

- MAINE FOREST SERVICE -

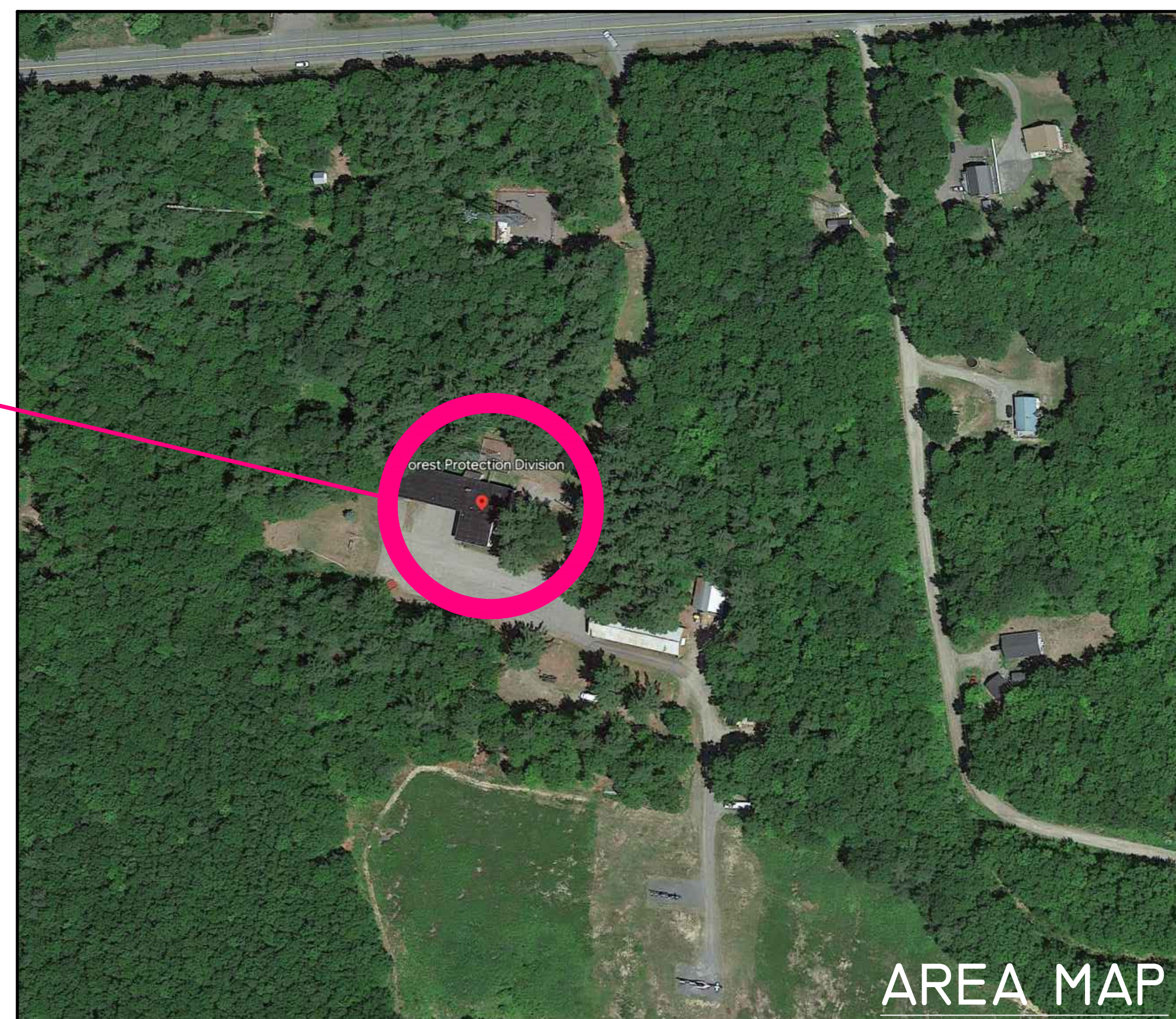
AUGUSTA REGIONAL HEADQUARTERS

AUGUST, ME

MECHANICAL HEATING & AIR CONDITIONING

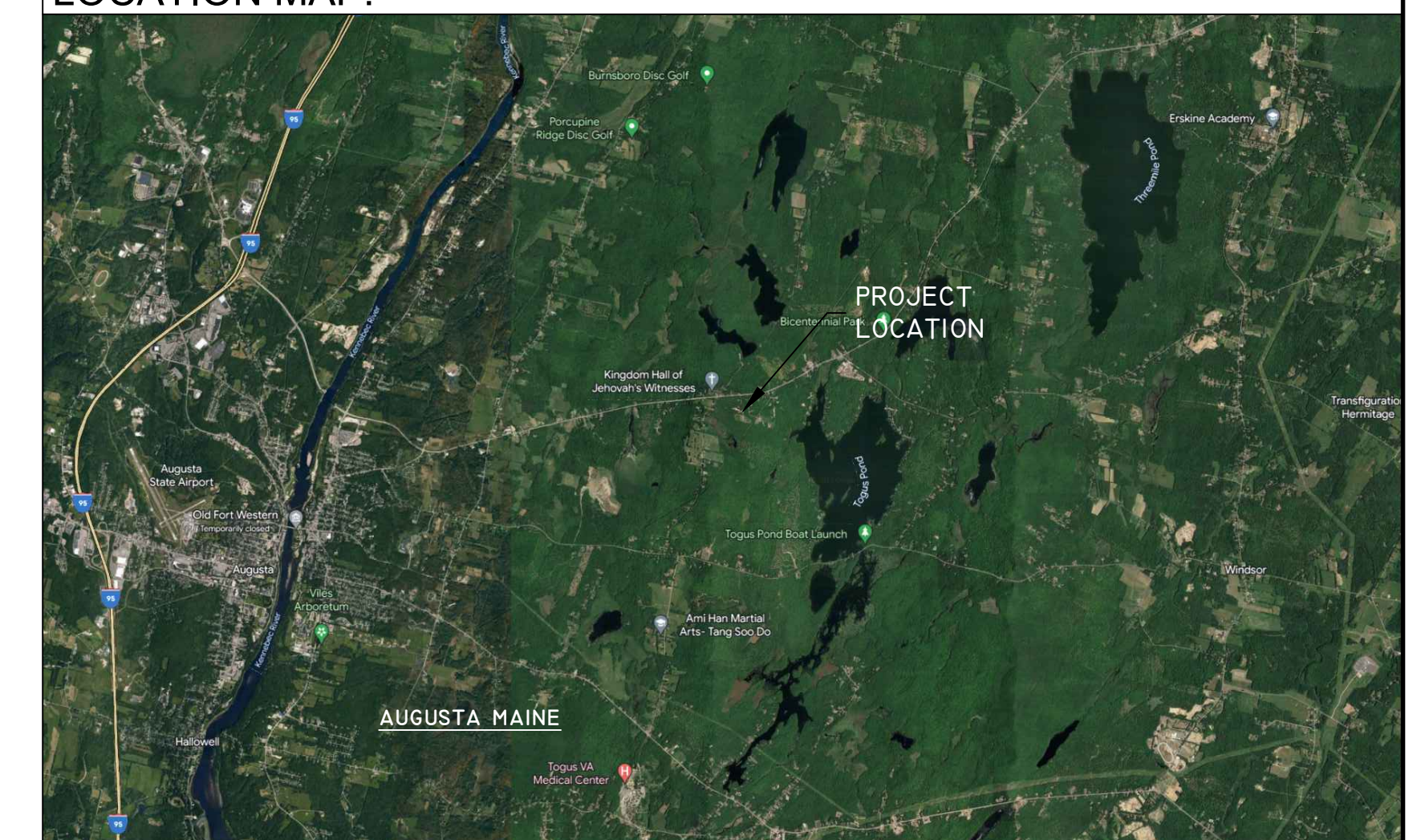
-PROJECT-

AREA OF
CONSTRUCTION



GOOGLE MAP IMAGE

LOCATION MAP:



INDEX OF DRAWINGS

M-1	MECHANICAL PIPING 1ST FLOOR		
M-2	MECHANICAL PIPING 2ND FLOOR		
M-3	LEGEND AND DETAILS		
E-1	ELECTRICAL 1st & 2nd FLOOR		
E-2	ELECTRICAL DETAILS		
P-1	PLUMBING 1st & 2nd Floor		

