To: ALL BIDDERS

Ref: NEW RIVER C & TC – GREENBRIER HALL ROOF RENOVATION RFB 26241

Subj.: ADDENDUM BULLETIN NO. 6

This Addendum Bulletin shall be incorporated in the Construction Documents including the Drawings and Specifications for the Project referenced above. All work amended as listed herein shall be included in your Bid Proposal and the bidder shall acknowledge this addendum bulletin on the Bid Form.

The work shall be amended as follows:

SPECIFICATIONS

1. **00300 Form of Proposal:** REPLACE section in its entirety, see Enclosures.
2. **01230 Alternates:** ADD section in its entirety, see Enclosures.
3. **074113.16 Standing-Seam Metal Roof Panels:** ADD section in its entirety, see Enclosures

DRAWINGS:

1. A-1.2: REPLACE sheet in its entirety, see Enclosures. Updated have been clouded and tagged. Revisions relate to roof alternate.
2. A-5.1: REPLACE sheet in its entirety, see Enclosures. Updates have been clouded and tagged. Revisions relate to roof alternate.

FOR CLARIFICATION

N/A

END OF ADDENDUM

Enclosures:

A Bid Phase RFI Log
B Form of Proposal
C Alternates
D Standing-Seam Metal Roof Panels
E Sheet A-1.2
F Sheet A-5.1

Submitted by:
THE OMNI ASSOCIATES – ARCHITECTS, INC.

STATE OF WEST VIRGINIA
RICHARD T. FORREN
No. 2330
REGISTERED ARCHITECT

Richard T. Forren, AIA, Principal

OMNI ASSOCIATES - ARCHITECTS, INC.
207 Jefferson Street | Fairmont, WV 26554
304.367.1417 **OMNI.DESIGN**

Bid Phase PBI Report

	Question	Response	In Addendum
1	Are there any controls required to mitigate welding fumes/smoke from interior framing work? Is there an ability to put smoke alarms into test mode on the days where there is welding going on inside the building?	Smoke alarms can be put into test mode for welding fumes/smoke. When smoke alarms are in test mode, contractor to provide whole building fire watch.	4
2	Are there any restrictions on work hours for internal steel framing work?	Normal maintenance hours are 8-4. If work needs to occur outside of these hours, coordination needs to occur with the college and appropriate faculty.	4
3	Would the owner be willing to make contract changes outlines in attachment A to this document?	Contract changes will not be made during bidding phase. Once project is awarded questions can be addressed.	4
4	Please clarify what gauge you are requesting the continuous cleat on the coping metal to be. The coping thickness is stated at 22-gauge	20-gauge.	4
5	Please verify that the attachment method for the insulation is adhered. The specifications do not list an attachment method.	Insulation to be adhered per manufacturers standard.	4
6	Based on the information found during the core cuts at the onsite visits, will a fully tapered ¼" insulation system still be required?	Yes.	4
7	The standard contractor warranty length associated with a 20-year manufacturer warranty is 2 years. Would a 2-year contractor warranty be acceptable with the 20-year NDL manufacturer warranty?	Contractor warranty to be 5 years.	4
8	Drawing A-1.2 calls for a vapor retarder sheet over the concrete decking for the single ply membrane roof areas. However, the specifications do not list out acceptable vapor retarders. Please provide a specification for acceptable vapor retarders.	Manufacturer(s) adhering to criteria listed in 075423 Thermoplastic-Polyolefin (TPO) Roofing Section 2.5 Vapor Retarder acceptable for use.	4
9	In lieu of a ¼" gypsum coverboard, would a ½" HD coverboard be acceptable?	Provide coverboard specified in drawings and specifications.	4
10	Can you please identify areas and quantities of soffit that are to be removed and replaced?	Replacement of soffit to occur on East & West side roofs. Areas to be verified by bidders prior to bid submission.	4
11	Can you please identify areas and quantities of downspouts that are to be removed and replaced?	Downspouts on East & West porch roofs to be replaced in entirety.	4
12	Is there any asbestos present in any areas that are specified for demolition? Has the existing BUR on the lower roofs been tested for asbestos containing materials?	It is not expected that hazardous materials, such as asbestos-containing materials, will be encountered in the Work. No asbestos testing has been performed to date.	4
13	Based upon conversations with various manufacturer representatives the water-table would be viewed as a drainage/gutter system. This is typically a non-warrantable area of a roofing system. Per their understanding, the roofing system warranty would end at the exterior side of the scupper. Please verify this would be acceptable.	Warranty must cover all areas where membrane roofing is installed.	4
14	The asphalt shingle roofing specification for the front shingle section, as shown in Drawing A-1.2, cannot be met in its current form based on manufacturer warranty requirements. This area constitutes an inadequately ventilated or non-ventilated roof deck. CertainTeed, the only known manufacturer that will consider limited warranty coverage for this type of condition with additional requirements, has been consulted. As specified, the roofing system and warranty requirements cannot be achieved. Please advise on how to proceed.	See updated details in Enclosures.	6
15	Is the average R-Value to be 30 with the tapered ISO system or is the minimum R-value to be 30?	System shall be minimum R-30, but may be reduced by up to 1" where tapered around drains.	6
16	Can the existing system assembly for the water table section of the roof be provided?	Existing drawings are not available.	6

	Question	Response	In Addendum
17	Drawing A-1.2 calls for ½” OSB sheathing over the concreate decking on the shingled section of the building. However, in the specifications I cannot find where that is called for. Please clarify if ½” OSB sheathing is required over the concrete decking in this area.	Yes, 1/2" OSB sheathing is required over existing concrete roof assembly. Intent is to replace existing sheathing and wood sleepers (if present) with new. REVISED ADD #6: Sheathing removed in R1 assembly. See A-1.2 in Enclosures.	4 / 6

SECTION 00300 – FORM OF PROPOSAL

BID TO THE OWNER: West Virginia Community and Technical College System
2001 Union Carbide Drive, Building 2000
South Charleston, WV 25303

PROJECT: **RFB 26241**
New River Community and Technical College
Roof Renovation

Bidder's Name: _____

The undersigned, hereinafter called "Bidder," being familiar with and understanding the Bidding Documents, and also having examined the site and being familiar with all local conditions affecting the Project, hereby proposes to furnish all labor, material, equipment, supplies and transportation, and to perform all Work in accordance with the Bidding and Contract Documents within the time set forth below for the sum of:

BASE BID: $_____

_____

(Amount to be shown in both words and numbers. In the event of a difference between the written amount and the number amount, the written amount shall prevail.)

