER PORTIONS. PROVIDE SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- PROVIDE FIELD INSTALLED EQUIPMENT SUPPORT PER MECHANICAL DETAIL.
- BYPASS CHEMICAL FEEDER SET ON FLOOR WITH LEG SUPPORTS SET WITH ANCHOR BOLTS. REFER TO MECHANICAL DETAILS FOR ADDITIONAL INFORMATION.
- PROVIDE 6" TO 12" AL39-4C DOUBLE WALL COMMON VENT BOILER FLUE EXHAUST THRU ROOF. TERMINATE MINIMUM 48" ABOVE ROOF WITH RAIN CAP. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ALUMINUM BOILER COMBUSTION AIR INTAKE LOUVER BY ARCHITECT; BOD: 36" x 18"; PROVIDE INSULATED BLANK OFFS FOR UNUSED LOUVER PORTIONS AND SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. REFER TO ARCHITECTURAL ELEVATION DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. FINISH BY ARCHITECT.
- PROVIDE CONCENTRIC STEAM HUMIDIFIER VENT KIT THRU ROOF. SIZE AND ROUTING PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE MIN. 48" ABOVE ROOF. FINISH BY ARCHITECT.



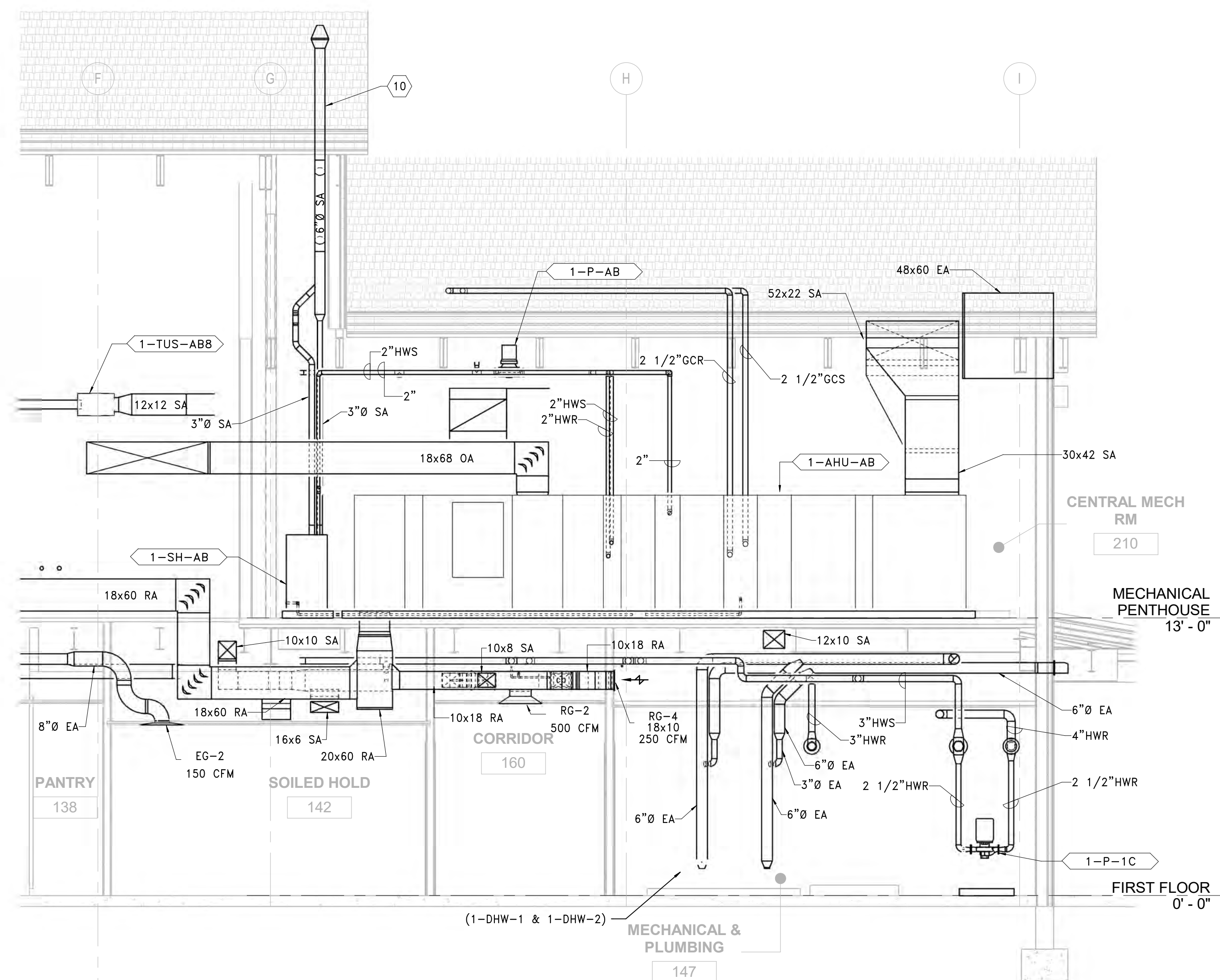
1 147 BOILER RM & 210 CENTRAL MECH RM SECTION NORTH
SCALE: 1/4" = 1'-0"



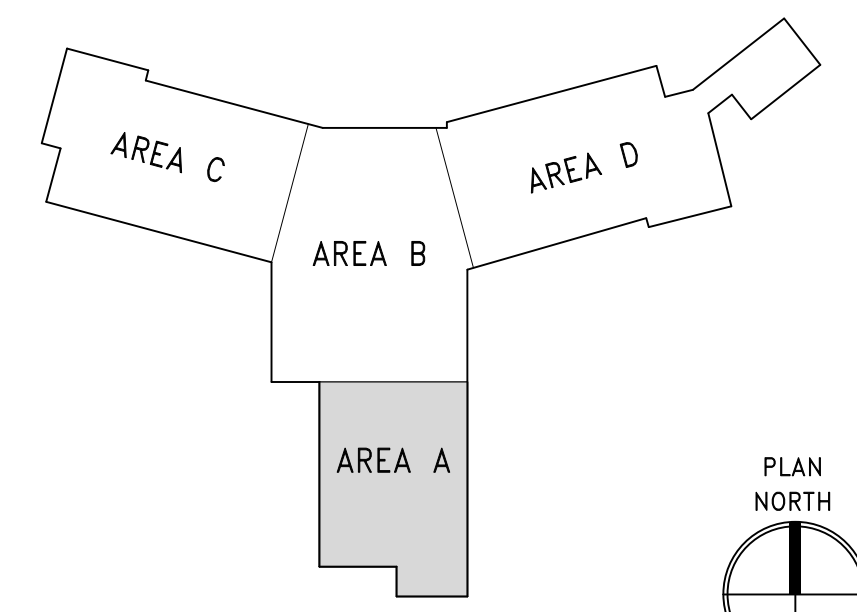
2 147 BOILER RM & 210 CENTRAL MECH RM SECTION EAST
SCALE: 1/4" = 1'-0"



3 147 BOILER RM & 210 CENTRAL MECH RM SECTION SOUTH
SCALE: 1/4" = 1'-0"



4 147 BOILER RM & 210 CENTRAL MECH RM SECTION WEST
SCALE: 1/4" = 1'-0"



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| Revisions: | Date: |
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CHERRY HILL, NEW JERSEY 08034
PHONE: (856)439-4000
FAX: (856)439-9002
MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL SECTIONS

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

Drawing Number
M-403

GENERAL SHEET NOTES:

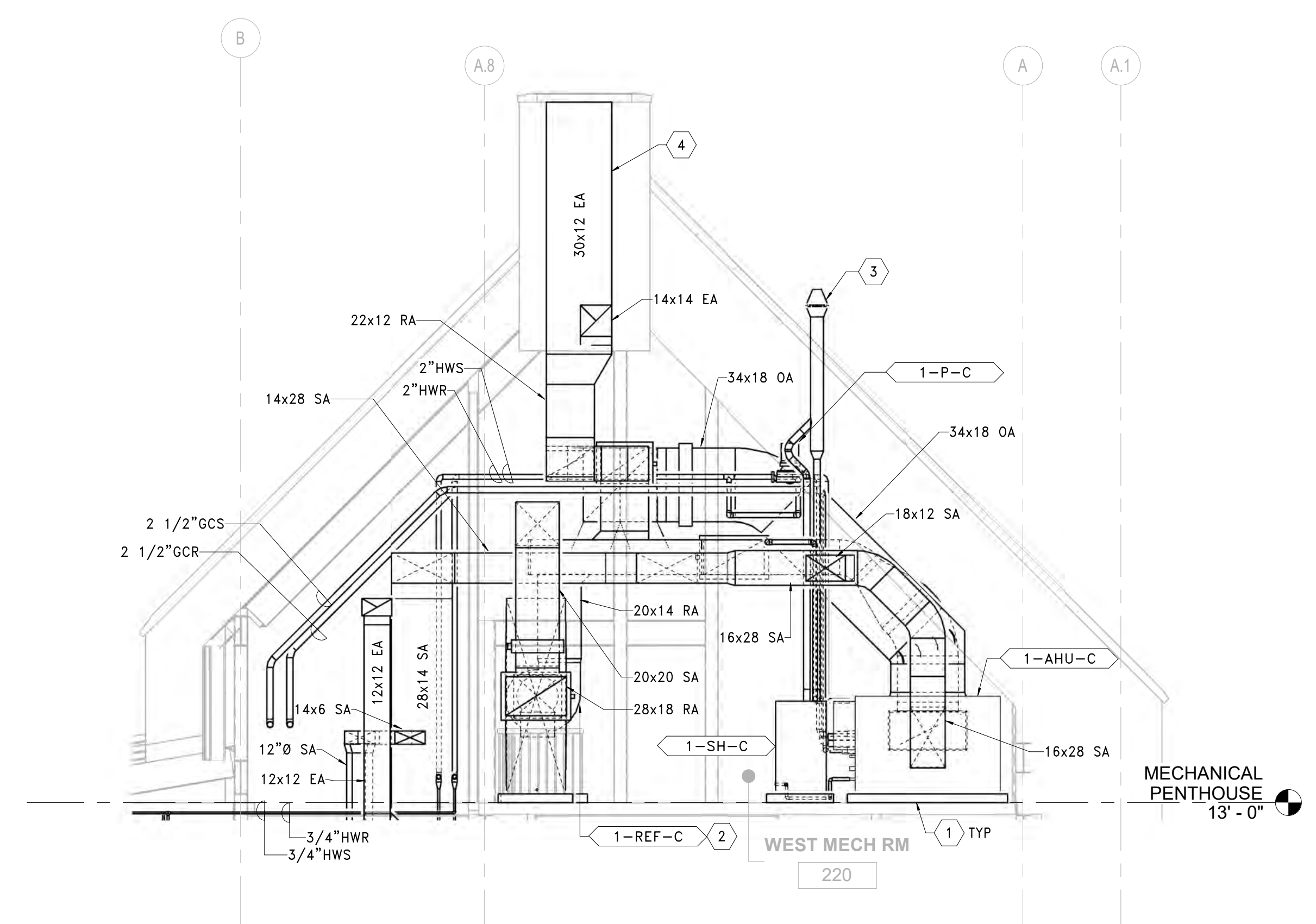
1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFERENCE ALL OTHER DRAWINGS IN THIS PACKAGE FOR COORDINATION.
3. REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

SHEET KEYNOTES:

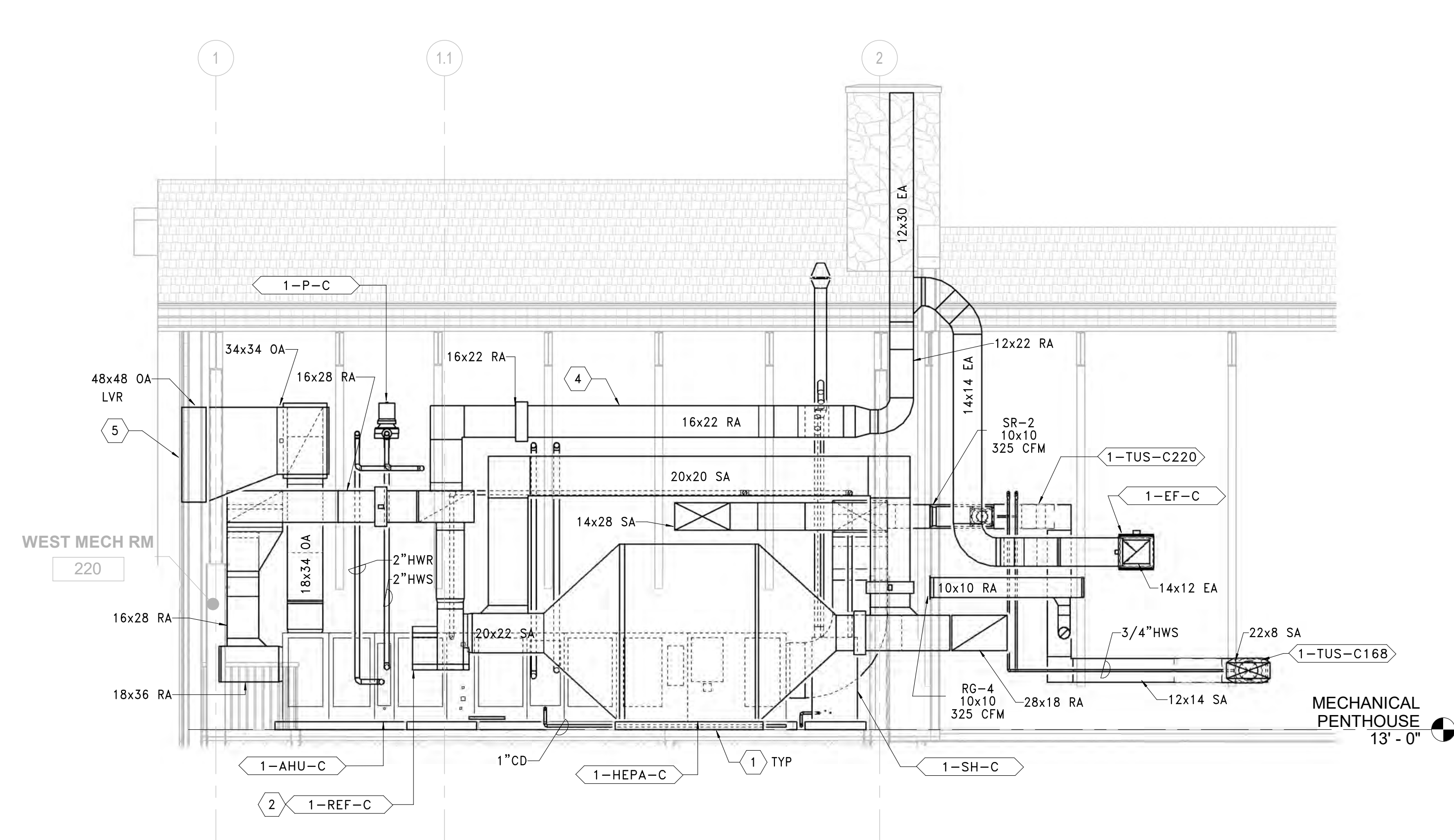
1. 4" HOUSEKEEPING PAD, EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
2. PROVIDE FIELD INSTALLED EQUIPMENT SUPPORT PER MECHANICAL DETAIL.
3. PROVIDE CONCENTRIC STEAM HUMIDIFIER VENT KIT THRU ROOF. SIZE AND ROUTING PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE MIN. 48" ABOVE ROOF. FINISH BY ARCHITECT.
4. PROVIDE ALUMINIZED CHIMNEY EXHAUST DUCTWORK DOWNSTREAM OF REF FAN AND UP THRU CHIMNEY AS INDICATED. ROUTE DUCTWORK WITH DOWNWARD PITCH TOWARD FAN 1/8 INCH PER FOOT FOR DRAINAGE.
5. 1-AHU-C ALUMINUM OA INTAKE LOUVER BY ARCHITECT; BOD: 48" x 48" DUCTED CONNECTION; 6.0 SQ FT FREE AREA THRU WALL. PROVIDE INSULATED BLANK OFFS FOR UNUSED LOUVER PORTIONS. PROVIDE SHEETMETAL RAIN PLENUM WITH 15 DEG PITCH. PROVIDE SPLIT PANTS FITTING TO ACCOMMODATE STRUCTURAL POST. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. FINISH BY ARCHITECT.

ADD ALTERNATE NO. 8 SHEET NOTES:

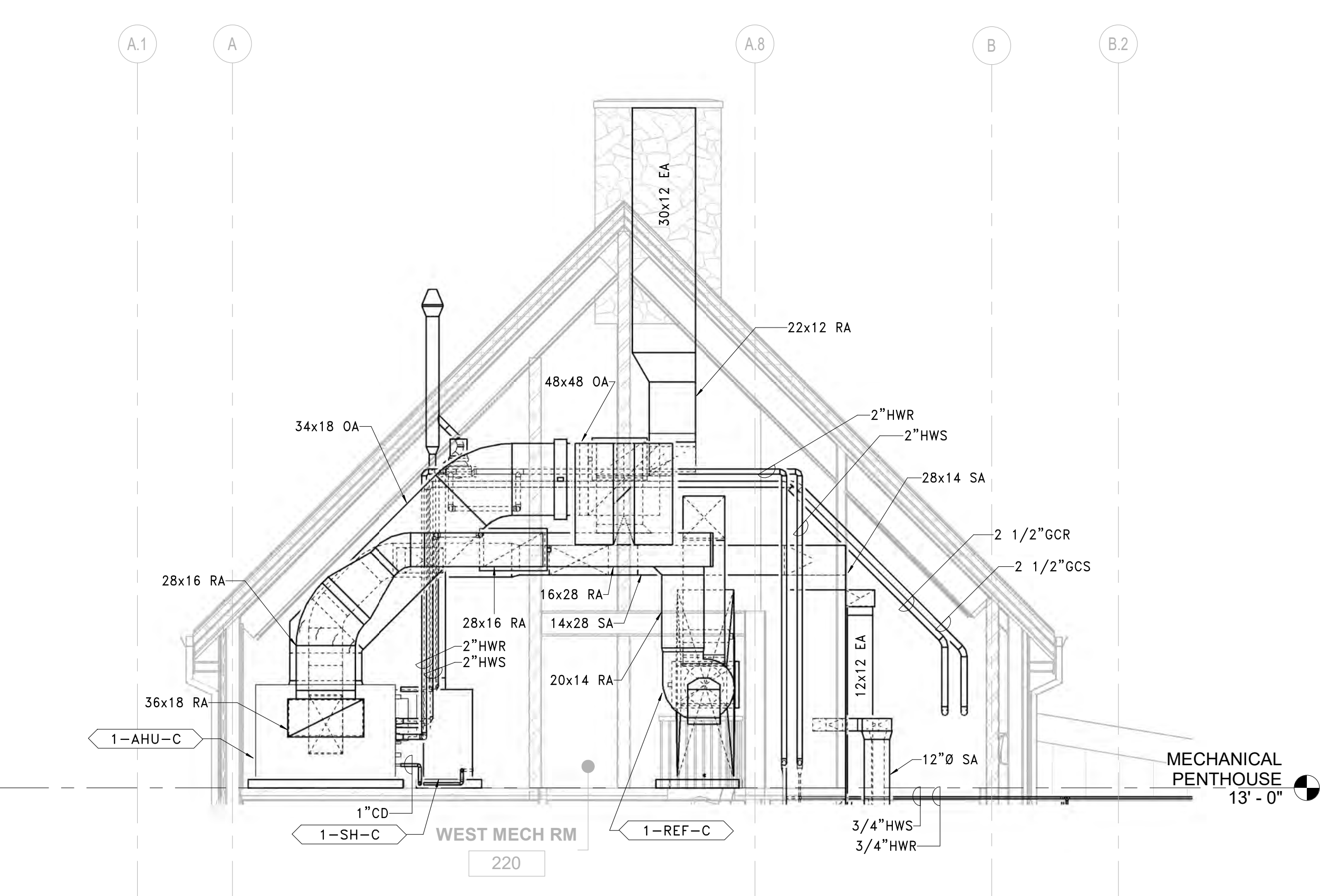
1. ADD ALTERNATE NO. 8 FIT OUT WESTERN WING, SCOPE INDICATED ON DRAWINGS REPRESENTS ADD ALTERNATE NO. 8.
- A. REFER TO AREA C MECHANICAL DUCTWORK AND PIPING FLOOR PLANS FOR BASE BID VS. ADD ALTERNATE NO. 8 SCOPE OF WORK. COORDINATE REQUIREMENTS WITH ALL TRADES.



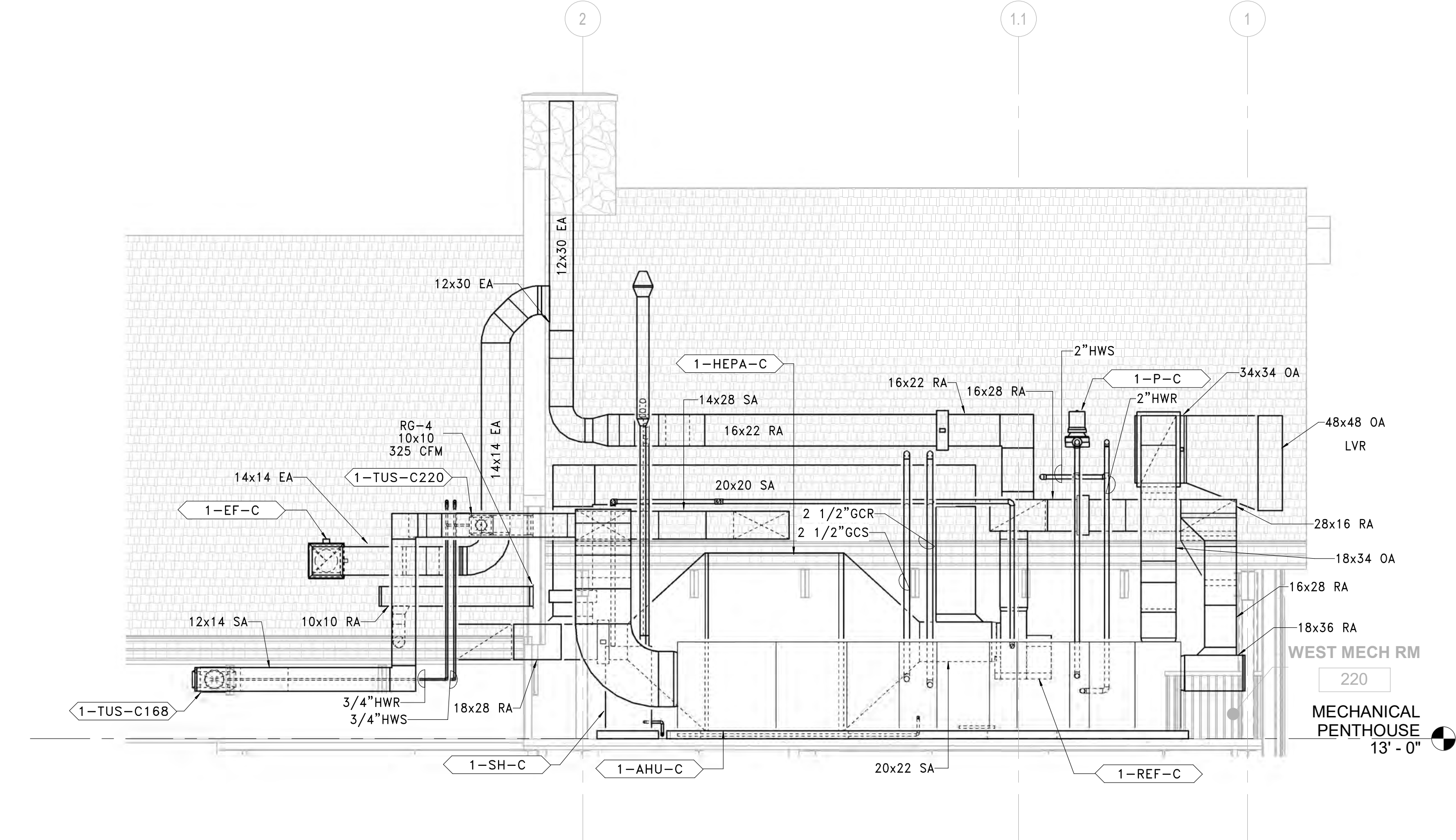
1 220 WEST MECH RM SECTION EAST
SCALE: 1/4" = 1'-0"



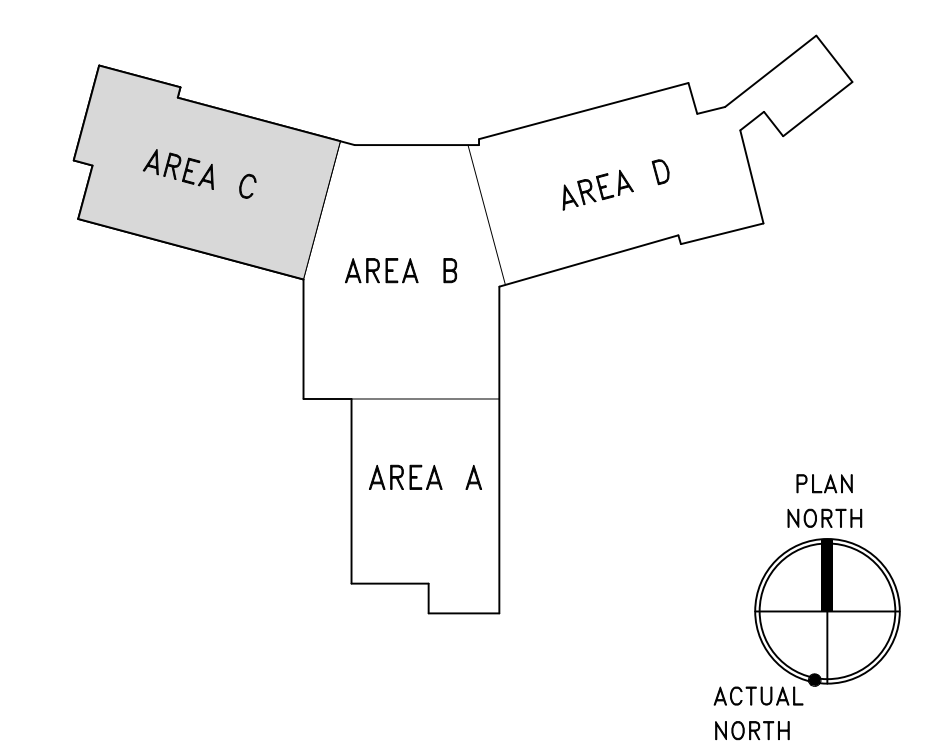
2 220 WEST MECH RM SECTION SOUTH
SCALE: 1/4" = 1'-0"



3 220 WEST MECH RM SECTION WEST
SCALE: 1/4" = 1'-0"



4 220 WEST MECH RM SECTION NORTH
SCALE: 1/4" = 1'-0"



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|---|---|--|--|--|---|---|---|
| PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER Revisions: _____ Date: _____ | CONSULTANT ARRAY ARCHITECTS.COM 1 West Elm Street, Ste 500 Conshohocken, PA 19428 o: 610-270-0599 f: 601-270-0995 Gordon 148 S Queen St, Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | ENGINEER OF RECORD Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-9002 MR PROJECT NO: 0499-0124 | MILLER-REMICK LLC PROFESSIONAL ENGINEER Office of Construction and Facilities Management U.S. Department of Veterans Affairs | Drawing Title MECHANICAL SECTIONS Approved: _____ | Phase BID DOCUMENTS FULLY SPRINKLERED | Project Title CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC) Location LEBANON, PENNSYLVANIA | Project Number 595-601 Building Number CLC-1 Drawing Number M-404 |
| | | | | Issue Date 2023-02-09 | Checked PK | Drawn MK | |

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A
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1 2 3 4 5 6 7 8 9 10

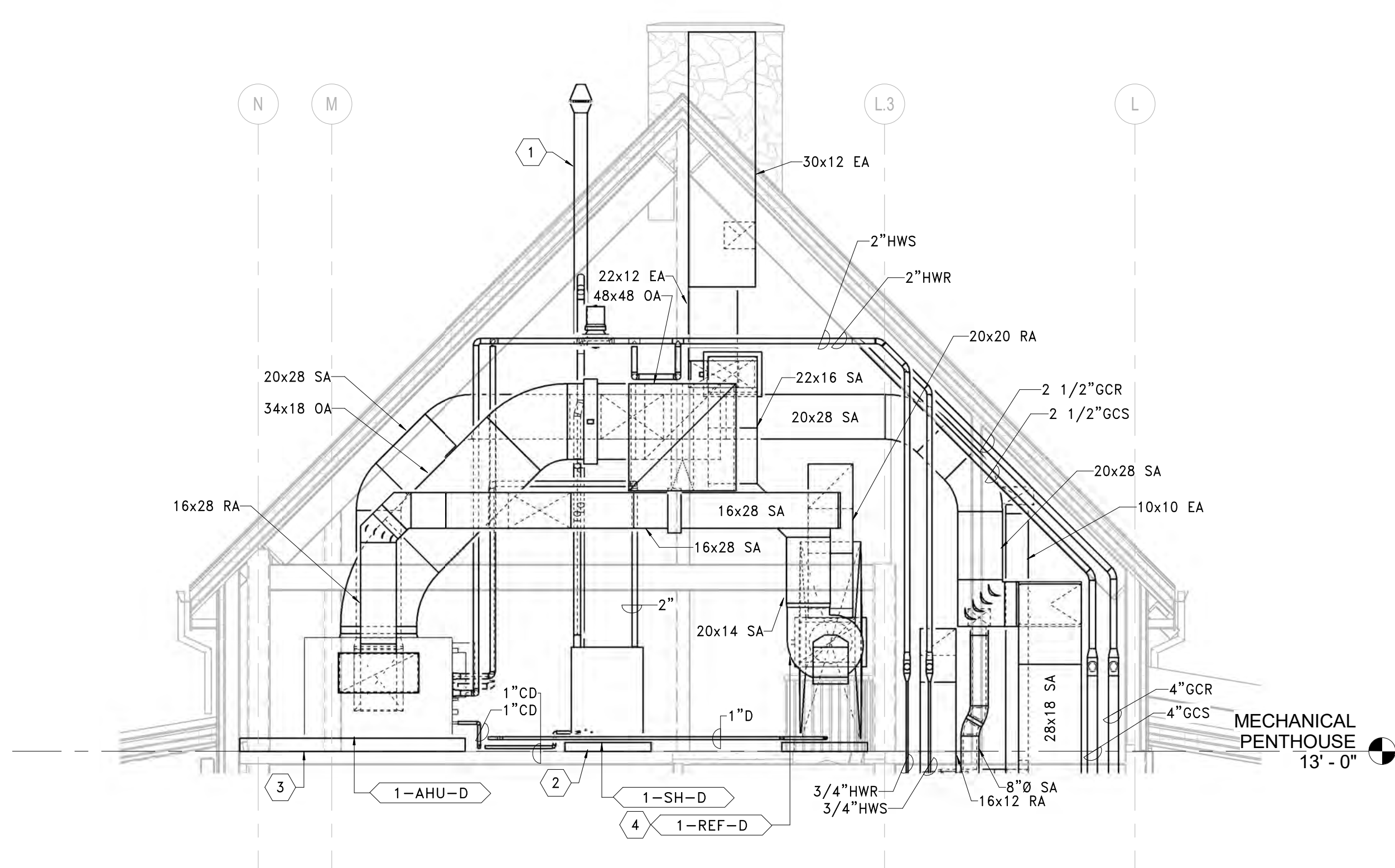
1 2 3 4 5 6 7 8 9 10

GENERAL SHEET NOTES:

