

GENERAL NOTES HEATING VENTILATING AND AIR CONDITIONING (HVAC)

1. Heat Pump: Single package wall mounted air to air electric heat pump unit shall be rated in accordance with ARI Standard 240-07-77.

Brands:

BARD WH42A-XXXXX

MAVRAY AVP 42 HPA-08S

All units shall be 230/208 volt, 1 phase system, UL tested & approved or comparable and meet current energy standards.

A.) The system shall maintain an automatically controlled indoor classroom temperature of 78 degrees F. When the outdoor dry bulb temperature varies between 100 degrees F. in the summer

B.) The system must maintain the above temperature when the damper is adjusted to use approximately one third fresh air.

2. Ductwork.

A.) Construct all ductwork of galvanized sheet metal in accordance with U.M.C. AIA/RCF Guide Equipment volume and Smacna Low Velocity Duct Construction manual latest editions. All ductwork shall be insulated with 1" thick fiberglass duct wrap with vapor barrier. Provide 1" duct attenuation at all ductwork within 5'0" of HVAC unit.

B.) Non-metallic ductwork option: In accessible concealed portions of duct system rigid 1" fiberglass or insulated flex-duct with vapor barrier may be substituted for sheet metal ductwork. All ductwork within 5' of the HVAC unit and all interface connections shall be metal. Ductwork and reinforcement shall be designed for 25 static pressure.

Reference Boards: Owens-Corning fiberglass ductboard, 1" thick, and Micro-Aire, TYPE 475.

Non-metallic ductwork shall conform to NFPA 90-A and SMACNA Class 1 rating.

Air duct insulation and linings shall comply with flame spread less than or equal to 25, smoke generation less than or equal to 50.

Supply air diffusers shall be 675 CFM max. 15"x15" neck, steel rigid 1" fiberglass or flexduct ductwork specifically designed to provide air thermal cooling systems. 24"x8"x1" Micro-

Aire type #475 Owens-Corning, Krauf, CertainTeed, or equal and 90- B: UL #131 test, class 1 rating with "SMACNA".

Registers and diffusers: Provide three (Min) 4-way throw air diffusers as manufactured Corines, Titus, Hart and Cooley, Metalaire, Shoemaker, Barber-Coleran or Krueger commercial grade grills and registers

Air conditioning controls.

Thermostat: Provide electronic programmable thermostat. Thermostat shall have the following functions.

A.) 5 and 2 weekday/weekend programming with 4 separate time/temperature setting for 24-hour period.

B.) Key board lockout switch.

C.) Programmable display.

D.) 2-hour override minimum.

E.) Status indicated LED's.

F.) Battery back-up.

Provide locking clear thermostat cover with thermostat cover with access hole for program override. White Rodgers #922.

7. Thermal insulation.

A.) Roof insulation: R-19 Unfaced.

B.) Walls insulation: R-11 Kraft Faced.

C.) Floors insulation: R-11 Kraft Faced.

Fume spread and smoke development shall conform to California Building Code sec. 707.

8. Factory-made air ducts: Factory-made air ducts shall be approved for the use intended or shall conform to the requirements of U.M.C. Standard No. 6-1. Each California Building Code sec. 707.

These ducts shall be listed and shall be installed in accordance with the terms of their listing and the requirements of UMC STD. 6-1.

