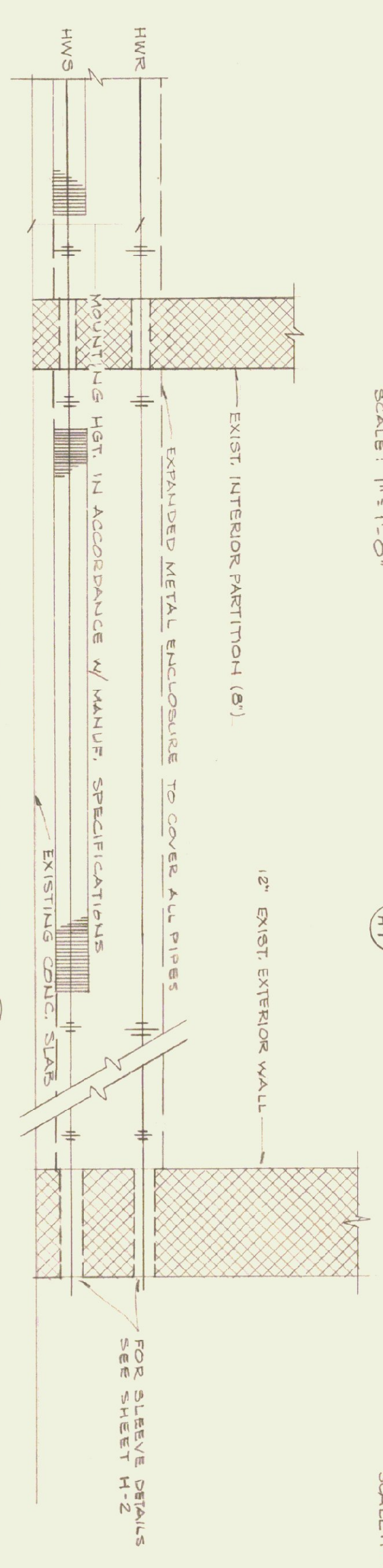
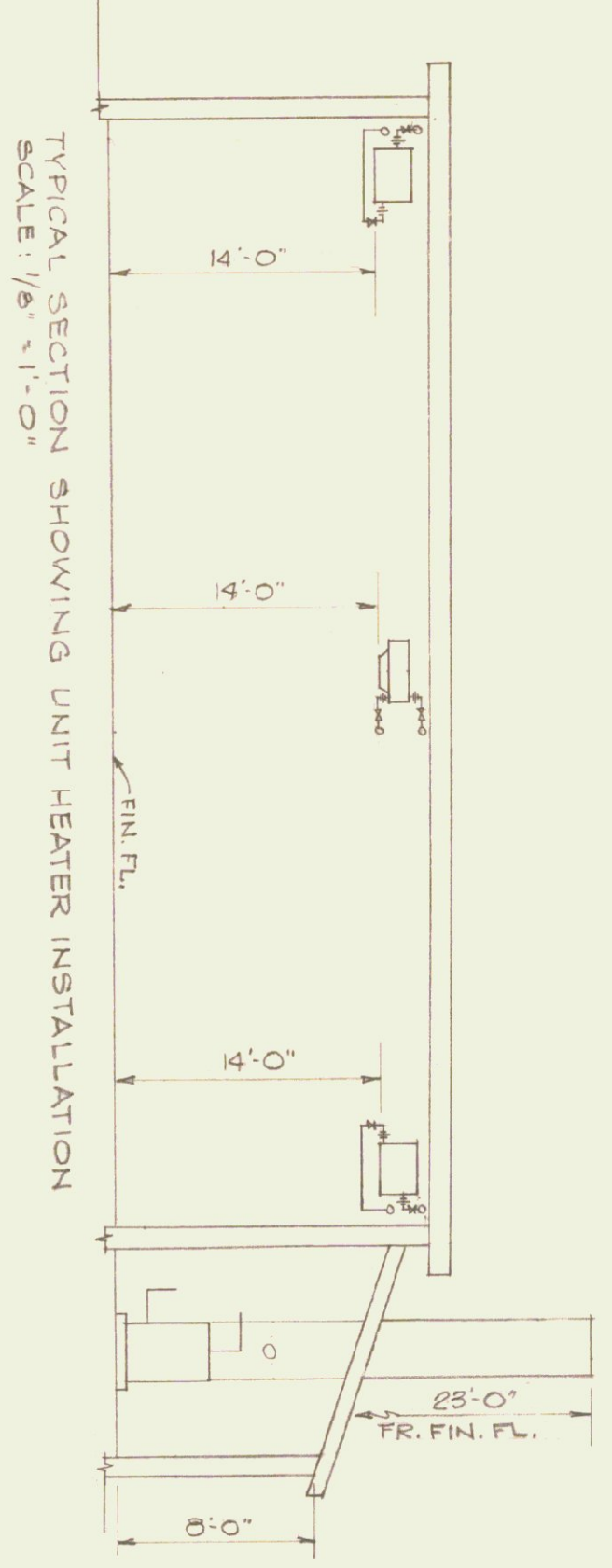


DETAIL OF END OF MAIN (GARAGE OFFICE) H1  
SCALE: 1" = 1'-0"



TYPICAL BASEBOARD RADIATION PIPING H2  
SCALE: 1" = 1'-0"



TYPICAL SECTION SHOWING UNIT HEATER INSTALLATION  
SCALE: 1/2" = 1'-0"

