

DATE: 05-05-2020

HURST-ROSCHE, INC.  
1400 E. Tremont Street  
Hillsboro, Illinois 62049  
217-532-3959

TO: PROSPECTIVE BIDDERS

SUBJECT: ADDENDUM NO. 1 TO THE BIDDING DOCUMENTS FOR

**ROOF REPLACEMENT**  
**ST. ELMO HIGH AND ELEMNTARY SCHOOL**  
**ST. ELMO CUSD #202**  
**ST. ELMO, FAYETTE COUNTY, ILLINOIS**  
**HR # 150-0830**

This addendum forms a part of the bidding and contract documents and modifies the original bidding documents dated April 27, 2020. Acknowledge receipt of this addendum in the space provided on the Bid Form. **FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.**

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Upon receipt of this addendum, please sign below and email to Hurst-Rosche, Inc. at [tdownen@hurst-rosche.com](mailto:tdownen@hurst-rosche.com) within 24 hours of receipt.

<b>RECEIVED BY:</b>	_____
	Company Name/Authorized Representative
<b>DATE:</b>	_____

**SPECIFICATIONS**

- A. 00 01 10 Table of Contents
  - 1. **ADD** Section “22 07 00 Plumbing Insulation” to the table of contents.
  - 2. **ADD** Attachment #1 to the project manual.
  - 3. **ADD** Section “22 14 00 Facility Storm Drainage” to the table of contents.
  - 4. **ADD** Attachment #2 to the project manual.
  
- B. 00 11 16 Invitation to Bid
  - 1. **DELETE** “PVC/KEE” from the description of the Base Bid and Alternate Bid #1 and **REPLACE** it with, “thermos-polyolefin (TPO).
  - 2. **DELETE** “Unit Office” from the description for the location of the bid opening and **REPLACE** it with, “High School Gymnasium”. The gym is on the same campus as the unit office.

This addendum consists of 2 pages and 2 attachments consisting of an additional 9 pages.

- C. 00 21 14 Instructions to Bidders – AIA
  - 1. **DELETE** “St. Elmo Unit Office” from Paragraph 1.4.E and **REPLACE** it with, “St. Elmo High School gymnasium.”
  
- D. 01 10 00 Summary
  - 1. **DELETE** “PVC/KEE” from Paragraph 1.2.A in two locations and **REPLACE** it with, “thermos-polyolefin (TPO)”.
  
- E. 01 20 00 Price and Payment Procedures
  - 1. **DELETE** “PVC/KEE” from Paragraph 1.6.B and **REPLACE** it with, “thermos-polyolefin (TPO)”.
  
- F. 07 54 23 Thermoplastic-polyolefin (TPO) Roofing
  - 1. **ADD** Paragraph 2.2.B.4 as follows, “Carlisle Syntec; Sure-weld TPO.”

This addendum **DOES NOT** alter the previously published bid date of **May 14, 2020, 2:00 PM**, prevailing time. However, it does change the location of the bid opening to **St. Elmo High School gymnasium, 1200 N. Walnut Street, St. Elmo, Illinois 62458**.

Sincerely,

HURST-ROSCHE, INC.



Timothy L. Downen, AIA, LEED AP  
cc: All plan holders

## SECTION 22 07 00

### PLUMBING INSULATION

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Piping system insulation.

##### 1.2 REFERENCES

- A. ASTM International:
  - 1. ASTM C177 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
  - 2. ASTM C534 - Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form.
  - 3. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
  - 4. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.

##### 1.3 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit product description, thermal characteristics and list of materials and thickness for each service, and location.
- C. Manufacturer's Installation Instructions: Submit manufacturers published literature indicating proper installation procedures.
- D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

##### 1.4 QUALITY ASSURANCE

- A. Test pipe insulation for maximum flame spread index of 25 and maximum smoke developed index of not exceeding 50 in accordance with ASTM E84.

##### 1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. Applicator: Company specializing in performing Work of this section with minimum three years documented experience.

## 1.6 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Accept materials on site in original factory packaging, labeled with manufacturer's identification, including product density and thickness.
- C. Protect insulation from weather and construction traffic, dirt, water, chemical, and damage, by storing in original wrapping.

## 1.8 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements: Environmental conditions affecting products on site.
- B. Install insulation only when ambient temperature and humidity conditions are within range recommended by manufacturer.

