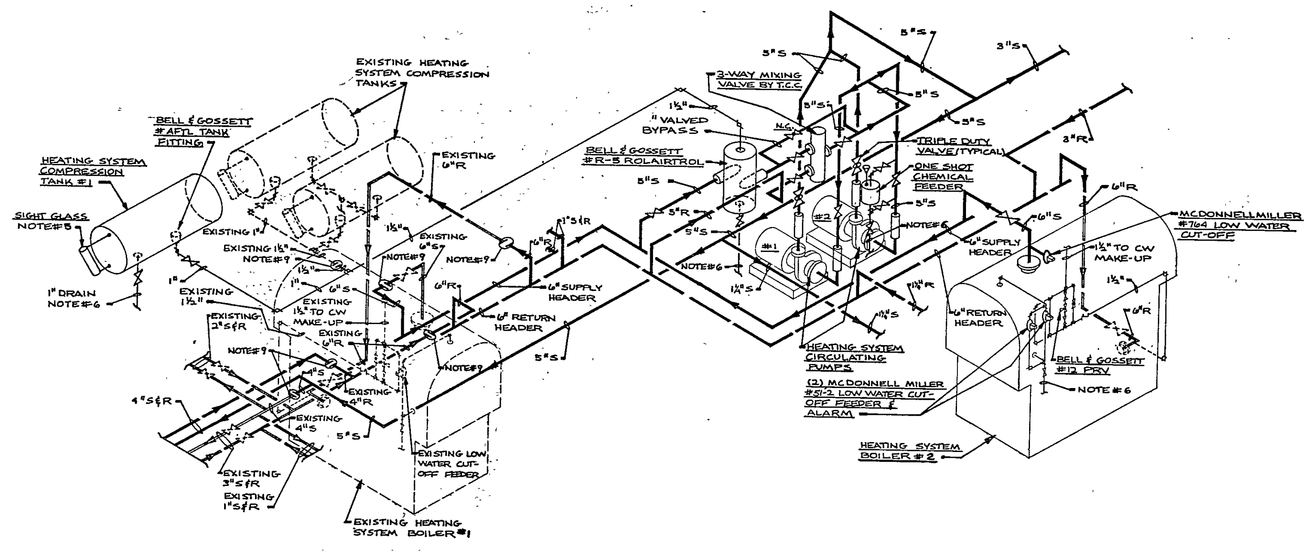
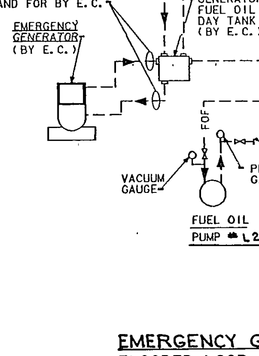