DESIGNED BY:

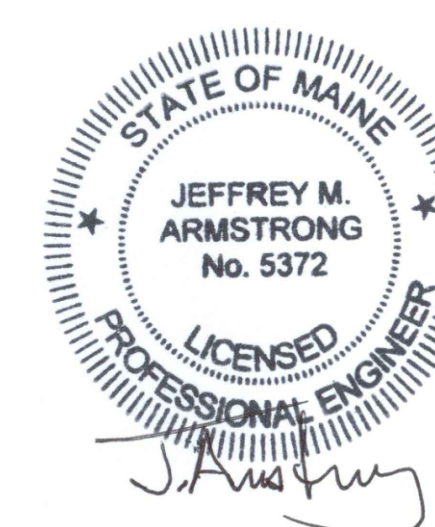


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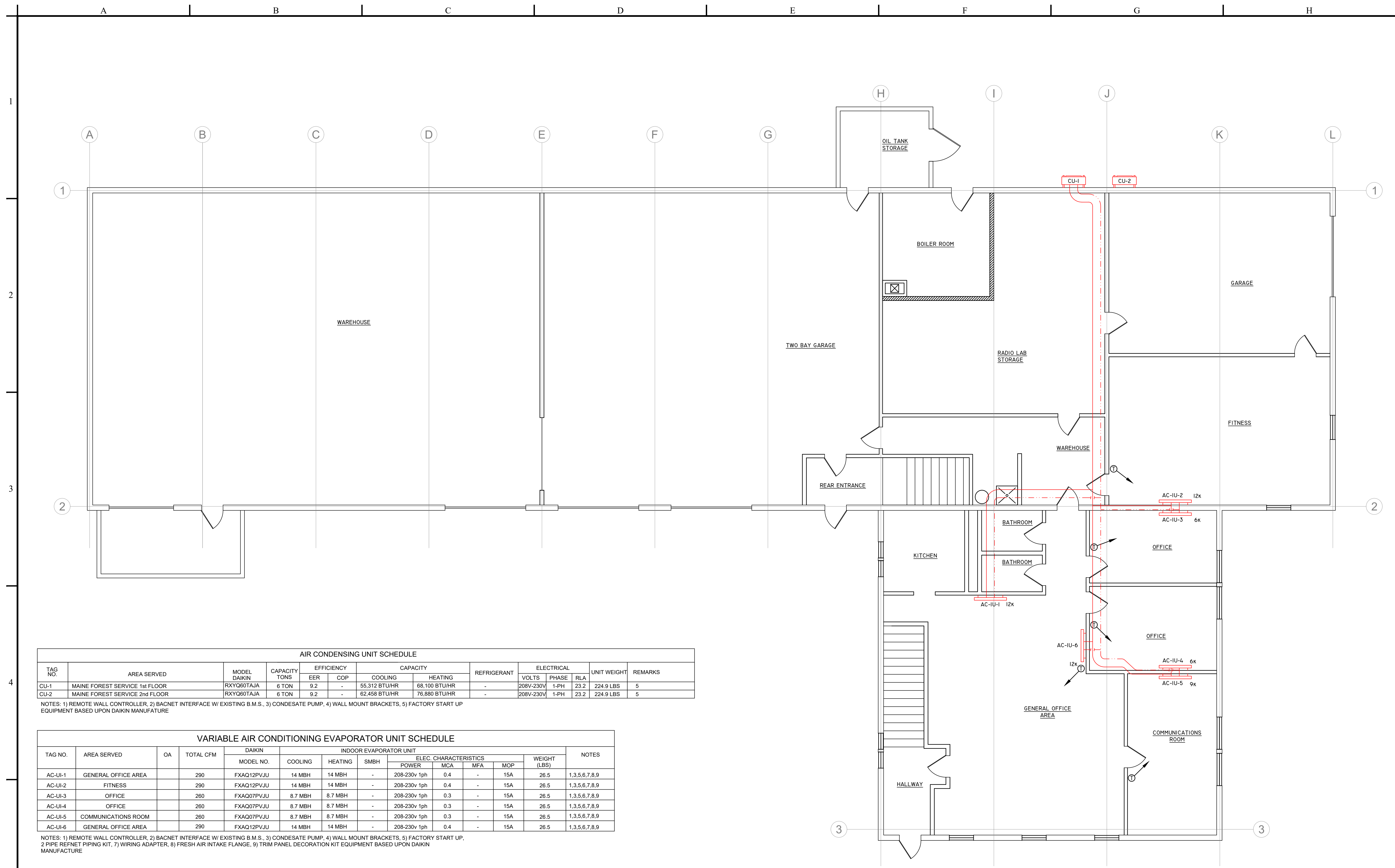
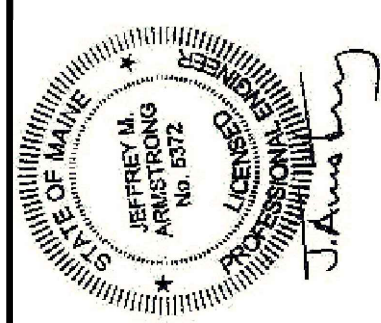


For Project Bidding

DATE: 08/08/2023

OWNER: STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION, FORESTRY

A.E. PROJECT: # 23.05.18 B.S.A. PROJECT: # BGS 3614



AIR CONDENSING UNIT SCHEDULE

TAG NO.	AREA SERVED	MODEL DAIKIN	CAPACITY TONS	EFFICIENCY		CAPACITY		REFRIGERANT	ELECTRICAL			UNIT WEIGHT	REMARKS
				EER	COP	COOLING	HEATING		VOLTS	PHASE	RLA		
CU-1	MAINE FOREST SERVICE 1st FLOOR	RXYQ60TAJA	6 TON	9.2	-	55,312 BTU/HR	68,100 BTU/HR	-	208V-230V	1-PH	23.2	224.9 LBS	5
CU-2	MAINE FOREST SERVICE 2nd FLOOR	RXYQ60TAJA	6 TON	9.2	-	62,458 BTU/HR	76,880 BTU/HR	-	208V-230V	1-PH	23.2	224.9 LBS	5

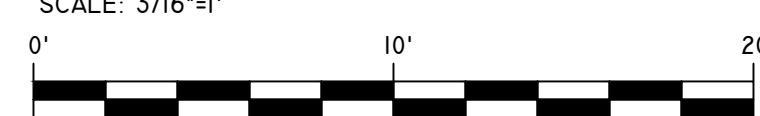
NOTES: 1) REMOTE WALL CONTROLLER, 2) BACNET INTERFACE W/ EXISTING B.M.S., 3) CONDENSATE PUMP, 4) WALL MOUNT BRACKETS, 5) FACTORY START UP EQUIPMENT BASED UPON DAIKIN MANUFACTURE

VARIABLE AIR CONDITIONING EVAPORATOR UNIT SCHEDULE

TAG NO.	AREA SERVED	OA	TOTAL CFM	DAIKIN		INDOOR EVAPORATOR UNIT						WEIGHT (LBS)	NOTES
				MODEL NO.	COOLING	HEATING	SMBH	ELEC. CHARACTERISTICS					
								POWER	MCA	MFA	MOP		
AC-IU-1	GENERAL OFFICE AREA		290	FXAQ12PVJU	14 MBH	14 MBH	-	208-230v 1ph	0.4	-	15A	26.5	1,3,5,6,7,8,9
AC-IU-2	FITNESS		290	FXAQ12PVJU	14 MBH	14 MBH	-	208-230v 1ph	0.4	-	15A	26.5	1,3,5,6,7,8,9
AC-IU-3	OFFICE		260	FXAQ07PVJU	8.7 MBH	8.7 MBH	-	208-230v 1ph	0.3	-	15A	26.5	1,3,5,6,7,8,9
AC-IU-4	OFFICE		260	FXAQ07PVJU	8.7 MBH	8.7 MBH	-	208-230v 1ph	0.3	-	15A	26.5	1,3,5,6,7,8,9
AC-IU-5	COMMUNICATIONS ROOM		260	FXAQ07PVJU	8.7 MBH	8.7 MBH	-	208-230v 1ph	0.3	-	15A	26.5	1,3,5,6,7,8,9
AC-IU-6	GENERAL OFFICE AREA		290	FXAQ12PVJU	14 MBH	14 MBH	-	208-230v 1ph	0.4	-	15A	26.5	1,3,5,6,7,8,9

