

CITY OF ANN ARBOR
INVITATION TO BID



Swift Run Sewer Lining Project

ITB No. 4651

Due Date: Tuesday, January 5, 2021 at 2:00PM (Local Time)

Public Services Area / Engineering

Issued By:

City of Ann Arbor
Procurement Unit
301 E. Huron Street
Ann Arbor, MI 48104

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- City of Ann Arbor Prevailing Wage Declaration Form*
- City of Ann Arbor Living Wage Forms*
- City of Ann Arbor Vendor Conflict of Interest Disclosure Form*
- City of Ann Arbor Non-Discrimination Ordinance Declaration Form and Notice*

NOTICE OF PRE-BID CONFERENCE

Due to restrictions in place no pre-bid conference will be held for this ITB. Please contact staff indicated within this ITB Document with general questions regarding this project/ITB

INSTRUCTIONS TO BIDDERS

General

Work to be done under this Contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents. All work to be done under this Contract is located in or near the City of Ann Arbor.

Any Bid which does not conform fully to these instructions may be rejected.

Preparation of Bids

Bids should be prepared providing a straight-forward, concise description of the Bidder's ability to meet the requirements of the ITB. Bids shall be written in ink or typewritten. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed and dated in ink by the person signing the Bid.

Bids must be submitted on the "Bid Forms" provided with each blank properly filled in. If forms are not fully completed it may disqualify the bid. No alternative bid will be considered unless alternative bids are specifically requested. If alternatives are requested, any deviation from the specification must be fully described, in detail on the "Alternate" section of Bid form.

Each person signing the Bid certifies that he/she is the person in the Bidder's firm/organization responsible for the decision as to the fees being offered in the Bid and has not and will not participated in any action contrary to the terms of this provision.

Questions or Clarifications / Designated City Contacts

All questions regarding this ITB shall be submitted via email. Emailed questions and inquires will be accepted from any and all prospective Bidders in accordance with the terms and conditions of the ITB.

All questions shall be due on or before **Monday, December 14, 2020 at 3pm** and should be addressed as follows:

Specification/Scope of Work questions emailed to ikotlyar@a2gov.org
Bid Process and Compliance questions emailed to cspencer@a2gov.org

Any error, omissions or discrepancies in the specification discovered by a prospective contractor and/or service provider shall be brought to the attention of **Igor V. Kotlyar, P.E. at ikotlyar@a2gov.org** after discovery as possible. Further, the contractor and/or service provide shall not be allowed to take advantage of errors, omissions or discrepancies in the specifications.

Addenda

If it becomes necessary to revise any part of the ITB, notice of the Addendum will be posted to Michigan Inter-governmental Trade Network (MITN) www.mitn.info and/or City of Ann Arbor web site www.A2gov.org for all parties to download.

Each Bidder must in its Bid, to avoid any miscommunications, acknowledge all addenda which it has received, but the failure of a Bidder to receive, or acknowledge receipt of; any addenda shall

not relieve the Bidder of the responsibility for complying with the terms thereof.

The City will not be bound by oral responses to inquiries or written responses other than written addenda.

Bid Submission

All Bids are due and must be delivered to the City of Ann Arbor Procurement Unit on or before **Tuesday, January 5, 2021 at 2:00 PM (local time)**. Bids submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

Each Bidder must submit one (1) original Bid and **one (1)** Bid copies in a sealed envelope clearly marked: **ITB No. 4651 – Swift Run Sewer Lining Project.**

Bids must be addressed and delivered to:

City of Ann Arbor
Procurement Unit,
c/o Customer Services, 1st Floor
301 East Huron Street
Ann Arbor, MI 48104

All Bids received on or before the Due Date will be publicly opened and recorded immediately. No immediate decisions are rendered.

The following forms provided within this ITB Document must be included in submitted bids.

- **City of Ann Arbor Prevailing Wage Declaration of Compliance**
- **City of Ann Arbor Living Wage Ordinance Declaration of Compliance**
- **Vendor Conflict of Interest Disclosure Form**
- **City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance**

Bids that fail to provide these forms listed above upon bid opening will be rejected as non-responsive and will not be considered for award.

Hand delivered bids may be dropped off in the Purchasing drop box located in the Ann Street (north) vestibule of City Hall which is accessible to the public at all hours. The City will not be liable to any Bidder for any unforeseen circumstances, delivery or postal delays. Postmarking to the Due Date will not substitute for receipt of the Bid. Each Bidder is responsible for submission of their Bid.

Additional time for submission of bids past the stated due date and time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when the City determines in its sole discretion that circumstances warrant it.

Award

The City intends to award a Contract(s) to the lowest responsible Bidder(s). On multi-divisional contracts, separate divisions may be awarded to separate Bidders. The City may also utilize alternatives offered in the Bid Forms, if any, to determine the lowest responsible Bidder on each division, and award multiple divisions to a single Bidder, so that the lowest total cost is achieved for the City. For unit price bids, the Contract will be awarded based upon the unit prices and the

lump sum prices stated by the bidder for the work items specified in the bid documents, with consideration given to any alternates selected by the City. If the City determines that the unit price for any item is materially different for the work item bid than either other bidders or the general market, the City, in its sole discretion, in addition to any other right it may have, may reject the bid as not responsible or non-conforming.

The acceptability of major subcontractors will be considered in determining if a Bidder is responsible. In comparing Bids, the City will give consideration to alternate Bids for items listed in the bid forms. All key staff and subcontractors are subject to the approval by the City.

Official Documents

The City of Ann Arbor officially distributes bid documents from the Procurement Unit or through the Michigan Intergovernmental Trade Network (MITN). Copies of the bid documents obtained from any other source are not Official copies. Addenda and other bid information will only be posted to these official distribution sites. If you obtained City of Ann Arbor Bid documents from other sources, it is recommended that you register on www.MITN.info and obtain an official Bid. Bidders do not need to be shown on the plan holders list provided by MITN to be considered an official plan holder.

Bid Security

Each bid must be accompanied by a certified check, or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

Withdrawal of Bids

After the time of opening, no Bid may be withdrawn for the period of ninety (90) days

Contract Time

Time is of the essence in the performance of the work under this Contract. The available time for work under this Contract is indicated on page C-2, Article III of the Contract. If these time requirements can not be met, the Bidder must stipulate on Bid Form Section 3 - Time Alternate its schedule for performance of the work. Consideration will be given to time in evaluating bids.

Liquidated Damages

A liquidated damages clause, as given on page C-2, Article III of the Contract, provides that the Contractor shall pay the City as liquidated damages, and not as a penalty, a sum certain per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the City shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

Human Rights Information

All contractors proposing to do business with the City shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the Section 9:158 of the Ann Arbor City Code. Breach of the obligation not to discriminate as outlined in Section 5, beginning at page GC-2 shall be a material breach of the contract. Contractors are required to post a copy of Ann Arbor's Non-Discrimination Ordinance attached at all work locations where its employees provide services under a contract with the City.

Wage Requirements

Section 4, beginning at page GC-1, outlines the requirements for payment of prevailing wages and for payment of a "living wage" to employees providing service to the City under this contract. The successful bidder and its subcontractors must comply with all applicable requirements and provide proof of compliance.

Pursuant to Resolution R-16-469 all public improvement contractors are subject to prevailing wage and will be required to provide to the City payroll records sufficient to demonstrate compliance with the prevailing wage requirements. Use of the Prevailing Wage Form provided in the Appendix section or a City-approved equivalent will be required along with wage rate interviews.

For laborers whose wage level are subject to federal, state and/or local prevailing wage law the appropriate Davis-Bacon wage rate classification is identified based upon the work including within this contract. **The wage determination(s) current on the date 10 days before bids are due shall apply to this contract.** The U.S. Department of Labor (DOL) has provided explanations to assist with classification in the following resource link: beta.SAM.gov.

For the purposes of this ITB the Construction Type of Highway (Building, Heavy, Highway or Residential) will apply.

Conflict Of Interest Disclosure

The City of Ann Arbor Purchasing Policy requires that prospective Vendors complete a Conflict of Interest Disclosure form. A contract may not be awarded to the selected Vendor unless and until the Procurement Unit and the City Administrator have reviewed the Disclosure form and determined that no conflict exists under applicable federal, state, or local law or administrative regulation. Not every relationship or situation disclosed on the Disclosure Form may be a disqualifying conflict. Depending on applicable law and regulations, some contracts may awarded on the recommendation of the City Administrator after full disclosure, where such action is allowed by law, if demonstrated competitive pricing exists and/or it is determined the award is in the best interest of the City. A copy of the Vendor Conflict of Interest Disclosure Form is attached.

Major Subcontractors

The Bidder shall identify on Bid Form Section 4 each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor. The Bidder shall not change or replace a subcontractor without approval by the City.

Debarment

Submission of a Bid in response to this ITB is certification that the Bidder is not currently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the City will be notified of any changes in this status.

Disclosures

After bids are opened, all information in a submitter's bid is subjected to disclosure under the provisions of Michigan Public Act No. 442 of 1976, as amended (MCL 15.231 et seq.) known as the "Freedom of Information Act." The Freedom of Information Act also provides for the complete disclosure of contracts and attachments thereto except where specifically exempted.

Bid Protest

All Bid protests must be in writing and filed with the Purchasing Agent within five (5) business days of the award action. The bidder must clearly state the reasons for the protest. If a bidder contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the bidder to the Purchasing Agent. The Purchasing Agent will provide the bidder with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee whose decision shall be final.

Any inquiries or requests regarding this procurement should be only submitted in writing to the Designated City Contacts provided herein. Attempts by any prospective bidder to initiate contact with anyone other than the Designated City Contacts provided herein that the bidder believes can influence the procurement decision, e.g., Elected Officials, City Administrator, Selection Committee Members, Appointed Committee Members, etc., may lead to immediate elimination from further consideration.

Cost Liability

The City of Ann Arbor assumes no responsibility or liability for costs incurred by the Bidder prior to the execution of a contract with the City. By submitting a bid, a bidder agrees to bear all costs incurred or related to the preparation, submission and selection process for the bid.

Reservation of Rights

The City of Ann Arbor reserves the right to accept any bid or alternative bid proposed in whole or in part, to reject any or all bids or alternatives bids in whole or in part and to waive irregularity and/or informalities in any bid and to make the award in any manner deemed in the best interest of the City.

Idlefree Ordinance

The City of Ann Arbor adopted an idling reduction Ordinance that goes into effect July 1, 2017. The full text of the ordinance (including exemptions) can be found at: www.a2gov.org/idlefree.

Under the ordinance, No Operator of a Commercial Vehicle shall cause or permit the Commercial Vehicle to Idle:

- (a) For any period of time while the Commercial Vehicle is unoccupied; or
- (b) For more than 5 minutes in any 60-minute period while the Commercial Vehicle is occupied.

In addition, generators and other internal combustion engines are covered

(1) Excluding Motor Vehicle engines, no internal combustion engine shall be operated except when it is providing power or electrical energy to equipment or a tool that is actively in use.

Environmental Commitment

The City of Ann Arbor recognizes its responsibility to minimize negative impacts on human health and the environment while supporting a vibrant community and economy. The City further recognizes that the products and services the City buys have inherent environmental and economic impacts and that the City should make procurement decisions that embody, promote, and encourage the City's commitment to the environment.

The City encourages potential vendors to bring forward emerging and progressive products and services that are best suited to the City's environmental principles.

Copy

INVITATION TO BID

City of Ann Arbor
Guy C. Larcom Municipal Building
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including City Nondiscrimination requirements and Declaration of Compliance Form, Living Wage requirements and Declaration of Compliance Form, Prevailing Wage requirements and Declaration of Compliance Form, Vendor Conflict of Interest Form, Notice of Pre-Bid Conference, Instructions to Bidders, Bid, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans (if applicable) and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered #1, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:320 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder certifies that the statements contained in the City Prevailing Wage and Living Wage Declaration of Compliance Forms are true and correct. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder declares that it has become familiar with the City Conflict of Interest Disclosure Form and certifies that the statement contained therein is true and correct.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS 04 DAY OF January, 2021.

Inland Waters Pollution Control, Inc.

Bidder's Name

4086 Michigan Avenue
Detroit, MI 48210

Official Address

313-899-3014

Telephone Number



Authorized Signature of Bidder

Jamee Bedingfield, Treasurer
(Print Name of Signer Above)

Nbickford@teamipr.com
Email Address for Award Notice

LEGAL STATUS OF BIDDER

(The Bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

* A corporation organized and doing business under the laws of the State of Michigan, for whom Jamee Bedingfield, bearing the office title of Treasurer, whose signature is affixed to this Bid, is authorized to execute contracts.

NOTE: If not incorporated in Michigan, please attach the corporation's Certificate of Authority

~~A limited liability company doing business under the laws of the State of _____, from _____ bearing the title of _____, whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.~~

~~A partnership, organized under the laws of the state of _____ and filed in the county of _____, whose members are (list all members and the street and mailing address of each) (attach separate sheet if necessary):~~

~~An individual, whose signature with address, is affixed to this Bid.~~ _____ (initial here)

Authorized Official



Date January 04, 2021

(Print) Name Jamee Bedingfield Title Treasurer

Company: Inland Waters Pollution Control, Inc.

Address: 4086 Michigan Avenue, Detroit, Michigan 48210

Contact Phone (313) 899-3014 Fax (313) 899-3011

Email Nbickford@teamipr.com

BID FORM
Section 1 - Schedule of Prices
Project: ITB 4651 - Swift Run Sanitary Sewer Lining Project

| LINE No. | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT PRICE | AMOUNT (\$) |
|----------|--|------|--------------------|-----------------------|----------------------|
| 130 | Protective Fencing | LF | 200 | \$ 15.00 | \$ 3,000.00 - |
| 200 | General Conditions, Modified, Maximum \$100,000 | LS | 1 | \$ 13,500.00 | \$ 13,500.00 - |
| 201 | Project Supervision, Modified, Maximum \$35,000 | LS | 1 | \$ 20,000.00 | \$ 20,000.00 - |
| 202 | Audiovisual Tape Coverage, Modified | LS | 1 | \$ 1,750.00 | \$ 1,750.00 - |
| 203 | Minor Traffic Control, Modified, Maximum \$50,000 | LS | 1 | \$ 32,500.00 | \$ 32,500.00 - |
| 204 | Barricade, Type III, High Intensity, Double Sided, Lighted, Furn | EA | 6 | \$ 82.50 | \$ 495.00 - |
| 205 | Barricade, Type III, High Intensity, Double Sided, Lighted, Oper | EA | 6 | \$ 1.00 | \$ 6.00 - |
| 206 | Channelizing Device, 42 inch, Furn | EA | 50 | \$ 21.50 | \$ 1,075.00 - |
| 207 | Channelizing Device, 42 inch, Oper | EA | 50 | \$ 1.00 | \$ 50.00 - |
| 208 | Lighted Arrow, Type C, Furn | EA | 2 | \$ 500.00 | \$ 1,000.00 - |
| 209 | Lighted Arrow, Type C, Oper | EA | 2 | \$ 1.00 | \$ 2.00 - |
| 210 | Plastic Drum, High Intensity, Lighted, Furn | EA | 50 | \$ 30.60 | \$ 1,530.00 - |
| 211 | Plastic Drum, High Intensity, Lighted, Oper | EA | 50 | \$ 1.00 | \$ 50.00 - |
| 212 | Sign, Type B, Temp, Prismatic, Furn | SF | 200 | \$ 5.00 | \$ 1,000.00 - |
| 213 | Sign, Type B, Temp, Prismatic, Oper | SF | 200 | \$ 1.00 | \$ 200.00 - |
| 214 | "No Parking" Sign | EA | 10 | \$ 105.00 | \$ 1,050.00 - |
| 215 | Sewer Flow Control | LS | 1 | \$ 185,000.00 | \$ 185,000.00 - |
| 216 | Clean 15-inch Dia. Sanitary Sewer | LF | 448 | \$ 6.50 | \$ 2,912.00 |
| 217 | Clean 18-inch Dia. Sanitary Sewer | LF | 2,231 | \$ 6.50 | \$ 14,501.50 |
| 218 | Clean 21-inch Dia. Sanitary Sewer | LF | 736 | \$ 7.00 | \$ 5,152.00 |
| 219 | Clean 24-inch Dia. Sanitary Sewer | LF | 635 | \$ 7.00 | \$ 4,445.00 - |
| 220 | Level 2 MACP Inspect Manhole | EA | 15 | \$ 235.00 | \$ 3,525.00 - |
| 221 | Removal and Disposal of Sludge and Debris Material | Ton | 100 | \$ 55.00 | \$ 5,500.00 - |
| 222 | CIPP Line 15 inch Dia. Sanitary Sewer | LF | 448 | \$ 68.00 | \$ 30,464.00 |
| 223 | CIPP Line 18 inch Dia. Sanitary Sewer | LF | 2231 | \$ 95.00 | \$ 211,945.00 |
| 224 | CIPP Line 21 inch Dia. Sanitary Sewer | LF | 736 | \$ 145.00 | \$ 106,720.00 |
| 225 | CIPP Line 24 inch Dia. Sanitary Sewer | LF | 635 | \$ 145.00 | \$ 92,075.00 |
| 226 | Preline 21 inch Dia. Sanitary Sewer | LF | 500 | \$ 3.40 | \$ 1,700.00 - |
| 227 | Preline 24 inch Dia. Sanitary Sewer | LF | 500 | \$ 3.90 | \$ 1,950.00 - |
| 234 | Inlet Filter, Special | Each | 4 | \$ 255.00 | \$ 1,020.00 - |
| 235 | Internal Chimney Seal | Each | 15 | \$ 350.00 | \$ 5,250.00 - |
| 236 | Reconstruct Flow Channel | Each | 15 | \$ 525.00 | \$ 7,875.00 - |
| 237 | Manhole Cementitious Liner | Vf | 200 | \$ 175.00 | \$ 35,000.00 - |
| 238 | Clean-Up & Restoration, Special | LS | 1 | \$ 3,280.00 | \$ 3,280.00 - |
| 290 | Certified Payroll Compliance and Reporting | LS | 1 | \$ 500.00 | \$ 500.00 - |
| 305 | 18" RCP Sewer, Trench Detail - Type I Modified | LF | 50 | \$ 680.00 | \$ 34,000.00 - |
| 306 | 21" RCP Sewer, Trench Detail - Type I Modified | LF | 50 | \$ 775.00 | \$ 38,750.00 - |
| | | | | Total Base Bid | \$ 868,772.50 |

BID FORM

Section 2 – Material, Equipment and Environmental Alternates

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

If an environmental alternative is bid the City strongly encourages bidders to provide recent examples of product testing and previous successful use for the City to properly evaluate the environmental alternative. Testing data from independent accredited organizations are strongly preferred.

| <u>Item Number</u> | <u>Description</u> | <u>Add/Deduct Amount</u> |
|--------------------|--------------------|--------------------------|
|--------------------|--------------------|--------------------------|

If the Bidder does not suggest any material or equipment alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the Contract.

Signature of Authorized Representative of Bidder


Jamee Bedingfield, Treasurer

Date January 04, 2021

BID FORM

Section 3 - Time Alternate

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-2, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the Contract.

Signature of Authorized Representative of Bidder



Date January 04, 2021

Jamee Bedingfield, Treasurer

BID FORM

Section 4 - Major Subcontractors

For purposes of this Contract, a Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of Contract with the Contractor), but shall not include any individual who furnishes merely the individual's own personal labor or services.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision to Section 4 of the General Conditions covering subcontractor's employees who perform work on this contract.

For the work outlined in these documents the Bidder expects to engage the following major subcontractors to perform the work identified:

| <u>Subcontractor (Name and Address)</u> | <u>Work</u> | <u>Amount</u> |
|---|-----------------|---------------|
| STRUCTURED SOLUTIONS LLL | MANHOLE REHAB | \$ 43,510.00 |
| SUNBELT RENTALS | BYPASS PUMPING | \$ 170,000.00 |
| ADVANCED UNDERGROUND INSPECTION | CCTV + CLEANING | \$ 29,448.00 |
| FONSON CONSTRUCTION | OPEN CUT / DIG | \$ 90,950.00 |
| POCO INC. | TRAFFIC CONTROL | \$ 31,100.00 |
| NGG | SITE VIDEO | \$ 1,300.00 |

If the Bidder does not expect to engage any major subcontractor, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any major subcontractor to perform work under the Contract.

Signature of Authorized Representative of Bidder


Jamee Bedingfield, Treasurer

Date January 04, 2021

BID FORM

Section 6 – Contractor Information and Responsible Contractor Criteria

Backup documentation may be requested at the sole discretion of the City to validate all of the responses provided herein by bidders. False statements by bidders to any of the criteria provided herein will result in the bid being considered non-responsive and will not be considered for award.

Failure to provide responses to all questions may result in being deemed non-responsive.

Attach additional pages as needed if space below is insufficient.

Pursuant to Sec 1:312(20) of the City Code which sets forth requirements of a responsible bidder, Bidder is required to submit the following:

1. Organization Name: Inland Waters Pollution Control, Inc.

Social Security or Federal Employer I.D. #: 38-2024780

Address: 4086 Michigan Avenue

City: Detroit State: Michigan Zip: 48210

Type of Organization (circle one below):

Individual Partnership **Corporation** Joint Venture Other

If "Other" please provide details on the organization:

N/A

Year organization established: 1973

2. Current owners/principals/members/managing members/partners of the organization: IPR AcquisitionCo. Inc. - Parent Company, Robert McCrae - President, Jim Michaud - CFO/ Secretary, Patrick Maginn - COO/ VP, Thomas Gottsegen - Chief Legal Council, Jamee Bedingfield- Treasurer, Jignesh Madhani - VP, Paul Jorgensen - Asst. Secretary

3. Assumed Names, "doing business as" d/b/a, and/or former organization names(s), if applicable: N/A

Explanation of any business name changes:

N/A

4. If applicable, please provide a list of all bidder's litigation and arbitrations currently pending and within the past five years, including an explanation of each (parties, court/forum, legal claims, damages sought, and resolution).
The Borough of Westmont filed an arbitration against Inland Waters Pollution Control, Inc. (IWPC) for wrongful termination of contract. The arbitration ruled against Westmont and in favor of IWPC.

5. Qualifications of management and supervisory personnel to be assigned by the bidder:

Please see attached Resumes of management and supervisory personnel.

6. State and local licenses and license numbers held by the bidder:

Michigan DOT Prequalified, Indiana Public Works Qualification, Gary, IN License, OH DOT Prequalified

7. Will all subcontractors, employees and other individuals working on the construction project maintain current applicable licenses required by law for all licensed occupations and professions?

Yes

No

8. Will contractors, subcontractors, employees, and other individuals working on the construction project be misclassified by bidder as independent contractors in violation of state or federal law?

Yes

No

9. Submit a statement as to what percentage of your work force resides within the City of Ann Arbor, and what percentage resides in Washtenaw County, Michigan, and the same information for any major subcontractors.

0% of Inland Waters Pollution Control's work force reside in the City of Ann Arbor or Washtenaw County, MI

10. Submit documentation as to employee pay rates.
Please see attached.

11. Submit a statement whether bidder provides health insurance, pension or other retirement benefits, paid leave, or other benefits to its employees.

Inland Waters Pollution Control, Inc. provides health insurance, vacation & sick paid leave, and 401k benefits.

12. Submit a statement explaining bidder's Equal Employment Opportunity Programs for minorities, women, veterans, returning citizens, and small businesses along with supporting documentation or other evidence.

Please find IPR and its subsidiaries EEO Statement and Policy attached.

13. Has bidder had any violations of state, federal or local laws or regulations, including OSHA or MIOSHA violations, state or federal prevailing wage laws, wage and hour laws, worker's compensation or unemployment compensation laws, rules or regulations, issued to or against the bidder within the past five years?

Yes

No

If you answered "yes" to the question above, for each violation provide an explanation of the nature of the violation, the agency involved, a violation or reference number, any other individual(s) or party(ies) involved, and the status or outcome and resolution.

14. Does bidder have an existing Fitness for Duty Program (drugs and alcohol testing) of each employee working on the proposed jobsite?

Yes

No

15. By attachment, please provide the following:

- Disclosure of any debarment by any federal, state or local governmental unit and/or findings of non-responsibility or non-compliance with respect to any public or private construction project performed by the bidder. Proof of insurance, including certificates of insurance, confirming existence and amount of coverage for liability, property damage, workers compensation, and any other insurances required by the proposed contract documents.

2nd Tier Criteria (\$100,001.00 to \$250,000.00) <<please remove if project is not expected to exceed \$100k>>

16. Does bidder have an on-going MIOSHA-approved safety-training program for employees to be used on the proposed job site?

Yes

No

17. Does bidder have evidence of worker's compensation Experience Modification Rating ("EMR")?

Yes

No

EMR = 1.04

18. Can bidder provide a ratio of masters and journeypersons to apprentices proposed to be used on the construction project job site, documentation of master or journeyperson certification or status and the source for same, and if not, the qualifications of employees who will be assigned to work on the project?

Yes

No

If, yes, Ratio = 1:0

19. Can bidder provide documentation that it participates in a Registered Apprenticeship Program (RAP) that is registered with the United States Department of Labor Office of Apprenticeship or by a State Apprenticeship Agency recognized by the Office of Apprenticeship?

Yes

No

If bidder answered "yes" to the question above and is selected for this project, bidder will be required to submit the RAP to the City.

If bidder answered "no" to the question above, please provide details on how your organization assess the skills and qualifications of any employees who do not have master or journeyperson certification or status, or are not participants in a Registered Apprenticeship Program identified above.

Inland Waters Pollution Control, Inc. uses real world scenario assessments in order to assess the skills and qualifications of any employee.

20. Will bidder comply with all applicable state and federal laws and visa requirements regarding the hiring of non-US citizens, and disclosure of any work visas sought or obtained by the bidder, any of the bidder's subcontractors, or any of the bidder's employees or independent contractors, in order to perform any portion of the project?

Yes

No

3rd Tier Criteria (above \$250,000.00) <<please remove if project is not expected to exceed \$100k>>

21. Can bidder provide audited financial information current within the past twelve (12) months, such as a balance sheet, statement of operations, and bonding capacity?

Yes

No

(Evidence that bidder has financial resources to start up and follow through on the project(s) and to respond to damages in case of default as shown by written verification of bonding capacity equal to or exceeding the amount of the bidder's scope of work on the project. The written verification must be submitted by a licensed surety company rated "B+" (or better) in the current A.M. Best Guide and qualified to do business within the State of Michigan, and the same audited financial information for any subcontractor estimated to be paid more than \$100,000.00 related to any portion of the project.)

22. Can bidder provide evidence of a quality assurance program used by the bidder and the results of any such program on the bidder's previous projects?

Yes

No



Section 6 - Contractor Information and Responsible Contractor Criteria

Question #5 - Resumes

Attached.

Jeremy Recklein

General Manager, IPR Great Lakes



Mr. Recklein is an accomplished General Manager, Project Manager and Sales Director with a solid history of achievement. He has over twenty years of experience in underground construction. He is a motivated leader with strong organizational and prioritization abilities. Areas of expertise include communication, safety, sales and management. An effective foreman with more than a decade of experience in fast-paced sewer rehabilitation. Track record of achieving exceptional results in creating an Invulnerable workspace and problem solving.

Project Experience

(2017-2018) *Cleveland, OH* Doan Valley Storage Tunnel 2220 feet cleaning, prepping and spraying (Geopolymer) of 54-94in combined sewer lines.

(2017) *Noblesville, IN* 2000ft of 27-42in pipe cleaning, heavy cleaning, prepping, styrene-free CIPP

(2019) *Oregon, OH* 8700ft of clean and TV plus CIPP 8-12in

(2019) *Detroit, MI* Detroit Zoo (overnight) 500ft of clean and prep 24in plus CIPP

(2019) *Midland, MI* Dow Chemical 500ft of 24in clean, prep and CIPP of a clarifier

Education

- Illinois Center for Broadcasting (ACCSCT)
Lombard, IL – 2010 Graduate
- LIUNA Apprenticeship Program
Carol Stream, IL – 2007 certification

License / Award / Certifications

- NASSCO certified PACP/MACP/LACP
- Won a safety award through local #2 Customer and Personal Service Active Listening
- Critical Thinking Coordination Negotiation Operations Analysis
- Public Safety and Security
- NASSCO certified PACP/MACP/LACP
- 30 Hour OSHA

Alec Heard

Director of Project Management, Inland Waters Pollution Control, Inc.
Great Lakes Region



Summary

Since 2009, Mr. Heard's responsibilities include the implementation of IWPC standard operation procedures for sanitary and storm sewer CIPP rehabilitation and assessment contracts. He is responsible for working with and directing the project management team on various sewer rehabilitation projects, while reporting directly to the General Manager and COO.

Project Experience

Highlighted Projects:

- 2009-2014 DWSD DWS877/DWS876 REHAB of CIRCULAR AND NON-CIRCULAR SEWERS. This Project involved the rehabilitation of multiple sized combined sewers, owned by The Detroit Water and Sewer Department. The project scope included sewer lining 220,000+ LF of Combined sewers (ranging in size from 8" to 60" in diameter)
- 2015-2017 City of Toledo, MI – This project consisted of the following scope: sanitary sewer; 8" of 2240 LF; 9" of 1200 LF; 10" of 5680 LF; 12" of 1885 LF; 15" of 4380 LF; 18" of 1410 LF; 20" of 785 LF; 24" of 4950 LF; 30" of 490 LF; 39" of 425 LF & Storm sewer 8" of 580 LF; 10" of 135 LF; 12" of 9400 LF; 15" of 2425 LF; 18" of 3350 LF; 20" of 615; 24" of 1720 LF; 30" of 230 LF; 48" of 475 LF & 54" of 220 LF. All diameters cleaned/cctv and eventually rehabilitated.
- 2016 City of East Lansing, MI – This project consisted of the following scope: 8" 685.5 LF, 18" 1583 LF, 24" 546.1 LF, 21" 390 LF, 27" 243 LF & 36" 1250 LF. All diameters cleaned/cctv and eventually rehabilitated.
- 2015 City of Garden City, MI – This project consisted of the following scope: 8" of 631.3 LF; 10" of 21667.1 LF; 12" of 10339.3 LF; 15" of 7868.9 LF; 18" of 7599.4 LF; 21" of 2108.3 LF; 24" of 597.8 LF; 42" 327.1 LF. All diameters cleaned/cctv and eventually rehabilitated.
- 2013 City of Adrian, MI – This project consisted of the following scope; 12" of 400 LF; 30" of 918 LF; 36" 916 LF. All diameters cleaned/cctv and eventually rehabilitated.

License / Award / Certifications

- PACP
- NASSCO
- 40 Hour OSHA Hazwoper
- 30 Hour OSHA
- 24 Hour Confined Space Rescue
- 8 Hour Confined Space Entrant/Supervisor
- 8 Hour Refresher First Aid/CPR
- 2018 IPR Great Lakes Employee of The Year

Abdelrahman Eissawy (Adam)

*Project Manager, Inland Waters Pollution Control, Inc.
Great Lakes Region*



Summary

As a Project Manager, Mr. Eissawy's responsibilities require an ability to work closely with clients to ensure that the project is completed to the client's satisfaction and according to the contract specifications. He is responsible for overseeing a team of crew members and making sure that the work is scheduled accordingly and completed in a timely manner. He is responsible for all documentation during the project including progress reports for the client, preparing required submittals for work methods and materials, and delivering final inspection data as required by the client and preparing AIA billings for the work performed. The majority of the projects that Mr. Eissawy manages scope of work that include; sewer cleaning, video inspection, manhole lining, and asphalt repair. Mr. Eissawy has been a professional in the construction field for 2 years and with IPR since mid-2018.

Project Experience

A few of Mr. Eissawy's Highlighted Projects:

- Michigan Department of Transportation – Livingston County – MDOT 33083-M61866 Ingham and Livingston Co-Culvert Rehab - This project consists of CIPP lining of 320 LF of 12", 455 LF of 24", 240 LF of 30", 100 LF of 50", and 125LF of 54" diameter pipe.
- Holland, OH – 2018 Sanitary Sewer Lining Rehabilitation – This project consists of 5,500' of 36" diameter pipe.
- Marion, IN – CIPP Sewer Main Rehabilitation
This project consists of CIPP lining of 1,330 LF of 8", 922 LF of 10", 1,929 LF of 12", and 780 LF of 15" diameter pipe.
- City of Oregon - Sanitary Sewer Rehabilitation Phase 4 Part C – This project consisted of CIPP lining of 177' of 12", 388' of 10", 8,205' of 8' diameter pipe.
- Elkhart, IN – 2018 Sanitary Sewer Rehabilitation - 798' of 21" and 24' of 24" diameter pipe.

License / Award / Certifications

- BS – Alexandria University, Alexandria, Egypt - Civil Engineering – Faculty of Engineering – 2011-2016

Education/License / Award / Certifications

- 40 Hour OSHA Safety
- PACP
- 40 Hour OSHA Safety
- PACP

Ismael Gad

Associate Project Manager, Inland Waters Pollution Control, Inc.
Great Lakes Region



Summary

Recently hired January of 2019, Ismael Gad currently works under the supervision and training of IPR GL's experienced Project Managers. As an Associate Project Manager (APM), Mr. Gad's responsibilities require an ability to work closely with project managers to ensure that projects progress are properly documented and organized. A major component of an APM's experience is to attentively listen and learn from the PM's vast experience. Mr. Gad has been trained in Access, Dropbox, Salesforce and has assisted project managers in creating and populating spreadsheets.

Project Experience

A few of Mr. Gad's Highlighted Projects:

- Ann Arbor, MI- 2018 Sanitary Sewer Lining Project
– This project consists of 30,698' of 8", 9,431' of 10", 2,704' of 12", 333' of 15", 837' of 18", 402' of 21", 391' of 24" of CIPP lining
- ODOT 190526 – Clermont WAR FY20 Culvert Replacement
– This project consists of 54' of 15", 116' of 24", 28' of 30" of CIPP lining

License / Award / Certifications

- BS – University of Toledo - Civil Engineering – Faculty of Engineering – 2015-2019
- Minor in Family Business & Entrepreneurship

Education/License / Award / Certifications

Gary Gaskin

Associate Project Manager, Inland Waters Pollution Control, Inc.
Great Lakes Region



Summary

Mr. Gaskin's has been in construction industry for over 3 years and has experience with sewer cleaning, inspection and sewer rehabilitation. In the sewer rehabilitation industry, he cleaned and inspected over 50,000 feet of small diameter from 6" pipe to large diameter 36" pipe. Gary has participated in over 10,000 LF of CIPP installation, replacement or repair of sewer, water & storm lines. His knowledge has allowed the successful completion of jobs for DWSD, MDOT, ODOT and numerous Metro Detroit area contracts.

Project Experience

A few of Mr. Gaskin's Highlighted Projects:

- Bowling Green, OH – McComb Sanitary Sewer Rehabilitation– This project consisted of CIPP lining 4,322 LF of 10" diameter pipe
- City of Oregon - Sanitary Sewer Rehabilitation Phase 4 Part C – This project consisted of CIPP lining of 1,77' of 12", 388' of 10", 8,205' of 8' diameter pipe
- 2018 Sewer Cleaning and Lining Project – Village of Ottawa Hills, OH
This project consists of 18,950 LF of 8", 2,975 LF of 10", 4,885 LF of 12" of CIPP
- Cleveland, OH – Performed 6,970 LF of Cleaning and Inspection
- East Lansing, MI – This project consisted of the following CIPP scope: 2,661 LF of from 8"-36" diameter pipe

License / Award / Certifications

- BA – Marygrove College- Mathematics – 2010-2012

Education/License / Award / Certifications

- CPR & First Aid
- NASSCO PACP/MACP Certified
- WinCan 7,B & Granite XP
- Confined Space & Entrant Attendant Training

Robert Samonie

Health & Safety Manager, Inland Waters Pollution Control, Inc.
Great Lakes Region



Project Experience

In his present role at IWPC, Inc. Mr. Samonie is tasked with following:

- Evaluates hazards in field operations and within the facility to minimize EHS risks.
- Conducts new hire safety orientation and training related to EHS policies & procedures
- Conducts routine field operation compliance audits and provides EHS resources & guidance.
- Conducts incident and accident investigation, root-cause analysis, mitigates hazards.
- Manages recordable accident, near miss, and incident reporting.
- Provides proactive WC case management and communicates with operations, treatment providers, and WC Carrier.
- Develops internal local procedures and programs for all departments to foster desired safety culture.
- Manages facility contingency plans, including environmental, natural disaster, & fire prevention programs in accordance with Company policies & procedures, regulatory requirements and underwriter recommendations.
- Manages MSDS program to ensure accessibility according to regulations.
- Develops, implements, & documents ongoing formal and informal training programs & schedules including but not limited to; emergency preparedness, confined spaces, trenching & excavating, fall protection, and other related safety topics regularly.
- Provides General Manager with weekly status progress reports.
- Maintains records of hazardous waste, air emission permitting, and water pollution discharge, as well as industrial health monitoring and records of employee hazard exposure according to OSHA & MIOSHA regulations.
- Monitors professional literature and attends seminars/training to obtain and secure certification and to stay current with governmental compliance requirements.
- Maintains OSHA log and confers/responds to OSHA inspections/citation to mitigate fines and charges.
- Coaches/mentors employees and management positively on safety related topics.
- Assures compliance with traffic control.
- Orders, purchases, maintains, and issues safety equipment
- Provides routine status reports to corporate.
- Coordinates & documents Job Safety Analysis (JSA's) for each position and product with Operations.

The Energy Group, LLC • Detroit, Michigan • January 2016 to Current
Safety Manager

- Dedicated Safety Manager for NIPSCO Project in the Indiana area
- Dedicated Safety Manager for DTE Project in the Michigan area
- Over-site of the Michigan, Indiana, West Virginia job-sites

- Maintained safety records
- Trained all new hires
- Created a new DOT Policy for the entire Corporation
- Created a new Safety and Health Manual
- Managed and maintained DOT
- Lead the investigation team of any and all incidents that occurred
- Conducted weekly safety stand-downs
- Job Hazards & prevention of such
- Completed all safety related tasks
- Verify all fire extinguishers are current and meet OSHA Standards
- Using proper GFI when necessary
- Completed Job Site Evaluations
- Assure all possible hazards are identified and properly managed
- Advise and assist Operations with all corrective actions

InfraSource Construction LLC • Ypsilanti, Michigan • February 2015 to October 2015

Safety Manager

- Dedicated Safety Manager for NIPSCO Project in the Indiana area
 - Over site of the Michigan and Upper Ohio job-sites
 - Maintained safety records
 - Lead the investigation team of any and all incidents that occurred
 - Conducted weekly safety stand-downs
 - Job Hazards & prevention of such
 - Completed all safety related tasks
 - Maintained all AED's within the Michigan, Ohio & Indiana areas
 - Created a tracking system for all AED's that was instituted throughout the organization
 - Verify all ladders meet OSHA Standard
 - Verify all fire extinguishers are current and meet OSHA Standards
 - Using proper GFI when necessary
 - Completed Job Site Evaluations
 - Assure all possible hazards are identified and properly managed
 - Completed all JSE's
 - Advised and assisted Operations with all corrective actions
 - Coordinated OSHA visits when necessary
 - Direct and assist co-workers with their daily tasks
 - Completed JHSA to verify all employees know their job description for the job at hand
 - Maintained safety records
 - Conducted weekly safety stand-downs
 - Job Hazards & prevention of such
 - Completed all safety related tasks
 - Maintained all equipment to keep in proper working order
 - Maintained all job tools to keep in proper working order
 - Verify all ladders meet OSHA Standard
 - Verify all fire extinguishers are current and meet OSHA Standards
 - Using proper GCF when necessary
 - Completed Job Site Evaluations
 - Assure all possible hazards are identified and properly managed
 - Coordinated OSHA visits when necessary
 - Installing all aspects of industrial water & vent piping
 - Direct and assist co-workers with their daily tasks
 - Completed JHSA to verify all employees know their job description for the job at hand
- Pipe Fitting
- Prepare steel piping for welders on hot and chilled water and steam systems
 - Tacking and preparing pipe

- Being aware of pinch points on pipe
- Lead, direct and assist co-workers with their daily tasks

The Plumbing Knight • West End, North Carolina • September 2013 to May 2014

Plumber

- All aspects of service for residential plumbing.
- Communicated with customers on diagnosing problems, finalizing all sales and installations.