The Bidder, if successful and awarded a Contract, agrees that all Work is to be Substantially Complete within one hundred and twenty (120) consecutive calendar days following receipt of Owner's written Notice to Proceed and agrees to achieve Final Completion within 30 consecutive calendar days thereafter.

ALLOWANCES: Refer to spec section, amounts are included in the base bid.

A. Roof sheathing:
($_____)

_____
(Amount to be shown in both words and numbers. In the event of a difference between the written amount and the number amount, the written amount shall prevail.)

B. Equipment Curbs ($_____)

_____
(Amount to be shown in both words and numbers. In the event of a difference between the written amount and the number amount, the written amount shall prevail.)

C. Parapet Wall Sheathing
($_____)

_____
(Amount to be shown in both words and numbers. In the event of a difference between the written amount and the number amount, the written amount shall prevail.)

ALTERNATES:
The following Alternates may be added to the Base Proposal if selected by Owner. All work shown on drawings and/or specified is in Base Bid, except for such work specifically called to be an Alternate. Refer to Section 012300 - Alternates.

Alternate No.1 – Metal Roofing on Entry Roof

ADD the Sum of: ..... $_____)

_____
_____
(Amount to be shown in both words and numbers. In the event of a difference between the written amount and the number amount, the written amount shall prevail.)

RESPECTFULLY SUBMITTED:

SIGNATURE: _____ DATE: _____
Signature in Ink

NAME: _____ *Corporate Seal if Applicable*
Please Type or Print

TITLE: _____

BIDDERS NAME: _____
BIDDERS ADDRESS: _____
_____
_____

TELEPHONE: _____
EMAIL: _____
CONTRACTOR'S LICENSE NO.: _____

CONTRACTOR'S LICENSE

West Virginia Code §30-42 requires that all persons desiring to perform contractual work in West Virginia must be duly licensed. The West Virginia Contractor Licensing Board is empowered to issue a contractor's license. Application for a contractor's license may be made by contacting the West Virginia Contractor Licensing Board, Building 3, Room 200, 1900 Kanawha Boulevard, East, Charleston, West Virginia 25305. Telephone: (304) 558-7890. West Virginia Code §30-42 requires any prospective Bidder to include the contractor's license number on or with its Bid. Successful Bidder will be required to furnish a copy of their contractor's license prior to issuance of a Purchase Order/Contract.

AFFIDAVITS (on the following pages) – *TO BE SUBMITTED WITH BID OR AS OTHERWISE PERSCRIBED BY LAW*

- PURCHASING AFFIDAVIT: West Virginia code §5A-3-10A states that no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than $1,000 in the aggregate. The Bidder (vendor) shall execute and submit with its bid, or as otherwise prescribed by West Virginia Code, the Purchasing Affidavit provided in the Bidding Documents.

- DRUG-FREE WORKPLACE CONFORMANCE AFFIDAVIT: West Virginia Code §21-1D-5 requires each contractor that submits a bid for the work to submit an affidavit that the contractor has a written plan for a drug-free workplace policy prior to being awarded a contract. The contractor (bidder/vendor) shall execute and submit with its bid, or as otherwise prescribed by West Virginia Code, the Drug-Free Workplace Conformance Affidavit provided in the Bidding Documents.

CERTIFIED DRUG-FREE WORKPLACE REPORT

In accordance with West Virginia Code §21-1D-7b, no less than once per year, or upon completion of the project, every contractor shall provide a certified report to the public authority which let the contract. That report must include each of the items identified in the Required Report Content section of the Certified Drug-Free Workplace Report Coversheet.

DISCLOSURE OF INTERESTED PARTIES TO CONTRACTS

Pursuant to West Virginia Code §6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of $1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

The Disclosure Form is available at the following URL: http://www.ethics.wv.gov/Pages/forms.aspx

VENDOR REGISTRATION AND DISCLOSURE STATEMENT

The successful Bidder must be a registered vendor with the West Virginia Department of Administration, Purchasing Division, prior to receiving a contract/purchase order. Vendor registration information is available at the following URL: http://www.state.wv.us/admin/purchase/vrc/wv1.pdf

LIQUIDATED DAMAGES

The Owner will suffer financial loss if the Work is not Substantially Complete within the Contract Time following the date established for commencement of the Work in the notice to proceed and/or purchase order. As liquidated damages, and not as a penalty, the Contractor and the Contractor's surety shall be liable for and shall pay the Owner the sum of $ One Thousand Dollars ($1000) per day until Substantial Completion is achieved.

Allowances may be made for delays due to shortages of materials and/or energy resources, subject to proof by documentation, and for delays due to strikes or other delays beyond the control of the Contractor. All delays and any claim for extension of Contract Time must be properly documented in accordance with the General Conditions of the Contract for Construction, AIA Document A201-2017, and the State of West Virginia Supplementary Conditions to AIA Document A201-2017.

