DATE: November 24, 2025

Project Engineer: RTM Engineering Consultants
20 N.W. 3rd Street Suite 510
Evansville, Indiana 47708-1356
Telephone: 812-401-2260

TO: PROSPECTIVE BIDDERS

SUBJECT: ADDENDUM NO. 1 TO THE BIDDING DOCUMENTS FOR

SE878D Meadow Lodge - HVAC and Roof Replacement
Indiana University Southeast
IU 20241304

This addendum forms a part of the bidding and contract documents and modifies the original bidding documents, date November 07, 2025. Acknowledge receipt of this addendum in space provided on Bid Form. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.
****

CLARIFICATIONS:

1. Temperature Controls are furnished by Siemens and installed as part of this contract (Controls Installation Contractor required). Siemens temperature control bid drawings are attached.
2. Contractor shall protect existing flooring in Atrium area throughout project. Cover entire floor area w/ heavy canvas. Lift use shall require 3/4" plywood protection over floor.

SPECIFICATIONS:

1. Section 011000 – SUMMARY
   a. Paragraph 1.8.B shall be modified as follows:

   "B. On-Site Work Hours: Work hours are not limited when facility is unoccupied. Work hours are ~~9am – 5pm~~ 10am – 6pm when facility is occupied."

2. Section 012200 – UNIT PRICES
   a. Added entire Section (attached).

3. Section 230713 – DUCT INSULATION
   a. Paragraphs 3.11 and 3.12 shall be modified as follows:

3.11 INDOOR DUCT AND PLENUM INSULATION SCHEDULE

A. Unless otherwise noted, ceiling concealed supply air and exhaust air duct insulation shall be the following:

1. Mineral-Fiber Blanket: ~~1 1/2 inches~~ 2 inches thick, ~~0.75 lb/cu. ft.~~ 1.0-lb/cu. ft. nominal density, installed R-value shall be R-6.

B. Unless otherwise noted, in attic spaces all concealed supply air and exhaust air duct insulation shall be the following:

1. Mineral-Fiber Blanket: Two layers of 1-1/2 inches thick, 0.75-lb/cu. ft. nominal density, ~~R-6~~. Total installed minimum R-value shall be R-8.

3.12 OUTDOOR DUCT AND PLENUM INSULATION SCHEDULE

A. Exposed supply air and exhaust air duct insulation shall be the following:

1. Alumaguard of equal:

a. Provide 2" thick flexible elastomeric and aluminum lagging, total installed minimum R-value shall be R-8.
b. Provide minimum 6" lap on all seams.
c. Seams shall lap from top down (e.g. no outward seams exposed to rain).

DRAWINGS:

1. Sheet G001 – COVER SHEET:
   a. Updated "VICINITY MAP" to show proposed crane locations and note as indicated on the attached.
   b. Updated "PROJECT PHASING" as indicated on the attached.

2. Sheet A001 – GENERAL PROJECT INFORMATION:
   a. Added "DUCT PENETRATION" detail as indicated on attached sketch, ADD1-ASK1.
   b. Added "PIPE PENETRATION" detail as indicated on attached sketch, ADD1-ASK2.

3. Sheet MD101 – MECHANICAL DEMOLITION PLANS:
   a. Added Keyed Note 26 as indicated on the attached.
   b. Modified Keyed Notes in room Electrical Room 198M as indicated on the attached.
   c. In room 103, Keyed Note 13 was deleted as indicated on the attached.
   d. Modified Keyed Note 10 as indicated on the attached.

4. Sheet M101 – MECHANICAL PLANS:
   a. Added Keyed Notes 22, 23, and 24 as indicated on the attached.
   b. Replaced new exhaust grille and associated branch duct in Electrical Room 198M with new exhaust fan, EF-198M as indicated on the attached.
   c. Connected new EF-198M to existing exhaust air duct as indicated on the attached.
   d. Modified Keyed Notes in room Electrical Room 198M as indicated on the attached.
   e. Modified Keyed Note 5 as indicated on the attached.

5. Sheet M401 – MECHANICAL SCHEDULES:
   a. Updated "SPLIT SYSTEM SCHEDULE" as indicated on the attached.
   b. Updated AHU-299A and AHU-299B as indicated on the attached.
   c. Added "EXHAUST FAN SCHEDULE" as indicated on the attached.
   d. Update "AHU SCHEDULE" Note 1 as indicated on the attached.

6. Sheet M601 – AIRFLOW DIAGRAM:
   a. Updated "ERU-1 AIRFLOW DIAGRAM" as indicated on the attached.

7. Sheet ED301 – FIRST FLOOR ELECTRICAL DEMOLITION PLAN – POWER:
   a. Replace sheet in its entirety with attached.

8. Sheet E301 – FIRST FLOOR ELECTRICAL PLAN – POWER:
   a. Replace sheet in its entirety with attached.

9. Sheet E501 – PANEL SCHEDULES – ELECTRICAL:
   a. Replace sheet in its entirety with attached.

10. Sheet E602 – MECHANICAL EQUIPMENT ELECTRICAL DATA SCHEDULE:
    a. Replace sheet in its entirety with attached.

ATTACHMENTS:

Specification Sections:

Bid Form
012200 – UNIT PRICES

Sheets:

G001 – COVER SHEET
ADD1-ASK1 – DUCT PENETRATION
ADD1-ASK2 – PIPE PENETRATION
MD101 – MECHANICAL DEMOLITION PLANS
M101 – MECHANICAL PLANS
M401 – MECHANICAL SCHEDULES
M601 – AIRFLOW DIAGRAM
ED301 - FIRST FLOOR ELECTRICAL DEMOLITION PLAN – POWER
E301 - FIRST FLOOR ELECTRICAL PLAN – POWER
E501 – PANEL SCHEDULES – ELECTRICAL
E602 – MECHANICAL EQUIPMENT ELECTRICAL DATA SCHEDULE
Siemens Temperature Control Drawings

BID FORM
for

SE878D Meadow Lodge HVAC & Roof Replacement
Indiana University Southeast
New Albany, Indiana
IU 20241304
Revised for Addendum No.1

TO: The Trustees of Indiana University
Bloomington, Indiana

****Submit bid online via www.iuplanroom.com****

FROM:

Bidder's Name _____

Address _____

City, State, Zip Code _____

Phone Number _____ FAX Number _____

CONTACTS:

Bid / Contract Information: Name: _____

Phone: _____ E-mail: _____

Proposed Project Manager: Name: _____

Phone: _____ E-mail: _____

Indicate if your firm is a certified minority-, women-, or veteran-owned business ___Yes ___ No
If "Yes", please attach a copy of certification

FOR: **Unified Bid** to include General, Mechanical, and Electrical Construction Work

Bidders:

LUMP SUM BASE BID

The undersigned Bidder, with a complete understanding of existing conditions at the Project Site and a complete understanding of the Bidding Documents, including any Addenda acknowledged hereinafter, for SE878D Meadow Lodge HVAC & Roof Replacement on the Indiana University Southeast campus, as prepared by RTM engineering consultants, hereby proposes to complete the project, in full and complete accordance with the requirements of the Bidding documents, for the LUMP SUM BASE BID PRICE of:

_____ Dollars $_____
(written amount) (numerals)

MAJOR SUBCONTRACTORS

Subcontractors and other persons and organizations proposed by the Bidder and accepted by the Owner and the Owner's Representative must be used on the work for which they were proposed and accepted and shall not be changed except with the written approval of the Owner and the Owner's Representative.

If requested, the supplemental Subcontractors and Products List will be submitted by email to the Owner, bidtab@iu.edu, and RTM engineering consultants, brad.simms@rtmec.com, within 48 hours of the bid opening. The understanding of the Owner and the design team is that these same Major Subcontractors will be the same subcontractors listed below.

The Contractor proposes to utilize the following primary subcontractors for the work indicated.

List one major subcontractor per trade. Any deviation could result in the Owner removing the bid from consideration.

Indicate which are certified by the State of Indiana as an MBE, WBE, or VBE company by circling the M/W/VBE after the name.

Div. 21 Fire Suppression Contractor: _____ M/W/VBE

Div. 22 Plumbing Subcontractor: _____ M/W/VBE

Div. 23 Mechanical Subcontractor: _____ M/W/VBE

Div. 23 Sheet Metal Subcontractor: _____ M/W/VBE

Div. 23 Test and Balance Subcontractor:_____ M/W/VBE

Div. 23 Controls Installation Contractor:_____ M/W/VBE

Div. 26 Electrical Subcontractor:_____ M/W/VBE

Div. 27 Communications Subcontractor:_____ M/W/VBE

ALTERNATE PROPOSALS

1. Alternate proposals are requested under Alternates of the Bidding Documents. (See Specification Index)
2. The alternate proposal shall indicate the amount to be added to or deducted from the Lump Sum Base Bid if the alternate proposal is accepted by the Owner.
3. The alternate proposal shall include all costs necessary for the complete installation of the materials or items indicated for the alternate proposal, including materials, labor, equipment, operations, administration, overhead, profit, and taxes (as applicable).
4. The alternate proposal shall also include all costs for changes in the work (including work of other Separate Contracts) that will be made necessary by acceptance of the alternate proposal.
5. The Bidder shall submit prices for all the alternates listed below in the manner indicated.

Cross out (Add) or (Deduct) as applicable. If there is no change in price to the Lump Sum Base Bid, write in "No Change".

Alternate No. 1: Roofing replacement on sloped roof areas

(Add) (Deduct) _____ Dollars $_____
(written amount) (numerals)

Alternate No. 2: Grille and diffuser replacement

(Add) (Deduct) _____ Dollars $_____
(written amount) (numerals)

Alternate No. 3: Adjustment to *this* bid if contractor awarded both of the following projects: IU 20241304 (Meadow Lodge) and IU 242051224 (Woodland Lodge).

(Add) (Deduct) _____ Dollars $_____
(written amount) (numerals)

UNIT PRICES

1. The following Unit Prices shall include all costs necessary for the complete installation of the materials or items indicated, including materials, labor, equipment, operations, administration, overhead, profit and taxes (if applicable).
2. These Unit Prices shall be used to determine the costs for changes in the work during the construction period, when agreed upon by the Owner.
3. These Unit Prices are submitted as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.
4. The Bidder shall submit one Unit Price for each of the following items, plus any other Unit Prices requested in the Bidding Documents, in the manner indicated.

	Item	Unit	Price
1.	Patching and painting	$ / square foot	$_____
2.	Ceiling access panel (20”x20”)	each	$_____
3.	Supply air grille (12”x6”)	each	$_____
4.	Supply air grille (14”x8”)	each	$_____
5.	Return air grille (14”x14”)	each	$_____
6.	Return/Transfer air grille (24”x24”)	each	$_____

TAX EXEMPTIONS

The undersigned Bidder has informed himself and all his prospective sub-contractors and suppliers of the tax exempt status of the Owner, as set forth in the General Conditions, and therefore, has not included these taxes in his Lump Sum Base Bid price.

SUBSTITUTIONS

The undersigned Bidder has based his bid upon the materials, products, articles, equipment, brands, manufacturers and processes described in the Bidding Documents or upon approved equivalents. Proof of equivalency of substitutions is the responsibility of the Bidder, but the Architect/Engineer shall be the sole judge of equivalency. Proposed equivalent substitutions shall be equal in all respects to the requirements of the Bidding Documents, including but not limited to the design, quality, physical size, performance characteristics, strength, previous history of use, and to the method of installation, attachment, or connection to related or adjoining work. Determination of equivalency of proposed substitutions shall be by the Architect/Engineer, before the bid opening date, as described in paragraph entitled "Substitutions" in the Instructions to Bidders.

COMPLETION DATE

The Undersigned Bidder agrees to coordinate and expedite his work and shall take into consideration any lead time and schedule parameters with all contractors, and that this Work will be completed no later than July 31, 2026.

ASSIGNMENT OF COORDINATION

The undersigned Bidder agrees to the assignment of Mechanical and Electrical work to the successful General Contractor for the responsibility of complete coordination of the work as stated in the Instructions to Bidders.

PERFORMANCE AND PAYMENT BOND

The undersigned Bidder agrees, if awarded the Contract, to deliver to the Owner a satisfactory Performance Bond, in the full amount (100%) of the total Contract price, not later than the date of execution of the contract. The cost of the Bond shall be included in the Lump Sum Base Bid contained in this Proposal.

SUPPLEMENTAL AND REQUIRED DOCUMENTS

Bid Security; State Form 96 (Revised 2013); Written Drug Testing Program, which must be in full compliance with IC 4-13-18; a completed Minority, Women's and Veteran's Business Enterprise Participation Plan; Contractor Asbestos Certification; Asbestos Protocol for Contractors.

ADDENDA

The following Addenda have been received by the undersigned Bidder; and all costs resulting from these Addenda have been included in the preparation of this Bid Form:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

SIGNATURES

1. **When a Bidder is an Individual**:

Witness _____ Bidder _____

Date: _____ Address: _____

_____

2. **When a Bidder is a Partnership**: _____
Name of Partnership

Date: _____ Address: _____

_____

Partner _____ Partner _____

3. When Bidder is a Corporation: _____
Name of Corporation

Date: _____ Address: _____

_____

By: _____
President

Attest: _____
Secretary

CORPORATE SEAL

END

****Submit bid online via www.iuplanroom.com****

1. GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS

A. Unit price is a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.

B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

2. PRODUCTS (Not Used)

3. EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price No. 1 – Patching and painting:

1. Description: Provide labor and material to patch and paint gyp ceilings to a Level 5 finish.
2. Unit of Measurement: Square foot.

B. Unit Price No. 2 – Ceiling Access Panel (20”x20”):

1. Description: Provide all labor and material to install a new ceiling access panel.
2. Unit of Measurement: Each.

C. Unit Price No. 3 – Supply air grille (12”x6” inlet):

1. Description: Provide supply air grille, Price model 32D, with a 12”x6” inlet to replace an existing grille.
2. Unit of Measurement: Each.

D. Unit Price No. 4 – Supply air grille (14”x8” inlet):

1. Description: Provide supply air grille, Price model 40S, with a 14”x8” inlet to replace an existing grille.
2. Unit of Measurement: Each.

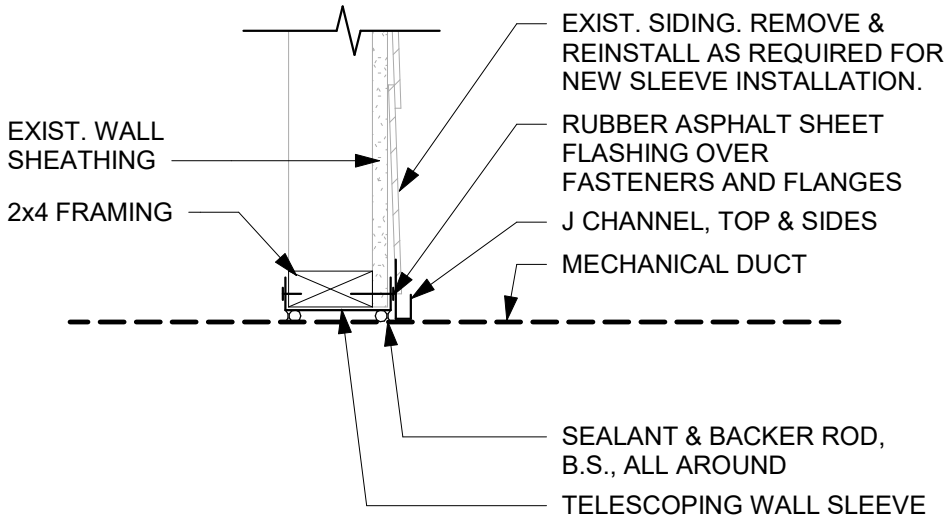
E. Unit Price No. 5 – Return air grille (14”x14” inlet):

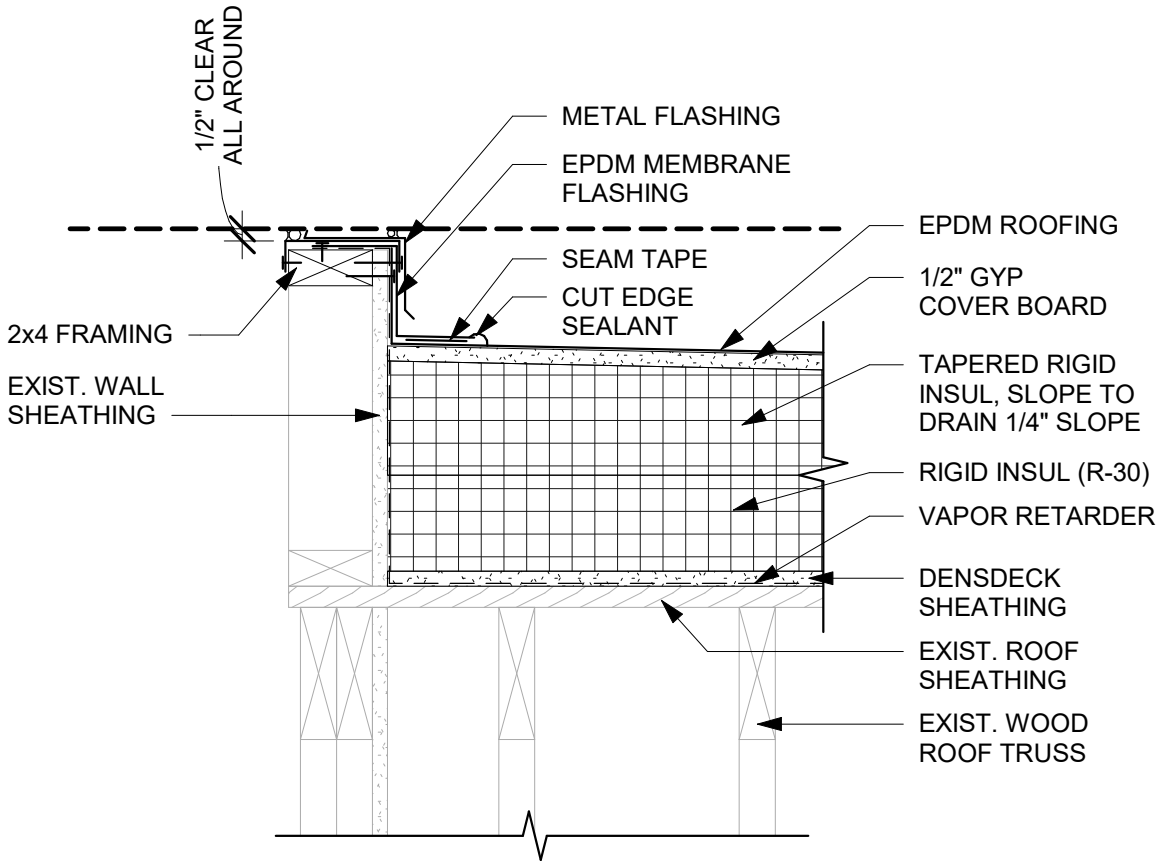
1. Description: Provide return air grille, Price model 40R, with a 14”x14” inlet to replace an existing grille.
2. Unit of Measurement: Each.

F. Unit Price No. 5 – Return/transfer air grille (24”x24” inlet):

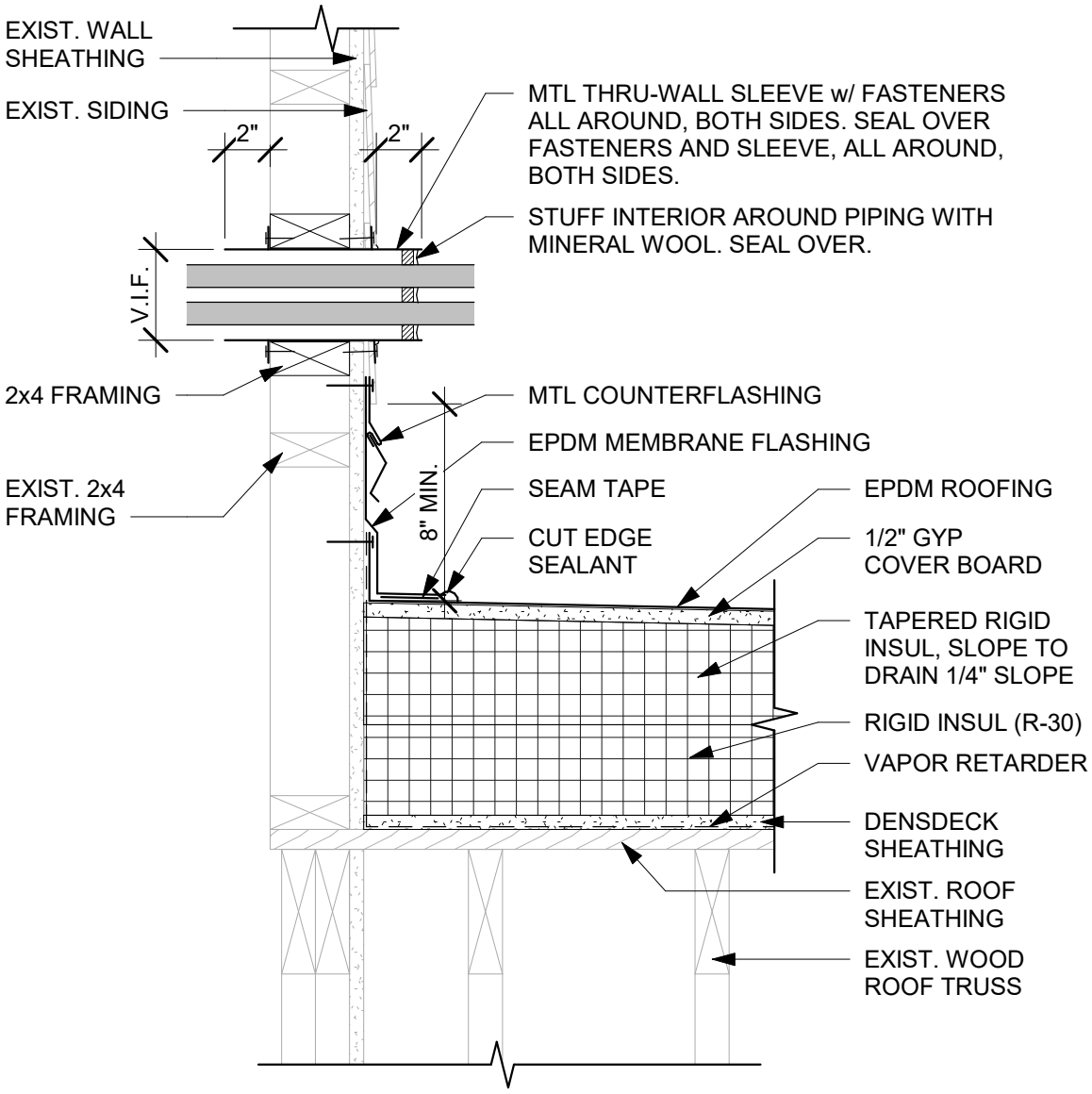
1. Description: Provide return/transfer air grille, Price model PDDR, with a 24”x24” inlet to replace an existing grille.
2. Unit of Measurement: Each.

END 01 22 00





VPS ARCHITECTURE	Issue Date: **11/21/25**	Project Title: **MEADOW & WOODLAND LODGE - HVAC AND ROOF REPLACEMENT - DUCT PENETRATION**
Client Project No:	Referencing Drawing No:	Drawing No: ADD1-ASK1



VPS ARCHITECTURE	Issue Date: 11/21/25	Project Title: **MEADOW & WOODLAND LODGE - HVAC AND ROOF REPLACEMENT - PIPE PENETRATION**
Client Project No:	Referencing Drawing No:	Drawing No: ADD1-ASK2

INDIANA UNIVERSITY

INDIANA UNIVERSITY SOUTHEAST
SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
4201 Grant Line Rd, New Albany, IN 47150

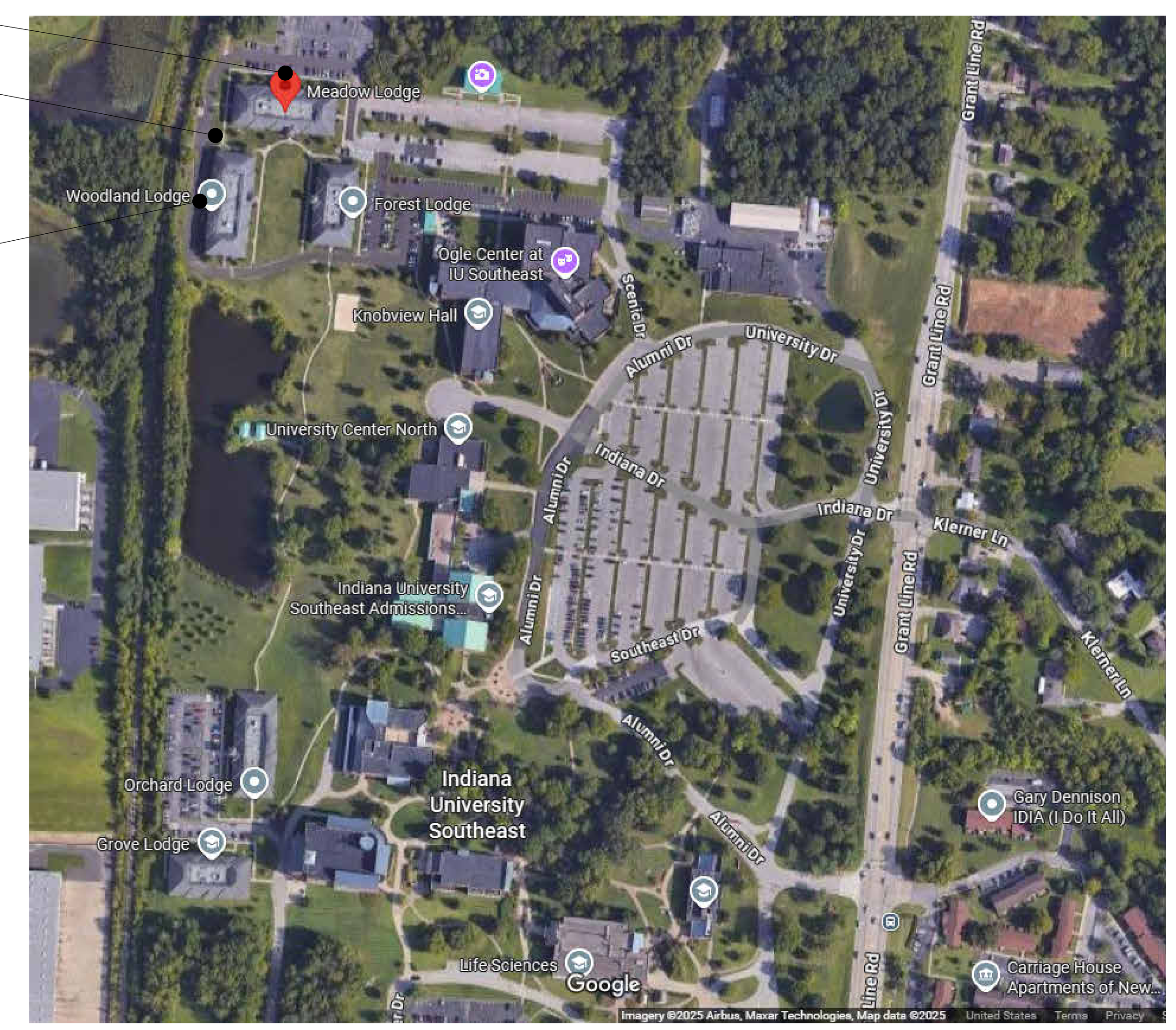
SHEET INDEX

SHEET NUMBER	SHEET NAME
GENERAL	
G001	COVER SHEET
STRUCTURAL	
S001	GENERAL NOTES
S101	PARTIAL ROOF FRAMING PLAN & DETAILS
ARCHITECTURAL	
A001	GENERAL PROJECT INFORMATION
AD101	DEMOLITION ROOF PLAN
A101	ROOF PLAN AND DETAILS
MECHANICAL	
M001	MECHANICAL GENERAL NOTES AND LEGENDS
MD101	MECHANICAL DEMOLITION PLANS
MD102	ROOF MECHANICAL DEMOLITION PLAN
M101	MECHANICAL PLANS
M102	ROOF MECHANICAL PLAN
M201	MECHANICAL SECTIONS
M202	MECHANICAL SECTIONS
M203	MECHANICAL SECTIONS
M301	MECHANICAL DETAILS
M401	MECHANICAL SCHEDULES
M501	TEMPERATURE CONTROLS
M601	AIRFLOW DIAGRAM
ELECTRICAL	
E001	ELECTRICAL SYMBOLS AND ABBREVIATIONS
ED301	FIRST FLOOR ELECTRICAL DEMOLITION PLAN - POWER
ED302	SECOND FLOOR ELECTRICAL DEMOLITION PLAN - POWER
ED303	ROOF ELECTRICAL DEMOLITION PLAN - POWER
E202	SECOND FLOOR ELECTRICAL PLAN - LIGHTING
E301	FIRST FLOOR ELECTRICAL PLAN - POWER
E302	SECOND FLOOR ELECTRICAL PLAN - POWER
E303	ROOF ELECTRICAL PLAN - POWER
E501	PANEL SCHEDULES - ELECTRICAL
E502	PANEL SCHEDULES - ELECTRICAL
E503	PANEL SCHEDULES - ELECTRICAL
E601	MECHANICAL EQUIPMENT ELECTRICAL DATA SCHEDULE
E602	MECHANICAL EQUIPMENT ELECTRICAL DATA SCHEDULE

DATE: 11/07/2025
CLIENT PROJECT NO. 20241304

BID DOCUMENTS

PROPOSED CRANE LOCATION (MEADOW LODGE)
PROPOSED CRANE LOCATION (BOTH LODGES)
PROPOSED CRANE LOCATION (WOODLAND LODGE)



NOTE: CRANE SHALL STAY ON ASPHALT. CONTRACTOR SHALL PROTECT ALL SURFACES FROM CRANE. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE RELATED TO THE LOADING/UNLOADING, MOVING, AND/OR OPERATION OF THE CRANE AND IT'S OUTRIGGERS.

VICINITY MAP

PROJECT PHASING:

- CONSTRUCTION CAN BEGIN ON THE INTERIOR OF THE BUILDING ON MAY 18TH, 2026. THE PROJECT SHALL BE SUBSTANTIALLY COMPLETE BY JULY 31, 2026.

