ADDENDUM NO. 2
NOVEMBER 4, 2024

PROJECT: **CITY OF STRAWN**
WATER TREATMENT PLANT IMPROVEMENTS

BID DATE: **NOVEMBER 7, 2024**

The following changes and/or additions shall be made to the Plans, Specifications, and Contract Documents for the above referenced project. Bidder shall acknowledge receipt of this Addendum by signing below and returning this Addendum with the Bid.

1) This project is subject to AIS requirements and not BABAA.
2) Any electrician may make physical communication, control, and power connections from proposed water treatment plant equipment in this contract to existing SCADA PLC but final programing in existing RIOT CLOUD SCADA software to be performed by EverSolve Technologies.
3) Bray is an approved manufacturer for wafer valve bodies and electric actuators on this project.
4) HDPE pipe may be used in lieu of flexhose for the Phase I packaged water treatment plant installation. If HDPE pipe is used in lieu of flexhose then HDPE pipe shall be buried under existing driveway with a minimum cover of 6".
5) Closed cell spray foam insulation shall be used in lieu of the vinyl-faced batt insulation. Spray foam shall be per attached Specification Section 07 02 50 – Foam Insulation for Metal Buildings.
6) Gypsum wall board inside office [100] & storage/mech [101] rooms only to extend up to the ceiling. Ceiling height inside the office [100] & storage/mech [101] rooms to be 8'.
7) Insulation and steel frame shall be exposed inside filter bay room [102].
8) Contractor may haul off and dispose of waste from demolition of existing filter foundation and filters (including CMU blocks, sand, gravel, dirt, and filter media) to the City of Strawn Wastewater Treatment Plant at no disposal fee to the contractor. Contractor to coordinate with the City of Strawn for approved disposal area. Contractor is responsible for the hauling and disposal of the filters themselves and any demolished piping.

Prepared by:

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Bidder's Acknowledgment

JACOB | MARTIN
TBPE Firm No. 2448

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Date

11/4/2024

SECTION 07 02 50 - FOAM INSULATION FOR METAL BUILDINGS

PART 1 GENERAL

1.1 SCOPE OF WORK

A. Furnish all labor, materials, tools and equipment necessary for the application of a sprayed-in-place polyurethane foam (SPF) metal building insulation system, including accessory items, subject to the general provisions of the contract.

1.2 REFERENCE STANDARDS

ASTM D1622/D1622M - Standard Test Method for Apparent Density of Rigid Cellular Plastics; 2014.

ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2016.

1.3 SUBMITTALS

In accordance with Section 01 04 01, SUBMITTALS, furnish the following.

A. Manufacturer’s published data sheets or letter of certification that their products comply with the materials specified. This is to include SPF and, if required, coatings, primers, thermal barriers, and vapor retarders.
B. Manufacturer’s application or installation instructions.
C. Contractor/applicator certification from SPF supplier and/or coating and thermal barrier manufacturers and references.
D. Approval and information guides for applicable local or national building codes.
E. Safety and handling instructions for storage, handling and use of the materials to include Material Safety Data Sheets (MSDS).
F. Field quality control procedures to be utilized by the contractor/applicator to insure proper preparation and installation of SPF, coating, and thermal barriers, detail work and follow-up inspection.

1.4 QUALITY ASSURANCE

Contractor Qualifications: The contractor should provide information concerning projects similar in nature to the one proposed, including location and person to be contacted.

1.5 ENVIRONMENTAL CONDITIONS

A. Do not apply the SPF below the temperature and/or above humidity specified by the manufacturer for ambient air or substrate.
B. Do not apply protective coatings when there is ice, frost, surface moisture, or dampness present on the surface to be coated. Prior to applying the coatings, check the polyurethane foam to insure the surface is dry. Apply protective coatings in accordance with the coating manufacturer’s application instructions.
C. If required, apply thermal barriers and vapor retarders in accordance with the manufacturer’s application instructions.

1.6 SAFETY REQUIREMENTS

A. See API Bulletin MDI-Based Polyurethane Foam Systems: Guidelines for Safe Handling and Disposal, Stock Number AX-119.
B. Refer to appropriate Material Safety Data Sheets (MSDS) for additional safety information.
C. Before starting to apply spray polyurethane foam or coating, all HVAC equipment on the roof must be turned off. These units and any other potential sources of air entry into the building must be sealed.

