



SHIAWASSEE COUNTY ROAD COMMISSION

701 West Corunna Avenue, Corunna, Michigan 48817-1229
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CHRISTOPHER CANNON
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Commissioners:
MIKE CONSTINE
RIC CRAWFORD
JOHN A. MICHALEC

NOTICE TO BIDDERS SHIAWASSEE COUNTY ROAD COMMISSION

Sealed proposals will be received by the Shiawassee County Road Commission, 701 W. Corunna Avenue, Corunna, Michigan 48817-1229 until 3:30 p.m., **Monday, October 23, 2023.** Proposals will be publicly opened at 7:30 a.m. on Tuesday, October 24, 2023, and read for the following:

2023 ULTRAVIOLET LINING 100'x24" FOR FAILED CORRUGATED METAL CULVERT

Michigan Department of State Highway and County approved specifications are required for all materials. Prices are to be F.O.B. Corunna, Michigan. Information will be available at the office of the Shiawassee County Road Commission or by calling (989) 743-2228. Proposals and specifications may also be obtained from the Road Commission website at www.shiawasseeroads.com or requested via email at generalmail@shiawasseeroads.com. Bid specification forms must be used. Bids can be mailed or hand-delivered to the Road Commission offices at the above address. This is a public bid opening. Results (bid tabulations) will be posted on our website.

ALL BIDS MUST BE IN A SEALED ENVELOPE AND PLAINLY MARKED ON THE OUTSIDE "UV LINING FOR CULVERT BID". THE ENVELOPE SHALL INCLUDE THE NAME AND ADDRESS OF THE BIDDER.

"The Shiawassee County Road Commission, in accordance with Title VI of the Civil Rights of 1964, 78 Stat. 252, 42 USC 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of gender, disability, race, color, or national origin in consideration for an award."

The Board reserves the right to reject any or all proposals or any part of the same, to waive irregularities and or informalities and to make the award in part or entirety as may appear in the best interest of the County of Shiawassee.

SHIAWASSEE COUNTY ROAD COMMISSIONERS

Mike Constine
Ric Crawford
John A. Michalec

**SHIAWASSEE COUNTY ROAD COMMISSION
701 W. CORUNNA AVENUE
CORUNNA, MI 48817-1229**

**2023 ULTRAVIOLET LINING 100' X 24" FOR FAILED CORRUGATED
METAL CULVERT**

BID SPECIFICATIONS

Part 1 – General

1.1 Description

- A. All work shall be completed by November 10th, 2023
- B. CCTV with thumb drive videos and reports
- C. Installation of 100'x24" (approximate) Ultraviolet Cured-in-Place Pipe (UV CIPP)
- D. Bypass of all water throughout installation process up to 4"

1.2 Submittals

- A. Contractor must comply with MIOSHA standards and regulations
- B. Contractor must possess and produce a copy with bid of:
 - 1. Commercial general liability insurance
 - 2. Worker's Compensation
- C. Full payment will be made upon completion of work

Part 2 – Specifications

2.1 Cured-in-Place Pipe (CIPP)

- A. See attached bid specifications

Part 3 – Execution

- 3.1 To rehabilitate the failed 100'x24" corrugated metal culvert located at 1690 North Chipman Road, Owosso, Michigan, Owosso Charter Township

SHIAWASSEE COUNTY ROAD COMMISSION

**2023 BID FOR ULTRAVIOLET LINING 100' X 24" FOR FAILED
CORRUGATED METAL CULVERT**

Price \$ _____

Notes: _____

Date _____

Company Name _____

Address _____

Signed By _____

Printed _____

Title _____

Phone _____

Email _____

CURED-IN-PLACE PIPE (CIPP)

A. CIPP LINER MATERIAL

The CIPP liner will be manufactured in accordance to ASTM F2019. In addition, the liner will meet the following requirements:

1. fit the host pipe tightly
2. have a maximum thickness of ½ inch
3. provide a continuously lining of the host pipe
4. use a nontoxic curing process
5. is nontoxic when cured
6. have a minimum 50 year design life.

CIPP liner will be shipped, stored, and handled in a manner consistent with written recommendations of the manufacturer.

B. CIPP LINER SUBMITALS

The following will be submitted for each host pipe to be lined. Provide the information into the category breakdown as shown below:

1. Liner Data

The following information will be provided with the CIPP liner structural data:

- a. pipe liner material type and trade name
- b. nominal inside and outside pipe liner diameters
- c. manufacturer's recommended maximum and minimum fill heights for the identified liner
- d. certification that liner meets specifications
- e. The Contractor will furnish engineering drawings and calculations that verify the CIPP liner meets or exceeds ASTM F2019. CIPP liner design will be based upon a fully deteriorated host condition pipe. ASTM F1216 will be the basis of furnished calculations and engineering drawings.

