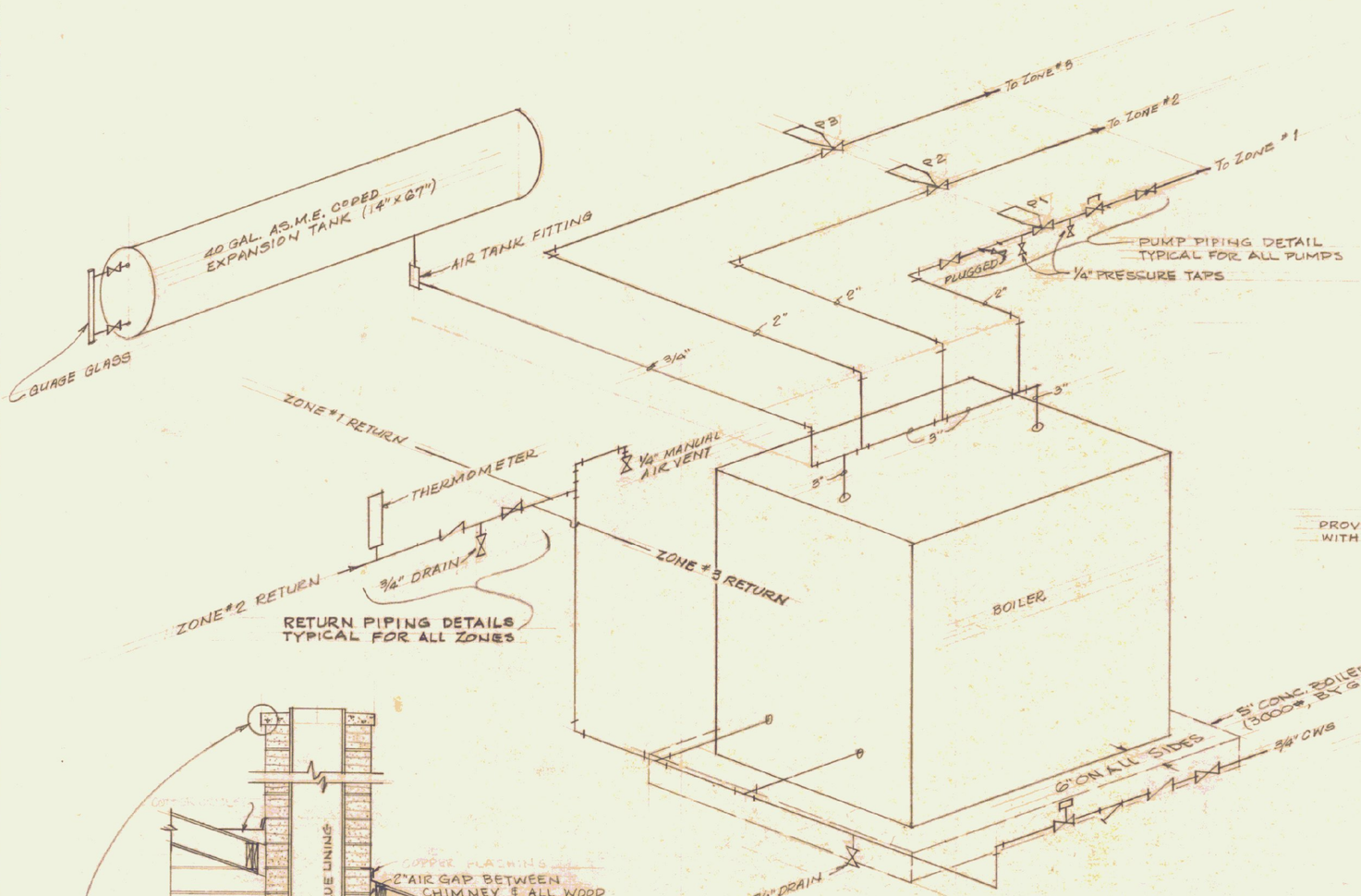
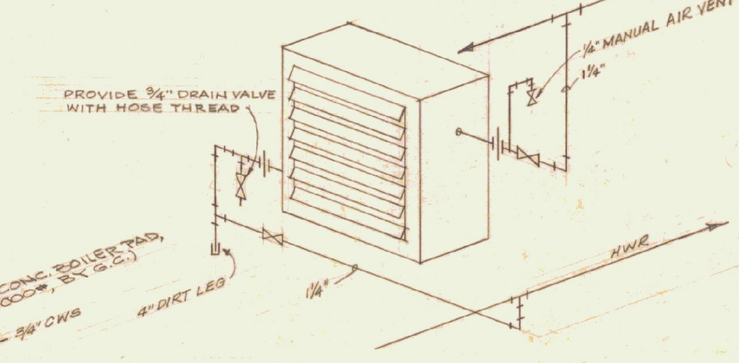
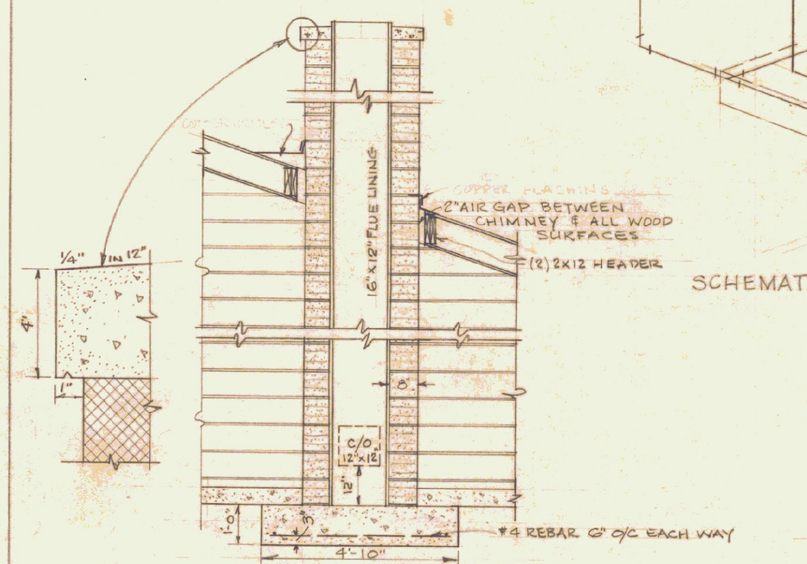


