	PIPING LEGEND		
——×——	GATE VALVE (OUTSIDE SCREW & YOKE UNLESS SPECIFIED OTHERWISE)		
——XX———	GLOBE VALVE (OUTSIDE SCREW & YOKE UNLESS SPECIFIED OTHERWISE)		2
—∙ф⊢——	BALL VALVE		-M
—	BUTTERFLY VALVE		
φ⊧	HOSE END BALL VALVE WITH CAP AND CHAIN		٩LV
+≩+	PLUG VALVE		M
	PRESSURE REDUCING VALVE		٩X
	CHECK VALVE (SILENT CHECK TYPE ON PUMP DISCHARGE)	мо	3H CA ECH
	STRAINER WITH HOSE END BLOWOFF VALVE, CAP AND CHAIN		N
-È	2-WAY MODULATING PRESSURE INDEPENDENT ACV	N PS	ГS
-Å	2-WAY AUTOMATIC CONTROL VALVE (MODULATING)	PS	SIA
	2-WAY AUTOMATIC CONTROL VALVE (TWO POSITION)		
	3-WAY AUTOMATIC CONTROL VALVE (MODULATING)		
	TRIPLE DUTY PUMP VALVE, CHECK, BALANCING (FLOW METER), SHUT-OFF		
æ	RELIEF/SAFETY VALVE	1.	T B
	UNION	2.	T A
	BLIND FLANGE		C
]	PIPE - CAPPED		
- >	DIRECTION OF FLOW	3.	T D
— × ——	PIPE ANCHOR		A
=	PIPE GUIDE		S
O	PIPE CONNECTION - TOP	4.	C E
	PIPE CONNECTION - BOTTOM		F
`	PIPE - DOWN	5.	E
o	PIPE - UP		D
	RISE (DOUBLE LINE - PLAN VIEW)	6.	II
	DROP (DOUBLE LINE - PLAN VIEW)	7.	P
36	PIPE BREAK (DOUBLE LINE)	8.	
<u> </u>	PIPE BREAK (SINGLE LINE)		N
		_{9.}	A P
			H H
U/	ALLOUT SYMBOLS	I	

Θ	CONNECT NEW TO EXISTING
	LIMIT OF DEMOLITION

PIPING ABBREVIATIONS

D	DRAIN
——— FOR ———	FUEL OIL RETURN
——— FOS ———	FUEL OIL SUPPLY
——— HWR ———	HOT WATER RETURN
——— HWS ———	HOT WATER SUPPLY
<i>┼┼┼</i> (NAME) <i>┼┼┼</i>	REMOVE EXISTING PIPING
– — — –HCR– — –	HOT/COLD WATER RETURN
HCS	HOT/COLD WATER SUPPLY

	F
•	THE DEMOLITION PLANS INDI BE REMOVED OR RETAINED.
•	THE LOCATIONS OF EXISTING ARE SHOWN IN AN APPROXIM COMMENCEMENT OF WORK T WORK.
	TRACE AND LABEL ALL EXIST DISCONNECTION AND REMOV AFFECTED. REVIEW IN DETAIL AND REMAIN PRIOR TO WORK SERVICES OUTSIDE THE DEM
•	COORDINATE EQUIPMENT RE EQUIPMENT BY UNFASTENING FROM THE BUILDING, LEAVING
	EXERCISE CARE WITH EQUIP EXAMINE THE EQUIPMENT BE DETERMINE ITS CONDITION. D DESIGNATED BY THE OWNER
•	INSTALL RELOCATED EQUIPM
•	PROMPTLY REPAIR ANY DAM/ IS NOT LIMITED TO DESTRUCT
-	NOTIFY THE OWNER'S REPRE ENCOUNTERED DURING THE
	ALL ITEMS REMOVED SHALL E POSSESSION, DISPOSE OF TH HAZARDOUS SHALL BE DISPO MANIFEST SHALL BE PROVIDE
0.	ENSURE THE SAFE PASSAGE INJURY TO PERSONS AND DA PREVENT COLLAPSE. IMMEDI DAMAGED. TAKE EFFECTIVE N
1.	DO NOT USE CUTTING TORCH

HES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SUCH AS PIPE INTERIORS OR SHAFTS, VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STARTING FLAME-CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND PORTABLE FIRE-SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS. MAINTAIN ADEQUATE VENTILATION WHEN USING CUTTING TORCHES.

14. ALL DEMOLITION SCOPE ASSOCIATED WITH LOW VOLTAGE WIRING FOR CONTROLS AND ASSOCIATED INTERLOCKS SHALL BE INCLUDED IN THIS CONTRACT.