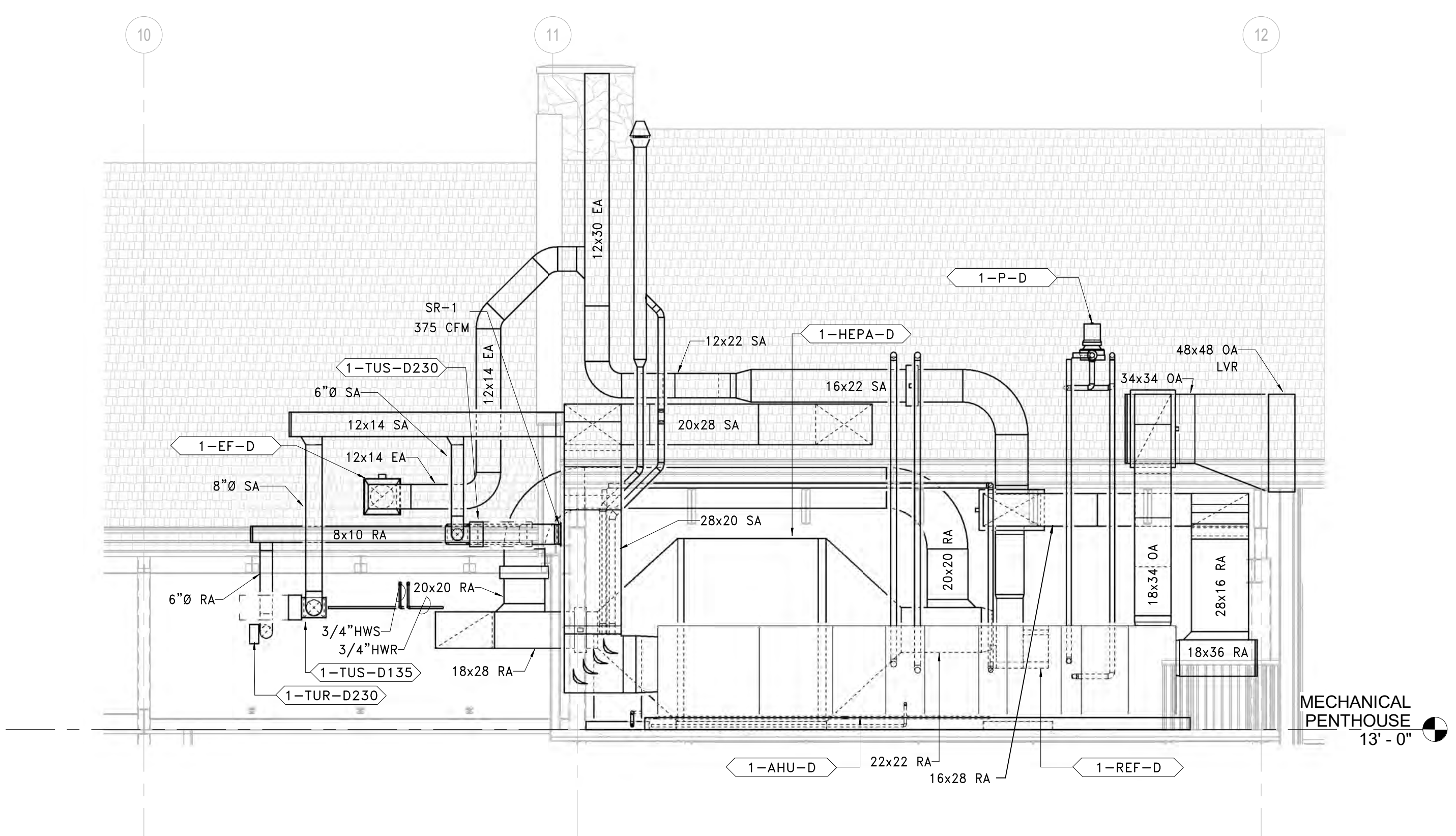
1. REFER TO DRAWING M-001 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
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3. REFER TO TERMINAL UNIT SCHEDULE FOR INLET DUCT CONNECTION SIZES.

SHEET KEYNOTES:

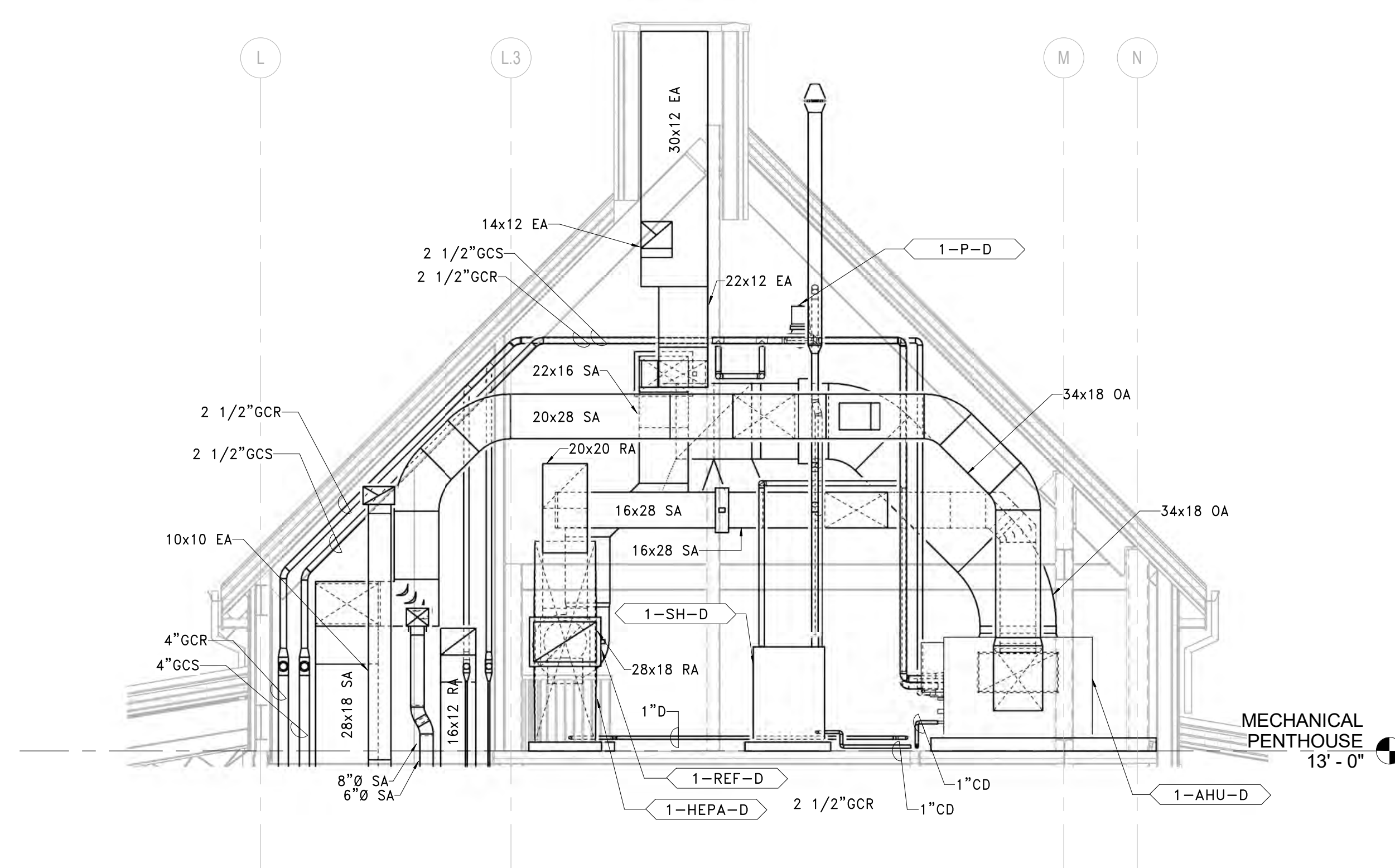
1. PROVIDE CONCENTRIC STEAM HUMIDIFIER VENT KIT THRU ROOF. SIZE AND ROUTING PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE MIN. 48" ABOVE ROOF. FINISH BY ARCHITECT.
2. 4" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
3. 6" HOUSEKEEPING PAD. EXTEND 6" BEYOND EQUIPMENT FOOTPRINT. MAINTAIN MANUFACTURER RECOMMENDED EQUIPMENT CLEARANCES. PAINT EDGE SAFETY YELLOW, 2 COATS. REFER TO STRUCTURAL DETAIL FOR ADDITIONAL INFORMATION.
4. PROVIDE FIELD INSTALLED EQUIPMENT SUPPORT PER MECHANICAL DETAIL.
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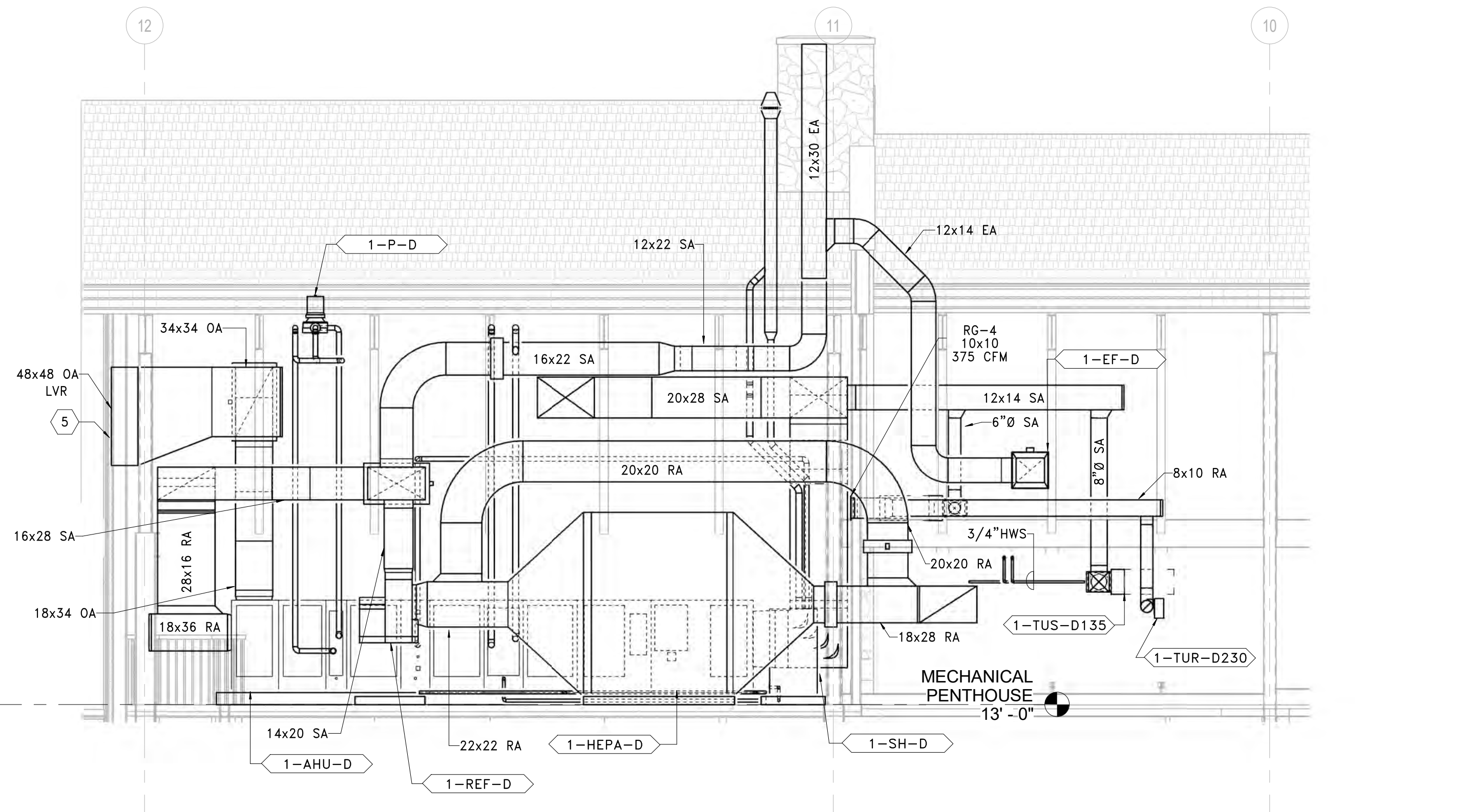
1 230 EAST MECH RM SECTION EAST
SCALE: 1/4" = 1'-0"



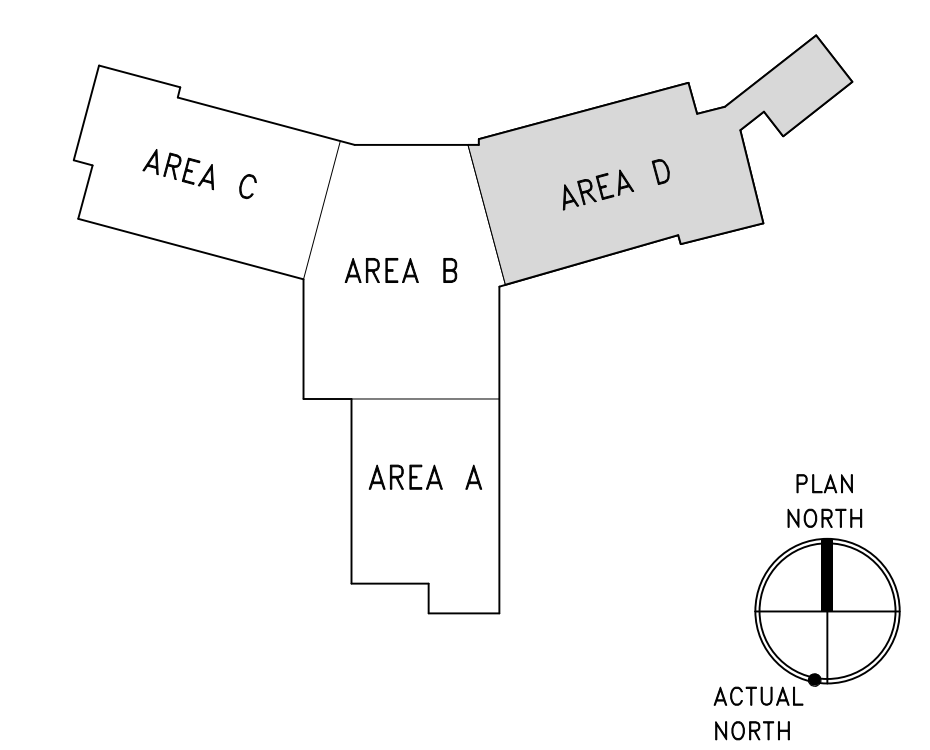
2 230 EAST MECH RM SECTION SOUTH
SCALE: 1/4" = 1'-0"



3 230 EAST MECH RM SECTION WEST
SCALE: 1/4" = 1'-0"



4 230 EAST MECH RM SECTION NORTH
SCALE: 1/4" = 1'-0"



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| Revisions: | Date: |
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| | |

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MR PROJECT NO: 0499-0124

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL SECTIONS

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

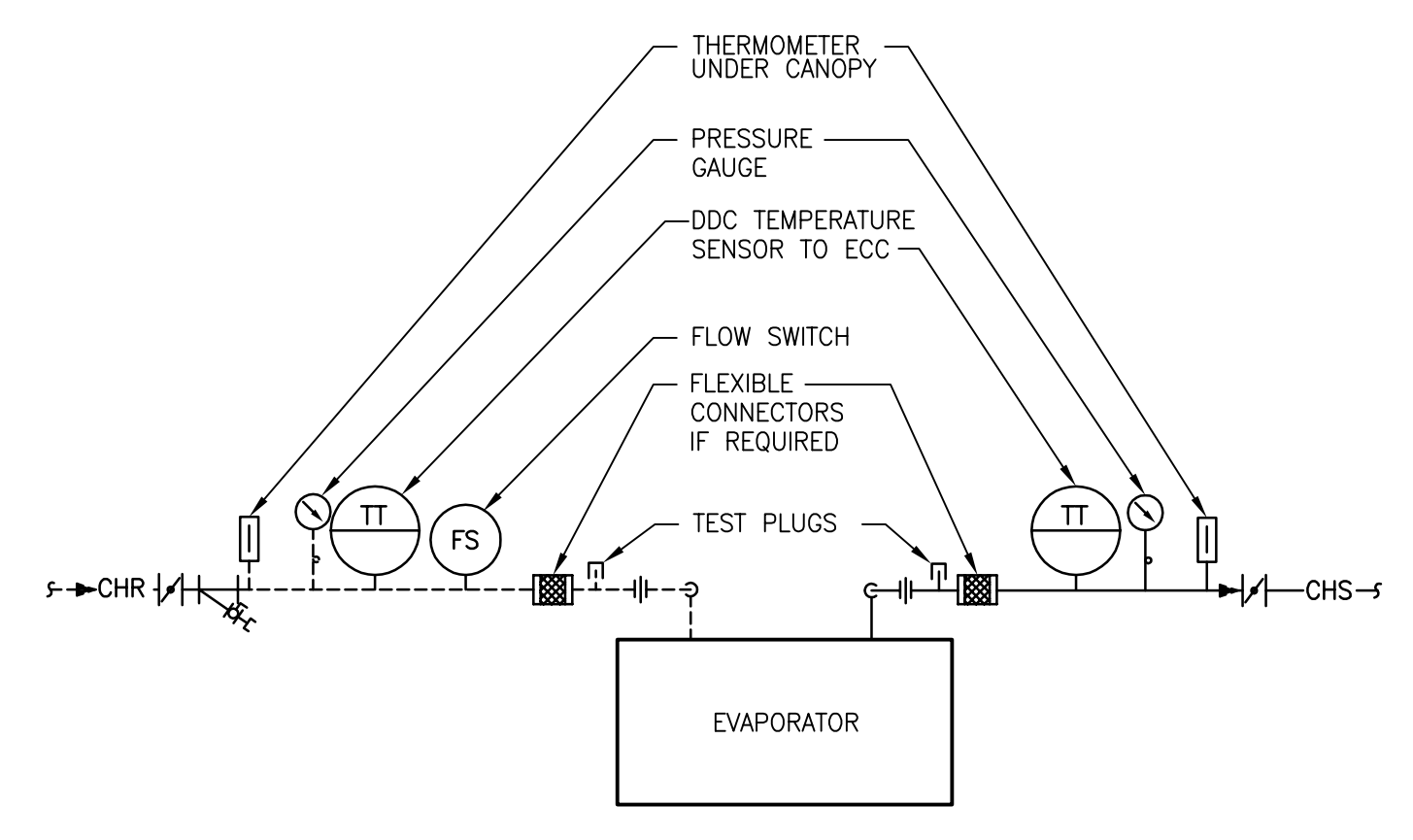
Drawn
MK

Project Number
595-601

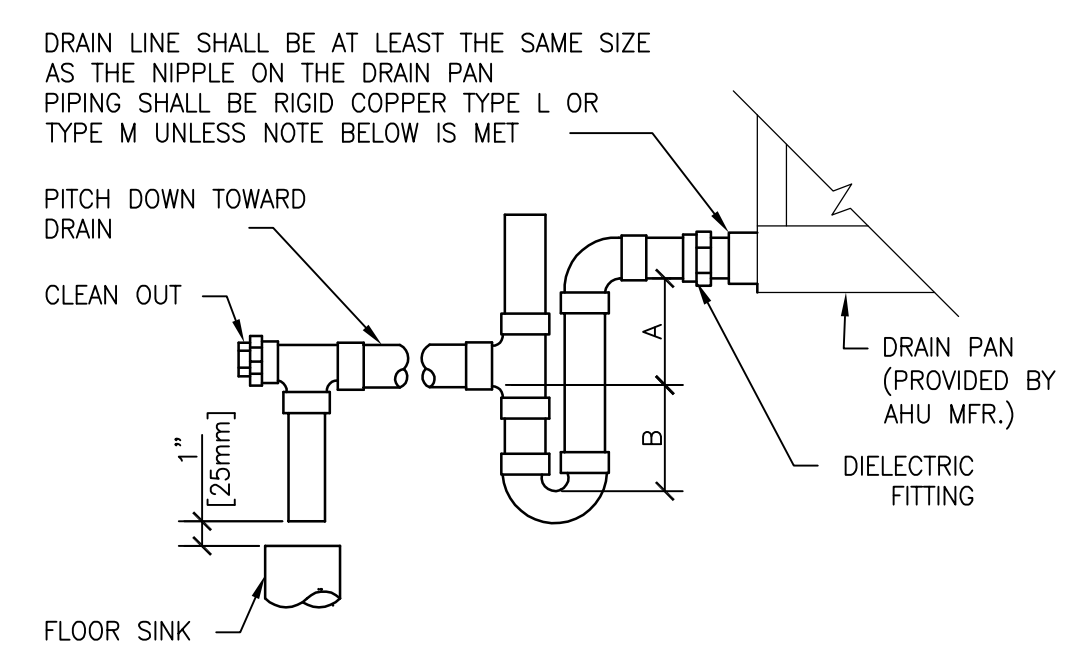
Building Number
CLC-1

Drawing Number
M-405

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighth inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot



1 AIR COOLED CHILLER PIPING CONNECTIONS
 SCALE: NTS

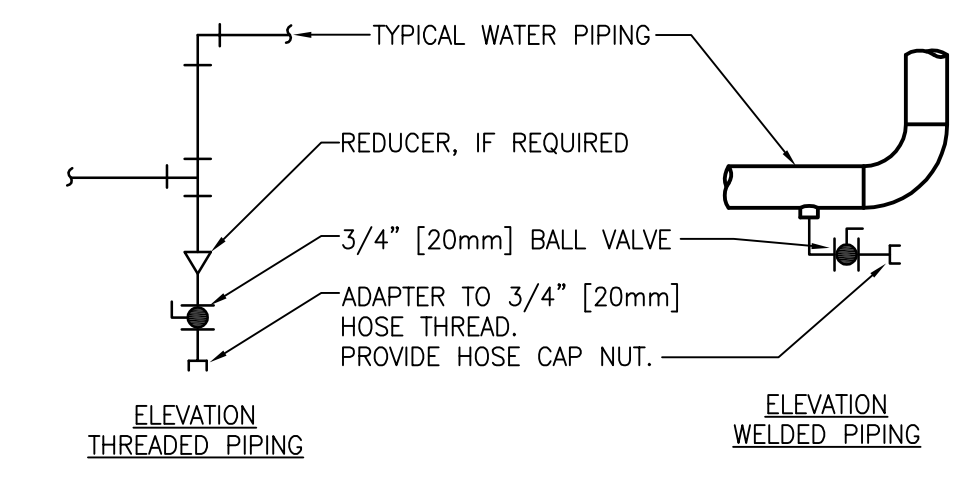


2 AIR HANDLING UNIT DRAIN TRAP DETAIL
 SCALE: NTS

NOTE:
 1. CPVC PIPE MAY BE USED ONLY IF APPROVED BY LOCAL VA AND IS INDOORS AND DOES NOT PASS THROUGH RATED BARRIERS.
 2. DIELECTRIC FITTING TO BE USED WHEN TWO DISSIMILAR METALS ARE TO BE CONNECTED.

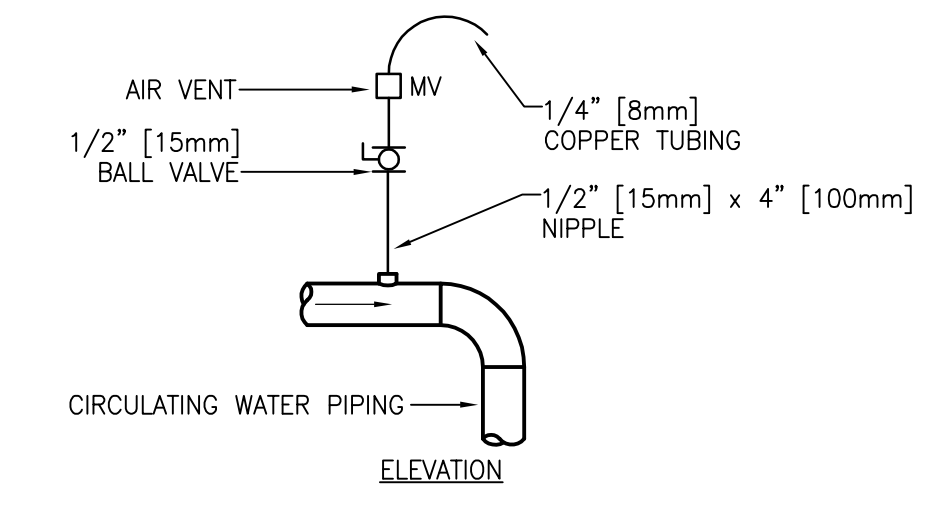
| UNIT TYPE | A | B |
|-----------|-------------------|----|
| DRAW THRU | 2" [50mm] PLUS X | X |
| BLOW THRU | 1" [25mm] MINIMUM | 2X |

WHERE X = STATIC PRESSURE IN PAN (PROVIDED BY AHU MANUFACTURER)



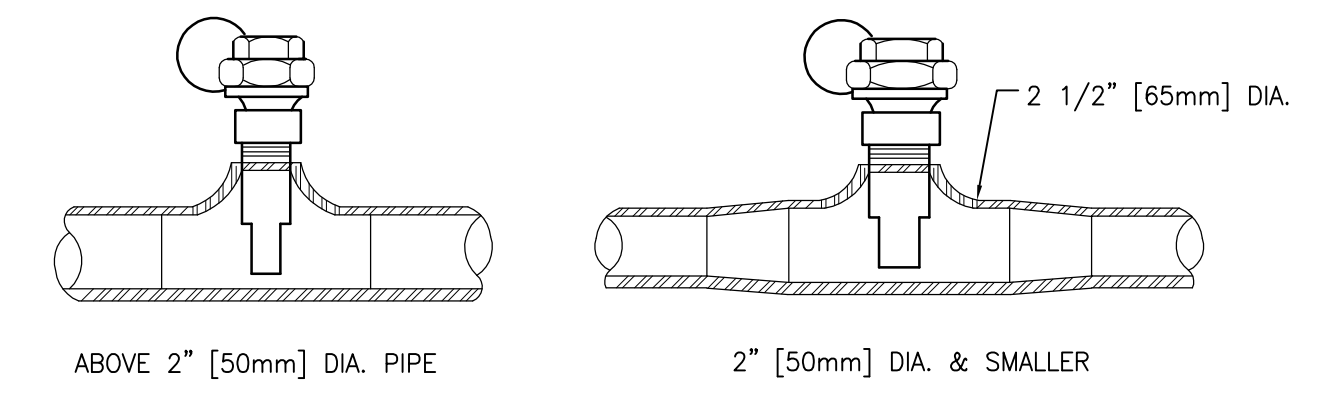
TYPICAL CHILLED AND HOT WATER PIPING DRAIN VALVE CONNECTIONS

- NOTES:
 1. DRAIN ALL LOW POINTS AS INDICATED ABOVE.
 2. WHERE SCALE POCKETS ARE SHOWN ON PIPE RISER DIAGRAMS AND/OR PLANS LOCATE DRAIN AT BOTTOM OF SCALE POCKET.

