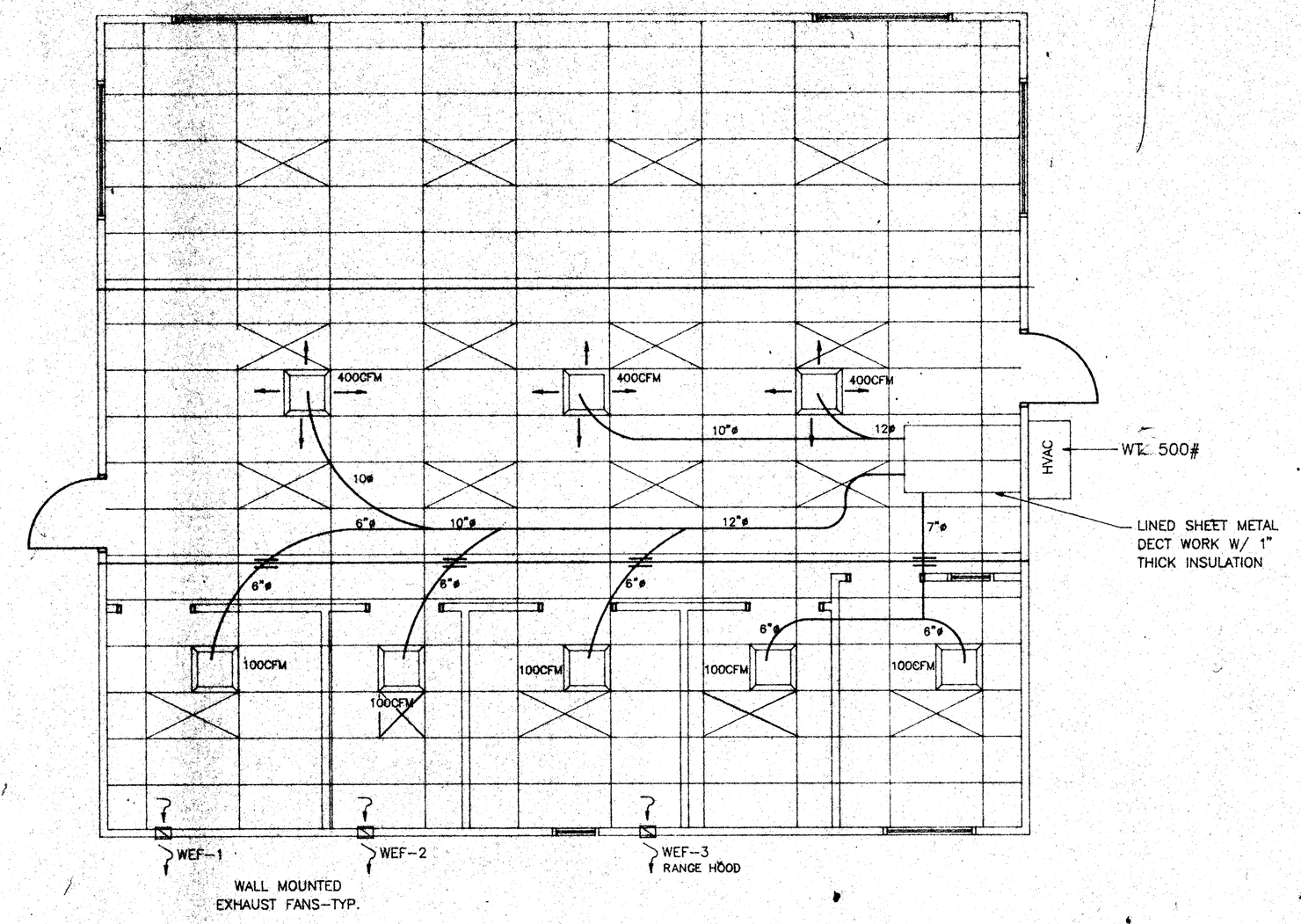
