

# ADDENDUM

<b>PROJECT</b>	Madison County Memorial Hospital – Roof Repairs	<b>PROJECT #</b>	21049
<b>OWNER</b>	Madison County Memorial Hospital	<b>DATE</b>	04/14/2021
<b>LETTING DATE</b>	04/20/2021	<b>ADDENDUM #</b>	01

## TO ALL HOLDERS OF DRAWINGS AND PROJECT MANUALS

This addendum is issued to incorporate the following changes in the drawings and project manual. For bids to be considered, this addendum must be acknowledged by so indicating on the Form of Bid.

Bidders shall make the following corrections or additions to the bidding documents. These items shall supersede, modify, and/or change all statements or drawings to the contrary in the drawings and project manual and shall take precedence over these documents. Bidders shall base their bid on the drawings and project manual and as modified by the changes herein stated.

### This addendum consists of (# of pages)

Text	Supplemental Drawings		Project Manual	Total Pages
	8.5" x 11"	Other		
2			8	10

## REVISIONS

### 1 Prior Addenda

Item #	Add #	Add Item #	Attachment	Description of Change
1.1				NA

### 2 Architectural

#### Project Manual Changes

Item #	Sheet/ Section	Detail/ Paragraph	Attachment	Description of Change
2.1	00 01 10		N	<b>ADD</b> <b>07 31 13 Asphalt Shingles</b> and <b>07 41 13 Metal Roof Panels</b> to the Table of Contents at their respective locations.
2.2	07 31 13		07 31 13	<b>ADD</b> Section 07 31 13 Asphalt Shingles in its entirety.
2.3	07 41 13		07 41 13	<b>ADD</b> Section 07 41 13 Metal Roof Panels in its entirety.

#### Drawing Changes

Item #	Sheet/ Section	Detail/ Paragraph	Attachment	Description of Change
2.4				

### 3 Discipline 1

#### Project Manual Changes

Item #	Sheet/ Section	Detail/ Paragraph	Attachment	Description of Change
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3.1				
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Drawing Changes

Item #	Sheet/ Section	Detail/ Paragraph	Attachment	Description of Change
3.2				

**4 Substitution Requests**

Item #	Sheet/ Section	Detail/ Paragraph	Attachment	Description of Change
4.1				

**End of Addendum**

**Submitted By**

  
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 David Hofmann AIA

**SECTION 07 31 13**  
**ASPHALT SHINGLES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Asphalt shingle roofing.
- B. Flexible sheet membranes for eave protection, underlayment, and valley protection.
- C. Associated metal flashings and accessories.

**1.02 REFERENCE STANDARDS**

- A. ASTM D226/D226M - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing; 2017.
- B. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2019.
- C. ASTM D3161/D3161M - Standard Test Method for Wind-Resistance of Steep Slope Roofing Products (Fan-Induced Method); 2020.
- D. ASTM D3462/D3462M - Standard Specification for Asphalt Shingles Made From Glass Felt and Surfaced with Mineral Granules; 2019.
- E. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free; 2007 (Reapproved 2018).
- F. ASTM D4869/D4869M - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing; 2016a.
- G. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings; 2020a.
- H. NRCA (RM) - The NRCA Roofing Manual; 2019.
- I. UL (DIR) - Online Certifications Directory; current listings at [database.ul.com](http://database.ul.com).

**1.03 SUBMITTALS**

- A. Product Data: Provide data indicating material characteristics and performance criteria.
- B. Shop Drawings: For metal flashings, indicate specially configured metal flashings.
- C. Samples: Submit two samples of each shingle color indicating color range and finish texture/pattern; for color selection.
- D. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. Extra Shingles: 100 sq ft of each type and color.

**1.04 QUALITY ASSURANCE**

- A. Installer shall be certified by manufacturer as a qualified installer meeting all requirements necessary for complete warranty eligibility without exceptions.
- B. Products: Provide all primary roofing products, including shingles underlayment, leak barrier, and ventilation, by single manufacturer or recommended manufacture of primary roofing material.
- C. Products are Required to Comply with Fire Resistance Criteria: UL (DIR) listed and labeled.
- D. All work shall be performed in a manner consistent with current OSHA guidelines.

**1.05 FIELD CONDITIONS**

- A. Do not install shingles or eave protection membrane when surface temperatures are below 45 degrees F.

## 1.06 WARRANTY

- A. Provide prorated 50 year warranty against manufacturing defects that adversely affect the performance of the shingle.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

- A. Asphalt Shingles:
  - 1. **Basis of Design:** GAF; Timberline Ultra HD: [www.gaf.com/#sle](http://www.gaf.com/#sle).
  - 2. Malarkey Roofing Products, Legacy 273 (w scotchguard); [www.malarkeyroofing.com](http://www.malarkeyroofing.com).

