



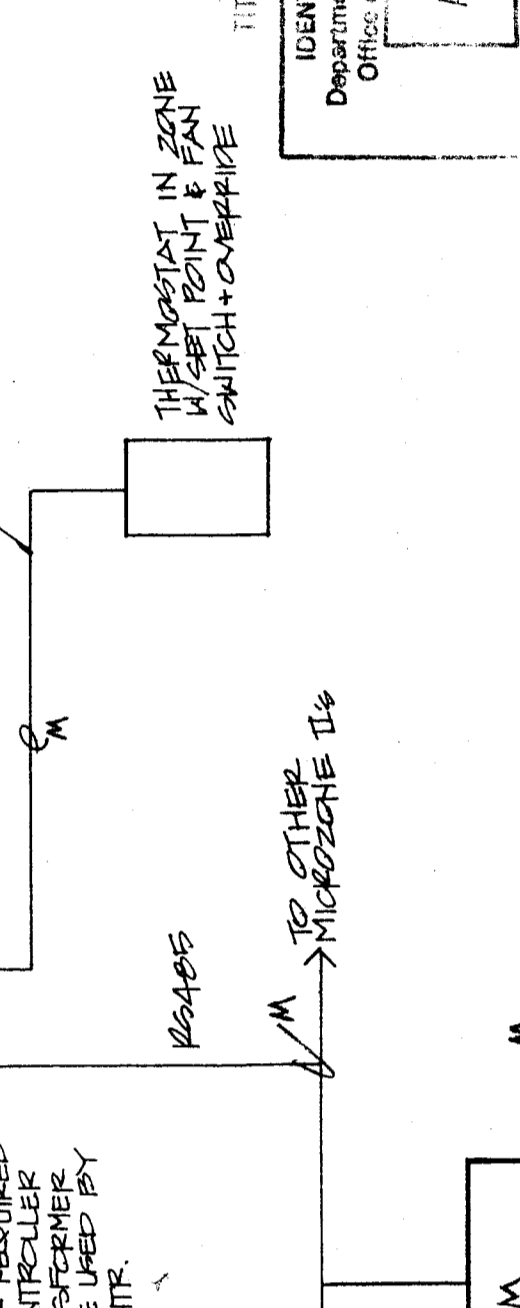
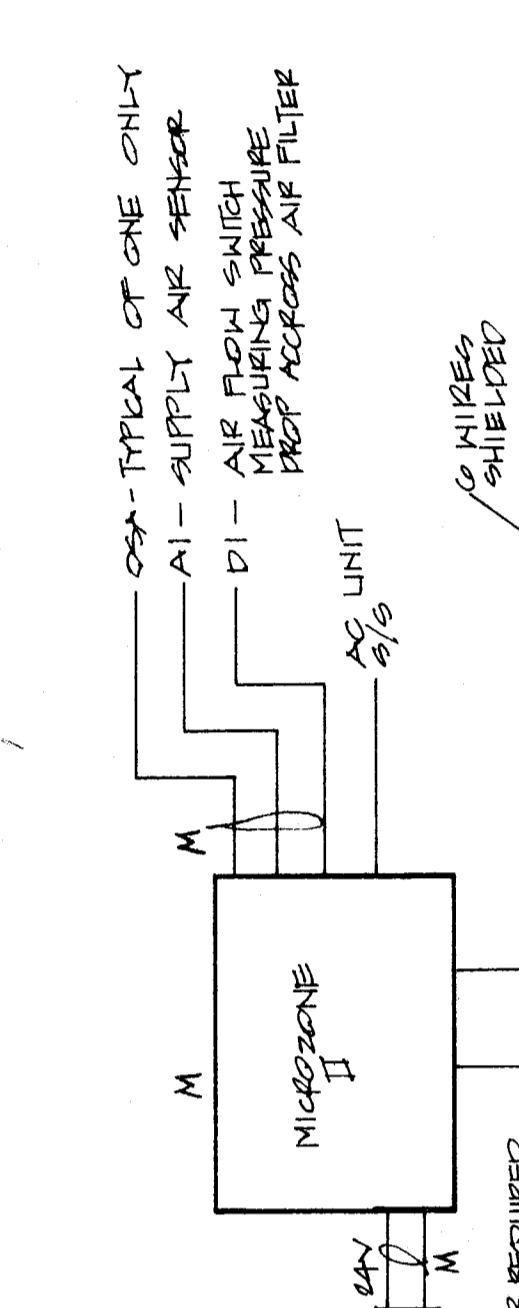
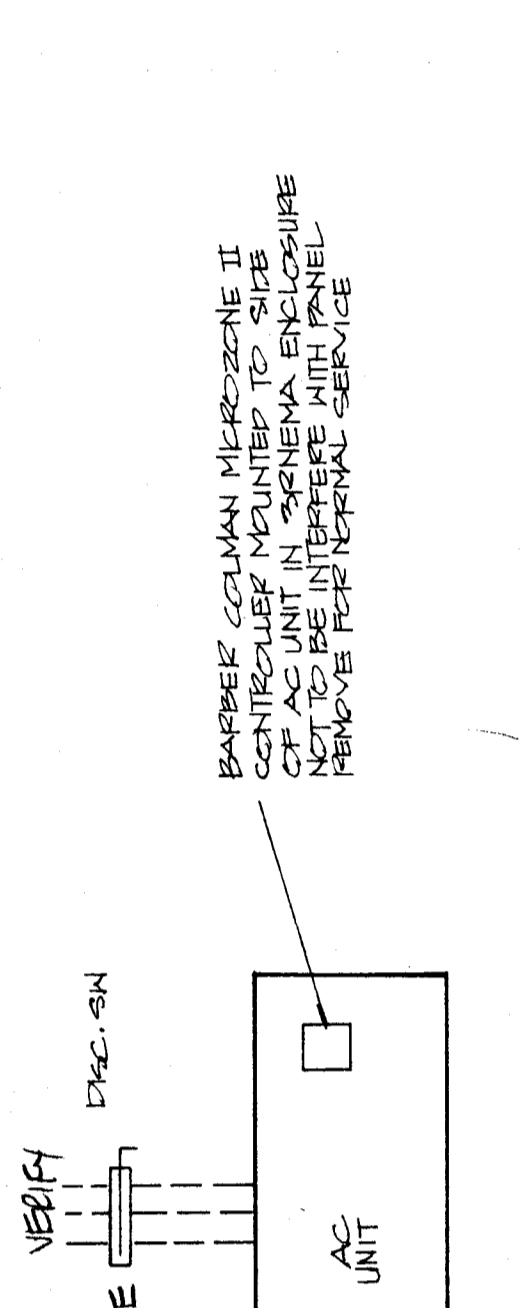