ISSUANCE		
NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO.1

rtm engineering consultants
20 N.W. 3RD STREET
SUITE 510
EVANSVILLE, IN 47708
TEL. 812.401.2260

SIGNED: 11/07/2025
PROFESSIONAL SEAL
EXPIRATION DATE: 07/31/2026

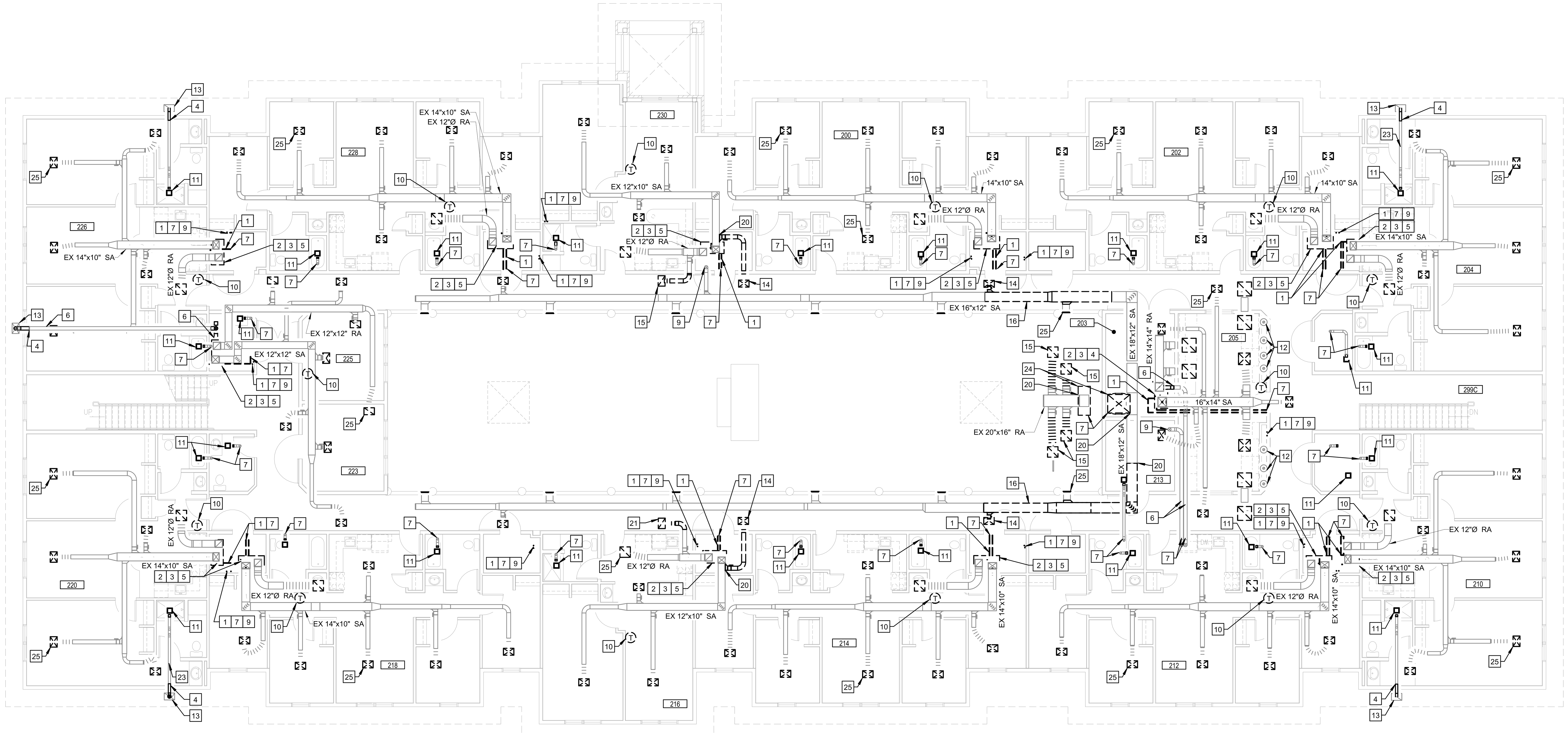
DATE	11-07-2025
DESIGNED	JDE
DRAWN	JDE
CHECKED	SRP
APPROVED	

SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

COVER SHEET

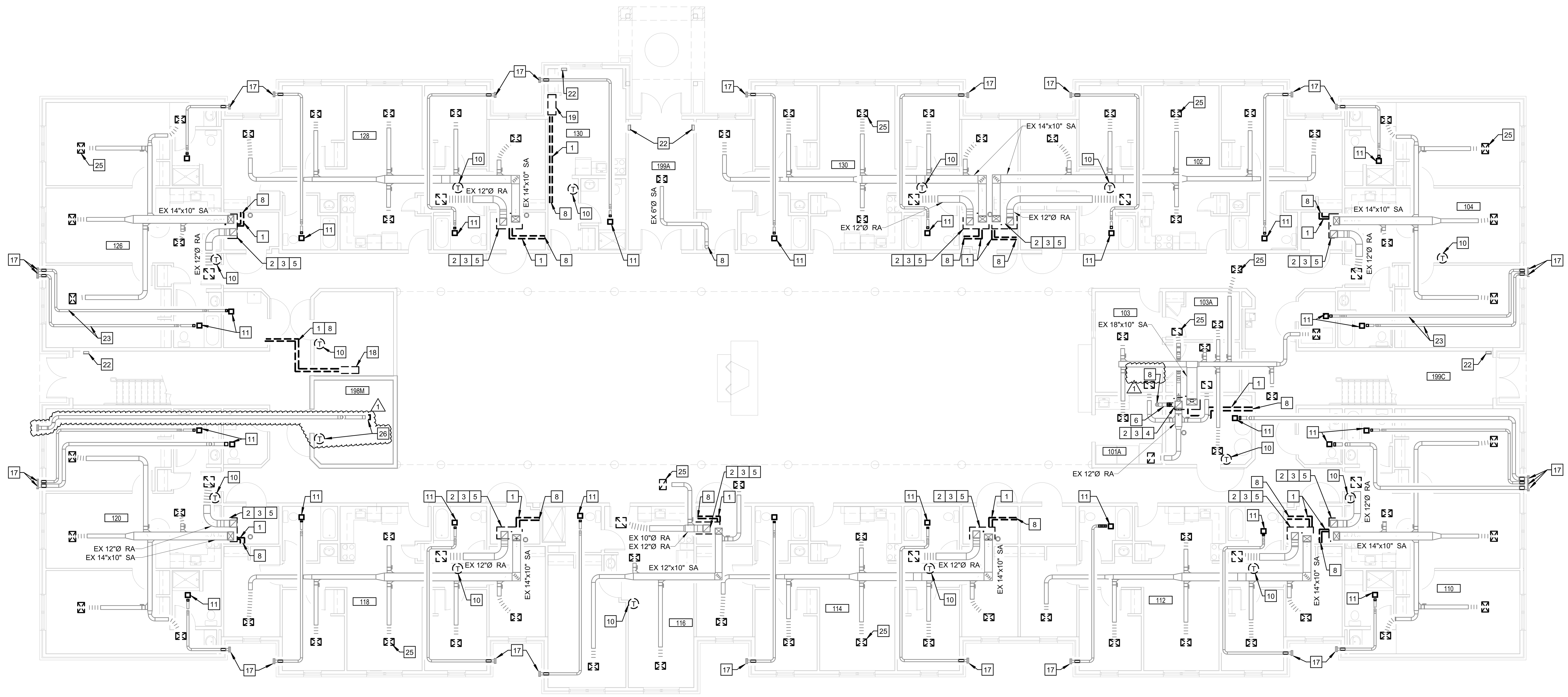
SHEET NO.
G001

JOB NO. 25.823340.3911



SECOND FLOOR MECHANICAL DEMOLITION PLAN

2 / MD101 — SCALE: 1/8" = 1'-0"



FIRST FLOOR MECHANICAL DEMOLITION PLAN

1 / MD101 — SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. REFERENCE M001 FOR ADDITIONAL PROJECT HVAC NOTES, HVAC DEMOLITION NOTES, AND SYMBOLS AND ABBREVIATIONS.

B. CONTRACTOR SHALL FIELD VERIFY EXISTING EQUIPMENT LOCATIONS, DUCT SIZES/LOCATIONS, AND PIPE SIZES/LOCATIONS PRIOR TO DEMOLITION.

C. ALL DUCTWORK, PIPING, AND EQUIPMENT SHOWN LIGHT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.

D. ALL DUCTWORK, PIPING, AND EQUIPMENT SHOWN WITH HEAVY DASHED LINE AND/OR CROSSHATCHED IS TO BE REMOVED UNLESS NOTED OTHERWISE.

E. CONTRACTOR SHALL PROTECT ALL EXISTING CASEWORK AND EQUIPMENT FROM DIRT AND DAMAGE THROUGHOUT CONSTRUCTION.

F. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL DEMOLISHED EQUIPMENT.

G. REWORK EXISTING ABANDONED FIRE PROTECTION PIPING AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.

KEYED NOTES - DEMOLITION:

1. REMOVE EXISTING REFRIGERANT LINE SET COMPLETE.
2. REMOVE EXISTING AIR HANDLING UNIT AND ASSOCIATED CONTROLS, SHEET METAL RETURN AIR PLENUM, CONDENSATE PIPING, AND EQUIPMENT SUPPORT LEGS COMPLETE.
3. REMOVE EXISTING SUPPLY AIR DUCT AND VOLUME DAMPER AT AIR HANDLING UNIT DISCHARGE. AS REQUIRED FOR NEW INSTALLATION. SEE NEW WORK.
4. INSULATE NEW SHEET METAL CAP ON SOFFIT VENT PER DUCT INSULATION SPECIFICATIONS. INSULATE AND SEAL DUCT PENETRATION TO MAINTAIN BUILDING ENVELOPE INSULATION AND VAPOR BARRIER.
5. REMOVE EXISTING RETURN AIR DUCT AND EXISTING VOLUME DAMPER. EXISTING FIRE DAMPER ACCESS PANEL TO REMAIN. AS REQUIRED FOR NEW INSTALLATION. SEE NEW WORK.
6. REMOVE EXISTING OUTSIDE AIR DUCT AS INDICATED AND AS REQUIRED FOR NEW INSTALLATION, CAP OPEN ENDS OF ABANDONED DUCT.
7. SEE "ROOF MECHANICAL DEMOLITION PLAN" FOR CONTINUATION.
8. SEE "SECOND FLOOR MECHANICAL DEMOLITION PLAN" FOR CONTINUATION.
9. SEE "FIRST FLOOR MECHANICAL DEMOLITION PLAN" FOR CONTINUATION.
10. (1) REMOVE EXISTING THERMOSTAT AND EXISTING THERMOSTAT WIRING.
11. REMOVE EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK AS INDICATED. CAP OPEN ENDS OF ABANDONED DUCT. TYPICAL.
12. EXISTING DRYER EXHAUST FAN AND ASSOCIATED DUCTWORK TO REMAIN.
13. EXISTING SOFFIT VENT TO REMAIN. REMOVE SECTION OF ASSOCIATED DUCTWORK AT EXISTING VENT. CAP OPEN ENDS OF ABANDONED DUCT. CAP EXISTING SOFFIT VENT.
14. REMOVE EXISTING SUPPLY AIR DIFFUSER AND CAP ASSOCIATED BRANCH DUCT AT MAIN. PATCH OPENING IN CEILING TO MATCH ADJACENT CONSTRUCTION AND FINISHES.
15. REMOVE EXISTING RETURN AIR GRILLE AND CAP ASSOCIATED BRANCH DUCT. PATCH OPENING IN CEILING TO MATCH ADJACENT CONSTRUCTION AND FINISHES.
16. REMOVE EXISTING SUPPLY AIR DUCT AS INDICATED AND AS REQUIRED FOR NEW INSTALLATION. SEE NEW WORK.
17. EXISTING EXHAUST VENT HOOD TO REMAIN. REMOVE SECTION OF ASSOCIATED DUCT AT EXISTING VENT HOOD. PROVIDE SHEET METAL CAP AT EXISTING DUCT AND AT VENT HOOD.
18. REMOVE EXISTING CEILING SUSPENDED MINI-SPLIT COMPLETE.
19. REMOVE EXISTING WALL MOUNTED MINI-SPLIT. ASSOCIATED 1" CONDENSATE DRAIN IN WALL TO REMAIN FOR REUSE. SEE NEW WORK.
20. PROVIDE SHEET METAL CAP AT DEMOLISHED DUCT. INSULATE CAP PER SPECIFICATIONS.
21. REMOVE EXISTING RETURN AIR GRILLE AND ASSOCIATED BRANCH DUCT AS INDICATED. PREP EXISTING DUCTWORK FOR NEW DUCT. SEE NEW WORK.
22. EXISTING ELECTRIC WALL HEATER TO REMAIN.
23. ABANDON EXISTING EXHAUST DUCT IN PLACE. CAP OPEN ENDS OF ABANDONED DUCT. TYPICAL.
24. REMOVE EXISTING SUPPLY AND RETURN AIR DUCT UP TO EXISTING PACKAGED ROOFTOP UNIT AS INDICATED.
25. <u>BASE BID:</u>
    NO WORK.

    <u>ALTERNATE BID #2:</u>
    REMOVE EXISTING GRILLE/DIFFUSER COMPLETE. EXISTING CEILING RADIATION DAMPER BOX AND/OR FIRE DAMPER TO REMAIN. PREP CEILING RADIATION DAMPER BOX AND/OR FIRE DAMPER FOR CONNECTION OF NEW GRILLE/DIFFUSER. SEE NEW WORK. TYPICAL.
26. (1) REMOVE EXISTING EXHAUST FAN AND ASSOCIATED LINE-VOLTAGE THERMOSTAT. PREP EXISTING DUCTWORK FOR NEW EXHAUST FAN. SEE NEW WORK.

ISSUANCE

NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO.1

20 N.W. 3RD STREET
SUITE 510
EVANSVILLE, IN 47708
TEL 812.401.2260

rtm engineering consultants

SIGNED: 11/07/2025

STEPHEN R. PORTER REGISTERED No.PE10302406 STATE OF INDIANA PROFESSIONAL ENGINEER

PROFESSIONAL SEAL

EXPIRATION DATE: 07/31/2026

DATE	11-07-2025
DESIGNED	JDE
DRAWN	KC
CHECKED	SRP
APPROVED	

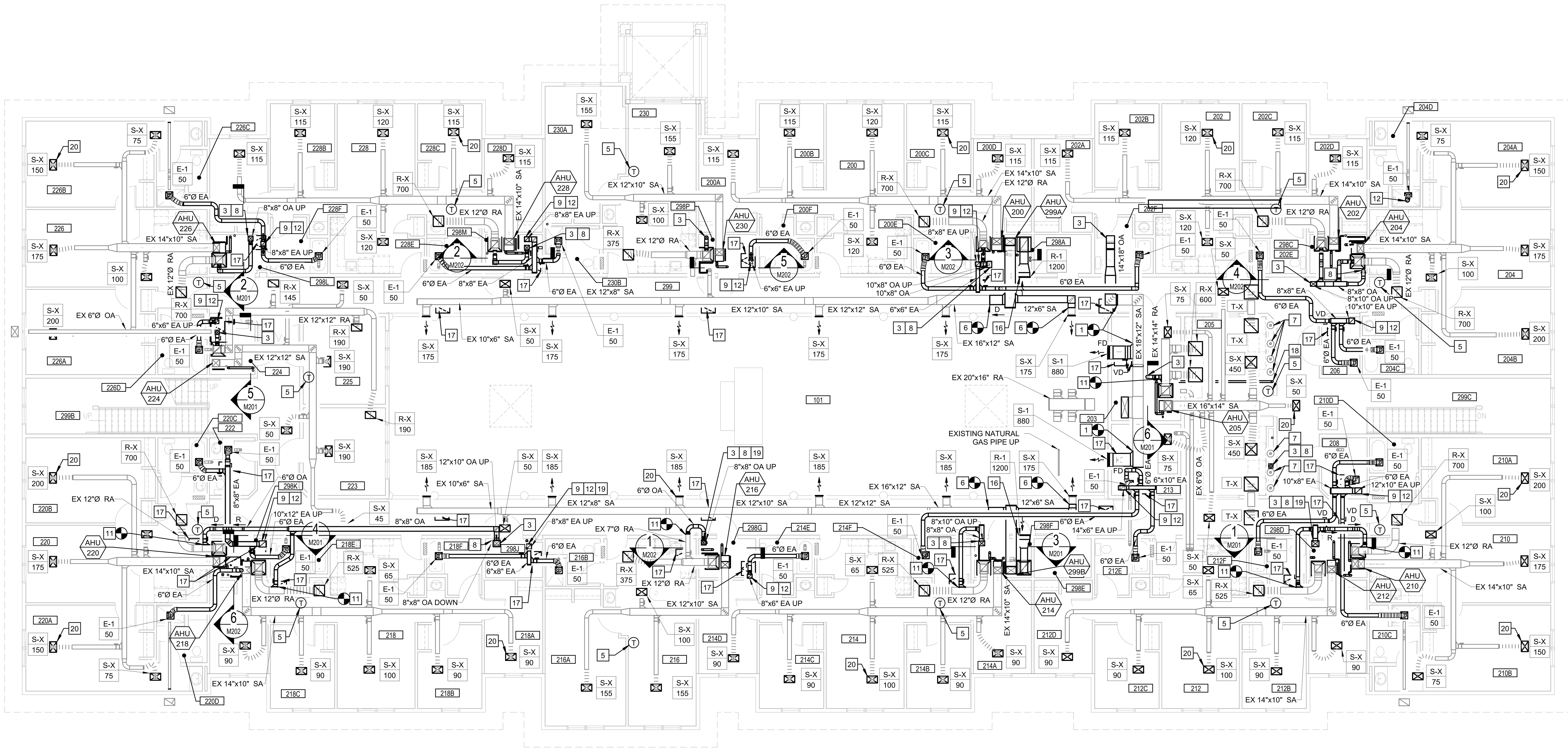
SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT

INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

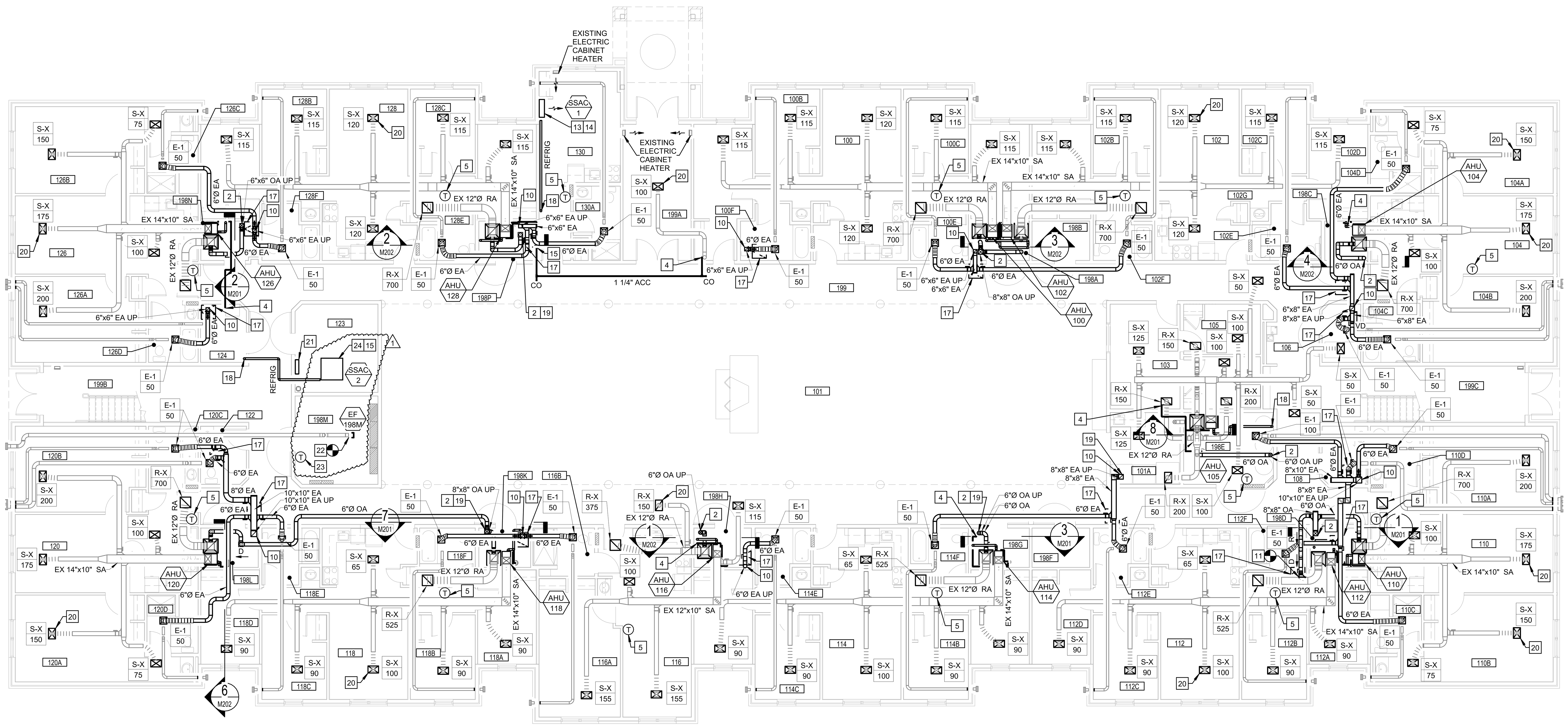
MECHANICAL DEMOLITION PLANS

SHEET NO.
MD101

JOB NO. 25.B23340.3911



2 / M101 — SECOND FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"



1 / M101 — FIRST FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. REFERENCE M001 FOR ADDITIONAL PROJECT HVAC NOTES, HVAC DEMOLITION NOTES, AND SYMBOLS AND ABBREVIATIONS.

B. OFFSET AND TRANSITION PIPING AS REQUIRED FOR FINAL CONNECTION TO EQUIPMENT.

C. COORDINATE FINAL ZONE SENSOR/THERMOSTAT LOCATIONS WITH ENGINEER.

D. PROVIDE CONDENSATE TRAP AT ALL COOLING COILS PER ASSOCIATED EQUIPMENT'S MANUFACTURER'S INSTALLATION INSTRUCTIONS. TRAP SHALL NOT BLOCK ACCESS TO EQUIPMENT.

E. PROVIDE CLEANOUT FITTING AT ALL 90 DEGREE BENDS IN 1-1/4" CONDENSATE PIPING ASSOCIATED WITH AIR HANDLING UNIT (AHU).

F. ROUTE AIR CONDITIONING CONDENSATE TO EXISTING FLOOR DRAIN IN SAME ROOM AS COOLING COIL, UNLESS OTHERWISE INDICATED. INSTALL CONDENSATE PIPING PER EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.

G. CONTRACTORS COORDINATE DUCT ROUTING AND PIPE ROUTING WITH EXISTING WOOD FRAMING.

H. COORDINATE DUCT ROUTING WITH EXISTING FIRE PROTECTION PIPING. REWORK SPRINKLER PIPING AS REQUIRED.

KEYED NOTES:

1. CONNECT NEW 18"x12" OUTSIDE AIR DUCT TO EXISTING 18"x12" OUTSIDE AIR DUCT.
2. OUTSIDE AIR DUCT UP. SEE "SECOND FLOOR MECHANICAL PLAN" FOR CONTINUATION.
3. OUTSIDE AIR DUCT UP. SEE "ROOF MECHANICAL PLAN" FOR CONTINUATION.
4. 1 1/4" AIR CONDITIONING CONDENSATE UP. SEE "SECOND FLOOR MECHANICAL PLAN" FOR CONTINUATION.
5. (Revision 1) INSTALL NEW THERMOSTAT AT SAME LOCATION AS DEMOLISHED THERMOSTAT. FIELD ROUTE NEW THERMOSTAT SENSOR WIRE AND COMMUNICATION BUS WIRE FROM WALL MOUNTED SMART THERMOSTAT TO AHU IN MECHANICAL ROOM. SECOND FLOOR UNITS SHALL HAVE WIRE ROUTED UP IN WALL STUD SPACE TO ATTIC AND ACROSS TO MECHANICAL ROOM. FIRST FLOOR UNITS SHALL HAVE WIRE ROUTED UP IN WALL STUD SPACE AND THROUGH FLOOR JOISTS TO MECHANICAL ROOM. WIRING IN WALL, ATTIC, AND JOIST SPACE SHALL NOT BE REQUIRED TO BE IN CONDUIT. PATCH WALLS AND CEILING TO MATCH EXISTING ADJACENT CONSTRUCTION AND FINISHES.
6. CONNECT NEW 16"x12" SUPPLY AIR DUCT UP TO EXISTING 16"x12" SUPPLY AIR DUCT COMPLETE.
7. EXISTING DRYER VENT FAN AND ASSOCIATED DUCTWORK TO REMAIN.
8. OUTSIDE AIR DUCT DOWN. SEE "FIRST FLOOR MECHANICAL PLAN" FOR CONTINUATION.
9. EXHAUST AIR DUCT DOWN. SEE "FIRST FLOOR MECHANICAL PLAN" FOR CONTINUATION.
10. EXHAUST AIR DUCT UP. SEE "SECOND FLOOR MECHANICAL PLAN" FOR CONTINUATION.
11. CONNECT NEW 6" OUTSIDE AIR DUCT TO EXISTING RETURN AIR DUCT.
12. EXHAUST AIR DUCT UP. SEE "ROOF MECHANICAL PLAN" FOR CONTINUATION.
13. MOUNT SPLIT SYSTEM AIR CONDITIONER 7'-0" A.F.F. TO BOTTOM OF UNIT. INSTALL SPLIT SYSTEM AIR CONDITIONER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
14. ROUTE SPLIT SYSTEM AIR CONDITIONER CONDENSATE TO EXISTING 1" CONDENSATE DRAIN IN WALL. INSTALL CONDENSATE TRAP PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
15. ROUTE SPLIT SYSTEM AIR CONDITIONER CONDENSATE TO EXISTING FLOOR DRAIN THIS ROOM. INSTALL CONDENSATE TRAP PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
16. MOUNT RETURN AIR DIFFUSER 6'-3" A.F.F. TO BOTTOM OF GRILLE.
17. CEILING ACCESS PANEL.
18. REFRIGERANT SET UP. TYPICAL
19. COORDINATE DUCT AND PIPING RISER LOCATION WITH EXISTING DATA CABLE RISER PENETRATIONS. TYPICAL.
20. BASE BID:
    NO WORK

    ALTERNATE BID #2:
    PROVIDE NEW GRILLE/DIFFUSER OF EQUIVALENT DUCT CONNECTION SIZE AND PANEL SIZE AS DEMOLISHED GRILLE/DIFFUSER. CONTRACTOR SHALL FIELD VERIFY EXISTING GRILLE/DIFFUSER QUANTITIES, NECK SIZES, AND PANEL SIZES. FOR BIDDING PURPOSES ASSUME GRILLES AND DIFFUSERS ARE PROVIDED WITH VOLUME DAMPERS AND ARE AS FOLLOWS:

    SUPPLY DIFFUSERS IN CEILINGS - EXISTING RANGE IN SIZE FROM 12"x6" TO 14"x8". ASSUME A QUANTITY OF 150 PRICE MODEL 40S DIFFUSERS WITH 14"x8" NECK.

    SUPPLY DIFFUSERS IN SIDEWALL - ASSUME A QUANTITY OF 12 PRICE MODEL 32D DIFFUSERS WITH 12"x6" NECK.

    RETURN GRILLES (EXCEPT IN LAUNDRY ROOM) - EXISTING RANGE IN SIZE FROM 12"x6" TO 14"x14". ASSUME A QUANTITY OF 35 PRICE MODEL 40R GRILLES WITH 14"x14" NECK.

    RETURN AND TRANSFER GRILLES (IN LAUNDRY ROOM) - ASSUME A QUANTITY OF 4 PRICE MODEL PDDR GRILLES WITH 24"X24" NECK.

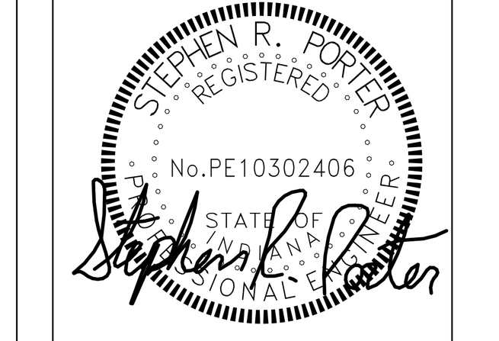
    PROVIDE NEW GRILLES/DIFFUSERS WITH ALUMINUM CONSTRUCTION, STANDARD WHITE FINISH, AND MULTI-BLADE VOLUME DAMPER (WHERE EXISTING DIFFUSERS INCLUDED VOLUME DAMPERS). TYPICAL ENTIRE BUILDING.
21. TEMPERATURE CONTROL PANEL. COORDINATE FINAL LOCATION WITH OWNER AND ENGINEER. LOCAL AREA NETWORK CONNECTION BY UITS.
22. (Revision 1) CONNECT EXISTING EXHAUST AIR DUCTWORK TO NEW EXHAUST FAN. INSTALL EXHAUST FAN PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
23. PROVIDE NEW LINE VOLTAGE THERMOSTAT. CONTRACTOR TO CONNECT EXISTING WIRING TO NEW THERMOSTAT AND EXHAUST FAN AS REQUIRED FOR NEW INSTALLATION.
24. MOUNT SPLIT SYSTEM AIR CONDITIONER, EXPOSED BELOW EXISTING GYP CEILING, AND TIGHT TO EXISTING GYP CEILING. INSTALL SPLIT SYSTEM AIR CONDITIONER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

ISSUANCE

NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO.1

rtm engineering consultants
20 N.W. 3RD STREET
SUITE 510
EVANSVILLE, IN 47708
TEL 812.401.2260

SIGNED: 11/07/2025



PROFESSIONAL SEAL

EXPIRATION DATE: 07/31/2026

DATE	11-07-2025
DESIGNED	JDE
DRAWN	KC
CHECKED	SRP
APPROVED	

SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

MECHANICAL PLANS

SHEET NO. M101

JOB NO. 25.823340.3911

ENERGY RECOVERY UNIT SCHEDULE

SYMBOL	MANUFACTURER	MODEL	OUTDOOR AIR FLOW RATE	SUPPLY FAN DATA						EXHAUST FAN DATA						DX COOLING DATA								NATURAL GAS HEATING DATA				ELECTRICAL DATA			WEIGHT	NOTES
				AIRFLOW RATE	FAN RPM	DRIVE TYPE	MOTOR SIZE	OPERATING POWER	STATIC PRESSURE		AIRFLOW RATE	FAN RPM	DRIVE TYPE	MOTOR SIZE	OPERATING POWER	EXTERNAL STATIC PRESSURE	REFRIGERANT TYPE	CAPACITY			ENTERING AIR		LEAVING AIR		INLET PRESSURE	CAPACITY		AIR TEMPERATURES		MCA	MOCP	V/Ph/Hz		
									EXTERNAL	TOTAL								NOMINAL	SENSIBLE	TOTAL	DB	WB	DB	WB		INPUT	OUTPUT	ENTERING	LEAVING					
ERU-1	GREENHECK	RVE-85-52B-20I-J-D2	4,400 CFM	4,400 CFM	1,488	DIRECT	5 hp	3.14 hp	1.50 in-wg	3.12 in-wg	2,850 CFM	1,204	DIRECT	2 hp	1.71 hp	1.50 in-wg	R-454B	20 ton	148,600 Btu/h	263,800 Btu/h	83.6 °F	70.6 °F	50.8 °F	50.7 °F	6-14 in-wg	300,000 Btu/h	243,000 Btu/h	38.0 °F	89.1 °F	116.3 A	150 A	208/3/60	5,009 lb	1,2,3,4,5,6,7,8,9,10

NOTES:

1. PROVIDE UNIT WITH: SINGLE POINT POWER CONNECTION WITH NON-FUSED DISCONNECT; FACTORY MOUNTED AND WIRED GFI SERVICE OUTLET; STAINLESS STEEL CONDENSATE DRAIN PAN AND CONNECTIONS; HOT GAS REHEAT REFRIGERANT COIL FOR DEHUMIDIFICATION; CONDENSER COIL HAIL GUARDS; HINGED ACCESS DOORS; HORIZONTAL SUPPLY AND EXHAUST CONFIGURATION; 24" TALL SLOPED INSULATED SEISMIC ROOF CURB; STAINLESS STEEL NATURAL GAS FIRED HEAT EXCHANGER WITH A MINIMUM 12:1 TURNDOWN; DX COOLING (WITH A MINIMUM CAPACITY OF 15% OF TOTAL CAPACITY; VARIABLE SPEED SCROLL ON FIRST COMPRESSOR AND TWO STAGE SCROLL ON SECOND COMPRESSOR (MISMATCHED COMPRESSOR CAPACITY IS NOT AN ACCEPTABLE MEANS OF PROVIDING THE MINIMUM 15% CAPACITY); SUCTION SERVICE VALVES; VARIABLE SPEED SUPPLY FAN AND EXHAUST FAN (VFD OR ECM ARE ACCEPTABLE); AND FACTORY FURNISHED AND INSTALLED DIGITAL CONTROLLER WITH BACNET INTERFACE AND WEB-BASED USER INTERFACE. PROVIDE UNIT WITH INTEGRAL ENERGY RECOVERY WHEEL. SEE "ENERGY RECOVERY SECTION SCHEDULE". SEE TEMPERATURE CONTROLS DRAWING FOR FURTHER REQUIREMENTS. FROST CONTROL SHALL BE BY WHEEL SPEED MODULATION. INTAKE HOOD WITH MESH FILTERS; EXHAUST HOOD; MOTORIZED ISOLATION DAMPERS AT INTAKE AND EXHAUST.
2. CONSTANT VOLUME DEDICATED OUTDOOR AIR UNIT WITH: VARIABLE SPEED SUPPLY FAN (VFD OR ECM ARE ACCEPTABLE) SPEED MODULATED FOR BALANCING; COOLING CAPACITY STAGED/MODULATED BASED ON SUPPLY AIR TEMPERATURE; HEATING CAPACITY STAGED/MODULATED BASED ON SUPPLY AIR TEMPERATURE; VARIABLE SPEED EXHAUST FAN (VFD OR ECM ARE ACCEPTABLE) SPEED MODULATED FOR BALANCING.
3. PROVIDE ENERGY RECOVERY SECTION WITH THE FOLLOWING: FACTORY INSTALLED ENTHALPY WHEEL VFD.
4. PROVIDE FACTORY START UP AND WARRANTY AS FOLLOWS: TWO YEAR WARRANTY FOR THE COMPLETE UNIT (PARTS AND LABOR) FROM THE DATE OF SHIPMENT; FIVE YEAR COMPRESSOR (PARTS ONLY) WARRANTY FROM THE DATE OF FACTORY START-UP; FIVE YEAR GAS HEAT EXCHANGER (PARTS ONLY) WARRANTY FROM THE DATE OF FACTORY START-UP.
5. COOLING PERFORMANCE BASED ON A CONDENSER ENTERING AIR TEMPERATURE OF 95°F.
6. UNIT SHALL MEET ALL REQUIREMENTS OF INDIANA ENERGY CODE, INCLUDING BUT NOT LIMITED TO: MINIMUM FULL LOAD EFFICIENCY AND MINIMUM PART LOAD EFFICIENCY.
7. PROVIDE 2" THICK MERV 8 FILTERS (2 SETS) EQUAL TO CAMFIL 30/30.
8. GREENHECK IS BASIS OF DESIGN. INNOVENT AND VALENT ARE ACCEPTABLE MANUFACTURERS.
9. EQUIPMENT MANUFACTURER SHALL PROVIDE ALL LABOR, MATERIAL, DEVICES, START-UP, AND PROGRAMMING REQUIRED FOR THE EQUIPMENT SIDE OF THE BACNET INTERFACE.
10. MANUFACTURER SHALL VERIFY REQUIRED ROOF CURB SLOPE PRIOR TO ORDERING ROOF CURBS.

