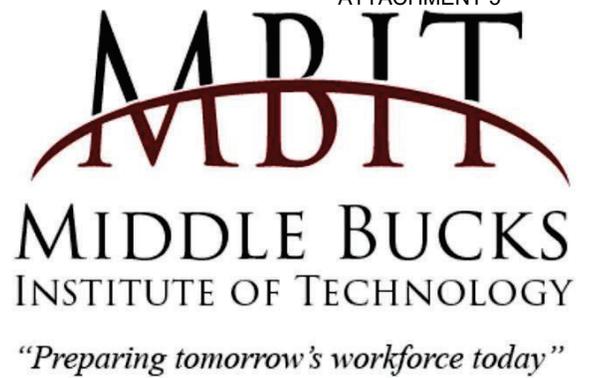




875 N. Easton Road, 3B
Doylestown, PA 18902
215.340.6990
www.BustamanteEngineers.com
Info@BustamanteEng.com

ATTACHMENT 5



PROJECT CONTRACT DOCUMENTS
MBIT WELD SHOP RENOVATION PROJECT

Prepared For:

Middle Bucks Area Vocational – Technical School Authority

Warren Anders
Facilities Manager
Middle Bucks Institute of Technology
2470 York Road
Jamison, PA

Contract Documents
December 21, 2023

MBIT Welds Shop Renovation Project

100 –CONTRACT DOCUMENTS

Documents governing the contract for this project:

1. Project Directory
2. 200 Agreement with Contractor
3. AIA -A104-2017
4. 300 Amendments to AIA A104-2017
5. Performance Bond- AIA-A312-2010
6. 500 Non-Collusion Affidavit
7. 600 Supplemental General Conditions
8. 700 Owners Notification
9. 800 Special Contract Requirements
10. Specifications
 - a. 900 Description of Work
 - b. 910 Contractor Responsibilities
 - c. 920 Demolition
 - d. 930 Shop Drawings
 - e. 940 Product Handling
 - f. 950 Cleaning
11. Bid Form CMG
12. Contractor Qualification Statement
13. Environmental Report
14. Project Prevailing Wages
15. Addendum #1
16. Data Sheets
17. Drawings

The project is subject to the provisions of the Pennsylvania Prevailing Wage Act.

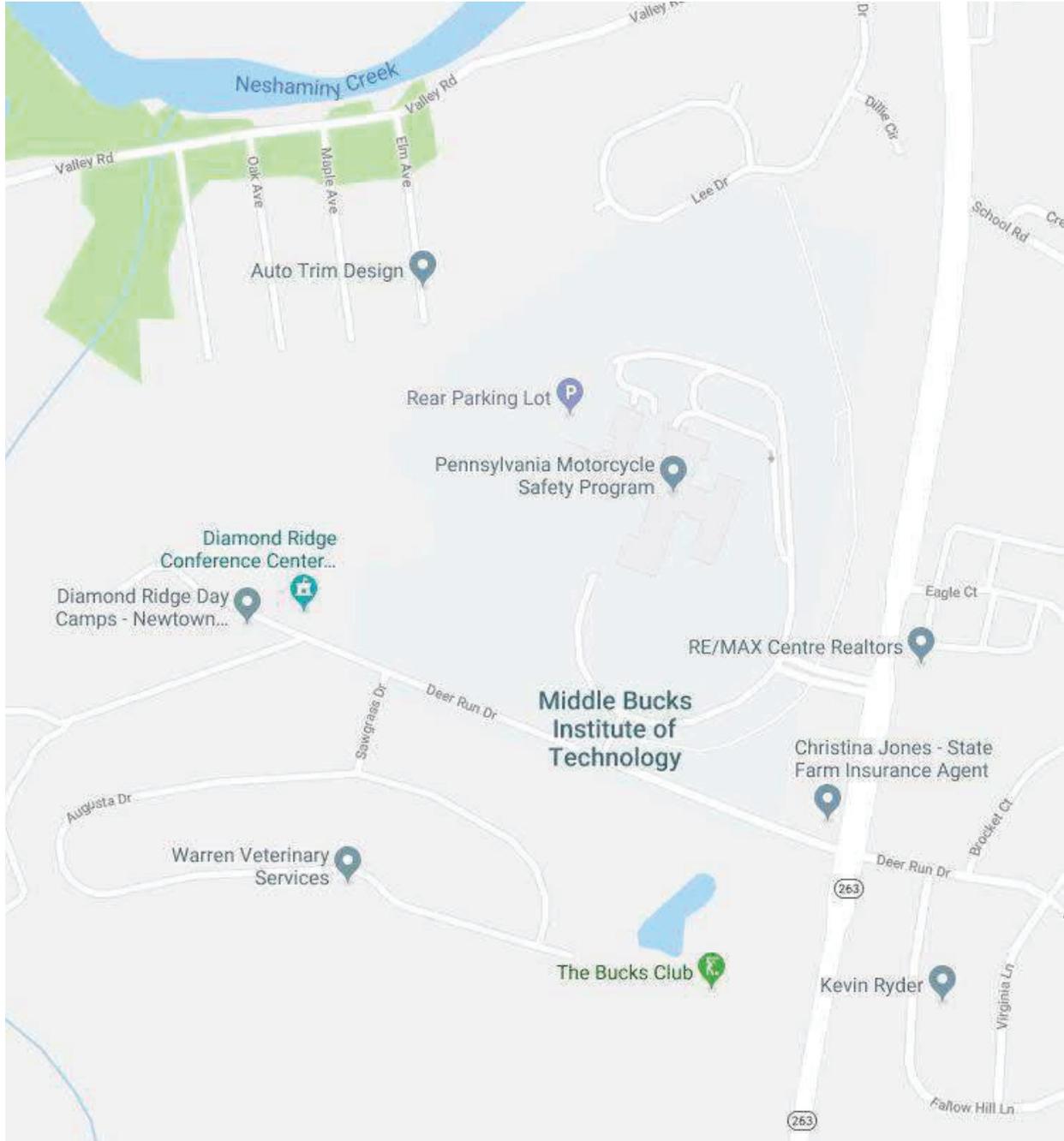
MBIT Welds Shop Renovation Project

PROJECT DIRECTORY

1.0	OWNER	Middle Bucks Area Vocational – Technical School Authority 2740 York Road Jamison, PA 18929
2.0	FACILITY MANAGEMENT	Warren Anders Facilities Manager Middle Bucks Institute of Technology 2740 York Road Jamison, PA 18929 rhansen@mbit.org
1.0	ENGINEER	Greg Bustamante, PE, BIE, President Bustamante Engineers, Inc. 875 N. Easton Road, Suite 1B Doylestown, PA 18902 (O) 215-140-6990 (C) 215-589-1118 Info@BustamanteEng.com Greg@Bustamanteeng.com
4.0	CONTRACTOR	Fred Swass, Project Manager. CMS of Easton, Inc. Easton, PA 18042 fswass@cmgofeaston.com 610-258-0677

MBIT Welds Shop Reno3ation Project

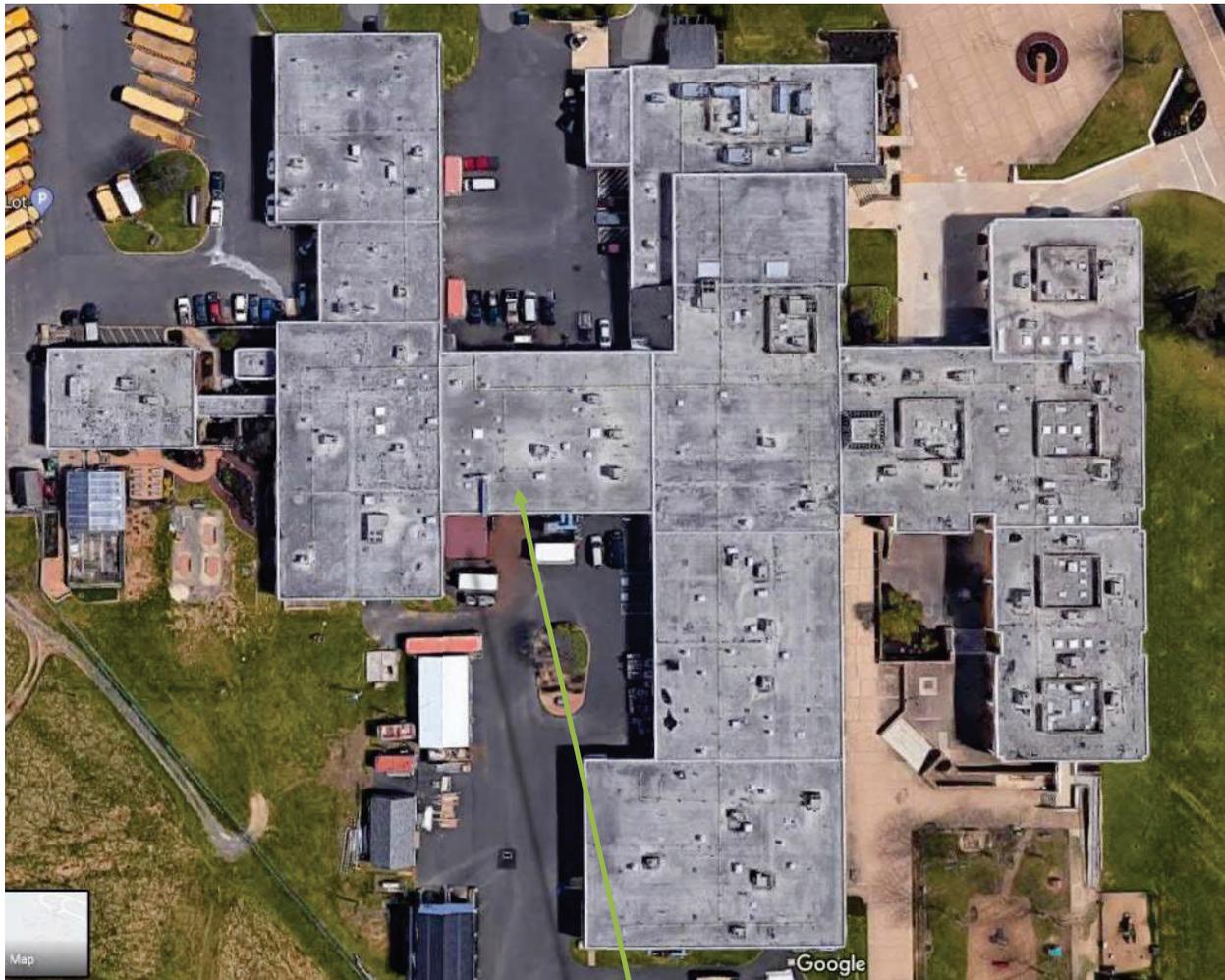
APPENDIX A – LOCATION MAP



Site Location Map

MBIT Welds Shop Renovation Project

SITE AERIAL VIEW



Weld Shop Renovation

MBIT Welds Shop Renovation Project

200 –AGREEMENT WITH CONTRACTOR

MIDDLE BUCKS AREA VOCATIONAL-TECHNICAL SCHOOL AUTHORITY

This is an agreement (the “Agreement”) dated December 21, 2023,
between Middle Bucks Area Vocational-Technical School Authority, 2740 York Road, Jamison,
Pennsylvania (“Owner”) and the following trade contractor,

CMG Of Easton, Inc.

(“Contractor”), for Contractor to perform work on a construction project for Owner.

In exchange for the consideration identified herein, and intending to be legally bound, Owner and Contractor agree that this Agreement incorporates the terms of AIA Document A104 – 2017 (Standard Abbreviated Form of Agreement Between Owner and Contractor), as amended in accordance with the terms below.

The specifics of this Agreement are as follows:

- 1. Project name: MBIT Weld Shop Renovation
- 2. Type of work to be performed by Contractor (general trades, electrical, plumbing, HVAC, etc.):

General Contracting- All Disciplines

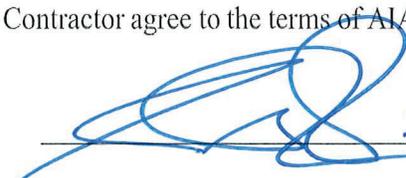
- 2.1. Architect (or other consultant who shall be perform duties assigned to the “Architect”):

Bustamante Engineers, Inc.

- 3. Contract sum: \$1,663,975.00

- 4. By signing below, Owner and Contractor agree to the terms of AIA Document A104 – 2017, and the following Amendments thereto:

For Contractor (name and title):



Jason Perenti - President

For Owner (Authority Chairman/Vice-Chairman) _____

MBIT Welds Shop Renovation Project

AIA-A104-2017

DRAFT AIA® Document A104® – 2017

Standard Abbreviated Form of Agreement Between Owner and Contractor

AGREEMENT made as of the 21st day of December in the year 2023
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

Middle Bucks Area Vocational – Technical School Authority
2740 York Road
Jamison, PA 18929
215-343-2480
wanders@mbit.org

and the Contractor:
(Name, legal status, address and other information)

CMG Of Easton, Inc.
1280 Cedarville Road
Easton, PA 18042
610-258-0677
fswass@cmgofeaston.com

for the following Project:
(Name, location and detailed description)

MBIT Weld Shop Renovation
2740 York Road
Jamison, PA 18929

The Architect:
(Name, legal status, address and other information)

Bustamante Engineers, Inc.
875 N. Easton Road, Suite 3B
Doylestown, PA 18902
215-340-6990
info@Bustamanteeng.com

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

TABLE OF ARTICLES

1	THE WORK OF THIS CONTRACT
2	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
3	CONTRACT SUM
4	PAYMENT
5	DISPUTE RESOLUTION
6	ENUMERATION OF CONTRACT DOCUMENTS
7	GENERAL PROVISIONS
8	OWNER
9	CONTRACTOR
10	ARCHITECT
11	SUBCONTRACTORS
12	CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
13	CHANGES IN THE WORK
14	TIME
15	PAYMENTS AND COMPLETION
16	PROTECTION OF PERSONS AND PROPERTY
17	INSURANCE AND BONDS
18	CORRECTION OF WORK
19	MISCELLANEOUS PROVISIONS
20	TERMINATION OF THE CONTRACT
21	CLAIMS AND DISPUTES

EXHIBIT A DETERMINATION OF THE COST OF THE WORK

ARTICLE 1 THE WORK OF THIS CONTRACT

The Contractor shall execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION See amendments to AIA Document A104-2017

§ 2.1 The date of commencement of the Work shall be:
(Check one of the following boxes.)

The date of this Agreement.

A date set forth in a notice to proceed issued by the Owner.

Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

January 8, 2024

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 2.2 The Contract Time shall be measured from the date of commencement.

§ 2.3 Substantial Completion See amendments to AIA Document A104-2017

§ 2.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:
(Check the appropriate box and complete the necessary information.)

Not later than () calendar days from the date of commencement of the Work.

By the following date: September 30, 2024

§ 2.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date

§ 2.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 2.3, liquidated damages, if any, shall be assessed as set forth in Section 3.5.

ARTICLE 3 CONTRACT SUM

§ 3.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor’s performance of the Contract. The Contract Sum shall be one of the following:
(Check the appropriate box.)

Stipulated Sum, in accordance with Section 3.2 below

Cost of the Work plus the Contractor’s Fee, in accordance with Section 3.3 below

Cost of the Work plus the Contractor’s Fee with a Guaranteed Maximum Price, in accordance with Section 3.4 below

(Based on the selection above, complete Section 3.2, 3.3 or 3.4 below.)

§ 3.2 The Stipulated Sum shall be One Million Six Hundred Sixty-three Thousand Nine Hundred Seventy-Five Dollars (\$ 1,663,975.00), subject to additions and deductions as provided in the Contract Documents.

§ 3.2.1 The Stipulated Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:
(State the numbers or other identification of accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)

None

§ 3.2.2 Unit prices, if any:

§ 3.4.3 Guaranteed Maximum Price Not Applicable (NA)

§ 3.4.3.1 The sum of the Cost of the Work and the Contractor's Fee is guaranteed by the Contractor not to exceed «
» (\$ « ») subject to additions and deductions by changes in the Work as provided in the Contract Documents. This maximum sum is referred to in the Contract Documents as the Guaranteed Maximum Price. Costs in excess of the Guaranteed Maximum Price shall be paid by the Contractor without reimbursement by the Owner.

(Insert specific provisions if the Contractor is to participate in any savings.)

« »

§ 3.4.3.2 The Guaranteed Maximum Price is based on the following alternatives which are described in the Contract Documents and are hereby accepted by the Owner:

(State the numbers or other identification of accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)

« »

§ 3.4.3.3 Unit Prices

(Identify the item and state the unit price and the quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)
------	-----------------------	-------------------------

§ 3.4.3.4 Allowances

(Identify each allowance.)

Item	Price
------	-------

§ 3.4.3.5 Assumptions

« »

§ 3.4.3.6 To the extent that the Contract Documents are anticipated to require further development, the Guaranteed Maximum Price includes the costs attributable to such further development consistent with the Contract Documents and reasonably inferable therefrom. Further development does not include changes in scope, systems, methods and quality of materials, finishes or equipment. Changes which are required shall be incorporated by Change Order.

§ 3.4.3.7 The Owner shall authorize preparation of revisions to the Contract Documents that incorporate the agreed-upon assumptions contained in Section QY.Q1. The Owner shall promptly furnish such revised Contract Documents to the Contractor. The Contractor shall notify the Owner and Architect of any inconsistencies between the agreed-upon assumptions contained in Section QY.Q1 and the revised Contract Documents.

§ 3.5 Liquidated damages

(Insert terms and conditions for liquidated damages, if any.)

See amendments to AIA Document A23Y-0324

ARTICLE 4 PAYMENT See amendments to AIA Document A104-2017

§ 4.1 Progress Payments

§ 4.1.1 In addition to Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Work to the Contractor as provided below and elsewhere in the Contract Documents.

§ 4.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month. For as follows: sM

« »

§ 4.1.3 Provided that an Application for Payment is received by the Architect not later than the « » day of a month, the owner shall have payment of the certified amount to the Contractor not later than the « » day of the « » month. If an Application for Payment is received by the Architect after the date fixed above, payment shall be made by the owner not later than « » (« ») days after the Architect receives the Application for Payment.
(Federal, state or local laws may require payment within a certain period of time.)

§ 4.1.4 For each progress payment made prior to substantial completion of the Work, the owner may withhold retainage from the payment otherwise due as follows: sM
(Insert a percentage or amount to be withheld as retainage from each Application for Payment and any terms for reduction of retainage during the course of the Work. The amount of retainage may be limited by governing law.)

« »

§ 4.1.5 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below. For in the absence thereof, at the legal rate prevailing from time to time at the place where the project is located.
(Insert rate of interest agreed upon, if any.)

« » % « »

§ 4.2 Final Payment

§ 4.2.1 Final Payment constituting the entire unpaid balance of the Contract shall be made by the owner to the Contractor when:

1. the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 29.0 and to satisfy other requirements, if any, which extend beyond final payment;
2. the Contractor has submitted a final account for the Cost of the Work; here payment is on the basis of the Cost of the Work; either or: either a guaranteed maximum price; and
3. a final Certificate for Payment has been issued by the Architect in accordance with Section 21.4.2.

§ 4.2.2 The owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment. For as follows: sM

See amendments to AIA Document A23Y-0324

ARTICLE 5 DISPUTE RESOLUTION See amendments to AIA Document A104-2017

§ 5.1 Binding Dispute Resolution

For any claim subject to be not resolved by mediation pursuant to Section 02.1, the method of binding dispute resolution shall be as follows: sM

(Check the appropriate box.)

Arbitration pursuant to Section 02.6 of this Agreement

Litigation in a court of competent jurisdiction

Other (Specify)

« »

If the owner and Contractor do not select a method of binding dispute resolution or do not subsequently agree in writing to a binding dispute resolution method other than litigation, claims shall be resolved in a court of competent jurisdiction.

ARTICLE 6 ENUMERATION OF CONTRACT DOCUMENTS

§ 6.1 The Contract Documents are defined in Article 4 and except for modifications issued after execution of this Agreement are enumerated in the sections below:

§ 6.1.1 The Agreement is this executed AIA Document A231™ T0324 P7 Standard Abbreviated Form of Agreement with the Owner and Contractor.

§ 6.1.2 AIA Document E031™ T0324 P1 Publishing Information Code Book and Digital Data Exhibit dated as indicated below: M
(Insert the date of the E203–2013 incorporated into this Agreement.)

« »

§ 6.1.3 The Supplementary and other Conditions of the Contract

Document	Title	Date	Pages
2 Contract Amendment	Amendments to AIA Document A231-0324	December 21, 2030	20
0 Addendum	Performance Addendum AIA-A201-0323	December 21, 2030	1
0 Affidavit	Non-Collision Affidavit	December 21, 2030	0
Y General Conditions	Supplementary General Conditions	December 21, 2030	0
1 with Owners Notification	with Owners Notification	December 21, 2030	0
6 Special Contract Requirements	Special Contract Requirements	December 21, 2030	xxx

§ 6.1.4 The Specifications
(Either list the Specifications here or refer to an exhibit attached to this Agreement.)

See Specification Attachment

Section	Title	Date	Pages
	Description of Work	December 21, 2030	Included Herein
	Contractors Responsibilities	December 21, 2030	
	Demolition	December 21, 2030	
	Shop Drawings	December 21, 2030	
	Product Handing	December 21, 2030	
	Cleaning	December 21, 2030	

§ 6.1.5 The Drawings
(Either list the Drawings here or refer to an exhibit attached to this Agreement.)

« »

Number	Title	Date
See attached Drawings	Webbing Department Innovation	May 01, 2030

§ 6.1.6 The Addenda if any

Number	Date	Pages
Addendum No. 2 (see attached enumerated document)	October 2030	5

Sections of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are enumerated in this Article 6.

§ 6.1.7 Additional Documents If any performing part of the Contract Documents

.1 whether Exhibits
(Check all boxes that apply.)

- Exhibit A Determination of the Cost of the Work
- AIA Document E03Y™ T0324P7 Sustainable Projects Exhibit dated as indicated below: M
(Insert the date of the E204-2017 incorporated into this Agreement.) NA
-
- Sustainable by 8 AIA

Title	Date	Pages
-------	------	-------

Supplemental and other Conditions of the Contract

Document	Title	Date	Pages
Contract Amendment	Amendments to AIA Document A23Y-0324	December 21P 0300	20

.2 whether documents if any posted below: M
(List here any additional documents that are intended to form part of the Contract Documents.)

ARTICLE 7 GENERAL PROVISIONS See amendments to AIA Document A104-2017

§ 7.1 The Contract Documents

The Contract Documents are enumerated in Article 6 and consist of this Agreement (including if applicable Supplemental and other Conditions of the Contract) and Addenda issued prior to the execution of this Agreement. A modification is (2) a written amendment to the Contract signed by both parties (O) a Change Order (O) a Construction Change Directive (Y) a written order for a minor change in the Work issued by the Architect. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary and that is required by one shall be as binding as if required by all. Performance by the Contractor shall be required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 7.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, whether written or oral. The Contract may be amended or modified only by a modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the owner and the Contractor.

§ 7.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 7.4 Instruments of Service

Instruments of Service are representations in any medium of expression now known or later developed of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include: architectural and engineering specifications and other similar materials.

§ 7.5 Ownership and use of Drawings, Specifications and Other Instruments of Service

§ 7.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service including the Drawings and Specifications and shall retain all common law, statutory and other reserved rights in their Instruments of Service including copyrights. The Contractor, subcontractors and suppliers shall not own or claim a copyright in the Instruments of Service. Work submitted for distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 7.5.2 The Contractor, subcontractors and suppliers are authorized to use and reproduce the Instruments of Service provided to them subject to the protocols established pursuant to Sections 4.6 and 4.4 solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice if any shown on the Instruments of Service. The Contractor, subcontractors and suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Architect and the Architect's consultants.

§ 7.6 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties shall use AIA Document E030™ T032CPU Building Information Modeling and Digital Data Exhibit to establish the protocols for the development, use, transmission and exchange of digital data.

§ 7.7 Building Information Models Use and Reliance

Any use of or reliance on a portion of a building information model without agreement to protocols governing the use of and reliance on the information contained in the model and without having those protocols set forth in AIA Document E030™ T032CPU Building Information Modeling and Digital Data Exhibit and the requisite AIA Document G030™ T032CP8 Project Building Information Modeling Protocol Form shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of or contributors to the building information model and each of their agents and employees.

§ 7.8 Severability

The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, public policy, or is otherwise unenforceable, then that provision shall be revised to the extent necessary to make that provision enforceable. In such case the Contract Documents shall be construed to the fullest extent permitted by law to give effect to the parties' intentions and purposes in executing the Contract.

§ 7.9 Notice

§ 7.9.1 Except as otherwise provided in Section 4.5.0, here the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person by mail by courier or by electronic transmission in accordance with AIA Document E030™ T032CPU Building Information Modeling and Digital Data Exhibit if completed or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering Notice in electronic format such as name, title and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

<< >>

§ 7.9.2 Notice of Claims shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail or by courier providing proof of delivery.

§ 7.10 Relationship of the Parties

Where the Contract is based on the Cost of the Work plus the Contractor's Fee, either or both of the Contractor and the Owner shall be deemed to have accepted the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Contractor's skill and judgment in furthering the interests of the Owner; to furnish efficient business administration and supervision; to furnish at all times an adequate supply of labor and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish and approve in a timely manner information required by the Contractor and to make payments to the Contractor in accordance with the requirements of the Contract Documents.

ARTICLE 8 OWNER See amendments to AIA Document A104-2017

§ 8.1 Information and Services Required of the Owner

§ 8.1.1 Prior to commencement of the Work at the written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 9.2.2, the Contract Time shall be extended appropriately.

§ 8.1.2 The Owner shall furnish all necessary surveys and a general description of the site.

§ 8.1.3 The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 8.1.4 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 5.6.2, the Owner shall secure and pay for other necessary approvals, easements, assessments and charges required for the construction or occupancy of permanent structures or for permanent changes in existing facilities.

§ 8.2 Owner's Right to Stop the Work

If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents or repeatedly fails to carry out the Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work or any portion thereof until the cause for such order is eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

§ 8.3 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to any other remedies the Owner may have, correct such default or neglect. Work action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may refer to Section 21.1.1 or notify a Certificate for Payment in whole or in part to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including the Owner's expenses and compensation for the Architect's additional services made necessary by such default or neglect or failure. If the Contractor disagrees with the actions of the Owner or the Architect or the amounts claimed as costs to the Owner, the Contractor may file a claim pursuant to Article 12.

ARTICLE 9 CONTRACTOR See amendments to AIA Document A104-2017

§ 9.1 Review of Contract Documents and Field Conditions by Contractor

§ 9.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and conducted personal observations with requirements of the Contract Documents.

§ 9.1.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work as well as the information furnished by the Owner pursuant to Section 9.2.0, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the

purpose of discovering errors, omissions or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents.

§ 9.1.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable statutes, ordinances, codes, rules and regulations and the boundaries of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 9.2 Supervision and Construction Procedures

§ 9.2.1 The Contractor shall supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract. Unless the Contract Documents give other specific instructions concerning these matters.

§ 9.2.2 The Contractor shall be responsible to the owner for acts and omissions of the Contractor's employees, subcontractors and their agents and employees and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its subcontractors.

§ 9.3 Labor and Materials

§ 9.3.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 9.3.2 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

§ 9.3.3 The Contractor may make a substitution only with the consent of the owner after evaluation by the Architect and in accordance with a modification.

§ 9.4 Warranty

The Contractor warrants to the owner and Architect that materials and equipment furnished under the Contract shall be of good quality and meet the requirements of the Contract Documents or permit otherwise. The Contractor further warrants that the Work shall conform to the requirements of the Contract Documents and shall be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation or normal wear and tear under normal usage. All other warranties required by the Contract Documents shall be issued in the name of the owner or shall be transferable to the owner and shall commence in accordance with Section 21.6.0.

§ 9.5 Taxes

The Contractor shall pay sales, commercial and other similar taxes that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 9.6 Permits, Fees, Notices, and Compliance with Laws

§ 9.6.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as other permits, fees, licenses and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 9.6.2 The Contractor shall comply with and give notices required by applicable statutes, ordinances, codes, rules and regulations and the boundaries of public authorities applicable to performance of the Work. If the Contractor performs Work which it to be contrary to applicable statutes, ordinances, codes, rules and

regulationsPor B: fkborders of pkbBc akthoritiesPthe Contractor shaBsskme appropriate responsibility for skch WorVand shaBbear the costs attriktabB to correction.

§ 9.7 Allowances

She Contractor shaBincBde in the Contract 7km aBabB: ances stated in the Contract Dockments. She w: ner shaB select materiaB and eqkipment knder aB: ances : ith reasonableB promptness. ABB: ance amoknts shaBincBde the costs to the Contractor of materiaB and eqkipment delBvered at the site and aBreqkired taxesPBss appBcabB trade discoknts. Contractor's costs for knBading and handBng at the sitePAborPinstabBationPoverheadPprofitPand other expenses contempBated for stated aB: ances amoknts shaBbe incBded in the Contract 7km bkt not in the aB: ances.

§ 9.8 Contractor's Construction Schedules

§ 9.8.1 She ContractorPpromptBly after being a: arded the ContractPshaBskbmit for the w: ner's and Architect's information a Contractor's constrkction schedkB for the WorV. She schedkB shaBnot exceed time Bmits ckrrnt knder the Contract DockmentsPshaBbe revised at appropriate intervalB as reqkired by the conditions of the WorV and 8rojectPshaBbe related to the entire 8roject to the extent reqkired by the Contract DockmentsPand shaBprovide for expeditioks and practicabB execution of the WorV.

§ 9.8.2 She Contractor shaBperform the WorVin generaB accordance : ith the most recent schedkB skbmitted to the w: ner and Architect.

§ 9.9 Submittals

§ 9.9.1 She Contractor shaBrevie: for compBance : ith the Contract Dockments and skbmit to the Architect 7hop Dra: ingsP8rodkt DataP7ampBspand simiB ar skbmittaB reqkired by the Contract Dockments in coordination : ith the Contractor's constrkction schedkB and in skch seqknce as to aB: the Architect reasonableB time for revie: . u y skbmitting 7hop Dra: ingsP8rodkt DataP7ampBspand simiB ar skbmittaB Pthe Contractor represents to the w: ner and Architect that the Contractor has (2) revie: ed and approved them; (0) determined and verified materiaBPfieBd measkrementsPand fieBd constrkction criteria related theretoPor : iBBdo so; and (O) checVed and coordinated the information contained : ithin skch skbmittaB : ith the reqkirements of the WorVand of the Contract Dockments. She WorVshaBbe in accordance : ith approved skbmittaB.

§ 9.9.2 7hop Dra: ingsP8rodkt DataP7ampBspand simiB ar skbmittaB are not Contract Dockments.

§ 9.9.3 She Contractor shaBnot be reqkired to provide professionaB services that constiktke the practice of architectkre or engineering knBss skch services are specificaBly reqkired by the Contract Dockments or knBss the Contractor needs to provide skch services in order to carry okt the Contractor's o: n responsibilities. If professionaB design services or certifications by a design professionaB are specificaBly reqkiredPthe w: ner and the Architect : iBB specify the performance and design criteria that skch services mkst satisfy. She Contractor shaBckase skch services or certifications to be provided by an appropriately Bcensed design professionaB If no criteria are specifiedPthe design shaBcomply : ith appBcabB codes and ordinances. Each 8arty shaBbe entitBd to reBly kpon the information provided by the other 8arty. She Architect : iBBrevie: and approve or taVe other appropriate action on skbmittaB for the Bmitted pkrpose of checVing for conformance : ith information provided and the design concept expressed in the Contract Dockments. She Architect's revie: of 7hop Dra: ingsP8rodkt DataP7ampBspand simiB ar skbmittaB shaB be for the Bmitted pkrpose of checVing for conformance : ith information given and the design concept expressed in the Contract Dockments. In performing skch revie: Pthe Architect : iBBapprovePor taVe other appropriate action kponPthe Contractor's 7hop Dra: ingsP8rodkt DataP7ampBspand simiB ar skbmittaB.

§ 9.10 Use of Site

She Contractor shaBconfine operations at the site to areas permitted by appBcabB B: sPstatktesPordinancesPcodesP rkBs and regkationsPB: fkborders of pkbBc akthoritiesPand the Contract Dockments and shaBnot knreasonabBly enckmber the site : ith materiaB or eqkipment.

§ 9.11 Cutting and Patching

She Contractor shaBbe responsibB for ckttingPfittingPor patching reqkired to compBte the WorVor to maVe its parts fit together properBly.

§ 9.12 Cleaning Up

The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work the Contractor shall remove waste materials and rubbish from the Contractor's tools, construction equipment, machinery and scraps materials from and about the Project.

§ 9.13 Access to Work

The Contractor shall provide the owner and Architect with access to the Work in preparation and progress wherever located.

§ 9.14 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the owner and Architect harmless from loss on account thereof but shall not be responsible for defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the owner or Architect. However, if an infringement of a copyright or patent is discovered by or made known to the Contractor, the Contractor shall be responsible for the loss known to the information is promptly furnished to the Architect.

§ 9.15 Indemnification

§ 9.15.1 So the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the owner, Architect, Architect's consultants and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees arising out of or resulting from performance of the Work provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property (other than the Work itself) but only to the extent caused by the negligent acts or omissions of the Contractor, any subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge or reduce other rights or obligations of indemnity which otherwise exist as to a party or person described in this Section 9.15.1.

§ 9.15.2 In claims against any person or entity indemnified under this Section 9.15.1 by an employee of the Contractor, any subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 9.15.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 10 ARCHITECT

§ 10.1 The Architect shall provide administration of the Contract as described in the Contract Documents and shall be the owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect shall have authority to act on behalf of the owner only to the extent provided in the Contract Documents unless otherwise modified in writing in accordance with other provisions of the Contract.

§ 10.2 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without the written consent of the owner, Contractor and Architect. Consent shall not be unreasonably withheld.

§ 10.3 The Architect shall visit the site at intervals appropriate to the stage of the construction to become generally familiar with the progress and quality of the portion of the Work completed and to determine in general if the Work observed is being performed in a manner indicating that the Work will be completed in accordance with the Contract Documents. However, the Architect shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect shall not have control or charge of or responsibility for the construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the Work since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 10.4 On the basis of the site visits, the Architect shall keep the owner reasonably informed about the progress and quality of the portion of the Work completed and promptly report to the owner (2) written deviations from the Contract Documents (0) written deviations from the most recent construction schedule submitted by the Contractor

and (O) defects and deficiencies observed in the Work. The Architect: ~~is~~ not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect: ~~is~~ not have control over or charge of and: ~~is~~ not be responsible for acts or omissions of the Contractor's contractors or their agents or employees or any other persons or entities performing portions of the Work.

§ 10.5 Used on the Architect's evaluations of the Work and of the Contractor's Applications for Payment the Architect: ~~is~~ to review and certify the amounts due the Contractor and: ~~is~~ to issue Certificates for Payment in such amounts.

§ 10.6 The Architect has authority to reject Work that does not conform to the Contract Documents and to require inspection or testing of the Work.

§ 10.7 The Architect: ~~is~~ to review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 10.8 The Architect: ~~is~~ to interpret and decide matters concerning performance under and requirements of the Contract Documents on written request of either the owner or Contractor. The Architect: ~~is~~ to make initial decisions on all claims, disputes and other matters in question between the owner and Contractor but: ~~is~~ not be liable for results of any interpretations or decisions rendered in good faith.

§ 10.9 The Architect's decisions on matters relating to aesthetic effect: ~~is~~ to be final if consistent with the intent expressed in the Contract Documents.

ARTICLE 11 SUBCONTRACTORS See amendments to AIA Document A104-2017

§ 11.1 A contractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site.

§ 11.2 Unless otherwise stated in the Contract Documents the Contractor as soon as practicable after award of the Contract shall notify the owner and Architect of the contractors or suppliers proposed for each of the principal portions of the Work. The Contractor shall not contract with any contractor or supplier to whom the owner or Architect has made reasonable written objection within ten days after receipt of the Contractor's list of contractors and suppliers. If the proposed contractor is reasonably capable of performing the Work the Contract sum and Contract Time shall be increased or decreased by the difference if any occasioned by such change and an appropriate Change order shall be issued before commencement of the contractor's Work. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 11.3 Contracts between the Contractor and contractors shall (2) require each contractor to the extent of the Work to be performed by the contractor to be bound to the Contractor by the terms of the Contract Documents and to assume to the Contractor all the obligations and responsibilities including the responsibility for safety of the contractor's Work; which the Contractor by the Contract Documents assumes to the owner and Architect and (3) afford the contractor the benefit of all rights, remedies and redress against the Contractor that the Contractor by these Contract Documents has against the owner.

ARTICLE 12 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 12.1 The term "Separate Contractor(s)" shall mean other contractors retained by the owner under separate agreements. The owner reserves the right to perform construction or operations related to the Project with the owner's own forces and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 12.2 The Contractor shall afford the owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities and shall connect and coordinate the Contractor's activities with theirs as required by the Contract Documents.

§ 12.3 The owner shall be reimbursed by the Contractor for costs incurred by the owner which are payable to a Separate Contractor because of delays in properly timed activities or defective construction of the Contractor. She

work shall be responsible to the Contractor for costs incurred by the Contractor because of delays in properly timed activities or damage to the Work or defective construction of a separate Contractor.

ARTICLE 13 CHANGES IN THE WORK See amendments to AIA Document A104-2017

§ 13.1 Any appropriate modification or changes in the Work may be accomplished after execution of the Contract. The work of the Contractor in carrying out the Contract may include changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions within the Contract Work and Contract Time being adjusted accordingly. Such changes in the Work shall be authorized by a written Change Order signed by the Contractor and Architect or by a written Construction Change Directive signed by the owner and Architect. Upon issuance of the Change Order or Construction Change Directive the Contractor shall proceed promptly with such changes in the Work unless otherwise provided in the Change Order or Construction Change Directive.

§ 13.2 Adjustments in the Contract Work and Contract Time resulting from a change in the Work shall be determined by mutual agreement of the parties or in the case of a Construction Change Directive signed only by the owner and Architect by the Contractor's cost of labor, materials, equipment and reasonable overhead and profit unless the parties agree on another method for determining the cost or credit. Pending final determination of the total cost of a Construction Change Directive the Contractor may request payment for Work completed pursuant to the Construction Change Directive. The Architect may make an interim determination of the amount of payment due for purposes of certifying the Contractor's monthly Application for Payment. When the owner and Contractor agree on adjustments to the Contract Work and Contract Time arising from a Construction Change Directive the Architect shall prepare a Change Order.

§ 13.3 The Architect shall have authority to order minor changes in the Work not involving adjustment in the Contract Work or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by a written order and shall be binding on the owner and Contractor. The Contractor shall carry out such written orders promptly. If the Contractor believes that the proposed minor change in the Work will affect the Contract Work or Contract Time the Contractor shall notify the Architect and shall not proceed to implement the change in the Work.

§ 13.4 If concealed or known physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist the Contract Work and Contract Time shall be equitably adjusted as mutually agreed between the owner and Contractor, provided that the Contractor provides notice to the owner and Architect promptly and before conditions are described.

ARTICLE 14 TIME

§ 14.1 Time limits stated in the Contract Documents are of the essence of the Contract. In executing this Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 14.2 Unless otherwise provided Contract Time is the period of time including authorized adjustments permitted in the Contract Documents for substantial completion of the Work.

§ 14.3 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 14.4 The date of substantial completion is the date certified by the Architect in accordance with Section 21.6.0.

§ 14.5 If the Contractor is delayed at any time in the commencement or progress of the Work by (2) changes ordered in the Work; (0) by labor disputes, fire, strikes, delays in deliveries, abnormal adverse weather conditions not reasonably anticipatable, or any causes beyond the Contractor's control; or (0) by other causes that the Contractor asserts and the Architect determines justify delay then the Contract Time shall be extended for such reasonable time as the Architect may determine subject to the provisions of Article 02.

ARTICLE 15 PAYMENTS AND COMPLETION See amendments to AIA Document A104-2017

§ 15.1 Schedule of Values

§ 15.1.1 Where the Contract is based on a fixed price or the Cost of the Work with a guaranteed maximum price pursuant to Section 00 or QP the Contractor shall submit a schedule of values to the Architect before the first Application for Payment allocating the entire fixed price or guaranteed maximum price to the various portions of the Work. The schedule of values shall be prepared in the form and supported by the data to substantiate its

accuracy required by the Architect. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 15.1.2 The allocation of the total fixed fee or guaranteed maximum price under this Section 15.1 shall not constitute a separate stipulated sum or guaranteed maximum price for each individual item in the schedule of values.

§ 15.2 Control Estimate

§ 15.2.1 Where the Contract sum is the Cost of the Work plus the Contractor's Fee, the Contractor shall prepare and submit to the Owner a Control Estimate within 28 days of executing this Agreement. The Control Estimate shall include the estimated Cost of the Work plus the Contractor's Fee.

§ 15.2.2 The Control Estimate shall include:

1. the documents enumerated in Article 6 including all modifications thereto;
2. a list of the assumptions made by the Contractor in the preparation of the Control Estimate to supplement the information provided by the Owner and contained in the Contract Documents;
3. a statement of the estimated Cost of the Work organized by trade categories or systems and the Contractor's Fee;
4. a project schedule upon which the Control Estimate is based indicating proposed contractor's activity sequences and milestones for receipt and approval of pertinent information, schedule of shop drawings and samples, procurement and delivery of materials or equipment, the Owner's occupancy requirements and the date of substantial completion; and
5. a list of any contingency amounts included in the Control Estimate for further development of design and construction.

§ 15.2.3 When the Control Estimate is acceptable to the Owner and Architect, the Owner shall approve it in writing. The Owner's acceptance of the Control Estimate does not imply that the Control Estimate constitutes a Guaranteed Maximum Price.

§ 15.2.4 The Contractor shall develop and implement a detailed system of cost control that shall provide the Owner and Architect with timely information as to the anticipated total cost of the Work. The cost control system shall compare the Control Estimate with the actual cost for activities in progress and estimates for completed tasks and proposed changes. This information shall be reported to the Owner in writing no later than the Contractor's first Application for Payment and shall be revised and submitted with each Application for Payment.

§ 15.2.5 The Owner shall authorize preparation of revisions to the Contract Documents that incorporate the agreed-upon assumptions contained in the Control Estimate. The Owner shall promptly furnish such revised Contract Documents to the Contractor. The Contractor shall notify the Owner and Architect of any inconsistencies between the Control Estimate and the revised Contract Documents.

§ 15.3 Applications for Payment

§ 15.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values if required under Section 15.2 for completed portions of the Work. The application shall be notarized if required; be supported by all data substantiating the Contractor's right to payment that the Owner or Architect require; shall reflect retainage if provided for in the Contract Documents; and include any revised cost control information required by Section 15.2. Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a subcontractor or supplier or for which Work has been performed by others whom the Contractor intends to pay.

§ 15.3.2 With each Application for Payment, where the Contract sum is based upon the Cost of the Work plus the Cost of the Work with a Guaranteed Maximum Price, the Contractor shall submit payor's petty cash accounts, receipts, invoices or invoices with check vouchers attached and any other evidence required by the Owner to demonstrate that cash disbursements already made by the Contractor on account of the Cost of the Work do not exceed progress payments already received by the Contractor plus payor's for the period covered by the present Application for Payment less that portion of the progress payments attributable to the Contractor's Fee.