RETURN PIPING DETAILS TYPICAL FOR ALL ZONES

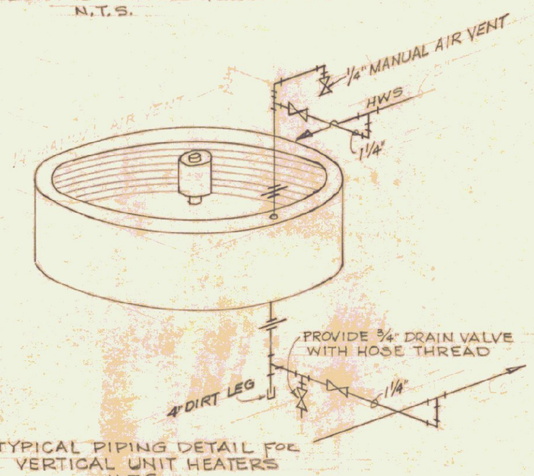
SCHEMATIC DIAGRAM of BOILER PIPING
N.T.S.



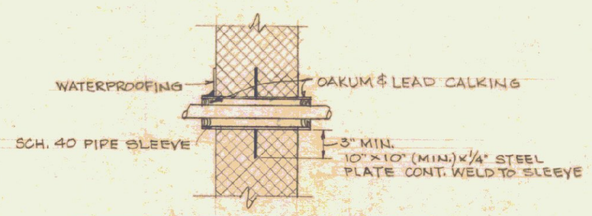
TYPICAL PIPING DETAIL FOR HORIZONTAL UNIT HEATERS
N.T.S.



