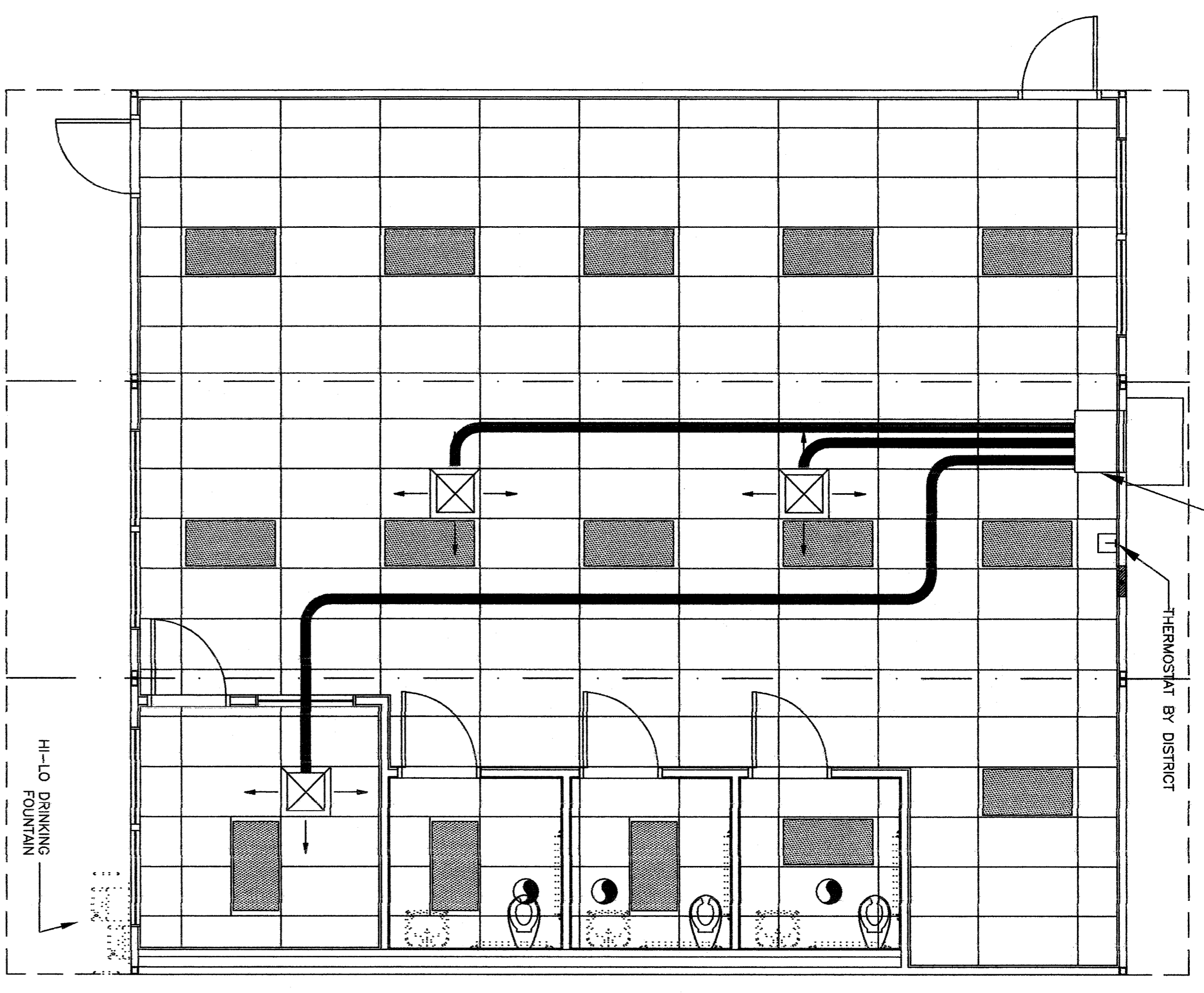
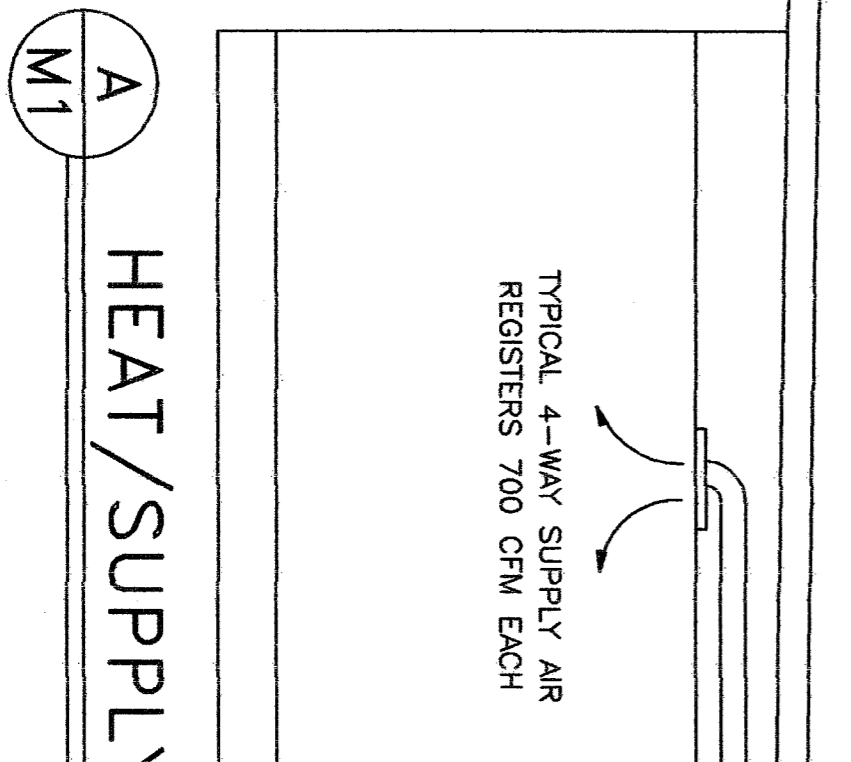


