

**MECHANICAL NOTES**

- 1) THE HVAC CONTRACTOR SHALL COORDINATE ALL WORK TO BE PERFORMED WITH THE GENERAL, PLUMBING AND ELECTRICAL CONTRACTORS. ANY WORK DONE BY THIS CONTRACTOR WHICH INTERFERES WITH WORK BY OTHERS AND WHICH WAS NOT FIRST COORDINATED SHALL BE REMOVED AND RELOCATED AT HVAC CONTRACTOR'S EXPENSE.
- 2) THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL UTILITIES AND THE PLACEMENT OF ALL MECHANICAL EQUIPMENT PRIOR TO THE START OF HIS WORK. NO EXTRAS WILL BE ALLOWED DUE TO EQUIPMENT LOCATION CHANGE FROM THAT SHOWN ON DRAWINGS.
- 3) IT IS THE INTENT THAT THE WORK SHALL BE COMPLETE IN EVERY RESPECT, AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK, SHALL BE PROVIDED.
- 4) THE LOCATION OF SOME ITEMS SHOWN ON THE DRAWINGS MAY BE APPROXIMATE AND THE OWNER SHALL HAVE THE RIGHT TO MAKE REVISIONS BEFORE THE WORK IS INSTALLED, WITHOUT ADDITIONAL COST.
- 5) ALL WORK SHALL BE IN ACCORDANCE WITH ASHRAE, SMANCA OR GOVERNING CODES (MORE STRINGENT SHALL APPLY IN ALL INSTANCES)
- 6) ALL SUPPLY & RETURN DUCTS SHALL BE INSULATED WITH 1-1/2" THICK FIBERGLASS BLANKET INSULATION WITH VINYL VAPOR BARRIER AS MANUFACTURED BY KNAUF FIBER GLASS OR EQUAL.
- 7) ALL EXTERIOR DUCTS SHALL BE INSULATED WITH 1-1/2" THICK RIGID FIBERGLASS BOARD WITH SMOOTH ALUMINUM FINISH AND FACTORY APPLIED MOISTURE BARRIER AS MANUFACTURED BY KNAUF FIBER GLASS OR EQUAL. ALL JOINTS SHALL BE POSITIONED TO SHED WATER, WITH A MINIMUM 3" OVERLAP AND COMPLETELY WEATHER-SEALED
- 8) DUCT SIZES GIVEN ARE INSIDE CLEAR DIMENSIONS.
- 9) ROUND DUCTS SHALL BE RIGID WITH LARGE MOUTH TAKEOFF FITTINGS.
- 10) THIS CONTRACTOR SHALL PROVIDE ADJUSTABLE VOLUME DAMPERS IN ALL AIR DISTRIBUTION DUCTWORK, TO FACILITATE AIR BALANCING, AT BOTH BRANCH TAKEOFFS AND AT DIFFUSERS.
- 11) USE TURNING VANES IN ALL SQUARE ELBOWS.
- 12) THIS CONTRACTOR SHALL BALANCE AIR DISTRIBUTION SYSTEM AND SUBMIT BALANCE REPORT TO ARCHITECT/ENGINEER.
- 13) ALL EQUIPMENT WHICH PRODUCES AIR MOVEMENT SHALL HAVE A FLEXIBLE CONNECTOR AT ALL DUCT CONNECTIONS TO EQUIPMENT TO PREVENT THE TRANSMISSION OF VIBRATION TO STRUCTURE.
- 14) ALL MATERIALS USED FOR AIR DISTRIBUTION SHALL BE NON COMBUSTIBLE AND SHALL HAVE A SMOKE DEVELOPED RATINGS OF FIFTY (50) OR LESS. DUCTWORK SHALL BE DESIGNED AND INSTALLED IN STRICT CONFORMANCE TO THE CONSTRUCTION STANDARDS OF THE LATEST EDITION OF THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMANCA) LOW PRESSURE SECTION AND SHALL BE CONSTRUCTED OF NEW GALVANIZED SHEET METAL WITH ACCESS DOORS FOR DAMPERS, MOTORS, VALVES OR ANY OTHER EQUIPMENT OR ACCESSORIES WHICH MAY REQUIRE SERVICING.
- 15) FLEXIBLE DUCT SHALL NOT EXCEED FIVE FEET (5') IN LENGTH AND ITS' USE SHALL BE LIMITED ONLY FOR THE FINAL CONNECTIONS TO DIFFUSERS.
- 16) ALL DUCTWORK SHALL BE INSTALLED UP AS HIGH AS PRACTICAL.
- 17) ALL THERMOSTATS SHALL BE PROGRAMMED BY THE INSTALLER PER THE OWNERS DIRECTION.
- 18) TABS SHALL BE REMOVED FROM ALL THERMOSTATS AFTER THERMOSTATS ARE PROGRAMMED BY THE INSTALLER.
- 19) CONTRACTOR SHALL SUPPLY AND INSTALL ASTRONOMICAL TIME CLOCK, WIRED TO THERMOSTATS, FOR SETBACK CAPABILITY.

