MECHANICAL SPECIFICATIONS:	LENGTH IS 5'. e. FLEXIBLE DUCT USED
1. GENERAL: a. FURNISH ALL LABOR, SUPERVISION, MATERIALS, EQUIPMENT AND FACILITIES NECESSARY TO	
FURNISH, FABRICATE, DELIVER, STORE AND INSTALL ALL WORK NOTED ON THE DRAWINGS AND/OR SPECIFIED HEREIN.	f. DUCTWORK SHALL BE PER 100 FEET.
b. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL WORK NECESSARY TO MAKE A	g. EACH MECHANICAL VI
COMPLETE SYSTEM WHETHER OR NOT SUCH DETAILS ARE MENTIONED IN THESE SPECIFICATIONS OR SHOWN ON THE PLANS, BUT WHICH ARE OBVIOUSLY NECESSARY TO	WITH A MEANS OF SH DAMPERS WHICH CAN
MAKE A COMPLETE SYSTEM, EXCEPTING ONLY THOSE PORTIONS THAT ARE SPECIFICALLY	AND/OR DISCHARGES
MENTIONED HEREIN OR PLAINLY MARKED ON THE ACCOMPANYING DRAWINGS AS BEING INSTALLED UNDER ANOTHER SECTION OF THE SPECIFICATIONS.	h. CLEAN OUT ALL DUCT i. DOUBLE THICKNESS 1
2. WORKMANSHIP:	j. VERIFY ALL UNDERGE
a. THE WORK SHALL BE ACCOMPLISHED IN A THOROUGH AND WORKMAN-LIKE MANNER	DUCTING TO BE CONS
SATISFACTORY TO AND MEETING THE APPROVAL OF THE OWNER AND ARCHITECT.	14.HEATING PIPING: a. HEATING HOT WATER
3. MATERIALS:	
a. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND THE BEST OF THEIR RESPECTIVE KIND, FREE FROM ALL DEFECTS AND OF THE MAKE AND QUALITY SPECIFIED.	OR SILVER SOLDER. C SHALL BE SCHEDULE
	b. VALVES SHALL BE DA
 4. SITE INSPECTION: a. CONTRACTOR SHALL VISIT THE SITE OF WORK PRIOR TO SUBMISSION OF HIS BID AND 	SHALL BE SUITABLE F VALVE MODELS FOR /
THOROUGHLY FAMILIARIZE HIMSELF WITH THE WORKING CONDITIONS & EXACT NATURE OF THE WORK.	c. PROVIDE HANGERS, S REQUIREMENTS. PLU
b. SUBMISSION OF A BID ACKNOWLEDGES FULL RESPONSIBILITY FOR FURNISHING A COMPLETE	d. PIPING SHALL BE SIZE
AND FUNCTIONAL SYSTEM. c. NO CHANGES IN CONTRACT WILL BE MADE TO ACCOMMODATE OR ALLOW EXTRA FUNDS FOR	VELOCITY. UNLESS C COPPER. PROVIDE DE
ANY OMISSION WHICH RESULTS FROM A FAILURE TO THOROUGHLY MAKE THE EXAMINATION.	NOMINAL SIZE.
5. CODES AND PERMITS:	e. CONTROL VALVE CV F ACROSS THE VALVE (
a. ALL MECHANICAL EQUIPMENT, INSTALLATION, ETC., SHALL CONFORM TO THE 2015	f. PROVIDE 3" DIA. X 24"
INTERNATIONAL MECHANICAL CODE (IMC), 2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) AND ORDINANCES AS INTERPRETED BY THE CITY OF STEAMBOAT SPRINGS	AGGREGATE TO NEU g. PROVIDE EXPANSION
BUILDING DÉPARTMENT. b. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS.	50'.
c. COPIES OF ALL PERMITS AND INSPECTION REPORTS SHALL BE SUBMITTED TO THE	15. DUCTWORK INSULATION:
ARCHITECT.	a. ALL DUCTWORK SHAI 604 OF THE 2015 IMC.
6. AS-BUILTS:	b. INSULATION SHALL BE
a. CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS-BUILT DOCUMENTS WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT AND PRIOR TO FINAL	THAN 25 AND SMOKE IMC. INSTALLATION S
ACCEPTANCE AND PAYMENT.	c. RECTANGULAR SUPP
7. GUARANTEE:	A VAPOR RESISTANT d. CONCEALED ROUND,
a. CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE ALL LABOR AND MATERIALS ON ALL WORK AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR	WRAPPED WITH FIBE R-VALUES ARE SPECI
AFTER COMPLETION.	e. ALL SUPPLY, RETURN
8. SUBMITTALS:	SHALL BE INSULATED PLANS.
a. CATALOG INFORMATION AND CUTS OF ALL EQUIPMENT AND DEVICES (WITH ALL OPTIONS	f. ALL SUPPLY DUCTWO
CLEARLY MARKED) SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW (SIX COPIES OF EACH). ELECTRONIC SUBMITTALS PREFERRED. PERFORMANCE SELECTIONS REQUIRED FOR	INSULATED TO A MINI SHALL BE INSULATED
FAN COILS, AIR DEVICES AND PUMPS.	g. ALL OUTDOOR AIR DL BARRIER.
9. COORDINATION:	
 a. THE DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW SCOPE. b. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES TO PROVIDE BEST 	16.PIPING INSULATION: a. ALL HYDRONIC PIPING
ARRANGEMENT OF ALL DUCTS, PIPES, CONDUIT, ETC.	SECTION 1204 OF THE
10.CUTTING AND PATCHING:	b. ALL EXPOSED PIPING WHEREVER ARMAFLE
 ALL CUTTING AND PATCHING REQUIRED OF THE STRUCTURE (NEW OR EXISTING) SHALL BE PROVIDED UNDER OTHER SECTIONS OF THE WORK. 	RADIAL SEAMS. SELF
 b. PROVIDED UNDER OTHER SECTIONS OF THE WORK. b. PROVIDE NECESSARY REQUIREMENTS TO THE PROJECT SUPERINTENDENT. 	c. INSULATION SHALL B THAN 25 AND SMOKE
c. X-RAY SLABS PRIOR TO CORING.	IMC. INSTALLATION S d. ALL HYDRONIC PIPIN
11. CLEANUP:	e. ALL PIPING ROUTED I
a. UPON COMPLETION OF THE WORK UNDER THIS SECTION, THE CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIALS, EQUIPMENT AND DEBRIS INCIDENTAL TO THIS WORK AND LEAVE	SHALL BE INSULATED
THE PREMISES CLEAN AND ORDERLY.	17. TEMPERATURE CONTROL
12.MECHANICAL IDENTIFICATION	a. CONTRACTOR SHALL OPERATION DESCRIB
a. EQUIPMENT NAMEPLATES: METAL, WITH DATA ENGRAVED OR STAMPED, FOR PERMANENT	b. MECHANICAL CONTRA
ATTACHMENT ON EQUIPMENT. b. PIPE MARKERS: PREPRINTED, COLOR CODED, WITH LETTERING INDICATING SERVICE, AND	MANUFACTURERS PR c. THE HVAC SYSTEM S
SHOWING DIRECTION OF FLOW. c. VALVE TAGS: STAMPED OR ENGRAVED WITH 1/4" LETTERS FOR PIPING SYSTEM	TEMPERATURE CONT THERMOSTATS SHAL
ABBREVIATION AND 1/2" NUMBERS, WITH NUMBERING SCHEME. PROVIDE 5/32" HOLE FOR	CAPABILITIES TO MAI
FASTENER. d. VALVE TAG SCHEDULE: PREPARE A VALVE TAG SCHEDULE TO BE SUBMITTED TO THE	d. CONTROLS SHALL BE HEATING AND COOLIN
MAINTENANCE ENGINEER FOR RECORD.	e. THERMOSTATS SHAL
13. DUCTWORK:	SHALL BE MOUNTED / SWITCH.
a. DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE 2015 IMC AND	f. COORDINATE CONTR
SMACNA STANDARDS. b. DUCTWORK SHALL BE GALVANIZED STEEL GAUGES TO MEET SMACNA STANDARDS.	g. ALL THERMOSTATS S
DUCTWORK SIZES INDICATED ARE INSIDE TO INSIDE [OUTSIDE TO OUTSIDE] DIMENSIONS. c. ALL DUCT JOINTS SHALL BE SEALED AIR TIGHT WITH RCD CORP. # 6 MASTIC ADHESIVE WITH	18. GAS APPLIANCE VENTING
c. ALL DUCT JOINTS SHALL BE SEALED AIR TIGHT WITH RCD CORP. #6 MASTIC ADHESIVE WITH VERSA GRIP OR MESH.	a. ACCEPTABLE VENT M COMPLY WITH MANUF

