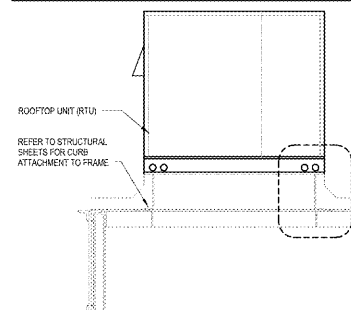
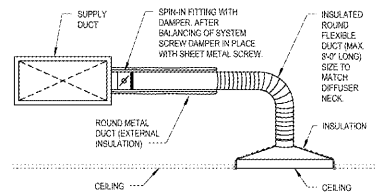
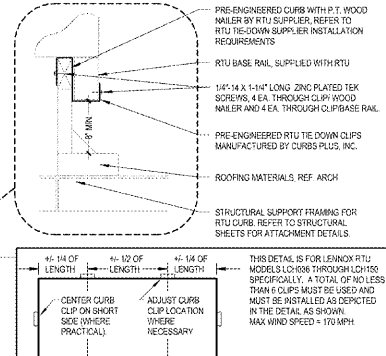


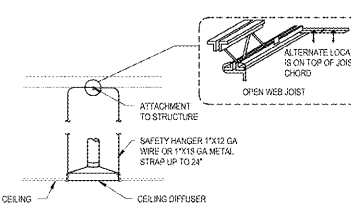
BUILDING LOCATION	WIND SPEED ZONE
HUDSON, FL	FPC FIGURE 1609A
	145 MPH



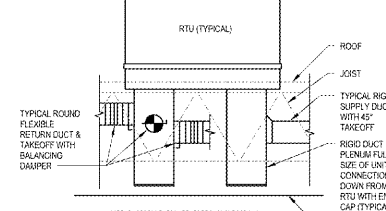
1 RTU TIE-DOWN DETAIL
M3 NOT TO SCALE



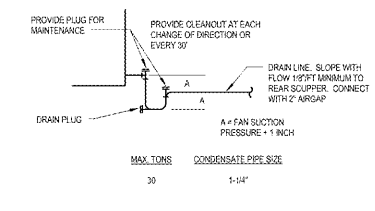
2 CEILING DIFFUSER RUNOUT DETAIL
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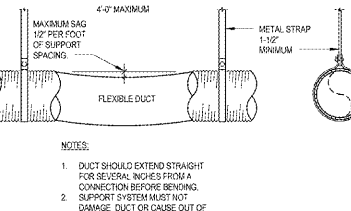
3 CEILING MOUNTED AIR DIFFUSER SUPPORT DETAIL
M3 NOT TO SCALE



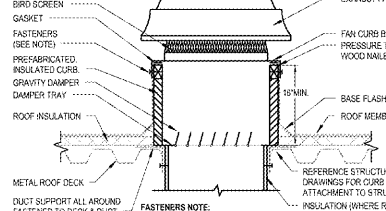
4 TYPICAL DUCT PLENUM DETAIL
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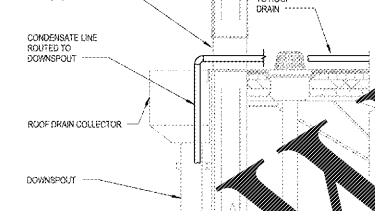
5 CONDENSATE DRAIN TRAP DETAIL
M3 NOT TO SCALE



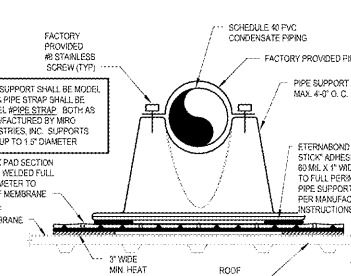
6 FLEX DUCT SUPPORT DETAIL
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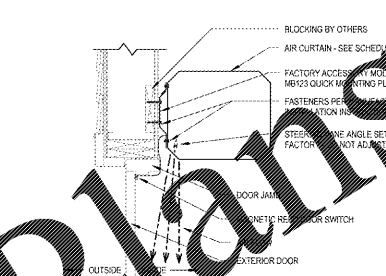
7 ROOF FAN MOUNTING DETAIL
M3 NOT TO SCALE



