

The State of
South Carolina



LANCASTER MHC HVAC REPLACEMENT

Project # SC-C-L002

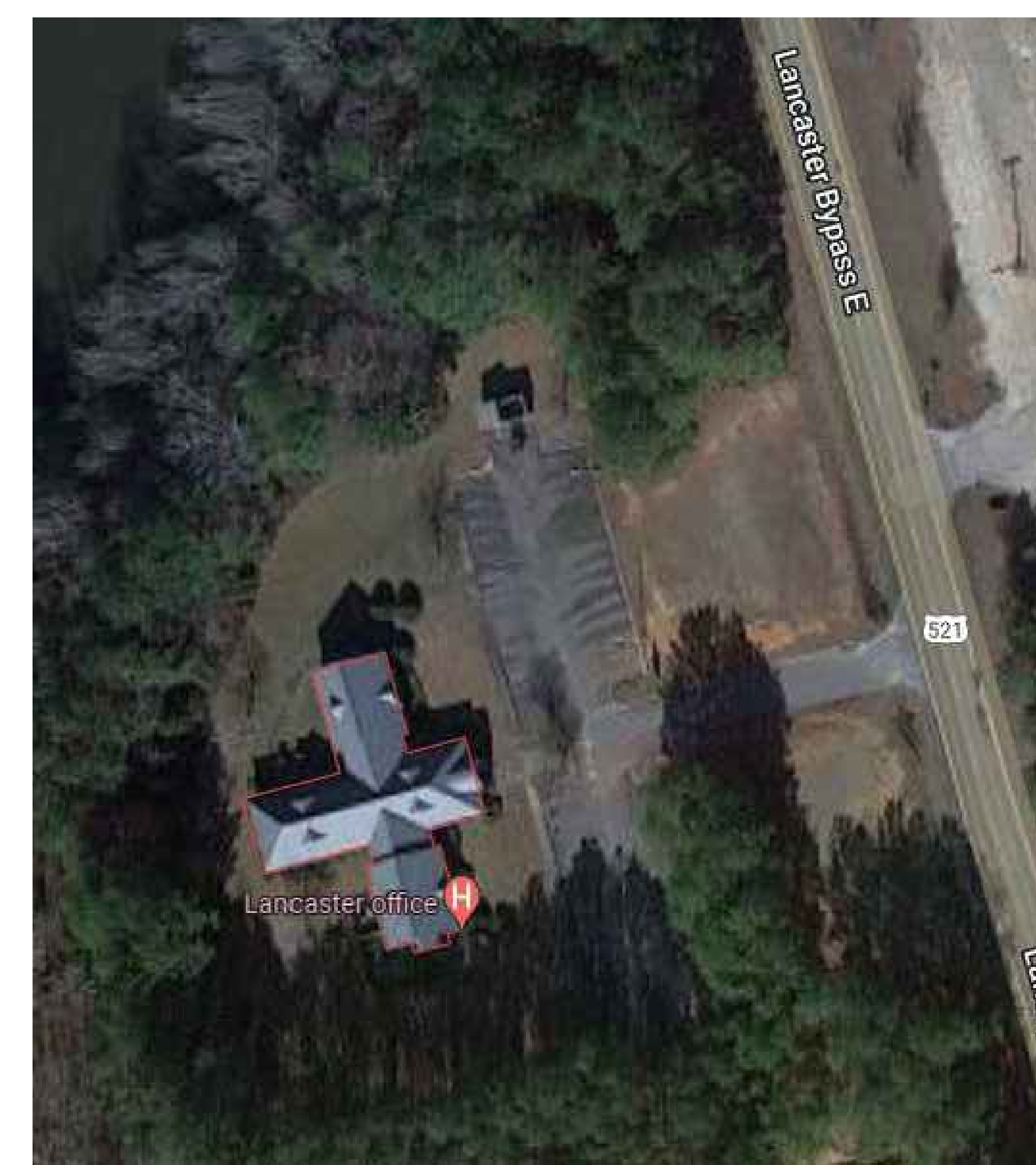
Code Compliance:

International Existing Building Code: 2018 Edition
International Building Code: 2018 Edition
International Mechanical Code: 2018 Edition
National Electric Code: 2017 Edition
International Energy Conservation Code: 2009 Edition

New Construction ☐ Renovation (Existing Building) ☒ Upfit ☐ Addition

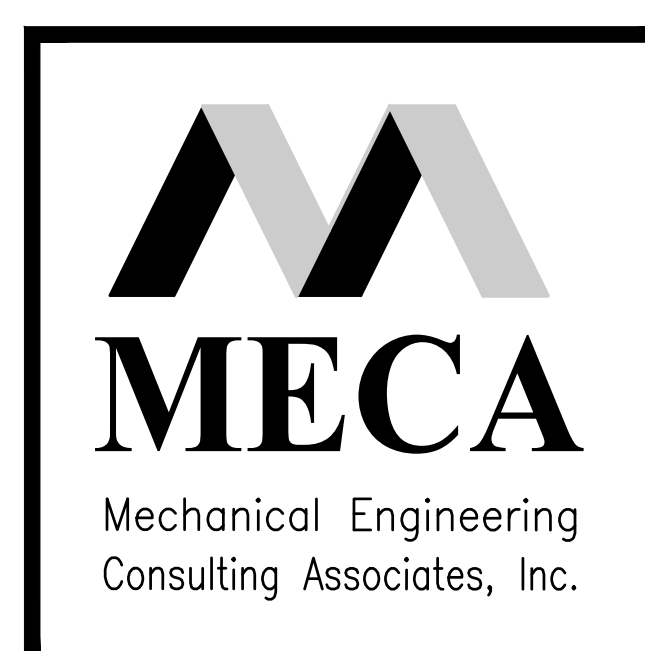
Drawing List:

CS-1 Cover Sheet
M-100 Mechanical Existing Conditions Plan
M-101 Mechanical Renovation
M-102 Mechanical Demolition Plan
M-201 Mechanical Schedules and Details



Site Location Map

1906 HIGHWAY 521 BYPASS SOUTH
LANCASTER, SC 29721



2330 Main Street
Columbia, South Carolina
Phone: (803) 765-9421

Drawing List:


MECA Project Number: 121257.01
QUOTE DOCUMENTS October 31, 2022



Scale: 1/4" = 1' - 0"


[illegible]

PROFESSIONAL SEAL (S)	
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A & E FIRM	A & E STATE NO.
 <p>2330 Main Street Columbia, SC, 29201 (803) 799-6421</p> <p>MECA</p> <p>Mechanical Engineering Consulting Associates, Inc.</p>	