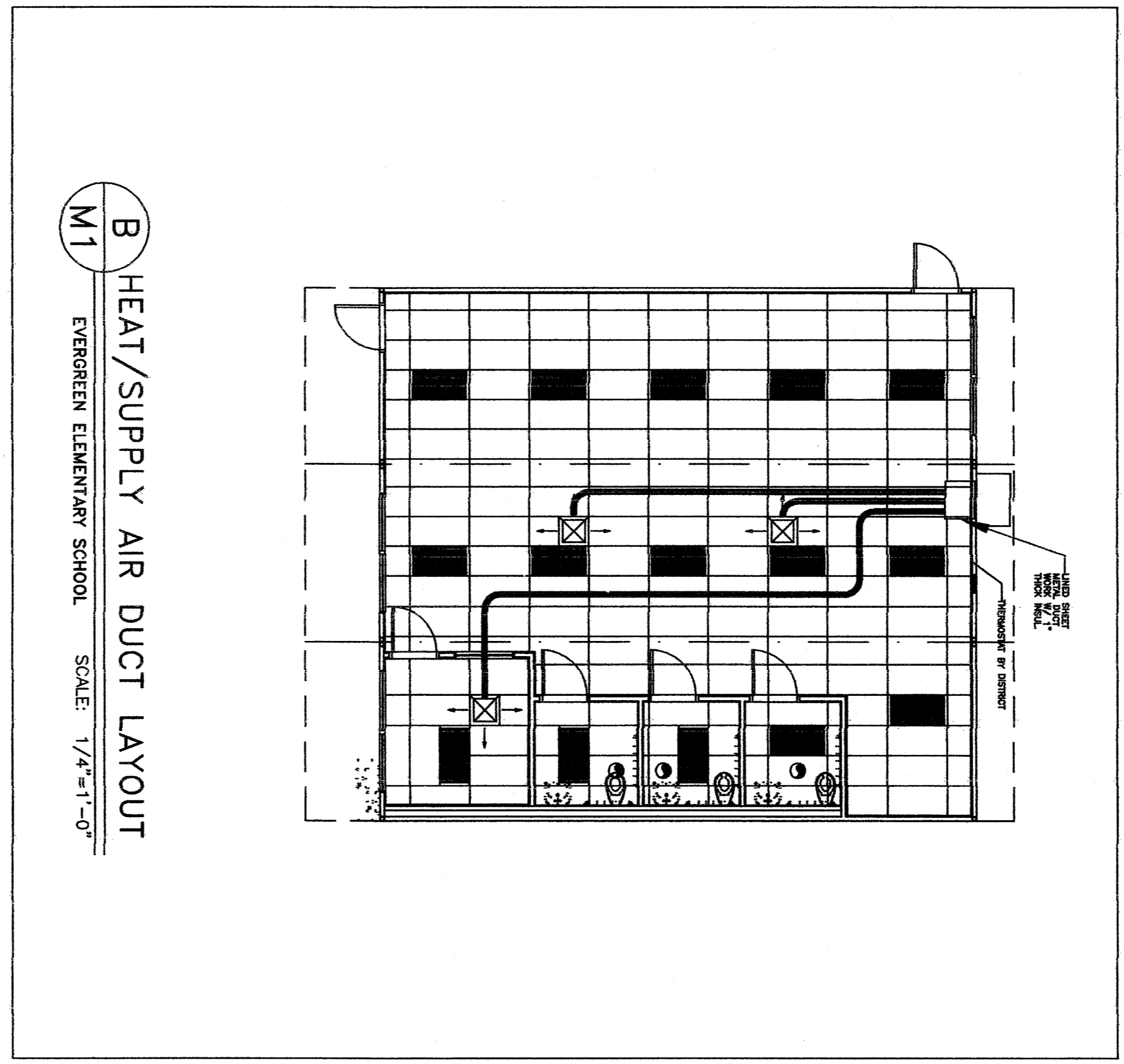
LINED SHEET
WORK W/ 1"
THICK INSUL.



