

**March 2024**

# **Washington**

**Court House**

**City School District**

**Restrooms**

**400 S. Elm Street**

**Washington C.H., Ohio 43160**

**Owner**

# **Washington**

**Court House**

**City School District**

**306 Highland Ave.**

**Washington C.H., Ohio 43160**

Architect's Project No. 23019-Rebid

**MARK HEINY – ARCHITECT**

Registered Architect \* 211 S. Fayette Street \* Washington C.H., Ohio 43160 \* Telephone (740) 333-0820 \* Fax (740) 333-8220



**ADVERTISEMENT FOR BIDS**

Sealed bids will be received by the Washington Court House City School District, Attn: Becky Mullins, Treasurer/CFO located at 306 Highland Ave., Washington C.H., Ohio 43160 until 1:00 p.m. local time, on Monday, April 15th, 2024 and opened immediately thereafter, for furnishing the necessary labor and materials, tools, machinery and appliances required for A LUMP SUM BID for all trades for

Project No. 23019-REBID  
Restroom Building for  
Washington Court House City School District  
400 S. Elm St.  
Washington C.H., Ohio 43160

According to the drawings and specifications, the project includes a single-story building at existing baseball, softball and soccer fields. This includes new electrical, HVAC, and finishes. The work also includes work to install exterior concrete walks and other flatwork around the building. Copies of said drawings and specifications may be obtained by bidders from the office of Washington Court House City School District by emailing their request to [becky.mullins@wchcs.org](mailto:becky.mullins@wchcs.org). The request shall include the following:

**Company Name, Contact Name, Company Mailing Address, Contact Phone Number, Contact Email**

One set of Bidding Documents can be obtained upon receipt of a non-refundable payment, in the amount of \$75.00 plus postage. Checks should be made payable to Mark Heiny - Architect. PDF sets of the drawings and specifications can be obtained free of charge electronically by registering as indicated above.

Bids for the above-described work must be made on the blank forms to be furnished. The Washington Court House City School District reserves the right to reject any incomplete or altered bids.

Estimates for project costs: \$275,000.00

**The Contractors and all subcontractors shall conform to the prevailing rates of the State of Ohio as specified in the Ohio Revised Code.**

A copy of the Wage Rates can be accessed at the website below:

[wagehour.com.ohio.gov](http://wagehour.com.ohio.gov)

A pre-bid meeting shall take place on Thursday, March 28th, 2024 at 10:00 a.m. at the project site. Entry to the project site will be limited to this scheduled time unless approval is given by Owner.

Bids must be submitted in a closed opaque envelope, clearly identified with bidder's name, project name and owner's name on the outside.

Each bid must contain the full name of every person or company interested in the same, shall state the price for labor and materials, and must be accompanied by a BID GUARANTY meeting the requirements of Section 153.54 of the Ohio Revised Code.

All contractors are required to submit a Certificate of Contractors Insurance in an amount of \$1,000,000.00. Failure to do so may result in rejection of bid.

**THE WASHINGTON SCHOOLS RESERVE THE RIGHT TO REJECT ANY OR ALL BIDS SUBMITTED.**

By order of the Washington Court House City School District



DOCUMENT 00010

TABLE OF CONTENTS

Section Title

DIVISION 1 - GENERAL REQUIREMENTS

- 00200 Instructions to Bidders
- 00410 Bid Form
- 00501 Agreement and General Conditions
- 00811 Supplemental Conditions
- 01001 Basic Requirements

DIVISION 2 - SITEWORK

- 02300 Earthwork
- 02750 Rigid Pavement

DIVISION 3 - CONCRETE

- 03050 Basic Concrete Materials and Methods

DIVISION 4 - MASONRY

- 04065 Masonry Mortar and Grout
- 04810 Unit Masonry Assemblies

DIVISION 6 - WOOD AND PLASTICS

- 06200 Finish Carpentry
- 06650 Solid Surfacing

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

- 07212 Spray Foam Insulation
- 07214 Foamed-in Place Masonry Insulation
- 07313 Dimensional Shingle Roofing
- 07671 Aluminum Gutters and Downspouts
- 07900 Joint Sealers

DIVISION 8 - DOORS AND WINDOWS

- 08110 Steel Doors and Frames
- 08710 Door Hardware



## DIVISION 9 - FINISHES

- 09260 Gypsum Board Assemblies
- 09900 Paints and Coatings

## DIVISION 10 – SPECIALTIES

- 10005 Miscellaneous Specialties
- 10155 Toilet Partitions
- 10800 Toilet, Bath, and Laundry Accessories

## DIVISION 16 - ELECTRICAL

- 16050 Basic Electrical Materials and Methods
- 16100 Wiring Methods
- 16500 Lighting
- 16700 Communications

END OF DOCUMENT



## DOCUMENT 00200

### INSTRUCTIONS TO BIDDERS

#### 1.1 SUMMARY

- A. Document Includes:
  - 1. Bid Submission.
  - 2. Intent.
  - 3. Contract Time.
  - 4. Definitions.
  - 5. Contract Documents Identification.
  - 6. Availability of Documents.
  - 7. Examination of Documents.
  - 8. Inquiries and Addenda.
  - 9. Product Substitutions.
  - 10. Site Examination.
  - 11. Bidder Qualifications.
  - 12. Submission Procedure.
  - 13. Bid Ineligibility.
  - 14. Performance Assurance.
  - 15. Bid Form Signature.
  - 16. Additional Bid Information.
  - 17. Selection and Award of Alternates.
  - 18. Bid Opening.
  - 19. Duration of Offer.
  - 20. Acceptance of Offer.

#### 1.2 BID SUBMISSION

- A. Bids signed, executed, and dated will be received by the Owner located at 306 Highland Ave., Washington C.H., Ohio 43160 until 1:00 PM on Monday, April 15th, 2024.
- B. Amendments to submitted Bids will be permitted when received in writing prior to bid closing and when endorsed by the same party or parties who signed and sealed the Bid.
- C. Bidders may withdraw their Bid by written request at any time before bid closing.

#### 1.3 INTENT

- A. The intent of this Bid request is to obtain an offer to perform work to make construct a new building for the Washington Court House City School District, 400 S. Elm St., Washington C.H., Ohio 43160 for a Stipulated Sum contract, in accordance with Contract Documents. Bids shall include all trades as required to complete work described in drawings and specifications.



#### 1.4 CONTRACT TIME

- A. Contract time is identified in the Bid Form.
- B. The Owner requires the work of this contract be substantially complete by September 1, 2024. Liquidated damages shall be assessed at \$100 per calendar day for every day after that. Substantial completion shall mean that the project has passed all required inspections and is approved for occupancy by the Building Department.

#### 1.5 DEFINITIONS

- A. Bidding Documents: Contract Documents supplemented with Invitation To Bid, Instructions to Bidders, Information Available to Bidders, Bid Form and Appendices, and bid securities, identified.
- B. Contract Documents: Defined in AIA Document A201-2017 Article 1, including issued Addenda.
- C. Bid: Executed Bid Form and required attachments submitted in accordance with these Instructions to Bidders.
- D. Bid Sum: Monetary sum identified by the Bidder in the Bid Form.

#### 1.6 CONTRACT DOCUMENTS IDENTIFICATION

- A. The Contract Documents are identified as Project Number 23019 as prepared by Architect, Mark Heiny – Architect located at 211 S. Fayette St., Washington C.H., Ohio 43160 and identified in the Project Manual.

#### 1.7 AVAILABILITY OF DOCUMENTS

- A. Bidding Documents may be obtained as stated in Advertisement for Bids.
- B. Bidders will have access to set of PDF file drawings. Bidders must register with Owner in order to be given access to pdf documents. Cost for hard copies bid documents will be \$75 and will be non-refundable.
- C. Partial sets of Bidding Documents will not be issued.
- D. Bidding Documents are made available only for the purpose of obtaining offers for this Project. Their use does not grant a license for other purposes.

#### 1.8 EXAMINATION OF DOCUMENTS

- A. Upon receipt of Bidding Documents verify documents are complete. Notify Architect/Engineer if documents are incomplete.
- B. Immediately notify Architect/Engineer upon finding discrepancies or omissions in Bidding Documents.



## 1.9 INQUIRIES AND ADDENDA

- A. Direct questions in writing to Mark Heiny, at the office of the Architect. Questions will only be accepted via email sent to markheiny@att.net
- B. Verbal answers are not binding on any party.
- C. Submit questions not less than 7 days before date set for receipt of Bids. Replies will be made by Addenda via email only to the email given for registration.
- D. Addenda may be issued during bidding period. Addenda will be sent to known Bidders registered with owner via listed email. Addenda become part of the Contract Documents. Include resultant costs in the Bid Sum.
- E. If questions are not addressed by Addenda prior to bid date the bidder should include an attachment specifying items that they feel were in question and what was reflected in the bid.

## 1.10 PRODUCT SUBSTITUTIONS

- A. Where Bidding Documents stipulate particular Products, substitution requests will be considered by Architect/Engineer up to 10 days before receipt of Bids. Approved substitutions will be identified by Addenda. Bidders shall include in their Bid, changes required in the Work to accommodate such approved substitutions.
- B. Substitute Products will be considered when request is submitted as an attachment to the Bid Form. Provide complete information on required revisions to other Work to accommodate each substitution, the value of additions to or reductions from the Bid Sum, including revisions to other Work.

## 1.11 SITE EXAMINATION

- A. Examine Project site before submitting a Bid.

## 1.12 BIDDER QUALIFICATIONS

- A. To demonstrate qualification for performing the Work of this Contract, Bidders may be requested to submit written evidence of financial position, previous experience, current commitments, license to perform work in the State of Ohio and the City of Washington Court House.

## 1.13 SUBMISSION PROCEDURE

- A. Submit one copy of executed offer on Bid Forms provided, signed with required security deposit in a closed opaque envelope, clearly identified with Bidder's name, Project name, Project Number and Owner's name on the outside.



#### 1.14 BID INELIGIBILITY

- A. Bids that contain irregularities of any kind may be declared unacceptable at Owner's discretion.

#### 1.15 PERFORMANCE ASSURANCE

- A. Accepted Bidder: Will be required to provide a Performance and Payment bond as described in Document 00811 - Supplementary Conditions - AIA.
- B. Provide the cost of performance assurance bonds in the cost of the submitted bid.

#### 1.16 BID FORM SIGNATURE

- A. Sign Bid Form, as follows:
  - 1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature.
  - 2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature.
  - 3. Corporation: Signature of a duly authorized signing officer in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. If the Bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, submit a copy of the by-law resolution of their board of directors authorizing them to do so, with the Bid Form in the bid envelope.
  - 4. Joint Venture: Signature of each party of the joint venture under their respective seals in a manner appropriate to such party as described above, similar to requirements for Partnerships.

#### 1.17 ADDITIONAL BID INFORMATION

- A. Lowest Bidder is required to complete the following Bid Form Appendices and submit with Bid.
  - 1. Appendix A - List of Subcontractors: Include names of all major Subcontractors and portions of the Work each Subcontractor will perform.
  - 2. Appendix B - List of Alternates: Include cost variation to Bid Sum.

#### 1.18 SELECTION AND AWARD OF ALTERNATES

- A. Indicate variation of Bid Sum for alternates listed in Document 00410 - Bid Form Appendix B. This form requests a "difference" in Bid Sum by adding to or deducting from base Bid Sum.
- B. Indicate the variation of Contract Time for alternates listed in Document 00410-Bid Form Appendix B. This form requests a "difference" in Contract Time by adding to or deducting from base bid Contract Time.
- C. Bids will be evaluated on total of base Bid Sum with full consideration of alternates.



1.19 BID OPENING

- A. Bids will be opened and read publicly immediately after time for receipt of Bids.

1.20 DURATION OF OFFER

- A. Bids shall remain open to acceptance and shall be irrevocable for a period of 60 days after bid closing date.

1.21 ACCEPTANCE OF OFFER

- A. The Owner reserves the right to accept or reject any or all offers.

END OF DOCUMENT



DOCUMENT 00410

BID FORM

To: Washington Court House City School District  
400 S. Elm St.  
Washington C.H., Ohio 43160

Project: NEW RESTROOM FACILITY  
400 S. ELM ST.  
WASHINGTON C.H., OHIO 43160  
Architect's Project No. 23019

Date:

Submitted by:  
(full name)

(full address)

1.1 OFFER

Having examined the Place of The Work and all matters referred to in the Instructions to Bidders, Bid Documents and Contract Documents prepared by Mark Heiny - Architect for the above-mentioned project, we the undersigned, hereby offer to enter into a Contract to perform the Work for the Contract Sum of:

\$.....dollars, in lawful money  
of the United States of America.

Owner is tax exempt.

All Cash Allowances described in Section 01001 - Basic Requirements are included in the Bid Sum.

1.2 ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for 60 days from the bid closing date.

If this bid is accepted by the Owner within the time period stated above, we will:

- Execute the Agreement within seven days of receipt of acceptance of this bid.
- Furnish the required bonds, if Alternate is accepted, within seven days of receipt of acceptance of this bid in the form described in Supplementary Conditions.



- Commence work within fourteen days after written acceptance of this bid.

1.3 CONTRACT TIME

If this bid is accepted, we will:

Substantially complete the Work by September 1, 2024 subject to liquidated damages of \$100 per calendar day. Substantial completion shall mean that project has passed all inspections and been approved for occupancy by the Building Department.

1.4 ADDENDA

The following Addenda have been received. The modifications to the Contract Documents noted therein have been considered and all costs thereto are included in the Bid Sum.

Addendum # 1.....

Addendum # 2.....

1.5 APPENDICES

A List of Subcontractors is appended hereto and identified as Appendix A.

1.6 BID FORM SIGNATURES

.....  
Signature

.....  
Title

If the bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.



APPENDIX A - LIST OF SUBCONTRACTORS

The following is the list of Subcontractors referenced in the Bid Form submitted by:

(Bidder)

(Owner)      Washington Court House City School District  
                  Attn: Becky Mullins, Treasurer/CFO  
                  400 S. Elm St.  
                  Washington C.H., Ohio 43160

Dated ..... and which is an integral part of the Bid Form.

The following work will be performed (or provided) by Subcontractors and coordinated by us:

WORK SUBJECT	NAME
Electrical.....	.....
Plumbing.....	.....

END OF DOCUMENT



DOCUMENT 00501

AGREEMENT AND GENERAL CONDITIONS - AIA

1.1 AGREEMENT

- A. AIA Document A101-2017, Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment is a Stipulated Sum, forms the basis of Agreement between the Owner and Contractor.

1.2 GENERAL CONDITIONS

- A. AIA Document A201-2017, General Conditions of the Contract for Construction, is the General Conditions of the Contract.

1.3 SUPPLEMENTARY CONDITIONS

- A. Refer to Document 00811 for modifications to General Conditions.

END OF DOCUMENT



## DOCUMENT 00811

### SUPPLEMENTARY CONDITIONS - AIA

#### 1.1 SUPPLEMENTARY CONDITIONS

- A. These Supplementary Conditions modify the General Conditions of the Contract for Construction, AIA Document A201-2017, and other provisions of the Contract Documents as indicated below. All provisions which are not so modified remain in full force and effect.
- B. The terms used in these Supplementary Conditions which are defined in the General Conditions of the Contract for Construction, AIA Document A201-2017, have the meanings assigned to them in the General Conditions.

#### ARTICLE 1.1 - BASIC DEFINITIONS

Add the following subparagraphs:

- 1.1.8 Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- 1.1.9 Furnish: To supply and deliver, unload, inspect for damage.
- 1.1.10 Install: To unpack, assemble, erect, apply, place, finish, cure, protect, clean, and make ready for use.
- 1.1.11 Provide: To furnish and install.

#### ARTICLE 1.2 - CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

Add the following subparagraph:

- 1.2.4 Sections of Division 1 - General Requirements govern the execution of the work of all sections of the specifications.

#### ARTICLE 8 - TIME

Add the following subparagraph:

- 8.1.5 Contract Time is identified in Document 00410 - Bid Form.



ARTICLE 11.1 - CONTRACTOR'S LIABILITY INSURANCE/BONDING

- A. General Contractor to provide proof of comprehensive general liability with policy limits of \$1,000,000.00.
- B. Any Sub-Contractors to provide proof of liability coverage at a minimum of \$1,000,000.00.
- C. The Contractor will be responsible for and provide builders risk insurance on this project.
- D. General Contractor to provide a Bid Guaranty meeting the requirements of Section 153.54 of the Ohio Revised Code.

END OF DOCUMENT



SECTION 01001  
BASIC REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Summary:
  - 1. Contract description.
  - 2. Work by Owner.
  - 3. Contractor's use of premises.
  - 4. Future work.
  - 5. Specification conventions.
  
- B. Price and Payment Procedures:
  - 1. Schedule of values.
  - 2. Applications for payment.
  - 3. Change procedures.
  - 4. Unit prices.
  - 5. Allowances.
  
- C. Administrative Requirements:
  - 1. Coordination.
  - 2. Field engineering.
  - 3. Meetings.
  - 4. Progress meetings.
  - 5. Equipment electrical characteristics and components.
  - 6. Cutting and patching.
  
- D. Submittals:
  - 1. Submittal procedures.
  - 2. Construction progress schedules.
  - 3. Proposed products list.
  - 4. Product data.
  - 5. Shop drawings.
  - 6. Samples.
  - 7. Manufacturer's instructions.
  - 8. Manufacturer's certificates.
  
- E. Quality Requirements:
  - 1. Quality control.
  - 2. Tolerances.
  - 3. References.
  - 4. Manufacturer's field services and reports.
  - 5. Examination.
  - 6. Preparation.



- F. Temporary Facilities and Controls:
  - 1. Temporary electricity.
  - 2. Temporary lighting for construction purposes.
  - 3. Temporary heating and cooling.
  - 4. Temporary ventilation.
  - 5. Telephone and facsimile service.
  - 6. Temporary water service.
  - 7. Temporary sanitary facilities.
  - 8. Parking.
  - 9. Progress cleaning and waste removal.
  - 10. Fire prevention facilities.
  - 11. Barriers and fencing.
  - 12. Enclosures.
  - 13. Protection of installed work.
  - 14. Security.
  - 15. Pollution and environmental control.
  - 16. Removal of utilities, facilities, and controls.
- G. Product Requirements:
  - 1. Products.
  - 2. Delivery, handling, storage, and protection.
  - 3. Product options.
  - 4. Substitutions.
- H. Execution Requirements:
  - 1. Closeout procedures.
  - 2. Final cleaning.
  - 3. Starting of systems.
  - 4. Demonstration and instructions.
  - 5. Testing, adjusting and balancing.
  - 6. Protecting installed construction.
  - 7. Project record documents.
  - 8. Operation and maintenance data.
  - 9. Spare parts and maintenance materials.
  - 10. Warranties.

## 1.2 CONTRACT DESCRIPTION

- A. Work of the Project includes single story Restroom facility. Work shall include all indicated concrete in area of building.
- B. Perform Work of Contract under a stipulated sum contract with Owner in accordance with Conditions of Contract.

## 1.3 CONTRACTOR'S USE OF PREMISES

- A. Limit use of premises to allow:
  - 1. Work by others and work by Owner. A spring sports schedule has been attached at the end of Section 01001. Sports schedule for school is attached. Assume you



must have completed work for the day two hours ahead of the scheduled start time of a home game. Site must prepared to eliminate any potential hazards at the end of every work day due to practice schedules.

#### 1.4 SPECIFICATION CONVENTIONS

- A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words “shall be” are included by inference where a colon (:) is used within sentences or phrases.

#### 1.5 SCHEDULE OF VALUES

- A. Submit schedule on AIA Form G703. Contractor's standard form or electronic media printout will be considered.
- B. Submit Schedule of Values for approval in duplicate within 10 days after date of Owner-Contractor Agreement.

#### 1.6 APPLICATIONS FOR PAYMENT

- A. Submit three copies of each application on AIA Form G702 and G703.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Monthly.
- D. Retainage: Ten percent retainage will be withheld on the first fifty percent of the work. Retainage will be released upon substantial completion less the amount required to complete the outstanding work.

#### 1.7 CHANGE PROCEDURES

- A. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for Change Order as approved by Architect/Engineer.
- B. Change Order Forms: AIA G701.

#### 1.8 UNIT PRICES

- A. Unit Prices: Based on quantities purchased for installation into project. Contractor shall document all items purchased for these portions of the project including any materials returned for credit. Unit price will cover only the cost of the item not including any delivery, labor, accessories or miscellaneous materials required for final installation. The unit price will not include overhead and profit. Base bid shall include all listed additional costs.



- 1.9 Any work to be performed on a cost-plus basis will be under the following guidelines:
- A. Documented Contractor's payroll costs including unemployment, worker's compensation and payroll taxes
  - B. Fifteen percent (15%) of documented costs listed in item 'A' for payroll overhead costs
  - C. Documented subcontractor costs related to specific work
  - D. Documented material costs related to specific work
  - E. Fifteen percent of total of items 'A' through 'D' for overhead and profit
- 1.10 COORDINATION
- A. Coordinate scheduling, submittals, and Work of various sections of specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.
  - B. Verify utility requirement characteristics of operating equipment are compatible with building utilities.
  - C. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable.
  - D. In finished areas, conceal pipes, ducts, and wiring within construction.
- 1.11 PRECONSTRUCTION MEETINGS
- A. Owner will schedule preconstruction meeting after signing of Owner/Contractor Agreement for affected parties.
  - B. When required in individual specification section, convene pre-installation meeting at Project site prior to commencing work of section.
- 1.12 PROGRESS MEETINGS
- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
  - B. Preside at meetings, record minutes, and distribute copies within two days to those affected by decisions made.
- 1.13 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS
- A. Motors: NEMA MG1 Type; specific motor type is specified in individual specification sections.



- B. Wiring Terminations: Terminal lugs to match branch circuit conductor; size terminal lugs to NFPA 70.
- C. Cord and Plug: Minimum 6 foot cord and plug including grounding connector; cord of longer length is specified in individual sections.

#### 1.14 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching new Work; restore Work with new Products.
- B. Submit written request in advance of cutting or altering structural or building enclosure elements.
- C. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
  - 1. Fit several parts together, to integrate with other Work.
  - 2. Uncover Work to install or correct ill-timed Work.
  - 3. Remove and replace defective and non-conforming Work.
  - 4. Remove samples of installed Work for testing.
  - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Cut masonry and concrete materials using masonry saw or core drill. Restore Work with new Products in accordance with requirements of Contract Documents.
- E. Fit Work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- F. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. Refinish surfaces to match adjacent finishes.

#### 1.15 SUBMITTAL PROCEDURES

- A. Submittal form (pdf format) to identify Project, Contractor, subcontractor or supplier; and pertinent Contract Document references.
- B. Apply Contractor's confirmation, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- C. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of completed Work.
- D. Revise and resubmit submittals as required; identify changes made since previous submittal.



#### 1.16 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule in duplicate within 20 days after date of Owner-Contractor Agreement for Architect/Engineer review.
- B. Submit revised schedules with each Application for Payment, identifying changes since previous version. Indicate estimated percentage of completion for each item of Work at each submission.
- C. Submit horizontal bar chart with separate line for each major section of Work or operation, identifying first workday of each week.

#### 1.17 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Owner-Contractor Agreement, submit list of major Products proposed for use, with name of manufacturer, trade name, and model number of each product.

#### 1.18 PRODUCT DATA

- A. Product Data:
  - 1. Submitted to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
  - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as specified.
- B. Submit all information in pdf format
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this project.

#### 1.19 SHOP DRAWINGS

- A. Shop Drawings:
  - 1. Submitted to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
  - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as specified.
- B. When required by individual specification sections, provide shop drawings signed and sealed by professional engineer responsible for designing components shown on shop drawings.
  - 1. Include signed and sealed calculations to support design.
  - 2. Submit drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
  - 3. Make revisions and provide additional information when required by authorities having jurisdiction.



- C. Submit information in pdf format plus any signed and stamped copies as required by inspecting authorities.

#### 1.20 SAMPLES

- A. Samples for Review:
  - 1. Submitted to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
  - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as specified.
- B. Samples for Selection:
  - 1. Submitted to Architect/Engineer for aesthetic, color, or finish selection.
  - 2. Submit samples of finishes from full range of manufacturer's standard colors, textures and patterns for Architect/Engineer selection.
  - 3. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as specified.
- C. Submit samples to illustrate functional and aesthetic characteristics of Product.
- D. Submit samples of finishes from full range of manufacturer's standard colors, textures, and patterns for Architect/Engineer's selection.

#### 1.21 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit manufacturer instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in pdf format.

#### 1.22 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification sections, submit certifications by manufacturer to Architect/Engineer, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

#### 1.23 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturer's instructions.
- C. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.



#### 1.24 TOLERANCES

- A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply fully with manufacturer's tolerances.

#### 1.25 REFERENCES

- A. Conform to reference standards by date of issue current as of date for receiving bids.
- B. When specified reference standard conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.

#### 1.26 MOCK-UPS

- A. Tests will be performed under provisions identified in this section and identified in respective product specification sections.
- B. Accepted mock-ups are representative of quality required for the Work.
- C. Where mock-up has been accepted by Architect/Engineer and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so.

#### 1.27 TESTING AND INSPECTION LABORATORY SERVICES

- A. Owner will appoint and employ services of independent firm to perform testing and inspection as owner deems necessary.
- B. Independent firm will perform tests, inspections, and other services as required.
- C. Cooperate with independent firm; furnish samples as requested.
- D. Re-testing required because of non-conformance to specified requirements will be charged to Contractor.

#### 1.28 MANUFACTURER'S FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections, require material or Product suppliers or manufacturers to furnish qualified staff personnel to observe site conditions and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions that are supplemental or contrary to manufacturer's written instructions.



1.29 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify utility services are available, of correct characteristics, and in correct location.

1.30 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

1.31 TEMPORARY ELECTRICITY

- A. Owner will provide and pay cost of electricity used. Existing electric service will be used for construction. Contractor shall provide temporary connections to existing electric service
- B. Provide temporary electricity and power outlets for construction operations, connections, branch wiring, distribution boxes, and flexible power cords as required.

1.32 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain temporary lighting for construction operations.
- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- C. Permanent building lighting may be utilized during construction. Repair, clean, and replace failed fixtures at end of construction.

1.33 TEMPORARY HEATING AND COOLING

- A. Provide heating and cooling devices and heat and cool as needed to maintain specified conditions for construction operations.
- B. Owner will provide and pay cost of energy used if connected to permanent building utility system.
- C. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.
- D. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless indicated otherwise in specifications.



#### 1.34 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Utilize existing ventilation equipment. Extend and supplement equipment with temporary fan units as required to maintain clean air for construction operations.

#### 1.35 TELEPHONE AND FACSIMILE SERVICE

- A. Provide telephone service to field office at time of project mobilization. On site representative's cell phone is acceptable.

#### 1.36 TEMPORARY WATER SERVICE

- A. Provide, maintain and pay for suitable quality water service required or connect to existing water source for construction operations.

#### 1.37 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing facilities may not be used.
- B. Maintain in clean and sanitary condition.

#### 1.38 FIELD OFFICES AND SHEDS

- A. Office: Provide a mobile on-site field office for meetings. Provide adequate lighting and space conditioning using existing systems or contractor's supplemental systems. Locate as directed.
- B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.

#### 1.39 PARKING

- A. Use parking areas as directed to accommodate construction personnel. Do not park construction or storage vehicles on parking lot adjacent to building. Obtain permission from the Owner and any other applicable authorities before using exterior spaces for parking, storage or deliveries.

#### 1.40 PROGRESS CLEANING AND WASTE REMOVAL

- A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition. Locate dumpster as directed.

#### 1.41 FIRE PREVENTION FACILITIES

- A. Prohibit smoking on construction site including entire school property.



- B. Establish fire watch for cutting and welding and other hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.
- C. Portable Fire Extinguishers: NFPA 10; 10-pound capacity, 4A-60B: C UL rating.
  - 1. Provide minimum one fire extinguisher in every construction trailer and storage shed.
  - 2. Provide one fire extinguisher within building during construction.

#### 1.42 BARRIERS AND FENCING

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage. Locate barriers as directed and in coordination with Contractor's approved access plan.
- B. Construction: Contractor's option.

#### 1.43 ENCLOSURES

- A. Provide temporary weather tight closures to exterior openings to permit acceptable working conditions and protection of the Work.

#### 1.44 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections.

#### 1.45 SECURITY

- A. Provide security and facilities to protect Work and Owner's operations from unauthorized entry, vandalism, or theft.

#### 1.46 POLLUTION AND ENVIRONMENTAL CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Provide dust control, erosion and sediment control, noise control, pest control and rodent control to allow for proper execution of the Work.
- C. Comply with pollution and environmental control requirements.

#### 1.47 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion review.
- B. Clean and repair damage caused by installation or use of temporary work.



