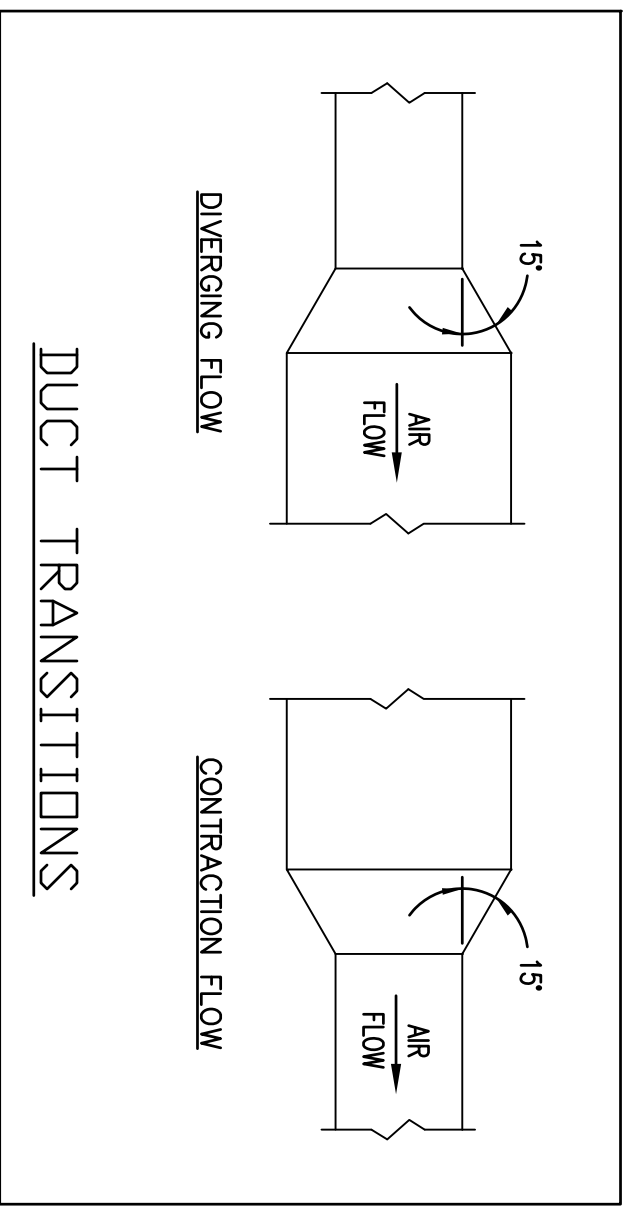


MECHANICAL GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMATIC. ALL OFFSETS, FITTINGS, TRANSITIONS AND ACCESSORIES ARE NOT SHOWN. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL ITEMS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. DO NOT SCALE DRAWINGS FOR INSTALLATION.
- ALL WORK SHALL BE PERFORMED IN A FIRST CLASS WORKMANLIKE MANNER BY LICENSED CONTRACTORS.
- THE CONTRACTOR SHALL OBTAIN AT HIS EXPENSE ALL NECESSARY FEES, PERMITS, AND TESTS.
- ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. NO CONTRACTOR SHALL, UNLESS FAMILIAR WITH THESE CODES, CORRECTION OF DEFECTS TO THIS WORK SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER. REPAIR AND REPLACEMENT FOR DAMAGE CAUSED BY THIS CONTRACTOR SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER.
- ALL WORK OF THIS TRADE SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY INTERFERENCES THAT MAY DELAY PROGRESS OF CONSTRUCTION.
- THE CONTRACTOR SHALL INCLUDE THE WORK OF ALL REQUIRED SUB CONTRACTORS SUCH AS ELECTRICAL, MECHANICAL, PLUMBING, ETC., AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- EQUIPMENT SHALL BEAR A UL, OR OTHER RECOGNIZED LABEL.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND ACCESSORIES TO BE READY ACCESSIBLE FOR SERVICING, TESTING, BALANCING, AND REPLACEMENT.
- THE CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE AGAINST DEFECTS IN ALL MATERIALS AND WORKMANSHIP FOR ONE YEAR FROM ACCEPTANCE, WITH FOUR ADDITIONAL YEARS OF WARRANTY ON COMPRESSORS.
- THE CONTRACTOR SHALL PROVIDE THREE COPIES OF SUBMITTAL DATA, SHOP DRAWINGS, AND AT COMPLETION OF THE PROJECT TWO SETS OF OPERATION AND MAINTENANCE MANUALS FOR ALL PROJECT ITEMS.