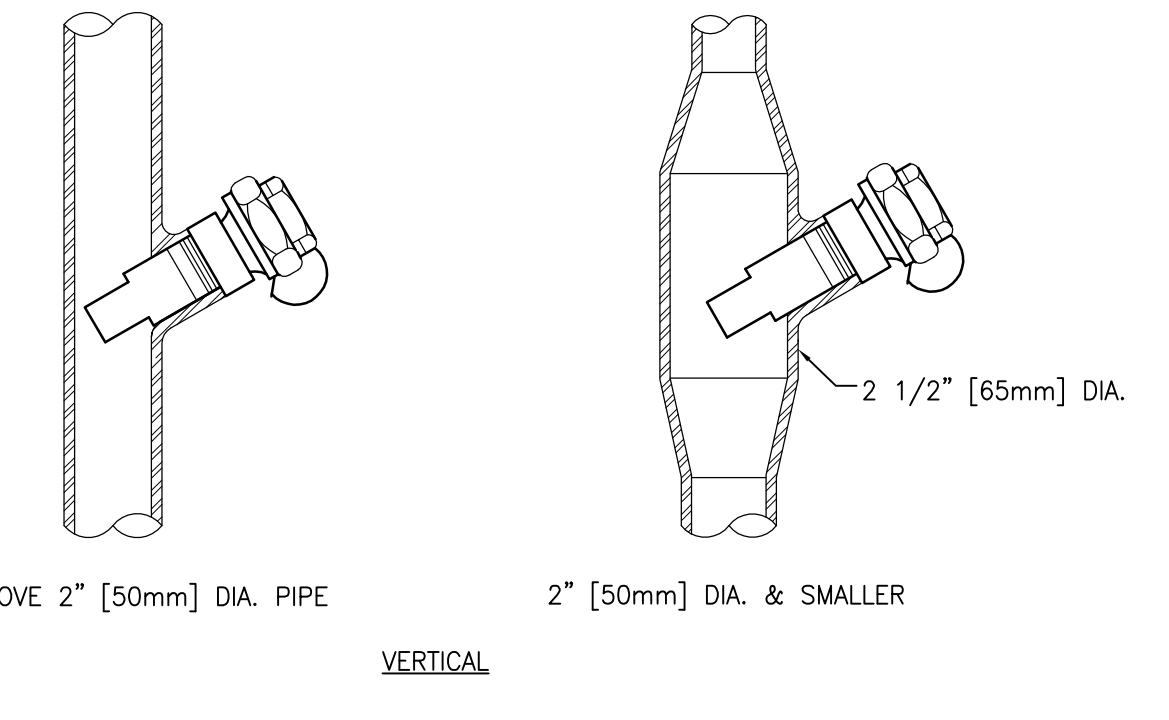


TYPICAL MANUAL AIR VENT

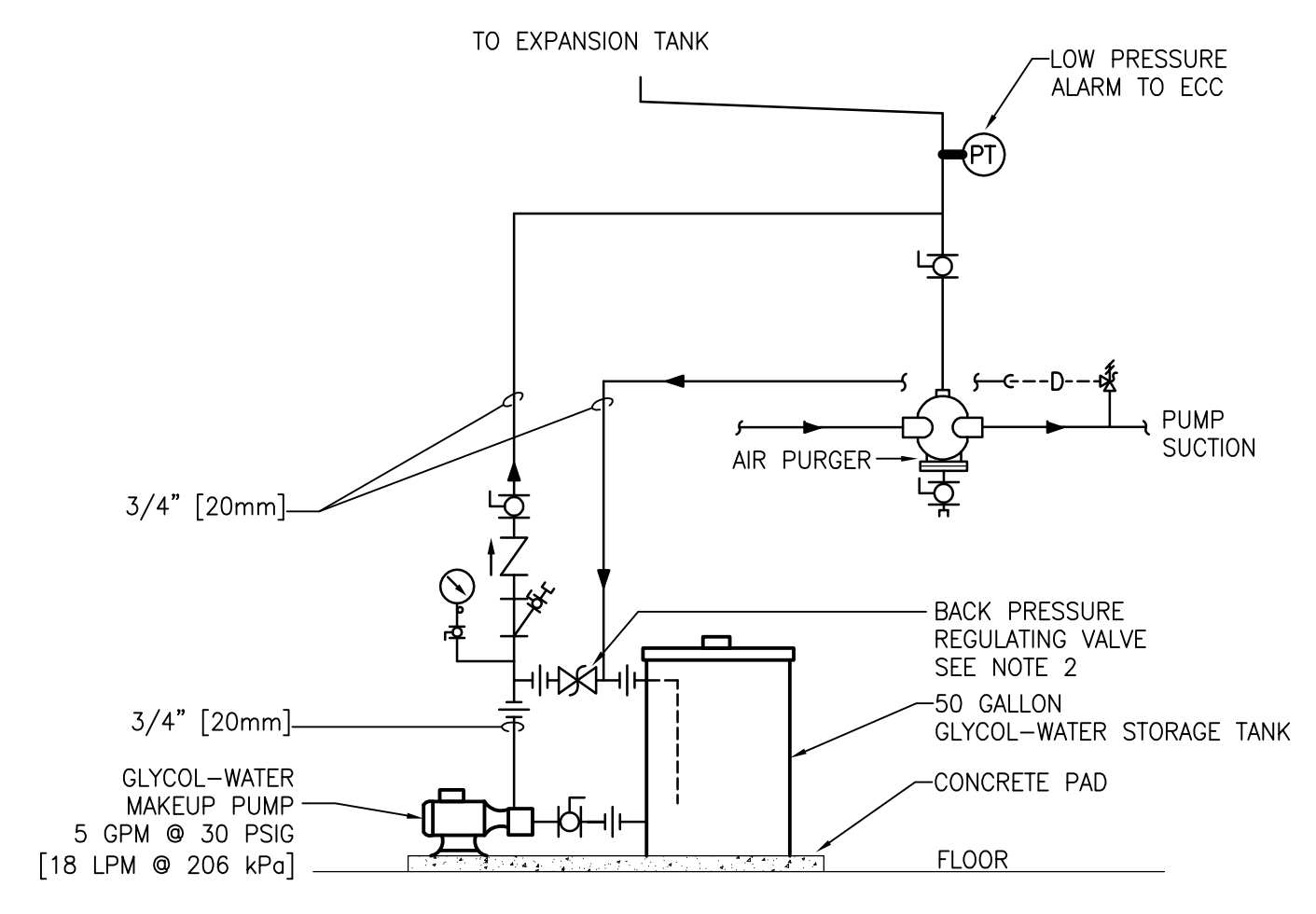
- NOTES:
 1. VENT ALL HIGH POINTS INDICATED ABOVE.



4 INSTALLATION OF THERMOMETER WELLS
 SCALE: NTS

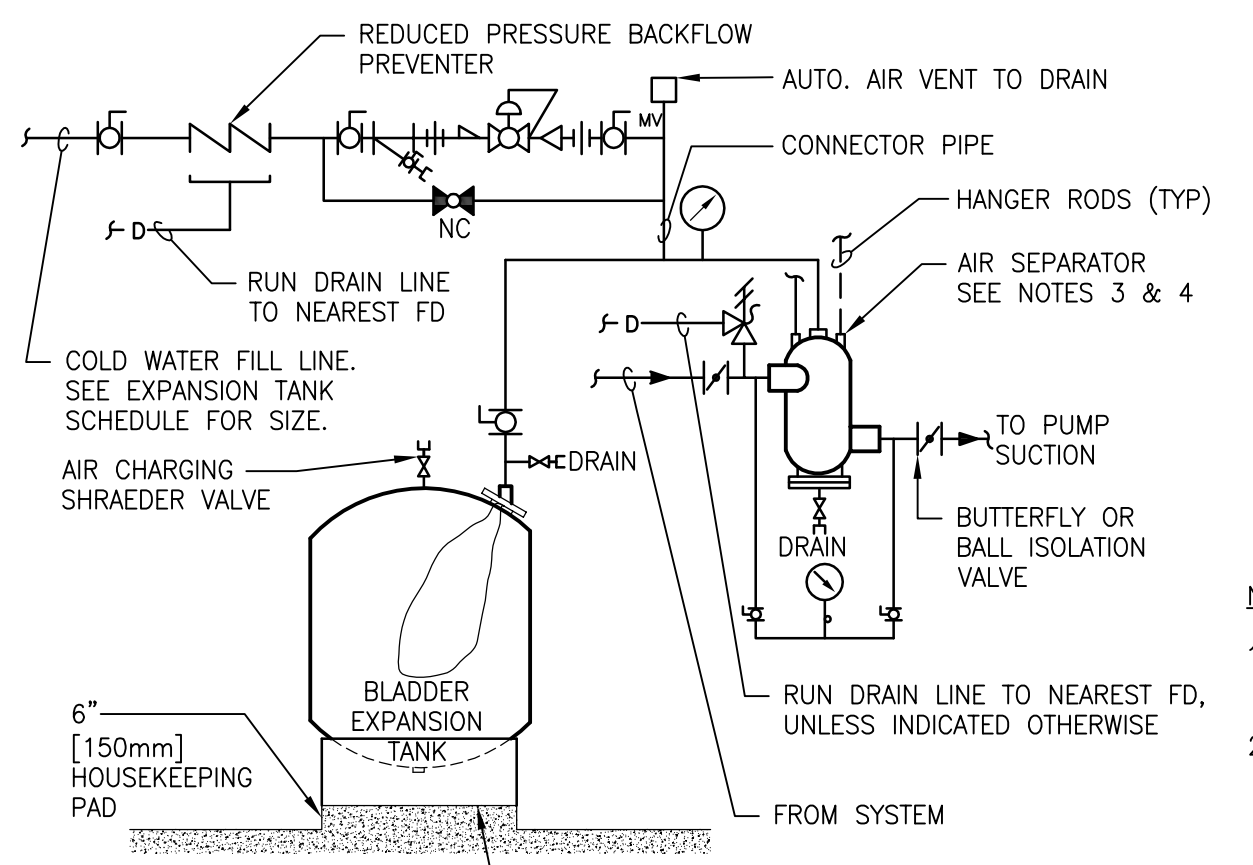


3 DRAIN VALVE AND AIR VENT CONNECTIONS (HYDRONIC SYSTEMS)
 SCALE: NTS



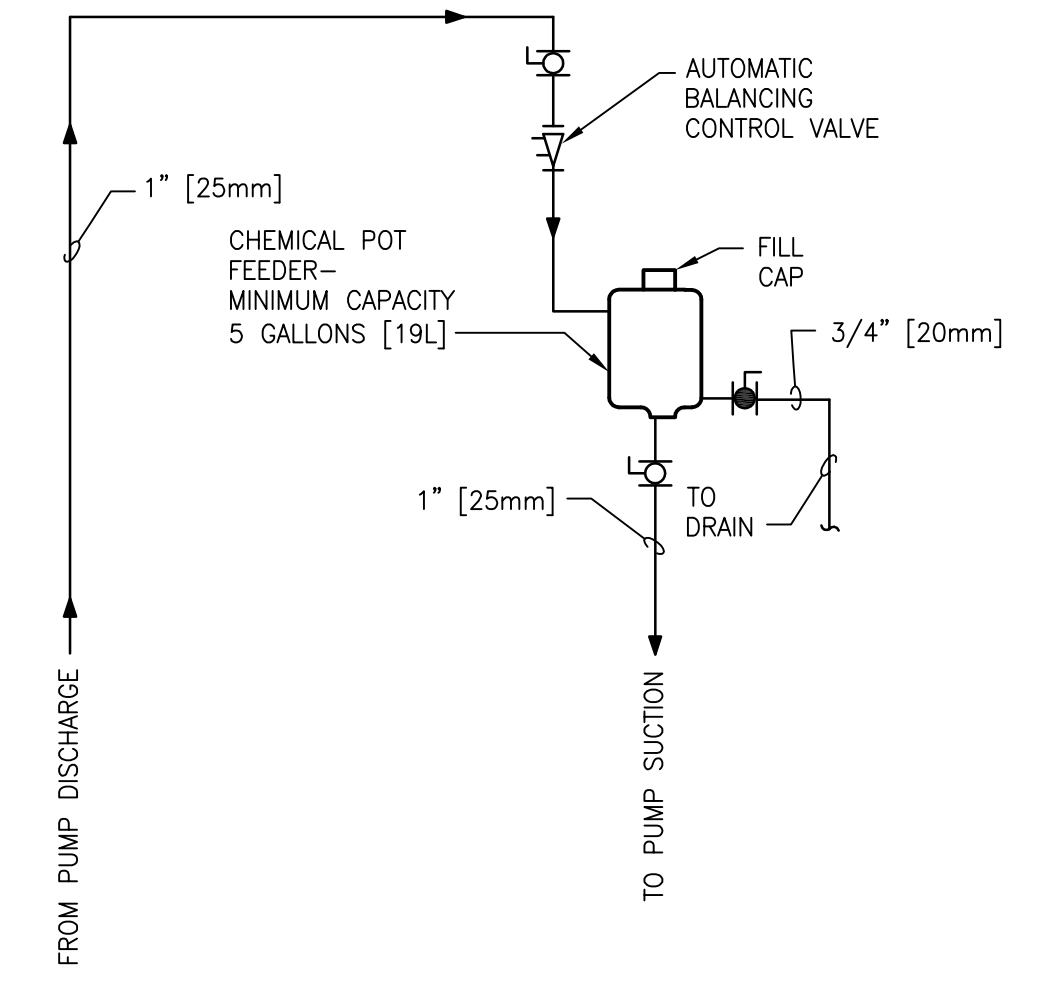
- NOTES:
 1. PROVIDE LOW WATER LEVEL ALARM. PROVIDE A LOW WATER LEVEL AT ECC. RELIEF VALVE DRAIN SHALL RETURN TO TANK AS SHOWN ON THIS DETAIL.
 2. SET REGULATING VALVE TO MAINTAIN MAKE-UP PRESSURE AT 15 PSIG [103 kPa] ABOVE HIGHEST SYSTEM FRY SETTING.
 3. MAKE-UP PIPING SYSTEM DOES NOT REQUIRE INSULATION.
 4. PUMP TO OPERATE WITH UNIT-PROVIDED PRESSURE SENSOR.

5 INDIRECT GLYCOL MAKE-UP SYSTEM (PIPING AND CONTROLS)
 SCALE: NTS



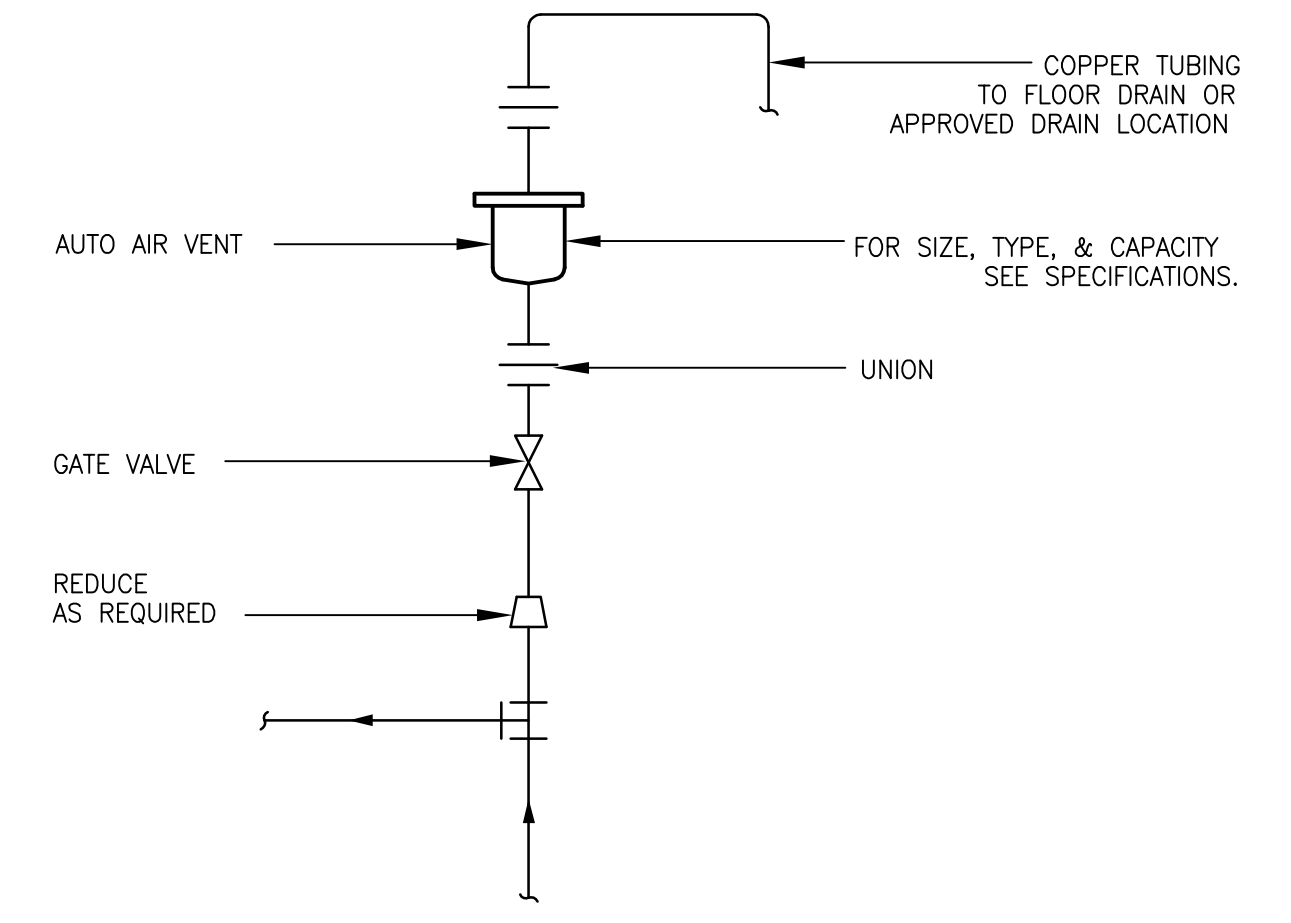
- NOTES:
 1. SEE EXPANSION TANK SYSTEM SCHEDULE FOR COMPONENT SIZES.
 2. FOR HOT WATER SYSTEMS 2" [50mm] AND SMALLER AND CHILLED WATER SYSTEMS USE IN-LINE AIR PURGER IN LIEU OF AIR SEPARATOR.
 3. SET PRESSURE REDUCING VALVE SO PRESSURE AT HIGHEST POINT IN SYSTEM HAS A MINIMUM OF 4 PSIG [28kPa].

6 FLOOR MOUNTED EXPANSION TANK PIPING CONNECTIONS
 SCALE: NTS



- NOTE:
 TOP OF CHEMICAL POT FEEDER TANK SHALL NOT BE MORE THAN 4'-0" [1200mm] ABOVE FINISHED FLOOR.

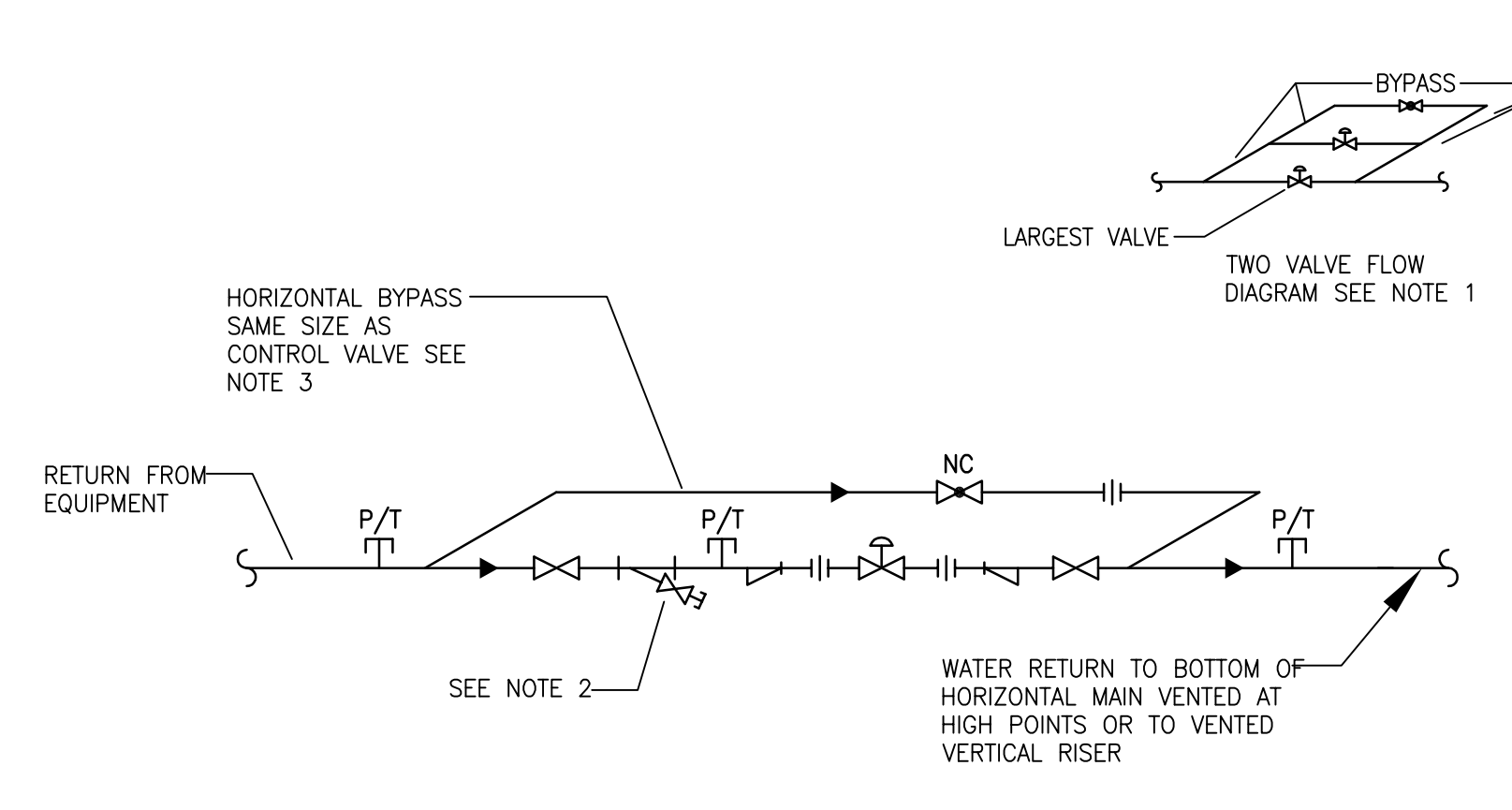
7 WATER TREATMENT - CLOSED SYSTEMS
 SCALE: NTS



8 AUTOMATIC AIR VENT ASSEMBLY
 SCALE: NTS

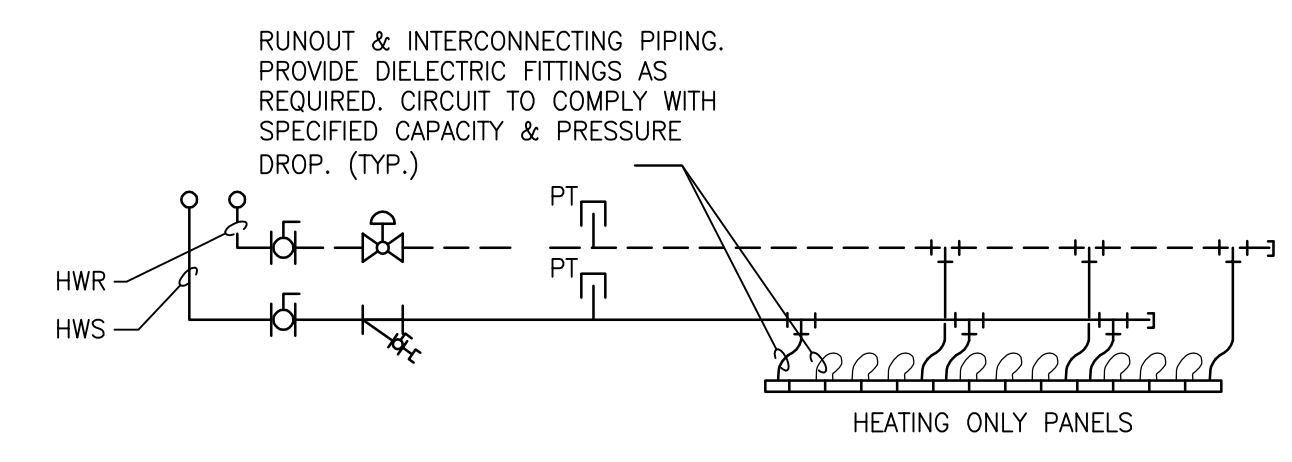
| | | | | | | | | | | | | | |
|---|---|---|--|--|--|---|--|--|---|---|---|---|---|
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| | Revisions: | Date: | PROGRAMMING AND PLANNING CIVIL ENGINEERING LANDSCAPE ARCHITECTURE SURVEY AND MAPPING SECURITY CONSULTING GORDON 148 S Queen St. Suite 201 Martinsburg, WV 25401 Phone: 304-725-8456 www.gordon.us.com | VA FORM 08-6231 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

three inch = one foot
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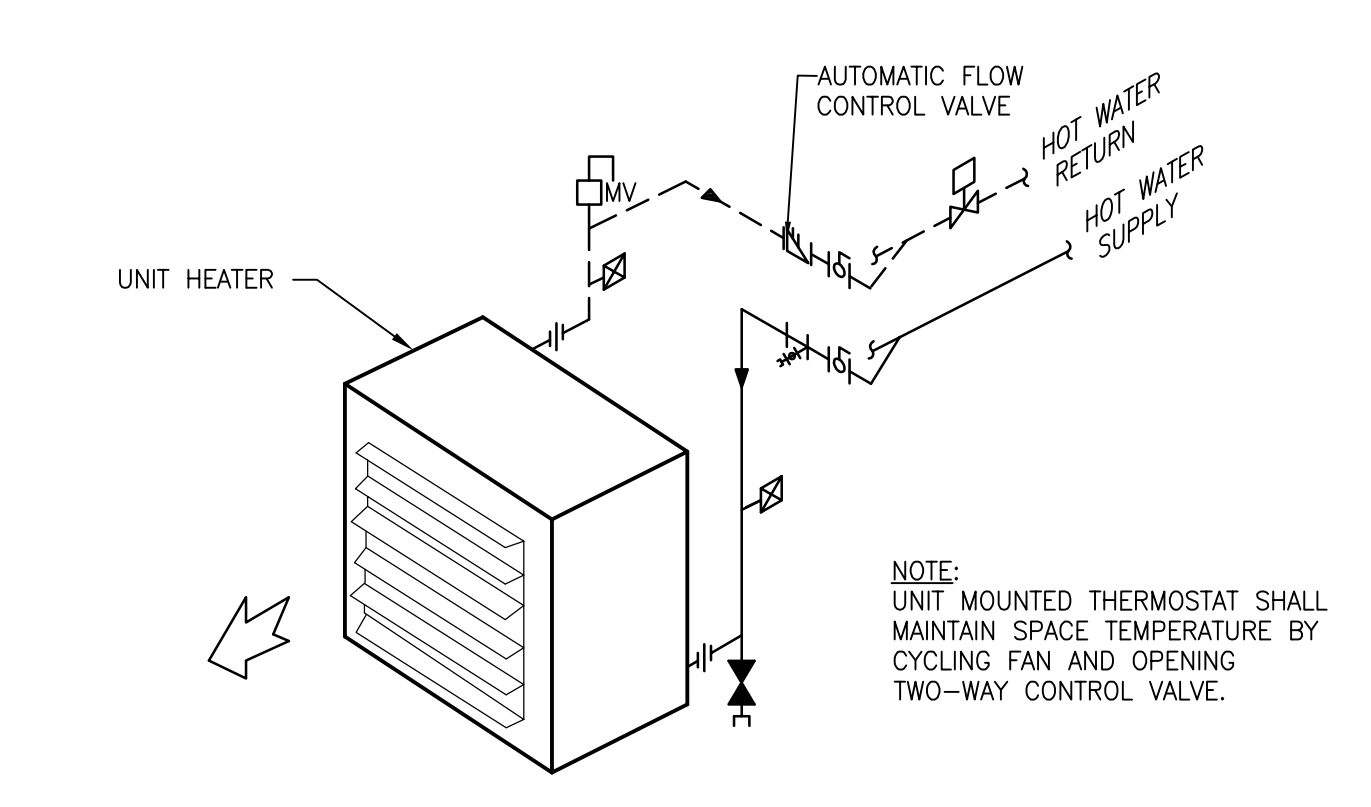
NOTES:
 1. WHERE TWO CONTROL VALVES ARE SHOWN, SPECIFIED OR REQUIRED, INSTALL BOTH AT SAME ELEVATION PIPED AS SHOWN FOR SINGLE VALVE WITH COMMON BYPASS FOR BOTH VALVES (SEE DIAGRAM ABOVE). MAKE BYPASS SAME SIZE AS LARGER CONTROL VALVE.
 2. OMIT STRAINER AND ITS DISCHARGE P/T PLUG IF SUPPLY TO EQUIPMENT INCLUDES A STRAINER.
 3. THE SYMBOLS ∇ , ∇ , ∇ , AND ∇ IN WATER PIPING ON DRAWINGS OR DETAILS INDICATE CONTROL VALVE TO BE INSTALLED AS SHOWN ON THIS DETAIL.

