DUCT SYMBOLS

DOUBLE LINE SYMBOL	DESCRIPTION	SINGLE LINE SYMBOL
20x16	DUCT- FIRST NUMBER IS VISIBLE DIMENSION.	20x16
	MITERED ELBOW W/TURNING VANES	
R	RADIUS ELBOW W/VANE(S) (1.5=R/D STANDARD)	R
	DUCT SECTION, POSITIVE PRESSURE	
	DUCT SECTION, NEGATIVE PRESSURE	
	DUCT & AIRFLOW UP(LEFT) POSITIVE PRESSURE DUCT & AIRFLOW DN(RIGHT) POSITIVE PRESSURE	
	DUCT & AIRFLOW UP(LEFT) NEGATIVE PRESSURE DUCT & AIRFLOW DN(RIGHT) NEGATIVE PRESSURE	
	DUCT & AIRFLOW UP(LEFT) NEG./POS. PRESSURE DUCT & AIRFLOW DN(RIGHT) NEG./POS. PRESSURE	
R	CHANGE OF ELEVATION=RISE (R), DROP (D)	R
20x16	DUCT W/INTERNAL LINING CLEAR INSIDE DIMENSIONS SHOWN	
AD	ACCESS DOOR=SIDE (L), BOTTOM (M), TOP (R)	AD
	FLEXIBLE CONNECTOR	
	FLEXIBLE DUCT	
FD	FD- FIRE DAMPER, SD-SMOKE DAMPER, FSD- FIRE/SMOKE DAMPER.	FSD
(TYPE)	MANUAL VOLUME DAMPER-SPECIFIC TYPE, NO LABEL-BUTTERFLY, OBD-OPPOSED BLADED DAMPER, PBD-PARALLEL BLADE DAMPER	(TYPE)
M	MOTORIZED DAMPER OR ZONE CONTROL DAMPER	M
	BRANCH TAP-W/45 DEG. ENTRY	
	BRANCH TAP-CONICAL SPIN-IN	
	BRANCH TAP-STRAIGHT SPIN-IN	
20x10 10x10	TRANSITION	20x10 10x10
	EXISTING DUCTWORK TO BE DEMOLISHED	
	EXISTING DUCTWORK TO REMAIN	
RTU-# FCU-# XXX-#	HVAC - EQUIP AS NOTED	
	AIR DEVICE, SUPPLY- CEILING. CLEAR	
A X"ø X CFM	AIR DEVICE TAG SPIN-IN DIMENSION AIRFLOW (CFM)	
	AIR DEVICE, RETURN- CEILING.	
	AIR DEVICE, EXHAUST- CEILING.	
	AIR DEVICE, SUPPLY- SIDEWALL.	
	AIR DEVICE, RETURN/EXHAUST- SIDEWALL.	