### 2.02 ASPHALT SHINGLES

- A. Asphalt Shingles: Asphalt-coated glass felt, mineral granule surfaced, complying with ASTM D3462/D3462M.
  - 1. Fire Resistance: Class A, complying with ASTM E108.
  - 2. Wind Resistance: Class F, when tested in accordance with ASTM D3161/D3161M.
  - 3. Warranted Wind Speed: Not greater than 110 mph.
  - 4. Self-sealing type.
  - 5. Style: Laminated overlay.
  - 6. Color: As selected by Architect.

### 2.03 SHEET MATERIALS

- A. Eave Protection Membrane:
  - 1. Eave Protection Membrane: Self-adhering polymer-modified asphalt sheet complying with ASTM D1970/D1970M; 40 mil total thickness; with strippable treated release paper and polyethylene sheet top surface.
- B. Underlayment: Synthetic non-asphaltic sheet, intended by manufacturer for mechanically fastened roofing underlayment without sealed seams.
  - 1. Type: Woven polypropylene with anti-slip polyolefin coating on both sides.
  - 2. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
  - 3. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
  - 4. Performance: Meet or exceed requirements for ASTM D226/D226M, Type II asphalt-saturated organic felt.
  - 5. Liquid Water Transmission: Passes ASTM D4869/D4869M.
  - 6. Fasteners: As recommended by manufacturer or building code qualification report or approval.
- C. Flexible Flashing / Weather Barrier / Ice and Water Shield: Self-adhering polymer-modified asphalt sheet complying with ASTM D1970/D1970M; 40 mil total thickness; with strippable treated release paper and polyethylene sheet top surface.

### 2.04 ACCESSORIES

- A. Replacement Deck Sheathing: Dimensional lumber matching dimension, grade and physical characteristics of existing roof deck material.
- B. Roofing Nails: Standard round wire shingle type, galvanized steel, stainless steel, aluminum roofing nails, or copper roofing nails, minimum 3/8 inch head diameter, 12 gauge, 0.109 inch nail shank diameter, 1-1/2 inch long and complying with ASTM F1667.
- C. Plastic Cement: ASTM D4586/D4586M, asphalt roof cement.
- D. Lap Cement: Fibrated cutback asphalt type, recommended for use in application of underlayment, free of toxic solvents.
- E. Plastic Ridge Vents: Extruded plastic with vent openings that do not permit direct water or weather entry; flanged to receive shingles.
- F. Rooftop Intake Vents: Tapered profile vent installed between shingle courses on rooftop.
  - 1. Application: Provide at bottom third of roof slope when required to supplement soffit intake vent or in place of soffit vent.

2. Area: As required to meet local code and manufacturer warranty requirements.
3. Products:
  - a. Cobra® IntakePro™ Rooftop Intake Vent by GAF.
  - b. DeckAir® Vent by Lomanco Inc.

## **2.05 METAL FLASHINGS**

- A. Metal Flashings: Provide sheet metal eave edge, gable edge, open valley flashing, chimney flashing, dormer flashing, valley flashing, parapet flashing, and other flashing indicated.
  1. Form flashings to profiles indicated on drawings.
  2. Form sections square and accurate to profile, in maximum possible lengths, free from distortion or defects detrimental to appearance or performance.
  3. Hem exposed edges of flashings minimum 1/4 inch on underside.
- B. Steel Sheet Metal: Prefinished and galvanized steel sheet, 26 gage, 0.0179 inch minimum thickness, G90/Z275 hot-dipped galvanized; PVC coated, selected color.
- C. Bituminous Paint: Acid and alkali resistant type; black color.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify existing conditions prior to beginning work.
- B. Verify that roof deck is of sufficient thickness to accept fasteners.
- C. Verify that roof penetrations and plumbing stacks are in place and flashed to deck surface.
- D. Verify roof openings are correctly framed.
- E. Verify deck surfaces are dry, free of ridges, warps, or voids.

### **3.02 PREPARATION**

- A. Replace damaged or rotten roof deck.
- B. Seal roof deck joints wider than 1/16 inch as recommended by shingle manufacturer.
- C. At areas where eave protection membrane is to be adhered to substrate, fill knot holes and surface cracks with latex filler.
- D. Broom clean deck surfaces before installing underlayment or eave protection.
- E. Install eave edge flashings tight with fascia boards, weather lap joints 2 inches and seal with plastic cement, and secure flange with nails spaced manufacturer recommended inches on center.

### **3.03 INSTALLATION - EAVE PROTECTION MEMBRANE**

- A. Install eave protection membrane from eave edge to minimum 6 ft up-slope.
- B. Install eave protection membrane in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.

