

CONTRACT DOCUMENTS

FOR:

**CONSTRUCTION YEAR 2019
DIRECTIONAL DRILLING**

**FOR THE
WAYNE COUNTY WATER AND SEWER AUTHORITY**

**BIDS DUE:
MONDAY, JUNE 24, 2019
11:00 AM PREVAILING TIME**

**WAYNE COUNTY WATER AND SEWER AUTHORITY
OFFICES
3377 DAANSEN ROAD
WALWORTH, NEW YORK 14568**

BID FORM

DIVISION 0 – BIDDING REQUIREMENTS

| <u>Section</u> | <u>Title</u> |
|----------------|---|
| 00010 | Table of Contents |
| 00110 | Notice to Bidders |
| 00210 | Instructions to Bidders |
| 00410 | Bid Form |
| 00454 | Non-Collusive Bidding Certification |
| 00455 | Bidder's Affirmation of Understanding and Agreement/Certification of Compliance |
| 00456 | Offer of Disclosure of Prior Non-Responsibility Determination |
| 00500 | Insurance Requirements |
| 00521 | Agreement |
| 00610 | Performance Bond |
| 00615 | Payment Bond |
| 00820 | NYS Wage Rates |

DIVISION 1 – GENERAL REQUIREMENTS

| <u>Section</u> | <u>Title</u> |
|----------------|-------------------------|
| 01010 | Summary of Work |
| 01200 | Measurement and Payment |
| 01361 | Survey and Stakeout |
| 01421 | Watermain Air Testing |

DIVISION 2 – SITE CONSTRUCTION

| <u>Section</u> | <u>Title</u> |
|----------------|----------------------|
| 02671 | Directional Drilling |

APPENDICES

- A. Plan of Each Site

End Section 00010

NOTICE TO BIDDERS

Notice is hereby given that sealed Bids are sought and requested by the **Wayne County Water & Sewer Authority for Construction Year 2019 Directional Drilling.**

A complete Bid Package may be viewed and printed at no cost from the Authority web site, www.wcwsa.org. Printed copies may also be obtained for a non-refundable fee of \$20.00 at the Office of the Wayne County Water & Sewer Authority. You may call Procurement Contact, Jason Monroe at 315-986-1929, make a request by FAX at 315-986-1687 or by email to jmonroe@wcwsa.org to request a printed copy be mailed to you upon receipt by the Authority of a check payable to the Wayne County Water & Sewer Authority for a non-refundable fee of \$20.00.

The Wayne County Water & Sewer Authority requests that all bids be presented in a plain sealed envelope marked “**SEALED BID /Construction Year 2019 Directional Drilling**”. A non-collusive bidding certificate and an Affirmation of Understanding of Agreement / Certificate of Compliance for Procurement of Services are required along with manufacturer’s specification sheets of all materials associated with the scope of work shall be provided on all items bid.

All questions are to be directed in writing to the Procurement Contact, Jason Monroe in writing by FAX at 315-986-1687 or E-mail at jmonroe@wcwsa.org no later than Tuesday, June 18, 2019 at 5 p.m. prevailing time.

If you want to be considered as a bidder you must register your organization with the Wayne County Water & Sewer Authority via e-mail to Procurement Contact Jason Monroe at jmonroe@wcwsa.org and Tabitha Davis at tdavis@wcwsa.org

Bids are to be received no later than Monday, June 24, 2019 at 11 a.m. prevailing time at the Wayne County Water & Sewer Authority office located at 3377 Daansen Road, Walworth, NY 14568 at which time they will be publicly opened and read.

The Wayne County Water & Sewer Authority Board reserves the right to reject any and all bids or to accept the bid it considers in the best interest of the Wayne County Water & Sewer Authority.

*BY DIRECTION OF THE WAYNE COUNTY WATER & SEWER AUTHORITY
BOARD OF DIRECTORS*

End Section 0110

INSTRUCTIONS TO BIDDERS

Pursuant to the State Finance Law sections 139-j and 139-k, this Invitation for Bid includes and imposes certain restrictions on communications between the Authority and an Offerer/Bidder during the procurement process. An Offerer/Bidder is restricted from making contacts from the earliest notice of intent to solicit Invitation for Bid through the final award and approval of Procurement Contract by the Authority to other than the Authority's Designated Contact Person unless it is a contact that is included among certain statutory exceptions set forth in State Finance Law section 139-j(3)(a). The Authority's Designated Contact Person for the Governmental Procurement, as of the date hereof is Jason Monroe, Director of Operations, and is identified on the first page of these Bid Specifications. Authority employees are also required to obtain certain information when contacted during the restricted period and make a determination of the responsibility of the Offerer/Bidder pursuant to these two statutes. Certain findings of non-responsibility can result in rejection for contract award and in the event of two findings within a four year period the Offerer / Bidder is debarred from obtaining governmental Procurement Contracts. Further information about these requirements may be obtained from Jason Monroe, the Designated Contact Person.