D. Proper disposal of waste materials and containers must be done in compliance with the manufacturer's guidelines and/or federal, state, and local regulatory agencies.
E. For protection against exposure to higher levels of MDI (greater than 1 ppm) or for entry into confined spaces, workers must wear either a self-contained breathing apparatus, with full face piece, operated in a pressure-demand or other positive-pressure mode, or a combination respirator, including a Type C air-supplied respirator, with full face piece, operated in a pressure-demand or other positive-pressure mode, and an auxiliary self-contained breathing apparatus, operated in a pressure-demand or other positive-pressure mode. See API Bulletin MDI-Based Polyurethane Foam Systems: Guidelines for Safe Handling and Disposal, Stock Number AX-119.
F. Personal protective clothing should be worn. This includes the wearing of the appropriate protective clothing, including eye protection (face shield or chemical worker's goggles), gloves and coveralls. This is essential to preventing skin exposure and is strongly recommended for most individuals who work with PMDI.

PART 2 PRODUCTS

2.1 POLYURETHANE FOAM

A. The polyurethane foam to be applied shall be a two component system made by combining an isocyanate (A) component with a polyol (B) component and shall possess the following physical characteristics (use the appropriate table):

INTERIOR POLYURETHANE FOAM: CLOSED CELL TYPE

PROPERTIES	ASTM TEST	VALUE	UNITS
Density (spray-in-place)	ASTM D1622/D1622M	2.0	lbs/ft3
R-Value		7.0 aged	F.ft2.hr/Btu
Flammability*	ASTM E84	<25	
Smoke*	ASTM E84	<450	

2.2 RELATED PRODUCTS

A. 15-Minute Rated Thermal Barriers.
   1. Blazelok - TB 15 minute fire barrier or equal
B. Substrate Primers (if required) - The primer to be applied must be specifically selected for the given substrate to be primed and must be compatible with the SPF.

PART 3 EXECUTION

3.1 APPLICATION OF PRODUCTS

The products intended for use in metal building insulation systems must be applied within the manufacturer's guidelines for temperature, humidity, and other atmospheric conditions. In addition, they must be sequenced so as to take into consideration substrate preparation, proper cure times, and inter-coat adhesion.

3.2 SUBSTRATE CONSIDERATION AND PREPARATION

Surface preparation for metal buildings is outlined below:

A. Primed: If the primed metal surface is free of loose scale, rust, weathered or chalking paint it can be cleaned using pressure washing, steam cleaning, solvent cleaning, vacuum equipment and hand or power tools to remove loose dirt, grease, oil, or other contaminants.

B. Non-Ferrous Metals (including galvanized and stainless steel): When required, clean surfaces as recommended by the primer manufacturer.
C. Unpainted Steel: Clean as recommended by primer manufacturer in order to prepare the steel surface for the primer.

3.3 PRIMER APPLICATION

When required, the primer shall be applied to the properly prepared substrate and allowed to cure in accordance with the manufacturer's guidelines.

3.4 SPRAY POLYURETHANE FOAM APPLICATION

A. The spray polyurethane foam components (A) and (B) shall be processed in accordance with the manufacturer's instructions.
B. The polyurethane foam shall be sprayed within the manufacturer's guidelines for temperature, humidity, and other atmospheric conditions. Take precautions to protect surroundings from overspray.
C. The polyurethane foam shall be sprayed in minimum 13 mm (½ inch) thick passes (lifts) with a minimum overall thickness of 2-3". The full thickness of SPF to be applied within any given area should be completed in one day.
D. The final sprayed polyurethane foam surface shall be "orange peel".
E. Any damage or defects to the polyurethane foam shall be repaired prior to applying protective coatings, vapor retarders, or thermal barriers.
F. The polyurethane foam surface shall be free of contaminants that will impair adhesion of the protective coatings, vapor retarders, or thermal barriers.
G. Do not cover steel structure with foam, purlings, columns, and beams.

3.5 THERMAL BARRIER APPLICATION

When the spray polyurethane foam is applied to the interior surface of a metal building, it must be covered with a 15-minute rated thermal barrier. The thermal barrier must be applied in accordance with manufacturer's guidelines.

-- END OF SECTION --