

**ADDENDUM No. 5**

for

**Airfield Lighting Vault Expansion  
AIP # 3-33-0011-TBD-2025  
Bid # FY25-804-38**

at the Manchester – Boston Regional Airport

Due to be opened 2:00 p.m., on April 23, 2025

Date: April 18, 2025

The attention of firms submitting proposals for the work named above is called to the following modifications to the documents as were issued.

The items set forth herein, whether of clarification, omission, addition and/or substitution, shall be included and form a part of the Proposer's submitted materials and the corresponding contract when issued. No claim for additional compensation, due to lack of knowledge of the contents of this Addendum will be considered.

All Proposer's are advised that receipt of this notice and all attached material must be duly acknowledged in the space provided on the signature page of the proposal documents, and **by the insertion of this sheet, signed, and submitted with your Proposal package.**

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This form must be signed and attached to the original copy of your submission.

The attached sheets contain information or clarifications requested or discussed.

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Receipt of **Addendum No. 5** to the REQUEST FOR PROPOSALS for **Airfield Lighting Vault Expansion** at the MANCHESTER-BOSTON REGIONAL AIRPORT is hereby acknowledged.

COMPANY NAME: \_\_\_\_\_

SIGNED BY: \_\_\_\_\_

NAME AND TITLE PRINTED: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

## **GENERAL**

In general, this addendum is accomplishing the following:

1. Answers to questions to date.
2. Removal of specification section 071416 – Cold Fluid-Applied Waterproofing.
3. Addition of specification section 071326 – Self-Adhering Sheet Waterproofing.
4. Revisions to manufacturer requirements in various specifications.
5. Revision to P-403 binder grade.

## **QUESTIONS/CLARIFICATIONS**

### **Addendum Item No.1 -**

*Q1: Who does the airport currently use for their access control system?*

A1: The vendor the Airport currently uses is Allied Security.

### **Addendum Item No.2 -**

*Q2: Is Panel MDP a new panelboard? Will a panel schedule be distributed?*

A2: MDP is a new 480V panelboard. There is no panel schedule because all of the breakers are shown on the oneline diagram on E-302. It will be 65kAIC-rated, 480/277V, 3-phase, 4-wire, NEMA 1.

### **Addendum Item No.3 -**

*Q3: The specified Kemper waterproofing system (specification section 071416) is a system that is typically used horizontally on roofs and decks and not on vertical foundation walls, so it seems it is not applicable to this project. Could an updated specification be provided to address the required foundation waterproofing system?*

A3: Refer to Addendum Item No.6.

### **Addendum Item No.4 -**

*Q4: The documents call for an Axis Camera. Is there just 1 Camera? Is it being tied into the Airports camera system? If so, what VMS do they have and do they need a license for the camera?*

A4: There are two cameras. They are both being tied into the airport's camera system. The VMS is ExacqVision and a license will need to be provided per camera.

### **Addendum Item No.5 -**

*Q5: The demolition drawing, AD-101 is calling for the existing roof membrane to be removed and the existing insulation and AVB is to remain. The new roof plan, on drawing A-102, is calling for new rigid insulation to be added on top of the existing insulation to achieve a minimum R-30 at any point, however no information has been provided on the existing roof makeup. Please provide the makeup of the existing roof so we can determine how much insulation needs to be added to achieve R-30.*

A5: For existing roof insulation, see Detail 1 / VLT-A-301 (attached) from the record drawing set when the vault was originally constructed. Minimum insulation depth is 2".

## **PROJECT MANUAL**

Note that where a change was made to the specifications, a vertical line (|) is provided in the left margin denoting that a change was made. Sample vertical line shown next to this paragraph.

### **Addendum Item No.6 -**

REMOVE specification section 071416 – Cold Fluid-Applied Waterproofing and REPLACE with specification section 071326 – Self-Adhering Sheet Waterproofing, attached.

### **Addendum Item No.7 -**

REMOVE paragraph 2.2.D.1 of specification section 042000 – Unit Masonry and REPLACE with paragraph 2.2.D.1 below.

1. Available Products: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.8 -**

REMOVE paragraph 2.2.G of specification section 042000 – Unit Masonry and REPLACE with paragraph 2.2.G below.