- PROVIDE ALL CONTROLS, STARTERS, CONTROL WIRING, DISCONNECTS, AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- THE HVAC CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, ON SITE, A NEATLY STORED AND PROTECTED STOCK OF MATERIALS. THE CONTRACTOR IS TO PROVIDE A NEATLY DRAWN COMPREHENSIVE AS-BUILT SET OF PLANS, DEPARTMENT AND TO THE OWNER.
- PRIOR TO ACCEPTANCE BY THE OWNER THE SYSTEMS SHALL BE TESTED AND BALANCED BY AN INDEPENDENT AABC OR NEBB CERTIFIED TEST & BALANCE FIRM, AND A TYPEWRITTEN COMPREHENSIVE REPORT SUBMITTED.
- SUPPLY AND INSTALL DUCT MOUNTED SMOKE DETECTORS AS REQUIRED.
- COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS AND ARCHITECTURAL ELEMENTS.
- ALL GRILLES TO BE TITUS OR METALLARE UNLESS OTHERWISE NOTED. SIZES AS SHOWN ON PLANS, ALUMINUM CONSTRUCTION.
- ALL DUCT WORK SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS AND LOCAL BUILDING CODES.
- ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
- ALL OUTSIDE AIR DUCTWORK SHALL BE SHEETMETAL WITH EXTERIOR R-6 INSULATION. PROVIDE BLANKET TYPE INSULATION IN CONCEALED SPACES, AND BOARD TYPE IN EXPOSED AREAS.
- ALL EXHAUST AIR DUCT SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
- FLEXIBLE DUCT, WHERE SHOWN, SHALL BE UL, CLASS 1, R-6 INSULATION.
- LOW PRESSURE SUPPLY AND RETURN RECTANGULAR DUCTWORK IS RIGID DUCTBOARD, 1 IN. THICK, R-4.2 INSULATION.
- PROVIDE ELBOW TURNING VANES IN ALL RECTANGULAR DUCTS WHERE TURNS ARE GREATER THAN 45 DEGREES.
- PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST FANS.
- VERIFY ALL THERMOSTAT LOCATIONS WITH THE LANDLORD.
- CONDENSATE DRAIN PIPING SHALL BE ABOVE GRADE COPPER DRAIN, WASTE AND VENT PIPING SHALL BE ABOVE GRADE COPPER PIPING W/3/4" MCOA MCOLOCK PIPE INSULATION.
- CONDENSER WATER SUPPLY AND RETURN PIPING SHALL BE TYPE "1" COPPER. PROVIDE DIELECTRIC COUPLERS FOR ALL CONNECTIONS BETWEEN DISSIMILAR MATERIALS. PROVIDE ISOLATOR PADS AT ALL HANGERS AND SUPPORTS.



