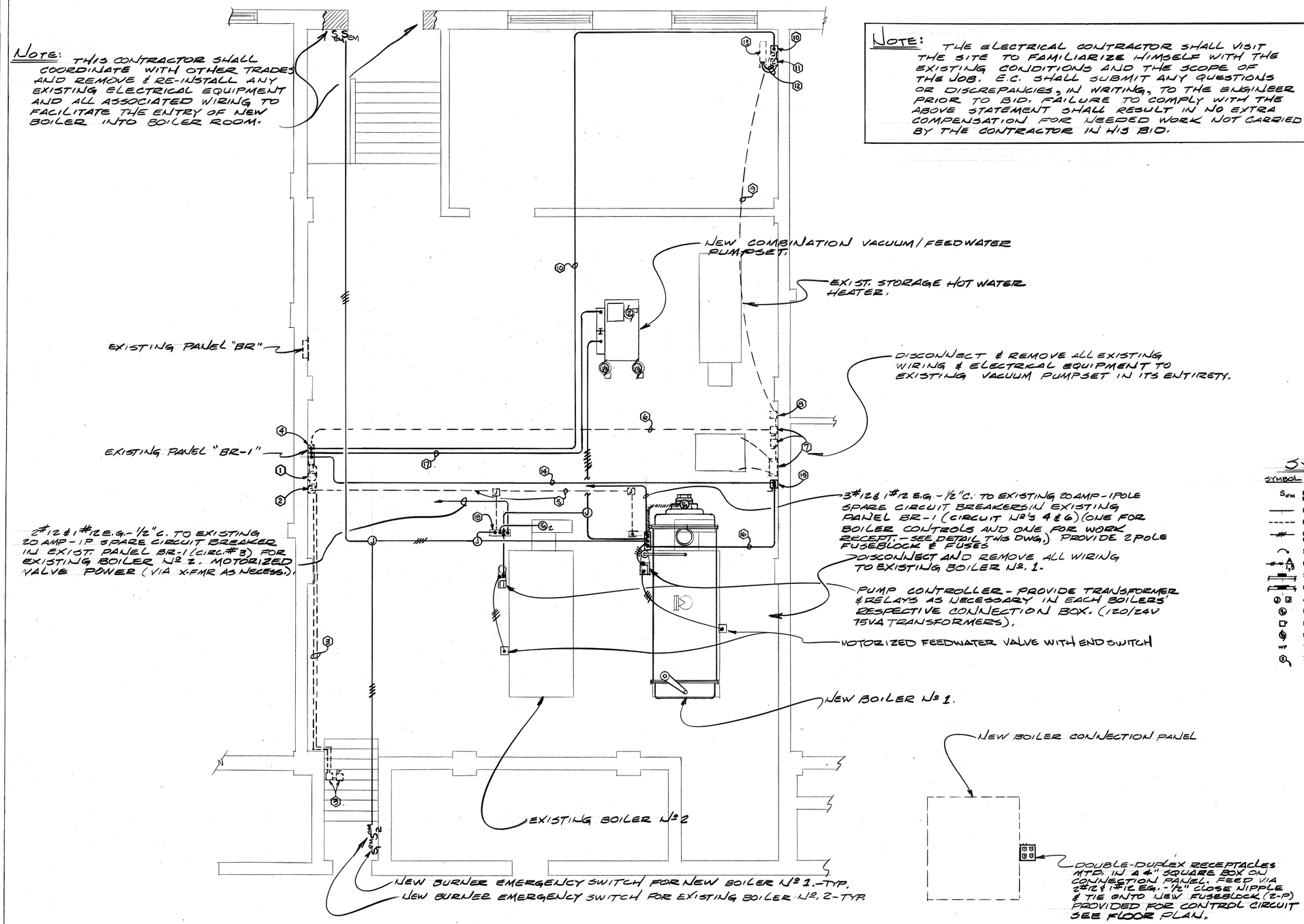
NOTE: THIS CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND REMOVE & RE-INSTALL ANY EXISTING ELECTRICAL EQUIPMENT AND ALL ASSOCIATED WIRING TO FACILITATE THE ENTRY OF NEW BOILER INTO BOILER ROOM.

