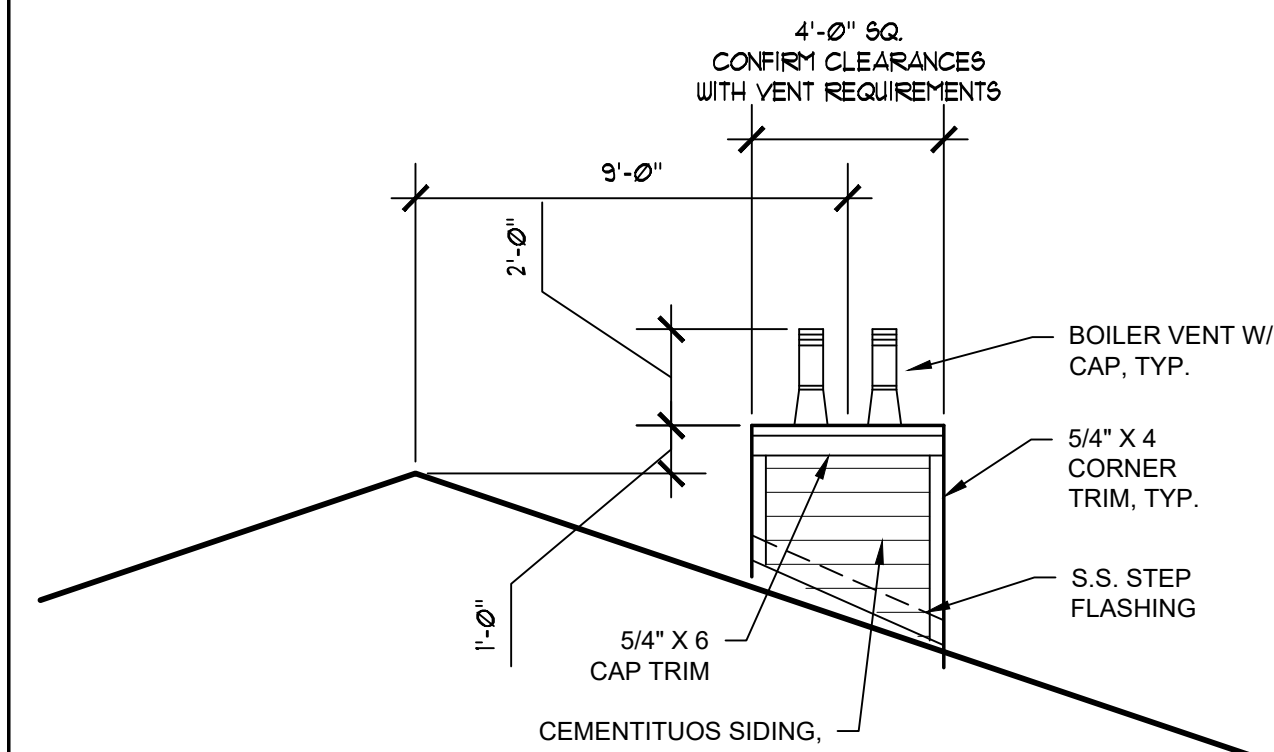
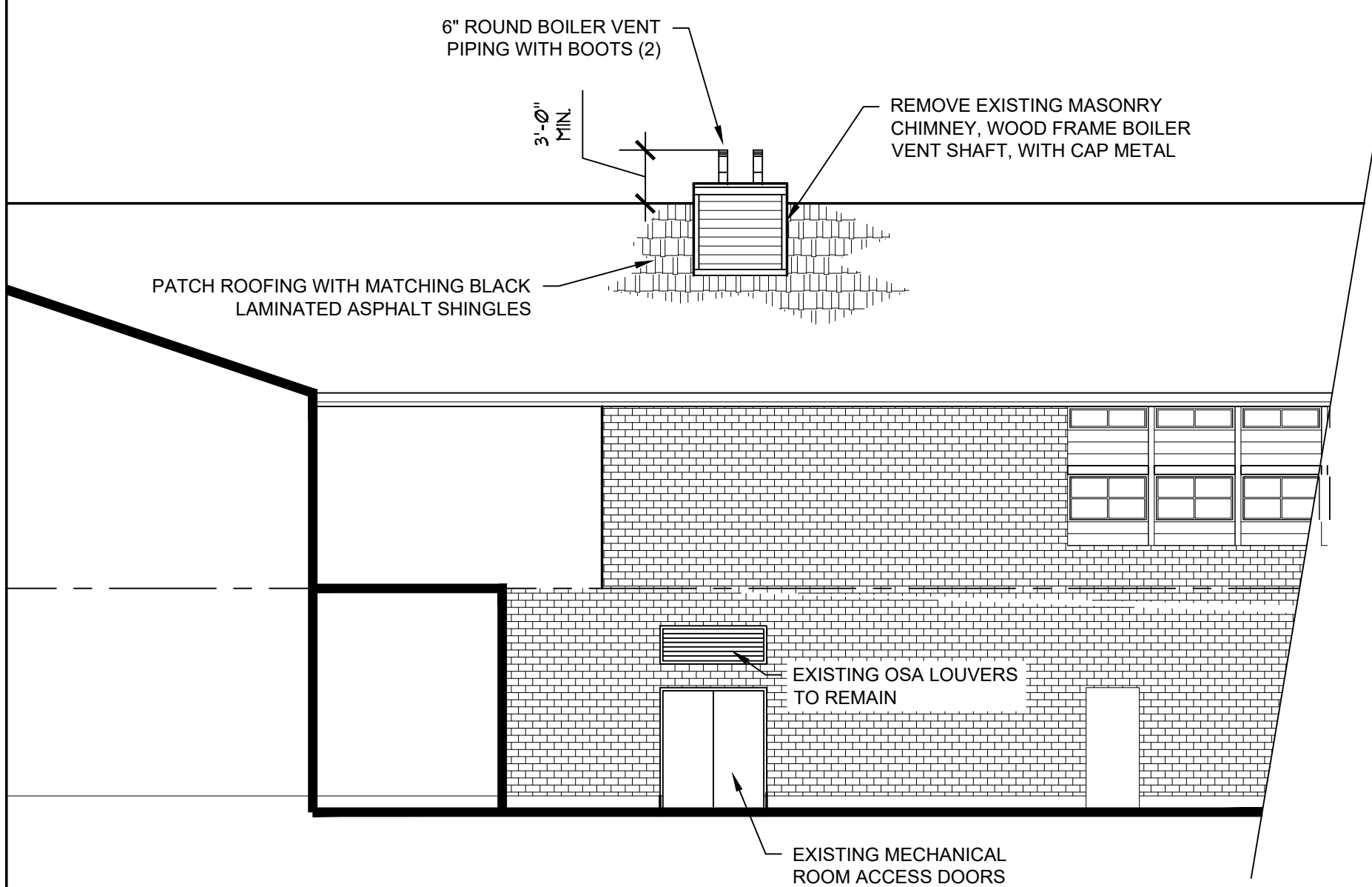


