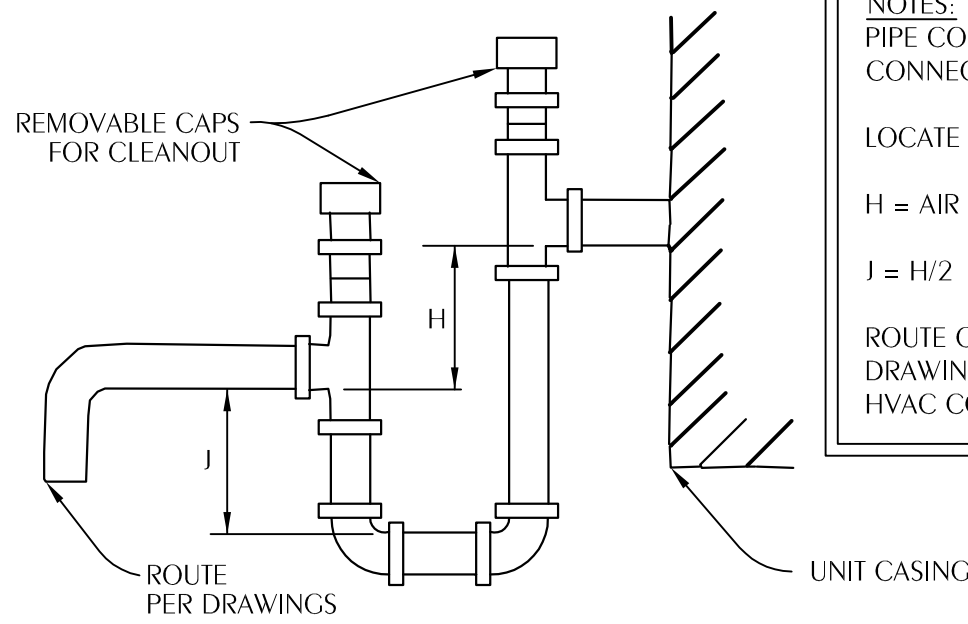


DUCTWORK NOTES

- ALL SUPPLY, RETURN, OUTSIDE, AND EXHAUST AIR DUCTWORK SHALL BE LOW PRESSURE RECTANGULAR OR ROUND GALVANIZED METAL AS INDICATED, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS B, EXTERNALLY INSULATED WITH 2" THICK DUCT WRAP WITH A MINIMUM INSTALLED R-VALUE OF 6.0. EXHAUST AIR DUCTWORK MAY BE UNINSULATED.
- AT OWNERS DISCRETION, 1-1/2" THICK FIBROUS GLASS DUCTBOARD WITH A MINIMUM INSTALLED R-VALUE OF 6.0 MAY BE SUBSTITUTED FOR METAL SUPPLY AND RETURN AIR DUCTWORK ONLY (NOT OUTSIDE AIR DUCTWORK). DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS. MASTICS SHALL BE PLACED OVER THE ENTIRE JOINT BETWEEN ALL MATED SURFACES. MASTICS SHALL NOT BE DILUTED. TWO 45 DEGREE ELBOWS MAY BE SUBSTITUTED FOR CURVED 90 DEGREE ELBOWS INDICATED. MITERED 90 DEGREE ELBOWS SHALL NOT BE USED FOR THESE FITTINGS. TWO 45 DEGREE ELBOWS MAY ALSO BE SUBSTITUTED FOR MITERED 90 DEGREE ELBOWS WITH TURNING VANES. IF 90 DEGREE MITERED ELBOWS ARE USED FOR THESE FITTINGS, THEY SHALL BE PROVIDED WITH TURNING VANES AS INDICATED. ALL METAL ROUND "SNAP-LOCK" DUCT AND SPIN-IN FITTINGS SHALL BE EXTERNALLY INSULATED WITH 2" THICK DUCT WRAP WITH A MINIMUM INSTALLED R-VALUE OF 6.0.
- AVOID ROUTING DUCTWORK OVER LIGHTS WHEREVER POSSIBLE. WHERE DUCTWORK MUST BE ROUTED OVER LIGHTS, MAINTAIN A 2" CLEARANCE BETWEEN DUCT INSULATION AND TOP OF LIGHTS.
- ALL DUCTWORK WALL PENETRATIONS SHALL BE SEALED AIR TIGHT REGARDLESS WALL FIRE RATING STATUS.