ENERGY RECOVERY SECTION SCHEDULE

SYMBOL	SUPPLY AIRFLOW RATE	OUTSIDE AIR DATA								EXHAUST AIR DATA								EFFECTIVENESS (SUMMER / WINTER)
		AIRFLOW RATE	AIR PRESSURE DROP	SUMMER				WINTER				AIRFLOW RATE	AIR PRESSURE DROP	SUMMER				WINTER			
				EAT		LAT		EAT		LAT				EAT		LAT		EAT		LAT	
				DB	WB	DB	WB	DB	WB	DB	WB			DB	WB	DB	WB	DB	WB	DB	WB	
ERU-1	4,400 CFM	4,400 CFM	0.94 in-wg	95.0 °F	78.0 °F	84.0 °F	70.9 °F	0.0 °F	-1.7 °F	36.6 °F	31.7 °F	2,850 CFM	0.73 in-wg	75.0 °F	62.5 °F	91.7 °F	74.8 °F	72.0 °F	56.0 °F	13.2 °F	13.1 °F	74.1 / 79.4

EXHAUST FAN SCHEDULE

SYMBOL	MANUFACTURER	MODEL	AIRFLOW RATE	TOTAL ESP	FAN MOTOR SIZE	MOTOR DRIVE	MOTOR ENCLOSURE	V/Ph/Hz	WEIGHT	NOTES
EF-198M	GREENHECK	SP-B110	97 CFM	0.28 in-wg	79 W	DIRECT	ODP	115/1/60	17 lb	1,2

NOTES:

1. PROVIDE CEILING MOUNTED EXHAUST FAN WITH: GALVANIZED STEEL CONSTRUCTION; WHITE PLASTIC GRILLE; BACKDRAFT DAMPER; ROUND DUCT CONNECTOR; CEILING RADIATION DAMPER; ISOLATION KIT; AND COMPOSITE FAN WHEEL.
2. FAN SHALL BE CONTROLLED BY EXISTING THERMOSTAT AND FOLLOW THE EXISTING SEQUENCE OF OPERATION.

AHU SCHEDULE

SYMBOL	MANUFACTURER	MODEL	SUPPLY FAN DATA			DX COOLING COIL NET TOTAL CAPACITY	ELECTRIC HEAT KW	ELECTRICAL DATA			WEIGHT (LBS.)	NOTES
			AIRFLOW RATE	EXTERNAL STATIC PRESSURE	MOTOR POWER			V/PH/HZ	MCA	MOCP		
AHU-100	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-102	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-104	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-105	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-110	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-112	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-114	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-116	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-118	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-120	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-126	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-128	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-200	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-202	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-204	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-205	CARRIER	FJ5ANXB36L00	1,200 CFM	0.30 in-wg	0.50 hp	34,930 Btu/h	5.0 kW	208/1/60	40.6 A	45 A	152 lb	1,2,3
AHU-210	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-212	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-214	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-216	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-218	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-220	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-224	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	25.9 A	30 A	124 lb	1,2,3
AHU-226	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-228	CARRIER	FJ5ANXB24L05	792 CFM	0.30 in-wg	0.33 hp	22,908 Btu/h	5.0 kW	208/1/60	29.9 A	30 A	135 lb	1,2,3
AHU-230	CARRIER	FJ5ANXA18L05	591 CFM	0.30 in-wg	0.33 hp	17,187 Btu/h	5.0 kW	208/1/60	28.3 A	30 A	124 lb	1,2,3
AHU-299A	CARRIER	FJ5ANXB36L00	1,200 CFM	0.30 in-wg	0.50 hp	34,930 Btu/h	8.0 kW	208/1/60	40.6 A	45 A	152 lb	1,2,3
AHU-299B	CARRIER	FJ5ANXB36L00	1,200 CFM	0.30 in-wg	0.50 hp	34,930 Btu/h	8.0 kW	208/1/60	40.6 A	45 A	152 lb	1,2,3

NOTES:

1. PROVIDE AIR HANDLING UNIT (FAN COIL UNIT) WITH: UPFLOW CONFIGURATION; VARIABLE SPEED SUPPLY FAN; FIELD INSTALLED ELECTRIC HEATER; DISCONNECT SWITCH; AND FULLY FOIL FACED INSULATED CABINET. SEE TEMPERATURE CONTROLS FOR FURTHER REQUIREMENTS.
2. PROVIDE FACTORY WARRANTY AS FOLLOWS: FIVE YEAR WARRANTY FOR THE COMPLETE UNIT FROM THE DATE OF START-UP.
3. CARRIER IS BASIS OF DESIGN. TRANE, YORK, AND BRYANT ARE APPROVED MANUFACTURERS.

MISC. EQUIPMENT SCHEDULE

FH-1	SIDE ACCESS FILTER HOUSING EQUAL TO AMERICAN AIR FILTER "SUREFLO" FILTER HOUSING WITH HINGED AND GASKETED ACCESS DOOR; 16 GAUGE; WELDED STEEL CONSTRUCTION; DUCT FLANGES; HOUSING SHALL BE CONSTRUCTED TO HOLD ONE 24" x 24" x 2" THICK AIR FILTER.

GRILLE AND DIFFUSER SCHEDULE

SYMBOL	MANUFACTURER	MODEL	TYPE	PANEL WIDTH	PANEL HEIGHT	SQUARE NECK HEIGHT	SQUARE NECK WIDTH	ROUND NECK SIZE	MAXIMUM AIRFLOW	THROW	AIR PRESSURE DROP	NC	MOUNTING	NOTES
SA														
S-1	PRICE	32	GRILLE	24"	14"	12"	22"		960 CFM	23-32-47	0.05 in-wg	16	SURFACE	1,2,3,4,6
RA														
R-1	PRICE	630	GRILLE	28"	20"	18"	26"		1,244 CFM		0.04 in-wg	16	SURFACE	1,2,3,7
EA														
E-1	PRICE	SCD-FR	3-CONE	12"	12"			6"	78 CFM		0.02 in-wg	<15	LAY-IN	1,3,5,8

NOTES:

1. N.C. VALUES ARE BASED ON ROOM ABSORPTION FOR 10bd re 10^{-12} WATTS.
2. GRILLES AND DIFFUSERS SHALL BE ALUMINUM CONSTRUCTION WITH WHITE POWDER COAT FINISH UNLESS NOTED OTHERWISE.
3. PRESSURE LOSS SHOWN IS TOTAL PRESSURE FOR SUPPLY GRILLES AND STATIC PRESSURE FOR RETURN AND EXHAUST GRILLES.
4. THROW VALUES ARE SHOWN IN FEET FOR TERMINAL VELOCITIES OF 150 FPM, 100 FPM, AND 50 FPM RESPECTIVELY.
5. FURNISH SURFACE MOUNT ADAPTER FRAMES FOR LAY-IN TYPE DIFFUSERS / GRILLES INSTALLED IN DRYWALL CEILINGS. SEE REFLECTED CEILING PLANS.
6. 1/2" BLADE SPACING; 22.5° DEFLECTION; FRONT BLADES SHALL BE VERTICAL.
7. 3/4" BLADE SPACING; 45° DEFLECTION.
8. PRESSURE LOSS SHOWN DOES NOT INCLUDE EFFECTS OF ASSOCIATED CEILING RADIATION DAMPER.

CONDENSING UNIT SCHEDULE

SYMBOL	MANUFACTURER	MODEL	TYPE	NOMINAL CAPACITY	NET TOTAL CAPACITY	ARI SEER2	REFRIGERANT	ELECTRICAL DATA			WEIGHT	NOTES
								V/PH/HZ	MCA	MOCP		
CU-100	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-102	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-104	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-105	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	23,400 Btu/h	15	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-110	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-112	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-114	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-116	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-118	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-120	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-126	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-128	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-200	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-202	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-204	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-205	CARRIER	27SCA536A003	HEAT PUMP	3.0 ton	34,930 Btu/h	14.5	R-454B	208/1/60	19.2 A	30 A	173 lb	1,2,3,4
CU-210	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-212	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-214	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-216	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-218	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-220	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-224	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-226	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-228	CARRIER	27SCA524A003	HEAT PUMP	2.0 ton	22,908 Btu/h	15.2	R-454B	208/1/60	13.5 A	20 A	176 lb	1,2,3,4
CU-230	CARRIER	27SCA518A003	HEAT PUMP	1.5 ton	17,187 Btu/h	14.5	R-454B	208/1/60	10.9 A	15 A	149 lb	1,2,3,4
CU-299A	CARRIER	27SCA536A003	HEAT PUMP	3.0 ton	34,930 Btu/h	14.5	R-454B	208/1/60	19.2 A	30 A	173 lb	1,2,3,4
CU-299B	CARRIER	27SCA536A003	HEAT PUMP	3.0 ton	34,930 Btu/h	14.5	R-454B	208/1/60	19.2 A	30 A	173 lb	1,2,3,4

NOTES:

1. PROVIDE CONDENSING UNIT WITH: 2-STAGE SCROLL COMPRESSOR; LOUVERED HAIL GUARDS; SERVICE VALVES; LOW AMBIENT PRESSURE SWITCH; CRANKCASE HEATER; EVAPORATOR FREEZE THERMOSTAT; HARD START KIT; HIGH PRESSURE SWITCH; LOW PRESSURE SWITCH; AND FILTER DRYER.
2. FINAL REFRIGERANT CHARGE BY CONTRACTOR.
3. PROVIDE FACTORY WARRANTY AS FOLLOWS: ONE YEAR WARRANTY FOR THE COMPLETE UNIT (PARTS AND LABOR) FROM THE DATE OF START-UP AND FIVE YEAR COMPRESSOR (PARTS ONLY) WARRANTY FROM THE DATE OF START-UP.
4. CARRIER IS BASIS OF DESIGN. TRANE AND BRYANT ARE APPROVED MANUFACTURERS.

ROOF DRAIN SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	GRATE MATERIAL	BODY MATERIAL	NOTES
RD-1	JAY R SMITH	1015-CID	CI	CI	-
OD-2	JAY R SMITH	1015-CID	CI	CI	PROVIDE WITH 2" WATER DAM

NOTES:

ABBREVIATIONS:
NB NICKEL BRONZE
CI CAST IRON
PF POLYESTER FIBER REINFORCED POLYMER CONCRETE
DI DUCTILE IRON
- INDICATES NOT APPLICABLE

SPLIT SYSTEM SCHEDULE

SYMBOL	MANUFACTURER	MODEL (INDOOR /OUTDOOR)	TYPE	NOMINAL CAPACITY	HEATING CAPACITY	SEER2	REFRIGERANT	ELECTRICAL DATA			NOTES
								V/Ph/Hz	MCA (SYSTEM)	MOCP (SYSTEM)	
SSAC-1/SSCU-1	DAIKIN	FTXC09AXVJU / RXC09AXVJU	HEAT PUMP	0.75 ton	9,400 Btu/h	18	R-32	208-230/60/1	9.30 A	15 A	1,2,3
SSAC-2 / SSCU-2	DAIKIN	FCA36AAVJU / RZA36AAVJU	HEAT PUMP	3.00 ton	40,000 Btu/h	20	R-32	208-230/1/60			2,3,4

NOTES:

1. PROVIDE DUCTLESS SPLIT SYSTEM WITH: WALL MOUNTING PLATE AND HARDWARE FOR INDOOR UNIT.
2. FINAL REFRIGERANT CHARGE BY CONTRACTOR.
3. PROVIDE WITH LOW AMBIENT KIT FOR OPERATION DOWN TO ZERO DEGREES F.
4. INDOOR UNIT POWERED SEPERATELY FROM OUTDOOR UNIT. INDOOR UNIT MCA = 1.6A, MOCP = 15A. OUTDOOR UNIT MCA = 34.6A, MOCP = 35A.

ISSUANCE

NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO. 1

20 N.W. 3RD STREET
SUITE 145
EVANSVILLE, IN 47708
TEL 812.401.2260
rtm engineering consultants

SIGNED: 11/07/2025

STEPHEN R. PORTER — REGISTERED — No. PE10302406 — STATE OF INDIANA — MECHANICAL

PROFESSIONAL SEAL

EXPIRATION DATE: 07/31/2026

DATE	11-07-2025
DESIGNED	JDE
DRAWN	KC
CHECKED	SRP
APPROVED	

SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

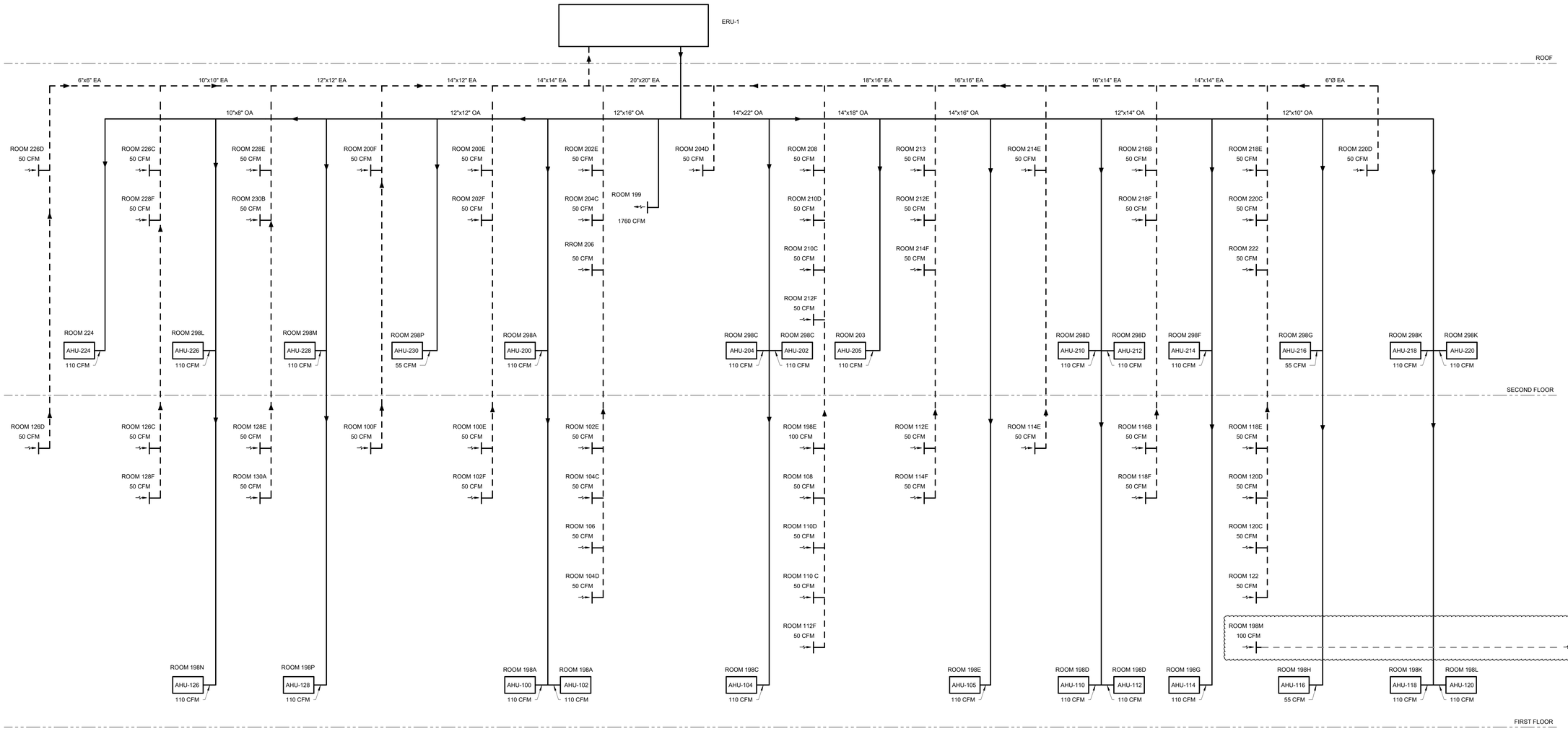
MECHANICAL SCHEDULES

SHEET NO.
M401

JOB NO. 25.823340.3911

GENERAL NOTES:

A. AIR HANDLING UNIT TAG CORRESPONDS WITH THE ROOM IT SERVES. ROOM NUMBER INDICATES LOCATION OF AIR HANDLING UNIT.



ERU-1 AIRFLOW DIAGRAM

SCALE: NONE

ISSUANCE		
NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO. 1

20 N.W. 3RD STREET
SUITE 140
EVANSVILLE, IN 47708
TEL 812.401.2260

rtm engineering consultants

SIGNED: 11/07/2025

STEPHEN R. PORTER — REGISTERED — No. PE10302406 — STATE OF INDIANA — PROFESSIONAL ENGINEER

PROFESSIONAL SEAL

EXPIRATION DATE: 07/31/2026

DATE	11-07-2025
DESIGNED	JDE
DRAWN	KC
CHECKED	SRP
APPROVED	

SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

AIRFLOW DIAGRAM

SHEET NO.
M601

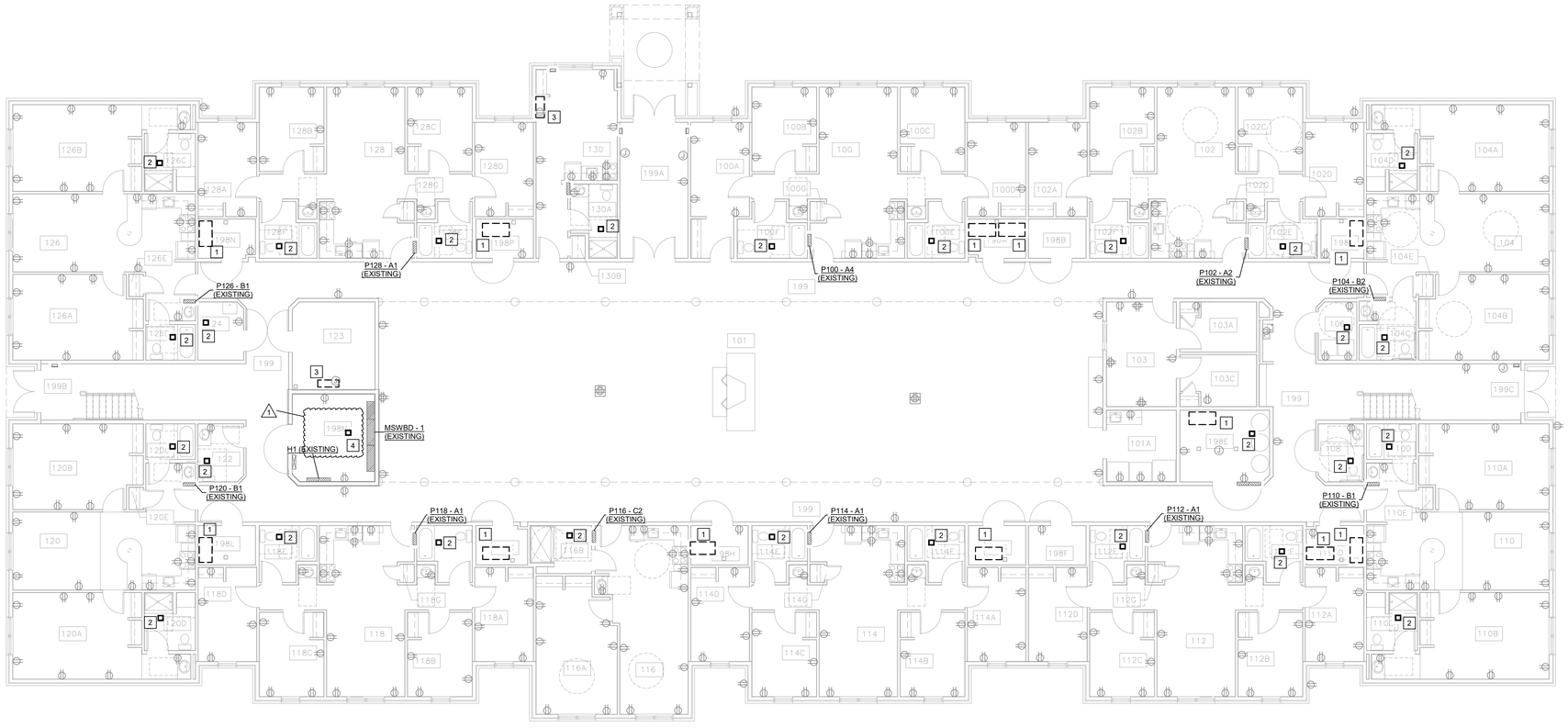
JOB NO. 25.823340.3911

GENERAL NOTES:

A. SEE SHEET E001 FOR GENERAL NOTES THAT APPLY TO THIS SHEET.

KEYED NOTES:

1. DISCONNECT EXISTING AIR HANDLING UNIT FOR REMOVAL BY MC. REMOVE BRANCH CIRCUIT BACK TO SOURCE OF FEED.
2. DISCONNECT EXISTING EXHAUST FAN. REMOVE BRANCH CIRCUIT BACK TO SOURCE OF FEED.
3. DISCONNECT EXISTING MINI SPLIT FOR REMOVAL BY MC. REMOVE BRANCH CIRCUIT BACK TO SOURCE OF FEED.
4. DISCONNECT EXISTING EXHAUST FAN. BRANCH CIRCUIT TO REMAIN FOR REUSE IN NEW CONSTRUCTION.



N

1 ED301 FIRST FLOOR ELECTRICAL DEMOLITION PLAN - POWER
SCALE: 1/8" = 1'-0"

NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO.1

20 N.W. 3RD STREET
SUITE 150
EVANSVILLE IN 47708
TEL 812.401.2260

rtm engineering consultants

SIGNED: 11/07/2025

ROBERT HOOD NELSON REGISTERED No.PE12500552 STATE OF INDIANA PROFESSIONAL ENGINEER

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	DESIGNED	DRAWN	CHECKED	APPROVED
11-07-2025	NPH	NPH	CH	RNH

SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

FIRST FLOOR ELECTRICAL DEMOLITION PLAN - POWER

SHEET NO.
ED301

JOB NO. 25.823340.3911

11/24/2025 10:14:39 AM
Autodesk Docs://25.823340.3911 - IUSE Meadows Lodge/MEADOW LODGE MEP REVIT 2025.rvt

GENERAL NOTES:

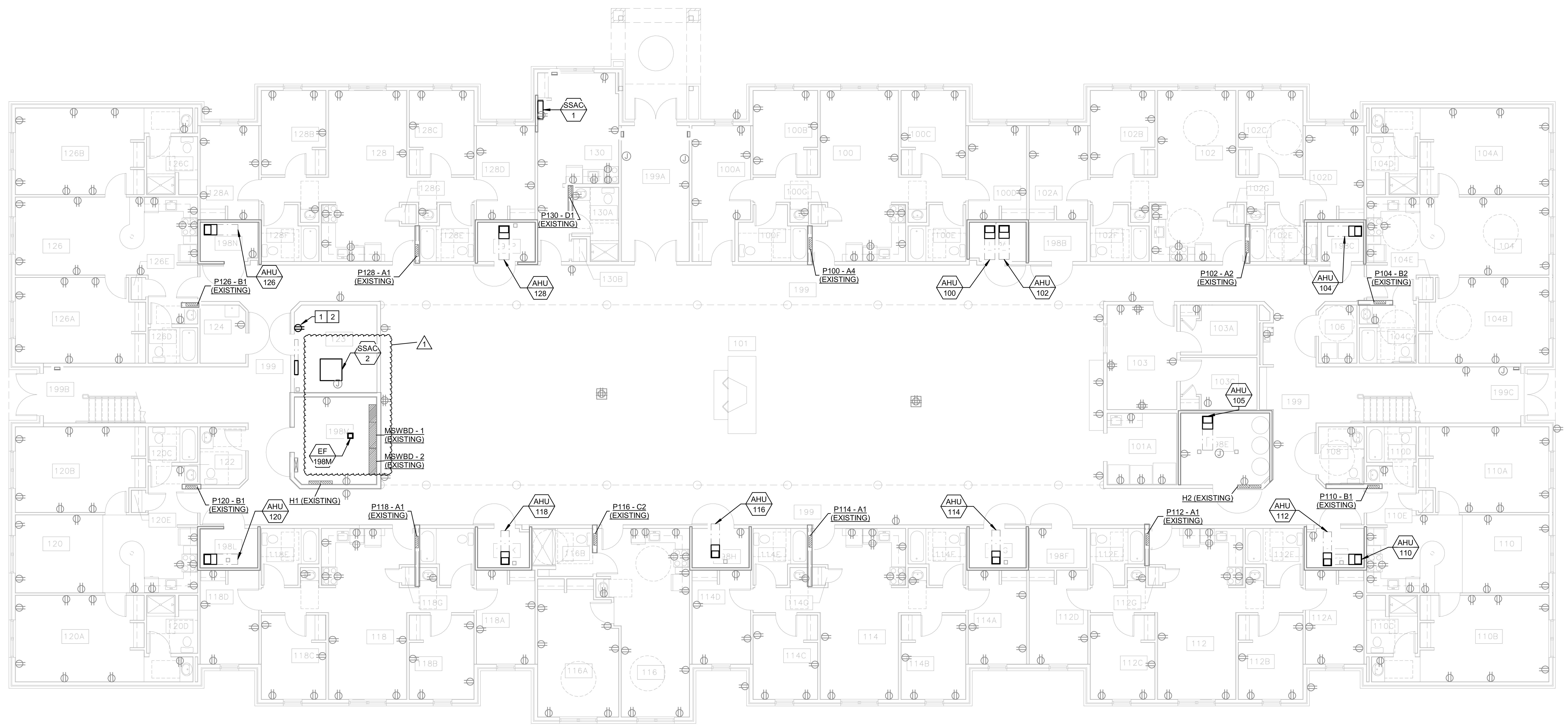
A. SEE SHEET E001 FOR GENERAL NOTES THAT APPLY TO THIS SHEET.

B. SEE SHEETS E601 AND E602 FOR MECHANICAL EQUIPMENT CONNECTION REQUIREMENTS.

KEYED NOTES:

1. PROVIDE 20A RECEPTACLE FOR TEMPERATURE CONTROL PANEL. UTILIZE EXISTING SPARE 20A/1P CIRCUIT BREAKER IN PANEL 'H1' FOR CONNECTION TO RECEPTACLE. COORDINATE FINAL LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

2. PROVIDE PATHWAY FOR DATA CABLE FROM ROOM 123 TO TEMPERATURE CONTROL PANEL VIA J-HOOKS IN CRAWL SPACE. CABLING PROVIDED BY UITS. COORDINATE FINAL TEMPERATURE CONTROL PANEL LOCATION WITH MECHANICAL CONTRACTOR.