PACKAGED HEATING AND COOLING UNIT SCHEDULE														
SYMBOL	CFM AIR	MINIMUM OA CFM	EXTERNAL SP (INCHES)	ELECTRICAL DATA			COOLING DATA			HEATING DATA			MODEL NUMBER	
				BLOWER HP	MCA	VOLTAGE	BTUH (TOTAL)	ENT AIR	LVS AIR	BTUH	ENT AIR	LVS AIR		GAS INPUT
RTU-1	2000	300	1.00'	1 HP	28.8	208 V/3 PH	62,400	80/67	51.7/51.1	104,000	57.6 F	103.5 F	150 CFH	EXISTING RELOCATED
RTU-2	2000	300	1.00'	1 HP	28.8	208 V/3 PH	62,400	80/67	51.7/51.1	104,000	57.6 F	103.5 F	150 CFH	EXISTING RELOCATED

**NOTES**

- 1) FURNISH UNIT WITH ROOF CURB, MODULATING ECONOMIZER OUTDOOR AIR INTAKE/POWER EXHAUSTER RELIEF, ANTI-SHORT CYCLE TIMER, TIME DELAY RELAY, MULTISTAGE PROGRAMMABLE ELECTRONIC NIGHT SETBACK, THERMOSTAT WITH REMOTE SENSOR, OVERSIZE BLOWER MOTOR, UNIT DISCONNECT, AND CONVENIENCE OUTLET
- 2) RTU-1 AND RTU-2 RELOCATED AND INSTALLED ON ROOF BY CONTRACTOR. CONTRACTOR SHALL INSTALL ALL REQUIRED DUCTWORK

**CEILING DIFFUSER SPECIFICATION**

PERFORATED CEILING DIFFUSERS SHALL BE TITUS MODEL PAS-AA (ALUMINUM, FLUSH FACE) FOR SUPPLY. THE FINISH SHALL BE #26 WHITE. THE DIFFUSER SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 10-1991.

EXHAUST FAN SCHEDULE									
SYMBOL	CFM	SP (EXT)	ELECTRICAL DATA			FAN TYPE	MODEL NUMBER	REMARKS	
			HP	FAN RPM	VOLTAGE				
EF-1	150	0.25"	1.2 AMP	1450	120 V/1 PH	N/A	CEILING-MOUNTED	NUTONE MODEL GTXEN-150	PROVIDE ROOF CAP
EF-2	150	0.25"	1.2 AMP	1450	120 V/1 PH	N/A	CEILING-MOUNTED	NUTONE MODEL GTXEN-150	PROVIDE ROOF CAP
EF-3	1526/1514	0.1"	5 AMP	455	120 V/1 PH	N/A	CEILING-MOUNTED	BROAN MODEL L1500	PROVIDE ROOF CAP
EF-4	1526/1514	0.1"	5 AMP	455	120 V/1 PH	N/A	CEILING-MOUNTED	BROAN MODEL L1500	PROVIDE ROOF CAP

