

**October 21, 2024 -- ADDENDUM NO. 03  
WEST VIRGINIA UNIVERSITY AT PARKERSBURG -  
WV COMMUNITY AND TECHNICAL COLLEGE SYSTEM  
CAPERTON CENTER UPGRADES**

**TO ALL BIDDERS:**

The following items revise the Bidding Documents dated October 14, 2024. Acknowledge receipt of this Addendum at the appropriate location indicated in the Contract Documents. Failure to do so may cause the Bid to be rejected or disqualified. Updated documents including the Sign In sheet and Pre-Bid Meeting Minutes are attached.

**ITEM**

**1.0 BIDDING CONTRACT CHANGES**

- Invitation to Bid – Address updated to read Senior Director of Facilities RFB 25167WV Community and Technical College System 2001 Union Carbide Drive, Building 2000, South Charleston, WV 25303

**2.0 DRAWING CHANGES**

- Replace existing ladder and scuttle ladder and add guard rail above roof access hatch (see sketch “AD-03”).

**3.0 SPECIFICATION CHANGES**

- **Section 075323-page 6 and 7.** Thickness has been changed to 2 layers of 3” and ½” poly coverboard. Section 075323 – page 7, 2.6 Substrate indicating gypsum and ½” HD ISO Board has been deleted (see attached pages 6 and 7 to be replaced).
- Add Section **072726 FLUID-APPLIED MEMBRANE AIR BARRIERS**

**4.0 SUBSTITUTION REQUESTS**

- **“Dimension Metals”** may be as an acceptable manufacturer for metal wall panels.
- **“Johns Manville”** may be added as an acceptable manufacturer for roofing materials.

## **5.0 QUESTION ANSWERS**

- The roof makeup consists of 2 layers of 3" Poly-ISO insulation, tapered insulation to maintain slope and ½" Poly-ISO coverboard.
- Delete the last paragraph Section 2.6 "Substrate board" on page 075323-7 indicating reference to gypsum and ½" HD ISO board.
- The existing DEFS/EIFS is not to be removed. A Fluid applied membrane air barrier is to be applied to all surfaces where there's DEFS/EIFS.
- The contractor is to add wood blocking as needed around perimeter to maintain slope and/or where there's any deteriorated or non pressure treated wood blocking.

## **6.0 ATTACHMENTS**

- 1) **Sign In Sheet**
- 2) **Pre-bid Meeting Minutes**
- 3) **Sketch "AD-03"**
- 4) **Section 075323, EPDM Roofing- REVISED pages 6 and 7**
- 5) **Section 072726, FLUID APPLIED MEMBRANE AIR BARRIER**

END OF ADDENDUM NO. 03

# SIGN IN SHEET

Project Info: 24300 Caperton Center Upgrades

Meeting: Mandatory Pre-Bid

Date/Time: October 23, 2024 at 11:00 am

PLEASE PRINT LEGIBLY - IF POSSIBLE, LEAVE A BUSINESS CARD

NAME	COMPANY	E-MAIL	PHONE
TJ Tharp	MKA	<a href="mailto:ttharp@mckinleydelivers.com">ttharp@mckinleydelivers.com</a>	304-233-0140
Rich Donovan	WV Community and Technical College System	<a href="mailto:donovan@wvctes.edu">donovan@wvctes.edu</a>	681-313-2212
Bob Cooper	WVU Parkersburg	<a href="mailto:bob.cooper@wvup.edu">bob.cooper@wvup.edu</a>	740-541-9159
Sean Conger	WVU Parkersburg	<a href="mailto:sean.conger@wvup.edu">sean.conger@wvup.edu</a>	304-424-8382
Lee McClanahan	Beacon building Products	<a href="mailto:lee.mcclanahan@becn.com">lee.mcclanahan@becn.com</a>	304-638-7663
Terry Wright	Sutter Roofing + Metal Co	<a href="mailto:terry@sutterroofing.us">terry@sutterroofing.us</a>	304-624-6565
Ben Lancaster	Casto Technical Services	<a href="mailto:blancaster@castotech.com">blancaster@castotech.com</a>	304-807-0327
Nate Lancaster	Casto Technical Services	<a href="mailto:nlancaster@castotech.com">nlancaster@castotech.com</a>	304-610-7502
Alex McCay	Murray Sheet Metal Co., Inc.	<a href="mailto:alex@murraysheetmetal.com">alex@murraysheetmetal.com</a>	304-966-1519
Josh Tullius	Murray Sheet Metal Co., Inc.	<a href="mailto:jtullius@murraysheetmetal.com">jtullius@murraysheetmetal.com</a>	304-482-0982
Jordan Lerch	3D Construction	<a href="mailto:jlerch@3dconstructionwv.com">jlerch@3dconstructionwv.com</a>	740-568-8628
John Withrow	Mecklenburg Roofing	<a href="mailto:jmichael@mecklenburgroofing.com">jmichael@mecklenburgroofing.com</a>	304-590-7523
Josh Davis	Phoenix Associated Inc.	<a href="mailto:josh@phoenixwv.biz">josh@phoenixwv.biz</a>	304-210-3939
Zak Janus	Tri-State Roofing + SM	<a href="mailto:zianus@tri-state.com">zianus@tri-state.com</a>	304-483-6517
Jamie Houdyshell	EPI Insulation	<a href="mailto:jamie@epiinsulation.com">jamie@epiinsulation.com</a>	304-544-4834
Casey Freed	EPI Insulation	<a href="mailto:casey@epiinsulation.com">casey@epiinsulation.com</a>	304-488-3332
Joe Valdez	Action Construction	<a href="mailto:actionconstruction83@gmail.com">actionconstruction83@gmail.com</a>	304-588-4678