ADDENDA ACKNOWLEDGMENT

The undersigned hereby acknowledges receipt of the following Addenda and has taken the information contained therein into full consideration in the formulation of this Bid.

Addenda No. 1 _____

No. 2 _____

No. 3 _____

No. 4 _____

No. 5 _____

No. 6 _____

Failure to acknowledge receipt of each Addendum may be cause for rejection of the Bid.

SIGNATURE: _____ DATE: _____

Signature in Ink

LIST OF PROPOSED SUBCONTRACTORS
(To Be Completed and Submitted with Bid)

List as designated below the proposed subcontractor for each major branch of work for this bid. Also, provide the subcontractor's license number as required by the West Virginia Contractors Licensing Act. If the branch of work is to be completed solely by the Bidder/Contractor, so indicate. If the acceptance of an alternate bid changes a subcontractor, indicate by notation below. The Bidder/Contractor may be requested to change an unsatisfactory subcontractor. The Bidder/Contractor is responsible for selecting or changing subcontractors. The Owner and Architect/Engineer may indicate their concerns about any entity listed which they have reason to believe past experience indicates that poor performance may be expected. The Bidder/Contractor has full responsibility for satisfactory execution of all work in accordance with the Contract Documents. Any change of proposed subcontractors shall be at no additional cost to the Owner, as the Bidder/Contractor has full responsibility for execution of the work. Bidder/Contractor shall have up to two hours after the bid opening to make adjustments if necessary. Owner will suffer loss should Contractor change from those listed beyond the two-hour time stipulated. Please email adjustments/modifications to Chief Procurement Officer at Barrow Koslosky Barrow.Koslosky@wvhepc.edu.

Branch of Work/Material Category	**Subcontractor/Supplier**	**Contractor License No.**
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

6.			

END OF FORM OF PROPOSAL
END OF SECTION 00300

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include, as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation, whether or not indicated as part of alternate.

B. Execute accepted alternates under the same conditions as other Work of the Contract.

C. Schedule: A Part 3 "Schedule of Alternates" Article is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

Alternate No. 1: Metal Roofing on Entry Roof

The alternate bid is to include a pre-finished metal standing seam roofing system in lieu of the specified asphalt shingle roofing, including underlayment, trim, flashing, and all accessories required for a complete weather-tight installation. Roofing system shall be installed in accordance with manufacturer specifications and applicable building codes.

END OF SECTION 012300

SECTION 074113.16 - STANDING-SEAM METAL ROOF PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Vertical-rib, seamed-joint, standing-seam metal roof panels.
   2. Substrate board.
   3. Underlayment.

1.2 DEFINITIONS

A. Structural Standing-Seam Metal Roof Panel System: A roof system designed to resist positive and negative loads applied normal to the metal roof panel surface without the benefit of a supporting deck or sheathing.

1.3 COORDINATION

A. Coordinate sizes and locations of roof curbs, equipment supports, and roof penetrations with actual equipment provided.

B. Coordinate metal roof panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.4 ACTION SUBMITTALS

A. Product Data:

   1. For standing-seam metal roof panels. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

B. Shop Drawings:

   1. Include fabrication and installation layouts of metal roof panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
   2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches (1:10).

C. Samples for Initial Selection: Manufacturer's standard color charts, showing full range of available colors for each type of exposed finish.

   1. Include similar Samples of trim and accessories involving color selection.

D. Samples for Verification: Actual sample of finished products for each type of exposed finish for metal roof panels and metal panel accessories.

1. Size: Manufacturers' standard size.

1.5 INFORMATIONAL SUBMITTALS

A. Certificates for portable roll-forming equipment.

B. Product Test Reports: For standing-seam metal roof panels, for tests performed by a qualified testing agency.

C. Field quality-control reports.

D. Qualification Statements: For roof installers.

E. Sample warranties.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal roof panels.

1.7 QUALITY ASSURANCE

A. At least five years' experience in the installation of structural standing seam metal roof panels.

B. Experience on at least five projects of similar size, type and complexity as this project that have been in service for a minim of two years with satisfactory performance of the roof system.

C. Employers of workers for this project who are competent in techniques required by manufacturer for installation indicated and who shall be supervised at all times when material is being installed.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver components, metal roof panels, and other manufactured items so as not to be damaged or deformed. Package metal roof panels for protection during transportation and handling.

B. Unload, store, and erect metal roof panels in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack metal roof panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal roof panels to ensure dryness, with positive slope for drainage of water. Do not store metal roof panels in contact with other materials that might cause staining, denting, or other surface damage.

D. Retain strippable protective covering on metal roof panels during installation.

1.9 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal roof panels to be performed in accordance with manufacturers' written installation instructions and warranty requirements.

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of metal roof panel systems that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including rupturing, cracking, or puncturing.
b. Deterioration of metal and other materials beyond normal weathering.

2. Warranty Period: Twenty years from date of Substantial Completion.

B. Special Warranty on Panel Finishes: Manufacturer agrees to repair finish or replace metal roof panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: 35 years from date of Substantial Completion.

C. Special Weathertightness Warranty: Manufacturer agrees to repair or replace standing-seam metal roof panel systems that fail to remain weathertight, including leaks, within specified warranty period.

1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Air Infiltration: Air leakage of not more than 0.06 cfm/sq. ft. (0.3 L/s per sq. m) when tested in accordance with ASTM E1680 at the following test-pressure difference:

1. Test-Pressure Difference: 6.24 lbf/sq. ft. (300 Pa).

B. Water Penetration under Static Pressure: No water penetration when tested in accordance with ASTM E1646 at the following test-pressure difference:

1. Test-Pressure Difference: 6.24 lbf/sq. ft. (300 Pa).

C. Watertightness: No water penetration when tested in accordance with ASTM E2140 for hydrostatic-head resistance.

D. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated.

