

ADDENDUM

Project: Ragsdale High School Boiler Replacement Project

Project Number: 082423

Addendum Number: I

Issue Date: January 24, 2024

This Addendum is hereby made a part of the Contract Documents to the same extent as if originally included therein. This Addendum must be acknowledged on the Form of Proposal.

The following additions, deletions, clarifications and modifications are hereby made a part of the contract for the above referenced project.

DRAWINGS

Item No. 1: Sheet M2.1

1. Revisions to pump B-3 and B-4.

Item No. 2: Sheet M3.1

- I. Added plans for the demolition plan and new plan for the Shop Building Boiler Replacement (alternate 2 and 3).
- 2. Modified the schedules to show boiler, air separator, and expansion tank for the boiler replacement.

Item No. 3: Sheet E3.1:

1. New sheet that shows power for the shop building boiler.

Please submit any additional questions and comments as soon as you are able. We will issue a response as part of the next addendum.

End of Addendum

Phone: (336) 209-0431

Email: info@palma-engineers.com

BOILER REPLACEMENT

LUCY C. RAGSDALE HIGH SCHOOL

1000 LUCY RAGSDALE DRIVE JAMESTOWN, NC 27282

GUILFORD COUNTY SCHOOL PROJECT MANAGER: PALMA ENGINEERS PROJECT NUMBER:

TRACY NANCE 082423

DECION " DECION " DECION

BUILDING CODE SUMMERY FOR ALL COMMERCIAL PROJECTS

Name of Pro		ND 2-FAMILY DW	ELLINGS AND	TOWNHOUSES	<u> </u>
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	: BOILER REPLAC				
	<u></u>	TRACY NANCE	**	36-370-239	
	City/County				
		•			
LEAD DESI	N PROFESSIONAL:	JOEL PALMA, PE			
	FIRM	NAME	LICENSE #	TELEPHONE #	E-Mail
ral Architect/Civil	PALMA ENGINEERS	JOEL PALMA	NC# 025032	336-294-5501	joel@palma-engineering.com
ı	PALMA ENGINEERS	JOEL PALMA	NC# 025032	336-294-5501	joel@palma-engineering.com
Standpipe					
Wall >5' High					
2009 EDIT	ON OF NC CODE FOR	: □New Constructio	on DAddition	Upfit	
			Addition	<u> </u>	
	Reconstruction Al	•	SELLOV TTT	<u> </u>	-NT 1105
CONSTRUC	ED ORIGINA	L USE F	RENOVATED	CURRI	ENT USE
BUILDING D	 ΔΤΔ				
Construction		·A □III−A □IV	□ V-A		
	□I−B □II−	·B ⊠III−B	□ V−B		
Comindatores	Mixed Construc		Yes Types:		
Sprinklers: Standpipes:	No □ Partial □		NFPA ISR Wet □C		
Fire District:	□ No ⊠ Yes Flo	ood Hazard Area 🛛 N	No ☐ Yes		
Building Heig	nt: <u>38'−0"</u> ⊠No □ Yes	Number 0	f Stories: $\frac{2}{}$		
Mezzanine:	⊠ivo □ ies				
Gross Buildir FLOOR Basement 1st Floor Mezzanine	Area: EXISTING (SQ FT) N/A	NEW (SQ FT)		JB-TOTAL (SQ FT N/A	
2nd Floor 3rd Floor					<u> </u>
	TOTAL GROSS AR	EA:N/A	sq. ft.		_
		ALLOWABLE AREA	١		
Primary Occ	·		2 <u>□</u> A−3 □ A		
	siness ⊠Educatio rdous □H—1 Det	nal Factoı onate □H−2 Deflagr	-	rate □F−2 Low nbust □H−4 Hea	alth II H_5 HDM
		onate □ H=2 Deflagr I=2 □ I=3 □ I=4		bust □ Π-4 He0	arur∟ii∸J HFM
	I-3 Use Co	ondition 🔲 1	□ 2 □ 3		
□м	rcantile Resident	ial □R−1 □R−: derate □S−2 Low	2		
Ct -	ge ⊔ S−1 Mod				air Garage
Stor □ U	lity and Miscellaneous	∐ Parkina Gar	age ∟∪open i i	Enclosed Likeb	an ourage
□U Secondary C	cupancy:				
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Frontage area increases from Section 506.2 area computed thus:	
a. Perimeter which fronts a public way or open space having 20 feet minimum width =	(F)
b. Total Building Perimeter = (P)	

- c. Ratio $(F/P) = \underline{\hspace{1cm}} (F/P)$
- d. W = Minimum Width of public way = ____ (W)
 e. Percent of frontage increase I_f = 100 [F/P-0.25]xW/30 = ____ (%)
- 2. The sprinkler increase per Section 506.3 is as follows: a. Multi-story building I_s = 200%
- b. Single story building $l_s = 300\%$
- 3. Unlimited area applicable under conditions of Sections Group B, F, M, S, A-3, A-4 (507); Group A motion picture (507.10); covered mall buildings (402.6); and H-2 aircraft paint hangers (507.8).
- 4. Maximum Building Area = total number of stories in the building x E (506.4).
 5. The maximum area of parking garages must comply with 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2

FIRE PROTECTION REQUIREMENTS 601

	FIRE		RATING	DETA	//	DESIGN #	DESIGN #	DESIGN #
BUILDING ELEMENT	SEPARATION DISTANCE (FEET)	REQ'D	PROVIDED (w/* REDUCTION)	AN SHEE	ND	FOR " RATED ASSEMBLY	FOR " RATED PEN.	FOR " RATED JOINTS
Structural frame,	0	0	0	A SI	ERIES			
including columns,	О	o	0		1			
girders, trusses	О	0	0					
Bearing Walls	0	0	0					
Exterior	o	0	o					
North	o	o	o					
East	О	o	О					
West	o	o	О					
South	0	o	o					
Interior	0	О	0					
Nonbearing walls and partitions	o	0	0					
Exterior	0	0	0					
North	О	О	О					
East	o	0	О					
West	О	o	О					
South	0	0	0					
Floor construction Including supporting beams and joist	o	o	0					
Roof construction Including supporting beams and joist	o	o	0					
Shafts — Exit	o	o	О					
Shafts — Other	o	О	0					
Corridor Separation	0	0	0					
Occupancy Separation	o	0	0					
Party/Fire Wall Sep.	0	0	0	<u> </u>	<u> </u>			
Smoke Barrier Sep.	0	0	0	\Box	<u> </u>			
Tenant Separation	0	0	o	<u> </u>	<u>/</u>			

* Indicate section number permitting reduction

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	□No	Yes	Smoke Detection Systems:	□No
Exit Signs:	□No	Yes	Panic Hardware:	□No
Fire Alarm:	□No	⊠ Yes		

