



December 30, 2020

**TO: HOLDERS LIST**

**SUBJECT: Parcel 1A (TOTE) Inbound Gate Roof Replacement Project  
CONTRACT NO. 071249**

**ADDENDUM NUMBER # 01**

This addendum is issued to add, remove, clarify and amend the following:

**Section 07 41 13 – Metal Roof Panels**

**Part 2-PRODUCTS**

**2.01 MANUFACTURERS**

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering materials that may be incorporated into the work include:
1. AEP Span
  2. Metal Sales Manufacturing
  - 3. Taylor Metal Products**
  - 4. Or approved equal**

## **PART 1 – GENERAL**

### **1.01 SUMMARY**

- A. Work in this section includes:
  - 1. Standing seam metal roof panels and accessories.

### **1.02 SUBMITTALS**

- A. Product Data: For each product indicated, submit manufacturer's material and finish data, installation instructions, and general recommendations for roofing applications. Include certification or other data substantiating that materials comply with requirements.
- B. Submit shop drawings showing manner of forming, joining, and securing metal roofing, and pattern of seams. Show expansion joint details and waterproof connections to adjoining work and at obstructions and penetrations.
- C. Samples for Verification: For Sheet Metal Roofing, submit Sample 12 inches long by actual panel width, including finished seams. Include fasteners, closures, and other attachments.
- D. Installer Qualifications/Certifications.

### **1.03 QUALITY ASSURANCE**

- A. Installer Qualification: Engage an experienced installer who has complete sheet metal roofing in similar material, design, and extent to that indicated for this project.
- B. Industry Standard: Except as otherwise indicated, comply with applicable recommendations and details of "Architectural Sheet Metal Manual" by SMACNA. Conform to dimensions and profiles shown.
- C. Installer Certifications:
  - 1. Installer must be approved in writing by the Roof Manufacturer; certification must be achieved prior to the published bid date.
  - 2. Have successfully installed five metal roofs of comparable size and complexity.
- D. The roof panel manufacturer must subscribe to Underwriter's Laboratories "Follow Up Service" assuring continuing product compliance with UL requirements. Shipment packaging of panels and attachment clips must bear classification markings
  - 1. Manufacturer shall have a minimum of 10 years experience supplying metal roofing to the regions where the work is to be performed.
  - 2. Comply with current independent testing and certification as specified.
  - 3. Manufacturer shall provide proof of liability insurance for their metal roof system
- E. Source Limitations: Obtain each type of metal roof panel and accessories through one source from a single manufacturer.

### **1.04 PERFORMANCE REQUIREMENTS**

- A. Conform to recommendations of "Architectural Sheet Metal Manual", latest edition issued by Sheet Metal and Air Conditioning Contractor's National Association (SMACNA) insofar as applicable for all metals.
- B. Air Infiltration: Panel to meet the following standard when tested in accordance with ASTM E283: with factory-applied continuous sealant – 0.14 cfm/lft. At 20psf.

- C. Water Penetration: Panel to meet the following standard when tested in accordance with ASTM E331: with factory-applied continuous sealant, no leakage at 20 psf.
- D. Wind Uplift: Provide roof assemblies meeting requirements of UL 580 for Class 90 wind uplift resistance.
- E. The metal roofing panels used for this project shall be fabricated, preformed, prefinished and tested by the manufacturer at the manufacturer's designated facilities prior to being shipped to the site. Panels preformed on site will not be accepted
- F. Preformed metal panels are to meet or exceed the following ASTM Standards:
  - 1. ASTM 1592 for uplift
  - 2. ASTM 1646 and 1680 for air and water infiltration
  - 3. ASTM A79 for base-metal coating

#### 1.05 PRODUCT DELIVERY

- A. Protect panels against damage and discoloration
- B. Handle panels with non-marring slings.
- C. Store panels above ground, with one end elevated for drainage.
- D. Protect panels against standing water and condensation between adjacent surfaces
- E. If panels become wet, immediately separate sheets, wipe dry, and allow to air dry.
- F. Painted panels shall be shipped with protective plastic sheeting or a strippable film coating between all panels.

#### 1.06 WARRANTY

- A. Manufacturer's 20-year finish warranty for high-build finishes for use in marine applications.
- B. Installer's warranty: warrant panels, flashings, sealants, fasteners and accessories against defective materials and/or workmanship, to remain watertight and weatherproof with normal usage for two (2) years following Project Substantial Completion date.

