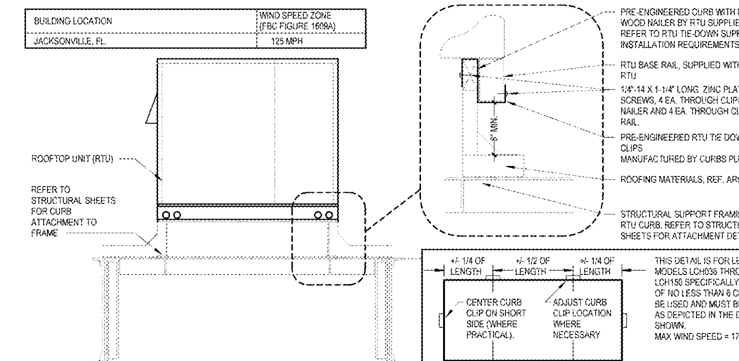
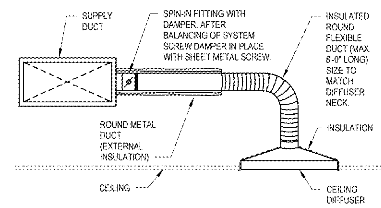
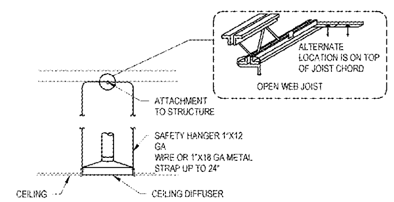


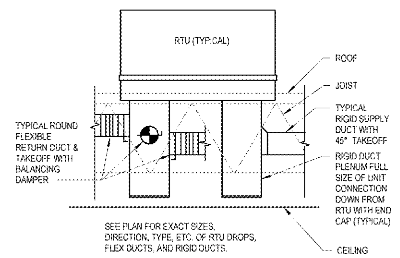
1 M3 RTU TIE-DOWN DETAIL
NOT TO SCALE



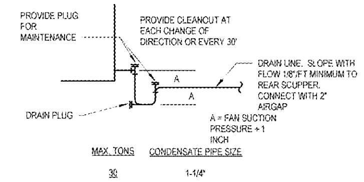
2 M3 CEILING DIFFUSER RUNOUT DETAIL
NOT TO SCALE



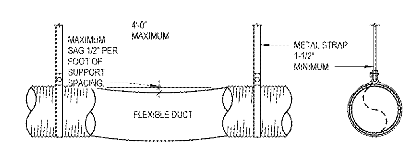
3 M3 CEILING MOUNTED AIR DIFFUSER SUPPORT DETAIL
NOT TO SCALE



4 M3 TYPICAL DUCT PLENUM DETAIL
NOT TO SCALE

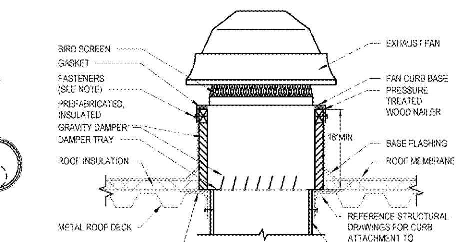


5 M3 CONDENSATE DRAIN TRAP DETAIL
NOT TO SCALE



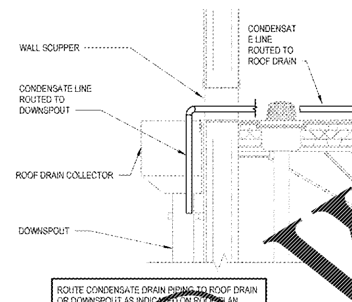
NOTES:
1. DUCT SHOULD EXTEND STRAIGHT FOR SEVERAL INCHES FROM A CONNECTION BEFORE BENDING.
2. SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE.

6 M3 FLEX DUCT SUPPORT DETAIL
NOT TO SCALE



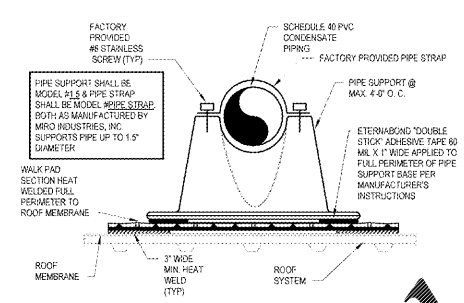
FASTENERS NOTE:
PROVIDE MIN. (3) 5/16"x2" CADMIUM PLATED FASTENERS PER SIDE. ONE MAX. 4" FROM EACH CORNER AND ONE IN CENTER. MAX. WIND SPEED = 170 MPH.