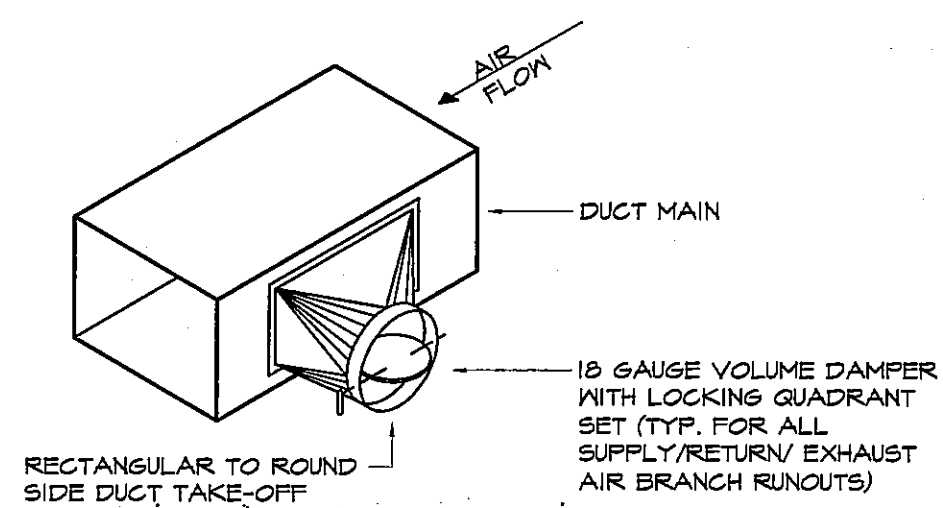
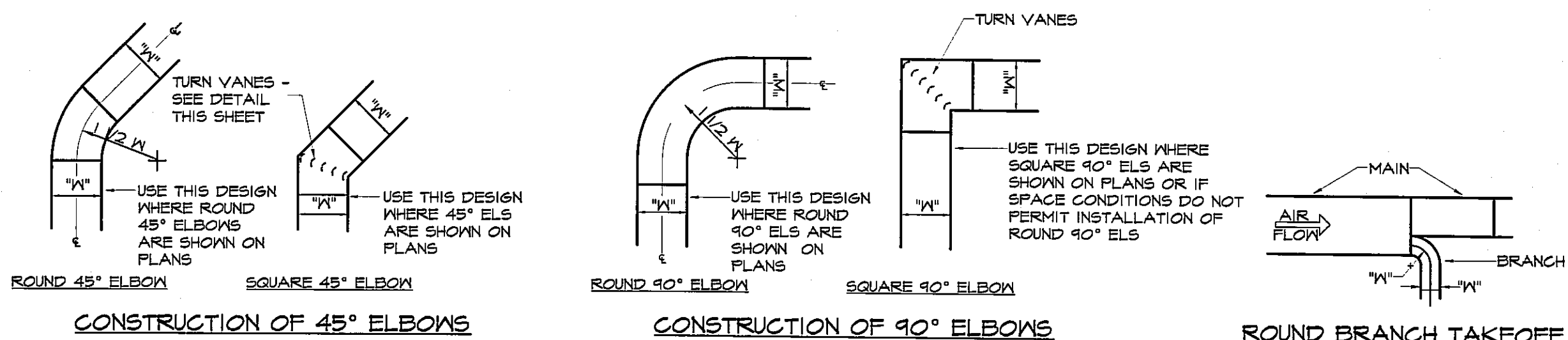
**NOTES**

