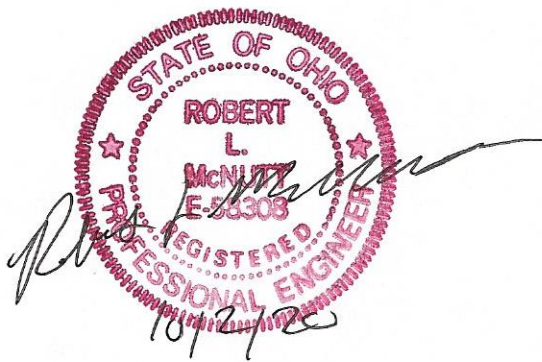


Redhill Boosted Pressure Zone Improvements

City of Lorain

WSRLA Funded Project

October 2020



170368

CITY OF LORAIN OFFICIALS

ADMINISTRATION

Jack W. Bradley, Mayor

Max Upton, Director of Public Service/Public Safety

Paul Wilson, P.E., Director of Utilities

Dale Vandersommen, P.E., City Engineer

Robert Butler, PQM WWTP Superintendent

Alex Berki, Black River WWTP Superintendent

Jim Malick, Water Distribution Superintendent

Chad Johnson, Water Plant Superintendent

Patrick D. Riley, Law Director

Karen Shawver, Auditor

Tom Orlando, Clerk of Courts

COUNCIL

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Beth Henley, 1st Ward

Rob McFarland, 2nd Ward

Pamela Carter, 3rd Ward

Gregory W. Argenti, 4th Ward

JoAnne Moon, 5th Ward

Rey Carrion, 6th Ward

Cory Shawver, 7th Ward

Joshua Thornsberry, 8th Ward

Mitchell Fallis, at Large

Mary Springowski, at Large

Tony Dimacchia, at Large

Nancy Greer, Clerk of Council

ADVERTISEMENT FOR BIDS/PUBLIC NOTICE TO BIDDERS

Sealed bids will be received at the Engineering Department, Fourth Floor, City Hall, 200 West Erie Avenue, Lorain, Ohio 44052 11:00 a.m. on October 29, 2020 and will be opened and read immediately thereafter for the

REDHILL BOOSTED PRESSURE ZONE IMPROVEMENTS

WSRLA FUNDED PROJECT

OPINION OF PROBABLE CONSTRUCTION COST: \$12,500,000.00
COMPLETION DATE: 24 MONTHS FROM NOTICE TO PROCEED

The bid specifications, drawings, plan holders list, addenda, and other bid information (**but not the bid forms**) may be viewed and/or downloaded for free via the internet at <https://bids.ctconsultants.com>. The bidder shall be responsible to check for Addenda and obtain same from the web site.

Bids must be in accordance with drawings and specifications and on forms available from CT Consultants, Inc. at a non-refundable cost of Three Hundred Dollars (\$300.00). Documents may be ordered by registering and paying online at <https://bids.ctconsultants.com>. Please contact planroom@ctconsultants.com or call (440) 530-2395 if you encounter any problems viewing, registering or paying for the documents.

All bidders are invited to attend a non-mandatory Pre-bid Conference on October 16, 2020 at 10:00 a.m. at the Lorain City Hall, 200 W. Erie Avenue, Lorain, OH 44052.

This project will be funded by the Water Supply Revolving Loan Account Program as administered by the Ohio Environmental Protection Agency and the Ohio Water Development Authority. The Contractor shall note that there are Disadvantaged Business Enterprise participation goals for this project.

Publish: *The Morning Journal*
October 2, 2020
October 9, 2020

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SECTION 1
BID DOCUMENTS

INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

- 1.1 Sealed bids shall be received by the Owner at the location specified and until the time and date specified in the Advertisement for Bids/Public Notice to Bidders.
- 1.2 Each bid shall contain the full name and address of each person or company interested in said bid. If no other person be so interested, the Bidder shall distinctly so state the fact.
- 1.3 Bid forms must be completed in ink or by typewriter. Any corrections to the bid forms prior to submission must be initialed by the person signing the bid. Failure to submit any bid form(s) or other required document(s) may be cause for rejection of the bidder's bid at the sole discretion of the Owner.
- 1.4 Bids by Corporations must be executed in the corporate name by the President, Vice President, or other officer accompanied by evidence of authority to sign and the corporate seal must be affixed and attested by the Secretary on the Corporate Resolution form.
- 1.5 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature.
- 1.6 All names must be typed or printed below the signature.
- 1.7 The bid shall contain an acknowledgment of receipt of all Addenda.
- 1.8 If a Bidder wishes to withdraw their bid prior to the opening of bids, they shall state their purpose in writing to the Owner before the time fixed for the opening, and when reached it shall be handed to them unread.
- 1.9 After the opening of bids, no Bidder may withdraw his bid for a period of 90 days.