1. Uplift Rating: UL 60.

E. FM Approvals Listing: Provide metal roof panels and component materials that comply with requirements in FM Approvals 4471 as part of a metal panel roofing system and that are listed in FM's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Approvals markings.

1. Fire/Windstorm Classification: Class 1A-60.
2. Hail Resistance: MH.

F. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

G. Energy Performance:

2.2 STANDING-SEAM METAL ROOF PANELS, GENERAL

A. Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with seamed joint type indicated and mechanically attaching panels to supports using concealed fasteners in side laps. Include all accessories required for weathertight installation.

2.3 VERTICAL-RIB, SEAMED-JOINT, STANDING-SEAM METAL ROOF PANELS

A. 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:

1. Fabral.
2. McElroy Metal, Inc.
3. Pac-Clad, Petersen; a Carlisle Company.

B. Metal Roof Panels: Formed with vertical ribs at panel edges; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and mechanically seaming panels together.

1. Structural Support: Over solid deck.
2. Material: Metallic-coated steel.
3. Seam Type: Manufacturer's standard.
4. Panel Profile: Flat pan.
5. Panel Coverage: 12 inches (305 mm).
6. Panel Height: Manufacturer’s standard.
7. Clips: Two piece, floating, designed to accommodate thermal movement.

a. Steel Clips: 0.028-inch- (0.71-mm-) nominal thickness, zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet.
b. Clip Spacing: As indicated on approved Shop Drawings.

2.4 METAL ROOF PANEL MATERIAL

A. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with minimum ASTM A653/A653M, G90 (Z275) coating designation, or aluminum-zinc alloy-coated steel sheet complying with minimum ASTM A792/A792M, Class AZ50 (Class AZM150) coating designation; structural quality. Sheet prepainted by the coil-coating process to comply with ASTM A755/A755M.

1. Nominal Thickness: 0.034 inch (0.86 mm).
2. Surface: Smooth, flat texture.
3. Exterior Finish: Two-coat fluoropolymer.
4. Color: As selected by Architect from manufacturer's full range.

2.5 SUBSTRATE BOARD

A. Oriented Strand Board:

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. Georgia-Pacific
   b. Weyerhaeuser
   c. Huber

2. Thickness: 1/2 inch (13 mm).
3. Classification: Exposure 1
4. Code Fire Classification: Class III or C
5. Flame Spread Index: <450

B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions for fastening substrate board to roof deck.

2.6 UNDERLAYMENT

A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 30 mils (0.76 mm) thick, consisting of slip-resistant, polyethylene-film top surface laminated to a layer of butyl or SBS-modified asphalt adhesive, with release-paper backing. Provide primer when recommended by underlayment manufacturer.

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. Carlisle WIP Products; a brand of Carlisle Construction Materials.
   b. Henry; a Carlisle Company.
   c. Polyglass U.S.A., Inc.

2. Thermal Stability: Stable after testing at 220 deg F (111 deg C); ASTM D1970/D1970M.
3. Low-Temperature Flexibility: Passes after testing at minus 20 deg F (minus 29 deg C); ASTM D1970/D1970M.

2.7 MISCELLANEOUS MATERIALS

A. Roof Panel Accessories: Provide components required for a complete, weathertight metal roof panel system including trim, copings, fasciae, mullions, sills, corner units, fasteners, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels unless otherwise indicated.

1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal roof panels.
2. Backing Plates: Provide metal backing plates at roof panel end splices, fabricated from material recommended by manufacturer.
3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- (25-mm-) thick, flexible closure

strips; cut or premolded to match metal roof panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

B. Flashing and Trim: Provide flashing and trim formed from same material as metal roof panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent metal roof panels.

C. Roof Curbs: Fabricated from same material as metal roof panels, 0.048-inch (1.2-mm) nominal thickness; with bottom of skirt profiled to match metal roof panel profiles and with welded top box and integral full-length cricket. Fabricate curb subframing of 0.060-inch- (1.52-mm-) nominal thickness, angle-, C-, or Z-shaped steel sheet. Fabricate curb and subframing to withstand indicated loads of size and height indicated. Finish roof curbs to match metal roof panels.

1. Insulate roof curb with 1-inch- (25-mm-) thick, rigid insulation.

D. Roof Panel Fasteners: Self-tapping screws designed to withstand design loads.

E. Roof Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with metal roof panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal roof panels and remain weathertight; and as recommended in writing by metal roof panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

2.8 FABRICATION

A. Fabricate and finish metal roof panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. Provide roof panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

C. Fabricate metal roof panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.

D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
3. Seams for other than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.

4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with manufacturer's recommendations.
5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not permitted on faces of accessories exposed to view.
6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal roof panel manufacturer.

    a. Size: As recommended by metal roof panel manufacturer for application, but not less than thickness of metal being secured.

2.9 FINISHES

A. Protect finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Steel Roof Panels and Accessories:

1. Two-Coat Fluoropolymer: Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions[**for seacoast and severe environments**].

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal roof panel supports, and other conditions affecting performance of the Work.

1. Examine primary and secondary roof framing to verify that rafters, purlins, angles, channels, and other structural panel support members and anchorages have been installed within alignment tolerances required by metal roof panel manufacturer.
2. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal roof panel manufacturer.

    a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Examine roughing-in for components and systems penetrating metal roof panels to verify actual locations of penetrations relative to seam locations of metal roof panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages in accordance with ASTM C754 and metal roof panel manufacturer's written installation instructions.

3.3 INSTALLATION OF SUBSTRATE BOARD

A. Install substrate board with long joints in continuous straight lines, with end joints staggered not less than 24 inches (610 mm) in adjacent rows.