- C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

#### 1.48 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the Contract Documents.
- C. Provide interchangeable components of same manufacture for components being replaced.

#### 1.49 DELIVERY, HANDLING, STORAGE, AND PROTECTION

- A. Deliver, handle, store, and protect Products in accordance with manufacturer's instructions.

#### 1.50 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for manufacturers not named.

#### 1.51 SUBSTITUTIONS

- A. Instructions to Bidders specify time for submitting requests for Substitutions during bidding period to requirements specified in this section.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. Submit electronic copies (pdf format) of request for Substitution for consideration. Limit each request to one proposed Substitution.

#### 1.52 CLOSEOUT PROCEDURES

- A. Submit written certification Contract Documents have been reviewed, Work has been inspected, and Work is complete in accordance with Contract Documents and ready for Architect/Engineer's inspection.



- B. Submit final Application for Payment identifying total adjusted Contract Sum/Price, previous payments, and amount remaining due.

#### 1.53 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean interior and exterior surfaces exposed to view. Vacuum carpeted and soft surfaces.
- C. Clean debris from site, roofs, gutters, downspouts, and drainage systems.
- D. Replace filters of operating equipment.
- E. Remove waste and surplus materials, rubbish, and construction facilities from site.

#### 1.54 STARTING OF SYSTEMS

- A. Provide seven days notification prior to start-up of each item.
- B. Ensure each piece of equipment or system is ready for operation.
- C. Execute start-up under supervision of responsible persons in accordance with manufacturer's instructions.
- D. Submit written report stating equipment or system has been properly installed and is functioning correctly.

#### 1.55 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of final review.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at equipment location.

#### 1.56 TESTING, ADJUSTING, AND BALANCING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.
- B. Owner may appoint and employ services of independent firm to perform testing, adjusting, and balancing. Owner will pay for services.
- C. Reports will be submitted by independent firm to Architect/Engineer indicating observations and results of tests and indicating compliance or non-compliance with specified requirements and with requirements of Contract Documents.



- D. Cooperate with independent firm; furnish assistance as requested.
- E. Re-testing required because of non-conformance to specified requirements will be back charged to Contractor.

#### 1.57 PROTECTING INSTALLED CONSTRUCTION

- A. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- B. Protect finished floors and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

#### 1.58 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of Contract Documents to be utilized for record documents.
- B. Record actual revisions to the Work. Record information concurrent with construction progress.
- C. Specifications: Legibly mark and record at each Product section description of actual Products installed.
- D. Record Documents and Shop Drawings: Legibly mark each item to record actual construction.
- E. Submit documents to Architect/Engineer with claim for final Application for Payment.

#### 1.59 OPERATION AND MAINTENANCE DATA

- A. Submit electronic sets (pdf format) prior to final inspection.
- B. Contents:
  - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, subcontractors, and major equipment suppliers.
  - 2. Part 2: Operation and maintenance instructions, arranged by system.
  - 3. Part 3: Project documents and certificates.
  - 4. Part 4: List of finishes, materials and colors selected for entire project.

#### 1.60 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, spare parts, maintenance and extra materials in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed by Architect/Engineer; obtain receipt prior to final payment.



1.61 WARRANTIES

- A. Provide duplicate notarized copies.
- B. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.
- C. Submit prior to final Application for Payment.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION





# Washington City Schools

## SCHEDULE

### 2023-2024 Boys ALL BASEBALL

B BASEBALL V									
DAY	DATE	TIME	OPPONENT	H/A	BUS	LOCATION	RESULT	SCORE	
Sat	03/09/2024*	12:00 PM	Cedarville - Scrimmage	Away	-	Cedarville	-	-	
Tue	03/12/2024*	5:00 PM	Huntington - Scrimmage	Home	-	Washington High School Baseball Field	-	-	
Thu	03/14/2024*	5:00 PM	Paint Valley	Away	-	Paint Valley	-	-	
Mon	03/18/2024*	5:00 PM	Blanchester - Scrimmage	Away	-	Blanchester	-	-	
Mon	03/25/2024*	5:00 PM	Zane Trace	Home	-	Washington High School Outdoor Athletic Complex	-	-	
Tue	03/26/2024*	5:00 PM	Logan Elm	Away	-	Logan Elm	-	-	
Wed	03/27/2024*	5:00 PM	Fairfield Union	Away	-	Fairfield Union	-	-	
Fri	03/29/2024*	5:00 PM	Leesburg Fairfield	Away	-	Leesburg Fairfield	-	-	
Sat	03/30/2024*	6:00 PM	Circleville - @ Paints Stadium	Away	-	Circleville	-	-	
Mon	04/01/2024*	5:00 PM	Mcclain	Away	-	Mcclain	-	-	
Tue	04/02/2024*	5:00 PM	Mcclain	Home	-	Washington High School Outdoor Athletic Complex	-	-	
Fri	04/05/2024*	5:00 PM	Oakwood	Home	-	Washington High School Outdoor Athletic Complex	-	-	
Sat	04/06/2024*	11:00 AM	Wilmington	Home	-	Washington High School Outdoor Athletic Complex	-	-	
Mon	04/08/2024*	5:00 PM	Hillsboro	Home	-	Washington High School Outdoor Athletic Complex	-	-	
Tue	04/09/2024*	5:00 PM	Hillsboro	Away	-	Hillsboro	-	-	
Sat	04/13/2024*	12:00 PM	Springfield Northeast	Away	-	Springfield Northeast	-	-	



DAY	DATE	TIME	OPPONENT	H/A	BUS	LOCATION	RESULT	SCORE
Mon	04/15/2024*	5:00 PM	Chilicothe	Home	-	Washington High School Outdoor Athletic Complex	-	-
Tue	04/16/2024*	5:00 PM	Chilicothe	Away	-	Chilicothe	-	-
Thu	04/18/2024*	5:00 PM	Unioto	Home	-	Washington High School Outdoor Athletic Complex	-	-
Mon	04/22/2024*	5:00 PM	Jackson	Away	-	Jackson	-	-
Tue	04/23/2024*	5:00 PM	Jackson	Home	-	Washington High School Outdoor Athletic Complex	-	-
Thu	04/25/2024*	5:00 PM	Westfall	Home	-	Washington High School Outdoor Athletic Complex	-	-
Sat	04/27/2024*	12:00 PM	West Jefferson	Home	-	Washington High School Outdoor Athletic Complex	-	-
Mon	04/29/2024*	5:00 PM	Miami Trace	Away	-	Miami Trace	-	-
Tue	04/30/2024*	5:00 PM	Miami Trace	Home	-	Washington High School Outdoor Athletic Complex	-	-
Thu	05/02/2024*	5:00 PM	Huntington	Away	-	Huntington	-	-
Mon	05/06/2024*	5:00 PM	Adena	Home	-	Washington High School Outdoor Athletic Complex	-	-
Tue	05/07/2024*	5:00 PM	Lynchburg Clay	Away	-	Lynchburg Clay	-	-
Wed	05/08/2024*	5:00 PM	Blanchester	Home	-	Washington High School Outdoor Athletic Complex	-	-

## B BASEBALL JV

DAY	DATE	TIME	OPPONENT	H/A	BUS	LOCATION	RESULT	SCORE
Thu	03/14/2024*	5:00 PM	Paint Valley	Home	-		-	-
Mon	03/18/2024*	5:00 PM	Blanchester - Scrimmage	Home	-	Washington High School Baseball Field	-	-
Mon	03/25/2024*	5:00 PM	Zane Trace	Away	-	Zane Trace	-	-
Tue	03/26/2024*	5:00 PM	Logan Elm	Home	-		-	-
Fri	03/29/2024*	5:00 PM	Leesburg Fairfield	Home	-		-	-
Sat	03/30/2024*	11:00 AM	Circleville	Home	-		-	-
Mon	04/01/2024*	5:00 PM	Mcclain	Home	-		-	-
Tue	04/02/2024*	5:00 PM	Mcclain	Away	-	Mcclain	-	-
Fri	04/05/2024*	5:00 PM	Oakwood	Away	-	Oakwood	-	-



DAY	DATE	TIME	OPPONENT	H/A	BUS	LOCATION	RESULT	SCORE
Sat	04/06/2024*	11:00 AM	Wilmington	Away	-	Wilmington	-	-
Mon	04/08/2024*	5:00 PM	Hillsboro	Away	-	Hillsboro	-	-
Tue	04/09/2024*	5:00 PM	Hillsboro	Home	-		-	-
Sat	04/13/2024*	12:00 PM	Springfield Northeast	Home	-		-	-
Mon	04/15/2024*	5:00 PM	Chilicothe	Away	-	Chilicothe	-	-
Tue	04/16/2024*	5:00 PM	Chilicothe	Home	-		-	-
Thu	04/18/2024*	5:00 PM	Unioto	Away	-	Unioto	-	-
Mon	04/22/2024*	5:00 PM	Jackson	Home	-		-	-
Tue	04/23/2024*	5:00 PM	Jackson	Away	-	Jackson	-	-
Thu	04/25/2024*	5:00 PM	Westfall	Away	-	Westfall	-	-
Sat	04/27/2024*	12:00 PM	West Jefferson	Away	-	West Jefferson	-	-
Mon	04/29/2024*	5:00 PM	Miami Trace	Home	-		-	-
Tue	04/30/2024*	5:00 PM	Miami Trace	Away	-	Miami Trace	-	-
Mon	05/06/2024*	5:00 PM	Adena	Away	-	Adena	-	-
Tue	05/07/2024*	5:00 PM	Lynchburg Clay	Home	-		-	-
Wed	05/08/2024*	5:00 PM	Blanchester	Away	-	Blanchester	-	-





# Washington City Schools

## SCHEDULE

### 2023-2024 Girls ALL SOFTBALL

#### G SOFTBALL V

DAY	DATE	TIME	OPPONENT	H/A	BUS	LOCATION	RESULT	SCORE
Tue	03/19/2024*	5:00 PM	Leesburg Fairfield	Away	-	Leesburg Fairfield	-	-
Wed	03/20/2024*	5:00 PM	London	Away	-	London	-	-
Mon	03/25/2024*	5:00 PM	Zane Trace	Home	-	Washington High School Softball Field	-	-
Tue	03/26/2024*	5:00 PM	Logan Elm	Away	-	Logan Elm	-	-
Wed	03/27/2024*	5:00 PM	Vinton County	Away	-	Vinton County	-	-
Thu	03/28/2024*	5:00 PM	Madison Plains	Home	-		-	-
Mon	04/01/2024*	5:00 PM	Mcclain	Away	-	Mcclain	-	-
Tue	04/02/2024*	5:00 PM	Mcclain	Home	-	Washington High School Softball Field	-	-
Fri	04/05/2024*	5:00 PM	Oakwood	Home	-		-	-
Sat	04/06/2024*	11:00 AM	Wilmington	Home	-		-	-
Mon	04/08/2024*	5:00 PM	Hillsboro	Home	-		-	-
Tue	04/09/2024*	5:00 PM	Hillsboro	Away	-	Hillsboro	-	-
Thu	04/11/2024*	5:00 PM	Blanchester	Away	-	Blanchester	-	-
Fri	04/12/2024*	5:00 PM	Waverly	Home	-	Washington High School Softball Field	-	-
Mon	04/15/2024*	5:00 PM	Chilicothe	Home	-		-	-
Tue	04/16/2024*	5:00 PM	Chilicothe	Away	-	Chilicothe	-	-
Thu	04/18/2024*	5:00 PM	Unioto	Home	-		-	-
Mon	04/22/2024*	5:00 PM	Jackson	Away	-	Jackson	-	-
Tue	04/23/2024*	5:00 PM	Jackson	Home	-		-	-
Thu	04/25/2024*	5:00 PM	Huntington	Home	-		-	-
Mon	04/29/2024*	5:00 PM	Miami Trace	Away	-	Miami Trace	-	-
Tue	04/30/2024*	5:00 PM	Miami Trace	Home	-		-	-
Thu	05/02/2024*	5:00 PM	Westfall	Home	-		-	-

#### G SOFTBALL JV

DAY	DATE	TIME	OPPONENT	H/A	BUS	LOCATION	RESULT	SCORE
Tue	03/19/2024*	5:00 PM	Leesburg Fairfield	Away	-	Leesburg Fairfield	-	-
Wed	03/20/2024*	5:00 PM	London	Home	-		-	-



DAY	DATE	TIME	OPPONENT	H/A	BUS	LOCATION	RESULT	SCORE
Mon	03/25/2024*	5:00 PM	Zane Trace	Away	-	Zane Trace	-	-
Tue	03/26/2024*	5:00 PM	Logan Elm	Home	-		-	-
Thu	03/28/2024*	TBA	Madison Plains	Away	-	Madison Plains	-	-
Mon	04/01/2024*	5:00 PM	Mcclain	Home	-		-	-
Tue	04/02/2024*	5:00 PM	Mcclain	Away	-	Mcclain	-	-
Fri	04/05/2024*	5:00 PM	Oakwood	Away	-	Oakwood	-	-
Sat	04/06/2024*	11:00 AM	Wilmington	Away	-	Wilmington	-	-
Mon	04/08/2024*	5:00 PM	Hillsboro	Away	-	Hillsboro	-	-
Tue	04/09/2024*	5:00 PM	Hillsboro	Home	-		-	-
Thu	04/11/2024*	5:00 PM	Blanchester	Home	-		-	-
Fri	04/12/2024*	5:00 PM	Waverly	Away	-	Waverly	-	-
Mon	04/15/2024*	5:00 PM	Chilicothe	Away	-	Chilicothe	-	-
Tue	04/16/2024*	5:00 PM	Chilicothe	Home	-		-	-
Thu	04/18/2024*	5:00 PM	Unioto	Away	-	Unioto	-	-
Mon	04/22/2024*	5:00 PM	Jackson	Home	-		-	-
Tue	04/23/2024*	5:00 PM	Jackson	Away	-	Jackson	-	-
Thu	04/25/2024*	5:00 PM	Huntington	Away	-	Huntington	-	-
Mon	04/29/2024*	5:00 PM	Miami Trace	Home	-		-	-
Tue	04/30/2024*	5:00 PM	Miami Trace	Away	-	Miami Trace	-	-
Thu	05/02/2024*	5:00 PM	Westfall	Away	-	Westfall	-	-



## SECTION 02300

### EARTHWORK

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes site grading, removal of topsoil and subsoil, building excavating and trenching, backfilling, and compacting.

#### PART 2 PRODUCTS

##### 2.1 SOIL MATERIALS

- A. Topsoil: Imported friable loam; free of subsoil, roots, grass, weeds, large stone, and foreign matter.
- B. Subsoil: Imported material, graded free of lumps larger than 6 inches , rocks larger than 3 inches, organic material, and debris.

##### 2.2 FILL MATERIALS

- A. Type A - Select Granular Material: Coarse gravel, ODOT item #304 natural stone; free of shale, clay, friable material, sand, debris.
  - 1. Grading:
    - a. Minimum Size: 1/2 inch .
    - b. Maximum Size: 2 inch .
- B. Type B - Pea Gravel: Natural stone; washed, free of clay, shale, organic matter.
  - 1. Minimum Size: 1/4 inch .
  - 2. Maximum Size: 5/8 inch .
- C. Type C - Sand: Natural river or bank sand; washed; free of silt, clay, loam, friable or soluble materials, and organic matter.
- D. Type D - Subsoil: Imported, free of rock larger than 3 inch size, and debris.
- E. Type E - Topsoil: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, free of subsoil, clay or impurities, plants, weeds and roots

##### 2.3 ACCESSORIES

- A. Geotextile Fabric: US80NW by US Fabrics, Inc.
- B. Substitutions: Permitted.



## PART 3 EXECUTION

### 3.1 EXAMINATION AND PREPARATION

- A. Call Local Utility Line Information services not less than seven working days before performing Work.
  - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Identify required lines, levels, contours, and datum.
- C. Notify Architect/Engineer of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- D. Maintain and protect existing utilities to remain.
- E. Verify foundation or basement walls are braced to support surcharge forces imposed by backfilling operations.

### 3.2 PROTECTION OF ADJACENT WORK

- A. Underpin adjacent structures which may be damaged by excavation work, including service utilities and pipe chases.
- B. Grade excavation top perimeter to prevent surface water run-off into excavation or to adjacent properties.

### 3.3 TOPSOIL EXCAVATING

- A. Do not excavate wet topsoil.
- B. Excavate topsoil and remove from site.

### 3.4 SUBSOIL EXCAVATING

- A. Do not remove wet subsoil.
- B. Remove groundwater by pumping to keep excavations dry.
- C. Excavate subsoil from marked areas required for building foundations, construction operations, and other Work.
- D. Slope banks to angle of repose or less, until shored.
- E. Do not interfere with 45 degree bearing splay of foundations.
- F. Proof roll bearing surfaces. Fill soft spots with Type A fill and compact uniformly to 95 percent of maximum density.



- G. Correct unauthorized excavation at no cost to Owner.
- H. Fill over-excavated areas under structure bearing surfaces in accordance with direction by Architect/Engineer.
- I. Remove subsoil from site.

### 3.5 TRENCHING

- A. Excavate for utilities as indicated.
- B. Cut trenches sufficiently wide to enable installation of utilities and allow inspection.
- C. Hand trim excavation and leave free of loose matter.
- D. Support pipe and conduit during placement and compaction of bedding fill.
- E. Backfill trenches to required contours and elevations.
- F. Place and compact fill materials as for Backfilling.

### 3.6 BACKFILLING

- A. Backfill areas to contours and elevations. Use unfrozen and unsaturated materials.
- B. Backfill systematically, as early as possible, to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.
- C. Place geotextile fabric over unstable subsoil.
- D. Place fill material in continuous layers and compact in accordance with schedule at end of this section.
- E. Employ placement method so not to disturb or damage foundations, foundation perimeter drainage, or utilities in trenches.
- F. Maintain optimum moisture content of backfill materials to attain required compaction density.
- G. Backfill against supported foundation walls. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
- H. Slope grade away from building minimum 2 inches in 10 ft , unless noted otherwise.

### 3.7 PLACING TOPSOIL

- A. Place topsoil in areas where seeding, sodding and planting is scheduled.



- B. Fine grade topsoil eliminating rough or low areas. Maintain levels, profiles, and contours of subgrade.
- C. Remove large stone, roots, grass, weeds, debris, and foreign material while spreading.
- D. Lightly compact placed topsoil.

### 3.8 TESTS

- A. Perform in place compaction tests in accordance with the following:
  - 1. Density Tests: ASTM D1556 or ASTM D2922.
- B. Frequency of Tests: As recommended by Geotechnical Engineer.

### 3.9 TOLERANCES

- A. Top Surface of Exposed Subgrade: Plus or minus one inch.
- B. Top of Topsoil: Plus or minus ½ inch.

### 3.10 SCHEDULE

- A. Interior Slab-On-Grade: Type A fill, 6 inches thick, compact uniformly to 98 percent Standard Proctor.
- B. Exterior Side of Foundation Walls and Foundation Perimeter Drainage: Type A fill, to subgrade elevation, compact uniformly to 90 percent Standard Proctor.
- C. Fill Under Landscaped Areas: Type D fill, to 12 inches below finish grade, compact uniformly to 90 percent Standard Proctor.
- D. Fill Under Asphalt or Concrete Paving: Type A fill minimum 8 inches thick to bottom of finish paving elevation, compact uniformly to 95 percent Standard Proctor.
- E. Exterior Areas on site not scheduled for building or hard surfaces: Type E Topsoil minimum 8 inches from grade down.

END OF SECTION



SECTION 02750  
RIGID PAVEMENT

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Concrete sidewalks and patios.

1.2 SYSTEM DESCRIPTION

- A. Paving and Base: Designed for parking, light duty commercial vehicles and movement of trucks up to 30,000 lbs.

1.3 SUBMITTALS

- A. Product Data: Submit product information.
- B. Design Data: Submit mix design of each class of mix.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with Section 03050.

PART 2 PRODUCTS

2.1 REINFORCED CEMENT CONCRETE PAVEMENT

- A. Concrete Materials: As specified in Section 03050.

2.2 CONCRETE MIX

- A. Mix and deliver concrete in accordance with Section 03050.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Verify gradients and elevations of base.
- B. Verify compacted subgrade and granular base is ready to support paving and imposed loads.
- C. Moisten substrate to minimize absorption of water from fresh concrete.



### 3.2 FORMING

- A. Place and secure forms to correct location, dimension, and profile.
- B. Place joint filler in joints, vertical in position, in straight lines. Secure to formwork.
- C. Place expansion joints at 20-foot intervals. Align joints.
- D. Place joint filler between paving components and other appurtenances.

### 3.3 REINFORCEMENT

- A. Place reinforcement at mid-height of slabs-on-grade.
- B. Interrupt reinforcement at expansion joints. Lubricate one-half of dowel to prevent bond to concrete on one side of joint.
- C. Place dowels to achieve pavement and curb alignment.

### 3.4 PLACING CONCRETE

- A. Place concrete in accordance with Section 03050. Do not disturb reinforcement or formwork components during concrete placement.
- B. Place concrete continuously between predetermined joints.

### 3.5 FINISHING

- A. Sidewalk Surfaces: Light broom, radius and trowel joint edges.
- B. Apply curing compound on exposed concrete surfaces immediately after finishing.

END OF SECTION



## SECTION 03050

### BASIC CONCRETE MATERIALS AND METHODS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Formwork.
  - 2. Reinforcement.
  - 3. Accessories.
  - 4. Cast-in place concrete.
  - 5. Finishing and curing.

##### 1.2 SYSTEM DESCRIPTION

- A. Design, engineer and construct formwork, shoring and bracing in accordance with ACI 301 to conform to design and applicable code requirements to achieve concrete shape, line and dimension as indicated on Drawings.
- B. Vapor Retarder Permeance: Maximum 0.3 perms when tested in accordance with ASTM E96. Griffolyn Type – 65 reinforced polyethylene.

##### 1.3 QUALITY ASSURANCE

- A. Construct and erect concrete formwork in accordance with ACI 301.
- B. Perform concrete reinforcing work in accordance with ACI 301.
- C. Perform cast-in-place concrete work in accordance with ACI 301.

#### PART 2 PRODUCTS

##### 2.1 FORM MATERIALS AND ACCESSORIES

- A. Form Materials: At discretion of Contractor.
- B. Plywood: BC Grade Douglas Fir or Spruce species; sound undamaged sheets with clean true edges.
- C. Lumber: SPF species; No. 2 grade.
- D. Prefabricated Steel Type: matched, tight fitting, stiffened to support weight of concrete.
- E. Form Release Agent: Colorless mineral oil not capable of staining concrete or impairing natural bonding characteristics of coating intended for use on concrete.
- F. Slab Edge Joint Filler: ASTM D1751, Pre-molded asphaltic board, ½ inch thick.



- G. Vapor Retarder: ASTM E1745 Class C; Griffolyn Type-65 reinforced polyethelene or equal. Furnish joint tape recommended by manufacturer.

## 2.2 REINFORCEMENT MATERIALS

- A. Deformed and Plain Reinforcement: ASTM A615/A615M; 60 ksi yield strength, steel bars, unfinished.
- B. Welded plain wire fabric: ASTM A185; in flat sheets; unfinished.
- C. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for support of reinforcing.
- D. Fabricate concrete reinforcement in accordance with ACI 301.

## 2.3 CONCRETE MATERIALS

- A. Cement: ASTM C150, Normal-Type I Portland type.
- B. Fine and Coarse Aggregates: ASTM C33.
- C. Water: Clean and not detrimental to concrete.
- D. Air Entrainment Admixture: ASTM C260.
- E. Non-shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.

## 2.4 COMPOUNDS, HARDENERS AND SEALERS

- A. Curing Compound: ASTM C309, Class B; Acrylic type; clear Rez-Seal manufactured by Euclid Chemical. Two coats on exterior concrete flatwork.

## 2.5 CONCRETE MIX

- A. Mix and deliver concrete in accordance with ASTM C94/C94M.
- B. Furnish concrete of the following strength:

		PSI COMPRESSIVE STRENGTH		
<u>LOCATION</u>	<u>7 DAYS</u>	<u>28 DAYS</u>	<u>SLUMP</u>	<u>MIX</u>
EXTERIOR	3375	4500	3"- 5"	520# / C. YD.
INTERIOR	3000	4000	3"- 5"	480# / C. YD.
COLUMNS	3000	4000	3"- 5"	480# / C. YD.
FOUNDATIONS	2250	3000	3"- 5"	430# / C. YD.



- C. Select admixture proportions for normal weight concrete in accordance with ACI 301. Use water reducer 220-N by Master Builders.
- D. Add air entraining agent to concrete mix for all concrete work. 5% - 7% Micro-Air by Master Builders.

## PART 3 EXECUTION

### 3.1 FORMWORK ERECTION

- A. Erect formwork, shoring and bracing to achieve design requirements.
- B. Provide bracing to ensure stability of formwork.
- C. Apply form release agent to formwork prior to placing form accessories and reinforcement.
- D. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings affected by agent.
- E. Clean forms as erection proceeds, to remove foreign matter.

### 3.2 INSERTS, EMBEDDED COMPONENTS, AND OPENINGS

- A. Provide formed openings where required for work to be embedded in and passing through concrete members.
- B. Coordinate work of other sections in forming and setting openings, slots, recesses, chases, sleeves, bolts, anchors, and other inserts.
- C. Install concrete accessories straight, level, and plumb.
- D. Place joint filler at perimeter of floor slab.

### 3.3 REINFORCEMENT PLACEMENT

- A. Place reinforcement, supported and secured against displacement.
- B. Ensure reinforcing is clean, free of loose scale, dirt, or other foreign coatings.
- C. Maintain concrete cover around reinforcement in accordance with ACI 301 and applicable.

### 3.4 PLACING CONCRETE

- A. Install vapor retarder under interior slabs on grade in accordance with ASTM E1643. Lap joints minimum 6 inches and seal watertight.



- B. Repair damaged vapor retarder with vapor retarder material, lap over damaged areas minimum 6 inches and seal watertight.
- C. Separate exterior slabs-on-grade from vertical surfaces with ½ inch thick joint filler, extended from bottom of slab to within ¼ inch of finished slab surface.
- D. Place concrete continuously between predetermined expansion, control and construction joints. Do not break or interrupt successive pours creating cold joints.
- E. Where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack with non-shrink grout.
- F. Screed exterior walks and landings at slopes indicated.

### 3.5 FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
- B. Remove formwork progressively and in accordance with code requirements.

### 3.6 FLOOR FINISHING

- A. Finish concrete floor surfaces in accordance with ACI 301.
- B. Uniformly spread, screed, and float concrete.
- C. Steel trowel surfaces receiving resilient flooring or remaining exposed to view in finished construction.
- D. Broom finish exterior walking surfaces for non-slip finish
- E. Maintain surface flatness, with maximum variation of 1/8 inch in 10 ft.

### 3.7 EXTERIOR EXPOSED VERTICAL SURFACES

- A. Rubbed Finish: Immediately after removing the forms, form ties shall be broken back a minimum of three-quarters (¾) inch from the surface, honeycomb, voids, and other surface defects grouted. The surfaces shall then be thoroughly dampened and rubbed with a No. 16 carborundum stone or equal abrasive to create a uniform surface paste. The rubbing shall be continued to remove all form marks and surface irregularities producing a smooth, dense surface. After setting, the surface shall then be rubbed with a No. 30 carborundum stone until the surface is smooth in texture and uniform in color. Unless otherwise shown in the DRAWINGS only exposed surfaces shall have a rubbed finish.

### 3.8 CURING

- A. Apply sealer on floor surfaces unless flooring specified prohibits sealer application.
- B. Immediately after placement, protect concrete from premature drying.



- C. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete for not less than 7 days.

### 3.9 DEFECTIVE CONCRETE

- A. Modify or replace concrete not conforming to required lines, details and elevations, as directed by Architect/Engineer.

END OF SECTION



## SECTION 04065

### MASONRY MORTAR AND GROUT

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes mortar and grout for masonry.

##### 1.2 QUALITY ASSURANCE

- A. Perform Work in accordance with TMS MSJC Code and TMS MSJC Specification.

##### 1.3 ENVIRONMENTAL REQUIREMENTS

- A. Hot and Cold Weather Requirements: MSJC Specification.

#### PART 2 PRODUCTS

##### 2.1 MORTAR AND MASONRY GROUT

- A. Manufacturers:
  - 1. Cemex: Natural Color
  - 2. Substitutions: Permitted.

##### 2.2 COMPONENTS

- A. Premix Mortar: ASTM C387, Type S or N.
- B. Mortar Aggregate: ASTM C144, standard masonry type.
- C. Hydrated Lime: ASTM C207, Type S.
- D. Mortar Color: Natural.
- E. Grout Aggregate: ASTM C404, fine and coarse.
- F. Water: Clean and potable.
- G. Calcium chloride is not permitted.

