February 3, 2025

ADDENDUM NO. 1

RE: Welding Lab Renovations Blue Ridge Community and Technical College 109 War Memorial Drive Berkeley Springs, West Virginia 25411 Architect's Project No. 24040



- TO: Prospective Bidders
- FROM: ZMM, Inc. Architects and Engineers

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents.

ATTACH THIS ADDENDUM TO THE FRONT COVER OF THE PROJECT MANUAL AND ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED ON THE BID FORM.

PART 1 - INFORMATION FOR BIDDERS

- A. Pre-Bid Meeting Sign-In Sheet is attached to this Addendum.
- B. Refer to Morgan County Welding Equipment product literature as attached to this Addendum.
 - 1. Attachment describes Owner-furnished equipment. The welder model selection will be that utilizing 230 volt, single-phase power.
 - 2. Refer to coded plan notes on Sheet A131 for Owner-furnished and Contractor-installed items.

PART 2 - CHANGES TO DRAWINGS

- A. REPLACE Drawing E101 dated 12/13/2024 with attached Drawing No. E101R-1.
 - 1. Drawing replaced to include fire alarm scope of work.

END OF ADDENDUM

Attachments:	Pre-Bid Meeting Sign-In Sheet	1 pages
	Morgan County Welding Equipment product literature	
	Drawing E101R-1	

Blacksburg 1116 South Main Street Blacksburg, Virginia 24060 (540) 552-2151 Charleston 222 Lee Street West Charleston, West Virginia 25302 (304) 342-0159 Marietta 149 Acme Street, Suite A Marietta, Ohio 45750 (740) 371-9001 Martinsburg 5550 Winchester Avenue Berkeley Business Park, Suite 5 Martinsburg, West Virginia 25405 (304) 342-0159

www.zmm.com

Page 1 of 1

PRE-BID MEETING SIGN-IN SHEET

#24040 Blue Ridge CTC Welding Lab Thursday January 30th, 2025 @ 11am

PLEASE PRINT

NAME: OREG ECKARD FIRM: CALLAS CONTRACTORS LLC ADDRESS: 10549 DOWNSVILLE FIKE HAGERSTOWN, M.D. 21740 PHONE: 301.739 . 8400 FAX: EMAIL: bids@callascontractors.com BIDDING CONTRACT FOR: 25228 NAME: Avery Costilow FIRM: Harbel, Inc. ADDRESS: 11521 Milage Ave. Cumberland, MD 21502 PHONE: 301 729 8900 FAX: EMAIL: JWilson @ the beitgroup.com BIDDING CONTRACT FOR: NAME: Cicleard Donovan FIRM: WVCTCS ADDRESS: 2001 Union Carmde Blog. 2000 So. Charleston WV 25304 PHONE: 681-313-2212FAX: EMAIL: donavan@wvctes.edu BIDDING CONTRACT FOR: NAME: JOAN STOAN Union of Printer ZAN. w FIRM: TATOSAN ADDRESS: Fair Mont PHONE: 30 9 4766633 FAX: EMAIL: USbanainpatde 53. OFA BIDDING CONTRACT FOR:

PLEASE PRINT

NAME: DAVIC WILLIAMS FIRM: SHALLOW CREEK ELECTRICAL SVC ADDRESS: Gas A. R.PORT ROAD 72602 CHESTER PHONE: 535 (37 2FAX: EMAIL: & Will' anseshallow checkelec BIDDING CONTRACT FOR: ELECTRICA NAME: Keerin Kelley FIRM: Shellow (reek Electrical ADDRESS: 600 Arport RJ Winchester VA 22602 PHONE: 712 2876 FAX: EMAIL: BIDDING CONTRACT FOR: Electrical NAME: UCA Shirley FIRM: Hranec Corp ADDRESS: 199 Michelland forn NOAA Uniontown, PA 1540 PHONE: 724-437-2211 FAX: EMAIL: OCA Bhanec. rom BIDDING CONTRACT FOR: MECHANICAL / PRIME NAME: Lyndon Horst Enterprises Construction FIRM: 1)nited Antrim Way, Suitel ADDRESS: 301 S PA Greencastle, 225 PHONE: 717 8167733FAX: 717 5930880 lyndon@unitedec.net BIDDING CONTRACT FOR: General Contractor