NOTE: THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND THE SCOPE OF THE JOB. E.C. SHALL SUBMIT ANY QUESTIONS OR DISCREPANCIES, IN WRITING, TO THE ENGINEER PRIOR TO BID. FAILURE TO COMPLY WITH THE ABOVE STATEMENT SHALL RESULT IN NO EXTRA COMPENSATION FOR NEEDED WORK NOT CARRIED BY THE CONTRACTOR IN HIS BID.



FLOOR PLAN - BOILER ROOM - ELECTRICAL

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

WORK RECEPTACLE DETAIL

NO SCALE

GENERAL NOTES

1. Existing 100 Amp, 3P, fusible disconnect switch, fused at 90 Amps, fed from existing panel BR-1 (Item No. 4) circuit No. 18 (100A/3P Bkr) feeding existing boiler No. 1-to be removed.
2. Existing 100 Amp, 3P, fusible disconnect switch, fused at 90 Amps - tapped-off line of Item No. 1 - feeds existing boiler No. 2 - to remain and be re-fed - remove "tap" and re-feed from panel BR-1 (Item No. 4) circuit No. 18 - re-feed with 3 #3 (CU) XHHW-1 1/4"C.
3. Remove 2-3/4" conduits, 2-3P disc. switches, and all associated wiring back to source (used as existing burner emergency switches). Take care not to damage feeder to existing boiler No. 2.
4. Existing panel BR-1, Westinghouse type WEB, 225 Amp M.L.O., 208Y/120V.
5. Remove existing feeder for existing boiler No. 1 back to source. (Pull out of existing conduit with feeder for boiler No. 2.) Take care not to damage existing feeder for boiler No. 2. Feeder for boiler No. 2 to remain.
6. Remove existing feeders (2) to existing vacuum pumps (2) back to source. (Panel BR-1, Ckts. 16 & 17).
7. Remove two (2) existing 60 Amp, 3P, non-fused disconnect switches and duplex fused switch/starter combination.
8. Existing 30 Amp-2P enclosed circuit breaker tapped-off line side of 60A-3P non-fused disconnect switch (Item No. 7) to be removed.
9. 2/C #10 with ground romex feeding existing fuel oil return line heater to be re-wired.
10. Existing 30 Amp, 2 Pole, non-fused disconnect switch to remain and be re-fed. Replace existing 20 Amp, 2P spare breaker in existing panel BR-1 (Item No. 4) with new 30 Amp, 2 Pole circuit breaker and re-feed 30A, 2P switch with 2 #10 and 1 #10 E.G. - 3/4 inch conduit.
11. Existing 30 Amp, 3P contactor to remain and be re-wired completely.
12. Replace existing 2/C #10 romex whips (2) with 2 #10 and 1 #10 E.G. - 1/2 inch sealtight each, and rewire existing fuel oil return line heater (Item No. 13) and controls (Item No. 11).
13. Existing fuel oil return line heater to remain and be rewired (both, feed and control).
14. 4 #6 XHHW (CU) and 1 #10 (CU) Grnd. - 1 inch conduit. Tie onto one (1) 60 Amp 3 Pole circuit breaker in panel BR-1 (Item No. 4) left open from Item No. 6.
15. 60 Amp, 3P and SN, heavy duty, fusible disconnect switch in NEMA 1 enclosure. Fused at 50 Amps with dual element fuses. Square D catalog Number K32SN.
16. 4 #6 XHHW (CU) and 1 #10 (CU) Grnd. - 1 inch conduit - tie into new boiler.
17. 3 #10 and 1 #10 E.G. - 3/4 inch conduit. Replace 20 Amp, 3P, spare breaker in existing panel BR-1 (Item No. 4) with new 30 Amp, 3P breaker to feed new vacuum/feedwater combination pumpset.
18. Break into existing boiler No. 2's control circuit and series wire new burner emergency switches and fire-o-matic switch.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
S_{EM}	Burner emergency switch with red plate marked "Burner Emergency Switch" - Mtd. 6'-0" A.F.F. to Ct.
	Branch circuit wiring run exposed.
	Existing branch circuit wiring.
	Crosshatching indicates number of conductors required if more than two. Ground conductor not indicated.
	Indicates branch circuit turning down or tie into equipment.
	Home run to panel - "A" indicates panel - 1,3 indicates circuit numbers.
	Surface mounted panelboard - Mtd. 6'-6" A.F.F. to top.
	Flush mounted panelboard - Mtd. 6'-6" A.F.F. to top.
J	Junction box size as required or as noted.
FO	Fire-O-Matic switch - Mtd. over burner.
	Disconnect switch - size and configuration as noted.
	Motor with rating in horsepower.
WP	Indicates weatherproof item.
2	Indicates note number - see general notes.

