Addendum No. 1

for

CITY OF ALGOOD

in

PUTNAM COUNTY, TENNESSEE

CONTRACT 224 – SEWER SYSTEM REHABILITATION

Date: May 20, 2025
BID DATE: May 22, 2025
Bid Time: 2:00 PM CDST

THIS ADDENDUM IS ISSUED TO CLARIFY QUESTIONS RAISED BY BIDDERS AND TO MAKE MODIFICATIONS TO THE SPECIFICATIONS, PLANS, AND BID DOCUMENTS FOR THIS PROJECT. THE FOLLOWING CHANGES WILL BECOME A PART OF THE CONTRACT DOCUMENTS FOR THIS PROJECT. **ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID FORM.**

Bid Schedule:

Replace BP C 224 – PAGE 2 of 3 with the attached. Note the page number on the original bid schedule was mis-printed. The schedule is page 2 of 3. Note addition of service pipe line item and edits to quantities and units.

Specifications:

See attached manhole rehabilitation specification, including measurement and payment section. The specified system is or approved equal. Alternative systems may be submitted during the submittal phase for consideration as equal.

Clarifications:

Note, per M&P section 11.10, crushed stone used for backfill in roads and other areas subject to traffic will **not** be measured for payment. Contractor should include bedding and backfill material in the unit price for pipe, manholes, service lines, etc.

THIS ADDENDUM CONSISTS OF SEVEN (7) PAGES

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JCH PN 21198

BASE BID SCHEDULE – CITY OF ALGOOD – ADDENDUM 1
CONTRACT 224 –SEWER SYSTEM REHABILITATION

ITEM NO.	QUANTITY & UNITS	DESCRIPTION	UNIT PRICES WORDS	UNIT PRICES FIGURES	TOTAL AMOUNT
1	3.300 L.F.	FURNISH & INSTALL 8" DR 17 DIPS HDPE BY PIPE BURSTING EXISTING 8" PVC			
2	200 L.F.	FURNISH & INSTALL 8" DR 17 DIPS HDPE BY PIPE BURSTING EXISTING 6" PVC			
3	40 EA	FURNISH & INSTALL 8" x 4" FUSION SERVICE TEES			
4	2,600 L.F.	FURNISH & INSTALL 4" SDR-35 SERVICE PIPE MAIN TO C.O.			
5	65 EA	FURNISH & INSTALL 4" TRANSITION BENDS TO C.O.			
6	40 EA	FURNISH & INSTALL 4" CLEANOUT & TRANSITION TO EXISTING SERVICE			
7	12 EA	FURNISH & INSTALL STANDARD 4' MANHOLES w/ STANDARD CASTING			
8	10 EA	FURNISH & INSTALL MANHOLE EXTRA DEPTH			
9	45 V.F.	FURNISH & INSTALL MANHOLE REHABILITATION			
10	4 EA	FURNISH & INSTALL STANDARD CASTING ON REHAB'D MANHOLE			
11	2 EA	FURNISH & INSTALL WATERTIGHT CASTING ON REHAB'D MANHOLE			
12	2 EA	FURNISH & INSTALL WATERTIGHT CASTING ON NEW MANHOLE			
13	10 C.Y.	FURNISH & INSTALL CLASS "B" CONCRETE			
14	200 TON	FURNISH & INSTALL CRUSHED STONE			
15	225 S.Y.	FURNISH & INSTALL PAVEMENT REPLACEMENT			
16	1 L.S.	FURNISH & MAINTAIN TRAFFIC CONTROL			
TOTAL BASE BID			**WORDS**		**FIGURES** $

3.27 MANHOLE REHAB MATERIAL

3.27.1 SUMMARY

A. Section includes:
   1. This Section includes, but is not necessarily limited to, restoration and corrosion barrier composite liner for concrete and brick structures as indicated on the Drawings, as specified herein, and as necessary for the proper and complete performance of the Work.

B. Unless specifically noted, CONTRACTOR shall procure the materials and services described in this section; therefore, all requirements of Part 1, Part 2 and Part 3 of this specification are the responsibility of the CONTRACTOR.

C. CONTRACTOR is responsible for bypass pumping during installation of the manhole lining system.

D. Related Sections:
   1. Documents affecting work of this Section include, but are not necessarily limited to:
      a. General Conditions, Supplementary Conditions and Sections in Division 1 of these Specifications.

3.27.2 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:

1. ASTM Standard Test Methods:
   a. C78 - Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading).
   b. C109 - Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens).
   c. C157 - Length Change of Hardened Hydraulic-Cement, Mortar and Concrete.
   d. C876 - Half-Cell Potentials of Uncoated Reinforcing Steel in Concrete.
   e. D4138 - Measurement of Dry Film Thickness of Protective Coating Systems by Destructive Means.
2. International Concrete Repair Institute (ICRI) Technical Guideline:
   a. No. 03730 – Surface Preparation Guidelines for the Repair of Deteriorated Concrete Resulting From Reinforcing Steel Corrosion.
3. ACI Standard:
   a. 305R - Hot Weather Concreting.
   b. 503R - Use of Epoxy Compounds for Coating Concrete.

3.27.3 **SUBMITTALS**

A. Submit in accordance with Section 01 33 00 - Submittals.

B. Manufacturer's literature:

1. Submit for coating products.
2. Required information:
a. Name of Manufacturer.
b. Physical properties.
c. Surface preparation.
d. Application instructions.
e. Curing instructions.