### **3.04 INSTALLATION - UNDERLAYMENT**

- A. Underlayment At Roof Slopes Greater Than 4:12: Install underlayment perpendicular to slope of roof, with ends and edges weather lapped minimum 4 inches, stagger end laps of each consecutive layer, nail in place, and weather lap minimum 4 inches over eave protection.
- B. Weather lap and seal watertight with plastic cement any items projecting through or mounted on roof.

### **3.05 INSTALLATION - VALLEY PROTECTION**

- A. Install one ply of flexible flashing, minimum 36 inches wide, centered over valleys.
- B. Install flexible flashing in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.
- C. Weather lap joints minimum 2 inches.

- D. Nail in place minimum 18 inches on center, 1 inch from edges.

### **3.06 INSTALLATION - METAL FLASHING AND ACCESSORIES**

- A. Install flashings in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.
- B. Weather lap joints minimum 2 inches and seal weather tight with plastic cement.
- C. Replace metal flashing and boots for all mechanical, plumbing and electric roof penetrations.
- D. Secure in place with nails at manufacturer recommended inches on center, and conceal fastenings.
- E. Items Projecting Through or Mounted on Roofing: Flash and seal weather tight with plastic cement.
- F. Provide flashing at parapet conditions.
- G. Ventilation must meet or exceed current F.H.A., H.U.D. and local code requirements.
- H. Provide equal open area for intake and exhaust venting.
- I. Ventilation Calculation; attic floor square feet / 300 square feet = square feet net free ventilation.

### **3.07 INSTALLATION - SHINGLES**

- A. Install shingles in accordance with manufacturer's instructions manufacturer's instructions and NRCA (RM) applicable requirements.
  - 1. Fasten individual shingles using four (4) nails per shingle, or as required by manufacturer and local building code, whichever is greater.
  - 2. Fasten strip shingles using four nails per strip, or as required by manufacturer and local building code, whichever is greater.
- B. Place shingles in straight coursing pattern with 5 inch weather exposure to produce double thickness over full roof area, and provide double course of shingles at eaves.
- C. Project first course of shingles 3/4 inch beyond fascia boards.
- D. Extend shingles 0 inch beyond face of gable edge fascia boards.
- E. Miter shingles at valley using manufacturer's recommended method of cutting to form straight edge inline with the valley.
- F. Coordinate installation of roof mounted components or work projecting through roof with weather tight placement of counterflashings.
- G. Complete installation to provide weather tight service.

### **3.08 PROTECTION**

- A. Do not permit traffic over finished roof surface.

**END OF SECTION**

**SECTION 07 41 13**  
**METAL ROOF PANELS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Architectural roofing system of preformed steel panels.

**1.02 RELATED REQUIREMENTS**

- A. Section 06 10 00 - Rough Carpentry: Roof sheathing.
- B. Section 07 92 00 - Joint Sealants: Sealing joints between metal roof panel system and adjacent construction.

**1.03 REFERENCE STANDARDS**

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2013.
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
- C. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2015.
- D. ASTM E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference; 2005 (Reapproved 2017).

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Summary of test results, indicating compliance with specified requirements.
  - 2. Installation methods.
- C. Shop Drawings: Include layouts of roof panels, details of edge conditions, spacing and type of connections, flashings, and special conditions.
  - 1. Show work to be field-fabricated or field-assembled.
- D. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.
- E. Test Reports: Indicate compliance of metal roofing system to specified requirements.
- F. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Provide strippable plastic protection on prefinished roofing panels for removal after installation.
- B. Store roofing panels on project site as recommended by manufacturer to minimize damage to panels prior to installation.

**1.06 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Finish Warranty: Provide manufacturer's special warranty covering failure of factory-applied exterior finish on metal roof panels and agreeing to repair or replace panels that show evidence of finish degradation, including significant fading, chalking, cracking, or peeling within specified warranty period of ten years from Date of Substantial Completion.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Architectural Metal Roof Panels:

Roof Repairs  
Madison County Memorial Hospital  
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METAL ROOF PANELS  
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1. ATAS International, Inc; Field-Lok 2 Inch: [www.atas.com/#sle](http://www.atas.com/#sle).
2. **Basis-of-Design:** Berridge Manufacturing Company; Double-Lock Zee-Lock Panel: [www.berridge.com/#sle](http://www.berridge.com/#sle).
3. Fabral; Powerseam II: [www.fabral.com/#sle](http://www.fabral.com/#sle).
4. Petersen Aluminum Corporation; PAC-150 180 Degree Double Lock: [www.pac-clad.com/#sle](http://www.pac-clad.com/#sle).
5. Substitutions: See Section 01 60 00 - Product Requirements.