STORY NO.	DESCRIPTION AND USE	(A) BLDG. AREA PER STORY (ACTUAL)	(B) TABLE 503 ⁵ AREA	(C) AREA FOR FRONTAGE INCREASE 1	(D) AREA FOR SPRINKLER INCREASE 2	(E) ALLOWABLE AREA OR UNLIMITED ³	(F) MAXIMUN BUILDING AREA
BASEMENT	EDUCATIONAL	1,198	14,500	-			14,500

EXIT WIDTH

	(a)	(b)	(c)		EXIT WIDTH	(in) ^{2, 3, 4, 5}	5, 6	
USE GROUP OR SPACE DESCRIPTION	AREA ¹ sq. ft.	OCCUPANT I		EGRESS WIDTH PER OCCUPANT (TABLE 1005.1)		REQ'D WIDTH (SECTION 1005.1) (a/b) x c		ACTUAL WIDTH SHOWN ON PLANS	
		(TABLE 1004.1.2)	STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL	
BOILER ROOM	1,198	1,198/300 (GROSS)=4	0.30	0.20	90.0	60.0	77.0*	90.0	
* EXEMPT PER 1	* EXEMPT PER 1015.3								

- 1. See Table 1004.1.1 to determine whether net or gross area is applicable. See definition "Area, Gross" and "Area, Net" (Section 1002)
- 2. The sprinkler increase per Section 506.3 is as follows: . Multi-story building Is = 200 percent d. Single story building Is = 300 percent
- 3. Minimum stairway width (Section 1009); min. corridor width (Section 1016.2; min. door width (Section 1008.1.1) 4. Minimum width of exit passageway (Section 1020.2)
- 5. The loss of one means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1005.1)
- 6. Assembly Occupancies (Section 1024)

STRUCTURAL REQUIREMENTS: NONE FOR THIS PROJECT

MECHANICAL/ELECTRICAL/PLUMBING REQUIREMENTS: SEE ATTACHED

PLUMBING FIXTURE REQUIREMENTS: NONE FOR THIS PROJECT

EXIT REQUIREMENTS NUMBER AND ARRANGEMENT OF EXITS

1. Corridor dead ends (SECTION 1016.3)

		IMENT OF EXITS	 Single exits (TABLE 101 Common Path of Trave 				
FLOOR, ROOM OR SPACE	MINIMUM ² NUMBER OF EXITS		TRAVEL D	ISTANCE	ARRANGEMENT MEANS OF EGRESS ^{1,3} (SECTION 1013.1)		
DESIGNATION	REQ'D	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1015.1)(ft)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS (ft)	REQUIRED DIST. BETWEEN EXIT DOORS (ft)	ACTUAL DIST. SHOWN ON PLANS (ft)	
BOILER ROOM (LOWER)	2 PER IBC 1015.3	2	200 (UNSPRINKLED)	60'-0"	23'-0"	28'-0"	

OWNER



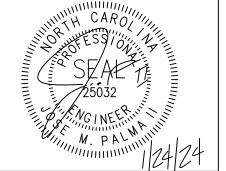
712 NORTH EUGENE STREET, GREENSBORO, NC 27401

DESIGNER



info@palma-engineers.com P:(336)209-0431 NC LIC# P-0380

PO Box 18822



Greensboro, NC 27419

BASIC CRITERIA FOR CONSTRUCTION ACTIVITIES

- THE CONTRACTOR SHALL OBSERVE THE FOLLOWING INSTRUCTIONS FOR WORKING WITHIN THE CAMPUS AREA. THESE WILL INCLUDE BUT NOT BE LIMITED TO:
- 1. ALL SHUTDOWN WILL BE COORDINATED AND APPROVED THROUGH THE OWNER'S REPRESENTATIVE AND WILL REQUIRE ADVANCE NOTICE OF TWO DAYS FOR SHUTDOWNS THAT AFFECT ADMINISTRATION OPERATIONS AND/OR SYSTEMS. THIS TIME LENGTH MAY BE LONGER OR SHORTER FOR SOME SHUTDOWNS AT THE OWNER'S DISCRETION. SOME SHUTDOWNS MAY BE MORE DIFFICULT TO ARRANGE WHERE OFFICE OPERATIONS ARE ADVERSELY AFFECTED, ESPECIALLY ADMINISTRATIVE ACTIVITIES. ALL SHUTDOWNS WILL BE INITIATED AND CONTROLLED BY BUILDING STAFF. IN GENERAL THE CONTRACTOR MAY NOT SHUTDOWN ANY OPERATING SYSTEM AFFECTING OTHER AREAS OF THE BUILDING WITHOUT AUTHORIZATION FROM OWNER. PROVIDE MINIMUM 48 HOURS NOTICE.
- ALL AREAS ON THE BUILDING OUTSIDE THE MAIN PROJECT LIMITS IN WHICH WORK MUST TAKE PLACE WILL BE CLEANED AND RETURNED TO NORMAL CONDITIONS AT THE END OF EACH DAY. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE EACH DAY BEFORE LEAVING THE CONTRACT PROJECT LIMITS AND ENTERING THE BUILDING; AND SHALL CHECK OUT EACH DAY WITH SAID REPRESENTATIVE REGARDING THE CLEANLINESS OF THE AREA IN WHICH WORK TOOK PLACE.
- ALL WORK IN OPERATIONAL ROADWAYS AND INTERSECTIONS AND/OR MERGING CONSTRUCTION TRAFFIC W/ PUBLIC AND WHERE SCHEDULED WHETHER LOADING, UNLOADING CONSTRUCTION WILL BE IMPLEMENTED ONLY WITH THE USE OF A FLAGMAN DEDICATED TO THE PURPOSE ONLY OF DIRECTING TRAFFIC AT THE FRONT, REAR OR PINT OF SUCH WORK.
- 4. ANY WORK TAKING PLACE IN A PUBLIC WALKWAY OR SIDEWALK ON A PER DAY BASIS SHALL BE MARKED AT FRONT AND REAR WITH ORANGE SAFETY CONES OR SOME OTHER SUITABLE CAUTIONARY DISPLAY.
- 5. ANY CONTRACTOR, OR EMPLOYEE OF SAME, WHO MUST ENTER THE BUILDING TO PERFORM CONSTRUCTION WORK MUST OBTAIN APPROPRIATE NAME TAGS. NO CONSTRUCTION PERSONNEL WILL BE PERMITTED OUTSIDE THE PROJECT LIMITS AND WITHIN OPERATIONAL AREAS OF THE BUILDING WITHOUT NAME TAGS. TAGS SHALL INDICATE NAME OF INDIVIDUAL AND COMPANY.
- 6. NO CONSTRUCTION PERSONNEL, WITH OR WITHOUT NAME TAGS, SHALL BE PERMITTED WITHIN THE BUILDING EXCEPT FOR THE EXPLICIT PURPOSE OF PERFORMING THEIR CONTRACTED CONSTRUCTION WORK. BUILDING FACILITIES, INCLUDING BUT NOT LIMITED TO OFFICES, MEETING ROOMS. TOILETS, ETC. SHALL BE OFF LIMITS EXCEPT THOSE EXPRESSLY DESIGNATED FOR CONTRACTOR USE.
- 7. CONSTRUCTION ACTIVITY MUST NOT UNDULY JEOPARDIZE BUILDING OPERATIONS, WHERE, IN THE OPINION OF THE ENGINEER OR GCS CONSTRUCTION MANAGEMENT OFFICE, THE CONTRACTOR'S ACTIVITIES ARE SERIOUSLY HAMPERING BUILDING OPERATIONS OR WHERE OPERATIONS ARE DEEMED AT RISK. THE CONTRACTOR WILL BE DIRECTED BY GCS CONSTRUCTION MANAGEMENT OFFICE TO CEASE SAID ACTIVITIES UNTIL OTHER MEANS AND METHODS CAN BE MUTUALLY AGREED UPON.
- 8. GCS WILL NOT RECEIVE, UNLOAD, SIGN FOR, OR STORE ANY DELIVERIES ATTEMPTING TO BE MADE TO ANY CONTRACTOR(S). THE CONTRACTOR(S) WILL THEMSELVES RECEIVE, UNLOAD, SIGN FOR AND STORE ALL SUCH DELIVERIES FOR THEIR CONSTRUCTION PROJECTS, AT THE JOB SITE STAGING AREA, ETC., AND BE RESPONSIBLE FOR SAME.
- 9. THE CONTRACTOR SHALL TURN OVER TO THE OWNER, AT GCS FACILITIES MANAGEMENT'S DESIGNATED PLACE OF STORAGE, A QUANTITY OF SURPLUS MATERIALS, AS APPLICABLE, FOR THE PROJECT.
- 10. STAGING AREAS SHALL BE SHOWN DURING PREBID MEETING.
- 11. DAMAGE TO BUILDINGS AND LANDSCAPE SHALL BE REPAIRED AND/OR REPLACED BY CONTRACTOR.
- 12. ELECTRICAL CONTRACTOR SHALL MAKE ALL EQUIPMENT TERMINATIONS WHETHER SHOWN OR NOT.