7 M3 ROOF FAN MOUNTING DETAIL
NOT TO SCALE



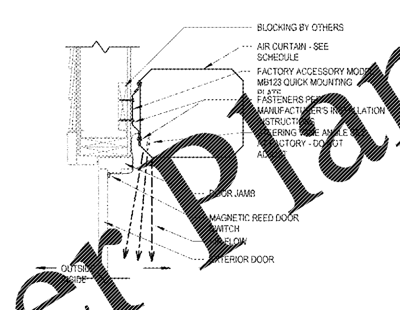
ROUTE CONDENSATE DRAIN PIPING TO ROOF DRAIN OR DOWNSPOUT AS INDICATED ON ROOF PLAN.

8 M3 CONDENSATION TERMINATION DETAIL
NOT TO SCALE

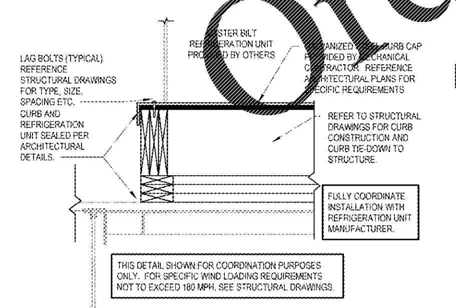


PIPE SUPPORT SHALL BE MODEL #1.5 & PIPE STRAP SHALL BE MODEL #PIPE STRAP, BOTH AS MANUFACTURED BY MIRO INDUSTRIES, INC. SUPPORTS PIPE UP TO 1.5" DIAMETER

9 M3 CONDENSATE PIPE ROOF SUPPORT DETAIL
NOT TO SCALE



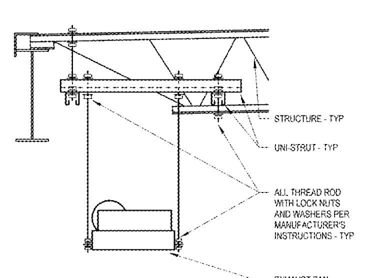
10 M3 AIR CURTAIN INSTALLATION DETAIL
NOT TO SCALE



FULLY COORDINATE INSTALLATION WITH REFRIGERATION UNIT MANUFACTURER.

THIS DETAIL SHOWN FOR COORDINATION PURPOSES ONLY. FOR SPECIFIC WIND LOADING REQUIREMENTS NOT TO EXCEED 180 MPH, SEE STRUCTURAL DRAWINGS.

11 M3 MASTER BILT MOUNT DETAIL
NOT TO SCALE



12 M3 IN-LINE FAN MOUNTING DETAIL
NOT TO SCALE

RTU-1, 2, & 3 SEQUENCE OF OPERATION

SUPPLY AIR BLOWER SPEED
UNIT HAS FOLLOWING SUPPLY AIR BLOWER SPEED SETTINGS THAT PERTAIN TO THIS INSTALLATION:
- [illegible] - LOW
- COOLING SPEED - HIGH
- HEATING SPEED

COOLING MODE
- Y1 DEMAND: COMPRESSOR 1 OPERATES AND SUPPLY AIR BLOWER OPERATES AT LOW COOLING SPEED.
- Y2 DEMAND: ALL COMPRESSORS OPERATE AND SUPPLY AIR BLOWER OPERATES AT HIGH COOLING SPEED.

DEHUMIDIFICATION MODE
- IF THE UNIT RECEIVES A CALL FOR DEHUMIDIFICATION, ECONOMIZER FREE COOLING IS LOCKED OUT (ON UNITS EQUIPPED WITH ECONOMIZER).
- CALL FOR DEHUMIDIFICATION, NO Y1, Y2 DEMAND: 1ST STAGE COMPRESSOR OPERATES, SUPPLY AIR BLOWER OPERATES AT HIGH COOLING SPEED, AND THE REHEAT VALVE IS ENERGIZED.
- Y1 DEMAND WITH A CALL FOR DEHUMIDIFICATION: ALL COMPRESSORS OPERATE. SUPPLY AIR BLOWER OPERATES AT HIGH COOLING SPEED AND THE REHEAT VALVE IS ENERGIZED.
- Y2 DEMAND WITH A CALL FOR DEHUMIDIFICATION: ALL COMPRESSORS OPERATE, SUPPLY AIR BLOWER OPERATES AT HIGH COOLING SPEED, AND THE REHEAT VALVE IS DE-ENERGIZED.

HEATING MODE (ELECTRIC HEAT)
- W1 DEMAND: 1ST STAGE ELECTRIC HEAT IS ENERGIZED AND THE SUPPLY AIR BLOWER OPERATES AT HEATING SPEED.
- W2 DEMAND: 2ND STAGE ELECTRIC HEAT IS ENERGIZED AND THE SUPPLY AIR BLOWER OPERATES AT HEATING SPEED.