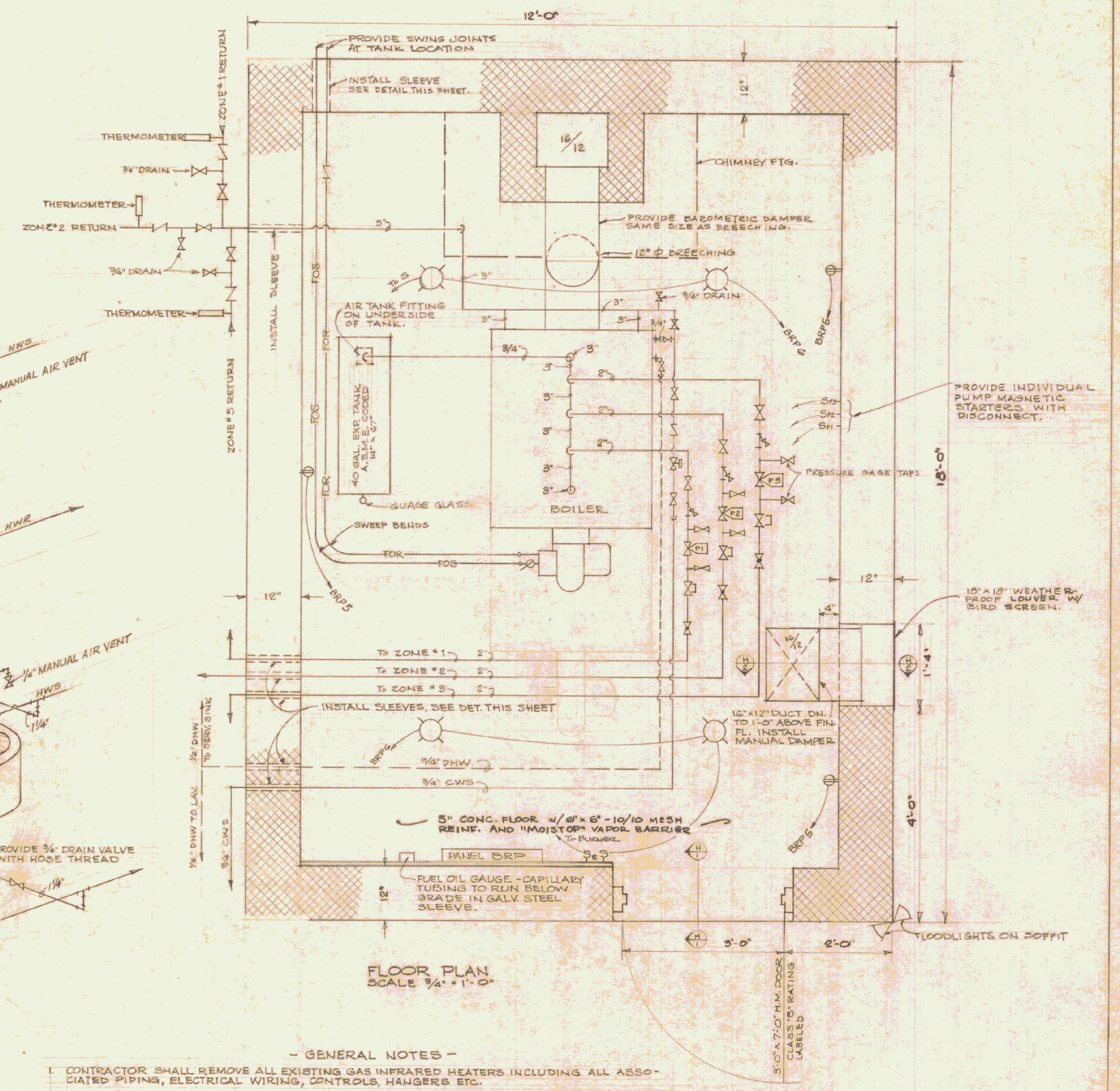
TYPICAL CHIMNEY SECTION
SCALE 3/8" = 1'-0"