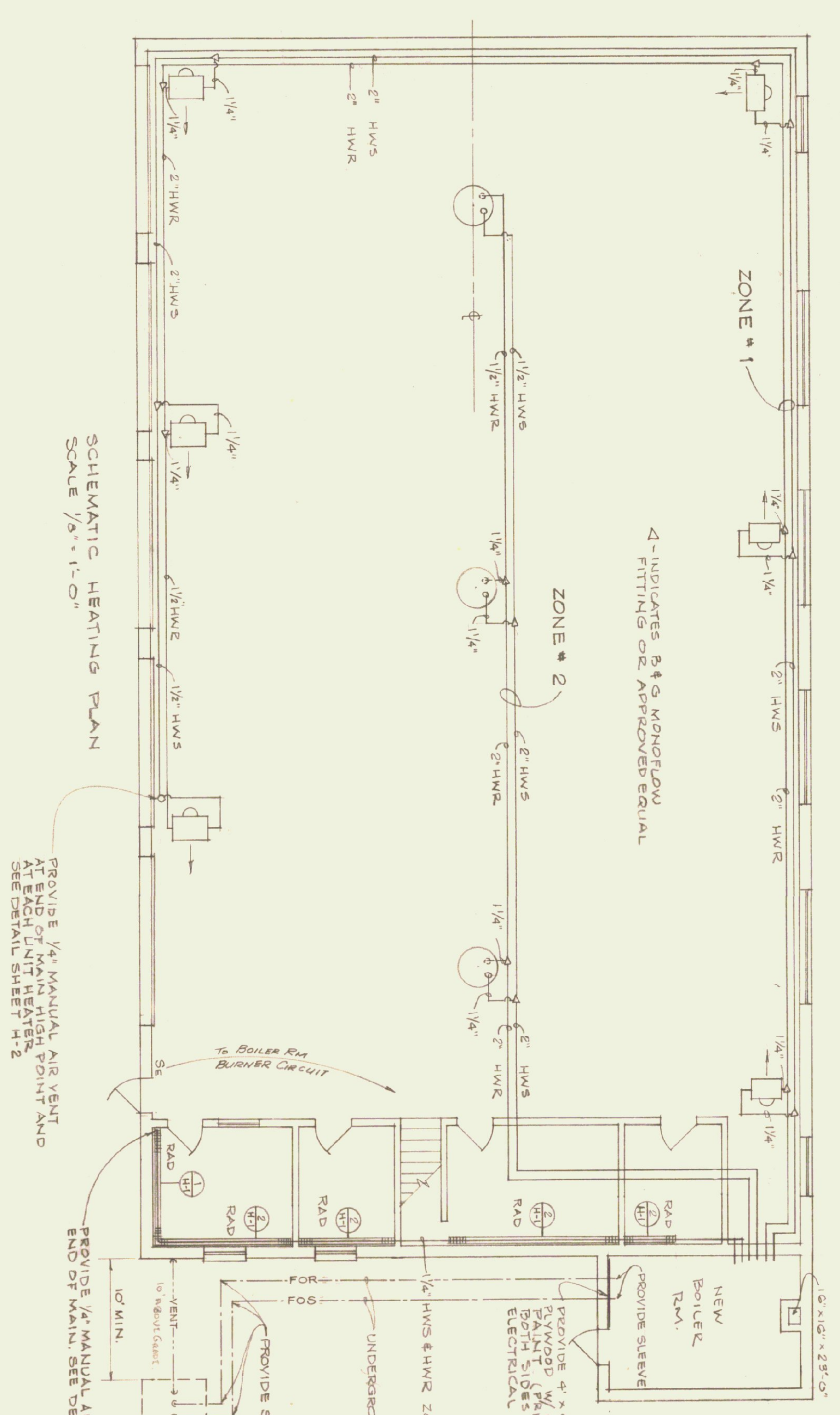
**LEGEND**

SYMBOL	DESIGNATION	MTG. HT.	MANUF. & CAT. NO.	REMARKS
□	INCAND. LIGHTING FIXTURE W/ SHALLOW DOME REFLECTOR; 200 W LAMP	5'-0"	MILLER AE-3002	W/ SHALLOW DOME REF.
◊	INCAND. DOUBLE FLOODLIGHT; W/ TELESCOPE; 150 W LAMP	5'-0"	GE 4107-1	W/ PHOTOCELL CONTROL
⊕	DUPLEX RECEPTACLE, (GROUNDING) SPECIFICATION GRADE	6'-0"	AH 1992	
⊖	OIL BURNER EMERGENCY SWITCH W/ RED PLATE	4'-0"	AH 1990 SERIES	
⊙	1 POLE QUIET TUMBLER LIGHTING SWITCH	3'-0"		
⊚	DISCONNECT FOR PUMP #1 W/ MAGNETIC STARTER	6'-0"		
⊛	DISCONNECT FOR PUMP #2	6'-0"		
⊜	DISCONNECT FOR PUMP #3	6'-0"		

**BOILER ROOM PANEL SCHEDULE**

CIR. NO.	BREAKER AMP. POLE	EQUIPMENT SERVED	H.P.	REMARKS
PANEL BRP (120/240 V MAINS W/ 20A DISCONNECT 10000 LOR BREAKERS)				
1	15	1 BURNER	1/4	
2	20	2 PUMP #1	3/4	TR. 11 1/2" 250V W/ MAG. STARTERS & DISCONNECT
3	20	2 PUMP #2	3/4	DO.
4	20	2 PUMP #3	1/2	DO.
5	15	1 OUTLETS IN BOILER ROOM		
6	15	1 BOILER RM. LIGHTING		INSIDE & OUTSIDE
7-10	15	1 SPARES		
11	20	2 SPARES		
12	20	1 SPARE		

NOTE:  
 1. ALL CIRCUITS FOR UNIT HEATER MOTORS, TO BE FED FROM EXISTING MAIN DISTRIBUTION PANEL IN EXISTING BUILDING. ELECTRICAL CONTRACTOR SHALL RING OUT AND LABEL ALL CIRCUITS USED. PROVIDE DISCONNECT @ EACH UNIT HEATER.  
 2. NEW ELECTRICAL PANEL BRP TO BE MOUNTED ON 3/4" C-D EXTERIOR GRADE PLYWOOD. PANEL TO BE FINISHED WITH ONE COAT OF PRIMER AND ONE COAT OF GRAY PAINT ON BOTH SIDES AND ALL EDGES. (SEE SPECS.)  
 3. ALL PIPING AND UNIT HEATER INSTALLATION SHALL CLEAR OVERHEAD DOOR IN OPEN POSITION.