PART 2 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 2.1 Before submitting a bid, each Bidder must
 - A. Examine the Contract Documents thoroughly.
 - B. Visit the site to familiarize themselves with local conditions that may in any manner affect cost, progress, or performance of the work.
 - C. Familiarize themselves with Federal, State, and local laws, ordinances, rules, and regulations that may in any manner affect cost, progress, or performance of the work.
 - D. Study and carefully correlate Bidder's observations with the Contract Documents.

- 2.2 Reference is made to the Specific Project Requirements for the identification of any reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the work which have been relied upon by the Engineer in preparing the drawings and specifications. Owner will make copies of such reports available to any Bidder requesting them if not made available with the bid documents. These reports are not guaranteed as to accuracy or completeness; nor are they part of the Contract Documents. Before submitting their bid each Bidder will, at their own expense, make such additional investigations and tests as the Bidder may deem necessary to determine their bid for performance of the work in accordance with the time, price and other terms and conditions of the Contract Documents.
- 2.3 Upon request, the Owner will provide each Bidder access to the site to conduct such reasonable investigations and tests as each Bidder deems necessary for submission for their bid.
- 2.4 The lands upon which the work is to be performed, rights-of-way for access thereto, and other lands designated for use by Bidder in performing the work are identified on the Drawings.
- 2.5 The submission of a bid will constitute an incontrovertible representation by the Bidder that they have complied with every requirement of this section and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the work.

PART 3 ESTIMATED QUANTITIES

- 3.1 In Unit Price Contracts, the quantities of the work itemized in the bid are approximate only and the bidders are hereby notified that the estimated quantities made by the Engineer are merely for the guidance of the Owner in comparing on a uniform basis all bids received for the work.
- 3.2 The contract quantities, where itemized, are based on plan horizontal and vertical dimensions unless otherwise specified. It is the Contractor's responsibility to verify and determine actual quantities of materials such as pipe, pavement, subgrade, etc. in their ordering materials.
- 3.3 Payments, except for lump sum contracts and except for lump sum items in unit price contracts, will be made to the Contractor only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications.
- 3.4 The successful Bidder will be required to furnish the Owner with a complete breakdown of the lump sum bid items, to the satisfaction of the Engineer/Architect, before signing the Contract documents.

PART 4 CONTRACTOR'S QUALIFICATION

- 4.1 Bidder shall provide detailed information relating to similar projects completed within the past 5 years which demonstrates the bidder's capability, responsibility, experience, skill, and financial standing to undertake this type of project and shall include a list of all projects currently under construction including status and contact person.
- 4.2 Bidder shall own, have rental or lease agreements for, or otherwise have readily available any and all equipment and tools necessary for proper execution of the work. The Owner reserves the right to request lists of equipment or tools available for the project including sources.
- 4.3 Bidder shall provide pertinent information to the Owner relative to any pending suits or outstanding liens. If no information is provided by the Bidder, the Owner shall assume that any such suits or liens do not exist.
- 4.4 The Owner may require similar information on any or all subcontractors proposed by the Bidder.
- 4.5 Bids of corporations not chartered in the state in which the work will take place must be accompanied by proper certification that the corporation is authorized to do business in that state.

PART 5 SUBCONTRACTORS

- 5.1 The Bidder shall state on the appropriate bid form the names of all Subcontractors proposed and the items of work they are to be assigned. All work not assigned to a Subcontractor shall be assumed by the Owner to be performed by the Bidder.
- 5.2 The Owner reserves the right to approve all subcontractors proposed by the Bidder. If the Owner, after due investigation, rejects the use of a proposed subcontractor, the apparent successful Bidder may either submit an acceptable substitution without increase in bid price or decline substitution and withdraw their bid without sacrificing their bid security. Any listed subcontractor to whom the Owner does not make written objection prior to award of contract, shall be deemed acceptable to the Owner.
- 5.3 Requests for changes of Subcontractor by the Bidder after the award shall be subject to the Owner's approval and shall not change the contract bid prices.
- 5.4 No contractor shall be required to employ any Subcontractor, person or organization against whom they have reasonable objection.