SCHEDULES OF DRAWINGS

COVER SHEET

- MO.1 MECHANICAL LEGENDS AND NOTES M1.1 BOILER ROOM PARTIAL DEMOLITION PLAN M2.1 BOILER ROOM PARTIAL EQUIPMENT AND PIPING PI AN
- M3.1 SCHEDULES M4.1 CONTROL DIAGRAMS

- M5.1 DETAILS
- EO.1 ELECTRICAL LEGENDS AND NOTES
- E1.1 BOILER ROOM POWER PARTIAL DEMOLITION PLAN E2.1 BOILER ROOM POWER PARTIAL PLAN

ALTERNATE BID SUMMARY

- ALT. 1: REPLACE PUMP P-9, PUMP P-10, AIR SEPARATOR AS-1, EXPANSION TANK ET-1, AND ASSOCIATED PIPING AND PIPE FITTINGS.
- ALT. 2: PROVIDE NEW BOILER AND ASSOCIATED FLUE VENT, PIPING, AND POWER FOR THE SHOP BUILDING.
- ALT. 3: PROVIDE NEW AIR SEPARATOR AND EXPANSION TANK FOR THE SHOP BUILDING.

LEGEND

EQUIPMENT TO BE DEMOLISHED

🛛 Yes

- (#) KEY NOTE
- KEYED CONSTRUCTION NOTE
- # DRAWING REVISION NOTE

NOTE TO PLAN REVIEWER

THIS PROJECT MERELY INVOLVES REPLACEMENT OF THE BOILER, PUMPS, AND ASSOCIATED BOILER ACCESSORIES. THERE ARE NO BUILDING MODIFICATIONS ASSOCIATED WITH THIS PROJECT.

REVISIONS:

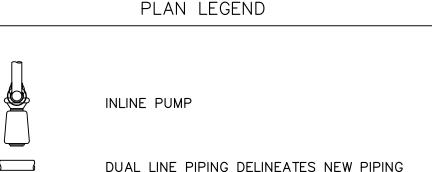
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1/24/24

BOILER ROOM PARTIAL EQUIPMENT AND PIPING PLAN 1/4"=1'-0"

KEY NOTES:

- (1) NEW BOILER. SEE BOILER SCHEDULE.
- (2) NEW PRIMARY BOILER IN-LINE PUMP MOUNTED VERTICALLY ON THE SUPPLY HEADER. MOUNT THE PUMP SO THAT IT IS A MINIMUM OF 30" ABOVE THE SUPPLY HEADER PIPE. SEE PUMP SCHEDULE AND BOILER
- (3) CONNECT THE NEW 6" HWR TO THE EXISTING 6"HWR AS SHOWN
- (4) EXISTING CONDENSING BOILER TO REMAIN
- 5 NOT USED
- (6) EXISTING CONDENSING BOILER COMBUSTION AND FLUE EXHAUST DUCT AND WALL PENETRATION TO REMAIN.
- (7) CONNECT THE 4"HWS AND 4"HWR FROM THE EXISTING CONDENSING BOILER TO THE NEW HEATING HOT WATER HEADER. PROVIDE GATE VALVE AT CONNECTION.
- (8) MAIN FLUE VENT DUCT MOUNTED AT MINIMUM 72" AFF ROUTED POSITIVELY SLOPED (MINIMUM 30°) FROM THE COMBUSTION MAKE-UP AIR INTAKE TO THE EXTERIOR PENETRATION.
- (9) PROVIDE MINIMUM 16" OOMBUSTION MAKE-UP COUNTER BALANCED BACKDRAFT DAMPER AT THE END OF THE FLUE VENT SET TO OPEN AT MINIMUM OF 0.01"WG (ADJUSTABLE) OF NEGATIVE PRESSURE.
- (10) 22"Ø VERTICAL FLUE VENT ROUTED EXPOSED ON THE EXTERIOR WALL FROM THE BOILER ROOM UP TO A MINIMUM OF 36" ABOVE THE HIGHEST POINT OF THE ROOF (WITHIN 10 FEET). SEE VERTICAL FLUE VENT DUCT DETAIL. PROVIDE NEW 24" DOUBLE WALL MINIMUM 18 GAUGE GALVANIZED STEEL ROUND FLUE VENT THROUGH NEW WALL OPENING. SEE WALL PENETRATION DETAIL ON SHEET M3.2. EXTEND THROUGH WALL AND VERTICAL AT A HEIGHT TO MEET THE BUILDING CODE. PATCHING AND REPAIR OF THE WALL SHALL BE DONE BY A QUALIFIED MASONRY CONTRACTOR TO MATCH THE EXISTING WALL (CONTRACTOR IS TO PROVIDE MASONRY CONTRACTOR DOCUMENTATION
- (11) CONNECT THE NEW 6"HWS TO THE EXISTING 6"HWS AS SHOWN.
- (12) CONNECT THE NEW 1-1/2"CW MAKE-UP TO THE NEW 1-1/2"CW MAKE-UP WATER PIPE.
- (13) 16" FLUE EXHAUST DUCT FROM THE BOILER TO THE MAIN FLUE VENT DUCT. ROUTE SO THAT IT IS POSITIVELY SLOPES UP (MINIMUM 30°) UP TO THE MAIN FLUE VENT
- (14) NEW INLINE SUSPENDED AIR SEPARATOR (AS-1). SEE SCHEDULE.
- NEW FLOOR MOUNTED EXPANSION TANK (ET-1) TO BE MOUNTED ON THE SAME PAD AS THE DEMOLISHED EXPANSION TANK.
- (16) NEW BASE MOUNTED HEATING HOT WATER PUMP. SEE SCHEDULE. MOUNT ON THE EXISTING SEISMIC PAD.
- (17) NEW CHEMICAL FEEDER TANK. PROCURE COMPLETE CHEMICAL FEEDER SYSTEM FROM OWNER RETAINED CHEMICAL FEED CONTRACTOR. PROVIDE 1" CHEMICAL FEED SUPPLY AND RETURN PIPING, OR SIZING AS RECOMMENDED BY THE CHEMICAL TREATMENT COMPANY, FROM CHEMICAL FEEDER TO THE 6" HWS AND 6" HWR.
- (18) MOUNT CHEMICAL MONITORING PANEL ON THE WALL ADJACENT TOT HE CHEMICAL FEEDER.
- (19) EXISTING EMERGENCY BOILER SHUT-OFF SWITCH. CONNECT NEW BOILER TO THE SHUT-OFF SWITCH SO THAT THE NEW BOILERS ARE SHUT-DOWN ALONG WITH THE EXISTING BOILERS WHEN THE SWITCH IS PRESSED. SEE CONTROL DIAGRAM ON SHEET M3.1.
- (20) WALL MOUNTED TEMPERATURE ELEMENT WITH RAIN SHIELD. MOUNT AT 8'-0" ABOVE GRADE.
- (21) EXTEND AND PROVIDE NEW CONCRETE HOUSEKEEPING PAD TO ENCOMPASS THE NEW BOILERS SO THAT THE NEW PAD IS A MINIMIMUM OF 6" WIDER AND LONGER THAN THE PERIMETER OF THE COMBINED AREA OF THE NEW BOILERS. CONNECT AND MATCH HEIGHT OF THE NEW CONCRETE PAD TO THE EXISTING BOILER PAD.
- (22) 1" CHEMICAL FEED PIPES FROM THE CHEMICAL FEED TANK TO THE SUPPLY HEADER AND RETURN PIPING.
- (23) 12"ø X 11'-0" LONG HEATING HOT WATER HEADER PIPE. NOTE THAT THE PIPE IS PURPOSELY OVERSIZED. MOUNT THE HEADER AT APPROXIMATELY 12" AFF WITH THE PUMPS AT 48" AFF (SEE PUMP DETAIL) AND ISOLATION VALVES OF EACH HEADER TAP AT 6" ABOVE THE HEADER (APPROX. 30" AFF).
- (24) REMOVE AND RELOCATE THE EXISTING PRIMARY INLINE PUMPS ON THE HEATING HOT WATER HEADER AS DENOTED BY KEY NOTE 5. REPLACE THE PUMP WITH 4"Ø HWS PIPE TO MATCH EXISTING.
- (24) 4" HWS UP FROM THE BOILER HEATING HOT WATER CONNECTION
- (25) 5" HWR DOWN TO BOILER HEATING HOT WATER RETURN CONNECTION.
- (26) CONNECT THE NEW 2" G TO THE EXISTING 3"G, AND ROUTE AT THE SAME ELEVATION. PROVIDE GAS VALVE AT THE TAP.
- (27) 1-1/2"G DOWN TO THE BOILER BURNER GAS CONNECTION. PROVIDE GAS TRAIN (GAS VALVE, GAS REGULATOR, STRAINER, AND GAS VENT).
- (28) 24"W x 42"H COMBUSTION AIR INTAKE LOUVER, SAME OR EQUAL TO RUSKIN ELF375DX, AND MOTORIZED CONTROL DAMPER, SAME OR EQUAL TO RUSKIN CD-50. PROVIDE LINTEL ABOVE THE DAMPER AS NEEDED AND RECOMMENDED BY MANUFACTURER. DAMPER SHALL OPEN WHEN THE BOILER IT IS INTERLOCKED WITH IS ENERGIZED.
- (29) LOUVER 1. INTERLOCK WITH BOILER B-1.
- (30) LOUVER 2. INTERLOCK WITH BOILER B-2.





SINGLE LINE PIPING DELINEATES EXISTING PIPING BUTTERFLY VALVE

GATE VALVE BALL VALVE

BASE MOUNTED PUMP

GAS VALVE

BIDDING NOTES

PROVIDE BIDS PER THE FOLLOWING DESCRIPTION:

BASE BID

- DEMOLISH THE FOUR EXISTING CONDENSING BOILERS, AS SHOWN ON DEMO PLAN, AND PROVIDE THE TWO NEW BOILERS, AS SHOWN ON THE NEW BOILER SYSTEM PLAN.
- DEMOLISH THE FOUR INLINE PRIMARY PUMPS, VALVES, ACCESSORIES, COMBUSTION DUCT, AND FLUE VENT ASSOCIATED WITH THE FOUR CONDENSING BOILERS TO BE DEMOLISHED.
- DEMOLISH THE EXISTING HEATING HOT WATER SUPPLY AND RETURN PIPING AS SHOWN ON THE DEMOLITION PLAN, AND

PROVIDE NEW HEATING HOT WATER SUPPLY AND RETURN PIPING

- 4. EXTEND THE BOILER CONCRETE PAD TO ACCOMMODATE THE NEW BOILERS AS DESCRIBED ON THE NEW BOILER ROOM PLAN.
- RELOCATE THE EXISTING CONDENSING BOILER PUMPS TO THE

AS SHOWN ON THE NEW BOILER ROOM PLAN.

- NEW HEATING HOT WATER HEADER AS SHOWN. 6. PROVIDE NEW INLINE PUMPS FOR THE PRIMARY LOOP OF THE NEW BOILERS. MOUNT ON THE NEW HEATING HOT WATER
- UNDER THE BASE BID, THE SECONDARY HEATING HOT WATER PUMPS, P-1 AND P-2, SHALL BE EXISTING TO REMAIN.
- 8. UNDER THE BASE BID, THE EXPANSION TANK SHALL BE EXISTING TO REMAIN
- 9. UNDER THE BASE BID, THE AIR SEPARATOR SHALL BE EXISTING TO REMAIN.

ALTERNATE BID NO. 1

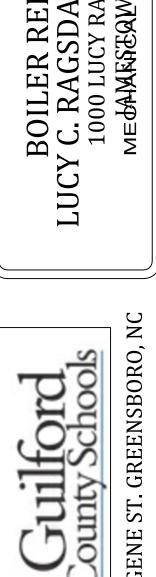
HEADER PIPE.