1 E301 FIRST FLOOR ELECTRICAL PLAN - POWER
SCALE: 1/8" = 1'-0"

NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO.1

rtm engineering consultants
20 N.W. 3RD STREET
SUITE 510
EVANSVILLE, IN 47708
TEL 812.401.2260

SIGNED: 11/07/2025
PROFESSIONAL SEAL
EXPIRATION DATE:

DATE	11-07-2025
DESIGNED	NPH
DRAWN	NPH
CHECKED	CH
APPROVED	RNH

SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

FIRST FLOOR ELECTRICAL PLAN - POWER

SHEET NO.
E301

JOB NO. 25.B23340.3911

Branch Panel: MSWBD - 1 (EXISTING)

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Mains Type:
Bus Amps: 1 A
MCB Rating: 2000 A

CB Info	CKT	Circuit Description	Amps	Trip	Poles	A		B		C		Poles	Trip	Amps	Circuit Description	CKT	CB Info
	1					0 VA	0 VA									2	
	3	SPARE	--	20 A	3			0 VA	0 VA			3	20 A	--	SPARE	4	
	5									0 VA	0 VA					6	
	7					8755 VA	5618 VA									8	
	9	P130 - D1	48.21 A	125 A	3			3824 VA	10983...			3	125 A	65.49 A	P202 - A1	10	
	11									4790 VA	6993 VA					12	
	13					5618 VA	5978 VA									14	
	15	P100 - A4	65.99 A	125 A	3			10983...	10049...			3	125 A	62.32 A	P110 - B1	16	
	17									7173 VA	6425 VA					18	
	19					5618 VA	5978 VA									20	
	21	P128 - A1	65.49 A	125 A	3			10983...	10257...			3	125 A	63.47 A	P104 - B2	22	
	23									6993 VA	6633 VA					24	
	25					25125 VA	6047 VA									26	
	27	H2	205.14 A	250 A	3			23681...	4144 VA			3	125 A	38.49 A	P216 - C1	28	
	29									25099...	3675 VA					30	
	31					11168 VA	4898 VA									32	
E	33	ERU - 1	93 A	125 A	3			11168...	10231...			3	125 A	61.4 A	P102 - A2	34	
	35									11168...	6993 VA					36	
	37					5978 VA	5472 VA									38	
	39	P210 - B1	63.47 A	125 A	3			10257...	10629...			3	125 A	63.53 A	P214 - A1	40	
	41									6633 VA	6785 VA					42	
	43					5618...	5472...									44	
	45	P200 -A1	65.49 A	125 A	3			1098...	1083...			3	125 A	64.68 A	P212 - A1	46	
	47									6993 VA	6993 VA					48	
	49					0 VA	0 VA									50	
	51	SPARE	--	100 A	3			0 VA	0 VA			3	100 A	--	SPARE	52	
	53									0 VA	0 VA					54	
	55					--	--									56	
	57	SPACE	--	--	3			--	--			3	--	--	SPACE	58	
	59									--	--					60	
					Total Load:	107338 VA		149005 VA		113345 VA							
					Total...	894 A		1249 A		952 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MCB = MAIN CIRCUIT BREAKER
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	35313 VA	0.01%	4 VA		
Spare	233420 VA	100.00%	233420 VA	Total Conn. Load:	369688 VA
GEN	33503 VA	100.00%	33503 VA	Total Est. Demand:	334379 VA
HEAT	67452 VA	100.00%	67452 VA	Total Conn.:	1026 A
				Total Est. Demand:	928 A

Notes: EXISTING LOADS ARE ESTIMATED FROM GIVEN EXISTING DRAWINGS

Branch Panel: H1 (EXISTING)

Location:
Supply From: MSWBD - 2 (EXISTING)
Mounting: Surface
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Type: MLO
Bus Amps: 225 A

CB Info	CKT	Circuit Description	A...	Trip	Poles	A		B		C		Poles	Trip	A...	Circuit Description	CKT	CB Info
	1	REC - EXTERIOR	--	20 A	1	720 VA	966 VA					1	20 A	--	LIGHTING ON ROOF	2	
	3	REC - 1ST FLOOR MECH RM	--	20 A	1			864 VA	632 VA			1	20 A	--	LIGHTING - EXT BUILDING	4	
	5	REC - 1ST FLOOR MECH RM	--	20 A	1					864 VA	440 VA	1	20 A	--	LIGHTING - STAIR ON END	6	
	7	REC - 1ST FLOOR ELEC	--	20 A	1	864 VA	1171 VA					1	20 A	--	LIGHTING - CORR END AND ENTRY	8	
	9	REC - FELLOWSHIP	--	20 A	1			360 VA	650 VA			1	20 A	--	LIGHTING - FELLOWSHIP ROOM	10	
	11	REC - ROOF	--	20 A	1					720 VA	1000 VA	1	20 A	--	LIGHTING - COMMON AREAS	12	
	13	SPACE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	14	
	15	SPARE	--	20 A	1			0 VA	1200 VA			1	20 A	--	TELECOMMS ROOM RACK	16	
	17	QUAD - FELLOWSHIP TV	--	20 A	1					360 VA	960 VA	1	20 A	--	TELECOMMS ROOM RACK	18	
	19	QUAD - 1ST FLOOR OFFICE	--	20 A	1	960 VA	960 VA					1	20 A	--	TELECOMMS ROOM RACK	20	
	21	QUADS - 2ND FLOOR COMPUTER	--	20 A	1			800 VA	1200 VA			1	20 A	--	QUAD - TELECOMMS ROOM RACK	22	
	23	QUADS - 2ND FLOOR COMPUTER	--	20 A	1					800 VA	1200 VA	1	20 A	--	QUAD - TELECOMMS ROOM RACK	24	
	25	QUADS - 2ND FLOOR STUDY	--	20 A	1	800 VA	1200 VA					1	20 A	--	QUAD - TELECOMMS ROOM RACK	26	
	27	QUADS - 2ND FLOOR STUDY	--	20 A	1			800 VA	1200 VA			1	20 A	--	QUAD - TELECOMMS ROOM RACK	28	
	29	SPARE	--	20 A	1					0 VA	1200 VA	1	20 A	--	QUAD - TELECOMMS ROOM RACK	30	
N	31	AHU - 225	20.5 A	30 A	2	2132 VA	720 VA					1	20 A	--	REC - 2ND FLOOR MECH RM	32	
	33							2132 VA	900 VA			1	20 A	--	REC - 2ND FLOOR MECH RM	34	
E	35	CU - 225	8.8 A	15 A	2					915 VA	0 VA	1	20 A	--	SPARE	36	
	37					915 VA	500 VA					1	20 A	--	FIRE ALARM SYSTEM	38	
N	39	SSCU - 2	27.6 A	40 A	2			2870 VA	500 VA			1	20 A	--	SECURITY CABINET SYSTEM	40	
	41									2870 VA	500 VA	1	20 A	--	SECURITY CABINET SYSTEM	42	
	43	LIGHTS - ATTIC	--	20 A	1	708 VA	500 VA					1	20 A	--	SECURITY CABINET SYSTEM	44	
	45	REC - ATTIC	--	20 A	1			900 VA	100 VA			1	20 A	0.8...	EF - 198M	46	E
	47	EMERGENCY PHONE	--	20 A	1					500 VA	0 VA	1	20 A	--	TEMPERATURE CONTROL CABINET	48	N
	49	FRONT ENTRANCE DOORS	--	20 A	1	840 VA	50 VA					2	15 A	0.48 A	SSAC - 2	50	
	51	SIDE ENTRANCE DOORS	--	20 A	1			600 VA	50 VA							52	
	53	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	54	
	55	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	56	
	57	SPARE	--	20 A	1			0 VA	0 VA			1	20 A	--	SPARE	58	
	59	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	60	
					Total Load:	14006 VA		15758 VA		12329 VA							
					Total Amps:	119 A		133 A		103 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MLO = MAIN LUGS ONLY
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	7671 VA	0.01%	1 VA		
Spare	30059 VA	100.00%	30059 VA	Total Conn. Load:	42094 VA
GEN	100 VA	100.00%	100 VA	Total Est. Demand:	34424 VA
HEAT	4264 VA	100.00%	4264 VA	Total Conn.:	117 A
				Total Est. Demand:	96 A

Notes:

Branch Panel: H2 (EXISTING)

Location:
Supply From: MSWBD - 1 (EXISTING)
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Type:
Bus Amps: 250 A

CB Info	CKT	Circuit Description	A...	Trip	Poles	A		B		C		Poles	Trip	A...	Circuit Description	CKT	CB Info
	1	WASHING MACHINE - LAUNDRY	--	20 A	1	1200 VA	720 VA					1	20 A	--	REC - 2ND FLOOR MECH	2	
	3	WASHING MACHINE - LAUNDRY	--	20 A	1			1200 VA	900 VA			1	20 A	--	REC - 2ND FLOOR MECH	4	
	5	WASHING MACHINE - LAUNDRY	--	20 A	1					1200 VA	1080 VA	1	20 A	--	REC - 2ND FLOOR STOR	6	
	7	WASHING MACHINE - LAUNDRY	--	20 A	1	1200 VA	180 VA					1	20 A	--	REC - 2ND FLOOR LAUNDRY	8	
	9	WASHING MACHINE - LAUNDRY	--	20 A	1			1200 VA	720 VA			1	20 A	--	REC - 1ST FL & OUTSIDE	10	
	11	WASHING MACHINE - LAUNDRY	--	20 A	1					800 VA	450 VA	1	20 A	--	REC - 1ST FL MECH	12	
	13	WASHING MACHINE - 1ST FLOOR	--	20 A	1	600 VA	540 VA					1	20 A	--	REC - 1ST FL MECH	14	
	15	VENDING MACHINE	--	20 A	1			600 VA	450 VA			1	20 A	--	REC - 1ST FL MECH	16	
	17	VENDING MACHINE	--	20 A	1					600 VA	180 VA	1	20 A	--	REC - 1ST FLOOR FELLOWSHIP HALL	18	
	19	VENDING MACHINE	--	20 A	1	600 VA	0 VA					1	20 A	--	SPARE	20	
	21	VENDING ROOM	--	20 A	1			600 VA	0 VA			1	20 A	--	SPARE	22	
	23	COFFEE AREA	--	20 A	1					600 VA	1123 VA	2	20 A	10.8 A	CU - 105	24	E
	25	COFFEE AREA	--	20 A	1	600 VA	1123 VA									26	
	27	LGHT - CORR (THIS END)	--	20 A	1			750 VA	1602 VA			2	30 A	15.4 A	CU - 205	28	E
	29	LGHT - FELLOWSHIP RM (THIS END)	--	20 A	1					750 VA	1602 VA					30	
	31	LGHT - COMMON AREA (THIS END)	--	20 A	1	500 VA	500 VA					1	20 A	--	LIGHTING - STAIR (THIS END)	32	
	33	SPRINKLER SYSTEM (AIR COMPRESSOR)	--	20 A	2			1000 VA	0 VA			1	20 A	--	SPARE	34	
	35									1000 VA	0 VA	1	20 A	--	SPARE	36	
N	37	AHU - 205	21.9 A	30 A	2	2278 VA	200 VA					1	20 A	--	GAS SOLENOID	38	
	39							2278 VA	528 VA			1	20 A	--	HOT WATER CIRC PUMP	40	
N	41	AHU - 105	21.9 A	30 A	2					2278 VA	500 VA	1	20 A	--	WATER HEATER AND CONTROLS	42	
	43					2278 VA	500 VA					1	20 A	--	WATER HEATER AND CONTROLS	44	
	45	CLOTHES DRYER	--	20 A	2			1375 VA	500 VA			1	20 A	--	WATER HEATER AND CONTROLS	46	
	47									1375 VA	581 VA	1	20 A	--	DVF-1	48	
	49	CLOTHES DRYER	--	20 A	2	1375 VA	1375 VA					2	20 A	--	CLOTHES DRYER	50	
	51							1375 VA	1375 VA							52	
	53	CLOTHES DRYER	--	20 A	2					1375 VA	1375 VA	2	20 A	--	CLOTHES DRYER	54	
	55					1375 VA	1375 VA									56	
	57	CLOTHES DRYER	--	20 A	2			1375 VA	1375 VA			2	20 A	--	CLOTHES DRYER	58	
	59									1375 VA	1375 VA					60	
	61	REC - ATTIC	--	20 A	1	450 VA	2278 VA					2	40 A	21.9 A	AHU - 299B	62	N
	63	SIDE ENTRANCE DOOR - 199C	--	20 A	1			600 VA	2278 VA							64	
N	65	AHU - 299A	21.9 A	40 A	2					2278 VA	1602 VA	2	30 A	15.4 A	CU - 299	66	N
	67					2278 VA	1602 VA									68	
	69	SPACE	--	--	1			--	1602 VA			2	30 A	15.4 A	CU - 299	70	N
	71	SPACE	--	--	1					--	1602 VA					72	
					Total Load:	25125 VA		23681 VA		25099 VA							
					Total Amps:	211 A		197 A		211 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MLO = MAIN LUGS ONLY
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	11855 VA	0.01%	1 VA		
Spare	43829 VA	100.00%	43829 VA	Total Conn. Load:	73904 VA
HEAT	18220 VA	100.00%	18220 VA	Total Est. Demand:	62050 VA
				Total Conn.:	205 A
				Total Est. Demand:	172 A

Notes:

GENERAL NOTES:

A. SEE SHEET E001 FOR GENERAL NOTES THAT APPLY TO THIS SHEET.

B. NEW BREAKERS INSTALLED IN EXISTING PANELBOARDS SHALL HAVE A.I.C. RATINGS EQUAL TO THAT OF THE EXISTING PANELBOARD.

Branch Panel: P100 - A4 (EXISTING)

Location:
Supply From: MSWBD - 1 (EXISTING)
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Type:
Bus Amps: 125 A

CB Info	CKT	Circuit Description	A...	Trip	Poles	A		B		C		Poles	Trip	A...	Circuit Description	CKT	CB Info
	1	REC - REFRIGERATOR	--	20 A	1	700 VA	540 VA					1	20 A	--	REC - LIVING ROOM	2	
	3	REC - OVER SINK	--	20 A	1			180 VA	180 VA			1	20 A	--	REC - BATHROOM SINK	4	
	5	REC - OVER KITCHEN TABLE	--	20 A	1					180 VA	720 VA	1	20 A	--	REC - BEDROOM	6	
	7	MICROWAVE / HOOD	--	20 A	1	1200 VA	180 VA					1	20 A	--	REC - BATHROOM SINK	8	
	9	DISWASHER	--	20 A	1			1500 VA	720 VA			1	20 A	--	REC - BEDROOM	10	
	11	DOOR CHIME/ LIGHT SYSTEM	--	20 A	1					180 VA	720 VA	1	20 A	--	REC - BEDROOM	12	
N	13	AHU - 100	21.9 A	30 A	2	2278 VA	720 VA					1	20 A	--	REC - BEDROOM	14	
	15							2278 VA	752 VA			1	20 A	--	LIGHTS	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	RANGE	--	50 A	2			4250 VA	1123 VA			2	20 A	10.8 A	CU - 100	22	E
	23									4250 VA	1123 VA					24	
					Total Load:	5618 VA		10983 VA		7173 VA							
					Total Amps:	47 A		94 A		62 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MLO = MAIN LUGS ONLY
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	2246 VA	0.01%	0 VA		
Spare	16972 VA	100.00%	16972 VA	Total Conn. Load:	23773 VA
HEAT	4555 VA	100.00%	4555 VA	Total Est. Demand:	21527 VA
				Total Conn.:	66 A
				Total Est. Demand:	60 A

Notes:

Branch Panel: P102 - A2 (EXISTING)

Location:
Supply From: MSWBD - 1 (EXISTING)
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22000 AIC
Type:
Bus Amps: 125 A

CB Info	CKT	Circuit Description	A...	Trip	Poles	A		B		C		Poles	Trip	A...	Circuit Description	CKT	CB Info
	1	REC - REFRIGERATOR	--	20 A	1	700 VA	540 VA					1	20 A	--	REC - LIVING ROOM	2	
	3	REC - OVER SINK	--	20 A	1			180 VA	180 VA			1	20 A	--	REC - BATHROOM SINK	4	
	5	REC - OVER KITCHEN TABLE	--	20 A	1					180 VA	720 VA	1	20 A	--	REC - BEDROOM	6	
	7	MICROWAVE / HOOD	--	20 A	1	1200 VA	180 VA					1	20 A	--	REC - BATHROOM SINK	8	
	9	DISHWASHER	--	20 A	1			1500 VA	720 VA			1	20 A	--	REC - BEDROOM	10	
	11	SPACE	--	--	1					--	720 VA	1	20 A	--	REC - BEDROOM	12	
N	13	AHU - 102	21.9 A	30 A	2	2278 VA	0 VA					1	20 A	--	REC - BEDROOM	14	
	15							2278 VA	0 VA			1	20 A	--	LIGHTS	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	RANGE	--	50 A	2			4250 VA	1123 VA			2	20 A	10.8 A	CU - 102	22	E
	23									4250 VA	1123 VA					24	
					Total Load:	4898 VA		10231 VA		6993 VA							
					Total Amps:	41 A		88 A		61 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MLO = MAIN LUGS ONLY
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	2246 VA	0.01%	0 VA		
Spare	15320 VA	100.00%	15320 VA	Total Conn. Load:	22121 VA
HEAT	4555 VA	100.00%	4555 VA	Total Est. Demand:	19875 VA
				Total Conn.:	61 A
				Total Est. Demand:	55 A

Notes:

Branch Panel: P104 - B2 (EXISTING)

Location:
Supply From: MSWBD - 1 (EXISTING)
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Type:
Bus Amps: 125 A

CB Info	CKT	Circuit Description	A...	Trip	Poles	A		B		C		Poles	Trip	A...	Circuit Description	CKT	CB Info
	1	REC - REFRIGERATOR	--	20 A	1	700 VA	720 VA					1	20 A	--	REC - LIVING ROOM	2	
	3	REC - OVER SINK	--	20 A	1			180 VA	225 VA			1	20 A	--	REC - BATHROOM SINK	4	
	5	REC - OVER KITCHEN TABLE	--	20 A	1					180 VA	540 VA	1	20 A	--	REC - BEDROOM	6	
	7	MICROWAVE / HOOD	--	20 A	1	1200 VA	540 VA					1	20 A	--	RED - BEDROOM	8	
	9	DISHWASHER	--	20 A	1			1500 VA	225 VA			1	20 A	--	REC - BATHROOM SINK	10	
	11	SPACE	--	--	1					--	540 VA	1	20 A	--	REC - BEDROOM	12	
N	13	AHU - 104	21.9 A	30 A	2	2278 VA	540 VA					1	20 A	--	REC - BEDROOM	14	
	15							2278 VA	476 VA			1	20 A	--	LIGHTS	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	RANGE	--	50 A	2			4250 VA	1123 VA			2	20 A	10.8 A	CU - 104	22	E
	23									4250 VA	1123 VA					24	
					Total Load:	5978 VA		10257 VA		6633 VA							
					Total Amps:	50 A		86 A		56 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MLO = MAIN LUGS ONLY
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	2246 VA	0.01%	0 VA		
Spare	16066 VA	100.00%	16066 VA	Total Conn. Load:	22867 VA
HEAT	4555 VA	100.00%	4555 VA	Total Est. Demand:	20621 VA
				Total Conn.:	63 A
				Total Est. Demand:	57 A

Notes:

Branch Panel: P110 - B1 (EXISTING)

Location:
Supply From: MSWBD - 1 (EXISTING)
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Type:
Bus Amps: 125 A

CB Info	CKT	Circuit Description	A...	Trip	Poles	A		B		C		Poles	Trip	A...	Circuit Description	CKT	CB Info
	1	REC - REFRIGERATOR	--	20 A	1	700 VA	720 VA					1	20 A	--	REC - LIVING ROOM	2	
	3	REC - OVER SINK	--	20 A	1			180 VA	225 VA			1	20 A	--	REC - BATHROOM SINK	4	
	5	REC - OVER KITCHEN TABLE	--	20 A	1					180 VA	540 VA	1	20 A	--	REC - BEDROOM	6	
	7	MICROWAVE / HOOD	--	20 A	1	1200 VA	540 VA					1	20 A	--	REC - BEDROOM	8	
	9	DISHWASHER	--	20 A	1			1500 VA	225 VA			1	20 A	--	REC - BATHROOM SINK	10	
	11	SPACE	--	--	1					--	540 VA	1	20 A	--	REC - BEDROOM	12	
N	13	AHU - 110	21.9 A	30 A	2	2278 VA	540 VA					1	20 A	--	REC - BEDROOM	14	
	15							2278 VA	476 VA			1	20 A	--	LIGHTS	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	RANGE	--	50 A	2			4250 VA	915 VA			2	15 A	8.8 A	CU - 110	22	E
	23									4250 VA	915 VA					24	
					Total Load:	5978 VA		10049 VA		6425 VA							
					Total Amps:	50 A		84 A		54 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MLO = MAIN LUGS ONLY
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	1830 VA	0.01%	0 VA		
Spare	16066 VA	100.00%	16066 VA	Total Conn. Load:	22451 VA
HEAT	4555 VA	100.00%	4555 VA	Total Est. Demand:	20621 VA
				Total Conn.:	62 A
				Total Est. Demand:	57 A

Notes:

Branch Panel: P112 - A1 (EXISTING)

Location:
Supply From: MSWBD - 2 (EXISTING)
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Type:
Bus Amps: 125 A

CB Info	CKT	Circuit Description	A...	Trip	Poles	A		B		C		Poles	Trip	A...	Circuit Description	CKT	CB Info
	1	REC - REFRIGERATOR	--	20 A	1	700 VA	540 VA					1	20 A	--	REC - LIVING ROOM	2	
	3	REC OVER SINK	--	20 A	1			180 VA	180 VA			1	20 A	--	REC - BATHROOM SINK	4	
	5	REC - OVER KITCHEN TABLE	--	20 A	1					180 VA	720 VA	1	20 A	--	REC - BEDROOM	6	
	7	MICROWAVE / HOOD	--	20 A	1	1200 VA	180 VA					1	20 A	--	REC - BATHROOM SINK	8	
	9	DISHWASHER	--	20 A	1			1500 VA	720 VA			1	20 A	--	REC - BEDROOM	10	
	11	SPACE	--	--	1					--	720 VA	1	20 A	--	REC - BEDROOM	12	
N	13	AHU - 112	21.9 A	30 A	2	2278 VA	720 VA					1	20 A	--	REC - BEDROOM	14	
	15							2278 VA	752 VA			1	20 A	--	LIGHTS	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	RANGE	--	50 A	2			4250 VA	915 VA			2	15 A	8.8 A	CU - 112	22	E
	23									4250 VA	915 VA					24	
					Total Load:	5618 VA		10775 VA		6785 VA							
					Total Amps:	47 A		91 A		58 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MLO = MAIN LUGS ONLY
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	1830 VA	0.01%	0 VA		
Spare	16792 VA	100.00%	16792 VA	Total Conn. Load:	23177 VA
HEAT	4555 VA	100.00%	4555 VA	Total Est. Demand:	21347 VA
				Total Conn.:	64 A
				Total Est. Demand:	59 A

Notes:

Branch Panel: P114 - A1 (EXISTING)

Location:
Supply From: MSWBD - 2 (EXISTING)
Mounting: Recessed
Enclosure: Type 1
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating:
Type:
Bus Amps: 125 A

CB Info	CKT	Circuit Description	A...	Trip	Poles	A		B		C		Poles	Trip	A...	Circuit Description	CKT	CB Info
	1	REC - REFRIGERATOR	--	20 A	1	700 VA	540 VA					1	20 A	--	REC - LIVING ROOM	2	
	3	REC - OVER SINK	--	20 A	1			180 VA	180 VA			1	20 A	--	REC - BATHROOM SINK	4	
	5	REC - OVER KITCHEN TABLE	--	20 A	1					180 VA	720 VA	1	20 A	--	REC - BEDROOM	6	
	7	MICROWAVE / HOOD	--	20 A	1	1200 VA	180 VA					1	20 A	--	REC - BATHROOM SINK	8	
	9	DISWASHER	--	20 A	1			1500 VA	720 VA			1	20 A	--	REC - BEDROOM	10	
	11	SPACE	--	--	1					--	720 VA	1	20 A	--	REC - BEDROOM	12	
N	13	AHU - 114	20.5 A	30 A	2	2132 VA	720 VA					1	20 A	--	REC - BEDROOM	14	
	15							2132 VA	752 VA			1	20 A	--	LIGHTS	16	
	17	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	18	
	19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20	
	21	RANGE	--	50 A	2			4250 VA	915 VA			2	15 A	8.8 A	CU - 114	22	E
	23									4250 VA	915 VA					24	
					Total Load:	5472 VA		10629 VA		6785 VA							
					Total Amps:	46 A		90 A		58 A							

CIRCUIT BREAKER INFORMATION LEGEND:
N = PROVIDE CIRCUIT BREAKER, SIZE AS INDICATED
E = EXISTING SPARE CIRCUIT BREAKER TO BE REUSED
G = GROUND FAULT SENSING
S = SHUNT TRIP
L = LOCK OUT
A = ARC FAULT INTERRUPTER

ABBREVIATIONS:
MLO = MAIN LUGS ONLY
CB = CIRCUIT BREAKER
CKT = CIRCUIT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
COOLING	1830 VA	0.01%	0 VA		
Spare	16792 VA	100.00%	16792 VA	Total Conn. Load:	22886 VA
HEAT	4264 VA	100.00%	4264 VA	Total Est. Demand:	21056 VA
				Total Conn.:	64 A
				Total Est. Demand:	58 A

Notes:

NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO.1

20 N.W. 3RD STREET
SUITE 510
EVANSVILLE, IN 47708
TEL 812.401.2260

rtm engineering consultants

SIGNED: 11/07/2025

ROBERT HUDNELL REGISTERED No.PE12500552 STATE OF INDIANA PROFESSIONAL ENGINEER

PROFESSIONAL SEAL

EXPIRATION DATE:

DATE	11-07-2025
DESIGNED	NPH
DRAWN	NPH
CHECKED	CH
APPROVED	RNH

SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

PANEL SCHEDULES - ELECTRICAL

SHEET NO.
E501

JOB NO. 25.B23340.3911

MECHANICAL EQUIPMENT DATA SCHEDULE

PLAN MARK	EQUIPMENT	LOCATION	FURNISH BY [1]	MOTOR OR EQUIPMENT DATA: HP/KW/A [2]	VOLTS/ PHASE	INST.BY/ CONN.BY [1]	FED FROM	BRANCH CIRCUIT [3]	DISCONNECT SWITCH AT EQUIPMENT: TYPE [4]	NEMA ENCLOS. TYPE	SWITCH/ FUSE SIZE	FURNISH. BY [1]	INST.BY/ CONN.BY [1]	STARTER: NEMA SIZE	TYPE [5]	NEMA ENCLOS. TYPE	SWITCH/ FUSE SIZE	ACCESS. [6]	FURNISH. BY [1]	CONN.BY [1]	CONTROL WIRING BY [1]	REMARKS [7]
CU - 218	CONDENSER UNIT	ROOF	23	10.8A	208 / 1	23 / 26	EXISTING	2#12, 1#12G, 3/4" C	-	3R	20A	23	23 / 26	-	-	-	-	-	23	23	23	2
CU - 220	CONDENSER UNIT	ROOF	23	10.8A	208 / 1	23 / 26	EXISTING	2#12, 1#12G, 3/4" C	-	3R	20A	23	23 / 26	-	-	-	-	-	23	23	23	2
CU - 225	CONDENSER UNIT	ROOF	23	8.8A	208 / 1	23 / 26	EXISTING	2#12, 1#12G, 3/4" C	-	3R	15A	23	23 / 26	-	-	-	-	-	23	23	23	2
CU - 226	CONDENSER UNIT	ROOF	23	10.8A	208 / 1	23 / 26	EXISTING	2#12, 1#12G, 3/4" C	-	3R	20A	23	23 / 26	-	-	-	-	-	23	23	23	2
CU - 126	CONDENSER UNIT	ROOF	23	10.8A	208 / 1	23 / 26	EXISTING	2#12, 1#12G, 3/4" C	-	3R	20A	23	23 / 26	-	-	-	-	-	23	23	23	2
CU - 299	CONDENSER UNIT	ROOF	23	15.4A	208 / 1	23 / 26	H2	2#10, 1#10G, 3/4" C	-	3R	30A	23	23 / 26	-	-	-	-	-	23	23	23	1
CU - 299	CONDENSER UNIT	ROOF	23	15.4A	208 / 1	23 / 26	H2	2#10, 1#10G, 3/4" C	-	3R	30A	23	23 / 26	-	-	-	-	-	23	23	23	1
AHU - 299A	AIR HANDLING UNIT	298A	23	32.48A	208 / 1	23 / 26	H2	2#8, 1#8G, 3/4" C	-	-	-	23	23 / 26	-	-	-	-	-	23	23	23	5
AHU - 299B	AIR HANDLING UNIT	298E	23	32.48A	208 / 1	23 / 26	H2	2#8, 1#8G, 3/4" C	-	-	-	23	23 / 26	-	-	-	-	-	23	23	23	5
ERU - 1	ENERGY RECOVERY UNIT	ROOF	23	93A	208 / 3	23 / 26	MSWBD-1	3#1, 1#6G, 1 1/2" C	-	-	-	23	23 / 26	-	-	-	-	-	23	23	23	3
SSCU - 1	SPLIT SYSTEM CONDENSING UNIT	ROOF	23	7.4A	208 / 1	23 / 26	P130-D1	2#12, 1#12G, 3/4"C	NF	3R	15A	23	23 / 26	-	-	-	-	-	23	23	23	4
SSAC - 1	SPLIT SYSTEM AIR CONDITIONER	130	23	-	-	23 / 26	-	-	-	-	-	-	-	-	-	-	-	-	23	23	23	-
SSCU - 2	SPLIT SYSTEM CONDENSING UNIT	ROOF	23	27.7A	208 / 1	23 / 26	H1	2#10, 1#10G, 3/4"C	NF	3R	30A	23	23 / 26	-	-	-	-	-	23	23	23	5
SSAC - 2	SPLIT SYSTEM AIR CONDITIONER	123	23	1.3A	208 / 1	23 / 26	H1	2#12, 1#12G 3/4"C	-	-	-	-	-	-	-	-	-	-	23	23	23	4
EF-198M	EXHAUST FAN	198M	23	0.7A	120 / 1	23 / 26	H1	EXISTING	-	-	-	-	-	-	-	-	-	-	23	-	23	-

[1] SPECIFICATION DIVISION NUMBER:
DIVISION 22 - PLUMBING
DIVISION 23 - MECHANICAL
DIVISION 26 - ELECTRICAL
GC - GENERAL CONTRACTOR

[2] HORSEPOWER (HP) IS SHOWN UNLESS AMPS (A) OR KILOWATTS (KW) ARE CALLED OUT.

[3] REFER TO FEEDER SCHEDULE WHEN THIS COLUMN CONTAINS A FEEDER DESIGNATION INSTEAD OF CONDUCTOR SIZE.

[4] NF - NON FUSED
F- FUSED
TOG - TOGGLE

[5] STARTER TYPE:
- COMB1 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH NON-FUSED DISCONNECT SWITCH.
- COMB2 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH FUSED DISCONNECT SWITCH.
- COMB3 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKER DISCONNECT.
- COMB4 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH MAGNETIC ONLY MOLDED CASE CIRCUIT BREAKER DISCONNECT.
- FVNR - FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITHOUT DISCONNECT.
- MAN - MANUAL STARTER WITH PILOT LIGHT.
- SDS - STAR DELTA STARTER.
- PWCP - PREWIRED CONTROL PANEL.
- VFD - VARIABLE FREQUENCY DRIVE.
- 2S2W - 2 SPEED, 2 WINDING
- 2S1W - 2 SPEED, SINGLE WINDING

[6] ACCESSORIES:
HOAP - HOA WITH PILOT LIGHT

[7] KEY TO REMARKS:
1. PROVIDE NEW 30A / 2P CIRCUIT BREAKER AT PANEL FOR CONNECTION TO MECHANICAL EQUIPMENT.
2. EXISTING BRANCH CIRCUIT TO BE REUSED. EC SHALL PROVIDE NEW DISCONNECT AND CONDUCTORS FROM DISCONNECT TO EQUIPMENT AS NOTED ON THIS SHEET.
3. UTILIZE EXISTING 125A / 3P CIRCUIT BREAKER IN MSWBD FOR CONNECTION TO NEW EQUIPMENT.
4. PROVIDE NEW 15A / 2P CIRCUIT BREAKER AT PANEL FOR CONNECTION TO MECHANICAL EQUIPMENT.
5. PROVIDE NEW 40A / 2P CIRCUIT BREAKER AT PANEL FOR CONNECTION TO MECHANICAL EQUIPMENT.

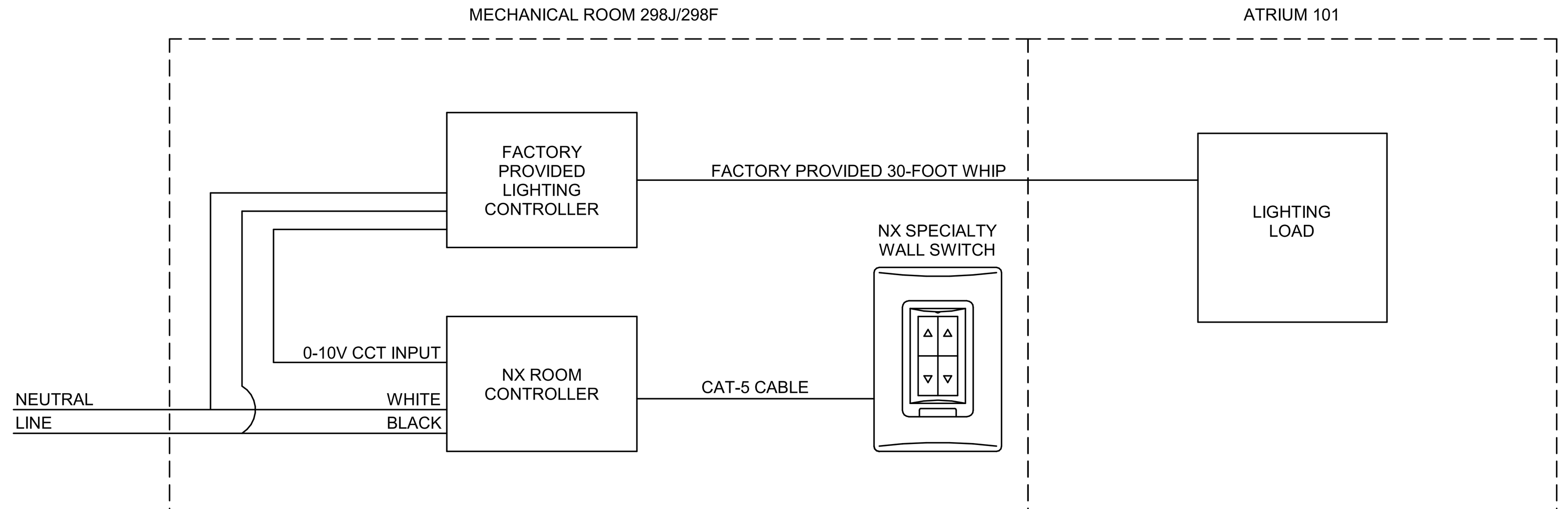
GENERAL NOTES:

A. SEE SHEET E001 FOR GENERAL NOTES THAT APPLY TO THIS SHEET.

LIGHT FIXTURE SCHEDULE

PLAN MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	ACCESSORIES AND REMARKS	LUMINAIRE VOLTAGE	LIGHT SOURCE INFORMATION: TYPE	LUMENS	COLOR TEMP	MAXIMUM INPUT WATTS
A	6' x 6' RECESSED PANEL	TLS ARCHITECTURAL LIGHTING	TLS - LSL - AS - 6.6 - 1 - 1 - 35K - S - SP - BL - 0-10V - CL - LS	ELECTRICAL CONTRACTOR SHALL MEASURE EXISTING OPENING PRIOR TO ORDERING LIGHT FIXTURE AND SIZE FIXTURE TO LEAVE A 1/4" GAP ON ALL SIDES. FOR ADDITIONAL INFORMATION ON BASIS OF DESIGN FIXTURE, CONTACT GREG ROCHLEU 812-250-1183	UNV	LED	3653	3500K	31
		APPROVED EQUAL	-						
		APPROVED EQUAL	-						

A. CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE, CLIPS, ANGLES, FRAMES, ETC AS REQUIRED TO MOUNT THE FIXTURES IN OR ON THE SURFACES THEY ARE TO BE INSTALLED.
B. WHEN INSTALLING LUMINARIES, CONTRACTOR SHALL USE THE LIGHT FIXTURE MANUFACTURER'S MOUNTING HARDWARE AND FOLLOW ALL MANUFACTURER'S INSTALLATION DIRECTIONS.
C. ALL LIGHT FIXTURES SHALL HAVE A U.L. LABEL.
D. REFER TO DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION CONCERNING FIXTURES, FINISHES, DRIVERS, ETC.
E. INDOOR LED COLOR TEMPERATURE SHALL BE 3500 KELVIN. OUTDOOR LED COLOR TEMPERATURE SHALL BE 4000 KELVIN, UNLESS NOTED OTHERWISE.
F. VERIFY CEILING CONDITIONS AND COORDINATE LIGHT FIXTURE MOUNTING HARDWARE AND TRIMS NEEDED PRIOR TO ORDERING.
G. VERIFY QUANTITIES,MODEL NUMBERS AND DESCRIPTIONS WITH MANUFACTURERS PRIOR TO PLACING ORDER.
H. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURE AND CATALOG NUMBERS ONLY. CONTRACTOR SHALL CONSIDER THE COMPLETE DESCRIPTION, NOTES, SPECIFICATIONS, MOUNTING AND INSTALLATION CONDITIONS IN CONJUNCTION WITH THE CATALOG NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURER LISTED AR THE BASIS OF DESIGN.
I. CONTRACTOR SHALL PROVIDE ALL LIGHT FIXTURES UNLESS NOTED OTHERWISE.