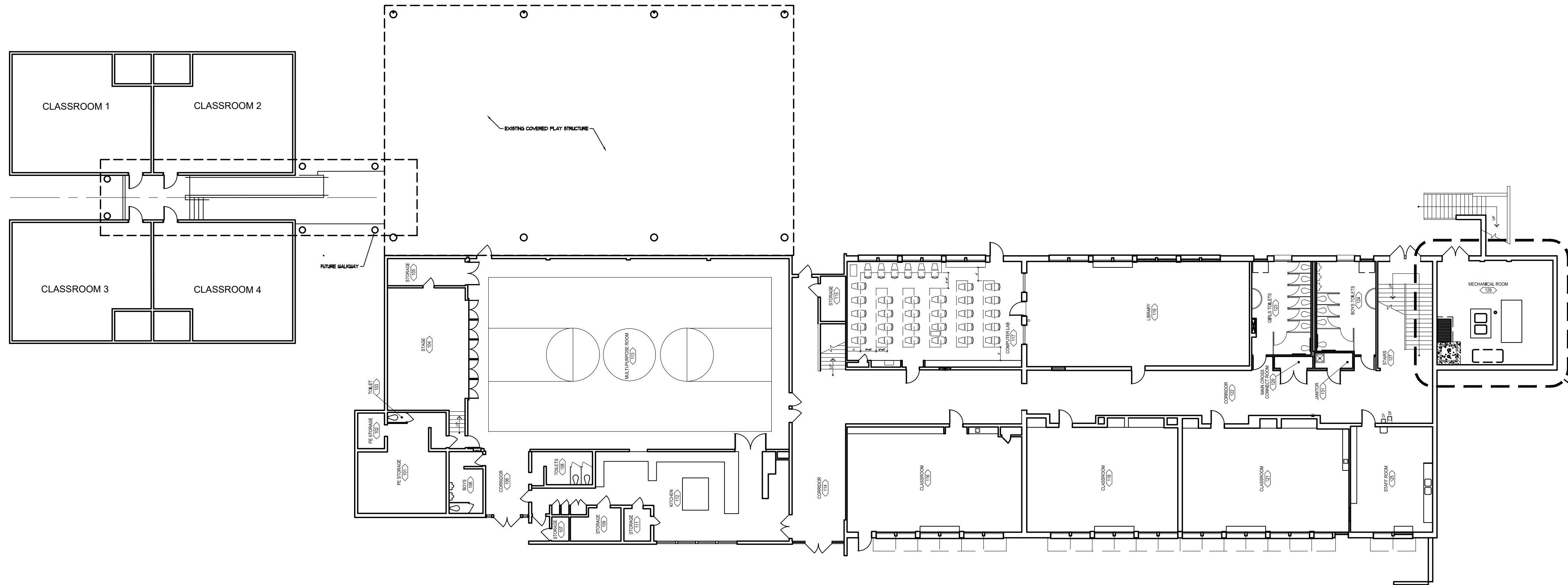
6 VENT ENCLOSURE AT ROOF
A1.1 SCALE: 1-1/2" = 1'-0"