##### 2.3 MIXES

- A. Mortar Mixes:
  - 1. Mortar for Structural Masonry: ASTM C270, Type S using Property specification.



2. Mortar for Non-Structural Masonry: ASTM C270, Type N using Property specification.
- B. Mortar Mixing:
  1. Thoroughly mix mortar ingredients in accordance with ASTM C270 in quantities needed for immediate use.
  2. Add mortar admixtures.
- C. Grout Mixes:
  1. Bond Beams and Engineered Masonry: 3,000 psi strength at 28 days; 8-10 inches slump; premixed type in accordance with ASTM C94/C94M:
  2. Thoroughly mix grout ingredients in quantities needed for immediate use in accordance with ASTM C476.
  3. Do not use anti-freeze compounds to lower freezing point of grout.

### PART 3 EXECUTION

#### 3.1 PREPARATION

- A. Apply bonding agent to existing concrete surfaces.

#### 3.2 INSTALLATION

- A. Install mortar and grout in accordance with TMS MSJC Specification.

#### 3.3 SCHEDULES

- A. Exterior foundations: CMU with Type S mortar
- B. Above grade bearing walls: CMU with Type S mortar
- C. Above grade non-bearing walls: CMU with Type N mortar

END OF SECTION



SECTION 04810  
UNIT MASONRY ASSEMBLIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes concrete masonry units; reinforcement, anchorage, and accessories.

1.2 SUBMITTALS

- A. Not required

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with MSJC Code (ACI 530/ASCE 5/TMS 402) and MSJC Specification (ACI 530.1/ASCE 6/TMS 602).

1.4 ENVIRONMENTAL REQUIREMENTS

- A. Hot and Cold Weather Requirements: MSJC Specification.

PART 2 PRODUCTS

2.1 COMPONENTS

- A. Hollow Load Bearing Concrete Masonry Units: ASTM C90; normal weight.
- B. Solid Load-Bearing Concrete Masonry Units: ASTM; normal weight.
- C. Hollow Non-Load Bearing Concrete Masonry Units: ASTM C129; light weight
- D. Concrete Masonry Unit Size and Shape: Nominal modular size of 8 x 16 x 8 inches or 6 x 16 x 8 inches as indicated on plans. Furnish special units for 90-degree corners, bond beams and lintels.

2.2 ACCESSORIES

- A. Single Wythe Joint Reinforcement: ASTM A951; truss or ladder type; steel; 0.148-inch diameter side rods with 0.148-inch diameter cross ties; hot dip galvanized.
- B. Reinforcing Steel: ASTM A615/A615M, 60-ksi yield grade, plain billet bars, uncoated finish.
- C. Anchor Rods: ASTM A307; Grade C; J-shaped or L-shaped; complete with washers and heavy hex nuts; sized for minimum 15-inch embedment; galvanized finish.
  - 1. Hot-Dipped Galvanizing: ASTM A153/A153M.



- D. Mortar and Grout: As specified in Section 04065.
- E. Joint Sealant: Butyl type as specified in Section 07900.
- F. Joint Filler: Closed cell polyethylene; oversized 50 percent to joint width; self expanding; size as required for application.
- G. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials, recommended by masonry unit manufacturer.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify field conditions are acceptable and are ready to receive Work.

### 3.2 PREPARATION

- A. Coordinate placement of anchors supplied by other sections.

### 3.3 INSTALLATION

- A. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- B. Coursing of Concrete Masonry Units:
  - 1. Bond: Running.
  - 2. Coursing: One unit and one mortar joint to equal 8 inches.
  - 3. Mortar Joints: Flush.
- C. Cut mortar joints flush at interior walls.
- D. Placing and Bonding:
  - 1. Isolate masonry partitions from vertical structural framing members with movement joint.
  - 2. Isolate top of masonry from horizontal structural framing members and slabs or decks with compressible joint filler.
- E. Joint Reinforcement and Anchorage - Single Wythe Masonry:
  - 1. Install horizontal joint reinforcement 16 inches oc. Place joint reinforcement continuous in first joint below top of walls.
  - 2. Place masonry joint reinforcement in first horizontal joints above and below openings.
  - 3. Reinforce joint corners and intersections with strap anchors 16 inches oc.
- F. Lintels:
  - 1. Install precast concrete, lintels over openings.
  - 2. Maintain minimum 8-inch bearing on each side of opening.



- G. Grouted Components:
1. Reinforce bond beams as detailed.
  2. Support and secure reinforcing bars from displacement.
  3. Place and consolidate grout fill without displacing reinforcing.
  4. At bearing locations, fill masonry cores with grout for minimum 12 inches both sides of opening.
- H. Built-In Work:
1. As work progresses, install built-in metal door frames anchor bolts, plates and other items to be built in the work furnished by other sections.
  2. Bed anchors of metal door frames in adjacent mortar joints. Fill frame voids solid with grout or mortar. Fill adjacent masonry cores with grout minimum 8 inches from framed openings.
- I. Cutting and Fitting:
1. Cut and fit for chases, pipes, conduit, sleeves, grounds, and] other items. Coordinate with other sections of work to provide correct size, shape, and location.
- J. Cleaning:
1. Remove excess mortar and mortar smears as work progresses.
  2. Clean soiled surfaces with cleaning solution.
- K. Tolerances:
1. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.
  2. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.

END OF SECTION



SECTION 06200  
FINISH CARPENTRY

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes shop fabricated casework, countertops, hardware and attachment accessories. See drawings for cabinetry details and additional specifications.

1.2 SUBMITTALS

- A. Shop Drawings: Indicate cabinetry layout including elevations.
- B. Samples: Submit two samples illustrating laminate finish.

PART 2 PRODUCTS

2.1 COMPONENTS

- A. Plastic Laminate: AWI 0.050-inch custom grade, choice of color, pattern and surface textures, manufactured by Wilsonart or Formica.
- B. Laminate Backing Sheet: 0.020-inch Backing Sheet grade, undecorated plastic laminate.

2.2 ACCESSORIES

- A. Fasteners: Size and type to suit application.
- B. Contact Adhesives: As recommended by Manufacturer.

2.3 FABRICATION

- A. See Sheet A5 for Cabinetry and Countertop specifications.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify field conditions are acceptable and are ready to receive work.

3.2 PREPARATION

- A. Prime paint surfaces of items or assemblies in contact with cementitious materials, before installation.



### 3.3 INSTALLATION

- A. Install work in accordance with AWI Custom quality standard.
- B. Set and secure materials and components in place, plumb and level.
- C. Install trim by nails.
- D. Apply plastic laminate finishes with adhesive over entire surface. Apply laminate backing sheet on reverse side of plastic laminate finished surfaces.

END OF SECTION



## SECTION 06650

### SOLID SURFACING

#### PART 1 - GENERAL

##### 1.1 SUMMARY

1. Section Includes:
  - a. Earthstone™ Solid Surface Material.
2. Related Sections:
  - a. Finish Carpentry: Section 06200.
  - b. Sealants: as recommended by solid surface manufacturer.
  - d. Plumbing: Division 15.

##### 1.2 SYSTEM DESCRIPTION

1. Earthstone™ Solid Surface Sheet: Homogenous sheet material composed of acrylic resins, fire-retardant filler materials, and coloring agents.

##### 1.3 SUBMITTALS

1. Comply with Section 01001, unless otherwise indicated.
2. Product Data:
  - a. Detailed specification of construction and fabrication.
  - b. Manufacturer's installation instructions.
  - c. Manufacturer's detailed recommendations for handling, storage, installation, protection, and maintenance.
3. Shop Drawings: Installation details including location and layout of each type of fabrication and accessory.
4. Samples: Full range of colors and patterns.

##### 1.4 QUALITY ASSURANCE

1. Fabricator Qualifications: Wilsonart® certified solid surface fabricator/installer.
2. Installer Qualifications: Firm experienced in installation or application of systems similar in complexity to those required for this Project, including specific requirements indicated.
  - a. Acceptable to or licensed by manufacturer.
3. Source Limitations: Obtain materials and products from single source.

##### 1.5 DELIVERY, STORAGE, AND HANDLING

1. Deliver fabrications appropriately wrapped in protective materials.
2. Protect fabrications from damage.

##### 1.6 PROJECT CONDITIONS

1. Maintain relative humidity planned for building occupants and an ambient temperature



between 65 and 75 F for 48 hours prior to and during installation. After installation, maintain relative humidity and ambient temperature planned for building occupants.

## 1.7 WARRANTY

1. Furnish manufacturer's limited 10-year warranty.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURER

1. Wilsonart International, (800) 433-3222, [www.wilsonart.com](http://www.wilsonart.com).
  - a. Earthstone™ Solid Surface, Type 051.

### 2.2 EARTHSTONE™ SOLID SURFACE SHEET

1. Nominal sheet thickness: 0.50 inch (13 mm).
2. Surface burning characteristics in accordance with ASTM E 84: Class II or B, and as follows:
  - a. Flame spread: < 26.
  - b. Smoke developed: < 35.
3. Liquid Absorption, ISO 4586-2, for ½-inch material thickness: 0.4 percent after 2-hour period.
4. Izod Impact, ASTM D 256, Method A: 0.3-foot pounds per inch.
5. Tensile Modulus, ASTM D 638 Nominal: 1.1 million pounds per square inch.
6. Thermal Expansion, ASTM D 696: 0.00002 inch per inch per degree F, maximum.
7. Hardness, ASTM D 2583, Barcol Impressor: 57.
8. Flexural Toughness, ASTM D 790: 5 (in.-lb/in³).
9. Deflection Temperature under load, ASTM D 648: 90 degrees C.
10. Stain Resistance, ANSI Z-124.3 Modified; 3.4: No effect.
11. Boiling Water Resistance, NEMA LD 3-3.05: No effect.
12. High Temperature Resistance, NEMA LD 3-3.06: No effect.
13. Radiant Heat Resistance, NEMA LD 3-3.10: No effect.
14. Light Resistance, NEMA LD 3-3.03: No effect.
15. Ball Impact Resistance, NEMA LD 3-3.08, one half pound ball, unsupported: 125 inches.
16. Specific Gravity (Density ASTM D792): 1.56 grams per cubic centimeter.
17. Approximate weight: 4.10 pounds per square foot.
18. Fungus Resistance, ASTM G 21: Pass.
19. Bacterial Resistance, ASTM G 22: Pass.
20. Pittsburgh Protocol Toxicity: 65.4 grams.
21. Patterns and Finishes: Selected from manufacturer's full range of available selections.

### 2.3 ACCESSORY MATERIALS

1. Joint adhesive: Manufacturer's standard adhesive to create inconspicuous, nonporous joints, with a chemical bond (WA8215).



## 2.4 FABRICATION

1. Fabrication to be performed by a Wilsonart® certified solid surface fabricator/installer.
2. Fabricate components in shop to greatest extent practical to size and shape indicated, in accordance with approved shop drawing and Wilsonart® published requirements.
3. Wilsonart® Solid Surface Fabrication Manual (SS0319)
4. Form joints between components using manufacture's standard joint adhesive. Joints shall be inconspicuous in appearance and without voids. Attach 4" (100mm) wide Gibraltar®/Earthstone™ reinforcing strip under joints required by Deck Seam Section of the Wilsonart® Solid Surface Fabrication Manual (SS0319).
5. Provide holes and cutouts for plumbing and bath accessories as indicated on shop drawings.
6. Provide 4 inch high by ½" thick backsplash at all vertical intersections.
7. Rout and finish component edges to a smooth, uniform finish. Rout all cutouts then sand all edges smooth. Repair or reject defective or inaccurate work. Use ¼" top and bottom round over profile on all edges.
8. Finish: Surfaces shall have a uniform finish.
  - a. Satin: Standard finish for darker Gibraltar® and Earthstone™ patterns, requires minimal maintenance.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

1. Examine substrates to receive solid surfacing. Identify conditions detrimental to proper or timely installation. Do not commence installation until conditions have been corrected.

### 3.2 PREPARATION

1. Precondition Wilsonart® Solid Surfacing in accordance with manufacturer's printed installation instructions.

### 3.3 INSTALLATION

1. Install components plumb and level, in accordance with approved shop drawings, project installation details and manufacturer's printed instructions.
2. Form joints using manufacturer's approved adhesive, with joints inconspicuous in finished work.
3. Adhere undermount sinks/bowls to countertop using manufacturer's recommended joint adhesive.
4. Provide backsplashes and end-splashes as indicated on the drawings. Adhere to countertops using manufacturer's recommended silicone sealant.
5. Remove excessive adhesive and sealants. Components shall be clean on Date of Substantial Completion.
6. Coordinate plumbing installation with Division 15.

### 3.4 INSTALLATION OF VANITIES

1. Install plumb, level, true and straight. Shim as necessary using concealed shims.



2. Attach top securely to base unit or support brackets in accordance with manufacturer's printed instructions.
3. Seal between wall and component with manufacturer's recommended silicone sealant.
4. Attach backsplashes and end-splashes to countertops using manufacturer's recommended silicone sealant.

### 3.5 PROTECTION

1. Protect surfaces from damage until Date of Substantial Completion. Repair or replace damaged components that cannot be repaired to architect's satisfaction.
2. Fabricator/Installer to provide the Wilsonart® Care and Maintenance kit, review maintenance procedures and the Wilsonart® warranty to Owner upon completion of project.

END OF SECTION 06650



SECTION 07212  
SPRAY FOAM INSULATION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Spray-in-place, medium-density, semi-rigid, closed-cell polyurethane foam insulation in assemblies indicated on the Drawings, to provide an air barrier and insulation. ThermoSeal 2100

1.2 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry.

1.3 REFERENCES

- A. ASTM International (ASTM):
  - 1. ASTM C 423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - 2. ASTM C 518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  - 3. ASTM D 1621 - Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
  - 4. ASTM D 1622 - Standard Test Method for Apparent Density of Rigid Cellular Plastics.
  - 5. ASTM D 1623 - Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics.
  - 6. ASTM D 2126 - Standard Test Method for Response of Rigid Cellular Plastic to Thermal and Humid Aging.
  - 7. ASTM D 2842 - Standard Test Method for Water Absorption of Rigid Plastics.
  - 8. ASTM D 6226 - Standard Test Method for Open Cell Content of Rigid Cellular Plastics.
  - 9. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
  - 10. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials.
  - 11. ASTM E 283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
  - 12. ASTM E 413 - Classification for Rating Sound Insulation.
- B. Greenguard Certification from UL Environment.
- C. International Code Council - International Building Code.
- D. ICC Evaluation Service.
- E. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.



#### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Before commencing work, submit in accordance with local code:
  - 1. Technical data sheet from the manufacturer showing the test results from the ASTM E84 (Surface Burning Characteristics).
  - 2. Other technical data sheets and samples as required by local code officials.
- C. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.

#### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications:
  - 1. Contractor performing work under this section shall be trained and certified by ThermoSeal, LLC in the art of application of spray polyurethane foam insulation.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Materials shall be delivered in manufacturer's original containers clearly labeled with manufacturer's name, product identification, safety information, net weight of contents and expiration date.
- B. Material shall be stored in a safe manner and where the temperatures are in the limits specified by the material manufacturer.
- C. Empty containers shall be removed from site on a daily basis.

#### 1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
- B. Ventilate insulation application area in accordance with the Spray Foam Coalition's Guidance on best practices for the installation of Spray Polyurethane Foam.
- C. Protect workers as recommended by the standards of the Spray Foam Coalition's Guidance on best practices for the installation of Spray Polyurethane Foam.
- D. Protect adjacent surfaces, windows, equipment and site areas from damage of overspray.

#### 1.8 WARRANTY

- A. Manufacturer's Warranty: ThermoSeal, LLC warrants spray-in-place urethane foam



insulation, when installed by authorized contractors using factory-trained applicators and applied in accordance to the Installation Instructions, will perform as stated in the Product Technical Data Sheet.

1. This warranty is in effect throughout the life of the building provided the original purchaser registers with the Warranty Department of the Manufacturer within thirty days of occupancy.
2. Manufacturer's sole responsibility under this Limited Lifetime Warranty shall be to repair or replace any defective Product at the cost of the material only.
3. Manufacturer shall not be responsible for labor cost or any other costs whatsoever related to, or in connection with the removal or installation of either the original or replacement product.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: ThermoSeal, LLC , which is located at: P. O. Box 32; NewCanaan, CT 06840 ; Toll Free Tel: 800-853-1577; Email: [request info \(info@thermosealusa.com\)](mailto:info@thermosealusa.com); Web: [www.thermosealusa.com](http://www.thermosealusa.com)
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 6000 - Product Requirements.

### 2.2 SPRAY FOAM INSULATION

- A. Spray Applied Semi Rigid Polyurethane Closed Cell Foam Insulation System: Twocomponent, high density insulation.
  1. Product: ThermoSeal 2100 manufactured by ThermoSeal, LLC.
  2. Contains zero ozone depleting agents, catalysts, polyols, and fire retarding materials.
  3. Fills cracks, crevices, and voids to form air seal and thermal insulation.
  4. Evaluation Report: ICC ESR-3225.
  5. Physical Properties:
    - a. Density (ASTM D 1622): 2.4 lb/cf (0.038 gm/cu. cm).
    - b. Thermal Resistance (ASTM C 518): R-5.89 (sf.h degree F/BTU) at 1 inch at 90days at 76 degree F (24.4 degree C)
    - c. Closed Cell Content (ASTM D 6226): Minimum 92 percent.
    - d. Water Vapor Transmission - Permeance (ASTM E 96): 0.8 perms at 1 inch, 0.23 at 3.5 inches.
    - e. Air Leakage (ASTM E 283): Zero at 75 Pa.
    - f. Compressive Strength (ASTM D 1621): 20 psi.
    - g. Tensile Strength (ASTM D 1623): 60 lbf/sq. inch (414 kPa).
    - h. Dimensional Stability (ASTM D 2126): Less than 5 percent.
    - i. Fungi Resistance (ASTM G 21): Zero rating.
    - j. Surface Burning Characteristics (ASTM E 84): Class 1 Pass, Flame Spread Index less than 25, Smoke Developed Index less than 450.
  6. Equipment used to apply the foam insulation shall have fixed ratio positive displacement pumps and approved by ThermoSeal, LLC.
  7. Equipment used to apply the water based intumescent coating shall be an airless sprayer approved by ThermoSeal, LLC.



## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Commencement of work outlined in this section shall be deemed as acceptance of existing work and conditions.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Apply only when surfaces and environmental conditions are within limits prescribed by the material manufacturer.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved submittals. Apply as recommended by manufacturer to thickness as indicated on drawings.
- B. Apply thermal barrier as required by applicable codes noting the following:
  - 1. Except as provided in Section 314.5 and Section 314.6 of the 2006 International Residential Code, Section 316.5 and Section 316.6 of the 2009 International Residential Code and Section 2603.4.1 and Section 2603.9 of the International Building Code, all plastic insulation shall be separated from the interior of the building by an approved thermal barrier of 1/2 inch (13 mm) gypsum wallboard or equivalent thermal barrier material. Code compliant intumescent coating in lieu of a thermal barrier may be achieved with the use of DC 315. For more information contact ThermoSeal, LLC for assistance, (800) 853-1577.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION



SECTION 07214  
FOAMED-IN-PLACE MASONRY WALL INSULATION

PART 1 -GENERAL

1.01 SUMMARY

- A. Extent of insulation work is shown on drawings and indicated by provisions of this section.
- B. Applications of insulation specified in this section include the following:
  - 1. Foamed-in-Place masonry insulation for thermal, sound and fire resistance values

1.02 SUBMITTALS

- A. Product and technical presentation as provided by the manufacturer.
- B. Certified Test Reports: With product data, submit copies of certified test reports showing compliance with specified performance values, including R-values, fire performance and sound abatement characteristics.
- C. Material Safety Data Sheet: Submit Material Safety Data Sheet complying with OSHA Hazard Communication Standard, 29 CFR 1910 1200.

1.03 QUALITY ASSURANCE

- A. Manufacturing Standards: Provide insulation produced by a single and approved manufacturer. The product must come from the manufacturer pre-mixed to ensure consistency.
- B. Installer Qualifications for Foamed-In-Place Masonry Insulation: Engage an experienced dealer/applicator who has been trained and licensed by the product manufacturer and which has not less than ten years direct experience in the installation of the product used.
- C. Warranty: Upon request, a one year product and installation warranty will be issued by both the manufacturer and installer.
- D. Fire Performance Characteristics: Provide insulation materials which are identical to those whose fire performance characteristics, as listed for each material or assembly of which insulation is a part, have been determined by testing, per methods indicated below, by a testing agency acceptable to authorities having jurisdiction.

**Product must be classified by Underwriters Laboratory ® ("UL") as to Surface Burning Characteristics**

Fire Resistance Ratings:	ASTM E-119
Surface Burning Characteristics:	ASTM E-84
Combustion Characteristics:	ASTM E-136



## PART 2 - PRODUCTS

### 2.01 ACCEPTABLE MANUFACTURERS

- A. Manufacturers of Foamed-in-Place Masonry Insulation: Subject to compliance with requirements, provide products from the following:
- a. **"Core-Fill 500™"**- Tailored Chemical Products, P.O. Drawer 4186, Hickory, N.C. 28663, (800) 627-1687
    1. Florida & Georgia Distributor  
Tailored Foam of Florida,  
Inc. 3900 Saint Johns  
Parkway Sanford, FL 32771  
Telephone: 407-332-0333 Fax: 407-830-9174
  - b. Air Krete, Inc  
P.O. Box 380  
Weedsport, NY 13166
  - c. CP Chemical Co.  
(Tripolymer) White Plains,  
NY.

### 2.02 INSULATING MATERIALS

A. General: Provide insulating materials which comply with requirements indicated for materials, compliance with referenced standards, and other characteristics. I

B. Foamed-in-Place Masonry Insulation: Two component thermal insulation produced by combining a plastic resin and catalyst foaming agent surfactant which, when properly ratioed and mixed, together with compressed air produce a cold-setting foam insulation in the hollow cores of hollow unit masonry walls.

1. Fire-Resistance Ratings: Core-Fill 500™ masonry insulation is a thermal foam insulation product. It is not intended and should never be used to increase the fire rating of a concrete masonry unit.
2. Surface Burning Characteristics: Maximum flame spread, smoke developed and fuel contributed of 0, 5 and 0 respectively.
3. Combustion Characteristics: Must be noncombustible, Class A building material.
4. Thermal Values: "R" Value of 4.91/inch @ 32 degrees F mean; ASTM C-177
5. Sound Abatement: Minimum Sound Transmission Class ("STC") rating of 53 and a minimum Outdoor Indoor Transmission Class ("OITC") rating of 44 for 8" wall assembly (ASTM E 90-90)



## PART 3 - EXECUTION

### 3.01 INSPECTION AND PREPARATION

#### A. Application Assemblies:

Block Walls: 6" or 8" concrete masonry units

Cavity Walls: 2" cavity or greater

### 3.02 INSTALLATION OF FOAMED-IN-PLACE INSULATION

- A. General: Install foamed-in-place insulation from interior, or as specified, prior to installation of interior finish work and after all masonry and structural concrete work is in place; comply with manufacturer's instructions.
- B. Installation: Fill all open cells and voids in hollow concrete masonry walls where shown on drawings. The foam insulation shall be pressure injected through a series of 5/8" to 7/8" holes drilled into every vertical column of block cells (every 8" on center) beginning at an approximate height of four (4) feet from finished floor level. Repeat this procedure at an approximate height of ten (10) feet above the first horizontal row of holes (or as needed) until the void is completely filled. Patch holes with mortar and score to resemble existing surface.

END OF SECTION  
07214



## SECTION 07313

### DIMENSIONAL SHINGLE ROOFING SYSTEM

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Granule surfaced laminate asphalt/fiber glass shingle roof coverings.
- B. The moisture shedding underlayment, eaves, valley and ridge protection.
- C. Associated metal flashing.

##### 1.2 RELATED SECTIONS

- A. Section 07307 – Shingle Roof Underlayment

##### 1.3 REFERENCES

- A. ASTM D 3018 - Standard Specification for Class A Shingles Surfaced with Mineral Granules.
- B. ASTM D 3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).

##### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01001.
- B. Product Data: Provide manufacturer's printed product information indicating material characteristics, performance criteria, and product limitations.
- C. Manufacturer's Installation Instructions: Provide published instructions that indicate preparation required and installation procedures.

##### 1.5 QUALITY ASSURANCE

- A. Maintain one copy of manufacturer's application instructions on project site.
- B. Verify that manufacturer's label contains reference to specified ASTM standards.

##### 1.6 ENVIRONMENTAL REQUIREMENTS

- A. Take special care when applying waterproofing shingle underlayments and shingles when ambient or wind chill temperature is below 45 degrees F (7 degrees C). Fasten temporarily in place if it does not adhere immediately to the deck. It will adhere when the ambient temperature rises.

##### 1.8 WARRANTY



- A. Manufacturer's Warranty: Furnish shingle manufacturer's warranty for product of this section as follows:

#### ASPHALT FIBER GLASS SHINGLES

Provide warranty per attached document related to BP Everest 42 shingles.

### PART 2.0 PRODUCTS

#### 2.1 MANUFACTURER

- A. BP
- B. Substitutions: Permitted

#### 2.2 ASPHALT FIBER GLASS SHINGLES

- A. Example: Everest 42 Dimensional Shingles. UL Certification of ASTM D 7158 – “Class H” Wind Resistance; UL Certification of ASTM D3462; Conforms to ASTM D3018 Type I - Self-Sealing; UL 790 Class A Fire Resistance; glass fiber mat base.

1. Dimensions: 14” x 42”
2. Color: As selected by Architect from manufacturer's standards.

#### 2.3 SHEET MATERIALS

NOTE \*\* Delete paragraph below and installation instructions in Part 3 if climatic conditions are such that ice dam protection is not required.

- A. Eaves Protection: Atlas Roofing Corporation WeatherMaster (granular); ASTM D1970 sheet barrier of self-adhering rubberized asphalt membrane shingle underlayment having reinforcement, and "split" back plastic release film; provide material with warranty equal in duration to that of shingles being applied.

WeatherMaster – granular surfaced, self – adhering underlayment.

- E. Waterproofing Underlayment: Atlas WeatherMaster; ASTM D 1970 sheet barrier of self-adhering rubberized asphalt membrane shingle underlayment having internal reinforcement, and "split" back plastic release film; Use as indicated on roof plan (sheet A1.1); provide material with warranty equal in duration to that of shingles being applied.

WeatherMaster – granular surface – self adhering underlayment

#### 2.4 FLASHING MATERIALS

- B. Sheet Flashing: ASTM B209; 0.025 in (0.63 mm) thick aluminum, mill finish.



## 2.5 ACCESSORIES

- A. Nails: Standard round wire type roofing nails, corrosion resistant; hot dipped zinc coated steel, aluminum, or chromated steel; Nominal 3/8 inch (9.5 mm) head diameter; minimum 11 or 12 gage (2.5 mm) shank diameter; shank to be of sufficient length to penetrate through roof sheathing or 3/4 inch (19 mm) into solid wood, plywood, or non-veneer wood decking.
- B. Asphalt Roofing Cement: ASTM D 4586.

## 2.6 FLASHING FABRICATION

- A. Form flashing to profiles indicated on Drawings, and to protect roofing materials from physical damage and shed water.
- B. Form sections square and accurate to profile, in maximum possible lengths, free from distortion or defects detrimental to appearance or performance.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify that roof penetrations and plumbing stacks are in place and flashed to deck surface.
- B. Verify roof openings are correctly framed prior to installing work of this section.
- C. Verify deck surfaces are dry and free of ridges, warps, or voids.

### 3.2 ROOF DECK PREPARATION

- A. Follow shingle manufacturer's recommendations for acceptable roof deck materials.
- B. Broom clean deck surfaces under eave protection and shingle underlayment prior to their application.

### 3.3 INSTALLATION - EAVE ICE DAM PROTECTION

- A. Place the eave edge and gable edge metal flashing tight to the fascia boards. Weather-lap joints 2 inches (50 mm). Secure flange with nails spaced 8 inches (200 mm) on center.
- B. Apply chosen underlayment as eave protection in accordance with manufacturer's instructions and local building code requirements.
- C. Extend eave protection membrane minimum 24 inches (610 mm) up slope beyond interior face of exterior wall.

### 3.4 INSTALLATION - PROTECTIVE UNDERLAYMENT

- C. Roof Slope: Install one layer Atlas Weathermaster asphalt felt shingle underlayment perpendicular to slope of roof and lap minimum 4 inches over eave protection.



- D. Shingle style - lap and seal watertight with asphalt roofing cement items projecting through or mounted on roof. Avoid contact of solvent-based cements with WeatherMaster.

### 3.5 INSTALLATION - METAL FLASHING

- A. Shingle style – lap and seal all joints a minimum of 2 inches (50 mm).
- B. Seal work projecting through or mounted on roofing with asphalt roofing cement and make weather-tight.

