



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

October 5, 2013

**To: Prospective Bidders**

**From: Lloyd G. Royall, Jr.**  
**Division Proposals Engineer**

A handwritten signature in blue ink, appearing to be "LGR", enclosed in a blue oval.

**WBS Element: 3B.207112**

**Subject: Addendum #1** Aluminum Pipe Liner in Pender County

The Subject contract proposal contains the following addendum:

1. Replace the existing provisions with the attached revisions dated 10-5-13.

Attach this sheet to the back of the existing contract. Addendum must be signed and dated.

**You MUST sign as your acknowledgement that you did in fact receive this addendum. Failure to do so shall cause the bid to be considered irregular and shall be grounds for rejection of the bid.**

**Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

LGR/lgr

Sealing Existing Pipe Joints

Rev. 10-5-13

At locations determined by the Engineer, the Contractor shall seal existing joints between sections of pipe. If the CMP shows sign of leakage or intrusion of water through holes or damaged areas in the pipe wall, the Engineer may direct the Contractor to seal these areas with the joint sealant material. The Contractor shall utilize jute soaked in a moisture-activated, single-component, hydrophilic polyurethane such as Prime Flex 900 MV sealant material or an approved equal in accordance with the manufacturer’s instructions. The jute shall be a fibrous twisted jute rope, dry and oil free meeting Federal Specification HHP117, T-1. The contractor shall provide an ANSI/NSF certification showing that the polyurethane is acceptable for potable water applications to the Engineer prior to use. At the request of the Engineer, the Contractor shall provide a sample of the sealant material for testing purposes.

Payment for sealing joints and damaged areas of the existing CMP shall be as follows:  
Pipe Joint Sealant.....LF

When directed by the Engineer to seal voids and holes in the pipe wall, holes less than 4 square inches shall be paid for as one (1) linear foot of pipe joint sealant. Holes that are larger than 4 in<sup>2</sup> shall be paid for by determining the area and dividing that area by 4 in<sup>2</sup> to determine the number of equivalent 4 square inch areas. Any portion exceeding an even increment of 4 in<sup>2</sup> shall be paid for as a full linear foot of pipe joint sealant.

Structural Rehabilitation of CMP Invert

Rev. 10-5-13

Due to excessive deterioration and corrosion in the lower third of the CMP, aluminum plates shall be installed to prevent leakage and further pipe deterioration. The Contractor shall provide aluminum alloy sheets that conform to the applicable requirements of AASHTO M 197 or ASTM B 209 for alclad alloy 3004-H34 or H32. All sheets shall be new and unused and a minimum of 14-gage nominal thickness. The aluminum plates shall be either fabricated to conform to the curvature of the existing CMP or curved in place using jacks. The aluminum plates shall fully cover all corroded areas and shall extend a minimum of 8” beyond the edge of visible corrosion. The aluminum plates shall be full length in the circumferential direction; aluminum plates may be lapped along the length of the pipe so long as the downstream plate is overlapped by the upstream plate a minimum of 4”. Aluminum plates shall be secured to the existing structure through the use of 1/8” stainless steel self-tapping screws or fasteners; the screws shall be of sufficient length so that all connected parts are fully engaged by threads. The screw spacing shall match the corrugation spacing in the longitudinal direction of the pipe. Two screws shall be inserted through the upper 8” of the proposed plate into sound existing

material in the circumferential direction; additional screws shall be inserted into sound material at a spacing not to exceed 12” on center.

Payment for structural rehabilitation of the existing CMP invert shall be as follows:

Invert Rehab.....SF

Void Injection and Grouting

rev. 10-5-13

At highly corroded areas and at locations specified by the Engineer, the Contractor shall fill large voids located in the pipe wall with clean pea gravel. After gravel placement and compaction, a moisture-activated, single-component hydrophobic polyurethane injection resin, such as Prime Resin 920 or an approved equal shall be installed via ports drilled in the existing pipe wall in regions adjacent to voids. Where voids exist that do not warrant the placement of gravel, the resin shall be injected in a similar manner as explained above. The contractor shall provide an ANSI/NSF certification showing that the polyurethane is acceptable for potable water applications to the Engineer prior to use.

After installation of aluminum plates covered in “Structural Rehabilitation of CMP Invert”, injection ports shall be placed in the aluminum plates to facilitate injection to fill all voids between the proposed aluminum plates and the existing pipe wall. Injection ports shall be installed at a spacing of 18” along the circumference of the pipe. Voids shall be located between each corrugation crest to ensure that all voids are completely filled. Payment for installation of injection ports shall be considered incidental to “Void Injection and Grouting”.

Payment for void injection and grouting of the existing CMP shall be as follows:

Void Injection and Grouting.....GAL