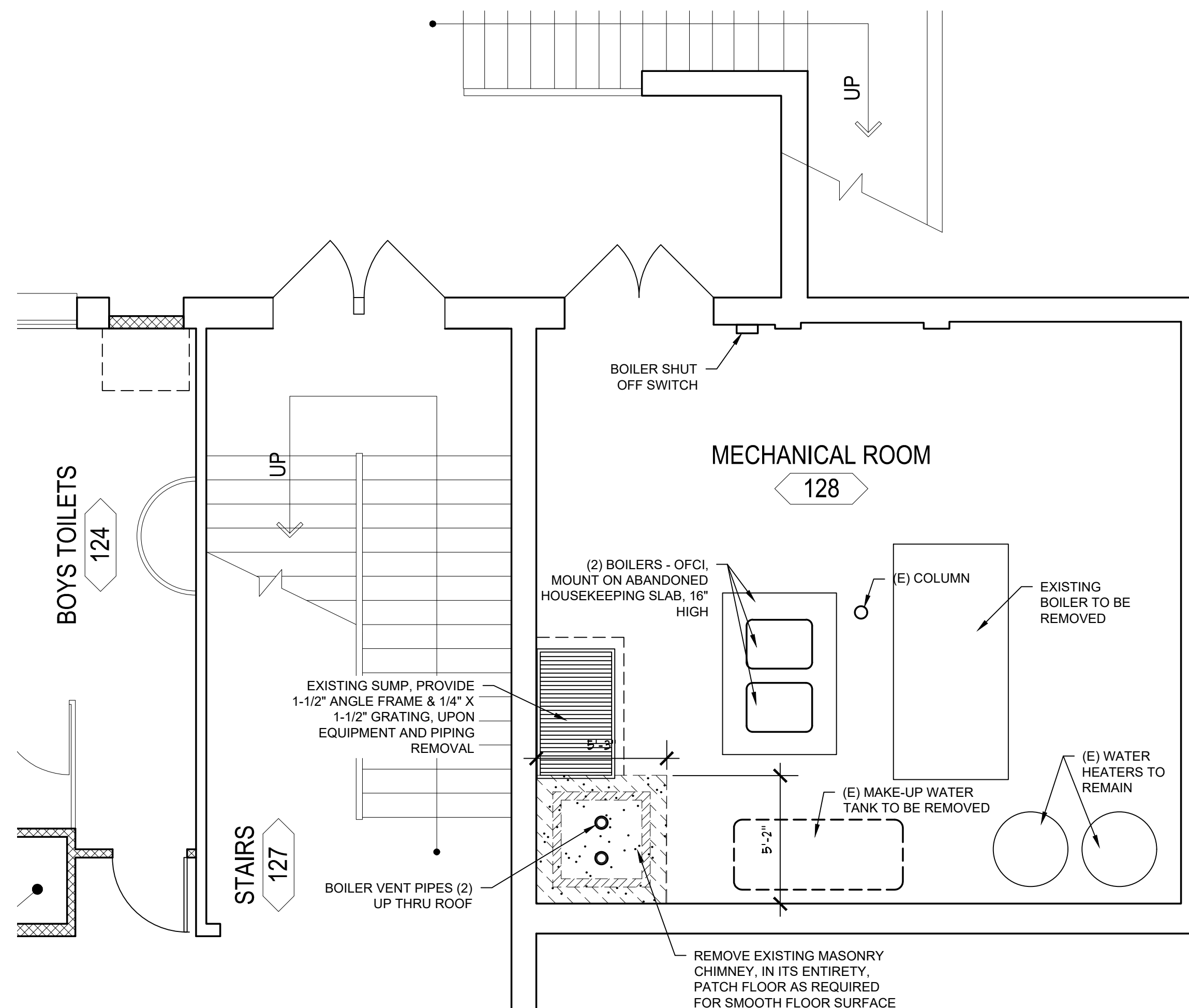
5 VENT ENCLOSURE AT ROOF
A1.1 SCALE: 1/4" = 1'-0"