Mechanical Contractors of the Carolinas • Durham, North Carolina • August 2012 to September 2013

Mechanic - Job Foreman

- Directed crews, all job scheduling
- All job site evaluations
- Conducted weekly safety crew meetings/evaluations
- Scheduled inspections
- Installed all aspects of industrial plumbing
- Some aspects of pipe fitting

Acme Plumbing • Durham, North Carolina • July 2011 to August 2012

Mechanic

- All phases of commercial plumbing
- Scheduled inspections
- Directed crews in tasks to be completed per job
- Met with OSHA when necessary
- Held daily tailgate talks as directed
- Completed all safety reports
- Completed weekly job reports for management
- Commercial and Industrial Plumbing Installations

M.A. Murvay LLC. • Warren, Michigan • May 2004 to December 2010

General Manager

- Responsible for all sales and coordination of potential and existing.
- Billing and Account Coordinator
- All ordering, inventory control

Education

- Bachelor in Safety Construction Management, ITT Technology Institute, Troy, Michigan 2003 to 2007

License / Award / Certifications

- OSHA 30 Certified ATSSA Certified Traffic Supervisor; CPR/First Aid Certified CPR/First Aid Instructor; CDL Class A License; EHAP Certified; Cast Iron; Crew Leader ; Coiled Pipe; Ability to Multi-task; Ability to Sell Safety; PEX; Trim Out & Rough; PVC; QA/QC Experience; Ability to communicate on all levels from the field to management.

Darron Parker

Operations Manager, Inland Waters Pollution Control, Inc.
Great Lakes Region



Summary

Mr. Parker's has been in construction industry for over 10 years and has extensive experience with sewer cleaning, inspection and sewer rehabilitation. In the sewer rehabilitation industry, he cleaned and inspected over 500,000 feet of small diameter from 6" pipe to large diameter 160" pipe. Participated in over 100,000 LF of CIPP installation, replacement or repair of sewer, water & storm lines. His extensive knowledge has allowed the successful completion of jobs for DWSD, MDOT, ODOT and numerous Metro Detroit area contracts

Project Experience

Highlighted Projects

- **Waynesboro, OH** – This project consisted of CIPP lining of 2,661 LF of pipe
- **East Lansing, MI** – This project consisted of the following CIPP scope: 2,661 LF of from 8"-36" diameter pipe
- **Cleveland, OH** – Performed 6,970 LF of Cleaning and Inspection
- **Oregon, OH – Sanitary Sewer Rehabilitation Phase 4 Part C** – This project consisted of CCTV / Cleaning, 8,770 LF of pipe, and reconnecting service connections
- **Wabash, OH – Alena Street – Storm and Sanitary Project** – This project consists of CIPP lining of 1,600 LF of 8-12" diameter pipe
- **Ypsilanti, MI – 2018 Drop Manholes Sanitary Sewer Rehabilitation** – This project consisted of CIPP of 2,247 LF of 12-36" diameter pipe and CCTV, cleaning, and manhole rehabilitation
- **Bowling Green, OH – McComb Sanitary Sewer Rehabilitation**– This project consisted of CIPP lining 4,322 LF of 10" diameter pipe
- **Springfield, OH – 2016 Misc. Sanitary Sewer Lining** – This project consisted of CCTV, Cleaning, and CIPP lining of approximately 8,941 LF of 8-36" sewers and manhole rehabilitation.

License / Award / Certifications

- NASSCO PACP/MACP Certified
- WinCan 7,8 & Granite XP
- Confined Space & Entrant Attendant Training
- Confined Space Rescue
- Health and Safety Air Monitor Equipment
- Lock Out Tag Out
- Industrial Equipment Operator
- Advanced SPC
- Metrology/Blueprint
- CPR & First Aid
- Diversity Training



Education
Martin Luther King High
School

DOT Training
Confine Space Training
First Aid Training

Supervisory Training Program

Theophilus Brooks
Operations Manager
Great Lakes Region

Professional Experience

As the Operations Manager, my responsibilities are staffing, crew deployment and day to day activities of the Operations team.

Inland Waters Pollution Control

For CIPP Lining, televising, cleaning and sealing crews. As the Operations Manager, my responsibilities are day to day operations including the scheduling, warehouse ordering, vehicle licensing, preparing payroll, ordering materials, building permits, weekly production tracking and daily trouble-shooting problems that arise.

Operations Manager (2003 to Current)

Inland Waters Pollution Control Inc
Detroit, MI

- Cleaning & TV over 50,000 feet of sewer
- CIPP lining
- Set up disposal site
- Help coordinate big jobs
- Problem solving

Dispatch Manager (1999 to 2002)

Power Vac
Detroit, MI

Managed 15 crews, varying in size from 2 to 6 people and do short contract for new services. Our facility specialized in street sweeping, cleaning catch basins and cleaned paint pits in industrial facilities. My objective was to have all crews working and be productive.

Laborer (1991 to 1999)

City Disposal System
Detroit, MI

Was responsible for Detroit territory of disposal of city trash. Worked diligently with 5 man crew, roughly 10 hours a day. Assumed leadership position in crew, maintained the highest cleanliness quote for the entire company.



Training

- OSHA 40-hour Training
- Confined Space Entry Training
- CPR-First Aid Trained
- Operators card for (excavator, backhoe, tele-handler, dozer, forktruck, and more)
- Boiler operator cert.
- Mcelroy-tracstar-fusion machine certified
- Trained on resin mixers
- CDL A – Hazmat
- Tankers

Clint Adkins Jr.

*Superintendent /Operations Manager
Wet Out Over the Hole*

Professional Experience

Mr. Adkins has been a valuable team member of the IPR family for over 7 years. He has had over 12 years of professional experience in the construction field in the roles of Project Supervisor and Crew Leader. Mr. Adkins has installed over 10,000 LF of 48" diameter pipe up to 72" diameter pipe of Over The Hole projects. He has also installed and overseen well over 600,000 LF of various sizes and methods of CIPP lining from 6" to 84" diameter pipe in 2014 alone. Mr. Adkins has also managed the installation of over 75,000 linear feet of CIPP linear and video inspection. He is experienced in the installations of multiple technologies, including CIPP and EcoCast.

Mr. Adkins most highlighted projects:

- Sanitary Sewer Rehabilitation project - Detroit Water and Sewerage Department - (2010-present) Successfully installed approx. 300,000 LF of 6" to 72" of CIPP larger using the steam cure and water method. Over 2,000 LF of 48"; 2,000 LF of 54"; 1,500 LF of 60"; 1,000 LF of 72".
- Work-Order Based - Sanitary Sewer - Houston, TX- (2016) Successfully installed 4 installation of 2,917 LF of 72" CIPP Wet-Out Over the Hole lining.
- Rehab Terminal Area Stormwater Infrastructure, Phase 1-Nashville Metro Airport (2016) - CIPP lining of 650 LF of 72" Wet-Out Over-the-Hole and 490 LF of 60" diameter pipe.
- Newport, KY- (2012-2014) Successfully installed 550 LF of CIPP ranging from 60" diameter pipe using steam method.
- Sanitary Sewer Rehabilitation project -City of Battle Creek, MI - (2012-2013) Successfully cleaned, video inspected and CIPP lined 5,500 LF of 54" CIPP using the water cure method, which 2,000 LF of 48" CIPP was installed using steam method.
- Hines Drive Sanitary Sewer Project - Wayne County, MI -(2011) Successfully installed 806 LF of 66" CIPP, 2,834 LF of 60" CIPP, 643 LF of 48" CIPP using the water cure method and 2,675 linear feet of 72" Wet-out Over The Hole Wet Out of 3 installation.
- Ford Proving Grounds- Romeo MI- (2011) Successfully installed 500 LF of 60" using Ecocast method.

Neftali Aguilar

Foreman, Inland Waters Pollution Control, Inc.
Great Lakes Region



Summary

Since 2018, Mr. Aguilar's responsibilities as a Foreman at IPR include; Supervising a crew of operators, technicians and labors specialized in Sewer Lines Cleaning and CCTV and in the CIPP Lining Industry, Communicate on a daily basis between IPR and the owner's field inspectors, Make sure that the work is being performed efficiently and following the schedule set by the PM and the Engineers; Troubleshoot the jobsite problems and provide solutions to maintain the work flow. He also ensures that all equipment & materials are ready for the work and well maintained to achieve the best results.

Project Experience

Highlighted Projects for Mr. Mullins since 2013:

- 2019 Sanitary and Storm Sewer Rehab – Owosso, MI - 2019
This project consists of Cleaning and CCTV & CIPP Lining of 2,510 LF of 8", 1,720 LF of 12", 1,060 LF of 15" & 2,135 of 24"
- 2018 Sanitary Sewer Lining Project – Ann Arbor, MI – 2018-2019
This project consists of Cleaning and CCTV & CIPP Lining of 30,698 FT of 8", 9,431 LF of 10", 2,704 FT of 12" and 2000 FT of 15-24" Lines.
- 2018 Sewer Cleaning and Lining Project – Village of Ottawa Hills, OH
This project consists of 18,950 LF of 8", 2,975 LF of 10", 4,885 LF of 12" of CIPP

Education

- High School Diploma at Colegio de Bachileres

License / Award / Certifications

- PACP
- OSHA 40-Hour HAZWOPER
- Confined Space Entry Training



Section 6 - Contractor Information and Responsible Contractor Criteria

Question #10 - Pay Rates

| Crew #1 | Hourly Rate | Salary Rate |
|----------------------|-------------|-------------|
| 1. Alan Mullins | | \$1,655.77 |
| 2. Daniel Cuestes | \$24.00 | |
| 3. DeAndre Burrell | \$19.00 | |
| 4. Mark Paige | \$19.50 | |
| 5. Joel Robbins | \$19.00 | |
| 6. Aric Shock | \$19.00 | |
| 7. Micheal Godley | \$18.00 | |
| | | |
| Crew #2 | | |
| 1. Neftali Aguilar | | \$1,634.62 |
| 2. Scott Diffin | \$24.50 | |
| 3. Jorge Maldonado | \$26.00 | |
| 4. Marcos Villagomez | \$28.00 | |
| 5. Robert Brown | \$20.00 | |
| 6. Antoine Haynes | \$18.00 | |
| 7. Omari McWilliams | \$21.00 | |
| | | |
| Crew #3 | | |
| 1. Alejandro Ochoa | | \$1,716.35 |
| 2. Faustino Garcia | \$20.00 | |
| 3. Jorge Grimaldo | \$28.00 | |
| 4. Kevin Paul | \$18.00 | |
| 5. Shawn Walker | \$20.50 | |
| 6. Demetri Murphy | \$23.00 | |
| 7. Juan Mendoza | \$20.00 | |
| | | |
| Crew #4 | | |
| 1. Cheavez Harris | \$19.00 | |
| 2. Matthew Gustafson | \$17.00 | |
| 3. Cesar Grimaldo | \$15.00 | |
| 4. Felipe Ochoa | \$18.00 | |
| 5. Richard Bowley | \$17.00 | |



Section 6 - Contractor Information and Responsible Contractor Criteria

Question #12 - EEO Policy

Attached.

Policy Statement for Equal Employment Opportunity & Affirmative Action in Employment

1. It is the policy of Inland Pipe Rehabilitation, LLC (and subsidiaries – PM Construction, Re-Pipe Construction, Underground Technologies, Inc., UTG, IPR GL, Inland Waters Pollution Control, herein known as Inland Pipe Rehabilitation, LLC) not to discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or any other prohibited criteria and to take affirmative action to ensure that applicants are employed and employees are treated during employment without regard to their race, color, religion, sex, national origin or other prohibited criteria.

2. Inland Pipe Rehabilitation, LLC shall seek applicants without regard to their race, color, religion, sex, national origin or other prohibited criteria in employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay and other forms of compensation and selection for training, including apprenticeship, if any.

3. Inland Pipe Rehabilitation, LLC will, in all solicitations or advertisements for employees, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin or other prohibited criteria (EEO).

4. Inland Pipe Rehabilitation, LLC has appointed Ray Cuevas as Director of Compliance for Equal Employment and Affirmative Action Programs. Ray Cuevas is responsible for taking action consistent with this Equal Employment Opportunity and Affirmative Action Policy Statement.

5. Inland Pipe Rehabilitation, LLC will disseminate its Equal Employment Opportunity and Affirmative Action Policy Statement and incorporate it in all employment actions and programs.

6. Inland Pipe Rehabilitation, LLC will, where appropriate, take action to improve the recruitment and increase the number of minority or female applicants, including contacting organizations prepared to refer such applicants.

7. Inland Pipe Rehabilitation, LLC will take other actions designed to ensure compliance with this Equal Employment Opportunity and Affirmative Action Policy Statement as it may determine from time to time and such actions as are required to ensure that Inland Pipe Rehabilitation, LLC is in full compliance with all of its contracts and obligations.

SECTION 1

DESIGNATION OF RESPONSIBILITY

Executive Responsibility

The individual ultimately responsible for implementation of Inland Pipe' EEO Policy and Affirmative Action Program is the Chief Executive Officer. However, the Director of Human Resources has been designated the EEO Coordinator and has been assigned the primary responsibility for planning and monitoring the implementation of Inland Pipe Rehabilitation, LLC's EEO Policy and Affirmative Action Program. He shall be given the necessary management support and staffing to execute this assignment. His identity shall appear on all internal and external communications on Inland Pipe Equal Opportunity programs. In this capacity, he will:

1. Develop policy statements, affirmative action programs, and internal and external communications techniques.
2. Assist in problem identification.
3. Assist line management in resolving EEO problems.
4. Design and implement audit and reporting systems that will.
 - Measure the effectiveness of our Affirmative Action Program, indicate needs for remedial action,
 - Determine the degree to which our goals and objectives have been obtained, and
 - Ensure posters are properly displayed.
5. Serve as liaison between the Company and enforcement agencies.
6. Keep management informed of the latest EEO developments.

Line Responsibility

Line managers have ultimate responsibility for implementing EEO policy within their areas. In cooperating with the EEO Coordinator to carry out the measures listed above, line managers will:

1. Assist in problem identification, and in the establishment of unit goals and objectives.
2. Involvement in local minority organizations and community ethnic groups.
3. Audit training programs and hiring and promotion patterns to remove impediments to the attainment of goals and objectives.

4. Review employee qualifications to be sure that minorities, women, the disabled, and veterans are given full opportunities for transfer and promotion.
5. It shall be the responsibility of officers, directors, managers, and supervisors to ensure implementation of our policy against harassment, including those placed through affirmative action efforts.
6. The equal employment opportunity efforts and results of officers, directors, managers, and supervisors is and shall continue to be a factor in the evaluation of their work performance.
7. Serve as liaison between the Company and minority and female organizations, organizations for the disabled and covered veterans, and community action groups concerned with the employment opportunities of minorities, women, the disabled and veterans.
8. Ensure that all EEO postings are done.

SECTION 2

ACTION ORIENTED PROGRAM

Inland Pipe Rehabilitation, LLC will strive to create an environment of equality for all employees and applicants. Programs and activities designed to achieve this desired result include, but are not limited to, the following:

Recruiting

1. Management and Professional Openings

In recruiting for these openings, we initially post positions internally for qualified candidates, if no qualified candidates are available we advertise in the local newspaper and in urban areas newspapers and internal job posting boards. In addition, we contact the placement offices of recruitment sources offering programs that prepare professionals for our industry. These sources produce an adequate mix of minority and female applicants.

2. Technical, Clerical, and Other Openings

In recruiting for these openings, we initially post positions internally for qualified candidates, if no qualified candidates are available we advertise in the local newspaper and in urban areas newspapers and internet job posting boards. We also accept walk-in application based on employee referrals.

3. Applications on File

Applications are kept for two years.

Application Forms

Our employment application and ancillary documents have been reviewed to ensure that they are consistent with our equal employment opportunity policy, and with EEO law.

Promotional Development of Minority and Female Employees

The placement and development activity of the Human Resources Department is responsible for the coordination of promotional development for all employees in these categories.

Supervisors will identify employees for consideration for promotions, when they feel an employee has demonstrated such potential. It is the intent of the Inland Pipe Rehabilitation, LLC Human Resources Department to periodically conduct such meetings to assure maximum advancement opportunities for all of our employees and,

at the same time, to discover valuable skills in our employees for movement throughout the system.

Education Assistance Program

The program, which reimburses employees for job-related educational expense is offered to encourage employees to participate in available outside educational activities. The expected benefits of this program are:

1. Increase job proficiency;
2. Personal improvement for possible advancement; and
3. Increase general knowledge and employee moral.

Internal Organizational Outreach Activities

Inland Pipe Rehabilitation, LLC will continue to provide employee development opportunities for minorities and females utilizing various methods, such as:

1. Inland Pipe Rehabilitation, LLC sponsored training programs and workshops, on-the-job training programs, and tuition reimbursement programs.
2. Posting job vacancies, providing opportunities for formal awareness and consideration of these promotional opportunities.
3. Conducting meetings with Inland Pipe Rehabilitation, LLC managers and supervisors to make clear the requirement that affirmative steps are taken to ensure equal employment opportunity in human resource decisions.
4. Informing Inland Pipe Rehabilitation, LLC's managers and supervisors that their affirmative action and equal employment opportunity efforts will be an ongoing part of their annual performance evaluation.
5. Discussing Inland Pipe Rehabilitation, LLC's EEO policy thoroughly in new employee orientation, as well as, management development programs.
6. Prominently posting Inland Pipe Rehabilitation, LLC's written EEO policy on various bulletin boards.

External Outreach Activities

Inland Pipe Rehabilitation, LLC has established an applicant referral network with newspapers, employment agencies and community based organizations, some of which specialize in providing employment referral services to minority and female job applicants.

SECTION 3

COMPLIANCE WITH RELIGION AND NATIONAL ORIGIN GUIDELINES

We do not discriminate against employees or applicants for employment because of religion or national origin. Our policy is to provide equal employment opportunity to qualified individuals without regard to religion or national origin through a positive continuing Affirmative Action Program. This policy covers all personnel practices, including employment, upgrading, demotion or transfer, rates of pay or other forms of compensation and selection for training. We have taken the following measure to promote equal opportunity without regard to religion or national origin.

1. Employment practices are periodically reviewed to ensure that various religious or ethnic groups are receiving fair consideration for job opportunities.
2. The Company has accommodated and will continue to accommodate the religious observances and practices of employees or prospective employees unless it cannot do so without undue hardship in the conduct of the Company's business. Every attempt is made to accommodate an employee or prospective employee who regularly observes Friday evening and Saturday, or some other day of the week, as his or her Sabbath, or who observes certain religious holidays during the year and is conscientiously opposed to performing work or engaging in similar activities on those days.
3. Inland Pipe Rehabilitation, LLC makes a positive outreach effort to individuals of all religious and national origin backgrounds.

AFFIRMATIVE ACTION PROGRAM

FOR

INDIVIDUALS WITH DISABILITIES

VETERANS OF THE VIETNAM ERA

DISABLED VETERANS

INLAND PIPE REHABILITATION, LLC

This program covers the 12-month period from January 1, 2018 through December 31, 2018.

SECTION 4

PURPOSE AND APPLICATION OF THE POLICIES AND PROCEDURES WITH RESPECT TO INDIVIDUALS WITH DISABILITIES AND COVERED VETERANS

The Rehabilitation Act of 1973 (Section 503) requires that Government contractors take affirmative action to employ and advance in employment qualified individuals with disabilities.

The Vietnam Era Veterans' Readjustment Assistance Act of 1972, as amended in 1974, (Section 4212) requires Government contractors to take affirmative action to employ and advance in employment qualified special disabled veterans and veterans of the Vietnam era.

Inland Pipe Rehabilitation, LLC's policies and procedures for individuals with disabilities and covered veterans is intended to be a vehicle by which Inland Pipe Rehabilitation, LLC insures that its Equal Employment Opportunity policy is translated into Equal Opportunity action to employ and advance in employment qualified individuals with disabilities, qualified special disabled veterans and veterans of the Vietnam era.

In this connection, the Program contains specific and result-oriented procedures to which Inland Pipe Rehabilitation; LLC has committed itself to apply every good faith effort. The following material outlines these procedures and establishes responsibilities for their success.

SECTION 5

APPLICABILITY OF THE AFFIRMATIVE ACTION PROGRAM REQUIREMENT

The Affirmative Action Program is reviewed and updated on an annual basis. Employees and applicants are informed of any significant changes.

Inland Pipe Rehabilitation, LLC has invited all applicants and employees who believe themselves covered by Section 503 of the Rehabilitation Act of 1973 (as amended) and/or Vietnam Era Veterans' Readjustment Assistance Act of 1974 (as amended) and who wish to benefit under the Affirmative Action Program to identify themselves.

The Affirmative Action Program is available for inspection to any employee or applicant for employment during normal business hours.

SECTION 6

DEFINITIONS

The Rehabilitation Act of 1973, as amended by the Rehabilitation Act Amendments of 1974 defines a "handicapped individual" for the purposes of the Act and this program as any person who (1) has a physical or mental impairment which substantially limits one or more of such person's major life activities; (2) has a record of such impairment, or; (3) is regarded as having such an impairment. For purposes of this program, an individual with disability is "substantially limited" if he or she is likely to experience difficulty in securing, retaining or advancing in employment because of a disability.

A "qualified individual with disability" is defined by the Act as an individual with a disability (see definition above) who is capable of performing a particular job, with reasonable accommodation to his or her disability.

"Recruiting and training agency" means any person who refers workers to any contractor or subcontractor, or who provides or supervises apprenticeship or training for employment by any contractor or subcontractor.

Under the Jobs for Veteran's Act of 2002, the following categories after December 2003 are included under these policies:

1. All Disabled Veterans;
2. Veterans who served during an action for which Campaign Badge was authorized;
3. Veterans who received an Armed Forces Service Medal pursuant to Executive Order 12986;
4. Recently separated veterans from one to three years after discharge; and Certain spouses whose husbands were service members or veterans who died of a service-connected disability, MIA, captured or forcibly detained.

SECTION 7

AFFIRMATIVE ACTION POLICY, PRACTICES AND PROCEDURES

1. GENERAL POLICY

Pursuant to Section 503 of the Rehabilitation Act of 1973 and Section 4212 of the Vietnam Era Veterans' Readjustment Assistance Act of 1972, as amended in 1974 and 2002, Inland Pipe Rehabilitation, LLC agrees to take affirmative action to employ and advance in employment qualified individuals with disabilities, all qualified disabled veterans, veterans who served during an action for which Campaign Badge was authorized; veterans who received an Armed Forces Service Medal pursuant to Executive Order 12985; recently separated veterans from one to three years after discharge; and certain spouses whose husbands were service members or veterans who died of a service-connected disability, MIA, captured or forcibly detained, and other covered veterans at all levels of employment.

2. PROPER CONSIDERATION OF JOB QUALIFICATIONS

a. Inland Pipe Rehabilitation, LLC reviews all personnel processes to determine whether the present procedures assure careful, thorough, and systematic consideration of the job qualifications of known disabled applicants, all qualified disabled veterans, veterans who served during an action for which Campaign Badge was authorized; veterans who received an Armed Forces Service Medal pursuant to Executive Order 12985; recently separated veterans from one to three years after discharge; and certain spouses whose husbands were service members or veterans who died of a service-connected disability, MIA, captured or forcibly detained, and other covered veterans at all levels of employment, and employees for job vacancies filled either by hiring or promotion, and for all training opportunities offered or available.

b. Inland Pipe Rehabilitation, LLC evaluates physical/mental capabilities of all jobs on an ongoing basis.

3. PHYSICAL AND MENTAL JOB QUALIFICATIONS

All job requirements are reviewed on an on-going basis to ensure they are job related and consistent with business necessity and the safe performance of the job.

4. **ACCOMMODATIONS TO PHYSICAL AND MENTAL LIMITATIONS OF EMPLOYEES**

Inland Pipe Rehabilitation, LLC makes reasonable accommodations for the physical and mental limitations of employees and applicants including providing auxiliary aids and services and modifications to work or training sites to ensure that facilities are accessible and equal benefits and privileges of employment to individuals with disabilities as enjoyed by persons without disabilities. Reasonable accommodations will be made for applicants during the employment process when requested. Bathrooms and parking lots comply with ADA guidelines at all facilities.

5. **COMPENSATION**

In offering employment or promotions to individuals with disabilities, all qualified disabled veterans; veterans who served during an action for which Campaign Badge was authorized; veterans who received an Armed Forces Service Medal pursuant to Executive Order 12985; recently separated veterans from one to three years after discharge; and certain spouses whose husbands were service members or veterans who died of a service-connected disability, MIA, captured or forcibly detained, and other covered veterans, Inland Pipe Rehabilitation, LLC does not reduce the amount of compensation offered because of any disability income pension or other benefit the applicant or employee receives from another source.

6. **OUTREACH, POSITIVE RECRUITMENT, AND EXTERNAL DISSEMINATION OF THE POLICY**

- a. Periodic audits are conducted to ensure that these policies and procedures are being fully implemented.
- b. Inland Pipe Rehabilitation, LLC's Policy of Affirmative Action is disseminated to all present employees and applicants for employment.
- c. Meaningful contacts are maintained with appropriate social service organizations in order to obtain advice, technical assistance and referral of potential employees.
- d. Inland Pipe Rehabilitation, LLC reviews employment records to determine the availability of promotable and transferable known qualified disabled individuals, all qualified disabled veterans; veterans who served during an action for which Campaign Badge was authorized; veterans who received an Armed Forces Service Medal pursuant to Executive Order 12985; recently separated veterans from one to three years after discharge; and certain spouses whose husbands were service members or veterans who

died of a service-connected disability, MIA, captured or forcibly detained, and other covered veterans at all levels of employment, and to determine whether their present and potential skills are being fully utilized or developed.

- e. Help wanted and promotional advertising indicate that Inland Pipe Rehabilitation, LLC is an equal opportunity employer.
- f. Vendors and suppliers will be notified of relevant obligations under the Rehabilitation Act of 1973 and the Vietnam Era Veterans' Readjustment Assistance Act of 1972, as amended in 1974 and 2002 (VEVRAA).

7. INTERNAL DISSEMINATION OF POLICY

- a. Inland Pipe Rehabilitation, LLC publications contain articles which highlight Inland Pipe Rehabilitation, LLC's policy and practice of EEO.
- b. Meetings are conducted with management groups, as well as other employees, to achieve awareness and understanding of Inland Pipe Rehabilitation, LLC's equal opportunity obligations and policies and procedures.
- c. Inland Pipe Rehabilitation, LLC periodically reviews building requirements, accessibility issues, and other issues that involve ADA related matters.
- d. A statement of Inland Pipe Rehabilitation, LLC's Equal Employment Opportunity Policy is posted on Inland Pipe Rehabilitation, LLC's bulletin boards.

8. RESPONSIBILITY FOR IMPLEMENTATION

- a. The Director of Human Resources:
 - (i) Identifies problem areas in conjunction with line management and known handicapped employees and develops solutions.
 - (ii) Monitors the effectiveness of these policies and procedures.
 - (iii) Acts as a liaison between Inland Pipe Rehabilitation, LLC and organizations of and for individuals with disabilities, all qualified veterans; veterans who served during an action for which Campaign Badge was authorized; veterans who received an Armed Forces Service Medal pursuant to Executive Order 12985; recently separated veterans from

one to three years after discharge; and certain spouses whose husbands were service members or veterans who died of a service-connected disability, MIA, captured or forcibly detained, and other covered veterans at all levels of employment.

- (iv) Keeps management informed of the latest developments in the affirmative action area.
- (v) Acts as a counselor and advisor for any individual with a disability or covered veteran or spouse who feels that he or she has been denied equal opportunity.

9. DEVELOPMENT AND EXECUTION OF AFFIRMATIVE ACTION PROGRAMS

- a. Job qualification requirements are periodically reviewed and discussed with all members of management.
- b. Inland Pipe Rehabilitation, LLC has evaluated the total selection process including training and promotion to ensure freedom from stereotyping all qualified disabled veterans; veterans who served during an action for which Campaign Badge was authorized; veterans who received an Armed Forces Service Medal pursuant to Executive Order 12985; recently separated veterans from one to three years after discharge; and certain spouses whose husbands were service members or veterans who died of a service-connected disability, MIA, captured or forcibly detained, and other covered veterans at all levels of employment, and individuals with disabilities in a manner that limits their access to all jobs for which they are qualified.
- c. All Inland Pipe Rehabilitation, LLC human resource personnel are carefully trained to ensure that the commitments in these policies and procedures are implemented.
- d. Inland Pipe Rehabilitation, LLC will make special efforts to include qualified individuals with disabilities, all qualified disabled veterans; veterans who served during an action for which Campaign Badge was authorized; veterans who received an Armed Forces Service Medal pursuant to Executive Order 12985; recently separated veterans from one to three years after discharge; and certain spouses whose husbands were service members or veterans who died of a service-connected disability, MIA, captured or forcibly detained, and other covered veterans at all levels of employment on the human resources staff.

- e. Whenever possible, employees with disabilities are made available for participation in career days, youth motivation programs and related activities in the community.
- f. Recruiting efforts at all schools will incorporate special efforts to reach all qualified disabled veterans; veterans who served during an action for which Campaign Badge was authorized; veterans who received an Armed Forces Service Medal pursuant to Executive Order 12985; recently separated veterans from one to three years after discharge; and certain spouses whose husbands were service members or veterans who died of a service-connected disability, MIA, captured or forcibly detained, and other covered veterans, and students with disabilities.

SECTION 8

AFFIRMATIVE ACTION CLAUSE

Inland Pipe Rehabilitation, LLC has included the Affirmative Action clauses for disabled and covered veterans in each of its covered contracts, subcontracts, purchase orders, leases, and union contracts. The Affirmative Action clauses will also be included in modifications, renewals or extensions if not included in the original.

SECTION 9

LISTING OF EMPLOYMENT OPENINGS

In an effort to attract qualified disabled and veteran employees, Inland Pipe Rehabilitation, LLC will advertise extensively in national and local publications when job opportunities arise. Inland Pipe Rehabilitation, LLC will specifically indicate in all advertisements that we are an equal opportunity employer and that we employ females, minorities, veterans and disabled individuals. In addition, to continue our good faith effort, the Veteran Representative from the (state) Job Service is notified of recruitment listings for vacancies as they occur.

SECTION 10

RECORD KEEPING

Inland Pipe Rehabilitation, LLC will maintain for a period of not less than two years records regarding complaints and actions taken and employment or other records required by the Act.

1. These records include:
 - a. The application of each known individual with disability and covered veteran applicant and the vacancy for which the applicant was considered. Additionally, all post-offer applicants will be invited to self identify.
 - b. Personnel records of each known individual with disability and covered veteran which:
 - (i) Identifies each promotion and/or training program for which the employee was considered; and
 - (ii) Identifies each training program the employee has completed.
 - c. Records that document any accommodations, which made it possible for placement of an individual with disability or covered veteran.

SECTION 11

FINANCIAL AND OTHER SUPPORT GIVEN TO COMMUNITY ORGANIZATIONS

Inland Pipe Rehabilitation, LLC continues to actively provide support to community organizations in order to enhance the employment capabilities of the disabled and covered veterans.



Section 6 - Contractor Information and Responsible Contractor Criteria

Question #15

Inland Waters Pollution Control, Inc. (IWPC) has no debarments by any federal, state, or local governmental unit and/or findings of non-responsibility or non-compliance with respect to any public or private construction project performed by IWPC to disclose.

Please find proof of insurance attached.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
03/30/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | | |
|--|---|------------------------------------|
| PRODUCER Alliant Insurance Services Houston, LLC 5444 Westheimer, Suite 900 Houston, TX 77056 | CONTACT NAME: Brett Sauer PHONE (A/C, No, Ext): 602-707-1931 E-MAIL ADDRESS: Brett.Sauer@alliant.com | FAX (A/C, No): 602-707-1932 |
| | INSURER(S) AFFORDING COVERAGE | |
| INSURED Inland Waters Pollution Control, Inc. 4086 Michigan Avenue Detroit, MI 48210 | INSURER A: Greenwich Insurance Company | NAIC # 22322 |
| | INSURER B: XL Specialty Insurance Company | 37885 |
| | INSURER C: | |
| | INSURER D: | |
| | INSURER E: | |
| | INSURER F: | |

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**


THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSR | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS |
|----------|---|-----------|----------|---------------|-------------------------|-------------------------|---|
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER | | | CGD740922007 | 04/01/2020 | 04/01/2021 | EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS-COMP/OP AGG \$ 2,000,000 |
| A | <input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS <input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE | | | CAD740922107 | 04/01/2020 | 04/01/2021 | COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ EACH OCCURRENCE \$ AGGREGATE \$ |
| B | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y/N <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below <input type="checkbox"/> OTHER | | N/A | CWD740921907 | 04/01/2020 | 04/01/2021 | <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E - EACH ACCIDENT \$ 1,000,000 E - DISEASE - EA EMPLOYEE \$ 1,000,000 E - DISEASE - POLICY LIMIT \$ 1,000,000 EACH LOSS \$ AGGREGATE \$ |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

CANCELLATION

| | |
|---|--|
| Inland Waters Pollution Control, Inc. 4086 Michigan Avenue Detroit, MI 48210 | SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE  |
|---|--|



Section 6 - Contractor Information and Responsible Contractor Criteria

Question #21- Letter from Bonding Company

Attached.

Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

Bid Bond

CONTRACTOR:

(Name, legal status and address)

Inland Waters Pollution Control, Inc.
4086 Michigan Avenue
Detroit, MI 48210

SURETY:

(Name, legal status and principal place of business)

Everest Reinsurance Company
P.O. Box 830
Liberty Corner, NJ 07938-0830
Mailing Address for Notices

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

OWNER:

(Name, legal status and address)

City of Ann Arbor
301 East Huron St
Ann Arbor, MI 48104

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND AMOUNT: 5% Five Percent of Amount Bid

PROJECT:

(Name, location or address, and Project number, if any)

ITB No. 4651] Swift Run Sewer Lining Project

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 21st day of December, 2020.

Meghan Bedford
(Witness) Meghan Bedford, Witness

L. J. Lyons
(Witness)

Inland Waters Pollution Control, Inc.
(Principal) (Seal)

By: J. B. Field
(Title) James Bowlingfield, Treasurer

Everest Reinsurance Company
(Surety) (Seal)

By: Victoria P. Parkerson
(Title) Victoria P. Parkerson, Attorney-in-Fact





**POWER OF ATTORNEY
EVEREST REINSURANCE COMPANY
DELAWARE**

KNOW ALL PERSONS BY THESE PRESENTS: That Everest Reinsurance Company, a corporation of the State of Delaware ("Company") having its principal office located at 477 Martinsville Road, Liberty Corner, New Jersey 07938, do hereby nominate, constitute, and appoint: **Victoria P. Parkerson**

its true and lawful Attorney-in-fact to make, execute, attest, seal and deliver for and on its behalf, as surety, and as its act and deed, where required, any and all bonds and undertakings in the nature thereof, for the penal sum of no one of which is in any event to exceed UNLIMITED, reserving for itself the full power of substitution and revocation.

Bond No.: Bid Bond

Principal: Inland Waters Pollution Control, Inc.

Obligee: City of Ann Arbor

Such bonds and undertakings, when duly executed by the aforesaid Attorney-in-fact shall be binding upon the Company as fully and to the same extent as if such bonds and undertakings were signed by the President and Secretary of the Company and sealed with its corporate seal.

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Board of Directors of Company ("Board") on the 28th day of July 2016:

***RESOLVED**, that the President, any Executive Vice President, and any Senior Vice President and Anthony Romano are hereby appointed by the Board as authorized to make, execute, seal and deliver for and on behalf of the Company, any and all bonds, undertakings, contracts or obligations in surety or co-surety with others and that the Secretary or any Assistant Secretary of the Company be and that each of them hereby is authorized to attest to the execution of any such bonds, undertakings, contracts or obligations in surety or co-surety and attach thereto the corporate seal of the Company.*

***RESOLVED, FURTHER**, that the President, any Executive Vice President, and any Senior Vice President and Anthony Romano are hereby authorized to execute powers of attorney qualifying the attorney named in the given power of attorney to execute, on behalf of the Company, bonds and undertakings in surety or co-surety with others, and that the Secretary or any Assistant Secretary of the Company be, and that each of them is hereby authorized to attest the execution of any such power of attorney, and to attach thereto the corporate seal of the Company.*

***RESOLVED, FURTHER**, that the signature of such officers named in the preceding resolutions and the corporate seal of the Company may be affixed to such powers of attorney or to any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be thereafter valid and binding upon the Company with respect to any bond, undertaking, contract or obligation in surety or co-surety with others to which it is attached.*

IN WITNESS WHEREOF, Everest Reinsurance Company has caused their corporate seals to be affixed hereto, and these presents to be signed by their duly authorized officers this 28th day of July 2016.



Attest: Nicole Chase, Assistant Secretary

Everest Reinsurance Company

By: Anthony Romano, Vice President

On this 28th day of July 2016, before me personally came Anthony Romano, known to me, who, being duly sworn, did execute the above instrument; that he knows the seal of said Company; that the seal affixed to the aforesaid instrument is such corporate seal and was affixed thereto; and that he executed said instrument by like order.

LINDA ROBINS
Notary Public, State of New York
No 01R06239736
Qualified in Queens County
Term Expires April 25, 2023

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company, at the Liberty Corner, this 21st day of December 2020.

CONTRACT

THIS CONTRACT is between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 301 East Huron Street, Ann Arbor, Michigan 48104 ("City") and Inland Water Pollution Control, Inc. ("Contractor"), a Michigan Corporation, 4086 Michigan Avenue, Detroit, MI 48210

Based upon the mutual promises below, the Contractor and the City agree as follows:

ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the project titled **ITB No. 4651 – Swift Run Sewer Lining Project**. in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, all of which are incorporated as part of this Contract:

| | |
|--|-------------------------|
| Non-discrimination and Living Wage Declaration of Compliance Forms (if applicable) | General Conditions |
| Vendor Conflict of Interest Form | Standard Specifications |
| Prevailing Wage Declaration of Compliance Form (if applicable) | Detailed Specifications |
| Bid Forms | Plans |
| Contract and Exhibits | Addenda |
| Bonds | |

ARTICLE II - Definitions

Administering Service Area/Unit means **Public Services Area / Engineering**

Project means **ITB No. 4651 - Swift Run Sewer Lining Project**.

Supervising Professional means the person acting under the authorization of the manager of the Administering Service Area/Unit. At the time this Contract is executed, the Supervising Professional is: **Nicholas S. Hutchinson, P.E.** whose job title is **City Engineer**. If there is any question concerning who the Supervising Professional is, Contractor shall confirm with the manager of the Administering Service Area/Unit.

ARTICLE III - Time of Completion

- (A) The work to be completed under this Contract shall begin immediately on the date specified in the Notice to Proceed issued by the City.
- (B) The entire work for this Contract shall be completed within the scheduling requirements as specified in Detailed Specifications.

- (C) Failure to complete all the work within the time specified above, including any extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the City, as liquidated damages and not as a penalty, an amount equal to \$500 for each calendar day of delay in the completion of all the work. If any liquidated damages are unpaid by the Contractor, the City shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

ARTICLE IV - The Contract Sum

- (A) The City shall pay to the Contractor for the performance of the Contract, the unit prices as given in the Bid Form for the estimated bid total of:

Eight Hundred Sixty Eight Thousand Seven Hundred Seventy Two and 50/100 Dollars (\$868,772.50)

- (B) The amount paid shall be equitably adjusted to cover changes in the work ordered by the Supervising Professional but not required by the Contract Documents. Increases or decreases shall be determined only by written agreement between the City and Contractor.

ARTICLE V - Assignment

This Contract may not be assigned or subcontracted any portion of any right or obligation under this contract without the written consent of the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises and performances, however described, as are required of it under this contract unless specifically released from the requirement, in writing, by the City.

ARTICLE VI - Choice of Law

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this Contract, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract. The parties stipulate that the venue referenced in this Contract is for convenience and waive any claim of non-convenience.

Whenever possible, each provision of the Contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision will not invalidate the remainder of the Contract.

ARTICLE VII - Relationship of the Parties

The parties of the Contract agree that it is not a Contract of employment but is a Contract to accomplish a specific result. Contractor is an independent Contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship

between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any Contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this Contract.

ARTICLE VIII - Notice

All notices given under this Contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the Contract Documents or other address the Contractor may specify in writing. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; or (2) three days after mailing certified U.S. mail.

ARTICLE IX - Indemnification

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney's fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this Contract, by the Contractor or anyone acting on the Contractor's behalf under this Contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City's sole negligence. The provisions of this Article shall survive the expiration or earlier termination of this contract for any reason.

ARTICLE X - Entire Agreement

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations, negotiations, agreements, or understandings whether written or oral. Neither party has relied on any prior representations in entering into this Contract. No terms or conditions of either party's invoice, purchase order or other administrative document shall modify the terms and conditions of this Contract, regardless of the other party's failure to object to such form. This Contract shall be binding on and shall inure to the benefit of the parties to this Contract and their permitted successors and permitted assigns and nothing in this Contract, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

ARTICLE XI – Electronic Transactions

The City and Contractor agree that signatures on this Contract may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this Contract. This Contract may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

FOR CONTRACTOR

By _____

Its: _____

FOR THE CITY OF ANN ARBOR

By _____
Christopher Taylor, Mayor

By _____
Jacqueline Beaudry, City Clerk

Approved as to substance

By _____
Tom Crawford, City Administrator

By _____
Craig Hupy, Public
Services Area Administrator

Approved as to form and content

Stephen K. Postema, City Attorney

PERFORMANCE BOND

- (1) _____ of _____ (referred to as "Principal"), and _____, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for \$ _____, the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City entitled _____, for ITB No. _____ and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 *et seq.*
- (3) Whenever the Principal is declared by the City to be in default under the Contract, the Surety may promptly remedy the default or shall promptly:
- (a) complete the Contract in accordance with its terms and conditions; or
 - (b) obtain a bid or bids for submission to the City for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a Contract between such bidder and the City, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the Contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.
- (4) Surety shall have no obligation to the City if the Principal fully and promptly performs under the Contract.
- (5) Surety agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work, or to the specifications.
- (6) Principal, Surety, and the City agree that signatures on this bond may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this bond. This bond may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

SIGNED AND SEALED this _____ day of _____, 202_.

