

MECHANICAL FLOOR PLAN
 SCALE: 1/8" = 1'-0"

- PLAN NOTES:**
- 1 EXISTING EQUIPMENT AND PIPING TO REMAIN. PROTECT DURING CONSTRUCTION. NO WORK REQUIRED.
 - 2 DISCONNECT AND REMOVE EXISTING SPLIT SYSTEM A/C UNIT (BOTH INDOOR AND OUTDOOR UNITS). DELIVER EXISTING UNITS TO OWNER UPON REQUEST. CONTRACTOR TO PROVIDE (1) 50# RECOVERY CYLINDERS AND RECOVER R-22 CYLINDER TO BE RETURN TO THE OWNER. REMOVE EXISTING REFRIGERANT PIPING, PIPE COVERS AND WALL CONTROLLER. TAPE, TEXTURE, AND PAINT WALLS AND CEILING AS REQUIRED AFTER WORK IS COMPLETE TO MATCH EXISTING CONDITIONS. SEAL EXISTING PENETRATION THRU OUTSIDE WALL WEATHER TIGHT. REMOVE OUTDOOR CONCRETE PAD.
 - 3 EXISTING GAS METER. PROTECT METER AND PIPING DURING CONSTRUCTION.
 - 4 NO WORK REQUIRED IN THIS ROOM. PROTECT EXISTING EQUIPMENT AND PIPING. DURING CONSTRUCTION.
 - 5 EXISTING AIR HANDLING UNIT, CONDENSING UNITS, REFRIGERATION PIPING, AND ASSOCIATED CONTROLS AND ACCESSORIES TO REMAIN. PROTECT DURING CONSTRUCTION.
 - 6 EXISTING BOILERS TO BE REMOVED AND REPLACED. SEE LARGE SCALE PLAN ON SHEET M2.1 FOR NEW BOILERS.
 - 7 INDOOR UNIT TO BE MOUNTED AS HIGH AS POSSIBLE AND ACCORDING TO MANUFACTURER'S RECOMMENDED CLEARANCES. SEE DETAIL A/M.3 FOR REFRIGERANT PIPING AND CONDENSATE DRAIN CONNECTIONS. PROVIDE PLASTIC COVER OVER EXPOSED PORTION OF PIPING FROM UNIT ON INTERIOR OF BUILDING. MOUNT WIRELESS THERMOSTAT CONTROLLER ON WALL BELOW UNIT
 - 8 EXTEND REFRIGERANT PIPING AND 3/4" DRAIN LINE THRU EXTERIOR WALL AS HIGH AS POSSIBLE. DROP DOWN ON EXTERIOR OF WALL TO OUTDOOR EQUIPMENT. COVER EXPOSED PIPING & CONDUIT(S) WITH 18 GAGE PRE-FINISH SHEET METAL COVER. ANCHOR COVER TO WALL. COLOR TO MATCH EXISTING BUILDING TRIM. FIELD VERIFY EXISTING CONDITIONS BEFORE ORDERING COVERS.
 - 9 INSTALL NEW OUTDOOR UNIT ON LIGHT WEIGHT PRE-POURED CONCRETE PAD IN LOCATION SHOWN. REMOVE AND RELOCATE EXISTING LAWN SPRINKLER PIPING AND HEADS AS REQUIRED. REMOVE ANY PLANTS AND SHRUBS AS REQUIRED.
 - 10 INSTALL REPLACED OUTDOOR UNIT ON EXISTING CONCRETE PAD. FIELD VERIFY EXISTING CONDITIONS.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	ELECTRONIC THERMOSTAT
	EQUIPMENT SYMBOL
	IN-LINE PUMP
	CONDENSING UNIT

GENERAL NOTES:

- A- THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONNECTIONS ON THE JOB SITE. ALL WORK SHALL BE EXECUTED FROM MEASUREMENTS TAKEN AT THE SITE.
- B- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO INSURE PROPER CODE CLEARANCES FOR ELECTRICAL AND MECHANICAL ACCESS WHEN INSTALLING ANY EQUIPMENT SUPPLIED BY THE MECHANICAL CONTRACTOR.
- C- IT IS CRITICAL THAT THIS CONTRACTOR COORDINATE EQUIPMENT LOCATIONS WITH PIPING, DUCTWORK, ELECTRICAL CONDUIT AND BUILDING STRUCTURE TO INSURE CODE COMPLIANCE.
- D- THE CONTRACTOR SHALL FIRE CAULK ALL DUCT OR PIPE PENETRATIONS THRU FIRE RATED WALLS, FLOORS, OR CEILINGS.
- E- THE CONTRACTOR SHALL INSTALL INTUMESCENT FIRE BLOCKS ON PLASTIC PENETRATIONS THRU FIRE RATED WALLS, FLOORS, OR CEILINGS.