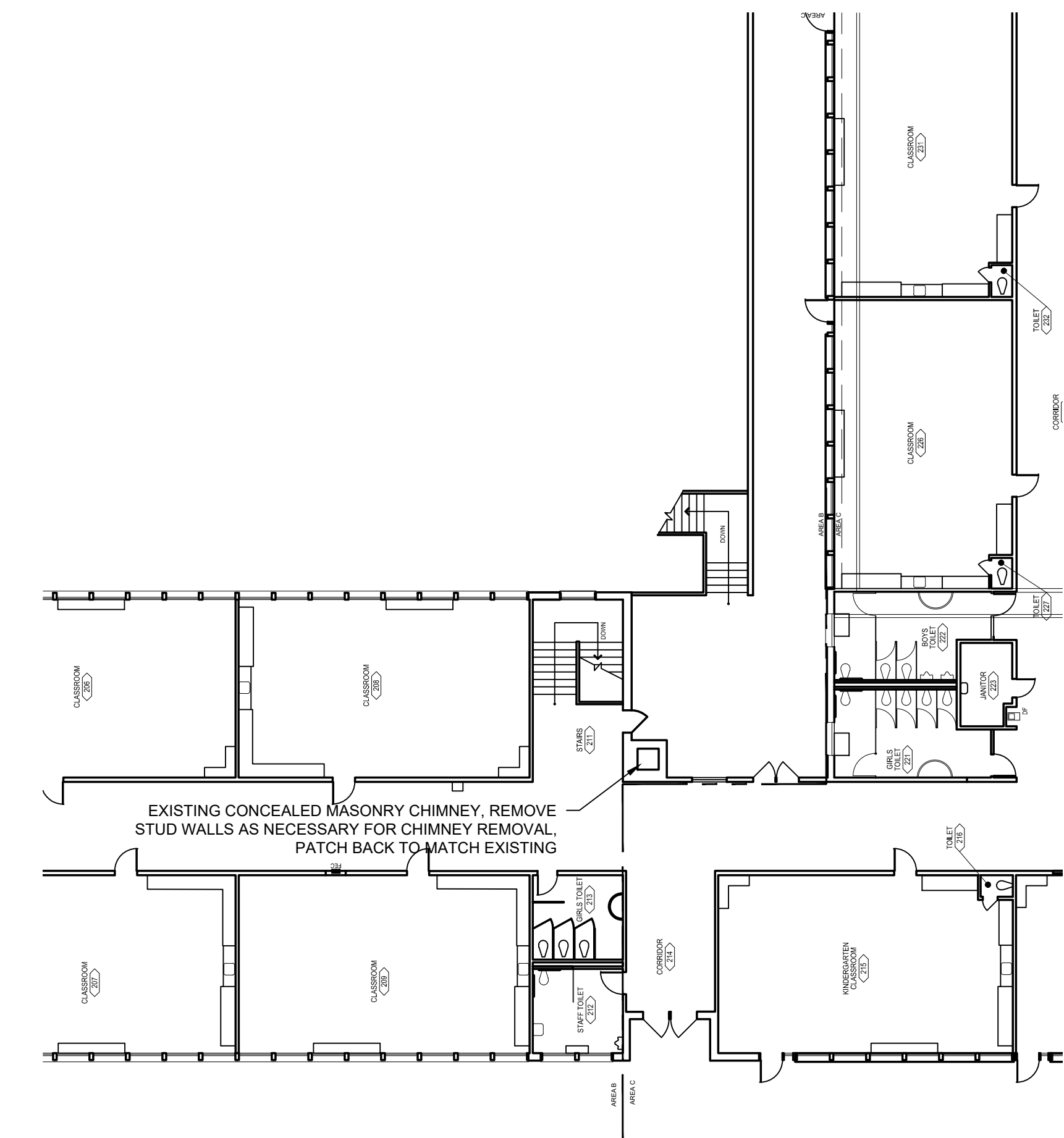
4 PARTIAL NORTH BLDG ELEVATION
A1.1 SCALE: 1/8" = 1'-0"