NOTES:
1. LIGHTING CONTROLS SHALL BE CAPABLE OF ON/OFF AND RAISE/LOWER OF LIGHT FIXTURES UTILIZING 4-BUTTON WALL STATION.
2. ROOM CONTROLLER SHALL CONTAIN INTEGRAL TIMER CAPABLE OF CONTROLLING ON/OFF OF LIGHTS AUTOMATICALLY ON A 24 HOUR SCHEDULE.
3. WIRING DIAGRAM IS FOR BIDDING PURPOSES ONLY. VERIFY WIRING AND DEVICE FUNCTIONALITY WITH MANUFACTURER PRIOR TO PURCHASE/INSTALLATION OF LIGHTING CONTROLS

1 / E602 BASIS OF DESIGN LIGHTING CONTROL WIRING DIAGRAM
SCALE: NONE

NO	DATE	DESCRIPTION
1	11-24-25	ADDENDUM NO.1

rtm engineering consultants
20 N.W. 3RD STREET
SUITE 610
EVANSVILLE, IN 47708
TEL 812.401.2260

SIGNED: 11/07/2025
No.PE12500552 STATE OF INDIANA
PROFESSIONAL SEAL
EXPIRATION DATE:

DATE	11-07-2025
DESIGNED	NPH
DRAWN	NPH
CHECKED	CH
APPROVED	RNH

SE878D - MEADOW LODGE - HVAC AND ROOF REPLACEMENT
INDIANA UNIVERSITY SOUTHEAST
NEW ALBANY, IN

MECHANICAL EQUIPMENT ELECTRICAL DATA SCHEDULE

SHEET NO.
E602

JOB NO. 25.823340.3911

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US

PHONE: (502) 267-1571
FAX: (502) 267-0316

SUBMITTAL DATE: 11/21/2025

FOR INFORMATION CONTACT
PROJECT MANAGER:MICHAEL BURTON

ENGINEERING DATA FOR
IUSE MEADOW LODGE

4201 GRANT LINE RD
NEW ALBANY, IN 47150-2158
US

PROJECT ID: 44OP-406822

RTM ENGINEERING CONSULTANTS
ENGINEER

THE TRUSTEES OF INDIANA UNIVERSITY
CONTRACTOR

DWG	DESCRIPTION
	GENERAL
	COVER SHEET
CLR	CLARIFICATION SHEET
TOCA	TABLE OF CONTENTS
	SCHEDULE
	FLN SCHEDULE
	REPORTS
	POINT SUMMARY REPORT
	CONTROL DRAWINGS
LEG	LEGEND & ABBREVIATIONS
001	COMMUNICATION RISER
002	FLN / MSTP COMMUNICATION
003	BLN / ALN COMMUNICATION
100	ERU-1 FLOW DIAGRAM
100A	ERU-1 WIRING DIAGRAM
100B	ERU-1 SEQ
500	AHU FLOW DIAGRAM
500A	AHU BOM & SEQ
501	DUCTLESS SPLIT SYSTEM
501A	DUCTLESS SPLIT SYSTEM WIRING
501B	DUCTLESS SPLIT SYSTEM BOM & SEQ
	CONTROL PANEL LAYOUTS
N01	ML.PXC1 PANEL LAYOUT
N01A	ML.PXC1 PANEL BOM
	GENERAL
ABAC	ANIXTER BUILDING AUTO. CABLES
P7WIR	PXCM TX-I/O WIRING SPEC
TTRM1	TX-I/O TERMINATION SPEC. (1)
TTRM2	TX-I/O TERMINATION SPEC. (2)
TTRM3	TX-I/O TERMINATION SPEC. (3)

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

TABLE OF CONTENTS

440P-406822
0
TOCA

C:\JOBS\440P-406822\MDT\TOC-000.DWG

SIEMENS
Smart Infrastructure
Global Operations Center

Field-Level Network Device Schedule

44OP-406822 IUSE MEADOW LODGE

Installation Status Key

N: new installation
E: existing, to remain
M: existing, to be modified
R: existing, to be removed

Network Type Key

BAC-IP: BACnet IP FLN device
BAC-M1: BACnet MS/TP FLN device - FLN 1
BAC-M2: BACnet MS/TP FLN device- FLN 2
KNX: KNX device
P1-1: P1 FLN device - FLN 1
P1-2: P1 FLN device - FLN 2
P1-3: P1 FLN device - FLN 3
MB-RTU: Modbus RTU device
MB-TCP: Modbus TCP device

Installation Checklist

- Device mounted?
- Power connected?
- Network connected?
- Actuator(s) wired?
- Sensor(s) wired?
- Flow tubes connected?

Pressurization Mode Key

+ : Positive pressure
- : Negative pressure
Ø : Neutral pressure

GENERAL NOTES

NOTE-1 FIELD TO DETERMINED
NOTE-2 PROVIDED BY UNIT MANUFACTURER

REVISION HISTORY

REV	DATE	DWN	CHK	DESCRIPTION
01	11-21-2025	AD	MM	ISSUED FOR APPROVAL

System										Network						Device / Equipment								Grouping	Room Airflow						Supply VAV Terminal												Extract / Exhaust VAV Terminal						Room Operator Unit					Comments
																									Minimum Airflow (CFM)				Pressurization		Airflow (CFM)							Duct Size (in)						Airflow (CFM)			Duct Size (in)									
Item	Device Name	Floor	Room No	Room / Device Description	Equipment ID	Siemens Dwg. No.	Mech Dwg No	Served By (Airside)	Installation Status	FLN Network No	Network Type	IP Line / Loop Tag	MAC / Device Address	Instance No.	IP Address	Type	Equipment Controlled	Coil Type	Radiation Type	Rad Valve / Relay Qty	Field Power Source	Device Load (VA)	XFMR Load (VA)	Install Check (Initial)	Group Master	Comfort / Occ	Pre-comfort / Occ Stby	Economy / Unocc	Protection / Vacant	Pressurization Mode	Transferred / Offset Airflow	SAV Clg Min	SAV Clg Max	SAV Htg Min	SAV Htg Max	SAV Vent Min	SAV Vent Max	SAV Smoke Flow	SAV Shape	SAV H/D	SAV W	EAV Vent Min	EAV Vent Max	Smoke (General EAV) Purge (Fume Hood)	EAV Shape	EAV H/D	EAV W	Temperature	Humidity	CO2	User Interface	Lighting Pushbuttons	
1	ML.1F.AHU100	1	100	NOTE-1	AHU-100	500	M101	-	N	-	BAC-M1		1	NOTE-1		Third-Party					NOTE-2	-	0 /																															
2	ML.1F.AHU102	1	102	NOTE-1	AHU-102	500	M101	-	N	-	BAC-M1		2	NOTE-1		Third-Party					NOTE-2	-	0 /																															
3	ML.1F.AHU104	1	104	NOTE-1	AHU-104	500	M101	-	N	-	BAC-M1		3	NOTE-1		Third-Party					NOTE-2	-	0 /																															
4	ML.1F.AHU105	1	105	NOTE-1	AHU-105	500	M101	-	N	-	BAC-M1		4	NOTE-1		Third-Party					NOTE-2	-	0 /																															
5	ML.1F.AHU110	1	110	NOTE-1	AHU-110	500	M101	-	N	-	BAC-M1		5	NOTE-1		Third-Party					NOTE-2	-	0 /																															
6	ML.1F.AHU112	1	112	NOTE-1	AHU-112	500	M101	-	N	-	BAC-M1		6	NOTE-1		Third-Party					NOTE-2	-	0 /																															
7	ML.1F.AHU114	1	114	NOTE-1	AHU-114	500	M101	-	N	-	BAC-M1		7	NOTE-1		Third-Party					NOTE-2	-	0 /																															
8	ML.1F.AHU116	1	116	NOTE-1	AHU-116	500	M101	-	N	-	BAC-M1		8	NOTE-1		Third-Party					NOTE-2	-	0 /																															
9	ML.1F.AHU118	1	118	NOTE-1	AHU-118	500	M101	-	N	-	BAC-M1		9	NOTE-1		Third-Party					NOTE-2	-	0 /																															
10	ML.1F.AHU120	1	120	NOTE-1	AHU-120	500	M101	-	N	-	BAC-M1		10	NOTE-1		Third-Party					NOTE-2	-	0 /																															
11	ML.1F.AHU126	1	126	NOTE-1	AHU-126	500	M101	-	N	-	BAC-M1		11	NOTE-1		Third-Party					NOTE-2	-	0 /																															
12	ML.1F.AHU128	1	128	NOTE-1	AHU-128	500	M101	-	N	-	BAC-M1		12	NOTE-1		Third-Party					NOTE-2	-	0 /																															
13	ML.2F.AHU200	2	200	NOTE-1	AHU-200	500	M101	-	N	-	BAC-M1		13	NOTE-1		Third-Party					NOTE-2	-	0 /																															
14	ML.2F.AHU202	2	202	NOTE-1	AHU-202	500	M101	-	N	-	BAC-M1		14	NOTE-1		Third-Party					NOTE-2	-	0 /																															
15	ML.2F.AHU204	2	204	NOTE-1	AHU-204	500	M101	-	N	-	BAC-M1		15	NOTE-1		Third-Party					NOTE-2	-	0 /																															
16	ML.2F.AHU205	2	205	NOTE-1	AHU-205	500	M101	-	N	-	BAC-M1		16	NOTE-1		Third-Party					NOTE-2	-	0 /																															
17	ML.2F.AHU210	2	210	NOTE-1	AHU-210	500	M101	-	N	-	BAC-M1		17	NOTE-1		Third-Party					NOTE-2	-	0 /																															
18	ML.2F.AHU212	2	212	NOTE-1	AHU-212	500	M101	-	N	-	BAC-M1		18	NOTE-1		Third-Party					NOTE-2	-	0 /																															
19	ML.2F.AHU214	2	214	NOTE-1	AHU-214	500	M101	-	N	-	BAC-M1		19	NOTE-1		Third-Party					NOTE-2	-	0 /																															
20	ML.2F.AHU216	2	216	NOTE-1	AHU-216	500	M101	-	N	-	BAC-M1		20	NOTE-1		Third-Party					NOTE-2	-	0 /																															
21	ML.2F.AHU218	2	218	NOTE-1	AHU-218	500	M101	-	N	-	BAC-M1		21	NOTE-1		Third-Party					NOTE-2	-	0 /																															
22	ML.2F.AHU220	2	220	NOTE-1	AHU-220	500	M101	-	N	-	BAC-M1		22	NOTE-1		Third-Party					NOTE-2	-	0 /																															
23	ML.2F.AHU224	2	224	NOTE-1	AHU-224	500	M101	-	N	-	BAC-M1		23	NOTE-1		Third-Party					NOTE-2	-	0 /																															
24	ML.2F.AHU226	2	226	NOTE-1	AHU-226	500	M101	-	N	-	BAC-M1		24	NOTE-1		Third-Party					NOTE-2	-	0 /																															
25	ML.2F.AHU228	2	228	NOTE-1	AHU-228	500	M101	-	N	-	BAC-M1		25	NOTE-1		Third-Party					NOTE-2	-	0 /																															

SIEMENS

Smart Infrastructure
Global Operations Center

Field-Level Network Device Schedule

44OP-406822 IUSE MEADOW LODGE

Installation Status Key

N: new installation
E: existing, to remain
M: existing, to be modified
R: existing, to be removed

Network Type Key

BAC-IP: BACnet IP FLN device
BAC-M1: BACnet MS/TP FLN device - FLN 1
BAC-M2: BACnet MS/TP FLN device- FLN 2
KNX: KNX device
P1-1: P1 FLN device - FLN 1
P1-2: P1 FLN device - FLN 2
P1-3: P1 FLN device - FLN 3
MB-RTU: Modbus RTU device
MB-TCP: Modbus TCP device

Installation Checklist

- Device mounted?
- Power connected?
- Network connected?
- Actuator(s) wired?
- Sensor(s) wired?
- Flow tubes connected?

Pressurization Mode Key

+ : Positive pressure
- : Negative pressure
Ø : Neutral pressure

GENERAL NOTES

NOTE-1 FIELD TO DETERMINED
NOTE-2 PROVIDED BY UNIT MANUFACTURER

REVISION HISTORY

REV	DATE	DWN	CHK	DESCRIPTION
01	11-21-2025	AD	MM	ISSUED FOR APPROVAL

System									Network						Device / Equipment								Grouping	Room Airflow						Supply VAV Terminal											Extract / Exhaust VAV Terminal						Room Operator Unit					Comments
																								Minimum Airflow (CFM)				Pressurization		Airflow (CFM)							Duct Size (in)			Airflow (CFM)			Duct Size (in)									
Item	Device Name	Floor	Room No	Room / Device Description	Equipment ID	Siemens Dwg. No.	Mech Dwg No	Served By (Airside)	Installation Status	FLN Network No	Network Type	IP Line / Loop Tag	MAC / Device Address	Instance No.	IP Address	Type	Equipment Controlled	Coil Type	Radiation Type	Rad Valve / Relay Qty	Field Power Source	Device Load (VA)	XFMR Load (VA)	Install Check (Initial)	Group Master	Comfort / Occ	Pre-comfort / Occ Sbby	Economy / Unocc	Protection / Vacant	Pressurization Mode	Transferred / Offset Airflow	SAV Clg Min	SAV Clg Max	SAV Htg Min	SAV Htg Max	SAV Vent Min	SAV Vent Max	SAV Smoke Flow	SAV Shape	SAV H/D	SAV W	EAV Vent Min	EAV Vent Max	Smoke (General EAV) Purge (Fume Hood)	EAV Shape	EAV H/D	EAV W	Temperature	Humidity	CO2	User Interface	Lighting Pushbuttons	
26	**ML.2F.AHU230**	2	230	NOTE-1	AHU-230	**500**	M101	-	N	-	BAC-M1		**26**	NOTE-1		Third-Party					NOTE-2	-	0 /																																
27	**ML.2F.AHU299A**	2	299A	NOTE-1	AHU-299A	**500**	M101	-	N	-	BAC-M1		**27**	NOTE-1		Third-Party					NOTE-2	-	0 /																																
28	**ML.2F.AHU299B**	2	299B	NOTE-1	AHU-299B	**500**	M101	-	N	-	BAC-M1		**28**	NOTE-1		Third-Party					NOTE-2	-	0 /																														
29	**ML.RF.ERU1**	RF	-	ROOF	ERU-1	**100**	M102	-	N	-	BAC-M1		**29**	NOTE-1		Third-Party					NOTE-2	-	0 /																														

SIEMENS INDUSTRY, INC.

Point Summary

Revision Date: 11/21/2025
Submittal Date: 11/21/2025

SMART INFRASTRUCTURE

Job Name: IUSE MEADOW LODGE
Job Number: 44OP-406822

Point Name	Type	Description	Function	Address	Field Panel Name
ML.SSAC1.RMT	LAI	SSAC1 RMT	Value	0.1.1	IUSE.ML.PXC1
ML.SSAC2.RMT	LAI	SSAC2 RMT	Value	0.1.2	IUSE.ML.PXC1

CONTROL SYMBOL	CONTROL SYMBOL DESCRIPTION
100K	ONE HUNDRED THOUSAND
10K	TEN THOUSAND
1K	ONE THOUSAND
AC	AIR COMPRESSOR
AC	ALTERNATING CURRENT
ACC	AIR COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
ADA	AMERICAN DISABILITIES ACT
AE	ACTUATOR ELECTRIC
AEM	APOGEE ETHERNET MICROSERVER
AFF	ABOVE FINISHED FLOOR
AFMS	AIR FLOW MEASUREING STATION
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
ALM	ALARM
ALN	AREA LEVEL NETWORK
AO	ANALOG OUTPUT
AOP	ANALOG OUTPUT, PNUEMATIC
ATEC	ACTUATOR TEC
AUX	AUXILLIARY
AWG	AMERICAN WIRE GAGE
AZM	AUTOZERO MODULE
BAS	BUILDING AUTOMATION SYSTEM
BB	BASE BOARD
BCM	BUS CONNECTOR MODULE
BIM	BUS INTERFACE MODULE
BLDG	BUILDING
BLK	BLACK
BLN	BUILDING LEVEL NETWORK
BLR	BOILER
BPD	BYPASS DAMPER
BRN	BROWN
BSP	BUILDING STATIC PRESSURE
BYP	BYPASS
C	CLOSED
C	COMMON
C	CELSIUS
CBL	CABLES
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CMD	COMMAND
CMP	COMMUNICATIONS PLENUM CABLE
CO	CARBON MONOXIDE
CO2	CARBON DIOXIDE
COM	COMMON
COMM	COMMUNICATION
COMP	COMPUTER
CP	COMPONENT PANEL
CPU	CENTRAL PROCESSING UNIT
CRAC	COMP ROOM AIR CONDITIONING
CS	CURRENT SENSOR
CTLR	CONTROLLER
CTR	CALL TO RUN
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
D	DAMPER
DC	DIRECT CURRENT
DCOMM	DIGITAL COMMON
DDC	DIRECT DIGITAL CONTROLS
DEG F	DEGREES FAHRENHEIT
DEM	DEMAND ENERGY MONITOR
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DP	DIFFERENTIAL PRESSURE
DPS	DIFFERENTIAL PRESSURE SWITCH
DPTE	DIFF. PRESS. TRANSMITTER ELEC.
DSP	DISCHARGE STATIC PRESSURE
DSP	DISPLAY MODULE
DXR	ROOM AUTOMATION STATION
EA	EXHAUST AIR
EAD	EXHAUST AIR DAMPER
EAV	EXHAUST AIR BOX

CONTROL SYMBOL	CONTROL SYMBOL DESCRIPTION
EAV	EXHAUST AIR VOLUME
EF	EXHAUST FAN
ELEC	ELECTRIC
ENB	ENABLE
ENC	ENCLOSURE
ERH	ELECTRIC RADIANT HEAT
EP	ELECTRO-PNEUMATIC VALVE
ESW	ETHERNET SWITCH
EXH	EXHAUST
EXP	EXPANSION PANEL
F	FAHRENHEIT
F	FAN
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FBD	FACE BYPASS DAMPER
FFL	FINAL FILTER
FFM	INPUT TO AVERAGE PROCESSOR
FHC	FUME HOOD CONTROLLER
FIL	FILTER
FIRE	FIRE ALARM
FLN	FIELD LEVEL NETWORK
FLNC	FLN CONTROLLER
FLTR	FILTER
FM	FLOW MTR. (FLOW METER STATION)
FS	FLOW SWITCH
FSD	FIRE SMOKE DAMPER
FSS	FAN START/STOP
FT	FEET
FT	FINNED TUBE
GND	GROUND
H	HOT
HC	HEAT COIL
HE	HUMIDIFIER ELECTRIC
HHL	HIGH HUMIDITY LIMIT
HL	HIGH LIMIT
HMI	HUMAN MACHINE INTERFACE
HOA	HAND-OFF-AUTO SWITCH
HP	HORSE POWER
HSP	HIGH STATIC PRESSURE
HTD	HIGH TEMPERATURE DETECTOR
HTE	HUMIDITY TRANSMITTER ELECTRIC
Hz	HERTZ
IAQ	INDOOR AIR QUALITY
I/O	INPUT/OUTPUT
IN W.C.	INCHES OF WATER COLUMN
ISD	ISOLATION DAMPER
KWM	ELECTRIC KILOWATT METER
LAI	LOGICAL ANALOG INPUT
LAN	LOCAL AREA NETWORK
LAO	LOGICAL ANALOG OUTPUT
LBL	LOGICAL DIGITAL INPUT
LDI	LOGICAL DIGITAL INPUT
LDO	LOGICAL DIGITAL OUTPUT
LEA	FAST ACTING ACTUATOR
LIC	LICENSE
LLS	LIQUID LEVEL SWITCH
LLSV	LIQUID LINE SUCTION VALVE
LLT	LIQUID LEVEL TRANS.
LPS	LOW PRESSURE SWITCH
LRC	LAB ROOM CONTROLLER
LTD	LOW TEMP. DETECTOR ELECTRIC
LTDE	LOW TEMP. DETECTOR ELECTRIC
LVS	LEVEL SWITCH
M	MOTOR
mA	MILLIAMP
MAD	MIXED AIR DAMPERS
MAT	MIXED AIR TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBC	MODULAR BUILDING CONTROLLER
MDM	MODEM
MEC	MODULAR EQUIPMENT CONTROLLER

CONTROL SYMBOL	CONTROL SYMBOL DESCRIPTION
MG	MAGNEHELIC GAUGE
MIN	MINIMUM
MLN	MANAGEMENT LEVEL NETWORK
MPU	MULTI-POINT UNIT
MS/TP	MASTER-SLAVE/TOKEN-PASSING
N	NEUTRAL
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NO	NORMALLY OPEN
NSR	NON SPRING RETURN
OA	OUTSIDE AIR
OAD	OUTSIDE AIR DAMPER
OAM	OFFBOARD AIR MODULE
OAV	OUTSIDE AIR VOLUME
OC	OCCUPANCY SENSOR
ODP	OPERATOR DISPLAY PANEL
OS	OCCUPANCY SENSOR
OSA	OUTSIDE AIR
OSAT	OUTSIDE AIR TEMPERATURE
P	PUMP
PE	PRESSURE ELECTRIC SWITCH
PHC	PREHEAT COIL
PHT	PREHEAT TEMP
PL	PILOT LIGHT
PM	POWER MONITOR
PMP	PUMP
PNL	PANEL ENCLOSURE
PPM	PARTS PER MILLION
PPM	POINT PICKUP MODULE
PRES	PRESSURE
PRESS	PRESSURE
PS	POWER SUPPLY
PSE	POSITION SENSOR ELECTRIC
PTE	PRESSURE TRANSMITTER ELECTRIC
PTEC	PROGRAMMABLE ELEC CONTROLLER
PTR	PRINTER
PXC	PXC COMPACT CONTROLLER
PXCC	PX COMPACT CONTROLLER
PXCM	PXC-MODULAR CONTROLLER
RA	RETURN AIR
RAD	RETURN AIR DAMPER
RAD	RADIANT
RAH	RETURN AIR HUMIDITY
RAT	RETURN AIR TEMP
RAV	RETURN AIR BOX
RE	RELAY ELECTRIC
RF	RELIEF/RETURN FAN
RLD	RELIEF AIR DAMPER
RM	ROOM
RMT	ROOM TEMPERATURE
RPC	ROOM PRESSURE CONTROLLER
RPM	ROOM PRESSURE MONITOR
RSP	RETURN STATIC PRESSURE
RTR	ROUTER
SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
SAH	SUPPLY AIR HUMIDITY
SAT	SUPPLY AIR TEMPERATURE
SAV	SUPPLY AIR BOX
SB	SERVICE BOX
SCU	STAND ALONE CONTROL UNIT
SD	SMOKE DAMPER
SD	SMOKE DETECTOR
SF	SUPPLY FAN
SFIL	SUMMER FILTER
SHLD	SHIELD
SIC	STATUS INDICATION CLOSED
SIG	SIGNAL
SIO	STATUS INDICATION OPEN
SM	SNOW MELT MOISTURE SENSOR
SPD	MOTOR SPEED

CONTROL SYMBOL	CONTROL SYMBOL DESCRIPTION
SPP	STATIC PRESSURE PROBE
SR	SPRING RETURN
SSP	SUPPLY STATIC PRESSURE
STA	STATUS
STG1	STAGE 1
STG2	STAGE 2
SU	SUPPLY AIR UNIT
SV	SOLENOID VALVE
SW	SWITCH
SYS	SYSTEM
TCP/IP	TRANS. CTRL PROTOCOL/INTERNET PROTOCOL
TE	THERMOSTAT, ELECTRIC
TEC	TERMINAL EQUIPMENT CONTROLLER
TEMP	TEMPERATURE
TERM	TERMINATION
TH	THERMOMETER
TI	TRUNK INTERFACE
TIE	TRUNK ISOLATOR EXTENDER
TMR	TIMER, TIME CLOCK
TP	TWISTED PAIR
TS	TEMPERATURE SWITCH
TSP	TWISTED SHIELDED PAIR
TT	TEMPERATURE TRANSMITTER
TTE	TEMPERATURE TRANSMITTER ELECTRIC
TXIO	TX-I/O FAMILY CONTROLLER MODULES
TXM	TRUNK EXPANSION MODULE

CONTROL SYMBOL	CONTROL SYMBOL DESCRIPTION
UH	UNIT HEATER
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VALVE
V	VOLTS
VA	VOLT AMP
VAC	VOLTS ALTERNATING CURRENT
VAV	VARIABLE AIR VOLUME BOX
VDC	VOLTS DIRECT CURRENT
VFD	VARIABLE FREQUENCY DRIVE
VLV	VALVE
VOC	VOLATILE ORGANIC COMPOUND SENSOR
VP	VOLUME PROBE
VSD	VARIABLE SPEED DRIVE
VTE	VELOCITY TRANSMITTER ELECTRICAL
WC	WATER COLUMN
WFIL	WINTER FILTER
WHT	WHITE
XDR	TRANSDUCER
XFMR	TRANSFORMER
Y1	COOLING STAGE 1
Y2	COOLING STAGE 2

01 0 01 01

△ NOTE OR REVISION

⬡ 1 NOTE REFERENCE

▭ ELECTRICAL TERMINATION

1 / 00 DETAIL REFERENCE / PAGE REFERENCE

POINT NUMBER
POINT NUMBERS INDICATE EITHER THE LOCAL PHYSICAL DEVICE CONNECTION ON A APPLICATION SPECIFIC CONTROLLERS OR THE PHYSICAL TERMINATION LOCATION OF A DEVICE ON A PANEL MODULE.

DROP NUMBER.
DROP INDICATES EITHER THE APPLICATION SPECIFIC CONTROLLERS ADDRESS ON A FLN OR THE PANEL MODULE NUMBER.

FLOOR LEVEL NETWORK (FLN OR MS/TP) NUMBER
SEE FLN SCHEDULE FOR DEVICES SERVED BY FLN'S. DEVICES LABELED WITH A 0 IN THIS PLACEHOLDER ARE DIRECTLY CONNECTED TO THE HOSTING PANEL AND ARE NOT PART OF A FLN.

NODE OR PANEL REFERENCE. SEE RISER DIAGRAM DRAWING FOR LOCATIONS.

1 / LEG — ADDRESS IDENTIFICATION
TYPICAL OF ALL POINT ADDRESSES

XXX-X (X)
DESCRIPTOR OR RANGE
PTNAME
ADDRESS

ADDRESS INFORMATION IS LISTED ON DETAIL 1 ON THIS PAGE.

POINT NAME IS AN UNIQUE IDENTIFIER FOR DEVICES. THE PLACEHOLDER IS FOR THE FACILITY IDENTIFIER. THE SECOND PLACEHOLDER INDICATES THE ASSOCIATED EQUIPMENT TYPE. THE THIRD PLACEHOLDER IS FOR THE EQUIPMENT IDENTIFIER. THE LAST PLACEHOLDER IS FOR A THREE CHARACTER IDENTIFIER OF THE POINT TYPE.

DESCRIPTOR OR RANGE. THIS LINE IS USED TO INDICATE POINT DESCRIPTIONS, DEVICE RANGES OR DEVICE SETTINGS.

DEVICE TAG AS PER SIEMENS STANDARD TAGGING GUIDELINES. BEFORE DASH CHARACTERS ARE FOR DEVICE TYPE (SEE ACRONYM LIST ON THIS PAGE). DIGITS AFTER THE DASH INDICATE THE DEVICE ID THAT IS PART OF THAT SYSTEM. THIS LINE IS OCCASIONALLY USED TO IDENTIFY DEVICES PROVIDED BY OTHER VENDORS THAT SIEMENS HAS A DIRECT INTERFACE WITH. (X) = DEVICE QUANTITY.

PART NUMBER FOR ASSOCIATED DEVICE. NOT ALWAYS APPLICABLE SINCE SOME DEVICES HAVE MULTIPLE POINTS ASSOCIATED WITH THEM. IN THIS CASE NO PART NUMBER IS SHOWN. NO PART NUMBER IS SHOWN WHEN PART IS PROVIDED BY ANOTHER VENDOR.

2 / LEG — POINT BLOCK IDENTIFICATION
TYPICAL OF ALL POINT BLOCKS

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

LEGEND & ABBREVIATIONS

440P-406822
0
LEG

C:\JOBS\440P-406822\MDT\Legend.dwg

DRAWING NOTES: (#)

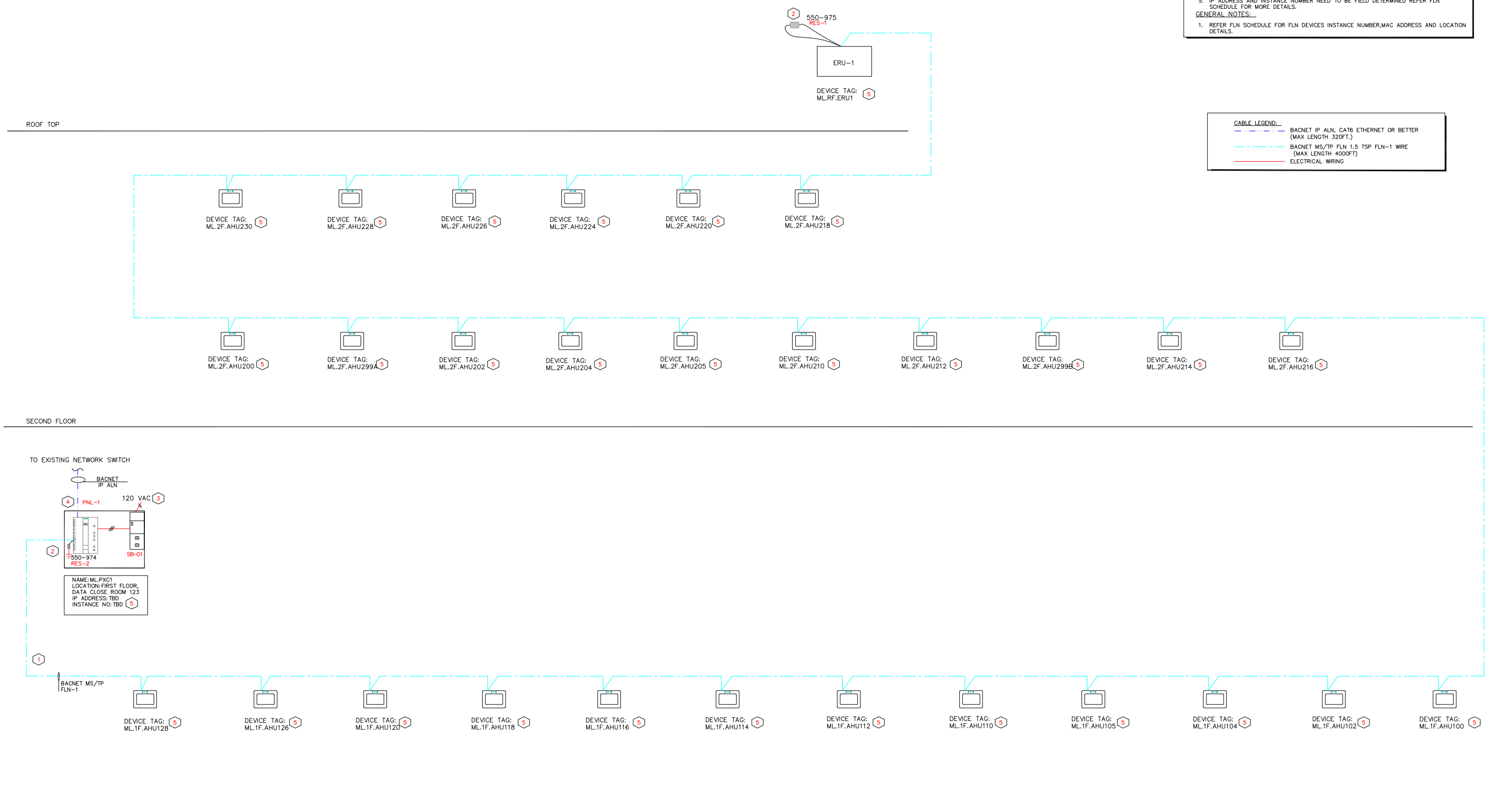
1. MAINTAIN DAISY CHAIN CONFIGURATION. NO T – TAPS OR STAR CONFIGURATIONS ALLOWED. REFER TO BACNET FLN DRAWING FOR TERMINATION INFORMATION & ABAC DRAWING FOR WIRE TYPE AND SIZE.
2. UTILIZE CONTROLLER CIRCUIT BOARD RESISTOR WITH PROPER DIP SWITCH SETTING TO PROVIDE FLN CIRCUIT WITH MATCHING END-OF-LINE (EOL) RESISTOR AS NEEDED.
3. 120VAC POWER SHALL BE PROVIDED BY DIVISION 26.
4. IP DROPS PROVIDED BY OWNER AT EACH DDC PANEL.
5. IP ADDRESS AND INSTANCE NUMBER NEED TO BE FIELD DETERMINED REFER FLN SCHEDULE FOR MORE DETAILS.