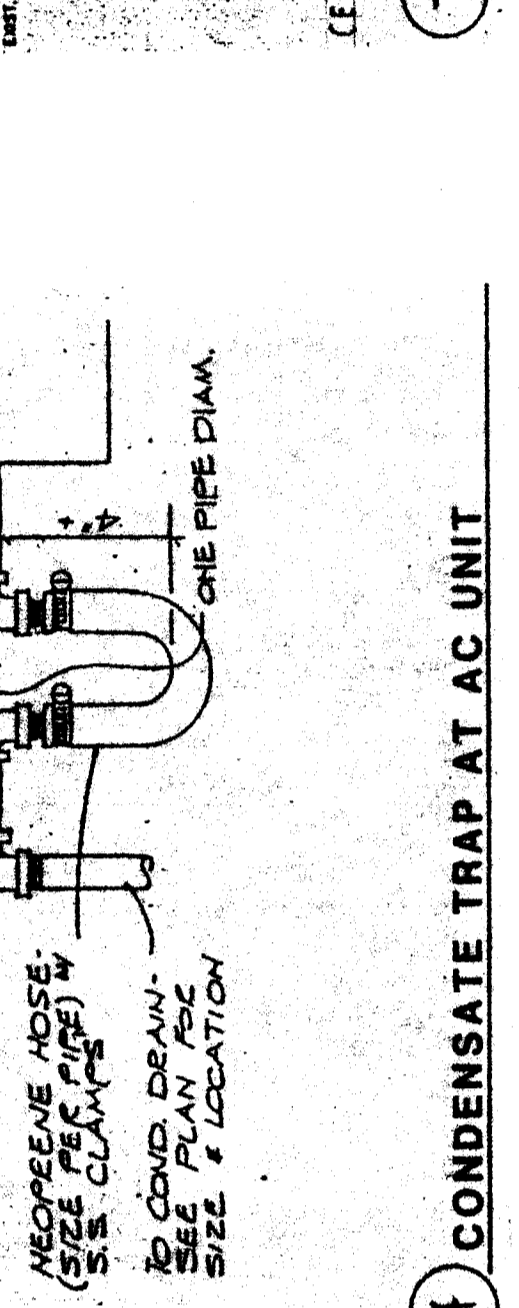
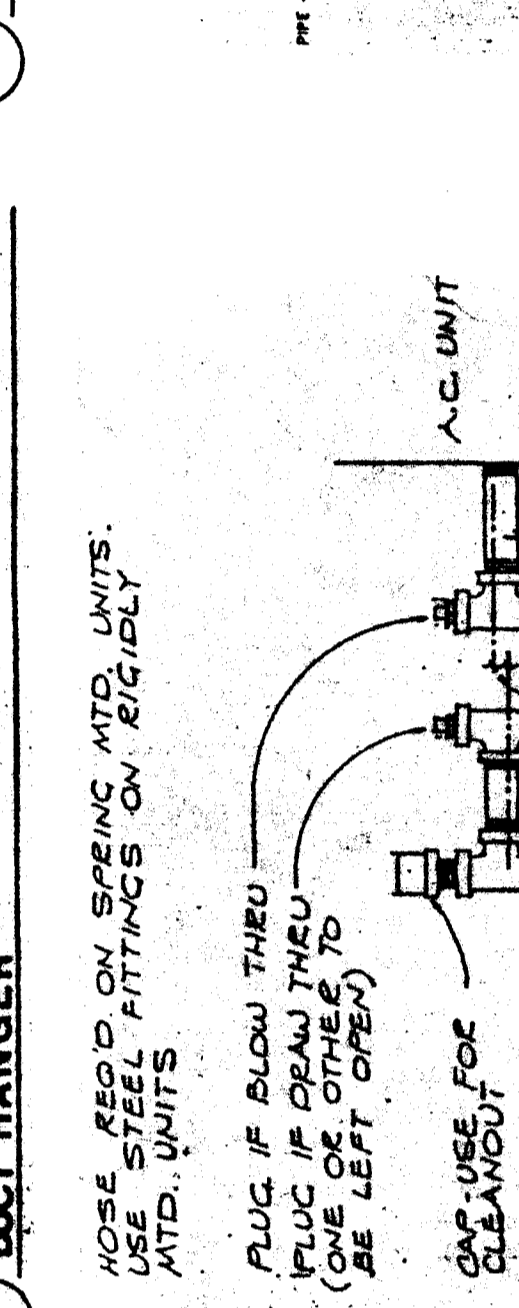
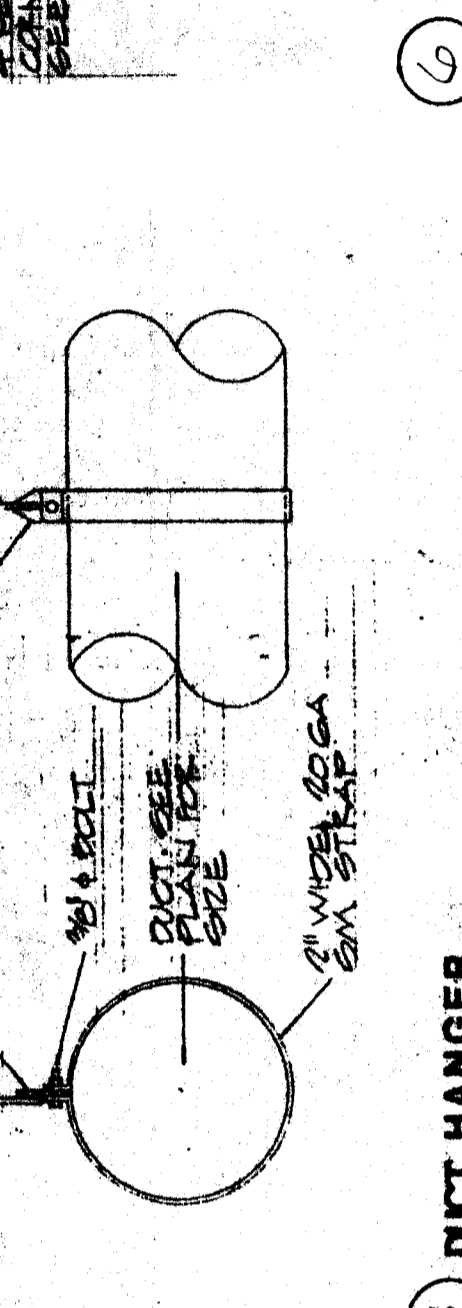
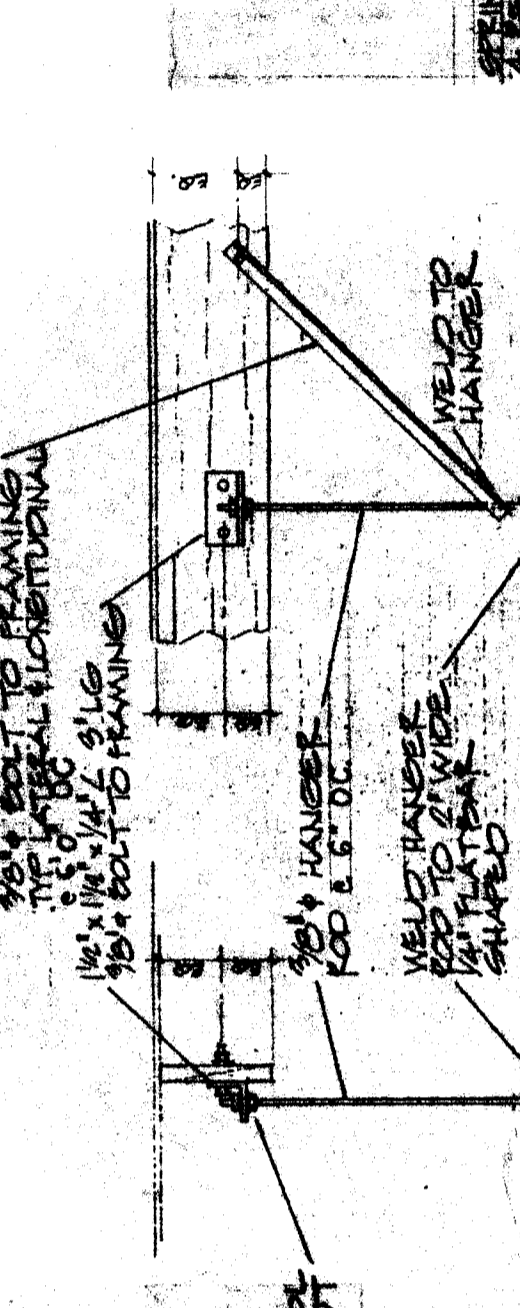
KLASSEN CORPORATION
 Architecture
 Planning
 Construction
 2021 Westwind Drive
 Bakersfield, CA 93301
 (805) 837-0875