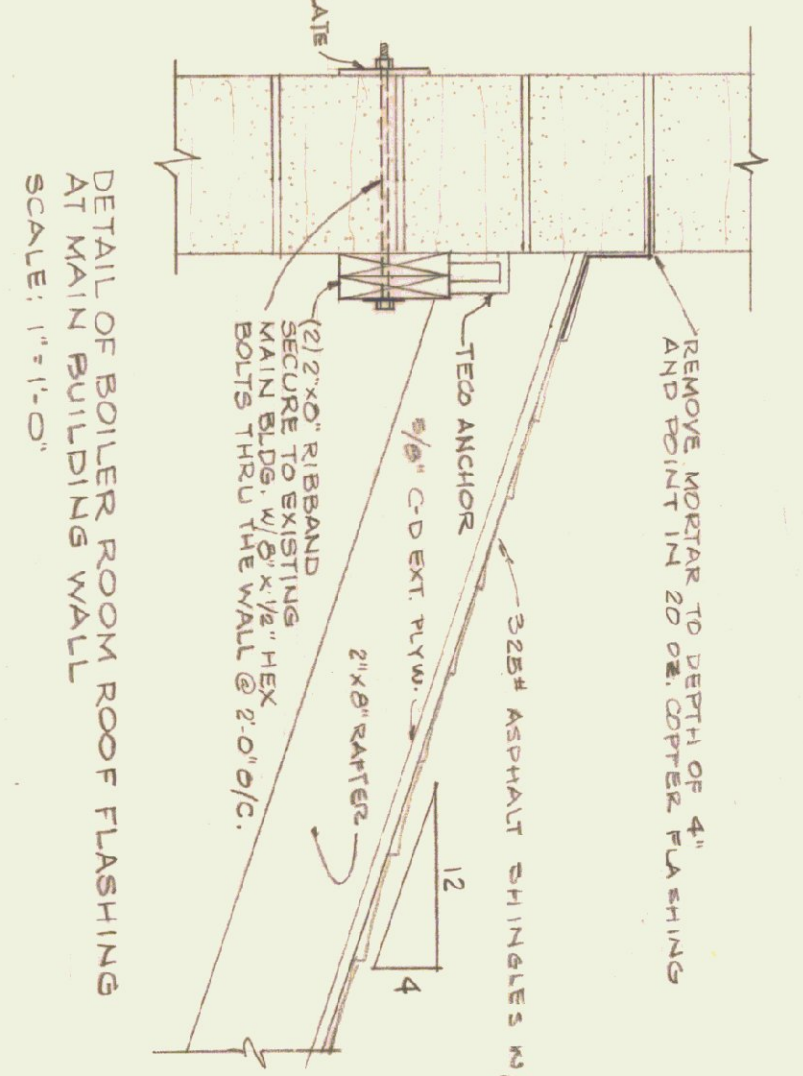


SCHEMATIC HEATING PLAN  
SCALE: 1/2" = 1'-0"

PROVIDE 1/4" MANUAL AIR VENT AT END OF MAIN HIGH POINT AND SEE DETAIL SHEET H-2

PROVIDE 1/2" MANUAL AIR VENT AT END OF MAIN. SEE DETAIL AT

NOTE:  
 1. FOR BOILER PIPING DETAILS SEE SHEET H-2  
 2. ZONES #1 & #2 INSTALL PIPING THROUGH WALL FROM HEATER TO MAIN BUILDING THROUGH WALL AT HIGH POINT OR LOW POINT (FIN. TUBE RADIATION HEIGHT)  
 3. PROVIDE 1/2" x 2 1/2" x 3/8" C-D BOLT. PAINT (PRIMER & FINISH COAT) BOTH SIDES & EDGES FOR ELECTRICAL BONES & SWITCHES.