MODULATING OUTDOOR AIR DAMPER
- THE MINIMUM DAMPER POSITION FOR "OCCUPIED LOW BLOWER" AND "OCCUPIED HIGH BLOWER" IS ADJUSTED DURING UNIT SETUP TO PROVIDE MINIMUM FRESH AIR REQUIREMENTS PER RTU SCHEDULE AT ALL SUPPLY AIR BLOWER SPEEDS.
- WHEN SUPPLY AIR BLOWER IS OFF, THE OUTDOOR AIR DAMPER IS CLOSED.
- WHEN UNIT IS IN OCCUPIED MODE AND SUPPLY AIR BLOWER IS OPERATING BELOW THE "MIDPOINT" BLOWER SPEED, THE OUTDOOR AIR DAMPER IS AT MINIMUM "LOW BLOWER" POSITION.
- WHEN UNIT IS IN OCCUPIED MODE AND SUPPLY AIR BLOWER IS OPERATING AT A SPEED EQUAL TO OR ABOVE THE "MIDPOINT" BLOWER SPEED, THE OUTDOOR AIR DAMPER IS AT MINIMUM "HIGH BLOWER" POSITION.
- NOTE - THE "MIDPOINT" BLOWER SPEED IS AN AVERAGE OF THE MINIMUM AND MAXIMUM BLOWER SPEED (MINIMUM SPEED + MAXIMUM SPEED DIVIDED BY 2).

RTU-1, 2, & 3 TEST AND BALANCE NOTES

1. TEST AND BALANCE CONTRACTOR TO OBTAIN INITIAL BALANCE OF HIGH COOLING CFM FOR RTU USING FAN SHEAVE ADJUSTMENT TO WITHIN +/- 5% SCHEDULED HIGH COOLING CFM. PRODIGY CONTROLLER MAY BE USED FOR FINAL 5% TO OBTAIN HIGH COOLING CFM.
2. SET MINIMUM OUTSIDE AIR DAMPER POSITION FOR HIGH COOLING AND VERIFY OUTSIDE AIR CFM PER RTU SCHEDULE.
3. USING PRODIGY CONTROLLER, SET LOW COOLING CFM AND VERIFY.
4. SET MINIMUM OUTSIDE AIR DAMPER POSITION FOR LOW COOLING AND VERIFY OUTSIDE AIR CFM PER RTU SCHEDULE.
5. USING PRODIGY CONTROLLER, VERIFY HEATING CFM EQUALS HIGH COOLING CFM.
6. ALL PRODIGY CONTROLLER SETTINGS OTHER THAN THOSE MENTIONED ABOVE SHALL REMAIN AS THEIR DEFAULT VALUE AS SET FROM THE FACTORY.
7. VERIFY POSITIVE BUILDING PRESSURE THROUGH ALL FAN STAGES.