## 1.9 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

## 1.10 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish five year manufacturer warranty for man made fiber.

## PART 2 PRODUCTS

### 2.1 ELASTOMERIC CELLULAR FOAM

- A. Manufacturers:
  - 1. Armacell, AP/Armaflex sheet and tubular.
  - 2. Nomaco, Nomalock and Nomaco sheet.
  - 3. Substitutions: Section 01 60 00 - Product Requirements.
- B. Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular form: ASTM C534; Type I, Tubular form.
- C. 'K' factor: ASTM C177, max. 0.27 at 75 degrees F.
- D. Conform to ASTM E84 with a flame spread of less than 25 and a smoke spread of less than 50.

- E. Elastomeric Foam Adhesive:
  - 1. Manufacturers: Same as insulation manufacturer.
  - 2. Air dried, contact adhesive, compatible with insulation.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.
- B. Verify piping and equipment has been tested before applying insulation materials.
- C. Verify surfaces are clean and dry, with foreign material removed.

### 3.2 INSTALLATION

- A. Insulated pipes conveying fluids below ambient temperature: Insulate entire system including fittings, valves, unions, flanges, strainers, flexible connections, pump bodies, and expansion joints.
- B. Inserts and Shields:
  - 1. Application: Piping or Equipment 1-1/2 inches diameter or larger.
  - 2. Shields: Galvanized steel between pipe hangers or pipe hanger rolls and inserts.
  - 3. Insert location: Between support shield and piping and under finish jacket.
  - 4. Insert configuration: Minimum 6 inches long, of thickness and contour matching adjoining insulation; may be factory fabricated.
  - 5. Insert material: Compression resistant insulating material suitable for planned temperature range and service.
- C. Continue insulation through penetrations of building assemblies or portions of assemblies having fire resistance rating of one hour or less. Provide intumescent firestopping when continuing insulation through assembly. Finish at supports, protrusions, and interruptions.
- D. Finish insulation at supports, protrusions, and interruptions.

### 3.3 SCHEDULES

- A. Plumbing Systems:
  - 1. Roof Drain Bodies:
    - a. Elastomeric Cellular Foam Insulation:
      - 1) Thickness: 3/4 inch.
  - 2. Roof Drainage Above Grade:
    - a. Elastomeric Cellular Foam Insulation:
      - 1) Thickness: 3/4 inch.

END OF SECTION

## SECTION 22 14 00

### FACILITY STORM DRAINAGE

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Storm water piping above grade.
  - 2. Pipe hangers and supports.
  - 3. Roof drains.
- B. Related Sections:
  - 1. Section 22 07 00 - Plumbing Insulation: Product and execution requirements for pipe insulation.

##### 1.2 REFERENCES

- A. American Society of Mechanical Engineers:
  - 1. ASME A112.21.2M - Roof Drains.
- B. ASTM International:
  - 1. ASTM D1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
  - 2. ASTM D2464 - Standard Specification for Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
  - 3. ASTM D2564 - Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems.
  - 4. ASTM D2665 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings.
  - 5. ASTM D2729 - Standard Specification for Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
  - 6. ASTM D2855 - Standard Practice for Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings.
  - 7. ASTM D3034 - Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
  - 8. ASTM F477 - Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
  - 9. ASTM F679 - Standard Specification for Poly (Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings.
  - 10. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.
- C. Cast Iron Soil Pipe Institute:
  - 1. CISPI 301 - Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.

2. CISPI 310 - Specification for Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.
- D. Manufacturers Standardization Society of the Valve and Fittings Industry:
  1. MSS SP 58 - Pipe Hangers and Supports - Materials, Design and Manufacturer.
  2. MSS SP 69 - Pipe Hangers and Supports - Selection and Application.
  3. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

### 1.3 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Product Data:
  1. Piping: Submit data on pipe materials, fittings, and accessories. Submit manufacturers catalog information.
  2. Hangers and Supports: Submit manufacturers catalog information including load capacity.
  3. Storm Drainage Specialties: Submit manufacturers catalog information, component sizes, rough-in requirements, service sizes, and finishes.
- C. Manufacturer's Installation Instructions: Submit installation instructions for material and equipment.
- D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

### 1.4 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.
- B. Project Record Documents: Record actual locations of equipment and clean-outs.
- C. Operation and Maintenance Data: Submit spare parts lists, exploded assembly views for pumps and equipment.

### 1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

### 1.6 PRE-INSTALLATION MEETINGS

- A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this section.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Product storage and handling requirements.
- B. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the Work, and isolating parts of completed system.

## 1.8 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements.
- B. Do not install underground piping when bedding is wet or frozen.