ABBREVIATIONS

<u>L</u>		
ABOVE FINISHED FLOOR ACCESS PANEL AUTOMATIC TEMPERATURE CONTROL CUBIC FEET PER MINUTE DOWN DIFFERENTIAL PRESSURE TRANSMITTER	PSID PSIG REQ'D T TYP X	POUNDS PER SQUARE INCH DIFFERENTIAL POUNDS PER SQUARE INCH GAUGE REQUIRED TEMPERATURE TYPICAL EXISTING EQUIPMENT TO BE REMOVED
EXISTING	хм	EXISTING EQUIPMENT TO BE REMOVED
GALLONS	XN	NEW LOCATION OF RELOCATED EQUIPMENT
GALVANIZED	XR	EXISTING EQUIPMENT TO BE RELOCATED
GENERAL CONTRACTOR		
GALLONS PER MINUTE	<u>BOILER</u>	
HEAD	В	BOILER
	<u>HOT WAT</u>	ER
THOUSAND BTUH MINIMUM CIRCUIT AMPS	HW	HOT WATER
MECHANICAL	HWR	HOT WATER RETURN
MINIMUM	HWS	HOT WATER SUPPLY
NOT APPLICABLE NOT TO SCALE	<u>PIPING</u>	
POUNDS PER SQUARE INCH POUNDS PER SQUARE INCH ABSOLUTE	MU	MAKE-UP WATER

HVAC DEMOLITION NOTES

CATE THE GENERAL INTENT AND ARE NOT INTENDED TO SHOW ALL ITEMS TO

G EQUIPMENT INCLUDING PIPING, DUCTWORK, EQUIPMENT, CONDUITS, ETC MATE WAY ONLY. VISIT THE SITE PRIOR TO SUBMISSION OF THE BIDS AND TO BECOME FAMILIAR WITH THE ACTUAL CONDITIONS AND EXTENT OF THE

ING SYSTEMS WITHIN THE DEMOLITION AREA AND BEYOND PRIOR TO AL TO ENSURE THAT NO AREA OUTSIDE THE DEMOLITION AREA IS L WITH THE GENERAL CONTRACTOR AND OWNER WHAT IS TO BE REMOVED K COMMENCING THE DEMOLITION. THERE SHALL BE NO INTERRUPTION OF MOLITION AREA WITHOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE.

MOVAL WITH ALL PARTIES TO PROVIDE DISCONNECTION. REMOVE G AT THE SUPPORTS OR ATTACHMENTS. ALSO REMOVE THE ATTACHMENTS G NO COMPONENT OF THE ORIGINAL INSTALLATION.

MENT THAT IS TO BE RELOCATED OR TURNED OVER TO THE OWNER. FORE REMOVAL IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE TO DELIVER OWNER-RETAINED EQUIPMENT TO AN ON-SITE LOCATION AND OBTAIN ACKNOWLEDGMENT OF RECEIPT IN ORIGINAL CONDITION.

IENT IN ORIGINAL CONDITION ENSURING NO DAMAGE.

AGE CAUSED DURING/BY THE EXECUTION OF WORK. DAMAGE INCLUDES BUT TION OF ITEMS INTENDED TO REMAIN OR TO BE SALVAGED.

ESENTATIVE IMMEDIATELY OF ANY UNANTICIPATED HIDDEN CONDITIONS DEMOLITION.

BE OFFERED TO THE OWNER FOR SALVAGE. IF THE OWNER DOES NOT TAKE HE ITEMS IN A SAFE AND LEGAL MANNER. ALL ITEMS CLASSIFIED AS DSED AS HAZARDOUS WASTES AND A UNIFORM HAZARDOUS WASTE ED TO THE OWNER.

OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION. PREVENT MAGE TO PROPERTY. PROVIDE ADEQUATE SHORING AND BRACING TO ATELY REPAIR DAMAGED PROPERTY TO THE CONDITION BEFORE BEING MEASURES TO PREVENT WINDBLOWN DUST.

12. DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT, AND PROPERLY DISPOSE OF CHEMICALS, LIQUIDS, GASES, EXPLOSIVES, ACIDS, FLAMMABLES, OR OTHER DANGEROUS MATERIALS BEFORE PROCEEDING

13. PROPERLY LABEL ALL UNLABLED PIPES THAT REMAIN WITH COLOR PIPE MARKERS AND VALVE TAGS. MOUNT A VALVE AND SERVICE CHART IN THE AREA OF DEMOLITION THAT IDENTIFIES ALL LABELED SERVICES. TURN ONE COPY OF SAME OVER TO THE OWNER.