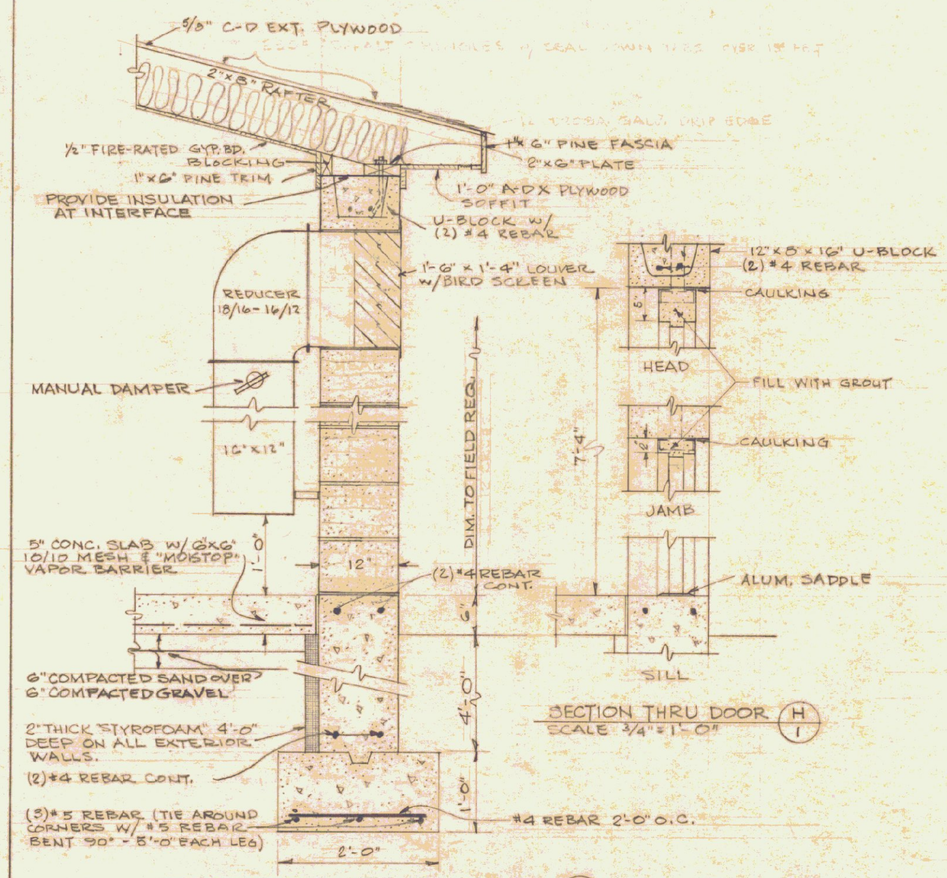
TYPICAL PIPING DETAIL FOR VERTICAL UNIT HEATERS
N.T.S.



DETAIL OF SLEEVES THRU BUILDING WALL
SCALE 3/4" = 1'-0"

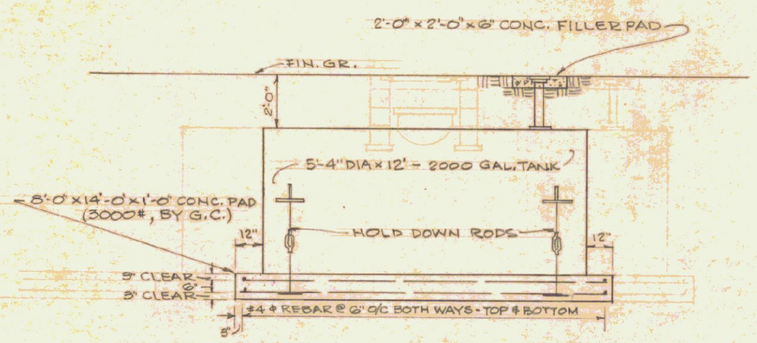


FLOOR PLAN
SCALE 3/4" = 1'-0"



