DUCT PERIMETER
1" X 16 GA. - TWO 1/4" DIA.

P/2 = 193" UP

USE THESE MINIMUM FASTENERS

P/2 = 72" 3/8"
P/2 = 96" 3/8"P/2 = 192"

TO RAIL PER SEISMIC
PLACE FASTENERS IN SERIES, NOT SIDE BY SIDE.

DUCT SUPPORT
1-1/2" X 16 GA. - 1100 LBS.

CLOSED CELL
SLIDABLE COVER

1/4" 1" X 20 GA.

WATER SEALING, FLASHING,
Screws may be omitted if hanger loops

REFRIGERANT LINE/ROOF PENETRATION
1/2" SEAM
CLOSED CELL

12" FRONT

SUPPORTED EQUIPMENT
SINGLE HANGER MAXIMUM ALLOWABLE LOAD WHEN STRAPS ARE LAP JOINED

1" X 16 GA.
1" X 20 GA.

PRESSURE TREATED WOOD NAILER

3/8" - 680 LBS.
5/8" - 2000 LBS.

3/8" 3/8" 1/4" 1" X 22 GA.

BEFORE AHU SHALL BE STARTED. DISCHARGE AIR TEMPERATURE CONTROL SHALL BE AS IN OCCUPIED MODE.

WILL REMAIN CLOSED, AND UNIT COOLING SHALL BE ENABLED. MORNING COOL-DOWN CYCLE SHALL BE INITIATED FROM
DOWNSTREAM OF THE COOLING COIL SECTION WILL MONITOR SUPPLY AIR TEMPERATURE FROM THE UNIT. A DUCT
CONTROLLER TO INDICATE AN INTERNAL PROBLEM WITH THE SUPPLY FAN VFD. A DUCT TEMPERATURE SENSOR

VAV ZONES AS REQUIRED. AN ADJUSTABLE MINIMUM NUMBER OF VAV ZONES SHALL REQUIRE MORNING COOL
AIR DAMPER SHALL BE AT THE MINIMUM POSITION. AS CO2 CONCENTRATION LEVELS RISE, THE DAMPER SHALL MODULATE
CIRCUIT.

REMAIN OFF. WHEN THE STARTING CIRCUIT IS ACTIVATED BY THE EMS OR BY PLACING THE SELECTOR SWITCH IN "HAND"
OPERATION OR AS DIRECTED BY THE ENERGY MANAGEMENT SYSTEM (EMS). THE UNIT MOUNTED CONTROLLER SHALL
WILL BE STARTED AND STOPPED AND FAN SPEED WILL BE CONTROLLED THROUGH THE INTEGRAL CONTROLLER. WHEN THE
'MORGANIZER' SZVAV AIR HANDLING UNIT
THE TEMPERATURE OF THE AIR LEAVING THE COIL AT THE SETPOINT DETERMINED BY THE RESET SCHEDULE. DISCHARGE
THE SPACE MOUNTED CO2 MONITOR. WHEN THE CO2 SENSOR SENSES A CO2 CONCENTRATION OF 400 PPM, THE OUTDOOR
CONTROLLER WILL MODULATE THE DAMPERS AS REQUIRED TO SATISFY THE CURRENT SUPPLY AIR TEMPERATURE

HEATING: THE SCR HEATER SHALL
THE FACE AND BYPASS DAMPERS SHALL MODULATE TO MAINTAIN A NEUTRAL AIR TEMPERATURE OF 70°F (ADJ.). IF

COOLING: THE UNIT SHALL RUN IN SINGLE ZONE VAV OPERATION (SZVAV); WHICH SHALL ADJUST THE AIRFLOW AND
MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT. HEATING: THE SCR HEATER SHALL
THE OUTSIDE AIR DAMPER WILL MODULATE CLOSED AS
TEMPERATURE VARIES WITHIN THE RANGE OF 55° F TO 45° F, THE OUTSIDE AIR DAMPER WILL MODULATE CLOSED AS
MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT. HEATING: THE SCR HEATER SHALL
THE OUTSIDE AIR CONTROL DAMPER WILL BE ENABLED.

