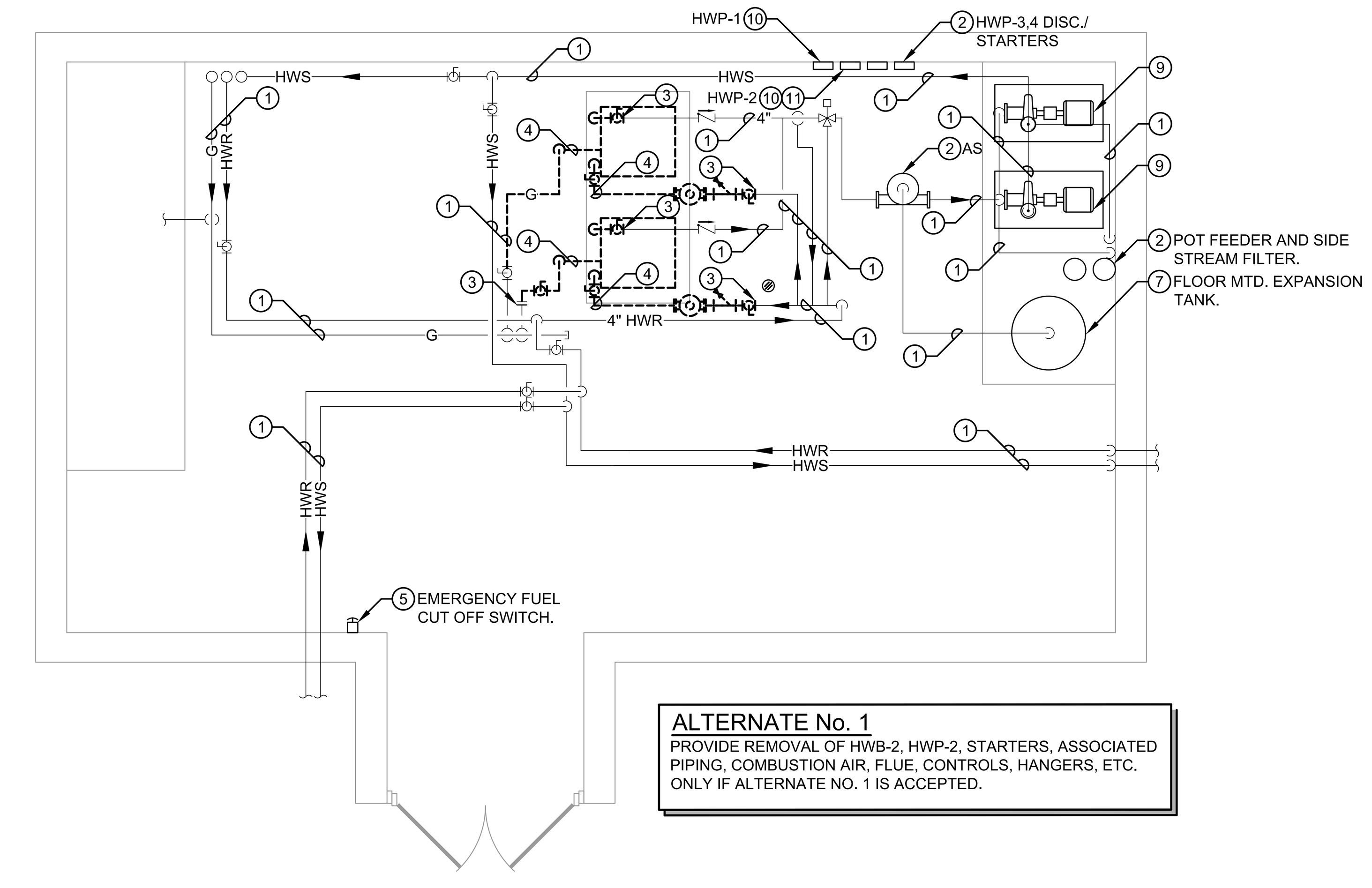