PART 6 BID REVIEW BY OWNER

- 6.1 The Owner reserves the right to reject any and all bids, to waive as an informality any and all irregularities, and to disregard all nonconforming, nonresponsive or conditional bids.

- 6.2 All extensions and totals of unit prices and quantities submitted as part of the bid shall be considered informal until verified by the Owner. All bids must be made on the forms contained herein and the bid prices must be written therein, in figures only. Unit prices shall be separately written for "Unit Price Labor," "Unit Price Material," and "Total Unit Price" for each item listed. Should an error in addition and/or multiplication be determined while checking the Contractor's math and verifying their total bid, the "Unit Price Labor" and the "Unit Price Material" figures shall govern in determining the correct "Total Unit Price" and the correct "Item Total."
- 6.3 Each bidder must bid on all Items, Alternates, Deductions, and Additions contained in the Bidding Forms. All bids not in conformity with this notice may be considered non-responsive and may be rejected.
- 6.4 More than one bid for the same work from an individual or entity under the same of different names will not be considered. Reasonable grounds for believing that that any bidder has an interest in more than one bid for the work may be cause for disqualification of that bidder and the rejection of all bids in which the bidder has an interest. A subcontractor or supplier is not a bidder, and may submit prices to multiple bidders.
- 6.5 In evaluating bids, the Owner may consider:
- A. The qualifications and experience of the Bidder, proposed subcontractors, and principal material suppliers as outlined in the plans and specifications.
 - B. Financial ability and soundness of the Bidder and proposed subcontractors.
 - C. Completeness of all bid forms and bid requirements.
 - D. Alternates and unit prices requested in the Bid Forms.
 - E. Unit prices or schedules of values that are or appear to be unbalanced.
 - F. Previous contractual experience with the Owner.
 - G. Whether or not the bid package complies with the prescribed requirements.
 - H. The proposed completion date, if applicable.
 - I. Any other matter allowed by law or local ordinance or resolution.
- 6.5 Owner may conduct further investigations as they deem necessary to assist in the evaluation of any bid and to establish the responsibility, qualifications, and financial ability of the Bidders, proposed Subcontractors, and other persons and organizations to do the work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.
- 6.6 Owner reserves the right to reject the bid of any Bidder who does not pass any such evaluation to Owner's satisfaction.

- 6.7 The Contract award shall be based on the lowest and best bid or lowest responsive and responsible bid (as applicable for the public contracting agency receiving bids) for the base bid and selected alternate items (if any) for this project.

PART 7 BID SECURITY

- 7.1 Each bid must be accompanied by a certified or cashier's check in the amount of 10% of the amount bid, an irrevocable letter of credit in the amount of 10% of the amount bid or an original bond in the amount of 100% of the amount bid per ORC 153.54 and 153.571. The certified or cashier's check, or irrevocable letter of credit shall be from a financial institution authorized to transact business in the State of Ohio and acceptable to the Owner. The bond shall be underwritten by a Surety Company authorized to transact business in the State of Ohio having an Ohio agent and listed on the most current Department of the Treasury Circular 570, "Surety Companies Acceptable on Federal Bonds." The bond shall be a "Bid Guarantee and Contract Bond" ("rollover bond") per O.R.C. sections 153.54 and 153.571 submitted for the full amount of the bid **including all alternates**, if any.

If bid security is made by bond, the Bidder and their Surety shall sign the Supplemental Bond Acknowledgement form and submit with their bid.

- 7.2 The certified or cashier's check, irrevocable letter of credit, or bond shall be made payable to the Owner and shall serve as a guarantee that in the event the bid is accepted and a contract is awarded to the successful Bidder, the contract will be executed by the bidder including any certifications, certificates or additional bonds required by the contract.
- 7.3 Failure on the part of the successful Bidder to execute the contract documents will cause the certified or cashier's check, irrevocable letter of credit, or bond to be forfeited to the Owner as damages.
- A. If the Owner awards the contract without rebidding, the Bidder (and the Surety on their bond if a bond was submitted) shall be liable to the Owner for a penal sum not to exceed the difference between the low bid and the next lowest bidder or 10% of the amount of the bid, whichever is less.
- B. If the Owner does not award the Contract to the next lowest Bidder, but resubmits the project for bidding; the Bidder (and the Surety on their bond if a bond was submitted) shall be liable to the Owner for a penal sum not to exceed the costs in connection with the resubmission of bids or 10% of the amount of the bid, whichever is less.
- 7.4 Checks or letters of credit for bid security of all bidders will be returned in the manner and timeframe stipulated in the Ohio Revised Code.