**PRE-BID MEETING MINUTES****West Virginia University of Parkersburg/West Virginia Community & Technical College System.  
Caperton Center Upgrades****MANDATORY pre-bid meeting on October 23, 2024, at 11:00 AM****1. Information**

- 1.1. The Owner is the West Virginia University of Parkersburg/West Virginia Community & Technical College System.
- 1.2. The Architect is McKinley Architecture and Engineering.
- 1.3. Direct questions in writing only to the Architect, via email at [projects@mckinleydelivers.com](mailto:projects@mckinleydelivers.com).
- 1.4. Bidding Document clarifications or changes will be made by Addendum only.
- 1.5. The Work is being funded by the Owner and Governor's Office.
- 1.6. Access to the site during bidding shall be requested through Bob Cooper, West Virginia University at Parkersburg Director of Maintenance Email: [bob.cooper@wvup.edu](mailto:bob.cooper@wvup.edu)
- 1.7. Electronic Copies of the Bidding Documents are available from the Architect make requests via the projects email account [projects@mckinleydelivers.com](mailto:projects@mckinleydelivers.com). or by phone 304-233-0140. Bidding Documents are being issued in electronic format (PDF). Addenda will be issued by the Architect to registered bidding document holders and plan rooms.

**2. Bid Due Date**

- 2.1. Bids are due at the WV Community and Technical College System, 2001 Union Carbide Drive, Building 2000, South Charleston, WV 25303 **until 3:00 PM local prevailing time on November 6, 2024**. The bidder is responsible to assure Bids are properly delivered and received. Carefully review the Instructions to Bidders, and Supplemental Instructions to Bidders for clarification of procedures.
- 2.2. Bidders may not withdraw their bid for a period of thirty (60) days after the time of the opening without the consent of the owner.

**3. Allowances**

- 3.1. Refer to Spec Section 012100 for Allowances.

**4. Special Requirements and Licensing**

- 4.1. All contractors are required to be licensed to perform the required work in the state.
- 4.2. All employees that are on site are to have a valid background check always made available to the owner and accessible on site.

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## 5. Relevant Dates

### 5.1. According to the Instructions to Bidders

5.1.1. Deadline for substitution requests is 7 days before bids, October 30, 2024, at 1:00 PM LPT.

5.1.2. Deadline for submission of questions, requests for clarifications is 4 days before bids, November 2nd, 2024, at 10:00 AM LPT.

5.1.3. Carefully review the Supplemental Instructions to Bidders for further information.

## 6. Specifications

6.1. Performance specifications included in the project manual are intended to give the bidders flexibility in selection of manufacturers and don't require pre-submittal of manufactures for approval; however, the performance requirements must be met. If there is a desire to do something differently, submit as a Substitution. After Submission of Bid Proposals, Substitutions will only be considered in accordance with requirements and permitted conditions of Division 1 substitution section.

## 7. Bonds

7.1. Bids on the Work require a 5% bid bond issued by surety, and 100% Performance bond and Payment bond.

## 8. Schedule

8.1. The Work has a date of Substantial Completion deadline of 150 consecutive calendar days. If a bid is accepted by the Owner with the intent to award a contract on the Work, and the pre-contract documents are received in a timely manner, it should be expected that a prompt Notice to Proceed will be issued on the Work. Without prior approval, the site is not available for Construction until after the proposed construction start date. Prior to this date, with prior approval, sites are available for preconstruction activities such as, measurement, shop drawing preparation, & field verification. Refer to requirements in Division 1 summary section for access to the site.

