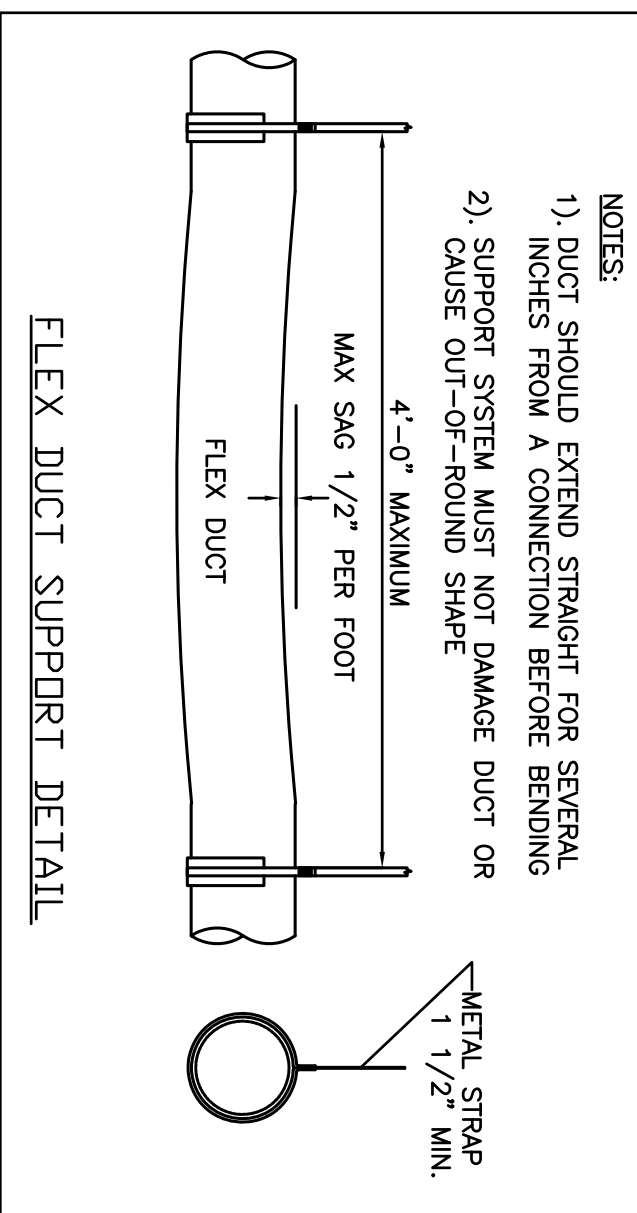


**MECHANICAL GENERAL NOTES:**

1. THESE DRAWINGS ARE DIAGRAMMATIC. 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.
2. ALL WORK SHALL BE PERFORMED IN A FIRST CLASS WORKMANLIKE MANNER BY LICENSED CONTRACTORS.
3. THE CONTRACTOR SHALL OBTAIN AT HIS EXPENSE ALL NECESSARY FEES PERMITS, AND TESTS.
4. ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. NO CONTRACTOR SHALL BID 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.
5. ALL WORK OF THIS TRADE SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY INTERFERENCES THAT MAY DELAY PROGRESS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL INCLUDE THE WORK OF ALL REQUIRED SUB-CONTRACTORS SUCH AS ELECTRICAL, INSULATING, TEST BALANCE, ETC., AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
7. EQUIPMENT SHALL BEAR A UL OR OTHER RECOGNIZED LABEL. NAMEPLATES, WIRING DIAGRAMS, AND ENERGY RATINGS AS APPLICABLE. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND ACCESSORIES TO BE READY ACCESSIBLE FOR SERVICING, TESTING, BALANCING, AND REPLACEMENT.
8. 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.
9. 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.
10. PROVIDE ALL CONTROLS, STARTERS, CONTROL, WIRING, DISCONNECTS, AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
11. THE HVAC CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, ON SITE, A DATED AS-BUILT PLAN SHOWING ALL SYSTEMS. THE CONTRACTOR SHALL PROVIDE UPON COMPLETION A NEATLY DRAWN COMPREHENSIVE AS-BUILT SET OF PLANS DEPARTMENT AND TO THE OWNER.
12. PRIOR TO ACCEPTANCE BY THE OWNER THE SYSTEMS SHALL BE TESTED AND BALANCED BY THE CONTRACTOR. PROVIDE A WRITTEN REPORT.
13. SUPPLY AND INSTALL DUCT MOUNTED SMOKE DETECTORS AS REQUIRED.
14. COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND RESISTERS IN THE FIELD WITH LIGHTS AND ARCHITECTURAL ELEMENTS.
15. ALL GRILLES TO BE TITUS OR METALUARE UNLESS OTHERWISE NOTED. SIZES AS SHOWN ON PLANS, ALUMINUM CONSTRUCTION.
16. ALL DUCT WORK SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS AND LOCAL BUILDING CODES.
17. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
18. 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.
19. ALL EXHAUST AIR DUCT SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
20. FLEXIBLE DUCT, WHERE SHOWN, SHALL BE U.L. CLASS 1, R-6 INSULATION.
21. LOW PRESSURE SUPPLY AND RETURN RECTANGULAR DUCTWORK IS RIGID DUCTBOARD, 1 IN. THICK, R-4.2 INSULATION.
22. PROVIDE ELBOW TURNING VANES IN ALL RECTANGULAR DUCTS WHERE TURNS ARE GREATER THAN 45 DEGREES.
23. PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST FANS.
24. VERIFY ALL THERMOSTAT LOCATIONS WITH THE LANDLORD.
25. CONDENSATE DRAIN PIPING SHALL BE ABOVE GRADE COPPER DRAIN, WASTE AND VENT FINISH. INSULATE ALL CONDENSATE PIPING W/3/4" IMCOA IMCOLOK PIPE INSULATION.