HVAC GENERAL NOTES

1. ALL MECHANICAL WORK SHALL BE IN STRICT ACCORDANCE WITH THE JURISDICTION'S LATEST ACCEPTED VERSION OF THE FLORIDA BUILDING CODE - MECHANICAL, SMACNA, UL, LOCAL CODES, MANUFACTURER'S RECOMMENDATIONS, AND ALL AUTHORITIES HAVING JURISDICTION.
2. CONTRACTOR TO VISIT SITE AND VERIFY ALL CLEARANCES BEFORE FABRICATION OF DUCTWORK AND PROVIDE ADDITIONAL OFFSET AND/OR CHANGES IN DUCT SIZES TO MEET FIELD CONDITIONS AND COORDINATE WITH ELECTRICAL, PLUMBING AND FIRE PROTECTION SUBCONTRACTOR BEFORE ANY CONSTRUCTION WORK.
3. SUPPLY AIR, RETURN AIR, OUTSIDE AIR AND EXHAUST AIR DUCTWORK SHALL BE SHEET METAL CONSTRUCTION. DUCT SHALL BE INSTALLED SECURELY SUPPORTED, HUNG OR SUSPENDED FROM THE STRUCTURE. JOINTS SHALL BE SEALED WITH 3" WIDE GLASS FABRIC TAPE OR FOSTER 30/30 MASTIC OR EQUAL. DUCT CONSTRUCTION, SEALING AND INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE JURISDICTION'S LATEST ACCEPTED VERSION OF THE FLORIDA BUILDING CODE - MECHANICAL AND THE JURISDICTION'S LATEST CODE ACCEPTED SMACNA STANDARDS.
4. OUTSIDE AIR INTAKES (ROOFTOP UNITS, GRAVITY ROOF VENTS, LOUVERS) SHALL MAINTAIN A MINIMUM OF 10'-0" FROM ANY EXHAUST OR SANITARY VENT.
5. PROVIDE ALL MECHANICAL EQUIPMENT WITH MANUFACTURER'S RECOMMENDED SERVICE AREA CLEARANCES.
6. ALL ROOFTOP UNITS SHALL BE CONSTRUCTED AND INSTALLED TO WITHSTAND LOCAL WIND LOAD DESIGN.
7. SMOKE DETECTORS SHALL BE FURNISHED AND INSTALLED IN RTU BY THE UNIT MANUFACTURER, WIRED TO THE KEY SWITCH BY THE MECHANICAL CONTRACTOR, AND WIRED TO THE FIRE ALARM BY THE FIRE ALARM CONTRACTOR. SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72, NATIONAL FIRE ALARM CODE; NFPA 90A, STANDARD FOR INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS, THE JURISDICTION'S LATEST ACCEPTED VERSION OF THE FLORIDA BUILDING CODE - MECHANICAL, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE A VISIBLE/AUDIBLE NOTIFICATION PANEL. MAKE: SYSTEM SENSOR SSK45I OR EQUAL, COMPATIBLE WITH BUILDING FIRE ALARM SYSTEM.
8. PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.
9. HVAC CONTRACTOR IS RESPONSIBLE FOR ANY ADDED ELECTRICAL COSTS WHICH MAY RESULT FROM SUBSTITUTED EQUIPMENT.
10. PROVIDE EXTERNAL DUCT INSULATION FOR SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK. DUCTWORK INSULATION SHALL BE FOIL FACED FIBERGLASS DUCT WRAP WITH A MINIMUM THERMAL RESISTANCE (R) OF 6.0. INSULATION SHALL HAVE VAPOR BARRIER. INSTALL PER MFR. REQUIREMENTS.
11. COORDINATE CEILING MOUNTED DIFFUSERS, REGISTERS, AND GRILLES AND OTHER CEILING MOUNTED EQUIPMENT WITH LIGHTING FIXTURES.
12. TURNING VANES SHALL BE PROVIDED IN ALL SUPPLY DUCT RECTANGULAR ELBOWS WITH ANGLES BETWEEN 15 DEGREES AND LESS THAN 90 DEGREES PER THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS MANUAL.
13. DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
14. DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER ITEMS OF THE AIR HANDLING SYSTEM SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM.
15. UNLESS OTHERWISE NOTED, INSTALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO BOTTOM OF STRUCTURE. COORDINATE DUCT ELEVATION WITH STORM LEADERS, WATER PIPING, SANITARY DRAINS AND MAJOR ELECTRICAL CONDUITS.
16. CONTRACTOR TO PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT & MATERIALS. INSTALLATION OF EQUIPMENT SHALL COMPLY WITH MANUFACTURER'S SPECIFICATIONS AND CLEARANCE REQUIREMENTS FOR SERVICING OF EQUIPMENT.
17. VERIFY VOLTAGE WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.
18. PROVIDE A TRAP IN ALL CONDENSATE PIPING SERVING AIR HANDLING UNITS AND ROOFTOP UNITS. SLOPE CONDENSATE LINE 1/8" PER FOOT. CONDENSATE LINES SHALL BE PVC SCH. 40. ALL CONDENSATE DRAIN PIPING SHALL BE PROPERLY SUPPORTED. SEE "CONDENSATE DRAIN TRAP" DETAIL.
19. GUARANTEE, FOR ONE YEAR AFTER DATE OF ACCEPTANCE BY THE OWNER, ALL EQUIPMENT, MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECT.
20. DO NOT CUT STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
21. FLEXIBLE AND RIGID ROUND DUCT TAKE-OFFS FOR DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 8'-0". FLEXIBLE DUCT SHALL BE THERMAFLEX TYPE M-KC OR EQUAL. FLEXIBLE DUCT SHALL [illegible] FIBERGLASS, R-6, CLASS 1, UL181 LISTED AND COMPLY WITH NFPA 90A AND NFPA 90B.
22. ALL WALL MOUNTED TEMPERATURE, HUMIDITY, AND CO2 SENSORS SHALL BE INSTALLED AT AN ELEVATION OF 54" ABOVE FINISHED FLOOR TO THE TOP UNLESS OTHERWISE NOTED ON DRAWINGS. LOCATION OF THE WALL MOUNTED SENSORS SHALL BE COORDINATED WITH OTHER TRADES FOR A NEAT APPEARANCE. FINAL LOCATION OF SENSORS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER OR THEIR REPRESENTATIVE IN THE FIELD.
23. PROVIDE FLEXIBLE NEOPRENE DUCT CONNECTORS ON THE DISCHARGE AND ENTERING SIDES OF PACKAGED ROOFTOP UNITS, FANS, AND OTHER VIBRATING EQUIPMENT TO WHICH DUCTWORK IS ATTACHED.
24. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TRADES' INSTALLATION SCHEDULES. COORDINATE WORK SCHEDULE WITH GENERAL CONTRACTOR.
25. REFER TO ARCHITECTURAL DRAWINGS FOR ALL RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. CHASE AND WALL PENETRATIONS INTENDED FOR DUCTWORK AND PIPING SHALL BE VERIFIED WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.
26. MECHANICAL EQUIPMENT, DUCTWORK AND PIPING IS SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. FIELD VERIFY FINAL LOCATIONS TO INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
27. WHEN THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS NOT CLEAR, OR IS CAPABLE OF MORE THAN ONE INTERPRETATION, SUCH MATTERS WILL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER IN WRITING BEFORE THE SUBMISSION OF BIDS. THE ARCHITECT/ENGINEER SHALL MAKE CORRECTION OR EXPLANATION IN WRITING.
28. PLANS AND SPECIFICATIONS ARE INTENDED AS A GENERAL DESCRIPTION OF THE WORK TO BE PERFORMED. ALL ITEMS NOT SPECIFICALLY MENTIONED OR SHOWN, BUT NECESSARY FOR THE COMPLETION OF THE INSTALLATION SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. THIS CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE MECHANICAL, ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL PLANS BEFORE SUBMITTING HIS FINAL BID. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO THE CONTRACTOR'S FAILURE TO FAMILIARIZE HIMSELF/ HERSELF WITH THE PLANS.
29. CONTRACTOR TO ALLOW SUFFICIENT TIME (APPROXIMATELY 2 WEEKS) FOR EQUIPMENT REVIEW. CONTRACTOR SHALL SUBMIT THE FOLLOWING EQUIPMENT FOR REVIEW (1 HARD COPY) PRIOR TO ORDERING AND INSTALLATION: ROOFTOP UNITS, AIR HANDLING UNITS AND AIR COOLED CONDENSERS, DIFFUSERS AND REGISTERS, EXHAUST FANS AND MAKE UP AIR FANS. DUCT INSULATION, DUCT CONSTRUCTION STANDARDS.
30. AFTER THE HEATING AND AIR CONDITIONING SYSTEM INSTALLATIONS ARE COMPLETE, THE CONTRACTOR SHALL HAVE EACH SYSTEM TESTED, ADJUSTED, AND BALANCED BY AN INDEPENDENT TESTING AND BALANCING CONTRACTOR. SEE SPECIFICATIONS FOR TESTING AND BALANCING CONTRACTOR CERTIFICATIONS AND REQUIREMENTS. UPON COMPLETION OF TEST AND BALANCE OF ALL SYSTEMS, THE CONTRACTOR SHALL PRESENT THE OWNER AND ARCHITECT WITH A WRITTEN TEST AND BALANCE REPORT IN A TIMELY MANNER PER SPECIFICATIONS.