NOTES:
PIPE COPPER CONDENSATE LINE AT FULL SIZE OF UNIT CONNECTION, BUT IN NO CASE SMALLER THAN 3/4".

LOCATE TRAPS SO AS TO BE ACCESSIBLE FOR CLEANING.

H = AIR UNIT TOTAL STATIC PRESSURE + 1"

J = H/2

ROUTE CONDENSATE TO POINT OF DISPOSAL SHOWN ON DRAWINGS. CONDENSATE PIPE SHALL BE PROVIDED BY THE HVAC CONTRACTOR.

1

NEGATIVE PRESSURE CONDENSATE DRAIN TRAP

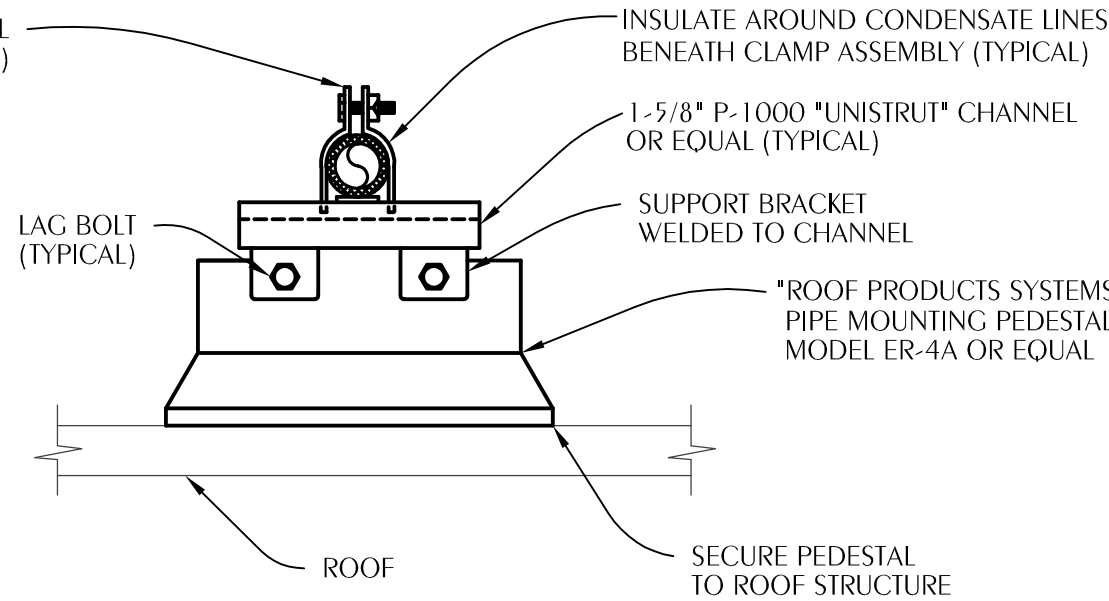
SCALE: NONE

SECURE CONDENSATE PIPING TO CHANNEL WITH "UNISTRUT" PIPE CLAMP OR EQUAL (TYPICAL)

NOTE:
PREP AND PAINT CHANNEL AFTER WELDING OR CUTTING AND BEFORE INSTALLATION

PROVIDE SMOOTH ALUMINUM JACKET OVER ALL EXPOSED OUTDOOR INSULATION.