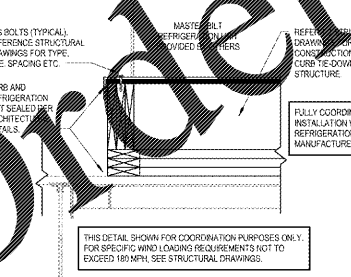
8 CONDENSATION TERMINATION DETAIL
M3 NOT TO SCALE



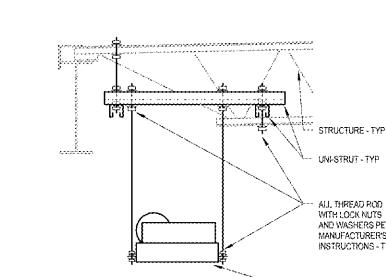
9 CONDENSATE PIPE ROOF SUPPORT DETAIL
M3 NOT TO SCALE



10 AIR CURTAIN INSTALLATION DETAIL
M3 NOT TO SCALE



11 MASTER BILT MOUNT DETAIL
M3 NOT TO SCALE



12 INLINE FAN MOUNTING DETAIL
M3 NOT TO SCALE

HVAC GENERAL NOTES

- 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.
- 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.
- 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 2" WIDE GLASS FIBER TAPE AND FOSTER 3000 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.
- OUTSIDE AIR INTAKES (ROOFTOP UNITS, GRAVITY ROOF VENTS, LOUVERS) SHALL MAINTAIN A MINIMUM OF "10" FROM ANY EXHAUST OR SANITARY VENT.
- PROVIDE ALL MECHANICAL EQUIPMENT WITH MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES.
- ALL ROOFTOP UNITS SHALL BE CONSTRUCTED AND INSTALLED TO WITHSTAND LOCAL WIND LOAD DESIGN.
- SMOKE DETECTORS SHALL BE FURNISHED AND INSTALLED BY THE UNIT MANUFACTURER. WIRING TO THE KEY SWITCH BY THE MECHANICAL CONTRACTOR, AND WIRING TO THE FIRE ALARM BY THE FIRE ALARM CONTRACTOR. SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72, NATIONAL FIRE ALARM CODE, NFPA 96A 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, EVIDENCE NOTIFICATION PANEL. MAKE: SYSTEM SENSOR SSK401 OR EQUAL, COMPATIBLE WITH BUILDING FIRE ALARM SYSTEM.
- PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.
- HVAC CONTRACTOR IS RESPONSIBLE FOR ANY ADDED ELECTRICAL COSTS WHICH MAY RESULT FROM SUBSTITUTED EQUIPMENT.
- PROVIDE EXTERNAL DUCT INSULATION FOR SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK. DUCTWORK INSULATION SHALL BE FOAM FACED FIBERGLASS DUCT WRAP WITH A MINIMUM THERMAL RESISTANCE (R) OF 0.6. INSULATION SHALL HAVE VAPOR BARRIER. INSTALL PER MFR. REQUIREMENTS.
- COORDINATE CEILING MOUNTED DIFFUSERS, REGISTERS, AND GRILLES AND OTHER CEILING MOUNTED EQUIPMENT WITH LIGHTING FIXTURES.
- TURNING VANES SHALL BE PROVIDED IN ALL SUPPLY DUCT REGULAR GRILING WITH ANGLES BETWEEN 10 DEGREES AND LESS THAN 90 DEGREES PER THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS MANUAL.
- DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEARANCES. ALL DIMENSIONS ARE DIMENSIONS UNLESS OTHERWISE NOTED.
- DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER ITEMS OF THE AIR HANDLING SYSTEM SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM.
- 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.
- 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 SERVING OF EQUIPMENT.
- VERIFY VOLTAGE WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.
- 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 DETAIL".
- GUARANTEE, FOR ONE YEAR AFTER DATE OF ACCEPTANCE BY THE OWNER, ALL MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECT.
- DO NOT CUT STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
- 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 M4C OR EQUAL. FLEXIBLE DUCT SHALL BE INSULATED FIBERGLASS CLASS 1. UL LISTED AND COMPLY WITH NFPA 90A AND NFPA 99B.
- ALL WALL MOUNTED TEMPERATURE, HUMIDITY, AND CO2 SENSORS SHALL BE INSTALLED AT AN ELEVATION OF 5'-4" ABOVE FINISHED FLOOR TO THE TOP UNLESS OTHERWISE NOTED ON DRAWINGS. LOCATION OF THE WALL MOUNTED SENSORS SHALL BE COORDINATED WITH OTHER DEVICES FOR A NEAT APPEARANCE. FINAL LOCATION OF SENSORS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER OR THEIR REPRESENTATIVE IN THE FIELD.
- PROVIDE FLEXIBLE NEOPRENE DUCT CONNECTIONS ON THE DISCHARGE AND EXHAUST SIZES OF PACKAGED ROOFTOP UNITS, FANS, AND OTHER VIBRATING EQUIPMENT TO WHICH DUCTWORK IS ATTACHED.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TRADES INSTALLATION SCHEDULES. COORDINATE WORK SCHEDULES WITH GENERAL CONTRACTOR.
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE WORK SYSTEM. CHASE AND WALL PENETRATIONS INTENDED FOR DUCTWORK AND PIPING SHALL BE VERIFIED WITH ARCHITECTURE PRIOR TO INSTALLATION.
- 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 WITH 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.
- WHEN THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS NOT CLEAR, OR IS CONTRADICTORY, SUCH MATTERS WILL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONTRACTOR'S OMISSION OF ANY OF THE ARCHITECT/ENGINEER'S CORRECTIONS OR EXPLANATIONS IN WRITING.
- 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 PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL THOROUGHLY ACCQUAINT HIMSELF WITH THE MECHANICAL, ARCHITECTURAL, STRUCTURAL, AND OTHER VIBRATING EQUIPMENT TO WHICH DUCTWORK IS ATTACHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.
- CONTRACTOR TO ALLOW SUFFICIENT TIME APPROXIMATELY 2 WEEKS FOR EQUIPMENT REVIEW. CONTRACTOR SHALL SUBMIT THE FOLLOWING EQUIPMENT FOR REVIEW (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.
- AFTER THE HEATING AND AIR CONDITIONING SYSTEM INSTALLATIONS ARE COMPLETE, THE CONTRACTOR SHALL HAVE EACH SYSTEM TESTED, ADJUSTED, AND BALANCED BY AN INDEPENDENT TESTING, 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 TEST AND BALANCE REPORT IN A WRITTEN MANNER PER SPECIFICATIONS.