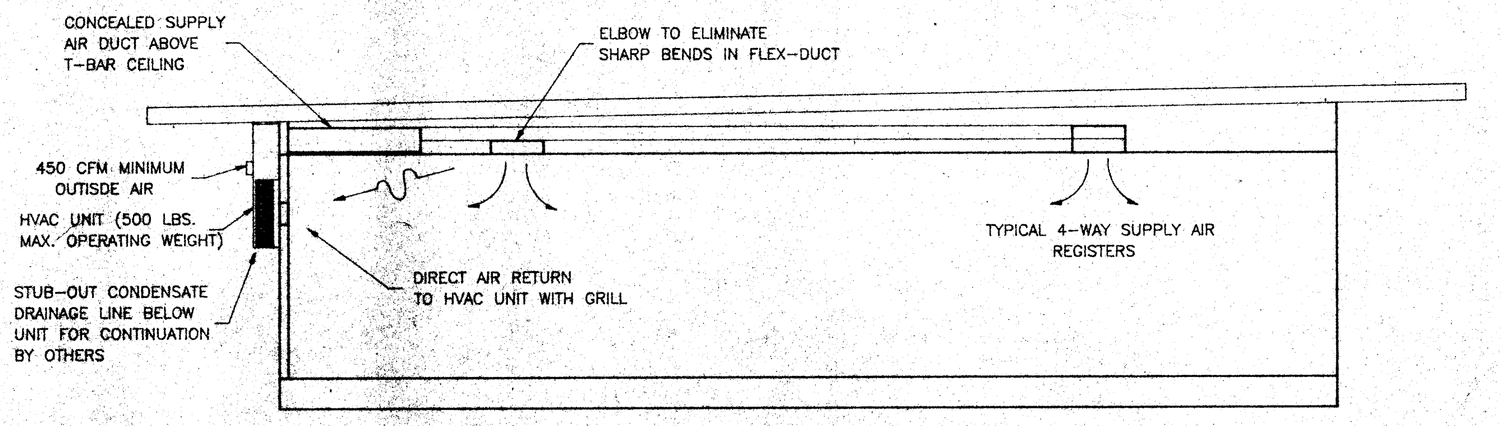