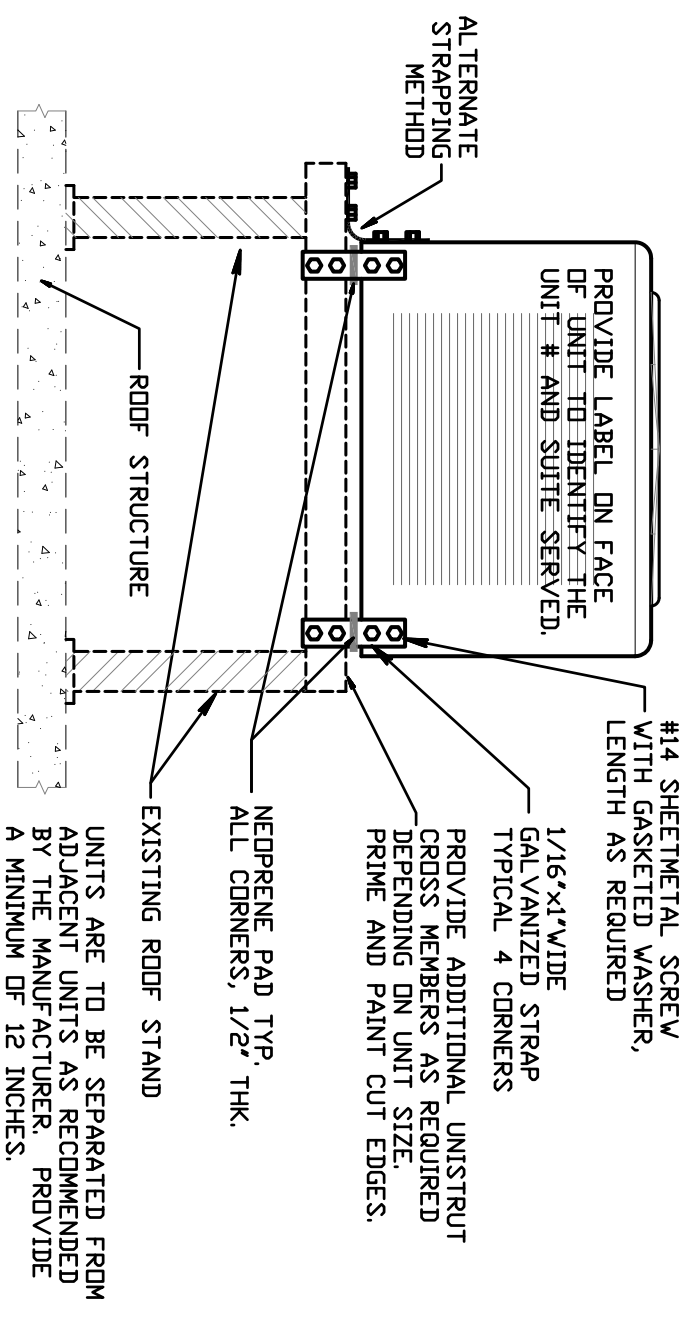
SPLIT SYSTEM SCHEDULE

AIR HANDLING UNIT

MARK	MODEL	MANUF.	SUPPLY CFM	FAN FLA	HP	DIM. (IN)	HWXL	MCA MOCP	ELECTRICAL VOLTS-PH-HZ	HEATER KW	WT. LBS	ACCU	NO.	HWXL	QTY.	TONS	FLA	QTY.	FLA	ELECTRICAL VOLTS-PH-HZ	MCA	FUSE	WT. LBS	CAPACITY TBH	SMH	SEER (EER)	CONTROL
1	P4ACNB080	CARRIER	1800	5.2	3/4	28X22X29	42.6	45	208/1/60	6.0	198	1	244BB360	35X31X31	1	5	26.4	1	1.2	208/1/60	34.2	50	190	55.7	40.2	13.0	THERMOSTAT
2	P4ACNB042	CARRIER	1325	2.9	1/2	21X21X30	28.5	30	208/1/60	3.8	150	2	244BB342	32X31X31	1	3.5	17.9	1	1.1	208/1/60	23.5	40	190	41.0	31.5	13.0	THERMOSTAT

SPLIT SYSTEM NOTES:

- OUTSIDE AIR DESIGN CONDITIONS: 91°FDB/79°FWB. SYSTEM CAPACITY SHOWN IS AT 80°FDB/67°FWB.
- COOLING & HEATING THEATERS ARE BASED ON MANUFACTURER'S SIZES AND RATING REFRIGERANT PIPING PER MANUFACTURER'S PUBLISHED RECOMMENDATIONS.
- PROVIDE PROPER VIBRATION ISOLATORS PER ISOLATION MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE BUILT-IN DISCONNECT WITH AIR HANDLING UNIT.
- INSULATE REFRIGERANT SUCTION LINES WITH 3/4" FIRE RETARDANT ARMATEX.
- INSULATE REFRIGERANT LIQUID LINES WITH 1" FIRE RETARDANT ARMATEX.
- PROVIDE MANUFACTURERS STANDARD FILTER RACK UPSTREAM OF R/A OPENING.
- PROVIDE MANUFACTURERS STANDARD FILTER RACK UPSTREAM OF R/A OPENING.