HVAC ROOFTOP UNIT SCHEDULE

			SUPPLY AIR FAN DATA					ELECTRIC HEAT		UNIT POWER				WEIGHT	COOLING CAPACITY						BASIS OF DESIGN		
MARK	AREA SERVED	NOMINAL TONS	HEATING/ HIGH COOL CFM	LOW COOL CFM	OUTSIDE AIR	E.S.P. (IN.)	HP	KW @ VOLTAGE RATED	CONTROL STAGES	VOLTAGE	PHASE	MCA	MOCP	(LBS RTU ONLY)	TOTAL COOLING MBH	SENSIBLE COOLING MBH	EDB (°F)	EWB (°F)	AMBIENT (DB°F/WB°F)	EER (IEER)	MANUFACTURER PRODUCT LINE	MODEL	NOTES
RTU-1	RETAIL	8.5	3340	2670	480	1.0	2.0	[illegible]	1	208 V	[illegible]	38	[illegible]	1165	96.5	66.8	78.0	65.4	95/79	12.4 (14.0)	LENNOX ENERGENCE	LCH102H4M	1-21
RTU-2	FOOD SERVICE	10	3900	3120	300	[illegible]	2.0	N/A	N/A	208 V	3	43	50	1210	111.5	86.5	76.4	61.9	95/79	12.2 (14.0)	LENNOX ENERGENCE	LCH120H4M	2-21
RTU-3	RETAIL	7.5	2600	2080	350	1.0	[illegible]	5.6	1	208 V	3	39	45	1268	83.8	59.5	76.7	63.6	95/79	12.7 (14.0)	LENNOX ENERGENCE	LCH092H4M	2-21