- G. Water-Repellent Admixture: Liquid water-repellent mortar admixture intended for use with concrete masonry units, containing integral water repellent by same manufacturer. Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.9 -**

REMOVE paragraph 2.7.E of specification section 042000 – Unit Masonry and REPLACE with paragraph 2.7.E below.

- E. Cavity Drainage Material: Free-draining mesh, made from polymer strands that will not degrade within the wall cavity. Provide strips, full-depth of cavity and 10 inches wide, with dovetail shaped notches 7 inches deep that prevent mesh from being clogged with mortar droppings or equivalent. Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.10 -**

REMOVE paragraph 2.8.A.1 of specification section 042000 – Unit Masonry and REPLACE with paragraph 2.8.A.1 below.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.11 -**

REMOVE paragraph 2.1.A of specification section 072600 – Underslab Vapor Retarders and REPLACE with paragraph 2.1.A below.

- A. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.12 -**

REMOVE paragraph 2.2.A.3 of specification section 076100 – Sheet Metal Roofing and REPLACE with paragraph 2.2.A.3 below.

3. Available Products: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.13 -**

REMOVE paragraph 2.4.D.1.b. of specification section 076100 – Sheet Metal Roofing and REPLACE with paragraph 2.4.D.1.b. below.

- b. Available Products: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.14 -**

REMOVE paragraph 2.3.B.1 of specification section 079200 – Joint Sealants and REPLACE with paragraphs 2.3.B.1 and 2.3.B.1.a below.

1. Available Products: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. HBR Closed Cell Backer Rod; Nomaco, Inc.

**Addendum Item No.15 -**

REMOVE paragraph 2.1.A of specification section 085110 – Aluminum Windows and REPLACE with paragraph 2.1.A below.

- A. Manufacturer: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following: Bulletblock HP600 with Armor-Gard SP4121G with glass-clad polycarbonate glazing by Insulgard or equal.

**Addendum Item No.16 -**

REMOVE paragraph 2.1.A of specification section 089000 – Louvers and Vents and REPLACE with paragraph 2.1.A below.

- A. Fire-Rated Ballistic Louver Manufacturer: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following: Blast and Ballistics, 3B or equal.

**Addendum Item No.17 -**

REMOVE paragraph 2.02.B of specification section 221413 – Facility Storm Drainage Piping and REPLACE with paragraph 2.02.B below.

- B. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.18 -**

REMOVE paragraph 2.04.A of specification section 221413 – Facility Storm Drainage Piping and REPLACE with paragraph 2.04.A below.

- A. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.19 -**

REMOVE paragraph 2.04.A.1 of specification section 201423 – Storm Drainage Piping Specialties and REPLACE with paragraph 2.04.A.1 below.

1. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

**Addendum Item No.20 -**

REMOVE paragraph 403-2.3 of specification section P-403 – Asphalt Mix Pavement Surface Course and REPLACE with paragraph 403-2.3 below.

**403-2.3 Asphalt binder.** Asphalt binder shall conform to ASTM D6373 Performance Grade (PG) 76-28

**Addendum Item No.21 -**

REMOVE paragraph 3 of 403-8.1 Payment and REPLACE with the paragraph below.

|              |   |         |
|--------------|---|---------|
| Item P-403-1 | Asphalt Mix Pavement Base and Surface Course (PG 76-28) | per ton |
|--------------|---|---------|

**Addendum Item No.22 -**

REMOVE page 8 of the Bid Proposal and REPLACE with the attached page 8 of the Bid Proposal.

**END OF ADDENDUM #5**

## SECTION 071326

### SELF-ADHERING SHEET WATERPROOFING

#### PART 1 - GENERAL

##### 1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

##### 1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
  - 1. Self-adhering sheet waterproofing at exterior foundation walls.
- B. Related Work: The following items are not included in this Section and are specified under the designated Sections:
  - 1. Section 072100 - THERMAL INSULATION for insulation at foundations and under slabs.
  - 2. Section 079200 - JOINT SEALANTS for joint-sealant materials and installation.

