PURCHASING
AND MATERIALS
MANAGEMENT

City of Myrtle Beach
SOUTH CAROLINA

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Addendum 01

May 4, 2022
IFB 22-B0040
Broadway at the Beach Pump Station Rehabilitation

The purpose of this Addendum 01 to IFB 22-B0040 for Broadway at the Beach Pump Station Rehabilitation, dated April 2022, is to list the key points of discussion from the mandatory pre-bid/site visit.

- The document "Total Lining System for Manholes (Rehabilitation and New Construction)" is to be included in the specifications and is hereby made part of this addendum. Brand names referenced in the document are not required. Approved equals will be considered.
- It is recommended to have a back-up stand-by pump to avoid spills into the nearby waterway.
- The City prefers that all work begin (even if there is still a wait for the pump) instead of waiting for the pump before beginning any work.
- The City will help clean the bottom of the wet well.
- Additional questions are due no later than close of business on Tuesday, May 10, 2022. Questions may be submitted via e-mail to asowers@cityofmyrtlebeach.com All questions received by the deadline will be answered via addendum on May 18, 2022.
- Sealed bids are due in the Purchasing Office no later than 10:00AM (local time) on Tuesday, May 31, 2022. No electronic submissions will be accepted. The City of Myrtle Beach is not responsible for late or misdirected mail.
- The mandatory pre-bid site visit sign-in sheet is attached and is hereby made part of this addendum.

Please send in your bid in a sealed envelope to the address below:
City of Myrtle Beach
3231 Mr. Joe White Avenue
Myrtle Beach, SC 29577
Attn: Purchasing Division/Ann Sowers

ATTACHMENT 'A'

Total Lining System for Manholes
(Rehabilitation and New Construction)

PART I – GENERAL

1.01 DESCRIPTION:

The work described within details a complete program for manhole lining and rehabilitation. This specification details the methods, procedures, materials and equipment required to produce "A Total Lining System for Manholes". The completed system will provide a corrosion resistant liner that restores walls to original surface levels and eliminates water infiltration and exfiltration.

1.02 REFERENCES:

A. ASTM D7234 - Adhesion
B. ASTM D412 - Tensile Strength (PSI)
C. ASTM D412 - Elongation (%)
D. ASTM D624 - Tear Strength (PLI)
E. ASTM D2240 - Hardness
F. ASTM D522 - Flexibility (1/8" mandrel)
G. ASTM D4060 - Taber Abrasion (mg loss)
H. CIGMAT Evaluation (UH 96-7) of Liner System for Wastewater Concrete and Clay Brick Facilities. University of Houston Department of Civil Engineering: December 1996.
I. CIGMAT Evaluation of the Liner System to 50 psi. November 2014.

1.03 SUBMITTALS

All materials and procedures required to establish compliance with the specifications shall be submitted upon request to the owner/engineer for review/approval. Submittals shall include at least the following:

1. Technical Data Sheet on each product used.
2. Safety Data Sheet (SDS) for each product used.
3. Manufacturer's Certification of Applicator.
4. Certified Applicator Minimum Qualifications (Section 1.04 D).
5. Descriptive literature, bulletins and or catalogs of materials.
6. Work procedures including flow diversion plan, method of repair, etc.
7. Material and method for repair of leaks or cracks in the structure.
8. Statement of 10 Year Warranty.

1.04 QUALITY ASSURANCE

A. The manufacturer and/or applicator (company performing the installation) of the total lining system for manholes shall be a company that specializes in the design, manufacture or installation of corrosion protection systems for wastewater structures. The applicator shall be completely trained in leak repair, surface preparation and corrosion materials application. Corrosion materials/products shall be suitable for installation in a severe hydrogen sulfide environment without any deterioration to the liner.

B. The applicator shall be trained and provide a letter of certification from the manufacturer for the handling, mixing, application and inspection of the liner system as described herein.

C. To ensure total unit responsibility, all materials and installation thereof shall be furnished and coordinated by Manufacturer/Certified Applicator.

D. The applicator must be certified by the manufacturer and have successfully installed 5,000 square feet of the companies lining system. A documented installation history will be supplied upon request to include; Owner Name, Contact Information, Project Description, square feet of Product Installed and Contract Duration.

PART II - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. The materials to be utilized in the lining of wastewater structures shall be designed and manufactured to withstand the severe effects of hydrogen sulfide in a wastewater environment. The manufacturer of the corrosion protection products shall have at least 10 years of experience in the production of the lining products utilized, and shall have satisfactory installation record.

B. Equipment for installation of lining materials shall be high quality grade and be as recommended by the manufacturer.

C. The lining system to be utilized for manholes shall be a multi-layer 'stress skin panel' liner system as described below:

1. Liner.

Installation	Liner
Moisture barrier	Modified Polymer (Silicone modified polyurea)
Surfacer	Polyurethane/Polymeric blend foam
Final corrosion barrier	Modified polymer (Silicone modified polyurea)

2. The Modified polymer (silicone modified polyurea) shall be sprayable, solvent free, two-component polymeric, moisture/chemical barrier specifically developed for the corrosive wastewater environment.