98"

84

Proudly Made in the USA

60"

41"

CLEAN AIR AMERICA



WELDSTATION[™] AIRE

Premier Fume Extraction Solutions for Trade Schools and Welding Labs

31"

STANDARD FEATURES

Self-Contained for Enhanced Lab Safety

Plug-and-Play Functionality for Easy Installation

5' Table Design with Adjustable Shelf

NEMA 12 Electrical Enclosure Motor Starter

Easy-to-Change Filter Configuration

Built-In Two-Stage Spark Arrestors

Optional Weld Curtain for Improved Source Capture

SPECIFICATIONS

Air Flow: 2,500 CFM

Filter Cartridges: Qty (1) Pleated 24" x 24" x 4" & Qty (1) Pleated 24" x 24" x 12" Box Style Filters

Spark Arrestors: Qty (2) 24" x 24" x 2" Metal Spark Baffle plates and (2) 24" x 24" x 2" Metal Mesh Filters

Motor / Blower: 3HP, Direct Drive, Backward Inclined Blower

Power: Single Phase

Silencing: Internal Noise Abatement in motor/blower compartment for noise dampening (70 – 80 dB at 5')

Dimensions: 60" L x 41" D x 98" H

Weight: 900 lbs - 12-Gauge Solid Weld Construction

Clean Air America has long served as the industry leader for fume extraction solutions in welding labs across the country. The WeldStationTM AIRE brings to customers an affordable unit and a smaller footprint without meaningful sacrifices in performance. Plug-and-play functionality allows users easy installation and will have your welding students ready to learn in a clean and safe environment.

Clean Air America -- 7 Superior Drive SE, Rome, GA 30161 -- www.Clean-Air.com

Sales@Clean-Air.Com - 866.665.1829



76"



CLEAN AIR AMERICA

DOWNDRAFT TABLE 2X3

STANDARD FEATURES

Handsfree Fume Extraction Self-Contained for Welding & Grinding

Plug-and-Play Functionality for Easy Installation

Integrated Side Shields and Hood

Internal Noise Abatement

Fire Retardant Filters

Integrated Spark Arrestor System

Caster Wheels for Mobility

OPTIONAL FEATURES

Reverse Pulse Self-Cleaning System

Extra LED Lighting

Plasma Kit Available



24"

Proudly Made in the USA

Air Flow: 1,200 CFM
Filter Cartridges: Qty (1) Fire Retardant Filter
Spark Arrestors: Integrated Metal Mesh and Baffle Plate
Motor / Blower: 1.5HP, 3,450 RPM
Power: Single Phase: 120V, 16.7A
Compressed Air: 1" NPT Compressed Air connection – 70-90 PSI required
Silencing: 60 – 74 dBa at 5'
Dimensions: 40" L x 24" D x 76" H

SUD



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40"

AWS





Rebel[™] EMP 285ic Industrial Multi-Process Packages





Industry

- Industrial General Fabrication
- Maintenance & Repair
- Industrial Production & Manufacturing
- Civil Construction
- Mechanical Contractors
- Agricultural Equipment
- Training Schools



Large 4.3 LCD - TFT Multilingual Display

Introducing Rebel EMP 285ic 1ph and 3ph systems -The Most Powerful, Industrial Rebel yet. Capable of welding up to 350A, this TRUE multi-process, multivoltage industrial welding machine is able to run the full range of .035 in. (0.9 mm) and .045 in. (1.2 mm) wires. It's the most portable/mobile welder in its class and has the power and performance to crush even the most demanding industrial jobs.