HEAT/SUPPLY AIR DUCT LAYOUT

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



HEAT/SUPPLY AIR DUCT CROSS SECTION

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

EQUIPMENT SCHEDULE						
MARK	DESCRIPTION	CFM	RPM	S.P.	VOLT	REMARKS
WEF-1	EXHAUST FAN	80	1050	.10"	115-1ø	NUTONE 8870 WALL MOUNTED 180W INPUT
WEF-2	"	"	"	"	"	"
WEF-3	RANGE HOOD	180	--	--	115-1ø	G.E.-JX22J WHITE

NOTE:
All bracing of ducts and piping shall be installed in accordance with SMACNA guidelines as approved by DSA where bracing details are not shown on the drawings or in the guidelines, the field installation shall be subject to the approval of the Architect, Mechanical Engineer and the DSA Field Engineer.
A copy of the guidelines published by SMACNA and approved by DSA shall be provided by the contractor and kept on the job at all times.

MECHANICAL NOTES:

Mirror – Bobrick #B-290-24 x 36 – one in each bath

Accessories – Scotts roll paper towel dispenser #10278-4
Scotts toilet tissue dispenser #0218-3
Scotts hand soap dispenser #0283-4
Scotts toilet cover dispenser #0515-1

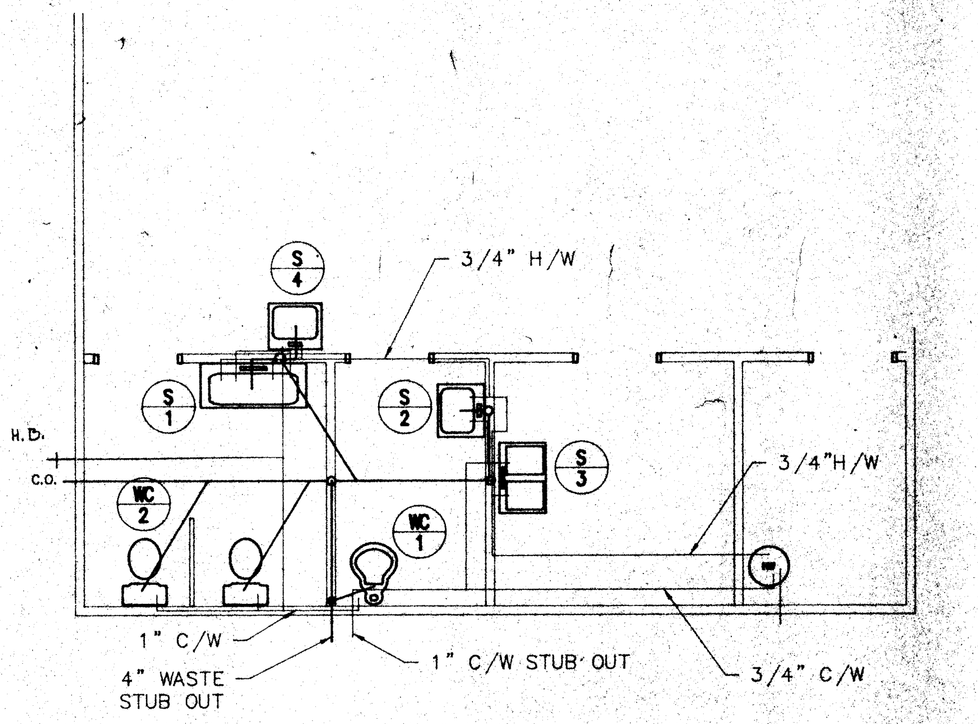
Kitchen Equipment – Range Top – 30", 4 burner 208V electric range top #JP325R General Electric or equal and trash compactor –120v #DCD1230SWB 15" white general Electric or equal.

Plumbing Fixtures – or equal

(S/1) American Standard #6513.111 carnegie with 2-chicago #324-335 Faucets with lever handle
(S/2) American Standard #0336.421 Lucern with Reliant #2385.049 HDF slow closing faucet
(S/3) Just 22" x 19" S.S. double compartment 18 guage with gooseneck and mixing valve with lever handles
(S/4) Just 22" x 19" S.S. single compartment 18 guage with gooseneck lever handle faucet and deck mounted drinking fountain
(WC/1) Kohler – K-4388-EB to meet ADA with #111 Sloan flush valve, with k-4670-c seat.
(WC/2) Kohler – 10: high – K-4318-ET with #111 Sloan flush valve
(W/H) American ER10STR Electric 10 gallon water heater as listed by Cal Energy Commission – 120V–6 year warranty or ruud PEP-15-1-120V-5 year.

A. 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.

B. Piping – Water, copper type "L", 95/5 solder. Waste, drain and vent ABS.



NOTE: ALL CW PIPING IN EXTERIOR WALLS TO BE LOCATED ON INTERIOR SIDE OF INSULATION.

PARTIAL PLUMBING PLAN

SCALE: 1"=1'-0"

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
APPL 6 11 5 4
AC
DATE FEB 22 1994

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
APPL 5 10 2 5
AC
DATE FEB 15 1994