##### 1.3 PERFORMANCE REQUIREMENTS

- A. Provide waterproofing that prevents the passage of water.

##### 1.4 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 waterproofing.
- B. Shop Drawings: Show locations and extent of waterproofing. Include details for substrate joints and cracks, sheet flashings, penetrations, inside and outside corners, tie-ins with adjoining waterproofing, and other termination conditions.
- C. Samples: For the following products:
  1. 12-by-12-inch square of waterproofing and flashing sheet.
  2. 4-by-4-inch square of drainage panel.
- D. Installer Certificates: Signed by manufacturers certifying that installers comply with requirements.
- E. Sample Warranty: Copy of special waterproofing manufacturer's and Installer's warranty stating obligations, remedies, limitations, and exclusions before starting waterproofing.

## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who is acceptable to waterproofing manufacturer to install manufacturer's products.
- B. Source Limitations: Obtain waterproofing materials, protection course, and molded-sheet drainage panels through one source from a single manufacturer.
- C. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01. Review requirements for waterproofing, including surface preparation specified under other Sections, substrate condition and pretreatment, minimum curing period, forecasted weather conditions, special details and sheet flashings, transitions to dampproofing and above-grade enclosure systems, installation procedures, testing and inspection procedures, and protection and repairs.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver liquid materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by waterproofing manufacturer.
- C. Remove and replace liquid materials that cannot be applied within their stated shelf life.
- D. Store rolls according to manufacturer's written instructions.
- E. Protect stored materials from direct sunlight.

## 1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Apply waterproofing within the range of ambient and substrate temperatures recommended by waterproofing manufacturer. Do not apply waterproofing to a damp or wet substrate.
  - 1. Do not apply waterproofing in snow, rain, fog, or mist.
- B. Maintain adequate ventilation during preparation and application of waterproofing materials.

## 1.8 WARRANTY

- A. Special Manufacturer's Warranty: Written warranty, signed by waterproofing manufacturer agreeing to replace waterproofing material that does not comply with requirements or that does not remain watertight during specified warranty period.



1. Warranty does not include failure of waterproofing due to failure of substrate not prepared and treated according to requirements or formation of new joints and cracks in substrate exceeding 1/16 inch in width.
2. Warranty Period: Five years after date of Substantial Completion.
3. Warranty includes removing and reinstalling protection board, drainage panels, insulation.

## PART 2 - PRODUCTS

### 2.1 RUBBERIZED-ASPHALT SHEET WATERPROOFING

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  1. Carlisle Corporation, Carlisle Coatings & Waterproofing Div.; MiraDRI 860/861.
  2. GCP Applied Technologies (formerly W.R. Grace); Bituthene 3000.
  3. Henry Company; WP 200.
- B. Rubberized-Asphalt Sheet: 60-mil-thick, self-adhering sheet consisting of 56 mils of rubberized asphalt laminated to a 4-mil-thick, polyethylene film with release liner on adhesive side.
  1. Physical Properties: As follows, measured per standard test methods referenced:
    - a. Tensile Strength: 325 psi minimum; ASTM D 412, Die C, modified.
    - b. Ultimate Elongation: 300 percent minimum; ASTM D 412, Die C, modified.
    - c. Low-Temperature Flexibility: Pass at minus 20 deg F ASTM D 1970.
    - d. Crack Cycling: Unaffected after 100 cycles of 1/8-inch (movement; ASTM C 836.
    - e. Puncture Resistance: 50 lbf minimum; ASTM E 154.
    - f. Hydrostatic-Head Resistance: 200 feet (minimum; ASTM D 5385.
    - g. Water Absorption: 0.15 percent weight-gain maximum after 48-hour immersion at 70 deg F; ASTM D 570.
    - h. Vapor Permeance: 0.05 perms; ASTM E 96, Water Method.