## 2.02 PERFORMANCE REQUIREMENTS

- A. Metal Roof Panels: Provide complete roofing assemblies, including roof panels, clips, fasteners, connectors, and miscellaneous accessories, tested for compliance with the following minimum standards:
  1. Overall: Complete weathertight system tested and approved in accordance with ASTM E1592.
  2. Thermal Movement: Design system to accommodate without deformation anticipated thermal movement over ambient temperature range of 100 degrees F.

## 2.03 ARCHITECTURAL METAL ROOF PANELS

- A. Architectural Metal Roof Panels: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding anticipated movement of substrate and thermally induced movement of roofing system.
- B. Architectural Metal Panels: Factory-formed panels with factory-applied finish.
  1. Steel Panels:
    - a. Zinc-coated steel complying with ASTM A653/A653M; minimum G90 galvanizing.
    - b. Steel Thickness: Minimum 24 gage (0.024 inch).
  2. Profile: Standing seam, with minimum 1.0 inch seam height; concealed fastener system for field seaming with special tool.
  3. Length: Full length of roof slope, without lapped horizontal joints.

## 2.04 ATTACHMENT SYSTEM

- A. Concealed System: Provide manufacturer's standard stainless steel or corrosion resistant concealed anchor clips designed for specific roofing system and engineered to meet performance requirements, including anticipated thermal movement.

## 2.05 SECONDARY FRAMING

- A. Reuse existing secondary framing to greatest extent possible.
- B. Miscellaneous Secondary Framing: Light gauge steel framing incidental to structural supports; fabricated from steel sheet.
- C. Secondary Framing for Roof Retrofit: Light gauge, asymmetrical section, steel zee profile framing precut with notches that match size, shape and spacing of existing metal roof seams.
- D. Framing Material: ASTM A 1011/A 1011M, Designation SS steel sheet.
  1. Profile: Manufacturer's standard cee, zee, asymmetrical zee, hat channel, plain channel, single slope eave strut, double slope eave strut, and angle.
  2. Finish: Galvanized per ASTM A653/A653M, G90.
- E. Framing Connectors: Factory-made formed steel sheet, ASTM A653/A653M SS Grade 50, with G60/Z180 hot dipped galvanized coating and factory punched holes.

## 2.06 FABRICATION

- A. Panels: Provide factory or field fabricated panels with applied finish and accessory items, using manufacturer's standard processes as required to achieve specified appearance and performance requirements.

## 2.07 FINISHES

- A. Fluoropolymer Coil Coating System: Manufacturer's standard coil coating system complying with AAMA 2605, including at least 70 percent polyvinylidene fluoride (PVDF) resin, and at



least 80 percent of coil coated aluminum surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch; color and gloss to match sample.

## **2.08 ACCESSORIES**

- A. Miscellaneous Sheet Metal Items: Provide flashings, gutters, downspouts, trim, moldings, closure strips, and caps of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
- B. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.
- C. Sealants:
  - 1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
    - a. Product(s): Spectrem 1 Silicone Sealant by Tremco, Inc. or approved equal.
  - 2. Concealed Sealant: Non-curing butyl sealant or tape sealant.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Do not begin installation of preformed metal roof panels until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Design Professional of unsatisfactory preparation before proceeding.

### **3.02 PREPARATION**

- A. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to assure that the completed roof will be free of leaks.
- B. Remove protective film from surface of roof panels immediately prior to installation. Strip film carefully, to avoid damage to prefinished surfaces.
- C. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by roof panel manufacturer.
- D. Where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

### **3.03 INSTALLATION**

- A. Overall: Install roofing system in accordance with approved shop drawings and panel manufacturer's instructions and recommendations, as applicable to specific project conditions. Anchor all components of roofing system securely in place while allowing for thermal and structural movement.
  - 1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.
  - 2. Minimize field cutting of panels. Where field cutting is absolutely required, use methods that will not distort panel profiles. Use of torches for field cutting is absolutely prohibited.
- B. Accessories: Install all components required for a complete roofing assembly, including flashings, gutters, downspouts, trim, moldings, closure strips, caps, rib closures, ridge closures, and similar roof accessory items.
- C. Roof Panels: Install panels in strict accordance with manufacturer's instructions, minimizing transverse joints except at junction with penetrations.
  - 1. Form weathertight standing seams incorporating concealed clips, using an automatic mechanical seaming device approved by the panel manufacturer.
  - 2. Provide sealant tape or other approved joint sealer at lapped panel joints.
  - 3. Install sealant or sealant tape, as recommended by panel manufacturer, at end laps and side joints.

### **3.04 CLEANING**

- A. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to the finish.

### **3.05 PROTECTION**

- A. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.
- B. Touch-up, repair, or replace damaged roof panels or accessories before Date of Substantial Completion.

**END OF SECTION**