§ 15.3.3 Payments shall be made on account of materials and equipment delivered and stably stored at the site for subsequent incorporation in the Work. If approved in advance by the owner, payment may similarly be made for materials and equipment stored and protected from damage off the site at a location agreed upon in writing.

§ 15.3.4 The Contractor warrants that title to the Work covered by an Application for Payment is to pass to the owner no later than the time of payment. The Contractor further warrants that upon submission of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the owner shall be to the best of the Contractor's knowledge, information and belief free and clear of liens, claims, secret interests or other encumbrances adverse to the owner's interests.

§ 15.4 Certificates for Payment

§ 15.4.1 The Architect is to issue within seven days after receipt of the Contractor's Application for Payment either issue to the owner a Certificate for Payment with a copy to the Contractor for such amount as the Architect determines is properly due or notify the Contractor and owner of the Architect's reasons for withholding certification in whole or in part as provided in Section 21.Y.0.

§ 15.4.2 The issuance of a Certificate for Payment is constituted a representation by the Architect to the owner based on the Architect's evaluations of the Work and the data in the Application for Payment that to the best of the Architect's knowledge, information and belief the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents and the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon substantial completion, tests of subsequent tests and inspections, correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment is not a representation that the Architect has (2) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (0) reviewed construction means, methods, techniques, sequences or procedures; (0) reviewed copies of requisitions received from subcontractors and suppliers and other data requested by the owner to substantiate the Contractor's right to payment; or (Y) made examination to ascertain whether or for what purpose the Contractor has used money previously paid on account of the Contract Work.

§ 15.4.3 The Architect may withhold a Certificate for Payment in whole or in part to the extent reasonably necessary to protect the owner if in the Architect's opinion the representations to the owner required by Section 21.Y.0 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect is to notify the Contractor and owner as provided in Section 21.Y.2. If the Contractor and the Architect cannot agree on a revised amount, the Architect is to promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the owner. The Architect may also withhold a Certificate for Payment or because of subsequently discovered evidence may withhold a part of a Certificate for Payment previously issued to such extent as may be necessary in the Architect's opinion to protect the owner from loss for which the Contractor is responsible including loss resulting from acts and omissions described in Section 5.0.0 because of

- .1 defective Work not remedied;
- .2 third-party claims filed or reasonable evidence indicating probable filing of such claims known or discoverable to the owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to subcontractors or suppliers for labor or materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Work;
- .5 damage to the owner or a separate Contractor;
- .6 reasonable evidence that the Work is not to be completed within the Contract Time and that the unpaid balance is not adequate to cover actual or anticipated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 15.4.4 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 21.Y.0 in whole or in part, that party may submit a Claim in accordance with Article 02.

§ 15.5 Progress Payments

§ 15.5.1 The Contractor shall pay each subcontractor no later than seven days after receipt of payment from the owner the amount to which the subcontractor is entitled, reflecting percentages actually retained from payments to

the Contractor on account of the 7kbcontractor's portion of the WorV. The Contractor shall by appropriate agreement : ith each 7kbcontractor require each 7kbcontractor to make payments to skb-skbcontractors in a similar manner.

§ 15.5.2 Neither the w: ner nor Architect shall have an obligation to pay or see to the payment of money to a 7kbcontractor or skpper except as may otherwise be required by A: .

§ 15.5.3 A Certificate for 8aymentPa progress paymentPor partial or entire kse or ockpncy of the 8roject by the w: ner shall not constitute acceptance of WorVnot in accordance : ith the Contract Documents.

§ 15.5.4 8rovided the w: ner has fulfilled its payment obligations under the Contract DocumentsPthe Contractor shall defend and indemnify the w: ner from aBlossP liabilityPdamage or expensePincluding reasonable attorney's fees and litigation expensesP arising out of any Ben claim or other claim for payment by any 7kbcontractor or skpper of any tier. Upon receipt of notice of a Ben claim or other claim for paymentPthe w: ner shall notify the Contractor. If approved by the applicable courtP: hen requiredPthe Contractor may skstitute a skrety bond for the property against : hich the Ben or other claim for payment has been asserted.

§ 15.6 Substantial Completion

§ 15.6.1 7kbstantial Completion is the stage in the progress of the WorV: hen the WorVor designated portion thereof is skfficiently complete in accordance : ith the Contract Documents so that the w: ner can ockpy or ktimize the WorVfor its intended kse.

§ 15.6.2 When the Contractor considers that the WorVfor a portion thereof : hich the w: ner agrees to accept separatelyPis sksubstantially completePthe Contractor shall prepare and sksubmit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on skch list does not alter the responsibility of the Contractor to complete aB WorVin accordance : ith the Contract Documents.

§ 15.6.3 Upon receipt of the Contractor's listPthe Architect : iBmake an inspection to determine : hether the WorV or designated portion thereof is sksubstantially complete. When the Architect determines that the WorVor designated portion thereof is sksubstantially completePthe Architect : iBissue a Certificate of 7kbstantial Completion : hich shall establish the date of 7kbstantial Completion; establish responsibilities of the w: ner and Contractor for sksecurityP maintenancePheatPkitiesPdamage to the WorVand insurance; and fix the time : ithin : hich the Contractor shall finish aB items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of 7kbstantial Completion of the WorVor designated portion thereof unless otherwise provided in the Certificate of 7kbstantial Completion.

§ 15.6.4 The Certificate of 7kbstantial Completion shall be sksubmitted to the w: ner and Contractor for their : ritten acceptance of responsibilities assigned to them in the Certificate. Upon skch acceptance and consent of skretyPif anyPthe w: ner shall make payment of retainage applying to the WorVor designated portion thereof. 7kch payment shall be adjusted for WorVthat is incomplete or not in accordance : ith the requirements of the Contract Documents.

§ 15.7 Final Completion and Final Payment

§ 15.7.1 Upon receipt of the Contractor's notice that the WorVis ready for final inspection and acceptance and upon receipt of a final Application for 8aymentPthe Architect : iBpromptly make skch inspection andP: hen the Architect finds the WorVacceptable under the Contract Documents and the Contract fully performedPthe Architect : iB promptly issue a final Certificate for 8ayment stating that to the best of the Architect's knowledgePinformation and beliefPand on the basis of the Architect's on-site visits and inspectionsPthe WorVhas been completed in accordance : ith the Contract Documents and that the entire balance is due to the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for 8ayment : iBconstitute a further representation that conditions stated in Section 21.4.0 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 15.7.2 Final payment shall not become due until the Contractor has delivered to the w: ner a complete release of all liens arising out of this Contract or receipts in full covering all laborPmaterials and equipment for : hich a Ben could be filedPor a bond satisfactory to the w: ner to indemnify the w: ner against skch Ben. If skch Ben remains unsatisfied after payments are madePthe Contractor shall refund to the w: ner all money that the w: ner may be compelled to pay in discharging skch BenPincluding costs and reasonable attorneys' fees.

§ 15.7.3 The making of final payment shall constitute a waiver of claims by the worker except those arising from

1. Personal or security interests or encumbrances arising out of the Contract and knetted;
2. Failure of the Worker to comply with the requirements of the Contract Documents;
3. Terms of special warranties required by the Contract Documents; or
4. Acts performed by the worker if permitted by the Contract Documents after final payment.

§ 15.7.4 Acceptance of final payment by the Contractor or subcontractor or skipper shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as knetted at the time of the final application for payment.

ARTICLE 16 PROTECTION OF PERSONS AND PROPERTY

§ 16.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall have reasonable precautions for safety of persons and shall provide reasonable protection to prevent damage or loss to

1. Employees on the Work and other persons who may be affected thereby;
2. The Work and materials and equipment to be incorporated therein whether in storage on or off the site under care or custody or control of the Contractor or a subcontractor; and
3. Other property at the site or adjacent thereto such as trees, shrubs, lawns, pavements, roads, streets and utilities not designated for removal or replacement in the course of construction.

The Contractor shall comply with and give notices required by applicable laws, ordinances, codes, rules and regulations and orders of public authorities bearing on safety of persons and property and their protection from damage or loss. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor or subcontractor or anyone directly or indirectly employed by any of them or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 26.2.0 and 26.2.0. She Contractor may make a claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the worker or Architect or by anyone for whose acts either of them may be liable and not attributable to the fault or negligence of the Contractor. She foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 5.21.

§ 16.2 Hazardous Materials and Substances

§ 16.2.1 The Contractor is responsible for compliance with the requirements of the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance including but not limited to asbestos or polychlorinated biphenyls (PCBs) encountered on the site by the Contractor the Contractor shall upon recognizing the condition immediately stop Work in the affected area and notify the worker and Architect of the condition. When the material or substance has been rendered harmless or Work in the affected area shall resume upon written agreement of the worker and Contractor. The Contract Time shall be extended appropriately and the Contract sum shall be increased in the amount of the Contractor's reasonable additional costs of shutdown and start-up.

§ 16.2.2 So the fullest extent permitted by law the worker shall indemnify and hold harmless the Contractor or subcontractors, Architect or Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses including but not limited to attorneys' fees arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 26.0.2 and has not been rendered harmless provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property (other than the Work itself) except to the extent that such damage, loss or expense is due to the fault or negligence of the party seeking indemnity.

§ 16.2.3 If, through negligence on the part of the Contractor the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents the worker shall indemnify the Contractor for all cost and expense thereby incurred.

ARTICLE 17 INSURANCE AND BONDS See amendments to AIA Document A104-2017 & Supplementary General Conditions

§ 17.1 Contractor's Insurance

§ 17.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability containing the endorsements and subject to the terms and conditions as described in this Section 24.2 or elsewhere here in the Contract Documents. The Contractor shall purchase and maintain the insurance required by this Agreement from an insurance company or insurance companies authorized to issue insurance in the jurisdiction where the project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of work as set forth in Section 29. If a different duration is stated below: M

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§ 17.1.2 Commercial General Liability insurance for the project: written on an occurrence form; with policy limits of not less than Five Hundred Thousand Dollars (\$500,000) each occurrence with a per-occurrence aggregate and annual aggregate for products-completed operations hazard providing coverage for claims including:

1. damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
2. personal and advertising injury;
3. damages because of physical damage to or destruction of tangible property, including the loss of use of such property;
4. bodily injury or property damage arising out of completed operations; and
5. the Contractor's indemnity obligations under Section 5.21.

§ 17.1.3 Automobile Liability covering vehicles owned by the Contractor and non-owned vehicles used by the Contractor: with policy limits of not less than \$1,000,000 per accident for bodily injury, death of any person and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutory required automobile coverage.

§ 17.1.4 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance provided such primary and excess or umbrella insurance policies result in the same or greater coverage as those required under Section 24.2.0 and 24.2.1 and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ 17.1.5 Workers' Compensation at statutory limits.

§ 17.1.6 Employers' Liability: with policy limits not less than annual limit of \$2,000,000 each accident with a limit of \$2,000,000 each employee and \$1,000,000 per policy limit.

§ 17.1.7 If the Contractor is required to furnish professional services as part of the work, the Contractor shall procure professional liability insurance covering performance of the professional services: with policy limits of not less than \$1,000,000 per claim and \$1,000,000 in the aggregate.

§ 17.1.8 If the work involves the transport, dissemination or release of pollutants, the Contractor shall procure Pollution Liability insurance: with policy limits of not less than \$1,000,000 per claim and \$1,000,000 in the aggregate.

§ 17.1.9 Coverage under Sections 24.2.4 and 24.2.9 may be procured through a Combined Professional Liability and Pollution Liability insurance policy: with combined policy limits of not less than \$1,000,000 per claim and \$1,000,000 in the aggregate.

§ 17.1.10 The Contractor shall provide certificates of insurance acceptable to the owner evidencing compliance with the requirements in this Section 24.2 at the following times: (M) prior to commencement of the work; (O) upon renewal or replacement of each required policy of insurance; and (O) upon the owner's written request. An additional certificate evidencing continuation of liability coverage including coverage for completed operations shall be submitted with the final application for payment and thereafter upon renewal or replacement of such

coverage until the expiration of the period required by Section 24.2.2. She certifies: in the event of a claim against the Contractor's Commercial General Liability and excess or umbrella liability policy.

§ 17.1.11 The Contractor shall disclose to the owner any deductible or self-insured retentions applicable to any insurance required to be provided by the Contractor.

§ 17.1.12 To the fullest extent permitted by law, the Contractor shall make the commercial liability coverage required by this Section 24.2 include (2) the owner, the Architect and the Architect's Consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (3) the owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercial liability coverage is available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 03 23 34 3Y PCG 03 04 34 3Y and, with respect to the Architect and the Architect's Consultants, PCG 03 00 34 3Y.

§ 17.1.13 Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by this Section 24.2, the Contractor shall provide notice to the owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the owner shall know the cause in coverage arises from an act or omission of the owner. The owner shall have the right to stop the work until the cause in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 17.1.14 Other Insurance Provided by the Contractor

(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)

Coverage	Limits
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§ 17.2 Owner's Insurance

§ 17.2.1 Owner's Liability Insurance

The owner shall be responsible for purchasing and maintaining the owner's liability insurance.

§ 17.2.2 Property Insurance

§ 17.2.2.1 The owner shall purchase and maintain from an insurance company or insurance companies a first authorized to issue insurance in the jurisdiction where the project is located property insurance: written on a building's risk "all risks" completed value or equivalent policy form and sufficient to cover the total value of the entire project on a replacement cost basis. The owner's property insurance coverage shall be no less than the amount of the initial contract work plus the value of subsequent modifications and labor performed or materials or equipment supplied by others. The property insurance shall be maintained until substantial completion and thereafter as provided in Section 24.0.0.0. Notwithstanding otherwise provided in the Contract Documents or otherwise agreed in writing by the parties to this Agreement. This insurance shall include the interests of the owner, Contractor, subcontractors and vendors in the project as insureds. This insurance shall include the interests of mortgagees as loss payees.

§ 17.2.2.2 Unless the parties agree otherwise upon substantial completion, the owner shall continue the insurance required by Section 24.0.0.2 or, if necessary, replace the insurance policy required under Section 24.0.0.2 with property insurance: written for the total value of the project that shall remain in effect until expiration of the period for correction of the work set forth in Section 29.Y.

§ 17.2.2.3 If the insurance required by this Section 24.0.0 is subject to deductibles or self-insured retentions, the owner shall be responsible for amounts not covered because of such deductibles or retentions.

§ 17.2.2.4 If the work involves remodeling an existing structure or constructing an addition to an existing structure, the owner shall purchase and maintain until the expiration of the period for correction of work as set forth in Section 29.Y "all risks" property insurance on a replacement cost basis protecting the existing structure against

direct physical loss or damage notwithstanding the kind or nature of the work. She will be responsible for all co-insurance penalties.

§ 17.2.2.5 Prior to commencement of the work, the owner shall require the contractor and provide evidence of the coverage required under this Section 24.0.0 and upon the contractor's request provide a copy of the property insurance policy or policies required by this Section 24.0.0. The copy of the policy or policies provided shall contain applicable conditions, definitions, exclusions and endorsements.

§ 17.2.2.6 Within three (3) business days of the date the owner becomes aware of an impending or actual cancellation or expiration of any insurance required by this Section 24.0.0, the owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor, (2) the Contractor upon receipt of notice from the owner shall have the right to stop the work until the lapse in coverage has been cured by the procurement of replacement coverage by either the owner or the Contractor; (3) the Contract Sum and Contract Term shall be equitably adjusted; and (4) the owner shall be liable against the contractor's and subcontractors' to the extent any loss to the owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the owner by an appropriate Change Order. The furnishing of notice by the owner shall not relieve the owner of any contractual obligation to provide required insurance.

§ 17.2.2.7 Waiver of Subrogation

§ 17.2.2.7.1 She owner and Contractor shall waive all rights against (2) each other and any of their subcontractors, sub-subcontractors, agents and employees of each of the other; (3) the Architect and Architect's consultants; and (4) separate contractors if any and any of their subcontractors, sub-subcontractors, agents and employees for damages caused by fire or other causes of loss to the extent those losses are covered by property insurance required by this Agreement or other property insurance applicable to the project except such rights as they have to proceeds of such insurance. She owner or Contractor as appropriate shall require similar written waivers in favor of the individual and entities identified above from the Architect, Architect's consultants, separate contractors, subcontractors and sub-subcontractors. She policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this Section 24.0.0.4 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (2) even though that person or entity would otherwise have a duty of indemnification to the contractor or other party (3) even though that person or entity did not pay the insurance premium directly or indirectly or (4) whether or not the person or entity had an insurable interest in the damaged property.

§ 17.2.2.7.2 If during the project construction period the owner insures properties pre- or post- or both pre- or adjacent to the site by property insurance under policies separate from those insuring the project or if after final payment property insurance is to be provided on the completed project through a policy or policies other than those insuring the project during the construction period to the extent permissible by such policies, the owner shall have all rights in accordance with the terms of Section 24.0.0.4.2 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 17.2.2.8 A loss incurred under the owner's property insurance shall be adjusted by the owner as fiduciary and made payable to the owner as fiduciary for the insureds as their interests may appear subject to requirements of any applicable mortgagee clause. She owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the owner and by appropriate agreements: written hereinafter required for validity. The Architect and Contractor shall make payments to their consultants and subcontractors in similar manner.

§ 17.2.3 Other Insurance Provided by the Owner

(List below any other insurance coverage to be provided by the Owner and any applicable limits.)

Coverage

Builder's J is V

Limits

Contract - all

§ 17.3 Performance Bond and Payment Bond

§ 17.3.1 She owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in the Contract Documents on the date of execution of the Contract.

§ 17.3.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

ARTICLE 18 CORRECTION OF WORK See amendments to AIA Document A104-2017

§ 18.1 The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents: whether discovered before or after substantial completion and: whether or not fabricated or installed or completed. Costs of correcting such rejected Work including additional testing and inspections the cost of uncovering and replacement and compensation for the Architect's services and expenses made necessary thereby shall be at the Contractor's expense unless compensable under Section A.2.4.0 in Exhibit A Determination of the Cost of the Work.

§ 18.2 In addition to the Contractor's obligations under Section 5.1 if: within one year after the date of substantial completion of the Work or designated portion thereof or after the date for commencement of: warranties established under Section 21.6.0 or by terms of an applicable special warranty required by the Contract Documents any of the Work is found to be not in accordance: with the requirements of the Contract Documents the Contractor shall correct it promptly after receipt of notice from the owner to do so unless the owner has previously given the Contractor a written acceptance of such condition. The owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work if the owner fails to notify the Contractor and give the Contractor an opportunity to make the correction the owner: waives the rights to require correction by the Contractor and to make a claim for breach of: warranty.

§ 18.3 If the Contractor fails to correct nonconforming Work: within a reasonable time the owner may correct it in accordance: with Section 9.0

§ 18.4 The one-year period for correction of Work shall be extended: with respect to portions of Work first performed after substantial completion by the period of time between substantial completion and the actual completion of that portion of the Work.

§ 18.5 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Article 29.

ARTICLE 19 MISCELLANEOUS PROVISIONS See amendments to AIA Document A104-2017

§ 19.1 Assignment of Contract

Neither party to the Contract shall assign the Contract: without the written consent of the other except that the owner may: without the consent of the Contractor assign the Contract to a lender providing construction financing for the project if the lender assumes the owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

§ 19.2 Governing Law

The Contract shall be governed by the law: of the place: where the project is located except that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution the Federal Arbitration Act shall govern Section 02.6.

§ 19.3 Tests and Inspections

Tests inspections and approval of portions of the Work required by the Contract Documents or by applicable codes ordinances codes practices and regulations or by local authorities shall be made at an appropriate time. Unless otherwise provided the Contractor shall make arrangements for such tests inspections and approval: with an independent testing laboratory or entity acceptable to the owner or: with the appropriate local authority and shall bear all related costs of tests inspections and approval. The Contractor shall give the Architect timely notice of: when and: where tests and inspections are to be made so that the Architect may be present for such proceedings. The owner shall bear costs of tests inspections or approval that do not become requirements until after bids are received or negotiations concluded. The owner shall directly arrange and pay for tests inspections or approval: where building codes or applicable codes or regulations so require.

§ 19.4 The owner's representative

(Name, address, email address and other information)

Warren Anders Facilities Manager

Middle Bucks Institute of Technology 2740 York Road
Jamison, PA 18929
rhansen@mbit.org
215-343-2480

§ 19.5 The Contractor's representative
(Name, address, email address and other information)

Fred Swass, Project Manager.

CMS of Easton, Inc.
Easton, PA 18042
fs:ass@cmgofeaston.com
623-019-3644

§ 19.6 Neither the owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

ARTICLE 20 TERMINATION OF THE CONTRACT See amendments to AIA Document A104-2017

§ 20.1 Termination by the Contractor

If the Architect fails to certify payment as provided in Section 21.02 for a period of 30 days through no fault of the Contractor or if the owner fails to make payment as provided in Section 21.02 for a period of 30 days, the Contractor may, upon seven additional days' notice to the owner and the Architect, terminate the Contract and recover from the owner payment for Work executed in accordance with reasonable overhead and profit, costs incurred by reason of such termination, and damages.

§ 20.2 Termination by the Owner for Cause

§ 20.2.1 The owner may terminate the Contract if the Contractor

1. repeatedly refuses or fails to supply enough properly stored materials;
2. fails to make payment to subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the subcontractors;
3. repeatedly disregards applicable codes, ordinances, rules and regulations or the orders of a public authority; or
4. otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 20.2.2 When any of the reasons described in Section 20.2.1 exists, the owner, upon certification by the Architect that sufficient cause exists to justify such action, may, without prejudice to any other remedy the owner may have and after giving the Contractor seven days' notice, terminate the Contract and take possession of the site and of all materials, equipment, tools and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever reasonable method the owner may deem expedient. Upon request of the Contractor, the owner shall furnish to the Contractor a detailed accounting of the costs incurred by the owner in finishing the Work.

§ 20.2.3 When the owner terminates the Contract for one of the reasons stated in Section 20.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 20.2.4 If the unpaid balance of the Contract when it exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby and other damages incurred by the owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the owner. The amount to be paid to the Contractor or owner as the case may be shall be certified by the Architect upon application and this obligation for payment shall survive termination of the Contract.

§ 20.3 Termination by the Owner for Convenience

The Owner may terminate the Contract for the Owner's convenience and without cause. The Owner shall pay the Contractor for Work executed; and costs incurred by reason of such termination including costs attributable to termination of Work contracts; and a termination fee if any as follows: \$M
(Insert the amount of or method for determining the fee payable to the Contractor by the Owner following a termination for the Owner's convenience, if any.)

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ARTICLE 21 CLAIMS AND DISPUTES See amendments to AIA Document A104-2017

§ 21.1 Claims and disputes and other matters in question arising out of or relating to this Contract including those alleging an error or omission by the Architect but excluding those arising under Section 26.0 shall be referred initially to the Architect for decision. Such matters except those provided as provided for in Section 02.22 and Sections 21.4.0 and 21.4.1 shall be referred to the Architect or 30 days after submission of the matter to the Architect be subject to mediation as a condition precedent to binding dispute resolution.

§ 21.2 Notice of Claims

§ 21.2.1 Claims by either the Owner or Contractor: here the condition giving rise to the claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 29.0 shall be initiated by notice to the Architect: within 30 days after occurrence of the event giving rise to such claim or: within 30 days after the claimant first recognizes the condition giving rise to the claim: whichever is later.

§ 21.2.2 Claims by either the Owner or Contractor: here the condition giving rise to the claim is first discovered after expiration of the period for correction of the Work set forth in Section 29.0 shall be initiated by notice to the other party.

§ 21.3 Time Limits on Claims

The Owner and Contractor shall commence all claims and causes of action against the other and arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in this Agreement: either in contract or tort: breach of warranty or otherwise: within the period specified by applicable law: but in any case not more than 23 years after the date of substantial completion of the Work. The Owner and Contractor: waive all claims and causes of action not commenced in accordance with this Section 02.0.

§ 21.4 If a claim or dispute or other matter in question relates to or is the subject of a mechanic's lien the party asserting such matter may proceed in accordance with applicable law: to comply with the lien notice or filing deadlines.

§ 21.5 The parties shall endeavor to resolve their disputes by mediation: which process the parties mutually agree otherwise shall be administered by the American Arbitration Association in accordance with their Construction Industry Mediation Procedures in effect on the date of this Agreement. A request for mediation shall be made in writing delivered to the other party to this Agreement and filed with the person or entity administering the mediation. The request may be made concurrently with the binding dispute resolution but in such event mediation shall proceed in advance of binding dispute resolution proceedings: which shall be stayed pending mediation for a period of 63 days from the date of filing: which shall be stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 21.6 If the parties have selected arbitration as the method for binding dispute resolution in this Agreement any claim subject to but not resolved by mediation shall be subject to arbitration: which process the parties mutually agree otherwise shall be administered by the American Arbitration Association in accordance with the Construction Industry Arbitration Rules in effect on the date of this Agreement. Demand for arbitration shall be made in writing delivered to the other party to the Contract and filed with the person or entity administering the arbitration. The award rendered by the arbitrator or arbitrators shall be final and judgment may be entered upon it in accordance with applicable law: in any court having jurisdiction thereof.

§ 21.7 Subject to the rules of the American Arbitration Association or other applicable arbitration rules: either party at its sole discretion may consolidate an arbitration conducted under this Agreement with any other arbitration: which it is a party provided that (2) the arbitration agreement governing the other arbitration permits consolidation;

(2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 21.8 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, any party to an arbitration may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim not described in the written Consent.

§ 21.9 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 21.10 Continuing Contract Performance

Pending final resolution of a Claim, except as otherwise agreed in writing, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 21.11 Waiver of Claims for Consequential Damages

The Contractor and Owner waive claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 20. Nothing contained in this Section 21.11 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

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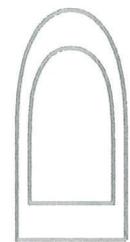
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CONTRACTOR (Signature)

« »« »

(Printed name and title)

[Handwritten signature in blue ink]
Jason Perzuti President



300 Amendments to AIA A104-2017

MBIT Welds Shop Renovation Project

300 – AMENDMENTS TO AIA DOCUMENT A104-2017

MIDDLE BUCKS AREA VOCATIONAL-TECHNICAL SCHOOL AUTHORITY MBIT WELD

SHOP RENOVATION

These amendments contain modification of and additions to AIA Document A104 – 2017, "Standard Abbreviated Form of Agreement Between Owner and Contractor," for the Agreement to be entered into between Middle Bucks Area Vocational-Technical School Authority (the "Authority," the "MBIT" or the "Owner") and the Contractor.

If no specific Architect is identified in the Agreement, the Owner or its designee shall perform activities assigned to the Architect in AIA Document A104 – 2017 and in these amendments thereto.

ARTICLE 2 – DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

Add Subparagraphs 2.3.4 and 2.3.5, as set forth below:

- 2.3.4 The Contractor acknowledges that time is of the essence to achieve Substantial Completion of the Work by **September 30, 2024**, and Final Completion of the Work by **October 28, 2024**. The Contractor agrees that all Work shall be executed diligently with trained workers in sufficient number and at a rate of progress that the Contractor meets these deadlines. The Contractor shall prepare and provide the Owner a project schedule identifying how the Contractor plans to meet these deadlines within one week of signing a written agreement with the Owner and shall update such schedule during the course of the Work whenever the schedule changes or upon request of the Owner for an updated schedule.
- 2.3.5 Should the Contractor fail to meet the Substantial Completion deadline, unless the deadline is extended as provided in the Contract Documents, the Contractor (and the Contractor's Surety) shall be liable for and shall pay to the Owner the sum of **\$1,000 US Dollars** as liquidated damages for each calendar day until the Work has reached Substantial Completion. The Owner's right to receive liquidated damages shall be in addition to all other rights and remedies available to the Owner at law or in equity. The Contractor agrees that such daily amount of liquidated damages is a fair and reasonable pre-estimate of loss and does not constitute a penalty, agrees not to challenge such daily amount and agrees to pay the Owner's legal fees in the event of such challenge.

ARTICLE 4 – PAYMENTS

Replace Subparagraph 4.1 in its entirety (including Subparagraphs 4.1.1 through 4.1.5) with the following:

MBIT Welds Shop Renovation Project

4.1. Based upon Applications for Payment submitted by the Contractor, certified by the Architect, and approved by the Owner, the Owner shall make payments to the Contractor within ten (10) days of approval by the Owner's Board of Directors.

4.2.2 Add the following after "or as follows:"

Final payment shall be made within 10 days of approval by the Owner's Board of Directors.

ARTICLE 5 – DISPUTE RESOLUTION

Replace Subparagraph 5.1 in its entirety with the following:

4.1. Binding dispute resolution shall be by arbitration at the sole option of the Owner, pursuant to the rules of the American Arbitration Association, or otherwise by bench trial (no jury) in the Court of Common Pleas for the County in which the Project is located.

ARTICLE 7 – GENERAL PROVISIONS

Add Subparagraphs 7.1.1, 7.1.2 and 7.1.3 as follows:

7.1.1 Where the Contract Documents do not identify specific quality or standards for materials or workmanship, such Work is to be of good quality and fit for the intended use and purpose thereof.

7.1.2 Any indication or notation applicable to one of a number of similar situations, materials or processes shall be deemed to apply to all such situations, materials or processes, except where a contrary result is indicated by the Contract Documents.

7.1.3 Any inconsistencies between different provisions of the Contract Documents shall be construed in the manner that provides the greatest value or betterment to the Owner.

Add the following to the end of Subparagraph 7.5.1:

7.5.1 [added] The Contractor shall be entitled to receive without charge five (5) sets of prime Contract Documents and one (1) set of documents for each other prime Contract (if any).

Replace subparagraph 7.9 in its entirety with the following:

7.9 Where the Contract Documents require that written notice be given between parties, written notice shall be effectuated upon delivery in person, by mail, by any delivery service, by facsimile, or by email.

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ARTICLE 8 – OWNER

Delete Subparagraph 8.1.1 in its entirety.

Replace Subparagraphs 8.1.2 and 8.1.3 in their entirety with Subparagraph 8.1.2 as follows:

8.1.2 The Owner shall not be responsible for furnishing surveys of the Project site or utility locations for the Project site. The Contractors shall have no claims for surface or subsurface conditions, whether unforeseen, foreseen, or foreseeable. The Contractor shall exercise special care in executing subsurface work in proximity of subsurface utilities, improvements and easements.

8.2 In Paragraph 8.2, delete the word "repeatedly." Replace

Subparagraph 8.3 in its entirety with the following:

8.3 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, and/or fails within a five-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner, without prejudice to any other remedy the Owner may have, may correct such deficiencies and may collect the reasonable cost thereof, including the Owner's expenses for related legal services, Architect services or other services, from the payment then or thereafter due the Contractor.

Add Paragraph 8.4 as set forth below:

8.4 Owner's rights set forth in Paragraph 8.2 and 8.3 shall be in addition to all other rights of the Owner established in the Contract Documents, at law or in equity.

ARTICLE 9 – CONTRACTOR

Replace Subparagraph 9.1.1 in its entirety with the following:

9.1.1 The Contractor warrants that it has carefully studied and reviewed the Contract Documents and has reported any errors, inconsistencies or omissions to the Architect. The Contractor hereby acknowledges and declares that to Contractor's knowledge the Contract Documents are full and complete, are sufficient to have enabled the Contractor to determine the cost of the Work and fulfill all of the Contractor's obligations under the Contract Documents. The Contractor shall immediately report any error, inconsistency or omission it encounters to the Architect for resolution. If the Contractor performs any construction activity knowing or having reason to know that it involves an error, inconsistency or omission, the Contractor shall bear the cost of correction.

Add Subparagraphs 9.2.3 through 9.2.9 as set forth below:

MBIT Welds Shop Renovation Project

- 9.2.3 The Contractor shall perform its Work in accordance with the Contract Documents and in a professional, businesslike and workmanlike manner. Among other things, at completion of the Work, the Contractor shall thoroughly clean the site and remove from the site all tools, equipment, obstructions and debris resulting from the Work.
- 9.2.4 Standard of Quality; The various materials and products specified in the specifications by name or description are given to establish a standard of quality and of cost for bid purposes. It is generally the intent to describe the minimum standard, and not to limit the bidder to any one material or product. However, where “no substitutions” are identified or where proprietary names are used, the Contractor must provide the specified project for compliance with the Owner’s requirements.
- 9.2.5 The Contractor shall abide by all federal, state and local legal requirements applicable to this project, including requirements imposed by statute, regulation, code, ordinance, administrative rule or by order of any court or administrative agency. This includes, but is not limited to, requirements governing health, safety, labor and environmental protection. Among other things, the Contractor shall submit an MSDS form (or other required form) and proper labeling to the Architect in advance of each chemical being used.
- 9.2.6 The Contractor shall perform its Work in a manner to interfere as little as possible with the normal conduct of school activities, using its best efforts to protect the safety of students, employees and MBIT property. No interruption to, or interference with, any of the services such as heating, lighting, plumbing, etc., together with all normal means of ingress and egress to buildings and property will be allowed without express permission of the MBIT.
- 9.2.7 The Contractor’s Work shall be at all times subject to the inspection and approval of the MBIT. Any materials that in the opinion of the MBIT do not comply with the Contract Documents will be rejected and shall be immediately removed from the site. Any workmanship that in the opinion of the MBIT does not comply with the Contract Documents shall be stopped at once, and corrective measures shall be instituted at once.
- 9.2.8 For a Project with multiple prime contractors, all Contractors are responsible for the coordination and integration of their respective scopes of Work. The General Trades Contractor is responsible for making all coordination decisions not mutually agreed upon by affected Contractors. The Owner and its consultants or agents shall not be liable for any costs incurred by a Contractor due to failure of Contractors to coordinate and integrate their Work or due to any delays in the Work. If a Contractor causes damages or additional costs to another Contractor (including by causing delays, interferences, hindrances, loss of efficiencies or acceleration of Work), an adversely impacted Contractor will have a third-party beneficiary claim for legal action against the responsible Contractor. All Contractors acknowledge and accept the right of other Contractors to bring such third-party beneficiary claims, waive any privity of contract defense against such claims, and agree not to include the Owner, its professional consultants or agents as parties in any such legal action.

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- 9.2.9 Contractor shall not assign its duties under this Agreement without the express written approval of Owner's Board of Directors.

Add Subparagraphs 9.3.4 through 9.3.7 as set forth below:

- 9.3.4 All persons employed by the Contractor to perform the Work shall be competent and first-class workmen and mechanics, who are duly skilled in their respective branches of labor.
- 9.3.5 Should the Owner object in writing to any personnel of Contractor or any Subcontractor, such person shall not perform services on the Project, and there shall be no change in the Contract Sum as a result of such objection.
- 9.3.6 The Contractor shall assign an on-site Superintendent for the project, who shall not be replaced so long as the Superintendent remains in the Contractor's employment without written consent by the Owner, and who shall be replaced without any change in the Contract Sum if the Owner, in its discretion, so requires.
- 9.3.7 Background Check Requirements (Act 34 and Act 151) and Employment History Review

For any employee or other representative of the Contractor or its subcontractors who enters the work site, the Contractor shall provide the MBIT originals (or notarized copies satisfactory to the Owner) of criminal record and child abuse background check reports, and shall to the extent required by School Code § 111.1 obtain an employment history review. When an original background check report is provided, the MBIT will copy and return the original to the Contractor. The reports must be provided before any employee or other representative of the Contractor or its subcontractors enters the work site.

Failure to comply with these requirements is a breach of the contract between the Contractor and the MBIT, will result in withholding of contract payments, and may result in assessment of a penalty under applicable law. The Contractor is responsible for ensuring compliance with these requirements by all its subcontractors. Required reports include criminal history record information from the Pennsylvania state police and FBI pursuant to the School Code, 24 P.S. § 1-111 (Act 34). Such criminal history record information shall be no more than five-years old. As to child abuse reports, the Contractor must provide for all such individuals an official clearance statement pursuant to the Child Protective Services Law, 23 Pa. C.S.A. § 6355 (Act 151). Such child abuse information shall be no more than five-years old.

- 9.4 In Paragraph 9.4, end the second sentence after the words "free from defects" and delete the remainder of the sentence.

Add Subparagraph 9.5.1 as set forth below:

MBIT Welds Shop Reno3ation Project

9.5.1 The Contractor shall claim tax exemptions for items that are tax exempt. The Contractor assigns to the Owner the right to collect any refund of taxes that are paid on tax exempt items.

9.6.2 In Subparagraph 9.6.2 add "or having reason to know" after "knowing" in the second sentence.

Add Subparagraph 9.6.3 as set forth below:

9.6.3 The Contractor is responsible for performing or coordinating proper inspections of the Work in accordance with federal, state and local statutes, codes and regulations.

9.8.2 In Subparagraph 9.8.2, add the following to the end: “, and in accordance with time limits in the Contract Documents.”

9.13 In Subparagraph 9.13, add the following as a new second sentence: “Representatives of governmental agencies responsible to inspect the Work shall have access at all reasonable times for such inspections, and the Contractor shall provide proper facilities for such access and inspection.”

9.15.1 Delete from the first sentence of Subparagraph 9.15.1 the following: “provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself),”

ARTICLE 11 – SUBCONTRACTORS

11.2 In Paragraph 11.2, delete the word “reasonable” from the second sentence and delete the third sentence in its entirety.

ARTICLE 13 – CHANGES IN THE WORK

Add the following Subparagraphs 13.2.1 through 13.2.4 to Paragraph 13.2 as follows:

13.2.1 Labor. Labor costs shall include the certified Base Prevailing Wage Rate (or the base wage rate if the Prevailing Wage Act is not applicable to the Project), plus actual fringe benefits per wage determination plus 25% for FICA, SUTA, FUTA and Workers' Compensation. No costs beyond those listed will be considered. Total labor cost for the Contractor’s employees shall be this cost plus a mark-up of 15% for overhead and profit. This mark-up includes all overhead, including supervisory personnel, estimators, staff, office time, etc.

13.2.2. Material, Supplies and Equipment: Costs shall be the invoice cost, plus sales tax, plus a mark-up of 10% for overhead and profit.

13.2.3 Bonds and Insurance: Costs shall be submitted without mark-up.

MBIT Welds Shop Reno3ation Project

13.2.4 Overhead and Profit on Subcontractor Labor: For work performed by a Subcontractor, the Contractor's cost shall be limited to the total Subcontractor's invoice plus a mark-up of 5% for the Contractor's overhead and profit. Subcontractors' invoice for hourly wages and material costs must be in accordance with the above definitions.

13.4 Delete Paragraph 13.4 in its entirety.

ARTICLE 14 – TIME

14.4 In Paragraph 14.4, insert “and approved by the Owner” after “Architect” Replace

Paragraph 14.5 in its entirety with the following

14.5 In the event of Project delay that the Owner determines in its discretion to be beyond the reasonable control or anticipation of the Contractor, the Owner may approve a Change Order extending the Contract Time. The Contractor shall not, though, assert any claim for additional payment due to, relating to or arising from Project delay. Should the Contractor violate this provision and assert a claim for additional payment due to, relating to or arising from Project delay, the Contractor shall be liable to the Owner for any costs incurred by the Owner (including fees charged to the Owner by attorneys, architects or other consultants of the Owner) associated with defending against such claim. See Subparagraph 9.2.7 for the right of Contractors to pursue third-party beneficiary claims against other Contractors causing Project delay.

ARTICLE 15 – PAYMENTS AND COMPLETION

Delete Subparagraph 15.2 on “Control Estimate” in its entirety. Add

Subparagraph 15.3.5 as follows:

15.3.5 Payments shall be made in accordance with Article 4 of this Agreement, subject to the retainage set forth in the Commonwealth Procurement Code, 62 Pa. C.S.A. Section 3921. Until 50% of the Work is completed, the Owner will pay 90% of the amount due the Contractor on account of monthly progress payments. When the Work is 50% completed and a request in writing from the Contractor has been submitted, the Architect and the Owner will consider a reduction of Retainage to 5%. Along with the written request the Contractor shall submit Consent of Surety to Reduction in Retainage, form AIA G707A (or other form acceptable to the Owner). However, at all times retainage may be increased from the above amounts by the Owner in its sole discretion, if it believes additional retainage is appropriate to protect the Owner from potential financial loss or risk based upon any reasons identified in Subparagraph 15.4.3.

15.4.2 In Subparagraph 15.4.2, in the second sentence, after “upon” insert “or after” and replace “minor deviations from the Contract Documents prior to completion” with “deviations from the Contract Documents”

MBIT Welds Shop Renovation Project

15.4.3. In Subparagraph 15.4.3, make the following changes:

At the end of the first sentence add the following: “, and the Owner may disapprove a Certificate of Payment for the same reasons.”

In the fourth sentence, after “The Architect may also withhold a Certificate for Payment” insert “and the Owner may also disapprove a Certificate for Payment” and after “the Architect’s” add “or the Owner’s”

In Subparagraph 15.4.3.2, replace “reasonable evidence indicating probable filing of such claims” with “directly or impliedly threatened”

In Subparagraph 15.4.3.4, delete the word “reasonable” In

Subparagraph 15.4.3.6, delete the word “reasonable” In

Subparagraph 15.4.3.7, delete the word "repeated"

Add the Subparagraph 15.4.5 as follows:

15.4.5 The Contractor may not stop or delay Work or terminate the Contract because the Architect withholds certifications for an Application for Payment in whole or in part.

15.5.1 At the end of Subparagraph 15.5.1, add the following:

The Contractor shall comply with the Pennsylvania Contractor and Subcontractor Payment Act.

15.6.1 Add sentence: Substantial completion requires that a Certificate of Occupancy be issued by Warwick Township permitting occupancy by the Owner.

15.6.3 In Subparagraph 15.6.3, after the initial use of “which” in the second sentence, insert “, if approved by the Owner,”

15.6.4 In Subparagraph 15.6.4, replace “if any,” with “if required by the Owner,”

15.7.2 In Subparagraph 15.7.2, in the first sentence insert “the Owner has approved such payment and” after “until”

Delete Subparagraph 15.7.3 in its entirety and replace with the following:

15.7.3 The making of final payment shall not constitute a waiver of any claims by the Owner.

ARTICLE 17 – INSURANCE AND BONDS

Add Subparagraphs 17.1.1.1 through 17.1.1.3 as set forth below

MBIT Welds Shop Reno3ation Project

- 17.1.1.1 In addition to the foregoing requirements, all insurance policies and bonds required for this Project shall be issued by companies with an A.M. Best Financial Strength rating of at least A-.
- 17.1.1.2 Certificates of Insurance acceptable to the Owner and on forms approved by the Insurance Commissioner of the Commonwealth of Pennsylvania shall be filed with the Owner prior to commencement of the Work. The Certificates shall contain a provision that coverages afforded under the policies will not be cancelled, reduced or non-renewed unless at least thirty (30) days prior written notice has been given to the Owner. Except for Workers' Compensation Insurance, the Owner shall be named with respect to the Project as an additional insured on all insurance. The Contractor shall furnish to the Architect copies of all endorsements that are subsequently issued amending coverage or limits.
- 17.1.1.3 During the term of the Contract, and for Comprehensive General Liability and Excess Liability for one year after the completion of the Work, the Contractor and each Subcontractor shall, at their own expense, purchase and maintain the following insurance in companies properly licensed and satisfactory to the Owner.

Workers' Compensation and Employer's Liability

Amounts and coverage as required by Law and the Excess (Umbrella) Liability Insurance Company.