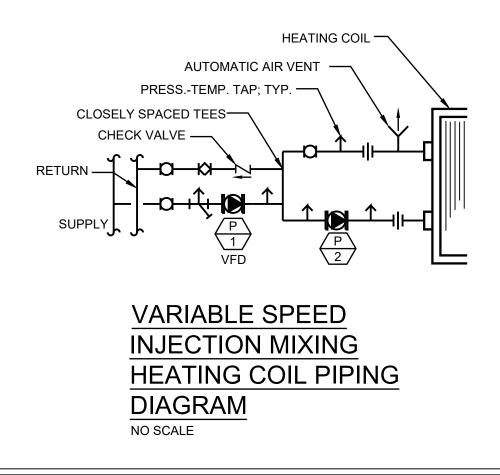
d. ALL FINAL CONNECTIONS TO SUPPLY GRILLES SHALL BE COMPLETED WITH ACOUSTICAL

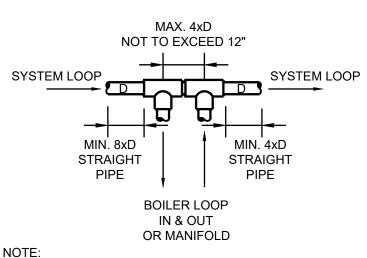
FLEXIBLE DUCT UNLESS OTHERWISE NOTED ON THE PLANS. MINIMUM LENGTH IS 3', MAXIMUM

SEQUENCE OF OPERATION:

FC-1 KITCHEN MAKEUP AIR:

THE FAN COIL SHALL PROVIDE KITCHEN MAKE UP AIR. DURING KITCHEN HOOD OPERATION THE FAN SHALL RUN, P-1 SHALL VARY AND P-2 SHALL START TO PROVIDE 70°F (ADJ.) DISCHARGE AIR TEMPERATURE. ACCORDING TO AN INJECTION CONTROLLER.