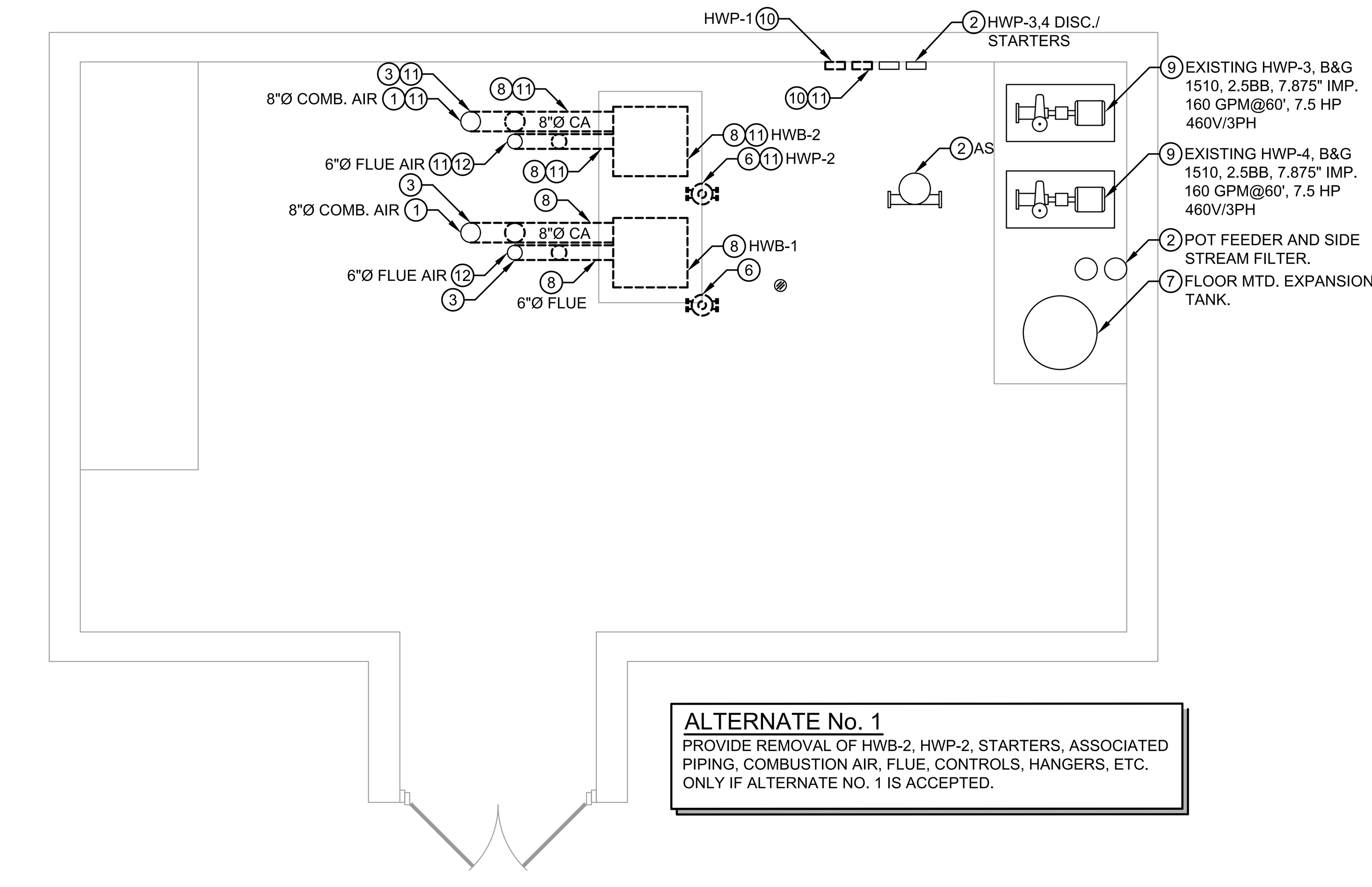