GENERAL NOTES:

1. REFER FLN SCHEDULE FOR FLN DEVICES INSTANCE NUMBER,MAC ADDRESS AND LOCATION DETAILS.

CABLE LEGEND:

- BACNET IP ALN, CAT6 ETHERNET OR BETTER (MAX LENGTH 320FT.)
- BACNET MS/TP FLN 1.5 TSP FLN-1 WIRE (MAX LENGTH 4000FT)
- ELECTRICAL WIRING



SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUEGRASS PKWY
#320
LOUISVILLE, KY 40299
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

DRAWN BY	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	MB	11/21/25	11/19/25

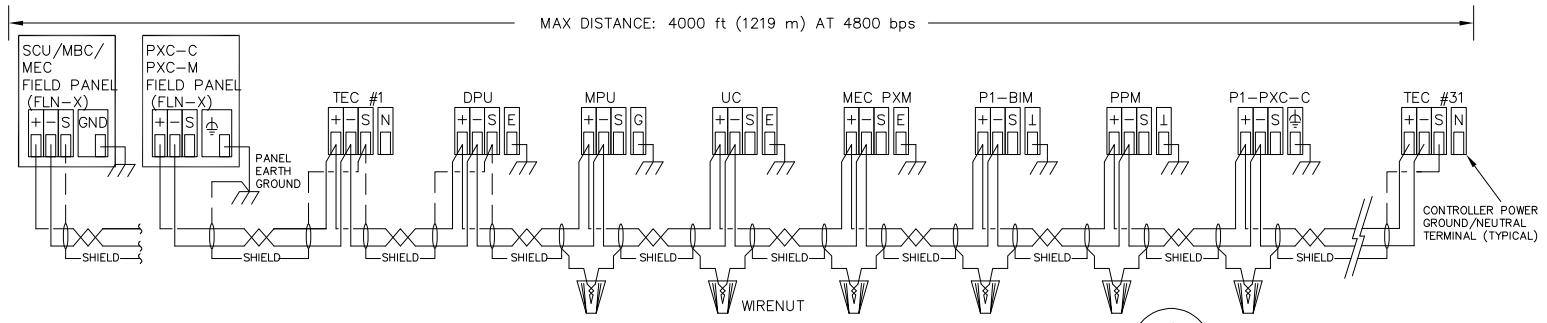
COMMUNICATION RISER

440P-406822
0

001

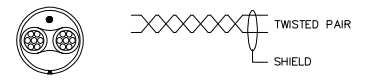
C:\JOBS\440P-406822\DWT\001.DWG

REVISION HISTORY

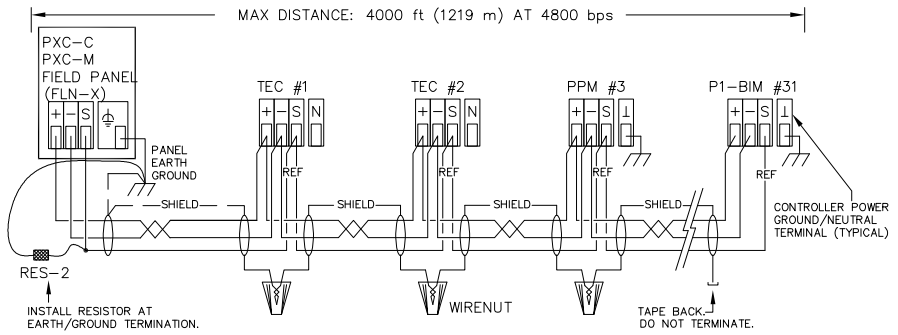


1 002 SIEMENS LEGACY P1 FLN NETWORK

SIEMENS P1 FLOOR LEVEL NETWORK (FLN)
COMMUNICATION PROTOCOL: RS-485
WIRING FOR 1 PAIR (2 CONDUCTOR TSP)

FLN TSP CABLE SPECIFICATIONS

TWISTED PAIR 24 AWG (STRANDED) 12 PICOFARAD/FT CAPACITANCE OR LESS 4 TWISTS PER FOOT.
SHIELD 100% OVERALL FOIL

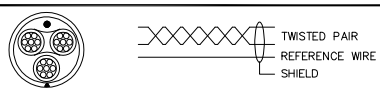
PART NUMBERS
ANNIXTER PART NUMBER: H-AF-TSP24LC-CMPBX-P DESCRIPTION: ALN/FLN24AWG,STR,TSP,LOCAP,CMP (FT-6)



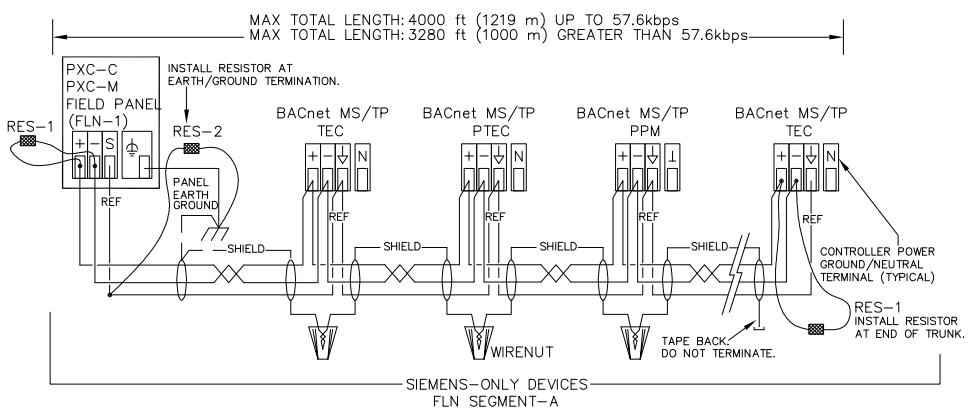
RES-2
550-974P10
EARTH TERMINATOR RESISTOR

2 002 SIEMENS P1 FLN NETWORK

SIEMENS P1 FLOOR LEVEL NETWORK (FLN)
COMMUNICATION PROTOCOL: RS-485
WIRING FOR 1.5 PAIR (2 CONDUCTOR TSP, & 1 CONDUCTOR)

FLN 1.5 PAIR CABLE SPECIFICATIONS

TWISTED PAIR 24 AWG (STRANDED) 11 PICOFARAD/FT CAPACITANCE CONDUCTOR TO CONDUCTOR. 24 PICOFARAD/FT CAPACITANCE CONDUCTOR TO SHIELD. 4 TWISTS PER FOOT.
REFERENCE WIRE 24 AWG (STRANDED), 3 INCH LAY WITH TWISTED PAIR
SHIELD 100% OVERALL FOIL WITH DRAIN WIRE

PART NUMBERS
ANNIXTER PART NUMBER: H-A-1.5TSP24LC-CMP-Y DESCRIPTION: 24-1.5PR STR TC FFEP FT6 SHD YEL (FT-6)
CERCO PART NUMBER: 8304R DESCRIPTION: 22AWG 3C STR FT6 ORG (FT-6)



NOTES:

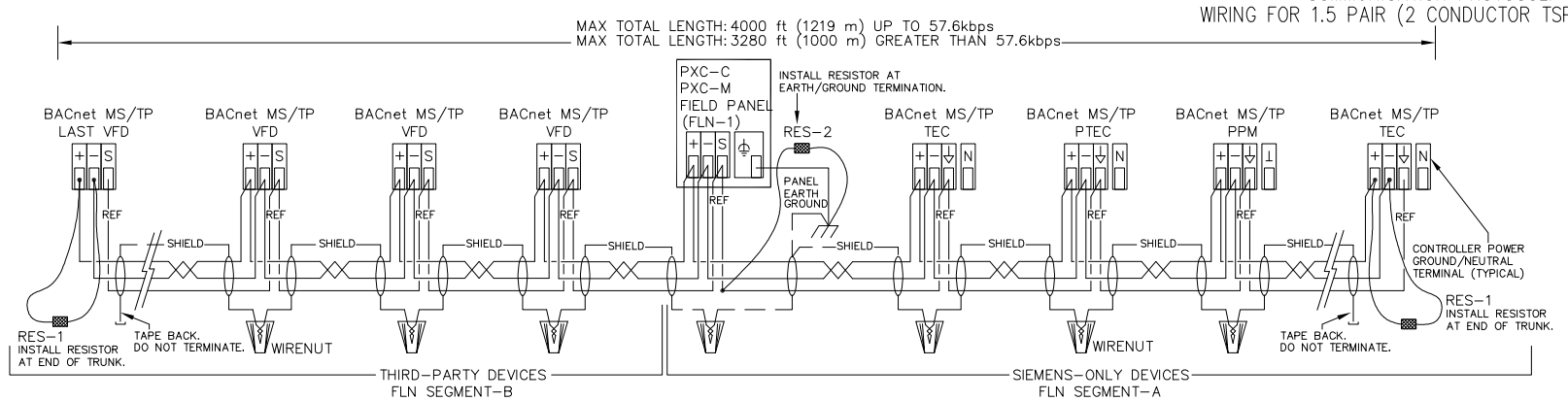
1) FLN WIRING MUST BE CONNECTED IN A DAISY-CHAIN.
2) FOR SIEMENS-ONLY FLN NETWORK, WIRE AS SHOWN FOR FLN SEGMENT-A. INSTALL END-OF-LINE RESISTOR RES-1 AT FIELD PANEL AND ON LAST TEC.
3) FOR FLN NETWORK WITH SIEMENS & THIRD-PART DEVICES, WIRE AS SHOWN WITH FLN SEGMENT-A AND SEGMENT-B. INSTALL END-OF-LINE RESISTOR RES-1 ON LAST TEC AND ON LAST THIRD-PARTY DEVICE. DO NOT INSTALL E-O-L RESISTOR ON FIELD PANEL.

RES-1
550-975P100
120 OHM 1/2W RESISTOR

RES-2
550-974P10
EARTH TERMINATOR RESISTOR

3 002 BACnet MS/TP FLN NETWORK

BACnet MASTER/SLAVE TOKEN PASSING NETWORK
COMMUNICATION PROTOCOL: RS-485
WIRING FOR 1.5 PAIR (2 CONDUCTOR TSP, & 1 CONDUCTOR)



NOTES:

NEVER RUN NETWORK CABLING CLOSER THAN 5 FEET TO A VARIABLE FREQUENCY DRIVE (VFD) EXCEPT AT THE POINT WHERE THE NETWORK MUST CONNECT TO THE VFD. NETWORK ENTRY INTO A VFD MUST BE THROUGH A SEPERATE CONDUIT AND ALL NETWORK WIRING MUST BE KEPT AS FAR AS POSSIBLE FROM HIGH POWER CABLING IN THE DRIVE.

NEVER RUN NETWORK CABLE CLOSER THAN 5 FEET FROM CONDUITS CARRYING 100KVA OR GREATER. ALWAYS CROSS HIGH POWER CABLES (AT A DISTANCE OF 5 FEET) AT A 90° ANGLE.

NETWORK RUN IN OPEN CABLE TRAYS WITH CIRCUITS CARRYING 20 AMPS SHOULD BE NO CLOSER THAN 26 INCHES TO THE HIGHER POWER CABLES.

NETWORK RUN IN ENCLOSED TRAYS WITH CONDUITS CARRYING OVER 20 AMPS SHOULD BE NO CLOSER THAN 18 INCHES TO THE HIGHER POWER CABLES.

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

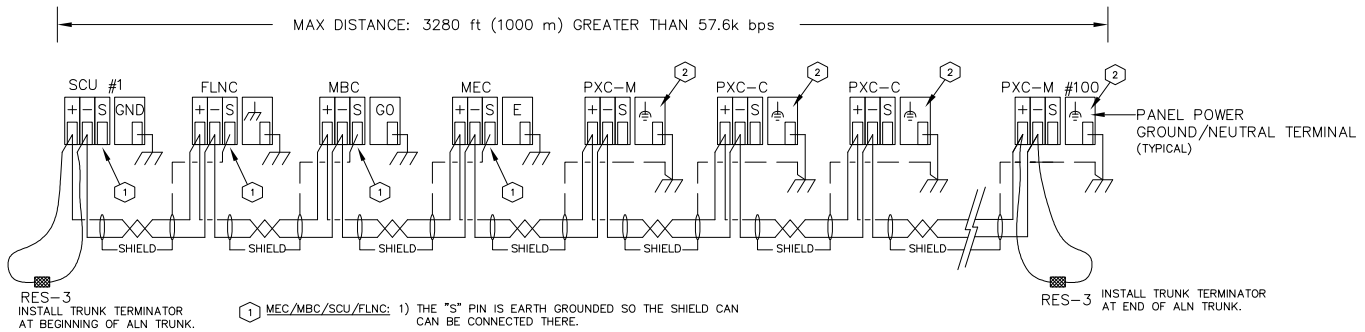
IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

FLN / MSTP COMMUNICATION

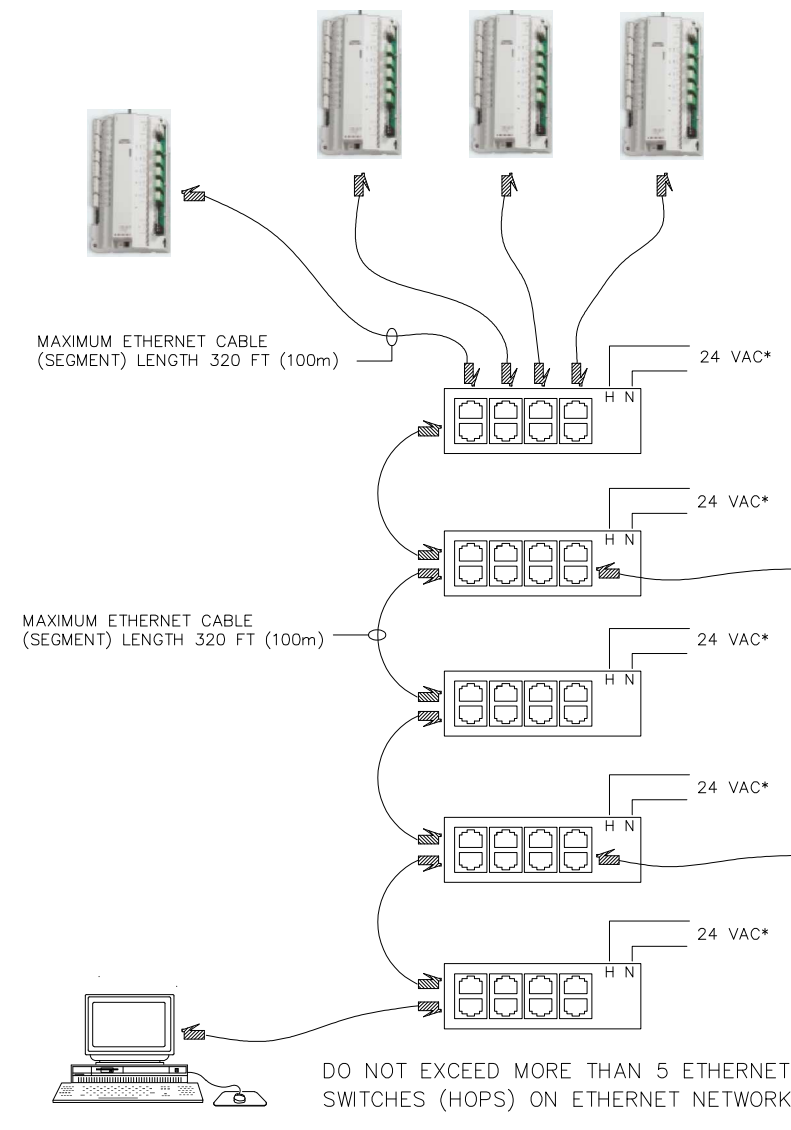
440P-406822
0
002

C:\JOBS\440P-406822\MDT\002.DWG



RES-3
538-664
BLN TRUNK TERMINATOR

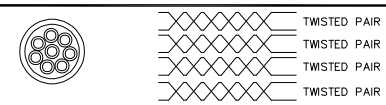
1 / 003 SIEMENS P2 ALN (BLN) NETWORK
SIEMENS P2 AUTOMATED LEVEL NETWORK (ALN)
COMMUNICATION PROTOCOL: RS-485



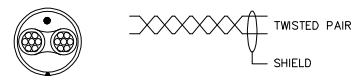
APPLICABLE TO:
MLN (WORKSTATION TO ETHERNET)
ALNs (ETHERNET, BACnet/IP, AEM)
HUBS, SWITCHES, ROUTERS
NETWORK INTERFACE CARD

NOTE: –
* CERTAIN MODELS MAY REQUIRE 24 VDC OR 120 VAC..

2 / 003 SIEMENS ETHERNET NETWORK
10Base-T/100Base-TX
COMMUNICATION PROTOCOL: ETHERNET TCP/IP

ALN ETHERNET CABLE SPECIFICATIONS
 TWISTED PAIR ×4
4 UNSHIELDED TWISTED PAIR (UTP) 24 AWG (SOLID) 17 PICOFARAD/FT CAPACITANCE AT 1KHz, 1MHz IEEE802.3 CATEGORY 5 CERTIFIED OR BETTER
SHIELD NONE

PART NUMBERS
PLEASE REFER TO CERCO AND ANIXTER CABLE PART NUMBERS (SEE DRAWINGS 6A & 6B).

ALN TSP CABLE SPECIFICATIONS
 TWISTED PAIR, SHIELD
TWISTED PAIR 24 AWG (STRANDED) 12 PICOFARAD/FT CAPACITANCE OR LESS 4 TWISTS PER FOOT.
SHIELD 100% OVERALL FOIL

PART NUMBERS
PLEASE REFER TO CERCO AND ANIXTER CABLE PART NUMBERS (SEE DRAWINGS 6A & 6B).

NOTES:

NEVER RUN NETWORK CABLING CLOSER THAN 5 FEET TO A VARIABLE FREQUENCY DRIVE (VFD) EXCEPT AT THE POINT WHERE THE NETWORK MUST CONNECT TO THE VFD. NETWORK ENTRY INTO A VFD MUST BE THROUGH A SEPERATE CONDUIT AND ALL NETWORK WIRING MUST BE KEPT AS FAR AS POSSIBLE FROM HIGH POWER CABLING IN THE DRIVE.

NEVER RUN NETWORK CABLE CLOSER THAN 5 FEET FROM CONDUITS CARRYING 100KVA OR GREATER. ALWAYS CROSS HIGH POWER CABLES (AT A DISTANCE OF 5 FEET) AT A 90° ANGLE.

NETWORK RUN IN OPEN CABLE TRAYS WITH CIRCUITS CARRYING 20 AMPS SHOULD BE NO CLOSER THAN 26 INCHES TO THE HIGHER POWER CABLES.

NETWORK RUN IN ENCLOSED TRAYS WITH CONDUITS CARRYING OVER 20 AMPS SHOULD BE NO CLOSER THAN 18 INCHES TO THE HIGHER POWER CABLES.

REVISION HISTORY

SIEMENS
SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE
11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

BLN / ALN COMMUNICATION

440P-406822
0
003

C:\JOBS\440P-406822\MDT\003.DWG

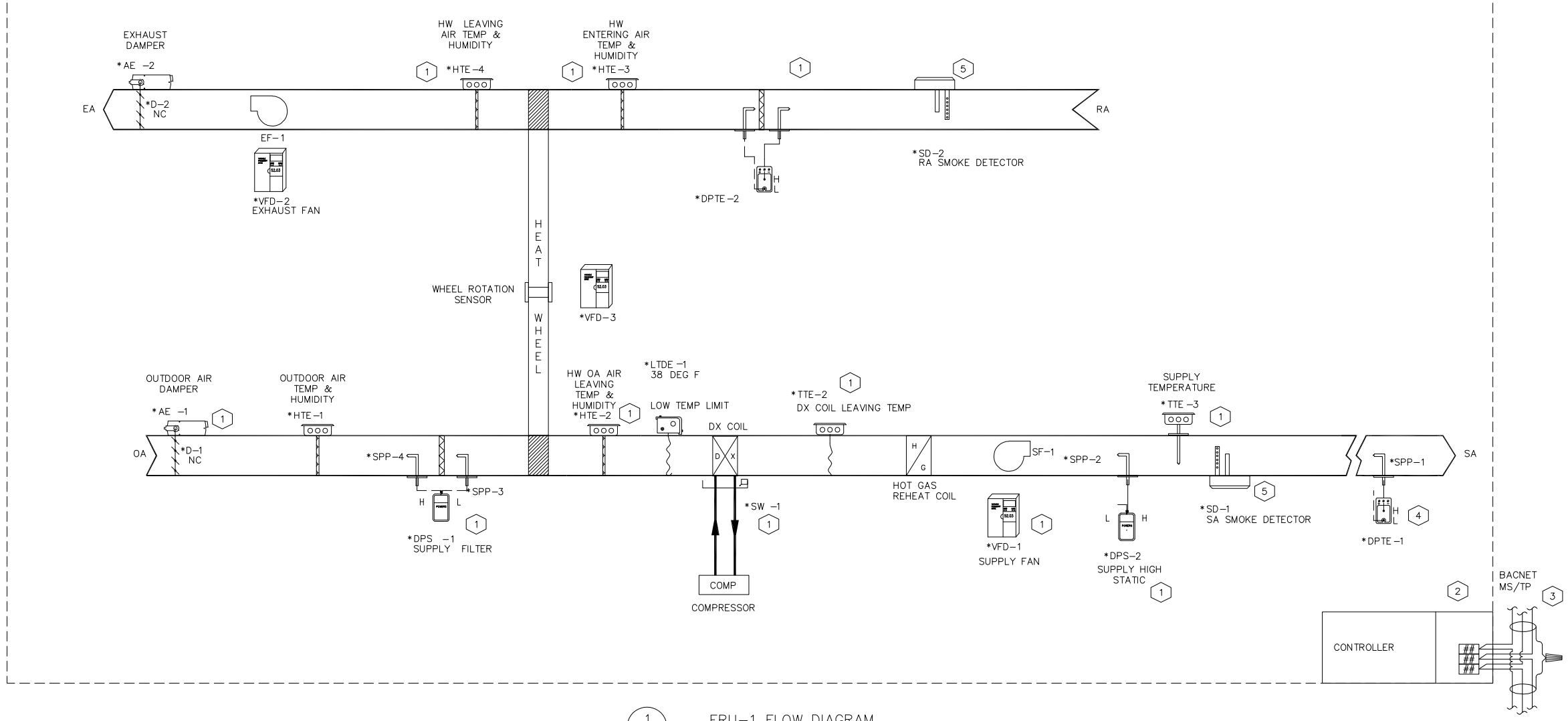
DRAWING NOTES: (#)

1. EQUIPMENT IS PROVIDED AND WIRED BY THE UNIT MANUFACTURER. THE SIEMENS ELECTRICAL SUBCONTRACTOR MUST FIELD VERIFY ALL LOW VOLTAGE FACTORY WIRING USING THE DIAGRAMS PROVIDED BY THE UNIT MANUFACTURER.
2. UNIT MANUFACTURER PROVIDED CONTROLLER. SIEMENS WILL PROVIDE BACNET MS/TP INTEGRATION FOR MONITORING AND CONTROL. BACNET POINT LIST NEED TO BE FIELD VERIFIED WITH SIEMENS SPECIALIST.
3. REFER COMMUNICATION RISER AND FLN SCHEDULE FOR NETWORK AND CONFIGURATION DETAILS.
4. MOUNT STATIC PROBE AND SENSOR 2/3 DOWN LONGEST OR CRITICAL DUCT. REFERENCE LOW SIDE TO SPACE. FIELD TO DETERMINE THE LOCATION OF THE STATIC PRESSURE SENSOR. WIRED BY SIEMENS
5. PROVIDE AND INSTALLED BY OTHERS. INTERLOCK WIRING TO UNIT MANUFACTURE PROVIDED CONTROLLER BY SIEMENS.

GENERAL NOTES:

3. ALL THE SENSORS AND DEVICES REPRESENTATION SHOWN FOR REFERENCE ONLY. EXACT DETAILS TO BE FIELD COORDINATED.
4. "*" DENOTES DEVICES PROVIDED BY UNIT MANUFACTURER.

NOTE: ALL POINTS MONITORED BY DDC SYSTEM VIA A MANUFACTURER SUPPLIED BACNET CONTROLLER



1/100 ERU-1 FLOW DIAGRAM
LOCATION: ROOF

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

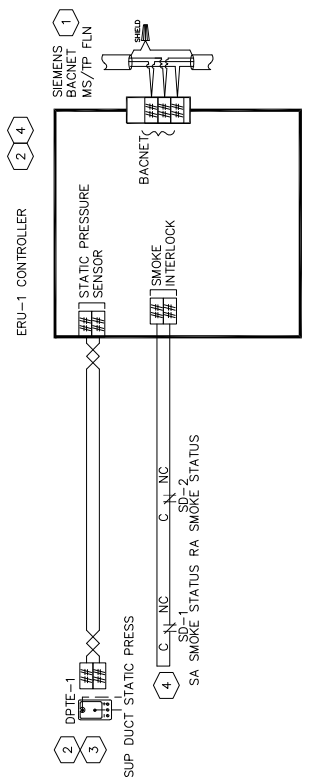
ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

ERU-1 FLOW DIAGRAM

440P-406822
0
100

C:\JOBS\440P-406822\MDT\100.DWG

FIELD WIRING



1 / 100A — ERU-1 WIRING DIAGRAM

DRAWING NOTES: (#)

1. REFER COMMUNICATION RISER DRAWING (DWG-001) FOR FLN NETWORK CONFIGURATION AND ADDRESSING.
2. DEVICE PROVIDED BY UNIT MANUFACTURER, WIRED BY SIEMENS.
3. TERMINAL DETAILS NEED TO BE FIELD VERIFIED.
4. SIEMENS TO CO-ORDINATE WITH ELECTRICAL SUB CONTRACTOR FOR WIRING DETAILS.

COMPONENT PANEL / POWER

FIELD PANEL

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

ERU-1 WIRING DIAGRAM

440P-406822
0
100A

C:\JOBS\440P-406822\MDT\100A.DWG

NOTES:
THE UNIT MANUFACTURER SHALL BE RESPONSIBLE FOR THE FOLLOWING SEQUENCE OF OPERATIONS: SIEMENS SHALL INSTALL AND WIRE ALL DEVICES THAT ARE PROVIDED LOOSE BY THE UNIT MANUFACTURER, STRICTLY IN ACCORDANCE WITH THE WIRING DIAGRAMS AND INSTALLATION METHODS SUPPLIED BY THE UNIT. ALL WIRING SHALL BE DETERMINED AND VERIFIED ON-SITE PRIOR TO FINAL TERMINATION.

DOAS CONSTANT AIR VOLUME (100% OUTSIDE AIR) PACKAGED ROOFTOP UNIT WITH ENERGY RECOVERY WHEEL (ERU-1) SEQUENCE OF OPERATION:

ERU SHALL BE CONTROLLED BY A DEDICATED DIGITAL CONTROLLER. THIS CONTROLLER SHALL BE CONNECTED TO THE BUILDING TEMPERATURE CONTROL NETWORK. THE CONTROLLER SHALL BE PROVIDED BY THE RTU MANUFACTURER AND SHALL BE APPLICATION SPECIFIC. THE RTU SHALL COMMUNICATE TO THE NEW FACILITY MANAGEMENT SYSTEM TEMPERATURE CONTROL PANEL USING BACNET MS/TP. COORDINATE CONNECTION TO BUILDING LAN WITH OWNER. FACILITY MANAGEMENT SYSTEM SHALL BE CAPABLE OF COMMUNICATION OVER LAN USING BACNET.

ERU SHALL BE CONTROLLED BY A DEDICATED DIGITAL CONTROLLER. THIS CONTROLLER SHALL BE CONNECTED TO THE BUILDING TEMPERATURE CONTROL NETWORK. THE CONTROLLER SHALL BE PROVIDED BY THE ERU MANUFACTURER AND SHALL BE APPLICATION SPECIFIC. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.

T.C.C. SHALL INTERLOCK WITH FIRE ALARM SYSTEM TO SHUT DOWN UNIT UPON DETECTION OF SMOKE. TYPICAL FOR UNITS WITH SMOKE DETECTION. COORDINATE WITH ELECTRICAL CONTRACTOR.