CONDENSING UNIT SUPPORT FRAME DETAIL

AIR DISTRIBUTION SCHEDULE

MARK	MAKE	MODEL	SIZE	NECK	MATERIAL	BORDER TYPE	MOUNTING	DAMPER	THROW
A1	TTUS	TDC-AA	9X9	6"ø	ALUMINUM	1	SURFACE	D-100	2 WAY
A	TTUS	TDC-AA	24X24	6"ø	ALUMINUM	3	LAY-IN	D-100	4 WAY
B	TTUS	TDC-AA	24X24	8"ø	ALUMINUM	3	LAY-IN	D-100	4 WAY
C	TTUS	TDC-AA	24X24	10"ø	ALUMINUM	3	LAY-IN	D-100	4 WAY
R1	TTUS	3FL	24X24	22X22	ALUMINUM	3	LAY-IN	-	-
R2	TTUS	3FL	24X24	12X12	ALUMINUM	3	LAY-IN	-	-

PROVIDE OFF-WHITE FINISH AND SUBMITTAL TO ARCHITECT FOR APPROVAL.
PROVIDE ROUND FLEXIBLE DUCT RUN-OUT SIZED TO MATCH S/A DIFFUSER. NECK UNLESS NOTED OTHERWISE.
PROVIDE PLENUM BOX ABOVE RETURN AIR GRILLES AS REQUIRED FOR DUCT CONNECTIONS. MINIMUM BOX HEIGHT IS 4".
PROVIDE DAMPERS ONLY WHERE DUCT TAKE-OFF DAMPER IS NOT ACCESSIBLE.