### 3.7 INSTALLATION - ASPHALT SHINGLES

- A. Install shingles in accordance with manufacturer's instructions for product type and application specified.

### 3.8 FIELD QUALITY CONTROL

- A. Owner will provide the final visual inspection of the work. If conditions are unacceptable, Owner will notify the Architect.

### 3.9 PROTECTION OF FINISHED WORK

- A. Protect finished work under provisions of Section 01001.
- B. Do not permit traffic over finished roof surface.

END OF SECTION





BUILDING PRODUCTS OF CANADA CORP.

# TECHNICAL DATA SHEET

## ASPHALT SHINGLES

### EVEREST 42 INCH (RL442)

#### DESCRIPTION:

**Everest** is a 42 inch Laminate asphalt shingle made from a fibreglass mat and surfaced with mineral granules. **Everest** is covered by a Lifetime Warranty. Its standard wind Warranty covers up to 180 km/hr (110 mph) and its High Wind Warranty covers up to 220 km/hr (135 mph) as per special application instructions.

#### USES:

**Everest** can be applied on roof slopes greater than 4/12. It can also be applied to roof slopes from 2/12 to 4/12 following special low slope application. Please refer to the CSA A123.51 standard or the application instructions for further details.

#### STORAGE:

Store on a flat surface no more than :  
 - 2 pallets high for 48 bundles / pallet  
 - 3 pallets high for 36 bundles / pallet

#### PHYSICAL PROPERTIES

Average coverage per bundle (approx.)	3.06 m <sup>2</sup> (32.9 ft <sup>2</sup> )
Exposure	152 mm (6")
Dimensions	1066.8 mm x 355.6 mm (42" x 14")
Bundles / Pallet	36 bundles 48 bundles

CHARACTERISTICS	UNITS		RESULTS BP		REQUIREMENTS		TEST METHOD
	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	
Tear strength (cross direction)	g	lb	Pass	Pass	1700	4.0	ASTM D3462
Tensile strength (machine direction)	kN/m	lb/in	Pass	Pass	10.5	60	ASTM D146
Tensile strength (cross direction)	kN/m	lb/in	Pass	Pass	7.0	40	ASTM D146
Fastener pull through 0°C	N	lbf	Pass	Pass	186	42	ASTM D3462
Average net mass per unit area of finished shingles	g/m <sup>2</sup>	lb/100ft <sup>2</sup>	Pass	Pass	4394	90	ASTM D228
Mass of glass mat per unit area	g/m <sup>2</sup>	lb/100ft <sup>2</sup>	Pass	Pass	85	1.7	ASTM D228
Asphalt mass per unit area	g/m <sup>2</sup>	lb/100ft <sup>2</sup>	Pass	Pass	732	15	ASTM D228

#### APPLICABLE STANDARDS

ASTM D3018;  
 ASTM D3462;  
 CSA A123.5M;  
 UL 790 & CAN/ULC S107 & ASTM E108, Fire Resistance Class A;  
 ASTM D3161 Class A, D and F;  
 UL 2390 & ASTM D7158 Class H;  
 FM 4473 Class 3 Impact Resistance  
 Pass TAS 100 as referenced in Miami-Dade County;  
 FBC #15508 (Florida Building Code)





BUILDING PRODUCTS OF CANADA CORP.

# BP SHINGLE LIMITED WARRANTY

EFFECTIVE MARCH 1<sup>st</sup>, 2017  
Replaces all previous warranties

## THE BP LIMITED WARRANTY

Building Products of Canada Corp. ("BP") warrants to the owner (individual or couple) of the property on which BP shingles are installed that the shingles are free from manufacturing defects that result in water leakage during the limited warranty period, subject to the terms, conditions and restrictions set out below.

## WHO MAY BENEFIT FROM THE BP WARRANTY?

The original owner or the subsequent registered owner of a building located in Canada or in the United States, on which BP shingles are installed as required by this Warranty.

## LIMITED WARRANTY TRANSFERABILITY

This BP Shingle Limited Warranty (the "Warranty") is transferable only once, to the subsequent owner of the building. To transfer the Warranty to the subsequent owner, BP must be notified in writing within 30 days of the ownership transfer and such notice must include payment of BP's \$100.00 transfer fee.

For all shingles covered by the Limited Lifetime Warranty (MANOIR, EVEREST 42 and MYSTIQUE 42), if the transfer occurs in the first 10 years after the installation of the shingles, the Warranty Period (set out in the Limited Warranty Coverage Table below) will continue unchanged. For a transfer occurring after the 10<sup>th</sup> year of installation of the shingles, the Warranty Period will be the lesser of 2 years from the date of transfer or the balance of the original Warranty Period set out in the Limited Warranty Coverage Table below.

For YUKON SB and DAKOTA shingles, if the transfer occurs in the first 5 years after the installation of the shingles, the Warranty Period (set out in the Limited Warranty Coverage Table below) will continue unchanged. For a transfer occurring more than 5 years following the installation of the shingles, the Warranty Period will be the lesser of 2 years from the date of transfer or the balance of the original Warranty Period set out in the Limited Warranty Coverage Table below.

## WHAT IS THE WARRANTY COVERAGE?

The Warranty Periods are set out in the Limited Warranty Coverage Table below. Warranty Periods run from the date the installation of the BP shingles is completed.

If prescribed BP shingles are used for HIP & RIDGE (YUKON SB and DAKOTA) and starter strip, they will be warranted for the duration of the Warranty Period covering the shingles installed on the roof.

### Coverage during the Up-Front Coverage Period

If a manufacturing defect results in water leakage during the Up-Front Coverage Period as set out in the Limited Warranty Coverage Table below, BP will reimburse to the owner of the building the cost of the replacement or repair of the defective shingles, with identical or comparable BP shingles, **including** the cost of labour to install the BP shingles but **excluding** all other costs and expenses (such as metal work, flashings, vents, and tear-off and disposal of the products replaced), according to BP's reasonable estimate at the time of the claim but **not exceeding the total cost of the original labour and shingles**.

### Coverage After the Up-Front Coverage Period

If a manufacturing defect that results in water leakage during the remainder of the Limited Warranty Period as set out in the Limited Warranty Coverage Table below, BP's Warranty coverage will be calculated using the Maximum Material Liability After Up-Front Coverage per square (100 ft<sup>2</sup>) as determined in the Limited Warranty Coverage Table, reduced for the number of months elapsed since installation.

## LIMITED LIFETIME WARRANTY

For eligible owners and buildings, MANOIR, EVEREST 42 and MYSTIQUE 42 shingles will be warranted for the lifetime of the original owner or the registered subsequent owner, according to the terms and conditions set out in the section

below and subject to the other terms, conditions and limitations of this Warranty.

## WHAT ARE THE ADDITIONAL REQUIREMENTS FOR THE LIMITED LIFETIME WARRANTY?

The Limited Lifetime Warranty covers individual owners who apply MANOIR, EVEREST 42 and MYSTIQUE 42 shingles to their single-family homes (or row house with a physically delimited roof) provided the individual is the sole owner of the home which serves as the owner's residence. Commercial and industrial buildings, condominiums, multi-occupant buildings, health care institutions, schools, religious institutions and all buildings which are not used "as a primary residence" for the owner and owner's family are not eligible; in such cases the 40-year Warranty Period is applicable.

**The Limited Lifetime Warranty does not constitute and should not be interpreted as a statement or representation as to the durability of BP shingles.**

## WIND DAMAGE LIMITED WARRANTY

BP warrants its MANOIR, EVEREST 42 and MYSTIQUE 42 shingles for 15 years after the installation of the shingles and its YUKON SB and DAKOTA shingles for 5 years after the installation of the shingles, against blow off or damage due to wind velocities, including gusts, up to the speeds specified in the Limited Warranty Coverage Table (Regular Installation) below.

For the Warranty against wind blow-off to take effect, the self-seal adhesive must be subjected to sufficient heat to activate the bond. When the shingles are installed in environmental conditions that will not produce such temperature or in very windy areas, the shingles should be sealed down with spots of asphalt plastic cement as specified in CSA A123.51-M85. In addition, contamination of the self-sealing adhesive by dust or foreign matter may prevent the sealing strip from achieving a full thermal seal. Prior to sealing, shingles are more vulnerable to wind damage.

**The foregoing Wind Damage Limited Warranty does not apply unless the shingles have been installed as required by this Warranty and self-sealing adhesive strips have properly bonded.**

If BP shingles which meet the above conditions blow off or are damaged by winds not exceeding the velocities set out in the Limited Warranty Coverage Table (Regular Installation) below, BP will, at its option, reimburse the owner of the building the reasonable cost of replacing the blown off or damaged shingles and/or hand sealing the remaining shingles, as required. Data

available from Environment Canada and/or the National Weather Service will be used to determine wind and gust speeds.

## HIGH WIND LIMITED WARRANTY

High wind Warranty coverage for wind velocities, including gusts, up to the speeds specified in the Special High Wind Installation section of the Limited Warranty Coverage Table below is only available when shingles are fastened with 6 nails and the shingles at the roof edges are secured with a thin 4 inch wide layer of asphalt plastic cement. If the shingles are not installed according to the Special High Wind Installation instructions, the terms and conditions of the Wind Damage Limited Warranty applies up to the speeds specified in the Limited Warranty Coverage Table under Regular Installation.

## ALGAE LIMITED WARRANTY

BP warrants that its shingles will not be affected by "blue-green" algae (cyanobacteria or gloeocapsa magma). This Algae Limited Warranty is valid for the first 10 years following installation of MANOIR, EVEREST 42 and MYSTIQUE 42 shingles and the first 5 years following installation of YUKON SB and DAKOTA shingles. Should the presence of such algae be detected on the shingles within the foregoing designated periods, BP's sole obligation will be to pay to the owner the cost to clean the affected shingles, subject to a maximum amount calculated as: \$15.00 per square of shingles (100 ft<sup>2</sup>) reduced by a fraction, the numerator of which is the number of months elapsed since the original installation and the denominator of which is the total period covered 120 months for MANOIR, EVEREST 42 and MYSTIQUE 42 shingles and 60 months for YUKON SB and DAKOTA shingles.

## WARRANTY COVERAGE FOR BP SHINGLES INSTALLED OVER INSULATED OR NON-VENTILATED ROOF DECKS

Where shingles are installed on Insulated roof decks or non ventilated surfaces, on any type of building, the coverage for any BP shingles, under this limited warranty, is limited to 10 years, without any Up-Front coverage period. The maximum material liability of the shingles, as determined in the Limited Warranty Coverage Table, is reduced by 10 % per year following the date of installation.

## COVERAGE LIMITATIONS AND PAYMENT

The Warranty coverage for shingles which are installed for repair or replacement under this Warranty shall be limited, in all cases, to the remainder of the Warranty Period and balance of coverage applicable to the shingles that were repaired or replaced.

LIMITED WARRANTY COVERAGE TABLE									
Shingle Model	Warranty Period (in years)	Up-Front Coverage Period (in years)	Maximum Material Liability After Up-Front Coverage (\$ / square')	Limited Wind Warranty					
				Regular Installation			Special High Wind Installation		
				Warranty Period (in years)	km/h	mph	Warranty Period (in years)	km/h	mph
Manoir	Lifetime / 40*	15	50	15	180	110	15	220	135
Everest 42	Lifetime / 40*	15	45	15	180	110	15	220	135
Mystique 42	Lifetime / 40*	15	40	15	180	110	15	220	135
Yukon SB	30	5	35	5	180	110	5	200	125
Dakota	25	5	30	5	180	110	5	200	125
Hip & Ridge	As per shingles installed								

\* Warranty Period applicable to non single family homes  
1) 1 square = 3 bundles



Since changes to design, colours and composition of products may be made from time to time, it is possible that shingles matching those originally installed may not be available at the time of repair or replacement. BP will not incur any liability by reason of such product changes beyond the limits set out in this Warranty.

BP shingles and roofing products must be used exclusively in all cases where repair or replacement is authorized under this Warranty.

BP's Warranty coverage is conditional upon completion of any repairs or replacement within 1 year of acceptance of a Warranty claim.

**LIMITATION OF IMPLIED WARRANTIES AND CONDITIONS**

**THE DURATION OF ANY IMPLIED WARRANTIES OR CONDITIONS INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR IMPLIED WARRANTIES OR CONDITIONS OF FITNESS ARE EXPRESSLY LIMITED TO THE DURATION OF THE WARRANTY PERIOD APPLICABLE TO THE PARTICULAR SHINGLES INSTALLED. SOME CANADIAN PROVINCES AND U.S. STATES DO NOT ALLOW LIMITATIONS ON THE DURATION OF AN IMPLIED WARRANTY OR CONDITION, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU IN THOSE JURISDICTIONS.**

**WHAT STANDARDS MUST BE MET FOR THE WARRANTY TO BE VALID?**

To benefit from the Warranties set out herein, the following standards must be met:

- (a) the shingles must be installed in accordance with BP's published application instructions; and
- (b) the roof and each part of it must be designed and built in accordance with the applicable local and National Building Codes. The deck over which the shingles are installed must meet minimum building code requirements. Where local building codes have specific requirements which differ from National Building Codes, the more stringent requirement must be followed.

**EXCLUSION OF CONSEQUENTIAL DAMAGES**

**BP HEREBY EXCLUDES COVERAGE OF ALL CONSEQUENTIAL DAMAGES OF ANY KIND OR NATURE RESULTING FROM THE BREACH OF THIS WARRANTY OR FROM ANY FAILURE TO PERFORM UNDER THE TERMS OF THIS WARRANTY INCLUDING, WITHOUT LIMITATION, ANY DAMAGE TO THE EXTERIOR OR INTERIOR OF THE BUILDING UPON WHICH THE SHINGLES WERE INSTALLED OR TO THE PROPERTY CONTAINED THEREIN, ANY INJURIES SUSTAINED BY ANY PERSON OR ANY ECONOMIC LOSSES, COMMERCIAL LOSSES, LOSS OF TIME, LOSS OF USE OF THE BUILDING OR INCIDENTAL CHARGES SUCH AS TELEPHONE, TRAVEL OR LODGING EXPENSES. SOME CANADIAN PROVINCES AND U.S. STATES DO NOT ALLOW THE EXCLUSION**

**OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**

**WHAT IS NOT COVERED?**

The following are not covered under this Warranty and BP will not at any time be liable for:

- (a) any property damage, physical injury or economic loss resulting, directly or indirectly, from a manufacturing defect in the shingles;
- (b) any damage to the shingles caused by lightning, hurricanes, tornadoes, hailstorms, earthquakes, Acts of God, fortuitous events or force majeure;
- (c) any damage to the shingles caused by the settlement, distortion, failure, cracking or movement of the roof deck, walls or foundation of the building, improper drainage, erosion, ordinary wear and tear, failure to perform required roof maintenance, as well as faulty flashing or metal work;
- (d) any damage to the shingles caused by transport, misuse or improper handling or storage of the shingles after they leave BP's possession;
- (e) any damage to the shingles caused by traffic on the roof or by the impact of foreign objects;
- (f) any damage to the shingles caused by work performed on or to the roof;
- (g) any damage to the shingles caused by the failure to install the shingles using plastic asphaltic cement that meet applicable CAN/CGSB or ASTM standards or failure to install in accordance with BP's published application instructions or good roofing practices;
- (h) appearance problems related to multiple layer installation (application over old shingles), such problems being typical of this type of installation;
- (i) any variation in appearance due to normal ageing of shingles;
- (j) any discoloration due to algae or moss growth not specifically covered in this Warranty;
- (k) any variation in colour or shading;
- (l) any water infiltration due to improper installation of shingles, flashings or any other material;
- (m) any water infiltration (and/or condensation) due to improper attic ventilation;
- (n) any back surfacing transfer or asphalt staining;
- (o) any exposure to or application of paints or of any improper cleaning solutions, coatings, harsh airborne or liquid chemicals or modifications of any kinds;
- (p) roofing and/or decking nails or staples backing out and either perforating or pushing up the shingles; and
- (q) any claim which has been settled by way of a cash payment pursuant to this Warranty.

On low slope roofs between 2/12 and 3/12, only DAKOTA or YUKON SB shingles can be used. On low slopes between 3/12 and 4/12, DAKOTA, YUKON SB, MANOIR, EVEREST 42 and MYSTIQUE 42 can be used.

**BP reserves the right at any time to modify or discontinue any of its products and will not be liable as a result of any such change. If original product or colour is no longer available, BP may substitute products which are comparable in price and quality.**

**HOW TO MAKE YOUR CLAIM?**

Claims under this Warranty must be made in writing as soon as the manufacturing defect is discovered and in any event no more than 30 days after such discovery. Claims may be delivered by hand, transmitted by fax or sent by registered mail to the address of BP, namely:

**Building Products of Canada Corp.**  
**9500 St. Patrick Street, LaSalle, QC, Canada H8R 1R9**  
**Fax no.: 514 364-6739**

**Attention: Warranty Services**

The claim must include a copy of the invoice and contract establishing the date of installation of the shingles.

BP will not accept any claim for repair work or replacement of defective shingles unless BP is given the opportunity to evaluate the shingles prior to any repair or replacement and BP consents in writing to the work.

**WHAT ELSE SHOULD THE OWNER KNOW?**

- 1. THE WARRANTIES DESCRIBED ABOVE ARE THE SOLE AND EXCLUSIVE WARRANTIES PROVIDED BY BP. EXCEPT IN THE PROVINCE OF QUEBEC, BP EXPRESSLY DISCLAIMS ALL OTHER EXPRESS WARRANTIES, WHETHER ORAL OR WRITTEN, AND BP IS NOT RESPONSIBLE OR LIABLE FOR ANY PROMISES, REPRESENTATIONS, COMMITMENTS OR AGREEMENTS MADE BY EMPLOYEES, AGENTS OR REPRESENTATIVES OF BP WHICH ARE NOT IN ACCORDANCE WITH THE WARRANTIES ABOVE.**
- 2. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM PROVINCE TO PROVINCE (FROM STATE TO STATE IN THE UNITED STATES). THIS WARRANTY DOES NOT MODIFY OR LIMIT THOSE RIGHTS BUT SHALL RUN CONCURRENTLY WITH THEM.**
- 3. CANADA ONLY: ANY PROVISION OF THIS WARRANTY WHICH IS INCOMPATIBLE WITH LEGISLATION WILL NOT INVALIDATE THE REMAINING PROVISIONS OF THIS WARRANTY. SOME LEGISLATION MAY FORBID RESTRICTIONS UPON WARRANTIES GRANTED BY LAW. IN CASES COVERED BY SUCH LEGISLATION, THESE RESTRICTIONS DO NOT APPLY TO THE OWNER OF THE PROPERTY.**

**THIS WARRANTY APPLIES ONLY TO BP SHINGLES PURCHASED AND INSTALLED IN CANADA OR THE UNITED STATES (CONTINENTAL UNITED STATES, ALASKA AND HAWAII). WARRANTY INFORMATION IN OTHER COUNTRIES MAY BE OBTAINED FROM LOCAL AUTHORIZED BP SHINGLE DISTRIBUTORS.**

LIMITED WARRANTY PRORATION TABLE: LAMINATE SHINGLES <sup>1</sup>				
	Warranty Years	Up-Front Coverage Period	Prorated Period	
			YEARS 16 TO 40	YEARS 41 AND BEYOND
Residential single family home	LIFETIME	1 – 15 100%	COVERAGE REDUCED BY 144/180	COVERAGE REDUCED BY 432/480
			YEARS 16 TO 40	YEARS 41 AND BEYOND
Non-residential / other type of building / owner	40	1 – 15 100%	COVERAGE REDUCED BY 144/180	NO COVERAGE

LIMITED WARRANTY PRORATION TABLE: 3-TAB SHINGLES				
Shingle Model	Warranty Period		Reduction Factor	
	Years	Months	Reduction for the first 180 months	Reduction for the remaining months
Yukon SB	30	360	X / 225	R / 900
Dakota	25	300	X / 225	R / 600

<sup>1</sup> Manoir, Everest 42 & Mystique 42  
Ex. On BP Laminated shingles, for years 16 to 40 after installation, coverage proration is reduced by 144/180. As of year 41 after installation, coverage proration is reduced by and remains fixed at 432/480 for as long as the Limited Lifetime Warranty conditions apply.

X = Number of months since installation      R = Number of months beyond 180 months  
Ex. Coverage proration reduction for a 30 Year Yukon SB at Yr 20: (180/225) + (60/900) = 0.8 + 0.06 = 0.86. The coverage is reduced by 86%.



## SECTION 076712

### Manufactured Gutters and Downspouts

#### PART 1 – GENERAL

##### 1.01 SECTION INCLUDES

The work includes, but is not necessarily limited to, furnishing and installation of all preformed metal gutters, downspouts and accessories as indicated on the drawings and specified herein.

##### 1.02 SUBMITTALS

###### A. SAMPLES

1. Submit Manufacturer's standard color Samples for Architect's/Engineer's selection.
2. Submit (2) 3" X 6" color chip for Architect's acceptance.

##### 1.03 QUALITY ASSURANCE

###### A. INSTALLER'S QUALIFICATIONS

1. Installer shall meet the following:
  - a. Successfully applied metal gutter systems of comparable size and complexity, which reflect a quality installation.
  - b. Have been in business for a minimum period of three years in the region where the work will be performed.

###### B. MANUFACTURER'S QUALIFICATIONS

1. Manufacturer shall have a minimum of 3 years experience supplying metal gutter systems to the region where the work is to be done.

###### C. REGULATORY AGENCY REQUIREMENTS

1. Comply with OBC and local Building Code requirements if more restrictive than those specified herein.

##### 1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Protect against damage and discoloration
- B. When hoisting, handle gutter with non-marring slings.
- C. Do not bend gutter.
- D. Store gutters above ground, with one end elevated for drainage.
- E. Protect gutters against standing water and condensation between adjacent surfaces.

##### 1.05 PROJECT CONDITIONS

- A. Examine the conditions and substrates in which metal gutter system is to be installed. Substrate shall be level, flat and true to avoid gutter stresses and distortion.
- B. Proceed with gutter installation only after satisfactory conditions are met.

##### 1.06 WARRANTY

###### A. MANUFACTURER'S PRODUCT WARRANTY

1. Manufacturer's standard Limited Lifetime coating performance warranty, as available for specified installation and environmental conditions.

###### B. CONTRACTOR'S WARRANTY



1. Warrant gutters, downspouts, flashings, sealants, fasteners and accessories against defective materials and/or workmanship, to remain watertight and weatherproof with normal usage for two (2) years following Project Substantial Completion date.

## PART 2 – PRODUCTS

### 2.01 GUTTER AND DOWNSPOUT PROFILE

- A. GUTTER DESIGNATION:
  1. 5" O.G.
- B. DOWNSPOUTS
  1. 3"x4" of matching material
  2. Preformed elbows to match

### 2.02 MATERIALS

- A. GUTTERS AND DOWNSPOUTS
  1. Base metal:
    - d. Prefinished Aluminum made up of Alloy 3105/5005, Hardness (H14) in thickness .027 or .032 ASTM B 209.
  2. Exterior Finish:
    - a. Dura Coat / Polyester resin
  3. Interior Finish:
    - a. Polyester resin
  4. Color:
    - a. Manufacturer's standard selection of not less than 22 colors in Aluminum
- B. ACCESSORIES
  1. Fasteners:
    - a. Per manufacturer's recommendation
  2. Sealant:
    - a. Gunnable Grade Caulking: Single component polyurethane caulk
- C. FLASHING
  1. Material, gauge and finish to match gutters.
- D. FABRICATION
  1. Fabricate gutters, flashings and accessories in longest practical lengths.
  2. Gutters shall be field formed as required.

## PART 3 – EXECUTION

### 3.01 EXAMINATION

- A. EXISTING CONDITIONS
  1. Verify that members to receive gutters are complete, accurately sized and located, in true plane, secure and otherwise properly prepared.
  2. Prior to starting work, notify General Contractor about any defects requiring correction
  3. Do not start work until conditions are satisfactory.

### 3.02 PREPARATION

- A. FIELD MEASUREMENTS
  1. Verify prior to fabrication.



2. If field measurements differ from drawing dimensions, notify Architect prior to fabrication.

B. PROTECTION

1. Treat, or isolate with protective material, any contacting surfaces of dissimilar materials to prevent electrolytic corrosion.
2. Protect Work of other Trades against damage and discoloration.

C. SURFACE PREPARATION

1. Clean and dry surfaces prior to applying sealant.

3.03 INSTALLATION

A. GUTTERS

1. Comply with gutter manufacturer's instructions for assembly and installation.
2. Install in accordance with approved shop drawings.
3. Secure gutters without warp or deflection.

B. DOWNSPOUTS

1. Install downspouts per drawings and run to specified downspout boots. Attach to building wall with brackets as indicated.

C. ALLOWABLE ERECTION TOLERANCE

1. Maximum substrate Variation: 1/4 inch in 20 feet.

D. FLASHING

1. Install in compliance with Manufacturer's installation instructions and Architect approved Shop Drawings.
2. Install flashings to allow for thermal movement.

E. CUTTING AND FITTING

1. Neat, square and true. Torch or saw cutting is prohibited.

3.04 CLEAN UP AND CLOSE OUT

A. GUTTER DAMAGE AND FINISH SCRATCHES

1. Touch-up paint should be applied to damaged paint areas that involve minor scratches or abrasions.
2. Panels or flashings that have severe paint and/or substrate damage shall be replaced as directed by the Architect's or Owner's representative.

B. CLEANING AND REPAIRING

1. At completion of each day's work, sweep the Gutters, and Flashings clean. Do not allow fasteners, cuttings, filings or scraps to accumulate.
2. Remove debris from Project Site upon work completion or sooner, if directed.

END OF SECTION



## SECTION 07900

### JOINT SEALERS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes sealants and joint backing.

##### 1.2 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by sealant manufacturer during and after installation.

#### PART 2 PRODUCTS

##### 2.1 JOINT SEALERS

- A. Acrylic Sealant – Tremco Mono by Tremco Sealants and Coatings. Non-standing, movement capability + 12 ½%, supply in choice of colors, consult with architect for selections.
- B. Dow Corning Silicone 790. Movement capability – 100% or +50% of original joint width, supply in choice of colors, consult with architect for selections.
- C. Novaflex Silicone – by Novagard, supply in choice of colors. Consult with architect for selections.

##### 2.2 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: Round foam rod compatible with sealant; ASTM D1056, sponge or expanded rubber; oversized 30 to 50 percent larger than joint width; recommended by sealant manufacturer to suit application.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.



## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify substrate surfaces and joint openings are ready to receive work.
- B. Verify joint backing and release tapes are compatible with sealant.

### 3.2 PREPARATION

- A. Remove loose materials and foreign matter impairing adhesion of sealant.
- B. Clean and prime joints.
- C. Perform preparation in accordance with sealant manufacturer's instructions.

### 3.3 INSTALLATION

- A. Perform installation in accordance with sealant manufacturer's instructions.
- B. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer.
- C. Install bond breaker where joint backing is not used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Tool joints concave.

### 3.4 SCHEDULE

- A. Window perimeter – either type of silicone sealant.
- B. Door frame/walls – either type of silicone sealant.
- C. Under thresholds – either type of silicone sealant.
- D. Masonry/Masonry – acrylic sealant.
- E. Metal Flashings – acrylic sealant.

END OF SECTION



## SECTION 08110

### STEEL DOORS AND FRAMES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes steel doors and frames; non-rated and fire rated, and interior borrowed light frames.

##### 1.2 SUBMITTALS

- A. Shop Drawings: Indicate door and frame elevations, internal reinforcement, cut-outs for glazing.
- B. Product Data: Submit door and frame configurations, location of cut-outs for hardware reinforcement.

##### 1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with the following:
  - 1. ANSI 250.8 - Recommended Specifications for Standard Steel Doors and Frames.
  - 2. DHI - Door Hardware Institute - The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Steel Frames and Builder's Hardware.
- B. Surface Burning Characteristics:
  - 1. Foam Insulation: Maximum 75/450 flame spread/smoke developed index when tested in accordance with ASTM E84, NFPA 255, UL 723.
- C. Apply label from agency approved by authority having jurisdiction to identify each foam plastic insulation material.

#### PART 2 PRODUCTS

##### 2.1 STEEL DOORS AND FRAMES

- A. Manufacturers:
  - 1. Republic Builders Products
  - 2. Substitutions: Permitted.
- B. Product Description: Standard shop fabricated steel doors, and frames; non-rated types; flush design.



## 2.2 COMPONENTS

- A. Steel Doors (Insulated): ANSI A250.8, SDI 108, 1-3/4 inch thick.
  - 1. SDI 100 Grade 3, 16 ga. face, Extra heavy Duty, Model DE-4 Insulated.
- B. Exterior Frames:
  - 1. ME Series/Mitered, nominal 14 gage/0.067 inch thick material, base metal thickness.
- C. Insulated Door Core: polyurethane.
- D. Thermal Insulated Door: Total insulation R-Value of 10.11, measured in accordance with ASTM C1363.