PROVIDE SUPPORT AT 3'-0" ON CENTER OR LESS AND WITHIN 6" OF ANY ELBOW



2

TYPICAL ROOFTOP CONDENSATE PIPE SUPPORT

SCALE: NONE

GENERAL NOTES

- THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES ALL REQUIRED OPENINGS IN WALLS, FOUNDATIONS, FLOORS, AND ROOFS.
- ALL OUTSIDE AIR INLETS SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ANY EXHAUST AIR OUTLET OR PLUMBING VENT STACK. COORDINATE WITH THE PLUMBING AND GENERAL CONTRACTORS IN THE FIELD.
- THE MECHANICAL CONTRACTOR SHALL VERIFY ALL MECHANICAL EQUIPMENT LOCATIONS AND BE RESPONSIBLE FOR ALL RELATED CLEARANCES IN THE FIELD. PROVIDE ADEQUATE MAINTENANCE CLEARANCE AROUND EACH PIECE OF EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS AND OTHER ELECTRICAL EQUIPMENT PER THE NATIONAL ELECTRICAL CODE REQUIREMENTS. COORDINATE WITH THE ELECTRICAL AND GENERAL CONTRACTORS IN THE FIELD. COORDINATE THE EXACT LOCATION OF ALL OUTDOOR UNITS IN THE FIELD WITH THE OWNER AND ARCHITECT.
- PROVIDE WATER PROOF SEALING OF ALL PIPE AND DUCT PENETRATIONS OF EXTERIOR WALLS, FLOORS, AND/OR ROOF.
- RTUs 1, 3, 7, AND 9 SHALL EACH BE PROVIDED WITH A DUCT-MOUNTED SMOKE DETECTOR IN THE SUPPLY AIR DUCT AT THE FAN DISCHARGE. SMOKE DETECTOR SHALL BE SUPPLIED, INSTALLED BY THE MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR. SMOKE DETECTOR SHALL HAVE A REMOTE OR VISIBLE LIGHT TO INDICATE ITS OPERATING STATUS. SMOKE DETECTOR SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM WHEN ONE IS AVAILABLE. WHEN A FIRE ALARM SYSTEM IS NOT AVAILABLE, A REMOTE ENUNCIATOR SHALL BE PROVIDED FOR THE FIRE STAT AND SMOKE DETECTOR WITH KEY OPERATED RESET SWITCH. REMOTE ENUNCIATOR PANEL SHALL BE LOCATED IN AN APPROVED LOCATION.

SEQUENCE OF OPERATION

COOLING

ON A CALL FOR COOLING FROM THE SPACE THERMOSTAT, THE OA AUTOMATIC CONTROL DAMPER SHALL OPEN TO ITS BALANCED POSITION AND THE INDOOR FAN SHALL ENERGIZE. THE REFRIGERATION CIRCUIT SHALL THEN ENERGIZE AS DICTATED BY THE HEAT PUMP UNIT'S INTERNAL CONTROLS. THE REFRIGERATION CIRCUIT AND THE INDOOR FAN SHALL DE-ENERGIZE AND THE AUTOMATIC OA DAMPER SHALL CLOSE WHEN THE SPACE TEMPERATURE REQUIREMENT HAS BEEN MET.

HEATING

A CALL FOR HEATING FROM THE SPACE THERMOSTAT SHALL OPEN THE OA AUTOMATIC CONTROL DAMPER AND ENERGIZE THE INDOOR FAN AND REFRIGERATION CIRCUIT IN REVERSE MODE AS DICTATED BY THE HEAT PUMP UNIT'S INTERNAL CONTROLS. THE REFRIGERATION CIRCUIT SHALL BE DE-ENERGIZED AND THE OA DAMPER SHALL CLOSE WHEN THE SPACE TEMPERATURE REQUIREMENT HAS BEEN MET.

IF THE SPACE HEATING REQUIREMENT CAN NOT BE MET USING THE REVERSE CYCLE ALONE, THE ELECTRIC HEATER WILL BE ENERGIZED AND CONTROLLED BY THE HEAT PUMP UNIT'S INTERNAL CONTROLS TO PROVIDE SUPPLEMENTAL HEAT. THE ELECTRIC HEATER, INDOOR FAN, AND THE REFRIGERATION CIRCUITS SHALL BE DE-ENERGIZED AND THE AUTOMATIC OA DAMPER SHALL CLOSE WHEN THE SPACE TEMPERATURE REQUIREMENT HAS BEEN MET.

ECONOMIZER

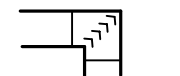
ECONOMIZERS ON UNITS SO EQUIPPED SHALL OPERATE ACCORDING TO THE UNIT MANUFACTURER'S STANDARD CONTROL SEQUENCE.

UNOCCUPIED MODE

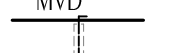
WHEN THE SPACE IS UNOCCUPIED, THE UNITS SHALL OPERATE SAME AS DESCRIBED ABOVE. THE OA AUTOMATIC CONTROL DAMPER SHALL REMAIN CLOSED AND ALL EXHAUST FANS SHALL REMAIN DE-ENERGIZED.

HVAC LEGEND

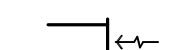
10"x8"



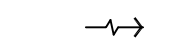
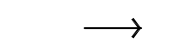
10"x6"



12"x10" SWR
300 CFM



30"x30" RAG
1,750 CFM



RTU-#

RECTANGULAR DUCT WORK. SIZES SHOWN ARE INSIDE CLEAR. SEE 'DUCTWORK NOTES' ON THIS SHEET.