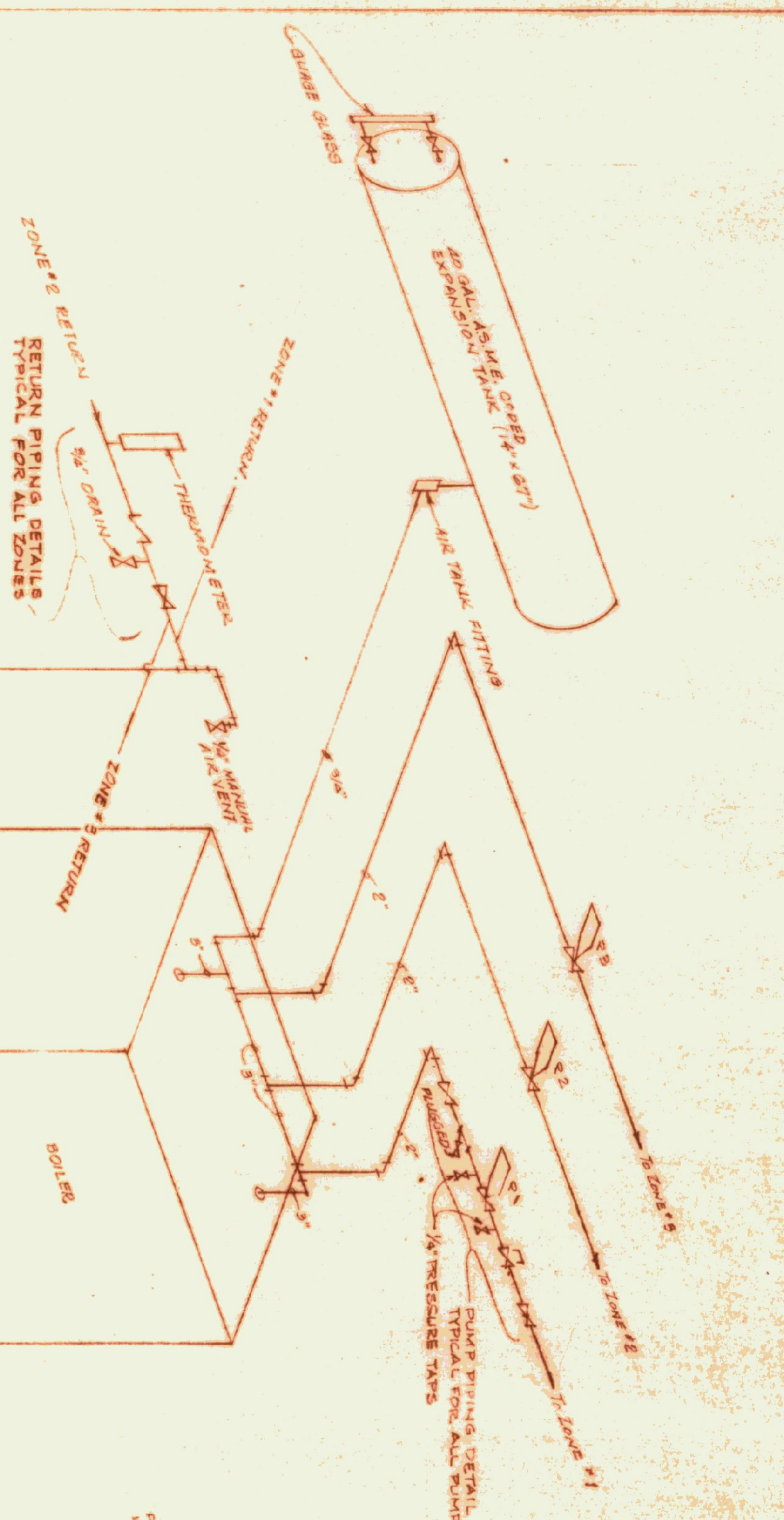


DETAIL OF BOILER ROOM ROOF FLASHING  
SCALE: 1" = 1'-0"

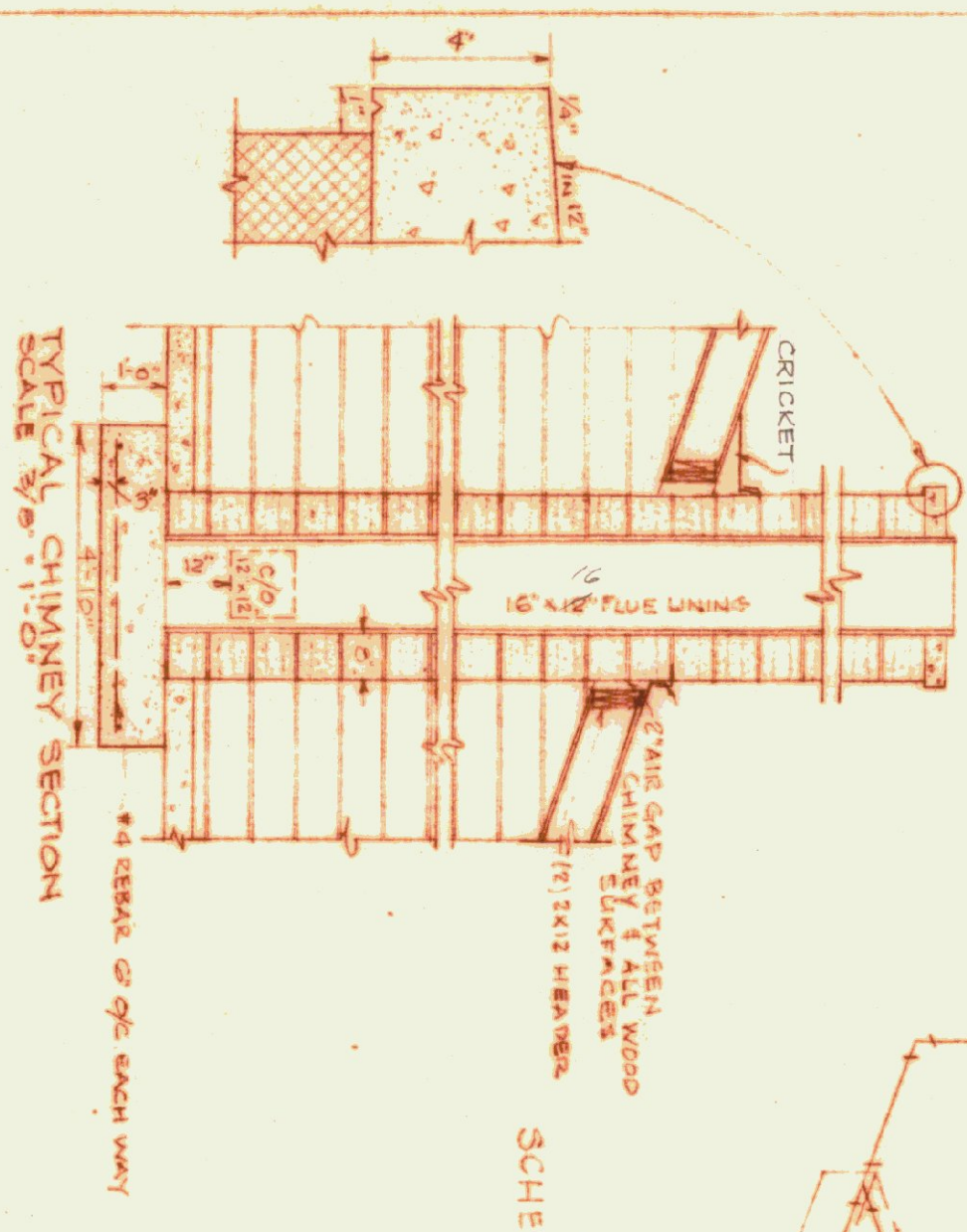
STATE OF VERMONT  
 STATE BUILDINGS DIVISION  
 DEPARTMENT OF ADMINISTRATION  
 MONTPELIER, VERMONT