FLOOR PLAN AND DETAILS - ELEC.

F.N. ZAINO & ASSOCIATES
Consulting Engineers 1040 Cranston Street, Cranston, Rhode Island 02920

FRANK N. ZAINO No. 2847 REGISTERED PROFESSIONAL ENGINEER

Title: BOILER REPLACEMENT — at the — ALDRICH JUNIOR HIGH SCHOOL, WARWICK SCHOOL DEPARTMENT, WARWICK, RHODE ISLAND

Date	Drawn by	Drawing No.
SEPT. '85	JFP	E-1
Scale: AS NOTED	Job No.: 1812-4	

RHODE ISLAND BLUEPRINT

NOTE:
INSTALL NEW BOILER THROUGH THIS DOORWAY. - REMOVE EXISTING DOORS, FRAME, WALL, STAIRRAILS, ETC., AS NECESSARY TO INSTALL & RIG THE NEW BOILER THEN RETURN AND REPLACE TO ORIGINAL CONDITION.

EXIST. FRESH AIR LOUVERS TO REMAIN.

EXISTING VACUUM VENT TO REMAIN IN USE

EXISTING RETURN LINE HEATER TO REMAIN

EXISTING STORAGE WATER HEATER TO REMAIN - SEE DIAGRAM ON DRAWING Nº2, M-3 FOR BOILERWATER PIPING REVISION TO OLD AND NEW BOILERS.

NEW COMBINATION VACUUM AND BOILER FEED SET. SEE PIPING DETAILS ON DWG. Nº2, M-3. MOUNT ON NEW 96" LONG x 72" WIDE x 6" H. CONCRETE PAD.

REMOVE OLD BOILER FEEDWATER PIPING IN ENTIRETY

EXTEND EXISTING 3" BLDG. CONDENSATE RETURN TO NEW VACUUM UNIT.

REMOVE EXISTING BOILERWATER SUPPLY & RETURN PIPING - SEE DIAGRAM DWG. M-3.

REMOVE EXISTING BOILER, BURNER, & APPURTENANCES, IN ENTIRETY, CLEAN UP AREA & INSTALL NEW BOILER PAD, BOILER, ETC. - PAD TO BE 18'-6" x 6'-2" x 6" HIGH - ALSO REMOVE OIL PUMP AND HEATER @ RIGHT SIDE OF BOILER AND EXISTING DUPLEX VACUUM/BOILER FEED PUMPSET & ASSOCIATED APPURTENANCES.

CAP OLD FUEL OIL RETURN FROM BOILER Nº 1.

8" ANGLE TYPE NON-RETURN VALVE

NEW BOILER FEEDWATER PIPING - SEE DIAGRAM ON DRAWING Nº M-3.

RELIEF VALVES

RUN NEW 1½" FUEL OIL SUPPLY AND RETURN PIPING FROM EXISTING MAINS AT

NEW BOILERWATER SUPPLY & RETURN PIPING TO EXISTING STORAGE WATER HEATER - SEE DIAGRAM DRAWING Nº M-3. CONJECT TO "BELOW THE WATERLINE TAPS" ON NEW BOILER - SEE SPEC'S.

¾" F & T DRIP TRAP

CONNECT TO EXIST. 8" GATE VALVE WITH CHAIN TO FLOOR

EXISTING 14" HEADER

REMOVE EXISTING EQUALIZING AND HARTFORD LOOP PIPING IN ENTIRETY.

INSTALL NEW WATER COLUMN, PUMP CONTROLLER, AND EMERGENCY WATER FEEDER ON EXISTING BOILER - SEE DETAIL OF CONTROL PIPING - THIS SHEET.