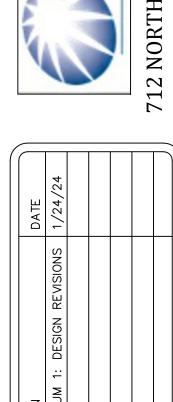
- 1. DEMOLISH THE EXISTING HEATING HOT WATER SECONDARY PUMPS, P-9 AND P-10, AND REPLACE WITH NEW PUMPS AS SCHEDULED.
- 2. DEMOLISH THE EXISTING HEATING HOT WATER AIR SEPARATOR AND REPLACE WITH THE NEW AIR SEPARATOR AS SCHEDULED.
- 3. DEMOLISH THE EXISTING EXPANSION TANK AND REPLACE WITH THE NEW EXPANSION TANK AS SCHEDULED.
- 4. DEMOLISH AND REPLACE THE IMMEDIATE HEATING HOT WATER

PIPING CONNECTED TO PUMP P-9 AND P-10.

<u>GENERAL NOTES:</u>

- 1. ALL PIPING SHOWN IS DIAGRAMMATIC AND MAY NOT NECESSARILY DEPICT THE EXACT ROUTING AND MOUNTING IN ORDER TO CLARIFY PIPING AND EQUIPMENT RELATIONSHIPS.
- 2. ALL NEW HEATING HOT WATER SUPPLY AND RETURN PIPING SHALL MATCH THE EXISTING HEATING HOT WATER PIPING OR MINIMUM SCHEDULE 40 CS STEEL WITH 2" FIBERGLASS INSULATION WITH CANVAS JACKET.
- 3. LABEL ALL NEW PIPING WITH SERVICE (HWR OR HWS) AND DIRECTION OF FLOW ARROW.
- 4. HEATING HOT WATER HEADER SHALL BE SUPPORTED FROM THE FLOOR USING PEDESTAL SUPPORTS SPACED AT 5 FEET APART.
- 5. HEATING HOT WATER PIPING SHALL BE SUPPORTED AT EVERY PIPE FITTING (ELBOW, REDUCER, ETC.) AND EVERY 5 FEET OF STRAIGHT
- SUPPORT THE AIR SEPARATOR INDEPENDENT OF THE PIPING FROM THE STRUCTURE ABOVE AS RECOMMENDED BY THE MANUFACTURER.
- 7. THE FLUE VENT DUCT SHALL BE DOUBLE WALL ROUND DUCT. DUCT WALLS SHALL BE MINIMUM 18 GAUGE GALVANIZED STEEL WITH WELDED CONNECTIONS.





(DRAWN BY: CDM) CHECKED BY: JMP DATE: 1/10/24 PROJECT NO: 082423 SHEET NUMBER

(1) NEW BOILER. SEE BOILER SCHEDULE.

KEY NOTES:

- (3) EXISTING WALL MOUNTED 36x84 COMBUSTION AIR INTAKE LOUVER TO

(2) CONNECT THE NEW 6" HWR TO THE EXISTING 6"HWR AS SHOWN

- (4) CONNECT THE NEW 1/2" BOILER MAKE-UP WATER PIPE TO THE EXISTING 1/2" BOILER MAKE-UP WATER PIPE AS SHOWN.
- 14" FLUE VENT FROM BOILER FLUE VENT CONNECTION TO THE CHIMNEY. MODIFY THE CHIMNEY OPENING TO ACCOMMODATE THE NEW FLUE VENT (MODIFY FROM APPROX. 10" of TO 14" o). PROVIDE NEW 14" DOUBLE WALL MINIMUM 18 GAUGE GALVANIZED STEEL ROUND FLUE VENT TO THE CHIMNEY WALL PENETRATION. CONTRACTOR IS TO USE THE SERVICES OF
- (6) PROVIDE MINIMUM 18 GAUGE CHIMNEY LINER FROM THE BASE OF THE CHIMNEY TO THE TOP.

A PROFESSIONAL MASON FOR ALL MASONRY MODIFICATIONS.

- (7) CONNECT THE NEW 6"HWS TO THE EXISTING 6"HWS AS SHOWN.
- EXISTING SUSPENDED, INLINE MOUNTED AIR SEPARATOR TO REMAIN. AS PART OF ALTERNATE 3, PROVIDE NEW AIR SEPARATOR.
- (9) EXISTING SUSPENDED, HORIZONTAL EXPANSION TANK TO REMAIN. AS PART OF ALTERNATE 3, PROVIDE NEW EXPANSION TANK AND 1" PIPING (18) EXISTING 2 PSIG MAIN GAS METER AND REGULATOR TO REMAIN BETWEEN AIR SEPARATOR AND EXPANSION TANK.

(10) EXISTING INLINE HOT WATER PUMP TO REMAIN.

- (11) NEW EMERGENCY BOILER SHUT-OFF SWITCH. CONNECT NEW BOILER TO THE SHUT-OFF SWITCH SO THAT THE NEW BOILER IS SHUT-DOWN.
- WALL MOUNTED TEMPERATURE ELEMENT WITH RAIN SHIELD. MOUNT AT 8'-0" ABOVE GRADE.
- (13) EXTEND CONCRETE HOUSEKEEPING PAD TO ENCOMPASS THE NEW BOILER SO THAT THE NEW PAD IS A MINIMIMUM OF 6" WIDER AND LONGER THAN THE PERIMETER OF THE NEW BOILER (EXTEND APPROXIMATELY BY 4" LENGTHWISE AND BY 3" WIDTHWISE). CONNECT AND MATCH HEIGHT OF THE NEW CONCRETE PAD TO THE EXISTING BOILER PAD. CONTRACTOR MAY ALSO CHOOSE TO DEMO AND PROVIDE NEW CONCRETE PAD ENTIRELY.
- (14) RELOCATE AND RE-USE THE EXISTING GAS TRAIN FOR THE NEW BOILER.
- CONNECT THE EXISTING 1-1/2"G TO THE NEW BOILER. PROVIDE NEW CS40 PIPING TO MATCH EXISTING AS NEEDED.

INLINE PUMP

DUAL LINE PIPING DELINEATES NEW PIPING

SINGLE LINE PIPING DELINEATES EXISTING PIPING

- (16) PROVIDE TEMPERATURE AND PRESSURE RELIEF VALVE AND PIPE DOWN TO 1" OF THE FLOOR. MATCH BOILER T&P CONNECTION SIZE.
- (17) EXISTING FLOOR DRAIN TO REMAIN. COVER AND PROTECT DURING CONSTRUCTION.