RENOVATION OF HEATING SYSTEM AT THE  
 DEPT. OF HIGHWAYS GARAGE, WHITE RIVER JCT, VERMONT  
 HEATING PLAN

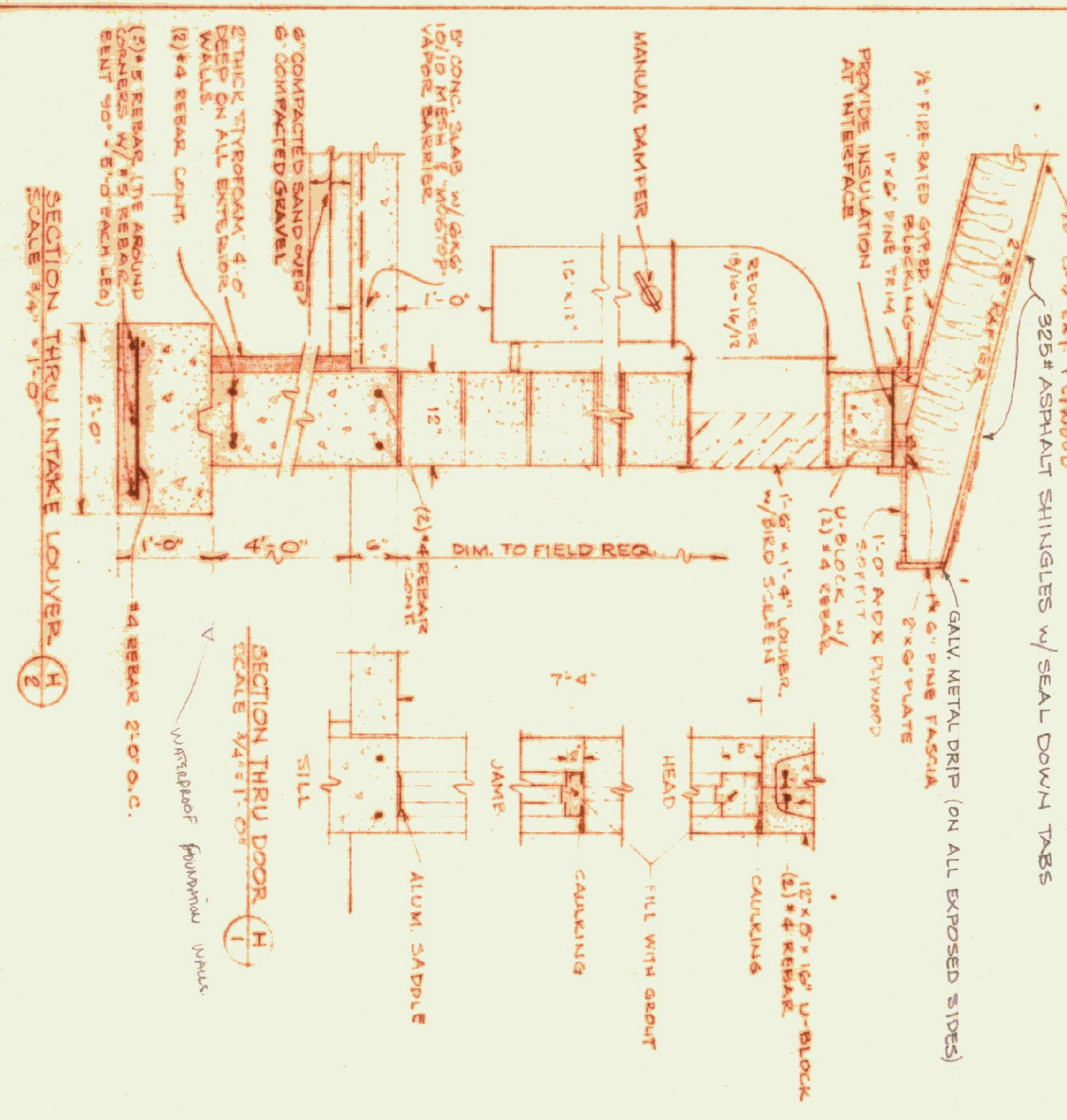
DATE: 8/72	DESIGNED BY: G.N.M.	DWG. NO.: H-1
DRAWN BY: CEH.	APPROVED BY:	1 OF 2