1 TWO WAY WATER CONTROL VALVE PIPING WITH BYPASS
 SCALE: NTS



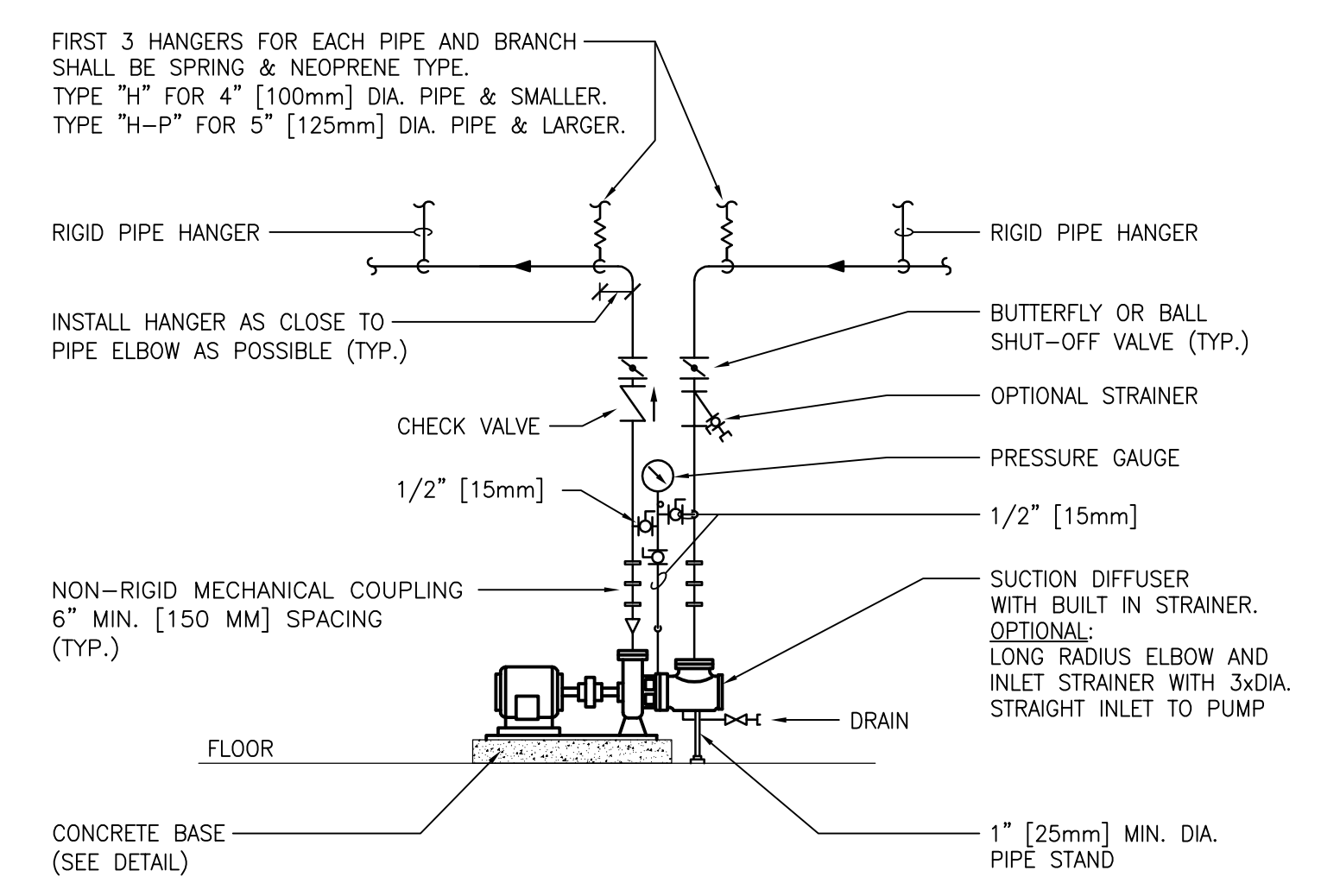
NOTE:
 1. MINIMUM FLOW SHALL BE NO LESS THAN 0.5 GPM [1.9 LPM]

2 HYDRONIC RADIANT CEILING PANELS PIPING CONNECTIONS
 SCALE: NTS



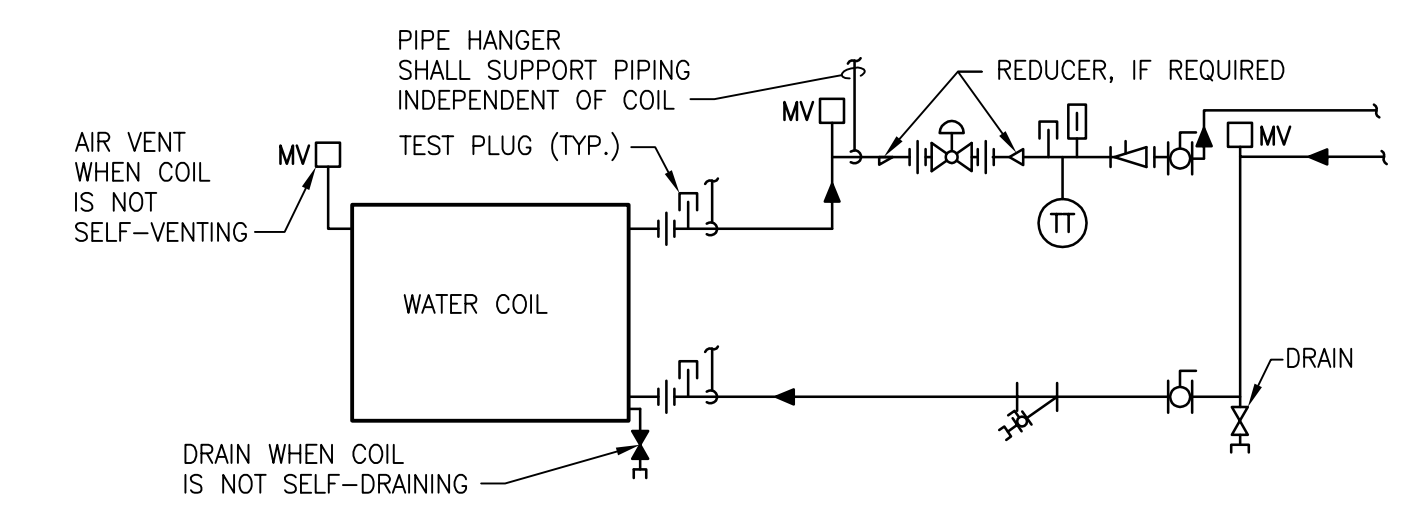
TYPICAL CONNECTIONS TO HORIZONTAL HOT WATER UNIT HEATER

3 UNIT HEATERS (HOT WATER) PIPING CONNECTIONS
 SCALE: NTS



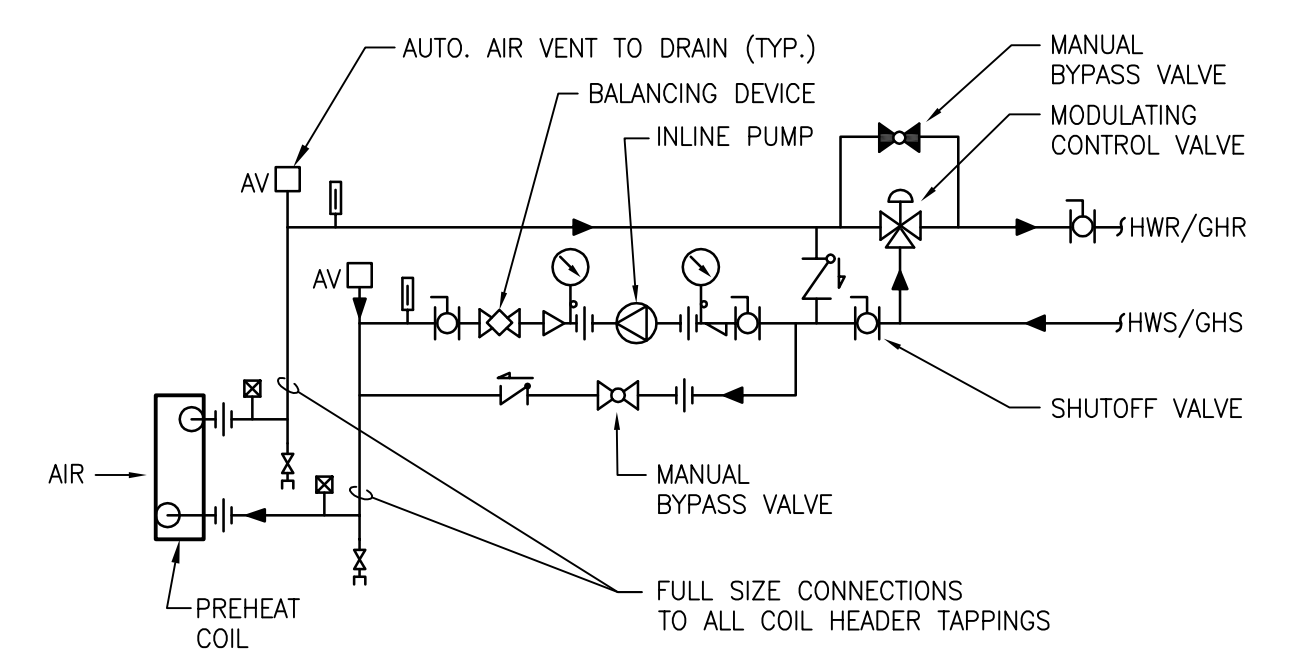
NOTES:
 1. SEE SPECIFICATION SECTION "PUMPS" FOR Y STRAINER OPTION.

4 SINGLE SUCTION FLOOR-MOUNTED PUMPS CONNECTIONS WITH MECHANICAL COUPLINGS
 SCALE: NTS



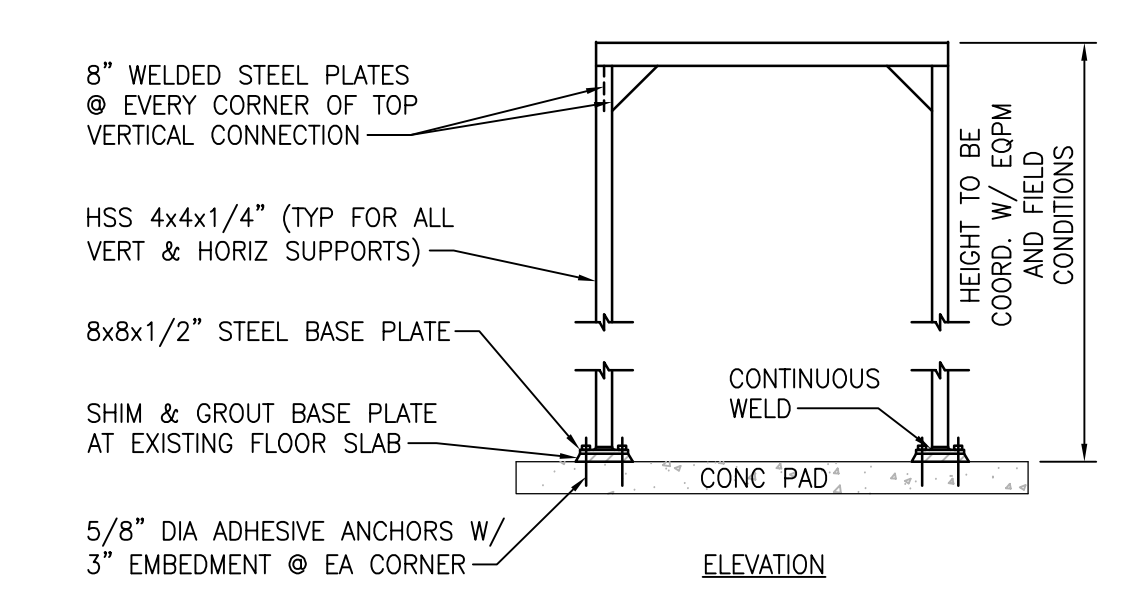
NOTES:
 1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATORS THE FIRST 2 HANGERS FOR EACH PIPE SHALL BE SPRING & NEOPRENE TYPE. TYPE "H" FOR 4" [100mm] DIA PIPE & SMALLER, TYPE "H-P" FOR 5" [125mm] DIA PIPE & LARGER.
 2. PIPING SHALL BE INSTALLED IN SUCH MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS; NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALVES, OR EQUIPMENT.

5 WATER COILS - PIPING CONNECTIONS
 SCALE: NTS



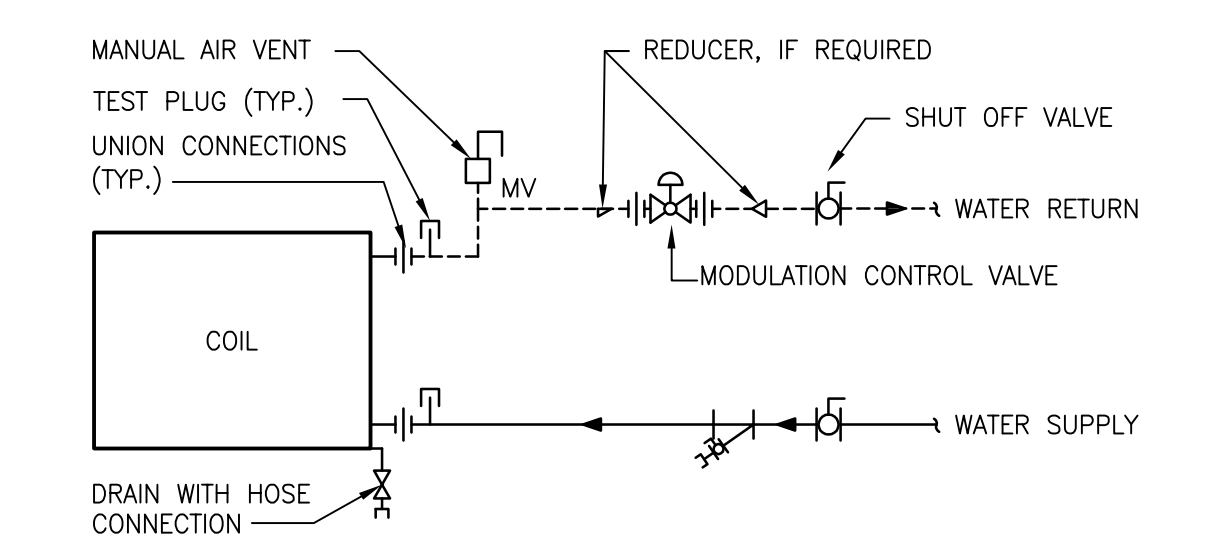
NOTE:
 1. SIZE AND SELECT COIL FOR PARALLEL FLOW AND MINIMUM TUBE WATER VELOCITY OF 3.0 FEET PER SECOND.

6 PREHEAT COIL (HOT WATER) - PIPING CONNECTIONS
 SCALE: NTS

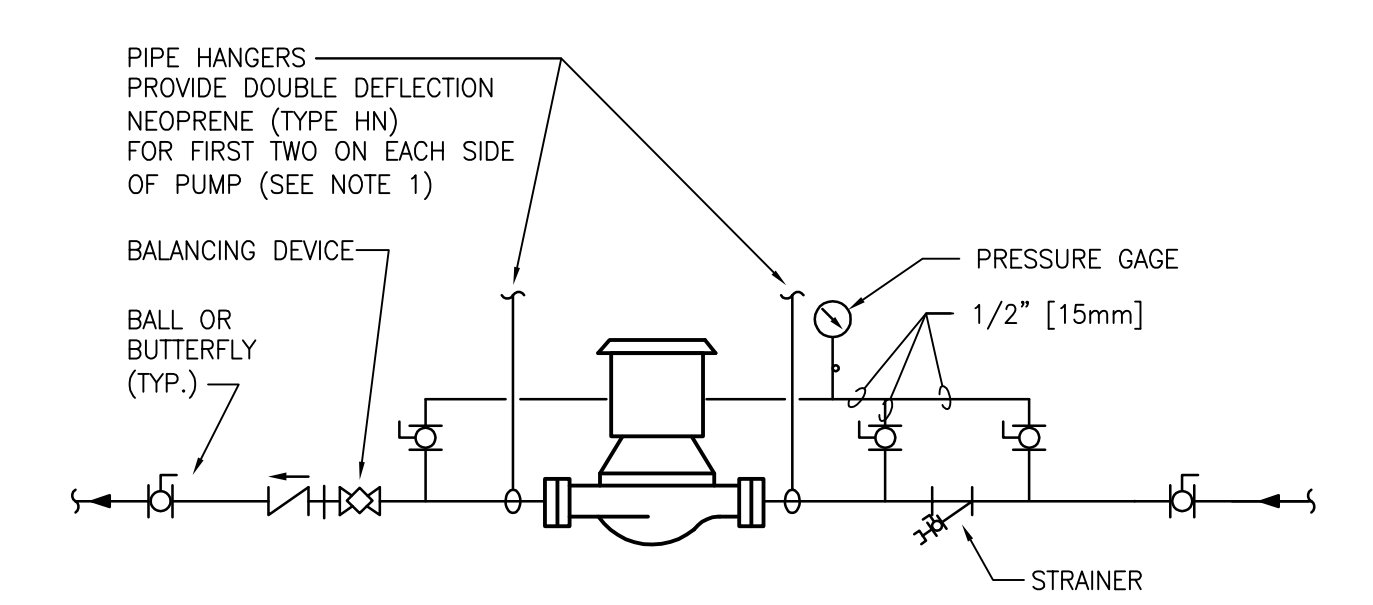


NOTES:
 1. OVERALL SUPPORT FRAME DIMENSIONS SHALL BE DETERMINED IN THE FIELD AND SHALL BE BASED ON THE A/E APPROVED EQUIPMENT, IN CONJUNCTION WITH THE EXISTING FIELD CONDITIONS.
 2. INTERMEDIATE SUPPORT LOCATIONS AND TYPES REQUIRED FOR EACH PIECE OF EQUIPMENT ARE NOT SHOWN.
 3. ALL HSS TUBING TO BE CONTINUOUSLY WELDED AT EVERY POINT OF CONNECTION.

7 EQUIPMENT SUPPORT DETAIL
 SCALE: NTS



8 TERMINAL UNIT WATER COILS PIPING CONNECTIONS
 SCALE: NTS

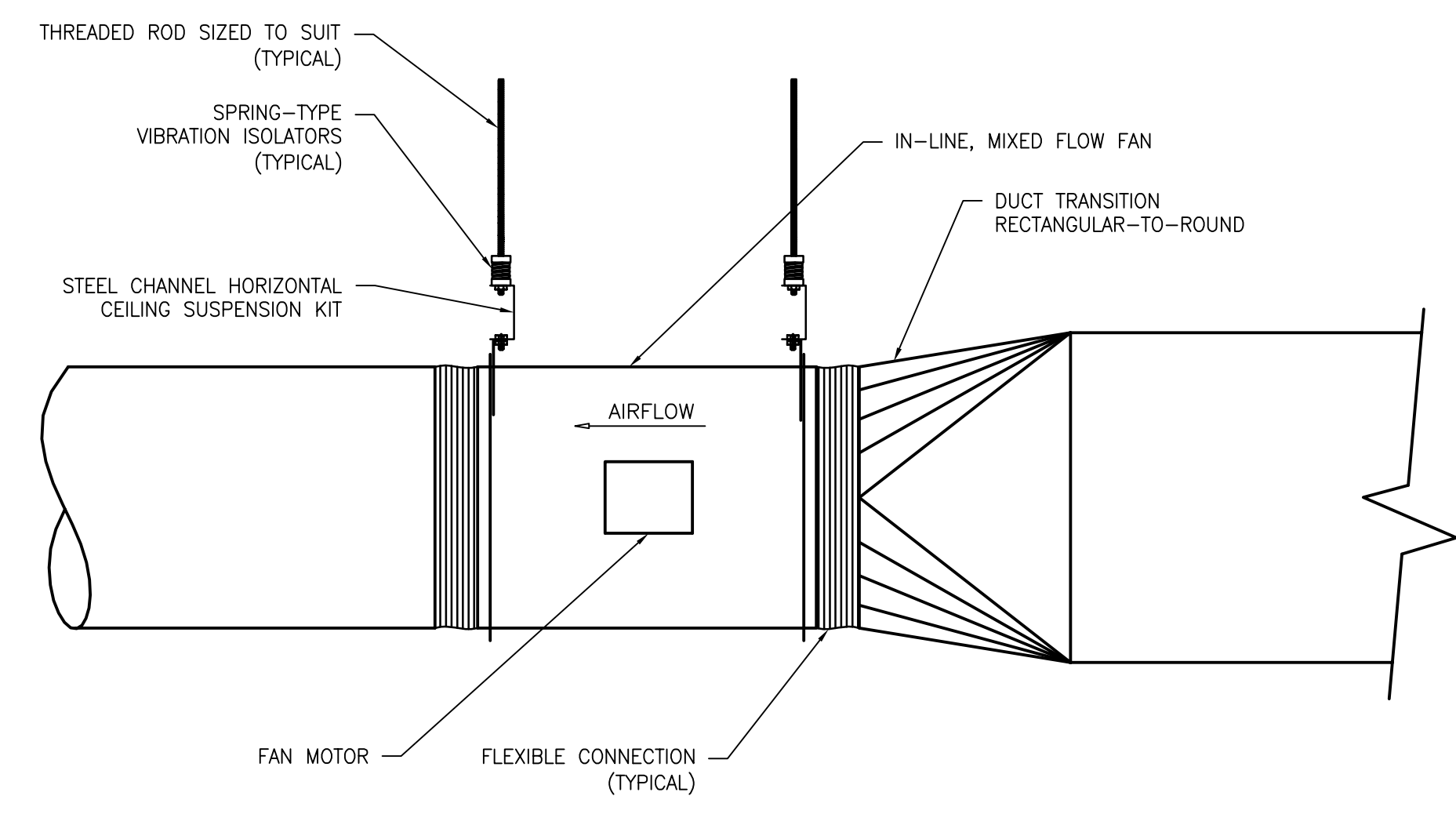


NOTE:
 1. SUPPORT PUMP FROM PIPING ONLY. DO NOT SUPPORT PUMP FROM MOTOR.

9 IN-LINE PUMP CONNECTIONS
 SCALE: NTS

| | | | | | | | | |
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| | FULLY SPRINKLERED | Location LEBANON, PENNSYLVANIA | Issue Date 2023-02-09 | Checked PB | Drawn SP | Drawing Number M-502 | | |

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot



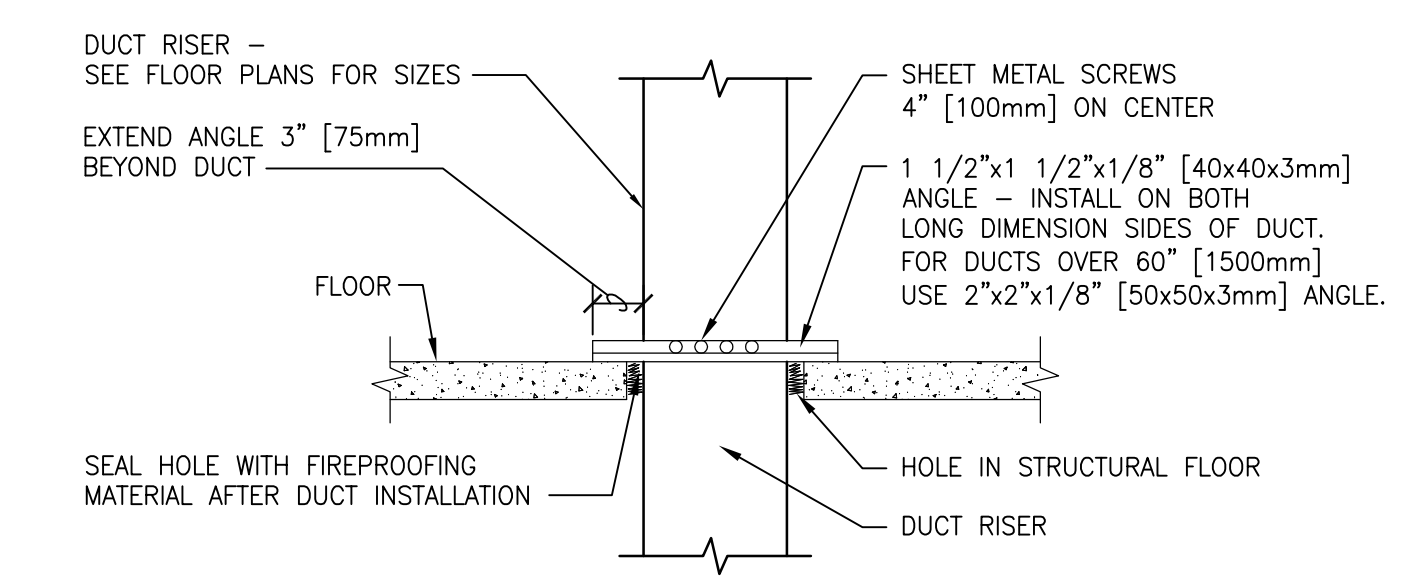
1 IN-LINE EXHAUST AIR FAN
 SCALE: NTS

LOAD RATED FASTENERS
 BAND OF SAME SIZE AS HANGER STRAP
 50" [1250mm] DIA & UNDER
 HANGER RODS
 BAND OVER 50" [1250mm] DIA

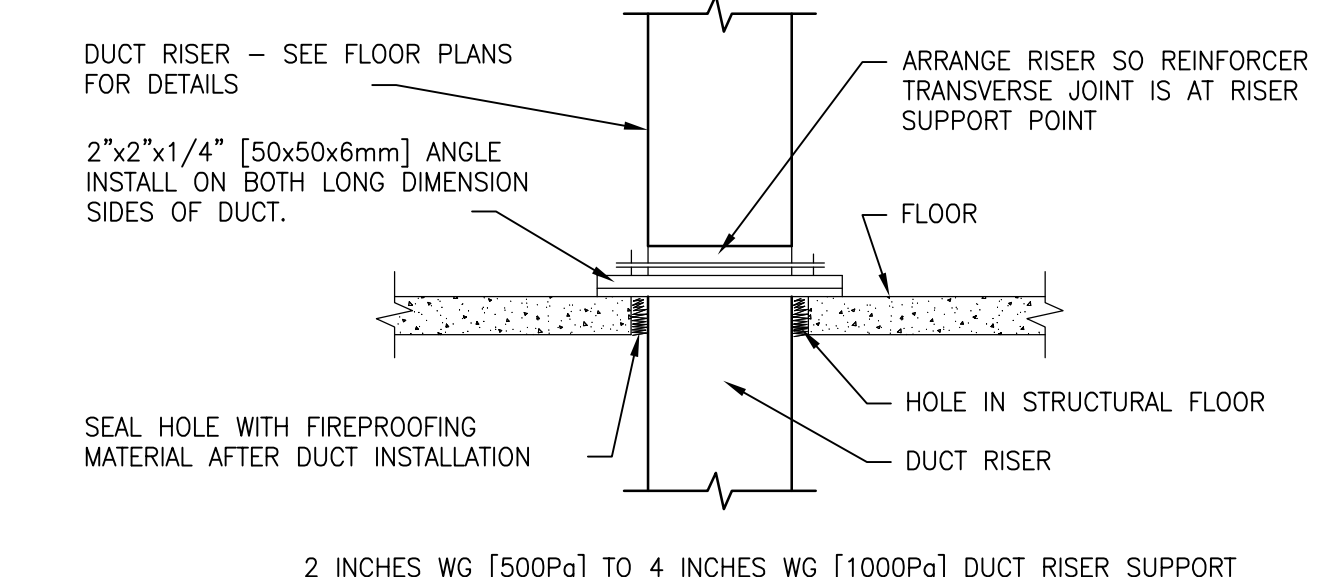
| HANGER STRAPS OR RODS | | | |
|-----------------------|--------------------------|---------------------|-----------------------|
| MAX. DUCT Ø IN. [mm] | QUANTITY/SIZE IN. [mm] | MAX. LOAD LBS. [kg] | MAX. SPACING IN. [mm] |
| 26 [650] | ONE 1 [25] x 22 GA STRAP | 260 [119] | 144 [3600] |
| 36 [900] | ONE 1 [25] x 18 GA STRAP | 420 [190] | 144 [3600] |
| 50 [1250] | ONE 1 [25] x 16 GA STRAP | 700 [317] | 144 [3600] |
| 60 [1500] | TWO 3/8 [10] RODS | 1320 [598] | 144 [3600] |
| 84 [2100] | TWO 1/2 [13] RODS | 2500 [1133] | 144 [3600] |

NOTE:
 TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.