3. The Polyurethane Rigid Structure Foam, shall be low viscosity two-component, containing flame retardants.

4. Total thickness of multi-layer liner system shall be a minimum of 500 mils.

PART III - EXECUTION

3.01 INITIAL INSPECTION

A. Applicator shall take appropriate action to comply with all local, state and federal regulations including those set forth by OSHA, EPA, the Owner and any other applicable authorities.

B. Prior to conducting any work, an initial inspection of the structure shall be performed to determine need for protection against hazardous gases or oxygen depleted atmosphere, and the need for flow control or flow diversion.

C. If required, submit a plan for flow control or bypass to the owner/engineer for approval prior to conducting the work.

D. New Portland cement structures shall have endured a minimum of 28 days since manufacture prior to commencing installation of the liner system.

3.02 SURFACE PREPARATION

A. The surface preparation program will include monitoring of the atmosphere for hydrogen sulfide, methane, low oxygen, or other gases, approved flow control equipment, and surface preparation equipment.

B. Surface preparation methods may include high pressure water cleaning, hydro blasting, abrasive blasting, grinding, or detergent water cleaning and shall be suited to provide a surface compatible for installation of the liner system.

C. Surface preparation method shall produce a cleaned, abraded and sound surface with no evidence of laitance, loose concrete, loose brick, loose mortar, contaminants or debris, and shall display a surface profile suitable for application of the liner system.

D. After completion of surface preparation, perform the seven point check list, inspecting for:

1. Leaks
2. Cracks
3. Holes
4. Exposed Rebar
5. Ring and Cover condition
6. Invert Condition
7. Inlet and Outlet Pipe Condition

E. After the defects in the structure are identified, repair all leaks and severe cracks with Spectra-Grout or other methods approved by the manufacturer.

F. Upon completion of leak and crack repair, the surface shall be primed in accordance with the manufacturer's recommendations.

3.03 MATERIAL INSTALLATION

A. Application procedures shall conform to recommendations of the manufacturer, including materials handling, mixing, environmental controls during application, safety and spray equipment.

B. Spray equipment shall be specifically designed to accurately ratio and apply the liner system.

C. Application of multi-component liner system shall be in strict accordance with manufacturer's recommendation. Final installation shall be a minimum of 500 mils. **A permanent identification and date of work performed shall be affixed to the structure in a readily visible location.**

D. A final written report may be provided to the owner/engineer detailing the location, date of repair, and description of repair if requested.

3.04 FINAL INSPECTION

A. Final liner system shall be completely free of pinholes or voids. Liner thickness shall be the minimum value as described herein.

B. Visual inspection shall be made by the Owner/Engineer. Any deficiencies in the finished liner system shall be marked and repaired according to the procedures set forth by Manufacturer.

C. The sewer system may be returned to full operational service as soon as the final inspection has taken place.

4.01 10-YEAR LIMITED WARRANTY

The (Manufacturer) and Applicator must warranty the 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. There are no warranties express or implied other than those specifically stated in this section 4.01. Any liability for consequential and incidental damages is expressly disclaimed. Liability is limited to and shall not exceed the purchase price paid.

City of Myrtle Beach
SOUTH CAROLINA

PURCHASING AND
MATERIALS MANAGEMENT

(843) 918-2170
FAX: (843) 918-2182

MANDATORY PRE-BID: Tuesday, May 3, 2022 @ 10:00 AM (local time)

BID: IFB 22-B0040

BID OPENING: Tuesday, May 31, 2022 @ 10:00 AM (local time)
Please sign in

Company Name	Representative
1) Sunbelt Rentals Pump & Power	Tim H. Pickett (Print)
843-277-7061 (Phone/Fax)	(Signature)
tim.pickett@sunbeltrentals.com (Email Address)	
2) AC Schultes OF Carolina	Tyler Clark (Print)
910-916-4485 (Phone/Fax)	(Signature)
Connie@AcschultesNC.com (Email Address)	Tyler@AcschultesNC.com
3) Lawrimore Construction	Justin Martin (Print)
(843) 907-2660 (Phone/Fax)	(Signature)
Lawconinc@gmail.com (Email Address)	

4) Jenna Lewis — National Trench Safety (Print)

(843) 693-5129 (Phone/Fax) — (Signature)

jenna lewis@ntsafety.com (Email Address)

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5) LEXIE SPIVEY — DDC Engineering (Print)

843.692-3200 843.692-3240 (Phone/Fax) — (Signature)

(Email Address)

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6) DOMINICK BARRAS — A.C. SCHULTES (Print)

910-231-1349 (Phone/Fax) — (Signature)

dominick@acschultesnc.com (Email Address)

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7) JIM LEHMANN — Godwin Pumps / Xylem Dewatering Solutions (Print)

910-409-7975 (Phone/Fax) — (Signature)

jim.lehmann@xylem.com (Email Address)

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8) Zachary Sessions — MB Kahn Construction (Print)

803-227-5240 (Phone/Fax) — (Signature)

wwbids@mbkahn.com (Email Address)