(Name of Surety Company)
By _____
(Signature)

Its _____
(Title of Office)

Approved as to form:

Stephen K. Postema, City Attorney

(Name of Principal)
By _____
(Signature)

Its _____
(Title of Office)

Name and address of agent:

LABOR AND MATERIAL BOND

- (1) _____
of _____ (referred to as "Principal"), and _____, a corporation duly authorized to do business in the State of Michigan, (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for the use and benefit of claimants as defined in Act 213 of Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq., in the amount of \$ _____, for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City entitled _____

_____, for ITB No. _____; and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963 as amended;
- (3) If the Principal fails to promptly and fully repay claimants for labor and material reasonably required under the Contract, the Surety shall pay those claimants.
- (4) Surety's obligations shall not exceed the amount stated in paragraph 1, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.
- (5) Principal, Surety, and the City agree that signatures on this bond may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this bond. This bond may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

SIGNED AND SEALED this _____ day of _____, 202__

(Name of Surety Company)

By _____
(Signature)

Its _____
(Title of Office)

Approved as to form:

Stephen K. Postema, City Attorney

(Name of Principal)

By _____
(Signature)

Its _____
(Title of Office)

Name and address of agent:

GENERAL CONDITIONS

Section 1 - Execution, Correlation and Intent of Documents

The contract documents shall be signed in 2 copies by the City and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

(1) Addenda in reverse chronological order; (2) Detailed Specifications; (3) Standard Specifications; (4) Plans; (5) General Conditions; (6) Contract; (7) Bid Forms; (8) Bond Forms; (9) Bid.

Section 2 - Order of Completion

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

Section 3 - Familiarity with Work

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the City upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

Section 4 - Wage Requirements

Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of

subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section.

Pursuant to Resolution R-16-469 all public improvement contractors are subject to prevailing wage and will be required to provide to the City payroll records sufficient to demonstrate compliance with the prevailing wage requirements. A sample Prevailing Wage Form is provided in the Appendix herein for reference as to what will be expected from contractors. Use of the Prevailing Wage Form provided in the Appendix section or a City-approved equivalent will be required along with wage rate interviews.

Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

If the Contractor is a "covered employer" as defined in Chapter 23 of the Ann Arbor City Code, the Contractor agrees to comply with the living wage provisions of Chapter 23 of the Ann Arbor City Code. The Contractor agrees to pay those employees providing Services to the City under this Contract a "living wage," as defined in Section 1:815 of the Ann Arbor City Code, as adjusted in accordance with Section 1:815(3); to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this Contract are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision covering subcontractor's employees who perform work on this contract.

Section 5 - Non-Discrimination

The Contractor agrees to comply, and to require its subcontractor(s) to comply, with the nondiscrimination provisions of MCL 37.2209. The Contractor further agrees to comply with the provisions of Section 9:158 of Chapter 112 of Title IX of the Ann Arbor City Code, and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity.

Section 6 - Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work

assigned.

Adequate sanitary facilities shall be provided by the Contractor.

Section 7 - Qualifications for Employment

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.

Section 8 - Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the City harmless from loss on account of infringement except that the City shall be responsible for all infringement loss when a particular process or the product of a particular manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

Section 9 - Permits and Regulations

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The City shall secure and pay for easements shown on the plans unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the work.

Section 10 - Protection of the Public and of Work and Property

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to its work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or employees of the City. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

Section 11 - Inspection of Work

The City shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

Section 12 - Superintendence

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

Section 13 - Changes in the Work

The City may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in

the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

Section 14 - Extension of Time

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

- (1) When work under an extra work order is added to the work under this Contract;
- (2) When the work is suspended as provided in Section 20;
- (3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;
- (4) Delays in the progress of the work caused by any act or neglect of the City or of its employees or by other Contractors employed by the City;
- (5) Delay due to an act of Government;
- (6) Delay by the Supervising Professional in the furnishing of plans and necessary information;
- (7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

Section 15 - Claims for Extra Cost

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section I3. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

- (1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;
- (2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;
- (3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;
- (4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;
- (5) Payments of all charges for work under this Section in any one month shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16.

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

Section 16 - Progress Payments

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. The submission shall be to the City's Finance Department - Accounting Division. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the City will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The City will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.

An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery, 60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than 180 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2.

Section 17 - Deductions for Uncorrected Work

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

Section 18 - Correction of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within 10 days after written notice, the City may remove them and, if the removed material has value, may store the material

at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the City may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the City the expenses for disposal within 10 days of invoice for the disposal costs.

The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

Section 19 - Acceptance and Final Payment

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the City under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the City:

- (1) The consent of the surety to payment of the final estimate;
- (2) The Contractor's Affidavit in the form required by Section 44.

In case the Affidavit or consent is not furnished, the City may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City except those arising from:

- (1) unsettled liens;
- (2) faulty work appearing within 12 months after final payment;
- (3) hidden defects in meeting the requirements of the plans and specifications;
- (4) manufacturer's guarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

Section 20 - Suspension of Work

The City may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the

written notice from the City to the Contractor to do so. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.

If the work, or any part, shall be stopped by the notice in writing, and if the City does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

Section 21 - Delays and the City's Right to Terminate Contract

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the City may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the City may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any excess cost to the City. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The City may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the City for any excess cost incurred. The expense incurred by the City, and the damage incurred through the Contractor's default, shall be certified by the Supervising Professional.

Section 22 - Contractor's Right to Terminate Contract

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the City, terminate this Contract and recover from the City payment for all acceptable work executed plus reasonable profit.

Section 23 - City's Right To Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the City, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the City may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

Section 24 - Removal of Equipment and Supplies

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the City, shall promptly remove any part or all of its equipment and supplies from the property of the City, failing which the City shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the City and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the City upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

Section 25 - Responsibility for Work and Warranties

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the City for damages to materials and equipment from any cause except negligence or willful act of the City. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. The Contractor shall assign all manufacturer or material supplier warranties to the City prior to final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

Section 26 - Partial Completion and Acceptance

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the City, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the City may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

Section 27 - Payments Withheld Prior to Final Acceptance of Work

The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the City from loss on account of:

- (1) Defective work not remedied;
- (2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;
- (3) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- (4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the City which will protect the City in the amount withheld, payment shall be made for amounts withheld under this section.

Section 28 - Contractor's Insurance

- (1) The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself and the City from all claims for bodily injuries, death or property damage that may arise under this Contract; whether the act(s) or omission(s) giving rise to the claim were made by the Contractor, any subcontractor, or anyone employed by them directly or indirectly. Prior to commencement of any work under this contract, Contractor shall provide to the City documentation satisfactory to the City, through City-approved means (currently myCOI), demonstrating it has obtained the required policies and endorsements. The certificates of insurance endorsements and/or copies of

policy language shall document that the Contractor satisfies the following minimum requirements. Contractor shall add registration@mycoitracking.com to its safe sender's list so that it will receive necessary communication from myCOI. When requested, Contractor shall provide the same documentation for its subcontractor(s) (if any).

Required insurance policies include:

- (a) Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

Bodily Injury by Accident - \$500,000 each accident
Bodily Injury by Disease - \$500,000 each employee
Bodily Injury by Disease - \$500,000 each policy limit

- (b) Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 04 13 or current equivalent. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements specifically for the following coverages: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further there shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy. The following minimum limits of liability are required:

| | |
|-------------|--|
| \$1,000,000 | Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined. |
| \$2,000,000 | Per Project General Aggregate |
| \$1,000,000 | Personal and Advertising Injury |
| \$2,000,000 | Products and Completed Operations Aggregate |

- (c) Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 10 13 or current equivalent. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.

- (d) Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.

- (2) Insurance required under subsection (1)(b) and (1)(c) above shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City for any insurance listed herein.

- (3) Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional and un-qualified 30-day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number(s); name of insurance company(s); name and address of the agent(s) or authorized representative(s); name(s), email address(es), and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which may be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) and all required endorsements to the City. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies and endorsements to the Administering Service Area/Unit at least ten days prior to the expiration date.
- (4) Any Insurance provider of Contractor shall be authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-authorized insurance companies are not acceptable unless approved in writing by the City.
- (5) City reserves the right to require additional coverage and/or coverage amounts as may be included from time to time in the Detailed Specifications for the Project.
- (6) The provisions of General Condition 28 shall survive the expiration or earlier termination of this contract for any reason.

Section 29 - Surety Bonds

Bonds will be required from the successful bidder as follows:

- (1) A Performance Bond to the City of Ann Arbor for the amount of the bid(s) accepted;
- (2) A Labor and Material Bond to the City of Ann Arbor for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the City in a manner and by a Surety Company authorized to transact business in Michigan and satisfactory to the City Attorney.

Section 30 - Damage Claims

The Contractor shall be held responsible for all damages to property of the City or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

Section 31 - Refusal to Obey Instructions

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

Section 32 - Assignment

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the City.

Section 33 - Rights of Various Interests

Whenever work being done by the City's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

Section 34 - Subcontracts

The Contractor shall not award any work to any subcontractor without prior written approval of the City. The approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the contract documents.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the City.

Section 35 - Supervising Professional's Status

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.

Section 36 - Supervising Professional's Decisions

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the City or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

Section 37 - Storing Materials and Supplies

Materials and supplies may be stored at the site of the work at locations agreeable to the City unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

Section 38 - Lands for Work

The Contractor shall provide, at its own expense and without liability to the City, any additional land and access that may be required for temporary construction facilities or for storage of materials.

Section 39 - Cleaning Up

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the City's property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.

Section 40 - Salvage

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain City property and shall be transported or stored at a location as the Supervising Professional may direct.

Section 41 - Night, Saturday or Sunday Work

No night or Sunday work (without prior written City approval) will be permitted except in the case of an emergency and then only to the extent absolutely necessary. The City may allow night work which, in the opinion of the Supervising Professional, can be satisfactorily performed at night. Night work is any work between 8:00 p.m. and 7:00 a.m. No Saturday work will be permitted unless the Contractor gives the Supervising Professional at least 48 hours but not more than 5 days notice of the Contractor's intention to work the upcoming Saturday.

Section 42 - Sales Taxes

Under State law the City is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in City projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.

Section 43

CONTRACTOR'S DECLARATION

I hereby declare that I have not, during the period _____, 20____, to _____, 20____, performed any work, furnished any materials, sustained any loss, damage or delay, or otherwise done anything in addition to the regular items (or executed change orders) set forth in the Contract titled _____, for which I shall ask, demand, sue for, or claim compensation or extension of time from the City, except as I hereby make claim for additional compensation or extension of time as set forth on the attached itemized statement. I further declare that I have paid all payroll obligations related to this Contract that have become due during the above period and that all invoices related to this Contract received more than 30 days prior to this declaration have been paid in full except as listed below.

There is/is not (Contractor please circle one and strike one as appropriate) an itemized statement attached regarding a request for additional compensation or extension of time.

Contractor

Date

By _____
(Signature)

Its _____
(Title of Office)

Past due invoices, if any, are listed below.

STANDARD SPECIFICATIONS

All work under this contract shall be performed in accordance with the Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Bid. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

Standard Specifications are available online:

<http://www.a2gov.org/departments/engineering/Pages/Engineering-and-Contractor-Resources.aspx>

DETAILED SPECIFICATIONS

**DETAILED SPECIFICATION
FOR
CONTRACTOR QUALIFICATIONS**

1 of 8

a. General.- As detailed elsewhere in the Contract Documents and Drawings the work of this project is to be performed in a sensitive, valuable, natural area within the City of Ann Arbor (City). This Detailed Specification sets forth criteria that will be used by the City in determining if the Contractor has the necessary personnel, equipment, and experience to perform the work of this project.

b. Documentation to be provided.- The Contractor Qualifications detailed in this specification apply to the following items:

- Sewer Televising and Cleaning
- Cured-In-Place Pipe (CIPP) Lining
- Onsite Superintendent/Foreman

Contractor to complete the attached Reference Form and submit it as part of the bid submittal. **Not filling out the form or providing past experience may result in disqualification of the bid.** If subcontractors are to be used for any of the above items, they are to fill out a separate form.

The projects and total footage claimed to have been performed by the Contractor shall be supported by owner references. The Contractor shall submit information to document their experience.

1. **Sewer Televising and Cleaning.-** The Contractor performing the sewer televising and cleaning shall be fully qualified, experienced, and equipped to complete this work as shown on the Drawings and as indicated in the specifications. The Contractor shall have cleaned and televised a minimum of 100,000 lineal feet of sanitary sewers equal to or greater than 36 inches in diameter with lengths of the individual segments over 1,000 feet each in the past 7 years. The Contractor shall also have cleaned and televised at least 3 sanitary siphon sewers equal to or greater than 24 inches in diameter in the past 7 years. The Contractor shall have also worked a minimum of three projects in similar environmentally sensitive areas in the past 7 years. The Contractor shall provide detailed description of these environmentally sensitive projects and methods used to mitigate the work upon request of the Engineer.

2. **Sewer CIPP Lining.-** The Contractor performing the CIPP lining work shall be fully qualified, experienced, and equipped to complete this work expeditiously and in a satisfactory manner and shall be certified and/or licensed as an installer by the CIPP manufacturer. The Contractor shall have installed a minimum of 10,000 lineal feet of CIPP in sanitary sewers equal to or greater than 36 inches in diameter in the past 7 years and over 1,000,000 feet of lining in general over the past 7 years. Installations must have been in northern states and/or Canada. Contractor must also provide safety record for the past 7 years.

3. **Onsite Superintendent/Foreman.-** The full-time, onsite superintendent/ foreman shall be responsible for supervising all the work onsite, including but not limited to, the diversion of sanitary flow, bypass pumping, sewer televising and cleaning, and sewer CIPP lining, shall have supervised a minimum of 3 projects of this complexity in the past 7 years and shall have installed a minimum of 10,000 lineal feet of CIPP in sanitary sewers greater than 24 inches in diameter in the past 7 years.

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**DETAILED SPECIFICATION
FOR
CONTRACTOR QUALIFICATIONS**

2 of 8

1. Sewer Televising and Cleaning References
(Must be completed and submitted with Bid for consideration)

List sewer cleaning and televising projects of sewers equal to or greater than 36 inches in size that total (together) over 100,000 lineal feet with the lengths of the individual segments over 1,000 feet in the past 7 years and provide references. Also, list a minimum of 3 projects that include the cleaning and televising of the sanitary siphon sewers equal to or greater than 24 inches in size in the past 7 years and provide references. The Contractor shall have also worked a minimum of three projects in similar environmentally sensitive areas in the past 7 years.

Firm's Name: Inland Waters Pollution Control, Inc.

Role on Project: General Contractor - Prime / Subcontractor - Noted on each project below

1.1. Client's Name: City of Houston, TX - Rehab Sanitary Sewer - R-000266-0241-4, 4257-152

Address: Houston, TX

Contact Name: Ragu Nedar Contact Phone: 832-395-4935

Type of Work: This project consisted of CIPP lining of 6" and 48" diameter pipe, CCTV & Cleaning, and siphon construction of 8" and 12", Prime General Contractor

Year Work Performed: 2015 Work Amount (\$): 7,153,691.40

1.2. Client's Name: City of East Lansing, MI

Address: 1800 E. State Road, East Lansing, MI 48823

Contact Name: Bob Scheuerman Contact Phone: 517-319-6934

Type of Work: This project consist of sewer televising and cleaning of 3,751 linear feet of 6" and 24" diameter pipe and 3,822 linear feet of 6" and 24" diameter CIPP lining. IWPC performed this work as a subcontractor.

Year Work Performed: 2019-2020 Work Amount (\$): 334,653.00

1.3. Client's Name: City of Springfield, OH

**DETAILED SPECIFICATION
FOR
CONTRACTOR QUALIFICATIONS**

3 of 8

Address: 76 E. High Street, Springfield, OH 45502

Contact Name: Leo Shanayda, City Engineer Contact Phone: 937-324-7312

Type of Work: Sewer televising, cleaning, and CIPP lining of approximately 5,114 linear feet of 8" and 36" sewer and manhole rehabilitation. IWPC performed this work as a prime contractor.

Year Work Performed: 2016-2017 Work Amount (\$): 619,748.00

1.4. Client's Name: Washington Suburban Sanitary Commission

Address: 14501 Sweitzer Lane, Laurel, MD 20707

Contact Name: Mark Coughlin Contact Phone: 301-642-3092

Type of Work: This project consisted of Indefinite Delivery / Indefinite Quantity CIPP lining project of 8" - 15" diameter pipe. Included CCTV and Cleaning. IWPC performed this work as a prime contractor.

Year Work Performed: Ongoing Work Amount (\$): 50,000,000.00

1.5. Client's Name: City of Garden City - Hennessey Engineers, Inc.

Address: 13500 Reeck Road, Southgate, MI 48195

Contact Name: Mike Elling Contact Phone: 419-936-2276

Type of Work: Cleaning approximately 50,580 linear feet of 8" - 42" diameter pipe and full length CIPP lining of approximately 50,485 linear feet of 8" - 42" sewers. IWPC performed this work as a prime contractor.

Year Work Performed: 2016-2018 Work Amount (\$): 1,784,304.75

1.6. Client's Name: Valparaiso, IN - Grimmer Construction

Address: 2619 Main Street, Highland, IN 46322

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**DETAILED SPECIFICATION
FOR
CONTRACTOR QUALIFICATIONS**

4 of 8

Contact Name: John Dudlicek Contact Phone: 219-924-1623

Type of Work: CCTV, Cleaning, and CIPP lining of 36", 48", and 60" storm sewer. IWPC
performed this work as a subcontractor.

Year Work Performed: 2019 Work Amount (\$): TBD

1.7. Client's Name: City of Mishawaka, IN

Address: 600 E. Third Street, Room 100, Mishawaka, IN 46545

Contact Name: Piper C. Tittle, PE Contact Phone: 574-234-3167

Type of Work: This project consisted of CCTV, cleaning, and CIPP lining of 3,700 linear feet of
18' - 36" diameter pipe. IWPC performed this work as a prime contractor.

Year Work Performed: 2016 Work Amount (\$): 695,641.00

**DETAILED SPECIFICATION
FOR
CONTRACTOR QUALIFICATIONS**

5 of 8

2. Sewer CIPP Lining References

(Must be completed and submitted with Bid for consideration)

List sewer CIPP lining projects of sewers equal to or greater than 36 inches in diameter that total (together) over 10,000 lineal feet in northern states and/or Canada in the past 7 years and over 1,000,000 feet of lining in general over the past 7 years, and provide references. Also, provide safety record for the past 7 years as an attachment.

Firm's Name: Inland Waters Pollution Control, Inc.

Role on Project: Prime Contractor - CIPP Lining

2.1. Client's Name: Detroit Metropolitan - Wayne Co. Airport

Address: 12955 23 Mile Road, Shelby Township, MI 48315

Contact Name: Justin Peyerk Contact Phone: 801-343-5462

Type of Work: CIPP lining of approximately 2,000 linear feet of 54" diameter pipe, 1,400 linear feet of 66" diameter pipe, 1,300 linear feet of 72" diameter pipe, and 1,300 linear feet of 84" diameter pipe of sanitary sewer - 3R/21L Runway Reconstruction

Year Work Performed: Ongoing Work Amount (\$): 3,443,122.00

2.2. Client's Name: City of Adrian, MI - Jones & Henry Engineers

Address: 3103 Executive Parkway, Suite 300, Toledo, OH 43606

Contact Name: Michael Karafa, PE Contact Phone: 567-661-0247

Type of Work: This project consisted of CIPP lining of approximately 918 linear feet of 30" diameter pipe, 916 linear feet of 36" diameter pipe, 400 linear feet of 12" diameter pipe, and 360 linear feet of 30", 33", and 42" diameter cementitious liner.

Year Work Performed: 2016-2017 Work Amount (\$): 467,765.00

2.3. Client's Name: City of South Bend, IN

Address: 227 W. Jefferson Blvd., 1316 County-City Building, Room 1316, South Bend, IN 46601

Contact Name: Linda Martin Contact Phone: 574-235-9251

**DETAILED SPECIFICATION
FOR
CONTRACTOR QUALIFICATIONS**

6 of 8

Type of Work: This project consisted of CIPP lining of 12,750 linear feet of 8"-24" diameter pipe and 11,000 linear feet of 36"-39" diameter pipe.

Year Work Performed: 2018 Work Amount (\$): 3,039,276.50

2.4. Client's Name: City of Toledo, OH - Division of Engineering

Address: One Lake Erie Center, 600 Jefferson Avenue, Suite 600, Toledo, OH 43604

Contact Name: Mike Elling Contact Phone: 419-936-2276

Type of Work: This project consisted of CIPP lining of 8"-39" diameter sewers consisting of 23,750 linear feet of sanitary sewer and 19,150 linear feet of storm sewer

Year Work Performed: 2018 Work Amount (\$): 436,235.34



May 11, 2020

Inland Waters Pollution Control, Inc.
IPR – Great Lakes
(Subsidiaries of Inland Pipe Rehabilitation)
4086 Michigan Ave.
Detroit, MI 48210

RE: Workers' Compensation

To Whom It May Concern:

Please be advised that the Interstate Experience Modification Factor (NCCI) applicable to the above referenced entity for the following years is as shown below:

| | | |
|------|------|--------|
| 2016 | 1.00 | 4/1/16 |
| 2017 | 0.95 | 4/1/17 |
| 2018 | 1.00 | 4/1/18 |
| 2019 | 1.06 | 4/1/19 |
| 2020 | 1.13 | 4/1/20 |

Likewise, the Michigan Experience Rating Modification Factor applicable to the above reference entity for the following years is as shown below:

| | |
|------|------|
| 2016 | 1.31 |
| 2017 | 1.08 |
| 2018 | 0.91 |
| 2019 | 0.69 |
| 2020 | 1.04 |

Best Regards

Lorraine Lewis
Account Executive



SUMMARY OF WORK-RELATED INJURIES AND ILLNESSES

Year 20 19

Michigan Department of Labor and Economic Growth
Michigan Occupational Safety and Health Administration (MIOSHA)

All establishments covered by Work Safe (P.C. 91-258) and Michigan Occupational Safety and Health Act 154 (P.A. 1974, Part 1) Michigan Administrative Rule for Recording and Reporting of Injuries and Illnesses must complete this Summary page even if no injuries or illnesses occurred during the year. Remember to review the log to verify that the entries are complete and accurate before completing this summary. You may be fined for failure to comply. Using the log, count the individual entries you enter for each category. Then write the totals below, making sure you've added the entries from every page of the log, if you had no cases write 0.

Employers of non-employees and their representatives have the right to review the MIOSHA Form 100 in its entirety. They also have limited access to the MIOSHA Form 101 and its equivalent. See Part 11, 9408 22135 Rule 1125, in MIOSHA's Recordkeeping Job for further details on the access provisions for these forms.

Number of Cases

Total number of deaths _____ (G) Total number of cases with days away from work _____ (H) Total number of cases with job transfer or restriction _____ (I) Total number of other recordable cases _____ (J)

Number of Days

Total number of days away from work _____ Total number of days of job transfer or restriction _____

Injury and Illness Types

Total number of (M)
(1) Injury _____ (4) Poisonings _____ 0
(2) Skin Disorder _____ (5) Hearing Loss _____ 0
(3) Respiratory Conditions _____ (6) All Other Illnesses _____ 0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form. If the reporting burden for this collection of information is estimated to average 50 minutes per response, include that number on the instructions for this collection of information. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing the burden, to Washington Headquarters Service, Department of Commerce, Paperwork Project (0158-0046), Washington, DC 20503-2048. Send all other comments to the Office of Management and Budget, Paperwork Project (0304-0188), Washington, DC 20503-2942.

MIOSHA Form 100-1 (Rev. 11/19)

Establishment information

Name of establishment _____
Street _____
City _____ State _____ MI _____ Zip _____ 48210

Industry description (e.g. manufacture of motor truck trailers)
Municipal Paper Mill

Standard Industrial Classification (SIC) # known to you SIC 3715
OR North American Industry Classification (NAICS) # known to you NAICS 330717

Employment information

Annual average number of employees _____ 114
Total hours worked by all employees last year _____ 25,300

Sign here

Knowingly falsifying this document may result in a fine.

I, _____, have examined the information and data in the rest of this form and certify that the information and data are true and correct.

Robert Samulic
Company Executive
Safety Manager

313-859-3034
Phone _____
MIOSHA



SUMMARY OF WORK-RELATED INJURIES AND ILLNESSES

Year 2018
Michigan Department of Labor and Economic Growth
Michigan Occupational Safety and Health Administration (MOSHA)

Form Approved OMS No. 12-8-076

All establishments covered by the Law of 1970 (P.L. 91-596) and Michigan Occupational Safety and Health Act (1974, Part 1) Michigan Administrative Rule for Recording and Reporting of Injuries and Illnesses must complete this Summary page, even in instances of injuries occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary. You may be fined for failure to comply. Using this page, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0".

Employees former employees and their representatives have the right to review the MOSHA Form 300, if they wish. They also have limited access to the MOSHA Form 301, if it is equivalent. See Part 3, (409.22) of Rule 135, in MOSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

| | | | |
|------------------------|--|--|--|
| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
| 0 | 1 | 0 | 1 |
| (G) | (H) | (I) | (J) |

Number of Days

| | |
|-------------------------------------|---|
| Total number of days away from work | Total number of days of job transfer or restriction |
| 182 | 0 |

Injury and Illness Types

| | | | | | | |
|---------------------|------------|-------------------|----------------------------|----------------|------------------|-------------------------|
| Total number of (M) | (1) Injury | (2) Skin Disorder | (3) Respiratory Conditions | (4) Poisonings | (5) Hearing Loss | (6) All Other Illnesses |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 |

Put this Summary page from February 1 to April 30 of the year following the year covered by the form. The MOSHA Form 300, 301, and 302 are required to be filed with the summary page. The summary page must be filed with the MOSHA Form 300, 301, and 302. The summary page must be filed with the MOSHA Form 300, 301, and 302. The summary page must be filed with the MOSHA Form 300, 301, and 302.

Establishment Information

Your establishment name: in the Wake of Michigan

Street: 4096 Michigan Ave

City: Livonia State: MI Zip: 48210

Industry description (ICP): Manufacture of motor vehicle bodies

NAICS Code: 336110

OSHA 300 Log for 2018: 1

OSHA 301 Log for 2018: 1

OSHA 302 Log for 2018: 1

Employment Information

Annual average number of employees: 114

Total hours worked by all employees last year: 153,193

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true and accurate and complete.

Robert Santoro
Company Executive

Address: 11589 Livonia
Phone: 734-461-1111



SUMMARY OF WORK-RELATED INJURIES AND ILLNESSES

Year 2017
 Michigan Department of Labor and Economic Growth
 Michigan Occupational Safety and Health Administration (MIOSHA)

Form Approved OSHA No. 301-107-01

All establishments covered by Public Law 91-596 and Michigan Occupational Safety and Health Act of 1974 (Part 17) Michigan Administrative Code for Recording and Reporting of Injuries and Illnesses must complete this Summary page even if no injuries or illnesses occurred during the year. Remember to review the log to verify that the entries are complete and accurate before completing this summary. You may be fined for failure to comply. Using the log, count the individual entries you made for each category. Then write the totals below. **Do not** sum your entries from separate forms.

Employers, former employees, and their representatives have the right to review the MIOSHA Form 301. Alterations, omissions, or false entries on the MIOSHA Form 301 or its equivalent. See Part 17, Rule 17.35 (MIOSHA's Regulations) for further details on the Access provisions for these forms.

Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|------------------------|--|--|--|
| 0 | 1 | 0 | 1 |
| (G) | (H) | (I) | (J) |

Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|-------------------------------------|---|
| 20 | 0 |

Injury and Illness Types

| Total number of (W) | (1) Injury | (2) Skin Disorder | (3) Respiratory Conditions | (4) Poisonings | (5) Hearing Loss | (6) All Other Illnesses |
|---------------------|------------|-------------------|----------------------------|----------------|------------------|-------------------------|
| 2 | 0 | 0 | 0 | 0 | 0 | 0 |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form. Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering the data, reviewing the collection of information, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Washington Headquarters Service, Paperwork Project (0198-0001), Washington, DC 20503-2907.

Establishment Information

Your establishment name: Inging Waters Pollution Control, Inc.
 Street: 4000 Michigan Ave
 City: Detroit State: MI Zip: 48226
 Industry description: Manufacture of motor truck trailers
 Standard Industrial Classification (SIC) (known to SIC 3-15): 371
 OSHA North American Industrial Classification (NAICS) (known to NAICS 2007): 336212

Employment Information

Annual average number of employees: 77
 Total hours worked by all employees last year: 127,222

Sign here

Knowing falsifying this document may result in a fine

I certify that I have examined this document and that to the best of my knowledge no entries are false or untrue and complete.
 Signature: [Signature]
 Title: General Manager
 Date: 2/21/18



SUMMARY OF WORK-RELATED INJURIES AND ILLNESSES

Year 2015
Michigan Department of Labor and Economic Growth
Michigan Occupational Safety and Health Administration (MIOSHA)

Establishments covered by FLSA, 29 CFR 1910.101 and Michigan Occupational Safety and Health Act, 2011 PA 151, shall file Michigan Administrative Report for Reporting and Recording of Injuries and Illnesses, must complete this Summary page when the number of illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary. You may be fined for failure to comply. Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0".

Employers (other than self-employed and their representatives) have the right to review the MIOSHA Form 101 in its entirety. They also have access to the OSHA Form 101 in its entirety. Call 482-3733, 482-3735, or MIOSHA's Internet Reporting Page at <http://www.miosha.state.mi.us> for access provisions for the 3e form.

Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|------------------------|--|--|--|
| (G) | (H) | (I) | (J) |
| 0 | 1 | 0 | 1 |

Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|-------------------------------------|---|
| 4 | 0 |

Injury and Illness Types

| Total number of (M) | (1) Injury | (4) Poisonings | (2) Skin Disorder | (5) Hearing Loss | (3) Respiratory Conditions | (6) All Other Illnesses |
|---------------------|------------|----------------|-------------------|------------------|----------------------------|-------------------------|
| 2 | 0 | 0 | 0 | 0 | 0 | |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form to the reporting office for the calendar year. See instructions on page 20 for more information regarding filing the cases. See also the Log for more information on how to file the summary. For more information on the reporting process, please contact the MIOSHA office at 482-3733 or visit our website at www.miosha.state.mi.us. MIOSHA Form 101-3e (2015) (Rev. 09/14) (Form 101-3e) (2015) (Rev. 09/14) (Form 101-3e) (2015) (Rev. 09/14)

Establishment information

You, establishment name: Inland Waters Pollution Control, Inc.
 Street: 1400 E. 14th Ave
 City: Detroit State: MI Zip: 48216
 Industry description (e.g., Manufacture of motor truck trailers) Manufacture of motor vehicles
 Standard Industrial Classification (SIC) if known (e.g., SIC 3711) 3711
 OR North American Industrial Classification (NAICS) if known (e.g., NAICS 362172) 362172

Employment information

Annual average number of employees: 7
 Total jobs worked by employees last year: 100,928

Sign here

Knowing falsifying this document may result in a fine.

Signature of the person who has the authority to sign for the establishment: _____

Company Name: _____
 Title: _____
 Date: 2/12/16



SUMMARY OF WORK-RELATED INJURIES AND ILLNESSES

Year 20 15
Michigan Department of Labor and Economic Growth
Michigan Occupational Safety and Health Administration (MIOSHA)

All establishments covered by Public Law of 1970 (P.L. 91-596) and Michigan Occupational Safety and Health Act 154, P.A. 1974, Part 11, Michigan Administrative Rule for Recording and Reporting of Injuries and Illnesses must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary. You may be fined for failure to comply.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases, write "0".

Employees, former employees, and their representatives have the right to review the MIOSHA Form 300 in its entirety. They also have limited access to the MIOSHA Form 301 or its equivalent. See Part 11, R400.22(3) Rule 1135 in MIOSHA's Recordkeeping rule for further details on the access provisions for these forms.

Number of Cases

| | | | |
|------------------------|--|--|---|
| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of cases or other recordable cases |
| 0 | 1 | 3 | 0 |
| (G) | (H) | (I) | (J) |

Number of Days

| | |
|-------------------------------------|---|
| Total number of days away from work | Total number of days of job transfer or restriction |
| 110 | 76 |
| (K) | (L) |

Injury and Illness Types

| | | | | | | |
|---------------------|------------|----------------|-------------------|------------------|----------------------------|---------------------|
| Total number of (M) | (1) Injury | (4) Poisonings | (2) Skin Disorder | (5) Hearing Loss | (3) Respiratory Conditions | (6) Other illnesses |
| 4 | 0 | 0 | 0 | 0 | 0 | |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Washington Headquarters Service, Paperwork Project, (202) 433-3261. Send all requests for further information to Washington Headquarters Service, Paperwork Project, (202) 433-3261.

MIOSHA 300A-Rev 1/03 - Filed 01/10/2014

Form Approved OMB No. 1218-0178

Establishment information

Your establishment name Inland Waters Pollution Control, Inc.
 Street 4085 McHugh Ave
 City Detroit State M Zip 48210
 Industry description (e.g. Manufacture of motor truck trailers)
Municipal Pipe Lining
 Standard Industrial Classification (SIC), if known (e.g. SIC 3715)
1 5 2 3
 OR North American Industrial Classification (NAICS), if known (e.g. 336212)
2 3 7 1 1 0

Employment information

Annual average number of employees 73
 Total hours worked by all employees in a year 158,591

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company Executive _____
 General Manager _____
 Title _____
 Date _____
 313-899-3014
 Phone



LOG OF WORK RELATED INJURIES AND ILLNESSES
 ATTENTION: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record slight and severe repetitive trauma and illnesses that are diagnosed by a physician or other health care professional. You must also report work-related fatalities, hospitalizations, amputations, and loss of an eye. For more information on reporting requirements, visit the MIOSHA website at www.miosha.state.mi.us. You may also report an injury or illness to the Michigan Department of Labor and Economic Growth, Michigan Occupational Safety and Health Administration, 7150 Harris Dr., P.O. Box 30643, Lansing, MI 48909-3143. (517) 322-1848. Do not send the completed forms to this office.

Form Approved OMB No. 1218-0176

| | |
|--|-------------|
| ESTABLISHMENT NAME Inland Water Pollution Control | STATE MI |
| CITY Detroit | 48210 |

CLASSIFY THE CASE

| (A) Case No. | IDENTIFY THE PERSON | | | DESCRIBE THE CASE | | | CLASSIFY THE CASE | | | | | | Check the injury column or check one type of illness | | | | | | | | | | |
|--------------------|-----------------------------------|--------------------------------|---|---|--|----------------------------|------------------------------------|-------------------------|-------------------------------|------------------------------|--|---------------|--|------------------------------|------------------|---------------------|----------------------------|----|---|---|---|---|---|
| | (B) Employee's Name | (C) Job Title (e.g. Welder) | (D) Date of injury or onset of illness (month/day) | (E) Where the event occurred (e.g. loading dock north end) | (F) Describe injury or illness (parts of body affected, and other substance that directly injured or made person ill (e.g. Second degree burns on right forearm from acetylene torch) | (G) Days away from work | (H) Job transfer or restriction | (I) Remained at work | (J) Other recordable cases | (K) Days From Work (days) | (L) On job transfer or restriction (days) | (M) Injury | (1) Skin Disorder | (2) Respiratory Condition | (3) Poisoning | (4) Hearing Loss | (5) All other illnesses | | | | | | |
| 2015-01 | Michael Jackson (RTFD 05/03/2015) | Driver/Laborer | 01/13/2015 | Offsite - Chardon, OH | Fractured (R-) ankle and lore ligament stepping out of truck | X | | | | 110 | 0 | X | | | | | | | | | | | |
| 2015-02 | Troy Osipow (RTFD 04/03/2015) | Foreman | 01/28/2015 | Offsite - Dearborn, MI | Laceration/Fracture of R- pinky finger while trying to locate a prybar in a truck gate | | X | | | 0 | 54 | X | | | | | | | | | | | |
| 2015-03 | Gerald Coro (RTFD 04/16/2015) | Laborer | 01/13/2015 | Offsite - Toledo, OH | Sprain of (RH) Wrist while retrieving generator/cutter from manhole | | X | | | 0 | 3 | X | | | | | | | | | | | |
| 2015-04 | Raul Martinez (RTFD 05/19/2015) | Laborer | 05/09/2015 | Onsite - Waterou Dept | Lacerated (RH) thumb while emptying wash container (55 gal drum w/out lid) | | X | | | 0 | 9 | X | | | | | | | | | | | |
| Page totals | | | | | | | | | | | | 0 | 1 | 3 | 0 | 0 | 110 | 76 | 4 | 0 | 0 | 0 | 0 |

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Hearing Standard Threshold Shifts must be recorded under Column 5