Comprehensive General Liability

Including coverage for premises, operations, independent contractors, elevators, contractual liability, products, completed operations, Broad Form property damage, explosion, collapse, and underground property damage, personal injury. No deductible permitted. Coverage amount limit shall be a minimum of one million dollars (\$1,000,000.00).

Excess (Umbrella) Liability Insurance

Bodily Injury and Property Damage following the form of the aforementioned Comprehensive General Liability, Comprehensive Automobile Liability, and Employer's Liability. Coverage amount limit shall be a minimum of two million dollars (\$2,000,000.00) Bodily Injury and Property Damage combined. No deductible permitted. No "gaps" permitted between primary and excess coverage.

The Owner shall be named as Certificate Holder. The Owner and Architect shall be named as Additional Insured under this policy for this Project.

Delete Subparagraphs 17.1.2 through 17.1.9 in their entirety.

Delete Paragraph 17.2 (including Subparagraphs 17.2.1 through 17.2.3) in its entirety and replace it with the following:

17.2 The Owner shall provide Builder's Risk Insurance.

MBIT Welds Shop Renovation Project

17.3.1 Add the following to the end of Subparagraph 17.3.1:

The Contractor shall provide a performance bond and a labor and material payment bond, each in the amount of 100% of the contract price, in forms required by the Owner, within five (5) days of receiving notice of the intent to award the bid to the Contractor.

ARTICLE 18 – CORRECTION OF WORK

18.1 End the second sentence of Paragraph 18.1 after the words “at the Contractor’s expense” and delete the remainder of the sentence.

18.2 In Paragraph 18.2, replace “within one year” with “anytime” in the first sentence, and delete the second and third sentences.

18.4 Delete Paragraph 18.4 in its entirety.

18.5 Delete Paragraph 18.5 in its entirety.

ARTICLE 19 – MISCELLANEOUS PROVISIONS

Add the following Paragraph 19.7:

19.7 No cash allowances are included in this Project.

Add the following Paragraph 19.8:

19.8 The Contractor shall comply with the Employment Verification Act, as follows:

- (1) The Pennsylvania Public Works Employment Verification Act (43 P.S. §§ 167.1- 167.11) requires Contractors and Subcontractors performing work on “public works projects” to comply with federal employment eligibility requirements, including verification through the U.S. Department of Homeland Security’s E- Verify program which compares I-9 employment verification data to data from the Department of Homeland Security and Social Security Administration records, in order to confirm that employees are authorized to work in the United States.
- (2) All Contractors shall submit a “Public Works Employment Verification Form” to the Owner through the Architect at the same time when performance and payments bonds are submitted. Submission of this form is a precondition of the Contract being awarded and executed. These requirements apply to all employees hired by the Contractor or Subcontractor regardless of whether the employee will be working onsite or offsite.
- (3) Subcontracts between the Contractor and its Subcontractors or between any Subcontractor and its Subcontractors are required to contain notification of applicability of the Act, the requirement to provide a “Public Works Employment

MBIT Welds Shop Renovation Project

Verification Form” as stated under number 4 below, and reference to the Department of General Services website as stated under item number 6 below.

- (4) All Subcontractors shall submit a “Public Works Employment Verification Form” to the Contractor, who shall submit the form to the Owner through the Architect prior to the Subcontractor beginning either onsite or offsite work. Submission of this form shall be a precondition of the Subcontract remaining in force, and the Contractor shall terminate the Subcontract if the Subcontractor does not comply. These requirements apply to all employees hired by the Subcontractor regardless of whether the employee will be working onsite or offsite. “Subcontractor” includes any entity that performs work on the project other than the prime Contractor and other than an individual. The term does not include an entity that is solely a material supplier for the project.
- (5) The Contractor or Subcontractor shall be responsible for any penalties imposed for failure to comply with this Act.
- (6) Contractors and Subcontractors may access the form at www.dgs.state.pa.us. The Chapter 66 Guidelines may be located at <http://www.pabulletin.com/secure/data/vol42/42-52/index.html>.

Add the following Paragraph 19.9:

19.9 The Contractor agrees to comply with the Pennsylvania Human Relations Act, 43 P.S. § 951, et. seq., which prohibits discrimination in employment on account of race, color, familial status, religious creed, ancestry, age, sex, national origin, handicap, disability or use of guide of support animal, and to comply with the additional non-discrimination provisions applicable to public works in Pennsylvania, 62 Pa. C.S. § 3701:

- (1) In the hiring of employees for the performance of work under the contract or any subcontract, no contractor, subcontractor or any person acting on behalf of the contractor or subcontractor shall by reason of gender, race, creed or color discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.
- (2) No contractor or subcontractor or any person on their behalf shall in any manner discriminate against or intimidate any employee hired for the performance of work under the contract on account of gender, race, creed or color.
- (3) The contract may be canceled or terminated by the government agency, and all money due or to become due under the contract may be forfeited for a violation of the terms or conditions of that portion of the contract.

Add the following Paragraph 19.10:

19.10 If the Work includes the installation of steel, steel products or steel machinery and equipment, the Contractor shall comply with Pennsylvania’s Steel Product Procurement Act, 73 P.S. § 1881, et seq., as amended, which requires that steel products produced in the United States be utilized in public works.

MBIT Welds Shop Renovation Project

ARTICLE 20 – TERMINATION OF THE CONTRACT

20.1 Delete Paragraph 20.1 in its entirety.

20.2 Change Subparagraph 20.2 as follows:

In Subparagraph 20.2.1.1, delete "repeatedly" In

Subparagraph 20.2.1.3, delete "repeatedly" In

Subparagraph 20.2.1.4, delete "substantial"

20.2.2 In Subparagraph 20.2.2, change "seven" to "five."

20.3 In Paragraph 20.3, end the second sentence after the words "payment for Work executed" and delete the remainder of that sentence. Add sentence: The amount of payment will be determined by an estimate prepared by the Owner's Engineer

ARTICLE 21 – CLAIMS AND DISPUTES

21.1 In Subparagraph 21.1, delete the second sentence.

21.2 Replace Subparagraph 21.2 with the following:

21.2 The Contractor shall provide written notice to the Owner of any claim within 21 days of becoming aware of the circumstances giving rise to the claim.

Delete Subparagraph 21.3 in its entirety.

Replace Subparagraphs 21.5 through 21.9 in their entirety with Subparagraph 21.5 as set forth below:

21.5 Any controversy, dispute or Claim arising hereunder that is not resolved to the satisfaction of all parties by the Architect shall be resolved by binding arbitration only if arbitration is selected by the Owner, pursuant to the rules of the American Arbitration Association. In the absence of such selection by the Owner, any controversy, dispute or Claim arising out of or related to the Contract Documents, or the breach thereof, shall be settled by non-jury trial in the Court of Common Pleas in the county where the Project is located. All parties hereby consent to such jurisdiction and venue and irrevocably waive any right to a jury trial.

Replace Paragraph 21.11 in its entirety with the following:

21.11 The Contractor waives any claim for consequential damages arising out of or relating to the Contract Documents or from any breach or violation thereof.

Performance Bond

This form will be filled out once the contract has been finalized.

G – PERFORMANCE BOND

Bond No.: _____

Amount: \$1,663,975.00

CMG of Easton, Jason M. Pezzuti, President, as principal (the “Contractor”), and

Broker: Anderson & Catania Surety Services

Surety: Fidelity and Deposit Company of Maryland

_____, as surety (the “Surety”), are firmly bound to

MIDDLE BUCKS AREA VOCATIONAL-TECHNICAL SCHOOL AUTHORITY

as obligee (hereinafter called the “Owner”), in the sum of One Million, Six Hundred Sixty-Three Thousand, Nine Hundred Seventy-Five dollars (\$1,663,975.00) for the payment of which we bind ourselves, our heirs, executors, legal representatives, successors and assigns, jointly and severally, by this Bond.

Background. The Contractor submitted to the Owner a bid (the “Bid”) to perform certain weld shop renovations for the Owner in connection with a project known as MBIT Weld Shop Renovations, such Work to be performed pursuant to plans, specifications and other related contract documents that are incorporated into the Bid by reference. The Bid and other contract documents shall be deemed a part hereof as fully as if set out herein and shall together be referred to as the “Contract Documents.” The Owner is a “contracting body” under provisions of Act No. 385 of the General Assembly of the Commonwealth of Pennsylvania, approved by the Governor on December 20, 1967, known and cited as the “Public Works Contractors’ Bond Law of 1967” (the “Act”). Under the Contract Documents, it is provided that if the Contractor shall furnish this Bond to the Owner, and if the Owner shall make an award to the Contractor in accordance with the Bid, then the Contractor and the Owner shall enter into an agreement with respect to performance of such work (the “Agreement”), the form of which Agreement is set forth in the Contract Documents. It is a condition of the Contract Documents that this Bond shall be furnished by the Contractor to the Owner.

NOW, THEREFORE, intending to be legally bound, the Contractor and Surety agree as follows:

1. The Contractor and the Surety, jointly and severally, bind themselves for performance of the obligations of the Contractor under the Agreement and other Contract Documents, and to all of the terms of this Performance Bond. The Contractor and Surety understand that time is of the essence in performing their respective obligations under the Contract Documents and this Bond.

2. The Contractor and Surety will be relieved of their obligations under this Bond if and when the Contractor shall perform all of its obligations under the Agreement and other Contract

Documents in the manner provided therein, including the making of any payments due to the Owner and its employees, directors or agents, and the Contractor and the Surety shall perform all of their obligations under this Bond. This Bond shall remain in force and effect until all of the foregoing conditions are fulfilled.

3. If the Owner terminates its Agreement with the Contractor for cause pursuant to the Contract Documents or if the Contractor has abandoned its work in violation of the Contract Documents, the Surety will have the following rights and obligations:

a. As Option 1, the Surety shall fulfill the performance of all obligations of the Contractor under the Contract Documents and this Bond. Pursuant to Option 1, any replacement contractor retained by the Surety to fulfill the performance of the obligations of the Contractor must be qualified as a responsible contractor under Pennsylvania law. The original Contractor shall not serve as the Surety's replacement contractor. The Surety shall provide the Owner, upon request, information on the pertinent qualifications of any proposed replacement contractor. The Owner will pay the unpaid contract price to the Surety as work progresses, under the payment terms of the Contract Documents.

b. As Option 2, the Surety may request to enter a written agreement with the Owner, pursuant to which the Owner shall complete all unfulfilled work of the Contractor pursuant to the Contract Documents, with reimbursement from Surety to Owner if the cost of finishing the work, together with all other expenses for which the Surety is liable, exceeds the unpaid balance to the Contractor under the Contract Documents. If the Surety wishes to make a request to the Owner pursuant to Option 2, it must do so within 30 days of receipt of written notice by the Owner that the Agreement with the Contractor has been terminated or that the Contractor has abandoned its work under the Contract Documents. The Owner shall be under no obligation to accept a request by the Surety to utilize Option 2, and if such a request is not timely made or is denied, the Surety shall proceed pursuant to Option 1.

4. Without limiting the obligations otherwise stated in this Bond, the Surety shall be liable under this Bond to pay the Owner the following to the extent the Contractor does not make such payment to the Owner: (a) any money the Contractor is obligated to pay the Owner under the Contract Documents, including any liquidated damages; and (b) any cost, expense, liability or damage incurred by the Owner (including any fees or costs of attorneys, architects, engineers, construction managers or other consultants) arising from (i) any default, failure or termination of the Contractor, (ii) the Owner's enforcement of Contractor or Surety obligations under this Bond, or (iii) any delay in performance of the Contractor's scope of Work caused by the Contractor or Surety that violates a project schedule approved pursuant to the Contract Documents, without regard to whether such delay occurs before or after commencement of the Surety's obligations pursuant to Paragraph 3 of this Performance Bond.

5. Amounts due and not paid to Owner when due under this Bond shall bear interest from the date the payment is due at the legal rate prevailing in Pennsylvania.

6. This Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract Documents not increasing the

contract price more than twenty percent (20%), so as to bind the Contractor and the Surety to the performance of the Contract Documents as so amended, and so as to increase the Bond amount by the increased contract price amount. The term "amendment," wherever used in this Bond and whether referring to this Bond, the Contract Documents, or the Agreement shall include any alteration, addition, extension or modification of any character whatsoever.

7. The Contractor and the Surety agree that none of the following will in any way reduce the Surety's obligations under this Bond, and the Surety waives notice of any of the following: (1) any change, alteration or addition to the terms of the Contract Documents or to the work to be performed thereunder; (2) any extension of time; (3) any act of the forbearance of either the Contractor or the Owner toward the other; (4) any acceleration of payments to the Contractor resulting in payments to the Contractor of more than the amount to which the Contractor is entitled under the Contract Documents or in advance of the time required under the Contract Documents.

8. No settlement between the Owner and the Contractor shall abridge the right of any other beneficiary hereunder having a claim not yet asserted or satisfied.

9. Owner's acceptance of the Contractor's work under the Contract Documents or approval of final payment to the Contractor shall not terminate the performance obligations of Contractor and Surety under the Contract Documents and this Bond and shall not waive any later claim for nonperformance.

10. Owner may at any time, but is not obligated to, notify Surety of Owner's concerns about Contractor performance, and send to Surety copies of any communication to Contractor.

11. This Bond shall be interpreted in accordance with the laws (including the common law) of the Commonwealth of Pennsylvania. Exclusive jurisdiction and venue for any litigation concerning this Bond shall exist in the Court of Common Pleas in the county in which the project is located. The Contractor and the Surety waive a jury trial in any such litigation.

12. This Bond is executed and delivered under the subject to the Act.

IN WITNESS WHEREOF, the Contractor and the Surety cause this Bond to be signed, sealed and delivered this _____ day of _____, 20____.

MBIT Welds Shop Renovation Project

500 - NON-COLLUSION AFFIDAVIT

MBIT Welds Shop Renovation

NON-COLLUSION AFFIDAVIT

MBIT WELD SHOP RENOVATION

Middle Bucks Area Vocational-Technical School Authority

State of Pennsylvania :

:

:

County of Northampton :

I state that I am President of
(Title)

CMG of Easton, Inc.
(Name of Firm)

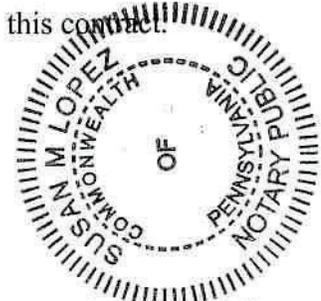
and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors and officers. I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

1. The price(s) and amount of this bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.
5. CMG of Easton, Inc. (name of firm), its affiliates, subsidiaries, officers, directors and employees are not under investigation by any governmental agency, and have not in the last three years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows (explain any exceptions):

MBIT Welds Shop Renovation

I state that CMG of Easton, Inc. (name of firm) understands and acknowledges that the above representations are material and important, and will be relied on by MIDDLE BUCKS AREA VOCATIONAL-TECHNICAL SCHOOL AUTHORITY in awarding the contract(s) for which this bid is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from MIDDLE BUCKS AREA VOCATIONAL-TECHNICAL SCHOOL AUTHORITY of the true facts relating to the submission of bids for this contract.



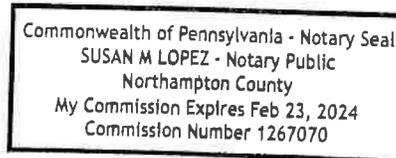


Jason M. Pezzuti, President
(Signature, Name & Company Position)

SWORN TO AND SUBSCRIBED BEFORE ME THIS 6th DAY OF October, 2023.



(Notary Public)



600 Supplemental General Conditions

MBIT Welds Shop Renovation Project

600 – SUPPLEMENTARY GENERAL CONDITIONS

1. N/A
2. Standard of Quality- The various materials and products specified in the specifications by name or description are given to establish a standard of quality and of cost for bid purposes. It is not the intent to limit the acceptance to any one material or product specified, but rather to name or describe it as the absolute minimum standard that is desired and acceptable. Where proprietary names are used, whether or not followed by the words "or as approved equal", they shall be subject to equals only as approved by the Engineer.
3. N/A
4. No Cash Allowances - No cash allowances for any purpose are included in the specifications of this project.
5. Insurance
 - A. The Contractor shall not commence work under this Contract until he has delivered all required certificates to the Owner and received approval for all insurance required herein or in other sections of these documents. The owner is Middle Bucks Institute of Technology. The School's (OWNER) Representative (Engineer) shall be "Name Additional Insured" under Contractor's Protective Liability Coverage. Owner will provide appropriate Owner designations for this purpose.
 - B. At the time the Contractor returns the executed Contract to the Owner, the Contractor shall provide the Owner with two copies each of the Certificate of Insurance of the types and for the amounts of insurance coverage as follows:

	1.	General Liability to include Comprehensive Form, Premises/Operations, Hazard, Contractual Insurance, Broad Form Property Damage, Independent Contractors, and Personal Injuries:	
		Bodily Injury	\$1,000,000
		Property Damage	\$1,000,000
		Aggregate	\$2,000,000
	2.	Automobile Liability to include Comprehensive Form, Owned, Hired, and Non-Owned:	
		Bodily Injury	\$1,000,000
		Property Damage	\$1,000,000

MBIT Welds Shop Renovation Project

		Aggregate	\$2,000,000
	3.	Excess Liability Umbrella Form:	
		Combined	\$2,000,000
	4.	Owners Protective Liability:	
		Bodily Injury	\$1,000,000
		Property Damage	\$1,000,000
		Aggregate	\$2,000,000
	5.	Worker's Compensation and Employer's Liability:	
		As required by laws of PA	

700 Owners Notification

MBIT Welds Shop Renovation Project

700 - OWNERS NOTIFICATION

DESCRIPTION

- A. Upon receipt of the Contractor's schedule, a pre-construction meeting shall be held at the site at which that time the Contractor shall submit to the Owner the schedule of work.
- B. Two-week notification shall be given to the Facility Manager and Engineer prior to start of work.
- C. Coordination of the scheduling shall be made through the Facility Manager.

800 Special Contract Requirements

MBIT Welds Shop Renovation Project

800 – SPECIAL CONTRACT REQUIREMENTS**1. INTENT OF DRAWINGS AND SPECIFICATIONS**

- a. The Drawings which accompany the Specifications are herein designated Contract Drawings and are provided for the purpose of illustrating the general character and extent of work. General Notes: Drawings of existing conditions are for reference only. These drawings are reproductions of the original contract documents and/or based upon limited test cut sampling and are to be considered as a representation of the building intent. These documents are not “as built” drawings of the actual construction. The Contractor shall notify the Engineer of any conditions that affect the work and are not in conformance with the contract documents before proceeding with the work. The Engineer shall provide clarification of any portion of the Specifications and Drawings should any discrepancies be identified.
- b. All work included in the Specifications and shown on the Drawings shall be executed and furnished by the Contractor as if described in both. Should any incidental work or materials be necessary for proper implementation of the intent of the Specifications or Plans, whether directly or indirectly, the Contractor shall agree to perform all work and furnish and install all such materials as if same were fully specified.

Any explanations, clarifications or interpretations of the intent of the Specifications and Drawings requested by the Contractor shall be directed to the Engineer for resolution. Documents may not be modified in any way and is for the sole purposes of their intended use and shall not be duplicated without written consent of Bustamante Engineers, Inc.

2. MATERIALS AND SUBSTITUTIONS

- a. Materials of manufacturers, other than those specifically named, will be given equal consideration provided that written approval for the substitution is obtained from the Engineer.
- b. Any requested substitute for the specified product(s) must be submitted in writing to the Engineer at least seven (7) days prior to bid due date. If the substitution is approved, a bulletin will be issued notifying all bidders that an additional product has been added to the approved list of acceptable roofing systems. If a bulletin is not issued within 72 hours of the bid due date and time, the original specified list of roofing system components and materials will prevail. There will be no manufacturer or system substitutions considered after the seven (7) day mandate.

MBIT Welds Shop Renovation Project

- c. The Contractor shall be totally responsible for all costs incurred by dimension changes and weight changes occasioned by any approved substitution.

1. COST BREAKDOWN & SUBMITTALS

- a. The Contractor, within ten (10) days after being notified to proceed with the work, shall submit to the Engineer a detailed breakdown sheet of the labor and materials involved, giving quantities and unit prices which equal the total Contract price. This itemization breakdown, when approved, shall form the basis for requests for payment by the Contractor. Submit original and four (4) copies.
- b. Contractor shall provide the Client and Engineer a Submittal Binder with all materials and other information necessary to satisfactorily complete the work.

4. PROGRESS SCHEDULE

- a. Contractor shall submit to the Owner and Engineer a bar chart progress schedule with logic ties for approval.
- b. Individual Work Stages: Show significant stages for each category or unit of work, including (where applicable), but not necessarily limited to, subcontract letting, submittals, fabrication, deliveries, installation, start up and placement into final use and operation.
- c. Distribution: Following the initial submittal to and response by the Owner, print and distribute progress schedule to the Owner (3 copies), separate Contractors (if any), principal subcontractors and suppliers or fabricators, and other with a need-to-know schedule-compliance requirement. When revisions are made, distribute updated issues to same entities, and post in same locations. Delete entities from distribution when they have completed their assigned work and are no longer involved in performance of scheduled work.

5. SUB-CONTRACTS

- a. Contractor shall, as soon as practicable after the signing of their Contract and before any agreement with subcontractors is made, if any, notify the Engineer in writing of the names of all subcontractors proposed, if any,

MBIT Welds Shop Renovation Project

for the various parts of the work and shall not employ any subcontractors without the written approval of the Engineer. Subcontractors shall provide certificates of insurance meeting the requirements of the Supplementary General Conditions section of these specifications.

Provide list of 3 references for each subcontractor proposed for use on the project. The approval of subcontractors shall in no way relieve the Contractor of responsibility of all the requirements of the contract documents.

6. PERMITS AND FEES

- a. The Contractor shall obtain and pay for all necessary permits and licenses in conjunction with work under their contract for the total sum as indicated on the Bid Form. They shall secure at their own cost all certificates, use, inspection, approval, etc., from local and other authorities, utilities and from all State and other agencies having jurisdiction. Permits shall be permanently displayed at the site of the work.
- b. Cost for all permit fees shall be included in the base bid.
- c. All taxes associated with building materials, permits and other aspects of the project shall be borne by the contractor.

7. PROJECT SAFETY

- a) SAFETY IS OF ABSOLUTE IMPORTANCE: The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety Precautions and programs associated with the work. Under no circumstances shall the Contractors activities jeopardize the safety of the building occupants or the general public.
- b) All work shall be performed in accordance with all applicable Construction Safety Standards rules and regulations for Construction Operations, as set forth by the Commonwealth of Pennsylvania Department of Labor and Industry and OSHA.
- c) Engineer or owner shall not be responsible for project safety and assumes no liability of this contract.

8. FIRE SAFETY

MBIT Welds Shop Renovation Project

- a) Open fire is not permitted on the building site at any time.
- b) Minimum protection shall consist of two fully charged fire extinguishers rated at a minimum of 2A 20BC on the roof and within 50 feet of the daily work areas and two fire extinguishers of same rating, at all times during the approved use of, or in the presence of, open flame, hot bitumen, flammable solvents, primers, sealant or adhesives.
- c) Unobstructed access to the buildings and individual units shall be provided at all times.
- d) Take all precautions to eliminate possible fire hazards at the site, including but not limited to the following:
 - (1) Remove all combustible debris from the roof and storage areas on a daily basis.
 - (2) Store highly flammable materials in well-ventilated areas; mixing and preparation of such materials is also restricted to such areas. Handle all such materials in accordance with safe practices and the requirements of authorities having jurisdiction.
 - (3) Do not store large quantities of flammable materials at the site.

9. 9. CODE AND REGULATION COMPLIANCE

- a) Comply with all applicable federal, state and local rules and regulations relating to buildings, employment, the preservation of public health and safety, use of streets, and the performance of the work under this Contract. It shall be the responsibility of the Contractor to fully understand all such requirements and to ensure that such are fully and faithfully enforced.

10. TEMPORARY WATER AND ELECTRICITY

- a) Contractor shall make all necessary arrangements with the Owner for the furnishing of temporary water supply required to complete work. Contractor shall furnish necessary extension of piping, hoses, etc., to install his work. There will be no charge for construction water. Contractor shall protect the temporary lines to avoid damage and shall

MBIT Welds Shop Renovation Project

remove same when directed.

- b) The Contractor shall make all necessary arrangements for providing their own temporary electric services.

Specifications

MBIT Welds Shop Renovation Project

SPECIFICATIONS

900 – DESCRIPTION OF WORK

Description: The work is to expand and renovate the current weld shop within the existing MBIT facility in two phases to allow continuous use of the equipment and educational program. This will include the demolition of the current interior components of the welding shop and adjacent classroom to allow for construction of new welding booths, a new classroom and locker room facilities within the existing building footprint. Exterior construction will include the demolition and replacement of an existing open sided steel shed and roof, installation of new air filtration system to supplement the existing system and removal of existing weld gas piping and installation for new piping from the welding gas bottle house.

This description of work is supplement to the sheets in the plan package and data sheets. Refer to the plans for specific locations and requirements. All technical requirements are provided in the plans and data sheets found in the Appendices of this specification.

1. The contractor will be responsible for all demolition and construction of the new weld shop and its components.
2. In addition, the contractor will be responsible for the removal of the existing shed and installing a new lean-to shed located adjacent to the existing welding shop.
1. The contractor will be responsible for all civil work including removal of a low concrete wall and repaving of the existing asphalt area, excavating, and backfilling the foundations and installing environmental erosion and sedimentation controls in accordance with the plans and permits, if required.
4. The contractor will be responsible for procuring and installing all Architectural features including brick work, roofing and insulation, sealants, interior finishes, painting, doors, lighting, etc. in accordance with the plans, schedules, and data sheets.
5. The contractor will be responsible for procuring and installing all structural components for the weld shop and shed including the foundations, CMU walls, reinforcing steel, mortar, grout, reinforced concrete and structural steel, metal decking, bolts, nuts, washers and fasteners, etc. as required in accordance with the plans.
6. The contractor will be responsible for all welding to be done by a certified welder in accordance with the plans and industry standards.
7. The contractor will be responsible for procuring and installing all mechanical and plumbing equipment including a one (1) ton jib crane mast, foundation, and hoist, HVAC equipment, locker room plumbing, compressed air system, etc. in accordance with the plans and data sheets and manufacturer's requirements.
8. The contractor will be responsible for procuring and installing all Electrical equipment for the power supply to the welding equipment, lighting and control interfaces with Siemens air handling and fire protection systems, etc. in accordance with the plans, specifications and data sheets,

MBIT Welds Shop Renovation Project

manufacturer's requirements, and the National Electric Code (NEC).

9. The contractor will be responsible for modification of the existing air filtration equipment and procuring and installing a new Pulsatron, or equivalent, supplement air filtration system including ductwork, articulating arms, etc. in accordance with the plans, specifications, data sheets and manufacturer's requirements.
10. The contractor shall be responsible for procuring equipment in accordance with the technical and performance requirements specified in the plans and data sheets. The contractor, after reviewing various manufacturer's models, will review the selection and obtain MBIT's written approval before proceeding with the purchase.
11. The contractor will be responsible for relocating existing welding equipment to on-site storage or within the addition, as directed by the owner.
12. The contractor will be responsible for providing temporary enclosures or temporary connection or extension of existing services to allow phasing and transition of the welding equipment and continuous operation of the facility.
11. The contractor shall be responsible for all startup & test of equipment and systems.
14. Warranty certificates shall be submitted to MBIT upon completion of the specified work.
15. The contractor shall be responsible for site cleanliness and removal of all debris.
16. The contractor is responsible for instituting and complying with a Site Safety program.

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910 - CONTRACTORS RESPONSIBILITIES

Construction Notification

A pre-construction meeting shall be held at the site at least 72 hours prior to the start of scheduled work. During the meeting, the contractor shall provide a detailed schedule of work, as approved by the engineer.

Temporary Facilities and Controls

1. Provide or make use of temporary facilities and controls as needed, for the Work which may include, but is not necessarily limited to:
 - a. Temporary storage trailer, dumpster, and machinery. If dumpsters are used, the township may require a permit fee.
 - b. Enclosures such as tarpaulins, barricades, and canopies.
 - c. Temporary fencing of areas of work.
 - d. Temporary protection of building and landscaping.
 - e. Maintain temporary facilities and controls in proper and safe condition throughout progress of the Work.
 - f. All temporary facilities and controls, especially machinery, shall be locked and secured, so as to prevent access when Contractor is not on site.
2. School will identify a staging area and all dumpsters shall remain inside this designated area.
1. Maintain temporary facilities and controls in proper and safe condition throughout progress of the Work. All temporary facilities and controls, especially machinery, shall be locked and secured so as to prevent access when Contractor is not on site.
4. Installing Contractor's signs on the premises is strictly prohibited.
5. The Contractor shall cart away construction debris to the nearest PADEP approved landfill or transfer station.

Temporary Protection of Building and Landscaping:

1. Provide adequate temporary protection from damage to all portions of the building exterior and all landscaping in the area of the Work. In the event of damage, repair and replacement shall be done to the Owner's satisfaction at no additional cost to the Owner.
2. Following the removal of the existing materials, the Contractor shall provide, as required, protection from the elements: wind or gravity driven rain, snow or hail, and wind.
1. Provide and maintain for the duration of construction all scaffolds, tarpaulins, canopies, warning signs, steps, platforms, ladders, bridges, and other temporary construction necessary for proper completion of the Work in compliance with pertinent safety and other regulations.
4. School will identify a staging area and all dumpsters shall remain inside this designated area.

MBIT Welds Shop Renovation Project

5. Maintain temporary facilities and controls in proper and safe condition throughout progress of the Work. All temporary facilities and controls, especially machinery, shall be locked and secured so as to prevent access when Contractor is not on site.
6. Installing Contractor's signs on the premises is strictly prohibited.
7. The Contractor shall cart away construction debris to the nearest PaDEP approved landfill or transfer station.

Temporary Electricity:

1. Contractor shall make all necessary arrangements with the Owner for the furnishing of electrical supply required to complete work. There will be no charge for construction electricity. Contractor shall protect any temporary lines to avoid damage and shall remove when directed.

Telephone and Sanitary Facilities:

1. Telephone and toilet facilities will not be available to the Contractor at the site. At no time will workers be allowed to use the building facilities or adjacent building facilities.
2. Provide temporary sanitary facilities as required. Maintain in a sanitary condition at all times. Sanitary facilities shall be locked when the Contractor or Subcontractor is not on site. The Association will determine the locations of facilities.

Parking:

1. Contractor shall use only unmarked parking spaces.
2. Clear and unobstructed access shall be maintained throughout the construction of the project. Enclosures:
1. Provide and maintain for the duration of construction all scaffolds, tarpaulins, canopies, warning signs, steps, platforms, ladders, bridges, and other temporary construction necessary for proper completion of the Work in compliance with pertinent safety and other regulations.

Cleaning:

1. All wastes, removed product, and unsuitable materials is the contractor's responsibility to remove off-site. The cost of removal shall be included in the contract price.

Waste Storage Container:

1. The Contractor is responsible for providing a suitable waste storage container, if needed, of sufficient size for the temporary storage of wastes generated by the Work of this Project.
2. The Contractor is responsible for the proper and timely transfer of stored wastes to a proper off-site disposal.
1. The Contractor is responsible for all permits and fees necessary for waste disposal.

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Licenses and Permits

1. All applicable building permits, fees, licenses, etc., will be the responsibility of the Contractor and provided to the Owner and the Engineer prior to start of work. Cost for such permits, licenses, taxes shall be borne by the contractor.

Maintenance and Removal

1. Maintain temporary facilities and controls as long as needed for safe and proper completion of the Work.
2. Remove such temporary facilities and controls as rapidly as progress of the Work will permit. Contractor to provide identification at all times stating the name of Contractor.

Means & Methods:

Means and methods shall be the sole responsibility of the contractor.

The Engineer shall not supervise, direct, or have control over contractor's work. The Engineer or Association shall not have authority over or responsibility for the construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the work of the contractor.

Special Inspections:

If Special Inspections are not required by the Construction Code Official, the contractor will engage a qualified testing and inspection firm to perform testing and inspections of all work.

Project Safety:

1. **SAFETY IS OF ABSOLUTE IMPORTANCE:** The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety Precautions and programs associated with the work. Under no circumstances shall the Contractor's activities jeopardize the safety of the building occupants or the general public.
2. All work shall be performed in accordance with all applicable Construction Safety Standards rules and regulations for Construction Operations, as set forth by the Commonwealth of Pennsylvania Department of Labor and Industry and OSHA.
1. Engineer or owner shall not be responsible for project safety and assumes no liability of this contract.
4. Take all precautions to eliminate possible fire hazards at the site, including but not limited to the following:
 - A. Remove all combustible debris from the roof and storage areas on a daily basis.

MBIT Welds Shop Renovation Project

- B. Store highly flammable materials in well-ventilated areas; mixing and preparation of such materials are also restricted to such areas. Handle all such materials in accordance with safe practices and the requirements of authorities having jurisdiction.
- C. Do not store large quantities of flammable materials at the site.

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920 – DEMOLITION

GENERAL DESCRIPTION

1. This section requires the removal and subsequent off-site disposal of the following:
 - a. Asphalt/fiberglass shingles and accessories.
 - b. Removal of siding and framing materials and assemblies
 - c. Removal of masonry veneer, where necessary
 - d. Sheathing and framing (if necessary).
 - e. Wood framing or other areas that is uncovered to need replacement or repair.
2. Related work:
 - a. Other forms of selective and complete demolition may be required in the various sections of these specifications.
 - b. Clean up of the affected areas.
 - c. Temporary removal of other materials that may be in the way of construction.
 - d. All materials temporarily removed shall be stored on site and protected from damage, vandalism and weathering.
1. Job Conditions:
 - a. Conduct selective demolition work between 8 a.m. to 4 p.m. Provide a minimum of forty- eight hours' advance notice to the Engineer of any demolition. This is specific to each occurrence.
 - b. The Contractor shall take care not to damage surrounding materials and shall use methods that reduce interior vibrations (that may result in interior damage). If the contractor is negligent during the removal of materials, the contractor will be responsible for damages. The Engineer will determine if removal methods are acceptable.
4. Remove from the building site debris, rubbish, and other materials resulting from demolition operations. Transport and legally dispose off-site
 - a. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.
 - b. Burning of removed materials is not permitted.
5. General: Upon completion of demolition Work, remove tools, equipment, and demolished materials from site.
 - a. Repair demolition performed in excess of that required. Return elements of construction and surfaces to remain to condition existing prior to start of operations. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.

MBIT Welds Shop Renovation Project

930 – SHOP DRAWINGS

DESCRIPTION

17. Contractor to submit list of construction materials, including drawings, manufacturer's literature of structural steel and other accessories.
18. Submittal to include binders and samples and must be made 1 week prior to pre-construction meeting and contain one original and one copy.
19. Submittal is to be directed to the Engineer.

MBIT Welds Shop Renovation Project

940 – PRODUCT HANDLING

GENERAL

Protect products and materials scheduled for use in the Work by means including, but not necessarily limited to, those described in this Section.

1. MANUFACTURERS' RECOMMENDATIONS

Except as otherwise approved by the Owner, determine and comply with Manufacturers' recommendations on product handling, storage, and protection.

2. PACKAGING

Deliver products to the job site in their manufacturer's original container, with labels intact and legible.

Maintain Contractor-supplied packaged materials with seals unbroken and labels intact until time of use.

Promptly remove Contractor-supplied damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements, at no additional cost to the Owner.

4. PROTECTION

Protect finished surfaces.

Maintain Contractor-finished surfaces clean, unmarred, and suitably protected until accepted by the Owner.

5. REPAIRS AND REPLACEMENTS

In event of Contractor damage, promptly make replacements and repairs to the approval of the Owner and at no additional cost to the Owner.

If items are stored on grassed lawn areas, Contractor is responsible for replacement and repairs to the approval of Owner at no additional cost to Owner.

The Owner is not responsible for vandalism or stolen products.

MBIT Welds Shop Renovation Project

950 – CLEANING

DESCRIPTION

1. Throughout the construction period, maintain the buildings and site in a standard of cleanliness as described in this Section.
2. Conduct daily inspection to verify that requirements for cleanliness are being met.
3. All areas are to be cleaned on a daily basis
4. In addition to the standards described in this Section, comply with pertinent requirements of governmental agencies having jurisdiction.
5. All waste and unsuitable material will be the Contractor's responsibility to remove off-site. The cost of removal shall be included in the contract price.
6. Use only the cleaning materials and equipment, which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.
7. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing required protection of materials.
8. Do not allow accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
9. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the environment.
10. All debris and waste material shall be picked up daily. Remove such items to the place designated for their storage.
11. Daily inspect all arrangements of materials stored on the site. Restack, organize neatly, tidy or otherwise arrange materials as required by the Engineer.
12. Always maintain the site in a neat and orderly condition.
13. Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste.
14. Unless otherwise specifically directed by the Owner, broom clean paved areas on the site and public paved areas adjacent to the site.
15. Rake the landscape to collect debris generated by the Work.
16. Magnetic rollers and other types of tools shall be used to ensure removal of all discarded fasteners from the work area, including grassed lawns.
17. Completely remove all debris.
18. Metal detector shall be used to rid of all metal products such as, nails, screws, etc
19. Visually inspect exterior building surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter caused by the Work.
20. Remove all traces of splashed materials from adjacent surfaces.

MBIT Welds Shop Renovation Project

BASE BID & UNIT COST SHEET

MBIT Welds Shop Renovation

APPENDIX B – BASE BID & UNIT COST SHEET

TO: Warren Anders, MBIT Facilities Manager,

FROM: CMG of Easton, Inc.

The undersigned, having examined the proposed Contract Documents and having examined the site for the proposed work titled:

MBIT WELD SHOP RENOVATION

At

Middle Bucks Institute of Technology

2470 York Road

Jamison, PA 18929

Hereby proposes and agrees to furnish all permits, labor, materials, equipment, tools and appliances, and to perform operations necessary to complete the work as required by the proposed "Contract Documents" for the "Base Bid" for the sums and under the conditions as follows:

1. BASE BIDS

The undersigned agrees to the performance of all specified and related work for the Weld Shop Renovation, except as noted herein, as stated for the following Lump Sum Amounts.

Before submitting a bid, the Contractor shall read the specifications and all other Contract Documents and shall visit the site of work. The Contractor shall fully inform themselves prior to bidding as to existing conditions and limitations under which the Work is to be performed and shall include in their bid a sum to cover the cost of items necessary to perform the Work as set forth in the Contract Documents. No allowance will be made to the Contractor because of lack of such examination or knowledge. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination. Also, the Contractor is responsible to verify all quantities, if shown on the Bid Form. All blank items in the form must be completed or justification provided for omissions.

MBIT Welds Shop Renovation

NOTE: Bidder shall state in the proposal all specific exceptions to the Bid Documents, including quantities, and specific engineering exceptions. The bidder is responsible to quantify the bid items; no exceptions in quantity errors will be made. The Contractor will be paid on actual installed quantities.

2. DEFINITIONS:

“Base Bid” The amount of money stated in the bid as the sum for which the bidder offers to perform the work, not including that work for which alternate bids are also submitted. The specifications listing or describing only those materials, equipment, and methods of construction upon which the base bid must be predicated, exclusive of any alternate bids. The base bid is usually, but not limited to, the bid the Client decides in selecting a contractor.

“Unit price” items are defined as products, methods or units of work for elements of the construction which may, at the owner representative’s direction, be required for the work in addition to the corresponding requirements of the specifications. All items shall include labor and material costs.

“Alternates” items are defined as products, methods or units of work for elements of the construction which may, at the owner representative’s direction, be required for the work in addition to the corresponding requirements of the specifications. To be used at the Owner’s direction.

3. BID FORM

Item	Description	Units	Quantity	Unit Price	Total Cost
1	Demolish, Procure, Construct, and Install All Building Modifications, Civil, Structural Mechanical, Plumbing, HVAC and Electrical Equipment, Components and Systems for the Weld Shop Renovation and Storage Shed	Lump Sum	1	NA	\$1,663,975.00
	Total Lump Sum				\$ 1,663,975.00

4. UNIT PRICES

Item	Description	Units	Unit Costs
	General Excavation	CY	\$190.00
	Rock Excavation	CY	\$225.00
	Compacted General Backfill	CY	\$65.00
	E&S Silt Sock Filter	LF	\$4.50
	4” Paving and 6” Subbase	SY	\$48.00
	Reinforced Concrete	CY	\$800.00
	Miscellaneous Structural Steel	LBS	\$3.00

MBIT Welds Shop Renovation

Brick and Mortar	SF	\$80.00
12" CMU and Mortar	SF	\$24.50
Thermal Insulation	SF	\$4.50
Joint Sealant	LF	\$7.00
Electrical Cable <6gage Installed	LF	185
Electrical Receptacles and Switches Installed	EA	600.-
Interior Lighting Installed	EA	90.-
Electrical Raceway Hangers and Supports Installed	LF	22.50
Air/HVAC Ductwork, Hangers and Supports <18" Installed	LF	\$277.00
Air/HVAC Diffusers, Registers and Grills	EA	\$62.55
Water Piping	LF	\$25.00
Sanitary piping	LF	\$50.00
Storm Drainage Piping <8" PVC	LF	\$60.00
Compressed Air/Argon/Oxygen, etc. Piping and Fittings	LF	\$40.00

5. ALTERNATIVE RATES Alternates- Labor rates for use with time and material work: (Not Required if using Prevailing Wage Rates)

Title	Craft	\$ Rate per Hour
Supervisor		\$95.00
Foreman		\$90.00
Skilled Labor		\$87.00
Labor		\$87.00
Equipment Operator		\$105.00
ETC.		\$87.00

Add addition rates on a separate sheet, if required

6. ADDENDUMS

The undersigned acknowledges receipt and review of all addenda. (if applicable):

Addendum No. 1 10/03/2023

Addendum No. 2 _____

Addendum No. 3 _____

7. ADDITIONAL REQUIRED DOCUMENTATIONS

Enclosed with this bid are copies of the following documents:

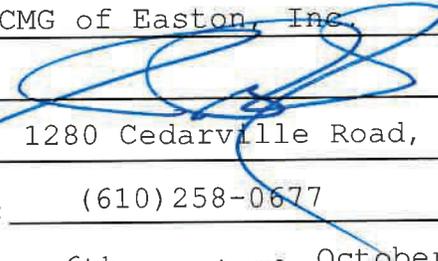
- a. Proof of Workers Compensation insurance as required by State Law.

MBIT Welds Shop Renovation

- b. Proof of General Liability and automobile insurances.
- c. Names, addresses and phone numbers of bidder's proposed Subcontractors, if applicable.
- d. Material information for review of substitutes, if applicable.
- e. Proof of all required licenses.
- f. List of **four (4)** prior similar projects

8. SIGNATURE

The undersigned agrees that the above bid amounts will remain valid for a period of **60** days following the bid due date.

Bidder: CMG of Easton, Inc.
By: 
Address: 1280 Cedarville Road, Easton, PA 18042
Phone No: (610) 258-0677
Bid dated this 6th day of October 2023.

Sealed bids will be received at the Management Office of MBIT: (see Project Directory)

MBIT Welds Shop Renovation Project

APPENDIX C – CONTRACTOR QUALIFICATION STATEMENT

MBIT Welds Shop Renovation

APPENDIX C – CONTRACTOR QUALIFICATION STATEMENT

EXPERIENCE, EQUIPMENT AND FINANCIAL QUALIFICATIONS: The Undersigned certifies the truth and correctness of all statements and of all answers to questions made hereinafter. All questions must be addressed.