SHEET TITLE	
	<h1>MECHANICAL EXISTING CONDITIONS PLAN</h1>
DIVISION	

PROJECT TITLE		
LANCASTER MHC HVAC REPLACEMENT		
PROJECT #: 121257.01	DRAWING NO.	SHEET
	DATE: 31 OCTOBER 2022	M100



The State
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South Carolina

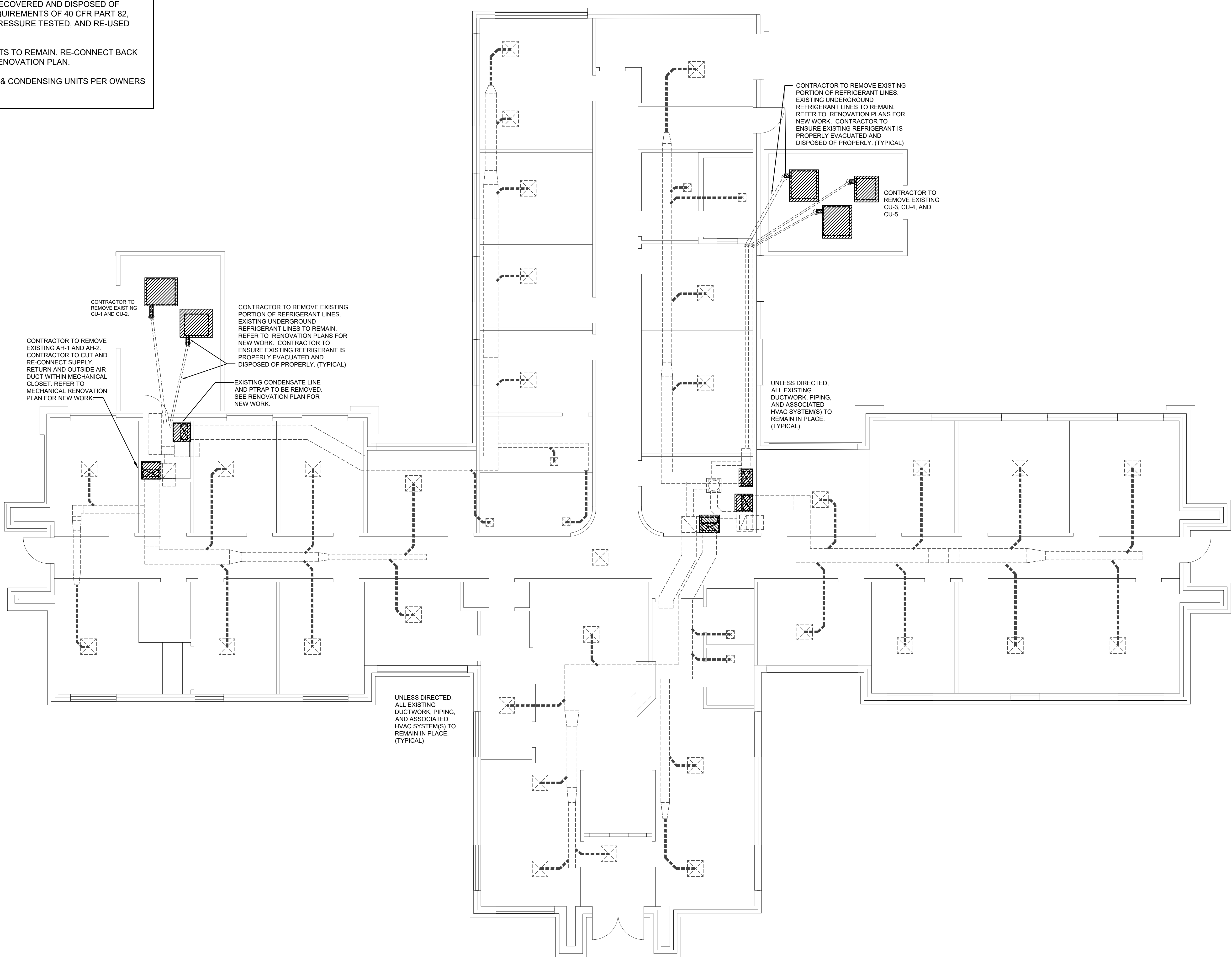


South Carolina
Department of
Mental Health

38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

MECHANICAL DEMOLITION NOTES

1. CONTRACTOR TO REMOVE EXISTING HEATPUMP AS INDICATED. EXISTING SUPPLY, RETURN, OUTSIDE AIR, CONDENSATE, & REFRIGERANT LINES TO REMAIN IN PLACE. RECONNECT TO NEW UNIT. VERIFY CONNECTION PLACEMENTS IN FIELD.
2. EXISTING REFRIGERANT TO BE RECLAIMED/RECOVERED AND DISPOSED OF PROPERLY AND IN ACCORDANCE WITH THE REQUIREMENTS OF 40 CFR PART 82, SUBPART F. EXISTING LINES TO BE CLEANED, PRESSURE TESTED, AND RE-USED FOR NEW SYSTEM (TYPICAL).
3. EXISTING RETURN AIR AND OUTSIDE AIR DUCTS TO REMAIN. RE-CONNECT BACK TO NEW UNIT AS INDICATED ON MECHANICAL RENOVATION PLAN.
4. CONTRACTOR TO DISPOSITION AIR HANDLER & CONDENSING UNITS PER OWNERS REQUEST.



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

QUOTE DOCUMENTS
PLOT DATE: 31 OCTOBER 2022



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of
South Carolina

AGENCY OR INSTITUTION



PROJECT TITLE

LANCASTER MHC HVAC REPLACEMENT

PROJECT #: 121257.01

DRAWING NO.

SHEET

DATE: 31 OCTOBER 2022

M101

LOCATION	NO.	REVISION	DATE	BY	APP.	LOCATION	NO.	REVISION	DATE	BY	APP.