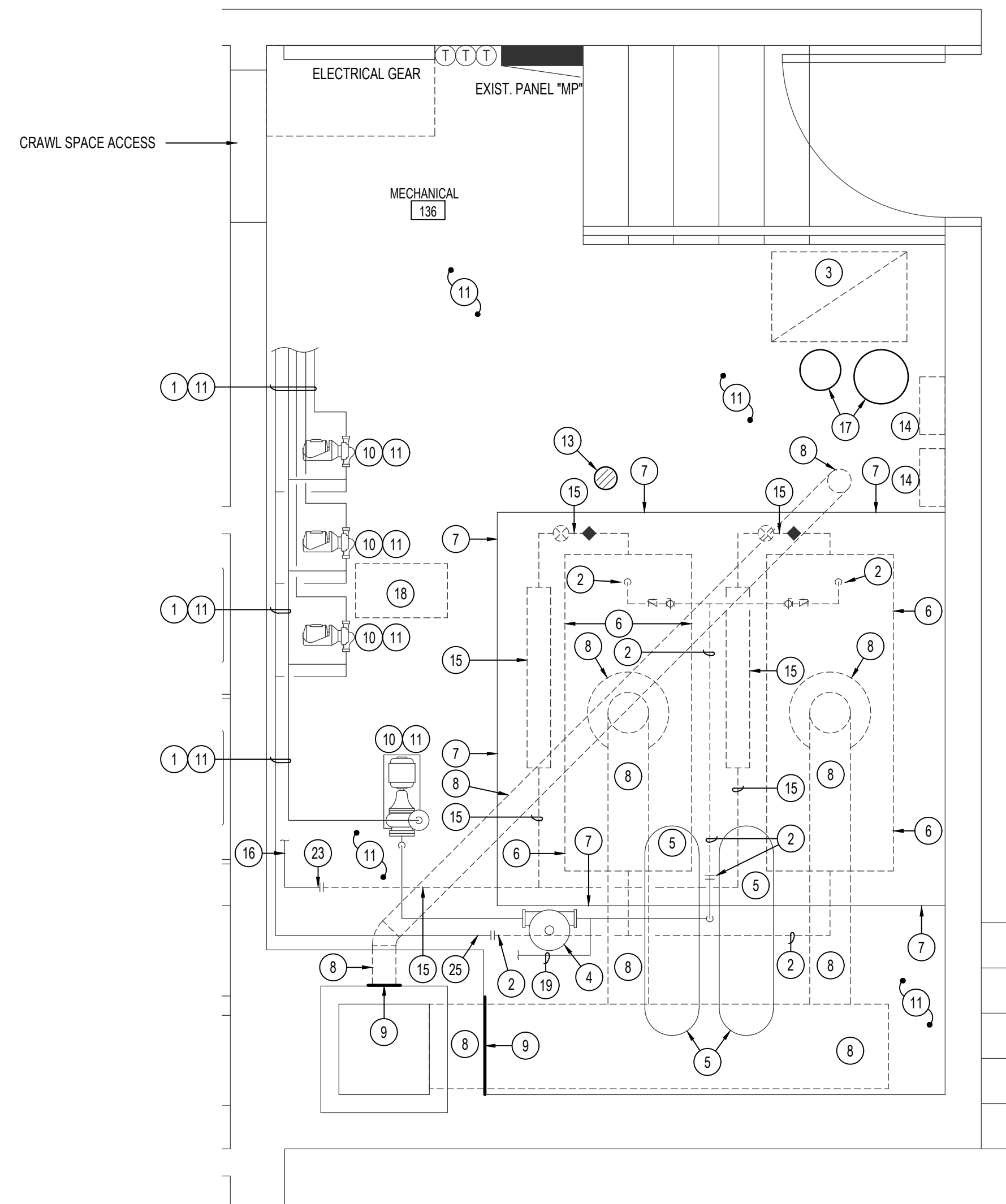
**Engineered Systems Associates
 Mechanical Engineers**
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PROPERTY # 501-3917
**BOILER REPLACEMENT & A/C FOR:
 LDS SODA SPRINGS 2, 6 & STAKE**
 290 S. 3RD W., SODA SPRINGS, IDAHO 83276
 MECHANICAL FLOOR PLAN