- 1) Each bidder is required to review the specifications as published and complete the bid package as requested. The bidder shall list on a separate sheet of paper any deviations, exceptions or variations to the conditions and specifications of this bid in sufficient detail to allow the Authority to compare and evaluate said exceptions. This sheet shall be labeled "Exception to Bid Conditions and Specifications" and shall be attached to the bid.
- 2) All bids shall be submitted on the attached Bid Proposal Form, with all blanks fully and clearly filled in. No other form of bid will be considered. The Bidder must bid on all items to be considered a formal bid. No alteration, erasure or addition is to be made in the typed or printed matter of the specification or proposal.
- 3) Prices and information required by the proposal, except signature of the bidder, shall be typed or clearly printed in pen. Bids written in pencil may be rejected. The Authority Board shall interpret or reject illegible or vague bids and the Board's decision shall be final. All signatures must be signed in ink.
- 4) Data shall be provided with the bid in sufficient detail to enable the Authority Executive Director, Director of Operations and Board to determine whether the bid complies with the intention of the specifications as set forth. The Authority shall be the sole judge of the equivalencies.
- 5) Each bid will be received with the understanding that the acceptance thereof in writing by the Board of Directors, to furnish any or all of the items described therein, shall constitute a contract between the bidder and the Authority.
- 6) It is mutually understood and agreed that the bidder shall not assign, transfer, convey, sublet or otherwise dispose of the contract or of his right, title or interest therein, or his power to execute such contract to any other person, company or corporation without the previous consent, in writing, of the Board of Directors.

- 7) The bidder acknowledges that he is familiar with Article 5-A of the General Municipal Law and agrees to be bound by and to comply with the provisions thereof.
- 8) The Authority will pay the amount of the work completed within thirty (30) days after the first regularly scheduled Board meeting, following the date when the work has been complete, inspected and accepted by the Authority.
- 9) Bidder declares that the bid is made without any connection with any other bidder submitting a bid for the same project and is in all respects fair and without collusion or fraud. A signed Non-Collusive Bidding Certificate, a Bidder's Affirmation of Understanding and Agreement/Certification of Compliance and an Offer of Disclosure of Prior Non-Responsibility Determinations are all required with the bid submission. Copies of all of these forms are attached.
- 10) Bidders are cautioned to verify their bids before submission. Bids, amendments or requests for withdrawal of submitted bids received by the Authority after the time specified for opening will not be considered.
- 11) The bidder shall inspect the locations at the proposed crossings and familiarize himself with the conditions under which the work will be performed, and with all necessary details and the suitability of his equipment for the work required. No subsurface investigation has been performed at the locations of the proposed crossings.
- 12) The Authority is exempt from state sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid.
- 13) The Wayne County Water & Sewer Authority requests that all bids be presented in a plain sealed envelope marked "**SEALED BID / Construction Year 2019 Directional Drilling**". A non-collusive bidding certificate and an Affirmation of Understanding of Agreement / Certificate of Compliance for Procurement of Services and an Offer of Disclosure of Prior Non-Responsibility Determinations are required along with manufacturer's specification sheets shall be provided on all items bid.
- 14) Awards will be made to the lowest responsible bidder as will best promote the public interest, taking into consideration the reliability of the bidder, the quality of the materials, and services to be furnished and their conformity with specifications.
- 15) The decision with respect to the submitted bids will be made at the Board's discretion and all bids submitted shall be kept firm and in full force and effect until such date or until a decision is made by the Authority Board of Directors.
- 16) The Authority shall reserve the right to waive any informality or to reject any or all bids and have the ability to award to other than the low bidder based on compliance with this specification.

End Section 00210

BID FORM

Project: Construction Year 2019 Directional Drilling

TABLE OF ARTICLES

| | Page |
|---|-------------|
| Article 1 – Bid Recipient | 2 |
| Article 2 – Bidder’s Acknowledgements | 2 |
| Article 3 - Bidder's Representations | 2 |
| Article 4 – Further Representations..... | 3 |
| Article 5 – Basis of Bid | 3 |
| Article 6 – Time of Completion | 4 |
| Article 7 – Bid Submittal | 5 |

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

*Wayne County Water and Sewer Authority
3377 Daansen Road
Walworth, New York 14568*

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the Authority in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of the Authority.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

Addendum No.

Addendum Date

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all Federal, State and Local Laws and Regulations that may affect cost, progress and performance of the Work.

D. Bidder has carefully studied (if applicable) all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified. Bidder has obtained and carefully studied (or accepts the consequences for not doing so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.

- A. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

5.02 The Low bidder will be determined by the sum of the base bid items.

ARTICLE 6 - TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the Contract Times.

ARTICLE 7 - ATTACHMENTS TO THIS BID

- 7.01 The following documents are attached to and made a condition of this Bid:
 - A. Certificates of Insurance, one for each additional insured as Certificate Holder (Accord 25);
 - B. Completed Non-Collusion Form.
 - C. Completed Bidder's Affirmation of Understanding and Agreement/Certification of Compliance Form.
 - D. Completed Offerer Disclosure of Prior Non-Responsibility Determination
 - E. Manufacturer's Specifications Sheets for materials to be used.

ARTICLE 8 - BID SUBMITTAL

7.01 This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____
Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____
(Signature of Corporate Secretary)

Attest: _____
(Signature of Corporate Secretary)

Date of Qualification to do business in _____ *[State Where Project is Located]*

is ____/____/____.