1. At steel roof decks, install substrate board at right angle to flutes of deck.

a. Locate end joints over crests of steel roof deck.

2. Tightly butt substrate boards together.
3. Cut substrate board to fit tight around penetrations and projections, and to fit tight to intersecting sloping roof decks.
4. Fasten substrate board in accordance with metal roof panel manufacturers' written installation instructions.

3.4 INSTALLATION OF UNDERLAYMENT

A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply at locations indicated on Drawings, wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches (152 mm) staggered 24 inches (610 mm) between courses. Overlap side edges not less than 3-1/2 inches (90 mm). Roll laps with roller. Cover underlayment within 14 days.

1. Apply over the entire roof surface.

B. Flashings: Install flashings to cover underlayment to comply with requirements specified in Section 076200 "Sheet Metal Flashing and Trim."

3.5 INSTALLATION OF STANDING-SEAM METAL ROOF PANELS

A. Install metal roof panels in accordance with manufacturer's written installation instructions and approved Shop Drawings in orientation, sizes, and locations indicated. Anchor metal roof panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal roof panels.
2. Flash and seal metal roof panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal roof panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal roof panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.

7. Align bottoms of metal roof panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Steel Roof Panels: Use stainless steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal roof panel manufacturer.

D. Concealed Clip, Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.

1. Install clips to supports with self-tapping fasteners.
2. Install pressure plates at locations indicated in manufacturer's written installation instructions.

E. Roof Panel Joints: Fasten panel joints to substrate in accordance with manufacturer's instructions.
1. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied sealant are completely engaged.
2. Watertight Installation:

a. Apply a continuous ribbon of sealant or tape to seal joints of metal roof panels, using sealant or tape as recommended in writing by manufacturer as needed to make panels watertight.
b. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
c. At panel splices, nest panels with minimum 6-inch (152-mm) end lap, sealed with sealant and fastened together by interlocking clamping plates.

F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal roof panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal roof panel manufacturers; or, if not indicated, types recommended by metal roof panel manufacturer.

G. Flashing and Trim: Comply with performance requirements and manufacturer's written installation instructions. Provide concealed fasteners where possible and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 ft. (3 m) with no joints allowed within 24 inches

(610 mm) of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with mastic sealant (concealed within joints).

H. Roof Curbs: Install flashing around bases where they meet metal roof panels.

I. Pipe and Conduit Penetrations: Fasten and seal to metal roof panels as recommended by manufacturer.

3.6 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal roof panels within installed tolerance of 1/4 inch in 20 ft. (6 mm in 6 m) on slope and location lines as indicated and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.

3.7 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect metal roof panel installation, including accessories. Report results in writing.

B. Remove and replace applications of metal roof panels where tests and inspections indicate that they do not comply with specified requirements.

C. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.

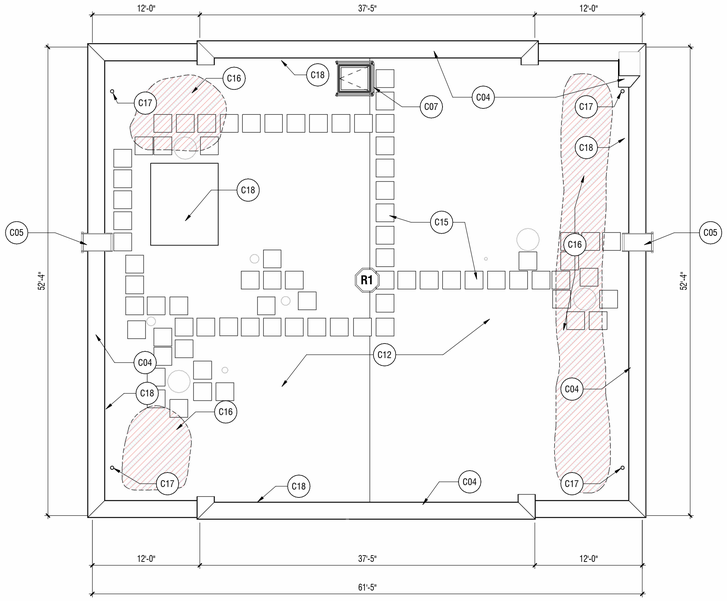
D. Prepare test and inspection reports.

3.8 CLEANING AND PROTECTION

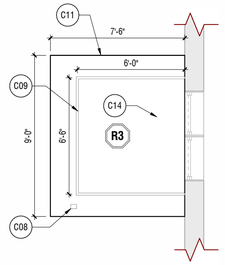
A. Remove temporary protective coverings and strippable films, if any, as metal roof panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal roof panel installation, clean finished surfaces as recommended by metal roof panel manufacturer. Maintain in a clean condition during construction.