## 2.3 ACCESSORIES

- A. Silencers: Resilient rubber fitted into drilled hole.
- B. Bituminous Coating: Fibered asphalt emulsion.
- C. Primer: ANSI A250.10 rust inhibitive type.
- D. Weatherstripping: Specified in Section 08710.

## 2.4 FABRICATION

- A. Fabricate doors and frames with hardware reinforcement welded in place.
- B. Configure exterior frames and doors with profile to receive weatherstripping.
- C. Prepare interior frames for silencers.

## 2.5 SHOP FINISHING

- A. Steel Sheet: Galvanized to ASTM A653/A653M A40.
- B. Primer: Baked.
- C. Coat inside of frame profile with bituminous coating.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify opening sizes and tolerances are acceptable.

### 3.2 INSTALLATION

- A. Install doors and frames in accordance with ANSI A250.8.



- B. Coordinate installation of doors and frames with installation of hardware specified in Section 08710.
- C. Adjust door for smooth and balanced door movement.
- D. Tolerances:
  - 1. Maximum Diagonal Distortion: 1/8 inch measured with straight edge, corner to corner.

END OF SECTION



SECTION 08710  
DOOR HARDWARE

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes hardware for wood and hollow steel doors, thresholds, weatherstripping, and seals.

1.2 SYSTEM DESCRIPTION

- A. Fire Rated Openings: Provide door hardware listed by UL or Warnock Hersey, or other testing laboratory approved by applicable authorities.
  - 1. Hardware: Tested in accordance with NFPA 252.

1.3 SUBMITTALS

- A. Shop Drawings: Indicate locations and mounting heights of each type of hardware, electrical characteristics and connection requirements.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with the following requirements:
  - 1. ANSI A156 series.
  - 2. NFPA 80 - Fire Doors and Windows.
  - 3. NFPA 101 - Life Safety Code.
- B. Furnish hardware marked and listed in BHMA Directory of Certified Products.
- C. Coordination: Coordinate work of this section with other directly affected sections requiring integral reinforcement for door hardware.
- D. Supplier: Company specializing in supplying commercial door hardware with minimum three years documented experience, approved by primary hardware manufacturers.

1.6 WARRANTY

- A. Furnish five-year manufacturer warranty for door hardware.



## 1.7 MAINTENANCE SERVICE

- A. Provide service and maintenance services of door closers for one year from Date of Substantial Completion.
- B. Provide special wrenches and tools applicable to each different or special hardware component.

## PART 2 PRODUCTS

### 2.1 DOOR HARDWARE

- A. Hinges: Continuous Geared Aluminum, Pemko Model DFS83HD
- B. Lockset: Schlage ND Series, Grade 1, Lever lockset, Small Format Interchangeable Core, 7-pin Falcon/Best keyway, Athens Design, 626 finish, Cores provided and installed by owner
- C. Door Closer: LCN Model 4010, powder coated, metal cover
- D. Door Stops: Rockwood No. 409 concave wall stop, finish to be choice of all available.
- E. Thresholds: National Guard Products, Inc. Model 425, ADA Compliant Saddle Threshold.
- F. Weatherstripping: National Guard Products, Inc. Model 152DkB, Perimeter Seals.
- G. Door Sweeps: National Guard Products, Inc. Model 211 DPK, Door Bottom Sweep.
- H. Deadbolts: Schlage, B Series, Grade 1, ADA compliant thumb-turn interior, Model L583-363, 626 finish
- I. Strikes: ANSI Strike-Standard

### 2.2 COMPONENTS

- A. General Hardware Requirements: Where not specifically indicated, comply with applicable ANSI A156 standard for type of hardware required. Furnish each type of hardware with accessories as required for applications indicated and for complete, finished, operational doors.
  - 1. Templates: Furnish templates or physical hardware items to door and frame manufacturers sufficiently in advance to avoid delay in Work.
  - 2. Reinforcing Units: Furnished by door and frame manufacturers; coordinated by hardware supplier or hardware manufacturer.
  - 3. Fasteners: Furnish as recommended by hardware manufacturer and as required to secure hardware.
    - a. Finish: Match hardware item being fastened.



## 2.3 ACCESSORIES

- A. Lock Trim: Furnish levers with escutcheon plate.
- B. Through Bolts: Through bolts and grommet nuts are not permitted on door faces in occupied areas unless no alternative is possible.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify doors and frames are ready to receive work and dimensions are as instructed by manufacturer.

### 3.2 INSTALLATION

- A. Coordinate mounting heights with door and frame manufacturers. Use templates provided by hardware item manufacturer.
- B. Mounting Heights from Finished Floor to Center Line of Hardware Item: Comply with manufacturer recommendations and applicable codes.

END OF SECTION



## SECTION 09260

### GYPSUM BOARD ASSEMBLIES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes gypsum board with joint treatment.

##### 1.2 QUALITY ASSURANCE

- A. Perform Work in accordance with GA-201 - Gypsum Board for Walls and Ceilings. GA-214 - Recommended Specification: Levels of Gypsum Board Finish and GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board. Finish to be in accordance with level five.

#### PART 2 PRODUCTS

##### 2.1 GYPSUM BOARD ASSEMBLIES

- A. Manufacturers:
  - 1. Celotex Building Products.
  - 2. G-P Gypsum Corp.
  - 3. National Gypsum Co.
  - 4. United States Gypsum Co.
  - 5. Substitutions: Permitted.

##### 2.2 COMPONENTS

- A. Gypsum Board Types: maximum available length in place; ends square cut, tapered edges; unless noted otherwise as follows:
  - 1. Moisture Resistant Type: 5/8" thick ASTM C36
  - 2. Exterior Type: 5/8" thick ASTM C1396

##### 2.3 ACCESSORIES

- A. Corner Beads: Metal.
- B. Edge Trim: GA-216, Type L bead (tear away bead).
- C. Joint Materials: GA-201 and GA-216, reinforcing tape, joint compound, adhesive, and water (interior applications).
- D. Fasteners: Type S12 hardened screws GA-216.
- E. Adhesive: GA-216.



## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify site conditions are ready to receive work.

### 3.2 INSTALLATION

- A. Gypsum Board (Interior Applications):
  - 1. Install gypsum board in accordance with GA-216 and GA-600.
  - 2. Fasten gypsum board to furring or framing with screws.
  - 3. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
  - 4. Seal cut edges and holes in moisture resistant gypsum board with sealant.
  - 5. Install moisture resistant gypsum board on all interior ceilings
- B. Gypsum Board (Exterior Applications)
  - 1. Install gypsum board in accordance with GA-253
  - 2. Fasten gypsum board to furring or framing with screws.
  - 3. Seal cut edges and holes in exterior gypsum soffit board with sealant.
  - 4. Install exterior gypsum board on exterior porch ceiling
- C. Joint Treatment:
  - 1. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
  - 2. Feather coats onto adjoining surfaces so camber is maximum 1/32 inch.
- D. Tolerances: Maximum Variation from Flat Surface: 1/8 inch in 10 feet in any direction.

END OF SECTION



SECTION 09900  
PAINTS AND COATINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and field application of paints and other coatings.

1.2 SUBMITTALS

- A. Samples: Submit two paper chip samples, 2 x 2 inch in size illustrating range of colors available for each surface finishing product scheduled.

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Store and apply materials in environmental conditions required by manufacturer's instructions.

PART 2 PRODUCTS

2.1 PAINTS AND COATINGS

- A. Manufacturers:
  - 1. Sherwin Williams.
  - 2. Substitutions permitted

2.2 COMPONENTS

- A. Coatings: Ready mixed except field catalyzed coatings of good flow and brushing properties, capable of drying or curing free of streaks or sags.
- B. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials required to achieve finishes specified.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate conditions are ready to receive Work.
- B. Measure moisture content of porous surfaces using electronic moisture meter. Do not apply finishes unless moisture content is less than 12 percent.



### 3.2 PREPARATION

- A. Correct minor defects and clean surfaces affecting work of this section.
- B. Remove electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or applying finishes.
- C. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects after repair.
- D. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
- E. Uncoated Steel and Iron Surfaces: Remove scale by wire brushing, sandblasting, clean by washing with solvent. Apply treatment of phosphoric acid solution. Prime paint after repairs.
- F. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Clean surfaces with solvent. Prime bare steel surfaces.
- G. Interior Wood Items Scheduled to Receive Paint Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats.

### 3.3 APPLICATION

- A. Sand wood and metal surfaces lightly between coats to achieve required finish.
- B. Where clear finishes are required, tint fillers to match wood.
- C. Prime concealed surfaces of interior and exterior woodwork with primer paint.
- D. Prime concealed surfaces of interior wood surfaces scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with thinner.
- E. Finishing Mechanical and Electrical Equipment:
  - 1. Paint shop primed equipment.
  - 2. Remove unfinished louvers, grilles, covers, and access panels and paint separately. Paint dampers exposed behind louvers, grilles, convactor and baseboard cabinets to match face panels.
  - 3. Prime and paint insulated and exposed pipes, insulated and exposed ducts, hangers, brackets, collars and supports, except where items are prefinished.
  - 4. Paint interior surfaces of air ducts and convactor and baseboard heating cabinets visible through grilles and louvers with one coat of flat black paint to visible surfaces.
  - 5. Paint exposed conduit and electrical equipment occurring in finished areas.
  - 6. Paint both sides and edges of plywood backboards.



- 7. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.
- F. Cleaning: As work proceeds, promptly remove finishes where spilled, splashed, or spattered.
- G. Coat thicknesses to be as recommended by paint manufacturer.

#### 3.4 SCHEDULE - SHOP PRIMED ITEMS FOR SITE FINISHING

- A. Metal Fabrications:
  - 1. Exposed surfaces of lintels
  - 2. Steel door jambs

#### 3.5 SCHEDULE - EXTERIOR SURFACES

- A. Steel - Shop Primed-Semi-Gloss Finish:
  - 1. One coat of Sherwin Williams Multipurpose Primer B51 W450.
  - 2. Two coats of Sherwin Williams DTM B66 W1151 Semi-Gloss
- B. Steel - Galvanized:
  - 1. One coat of Sherwin Williams Multipurpose Primer B51 W450.
  - 2. Two coats of Sherwin Williams DTM B66 W1151 Semi-Gloss
- C. Concrete Masonry Units-Gloss Finish:
  - 1. One coat of Sherwin Williams Loxon Block Surfacer A24W200.
  - 2. Two coats of Sherwin Williams Loxon XP LX14 W51

#### 3.6 SCHEDULE - INTERIOR SURFACES

- A. Concrete Masonry Units-Gloss Finish:
  - 1. One coat of Sherwin Williams Loxon Block Surfacer A24W200.
  - 2. Two coats of Sherwin Williams Loxon XP LX14 W51
- B. Gypsum Board Ceilings:
  - 1. One coat of Sherwin Williams Multipurpose Primer B51 W450.
  - 2. Two coats Sherwin Williams Duration Exterior Satin K33 W251.
- C. Wood – Painted Semi\_gloss Finish: (Trim)
  - 1. One coat of Sherwin Williams Multipurpose Primer B51 W450.
  - 2. Two coats Sherwin Williams Duration Exterior Satin K33 W251.
- D. Steel - Shop Primed:
  - 1. One coat of Sherwin Williams Multipurpose Primer B51 W450.
  - 2. Two coats of Sherwin Williams DTM B66 W1151 Semi-Gloss

END OF SECTION



## SECTION 10005

### MISCELLANEOUS SPECIALTIES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes fire extinguishers, fire extinguisher cabinets, signage, charging station and ceiling access doors.

##### 1.2 SUBMITTALS

- A. Product Data: Submit data on Product, accessories, and finishes.

##### 1.3 CLOSEOUT SUBMITTALS

- A. Operating and Maintenance Data: Submit instructions for recharging fire extinguishers.

##### 1.4 QUALITY ASSURANCE

- A. Fire Extinguishers: Conform to NFPA 10.

#### PART 2 PRODUCTS

##### 2.1 MISCELLANEOUS SPECIALTIES

- A. Signage
  - 1. Gemini
  - 2. See sheet A1 for restroom sign specification
  - 3. Substitutions: Permitted
- B. Ceiling Access Door
  - 1. Best Access Doors BA-AHD 22x30 inch hinged access panel with flange.

##### 2.2 COMPONENTS

- A. Exterior Restroom Signage:
  - 1. Gemini Cast Aluminum Standard ADA Plaque Signs
  - 2. Panel signs with ADA compliant tactile symbols
  - 3. Install signage at entrance to three public restrooms in accordance with ADA size and mounting height standards.
  - 4. Provide in choice of available colors.



## PART 3

### 3.1 EXAMINATION

- A. Verify surfaces and internal wall opening for fire extinguisher cabinet is ready to receive work and opening dimensions are as instructed by manufacturer. Confirm location with building official prior to installation of concrete block walls.
- B. Locate ceiling access door per plans between two trusses with cross blocking to create proper sized rough opening.

### 3.2 INSTALLATION

- A. Install all items plumb and level in wall openings or surface mounted on walls as specified by manufacturer's instructions, Mount all items in compliance with applicable codes and ADA regulations. Verify locations of fire extinguishers with local fire and building department officials prior to installation. Provide items located as indicated on plan.
- B. Secure units level and plumb. Verify proper blocking to support units prior to proceeding with installation.

END OF SECTION



## SECTION 10155

### TOILET COMPARTMENTS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes solid plastic toilet compartments and urinal screens.

##### 1.2 SUBMITTALS

- A. Shop Drawings: Indicate partition plan and elevation views, dimensions, details of wall and floor supports, and door swings.
- B. Samples: Submit two samples 6 x 6 inches in size illustrating panel finish, color, and sheen.

#### PART 2 PRODUCTS

##### 2.1 TOILET COMPARTMENTS

- A. Manufacturers:
  - 1. Comtec Industries
  - 2. Substitutions: Permitted.

##### 2.2 COMPONENTS

- A. Door, Panel, and Pilaster Construction: Solid HDPE Resin selected from Comtec's Standard Series S200 Colors.
- B. Doors and Panels: 1 inch thick.
- C. Pilasters: 1 inch thick.

##### 2.3 ACCESSORIES

- A. Head Rails: Made of heavy-duty extruded aluminum 6463-T5 Alloy, Anti-grip profile, tamper resistant screws, stainless steel headrail bracket.
- B. Pilaster Shoes: 3" High and made of one-piece molded HDPE. Choice of Standard Colors.
- C. Internal reinforcement: Provide for attached hardware and fittings.



- D. Attachments and Bolts: Plastic wall brackets made of heavy-duty extruded PVC Resin, mounted using tamper-resistant stainless steel screws and bolts. Choice of standard colors.
- E. Hardware:
  - 1. Hinges: Integral hinges with no exposed metal parts.
  - 2. Latch and Keeper: Sliding type latch, door strike and keeper with rubber bumper; for each door. ADA latch for wheelchair compatible toilet compartments.
  - 3. Pull: Provide pull for out-swinging doors.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify that opening dimensions and plumbing fixture and rough-in locations are as indicated on shop drawings.
- B. Verify correct location of built-in framing, anchorage, bracing, and blocking.

### 3.2 INSTALLATION

- A. Install partition components secure, plumb, and level.
- B. Attached panel brackets securely using anchor devices.
- C. Adjust and align door hardware so that free movement is attained.

END OF SECTION



## SECTION 10800

### TOILET, BATH, AND LAUNDRY ACCESSORIES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes toilet and washroom accessories.

##### 1.2 SUBMITTALS

- A. Product Data: Submit data on accessories describing size, finish, details of function, attachment methods.

#### PART 2 PRODUCTS

##### 2.1 TOILET, BATH AND LAUNDRY ACCESSORIES

- A. Manufacturers:
  - 1. Bobrick Washroom Accessories.
  - 2. Substitutions: Permitted.

##### 2.2 COMPONENTS

- A. Products listed in Schedule are made by Bobrick Washroom Accessories.
- B. Furnish two keys for each accessory to Owner.

#### PART 3 EXECUTION

##### 3.1 EXAMINATION

- A. Verify exact location of accessories for installation.

##### 3.2 PREPARATION

- A. Deliver inserts and rough-in frames to site. Provide templates and rough-in measurements.
- B. Attach accessories to concrete masonry with expansion bolts compatible with accessories or to solid blocking in framed partitions.

##### 3.3 INSTALLATION

- A. Install plumb and level, securely and rigidly anchored to substrate.



- B. Mounting Heights and Locations: As required by accessibility regulations.

### 3.4 SCHEDULES

- A. Item No. 1 - 36 inch Grab Bar: Bobrick Model No. B-6806-36, 1 ½" diameter, satin finish with snap flange concealed mounting. Mount as indicated on drawings.
- B. Item No. 2 - 42 inch Grab Bar: Bobrick Model No. B-6806-42, 1 ½" diameter, satin finish with snap flange concealed mounting. Mount as indicated on drawings.
- C. Item No. 3 – 18 inch Grab Bar: Bobrick Model No. B-6806-18, 1 ½" diameter, satin finish with snap flange concealed mounting. Mount as indicated on drawings.
- D. Item No. 3 – Toilet Tissue Dispenser: Bobrick Model No. B-4288, two roll surface mounted dispenser, satin finish with stainless steel hoods. Mount as indicated on drawings.
- E. Item No. 4 – Mirror: Bobrick B165 channel frame mirror, 18x36 inch size, including back mirror brackets and back plate wall hangers.

END OF SECTION



## SECTION 16050

### BASIC ELECTRICAL MATERIALS AND METHODS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes grounding electrodes and conductors; bonding methods and materials; conduit and equipment supports, anchors and fasteners; and nameplates and wire markers.

##### 1.2 SYSTEM DESCRIPTION

- A. Grounding system: Provide grounding system per latest edition of NEC.
- B. Select materials, sizes, and types of anchors, fasteners, and supports to carry loads of equipment and raceway, including weight of wire and cable in raceway. Anchor and fasten electrical products to building elements and finishes as follows:
  - 1. Concrete Structural Elements: Expansion anchors and preset inserts.
  - 2. Steel Structural Elements: Beam clamps, and spring steel clips.
  - 3. Concrete Surfaces: Self-drilling anchors and expansion anchors.
  - 4. Hollow Masonry, Plaster, and Gypsum Board Partitions: Toggle bolts and hollow wall fasteners.
  - 5. Solid Masonry Walls: Expansion anchors and preset inserts.
- C. Identify Electrical components as follows:
  - 1. Nameplate for each electrical distribution and control equipment enclosure.
  - 2. Wire marker for each conductor at panelboard gutters, pull boxes, and outlet and junction boxes.

##### 1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's catalog data for grounding electrodes and connections; for fastening components; and nameplates, labels, and markers.

#### PART 2 PRODUCTS

##### 2.1 NAMEPLATES

- A. Product Description: Embossed adhesive tape, with letters on contrasting background.
- B. Letter Size: 1/8-inch letters for identifying individual equipment and loads .



## 2.2 WIRE MARKERS

- A. Product Description: split sleeve or tubing type wire markers with circuit or control wire number permanently stamped or printed.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Install rod electrodes at locations indicated.
- B. Locate and install anchors, fasteners, and supports in accordance with NECA "Standard of Installation".
- C. Fabricate supports from structural steel or formed steel members.
- D. Install nameplate parallel to equipment lines. Secure nameplate to equipment front using screws or rivets.

END OF SECTION



## SECTION 16100

### WIRING METHODS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes building wire and cable, conduit and tubing, surface raceway, boxes, wiring devices, wiring connectors, and connections.

##### 1.2 SYSTEM DESCRIPTION

- A. Wiring Products:
  - 1. Solid conductor for feeders and branch circuits 10 AWG and smaller.
  - 2. Stranded conductors for control circuits.
  - 3. Conductor not smaller than 12 AWG for power and lighting circuits.
  - 4. Conductor not smaller than 16 AWG for control circuits.
  - 5. 10 AWG conductors for 20 ampere, 120 volt branch circuits longer than 75 feet.
- B. Wiring Methods:
  - 1. Concealed Dry Interior Locations: MC Cable.
  - 2. Exposed Wet or Dry Interior Locations: Building wire, Type THHN/THWN insulation, in raceway.
  - 3. Above Accessible Ceilings: MC Cable.
  - 4. Wet or Damp Interior Locations: MC Cable where permitted by 330.10 NEC.
  - 5. Exterior Locations: Building wire, Type THHN/THWN insulation, in raceway.
  - 6. Underground Locations: Building wire, Type THHN/THWN insulation, in raceway.
- C. Conductor sizes are based on copper unless indicated as aluminum or "AL". When aluminum conductor is substituted for copper conductor, size to match circuit requirements for conductor ampacity and voltage drop.
- D. Raceway and boxes are located as indicated on Drawings, and at other locations where required for splices, taps, wire pulling, equipment connections, and compliance with regulatory requirements.
- E. Raceway Products:
  - 1. Underground More than 5 feet outside Foundation Wall: Use thick-wall nonmetallic conduit.
  - 2. Underground Within 5 feet outside Foundation Wall: Use thick-wall nonmetallic conduit.
  - 3. In or Under Slab on Grade: Use rigid steel conduit. Use cast metal boxes.
  - 4. Outdoor Locations, Above Grade: Use rigid steel. Use cast metal outlet, pull, and junction boxes.
  - 5. In Slab Above Grade: Use rigid steel conduit. Use cast boxes.
  - 6. Wet and Damp Locations: Use MC Cable. Use cast metal or nonmetallic outlet, junction, and pull boxes. Use flush mounting outlet box in finished areas.
  - 7. Concealed Dry Locations: Use MC cable. Use sheet-metal boxes. Use flush



- 8. mounting outlet box in finished areas. Use hinged enclosure for large pull boxes. Exposed Dry Locations: Use rigid steel or electrical metallic tubing. Use sheet-metal boxes. Use flush mounting outlet box in finished areas. Use hinged enclosure for large pull boxes.

F. Minimum Raceway Size: ½ inch unless otherwise specified.

### 1.3 WALL SWITCHES

A. Specification grade- White

B. Provide dimmer switches compatible with specified light fixtures

### 1.4 RECEPTACLES

A. Specification Grade- White

### 1.5 WALL PLATES

A. Jumbo cover plate-smooth stainless steel.

B. Weatherproof Cover Plate: Stainless steel plate with threaded and gasketed device cover.

## PART 2 EXECUTION

### 2.1 INSTALLATION

A. Install raceway, boxes, wiring devices, wire, and cable in accordance with NECA "Standard of Installation."

B. Route raceway and cable to meet Project conditions.

C. Set wall mounted boxes at elevations to accommodate mounting heights indicated.

D. Adjust box location up to 10 feet prior to rough-in when required to accommodate intended purpose.

E. Do not install flush mounting box back-to-back in walls; install boxes with minimum 24 inches separation.

F. Install conduit and boxes concealed within walls.

END OF SECTION



## SECTION 16500

### LIGHTING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes interior luminaires, lamps, ballasts, and accessories.

##### 1.2 SUBMITTALS

- A. Product Data: Submit dimensions, ratings, and performance data.

#### PART 2 PRODUCTS

##### 2.1 LUMINAIRES

- A. Product Description: Complete luminaire assemblies, with features, options, and accessories as scheduled.

##### 2.2 EMERGENCY LIGHTING UNITS – See Legend on Electrical Drawings

##### 2.3 EXIT SIGNS – See Legend on Electrical Drawings

##### 2.4 INTERIOR LIGHT FIXTURES – See Legend on Electrical Drawings

#### PART 3 EXECUTION

##### 3.1 INSTALLATION

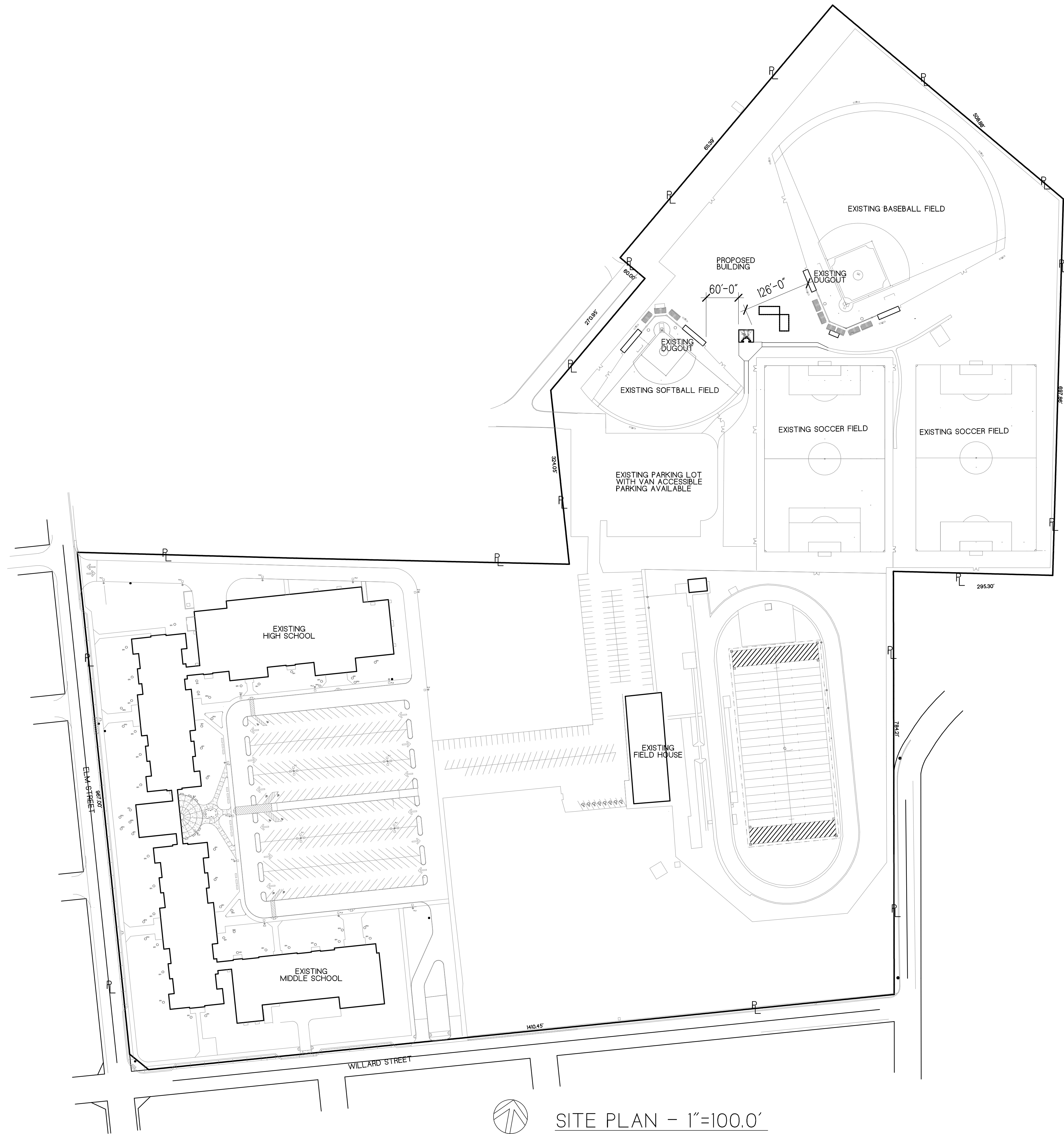
- A. Locate recessed ceiling luminaires as indicated on electrical plan. Confirm exact spacing of fixtures prior to framing of ceiling. Coordinate with framer to accommodate layout.
- B. Install surface mounted ceiling luminaires plumb and adjust to align with building lines and with each other. Secure to prevent movement.
- C. Provide lamps for all luminaires.

##### 3.2 ADJUSTING

- A. Aim and adjust luminaires as directed.
- B. Relamp luminaires, lighting units, and exit signs that have failed lamps at Substantial Completion.