A Joint Venture

Name of Joint Venturer: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of first joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of second joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

7.02 Bidder's Contact Information:

Bidder's Business address: _____

Business Phone No.: _____

Business FAX No.: _____

Business E-Mail Address: _____

State Contractor License No. _____. (If applicable)

Employer's Tax ID No. _____

Phone and FAX Numbers, and Address for receipt of official communications, if different from Business contact information:

7.03 Bid Submitted on _____, 2013.

End Section 00410

NON-COLLUSIVE BIDDING CERTIFICATE

Pursuant to Section 103-d of the General Municipal Law, and Section 139-d of the State Finance Law, I affirm as true and under the penalties of perjury the following statement:

- (a) By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies, as to its own organization, under penalty or perjury, that to the best of knowledge and belief:
- (1) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
 - (2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
 - (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

Bidder: _____

By: _____

Title: _____

End Section 00454

Certificate of Compliance

Under

State Finance Law Sections 139-j and 139-k

The undersigned, _____, being the President of _____, the winning bidder ("Company") in connection with the procurement of _____ ("Procurement") issued by the Wayne County Water & Sewer Authority ("Authority") hereby certifies that:

- (i) The Company is aware of, understands and agrees to comply with the recently enacted prohibitions on procurement lobbying as defined and set forth in the Lobbying Act, as amended by Chapter 1 of the Laws of 1995;
- (ii) Neither the Company, nor any of its officers, directors, employees, or agents, has attempted to influence the Procurement in a manner that would result in a violation of the Public Officers Law and/or the Authority's Code of Ethics;
- (iii) There have been no findings of non-responsibility against the Company due to violations of the provisions of State Finance Law Section 139-j(3) or otherwise within the previous four years by any governmental entity;
- (iv) All information provided to the Authority by or on behalf of the Company in connection with the Procurement pursuant to State Finance Law Section 139-j and/or Section 139-k or otherwise is complete, true and accurate;
- (v) Neither the Company, nor any of its officers, directors, employees, or agents, has made any inappropriate or illegal contacts with the Authority in connection with the Procurement; and
- (vi) The Company understands and agrees that the Authority reserves the right to cancel any contract resulting from the Procurement in the event this certification is found to be intentionally false or intentionally incomplete.

IN WITNESS WHEREOF, I have hereunto subscribed my name this _____ day of _____, _____ on behalf of the Company.

President

End Section 00455

Offerer Disclosure of Prior Non-Responsibility Determinations

Name of Individual or Entity Seeking to Enter into the Procurement Contract:

Address: _____

Name and Title of Person Submitting this Form: _____

Contract Procurement Number: _____

Date: _____

1. Has any Governmental Entity made a finding of non-responsibility regarding the individual or entity seeking to enter into the Procurement Contract in the previous four (4) years? (Please circle):

No Yes

If yes, please answer the next questions:

2. Was the basis for the finding of non-responsibility due to a violation of State Finance Law §139-j? (Please circle):

No Yes

3. Was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a Governmental Entity? (Please circle):

No Yes

4. If you answered yes to any of the above questions, please provide details regarding the finding of non-responsibility below.

Governmental Entity: _____

Date of Finding of Non-responsibility: _____

Basis of Finding of Non-Responsibility: _____

| |
|---|
| _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ (Add additional pages as necessary) |
|---|

| | |
|---|-----|
| 5. Has any Governmental Entity or other governmental agency terminated or withheld a Procurement Contract with the above-named individual or entity due to the intentional provision of false or incomplete information? (Please circle): | |
| No | Yes |

| |
|---|
| 6. If yes, please provide details below. Governmental Entity: _____ Date of Termination or Withholding of Contract: _____ Basis of Termination or Withholding: _____ _____ _____ _____ _____ _____ (Add additional pages as necessary) |
|---|

Offerer certifies that all information provided to the Governmental Entity with respect to State Finance Law §139-k is complete, true and accurate.

By: _____ Date: _____
Signature

Name: _____ Title: _____

INSURANCE REQUIREMENTS

The limits of liability for insurance shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages:
 - a. State: **Statutory**
 - b. Applicable Federal
(e.g., Longshoreman's):
 - c. Employer's Liability: **Statutory**