N

1 MECHANICAL DEMOLITION - PIPING

SCALE 1/4" = 1'-0"



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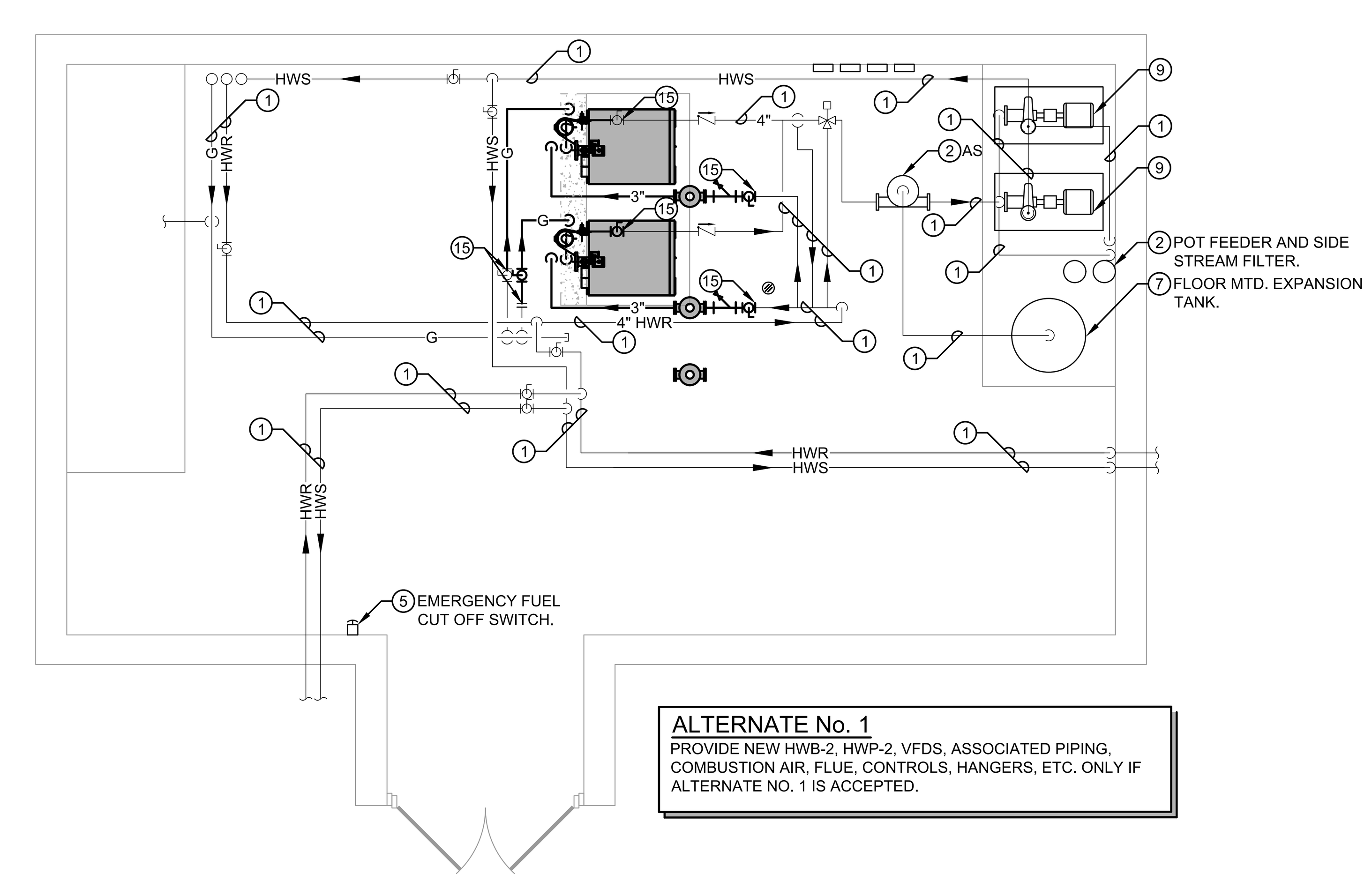
2 MECHANICAL DEMOLITION - VENTILATION