SUBMITTED TO: Middle Bucks Area Vocational-Technical School Authority

SUBMITTED BY: CMG of Easton, Inc.

<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Partnership	<input type="checkbox"/> Individual	<input type="checkbox"/> Joint Venture
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1. How many weeks do you anticipate this job to take?

About 34 weeks.

2. How many years has your organization been in business under your present company name?

45 years.

3. List projects of similar nature you have completed. Please list: Job/Location, Type of Work, Date of Completion, Contract Amount, contact phone number (Use additional sheets as needed).

Please see attached.

4. Have you ever failed to complete any work awarded to you? If so, note when, where, why and Contact w/ phone number.

No.

5. Has any officer or partner of your organization ever been an officer or partner of another organization that failed to complete a construction contract? If so, state the circumstances:

No.

6. List the states and categories in which your organization is legally qualified to do business:

Pennsylvania & New Jersey

7. List Trade References w/ phone numbers:

Please see attached.

MBIT Welds Shop Renovation

8. List Bank References w/ phone numbers:

Fulton Bank
2005 Cityline Rd, Bethlehem, PA 18107

9. Name of Bonding Company: name and address of agent:

Anderson & Catania Surety Services
713 Spring Mill Avenue, Conshohocken, PA 19428

10. Has the Company, or anyone employed by the Company, ever been debarred from bidding or performing a project for any government entity or agency?

No .

Signatures:



Legal Name of Contracting Firm, Partnership or Corporation

CMG of Easton, Inc.

Signature and date

10/06/2023



CMG OF EASTON, INC.
MAJOR CONSTRUCTION COMPLETED

PROJECT	OWNER	ARCHITECT	AMOUNT	COMPLETION
LABCORP FIT-OUT	City View Capital, LLC 2285 Schoenersville Road, Suite 216 Bethlehem, PA 18017	RHJ Associates 216 Lakeshore Dr. E Highland Lakes, NJ 07422	\$168,500.00	January 10, 2017
HCLV KITCHEN RENOVATIONS	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	BDA Architects 1 W. Broad Street, Suite 1004 Bethlehem, PA 18018	\$93,950.00	March 8, 2017
EASTON HOSPITAL 388 MEMORIAL PARKWAY PHILLIPSBURG, NJ 08865	Paula Antario 388 Memorial Parkway Phillipsburg, NJ	CMG of Easton, Inc. 400 S. Greenwood Ave Suite 300 Easton, PA 18045	\$211,107.00	March 16, 2017
SLUHN QUAKERTOWN BHU DOOR & HARDWARE	SLUHN Quakertown 1021 Park Ave Quakertown, PA 18951	CMG of Easton, Inc. 400 S. Greenwood Ave Easton, PA 18045	\$118,000.00	April 17, 2017
SLUHN BHU DOOR REPLACEMENT	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	CMG of Easton, Inc. 400 S. Greenwood Ave Easton, PA 18045	\$167,800.00	July 28, 2017
PAXINOSA ELEMENTARY SCHOOL RENOVATIONS	Easton Area School District 1801 Bushkill Drive Easton, PA 18042	Alloy 5 Architecture 530 West Broad Street Bethlehem, PA 18018	\$6,658,187.00	August 17, 2017
ALTERATIONS TO PETERS ELEMENTARY & NORTHERN LEHIGH HS	Northern Lehigh School District 1201 Shadow Oaks Lane Slatington, PA 18080	KCBA Architects 8 E. Broad Street Hatfield, PA 19440	\$221,800.00	August 18, 2017
MEDIA CENTER RENOVATIONS TO HACKETTSTOWN HS	Hackettstown Board of Education 315 Washington Street	Settembrino Architects 25 Bridge Ave. Suite 201	\$819,598.22	September 13, 2017

	Hackettstown, NJ 07840	Red Bank, NJ 07701		
PALMERTON HS PAINTING & FLOORING	Palmerton Area School District 680 Fourth Street Palmerton, PA 18071	Barry Isett and Associates 100 West Broad Street, Suite 200 Hazleton, PA 18801	\$92,975.00	September 15, 2017
RENOVATIONS TO WEBER HALL AT BLAIR ACADEMY	Blair Academy 2 Park Street, PO Box 600 Blairstown, NJ 07825	HQW Architects, LLC 124 Main Street Newton, NJ 07860	\$1,161,941.76	September 15, 2017
SLUHN - HAMBURG MEDICAL OFFICE FIT-OUT	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	Shremshock Companies 7400 West Campus Road, Suite 150 New Albany, OH 43054	\$1,074,587.00	September 17, 2017
BUILDING 5 MECHANICAL PENTHOUSE REPAIR	Just Born Quality Confections 1300 Stefko Blvd Bethlehem, PA 18017	Engineering & Building Services PO Box 4241 Bethlehem, PA 18018	\$161,925.00	October 6, 2017
PCA WINDOW REPLACEMENT	Packaging Corporation of America 7451 Cetronia Road Allentown, PA 18106	CMG of Easton, Inc. 400 S. Greenwood Ave Easton, PA 18045	\$109,050.00	October 17, 2017
PONDELEK'S FLORIST	Jaqueline Bodor 337 High Street Hellertown, PA 18055	CMG of Easton, Inc. 400 S. Greenwood Ave Easton, PA 18045	\$226,535.00	October 27, 2017
SLUHN QUAKERTOWN ENDOCRINE	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	Barry Isett and Associates 100 West Broad Street, Suite 200 Hazleton, PA 18801	\$334,900.00	October 31, 2017
HIRAM DODD ELEMENTARY SCHOOL WINDOW REPLACEMENT	Allentown School District 1301 Sumner Ave. Allentown, PA 18108	Breslin Ridyard Fadero Architects 1226 Union Boulevard Allentown, PA 18109	\$285,673.00	November 11, 2017
ST. LUKE'S UROLOGY AT TAMAQUA MEDICAL CENTER	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	MSKD Architects 1209 Hausman Road, Suite A Allentown, PA 18104	\$219,163.50	February 26, 2018
EDWARD TRACY ELEMENTARY SCHOOL BUILDING CAPITAL	Easton Area School District 1801 Bushkill Drive	Alloy 5 Architecture 530 West Broad Street	\$3,540,759.00	March 16, 2018

UPGRADES	Easton, PA 18040	Bethlehem, PA 18018		
SHOWER ROOM RENOVATIONS FOR NORTHAMPTON COUNTY PRISON	County of Northampton Public Works 669 Washington Street Easton, PA 18042	D'Huy Engineering, Inc. One East Broad Street Suite 310 Bethlehem, PA 18018	\$163,810.00	April 18, 2018
BROOKSIDE SENIOR HOUSING	Alan Jay Rich, LLC 8 Wood Hollow Road, Suite 203 Parsippany, NJ 07054	Elizabeth Drake Architect 124 Cold Hill Road Mendham, NJ 07945	\$572,297.00	April 24, 2018
ESU MOORE BIOLOGY HALL HVAC UPGRADES	East Stroudsburg University 200 Prospect Street East Stroudsburg, PA 18301	Burns Engineering, Inc. 2001 Market Street, Suite 600 Philadelphia, PA 19103	\$174,800.00	June 6, 2018
SLUHN MOB HAMBURG PLAZA INTERIOR FIT OUT UROLOGY	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	Shremshock Companies 7400 West Campus Road, Suite 150 New Albany, OH 43054	\$307,256.00	June 29, 2018
RENOVATIONS & ADDITIONS TO WAR MEMORIAL STADIUM	Central Bucks School District 320 West Swamp Road Doylestown, PA 18901	Godshall Kane O'Rourke Architects 300 Brookside Ave. Bldg. 18, Suite 150 Ambler, PA 19002	\$1,834,326.00	June 30, 2018
SLUHN SHH IT BMHS OUT BUILDINGS SHH OUT BUILDINGS	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	CMG of Easton, Inc. 400 S. Greenwood Ave Easton, PA 18045	\$340,531.00	July 26, 2018
CHRIN COMMONS WEST DOG TRAINING FACILITY	Charles Chrin 400 S. Greenwood Ave. Easton, PA 18045	CMG of Easton, Inc. 400 S. Greenwood Ave Easton, PA 18045	\$131,950.00	August 24, 2018
BILLY'S DOWNTOWN DINER FIT-OUT EASTON, PA	Center Valley Hospitality, LLC 176 Nazareth Pike Bethlehem, PA 18020	Alloy 5 Architecture 530 West Broad Street Bethlehem, PA 18018	\$435,022.00	August 29, 2018
CANDLEWOOD SUITES HOTEL BETHLEHEM, PA	SANN9, LLC 6659 Forest Knoll Court Allentown, PA 18106	AP Architecture, Inc. 8510 McAlpine Park Drive Suite 210 Charlotte, NC 28211	\$6,493,633.50	September 11, 2018
LCCC - SCIENCE HALL & RADIO STATION RENOVATIONS	Lehigh Carbon Community College 4525 Education Park Drive	Roth Architects, LLC 5735 East Lake Road	\$119,930.20	September 19, 2018

	Schnecksville, PA 18078	Erie, PA 16511		
ADDITIONS TO THE EMMAUS PUBLIC LIBRARY	Borough of Emmaus 11 E. Main Street Emmaus, PA 18049	Spillman & Farmer Architects 1720 Spillman Drive, Suite 200 Bethlehem, PA 18015	\$1,020,289.50	October 17, 2018
GNADEN HUETTEN CAMPUS BHU RENOVATIONS	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	Highland Associates 102 Highland Ave. Clarks Summit, PA 18411	\$1,723,675.00	November 2, 2018
SACRED HEART HOSPITAL BHU RENOVATIONS ON THE 3RD & 6TH FLOOR	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	Ewing Cole 100 North 6th Street Philadelphia, PA 19106	\$10,172,426.87	November 7, 2018
BUILDING CAPITAL UPGRADES FORKS ELEMENTARY SCHOOL	Easton Area School District 1801 Bushkill Drive Easton, PA 18040	D'Huy Engineering, Inc. One East Broad Street Suite 310 Bethlehem, PA 18018	\$1,814,300.00	December 5, 2018
LANSFORD MEDICAL OFFICE	Lansford Palace, LLC 619 Iron Street Lehighon, PA 18235	Phillips & Donovan Architects 210 W. Broad Street Bethlehem, PA 18018	\$1,509,000.00	January 29, 2019
RENOVATIONS TO NORTH HUNTERDON HS	North Hunterdon-Voorhees Regional High School 1445 State Route 31 Annandale, NJ 08801	DMR Architects 777 Terrace Ave., 6th Floor Hasbrouck Heights, NJ 07604	\$532,356.85	February 1, 2019
MOLLY MCGUIRE'S PUB & STEAKHOUSE	Noel Behan 5 Hazard Square Jim Thorpe, PA 18229	CMG of Easton, Inc. 400 S. Greenwood Ave., Suite 300 Easton, PA 18045	\$242,676.11	February 4, 2019
LANTA SERVICE LANE BUILDING	Lehigh and Northampton Transportation Authority 1060 Lehigh Street Allentown, PA 18103	Pennoni Associates, Inc. 2041 Avenue C, Suite 100 Bethlehem, PA 18017	\$1,303,826.18	May 24, 2019
GREENWOOD AVE. INTERNAL MED	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	Phillips & Donovan Architects 3160 Bedminister Road Bedminister, PA 18910	\$141,269.00	May 10, 2019

OLPH SCHOOL ENTRY ENHANCEMENT	Our Lady of Perpetual Help 3221 Santee Road Bethlehem, PA 18020	Christian Architects 950 North Charlotte Street Pottstown, PA 19464	\$138,108.18	July 25, 2019
LCCC - DONLEY CENTER 7TH FLOOR	Lehigh Carbon Community College 4525 Education Park Drive Schnecksville, PA 18078	Roth LLC Architects 5735 East Lake Road Erie, PA 16511	\$559,377.00	August 20, 2019
NCC - STUDENT SUCCESS INITIATIVE AND SPACE RENOVATION	Northampton Community College 3835 Green Pond Road Bethlehem, PA 18020	Robert S. Franks, RA 1283 Liberty Valley Road Danville, PA 17821	\$1,029,763.00	September 5, 2019
SAUCON VALLEY HS AUDITORIUM UPGRADE	Saucon Valley School District 2097 Polk Valley Road Hellertown, PA 18055	D'Huy Engineering, Inc. One East Broad Street Suite 310 Bethlehem, PA 18018	\$316,440.00	September 6, 2019
SUSSEX COUNTY TECHNICAL SCHOOL - WELDING SHOP RENOVATION	Sussex County Tech School 105 North Church Road Sparta, NJ 07871	HQW Architects, LLC 124 Main Street Newton, NJ 07860	\$502,359.45	October 10, 2019
WINDOW REPLACEMENT HIRAM DODD ELEMENTARY - PHASE 3	Allentown School District 1994 S. Church Street Allentown, PA 18103	Breslin Ridyard Fadero Architects 1226 Union Blvd Allentown, PA 18102	\$241,883.00	October 22, 2019
PALMERTON JR./SR. HIGH SCHOOL CAMPUS IMPROVEMENTS	Palmerton Area School District 3525 Fireline Road Palmerton, PA 18071	Barry Isett & Associates, Inc. 100 W. Broad Street, Suite 200 Hazleton, PA 18201	\$459,000.00	October 22, 2019
CREATIVE KIDS LEARNING ACADEMY - TENNANT IMPROVEMENTS	Parkway Shopping Center 1471 Lehigh Street Allentown, PA 18020	Gouck Architects 1304 Hamilton Street Allentown, PA 18102	\$294,546.50	November 5, 2019
LOCKER ROOM RENOVATION AT MADISON HIGH SCHOOL	Madison High School 170 Ridgedale, Ave. Madison, NJ 08753	Epic Construction Management 136 11th Street Piscataway, NJ 08854	\$2,646,039.22	December 9, 2019
LEHIGH COUNTY COURTHOUSE JUVENILE HODLING FACILITY	Lehigh County Courthouse 17 South 7th Street Allentown, PA 18101	Fedetz & Martin Associates 1837 Roth Ave. Allentown, PA 18104	\$301,771.50	February 12, 2020

ST. LUKE'S TAMAQUA AUDIOLOGY RENO	St Luke's Hospital of Bethlehem 801 Ostrum Street Bethlehem, PA 18015	CMG of Easton, Inc. 1280 Cedarville Road Easton, PA 18042	\$172,349.00	March 5, 2020
PANTHER VALLEY HS CAFETERIA RENOVATIONS	Panther Valley SD 1 Panther Way Lansford, PA 18232	CMG of Easton, Inc. 1280 Cedarville Road Easton, PA 18042	\$163,871.00	August 28, 2020
WINDOW REPLACEMENT HIRAM DODD ELEMENTARY - PHASE 4	Allentown School District 1994 S. Church Street Allentown, PA 18103	Breslin Ridyard Fadero Architects 1226 Union Blvd Allentown, PA 18102	\$407,948.00	September 9, 2020
FREEMANSBURG MUNICIPAL BUILDING PROPOSED ADDITION AND RENOVATIONS	Borough of Freemansburg 600 Monroe Street Freemansburg, PA 18017	Portner & Hetke Architects 160 Main Street Emmaus, PA 18049	\$1,035,670.00	October 29, 2020
CAFÉ FIT -OUT AT THE COUNTY OF BUCKS ADMIN. BUILDING	Pinnacle Vending Group 2921 Veterans Highway Bristol, PA 19007	Holstein White Engineers 210 E. Street Road, Suite 2D Feasterville, PA 19053	\$135,042.99	November 10, 2020
EASD HS NEW TRACK BLEACHERS AND SUPPORT BUILDINGS	EASD 1801 Bushkill Drive Easton, PA 18040	D'Huy Engineering, Inc. One East Broad Street Suite 310 Bethlehem, PA 18018	\$699,000.00	November 20, 2020
WHITEHALL HS ADDITIONS & RENOVATIONS	Whitehall-Coplay SD 2940 MacArthur Road Whitehall, PA 18052	D'Huy Engineering, Inc. One East Broad Street Suite 310 Bethlehem, PA 18018	\$3,565,368.14	November 20, 2020
BUCKS COUNTY ADMIN. RENOVATIONS - PHASE 2B AND PHASE 3	Bucks County 55 East Court Street Doylestown, PA 18901	Joseph Jingoli & Son, Inc. 100 Lenox Drive, Suite 100 Lawrenceville, NJ 08648	\$1,571,949.88	February 16, 2021
KITTATINNY HS RENOVATIONS TO THE GUIDANCE OFFICE	Kittatinny Regional SD 77 Halsey Road Newton, NJ 07860	HQW Architects, LLC 124 Main Street Newton, NJ 07860	\$170,143.00	March 5, 2021
AUBREY STREET DAYCARE	Ms. Vendetta Hines 1740 Lynwood Road, Suite 1 Allentown, PA 18103	CMG of Easton, Inc. 1280 Cedarville Road Easton, PA 18042	\$856,426.47	April 23, 2021

FELLOWSHIP COMMUNITY HVAC REMEDIATION	Fellowship Community 3000 Fellowship Drive Whitehall, PA 18052	CMG of Easton, Inc. 1280 Cedarville Road Easton, PA 18042	\$984,040.87	May 20, 2021
KENNETH N. BUTZ ES ADDITIONS & RENOVATIONS	Nazareth Area SD 1 Education Plaza Nazareth, PA 18064	D'Huy Engineering, Inc. One East Broad Street Suite 310 Bethlehem, PA 18018	\$4,779,250.00	August 20, 2021
LOWER NAZARETH ES ADDITIONS & RENOVATIONS	Nazareth Area SD 1 Education Plaza Nazareth, PA 18064	D'Huy Engineering, Inc. One East Broad Street Suite 310 Bethlehem, PA 18018	\$4,162,705.35	August 20, 2021
IVY HALL BATHROOM RENO	Blair Academy 2 Park Street Blairstown, NJ 07825	HQW Architects, LLC 124 Main Street Newton, NJ 07860	\$81,136.81	September 1, 2021
MONROE COUNTY OF WILLIS RELOCATION	Monroe County 1 Quaker Plaza, Room 201 Stroudsburg, PA 18360	Schoonover & Vanderhoof Arch. 39 North Courtland Street East Stroudsburg, PA 18301	\$62,319.37	September 14, 2021
TYLER HALL 3RD FLOOR RENOVATIONS BCCC	Bucks County Community College 275 Swamp Road Newtown, PA 18940	Alliance Architecture, LLC 111 S. Spruce Street Nazareth, PA 18064	\$449,500.00	September 30, 2021
RENOVATIONS TO 44&76 SUSQUEHANNA STREET ELEVATOR	Carbon County 2 Hazard Square Jim Thorpe, PA 18229	Boyle Construction 1209 Hausman Road, Suite B Allentown, PA 18104	\$46,500	September 30, 2021
BUCKS COUNTY WOMEN'S CORRECTIONAL FACILITY	Bucks County 55 E. Court Street Doylestown, PA 18901	Joseph Jingoli & Son, Inc. 100 Lenox Drive, Suite 100 Lawrenceville, NJ 08648	\$19,674,747.34	December 20, 2021



CMG OF EASTON, INC.
1280 CEDARVILLE ROAD
EASTON, PA 18042
www.cmgofeaston.com
(p) 610.258.0677 (f) 610.258.3692
PA045324 NJ663030

CMG of Easton, Inc. – Trade References

L&W Supply
1635 Airport Road #7
Allentown, PA 18109

610-774-9501

Moyer Lumber & Hardware
4514 Easton Avenue
Bethlehem, PA 18020

610-868-2010

Builders Door & Hardware, Inc.
1414 E. Columbia St
Allentown, PA 18109

610-821-4047

Please find attached your Home Improvement Contractor's Certificate suitable for framing along with a wallet card copy.

If you have any questions or have changes to the information you provided on your registration form, contact the Pennsylvania Office of Attorney General at 717-772-2425 or HIC@attorneygeneral.gov. For further information on the home improvement law visit www.attorneygeneral.gov.



M. M. A. H.
Michelle A. Henry, Attorney General

JASON M PEZZUTI
1280 CEDARVILLE ROAD
EASTON PA 18042

This form acknowledges receipt of your \$50.00 application fee, required under Pennsylvania's Home Improvement Consumer Protection Act. Please keep this form for your records.

COMMONWEALTH OF PENNSYLVANIA
OFFICE OF ATTORNEY GENERAL

THIS IS TO CERTIFY THAT

CMG OF EASTON, INC.
1280 CEDARVILLE ROAD
EASTON PA 18042

HAS REGISTERED IN PENNSYLVANIA AS A HOME IMPROVEMENT CONTRACTOR
9/13/2025
VALID UNTIL
REGISTRATION NUMBER
PA045324

M. M. A. H.
Michelle A. Henry, Attorney General

Commonwealth of Pennsylvania

Office of Attorney General

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1280 CEDARVILLE ROAD
EASTON PA 18042

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9/13/2025
VALID UNTIL

PA045324
REGISTRATION NUMBER

[Signature]
SIGNATURE OF REGISTRATION CERTIFICATE HOLDER

M. M. A. H.
MICHELLE A. HENRY, ATTORNEY GENERAL

Environmental Report

APPENDIX F- ENVIRONMENTAL REPORT

1 of 1

Hansen, Richard

From: McGinnis, Robert
Sent: Thursday, October 19, 2006 2:54 PM Hansen,
To: Richard

Subject: Spotts/Stevens/McKay Product analysis

Rich,

At 2:40 PM, I received a call from Cary of SSM informing me that the white material is 100% Perlite a non asbestos product.

The Hard copy report will be mailed out on Friday of next week, we should have in hand by Tuesday October 31. When I receive the hard copy report, I will make a copy and hand you the original for your records.

Thanks, Bob



October 30, 2006

Mr. Bob McGinnis Clerk
of the Works
Middle Bucks Institute of Technology 2740
Old York Road
Jamison, PA 18929

RE: Bulk Sample Analysis
Middle Bucks Institute of Technology - Carpentry Shop SSM File
106837.0003

Dear Mr. McGinnis:

On October 19, 2006, Mr. Kerry Ebeling of Spotts, Stevens, and McCoy, Inc. (SSM) collected a bulk sample of suspect wall insulation material from an exterior wall of the Carpentry Shop at the Middle Bucks Institute of Technology. This suspect insulation material was discovered after demolition occurred. Mr. Ebeling is an Environmental Protection Agency (EPA) accredited Building Inspector (BI) who is also licensed in the same capacity by the Pennsylvania Department of Labor and Industry (PaDLI) (copy of license attached). The sample was submitted to EMSL Analytical, Inc. located in Plymouth Meeting, Pennsylvania. EMSL Analytical, Inc. is an American Industrial Hygiene Association (AIHA) and National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory. Analysis by polarized light microscopy (PLM) determined the sample to be negative for asbestos content.

Included with this letter is EMSL Analytical Report No. 180601547 for the sample noted above. Should you have any questions concerning this letter, please contact us.

Very truly yours,
SPOTTS | STEVENS | McCOY

-

Kerry Ebeling Industrial
Hygienist
kerry.ebeling@ssmgroup.com

Enclosure

EMSL Analytical, Inc.

521 Plymouth Road, Suite 107, Plymouth Meeting, PA 19462

Phone: (610) 828-3102 Fax: (610) 828-3122 Email: jllimouthmeetin9lab@emsl.com



Attn: **Kerry Ebeling**
Spotts Stevens and McCoy, Inc.
1047 North Park Road
Reading, PA 19610

Customer ID: SPOT50
 Customer PO:
 Received: 10/19/06 8:36 AM
 EMSL Order: 180601547

Fax: (610) 621-2001 Phone: (484) 955-1015
 Project: MBIT C-Wing Carpentry Shop

EMSL Proj:
 Analysis Date: 10/19/2006
 Report Date: 10/19/2006

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
10-19-1B 180601547-0001		White Non-Fibrous Homogeneous		100% Perlite	None Detected

Analyst(s)

Robert Privette (1)

R. Privette, Asbestos Lab Manager
 or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Plymouth Meeting (NVLAP #200699-0)

THIS IS THE LAST PAGE OF THE REPORT.

MBIT Welds Shop Addition Project

PROJECT PREVAILING WAGES

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project Name:	Weld Shop Expansion
Awarding Agency:	Middle Bucks Institute of Technology
Contract Award Date:	1/12/2023
Serial Number:	23-00653
Project Classification:	Building
Determination Date:	1/23/2023
Assigned Field Office:	Philadelphia
Field Office Phone Number:	(215)560-1858
Toll Free Phone Number:	
Project County:	Bucks County

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers	5/1/2021		\$54.35	\$39.95	\$94.30
Boilermaker (Commercial, Institutional, and Minor Repair Work)	1/1/2019		\$29.26	\$18.48	\$47.74
Boilermakers	1/1/2021		\$49.32	\$34.90	\$84.22
Boilermakers	1/1/2022		\$50.17	\$35.30	\$85.47
Boilermakers	1/1/2023		\$51.27	\$35.30	\$86.57
Bricklayer	5/1/2021		\$45.45	\$30.61	\$76.06
Bricklayer	5/1/2022		\$46.45	\$31.06	\$77.51
Carpenter - Chief of Party (Surveying & Layout)	5/1/2021		\$47.47	\$28.71	\$76.18
Carpenter - Instrument Person (Surveying & Layout)	5/1/2021		\$41.28	\$28.71	\$69.99
Carpenter - Rodman (Surveying & Layout)	5/1/2021		\$20.64	\$20.31	\$40.95
Carpenters	5/1/2021		\$41.28	\$28.71	\$69.99
Carpenters	5/1/2022		\$42.53	\$28.71	\$71.24
Cement Finishers & Plasterers	5/1/2022		\$38.57	\$32.39	\$70.96
Cement Masons	5/1/2021		\$40.70	\$33.46	\$74.16
Cement Masons	5/1/2022		\$42.05	\$33.46	\$75.51
Dockbuilder, Pile Drivers	5/1/2022		\$45.73	\$37.99	\$83.72
Dockbuilder, Pile Drivers	10/31/2022		\$47.23	\$37.99	\$85.22
Dockbuilder, Pile Drivers	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder, Pile Drivers	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder, Pile Drivers	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
Dockbuilder/ Pile driver diver	5/1/2022		\$57.16	\$37.99	\$95.15
Dockbuilder/ Pile driver diver	10/31/2022		\$58.66	\$37.99	\$96.65
Dockbuilder/ Pile driver diver	5/1/2023		\$63.10	\$37.99	\$101.09
Dockbuilder/ Pile driver diver	5/1/2024		\$66.25	\$37.99	\$104.24
Dockbuilder/ Pile driver diver	5/1/2025		\$69.04	\$37.99	\$107.03
Dockbuilder/ Pile driver diver	5/1/2026		\$71.23	\$37.99	\$109.22
Dockbuilder/pile driver tender	5/1/2022		\$45.73	\$37.99	\$83.72
Dockbuilder/pile driver tender	10/31/2022		\$47.23	\$37.99	\$85.22
Dockbuilder/pile driver tender	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder/pile driver tender	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder/pile driver tender	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
Drapery Installers	5/1/2009		\$31.09	\$21.34	\$52.43
Drywall Finisher	5/1/2022		\$38.93	\$29.96	\$68.89
Electricians	5/2/2022		\$65.76	\$43.48	\$109.24
Elevator Constructor	1/1/2021		\$61.43	\$36.36	\$97.79
Floor Coverer	5/1/2021		\$45.74	\$29.21	\$74.95
Floor Coverer	5/1/2022		\$48.00	\$29.21	\$77.21
Floor Coverer	5/1/2023		\$50.12	\$29.21	\$79.33
Floor Coverer	5/1/2024		\$52.19	\$29.21	\$81.40
Floor Layer	5/1/2018		\$43.11	\$28.09	\$71.20
Glazier	5/1/2021		\$45.67	\$34.38	\$80.05
Glazier	5/1/2022		\$46.09	\$35.61	\$81.70

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Interior Finish	5/1/2019		\$30.20	\$25.80	\$56.00
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2021		\$47.70	\$39.51	\$87.21
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2022		\$49.70	\$39.51	\$89.21
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	1/1/2023		\$50.70	\$39.51	\$90.21
Iron Workers (Riggers)	7/1/2017		\$39.83	\$27.92	\$67.75
Ironworker (Rodman)	7/1/2020		\$44.82	\$31.60	\$76.42
Laborers (Class 01 - General)	5/1/2020		\$32.05	\$25.25	\$57.30
Laborers (Class 01 - See notes)	5/1/2019		\$30.20	\$25.80	\$56.00
Laborers (Class 01 - See notes)	5/1/2022		\$33.35	\$25.65	\$59.00
Laborers (Class 02 - see notes)	5/1/2020		\$35.15	\$26.15	\$61.30
Laborers (Class 02 - see notes)	5/1/2022		\$36.70	\$27.00	\$63.70
Laborers (Class 03 - See notes)	5/1/2020		\$32.47	\$25.43	\$57.90
Laborers (Class 03 - See notes)	5/1/2022		\$33.77	\$25.83	\$59.60
Laborers (Class 04 - See notes)	5/1/2020		\$32.47	\$25.43	\$57.90
Laborers (Class 04 - See notes)	5/1/2022		\$33.77	\$25.83	\$59.60
Laborers (Class 05 - See notes)	5/1/2020		\$32.05	\$25.25	\$57.30
Laborers (Class 05 - See notes)	5/1/2022		\$33.35	\$25.65	\$59.00
Landscape Laborer	5/1/2020		\$26.55	\$23.13	\$49.68
Marble Finisher	5/1/2022		\$38.27	\$29.15	\$67.42
Marble Mason	5/1/2022		\$45.90	\$31.20	\$77.10
Mason Tender, Cement	5/1/2019		\$30.52	\$25.98	\$56.50
Millwright	5/1/2021		\$48.60	\$33.19	\$81.79
Millwright	5/1/2022		\$49.83	\$34.53	\$84.36
Operators (Building, Class 01 - See Notes)	5/1/2021		\$49.50	\$31.51	\$81.01
Operators (Building, Class 01 - See Notes)	5/1/2022		\$51.04	\$31.97	\$83.01
Operators (Building, Class 01 - See Notes)	5/1/2023		\$52.20	\$32.81	\$85.01
Operators (Building, Class 01A - See Notes)	5/1/2021		\$52.51	\$32.39	\$84.90
Operators (Building, Class 01A - See Notes)	5/1/2022		\$54.05	\$32.85	\$86.90
Operators (Building, Class 01A - See Notes)	5/1/2023		\$55.20	\$33.70	\$88.90
Operators (Building, Class 02 - See Notes)	5/1/2021		\$49.25	\$31.44	\$80.69
Operators (Building, Class 02 - See Notes)	5/1/2022		\$50.79	\$31.90	\$82.69
Operators (Building, Class 02 - See Notes)	5/1/2023		\$51.95	\$32.74	\$84.69
Operators (Building, Class 02A - See Notes)	5/1/2021		\$52.26	\$32.32	\$84.58
Operators (Building, Class 02A - See Notes)	5/1/2022		\$53.81	\$32.77	\$86.58
Operators (Building, Class 02A - See Notes)	5/1/2023		\$54.97	\$33.61	\$88.58
Operators (Building, Class 03 - See Notes)	5/1/2021		\$45.16	\$30.24	\$75.40
Operators (Building, Class 03 - See Notes)	5/1/2022		\$46.71	\$30.69	\$77.40
Operators (Building, Class 03 - See Notes)	5/1/2023		\$47.87	\$31.53	\$79.40
Operators (Building, Class 04 - See Notes)	5/1/2021		\$44.87	\$30.14	\$75.01
Operators (Building, Class 04 - See Notes)	5/1/2022		\$46.41	\$30.60	\$77.01
Operators (Building, Class 04 - See Notes)	5/1/2023		\$47.57	\$31.44	\$79.01
Operators (Building, Class 05 - See Notes)	5/1/2021		\$43.14	\$29.64	\$72.78

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Building, Class 05 - See Notes)	5/1/2022		\$44.69	\$30.09	\$74.78
Operators (Building, Class 05 - See Notes)	5/1/2023		\$45.85	\$30.93	\$76.78
Operators (Building, Class 06 - See Notes)	5/1/2021		\$42.16	\$29.34	\$71.50
Operators (Building, Class 06 - See Notes)	5/1/2022		\$43.70	\$29.80	\$73.50
Operators (Building, Class 06 - See Notes)	5/1/2023		\$44.85	\$30.65	\$75.50
Operators (Building, Class 07A- See Notes)	5/1/2021		\$60.00	\$36.21	\$96.21
Operators (Building, Class 07A- See Notes)	5/1/2022		\$61.86	\$36.75	\$98.61
Operators (Building, Class 07A- See Notes)	5/1/2023		\$63.33	\$37.68	\$101.01
Operators (Building, Class 07B- See Notes)	5/1/2021		\$59.72	\$36.11	\$95.83
Operators (Building, Class 07B- See Notes)	5/1/2022		\$61.57	\$36.66	\$98.23
Operators (Building, Class 07B- See Notes)	5/1/2023		\$63.04	\$37.59	\$100.63
Painters Class 1 (see notes)	5/1/2021		\$41.24	\$30.29	\$71.53
Painters Class 1 (see notes)	2/1/2022		\$41.77	\$31.61	\$73.38
Painters Class 4 (see notes)	5/1/2021		\$41.62	\$30.29	\$71.91
Painters Class 4 (see notes)	5/1/2022		\$41.77	\$31.61	\$73.38
Plasterers	5/1/2021		\$38.37	\$31.84	\$70.21
plumber	5/1/2021		\$59.83	\$36.16	\$95.99
plumber	5/1/2022		\$62.73	\$36.61	\$99.34
Pointers, Caulkers, Cleaners	5/1/2021		\$46.75	\$29.50	\$76.25
Pointers, Caulkers, Cleaners	5/1/2022		\$47.64	\$30.06	\$77.70
Roofers (Composition)	5/1/2021		\$40.33	\$33.12	\$73.45
Roofers (Composition)	5/1/2022		\$41.48	\$33.87	\$75.35
Roofers (Shingle)	5/1/2021		\$30.50	\$21.55	\$52.05
Roofers (Slate & Tile)	5/1/2021		\$33.50	\$21.55	\$55.05
Sheet Metal Workers	5/1/2021		\$53.84	\$45.94	\$99.78
Sheet Metal Workers	5/1/2022		\$55.75	\$47.28	\$103.03
Sign Makers and Hangars	7/17/2021		\$29.49	\$23.90	\$53.39
Sign Makers and Hangars	7/15/2022		\$30.54	\$24.35	\$54.89
Sprinklerfitters	5/1/2021		\$60.83	\$30.34	\$91.17
Sprinklerfitters	5/1/2022		\$62.79	\$31.43	\$94.22
Sprinklerfitters	1/1/2023		\$62.23	\$31.99	\$94.22
Steamfitters	5/1/2021		\$60.47	\$40.89	\$101.36
Steamfitters	5/1/2022		\$64.57	\$40.59	\$105.16
Stone Masons	5/1/2021		\$44.90	\$30.75	\$75.65
Stone Masons	5/1/2022		\$45.90	\$31.20	\$77.10
Terrazzo Finisher	5/1/2022		\$42.44	\$27.71	\$70.15
Terrazzo Grinder	5/1/2022		\$42.71	\$27.71	\$70.42
Terrazzo Mechanics	5/1/2021		\$48.01	\$28.81	\$76.82
Terrazzo Mechanics	5/1/2022		\$48.81	\$29.46	\$78.27
Tile Finisher	5/1/2022		\$38.27	\$29.15	\$67.42
Tile Setter	5/1/2022		\$48.81	\$29.46	\$78.27
Truckdriver class 1(see notes)	5/1/2021		\$36.48	\$17.96	\$54.44
Truckdriver class 1(see notes)	5/1/2022		\$35.60	\$20.74	\$56.34
Truckdriver class 2 (see notes)	5/1/2021		\$36.58	\$17.96	\$54.54

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Truckdriver class 2 (see notes)	5/1/2022		\$35.70	\$20.74	\$56.44
Truckdriver class 3 (see notes)	5/1/2021		\$36.83	\$17.96	\$54.79
Truckdriver class 3 (see notes)	5/1/2022		\$35.95	\$20.74	\$56.69
Window Film / Tint Installer	6/1/2019		\$24.52	\$12.08	\$36.60

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Carpenter - Chief of Party (Surveying & Layout)	5/1/2021		\$59.93	\$27.69	\$87.62
Carpenter - Chief of Party (Surveying & Layout)	5/1/2022		\$60.71	\$29.06	\$89.77
Carpenter - Chief of Party (Surveying & Layout)	5/1/2023		\$63.24	\$29.06	\$92.30
Carpenter - Chief of Party (Surveying & Layout)	5/1/2024		\$65.19	\$29.06	\$94.25
Carpenter - Chief of Party (Surveying & Layout)	5/1/2025		\$67.15	\$29.06	\$96.21
Carpenter - Chief of Party (Surveying & Layout)	5/1/2026		\$69.10	\$29.06	\$98.16
Carpenter - Instrument Person (Surveying & Layout)	5/1/2021		\$52.11	\$27.69	\$79.80
Carpenter - Instrument Person (Surveying & Layout)	5/1/2022		\$52.79	\$29.06	\$81.85
Carpenter - Instrument Person (Surveying & Layout)	5/1/2023		\$54.99	\$29.06	\$84.05
Carpenter - Instrument Person (Surveying & Layout)	5/1/2024		\$56.69	\$29.06	\$85.75
Carpenter - Instrument Person (Surveying & Layout)	5/1/2025		\$58.39	\$29.06	\$87.45
Carpenter - Instrument Person (Surveying & Layout)	5/1/2026		\$60.09	\$29.06	\$89.15
Carpenter - Rodman (Surveying & Layout)	5/1/2021		\$41.69	\$21.34	\$63.03
Carpenter - Rodman (Surveying & Layout)	5/1/2022		\$42.23	\$22.41	\$64.64
Carpenter - Rodman (Surveying & Layout)	5/1/2023		\$43.99	\$22.41	\$66.40
Carpenter - Rodman (Surveying & Layout)	5/1/2024		\$45.35	\$22.41	\$67.76
Carpenter - Rodman (Surveying & Layout)	5/1/2025		\$46.71	\$22.41	\$69.12
Carpenter - Rodman (Surveying & Layout)	5/1/2026		\$48.07	\$22.41	\$70.48
Carpenter	5/1/2021		\$51.76	\$28.04	\$79.80
Carpenter	5/1/2022		\$52.79	\$29.06	\$81.85
Carpenter	5/1/2023		\$54.99	\$29.06	\$84.05
Carpenter	5/1/2024		\$56.69	\$29.06	\$85.75
Carpenter	5/1/2025		\$58.49	\$29.06	\$87.55
Carpenter	5/1/2026		\$60.19	\$29.06	\$89.25
Cement Masons	5/1/2021		\$39.65	\$33.41	\$73.06
Cement Masons	5/1/2022		\$41.15	\$33.41	\$74.56
Dockbuilder, Pile Drivers	5/1/2022		\$45.73	\$37.99	\$83.72
Dockbuilder, Pile Drivers	11/1/2022		\$47.23	\$37.99	\$85.22
Dockbuilder, Pile Drivers	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder, Pile Drivers	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder, Pile Drivers	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
DockBuilder/ Divers (Building Heavy & Highway)	5/1/2020		\$52.44	\$37.27	\$89.71
Dockbuilder/ Pile driver diver	5/1/2022		\$57.16	\$37.99	\$95.15
Dockbuilder/ Pile driver diver	11/1/2022		\$59.04	\$37.99	\$97.03
Dockbuilder/ Pile driver diver	5/1/2023		\$63.10	\$37.99	\$101.09
Dockbuilder/ Pile driver diver	5/1/2024		\$66.25	\$37.99	\$104.24
Dockbuilder/ Pile driver diver	5/1/2025		\$69.04	\$37.99	\$107.03
Dockbuilder/ Pile driver diver	5/1/2026		\$71.23	\$37.99	\$109.22
Dockbuilder/pile driver tender	5/1/2022		\$45.73	\$37.99	\$83.72
Dockbuilder/pile driver tender	11/1/2022		\$47.23	\$37.99	\$85.22
Dockbuilder/pile driver tender	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder/pile driver tender	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder/pile driver tender	5/1/2025		\$55.23	\$37.99	\$93.22

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
DockBuilder/Pile Drivers/ Diver Tender	5/1/2020		\$43.70	\$37.27	\$80.97
Electric Lineman	5/31/2021		\$57.93	\$30.22	\$88.15
Electric Lineman	5/30/2022		\$59.17	\$31.48	\$90.65
Electric Lineman	5/29/2023		\$60.48	\$32.77	\$93.25
Electric Lineman	6/3/2024		\$62.07	\$33.96	\$96.03
Electricians	6/1/2022		\$44.46	\$23.06	\$67.52
Electricians	6/1/2023		\$46.49	\$23.06	\$69.55
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2021		\$47.70	\$39.51	\$87.21
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2022		\$49.70	\$39.51	\$89.21
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	1/1/2023		\$50.70	\$39.51	\$90.21
Iron Workers	1/1/2020		\$49.80	\$34.41	\$84.21
Ironworker (Rodman)	7/1/2020		\$44.82	\$31.60	\$76.42
Laborers (Class 01 - See notes)	5/1/2021		\$36.20	\$25.65	\$61.85
Laborers (Class 01 - See notes)	5/1/2022		\$36.30	\$27.20	\$63.50
Laborers (Class 02 - See notes)	5/1/2021		\$36.40	\$25.65	\$62.05
Laborers (Class 02 - See notes)	5/1/2022		\$36.50	\$27.20	\$63.70
Laborers (Class 03 - See notes)	5/1/2021		\$36.40	\$25.65	\$62.05
Laborers (Class 03 - See notes)	5/1/2022		\$36.50	\$27.20	\$63.70
Laborers (Class 04 - See notes)	5/1/2021		\$31.00	\$25.65	\$56.65
Laborers (Class 04 - See notes)	5/1/2022		\$31.10	\$27.20	\$58.30
Laborers (Class 05 - See notes)	5/1/2021		\$37.05	\$25.65	\$62.70
Laborers (Class 05 - See notes)	5/1/2022		\$37.15	\$27.20	\$64.35
Laborers (Class 06 - See notes)	5/1/2021		\$37.10	\$25.65	\$62.75
Laborers (Class 06 - See notes)	5/1/2022		\$37.20	\$27.20	\$64.40
Laborers (Class 07 - See notes)	5/1/2021		\$36.95	\$25.65	\$62.60
Laborers (Class 07 - See notes)	5/1/2022		\$37.05	\$27.20	\$64.25
Laborers (Class 08 - See notes)	5/1/2021		\$36.70	\$25.65	\$62.35
Laborers (Class 08 - See notes)	5/1/2022		\$36.80	\$27.20	\$64.00
Laborers (Class 09 - See notes)	5/1/2021		\$36.55	\$25.65	\$62.20
Laborers (Class 09 - See notes)	5/1/2022		\$36.65	\$27.20	\$63.85
Laborers (Class 10- See notes)	5/1/2021		\$36.70	\$25.65	\$62.35
Laborers (Class 10- See notes)	5/1/2022		\$36.80	\$27.20	\$64.00
Laborers (Class 11 -See Notes)	5/1/2021		\$36.50	\$25.65	\$62.15
Laborers (Class 11 -See Notes)	5/1/2022		\$36.70	\$27.20	\$63.90
Laborers (Class 12 -See Notes)	5/1/2021		\$37.40	\$25.65	\$63.05
Laborers (Class 12 -See Notes)	5/1/2022		\$38.40	\$27.20	\$65.60
Laborers (Class 13 -See Notes)	5/1/2021		\$40.33	\$25.65	\$65.98
Laborers (Class 13 -See Notes)	5/1/2022		\$40.43	\$27.20	\$67.63
Laborers (Class 14 -See Notes)	5/1/2021		\$36.45	\$25.65	\$62.10
Laborers (Class 14 -See Notes)	5/1/2022		\$36.55	\$27.20	\$63.75
Laborers Utility (PGW ONLY) (Flagperson)	5/1/2017		\$23.52	\$17.58	\$41.10

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Laborers Utility (PGW ONLY) (Flagperson)	5/1/2022		\$30.17	\$19.18	\$49.35
Laborers Utility (PGW ONLY)	5/1/2017		\$30.55	\$17.58	\$48.13
Laborers Utility (PGW ONLY)	5/1/2022		\$37.20	\$19.18	\$56.38
Landscape Laborer	5/1/2020		\$26.13	\$22.95	\$49.08
Landscape Laborer	5/1/2022		\$27.73	\$23.65	\$51.38
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2021		\$49.50	\$31.51	\$81.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2022		\$51.04	\$31.97	\$83.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2023		\$52.20	\$32.81	\$85.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2024		\$53.36	\$33.65	\$87.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2025		\$54.52	\$34.49	\$89.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2026		\$55.67	\$35.34	\$91.01
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2021		\$52.51	\$32.39	\$84.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2022		\$54.05	\$32.85	\$86.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2023		\$55.20	\$33.70	\$88.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2024		\$56.37	\$34.53	\$90.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2025		\$57.52	\$35.38	\$92.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2026		\$58.68	\$36.22	\$94.90
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2021		\$49.25	\$31.44	\$80.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2022		\$50.79	\$31.90	\$82.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2023		\$51.95	\$32.74	\$84.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2024		\$53.11	\$33.58	\$86.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2025		\$54.27	\$34.42	\$88.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2026		\$55.43	\$35.26	\$90.69
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2021		\$52.27	\$32.31	\$84.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2022		\$53.81	\$32.77	\$86.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2023		\$54.97	\$33.61	\$88.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2024		\$56.13	\$34.45	\$90.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2025		\$57.29	\$35.29	\$92.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2026		\$58.44	\$36.14	\$94.58

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2021		\$45.16	\$30.24	\$75.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2022		\$46.71	\$30.69	\$77.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2023		\$47.87	\$31.53	\$79.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2024		\$49.03	\$32.37	\$81.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2025		\$50.18	\$33.22	\$83.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2026		\$51.34	\$34.06	\$85.40
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2021		\$44.86	\$30.15	\$75.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2022		\$46.41	\$30.60	\$77.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2023		\$47.57	\$31.44	\$79.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2024		\$48.73	\$32.28	\$81.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2025		\$49.88	\$33.13	\$83.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2026		\$51.04	\$33.97	\$85.01
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2021		\$43.14	\$29.64	\$72.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2022		\$44.69	\$30.09	\$74.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2023		\$45.85	\$30.93	\$76.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2024		\$47.00	\$31.78	\$78.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2025		\$48.16	\$32.62	\$80.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2026		\$49.32	\$33.46	\$82.78
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2021		\$42.16	\$29.34	\$71.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2022		\$43.70	\$29.80	\$73.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2023		\$44.85	\$30.65	\$75.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2024		\$46.02	\$31.48	\$77.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2025		\$47.17	\$32.33	\$79.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2026		\$48.34	\$33.16	\$81.50
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2021		\$60.00	\$36.21	\$96.21
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2022		\$61.86	\$36.75	\$98.61
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2023		\$63.33	\$37.68	\$101.01

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-00653 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2024		\$64.80	\$38.61	\$103.41
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2025		\$66.26	\$39.55	\$105.81
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2026		\$67.73	\$40.48	\$108.21
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2021		\$59.72	\$36.11	\$95.83
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2022		\$61.57	\$36.66	\$98.23
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2023		\$63.04	\$37.59	\$100.63
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2024		\$64.50	\$38.53	\$103.03
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2025		\$65.97	\$39.46	\$105.43
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2026		\$67.44	\$40.39	\$107.83
Painters Class 2 (see notes)	2/1/2021		\$47.56	\$29.35	\$76.91
Painters Class 2 (see notes)	2/1/2022		\$48.62	\$30.29	\$78.91
Painters Class 3 (see notes)	2/1/2021		\$58.52	\$29.39	\$87.91
Painters Class 3 (see notes)	2/1/2022		\$59.58	\$30.33	\$89.91
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2022		\$61.34	\$40.28	\$101.62
Steamfitters	5/1/2018		\$56.37	\$34.39	\$90.76
Truckdriver class 1(see notes)	5/1/2021		\$36.33	\$17.96	\$54.29
Truckdriver class 1(see notes)	5/1/2022		\$35.45	\$20.74	\$56.19
Truckdriver class 2 (see notes)	5/1/2021		\$36.43	\$17.96	\$54.39
Truckdriver class 2 (see notes)	5/1/2022		\$35.55	\$20.74	\$56.29
Truckdriver class 3 (see notes)	5/1/2021		\$36.68	\$17.96	\$54.64
Truckdriver class 3 (see notes)	5/1/2022		\$35.80	\$20.74	\$56.54

Addendum #1



MBIT WELD SHOP RENOVATION

ADDENDUM #1

October 3, 2023

Dear Bidders,

For the questions you have on the drawings, below are specifications to help answer & better price.