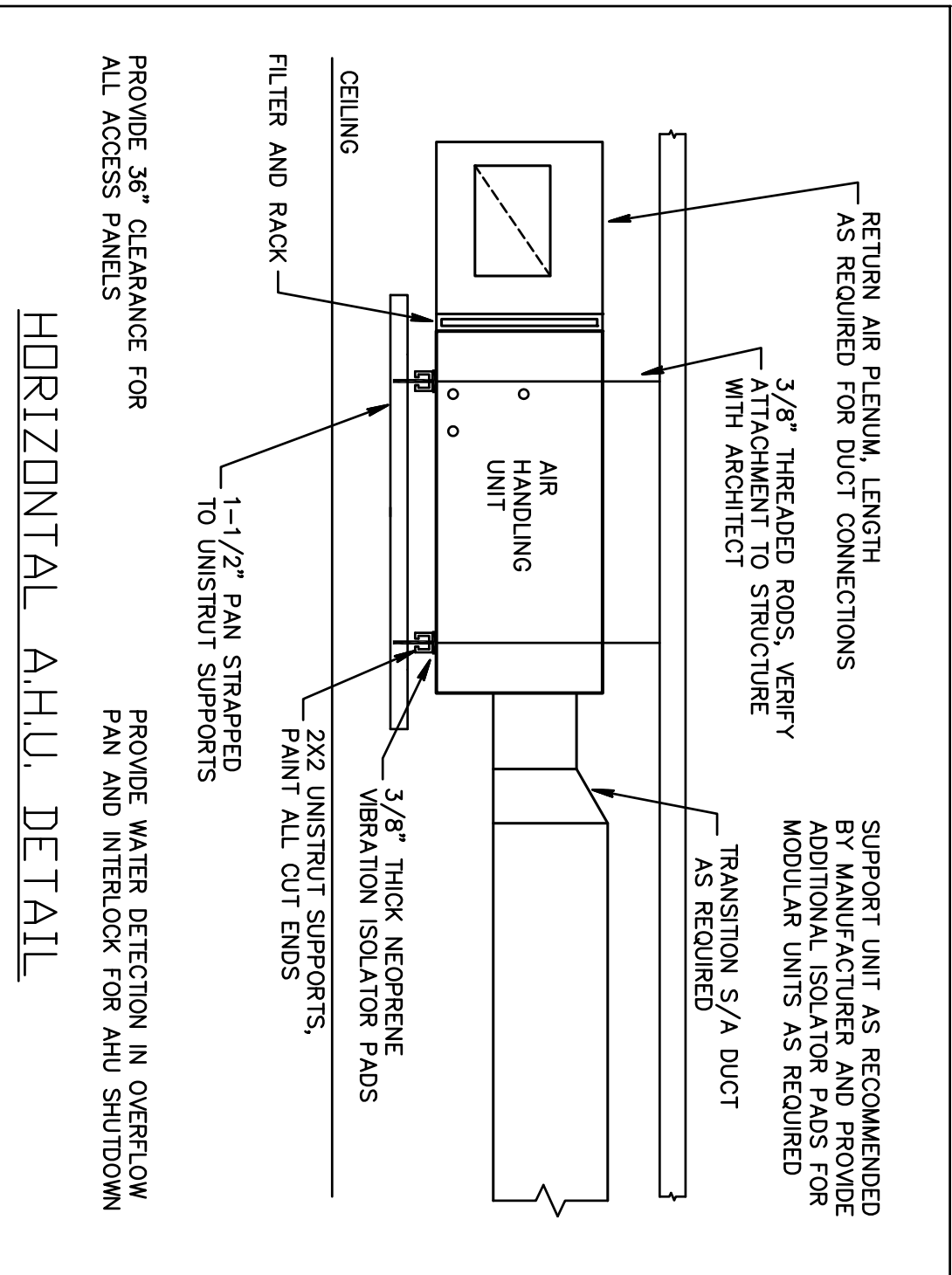
OUTSIDE AIR CALCULATIONS

AREA TYPE	AHU-1					AHU-2
SQUARE FEET OF AREA	312	66	496	200	980	
CFM/SQ.FT. REQUIRED	0.06	0.06	0.12	0.06	0.12	
TOTAL OCCUPANTS	2	0	7	5	15	
CFM/PERSON REQUIRED	5	0	7.5	5	7.5	
ZONE CFM	29	4	112	37		
SYSTEM CFM						230

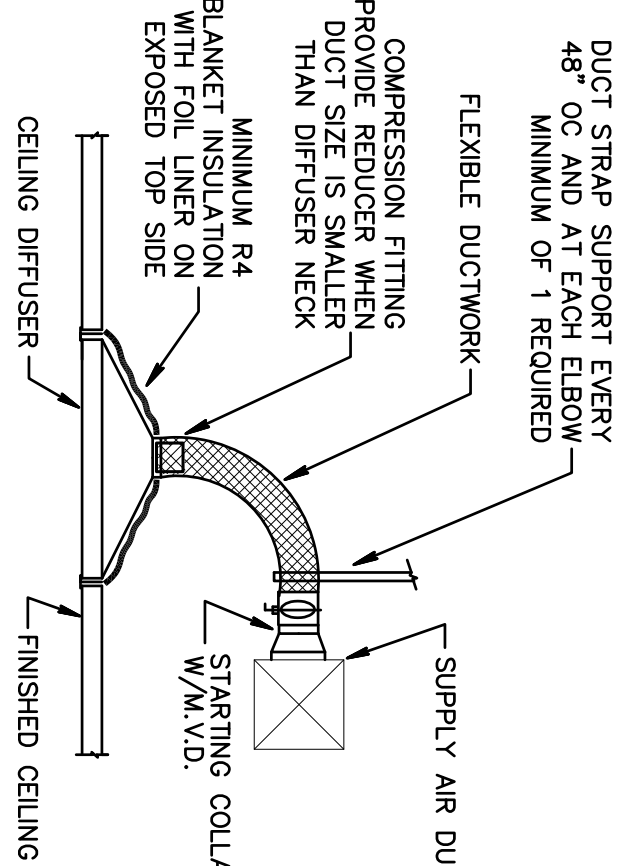
ABOVE PER ASHRAE 62.1, 2007

FAN SCHEDULE			
MARK	EF #1,2,3		
TYPE	CEILING		
SERVICE	TOILET		
MANUFACTURER	GREENHECK		
MODEL NO.	SP-A80		
CTM	50		
S.P.	0.25		
HP	30 WATTS		
VOLT-PH-HZ	120-1-60		
DRIVE	D		
MOTOR R.P.M.	-		
FAN R.P.M.	900		
WEIGHT (LBS)	12		
SONES	1.2		
ROOF OPENING	-		
NOTES	1		