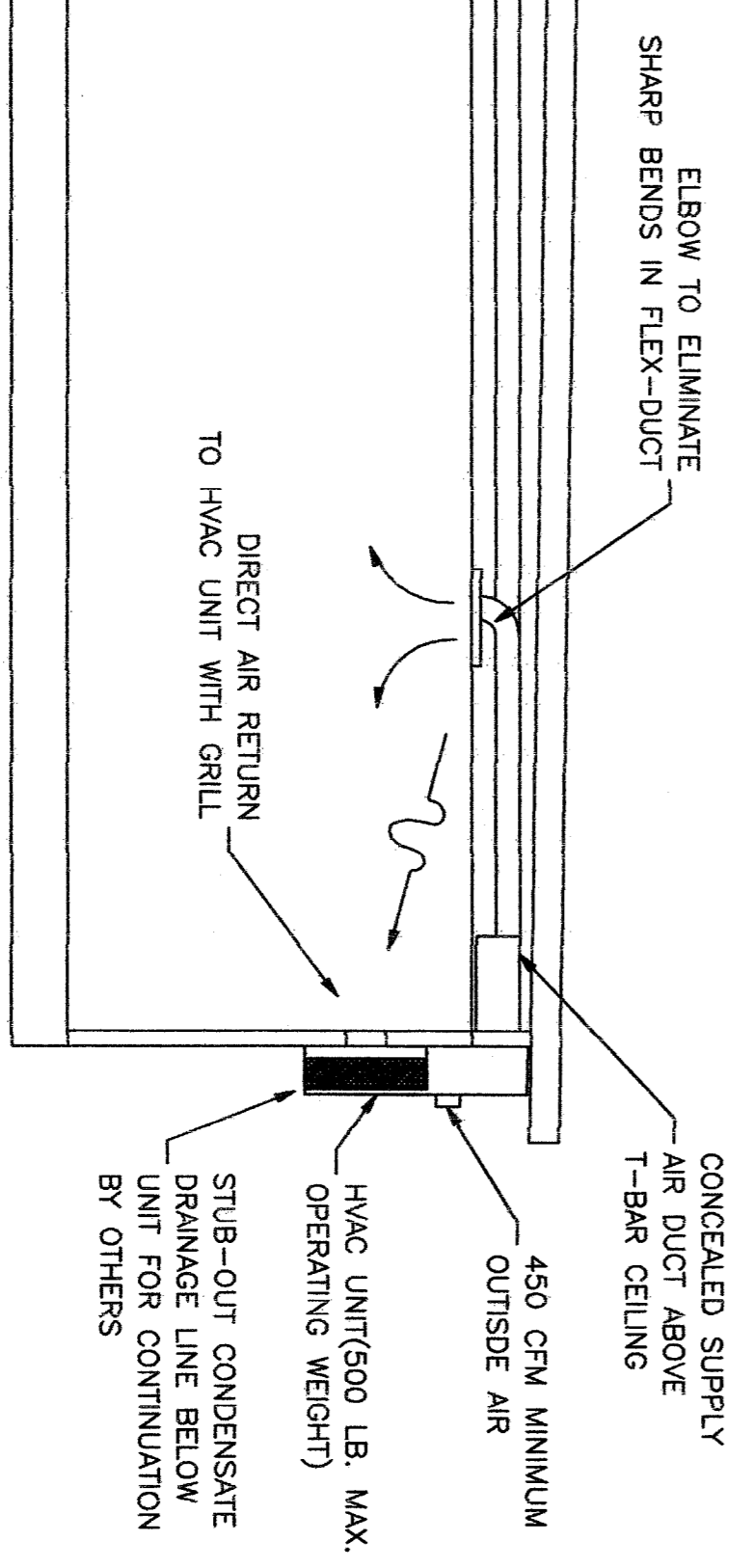
A HEAT/SUPPLY AIR DUCT LAYOUT
ROOSEVELT ELEMENTARY SCHOOL
SCALE: 1/4"=1'-0"