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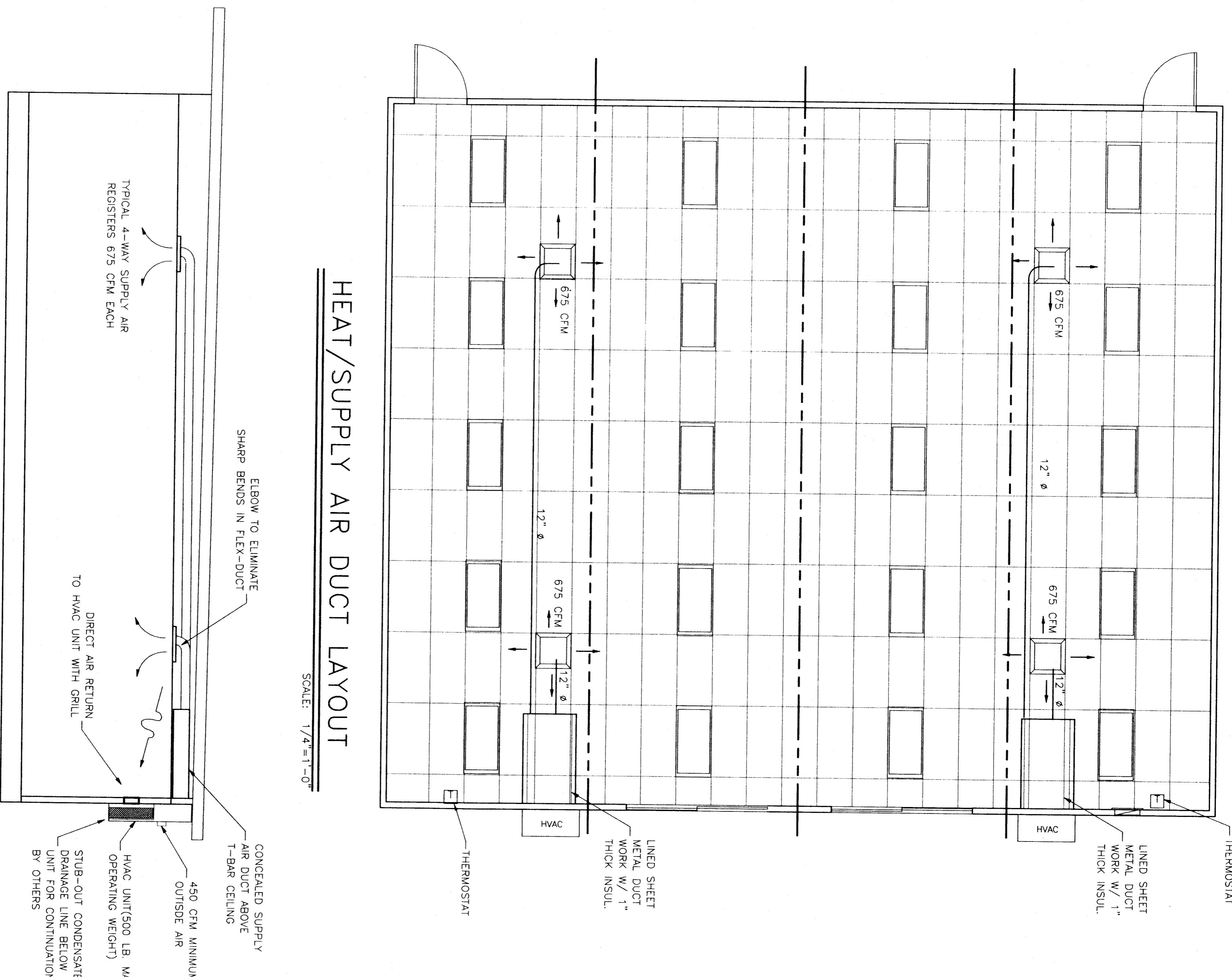
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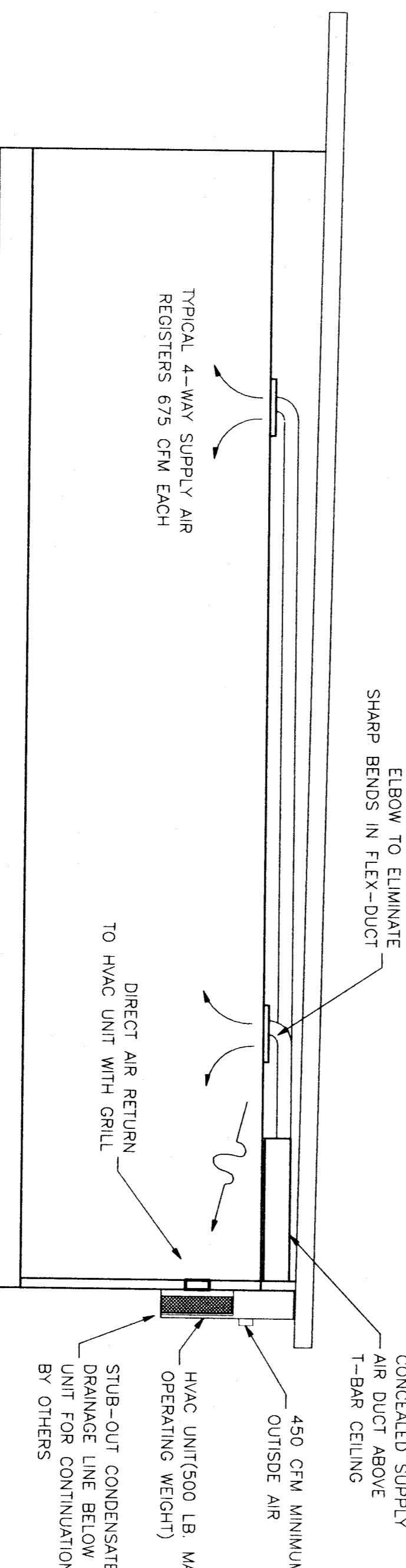
HEAT/SUPPLY AIR DUCT LAYOUT