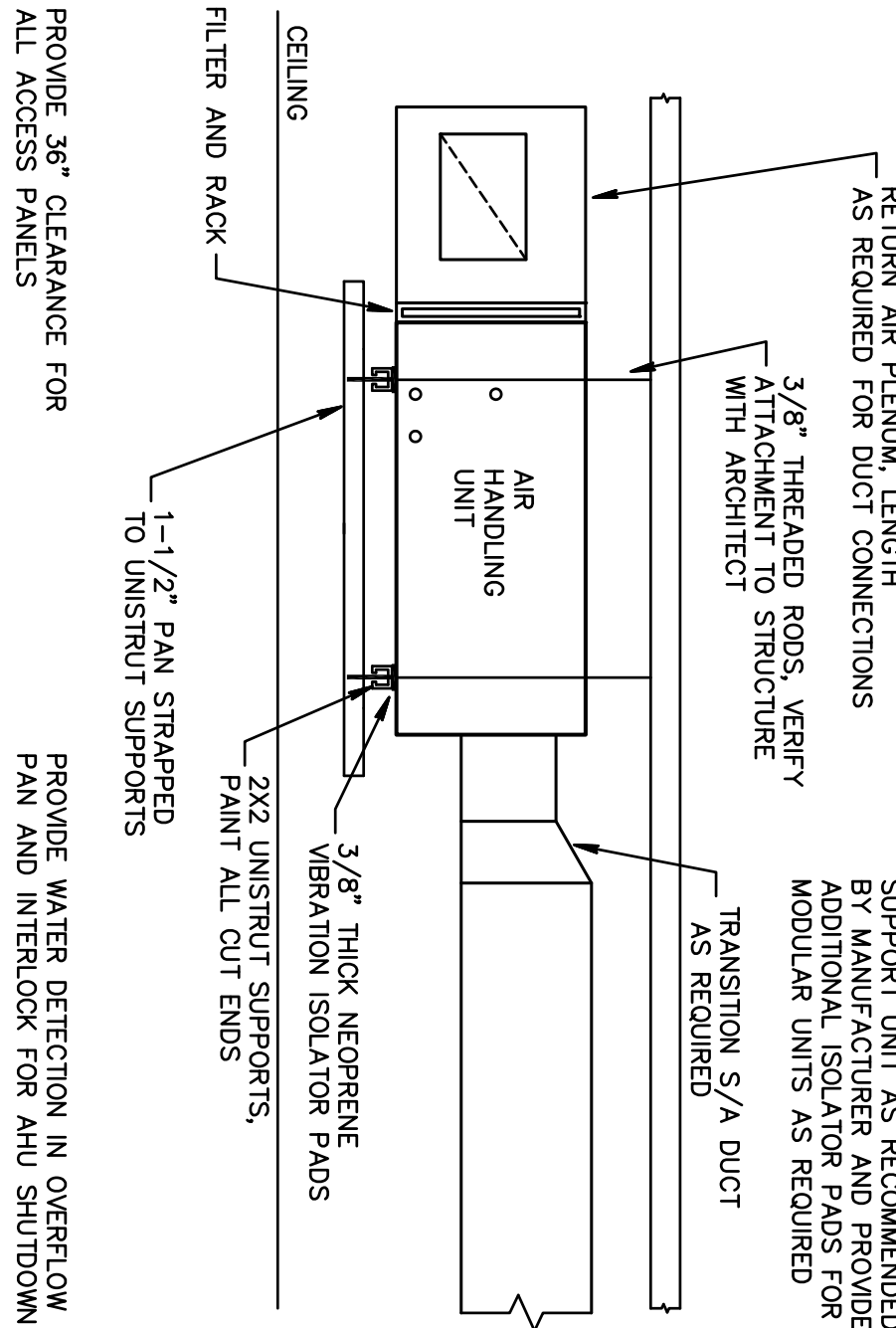
1. INTERLOCK WITH ROOM LIGHT SWITCH FOR SIMULTANEOUS OPERATION.



CEILING DIFFUSER DETAIL



HORIZONTAL AHU DETAIL



PROVIDE 36" CLEARANCE FOR ALL ACCESS PANELS

PROVIDE WATER DETECTION IN OVERFLOW PAN AND INTERLOCK FOR AHU SHUTDOWN

PROVIDE 1-1/2" PAN STRAPPED TO UNISTRUT SUPPORTS

PAINT ALL CUT ENDS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS

SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER AND PROVIDE ADDITIONAL ISOLATOR PADS FOR MODULAR UNITS AS REQUIRED

TRANSITION S/A DUCT AS REQUIRED

AIR HANDLING UNIT

CEILING FILTER AND RACK

3/8" THICK NEOPRENE VIBRATION ISOLATOR PADS

2X2 UNISTRUT SUPPORTS, VIBRATION ISOLATOR PADS

PAINT ALL CUT ENDS

3/8" THREADED RODS, VERIFY ATTACHMENT TO STRUCTURE WITH ARCHITECT

RETURN AIR PLENUM, LENGTH AS REQUIRED FOR DUCT CONNECTIONS