NOTES:
1. PROVIDE CO2 SENSOR FOR INTERLINK WITH BUILDING AUTOMATION SYSTEM.
2. PROVIDE LENNOX HUMIDITROL HOT GAS REHEAT OPTION.
3. PROVIDE REMOTE WALL MOUNTED COMBINATION TEMPERATURE/HUMIDITY SENSOR MODEL 21W06.
4. REFER TO CONTROL SYSTEM NOTES FOR CONTROL COMPONENTS REQUIREMENTS.
5. PROVIDE 5-MINUTE ANTI-SHORT CYCLE TIMER.
6. PROVIDE THRU THE BASE ELECTRICAL AND SINGLE POINT CONNECTION.
7. PROVIDE WITH FACTORY 2" THROW AWAY PLEATED MERV 8 FILTERS.
8. PROVIDE WITH 18" ROOF CURB.
9. PROVIDE FACTORY 15 AMP GFCI SERVICE OUTLET. COORDINATE WITH ELECTRICAL CONTRACTOR TO PROVIDE FIELD WIRING TO RECEPTACLE.
10. PROVIDE WITH FACTORY INSTALLED DISCONNECT.
11. PROVIDE WITH MOTORIZED DAMPER AND OUTSIDE AIR INTAKE HOOD.
12. PROVIDE MANUFACTURER'S MOTOR AND DRIVE PACKAGE AS REQUIRED TO MEET SCHEDULED AIR CAPACITIES AND PRESSURE DROP.
13. PROVIDE FACTORY APPLIED PHENOLIC COATING FOR CORROSION PROTECTION ON CONDENSER COILS WITHIN 5 MILES OF SALT WATER.
14. PROVIDE BUILDING AUTOMATION SYSTEM (BAS) EQUIPMENT - REFER TO BAS SYSTEM MASTER SPEC FOR SYSTEM DETAILS AND EQUIPMENT PART NUMBERS.
15. PROVIDE FACTORY INSTALLED LONTALK BAS INTERFACE.
16. PROVIDE LENNOX DIRTY FILTER SWITCH.
17. PROVIDE LENNOX IMC CONTROL BOARD (STANDARD ON L-SERIES UNITS).
18. TEMPERATURE SETPOINT: 74°F COOLING, 68°F HEATING. HUMIDITY SETPOINT: 50% RELATIVE HUMIDITY.
19. PROVIDE WITH CONSTANT VOLUME BELT DRIVE IF AVAILABLE.
20. PROVIDE WITH FACTORY CONDENSATE PAN WATER LEVEL MONITORING DEVICE FOR COMPLIANCE WITH FBC 2017 MECHANICAL,SECTION 307.2.3.
21. PROVIDE WITH FACTORY INSTALLED SUPPLY AND RETURN SMOKE DETECTORS.

OUTSIDE AIR CALCULATION

AREA SERVED	AREA (SQFT)	CFM/ SQFT	UNOCCUPIED MIN. O/A REQUIRED	# PEOPLE	CFM/ PERSON	PEOPLE O.A. REQ'D (CFM)	COMBINED O.A. REQ'D (CFM)	SYSTEM VENTILATION EFFICIENCY	TOTAL O.A. REQ'D (CFM)	TOTAL O.A. SUPPLIED (CFM)
OFFICE	96	0.06	6	1	5	5	11	.934	12	
RETAIL	1900	0.06	114	36	7.5	270	407	.934	435	
RR'S/MISC.	127	0	0	0	0	0	0	.934	0	
CORRIDORS	139	0.06	8	0	0	0	8	.934	9	
								RTU-1	456	480
ELECT. ROOM	128	0	0	0	0	0	0	.984	0	
FOOD SVC	451	0.18	81	2	7.5	15	119	.984	120	
								RTU-2	120	300
COFFEE	211	0.06	13	2	5	10	23	.876	26	
DELIVERY	332	0.12	40	0	0	0	40	.876	47	
CORRIDORS	169	0.06	10	0	0	0	10	.876	11	
RETAIL	465	0.06	28	9	7.5	68	96	.876	110	
WASH RM.	117	0.18	21	1	7.5	8	29	.876	33	
OFFICE	60	0.06	4	1	5	5	9	.876	10	
RR'S/MISC.	137	0	0	0	0	0	0	.876	0	
								RTU-3	237	350

NOTES:
1. OCCUPANCY LOAD VENTILATION RATES ARE BASED ON NET OCCUPIABLE SPACE IN ACCORDANCE WITH THE JURISDICTION'S LATEST ACCEPTED VERSION OF THE FLORIDA MECHANICAL CODE, TABLE 403.3.1.1
2. ANTICIPATED NUMBER OF PEOPLE IS BASED ON AN OCCUPANCY LOAD FACTOR (# PEOPLE/SF) VALUE (BASED ON THE JURISDICTION'S LATEST ACCEPTED VERSION OF THE FLORIDA MECHANICAL CODE, TABLE 403.3.1.1).