Workman's Compensation Coverage must be shown on Form C105.2

2. Contractor's General Liability which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of Contractor:
 - a. General Aggregate **\$ 2,000,000**
 - b. Products - Completed
Operations Aggregate **\$ 2,000,000**
 - c. Personal and Advertising
Injury **\$ 2,000,000**
 - d. Each Occurrence (Bodily Injury
and Property Damage) **\$ 1,000,000**
 - e. Property Damage liability insurance will provide Explosion, Collapse, and Under-ground
coverages where applicable.
 - f. Excess or Umbrella Liability
 - 1) General Aggregate **\$ 4,000,000**
 - 2) Each Occurrence **\$ 4,000,000**
3. Automobile Liability :
 - a. Bodily Injury:
Each person N/A
Each Accident N/A
 - b. Property Damage:
Each Accident N/A
 - c. Combined Single Limit of **\$ 1,000,000**
4. The Contractual Liability coverage shall provide coverage for not less than the following amounts: **N/A – Included in General Liability Policy**
 - a. Bodily Injury:
Each Accident
 - b. Property Damage:
Each Accident
Annual Aggregate
5. The Contractor shall provide Owner's and Contractor's Protective Liability Policy (OCP):
 - a. Each Occurrence: **\$1,000,000**
 - b. General Aggregate: **\$2,000,000**
6. The following persons or entities shall be listed as additional insured on each policy:
 - a. Town of Sodus
 - b. Town of Marion
 - c. MRB Group Engineering, Architecture, and Surveying, P.C.
 - d. Wayne County Water and Sewer Authority

End Section 00500

AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT

TABLE OF ARTICLES

| | |
|--|---|
| Article 1 – Work..... | 1 |
| Article 2 – The Project | 1 |
| Article 3 – Engineer..... | 1 |
| Article 4 – Contract Times..... | 1 |
| Article 5 – Contract Price | 2 |
| Article 6 – Payment Procedures | 3 |
| Article 7 – Interest | 3 |
| Article 8 – Contractor’s Representations | 3 |
| Article 9 – Contract Documents | 4 |
| Article 10 – Miscellaneous..... | 5 |

AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT

THIS AGREEMENT is by and between Wayne County Water and Sewer Authority (“Owner”) and _____ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Installation of approximately 2,104 lf, plus or minus 20%, 8” HDPE water main via directional drilling methods.

Installation of approximately 175 lf, plus or minus 20%, 6” HDPE water main in 10” casing pipe via directional drilling methods.

ARTICLE 2 – THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Installation of approximately 2,104 lf, plus or minus 20%, 8” HDPE water main via directional drilling methods

Installation of approximately 175 lf, plus or minus 20%, 6” HDPE water main in 10” casing pipe via directional drilling methods.

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by MRB Group (Engineer), which is to act as the Wayne County Water & Sewer Authority’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 Time of the Essence

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Days to Achieve Substantial Completion and Final Payment

A. The Work will be substantially completed within 150 days after the date when the Contract Times commence to run and completed and ready for final payment within 180 days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$500 for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$500 for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to:

A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as stated in Itemized Proposal included at the end of Section 00410 – Bid Form.

7.02 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

BASE BID:

Bore and Pull Back 8” HDPE, in earth, PER LINEAR FOOT

_____ /LF \$_____ /LF
(In Words) (In Numerals)

Bore and Pull Back 8” HDPE, in rock, PER LINEAR FOOT

_____ /LF \$_____ /LF
(In Words) (In Numerals)

Bore and Pull Back 10” HDPE Casing and 6” HDPE carrier pipe, in earth, PER LINEAR FOOT

_____ /LF \$_____ /LF
(In Words) (In Numerals)

Bore and Pull Back 10” HDPE Casing and 6” HDPE carrier pipe, in rock, PER LINEAR FOOT

_____ /LF \$_____ /LF
(In Words) (In Numerals)

All in accordance with the Contractor's proposal attached hereto and made a part thereof.

Estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by the Engineer.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

A. Contractor shall submit Applications for Payment in accordance with the Authority's procedures.

6.02 Progress Payments; Retainage

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment according to the terms of the funding agency, if applicable, and as dictated by the Owner's meeting dates during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by Unit Price Work based on the number of units completed.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages..

a. 95 percent of Work completed (with the balance being retainage).

b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts as Engineer shall determine and less 200_percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

C. Upon final completion and acceptance of the Work, the Owner shall pay the remainder of the Contract Price as recommended by Engineer.

ARTICLE 7 – INTEREST

7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest as required by General Municipal Law §106-b(1)(b).

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any.
- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement
 - 2. Performance bond.
 - 3. Payment bond.
 - 4. Insurance Certificate
 - 5. Specifications.
 - 6. Drawings as listed in the Appendix of the Bidding Documents.
 - 7. Addenda (numbers _ to _, inclusive).
 - 8. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid
 - b. Documentation submitted by Contractor prior to Notice of Award.

9. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.

ARTICLE 10 – MISCELLANEOUS

10.01 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.02 Successors and Assigns

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.03 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.04 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.04:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective on _____ (which is the Effective Date of the Agreement).

OWNER:

CONTRACTOR

Wayne County Water and Sewer Authority _____

By: _____

By: _____

Title: Executive Director _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

3377 Daansen Road _____

Walworth, New York 14568 _____

License No.: _____

(Where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

.
Agent for service of process:

END SECTION 00521

PERFORMANCE BOND

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

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

Wayne County Water and Sewer Authority
3377 Daansen Road
Walworth, New York 14568

CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Bond Number:

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

SURETY

(Seal)

Surety's Name and Corporate Seal

By:

Signature and Title

(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest:

Signature and Title

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

SURETY

(Seal)

Surety's Name and Corporate Seal

By:

Signature and Title

(Attach Power of Attorney)