1) Metal roof and underlayment - R-panel metal roof set on a synthetic underlayment. (Sheet A4)

2) Weld carts - Material to be 12- gauge steel to match the cart dimensions on sheet A5 (Alternative - to provide an equal prefabricated weld cart) (Sheet A5)

3) Weld booth - Provide Avani Environmental Series WB-1000 5'x5' – 12- gauge steel construction with rear shelf, adjustable feet & welding curtain rod (or equal) (Sheet A5)

4) Toilet Accessories - (Sheet A8)

Paper Towel Dispenser

Georgia Pacific

Emotion 10" Automated Touchless Water Resistant Paper Towel Dispenser By GP Pro

Item ID: 59450A

Color: Black

Toilet Paper Dispenser

Georgia Pacific

Compact 2-Roll Side-by-Side coreless High- Capacity Toilet Paper Dispenser by GP Pro

Item ID: 56784A

Color: Black

Soap Dispenser

Georgia Pacific

Emotion Gen2 Automated Touchless Soap & Sanitizer Dispenser By GP Pro

Item ID: 52058

Color: White



5) Doors -Prefinished flush solid core wood door with 16 gauge metal frames & lever sets. (Finish to match existing school) (Sheet A8)

6) Locker/Bench - (Sheet A12)

Lockers 38 two tier

PENCO Products

Vanguard 2 Tier lockers

Cat. No. 6239V – 15”w x 12”d x 72”h

Color: Final selection by owner

Suggestions:

736 – Burgundy

028 – Gray

949 – Black

Bench Top - 2 benches required

PENCO Products

Cat. No. 9624 – 42”w x 24”d

Bench Pedestal

PENCO Products

Cat. No. 60822H

Color: 028 Gray

7) Fire Extinguisher - Provide 4 total 2A:20BC fire extinguishers for the weld shop. (Sheet A12)

8) Sheet P-0.0 - Matt Corsello shall provide the information regarding the water closets & lavatories for sheet P-0.0. If not, please let us know.

Sheet A4- Please provide a metal roof specification? What type of underlayment is to be used?

Sheet A5- What material and size is required for the weld carts?

Please provide a weld booth specification

Sheet A8- Please provide elevations for the restrooms to signify what toilet accessories are to be provided by GC/owner and the type of accessory.

Please provide a specification for the hollow metal frames, wood doors, and hardware



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 215.340.6990
 www.BustamanteEngineers.com
 Info@BustamanteEng.com

Sheet A12- Please provide a locker/ bench specification

Please provide a fire extinguisher specification

Sheet P-0.0 Please provide a specification for the new water closets and wall hung lavatories.

See Attached Schedule Below:

PLUMBING FIXTURE SCHEDULE						
SYMBOL	FIXTURE	PIPE DIAMETER (NCH)				REMARKS
		CW	HW	DRAIN	VENT	
WF	WASH FOUNTAIN	1"	1"	1 1/2"	PER DRAWINGS	BRADLEY MODEL WF7103 WATER SUPPLY AND DRAINAGE FROM BELOW
EW	EYE WASH	1/2"	1/2"	1 1/4"	PER DRAWINGS	BRADLEY MODEL 815-2205 WITH 8-15-2000 NAVIGATOR EPX8 EMERGENCY THERMOSTATIC MIXING VALVE
FD	FLOOR DRAIN	--	--	3"	PER DRAWINGS	ZURN ZT136 3" DIAMETER EXTRA HEAVY-DUTY FLOOR DRAIN WITH A TRAP
WC	WATER CLOSET	1/2"	-	4"	PER DRAWINGS	AMERICAN STANDARD COLONY RIGHT HEIGHT ELONGATED 12" ROUGH TOILET MODEL 221AA004 PROVIDE AMERICAN STANDARD TOILET SEAT MODEL NUMBER 5801002 THE FLUSH CONTROLS SHALL BE ON THE OPEN SIDE OF THE WATER CLOSET SEE P-10.
LAV	LAVATORY	1/2"	1/2"	1 1/2"	PER DRAWINGS	AMERICAN STANDARD LUCERNE WALL HUNG LAVATORY MOUNTED AT ADA HEIGHT PROVIDE MONTENREY SINGLE CONTROL CENTERSET FAUCET MODEL NUMBER 614100002 PROVIDE NEOPRENE INSULATION AND COVER ON DRAIN TRAP.

1. During the pre-bid meeting it was mentioned that building permits and fees would be handled by the Owner/School. Please confirm.

Confirmed

2. During the pre-bid meeting the contractors were asked to remove the concrete wall under the outdoor shed. Will the chain link gate and fencing beneath the existing shed be removed as well? **Yes**. If so, will new fencing need to be installed in kind? **Yes**



3. The bid specifications call out a 1- ton jib crane mast, but the plans call out a ½ ton jib crane mast. Which capacity is correct?

Please install the ½ Ton jib crane

4. Are any new fences or barriers required for the new dust collector unit? Or will it be unprotected outside?

Yes, provide a new chain link fence, similar to the existing fence.

5. Drawing A12, “Mezzanine Framing Plan” detail, states that prefab metal stair is by others per the IBC specifications. However, the specifications do not mention any scope about the stairs. Please clarify who is responsible for providing the metal stairs and railings for the mezzanine.

Please include the metal stairs in your bid.

6. In reference to the question above, are the footings and installation of the metal staircase the responsibility of the contractor? Or being handled by others?

The stairs and anchorage to the floor slab are the contractor’s responsibility.

7. The “elevation finish key” on drawing A11 does not call out floor refinishing for the following areas: cart storage area, hall, women’s locker room, men’s locker room, and sanding room. Please confirm this is correct.

All floors will be polished concrete.

8. We are requesting a 1-week bid date extension.

At this time, due to the urgency of the renovation to be completed and functioning before the next school year the bid schedule cannot be extended.

On page P3.0 there is a clouded area over the Welding Classroom but there is nothing noted in the cloud.

Please ignore the cloud. It referred to a previous piping route that was removed.

Page M2.0 the new dust collector extends over the fence. Is the fence to remain or will the dust collector be over top of the fence?

The fence is to be removed and a new fence installed to enclose the new collector.

What style of Metal Roof is to be used on the exterior shed roof.



Is Speedwell supplying and installing the weld booths? Or is the GC to supply and install the weld booths? What brand and model of weld booth are we to use?

Please ignore any reference to Speedwell.

Weld carts - Material to be 12- gauge steel to match the cart dimensions on sheet A5 (Alternative - to provide an equal prefabricated weld cart) (Sheet A5)

Weld booth - Provide Avani Environmental Series WB-1000 5'x5' – 12- gauge steel construction with rear shelf, adjustable feet & welding curtain rod (or equal) (Sheet A5).

Does the new Airex dust control system need to have a concrete footing or slab for it to be installed on? Yes, assume a 6-inch concrete slab with #4 rebar at 12 inches EW on 12 inches of compacted gravel. Replace asphalt pavement, as required.

Is there a detail on where the fume arms are to be mounted in the weld booth?

The extension arms are hung from the overhead duct per the manufacture's requirements. Intermediate stability supports angles may also be required from the wall, approx. 5 feet in length with ¼" end plate and 2 drilled in 3/8" anchors.

When will the project be awarded and a notice to proceed be issued?

We expect to award by Nov 15th or sooner depending on contract negotiations.

Will the GC be responsible for moving out and storing all of the equipment, tools, desks, chairs, pictures, wall hangings etc from the classrooms?

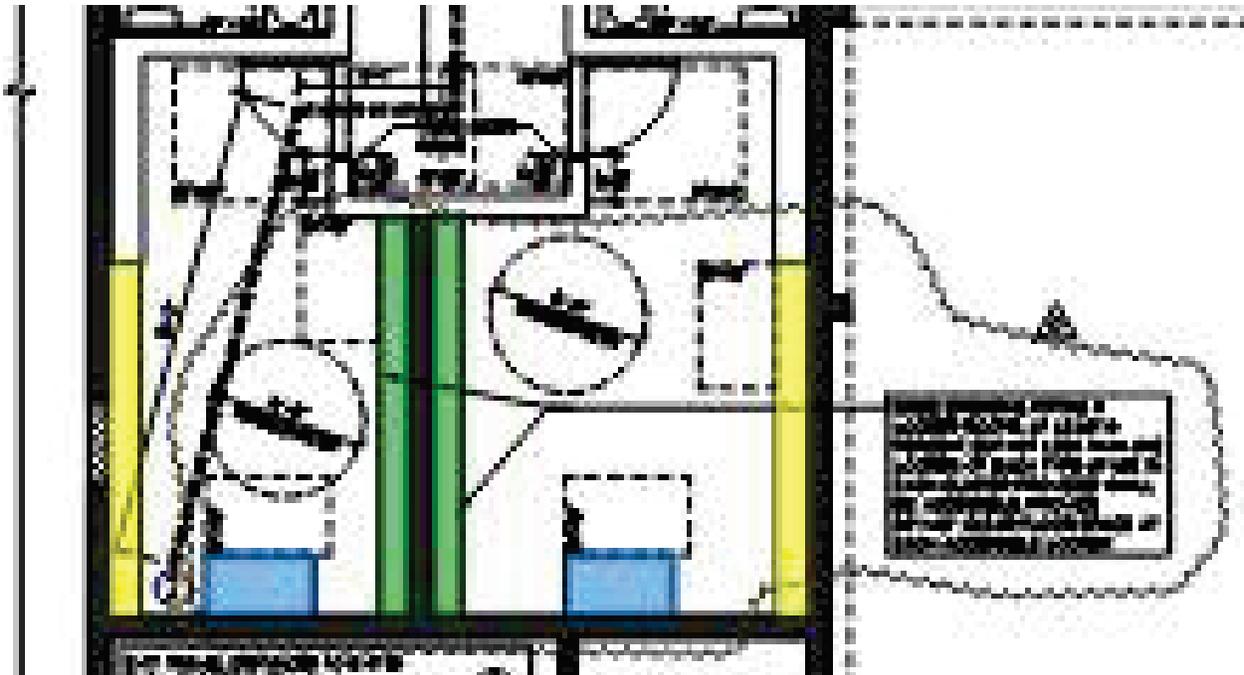
Yes, including heavy equipment in the shop area.

The specs state that the contractor is responsible for the permit cost. During the pre bid walk through it was mentioned that the cost of the permit will be paid for by the school. Is this correct?

Yes, for the Warrick Building Permit. Any other miscellaneous permit will be the contractor's responsibility.

The blue boxes are benches, the green boxes are lockers based on the arrows pointing. What are the yellow boxes?

They are Lockers.



1. In reference to the new locker rooms, please advise what type/size lockers are required and provide the quantity of lockers required for each locker room.

Lockers – (38 double tiered)

PENCO Products

Vanguard 2 Tier lockers

Cat. No. 6239V – 15”w x 12”d x 72”h

Color: Final selection by owner

Suggestions:

736 – Burgundy

028 – Gray

949 – Black

Bench Top (2-benches required)

PENCO Products

Cat. No. 9624 – 42”w x 24”d

Bench Pedestal

PENCO Products

Cat. No. 60822H

Color: 028 Gray



2. In reference to the previously submitted chain link fence RFI, please provide specifications for the fencing and provide a drawing showing the fencing locations.
Yes, provide a new chain link fence, similar to the existing fence. Until details on the Air Filters are finalized, assume you will provide 30 feet of 16 gauge, galvanized, 6-foot-high chain link with a 6-foot access gate.

3. Please advise if all RFIs will be made available to all parties/bidders via an addendum.
An addendum will be issued next week with all questions and responses issued to all the bidders.

On sheet E3.0 there are 9- B5 light fixtures on the phase 2 side however this fixture is not specified on sheet E4.0 Lighting Fixture Schedule. Please provide the light fixture specifications for B5.

See the Lithonia Lighting Specification below:



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 Info@BustamanteEng.com



Catalog Number	
Notes	
Type	

Contractor Select™
CSV T
 Vapor Tight LED Strip Light



These fully gasketed, wet-location, and code-compliant vapor tight's are and IP65 and IP66 rated. They can be surface mounted on the ceiling or wall and are designed for continuous row mounting. The CSV T vapor tight's are ideal for outdoor venues, canopies and locker rooms.

FEATURES:

- The fully gasketed, polycarbonate housing with polycarbonate captive latches provides a water-tight seal and stands up to dust and dirt with its IP65 and IP66 ratings
- Provides the performance you need with the UV-stabilized, high-impact, frosted polycarbonate lens for uniform light output and high impact-resistance
- Quick and simple to install with the snap-lock tool-less access
- Available with Switchable technology



Catalog Number	UPC	Description	Lumens	Wattage	Voltage	Color Temperature	Color Rendering Index
CSV T L48 5000LM MVOLT 40K 80CRI	00194995069408	4' MVOLT Vapor Tight LED Strip Light	4946	42	MVOLT (120-277)	4000K	80CRI
CSV T L48 AL03 MVOLT SWW3 80CRI	00194995069507	4' MVOLT Switchable LED Vapor Tight Strip Light	3106 - 4946	27 - 42	MVOLT (120-277)	35K/40K/50K	80CRI
CSV T L96 10000LM MVOLT 40K 80CRI	00194995280858	8' MVOLT LED Vapor Tight Strip Light	10300	87.9	MVOLT(120-277)	4000K	80CRI
CSV T L96 AL04 MVOLT SWW3 80CRI	00194995069446	8' MVOLT LED Vapor Tight Strip Light	6495-10300	55.3-87.9	MVOLT(120-277)	35K/40K/50K	80CRI

More configurations are available. [Click here](#) or visit www.acuitybrands.com and search for CSV T LED.

Accessories: Order as separate catalog number.

CSV T STSL LATCH	Stainless steel latch kit (Set of 10) ‡
CSV TRMBA	Angle mount bracket (QTY of 2) (316 stainless steel)
CSV TRMBU	Rigid mount U-bolt bracket (QTY of 2) (316 stainless steel)
CSV TRMBK	Rigid mount bracket (QTY of 2) (316 stainless steel)
CSV TSMB	Replacement standard mounting brackets (QTY of 2) (301 stainless steel)
MHCH36SS	3/6" stainless steel chain (QTY of 2)

‡ Option Value Ordering Restrictions	
Option value	Restriction
CSV T STSL LATCH	Requires two for L96



Is this a tax exempt project?

Only if MBIT buys the equipment. The bidders cannot use the MBIT exemption for their purchases.

MBIT Welds Shop Addition Project

DATA SHEETS

AIREX
INDUSTRIES

ECE 
EFFECTIVE CONTROLS EAST

LD23-HO125

July 11th, 2023

DUST COLLECTOR
(PS- SERIES)



Your contact

LARRY D. FRANTZ

Project Manager

215-256-9530

larry@effectivecontrolseast.com

PROPOSAL SUMMARY

Airex Industries Inc. is pleased to offer a proposal for the supply of a dust collector equipment for the following:

Client	
End User	Middle Bucks Institute of Technology
Application	Weld Shop
Voltage	460 VAC., 3 PH., 60 HZ.
Explosive	NO
Kst	- bar-m/s
P_{max}	- bar
CFM	7,500 CFM @ 14"
Installation	Outdoors
Location	USA
Hours of operation	X hrs / week
Type	Cartridges (description below)

Cartridge Dust Collector model PS-16 complete with 36" paper cartridges, front access doors, venturi assisted reverse automatic pulse cleaning system, adjustable control board for RP in a NEMA 12 enclosure, quick cam cartridge clamping system, hopper, inlet target plate, magnehelic gauge, stand, drum kit and surge air tank.



CONSTRUCTION DETAILS

1. Conception :

Volume :	7,500 CFM
Cartridge Quantity :	16
Filtration Area:	5,040 ft ²
Air-to-Cloth Ratio :	1.5:1

2. Casing :

Material :	Black steel / Reinforced 12 gauges / Welded
Design static pressure :	16" water gauge
Cartridge access :	Outside, re : access door
Gas inlet :	Baffled / Through Hopper

3. Tube Sheet :

Type :	Flat
Material :	Black steel / Reinforced 12 gauges

4. Filter Media :

Material / Composition :	Kraft Paper / P315-361275
Max. operating temperature :	200°F.

5. Cartridges :

Dimensions :	12 ¾" dia. X 36" (L)
Access :	Front horizontal hinged door

6. Cartridges Cleaning System :

Type :	Pulse-jet (Cycle 1-2 min.)
Air Pressure / Properties :	100 p.s.i.g. / Clean, dry without oil

7. Compressed Air Tank :

Quantity :	1 per module
Size / Location :	Ø-5" round, full length of casing / side-mounted
Consumption:	10-18 CFM standard

8. Diaphragm Valves :

Type :	1 ½" / Goyen / RCA45DD
--------	------------------------

9. Solenoid Valves :

Type: Goyen / RCA3 / mounted inside a NEMA 4 casing

10. Pulse Controller :

System : Pulse-jet
 Type: Dwyer / DCT610
 Enclosure : NEMA 5/12
 Location : Remote Panel

11. Cartridge Gauge :

Type : Magnehelic / 0-10" / Sensocon

12. Painting :

Standard finish : 1 primer and 2 finishes
 Surface preparation : cleaned and brushed

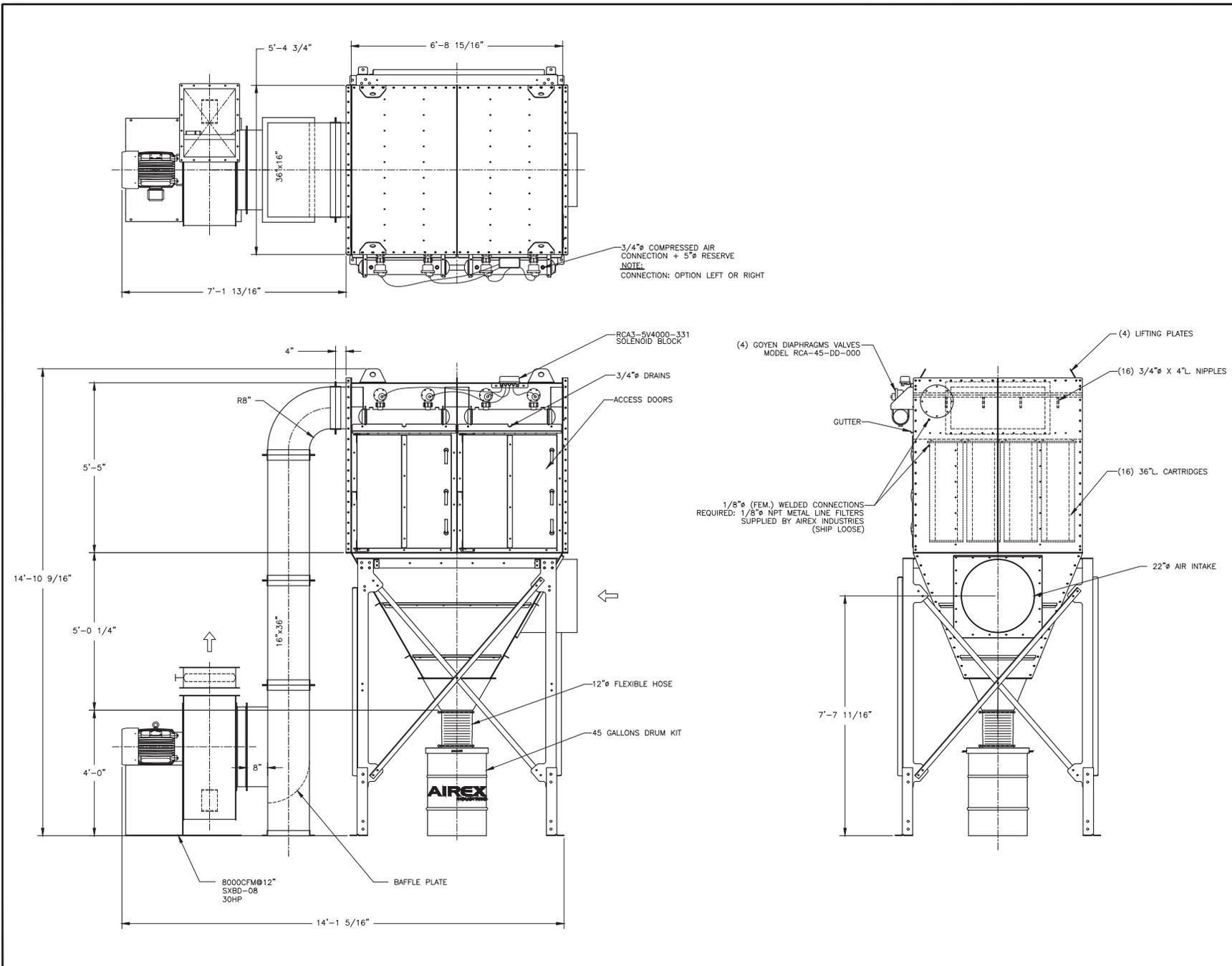
13. Discharge Equipment :

Quantity : 1
 Location : Under collector / 4' clearance
 Type : 55 gal. drum kit

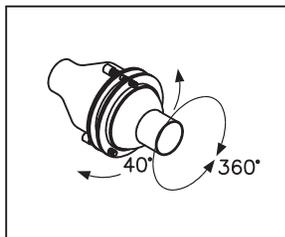
Blower Model SXBD-08 includes housing, AMCA C rating, BI wheel, matching paint, and DIRECT DRIVE TEFC motor. Pedestal-mounted. Includes all interduct between dust collector outlet and blower inlet. 7,500 CFM @ 12" TSP. 30 HP- 460 VAC., 3 PH., 60 HZ.

INCLUDES THE FOLLOWING FEATURES

- **Complete Control Panel** - NEMA 12 enclosure, magnetic motor starter, fuses, thermal overload, step down transformer, illuminated on/off buttons, three positions selector switch, integrated pulse sequencer controller board, rotary disconnect. CSA approved. **30 HP - 460 VAC., 3 PH., 60 HZ.**
- **Fire Kit** - temperature probe and sprinkler head pipe only (sprinkler and header by others)
- **Pressure Module Digital Display** – to monitor filter conditions
- **Exhaust Discharge Silencer** – Vertical with Transition and support angle – Flanged outlet, **30" x 30" x 60" L**



CUSTOMER																	
PO#:																	
APPLICATION																	
KST:	PMA:																
CUSTOMER APPROVAL:																	
X _____	DATE:																
<table border="0"> <tr> <td>INT. INSTALLATION:</td> <td><input type="checkbox"/></td> <td>FT-AG</td> <td><input type="checkbox"/></td> </tr> <tr> <td>EXT. INSTALLATION:</td> <td><input type="checkbox"/></td> <td>FT-JS</td> <td><input type="checkbox"/></td> </tr> <tr> <td></td> <td></td> <td>SD-JS</td> <td><input type="checkbox"/></td> </tr> <tr> <td></td> <td></td> <td>SD-CD</td> <td><input type="checkbox"/></td> </tr> </table>		INT. INSTALLATION:	<input type="checkbox"/>	FT-AG	<input type="checkbox"/>	EXT. INSTALLATION:	<input type="checkbox"/>	FT-JS	<input type="checkbox"/>			SD-JS	<input type="checkbox"/>			SD-CD	<input type="checkbox"/>
INT. INSTALLATION:	<input type="checkbox"/>	FT-AG	<input type="checkbox"/>														
EXT. INSTALLATION:	<input type="checkbox"/>	FT-JS	<input type="checkbox"/>														
		SD-JS	<input type="checkbox"/>														
		SD-CD	<input type="checkbox"/>														
PAINT SPECIFICATIONS INSIDE: PRIMER COAT <input checked="" type="checkbox"/> YES SANDBLAST: <input type="checkbox"/> YES OUTSIDE: PRIMER COAT <input checked="" type="checkbox"/> YES SANDBLAST: <input type="checkbox"/> YES (2) FINISH COATS AIREX GREY (RAL 7042) <input type="checkbox"/> AIREX BLACK (RAL 9011) <input type="checkbox"/> AIREX WHITE (RAL 9003) <input type="checkbox"/> ECO BLUE <input type="checkbox"/> AIREX YELLOW (RAL 1018) <input type="checkbox"/> ALUMINUM (HIGH TEMP.) <input type="checkbox"/> AIREX RED (RAL 3020) <input type="checkbox"/> SILVER GREY (RAL 9006) <input type="checkbox"/>																	
PROFESSIONAL SEAL																	
<small>Drawing subject to change without notice. Drawing not to be used to manufacture connecting items. Certified drawing(s) from factory may be requested.</small>																	
REV. #	REVISIONS	M/G/Y															
AIREX INDUSTRIES HEAD OFFICE 2500, BERNARD-LEFEBVRE LAVAL, QC, CANADA, H7C 0A5 TEL: 1-800-263-2303 LAVAL, QUEBEC, CANADA DRUMMONDVILLE, QUEBEC, CANADA TEL: 450-865-2905 FAX: 450-865-2905 airex@airex-industries.com www.airex-industries.com																	
PREPARATION		APPROBATION															
DESIGNER	T. VASILAKOS P.ENG	DRAFTSMAN	J. MENG														
DATE	03/11/22	VERIFICATION	G. PRUD'HOMME P.ENG														
SCALE	3/4"=1'-0"																
CUSTOMER																	
PROJECT																	
TITLE																	
PLATINUM SERIES CARTRIDGES DUST COLLECTOR MODEL PS-16-SXBD-08																	
REVISION	DRAWING NUMBER																
	PS-16																

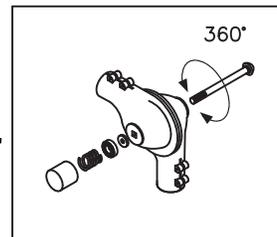


BALL JOINT

MADE OF STEEL.

ROTATION ALLOWING PRECISE POSITIONNING OF THE CAPTURE HOOD NEAR THE EMISSION SOURCE.

SCREEN INSTALLED INSIDE BALL JOINT TO PREVENT DEBRIS FROM GOING INSIDE THE ARM.

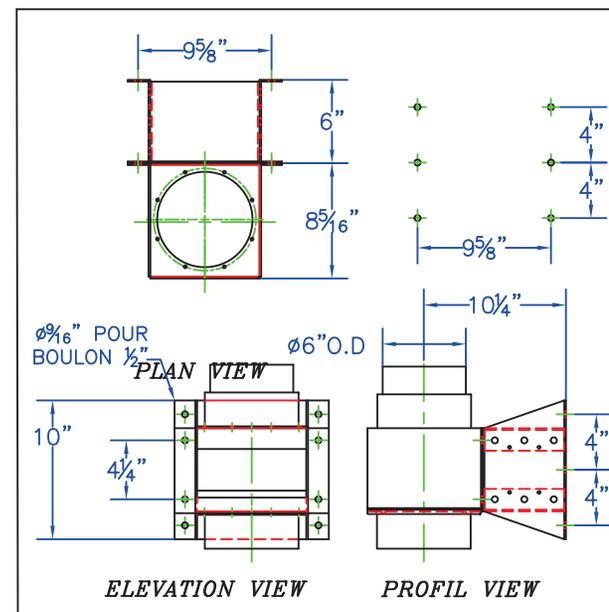
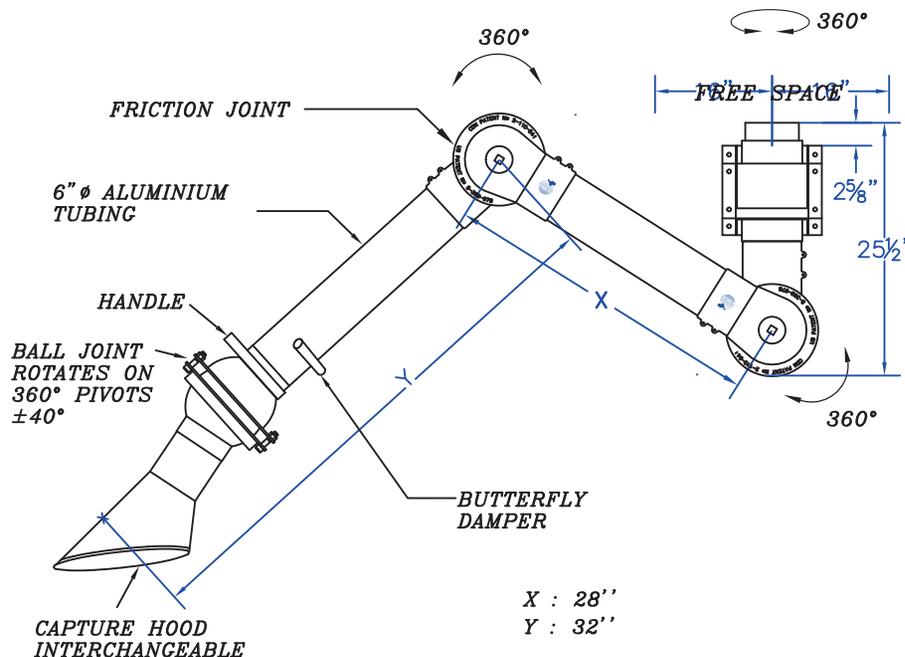


FRICTION JOINT

CAST ALUMINIUM FRICTION JOINT WITH EXTRA LARGE FRICTION SURFACE TO MAINTAIN POSITIONNING.

EXTERNAL TENSION BALL BEARING HANDLE FOR QUICK & EASY ADJUSTMENT OF THE CAPTURE ARM.

THE TENSION HANDLE CAN BE INSTALLED LEFT OR RIGHT.



WALL BASE ANCHORING POINTS AND OTHER DIMENSIONS

REVISION NO:	DATE	MODIFICATION	PAR

2600, Diab, Montréal
 Québec H4S 1E8
 Tél. (514) 339-2522
 Fax. (514) 339 2526



INTRAVAC
 CAPTURE ARM
 MODEL
 V6A52RNCCVJO-WB

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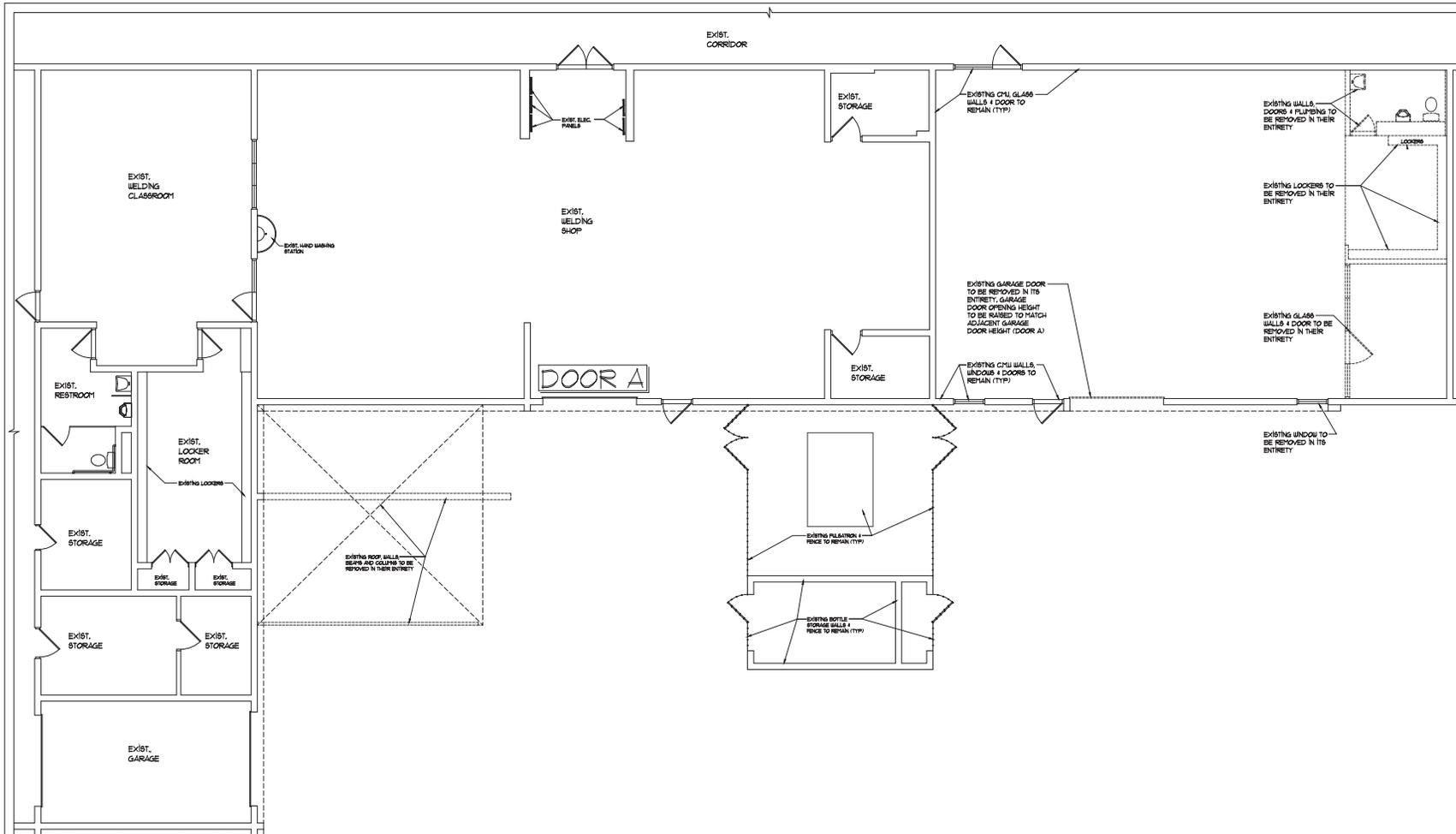
Date: 05/03/2018

vérifié par:
 checked by: M.G..

Dessin: V6A52RNCCVJO-WB

MBIT Welds Shop Addition Project

DRAWINGS

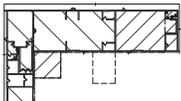


PHASE 1: DEMO PLAN

SCALE: 3/16" = 1'-0"

———— INDICATES EXISTING WALLS AND ELEMENTS TO REMAIN
 - - - - - INDICATES EXISTING WALLS & ELEMENTS TO BE REMOVED

- PHASE 1 DEMO AREA
- PHASE 2 AREA TO REMAIN AS-IS



PHASE KEY

N.T.S.

CONSTRUCTION NOTES:

- 1) CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.
- 2) CONTRACTOR TO HIRE MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS TO CUP OFF, REROUTE, OR TERMINATE ANY EXISTING CONNECTIONS IN THE AREAS TO BE RENOVATED.
- 3) CONTRACTOR RESPONSIBLE FOR VERIFYING ALL STRUCTURE ONCE EXPOSED.
- 4) CONTRACTOR RESPONSIBLE FOR SUPPORTING ALL STRUCTURAL SYSTEMS BEING MODIFIED DURING CONSTRUCTION.
- 5) CONTRACTOR RESPONSIBLE FOR MAINTAINING A DRY, CLEAN, AND SAFE ENVIRONMENT DURING CONSTRUCTION.
- 6) REFER TO GENERAL NOTES FOR ADDITIONAL NOTES AND INFORMATION PROVIDED BY OWNER.
- 7) ALL SITE INFORMATION TO BE PROVIDED BY OWNER.
- 8) CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES, STRUCTURAL PROBLEMS, OR ANY OTHER DEFECT ONCE THE EXISTING DRYWALL IS REMOVED.

Structural Engineer



BUSTAMANTE ENGINEERS INC.
 875 NORTH EASTON ROAD, SUITE 38
 DOHERTOWN, PA 18802
 215.340.6960
 info@bustamanteengineers.com

Architect



LUCE ARCHITECTS
 5012 N. Easton Road
 Dohertown, PA 18802
 215.674.5950

MEP Engineer

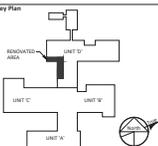
CORSELLO CONSULTING ENGINEERS
 1138 THROUGH LANE
 AUDUBON PA 19403
 (484) 388-2220



Project Issue Index

Rev.	Rev. Date	Description
A	5-25-2023	ISSUED FOR BIDD PERMIT
B	7-20-2023	ISSUE REVISIONS
C	8-23-2023	TOWNSHIP COMMENTS

Key Plan



MBIT MIDDLE BUCKS INSTITUTE OF TECHNOLOGY
 2740 York Road
 Jamison, PA 18929

Project Title

WELDING DEPARTMENT RENOVATION

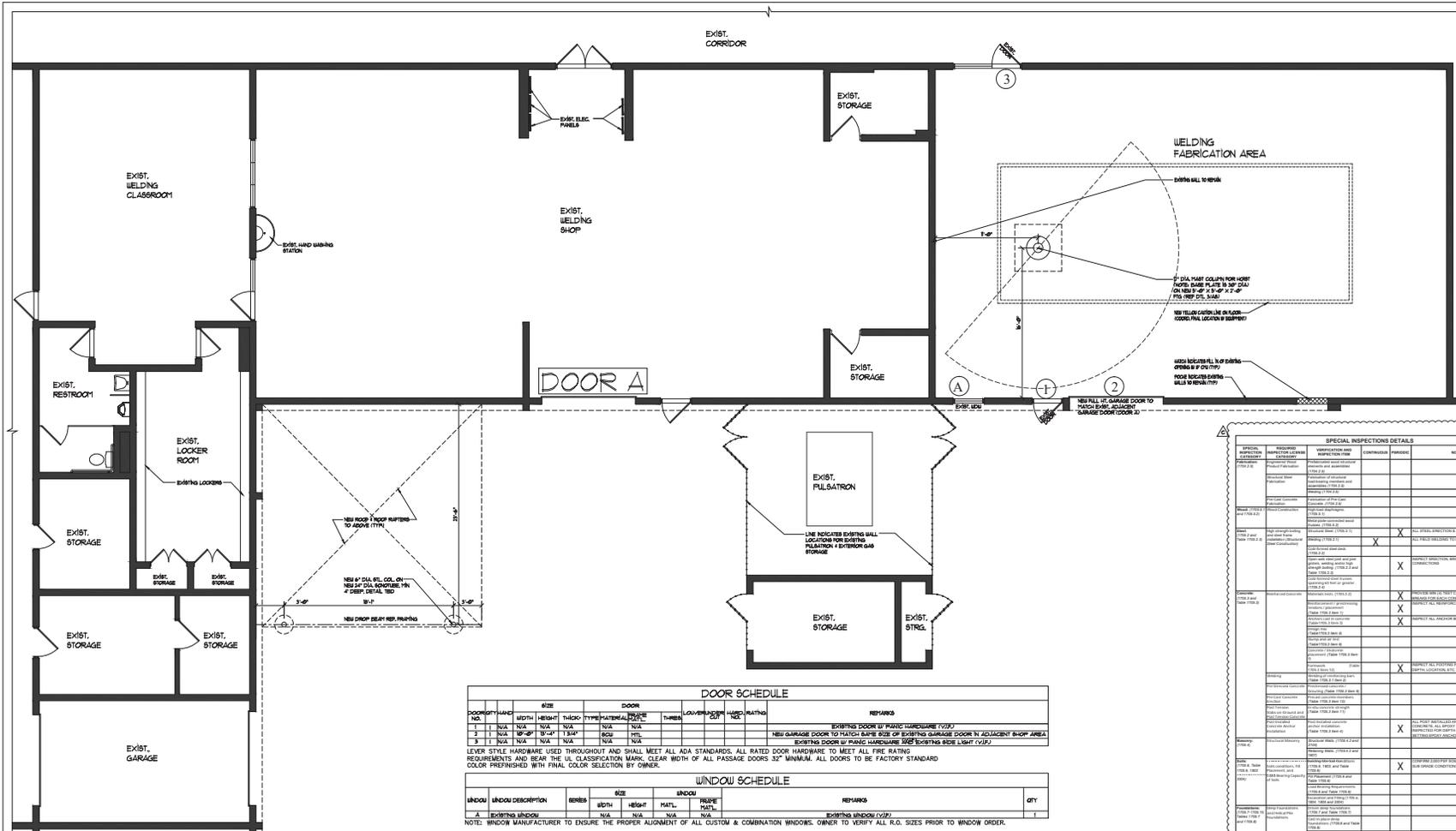
Project No. 582301 Drawn By: BAM Lead: PCS Checked By: PCS

Drawing Title

PHASE 1 DEMO PLAN

Drawing No.