PROFESSIONAL SEAL (S)

PROJECT MANAGER
ARCHITECTURAL DESIGN
ENGINEERING DESIGN
LANDSCAPE ARCHITECT

DRAWN BY: JAS

CHECKED BY: BOW

JOB#: 121179

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SHEET TITLE

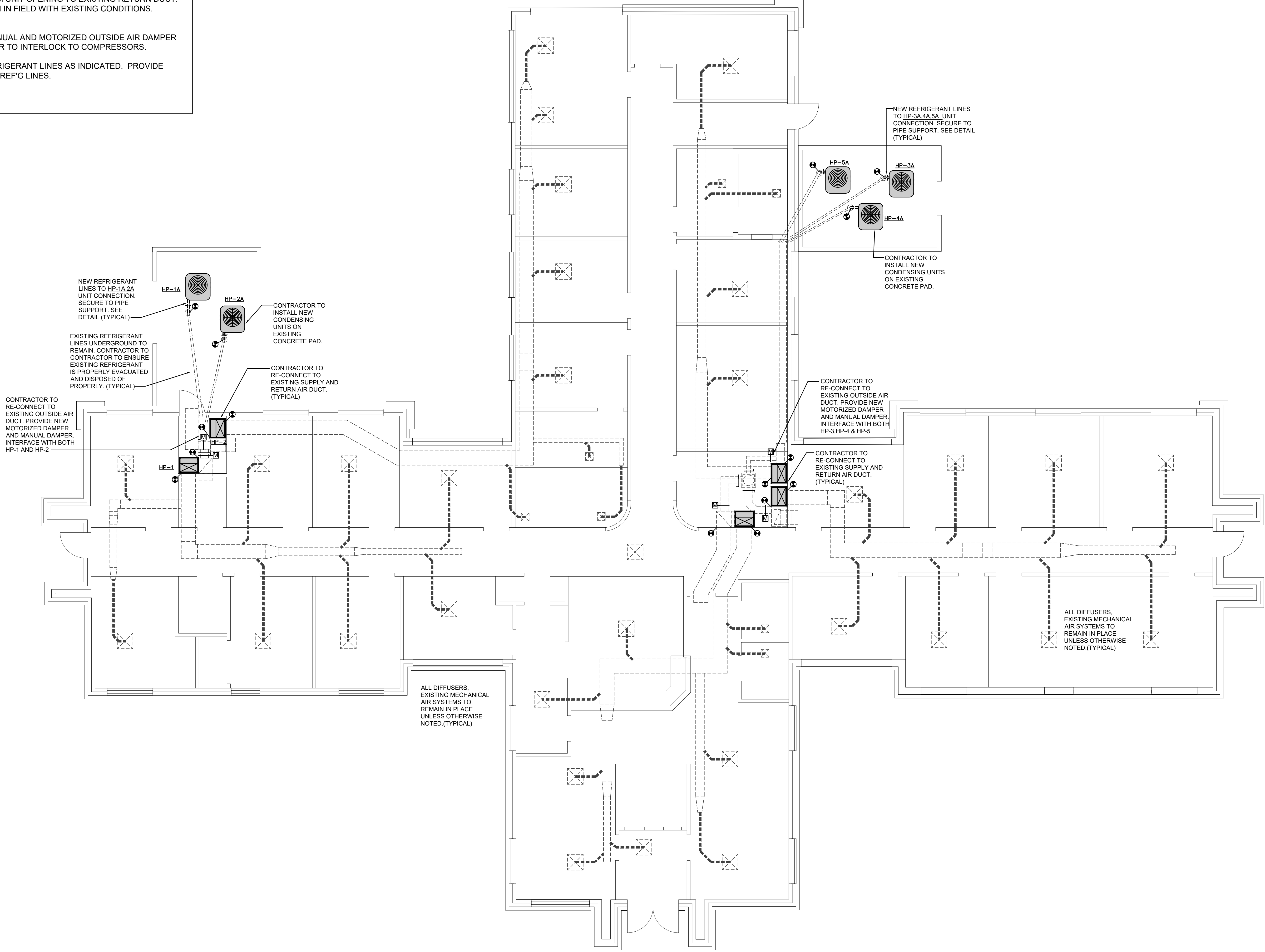
MECHANICAL FLOOR PLANS

DIVISION

38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

MECHANICAL RENOVATION NOTES:

1. CONTRACTOR TO TRANSITION FROM UNIT OPENING TO EXISTING SUPPLY DUCT. VERIFY EXACT DUCT SIZE TRANSITION IN FIELD WITH EXISTING CONDITIONS (TYPICAL)
2. CONTRACTOR TO TRANSITION FROM UNIT OPENING TO EXISTING RETURN DUCT. VERIFY EXACT DUCT SIZE TRANSITION IN FIELD WITH EXISTING CONDITIONS. (TYPICAL)
3. CONTRACTOR TO INSTALL NEW MANUAL AND MOTORIZED OUTSIDE AIR DAMPER FOR RENOVATED WORK. CONTRACTOR TO INTERLOCK TO COMPRESSORS.
4. CONTRACTOR TO ROUTE NEW REFRIGERANT LINES AS INDICATED. PROVIDE ALUMINUM JACKET ON ALL EXTERIOR REF'G LINES.



② MECHANICAL RENOVATION PLAN
Scale: 3/16" = 1' - 0"

QUOTE DOCUMENTS
PLOT DATE: 31 OCTOBER 2022



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PROJECT TITLE

LANCASTER MHC HVAC REPLACEMENT

PROJECT #: 121257.01

DRAWING NO.

SHEET

DATE: 31 OCTOBER 2022

M102

LOCATION	NO.	REVISION	DATE	BY	APP.	LOCATION	NO.	REVISION	DATE	BY	APP.

PROFESSIONAL SEAL (S)