A HEAT/SUPPLY AIR DUCT CROSS SECTION
SCALE: 1/4"=1'-0"



B HEAT/SUPPLY AIR DUCT LAYOUT
EVERGREEN ELEMENTARY SCHOOL
SCALE: 1/4"=1'-0"



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

- RESTROOM LAVATORY-AMERICAN STANDARD-DECLIN WALL-HUNG LAVATORY MODEL # 0321028
- RESTROOM LAVATORY-AMERICAN STANDARD-COLON SINGLE CONTROL LAVATORY FAUCET MODEL # 2175.202
- CHROME PLATED P-TUBE WITH CLEAN OUT AND INSULATED W/WHITE 24 PROVIDE ONE HANDICAPPED ADULT AMERICAN STANDARD 2995.012 TWO CHILD
- C. Grab Bars - 1-1/4" Diameter, 18 ga., 304 stainless steel, satin finish, 1-1/2" stand off from wall, concealed or exposed mounting. Structural strength of grab bars (250# min.), mounting length (see floor plan), and configuration shall be as required by Title 24, section 2-4.111.C.
- D. Toilet Room Mirrors - Bobrick B165 or equal, 18x30 stainless steel chromel framed, mounted above each toilet room sink at +40" max.
- E. Sewer and Water Stub Outs - shall be located within the allowable area as shown on floor plan and connections should be easily accessible for future relocation. Stub out height should be coordinated by the manufacturer.
- F. Piping - Water, copper type "L", 95/5 solder. Waste, drain and vent ABS.