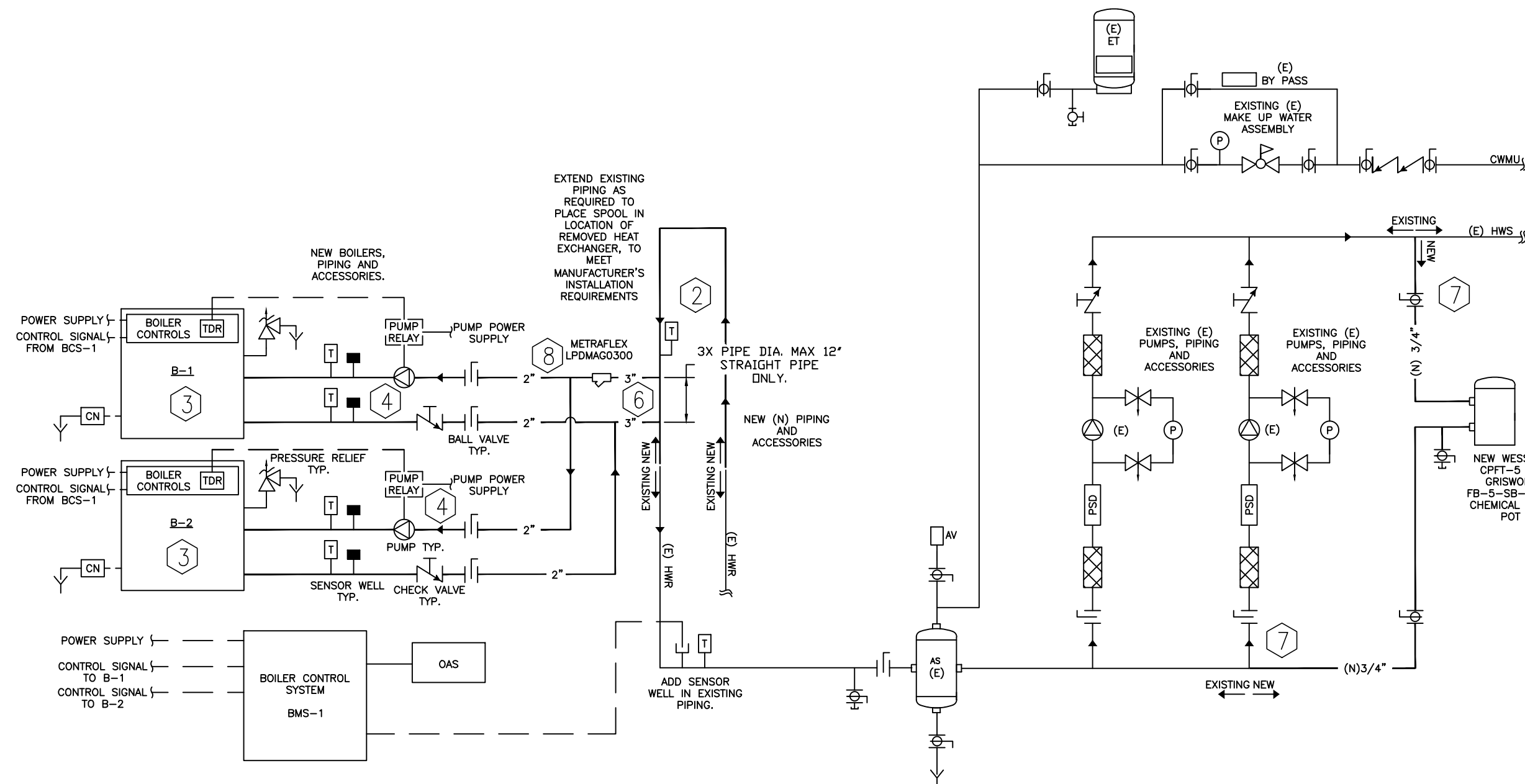
1 OVERALL LOWER FLOOR PLAN
A1.1 SCALE: 1/16" = 1'-0"