The Class
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 The work is to be completed in accordance with the specifications and drawings. The contractor shall be responsible for obtaining all necessary permits and approvals. The work shall be completed in accordance with the specifications and drawings. The contractor shall be responsible for obtaining all necessary permits and approvals. The work shall be completed in accordance with the specifications and drawings. The contractor shall be responsible for obtaining all necessary permits and approvals.

COLONEL HOWARD NICHOLS ELEMENTARY SCHOOL
 MODERNIZATION PROJECT
 BAKERSFIELD CITY SCHOOL DISTRICT
 COLONEL HOWARD NICHOLS ELEMENTARY SCHOOL
 BAKERSFIELD, CALIFORNIA
 MECHANICAL DETAILS
 NOTES & SCHEDULE
 Sheet title: _____

Date:	4/4/91
Issue:	O.S.A. Submittal
Date:	4/4/91
Issue:	O.S.A. Submittal
Drawn by:	
Checked by:	
Job no.:	192
Sheet:	MP.7
Sheet of:	7
Date:	APRIL 4, 1991

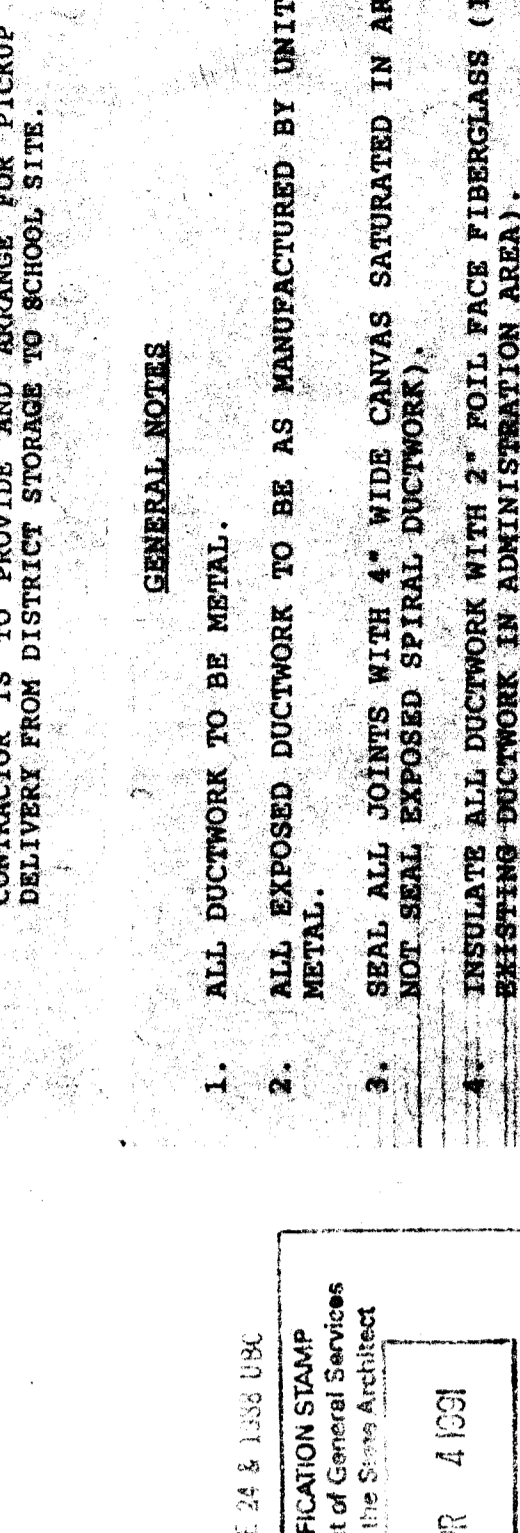