TITLE 24 ENERGY COMPLIANCE SUMMARY

Pg # 02-104925

Building Description: 3940 Rossmore Building

Manufacturer: American Modular Systems

Envelope Measures

INSULATION

GLAZING

Lighting Measures

Mechanical Measures

HP T-Stat: Electric Heat (kW): 20.0 kW. Duct Location: Conditioned Space Economizer: Duct Insulation: R-4.2

EXHAUST FAN

MARK	DESCRIPTION	CFM	WATTS	S.P.	VOLT/PH
EF-1	EXHAUST FAN	110	1080	.10"	115-116

NITONE 672 CEILING MOUNTED 180W INPUT

HVAC CFM CHART

MODEL NUMBER	DESCRIPTION	MAX. CFM
WH421-A	3 1/2 TON HEAT PUMP	1400
WH482-A	4 TON HEAT PUMP	1500
WH602-A	5 TON HEAT PUMP	1700

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. stack wires to ceiling grid to resist a lateral load equal to the weight of the diffuser and supply air box W/2 #8 SMS.

NOTE

STUB OUT LOCATIONS FOR WATER, WASTE AND GAS ARE DIAGRAMMATIC ONLY. SEVERAL EXACT LOCATIONS MUST BE IDENTIFIED AT THE POINT OF CONNECTION WILL BE AT THE FACE OF THE BUILDING.

GENERAL NOTES

1. HEATING VENTILATING AND AIR CONDITIONING (HVAC) Heat Pump: Single package wall mounted air to air electric heat pump unit shall be roted in accordance with ARI Standard 240-77.

Reference Brands: BARD WH421A-XXXXXX BARD WH482A-XXXXXX BARD WH60A-XXXXXX

MAXIMUM AC SIZE FOR THIS BUILDING WILL BE A 5-TON UNIT

2. All units shall be 230/208 volt, 1 phase system, UL tested & approved or comparable and meet current energy standards.
3. 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
4. B) The system must maintain the above temperature when the damper is adjusted to use approximately one third fresh air.
5. A) Construct all ductwork of galvanized sheet metal in accordance with C.M.C., Ashrae Guide Equipment volume and Smoore 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 2'-0" of HVAC unit.
6. 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 2' of the HVAC unit and all interface connections shall be metal. Ductwork and reinforcement shall be designed for 2" static pressure. Reference Brands: Owens-Corning fiberglass ductboard, 1" thick, and Micro-ore, Type 475.
7. Non-metallic ductwork shall conform to NFPA 90-A and SMACNA Class 1 rating.
8. Air duct insulation and linings shall comply with flame spread less than or equal to 25, smoke generation less than or equal to 50.
9. Supply air diffusers shall be 675 CFM max. 12" round, 1" fiberglass or flexduct ductwork specifically designed to provide air thermal cooling systems. 24"x8"x1" Micro-Aire type #475 Owens-Corning, Knouf, Certainteed, or equal and 90-Bi: UL #131 test, class 1 rating with "SMACNA"
10. Registers and diffusers: Provide three (Min) 4-way throw air diffusers as manufactured Carnes, Titus, Hort and Cooley, Metairie, Shoemaker, Barber-Coleman or Krueger commercial grade grills and registers
11. Air conditioning controls
12. 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.
 - G.) Provide locking clear thermostat cover with thermostat cover with access hole for program override. White Rodgers IP92-371. Mount at + 60" sealed.
13. Thermal Insulation: See title 24 energy compliance summary this page.
14. Roof Insulation: See title 24 energy compliance summary this page.
15. Floor Insulation: See title 24 energy compliance summary this page.
16. Flame spread and smoke development shall conform to California Building Code sec. 707.
17. 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 portion of a factory-made air duct system shall be identified by the manufacturer with a label or other suitable identification indicating compliance with U.M.C. Standard No. 6-1 and its class designation. 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.

IDENTIFICATION STAMP

DW. OF THE STATE ARCHITECT

APR03 110694

AG - FLS. 10 SS. 310

DATE JUN 03 2007

CUSTOMER: BAKERSFIELD CITY SCHOOLS

MECHANICAL PLAN & NOTES

DATE: 05/25/07

SCALE: NONE

DRAWN BY: D.M.

CHECKED BY:

SERIAL NO.

NO.	DATE	DESCRIPTION

PROJECT NO.

SHEET NO. M1

36 X 40 PC
RELOCATABLE
CLASSROOMS