SQUARE THROAT ELBOW IN RECTANGULAR DUCTWORK WITH DOUBLE WALL TURNING VANES.

LONG RADIUS (RADIUS IS MINIMUM 1-1/2 TIMES THE TURNING DIMENSION) ELBOW IN RECTANGULAR DUCT. PROVIDE FOR ALL DUCT 12" OR LESS IN THE TURNING DIMENSION.

RECTANGULAR BRANCH DUCT TAKEOFF FROM RECTANGULAR MAIN DUCT. TAKEOFF SHALL BE MADE WITH A 45 DEGREE COLLAR.

MANUAL VOLUME DAMPER IN RECTANGULAR DUCT. PROVIDE OPPOSED BLADE TYPE WITH LOCKING QUADRANT REGULATOR.

SIDEWALL REGISTER. RECTANGULAR NECK SIZE AND AIR FLOW AS INDICATED. DIRECTION OF THROW AS INDICATED BY ARROW. PROVIDE WITH AN OPPOSED BLADE VOLUME DAMPER OPERABLE FROM THE FACE OF THE REGISTER. TITUS MODEL 300RS OR APPROVED EQUIVALENT.

RETURN AIR GRILLE. LOUVERED FACE WITH FIXED LOUVERS PARALLEL TO THE LONG DIMENSION SPACED AT 3/4" AND SET AT A 35 DEGREE DEFLECTION. RECTANGULAR NECK SIZE AND AIR FLOW AS INDICATED. TITUS MODEL 350R OR APPROVED EQUIVALENT.

RECTANGULAR SUPPLY OR OUTSIDE AIR DUCTWORK IN SECTION.

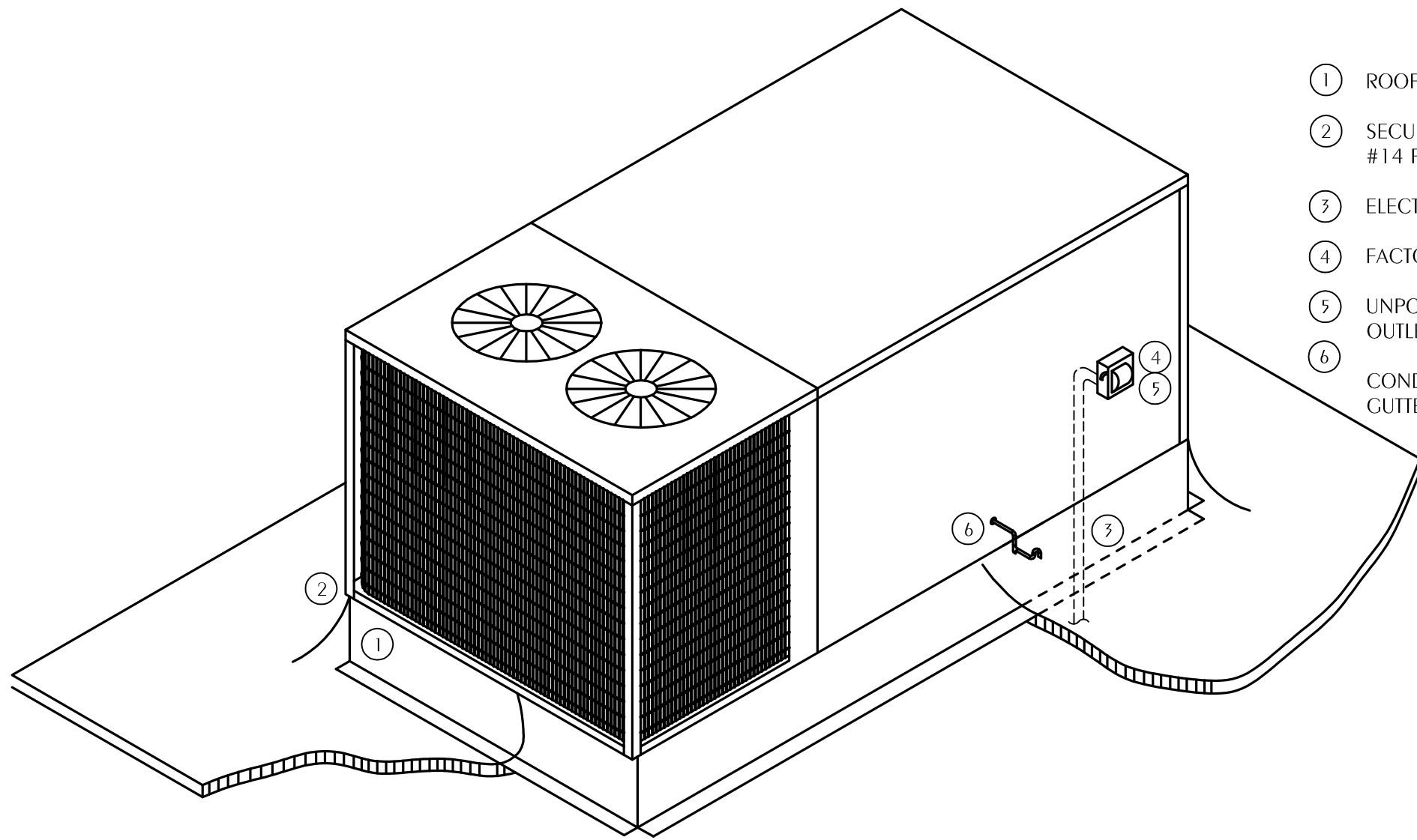
RECTANGULAR RETURN OR EXHAUST AIR DUCTWORK IN SECTION.