**GENERAL DEMOLITION NOTES**

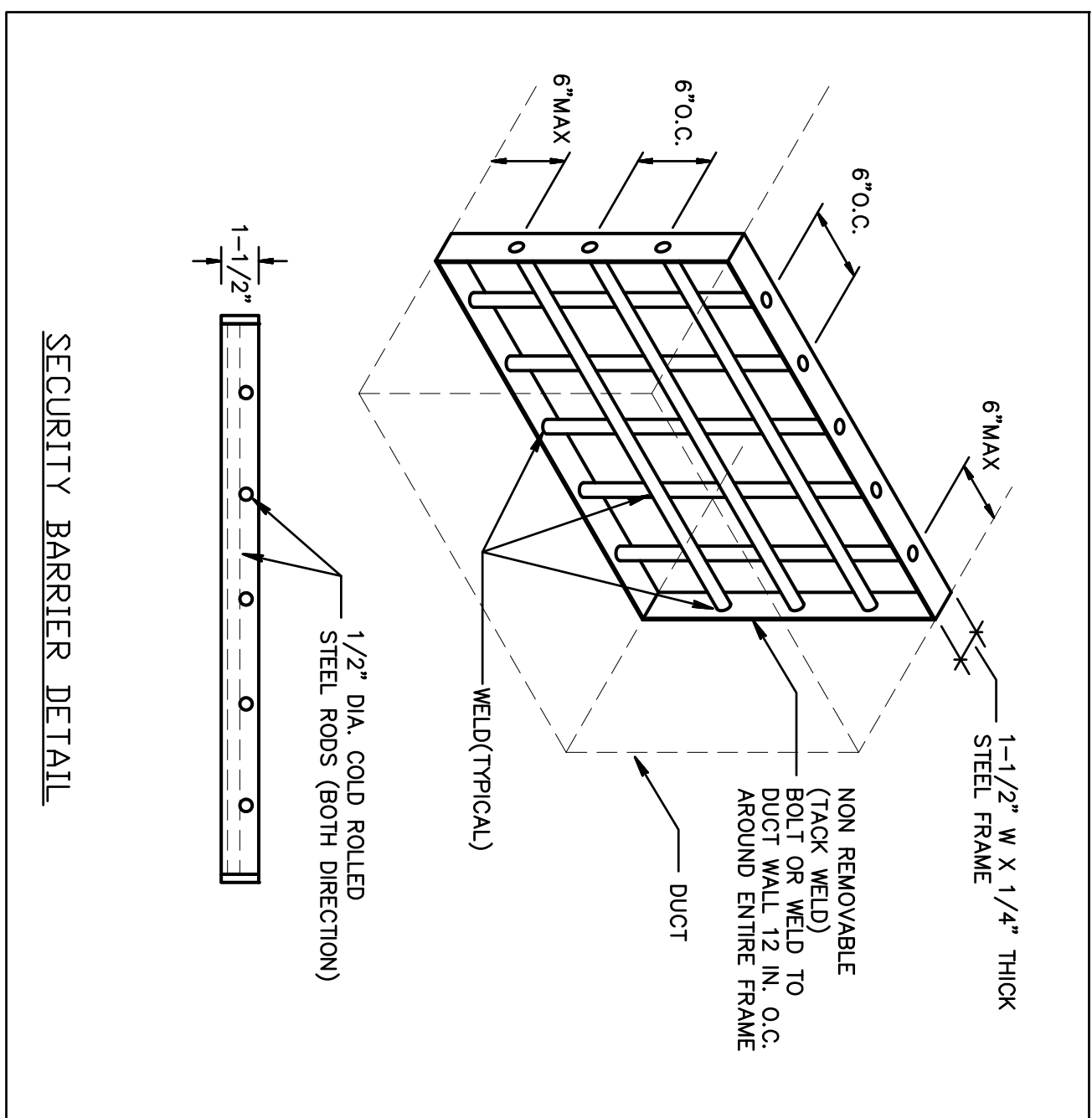
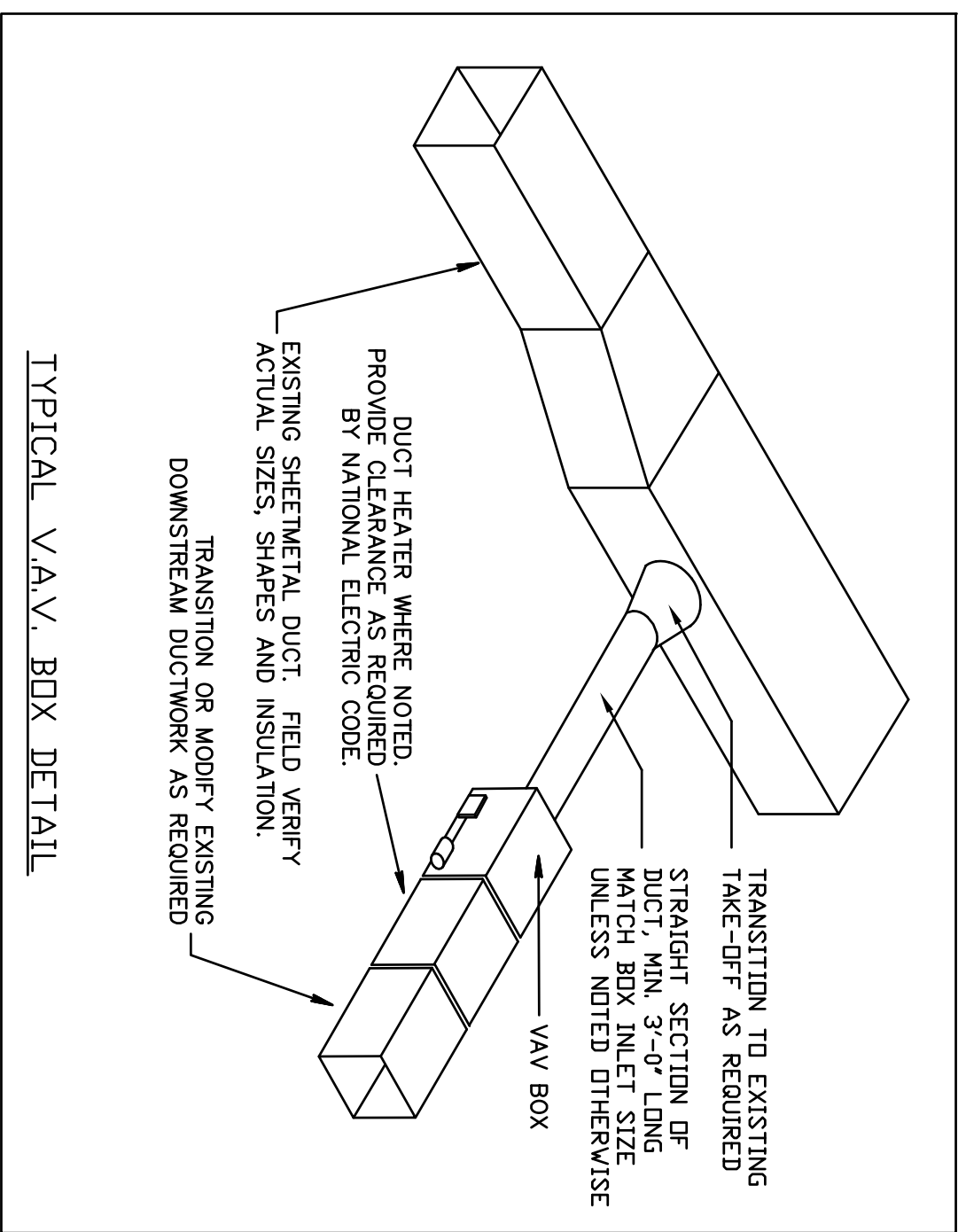
1. UNLESS OTHERWISE NOTED, ALL EQUIPMENT AND DUCTWORK IN THE PROJECT AREA WHICH IS NOT INDICATED TO REMAIN, IS TO BE REMOVED. THE CONTRACTOR SHALL INDICATE THE PROJECT AREA PRIOR TO BID TO DETERMINE ALL REQUIRED DEMOLITION.
2. EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE TAKEN FROM ORIGINAL DRAWINGS AND FIELD INVESTIGATION. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. FIELD CONDITIONS SHALL GOVERN.
3. DEMOLITION WORK IS NOT SPECIFICALLY IDENTIFIED ON THESE PLANS, AND MAY BE DESCRIBED ON THE ARCHITECT'S PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE PLANS OR NOT.
4. ALL MECHANICAL SYSTEMS SERVING OTHER SPACES OR FLOORS, THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION, SO AS NOT TO CAUSE ANY DISRUPTION TO THESE OTHER SPACES.
5. ALL ITEMS REMOVED UNDER THIS PROJECT SHALL BE DISPOSED OF OR TURNED OVER TO THE OWNER AT THE OWNER'S DISCRETION.
6. PROPERLY REMOVE AND DISPOSE OF ALL HVAC DUCTWORK AND AIR DISTRIBUTION DEVICES WHICH ARE TO BE REMOVED. CONSULT WITH OWNER AND OBTAIN THE OWNER'S APPROVAL PRIOR TO DISPOSAL OF REMOVED MATERIAL.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL PIPING AND DUCTS, NEW OR EXISTING, WITHIN THE PROJECT AREA, ARE PROPERLY SUPPORTED.
8. ALL OCCUPIED SPACES ARE TO REMAIN OPERATIONAL DURING BUSINESS HOURS THROUGHOUT THE DEMOLITION AND CONSTRUCTION PERIOD. COORDINATE ALL WORK AS DESCRIBED IN THE ARCHITECT'S DOCUMENTS.