END OF SECTION





SITE PLAN - 1"=100.0'

DRAWING INDEX

- SP1 SITE PLAN, GENERAL NOTES & BUILDING DATA  
SP2 SITE DEVELOPMENT PLAN  
A1 FIRST FLOOR PLAN, DOOR SCHEDULE, FINISH SCHEDULE, INTERIOR ELEVATIONS  
A11 ROOF PLAN  
A2 EXTERIOR ELEVATIONS  
A3 WALL SECTIONS  
A4 DETAIL  
A5 INTERIOR ELEVATIONS  
SI FOUNDATION PLAN, WALL, BEAM PLAN  
S2 ROOF FRAMING PLAN  
EI ELECTRICAL PLAN, ELECTRICAL POWER RISER DIAGRAM, PANEL SCHEDULE  
DI DATA/SECURITY ROUGH-IN  
PI PLUMBING PLAN, NOTES, SCHEDULES, ISOMETRIC

BUILDING DATA

USE GROUP - B PUBLIC RESTROOMS-OCCUPANT LOAD OF LESS THAN 50  
CONSTRUCTION TYPE - IIB  
AREA -  
ENCLOSED SPACE - 552 S.F.  
OCCUPANT LOAD -  
5 EACH RESTROOM  
STRUCTURAL LOADS -  
LOADS -  
FOUNDATION -  
PRESUMPTIVE SOIL BEARING CAPACITY - 1500 PSF  
FLOOR -  
FIRST FLOOR LIVE LOAD - 100 PSF (SLAB ON GRADE)  
ROOF -  
LIVE LOAD - 20 PSF  
GROUND SNOW LOAD - 20 PSF  
DEAD LOAD - 20 PSF (10"10")  
TOTAL ROOF LOAD - 40 PSF  
WIND -  
BASIC WIND SPEED (3-SECOND GUST) - 115 MPH  
WIND IMPORTANCE FACTOR - 1.0  
WIND EXPOSURE  
DESIGN WIND PRESSURES - 25 PSF  
EARTHQUAKE DESIGN DATA -  
SEISMIC IMPORTANCE FACTOR - 1.0  
SEISMIC USE GROUP -  
S1  
SITE CLASS - D  
Ss - 0.122  
SEISMIC DESIGN CATEGORY - B  
BASIC SEISMIC FORCE RESISTING SYSTEM -  
REINFORCED MASONRY SHEAR WALLS  
DESIGN BASE SHEAR - 4000  
R - 3.12  
ANALYSIS PROCEDURE - SIMPLIFIED ANALYSIS PROCEDURE

NOTE:

BUILDING SHALL NOT BE USED DURING THE WINTER MONTHS.  
ALL WATER PIPING SYSTEMS SHALL BE WINTERIZED.

GENERAL NOTES & SPECIFICATIONS

- THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. SAFETY, CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION, COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SAFETY IS, AND SHALL BE, THE CONTRACTOR'S RESPONSIBILITY.
- THESE PLANS ARE INTENDED TO DELINEATE THE CONSTRUCTION DETAILS AS REGULATED BY THE 2017 OHIO BUILDING CODE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND IS RESPONSIBLE TO COORDINATE SPACE AVAILABILITY FOR THE VARIOUS COMPONENTS INDICATED ON THESE DRAWINGS.
- INFORMATION SHOWN ON THE SITE PLAN IS FURNISHED BY AND IS THE RESPONSIBILITY OF THE BUILDING OWNER. SITE DESIGN, INCLUDING (BUT NOT LIMITED TO) GRADING AND DRAINAGE, IS THE SOLE RESPONSIBILITY OF THE OWNER.
- FOUNDATIONS ARE DESIGNED BASED UPON AN ASSUMED SOIL BEARING CAPACITY OF 1500 PSF. OWNER SHALL VERIFY THE ACCURACY OF THIS ASSUMPTION IN ACCORDANCE WITH CHAPTER 18, OBC.
- PROVIDE ACCESS TO HANDICAPPED PER CHAPTER 11, OBC AND ADA ACCESSIBILITY GUIDELINES.
- CONCRETE WALKS TO BE GRADED TO PERMIT ACCESS TO FRONT DOOR PER ADA ACCESSIBILITY GUIDELINES.

LIGHTING POWER BUDGET  
BASED ON TABLE 405.3.2(2) SPACE BY SPACE METHOD  
RESTROOMS-10 WATTS PER S.F./STORAGE-10 WATTS PER S.F.  
ACTUAL BUILDING IS PROPOSED TO USE 350 WATTS IN S.F. OF INTERIOR SPACE  
FOR A TOTAL USAGE OF 0.33 WATTS PER S.F.  
EXTERIOR LIGHTING PROPOSED IS 50 WATTS TOTAL  
LIGHTING ZONE 3 IN TABLE 405.3.2(2) PERMITS 750 WATTS TOTAL

REVISIONS

2/12/2024

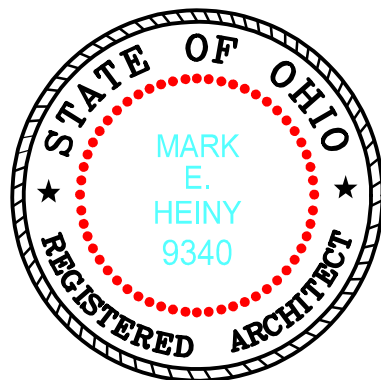
MARK HEINY ARCHITECT  
211 SOUTH FAYETTE ST., OH 43160  
WASHINGTON C.H., OH 43160  
(740)333-0820 fax(740)333-8220

PROJECT: Restrooms For:  
Washington High School  
400 S. Elm Street  
Washington Court House, Ohio 43160

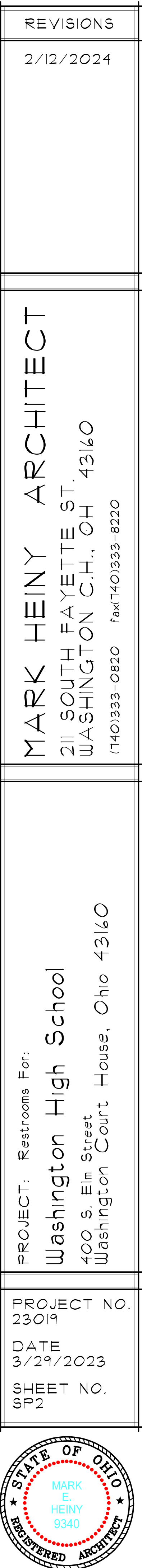
PROJECT NO.  
23019

DATE  
3/29/2023

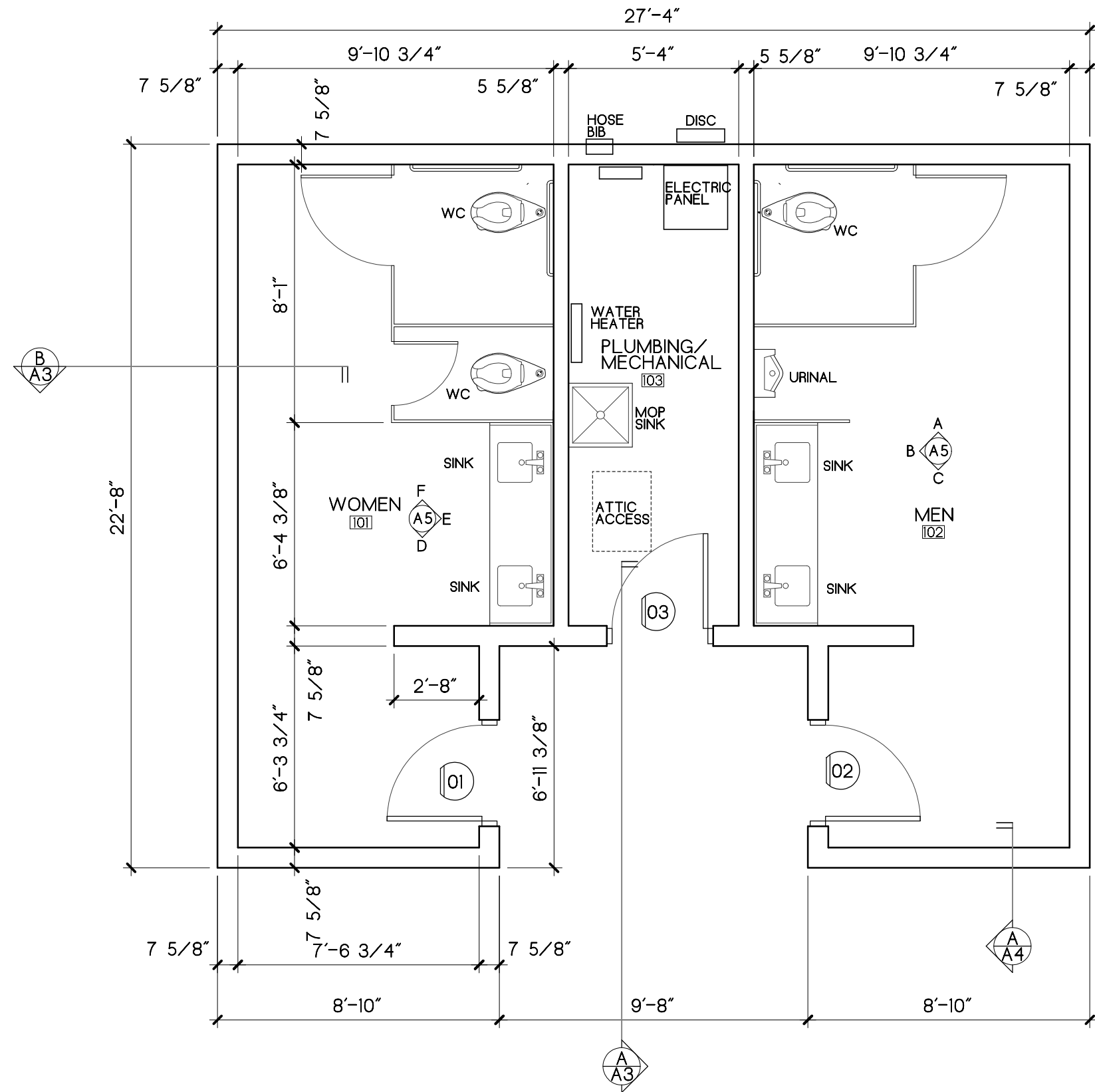
SHEET NO.  
SP1







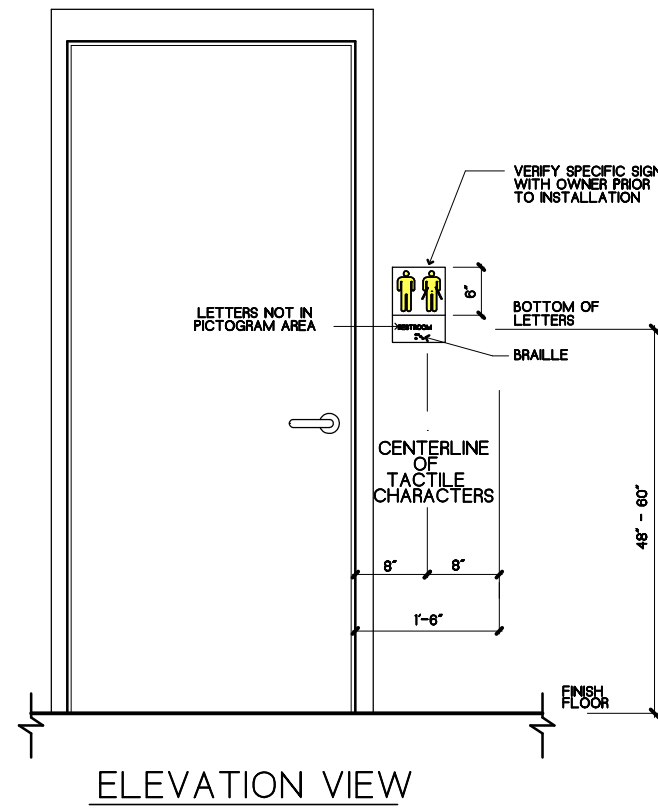




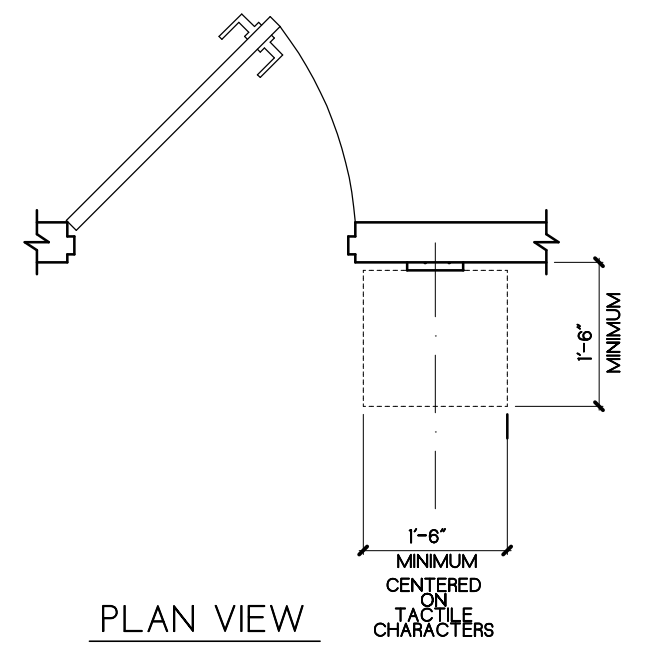
FLOOR PLAN 1/4"=1'-0"

DOOR SCHEDULE

NO	SIZE	TYPE	FRAME	HW	LF	NOTES	NOTES
01	3'-0"x7'-0"	FLUSH INSULATED STEEL	WELDED STEEL 4 INCH HEAD	02	01	INSTALL ADA COMPLIANT SIGN AT DOOR ON LATCH SIDE LOCATED AS REQUIRED BY APPLICABLE CODES	GEMINI STANDARD ALUMINUM ADA PLAQUE STYLE 'B', CHOICE OF STANDARD COLORS
02	3'-0"x7'-0"	FLUSH INSULATED STEEL	WELDED STEEL 4 INCH HEAD	02	01	INSTALL ADA COMPLIANT SIGN AT DOOR ON LATCH SIDE LOCATED AS REQUIRED BY APPLICABLE CODES	GEMINI STANDARD ALUMINUM ADA PLAQUE STYLE 'F', CHOICE OF STANDARD COLORS
03	3'-0"x7'-0"	FLUSH INSULATED STEEL	WELDED STEEL 4 INCH HEAD	01	02		



ELEVATION VIEW



PLAN VIEW

LOCATION OF TACTILE  
RESTROOM SIGN AT DOOR

DOOR HARDWARE

- 01 LEVER LOCKSET, CONTINUOUS GEARED  
HINGE, HC THRESHOLD, CLOSER, STRIKE  
WEATHERSTRIPPING, DOOR SWEEP, STOP
- 02 PULL HANDLE, PUSH PLATE, KEYED DEADBOLT  
WITH THUMB TURN INTERIOR, WEATHERSTRIPPING  
DOOR SWEEP, STRIKE, STOP, CLOSER

DOOR LOCKING FUNCTION

- 01 DEADBOLT TO REMAIN UNLOCKED DURING TIMES  
OF OPERATION FOR PUSH-PULL FUNCTION.  
DEADBOLT LOCKED FROM EXTERIOR WITH KEY  
INTERIOR ADA COMPLIANT THUMB TURN CAN UNLOCK  
DEADBOLT BUT CANT LOCK IT
- 02 STOREROOM LOCK -  
OUTSIDE LEVER FIXED.  
ENTRANCE BY KEY ONLY.  
INSIDE LEVER ALWAYS UNLOCKED.

ROOM FINISH SCHEDULE

		FLOORING	BASE	CEILING	WALLS	NOTES
		F-1	B-1	C-1	W-1	
101	WOMEN	o	o	o	o	1
102	MEN	o	o	o	o	1
103	PLUMBING/MECHANICAL	o	o	o	o	1

FINISH DESCRIPTIONS

- FLOORING
- F-1 SMOOTH CONCRETE WITH SEALER
- BASE
- B-1 NO INDEPENDENT BASE MATERIAL. PAINTED WALL SHALL  
EXTEND COMPLETELY TO FLOOR SURFACE
- CEILING
- C-1 5/8" MOISTURE RESISTANT GYPSUM BOARD-PAINTED
- WALLS
- W-1 CONCRETE BLOCK-PAINTED

- NOTES
- INTERIOR WALLS TO HAVE FLUSH CMU JOINTS

REVISIONS

2/12/2024

MARK HEINY ARCHITECT

211 SOUTH FAYETTE ST., OH 43160

WASHINGTON C.H., OH 43160

(740) 333-0820 fax (740) 333-8220

PROJECT: Restrooms For:

Washington High School

400 S. Elm Street

Washington Court House, Ohio 43160

PROJECT NO. 23019

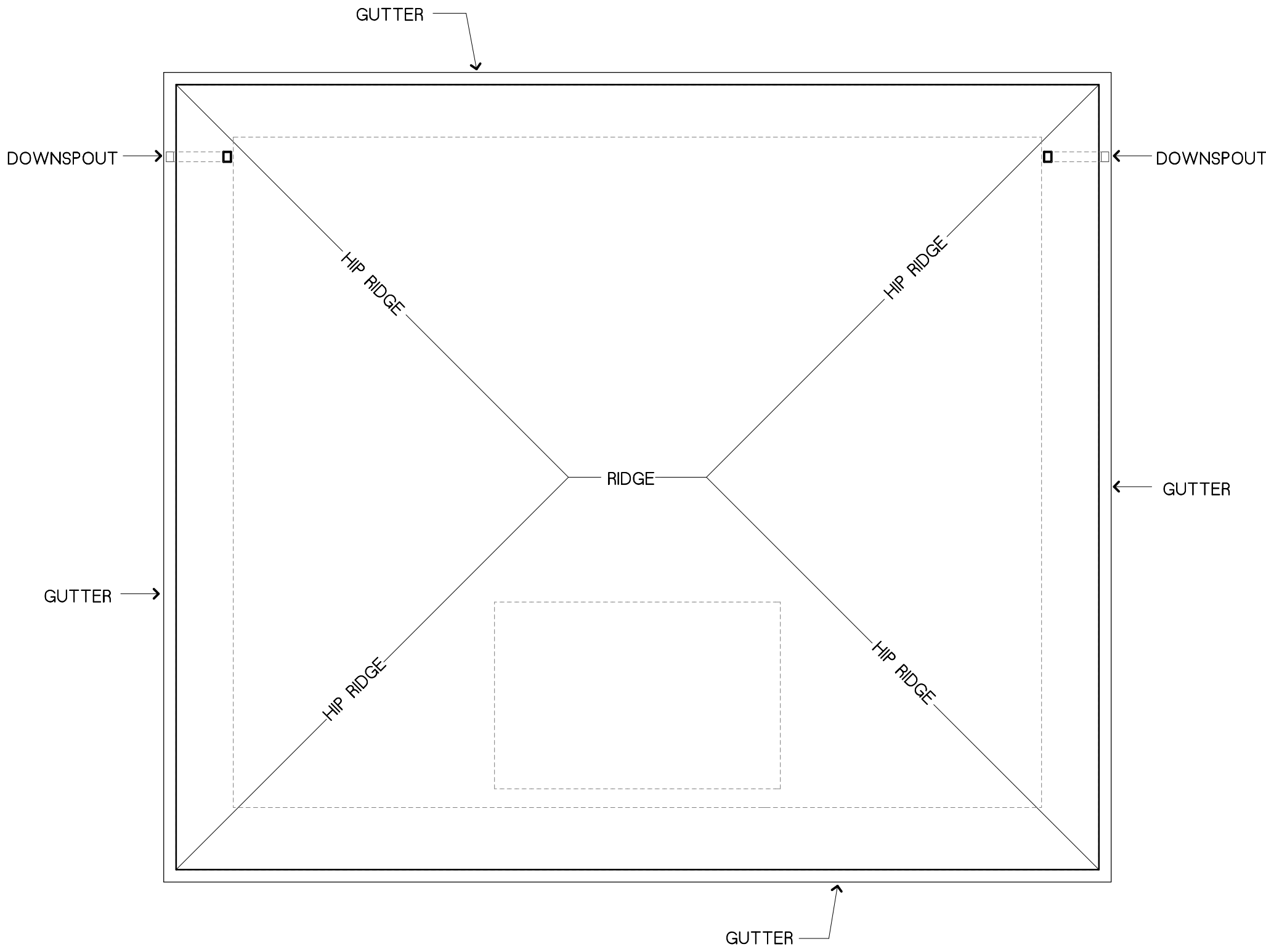
DATE 3/29/2023

SHEET NO. A1

STATE OF OHIO  
REGISTERED ARCHITECT  
MARK E. HEINY  
9340

MARK E. HEINY, LICENSE NO. 9340  
EXP. DATE 12/31/25





ROOFING PLAN 1/4"=1'-0"

ROOF PLAN NOTES

INSTALL ICE AND WATER  
PROTECTION BARRIER ALONG EDGE OF ROOF AND EXTEND  
TO 2'-0" INSIDE EXTERIOR FACE OF BUILDING WALLS  
INSTALL SYNTHETIC UNDERLAYMENT ON ENTIRE  
ROOF AREA PER MFR. INSTRUCTIONS

GUTTERS SHALL BE 5" CONTINUOUS ALUMINUM IN CHOICE OF  
AVAILABLE STANDARD COLORS WITH 3"x4" DOWNSPOUTS OF  
MATCHING MATERIAL AND FINISH. DOWNSPOUTS SHALL  
CONNECT TO CAST ALUMINUM BOOT (1'-6" LONG WITH  
3"x4" TOP RECEIVER AND 4" DIAMETER BOTTOM OUTLET.  
BOOTS SHALL BE OFFSET TYPE

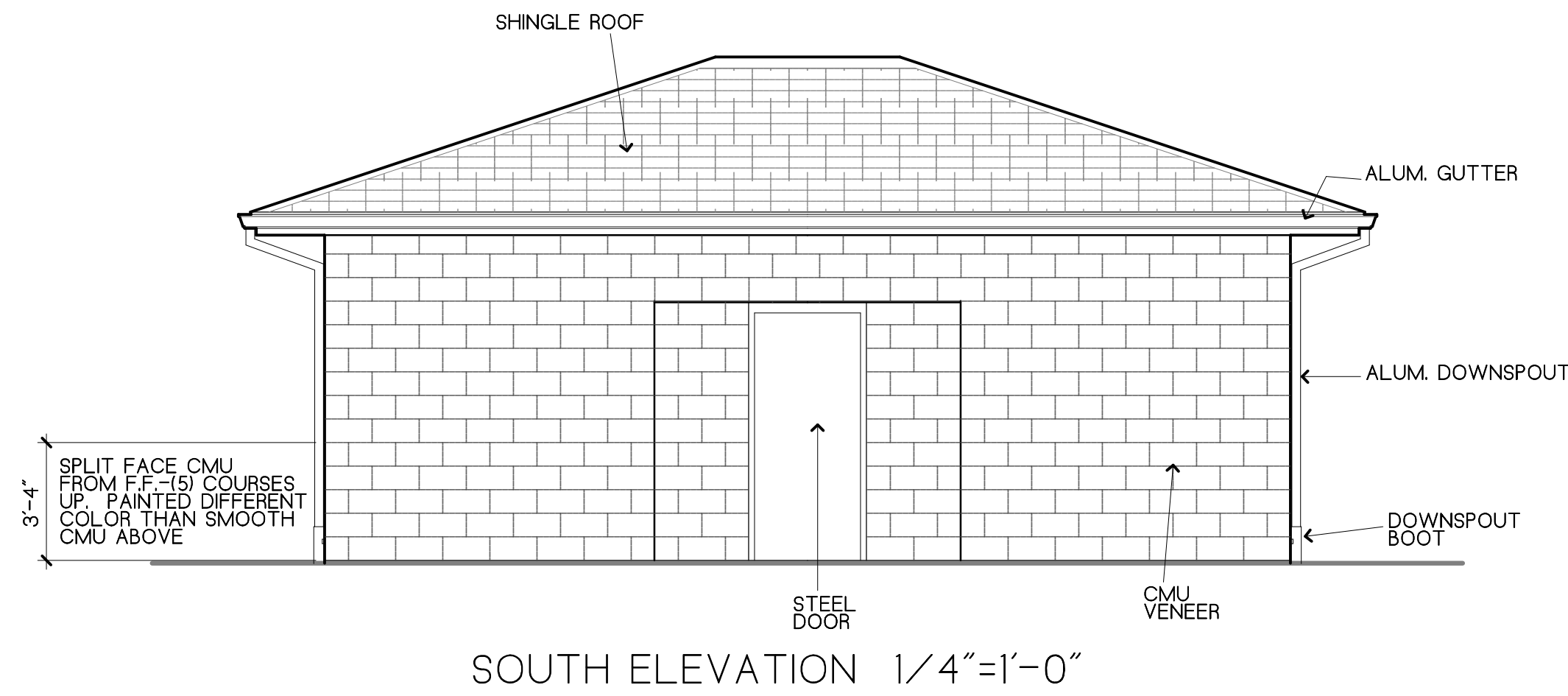
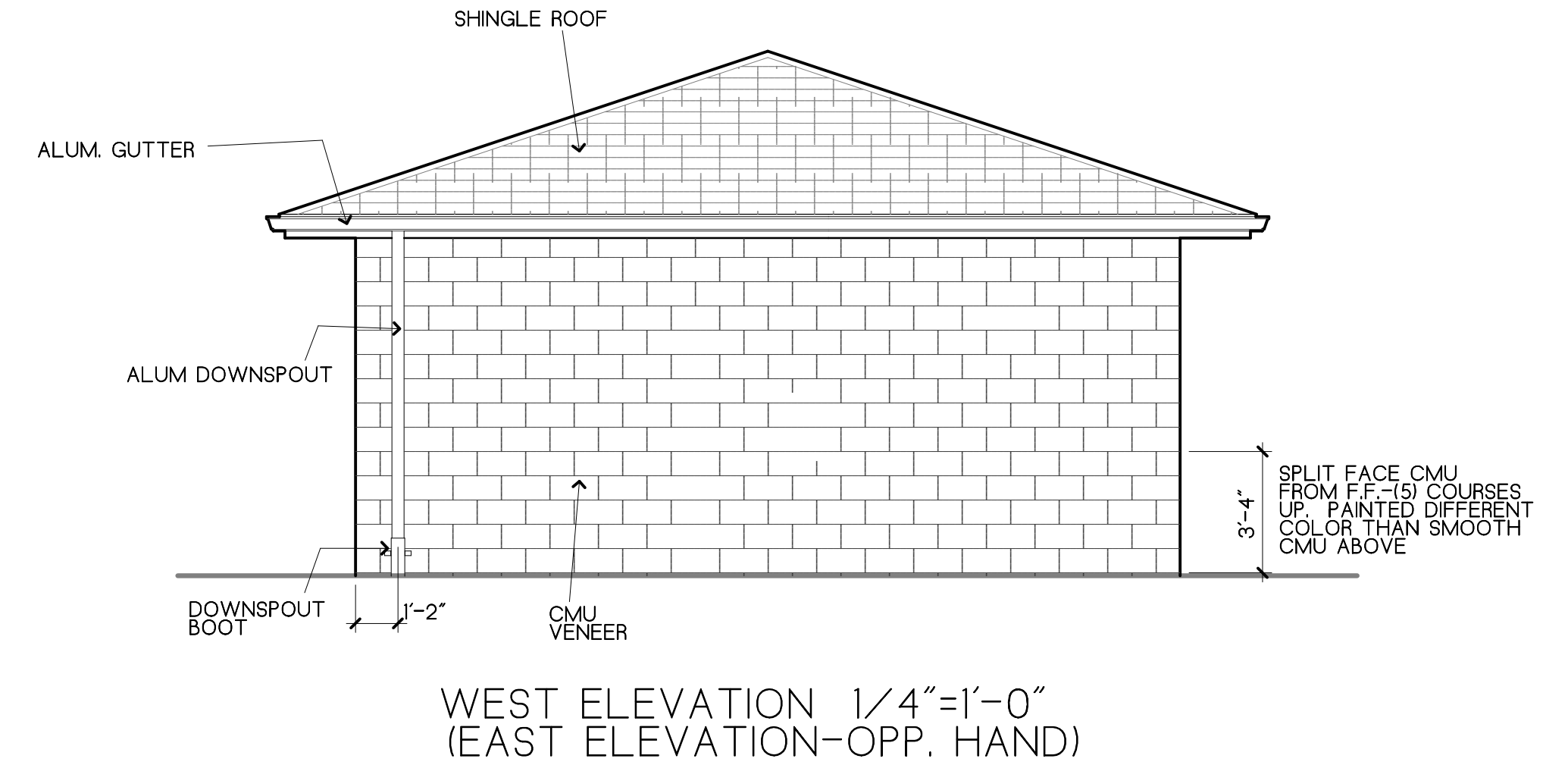
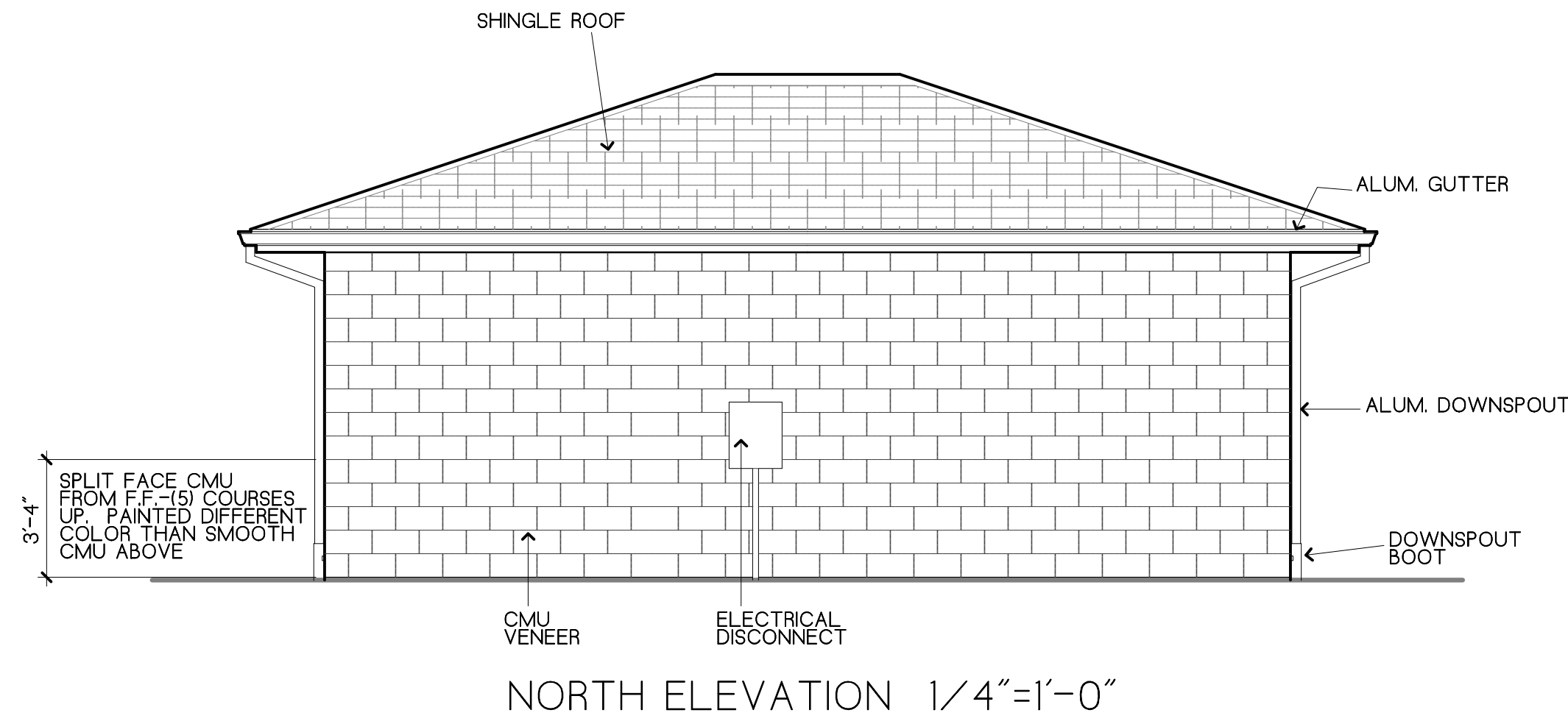
ROOF SHALL BE BP EVEREST 42 DIMENSIONAL SHINGLES  
WITH UNVENTED RIDGE CAPS TO MATCH  
CHOICE OF ALL AVAILABLE COLORS. INCLUDE WEATHER-TITE  
ROOFING SYSTEM WARRANTY