Two models to choose from:

Rebel EMP 285ic 120V-230V 1ph Rebel EMP 285ic 460V-575V 3ph

- True Multi-Process excellent performance on MIG. Flux-Cored, TIG and STICK industrial applications.
- Power to Perform 285A @ 40% (1ph model) and 285A @ 50% (3ph model) you'll have the confidence to run the full range of ,045 in. (1.2 mm) wire - short arc and spray transfer with increased deposition rates and productivity on smaller diameter wires such as .030 in. (0.8 mm) and .035 in. (0.9 mm).
- With ESAB's new 4 Roll Drive System, weld up to .052 in. (1.4 mm) solid wire and up to 1/16 in. (1.6 mm) cored wire. Plus, rods up to 5/32 in. (4.0 mm) and TIG rods up to 3/16 in. (5.0 mm).
- Unmatched Portability/Mobility weighing in at 70 lbs. with multi-voltage, multi-phase capable and 4 handle roll cage. Detach the Rebel EMP 285ic from its cart and tackle any job around the shop or out at the job site.
- TFT Multilingual Display Packed full of features, Rebel EMP 285ic has 4 programmable memory locations for each process, multi-language selection, trim adjustment, inductance control, pre/post flow control and spot wold setting - giving you the ability to fine tune your welds for the most optimal performance.
- SMIG Technology innovative "smart-MIG" feature that dynamically monitors the arc characteristics ultimately adapting to your technique resulting in a smooth, stable arc. Set wire diameter and plate thickness and you are ready to weld.

Visit esab.com for more information.

When choosing a top-performing welding machine you need top-performing ESAB Filler Metals. Learn more at **esab.com/fillermetals** loday.



400 Electrode Capacity, 100 to 550°F, Bench Welding Rod Oven-AC Input Current, 120/240 Volt, 1,000 Watt, 23 Inch Wide x 30 Inch Deep x 23 Inch High

MSC# 62291554Mfr# 1200200









CODES 8		DS
WEST VIRGINIA ELECTRICAL CODE: ENERGY CODE: FIRE ALARM CODE:	NFPA 70- AMENDED ASHRAE 90.1 NFPA 72	2020 2013 2016

			ELEC
AFF	ABOVE FINISHED FLOOR	EQUIP	EQUIPMENT
C	CONDUIT	G	GROUND
CB	CIRCUIT BREAKER	GF / GFI	GROUND FAULT INTERRUPTER
ELEC	ELECTRICAL	JB	JUNCTION BOX
EMG	EMERGENCY	LTG	LIGHTING





MECH

MCB

M.H.

MLO

NF

MECHANICAL

MAIN CIRCUIT BREAKER

MOUNTING HEIGHT

MAIN LUGS ONLY NON-FUSED

POWER NEW WORK PLAN - 1ST FLOOR



GEND			
0	4' LINEAR STRIP UTILITY LIGHTING FIXTURE.		1. UNLESS INDICATED OTHERWISE, SIZE CON
	EMERGENCY LIGHTS WITH BATTERY BACKUP, SURFACE WALL MOUNTED.		 MOUNT OUTLET BOXES SO THAT NONE OC MECHANICAL EQUIPMENT IS SHOWN IN APP
	EXIT LIGHTING FIXTURE WITH BATTERY BACKUP AND EMERGENCY LIGHT COMBO, SURFACE WALL MOUNTED, DIRECTIONAL ARROWS AS INDICATED, TYPE 'X'.		 REVISE PANELBOARD SCHEDULES ON AS-E FOR ALL LABELING AND PANEL DIRECTORING
\triangleleft	EMERGENCY REMOTEHEAD, LOCATED BY EXTERIOR DOORS. CONNECT TO NEAREST INTERIOR EXIT SIGN.		 FOR 120 VOLT, 20 AMP BRANCH CIRCUITS: 1 FOR 277 VOLT, 20 AMP BRANCH CIRCUITS: 1 SEAL PENETRATIONS THROUGH FLOORS C U.L. STANDARDS INDICATED IN FIRESTOPP
Â	LIGHTING FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.		9. ALL LOW VOLTAGE CABLING ABOVE CEILIN
S ₃	THREE WAY SWITCH, MOUNTING HEIGHT = 4'-0" TO TOP.		11. PROVIDE NAMEPLATES ON THE EXTERIOR
	FIRE ALARM SYSTEM ALARM HORN, WITH VISUAL ALARM, WALL MOUNTED. MOUNTING HEIGHT = 7'-6" TO TOP.		 13. NO SHARING OF NEUTRAL CONDUCTORS. 14. COORDINATE WITH THE MECHANICAL CONT 15. ALL UNDERGROUND CONDUITS NEED PULL
	 LEGEND NOTES: ALL MOUNTING HEIGHTS OF DEVICES ARE TO CENTER OF DEVICE UNLESS INDICATED OTHERWISE. ALL MOUNTING HEIGHTS OF LIGHTING FIXTURES ARE TO BOTTOM OF FIXTURE AND AWAY FROM FINISHED FLOOR. 		 PROVIDE A LABEL ON BACK SIDE OF ALL RE ALL LIGHT FIXTURE MANUFACTURERS ARE PROVIDE PLASTIC BUSHING ON THE END OF
	2. 'NL' SUBSCRIPT BY LIGHTING FIXTURE INDICATES NIGHTLIGHT TO REMAIN UNSWITCHED.		 COORDINATE WITH UTILITY FOR MAXIMUM DATE CALCULATED.
			20. COORDINATE WORK SCHEDULE WITH OWN
:CI KIC		4	21. COORDINATE WITH MECHANICAL CONTRAC