NOTES: 1) REMOTE WALL CONTROLLER, 2) BACNET INTERFACE W/ EXISTING B.M.S., 3) CONDENSATE PUMP, 4) WALL MOUNT BRACKETS, 5) FACTORY START UP, 2) PIPE REFINET PIPING KIT, 7) WIRING ADAPTER, 8) FRESH AIR INTAKE FLANGE, 9) TRIM PANEL DECORATION KIT EQUIPMENT BASED UPON DAIKIN MANUFACTURE

MECHANICAL EQUIPMENT 1ST FLOOR

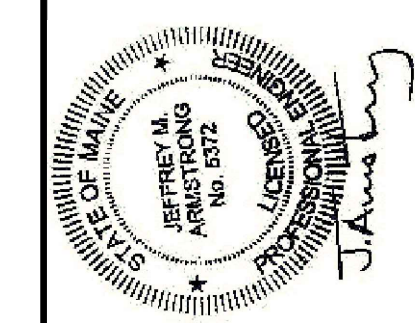


REV	DATE	DESCRIPTION

SHEET TITLE:
 MECHANICAL PIPING
 1ST FLOOR

08/08/2023

M-1



REV	DATE	DESCRIPTION

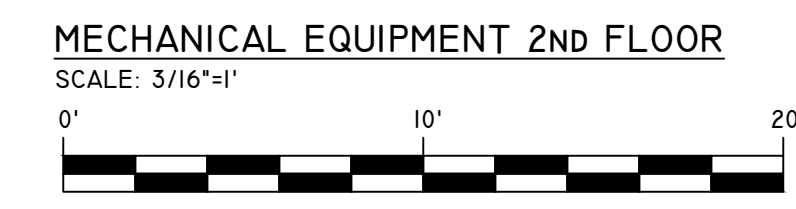
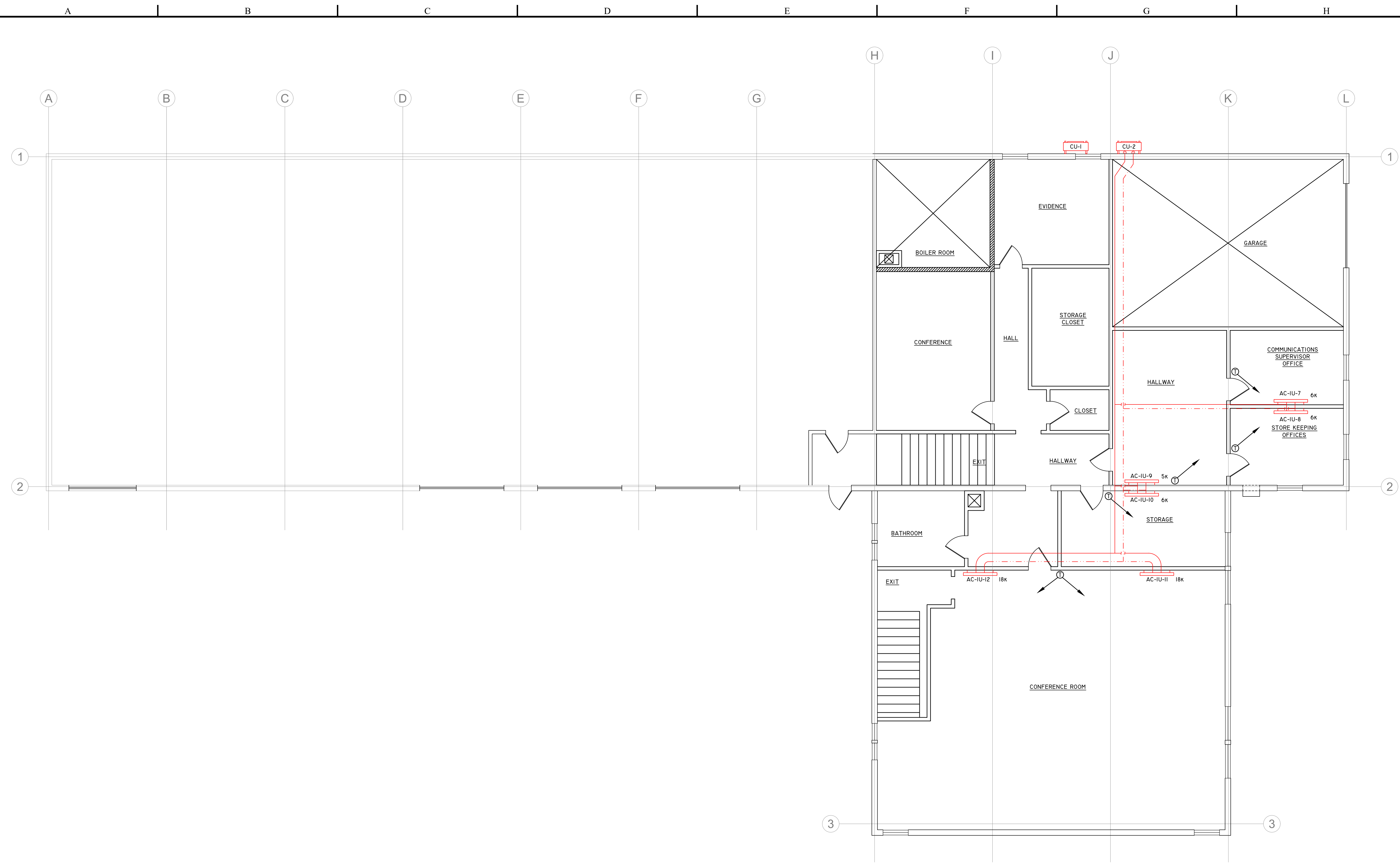
SHEET TITLE:
 MECHANICAL
 PIPING
 2ND FLOOR