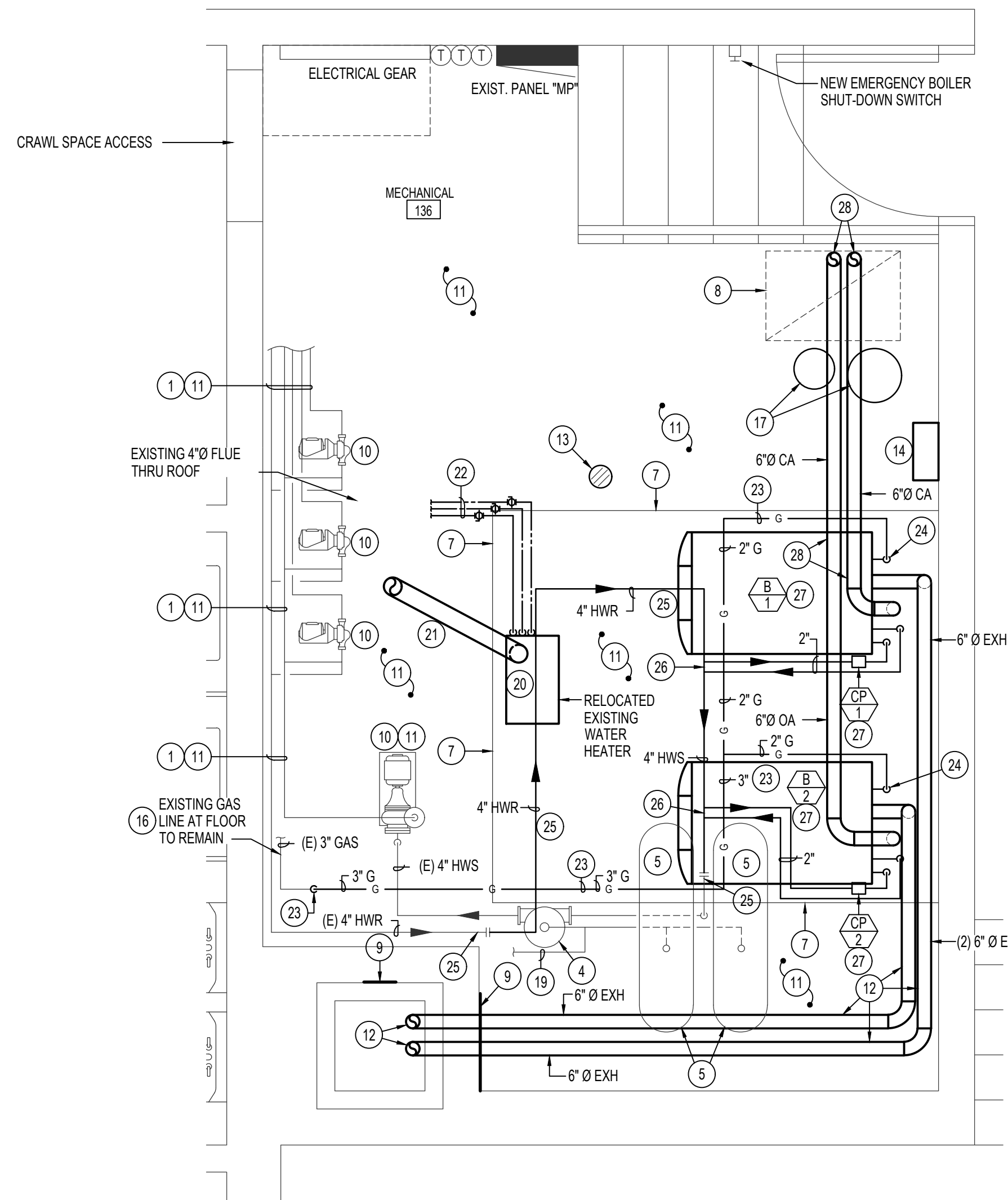
DRWN. BY: MJ	CKD. BY: DCS
JOB NO. 21041	DATE 8/21/2023

SHEET:
M1.1
 OF: 3



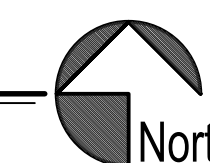