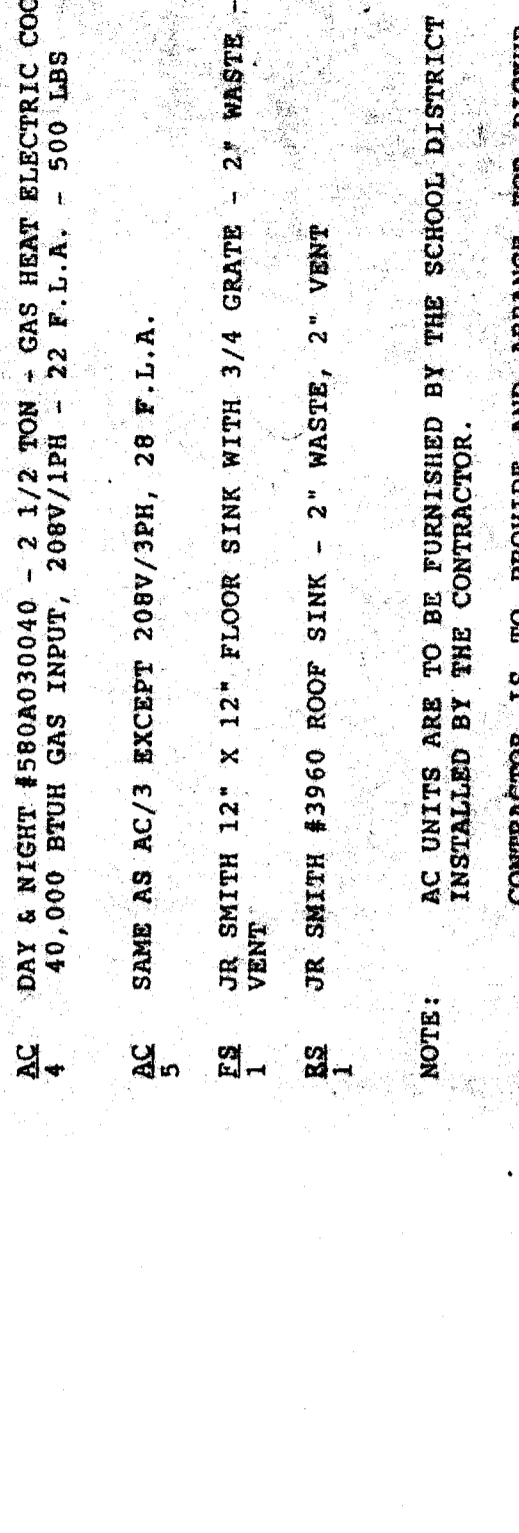
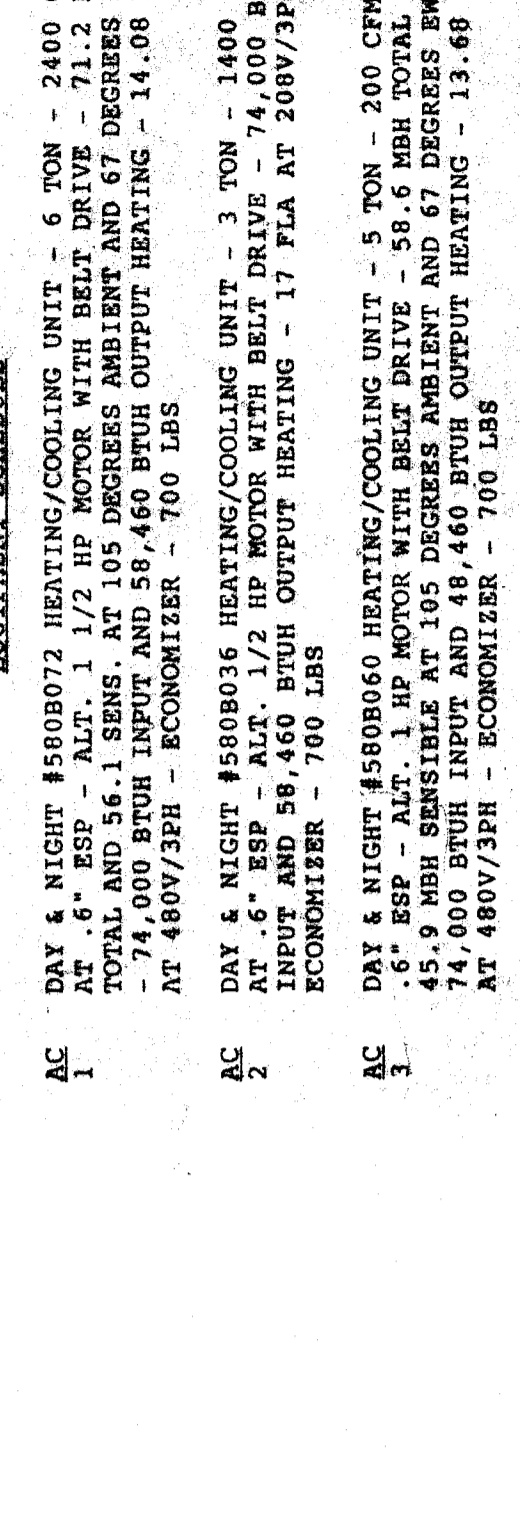
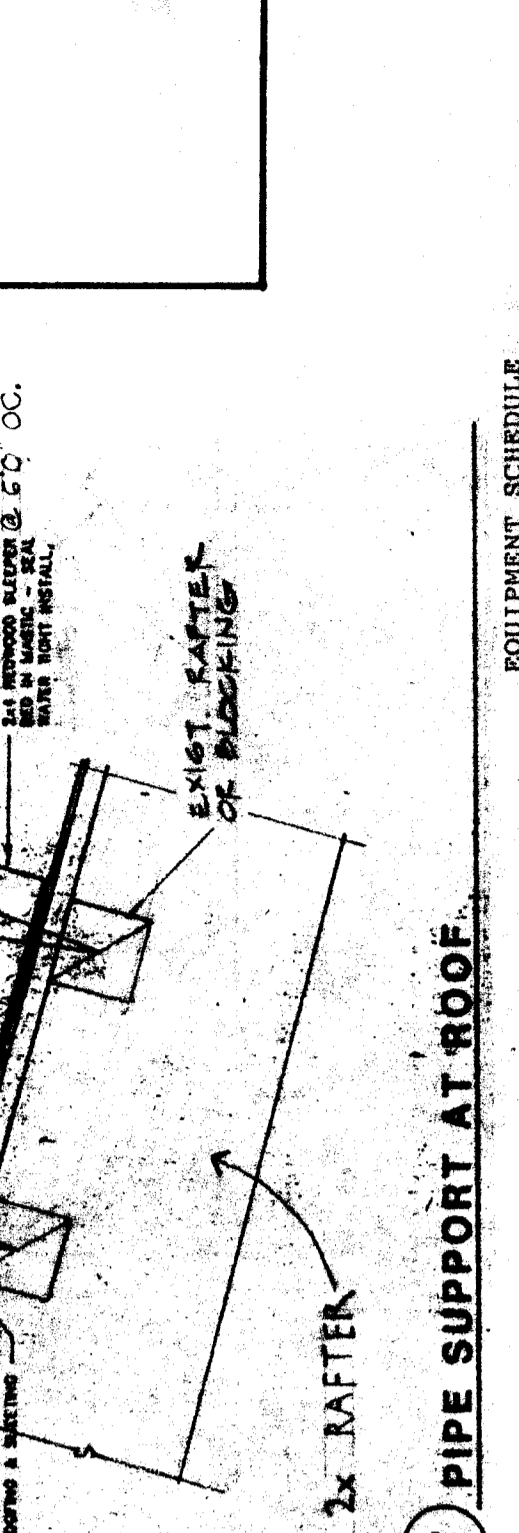
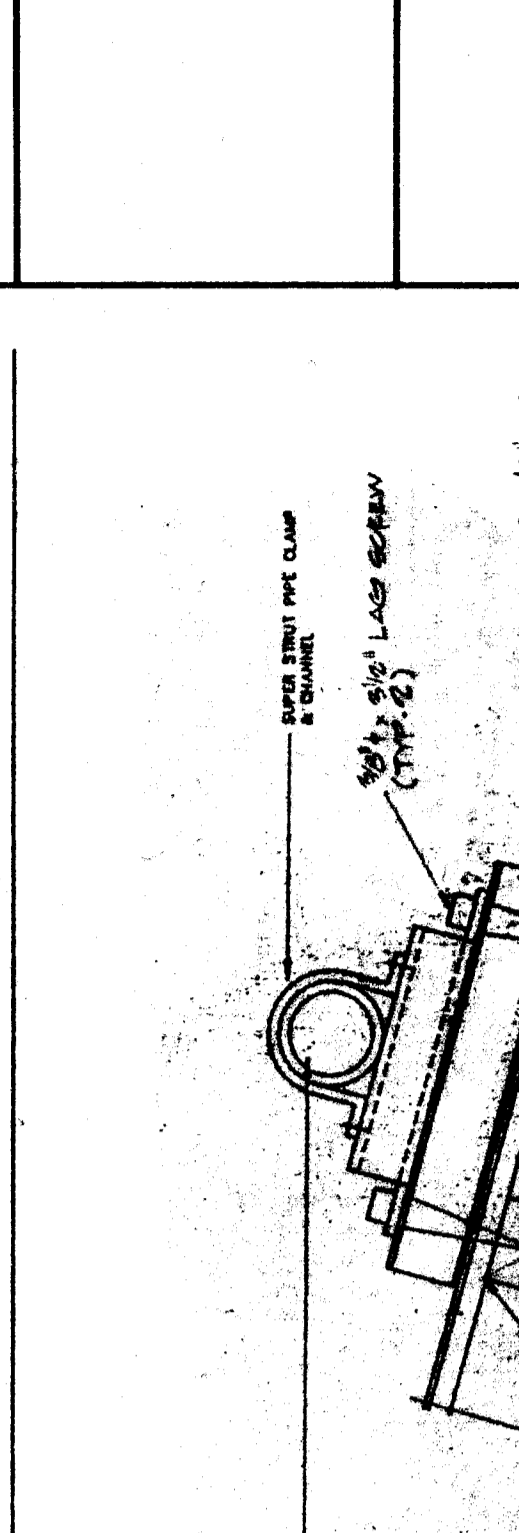
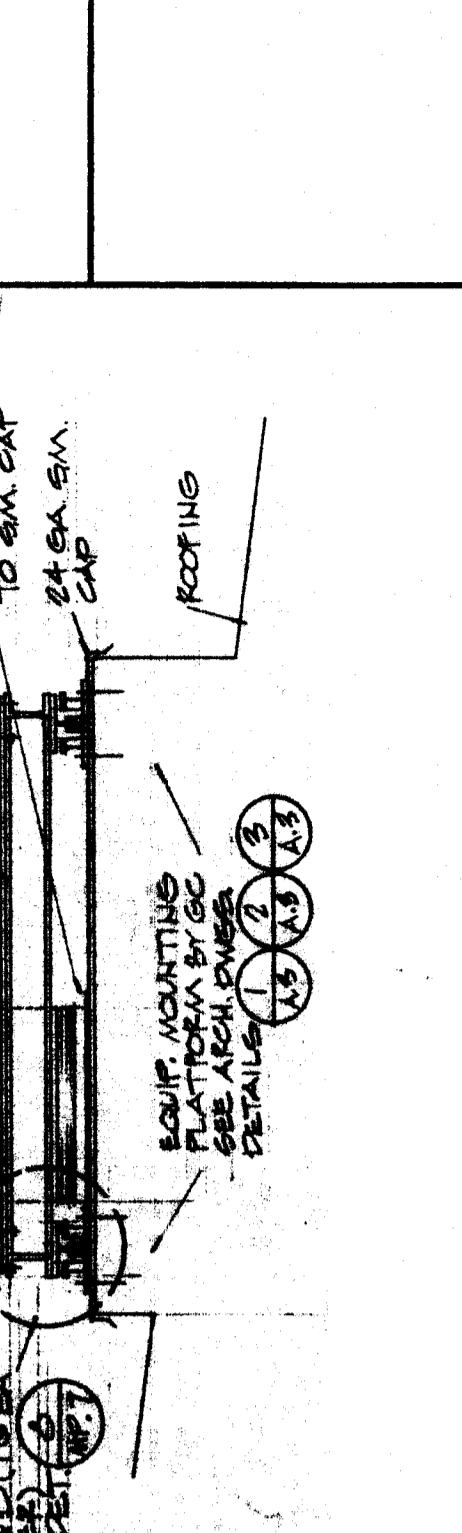
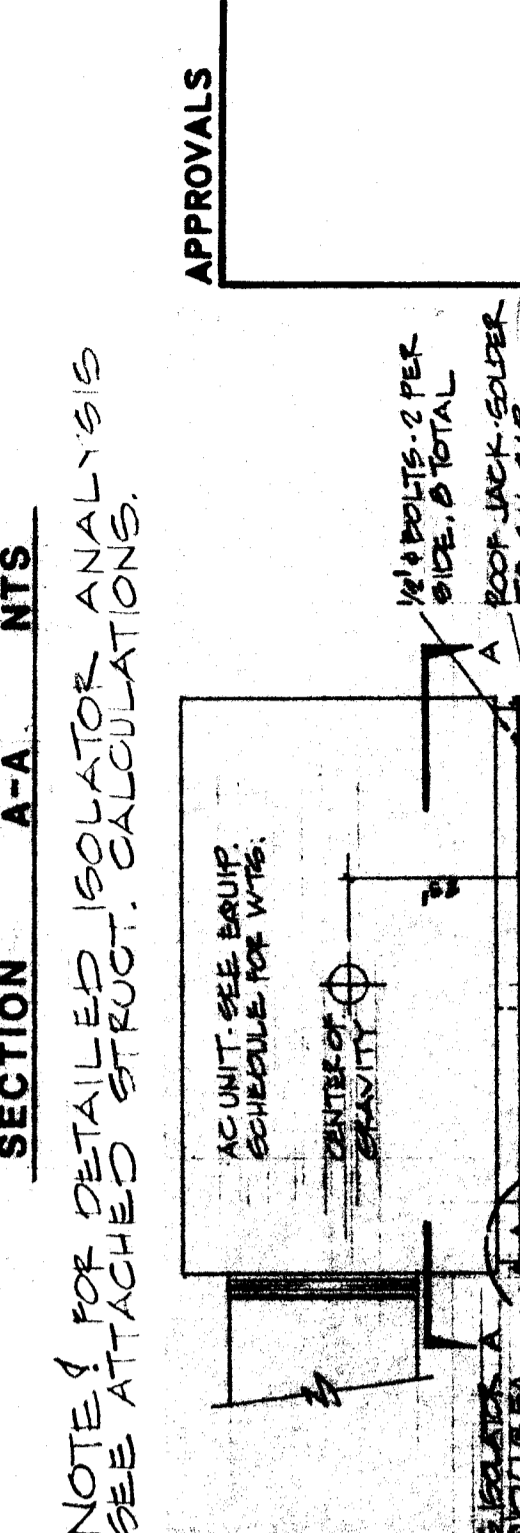
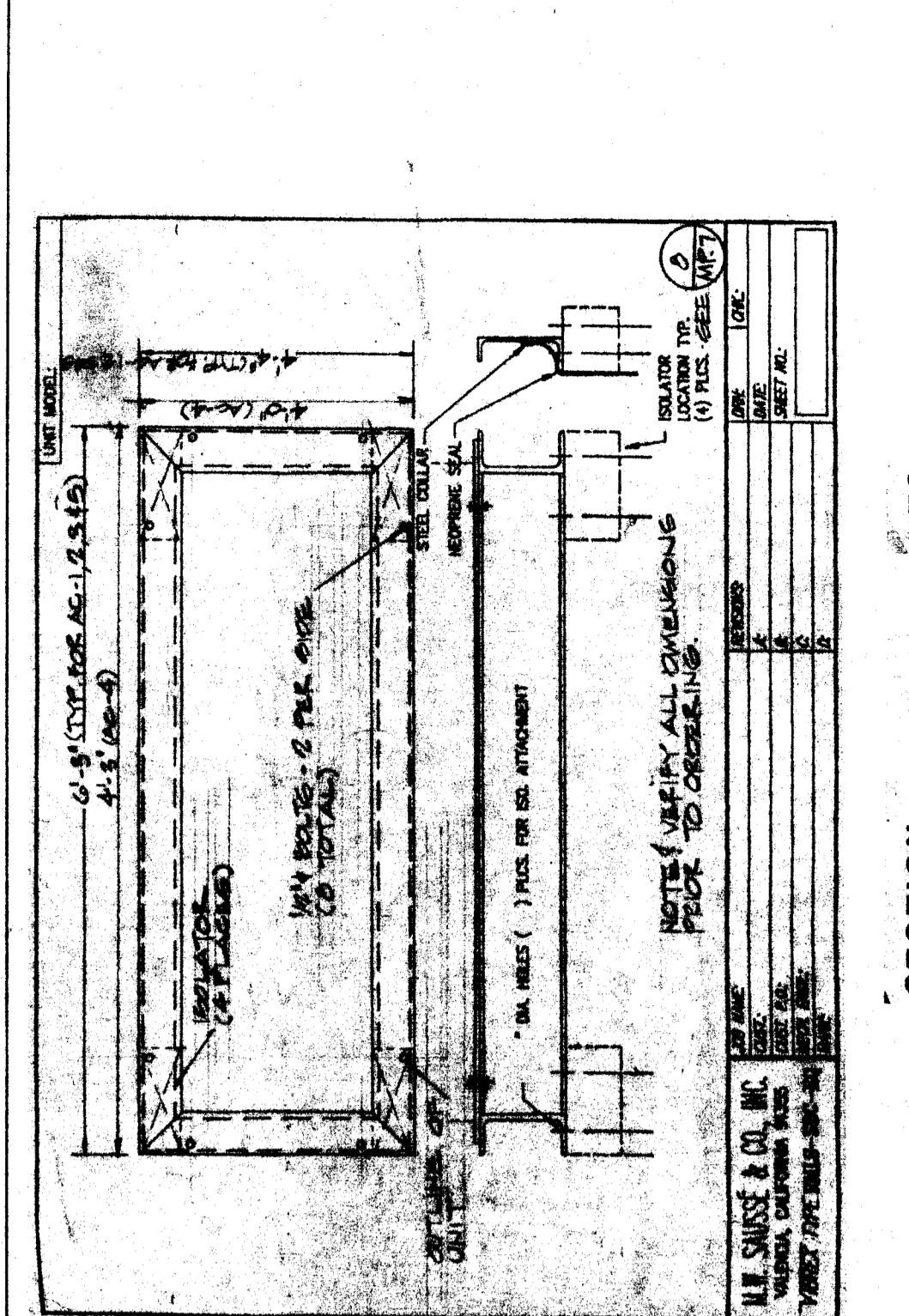
1. ALL FILTERS TO BE FARR 30X0 RELATED. CAL ONE FIRE MARSHALL LISTING NO. #3175-140S
2. ALL DUCTWORK INSULATION MATERIAL SHALL BE TESTED UNDER ASTM-E84 AND UL 723 & NOT TO EXCEED FLAME SKEAD OF 75 AND SMOKE DEVELOPED OF 50
3. GAS LINE EXPOSED ON ROOF TO A.C. UNITS. SEE PIPE SUPPORT DETAIL.
4. 1" GAS TO UNIT WITH GAS COCK.
5. 3/4" CONDENSATE LINE DOWN IN WALL SPILL AT "P" TRAP.
6. 3/4" CONDENSATE DRAIN EXPOSED ON ROOF. CONNECT TO EXISTING PLUMBING VENT. FIELD VERIFY. SEE PIPE SUPPORT DETAIL.
7. EXISTING BOILER AND RELATED EQUIPMENT TO BE ABANDONED. CAP GAS LINE AND PROPERLY DISCONNECT ELECTRICAL.
8. 18" X 18" LINE EXPOSED DUCTWORK ON ROOF.