**FAN SCHEDULE**

MARK	TYPE	CEILING CAB
EF #1,2	TECO, BREAK	
MANUFACTURER	GREENHECK	
MODEL NO.	SP-4200	
CFM	200	
S.P.	0.1	
HP	48 WATS	
VOLT-PH-HZ	120-1-60	
DRIVE	D	
WGTOR R.P.M.		
WGT (LBS)	900	
SONES	24	
ROOF OPENING		
NOTES	1,2,3	

1. PROVIDE EF-1 WITH LINE VOLTAGE THERMOSTAT WALL MOUNTED, FOR CONTROL. SET AT 90°.  
2. PROVIDE EF-2 WITH WALL MOUNTED TOGGLE SWITCH FOR CONTROL.  
3. FAN OUTLET IS TO BE DIRECTED AWAY FROM ANY RETURN AIR GRILLES.



**AIR DISTRIBUTION SCHEDULE**

MARK	MAKE	MODEL	SIZE	NECK	MATERIAL	BORDER TYPE	MOUNTING TYPE	DAMPER	THROW	FINISH	REMARKS
A	TITUS	TDC-4A	6X6	6"φ	ALUMINUM	1	LAY-IN	AG-100	4 WAY	WHITE	SEE NOTES
A1	TITUS	TDC-4A	6X6	6"φ	ALUMINUM	1	SURFACE	AG-100	4 WAY	WHITE	SEE NOTES
B	TITUS	TDC-4A	9X9	8"φ	ALUMINUM	3	LAY-IN	AG-100	4 WAY	WHITE	SEE NOTES
C	TITUS	TDC-4A	12X12	10"φ	ALUMINUM	3	LAY-IN	AG-100	4 WAY	WHITE	SEE NOTES
RA	TITUS	350FL	-	22X22	ALUMINUM	3	LAY-IN	AG-15	-	WHITE	SEE NOTES

PROVIDE VOLUME DAMPERS INTEGRAL TO GRILLES AND DIFFUSERS WHERE LOCATED ABOVE INACCESSIBLE CEILINGS, OR AS SPECIFICALLY INDICATED. PROVIDE SAMPLE WITH OFF-WHITE FINISH TO ARCHITECT FOR APPROVAL. PROVIDE ROUND FLEXIBLE DUCT RUN-OUT SIZED TO MATCH S/A DIFFUSER NECK UNLESS NOTED OTHERWISE. PROVIDE PLENUM BOX ABOVE SUPPLY AND RETURN AIR GRILLES AS REQUIRED FOR DUCT CONNECTIONS. MINIMUM HEIGHT 1/2 OF NECK WIDTH.

**VAV TERMINAL BOX SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	INLET	CFM MAX	CFM MIN	FAN GRW	HEATING FAN HP	KW	STEP	VOLT-PH-HZ	NOTES
PU-2-1	CARRIER	45M	12"φ	1830	600	1500	1/2	5	1	277-1-60	6
PU-2-2	CARRIER	45M	12"φ	1910	600	1500	1/2	5	1	277-1-60	6
PU-2-3	CARRIER	45M	8"φ	600	200	400	1/0	2	1	277-1-60	6
VAV-2-1	CARRIER	35E	7"φ	330	150	-	-	-	-	277-1-60	6
VAV-2-2	CARRIER	35E	12"φ	1250	400	-	-	-	-	277-1-60	6
VAV-2-98	CARRIER	35E	8"φ	675	250	-	-	-	-	277-1-60	1 THRU 4
VAV-2-99	CARRIER	35E	8"φ	700	100	-	-	-	-	277-1-60	1 THRU 4