## 9. Post Bid Requirements

9.1. After the Bid Opening, the apparent low bidder(s) is required to submit to the Architect's administrative account a list of work to be performed by bidder's own forces, a list of subcontractors, including sub-subcontractors and suppliers performing work or furnishings materials of the Contract in excess of \$25,000 within 1 day in accordance with the Instructions to Bidders.

9.2. The apparent low bidder(s) shall submit all Contractor and Subcontractor License Certificates, State of WV Purchasing Affidavit, and Workplace Drug-free Affidavit with their bid.

9.3. All pre and post-bid submissions sent to the Architect shall be sent only to the Architects' administrative "projects" email account.

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9.4. Questions related to local building permits which are the Contractor's responsibility should be reviewed with local authorities. For all other local, state, and federal taxes which are the responsibility of the Contractor, questions should be directed to the WV State Tax Department, or other governing entity.

**10. Wage Considerations**

10.1. This project require conformance with the WV jobs act and use of "Local Labor" as defined under the Act. There is no prevailing wage in WV.

**11. Completion of Bid Forms**

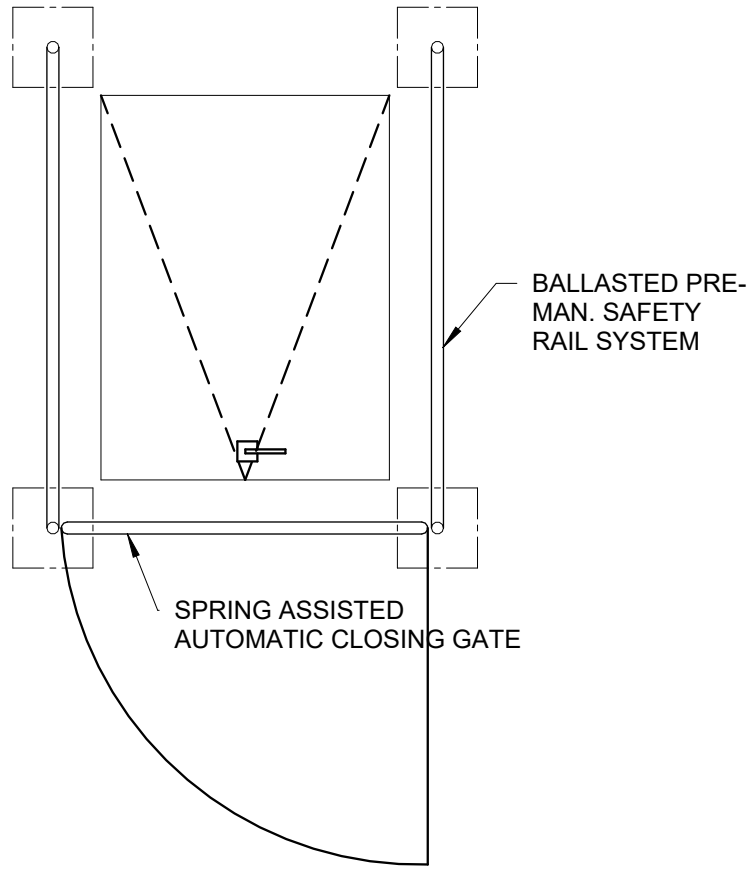
11.1. Bids must be submitted on the base bid item, to be considered responsive.