A2
2 of 13

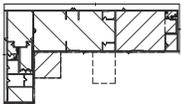


DOOR SCHEDULE										
DOOR NO.	LAND	SIZE	DOOR		DOOR	DOOR	DOOR	DOOR	DOOR	REMARKS
NO.	WIDTH	HEIGHT	TRUCK	MATERIAL	TYPE	FINISH	GLASS	GLASS	GLASS	
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	EXISTING DOOR BY FRAMING HARDWARE (1/2\"/>

WINDOW SCHEDULE										
WINDOW	WINDOW DESCRIPTION	REMARKS	SIZE	WINDOW	WINDOW	WINDOW	WINDOW	WINDOW	WINDOW	QTY
A	EXISTING WINDOW		WIDTH	HEIGHT	MATERIAL	TYPE	FINISH	GLASS	GLASS	
A	EXISTING WINDOW		N/A	N/A	N/A	N/A	N/A	N/A	N/A	1

SPECIAL INSPECTIONS DETAILS					
NO.	DESCRIPTION	DATE	BY	FOR	REMARKS
1	FOUNDATION				
2	CONCRETE				
3	STEEL				
4	MECHANICAL				
5	ELECTRICAL				
6	PLUMBING				
7	PAINT				
8	FINISH				

PHASE 1: NEW FLOOR PLAN
SCALE: 3/16" = 1'-0"



PHASE KEY
N.T.S.

- CONSTRUCTION NOTES:**
- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.
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Structural Engineer
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MEP Engineer
CORSELLO CONSULTING ENGINEERS
 1138 THROUGH LANE
 ALTOON PA 15403
 (484) 388-2220

REGISTERED ARCHITECT
 (Professional Seal)

Project Issue Index
 Rev. Rev. Date Description
 A 5-23-2023 ISSUED FOR BIDD PERMIT
 B 7-30-2023 CLIENT REVISIONS
 C 8-21-2023 TOWNSHIP COMMENTS

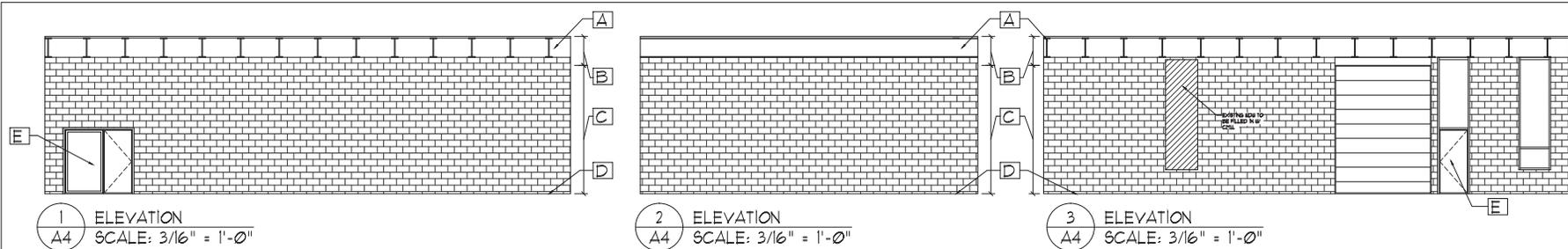
Key Plan

MBIT MIDDLE BUCKS INSTITUTE OF TECHNOLOGY
 2740 York Road
 Jamison, PA 18929

Project Title
WELDING DEPARTMENT RENOVATION

Project No. 582301 Drawn By: BAM Lead: PCS Checked By: PCS
 Drawing Title
PHASE 1 NEW FLOOR PLAN

Drawing No.
A3
 3 of 13



ELEVATION FINISH KEY

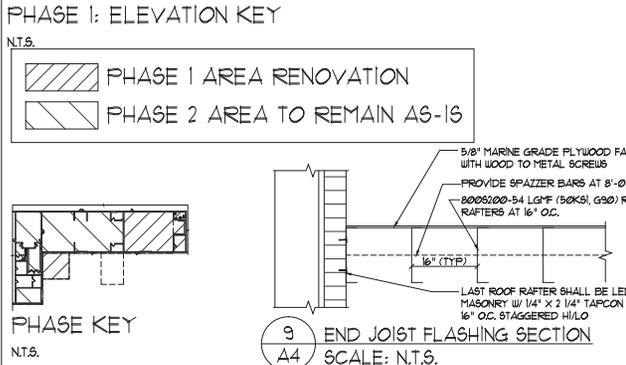
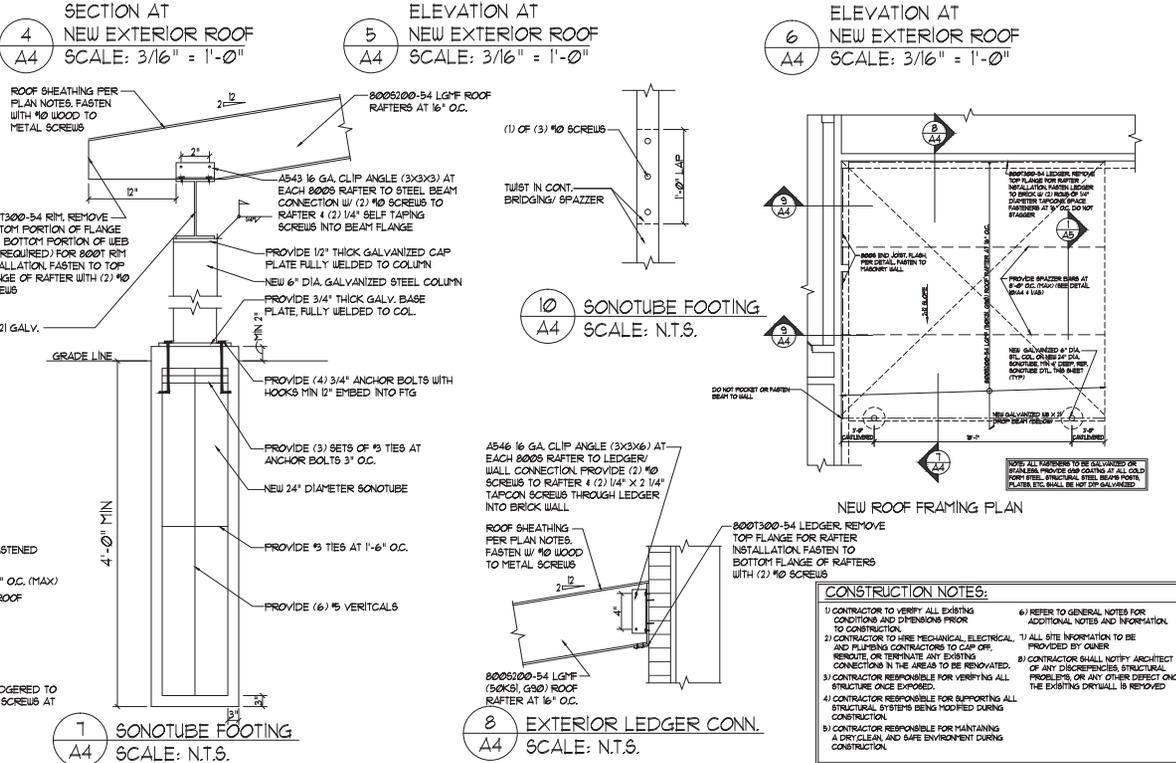
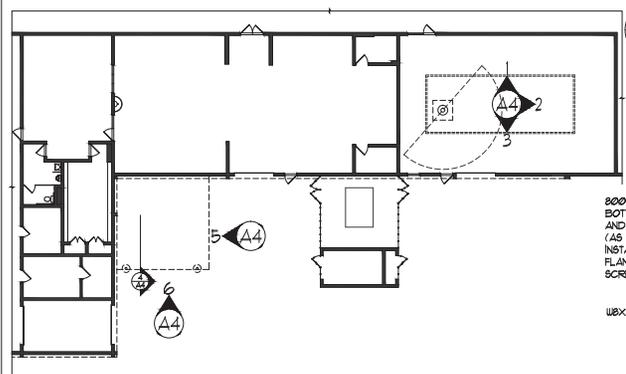
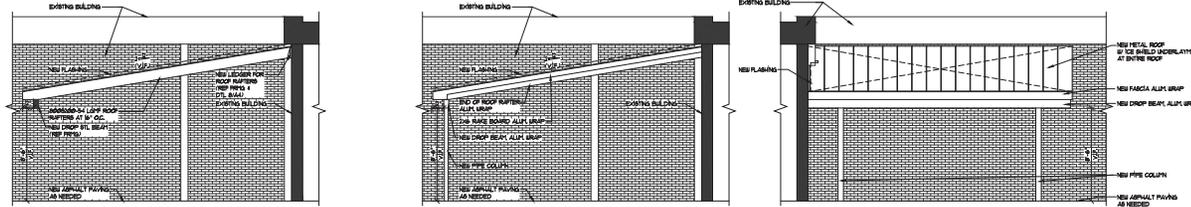
A: EXISTING ROOF STRUCTURE & HVAC TO BE PAINTED WHITE

B: CMU WALL TO BE PAINTED BLACK (FROM HEADER OF GARAGE DOOR UP TO ROOF)

C: CMU WALL TO BE PAINTED LIGHT GREY

D: FLOOR TO BE PS104 LITHIUM SILICATE W/ SILICONATE DENSIFIER WB PENETRATING SEALER (OR EQUAL)

E: EXISTING DOORS & WINDOWS



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Project Issue Index

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B	7-20-2023	CLIENT REVISIONS
C	8-23-2023	TOWNSHIP COMMENTS

Key Plan

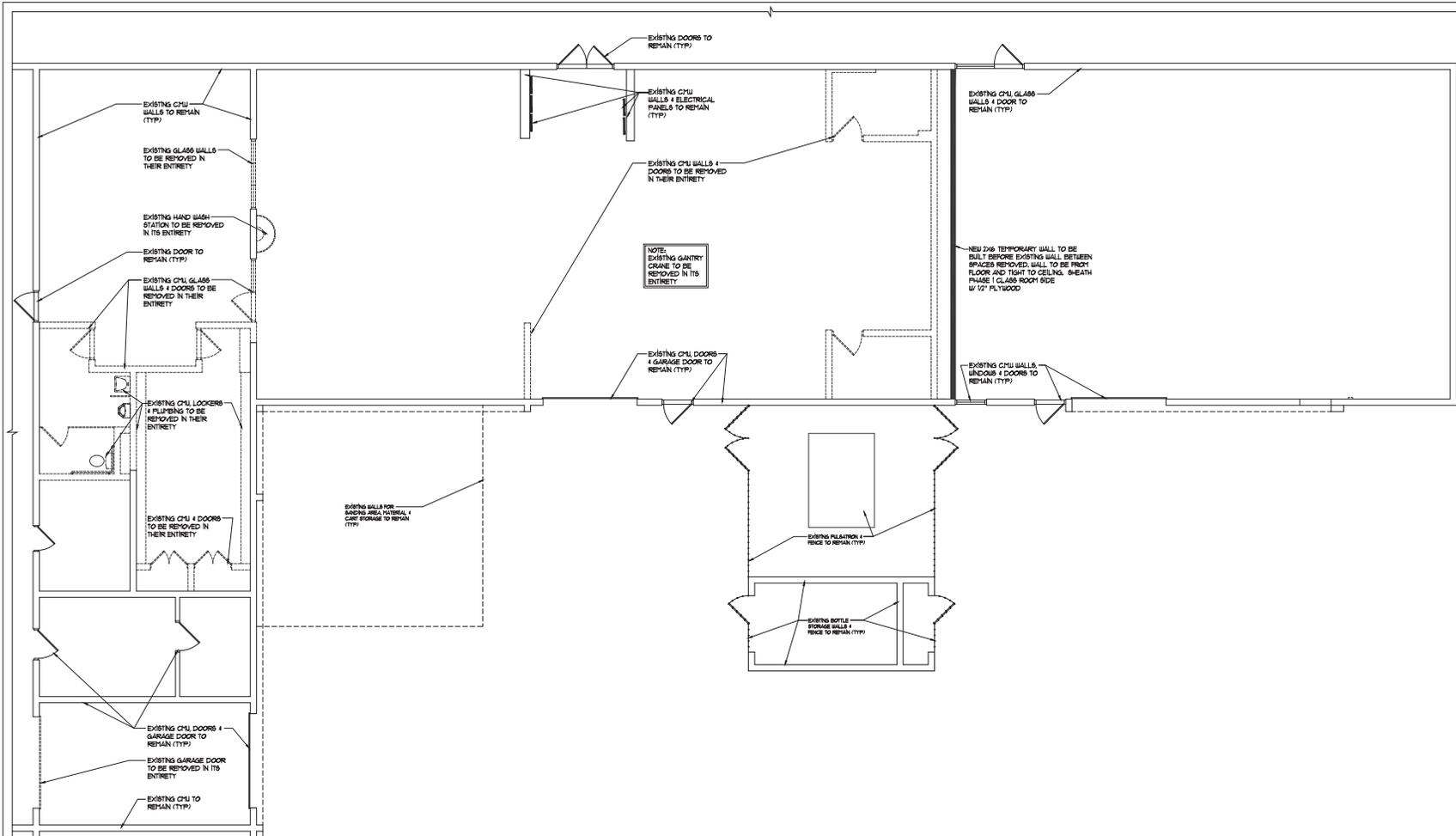
MBIT MIDDLEBUCKS INSTITUTE OF TECHNOLOGY
2740 York Road
Jamison, PA 18929

Project Title
WELDING DEPARTMENT RENOVATION AND NEW ROOF SECTIONS AND ELEVATIONS

Project No: 582301
Drawn By: BAM
Lead: PCS
Checked By: PCS

Drawing Title
PHASE 1 NEW INTERIOR ELEVATIONS

Drawing No.
A4
4 of 13

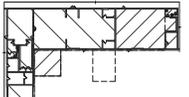


NOTE:
EXISTING GANTRY CRANE TO BE REMOVED IN ITS ENTIRETY

NEW 2x6 TEMPORARY WALL TO BE BUILT BEFORE EXISTING WALL BETWEEN SPACES REMOVED. WALL TO BE FROM FLOOR AND TIGHT TO CEILING. SHEATH PHASE 1 CLASS ROOF SIZE W/ 1/2\"/>

PHASE 2: DEMO PLAN

SCALE: 3/16" = 1'-0"



PHASE KEY
N.T.S.

CONSTRUCTION NOTES:

- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO RISE MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS TO CLIP OFF, RESROUTE OR TERMINATE ANY EXISTING CONNECTIONS IN THE AREAS TO BE RENOVATED.
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Key Plan

MBIT
MIDDLE BUCKS INSTITUTE OF TECHNOLOGY
2740 York Road
Jamison, PA 18929

Project Title

WELDING DEPARTMENT RENOVATION

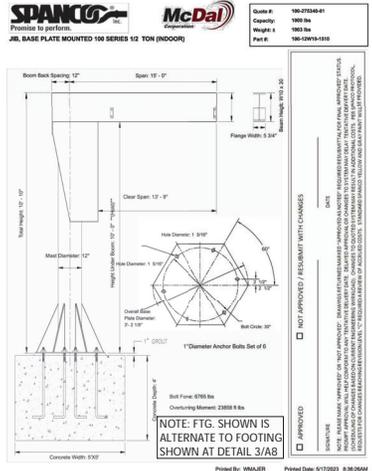
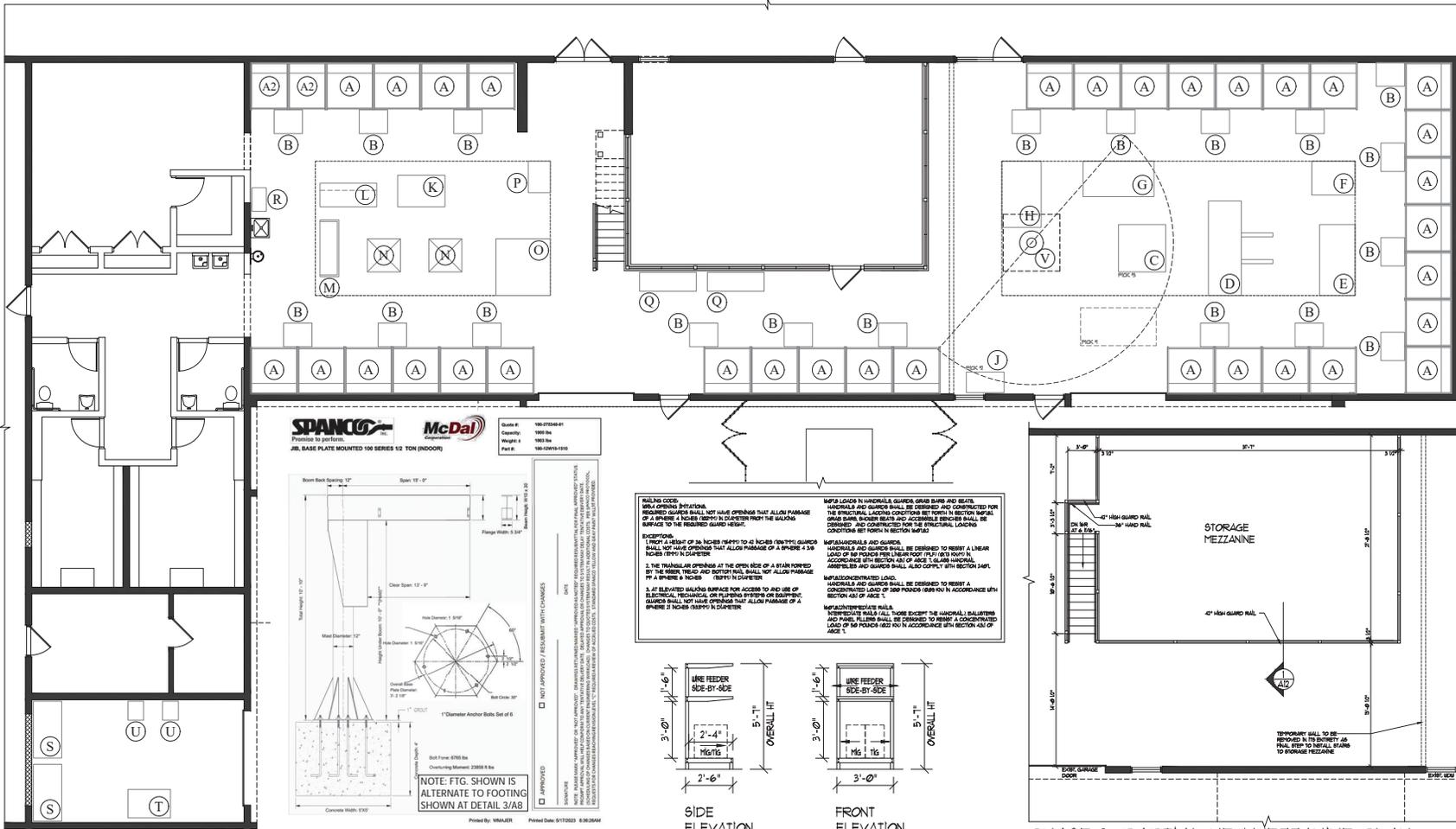
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Drawing Title

PHASE 2 DEMO PLAN

Drawing No.

A7
7 of 13



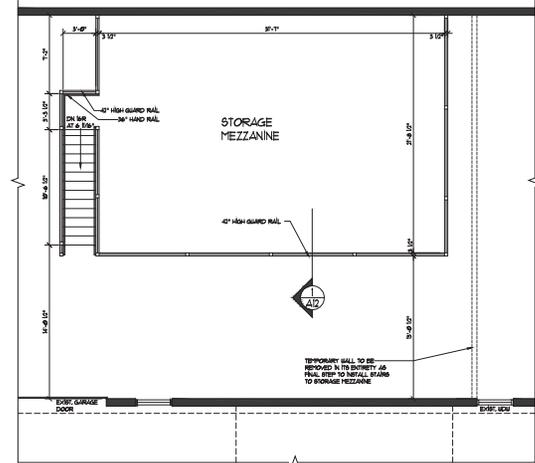
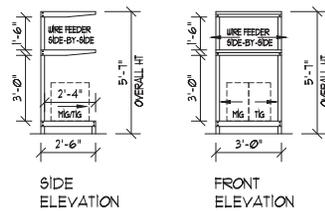
RAILING CODES:
 WITH OPENING NOTATIONS, REQUIRE GUARDS SHALL NOT HAVE OPENINGS THAT ALLOW PASSAGE OF A SPHERE 4 INCHES (102MM) IN DIAMETER FROM THE SURFACE TO THE REQUIRED GUARD HEIGHT.

DETAILED NOTES:
 1. FROM A HEIGHT OF 36 INCHES (915MM) TO 42 INCHES (1067MM), GUARDS SHALL NOT HAVE OPENINGS THAT ALLOW PASSAGE OF A SPHERE 4 INCHES (102MM) IN DIAMETER.
 2. THE TRIANGULAR OPENINGS AT THE OPEN SIDE OF A STAIR POWERED BY 20 AMPERE, 250VAC AND SECTION 410.10, SHALL NOT ALLOW PASSAGE OF A SPHERE 4 INCHES (102MM) IN DIAMETER.
 3. AT BELIEVED HAZARDOUS SURFACE ARE ACCESS TO AND USE OF ELECTRICAL, MECHANICAL OR PNEUMATIC SYSTEMS OR EQUIPMENT, GUARDS SHALL NOT HAVE OPENINGS THAT ALLOW PASSAGE OF A SPHERE 4 INCHES (102MM) IN DIAMETER.

MECHANICAL AND GUARD:
 HANDRAILS AND GUARDS SHALL BE DESIGNED TO RESIST A LINEAR LOAD OF 50 POUNDS PER LINEAR FOOT (PLF) (675 N/MT) IN ACCORDANCE WITH SECTION 410.41 OF ASCE 10.4.1. GUARD HANDRAILS AND GUARDS SHALL ALSO COMPLY WITH SECTION 410.41.

MECHANICAL AND GUARD:
 HANDRAILS AND GUARDS SHALL BE DESIGNED TO RESIST A CONCENTRATED LOAD OF 300 POUNDS (133 kN) IN ACCORDANCE WITH SECTION 410.41 OF ASCE 10.4.1.

MECHANICAL AND GUARD:
 INTERIOR MEZZANINE RAILS, EXCEPT THE HANDRAILS, SHALL BE DESIGNED TO RESIST A CONCENTRATED LOAD OF 50 POUNDS (22 kN) IN ACCORDANCE WITH SECTION 410.41 OF ASCE 10.4.1.



PHASE 2: NEW SHOP EQUIPMENT LAYOUT
 SCALE: 3/16" = 1'-0"

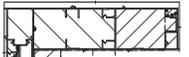
NEW WELD CART ELEVATIONS
 SCALE: N.T.S

PHASE 2: PARTIAL NEW MEZZANINE PLAN
 SCALE: 3/16" = 1'-0"

EQUIPMENT SCHEDULE - PHASE 2			
TAG	QTY	EQUIPMENT TYPE	REMARKS
A	33	WELD ROOM	SPECIFIED AND COORDINATED BY SPEER/HELL
B	3	WELD ROOM	SPECIFIED AND COORDINATED BY SPEER/HELL
B	3	WELD CART	FABRICATED BY SPEER/HELL
C	1	FLATION TACKLING TABLE	EXISTING
D	1	WAGO HUB & X 3/8 BEARING	REPLACEMENT TO EXISTING BEARING
E	1	INTERFERER BREAK	EXISTING
F	1	NONCONDUCTIVE	EXISTING
G	1	WELLSAW BANDSAW	EXISTING
H	1	NONCONDUCTIVE	EXISTING
J	1	EROSIONPROOF CHILL PRESS	EXISTING
K	1	METAL SHEET RACK	EXISTING
L	1	TRUCK BURNER	FABRICATED BY JAMES HANCOVITZ
N	1	TABLE W/ LOCKED STORAGE BELOW	EXISTING
N	1	TRUCK TABLE	EXISTING
N	1	4-WAY FORK TABLE	EXISTING
O	1	LINCOLN TORCIPATE W/SP	EXISTING
O	1	COLD CUT SAW	REPLACEMENT TO EXISTING TORCIPATE AND CUTTING TABLE
Q	2	HARRY ROLLING CABINET	EXISTING
R	1	WELDED TACK	NEW
S	2	BRUSHING/GRINDING WHEELS	NEW
T	1	DRY BOX	EXISTING
U	2	BENCH GRINDER	EXISTING
V	1	JIB CRANE	NEW (JIB, BASE PLATE MOUNTED 150 SERIES 1/2 TON (INDOOR), SPANCO INC.

CONSTRUCTION NOTES:

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PHASE 1 AREA RENOVATION
 PHASE 2 AREA TO REMAIN AS-IS

PHASE KEY
 N.T.S.

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Professional Engineer Seal: **KEVIN ERIC ARCHITECT**

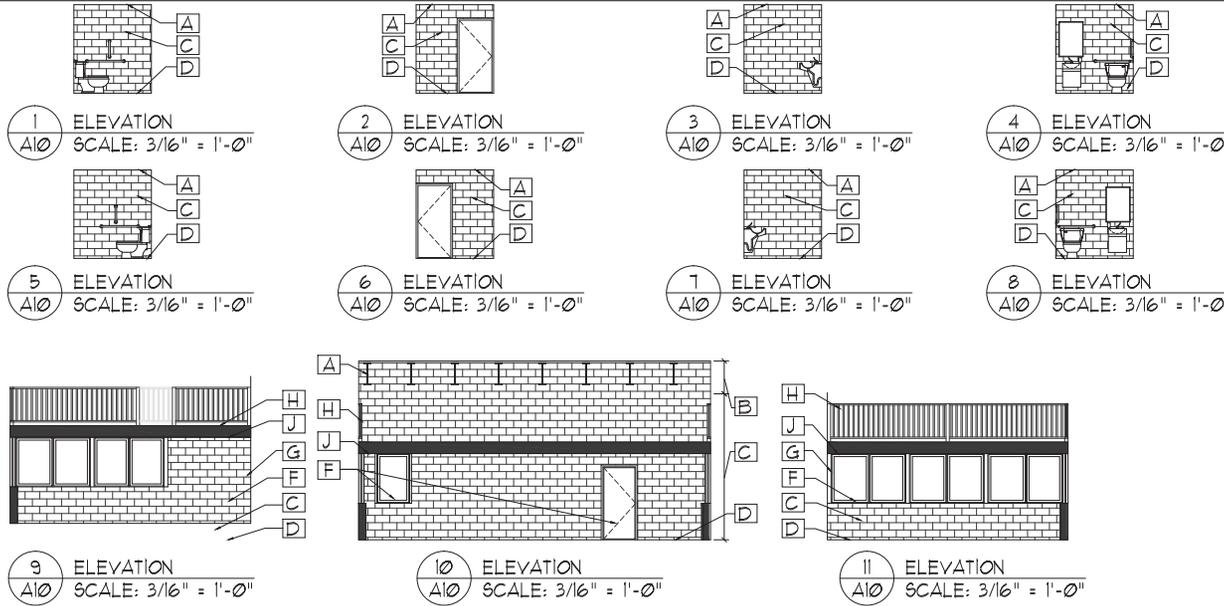
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 Rev. Rev. Date Description
 A 5-23-2023 ISSUED FOR BIDD PERMIT
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Key Plan
 RENOVATED AREA
 UNIT A
 UNIT B
 UNIT C
 UNIT D
 UNIT E

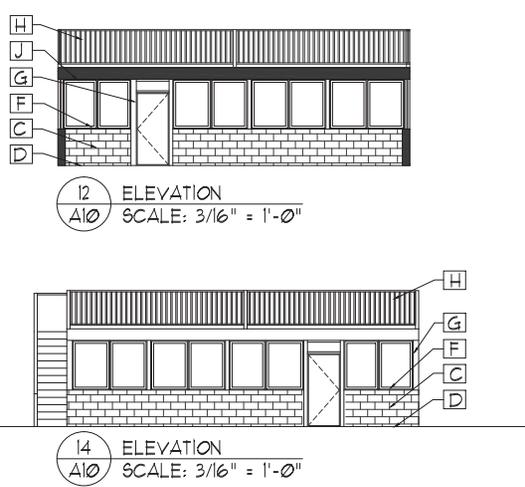
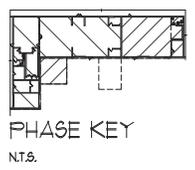
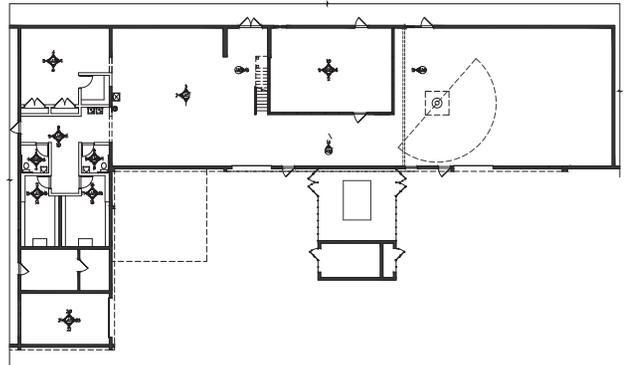
MBIT MIDDLEBUCKS INSTITUTE OF TECHNOLOGY
 2740 York Road
 Jamison, PA 18929

Project Title
WELDING DEPARTMENT RENOVATION

Project No. 582301 Drawn By: BAM Lead: PCS Checked By: PCS
 Drawing Title
PHASE 2 NEW SHOP EQUIPMENT LAYOUT
 Drawing No.
A9
 9 of 13



ELEVATION FINISH KEY
 A: EXISTING ROOF STRUCTURE & HYAC TO BE PAINTED WHITE
 B: C.M.U. WALL TO BE PAINTED BLACK (FROM HEADER OF GARAGE DOOR UP TO ROOF)
 C: C.M.U. WALL TO BE PAINTED LIGHT GREY
 D: FLOOR TO BE PS104 LITHIUM SILICATE W/ SILICONATE DENSIFIER WB PENETRATING SEALER
 E: EXISTING DOORS & WINDOWS
 F: NEW DOORS & WINDOWS W/ BLACK TRIM
 G: NEW STL COLUMNS PAINTED BLACK
 H: NEW RAILING TO BE PAINTED BLACK
 I: EXISTING WALL TO BE REFINISHED WITH WHITE PAINT TO MATCH EXISTING
 J: NEW DRYWALL CEILING TO BE PAINTED WITH WHITE PAINT



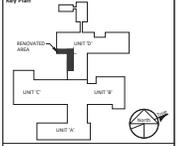
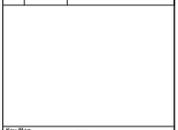
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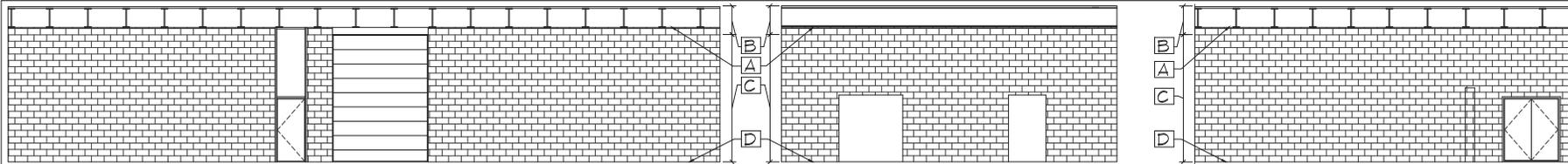


Project Title
WELDING DEPARTMENT RENOVATION

Project No. 582301
 Drawn By: BAM
 Lead: PCS
 Checked By: PCS

Drawing Title
PHASE 2 NEW INTERIOR ELEVATIONS

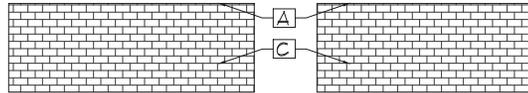
Drawing No.
A10
 10 of 13



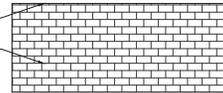
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All SCALE: 3/16" = 1'-0"

2 ELEVATION
All SCALE: 3/16" = 1'-0"

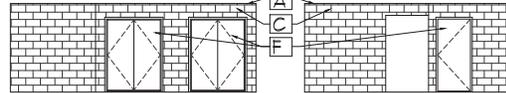
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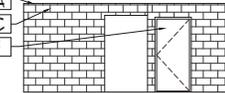
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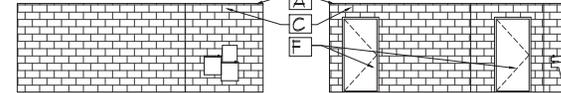
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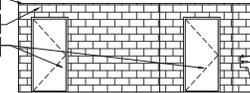
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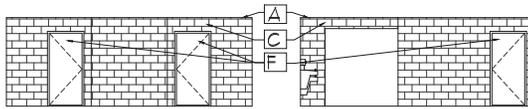
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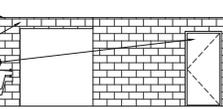
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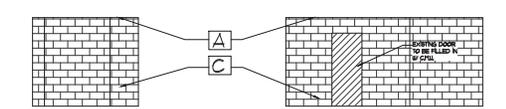
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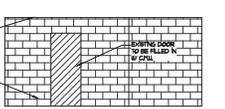
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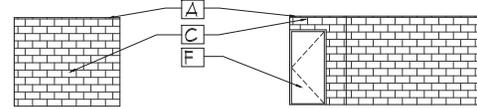
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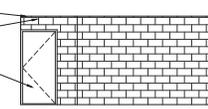
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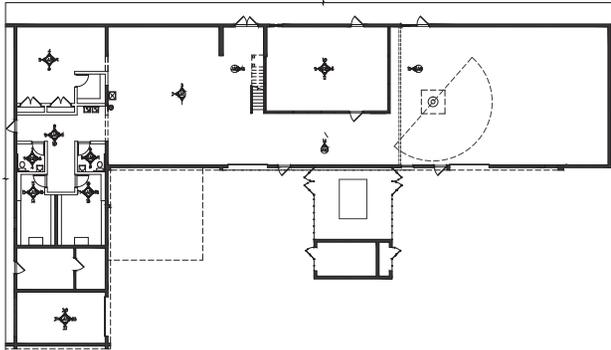
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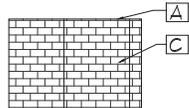
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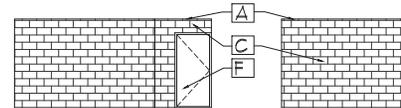
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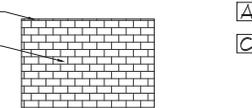
PHASE 1: ELEVATION KEY
N.T.S.



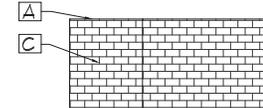
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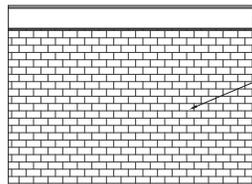
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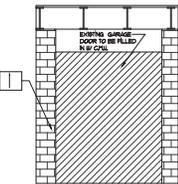
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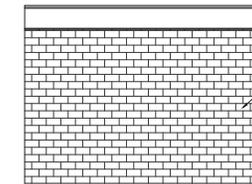
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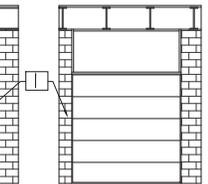
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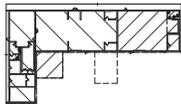
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22 ELEVATION
All SCALE: 3/16" = 1'-0"



23 ELEVATION
All SCALE: 3/16" = 1'-0"



PHASE KEY
N.T.S.

ELEVATION FINISH KEY

A: EXISTING ROOF STRUCTURE & HVAC TO BE PAINTED WHITE
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 E: EXISTING DOORS & WINDOWS
 F: NEW DOORS & WINDOWS W/ BLACK TRIM
 G: NEW STL COLUMNS PAINTED BLACK
 H: NEW RAILING TO BE PAINTED BLACK
 I: EXISTING WALL TO BE REFINISHED WITH WHITE PAINT TO MATCH EXISTING

CONSTRUCTION NOTES:

- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO HIRE MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS TO CUT OFF, REROUTE, OR TERMINATE ANY EXISTING CONNECTIONS IN THE AREAS TO BE RENOVATED.
- CONTRACTOR RESPONSIBLE FOR VERIFYING ALL STRUCTURE ONCE EXPOSED.
- CONTRACTOR RESPONSIBLE FOR SUPPORTING ALL STRUCTURAL SYSTEMS BEING PROPPED DURING CONSTRUCTION.
- CONTRACTOR RESPONSIBLE FOR MAINTAINING A DRY, CLEAN, AND SAFE ENVIRONMENT DURING CONSTRUCTION.
- REFER TO GENERAL NOTES FOR ADDITIONAL NOTES AND INFORMATION TO CONSTRUCTION.
- ALL SITE INFORMATION TO BE PROVIDED BY OWNER.
- CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES, STRUCTURAL PROBLEMS, OR ANY OTHER DEFECT ONCE THE EXISTING DRYWALL IS REMOVED.