AIR BALANCE SCHEDULE

SYSTEM	CFM
RTU-1	+480
RTU-2	+300
RTU-3	+350
EF-1	-350
BUILDING POSITIVE PRESSURE	+780

LENNOX SET-UP PARAMETERS

UNIT ID CONFIGUERATIONS (MECHANICAL CONTRACTOR TO DEFINE):

- LON TALK CONFIGURATION: GO TO SETTINGS>GENERAL>CONFIGURATION ID1 POSITION 5 SET TO "L"
- NETWORK CONFIGURATION: GO TO SETUP>NETWORK INTEGRATION, SET TO LONTALK
- CONTROL MODE: SET CONTROL MODE TO ROOM SENSOR: CO2, TEMP, & HUMIDITY (PER UNIT, AS NEEDED)

INDIVIDUAL PARAMETER CONFIGURATIONS (MECHANICAL CONTRACTOR TO DEFINE):

- PARAMETER 105 DEHUMID MODE: 7 NO CONDITIONS
- PARAMETER 106 DEHUMID SETPOINT: 50, THIS IS A CENTERED SET POINT (+/-)
- PARAMETER 107 DEHUMID DEADBAND: 3 (DEFAULT) THIS IS THE ACTUAL +/- VALUE.
- PARAMETER 117 CO2 DAMPER MAX OPEN %: 50
- PARAMETER 118 CO2 START OPEN PPM: 1200
- PARAMETER 119 CO2 FULL OPEN PPM: 1500
- PARAMETER 137 OCCHEAT SET POINT: 68 (BACK UP)
- PARAMETER 139 OCC COOLING SET POINT: 72 (BACK UP)
- PARAMETER 154 OCC BLOWER MODE: ON-CONTINUOUS 1

CFM VALUES / MSAV FAN SPEEDS (AIR BALANCER TO DEFINE):

- NOTE: ONLY TO BE IMPLEMENTED IF RTU IS MSAV
- HEAT CFM VALUE: PER THE HVAC SCHEDULE
- HIGH COOL CFM VALUE: PER THE HVAC SCHEDULE
- LOW COOL CFM VALUE: MATCH THE HIGH COOL CFM VALUE
- VENTILATION CFM VALUE: MATCH THE HIGH COOL CFM VALUE

HVAC EXHAUST FAN SCHEDULE

		EXT. STATIC						UNIT POWER		BASIS OF DESIGN		
MARK	CFM	PRESSURE	FAN TYPE	DRIVE TYPE	SONES	HP	FAN RPM	VOLTAGE	PHASE	MANUFACTURER	MODEL	NOTES
EF-1	350 CFM	0.375 in-wg	DOWNBLAST	DIRECT	5.5	0.125	1175	120 V	1	LOREN COOK	ACED 101C15D	1,2
EF-2	60 CFM	0.25 in-wg	INLINE	DIRECT	0.6	28 W	685	120 V	1	LOREN COOK	GN-148	2,3

NOTES:
--NO SUBSTITUTIONS PERMITTED--
1. PROVIDE WITH FACTORY DISCONNECT. FACTORY WIRED SOLID STATE SPEED CONTROLLER. 18" HIGH ROOF CURB WITH DAMPER TRAY, BACKDRAFT DAMPER, AND BIRD SCREEN.
2. WIRE FOR CONTINUOUS OPERATION.
3. PROVIDE WITH FACTORY DISCONNECT & FACTORY WIRED SOLID STATE SPEED CONTROLLER. FAN SHALL BE WIRED TO EMERGENCY SHUTOFF SWITCH PROVIDED BY OTHERS. REFERENCE ARCHITECTURAL AND ELECTRICAL DRAWINGS.