2 ROUND DUCT HANGERS
 SCALE: NTS

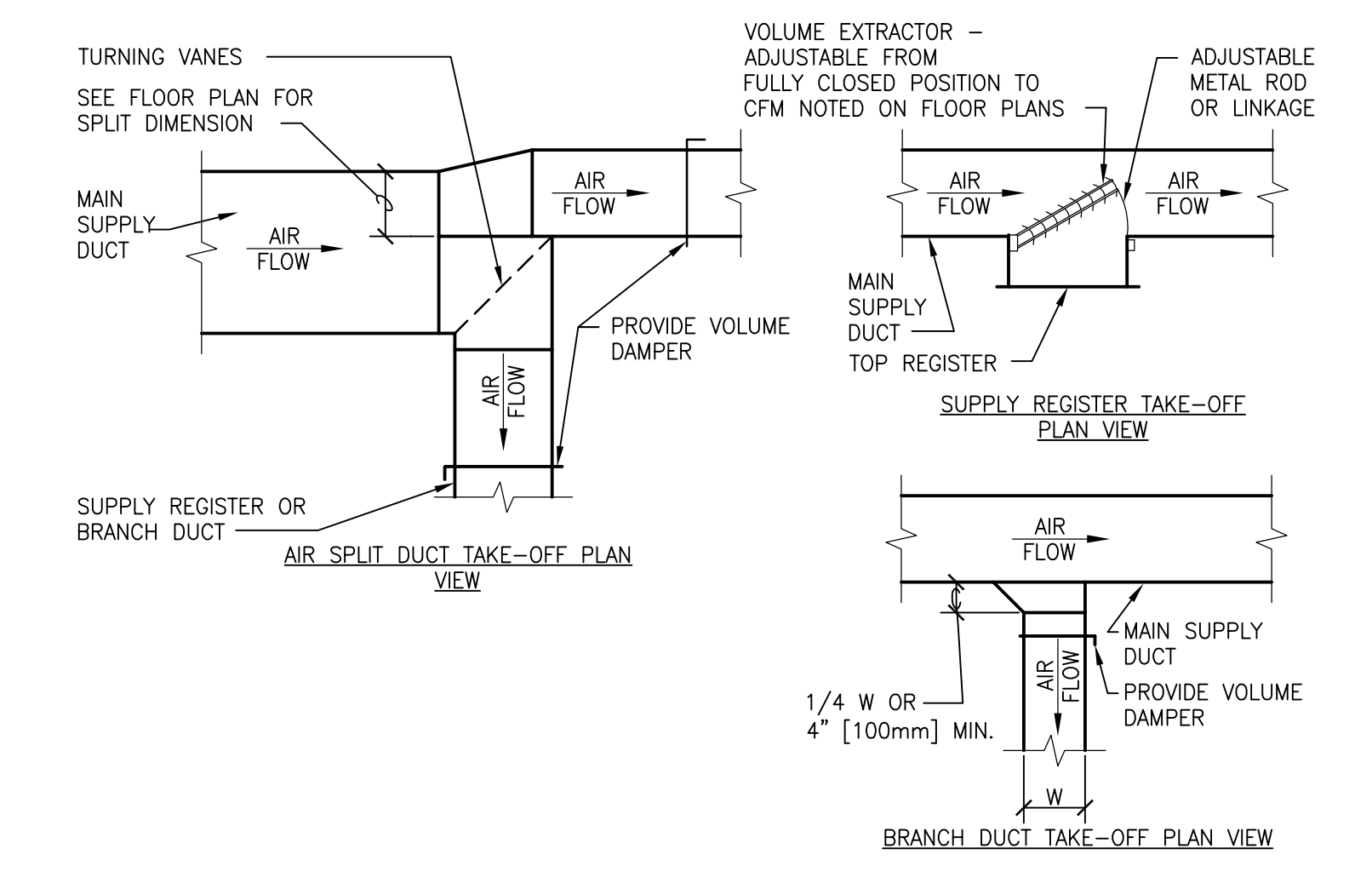


0.5 INCH WG [125Pa] TO 2 INCHES WG [500Pa] DUCT RISER SUPPORT

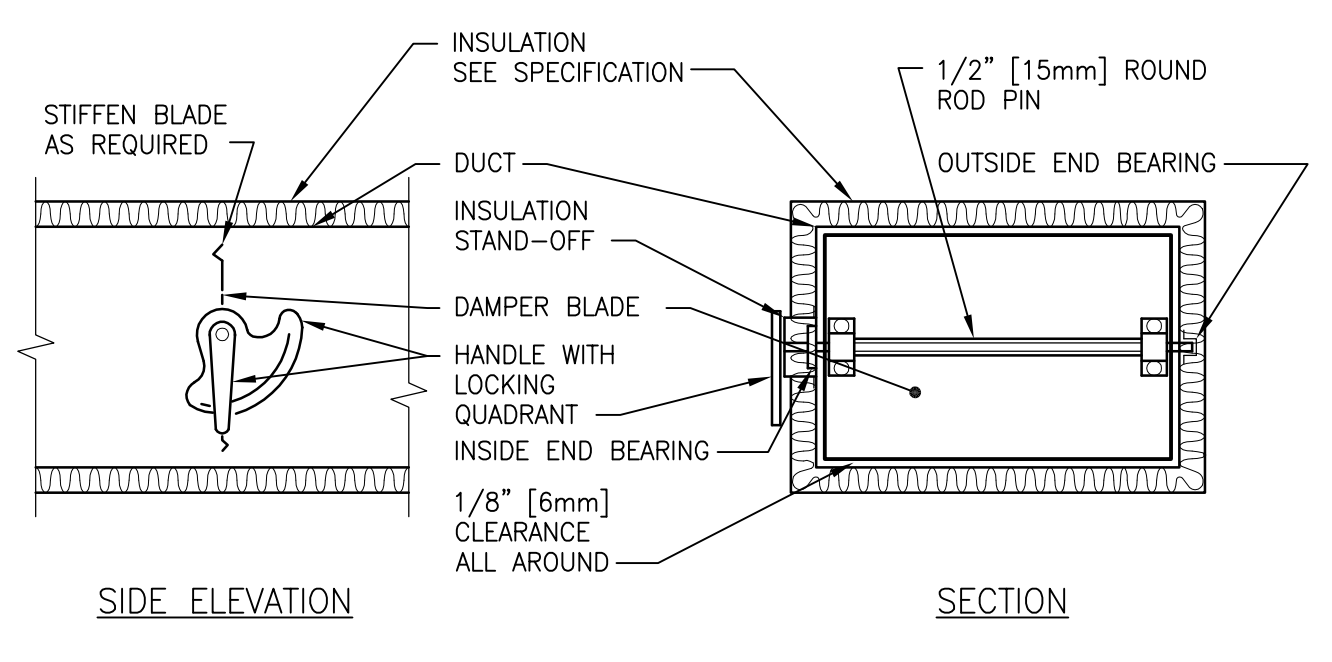


2 INCHES WG [500Pa] TO 4 INCHES WG [1000Pa] DUCT RISER SUPPORT

3 DUCT RISER SUPPORTS
 SCALE: NTS

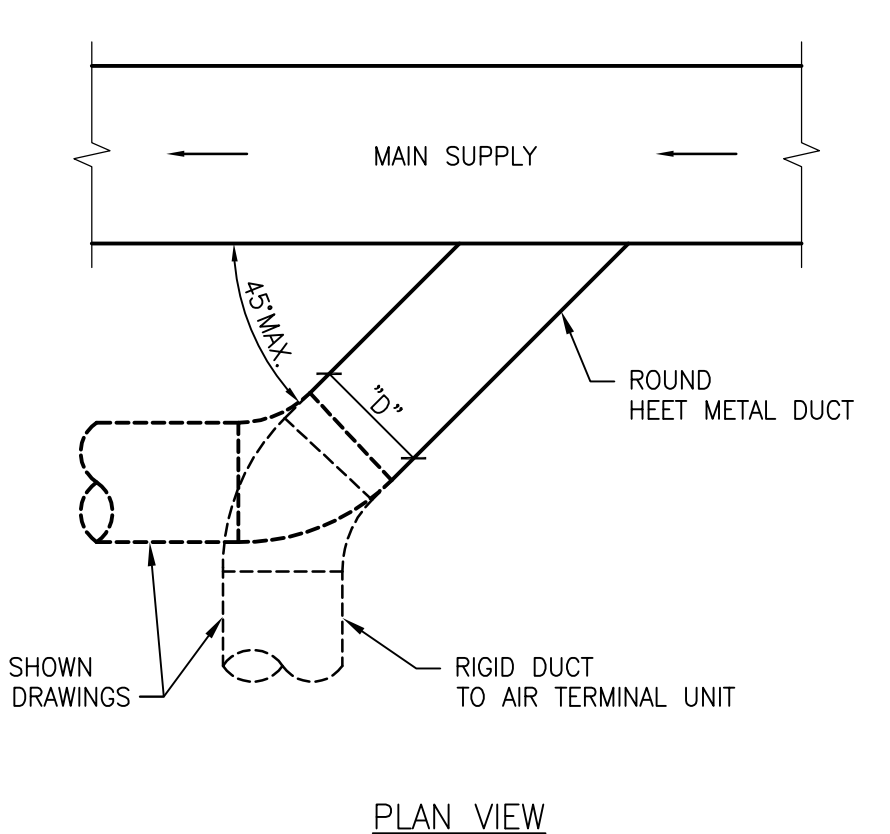


4 SUPPLY DUCTWORK TAKE-OFFS
 SCALE: NTS

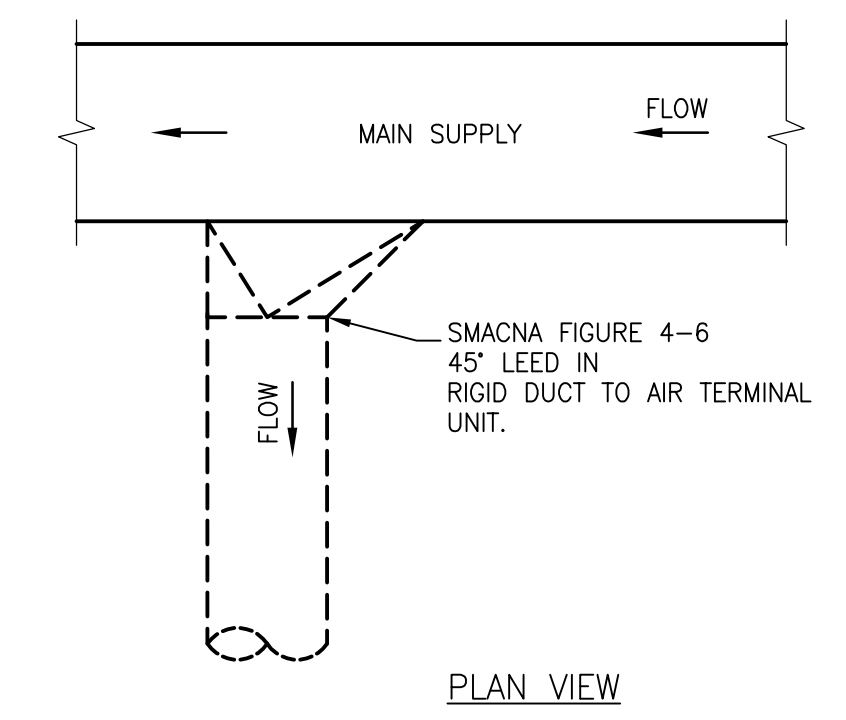


NOTES:
 1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
 2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

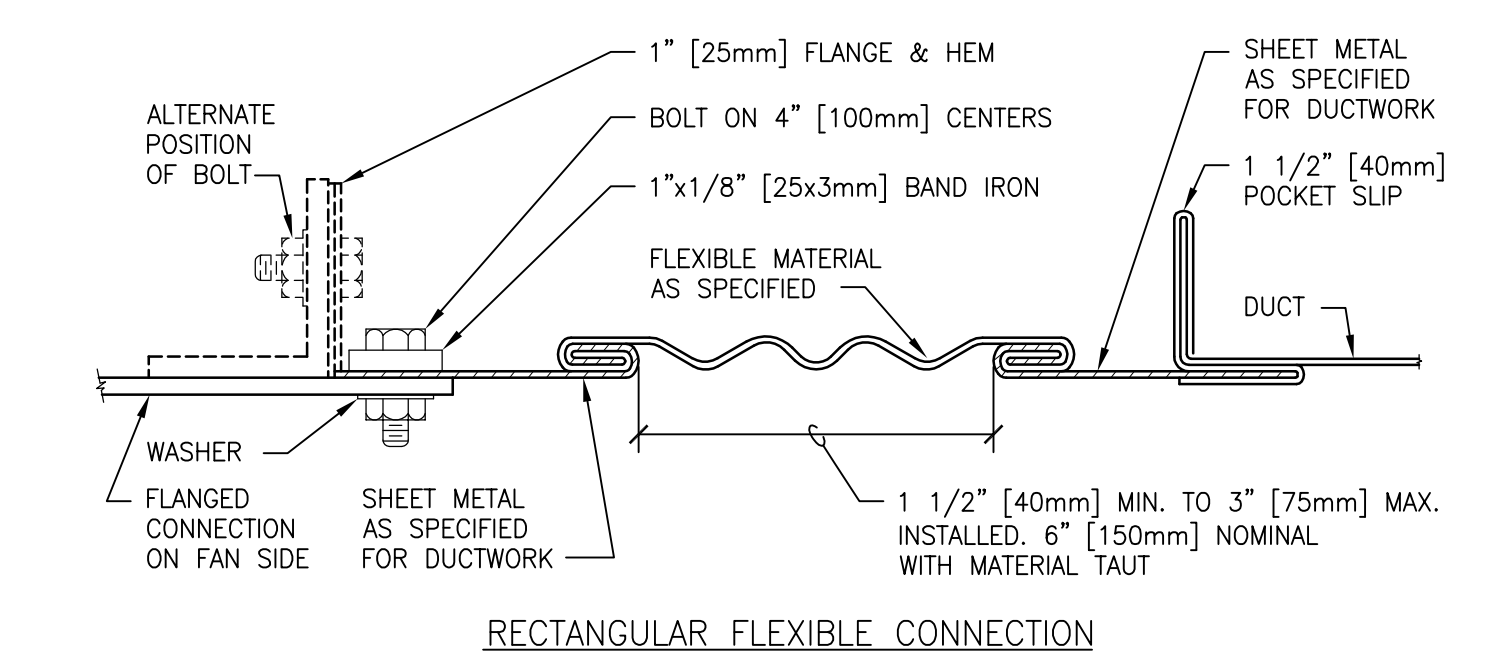
5 VOLUME DAMPER DETAIL
 SCALE: NTS



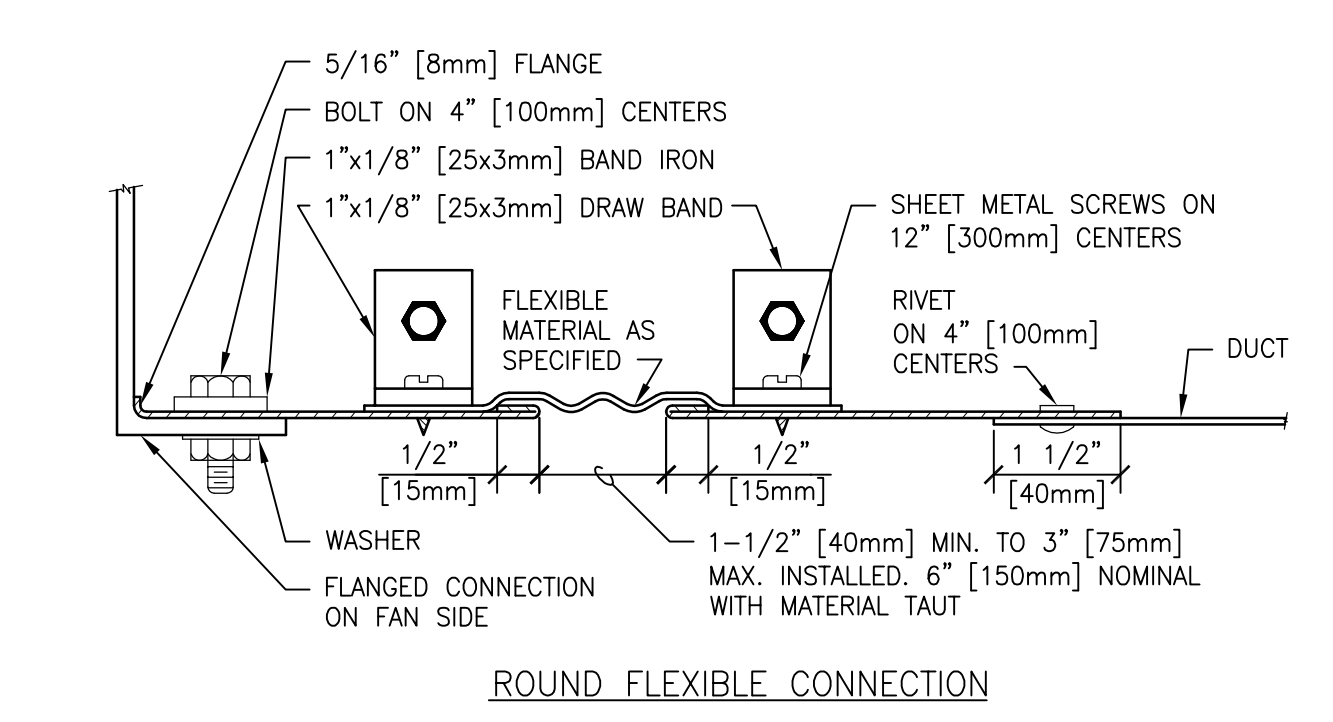
6 SUPPLY DUCT TAKEOFF - AIR TERMINAL UNIT
 SCALE: NTS



7 ALTERNATE SUPPLY DUCT TAKEOFF - AIR TERMINAL UNITS
 SCALE: NTS

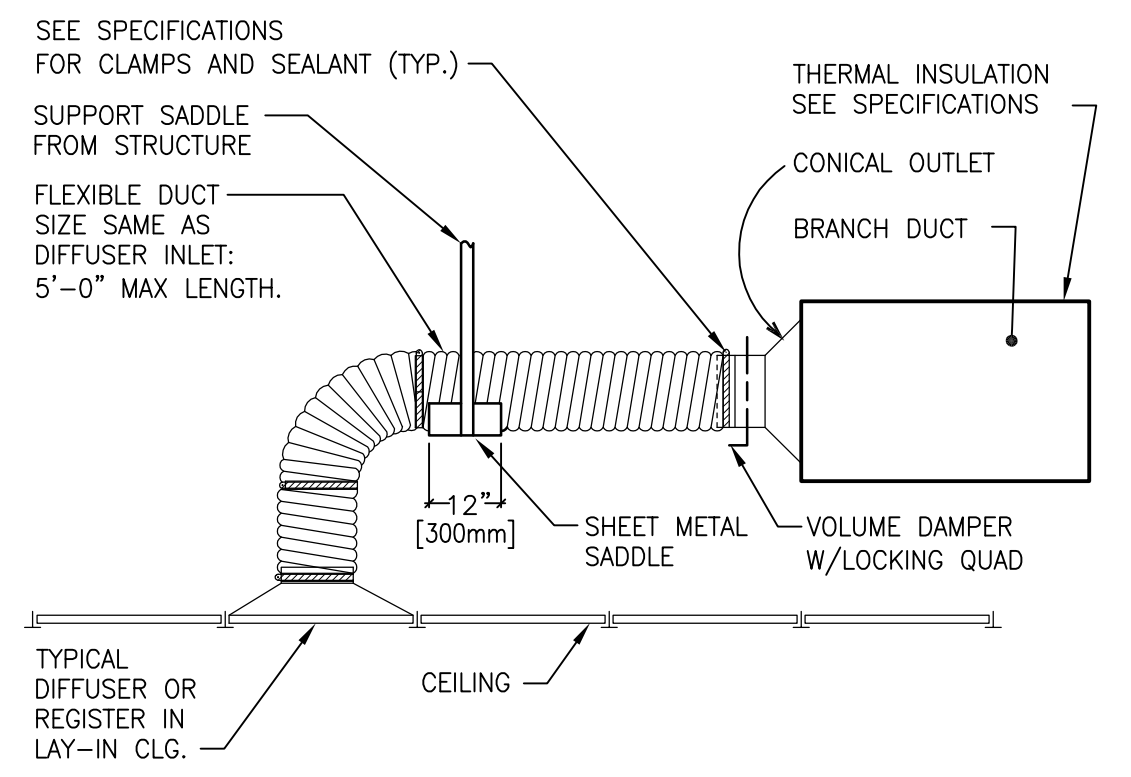


8 FLEXIBLE DUCT CONNECTIONS
 SCALE: NTS



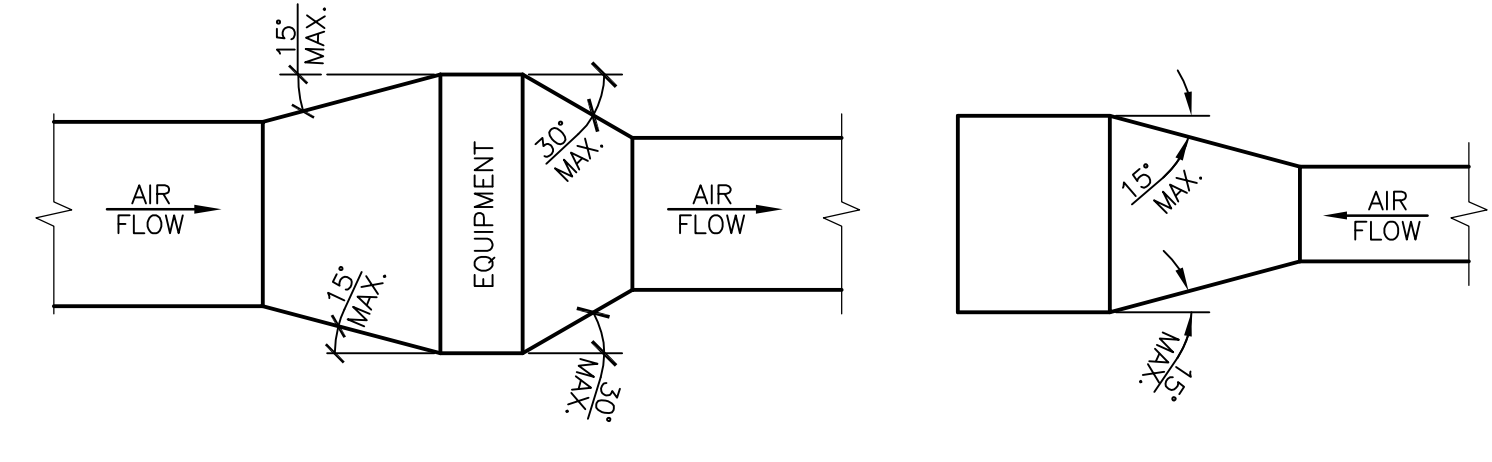
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|---|---|---|--|---|---|---|---|---|

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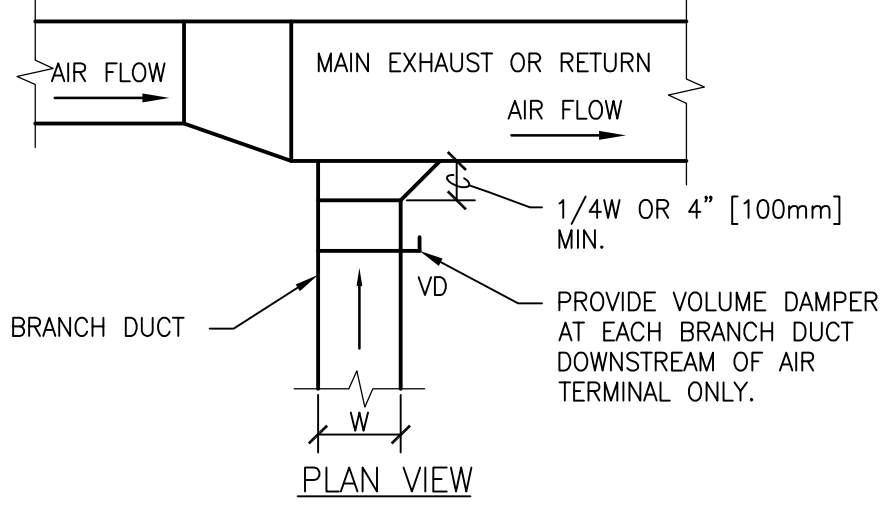
NOTE:
 THE USE OF FLEXIBLE AIR DUCT CONNECTORS ARE NOT PERMITTED FOR THE DEDICATED AHU SERVING THE SURGICAL SUITE.

1 FLEXIBLE AIR DUCT CONNECTOR
 SCALE: NTS



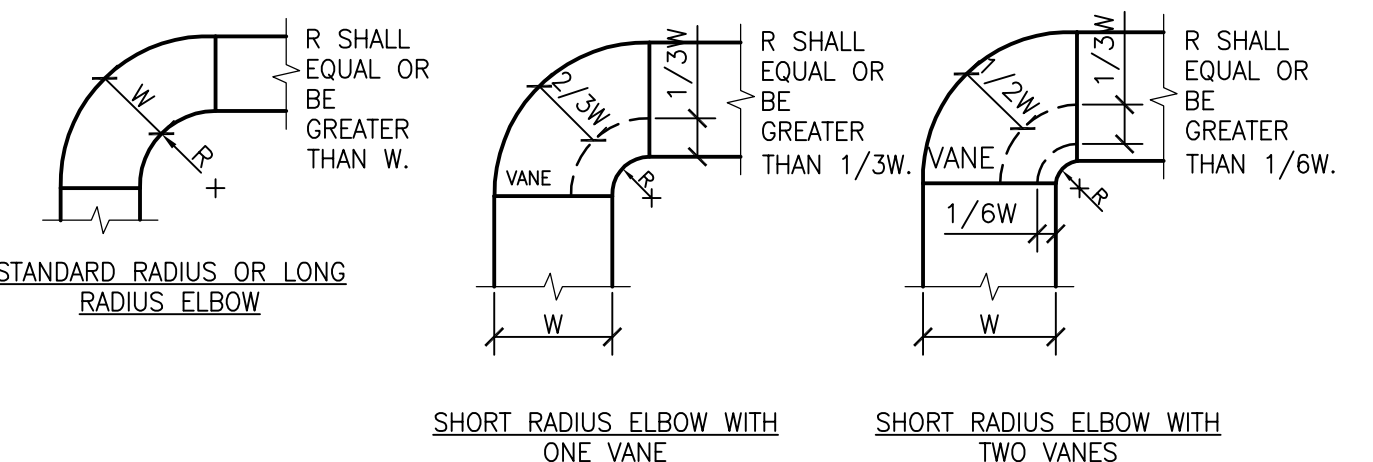
NOTE:
 UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.

2 DUCTWORK TRANSITIONS (WITH EQUIPMENT MOUNTED IN DUCT)
 SCALE: NTS



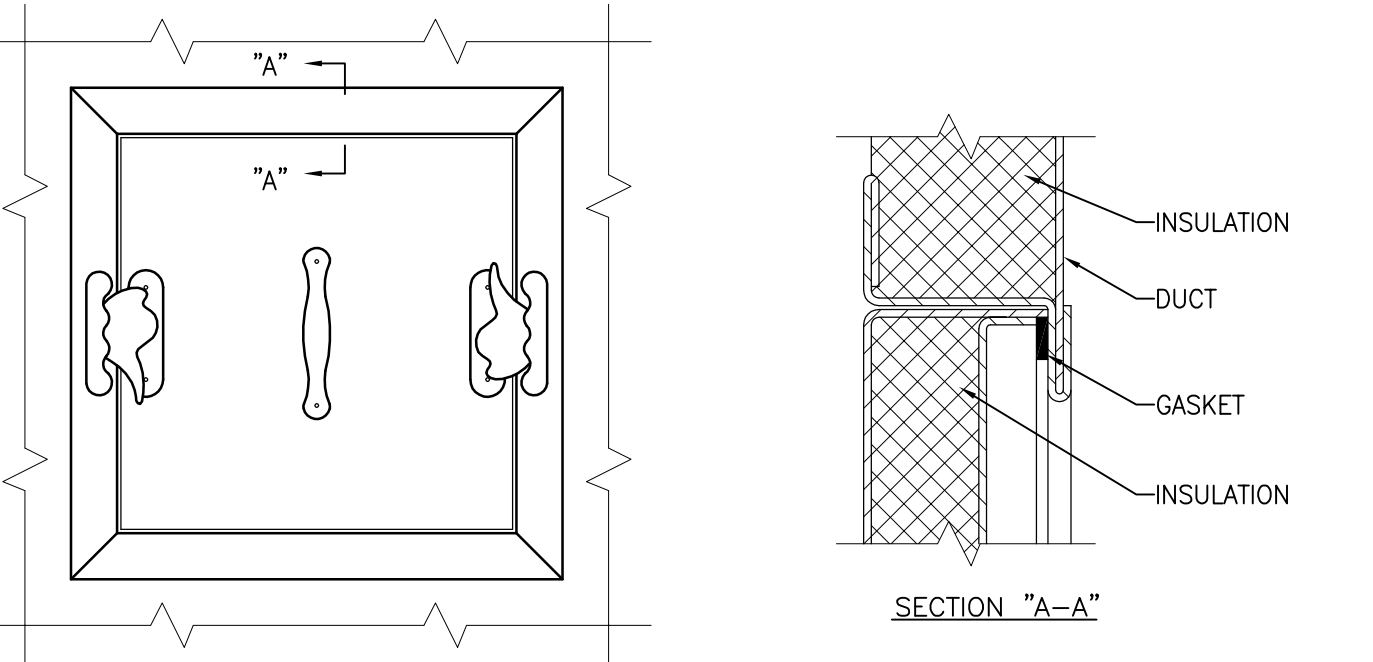
NOTE:
 PROVIDE VOLUME DAMPER AT EACH BRANCH DUCT DOWNSTREAM OF AIR TERMINAL ONLY.