ABBREVIATIONS

A		
	ABV	ABOVE
	AC	ALTERNATING CURRENT / ABOVE CEILING
	ACMPR	AIR COMPRESSOR
	ACU	AIR CONDITIONING UNIT
	AFF	ABOVE FINISHED FLOOR
	AFMS	AIR FLOW MEASURING STATION
	AHU	AIR HANDLING UNIT
	AMB	AMBIENT
	AMP	AMPERE
	ANSI	"AMERICAN NATIONAL STANDARDS INSTITUTE"
	APPROX.	APPROXIMATE
	ARI	AMERICAN REFRIGERATION INSTITUTE
	ASHRAE	"AMERICAN SOCIETY OF HEATING, REFRIGERATION, and AIR CONDITIONING ENGINEERS"
	ASME	"AMERICAN SOCIETY OF MECHANICAL ENGINEERS"
	ASPE	"AMERICAN SOCIETY OF PLUMBING ENGINEERS"
	ASTM	"AMERICAN SOCIETY FOR TESTING AND MATERIALS"
	AVG	AVERAGE
	AWWA	"AMERICAN WATER WORKS ASSOCIATION"
B		
	B	BOILER
	BARO	BAROMETRIC
	BAROPR	BAROMETRIC PRESSURE
	BF	BELOW FLOOR
	BFC	BELOW FINISHED CEILING
	BG	BELOW GRADE
	BHP	BRAKE HORSEPOWER
	BOD	BOTTOM OF DUCT
	BOM	BILL OF MATERIAL
	BOP	BOTTOM OF PIPE
	BTU	BRITISH THERMAL UNIT
C		
	CCL	COOLING COIL
	CCW	COUNTERCLOCKWISE
	CD	CONDENSATE DRAIN
	CFH	CUBIC FEET PER HOUR
	CFM	CUBIC FEET PER MINUTE
	CH	CHILLER
	CHP	CHILLER WATER PUMP
	CHR	CHILLED WATER RETURN
	CHS	CHILLED WATER SUPPLY
	CLR	CLOSED CIRCUIT COOLER
	CMPR	COMPRESSOR
	CR	CONDENSATE RETURN
	CRU	COMPUTER ROOM UNIT
	CT	COOLING TOWER
	CU	CONDENSING UNIT
	CU.FT.	CUBIC FEET
	CU.IN.	CUBIC INCH
	CV	CONSTANT VOLUME
	CO2	CARBON DIOXIDE SENSOR
	CWP	CONDENSER WATER PUMP
	CWR	CONDENSER WATER RETURN
	CWS	CONDENSER WATER SUPPLY
D		
	dB	DECIBEL
	D	DRAIN
	DBT	DRY BULB TEMPERATURE
	DC	DIRECT CURRENT
	DDC	DIRECT DIGITAL CONTROL
	DEG	DEGREE
	DENS	DENSITY
	DIA	DIAMETER
	DIFF	DIFFERENCE or DELTA
	DN	DOWN
	DP	DEEP
	DPT	DEW POINT TEMPERATURE
E		
	E/A	EXHAUST AIR
	EA	EACH
	EAT	ENTERING AIR TEMPERATURE
	EDH	ELECTRIC DUCT HEATER
	EF	EXHAUST FAN
	EFF	EFFICIENCY
	ENTH.	ENTHALPY
	EOD	EMERGENCY OVERFLOW DRAIN
	ET	EXPANSION TANK
	EVP	EVAPORATIVE COOLER
	EWT	ENTERING WATER TEMPERATURE
	EXP	EXPANSION
F		
	F	FAHRENHEIT
	FCU	FAN COIL UNIT
	FLR.	FLOOR
	FOB	FLAT ON BOTTOM
	FOT	FLAT ON TOP
	FPM	FEET PER MINUTE
	FPS	FEET PER SECOND
	FPTU	FAN POWERED TERMINAL UNIT
	FRN	FURNACE
	FT	FEET
	FT.W.G.	FEET of WATER GAGE
	FVEL	FACE VELOCITY
G		
	GAL.	GALLONS
	GPH	GALLONS PER HOUR
	GPM	GALLONS PER MINUTE
	GR	GRAINS
H		
	HCL	HEATING COIL
	HD	HOOD
	HGT	HEIGHT
	HP	HORSEPOWER
	HPS	HIGH PRESSURE STEAM
	HR	HOUR
	HUM	HUMIDIFIER
	HWP	HOT WATER PUMP
	HWR	HOT WATER RETURN
	HWS	HOT WATER SUPPLY
	HZ	HERTZ
I		
	ID	INSIDE DIAMETER
	IH	INTAKE HOOD
	IN.	INCH
	IN.W.G.	INCHES of WATER GAGE
	IRH	INFRARED HEATER
J		