SCALE: 1/4"=1'-0"

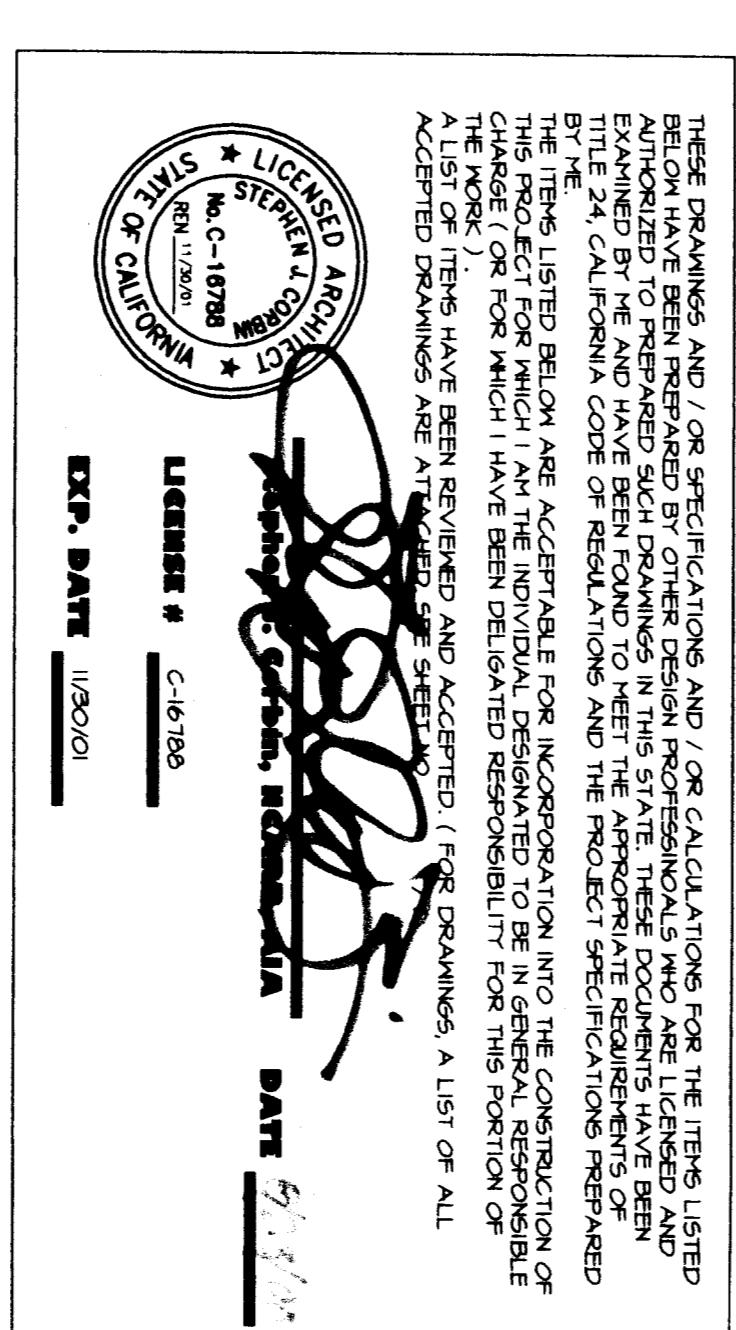


HEAT/SUPPLY AIR DUCT CROSS SECTION

SCALE: 1/4"=1'-0"



THESE DRAWINGS COMPLY WITH THE ENERGY CONSERVATION REQUIREMENTS OF TITLE 24 OF THE STATE OF CALIFORNIA



DUCT SUPPORT

Flex duct to be supported with 1-1/2" wide x 26 ga. galv. strap @ max 6-0" o.c. Attach to rafter w/2 #8 SMS @ each end.

Supply air plenum to be supported with 1-1/2" wide x 26 ga. galv. straps min. 2 per plenum.

Supply air box and diffusers to be supported with (2) 12 ga. hanger wires to box @ opposite corners.

Supply air box and diffusers to be braced with (2) 12 ga. slack wires to box @ opposite corners. Attach supply air diffusers to ceiling grid to resist a lateral load equal to the weight of the diffuser and supply air box w/2 #8 SMS.

FILE NO. 15-6
DRAFT OF THE STATE ARCHITECT
OFFICE OF REVISIONS

APPL. 03-104224
DATE: 1/20/01

PROJECT NO.

SHEET NO.

M 1

48 X 40 PC
RELOCATABLE
CLASSROOMS

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