3 MECHANICAL ROOM PLAN
A1.1 SCALE: 1/4" = 1'-0"



2 PARTIAL UPPER FLOOR PLAN
A1.1 SCALE: 1/16" = 1'-0"



3 PIPING SCHEMATIC
M1.1 SCALE: NTS

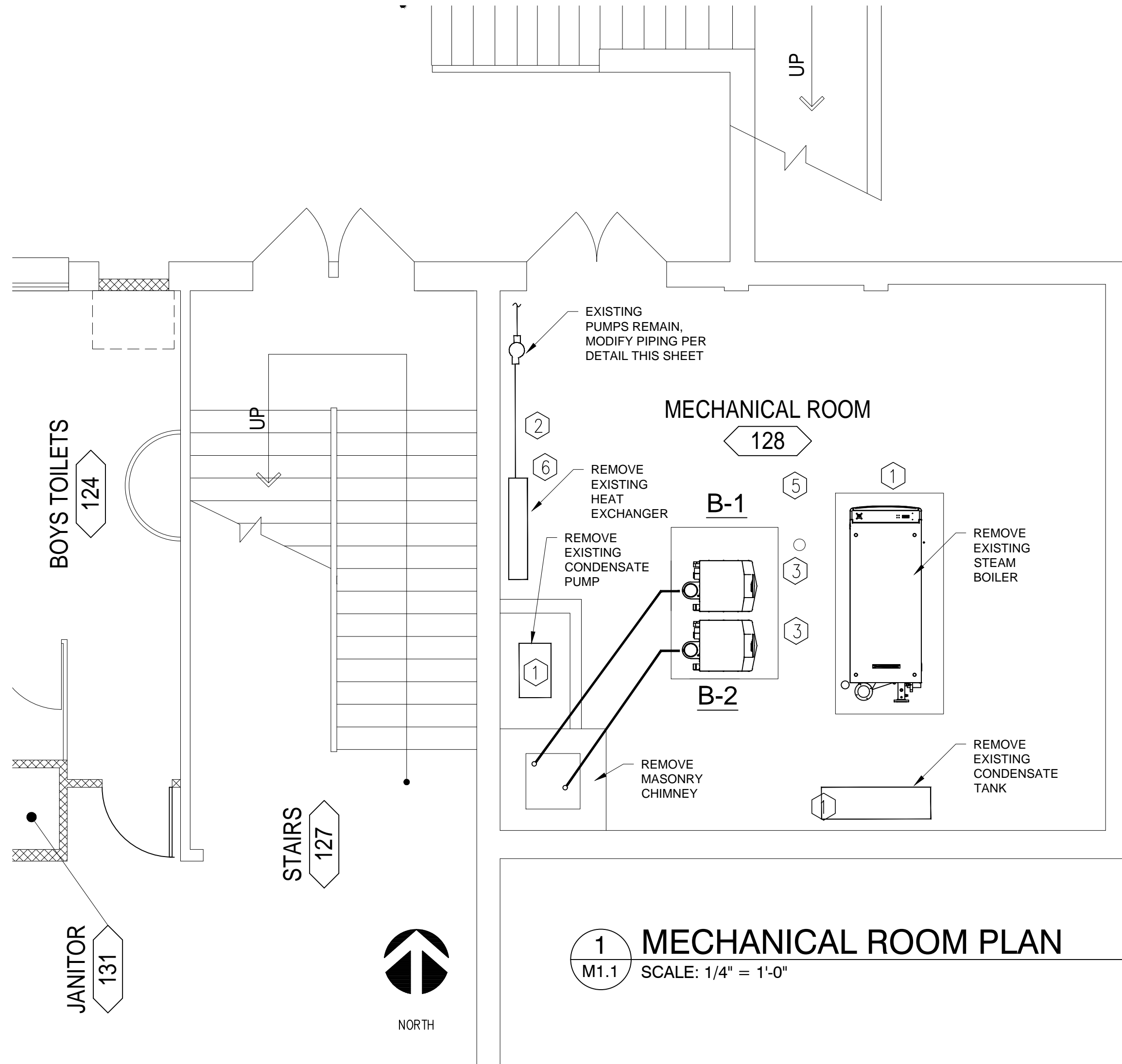
M1 MECHANICAL PLAN NOTES

- 1 CONTRACTOR TO REMOVE EXISTING BOILER, FLUE, STEAM PIPING, BOILER FEED TANK AND CONDENSATE PUMPS, WIRING, CONTROLS AND HEAT EXCHANGER. REMOVE FROM BOILER ROOM AND RETURN TO OWNER PER GENERAL NOTES THIS SHEET.
- 2 CONTRACTOR TO MODIFY EXISTING HEATING WATER SUPPLY PIPING TO CONNECT NEW HEATING WATER SUPPLY PIPING FROM NEW BOILERS, REFER TO PIPING DETAIL THIS SHEET, VERIFY BOILER MANUFACTURERS PIPING RECOMMENDATIONS FOR STRAIGHT PIPE AND PRIMARY PIPING CONNECTIONS TO SECONDARY PIPING. EXTEND PIPING AS REQUIRED TO MEET BOILER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO PROVIDE CHEMICAL FEED POT PER PIPING DETAIL THIS SHEET, PROVIDE BRANCH PIPING FROM EXISTING HWR AND HWS PIPING AS SHOWN.
- 3 CONTRACTOR TO INSTALL NEW BOILERS, OWNER FURNISHED CONTRACTOR INSTALLED (OFCI), SEE INFORMATION SHEET M2.0, INSTALL PER MANUFACTURER AND DETAILS. LOCATE BOILERS TO MAINTAIN REQUIRED CLEARANCE FROM EXISTING COLUMN FOR SERVICE TO FRONT OF BOILERS. PROVIDE 6" DURAVENT POLYPRO BOILER FLUE FOR EACH BOILER INDEPENDENTLY, ROUTE UP THROUGH LOCATION OF REMOVED CHIMNEY, ROUTE AND INSTALL PER BOILER MANUFACTURER. PROVIDE MANUFACTURER'S ROOF TERMINATION MINIMUM 2' ABOVE ROOF WITHIN 10', PROVIDE FLASHING AND NEW CURB CAP. PROVIDE CONDENSATE DRAIN WITH CONDENSATE NEUTRALIZING FILTER. PROVIDE CONTROLS PER GENERAL NOTES THIS SHEET. MODIFY EXISTING ELECTRICAL CIRCUITS TO SERVE NEW BOILERS AND PUMPS. BOILERS TO OPERATE IN CONDENSING MODE, WITH A BUILDING LOOP TEMPERATURE DELTA OF 40 DEGREES.
- 4 CONTRACTOR TO INSTALL NEW VARIABLE SPEED PUMP OFCI PER BOILER SCHEDULE SHEET M2.0, PROVIDE PIPING PER DETAIL THIS SHEET. PROVIDE CONTROLS AND CIRCUIT PER BOILER MANUFACTURER. PUMPS TO BE INSTALLED SO MOTOR IS IN THE HORIZONTAL POSITION, SUPPORT FROM STRUCTURE OR FLOOR SUPPORT, DO NOT SUPPORT FROM BOILER PIPING. PROVIDE REQUIRED ACCESSORIES FOR VARIABLE FLOW OPERATION, PROVIDE ISOLATION VALVES AND FLEX CONNECTIONS.
- 5 CONTRACTOR TO CONNECT BOILERS TO EXISTING 2LB GAS SUPPLY PIPING, PROVIDE SECONDARY REGULATOR PER BOILER MANUFACTURER, VENT TO EXTERIOR OF BUILDING.
- 6 CONTRACTOR TO PROVIDE NEW PIPING FROM LOCATION OF REMOVED HEAT EXCHANGER TO NEW BOILERS.
- 7 CONTRACTOR TO PROVIDE BRANCH PIPING TO NEW CHEMICAL FEED POT.
- 8 CONTRACTOR TO INSTALL METRAFLEX LPDMAG0300 OFCI, Y STRAINER WITH NEODYMIUM MAGNET.