PROJECT MANAGER
ARCHITECTURAL DESIGN
ENGINEERING DESIGN
LANDSCAPE ARCHITECT

APPROVAL

DRAWN BY: JAS

CHECKED BY: BOW

JOB#: 122179

A & E FIRM



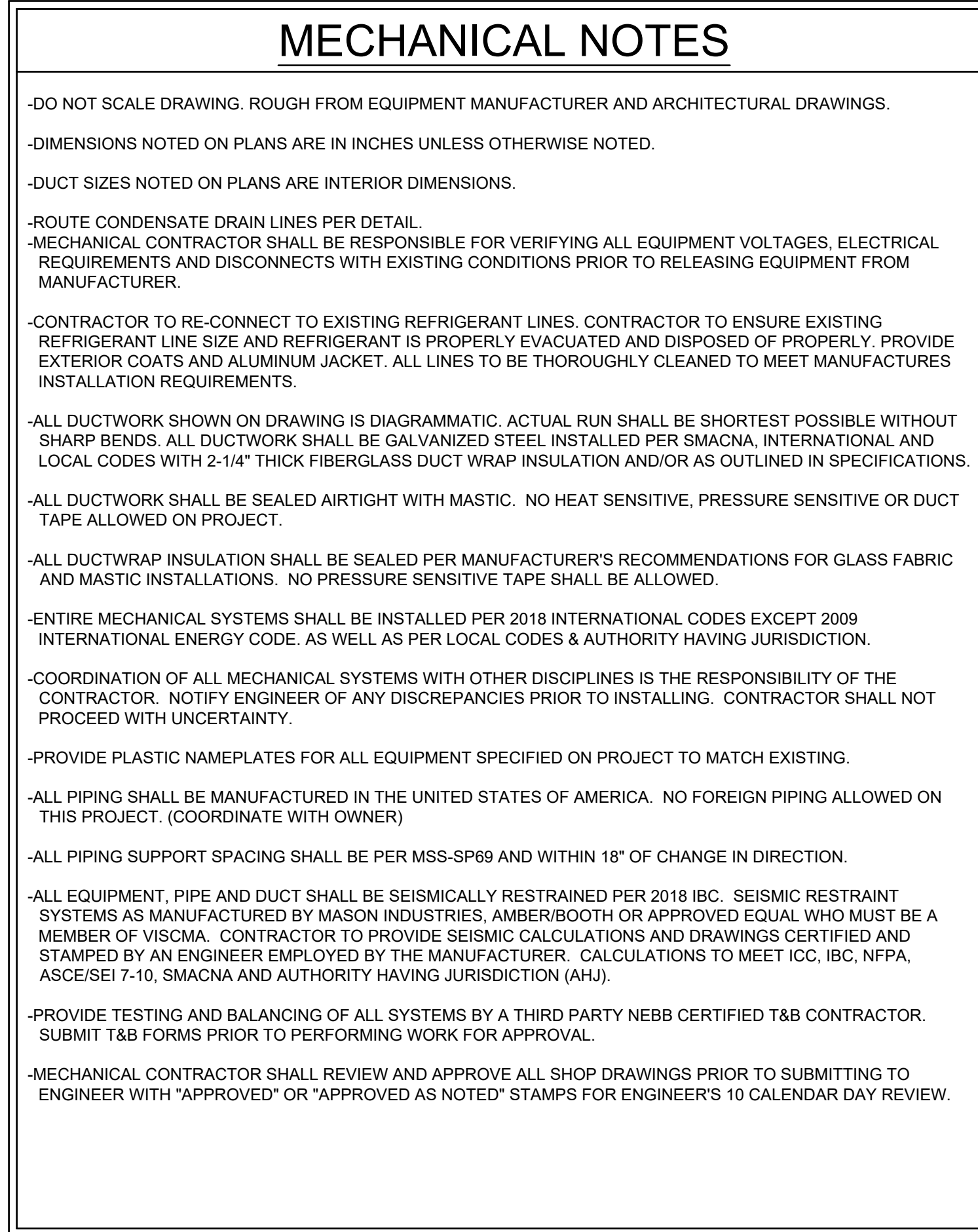
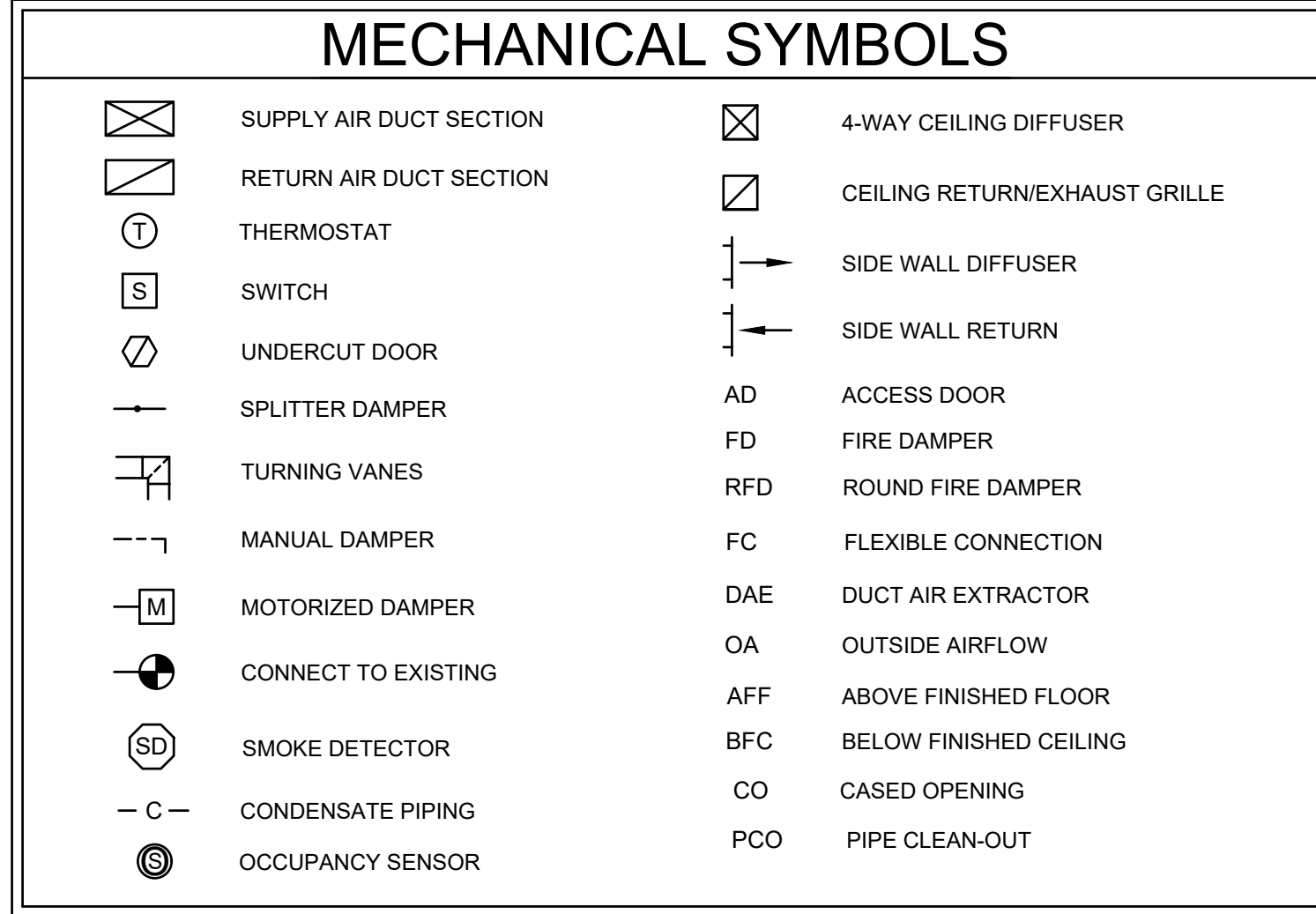
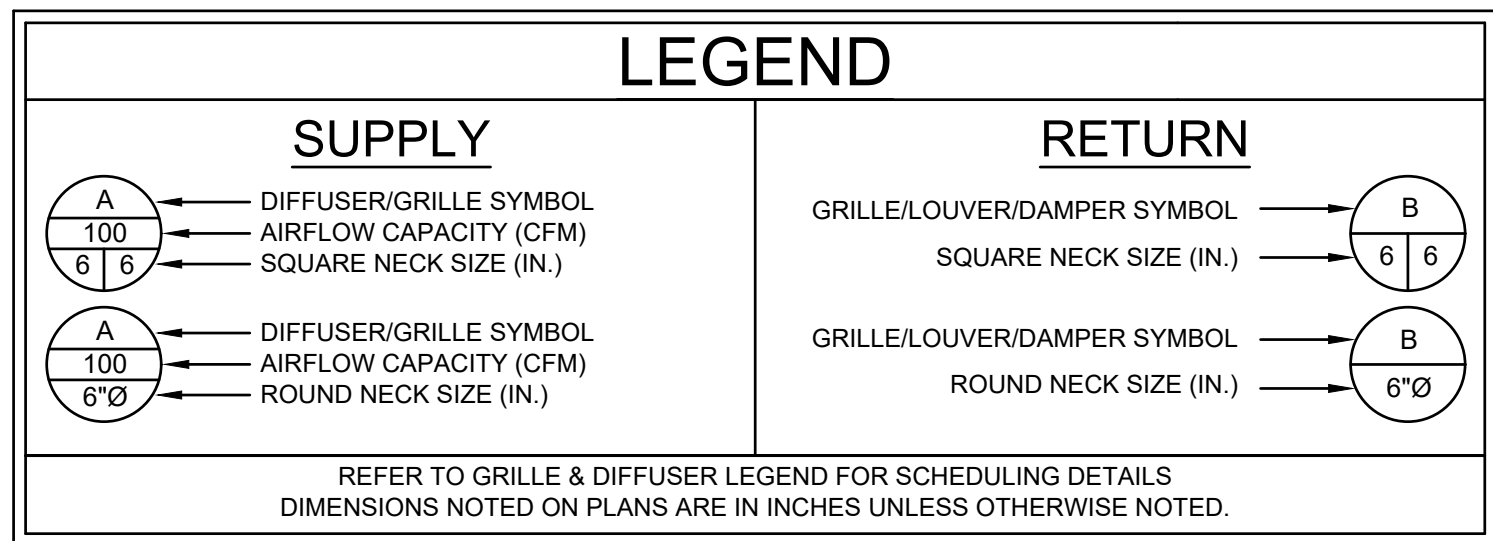
2330 Main Street
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SHEET TITLE