LICENSED ARCHITECT ELAINE E. HARTZELL No. C-10298 OCT 31 1995 STATE OF CALIFORNIA

GENERAL NOTES
HEATING VENTILATING AND AIR CONDITIONING SYSTEMS

1. Heat Pump: Single package unit designed for electric heat pump unit shall be rated in accordance with ARI Standard 240-77.
   Reference Brands: BARD/WEST-INGHOUSE, INTERNATIONAL COMFORT PRODUCTS, MARVAIR, A.Y.P. INC. or equal.
   All units shall be 230/208 volt, 3 phase and shall be tested & approved or complete listed by U.L. standards. All units shall incorporate an exterior factory mounted thermostat to sense the outside air temperature and stage the electric heat strips. The circuitry shall prohibit the supplementary electric heat strips from operating simultaneously with the heat pump compressor. The thermostat shall be factory preset at 25 degrees F. and adjusted to the exact balance point of the structure to allow the heat strips to operate only below that setting. If the outdoor temperature is above this point the heat pump shall operate and the electric heat strips shall be locked out.
   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 25% of third fresh air.
2. Ductwork.
   A.) Construct all ductwork of galvanized sheet metal in accordance with U.M.C. Standard No. 10-1 Equipment volume and Smacna Low Velocity Duct Construction manual latest editions. All ductwork shall be insulated with 1" thick fiberglass insulation and vapor barrier. Provide 1" duct stiffeners on all ductwork within 8'0" of HVAC unit. All ductwork of not more than 25 and smaller shall be
   B.) Non-metallic ductwork option: In accessible concealed portions of duct system may be fiberglass or insulated flex-duct with vapor barrier may be substituted for sheet metal ductwork. All ductwork within 15' of the HVAC unit and all interior connections shall be metal. Ductwork and connections shall be designed for 2" static pressure.
   Reference Brands: Owens-Corning fiberglass duct board 1" thick, and "Manville" Micro-Lite, type 475.
   Non-metallic ductwork shall conform to NFPA 90A and SMACNA Class 1 rating.
3. Air duct insulation and linings shall comply with flame spread less than or equal to 25, smoke developed less than or equal to 50.
4. Supply air diffusers shall be 675 CFM max. 19 x18" neck, steel, rigid 1" fiberglass or flexible ductwork specifically designed to operate with forced cooling systems. 24"x24"x1" "John Manville" Micro-Aire type #475 Owens-Corning, Knauf, Certainteed, or equal and 90– B: UL #181 test, class 1 rating with "SMACNA".
5. Registers and diffusers: Provide three (3) 4-way throw air diffusers as manufactured Carnes, Titus Tuttle and Cooley, Metalaire, Shoemaker, Barber-Colman or Krueger commercial grade grills and registers.
6. 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 overide. Titus Rodgers #T92.
7. Thermal insulation
   A.) Roof insulation: R-19 Unfaced.
   B.) Walls insulation: R-11 Kraft Faced.
   C.) Floors insulation: R-11 Kraft Faced.
   Flame spread and smoke development shall conform to California Building Code sec. 1714 (C).
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. 10-1. Each portion of a factory-made air duct system shall be identified by the manufacturer with the following suitable identification indicating compliance with U.M.C. Standard No. 10-1 and the name of the manufacturer. These ducts shall be listed and labeled in accordance with the terms of their listing.

DUCT SUPPORT
Flex duct to be supported with 1-1/2" wide x 28 ga. galv. strap @ max 6'-0" o.c. Attach to rafter with #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 12 ga. hanger wires to box @ opposite corners.
Supply air box and diffusers to be secured with 12 ga. slack wires to box @ opposite corners. Attach ceiling diffusers to ceiling grid to resist a force equal to 4 times the weight of the diffuser and supply air box.

Factory made air ducts shall be approved for the use intended and shall conform to the requirements of U.M.C. standard No. 10-

36X40 RELOCATABLE
HEAD START

American Modular Systems

CUSTOMER:
HEADSTART RELOCATABLES
VARIOUS SCHOOL SITES
KCEOC–HEADSTART PROGRAM

HVAC SYSTEM & PARTIAL PLUMBING PLAN

DATE: 1-17-94
SCALE: NONE
DRAWN BY: R.S.
CHECKED BY:
CHECKED BY:
SERIAL NO. 94-6190-001 A,B,C

REVISIONS

NO	DATE	DESCRIPTION	NO	DATE	DESCRIPTION
1			4		
2			5		
3			6		