SOFFIT SHALL BE SMOOTH UNVENTED ALUMINUM  
IN CHOICE OF STANDARD COLORS

REVISIONS
2/12/2024
MARK HEINY ARCHITECT 211 SOUTH FAYETTE ST. WASHINGTON C.H., OH 43160 (740)333-0820 fax(740)333-8220
PROJECT: Restrooms For: Washington High School 400 S. Elm Street Washington Court House, Ohio 43160
PROJECT NO. 23019 DATE 3/29/2023 SHEET NO. A1.1







REVISIONS

2/12/2024

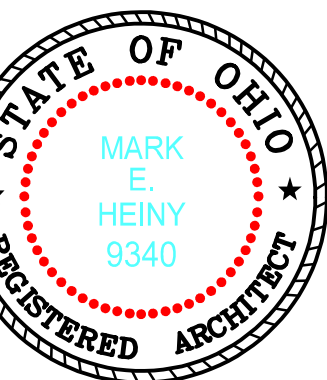
MARK HEINY ARCHITECT  
211 SOUTH FAYETTE ST., OH 43160  
WASHINGTON C.H., OH 43160  
(740) 333-0820 fax (740) 333-8220

PROJECT: Restrooms For:  
Washington High School  
400 S. Elm Street  
Washington Court House, Ohio 43160

PROJECT NO.  
23019

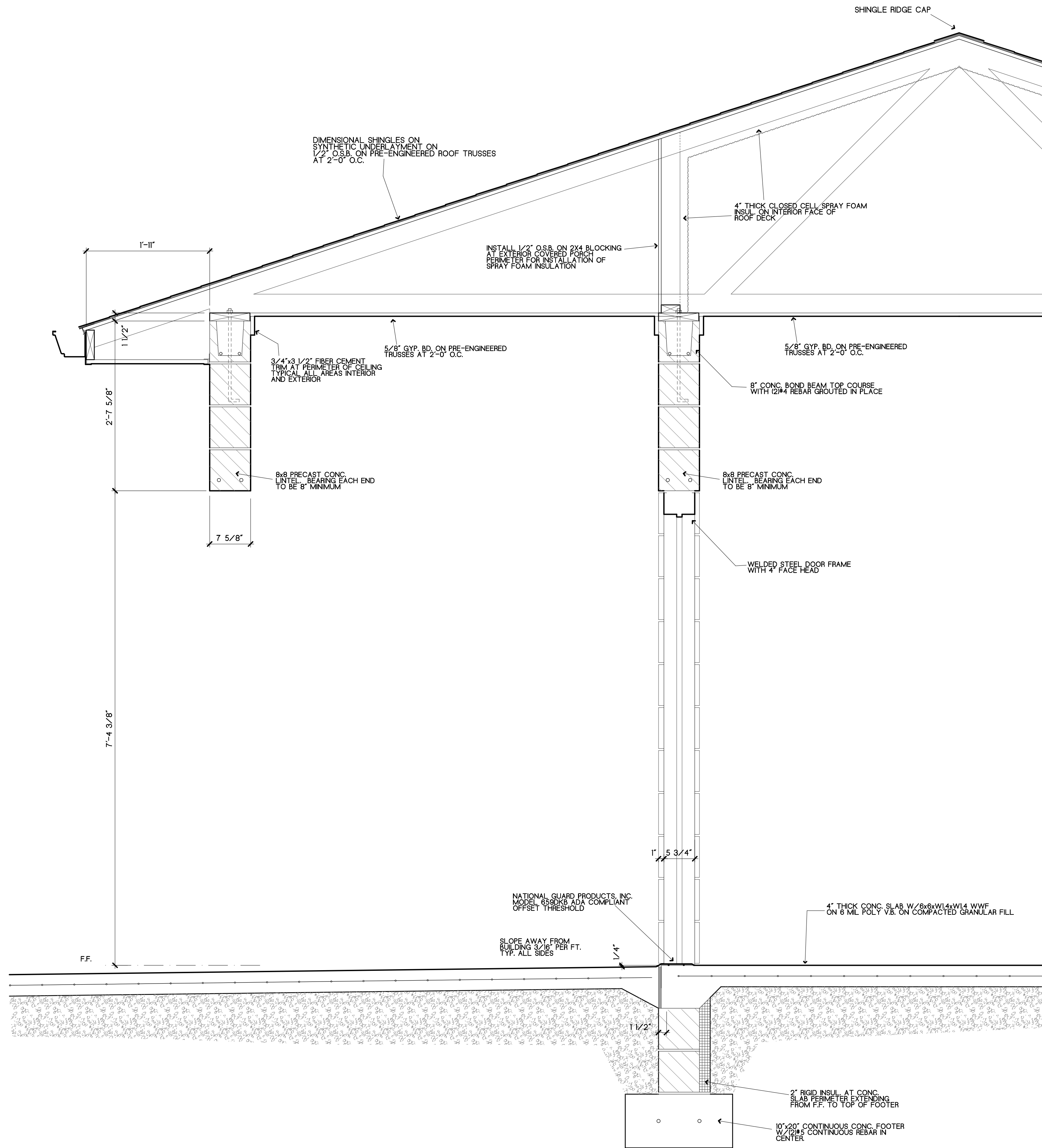
DATE  
3/29/2023

SHEET NO.  
A2

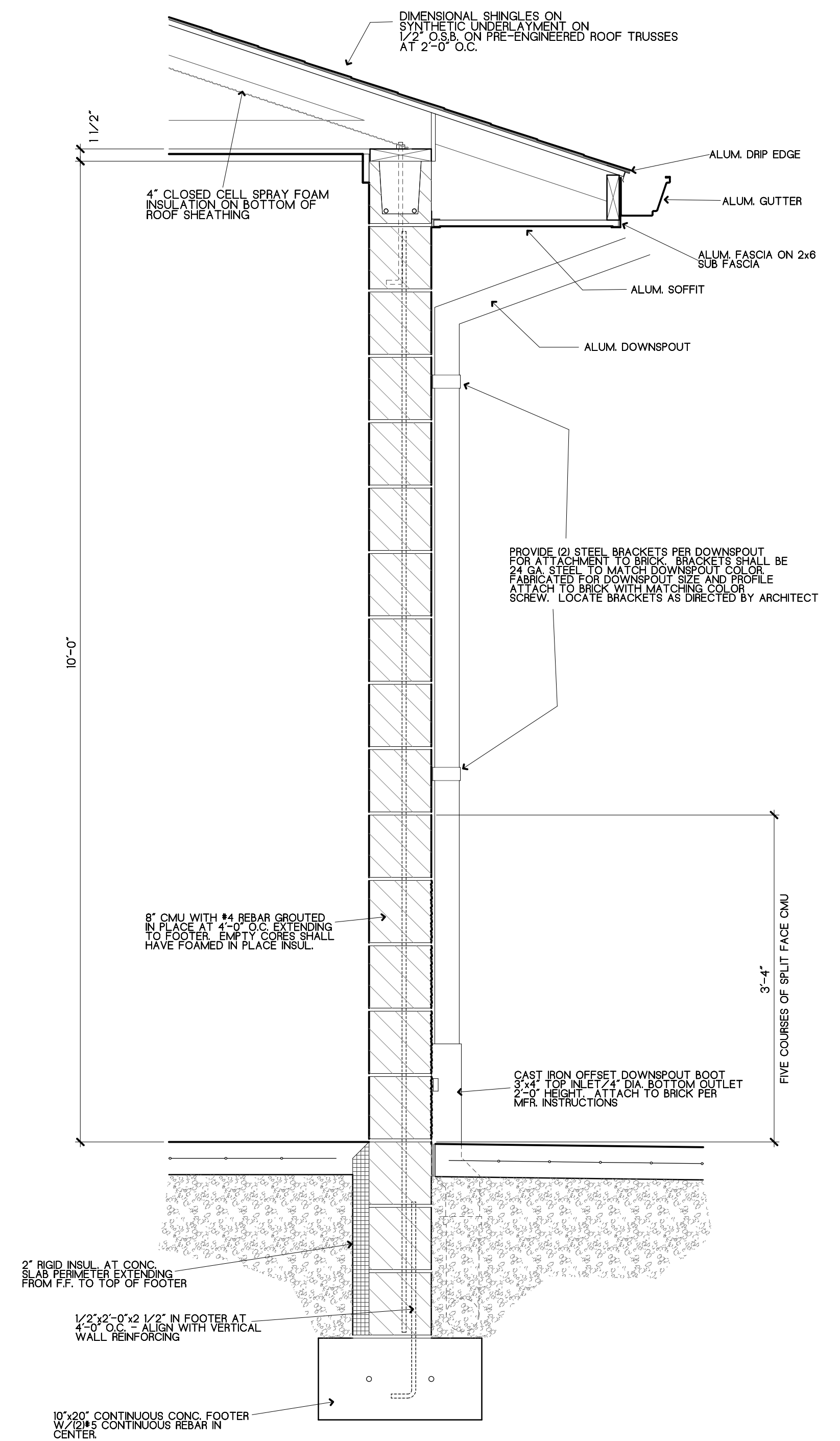


MARK E. HEINY, LICENSE NO. 9340  
EXP. DATE 12/31/25





B  
A1 WALL SECTION 1"=1'-0"



A  
A1 WALL SECTION 1"=1'-0"

REVISIONS

2/12/2024

MARK HEINY ARCHITECT  
211 SOUTH FAYETTE ST.  
WASHINGTON C.H., OH 43160  
(740) 333-0820 Fax (740) 333-8220

PROJECT: Restrooms For:  
Washington High School  
400 S. Elm Street  
Washington Court House, Ohio 43160

PROJECT NO.  
23019

DATE  
3/29/2023

SHEET NO.  
A3

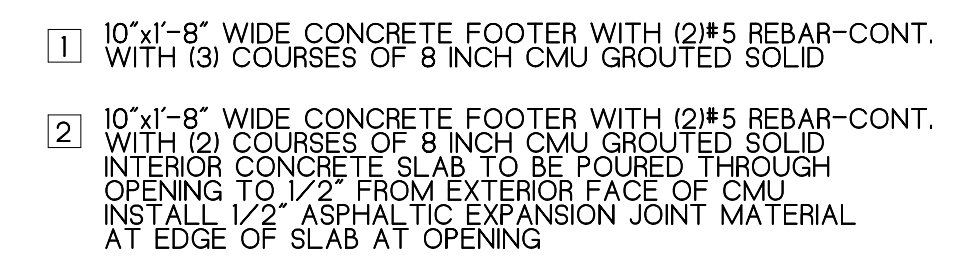


MARK E. HEINY, LICENSE NO. 9340  
EXP. DATE 12/31/25









TRUSSES SHALL BE DESIGNED SO THAT BEARING IS ON THIS WALL INSTEAD OF LINTEL AT EXTERIOR OPENING

2

2

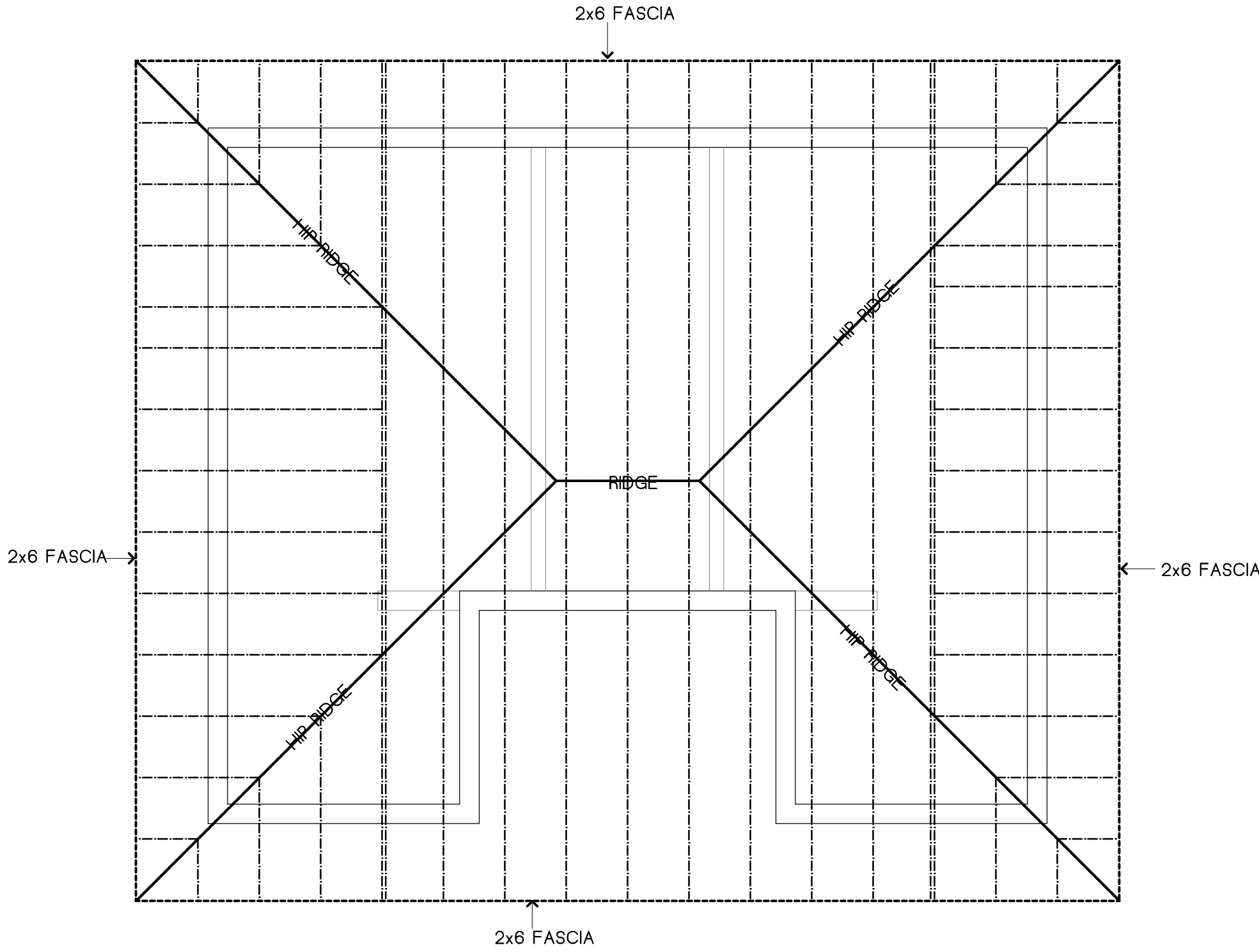
2

1

- 1 8X8 PRECAST CONCRETE LINTEL  
3,000 PSI DRY MIX, (2) #3 TOP REBAR  
(2) #5 BOTTOM REBAR  
8" BEARING EACH END
- 2 8X8 PRECAST CONCRETE LINTEL  
3,000 PSI DRY MIX, (2) #3 BOTTOM REBAR  
8" BEARING EACH END

STATE OF OHIO  
★  
MARK  
E.  
HEINY  
9340  
★  
REGISTERED ARCHITECT





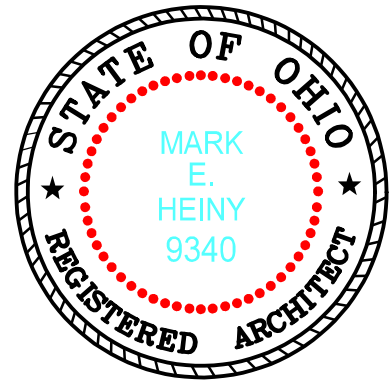
ROOF FRAMING PLAN 1/4"=1'-0"

ROOF TRUSS DESIGN SHALL BE FURNISHED BY, AND IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER. FOR DETAILS AND REQUIREMENTS FOR LATERAL SUPPORT, BRACING, AND SPECIAL ERECTION PRECAUTIONS, SEE TRUSS MANUFACTURER'S DRAWINGS. THE CONTRACTOR SHALL CAREFULLY REVIEW TRUSS SHOP DRAWINGS FOR CONFORMANCE WITH THE ACTUAL FIELD MEASUREMENTS AND ALIGNMENTS. CONTRACTOR SHALL INSTALL TRUSS BRACING AS RECOMMENDED BY TRUSS MANUFACTURER. TRUSS MANUFACTURER SHALL PROVIDE APPROPRIATE HURRICANE TIES AND HANGER BRACKETS AS REQUIRED FOR LOADS DEVELOPED BY THEIR SYSTEM.

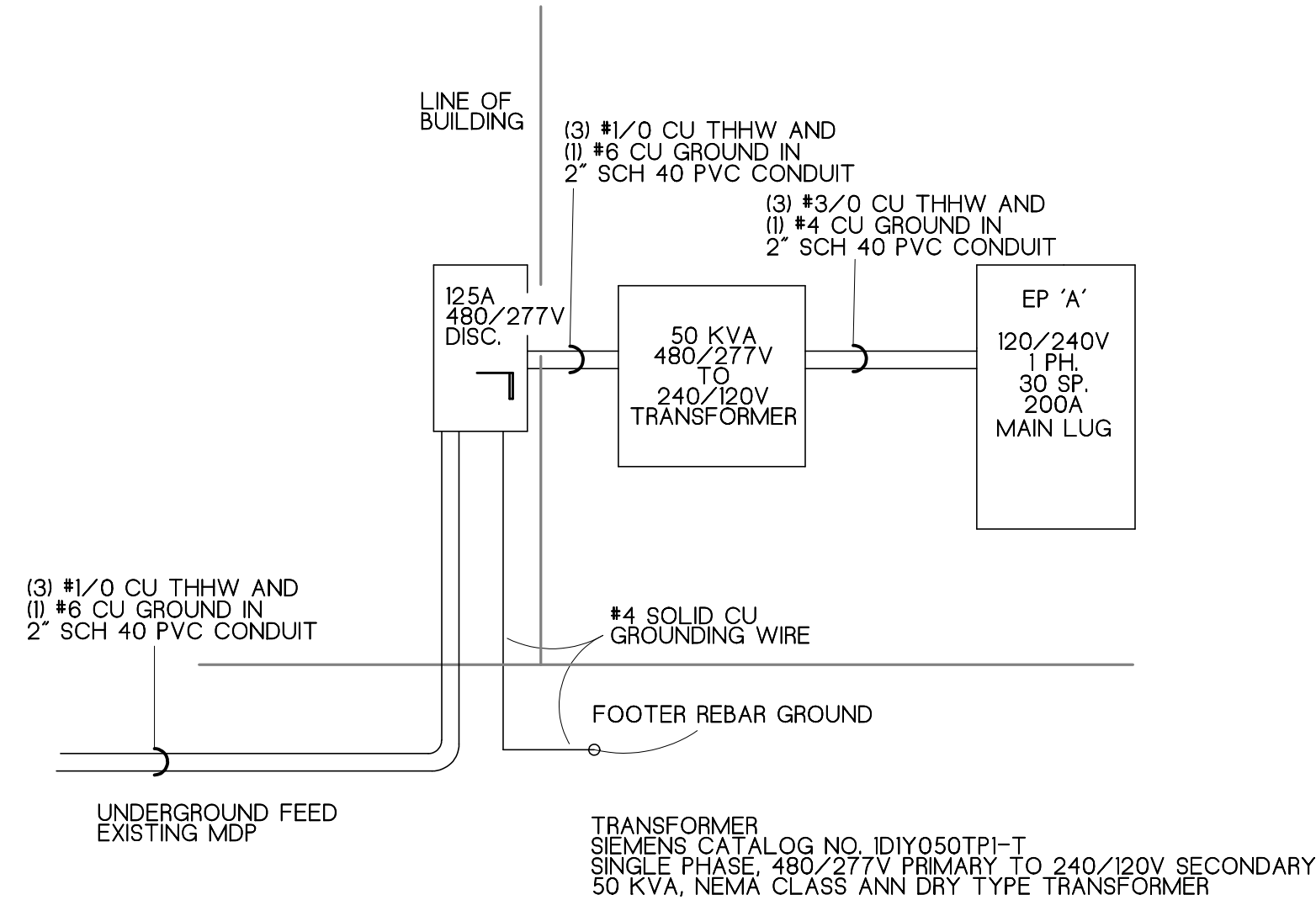
DRAWINGS SHALL INCLUDE LOADING CONDITIONS, STRESS DIAGRAMS, CALCULATIONS, MEMBER SIZES, SPECIES, AND STRESS GRADES, TYPES AND SIZES OF GUSSETS, NAILS AND AN ANALYSIS OF ALL COMBINED COMPRESSIVE AND TENSILE FORCES IN ACCORDANCE WITH SECTION 106.116) , OBC.

TRUSSES SHALL HAVE 4:12 ROOF PITCH WITH OVERHANG AS REQUIRED TO COMPLY WITH DETAILS AS SHOWN ON ARCHITECTURAL DRAWINGS

REVISIONS
MARK HEINY ARCHITECT 211 SOUTH FAYETTE ST WASHINGTON C.H., OH 43160 (740)333-0820 fax(740)333-8220
PROJECT: Restrooms For: Washington High School 400 S. Elm Street Washington Court House, Ohio 43160
PROJECT NO. 23019 DATE 3/29/2023 SHEET NO. S2








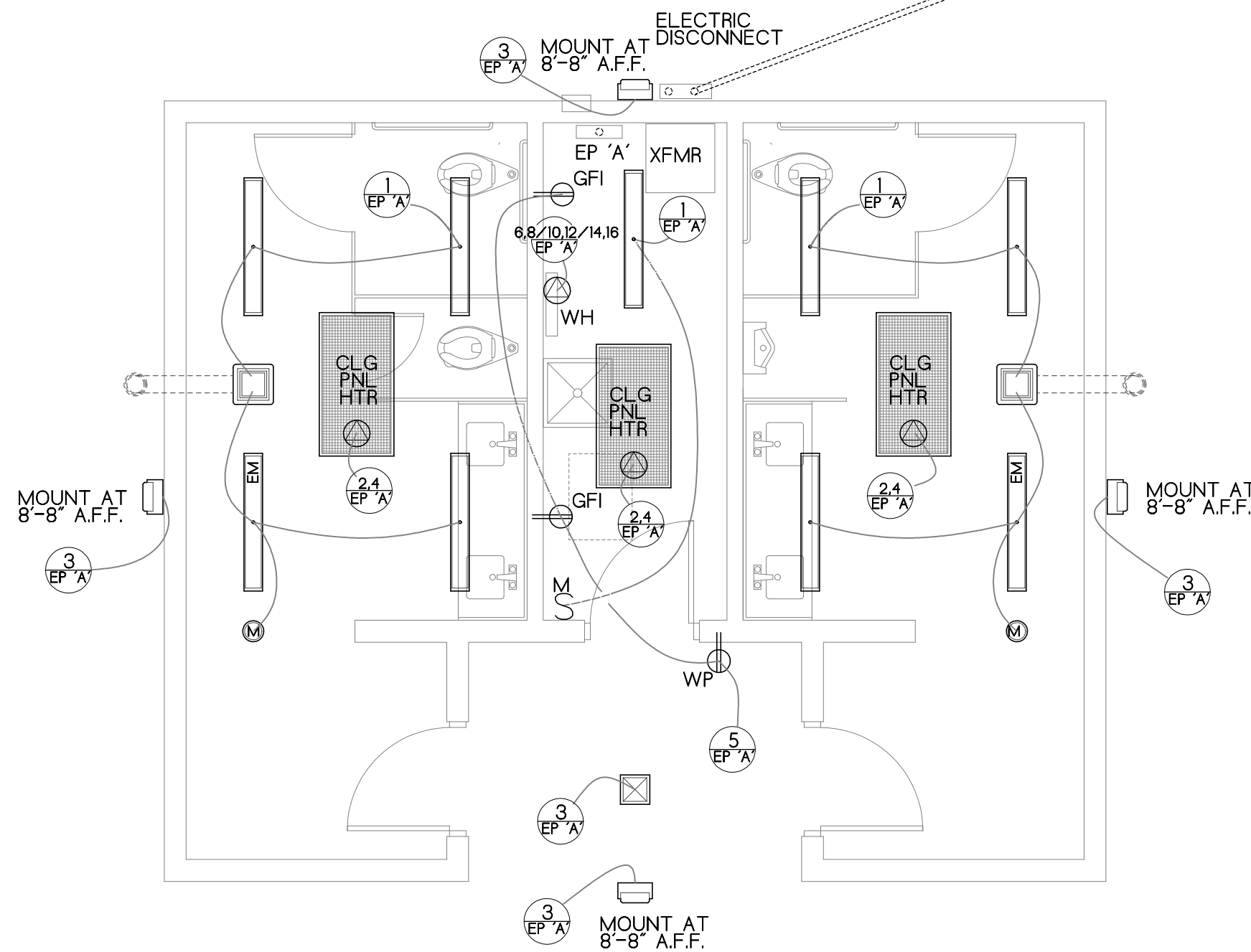
## POWER RISER DIAGRAM - NTS

A GROUNDING ELECTRODE SYSTEM SHALL BE DEVELOPED IN WHICH ALL GROUNDING ELECTRODE CONDUCTORS INCLUDING ELECTRIC SERVICE, WATER SERVICE, AND FOOTER REBAR REINFORCING ARE BONDED TOGETHER IN ACCORDANCE WITH ARTICLE 250, NEC.