NEW BOILER FEEDWATER PIPING - SEE DIAGRAM ON DRAWING Nº, M-3.

EXISTING BOILER Nº. 2 TO REMAIN

CONJECT TO EXISTING CITY WATER MAIN.

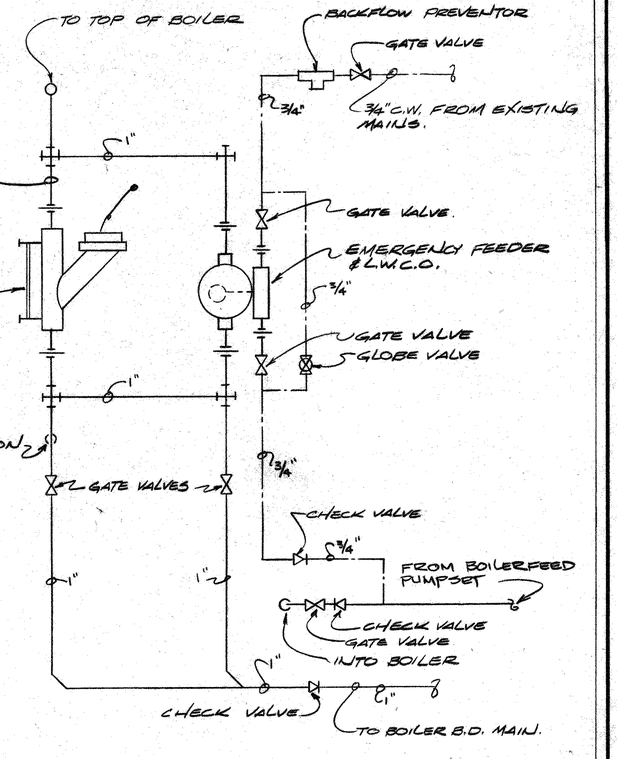
NEW 16" Ø OPENING

REMOVE EXISTING ASBESTOS INSULATION FROM EXISTING BREECHING & UPTAKE FROM BOILER Nº. 2 & INSTALL NEW 2" THICK CALCIUM SILICATE W/ JACKET ON ALL - SEE SPEC'S.

REMOVE EXISTING BOILER Nº 1 UPTAKE AND CLOSE OLD OPENING.

FLOOR PLAN - BOILER ROOM - MECHANICAL

SCALE: ¼" = 1'-0"



BOILER CONTROL PIPING DIAGRAM

NO SCALE

(TYPICAL TO NEW BOILER AND TO BE INSTALLED ON EXIST. BOILER Nº. 2).

LEGEND

SYMBOL	DESCRIPTION
◆	CONNECT TO EXISTING
EV	EXISTING VENT
ECW	EXISTING CITY WATER
EBW	EXISTING BOILER WATER
EBFW	EXISTING BOILER FEEDWATER
E#2 FOS	EXISTING BLR #2 FUEL OIL SUPPLY
E#1 FOS	EXISTING BLR #1 FUEL OIL SUPPLY
EFOR	EXISTING FUEL OIL RETURN
V	NEW VENT
CW	NEW CITY WATER
BWS	NEW BOILERWATER SUPPLY
BWR	NEW BOILERWATER RETURN
FOS	NEW FUEL OIL SUPPLY
FOR	NEW FUEL OIL RETURN
BD	NEW BLOWDOWN
COND.R.	NEW CONDENSATE RETURN
G	NEW GAS

File Y

FLOOR PLAN AND DETAILS - MECH.