**SCHEDULE NOTES**

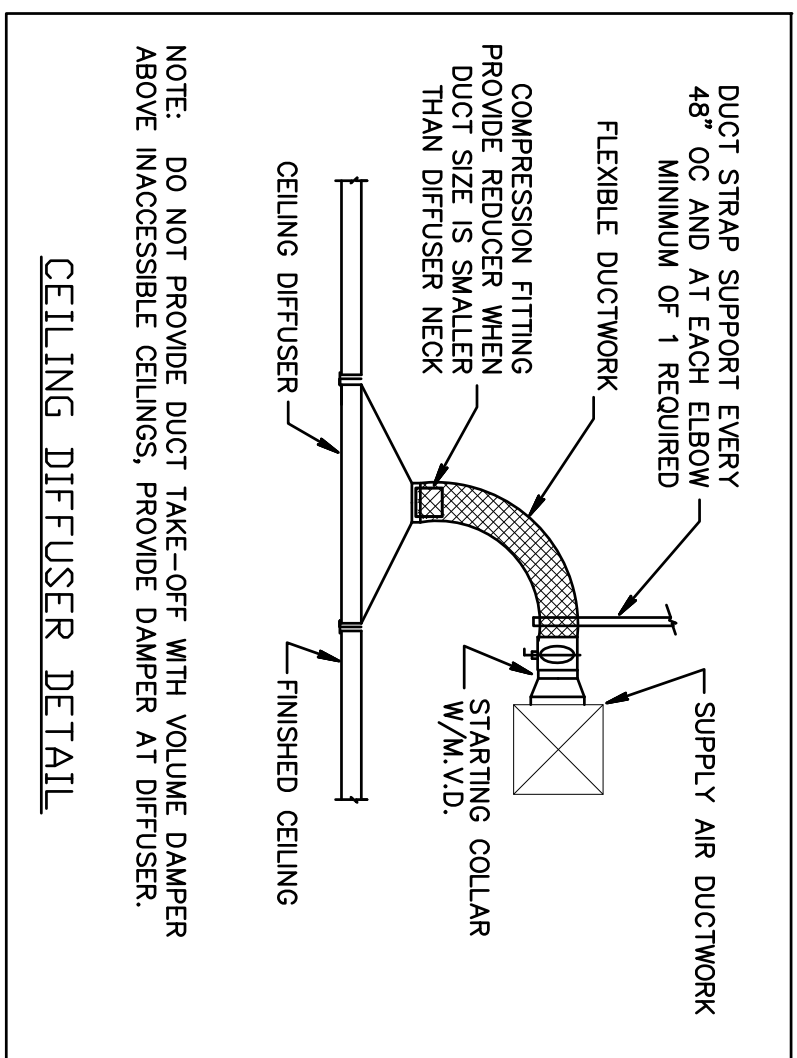
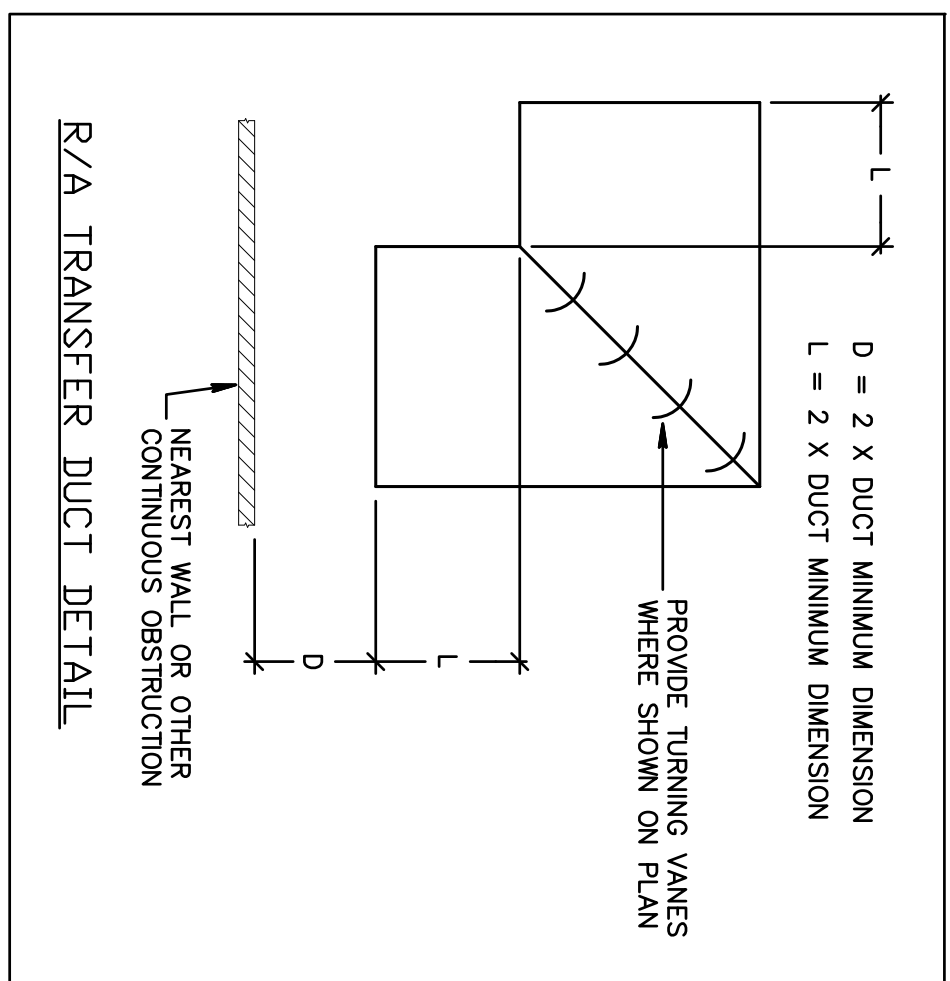
1. PROVIDE FIELD MOUNTED CARRIER CN CONTROLLER COMPATIBLE WITH EXISTING BUILDING MANAGEMENT SYSTEM PROVIDE ELECTRIC ACTUATOR COMPATIBLE WITH DDC CONTROLLER.
2. PROVIDE CARRIER CN ROOM TEMPERATURE SENSOR/THERMOSTAT WITH OVERRIDE CAPABILITY. MATCH EXISTING METHODS AND MATERIALS.
3. TRANSITION FROM INLET SIZE TO SUPPLY DUCT SIZE AS SHOWN ON FLOOR PLAN.
4. AIR CONDITIONING CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROLS, CONTROL, WIRING & CONDUIT, POWER SUPPLY AND RETURN AIR DUCTWORK. THE CONTRACTOR SHALL TAKE CARE TO PROTECT ALL EXISTING ELECTRICAL WORKS. SOFTWARE PROGRAMMING MODIFICATIONS OF THE EXISTING BUILDING MANAGEMENT SYSTEM IS TO BE PROVIDED AS DIRECTED BY THE BUILDING MANAGEMENT COMPANY FOR EACH TERMINAL BOX. FIELD VERIFY SCOPE OF WORK AND COORDINATE WITH THE BUILDING MANAGEMENT COMPANY PRIOR TO BID.
5. PROVIDE FACTORY SINGLE-STAGE HEATER, WITH COMPLETE CONTROLS, MERCURY CONTACTORS, INTERLOCKING DOOR AND FAN, FUSED DISCONNECT SWITCH, UL LISTED AND LABELED.
6. EXISTING UNIT TO REMAIN, RE-BALANCE SYSTEM AS INDICATED.