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.
2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.
3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
 - 3.3. Owner has agreed to pay the Balance of the Contract Price to:
 1. Surety in accordance with the terms of the Contract;
 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
 - 4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
 - 4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
 - 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:
 - 6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;
 - 6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and
 - 6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.
7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.
8. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.
9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

- 12.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
- 12.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 12.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 12.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform

FOR INFORMATION ONLY – Name, Address and Telephone

Surety Agency or Broker

Owner's Representative (engineer or other party)

PAYMENT BOND

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

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address): Wayne County Water and Sewer Authority
3377 Daansen Road
Walworth, New York 14568

CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Bond Number:

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

SURETY

(Seal)

Surety's Name and Corporate Seal

By: _____

Signature and Title

(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: _____

Signature and Title

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

SURETY

(Seal)

Surety's Name and Corporate Seal

By: _____

Signature and Title

(Attach Power of Attorney)

Attest: _____

Signature and Title:

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to Owner, this obligation shall be null and void if Contractor:

2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.

4. Surety shall have no obligation to Claimants under this Bond until:

4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with Contractor:

1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the

claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.

5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.

6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:

6.1. Send an answer to that Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2. Pay or arrange for payment of any undisputed amounts.

7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety

under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be

performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

15.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone

Surety Agency or Broker

Owner's Representative (engineer or other party)

Work under this project shall be done under NYS Prevailing Wage Rates.

Current rates can be found on line at:

www.labor.state.ny.us/workerprotection/publicwork/PWFormsOnWeb.shtm

AND

Current rate information will be provided for registered bidders

as an Addendum to this Bid

**Subcontractor's Certification of Receiving Schedule(s) of Wages and Supplements
in Compliance with the New York State Labor Law, Section 220-a.**

I, _____, as _____ of
(Title or Position)

(Company Name) (Subcontractor), a subcontractor of _____

(Prime) on PRC No. _____, am duly authorized to make this affidavit on behalf of this sub-
Contractor, and being duly sworn, depose and say that:

In compliance with the provisions of Section 220-a of the Labor Law, do hereby state verify receipt from Prime of
the original schedule(s) of wages and supplements for this project applicable for the period from July 1, 20____
through June 30, 20 ____ for the county/counties of _____

Furthermore, by these present, I do hereby verify that I have reviewed said schedule(s), and agree for and on behalf
of Subcontractor to pay the applicable prevailing wage and to pay or provide the supplements specified therein.

Signature

VERIFICATION:

State of New York)
)
County of _____) SS:

On the _____ day of _____, 20 ____, before me personally came _____,

to me known and who, being by me duly sworn, did depose and say that he/she is authorized to execute the
foregoing instrument on behalf of the Prime, has read the foregoing, knows the contents thereof, knows same is true,
and he/she has signed his/her name hereto.

Notary Public

PART 1 - GENERAL

1.1 PROJECT DESCRIPTION

- A. The work covered by these Plans and Specifications consists of:

The fusing and installation of 140 LF +/- of 8" Ductile Iron Pipe Size HDPE DR-11 (4710) water main using horizontal directional drilling techniques in the Marion Mill Street Watermain Project Phase 2 as follows:

1. 140 LF +/- assumed to be in earth along Mill Street, Marion, between Stations 10+25 and 11+65, Plan Sheet G-2

The fusing and installation of 1,964 LF +/- of 8" Ductile Iron Pipe Size HDPE DR-11 (4710) water main using horizontal directional drilling techniques in the Arcadia Water District 16 project as follows:

1. 430 LF +/- assumed to be in earth along NYS Rte 31, between Stations 19+00 and 23+30, Plan Sheets G-2 and G-3
2. 260 LF +/- assumed to be in earth along NYS Rte 31, between Stations 47+00 and 49+60, Plan Sheet G-6
3. 60 LF +/- assumed to be in earth across Stebbins Road at the intersection of Whitbeck Road at Stations 5+45, Plan Sheet G-7
4. 60 LF +/- assumed to be in earth across Tellier Road at the eastern intersection with Stebbins Road, at Tellier Road Station 14+25, Plan Sheet G-8
5. 50 LF +/- assumed to be in earth diagonally across Tellier Road at the intersection with Eckert Road, at Station 1+45, Plan Sheet G-11
6. 340 LF +/- assumed to be in earth along Tellier Road, between Stations 7+30 and 10+80, Plan Sheet G-11
7. 180 LF +/- assumed to be in earth along Tellier Road, between Stations 20+40 and 22+20, Plan Sheet G-12
8. 500 LF +/- assumed to be in earth along Whitbeck Road, between Stations 12+00 and 17+00, Plan Sheet G-14
9. 84 LF +/- assumed to be in earth diagonally across Stuart Avenue, at Station 24+60, Plan Sheet G-17

The fusing and installation of 175 LF +/- of 10" Ductile Iron Pipe Size HDPE DR-11 (4710) Casing with 6" Ductile Iron Pipe Size HDPE DR-11 (4710) carrier pipe, including rubber end seals, using horizontal directional drilling techniques in the Arcadia Water District 16 project as follows:

10. 75 LF +/- assumed to be in earth across NYS Rte 31 at Station 27+00, Plan Sheet G-3.
11. 100 LF +/- assumed to be in earth across NYS Rte 31 at Station 36+37, Plan Sheet G-4.