MECHANICAL FLOOR PLANS

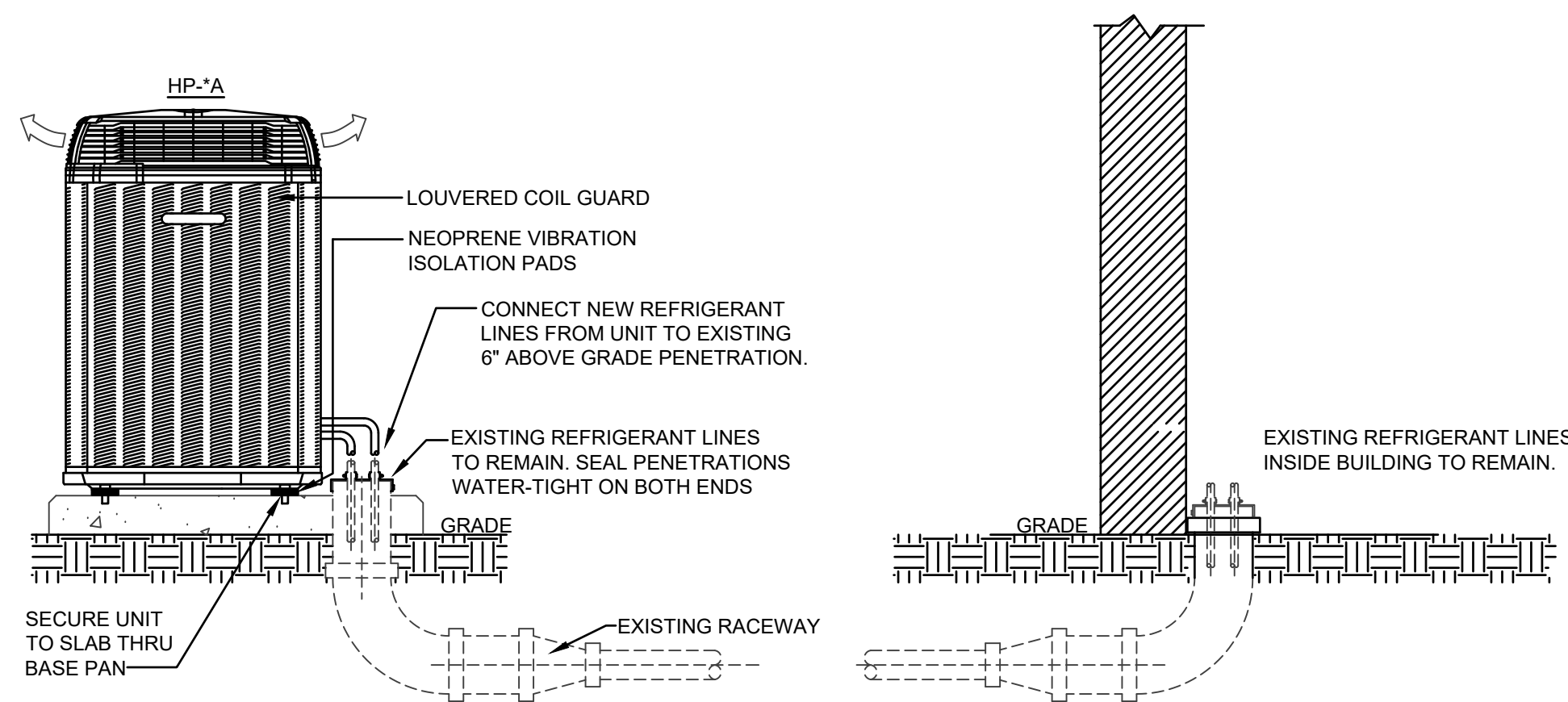
DIVISION



SPLIT SYSTEM HEAT PUMP SCHEDULE					
MANUFACTURER		TRANE			
INDOOR UNIT	SYMBOL	HP-1,2,4,5	HP-3		
	MODEL NUMBER	TEM6B0C60H51	TEM6A0B24H21		
	SUPPLY AIRFLOW	1750	700		
	EXTERNAL S.P. (IN)	0.7	0.7		
	FAN MOTOR HP	0.75	0.33		
	EAT (DB/WB) (°F)	77 / 64.10	77 / 64.1		
	UNIT LAT (DB/WB/DP) (°F)	55.5 / 53.0 / 51.15	54.7 / 52.9 / 51.5		
	OUTSIDE AIR (CFM)	210	70		
	AUX. HTR K.W.	10.8	5.76		
	M.C.A.	51	38		
	M.O.P.	80	40		
	UNIT VOLTAGE	208 / 1/ 60	208/1/60		
WEIGHT (LBS.)	185	126			
OUTDOOR UNIT	SYMBOL	HP-1A,2A,4A,5A	HP-3A		
	MODEL NUMBER	4TWA4060A3	4TWR4024		
	FAN QUANTITY/HP	1 / 0.2	1 / 0.125		
	COMP. QUANTITY	1	1		
	M.C.A.	21	14		
	M.C.B.	35	25		
	UNIT VOLTAGE	208/3/60	208/1/60		
WEIGHT (LBS.)	315	208			
COOLING CAPACITY	AMBIENT (°F)	95	95.0		
	TOTAL (NET BTUH)	54,520	22,173		
	SENS. (NET BTUH)	41,306	16,693		
INTEGRATED HTG. CAP. @ 17°F		34,800	14,600		
SEER/EER RATING @ ARI		14.50 / 12.5	14.6 / 12.0		