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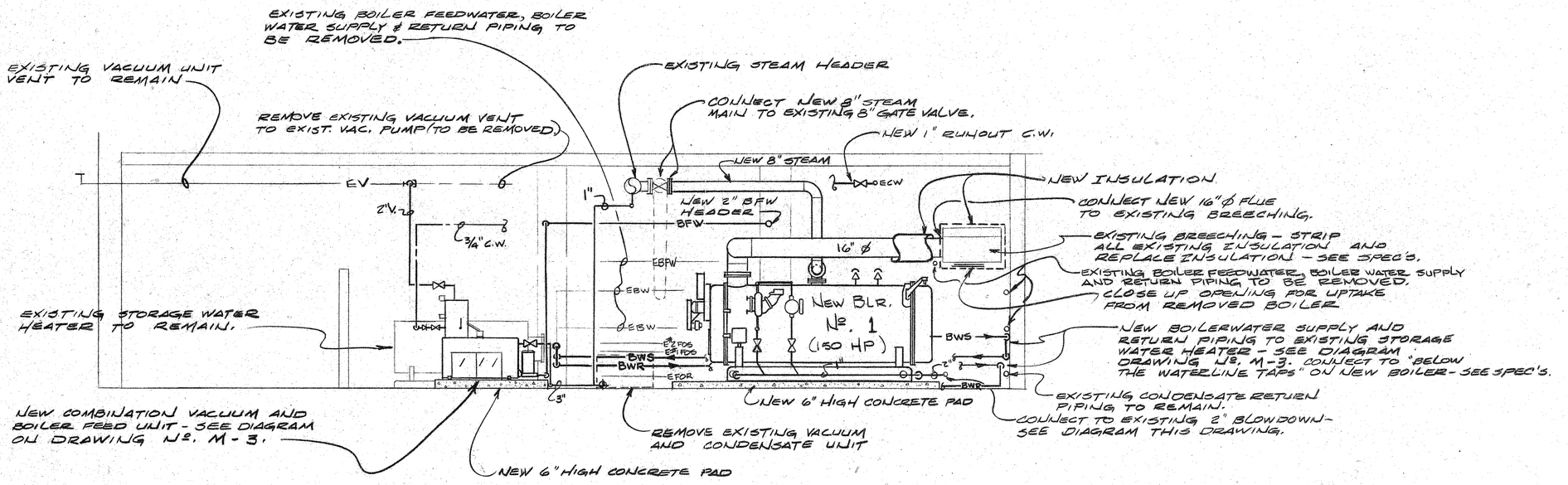
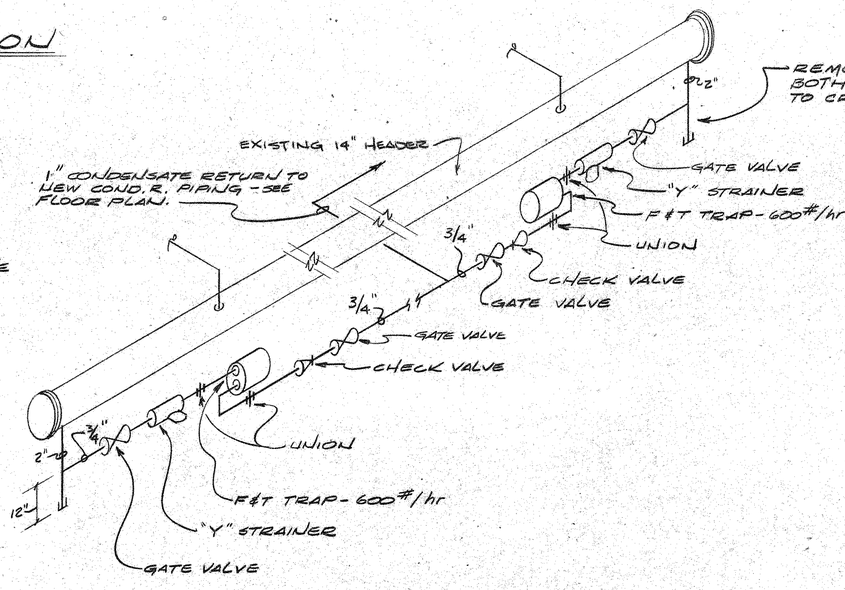
Date	Drawn by	Drawing No.
SEPT. '85	JFP	M-1
Scale: AS NOTED	Job No. 1812-4	