GENERAL NOTES:

PLAN LEGEND

- 1. ALL PIPING SHOWN IS DIAGRAMMATIC AND MAY NOT NECESSARILY DEPICT THE EXACT ROUTING AND MOUNTING IN ORDER TO CLARIFY PIPING AND EQUIPMENT RELATIONSHIPS.
- ALL NEW HEATING HOT WATER SUPPLY AND RETURN PIPING SHALL MATCH THE EXISTING HEATING HOT WATER PIPING OR MINIMUM SCHEDULE 40 CS STEEL WITH 2" FIBERGLASS INSULATION WITH CANVAS JACKET.
- LABEL ALL NEW PIPING WITH SERVICE (HWR OR HWS) AND DIRECTION OF FLOW ARROW.
- HEATING HOT WATER PIPING SHALL BE SUPPORTED AT EVERY PIPE FITTING (ELBOW, REDUCER, ETC.) AND EVERY 5 FEET OF STRAIGHT
- SUPPORT THE AIR SEPARATOR AND EXPANSION TANK INDEPENDENT OF THE PIPING FROM THE STRUCTURE ABOVE AS RECOMMENDED BY THE MANUFACTURER.
- THE FLUE VENT DUCT SHALL BE DOUBLE WALL ROUND DUCT. DUCT WALLS SHALL BE MINIMUM 18 GAUGE GALVANIZED STEEL WITH WELDED CONNECTIONS INSIDE THE MECHANICAL ROOM.

BUTTERFLY VALVE

PRESSURE REGULATOR

SOLENOID VALVE

GATE VALVE

GAS VALVE

BIDDING NOTES

PROVIDE BIDS PER THE FOLLOWING DESCRIPTION:

ALTERNATE BID NO. 2:

- DEMOLISH THE EXISTING BOILER, AS SHOWN ON DEMO PLAN, AND PROVIDE THE NEW BOILER, AS SHOWN ON THE SHOP BUILDING BOILER SYSTEM PLAN.
 - 2. DEMOLISH THE EXISTING HEATING HOT WATER SUPPLY AND RETURN PIPING AS SHOWN ON THE DEMOLITION PLAN, AND PROVIDE NEW HEATING HOT WATER SUPPLY AND RETURN PIPING AS SHOWN ON THE NEW SHOP BUILDING BOILER ROOM PLAN.
- EXTEND THE BOILER CONCRETE PAD TO ACCOMMODATE THE NEW BOILER AS DESCRIBED ON THE NEW SHOP BUILDING BOILER ROOM PLAN.

ALTERNATE BID NO. 3:

- DEMOLISH THE EXISTING AIR SEPARATOR AND EXPANSION TANK
- 2. PROVIDE NEW AIR SEPARATOR AND EXPANSION TANK AT THE SAME LOCATION AS THE DEMOLISHED AIR SEPARATOR AND EXPANSION TANK.
- MODIFY AND PROVIDE NEW PIPING, AS NEEDED TO ACCOMMODATE AIR SEPARATOR CONNECTIONS.
- 4. PROVIDE NEW 1" PIPE BETWEEN AIR SEPARATOR AND EXPANSION
- PROVIDE NEW SUPPORTS FOR THE AIR SEPARATOR AND EXPANSION TANK.

ALTERNATE BID NO. 2: SHOP BUILDING BOILER ROOM PARTIAL EQUIPMENT AND PIPING PLAN 1/4"=1'-0"

-EXISTING 3/4"CW TAP ON

REMAIN. 3/4" TAP HAS

A GATE VALVE AND HOSE

BIB ON THE VERTICAL

- DEMO THE WALL MOUNTED

TEMPERATURE ELEMENT

1-1/2"CW @ 30"AFF (ETR)

AFF WITH THE MAIN

-EXISTING 1-1/2"CW UP

FROM THE SLAB TO 30"

SHUT-OFF MOUNTED ON

THE VERTICAL PIPE AT

APPROX. 9" AFF TO

RFMAIN

PIPE TO REMAIN.

TOP OF THE 1-1/2"CW TO

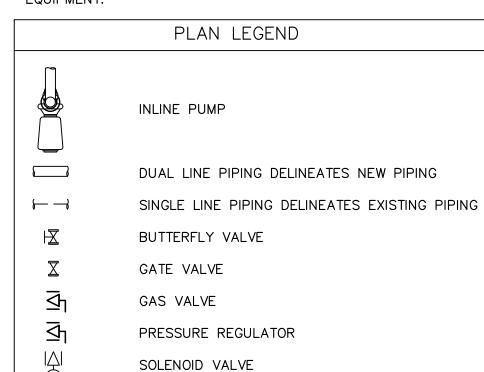
30 FT.DL.

KEY NOTES:

- (1) DEMOLISH THE FOLLOWING:
 - A. THE BOILER AND BURNER B. THE HWS AND HWR PIPING TO THE EXTENT SHOWN C. MAKE UP WATER PIPING TO THE EXTENT SHOWN
 - D. FLUE VENT DUCT COMPLETELY E. POWER TO THE BOILER BURNER

GENERAL NOTES:

- ALL PIPING SHOWN IS DIAGRAMMATIC AND MAY NOT NECESSARILY DEPICT THE EXACT ROUTING AND MOUNTING IN ORDER TO CLARIFY PIPING AND EQUIPMENT RELATIONSHIPS.
- RE-USE THE EXISTING CONCRETE HOUSEKEEPING PADS OF DEMOLISHED EQUIPMENT FOR NEW EQUIPMENT. EXTEND/PROVIDE NEW CONCRETE PAD AS NEEDED CONNECTED TO THE EXISTING HOUSEKEEPING CONCRETE PAD SO THAT THE PAD FOR EACH NEW EQUIPMENT IS AT LEAST 6" WIDER AND LONGER THAN THE NEW EQUIPMENT



PROVIDE BIDS PER THE FOLLOWING DESCRIPTION:

ALTERNATE BID NO. 2:

DEMOLISH THE EXISTING BOILER, AS SHOWN ON DEMO PLAN. AND PROVIDE THE NEW BOILER, AS SHOWN ON THE SHOP BUILDING BOILER SYSTEM PLAN.

BIDDING NOTES

- DEMOLISH THE EXISTING HEATING HOT WATER SUPPLY AND RETURN PIPING AS SHOWN ON THE DEMOLITION PLAN. AND PROVIDE NEW HEATING HOT WATER SUPPLY AND RETURN PIPING AS SHOWN ON THE NEW SHOP BUILDING BOILER ROOM PLAN.
- EXTEND THE BOILER CONCRETE PAD TO ACCOMMODATE THE NEW BOILER AS DESCRIBED ON THE NEW SHOP BUILDING BOILER ROOM PLAN.

ALTERNATE BID NO. 3:

AS-1

RL-6

1.33

850

3. WALL MOUNTING KIT PER DETAIL OR MANUFACTURER

SEE BELOW

SEE BELOW

RAGSDALE HIGH SCHOOL

ITT BELL & GOSSETT

MAIN BLDG MECH RM ROO1

A.FLANGED CONNECTION. CONFIGURE CONNECTING PIPE TO MATCH CONNECTION WHETHER

B.BELL & GOSSETT IS THE DESIGN BASIS. ARMSTRONG AND TACO ARE ACCEPTABLE EQUAL.

DESIGNATION

MANUFACTURER

HEAD LOSS, FT.

ACCESSORIES

ACCESSORIES:

REMARKS

MAX CAPACITY, GPM

FLANGED OPENING, IN

1. HIGH CAPACITY AIR VENT

2. TANK PURGE VALVE (TPV)

SHOWN ON PLANS OR NOT.