### SELF-ADHERING SHEET WATERPROOFING

## 2.2 AUXILIARY MATERIALS

- A. General: Furnish auxiliary materials recommended by waterproofing manufacturer for intended use and compatible with sheet waterproofing.
  - 1. Furnish liquid-type auxiliary materials that comply with VOC limits of authorities having jurisdiction.
- B. Primer: Liquid primer recommended for substrate by manufacturer of sheet waterproofing material.
- C. Surface Conditioner: Liquid, waterborne surface conditioner recommended for substrate by manufacturer of sheet waterproofing material.
- D. Sheet Strips: Self-adhering, rubberized-asphalt composite sheet strips of same material and thickness as sheet waterproofing.
- E. Liquid Membrane: Elastomeric, two-component liquid, cold fluid applied, trowel grade or low viscosity.
- F. Substrate Patching Membrane: Low-viscosity, two-component, asphalt-modified coating.
- G. Mastic, Adhesives, and Tape: Liquid mastic and adhesives, and adhesive tapes recommended by waterproofing manufacturer.
  - 1. Detail Tape: Two-sided, pressure-sensitive, self-adhering reinforced tape, 4-1/2 inches wide, with a tack-free protective adhesive coating on one side and release film on self-adhering side.
- H. Metal Termination Bars: Aluminum bars, approximately 1 by 1/8 inch thick, predrilled at 9-inch centers.

## 2.3 MOLDED-SHEET DRAINAGE PANELS

- A. Nonwoven-Geotextile-Faced, Molded-Sheet Drainage Panel: Manufactured composite subsurface drainage panels consisting of a nonwoven, needle-

punched geotextile facing with an apparent opening size not exceeding No. 70 (0.21-mm) sieve laminated to 1 side with a polymeric film bonded to the other side of a 3-dimensional (studded), nonbiodegradable, molded-plastic-sheet drainage core, with a vertical flow rate of 9 to 15 gpm per ft. (112 to 188 L/min. per m).

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance.
  - 1. Verify that concrete has cured and aged for minimum time period recommended by waterproofing manufacturer.
  - 2. Verify that concrete is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
  - 3. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 SURFACE PREPARATION

- A. Clean, prepare, and treat substrates according to manufacturer's written instructions. Provide clean, dust-free, and dry substrates for waterproofing application.
- B. Mask off adjoining surfaces not receiving waterproofing 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.

- E. Prepare, fill, prime, and treat joints and cracks in substrates. Remove dust and dirt from joints and cracks according to ASTM D 4258.
- F. Bridge and cover isolation joints, expansion joints and discontinuous deck-to-wall and deck-to-deck joints with overlapping sheet strips.
  - 1. Invert and loosely lay first sheet strip over center of joint. Firmly adhere second sheet strip to first and overlap to substrate.
- G. Corners: Prepare, prime, and treat inside and outside corners according to ASTM D 6135.
  - 1. Install membrane strips centered over vertical inside corners. Install 3/4-inch fillets of liquid membrane on horizontal inside corners and as follows:
    - a. At footing-to-wall intersections, extend liquid membrane each direction from corner or install membrane strip centered over corner.
- H. Prepare, treat, and seal vertical and horizontal surfaces at terminations and penetrations through waterproofing and at drains and protrusions according to ASTM D 6135.

### 3.3 RUBBERIZED-ASPHALT SHEET APPLICATION

- A. Install self-adhering sheets according to waterproofing manufacturer's written instructions and recommendations in ASTM D 6135.
- B. Apply primer to substrates at required rate and allow to dry. Limit priming to areas that will be covered by sheet waterproofing in same day. Reprime areas exposed for more than 24 hours.
- C. Apply and firmly adhere sheets over area to receive waterproofing. Accurately align sheets and maintain uniform 2-1/2-inch-minimum lap widths and end laps. Overlap and seal seams and stagger end laps to ensure watertight installation.
  - 1. When ambient and substrate temperatures range between 25 and 40 deg F, install self-adhering, rubberized-asphalt sheets produced for low-

temperature application. Do not use low-temperature sheets if ambient or substrate temperature is higher than 60 deg F .

- D. Apply continuous sheets over sheet strips bridging substrate cracks, construction, and contraction joints.
- E. Seal exposed edges of sheets at terminations not concealed by metal counterflashings or ending in reglets with mastic or sealant.
- F. Install sheet waterproofing and auxiliary materials to tie into adjacent waterproofing as applicable.
- G. Repair tears, voids, and lapped seams in waterproofing not complying with requirements. Slit and flatten fishmouths and blisters. Patch with sheets extending 6 inches beyond repaired areas in all directions.
- H. Correct deficiencies in or remove sheet waterproofing that does not comply with requirements, repair substrates, reapply waterproofing, and repair sheet flashings.