Project References





PROJECT REFERENCES
CURED-IN-PLACE PIPE (CIPP) LINING

| Project / Description | Owner | Contract Amount | Date |
|---|---|-----------------|--------------------------------|
| #20-21 2020 On-Call Sewer System Services. Work Order / Task Order Type Contract. CIPP lining of 8"-42" diameter sewer pipe and associated related items. | <i>Owner / Engineer:</i> City of Ann Arbor, Public Works Molly Maciejewski 4251 Stone School Road Ann Arbor, MI 48108 734-794-6350 | \$300,000.00 | 10/01/2020 to 10/01/2021 |
| 2020 CIPP Package #1-Small & Medium Diameter This project consists of CIPP in the following diameters: 11,601 linear feet of 8"; 5,419 linear feet of 10"; 18,748 linear feet of 12"; 11,318 linear feet of 15"; 3,662 linear feet of 18"; 42 linear feet of 20"; 6,038 linear feet of 21"; 2,509 linear feet of 24"; 282 linear feet of 27"; 712 linear feet of 30"; and 472 linear feet of 36". | <i>Owner:</i> City of Fort Wayne, IN Eric Steinman 200 E. Berry Street, Suite 210, Fort Wayne, IN 46802 (260) 427-2689 Eric.Steinman@cityoffortwayne.org | \$3,141,446.00 | 04/30/2020 to 06/24/2021 |
| DWSD Contract – 916 Approximately 30,815 linear feet of 6" to 75" sewer and manhole rehabilitation by external point repairs and CIPP lining | <i>Owner:</i> Detroit Water & Sewerage Dept. Pei Boayue 6425 Huber St. Detroit, MI 48211 313-267-1201 | \$4,732,016.74 | Ongoing |
| MDOT CS 82024-JN – I-94 Bridge Inspection Cleaning and CCTV to inspect the combined and storm sewer to help the design engineers prepare to replace three bridges | <i>Engineer:</i> SOMAT Engineering Utsav Somani 660 Woodward Ave., Suite 2430 Detroit, MI 48226 313-963-2721 | \$389,367.00 | Ongoing |
| Great Lakes Water Authority GLWA-CON -149 Professional Engineering Services for Emergency Sewer Repairs consisting of CCTV, Inspections, Cleaning, CIPP, Grouting, Backwater Gate Repairs and Manhole Rehabilitation and ECO Cast | <i>Owner:</i> Great Lakes Water Authority Mini Panicker 735 Randolph Street Detroit, MI 48226 313-267-8996 | \$53,600,000.00 | Ongoing |
| DWSD Contract – 903 City of Detroit Sewer Repairs Contract - Cleaning, CCTV, CIPP Lining of 8" – 120" pipe | <i>Owner:</i> Detroit Water & Sewerage Dept. Mohammad Farhat, P.E. 6425 Huber St. Detroit, MI 48211 313-267-1201 | \$60,000,000.00 | Ongoing |
| City of Grosse Pointe Farms, MI – SRF Sanitary Sewer Improvements CIPP Lining of 350 linear feet of 12" diameter sanitary sewer pipe, 400 linear feet of 15" diameter pipe, and 350 linear feet of 18" diameter sanitary sewer pipe. | <i>Engineer:</i> Hubbell , Roth & Clark, Inc. Eddie Zmich, P.E. 555 Hulet Dr. Bloomfield, MI 48302 248-454-6300 | \$188,982.50 | Ongoing |
| Downriver Utility Wastewater Authority Installation of a By-Pass Pumping Shaft and Rehabilitation of 430' of 60" diameter brick sewer | <i>Owner:</i> Downriver Utility Wastewater Authority – C/O DUWA System <i>Manager:</i> | \$1,442,475.00 | Ongoing |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|--|---|----------------|--------------------------------|
| | OHM Advisors Bill Davis 34000 Plymouth Road Livonia, MI 48150 313-463-4252 –HRC, Inc. | | |
| <u>DWSD – DWS-908 Sewer Improvements in Cornerstone Village</u> Installation of sanitary sewer mains as in-kind replacements along with CIPP Lining of approximately 50,000 linear feet of sanitary sewer pipe | Lakeshore Global Ritwik Sattoor 7310 Woodward Ave., Suite 500A Detroit, MI 48202 313-989-4141 | \$4,012,467.00 | Ongoing |
| <u>ODOT 315a-20</u> This project is work order based across multiple ODOT districts. | <i>Owner:</i> ODOT Todd Vankirk 1980 W. Broad Street Columbus, OH 614-466-3209 | \$50,000.00 | TBD |
| <u>CIPP Sewer Rehabilitation, Various Locations 2020.</u> This project consists of CIPP rehabilitation of the following diameter sewer lines: approximately 1,746 linear feet of 10"; 1,147 linear feet of 12"; 2,624 linear feet of 15"; 1,182 linear feet of 18"; 876 linear feet of 20"; 475 linear feet of 21". | <i>Owner:</i> City of Mishawaka Board of Public Works & Safety 600 E. 3 rd Street Mishawaka, IN 46544 574-234-3167 <i>Engineer:</i> Lawson-Fisher Associates, PC Christine Szalajko 525 West Washington Avenue South Bend, IN 46601 574-234-3167 cszalajko@lawson-fisher.com | \$862,391.75 | 07/01/2020 to 11/20/2020 |
| <u>USACE-Horace Mann Sewer Rehabilitation FBO Solicitation Number: W912P6-19-B-0019</u> IPR is a subcontractor This project consists of 2,476 linear feet of 10-12" diameter CIPP lining. | <i>Owner:</i> U. S. Army Corps of Engineers Harrell A. Hooks 231 South LaSalle St, Suite 1500 Chicago, IL 312-846-5376 harrell.a.hooks@usace.army.mil <i>Prime Contractor:</i> Grimmer Construction Inc Shawn C. Pappenheim, PLS 2619 Main Street Highland, IN 46322 219-924-1623 spappenheim@grimmerconstruction.com | \$132,616.00 | 11/19/2019 to 11/18/2020 |
| <u>2019 Phase1, Contract A</u> The scope includes CIPP lining of 8"-30" sanitary sewer lines along with CIPM & associated O/C work throughout Manistee, MI on a defined scope basis. | <i>Owner:</i> City of Manistee, MI Jeff Mikuca 70 Maple Street Manistee, MI 49660 231-723-7132 jmikuca@manisteemi.gov | \$2,316,994.00 | 02/17/2020 to 10/29/2020 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|---|--|--------------|--------------------------------|
| | <p><i>Engineer:</i> Spicer Group John Bradley 302 River Street Manistee, MI 517-719-5503 johnbradley@spicergroup.com</p> | | |
| <p>MDOT M-24-30" diameter Storm Sewer CIPP lining. This project consists of 65 linear feet of 30" diameter CIPP liner. IPR is a subcontractor</p> | <p><i>Owner:</i> Michigan DOT – Taylor TCS Gerette Yung 6510 Telegraph Road Taylor, MI 48180 313-75-2400 <i>Prime Contractor:</i> Great Lakes Contracting Solutions Tom Wall 2300 Edinburgh Street Waterford, MI 48328 313-962-0400 twall@greatlakescont.com</p> | \$19,075.00 | 10/01/2020 to 10/06/2020 |
| <p>Cured in Place Pipe, Storm. This project consists of approximately 425 feet of 10" diameter CIPP of storm sewer.</p> | <p><i>Owner:</i> City of Howard, MI Mike Falcon 125 Shaw Street Howard City, MI 49329 231-937-4311 mfalcon@howardcity.org</p> | \$32,105.00 | 08/29/2020 to 09/28/2020 |
| <p>ODOT 190446-Culvert rehabilitation, Clermont County, Ohio IPR is a subcontractor This project consists of 40 linear feet of 15" diameter CIPP and 52 linear feet of 30" diameter CIPP.</p> | <p><i>Owner:</i> Ohio Department of Transportation Jack Marchbanks, Director 1980 West Broad Street Columbus, Ohio. 43223 614-466-7170 <i>Prime Contractor:</i> Axis Civil Construction LLC Rob Sharrett 5715 Westbourne Ave Columbus, Ohio. 43213 614-626-8830</p> | \$50,600.00 | 04/01/2020 to 09/02/2020 |
| <p>ODOT 190526 - Clermont WAR FY20 Culvert Replacement This project consists of 54 linear feet of 15" diameter pipe, 116 linear feet of 24", 28 linear feet of 30" diameter pipe of CIPP lining and 35' - 36" x 36" concrete box Arch all for storm culverts. Including CCTV/Cleaning, Erosion control and site rehab.</p> | <p><i>Owner:</i> Ohio Department of Transportation Jack Marchbanks 1980 W. Broad Street Columbus, OH 43223 614-466-7170</p> | \$128,270.20 | 01/01/2020 to 08/31/2020 |
| <p>Long Term Control Plan Phase 2 Interceptor Sewer – IPR is a subcontractor This project consists of CIPP lining of 55 LF of 36" sewer.</p> | <p><i>Owner:</i> City of Elwood, Indiana 1505 South B Street Elwood, IN 46036 <i>General Contractor:</i></p> | \$39,300.00 | 05/30/2020 to 08/30/2020 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|---|--|--------------|--------------------------------|
| | Atlas Excavating Jonathan Leinberger 4740 Swisher Road West Lafayette, IN 47906 765-414-1054 jonathanl@atlasexcavating.com | | |
| <u>2020 Sewer Relining Project</u> This project consists of CIPP lining of 2784 linear feet of 8" diameter pipe, 327 linear feet of 10" diameter pipe and 460 linear feet of 12" diameter sanitary sewer. Pre TV/cleaning and Post TV inspection with 83 service reinstatement of laterals. | <i>Owner:</i> City of Mount Pleasant, MI Jennifer Flachs 320 W. Broadway Mt. Pleasant, MI 48858 989-779-5400 jflachs@mt-pleasant.org | \$95,733.00 | 07/13/2020 to 08/28/2020 |
| <u>Grand Street Reconstruction.</u> IPR is a subcontractor. This project consists of 115 linear feet of 18" diameter CIPP lining. | <i>Owner:</i> City of Dexter, MI 8123 Main Street, 2 nd Floor Dexter, MI 48130 734-426-8303 <i>Prime Contractor:</i> TLS Construction 2000 N. Burchart Road Howell, MI 48855 517-225-5071 | \$20,250.00 | 06/08/2020 to 07/08/2020 |
| <u>Sewer Rehabilitation & Relining at various locations</u> This is a work order-based contract that consists of 8-24" lining. | <i>Owner:</i> Sanitary Engineering Department of Mahoning County, OH Joseph P. Muccio 761 Industrial Road Youngstown, Ohio 44509 330-793-5514 Ext. 8209 jmuccio@mahoningcountyoh.gov | \$225,000.00 | 07/05/2019 to 07/04/2020 |
| <u>Michigan Avenue and Harrison Road Sewer Improvements</u> This project consists of a subcontract opportunity for 3751 linear feet of 6-24" CCTV/Cleaning (self-perform) and CIPP lining of 3822 linear feet of 6-24" diameter pipe. | <i>Owner:</i> City of East Lansing, Michigan Bob Scheuerman 1800 E. State Road East Lansing, MI 48823 517-319-6934 bscheue@cityofeastlansing.com <i>Prime Contractor:</i> Leavit & Stark Excavating, Inc Tom Starck 16220 National Parkway Lansing, Michigan 48906 517-323-7630 leavittandstarck.com | \$334,653.00 | 03/27/2019 to 06/19/2020 |
| <u>MDOT 191101-001</u> IPR is a subcontractor This project consists of CIPP for 1,999 linear feet of 24" diameter pipe, 211 linear feet of 36" and 48" diameter pipe. | <i>Owner:</i> MDOT Bradley G. Swanson, P.E. 1088 M-32 East Gaylord, MI 49735 989-731-5090 swansonb@michigan.gov | \$466,057.00 | 12/15/2019 to 06/12/2020 |



PROJECT REFERENCES
CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|--|---|--------------|--------------------------------|
| | <i>Prime Contractor:</i> Reith Riley Tom Canfield 3636 Elkhart Rd. Goshen, IN 46526 231-388-2021 tcanfield@dimcquestion.com | | |
| 2019 Sanitary Sewer Repairs Phase II This project consists of lining of 4,241 linear feet of 8", 10", 12" and 15" diameter sanitary sewer with CCTV and Cleaning with 64 lateral reinstatements. | <i>Owner:</i> The City of Upper Arlington, OH Division of Engineering and Construction 41100 Roberts Road Columbus, OH 43228 wmler@uaoh.net | \$181,832.70 | 12/15/2019 to 06/12/2020 |
| 2020 Sewer Rehabilitation This project consists of 3,102 linear feet of 8" CIPP and 743 linear feet of 10" CIPP. | <i>Owner:</i> City of Tecumseh Dan Swallow 309 E Chicago Blvd Tecumseh, MI 517-423-2107 dswallow@tecumseh.mi.us <i>Engineer:</i> Tetra Tech Joseph Siwek 710 Avid Dr. Suite 100 Ann Arbor, MI 734-213-4052 | \$449,415.00 | 03/01/2020 to 05/30/2020 |
| Charter Township of Commerce, MI-Sleeth Rd. Clean, CCTV & CIPP Lining of 756 linear feet of 30", 124 linear feet of 18" and manhole coating 4', 5' & 6' full depth spray-on cementitious | <i>Owner:</i> Commerce Township <i>Engineer:</i> Giffels & Webster Engineers 1025 East Maple Rd., Ste. 100 | \$311,250.00 | 09/09/2019 to 04/30/2020 |
| Sanitary Sewer Repair/Replacement 2019 Lining Project This project consists of 2900 linear feet of 10" and 500 linear feet of 8" Sanitary Sewer lining. CCTV and cleaning of these lines and an additional 1,100 linear feet. 80 service laterals to be reinstated and grouted. One 12" overflow line to be plugged and abandoned in manhole | <i>Owner:</i> Village of South Charleston Clark County, Ohio 35 South Chillicothe Street South Charleston, Ohio 45368 937-462-7167 <i>Engineer:</i> Environmental Eng. Service Steve Canter 3575 Columbia Road Lebanon, Ohio 45036 513-934-1512 scanter@enveng.com | \$157,041.00 | 11/25/2019 to 04/23/2020 |
| City of St. Clair Shores – HRC Clean, CCTV & full length CIPP of 2,107 linear feet of 12", 500 linear feet of 15" & 145 linear feet of 21" Sanitary Sewers, Manhole Rehabilitation & Statler Pump Station Repair. | <i>Owner:</i> City of St. Clair Shores <i>Engineer:</i> Hubbell, Roth & Clark Bill Fisher 555 Hulet Drive | \$606,883.70 | 04/30/2019 to 03/31/2020 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| | Bloomfield Hills, MI 48302 248-454-6300 | | |
| <p>CSX Wyoming Yard CIPP This project consists of 94 linear feet of 6" diameter pipe, 850 linear feet of 8" diameter pipe, 1203 linear feet of 10", and 1102 linear feet of 12" diameter pipe.</p> | <p><i>Owner:</i> CSX Transportation, Inc. 900 Frontage Road Grand Rapids MI <i>Other:</i> APTIM Thomas Dejong, P.E. (616) 607-4774 thomas.dejong@aptim.com Safeguard Environmental (SGE) Jeff Jorge 954 Kennedy Ave. Suite C Schererville, Indiana 46375 219-712-0712 jjorge@safeguardserv.com</p> | \$170,010.00 | 12/20/2019 to 03/19/2020 |
| <p>Storm Sewer Lining The job consists on CIPP lining of 160 linear feet of 24" diameter pipe with Cleaning & CCTV work.</p> | <p><i>Owner:</i> City of Toledo, OH Richard Jackson 4032 Creekside Toledo, OH 419-245-1197 richard.jackson@toledo.oh.gov</p> | \$35,680.00 | 12/30/2019 to 01/29/2020 |
| <p>5312 W. 7th and 5729 Melton Rd. This project consists of 388 linear feet of 12" sanitary sewer to be lined with CIPP. IPR will self-perform the Pre and Post CCTV and cleaning work.</p> | <p><i>Owner:</i> The Gary Sanitary District Jabez Anderson 3600 West 3rd Ave Gary, IN 46406 219-944-1211 x1234 janderson@garysan.com</p> | \$37,924.00 | 11/15/2019 to 01/14/2020 |
| <p>759 Grant St. This project consists of 343 linear feet of 12" CIPP lining and CCTV/Cleaning to be self-performed.</p> | <p><i>Owner:</i> The Gary Sanitary District Jabez Anderson 3600 West 3rd Ave Gary, IN 46406 219-944-1211 x1234 janderson@garysan.com</p> | \$27,440.00 | 11/11/2019 to 01/10/2020 |
| <p>Heritage Park Waste Water Treatment Plant and Sanitary Improvements This project consists of 1,681 linear feet of 8" CIPP lining. - We are a subcontractor to Workman Industrial Services, Inc.</p> | <p><i>Owner:</i> Richfield Joint Recreation District Robert J Becker 3900 Broadview Rd, #246 Richfield, OH 44286 <i>Prime Contractor:</i> Workman Industrial Services Inc Jimmy Workman 361 Old Forge Rd Kent, OH 44240 330-678-7002</p> | \$80,150.00 | 09/01/2019 to 12/30/2019 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| <p><u>Park St. & Locust/Ewing St Sewer Rehabilitation</u> This project consists of CIPP lining of 3,620 linear feet of 8", 10", 20" & 30" lining.</p> | <p><i>Owner:</i> City of Lancaster, OH Steven Wellstead, P.E. 104 E. Main Street Lancaster, OH 740-681-5070</p> | <p>\$850,508.00</p> | <p>07/24/2019 to 12/16/2019</p> |
| <p><u>Great Lakes Water Authority GLWA-CON-183</u> Detroit River Interceptor Repairs consisting of chemical grouting, roof repair, work platform installation, concrete joint repairs, epoxy grouting, manhole rehabilitation, CCTV and cleaning.</p> | <p><i>Owner:</i> Great Lakes Water Authority Mini Panicker 735 Randolph Street Detroit, MI 48226 313-267-8996</p> | <p>\$1,903,718.00</p> | <p>10/13/2017 to 11/30/2019</p> |
| <p><u>2019 Storm & Sanitary Sewer Improvements</u> This project consists of lining of 369 linear feet of 8".</p> | <p><i>Owner:</i> Village of Williamsport 300 Ballard Ave Williamsport, OH <i>Engineer:</i> Stantec Gary Silcott 1500 Lake Shore Dr. Columbus, OH 614-374-0117 gary.silcott@stantec.com</p> | <p>\$87,835.00</p> | <p>09/17/2019 to 11/16/2019</p> |
| <p><u>Relining Existing Culverts at Patoka Lake</u> CIPP of 11 EA Drive Culverts IPR Subcontractor to Federal EC LLC</p> | <p><i>Owner:</i> US Army Engineer District, Louisville Greg Carpenter, Project Manager 4512 N. Cuzco Road South Dubois, Indiana 4727-9961 812-678-3761 <i>Prime Contractor:</i> Federal EC LLC Jonathan M. Raymer, PE 504 Allatoona Hills Drive Woodstock, Georgia 30189-5195 770-616-7523 jraymer@federalec.com</p> | <p>\$73,400.00</p> | <p>07/17/2019 to 11/14/2019</p> |
| <p><u>Sanitary Sewer Improvements Division II</u> This project included lining of 4,097 linear feet of 10" diameter CIPP.</p> | <p><i>Owner:</i> Town of Clay City, IN Randi Staley 800 Front St. Clay, IN 812-939-2345 <i>Engineer:</i> Midwestern Engineers, Inc. John Wetzel 6809 Corporate Drive Indianapolis, IN 812-295-2800</p> | <p>\$327,342.50</p> | <p>08/13/2019 to 11/11/2019</p> |
| <p><u>Sanitary Sewer Lining Project</u> This project consists of 5,500 linear feet of 36" diameter CIPP lining.</p> | <p><i>Owner:</i> Holland Board of Public Works 625 Hasting Ave.</p> | <p>\$1,029,650.00</p> | <p>07/2018 to</p> |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| | Holland, MI 49423 Kevin Koning 616-405-9634 kkoning@hollandbpw.com | | 11/2019 |
| NE Ohio Spring Creek Culvert Rehab IPR is a subcontractor. This project consisted of 174 linear feet 72" dia. x 1.5" thick, 128 linear feet 42"x74" x 1.5" thick, structure coating of 0.5" thick. | <i>Owner:</i> NEORS Derek Vogel 3900 Euclid Ave. Cleveland, OH 44115 vogeld@neorsd.org <i>Prime Contractor:</i> Marra Services John Marra 700 E. 73rd St. Cleveland, OH 44103 john@marra.com | \$306,008.00 | 12/31/2018 to 10/27/2019 |
| 1744 Georgia Street This project consists of 1,032 linear feet of 15" CIPP Lining. We are a subcontractor to Workman Industrial Services, Inc. | <i>Owner:</i> The Gary Sanitary District Jabez Anderson 3600 West 3 rd Ave Gary, IN 46406 219-944-1211 x1234 janderson@garysan.com <i>Prime Contractor:</i> Metz, Sewer Inc. Steve Nagy 1097-, 1135 Central Ave Gary, IN 46407 219-688-3949 metzsewers@outlook.com | \$71,048.00 | 10/01/2019 |
| Detroit Metropolitan Wayne County Airport. IPR is a subcontractor performing CIPP Lining of approx. 2,000 LF of 54", 1,400 LF of 66", 1,300 LF of 72" and 1,300 LF of 84" Sanitary Sewers - 3R/21L Runway Reconstruction | <i>Owner:</i> Detroit Metropolitan Wayne Co. Airport 11050 Rogell Drive #602 Detroit, MI 48242 734-247-7900 <i>Prime Contractor:</i> Dan's Excavating, Inc. 12955 23 Mile Rd. Shelby Twp., MI 48315 Attn: Justin Peyerk 810-343-5462 | \$3,916,600 | 06/01/2019 to 09/30/2019 |
| Alena Street - Storm and Sanitary Project IPR is a subcontractor performing CIPP lining of 1584 linear feet of 8"-12" diameter pipe. | <i>Owner:</i> City of Wabash, IN 202S. Wabash Street Wabash, IN 46992 260-563-4171 <i>Engineer:</i> United Consulting, Dan Barrett 8440 Allison Pointe Blvd, Ste 200 Indianapolis, IN 46250 317-895-2585 | \$61,058.90 | 04/16/2019 to 09/13/2019 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| | danb@ucindy.com <i>Prime Contractor:</i> Ironclad Excavating Inc Michael W Geiger 576 Geiger Drive, Suite C Roanoke, IN 46873 260-672-3714 Ext. 1 mgeiger@ironcladexc.com | | |
| 2019 Sanitary Sewer Repairs The scope includes Clean/CCTV and lining of 2829 linear feet of 8" diameter pipe, 189 linear feet of 12" and 91 linear feet of 15" sanitary sewer lines and 68 lateral reinstatements. | <i>Owner / Engineer:</i> City of Upper Arlington, OH Barb Podnar 3600 Tremont Rd. Upper Arlington, OH 43221 614-583-5286 bpodnar@uaoh.net | \$151,038.00 | 03/04/2019 to 08/31/2019 |
| 2401 Buchanan St. & 2100 Broadway CIPP This project includes lining 436 linear feet of 24" and 68 linear feet of 18" diameter pipe. | <i>Owner:</i> The Gary Sanitary District Jabez Anderson 3600 West 3 rd Ave Gary, IN 46406 219-944-1211 x1234 janderson@garysan.com | \$77,036.00 | 06/22/2019 to 08/21/2019 |
| French Creek WWTP IPR is a subcontractor on this project performing 345 linear feet of 36" CIPP | <i>Owner:</i> City of North Ridgeville, Ohio 7307 Avon Belden Road North Ridgeville, Ohio 44039 440-353-0811 <i>Prime Contractor:</i> Marra Services, Inc. John Marra 700 East 73rd St. Cleveland, OH 44103 216-361-9977 john@marra.com | \$61,000.00 | 02/09/2019 to 08/08/2019 |
| 2018 Sanitary Sewer Rehabilitation project This project consists of 4,186 linear feet of 8"; 291 linear feet of 10"; 305 linear feet of 15"; 776 linear feet of 18" of CIPP. | <i>Owner / Engineer:</i> City of Greenfield Jason Koch City of Greenfield, Department of Engineering 10 S. State Street Greenfield, Indiana 46140 317-477-4310 jkoch@greenfieldin.org | \$827,586.75 | 01/07/2019 to 08/05/2019 |
| 2018 Sewer Lining Project This project consists of 7,055 linear feet of 8"; 325 linear feet of 12"; 1,278 linear feet of 15"; 370 linear feet of 24", and 177 linear feet of 39"x 26" of CIPP. | <i>Owner:</i> Richmond Sanitary District Elijah W. Welch 2380 Liberty Ave. Richmond, IN 47374 765-983-7483 ewelch@richmondindiana.gov | \$348,294.86 | 11/19/2018 to 08/01/2019 |
| Sanitary Sewer Lining | <i>Owner:</i> Gary Sewer District | \$70,752.00 | 05/29/2019 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| <p>This project consists of CIPP lining 1,211 linear feet of 12" and 94 linear feet of 8"</p> | <p>Jebez Anderson 3600 W 3rd Ave. Gary, IN 219-944-1211 janderson@garysan.com</p> | | <p>to 07/28/2019</p> |
| <p><u>Sanitary & Storm Sewer Rehabilitation</u> The scope includes Clean/CCTV and lining of 8,020 linear feet of 8"-24" storm and sanitary sewer lines with manhole lining, joint and lateral grouting along with some point repair work. CIPP breakdown: 2,510 linear feet of 8" (Sanitary) 1,720 linear feet of 12" (Sanitary) 1,060 linear feet of 15" (Storm) 445 linear feet of 18" (Sanitary) 240 linear feet of 18" (Storm) 345 linear feet of 24" (Sanitary) 1,700 linear feet of 24" (Storm)</p> | <p><i>Owner:</i> City of Owosso, MI 301 W. Main St. Owosso, MI 48867 989-725-0599 <i>Engineer:</i> OHM Advisors Lou Fleury 929 Bridgeview South Saginaw, MI 48604 989- 393-1740 Lou.Fleury@ohm-advisors.com</p> | <p>\$769,005.50</p> | <p>02/08/2019 to 06/07/2019</p> |
| <p><u>Collection System Improvements</u> This project consists of 5825 linear feet of 8" diameter pipe and 420 linear feet of 18" CIPP.</p> | <p><i>Owner:</i> Warren Co. Water & Sewer Dept. Chris Wojnicz 406 Justice Drive Lebanon, OH 45036 513-695-1646 christopher.wojnicz@co.warren.oh.us</p> | <p>\$349,635.00</p> | <p>10/18/2019 to 04/27/2019</p> |
| <p><u>Old South Haven Stormwater Improvements</u> This subcontract opportunity consists of CIPP lining of 385 linear feet of 36" diameter pipe, 870 linear feet of 48" and 180 linear feet of 60" diameter storm sewer.</p> | <p><i>Owner:</i> County of Porter, IN Michael Novotney, PE 155 Indiana Ave., Suite 311 Valparaiso, IN 46383 219-465-3507 mnovotney@porterco.org <i>Prime Contractor:</i> Grimmer Construction John Dudlicek 2619 Main Street Highland, IN 46322 219-924-1623 dudlicek@grimmerconstruction.com</p> | <p>\$436,235.34</p> | <p>10/29/2018 to 04/19/2019</p> |
| <p><u>DWSD Contract DWS - 901</u> East Side City of Detroit Sewer Repairs Contract Cleaning, TV, CIPP Lining of 8"-120" pipe</p> | <p><i>Owner:</i> Detroit Water & Sewerage Dept. Mohamad Farhat, P.E. 6425 Huber St. Detroit, MI 48211 313-267-1201 mfarhat@detroitmi.gov</p> | <p>\$4,225,950.00</p> | <p>05/15/2015 to 02/28/2018</p> |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| <p>DWSD Contract DWS – 889 City of Detroit Sewer Repairs Contract Cleaning, TV, CIPP Lining of 8"-120" pipe. East Yard District Emergency Repair Project. The project consisted of the following: CIPP: 10,759 linear feet 6,145 linear feet of 8"-15" dia. 1,723 linear feet of 15"x18", 15"x20, 18"x24" 2,560 linear feet of 18"-27" 331 linear feet of 30"-42" Clean and CCTV: 49,725 linear feet 24,702 linear feet of 8"-15" dia. 4,744 linear feet of 15"x18", 15"x20, 18"x24" 18,548 linear feet of 18"-27" 1,375 linear feet of 30"-42" 356 linear feet of 48"-66" TV Only: 84,663 linear feet 11,714 linear feet of 8"-15" dia. 1,325 linear feet of 15"x18", 15"x20, 18"x24" 3,928 linear feet of 18"-27" 935 linear feet of 30"-42" 5,456 linear feet of 48"-66" 6,292 linear feet of 72"-120" 55,013 linear feet of 120" and up</p> | <p>Owner: Detroit Water & Sewerage Dept. Mohamad Farhat, P.E. 6425 Huber St. Detroit, MI 48211 313-267-1201 mfarhat@detroitmi.gov</p> | <p>\$4,225,950.00</p> | <p>05/15/2015 to 02/28/2018</p> |
| <p>DWSD Contract DWS – 890 City of Detroit Sewer Repairs Contract Cleaning, TV, CIPP Lining of 8"-120" pipe</p> | <p>Owner: Detroit Water & Sewerage Dept. Mohamad Farhat, P.E. 6425 Huber St. Detroit, MI 48211 313-267-1201 mfarhat@detroitmi.gov</p> | <p>\$4,225,950.00</p> | <p>05/15/2015 to 02/28/2018</p> |
| <p>2018 Sanitary Sewer Lining Services This project consists of 8350 linear feet of 8-18" CIPP on a Work Order basis.</p> | <p>Owner: Montgomery County Environmental Services David Hodgson 451 W. Third St., 9th Floor Dayton, OH 45422-1375 937-225-4699 HodgsonD@mcoho.org</p> | <p>\$519,747.00</p> | <p>01/07/2018 to 01/07/2019</p> |
| <p>54th Street Sanitary Repairs This project consists of 474 linear feet of 12" CIPP</p> | <p>Owner: Gary Sewer District Jebez Anderson 3600 W 3rd Ave. Gary, IN 219-944-1211 janderson@garysan.com</p> | <p>\$49,000.00</p> | <p>11/01/2018 to 12/01/2018</p> |
| <p>Sewer and Manhole Rehabilitation This project consists of CIPP lining of 4808 linear feet of 10", 12", 15", & 72" diameter pipe</p> | <p>Owner: City of South Bend, IN Linda M Martin 227 W Jefferson Blvd, 1316 County-City Building, Room 1316</p> | <p>\$3,039,276.50</p> | <p>01/11/2018 to 09/01/2018</p> |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| | South Bend, IN 46601 574-235-9251 lmartin@southbendin.gov | | |
| DWSD Contract DWS – 900 City of Detroit Sewer Repairs Contract Cleaning, TV, CIPP Lining of 8"-120" pipe | <i>Owner:</i> Detroit Water & Sewerage Dept. Mohamad Farhat, P.E. 6425 Huber St. Detroit, MI 48211 313-267-1201 mfarhat@detroitmi.gov | \$4,225,950.00 | 05/11/2015 to 06/30/2018 |
| City of Toledo – 2014 Sewer Lining CIPP Lining of 8" to 39" Sewers consisting of 23,750 linear feet of Sanitary and 19,150 linear feet of Storm | <i>Owner / Engineer:</i> City of Toledo Div. of Engineering Mike Elling One Lake Erie Center 600 Jefferson Ave, Suite 600 Toledo, OH 43604 419-936-2276 | \$2,835,760.00 | 02/01/2016 to 05/30/2018 |
| City of Garden City, MI Cleaning approximately 50,580 linear feet of 8" – 42" and Full Length CIPP of approximately 50,485 linear feet of 8 – 42" sewers | <i>Owner:</i> City of Garden City, MI <i>Engineer:</i> Hennessey Engineers, Inc. Ryan Kern, PE 13500 Reeck Road Southgate, MI 48195 734-759-1600 | \$1,784,304.75 | 07/01/2016 to 05/30/2018 |
| City of Eastpointe Clean, CCTV & FCIPP & SCIPP Lining of 24,000 linear feet of Various Sanitary Sewer | <i>Owner:</i> Department of Public Works & Services-AEW Patrick Marcus 17750 Ten Mile Rd Eastpointe, MI 46021 586-726-1234 Ext 137 | \$814,485.00 | 01/01/2017 to 01/31/2018 |
| City of East Lansing – 2016 Sewer Rehabilitation Project CCTV, Cleaning and CIPP Lining of Approx. 1,200 LF of 36", 250 LF of 27" and 500 LF of 24" sewers | <i>Owner:</i> City of East Lansing Nicole McPherson 410 Abbot Road East Lansing, MI 48823 517-319-6928 | \$592,000.00 | 03/01/2017 to 10/31/2017 |
| Washington Sanitary Sewer District IDIQ C15183A11 Mainline CIPP Indefinite Delivery/Indefinite Quantity CIPP lining project of 8"-15" diameter pipe | <i>Owner:</i> Washington Suburban Sanitary Commission Mark Coughlin 14501 Sweitzer Lane Laurel, MD 20707 301-642-3092 | \$18,553,882.37 | 10/05/2012 to 10/05/2017 |
| City of Springfield, OH – 2016 Misc. Sanitary Sewer Lining CCTV, Cleaning and CIPP Lining of Approx. 5,114 linear feet of 8" to 36" sewers and Manhole Rehabilitation | <i>Owner:</i> City of Springfield, OH Leo Shanayda, City Engineer 76 E. High Street Springfield, OH 45502 937-324-7312 | \$619,748.00 | 07/01/2016 to 06/30/2017 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| <p>City of Adrian, MI Approx. 918 LF of 30", 916 LF of 36", 400 LF of 12" CIPP and 360 LF of 30" - 33" of cementitious liner and 133 LF of 30" – 42" of cementitious liner</p> | <p><i>Owner:</i> City of Adrian, MI <i>Engineer:</i> Jones & Henry Engineers, LTD Michael Karafa, PE 3103 Executive Pkwy., Ste. 300 Toledo, OH 43606 567-661-0247</p> | <p>\$469,765.00</p> | <p>10/01/2016 to 03/30/2017</p> |
| <p>CIPP Sewer Rehabilitation Edgewater Northside Interceptor CIPP lining of 3,700 linear feet 18" to 36" in diameter</p> | <p><i>Owner:</i> City of Mishawaka Piper C. Tittle, P.E. 600 E. Third Street Room 100 Mishawaka, IN 46545 574-234-3167</p> | <p>\$695,641.00</p> | <p>Completed</p> |
| <p>Sewer Rehabilitation 2014 CIPP lining 12" –16225LF, 15" – 8030 LF, 18" - 5984LF, 20" – 1318LF, 21"-974LF, 22"-1000LF, 24"-587 LF, 30" – 151 LF, 42" – 302LF.</p> | <p><i>Owner:</i> City of Dearborn Soud El-Jamaly, P.E. 313-943-2450</p> | <p>\$3,000,000.00</p> | <p>07/30/2016</p> |
| <p>DWSD Contract DWS-876 East Side City of Detroit Sewer Repair for Inspection and In-Place Rehabilitation of Existing Circular and Non-Circular sewers. Three-year annual maintenance contract. CIPP of the following: 173,223 linear feet of 8"-15" diameter, 1,215 linear feet of 15"x18", 100,511 linear feet of 18"-27", 7741 linear feet of 30"-42", 350 linear feet of 42"-66". Cleaning and televising of 344,696 linear feet of 8"-120".</p> | <p><i>Owner:</i> Detroit Water & Sewerage Authority Mohammad Farhat, P.E. 6425 Huber St. Detroit, MI 48211 313-267-1201 farhatm@detroitmi.gov</p> | <p>\$40,000,000</p> | <p>04/21/2010 to 04/20/2014</p> |
| <p>DWSD Contract DWS - 877 West Side City of Detroit Sewer Repair for Inspection and In-Place Rehabilitation of Existing Circular and Non-Circular sewers. Three year annual maintenance contract. CIPP of the following: 155,429 linear feet of 8"-15" diameter, 1,050 linear feet of 15"x18", 81,931 linear feet of 18"-27", 12,100 linear feet of 30"-42" Cleaning and televising of 344,512 linear feet of 8"-120".</p> | <p><i>Owner:</i> Detroit Water & Sewerage Authority 6425 Huber St. Detroit, MI 48211 Mohammad Farhat, P.E. 313-267-1201</p> | <p>\$44,000,000</p> | <p>04/21/2010 to 04/20/2014</p> |
| <p>District "A" Sanitary Sewer CIPP Lining CIPP lining of 24" (6,067') and 30" (1,712') diameter sanitary sewer.</p> | <p><i>Owner:</i> Charter Township of Clinton, MI Scott Chabot 40700 Romeo Plank Road Clinton Township, MI 48038 586-781-8950</p> | <p>\$966,260.00</p> | <p>8/1/2013 to 11/30/2013</p> |
| <p>FY2013 Sanitary Sewer Main Lining - Project #SWR 61 CIPP lining of 8" (11,200'), 12" (660'), 15" (4,858'), 18" (5,440'), 21" (13,100') 24" (263'), and 36" (362')</p> | <p><i>Owner:</i> City of Holland David Cyrus 270 South River Avenue Holland, MI 49423</p> | <p>\$1,723,074.00</p> | <p>07/01/2013 to 11/21/2013</p> |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| in addition to the reinstatement of over 400 laterals and heavy cleaning of sanitary sewer | 616-355-1520 | | |
| <u>2013 SS Rehab Project - Phase I</u> Joint sanitary sewer rehabilitation project under four municipalities for the CIPP lining of approximately 8,059 linear feet of 8" and 530 linear feet of 10" sanitary sewer | <i>Owner:</i> Township of Upper Macungie, PA 8330 Schantz Road Breinigsville, PA 10831 <i>Engineer:</i> Keystone Engineers Tim Miller 610-395-0971 | \$207,977.55 | 04/15/2013 to 09/30/2013 |
| <u>2011 Sewage Collection System Improvements</u> CIPP lining of 5,200 linear feet of 8" diameter pipe and pipe bursting of 75 laterals | <i>Owner:</i> Western Virginia Water Authority Earl Smith, P.E. 601 S. Jefferson St 3rd Floor Suite 300 Roanoke, VA 24011 540-853-5700 | \$579,376.40 | 09/01/2012 to 08/15/2013 |
| <u>City of Midland Trenchless Sewer Reconstruction</u> CIPP lining of 10" (577'), 21" (2,015'), and 36" (2,102') diameter sanitary sewer. | <i>Owner:</i> City of Midland Steven Smith 333 West Ellsworth Street Midland, MI 48640 989-837-3504 | \$410,649.00 | 7/1/2013 to 8/13/2013 |
| <u>Redstone Interceptor Upgrade - Uniontown, PA</u> CIPP lining of 5,500 linear feet of 21"-30" sanitary sewer | <i>Owner:</i> City of Uniontown, PA 20 North Gallatin Ave Uniontown, PA 15401 724-430-2910 <i>Engineer:</i> K2 Engineering, Inc. Aaron Wigfield, PE 724-439-3440 | 1,796,165.00 | Completed |
| <u>2012 Sewer Repair Project</u> CIPP lining of 9,985 linear feet of 8" and 600 linear feet of 12" sanitary sewer. 99 CIPP point repairs and grouting of laterals. | <i>Owner:</i> West Homestead 456 West Eighth Ave West Homestead, PA 15120 412-461-1844 <i>Engineer:</i> Seig and Associates, Inc Karl P. Seig, P.E. 724-935-2040 | 1,610,740.00 | Completed |
| <u>St. Mary's, WV - Phase II Replacement Project</u> CIPP lining of 6" (600') 8" (3,300') 10" (1,700') and 18" (2,000') diameter pipe | <i>Owner:</i> Tri State Pipeline 418 2nd Street St. Marys, WV 26170 304-684-2401 <i>Engineer:</i> S&S Engineers 304-342-7168 | \$510,000.00 | Completed |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