- B. Installation shall provide a minimum twenty-four inch (24") vertical separation between the invert of all existing storm culverts and the top of the HDPE water main.

1.2 INTENT OF SPECIFICATIONS

- A. The Contractor will be required to furnish all material, equipment and tools, with qualified operators and technicians, to trim and fuse the HDPE pipe materials – including HDPE mechanical joint adapters and water mains as described herein to the line and grade as shown on the plans using horizontal directional drilling methods. The Contractor will perform a low pressure air test on the completed HDPE water main in place to confirm the integrity of the new main. The Contractor will conduct his operations so as to protect the safety of his employees and to maintain the safety of all vehicles and pedestrians on public and private roads, and will protect from injury all structures and water courses adjacent to the work. The Contractor shall promptly repair any damage done to such structures and watercourses during the term of this Contract.
- B. The Contractor shall provide material, signs, barricades and flagmen for the maintenance and protection of traffic as necessary during the Contractor's operations at the site. After the installation and successful testing of the HDPE line, the Contractor shall plug each end of pipe with a solid mechanical joint cap, backfill and rough grade the work areas. Final surface restoration will be done by the Owner
- C. The Owner will make up and assemble all connections of the HDPE mechanical joint adapters to PVC pipe at the limits of this Contract, and will perform all final hydrostatic pressure testing and disinfection of the completed water main system.
- D. It is the intent of these Specifications to describe fully and definitely the character of materials and workmanship required regarding all ordinary features and to require first class work and materials in all particulars. Any unexpected features arising during the progress of the work which are not fully covered by the Specifications shall be brought to the attention of the Engineer and decision thereon shall be final.

1.3 PROJECT LIMITS

- A. Work under this contract will be confined to the highway right of way and easement areas as designated on the drawings.
- B. If additional working area is required by the Contractor, he will secure this area at his own expense. In addition, the Contractor shall secure a notarized written release and/or temporary agreement from the property owner holding the Owner harmless.

1.4 FORM OF CONTRACT

- A. The Contract as described will be executed on the Agreement form provided in these Contract Documents.

1.5 CONTRACT DRAWINGS AND SPECIFICATIONS

- A. The Drawings and Specifications are complementary each to the other and what is called for by one shall be binding as if called for by both. The Contractor shall call to the attention of the Owner any omissions or errors in plans prior to the beginning of work.

1.6 EMERGENCY PHONE NUMBERS

- A. The Contractor shall supply the Owner with at least two (2) phone numbers of responsible foremen who can be reached during non-working hours.

1.7 LIQUIDATED DAMAGES

- A. Shall be assessed in the amount as specified in the Agreement herein, after the date set for project completion, until the project is completed to the satisfaction of the Owner.

END SECTION 01010

PART 1 - GENERAL

GENERAL

Each of the following payment items shall include labor, materials, equipment, transportation and all work related to the time even if not specifically mentioned. The work "including" is not intended to limit the labor, materials, or equipment necessary to complete the item. This cost of insurance, bonds, permits, and other general requirements shall be included under these payment items.

Partial payments of lump sum items will be made on the basis of the proportion of the work that has been completed for the particular item. Full payment will be made only when the work included under the item is complete, tested and accepted by the Owner.

ITEM 1: BORE AND PULL BACK 2,104 LF +/- 20% - 8" DR-11 HDPE PIPE

Shall include the following and are not limited to:

- **MOBILIZATION / DEMOBILIZATION, CONSISTING OF:**
 1. Mobilization of all construction equipment, materials, supplies, appurtenances and the like, manned and ready for commencing and continuing the work.
 2. The laying out of the bore staging and route including evaluation of soil conditions, utility stakeout and other obstruction information.
 3. The removal of all construction equipment, unused materials and supplies, waste materials, appurtenances and the like from the work site.
- **BORE AND PULL BACK 2,104 LF +/- 20% - 8" DR-11 HDPE PIPE:**
 1. Excavation of boring / receiving pits.
 2. Supplying the required quantity of 8" Ductile Iron Pipe Size DR-11 (4710) HDPE pipe.
 3. Linear foot of pipe installed via directional drilling methods.
 4. All required thermal butt fusion connections including the terminus mechanical joint adapter and mechanical joint cap on each end of the pipe.
 5. Low pressure air testing, Section 01421.
 6. Backfilling and rough grading of work areas, leaving the capped ends terminated at pipe grade and marked with minimum 2 x 4 marker stake extending a minimum of 2' above grade.
 7. All related equipment, labor and materials necessary to complete the work

ITEM 2: BORE AND PULL BACK 175 LF +/- 20% - 10" DR-11 HDPE PIPE CASING AND 175 LF +/- 6" DR-11 HDPE CARRIER PIPE

Shall include the following and are not limited to:

- **MOBILIZATION / DEMOBILIZATION, CONSISTING OF:**
 1. Mobilization of all construction equipment, materials, supplies, appurtenances and the like, manned and ready for commencing and continuing the work.