ABBREVIATIONS

K		
	KHE	KITCHEN HOOD EXHAUST
	kW	KILOWATTS
	kWH	KILOWATT HOUR
L		
	L-#	LOUVER DESIGNATION
	LAT	LEAVING AIR TEMPERATURE
	LBS.	POUNDS
	LIQ	LIQUID
	LPS	LOW PRESSURE STEAM
	LWT	LEAVING WATER TEMPERATURE
M		
	MA	MAKEUP AIR
	MAX.	MAXIMUM
	MBH	THOUSAND BTU/HR.
	MCA	MINIMUM CIRCUIT AMPACITY
	MCF	THOUSAND CUBIC FEET
	MIN.	MINIMUM or MINUTES
	MOCP	MAXIMUM OVERCURRENT PROTECTION
	MPS	MEDIUM PRESSURE STEAM
	MSS	"MANUFACTURERS STANDARDIZATION SOCIETY of the Valves and Fittings Industry, Inc."
N		
	N/A	NOT APPLICABLE
	NC	NOISE CRITERIA
	N.C.	NORMALLY CLOSED
	NEBB	NATIONAL ENVIRONMENTAL BALANCING BUREAU
	N.I.C.	NOT IN CONTRACT
	N.O.	NORMALLY OPEN
	N.T.S.	NOT TO SCALE
O		
	O/A	OUTSIDE AIR
	OD	OUTSIDE DIAMETER
	OSHA	OCCUPATIONAL SAFETY and HEALTH ADMINISTRATION
	OZ	OUNCE
P		
	PD	PRESSURE DIFFERENCE
	PH	PHASE
	PPM	PART PER MILLION
	PRI	PRIMARY
	PRESS.	PRESSURE
	PSI	POUNDS PER SQUARE INCH
	PSIA	"PSI, ABSOLUTE"
	PSIG	"PSI, GAGE"
Q		
R		
	R	THERMAL RESISTANCE
	R-22	REFRIGERANT-22
	R/A	RETURN AIR
	RCVR	RECEIVER
	RD	ROOF DRAIN
	RE: 1/M-xx	"REFER TO DETAIL NO.1, SHEET M-xx"
	RECIRC.	RECIRCULATE
	RF	RETURN FAN
	RH	RELIEF HOOD
	RL	REFRIGERANT LIQUID
	RPM	REVOLUTIONS PER MINUTE
	RPS	REVOLUTIONS PER SECOND
	RS	REFRIGERANT SUCTION
	RTU	ROOFTOP UNIT
	RV	RELIEF VENT
S		
	s	SECOND
	SA	SOUND ATTENUATOR
	S/A	SUPPLY AIR
	SAT	SATURATION
	SD	SMOKE DETECTOR
	SF	SUPPLY FAN
	SG	SPECIFIC GRAVITY
	SMACNA	"SHEET METAL and AIR CONDITIONING" "CONTRACTORS' NATIONAL ASSOCIATION"
	SP	STATIC PRESSURE
	SPEC.	SPECIFICATION
	SQ.FT.	SQUARE FEET
	SUCT.	SUCTION
T		
	TD	TEMPERATURE DIFFERENCE
	TEMP	TEMPERATURE
	TONS	TONS OF REFRIGERATION
	TSTAT	THERMOSTAT
	TU	TERMINAL UNIT
U		
	U	HEAT TRANSFER COEFFICIENT
	U/C	UNDER COUNTER
	UG	UNDERGROUND
	UH	UNIT HEATER
	U.N.O.	UNLESS NOTED OTHERWISE
	UV	UNIT VENTILATOR
V		
	V	VOLTS
	VA	VOLT AMPERE
	VAC	VACUUM
	VAR	VARIABLE
	VAV	VARIABLE AIR VOLUME
	VEL.	VELOCITY
	VENT.	VENTILATION
	VERT.	VERTICAL
	VFD	VARIABLE FREQUENCY DRIVE
	VOL.	VOLUME
	VP	VELOCITY PRESSURE
	VTR	VENT THRU ROOF
W		
	W/	WITH
	W/O	WITHOUT
	W	WATTS
	WB	WET BULB
	WBT	WET BULB TEMPERATURE
	WT	WEIGHT
X		
Y		
	YCO	YARD CLEANOUT
	YD	YARD
	YR	YEAR
Z		
	ZN	ZONE

GENERAL MECHANICAL NOTES AND SPECIFICATIONS:

GENERAL

1. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
2. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
3. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
4. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
5. SUBMISSION OF BID PROPOSAL IS CONSIDERED AN ACKNOWLEDGEMENT THAT CONTRACTOR VISITED SITE, AND VERIFIED ALL EXISTING CONDITIONS, AND INCLUDED ANY MODIFICATIONS TO EXISTING AND NEW WORK REQUIRED FOR INSTALLATION OF A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM.
6. COORDINATE WITH OWNER AND ENGINEER FOR ANY DISRUPTION IN UTILITY SERVICES, PARTICULARLY THOSE THAT MIGHT AFFECT OTHER BUILDINGS IN THE CAMPUS.
7. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
8. TESTING, ADJUSTING AND BALANCING (TAB) CONTRACTOR SHALL BE RETAINED BY THE PRIME CONTRACTOR TAB SHALL NOT BE A PART OF THE MECHANICAL CONTRACT.

CODES AND ORDINANCES

1. PERFORM ALL WORK PER LATEST VERSION OF INTERNATIONAL MECHANICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
2. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
3. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.

COORDINATION

1. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF CONSTRUCTION, INCLUDING BEAMS, FLOOR AND WALL PENETRATIONS, CHASES, AND REFLECTED CEILING PLANS. VERIFY OPENING SIZES WITH EQUIPMENT FURNISHED.
2. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
3. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND MECHANICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
4. ENGINEER/ ARCHITECT MUST BE GIVEN AT LEAST A TEN (10) WORKING DAY NOTICE TO PERFORM ALL TYPES OF INSPECTIONS. COORDINATE WORK SCHEDULE WITH ARCHITECT AND ENGINEER TO PLAN ACCORDINGLY FOR APPROPRIATE INSPECTIONS.

ECONOMIZER.

1. FOR SYSTEMS THAT REQUIRE ECONOMIZER, MECHANICAL CONTRACTOR SHALL PROVIDE A CONTROLLER EQUAL TO HONEYWELL JADE ECONOMIZER MODULE W7220. REFER TO ECONOMIZER DETAIL FOR ADDITIONAL INFORMATION.

METAL AND FLEXIBLE DUCTS

1. DRAWINGS ARE DIAGRAMMATIC IN NATURE. FOR CLARITY SAKE, MOST DUCT OFFSETS/RISES/DROPS ARE NOT SHOWN. RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED STEEL. SIZES SHOWN ARE INSIDE CLEAR DIMENSION.
2. VERIFY BOTTOM OF DUCT ELEVATION AND COORDINATE WITH OTHER TRADES.
3. CONSTRUCT AND LEAKAGE TEST ALL DUCTWORK BASED ON SMACNA REQUIREMENTS. COORDINATE PRESSURE CLASSES WITH EQUIPMENT SCHEDULES.
4. ALL GALVANIZED SHEET METAL DUCT WORK SHALL COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE".
5. USE 2" GLASS FIBER-REINFORCED FABRIC JOINT AND SEAM TAPE. USE WATER BASED JOINT AND SEAM SEALER. USE FIRE RESISTANT SEALER FOR FILLING OPENINGS AROUND DUCT PENETRATIONS THROUGH WALLS. ACCEPTABLE PRODUCTS ARE DOW CORNING, FIRE STOP FOAM AND FIRE STOP SEALER OR EQUAL.
6. USE SHEET METAL SCREWS OR BLIND RIVENTS COMPATIBLE WITH DUCT MATERIALS WHEN SECURING ALL DUCTWORK TO STRUCTURE.
7. FLEXIBLE DUCT MAY BE USED TO CONNECT TO SUPPLY DIFFUSERS. MAXIMUM LENGTH OF FLEXIBLE DUCT LIMITED TO 6 FEET. PROVIDE FLEXMASTER TYPE 8M UL 181 CLASS 1 AIR DUCT OR EQUAL. FLEXIBLE DUCT SHALL HAVE MIN. R-8 INSULATING VALUE.
8. FLEXIBLE DUCT CLAMP SHALL BE OF STAINLESS STEEL BANDS WITH CADMIUM PLATED HEX SCREW TO TIGHTEN BAND WITH WORM GEAR ACTION.
9. PROVIDE TURNING VANES IN ALL SPLITS, TEES AND SWEPT 90 DEGREE ANGLE DUCT FITTINGS. MANUFACTURED TURNING VANES TO BE 1-1/2" WIDE, DOUBLE VANE, CURVED BLADES OF GALVANIZED SHEET STEEL SET ¾" O.C. ACCEPTABLE MANUFACTURER'S ARE DUCTMATE INDUSTRIES, METALAIRE, WARD INDUSTRIES OR EQUAL.
10. WHERE RECTANGULAR TEE FITTINGS ARE SHOWN, PROVIDE FITTING WITH ADJUSTABLE DIVIDER SHEET AND TURNING VANES.
11. WHERE RECTANGULAR MAIN AND BRANCH CONNECTIONS ARE SHOWN, PROVIDE EXTRACTOR VANES.
12. PROVIDE MANUAL VOLUME CONTROL DAMPERS WHERE SHOWN ON DRAWINGS. DAMPERS TO HAVE NEOPRENE BLADE SEALS AND GALVANIZED STEEL FRAMES, TIE BARS, DAMPER AND BRACKETS. ACCEPTABLE MANUFACTURER'S ARE RUSKIN CO., NAILOR INDUSTRIES, FLEXMASTER OR EQUAL.
13. ABOVE INACCESSIBLE CEILINGS AND WHERE DUCT CONFIGURATION DOES NOT ALLOW FOR INSTALLATION OF DAMPER IN DUCTWORK OR DIFFUSER, PROVIDE REMOTE MANUAL DAMPER BY YOUNG REGULATOR, (BOWDEN CABLE CONTROL SYSTEM). CONTRACTOR MAY PROVIDE OPPOSED BLADE DAMPER THAT IS INTEGRAL TO GRD WITH ENGINEER'S APPROVAL.