08/08/2023

M-2

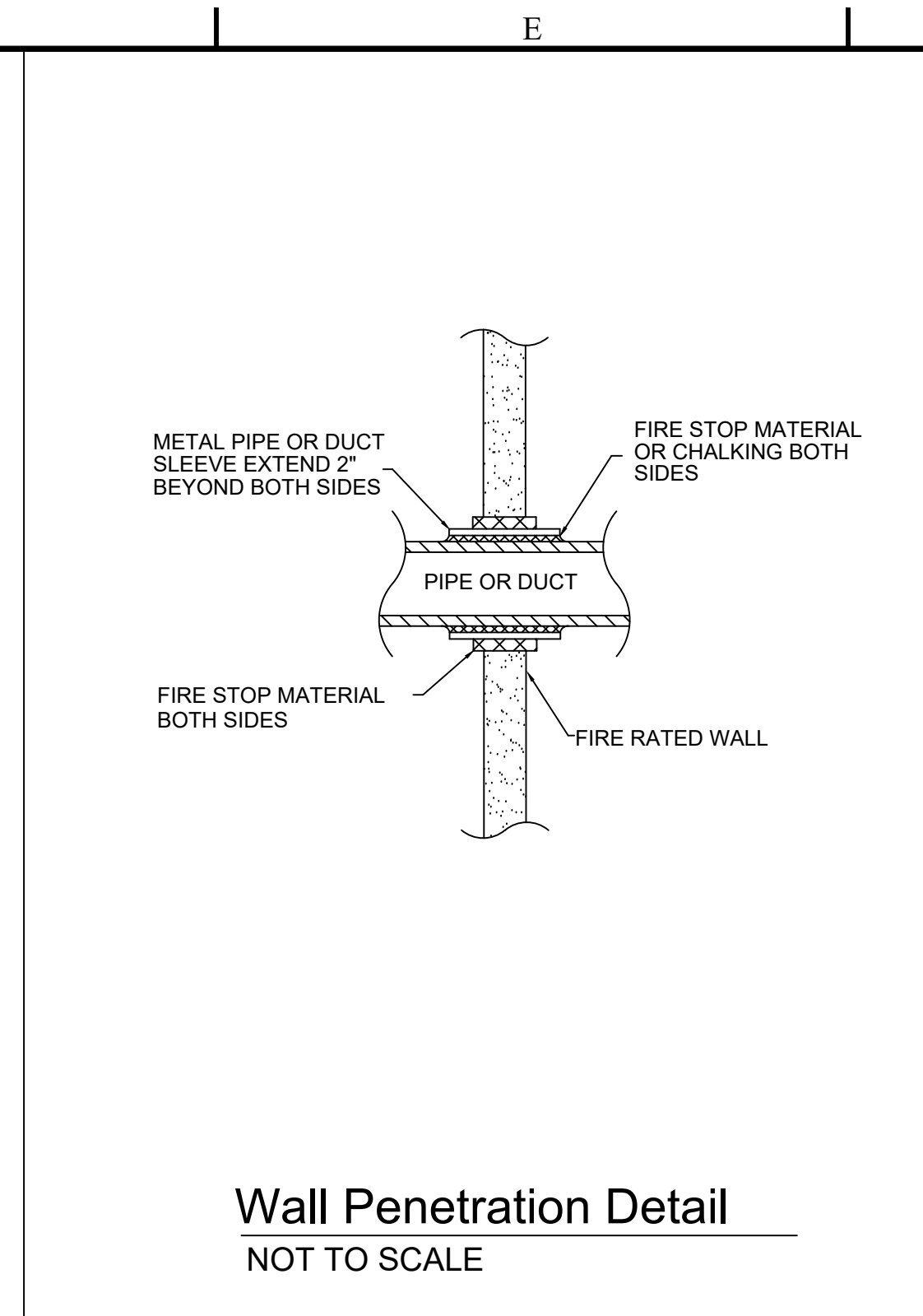
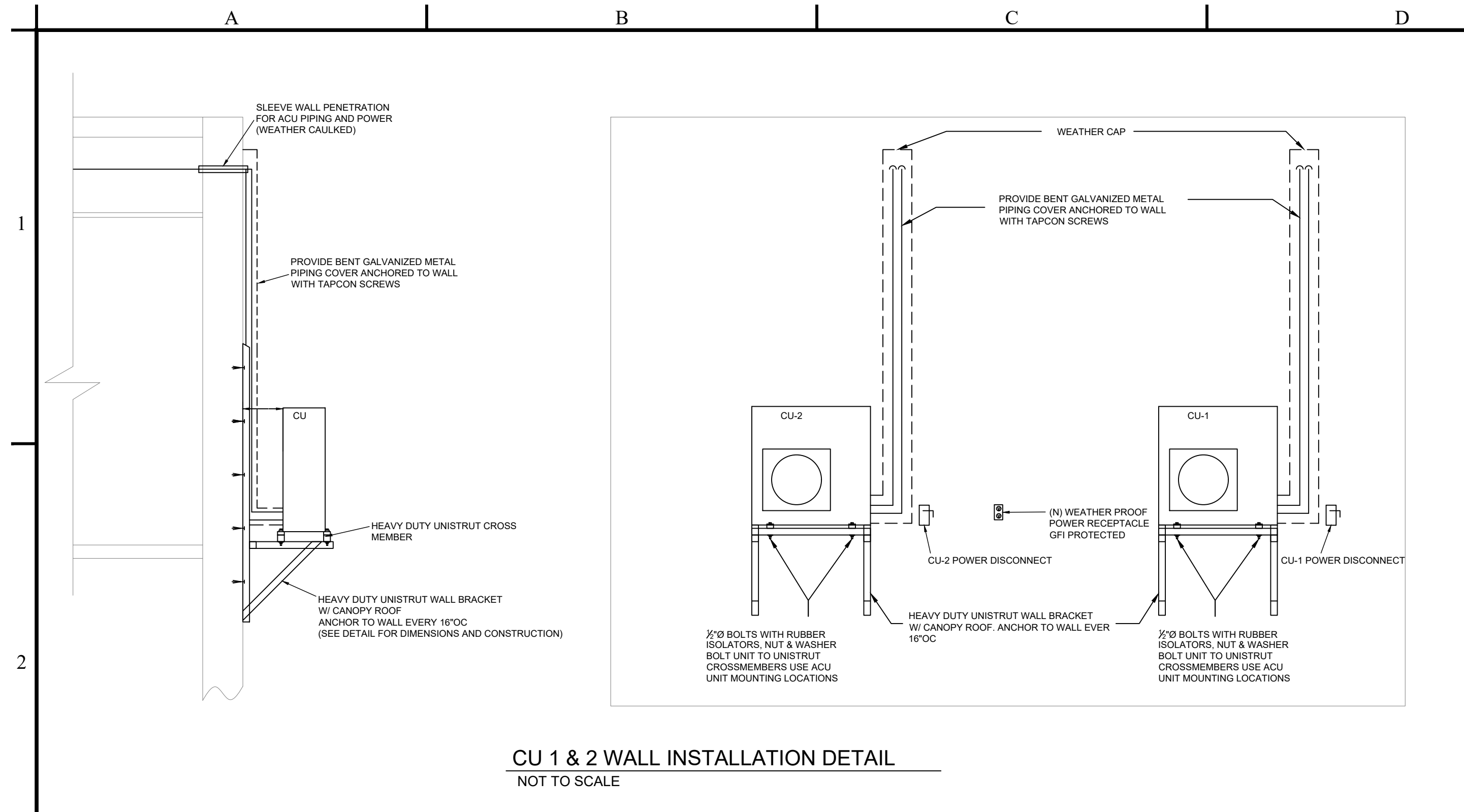
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BID DOCUMENT