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| <p>North Side Sewer Improvements Project, Division A and B Project consists of CIPP lining of 8"-12" (9260') diameter pipe, 310VF of manhole lining, and point repairs on existing sewers</p> | <p><i>Owner:</i> City of Auburn, Indiana Cheryle Culler 210 East Ninth Street Auburn, Indiana 46706 260-969-8837</p> | <p>\$319,652.00</p> | <p>3/22/2013 to 7/12/2013</p> |
| <p>Collection System Rehabilitation CIPP Lining Contractor CIPP lining 6" (500'), 8" (31,000'), 10" (1,450'), 12" (2,500'), 15" (1,250'), 18" (5,000'), 21" (1,250'), 24" (30'), and 36" (655') diameter sanitary sewer.</p> | <p><i>Owner:</i> Sanitary District 1 Kyle Boyle, P.E. 1045 Eaton Dr. Ft. Wright, KY 41017 859-547-1644</p> | <p>\$ 2,392,042.50</p> | <p>03/22/2013 to 07/12/2013</p> |
| <p>2012 Trenchless Reconstruction of Sanitary Sewers Phase 4 CIPP lining project involving 8" (17,101') and 12" (4,780') diameter sanitary sewer</p> | <p><i>Owner:</i> Independence Hill Conservancy District 7507 Taft Street Merrillville, IN 46410 <i>Engineer:</i> North-West Engineering Co Inc Aravind Muzumdar Gary, IN 46402 219-0769-3996</p> | <p>\$566,565.00</p> | <p>07/22/2012 to 04/28/2013</p> |
| <p>East Frankfort Interceptor Rehab Phase I CIPP lining of 18" (66') 21" (360') 24" (606') 27" (637') 30" (877') and 36" (222') diameter pipe. Dig sections include replacement of 174lf of 21" and 158lf of 27" diameter pipe</p> | <p><i>Owner:</i> City of Frankfort, KY Bob Peterson 1200 Kentucky Ave. Frankfort, KY 40601 502-875-2448 <i>Engineer:</i> Hazen & Sawyer Amanda Mikuski 444 Lewis Hargett Circle#260 Lexington, KY 40503 859-219-1126</p> | <p>\$535,976.40</p> | <p>10/14/2012 to 03/24/2013</p> |
| <p>2011 Sanitary Sewer Rehab Contract 1 CIPP CIPP lining of 8" (11,935') 10" (2,515') 15" (3,685') 21" (465') and 24" (270') diameter pipe</p> | <p><i>Owner:</i> Muhlenberg Township Authority 2840 Kutztown Road Reading, PA 19605 <i>Engineer:</i> Great Valley Consultants Nick Johnson 610-375-8822</p> | <p>\$1,184,572.00</p> | <p>04/22/2012 to 02/24/2013</p> |
| <p>Royal Oak, Michigan 2012 Sewer Lining CIPP lining of 8" (5,450'), 10" (1,500'), 12" (1,600'), 15" (950'), and 18" (500').</p> | <p><i>Owner/Engineer:</i> City of Royal Oak Merleo Seneras 211 Williams, P.O. Box 64 Royal Oak, MI 48068 248-246-3266</p> | <p>\$297,000.00</p> | <p>11/01/2012 to 01/04/2013</p> |
| <p>Sanitary Sewer Rehabilitation Areas B, C1 & G CIPP lining of 17,460 linear feet 6" – 15" in diameter</p> | <p><i>Owner:</i> City of Novi Maria Sedki, P.E. 45175 W. Ten Mile Road</p> | <p>\$596,490.75</p> | <p>10/14/2012 to 11/25/2012</p> |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|---|--|----------------|--------------------------------|
| | Novi, Michigan 48375 248-844-5400 | | |
| Sanitary Sewer Rehabilitation Project CIPP lining of approximately 8,900 linear feet of 8" diameter pipe. Rehabilitation and lining of 8 manholes in addition to 6 spot repairs | <i>Owner:</i> Borough of Middleburg 13 North Main Street Middleburg, PA <i>Engineer:</i> Larson Design Group Chris Beidler P.E. 1000 Commerce Park Dr., Ste 201 Williamsport, PA 17701 570-323-6603 | \$827,135.00 | 09/30/2012 to 11/11/2012 |
| Floral Park Subdivision Sewer Rehabilitation CIPP lining of 16,000 linear feet of 8" – 15" diameter pipe | <i>Owner:</i> City of Farmington 33720 West Nine Mile Rd Farmington, MI 48335 <i>Engineer:</i> Orchard, Hiltz & McCliment, Inc. Matthew Parks, P.E. 3400 Plymouth Rd Livonia, MI 48150 734-552-6711 | \$566,500.00 | 03/20/2012 to 10/30/2012 |
| #1477-Interceptor Lining & Cleaning CIPP lining of 10' (219') 15" (791') 18" (334') and 30" (5,220') diameter pipe | <i>Owner:</i> Allegheny Co. Sanitary Authority 3300 Preble Ave. Pittsburgh, PA 15233 412-732-1232 <i>Engineer:</i> AMEC E&C Services Jim McCarthy, P.E. 724-940-4200 | \$2,071,009.00 | 05/13/2012 to 10/21/2012 |
| 2011 Trenchless Technology Sewer Rehabilitation CIPP lining of 8" (16,246'), 10" (852'), 12" (33,586'), 15" (7,759'), 18" (5,293'), 20" (97'), 21" (1,110'), 22"(681'), 24" (2,515'), 30" (778'), 33"(325'), and 36" (1,098') diameter pipe | <i>Owner/Engineer:</i> Metropolitan Sewer District of Greater Cincinnati Mike Stevens 225 W. Galbraith Road Cincinnati, OH 45215 513-353-4900 | \$5,221,027.00 | 09/26/2011 to 09/15/2012 |
| Wagner Ford Sanitary Liner Installation Phase 2 CIPP lining of 10,129 linear feet of 42" diameter pipe | <i>Owner:</i> City of Dayton Ohio Donald Kinnison 320 W. Monument Dr. Dayton, OH 45402 937-333-3739 | \$3,197,794.00 | 06/17/2012 to 09/09/2012 |
| #3399-Trenchless Sewer Lining CIPP lining of 8" (540') 10" (1,223') 21" (375') and 24" (1,878') diameter pipe | <i>Owner:</i> City of Midland Steve Smith, P.E. 333 W. Ellsworth St. Midland, Mi 48640 989-837-3504 | \$231,960.00 | 02/20/2012 to 06/30/2012 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|--|--|------------------------|---|
| <p>Charter Township of Redford CIPP Lining of 10" (463') 12" (1,200') 15" (374') and 18" (376') diameter pipe</p> | <p><i>Owner:</i> Charter Township of Redford John Selmi 15145 Beech Daly Rd Redford, MI 48239 313-387-2670</p> | <p>\$113,680.00</p> | <p>02/01/2012 to 06/06/2012</p> |
| <p>North Huron Valley/Rouge Valley – Short Term Corrective Action Plan Rehabilitation of 1,013 manholes, sewer lining of 10,113 linear feet of sanitary interceptors, 17 spot repairs and 167 joint repairs of the interceptors, cleaning of six siphons (1,616 linear feet, ranging in size from 8" to 42" in diameter). CIPP lining of 48" (643') 60" (2834') 66" (806') and 78" (2,582' Over the Hole Wet Out) and slip lining of 72" (1,695') and 90" (582') diameter interceptor</p> | <p><i>Owner:</i> Charter County of Wayne, Michigan <i>Engineer:</i> Hubbell, Roth & Clark, Inc. William Davis, P.E. 200 Bagley, Suite 420 Detroit, MI 48226 313-965-3330</p> | <p>\$17,167,477.89</p> | <p>02/10/2010 to 06/01/2012</p> |
| <p>Tri-State Pipeline – St. Mary's, WV – Phase II Replacement Project Subcontracted CIPP lining of 6" (600'), 8" (3,300'), 10" (1,700'), and 18" (2,000') diameter pipe. Lateral replacement and top hats</p> | <p><i>Owner:</i> City of St. Marys 418 2nd Street St. Marys, WV 26170 <i>Prime Contractor:</i> Tri State Pipeline Eric Taylor 304-733-6801</p> | <p>\$510,100.00</p> | <p>04/01/2012 to 05/01/2012</p> |
| <p>Board of Lake County Comm-Cedar Glen CIPP lining of 6,460 linear feet of 8" and 440 linear feet of 10" diameter pipe</p> | <p><i>Owner:</i> Lake County Board of Commissioners Denis Yurkovich 105 Main Street, 4th floor Painesville, OH 44077 440-350-2652</p> | <p>\$229,420.00</p> | <p>10/17/2011 to 02/15/2012</p> |
| <p>Gleason Construction – Tiffin, OH Rock Creek Interceptor CIPP lining of 2,700 linear feet of 12" diameter pipe</p> | <p><i>Owner:</i> City of Tiffin Debra Reamer 51 East Market Street Tiffin, OH 44883 419-448-5402 <i>Engineer:</i> Jones & Henry 419-473-9611</p> | <p>\$98,325.00</p> | <p>02/01/2012 to 02/15/2012</p> |
| <p>Pigeon Creek Sanitary Authority CIPP lining of 12" (381') 15" (2,609') and 18" (8,518)</p> | <p><i>Owner:</i> Pigeon Creek Sanitary Sewer Authority 508 Main Street Bentleyville, PA 15314 <i>Engineer:</i> Chester Engineers Carl DeiCas, P.E. 724-483-8041</p> | <p>\$968,321.00</p> | <p>08/15/2011 to 02/11/2012</p> |
| <p>Rich Creek Virginia – Sanitary Sewer System Improvements</p> | <p><i>Owner:</i> Rich Creek, Virginia 140 North & Spruce Road</p> | <p>\$299,793.00</p> | <p>09/26/2011 to 01/29/2012</p> |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|--|--|----------------|--|
| CIPP lining and pipe bursting of 8", 10", and 12" diameter pipe. | Rich Creek, VA 24147 <i>Engineer:</i> Olver, Inc. J.S. Brown P.E. 540-552-5548 | | |
| City of Toledo – Woodsdale Area Sewer Lining CIPP lining of 8" (11,700'), 10" (4,500'), 12" (2,000') 15" (2,150') and 18" (1,650') diameter pipe | <i>Owner / Engineer:</i> City of Toledo Mike Elling 600 Jefferson Ave., Suite 300 Toledo, OH 43604 419-936-2275 | \$834,270.00 | 12/2010 to 01/25/2012 |
| Williamsport Sanitary Authority CIPP lining of 8" (450') and 10" (700'). Manhole lining of 45 vertical feet | <i>Owner:</i> Williamsport Sanitary Authority 253 West Fourth Street Williamsport, PA 17701 <i>Engineer:</i> Larson Design Group Matt Peleskak, P.E. 570-323-6603 | \$148,435.00 | 09/21/2011 to 01/18/2012 |
| City of Battle Creek – Interceptor Sewer Lining Project CIPP lining of 4,296 linear feet of 54" diameter pipe and 420 linear feet of 42" siphon. | <i>Owner:</i> City of Battle Creek 150 S. Kendall St Street Battle Creek, MI 49037 <i>Engineer:</i> Jones & Henry Engineers, Ltd Steven L. Wordelman, P.E. 419-473-9611 | \$1,675,660.00 | 09/12/2011 to 12/30/2011 |
| Castanea Township, PA CIPP lining of 6,080 linear feet of 8" diameter pipe | <i>Owner:</i> Castanea Township Supervisors Paul Conklin 347 Nittany Road Castanea, PA 17745 570-748-2415 <i>Engineer:</i> McTish, Kunkel, & Associates Steve Gibson, P.E. 570-368-3040 | \$458,170.00 | 07/21/2011 to 11/21/2011 |
| Easterly Interceptor Service Agreement Contract (EISAC) – Contract 1000250 Manhole & Sewer Rehabilitation of 8'-0" to 12'-6" Combined Sewer | <i>Owner/Engineer:</i> Northeast Ohio Regional Sewer District Mr. Marc Kritzer, P.E. 3900 Euclid Avenue Cleveland, OH 44115 216-214-7017 | \$4,347,299.55 | 11/18/2010 Completion 11/17/2011 |
| West Mifflin Sewer Rehabilitation CIPP lining of 20,240 linear feet of 8" diameter pipe and over 30,000 linear feet of internal televised inspection | <i>Owner:</i> West Mifflin Sanitary Sewer Municipal Authority 1302 Lower Bull Run Road West Mifflin, PA 15122 412-466-6070 <i>Engineer:</i> Chester Engineers | \$775,621.00 | 05/07/2011 to 11/05/2011 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|--|---|----------------|--------------------------------|
| | John Balewski, P.E. 412-809-6624 | | |
| City of New Kensington CIPP lining of 18" (622') 20" (622') 24" (1,233') and 30" (371') diameter pipe | <i>Owner:</i> Municipal Sanitary Authority of the City of New Kensington Dan Rowe 120 Logans Ferry Road New Kensington, PA 15068 724-335-9813 <i>Engineer:</i> Hatch Mott MacDonald Harry Cox, P.E. 412-497-2900 | \$372,654.00 | 05/04/2011 to 10/31/2011 |
| Ford Proving Grounds CIPP lining of 30" (400 linear feet) and 48" (91 linear feet) and EcoCast lining of 290 linear feet of 60" diameter pipe | <i>Owner:</i> Ford Proving Grounds 74240 Fisher Road Romeo, MI 48065 <i>Engineer:</i> Roncelli, Inc Ken West 586-752-3495 | \$226,381.50 | 09/26/2011 to 10/14/2011 |
| Tri State Grouting – Bellevue PA CIPP lining of 2,000 linear feet of 8" diameter pipe | <i>Owner:</i> Borough of Bellevue Mark Schneider 537 Bayne Avenue Bellevue, PA 15202 302-286-0701 | \$61,000.00 | 09/06/2011 to 09/30/2011 |
| MJO Contracting – 2009 Hancock Sanitary Sewer CIPP lining of 8" (27,275 linear feet), 10" (1,360 linear feet), 12" (2,830 linear feet), 15" (1,195 linear feet), and 18" (275 linear feet) diameter pipe | <i>Owner:</i> City of Hancock 399 Quincy Street Hancock, MI 49930 <i>Engineer:</i> OHM Lou Meyette, P.E. 906-482-0535 | \$1,128,175.00 | 06/20/2011 to 09/30/2011 |
| City of Port Clinton, OH CIPP lining and point repairs of 8" (7,170'), 10" (2,780'), 15" (2,020), and 24" (990') diameter pipe | <i>Owner:</i> City of Port Clinton 1868 East Perry Street Port Clinton, OH 43452 419-734-5522 <i>Engineer:</i> Arcadis U.S., Inc Ken Arnold 419-473-1121 | \$634,825.00 | 12/21/2010 to 08/14/2011 |
| Upper Macungie Township Authority CIPP lining of 8" (4,860') and 10" (3,696') diameter pipe | <i>Owner:</i> Upper Macungie Township Authority 8330 Schantz Road Breiningsville, PA 18031 <i>Engineer:</i> Keystone Consulting Engineers | \$277,529.00 | 06/06/2011 to 07/21/2011 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|--|---|-----------------|--------------------------------|
| | Joseph Santilli 610-395-0971 | | |
| Village of Canal Winchester, OH CIPP lining of 11,500' of 8" 1,125' of 15" and 211' of 30" diameter pipe including grouting 310 laterals | <i>Owner:</i> Village of Canal Winchester Bill Sims 36 South High Street Canal Winchester, OH 43110 614-834-5109 <i>Engineer:</i> Evans, Mechwart, Hambleton, & Tilton, Inc Marci Bland 614-775-4237 | \$619,690.00 | 02/28/2011 to 06/19/2011 |
| City of Grand Rapids – CIPP 2010 CIPP lining of 8" (6,047'), 9" (1,563'), 10" (2,492'), 12" (500'), 15" (350'), 18" (800'), 24" (500'), 27" (500') and 26"X36" (650') diameter pipe | <i>Owner:</i> City of Grand Rapids John Brom 300 Monroe Ave. N.W. Grand Rapids, MI 49503 616-456-3076 | \$581,275.00 | 12/01/2010 to 06/01/2011 |
| Clearfield Municipal Authority CIPP lining of 15" (1,962'), 18" (2,939'), and 24" (457') diameter sewer | <i>Owner:</i> Clearfield Municipal Authority 107 East Market Street Clearfield, PA 16830 814-943-5214 <i>Engineer:</i> Gwin Dobson Jim Potopa 814-943-5214 | \$307,321.00 | 12/28/2010 to 05/28/2011 |
| Wagner Ford Road Sanitary Sewer Liner CIPP lining of 5,936 linear feet of 42" diameter pipe | <i>Owner:</i> City of Dayton Chris Holmes 320 West Monument Ave Dayton, OH 45402 937-333-3736 | \$1,403,266.00 | 01/03/2011 to 05/18/2012 |
| DWSD CS-1372; Task 45 – 15 Mile Road Macomb Sewer System Supplemental Repairs Connection Repair, Area 2 and Area 1 Xypex, Area 1 Sewercoat and Slipling with either HOBAS or ADS Pipe | <i>Owner/ Engineer:</i> NTH Consultants, Ltd. Joseph Alberts, P.E. 2000 Brush St # 480 Detroit, MI 48226-2251 313-304-3616 | \$13,284,916.00 | 05/2011 |
| City of Salem CIPP lining of 8" (25,500'), 10" (330'), 12" (400'), and 18" (300') diameter pipe | <i>Owner:</i> City of Salem Virginia Caleb Taylor 114 North Broad Street Salem, Virginia 24153 540-375-3029 <i>Engineer:</i> Olver Inc J.S. Brown, P.E. 540-552-5548 | \$1,229,510.00 | 10/04/2010 to 04/25/2011 |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|---|--|-----------------------|---|
| <p>Oxbow Sanitary Sewer Rehabilitation CIPP lining and joint repairs of 8" (6,580') and 10" (1,365') diameter pipe</p> | <p><i>Owner:</i> Washington County Commissioners 223 Putnam Street Marietta, OH 45750 740-373-6623 <i>Engineer:</i> Stantec Consulting John Grosse 614-486-4383</p> | <p>\$445,605.00</p> | <p>07/26/2010 to 11/01/2010</p> |
| <p>Carroll Township Authority CIPP lining of 8" (5,008'), 10" (5,538), and 12" (2,329') diameter pipe</p> | <p><i>Owner:</i> Carroll Township Authority Ray Colosimo P.O. Box 661 Donora, PA 15033 724-489-4493 <i>Engineer:</i> Gannett Fleming Dave MacIntyre 412-922-5575</p> | <p>\$800,917.00</p> | <p>07/26/2010 to 10/31/2010</p> |
| <p>State Pipe Services, Inc CIPP lining of 8" (11,829') 10" (1,426') 12" (2,291') 15" (3,122') 16" (236') 18" (604') 21" (100') 24" (651') and 36" (466')</p> | <p><i>Owner:</i> Munhall Sanitary Sewer Municipal Authority 1900 West Street Munhall, PA 15120 <i>Engineer:</i> Chester Engineers Fred Abraham 412-809-6600</p> | <p>\$1,125,000</p> | <p>07/05/2012 to 10/30/2010</p> |
| <p>City of Ann Arbor CIPP lining of 5,708 linear feet of 12" diameter pipe</p> | <p><i>Owner:</i> City of Ann Arbor Nick Hutchinson 100 N. Fifth Ave. Ann Arbor, MI 48104 734-794-6000 Ext. 43633</p> | <p>\$369,892.55</p> | <p>07/26/2010 to 10/08/2010</p> |
| <p>City of Cambridge – Sanitary Sewer Improvements Manhole repair and CIPP lining of 10" (521'), 12" (227'), 15" (6,025'), 18" (359'), 24" (1,442) diameter pipe</p> | <p><i>Owner:</i> City of Cambridge 1131 Steubenville Ave. Cambridge, OH 43725 <i>Engineer:</i> Burgess & Niple, Inc. John Swartzbaugh 614-451-1385</p> | <p>\$730,612.50</p> | <p>04/27/2010 to 09/01/2010</p> |
| <p>Morehead Kentucky Utility Plant CIPP Lining</p> | <p><i>Owner:</i> Morehead Utility Plant Board 135 South Wilson Ave Morehead, KY 40351 <i>Engineer:</i> NC2, LLC. Philips Keyes 606-831-2288</p> | <p>\$1,142,150.00</p> | <p>02/10/2010 to 08/01/2010</p> |



PROJECT REFERENCES

CURED-IN-PLACE PIPE (CIPP) LINING

| | | | |
|--|---|-----------------------|---|
| <p>Charter Township of Redford CIPP lining of 12" (2132') and 15" (783') diameter pipe</p> | <p><i>Owner:</i> Charter Township of Redford John Selmi 15145 Beech Daly Rd. Redford, MI 48239 313-387-2640</p> | <p>\$125,568.00</p> | <p>07/05/2010 to 07/21/2010</p> |
| <p>Contract #1 – Pump Station and Outfall Sewer Modification Approximately 8,000 LF of 24" CIPP fiber reinforced lining, transforming existing gravity outfall sewer into a force main outfall sewer.</p> | <p><i>Owner:</i> City of Center Line, MI c/o Anderson, Eckstein, and Westrick Paul Guinnane 51301 Schoenherr Road Shelby Township, MI 48315-2733 586-726-1234</p> | <p>\$3,578,505.95</p> | <p>04/15/2009 to 05/15/2010</p> |
| <p>DWSD Contract DWS – CS 1368 City of Detroit Sewer Repairs Contract 300,000 LF Cleaning, TV, CIPP Lining (15 Mile Sinkhole)</p> | <p><i>Owner / Engineer:</i> Detroit Water & Sewerage Dept. Bharat Doshi, P.E. 6425 Huber St. Detroit, MI 48211 313-224-4735</p> | <p>\$138,000,000</p> | <p>7/2006</p> |

**DETAILED SPECIFICATION
FOR
CONTRACTOR QUALIFICATIONS**

7 of 8

3. Onsite Superintendent/Foreman

(Must be completed and submitted with Bid for consideration)

List name of onsite superintendent/foreman and list a minimum of 3 projects of similar complexity totaling 10,000 lineal feet of CIPP lining in sanitary sewers greater than 24 inches in diameter that they have supervised in the past 7 years and provide references.

Superintendent/Foreman Name: Clint Adkins

3.1. Client's Name: Detroit Metropolitan Wayne Airport / Dan's Excavating, Inc.

Address: 12955 23 Mile Road, Shelby Township, MI 48315

Contact Name: Justin Peyerk Contact Phone: 810-343-5462

Type of Work: CIPP lining of approximately 2,000 linear feet of 54" diameter pipe, 1,400 linear feet of 66" diameter pipe, 1,300 linear feet of 72" diameter pipe, 1,300 linear feet of 84" diameter pipe for sanitary sewers - 3R/21L Runway Reconstruction

Year Work Performed: Ongoing Work Amount (\$): 3,443,122.00

3.2. Client's Name: Beck Branch Job \$608630, 2 Phases

Address: Plano, TX

Contact Name: Seth Cooksey, PE Contact Phone: 214-522-8778

Type of Work: This project consisted of 10,000 linear feet of 54" diameter CIPP lining

Year Work Performed: 2017-2018 Work Amount (\$): 6,500,000.00

3.3. Client's Name: Village Creek

Address: Fort Worth, TX

Contact Name: Robert Saucedo Contact Phone: 917-721-4670

Type of Work: This project consisted of CIPP lining of 6,028 linear feet of 39" diameter pipe

**DETAILED SPECIFICATION
FOR
CONTRACTOR QUALIFICATIONS**

8 of 8

Year Work Performed: 2017-2018 Work Amount (\$): 1,900,000.00

3.4. Client's Name: Eastside Intercepto

Address: Washington, DC

Contact Name: Wisal Khan Contact Phone: 202-787-7575

Type of Work: This project consisted of approximately 2,500 linear feet of CIPP lining of 51" diameter pipe.

Year Work Performed: 2018 Work Amount (\$): 3,700.00

**DETAILED SPECIFICATION
FOR
PROJECT SCHEDULE**

1 of 2

DESCRIPTION

Examination of Plans, Specifications, and Work Site: Bidders shall carefully examine the Bid Form, plans, specifications and the work site until the Bidder is satisfied as to all local conditions affecting the contract and the detailed requirements of construction. The submission of the bid shall be considered prima facie evidence that the Bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and all requirements of the contract.

The entire work under this Contract shall be completed in accordance with, and subject to, the scheduling requirements as outlined below, and all other requirements of the Contract Documents.

1. The Contractor shall begin the work of this project on or before **March 1, 2021**, and only upon receipt of the fully executed Contract and Notice to Proceed. Appropriate time extensions shall be granted if the Notice to Proceed is delayed beyond this date.
2. The entirety of work under this Contract, including but not limited to sanitary sewer inspection, cleaning, televising, and rehabilitation (cured-in-place pipe [CIPP] lining); manhole rehabilitation; the removal of any and all traffic control devices; and the installation/maintenance of the needed temporary soil erosion and sedimentation control devices, shall be completed by the Final Completion date of **May 31, 2021**.

The Contractor is expected to be furnished with two (2) copies of the Contract, for his/her execution, on or before **January 15, 2021**. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance Certificate, to the City within ten (10) days. The Contractor shall not begin the work before the applicable date(s) as describes herein without approval from the Project Engineer, and in no case before the receipt of the fully executed Contract. City Council approval is expected on **February 15, 2021**.

Time is of the essence in the performance of the work of this contract. The Contractor is expected to mobilize sufficient personnel and equipment and work throughout all authorized hours to complete the project within the specified time/date of this Contract. Should the Contractor demonstrate that work must occur on Sundays in order to maintain the project schedule, they may do so between the hours of 9:00 a.m. and 5:00 p.m. with prior approval from the City. The Contractor will submit authorization requests for any Sunday work a minimum of three working days in advance of the day of the proposed work. There will be no additional compensation due to the Contractor for work performed on Sundays.

Prior to the start of any construction, the Contractor shall submit a detailed progress schedule of work for the Engineer's review and approval. Work shall not start until a schedule is approved in writing by the Engineer. The Contractor shall update the approved work schedule upon request by the Engineer and present it to the Engineer within seven days of said request.

The City's decision to delete locations, add locations, change the limits of construction limits at any locations, or, the City's contribution to a delay of the construction at any one location shall not entitle the Contractor to receive additional compensation for work on any other location(s), nor shall it relieve the Contractor of any responsibilities for completion of work on any other location(s).

**DETAILED SPECIFICATION
FOR
PROJECT SCHEDULE**

2 of 2

The Engineer may delay or stop the work due to threatening weather conditions. The Contractor shall not be compensated for unused materials or downtime due to rain, or the threat of rain. The Contractor is solely responsible for repairing all damages to the work and to the site, including road infrastructures, road subgrades, and any adjacent properties, which are caused as a result of working in the rain.

The Contractor shall not work in the dark except as approved by the Engineer and only when lighting for night work is provided as detailed elsewhere in this contract. The Engineer may stop the work, or may require the Contractor to defer certain work to another day, if, in the Engineer's opinion, the work cannot be completed within the remaining daylight hours, or if inadequate daylight is present to either properly perform or inspect the work. The Contractor will not be compensated for unused materials or downtime, when delays or work stoppages are directed by the Engineer for darkness and/or inadequate remaining daylight reasons. The Contractor is solely responsible for repairing all damages to the work and to the site, including road infrastructures, road subgrades, and any adjacent properties, which are caused as a result of working in the dark.

No work shall be performed or lane closures permitted during the holiday periods, as defined by the Engineer.

Failure to complete all work as specified herein within the times specified herein, including time extensions granted thereto as determined by the Engineer, shall entitle the City to deduct from the payments due the Contractor, **\$500.00** in Liquidated Damages, and not as a penalty, for delays in the completion of the work for each and every calendar day beyond any "Complete Work" date for each location, and beyond the overall project completion date as required by this Detailed Specification.

Liquidated Damages will be assessed until the required work is completed in the current construction season. If, with the Engineer's approval, work is extended beyond seasonal limitations, the assessment of Liquidated Damages will be discontinued until the work is resumed in the following construction season.

If the work required by this construction contract is not completed by the specified date(s) including any extensions of time granted thereto, at the sole discretion of the City of Ann Arbor, this Contract may be terminated with no additional compensation due to the Contractor, and the Contractor may be forbidden to bid on future City of Ann Arbor projects for a period of at least three (3) years. If the Engineer elects to terminate the Contract, contract items paid for on a Lump Sum basis shall be paid up to a maximum percentage equal to the percentage of the contract work that has been completed.

**DETAILED SPECIFICATION
FOR
COORDINATION AND COOPERATION WITH OTHERS
AND
WORK BY OTHERS**

1 of 1

The Contractor is reminded as to the requirements of article 104.07 of the 2012 edition of the MDOT Standard Specifications, "Cooperation by the Contractor."

The Contractor shall directly coordinate his/her work with individual City Departments/Divisions/Units.

No additional compensation will be paid to the Contractor, and no adjustments to contract unit prices will be made, due to delays and/or the failure of others in the performance of their work, nor for delays due to the encountering of existing utilities that are, or are not, shown on the Plans.

The following Utility Owners, and others not listed specifically, may have overhead and/or underground facilities located within the Right-of-Way/Public Easements:

The City of Ann Arbor
University of Michigan (UM)
Michigan Department of Transportation (MDOT)
AT&T
Comcast
DTE Energy - Detroit Edison Company (Edison)
DTE Energy - Michigan Consolidated Gas Company (Michcon)
Fiber Link Inc.
Light Core (Century Tel)
MCI Communications
Windstream Communications

On all projects:

"3 Working Days before you Dig - Call MISS DIG - Toll Free" Phone No. 1-800-482-7171.

The Owners of public or private utilities which will not interfere with the completed project and which do not present a hazard to the public or an extraordinary hazard to the Contractor's operations will not be required to move their facilities on or from the street right-of-way.

During the life of this contract, other public authorities and utility companies may be performing work within or adjacent to the project limits, including, but not limited to; construction of adjacent projects, underground utility work, permanent signing and traffic signals work, traffic control improvements, street maintenance and snow removal, etc. The Contractor shall cooperate and coordinate construction activities with these agencies in accordance with Article 104.08 of the 2012 edition of the MDOT Standard Specifications for Construction.

Stoppages created solely by the operations of the utility companies which delay utility revisions on any portion of this project may be considered as a basis of claim for an extension of time for project completion.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION
FOR
MAINTENANCE OF TRAFFIC**

1 of 2

DESCRIPTION

Traffic shall be maintained in accordance with the City of Ann Arbor Public Services Department Standard Specifications and as specified in Sections 104.11, 812, and 922 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, the 2011 Michigan Manual of Uniform Traffic Control Devices (MMUTCD), and as described herein.

The Contractor shall furnish, erect, maintain and, upon completion of the work, remove all traffic control devices and barricade lights as required on the project for the safety and protection of local traffic. This includes, but is not limited to, temporary advance, regulatory, and warning signs; barricades and channelizing devices at intersections and on streets where traffic is to be maintained; barricades at the ends of the project and at right-of-way lines of intersecting streets, and traffic control devices for moving construction operations.

MATERIALS

The materials and equipment shall meet the requirements specified in the corresponding sections of the MDOT 2012 Standard Specifications for Construction and the 2011 MMUTCD.

Maintenance of Local Traffic

Unless otherwise indicated on the plans, all side roads shall not be closed to through traffic except during construction operations of short duration and only upon written approval of the Engineer.

Local access shall be maintained at all times for emergency vehicles, refuse pick-up, mail delivery, school buses, and ingress/egress to public and private properties.

Contractor must accommodate the safe access to the residential buildings and businesses located within construction area.

Driveways shall not be blocked for extended periods of time unless arrangements can be made with the affected property owner(s). When it becomes necessary to temporarily block driveways, the Contractor shall notify the affected property owners in advance to coordinate the work and allow sufficient time for vehicles to vacate from properties. It may be necessary to allow for vehicles to temporarily park in the roadway at locations that do not interfere with the Contractor's work. During these periods the owners of the respective vehicles must be available to, with proper notice, move their vehicles if it becomes necessary to accommodate the work.

At times, when it becomes necessary to temporarily obstruct local traffic during the performance of the work, the Contractor shall provide traffic regulator control in conformance with Chapter 6E of the MMUTCD, Sections 6E.01 thru 6E.08. A minimum of two traffic regulators are required. The cost of traffic regulator control shall be included in the contract pay item "Minor Traffic Control, Modified, Maximum \$50,000".

A lane-closure permit shall be obtained by the Contractor from the City of Ann Arbor Engineering Department, Ann Arbor Township or WCRC at least 48 hours in advance of any proposed lane or street closing.

**DETAILED SPECIFICATION
FOR
MAINTENANCE OF TRAFFIC**

2 of 2

No lane closures shall be permitted during the holiday periods, as defined by the Engineer.

The hours of work on all Local streets are 7:00 a.m. to 8:00 p.m., Monday through Saturday, or as specified on the lane-closure permit. No equipment will be allowed in the street before or after these hours. Local streets may only be closed to through traffic (local access only) with written authorization of the Engineer. Work must be completed each day such that all streets are re-opened to through traffic by 8:00 p.m. unless otherwise specified, directed, or authorized in writing by the Engineer. All major changes in traffic control shall be made either between 9:30 a.m. and 3:30 p.m. or between 7:00 p.m. and 6:30 a.m. in order to minimize interference with rush-hour traffic. All traffic controls must be in-place and ready for traffic each day by 6:30 a.m. and 3:30 p.m.

The Contractor shall temporarily cover conflicting traffic and/or parking signs when directed by the Engineer.

The Contractor shall use quantities of dust palliative, maintenance aggregate, and cold patching/HMA mixtures for use as temporary base, surfacing, and dust control at utility crossings, side roads and driveways (wherever required to maintain traffic), and where directed by the Engineer to maintain local access. The cost for the use of dust palliative, maintenance aggregate, cold patch and/or hot mix asphalt 36A mixture, as required and directed by the Engineer for maintenance of traffic and local access, shall be included in contract pay item "General Conditions," and it will not be paid for separately.

The work of maintaining and relocating existing warning, regulatory and/or guide signs; and of removing, salvaging and reinstalling existing signs and supports is included in the bid price for the contract pay item "Minor Traffic Control, Modified, Maximum \$ 50,000".

Mailboxes and newspaper boxes that are in the way of the construction shall be removed and reset immediately in a temporary location approved by the Engineer. Mail and paper delivery shall not be interrupted during the construction. Upon completion of the construction, all mailboxes and newspaper boxes, including their supports, shall be repositioned in their permanent locations as approved by the Engineer. This work shall be included the contract unit price for the contract pay item "General Conditions," and it will not be paid for separately.

The Contractor shall perform the work of this Contract while maintaining traffic in accordance with the Contract Documents as specified herein. No traffic shall be allowed on newly placed asphalt surfaces until rolling has been satisfactorily completed and the surface has cooled sufficiently to prevent damage from traffic. This is to be accomplished by flag persons and by relocating traffic control devices to prevent traffic from entering the work area until such time that it can be safely maintained without damaging the new construction. The Contractor shall provide traffic regulators in sufficient number to maintain traffic as described herein, and to keep traffic off sections being surfaced, and provide for safe travel at all times as directed by the Engineer.

The Contractor shall furnish, erect, maintain, and upon completion of the work, remove any and all traffic control devices utilized on the project.

Each pressure distributor, paver and roller shall be equipped with at least one approved flasher light which shall be mounted on the equipment so as to give a warning signal ahead and behind.

**DETAILED SPECIFICATION
FOR
CONSTRUCTION SEQUENCING**

1 of 1

The Contractor must submit a detailed progress schedule at the Pre-construction meeting which is to be approved by the Engineer. Unless an alternative sequence is requested by the Contractor and approved in writing by the Engineer, the work shall be performed in the order as shown on the schedule. This outline does not detail the full range of materials and processes needed to complete the work under this Contract. At each location the Contractor shall:

1. Install the required temporary traffic control devices in accordance with the construction plans, as detailed in the specifications, and as directed by the Engineer.
2. Install the soil erosion control measures in accordance with the plans and as directed by the Engineer.
3. Obtain approval for, set up, and activate by-pass pumping.
4. Clean & videotape sewer to be lined.
5. Construct the proposed sewer lining. The new sewer shall be tested in accordance with the plans and specifications.
6. After all the new sewer has passed the required testing, the contractor shall open all service leads. Service leads shall not be out of service for more than 12 hours.
7. Deactivate and breakdown by-pass pumping equipment.
8. Perform final cleanup and restoration in accordance with the Contract documents.
9. Remove temporary soil erosion and sedimentation control measures.
10. Remove all temporary traffic control devices.

Reference the plans for additional construction sequencing requirements.

**DETAILED SPECIFICATION
FOR
HOURS OF WORK**

a. General Restrictions.- Hours of work shall be as stated in the Ann Arbor City Code Title IX, Chapter 119, Page 9.363, Monday through Saturday, between the hours of 7:00 a.m. and 8:00 p.m.

b. Exceptions.- During installation of the cured-in-place pipe (CIPP) lining, the Contractor may choose, in some cases, to perform nighttime work to facilitate construction during the inversion and curing processes. Additional requirements regarding this work are contained in Detailed Specification “CIPP Sewer Lining” and elsewhere in the Contract Documents. The Contractor shall include this work in their progress schedule, notify, and submit a request to the Engineer for permission to perform the nighttime CIPP work a minimum of 5 working days prior to beginning the work.

Maintenance of the sewer flow control may also require working outside the allowable hours of work (“off-hour” work). The Contractor shall provide anticipated off-hour work as part of their Sewer Flow Control Plan submittal(s) as contained in the Detailed Specification for “Sewer Flow Control.”

Additional work restrictions are contained in the Detailed Specifications for “Project Schedule,” “Maintenance of Traffic,” “Working Space,” “Construction Sequencing,” and elsewhere in the Contract Documents. These work restrictions shall take precedence over the General Restrictions and Exceptions listed above.

The Contractor shall only perform work at night or on Sundays as required by the Contract Documents, unless there is a special need and the work is approved by the Engineer. All requests to work during off-hours shall be included in the Contractor’s progress schedule and submitted to the Engineer for approval a minimum of 5 working days prior to beginning the work.

c. Noise Control. - All noise generated by construction activities shall not exceed 71 decibels (dBA) beyond the property line of the property on which the work is being conducted between 7:00 a.m. and 8:00 p.m., Monday through Saturday. The Contractor shall provide screening, noise absorption, and level II sound attenuation as required on equipment to meet the noise limitations set herein. Any “off-hour” work will require a temporary exemption from the City of Ann Arbor City Administrator. A temporary exemption may be granted in accordance with each respective entities’ code of ordinance.

d. Method of Payment.- The costs of night work, whether required by the Contract Documents or requested by the Contractor, shall not be paid for separately, but shall be considered included in the cost of the affected contract pay items.

**DETAILED SPECIFICATION
FOR
WORKING IN THE RAIN**

Portions of the work to be performed under this contract are weather sensitive. Contractor shall be responsible for coordinating and scheduling their work in anticipation of the weather.

Sewer flow control must cease during wet weather conditions. Wet weather conditions are as defined in Detailed Specification "Sewer Flow Control."

In the event of a wet weather event, Contractor shall remove plugs installed for sanitary flow diversion. Plugs shall be reinstalled upon cessation of the wet weather event and as approved by the Engineer.

The Contractor shall not be compensated for the time and/or effort spent removing the temporary flow diversion plugs and the lateral bypass pumping system or for unused materials or downtime caused as a result of a wet weather event. The Contractor is solely responsible for repairing all damage to the work and to the site, including road infrastructure, road subgrades, underground utilities, any adjacent properties, and the like, which are damaged as a result of working in the rain or working in areas that are wet from recent precipitation.

The only exception to the above is as indicated in Detailed Specification "Extension of Time, Additional Compensation."

The costs of complying with this requirement shall not be paid for separately but shall be considered included in the cost of the affected contract pay items.

**DETAILED SPECIFICATION
FOR
EXTENSION OF TIME, ADDITIONAL COMPENSATION**

The Contractor shall notify the Engineer of their intent to submit a claim for additional compensation or an extension of time in accordance with the requirements of Section 104.10 of the 2012 edition of the Michigan Department of Transportation (MDOT) Standard Specifications for Construction. Failure to do so may be a basis for not approving the request for additional compensation or extension of time. The notification will allow the Engineer an opportunity to influence, keep records, and monitor the work.

Extensions of time will not be authorized due to delays caused by, or stemming from, the weather for the period between November 14th and April 16th unless any of the following conditions are present:

1. Air temperature (as measured from a thermometer provided, maintained, and installed by the Contractor in a location on the worksite, as mutually agreed upon between the Contractor and the Engineer) is below 15°F for a period of time longer than 48 consecutive hours.
2. Accumulations of snow in excess of 12 inches occur in any 24 hour period.
3. Freezing rain in excess of 1/4-inch occur in any 24 hour period.
4. Wet weather event, as defined in Detailed Specification “Sewer Flow Control” requiring the temporary removal of flow diversion plugs and lateral bypass pumping system.

Should the above mentioned weather conditions occur, and the Contractor requests an extension of contract time, the time extension shall only be for the realized delay to the controlling work operation.

The above weather delays shall not be considered as a basis for additional compensation on this project. The only exception shall be that if the temporary removal of the flow diversion plugs and lateral bypass pumping system occurred after the sewers had been cleaned, televised, prepped for lining, and approved by the Engineer for lining before the sewers were lined. In such an event, the Contractor may request compensation for the re-cleaning and re-televising of the affected pipes only. The re-cleaning must first be approved by the Engineer prior to the work beginning. No compensation shall be provided for the removal and re-installation of the plugs.

In addition, if delays resulting from air temperature, snow accumulation, and/or freezing rain occur and the Contractor has their bypass pumping system in place and operational, the Contractor shall still be responsible to continuously protect and maintain in operation the complete sewer flow control system. Expenses related to maintaining the bypass pumping system shall not be considered to be additional costs or extra expenses during an authorized extension of time due to these weather-related time extensions.

The Contractor shall anticipate underground utility complications arising from the proposed utility work, unknown and/or fragile utilities, and utilities requiring investigation and or relocation. These utilities may be shown on the Drawings, correctly or incorrectly, or not at all, and may delay a controlling operation.

Additional compensation is defined as additional work, extra work, upward unit price adjustments, payments for down time, and the like.

**DETAILED SPECIFICATION
FOR
ITEM #200 – GENERAL CONDITIONS, MODIFIED, MAXIMUM \$100,000**

1 of 2

DESCRIPTION

This item shall include all work described and required by the Plans and Specifications for which no item of work is listed in the Bid Form, including but not limited to:

- Scheduling and organization of all work, subcontractors, suppliers, testing, inspection, surveying, and staking
- Coordination of, and cooperation with, other contractors, agencies, departments, and utilities
- Protection and maintenance of Utilities
- Placing, maintaining, and removing all soil erosion and sedimentation controls, including stone inlets filers (as shown on project plants)
- Maintaining drainage
- Maintaining driveways drive openings, sidewalks, bike paths, mail deliveries, and solid waste/recycle pick-ups. This includes the placement and maintenance of gravel in driveway openings as directed by the Engineer
- Storing all materials and equipment off lawn areas
- Temporary relocation and final replacement/re-setting of mailboxes
- Site clean-up
- Coordination efforts to furnish various HMA mixtures as directed by the Engineer
- Coordination efforts to furnish and operate various-size vehicles/equipment as directed by the Engineer
- Furnishing and operating vacuum-type street cleaning equipment a minimum of once per week or more frequently as directed by the Engineer
- Furnishing and operating vacuum-type utility structure cleaning equipment
- Furnishing and operating both vibratory plate and pneumatic-type (“pogo-stick”) compactors
- Furnishing and operating a backhoe during all work activities
- Furnishing and operating a jackhammer and air compressor during all work activities
- Noise and dust control
- Mobilization(s) and demobilization(s)
- Furnishing submittals and certifications for materials and supplies
- Disposing of excavated materials and debris - The Contractor shall dispose of, at the Contractor’s expense, all excavated material. Costs for this work will not be paid for separately.
- All miscellaneous and incidental items such as overhead, insurance, and permits.
- Meeting all requirements relating to Debarment Certification, Davis Bacon Act, and Disadvantaged Business Enterprise, and providing the necessary documentation.

Data pertaining to existing soil borings and pavement sections which are included in Appendix B, of these Contract Documents are provided to help the Engineer and Contractor determine the soil conditions existing within the construction area. The City in no way guarantees existing conditions to be the same as shown in the data. The Contractor is solely responsible for any and all conclusions he/she may draw from the data.

Quantities as given are approximate and are estimated for bidding purposes. Quantities are not guaranteed and may vary by any amount. While it is the City's intent to complete the project substantially as drawn and specified herein, quantities may be changed or reduced to zero for cost savings or other reasons. **The City reserves the right to change the quantities, and no adjustment in unit price will be made for any change in any quantity.**

**DETAILED SPECIFICATION
FOR
ITEM #200 – GENERAL CONDITIONS, MODIFIED, MAXIMUM \$100,000**

2 of 2

MEASUREMENT AND PAYMENT

This item of work will be paid for on a pro rata basis at the time of each progress payment. Measurement will be based on the ratio between work completed during the payment period and the total contract amount. When all of the work of this Contract has been completed, the measurement of this item shall be 1.0 Lump Sum, minus any deductions incurred for inadequate performance as described herein. This amount will not be increased for any reason, including extensions of time, extras, and/or additional work.