9. EXISTING LOWER TO BE REMOVED FOR ACCESS TO ATTIC. REPAIR AS NEEDED.
10. REMOVE EXISTING WATER LINE FROM ROOF AND CAP AT SOURCE. PATCH ROOF WATER TIGHT AT REMOVED PIPE SUPPORT.
11. GAS LINE EXPOSED ON ROOF TO A.C. UNITS. SEE PIPE SUPPORT DETAIL.
12. 1" GAS TO UNIT WITH GAS COCK.
13. 3/4" CONDENSATE LINE DOWN IN WALL SPILL AT "P" TRAP.
14. 3/4" CONDENSATE DRAIN EXPOSED ON ROOF. CONNECT TO EXISTING PLUMBING VENT. FIELD VERIFY. SEE PIPE SUPPORT DETAIL.
15. EXISTING BOILER AND RELATED EQUIPMENT TO BE ABANDONED. CAP GAS LINE AND PROPERLY DISCONNECT ELECTRICAL.
16. 18" X 18" LINE EXPOSED DUCTWORK ON ROOF.
17. EXISTING LOWER TO BE REMOVED FOR ACCESS TO ATTIC. REPAIR AS NEEDED.
18. REMOVE EXISTING WATER LINE FROM ROOF AND CAP AT SOURCE. PATCH ROOF WATER TIGHT AT REMOVED PIPE SUPPORT.
19. 3/4" CONDENSATE DRAIN CONNECTION AT A.C. UNIT. NIPPLE TRAP. APPROVED BY THE DETAIL.
20. 1" GAS TO UNIT WITH GAS COCK.
21. 3/4" CONDENSATE LINE DOWN IN WALL SPILL AT "P" TRAP.