DO NOT INSTALL A BALL VALVE IN BETWEEN THE TEES. THIS TEE PURPOSE IS HYDROLIC SEPARATION AND NOT A PURGING TEE. FOR PURGING PROVIDE SEPARATE VALVE WITHIN THE PRIMARY / SECONDARY LOOP.

CLOSELY SPACED TEES DETAIL NO SCALE

AL VENTILATION SYSTEM (SUPPLY AND/OR EXHAUST) SHALL BE EQUIPPED SHUT-OFF WHEN VENTILATION IS NOT REQUIRED, AND BACKDRAFT I CAN BE CLOSED ON FAN SHUTDOWN SHALL BE PROVIDED FOR AIR INTAKES

DUCTS PRIOR TO SUPPLY AND RETURN GRILLE INSTALLATION ESS TURNING VANES SHALL BE USED ON ALL DUCT TURNS OF 90°. ERGROUND DUCTING WITH BLUE DUCT MANUFACTURER. UNDERGROUND CONSTRUCTED AND INSTALLED ACCORDING TO M1601.1.2 OF THE 2015 IRC.

ATER PIPING 2¹/₂" INCHES AND BELOW SHALL BE TYPE "L" COPPER, HARD ROUGHT COPPER SWEAT FITTINGS. JOINTS SHALL BE SOLDERED WITH 95-5 ER. CONDENSER WATER AND HEATING HOT WATER PIPING 3" AND ABOVE OULE 40 BLACK STEEL A-53 SEAMLESS PIPE WITH WELDED FITTINGS. DANFOSS OR EQUAL; SERVICE PRESSURE SHALL BE AS REQUIRED. VALVES LE FOR SERVICE INTENDED. PROVIDE PRESSURE INDEPENDENT CONTROL FOR ALL VARIABLE SPEED SYSTEMS UNLESS NOTED OTHERWISE. RS, SUPPORTS AND INSULATION SADDLES AS REQUIRED AND PER ANSI PLUMBERS TAPE AND WIRE ARE NOT ACCEPTABLE. SIZED AT A MAXIMUM PRESSURE DROP OF 3.5 FT PER 100 FEET & 4 FEET/SEC

SS OTHERWISE NOTED, ALL PIPING SHOWN ON PLANS HAS BEEN SIZED FOR DE DEDUCT ALTERNATE PRICING FOR PEX. IF PEX IS USED, UPSIZE PIPE BY 1 CV RATINGS SHALL BE SELECTED AT A MAXIMUM PRESSURE DIFFERENTIAL

LVE OF 2 PSI. (24" L SCHEDULE 40 PVC INLINE FILTER FILLED WITH LIMESTONE NEUTRALIZE THE BOILER'S CONDENSATE DRAIN. SION JOINTS OR LOOPS ON ALL HEATING WATER PIPING RUNS IN EXCESS OF

SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS PER SECTION

LL BE UL LISTED IN COMPLIANCE WITH A FLAME-SPREAD INDEX NOT MORE OKE DEVELOPED INDEX NOT MORE THAN 50, PER SECTION 604.3 OF THE 2015 ON SHALL BE IN ACCORDANCE WITH IMC REQUIREMENTS. SUPPLY, RETURN & TRANSFER DUCTWORK SHALL BE INTERNALLY LINED WITH

ANT DUCT LINER OF THICKNESSES SPECIFIED BELOW. JND, CONCEALED OVAL & OUTDOOR AIR DUCTS SHALL BE EXTERNALLY BERGLASS INSULATION WITH AN EXTERNAL VAPOR BARRIER. REQUIRED PECIFIED BELOW.

FURN & TRANSFER DUCTWORK LOCATED WITHIN THE BUILDING ENVELOPE ATED TO A MINIMUM OF R-4 (1" LINER) UNLESS SPECIFIED OTHERWISE ON THE

TWORK LOCATED IN ATTICS OR OTHER UNCONDITIONED SPACES SHALL BE MINIMUM OF R-8 (2" LINER). ALL OTHER DUCTS IN UNCONDITIONED SPACES ATED TO A MINIMUM OF R-6 (1-1/2" LINER). IR DUCTS SHALL BE INSULATED TO A MINIMUM OF R-6 WITH A VAPOR

IPING SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS PER THE 2015 IMC.