HVAC ROOFTOP UNIT SCHEDULE

MARK	AREA	SERVED	TONS		CFM		HEAT		COOLING		EER		SEER		BASIC OF DESIGN		NOTES			
			NOMINAL	NET	HEAT	COOL	HEAT	COOL	HEAT	COOL	HEAT	COOL	MANUFACTURER	MODEL						
RTU-1	RETAIL	8.5	2850	2315	2790	2790	1.0	2.0	11.25	30.8	49	50	1300	95.8	99.1	19.5	14.0	LENNOX EMERGENCE	LCH204M	4-02
RTU-2	FOOD SERVICE	10	3000	2700	3200	3200	1.0	2.0	11.25	30.8	50	50	1200	112.1	86.2	19.5	14.0	LENNOX EMERGENCE	LCH204M	4-03
RTU-3	RETAIL	7.5	2550	2400	2400	2400	1.0	2.0	11.25	30.8	49	50	1300	95.8	99.1	19.5	14.0	LENNOX EMERGENCE	LCH204M	2-02

HVAC EXHAUST FAN SCHEDULE

MARK	CFM	EXT. STATIC PRESSURE	FAN TYPE	DRIVE TYPE	SONES	HP	FAN RPM	UNIT POWER		BASIC OF DESIGN		NOTES
								VOLTAGE	PHASE	MANUFACTURER	MODEL	
EF-1	480 CFM	0.375 inHg	DOWNBLADE	DIRECT	8.5	1/8	1527	120 V	1	LORENZ COOK	1012SD	1.2
EF-2	30 CFM	0.25 inHg	INLINE	DIRECT	0.8	28	WATTS	120 V	1	LORENZ COOK	GN-148	2.3