TYP

UNO

WP

XFMR

TYPICAL

UNLESS NOTED OTHERWISE

WEATHERPROOF

TRANSFORMER

NIGHTLIGHT

RECEPTACLE

SCHEDULE

PANEL

OCCUPANCY SENSOR

NI

OS

PNL

RCPT

SCH



NOTE: FIELD COORDINATE EXACT LOCATION OF DELTA GROUND ON SITE WITH OWNER. WIRE LENGTH TO FIRST ROD TO BE AS SHORT AS PRACTICAL, MAXIMUM OF 20' FROM BUILDING GROUNDING POINT TO ROD.

DELTA GROUND PLAN

	LIGHTING FIXTURE SCHEDULE													
ID	MANUFACTURER	MODEL	TYPE	LUMENS	WATTS	VOLTS	MOUNTING	DESCRIPTION						
A	LITHONIA	ZL1N	LED	5000	34	120	SURFACE	4' GENERAL PURPOSE INDUSTRIAL STRIP LIGHT WITH LENS.						
W	LITHONIA	ELM2	LED	N/A	4	120	WALL	EMERGENCY BATTERY WALL PACK.						
Х	LITHONIA	LHQM	LED	N/A	3	120	SURFACE	EXIT SIGN WITH EMERGENCY LIGHT COMBINATION AND BATTERY BACKUP. WHITE HOUSE, RED LETTERS.						
X-R	LITHONIA	ELA WP	LED	N/A	1	LV	SURFACE	WEATHER-PROOF REMOTE HEAD AT EXTERIOR DOORS, CONNECTED TO INTERIOR EXIT SIGN.						

GENERAL NOTES

TED OTHERWISE, SIZE CONDUITS IN ACCORDANCE WITH NFPA 70.

T BOXES SO THAT NONE OCCUR BACK TO BACK IN WALLS.

QUIPMENT IS SHOWN IN APPROXIMATE LOCATIONS. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND PIPING, SEE MECHANICAL DRAWINGS.

OARD SCHEDULES ON AS-BUILT-DRAWING AND PANEL DIRECTORIES TO REFLECT FINAL INSTALLATION CONDITIONS. PANEL DIRECTORIES ARE TO BE TYPED, NOT HANDWRITTEN.

NG AND PANEL DIRECTORIES REQUIRING LOCATIONS: USE FINAL ROOM NAMES AND NUMBERS, NOT NAMES AND NUMBERS SHOWN ON DRAWINGS. COORDINATE WITH OWNER, G.C., AND ARCHITECT FOR FINAL ROOM NAMES AND NUMBERS.