SECTION THRU DOOR (H/1)
SCALE 3/4" = 1'-0"

SECTION THRU INTAKE LOUVER (H/2)
SCALE 3/4" = 1'-0"



FUEL OIL TANK PAD
SCALE 1/4" = 1'-0"

HEATING EQUIPMENT SCHEDULE
(RATINGS @ 190° AVE. W.F. w/ 20° DIFFERENTIAL)

MARK	TYPE	MANUFACT.	MODEL	M.B.H.	H.P.	DISCHARGE	RPM	CFM	REMARKS

- GENERAL NOTES -

1. CONTRACTOR SHALL REMOVE ALL EXISTING GAS INFRARED HEATERS INCLUDING ALL ASSOCIATED PIPING, ELECTRICAL WIRING, CONTROLS, HANGERS ETC.
2. ALL EQUIPMENT & MATERIALS REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER. ANY EQUIPMENT OR MATERIALS SO REMOVED AND NOT WANTED BY THE OWNER SHALL BE PROMPTLY REMOVED FROM THE PREMISES BY THE CONTRACTOR.
3. MOTORS ON ALL NEW UNIT HEATERS SHALL BE TOTALLY ENCLOSED EXPLOSION-PROOF FRAME CONSTRUCTION w/ PERMANENTLY LUBRICATED BEARINGS AND w/ BUILT-IN THERMAL OVERLOAD PROTECTION.
4. IN ADDITION TO NORMAL OPERATING CONDITIONS & PROCEDURES ALL VERTICAL DISCHARGE UNIT HEATERS SHALL BE ELECTRICALLY WIRED TO OPERATE THE FAN AUTOMATICALLY WHEN THE BUILDING TEMPERATURE AT HEATER LOCATIONS REACHES A PREDETERMINED LIMIT. CONTROLLING DEVICE SHALL BE OF A TYPE THAT CAN BE MANUALLY VARIED TO OPERATE THE FAN AT ANY TEMPERATURE BETWEEN 90°F AND 200°F (AT U.H. ELEVATION) SEE SPEC.
5. ALL COLD WATER SUPPLY PIPING ABOVE FLOOR SLAB ELEVATION SHALL BE INSULATED AND THE INSULATION PAINTED.
6. ALL HEATING PIPING IN BOILER ROOM, MAIN BUILDING AND THRU SLEEVES 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 AQUASTAT CONTROL TO PREVENT THE FAN FROM OPERATING BELOW A PREDETERMINED HWR TEMP. TO PREVENT COLD AIR CIRCULATION WITHIN THE BUILDING.
9. ALL PUMPS SHALL BE RATED TO OPERATE ON 208/220/440 V 3ϕ 4W. UNLESS OTHERWISE SPECIFIED OR INDICATED.
10. ALL WOOD STRUCTURAL MEMBERS (RAFTERS, PLATES, SPACERS ETC.) SHALL BE TREATED WITH "WOOD-LIFE" PRESERVATIVE, TRICLORETHYLENE OR APPROVED EQUAL BEFORE ERECTION.
11. PROVIDE TWO (2) OIL BURNER SAFETY 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 BUT SHALL BE PITCHED TOWARD DOOR.
13. CONCRETE BOILER PAD (BY G.C.) SHALL BE LEVEL.
14. PIPING FOR FUEL OIL SUPPLY AND FUEL OIL RETURN, OIL FILLER, AND VENT SHALL BE SCHEDULE 40 BLACK STEEL ASTM A-120 W/ MALLEABLE IRON SCREWED FITTINGS.

LEGEND
- GATE VALVE
- CHECK VALVE
- BALANCING COCK
- FLOW CONTROL
- UNION
- FUSIBLE LEVER-MATIC VALVE
- STRAINER
- GNDED DUPLEX OUTLET

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

Boiler House & Piping Details

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