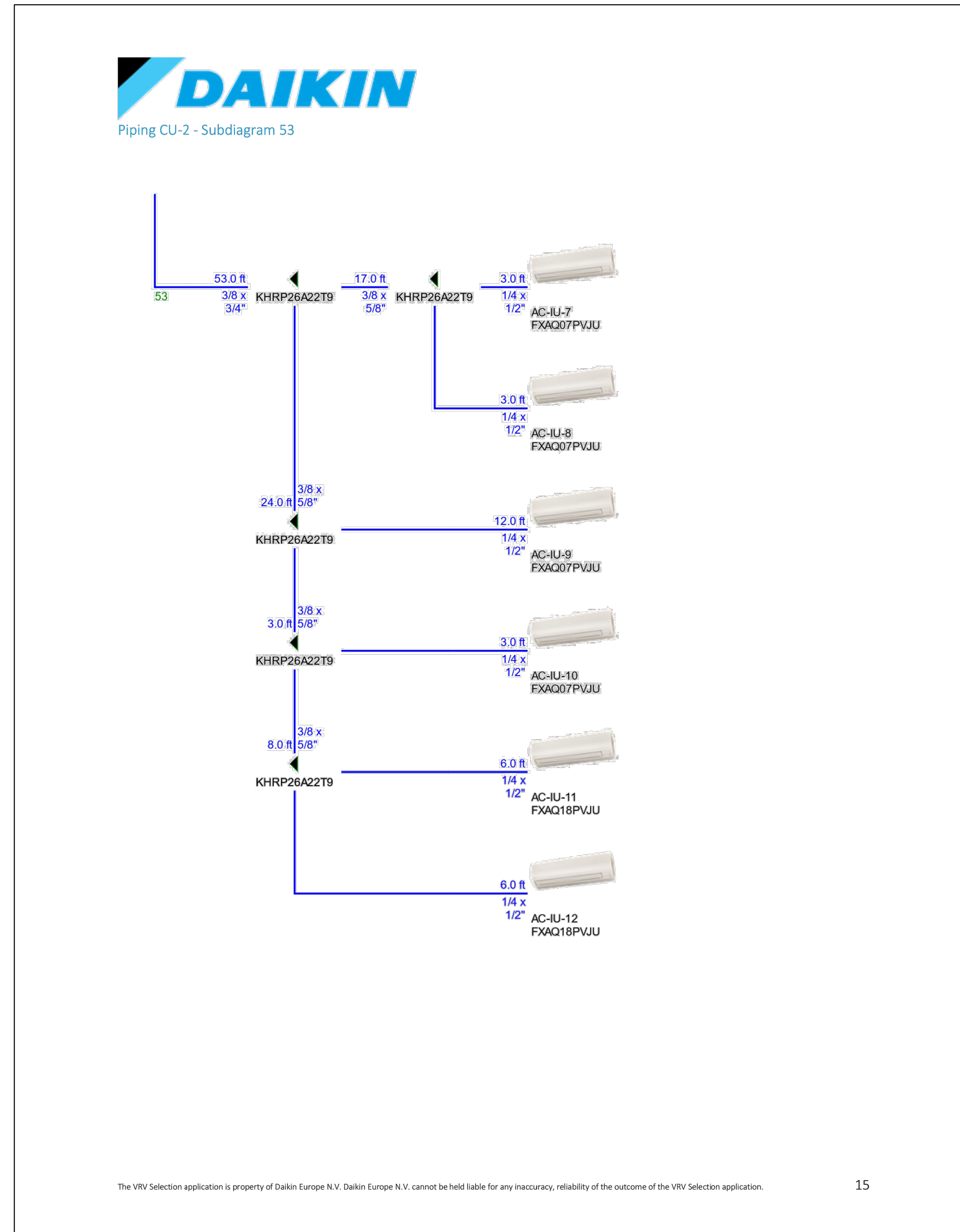
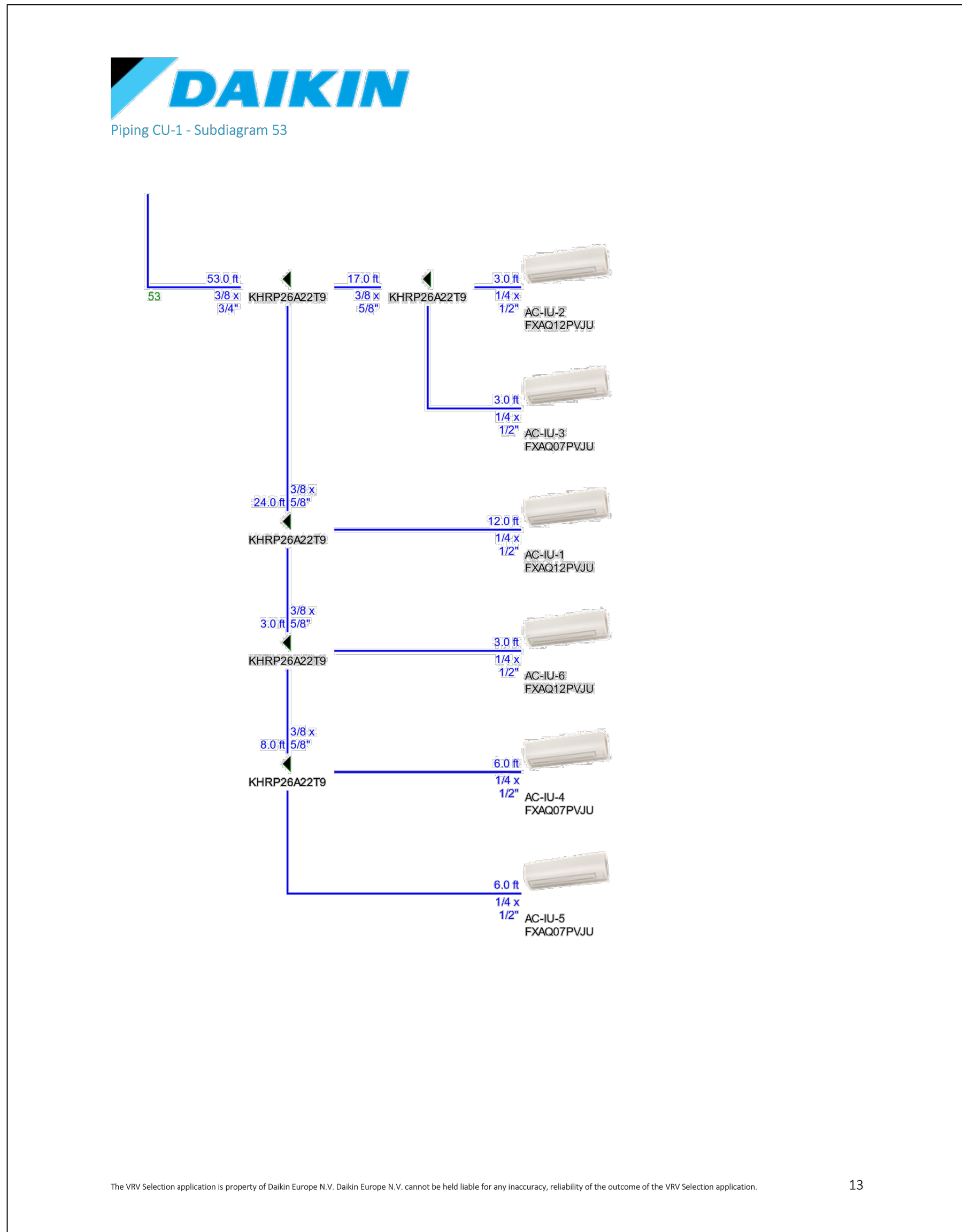
VARIABLE AIR CONDITIONING EVAPORATOR UNIT SCHEDULE													
TAG NO.	AREA SERVED	OA	TOTAL CFM	DAIKIN INDOOR EVAPORATOR UNIT								WEIGHT (LBS)	NOTES
				MODEL NO.	COOLING	HEATING	SMBH	ELEC. CHARACTERISTICS					
								POWER	MCA	MFA	MOP		
AC-UI-7	COMM SUPERVISOR OFFICE		260	FXAQ07PVJU	8.7 MBH	8.7 MBH	-	208-230v 1ph	0.3	-	15A	26.5	1,3,5,6,7,8,9
AC-UI-8	STORE KEEPING OFFICE		260	FXAQ07PVJU	8.7 MBH	8.7 MBH	-	208-230v 1ph	0.3	-	15A	26.5	1,3,5,6,7,8,9
AC-UI-9	HALLWAY		260	FXAQ07PVJU	8.7 MBH	8.7 MBH	-	208-230v 1ph	0.3	-	15A	26.5	1,3,5,6,7,8,9
AC-UI-10	STORAGE		260	FXAQ07PVJU	8.7 MBH	8.7 MBH	-	208-230v 1ph	0.3	-	15A	26.5	1,3,5,6,7,8,9
AC-UI-11	CONFERENCE ROOM		500	FXAQ18PVJU	21 MBH	21 MBH	-	208-230v 1ph	0.4	-	15A	30.9	1,3,5,6,7,8,9
AC-UI-12	CONFERENCE ROOM		500	FXAQ18PVJU	21 MBH	21 MBH	-	208-230v 1ph	0.4	-	15A	30.9	1,3,5,6,7,8,9

NOTES: 1) REMOTE WALL CONTROLLER, 2) BACNET INTERFACE W/ EXISTING B.M.S., 3) CONDESATE PUMP, 4) WALL MOUNT BRACKETS, 5) FACTORY START UP, 6) PIPE REFNET PIPING KIT, 7) WIRING ADAPTER, 8) FRESH AIR INTAKE FLANGE, 9) TRIM PANEL DECORATION KIT EQUIPMENT BASED UPON DAIKIN MANUFACTURE



SYMBOLS & ABBREVIATIONS			
	UP	DN	SUPPLY DUCT (UP & DOWN)
	UP	DN	RETURN OR EXHAUST DUCT (UP & DOWN)
			CEILING DIFFUSERS
			SUPPLY TOP REGISTER OR GRILL (WALL TYPE)
			RETURN OR EXHAUST CEILING REGISTER OR GRILL
			EXHAUST BOTTOM REGISTER OR GRILL (WALL TYPE)
			EXHAUST OR RETURN TOP OF REGISTER GRILL (WALL TYPE)
			VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE OFF
			CONNECT NEW DUCT TO EXISTING DUCT
			INCLINED RISE IN DIRECTION OF AIR FLOW
			INCLINED DROP IN DIRECTION OF AIR FLOW
			FLEXIBLE CONNECTION
	10x8		NEW DUCT - WIDTH X DEPTH
			EXISTING DUCT TO REMAIN
			EXISTING DUCT TO BE REMOVED
			LOUVER
			ACOUSTICAL DUCT LINING
			MANUAL VOLUME DAMPER
		FD	FIRE DAMPER
		SD	SMOKE DAMPER
			VANED ELBOW (PROVIDE ALL SQUARE RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
			VAINED ELBOW (SHORT RADIUS)
			STANDARD RADIUS ELBOW