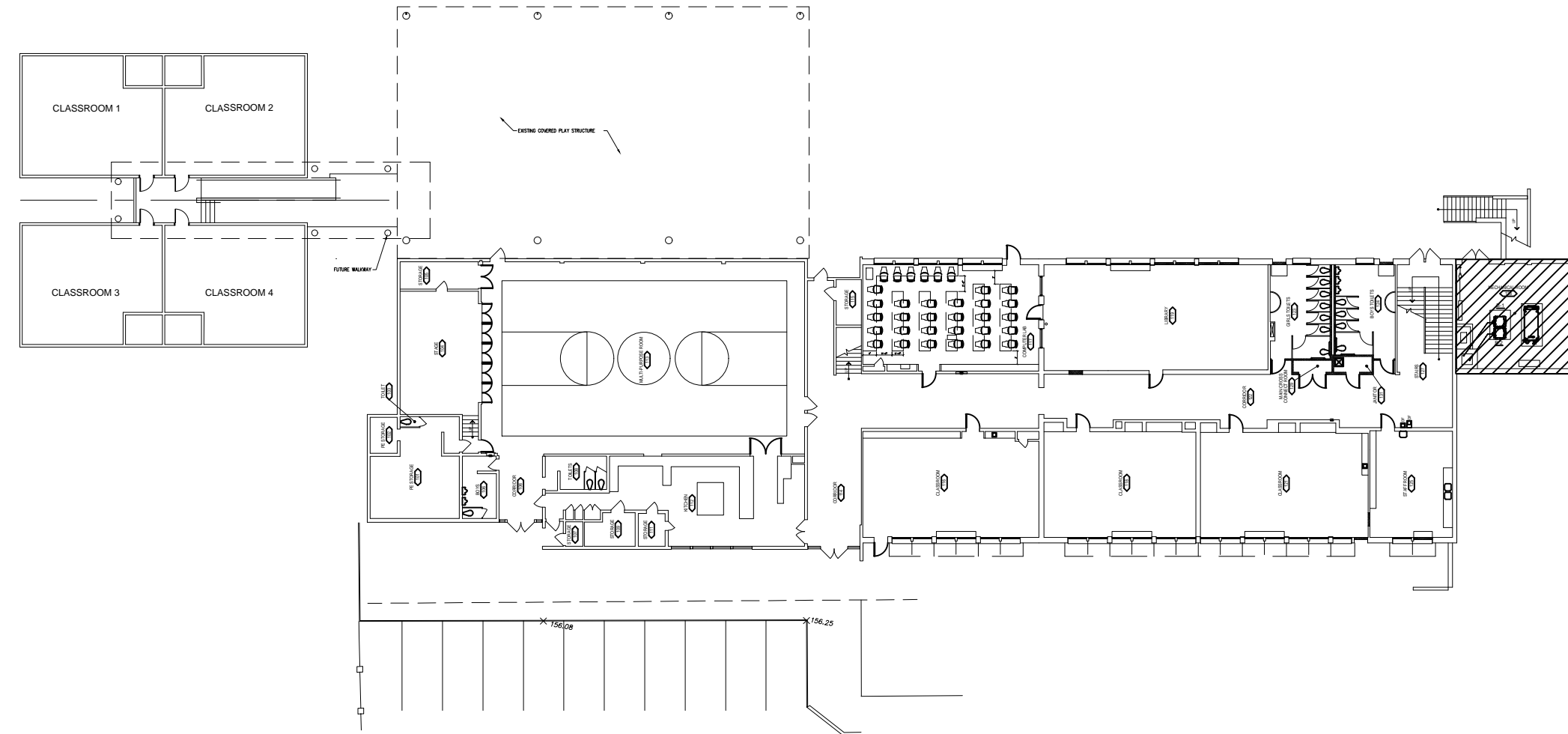
MECHANICAL GENERAL NOTES

1. CONTRACTOR TO CONNECT NEW BOILERS TO THE CARRIER CONTROLS. CONTRACTOR TO COMMISSION BOILER CONTROLS TO VERIFY CORRECT BOILER OPERATION. CONTRACTOR TO PROVIDE DOCUMENTATION SHOWING CORRECT OPERATION OF CONTROLS. CARRIER CONTROLS TO PROVIDE BOILER SCHEDULING AND LOOP TEMPERATURE SET POINTS, BOILER CONTROLS TO OPERATE BOILER SET POINTS, BOILER FIRING RATES, BOILER PUMP VFD, AND LEAD LAG CONTROLS.
2. CONTRACTOR TO REMOVE EXISTING BOILER, HEAT EXCHANGER, FLUE, AND RELATED STEAM PIPING. CONTRACTOR TO REMOVE BOILER FROM BOILER ROOM. EMPTY AND DRY BOILER, SEAL CONNECTION POINTS. CONTRACTOR TO LOAD BOILER ON OWNER PROVIDED TRAILER. CONTRACTOR TO PLACE ALL REMOVED METAL INTO OWNER PROVIDED BIN.
3. INSTALL ALL COMPONENTS PER CURRENT OREGON MECHANICAL CODE, OREGON ENERGY CODE, OREGON PLUMBING CODE, MANUFACTURER'S RECOMMENDATIONS, SPECIFICATIONS AND DETAILS.
4. CONTRACTOR RESPONSIBLE FOR PROVIDING ELECTRICAL TO ACCOMMODATE NEW BOILERS, PUMPS AND CONTROLS. TYPICAL 120 VOLT 20 AMP CIRCUIT FOR EACH BOILER (2 CIRCUITS) AND 220 VOLT 20 AMP CIRCUIT FOR EACH BOILER PUMP (2 CIRCUITS).
5. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO FABRICATION OF PIPING. CONTRACTOR TO PROVIDE OFFSETS AND PIPE ROUTING AS REQUIRED TO INSTALL PIPING IN EXISTING SPACE AVAILABLE. CONTRACTOR TO MAINTAIN CLEAR PASSAGE BETWEEN PUMPS AND BOILERS, MINIMUM 6'6" HEAD ROOM WIDTH OF ISLE BETWEEN HOUSEKEEPING PAD AND ADJACENT WALL WITH PIPING AND ACCESSORIES.
6. CONTRACTOR TO RECEIVE, UNPACK, INSTALL, AND CONNECT ALL REQUIRED PIPING, WIRING, CONTROLS TO OWNER PROVIDED CONTRACTOR INSTALLED BOILERS, BOILER PUMPS AND STRAINER. ALL OTHER COMPONENTS INCLUDING BUT NOT LIMITED TO PIPING, FLUES, COMBUSTION AIR, SENSOR WELLS, WIRING, CHEMICAL FEED POT, GAS PIPING/REGULATORS, ARE TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR.