22. 3/4" CONDENSATE DRAIN EXPOSED ON ROOF. CONNECT TO EXISTING PLUMBING VENT. FIELD VERIFY. SEE PIPE SUPPORT DETAIL.
23. EXISTING BOILER AND RELATED EQUIPMENT TO BE ABANDONED. CAP GAS LINE AND PROPERLY DISCONNECT ELECTRICAL.
24. 18" X 18" LINE EXPOSED DUCTWORK ON ROOF.
25. EXISTING LOWER TO BE REMOVED FOR ACCESS TO ATTIC. REPAIR AS NEEDED.
26. REMOVE EXISTING WATER LINE FROM ROOF AND CAP AT SOURCE. PATCH ROOF WATER TIGHT AT REMOVED PIPE SUPPORT.
27. 1" GAS TO UNIT WITH GAS COCK.
28. 3/4" CONDENSATE LINE DOWN IN WALL SPILL AT "P" TRAP.
29. 3/4" CONDENSATE DRAIN EXPOSED ON ROOF. CONNECT TO EXISTING PLUMBING VENT. FIELD VERIFY. SEE PIPE SUPPORT DETAIL.
30. EXISTING BOILER AND RELATED EQUIPMENT TO BE ABANDONED. CAP GAS LINE AND PROPERLY DISCONNECT ELECTRICAL.
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32. EXISTING LOWER TO BE REMOVED FOR ACCESS TO ATTIC. REPAIR AS NEEDED.
33. REMOVE EXISTING WATER LINE FROM ROOF AND CAP AT SOURCE. PATCH ROOF WATER TIGHT AT REMOVED PIPE SUPPORT.