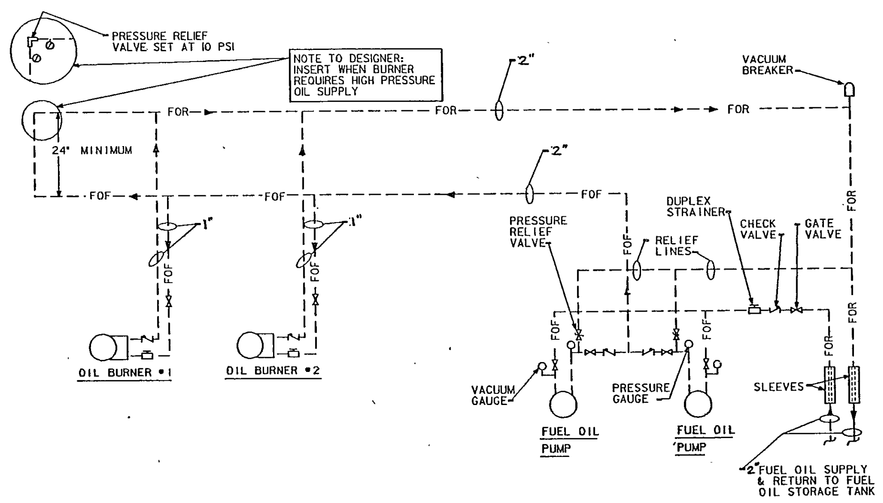
HEATING SYSTEM PIPING ISOMETRIC

NO SCALE



EMERGENCY GENERATOR
FLOODED LOOP OIL PIPING DIAGRAM

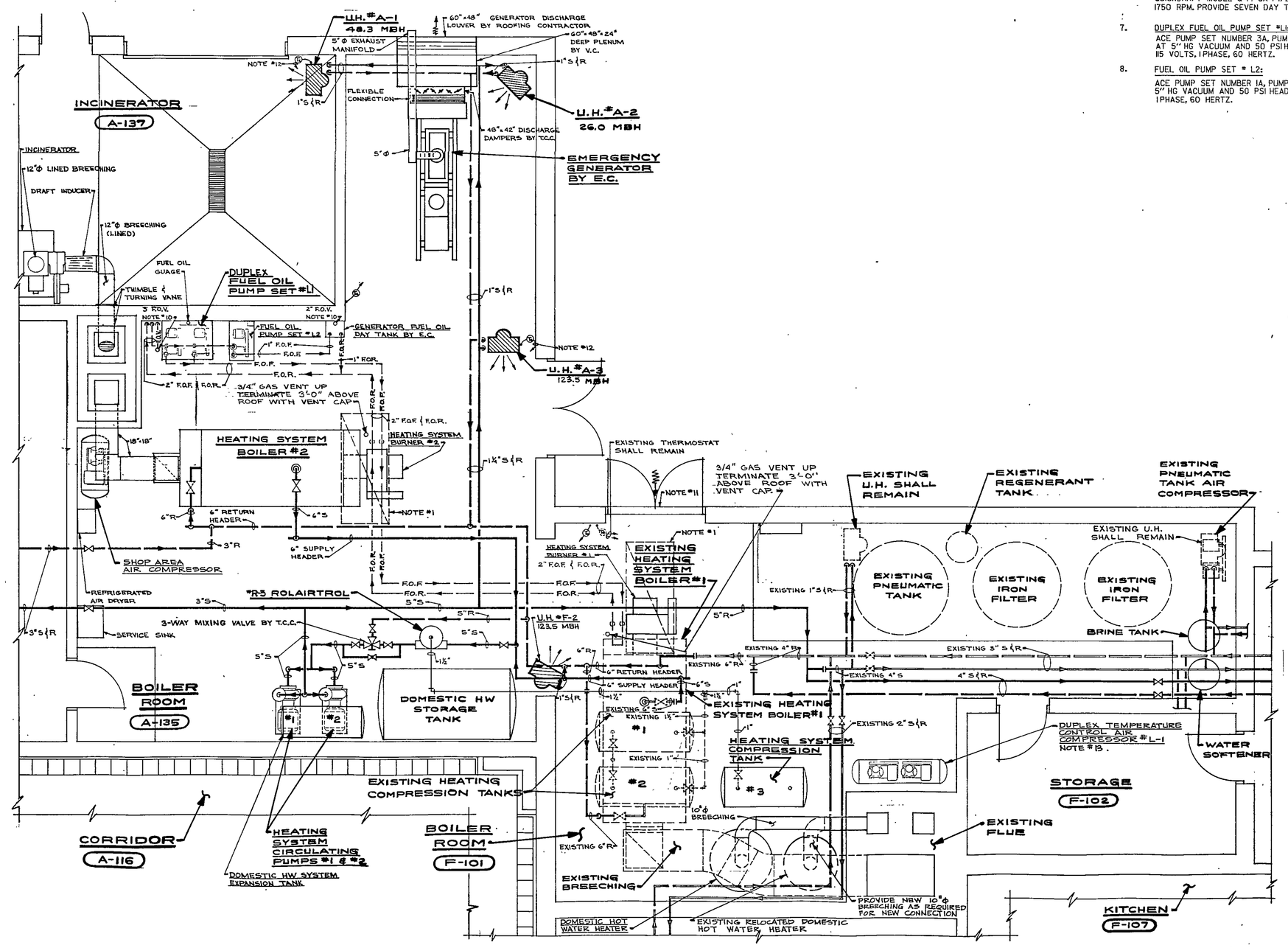
NO SCALE



FLOODED LOOP OIL PIPING DIAGRAM

NO SCALE

R-27



HEATING BOILER ROOM ROOM LAYOUT

NORTH

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

HEATING, VENTILATING, AIR CONDITIONING AND PLUMBING BOILER ROOM NOTES

1. ONE 3'-0" X 7'-0" OPPOSED BLADE MOTORIZED COMBUSTION AIR DAMPER BY TEMPERATURE CONTROL CONTRACTOR. DAMPER SHALL BE CONTROLLED BY A RELAY FURNISHED BY THE BURNER SUPPLIER IN THE HEATING SYSTEM BURNER CONTROL CABINET.
2. ALL VALVES, THERMOMETERS, GAUGES, FEEDERS, FITTINGS, ETC., NOTED ON BOILERS, PUMPS AND COMPRESSION TANKS ARE TYPICAL FOR ALL BOILERS, PUMPS AND COMPRESSION TANKS.
3. ALL COMPRESSION TANK PIPING SHALL PITCH UP IN DIRECTION OF TANKS 1" IN 5'-0" MINIMUM.
4. INSTALL AN AIR VENT AT THE HIGH POINT OF EACH CIRCULATING PUMP DISCHARGE AND AT THE HIGH POINT OF EACH HEATING OR CHILLED WATER RETURN MAIN ENTERING THE BOILER ROOM.