The completed work as measured for this item of work will be paid for at the Contract Unit Price for the following Contract (Pay) Item:

PAY ITEM

PAY UNIT

General Conditions, Modified, Maximum \$100,000

Lump Sum

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

**DETAILED SPECIFICATION
FOR
ITEM #201 - PROJECT SUPERVISION, MODIFIED, MAXIMUM \$35,000**

1 of 3

DESCRIPTION

The Contractor shall designate a full-time Project Supervisor to act as the Contractor's agent/representative, and to be responsible for scheduling and coordination of all subcontractors, suppliers, other governmental agencies, and all public and private utility companies.

The Project Supervisor shall not be an active crew member of the Contractor, shall not be an active member or employee of any subcontractor's work force, and shall not perform general or specialized labor tasks.

The Project Supervisor shall work exclusively on this project, and shall put forth his/her full effort into the organization and coordination of the work of this project.

Prior to the pre-construction meeting, the Contractor shall designate a proposed Project Supervisor by name, and shall furnish the City with a current, thorough, detailed summary of the proposed Project Supervisor's work history, outlining all previous supervisory experience on projects of a similar size and nature. The detailed work history shall include personal and professional references (names and phone numbers) of persons (previous owners or agents) who can attest to the qualifications and work history of the proposed Project Supervisor. Proposed candidates for Project Supervisor shall have a demonstrated ability to work harmoniously with the City, the public, subcontractors, and all other parties typically involved with work of this nature. The Supervising Professional will have the authority to reject a proposed Project Supervisor whom he/she considers unqualified.

The Project Supervisor shall be available 24 hours-per-day to provide proper supervision, coordination and scheduling of the project for the duration of the Contract. The Contractor shall furnish the City with telephone numbers of the Project Supervisor in order to provide 24 hour-per-day access during business and non-business hours, including weekends and holidays.

The Project Supervisor shall be equipped by the Contractor with a mobile telephone to provide the City with 24 hour-per-day access to him/her during daily construction activities, during transit to and from the construction site, and during all non-business hours including weekends and holidays.

The Project Supervisor shall be equipped with assistants as necessary to provide project supervision as specified herein, and in accordance with the Contract.

DUTIES AND RESPONSIBILITIES

The Project Supervisor work harmoniously with the City, the public, subcontractors, and all other parties typically involved with work of this nature.

The Project Supervisor shall have a thorough, detailed understanding and working knowledge of all construction practices and methods specified elsewhere herein, as well as the handling, placement, testing and inspection of aggregates, aggregate products, HMA concrete, and Portland cement concrete materials.

The Project Supervisor shall be responsible for all of the work of all of the Contractor's, subcontractors' and suppliers' work forces.

**DETAILED SPECIFICATION
FOR
ITEM #201 - PROJECT SUPERVISION, MODIFIED, MAXIMUM \$35,000**

2 of 3

The Project Supervisor shall be responsible for proper and adequate maintenance (emissions, safety, and general operation) of all of the Contractor's, subcontractors' and suppliers' equipment and vehicles.

The Project Supervisor shall be responsible for the legal, proper and safe parking/storage of all of the Contractor's, subcontractors' and suppliers' equipment, work vehicles, and employee's vehicles.

The Project Supervisor shall schedule and coordinate the work of all parties involved in the project, including utility companies, testing agencies, governmental agencies, all City departments (such as Utilities and Transportation), and City inspectors.

The Project Supervisor shall coordinate and schedule the work of any independent survey crews that may be retained by the City to witness and reset existing and new geographic/benchmark monuments. Failure to have existing monuments witnessed and reset may result in delays to the Contractor's work. Costs for such delays will be the Contractor's sole responsibility.

The Project Supervisor shall coordinate and schedule both testing inspectors and City inspectors in a timely manner, to assure proper and timely testing and inspection of the work.

The Project Supervisor shall review the Inspector's Daily Reports (IDRs) for accuracy and shall sign all IDRs on a daily basis as the representative of the Contractor. Items to be reviewed include descriptions, locations and measurements of quantities of work performed, workforce, equipment, and weather. The Project Supervisor shall also be responsible for its subcontractors' review and initialing of IDRs containing work items performed by each respective subcontractors.

The Project Supervisor shall submit to the Engineer, an updated, detailed schedule of the proposed work on a weekly basis, and an update of all proposed changes on a daily basis, all in accordance with the Detailed Specification for Project Schedule contained elsewhere herein.

The Project Supervisor shall schedule and chair a weekly progress meeting with the Engineer and all subcontractors to discuss the work. Upon the completion of each meeting, the Project Supervisor shall prepare and distribute, to all present, a written summary of the meeting's minutes. Those in attendance shall review the minutes and, if necessary, comment on any deficiencies or errors prior to or at the next scheduled progress meeting.

ADDITIONAL PERFORMANCE REQUIREMENTS

If, in the sole opinion of the Supervising Professional, the Project Supervisor is not adequately performing the duties as outlined in this Detailed Specification, the following system of notices will be given to the contractor with the associated penalties:

First Notice – A warning will be issued in writing to the contractor detailing the deficiencies in the Project Supervision. The contractor must respond within 7 calendar days in writing with a plan to correct the stated deficiencies. Failure to respond within 7 calendar days will result in the issuing of a second notice.

**DETAILED SPECIFICATION
FOR
ITEM #201 - PROJECT SUPERVISION, MODIFIED, MAXIMUM \$35,000**

3 of 3

Second Notice – A second warning will be issued in writing to the contractor further detailing the deficiencies in the Project Supervision. The contractor must respond within 7 calendar days in writing with a plan to correct the stated deficiencies. Failure to respond within 7 calendar days will result in the issuing of a third notice. A deduction of 10% will be made from the original Project Supervision contract amount. At this time, the City reserves the right to meet with personnel with the necessary authority within the Contractor’s organization to discuss the deficiencies in the Project Supervision.

Third Notice – An additional deduction of 25% will be made from the original Project Supervision contract amount, and the Project Supervisor shall be removed from the project, and replaced immediately with another individual to be approved by the Supervising Professional.

Should, in the sole opinion of the Supervising Professional, the Project Supervisor fail to perform his/her duties and responsibilities as described herein to such a degree that the successful completion of the project is put in jeopardy, the above system of notices may be foregone, and the Contractor shall immediately replace the Project Supervisor upon receipt of written notice. Failure to provide adequate project supervision, as determined by the Engineer, shall be considered basis for the Supervising Professional to suspend work without extension of contract time or additional compensation.

MEASUREMENT AND PAYMENT

This item of work will be paid for on a pro rata basis at the time of each progress payment. Measurement will be based on the ratio between work completed during the payment period and the total contract amount. When all of the work of this Contract has been completed, the measurement of this item shall be 1.0 Lump Sum, minus any deductions incurred for inadequate performance as described herein. This amount will not be increased for any reason, including extensions of time, extras, and/or additional work.

The completed work as measured for this item of work will be paid for at the Contract Unit Price for the following Contract (Pay) Item:

| <u>PAY ITEM</u> | <u>PAY UNIT</u> |
|---------------------------------------|------------------------|
| Project Supervision, Maximum \$35,000 | Lump Sum |

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the City Standard Specifications and as modified by this Detailed Specification.

**DETAILED SPECIFICATION
FOR
ITEM #202 – AUDIO VISUAL TAPE COVERAGE, MODIFIED**

1 of 3

DESCRIPTION

This work shall include digital audiovisual record of the physical, structural, and aesthetic conditions of the construction site and adjacent areas as provided herein. This work will be performed for the entire project limits prior to the start of construction.

The audio-visual filming shall be:

1. Of professional quality, providing a clear and accurate audio and visual record of existing conditions.
2. Prepared within the four (4) week period immediately prior to the start of construction
3. Furnished to the Engineer a minimum of one (1) week prior to bringing any materials or equipment within the areas described in this Detailed Specification.
4. Carried-out under the supervision of the Engineer.

The Contractor shall furnish one (1) copy of the completed audiovisual record to the Engineer. An index of the footage shall be included, which will enable any particular area of the project to be easily found. **This includes indexing the files according to street and Station number as applicable.** The Contractor shall retain a second copy of the audiovisual record for his/her own use.

Any portion of the film determined by the Engineer to be unacceptable for the documentation of existing conditions shall be filmed again at the Contractor's sole expense prior to mobilizing onto the site.

PRODUCTION

The audio-visual filming shall be completed in accordance with the following minimum requirements:

1. DVD Format, No Editing - The filming shall be done in color using equipment that allows audio and visual information to be recorded. Splicing or editing of the tape shall not be allowed and the speed and electronics of the videotaping equipment and DVD shall be equal to that which is standard to the videotaping industry.
2. Perspective / Speed / Pan / Zoom - To ensure proper perspective, the distance from the ground to the camera lens shall not be less than 10 feet and the filming must proceed in the general direction of travel at a speed not to exceed 48 feet per minute. Pan and zoom rates shall be controlled sufficiently so that playback will ensure quality of the object viewed.
3. Display - The recording equipment shall have transparent time, date stamp and digital annotation capabilities. The final copies of the tape shall continuously and simultaneously display the time (hours:minutes:seconds) and the date (month/date/year) in the upper left-hand corner of the frame. Accurate project stationing, where applicable, shall be included in the lower half of the frame in standard format (i.e. 1+00). Below the stationing periodic information is to be shown, including project name, name of area shown, street address, direction of travel, viewing direction, etc. If in the event, the stationing has not been established on-site, refer to the plans and approximate the proposed stationing.

**DETAILED SPECIFICATION
FOR
ITEM #202 – AUDIO VISUAL TAPE COVERAGE, MODIFIED**

2 of 3

4. Audio Commentary / Visual Features. Locations relative to project limits and landmarks must be identified by both audio and video means at intervals no longer than 100 feet along the filming route. Additional audio commentary shall be provided as necessary during filming to describe streets, buildings, landmarks, and other details, which will enhance the record of existing conditions.
5. Visibility / Ground Cover - The filming shall be performed during a time of good visibility. Filming shall not be performed during periods of precipitation or when snow, leaves, or other natural debris obstruct the area being filmed. The Contractor shall notify the Engineer in writing in the event that the weather or snow cover is anticipated to cause a delay in filming.

COVERAGE

The audio-visual film coverage shall include the following:

1. General Criteria - This general criteria shall apply to all filming and shall include all areas where construction activities will take place or where construction vehicles or equipment will be operated or parked and or where materials will be stored. The filming shall extend an additional 50 feet outside of all areas. The filming shall include all significant, existing man-made and natural features such as driveways, sidewalks, utility covers, utility markers, utility poles, other utility features, traffic signal structures and features, public signs, private signs, fences, landscaping, trees, shrubs, other vegetation, and other similar or significant features.
2. Other Areas - The Contractor shall film at his sole expense other areas where, in his/her opinion, the establishment of a record of existing conditions is warranted. The Contractor shall notify the Engineer in writing of such areas.

The Engineer may direct the filming of other minor areas not specified herein at the Contractor's sole expense.

AUDIOVISUAL FILMING SERVICES

The following companies are known to be capable of providing the filming services required by this Detailed Specification and shall be utilized, unless the Contractor receives prior written approval from the Engineer to utilize another company of comparable or superior qualifications.

- Construction Video Media
- Midwest Company
- Topo Video, Inc.
- Video Media Corp.
- Paradigm 2000, Inc.
- Finishing Touch Photo and Video

**DETAILED SPECIFICATION
FOR
ITEM #202 – AUDIO VISUAL TAPE COVERAGE, MODIFIED**

3 of 3

MEASUREMENT AND PAYMENT

The completed work as measured for these items of work will be paid for at the Contract Unit Prices for the following Contract (Pay) Items:

PAY ITEM

PAY UNIT

Audiovisual Tape Coverage, Modified

Lump Sum

Audiovisual Tape Coverage shall include all labor, equipment, and materials required to perform the filming and to provide the finished videotape the Engineer. The unit price includes filming the entire project limits, for each and every street, as described above.

**DETAILED SPECIFICATION
FOR
ITEM #203 – MINOR TRAFFIC CONTROL, MODIFIED, MAXIMUM \$50,000**

1 of 5

DESCRIPTION

The work shall include, but is not limited to the following:

- The furnishing and operating of miscellaneous signs, warning devices, traffic regulators, flags, paddles, and cones;
- The operation of additional signs furnished by the City;
- Furnishing and installing meter bags;
- Coordinating with the City to have meter heads removed and reinstalled;
- Maintaining pedestrian traffic;
- Temporarily covering traffic controls;
- Temporarily covering existing signs as directed;
- Any and all other miscellaneous and/or incidental items which are necessary to properly perform the work.

This work shall consist of protecting and maintaining vehicular and pedestrian traffic, in accordance with Sections 104.11 and 812 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction; Part 6 of the 2011 Edition of the Michigan Manual of Uniform Traffic Control Devices (MMUTCD); and the City of Ann Arbor Standard Specifications for Construction, except as modified herein.

MATERIALS, EQUIPMENT, AND CONSTRUCTION METHODS

Materials and equipment shall meet the requirements specified in the above designated sections of the MDOT 2012 Standard Specifications for Construction.

The Contractor shall maintain two-way traffic on major streets, access for local traffic on local streets, and keep all intersections open to traffic at all times, unless specifically authorized in writing by the Engineer.

The Contractor shall maintain traffic such that no vehicle shall be required to drive into active work areas. Patch areas which extend more than halfway across the roadway shall be removed and replaced so as to provide a minimum of half the pavement width at all times for maintaining traffic.

The Contractor shall keep all driveways open at all times, unless specifically authorized in writing by the Engineer.

The Contractor shall maintain pedestrian traffic at all times. For maintaining normal pedestrian traffic while performing sidewalk and driveway repair, Plastic Drum, High Intensity, Lighted shall be placed by the Contractor as directed by the Engineer. The Contractor, when directed by the Engineer, shall place "Sidewalk Closed" and/or "Cross Here" signs and the cost shall be included in this pay item and will not be paid for separately.

All temporary traffic/pedestrian control devices furnished by the Contractor shall remain the property of the Contractor. The City shall not be responsible for stolen or damaged signs, barricades, barricade lights or other traffic maintenance items. The Contractor shall replace missing traffic control devices immediately, at no additional cost to the Contract or City.

**DETAILED SPECIFICATION
FOR
ITEM #203 – MINOR TRAFFIC CONTROL, MODIFIED, MAXIMUM \$50,000**

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All existing signs, and signs erected by the City of Ann Arbor on this project shall be preserved, protected, and maintained by the Contractor. The City will repair any existing City owned signs, at the Contractor's expense, which are damaged by the Contractor during the work.

The Contractor shall obtain a Traffic Detour or Lane Closure Permit from the City's Project Management Services Unit, at least 48 hours in advance of any proposed lane or street closing.

Traffic on major streets should not be impacted between the hours of 7:00 a.m. to 9:00 a.m. and from 3:30 p.m. to 6:00 p.m. without written permission from the Engineer or as specified on the Lane Closure Permit. All major changes in traffic control shall be made either between 9:00 a.m. and 3:30 p.m. or between 7:00 p.m. and 6:30 a.m. in order to minimize interference with rush hour traffic. All traffic controls must be in place and ready for traffic each day by 6:30 a.m. and 3:30 p.m.

The hours of work on all local streets are 7:00 a.m. to 8:00 p.m., Monday through Saturday, or as specified on the Lane Closure Permit. No equipment will be allowed in the street before or after these hours. Local streets may only be closed to through traffic (local access only) with written authorization of the Engineer. Work must be completed each day such that all streets are re-opened to through traffic by 8:00 p.m. unless otherwise specified, directed, or authorized in writing by the Engineer.

The Contractor shall temporarily cover conflicting traffic and/or parking signs when directed by the Engineer.

Parking violation citations issued to the Contractor, subcontractor, and material suppliers including each of their respective employees shall be enforced under appropriate City Code.

The Contractor shall replace missing or damaged traffic control devices as directed by the Engineer. When traffic control devices have been damaged by, or due to, the negligence of the Contractor, its subcontractors or material suppliers, the traffic control devices shall be replaced at the Contractor's expense.

The work for Minor Traffic Control, Modified shall include: furnishing and operating of miscellaneous signs and warning devices; furnishing cones; operating additional signs furnished by the City throughout the life of the Contract; furnishing and operating pedestrian traffic control devices; maintaining a safe trench during all non-working hours; maintaining access to all drives; covering conflicting existing signs and removal of these covers; and any and all other miscellaneous and/or incidental items which are necessary to properly perform the work.

Where there is metered parking, the Contractor shall either rent and install meter bags, or, with the Engineer's authorization, coordinate with the City Field Services to have meter heads removed and reinstalled.

The Contractor shall maintain vehicular and pedestrian traffic during the work by the use of traffic regulators, channelizing devices and signs as necessary, as directed by the Engineer, and in accordance with 2011 Edition of the MMUTCD. Typical applications for maintaining pedestrian traffic in accordance with the 2011 Edition of the MMUTCD are included in this detailed specification.

**DETAILED SPECIFICATION
FOR
ITEM #203 – MINOR TRAFFIC CONTROL, MODIFIED, MAXIMUM \$50,000**

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In order to maintain areas of on-street parking available for residents, the Engineer may direct the contractor to cover and uncover temporary “No Parking” signs within the project limits multiple times throughout the course of the project. Such repeated covering and uncovering of signs shall be included in this item of work and shall not be paid for separately.

MEASUREMENT AND PAYMENT

All temporary traffic/pedestrian control devices furnished by the Contractor shall remain the property of the Contractor. The City shall not be responsible for stolen or damaged signs, barricades, barricade lights or other traffic maintenance items. The Contractor shall replace missing traffic control devices immediately, at no additional cost to the City.

Costs for transporting barricades and other temporary traffic control devices shall be included in the bid prices for the individual items of work.

Minor Traffic Control, Modified, Maximum \$25,000 will be paid for on a pro rata basis with each progress payment. Measurement will be based on the ratio between work completed during the payment period and the total contract amount. When all of the work of this Contract has been completed, the measurement of this item shall be 1.0 Lump Sum minus any deductions incurred for inadequate performance as described herein. This amount will not be increased for any reason, including extensions of time, extras, and/or additional work.

The completed work as measured for these items of work will be paid for at the Contract Unit Price for the following Contract (Pay) Items:

PAY ITEM

PAY UNIT

Minor Traffic Control, Modified, Maximum \$50,000

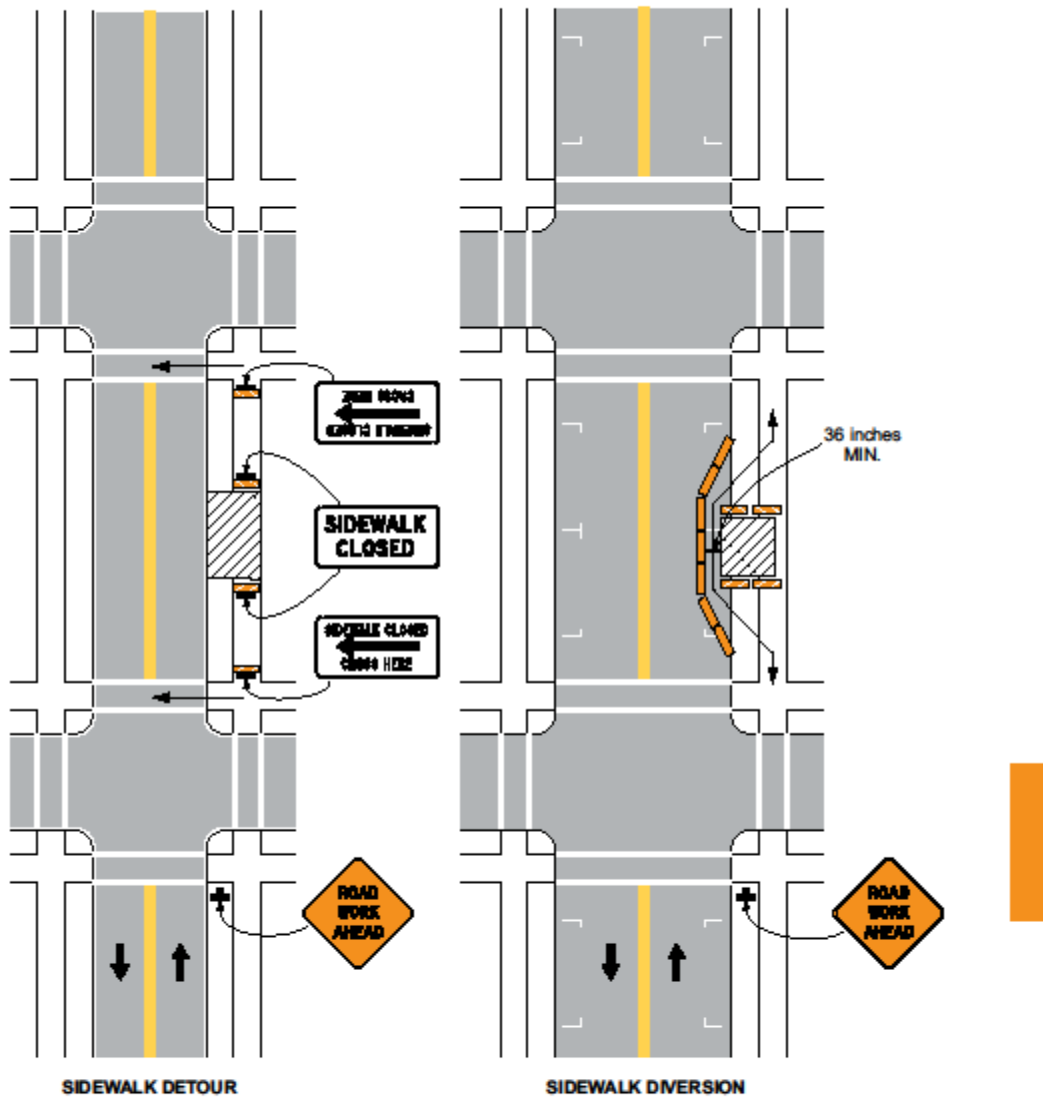
Lump Sum

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the MDOT and City Standard Specifications for Construction, and as modified by this Detailed Specification.

**DETAILED SPECIFICATION
FOR
ITEM #203 – MINOR TRAFFIC CONTROL, MODIFIED, MAXIMUM \$50,000**



Figure 6H-28. Sidewalk Detour or Diversion (TA-28)



Typical Application 28

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.

**DETAILED SPECIFICATION
FOR
ITEMS #204/205 – BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED,
LIGHTED, FURN/OPER
ITEMS #206/207 – CHANNELIZING DEVICE, 42 INCH, FURN/OPER
ITEMS #208/209 – LIGHTED ARROW, TYPE C, FURN/OPER
ITEMS #210/211 – PLASTIC DRUM, HIGH INTENSITY, LIGHTED, FURN/OPER
ITEMS #212/213 – SIGN, TYPE B, TEMP, PRISMATIC, FURN/OPER**

1 of 3

DESCRIPTION

This work shall consist of protecting and maintaining vehicular and pedestrian traffic in accordance with Sections 140.11, 812, and 922 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction; Part 6 of the 2011 Edition of the Michigan Manual of Uniform Traffic Control Devices (MMUTCD); and the City of Ann Arbor Standard Specifications for Construction, except as modified herein.

MATERIALS, EQUIPMENT, AND CONSTRUCTION METHODS

Materials and equipment shall meet the requirements specified in the above designated sections of the MDOT 2012 Standard Specifications for Construction.

The Contractor shall maintain traffic such that no vehicle shall be required to drive into active work areas. Patch areas which extend more than halfway across the roadway shall be removed and replaced so as to provide a minimum of half the pavement width at all times for maintaining traffic.

The Contractor shall maintain pedestrian traffic at all times. For maintaining normal pedestrian traffic while performing sidewalk and driveway repair, Type III Barricades and/or Plastic Drums shall be placed by the Contractor, as directed by the Engineer. "Sidewalk Closed" and/or "Cross Here" signs shall be placed, by the Contractor, when directed by the Engineer.

All temporary traffic/pedestrian control devices furnished by the Contractor shall remain the property of the Contractor. The City shall not be responsible for stolen or damaged signs, barricades, barricade lights or other traffic maintenance items. The Contractor shall replace missing traffic control devices immediately, at no additional cost to the City.

All existing signs, and signs erected by the City of Ann Arbor on this project shall be preserved, protected, and maintained by the Contractor. Existing City owned signs which are damaged by the Contractor during the work will be repaired by the City at the Contractor's expense.

Parking violation citations issued to the Contractor, subcontractor, and material suppliers including each of their respective employees shall be enforced under appropriate City Code.

The Contractor shall replace missing or damaged traffic control devices, as directed by the Engineer. When traffic control devices have been damaged by, or due to, the negligence of the Contractor, his subcontractors or material suppliers, the traffic control devices shall be replaced at the Contractor's expense.

Lighted Plastic Drums, Type III Barricades, and Type B Temporary Signs

The Contractor shall furnish and operate these items as directed by the Engineer.

**DETAILED SPECIFICATION
FOR
ITEMS #204/205 – BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED,
LIGHTED, FURN/OPER
ITEMS #206/207 – CHANNELIZING DEVICE, 42 INCH, FURN/OPER
ITEMS #208/209 – LIGHTED ARROW, TYPE C, FURN/OPER
ITEMS #210/211 – PLASTIC DRUM, HIGH INTENSITY, LIGHTED, FURN/OPER
ITEMS #212/213 – SIGN, TYPE B, TEMP, PRISMATIC, FURN/OPER**

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Type III Barricades shall have standard orange-and-white stripes on both sides of the barricade.

Sufficient signs shall be provided by the Contractor to insure the safety of the workers and the general public in accordance with the 2011 Edition of the MMUTCD.

"Construction Ahead" warning signs shall be placed, as indicated on the Plans, or as directed by the Engineer, prior to the start of work, regardless of the nature, magnitude or duration of the work.

MEASUREMENT AND PAYMENT

All temporary traffic control devices furnished by the Contractor shall remain the property of the Contractor. The City shall not be responsible for stolen or damaged signs, barricades, barricade lights or other traffic maintenance items. The Contractor shall replace missing traffic control devices immediately, at no additional cost to the City.

Costs for transporting barricades and other temporary traffic control devices shall be included in the bid prices for the individual items of work.

Barricade, Type III, High Intensity, Double Sided, Lighted, Furn/Oper

Payment for furnishing and operating lighted Type III barricades shall be for the maximum quantity in-place at any one time during the work of the entire project (all streets).

Channelizing Device, 42 inch, Furn/Oper

There will be a one-time payment for each street for the maximum number of channelizing devices in-place (operated) at any one time, as directed by the Engineer.

Lighted Arrow, Type C, Furn/Oper

Payment for lighted arrow shall be for the maximum quantity used on each street.

Plastic Drum, High Intensity, Lighted, Furn/Oper

There will be a one-time payment for each street for the maximum number of plastic drums in-place (operated) at any one time, as directed by the Engineer.

Sign, Type B, Temp, Prismatic, Furn/Oper

Payment for temporary signs shall be for the maximum quantity used on each street.

**DETAILED SPECIFICATION
FOR
ITEMS #204/205 – BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED,
LIGHTED, FURN/OPER
ITEMS #206/207 – CHANNELIZING DEVICE, 42 INCH, FURN/OPER
ITEMS #208/209 – LIGHTED ARROW, TYPE C, FURN/OPER
ITEMS #210/211 – PLASTIC DRUM, HIGH INTENSITY, LIGHTED, FURN/OPER
ITEMS #212/213 – SIGN, TYPE B, TEMP, PRISMATIC, FURN/OPER**

3 of 3

The completed work as measured for these items of work will be paid for at the Contract Unit Price for the following Contract (Pay) Items:

| <u>PAY ITEM</u> | <u>PAY UNIT</u> |
|--|------------------------|
| Barricade, Type III, High Intensity, Double Sided, Lighted, Furn | Each |
| Barricade, Type III, High Intensity, Double Sided, Lighted, Oper | Each |
| Channelizing Device, 42 inch, Furn | Each |
| Channelizing Device, 42 inch, Oper | Each |
| Lighted Arrow, Type C, Furn | Square Foot |
| Lighted Arrow, Type C, Oper | Square Foot |
| Plastic Drum, High Intensity, Lighted, Furn | Each |
| Plastic Drum, High Intensity, Lighted, Oper | Each |
| Sign, Type B, Temp, Prismatic, Furn | Each |
| Sign, Type B, Temp, Prismatic, Oper | Each |

**DETAILED SPECIFICATION
FOR
ITEM #214 – “NO PARKING” SIGN**

1 of 1

DESCRIPTION

This work shall consist of installing, maintaining and removing of "No Parking" signs and posts as outlined herein and as referenced on the plans. "No Parking" signs shall be installed in accordance with the Public Services Department Standard Specifications and the 2011 Michigan Manual of Uniform Traffic Control Devices (MMUTCD).

MATERIAL

All materials for this work shall conform to the requirements of the Public Services Department Standard Specifications.

CONSTRUCTION METHODS

Prior to the commencement of any construction activity, the Contractor shall place “No Parking” signs as directed by the Engineer. The Contractor shall obtain a permit for “Temporary Permission of Reserve Parking Lane for Work Related Purposes” from the City’s Project Management Services Unit. This permit shall be obtained a minimum of 5 business days prior to the posting of “No Parking” signs.

The City will furnish "No Parking" signs to the Contractor at no cost. The Contractor shall furnish the signposts and shall securely bolt the signs to the signposts as directed by the Engineer. The Contractor shall install the signposts at least two feet deep into the ground, and there shall be a minimum of six feet and maximum of seven feet of clearance maintained between the bottom of the sign and the ground. The signs are to be placed at intervals no more than 150 feet and as necessary to eliminate parking in the construction area.

The installation of "No Parking" signs shall be in accordance with the permit. "No Parking" signs shall be installed by the Contractor, as directed by the Engineer, at least 48 hours prior to the proposed start-of-work/enforcement date. "No Parking" signs shall be covered by the Contractor, thereby allowing on-street parking, until between 48 and 24 hours prior to the start of the work. "No Parking" signs shall be covered by the Contractor whenever there is no work being performed for a period of time longer than 72 hours. "No Parking" signs shall be returned to the City upon the completion of work. The cost of unreturned signs will be back charged to the Contractor.

MEASUREMENT AND PAYMENT

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

PAY ITEM

PAY UNIT

“No Parking” Sign

Each

"No Parking" signs will be measured as the maximum number installed on each street at any one time. The unit price includes the removal and return of "No Parking" signs to the City upon completion of the project. The Contractor shall be back charged for the replacement costs for damaged or unreturned signs.

**DETAILED SPECIFICATION
FOR
ITEM #215 –SEWER FLOW CONRTOL**

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DESCRIPTION

The work covered by this Detailed Specification shall consist of furnishing all labor, supervision, tools, equipment, appliances, materials, incidental items, and the installation, operation, and maintenance needed to perform all operations in connection with the diversion of flow and bypass pumping of sanitary sewage for cleaning and inspecting of sewers and manholes, and sewer rehabilitation procedures. The purpose of which is to provide un-interrupted sewerage service at all times and to prevent sewage overflows.

It is the intent of this project to divert dry weather upstream sanitary sewer flow within the work zone to other City of Ann Arbor (City) sanitary sewers by installing plugs and bypass pumps in the sewer system. The flows from the various laterals to the smaller diameter sewers connected to the sanitary sewer in the work zone shall be bypass pumped to a manhole either upstream of the plugs or downstream of the work zone. The design, installation, and operation of the temporary sewer flow control system shall be the Contractor's sole responsibility.

When working inside manholes or sewer, the Contractor shall exercise caution and comply with Occupational Safety and Health Administration (OSHA) and City requirements for working in confined spaces.

The Contractor shall manage, plan, and execute their operations such that there will be no backups, leaks, or unauthorized discharges of sewerage. The Contractor shall be completely responsible for the proper clean-up and any environmental remediation as may be required by the City or the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for any backup, leak, spill, or sanitary sewerage overflow.

SUBMITTALS

The Contractor shall provide a detailed Sewer Flow Control Plan to the Engineer for review and acceptance prior to the start of any flow control work. This plan must include descriptions outlining all provisions and precautions to be taken by the Contractor regarding the handling of existing flow. The Sewer Flow Control Plan must be specific, including such items as schedules, locations, elevations, capacities of the equipment, materials, and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of existing structures and pipes, and compliance with the requirements and conditions specified in these Contract Documents. The flow control plan shall be submitted to the Engineer for review and approval in accordance with Section 104.02 of the 2012 edition of the Michigan Department of Transportation Standard Specifications for Construction. No construction shall begin until all provisions and requirements have been reviewed and accepted by the Engineer.

For each submittal and re-submittal, the Contractor shall allow at least 14 calendar days from the date of the submittal to receive the Engineer's acceptance or request for revisions. The Engineer's comments shall be incorporated into the re-submitted plans, calculations, and descriptions. The Engineer's acceptance of the plan is required before beginning the work. Re-submittals shall be reviewed and returned to the Contractor within 14 calendar days. Required revisions will not be a basis of payment for additional compensation, extra work, or an extension of contract time. The Contractor shall include time for this entire review process in their schedule.

**DETAILED SPECIFICATION
FOR
ITEM #215 - SEWER FLOW CONTROL**

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Sewer Flow Control Plan submittal shall include at a minimum:

1. Overall flow control plan and sequence of construction;
2. Flow control schedule including times when the flow control system shall be temporarily shut down and flow allowed to return to normal operations;
3. Overall plan for removal of flow control system during wet weather events and/or emergency situations;
4. Plan for providing redundancy for all aspects of the system, especially the plugs;
5. Plan for providing noise control of pumping and power generation equipment;
6. Safety Program for confined space entry and procedure for entering manholes and installing plugs under live flow conditions;
7. Emergency clean-up plan should a spill occur or backups in the system occur. The plan should include contact names and 24 hour phone numbers;
8. Procedure for continuous (24 hour) monitoring of system, including verifying that plugs are sealed and lateral bypass pumping system is operating. The plan is to include type and location of level sensors, method of installation, set elevations of sensors, and continuous monitoring system;
9. Maintenance of traffic plan for plug installation and removal in public roadways;
10. Sewer plug types, method of installation and removal, anchors and restraints, and hydraulic head limits;
11. Lateral bypass pump sizes, capacities, power requirements, and number of each size to be provided at each manhole including redundancy;
12. Calculations giving flow capacity provided by each pump given the system's Total Dynamic Head (TDH), including the calculations that are used to derive the system TDH. This data should also include the calculations determining what the Net Positive Suction Head available is in comparison to the Net Positive Suction Head required by each pump. Pump curves shall be submitted;
13. Number, size, material, and location of lateral bypass pumping suction and discharge piping, procedure for protecting lines, and location of bypass pumping discharge manhole;
14. Lateral bypass pumping system flushing and drainage plan;
15. Buried bypass pipe locations and details;
16. Environment protection including pump containment and leak detection;

**DETAILED SPECIFICATION
FOR
ITEM #215 - SEWER FLOW CONTROL**

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17. Method of protecting discharge manholes or structures from erosion and damage;
18. Method of noise control for each pump or generator; and,
19. Design plans for access to bypass pumping locations indicated on the Drawings.

FLOW DIVERSION EQUIPMENT

Provide materials and equipment suitable for, and known to be reliable to meet, the flow diversion requirements as shown on the Drawings and as needed for the Contractor's operations.

The plugs shall be temporary plugs that allows for quick removal in case of emergency or wet-weather situation and re-installation after wet weather event has passed. Plugs shall be capable of withstanding minimum static head pressure of 15 feet. Plugs shall include form or bracing, anchoring, or restraint to keep plugs properly installed. Plugs should be of the type capable of being installed under live flow conditions and in depths exceeding 35 feet as shown on the Drawings. Plugs should be able to be installed in either the incoming or outgoing pipe in a manhole and allow for quick removal under surcharged conditions. Plugs shall be clearly tagged with the Contractor's name and date of installation.

Pressure gages shall be installed with the plugs to continuously monitor the plugs and adjust the air pressure as needed to maintain full blockage of flow.

Ultrasonic level sensors shall be installed, at a minimum, at each bypass pumping location. The Contractor may elect to install sensors in other locations at their expense if they so choose. The Contractor shall be responsible for the installation and maintenance of the sensors. The level sensors shall provide continuous level readings that the Contractor shall be able to review remotely to monitor the level in the system during flow diversion. The level sensors shall provide notifications and alarms to allow the Contractor time to remove the plugs should an emergency or a wet weather event occur.

SEWER BYPASS PUMPING EQUIPMENT

Provide materials and equipment suitable for, and known to be reliable to meet, the bypass pumping requirements.

The pumps must be capable of passing a minimum of a 3-inch solid. All pumps must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows.

Equipment used for bypass pumping shall be sufficient to handle anticipated average and peak flows from each sewer. The Contractor shall maintain sanitary sewer flows within their bypass pumping system, including all wet weather flows.

For sanitary sewerage, bypass piping shall be PVC Schedule 80, or equivalent, with solvent welded joints; or HDPE DR-11 with butt fused joints. The Contractor shall perform hydrostatic testing of the bypass pump discharge pipes with potable water in accordance with ASTM F2164 for HDPE or ASTM F2261 for PVC pipe, prior to operating bypass pumping system to ensure structural integrity of pipeline. Any defects or leaks found during testing shall be repaired and the pipeline shall be re-tested until results are satisfactory in accordance with the ASTM standard, and as acceptable to the Engineer.

**DETAILED SPECIFICATION
FOR
ITEM #215 - SEWER FLOW CONTROL**

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REDUNDANT EQUIPMENT

The Contractor shall have redundant flow diversion equipment including, but not limited to, plugs and level sensors, available for immediate use at the job site at all times in the event of a failure.

Any damage to the Contractor's equipment, sewer system, or delays to the Contractor's operations due to equipment or plug failure/leakage shall be the Contractor's sole responsibility and no additional payment shall be made for these occurrences. The Contractor shall take all necessary precautions to verify that the plugs and flow diversion plan is operational prior to performing the work.

The Contractor shall have redundant bypass pumping equipment installed and ready for immediate operation and use in the event of an emergency or primary system breakdown or failure. The standby system shall be capable of pumping dry weather and peak flow. The standby pump(s) shall not be considered as any part of the primary system as designed for peak flow. The Contractor shall also furnish and have available onsite, and ready for operation, redundant pumping ancillary equipment in case of any failure of the pumping system including piping, electrical equipment, pipe appurtenances, etc. Redundant pumping facilities shall also include having a backup power generator in case the primary power source fails.

The Contractor shall not obstruct flows in the sewer unless the primary and redundant equipment is onsite and in operable condition and authorization has been granted by the Engineer.

FLOW DIVERSION PLAN

The sanitary sewer being rehabilitated is one of two parallel sewers in the area. The Contractor shall note that the average dry weather flow for both sewers combined averaged approximately 1.7 cubic feet per second (cfs), with a peak of approximately 11.7 cfs, based on flow monitoring data from December 1, 2019 through July 10, 2020 at MH 71-072876 and MH 71-072870. The Contractor is to take all necessary precautions when installing the plugs in these sewers under live flow conditions.

Sewer flow control for this project shall be accomplished with multiple set-ups as detailed below:

The contractor shall divert flows from the 18-inch sewer along Clark Road by plugging manhole the 18-inch pipe flowing east at MH 71-61026 and diverting the flow south into the 27-inch bypass sewer at MH 71-072859. As-built drawings indicate an elevation difference of approximately 0.5 feet between the inverts of these two manholes.

An additional bypass option is available near the mid-point of the rehabilitation project where a 24-inch relief sewer connects the parallel interceptors. The contractor may divert flow by installing a plug in the downstream side of the 18-inch sewer by installing a plug on the downstream side of the 18-inch sewer at MH 71-072876 and diverting flow north east into MH 71-075870. As-builts indicate a positive slope with invert elevations of 762.4 feet at MH 71-072876 and 760.81 feet at MH 71-072870.

For the section of sewer downstream of MH 71-61574, the contractor shall first divert flows from the 18-inch sewer to the parallel 27-inch sewer, then installing a plug in the downstream side of the 27-inch pipe at MH 71-072875, shall divert flows northeast along the Hogback Road right-of-way then along the Swift Run drain, utilizing the existing culvert to cross beneath Hogback Road and US-23.

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**DETAILED SPECIFICATION
FOR
ITEM #215 - SEWER FLOW CONTROL**

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The bypass pipe shall then be routed southwest along the US-23 right-of-way, and along the E. Huron River Drive right-of-way to discharge at MH 71-61039. As an alternate, the contractor may also discharge to MH 71-61460, approximately 470 feet to the northeast.

Residential and commercial sewer lateral location data for the project area is limited. The Contractor shall verify and document any sewer lateral locations as part of the sewer cleaning and televising process.

The Owner will not permit water use restrictions to be used to reduce bypassed flows. The Contractor shall develop a flow diversion plan that permits the work to be completed with the least disruption of service to those served by the sewer.