- 1) FURNISH EXHAUST FANS WITH ROOF CAPS WHERE ROOF CAPS ARE INDICATED ON THE ROOF PLAN

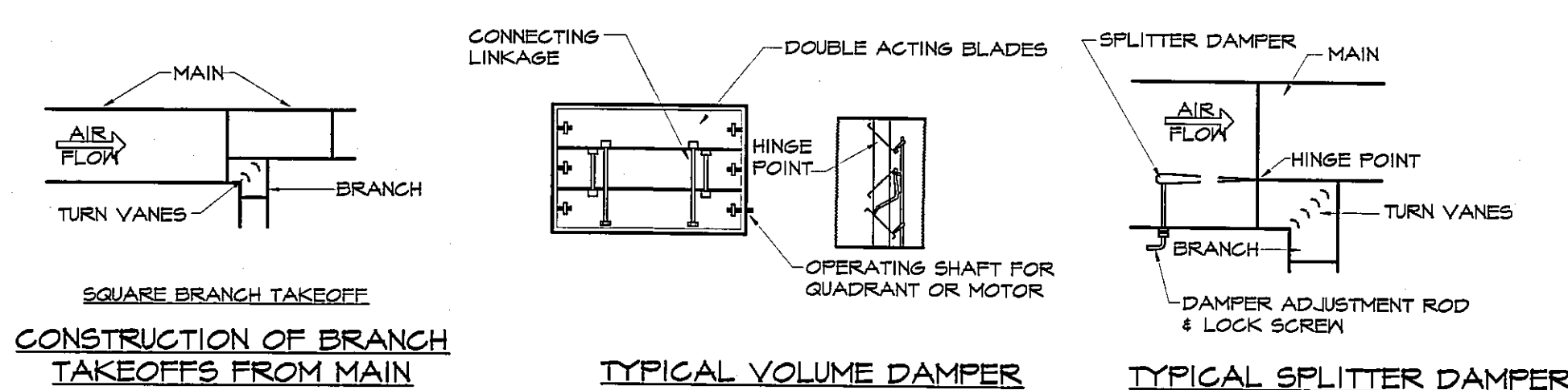
REGISTER, GRILLE & DIFFUSER SCHEDULES				
SYMBOL	CFM AIR	NECK SIZE	TYPE & THROW	MODEL NUMBER
				1
2	250	48" LONG X 10"	SLOT DIFFUSER	TITUS MODEL TBD1-10-FB-48-2LP-10-1-02-ID-2
3	UP TO 125	6"	ADJUSTABLE DIFFUSER	TITUS MODEL PAS-AA (PERFORATED FLUSH FACE, 24 X 24 CEILING MODULE)
4	130-200	8"	ADJUSTABLE DIFFUSER	TITUS MODEL PAS-AA (PERFORATED FLUSH FACE, 24 X 24 CEILING MODULE)
5	205-365	10"	ADJUSTABLE DIFFUSER	TITUS MODEL PAS-AA (PERFORATED FLUSH FACE, 24 X 24 CEILING MODULE)
6	1000	22 X 22	RETURN/EXHAUST	TITUS MODEL FAR-AA (PERFORATED FLUSH FACE, 24 X 24 CEILING MODULE)

**NOTES**

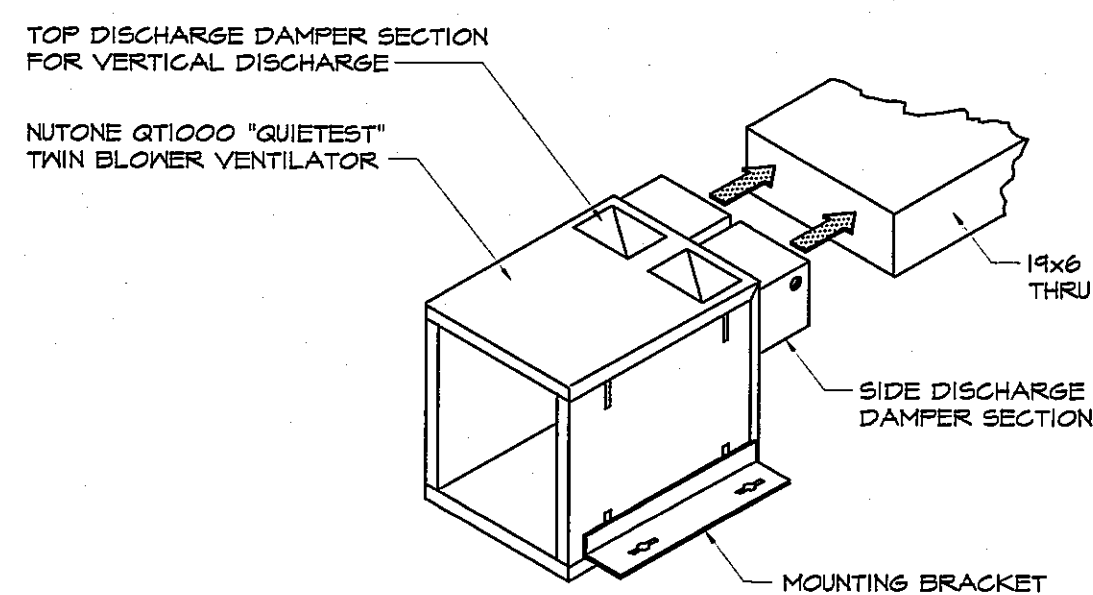
- 1) PROVIDE ALL REGISTERS, GRILLES AND DIFFUSERS WITH OPPOSED BLADE VOLUME DAMPERS
- 2) IN BOTH RECTANGULAR & RECTANGULAR TO ROUND TRANSITIONS, SLOPE IS NOT TO EXCEED 1" IN 4".