5. ALL SIGHT GLASSES, THERMOMETERS AND GAUGES SHALL BE INSTALLED AT 30° FROM VERTICAL AND SHALL BE EASILY READABLE FROM THE FLOOR (SEE SPECIFICATIONS).
6. ALL PRESSURE RELIEF VALVES, TEMPERATURE RELIEF VALVES, DRAIN VALVES, ETC., SHALL HAVE A DRAIN LINE FULL SIZE OF OUTLET, RUN TO NEAREST HOPPER DRAIN, TRENCH DRAIN OR SUMP PIT.
7. ALL HORIZONTAL PIPING WITHIN THE BOILER ROOM SHALL BE SUSPENDED ON RUBBER-IN-SHEAR HANGERS (SEE SPECIFICATIONS).
8. ALL TEMPERATURE REGULATING VALVES, 3-WAY MIXING VALVES, SOLENOID VALVES, AUTOMATIC DRAIN VALVES, PUMP BY-PASS VALVES, ETC., SHALL BE PROVIDED BY THE TEMPERATURE CONTROL CONTRACTOR.
9. CONNECT EXISTING PIPING TO NEW PIPING AS SHOWN.
10. TERMINATE FUEL OIL VENT IN VENT CAP 18" ABOVE ROOF.
11. (1) 72" X 18" COMBUSTION AIR LOUVER BY ROOFING CONTRACTOR.
12. SUSPEND THERMOSTAT 2'-0" BELOW UNIT HEATER.
13. REMOVE EXISTING TEMPERATURE CONTROL AIR COMPRESSOR AND TURN OVER TO OWNER. INSTALL NEW DUPLEX TEMPERATURE CONTROL AIR COMPRESSOR AS SHOWN. REUSE EXISTING AFTERCOOLER.