- PING SHALL UTILIZE FIBERGLASS INSULATION WITH VAPOR BARRIER, AFLEX IS USED, IT MUST BE FIELD TAPED ALONG BOTH LONGITUDINAL AND SELF-ADHEARING ALONE IS NOT ACCEPTABLE.
- LL BE UL LISTED IN COMPLIANCE WITH A FLAME-SPREAD INDEX NOT MORE OKE DEVELOPED INDEX NOT MORE THAN 450, PER SECTION 1204 OF THE 2015 ON SHALL BE IN ACCORDANCE WITH IMC REQUIREMENTS.
- PING SHALL BE INSULATED TO A MINIMUM OF R-3. TED BELOW THE SLAB UNDERGROUND SHALL BE TYPE "K" COPPER AND ATED WITH ARMIFLEX TYPE INSULATION.

ROL DEVICES:

- HALL PROVIDE CONTROLS CAPABLE OF MEETING THE SEQUENCE OF RIBED ON SHEET M1.0.
- ITRACTOR TO COORDINATE ALL REQUIREMENTS WITH UNIT S PRIOR TO PURCHASING.
- EM SHALL BE PROVIDED WITH 7-DAY PROGRAMMABLE AUTOMATIC SPACE ONTROL DEVICES (THERMOSTATS) AS SHOWN ON THE PLANS. THE HALL BE CAPABLE OF SCHEDULING OCCUPANCIES AND PROVIDING SETBACK MAINTAIN ZONE SETPOINTS DOWN TO 55°F OR UP TO 85°F.
- BE CAPABLE OF PROVIDING A DEADBAND OF AT LEAST 5°F BETWEEN OLING HALL HAVE NUMERIC SET POINTS IN °F, ADJUSTABLE SETPOINT STOPS, AND
- TED AT 46" ABOVE FINISHED FLOOR ADJACENT TO THE ROOM'S LIGHT
- NTROL TIE-INS WITH CONTROLS CONTRACTOR AS NECESSARY. TS SHALL BE APPROVED BY THE OWNER.

NT MATERIALS, ROUTING, DISTANCE AND TERMINATION LOCATIONS SHALL COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ALL REQUIREMENTS IN CHAPTER 8 OF THE 2015 IMC. PVC PIPING IS NOT ACCEPTED FOR BOILER OR WATER HEATER VENTING. POLYPROPYLENE PIPING MUST BE APPROVED FOR USE WITH APPLIANCE

- a. HEATING AND CHILLED WATER CONDITIONS SHALL BE WITHIN HARDNESS AND PH RANGE SUITABLE FOR MECHANICAL EQUIPMENT (PER MANUFACTURER). CONTRACTOR TO TEST CONDITIONS PRIOR TO SYSTEM FILL. WATER SOFTENERS OR OTHER DEVICES MAY BE REQUIRED TO IMPROVE WATER QUALITY.
- b. INCLUDE CORROSION INHIBITORS ON ALL PROPYLENE GLYCOL MIXTURES. c. PRIOR TO SYSTEM FILL, ALL TUBING SYSTEMS AND MANIFOLDS SHALL BE CLEANED AS PRESCRIBED BY THE TUBING MANUFACTURER. SUPPLY ALL TOOLS, CONNECTIONS, LABOR, AND ACCESSORIES NECESSARY TO PROPERLY REMOVE ALL FOREIGN MATERIAL, CHEMICAL, AND RESIDUE WITHIN THE TUBING SYSTEM BEFORE PERMANENTLY CHARGING THE SYSTEM AND PLACING INTO OPERATION.
- 20.BEFORE STARTING ANY WORK, THE CONTRACTOR FOR THIS SECTION OF THE WORK SHALL EXAMINE A COMPLETE SET OF DRAWINGS FOR ALL TRADES, INCLUDING ARCHITECTURAL, STRUCTURAL, HVAC, ELECTRICAL, FIRE PROTECTION AND PLUMBING. DIMENSIONS, SPACE REQUIREMENTS AND POINTS OF CONNECTION TO ALL EQUIPMENT SHALL BE VERIFIED, AND ANY MINOR ADJUSTMENTS NECESSARY TO AVOID CONFLICT WITH THE BUILDING STRUCTURE AND THE WORK OF THE OTHER TRADES SHALL BE MADE. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY IF ANY MAJOR CONFLICTS OCCUR.
- 21. COORDINATE LOCATIONS OF ALL ROOF AND EXTERIOR WALL OPENINGS WITH ALL RELEVANT TRADES, AND PROVIDE WATERTIGHT FLASHINGS WHEREVER PENETRATIONS OCCUR. EXACT LOCATIONS AND SIZES MAY BE DEPENDENT UPON EQUIPMENT SELECTIONS; COORDINATE SIZES AND LOCATIONS OF ALL OPENINGS WITH APPROPRIATE EQUIPMENT REQUIREMENTS.
- 22.PERMANENT ACCESS TO EQUIPMENT SHALL BE PROVIDED, AND A MINIMUM OF 30" CLEAR WORKING SPACE IN FRONT OF ACCESS PANELS TO THE COMPRESSOR, BLOWER ASSEMBLY AND AIR FILTER SECTION OF THE EQUIPMENT SHALL BE PROVIDED BY GENERAL CONTRACTOR.
- 23.ALL EQUIPMENT SHALL BE SECURELY FASTENED TO THE BUILDING STRUCTURE WITH CODE APPROVED VIBRATION ISOLATORS.
- 24.EACH PIECE OF EQUIPMENT AND ALL SYSTEMS SHALL BE ADJUSTED AND RE-ADJUSTED TO ENSURE PROPER FUNCTION OF ALL CONTROLS, MAINTENANCE OF TEMPERATURE, ADEQUACY OF FLOWS AND CAPACITIES, ELIMINATION OF NOISE AND VIBRATION, AND SHALL BE LEFT IN PROPER OPERATING CONDITION.

