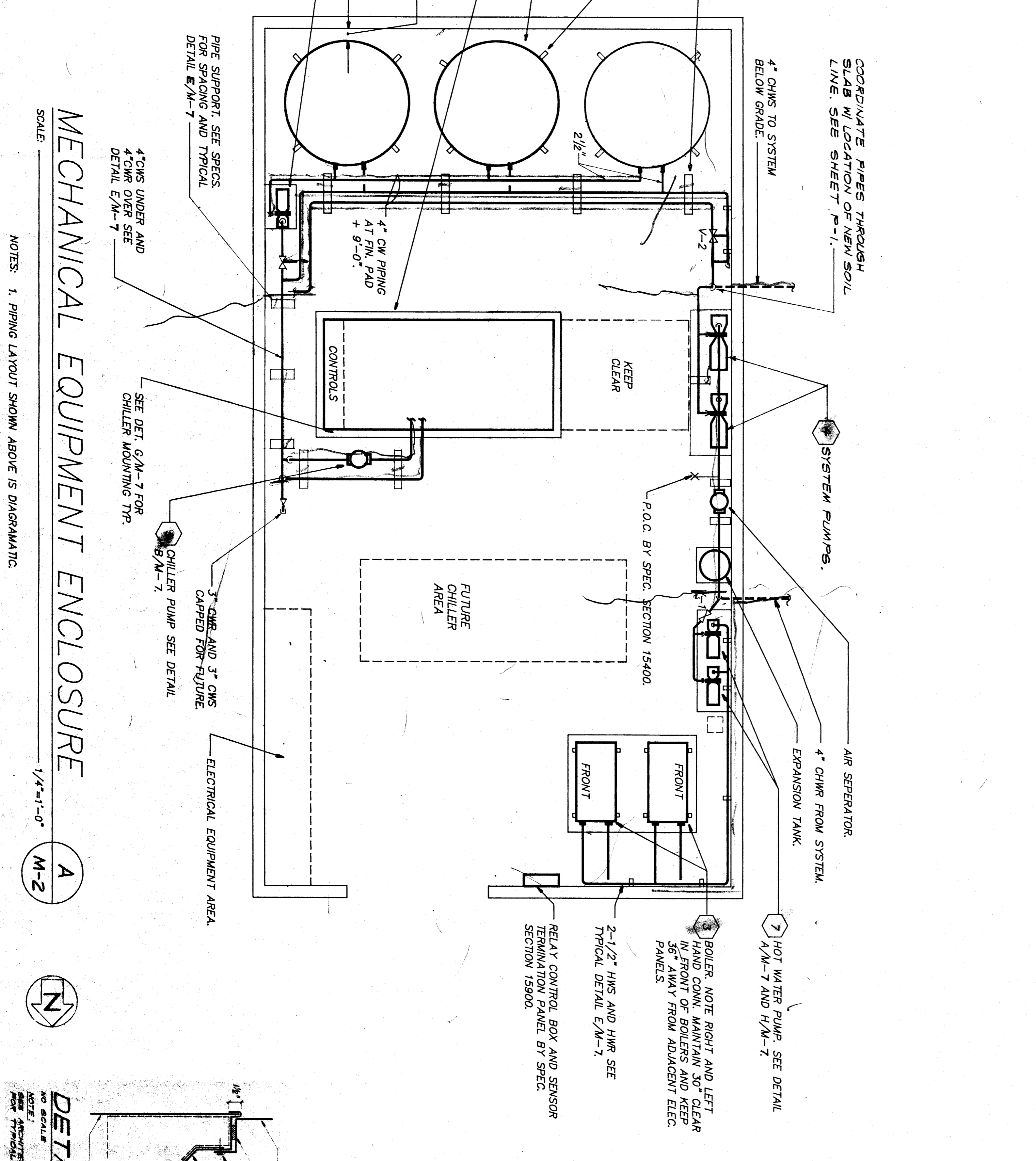


TYPICAL FLEXIBLE DUCT HANGER
DETAIL
NO SCALE

CEILING FIRE DAMPER
DETAIL
NO SCALE

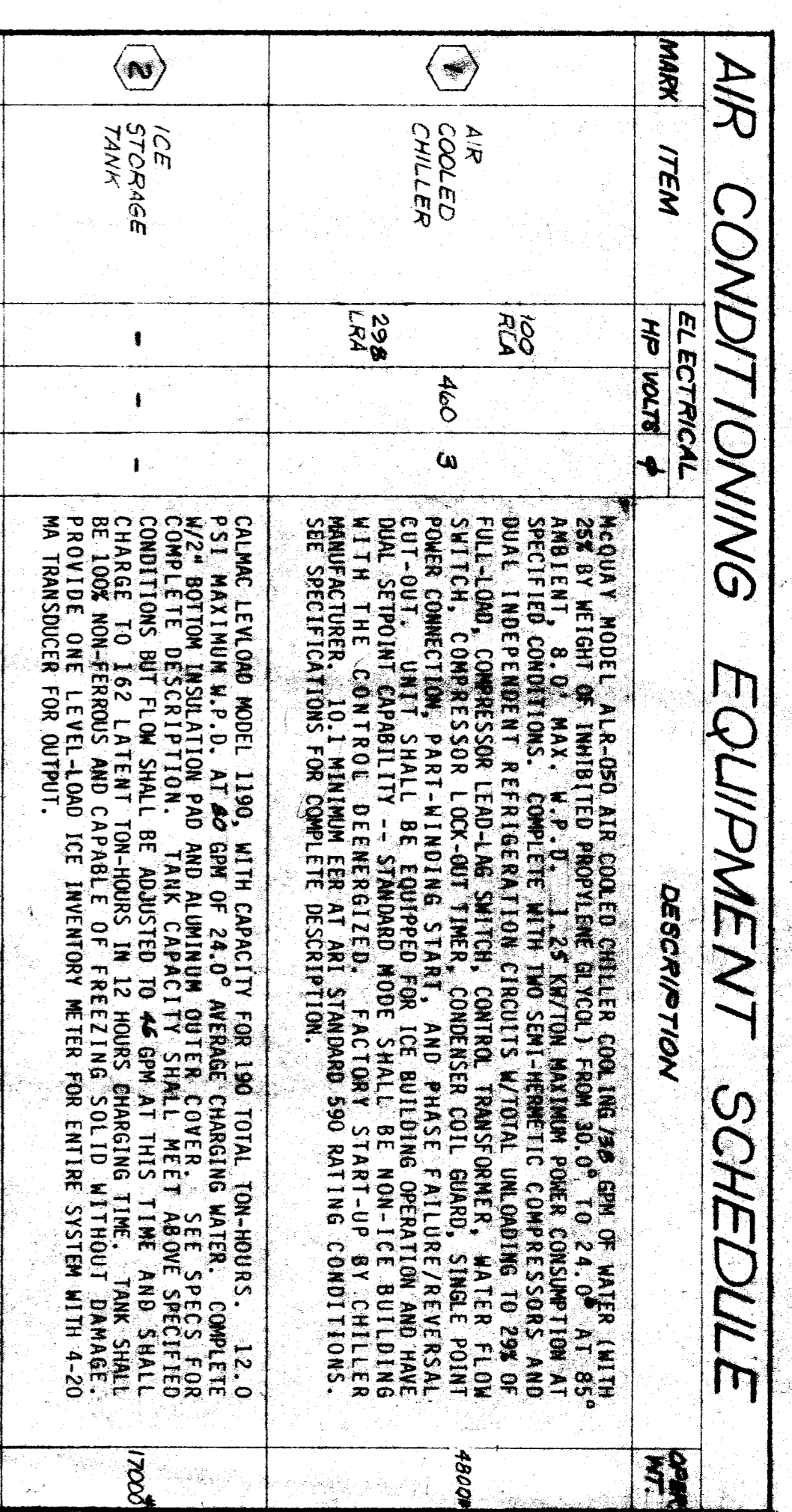
MARK	DUTY	DESCRIPTION
A	OUTDOOR AIR INTAKE LOUVER	WONDER-METAL MODEL L-445-F GALLY STEEL LOUVER WITH EXTERIOR MOUNTING FLANGE & BRUSCREEN, PAINT TO MATCH EXTERIOR. PROVIDE WITH TAMPER PROOF SCREWS. LOUVERS & GRILLE TO BE 1/4 GA.
B	EXHAUST AIR LOUVER	WONDER-METAL MODEL L-145-F GALLY STEEL LOUVER WITH EXTERIOR MOUNTING FLANGE & BRUSCREEN, PAINT TO MATCH EXTERIOR. PROVIDE WITH TAMPER PROOF SCREWS.
C	EXHAUST GRILLE	BARG-AIR GMR SURFACE MOUNT RETURN GRILLE. COUNTERSINK SCREW HOLES, #7 FINISH. FURNISH W/ INDENTS.
D	EXHAUST AIR GRILLE	1/4" J REGISTER MODEL 30-L 1/4 GA. STEEL LATTICE FACE GRILLE. FURNISH WITH TAMPER PROOF SCREWS.