## 1.9 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

## 1.10 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Furnish all equipment with manufacturer's standard warranty.

## PART 2 PRODUCTS

### 2.1 STORM WATER PIPING, ABOVE GRADE

- A. PVC Pipe: ASTM D2665 or ASTM D3034, polyvinyl chloride (PVC) material.
  - 1. Fittings: ASTM D2665 or ASTM D3034, PVC.
  - 2. Joints: ASTM D2855, solvent weld with ASTM D2564 solvent cement.

### 2.2 UNIONS AND FLANGES

- A. Flanges for Pipe 2-1/2 inches and Larger:
  - 1. PVC Piping: PVC flanges.
  - 2. Gaskets: 1/16 inch thick preformed neoprene gaskets.
- B. PVC Pipe Materials: For connections to equipment and valves with threaded connections, furnish solvent-weld socket to screwed joint adapters and unions, or ASTM D2464, Schedule 80, threaded, PVC pipe.

### 2.3 PIPE HANGERS AND SUPPORTS

- A. Manufacturers:
  - 1. Carpenter & Paterson Inc.
  - 2. Creative Systems Inc.
  - 3. Flex-Weld, Inc.
  - 4. Globe Pipe Hanger Products Inc.



- 5. Michigan Hanger Co.
  - 6. Superior Valve Co.
  - 7. Substitutions: Section 01 60 00 - Product Requirements.
- B. Drain, Waste, and Vent: Conform to ASME B31.9, ASTM F708, MSS SP 58, MSS SP 69 and MSS SP 89.
  - C. Hangers for Pipe Sizes 2 inches and Larger: Carbon steel, adjustable, clevis.
  - D. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods.

## 2.4 ROOF DRAINS

- A. Manufacturers:
  - 1. Zurn.
  - 2. Watts.
  - 3. Wade.
  - 4. Mifab.
  - 5. Josam.
  - 6. Jay R. Smith.
  - 7. Substitutions: Not Permitted.
- B. Roof Drain (RD-1):
  - 1. Main Drain:
    - a. Assembly: ASME A112.21.2M.
    - b. Body: 15", Lacquered cast iron with sump.
    - c. Strainer: Removable cast iron or aluminum dome.
    - d. Accessories: Coordinate with roofing type, refer to Division 7:
    - e. Membrane flange and membrane clamp with integral gravel stop.
    - f. Adjustable under deck clamp.
    - g. Roof sump receiver.
    - h. Waterproofing flange.
    - i. Leveling frame.
    - j. Adjustable extension sleeve for roof insulation.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

### 3.2 PREPARATION

- A. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe.
- B. Remove scale and dirt, on inside and outside, before assembly.
- C. Prepare piping connections to equipment with flanges or unions.

- D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.

### 3.3 INSTALLATION - HANGERS AND SUPPORTS

- A. Pipe Hangers and Supports:
  - 1. Install in accordance with ASME B31.9, ASTM F708 and MSS SP 89.
  - 2. Support horizontal piping as scheduled.
  - 3. Install hangers to provide minimum 1/2 inch space between finished covering and adjacent work.
  - 4. Place hangers within 12 inches of each horizontal elbow.
  - 5. Use hangers with 1-1/2 inch minimum vertical adjustment. Design hangers for pipe movement without disengagement of supported pipe.
  - 6. Support vertical piping at every floor. Support riser piping independently of connected horizontal piping.
  - 7. Where installing several pipes in parallel and at same elevation, provide multiple pipe hangers or trapeze hangers.
  - 8. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.

### 3.4 INSTALLATION - ABOVE GROUND PIPING

- A. Establish invert elevations, slopes for drainage to 1/8 inch per foot minimum. Maintain gradients.
- B. Install non-conducting dielectric connections wherever jointing dissimilar metals.
- C. Route piping in orderly manner and maintain gradient. Route parallel and perpendicular to walls.
- D. Install piping to maintain headroom. Group piping to conserve space.
- E. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
- F. Provide clearance in hangers and from structure and other equipment for installation of insulation. Refer to Section 22 07 00.
- G. Install piping penetrating roofed areas to maintain integrity of roof assembly.
- H. Install bell and spigot pipe with bell end upstream.

### 3.5 FIELD QUALITY CONTROL

- A. Section 01 40 00 - Quality Requirements & 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.

3.6 SCHEDULES

1. Pipe Hanger Spacing:

Pipe Material	Maximum Spacing (Feet)	Hanger Rod Diameter (Inches)
PVC (All Sizes)	4	3/8

END OF SECTION