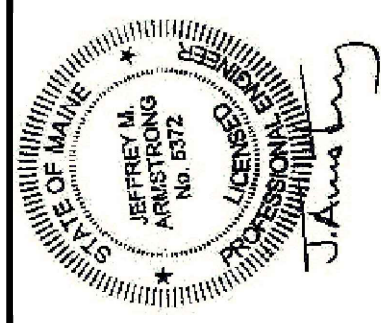
ABBREVIATION	SYMBOL	NOMENCLATURE	ABBREVIATION	NOMENCLATURE	ABBREVIATION	NOMENCLATURE
		THERMOSTAT (DIGITAL TYPE)	FD	FIRE DAMPER	DHWR	DOMESTIC HOT WATER RETURN
		THERMOSTAT W/ GUARD (DIGITAL TYPE)	MOD	MOTOR OPERATED DAMPER	HWS	HOT WATER SUPPLY
		THERMOSTAT SENSOR	EF	EXHAUST FAN	HWR	HOT WATER RETURN
		Y-STRAINER W/DRAIN VALVE & CAP	EA	EXHAUST AIR	NO	NORMALLY OPEN
		GATE VALVE	EG	EXHAUST GRILL	NC	NORMALLY CLOSED
		PRESSURE GAUGE W/SHUT COCK	ACU	AIR CONDENSING UNIT	RT	RETENTION TANK
		TEMPERATURE GAUGE	AHU	AIR HANDLING UNIT	CWG	CHILLED WATER GENERATOR
		BALL VALVE	HRU	HEAT RECOVERY UNIT	CP	CIRCULATOR PUMP
BV		BALANCING VALVE	RTU	ROOF TOP UNIT	ET	EXPANSION TANK
CV		3-WAY CONTROL VALVE	CUH	CABINET UNIT HEATER	BLR	BOILER
CV		2-WAY CONTROL VALVE	(E)	EXISTING	A.F.F.	ABOVE FINISHED FLOOR
		DRAIN VALVE	(N)	NEW	USWJ	UNDER STEEL WEB JOIST
		AIR SCOOP W/ AIR VENT	VAV	VARIABLE AIR VOLUME BOX	FOR	FUEL OIL RETURN
BFP		BACK FLOW PREVENTER	SG	SUPPLY GRILL	FOS	FUEL OIL SUPPLY
		PRESSURE REGULATOR	SA	SUPPLY AIR	TYP	TYPICAL
		AUTO AIR VENT W/ SHUT COCK	RA	RETURN AIR	GPM	GALLONS PER MINUTE
		CHECK VALVE	RG	RETURN GRILL	CFM	CUBIC FEET PER MINUTE
		WAFER BUTTERFLY VALVE	RF	RETURN FAN	CWS	CHILLED WATER SUPPLY
		SUCTION DIFFUSER	FD	FLOOR DRAIN	CWR	CHILLED WATER RETURN
MPV		PIPE FLANGE CONNECTION	SW	SANITARY WASTE	VD	VOLUME DAMPER
		MULTI-PURPOSE VALVE	V	VENT	UH	UNIT HEATER
FS		FLOAT & THERMOSTATIC STEAM TRAP	LAV	LAVATORY	COND	CONDENSATE
		FLOW SWITCH	UR	URINAL	INV	INVERT
		PRESSURE SWITCH	WC	WATER CLOSET	AD	ACCESS DOOR
BMS		BUILDING MANAGEMENT SYSTEM	EWC	ELECTRIC WATER COOLER	CW-CP	CHILLED WATER CIRCULATING PUMP
TSI		TSI ROOM PRESSURE MONITOR	UCWH	UNDER COUNTER WATER HEATER	EPP	EMERGENCY POWER PANEL
			SK	SINK	MDP	MAIN DISTRIBUTION PANEL
			HB	HOSE BIB	VFD	VARIABLE FREQUENCY DRIVE
			CO	CLEAN OUT	ATC	AUTOMATIC TEMPERATURE CONTROL
			DHW	DOMESTIC HOT WATER	A.L.	ACOUSTICAL DUCT LINER
			DCW	DOMESTIC COLD WATER	O.W.S.J.	OPEN WEB STEEL JOIST
			HUM	HUMIDIFIER	AC	AIR CONDITIONING EVAPORATOR
			WDB	WATER DRAIN BASIN	CU	AIR CONDENSING UNIT
			DCW	DOMESTIC COLD WATER	MD	MOTION DETECTOR



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MAINE FOREST SERVICE
 AUGUSTA, ME
 MECHANICAL HEATING & AIR
 CONDITIONING PROJECT

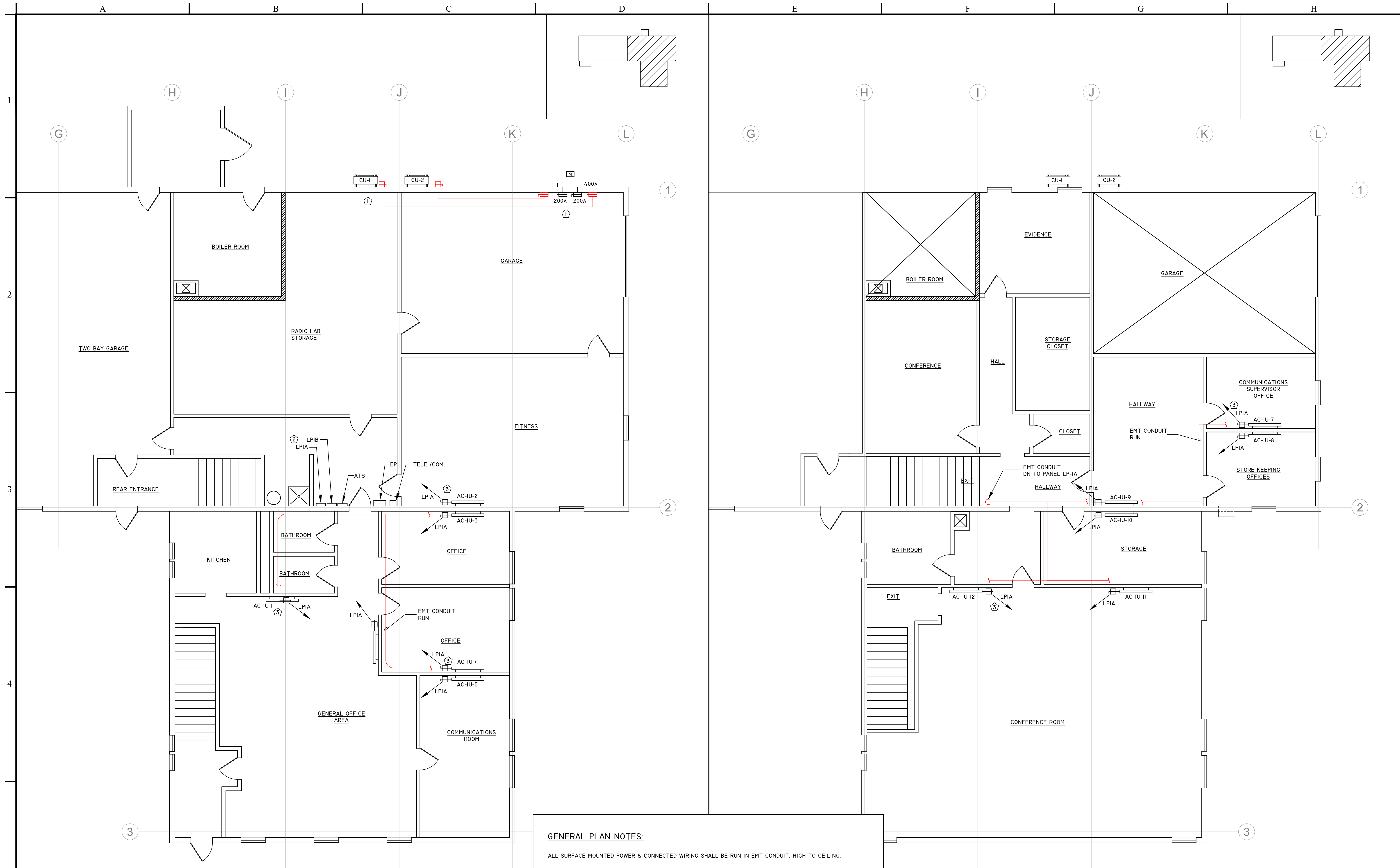
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SHEET TITLE:
 MECHANICAL
 PIPING
 DIAGRAMS
 AND LEGENDS