HVAC GENERAL NOTES

- GENERAL NOTES APPLY TO ALL DRAWINGS.
- THIS PROJECT INVOLVES CONSTRUCTION INSIDE AN EXISTING STRUCTURE. CONTRACTORS, BY SUBMITTING A BID, ARE DEEMED TO BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITION OF THE BUILDING AS IT INFLUENCES THE WORK DESCRIBED. ABSOLUTELY NO CLAIMS FOR EXTRA COMPENSATION WILL BE CONSIDERED FOR EXISTING CONDITIONS VISIBLE OR REASONABLY INFERABLE FROM A CAREFUL EXAMINATION OF THE EXISTING BUILDING.
- THIS CONTRACTOR SHALL INSPECT THE EXISTING FIELD CONDITIONS AT THE SITE AND 3. THE "AS-BUILT" BASE BUILDING CONTRACT DOCUMENTS PRIOR TO THE START OF ANY WORK TO DETERMINE WHAT EFFECT THE EXISTING CONDITIONS WILL HAVE ON HIS WORK. POTENTIAL PROBLEM AREAS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- THIS CONTRACTOR SHALL CONNECT HIS WORK TO VARIOUS EXISTING PIPING, DUCTWORK, AND CONTROL SYSTEMS IN THE BASE BUILDING. THE NEW WORK SHALL BE COMPATIBLE WITH THE EXISTING SYSTEMS. LOCATION OF EQUIPMENT OR THE ROUTING OF THE VARIOUS SYSTEMS AS WELL AS OPENINGS IN FLOOR SLABS OR WALLS SHALL BE GOVERNED BY THE EXISTING CONDITIONS AS THEY APPEAR IN THE FIELD OR ON THE "AS-BUILT" DRAWINGS.
- CARE SHALL BE TAKEN DURING THE INSTALLATION TO NOT DAMAGE OR INTERRUPT 5. BUILDING SYSTEMS AND SERVICES THAT ARE ALREADY INSTALLED. DAMAGE TO SUCH SYSTEMS OR EQUIPMENT CAUSED BY THIS CONTRACTOR DURING INSTALLATION SHALL BE REPAIRED AND/OR REPLACED AT THIS CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE BUILDING OWNER.
- SHUTDOWN OF EXISTING SYSTEMS FOR CONNECTION TO EXISTING SERVICES SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR AND BUILDING OWNER. THIS CONTRACTOR SHALL SUBMIT REQUESTS, WHERE THEY AFFECT THE OPERATION OF THE BUILDING SYSTEMS, AT LEAST ONE WEEK IN ADVANCE OF ANY REQUIRED SHUTDOWN. THE ACTUAL SHUTDOWN PERIOD SHALL BE AS SHORT AS POSSIBLE AND AT A TIME MUTUALLY AGREEABLE TO THE BUILDING OWNER AND THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR.
- DRAWINGS ARE DIAGRAMMATIC, THEREFORE DETERMINE EXACT LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.
- ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING 8. AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- VERIFY ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED 9. DRAWINGS. VERIFY AND PROVIDE DUCT AND/OR PIPE TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DIMENSIONS BEFORE FABRICATION.
- 10. ALL MATERIALS AND EQUIPMENT UNLESS SPECIFICALLY INDICATED AS REUSED, SHALL BE NEW.
- 11. EXISTING ROOM THERMOSTATS AND SENSORS SHALL BE PROTECTED DURING CONSTRUCTION AND RELOCATED AS INDICATED ON THE DRAWINGS. INSTALL NEW AND RELOCATED ROOM THERMOSTATS AND SENSORS 4 FEET AFF OR AS DIRECTED OTHERWISE BY ARCHITECT.
- 12. CONTRACTOR SHALL PROVIDE THE FOLLOWING SERVICES, AS APPLICABLE, ON ALL EXISTING HVAC EQUIPMENT INDICATED TO BE REUSED: 1) FILTER CHANGES, 2) BALANCING, 3) LUBRICATION. CONTRACTOR SHALL REPORT ANY EQUIPMENT DEFICIENCIES FOUND TO THE ARCHITECT AND/OR ENGINEER.
- 13. THE FIRE PROOFING OF THE BUILDING STRUCTURE IS NOT TO BE REMOVED FOR THE INSTALLATION OF HANGERS, SUPPORTS, DUCTWORK, ETC. IF FIRE PROOFING IS DAMAGED, IT SHALL BE REPAIRED AT THE EXPENSE OF THE TRADE.
- 14. CONTRACTOR SHALL TEST AND CALIBRATE ALL CONTROLS AND VERIFY ALL ARE FULLY FUNCTIONAL AND SUBMIT DOCUMENTATION. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 15. CONTRACTOR SHALL PROVIDE AND SUBMIT DOCUMENTATION FOR TESTING AND BALANCING OF ALL AIR AND WATER SYSTEMS, DUCT AND PIPING PRESSURE AND LEAKAGE TESTS, OPERATING AND MAINTENANCE MANUALS, AND AS BUILT DRAWINGS. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 16. REFER TO THE PROJECT SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- 17. MANY EQUIPMENT SCHEDULES DO NOT LIST QUANTITIES. CONTRACTOR SHALL REFER TO ALL DRAWINGS AND PROVIDE THE REQUIRED QUANTITIES FOR ALL COMPONENTS.
- 18. THESE DRAWINGS ARE NOT COMPLETE AND THERE WILL BE REVISIONS ISSUED.

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REVISIONS DATE CHK DESCRIPTION 07/25/19 JFL ADDENDUM #1

SEAL

PROJECT

NUMBER-0190327

DATE-07/18/2019

BLUEBERRY HILL SCHOOL BOILER REPLACEMENT

DRAWING

DRAWN BY SRL

CHECKED BY JFL

SCALE-----1/8" = 1'-0"

HVAC LEGENDS AND NOTES

ADDENDUM #1 07-25-2019