25. TEST & BALANCING:

- a. THE ENTIRE HEATING AND VENTILATING SYSTEM SHALL BE BALANCED BY AN INDEPENDENT CERTIFIED TEST AND BALANCE COMPANY. b. 5 COPIES OF THEIR BALANCE REPORTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW
- AND APPROVAL. ELECTRONIC DISTRIBUTION PREFERRED. c. ALL REQUIRED RE-SHEEVING AND ADJUSTING OF EQUIPMENT SHALL BE MADE BY THE TEST 8
- BALANCE CONTRACTOR. d. ALL FINAL MEASURED CAPACITIES SHALL BE WITHIN 10% OF THOSE INDICATED ON THE PLANS

26.FINAL LOCATION OF GRILLES, REGISTERS & DIFFUSERS SHALL BE PER THE ARCHITECTURAL PLANS, ELEVATIONS OR AS PER FIELD REQUIREMENTS (UPON ACCEPTANCE BY ARCHITECT).

- 27. THE GENERAL CONTRACTOR SHALL FURNISH & INSTALL ALL OF THE REQUIRED ACCESS PANELS THE DRYWALL CEILINGS TO GAIN SERVICE ACCESS TO THE EQUIPMENT. EQUIPMENT WITH MANUFACTURER MANDATED SERVICE REQUIREMENTS INSTALLED WITHIN CRAWLSPACES MUST BE A MAXIMUM OF 20 FEET FROM AN ACCESS PANEL.
- 28.ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTALLATION, OPERATION & MAINTENANCE MANUAL'S RECOMMENDATIONS ESPECIALLY FOR SERVICE CLEARANCES.
- 29.FILTERS:

a. SHALL BE UL RATED AND APPROVED. b. PRESSURE DROPS SHALL NOT EXCEED .10" STATIC PRESSURE.

- 30.ELECTRICAL CONNECTIONS:
- a. UNLESS OTHERWISE INDICATED ALL MAGNETIC MOTOR STARTERS, THERMAL OVERLOADS, LOW VOLTAGE THERMOSTATS, CONTROL RELAYS, CONTROL TRANSFORMERS AND SOLENOID VALVES SHALL BY FURNISHED BY THE MECHANICAL CONTRACTOR.
- b. UNLESS OTHERWISE SPECIFIED, ALL MOTORIZED DAMPERS SHALL BE LOW VOLTAGE. ALL WIRING AND POWER CONNECTIONS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. c. PROVIDE MOTORS AND EQUIPMENT FOR ONLY THOSE CURRENT CHARACTERISTICS
- INDICATED ON THE DRAWINGS. d. IT IS THE INTENT OF THIS DIVISION TO REQUIRE A COMPLETE SYSTEM PER THE CONTRACT
- DOCUMENTS. e. COORDINATE ALL EQUIPMENT REQUIRING ELECTRICAL POWER, REGARDLESS OF VOLTAGE,
- WITH OTHER TRADES, SO THAT ALL SYSTEMS ARE COMPLETE AND OPERATIONAL.
- f. ALL THREE PHASE MOTORS SHALL BE PROVIDED WITH PHASE LOSS PROTECTION. g. ALL SINGLE AND THREE PHASE MOTORS, STARTERS AND DISCONNECTS PROVIDED BY MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR.
- 31. ACOUSTICAL COMPLIANCE
- a. AEC IS NOT ABLE TO PROVIDE ACOUSTICAL MODELING OF EXTERIOR EQUIPMENT, NOR PROVIDE DOCUMENTATION SUPPORTING COMPLIANCE WITH THE CITY OF ASPEN NOISE ORDINANCE. AN ACOUSTICAL CONSULTANT IS RECOMMENDED TO VERIFY COMPLIANCE. NOISE MITIGATION MEASURES (BY OTHERS) MAY BE REQUIRED.