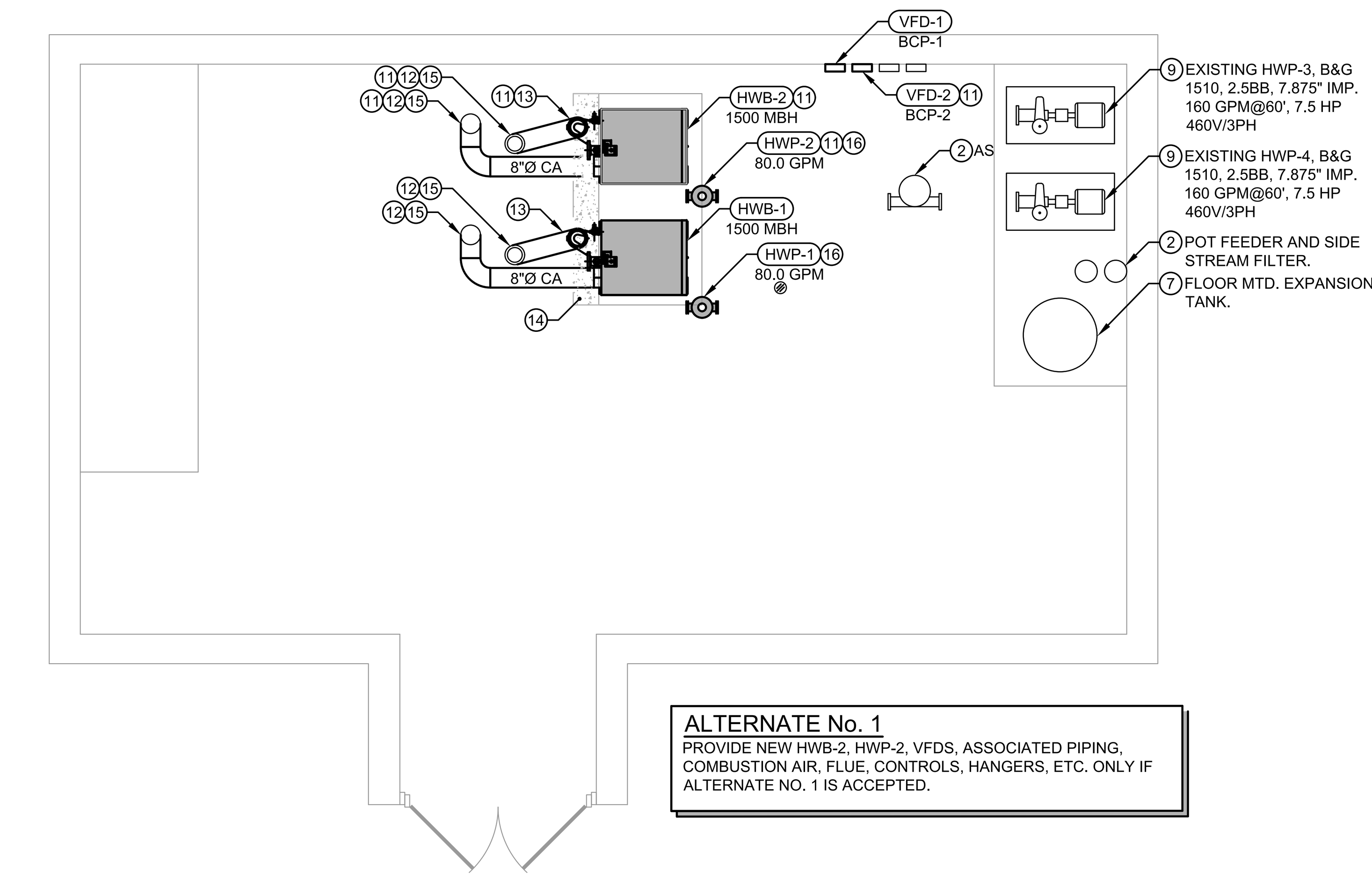
SCALE 1/4" = 1'-0"



N

3 MECHANICAL - PIPING

SCALE 1/4" = 1'-0"