Engineering drawings and calculations will be signed and sealed by a Professional Engineer registered in the state of South Dakota.

2. Work Area Plan

Provide a work area plans that includes the following:

- a. the work area required for the liner installation
- b. method of preventing water from interfering with the installation
- c. a site restoration plan

3. Pipe Cleaning

Provide a plan that includes the cleaning of the host pipe and disposal of the debris

4. Liner Installation

Provide a liner installation plan which will include the following:

- a. method of liner installation
- b. curing method identifying required cure times, temperatures, and pressures
- c. containment plan for collection of contaminated water
- d. management and disposal plan for contaminated materials resulting from the liner installation

5. Training Certification and Experience

Provide written proof that at least 1 member of the installation team has attended training and been certified by the manufacture on the liner material being installed.

The installer must supply the Engineer with 5 prior job references of projects where they have successfully installed CIPP liners.

C. HOST PIPE PREPARATION AND INSPECTION

The host pipe will be thoroughly cleaned using a high-pressure water jet or hydro-mechanical methods. The cleaning method will produce a clean, sound surface that demonstrates no evidence of loose material, debris or contaminants. The host pipe will be cleaned just prior to insertion of the CIPP liner. The Contractor will implement appropriate sediment control measures prior to cleaning in order to prevent discharges from the project boundaries to comply with the Storm Water Permit.

Host pipe inspection will be completed with a CCTV camera. A DVD recording of the inspection will be provided to the Engineer. The inspection will determine the suitability of the liner for the host pipe including such items as the horizontal and vertical alignments, location of gaps in the joints and pipe damage. The Engineer will be notified if any pipe sections are impassible or the pipe cannot be lined.

Any intrusions into the pipe will be cut or ground off flush with the host pipe interior wall before installing the liner. Cut off existing pipe tie bolts flush with the nut or as per the manufacturer's recommendation, if manufacturer's recommendations are more stringent.

Control groundwater infiltration that will interfere with installation of the CIPP liner. Dewatering may be necessary. Host pipe will be in a dry condition as prescribed by the CIPP liner manufacturer.

The Engineer will inspect host pipes prior to lining to determine the pipes acceptance for lining including if additional cleaning is required. The host pipe will be clean and in a dry condition prior to commencing the lining process.

D. PIPE LINER INSTALLATION

The manufacturer's representative will be on site to provide training to Contractor's staff. A manufacturer's representative will be present for at least one complete liner installation and until the Engineer is satisfied that the Contractor's staff is competent in performing this work. A manufacturer's representative will also provide education to the Engineer on the liner installation and curing process.

Prior to inserting the CIPP liner, a sliding foil protector will be pulled into the host pipe to protect the CIPP liner from damage.

Installation of the liner into the host pipe will be in accordance with ASTM F2019.

CCTV camera inspection will be completed after inflation and prior to curing.

The cured CIPP liner will be continuous over the entire length of an installation run and be free of material defects. The lining will be impervious and free of any leakage from the pipe to the surrounding ground or from the ground to inside the lined pipe.

Trim the liner to length according to the manufacturer's recommendations. The liner will provide a smooth transition taper at each end of the pipe liner. There will not be any gaps between the liner and the host pipe. The ends will be sealed with an epoxy or resin mixture compatible with the liner and resin system, providing a watertight seal.

E. FINAL ACCEPTANCE AND PAYMENT

Host pipe inspection will be completed with a CCTV crawler after the liner has been cured. A DVD recording of the inspection will be provided to the Engineer.

Defects which will or could affect the structural integrity, strength, capacity, or future maintenance of the installed CIPP liner will be repaired at the Contractor's expense, in a manner approved by the Engineer.

Any disrupted areas will be restored and stabilized to the satisfaction of the Engineer.

All costs for culvert pre-cleaning, equipment, material and labor for CIPP liner will be incidental to the contract unit price per foot for the various sizes of Cured in Place Pipe.

F. VOID FILLING

Filling of annular space between the host pipe and the CIPP liner with grout may be required. Filling of annular spaces is not anticipated, however if required, follow the REINFORCED CONCRETE PIPE JOINT REPAIR AND VOID GROUTING section of plan notes on the previous pages and the following:

- Provide sufficient gauges, monitoring devices, and tests to determine the effectiveness of the grout placement
- Do not exceed the pipe liner maximum specified grouting pressure

All costs for filling annular spaces for all equipment, intermediate and post cleanup, material and labor required to complete the work will be incidental to the contract unit price per Ft for Cured in Place Pipe. Any overfilling that results in damage to overlying pavement, highway user ride quality, or drainage structure integrity will be corrected by the Contractor at no expense to the Owner. All corrections will be approved by the Engineer.