32. TEMPORARY HEATING DURING CONSTRUCTION: a. MECHANICAL EQUIPMENT SHALL NOT BE UTILIZED FOR TEMPORARY HEATING.

				TOTAL					HEATING COIL DATA							ELECTRICAL	DIMENSIONS	OPER.				
NIT	MANUFACTURER &					O.A. CFM	ESP (IN)	HP	TOTAL	AIR S	SIDE			W	ATER SIDE	=		DATA	ווט		SNIC	WT.
TAG MODEL NO.						(111)		MBH	EDB (°F)	LDB (°F)	EWT (°F)	LWT (°F)	GPM	PD (FT) #	# ROWS	SOLUTION	V/PH/Hz	L(IN)	H(IN)	W(IN)	(LBS)	
C-1	CARRIER 39S SIZE 03	KITCHEN MAKEUP AIR	MECH SPACE	1100	1100	0.5	3/4	132.7	-20.0	99.4	180.0	140.0	6.9	5.1	4.0	GLYCOL 30%	115/60/1	37.0	18.0	36.0	309.0	1, 2, 3

ARCH

ARCH

						CHED		
UNIT TAG	MANUFACTURER & MODEL NO.	USE	MOUNTING LOCATION	STYLE	FRAME TYPE	FINISH	MAX SOUND LVL (NC)	
А	TITUS - CT480	SUPPLY	CEILING	0° DEFLECTION LINEAR	COORD. W	COORD. W	25	STEEL C

BAR GRILLE

						LOU	IVER \$	SCHE	DU
UNIT TAG	MANUFACTURER & MODEL NO.	SERVICE	LOCATION	CFM	SIZE (W'xH'')	FACE VELOCITY (FPM)	PRESSURE DROP (IN SP)	FREE AREA (ft²	FRA TYI
L-1	RUSKIN - ELF6375DX	FC-1 FRESH AIR	EXT. S WALL	1,100	12x24	859	0.1	1.28	COO W/AF

PUMP SCHEDU

UNIT MANUFACTURER &		SERVICE	LOCATION	TYPE	GPM	TOTAL HEAD	ELECTRICAL DATA	
TAG	MODEL NO.	SERVICE	LOCATION	TIPE	GPM	(FT)	V / PH / Hz	HP
P-1	GRUNDFOS ALPHA 15	INJECTION PUMP	FC-1, MECH SPACE	INLINE	6.9	-	115/1/60	5-48
P-2	GRUNDFOS UPS 15-58 FC	SYSTEM PUMP	FC-1, MECH SPACE	INLINE	6.9	-	115/1/60	60-8

1-30% PROPYLENE GLYCOL, 2 - 50% PROPYLENE GLYCOL, 3 - VARIABLE SPEED

PROGRESS DRAWINGS - NOT FOR CONSTRUCTION

—CWS-—CWR — SMS -—SMR-— RFS - RFR —_G— -MPG ____0 _____ _____ _____ ____ —× —–|↓⊦ —0— $-\omega$ $-\infty$ $-\bowtie$ $\neg \nabla$ –₩- \cap -12

-++

TYPE	FINISH	REMARKS
OORD. //ARCH	COORD. W/ARCH	-
LE		OR EQUIVALE
ATA		REMARKS
HP\W		
-45 W	1, 3	
)-87 W	1	

CONST	CONSTRUCTION. SEE DRAWINGS FOR LOCATIONS, SIZES, AND SPECIFIED CFMS.						
LE		OR EQUIVALENT					
AME (PE	FINISH	REMARKS					
ORD. RCH	COORD. W/ARCH	-					

REMARKS

ME	CHANICAL LEGEND		E: ALL SYMBOLS SHOWN ON LEGEND
			NOT NECESSARILY USED.
—HWS—	HEATING WATER SUPPLY	OA	OUTDOOR AIR
—HWR—	HEATING WATER RETURN	RA	RETURN AIR
—cws—	CHILLED WATER SUPPLY	SA	SUPPLY AIR
—CWR—	CHILLED WATER RETURN	EA	EXHAUST AIR
— SMS —	SNOWMELT SUPPLY	RAD	RETURN AIR DAMPER
—SMR —	SNOWMELT RETURN	SAD	SUPPLY AIR DAMPER
— RFS —	RADIANT FLOOR SUPPLY	SG	SUPPLY GRILLE
— RFR —	RADIANT FLOOR RETURN	RG	RETURN GRILLE
—G	GAS	TG	TRANSFER GRILLE
— MPG —	MEDIUM PRESSURE NATURAL GAS	SD	SUPPLY DIFFUSER
——0	PIPE RISER	RD	RETURN DIFFUSER
	PIPE DROP	ТА	TRANSFER AIR
	PIPE TAKEOFF (FROM BOTTOM OF MAIN)	\bigcirc	THERMOSTAT
	PIPE TAKEOFF (FROM TOP OF MAIN)	S	SENSOR (CALL OUT ON DRAWINGS)
	PIP END CAP		
<u> </u>			FIRE/SMOKE DAMPER
	PIPE EXPANSION GUIDE PIPE UNION		FIRE DAMPER
—— ——	PIPE ANCHOR		MOTOR OPERATED DAMPER (MOD)
	FLEXIBLE PIPE CONNECTION	ц V т	MANUAL BALANCING DAMPER
	PIPE EXPANSION JOINT POINT OF NEW CONNECTION		
	PUIG VALVE		BACK DRAFT DAMPER (BDD)
	CHECK VALVE		CHANGE OF ELEVATION (D) DROP (R) RISE
—q—	BALL VALVE		FLEXIBLE DUCT CONNECTION
—¢}—	BALANCING VALVE		
$-\infty$	FLOW REGULATOR VALVE	لأتحرج	TURNING VANES IN 90° ELBOW
	BUTTERFLY VALVE	<u>}??x??</u>	DUCT SIZES ARE NET FREE AREA 1ST NO. IS DUCT WIDTH.
	PRESSURE REDUCING VALVE		2ND NO. IS DUCT DEPTH.
	2-WAY CONTROL VALVE		SECTION THRU ROUND DUCT
- k -	3-WAY CONTROL VALVE		SECTION THRU SUPPLY AIR DUCT
	4-WAY CONTROL VALVE		SECTION THRU RETURN/EXHAUST AIR DUCT
A C		\mathbb{S}	ROUND DUCT TURN DOWN
-17	DIFFERENTIAL BYPASS VALVE		SUPPLY DUCT TURN DOWN
-+	STRAINER	21	RETURN/EXHAUST DUCT TURN DOWN
¢,	NATURAL GAS PRESSURE REGULATOR		SUPPLY REGISTER/DIFFUSER/LOUVER
\leftarrow	AIR VENT		RETURN REGISTER/DIFFUSER/LOUVER
\rightarrow	PRESSURE - TEMP. TAP		OUTSIDE AIR REGISTER/DIFFUSER/LOUVER
-	PRESSURE GAUGE		EXHAUST REGISTER/DIFFUSER/LOUVER
-•	THERMOMETER		TRANSFER REGISTER/DIFFUSER/LOUVER
			DOOR UNDERCUT