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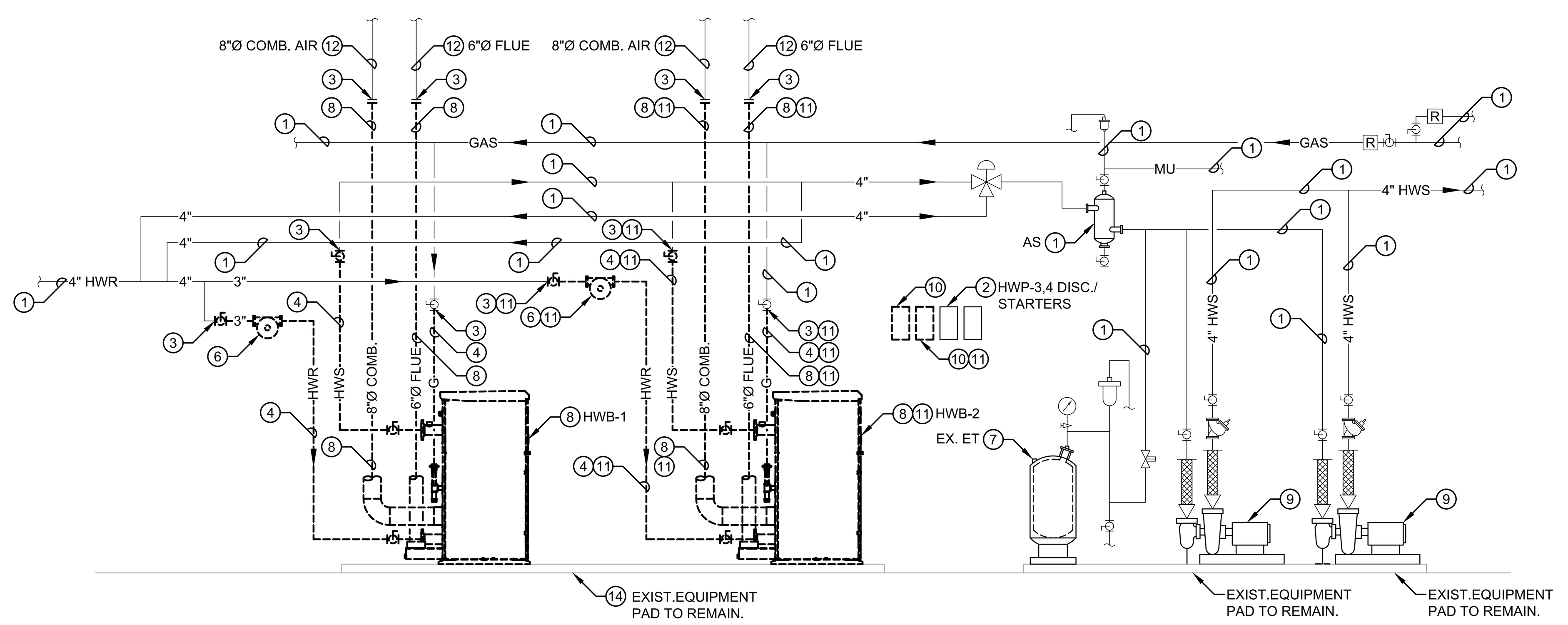
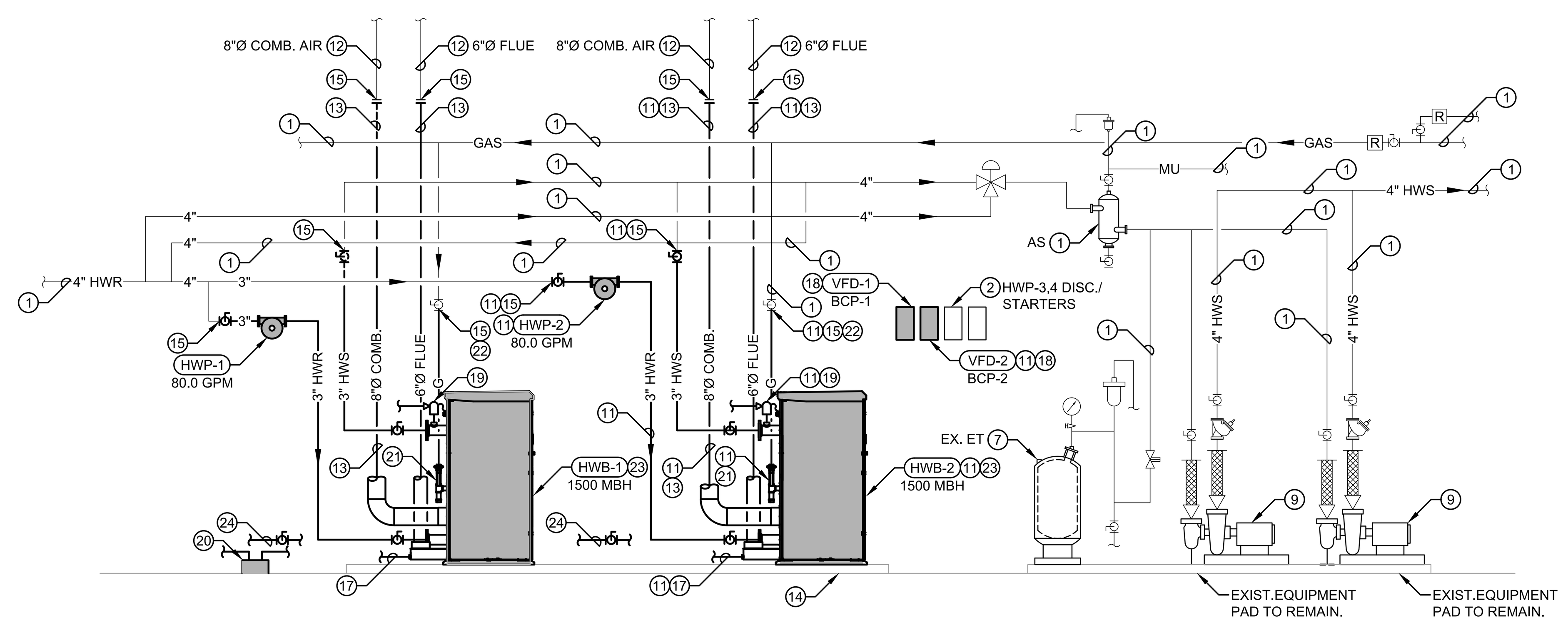
4 MECHANICAL - VENTILATION