20 AMP BRANCH CIRCUITS: USE 12 AWG UP TO 60 FEET, 10 AWG FOR 61-95 FEET, AND 8 AWG FOR CIRCUITS LONGER THAN 96 FEET. CONDUCTORS SHALL BE SAME SIZE FOR ENTIRE LENGTH OF RUN. 20 AMP BRANCH CIRCUITS: USE 12 AWG UP TO 140 FEET, 10 AWG FOR 141-220 FEET, AND 8 AUG FOR CIRCUITS LONGER THAN 220 FEET. CONDUCTORS SHALL BE SAME SIZE FOR ENTIRE LENGTH OF RUN.

TIONS THROUGH FLOORS OR FIRE WALLS TO MAINTAIN THE INTEGRITY OF THE FIRE AND ACOUSTIC RATINGS OF THE WALLS AND FLOORS. ELECTRICAL CONTRACTOR TO PROVIDE ALL MATERIALS REQUIRED TO SEAL FIRE AND SMOKE WALL PENETRATIONS PER S INDICATED IN FIRESTOPPING SPECIFICATIONS.

AGE CABLING ABOVE CEILING AND ALL CABLING UTILIZING CABLE TRAY MUST BE PROVIDED WITH A PLENUM RATED OUTER JACKET AND CABLE APPROVED FOR USE IN PLENUM SPACE

CEWAYS TO AVOID INTERFERENCE WITH DUCTS, PIPES, MECHANICAL EQUIPMENT, WITH REMOVAL OF CEILING TILES, OR WITH ACCESS TO EQUIPMENT WHICH REQUIRES PERIODIC ADJUSTMENT OR MAINTENANCE.

PLATES ON THE EXTERIOR OF ALL ELECTRICAL PANELS, DISCONNECTS, AND ENCLOSURES WITH THE DEVICE ID, RATING, POWER SOURCE, INSTALLATION DATE, AND BY WHICH SWITCH OR STARTER.

TYPE IS SHOWN ONLY ONCE AS TYPICAL FOR THE ENTIRE ROOM UNLESS SPECIFICALLY INDICATED OTHERWISE.

VITH THE MECHANICAL CONTRACTOR TO ENSURE ALL WORKING CLEARANCE AND DEDICATED WORKING SPACE OF PANELBOARDS.

UND CONDUITS NEED PULL CORDS / ROPES SUITABLE FOR WIRE TO BE INSTALLED.

EL ON BACK SIDE OF ALL RECEPTACLE AND SWITCH FACE PLATES INDICATING WHICH PANELBOARD AND CIRCUIT FEEDS THAT DEVICE.

JRE MANUFACTURERS ARE LISTED TO ESTABLISH STANDARD REQUIREMENTS FOR PERFORMANCE, MATERIAL AND APPEARANCE. PROVIDE SPECIFIED FIXTURE OR EQUAL. COORDINATE ALL FIXTURE FINISHES WITH ARCHITECT.

TIC BUSHING ON THE END OF ALL CONDUIT.

ITH UTILITY FOR MAXIMUM AVAILABLE FAULT CURRENT AT SERVICE ENTRANCE. PROVIDE RATING TO ENGINEER FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT. FIELD MARK SERVICE ENTRANCE EQUIPMENT WITH RATING RECEIVED FROM UTILITY AND

ORK SCHEDULE WITH OWNER FOR WORK TO BE COMPLETED THROUGH EXISTING OCCUPIED BUILDING SPACES.

(ITH MECHANICAL CONTRACTOR TO PROVIDE POWER TO MOTORIZED DAMPERS AND VALVES WHERE REQUIRED. USE #12 WIRE FROM SPARE 20 AMP BREAKER IN NEAREST NORMAL POWER ELECTRICAL PANEL OF SAME VOLTAGE REQUIRED BY UNIT.

22. ALL 15 AMP AND 20 AMP, 120-250V NON-LOCKING TYPE RECEPTACLES SHALL BE TAMPER-RESISTANT LISTED UNLESS MEETING EXCEPTIONS IN NEC 406. 23. ALL ELECTRICAL AND TECHNOLOGY WIRING SHALL BE INSTALLED IN CONDUIT FOR ENTIRE LENGTH OF WIRING.