**12. Scope Discussion**

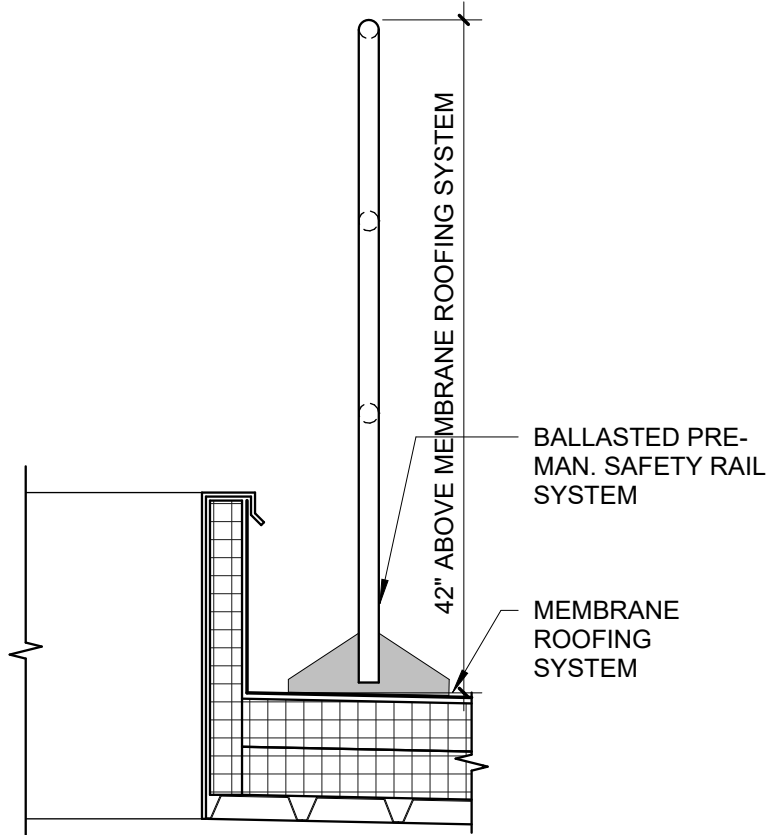
12.1. In general, the Work of this bid package includes the removal and replacement of existing roof, siding, and water heater.