MARK	ITEM	ELECTRICAL	DESCRIPTION	HP WATT	QTY
1	AIR COOLED CHILLER	460 544	GREENHECK MODEL COBE-21, 5100 CFM @ 28" S.P., 19.2 SONES, 990 RPM, 1-1/2 HP MOTOR, BELT DRIVE, COMPLETE WITH BACKRAFF DAMPER, BRUSCREEN, AND FIELD BUILT CURB. INTERLOCK WITH EMS. FAN TO OPERATE WHEN UNIT IN CLASSROOM UNIT VENTILATORS ARE IN "ECONOMIZER" CYCLE.	4200	1
2	ICE STORAGE TANK		GREENHECK MODEL ISR-110D, 2 PIPE CHILLED HOT WATER SYSTEM, 940 CFM, DIRECT DRIVE, 3.5 SPEED MOTOR, 28,000 BTU/H TOTAL AND 23,000 BTU/H SENSIBLE COOLING CAPACITY AT 80/63 E. A.T. WITH 5.7 GPM OF 45 WATER/2CYC. SOLUTION, 9.0" MAXIMUM WATER PRESSURE DROP, 44,000 BTU/H HEATING CAPACITY WITH 2.0 GPM OF 140" ENTERING HOT WATER. COMPLETE WITH 1" THROUGH-TANK FILTER AND FRESH AIR INTAKE.	1200	1
3	BOILER	16 120	RAYPAK MODEL H-824 OUTDOOR BOILER, HEATING 53 GPM OF WATER FROM 140" TO 165", 5.0" W.P.D., 825,000 BTU/H INPUT AND 660,000 BTU/H OUTPUT HEATING CAPACITY, NATURAL GAS. COMPLETE WITH 5-YEAR LIMITED HEAT EXCHANGER WARRANTY, ECONOMIZER PUMP TIME DELAY, FLOW SWITCH, PRESSURE RELIEF VALVE, CONTROL TRANSDUCER, 2-SIZE GAS VALVE, AND ACCESSORIES PER CALIFORNIA CODE. A.B.A. CLASSIFIED AND ASME SHIPPED.	700	1
4	SYSTEM PUMP	7.5 460	PACO TYPE 1, MODEL 2595-5, CENTRIFUGAL PUMP DELIVERING 740 GPM AT 75' TDH, 88% EFFICIENCY, 1150 RPM. PUMP SHALL BE NON-OVERLOADING THROUGHOUT ENTIRE CURVE. COMPLETE WITH MECHANICAL SEALS, SUCTION AND DISCHARGE GAUGE FITTINGS.	4200	3
5	CHILLER PUMP	2 460	PACO TYPE 1, MODEL 2595-3, CENTRIFUGAL PUMP DELIVERING 290 GPM AT 45' TDH, 84% EFFICIENCY, 1750 RPM. COMPLETE WITH MECHANICAL SEALS, SUCTION AND DISCHARGE GAUGE FITTINGS. UNIT SHALL BE CAPABLE OF HANDLING A WATER/GLYCOL MIXTURE AT 24°.	1250	3
6	ICE BOILER PUMP	3 460	PACO TYPE 1, MODEL 2595-3, CENTRIFUGAL PUMP DELIVERING 290 GPM AT 45' TDH, 84% EFFICIENCY, 1750 RPM. COMPLETE WITH MECHANICAL SEALS, SUCTION AND DISCHARGE GAUGE FITTINGS. UNIT SHALL BE CAPABLE OF HANDLING A WATER/GLYCOL MIXTURE AT 24°.	200	3
7	BOILER PUMP	3/4 460	PACO TYPE 1, MODEL 1270-7, CENTRIFUGAL PUMP DELIVERING 53 GPM AT 22' TDH, 70% EFFICIENCY, 1750 RPM. PUMP SHALL BE NON-OVERLOADING THROUGHOUT ENTIRE CURVE. COMPLETE WITH MECHANICAL SEALS, SUCTION AND DISCHARGE GAUGE FITTINGS.	100	3