SUPPLY AND OUTSIDE AIR FLOW.

RETURN AND EXHAUST AIR FLOW.

PROGRAMMABLE THERMOSTAT. NUMBER REFERS TO THE RTU CONTROLLED.

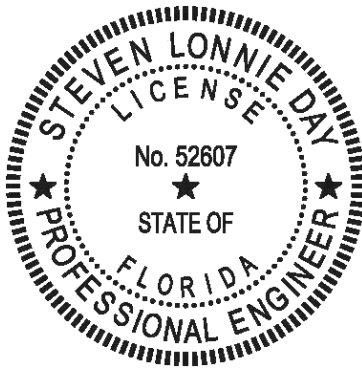
ROOFTOP UNIT. PACKAGED HEAT PUMP, PACKAGED ROOFTOP HEAT PUMP UNIT. SEE TYPICAL RTU INSTALLATION DETAIL ON THIS SHEET AND SCHEDULE ON SHEET M100.



3

TYPICAL RTU INSTALLATION DETAIL

SCALE: NONE



Steven L. Day, State of Florida, Professional Engineer, License No. 52807

This item has been digitally signed and sealed by Steven L. Day on the date indicated here.

07/02/2026

Signature must be verified on any electronic copies.



Florida CA Number: 27825
Steven L. Day, PE
Florida License Number: 52807
850.528.3447 / 334.209.0212
Project Number: 2026-023

SPEC 2 AT WEST BAY TOWN CENTER

8411 WEST BAY PKWY
PANAMA CITY BEACH, FL 32413

REVISION

#	DESCRIPTION	DATE

Designed By:

SLD

Drawn BY:

SLD

HVAC NOTES AND DETAILS

M001

07/02/2026

Design - Build Contractor

230 West 5th Street
Panama City, FL 32401
(850) 215-5540



Design - Build Contractor

230 West 5th Street
Panama City, FL 32401
(850) 215-5540

SPEC 2 AT WEST BAY TOWN
CENTER

8411 WEST BAY PKWY
PANAMA CITY BEACH, FL 32413

REVISION

#	DESCRIPTION	DATE

Designed By:

SLD

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SLD

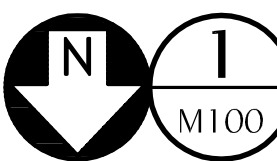
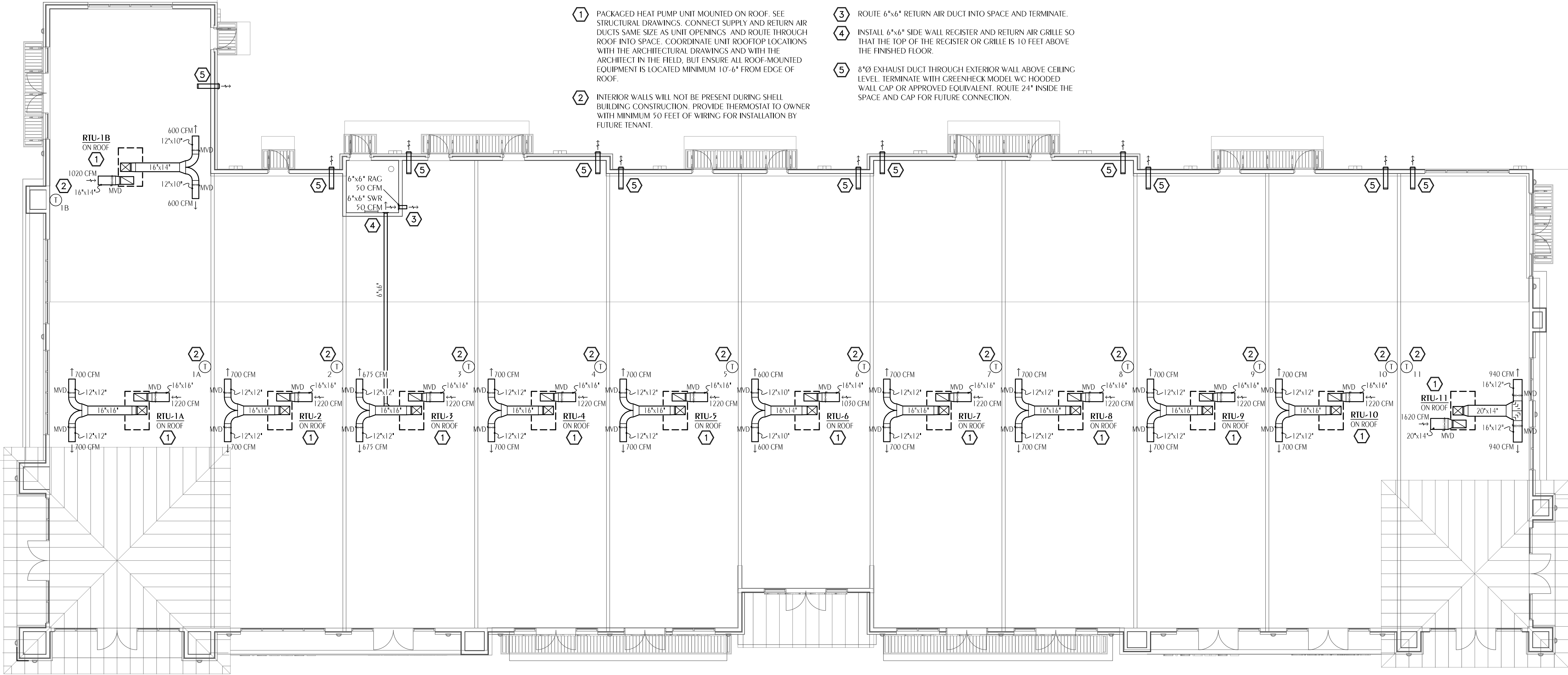
HVAC PLAN

M100

07/02/2026

SHEET NOTES

- PACKAGED HEAT PUMP UNIT MOUNTED ON ROOF. SEE STRUCTURAL DRAWINGS. CONNECT SUPPLY AND RETURN AIR DUCTS SAME SIZE AS UNIT OPENINGS. AND ROUTE THROUGH ROOF INTO SPACE. COORDINATE UNIT ROOFTOP LOCATIONS WITH THE ARCHITECTURAL DRAWINGS AND WITH THE ARCHITECT IN THE FIELD, BUT ENSURE ALL ROOF-MOUNTED EQUIPMENT IS LOCATED MINIMUM 10'-6" FROM EDGE OF ROOF.
- INTERIOR WALLS WILL NOT BE PRESENT DURING SHELL BUILDING CONSTRUCTION. PROVIDE THERMOSTAT TO OWNER WITH MINIMUM 50 FEET OF WIRING FOR INSTALLATION BY FUTURE TENANT.
- ROUTE 6"x6" RETURN AIR DUCT INTO SPACE AND TERMINATE.
- INSTALL 6"x6" SIDE WALL REGISTER AND RETURN AIR GRILLE SO THAT THE TOP OF THE REGISTER OR GRILLE IS 10 FEET ABOVE THE FINISHED FLOOR.
- 8"Ø EXHAUST DUCT THROUGH EXTERIOR WALL ABOVE CEILING LEVEL. TERMINATE WITH GREENHECK MODEL WC HOODED WALL CAP OR APPROVED EQUIVALENT. ROUTE 24" INSIDE THE SPACE AND CAP FOR FUTURE CONNECTION.