### **PART 2 – PRODUCTS**

#### 2.01 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering materials that may be incorporated into the work include:
  - 1. AEP Span
  - 2. Metal Sales Manufacturing
  - 3. Taylor Metal Products
  - 4. Or approved equal

#### 2.02 METAL ROOF PANELS

- A. Panel Designation:
  - 1. Basis of Design: AEP Span "Span-Lok"
  - 2. Panel Width: 16-inch, with striations

3. Rib Height: 2" mechanically seamed profile
- B. Base Metal: Thickness and yield strength as required for performance indicated; with aluminum-zinc alloy coating conforming to ASTM A792, Class AZ50.
  1. Thickness: 22 gauge
- C. Exterior Finish: Custom 3-coat high-build paint finish suitable for use in marine climates.
  1. Fluoropolymer Coating: PPG Duranar XL Plus consisting of 0.70-0.80mil primer coat, 0.70-0.80mil color coat, and 0.45-0.55mil clear topcoat.
  2. Salt Spray Resistance: Passes 1000 hours in accordance with ASTM B117.
  3. Durability: Provide coating which has been field tested under normal range of weathering conditions for minimum of 20 years without significant peel, blister, flake, chip, crack or check in finish, and without chalking in excess of 8 (ASTM D 659), and without fading in excess of 5 NBS units.
  4. Color: Match AEP Span "Cool Regal White".

### 2.03 ACCESSORIES

- A. General: Except as indicated as work of another specification section, provide components required for a complete roof system, including trim, copings, fascias, ridge closures, clips, seam covers, battens, flashings, gutters, louvers, sealants, gaskets, and closure strips. Match materials and finishes of roof.
- B. Fastener Clip: UL 90 rated 18 gauge Zincolume® steel, 40 ksi yield strength, standard clip suitable for installation over open framing.
- C. Sealant tape: Pressure-sensitive 100 percent solids polyisobutylene compound sealing tape with release paper backing. Provide permanently elastic nonsag, nontoxic, nonstaining tape.
- D. Joint Sealant: One-part elastomeric polyurethane sealant.
- E. Roof Anchor Flashing: Deks "Dektite" pipe boot flashing with flexible aluminum band, or approved equal.

## PART 3 – EXECUTION

### 3.01 EXAMINATION

- A. Examine substrates and conditions under which sheet metal roofing is to be installed and verify that work may properly commence. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Coordinate metal roofing with rain drainage work, flashing, trim and construction of decks, parapets, walls, and other adjoining work to provide a permanently leak proof, secure and noncorrosive installation.

### 3.02 INSTALLATION – GENERAL

- A. Except as otherwise indicated or specified, comply with recommendations and instructions of the manufacturer of sheet metal being fabricated and installed.
- B. Proceed with metal panel installation only once testing and installation of fall protection anchors has been completed per Section 11 01 00 – Fall Protection Systems.

- C. Separate dissimilar metals by painting each metal surface in area of contact with a bituminous coating, by applying rubberized asphalt underlayment to each metal surface, or by other permanent separation as recommended by manufacturers of dissimilar metals.
- D. Field Measurements
  - 1. Verify prior to fabrication
  - 2. If field measurements differ from the drawing dimensions, notify the Engineer prior to fabrication
- E. Protection:
  - 1. Coat the back side of metal roofing with bituminous coating where it will be in contact with wood, dissimilar metals, or cementitious construction
  - 2. Workers who will be walking on the roofing panels are to wear clean, soft soled shoes that will not pick up stones or other abrasive material which could cause damage and discoloration
  - 3. Protect work of other trades against damage and discoloration
- F. Form and fabricated sheets, seams, strips, cleats, valleys, ridges, edge treatments, integral flashings, and other components of metal roofing to profiles, patterns, and drainage arrangements shown and as required for permanently leak proof construction. Provide for thermal expansion and contraction of the work. Seal joints as shown and as required for leak proof construction. Shop-fabricated to the greatest extent possible.
- G. Sealant-type joints: Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to conceal sealant completely. When ambient temperature is moderate at time of installation (40 deg to 70 deg F) set joint members for 50% movement either way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F.
- H. Fabricate and install work with lines and corners of exposed units true and accurate. Form exposed faces flat and free of buckles, excessive waves, and avoidable tool marks considering temper and reflectivity of the metal. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant. Except as otherwise indicated, fold back sheet metal to form a hem on concealed side of exposed edges.
- I. Conceal fasteners and expansion provisions where possible in exposed work and locate so as to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

### 3.03 CLEANING AND PROTECTION

- A. Remove protective film from exposed surfaces of metal roofing promptly upon installation. Strip with care to avoid damage to finishes.
- B. Clean exposed metal surfaces of substances that would interfere with uniform oxidation and weathering.
- C. Do not apply touch-up paint to damaged paint areas that involve minor scratches. Panels or flashing that have paint and/or substrate damage shall be replaced as directed by the Engineer.
- D. At completion of each workday and at Substantial Completion, sweep panels, flashing and gutters clean. Do not allow fasteners, cuttings, or scraps to accumulate. Remove debris from the project site upon completion or sooner, if directed.

- E. Provide final protection in a manner acceptable to installer that ensures that metal roofing is without damage or deterioration at the time of Substantial Completion.

**END OF SECTION**