### 3.4 MOLDED-SHEET DRAINAGE-PANEL INSTALLATION

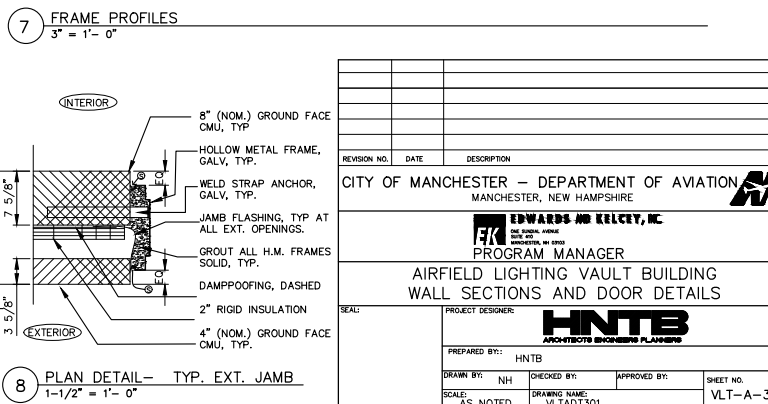
- A. Place and secure molded-sheet drainage panels, with geotextile facing away from wall or deck substrate, according to manufacturer's written instructions. Use adhesives or other methods that do not penetrate waterproofing. Lap edges and ends of geotextile to maintain continuity. Protect installed molded-sheet drainage panels during subsequent construction.
  - 1. For vertical applications, install board insulation before installing drainage panels.

### 3.5 PROTECTION AND CLEANING

- A. Do not permit foot or vehicular traffic on unprotected membrane.
- B. Protect waterproofing from damage and wear during remainder of construction period.

- C. Protect installed insulation from damage due to ultraviolet light, harmful weather exposures, physical abuse, and other causes. Provide temporary coverings where insulation will be subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.
- D. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION



**Manchester • Boston Regional Airport**  
**AIRFIELD LIGHTING VAULT EXPANSION**  
**BID FORM**

**BASE BID**

| ITEM NO. | ESTIMATED<br>QUANTITY/<br>UNIT | DESCRIPTION AND UNIT PRICE<br>(IN WORDS)  | FIGURES    |       |
|----------|--------------------------------|---|------------|-------|
|          |                                |   | UNIT PRICE |       |
|          |                                |   | Dollars    | Cents |
| P-152-1  | 1,830 CY                       | Unclassified Excavation<br>_____<br>Dollars and<br>_____<br>Cents<br>Per Cubic Yard                             |            |       |
| P-152-2  | 910 CY                         | Embankment in Place<br>_____<br>Dollars and<br>_____<br>Cents<br>Per Cubic Yard                                 |            |       |
| P-152-3  | 10 CY                          | Rock Excavation<br>_____<br>Dollars and<br>_____<br>Cents<br>Per Cubic Yard                                     |            |       |
| P-154-1  | 1,485 CY                       | Subbase Course<br>_____<br>Dollars and<br>_____<br>Cents<br>Per Cubic Yard                                      |            |       |
| P-209-1  | 620 CY                         | Crushed Aggregate Base Course<br>_____<br>Dollars and<br>_____<br>Cents<br>Per Cubic Yard                       |            |       |
| P-403-1  | 775 TON                        | Asphalt Mix Pavement Base and Surface<br>Course (PG 76-28)<br>_____<br>Dollars and<br>_____<br>Cents<br>Per Ton |            |       |
| P-603-1  | 375 GAL                        | Emulsified Asphalt Tack Coat<br>_____<br>Dollars and<br>_____<br>Cents<br>Per Gallon                            |            |       |
| P-605-1  | 1,245 LF                       | Sawing and Joint Sealing Filler – HMA<br>_____<br>Dollars and<br>_____<br>Cents<br>Per Linear Foot              |            |       |