BOILER ROOM MECHANICAL EQUIPMENT SCHEDULE

1. HEATING SYSTEM BOILER #2
   KEWANEE MODEL 7L 284 OR AN APPROVED EQUAL. S.B.I. NET RATING 5540 MBH.
2. HEATING SYSTEM BURNER: #1 & #2
   INDUSTRIAL COMBUSTION MODEL PLG-63 HEV-E-DUTY COMBINATION GAS/OIL BURNER OR AN APPROVED EQUAL TO BURN 6300 CUBIC FEET PER HOUR OF 0.6 SPECIFIC GRAVITY, 1000 BTU PER CUBIC FOOT NATURAL GAS MANIFOLD PRESSURE OF 8" W.C. BURNER MOTOR: 5 HP, 460 VOLTS, 3 PHASE, 60 CYCLE. OIL CAPACITY: 45 GALLONS PER HOUR #2 FUEL OIL WITH HEAT CONTENT OF 140,000 BTU/GALLON. MOTOR DATA 1HP, 460 VOLT, 3 PHASE, 60 HERTZ.
3. HEATING SYSTEM COMPRESSION TANK #4:
   (2) 20" DIAMETER X 78" LONG (OVERHEADS) 100 GALLONS ACTUAL CAPACITY EACH. ASME CONSTRUCTION 30LBS. W.P. PROVIDE 3/4" DIAMETER THREADED "U" BAR HANGERS, SUSPENSION ANGLES, ETC. AS REQUIRED TO SUSPEND FROM STRUCTURAL SUPPORTS PROVIDED BY THE GENERAL CONTRACTOR.
4. TEMPERATURE CONTROL AIR COMPRESSORS AND AFTERCOOLER:
   BY TEMPERATURE CONTROL SUBCONTRACTOR. 80 GALLON CAPACITY. COMPRESSOR MOTOR: (2) 5 HP, 460 VOLTS, 3 PHASE, 60 CYCLE. AFTERCOOLER MOTOR: 1/5 HP, 115 VOLTS, 1 PHASE, 60 CYCLE.
5. INCINERATOR:
   ECONOTHERM MODEL I-180, OR AN APPROVED EQUAL, GAS FIRED. PRIMARY CHAMBER BURNER NO. J-80 DS TO BURN 50 CUBIC FEET OF 1000 BTU PER CUBIC FOOT NATURAL GAS. BURNER MOTOR: 1/4 HP, 115 VOLTS, 1 PHASE, 60 HERTZ. PROVIDE ONE HOUR AUTOMATIC TIMER. SECONDARY CHAMBER BURNER NO. J-80 DS TO BURN 600 CUBIC FEET OF 1000 BTU PER CUBIC FOOT NATURAL GAS. BURNER MOTOR: 1/4 HP, 115 VOLTS, 1 PHASE, 60 HERTZ. PROVIDE-SIX HOUR AUTOMATIC TIMER.
6. DRAFT INDUCER:
   QUICKDRAFT MODEL Q-14 CA-1-1/2 OR AN APPROVED EQUAL. FAN MOTOR: 1-1/2 HP, 460 VOLT, 3 PHASE, 60 CYCLE. 1750 RPM. PROVIDE SEVEN DAY TIME CLOCK TO CONTROL FAN.
7. DUPLEX FUEL OIL PUMP SET #L1:
   ACE PUMP SET NUMBER 3A, PUMP NUMBER 3CS OR AN APPROVED EQUAL. CAPACITY WILL BE 180 GPH MEASURED AT 5" HG VACUUM AND 50 PSI HEAD WITH #2 FUEL OIL OF 2000 SS4 VISCOSITY. MOTOR DATA: (2) 1/2 HP, 115 VOLTS, 1 PHASE, 60 HERTZ.
8. FUEL OIL PUMP SET # L2:
   ACE PUMP SET NUMBER 1A, PUMP NUMBER 1LK OR AN APPROVED EQUAL. CAPACITY WILL BE 30 GPH MEASURED AT 5" HG VACUUM AND 50 PSI HEAD WITH #2 FUEL OIL OF 2000 SS4 VISCOSITY. MOTOR DATA: 1/3 HP, 115 VOLTS, 1 PHASE, 60 HERTZ.

ARCHITECTS ENGINEERS
EVERETT I. BROWN COMPANY
• INDIANAPOLIS, INDIANA • 46241

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5500 WEST BRADBURY AVENUE •
ADDITION TO AND RENOVATION OF LIBERTY MIDDLE SCHOOL
• PARK FLETCHER •

James A. Partridge

JAMES ALLEN PARTRIDGE REGISTERED 12545 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT	DATE	REVISED
12579.00	MAY 3, 1982	

NO. M-32
OF 36

AS-BUILT
25 SEPT 1984

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