NEW F	PANEL:	WH													ALL BUS BARS ARE TO BE COP	PER
LOCA SUPPI PNL T	TION: LY FROM: YPE:	<u>WELDING LAB</u> <u>UTILITY</u> <u>SURFACE</u>			VOLTS: PHASE: WIRE:	<u>480/2</u> <u>3</u> <u>4</u>	<u>277 W</u>	<u>ye</u>				BUS MAI KAI	S RATIN N RATII C RATII	G: NG NG	250 A : 250 A : 35	
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5									5	7.2					6	
7						4	1.3									8
9	WELDER #1			20 A	3			4	1.3			3	15 A		WELDING BOOTH #1	10
11	_									4	1.3					12
13						4	1.3									14
15	WELDER #2			20 A	3			4	1.3			3	15 A		WELDING BOOTH #2	16
17										4	1.3					18
19						4	1.3					_				20
21	WELDER #3			20 A	3			4	1.3			3	15 A		WELDING BOOTH #3	22
23										4	1.3					24
25						4	1.3					_				26
27	WELDER #4			20 A	3			4	1.3			3	15 A		WELDING BOOTH #4	28
29										4	1.3					30
31						4	1.3					_				32
33	WELDER #5			20 A	3			4	1.3			3	15 A		WELDING BOOTH #5	34
35										4	1.3					36
37						4	1.3									38
39	WELDER #6			20 A	3			4	1.3		1.0	3	15 A		WELDING BOOTH #6	40
41										4	1.3					42
43					0	0	0	0	0				00.4			44
45	SPARE			20 A	3			0	0	0	0	3	20 A		SPARE	40
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											- / .					

NOTES:

NEW	PANEL:	WL													ALL BUS BARS ARE TO BE COP	PER
LOCA SUPP PNL 1	ATION: PLY FROM: TYPE:	<u>WELDING LAB</u> PANEL WH - THRU X SURFACE	<u>(FMI</u>	<u>R TW</u>	VOLTS: PHASE: WIRE:	<u>120/:</u> <u>3</u> <u>4</u>	<u>208 W</u>	<u>ye</u>				BUS MAI KAI	S RATIN IN RATI C RATI	ig: Ng Ng	<u>100 A</u> : <u>100 A</u> : <u>10</u>	
СКТ	DE	SCRIPTION	*	TRIP	POLES		4		В		С	POLES	TRIP	*	DESCRIPTION	CK
1	EF-1			20 A	1	0.4	0.5					1	20 A		RCPT LEFT WALL, EXT	2
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5	RCPT CORD R	EEL		20 A	1					1	2.5	0	20.4			6
7	RCPT CORD R	EEL		20 A	1	1	2.5					2	30 A			8
9	RCPT DOWND	RAFT TABLE		20 A	1			1.4	1			1	20 A		RCPT GRINDER	10
11	RCPT GRINDE	R		20 A	1					1	0.5	1	20 A		LTG WELDING LAB	12
13	SPARE			20 A	1	0	0					1	20 A		SPARE	14
15	SPARE			20 A	1			0	0			1	20 A		SPARE	16
17	SPARE			20 A	1					0	0	1	20 A		SPARE	18
19	SPARE			20 A	1	0	0					1	20 A		SPARE	20
21	SPARE			20 A	1			0	0			1	20 A		SPARE	22
23	SPARE			20 A	1					0	0	1	20 A		SPARE	24
				TOT	AL LOAD:	440	0 VA	424	0 VA	501	4 VA					
				TOTA	AL AMPS:	37	Ά	35	5 A	42	2 A					

NOTES:

1116 So Blacksb Phone: www.zm	DATE Transformed and the second seco								
WELDING LAB RENOVATIONS FOR	BLUE RIDGE COMMUNITY AND TECHNICAL COLLEGE	109 WAR MEMORIAL DR	BERKELEY SPRINGS, WV	CONSTRUCTION DOCUMENTS					
c by ZI	ⓒ by ZMM, INC.								
NE	ELEC WW	CH		L _AN					
	DRAWN CHECKED JHO TFK DATE 01.13.2025 COMM. NO.								
a			240 4). LN					