2. The laying out of the bore staging and route including evaluation of soil conditions, utility stakeout and other obstruction information.
3. The removal of all construction equipment, unused materials and supplies, waste materials, appurtenances and the like from the work site.
- **BORE AND PULL BACK 175 LF +/- 20% - 10" DR-11 HDPE PIPE CASING AND 175 LF +/- 6" DR-11 HDPE CARRIER PIPE**
 1. Excavation of boring / receiving pits.
 2. Supplying the required quantity of 6" AND 10" Ductile Iron Pipe Size DR-11 (4710) HDPE pipe.
 3. Linear foot of pipe installed via directional drilling methods.
 4. All required thermal butt fusion connections including the terminus mechanical joint adapter and mechanical joint cap on each end of the pipe.
 5. Rubber end seals installed per the attached Directional Drill List and Details.
 6. Low pressure air testing, Section 01421.
 7. Backfilling and rough grading of work areas, leaving the capped ends terminated at pipe grade and marked with minimum 2 x 4 marker stake extending a minimum of 2' above grade.
 8. All related equipment, labor and materials necessary to complete the work

Measurement and payment will be per surface linear foot of pipe installed and shall include all required thermal butt fusion connections including the terminus mechanical joint adapter and mechanical joint cap on each end of the pipe.

END SECTION 01200

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SURVEYS AND LAYOUT

- A. The Contractor shall provide survey stakeout for the proposed improvements. The Contractor shall have a representative at the site to go over the stakeout with the Owner within 48 hours before commencing work.
- B. The Contractor shall be responsible to maintain all reference points established by the Owner and replacement of same by the Owner shall be at the Contractor's expense.
- C. Any error or apparent discrepancy in the stakeout of data shown or required for accurately completing the proposed work shall be referred immediately to the Contractor for interpretation or correction.
- D. The Contractor shall make every effort to preserve any property survey monuments existing within the work area. If a monument must be removed, the Contractor shall locate with proper reference points and subsequently replace when construction is completed.
- E. In no case shall the Contractor perform the survey stakeout work before the Contractor has notified the existing utility companies and the utilities are staked out in the field.

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION (Not applicable)

END SECTION 01361

PART 1 - GENERAL

1.1 GENERAL

- A. This specification describes the air testing requirements that the Contractor must perform on all HDPE watermains installed on this project.

1.2 METHOD

- A. Each section of watermain shall be cleaned by hydro-flushing or similar method to remove all silt, sand, gravel and other debris prior to air testing.
- B. Low pressure air test may be used to test a section of watermain or to locate areas of new watermain requiring repair. The following procedures shall be used for low pressure air test:
1. An air test shall be conducted on all HDPE watermain sections following installation.
 2. An HDPE watermain section shall be defined as that continuous length of high density polyethylene pipeline located between two consecutive HDPE mechanical joint adapters.
 3. The test section shall be capped and sealed at each end with a mechanical joint plug designed specifically for use with the HDPE adapter, and one of the plugs shall be tapped and equipped with an air inlet connection for filling the line from the air compressor.
 4. An air hose shall be connected to the tapped plug selected for the air inlet. The other end of the air hose shall be connected to the portable air control equipment which shall include valves and pressure gauges used:
 - a. to control the air entry rate to the watermain test section, and
 - b. to monitor the air pressure in the watermain test section.
 5. A second air hose shall be connected between the air compressor and the air control equipment.
 6. Supply air to the test section slowly, filling the pipe line until a constant pressure of 4.0 psig is maintained. The air pressure shall be regulated to prevent the pressure inside the pipe from exceeding 5.0 psig.
 7. When constant pressure of 4.0 psig is reached, throttle the air supply to maintain the internal pressure above 4.0 psig for at least ten (10) minutes. This time permits the temperature of the entering air to equalize with the temperature of the pipe wall. During this stabilization period it is advisable to check all capped and plugged fittings with a soap solution to detect any leakage at these connections.
 8. After the stabilization period, the air pressure shall be adjusted to 4.0 psig and the air supply disconnected. Observe the gauge until the air pressure reaches 4.0 psig. At 4.0 commence timing with a stop watch which is allowed to run until the line pressure drops to 3.5 psig at which time the stop watch shall be stopped. The time required, as shown on the stop watch for a pressure loss of 0.5 psig, shall be used to compute the air loss.
 9. An air pressure correction shall be required when the prevailing ground water is above the pipeline being tested. Under this condition, the air test pressure shall be increased 0.433 psi for each foot the ground water level is above the invert of the pipe.
 10. Any time which is less than shown on the following table shall be cause for rejection.

TIME REQUIREMENT FOR AIR TESTING

| <u>Pipe Size</u> <u>(Inches)</u> | <u>Time</u> | |
|-------------------------------------|----------------|----------------|
| | <u>Minutes</u> | <u>Seconds</u> |
| 4 | 2 | 30 |
| 6 | 4 | 0 |
| 8 | 5 | 0 |
| 12 | 8 | 0 |

- C. Any section of watermain which does not give satisfactory air test results must be repaired and retested until a satisfactory air test is obtained.