ENLARGED BOILER ROOM - DEMO

SCALE: 1/2" = 1'-0"



ENLARGED BOILER ROOM - MECH

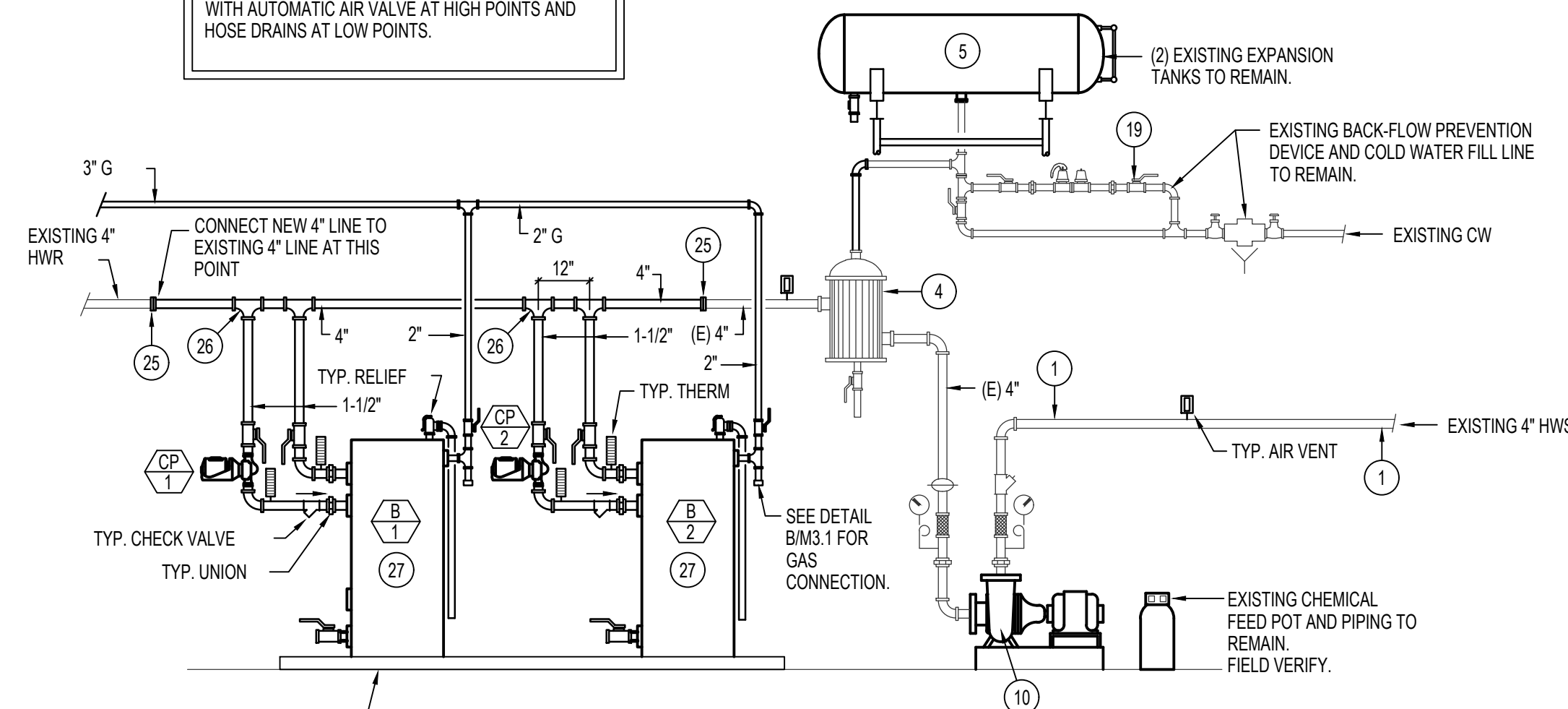
SCALE: 1/2" = 1'-0"