B. Replace metal roof panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

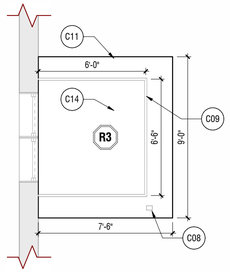
END OF SECTION 074113.16



02 PENTHOUSE ROOF
SCALE: 1/8" = 1'-0" SHEET: A-1.2



03 SIDE ROOF - WEST
SCALE: 1/4" = 1'-0" SHEET: A-1.2



04 SIDE ROOF - EAST
SCALE: 1/4" = 1'-0" SHEET: A-1.2

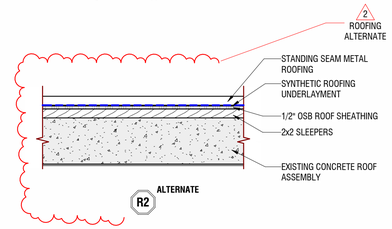
KEYED CONSTRUCTION NOTES

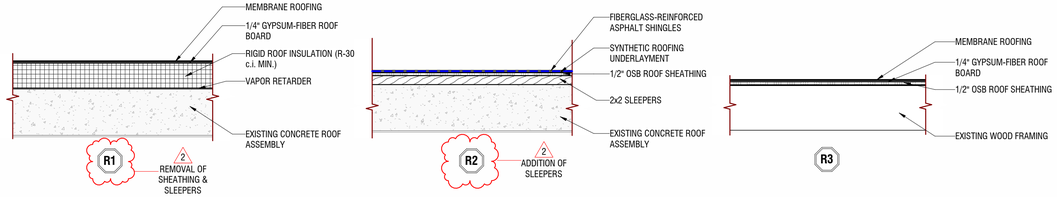
#	Note Text
C01	REPLACE ROOFING MEMBRANE AND TERMINATION STRIPS IN CORNICE GUTTER
C02	REPLACE PORTIONS OF DOWNSPOUT WHICH CONNECT TO CORNICE GUTTER WHERE DAMAGED/LEAKING AS NEEDED
C03	THRU-WALL SCUPPERS, SEE DETAILS
C04	INSTALL NEW METAL COPING OVER EXISTING STONE PARAPET CAP
C05	EXTERIOR 20" WIDE ALUMINUM WALL LADDER WITH WALK-THRU PLATFORM AND PARAPET RETURN
C06	20" WIDE ALUMINUM LADDER WITH SAFETY POST. LADDER STARTS AT LANDING AND EXTENDS TO ROOF HATCH.
C07	ROOF ACCESS HATCH WITH ATTACHED SAFETY RAILING
C08	REPLACE PORTIONS OF DOWNSPOUT WHICH CONNECT TO SIDE ROOF WHERE DAMAGED/LEAKING AS NEEDED
C09	REINSTALL ORIGINAL METAL RAILINGS.
C10	USE SELF-ADHERING ICE GUARD MEMBRANE AT ALL EDGES.
C11	REPLACE DAMAGED SOFFIT WITH LIKE MATERIAL AND PAINT TO MATCH EXISTING.
C12	REPLACE ROOFING MATERIAL ABOVE CONCRETE SLAB PER ROOF TYPE (SEE ASSEMBLIES).
C13	REPAIR EXISTING STEP FLASHING AS NEEDED AFTER REPLACING ROOFING MATERIAL.
C14	REPLACE ROOFING MATERIAL AND MEMBRANE PER ROOF TYPE (SEE ASSEMBLIES).
C15	NEW ROOF WALKWAY PADS
C16	THIS AREA OF ROOF HAS LOW SPOT. ADJUST SUBSTRATE AND NEW TAPERED INSULATION TO REPAIR
C17	4" DIAM. ROOF DRAINS AT CORNERS, TIE IN NEW MEMBRANE
C18	REPLACE SHEATHING ON BACK OF PARAPETS WHERE PRESENT. REFER TO SPECIFICATIONS FOR ALLOWANCES.