8	UNIT VENTILATOR	1/6 120	AMERICAN AIR FILTER MODEL AF-4000 FOR 2" PIPE WATER SYSTEM, 1500 CFM, DIRECT DRIVE 3-SPEED MOTOR, 45,000 BTU/H TOTAL AND 34,900 BTU/H SENSIBLE COOLING CAPACITY AT 80/63 E. A.T. ENTERING AIR WITH 12 GPM OF 45° WATER/2CYC. SOLUTION, 9.0" MAXIMUM WATER PRESSURE DROP, 65,000 BTU/H HEATING CAPACITY WITH 4.0 GPM OF 140° HOT WATER. UNIT COMPLETE WITH FACTORY MOUNTED ECONOMIZER DAMPERS, SAMPLING TUBE. UNIT SHALL BE "ECONOMIZER" TYPE "S".	700	1
9	FAN COIL	1/4 120	GREENHECK MODEL COBE-21, 5100 CFM @ 28" S.P., 19.2 SONES, 990 RPM, 1-1/2 HP MOTOR, BELT DRIVE, COMPLETE WITH BACKRAFF DAMPER, BRUSCREEN, AND FIELD BUILT CURB. INTERLOCK WITH EMS. FAN TO OPERATE WHEN UNIT IN CLASSROOM UNIT VENTILATORS ARE IN "ECONOMIZER" CYCLE.	225	1
10	ROOF EXHAUST FAN	1/4 120	BREMER MODEL COBE-14-4, 1100 CFM @ 28" S.P., 6.5 SONES, 790 RPM, 1-1/2 HP MOTOR, BELT DRIVE, COMPLETE WITH BACKRAFF DAMPER, BRUSCREEN, AND FIELD BUILT CURB. INTERLOCK WITH EMS. FAN TO OPERATE WHEN UNIT IN CLASSROOM UNIT VENTILATORS ARE IN "ECONOMIZER" CYCLE.	65	1
11	ROOF EXHAUST FAN	1/2 220	GREENHECK MODEL COBE-21, 5100 CFM @ 28" S.P., 19.2 SONES, 990 RPM, 1-1/2 HP MOTOR, BELT DRIVE, COMPLETE WITH BACKRAFF DAMPER, BRUSCREEN, AND FIELD BUILT CURB. INTERLOCK WITH EMS. FAN TO OPERATE WHEN UNIT IN CLASSROOM UNIT VENTILATORS ARE IN "ECONOMIZER" CYCLE.	110	3



MECHANICAL EQUIPMENT ENCLOSURE
SCALE: 1/4"=1'-0"

NOTES:
1. PIPING LAYOUT SHOWN ABOVE IS DIAGRAMATIC.
2. CONTRACTOR TO PROVIDE COMPLETE SYSTEM PIPING ISOMETRIC FOR REVIEW ALONG WITH EQUIPMENT AND MATERIAL SUBMITTALS.
3. PIPING SHALL BE INSTALLED TO MAINTAIN AT NET 2" MINIMUM CLEARANCE BETWEEN INSULATION SURFACES OF PIPING AND ADJACENT WALLS.



MECHANICAL EQUIPMENT ENCLOSURE
SCALE: 1/4"=1'-0"

APPROVED
Department of Customer Services
City of Bakersfield
FEB 27 2010
32789

WILLIAM PENN SCHOOL MODERNIZATION
BAKERSFIELD CITY SCHOOL DISTRICT
BAKERSFIELD, CALIFORNIA

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