PLAN NOTES:

- 1 EXISTING HOT WATER SUPPLY AND RETURN PIPING TO REMAIN UNLESS NOTED OTHERWISE. PROTECT DURING CONSTRUCTION.
- 2 CUT EXISTING HOT WATER PIPING AT THIS POINT. REMOVE ALL EXISTING DOWNSTREAM PIPING CONNECTED TO EXISTING BOILER. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING PIPING.
- 3 CUT AND REMOVE EXISTING COMBUSTION AIR DUCTWORK IN BOILER ROOM AND SEAL WITH SHEET METAL. PROVIDE 12x12 GRILLE IN NEW INTERIOR SEAL FOR VENTILATION TO ROOM. FIELD VERIFY EXACT SIZE OF EXISTING DUCT. RISE (2) NEW 5/8\"/>
- 4 EXISTING AIR SEPARATOR AND ALL ASSOCIATED PIPING TO REMAIN. PROTECT DURING CONSTRUCTION.
- 5 EXISTING EXPANSION TANKS NEAR CEILING AND ALL ASSOCIATED PIPING TO REMAIN.
- 6 DISCONNECT AND REMOVE EXISTING GAS FIRED BOILER, AND ALL BOILER CONTROLS. CONTRACTOR TO VERIFY EXACT SIZE AND CONFIGURATION OF EXISTING BOILER. CUT BOILERS UP AS REQUIRED FOR REMOVAL.
- 7 EXISTING CONCRETE HOUSEKEEPING PAD TO REMAIN. PROTECT DURING CONSTRUCTION.
- 8 DISCONNECT AND REMOVE EXISTING FLUES AS SHOWN. CUT FLUES UP AS REQUIRED FOR REMOVAL.
- 9 BLANK OFF OPENINGS IN EXISTING MASONRY CHIMNEY WITH 16 GAUGE SHEET METAL. FIELD VERIFY EXACT DIMENSIONS OF EXISTING OPENINGS.
- 10 EXISTING CIRCULATION PUMPS TO REMAIN. PROTECT DURING CONSTRUCTION AND MAINTAIN CONNECTION TO EXISTING PIPING.
- 11 CONTRACTOR TO REPAIR AND/OR REPLACE EXISTING PIPES INSULATION. TYPICAL OF ALL HEATING AND DOMESTIC WATER LINES IN BOILER ROOM.
- 12 RISE 6\"/>
- 13 EXISTING FLOOR DRAIN TO REMAIN. COVER DRAIN DURING CONSTRUCTION TO KEEP FREE OF DEBRIS.
- 14 REMOVE EXISTING BOILER CONTROL PANELS. PROVIDE NEW CONTROL PANEL WITH NEW BOILER CONTROLS AS REQUIRED FOR NEW BOILERS. TIE NEW BOILER CONTROLS INTO EXISTING BUILDING CONTROLS. FIELD VERIFY EXISTING CONTROL SYSTEM.
- 15 DISCONNECT EXISTING GAS LINE FROM EXISTING BOILERS. REMOVE EXISTING GAS TRAIN.
- 16 EXISTING GAS LINES TO REMAIN. PROVIDE NEW GAS PIPING AS SHOWN TO CONNECT TO NEW BOILERS. REFER TO BOILER PIPING SCHEMATIC ON THIS SHEET. (SEE NOTE 23)
- 17 EXISTING WATER SOFTENER, BRINE TANK AND ALL ASSOCIATED PIPING TO REMAIN. PROTECT DURING CONSTRUCTION.
- 18 EXISTING INSTANTANEOUS DOMESTIC WATER HEATER TO BE RELOCATED. PLACE EXISTING WATER HEATER NEAR FLOOR AS SHOWN IN MECHANICAL PLAN. EXTEND EXISTING WATER AND GAS LINES TO NEW LOCATION. (SEE NOTES 20,21, AND 22)
- 19 EXISTING WATER MAKE-UP PIPING AND ALL ASSOCIATED FITTINGS AND VALVES ARE TO REMAIN. PROTECT DURING CONSTRUCTION AND MAINTAIN CONNECTION TO EXISTING AIR SEPARATOR AND EXISTING EXPANSION TANKS.
- 20 RELOCATE EXISTING INSTANTANEOUS, GAS FIRED WATER HEATER NEAR FLOOR. PROVIDE ANGLE IRON OR UNISTRUT STAND AS REQUIRED TO ALLOW PIPING TO BE CONNECTED TO BOTTOM OF EXISTING HEATER. FIELD VERIFY EXACT SIZES AND LOCATION OF PIPING CONNECTIONS.
- 21 EXTEND 4\"/>
- 22 EXISTING HOT AND COLD WATER LINES, AND EXISTING GAS LINE AS REQUIRED FOR NEW WATER HEATER LOCATION. NEW PIPING TO MATCH SIZE AND MATERIAL OF EXISTING PIPING. PROVIDE NEW SHUT-OFF VALVES IN LINES NEAR WATER HEATER CONNECTION POINT.
- 23 INTERRUPT EXISTING 3\"/>
- 24 RUN 2\"/>
- 25 INTERRUPT EXISTING 4\"/>
- 26 CONNECT (2) 2\"/>
- 27 INSTALL NEW GAS FIRED BOILERS AS SCHEDULED. MOUNT ON EXISTING HOUSEKEEPING PAD. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES ALL AROUND BOILERS. FIELD MOUNTED CIRCULATING PUMP TO BE FURNISHED WITH BOILER. REFER TO BOILER PIPING SCHEMATIC FOR TYPICAL PIPING CONNECTIONS TO BOILERS.
- 28 RISE 6\"/>