3 EXHAUST OR RETURN BRANCH DUCTWORK
 SCALE: NTS

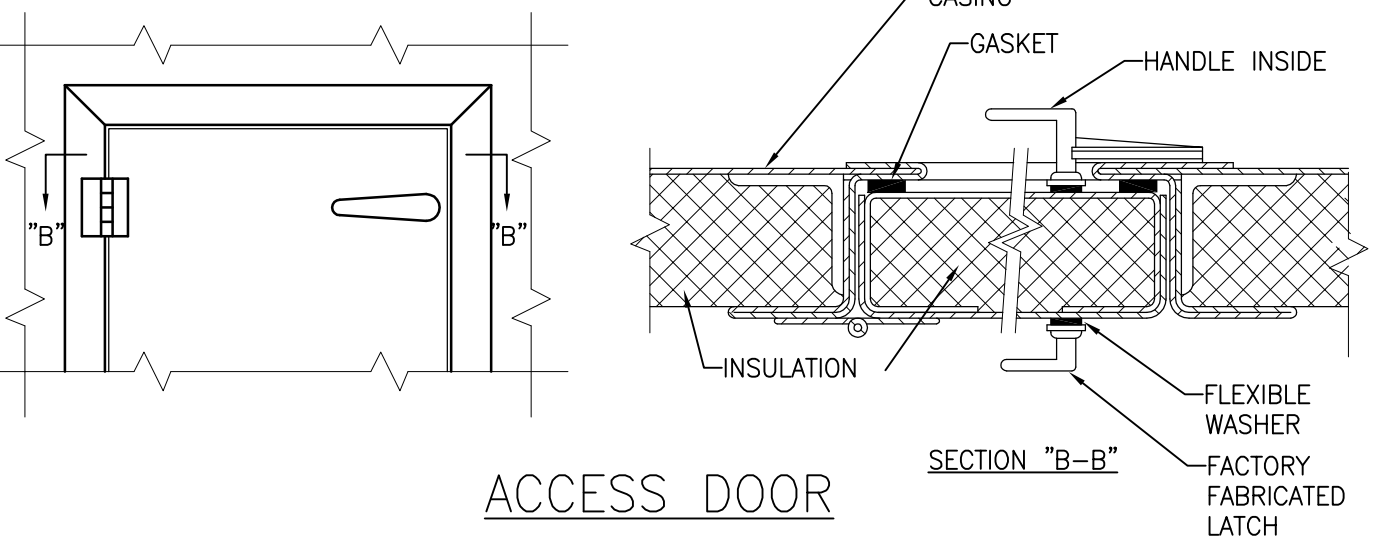


NOTES:
 1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
 2. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

4 DUCTWORK RADIUS ELBOWS
 SCALE: NTS



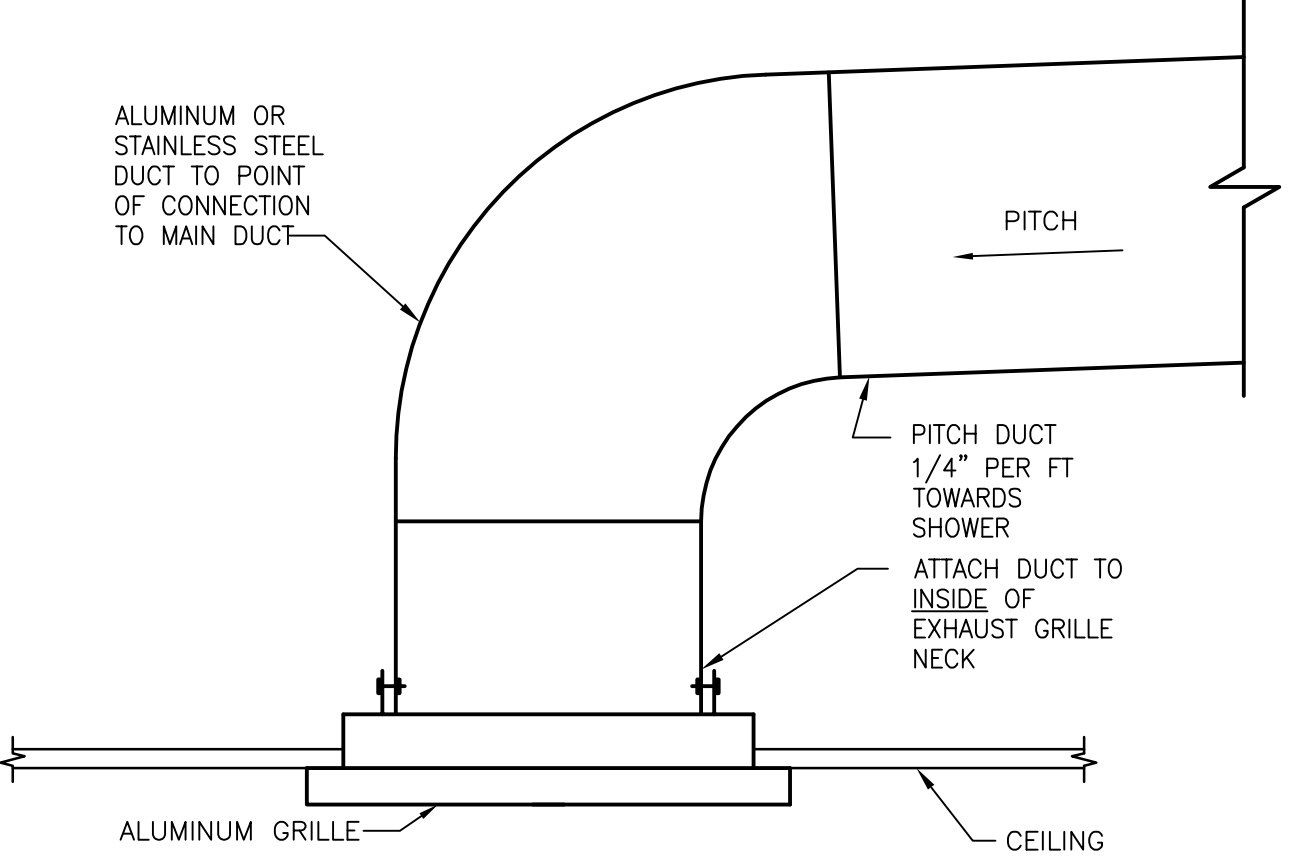
ACCESS PANEL



ACCESS DOOR

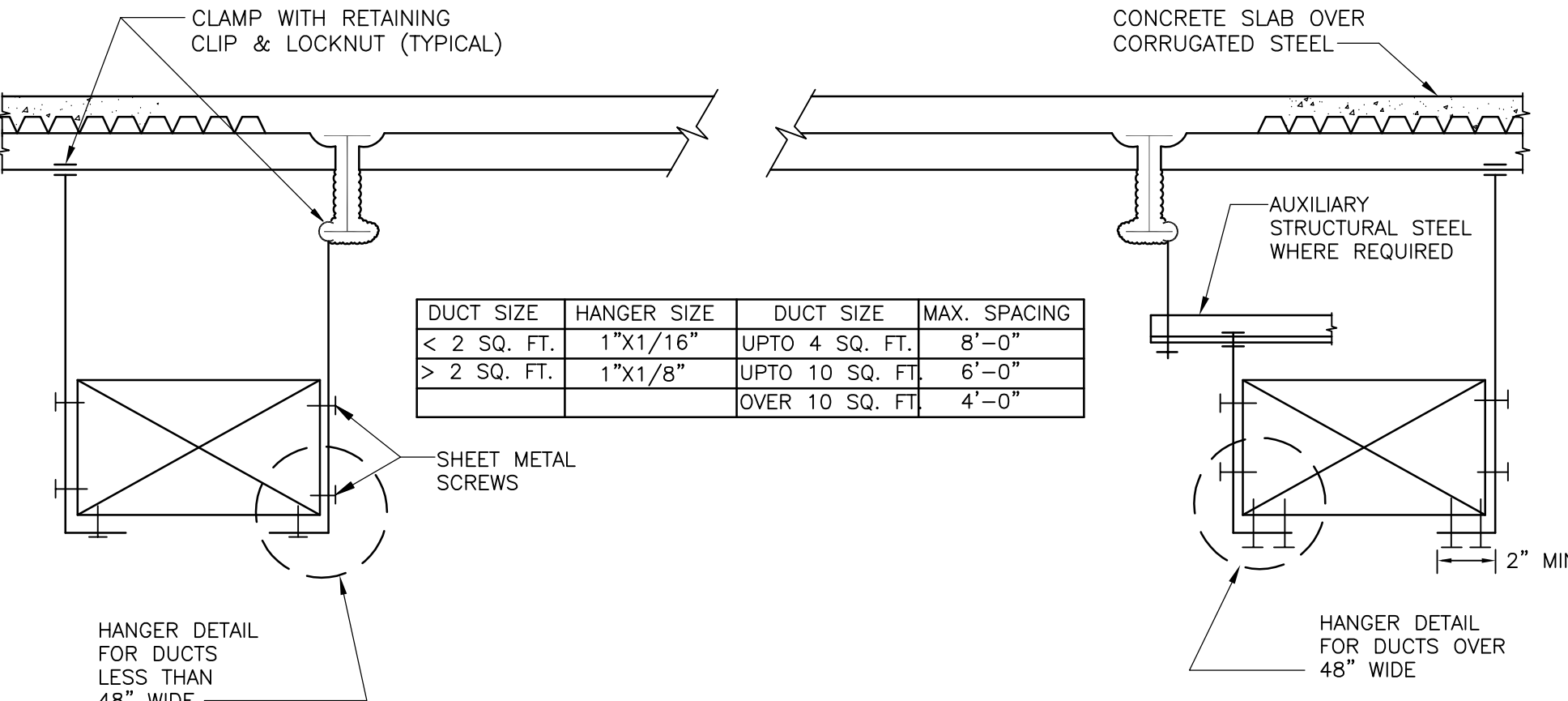
NOTES:
 1. LATCHES SHALL BE OF THE WEDGE TYPE TO CLOSE DOORS TIGHTLY.
 2. HINGES ON THE ACCESS DOORS SHALL HAVE NON-CORROSIVE PINS.
 3. SEE SMACNA 2005, FIGURE 9-15

5 ACCESS PANEL AND DOOR DETAIL
 SCALE: NTS



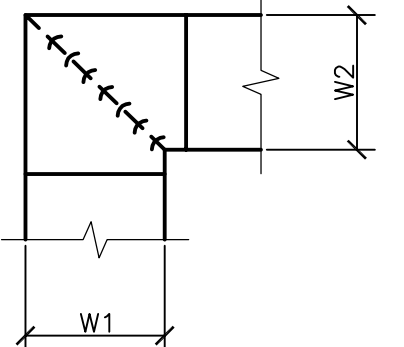
NOTE:
 SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

6 SPA EXHAUST GRILLE
 SCALE: NTS



| DUCT SIZE | HANGER SIZE | DUCT SIZE | MAX. SPACING |
|-------------|-------------|-----------------|--------------|
| < 2 SQ. FT. | 1"x1/16" | UPTO 4 SQ. FT. | 8'-0" |
| > 2 SQ. FT. | 1"x1/8" | UPTO 10 SQ. FT. | 6'-0" |
| | | OVER 10 SQ. FT. | 4'-0" |

7 DUCT SUPPORT HANGER DETAIL
 SCALE: NTS

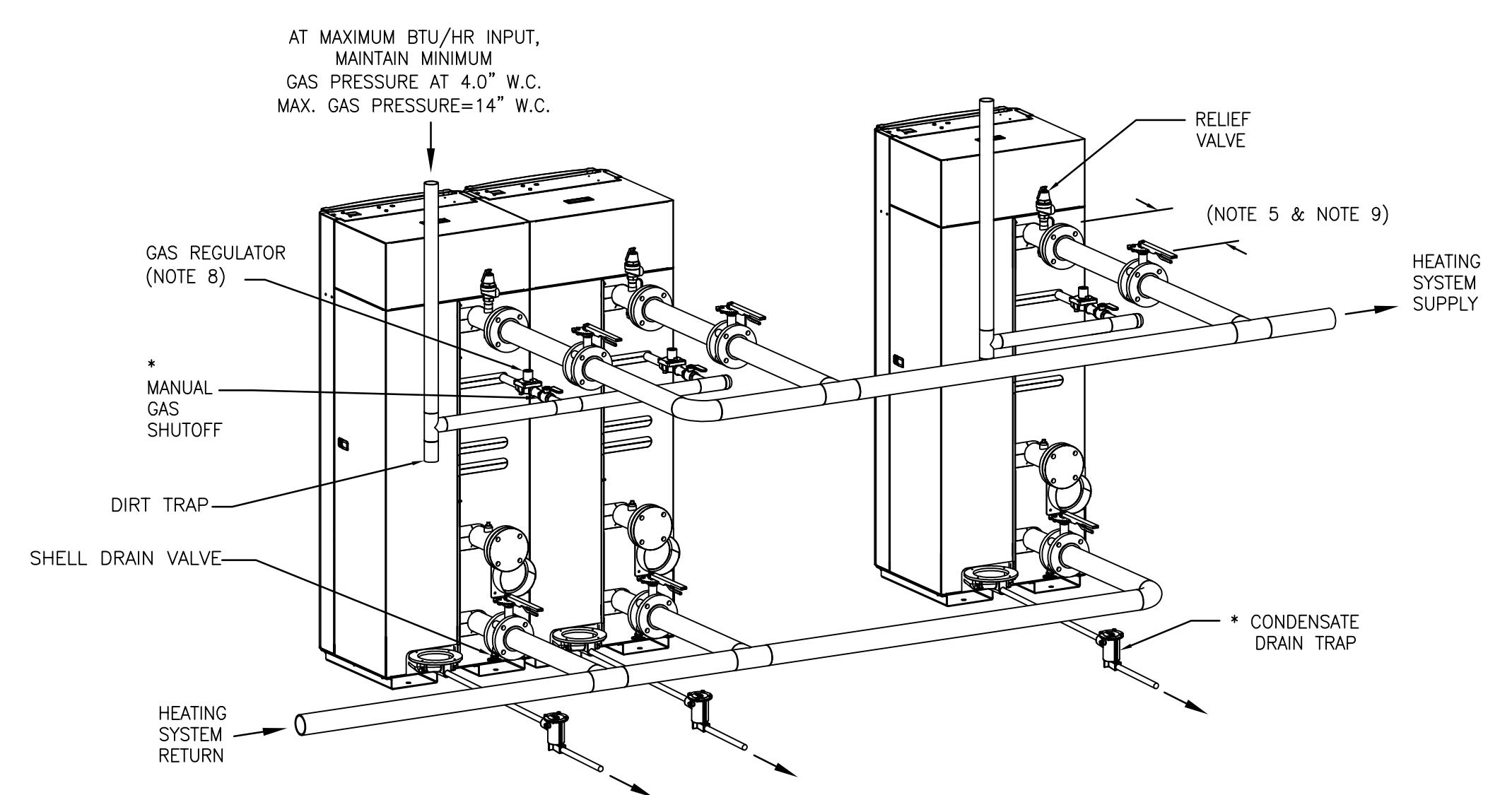


NOTES:
 1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
 2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.
 3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" [50mm] RADIUS, 1 1/2" [40mm] MAXIMUM SPACE BETWEEN VANES AND A 3/4" [20mm] TRAILING EDGE.
 4. WHEN W EQUALS W2 AND W1 IS GREATER THAN 20" [500mm] VANES SHALL BE DOUBLE VANE TYPE.

8 DUCTWORK SQUARE VANE ELBOWS
 SCALE: NTS

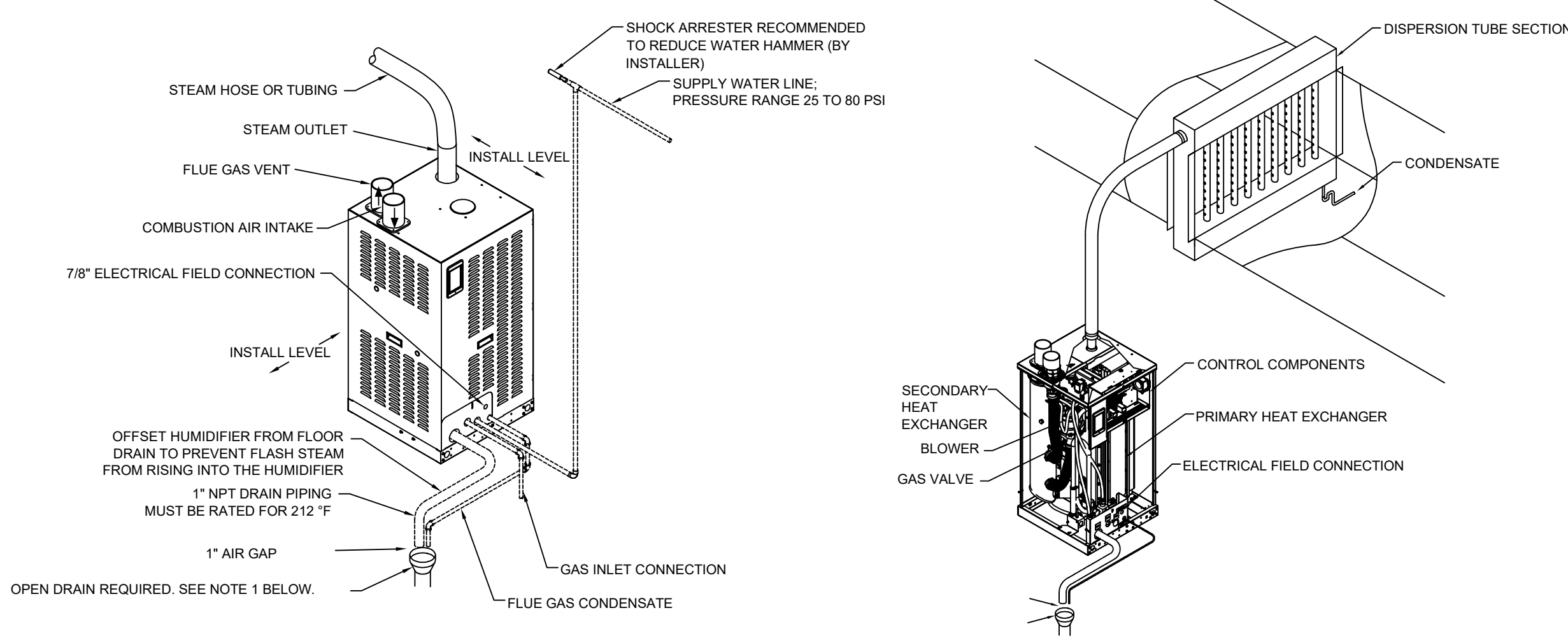
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| | | | | | Approved: | FULLY SPRINKLERED | Location LEBANON, PENNSYLVANIA | Building Number CLC-1 |
| Revisions: | Date: | | | | Issue Date 2023-02-09 | Checked PB | Drawn SP | Drawing Number M-504 |

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
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 three quarter inch = one foot
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 three eighths inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot



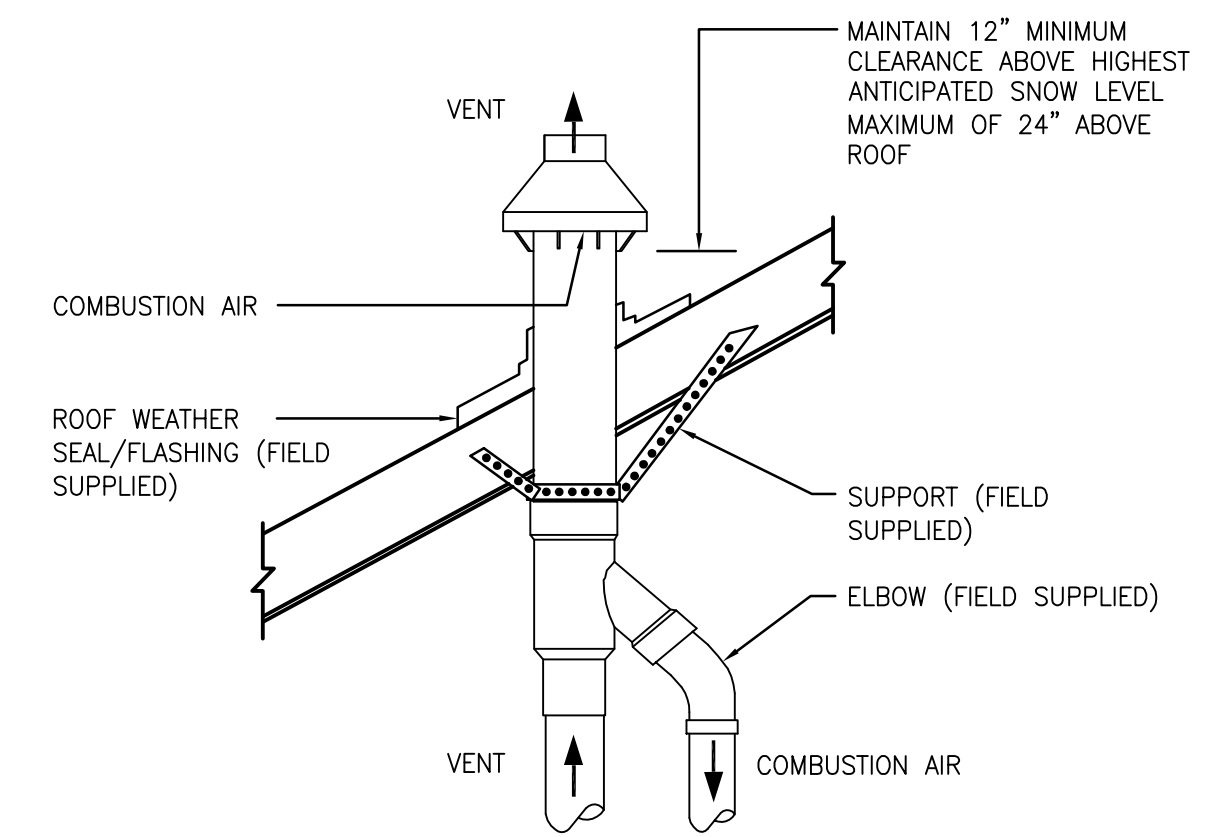
- NOTES:
1. FOR ACTUAL SIZES AND LOCATIONS OF PIPING AND OTHER CONNECTIONS TO THE HEATER, SEE DIMENSIONAL DRAWING.
 2. SHELL DRAIN VALVE AND CONDENSATE HOSE SHOULD BE ARRANGED TO PERMIT THE FLUIDS TO DRAIN FREELY, BY GRAVITY, TO A FLOOR DRAIN. RELIEF VALVE DISCHARGE SHOULD BE PIPED TO THE NEAREST FLOOR DRAIN. WHEN NO FLOOR DRAIN IS AVAILABLE, THE RELIEF VALVE DISCHARGE SHOULD BE PIPED VERTICALLY TO A HEIGHT 18" ABOVE THE FLOOR.
 3. ALL (*) ITEMS ARE INCLUDED SEPARATELY IN SHIPMENT.
 4. THIS IS A TYPICAL INSTALLATION DRAWING. LOCAL CODES AND AUTHORITIES SHOULD BE CONSULTED.
 5. LOCATE WATER INLET AND OUTLET FITTINGS (i.e. UNIONS, ELBOWS, ETC.) A MINIMUM OF 6" FROM HEATER FITTINGS, TO PREVENT INTERFERENCE WITH REMOVAL OF BOILER PANELS AND COVERS. ALL PIPING AND ELECTRIC CONNECTIONS (SERVICE SWITCHES, CONDUIT BOXES) SHOULD LIKEWISE BE 6" AWAY FROM SIDE PANELS.
 6. WHEN AVAILABLE GAS PRESSURE IS GREATER THAN 14" W.C., A LOCK-UP STYLE REGULATOR MUST BE INSTALLED DOWNSTREAM OF THE MANUAL SHUTOFF VALVE TO BRING THE GAS PRESSURE DOWN TO 14" W.C. OR LESS.
 7. WHEN USING THE AERCO CONDENSATE NEUTRALIZER TANK, FOR PROPER CONDENSATE DRAINAGE, THE NEUTRALIZER TANK MUST BE INSTALLED IN A PIT OR THE BOILER AND THE AERCO CONDENSATE TRAP MUST BE ELEVATED HIGHER THAN 4" ABOVE THE FLOOR. SEE CONDENSATE TANK INSTRUCTIONS TID-0074 FOR DETAILS.
 8. AT 14" W.C. OR BELOW, A GAS REGULATOR IS OPTIONAL UNLESS REQUIRED BY LOCAL CODE.
 9. USE OF BALANCING VALVES IS RECOMMENDED IF THE PIPING ARRANGEMENT IS NOT REVERSE RETURN.

1 MULTIPLE CONDENSING BOILER HOT WATER AND GAS PIPING
 SCALE: NTS



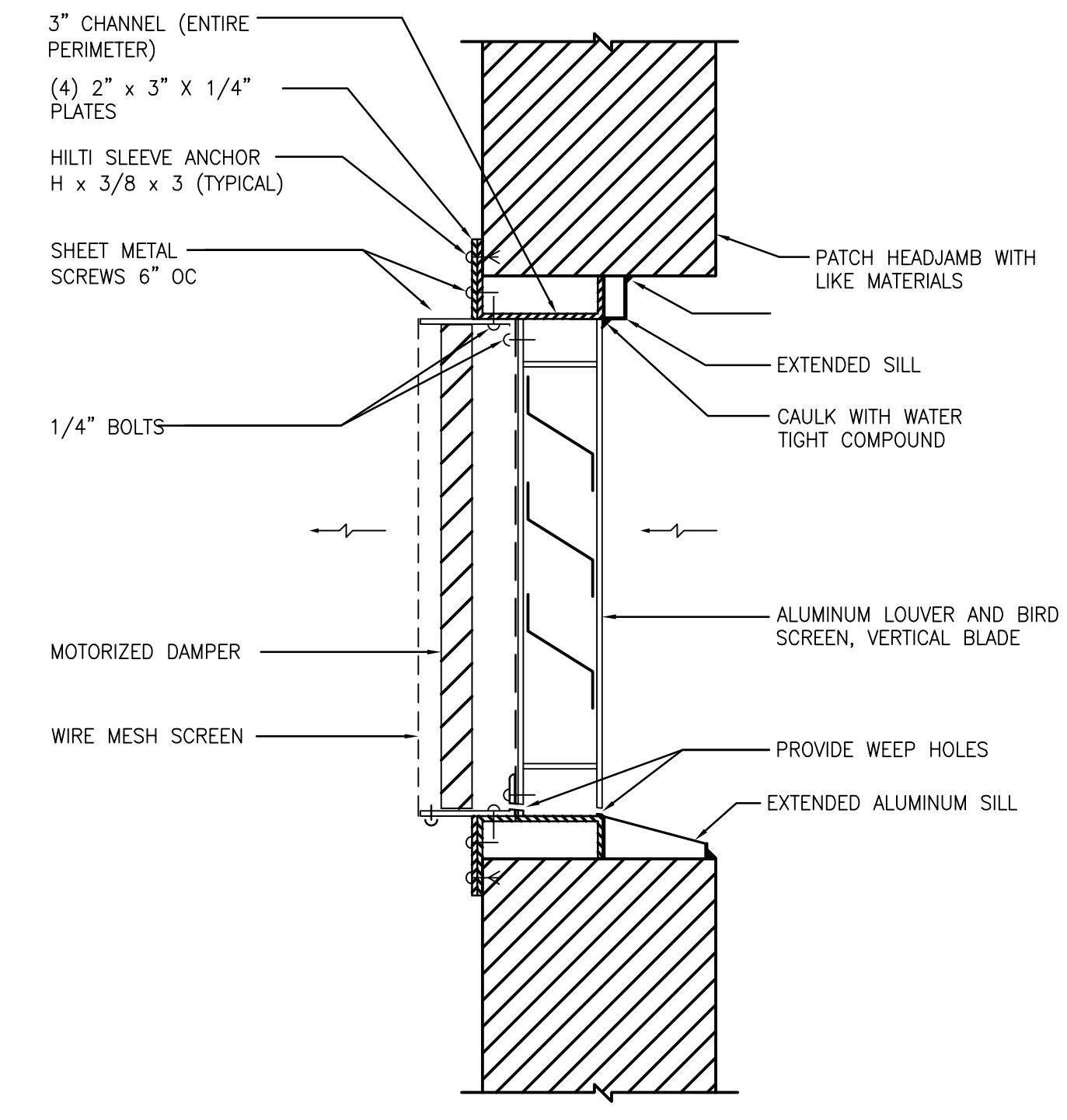
- NOTES:
1. LOCATE AIR GAP ONLY IN SPACES WITH ADEQUATE TEMPERATURE AND AIR MOVEMENT TO ABSORB FLASH STEAM. OTHERWISE, CONDENSATION MAY FORM ON NEARBY SURFACES. REFER TO GOVERNING CODES FOR DRAIN PIPE SIZE AND MAXIMUM DISCHARGE WATER TEMPERATURE.
 2. DASHED LINES INDICATE PROVIDED BY INSTALLER.
 3. HUMIDIFIER FLUE GASES MUST BE VENTED TO THE OUTSIDE ATMOSPHERE.
 4. SUPPLY WATER INLET IS MORE THAN 1" ABOVE SKIM/OVERFLOW PORT. ELIMINATING THE POSSIBILITY OF BACKFLOW OR SIPHONING FROM TANK. NO ADDITIONAL BACKFLOW PREVENTION IS REQUIRED, HOWEVER, GOVERNING CODES PREVAIL.
 5. FOR ADDITIONAL BACKFLOW PREVENTION INSTALLATION, INSTALL AT A MAXIMUM OF 40" OF FROM THE HUMIDIFIER.
 6. PROVIDE CONCENTRIC VENT AIR INTAKE PIPE AND TERMINATION KIT FOR ROOF VERTICAL INSTALLATION.
 7. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PIPING, VENTING AND DRAIN NEUTRALIZER DETAILS.

5 GAS-FIRED STEAM GENERATOR (HUMIDIFIER) DETAIL
 SCALE: NTS

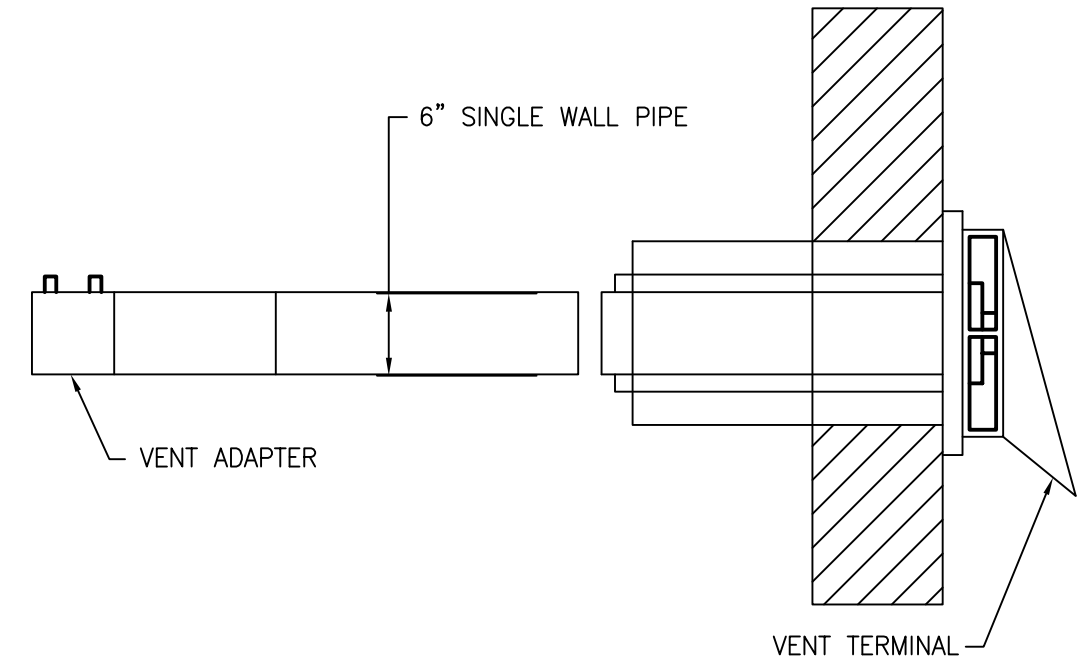


- NOTES:
1. ALL AIR INTAKE AND COMBUSTION FLUE TERMINATIONS, PIPING LAYOUT AND MATERIALS SHALL BE APPROVED BY EQUIPMENT MANUFACTURER.