HVAC AIR DEVICE SCHEDULE

TYPE MARK	MANUFACTURER	MODEL	SERVICE	DESCRIPTION	MOUNTING TYPE	MATERIAL	NECK SIZE	FACE SIZE	NOTES
CD-1	PRICE	AMD	SUPPLY	LOUVERED FACE DIRECTIONAL DIFFUSER	LAY-IN	ALUMINUM	18"X18"	24"X24"	1,8
CD-2	PRICE	AMD	SUPPLY	LOUVERED FACE DIRECTIONAL DIFFUSER	LAY-IN	ALUMINUM	18"X18"	24"X24"	7,8
CD-3	PRICE	AMD	SUPPLY	LOUVERED FACE DIRECTIONAL DIFFUSER	SURFACE	ALUMINUM	6"X6"	NECK+5"	6,8
CD-4	PRICE	VPD-HC	SUPPLY	VAV PLAQUE FACE DIFFUSER	LAY-IN	STEEL	6"	24"X24"	4,8
G-1	PRICE	630FF	RET/TRAN	LOUVERED FACE FILTER RETURN GRILLE	LAY-IN	ALUMINUM	20"x20"	NECK+3-3/4"	4
G-2	PRICE	630FF	FILTER RETURN	LOUVERED FACE FILTER RETURN GRILLE	SURFACE	ALUMINUM	16"X16"	NECK+3-3/4"	5
G-3	PRICE	630FF	RET/EXH/TRAN	LOUVERED FACE FILTER RETURN GRILLE	SURFACE	ALUMINUM	8"x8"	NECK+3-3/4"	5
G-4	PRICE	630D	EXHAUST	LOUVER FACE RETURN GRILLE	SURFACE	ALUMINUM	10"X10"	NECK+1-3/4"	--
LD-1	PRICE	TBDI4	SUPPLY	48" INSULATED PLENUM W/ (3) 1" SLOTS	LAY-IN	ALUMINUM	N/A	N/A	2,3
LD-2	PRICE	TBDI4	SUPPLY	48" INSULATED PLENUM W/ (4) 1" SLOTS	LAY-IN	ALUMINUM	N/A	N/A	2,3

NOTES:
--NO SUBSTITUTIONS PERMITTED--
1. FOR LAY-IN CEILINGS PROVIDE WITH 18"X18" FULL FACE APPEARANCE DIFFUSER NECK. PROVIDE WITH FACTORY SQUARE TO ROUND NECK ADAPTER MODEL "SR". ROUND NECK SIZE SHALL BE EQUAL TO FLEX SIZE SERVING DIFFUSER.
2. PROVIDE WITH PLENUM INTERNALLY LINED WITH COATED FIBERBOARD. EXTERNALLY INSULATE PLENUM UPON INSTALLATION WITH DUCT WRAP INSULATION.
3. PROVIDE WITH CENTER NOTCH OPTION (CN) AS REQUIRED WHEN USED IN 24" T-BAR CEILING.
4. PROVIDE WITH FOIL BACKED INSULATION AND INTEGRAL AUTOMATIC CHANGEOVER THERMOSTAT FOR COOLING AND HEATING MODES
5. "QR" STYLE (1/4 TURN FASTENERS ONLY) - OMIT HINGE. FILTER TYPE RETURN GRILLES PROVIDED SOLELY FOR MAINTENANCE PURPOSES. OMIT FILTER UPON INSTALLATION.
6. PROVIDE WITH TYPE 6 BEVELED SURFACE MOUNT FRAME AND FACTORY SQUARE TO ROUND NECK ADAPTER MODEL "SR".
7. PROVIDE LAY-IN STYLE FACE DIFFUSER AND ALUMINUM PLASTER FRAME MODEL APF. COORDINATE LOCATION WITH CEILING FRAMING INSTALLER.
8. PROVIDE WITH FACTORY BACK PAN INSULATION.

HVAC AIR CURTAIN SCHEDULE

		BASIS OF DESIGN				UNIT POWER		MOUNTING	
MARK	AREA SERVED	MANUFACTURER	MODEL	NOZZLE CFM	HP	VOLTAGE	PHASE	HEIGHT	NOTES
AC-1	DELIVERY/STAGING	POWERED AIRE	BCE-1-48	2155 CFM	0.5	120 V	1	7'-2"	1-4
AC-2	DELIVERY VESTIBULE	POWERED AIRE	BCE-1-48	2155 CFM	0.5	120 V	1	7'-2"	1-4

NOTES:
--NO SUBSTITUTIONS PERMITTED--
1. MOUNT INSIDE BUILDING ABOVE DOOR AT 7'-2" A.F.F. MOUNTING HEIGHT IS FROM BOTTOM OF AIR CURTAIN.
2. PROVIDE ALL NECESSARY MOUNTING BRACKETS AND ACCESSORIES.
3. PROVIDE WITH MODEL SM-300 COMMERCIAL MAGNETIC REED DOOR SWITCH.
4. AIR CURTAIN CONTROLLED BY MAGNETIC REED DOOR SWITCH, FAN ON WHEN DOOR IS OPEN.

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PROJECT NAME
WAWA F85L 2019.01 STORE #5351 - CMM
1004 EDGEWOOD AVE.
JACKSONVILLE, FL 32254

SHEET TITLE
HVAC SCHEDULES, NOTES AND DETAILS

Revision Schedule

No.	Description	Date
	PERMIT SET	05/18/2019
A	REV 2019.01	09/09/2020
	PRE-BID SET	09/10/2020
	BID SET	09/24/2020

PROJECT NO. 2170780
DATE 09-09-2020
DRAWN PAK
CHECKED JJD

M3

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