SCALE 1/4" = 1'-0"



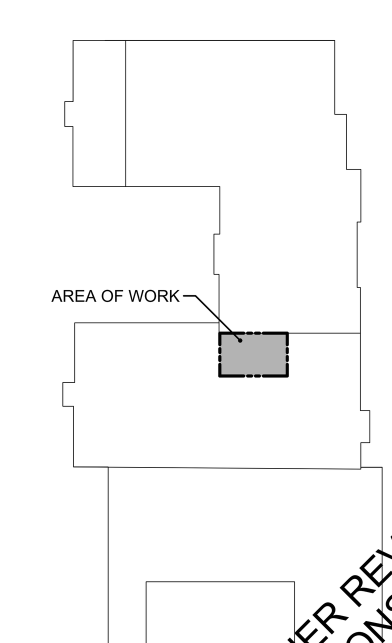
BOILER PIPING DIAGRAM - DEMOLITION

NOT TO SCALE



BOILER PIPING DIAGRAM - DEMOLITION

NOT TO SCALE



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KEYPLAN

N.T.S.

OWNER REVIEW
NOT FOR CONSTRUCTION
09-18-2025

DRAWING NOTES:

1. EXISTING PIPING, VALVING, DUCTWORK, ETC. TO REMAIN.
2. EXISTING EQUIPMENT TO REMAIN.
3. NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL PIPING, VALVING, HANGERS, INSULATION, DUCTWORK, ETC. SHOWN DASHED BEYOND THIS POINT.
4. REMOVE ALL PIPING, VALVING, HANGERS, INSULATION, ETC. SHOWN DASHED.
5. EXISTING EMERGENCY FUEL CUT OFF SWITCH TO REMAIN. DISCONNECT FROM HOT WATER BOILER(S) TO BE REMOVE AND CONNECT TO NEW BOILERS.
6. REMOVE INLINE PUMP AND ALL ASSOCIATED PIPING, VALVING, INSULATION, HANGERS, SUPPORTS, ETC.
7. EXISTING FLOOR MOUNTED EXPANSION TANK AND ALL ASSOCIATED PIPING, VALVING, HANGERS, SUPPORTS, ETC. TO REMAIN.
8. REMOVE BOILER AND ALL ASSOCIATED PIPING, CONTROLS, GAS TRAIN, VALVING, COMBUSTION AIR, FLUE, ETC. (TO APPROXIMATE LOCATION SHOWN).
9. EXISTING BASE MOUNTED PUMP AND ALL ASSOCIATED PIPING, VALVING AND CONTROLS, ETC. TO REMAIN. EXISTING CONCRETE EQUIPMENT PAD TO REMAIN.
10. COORDINATE REMOVAL OF EXISTING STARTER(S) AND INSTALLATION OF NEW VFDS AT SIMILAR LOCATION WITH ELECTRICAL CONTRACTOR.
11. ALTERNATE No.1: PROVIDE REMOVAL OF HWB-2, HWP-2, STARTERS, ASSOCIATED PIPING, COMBUSTION AIR, FLUE, CONTROLS, HANGERS, ETC. AND PROVISION OF NEW HWB-2, HWP-2, VFDs, ASSOCIATED PIPING, COMBUSTION AIR, FLUE, CONTROLS, HANGERS, ETC. ONLY IF ALTERNATE No. 1 IS ACCEPTED.
12. EXISTING 8" Ø COMBUSTION AIR AND 6" Ø DOUBLE WALL HEAT POSITIVE PRESSURE STAINLESS STEEL FLUE UP THROUGH BUILDING TO ROOF TO REMAIN.
13. PROVIDE EXTENSION OF COMBUSTION AIR AND DOUBLE WALL POSITIVE PRESSURE FLUE FROM BOILER CONNECTION, TO EXISTING COMB. AIR/FLUE AT APPROXIMATE LOCATION SHOWN. FIELD VERIFY EXACT ROUTE. PROVIDE FLUE DRAINS WHERE REQUIRED AND PIPE TO NEUTRALIZATION BASIN. MODIFY TERMINATION PER MANUFACTURERS RECOMMENDATIONS (VELOCITY CONE). REFER TO DETAIL ELSEWHERE.
14. DOWL RE-BAR INTO EXISTING CONCRETE EQUIPMENT PAD AND EXTEND PAD TO PROVIDE 6" ON ALL SIDES OF NEW EQUIPMENT.
15. NEW CONNECTION TO EXISTING DUCT/PIPE AT THIS LOCATION.
16. MOUNT INLINE PUMPS MAXIMUM OF 7'-0" ABOVE FLOOR. FOR ADDITIONAL INFORMATION SEE TYPICAL INLINE PUMP PIPING DETAIL ELSEWHERE.
17. PIPE 1" BOILER FLUE DRAINS TO TRAP, PH NEUTRALIZING BASIN, AND FLOOR DRAIN. COORDINATE DRAIN LOCATION IN FIELD. ROUTE/ARRANGE TO AVOID TRIPPING HAZARD.
18. MOUNT VARIABLE FREQUENCY DRIVE ON WALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO FLOOR PLAN AND COORDINATE WITH ELECTRICAL CONTRACTOR. PROVIDE CORRECT CLEARANCE IN FRONT OF VFD.
19. PROVIDE 60 PSI ASME RELIEF VALVE, SIZED FOR THE BOILER INPUT. PIPE DISCHARGE FULL SIZE TO FLOOR DRAIN.
20. ACID NEUTRALIZATION BASIN, INSTALL AS LOW AS POSSIBLE OFF CONCRETE EQUIPMENT PAD. PIPE TO EXISTING FLOOR DRAIN IN A MANNER MINIMIZING TRIP HAZARDS.
21. PROVIDE 8" EQUIPMENT DIRT LEG PRIOR TO EQUIPMENT GAS TRAIN CONNECTION.
22. FACTORY MUTUAL GAS VALVE TRAIN ASSEMBLY SIZED FOR 1500 CFH TO EQUIPMENT WORKING PRESSURE (7" W.C.). ROUTE GAS PIPING SAME SIZE AS EXISTING TO BOILER.
23. PROVIDE BOILER GAS TRAIN WITH VENT LIMITERS AND A REGULATOR APPROVED FOR VENT LIMITER USAGE.
24. 1 1/2" BOILER DRAIN VALVE. PIPE DISCHARGE FULL SIZE OVER TO FLOOR DRAIN.