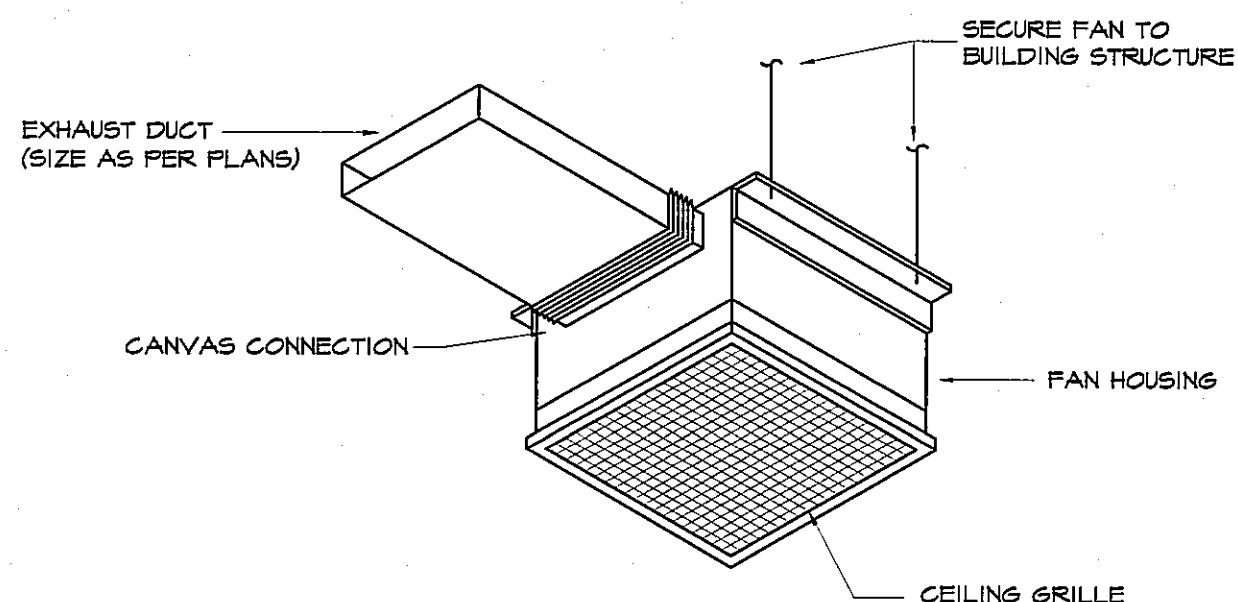
**5 DUCT TAKEOFF DETAIL**  
SCALE: NO SCALE