**13. Questions:**

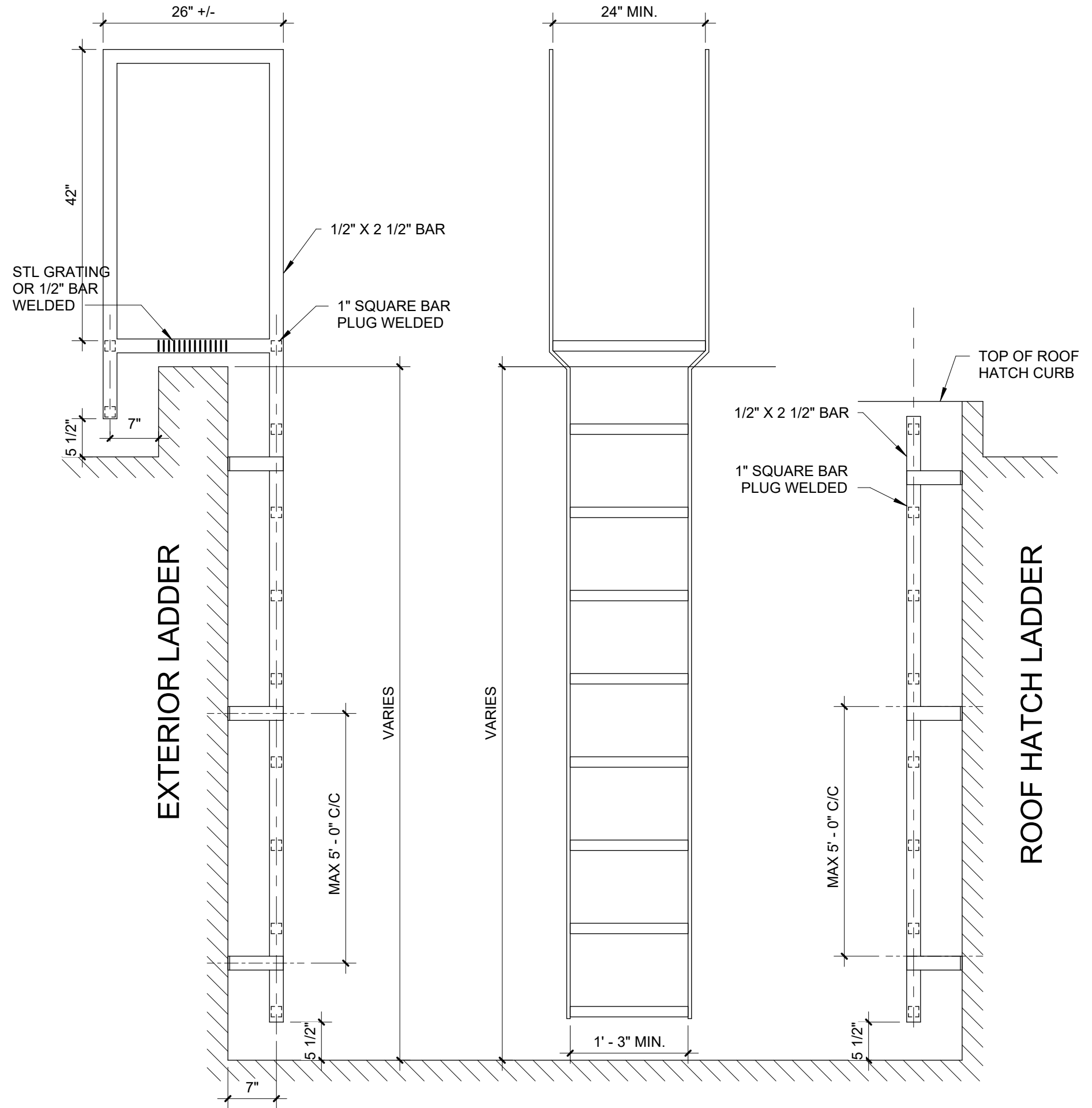
**PRE-BID MEETING MINUTES**



1 ROOF HATCH SAFETY RAILING  
1/2" = 1'-0"



3 ROOF HATCH SAFETY RAILING SECTION  
1" = 1'-0"



2 TYPICAL LADDER DETAIL  
3/4" = 1'-0"

WVU PARKERSBURG CAPERTON CENTER - UPGRADES



DRAWING TITLE  
SAFETY RAILING AND LADDER DETAILS

DATE 10/28/24	PROJ No 24302.01
DRAWING REF N/A	
DRAWING No AD-03	

- E. Roof Vents: As recommended by roof membrane manufacturer.
  - 1. Size: Not less than 4-inch diameter or as required by pipe size penetration.
- F. Bonding Adhesive: Manufacturer's standard.
- G. Seaming Material: Manufacturer's standard, synthetic-rubber polymer primer and 3-inch-wide minimum, butyl splice tape with release film.
- H. Lap Sealant: Manufacturer's standard, single-component sealant, colored to match membrane roofing.
- I. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.
- J. Metal Termination Bars: Manufacturer's standard, predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- K. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening components to substrate, and acceptable to roofing system manufacturer.
- L. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, molded pipe boot flashings, preformed inside and outside corner sheet flashings, reinforced EPDM securement strips, T-joint covers, in-seam sealants, termination reglets, cover strips, and other accessories.

## 2.4 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by EPDM roof membrane manufacturer, approved for use in FM Approvals' RoofNav-listed roof assemblies. Rated for use in UL Class A and FM Class 1 assemblies.
- B. Polyisocyanurate Board Insulation: ASTM C1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces.
  - 1. Compressive Strength: ASTM D-1621, 20 psi.
  - 2. Dimensional Stability: ASTM D-2126, less than 2% linear change.
  - 3. Moisture Vapor Transmission: ASTM E-96, less than 1.5 perm.
  - 4. Flame Spread and Smoke Developed: ASTM E-84.
  - 5. R-Value of Layered Assemblies: 20 minimum.
  - 6. Size: 48 by 96 inches.
  - 7. Thickness:
    - a. Base Layer: 3-inch nominal.
    - b. Intermediate Layers: 3-inch nominal.
    - c. Upper Layer: 1/2 inch nominal (polyiso coverboard)
- C. Tapered Insulation: Provide factory-tapered insulation boards.



1. Material: Match roof insulation.
2. Minimum Thickness: 1/4-inch nominal.
3. Slope:
  - a. Roof Field: 1/8-inch per foot unless otherwise indicated on Drawings or required by code.
  - b. Saddles and Crickets: 1/2-inch per foot unless otherwise indicated on Drawings or required by code.
4. Thickness:
  - a. Varies

## 2.5 INSULATION ACCESSORIES AND COVER BOARD

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with other roofing system components.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
  1. Modified asphaltic, asbestos-free, cold-applied adhesive.
  2. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
  3. Full-spread, spray-applied, low-rise, two-component urethane adhesive.
- D. Polyisocyanurate Insulation Cover Board: ASTM C1289 Type II, Class 4, Grade 1, 1/2 inch thick, with a minimum compressive strength of 80 psi.
- E. Protection Mat: If required for roofing type specified or otherwise indicated on Drawings, provide manufacturer's standard compatible woven or nonwoven polypropylene, polyolefin, or polyester fabric; water permeable and resistant to UV degradation; type and weight as recommended by roofing system manufacturer for application.

## 2.6 (DELETED)

## 2.7 ASPHALT MATERIALS

- A. Roofing Asphalt: ASTM D312/D312M, Type III or Type IV.
- B. Asphalt Primer: ASTM D41/D41M.

## SECTION 072726 - FLUID-APPLIED MEMBRANE WEATHER BARRIERS

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

- A. Section includes fluid-applied, and vapor-permeable membrane weather barriers.
- B. Related Requirements:
  - 1. Section 061600 "Sheathing" for wall sheathings and wall sheathing joint-and-penetration treatments.