SERVICE

MODEL

LOCATION

- DEMOLISH THE EXISTING AIR SEPARATOR AND EXPANSION TANK
- PROVIDE NEW AIR SEPARATOR AND EXPANSION TANK AT THE SAME LOCATION AS THE DEMOLISHED AIR SEPARATOR AND EXPANSION TANK.
- MODIFY AND PROVIDE NEW PIPING, AS NEEDED TO ACCOMMODATE AIR SEPARATOR CONNECTIONS.
- 4. PROVIDE NEW 1" PIPE BETWEEN AIR SEPARATOR AND EXPANSION
- PROVIDE NEW SUPPORTS FOR THE AIR SEPARATOR AND EXPANSION TANK.

AIR SEPARATOR SCHEDULE

AS-2

R-4F

1.33

SEE BELOW

SEE BELOW

300

RAGSDALE HIGH SCHOOL

ITT BELL & GOSSETT

SHOP BLDG MECH ROOM SB001

	BOILER SCHEDULE		~~~~~
DESIGNATION	B-1 & B-2	Í	B-5
SERVICE	RAGSDALE HIGH SCHOOL		RAGSDALE HIGH SCHOOL
LOCATION	MAIN BLDG MECH ROOM ROO1 (SHOP BLDG MECH ROOM SB001
BOILER MANUFACTURER	WEIL-MCLAIN	\setminus	WEIL-MCLAIN
SERIES	88 SERIES II	\sum_{i}	88 SERIES II
MODEL	1488	$\sum_{i} \sum_{j} a_{ij} dj$	1088
BURNER MANUFACTURER	POWER FLAME	\setminus	POWER FLAME
MAX GAS INPUT (MBH)	4464	Я	2274
HEATING OUTPUT (MBH)	3225		2737
THERMAL EFFICIENCY, %	83.1		83.1
COMBUSTION EFFICIENCY, %	83.4	\langle	83.7
TYPE OF FUEL	NATURAL GAS (NATURAL GAS
GAS PRESSURE, IN. WC.	6.4 TO 14	7	6.4 TO 14
NO. OF GAS TRAINS	2 (2
GAS CONNECTIONS, IN.	2 1/2"	$\sum_{i} a_i ^2$	2 1/2"
UNIT DIMENSIONS (WxLxH), IN.	44-1/4"W x 114-3/4"L x 65"H	\sum_{i}	44-1/4"W x 74-3/4"L x 65"H
SUPPLY WATER CONNECTION, IN.	5"	Я	5"
RETURN WATER CONNECTION, IN.	5"	\Box	5"
CHIMNEY BREECH SIZE, IN.	16"		16"
POWER, V/PH/HZ	120/1/60 (120/1/60
ACCESSORIES	SEE BELOW	\geq	SEE BELOW
REMARKS	SEE BELOW	J	SEE BELOW
WEIGHT, LBS	8748 (8748
		7	

- MANUAL MAIN GAS SHUTOFF VALVES DIAPHRAGM GAS VALVE - 2 STAGE WITH REGULATOR
- MOTORIZED GAS VALVE WITH ACTUATOR (ON/OFF) HIGH GAS PRESSURE SWITCH
- LOW GAS PRESSURE SWITCH
- NORMALLY OPEN SOLENOID VENT VALVE MANUAL LEAK CHECKING GAS VALVE
- 8. LEAK TEST COCK 9. PILOT SHUT-OFF COCK
- 10. PILOT SOLENOID VALVE 11. PILOT REGULATOR
- 12. CONTROL PANEL
- 13. WATER RELIEF VALVE

- A. PROVIDE GAS COCK TO ISOLATE GAS PIPING FROM GAS TRAIN
- B. ALL CONNECTIONS ARE SHOWN DIAGRAMMATICALLY. ADJUST CONNECTION LOCATIONS PER ACTUAL EQUIPMENT PROCURED.
- BOILER OUTLETS COMBINE TO A SINGLE HEADER AS THE BOILER WATER SUPPLY.
- RETURN WATER WILL ENTER THE BOILER LOW AND THE BOILER PUMP IS IN THE VERTICAL
- THERE SHALL BE NO OBSTRUCTION (VALVE, ETC.) IN THE COMMON PIPE BETWEEN THE
- PRIMARY BOILER LOOP AND THE SECONDARY SYSTEM LOOP. PROVIDE SERVICE VALVES, COUPLINGS, UNIONS AND ACCESSORIES TO ALLOW FOR SERVICE
- ON EQUIPMENT WITHOUT THE REMAINING EQUIPMENT HAVING TO BE SHUT DOWN.
- ACCEPTABLE EQUAL BOILER MANUFACTURERS: SMITH, PEERLESS. SIZE BLOW-OFF VALVE AS PER MANUFACTURER RECOMMENDATIONS.

DESIGNATION	ET-1	(ET-2
SERVICE	RAGSDALE HIGH SCHOOL	RAGSDALE HIGH SCHOOL
LOCATION	MAIN BLDG MECH ROOM ROO1	SHOP BLDG MECH ROOM SB001
MANUFACTURER	ITT BELL & GOSSETT	ITT BELL & GOSSETT
MODEL	B-800	B-300
TANK GALLONS	800	(300
ACCEPTABLE GALLONS	211	(80
REMARKS	SEE BELOW	(SEE BELOW

REMARKS:

B. HEAVY DUTY BUTYL RUBBER DIAPHRAGM.

C. FORGED STEEL CONNECTION.

D. ASME VIII, DIV. I CERTIFIED. E. MAX 125 PSI AND 240°F RATING.

	PUMP SCH	EDULE
BID NOTES	BASE BID	ALTERNATE BID 1
TAG	BP-1,2,3,&4)/1	P-9 & P-10
MANUFACTURER	ITT BELL & GOSSETT	ITT BELL & GOSSETT
SERIES	60	1510
MODEL	2x2x7	3GB
IMPELLER DIAMETER, IN	6.12	13-1/2"
FLOW, GPM	130	400
HEAD, FT. H2O	25	175
HP	1.5	40
RPM	1800	1750
MINIMUM PUMP EFFICIENCY	63.1	73.9
V/PH/HZ	480/3/60	480/3/60
ACCESSORIES	SEE BELOW	SEE BELOW
REMARKS	SEE BELOW	SEE BELOW

EXISTING MAKE-UP WATER SYSTEM-

20X20 CHIMNEY

EXISTING BRICK

10"FLUE VENT-

6"HWR(ETR)←

1/2"HWS(ETR)_

1/4"=1'-0"

1/2"HWS(ETR)

CHIMNEY-

ACCESS DOOR (ETR)—

1-1/2"G L_{ETR}

(ETR)