PACKAGED ENERGY RECOVERY UNIT SEQUENCE OF OPERATION:
THE PACKAGED ENERGY RECOVERY UNIT (ERU) SHALL BE CONTROLLED BY A DEDICATED DIGITAL CONTROLLER. THE CONTROLLER SHALL BE APPLICATION SPECIFIC FOR USE WITH PACKAGED EQUIPMENT.
ERU SHALL OPERATE IN OCCUPIED OR UNOCCUPIED MODE BASED ON THE OCCUPANCY SCHEDULE. THE OCCUPANCY SCHEDULE SHALL BE ADJUSTABLE AT THE
OPERATOR INTERFACE.
DURING UNOCCUPIED MODE, ERU SHALL BE OFF. THE OUTSIDE AIR DAMPER SHALL BE CLOSED DURING UNOCCUPIED MODE.
DURING OCCUPIED MODE, THE ERU SUPPLY FAN AND EXHAUST FAN SHALL RUN CONTINUOUSLY AND AS DESCRIBED BELOW.
OUTSIDE AIR DAMPER SHALL BE 100% OPEN.
THE DX COOLING AND ENERGY RECOVERY WHEEL SPEED SHALL BE MODULATED IN SEQUENCE TO MAINTAIN COOLING COIL LEAVING AIR TEMPERATURE BETWEEN 50 DEGREES F (ADJ) AND 52 DEGREES F (ADJ). GAS HEAT OR HOT GAS REHEAT SHALL MODULATE TO MAINTAIN UNIT SUPPLY AIR TEMPERATURE BETWEEN 70 DEGREES F (ADJ) AND 72 DEGREES F (ADJ).
THE HEATING AND COOLING SHALL NOT OPERATE SIMULTANEOUSLY.
THE UNIT MODE OF OPERATION SHALL BE BASED ON OUTDOOR AIR TEMPERATURE AND OUTDOOR AIR DEWPOINT TEMPERATURE.
THE ENERGY RECOVERY WHEEL SHALL BE ENABLED AND SHALL MODULATE TO MAINTAIN COOLING COIL LEAVING AIR TEMPERATURE SETPOINTS. THE ENERGY RECOVERY WHEEL SHALL BE DISABLED BASED ON DIFFERENTIAL ENTHALPY BETWEEN OUTDOOR AIRSTREAM AND THE EXHAUST AIRSTREAM. THE ENERGY RECOVERY WHEEL SHALL BE DISABLED IF OUTDOOR AIR AND EXHAUST AIR CONDITIONS DO NOT ALLOW ENERGY RECOVERY.
THE UNIT LEAVING AIR TEMPERATURE SETPOINT SHALL BE RESET BASED ON OUTDOOR AIR TEMPERATURE.
THE CONTROLLER SHALL MODULATE THE ENERGY RECOVERY WHEEL SPEED TO CONTROL CAPACITY AND TO PREVENT FROST FROM ACCUMULATING ON THE WHEEL.
SAFETIES:
ERU SHALL BE STOPPED AND AN ALARM GENERATED AT THE OPERATOR INTERFACE WHENEVER A SAFETY DEVICE IS TRIPPED. SAFETY DEVICES SHALL CONSIST OF LOW TEMPERATURE DETECTION THERMOSTATS. ALL SAFETY DEVICES SHALL BE HARDWIRED.
ALARMS:
EXHAUST FAN FAILURE
WHEEL FAILURE
SUPPLY FAN FAILURE
COOLING FAILURE

REVISION HISTORY

SIEMENS
SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE
11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

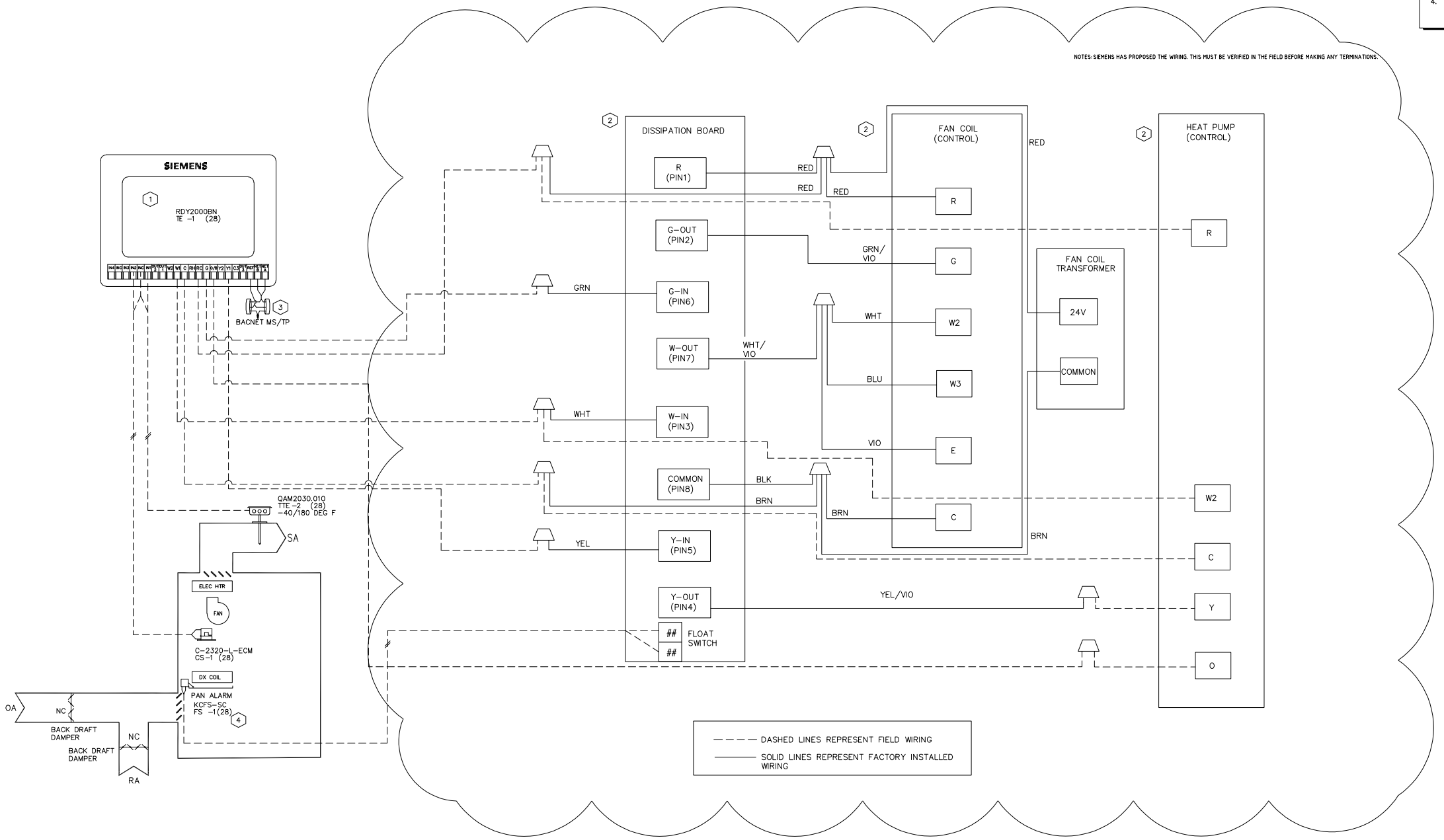
ERU-1 SEQ

440P-406822
0
100B

C:\JOBS\440P-406822\MDT\100-K00.dwg

DRAWING NOTES: (#)

1. WSHP UNITS ARE BEING PROVIDED WITH TERMINAL STRIP FOR CONTROLLER. SIEMENS WILL WIRE TO RDY THERMOSTAT AND CONTROL AND MONITOR TROUGH BACNET MSTP. REFER MECHANICAL DWG M101 FOR THERMOSTAT LOCATION.
2. ALL TERMINALS NEED TO BE VERIFIED IN FIELD BEFORE FINAL TERMINATION WITH UNIT MANUFACTURER WIRING DIAGRAMS. TERMINAL DETAILS NOT PROVIDED AT THE TIME OF DESIGN.
3. REFER RISER DIAGRAM FOR BACNET MSTP COMMUNICATION DETAILS.
4. CONDENSATE OVER FLOW SWITCH PROVIDED BY SIEMENS AND WIRED TO UNIT MANUFACTURER CONTROLLER.TERMINATION DETAILS FIELD TO DETERMINED.



1/500 AHU FLOW DIAGRAM
LOCATION: REFER FLN SCHEDULE
SERVES: REFER FLN SCHEDULE
TYPICAL OF 28

REVISION HISTORY

SIEMENS
SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUEGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

AHU FLOW DIAGRAM

440P-406822
0
500

C:\JOBS\440P-406822\MDT\500.DWG

Control Device	Qty	Product Number	Manufacturer	Document Number	Description
Field Mounted Devices					
CS 1	28	C-2320-L-ECM	SENVA	N/A	0.25-200A ADJ CURRENT SWITCH FOR ECM
FS 1	28	KCFS-SC	KELE INC	N/A	SPDT FLOAT SWITCH W/SPRING CLIP
RE 1	28	RIBU1C	FUNCTIONAL DEVICES	1208cut013	RIB 120VAC 24VAC/DC SPDT
TE 1	28	RDY2000BN	SIEMENS	N/A	BACNET RTU THERMOSTAT
TTE 2	28	QAM2030.010	SIEMENS	149915	DUCT POINT TEMP, 10K OHM TYPE 2, 4"

AIR HANDLING UNIT/CONDENSING UNIT SEQUENCE OF OPERATION:

HEAT PUMP SYSTEM SHALL BE CONTROLLED BY A DEDICATED DIGITAL CONTROLLER. THIS CONTROLLER SHALL BE CONNECTED TO THE BUILDING TEMPERATURE CONTROL NETWORK. THE CONTROLLER SHALL BE PROVIDED BY T.C.C. AND SHALL BE APPLICATION SPECIFIC. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.

CONTROLLER SHALL STAGE HEATING AND COOLING AS REQUIRED TO MAINTAIN ZONE TEMPERATURE.

MONITOR ZONE HUMIDITY AND ALARM

REVISION HISTORY

SIEMENS
SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE
11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

AHU BOM & SEQ

440P-406822
0
500A

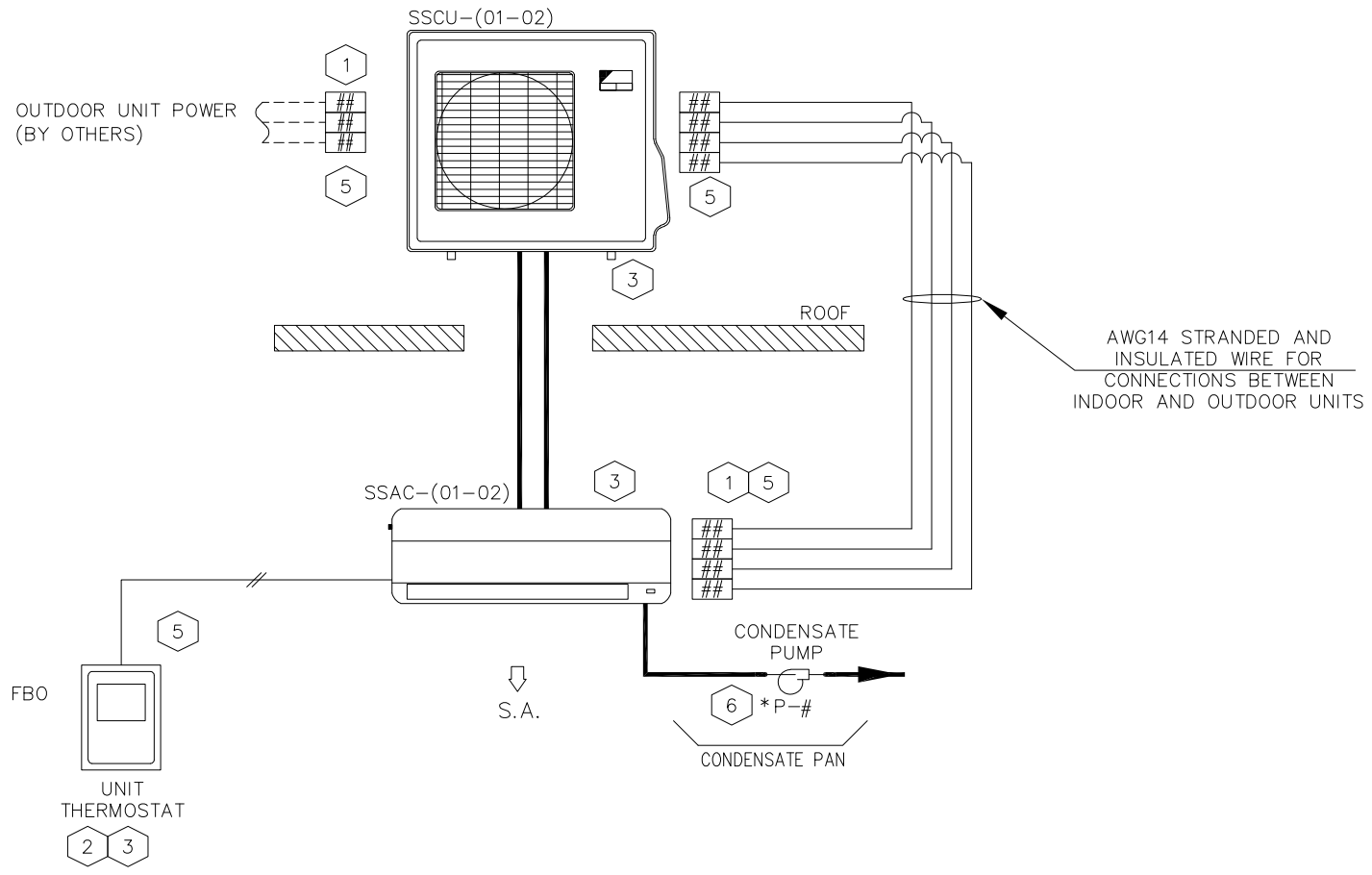
C:\JOBS\440P-406822\MDT\500-K00.dwg

DRAWING NOTES: (#)

1. HIGH VOLTAGE POWER WIRING BY OTHERS. SIEMENS WILL PROVIDE LOW VOLTAGE INTERLOCK WIRING AND ALL TERMINATIONS TO BE FIELD COORDINATED. SHOWN FOR REFERENCE ONLY.
2. MANUFACTURER PROVIDED THERMOSTAT MODEL TO BE FIELD VERIFIED.
3. UNITS AND ACCESSORIES FURNISHED BY OTHERS.
4. LOCATE AS SHOWN ON PLANS/CONTRACT DOCUMENTS DWG M101.
5. TERMINAL DETAILS WILL BE FIELD VERIFIED.
6. FURNISHED AND WIRED BY OTHERS.

GENERAL NOTES:

1. FBO MEANS FURNISHED BY OTHERS.



SPACE THERMOSTAT

4

QAA2212.EWSN
TTE -1
32/122 DEG F
ML.SSAC1.RMT
001: 0.1.1

LOCATION:
FIRST FLOOR RM 198M

SPACE THERMOSTAT

4

QAA2212.EWSN
TTE -2
32/122 DEG F
ML.SSAC2.RMT
001: 0.1.2

LOCATION:
FIRST FLOOR RM 130A

SL.NO	SPLIT SYSTEM TAG	LOCATION
1	SSAC-1	198M
2	SSAC-2	130A

1/501 DUCTLESS SPLIT SYSTEM

FIRST FLOOR
TYPICAL OF QUANTITY (2)

REF#	FIELD PANEL NAME	FIELD PANEL NODE NAME
001	ML.PXC1	

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
Phone: (502) 267-1571
Fax: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

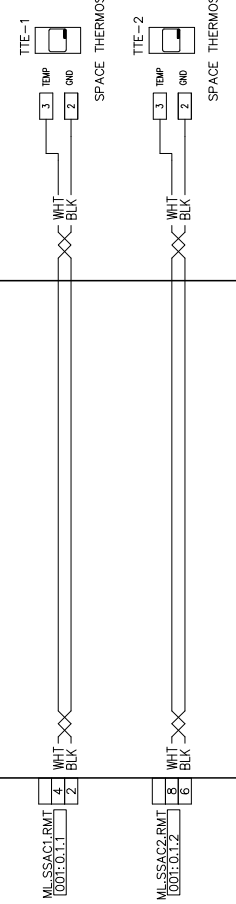
ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

DUCTLESS SPLIT SYSTEM

440P-406822
0
501

C:\JOBS\440P-406822 MEADOW\MDT\501.DWG

FIELD WIRING



COMPONENT PANEL / POWER

FIELD PANEL

GENERAL NOTES:
1. ALL WIRING TO MEET REQUIREMENTS OF STANDARD WIRING SPECIFICATION DRAWINGS.

REF#	FIELD PANEL NAME	FIELD PANEL NODE NAME
001	ML.PXC1	

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
Phone: (502) 267-1571
Fax: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

DUCTLESS SPLIT SYSTEM WIRING

440P-406822
0
501A

C:\JOBS\440P-406822 MEADOW\MDT\501A.DWG

Control Device	Qty	Product Number	Manufacturer	Document Number	Description
Field Mounted Devices					
TTE 1-2	2	QAA2212.EWSN	SIEMENS	149708	RTS, 1K OHM PT (385), BLANK FRONT

SPLIT SYSTEM

SPLIT SYSTEM COOLING ONLY UNITS SHALL OPERATE ON ITS FACTORY SUPPLIED CONTROLS TO CYCLE DX COOLING TO MAINTAIN ZONE SETPOINT OF 75°F (ADJ). UNIT TO BE SUPPLIED WITH WALL MOUNT THERMOSTAT.

REVISION HISTORY

SIEMENS
SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE
11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

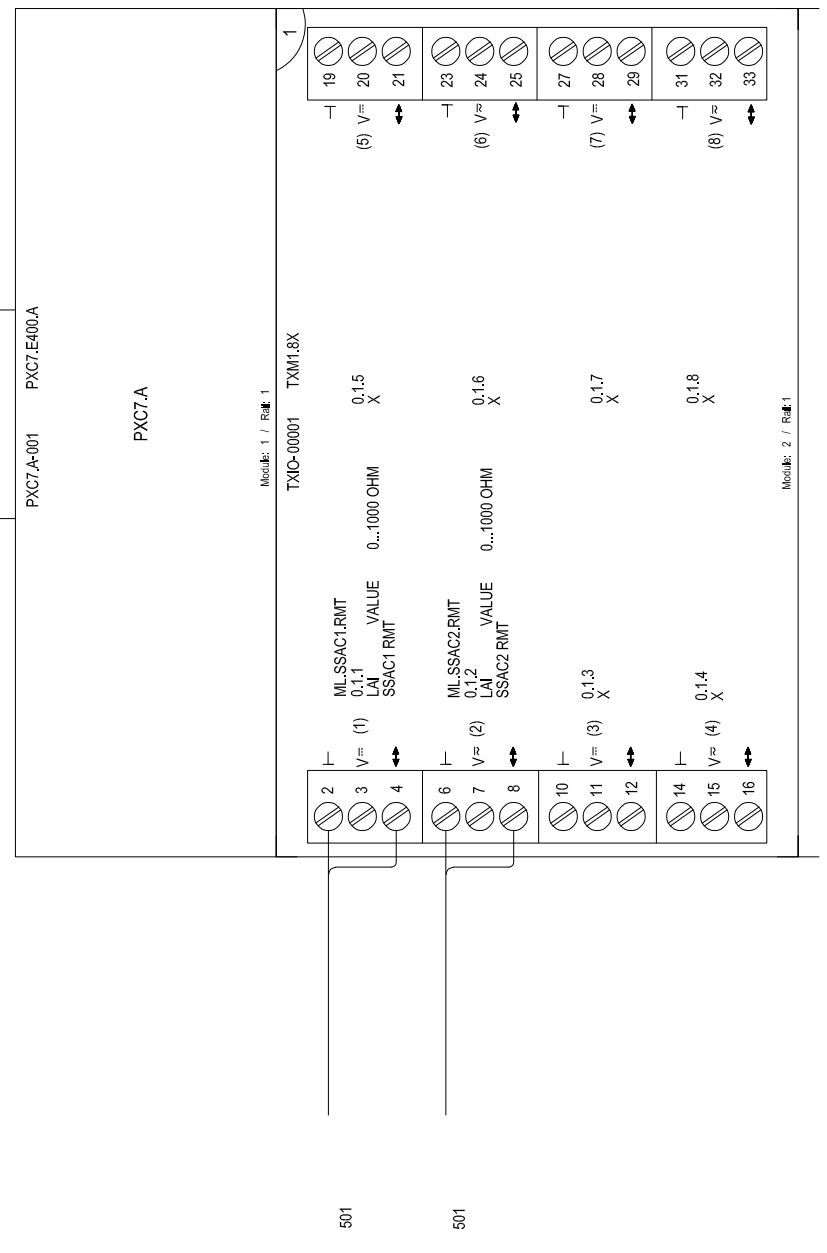
IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

DUCTLESS SPLIT SYSTEM BOM & SEQ

440P-406822
0
501B

C:\JOBS\440P-406822\MDT\501-K00.dwg



REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
Phone: (502) 267-1571
Fax: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

ML.PXC1 PANEL LAYOUT

440P-406822
0
N01

C:\JOBS\440P-406822 MEADOW\MDT\ML.PXC1.DWG

Control Device	Qty	Product Number	Manufacturer	Document Number	Description
Field Mounted Devices					
PNL 1	1	PXA-ENC19	SIEMENS	149475	ENCLOSURE ASSY 19"
	1	PXA-SB115V192VA	SIEMENS	588783	SERVICE BOX 115V, 24VAC, 192VA
Panel Mounted Devices					
PXC7 001	1	PXC7.E400.A	SIEMENS	N/A	PXC7.E400.A Modular, BACnet, APOGEE
	1	TXA1.K24	SIEMENS	149476	@ADDRESS KEY 1-24
	1	TXM1.8X	SIEMENS	149476	8 UNIV I/O MODULE W/ 4-20MA

REVISION HISTORY

SIEMENS
SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE
11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

WL.PXC1 PANEL BOM

440P-406822
0
N01A

C:\JOBS\440P-406822\MDT\\KEY-000.dwg

Anixter Building Automation Cables

Non-Plenum

SBT Part Number	Description	Print Legend
H-TP20-CM	20AWG,STR,1TP,CM,BLUE JACKET	NORTHFLEX ® H-TP20-CM "DI, DO, AI, AO" (Mfg E#) 20AWG 1P 75°C CM (UL) C(UL)
H-3C20-CM	20AWG,STR,3COND,CM,BLUE JACKET	NORTHFLEX ® H-3C20-CM "TEC V/D" (Mfg E#) 20 AWG 3C 75°C CM (UL) C(UL)
H-TP18-CMR	18AWG,STR,1TP,CMR,BLUE JACKET	NORTHFLEX ® H-TP18-CMR "DI, DO, AI, AO" (Mfg E#) 18AWG 1P 75°C CMR (UL) C(UL)
H-3C18-CMR	18AWG,STR,3COND,CMR,BLUE JACKET	NORTHFLEX ® H-3C18-CMR "TEC V/D" (Mfg E#) 18 AWG 3C 75°C CMR (UL) C(UL)
H-2C14-CL3R	14AWG,STR,2COND,CL3R,DARK BLUE JACKET	H-2C14-CL3R "LV POWER" (Mfg E#) 14 AWG 2C 75°C CL3R (UL) C(UL)
H-B-TSP24LC-CM	BLN24AWG,STR,TSP,LOCAP,CM,ORANGE JACKET	H-B-TSP24LC-CM "BLN" (Mfg E#) 24 AWG 1P 75°C CM (UL) C(UL)
H-F-TSP24LC-CM	FLN24AWG,STR,TSP,LOCAP,CM,ORANGE JACKET W/ BLUE STRIPE	NORTHFLEX ® H-F-TSP24LC-CM "FLN" (Mfg E#) 24 AWG 1P 75°C CM (UL) C(UL)
H-3P24-CMR	24AWG,SOL,3P,CMR,BLUE JACKET	NORTHFLEX ® H-3P24-CMR "TEC STAT" (Mfg E#) 24 AWG 3P 75°C CMR (UL) C(UL)
LON-1P22-CM	22AWG,STR,1PAIR,CM,ORANGE JACKET W/ WHITE STRIPE	NORTHFLEX ® LON-1P22-CM "LON FLN" (Mfg E#) 22AWG 1P 75O C CM (UL) C(UL)
LON-2P22-CM	22AWG,STR,2PAIR,CM,ORANGE JACKET W/ WHITE STRIPE	NORTHFLEX ® LON-2P22-CM "LON FLN" (Mfg E#) 22AWG 2P 75O C CM (UL) C(UL)
LON-1PS22-CM	22AWG,STR,1PAIR,OAS,CM,ORANGE JACKET W/ WHITE STRIPE	NORTHFLEX ® LON-1PS22-CM "LON FLN" (Mfg E#) 22AWG 1P 75O C CM (UL) C(UL)
LON-2PS22-CM	22AWG,STR,2PAIR,OAS,CM,ORANGE JACKET W/ WHITE STRIPE	NORTHFLEX ® LON-2PS22-CM "LON FLN" (Mfg E#) 22AWG 2P 75O C CM (UL) C(UL)
E-4TP24CAT5-CM	24AWG,SOL,4TP,CAT5,CM	NORTHFLEX ® E-4TP24CAT5-CM "ETHERNET" (Mfg E#) 24AWG 4P 75O C CM (UL C(UL)
H-A-1.5TSP24LC-CM	ALN485, 24AWG, STR, TP+1C, OAS, LOCAP, CM	NORTHFLEX ® H-A-1.5TSP24LC-CM "ALN485" 24 AWG 1P+1C 75°C CM (UL) C(UL) (Mfg E#)
H-F-1.5TSP24LC-CM	FLN485, 24AWG, STR, TP+1C, OAS, LOCAP, CM	NORTHFLEX ® H-A-1.5TSP24LC-CM "FLN485" 24 AWG 1P+1C 75°C CM (UL) C(UL) (Mfg E#)

Plenum

SBT Part Number	Description	Print Legend
H-TP20-CMP	20AWG,STR,1TP,CMP,BLUE JACKET	NORTHFLEX ® H-TP20-CMP "DI, DO, AI, AO" (Mfg E#) 20 AWG 2C 75°C CMP (UL) C(UL)
H-3C20-CMP	20AWG,STR,3COND,CMP,BLUE JACKET	NORTHFLEX ® H-3C20-CMP "TEC V/D" (Mfg E#) 20 AWG 3C 75°C CMP (UL) C(UL)
H-TP18-CMP	18AWG,STR,1TP,CMP,BLUE JACKET	NORTHFLEX ® H-TP18-CMP "DI, DO, AI, AO" (Mfg E#) 18 AWG 2C 75°C CMP (UL) C(UL)
H-3C18-CMP	18AWG,STR,3COND,CMP,BLUE JACKET	NORTHFLEX ® H-3C18-CMP "TEC V/D" (Mfg E#) 18 AWG 3C 75°C CMP (UL) C(UL)
H-2C14-CL3P	14AWG,STR,2COND,CL3P,DARK BLUE JACKET	NORTHFLEX ® H-2C14-CL3P "LV POWER" (Mfg E#) 14 AWG 2C 75°C CL3P (UL) C(UL)
H-B-TSP24LC-CMP	BLN24AWG,STR,TSP,LOCAP,CMP,ORANGE JACKET	NORTHFLEX ® H-B-TSP24LC-CMP "BLN" (Mfg E#) 24 AWG TSP 75°C CMP (UL) C(UL)
H-F-TSP24LC-CMP	FLN24AWG,STR,TSP,LOCAP,CMP,ORANGE JACKET W/ BLUE STRIPE	NORTHFLEX ® H-F-TSP24LC-CMP "FLN" (Mfg E#) 24 AWG TSP 75°C CMP (UL) C(UL)
H-3P24-CMP	24AWG,SOL,3PAIR,CMP,BLUE JACKET	NORTHFLEX ® H-3P24-CMP "TEC STAT" (Mfg E#) 24 AWG 3P 75°C CMP (UL) C(UL)
LON-1P22-CMP	22AWG,STR,1PAIR,CMP,ORANGE JACKET W/ WHITE STRIPE	NORTHFLEX ® LON-1P22-CMP "LON FLN" (Mfg E#) 22AWG 1P 75O C CMP (UL) C(UL)
LON-2P22-CMP	22AWG,STR,2PAIR,CMP,ORANGE JACKET W/ WHITE STRIPE	NORTHFLEX ® LON-2P22-CMP "LON FLN" (Mfg E#) 22AWG 2P 75O C CMP (UL) C(UL)
LON-1PS22-CMP	22AWG,STR,1PAIR,OAS,CMP,ORANGE JACKET W/ WHITE STRIPE	NORTHFLEX ® LON-1PS22-CMP "LON FLN" (Mfg E#) 22AWG 1P 75O C CMP (UL) C(UL)
LON-2PS22-CMP	22AWG,STR,2PAIR,OAS,CMP,ORANGE JACKET W/ WHITE STRIPE	NORTHFLEX ® LON-2PS22-CMP "LON FLN" (Mfg E#) 22AWG 2P 75O C CMP (UL) C(UL)
E-4TP24CAT5-CMP	24AWG,SOL,4TP,CAT5,CMP	NORTHFLEX ® E-4TP24CAT5-CMP "ETHERNET" (Mfg E#) 24AWG 4P 75O C CMP (UL
H-A-1.5TSP24LC-CMP	ALN485, 24AWG, STR, TP+1C, OAS, LOCAP, CMP	NORTHFLEX ® H-A-1.5TSP24LC-CM "ALN485" 24 AWG 1P+1C 75°C CM (UL) C(UL) (Mfg E#)
H-F-1.5TSP24LC-CMP	FLN485, 24AWG, STR, TP+1C, OAS, LOCAP, CMP	NORTHFLEX ® H-A-1.5TSP24LC-CM "FLN485" 24 AWG 1P+1C 75°C CM (UL) C(UL) (Mfg E#)

Assemblies

Part Number	Descriptlon	Print Legend
550-827	CABLE ASSEMBLY TEC TO SSB 3 POS 10 FT	N
550-828	CABLE ASSEMBLY TEC TO SSC 3 POS 10 FT	N
B6320FE	18AWG, SOL, 2COND,CMP, WHITE JACKET	BELDEN 6330FE CMP 75C 2C18 Shielded (UL) E108998-M C(UL) 2801 2608 158 ROHS (UL)

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

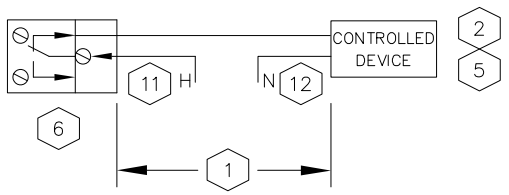
IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

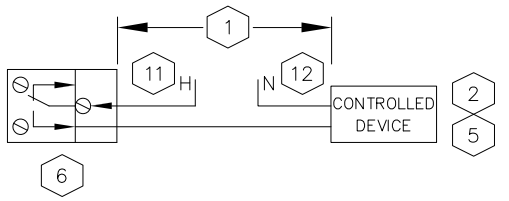
ANIXTER BUILDING AUTO. CABLES

44OP-406822
0
ABAC

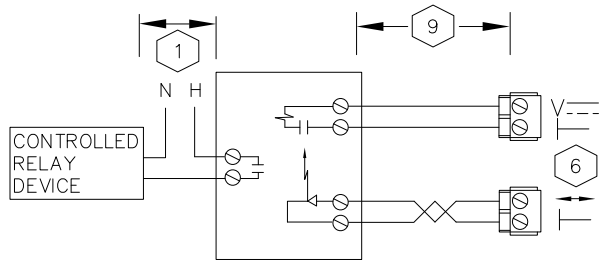
C:\JOBS\44OP-406822\MDT\ABACSPEC.dwg



A 00 — DIGITAL OUTPUT (6R) NC
PULSED OR LATCHED

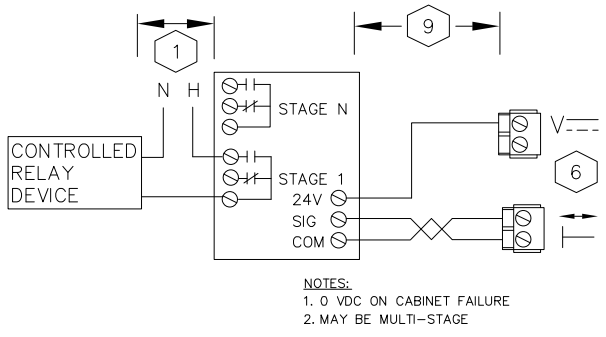


B 00 — DIGITAL OUTPUT (6R) NO
PULSED OR LATCHED



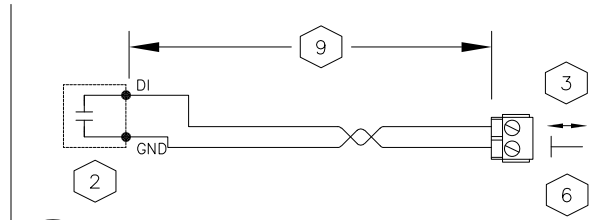
NOTES:
1. 0 VDC ON CABINET FAILURE

C 00 — DIGITAL OUTPUT (8U,8X) Latched
VOLTAGE TO SOLID STATE RELAY

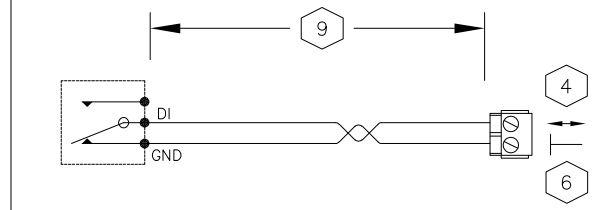


NOTES:
1. 0 VDC ON CABINET FAILURE
2. MAY BE MULTI-STAGE

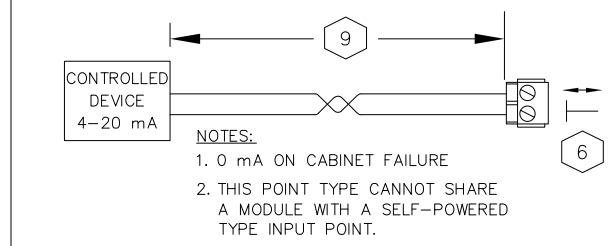
D 00 — DIGITAL OUTPUT (8U,8X) Sequenced
VOLTAGE TO SEQUENCING MODULE



E 00 — DIGITAL INPUT (8D,16D,8U,8x)
DRY CONTACT

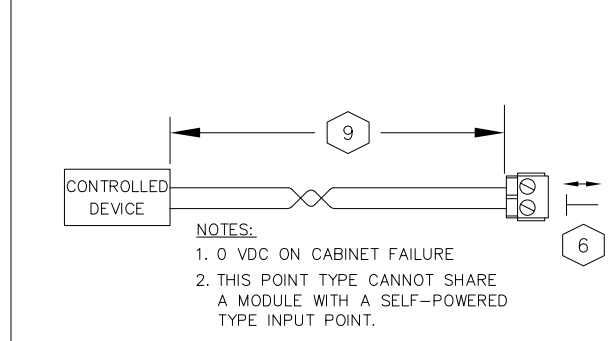


F 00 — DIGITAL INPUT (8D,16D,8U,8X)
PULSE ACCUMULATOR



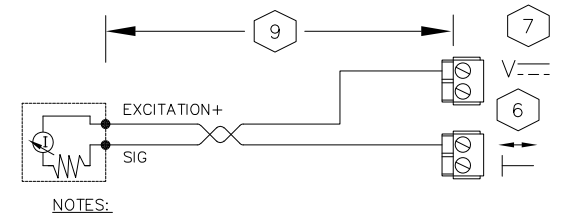
NOTES:
1. 0 mA ON CABINET FAILURE
2. THIS POINT TYPE CANNOT SHARE A MODULE WITH A SELF-POWERED TYPE INPUT POINT.