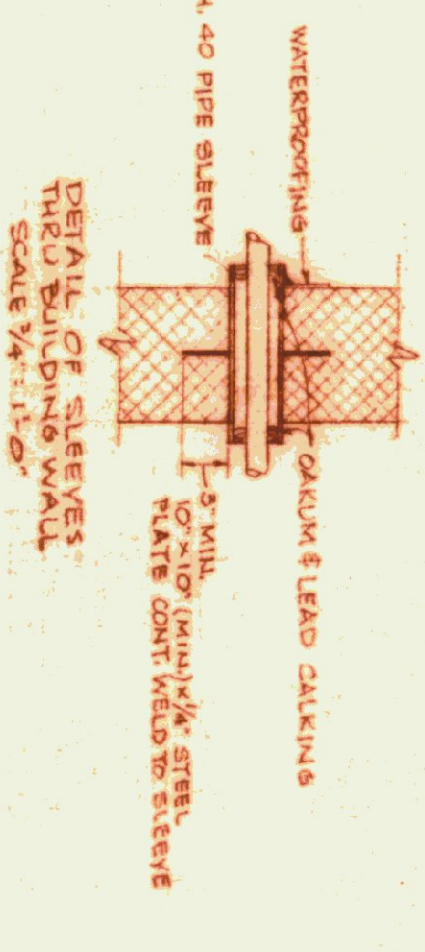
SCHEMATIC DIAGRAM OF BOILER PIPING  
N.T.S.



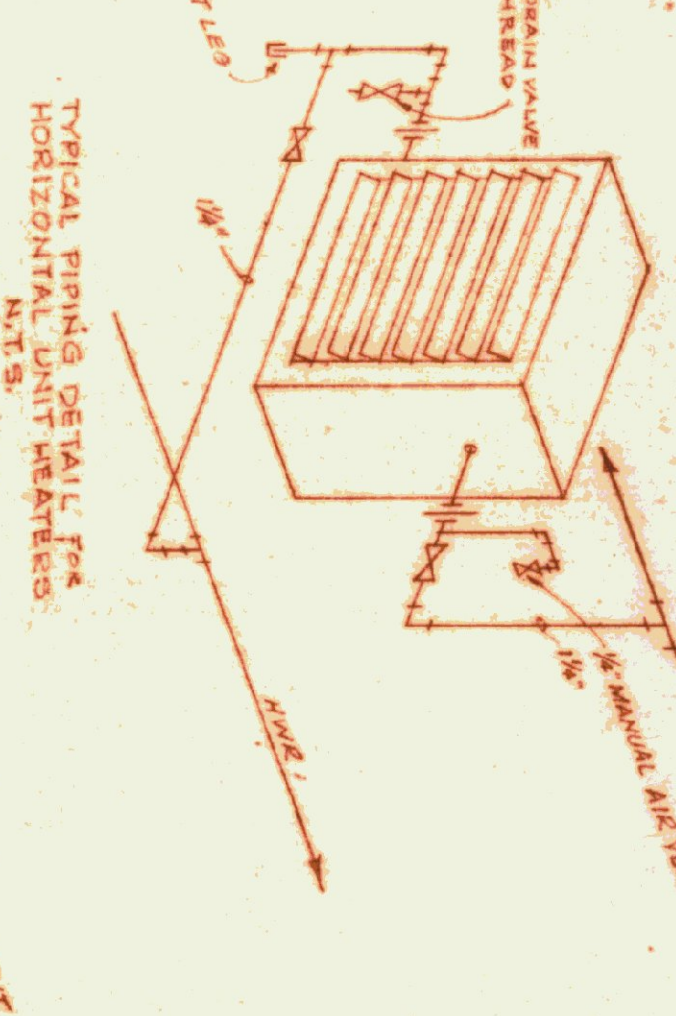
TYPICAL CHIMNEY SECTION  
SCALE 3/8\"/>



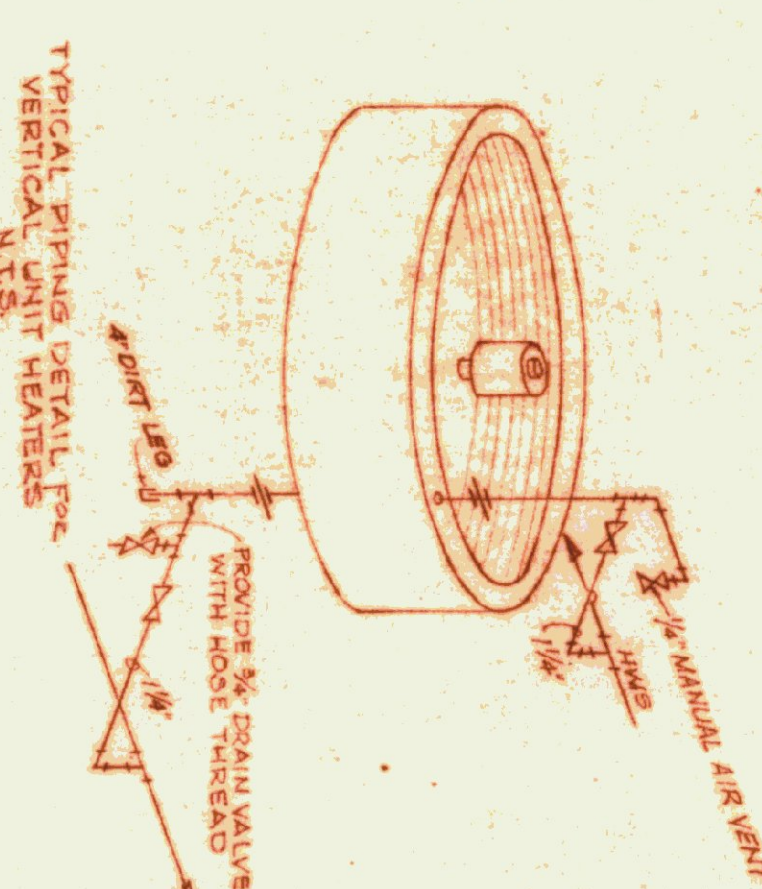
SECTION THRU INTAKE LOUVERS  
SCALE 3/8\"/>