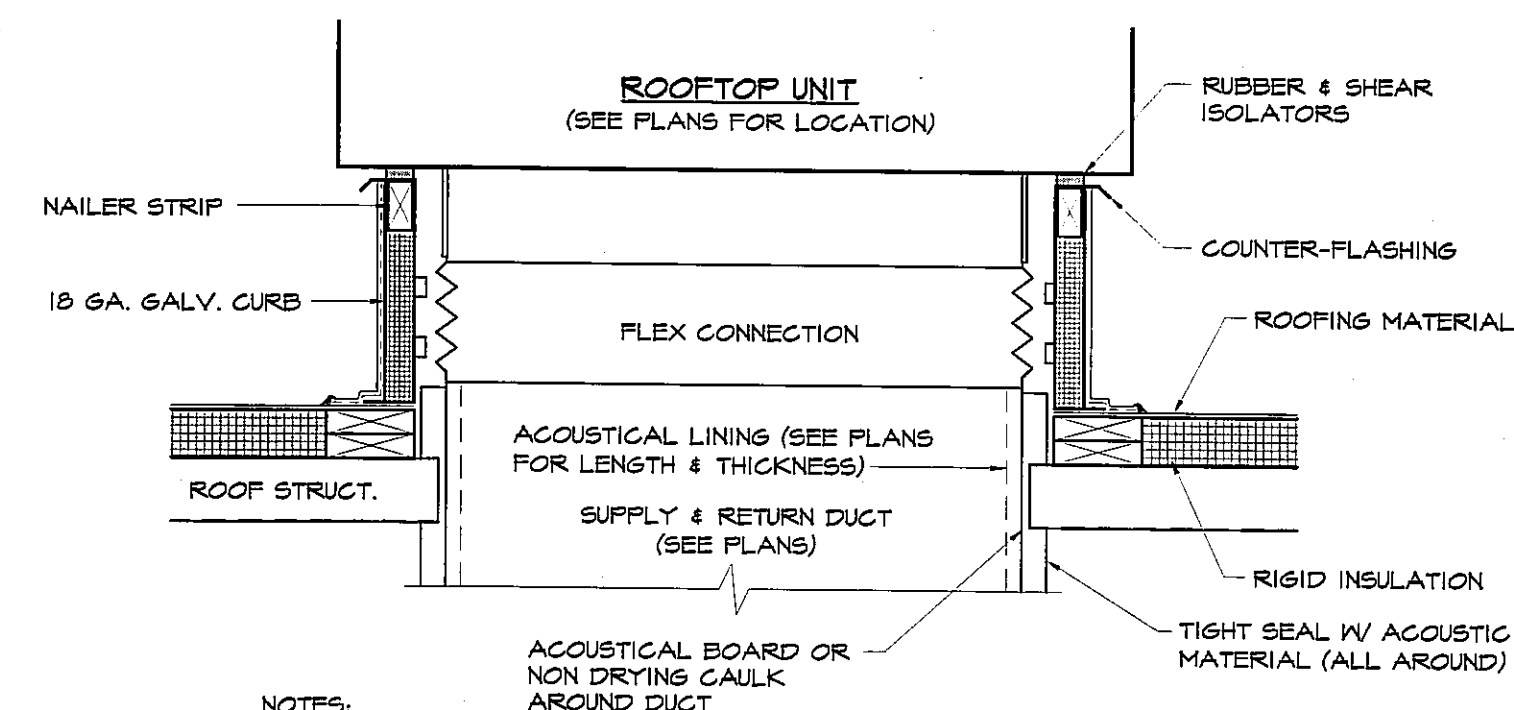
**4 TYPICAL DUCT CONSTRUCTION DETAILS**  
SCALE: NO SCALE



**3 TYP CHILL ZONE EXHAUST FAN DETAIL**  
SCALE: NO SCALE



**2 TYP EXHAUST FAN DETAIL**  
SCALE: NO SCALE



**NOTES**

- 1) LINE ROOF UNDER CURB AND SIDES OF CURB WITH 4" THICK (TWO 2" LAYERS) OF ACoustICAL BOARD.
- 2) REFER TO SHEET AS.2 FOR ADDITIONAL CURB MOUNTING INFORMATION.

**1 ROOFTOP UNIT MOUNTING W/ CURB DETAIL**  
SCALE: NO SCALE



**AHARONIAN & ASSOCIATES INC.**  
ARCHITECTS

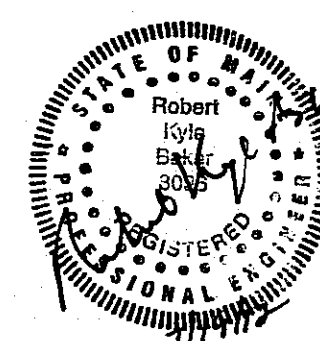
310 George Washington Highway  
Suite 100  
Smithfield, Rhode Island  
0 2 9 1 7  
T 401-232-5010  
F 401-232-5080  
WWW.ARCH-ENG.COM

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**REVISIONS**

NUMBER	REMARKS	DATE



**FOR CONSTRUCTION**

**PROJECT TITLE**

**Cumberland FARMS**  
100 Crossing Blvd, Frammingham, Massachusetts  
STORE # 5604  
V1079

**801 WASHINGTON AVE**  
**PORTLAND, ME**  
Cumberland County

**DRAWING TITLE**

**MECHANICAL SCHEDULES & DETAILS**

<b>DATE</b> JULY 19, 2012	<b>PROJ NO</b> 11112
<b>DRAWN BY</b> JL	<b>CHECKED BY</b> AZ

**DRAWING NUMBER**

**M2.1**