08/08/2023

M-3

BID DOCUMENT PROJECT #23.0518



ELECTRICAL 1ST FLOOR
SCALE: 3/16"=1'
0' 10' 20'

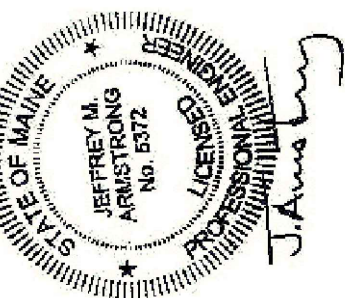
ELECTRICAL 2ND FLOOR
SCALE: 3/16"=1'
0' 10' 20'

GENERAL PLAN NOTES:

- ALL SURFACE MOUNTED POWER & CONNECTED WIRING SHALL BE RUN IN EMT CONDUIT, HIGH TO CEILING.
- ① PROVIDE INDIVIDUAL 35 AMP OCPD BREAKER DISCONNECTS AT 200A ENTRANCE. OCP DEVICE TO SERVE CU-1 & 2. PROVIDE HAND UNIT DISCONNECTS FOR CU-1&2.
- ② PROVIDE 20 AMP OCPD BREAKERS IN PANEL LP-1A TO SERVE 1ST & 2ND FLOOR HEAT PUMP UNITS PER MANUFACTURERS WIRING DIAGRAM.
- ③ PROVIDE EACH HEAT PUMP UNIT WITH A SEPARATE MEANS OF POWER DISCONNECT, TYPICAL FOR ALL.

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MAINE FOREST SERVICE
AUGUSTA, ME
MECHANICAL HEATING & AIR
CONDITIONING PROJECT

REV	DATE	DESCRIPTION

SHEET TITLE:
ELECTRICAL
1ST AND 2ND
FLOOR

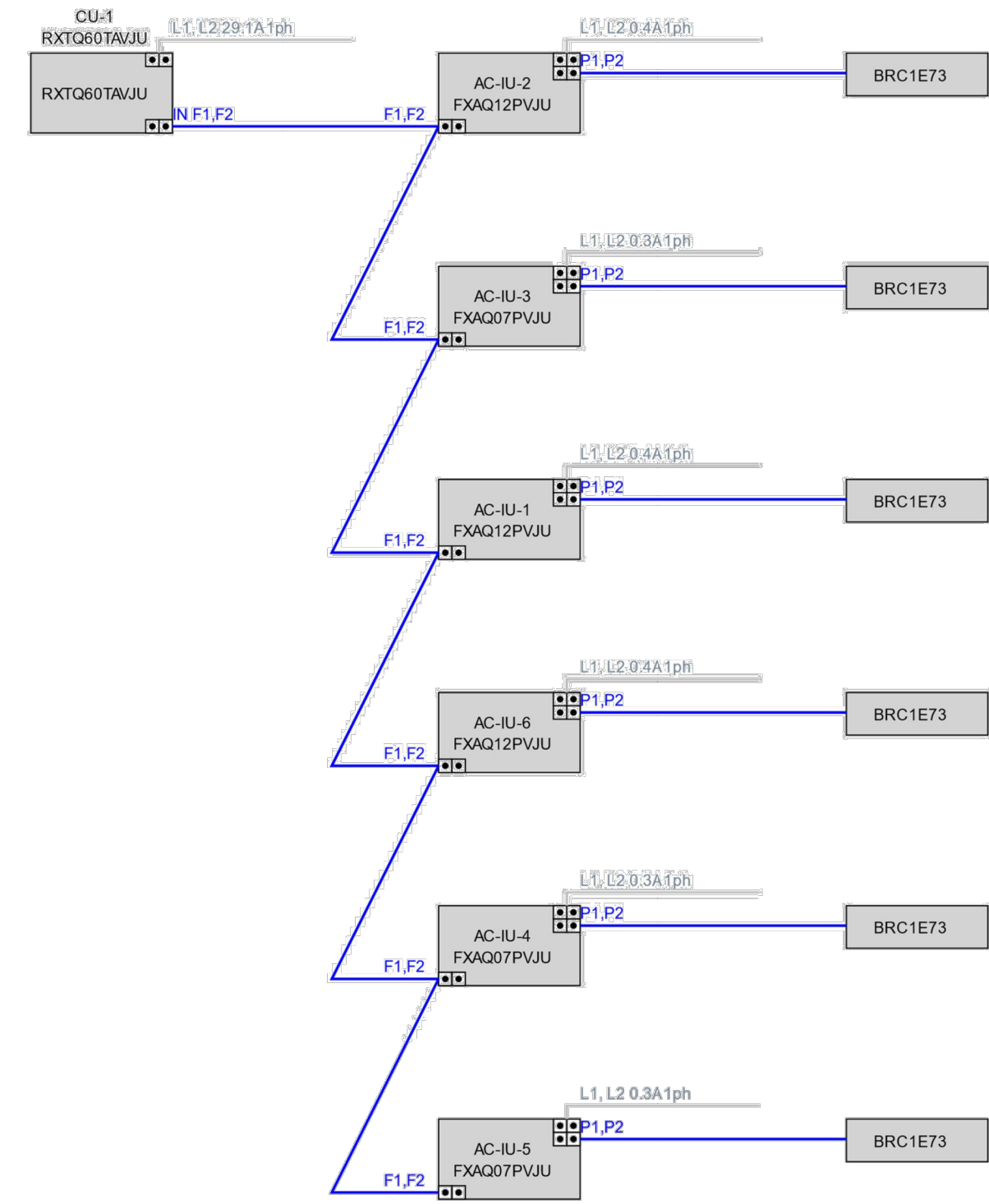
08/08/2023

E-1



Wiring diagrams

Wiring CU-1



Remarks

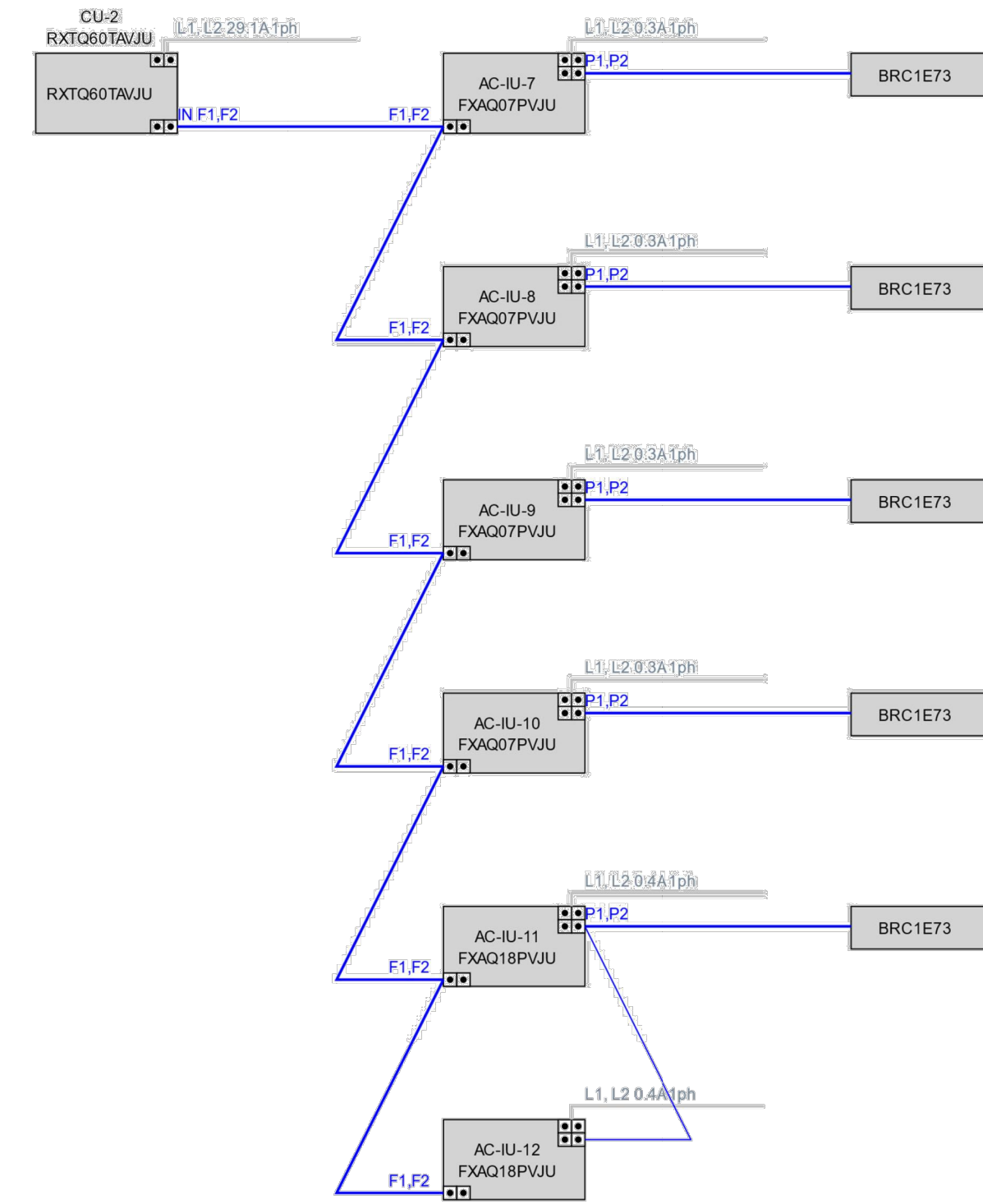
P1P2 = AWG 18-2 is required - however always refer to local code for further information.
 F1F2 IN/OUT = AWG 18-2 is required - however always refer to local code for further information