RHODE ISLAND BLUEPRINT



RIGHT SIDE OF BOILER ~ ELEVATION

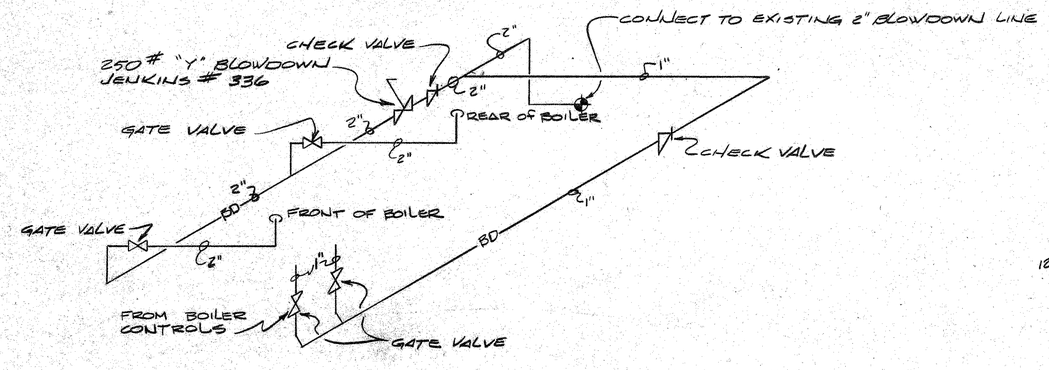
SCALE: 1/4" = 1'-0"



CONDENSATE RETURN PIPING DIAGRAM

(AT EXISTING 14" STEAM HEADER)

NO SCALE



BOILER BLOWDOWN PIPING DIAGRAM

NO SCALE

DETAILS AND DIAGRAMS-MECH.