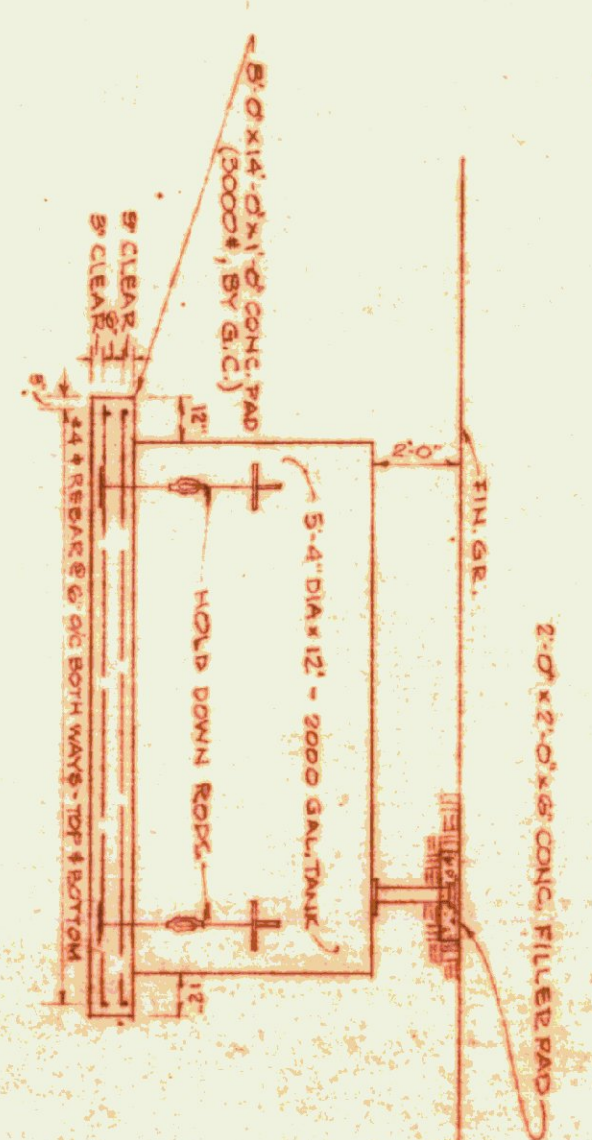
DETAIL OF SLEEVES  
THRU BUILDING WALL  
SCALE 3/8\"/>



TYPICAL PIPING DETAIL FOR  
HORIZONTAL UNIT HEATERS  
N.T.S.

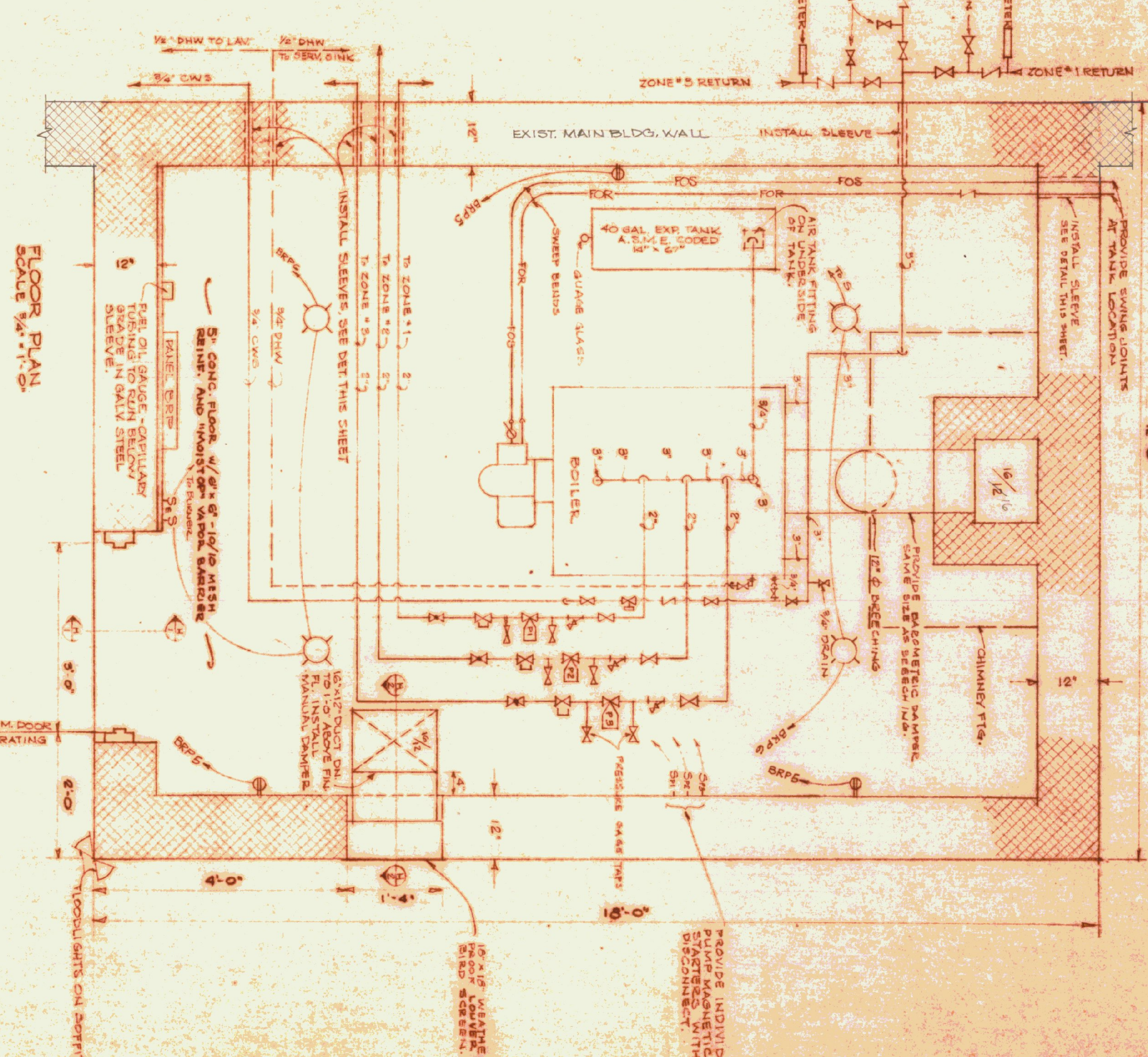


TYPICAL PIPING DETAIL FOR  
VERTICAL UNIT HEATERS  
N.T.S.