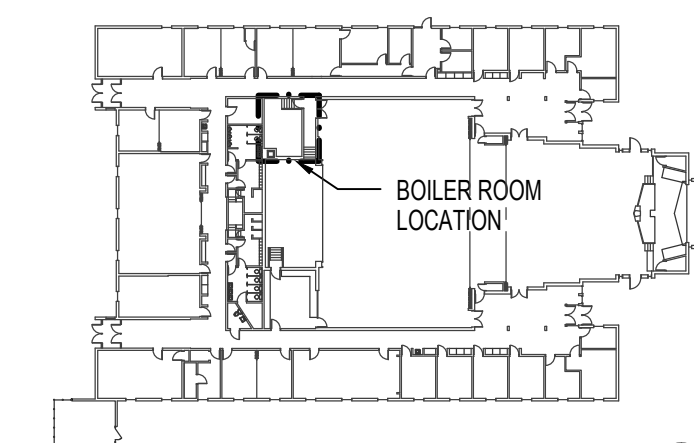
NOTE:
PIPING TO BE GRADED UP IN DIRECTION OF FLOW WITH AUTOMATIC AIR VALVE AT HIGH POINTS AND HOSE DRAINS AT LOW POINTS.



BOILER PIPING SCHEMATIC

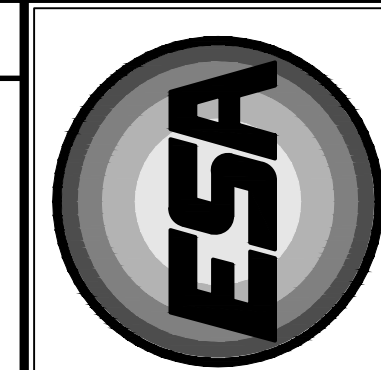
NO SCALE

KEY PLAN



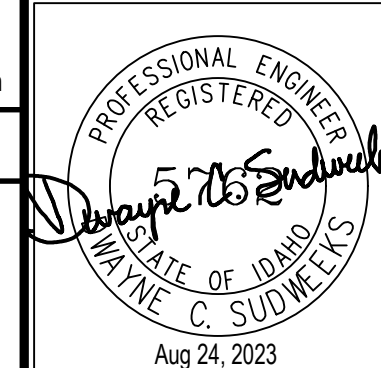
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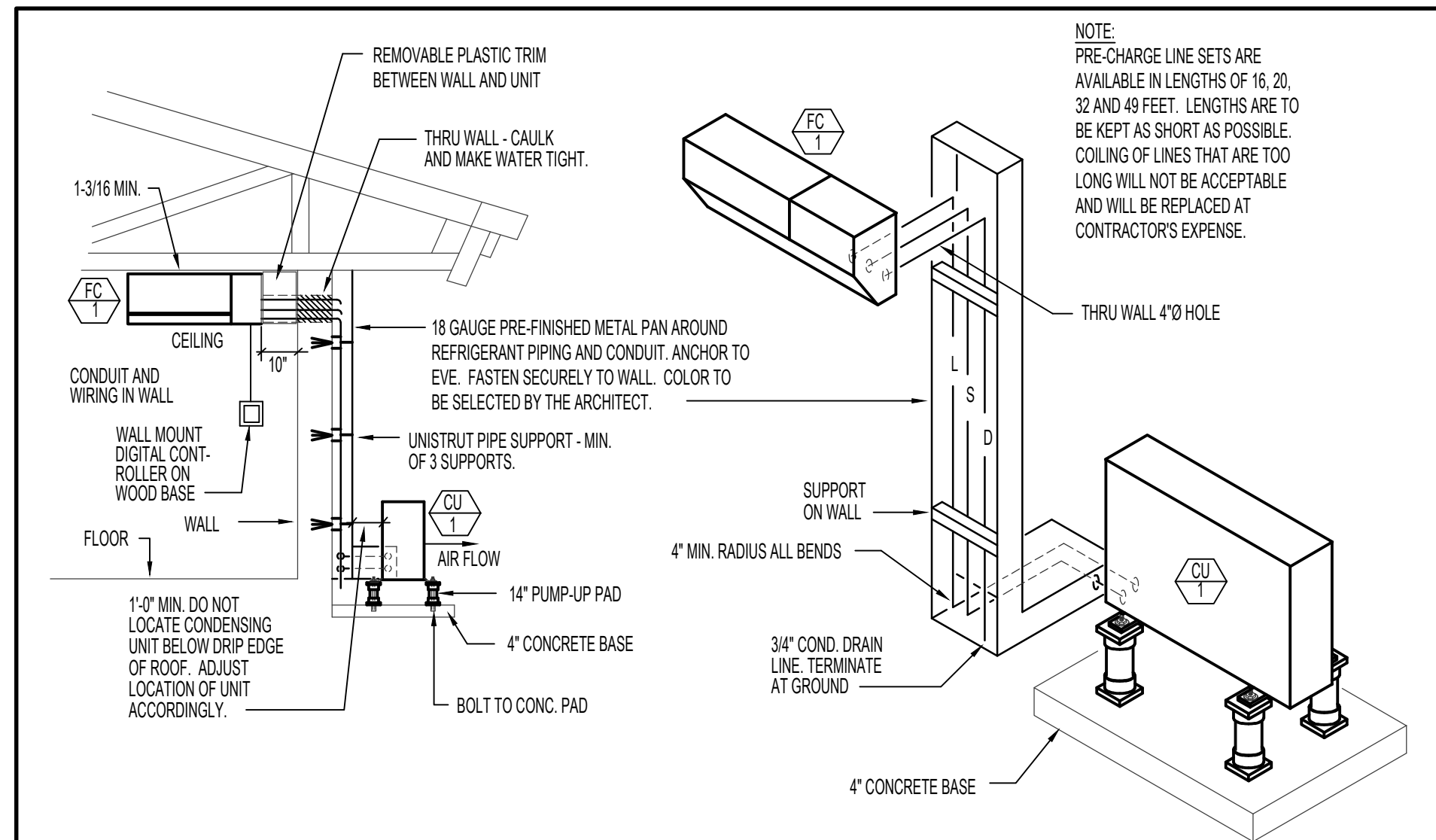
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290 S. 3RD W., SODA SPRINGS, IDAHO 83276
ENLARGED MECH. FLOOR PLANS