Bypass pumping along and in the vicinity of Shetland Drive, Hogback Road, E. Huron River Drive, E. Huron River Service Drive, and Thornoaks Drive will be subject to restrictions, including but not limited to the following:

1. Open excavation of East Huron River Drive and Hogback Road is prohibited.
2. Bypass piping crossing Thornoaks Drive, East Huron River Service Drive or driveways shall be trenched into place in accordance with the approved details.
3. Two-way traffic must be maintained at all times.
4. No crossing ramps will be permitted across roads or driveways within Washtenaw County Road Commission Jurisdiction.

The Contractor shall construct and maintain bypass pumping facilities as needed that will pump at the required flow rates. The Contractor shall provide the City with a minimum of 7 days advance notice prior to initiating the sanitary sewer bypass pumping system.

The Contractor shall install plugs, bypass pumping equipment and level sensors and test the system for a minimum of 48 hours prior to the start of any other work onsite. The Contractor, City, and Engineer shall review the flow diversion during the testing period, including flow levels in the manholes. The Contractor shall not start any other work onsite until acceptance of the diversion test.

LATERAL BYPASS PUMPING

Service laterals that enter the mainline sewer shall be bypass pumped to the downstream bypass pumping manhole or blocked if a bypass is not available. If a lateral is plugged and/or blocked, the Contractor is responsible for coordination with the property owner to ensure flow is minimized and to prevent a sewer backup. The Contractor is responsible for all sewer backups that occur during all bypass work.

PERMITTING

The Contractor is responsible for obtaining all approvals for placement of the temporary equipment and/or piping within public ways from the Agency having jurisdiction.

**DETAILED SPECIFICATION
FOR
ITEM #215 - SEWER FLOW CONTROL**

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The following permits have been applied for by the Engineer for the US-23 Bypass Crossing through the Swift Run Drain Culvert:

1. Washtenaw County Road Commission (WRCR), Permit Application No. 17016
2. Washtenaw County Water Resources Commission (WCWRC), Drain Use Permit No. 6813
3. Michigan Department of Transportation (MDOT), Permit No. 073168-20
4. Michigan Environment, Great Lakes, and Energy (EGLE) Joint Permit

Contractor shall be responsible for obtaining final permits from WRCR, WCWRC and MDOT, including payment of all permit fees and agreeing to permit requirements including signing a Pollution Affidavit for WCWRC. If the Contractor alters the proposed bypass arrangement presented in the plans, securing all subsequent agency approvals will remain the Contractor's sole responsibility.

GENERAL REQUIREMENTS

The Contractor shall provide an adequate labor force and have designated personnel onsite for maintenance and operation, and emergency back-up service, of the bypass pumping facility 24 hours per day 7 days per week during bypass operations.

Anytime bypass pumping operations cease as required due to weather conditions described in Detailed Specification "Extension of Time, Additional Compensation" or as required by the Engineer, the Contractor shall drain the bypass pump discharge line back into the sanitary system as described in the Sewer Flow Control Plan and as directed by the Engineer to avoid freezing of the pipeline. Under no circumstances shall sanitary sewage within the bypass discharge line be drained to the Swift Run Drain.

The Contractor is to arrange for and provide all necessary temporary power, electrical service, board switches, etc. as required by DTE Energy and the National Electrical Code (NEC) current edition to provide temporary bypass pumping.

All bypass pumping discharge pipes shall be protected from the pipe header to the discharge structure. The Contractor shall provide necessary fittings or deflection in pipe to route pipe as necessary to minimize environmental impact and conflict with pedestrian, construction, and emergency vehicle traffic. When the bypass pipeline crosses drives or trails, or when pipeline is within any Contractor work zone/staging area, the Contractor shall place the bypass pipeline in a casing pipe and/or bury in temporary trenches with compacted backfill as indicated on the Drawings, as required for the Contractor's operations, and as approved by the Engineer. All work associated with temporary bypass discharge pipe trench, including piping, fittings, deflections, supports, casing, spacers, trenching, backfill and pavement replacement shall be included in the contract pay item "Sewer Flow Control."

The City of Ann Arbor will examine the submitted cost for this item of work prior to contract award. If the City determines, in its sole discretion, that the costs bid by the Contractor for complying with the contract requirements are not reasonable, accurately reported, or may contain discrepancies, the City reserves the right to request additional documentation that fully supports and justifies the price as bid.

**DETAILED SPECIFICATION
FOR
ITEM #215 - SEWER FLOW CONTROL**

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Should the submitted information not be determined to be reasonable or justify the costs, the City reserves the right to pursue award of the contract to the second low bidder without penalty or prejudice to any other remedies that it may have or may elect to exercise with respect to the original low-bidder.

The Contract Completion date will not be extended as a result of the City's investigation of the as-bid amount for this item of work, even if the anticipated contract award date must be adjusted. The only exception will be if the Contractor adequately demonstrates that their costs were appropriate and justifiable. If so, the City will adjust the contract completion date by the number of calendar days commensurate with the length of the investigation, if the published Notice to Proceed date of the work cannot be met. The contract unit prices for all other items of work will not be adjusted regardless of an adjustment of the contract completion date being made.

WET WEATHER EVENT

A wet weather event is defined as an event that causes the flow in the system to surcharge.

When a wet weather event occurs, the Contractor shall cease all operations in the sewer system and remove all plugs. The plugs shall be removed as not to cause a surge downstream.

It is the Contractor's responsibility to monitor the weather and verify weather conditions prior to the start of any work that could have an impact on the capacity of the affected sewers. Any damage to the Contractor's equipment, sewer system, or delays to Contractor's operations due to wet weather conditions shall be the Contractor's sole responsibility and no additional payment shall be provided.

The only exception to that is if the temporary removal of the flow diversion plugs and bypass pumping system occurred after the sewers had been cleaned, televised, prepped for lining, and approved by the Engineer before the sewers were lined. In such an event, the Contractor may request compensation for the re-cleaning of the pipes only. The re-cleaning must first be approved by the Engineer prior to the work beginning.

No compensation shall be provided for the removal and re-installation of the plugs due to wet weather events as described in Detailed Specification "Working in the Rain."

NOISE CONTROL

All noise generated by the bypass pumping operation shall not exceed the sound limits, and shall follow necessary procedures as required for temporary exemptions, as defined in Detailed Specification "Hours of Work." The Contractor shall provide a secondary sound barrier for both the primary and back-up pumps and any power generating equipment.

FLOW DIVERSION AND BYPASS PUMPING COMPLETION

At the end of the flow control operation, and after receipt of written permission from the Engineer, the Contractor shall remove all flow diversion and bypass pumping equipment, including level control system, temporary power equipment, and suction/discharge piping in a manner that permits the sewage flow to return to normal without overflowing to the environment, surcharging, or causing other major disturbances downstream.

**DETAILED SPECIFICATION
FOR
ITEM #215 - SEWER FLOW CONRTOL**

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The Contractor shall restore all disturbed areas and structures, and restore all pavement in accordance with Detailed Specification, "Project Clean-Up and Restoration, Special" and as directed by the Engineer.

The duration of the bypass pumping shall be determined by the Contractor as needed to perform the work under this contract while maintaining un-interrupted sewage service.

FLOW CONTROL PRECAUTIONS

When flow in a sewer line is bypassed or plugged, sufficient precautions must be taken to protect the sewer liner and the Contractor's operations from damage that might result from sewer surcharging. Further, precautions must be taken to ensure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewers involved. At no time shall sewage be pumped in or allowed to flow into a catch basin, storm sewer, or open watercourse.

MEASUREMENT AND PAYMENT

The completed work shall be paid for at the contract unit price for the following contract pay item:

PAY ITEM

PAY UNIT

Sewer Flow Control Lump Sum

The contract unit price for this item shall include all labor, supervision, tools, permits, shop drawing submittals, materials, equipment, operation, any incidental items, and all other work as noted on the Drawings and as specified herein to allow the Contractor to perform the work of diverting and bypass pumping flows as detailed herein.

The installation, maintenance, operation, monitoring, and removal of the level sensors shall not be paid for separately, but shall be included in the item of work "Sewer Flow Control."

The removal and replacement of pavement to install the bypass piping across driveways and roadways as shown in the approved Drawings shall not be paid for separately, but shall be included in the item of work "Sewer Flow Control."

The cost for the sewer flow control shall be paid for as a Lump Sum item regardless of the duration, number of, and/or duration of the wet weather events encountered, flow encountered, weather conditions, or number of times flow control system is temporarily removed and re-installed.

30% of the lump sum shall be paid for Sewer Flow Control following the initial installation, 48-hour test, and acceptance of the system by the Engineer. The remainder of the cost shall be paid for at the conclusion of all flow diversion activities and after the removal of all equipment from the site.

**DETAILED SPECIFICATION
FOR
CLEANING AND TELEVISIONING SEWER AND MANHOLES**

1 of 6

DESCRIPTION

This work shall consist of the cleaning and video inspection of sewer and siphon pipes, chambers, and manholes, and providing the required documentation as described herein. All work shall be performed in accordance with the City of Ann Arbor (City) Standard Specifications, except as modified herein, and as directed by the Engineer.

The Contractor is responsible for video recording and cleaning the pipe before lining, and video recording after lining. Pipeline inspection and videotaping shall be in accordance with National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) requirements.

The Contractor is responsible for inspecting all manholes and chambers as indicated on the Drawings in accordance with NASSCO Manhole Assessment and Certification Program (MACP) Level 2 requirements.

SUBMITTALS

The Contractor shall provide a detailed sewer cleaning and televising plan to the Engineer for review and acceptance prior to beginning the work. This plan must include descriptions outlining all provisions and precautions to be taken by the Contractor regarding the handling of existing flow. The cleaning and televising plan must be specific, including such items as schedules, locations, type of equipment, details on water source, plans for disposal, and all other incidental items necessary and/or required to ensure proper protection of the facilities and surroundings, including protection of the access locations from damage, and compliance with the requirements and permit conditions specified in these Contract Documents.

The cleaning and televising plan shall be submitted to the Engineer for review and approval in accordance with Section 104.02 of the 2012 edition of the Michigan Department of Transportation Standard Specifications for Construction. No work shall begin until all provisions and requirements have been reviewed and accepted by the Engineer.

For each submittal and re-submittal, the Contractor shall allow at least 14 calendar days from the date of the submittal to receive the Engineer's acceptance or request for revisions. The Engineer's comments shall be incorporated into the re-submitted plans, calculations, and descriptions. The Engineer's acceptance of the plan is required before beginning the work. Re-submittals shall be reviewed and returned to the Contractor within 14 calendar days. Required revisions will not be a basis of payment for additional compensation, extra work, or an extension of contract time. The Contractor shall include time for this entire review process in their schedule.

Sewer cleaning and televising plan and submittals shall include at a minimum:

1. Copy of PACP/MACP Certifications for sewer televising personnel and manhole inspection personnel;
2. Proof of PACP/MACP certified software;
3. Safety program for confined space entry;
4. Information on equipment, trucks, tanks, etc., including, but not limited to, dimensions, required turning radius, fuel type, any special requirements, etc.;

**DETAILED SPECIFICATION
FOR
CLEANING AND TELEVISIONING SEWER AND MANHOLES**

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5. Staging areas for equipment, trucks, tankers, etc.;
6. Schedule for cleaning and televising of pipe lines, manholes, and chambers.;
7. Planned hours of operation, including equipment idling, etc.;
8. Number, size, material, and location of hose/piping;
9. Information on cleaning equipment;
10. Sludge and debris dewatering, transportation, and disposal procedure and location;
11. Environment protection including equipment and pipe containment, leak detection, and/or remediation plan; and,
12. Method of noise control for all equipment.

CONSTRUCTION

The Contractor shall carry out their operations in strict accordance with all Occupational Safety and Health Administration (OSHA), Michigan Occupational Safety and Health Administration (MIOSHA), and manufacturer's safety requirements.

Safety. – The Contractor shall be solely responsible for safety of all those involved with the work during the performance of all work. The Contractor shall not enter into any sewer segment where hazardous conditions may exist until such time as the source of those conditions is identified and eliminated by the Contractor. The Contractor shall perform all work in accordance with the latest OSHA confined space entry regulations. The Contractor shall coordinate their work with local fire, police, and emergency rescue unit.

The Contractor shall be responsible for any damage to public or private property resulting from their televising and cleaning activities and shall repair or otherwise make whole such damage at no cost to City and owner of the property.

Flow Diversion/Lateral Bypass Pumping.- The Contractor shall provide for the transfer of main line flow around the section or sections of pipe that are to be cleaned and televised, as required to complete cleaning, televising, and inspection work. The diverting and lateral bypass pumping work shall be performed in accordance with Detailed Specification “Sewer Flow Control” and as directed by the Engineer.

If the Contractor chooses to only divert part of the flow during their sewer cleaning operations, the Contractor must indicate that in their submittal, including which plugs would be installed. Contractor to note that all plugs, level sensors, and lateral bypass pumping system shall be in operation for the sewer televising, manhole inspections, and the chamber inspections.

Sewer Cleaning.- Each sewer section shall be cleaned to a degree sufficient to allow video inspection and cured-in-place pipe (CIPP) lining to be completed in accordance with this specification and Detailed

**DETAILED SPECIFICATION
FOR
CLEANING AND TELEVISIONING SEWER AND MANHOLES**

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Specification "CIPP Sewer Lining." The Contractor shall take precautions to protect the sewer lines from damage. The existing sewer has not been cleaned or inspected in decades. The Contractor shall assume the sewer will require heavy cleaning with unlimited passes to achieve a clean sewer and that rodding and root cutting shall be required and are included in the contract pay item.

The Contractor must adhere to the requirements of ASTM F1216 or ASTM F1606 for the following types of cleaning: hydraulic cleaning, high velocity hydro-cleaning, and mechanical cleaning.

Remove dirt, grease, rocks, sand, roots, and other solid or semisolid materials and obstructions from the sewer line and manholes. Cleaning shall be of the entire reach between manholes and/or chambers.

It shall be the responsibility of the Contractor to clear the line of obstructions such as solids, dropped joints, debris from collapsed pipe, sediment deposits, mineral deposits, stalactites, and all major blockages that would prevent sewer rehabilitation work to be performed at no additional cost to the project.

The sewers shall be cleaned by using a high pressure water cleaning machine with minimum capability of 5,000 pounds per square inch (psi) at 80 gallons per minute (gpm). A high pressure hose with a jet nozzle shall be introduced into the sewer so that a spray shall scour and clean the sewer line without applying internal pressure and damaging the pipe. This will require an unlimited amount of passes of the jet nozzle, or other cleaning measures to remove all debris. The hose shall be self-propelled by a minimum water pressure of 1,000 psi. Cleaning pressures to 5,000 psi may be required to remove heavy tuberculation and adhered debris from the pipe interior. The jet nozzle hose, upon withdrawal, will scour the pipe (invert, walls, and crown), flushing all materials into the downstream manhole for removal.

Due to the sensitive nature of the project work site the Contractor shall notify the Engineer for review and approval before proceeding.

Material removal shall be performed at the identified-for-access manholes for the cleaning operation. At no time during cleaning shall material be allowed to enter or flow in the sewer past the downstream access manhole. Passing material from manhole section to manhole section shall not be permitted. All debris and waste material shall be completely removed from the sanitary sewer system and shall be disposed of by the Contractor in accordance with Detailed Specification "Removal and Disposal of Sludge and Debris Material."

Mechanical root cutting shall be performed with powered equipment. The Contractor shall furnish suitable power machinery which shall be used to remove tree roots and deposits remaining after jet cleaning that prevent passage of television inspection equipment or prevent the lining of the sewer.

The Contractor shall provide digital video on DVD, flash drive, or hard drive that verify that the sewer is clean and free of sediment and debris to the satisfaction of the Engineer. If any sewer is not satisfactorily cleaned, it shall be promptly cleaned and re-inspected by closed-circuit television camera and video provided to the Engineer for review and approval.

**DETAILED SPECIFICATION
FOR
CLEANING AND TELEVISIONING SEWER AND MANHOLES**

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If the sewer has material and debris that prevents the proper installation of the CIPP, prohibits video inspection, or is not cleaned to the satisfaction of the Engineer, the sewer shall be re-cleaned and re-televised at the Contractor's sole expense.

The sewer shall not be lined until such time as the cleaning operations have been approved in writing by the Engineer. Field Inspection personnel shall not be allowed to authorize the Contractor to begin installation of the CIPP sewer liner.

Extensions of contract time will not be granted for delays associated with re-cleaning and re-televising the sewer except as outlined under Detailed Specification "Extension of Time, Additional Compensation."

The cleaning and removal of the material out of the sewer system shall be paid for as part of the "Clean ___-inch Dia. Sanitary Sewer" contract pay item. All other work necessary for the final disposal of the material shall be paid for as part of the "Removal and Disposal of Sludge and Debris Materials" contract pay item.

Manhole and Chamber Cleaning.- All sanitary manholes shall be cleaned to a degree sufficient to perform the Level 2 MACP manhole inspection and as acceptable to the Engineer. The manhole structures shall be cleaned below their invert elevations with a power vacuum, or other Engineer-approved method, to remove all sediment to allow for the inspection of the bottom of the structures.

The Contractor shall assume the manholes require heavy cleaning with multiple passes to achieve a clean manhole. Manhole cleaning shall be incidental to the sewer cleaning and no additional payment shall be provided.

Sewer Television Inspection.- The initial "pre-rehabilitation" television inspection of the sewers pipes shall be conducted within a week of the cleaning of each segment as long as the flow diversion and lateral bypass pumping system has remained in operation. Should the flow diversion have been temporarily suspended between the cleaning and the televising, or between the initial televising and the lining, then both the cleaning and televising shall be repeated at no additional cost to the project except as described in Detailed Specification "Extension of Time, Additional Compensation."

The camera must be operative in 100% relative humidity conditions. The live image obtained by the camera shall be transmitted to a color monitor of not less than 19 inches. The camera and monitor shall have a minimum 500 line resolution. The monitor shall be located inside the mobile recording studio.

Lighting for the camera shall be adequate to allow a clear picture of the entire periphery of the sewer and shall be varied as required to be effective for all pipe diameters inspected. Remote control of lighting brilliance, camera focus, and camera movement shall be from a control panel inside the mobile recording studio. Cables and equipment used to propel the camera shall not obstruct the camera view or interfere with the documentation of the sewer conditions.

The camera shall be moved through the sewer line at a uniform rate, maximum 30 feet per minute. Whenever possible, the camera shall move in an upstream direction. The camera shall be stopped for no less than 10 seconds at the manhole entrances, each service lateral, exit manholes, and at all points where the sewer is damaged or deficient. The camera shall pan and tilt to provide full view of each service lateral, and at all points where the sewer is damaged or deficient.

**DETAILED SPECIFICATION
FOR
CLEANING AND TELEVISIONING SEWER AND MANHOLES**

5 of 6

If the camera fails to pass through a pipe section, the Contractor shall re-set the equipment and attempt to perform the inspection coming back from the next upstream, identified-for-access, and manhole. If the

inspection cannot be completed from the next manhole, the inspection shall be considered complete and the Engineer will provide written instructions to the Contractor describing how to proceed with the work in that reach of sewer.

The cost of the initial television inspection shall be included in the Pay Item: "Clean ___-inch Dia. Sanitary Sewer". The post rehabilitation television inspection shall be performed once the liner has been installed and cured. No payment shall be provided for post rehabilitation television inspection.

Manhole Inspection.- All sanitary manholes 2 shall be Level 2 MACP inspected. The Level 2 MACP inspections shall gather detailed information to fully document all defects, determine condition of the manhole, and provide specific information needed to recommend corrective action. Level 2 MACP inspection shall use the established defect coding system found in the PACP to the extent possible.

Line Obstructions/Repairs.- If the pre-rehabilitation video inspection reveals areas that require excavation and removal of a section of pipe, and/or spot repair, the Contractor shall submit in writing a request for authorization to perform the excavation, removal, and spot repairs, along with sufficient proof that these repairs are indeed necessary. Such requests shall include method of spot repair, type and manufacturer of repair pipe, method of connection, etc., and shall be submitted prior to commencement of the rehabilitation process. If removal and replacement of pipe, spot repairs, or other measures are required to allow the sewer pipe to be properly rehabilitated, this will be paid for as Extra Work at a price as agreed upon between the Contractor and the Engineer.

Documentation.- The Contractor shall use the City's manhole numbering system on all project documentation. The City will provide the Contractor with utility maps or Drawings showing the manhole numbers.

The Contractor shall provide to the City inspection logs listing the location in relation to adjacent manholes of each infiltration point, service leads, unusual conditions, roots, sewer connections, collapsed sections, presence of scale and corrosion, cracked pipe, wide joints, and other discernible features. The logs shall indicate size and type of pipe material, length of line from manhole, and direction of sewage flow, if present. The logs shall also indicate the time and date of recording. Each log shall be named with the pipe inspections from starting manhole to terminus manhole for each stretch of sewer. All logs shall be in accordance with NASSCO PACP and MACP standards, Version 7.0.

The Contractor shall provide color photographs of sewer laterals and all problem areas.

A color DVD and suitable log with voice and/or computer generated description for both pre- and post-rehabilitation inspection shall be made by the Contractor and kept for later reference by the Engineer.

The Contractor shall supply the Engineer with two electronic copies of the entire and final televised program, including PACP database, MACP database, video pipe recordings, reports on two separate flash drives or portable hard drives. Each drive shall contain the entire package of information. The data shall be provided within 15 working days of completion of field work. The information for individual databases, sewer segments, and recordings shall not be split into several drives. The flash drives or portable hard drives and information within it shall become the property of the City.

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**DETAILED SPECIFICATION
FOR
CLEANING AND TELEVISIONING SEWER AND MANHOLES**

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MEASUREMENT AND PAYMENT

The completed work shall be paid for at the contract unit price for the following contract pay item:

| <u>PAY ITEM</u> | <u>PAY UNIT</u> |
|--|------------------------|
| Clean __-inch Dia. Sanitary Sewer..... | Lineal Foot |
| Level 2 MACP Inspect Manhole | Each |

Payment shall be made on a lineal foot basis for the cleaning and televising of sanitary sewer. Measurements shall be from manhole to manhole, and shall take place with both the Engineer and the Contractor (or their agents) present. Measurements shall be recorded and logged on a daily basis.

The unit prices for these items of work shall include all labor, material, and equipment costs to perform all the work specified herein.

**DETAILED SPECIFICATION
FOR
ITEM #221 - REMOVAL AND DISPOSAL OF SLUDGE AND DEBRIS MATERIAL**

1 OF 2

DESCRIPTION

This work shall consist of removal and disposal of sludge and debris material as a result of the sanitary sewer, manhole, and chamber cleaning operations.

Sanitary Sewer Material.- The material removed from cleaning the 36-inch sanitary sewer pipes and manholes shall be removed from the system as described in Detailed Specification, "Cleaning and Televising Sewer and Manholes" and hauled offsite for legal disposal.

The removal of the material out of the sewer system shall be paid for as part of the sewer or chamber cleaning contract pay item. All other work necessary for the final disposal of the material shall be paid for as part of the "Removal and Disposal of Sludge and Debris Material" contract pay item.

Disposal.- The Contractor shall remove the wet sludge, sediment, debris, and other material from the sewer system and dewater the material at an offsite location, in vacor trucks onsite, or by other means as required for legal disposal and as approved by the Engineer. No material shall be accumulated onsite unless approved by the Engineer. When removing waste, the material shall be decanted to remove as much of the free liquid as possible. If dewatering onsite, the Contractor may discharge the free liquid (supernatant) back into the sanitary sewer at a downstream manhole. The hauled off solids/sludge/material shall be transported in sealed transport trucks. Supernatant shall not be allowed to leak out of the transport trucks onto the roads.

The Contractor shall be responsible for all fees, including all testing fees, material transport, dewatering, drying, and disposal at an approved landfill facility. The Contractor shall provide certified manifests from the landfill, indicating in and out weights of all transport vehicles containing wastes absent of free liquids, to the Engineer.

Solids Material Testing.- Solid waste material holding free liquids are prohibited from disposal at municipal solid waste landfills. The Contractor shall demonstrate the absence or presence of free liquids in accordance with Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846. Material passing the Paint Filter Liquids Test shall be considered "dry."

The City of Ann Arbor (City) believes the sludge is not hazardous and can be disposed of in a Type II landfill. The landfill may require the Contractor to provide proof that the materials are non-hazardous prior to disposal. The Contractor shall be responsible for collecting a sample of the sludge and testing it prior to the start of the sewer/siphon/chamber cleaning.

The Contractor shall provide copies of the sampling results to the Engineer. If required by the landfill, the Contractor is responsible to re-test the material and verify there are no hazardous materials in the sludge and/or debris prior to shipping it to the landfill. No additional payment shall be made for testing or re-testing and verifying the material content.

**DETAILED SPECIFICATION
FOR
ITEM #221 - REMOVAL AND DISPOSAL OF SLUDGE AND DEBRIS MATERIAL**

1 OF 2

MEASUREMENT AND PAYMENT

The completed work shall include all labor, material, fees, tests, and equipment costs to perform all the work specified in the Detailed Specifications and as modified herein to properly dispose of the sediment, debris, sludge, and all other inert material removed from the sewer system.

The complete work as measured for these items of work will be paid for at the contract unit prices for the following contract pay items:

PAY ITEM

PAY UNIT

Removal and Disposal of Sludge and Debris Material Tons

The item "Removal and Disposal of Sludge and Debris Material" shall be a paid for in tonnage of "dry" material absent of free liquids based on the landfill manifests and shall be payment in full for all materials, equipment, and labor necessary to complete this item, including drying the material to the point where it will pass the paint filter test as required by the disposal facility and transporting it to the landfill for disposal.

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

1 of 9

DESCRIPTION

This work shall consist of rehabilitating pipelines by the insertion of a resin impregnated flexible lining and cured-in-place to form a pipe. The cured-in-place pipe (CIPP) shall be saturated with a thermosetting resin and inserted into the existing pipeline. Curing shall be accomplished by circulating hot water only to harden the resin into a hard impermeable pipe. When cured, the hardened CIPP shall be a tight fitting watertight pipe within a pipe. The CIPP shall be continuous from manhole to manhole with no circumferential joints or seams. Except as otherwise specified herein, all work shall be performed in accordance with the City of Ann Arbor (City) Public Services Area Standard Specifications, and as directed by the Engineer.

For a CIPP system to be considered acceptable, the CIPP system must have at least two million lineal feet of successful, documented installations, a minimum of 250,000 lineal feet of which shall have been in Midwestern United States or Canada.

When requested by the Engineer, the Contractor shall submit test results from previous field installations of the same resin system and tube materials as proposed for this installation. The test results must verify that the CIPP physical properties specified in this Detailed Specification have been achieved in the field.

The lining operation shall not begin until the sewer has been cleaned and video inspected in accordance with the Detailed Specification "Cleaning and Televising Sewer and Manholes" and authorization to begin by the Engineer has been granted.

DESIGN CONSIDERATIONS

The required structural CIPP wall thickness shall be based, at a minimum, on the physical properties of the cured composite and per the design of the Professional Engineer. The finished liner shall be designed per ASTM F1216 Appendix X1 for the following condition:

| | |
|--------------------------|---|
| Condition..... | Fully deteriorated gravity pipe |
| Safety Factor | 2 |
| Ovality..... | As measured by Contractor during sewer inspection, assume 2% for bidding purposes |
| Soil Density | 130 pounds per cubic foot (lbs/cft) |
| Soil Modulus | 700 pounds per square inch (psi) for pipe inverts up to and including 15 feet deep, 1,000 psi for pipe inverts greater than 15 feet deep |
| Groundwater Depth: | As field verified |
| Surcharge Loading | HS-20 (Highway) when any part of the sewer is under any major street, county road, or state highway; E-80 (Railroad) when under any railroad. |

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

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The acceptable resin system values to be incorporated into the formula for liner thickness shall not be greater than the following:

Table 1

| | Polyester | Enhanced Polyester | Vinyl Ester | Epoxy |
|-----------------------------------|-----------|--------------------|-------------|---------|
| Short Term Flexural Modulus (psi) | 300,000 | 400,000 | 250,000 | 300,000 |
| Long Term Flexural Modulus (psi) | 150,000 | 200,000 | 125,000 | 150,000 |
| Creep Retention Factor | 50% | 50% | 50% | 50% |
| Flexural Strength (psi) | 4,500 | 4,500 | 4,500 | 5,000 |

Where the requirements of this specification conflict with ASTM F 1216 or ASTM D5813 this Detailed Specification shall govern.

The Contractor shall determine the liner thickness and resin quantity for this project per ASTM F1216, Appendix X1. Liner thickness, resin, and resin quantity shall be furnished to the Engineer for review and approval prior to beginning work. The design calculations for wall thickness shall be completed by a Professional Engineer proficient in the design of pipeline systems, licensed in the State of Michigan, with design calculations signed and sealed. The CIPP design shall assume no bonding to the original pipe wall.

The Contractor shall submit, prior to installation of the lining materials, certification of compliance with these specifications. Certified material test results shall be included that confirm that all materials conform to these specifications. Materials not complying with these requirements will be rejected.

For each submittal and re-submittal, the Contractor shall allow at least 14 calendar days from the date of the submittal to receive the Engineer's acceptance or request for revisions. The Engineer's comments shall be incorporated into the re-submitted plans, calculations, and descriptions. The Engineer's acceptance of the submittal is required before beginning the work. Re-submittals shall be reviewed and returned to the General Contractor within 14 calendar days. Required revisions will not be a basis of payment for additional compensation, extra work, or an extension of contract time. The Contractor shall include time for this entire review process in their schedule.

MATERIAL

All materials shipped to the project site shall be accompanied by test reports certifying that the material conforms to the ASTM standards listed herein. Materials shall be shipped, stored, and handled in a manner consistent with written recommendations of the CIPP system manufacturer to avoid damage. Onsite storage locations shall be as indicated on the Drawings and approved by the Engineer.

Preliner Tube.- The preliner shall be a polyethylene material compatible with the lining system, and shall be utilized where necessary to accommodate infiltration, damaged, or missing pipe.

Felt Liner Tube.- The tube shall consist of one or more layers of absorbent, flexible, non-woven felt material. The tube shall be capable of carrying the specified resin, constructed to be able to withstand installation pressures and curing temperatures, have sufficient strength to bridge missing pipe and stretch to fit irregular pipe sections at all pipe locations, and be compatible with the resin used.

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

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The outer tube coating shall consist of an impermeable, flexible membrane that contains the resin and allows for visual inspection and verification of proper resin impregnation (“wet-out”) procedure. The coating shall hold the resin inside the tube without leakage, accommodate installation, and stretch to the size and shape of the existing sewer, and shall not delaminate before, during, or after curing.

The tube shall have a uniform thickness that when compressed at installation pressures will meet, or exceed, the design thickness. The thickness of the tube shall be calculated based upon the resin system values given in this Detailed Specification.

The CIPP wall thickness shall be calculated from the equation in ASTM F1216, Appendix X1, based upon the parameters given in this Detailed Specification. The minimum CIPP wall thickness shall be not less than the value calculated by that equation. Any layers of tube that are not saturated with resin and capable of being cured shall not be deemed to have been included in the calculated CIPP wall thickness.

The tube shall be fabricated to a size and length that when installed will fit sufficiently tight within the existing pipe so as to not leak at manholes, at service connections, or through the wall of the installed pipe. The tube shall be properly sized to the diameter of the existing pipe and the length to be rehabilitated and be able to stretch to fit irregular pipe sections and negotiate bends. The Contractor shall determine the minimum tube length necessary to effectively span the designated run between manholes. The Contractor shall verify the lengths in the field prior to impregnation of the tube with resin, to ensure that the tube will have sufficient length to extend the entire length of the run. The Contractor shall also measure the inside diameter of the existing pipelines in the field prior to ordering liner so the liner can be installed in a tight-fitted condition. Allowance for circumferential stretching of the tube during insertion shall be made as per manufacturer's recommendations. Overlapped layers of felt in the longitudinal seam that cause lumps in the final product shall not be utilized

The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that may cause delamination in the cured CIPP. No dry or unsaturated layers shall be evident.

The wall color of the interior pipe surface of the CIPP after installation shall be a light reflective color so that a clear detail examination with closed circuit television inspection equipment may be made. The hue shall be dark enough to distinguish a contrast between the fully resin saturated felt fabric and dry or resin lean areas.

Seams in the tube shall be stronger than the unseamed felt and shall meet the requirements of ASTM D5813. Where the length of the tube to be installed requires joining along the circumference of the tube, the sewn joint shall not be perpendicular to the long axis but spirally formed and sewn.

The outside of the tube shall be marked for distance at regular intervals along its entire length, not to exceed 5 feet. Such markings shall include the manufacturers name or identifying symbol. The tubes must be manufactured in the USA.

The length of the tube shall be that deemed necessary by the Contractor to effectively carry out the insertion and seal the pipe at the inlet and outlet points, plus that amount required to run-in and run-out for the

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

4 of 9

installation process. The Contractor shall verify the lengths in the field before cutting the tube to length. Lengths of sewer shall be lined over one or more access points as shown on the Drawings.

Resin.- Resin shall be a polyester, enhanced polyester, vinyl ester, or epoxy system including all required catalysts, initiators, or hardeners that when cured within the tube creates a composite that satisfies the requirements of ASTM F1216 and ASTM F1743, the physical properties herein, and those which are to be utilized in the design of the CIPP for this project. Resin selected shall be resistant to the chemical composition of the sewage and comply with the structural requirements of this specification.

Resin selected shall be Styrene-Free.

The resin shall be thermosetting resin that is compatible with the lining process and shall meet the requirements of ASTM F1216 except as otherwise specified in this Detailed Specification. The resin shall be able to cure in water with an initiation temperature for cure as required by the liner manufacturer, but not greater than maximum temperatures required under ASTM F1216. The cured resin/felt system shall be suitable for the expected conditions within the existing sanitary sewer.

The Contractor is responsible for choosing a resin system that is capable of meeting the physical and cured-in-place properties and performance requirements as detailed in this specification.

Field Cured Line.- The completed liner as installed and fully cured-in-place shall meet the minimum physical properties for short term flexural modulus and flexural strength as shown in Table 1.

Remote Temperature Sensing Devices.- Fiber optic probes shall be installed to monitor the average temperature along the entire length of the tube as it cures. Devices shall be provided by VeriCure or an Engineer-approved equal.

CONSTRUCTION METHODS

The Contractor shall carry out their operations in strict accordance with all Occupational Safety and Health Administration (OSHA), Michigan Occupational Safety and Health Administration (MIOSHA), and manufacturer's safety requirements. The Contractor shall be solely responsible for safety during the performance of all work. The Contractor shall not enter into any sewer segment where hazardous conditions may exist until such time as the source of those conditions is identified and eliminated by the Contractor and/or the City. The Contractor shall coordinate their work with local fire, police, and emergency rescue unit.

The Contractor shall be responsible for any damage to public or private property resulting from their sewer lining or televising activities and shall repair or otherwise make whole such damage at no cost to the City.

Cleaning of Pipelines.- Prior to rehabilitation of any sewer, it shall be the responsibility of the Contractor to remove all internal deposits from the pipeline. This shall include dirt, debris, mud, bricks, grease or oils, mineral deposits, root masses, pieces of broken pipe, etc. Cleaning of sewer shall be in accordance with the City of Ann Arbor Public Services Area Standard Specifications, Detailed Specification "Cleaning and Televising Sewer, Manholes, and Chambers," and as directed by the Engineer.

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

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Pre-Rehabilitation Inspection of Pipelines.- Inspection of pipelines shall be performed after the pipe has been cleaned, by experienced personnel trained in locating breaks, obstacles, and service connections by closed circuit television.

The interior of the pipeline shall be carefully inspected to determine the location and extent of any structural failures. The location of any conditions which may prevent proper installation of lining materials into the pipelines shall be noted so these conditions can be corrected as specified in this Detailed Specification and Detailed Specification "Cleaning and Televising Sewer, Manholes, and Chambers".

Diverting/Bypassing Flow.- The Contractor shall provide for the transfer of main line and/or lateral flow around the section or sections of pipe that are to be cleaned, televised, and rehabilitated. The work shall consist of diverting, pumping, and bypassing flow in the existing sewers in accordance with Detailed Specification "Sewer Flow Control" and as directed by the Engineer.

Line Obstructions.- It shall be the responsibility of the Contractor to clear the line of obstructions such as solids, dropped joints, root masses, protruding branch connections, or broken pipe that will prevent proper insertion of the liner in accordance with Detailed Specification "Cleaning and Televising Sewer, Manholes, and Chambers" and as directed by the Engineer.

Installation of Resin Impregnated Tube.- The Contractor shall designate a location where the uncured resin in the original containers and the unimpregnated liner will be resin impregnated prior to installation. The Contractor shall allow the Engineer to inspect the materials and procedure. A resin and catalyst system compatible with the requirements of this Detailed Specification shall be used. The quantities of the liquid thermosetting materials shall be provided in accordance with manufacturer's standards to provide the cured liner properties specified. Sufficient resin shall be used to fill the volume of air voids in the liner with additional allowance for polymerization, shrinkage, and loss of resin through cracks and irregularities in host pipe wall. The Contractor shall ensure the proper amount of resin is uniformly distributed throughout the entire length of the tube.

The wetting out, installation, and curing of the resin impregnated tube shall be in accordance with ASTM F1216 and per manufacturer's specifications. The tube shall be inserted through existing opening by means of an inversion process, the application of a hydrostatic head sufficient to fully extend the liner to the next designated access point, or other means as approved by the Engineer.

The process will be adjusted as necessary to ensure a complete lining without over-stressing or tearing the lining, with sufficient pressure to hold the liner snug to the pipe wall, and to produce dimples at side connections and flared ends at the entrance and exit access points. The use of a lubricant is recommended and if used, such lubricant shall be compatible with the rehabilitation process.

The manufacturer's standards shall be closely followed during the elevated curing temperature so as not to over-stress the felt fiber and cause damage or failure of the liner prior to cure.

Curing.- Hot water is required for full length liners. After installation of the resin impregnated liner is completed, the Contractor shall supply a suitable heat source and water recirculation equipment as necessary to cure the liner. The equipment shall be capable of delivering hot water to the far end of the liner through a hose, which has been perforated per manufacturer's recommendations, to uniformly raise

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

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the water temperature in the entire pipe above the temperature required to affect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.

For quality control during the CIPP lining operation, the Contractor shall utilize remote temperature sensing devices placed between the host pipe and the liner to continuously monitor the liner cure incrementally every 18 inches or less to verify that an exothermic reaction has occurred and that a full cure has taken place along the full length of the CIPP liner. Measuring temperatures at the liner endpoints only will not be permitted. The cure information must be taken from the bottom third of the pipe liner. Cure parameter information shall be provided by the resin manufacturer.

Liner and/or host pipe interface temperature shall be monitored and logged during curing of the liner. The monitoring system must have the ability to be remotely viewed live by the Engineer. Data collected shall be provided to the Engineer in Excel spreadsheet and graphical viewer formats at the same time as the post-lining inspection videos are provided.

Initial cure shall be deemed to be completed when the remote sensing devices reflect that the cure temperature, as recommended by the resin/catalyst system manufacturer, have been achieved. The cure period shall be of a duration recommended by the resin manufacturer, as modified for site-specific conditions, during which time the recirculation of the water and cycling of the heat exchanger to maintain the temperature in the liner continues.

Cool-Down.-The Contractor shall cool the CIPP in accordance with the CIPP manufacturer's recommendations, to a temperature below 100°F before relieving the static head in the liner. Temperatures and curing data shall be monitored and recorded by the Contractor throughout the installation process to ensure that each phase of the process is achieved in accordance with the CIPP manufacturer's recommendations. Cool-down may be accomplished by the introduction of cool water into the liner to replace water being drained from the downstream end. Care shall be taken in the release of the static head such that a vacuum will not be developed that could damage the newly installed liner. The cooled water shall be released to the existing sanitary sewer at a rate that is approved by the Engineer and the City of Ann Arbor's Waste Water Treatment Plant (WWTP) superintendent.

Finish.- The cured liner shall be continuous over the entire length of an insertion run and be as free as commercially practicable from visual defects such as foreign inclusions, dry spots, pinholes, and delamination. The lining shall be impervious and free of any leakage.

Any defects which will affect the integrity of the liner, or any deficiencies in required strengths or thicknesses, shall be repaired or removed and replaced at the Contractor's expense, in a manner acceptable to the Engineer.

Sealing Liner at the Ends.- A seal, consisting of a hydrophilic sealing gasket compatible with the installed CIPP, shall be installed at each manhole/pipe wall interface. The seal shall be a seamless molded tubular design that swells in the presence of water. The seal shall be secured in place by a retaining ring.

Post-Rehabilitation Television Inspection.- The completed sewer shall be television inspected and color videotaped, by the Contractor, in accordance with Detailed Specification "Cleaning and Televising Sewer and Manholes" No payment shall be provided for post rehabilitation television inspection.

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

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Acceptance Tests.- The Engineer shall perform Acceptance Testing in accordance with ASTM F1216 (including appendices) and ASTM D5813.