H 00 — ANALOG OUTPUT (8X) 4–20 mA



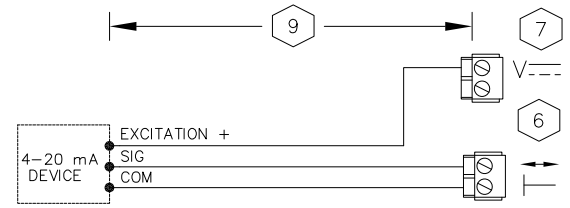
NOTES:
1. 0 VDC ON CABINET FAILURE
2. THIS POINT TYPE CANNOT SHARE A MODULE WITH A SELF-POWERED TYPE INPUT POINT.

I 00 — ANALOG OUTPUT (8U,8X) 0–10VDC

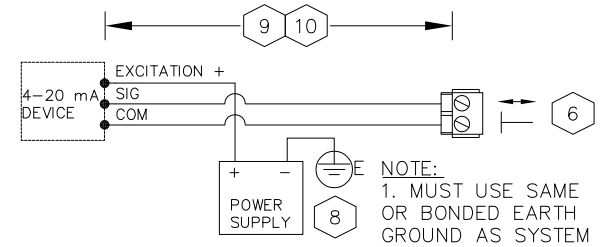


NOTES:
1. COMMON NOT CONNECTED

M 00 — ANALOG INPUT (8X) 4–20 mA
2-WIRE INTERNAL POWERED



N 00 — ANALOG INPUT (8X) 4–20mA
3-WIRE INTERNAL POWERED



NOTE:
1. MUST USE SAME OR BONDED EARTH GROUND AS SYSTEM NEUTRAL

0 00 — ANALOG INPUT (8X) 4–20mA
3-WIRE EXTERNAL POWERED

NOTES:

1. MAXIMUM WIRE RUN LENGTHS ARE BASED ON THE CURRENT DRAW AND WIRE GAGE. SEE DRAWING TWIR.
2. SEE CONTROL DRAWINGS FOR NORMAL DE-ENERGIZED CONTACT STATE
3. MAXIMUM CONTACT CLOSURE RATE IS 10 PER SECOND
   8D, 16d EXCITATION = 24VDC, 8mA
   8U, 8X EXCITATION = 24VDC, 8mA, 20ms, 100mA
4. 8D, 16D MAXIMUM PULSE RATE = 10Hz (50ms PER STATE, 100ms PER PULSE)
   8U, 8X MAXIMUM PULSE RATE = 20Hz (25ms PER STATE, 50ms PER PULSE)
5. PXC MODULAR DO CONTACT RATINGS
   AC OPERATION:
   4A @ 240VAC (RESISTIVE)
   3A @ 240VAC (INDUCTIVE)
   SIZE 4 MOTOR STARTER
   DC OPERATION:
   40W @ < 50VDC
   20W @ > 50VDC
6. REFER TO PXC MODULAR PANEL FOR ACTUAL POINT ADDRESSES. REFER TO TXMI TERMINATION TABLES FOR ACTUAL TERMINALS FOR EACH PANEL ADDRESS. COMMON TERMINAL MAY BE SHARED BY 2 POINTS.
7. REFER TO DRAWING P1 ON TWIR FOR MAXIMUM CURRENT PROVIDED BY THE 24VDC SENSOR SUPPLY ON P1 BIM OR BUS POWER SUPPLY
8. EXTERNAL POWER SUPPLY CAN EITHER BE A 24VDC POWER SUPPLY OR A 24VAC TRANSFORMER DEPENDING ON THE SENSOR SELECTED. IF NOT AN ISOLATED NC CLASS 2 CIRCUIT THEN POWER SOURCE, NEUTRAL AND PXC MODULAR COMMON MUST BE BOTH CONNECTED TO THE SAME OR BONDED BUILDING APPROVED EARTH GROUND. FOR FURTHER DETAILS SEE EARTH GROUNDING RULES (125-3002) APOGEE WIRING GUIDELINES FOR FIELD PANELS AND EQUIPMENT CONTROLLERS.
9. 50mA OR LESS – 750ft/230m
   50mA TO 100mA – 375ft/115m
10. 100mA TO 150mA – 250ft/76m
    150mA TO 200mA – 187ft/57m
    200mA TO 250mA – 150ft/46m
11. WHERE H TERMINAL IS NOT A NEC CLASS 2 CIRCUIT, RELAY COMMON TERMINAL BRANCH CURRENT MUST BE EXTERNALLY LIMITED TO 10A MAXIMUM BY AN NEC APPROVED MEANS. NOT A FUSE.
12. WHERE REQUIRED, N TERMINAL BRANCH CURRENT MUST BE EXTERNALLY LIMITED BY AN NEC APPROVED MEANS.

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

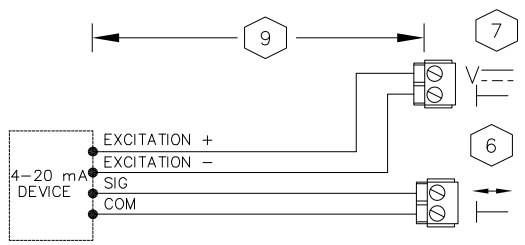
IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

TX-I/O TERMINATION SPEC. (1)

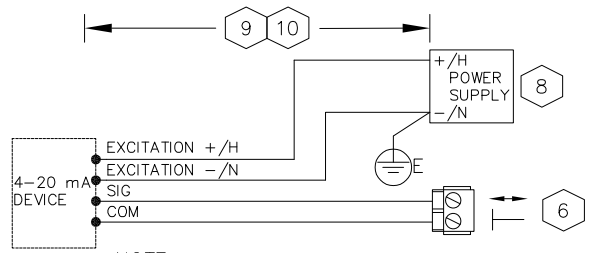
440P-406822
0
TTRM1

C:\JOBS\440P-406822\MDT\TXIOTERM.dwg



P 00 ANALOG INPUT (8X) 4–20mA

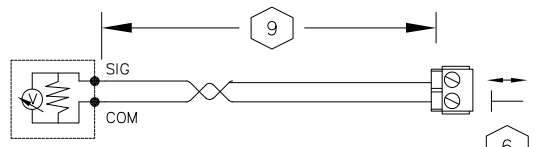
4–WIRE INTERNAL POWERED



NOTE:
1. MUST USE SAME OR BONDED EARTH GROUND AS SYSTEM NEUTRAL

Q 00 ANALOG INPUT (8X) 4–20mA

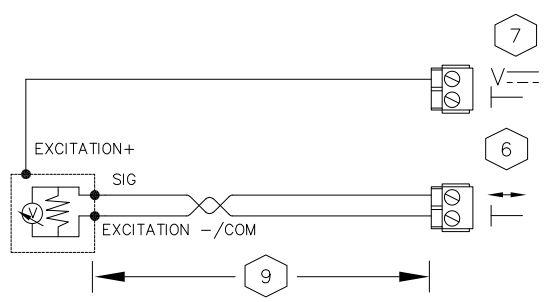
4–WIRE EXTERNAL POWERED



NOTES:
1. TRANSDUCER POWERED FROM ISOLATED INPUT
2. TRANSDUCER OUTPUT VOLTAGE

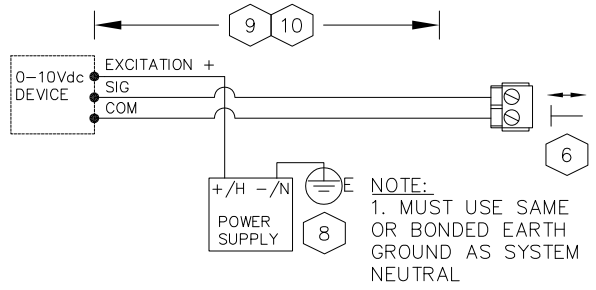
R 00 ANALOG INPUT (8U,8X) 0–10 Vdc

SELF POWERED TRANSDUCER



S 00 ANALOG INPUT (8U,8X) 0–10VDC

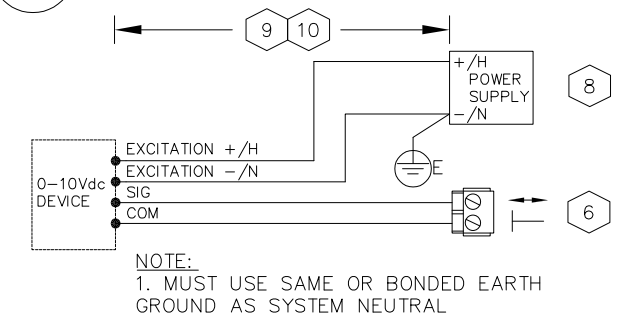
3–WIRE INTERNAL POWERED



NOTE:
1. MUST USE SAME OR BONDED EARTH GROUND AS SYSTEM NEUTRAL

T 00 ANALOG INPUT (8U,8X) 0–10VDC

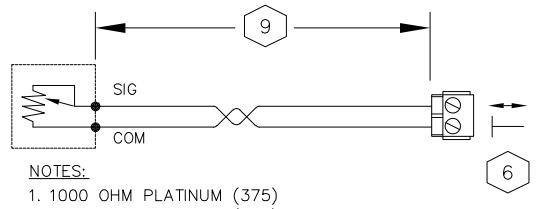
3–WIRE EXTERNAL POWERED



NOTE:
1. MUST USE SAME OR BONDED EARTH GROUND AS SYSTEM NEUTRAL

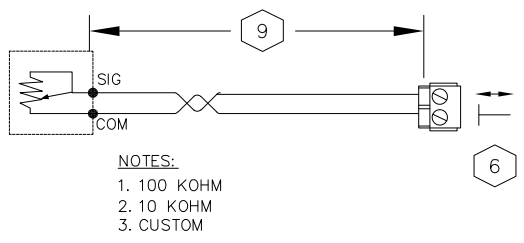
U 00 ANALOG INPUT (8U,8X) 0–10VDC

4–WIRE EXTERNAL POWERED



NOTES:
1. 1000 OHM PLATINUM (375)
2. 1000 OHM PLATINUM (385)
3. 1000 OHM NICKEL
4. CUSTOM

V 00 ANALOG INPUT (8X,8U) RTD



NOTES:
1. 100 KOHM
2. 10 KOHM
3. CUSTOM

W 00 ANALOG INPUT (8X,8U) THERMISTOR

TXM1 TERMINATION TABLES

1. ALL TXM1 TERMINALS (MEASURING, NEUTRAL, RELAY, SUPPLY) ARE CONNECTED IN THE PLUG–IN I/O MODULE, NOT IN THE TERMINAL BUS.

	TXM1.8D, TXM1.16D							
I/O POINT	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SYSTEM NEUTRAL[1] ⊥ (–)	1	3	5	7	9	11	13	15
DIGITAL INPUT ⏐ (+)	2	4	6	8	10	12	14	16

1. NEUTRAL CAN BE CONNECTED TO ANY NEUTRAL TERMINAL ON SAME MODULE AND SEVERAL CAN SHARE SAME NEUTRAL TERMINAL.

	TXM1.16D							
I/O POINT	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
SYSTEM NEUTRAL ⊥ (–)	18	20	22	24	26	28	30	32
DIGITAL INPUT[1] ⏐ (+)	19	21	23	25	27	29	31	33

1. NO PULSE ACCUMULATOR

	TXM1.8U, TXM1.8U–ML							
I/O POINT	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SYSTEM NEUTRAL ⊥ (–)	2	6	10	14	19	23	27	31
UNIVERSAL I/O ⏐ (+)	4	8	12	16	21	25	29	33
24V AC/DC ACTUATOR SUPPLY[1] ≂		7		15		24		32

1. 24V DC ONLY AVAILABLE WITH BUS CONNECTOR MODULE (BCM) POWERED EXTERNALLY BY DC SUPPLY.

	TXM1.8X, TXM1.8X–ML							
I/O POINT	(1)	(2)	(3)	(4)	(5)[1]	(6)[1]	(7)[1]	(8)[1]
SYSTEM NEUTRAL ⊥ (–)	2	6	10	14	19	23	27	31
UNIVERSAL I/O ⏐ (+)	4	8	12	16	21	25	29	33
24V AC/DC ACTUATOR SUPPLY[2] ≂		7		15		24		32
24V DC SENSOR SUPPLY[3] ⎓	3		11		20		28	

1. 4–20 mA OUTPUT AVAILABLE ON POINTS 5–8 ONLY.

2. 24V DC ONLY AVAILABLE WITH BUS CONNECTOR MODULE (BCM) POWERED EXTERNALLY BY DC SUPPLY.

3. MAY POWER EXTERNAL SENSORS 0.6w (25mA) OR 1.2w (50mA) PER TERMINATION UP TO 2.4w (100mA) MAXIMUM FOR ALL TERMINATIONS.

	TXM1.6R, TXM1.6R–M					
I/O POINT	(1)	(2)	(3)	(4)	(5)	(6)
COMMON[1] ⏐ (C)	3	9	15	20	26	32
NORMALLY CLOSED ⌐ (NC)	4	10	16	19	25	31
NORMALLY OPEN ⏐ (NO)	2	8	14	21	27	33

1. COMMONS ARE NOT INTERNALLY CONNECTED.

NOTE: REFER TO TERMINATION SHEET #1 FOR INSTALLATION DETAILS.

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

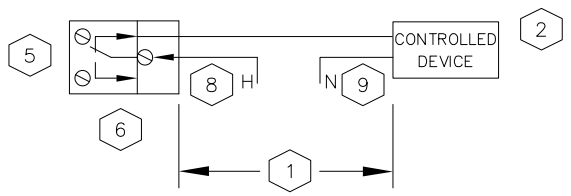
IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

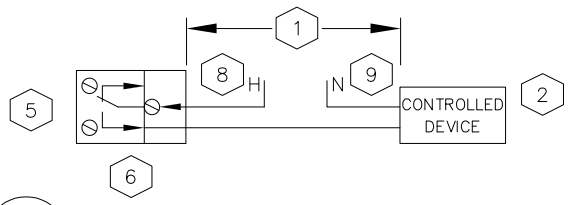
TX-I/O TERMINATION SPEC. (2)

440P-406822
0
TTRM2

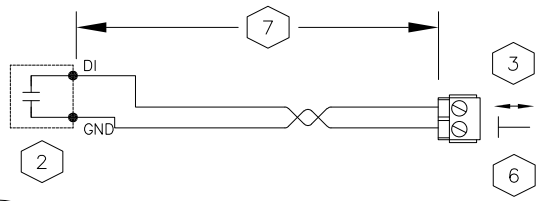
C:\JOBS\440P-406822\MDT\TXIOTERM2.dwg



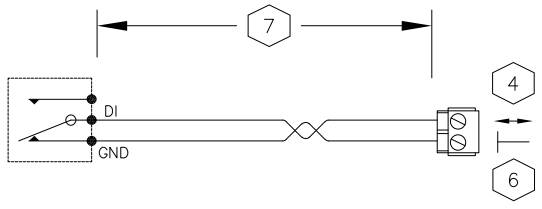
A 00 DIGITAL OUTPUT (1.4D3R, 1.8T) NC
PULSED OR LATCHED



B 00 DIGITAL OUTPUT (1.4D3R, 1.8T) NO
PULSED OR LATCHED



E 00 DIGITAL INPUT (1.4D3R)
DRY CONTACT



F 00 DIGITAL INPUT (1.4D3R)
PULSE ACCUMULATOR

NOTES:

1. MAXIMUM WIRE RUN LENGTHS ARE BASED ON THE CURRENT DRAW AND WIRE GAUGE. SEE DRAWING P7WIR.
2. SEE CONTROL DRAWINGS FOR NORMAL DE-ENERGIZED CONTACT STATE
3. MAXIMUM CONTACT CLOSURE RATE IS 10 PER SECOND
4. 1.4D3R MAXIMUM PULSE RATE UP TO 10Hz
5. DO CONTACT RATINGS
   AC OPERATION:
   4A @ 250VAC (RESISTIVE)
   3A @ 250VAC (INDUCTIVE)

   DC OPERATION:
   4A @ 30VDC (RESISTIVE), UL APPLICATIONS
   3A @ 30VDC GENERAL PURPOSE
   3A @ 30VDC (RESISTIVE)
6. REFER TO PXC7 PANEL FOR ACTUAL POINT ADDRESSES. REFER TO TXM TERMINATION TABLES FOR ACTUAL TERMINALS FOR EACH PANEL ADDRESS. COMMON TERMINAL MAY BE SHARED BY 2 POINTS.
7. 50mA OR LESS – 750ft/230m
   50mA TO 100mA – 375ft/115m
8. WHERE H TERMINAL IS NOT A NEC CLASS 2 CIRCUIT, RELAY COMMON TERMINAL BRANCH CURRENT MUST BE EXTERNALLY LIMITED TO 10A MAXIMUM BY AN NEC APPROVED MEANS. NOT A FUSE.
9. WHERE REQUIRED, N TERMINAL BRANCH CURRENT MUST BE EXTERNALLY LIMITED BY AN NEC APPROVED MEANS.

	TXM1.4D3R		
I/O POINT	(1)	(2)	(3)
SUPPLY	3	9	15
NORMALLY OPEN (NO)	2	8	14
NORMALLY CLOSED (NC)	4	10	16

	TXM1.4D3R			
I/O POINT	(5)	(6)	(7)	(8)
SYSTEM NEUTRAL[1] ⊥ (–)	26	28	30	32
DIGITAL INPUT (+)	27	29	31	33

1. TERMINALS 26, 28, 30, 32 ARE SYSTEM NEUTRAL TERMINALS.

THEY ARE INTERCONNECTED, NOT IN THE TERMINAL BASE BUT IN THE PLUG-IN I/O MODULE. WHEN I/O MODULE IS REMOVED, THERE IS NO CONNECTION.

THE SYSTEM NEUTRAL OF A DIGITAL INPUT CAN BE CONNECTED TO ANY SYSTEM NEUTRAL TERMINAL.

	TXM1.8T							
I/O POINT	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SUPPLY[1] ~	2	6	10	14	19	23	27	31
DIGITAL OUTPUT[2] (+)	4	8	12	16	21	25	29	33

1.THE LOAD CAN BE CONNECTED DIRECTLY TO THE CORRESPONDING OUTPUT TERMINALS. NO SEPARATE 24VAC SUPPLY IS REQUIRED.

2. THE TRIAC CLOSES THE CONTACT TO ⊥ (SYSTEM NEUTRAL).

REVISION HISTORY

SIEMENS
SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE
11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

TX-I/O TERMINATION SPEC. (3)

440P-406822
0
TTRM3

C:\JOBS\440P-406822\MDT\TXIOTERM3.dwg

PXC7 MODULAR WIRING TYPE AND GAUGE REQUIREMENTS

TABLE 1

CIRCUIT TYPE	CLASS	WIRE TYPE	MAX. DISTANCE	CONDUIT SHARING [2]
AC LINE POWER [1]	POWER	#12–14 THHN	REFER TO NEC	CHECK LOCAL CODES
DIGITAL OUTPUT	1 & 2	TP not required, check job specs & local codes #18 to #24 AWG	SEE TABLE 3	CHECK LOCAL CODES
DIGITAL INPUT	2	TP not required, check job specs & local codes #18 to #24 AWG	750ft (230 m)	CHECK LOCAL CODES
ANALOG INPUT [4] 100K/10K Thermistor	2	#18–#24 TP [3,6] or TSP [5] CM(FT4) or CMP(FT6)	750ft (230 m)	CHECK LOCAL CODES
ANALOG INPUT [4] 1K Ni OR RTD	2	#18–#24 TP [3,6] or TSP [5] CM(FT4) or CMP(FT6)	750ft (230 m)	CHECK LOCAL CODES
ANALOG INPUT 0–10 V	2	#18–#24 TP [3,6] or TSP [5] CM(FT4) or CMP(FT6)	750ft (230 m)	CHECK LOCAL CODES
ANALOG INPUT 4–20 mA	2	#18–#24 TP [3,6] or TSP [5] CM(FT4) or CMP(FT6)	750ft (230 m)	CHECK LOCAL CODES
ANALOG OUTPUT 0–10 V	2	#18–#24 TP [3,6] or TSP [5] CM(FT4) or CMP(FT6)	750ft (230 m)	CHECK LOCAL CODES
ANALOG OUTPUT 4–20 mA	2	#18–#24 TP [3,6] or TSP [5] CM(FT4) or CMP(FT6)	750ft (230 m)	CHECK LOCAL CODES
ETHERNET	2	#24 (4) TP [6] CAT5 OR BETTER	300ft (100 m)	CHECK LOCAL CODES

1. WHEN DAISY–CHAINING 24V AC/DC POWER TO CONTROLLERS USE #14 WIRE.

2. CONDUIT SHARING RULES: ONLY WHERE LOCAL CODES PERMIT. BOTH CLASS1 AND CLASS 2 WIRING CAN BE RUN TO THE PXC7 PROVIDED THE CLASS 2 WIRE IS UL LISTED 300V 75°C(167°F) OR HIGHER OR THE CLASS 2 WIRE IS NEC TYPE CM (FT4) (75°C OR HIGHER) OR CMP(FT6) (75°C OR HIGHER). NEC TYPE CL2 AND CL2P IS NOT ACCEPTABLE UNLESS ALSO UL LISTED AND MARKED 300V 75°C (167°F) OR HIGHER

3. TWISTED PAIR, NON–JACKETED UL LISTED 75°C(167°F) AND 300V, CABLE CAN BE USED IN PLACE OF CM(FT4) OR CMP(FT6)(BOTH MUST BE RATED 75°C OR HIGHER) CABLE WHEN CONTAINED IN CONDUIT PER LOCAL CODES. SEE THE FIELD PURCHASING GUIDE FOR WIRE.

4. WIRE LENGTH AFFECTS POINT INTERCEPT ENTRY. ADJUST INTERCEPT ACCORDINGLY FOR EACH WIRE GAUGE AND SENSOR TYPE.

5. SHIELDED TWISETED PAIR (TSP) IS NOT REQUIRED FOR ELECTRICAL NOISE LEVELS UPTO 10 V/M. AT HIGHER LEVELS TSP MAY BE NEEDED.TERMINATE SHIELD ON ENCLOSURE AND TAPE BACK ON POINT END.

6. FOR 24AWG INSTALL CATEGORY5 OR BETTER CABLE PER ANSI/TIA/EIA–568–B.1 OR HIGHER. USE SOLID COPPER BETWEEN JACK BOXES. USE STRANDED COPPER PATCH CABLES 13ft (4m) TO CONNECT PXC7 AND 20ft (6m) TO CONNECT SWITCH OR HUB.

PXC7 WIRE SPECIFICATIONS

TABLE 2

	LOW–VOLTAGE POINT APPLICATIONS	POINT USAGE	ALN TRUNK	EALN
CABLE CONFIGURATION	TWISTED PAIR OR TSP	TWISTED PAIR (UNJACKETED) OR TSP	TWISTED SHIELDED PAIR	(4) TWISTED PAIR
GAUGE	#18 TO #22 AWG (STRANDED)	#18 TO #22 AWG (STRANDED)	24 AWG (STRANDED)	24AWG(STRANDED)
CAPACITANCE	n.a.	n.a.	12.5 pf/ft OR LESS	13 pf/ft OR LESS
TWISTS PER FOOT	6 MINIMUM	6 MINIMUM	6 MINIMUM	CATEGORY 5 Min
SHIELDS	NOT REQUIRED (IN CASE OF TSP, 100% FOIL W/ DRAIN WIRE)	NOT REQUIRED (IN CASE OF TSP, 100% FOIL W/ DRAIN WIRE)	100% FOIL W/ DRAIN WIRE	NOT REQUIRED
NEC CLASS	CM, CMP (75°C OR HIGHER)	NOT SPECIFIED	CM, CMP (75°C OR HIGHER)	MM, MMP
CEC CLASS	FT4, FT6 (75°C OR HIGHER)	NOT SPECIFIED	FT4, FT6 (75°C OR HIGHER)	NOT SPECIFIED
UL VOLTAGE RATING	NOT SPECIFIED	300 VAC [2]	NOT SPECIFIED	NOT SPECIFIED
UL TEMP. RATING	NOT SPECIFIED	75°C (167°F)	NOT SPECIFIED	NOT SPECIFIED

1. UL RECOGNIZED WIRE (LABELED WITH A BACKWARDS 'RU') IS NOT FIELD INSTALLABLE. USE ONLY UL–LISTED WIRE.
2. 300 VAC WIRE CAN BE USED IN FIELD PANELS CONTAINING VOLTAGES BELOW 150 VAC.

MAXIMUM DO WIRE RUN LENGHTS

TABLE 3

NOMINAL INRUSH	STARTER SIZE	WIRE SIZE		
		#18	#16	#14
200 VA	0 1	500ft (152m)	900ft (274m)	1400ft (427m)
550 VA	2	200ft (61m)	300ft (91m)	500ft (152m)
1150 VA	3	100ft (30m)	150ft (46m)	250ft (76m)
1500 VA	4	70ft (21m)	100ft (30m)	200ft (61m)

TABLE 3 NOTES:

1. DISTANCES SHOWN ASSURE LESS THAN 10% VOLTAGE DROP ACROSS THE WIRE FOR A TYPICAL STARTER.

GENERAL NOTES:

- COMPLY WITH LOCAL BUILDING CODES
- SIZE WIRE FOR LOAD, CURRENT, AND VOLTAGE.
- ALL WIRE TO BE APPROVED OR LISTED FOR THE INTENDED APPLICATION BY AGENCIES SUCH AS UL, NEC, CSA.
- ALWAYS REFER TO LOCAL CODES FOR CONDUIT SHARING.
- WIRING MUST HAVE INSULATION RATED FOR HIGHEST VOLTAGE CIRCUIT IN CONDUIT.
- THE ALN TRUNK MUST BE AN UNINTERRUPTED RUN BETWEEN CABINETS. NO SPLICES ALLOWED.
- CM/CMP/MM/MMP WIRE IS NOT USABLE FOR CLASS 1 CIRCUITS.
- FOR EXTENDED TEMPERATURE INSTALLATIONS USE ONLY COPPER WIRE LISTED FOR 90°C OR HIGHER

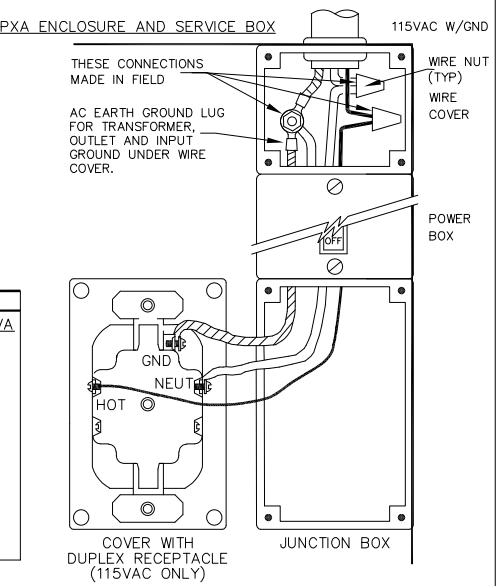
T1 00 PXC7 CONDUIT PENETRATIONS

NOTES:
1. NO MORE THAN THREE (3) 384VA OR SIX (6) 192VA FULLY LOADED PXA CABINETS ALLOWED ON A SINGLE 3–WIRE 115V, 15A CIRCUIT.
2. RECEPTACLE IS PREWIRED AND MOUNTED IN FACTORY, FOR 115VAC SERVICE BOX ONLY.
3. DC INPUT/OUTPUT ONLY AVAILABLE ON BUS CONNECTION MODULES.

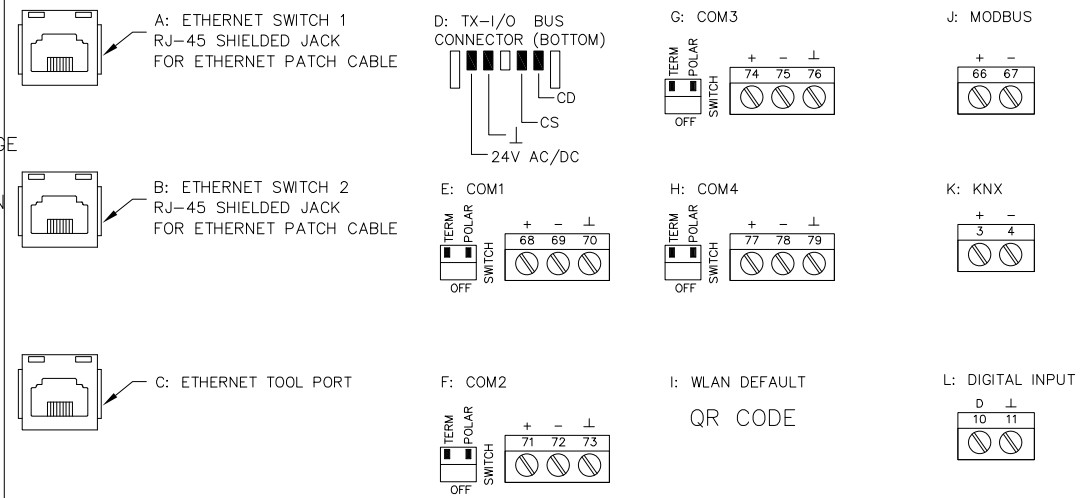
PXC7 FAMILY VA RATINGS & SENSOR SUPPLY

PRODUCT	24VDC (W)	24VAC INPUT VA	24VAC OUTPUT VA
PXC7.E400.A	7.2	71	48

TX–I/O MODULE	24VDC LOAD (W) MAX.
TXM1.8D	1.1
TXM1.16D	1.4
TXM1.8U	1.5
TXM1.8U–ML	1.8
TXM1.8X	2.2
TXM1.8X–ML	2.3
TXM1.6R	1.7
TXM1.6R–M	1.9
TXM1.8T	1.0
TXM1.4D3R	1.0



T2 00 PXC7 POWER WIRING



NOTES:
1. COMMUNICATION CONNECTORS PLUG INTO PXC7.
2. THE TERMINAL FOR THE FUNCTIONAL GROUND MUST BE CONNECTED ON THE INSTALLATION SIDE OF THE BUILDING GROUNDING SYSTEM (PE).

T3 00 PXC7 COMMUNICATION TERMINATIONS

FOR PXC7, SERIES CONTROLLERS AND SUPPLY MODULES

REVISION HISTORY

SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

11001 BLUGRASS PKWY
#320
LOUISVILLE, KY 40299
US
PHONE: (502) 267-1571
FAX: (502) 267-0316

IUSE MEADOW LODGE
NEW ALBANY, IN

ENGINEER	DRAFTER	CHECKED BY	INITIAL RELEASE	LAST EDIT DATE
AD	AD	MB	11/21/25	11/19/25

PXCM TX-I/O WIRING SPEC

440P-406822
0
P7WIR

C:\JOBS\440P–406822\MDT\PXC7WIRE.dwg