C. Certification:
1. Manufacturer's statement that the applicator is trained and approved in the application of the specified products.

3.27.4 **QUALITY ASSURANCE**

A. Qualifications:
1. Fabrication and installation personnel:
a. Trained and experienced in the fabrication and installation of the materials and equipment.
b. Knowledgeable of the design and the reviewed submittals.

3.27.5 **DELIVERY, STORAGE AND HANDLING**

A. Receiving and storage:
1. All materials shall be delivered in original, unbroken, brand marked containers or wrapping as applicable.
2. Handle and store materials:
a. In a manner which will prevent:
1) Deterioration or damage.
2) Contamination with foreign matter.
3) Damage by weather or elements.
b. In accordance with Manufacturer's directions.
1) Storage temperature of Corrosion Barrier Mortar: 40 to 80 degrees F.

B. Rejected material and replacements:
1. Reject damaged, deteriorated or contaminated material and immediately remove from the Site.
2. Replace rejected materials with new materials at no additional cost to OWNER.

3.27 **MANHOLE REHAB MATERIAL (cont)**

3.26.6 **WARRANTY**

A. Warrant manhole liner against failure for a period of 10 years. "Failure" will be deemed to have occurred if the protective lining fails to (a) prevent the internal deterioration or corrosion of the structure (b) protect the substrate and environment from contamination by effluent or (c) prevent groundwater infiltration. If any such failure occurs within 10 years of initial completion of work on a structure, the damage will be repaired to restore the lining at no cost to the Owner within 60 days after written notification of the failure . "Failure" does not include damage resulting from mechanical or chemical abuse or act of God. Mechanical or chemical abuse means exposing the lined surfaces of the structure to any mechanical force or chemical substance not customarily present or used in connection with structures of the type involved.

3.27.7 **MAINSTAY COMPOSITE LINER SYSTEM**

A. Manufacturer:
1. Madewell Products Corporation, 7561 Industrial Court, Alpharetta, Georgia 30004. Phone (770) 475-8199.

B. Hydraulic Cement Mortar: Mainstay ML-10. Fast-setting mortar used to stop leaks through cracks and holes.
1. Composition: Blend of hydraulic cements and fillers.
2. Compressive Strength, ASTM C109:
a. 1 Day: 3,500 psi.
b. 7 Days: 4,900 psi.
c. 28 Days: 5,500 psi.
3. Tensile Strength, ASTM C190:
a. 7 Days: 290 psi.
b. 28 Days: 575 psi.
4. Working Time: 45 to 90 seconds at 77 degrees F.
5. Color: Dark gray.

C. Restoration Mortar: Mainstay ML-72 Sprayable Microsilica Cement Mortar. Low shrinkage, high strength, sprayable microsilica mortar.
1. Composition: Blend of cements, microsilica, thermoplastic fibers, densifiers, and modifiers. Mortar shall not contain calcium aluminate cements or aggregates.
2. Thickness: 1 inch minimum.
3. Compressive Strength, ASTM C109:
a. 1 Day: 3,000 psi.
b. 28 Days: 10,000 psi.
4. Flexural Strength, ASTM C293:
a. 1 Day: 535 psi.
b. 28 Days: 1,400 psi.
5. Tensile Strength, ASTM C496:
a. 1 Day: 330 psi.
b. 28 Days: 790 psi.
6. Shrinkage, ASTM C596:
a. 28 Days @ 90%: 0.01 percent.

3.27.7 MAINSTAY COMPOSITE LINER SYSTEM (cont)

7. Uniaxial Tensile Bond Strength, ACI 503R, Appendix A:
   a. 28 Days: Greater than 500 psi over high strength concrete (5,000 psi compression strength concrete - bond strength governed by substrate tensile strength). Minimum acceptable bond = 145 psi.
8. Color: Dark gray.

D. Corrosion Barrier Coating: Mainstay DS-5 Ultra High Build Epoxy Coating.
1. Composition: 100 percent solids, modified epoxy coating.
2. Thickness: Minimum of 80 mils in 1 or 2 coats.
3. Number of Components: 2.
4. Finish: Gloss.
5. Color: White.

E. Manhole Frame Seal: Madewell 806 Flexible Epoxy
1. Composition: 100% solids, flexible epoxy trowel-grade mastic.
2. Thickness: Minimum of 1/4 inch.
3. Number of Components: 2.
4. Finish: Semigloss.
5. Color: Light gray.

11.21 **MANHOLE REHABILITATION**

a. **Measurement** – Manhole Rehabilitation shall be measured by vertical foot installed. Manhole depth shall be measured vertically from the invert at the center of the manhole to the top of the casting or cover.

Measurement for new castings, standard or watertight shall be by actual count of such covers actually installed.

b. **Payment** - Payment for manhole rehabilitation shall be made on the basis of the unit prices bid per vertical foor and shall constitute payment in full for furnishing all materials, including any excavation, concrete, brick, repair material, coating system, crushed stone backfill in all areas subject to traffic, clean up and waste removal, bypass pumping or plugs and any other incidentals, with all manholes being considered as standard manholes.

Payment for new standard or watertight manhole covers shall be made on the basis of the unit prices bid for each such cover, and shall constitute payment in full for the **extra** cost of furnishing and installing such covers over and above the cost of the manhole rehabilitation. Pavement replacement and flowable fill are covered in applicable technical specification.