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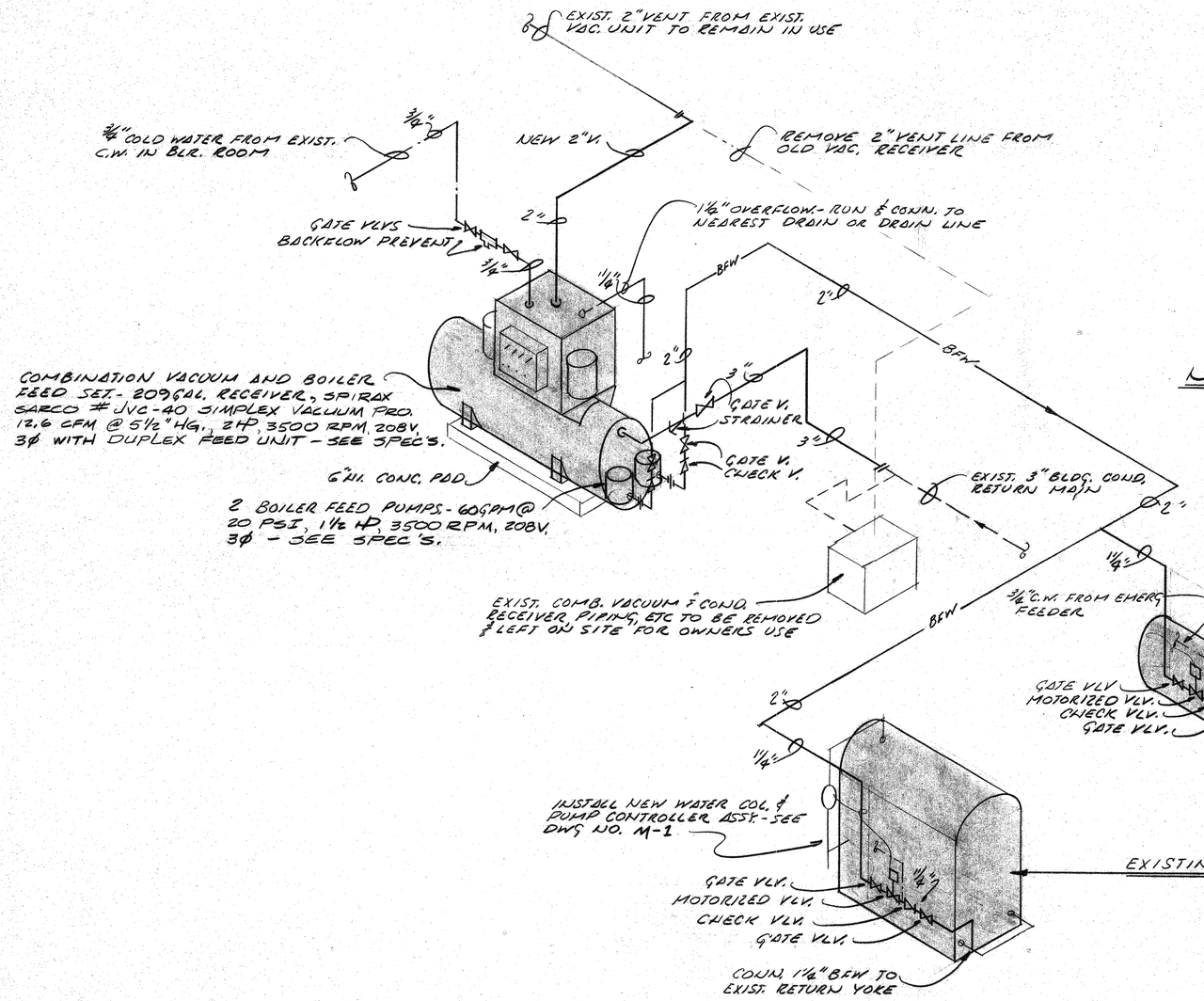
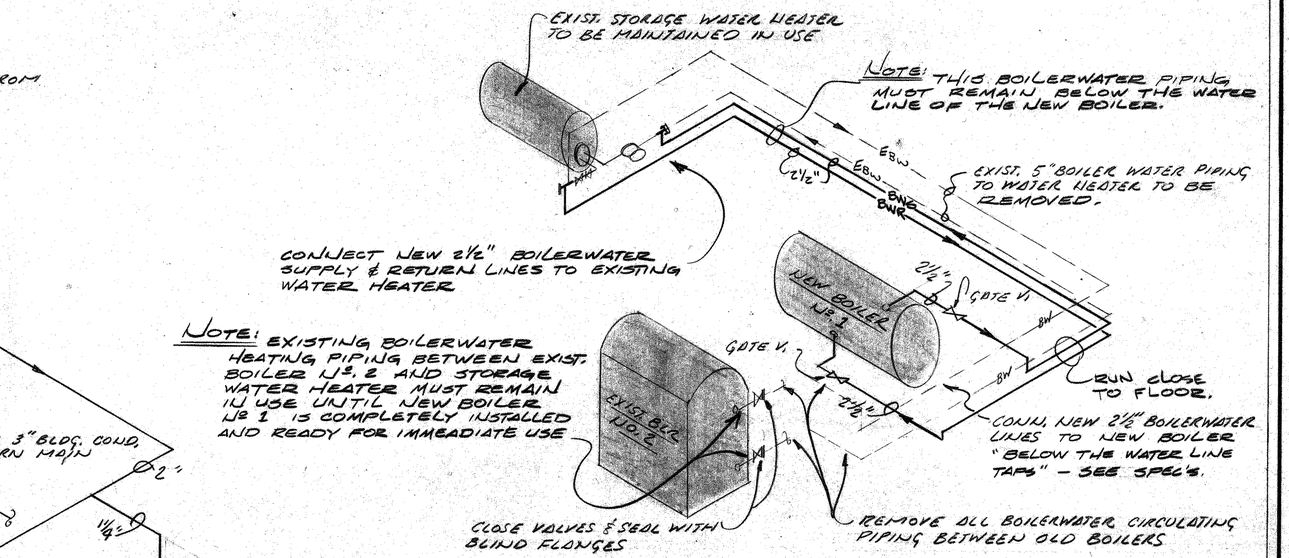
Date	Drawn by	Drawing No.
SEPT.'85	JFP	M-2
Scale: AS NOTED	Job No.: 1812-4	

RHODE ISLAND BLUEPRINT



CONDENSATE - VACUUM & BOILER FEED SYSTEM PIPING DIAGRAM

NO SCALE



BOILERWATER to WATER HEATER PIPING DIAGRAM

NO SCALE

DETAILS AND DIAGRAMS - MECH.

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Date	Drawn by	Drawing No.
SEPT. '85	FNZ	M-3
Scale: AS NOTED	Job No. 1812-4	