HVAC FLOOR PLAN

SCALE: 1/8" = 1'-0"

PACKAGED HEAT PUMP UNIT SCHEDULE

PACKAGED HEAT PUMP UNIT SCHEDULE																				
UNIT RTU	BASIS OF DESIGN	MODEL	SA (CFM)	OA (CFM)	ESP (IN. H2O)	FAN (HP)	COOLING			HEATING				SUPPL. HEAT	RTU ELECTRICAL			NOTES		
							MAT* (DB/WB)	OAT* (DB/WB)	TOTAL (BTU/H)	SENSIBLE (BTU/H)	SEER2	MAT* (DB)	OAT* (DB)		TOTAL (BTU/H)	HSPF2	VOLTS/PHASE		MCA	MOP
1A	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
1B	TRANE	WSK036A3SOB	1200	180	0.5	3/4	77.2/64.1	95.0/77.0	36970	28110	13.4	63.3	25	30840	6.7	4.5 kW	208/3	41.0	45.0	1,2,3,4,5,6,7,8,9
2	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
3	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
4	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
5	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
6	TRANE	WSK036A3SOB	1200	170	0.5	3/4	77.0/64.0	95.0/77.0	36970	28110	13.4	63.6	25	30840	6.7	4.5 kW	208/3	41.0	45.0	1,2,3,4,5,6,7,8,9
7	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
8	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
9	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
10	TRANE	WSK048A3SOB	1400	180	0.5	1	76.7/62.3	95.0/77.0	48640	35240	13.4	64.2	25	42800	6.7	4.5 kW	208/3	45.0	50.0	1,2,3,4,5,6,7,8,9
11	TRANE	WSK060A3SOE	1880	260	0.5	1	76.9/63.9	95.0/77.0	58160	44610	13.4	63.8	25	50760	6.7	9.0 kW	208/3	66.0	70.0	1,2,3,4,5,6,7,8,9,10

- PROVIDE 2" MERV 8 FILTERS.
- EFFICIENCIES IN ACCORDANCE WITH ARI STANDARD 210/240.
- ESP DOES NOT INCLUDE FILTER, CASING, ETC.
- ELECTRIC HEATER KW AS RATED AT 208V.
- PROVIDE CONTROL KIT TO INCLUDE BLOWER CONTACTOR OR STARTER, TRANSFORMER, ELECTRIC HEATER INTERLOCKS, AND AUTOMATIC OUTSIDE AIR DAMPER. ELECTRICAL SERVICE SHALL BE A SINGLE POINT OF CONNECTION.
- PROVIDE THERMAL EXPANSION VALVES.
- TRAP CONDENSATE AT UNIT AND ROUTE TO NEAREST RAIN GUTTER.
- COOLING CAPACITY IS NET AND DOES NOT INCLUDE FAN HEAT.
- PROVIDE PROGRAMMABLE THERMOSTAT.
- PROVIDE UV-C GERMICIDAL LIGHT IN BLOWER/EVAPORATOR COIL SECTION TO AID IN REDUCING VIRUSES AND BACTERIA. PROVIDE WITH SAFETY INTERLOCK TO TERMINATE POWER WHEN ACCESS PANELS ARE REMOVED.
- PROVIDE WITH FACTORY-INSTALLED ECONOMIZER OPTION.

AIR PURIFICATION EQUIPMENT SCHEDULE

ZONE	SUPPLY CFM	OA CFM	PRESS. IN. W.C.	BASIS OF DESIGN	MODEL	QUANTITY	ELECTRICAL		NOTES
							VOLTS/PHASE	WATTS	
RTU-1A	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-1B	1200	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-2	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-3	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-4	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-5	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-6	1200	170	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-7	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-8	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-9	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-10	1400	180	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4
RTU-11	1880	260	0.05	GPS	GPS-IMOD	1	24/1	12	1,2,3,4

- PROVIDE BASIS OF DESIGN OR ENGINEER APPROVED EQUIVALENT.
- BI-POLAR IONIZATION SYSTEMS REQUIRING PERISHABLE GLASS TUBES ARE NOT ACCEPTABLE.
- MANUFACTURER MUST PASS UL-867-2007 OZONE CHAMBER TESTING BY EITHER UL OR ETL.
- ELECTRICAL INPUT SHALL BE FROM FAN CONTROL TERMINALS.



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Project Number: 2026-023

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