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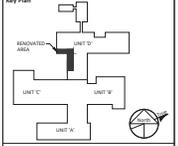
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Project Issue Index

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A	5-25-2023	ISSUED FOR BIDD PERMIT
B	7-20-2023	CLIENT REVISIONS
C	8-23-2023	TOWNSHIP COMMENTS



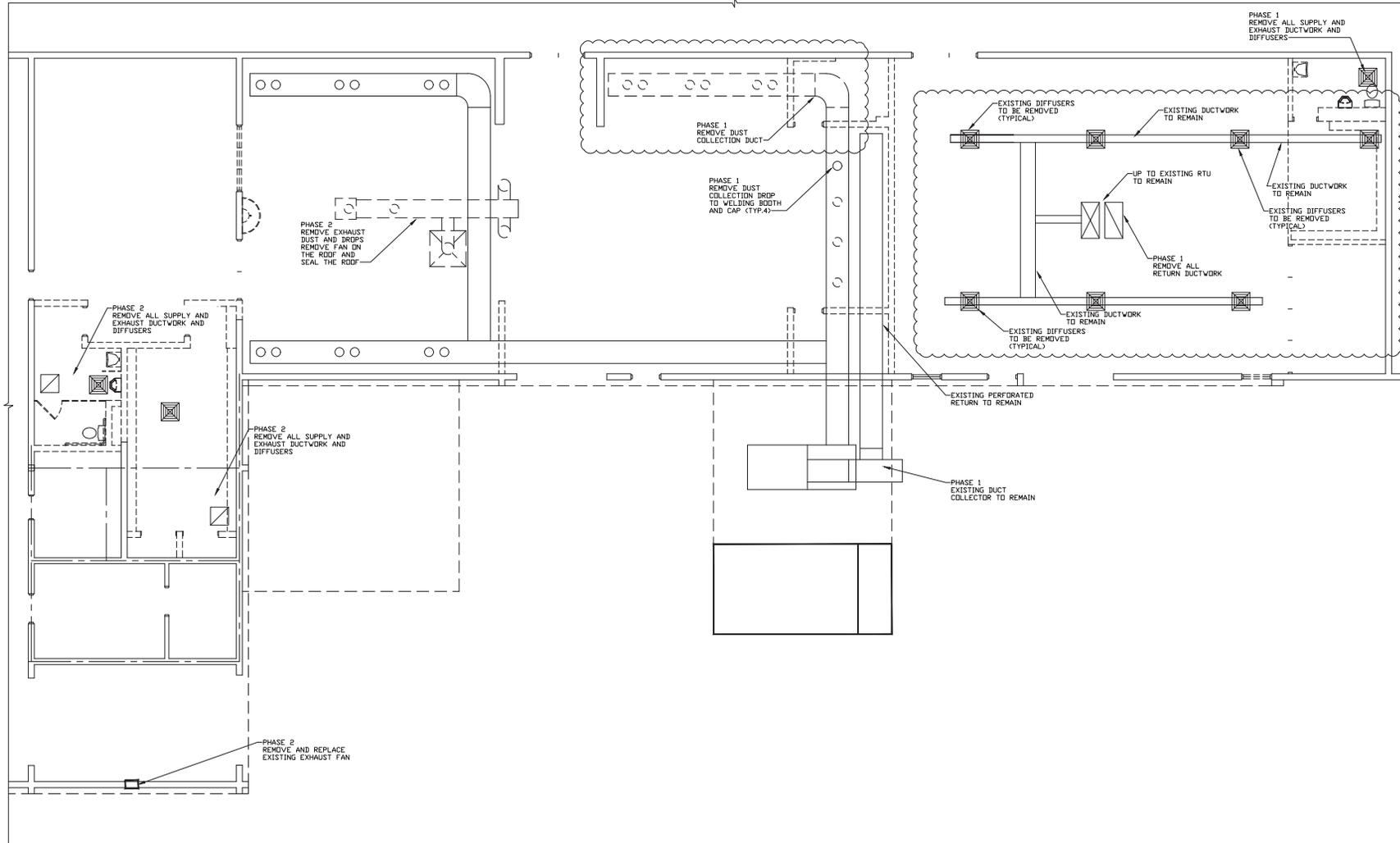
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Project Title
WELDING DEPARTMENT RENOVATION

Project No. 582301	Drawn By BAM	Lead PCS	Checked By PCS
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Drawing Title
**PHASE 2
 NEW INTERIOR
 ELEVATIONS**

Drawing No.
A11
 11 of 13



MECHANICAL DEMOLITION

3/16" = 1'-0"



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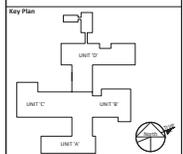
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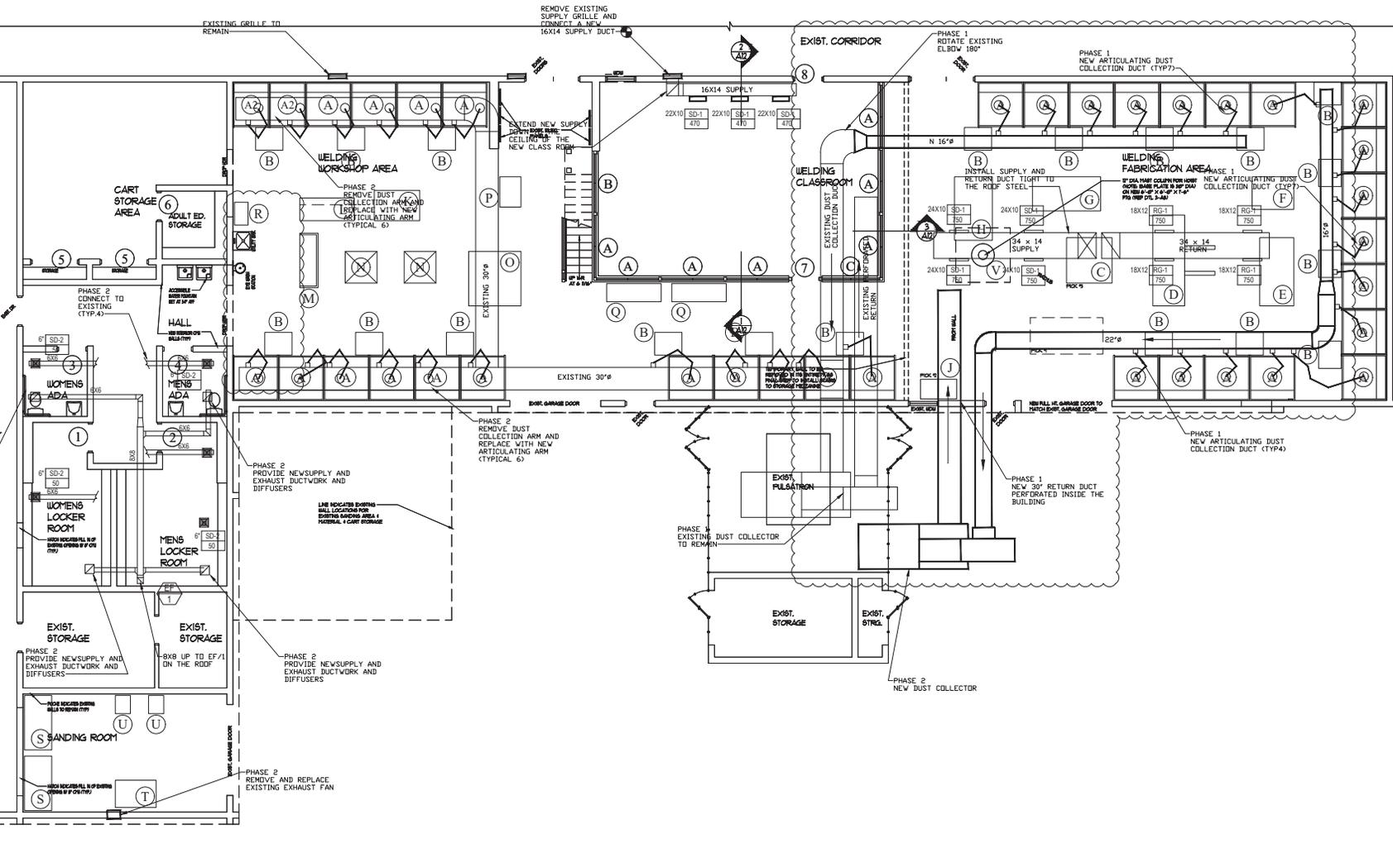
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Project Title
WELDING SHOP RENOVATION PHASE 1

Project No. XXXX-XXXX Drawn By: XXXX Lead: XXXX Checked By: XXXX

Drawing Title
MECHANICAL DEMOLITION PLAN

Drawing No.
M1.0



MECHANICAL NEW WORK PLAN

3/16"=1'-0"



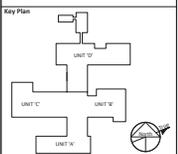
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Project Title
WELDING SHOP RENOVATION PHASE 1

Project No. XXXX-XXXX Drawn By: XXXX Lead: XXXX Checked By: XXXX
 Drawing Title

MECHANICAL NEW WORK PLAN

Drawing No.
M2.0

PLUMBING NOTES

GENERAL CONDITIONS:

MATERIALS: NEW, UNUSED, BEST OF THEIR RESPECTIVE KINDS AND FREE FROM DEFECTS AS INDICATED ON THE DRAWINGS. BASIS OF QUALITY SHALL BE LATEST STANDARDS OR ASTM, ASIA, FEDERAL SPECIFICATIONS OR OTHER ACCEPTABLE STANDARDS.

DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK.

PLUMBING SUB-CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES.

THIS PLUMBING SUB-CONTRACTOR SHALL PAY ALL FEES, GIVE ALL NOTICES, FILE ALL NECESSARY DRAWINGS AND OBTAIN ALL PERMITS AND CERTIFICATES OF APPROVAL REQUIRED IN CONNECTION WITH ALL WORK UNDER THIS CONTRACT. HE SHALL COMPLY WITH ALL NATIONAL AND LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS AND THE STATE ENERGY CODE.

SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING AND INSTALLATION OF ALL MATERIAL. FOUR (4) COPIES OF EACH SUBMITTAL ARE REQUIRED.

ALL WORK AND EQUIPMENT TO BE FULLY GUARANTEED FOR ONE (1) YEAR FROM THE DATE OF FINAL PAYMENT AND ACCEPTANCE OF WORK DONE.

CUTTING AND PATCHING:

THE CONTRACTOR SHALL DO ALL CUTTING AND PATCHING REQUIRED TO SATISFACTORILY PERFORM HIS WORK. NO STRUCTURAL MEMBER SHALL BE CUT WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

WORK INCLUDED:

THESE SPECIFICATIONS AND THE ACCOMPANYING DRAWINGS ARE INTENDED TO SECURE THE PROVISION OF ALL MATERIALS AND LABOR NECESSARY FOR ALL PLUMBING WORK AS CALLED FOR HEREIN AND AS INDICATED ON THE DRAWINGS. SYSTEMS SHALL BE COMPLETE WITH ALL NECESSARY APPURTENANCES AND APPROPRIATE ADJUSTMENTS REQUIRED TO MAKE EACH SYSTEM COMPLETE IN EVERY RESPECT. ALL WORK DESCRIBED IN THE SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS OR IN THE VIDEOS SHALL BE FURNISHED IN COMPLETE WORKING ORDER, FOLLOWING A GENERAL DESCRIPTION OF WORK TO BE DONE.

A. NEW SANITARY DRAINAGE AND VENT WORK AS INDICATED ON DRAWINGS. EXTEND NEW VENT AND DRAINAGE PIPING TO ABOVE, ROOF AND BELOW FLOOR WHERE INDICATED ON PLAN.

B. FURNISHING AND INSTALLING PLUMBING FIXTURES, SUPPORTS, CARRIERS, FAUCETS AND TRIM.

C. NEW HOT AND COLD WATER DISTRIBUTION PIPING SYSTEMS CONNECTED TO WATER HEATER AND BURRED WATER SERVICE WHERE INDICATED ON PLAN.

D. FURNISHING AND INSTALLING FLOOR DRAINS, WASH FOUNTAINS, EYE WASH AND CLEANOUTS INDICATED ON PLAN.

E. TESTS, ADJUSTMENTS, SHOP AND AS-BUILT DRAWINGS, PERMITS, CERTIFICATES AND APPROVALS.

F. PIPE INSULATION:

G. HANGERS AND SUPPORTS.

H. ROUGH CUTTING AND PATCHING.

I. VALVE AND CLEAN-OUT ACCESS DOORS.

J. PIPING CONNECTIONS TO EQUIPMENT AND APPLIANCES, SUPPLIED BY OTHERS.

K. EXTENSION OF NEW BURRED STORM WATER DRAIN TO THE EXISTING DRAIN OUTSIDE.

PIPE INSTALLATION:

THE WORD "PIPING" IN THESE NOTES MEANS PIPE, FITTINGS, NIPPLES AND VALVES AND SHALL BE CONSIDERED AS SUCH IN THE INSTALLATION.

ALL WATER PIPING SHALL BE RUN LEVEL AND GENERALLY FREE OF TRAPS AND UNNECESSARY BENDS, ARRANGED TO CONFORM TO THE BUILDING REQUIREMENTS AND TO SUIT THE NECESSITIES OF CLEARANCES FOR OTHER MECHANICAL WORK, SUCH AS DUCTS AND CONDUITS.

ALL DRAINAGE PIPING SHALL BE RUN AS STRAIGHT AS POSSIBLE AND SHALL HAVE LONG TURN BENDS. SHORT TURNS SHALL BE USED SUBJECT TO THE APPROVAL OF ALL AUTHORITIES HAVE JURISDICTION.

MAINTAIN MINIMUM SLOPE OF 1/8" PER FOOT ON DRAINAGE PIPING 1/2" PER FOOT FOR 2" DIAMETER DRAINAGE PIPING INSIDE OF BUILDING TO MAINTAIN PROPER FLOW THROUGH DRAINAGE SYSTEM.

ALL HOT AND COLD WATER PIPING SHALL BE SEPARATED BY AT LEAST 6" AND EVERY PRECAUTION TAKEN TO SEE THAT THE PIPES DO NOT COME IN CONTACT, WHERE THE PIPING IS PARALLEL, AMPLE SPACE SHALL BE PROVIDED BETWEEN PIPING FOR THE PROPER THICKNESS OF COVERING.

ALL PIPING SHALL HAVE REDUCING OR INCREASING FITTINGS WHERE ANY CHANGE IN THE PIPE SIZES OCCUR. NO BUSHINGS OF ANY MATERIAL WILL BE ALLOWED.

NO VALVE STEM SHALL BE INSTALLED BELOW THE CENTERLINE OF THE PIPING IT SERVES.

CONNECTIONS BETWEEN WATER PIPE, FITTINGS AND EQUIPMENT OF FERROUS AND NONFERROUS METALS SHALL BE MADE WITH DIELECTRIC INSULATING COUPLINGS AS MANUFACTURED BY THE "V-LINE CO."

GENERAL CONSTRUCTION:

ALL WORK AND EQUIPMENT SHALL BE CLEANED TO THE SATISFACTION OF THE GENERAL CONTRACTOR BEFORE TURNING OVER SAME TO THE OWNER.

BIDDERS, BEFORE SUBMITTING A PROPOSAL, SHALL VISIT AND CAREFULLY EXAMINE THE SITE OF THIS WORK TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND WITH THE DIFFICULTIES THAT WILL ATTEND TO EXECUTION OF THIS WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE. FURNISH ADEQUATE LIABILITY INSURANCE AND BONDING AS REQUIRED BY THE GENERAL CONTRACTOR.

PREPARE AND FURNISH TO THE OWNER "AS-BUILT" PLANS FOR ALL WORK INSTALLED. ALL PARTS OF THE WORK SHALL BE TESTED AND ADJUSTED TO WORK PROPERLY AND BE LEFT IN PERFECT OPERATING CONDITION. CORRECT DEFECTS DISCLOSED BY THESE TESTS WITHOUT ANY ADDITIONAL COST TO THE OWNER.

INSULATION:

PROVIDE INSULATION ON ALL HOT AND COLD WATER PIPING, VALVES, EQUIPMENT AND TRIM AS MANUFACTURED BY "OWENS-CORNING" OR APPROVED EQUAL.

ALL INSULATION JACKETS, ADHESIVES, ETC., SHALL HAVE A FLAME SPREAD RATING NOT OVER 25 AND A SMOKE DEVELOPED RATING NOT OVER 50.

FINISHES: EXPOSED PIPE INSULATION SHALL BE VINYL COATED WITH AN EMBOSSED LAMINATE VAPOR BARRIER JACKET. LAPS AND END STRIPS SHALL BE ADHERED WITH INSULOCOUSTIC-205. CONDENSED PIPE INSULATION SHALL HAVE A WHITE VAPOR BARRIER JACKET SECURED WITH ALUMINUM BANDS.

INSULATION SUPPORT (TO PREVENT COLLAPSE OF INSULATION) SHALL BE PROVIDED BETWEEN PIPING AND PIPE HANGING SHIELDS. RIGID POLYURETHANE FOAM OR NATURAL CORK INSERTS MAY BE USED FOR SUPPORT.

ALL PIPE SUPPORT APPARATUS MUST BE MOUNTED ON THE OUTSIDE OF ALL INSULATION.

ALL WATER PIPING SHALL HAVE MINIMUM 1" THICK GLASS FIBER PIPE INSULATION. EXACT MINIMUM THICKNESSES REQUIRED BY APPLICABLE ENERGY CODE MUST BE VERIFIED BY CONTRACTOR. ADDITIONAL INSULATION SHALL BE INSTALLED ON PIPING IN AREAS EXPOSED TO FREEZING TO PROVIDE ADEQUATE PROTECTION OF PIPING SYSTEM.

HANGERS AND SUPPORTS:

ALL PIPING SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE BY MEANS OF APPROVED HANGERS AND SUPPORTS. PIPING SHALL BE KEPT OFF THE WALLS TO MAINTAIN CLEARANCES AND WITTING OF LINES TO PREVENT VIBRATION AND SECURE PIPING IN PLACE AND SHALL BE SO ARRANGED AS TO PROVIDE FOR EXPANSION AND CONTRACTION.

THE SPACING OF HANGERS SHALL NOT BE GREATER THAN 18" O.C. FOR PIPE 1 1/2" AND LARGER, 8" O.C. FOR PIPE SMALL THAN 1 1/2". MALLEABLE IRON BRACKETS OF APPROVED TYPE SHALL BE USED ALONG THE WALLS. ADDITIONAL HANGERS SHALL BE INSTALLED AT ALL FITTINGS. (SEE DETAILS)

PIPING SHALL NOT BE HUNG FROM THE PIPING, DUCTWORK OR CONDUITS OF OTHER TRADES.

HANGERS AND SUPPORTS SHALL BE AS FOLLOWS:

BARE HORIZONTAL FERROUS AND NONFERROUS PIPING SHALL BE HUNG WITH FIG. 86 OR BE ADJUSTABLE CLEVIS HANGERS. HANGERS IN CONTACT WITH COPPER SHALL BE COPPER PLATED.

ANCHORS, CLAMPS, ETC., FOR SECURING HANGERS SHALL BE MAINTAINED BY THIS CONTRACTOR IN THE PROPER LOCATIONS DURING ALL PHASES OF CONSTRUCTION.

PIPING, FITTINGS AND JOINTS:

DRAINAGE AND VENT SYSTEM SHALL BE SCHEDULE 40 PVC OR HUBLESS SERVICE WEIGHT CAST IRON SCHEDULE PIPE AND SHALL BE MADE UP WITH NEOPRENE SEALING SLEEVE, CORRUGATED STAINLESS STEEL SHIELD AND SCREW CLAMP ASSEMBLY FOR HUBLESS PIPING CONFORMING TO ASTM F15 (G.C. TO VERIFY W/ LOCAL CODE OFFICIAL PRIOR TO BIDDING)

ALL ABOVE GROUND WATER DISTRIBUTION PIPING SHALL BE HARD DRAWN COPPER TUBING TYPE "K" FITTINGS SHALL BE WROUGHT COPPER. COPPER TUBING AND PIPING SHALL BE MADE UP WITH SOCKET FITTINGS WITH 95% SOLDER JOINTS. ALL BURRED WATER PIPING SHALL BE SAME AS ABOVE, EXCEPT TYPE "K" COPPER.

ALL NATURAL GAS PIPING SHALL BE STEEL SCHEDULE 40 PIPING PIPE THREADS SHALL BE INSTALLED PER IFGC TABLE 403.9.2.

VALVES:

DOMESTIC HOT AND COLD WATER SHUTOFF VALVES SHALL BE "MILWAUKEE" 8BA-155 (OR APPROVED EQUAL); SWEAT ENDS, FORGED BRASS, FULL PORT, BALL TYPE VALVE.

DOMESTIC HOT AND COLD WATER MIXING VALVES SHALL BE POWERS LF480-10 OR APPROVED EQUAL. SET VALVE DISCHARGE TEMPERATURE TO 110° F.

EQUIPMENT BY OTHERS:

PLUMBING CONTRACTOR SHALL FURNISH ALL REQUIRED VALVES, FITTINGS, AND EQUIPMENT FURNISHED AND/OR INSTALLED UNDER OTHER SECTIONS BUT REQUIRING SERVICES UNDER THIS CONTRACT SHALL HAVE CONNECTIONS BY THIS CONTRACTOR.

TRAPS, ETC., NECESSARY FOR THE COMPLETE HOOKUP TO PROVIDE PROPER OPERATION OF EACH PIECE OF EQUIPMENT.

IN CONNECTING TO EQUIPMENT, MANUFACTURERS RECOMMENDATIONS AS TO SIZE AND ARRANGEMENT OF CONNECTIONS SHALL BE FOLLOWED, BUT WITH SIZES SHOWN ON PLAN BEING FOLLOWED.

PLUMBING FIXTURES:

ALL EXPOSED BRASS TRIMMINGS INCLUDING FAUCETS, TRAPS, WASTE, STRAINERS, STOP VALVES, ESCUTCHEONS, SUPPLIES, ETC., SHALL BE CHROME PLATED. ALL FIXTURES INSTALLED BY THIS CONTRACTOR SHALL BE PROVIDED WITH INDIVIDUAL STOP VALVES ON HOT AND COLD WATER SUPPLIES. ALL COLD WATER VALVES SHALL BE TO THE RIGHT AND HOT WATER VALVES TO THE LEFT OF THE FIXTURES IN EASILY ACCESSIBLE LOCATIONS.

INSPECTIONS AND TESTS:

THE OPERATION OF THE EQUIPMENT AND PIPING INSTALLATION DOES NOT CONSTITUTE AN ACCEPTANCE OF THE WORK BY THE OWNER. THE FINAL ACCEPTANCE IS TO BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS SYSTEM AND DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS AND HAS FURNISHED REQUIRED CERTIFICATES.

UPON COMPLETION OF THE INSTALLATION, THE PLUMBING SUB-CONTRACTOR SHALL FURNISH CERTIFICATES OF APPROVAL FROM ALL AUTHORITIES HAVING JURISDICTION. HE SHALL DEMONSTRATE THAT ALL WORK IS COMPLETE AND IN PERFECT OPERATING ORDER AND THAT THE ENTIRE INSTALLATION IS FREE FROM ANY PHYSICAL DEFECTS.

TEST ALL SYSTEMS IN FULL ACCORDANCE WITH LOCAL CITY, STATE AND UTILITY COMPANY REQUIREMENTS.

STERILIZE WATER LINES WITH A MIXTURE OF 2 POUNDS OF CHLORINATED LIME TO EACH 1,000 GALLONS OF WATER (50 PPM OF AVAILABLE CHLORINE). RETAIN THE MIXTURE IN PIPES FOR 24 HOURS AND FLUSH IT THOROUGHLY WITH POTABLE WATER BEFORE PLACING IT IN SERVICE.

LEGEND

----	DOMESTIC COLD WATER	↗	PIPE SLOPE AND DIRECTIONAL INDICATOR
----	DOMESTIC HOT WATER	⊠	GAS METER
—HWR—	DOMESTIC HOT WATER RETURN	∩	EXPANSION TANK
—G—	GAS LINE	⊕	DOMESTIC HOT WATER RETURN PUMP
—SD—	SANITARY DRAIN	⊕	GAS COOK
—SV—	SANITARY VENT	⊕	ELECTRIC SUMP PUMP
⊠	DOMESTIC WATER METER	⊕	MIXING VALVE
⊠	DOMESTIC WATER SHUT OFF VALVE	⊕	SHOCK ABSORBER (SA)
⊠	DOMESTIC COLD WATER BACK FLOW PREVENTER	⊕	CONNECT TO EXISTING
⊕	TURN UP		
←	TURN DOWN		

SYMBOL	FIXTURE	PIPE DIAMETER (NCH)				REMARKS
		CW	HW	DRAIN	VENT	
WF	WASH FOUNTAIN	1"	1"	1 1/2"	FER DRAINGS	BRADLEY MODEL WF2103 WATER SUPPLY AND DRAINAGE FROM BELOW
EW	EYE WASH	1/2"	1/2"	1 1/4"	FER DRAINGS	BRADLEY MODEL 818-220B WITH 9-19-2000 NAVIGATOR EP8B EMERGENCY THERMOSTATIC MIXING VALVE
FD	FLOOR DRAIN	--	--	3"	FER DRAINGS	ZURN Z1136 12" DIAMETER EXTRA HEAVY-DUTY FLOOR DRAIN WITH A TRAP FRIMER

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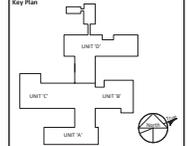
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AMBIT MIDDLEBUCKS INSTITUTE OF TECHNOLOGY

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Project Title

WELDING SHOP RENOVATION PHASE 1

Drawing Title

PLUMBING SCHEDULES, NOTES, AND LEGEND

Drawing No.

P-0.0

ELECTRICAL SPECIFICATIONS

- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, APPARATUS AND EQUIPMENT REQUIRED TO COMPLETE HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, CODES, LAWS AND ORDINANCES, AND ACCEPTED TRADE PROCEDURES.
- ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER IN ACCORDANCE WITH LATEST AND BEST PRACTICES OF THE TRADE. ONLY ELECTRICIANS SKILLED IN THIS TYPE OF WORK SHALL BE EMPLOYED AND UTILIZED BY CONTRACTOR FOR THIS DIVISION IN THE EXECUTION OF THIS WORK.
- THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE CONTRACT DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS AND CONDITIONS SHALL BE FIELD VERIFIED.
- THE ENTIRE INSTALLATION SHALL CONFORM WITH ALL PERTINENT CODES AND REGULATIONS OF THE LOCAL, MUNICIPAL, COUNTY, STATE, AND FEDERAL AUTHORITIES, THE NATIONAL BOARD OF FIRE UNDERWRITERS, THE CODES OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND ALL OTHER REGULATORY BODIES HAVING JURISDICTION. ALL MATERIALS AND EQUIPMENT SHALL BEAR THE STAMPS OR SEALS OF THE NFPA, ASME, NEMA, IEEE, UL, AND OTHER RECOGNIZED INDUSTRY REGULATORY GROUPS.
- THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS, PAY ALL GOVERNMENTAL TAXES, FEES AND OTHER COSTS IN CONNECTION WITH HIS WORK. HE SHALL FILE ALL NECESSARY PLANS, AND PREPARE ALL OTHER DOCUMENTS INCLUDING ADDITIONAL DETAILED PLANS THAT ARE REQUIRED FOR COMPLIANCE WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS.
- BEFORE STARTING ANY WORK UNDER THIS CONTRACT, FILE FOR INSPECTION WITH THE MIDDLE DEPARTMENT INSPECTION AGENCY OR OTHER CERTIFIED AGENCY. UPON COMPLETION OF THE WORK, FURNISH ELECTRICAL CERTIFICATES FROM SAID AGENCY FOR ALL ELECTRICAL EQUIPMENT AND SYSTEMS INSTALLED OR FURNISHED AND INSTALLED AS PART OF THE WORK.
- THE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM THE ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS EMPLOYEES OR WORK. AT THE COMPLETION OF THE WORK, HE SHALL REMOVE ALL SUPERFLUOUS MATERIALS, EQUIPMENT AND DEBRIS RESULTING FROM THE WORK.
- ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT, FIXTURES, DEVICES, BOXES, CONDUIT AND WIRE FROM CONTRACT AREA THAT IS NOT DESIGNATED FOR REUSE OR REQUIRED TO MAINTAIN ELECTRICAL SERVICE TO OTHER AREAS.
- TEST EQUIPMENT, INCLUDING MOTOR STARTERS, MOTORS, PANELBOARDS AND ALL OTHER EQUIPMENT TO VERIFY THAT ITEMS ARE FREE FROM UNINTENDED GROUNDS, SHORT CIRCUITS, AND OPEN CIRCUITS AND ALL EQUIPMENT WILL OPERATE AS SPECIFIED. TEST FEEDERS FOR INSULATION RESISTANCE; FOR LOAD BALANCE OF THE FINAL INSTALLATION, AND FOR OVERALL OPERATION OF SYSTEMS. FURNISH LABOR AND MATERIAL REQUIRED FOR MAKING SUCH TESTS AND MAKE CORRECTIONS NECESSARY TO BALANCE THE LOAD AND TO OBTAIN PROPER OPERATION.
- WHERE CONDUITS OR CABLES PENETRATE FIRE RATED WALLS, FLOORS, PARTITIONS, OR SLABS, FILL AND SEAL SPACES BETWEEN THE CONDUITS OR CABLES AND TO SLEEVE WITH 2-PART INTUMESCENT FOAM SEALANT CREATING A FIRE STOP EQUAL TO OR EXCEEDING FIRE RATING OF CONSTRUCTION MATERIAL BEING PENETRATED. FIRE SEALANT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ALL BRANCH AND FEEDER WIRING SHALL BE INSTALLED IN CODE CONFORMING METALLIC RACEWAYS OR METALLIC CABLE ASSEMBLIES. ALL WIRING (EXCEPT FIXTURE WIRE) SHALL BE COPPER. THERMOPLASTIC COVERED INSULATED TYPE 75° C. THW OR 90° C. 600 VOLT RATING. WIRE NO. 8 AWG AND SMALLER SHALL BE SOLID. WIRE LARGER THAN NO. 8 SHALL BE STRANDED. WHERE CONDUCTORS CONNECT DIRECTLY TO EQUIPMENT, THE INSULATION TEMPERATURE RATING OF THE CONDUCTOR SHALL MEET OR EXCEED THE EQUIPMENT TEMPERATURE RATING. COLOR CODE CONDUCTORS TO DESIGNATE NEUTRAL, CONDUCTOR AND PHASES. ALL EXPOSED WORK SHALL BE IN CONDUIT. EXPOSED FLEXIBLE CONDUIT OR CABLE MAY BE USED IN LENGTHS 3' OR LESS FOR CONNECTION TO EQUIPMENT.
- A COMMON BRANCH CIRCUIT NEUTRALS SHALL NOT BE UTILIZED. THE CONTINUITY OF A NEUTRAL CONDUCTOR SHALL NOT BE DEPENDENT UPON DEVICE CONNECTIONS, SUCH AS LAMP HOLDERS, RECEPTACLES, ETC., WHERE REMOVAL OF SUCH DEVICES WOULD INTERRUPT THE CONTINUITY OF CIRCUIT.
- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF NEC AND TO APPROVAL OF LOCAL UNDERWRITERS INSPECTION AUTHORITIES.
- STANDARD DUPLEX RECEPTACLES SHALL BE POLARIZED, DUPLEX, PARALLEL BLADE, U-GROUNDING SLOT, HEAVY DUTY INDUSTRIAL GRADE, RATED 20 AMPERES, 125 VOLTS, COLOR AS SELECTED BY ARCHITECT. GFCI RECEPTACLES SHALL BE SELF TESTING.
- REEL OUTLETS SHALL BE CONDUCTIX VERSAREEL MODEL VR9123NS20A. 20A QUADRAPLEX RECEPTACLE ON 35 CONRD.
- SWITCHES SHALL BE TOGGLE TYPE WITH TOTALLY ENCLOSED CASE, RATED 20 AMPERE, HEAVY DUTY INDUSTRIAL GRADE, COLOR AS SELECTED BY ARCHITECT. LOCATE WALL SWITCHES AT STRIKE SIDE OF DOORS. REVIEW ALL DOOR SWINGS WITH CONTRACTOR FOR GENERAL CONSTRUCTION PRIOR TO ROUGH-IN.
- LIGHTING CONTROLS SHALL BE LUTRON, WATTSTOPPER OR APPROVED EQUAL. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL COMPONENTS INCLUDING DIMMERS, SENSORS, MODULES, RELAYS, POWER PACKS, ETC. TO COORDINATE FINAL SELECTED LIGHTING CONTROL SYSTEM AND PROVIDE A FULLY FUNCTIONING LIGHTING CONTROL SYSTEM. LIGHTING CONTROL DEVICES SHOWN ARE DIAGRAMMATIC ONLY. FINAL QUANTITIES AND LOCATIONS OF ALL ROOM CONTROLLERS AND OR RELAYS, OCCUPANCY SENSORS SHALL BE PROVIDED BASED ON SUBMITTED LIGHTING CONTROL MANUFACTURER PRODUCT REQUIREMENTS AND SHALL BE INCLUDED IN THE SHOP DRAWING SUBMITTALS.
- PLANS FOR FLUSH DEVICES SHALL BE BRUSHED 302 STAINLESS STEEL WITH SMOOTH ROLLED OUTER EDGE.
- ALL LIGHTING FIXTURES SHALL BE PROVIDED COMPLETE WITH SOCKETS, REFLECTORS, DIFFUSERS, SHADES, HOLDERS, LAMPS, DRIVERS, PROTECTIVE DEVICES AND ALL OTHER REQUIRED APPURTENANCES.
- ALL PANELBOARDS SHALL BE DEAD FRONT TYPE WITH BOLT ON CIRCUIT BREAKERS. PANELBOARDS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL STANDARD 87, AND SHALL COMPLY WITH THE REQUIREMENTS OF NEC. PANELBOARD SHALL HAVE COPPER BUS, AND EQUIPPED WITH NEUTRAL AND EQUIPMENT GROUNDING BUS BLOCKS WITH LUGS AND TERMINALS. CABINETS SHALL BE CODE-GAUGE GALVANIZED STEEL, NEMA 1. PANELBOARD TRIM SHALL BE LOCKABLE, GRAY BAKED ENAMEL FINISH WITH DOOR-IN-DOOR HINGED CONSTRUCTION. DOORS TO HAVE DIRECTORY FRAME WITH PLASTIC COVER ON INSIDE. CIRCUIT BREAKERS SHALL BE MOLDED CASE, BOLT-ON THERMAL MAGNETIC TRIP IN EACH POLE, ENCLOSURE-COMPENSATED TO CARRY FULL RATED LOAD AT 40° C., TRIP-FREE HANDLES SHALL CLEARLY INDICATE TRIP, ON AND OFF CONDITION, QUICK-MAKE AND QUICK-BREAK ACTION. ALL PANELBOARDS SHALL BE AS MANUFACTURED BY SQUARE D, EATON OR SIEMENS. PROVIDE COMPUTER GENERATED DIRECTORY.
- MOLDED-CASE CIRCUIT BREAKERS SHALL BE NEMA AB 1, WITH INTERRUPTING CAPACITY TO MEET AVAILABLE FAULT CURRENTS. THERMAL-MAGNETIC CIRCUIT BREAKERS: INVERSE TIME-CURRENT ELEMENT FOR LOW-LEVEL OVERLOADS AND INSTANTANEOUS MAGNETIC TRIP ELEMENT FOR SHORT CIRCUITS. ADJUSTABLE MAGNETIC TRIP SETTING FOR CIRCUIT-BREAKER FRAME SIZES 250A AND LARGER.
- FUSIBLE AND NONFUSIBLE SWITCHES SHALL BE NEMA KS 1, TYPE HD, LOCKABLE HANDLE WITH CAPABILITY TO ACCEPT TWO PADLOCKS, AND INTERLOCKED WITH COVER IN CLOSED POSITION. EQUIPMENT GROUND KIT: INTERNALLY MOUNTED AND LABELED FOR COPPER AND ALUMINUM GROUND CONDUCTORS. NEUTRAL KIT: INTERNALLY MOUNTED, INSULATED, CAPABLE OF BEING GROUNDED, AND BONDED; AND LABELED FOR COPPER AND ALUMINUM NEUTRAL CONDUCTORS. PROVIDE NEMA 3R RATING WHEN EXTERIOR MOUNTED.
- EACH PANELBOARD, ENCLOSED CIRCUIT BREAKER, DISCONNECT SWITCH, ETC., SHALL BE PROVIDED WITH A SELF-ADHESIVE, PHENOLIC LABEL INDICATING THE NAME OF THE EQUIPMENT, VOLTAGE AND SOURCE WHERE POWER SUPPLY ORIGINATES. REVIEW NOMENCLATURE WITH THE OWNER.
- ALL RECEPTACLES SHALL BE LABELED WITH SELF-ADHESIVE 3/8 INCH HIGH WHITE LABEL WITH 3/16 INCH HIGH BLACK LETTERING MOUNTED AT TOP OF DEVICE COVER PLATE. WRAP EDGES OF SELF-ADHESIVE LABEL AROUND EDGES OF COVER PLATE SUCH THAT LABEL IS PRESSED BETWEEN COVER PLATE AND WALL. LETTERING MAY BE PRINTED EITHER ON THE BACK OR FRONT OF LABEL. LETTERING SHALL BE PERMANENTLY AFFIXED TO LABEL, AND RESIST DAMAGE FROM NORMAL BUILDING OPERATIONS. LABEL SHALL INDICATE BRANCH CIRCUIT NUMBER AND PANELBOARD FROM WHICH DEVICE IS FED. EXAMPLE: "A-1C-142". REVIEW NOMENCLATURE WITH THE OWNER.
- PROVIDE SHORT CIRCUIT AND AN ARC FLASH ANALYSIS PER THE NATIONAL ELECTRICAL CODE (NEC). EQUIPMENT THAT IS LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF THE POTENTIAL ELECTRIC ARC FLASH HAZARDS. AN ARC-FLASH ANALYSIS SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 70E-2021 TO DETERMINE THE POTENTIAL ELECTRIC FLASH HAZARDS AND APPROPRIATE PERSONAL PROTECTION EQUIPMENT (PPE) TO BE UTILIZED AT EACH PIECE OF ELECTRICAL EQUIPMENT THAT MAY REQUIRE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE. THE EQUIPMENT INSTALLED WILL BE LABELED IN ACCORDANCE WITH NFPA 70E.
- THE EXISTING SAMPING CLOCK SYSTEM SHALL BE EXTENDED AS REQUIRED. PROVIDE CLOCK(S) TYPE AND STYLE TO MATCH EXISTING). WIRING AND ALL SYSTEM PROGRAMMING AS REQUIRED. UTILIZE OWNERS CURRENT BUILDING SYSTEM VENDOR FOR ALL WORK. PROVIDE A COMPLETE OPERATIONAL SYSTEM TO THE SATISFACTION OF THE OWNER.
- THE EXISTING PAGING/SOUND SYSTEM SHALL BE EXTENDED AS REQUIRED. PROVIDE SPEAKER(S) TYPE AND STYLE TO MATCH EXISTING). WIRING AND ALL SYSTEM PROGRAMMING AS REQUIRED. UTILIZE OWNERS CURRENT BUILDING SYSTEM VENDOR FOR ALL WORK. PROVIDE A COMPLETE OPERATIONAL SYSTEM TO THE SATISFACTION OF THE OWNER.
- THE EXISTING SIEMENS FIRE ALARM SYSTEM SHALL BE EXTENDED AS REQUIRED. PROVIDE DEVICES (TYPE AND STYLE TO MATCH EXISTING), WIRING AND ALL SYSTEM PROGRAMMING AS REQUIRED. UTILIZE OWNERS CURRENT BUILDING SYSTEM VENDOR FOR ALL WORK. PROVIDE A COMPLETE OPERATIONAL SYSTEM TO THE SATISFACTION OF THE OWNER AND APPLICABLE CODES.
- PROVIDE FOR EACH COMMUNICATION OUTLET A 4x4x1/2" OUTLET BOX WITH SINGLE GANG MID RING, 1" CONDUIT WITH BUSHING AND PULLSTRING TO ACCESSIBLE. CORRIDOR CEILING SPACE.
- EXTEND EXISTING EMERGENCY POWER OFF SYSTEM AS REQUIRED FOR A COMPLETE OPERATIONAL SYSTEM. DEPRESSION OF AN EMERGENCY POWER OFF SWITCH(EPO) WITHIN THE WELDING SHOP, SANDING SHOP OR FIRE ALARM SYSTEM ACTIVATION, SHALL IMMEDIATELY TRIP MAIN CIRCUIT BREAKERS IN PANEL 406, AZ, A21, 00, Q01, WSHA AND WSB. EPO'S AND SHUNT TRIP BREAKERS MUST BE MANUALLY RESET FOR POWER TO BE RE-ENERGIZED.

ELECTRICAL SYMBOLS

- LIGHTING FIXTURE
- CIRCUIT NUMBER
- FIXTURE TYPE
- EXIT SIGN WITH DUAL LIGHTING HEADS
- SINGLE POLE SWITCH
- LOW VOLTAGE DIMMER SWITCH
- VACANCY SENSOR WALL SWITCH
- MANUAL MOTOR SWITCH
- DUAL TECHNOLOGY OCCUPANCY SENSOR
- DUPLEX RECEPTACLE
- LOCKING PIN AND SLEEVE RECEPTACLE - 50A, 480V, 3P
- REEL OUTLET MOUNTED TO BOTTOM OF STRUCTURE
- MOTOR
- UNFUSED DISCONNECT SWITCH
- ENCLOSED CIRCUIT BREAKER
- EMERGENCY POWER OFF PUSHBUTTON (EPO)
- FIRE ALARM MANUAL PULL STATION
- FIRE ALARM FLASHING LIGHTHORN (15 CANDELA UON) - WALL MOUNTED
- FIRE ALARM FLASHING LIGHTHORN (15 CANDELA UON)
- FIRE ALARM INTERFACE/CONTROL MODULE
- CLOCK
- SPEAKER
- COMMUNICATION OUTLET
- CIRCUIT BREAKER
- CONTACTOR
- PANELBOARD
- AMP FRAME
- AMP TRIP
- E EMERGENCY
- EWK ELECTRIC WATER COOLER
- EX EXISTING
- + MOUNTED ABOVE COUNTER OR TABLE
- WP WEATHPROOF

STANDARD MOUNTING HEIGHTS

- IF BELOW FINISHED CEILING
- 10'-0" WALL MOUNTED CLOCKS, PROGRAM BELLS, AND FIRE ALARM BONGS (OR AS SHOWN ON ARCHITECTURAL DETAILS)
- 7'-6" BATTERY LIGHTING UNITS AND REMOTE WALL MOUNTED LIGHT HEADS (OR 1'-0" BELOW FINISHED CEILING TO TOP OF UNIT)
- 7'-6" TOP OF BACK MOUNTED WALL EXIT LIGHTING FIXTURES (NOT MOUNTED ABOVE DOORS)
- 6'-8" WARNING AND SIGNALING LIGHTING FIXTURES / SIGNS
- 6'-8" ILLUMINATED FIRE SIGNALS (TO BOTTOM OF DEVICE)
- 6'-0" TOP OF FLUSH AND SURFACE MOUNTED ELECTRICAL LIGHTING OR POWER PANELBOARDS AND TELEPHONE CABINETS
- 6'-0" TOP OF HIGHEST ELECTRICAL SAFETY DISCONNECT SWITCHES, MAGNETIC STARTERS, CONTACTORS
- 4'-6" WALL-MOUNTED TELEPHONES AND PAY STATIONS (3'-6" AT ADA LOCATIONS)
- 4'-0" WALL-MOUNTED ELECTRICAL DEVICE LIGHTING SWITCHES, MANUAL MOTOR STARTERS, THERMOSTATS AND FIRE ALARM PULL STATIONS
- 4'-0" WALL-MOUNTED WIREWAY
- 2'-0" ELECTRICAL RECEPTACLES WITHIN MECHANICAL SPACES, ELECTRICAL AND ELEVATOR ROOMS
- 18" ELECTRICAL RECEPTACLES, TELEVISION OUTLETS, AND VOICE/DATA OUTLETS
- 6" ELECTRICAL AND DATA CONNECTIONS TO SYSTEMS FURNITURE
- 0'-0" FINISHED FLOOR

NOTES:

- MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED. IN MASONRY CONSTRUCTION THE ABOVE MOUNTING HEIGHTS SHALL BE USED FOR REFERENCE TO NEAREST BLOCK OR BRICK COURSE.
- THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS OR SPECIFICATIONS.

PHASING NOTES:

- WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PHASING SCHEDULE DEVELOPED BY THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER.
- WORK OUTSIDE THE DESIGNATED PHASE ZONES MAY BE REQUIRED TO BE COMPLETED DURING EARLY PHASES OF THE PROJECT. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THAT WORK, COORDINATING WITH THE OWNER AND GENERAL CONTRACTOR/CONSTRUCTION MANAGER AND PROVIDING THAT WORK IN A TIMELY MANNER.
- WHERE REQUIRED TO MEET PHASING REQUIREMENTS AND REQUIRED BY CONSTRUCTION SCHEDULE, THE ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY POWER SYSTEMS AS MAY BE NECESSARY TO MAINTAIN POWER TO NEW AND EXISTING AREAS.