## 1.3 DEFINITIONS

- A. Weather-Barrier Material: A primary element that provides a continuous barrier to the movement of weather.
- B. Weather-Barrier Accessory: A transitional component of the weather barrier that provides continuity.
- C. Weather-Barrier Assembly: The collection of weather-barrier materials and accessory materials applied to an opaque wall, including joints and junctions to abutting construction, to control weather movement through the wall.

## 1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
  - 1. Review Weather-barrier requirements and installation, special details, mockups, weather-leakage and bond testing, weather-barrier protection, and work scheduling that covers weather barriers.

## 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include manufacturer's written instructions for evaluating, preparing, and treating substrate; technical data; and tested physical and performance properties of products.

- B. Shop Drawings: For weather-barrier assemblies.
  - 1. Show locations and extent of weather barrier. Include details for substrate joints and cracks, counterflashing strips, penetrations, inside and outside corners, terminations, and tie-ins with adjoining construction.
  - 2. Include details of interfaces with other materials that form part of weather barrier.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Product Certificates: From weather-barrier manufacturer, certifying compatibility of weather barriers and accessory materials with Project materials that connect to or that come in contact with the barrier.
- B. Product Test Reports: For each weather-barrier assembly, for tests performed by a qualified testing agency.

#### 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
  - 1. Installer shall be licensed by ABAA according to ABAA's Quality Assurance Program and shall employ ABAA-certified installers and supervisors on Project.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Remove and replace liquid materials that cannot be applied within their stated shelf life.
- B. Protect stored materials from direct sunlight.

#### 1.9 FIELD CONDITIONS

- A. Environmental Limitations: Apply weather barrier within the range of ambient and substrate temperatures recommended by weather-barrier manufacturer.
  - 1. Protect substrates from environmental conditions that affect weather-barrier performance.
  - 2. Do not apply weather barrier to a damp or wet substrate or during snow, rain, fog, or mist.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS, GENERAL

- A. Source Limitations: Obtain primary weather-barrier materials and weather-barrier accessories from single source from single manufacturer.

- B. VOC Content: 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24) and complying with VOC content limits of authorities having jurisdiction.

## 2.2 PERFORMANCE REQUIREMENTS

- A. General: Weather barrier shall be capable of performing as a continuous vapor permeable weather barrier and as a liquid-water drainage plane flashed to discharge to the exterior incidental condensation or water penetration. Weather-barrier assemblies shall be capable of accommodating substrate movement and of sealing substrate expansion and control joints, construction material changes, penetrations, tie-ins to installed waterproofing, and transitions at perimeter conditions without deterioration and weather leakage exceeding specified limits.
- B. Weather-Barrier Assembly Weather Leakage: Maximum 0.04 cfm/sq. ft. of surface area at 1.57 lbf/sq. ft., when tested according to ASTM E 783 or ASTM E 2357.

## 2.3 VAPOR-PERMEABLE MEMBRANE WEATHER-BARRIER

- A. Fluid-Applied, Vapor-Permeable Membrane Weather Barrier: Elastomeric, modified bituminous or synthetic polymer membrane.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. W. R. Grace & Co., Perm-A-Barrier VP
    - b. Prosoco, inc., Spray Wrap.
    - c. DuPont, Tyvek Fluid Applied WB
  - 2. Physical and Performance Properties:
    - a. Weather Permeance: Maximum 0.004 cfm/sq. ft. of surface area at 1.57-lbf/sq. ft. pressure difference; ASTM E 2178.
    - b. Vapor Permeance: Minimum 10 perms; ASTM E 96/E 96M.
    - c. Ultimate Elongation: Minimum 200 percent; ASTM D 412, Die C.
    - d. Fire Propagation Characteristics: Passes NFPA 285 testing as part of an approved assembly.

## 2.4 ACCESSORY MATERIALS

- A. General: Accessory materials recommended by weather-barrier manufacturer to produce a complete weather-barrier assembly and compatible with primary weather-barrier material.
- B. Primer: Liquid waterborne primer recommended for substrate by weather-barrier material manufacturer.
- C. Counterflashing Strip: Modified bituminous, 40-mil-thick, self-adhering sheet consisting of 32 mils of rubberized asphalt laminated to an 8-mil-thick, cross-laminated polyethylene film with release liner backing.