**OUTSIDE AIR CALCULATIONS - 2ND FLOOR**

AREA TYPE	CORRIDOR	CONFERENCE	RECEPTION	OFFICE
SQUARE FEET OF AREA	3,400	2,300	1,100	16,200
CFM/50 FT. REQUIRED	0.06	0.06	0.06	0.06
OCCUPANTS/1000 SQ.FT.	0	50	30	5
TOTAL OCCUPANTS	0	115	33	81
CFM/PERSON REQUIRED	0	5	5	5
CFM REQUIRED	204	713	231	1377
PRIMARY OA FRACTION	0.12	0.31	0.28	0.23

TOTAL UNCORRECTED CFM REQUIREMENT: 2,525  
VENTILATION EFFICIENCY (0.31 OA FRACTION): 0.8  
TOTAL DESIGN OA INTAKE - CFM: 3,156  
EXISTING OA PROVIDED BY RTU-1 AND RTU-2: 3,200

ABOVE PER ASHRAE 62.1, 2007



**HVAC DETAILS**

Gilman & Associates, Inc.  
MECHANICAL & ELECTRICAL ENGINEERS  
129 N. FEDERAL HIGHWAY SUITE 202  
Lake Worth, FL 33460 C.A.\*009078  
(561) 582-0210 Fax (561) 582-8212  
RONALD D. GILMAN P.E. \*37933

PROJECT: 11-022

REVISIONS

NO	DATE	REVISION
1		
2		
3		
4		
5		

DRAWN BY GD  
CD  
8/18/11

**ALLSTATE**  
1450 CENTREPARK  
1450 CENTREPARK DR #220  
WEST PALM BEACH, FL  
PROJECT NUMBER 14510

**birse design inc.**  
5300 woodland lakes drive  
palm beach gardens, fl 33418  
phone 561-249-4001  
fax 772-409-8684  
AA26001615