HSPF/COP RATING @ 47°F		9.25 / 4	7.8 / 3.9		

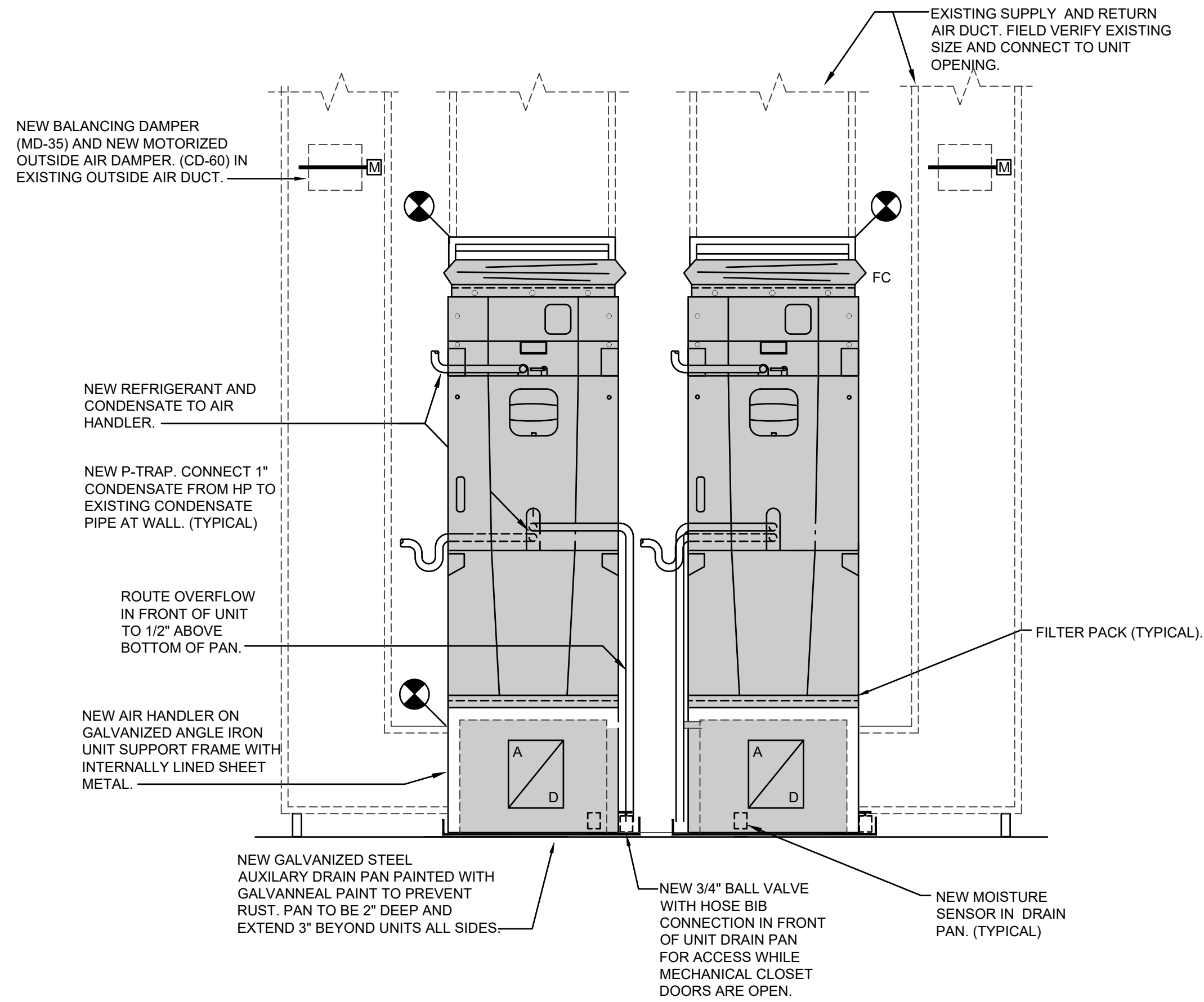
REMARKS:

- PRIOR TO ORDERING, CONTRACTOR SHALL VERIFY VOLTAGE AND ALL ELECTRICAL REQUIREMENTS WITH EXISTING CONDITIONS PRIOR TO SHOP DRAWINGS OR ORDERING EQUIPMENT
- ALL CAPACITIES ARE NET TO INCLUDE INDOOR FAN HEAT.
- UNIT LEAVING AIR CONDITION INCLUDES INDOOR FAN HEAT AND IS THE TEMPERATURE (DB/WB/DP) AT UNIT DISCHARGE.
- PROVIDE WITH ECM INDOOR FAN MOTOR WITH COMFORT R MODE. SET AIRFLOW CONTROL DIP SWITCHES FOR CONSTANT CFM PER SCHEDULE AND ENHANCED MODE FOR DEHUMIDIFICATION.
- EXTERNAL S.P. IS EXTERIOR TO UNIT/ HEATER CABINET.
- PROVIDE SINGLE ENTRY POWER, COIL GUARD, COMPRESSOR SUMP HEATERS, FILTER RACK W/MERV 8 PLATED FILTERS AND 5 YR. COMPRESSOR WARRANTY.
- PROVIDE DIGITAL THERMOSTAT WITH MANUAL/ AUTO/ 7 DAY PROGRAMMABLE SELECTABLE OPTIONS AND DEHUMIDIFICATION FEATURE. SET FOR 7 DAY PROGRAMMABLE MODE AND 50% RH. NEW THERMOSTAT TO BE INSTALLED IN CURRENT LOCATION. VERIFY IN FIELD