INSULATION

1. DUCT WRAP INSULATION SHALL BE MINERAL FIBER INSULATION. ALL SERVICE JACKETING MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL AND VINYL FILM. ACCEPTABLE MANUFACTURER'S ARE CERTAINTEED, KNAUF OR OWENS-CORNING. INSTALL DUCT WRAP INSULATION PER MANUFACTURER'S INSTRUCTIONS.

INTERIOR DUCTWORK TO BE INSULATED WITH DUCT WRAP INSULATION. ALL SUPPLY DUCTS TO HAVE 3" MIN. THICKNESS (R-8) INSULATION AND ALL RETURN AND OUTSIDE AIR DUCTS TO HAVE 2" MIN. INSULATION.

TESTING, ADJUSTING AND BALANCING (TAB)

1. TAB TO BE PERFORMED BY AN INDEPENDENT ENTITY, CERTIFIED BY AABC OR NEBB.
2. PERFORM TESTING AND BALANCING PROCEDURES PER AABC'S "NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE" OR NEBB'S "PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, AND BALANCING OF ENVIRONMENTAL SYSTEMS".

2705 E. DAVIS RD.
EDINBURG TEXAS 78539
PH. 956.513.1849

RO ENGINEERING, PLLC
MEP ENGINEERING & CONSTRUCTION MANAGEMENT
TBPE Firm Registration No. 12179
WWW.RO-ENGINEERING.COM

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RENE R. OLIVAREZ, P.E. 102302 TBPE REGISTRATION NO. 12179