DX COOLING COIL

RETURN AIR HEATER DAMPER

ELEVATION VIEW

PLAN VIEW

ELEVATION VIEW

PLAN VIEW

Controller to Monitor and Control System and Equipment

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1. Exhaust duct shall follow slope of bleachers and terminate high above finished floor.
2. All exposed interior and exterior round exhaust duct shall be open, unlined, and constructed of Type A or B or C.
3. Duct work around equipment indicates clearance; equipment pads NOT be within duct work.
4. Provide 24"x24" access door in ceiling space below floor in this approximate location, field verify.
5. Connect to existing sewer line running below bleachers up to condensing unit on tower roof.
6. Refrigerant line shall follow the slope of the bleachers up to condensing unit on tower roof.
7. Duct work shall be stainless steel, 4" air gap.
8. Provide 24"x24" access door in floor above.
9. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
10. Provide 24"x24" access door in floor above.
11. Space below is needed.
12. Route condensate to floor drain. Refer to plumbing drawings.
13. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
14. Space above is needed.
15. Provide 24"x24" access door in floor above.
16. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
17. Provide 24"x24" access door in floor above.
18. Space below is needed.
19. Route condensate to floor drain. Refer to plumbing drawings.
20. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
21. Space above is needed.
22. Provide 24"x24" access door in floor above.
23. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
24. Provide 24"x24" access door in floor above.
25. Space below is needed.
26. Route condensate to floor drain. Refer to plumbing drawings.
27. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
28. Space above is needed.
29. Provide 24"x24" access door in floor above.
30. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
31. Provide 24"x24" access door in floor above.
32. Space below is needed.
33. Route condensate to floor drain. Refer to plumbing drawings.
34. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
35. Space above is needed.
36. Provide 24"x24" access door in floor above.
37. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
38. Provide 24"x24" access door in floor above.
39. Space below is needed.
40. Route condensate to floor drain. Refer to plumbing drawings.
41. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
42. Space above is needed.
43. Provide 24"x24" access door in floor above.
44. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
45. Provide 24"x24" access door in floor above.
46. Space below is needed.
47. Route condensate to floor drain. Refer to plumbing drawings.
48. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
49. Space above is needed.
50. Provide 24"x24" access door in floor above.
51. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
52. Provide 24"x24" access door in floor above.
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54. Route condensate to floor drain. Refer to plumbing drawings.
55. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
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86. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
87. Provide 24"x24" access door in floor above.
88. Space below is needed.
89. Route condensate to floor drain. Refer to plumbing drawings.
90. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
91. Space above is needed.
92. Provide 24"x24" access door in floor above.
93. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
94. Provide 24"x24" access door in floor above.
95. Space below is needed.
96. Route condensate to floor drain. Refer to plumbing drawings.
97. Duct work shall follow the slope of the bleachers up to condensing unit on tower roof.
98. Space above is needed.
99. Provide 24"x24" access door in floor above.
100. Condensate hub that is at least 48" above the floor in this approximate location, field verify.
101. Provide 24"x24" access door in floor above.
102. Space below is needed.
1. ALL EXPOSED INTERIOR AND EXTERIOR ROUND EXHAUST DUCT SHALL BE SPIRAL GALVANIZED.

2. DASHED LINE AROUND ROOFTOP EQUIPMENT INDICATES CLEARANCES. OBJECTS ON ROOF SHALL NOT BE WITHIN CLEARANCE LINES INDICATED.

3. SUPPORT REFRIGERANT PIPING ON ROOF EVERY 6' AND ALONG BOTH SIDES OF ELBOWS.

4. SECURE CONDENSING UNIT TO STEEL PER SEISMIC SUBMITTAL RECOMMENDATIONS.

5. APPROXIMATE LOCATION OF FUTURE UNIT. LEAVE SPACE ON STRUCTURAL STEEL FOR UNIT.

6. ROOF RAILS PROVIDED BY MECHANICAL.

7. SECURE TO WALL WITH VERTICAL PIPE CLAMPS.

8. REFRIGERANT LINE INSTALLATION SHALL TAKE THE MOST DIRECT ROUTE POSSIBLE. IF LENGTH EXCEEDS 60', NOTIFY ENGINEER AND UNIT MANUFACTURER.

9. REFRIGERANT LINE SHALL FOLLOW THE SLOPE OF THE BLEACHERS AND DROP IN PLUMBING CHASE TO 2ND FLOOR.

10. ROUTE REFRIGERANT LINE VERTICALLY THROUGH UTILITY SPACE TO MECHANICAL PLATFORM ABOVE. SECURE TO WALL WITH VERTICAL PIPE CLAMPS.

11. STRUCTURAL STEEL. REFER TO STRUCTURAL DRAWINGS.