The Contractor shall prepare plate test samples to be cured with the CIPP operation. The Contractor shall capture and prepare 10 sample specimens of the liner for the Acceptance Testing to be performed by the Engineer for each section of sewer lined in accordance with Section 8 of ASTM F1216 for testing flexural strength and delamination. The Contractor shall prepare the samples for shipment to the laboratory, including cutting samples to proper length and width as described in the applicable ASTM test procedures. Samples shall be labeled for date, diameter, section of sewer, and delivered to the Engineer for testing. The cost of the sample postage, shipping, and testing will be paid for by the City. When tested, each sample shall meet the physical properties for flexural modulus and flexural strength used in the design calculations.

Air testing on isolated sections of sewer (minimum of 2 to 3 feet in length) shall be required if post-rehabilitation inspection indicates leaks in the liner. Air testing shall be performed on longer sections or multiple sections of sewer as required to identify the location(s) and full extent of defects. Such testing shall be performed by the Contractor at no additional expense to the project.

CIPP wall thickness shall be verified in accordance with Section 8.6 of ASTM F1216 and using test methods consistent with Section 8.1.2 of ASTM D5813.

The Engineer will have all flexural and delamination testing performed by an independent, ASTM-certified testing laboratory. The testing laboratory shall submit all test results directly back to the Engineer within 14 calendar days. The Engineer will provide a written copy of the test results to the Contractor within 3 business days of receiving them from the laboratory. The Contractor may elect to restore flow in the mainline sanitary sewer during this period of time. However, if the test results indicate that the liner fails to meet the project requirements and that remedial work is required to be performed, the Contractor shall perform any required cleaning in order to allow the remedial work to be performed at no additional cost to the project.

Should the test results indicate that the liner fails to meet the required physical properties as specified herein, the work shall be rejected. The Contractor shall have up to 10 calendar days to propose a repair/replacement plan consistent with the requirements of Section d.15 of this Detailed Specification for the Engineer's review and acceptance.

While repair/replacement work is performed, the Contractor shall continue to be responsible for maintaining flows in the mainline and lateral sanitary sewers in accordance with the requirements of the Detailed Specification "Sewer Flow Control." The unit price for the item of work "Sewer Flow Control" shall not be adjusted for any increase in contract time or required work due to the repair or replacement of defective materials or faulty workmanship.

The Contractor shall remove and replace or repair any defects in the installed liner to the satisfaction of the Engineer at no additional cost to the project. Contract time will continue during the period of time from the receipt of failing test results to the completion of the repairs.

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

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Clean-Up.- Upon completion of the installation work and after required testing indicates the linings are acceptable, the Contractor shall restore the project area affected by their operation in accordance with Detailed Specification “Project Clean-Up and Restoration, Special.”

Traffic Control.- During the entire rehabilitation process, the Contractor shall provide all necessary barricades, signs, traffic regulators (flaggers), minor traffic devices, etc., to maintain both vehicular and pedestrian traffic in accordance with the Michigan Manual of Uniform Traffic Control Devices, as shown on the Drawings, and in accordance with Detailed Specification “Maintenance of Traffic.”

Warranty.- The materials used for the project shall be certified by the manufacturer for the specified purpose. The Contractor shall warrant the liner material and installation for a period of 2 years. During the Contractor warranty period, any defect which may materially affect the integrity, strength, function, and/or operation of the pipe, shall be repaired at the Contractor’s expense in accordance with procedures described in this Detailed Specification, Section d.15, “Liner Repair/Replacement,” and as recommended by the manufacturer.

The Contractor shall conduct warranty CCTV inspection of sewers which were lined. This work shall be completed at the Contractor’s expense, no sooner than 2 months prior to the expiration of the original warranty period. The televising shall be performed in the presence of the Engineer. Television inspection that is not performed within the presence of the Engineer will not be accepted and shall be performed again at the Contractor’s sole expense. Any areas that do not meet the requirements of this Detailed Specification will be repaired or re-lined at no additional cost to the City.

Liner Repair/Replacement.- The Contractor shall submit their Liner Repair/Replacement Plan and all design calculations to the Engineer for review and acceptance. The plan shall include:

A. The Contractor shall outline specific repair or replacement procedures for potential defects that may occur in the installed liner, in accordance with recommendations by the liner system manufacturer.

B. The manufacturer shall provide a detailed step by step repair procedure, resulting in a finished product meeting the estimated life cycle of the component and requirements of these Detailed Specifications. For the purposes of this project, the life-cycle of this rehabilitation shall be considered to be 50 years.

C. Should a potential issue be un-repairable, in the opinion of the Engineer, the Contractor, together with the manufacturer, shall define the best recommended procedure for the total removal and replacement of the system.

D. The Contractor shall receive no additional compensation for the repair or replacement of systems deemed non-conforming to the requirements of these Contract Documents and unacceptable by the City.

**DETAILED SPECIFICATION
FOR
CIPP SEWER LINING**

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MEASUREMENT AND PAYMENT

The completed work as measured for this item of work will be paid for at the contract unit price for the following contract item:

| <u>Pay Item</u> | <u>Pay Unit</u> |
|--|------------------------|
| CIPP Line __-inch Dia. Sanitary Sewer..... | Lineal Foot |
| Preline __-inch Dia. Sanitary Sewer..... | Lineal Foot |

Rehabilitation of sanitary sewer will be paid for at the contract unit price per lineal foot. The contract unit price paid shall be payment in full for all labor, material, and equipment required for rehabilitation of existing sanitary sewers by insertion of a CIPP liner and shall include, but is not limited to; furnishing, transporting, preparing, and installing the structural pipe liner and CIPP end seals; furnishing and installing remote temperature sensing devices used during the liner curing process; reconnecting existing sewers or leads; performing any needed liner repairs; gaining access to work site; removal and replacement of site improvements; post-lining sewer televising; all required warranty work; and all other work and items necessary to complete the work as detailed within this Detailed Specification.

**DETAILED SPECIFICATION
FOR
ITEM #234 – INLET FILTER, SPECIAL**

1 of 1

DESCRIPTION

This work shall consist of properly installing curb and gutter inlet filters, at locations indicated on the plans, and as directed by the Engineer, maintaining during the entire construction period, and removing at the end of construction. The curb and gutter inlet filters shall be constructed in accordance with the detailed plans.

MEASUREMENT AND PAYMENT

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications, the project plans and as modified by this Detailed Specification.

Curb and gutter inlet filters will be paid for by the unit "Each". A filter will be paid for when initially installed at a particular structure. Payment will be for installing, maintaining, reinstalling, and, removing the filter at the end of construction and as directed by the Engineer.

PAY ITEM

Inlet Filter, Special

PAY UNIT

Each

**DETAILED SPECIFICATION
FOR
ITEM # 235 – INTERNAL CHIMNEY SEAL**

1 of 2

DESCRIPTION

This specification includes the materials and procedures required for the internal sealing of the frame-chimney joint area of brick, block and precast manholes, as required in the contract documents.

A plural component, urethane internal manhole frame-chimney sealant, as specified herein shall be applied in all assigned manholes within the areas included in this project. If excavation is required to repair, rebuild, or replace a manhole; or if manhole linings or coatings are required, the sealant shall be applied after that work has been completed.

Design Requirements – The manhole frame-chimney sealant shall be designed to prevent leakage of water through the above-described portions of the manhole throughout its design life. The manhole frame-chimney sealant shall remain flexible and bonded to the inside surfaces of the manhole frame and masonry throughout its design life.

MATERIALS

Manhole frame-chimney sealant consisting Cretex Easy Seal SG or engineer approved equal of a plural component, spray applied, quick setting urethane material conforming to the following requirements:

Viscosity

- a. Part A, 12,000-17,000 cps @ 25C, 20 RPM per ASTM D2393
- b. Part B, 300-510 cps @ 25C, 300 RPM per ASTM D4287

Weight

- a. Weight/Gallon Part A, 8.90-9.20 lb/gal per ASTM D1875
- b. Weight/Gallon Part B, 9.60-9.75 lb/gal per ASTM D1875
- c. Weight/Gallon Mixed, 9.25-9.48 lb/gal per ASTM D1875

Processing

- a. Mix Ratio By Weight, 100:107
- b. Mix Ratio by Volume, 100:100
- c. Cure Schedule, Hours, 4-5 hours @ 25C

Gel Time

Gel Time, Seconds, 0-15 seconds @ 25C, 100 grams per ASTM D3056

Cured Properties

- a. Hardness, Shore A, 95-100 per ASTM D2240
- b. Elongation, 379-473% per ASTM D638 or ASTM D412
- c. Tensile Strength, 2616-3216 psi per ASTM D638 or ASTM D412
- d. Peel Strength, 30.8-46.8 PLI (AL to AL) PER ASTM D1876

CONSTRUCTION METHOD

All concrete and masonry surfaces must be clean. Grease, organic matter, roots must be completely removed.

**DETAILED SPECIFICATION
FOR
ITEM # 235 – INTERNAL CHIMNEY SEAL**

2 of 2

The CONTRACTOR shall have the manufacturer's recommended plural cartridge dispensing tool and all other equipment/tools necessary to prepare the surfaces of the manhole and apply the manhole frame-chimney sealant.

All loose and protruding mortar and brick that would prevent proper application of the Seal, shall be removed and the appropriate areas of the manhole frame, chimney and or cone/corbel cleaned and prepared. All areas to be sealed shall be free of surface contaminates, be dry and free of any excessive voids or defects. If an adequate sealing surface does not exist on the masonry, repair materials such as Cementitious grout shall be used to fill voids and profile the chimney area of the manhole.

“CEMENTITIOUS GROUT Cementitious grout shall be a premixed, non metallic, high strength, non-shrink grout which meets the requirements of ASTM C-191 and C-827 as well as CRD-C-588 and C-621. When mixed to a mortar or "plastic" consistency, it shall have minimum one day and 28 day compressive strength of 6,000 and 9,000 psi, respectively.”

All surface preparation shall be completed in strict accordance with the frame-chimney sealant manufacturer's published instructions.

The internal frame-chimney sealant shall be applied to cover 24 vertical inches inside of the entire circumference of the chimney at a minimum thickness of one hundred (100) mils.

MEASUREMENT AND PAYMENT

This item shall be paid at the unit price bid per manhole and shall include the cost of furnishing and applying the frame-chimney sealant material along with the surface preparation work needed to facilitate proper application.

The completed work as measured for these items of work will be paid for at the Contract Unit Prices for the following Contract (Pay) Items:

| <u>PAY ITEM</u> | <u>PAY UNIT</u> |
|------------------------|------------------------|
| Internal Chimney Seal | Ea. |

The unit prices for these items of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specificatio

**DETAILED SPECIFICATION
FOR
ITEM # 236 – RECONSTRUCT FLOW CHANNEL**

1 of 2

DESCRIPTION

This work shall consist of reconstructing flow channel in accordance to what was described in Section 403 of the Michigan Department of Transportation 2012 Standard Specifications for Construction, and as specified herein.

MATERIALS

Manhole bases and flow channel shall be formed of QUIKRETE Fast Setting

Concrete Mix PRODUCT NO.1004-50 or Engineer approved equal. The use of PVC SDR-26 to establish and form the flow channel if and when applicable upon Engineer approval.

METHODS OF CONSTRUCTION

All concrete and masonry surfaces must be clean. Grease, organic matter, loose bricks, mortar, unsound concrete, roots and other materials must be completely removed.

Thoroughly clean existing flow channel and remove any accumulated sediment, debris, and broken or loose concrete. Properly dispose of all materials removed from the flow channel.

Where the process requires interruption of flow, the Contractor shall provide all necessary diversion or bypass pumping equipment to handle the flow for the duration of the flow channel rehabilitation, including curing times where applicable.

Form and place the concrete mix, meeting City of Ann Arbor Materials Standards, to create new flow channel up to the springline of the flow channel.

Install concrete flow channel up to springline of pipe with $\frac{3}{4}$ " to 1" gap at pipe ends provided to maintain joint flexibility.

Changes in direction of the sewer and entering branch or branches shall be laid out in smooth curves of the longest possible radius which is targeted to the centerlines of adjoining pipelines. Regardless of differences in entrance and exit elevations, flow channels for all pipes are to be formed to present a smooth transition of flow and shall be subject to the approval of the ENGINEER.

Flow channels for sewer structures shall be finished in accordance with the city details. All flow channels shall be screeded and floated to a smooth, uniform surface and troweled to a hard surface finish. The flow channel and surface surrounding it, shall be reformed and finished to provide flow channels. All such work shall be done with the proper tools and by careful workmen competent to do such work.

All necessary adjustments required to accommodate encountered field conditions for reconstructed

**DETAILED SPECIFICATION
FOR
ITEM # 236 – RECONSTRUCT FLOW CHANNEL**

2 of 2

flow channel including all necessary dewatering shall be included in the cost of the flow channel reconstruction and will not be paid for separately.

MEASUREMENT AND PAYMENT

The completed work as measured shall be paid at the contract unit price for the following contract items (pay items):

PAY ITEM

PAY UNIT

Reconstruct flow channel

Ea

Payment for this item of work shall include all labor, materials and equipment needed to accomplish the work, regardless of depth or type of structure.

**DETAILED SPECIFICATION
FOR
ITEM #237 - MANHOLE CEMENTITIOUS LINER**

1 of 3

DESCRIPTION

Sanitary sewer manhole cementitious liner with spray applied or centrifugally cast light-weight structural reinforced concrete.

The Cementitious Liner shall be applied on the manhole base, bench, walls, corbel/cone, and chimney of brick, block, or precast manholes.

INSTALLER EXPERIENCE AND QUALIFICATIONS

Contractor must demonstrate a minimum of 3-years of recent experience.

SUBMITTALS

Submit to the Owner for review and acceptance at least 14-days prior to starting manhole cementation for the following:

- Manufacturers' Certificate of Compliance certifying compliance with the applicable Specifications and Standards. The certifications shall list all materials furnished under this Section.
- Certified copies of factory tests required by the applicable Standards, the Manufacturer, and this Section.
- Manufacturer's handling, storage, and installation instructions and procedures.

MATERIALS

- The materials used shall be designed, manufactured, and intended for sewer manhole rehabilitation and the specific application in which they are used.
-
- The materials shall have a proven history of performance in sewer manhole rehabilitation. The materials shall be delivered to the job site in original unopened packages clearly labeled with the manufacturer's identification and printed instructions.
- All materials shall be stored and handled in accordance with recommendations of the manufacturer.
- All materials shall be mixed and applied in accordance with the manufacturer's written instructions.
- The material applied to the surface of the manhole shall be a cementitious blend
- of calcium aluminate cement and manufactured calcium aluminate aggregates
- for constructing a liner that is impervious to the flow of water, is resistant to
- sulfide attack, and restores structural integrity to existing manhole walls.
- A monolithic liner shall be formed which covers all interior manhole surfaces and
- shall have the following minimum requirements at 28-days:
 - Compressive Strength (ASTM C-579B) 3,000-psi
 - Tensile Strength (ASTM C-496) 300-psi
 - Flexural Strength (ASTM C-293) (Modified) 600-psi
 - Shrinkage (ASTM C-596) 0% at 90% R.H.
 - Bond (ASTM C-321) 130-psi

**DETAILED SPECIFICATION
FOR
ITEM #237 - MANHOLE CEMENTITIOUS LINER**

2 of 3

PREPARATORY PROCEDURES

Contractor will perform preliminary cleaning of the structure with high-pressure water-blasting at a minimum of 4000psi and 4gpm to obtain the desired concrete surface profile (CSP) of 3 or greater. If the desired CSP is not achieved by high-pressure water-blasting other methods of obtaining the surface profile such as abrasive blasting and acid etching shall be used.

The Contractor shall remove all the existing manhole steps. The metal portion of all steps will be removed to within ½” of the manhole interior wall surface. The remaining protruding metal portion of the step shall be covered with a cementitious material to provide a smooth surface on and around the protrusion for the liner to bond.

All open joints, voids, holes, cracks, and missing bricks larger than 3 inches in diameter or equivalent shall be patched with a cementitious material to provide a smooth surface for the cementitious liner to bond.

All roots, loose, cracked or disintegrated material shall be removed from the area to be patched exposing a sound substrate. The cementitious patch material shall be allowed to cure according to the manufacturer’s specifications before continuing with the cementitious Liner installation process.

Bench shall be sloped so that water will flow back into channel.

When the channel is required to be lined the Contractor shall plug the inlet pipe, inspect for infiltration leaks around the inlet and outlet pipes and in the channel. All leaks present shall be stopped by the use of chemical grout injection and/or by the use of fast-setting cement.

The final prepared surface shall have a concrete surface profile of 3 or greater and have a smooth uniform appearance.

FINISHED LINER

The finished Cementitious Liner shall be continuous over the entire length of the structure from the cover seat to the invert, including the channel. Liner shall be bonded to the structure, as required by design, and in such a way as to not allow any water to flow behind the liner and enter back into the waste stream.

The liner shall be visually inspect from inside the structure for any defects that may affect performance of the liner. All defects shall be fixed to conform with these specifications.

CLEANUP

Clean up the entire project area after the work is completed and all testing accepted. Remove and dispose of all excess material and debris not incorporated into the permanent installation.

**DETAILED SPECIFICATION
FOR
ITEM #237 - MANHOLE CEMENTITIOUS LINER**

3 of 3

MAINTENANCE

Any defects shall be repaired in accordance with the manufacturers' recommendations on an as needed basis.

WARRANTY

Manufacturer and Installer of the Liner system shall provide a 10 year warranty on materials and labor.

MEASUREMENT AND PAYMENT

Cementitious Liner shall be measured as units, complete in place. The completed work as measured shall be paid at the contract unit price for the following contract items (pay items):

PAY ITEM

PAY UNIT

Cementitious Liner

Vf

Payment for this item of work shall include all labor, materials and equipment needed to accomplish the work, regardless of depth or type of structure.

**DETAILED SPECIFICATION
FOR
ITEM #238 – CLEAN-UP & RESTORATION, SPECIAL**

1 of 2

DESCRIPTION

This item of work shall conform to Division IX, Section II, Item No. 891, Clean-Up & Restoration of the Public Services Area Standard Specifications, except as specified herein.

This work shall include the removal of all surplus materials from the site including; but not limited to; tools, dirt, rubbish, construction debris, and excess excavated material. This work shall also include the restoration of all existing lawn areas, road surfaces, culverts, drives, and sidewalks disturbed by the work. This work includes placing topsoil, fertilizer, seeding, and furnishing and installing mulch blankets on all disturbed areas as approved by the Engineer. Mulch blankets are required on all seeded areas.

MATERIALS

The materials shall meet the requirements specified in the MDOT 2012 Standard Specifications as designated, as specified herein, and as approved by the Engineer:

- Seed shall be THM seed mixture as described in Table 8 16-1.
- Fertilizers shall be a Class A. The percentages by weight shall be 12- 12- 12, or as approved by the Engineer.
- Water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances.
- Mulch blankets shall be High Velocity Straw Mulch Blankets as specified in MDOT section 917.

MAINTENANCE AND ACCEPTANCE

It is the responsibility of the Contractor to establish a dense lawn of permanent grasses, free from mounds and depressions prior to final acceptance and payment of this project. Any portion of a seeded area that fails to show a uniform germination shall be reseeded. Such reseeded shall be at the Contractor's expense and shall continue until a dense lawn is established. The Contractor is responsible for restoring all areas disturbed by his construction.

The Contractor shall maintain all lawn areas until they have been accepted by the Engineer. Lawn maintenance shall begin immediately after the grass seed is in place and continue until final acceptance with the following requirements:

Lawns shall be protected and maintained by watering, mowing, and reseeded as necessary, until the period of time when the final acceptance and payment is made by the Engineer for the project, to establish a uniform, weed-free, stand of the specified grasses. Maintenance includes furnishing and installing additional topsoil, and reseeded all as may be required to correct all settlement and erosion until the date of final acceptance.

**DETAILED SPECIFICATION
FOR
ITEM #238 – CLEAN-UP & RESTORATION, SPECIAL**

2 of 2

Damage to seeded areas resulting from erosion shall be repaired by the Contractor at the Contractor's expense. Scattered bare spots in seeded areas will not be allowed over three (3) percent of the area nor greater than 6"x 6" in size.

When the above requirements have been fulfilled, the Engineer will accept the lawn.

Cleanup and Restoration must be performed upon the completion of each sub-phase of work (as described in the Detailed Specification for Project Schedule), and not as one single operation at the completion of the entire project.

MEASUREMENT AND PAYMENT

Measurement and payment for this item of work shall conform to Division IX, Section 2, Item No. 891, Clean-Up & Restoration of the Public Services Area Standard Specifications except as modified herein.

The completed work for "Clean-Up & Restoration, Special" will be paid for on a lump sum (LS) basis. 80% of said lump sum shall be paid upon completion and approval of the site by the Engineer. By May 31st of the year following the completion of the project, the Engineer will inspect the seeded turf to ensure that the end product is well established; weed free, and in a growing and vibrant condition. If the Engineer determines that the restored areas meet the project requirements, the remaining 20% of the lump sum will be paid. If the Engineer determines that the restored areas do not meet the project requirements, the Contractor will continue with any and all measures necessary to meet the project requirements. All costs associated with the remedial measures shall be borne entirely by the Contractor.

Pay Item

Pay Unit

Clean-Up & Restoration, Special

Lump Sum

**DETAILED SPECIFICATION
FOR
FINAL ACCEPTANCE**

1 of 3

DESCRIPTION

The Contractor shall conform to the requirements of Sections 104.07 and 109.07 of the 2012 edition of the Michigan Department of Transportation (MDOT) Standard Specifications for Construction, “Contractor Obligations” and “Final Inspection, Acceptance, and Final Payment,” respectively.

Partial Acceptance.- Upon completion of a portion of the work, the Contractor may request, in writing, partial acceptance of that portion of the work. Within 7 days of the Contractor’s written request, the Engineer will conduct an inspection to determine if the Contractor has satisfactorily completed that portion of the work in accordance with the contract.

Within 7 days of the inspection, the Engineer will provide written notice of either partial acceptance for that portion of the work, or an explanation for rejecting the Contractor’s request for partial acceptance. If the Engineer grants the partial acceptance, the Engineer will designate in writing what portion of the work is partially accepted and the effective date of the partial acceptance.

Should the Engineer consider that the portion of the work is not complete, the Engineer shall notify the Contractor in writing stating the reasons. The Contractor shall complete the work and send a second written notice to Engineer certifying the project, or designated portion of the project, is partially complete. The Engineer and City of Ann Arbor (City) will re-inspect the work.

Partial acceptance will relieve the Contractor of maintenance responsibility and third-party damage liability for the designated portion of the work. By relieving the Contractor of maintenance and third-party damage claims, the City does not relieve the Contractor of responsibility for defective work or damages caused by the Contractor’s operations. The Contractor shall not construe partial acceptance to be final inspection, final acceptance of any part of the work, or waiver of any legal rights specified under Section 107 of the 2012 edition of the MDOT Standard Specifications for Construction.

Delayed Acceptance.- Upon completion of contract work items designated for delayed acceptance, the Contractor must notify the Engineer, in writing, of the completion of the designated work. Within 7 days of the Contractor’s written request, the Engineer will conduct an inspection to determine if the Contractor has satisfactorily completed the designated portion of the work in accordance with the contract. Within 7 days of the inspection, the Engineer will notify the Contractor, in writing, of the date the delayed acceptance period begins.

Delayed acceptance will relieve the Contractor of maintenance responsibility and third-party damage liability for the designated portion of the work. By relieving the Contractor of maintenance and third-party damage claims, the City does not relieve the Contractor of responsibility for defective work or damages caused by the Contractor’s operations. The Contractor shall not construe delayed acceptance to be final inspection, final acceptance of any part of the work, or waiver of any legal rights specified under Section 107 of the 2012 edition of the MDOT Standard Specifications for Construction.

Final Clean-Up.- Unless otherwise required in the Contract Documents, the cost of final clean-up is included in the contact unit price for the related items of work (contract pay items).

Before final acceptance, the Contractor must complete all of the following:

**DETAILED SPECIFICATION
FOR
FINAL ACCEPTANCE**

2 of 3

1. Remove the following from the project limits, unless otherwise required in the Contract Documents or directed by the Engineer:
 - A. Unused and/or unneeded materials;
 - B. Temporary aggregates;
 - C. Temporary soil erosion and sedimentation control devices;
 - D. Rubbish;
 - E. Protective fencing;
 - F. Temporary pipe and supports;
 - G. Equipment;
 - H. Temporary traffic control devices; and
 - I. All other temporary construction items, equipment, and debris not specifically listed above.
2. Restore areas occupied during the project in accordance with Detailed Specification “Project Clean-Up and Restoration, Special,” and as determined by the Engineer.
3. Replace or repair damaged features.
4. Provide the Engineer with written certification that all property that was used or damaged during performance of the work, including property outside of the project limits, has been restored in accordance with the Contract Documents, and applicable local, state, and federal requirements.
5. Provide written certification that the project has been inspected in compliance with the Contract Documents, the work has been completed in accordance with the Contract Documents, including applicable testing in the presence of the Engineer.
6. Clean paved areas, including public sidewalks directly adjacent to the site within 5 working days before opening the pavement surface to traffic taking precautions so as not to produce airborne dust when cleaning pavement.
7. Rake clean other surfaces of the grounds.

Final Inspection.- The Engineer will conduct the final inspection within 7 days of receiving the Contractor’s written notification that the work has been completed. The Contractor must attend the final inspection.

**DETAILED SPECIFICATION
FOR
FINAL ACCEPTANCE**

3 of 3

Within 7 days of the final inspection, the Engineer will provide written notice to the Contractor of a satisfactory final inspection or will provide a list of specific defects to be remedied in order to achieve a satisfactory final inspection.

Should the Engineer consider the work not complete and ready for final payment, the Engineer shall notify the Contractor in writing, stating the reasons. The Contractor shall take immediate steps to remedy the stated deficiencies and send a second written notice to the Engineer certifying that the work is complete. The Engineer will re-inspect the work.

Should the Engineer be required to perform additional re-inspections because of failure of the work to comply with the original certifications of the Contractor, the Engineer will deduct the cost of the re-inspections from the final amount to be paid to the Contractor.

After achieving satisfactory final inspection, the Contractor is relieved of the duty of maintaining and protecting the project. In addition, the Contractor is relieved of their responsibility for third-party damage claims, and for damage to the work that may occur after satisfactory final inspection.

Final Acceptance.- Within 7 days of satisfactory final inspection and submission of all required project and materials testing documentation by the Contractor, the Engineer will give the Contractor written notification of final acceptance.

The Contractor, without prejudice to the terms of the contract, is liable to the City at any time, both before and after final acceptance, for latent defects, fraud, such gross mistakes as may amount to fraud, or actions affecting the City's rights under any warranty or guarantee.

Final Payment.- The Contractor shall submit a final Application for Payment in accordance with the requirements of the Contract Documents.

Within 30 calendar days after final acceptance, the Engineer will prepare a final estimate of work performed. The Contractor will have 30 calendar days from the issuance of the final estimate to file a claim or objections to the quantities within the final estimate. If no claim or objections are filed within 30 calendar days, the City will process the final estimate for approval and final payment. At that time, the Contractor will be furnished a copy of the approved final estimate.

The final payment will be made when the Contractor has provided the following:

- A. All reports or documents required by the Engineer.
- B. The Consent of Surety for payment of the final estimate.
- C. Signed Contractor's Declaration (see Section 43 of the "General Conditions").
- D. Satisfactory evidence by signed Contractor's Affidavit (see Section 44 of the "General Conditions") that all the indebtedness due to the contract has been fully paid or satisfactorily secured.

The City can recover all overpayments from the Contractor in the final estimate.

**DETAILED SPECIFICATIONS
FOR
GENERAL CONSTRUCTION NOTES**

The following notes pertain to all Plan sheets issued as part of this Contract, and these notes shall be considered part of each Plan sheet or Detailed Information Sheet.

1. All work shall conform to latest revision of the City Standard Specifications.
2. The Contractor shall maintain access to all drives throughout the course of construction. Drives shall never be closed during non-working hours, unless otherwise authorized in writing by the Engineer.
3. The Contractor shall completely restore all existing site features to better than, or equal to, their existing condition.
4. The Contractor shall be aware that there are above-ground and below-ground utilities existing in and on these streets which include, but are not limited to: gas mains and service leads; water mains and service leads; storm sewer mains and service leads; sanitary sewer mains and service leads; telephone poles, wires, cables and conduits; electrical poles, wires, cables and conduits; cable television wires, cables and conduits, and other various utilities. The Contractor shall conduct all of its work so as not to damage or alter in any way, any existing utility, except where specified on the Plans or where directed by the Engineer. The City has videotaped and cleaned all sanitary and storm sewers, including storm sewer inlet leads, and has found all of these facilities to be in good condition, with the exception of those shown on the Plans for repairs or replacement.
5. The Contractor is solely responsible for any delays, damages, costs and/or charges incurred due to and/or by reason of any utility, structure, feature and/or site condition, whether shown on the Plans or not, and the Contractor shall repair and/or replace, at its sole expense, to as good or better condition, any and all utilities, structures, features and/or site conditions which are impacted by reason of the work, or injured by its operations, or injured during the operations of its subcontractors or suppliers.
6. No extra payments or adjustments to unit prices will be made for damages, delays, costs and/or charges due to existing utilities, structures, features and/or site conditions not shown or being incorrectly shown or represented on the Plans.

**DETAILED SPECIFICATION
FOR
DISPOSING OF EXCAVATED MATERIAL**

The Contractor shall dispose of, at the Contractor's expense, all excavated material. Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION
FOR
PROTECTION OF UTILITIES**

Damages to utilities by the Contractor's operations shall be repaired by the utility owner at the Contractor's expense.

Delays to the work due to utility repairs are the sole responsibility of the Contractor.

The Contractor shall keep construction debris out of utilities at all times. The Contractor shall be back charged an amount of \$50.00 per day for each manhole/inlet/utility pipe that contains construction debris caused as a result of the Contractor's (including subcontractors and suppliers) work.

The Contractor is solely responsible for any damages to the utilities or abutting properties due to construction debris.

Certain sanitary and storm sewers within the influence of construction may have been cleaned and videotaped prior to construction. The City may also choose to videotape utility line(s) during or after the work of this Contract to inspect them for damages and/or construction debris. If such inspection shows damage and/or debris, then all costs of such inspection, cleaning, repairs, etc, shall be the Contractor's sole responsibility. If such inspection is negative, the City will be responsible for the costs of such inspection.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION
FOR
SOIL EROSION AND SEDIMENTATION CONTROL MEASURES**

The Contractor shall furnish, place, maintain and remove soil erosion and sedimentation control measures, including but not limited to, fabric filters at all drainage structures, all in accordance with all applicable City (and other governmental agencies) codes and standards, as directed by the Engineer, as detailed in the Standard Specifications, and as shown on the Plans.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION
FOR
VACUUM TYPE STREET AND UTILITY STRUCTURE CLEANING EQUIPMENT**

The Contractor shall furnish and operate throughout the construction period, vacuum type street cleaning and utility structure cleaning equipment (Vac-All, Vactor, etc.) approved by the Engineer, as and when directed by the Engineer for dust control, for dirt/debris control, and for street cleaning immediately prior to, and for street and utility structure cleaning after any and all paving. The cleaning equipment shall be of sufficient power to remove dust, dirt, and debris from the pavement and from utility structures in and adjacent to the construction area.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

**DETAILED SPECIFICATION
FOR
MATERIALS AND SUPPLIES CERTIFICATIONS**

The following materials and supplies shall be certified by the manufacturer or supplier as having been tested for compliance with the Specifications:

- HMA materials
- Hot-poured Joint Sealants
- Cements, coatings, admixtures and curing materials
- Sands and Aggregates
- Steel and Fabricated metal
- Portland Cement Concrete Mixtures
- Reinforcing Steel for Concrete
- Reinforcing Fibers for Concrete
- Pre-cast Concrete products
- Sanitary Sewer Pipe
- Storm Sewer Pipe
- Water Main Pipe
- Corrugated Metal Pipe
- High Density Polyethylene Pipe
- Timber for retaining walls
- Modular Concrete Block for retaining walls
- Edge Drain and Underdrain Pipe
- Geotextile Filter Fabric and Stabilization Fabric/Grids

The Contractor shall submit all certifications to the Engineer for review and approval a minimum of three business days prior to any scheduled delivery, installation, and/or construction of same.

Costs for this work will not be paid for separately, but shall be included in the bid price of the Contract Item "General Conditions."

ATTACHMENTS

CITY OF ANN ARBOR LIVING WAGE ORDINANCE

RATE EFFECTIVE APRIL 30, 2020 - ENDING APRIL 29, 2021

\$13.91 per hour

If the employer provides health care benefits*

\$15.51 per hour

If the employer does **NOT** provide health care benefits*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

ENFORCEMENT

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

The Law Requires Employers to Display This Poster Where Employees Can Readily See It.

**For Additional Information or to File a Complaint contact
Colin Spencer at 734/794-6500 or cspencer@a2gov.org**

CITY OF ANN ARBOR NON-DISCRIMINATION ORDINANCE

Relevant provisions of Chapter 112, Nondiscrimination, of the Ann Arbor City Code are included below.
You can review the entire ordinance at www.a2gov.org/humanrights.

Intent: It is the intent of the city that no individual be denied equal protection of the laws; nor shall any individual be denied the enjoyment of his or her civil or political rights or be discriminated against because of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight.

Discriminatory Employment Practices: No person shall discriminate in the hire, employment, compensation, work classifications, conditions or terms, promotion or demotion, or termination of employment of any individual. No person shall discriminate in limiting membership, conditions of membership or termination of membership in any labor union or apprenticeship program.

Discriminatory Effects: No person shall adopt, enforce or employ any policy or requirement which has the effect of creating unequal opportunities according to actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight for an individual to obtain housing, employment or public accommodation, except for a bona fide business necessity. Such a necessity does not arise due to a mere inconvenience or because of suspected objection to such a person by neighbors, customers or other persons.

Nondiscrimination by City Contractors: All contractors proposing to do business with the City of Ann Arbor shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All city contractors shall ensure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon any classification protected by this chapter. All contractors shall agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of any applicable protected classification. All contractors shall be required to post a copy of Ann Arbor's Non-Discrimination Ordinance at all work locations where its employees provide services under a contract with the city.

Complaint Procedure: If any individual believes there has been a violation of this chapter, he/she may file a complaint with the City's Human Rights Commission. The complaint must be filed within 180 calendar days from the date of the individual's knowledge of the allegedly discriminatory action or 180 calendar days from the date when the individual should have known of the allegedly discriminatory action. A complaint that is not filed within this timeframe cannot be considered by the Human Rights Commission. To file a complaint, first complete the complaint form, which is available at www.a2gov.org/humanrights. Then submit it to the Human Rights Commission by e-mail (hrc@a2gov.org), by mail (Ann Arbor Human Rights Commission, PO Box 8647, Ann Arbor, MI 48107), or in person (City Clerk's Office). For further information, please call the commission at 734-794-6141 or e-mail the commission at hrc@a2gov.org.

Private Actions For Damages or Injunctive Relief: To the extent allowed by law, an individual who is the victim of discriminatory action in violation of this chapter may bring a civil action for appropriate injunctive relief or damages or both against the person(s) who acted in violation of this chapter.

THIS IS AN OFFICIAL GOVERNMENT NOTICE AND
MUST BE DISPLAYED WHERE EMPLOYEES CAN READILY SEE IT.

Date _____

I, _____ (Name of Signatory Party) _____ (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
 _____ (Contractor or Subcontractor)
 _____; that during the payroll period commencing on the
 _____ (Building or Work)
 _____ day of _____, _____, and ending the _____ day of _____, _____,
 all persons employed on said project have been paid the full weekly wages earned, that no rebates have
 been or will be made either directly or indirectly to or on behalf of said

_____ from the full
 _____ (Contractor or Subcontractor)
 weekly wages earned by any person and that no deductions have been made either directly or indirectly
 from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part
 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948,
 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are
 correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the
 applicable wage rates contained in any wage determination incorporated into the contract; that the
 classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide
 apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of
 Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a
 State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

- in addition to the basic hourly wage rates paid to each laborer or mechanic listed in
 the above referenced payroll, payments of fringe benefits as listed in the contract
 have been or will be made to appropriate programs for the benefit of such
 employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer or mechanic listed in the above referenced payroll has been paid,
 as indicated on the payroll, an amount not less than the sum of the applicable
 basic hourly wage rate plus the amount of the required fringe benefits as listed
 in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

| EXCEPTION (CRAFT) | EXPLANATION |
|-------------------|-------------|
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| | |

REMARKS:

| | |
|----------------|-----------|
| NAME AND TITLE | SIGNATURE |
| | |

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR
 SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE
 31 OF THE UNITED STATES CODE.

CITY OF ANN ARBOR
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than \$10,000 for any twelve-month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than \$10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than \$10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here No. of employees

The Contractor or Grantee agrees:

- (a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as \$13.91/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than \$15.51/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

Check the applicable box below which applies to your workforce

Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits

Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

- (b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.
- (c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.
- (d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.
- (e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

Inland Waters Pollution Control, Inc.
 Company Name

4086 Michigan Avenue
 Street Address


 Signature of Authorized Representative

12/29/2020
 Date

Detroit, MI 48210
 City, State, Zip

Jamee Bedingfield, Treasurer
 Print Name and Title

313-899-3014 / Nbickford@teamipr.com
 Phone/Email address



Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

| Conflict of Interest Disclosure* | |
|---|---|
| Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest. | <input type="checkbox"/> Relationship to employee <input type="checkbox"/> Interest in vendor's company <input type="checkbox"/> Other (please describe in box below) |
| | |

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

| | | |
|--|----------------------------|---|
| I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below: | | |
| Inland Waters Pollution Control, Inc. | 313-899-3014 | |
| Vendor Name | Vendor Phone Number | |
| | 12/29/2020 | Jamee Bedingfield, Treasurer |
| Signature of Vendor Authorized Representative | Date | Printed Name of Vendor Authorized Representative |

**CITY OF ANN ARBOR
DECLARATION OF COMPLIANCE**

Non-Discrimination Ordinance

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

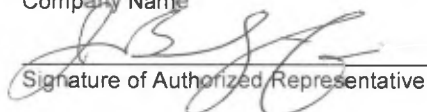
The Contractor agrees:

- (a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy, including but not limited to an acceptable affirmative action program if applicable.
- (b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.
- (c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.
- (d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

Inland Waters Pollution Control, Inc.

Company Name



12/29/2020

Date

Jamee Bedingfield, Treasurer

Print Name and Title

4086 Michigan Avenue, Detroit, MI 48210

Address, City, State, Zip

313-899-3014 / Nbickford@teamipr.com

Phone/Email Address

Questions about the Notice or the City Administrative Policy, Please contact:
Procurement Office of the City of Ann Arbor
(734) 794-6500



Secretary's Certificate of
Inland Waters Pollution Control, Inc

The undersigned hereby certifies, on behalf of the Company, as follows:

- 1) He is the duly elected and qualified President and Chief Executive Officer:
- 2) The following individuals are the duly elected and qualified officers the company, (each an "Officer" and collectively the "Officers") elected by the Board of Directors of the Company of occupying the positions set forth next to their respective names below:

Robert McCrae – President and Chief Executive Officer
James Michaud – Chief Financial Officer and Secretary
Patrick Maginn – Chief Operating Officer and Vice President
Thomas Gottsegen – Chief Legal Officer
Jamee Bedingfield – Treasurer
Jignesh Madhani – Vice President
Paul Jorgensen, Assistant Secretary
Glenn M. Shor –Assistant Secretary
David L. Rattner – Assistant Secretary

- 3) Each of the Officers is duly authorized, on behalf of the Company, to bid upon and enter into any competitive contract (each a "Bid" and collectively the "Bids") related to the Company's business, and is hereby authorized, on behalf of the Company, to execute and deliver any contacts, agreements or documents required in connection with any such Bid (such authority conferred on the Officers the Board of Directors of the Company effective Thursday June 4, 2020.)

A handwritten signature in black ink, appearing to read "R McCrae", is written over a horizontal line.

By: _____
Robert McCrae, President and Chief Executive Officer

Dated: June 4, 2020



Department of Licensing and Regulatory Affairs

Lansing, Michigan

This is to Certify That

INLAND WATERS POLLUTION CONTROL, INC.

was validly incorporated on October 18 , 1973 as a Michigan DOMESTIC PROFIT CORPORATION, and said corporation is validly in existence under the laws of this state.

This certificate is issued pursuant to the provisions of 1972 PA 284 to attest to the fact that the corporation is in good standing in Michigan as of this date and is duly authorized to transact business and for no other purpose.

This certificate is in due form, made by me as the proper officer, and is entitled to have full faith and credit given it in every court and office within the United States.



Sent by electronic transmission

Certificate Number: 19021007820

In testimony whereof, I have hereunto set my hand, in the City of Lansing, this 20th day of February , 2019.

Julia Dale, Director

Corporations, Securities & Commercial Licensing Bureau