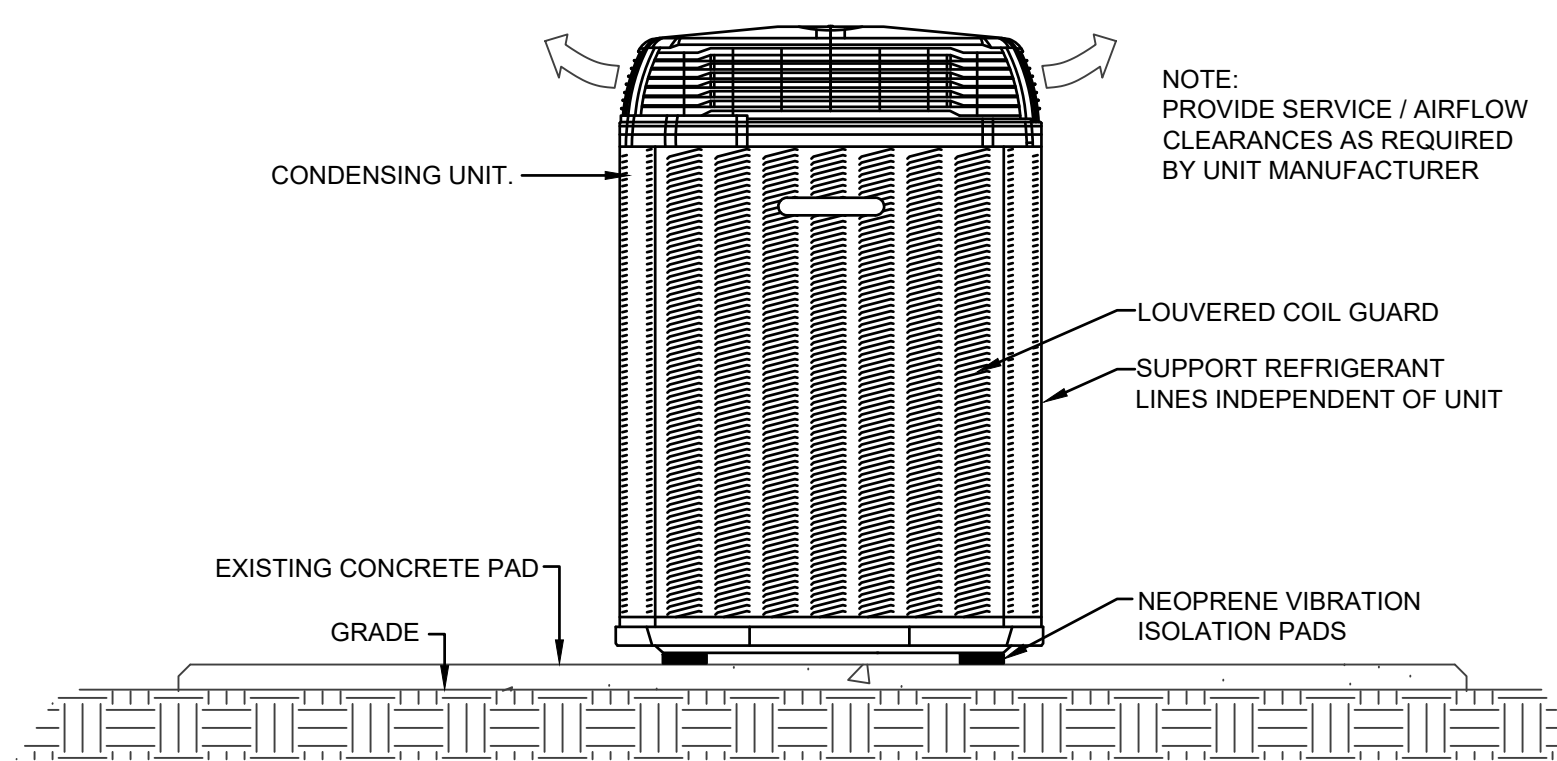
REFRIGERANT RACEWAY PIPING DETAIL

NO SCALE

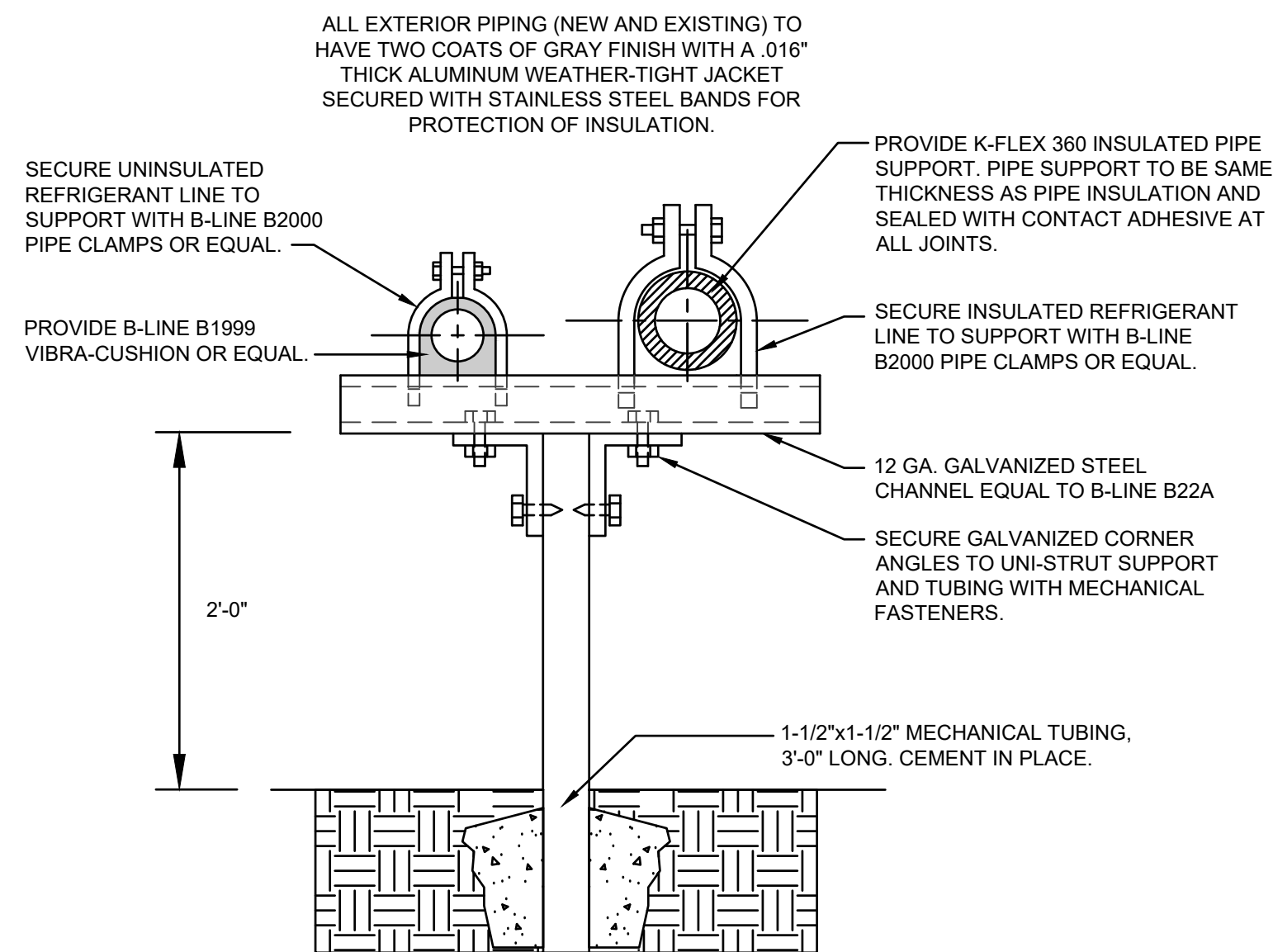


VERTICAL AIR HANDLER DETAIL

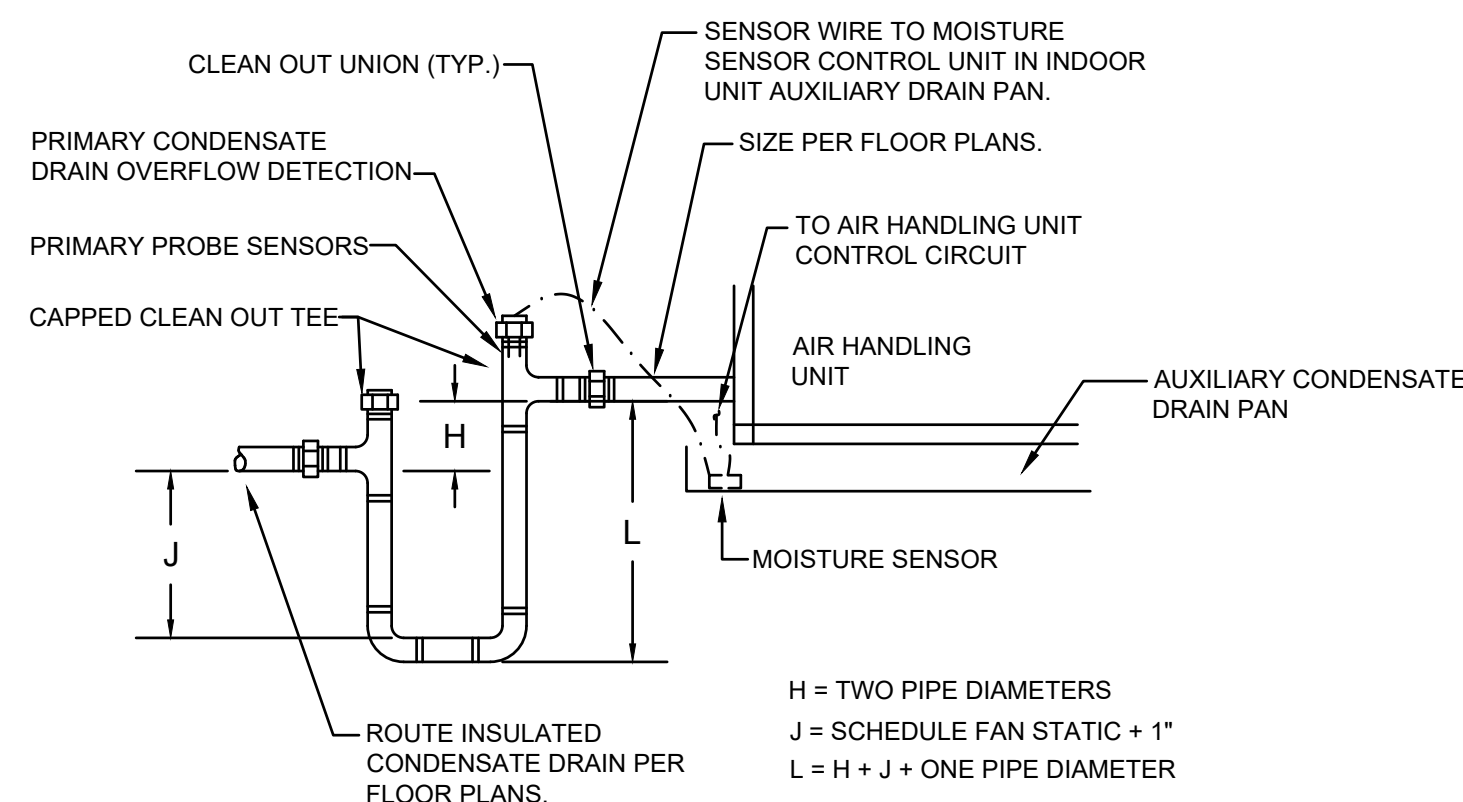
NO SCALE



CONDENSING UNIT SUPPORT DETAIL




REFRIGERANT PIPE SUPPORT DETAIL




CONDENSATE "P-TRAP" DETAIL

[illegible]

PROFESSIONAL SEAL (S)

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 <p>MECA</p> <p>Mechanical Engineering Consulting Associates, Inc.</p>	<p>2330 Main Street Columbia, SC 29201 (803) 765-9421</p>

SHEET TITLE	
MECHANICAL SCHEDULES & DETAILS	
DIVISION	

 <div style="text-align: center;"> <h1>The State of South Carolina</h1> </div>		
<div style="text-align: center;">AGENCY OR INSTITUTION</div> <div style="background-color: #003366; color: white; padding: 10px; display: flex; align-items: center;"> <div style="font-size: 4em; margin-right: 10px;">DMH</div> <div> South Carolina Department of Mental Health </div> </div>		
<div style="text-align: center;">PROJECT TITLE</div> <div style="text-align: center; padding: 20px;"> <h2>LANCASTER MHC HVAC REPLACEMENT</h2> </div>		
PROJECT #: 121257.01	DRAWING NO.	SHEET
DATE: 31 OCTOBER 2022		M201