- D. Joint Reinforcing Strip: Weather-barrier manufacturer's glass-fiber-mesh tape.
- E. Substrate-Patching Membrane: Manufacturer's standard trowel-grade substrate filler.
- F. Adhesive and Tape: Weather-barrier manufacturer's standard adhesive and pressure-sensitive adhesive tape.
- G. Stainless-Steel Sheet: ASTM A 240/A 240M, Type 304, 0.0187-inch-thick, and Series 300 stainless-steel fasteners.
- H. Sprayed Polyurethane Foam Sealant: One- or two-component, foamed-in-place, polyurethane foam sealant, 1.5- to 2.0-lb/cu. Ft. density; flame-spread index of 25 or less according to ASTM E 162; with primer and noncorrosive substrate cleaner recommended by foam sealant manufacturer.
- I. Adhesive-Coated Transition Strip: Vapor-permeable, 17-mil-thick, self-adhering strip consisting of an adhesive coating over a permeable laminate with a permeance value of 37 perms.
- J. Elastomeric Flashing Sheet: ASTM D 2000, minimum 50- to 65-mil-thick, cured sheet neoprene with manufacturer-recommended contact adhesives and lap sealant with stainless-steel termination bars and fasteners.
- K. Joint Sealant: ASTM C 920, single-component, neutral-curing silicone; Class 100/50 (low modulus), Grade NS, Use NT related to exposure, and, as applicable to joint substrates indicated, Use O. Comply with Section 079200 "Joint Sealants."
- L. Termination Mastic: Weather-barrier manufacturer's standard cold fluid-applied elastomeric liquid; trowel grade.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
  - 1. Verify that substrates are sound and free of oil, grease, dirt, excess mortar, or other contaminants.
  - 2. Verify that concrete has cured and aged for minimum time period recommended by weather-barrier manufacturer.
  - 3. Verify that concrete is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
  - 4. Verify that masonry joints are flush and completely filled with mortar.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 SURFACE PREPARATION

- A. Clean, prepare, treat, and seal substrate according to manufacturer's written instructions. Provide clean, dust-free, and dry substrate for weather-barrier application.
- B. Mask off adjoining surfaces not covered by weather barrier to prevent spillage and overspray affecting other construction.
- C. Remove grease, oil, bitumen, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.
- D. Remove fins, ridges, mortar, and other projections and fill honeycomb, aggregate pockets, holes, and other voids in concrete with substrate-patching membrane.
- E. Remove excess mortar from masonry ties, shelf angles, and other obstructions.
- F. At changes in substrate plane, apply sealant or termination mastic beads at sharp corners and edges to form a smooth transition from one plane to another.
- G. Cover gaps in substrate plane and form a smooth transition from one substrate plane to another with stainless-steel sheet mechanically fastened to structural framing to provide continuous support for weather barrier.

### 3.3 JOINT TREATMENT

- A. Concrete and Masonry: Prepare, treat, rout, and fill joints and cracks in substrate according to ASTM C 1193 and weather-barrier manufacturer's written instructions. Remove dust and dirt from joints and cracks complying with ASTM D 4258 before coating surfaces.
  - 1. Prime substrate and apply a single thickness of weather-barrier manufacturer's recommended preparation coat extending a minimum of 3 inches along each side of joints and cracks. Apply a double thickness of fluid weather-barrier material and embed a joint reinforcing strip in preparation coat.
- B. Sheathing: Fill joints greater than 1/4 inch with sealant according to ASTM C 1193 and weather-barrier manufacturer's written instructions. Apply first layer of fluid weather-barrier material at joints. Tape joints with joint reinforcing strip after first layer is dry. Apply a second layer of fluid weather-barrier material over joint reinforcing strip.

### 3.4 TRANSITION STRIP INSTALLATION

- A. General: Install strips, transition strips, and accessory materials according to weather-barrier manufacturer's written instructions to form a seal with adjacent construction and maintain a continuous weather barrier.
  - 1. Coordinate the installation of weather barrier with installation of roofing membrane and base flashing to ensure continuity of weather barrier with roofing membrane.
  - 2. Install flashing strip on roofing membrane or base flashing so that a minimum of 3 inches of coverage is achieved over each substrate.