EP 'A' 200A, 120/240V, 1 PHASE, 30 SPACE MAIN LUG										
	CIRC	KW	BRKR	WIRE	A B	WIRE	BRKR	KW	CIRC	
INTERIOR LIGHTS	1	0.16	20	12		12	20	2.25	2	CEILING PANEL HEATERS
EXTERIOR LIGHTS	3	0.15	20	12		12	20		4	
RECEPTACLES	5	0.54	20	12		8	40	9.00	6	TANKLESS WATER HEATER
SPARE	7		20	12		8	40		8	
SPARE	9		20	12		8	40	9.00	10	TANKLESS WATER HEATER
SPARE	11		20	12		8	40		12	
SPARE	13		20	12		8	40	9.00	14	TANKLESS WATER HEATER
SPARE	15		20	12		8	40		16	
SPARE	17		20	12		12	20		18	SPARE
SPARE	19		20	12		12	20		20	SPARE
SPARE	21		20	12		12	20		22	SPARE
SPARE	23		20	12		12	20		24	SPARE
SPARE	25		20	12		12	20		26	SPARE
SPARE	27		20	12		12	20		28	SPARE
SPARE	29		20	12		12	20		30	SPARE

TOTAL CONNECTED LOAD                      30.10 KW = 125 AMPS

## PANEL SCHEDULE















ELECTRICAL PLAN 1/4"=1'-0"

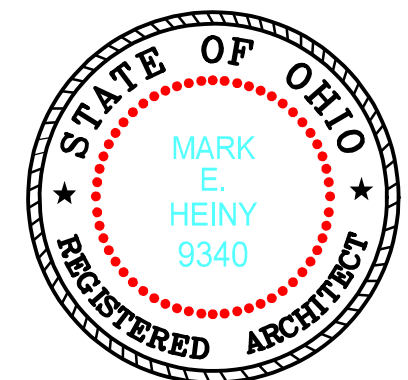
## ELECTRICAL NOTES & SPECIFICATIONS

3. ELECTRICAL WIRING AND EQUIPMENT TO BE INSTALLED IN STRICT COMPLIANCE WITH NFPA70, (2014 NATIONAL ELECTRIC CODE) AND WITH CHAPTER 27, 2017 OBC.
2. ALL NEW SECONDARY CIRCUITS ARE TO BE #12 AWG MINIMUM AND INSTALLED AS PERMITTED BY 2017 NEC, ARTICLE 330 (MC CABLE) OR ARTICLE 344 (RIGID METAL CONDUIT) CONDUIT SHALL BE SIZED PER TABLE C1 - C12, ANNEX C, 2017 NEC. ALL CONDUCTORS IN CONDUIT TO BE COPPER TYPE THW, THWN, OR THHN INSULATION.
3. CONTRACTOR TO VERIFY THE POINT OF SERVICE, SERVICE VOLTAGE, PHASE, TRANSFORMER CHARACTERISTICS, AND SHORT CIRCUIT AMPACITY WITH THE ELECTRIC CO. PRIOR TO COMMENCING ANY WORK. PROVIDE SERVICE EQUIPMENT COMPATIBLE WITH SERVICE TO BE PROVIDED.
4. ALL ELECTRICAL WORK WILL COMPLY WITH THE REQUIREMENTS OF THE ELECTRICAL INSPECTOR ASSIGNED BY THE LOCAL BUILDING DEPARTMENT JURISDICTION
5. ALL CONDUIT AND WIRING SHALL BE INSTALLED IN CONCEALED LOCATIONS. JUNCTION BOXES ARE TO BE LOCATED ABOVE CEILINGS
6. ALL 153.20 AMP, 125 VOLT AND 250 VOLT RECEPTACLES SHALL BE NON-LOCKING TAMPER TYPE RESISTANT RECEPTACLES PER NEC ART. 406.12
7. RECEPTACLES ARE TO BE MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE

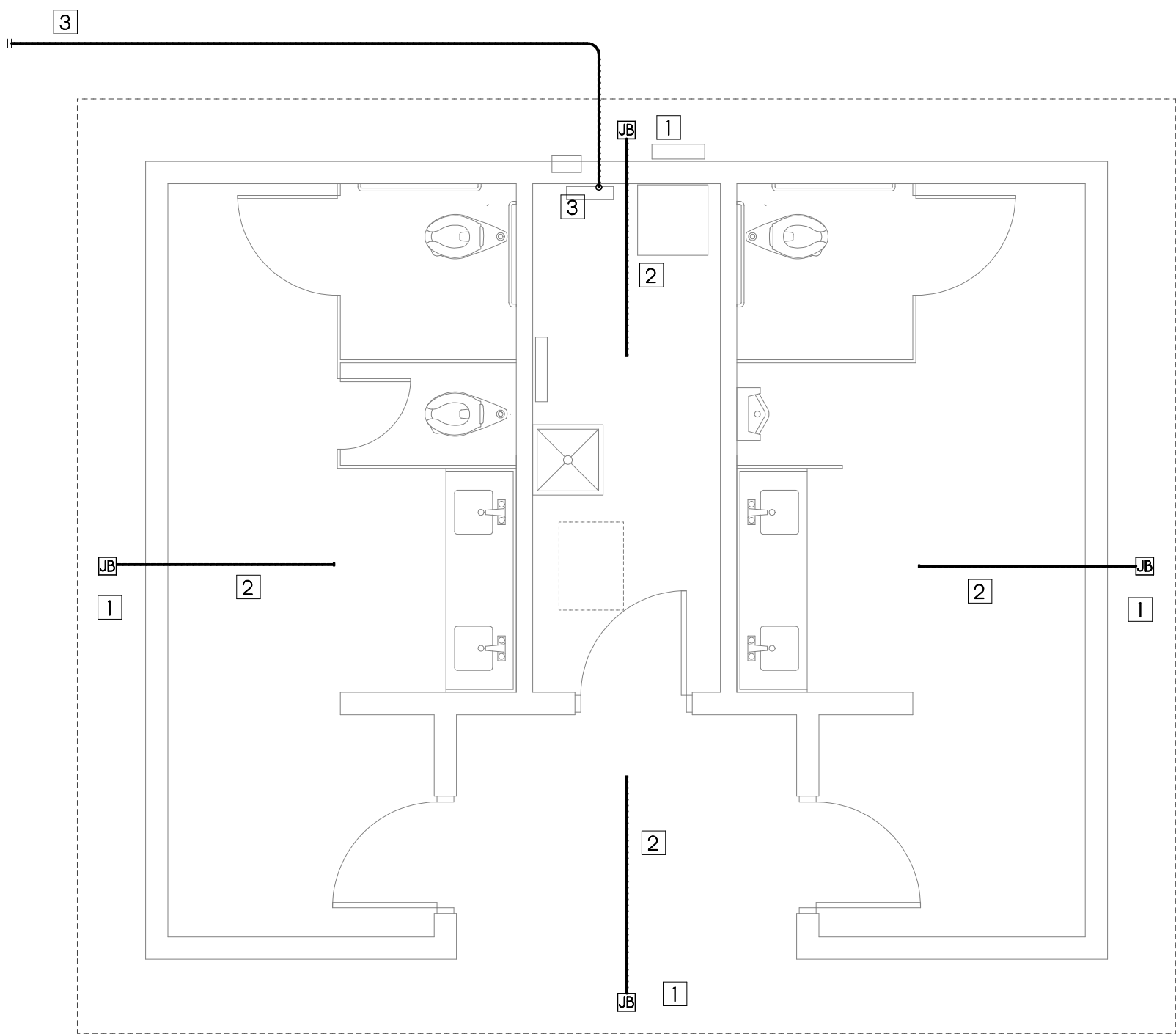
## LEGEND

 LIGHT SWITCH WITH OCCUPANCY SENSOR ON TIMER  
 WEATHERPROOF NEMA 3R DUPLEX RECEPTACLE  
 DUPLEX RECEPTACLE ON GROUND FAULT CIRCUIT INTERRUPTOR  
 HARD WIRED EQUIPMENT CONNECTION  
 SQUARE RECESSED LED DOWNLIGHT  
 MAXLITE MODEL CPL 20 B U CS 40 MS  
 120V, 20 WATTS, 22718 LUMENS, 4000K  
 MOTION/DAYLIGHT SENSOR  
 CEILING MOUNTED MOTION/OCCUPANCY SENSOR  
 EVITON MODEL #OSCIO-MOW WITH COMPATIBLE  
 POWER PACK-HUBBARD MODEL 9000 OR EQUAL  
 WIRE ACCORDING TO MFR. INSTRUCTIONS  
 4 FT. SURFACE MOUNTED LED LIGHT FIXTURE  
 MAXLITE L3U4U23WCSCR  
 120V, 23 WATTS, 3500K, 2990 LUMENS  
 4 FT. SURFACE MOUNTED LED LIGHT FIXTURE  
 MAXLITE L3U4U23WCSCREM  
 120V, 23 WATTS, 3500K, 2990 LUMENS  
 BUILT-IN EMERGENCY BATTERY BACK-UP  
 WIRE AS REQUIRED TO PROVIDE POWER TO BATTERY CHARGING  
 AND TURN ON WHEN SERVICE POWER DROPS  
 EXTERIOR LED WALL MOUNTED LIGHT WITH PHOTOCELL  
 MAXLITE WCOP 28 U CS B PC, 28 WATTS, 120V  
 BROOM ALARM QTXEIIQ500C BATHROOM EXHAUST FAN  
 150 CFM, 120V, 21 WATTS, 14 SONES  
 CONNECT 6" FLEXIBLE DUCT AND RUN TO SOFFIT.  
 TERMINATE IN SOFFIT WITH EVERBILT COVERED SOFFIT  
 EXHAUST VENT AND PAINT TO MATCH SOFFIT  
 SURFACE MOUNTED 2x4 ELECTRIC RADIANT HEATER PANEL  
 DAYTON MODEL 54D19, 208V, 750 WATTS WITH FRAME  
 FOR SURFACE MOUNTING. PROVIDE THERMOSTAT FOR EACH  
 UNIT AND LOCAL CALL IN PLUMBING/MECHANICAL SPACE  
 AS DIRECTED OWNER  
 20 YEAR WARRANTY  
 CIRCUIT AND PANEL DESIGNATION

PROJECT NO. 23019	PROJECT: Restrooms For:  Washington High School 400 S. Elm Street Washington Court House, Ohio 43160	<div style="text-align: center;"> <h1>MARK HEINY ARCHITECT</h1> <p>211 SOUTH FAYETTE ST. WASHINGTON C.H., OH 43160 (740)333-0820 fax(740)333-8220</p> </div>			REVISIONS	2/12/2024
DATE 3/29/2023						
SHEET NO. III						







DATA/SECURITY ROUGH-IN PLAN 1/4"=1'-0"

- 1

MOUNT 4x4 JUNCTION BOX IN SOFFIT  
LOCATE AS DIRECTED BY OWNER
- 2

CONNECT 3/4" SCH 40 PVC CONDUIT AND RUN  
INTO BUILDING ATTIC SPACE AND TERMINATE  
1'-0" ABOVE BOTTOM OF ROOF TRUSSES. INSTALL  
BUSHING AT END OF CONDUIT AND INSTALL PULL  
STRING FOR WIRING BY OTHERS. PROVIDE BLANK  
JUNCTION BOX COVER AND PAINT TO MATCH  
SOFFIT. CONDUIT TO EXTEND A MINIMUM OF  
8 FT. INSIDE OUTSIDE FACE OF EXTERIOR WALL.
- 3

RUN 1 1/2" SCH 40 PVC CONDUIT THROUGH CMU FOUNDATION  
WALL AT 1'-4" BELOW FF. AND INSTALL A SWEEP ELBOW TO  
TURN UP INTO CONCRETE SLAB. CONDUIT TO FINISH 2'-0" AFF.  
CONDUIT TO BE RUN ON EXTERIOR AS SHOWN WITH A SWEEP ELBOW  
AT TURN AND TERMINATED AND CAPPED UNDERGROUND.  
COORDINATE LOCATION WITH OTHER UTILITIES IN AREA.  
DOCUMENT PRECISE LOCATION OF CONDUIT PLACEMENT  
ON AS-BUILT DRAWINGS.

REVISIONS

2/12/2024

MARK HEINY ARCHITECT

211 SOUTH FAYETTE ST., 43160

WASHINGTON C.H., OH

(740)333-0820 fax(740)333-8220

PROJECT: Restrooms For:

Washington High School

400 S. Elm Street

Washington Court House, Ohio 43160

PROJECT NO.

23019

DATE

3/29/2023

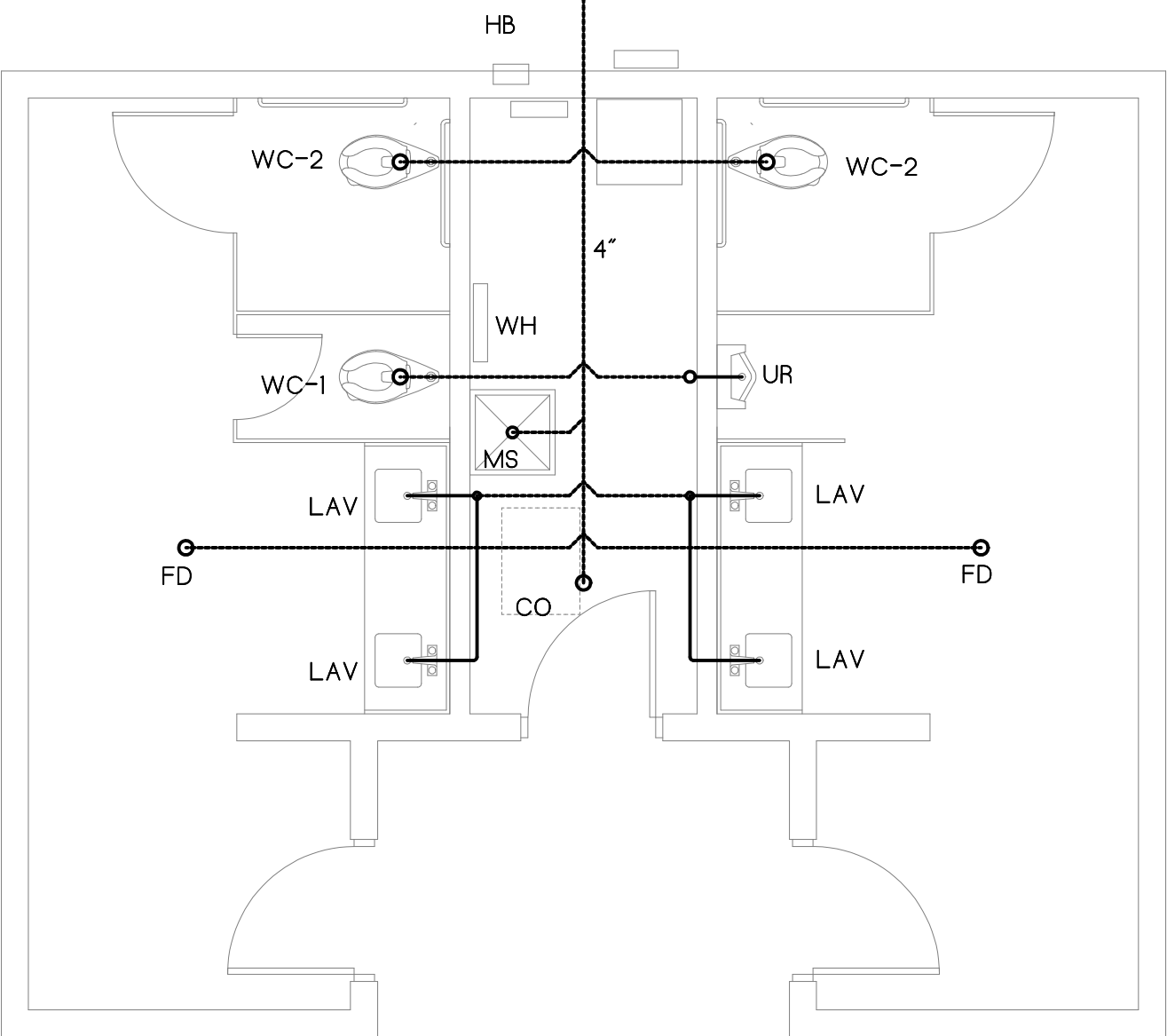
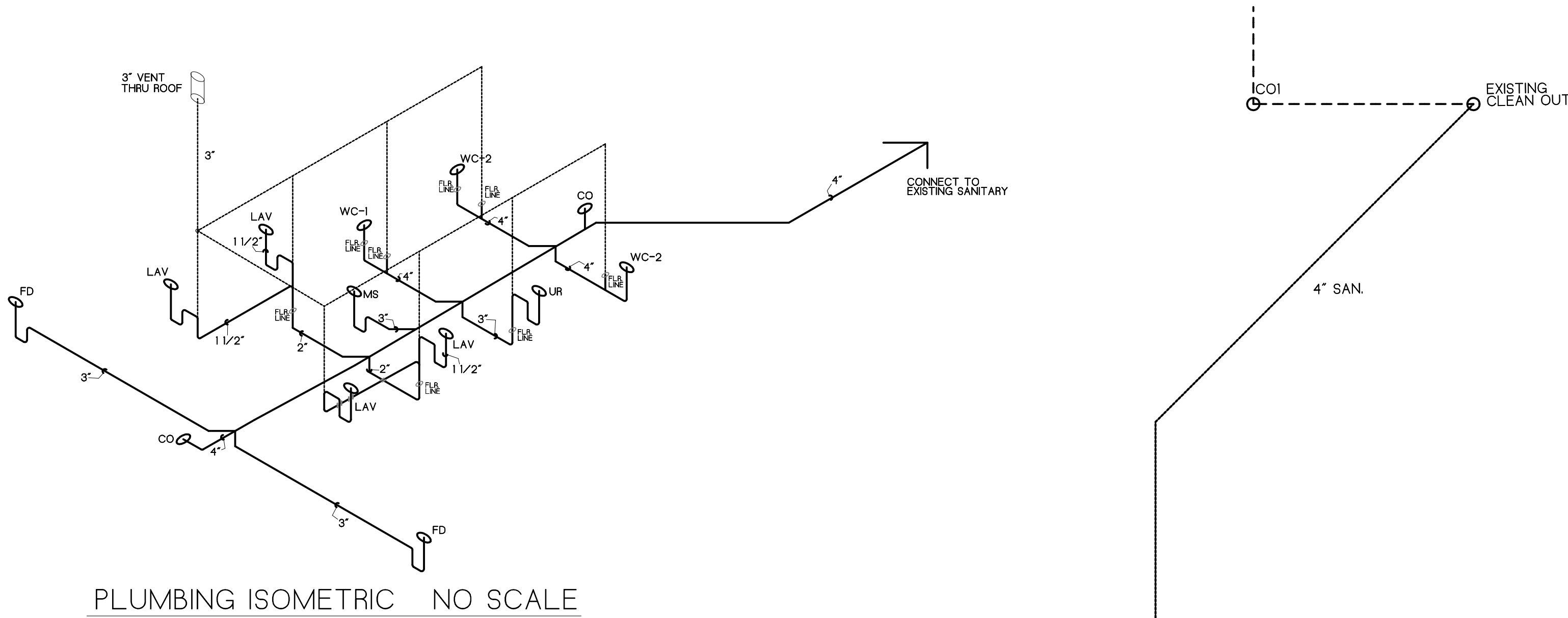
SHEET NO.

DI





PLUMBING FIXTURE PIPE SIZE SCHEDULE					
NOTE: SCHEDULE IS FOR SYMBOL IDENTIFICATION AND PIPE SIZING					
FIXTURE	DESCRIPTION	CW	HW	W	V
WC-1	ADA WATER CLOSET	1/2"	-	4"	2"
WC-2	WATER CLOSET	1/2"	-	4"	2"
UR	URINAL	3/4"	-	2"	1-1/2"
LAV	LAVATORY SINK	1/2"	1/2"	2"	1-1/2"
MS	MOP SINK	1/2"	1/2"	3"	1-1/2"
FD	FLOOR DRAIN	-	-	3"	1-1/2"
TP	TRAP PRIMER	1/2"	-	-	-
HB	FROST PROOF HOSE BIB	3/4"	-	-	-
WH	WATER HEATER	3/4"	3/4"	-	-



## PLUMBING NOTES

- A. PLUMBING CONTRACTOR SHALL PROVIDE & INSTALL ALL PLUMBING AS SPECIFIED.
- B. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND PIPE SIZES AND SECURE ALL PLUMBING PERMITS. ALL WORK SHALL CONFORM TO ALL CODES THAT APPLY (MATERIAL & LABOR), INCLUDING ALL CURRENT 'ADA' REQUIREMENTS WHERE APPLICABLE. PLUMBER RESPONSIBLE FOR PLUMBING PERMIT AND ALL INSPECTIONS.
- C. UNDER GROUND SANITARY SEWER PIPE TO BE SCH. 40 PVC DRAIN, WASTE AND VENT; ASTM 1785, SOLID CORE DWV. ALL FITTINGS TO BE PVC DWV PER ASTM 2865 AND ALL CONNECTIONS TO BE SOLVENT WELD PER ASTM 2564. (NO FOAM CORE PIPE ALLOWED).
- E. ALL FOUNDATION WALL PENETRATIONS SHALL BE SEALED WATER TIGHT BY THE PLUMBING CONTRACTOR AND PIPE SLEEVED.
- F. ALL PENETRATIONS THRU WALLS CREATED BY PLUMBING CONTRACTOR TO BE CAULKED BY PLUMBING CONTRACTOR.
- G. ALL ABOVE GROUND WATER LINES TO BE TYPE 'L' HARD COPPER PIPE AND EITHER LEAD-FREE SOLDER FITTINGS OR PRO-PRESS STYLE FITTINGS. NO 'SHARK-BITE' STYLE FITTINGS SHALL BE ALLOWED. BELOW GROUND LINES SHALL BE TYPE 'K' SOFT COPPER.
- H. PIPE INSULATION SHALL BE INSTALLED ON ALL WATER LINES. WHITE FIBERGLASS INSULATION WITH INSULATION FITTINGS. 1/2\" WALL INSULATION ON ALL COLD WATER AND 1\" INSULATION ON ALL HOT WATER LINES.
- I. ON THE UNDERGROUND SANITARY, MAINTAIN MINIMUM HORIZONTAL SLOPE PER OPC TABLE 704.1. DO NOT CHANGE ELEVATIONS UNNECESSARILY AND CONFIRM THAT ALL EXISTING INVERTS AT EACH CONNECTION POINT FROM NEW TO EXISTING WILL WORK WITH THE LAYOUT.
- J. PIPE HANGERS SHALL BE CLEVIS HANGER TYPE SIZED TO FIT THE PIPE WITH APPROVED SIZE THREAD-ROD AND BEAM CLAMPS. FOLLOW OPC TABLE 308.5 FOR HANGER SPACING. PIPE HANGERS ON WATER LINES SHALL BE CLEVIS HANGERS SIZED TO FIT AROUND INSULATION. VERTICAL HANGERS SHALL BE SPLIT RING OR RISER CLAMP SYTLE. NO STRAPPING OR WOOD SHIMS SHALL BE USED.
- K. ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH OPC AND ANY OTHER APPLICABLE CODES THAT MAY APPLY.
- L. PIPE LABELS SHALL BE INSTALLED ON ALL PIPING WITH FLOW ARROWS. PIPE LABELS SHALL BE THE 'STICK ON' TYPE WITH THE LETTERING LARGE ENOUGH TO READ FROM THE GROUND. COLD WATER, HOT WATER, HOT WATER RETURN, VENT, AND STORM PIPE LABELS.
- M. ALL NEW PLUMBING VENTS THROUGH THE ROOF SHALL BE FLASHED BY THE ROOFING CONTRACTOR WITH THE APPROPRIATE FLASHING AND VENTS SHALL RISE A MINIMUM OF 12 INCHES ABOVE THE EXISTING ROOF LEVEL.
- N. LEAD-FREE BALL VALVES SHALL BE INSTALLED ON ALL BRANCH RUNS TO THE LIVING UNITS AND EVERY FIXTURE SHALL HAVE A MEANS OF TURNING IT OFF FROM THE PLUMBING CHASE WITHOUT AFFECTING OTHER PARTS OF THE BUILDING.
- O. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL CORE DRILLING AND PIPE SLEEVES.
- P. PLUMBING CONTRACTOR SHALL COORDINATE THE ABOVE CEILING PIPE ROUTING WITH OTHER TRADES
- Q. PLUMBING CONTRACTOR SHALL WARRANTY ALL WORK (LABOR AND MATERIALS) FOR A MINIMUM OF ONE YEAR FOLLOWING COMPLETION OF JOB OR PERMANENT OCCUPANCY BY OWNER.

## PLUMBING FIXTURE SCHEDULE

WC-1	WATER CLOSET-STANDARD HEIGHT 15\" FLOOR MOUNT, FLUSHOMETER TYPE, WHITE, ELONGATED. WATER CL-AMERICAN STANDARD MADERA FLOWISE 2234.001, FLUSHOMETER VALVE, TOILET, 128 GPF, 15\" RIM STANDARD HEIGHT, SLOAN III MANUAL CHROME FLUSH VALVE, 128 GPF. WATER CLOSET SHALL BE A MINIMUM OF 15\" OFF SIDE WALL, CAST IRON OR PVC WITH STAINLESS STEEL CLOSET FLANGE SHALL BE USED, SEAT-AMERICAN STANDARD #5901.000 OPEN FRONT LESS COVER
WC-2	WATER CLOSET-ADA HEIGHT 17\" FLOOR MOUNT, FLUSHOMETER TYPE, WHITE, ELONGATED. WATER CL-AMERICAN STANDARD MADERA FLOWISE 3043.001, FLUSHOMETER VALVE, TOILET, 128 GPF, 16 1/2\" RIM STANDARD HEIGHT, SLOAN III MANUAL CHROME FLUSH VALVE, 128 GPF. WATER CLOSET SHALL BE A MINIMUM OF 17\" OFF SIDE WALL, CAST IRON OR PVC WITH STAINLESS STEEL CLOSET FLANGE SHALL BE USED, SEAT-AMERICAN STANDARD #5901.000 OPEN FRONT LESS COVER
MS	FLOOR MOUNT MOP SINK-24\"x24\"x10\", MUSTEE 63M (OR EQUAL), TRIM-AMERICAN STANDARD B334.012.004 SERVICE SINK FAUCET WITH STOPS, VACUUM BREAKER AND TOP BRACE, INCLUDING STAINLESS STEEL SPLASH GUARDS, RIM PROTECTOR AND MOP BRACKET
UR	URINAL-AMERICAN STANDARD WASHBROOK FLOWISE UNIVERSAL, WHITE, WALL HUNG URINAL 6590.001, SLOAN REGAL 186 MANUAL 3/4\" FLUSH VALVE-CHROME
FD	FLOOR DRAIN-ZURN Z4515B ROUND TOP, BRASS FLOOR DRAIN WITH 1/2\" TRAP PRIMER TAP (OR EQUAL), WITH PFP DU-4 DISTRIBUTION UNIT
TP	TRAP PRIMER-MIFAB MP-500, PRIME RITE PRESSURE DROP ACTIVATED TRAP SEAL PRIMER (OR EQUAL), WITH PFP DU-4 DISTRIBUTION UNIT
HB	FROST PROOF HOSE BIB-WALL HYDRANT, WOODFORD 67 AND 67BX BOX MOUNT, AT 24\" ABOVE GROUND, THE 3/4\" COLD WATER FEED MUST HAVE AN ISOLATION SHUTOFF VALVE, RECESSED BOX, FINISH SHALL BE CHROME
LAV	UNDERMOUNT LAVATORY-AMERICAN STANDARD 0496.221.020, WHITE, OVALYN UNDERCOUNTER TOP, 17\"x14\" INSIDE LAVATORY SINK WITH OVERFLOW, TRIM-ZURN Z8915-XL AQUASENSE BATTERY POWERED FAUCET W/ -FS 0.5 GPM AERA TOR LESS DRAIN LESS POP-UP, GRID STAINER, MCGUIRE 1634ECO P-TRAP-DEARBORN BRASS 700-1, 1 1/4\" 20 GA. CHROME PLATE LESS CLEANOUT SUPPLIES AND STOPS, MCGUIRE 2165CC (OR EQUAL), APPROVED ASSE 1070 POINT-OF-USE MIXING VALVE, WATTS LFUSG-B M2 102-EZ TRAP GUARD
CO	FLOOR CLEAN OUT-ZURN Z1400 EXTRA HEAVY DUTY CLEAN OUT WITH CAST IRON BODY AND BRONZE PLUG, ROUND TOP. EQUALS BY J.R. SMITH AND WATTS DRAINAGE ARE ACCEPTABLE
WH	RHEEM PERFORMANCE SELF-MODULATING TANKLESS WATER HEATER 27 KW, 5.27 GPM, INDOOR WALL MOUNTED, 240V, SINGLE PHASE

REVISIONS
2/12/2024
MARK HEINY ARCHITECT 211 SOUTH FAYETTE ST., OH 43160 WASHINGTON C.H., OH 43160 (740)333-0820 fax(740)333-8220
PROJECT: Restrooms For: Washington High School 400 S. Elm Street Washington Court House, Ohio 43160
PROJECT NO. 23019 DATE 3/29/2023 SHEET NO. P1