FUEL OIL TANK PAD  
SCALE 1/4\"/>

HEATING EQUIPMENT SCHEDULE (MAXIMUMS @ 50° F. AIR W/ 25° F. SUPPLY AIR TEMP.)						
MARK	TYPE	MANUFACT.	MODEL	M.B.H.	H.P.	REMARKS
UHH-10	UNIT HEATER	DUNHAM-BUSH				
P-1	IN-LINE	B & G	GO-2AA	300GPM	3/4"	5/16" I.P.H., SW
P-2	IN-LINE	B & G	GO-2AA	300GPM	3/4"	5/16" I.P.H., SW
P-3	IN-LINE	B & G	GO-2AA	300GPM	3/4"	5/16" I.P.H., SW
RAD	FIN-TUBE	STERLING				120V, 1 P.H., SW 1/2" I.P.H. STEEL FINES 1/2" FINES / L.F.R.



FLOOR PLAN  
SCALE 1/4\"/>

- GENERAL NOTES -
1. CONTRACTOR SHALL REMOVE ALL EXISTING GAS WARMED HEATERS INCLUDING ALL ASSOCIATED PIPING, ELECTRICAL WIRING, CONTROLS, HANGERS ETC.
  2. ALL EQUIPMENT & MATERIALS REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER.
  3. ALL EQUIPMENT TO BE REMOVED SHALL BE REMOVED AND NOT WANTED BY THE OWNER. SHALL BE REMOVED FROM THE PREMISES BY THE CONTRACTOR.
  4. MOTORS ON ALL NEW UNIT HEATERS SHALL BE TOTALLY ENCLOSED EXPLOSION-PROOF TYPE. CONSTRUCTION TO BE PERMANENTLY LUBRICATED BEARINGS AND 1/4" ROLL-IN THRESHOLD CYLINDRICAL PROTECTION.
  5. IN ADDITION TO NORMAL OPERATING CONDUITS & PIPING ALL VERTICAL DISCHARGE UNIT BUILDING TEMPERATURES AT HEATER TERMINATION SHALL BE MAINTAINED WITHIN THE BUILDING. CONTROLLING DEVICE SHALL BE OF A TYPE THAT CAN BE MANUALLY VARIATED TO OPERATE THE FAN AT ANY TEMPERATURE BETWEEN 90° F. AND 200° F. (AT O.H. ELEVATION) SEE SPEC.
  6. ALL COLD WATER SUPPLY PIPING ABOVE FLOOR SLAB ELEVATION SHALL BE INSULATED AND THE INSULATION PAINTED.
  7. EACH CIRCULATING PUMP SHALL HAVE BUILT-IN THERMAL OVERLOAD PROTECTION.
  8. EACH U.H. SHALL HAVE AN ADJUSTABLE CONTROL TO PREVENT THE FAN FROM OPERATING BELOW A PREDETERMINED HWY. TEMP. TO PREVENT COLD AIR CIRCULATION WITHIN THE BUILDING.
  9. ALL PUMPS SHALL BE SITED TO OPERATE ON 200/250/440 V. 3 PH. 4 W. UNLESS OTHERWISE SPECIFIED OR INDICATED.
  10. ALL WOOD STRUCTURAL MEMBERS (PARTS) PLATES SPACERS ETC) SHALL BE TREATED WITH "WOOD-LIFE" PRESERVATIVE. (SEE REFERENCE TO APPROPRIATE SCHEDULE SECTION).
  11. PROVIDE TWO (2) ALL BURNER GALLERY SWITCHES, ONE IN BOILER ROOM AND ONE AT MAIN ENTRANCE OF MAIN BUILDING.
  12. BOILER ROOM FINISHED FLOOR TO BE THE SAME ELEVATION AS MAIN BUILDING FLOOR.
  13. CONCRETE BOILER PAD (SEE S.C.) SHALL BE LEVEL.
  14. PIPING FOR FUEL OIL SUPPLY AND FUEL OIL RETURN, FUEL FILTER AND VENT SHALL BE SCHEDULE 40 BLACK STEEL ASMA A106 W/ WELDABLE (NON SCREWED FITTINGS).

- LEGENDS
- GATE VALVE
  - CHECK VALVE
  - BALANCING COCK
  - FLOW CONTROL
  - UNION
  - FUSIBLE LEVER-MATIC VALVE
  - STRAINER
  - GANDED DUREX OUTLET

STATE OF VERMONT  
STATE BUILDINGS DIVISION  
DEPARTMENT OF ADMINISTRATION  
MONTPELIER, VERMONT

RENOVATION OF HEATING SYSTEM AT THE  
DEPT. OF HIGHWAYS, GARAGE, WHITE RIVER, VT.

Boiler House & Piping Details

DESIGNED BY: **RM**

DATE: 9/1/72

DRAWN BY: **CTH**

DWG. NO.: **H-2**

2 OF 2