Note:

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Wiring CU-2



Remarks

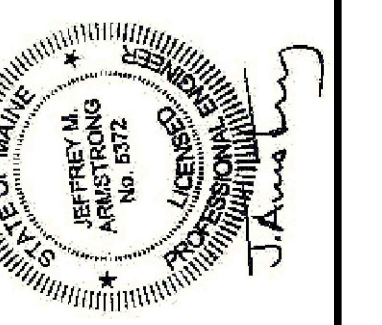
P1P2 = AWG 18-2 is required - however always refer to local code for further information.
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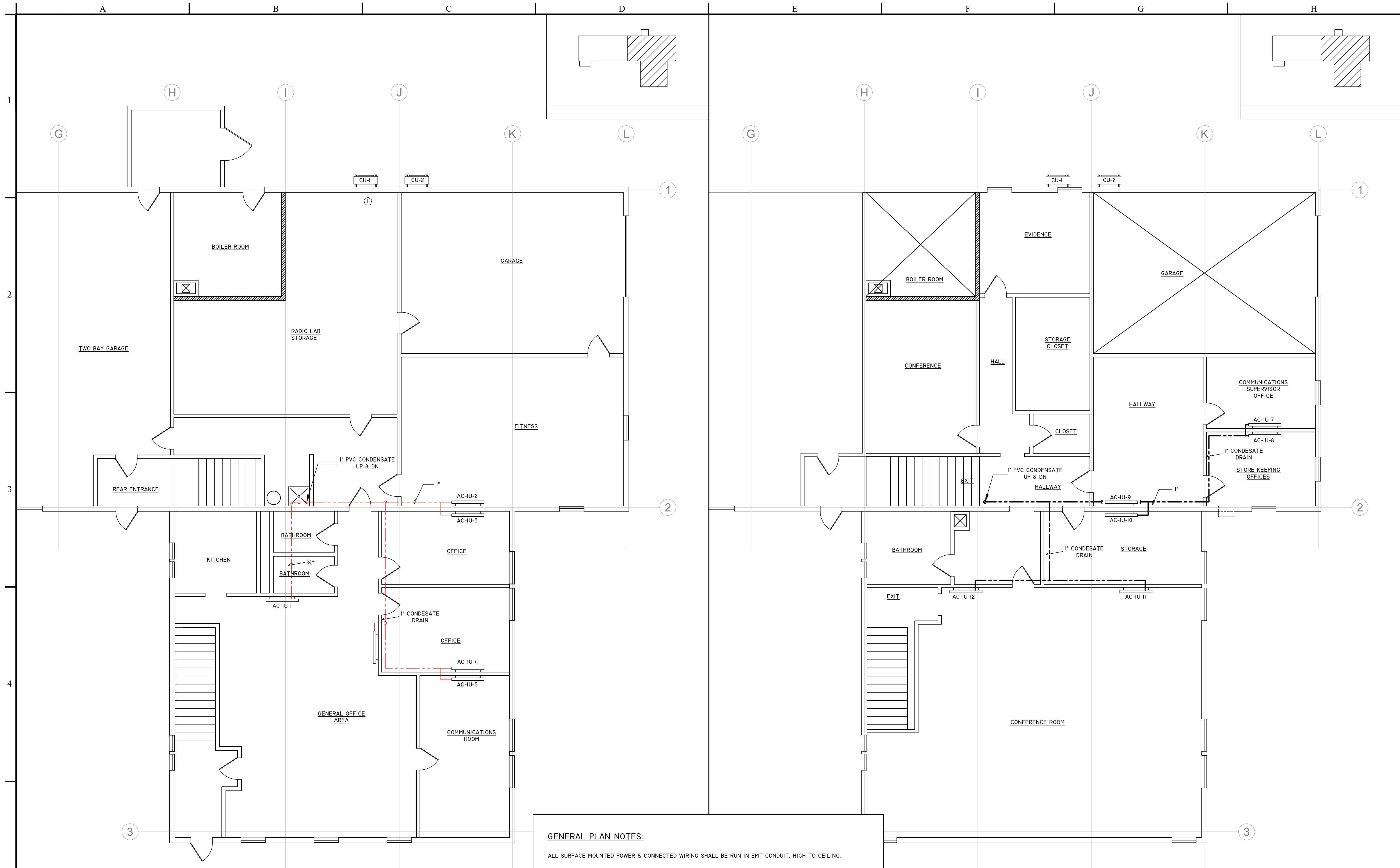
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 AUGUSTA, ME
 MECHANICAL HEATING & AIR
 CONDITIONING PROJECT

REV	DATE	DESCRIPTION

SHEET TITLE:
 ELECTRICAL

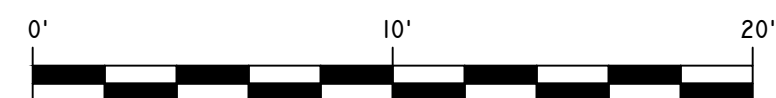
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E-2



PLUMBING 1st FLOOR

SCALE: 3/16"=1'



GENERAL PLAN NOTES:

ALL SURFACE MOUNTED POWER & CONNECTED WIRING SHALL BE RUN IN EMT CONDUIT, HIGH TO CEILING.

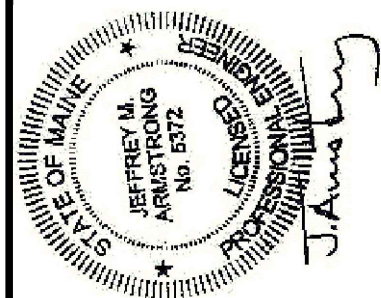
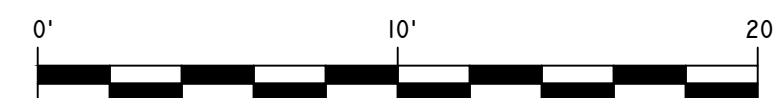
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② PROVIDE 20 AMP OCPD BREAKERS IN PANEL LP-1A TO SERVE 1ST & 2ND FLOOR HEAT PUMP UNITS PER MANUFACTURERS WIRING DIAGRAM.

③ PROVIDE EACH HEAT PUMP UNIT WITH SEPARATE MEANS OF POWER DISCONNECT, TYPICAL FOR ALL.

PLUMBING 2ND FLOOR

SCALE: 3/16"=1'



MAINE FOREST SERVICE
AUGUSTA, ME
 MECHANICAL HEATING & AIR
 CONDITIONING PROJECT

REV	DATE	DESCRIPTION

SHEET TITLE:
 PLUMBING
 1ST AND 2ND
 FLOOR

08/08/2023

P-1