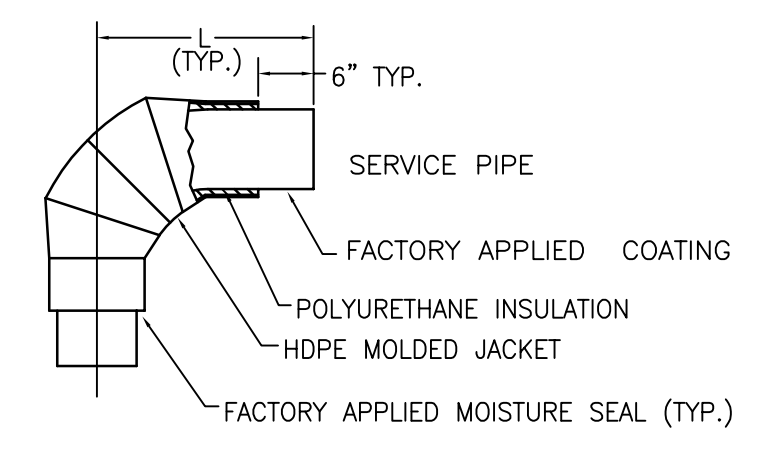
2 CONCENTRIC DUCT MOUNTING
 SCALE: NTS



6 MOTORIZED LOUVER DETAIL
 SCALE: NTS

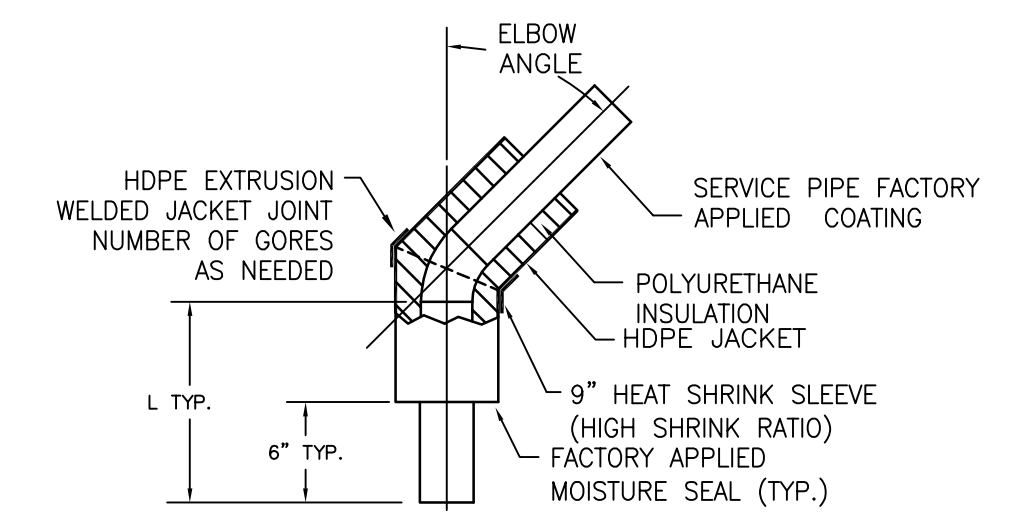


9 DRYER VENT TERMINAL
 SCALE: NTS



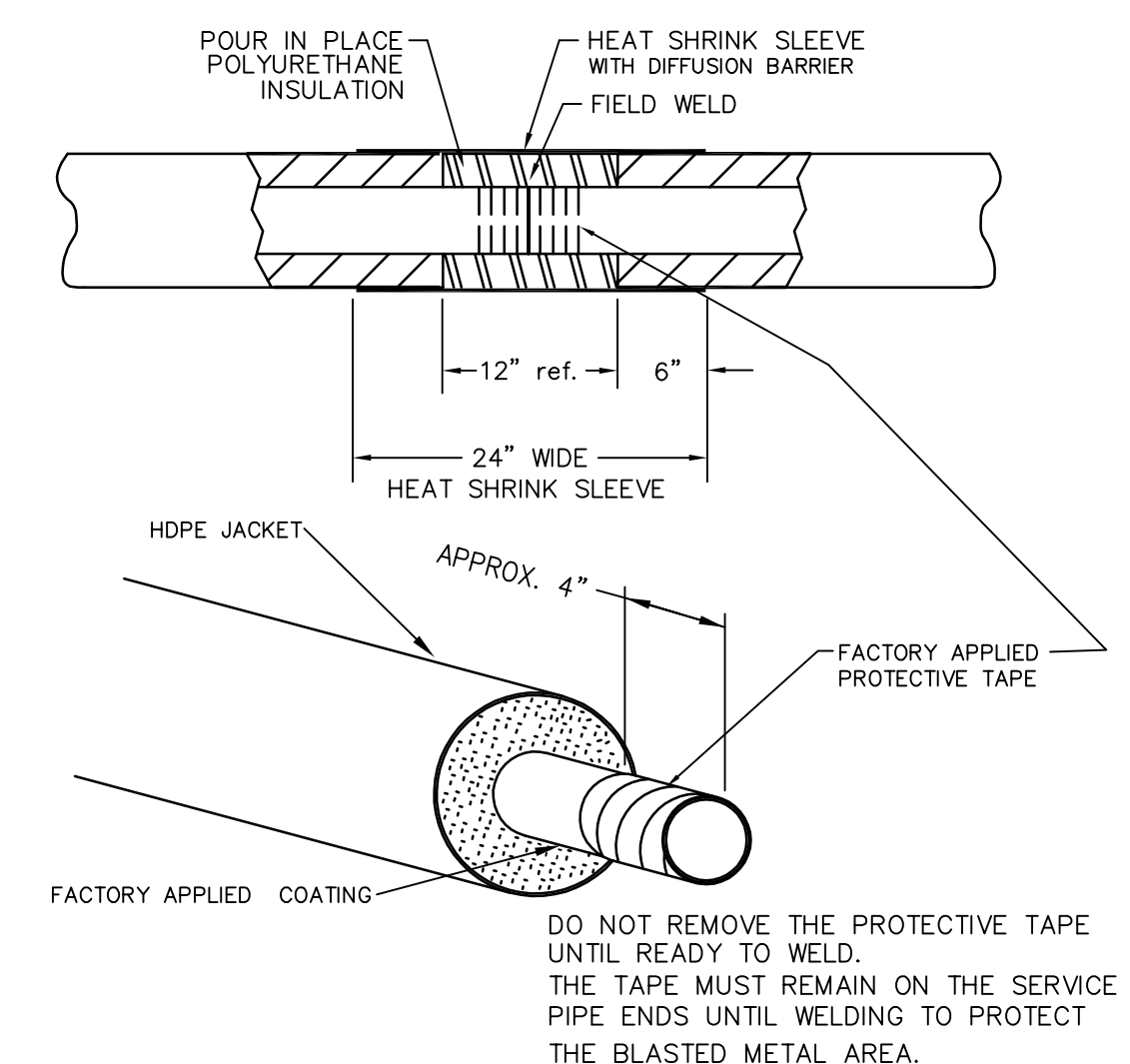
- NOTE:
1. PIPE BENDING IN PLACE OF WELDED ELBOWS MAY BE USED.
 2. FOR 2" AND SMALLER PIPE: SQUARE ENDS 3000 LB. SOCKETWELD FITTINGS.
 3. FOR 2 1/2" AND LARGER PIPE: BEVELED ENDS BUTTWELD FITTINGS.

3 UNDERGROUND PIPING STANDARD 90° ELBOW DETAIL
 SCALE: NTS



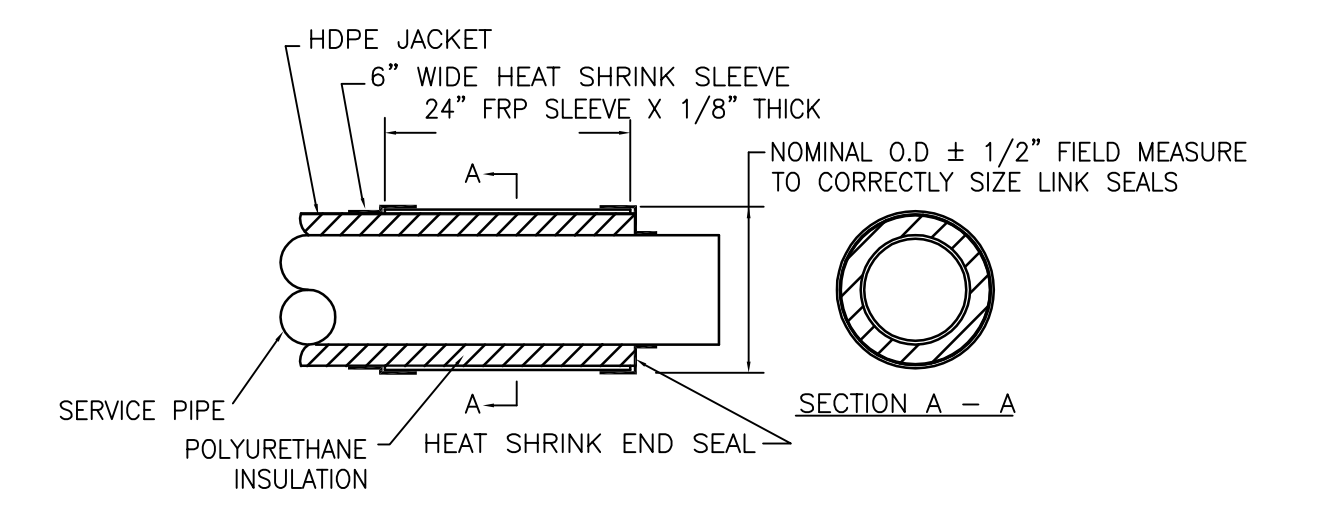
- NOTE:
1. PIPE BENDING IN PLACE OF WELDED ELBOWS MAY BE USED.
 2. FOR 2" AND SMALLER PIPE: SQUARE ENDS 3000 LB. SOCKETWELD FITTINGS. FOR 2 1/2" AND LARGER PIPE: BEVELED ENDS BUTTWELD FITTINGS.

7 UNDERGROUND PIPING ODD DEGREE ELBOW DETAIL
 SCALE: NTS

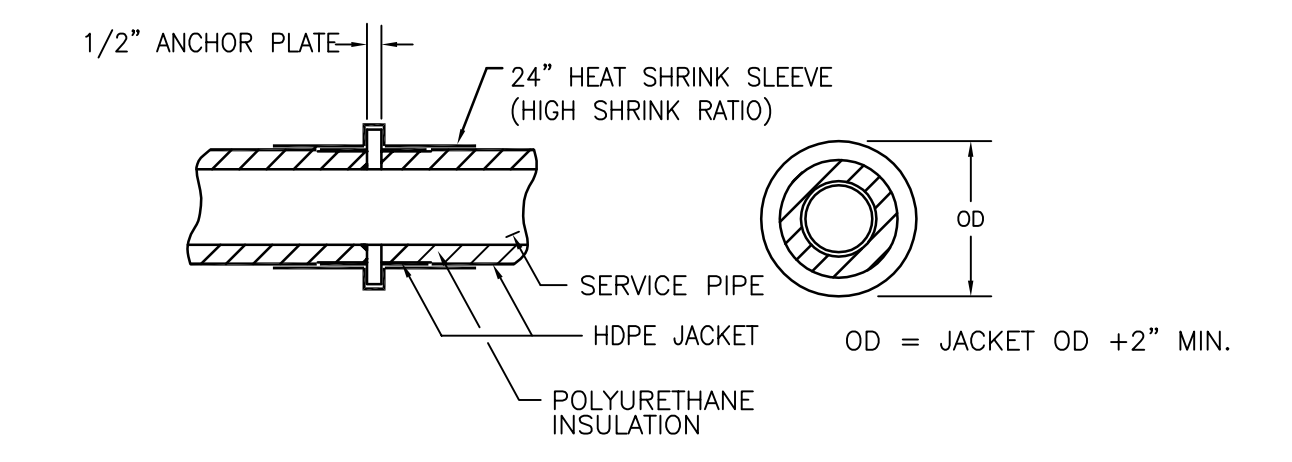


- NOTES:
1. SOCKET WELD COUPLINGS, IF REQUIRED SUPPLIED BY INSTALLER.
 2. THE FOLLOWING FIELD JOINT MATERIAL SUPPLIED BY PERMA-PIPE: POUR IN PLACE POLYURETHANE INSULATION MOLD FOR POUR IN PLACE HEAT SHRINK SLEEVE. STORE ALL CHEMICALS AT 60°F TO 85°F.
 3. DIFFERENCES IN HDPE JACKET OD'S BETWEEN PIECES ARE ACCOMMODATED BY A TAPER ACROSS THE FIELD JOINT.

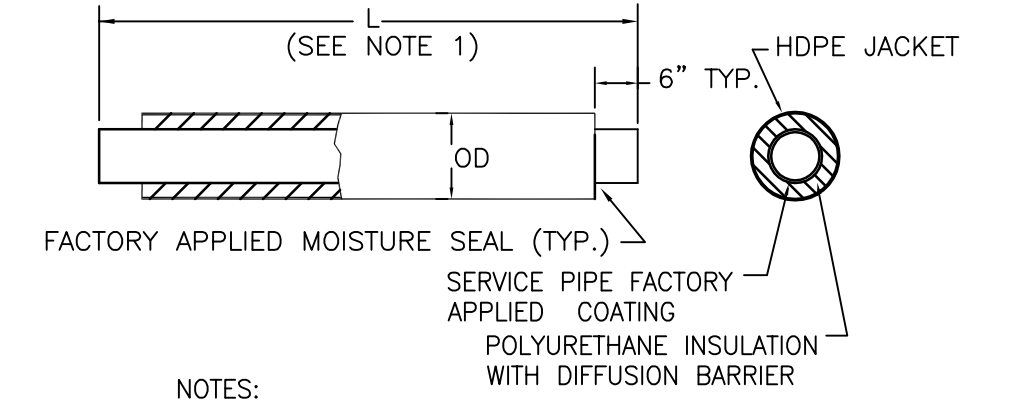
10 UNDERGROUND PIPING FIELD JOINT & HEAT SHRINK SLEEVE DETAIL
 SCALE: NTS



4 UNDERGROUND PIPING WALL ENTRY END SEAL DETAIL
 SCALE: NTS



8 UNDERGROUND PIPING ANCHOR ASSEMBLY DETAIL
 SCALE: NTS

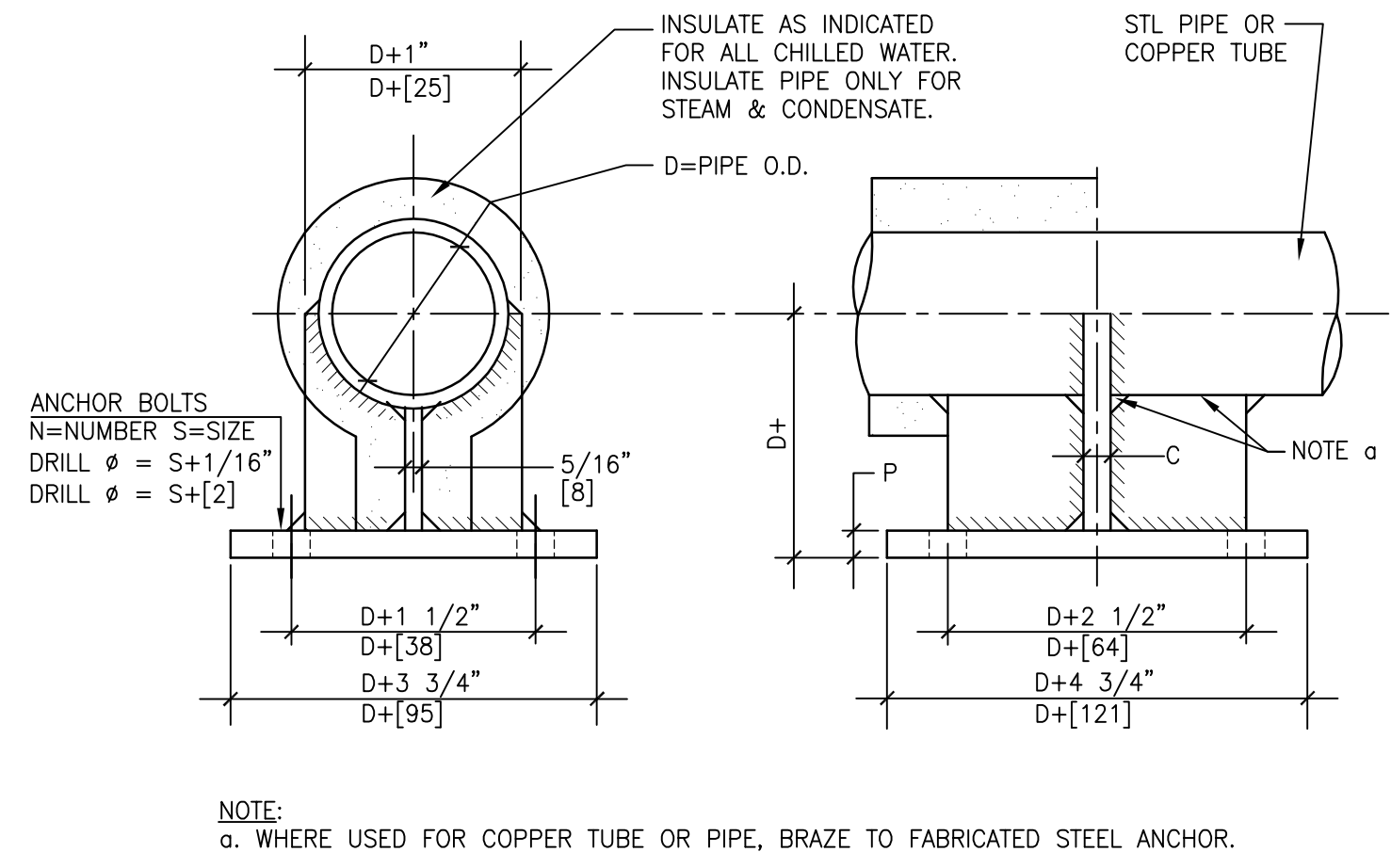


- NOTES:
1. 40' MAXIMUM RANDOM LENGTH.
 2. FOR 2" AND SMALLER PIPE: SQUARE ENDS.
 3. FOR 2 1/2" AND LARGER PIPE: BEVELED ENDS.

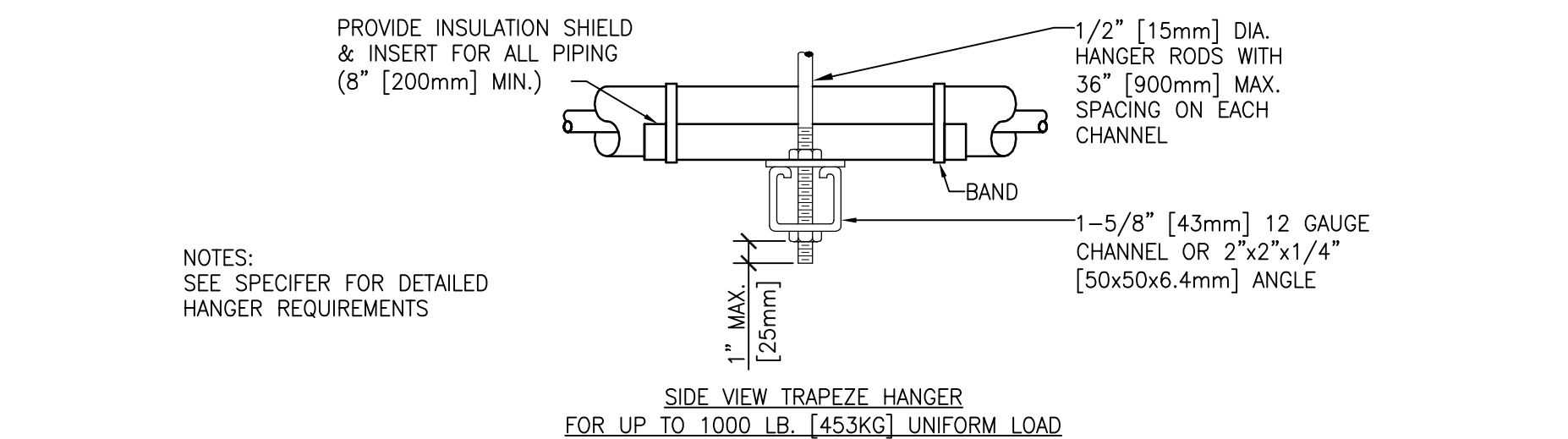
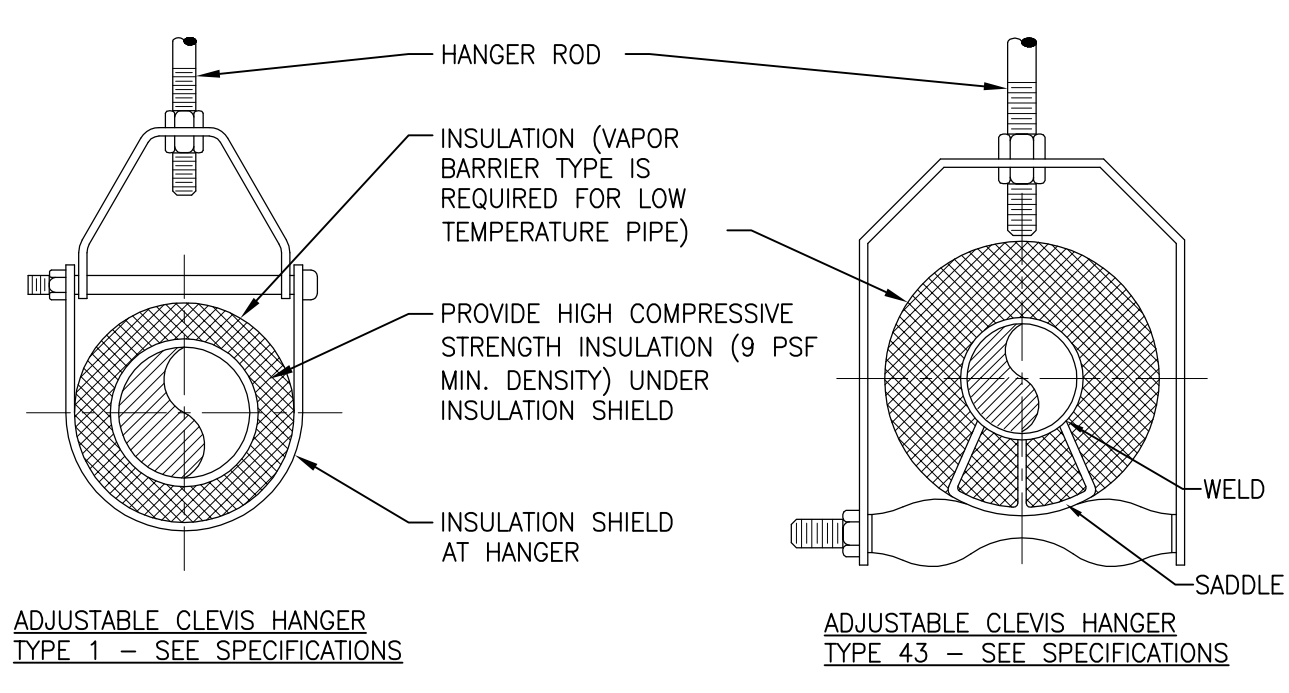
11 UNDERGROUND PIPING STRAIGHT PIPE DETAIL
 SCALE: NTS

| | | | | | | | | |
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| | | | | | | | Location LEBANON, PENNSYLVANIA | Issue Date 2023-02-09 |

| PIPE ANCHOR SCHEDULE | | | | | | | | | |
|----------------------|-----|------|----|------|--------------|--|--|--|--|
| D | P | C | N | S | BOLT PATTERN | | | | |
| IN | MM | IN | MM | IN | MM | | | | |
| 4" | 102 | 3/8" | 16 | 3/4" | 19 | | | | |
| 3" | 76 | 1/2" | 13 | 1/2" | 13 | | | | |
| 2 1/2" | 64 | 3/8" | 10 | 3/8" | 10 | | | | |
| 2" | 51 | 3/8" | 10 | 3/8" | 10 | | | | |
| 1 1/2" | 38 | 3/8" | 10 | 3/4" | 19 | | | | |



1 SMALL PIPE ANCHOR (1 1/2"-4")
SCALE: NTS

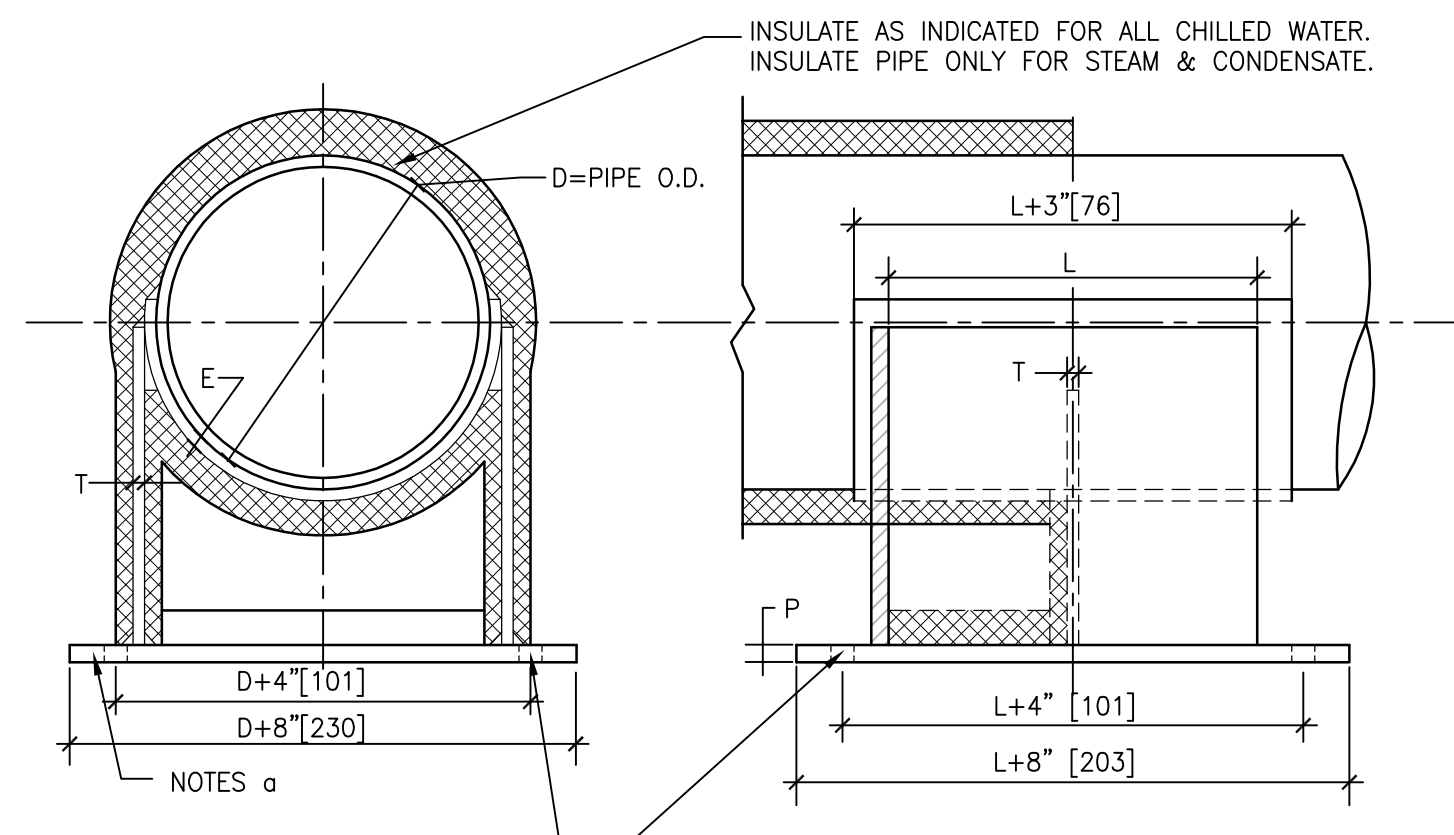


| MAXIMUM PIPE/TUBING SUPPORT SPACING | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|----|
| NOM. SIZE | IN. | THRU | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 24 |
| PIPE | FT. | 2100 | 2100 | 2100 | 2700 | 3000 | 3400 | 3700 | 4100 | 4900 | 5200 | 5800 | 6700 | 7000 | 7600 | 8200 | 8500 | 9100 | 9600 | |
| TUBING | FT. | 5 | 6 | 7 | 8 | 8 | 9 | 10 | 12 | 13 | 14 | 16 | - | - | - | - | - | - | - | |
| | (mm) | [1500] | [1800] | [2100] | [2400] | [2400] | [2700] | [3000] | [3700] | [4000] | [4100] | [4900] | - | - | - | - | - | - | - | |

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.