- B. Apply primer to substrates at required rate and allow it to dry. Limit priming to areas that will be covered by fluid weather-barrier material on same day. Reprime areas exposed for more than 24 hours.
  - 1. Prime glass-fiber-surfaced gypsum sheathing with number of prime coats needed to achieve required bond, with adequate drying time between coats.
- C. Connect and seal exterior wall weather-barrier material continuously to roofing-membrane weather barrier, concrete below-grade structures, floor-to-floor construction, exterior glazing and window systems, glazed curtain-wall systems, storefront systems, exterior louvers, exterior door framing, and other construction used in exterior wall openings, using accessory materials.
- D. At end of each working day, seal top edge of strips and transition strips to substrate with termination mastic.
- E. Apply joint sealants forming part of weather-barrier assembly within manufacturer's recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Wall Openings: Prime concealed, perimeter frame surfaces of windows, curtain walls, storefronts, and doors. Apply elastomeric flashing sheet so that a minimum of 3 inches of coverage is achieved over each substrate. Maintain 3 inches of full contact over firm bearing to perimeter frames with not less than 1 inch of full contact.
  - 1. Adhesive-Coated Transition Strip: Roll firmly to enhance adhesion.
  - 2. Elastomeric Flashing Sheet: Apply adhesive to wall, frame, and flashing sheet. Install flashing sheet and termination bars, fastened at 6 inches o.c. Apply lap sealant over exposed edges and on cavity side of flashing sheet.
- G. Fill gaps in perimeter frame surfaces of windows, curtain walls, storefronts, and doors, and miscellaneous penetrations of weather-barrier material with foam sealant.
- H. Seal strips and transition strips around masonry reinforcing or ties and penetrations with termination mastic.
- I. Seal top of through-wall flashings to weather barrier with an additional 6-inch-wide, counterflashing strip.
- J. Seal exposed edges of strips at seams, cuts, penetrations, and terminations not concealed by metal counterflashings or ending in reglets with termination mastic.
- K. Repweather punctures, voids, and deficient lapped seams in strips and transition strips. Slit and flatten fish mouths and blisters. Patch with transition strips extending 6 inches beyond repweathered areas in strip direction.

### 3.5 FLUID WEATHER-BARRIER MEMBRANE INSTALLATION

- A. General: Apply fluid weather-barrier material to form a seal with strips and transition strips and to achieve a continuous weather barrier according to weather-barrier manufacturer's written

instructions. Apply fluid weather-barrier material within manufacturer's recommended application temperature ranges.

1. Apply primer to substrates at required rate and allow it to dry.
  2. Limit priming to areas that will be covered by fluid weather-barrier material on same day. Reprime areas exposed for more than 24 hours.
  3. Prime glass-fiber-surfaced gypsum sheathing with number of prime coats needed to achieve required bond, with adequate drying time between coats.
- B. Membrane Weather Barriers: Apply a continuous unbroken weather-barrier membrane to substrates according to the following thickness. Apply weather-barrier membrane in full contact around protrusions such as masonry ties.
1. Vapor-Permeable Membrane Weather Barrier: Total dry film thickness as recommended in writing by manufacturer to meet performance requirements, but not less than 40-mil dry film thickness, applied in one or more equal coats.
- C. Apply strip and transition strip a minimum of 1 inch onto cured weather-barrier material or strip and transition strip over cured weather-barrier material overlapping 3 inches onto each surface according to weather-barrier manufacturer's written instructions.
- D. Correct deficiencies in or remove weather barrier that does not comply with requirements; repair weather barrier substrates and reapply weather-barrier components.

### 3.6 FIELD QUALITY CONTROL

- A. Inspections: Weather-barrier materials, accessories, and installation are subject to inspection for compliance with requirements
- B. See Section 014000 "Quality Requirements" for retesting and reinspecting requirements and Section 017300 "Execution" for requirements for correcting the Work.
- C. Weather barriers will be considered defective if they do not pass tests and inspections.
1. Apply additional weather-barrier material, according to manufacturer's written instructions, where inspection results indicate insufficient thickness.
  2. Remove and replace deficient weather-barrier components for retesting as specified above.
- D. Repair weather damage to weather barriers caused by testing; follow manufacturer's written instructions.

### 3.7 CLEANING AND PROTECTION

- A. Protect weather-barrier system from damage during application and remainder of construction period, according to manufacturer's written instructions.
1. Protect weather barrier from exposure to UV light and harmful weather exposure as required by manufacturer. If exposed to these conditions for more than 30 days, remove and replace weather barrier or install additional, full-thickness, weather-barrier application



- after repweathering and preparing the overexposed membrane according to weather-barrier manufacturer's written instructions.
2. Protect weather barrier from contact with incompatible materials and sealants not approved by weather-barrier manufacturer.
- B. Clean spills, stains, and soiling from construction that would be exposed in the completed work using cleaning agents and procedures recommended by manufacturer of affected construction.
- C. Remove masking materials after installation..

END OF SECTION 072726