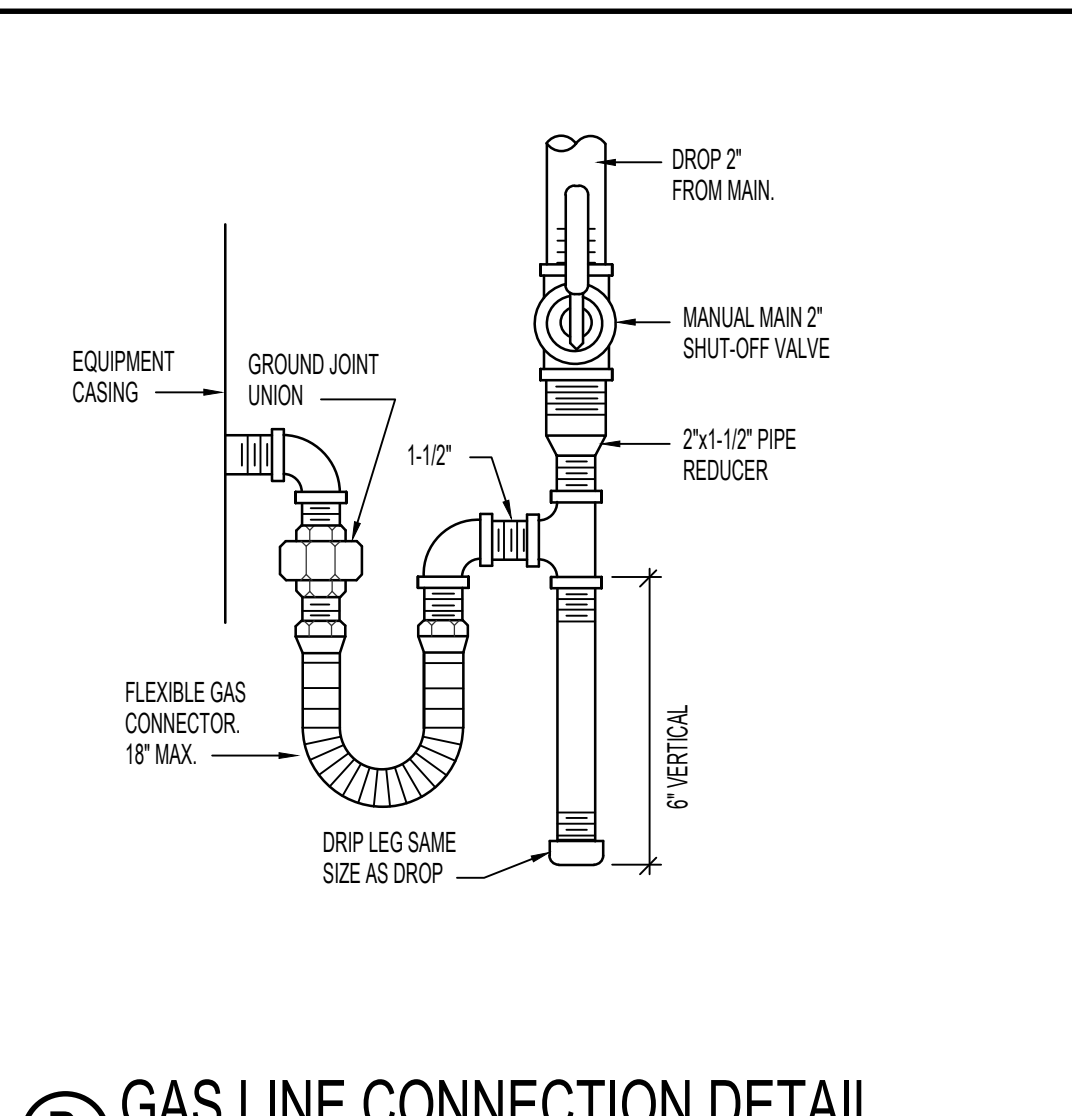


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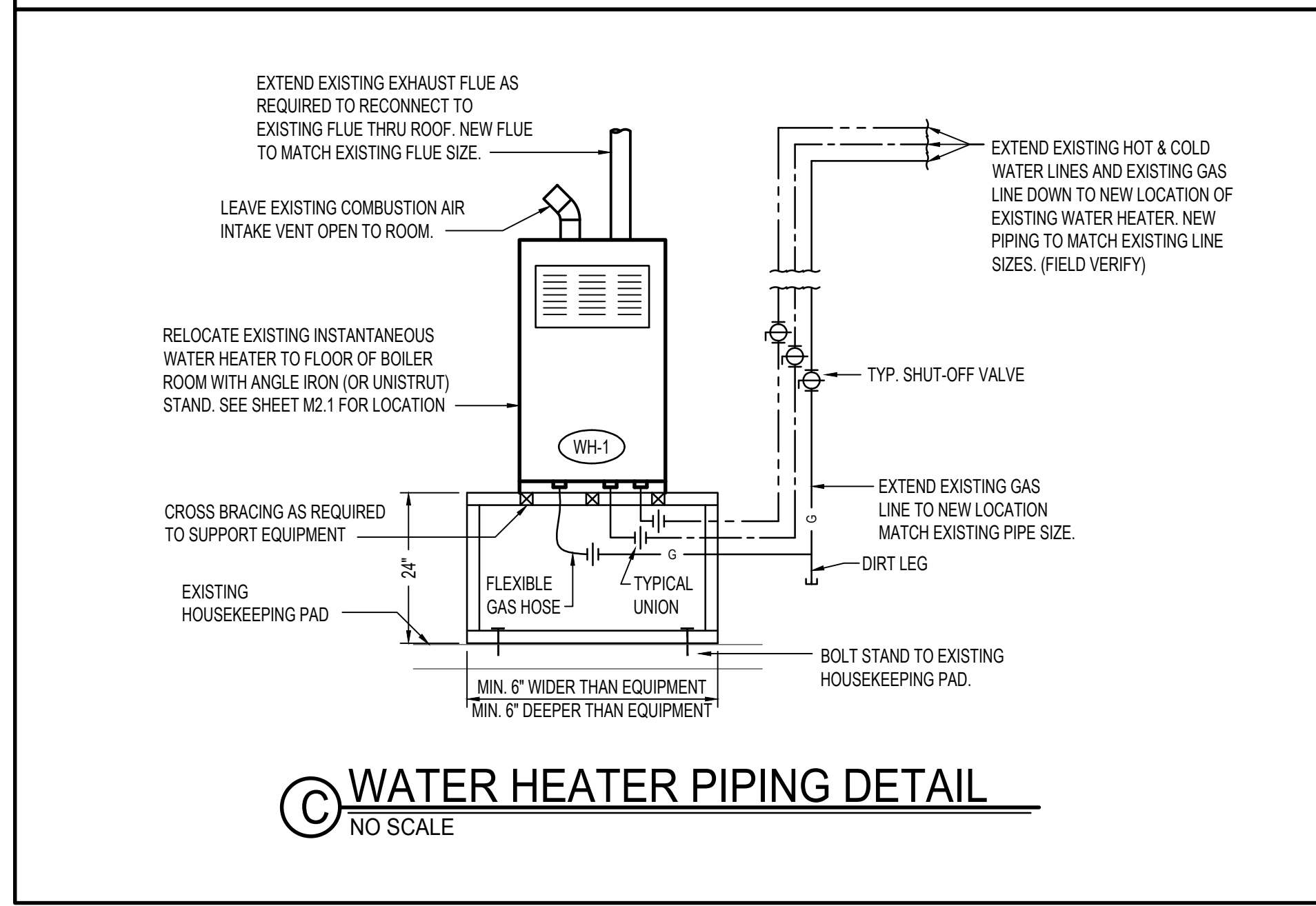
SHEET:
M2.1
OF: 3