FIRE STOPPING REQUIREMENT
 Penetrations thru raised walls and floors shall be sealed with a material capable of preventing the passage of flames and hot gases when subjected to the requirements of the Test Standard specific for Fire Stops ASTM-E-814.

1. ALL FILTERS TO BE FARR 30X0 RELATED. CAL ONE FIRE MARSHALL LISTING NO. #3175-140S
 2. ALL DUCTWORK INSULATION MATERIAL SHALL BE TESTED UNDER ASTM-E84 AND UL 723 & NOT TO EXCEED FLAME SKEAD OF 75 AND SMOKE DEVELOPED OF 50

3/8



EQUIPMENT SCHEDULE

AC 1 DAY 4 NIGHT #5808072 HEATING/COOLING UNIT - 6 TON - 2400 CFM AT 6" ESP - ALT. 1 1/2 HP MOTOR WITH BELT DRIVE - 71.2 MBH HEATING - 71.2 MBH COOLING - 71.2 MBH - 174,000 BTUH INPUT AND 59,460 BTUH OUTPUT HEATING - 14,088 FPA AT 1800/130 - ECONOMIZER - 700 LBS

AC 2 DAY 4 NIGHT #5808036 HEATING/COOLING UNIT - 3 TON - 1400 CFM AT 6" ESP - ALT. 1 1/2 HP MOTOR WITH BELT DRIVE - 74,000 BTUH HEATING - 74,000 BTUH COOLING - 74,000 BTUH - 174,000 BTUH INPUT AND 59,460 BTUH OUTPUT HEATING - 14,088 FPA AT 1800/130 - ECONOMIZER - 700 LBS

AC 3 DAY 4 NIGHT #5808060 HEATING/COOLING UNIT - 5 TON - 2000 CFM AT 6" ESP - ALT. 1 HP MOTOR WITH BELT DRIVE - 58.6 MBH TOTAL AND 45.8 MBH RESISTIBLE AT 105 DEGREES AMBIENT AND 67 DEGREES WMB - 134,000 BTUH INPUT AND 59,460 BTUH OUTPUT HEATING - 13,408 FPA AT 1800/130 - ECONOMIZER - 700 LBS

AC 4 DAY 4 NIGHT #580803040 - 2 1/2 TON - GAS HEAT ELECTRIC COOL. - 40,000 BTUH GAS INPUT, 2080/130 - 22 F.P.A. - 500 LBS

AC 5 SAME AS AC/3 EXCEPT 2080/130, 28 F.P.A.

ES 1 JR SMITH 12" X 12" FLOOR SINK WITH 3/4" GRATE - 2" WASTE - 2" VENT

ES 2 JR SMITH #3960 ROOF SINK - 2" WASTE, 2" VENT

NOTE: AC UNITS ARE TO BE FURNISHED BY THE SCHOOL DISTRICT AND INSULATED BY THE CONTRACTOR. CONTRACTOR IS TO PROVIDE AND ARRANGE FOR PICKUP AND DELIVERY FROM DISTRICT STORAGE TO SCHOOL SITE.

GENERAL NOTES

1. ALL DUCTWORK TO BE METAL.
2. ALL EXPOSED DUCTWORK TO BE AS MANUFACTURED BY UNITED SHEET METAL.
3. SEAL ALL JOINTS WITH 4" WIDE CANVAS SATURATED IN ARABOL (DO NOT SEAL EXPOSED SPIRAL DUCTWORK).
4. INSULATE ALL DUCTWORK WITH 2" POLYESTER FIBERGLASS (INCLUDING EXISTING DUCTWORK) WITH MINIMUM R-10 (R-19) INSULATION VALUE.

ALL DIMENSIONS SHOWS ARE NET INSIDE LING.

ALL WATER LINES TO BE COPPER TYPE L (USE DIELECTRIC ISOLATORS).

ALL CONDENSATE LINES TO BE SCH 40 GALVANIZED STEEL.

ALL GAS LINES TO BE BLACK STEEL.

ALL WASTE AND VENT LINES TO BE CAST IRON WITH 90 COUPLINGS.

ALL CONTROL HARDWARE BY OMEGA.

ALL CONTROL WIRE AND CONDUIT BY ELECTRICAL.

ALL POWER WIRE AND CONDUIT BY ELECTRICAL.

ALL POWER WIRE AND CONDUIT BY ELECTRICAL.

ALL POWER WIRE AND CONDUIT BY ELECTRICAL.

ALL POWER WIRE AND CONDUIT BY ELECTRICAL.

APPROVALS

DATE: _____

PROJECT: _____

SHEET NO.: _____

NOTE: SEE ATTACHED ISOLATOR ANALYSIS FOR DETAILED ISOLATOR ANALYSIS

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