ALTERNATE BID NO. 2: SHOP

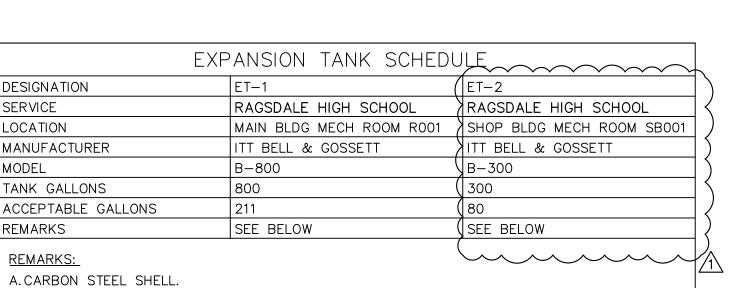
EQUIPMENT AND PIPING PLAN

BUILDING BOILER ROOM PARTIAL

-COMBUSTION`

INTAKE LOUVER

- 1. BOILER PUMP SHALL HAVE A CALIBRATED BALANCING VALVE ON ITS DISCHARGE WITH A PRESSURE DROP NO GREATER THAN 10". THE VALVE SHALL HAVE
- PRESSURE/TEMPERATURE (P/T) TEST PORTS FOR MEASURING FLOW AND TEMP. 2. MANUAL SHUTOFF/SERVICE VALVES TO ISOLATE EACH PIECE OF EQUIPMENT, PUMP OR OTHER DEVICE FROM THE REST OF THE SYSTEM.
- 3. INSTALL UNIONS IN ALL LOCATIONS WHERE THERE WILL NOT BE A JOINT OR FLANGE FOR FUTURE SYSTEM SERVICEABILITY. 4. SECONDARY PUMPS SHALL HAVE A CHECK, SHUTOFF AND CALIBRATED BALANCING VALVE WITH P/T PORTS OR TRIPLE DUTY VALVE ON EACH DISCHARGE.
- 5.IF PUMPS ARE MOUNTED 48" OR LESS ABOVE THE FINISH FLOOR THE MOTORS SHALL BE SUPPORTED FROM ABOVE TO THE STRUCTURE. WHERE SUPPORT FROM ABOVE IS NOT PROVIDED, PUMPS AND MOTORS SHALL BE SUPPORTED BY PIPE STAND FROM BELOW.
- <u>REMARKS:</u> A.ACCEPTABLE EQUAL MANUFACTURERS: ARMSTRONG PUMP CO., TACO PUMP CO.,
- GRUNDFOS PUMP CO. & GOULDS PUMP CO.





DILER REPLACEMENT

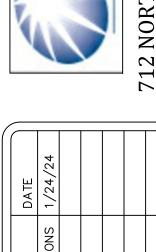
"RAGSDALE HIGH SCHOOL

000 LUCY RAGSDALE DRIVE

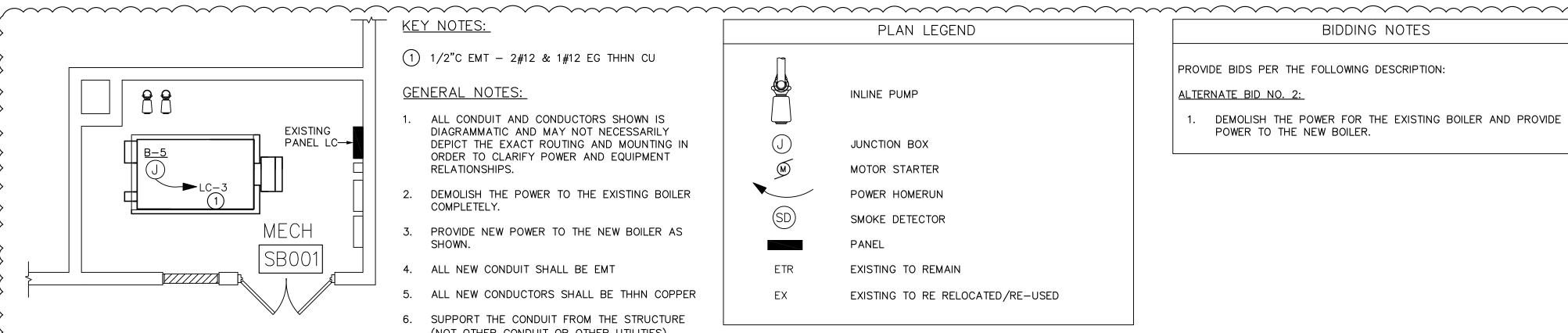
JAMESTOWN, NC 27282

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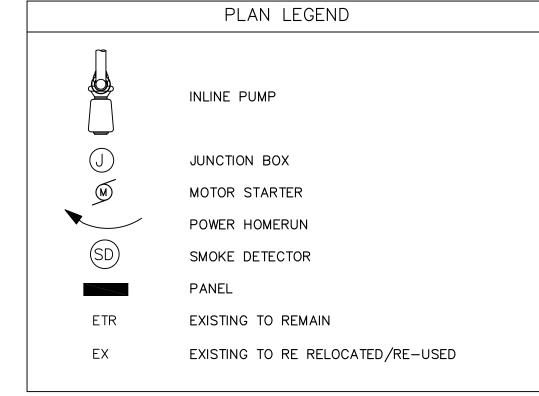
(DRAWN BY: CDM) CHECKED BY: JMP DATE: 1/10/24 PROJECT NO: 082423 SHEET NUMBER M3.1



(1) 1/2"C EMT - 2#12 & 1#12 EG THHN CU

GENERAL NOTES:

- 1. ALL CONDUIT AND CONDUCTORS SHOWN IS DIAGRAMMATIC AND MAY NOT NECESSARILY DEPICT THE EXACT ROUTING AND MOUNTING IN ORDER TO CLARIFY POWER AND EQUIPMENT RELATIONSHIPS.
- 2. DEMOLISH THE POWER TO THE EXISTING BOILER COMPLETELY.
- 3. PROVIDE NEW POWER TO THE NEW BOILER AS SHOWN.
- 4. ALL NEW CONDUIT SHALL BE EMT
- 5. ALL NEW CONDUCTORS SHALL BE THHN COPPER
- 6. SUPPORT THE CONDUIT FROM THE STRUCTURE (NOT OTHER CONDUIT OR OTHER UTILITIES)
 EVERY 5 FEET



BIDDING NOTES

PROVIDE BIDS PER THE FOLLOWING DESCRIPTION:

ALTERNATE BID NO. 2:

DEMOLISH THE POWER FOR THE EXISTING BOILER AND PROVIDE POWER TO THE NEW BOILER.

<u>ALTERNATE BID NO. 2: SHOP BUILDING BOILER ROOM PARTIAL ELECTRICAL PLAN</u> 1/4"=1'-0"

ALMA NGINEERS PO Box 18822 PO Box 18822



BOILER REPLACEMENT
LUCY C. RAGSDALE HIGH SCHOOL
1000 LUCY RAGSDALE DRIVE
JAMESTOWN, NC 27282



/	_				_
	DATE	1/24/24			
	REV# REVISION	ADDENDUM 1: DESIGN REVISIONS 1/24/24			
	REV#	\mathbb{V}			