STATE OF TEXAS
RENE R. OLIVAREZ
102302
LICENSED PROFESSIONAL ENGINEER
2/15/24

PROJECT #: 2319

TRDI OFFICE AND WAREHOUSE
931 W. SHARM DR.
PHARR, TX 78577

DRAWN BY:	H.M.
REVIEWED BY:	R.O.
ISSUED DATE:	2/15/24

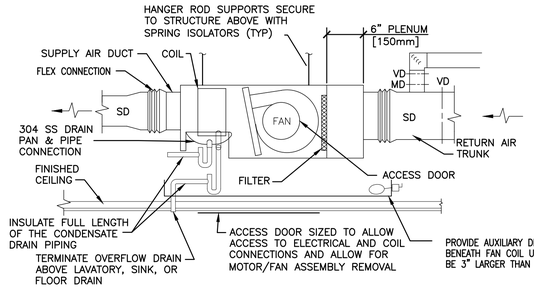
REVISION / ADDENDA

NO.	DATE	DESCRIPTION

MECHANICAL SYMBOLS & ABBREVIATIONS

SHEET

SHEET
M0.0

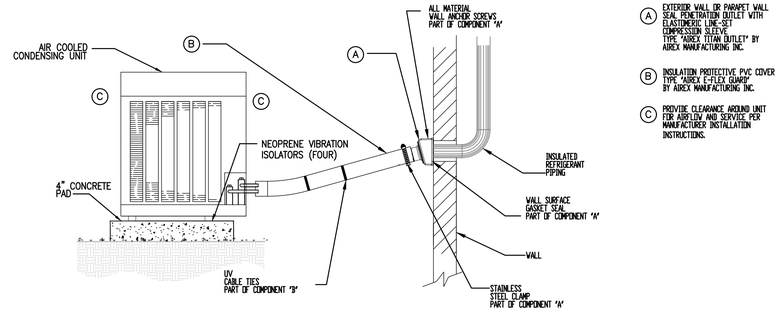


NOTES:

1. SIX INCH [150mm] PLENUM AS SHOWN SHALL BE SUPPLIED BY MANUFACTURER OF FAN COIL UNIT.
2. PROVIDE ACCESS FOR FILTER REMOVAL.
3. SUPPLY & RETURN GRILLES SHALL BE SIZED TO SUIT CONNECTIONS ON FAN COIL UNIT. DUCTWORK SHALL SUIT GRILLES AND FAN COIL UNIT FURNISHED.
4. REFER TO COIL PIPING DETAIL.
5. PROVIDE SMOKE DETECTOR AS REQUIRED BY DIV. 26.

1 FAN COIL UNIT - HORIZONTAL CONCEALED

NTS



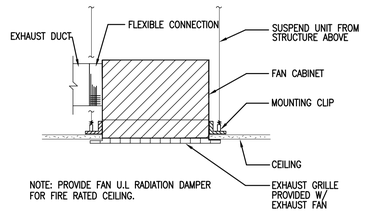
A EXTERIOR WALL OR PARAPET WALL SEAL PENETRATION OUTLET WITH ELASTOMERIC LINE-SET COMPRESSION SLEEVE TYPE "AXSC1 TITAN OUTLET" BY AIREX MANUFACTURING INC.

B INSULATION PROTECTIVE PVC COVER TYPE "AIREX E-FLEX GUARD" BY AIREX MANUFACTURING INC.

C PROVIDE CLEARANCE AROUND UNIT FOR AIRFLOW AND SERVICE PER MANUFACTURER INSTALLATION INSTRUCTIONS.

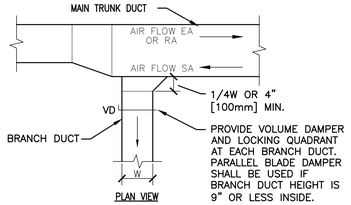
2 CONDENSING UNIT MOUNTING ON GRADE REFRIGERANT PIPING DIAGRAM

NTS



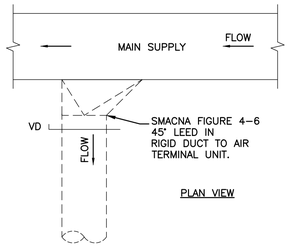
3 CEILING MOUNTED EXHAUST FAN

NTS



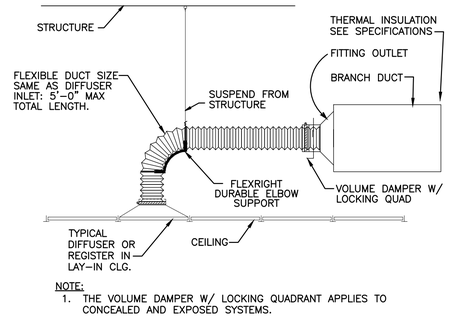
4 BRANCH DUCT TAKE-OFF PAN VIEW

NTS



5 ALTERNATE SUPPLY DUCT TAKEOFF - AIR TERMINAL UNITS

NTS

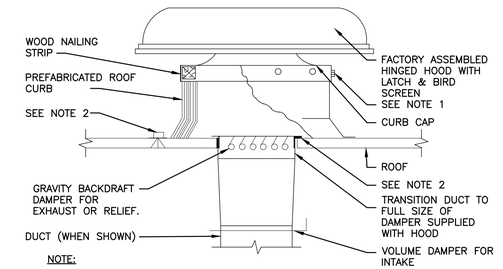


NOTE:

1. THE VOLUME DAMPER W/ LOCKING QUADRANT APPLIES TO CONCEALED AND EXPOSED SYSTEMS.

6 FLEXIBLE AIR DUCT CONNECTOR

NTS

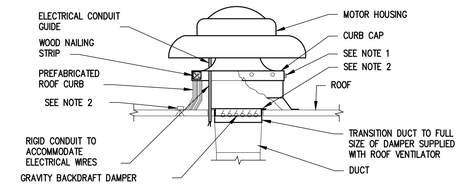


NOTE:

1. SECURE HOOD TO WOOD NAILING STRIP WITH 3/8" [10mm] CADMIUM PLATED LAG BOLTS NOT OVER 12" [300mm] ON CENTER.
2. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF WITH EXPANSION BOLTS (CONCRETE ROOF) OR RUST RESISTANT BOLTS (MENTAL DECK & BAR JOIST ROOF).

7 INTAKE HOOD

NTS

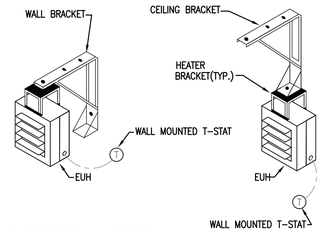


NOTE:

1. SECURE CURB CAP TO WOOD NAILING STRIP WITH 3/8" [10mm] CADMIUM PLATED LAG BOLTS NOT OVER 12" [300mm] ON CENTER.
2. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF WITH EXPANSION BOLTS (CONCRETE ROOF) OR RUST RESISTANT BOLTS (METAL DECK AND BAR JOIST ROOF).
3. RUN ELECTRICAL LINES THROUGH CLEARANCE HOLE PROVIDED IN GRAVITY DAMPER, THEN THROUGH VENTILATOR ELECTRICAL CONDUIT GUIDE.

8 POWER ROOF VENTILATOR

NTS

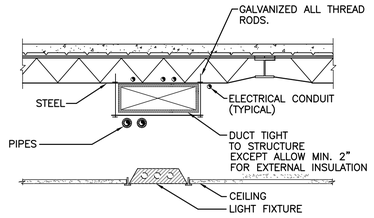


CONTRACTOR SHALL PROVIDE:

- WALL-MOUNTED THERMOSTAT
- LOW VOLTAGE CONTROL TRANSFORMER
- UNIVERSAL WALL AND CEILING-MOUNTED BRACKET
- AUTOMATIC RESET THERMAL CUT-OUT
- ADJUSTABLE DISCHARGE
- REMOTE SUMMER FAN SWITCH

9 ELECTRIC UNIT HEATER DETAIL

NTS



NOTES:

1. PIPES AND ELECTRICAL CONDUIT CAN BE ROUTED BETWEEN JOISTS OR THROUGH JOIST WEB SPACE AS REQUIRED.
2. U.L. DESIGN ASSEMBLY NUMBERS ARE SHOWN ON ARCHITECTURAL PLANS WHEN REQUIRED.
3. INSTALLATION OF ALL SERVICES MUST BE COORDINATED BY THE CONTRACTOR.

10 RECTANGULAR DUCT INSTALLATION

NTS

2705 E. DAVIS RD.
EDINBURG TEXAS 78539
PH. 956.513.1849

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STATE OF TEXAS
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931 W. SHARM DR.
PHARR, TX 78577

DRAWN BY: H.M.
REVIEWED BY: R.O.
ISSUED DATE: 2/15/24

REVISION / ADDENDA

NO.	DATE	DESCRIPTION

MECHANICAL SYMBOLS & ABBREVIATIONS

SHEET
M0.1