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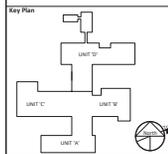
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Project Issue Index

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Project Title

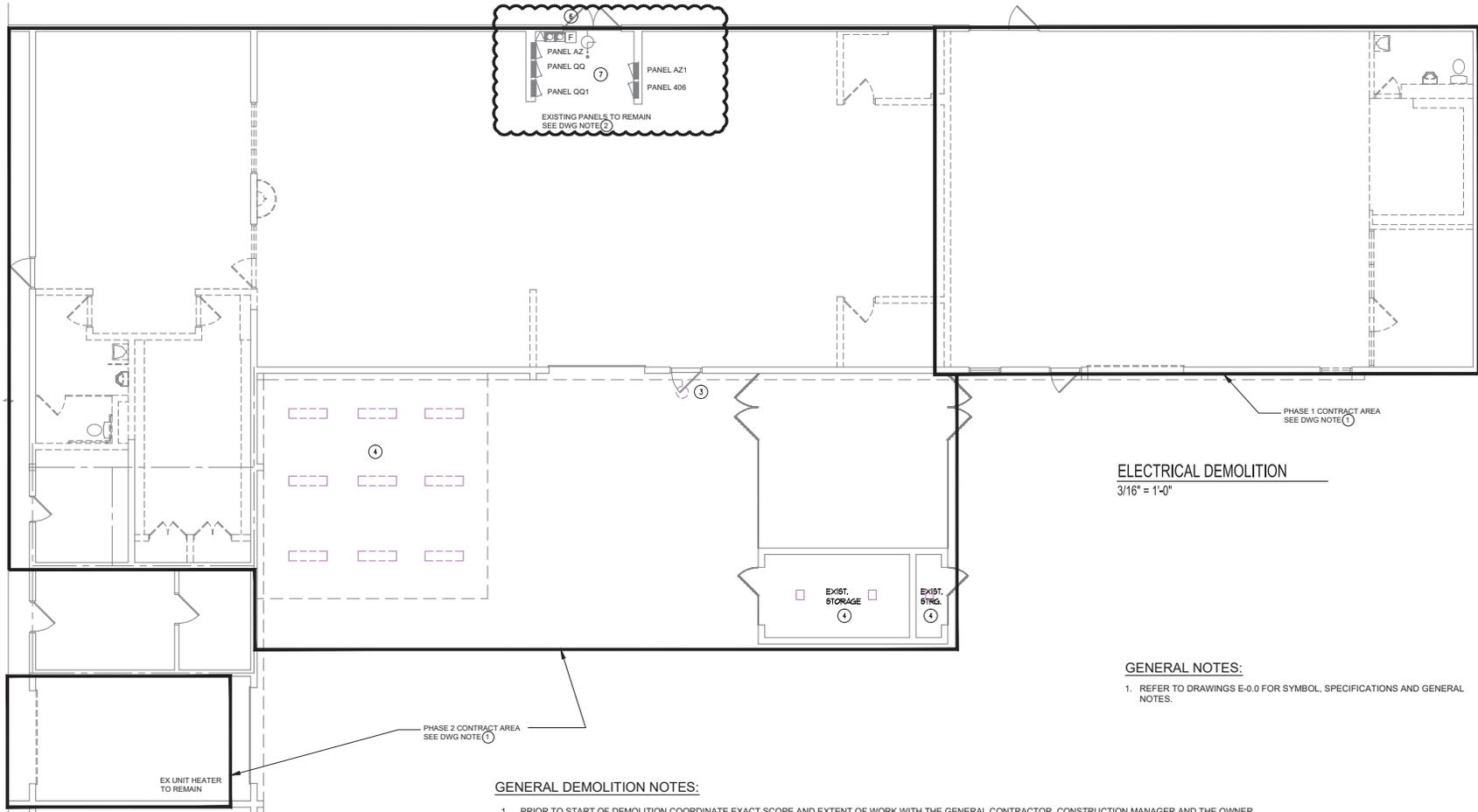
WELDING SHOP RENOVATION PHASE 1

Project No: XXX-XXX Drawn By: XXX Lead: XXX Checked By: XXX

Drawing Title

ELECTRICAL SYMBOLS AND SPECIFICATIONS

E0.0



ELECTRICAL DEMOLITION
3/16" = 1'-0"

GENERAL NOTES:

1. REFER TO DRAWINGS E-0.0 FOR SYMBOL, SPECIFICATIONS AND GENERAL NOTES.

GENERAL DEMOLITION NOTES:

1. PRIOR TO START OF DEMOLITION COORDINATE EXACT SCOPE AND EXTENT OF WORK WITH THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER AND THE OWNER.
2. DRAWINGS ARE DIAGRAMMATIC AND MAY NOT INDICATE ALL ELECTRICAL WORK REQUIRED TO BE REMOVED OR RELOCATED.
3. WHERE THE EXISTING FACILITIES ARE BEING ALTERED, DISCONNECT AND REMOVE OR RELOCATE ALL THE EXISTING ELECTRICAL WORK THAT INTERFERES WITH OR IS NECESSARY BECAUSE OF NEW CONSTRUCTION AS SPECIFIED, SHOWN OR REQUIRED.
4. WHERE SPECIFIED OR REQUIRED, EXTEND EXISTING SYSTEMS OR TIE INTO SAME TO PROVIDE A COMPLETE COORDINATED ELECTRICAL SYSTEM TO SATISFACTION OF THE OWNER AND ARCHITECT.
5. WHERE THE EXISTING EQUIPMENT IS INDICATED TO BE REMOVED, REMOVAL SHALL INCLUDE THE EQUIPMENT, BACKBOXES AND THEIR ASSOCIATED WIRE AND CONDUIT. WIRE AND CONDUIT SHALL BE REMOVED BACK TO THE SOURCE.
6. WHERE THE ELECTRICAL WORK IS ATTACHED TO THE EQUIPMENT DESIGNATED TO BE REPLACED, CONTRACTOR SHALL TEMPORARILY REMOVE AND THEN REINSTALL. IF WORKS IS INACTIVE OR ABANDONED IT SHALL BE REMOVED.
7. THE EXISTING PANELS SHALL BE PROVIDED WITH NEW DIRECTORIES INDICATING CONDITIONS AT THE COMPLETION OF CONSTRUCTION. DIRECTORIES SHALL BE AS COMPLETE AS POSSIBLE BASED ON EXISTING AVAILABLE INFORMATION AND OWNER INPUT. SPARE BREAKERS SHALL BE CLEARLY IDENTIFIED AND LEFT IN THE "OFF" POSITION.
8. THE EXISTING ELECTRICAL EQUIPMENT OR WIRING DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AND THE OWNER.
9. WHERE THE EXISTING WIRE, CONDUIT, BOXES, ETC. ARE FOUND TO BE INTERFERING WITH THE PROPOSED NEW CONSTRUCTION, THEY SHALL BE RELOCATED AS REQUIRED TO CLEAR CONFLICTS.
10. REMOVE, RELOCATE AND REINSTALL EXISTING ELECTRICAL AND COMMUNICATION SYSTEMS INCLUDING LIGHT FIXTURES, DEVICES, CONDUIT AND WIRE AS REQUIRED FOR REMOVAL AND INSTALLATION OF GENERAL CONSTRUCTION, FINISHES, MECHANICAL EQUIPMENT, DUCTWORK, PIPING AND SYSTEMS.
11. THE CONTRACTOR SHALL REVIEW ALL OF THE CONTRACT DOCUMENTS INCLUDING THOSE OF THE OTHER TRADES IN ORDER TO ACQUAINT HIMSELF WITH EXISTING AND RELATED CONDITIONS THAT MAY, WILL, OR COULD AFFECT HIS WORK.
12. THE CONTRACTOR SHALL VISIT THE SITE BEFORE HE SUBMITS HIS PROPOSAL. HE SHALL EXAMINE ALL EXISTING CONDITIONS WHICH AFFECT THE WORK. THE SUBMISSION OF THE PROPOSAL SHALL BE CONSIDERED EVIDENCE THAT THIS REQUIREMENT HAS BEEN FULFILLED. NO EXTRA PAYMENT WILL BE ALLOWED FOR ADDITIONAL WORK MADE NECESSARY BY FAILURE TO VISIT THE SITE.
13. DISCONNECT, REMOVE AND OR RELOCATE POWER ASSOCIATED WITH MECHANICAL AND PLUMBING EQUIPMENT DESIGNATED TO BE DEMOLISHED OR RELOCATED. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR LOCATIONS. CONTRACTOR SHALL COORDINATE ALL TELE/DATA AND SECURITY DEMOLITION SCOPE WITH THE OWNER.

DRAWING NOTES:

1. DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL DEVICES, LIGHTING, CONTROLS, EQUIPMENT, FIRE ALARM DEVICES, LOW VOLTAGE DEVICES, CONNECTIONS TO EQUIPMENT, BACKBOXES, WIRING AND CONDUIT.
2. EXISTING PANELS SHALL BE REMAIN. PROVIDE TYPEWRITTEN DIRECTORIES INDICATING CONDITIONS AT THE COMPLETION OF CONSTRUCTION.
3. REMOVE EXISTING LIGHT FIXTURE. EXISTING WIRING TO REMAIN FOR CONNECTION TO NEW FIXTURE.
4. EXISTING LIGHTING FIXTURES, CONTROLS, ASSOCIATED WIRING AND CONDUIT SHALL BE REMOVED. EXISTING CONDUIT MAY BE REUSED IF PRACTICAL.
5. REMOVE, REINSTALL EXISTING DEVICES AS REQUIRED FOR GENERAL CONSTRUCTION AND NEW ROOF INSTALLATION.
6. EXISTING TELEPHONE, EPOS, MANUAL PULL STATION AND CLOCK TO REMAIN.
7. EXISTING BRANCH CIRCUITS CURRENTLY SERVING 208V WELDING BOOTH RECEPTACLES SHALL BE DISCONNECTED UNDER PHASE 1 AND BREAKERS REPLACED AS PER THE PANEL SCHEDULES. ABANDONED WIRING AND DEVICES SHALL BE REMOVED UNDER PHASE 2.

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Key Plan

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Project Title

WELDING SHOP RENOVATION PHASE 1

Project No: XXXX-XXXX Drawn By: XXXX Used: XXXX Checked By: XXXX

Drawing Title

ELECTRICAL DEMOLITION PLAN

Drawing No.

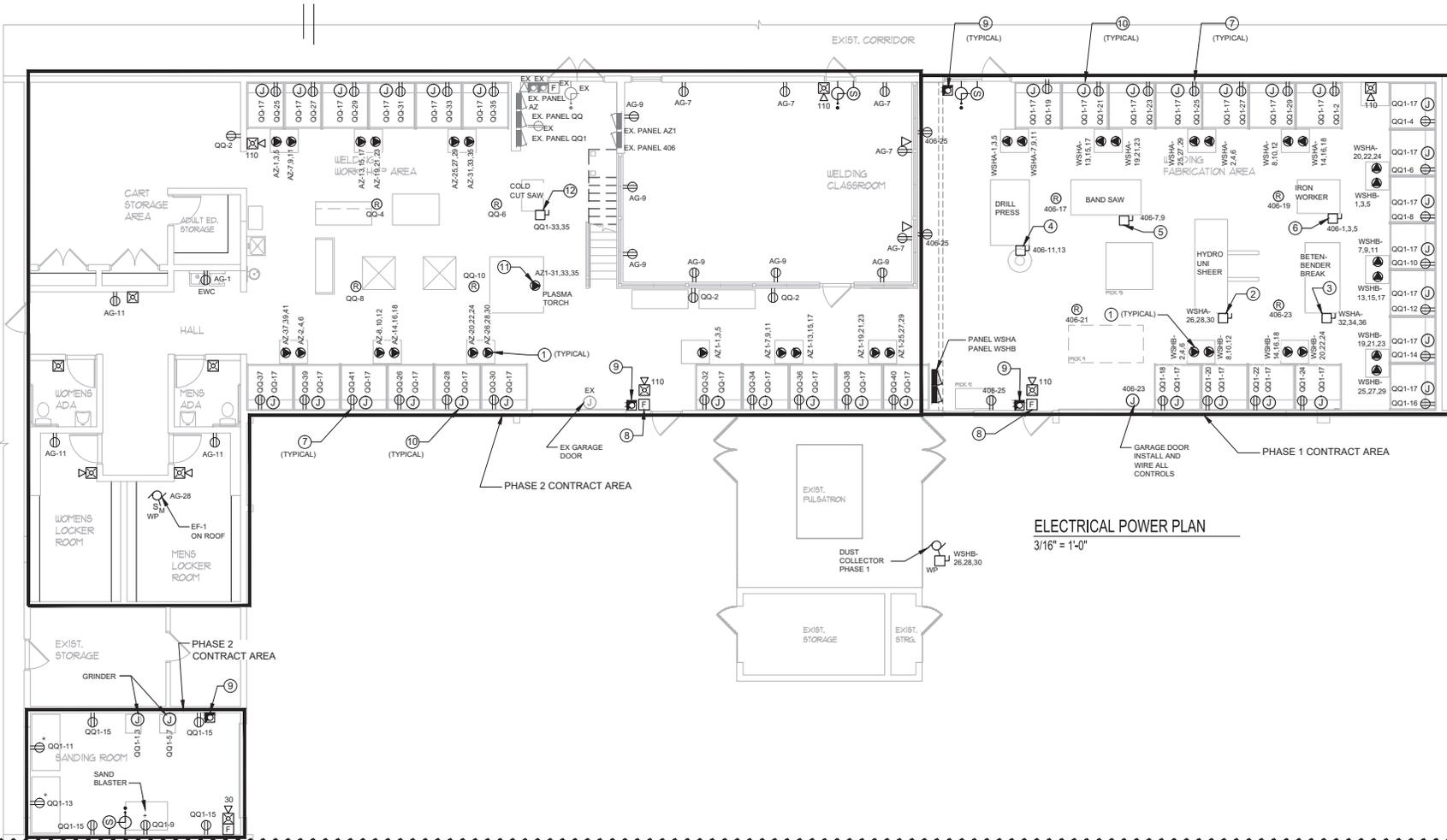
E1.0

DRAWING NOTES:

- ① WELDER - PROVIDE 50/3 CORD ASSEMBLY FROM CEILING BOX AND 50A, 480V, 3P LOCKING PIN AND SLEEVE FEMALE RECEPTACLE. PROVIDE CORD ASSEMBLY CONNECTION TO WELDER WITH 50A, 480V, 3P LOCKING PIN AND SLEEVE MALE PLUG.
- ② HYDRO UNI SHEER - PROVIDE 30/3 CORD ASSEMBLY FROM CEILING BOX TO 30A DISCONNECT SWITCH MOUNTED ON U-CHANNEL SUPPORT. PROVIDE CONNECTION FROM DISCONNECT SWITCH TO EQUIPMENT.
- ③ BETENBENDER BREAK - PROVIDE 20/3 CORD ASSEMBLY FROM CEILING BOX TO 30A DISCONNECT SWITCH MOUNTED ON U-CHANNEL SUPPORT. PROVIDE CONNECTION FROM DISCONNECT SWITCH TO EQUIPMENT.
- ④ DRILL PRESS - PROVIDE 30/2 CORD ASSEMBLY FROM CEILING BOX TO 30A DISCONNECT SWITCH MOUNTED ON U-CHANNEL SUPPORT. PROVIDE CONNECTION FROM DISCONNECT SWITCH TO EQUIPMENT.
- ⑤ BAND SAW - PROVIDE 20/2 CORD ASSEMBLY FROM CEILING BOX TO 30A DISCONNECT SWITCH MOUNTED ON U-CHANNEL SUPPORT. PROVIDE CONNECTION FROM DISCONNECT SWITCH TO EQUIPMENT.
- ⑥ IRON WORKER - PROVIDE 30/3 CORD ASSEMBLY FROM CEILING BOX TO 30A DISCONNECT SWITCH MOUNTED ON U-CHANNEL SUPPORT. PROVIDE CONNECTION FROM DISCONNECT SWITCH TO EQUIPMENT.
- ⑦ WELDING BOOTH DUPLEX RECEPTACLE - PROVIDE ZINC ALLOY HINGED GASKETED DEVICE COVER. INDIVIDUAL COVER FOR EACH OUTLET. HEIGHT AS DIRECTED BY OWNER.
- ⑧ FIRE ALARM MANUAL PULLSTATION - PROVIDE HINGED POLYCARBONATE COVER AS MANUFACTURED BY STI, MODEL 1100.
- ⑨ EMERGENCY POWER OFF (EPO) - MOMENTARY ACTION RED MUSHROOM, YELLOW POLYCARBONATE HOUSING, AS MANUFACTURED BY STI, MODEL SS2204PO-EN.
- ⑩ SINGLE GANG OUTLET BOX WITH BLANK COVERPLATE FOR FUTURE LOAD. HEIGHT AS DETERMINED BY OWNER.
- ⑪ PLASMA TORCH - PROVIDE 50/3 CORD ASSEMBLY FROM CEILING BOX AND 50A, 480V, 3P LOCKING PIN AND SLEEVE FEMALE RECEPTACLE. PROVIDE CORD ASSEMBLY CONNECTION TO WELDER WITH 50A, 480V, 3P LOCKING PIN AND SLEEVE MALE RECEPTACLE.
- ⑫ COLD CUT SAW - PROVIDE 20/2 CORD ASSEMBLY FROM CEILING BOX TO 30A DISCONNECT SWITCH MOUNTED ON U-CHANNEL SUPPORT. PROVIDE CONNECTION FROM DISCONNECT SWITCH TO EQUIPMENT.

GENERAL NOTES:

- 1. REFER TO DRAWINGS E-0.0 FOR SYMBOL, SPECIFICATIONS AND GENERAL NOTES.
- 2. PRIOR TO THE START OF WORK, VERIFY ALL EQUIPMENT ELECTRICAL CHARACTERISTICS WITH OWNER.
- 3. ALL NEW PANELS SHALL BE MOUNTED ON U-CHANNEL FRAMING WHICH SHALL BE SECURED TO STRUCTURAL FLOOR AND CEILING SLABS.



ELECTRICAL POWER PLAN
3/16" = 1'-0"

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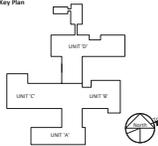
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Key Plan



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Project Title

WELDING SHOP RENOVATION
PHASE 1

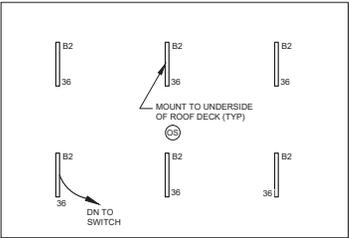
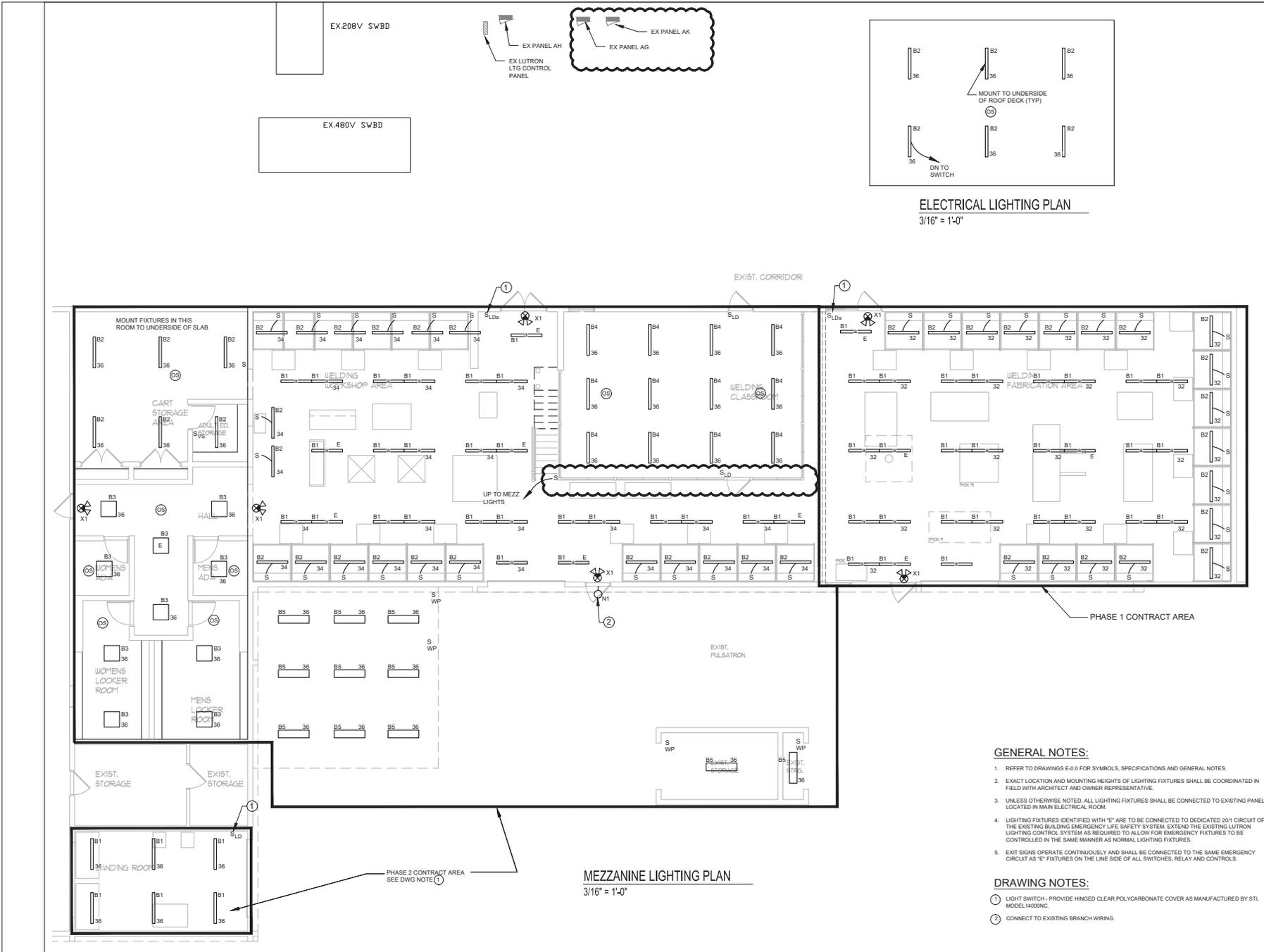
Project No. XXX-XXX Drawn By: XXX Used: XXX Checked By: XXX

Drawing Title

ELECTRICAL POWER PLAN

Drawing No.

E2.0



ELECTRICAL LIGHTING PLAN
3/16" = 1'-0"

MEZZANINE LIGHTING PLAN
3/16" = 1'-0"

- GENERAL NOTES:**
- REFER TO DRAWINGS E-0.0 FOR SYMBOLS, SPECIFICATIONS AND GENERAL NOTES.
 - EXACT LOCATION AND MOUNTING HEIGHTS OF LIGHTING FIXTURES SHALL BE COORDINATED IN FIELD WITH ARCHITECT AND OWNER REPRESENTATIVE.
 - UNLESS OTHERWISE NOTED, ALL LIGHTING FIXTURES SHALL BE CONNECTED TO EXISTING PANEL A LOCATED IN MAIN ELECTRICAL ROOM.
 - LIGHTING FIXTURES IDENTIFIED WITH "E" ARE TO BE CONNECTED TO DEDICATED 2011 CIRCUIT OF THE EXISTING BUILDING EMERGENCY LIFE SAFETY SYSTEM. EXTEND THE EXISTING LUTRON LIGHTING CONTROL SYSTEM AS REQUIRED TO ALLOW FOR EMERGENCY FIXTURES TO BE CONTROLLED IN THE SAME MANNER AS NORMAL LIGHTING FIXTURES.
 - EXIT SIGNS OPERATE CONTINUOUSLY AND SHALL BE CONNECTED TO THE SAME EMERGENCY CIRCUIT AS "E" FIXTURES ON THE LINE SIDE OF ALL SWITCHES, RELAY AND CONTROLS.

- DRAWING NOTES:**
- LIGHT SWITCH - PROVIDE HINGED CLEAR POLYCARBONATE COVER AS MANUFACTURED BY STL MODEL 14000C.
 - CONNECT TO EXISTING BRANCH WIRING.

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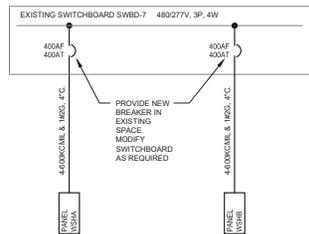
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Project Title
 WELDING SHOP RENOVATION PHASE 1

Project No.: XXXX-XXXX
 Drawn By: XXX
 Used: XXX
 Checked By: XXX

Drawing Title
ELECTRICAL LIGHTING PLAN

Drawing No.
E3.0



SINGLE LINE NOTES:

- REFER TO DRAWINGS E-0.0 FOR SYMBOL, SPECIFICATIONS AND GENERAL NOTES
- UNLESS OTHERWISE NOTED, ALL DEVICES AND SPACES ARE 3 POLE.
- CIRCUIT BREAKERS INSTALLED IN EXISTING PANELBOARDS/SWITCHBOARDS SHALL MATCH EXISTING PANEL MANUFACTURER AND SHALL BE COMPLETELY COMPATIBLE, INCLUDING CIRCUIT BREAKER AIC RATING.

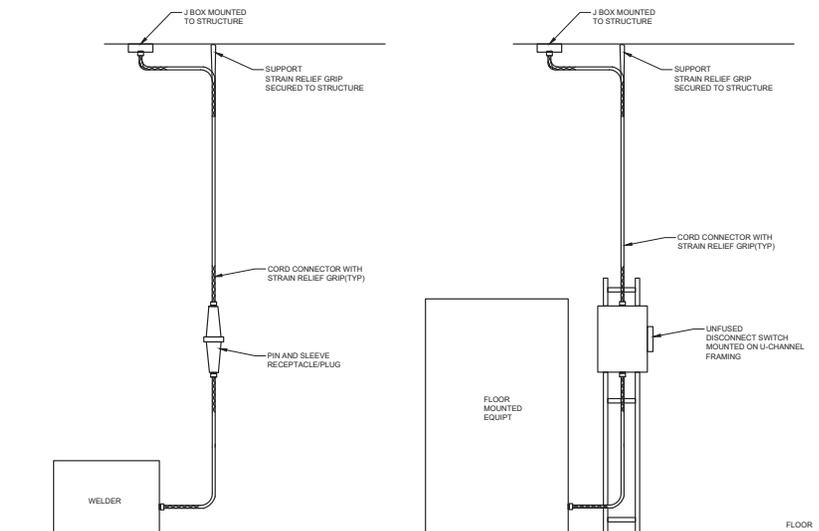
SINGLE LINE DIAGRAM
NTS

CIRCUIT NO.	DESCRIPTION	CONTROL FUNCTION
1	WELDING SHOP SANDING SHOP	MANUAL ON, DRIVING MANUAL OFF. (PUSHES OF POWER EMERGENCY) FEATURES SHALL TURN FULL ON
2	CLASSROOM	MANUAL ON, DRIVING AUTOMATIC OFF (PUSHES OF POWER EMERGENCY) FEATURES SHALL TURN FULL ON
3	MEZZANINE STORAGE	MANUAL ON, AUTOMATIC OFF (PUSHES OF NO OCCUPANT ACTIVITY)
4	CORRIDOR	AUTOMATIC ON TO 10% WITH OCCUPANCY SENSING, ON TO 20% WITH 20 MINUTES OF NO OCCUPANT ACTIVITY, WORK USE OF POWER EMERGENCY FEATURES SHALL TURN FULL ON
5	TOILET ROOM LOOKER ROOM	AUTOMATIC ON, AUTOMATIC OFF (PUSHES OF NO OCCUPANT ACTIVITY)

Panel AG										225A MLO 42 POLE			208/120V - 3Ø - 4W TO KAIC		
Notes	Circuit No.	Circuit Breaker	Description	Load - KW			Load - KW			Circuit No.	Circuit Breaker	Notes			
				A	B	C	A	B	C						
	1	201	EW	0.9											
	3	201	LTG MEZZ DIESEL MECH							201	4				
	5	201	LTG MEZZ DIESEL MECH							201	6				
	7	201	RECEPTACLES - WELD CLASSRM	0.9						201	8				
	9	201	RECEPTACLES - WELD CLASSRM	1.1						201	10				
	11	201	RECEPT - LOCKER CORRIDOR							201	12				
	13	201	UNKNOWN CIRCUIT							201	14				
	15	201	RECEPT							201	16				
	17	201	UNKNOWN CIRCUIT							201	18				
	19	201	BLUE LFS FIRE EXTING							201	20				
	21	201	OUTSIDE LIGHTS BACK 4D							201	22				
	23	201	OUTSIDE LIGHTS BACK 4D							201	24				
	25	201	UNKNOWN CIRCUIT							201	26				
	27	201	RECEPT					0.1		201	28				
	29	201	RECEPT							201	30				
	31	201	RECEPT							201	32				
	33	201	RECEPT							201	34				
	35	201	RECEPT							201	36				
	37	201	RECEPT							201	38				
	39	201	RECEPT							201	40				
	41	201	RECEPT							201	42				
	Total			1.5	1.1	0.5		0.0	0.1	0.0	Total				

Phase (KW)	Notes:	Options & Accessories - (X) Indicates Selection
A 1.5	A = Arc Fault Breaker	<input type="checkbox"/> Feed Through Lugs
B 1.2	GA = 80A Ground Fault Breaker	<input type="checkbox"/> Surface
C 0.5	GB = 30mA Ground Fault Breaker	<input type="checkbox"/> Existing
Total kW 3.2	N = New Breaker in Existing Space	<input type="checkbox"/> Multi-Section
Total Amps 6.7	R = Remove Existing and Provide New Breaker	<input type="checkbox"/> Ground Bus
	SH = Shunt Trip Breaker	<input type="checkbox"/> Inertial Ground Bus
	N = Requires Neutral Conductor	<input type="checkbox"/> Integral SPD
		<input type="checkbox"/> NEMA 3R

Type	Manufacturer	Catalog No.	No.	Lamps	Watts	Type	Volts	Mounting	Remarks
B1	Kurtzon	WL-B-140-3A-EDR-80-UNV-CRM	-	56	LED4000K/BCCR	UNV	120	Aircraft cabin 12 0" AFF	4 LED with frosted acrylic lens, white steel housing, 7282 lumens, 0-10V 10% dimming provide paner bands to create continuous lengths indicated
B2	Kurtzon	WL-A-140-1LED-80-UNV-CRM	-	29	LED4000K/BCCR	UNV	120	Aircraft cabin 9 0" AFF	4 LED with frosted acrylic lens, white steel housing, 3686 lumens, 0-10V 10% dimming
B3	Lithonia	EPANEL2X480LMB00040MM10-2-X25MKSH	-	36	LED4000K/BCCR	UNV	120	Surface	2x2 LED panel with steel enclosure, 4800 lumens
B4	Mark	S&PID-4F1-80CRI-40K-800LMF-J80C-RH-80K-130LMF-SH-DCT-MAN-FLU-DC-MVOLT-WHTT-ZT	-	33	LED4000K/BCCR	UNV	120	Aircraft cabin Bottom of Fixture at Bottom of Steel	Indirect/Direct 4"W x 4" long LED with flat bottom frosted lens, beaming indirect distribution, white finish, 800 lumens/ft down, 300 lumens/ft up, 0-10V 1% dimming
N1	Lithonia	WSR-P2-50K-SR2-120-PE-X	-	29	LED5000K/BCCR	120	Wall Above Door	LED wall sconce, Type 2 distribution, photocell, 3200 lumens, fish and mounting height as directed by Architect	
X1	Lithonia	LHMLED8M6	-	1.5	LED	UNV	Wall	LED exit sign with battery backup, dual emergency lighting heads	



SHOP EQUIPMENT DETAIL
NTS

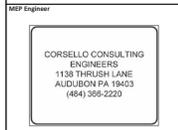
COMcheck Software Version COMcheckWeb
Interior Lighting Compliance Certificate

Project Information
Energy Code: 2018 IECC
Project Title: BUCKS WELDING SHOP
Project Type: Alteration

Construction Site: Owner/Agent: Designer/Contractor:

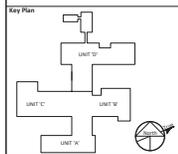
Area Category	Allowed Interior Lighting Power		
	B Floor Area (ft2)	C Allowed Watts / R2	D Allowed Watts
1-Common Space Types:Classroom/Lecture/Training	680	0.96	653
2-Common Space Types:Workshop	4150	1.14	4731
3-Common Space Types:Storage >= 50 - <= 1000 sq.ft	1085	0.46	499
4-Common Space Types:Corridor/Transition <8 ft wide	260	0.66	172
5-Common Space Types:Locker Room	345	0.48	166
6-Common Space Types:Restrooms	100	0.85	85
7-Common Space Types:Storage >= 50 - <= 1000 sq.ft.	178	0.46	82
8-Common Space Types:Storage >= 50 - <= 1000 sq.ft.	147	0.46	68
9-Common Space Types:Workshop	405	1.14	462
Total Allowed Watts =			6916

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	Proposed Interior Lighting Power			
	A # of Lamps / Fixture	B Lamps / Fixture	C # of Fixture Watt.	D E (C X D)
Common Space Types: Classroom/Lecture/Training (680 sq.ft.) LED: Other:	1	12	33	396
Common Space Types: Workshop (4150 sq.ft.) LED: Other:	1	61	56	3416
Common Space Types: Storage >= 50 - <= 1000 sq.ft. (1085 sq.ft.) LED: Other:	1	37	29	1073
Common Space Types: Corridor/Transition <8 ft wide (260 sq.ft.) LED: Other:	1	12	29	348
Common Space Types: Locker Room (345 sq.ft.) LED: Other:	1	5	36	180
Common Space Types: Restrooms (100 sq.ft.) LED: Other:	1	4	36	144
Common Space Types: Storage >= 50 - <= 1000 sq.ft. (178 sq.ft.) LED: Other:	1	2	36	72
Common Space Types: Storage >= 50 - <= 1000 sq.ft. (147 sq.ft.) LED: Other:	1	2	42	84
Common Space Types: Storage >= 50 - <= 1000 sq.ft. (147 sq.ft.) LED: Other:	1	3	42	126



Project Issue Index

Rev.	Rev. Date	Description
B	07-24-23	CLIENT REVISIONS



Project Title
WELDING SHOP RENOVATION PHASE 1

Project No: XXX-XXX **Drawn By:** XXX **Used:** XXX **Checked By:** XXX

Drawing Title

ELECTRICAL DETAILS
E4.0

Panel AH		225A MLO 42 POLE			480277V - 3Ø - 4W 14 KVAIC					
Notes	Cir. No.	Cir. Bkr.	Description	Load - KW			Description	Cir. No.	Cir. Bkr.	Notes
				A	B	C				
	1	203	RTU-D2				UH-28 MAIN ELECT ROOM	15/3	4	
	3								8	
	7								8	
	9	25/3	RTU-D6				UV-2 APP	15/3	19	
	11								12	
	13								14	
	15	50/3	RTU-D8				MEDIA RM AC ROOF COMPRESS	15/3	16	
	17								17	
	19								20	
	21	15/3	UN-1 SCRAP STOR				MEDIA ROOM FAN UNIT	15/3	22	
	23								24	
	25								25	
	27	15/3	LUTRON EMERG MODULE				SPARE	15/3	29	
	29								30	
	31	20/1	CONV 1.5 DARK ROOM	2.1	2.1		LIGHTING - WELD SHOP	20/1	32	
	33	20/1	SPARE			2.1	LIGHTING - WELD SHOP	20/1	34	
	35	20/1	SH-1			1.7	LTG CLASS REZL WKR SAND	20/1	36	
	37	20/1	SPARE					20/1	38	
	39	20/1	UNKNOWN CIRCUIT					20/1	40	
	41	20/1	PRECISION TEMP MACHINE				SPARE	20/1	42	
	Total			0.0	0.0	0.0	2.1	2.1	1.7	Total

Phase (KW) Notes:		Options & Accessories - (X) Indicates Selection	
A	2.1	<input type="checkbox"/> Feed Through Lugs	<input type="checkbox"/> Recessed Surface
B	2.1	<input type="checkbox"/> Subfeed Main Lugs	<input type="checkbox"/> Existing
C	1.7	<input type="checkbox"/> Existing	<input type="checkbox"/> Multi-Section
Total kW	5.9	<input type="checkbox"/> New	<input type="checkbox"/> Ground Bus
Total Amps	12.3	<input type="checkbox"/> Normal	<input type="checkbox"/> Insul. Gnd Bus
		<input type="checkbox"/> Emergency	<input type="checkbox"/> Integral SPD
			<input type="checkbox"/> NEMA 3R

Panel AK		225A MLO 42 POLE			208/120V - 3Ø - 4W 10 KVAIC					
Notes	Cir. No.	Cir. Bkr.	Description	Load - KW			Description	Cir. No.	Cir. Bkr.	Notes
				A	B	C				
	1	20/1	LTG THRU LCD-11				RECEPT 2	20/1	2	
	3	20/2	LTG THRU LCD-26				SPARE	20/1	4	
	5						SPARE	20/1	6	
	7	20/1	LIGHTS OUTSIDE DOORS				EX FAN WELD SHOP	20/1	8	
	9	20/2	LTG THRU LCD-26				EX FAN WELD SHOP	20/1	10	
	11							20/1	11	
	13	20/1	EX FAN WELD SHOP				EX FAN WELD SHOP	20/1	14	
	15	20/1	EX FAN TOILET PRINT SHOP					15/2	16	
	17	20/1	GAS BURNER					15/2	17	
	19	20/1	RECEPT OFFICE				POWER PULSE COMPUTER	20/1	20	
	21	20/1	RECEPT INJUN RM				UNKNOWN CIRCUIT	20/1	22	
	23	20/1	RECEPT MEZZ BY WELD STORAGE				HOT WTR HTR & CP1	20/2	24	
	25	20/1	RECEPT JAN OFFICE				MACH SHOP COPIER	20/2	26	
	27	20/1	CLOCKS					20/2	27	
	29	20/1	EXIT LIGHTS				SPARE	20/1	30	
	31	20/1	RECEPT 405				SPARE	20/1	32	
	33	20/1	RECEPT 405				SPARE	20/1	34	
	35	20/1	RECEPT				RECEPT 406 CLASSROOM	20/1	38	
	37	20/1	RECEPT				RECEPT	20/1	40	
	41	20/1	RECEPT				RECEPT	20/1	42	
	Total			0.0	0.0	0.0	0.0	0.0	0.0	Total

Phase (KW) Notes:		Options & Accessories - (X) Indicates Selection	
A	0.0	<input type="checkbox"/> Feed Through Lugs	<input type="checkbox"/> Recessed Surface
B	0.0	<input type="checkbox"/> Subfeed Main Lugs	<input type="checkbox"/> Existing
C	0.0	<input type="checkbox"/> Existing	<input type="checkbox"/> Multi-Section
Total kW	0.0	<input type="checkbox"/> New	<input type="checkbox"/> Ground Bus
Total Amps	0.0	<input type="checkbox"/> Normal	<input type="checkbox"/> Insul. Gnd Bus
		<input type="checkbox"/> Emergency	<input type="checkbox"/> Integral SPD
			<input type="checkbox"/> NEMA 3R

Panel AZ		400A MCB SHUNT TRIP 42 POLE			480277V - 3Ø - 4W 14 KVAIC					
Notes	Cir. No.	Cir. Bkr.	Description	Load - KW			Description	Cir. No.	Cir. Bkr.	Notes
				A	B	C				
	1	50/3	WELDER - BOOTH 19		5.0	5.0	WELDER - BOOTH 26	50/3	4	
	3							50/3	8	
	5							50/3	9	
	7	50/3	WELDER - BOOTH 20		5.0	5.0	WELDER - BOOTH 27	50/3	10	
	9							50/3	12	
	11							50/3	13	
	13	50/3	WELDER - BOOTH 21		5.0	5.0	WELDER - BOOTH 28	50/3	16	
	15							50/3	18	
	17							50/3	19	
	19							50/3	20	
	21	50/3	WELDER - BOOTH 22		5.0	5.0	WELDER - BOOTH 29	50/3	22	
	23							50/3	24	
	25							50/3	25	
	27	50/3	WELDER - BOOTH 23		5.0	5.0	WELDER - BOOTH 30	50/3	28	
	29							50/3	30	
	31							50/3	32	
	33							50/3	34	
	35							50/3	36	
	37	50/3	WELDER - BOOTH 24		5.0	5.0	SPARE	50/3	38	
	39							50/3	40	
	41							50/3	42	
	Total			35.0	35.0	35.0	25.0	25.0	25.0	Total

Phase (KW) Notes:		Options & Accessories - (X) Indicates Selection	
A	60.0	<input type="checkbox"/> Feed Through Lugs	<input type="checkbox"/> Recessed Surface
B	60.0	<input type="checkbox"/> Subfeed Main Lugs	<input type="checkbox"/> Existing
C	60.0	<input type="checkbox"/> Existing	<input type="checkbox"/> Multi-Section
Total kW	180.0	<input type="checkbox"/> New	<input type="checkbox"/> Ground Bus
Total Amps	375.0	<input type="checkbox"/> Normal	<input type="checkbox"/> Insul. Gnd Bus
		<input type="checkbox"/> Emergency	<input type="checkbox"/> Integral SPD
			<input type="checkbox"/> NEMA 3R

Panel AZ1		400A MCB SHUNT TRIP 48 POLE			480277V - 3Ø - 4W 14 KVAIC					
Notes	Cir. No.	Cir. Bkr.	Description	Load - KW			Description	Cir. No.	Cir. Bkr.	Notes
				A	B	C				
	1	50/3	WELDER - BOOTH 31		5.0	5.0	SPARE	50/3	2	
	3							50/3	4	
	5							50/3	6	
	7	50/3	WELDER - BOOTH 32		5.0	5.0	SPARE	50/3	10	
	9							50/3	11	
	11							50/3	12	
	13	50/3	WELDER - BOOTH 33		5.0	5.0	SPARE	50/3	16	
	15							50/3	18	
	17							50/3	20	
	19	20/1	WELDER - BOOTH 34		5.0	5.0	SPARE	50/3	22	
	21							50/3	24	
	23							50/3	26	
	25	50/3	WELDER - BOOTH 35		5.0	5.0	SPARE	30/3	28	
	27							30/3	30	
	29							30/3	32	
	31	50/3	PLASMA TORCH		5.0	5.0	SPARE	40/3	34	
	33							40/3	36	
	35	50/3	SPARE					50/3	40	
	37							50/3	42	
	39							50/3	44	
	41							50/3	46	
	43							50/3	48	
	45							50/3	48	
	Total			30.0	30.0	30.0	0.0	0.0	0.0	Total

Phase (KW) Notes:		Options & Accessories - (X) Indicates Selection	
A	30.0	<input type="checkbox"/> Feed Through Lugs	<input type="checkbox"/> Recessed Surface
B	30.0	<input type="checkbox"/> Subfeed Main Lugs	<input type="checkbox"/> Existing
C	30.0	<input type="checkbox"/> Existing	<input type="checkbox"/> Multi-Section
Total kW	90.0	<input type="checkbox"/> New	<input type="checkbox"/> Ground Bus
Total Amps	187.5	<input type="checkbox"/> Normal	<input type="checkbox"/> Insul. Gnd Bus
		<input type="checkbox"/> Emergency	<input type="checkbox"/> Integral SPD
			<input type="checkbox"/> NEMA 3R

Panel QQ		400A MCB SHUNT TRIP 42 POLE			208/120V - 3Ø - 4W 10 KVAIC					
Notes	Cir. No.	Cir. Bkr.	Description	Load - KW			Description	Cir. No.	Cir. Bkr.	Notes
				A	B	C				
	1						RECEPT - STORE, OUTSIDE CLASS	20/1	2	
	3	20/3	SPARE				REEL OUTLET	20/1	4	
	5						REEL OUTLET	20/1	6	
	7	20/1	EX GARAGE DOOR				REEL OUTLET	20/1	8	
	9	20/1	EX OUTDOOR RECEPT				REEL OUTLET	20/1	10	
	11	20/1	EX OUTDOOR RECEPT				SPARE	20/1	12	
	13	20/1	EX OUTDOOR RECEPT				SPARE	20/1	14	
	15	20/1	EX CLOSET RECEPT				EX OUTSIDE CAGE RECEPT	20/1	16	
	17	20/1	J-BOXES - FUTURE LOAD			0.9	SPARE	20/1	18	
	19	20/1	SPARE				SPARE	20/1	20	
	21	20/1	SPARE				SPARE	20/1	22	
	23	20/1	SPARE				SPARE	20/1	24	
	25	20/1	WELD BOOTH 19	0.2	0.2		WELD BOOTH 29	20/1	26	
	27	20/1	WELD BOOTH 20	0.2	0.2		WELD BOOTH 29	20/1	28	
	29	20/1	WELD BOOTH 21	0.2	0.2		WELD BOOTH 30	20/1	30	
	31	20/1	WELD BOOTH 22	0.2	0.2		WELD BOOTH 31	20/1	32	
	33	20/1	WELD BOOTH 23	0.2	0.2		WELD BOOTH 32	20/1	34	
	35	20/1	WELD BOOTH 24	0.2	0.2		WELD BOOTH 33	20/1	36	
	37	20/1	WELD BOOTH 25	0.2	0.2		WELD BOOTH 34	20/1	38	
	39	20/1	WELD BOOTH 26	0.2	0.2		WELD BOOTH 35	20/1	40	
	41	20/1	WELD BOOTH 27	0.5	0.5	1.4	SPARE	20/1	42	
	Total			0.5	0.5	1.4	1.4	1.3	0.7	Total

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