(A) SECTION CUT LINE (B) SHEET SHOWN ON

OR EQUIVALENT

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	SS/PRICING
Drawn By: NR MECH LI SCHED SPEC SEQUE	'S &
1 of	2

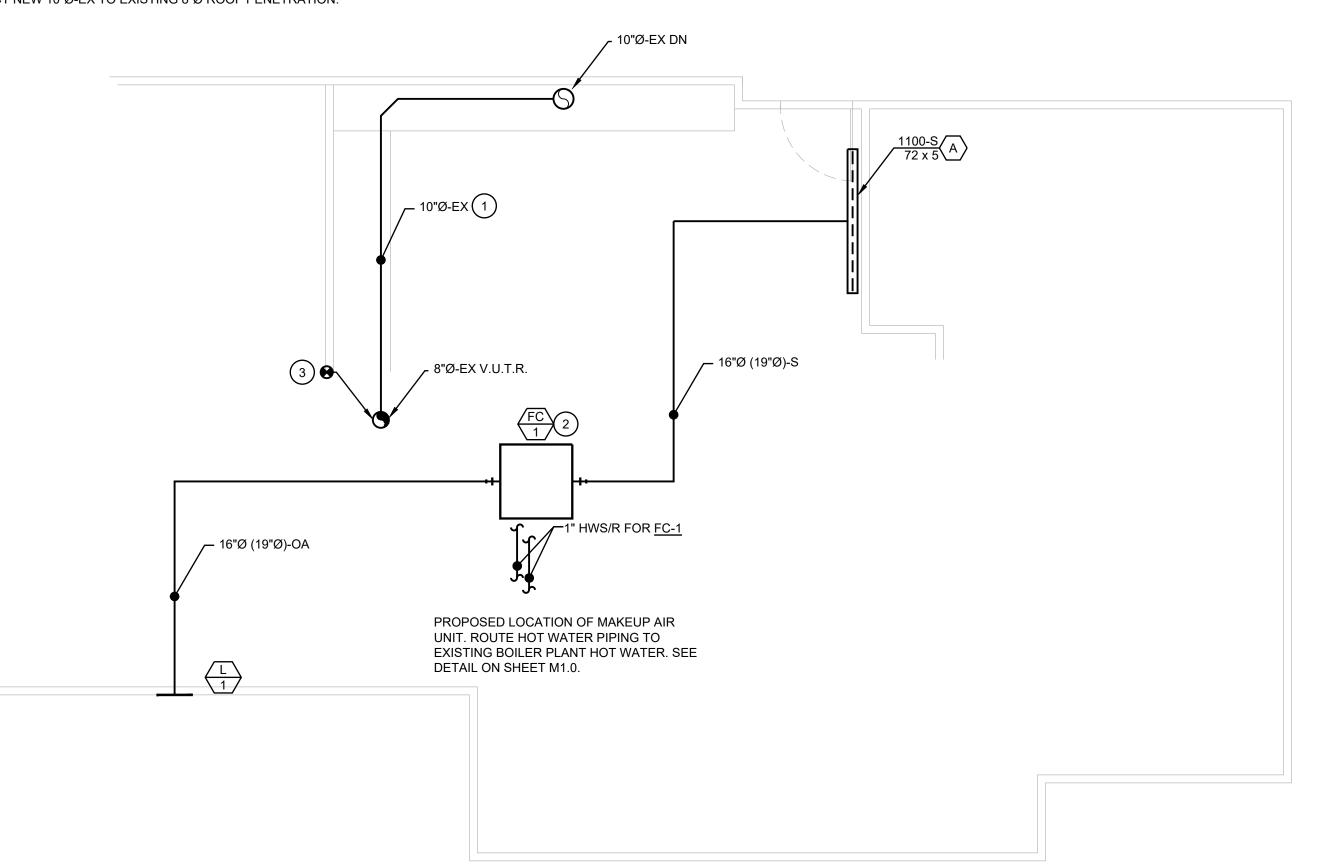
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GENERAL NOTES:

- 1. ALL DUCTWORK DIMENSIONS ARE SHOWN INSIDE TO INSIDE.
- 2. ALL INTERIOR SUPPLY AND RETURN DUCTWORK SHALL INCLUDE 1" LINER UNLESS OTHERWISE NOTED. ALL OUTSIDE AIR INTAKE AND ROUND DUCTWORK SHALL BE WRAPPED WITH 1.5" THICK INSULATION UNLESS OTHERWISE NOTED.
- 3. ALL FINAL DUCTWORK CONNECTIONS TO SUPPLY GRILLES (OR PLENUMS) SHALL BE COMPLETED WITH ACOUSTICAL FLEXIBLE DUCT UNLESS OTHERWISE NOTED AND A MAXIMUM LENGTH OF FIVE FEET.
- 4. ALL ROUND DUCT CONNECTIONS TO ROUND DUCTWORK SHALL BE CONICAL TEES.
- 5. ALL DUCTWORK SHALL BE RUN TIGHT TO UNDERSIDE OF STRUCTURE WHERE IT EXISTS UNLESS OTHERWISE NOTED.
- 6. ALL DUCTWORK PASSING THROUGH FIRE-RATED ASSEMBLIES SHALL INCLUDE FIRE DAMPERS RATED TO MATCH THAT OF THE ASSEMBLY, EVEN WHERE NOT EXPLICITLY NOTED ON THIS PLAN.
- 7. ALL FIRE DAMPERS ARE INTENDED TO BE SPRING OPERATED CURTAIN DAMPERS. ALL FIRE SMOKE DAMPERS ARE INTENDED TO BE EQUIPPED WITH 120V ACTUATORS.
- 8. ALL SUPPLY GRILLES SHALL INCLUDE A BALANCING DAMPER(S), EVEN IF NOT SPECIFICALLY SHOWN, UNLESS OTHERWISE NOTED. IF THE DAMPER IS LOCATED IN AN INACCESSIBLE LOCATION, CABLE-STYLE DAMPERS (ROTOTWIST OR EQUIVALENT) SHALL BE INSTALLED AND SHALL BE ADJUSTABLE FROM THE GRILLE FACE.
- 9. COORDINATE ALL ACCESS PANEL LOCATIONS WITH THE ARCHITECT.
- 10. ALL DUCTWORK SHALL BE SUPPORTED IN ACCORDANCE WITH THE 2015 IMC 603.10 AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

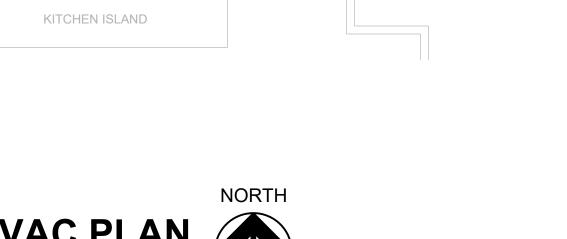
SHEET DETAIL NOTES:

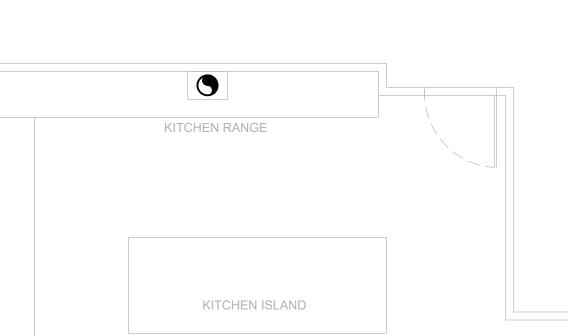
- (1) DEMOLISH EXISTING 8"Ø-EX. REPLACE WITH 15"Ø-EX.
- 2 MAINTAIN ALL SERVICE CLEARANCES PER MANUFACTURER'S RECOMMENDATIONS. LOCATE SUCH THAT UNIT CAN BE ACCESSED FROM EXISTING CATWALK IF POSSIBLE.
- 3 APPROXIMATE LOCATION OF EXISTING KITCHEN EXHAUST. FIELD VERIFY. CONNECT NEW 10"Ø-EX TO EXISTING 8"Ø ROOF PENETRATION.











SCALE: 1/4" = 1'0"



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EDGEMONT - BLDG. A	STEAMBOAT SPRINGS, CO
AEC PR DATE: 01-15-20	Checked By:
	HVAC PLAN ALE $1/4'' = 1'-0''$ M2.0 2 of 2

PROGRESS DRAWINGS - NOT FOR CONSTRUCTION