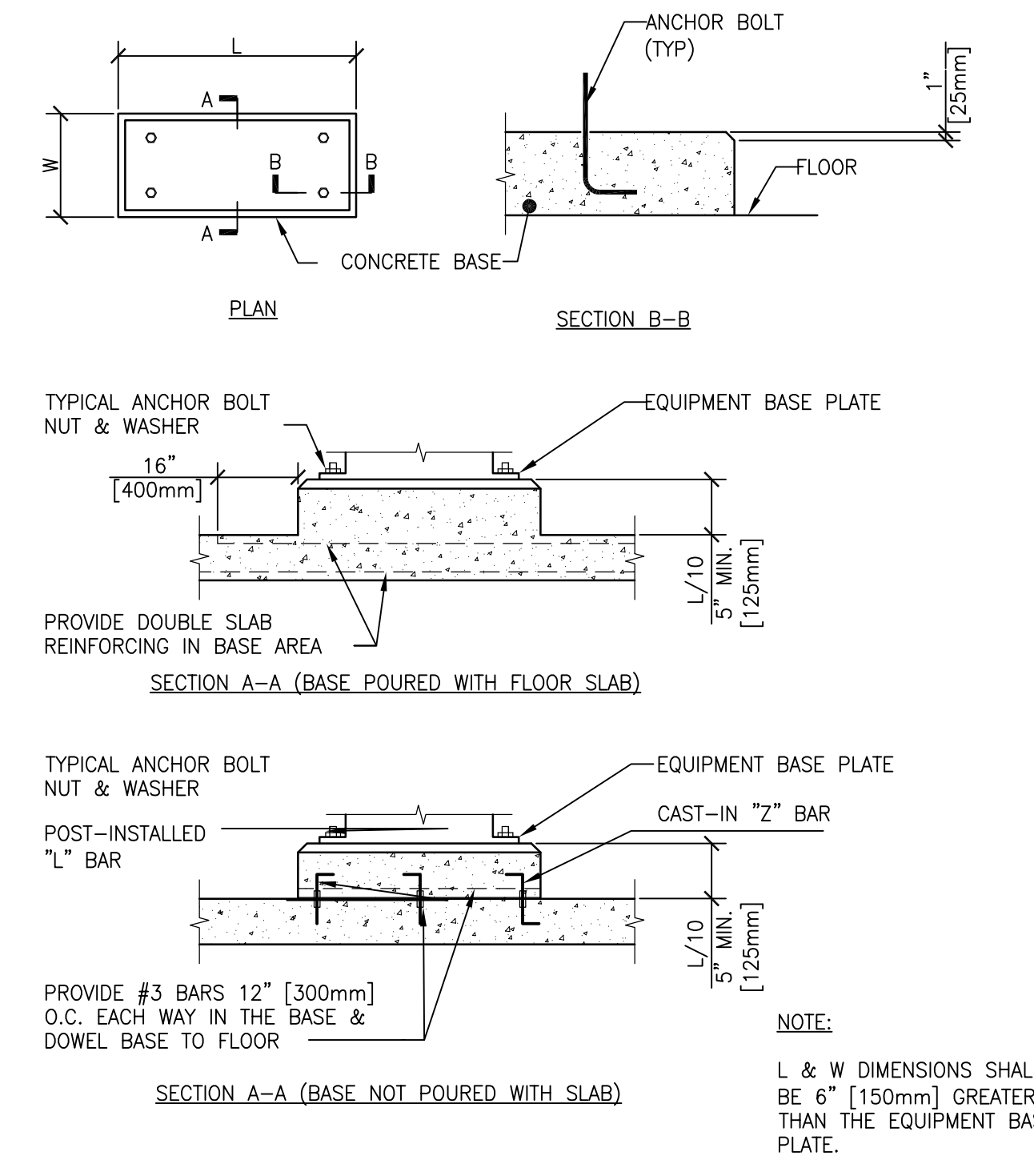
2 PIPE HANGERS
SCALE: NTS

| PIPE ANCHOR SCHEDULE | | | | | | | | | | | | | | |
|----------------------|-----|--------|-----|------|----|------|--------------|--|--|--|--|--|--|--|
| D | L | P | T | F | N | S | BOLT PATTERN | | | | | | | |
| IN | MM | IN | MM | IN | MM | IN | MM | | | | | | | |
| 6" | 152 | 8 1/2" | 216 | 3/4" | 19 | 3/8" | 10 | | | | | | | |
| 8" | 203 | 10" | 254 | 3/4" | 19 | 1/2" | 13 | | | | | | | |
| 10" | 254 | 12" | 305 | 3/4" | 19 | 1/2" | 13 | | | | | | | |
| 12" | 305 | 14" | 356 | 3/4" | 19 | 1/2" | 13 | | | | | | | |
| 14" | 356 | 16" | 406 | 3/4" | 19 | 1/2" | 13 | | | | | | | |
| 16" | 406 | 18" | 457 | 3/4" | 19 | 1/2" | 13 | | | | | | | |
| 18" | 457 | 20" | 508 | 1" | 25 | 3/8" | 10 | | | | | | | |

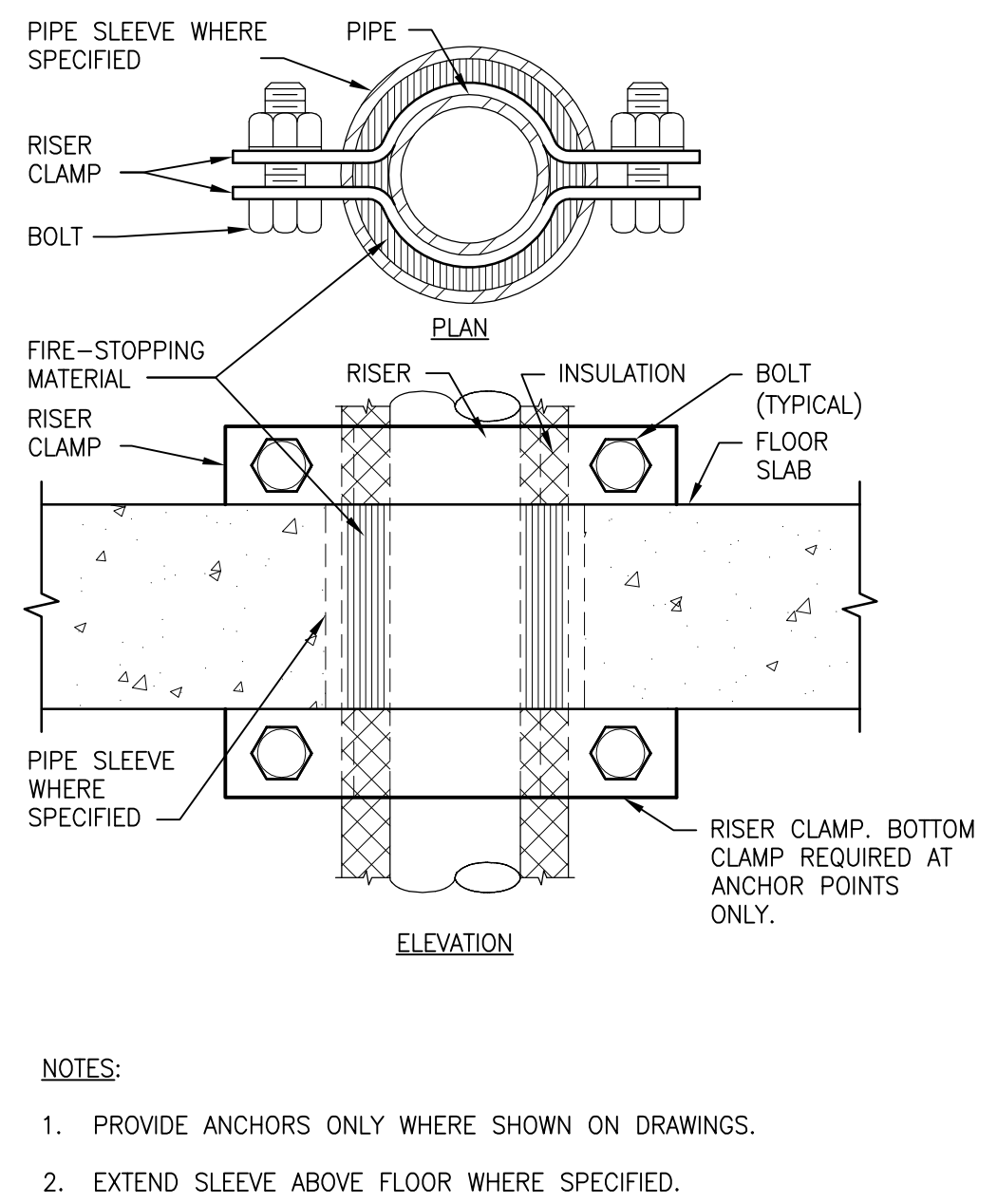


NOTES:
a. INSTALL WALL PLATE FIRST THEN WELD ON REMAINING ASSEMBLY. ONE WALL PLATE FOR BOTH CHILLED WATER S&R IS OPTIONAL.

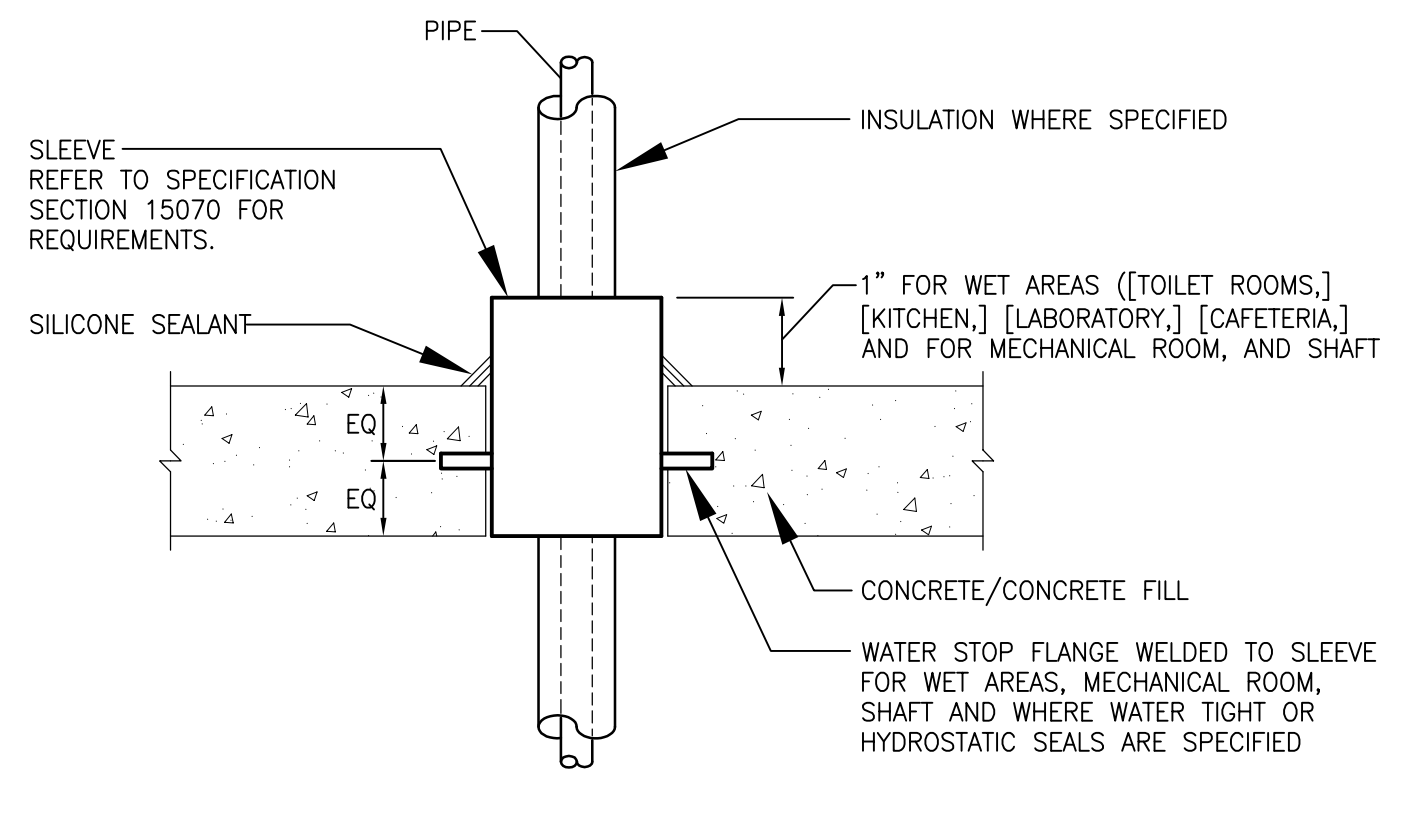
3 LARGE PIPE ANCHOR 6"-18"
SCALE: NTS



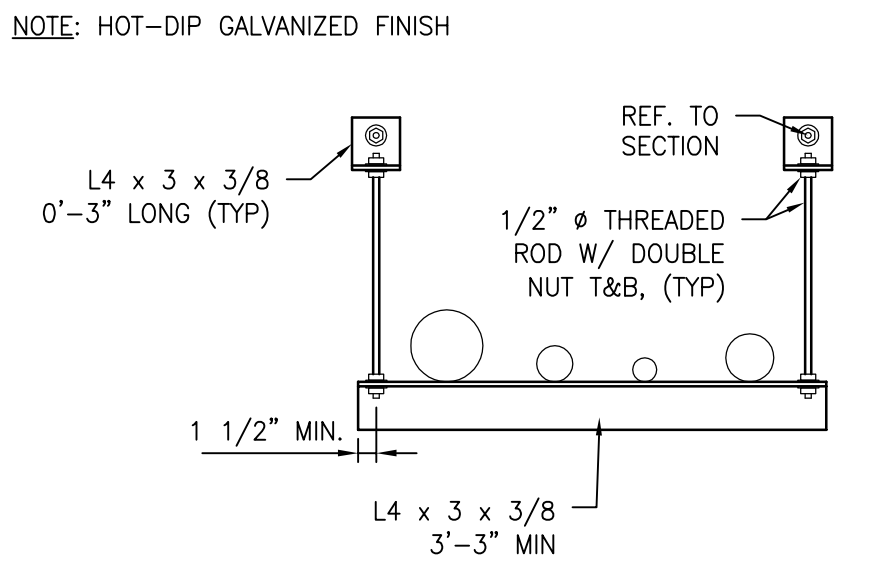
4 CONCRETE EQUIPMENT BASES
SCALE: NTS



5 SUPPORT/ANCHOR FOR PIPE RISERS
SCALE: NTS



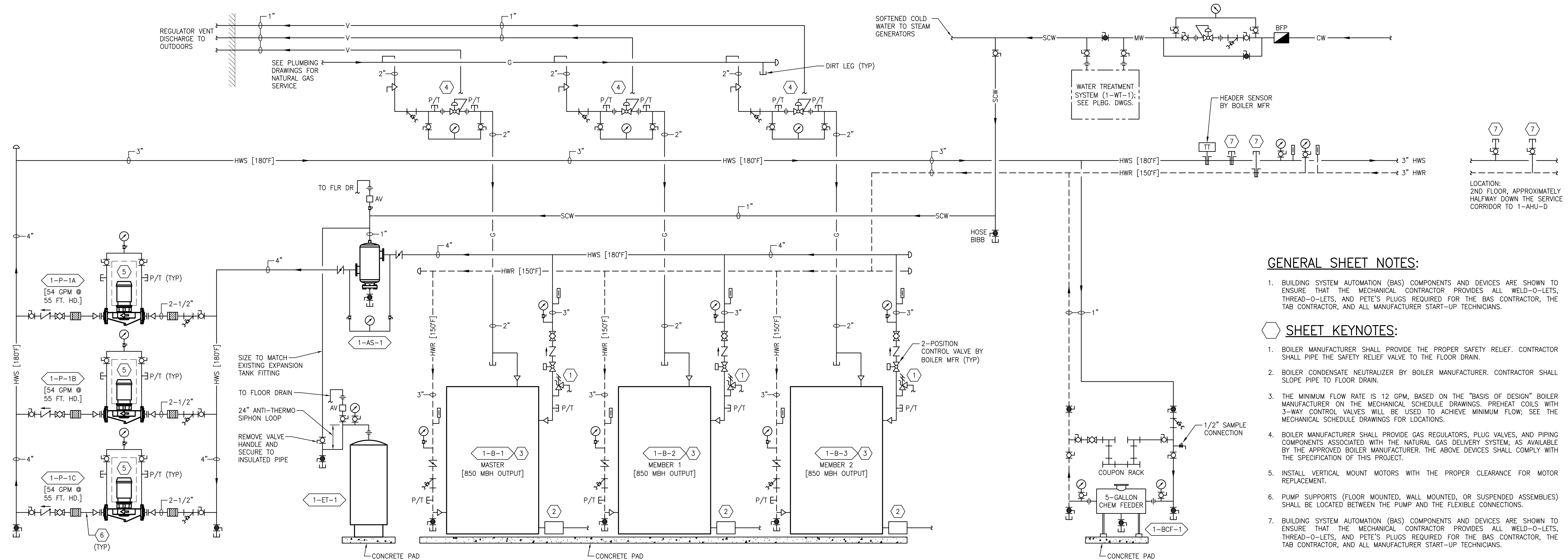
6 PIPE PENETRATION THROUGH NEW WET FLOOR
SCALE: NTS



7 INTERIOR PIPE WALL PIPE HANGER DETAIL
SCALE: NTS

| | | | | | | | | | |
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| | Revisions: | Date: | Location LEBANON, PENNSYLVANIA | Issue Date 2023-02-09 | Checked PB | Drawn SP | Location LEBANON, PENNSYLVANIA | Issue Date 2023-02-09 | Checked PB |

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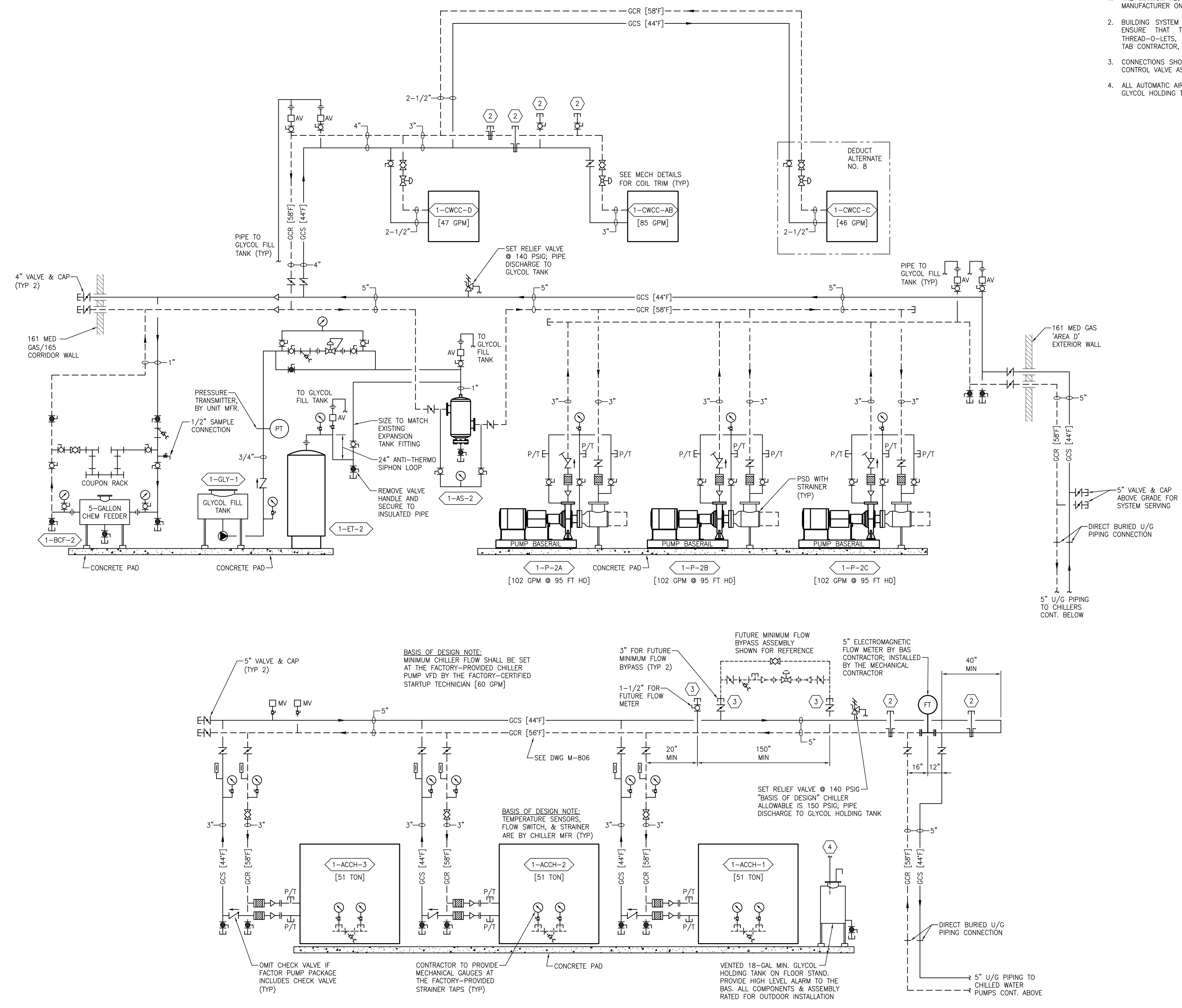
- GENERAL SHEET NOTES:**
- BUILDING SYSTEM AUTOMATION (BAS) COMPONENTS AND DEVICES ARE SHOWN TO ENSURE THAT THE MECHANICAL CONTRACTOR PROVIDES ALL WELD-O-LETS, THREAD-O-LETS, AND PETE'S PLUGS REQUIRED FOR THE BAS CONTRACTOR, THE TAB CONTRACTOR, AND ALL MANUFACTURER START-UP TECHNICIANS.
- SHEET KEYNOTES:**
- BOILER MANUFACTURER SHALL PROVIDE THE PROPER SAFETY RELIEF. CONTRACTOR SHALL PIPE THE SAFETY RELIEF VALVE TO THE FLOOR DRAIN.
 - BOILER CONDENSATE NEUTRALIZER BY BOILER MANUFACTURER. CONTRACTOR SHALL SLOPE PIPE TO FLOOR DRAIN.
 - THE MINIMUM FLOW RATE IS 12 GPM, BASED ON THE "BASIS OF DESIGN" BOILER MANUFACTURER ON THE MECHANICAL SCHEDULE DRAWINGS. PREHEAT COILS WITH 3-WAY CONTROL VALVES WILL BE USED TO ACHIEVE MINIMUM FLOW; SEE THE MECHANICAL SCHEDULE DRAWINGS FOR LOCATIONS.
 - BOILER MANUFACTURER SHALL PROVIDE GAS REGULATORS, PLUG VALVES, AND PIPING COMPONENTS ASSOCIATED WITH THE NATURAL GAS DELIVERY SYSTEM, AS AVAILABLE BY THE APPROVED BOILER MANUFACTURER. THE ABOVE DEVICES SHALL COMPLY WITH THE SPECIFICATION OF THIS PROJECT.
 - INSTALL VERTICAL MOUNT MOTORS WITH THE PROPER CLEARANCE FOR MOTOR REPLACEMENT.
 - PUMP SUPPORTS (FLOOR MOUNTED, WALL MOUNTED, OR SUSPENDED ASSEMBLIES) SHALL BE LOCATED BETWEEN THE PUMP AND THE FLEXIBLE CONNECTIONS.
 - BUILDING SYSTEM AUTOMATION (BAS) COMPONENTS AND DEVICES ARE SHOWN TO ENSURE THAT THE MECHANICAL CONTRACTOR PROVIDES ALL WELD-O-LETS, THREAD-O-LETS, AND PETE'S PLUGS REQUIRED FOR THE BAS CONTRACTOR, THE TAB CONTRACTOR, AND ALL MANUFACTURER START-UP TECHNICIANS.

1 HEATING HOT WATER DIAGRAM
 SCALE: NTS

| | | | | | | | | | | | | | | | | | | |
|---|---|--|---|--|--|--|---|--|---|--|---|--|-------------------------|--|---|--|---------------------------|--|
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| | FULLY SPRINKLERED | | Location LEBANON, PENNSYLVANIA | | Issue Date 2023-02-09 | | Checked PK | | Drawn MK | | Building Number CLC-1 | | Drawing Number M-601 | | | | | |

SHEET KEYNOTES:

1. THE MINIMUM FLOW RATE IS 60 GPM, BASED ON THE "BASIS OF DESIGN" CHILLER MANUFACTURER ON THE MECHANICAL SCHEDULE DRAWINGS.
2. BUILDING SYSTEM AUTOMATION (BAS) COMPONENTS AND DEVICES ARE SHOWN TO ENSURE THAT THE MECHANICAL CONTRACTOR PROVIDES ALL WELD-O-LETS, THREAD-O-LETS, AND PETE'S PLUGS REQUIRED FOR THE BAS CONTRACTOR, THE TAB CONTRACTOR, AND ALL MANUFACTURER START-UP TECHNICIANS.
3. CONNECTIONS SHOWN ARE TO BE INSTALLED FOR A FUTURE MINIMUM FLOW BYPASS CONTROL VALVE ASSEMBLY WITH ASSOCIATED TURBINE STYLE FLOW METER.
4. ALL AUTOMATIC AIR VENTS AND SAFETY RELIEF DISCHARGES SHALL BE PIPED TO THE GLYCOL HOLDING TANK. THIS INCLUDES FACTORY-PROVIDED COMPONENTS.



1 GLYCOL CHILLED WATER DIAGRAM
SCALE: NTS

three inch = one foot
 one and one half inch = one foot
 one inch = one foot
 three quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot

| | |
|---|-------|
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| Revisions: | Date: |

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PHONE: (856)429-4000
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MR PROJECT NO. 0499-0124

MILLER-REMICK LLC
PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DIAGRAMS

Approved:

Phase
BID DOCUMENTS

FULLY SPRINKLERED

Project Title
CONSTRUCT NEW COMMUNITY LIVING CENTER (CLC)

Location
LEBANON, PENNSYLVANIA

Issue Date
2023-02-09

Checked
PK

Drawn
MK

Project Number
595-601

Building Number
CLC-1

Drawing Number
M-602

FAN SCHEDULE

Table with columns: MARK, LOCATION, AREA AND/OR BLDG SERVED, SYSTEM AND/OR SERVICE, AIR FLOW, EXT. SP, TSP, FAN (TYPE, ARRANGEMENT, DIAMETER, DRIVE, FAN MAX RPM, NOMINAL POWER, PHASE, VOLT, RPM), MOTOR ELECTRICAL (ENCLOSURE, SPEED CONTROL), BASIS OF DESIGN OR APPROVED EQUAL, SEE NOTES.

- NOTES: 1. FAN CAPACITY LISTED IS CAPACITY REQUIREMENT AND IS NOT THE ACTUAL SYSTEM CAPACITY. SCHEDULED CAPACITY INCLUDES DUCT LEAKAGE ALLOWANCE... 2. FOR ALL FANS THAT HAVE VARIABLE SPEED DRIVES... 3. FAN ROTATIONAL SPEED IS WITH TWO FANS OPERATING... 17. PROVIDE BASE MOUNTED SUPPORTS AND SPRING ISOLATORS.

AIR COOLED CHILLER SCHEDULE

Table with columns: MARK, LOCATION, AREA AND/OR BLDG SERVED, TYPE, CAPACITY, # OF COMP, PROPYLENE GLYCOL, MIN NPLV, MIN PLV, EVAPORATOR (FLOW, MIN FLOW, EWT, LWT, MAX WPD, FOULING FACTOR), CONDENSER (AMBIENT OA TEMP), ELECTRICAL (VOLTS, PHASE, MCA, MOCP), WEIGHT (LB), BASIS OF DESIGN OR APPROVED EQUAL.

- NOTES: 1. CHILLERS SHALL BE PROVIDED WITH INTEGRAL BUFFER TANKS AS PER MANUFACTURER REQUIREMENTS... 5. FACTORY-CERTIFIED STARTUP TECHNICIAN SHALL SET THE CHILLER PUMP MINIMUM FLOW VIA THE CHILLER'S VFD.

CONDENSING BOILER SCHEDULE

Table with columns: MARK, LOCATION, AREA AND/OR BLDG SERVED, TYPE, FLUID (FLOW, MIN FLOW, EWT, LWT, WPD), BOILER (PROPYLENE GLYCOL, OUTPUT GENERATED, MAX HEAT INPUT), MIN THERMAL EFF %, MAX/MIN NATURAL GAS SUPPLY PRESSURE, FUEL, RELIEF VALVE SETTING, ELECTRICAL (VOLTS, FLA), WEIGHT (LB), BASIS OF DESIGN OR APPROVED EQUAL.

- NOTES: 1. BOILERS 1-B-1 & 2 ARE DESIGNATED AS IN-SERVICE AND 1-B-3 AS STANDBY... 17. PROVIDE BOILER CONTROLLER WITH BACNET COMMUNICATION GATEWAY AS REQUIRED.

CHILLED WATER COIL SCHEDULE

Table with columns: MARK, LOCATION, AREA AND/OR BLDG SERVED, SYSTEM AND/OR SERVICE, AIR FLOW, MAX FACE VELOCITY, APD, EAT, LAT, SENSIBLE CAPACITY, CHILLED WATER (FLOW, EWT, LWT, MAX WPD), % GLYCOL, REMARKS.

- NOTES: 1. COILS FOR AHU-C AND D ARE SELECTED PER PANDEMIC MODE PERFORMANCE, 100% OA.

PREHEAT HOT WATER COIL SCHEDULE

Table with columns: MARK, LOCATION, AREA AND/OR BLDG SERVED, SYSTEM AND/OR SERVICE, AIR FLOW, MAX FACE VELOCITY, MAX APD, EAT, LAT, SENSIBLE CAPACITY, HOT WATER (FLOW, EWT, LWT, MAX WPD), % GLYCOL, REMARKS.

- NOTES: 1. COILS FOR 1-AHU-C AND 1-AHU-D ARE SELECTED PER PANDEMIC MODE PERFORMANCE, 100% OA.

AIR HANDLING UNIT SCHEDULE

Table with columns: MARK, LOCATION, AREA AND/OR BLDG SERVED, TYPE, AIR FLOW (MAX SUPPLY, MIN OA NORMAL, MIN OA PANDEMIC, RETURN), SUPPLY FAN MARK, RETURN FAN MARK, PREFILTER MARK, PREHEAT COIL MARK, HUMIDIFIER MARK, COOLING COIL MARK, UV-C PHOTOVOICAT PURIFICATION MARK, ELECTRICAL (CIRCUIT #1, CIRCUIT #2), WEIGHT (LB), BASIS OF DESIGN OR APPROVED EQUAL, REMARKS.

- NOTES: 1. SCHEDULED CFM IS NOT THE OPERATING CAPACITY. THE VALUE HAS DUCT LEAKAGE, SAFETY AND FUTURE CAPACITY INCLUDED... 16. PROVIDE LOW LEAKAGE DAMPERS.

GAS FIRED STEAM GENERATOR AND HUMIDIFIER SCHEDULE

Table with columns: MARK, LOCATION, SYSTEM AND/OR SERVICE, HUMIDIFIER TYPE, AIR FLOW (Db, Wb, DewPOINT, DewPOINT), SOURCE OF MAKEUP, CAPACITY (INPUT MEH, OUTPUT LBHR), VOLTS / PHASE, MOP, PHASE, CONTROL TYPE, WEIGHT (LB), BASIS OF DESIGN OR APPROVED EQUAL, REMARKS.

- NOTES: 1. PROVIDE 304 STAINLESS STEEL TANK AND ULTRA-SORB LV STEAM DISPERSION SYSTEM... 7. MOUNT TO SUPPORT LEGS.

AIR FILTER SCHEDULE

Table with columns: MARK, LOCATION, AREA AND/OR BLDG SERVED, MERV RATING, FILTER DEPTH, AIR FLOW, MAX FACE VELOCITY, ARRANGEMENT, APD (INITIAL, CHANGEOVER), HOUSING TYPE, REMARKS.

- NOTES: 1. ALL FILTERS SHALL BE REPLACED AFTER VA ACCEPTANCE AND PRIOR TO OCCUPANCY... 4. REFER TO RETURN AIR DEVICE SCHEDULE FOR RETURN GRILLES WITH F FILTER.

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

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Drawing Title MECHANICAL SCHEDULES

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