GENERAL PROJECT NOTES

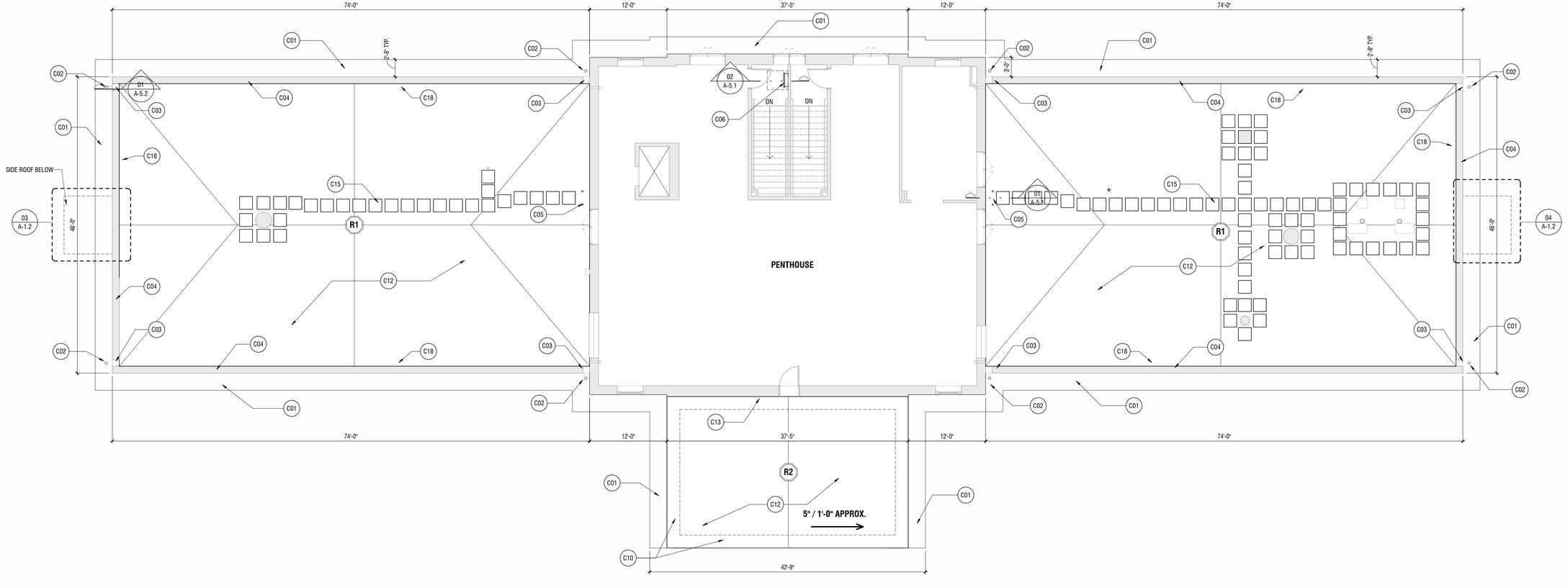
GENERAL NOTES APPLY TO ALL DRAWINGS

A. Do not scale the drawings.
B. Verify field conditions prior to commencement of each portion of the work. Some existing elements such as wall assemblies are unknown in composition, and thus, examination of the project existing conditions is required prior to bidding.
C. All dimensions are actual and are to face of studs, face of concrete walls, face of CMU walls, face of frames, or centerline of columns, unless noted otherwise.
D. The owner shall be responsible for providing the contractor with rough-in information necessary to accommodate the installation of owner furnished and installed items.
E. All dimensions to existing elements are approximate. confirm in field.





05 ROOF ASSEMBLIES
SCALE: 1" = 1'-0" SHEET: A-1.2



01 ROOF PLAN
SCALE: 1/8" = 1'-0" SHEET: A-1.2

STATE OF WEST VIRGINIA
RICHARD T. FORREN No. 2830
REGISTERED ARCHITECT

BID DOCUMENTS
2026-04-01

REVISIONS ▼
2 05.13.26 ADDENDUM 06

GREENBRIER HALL ROOF RENOVATION

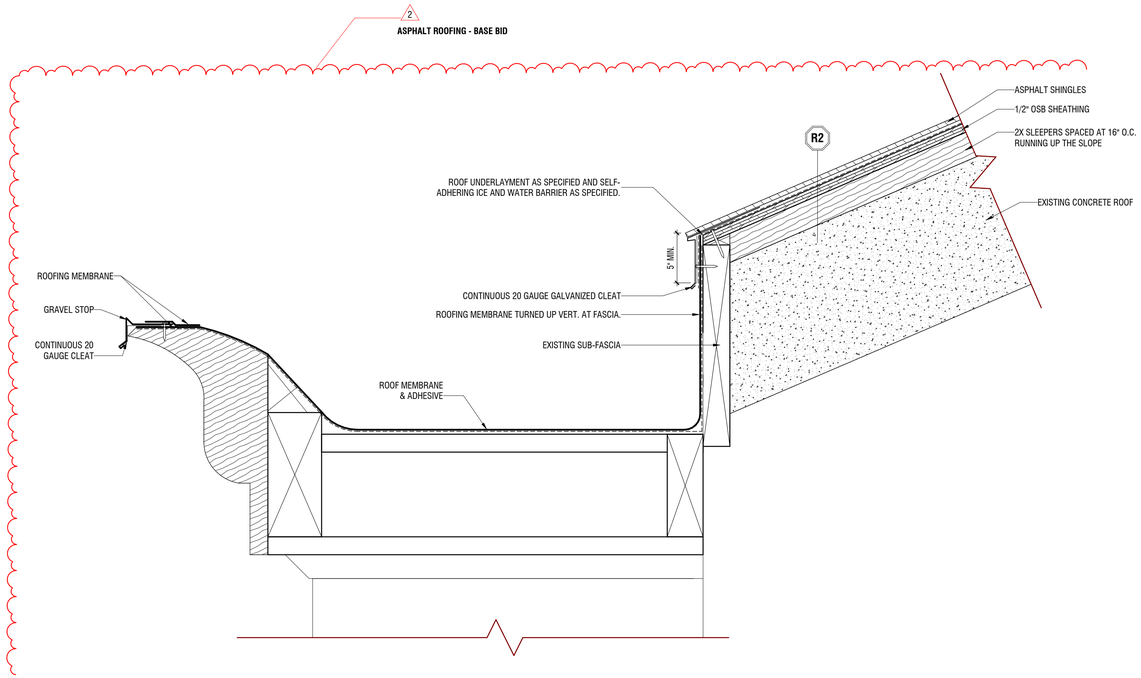
NEW RIVER COMMUNITY & TECHNICAL COLLEGE
653 Church Street
Lewisburg, WV 24901