7. CONTRACTOR TO DOCUMENT THE EXECUTION OF BOILER MANUFACTURER START-UP AND INITIAL CHECKOUT BY THE MANUFACTURER REPRESENTATIVE AND PROVIDE A COPY TO THE OWNER.
8. DURING THE FIRST YEAR WARRANTY PERIOD, CONTRACTOR TO PROVIDE LABOR TO CORRECT DEFICIENCIES AND MAKE NECESSARY ADJUSTMENTS TO ALL INSTALLED EQUIPMENT. MAKE MODIFICAITONS TO O&M MANUALS AND RED-LINE DOCUMENTS FOR APPLICABLE ISSUES IDENTIFIED IN ANY SEASONAL OR WARRANTY PERIOD.
9. CONTRACTOR TO FLUSH EXISTING PIPING SYSTEM OF ANY FOREIGN MATERIAL INTRODUCED DURING BOILER AND PUMP REPLACEMENT. CONTRACTOR TO PROVIDE INITIAL WATER TREATMENT PER BOILER MANUFACTURER. INCLUDE \$8,000 WATER TREATMENT ALLOWANCE IN BID.
10. CONTRACTOR TO CONNECT NEW BOILERS TO LATCHING MUSHROOM SWITCH AT EXIT FOR EMERGENCY SHUT DOWN OF ALL BOILERS.
11. CONTRACTOR TO PROVIDE FIELD VERIFICATION OF PROPER FLOW DIRECTION AND GPM THROUGH NEW VARIABLE SPEED BOILER PUMPS.
12. EXISTING CHIMNEY TO BE REMOVED, REFER TO ARCHITECTURAL PLANS, CONTRACTOR TO PROVIDE ISOMETRIC DETAIL WITH DIMENSIONS TO DURAVENT POLYPRO REPRESENTATIVE COLUMBIA HYDRONICS CORP FOR BILL OF MATERIALS AND CALCULATION TO VERIFY 6" FLUE PRIOR TO ROUGH IN. FLUE TO BE INSTALLED IN STRICT CONFORMANCE TO MANUFACTURE'S REQUIREMENTS. ESTIMATED HEIGHT OF REQUIRED FLUE IS 40', WITH 10' HORIZONTAL FROM BOILER TO CHIMNEY. CONTRACTOR RESPONSIBLE FOR PROVIDING FLUE MATERIAL AND INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.
13. CONTRACTOR TO MATCH EXISTING STEEL PIPING, PROVIDE DIELECTRIC UNIONS AT ANY DEVICE OF DISSIMILAR MATERIAL. PROVIDE INSULATION PER SPECIFICATIONS, WITH DIRECTIONAL ARROWS AND PIPE LABELS.



1 MECHANICAL ROOM PLAN
M1.1 SCALE: 1/4" = 1'-0"



2 KEY PLAN
M1.1 SCALE: NTS

CONSTRUCTION		
REVISIONS:		
#	DATE	DESCRIPTION

DATE: MAY 2023
SHEET TITLE:
MECHANICAL PLAN