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	
CD-2	PRICE	AMD	SUPPLY	LOUVERED FACE DIRECTIONAL DIFFUSER	SURFACE	ALUMINUM	6"x6"	NECK-4"	6	
CD-3	PRICE	AMD	SUPPLY	LOUVERED FACE DIRECTIONAL DIFFUSER	SURFACE	ALUMINUM	9"x9"	NECK-4"	8	
CD-4	PRICE	AMD	SUPPLY	LOUVERED FACE DIRECTIONAL DIFFUSER	LAY-IN	ALUMINUM	19"x19"	27"x27"	7	
CD-5	PRICE	VPD-HC	SUPPLY	VAV PLAUQUE FACE DIFFUSER	LAY-IN	STEEL	6"	24"x24"	4	
G-1	PRICE	80FF	EXHAUST/TRANSFER	LOUVERED FACE FILTER RETURN GRILLE	SURFACE	ALUMINUM	8"x8"	NECK-3-3/4"	5	
G-2	PRICE	80FF	RETURN/TRANSFER	LOUVERED FACE FILTER RETURN GRILLE	SURFACE	ALUMINUM	18"x18"	NECK-3-3/4"	5	
G-3	PRICE	80FF	RETURN/TRANSFER	LOUVERED FACE FILTER RETURN GRILLE	LAY-IN	ALUMINUM	20"x20"	NECK-3-3/4"	5	
G-4	PRICE	80D	EXHAUST	LOUVERED FACE RETURN GRILLE	SURFACE	ALUMINUM	10"x10"	NECK-1-3/4"	...	
LD-1	PRICE	TB04	SUPPLY	48" INSULATED PLENUM W/ (1) 1" SLOTS	LAY-IN	ALUMINUM	N/A	N/A	2.3	
LD-2	PRICE	TB04	SUPPLY	48" INSULATED PLENUM W/ (1) 1" SLOTS	LAY-IN	ALUMINUM	N/A	N/A	2.3	

HVAC AIR CURTAIN SCHEDULE

MARK	AREA SERVED	STAGING	MANUFACTURER		BASIC OF DESIGN		HP	VOLTAGE	PHASE	MOUNTING HEIGHT	NOTES
			POWERED AIRE	BOE-142	2163 CFM	130 V					
AC-1			POWERED AIRE	BOE-142	2163 CFM	130 V	1	7'-2"	1-3		
AC-2			POWERED AIRE	BOE-148	2155 CFM	120 V	1	7'-2"	1-6		

OUTSIDE AIR CALCULATION

AREA SERVED	AREA (SQ FT)	CFM REQUIRED	CFM PER PERSON	PEOPLE (O.A. REQ'D)	COMBINED O.A. REQ'D (CFM)	SYSTEM VENTILATION O.A. REQ'D (CFM)	TOTAL O.A. REQ'D (CFM)	TOTAL O.A. SUPPLIED (CFM)
OFFICE	120	0.90	10	3	10	20	865	22
RETAIL	2126	0.90	10	30	7.5	270	357	656
RESTROOM
CORRIDORS	147	0.90	8	0	0	8	885	10
ELECT. ROOM	154	0	0	0	0	0	967	0
FOOD SVC	522	0.18	14	5	7.5	28	132	967
							132	540
COFFEE	204	0.90	12	2	7.5	15	27	630
DELIVERY	482	0.12	33	1	0	0	55	830
CORRIDORS	233	0.90	14	1	0	0	14	830
RETAIL	652	0.90	38	12	7.5	96	168	830
WASH RM	125	0.18	22	1	7.5	8	80	137
							30	392

AIR BALANCE SCHEDULE

SYSTEM	CFM
RTU-1	+450
RTU-2	+340
RTU-3	+500
EF-1	-450
EF-2	-80
BUILDING POSITIVE PRESSURE	+660

WAWA
260 WEST BALTIMORE PIKE
WAWA, PENNSYLVANIA 19053

WAWA F85FB 2018.01 STORE #5275-LIT
9021 STATE ROAD 52
HUDSON, FL 34689

Order Plans

PROJECT: NAME: WAWA F85FB 2018.01 STORE #5275-LIT
CLIENT: WAWA
SHEET TITLE: HVAC SCHEDULES, NOTES AND DETAILS
DATE: 03-24-2017
REV: 01/18/2017
REV: 02/02/2017
REV: 02/02/2017
REV: 02/02/2017
REV: 02/02/2017

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