ROOF PLAN

OMNI ARCHITECTS

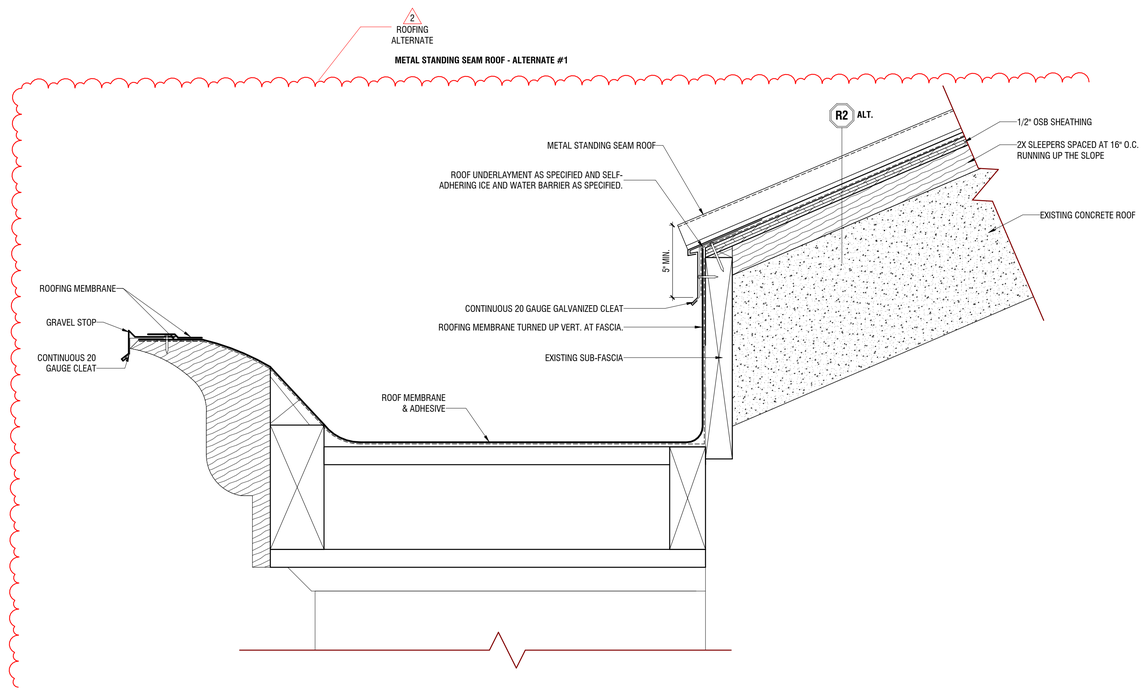
A-1.2

Project No: 2024008.002 Drawn by: CCW



05 BASE BID - ASPHALT SHING R2 TO CORNICE GUTTER

SCALE: 3" = 1'-0" SHEET: A-5.1



04 ALTERNATE - METAL ROOF R2 TO CORNICE GUTTER

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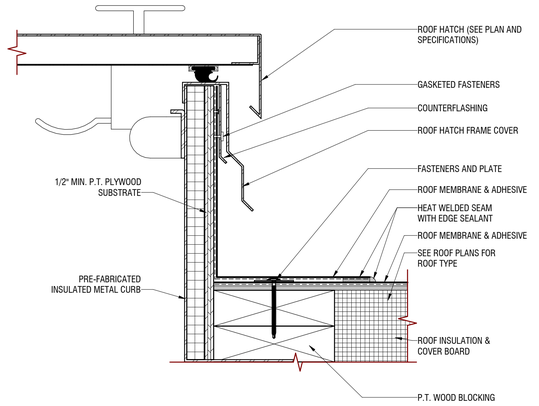
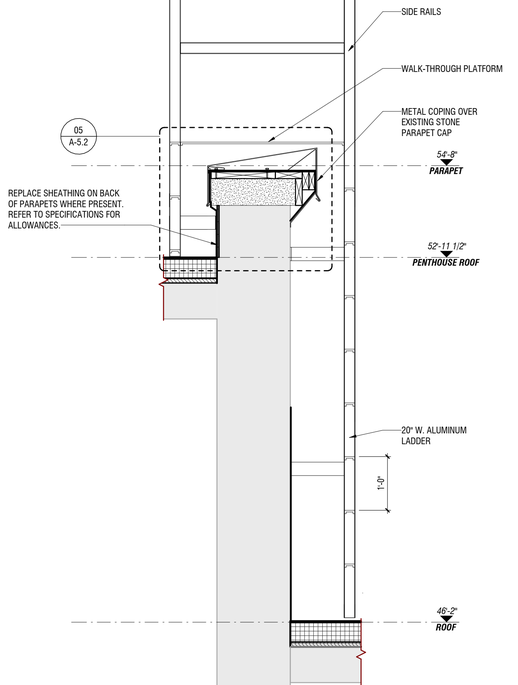


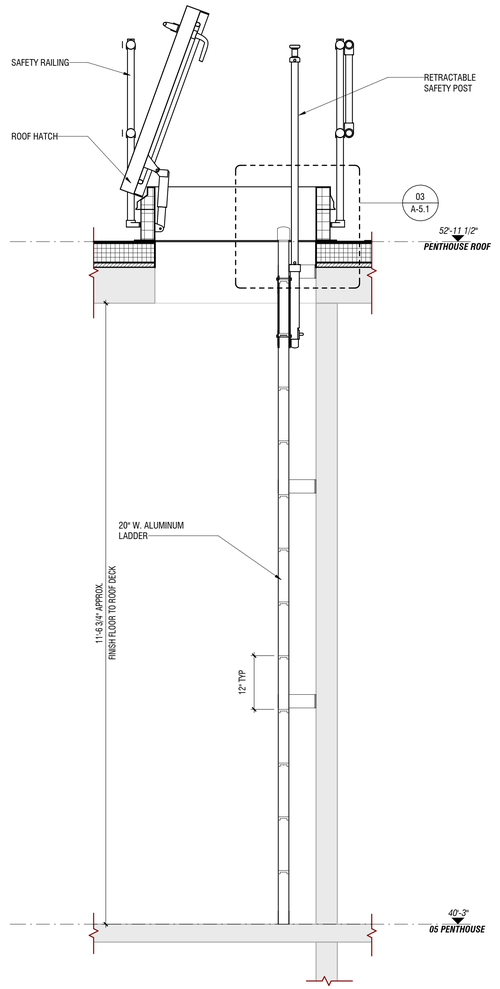
03 TYP. ROOF HATCH CURB DETAIL

SCALE: 3" = 1'-0" SHEET: A-5.1



01 WALL LADDER AT PARAPET RETURN

SCALE: 3/4" = 1'-0" SHEET: A-5.1



02 ROOF LADDER TO ROOF HATCH

SCALE: 3/4" = 1'-0" SHEET: A-5.1

STATE OF WEST VIRGINIA
RICHARD T. FORREN
No. 2330
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BID DOCUMENTS
2026-04-01

REVISIONS

2	05.13.26	ADDENDUM 06

GREENBRIER HALL ROOF RENOVATION

NEW RIVER COMMUNITY & TECHNICAL COLLEGE
653 Church Street
Lewisburg, WV 24901

DETAILS

OMNI ARCHITECTS

A-5.1

Project No: 2024008.002 **Drawn by:** CCW