BUILDING AUTOMATION SYSTEM NOTES:

ALL CONTROL WORK SHALL BE AN EXTENSION OF THE EXISTING INTELLI-BUILDING CONTROL AND SOLUTIONS BUILDING AUTOMATION SYSTEM (BAS) CURRENTLY INSTALLED IN THE BUILDING. CONTACT RICK FREUND AT 312.735.6546 OR RICK@INTELLI-BUILDING.COM

TEMPERATURE CONTROLS CONTRACTOR SHALL RE-PROGRAM EXISTING BUILDING AUTOMATION SYSTEM AS REQUIRED TO REMOVE EXISTING DEMOLISHED UNITS AND UPDATE ALL NEW IDENTIFICATION TAGS AS REQUIRED.

PRIOR TO DEMOLITION, THE HVAC CONTRACTOR SHALL COORDINATE, WITH THE CONTROLS CONTRACTOR, THE REMOVAL OF ALL EQUIPMENT SO THE EQUIPMENT CAN BE TAKEN OFF-LINE AND CONTROL WIRING REMOVED FROM DEVICE.

Revisions:

ISSUED FOR BID	---

Consultants:

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Tel: 847-981-1880
Fax: 847-981-1885
www.cs2designgroup.com

MIDDLE SCHOOL BOILER PLANS AND SCHEMATIC DIAGRAMS

2025 HVAC UPGRADES
Murphy Elementary School, 220 Greenwood Dr, Round Lake Park, IL 60073
Round Lake Middle School, 2000 N Lotus Dr, Round Lake Heights, IL 60073
ROUND LAKE CUSD 116
510 N. CEDAR LAKE ROAD
ROUND LAKE, IL 60073

Issue Date: 18 SEP 2025
Drawn By: CS2
Job Number: 886-S-1

HV2.1

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