A FAN COIL & REFRIGERANT PIPING DETAIL
NO SCALE



B GAS LINE CONNECTION DETAIL
NO SCALE



C WATER HEATER PIPING DETAIL
NO SCALE

CONDENSING UNIT SCHEDULE									
SYM.	BTU	EAT	CHAR.	MCA	MCOOP	WEIGHT	REFRIGERANT PIPING		REMARKS
							LIQUID	SUCTION	
CU 1	18,000	95°F	240/208-10	14	15	150#	1/4"	1/2"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL18NA-U1 SEER 20.5
CU 2	18,000	95°F	240/208-10	14	15	150#	1/4"	1/2"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL18NA-U1 SEER 20.5
CU 3	18,000	95°F	240/208-10	14	15	150#	1/4"	1/2"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL18NA-U1 SEER 20.5
CU 4	18,000	95°F	240/208-10	14	15	150#	1/4"	1/2"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL18NA-U1 SEER 20.5
CU 5	18,000	95°F	240/208-10	14	15	150#	1/4"	1/2"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL18NA-U1 SEER 20.5
CU 6	18,000	95°F	240/208-10	14	15	150#	1/4"	1/2"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL18NA-U1 SEER 20.5
CU 7	12,000	95°F	240/208-10	7	15	100#	1/4"	3/8"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL12NA-U1 SEER 23.1
CU 8	12,000	95°F	240/208-10	7	15	100#	1/4"	3/8"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL12NA-U1 SEER 23.1
CU 9	18,000	95°F	240/208-10	14	15	150#	1/4"	1/2"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL18NA-U1 SEER 20.5
CU 10	18,000	95°F	240/208-10	14	15	150#	1/4"	1/2"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL18NA-U1 SEER 20.5
CU 11	12,000	95°F	240/208-10	7	15	100#	1/4"	3/8"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL12NA-U1 SEER 23.1
CU 12	12,000	95°F	240/208-10	7	15	100#	1/4"	3/8"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL12NA-U1 SEER 23.1
CU 13	12,000	95°F	240/208-10	7	15	100#	1/4"	3/8"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL12NA-U1 SEER 23.1
CU 14	12,000	95°F	240/208-10	7	15	100#	1/4"	3/8"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL12NA-U1 SEER 23.1
CU 15	12,000	95°F	240/208-10	7	15	100#	1/4"	3/8"	MITSUBISHI ELECTRIC M-SERIES MODEL MUJ-GL12NA-U1 SEER 23.1

FAN COIL SCHEDULE									
SYM.	CFM	CHAR.	FAN WATTS	MCA	WEIGHT	COOLING CAPACITY	CONDENSATE DRAIN	REMARKS	
FC 1	400	FROM CU-1	30	1	40#	18,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL18NA-U1	
FC 2	400	FROM CU-2	30	1	40#	18,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL18NA-U1	
FC 3	400	FROM CU-3	30	1	40#	18,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL18NA-U1	
FC 4	400	FROM CU-4	30	1	40#	18,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL18NA-U1	
FC 5	400	FROM CU-5	30	1	40#	18,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL18NA-U1	
FC 6	400	FROM CU-6	30	1	40#	18,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL18NA-U1	
FC 7	230	FROM CU-7	30	1	40#	12,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL12NA-U1	
FC 8	230	FROM CU-8	30	1	40#	12,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL12NA-U1	
FC 9	400	FROM CU-9	30	1	40#	18,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL18NA-U1	
FC 10	400	FROM CU-10	30	1	40#	18,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL18NA-U1	
FC 11	230	FROM CU-11	30	1	40#	12,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL12NA-U1	
FC 12	230	FROM CU-12	30	1	40#	12,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL12NA-U1	
FC 13	230	FROM CU-13	30	1	40#	12,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL12NA-U1	
FC 14	230	FROM CU-14	30	1	40#	12,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL12NA-U1	
FC 15	230	FROM CU-15	30	1	40#	12,000 BTU	3/4"	MITSUBISHI M-SERIES MSY-GL12NA-U1	

BOILER SCHEDULE											
SYM.	TYPE	GROSS BTU INPUT	GROSS BTU OUTPUT	CHAR.	AMPS	WORKING PRESSURE	FUEL TYPE	FLUE SIZE	GAS SIZE	PIPE SIZE	REMARKS (A)
B 1	SEPARATED COMBUSTION	999,000	942,000	120/60/1	15	125 psi	NAT	(2) 6"Ø	1-1/2"	2"	LAARS NTH-1000 BOILER COMPLETE WITH CONDENSATE TRAP.
B 2	SEPARATED COMBUSTION	999,000	942,000	120/60/1	15	125 psi	NAT	(2) 6"Ø	1-1/2"	2"	LAARS NTH-1000 BOILER COMPLETE WITH CONDENSATE TRAP.

(A) BOILER TO BE COMPLETE WITH FACTORY SUPPLIED CIRCUITING PUMP AND CONTROL RELAYS AND SWITCHES AS REQUIRED.

CIRCULATING PUMP SCHEDULE									
SYM.	TYPE	G.P.M.	HEAD	H.P.	CHAR.	RPM	REMARKS	MANUFACTURER & MODEL NO.	
CP 1	IN-LINE	95	30'	1-1/2	240/60/1	1750	BOILER CIRCULATING	PUMP FURNISHED WITH BOILER SIMILAR TO B&G SERIES 60, SIZE 1-1/2 x 5-1/4	
CP 2	IN-LINE	95	30'	1-1/2	240/60/1	1750	BOILER CIRCULATING	PUMP FURNISHED WITH BOILER SIMILAR TO B&G SERIES 60, SIZE 1-1/2 x 5-1/4	



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