END SECTION 01421

PART I – GENERAL

1.01 SECTION INCLUDES

- A. Horizontal Directional Drilling (HDD) Method.

1.02 RELATED SECTIONS

- A. Section 01361 – Survey and Stakeout
- B. Section 01421 – Watermain Air Testing

1.03 REFERENCES

- A. ASTM F 1962-99 Standard Guide for Use of Maxi-Horizontal Directional Drilling for Placement of Polyethylene Pipe or Conduit under Obstacles including River Crossings.

1.04 SUBMITTALS

- A. Submit a proposed work schedule for the entire Contract.
- B. Submit product data for materials to be furnished and incorporated in the work including bore gel, pipe, and grout materials.

1.05 QUALIFICATIONS

- A. The Contractor performing the work of this section shall have a minimum three years documented experience and 5 completed installations with 4-inch through 8-inch diameter pipe. Documentation shall include references with name of owner, owner's representative, phone numbers, length of directional drill, diameter of pipeline, and project locations.

PART 2 – PRODUCTS

2.01 GROUT

- A. Bentonite Clay grout certified by the National Sanitation Foundation.

2.02 PIPE

- A. HDPE pipe shall be DR-11 (4710), ductile iron size, meeting the requirements of ASTM Cell Classification 345434C, ASTM D3350 and AWWA C906.

2.03 COUPLINGS, FITTINGS AND ADAPTERS

- A. All couplings, fittings and adapters shall be Mechanical Joint and meet the requirements of AWWA 906.
- B. Transition couplings shall be a mechanical-joint type adapter.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify site conditions before commencing work.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. Layout necessary excavations and launching and receiving pit locations to determine clearances or conflicts with existing structures. Determine outer boundaries of available work area as defined by either easements or right-of-ways. The work area should not encroach upon private property, wetlands, or interfere with existing structures.
- C. Protect structures near the drilling work from damage.
- D. Locate existing utilities which may conflict with the entry/exit pit excavations.
- E. Erect and maintain construction fencing around all launching or receiving pit excavations until they have been completely backfilled.
- F. Place pipe for joining and fusing, or for insertion, onto ground within right-of-way or easements or other approved locations by means of machinery using slings or other approved methods. Do not dump pipe from trucks.

3.03 INSTALLATION OF PIPE BY HDD METHOD

- A. The size and capacity of the drilling equipment must be compatible with the thrust and torque required to perform the drilling, reaming and pipe pullback operation.
- B. The Contractor shall confirm the location of any obstacles or utilities as necessary to ensure satisfactory installation of the watermain.
- C. The horizontal and vertical alignment of the directional drill shall be as shown on the plans.
- D. The pilot bore drilling operation shall be directed using steering and tracking systems capable of producing the required alignment. The Owner's Representative shall have access at all times to the HDD contractor's measuring or gauging devices used for the horizontal directional drill including drilling logs maintained by the Contractor. The Contractor shall track and confirm pilot bore path at least once every 15 feet during boring operations. An interval of 5 feet shall be used at critical locations such as bends and, in the vicinity of obstacles. In areas with pockets of cobbles or other obstacles, which may divert the drill head, measurements shall be made whenever contact with such obstacles is expected. Any deviation from the planned bore path must be corrected as soon as possible.
- E. The Contractor shall provide a copy of the completed drilling log to the Owner's Representative immediately following completion of the pilot bore. The Contractor shall maintain a record of the actual as-built bore horizontal and vertical path to the nearest 0.50 foot, including plan and profile views and vertical and horizontal deviations indicating

the relation to the planned path, for submittal to the Owner's Representative at the conclusion of each working day.

- F. The Contractor shall coordinate with the Owner where to get water for mixing drilling fluid, and the Contractor shall supply portable mud tanks or construct temporary bore gell pits to contain excess drill fluids during construction. The Contractor shall contain drilling fluids on site and dispose of drilling fluids in accordance with all applicable government regulations. The Contractor shall prevent drilling fluid wastes from discharging into any waterways or migrating off site.
- G. All the Contractor's operations shall be performed in accordance with the project permits.
- H. The Contractor shall pre-ream, as necessary, to establish minimum diameter bore for pullback of pipe.
- I. The Contractor shall weld pipe into a continuous string and install pipe in one uninterrupted operation. The pipeline shall be adequately supported on rollers during pullback of the pipeline into the pre-drilled hole. The rollers and cradles shall be of a type that will prevent damage to the pipeline and will be of sufficient number to prevent over stressing during the pullback procedure. Provide breakaway links between the swivel and grip to ensure that the pipeline is installed within allowable load levels during pullback.
- J. The Contractor shall fill the annulus of the hole in the ground surrounding the pipe or casing with Bentonite clay grout during the pullback operation.
- K. The Contractor shall conduct a low pressure air test on the watermain at each site after installation, but before connection to adjoining watermain or fittings. Air tests shall be witnessed by the Engineer. Prior to backfilling, the Contractor shall install a mechanical joint cap on either end of the pipe.
- L. It shall be the responsibility of the Contractor to remove from the site and dispose of, according to applicable regulations, all rubbish, construction debris and waste materials, "unsuitable excavation material" and unused materials.

End Section 0267