PART 8 CONTRACT BOND

- 8.1 As security for faithful performance and payment of all obligations under the Contract, the Owner shall require and the successful Bidder shall furnish either:
- A. *If submitted as Bid Security at time of bid:* "Bid Guarantee and Contract Bond" (AKA "rollover bond") per O.R.C. sections 153.54 and 153.571.
 - B. *If a cashier's check or irrevocable letter of credit is submitted as Bid Security at time of bid:* Contract Bond per Ohio Revised Code Sections 153.54 and 153.57, in the amount of 100% of the Contract Price. The Contractor and their Surety shall sign the Supplemental Bond Acknowledgement form and submit with the Contract forms
- 8.2 The bond shall be underwritten by a Surety Company authorized to transact business in the State of Ohio having an Ohio agent and listed on the most current Department of the Treasury Circular 570, "Surety Companies Acceptable on Federal Bonds."
- 8.3 The contract bond shall cover correction of the work for the period stated in the specifications and the correction period shall start upon Final Acceptance of the entire project and final payment by the Owner.
- 8.4 Nothing in the performance of the Engineer's service to the Owner in connection with this project shall in any way imply any undertaking for the benefit of the successful Bidder, its subcontractor(s), or the surety of any of them.

PART 9 AWARD AND EXECUTION OF CONTRACT

- 9.1 After the Owner's legislative body awards the project, the successful bidder will receive the unsigned contract documents. Within 10 days after their receipt, the successful Bidder shall sign and deliver to the Owner said contract documents including any certifications, certificates, or additional bonds required by the contract.
- 9.2 The Owner shall execute the Contract within 90 days after the day of the bid opening. When necessary and by mutual consent between the Owner and the Successful Bidder, this 90 day period may be extended.
- 9.3 The date of the Owner's signature on the Contract Agreement shall be the effective contract date.
- 9.4 The Owner shall execute and deliver to the successful Bidder one set of fully executed contract documents.

PART 10 INSURANCE

- 10.1 Verification of limits for public liability, property damage, automobile, Worker's Compensation, or any other insurance required by the provisions of this Contract must be submitted to the Owner prior to execution of the Contract.

- 10.2 All insurance shall be endorsed so that it cannot be cancelled for non-payment of premium for 10 days or cancelled or non-renewed for any other reason in less than 30 days after a written notice of such proposed action by the insurer is given to the Owner. The cancellation clause on the Certificate(s) of Insurance shall read as specified in the Supplementary Conditions and failure to submit an insurance certificate and/or policy endorsement verifying same shall be reason for the Owner to consider the Contractor non-responsive in complying with the requirements for contract execution and may be cause for forfeiture of the Bid Security to Owner.
- 10.3 The Contractor's Liability Insurance policy(s) shall be endorsed such that limits are on a Per Project basis.
- 10.4 The Contractor shall also provide an Owner's and Contractor's Protective Policy.

PART 11 NON-COLLUSION AFFIDAVIT

- 11.1 Collusion between bidders will be cause for rejection of affected bids and may be cause for rejection of all bids. Multiple bids submitted by one bidder under the same name or different names, whether as an individual, firm, partnership, corporation, profit or non-profit, affiliate, or association will be cause for rejection of bids. A subcontractor is not a bidder, and may submit prices to multiple bidders.
- 11.2 All bidders shall submit an affidavit that their bid is genuine and not collusive or sham; that such bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other bidder or person shall refrain from bidding; that such bidder has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against the Owner or any person or persons interested in the proposed contract; that such bidder is the only party (or parties) who has an interest with the bidder in the profits of any contract which may result from the herein contained proposal; that no individual affiliated with the Owner, including but not limited to the head of any department, any employee, or any other official or officer of the Owner, is or will be directly or indirectly interested in this bid, and/or the profits from this bid if successful; that no individual affiliated with the Owner, including but not limited to the head of any department, any employee, or any other official or officer of the Owner, has or will receive anything of value as a result of the submission of this bid or its award; that no individual affiliated with the Owner, including but not limited to the head of any department, any employee, or any other official or officer of the Owner, has been solicited to provide assistance and/or provided assistance to the bidder which might give the bidder a competitive advantage or circumvent the competitive bidding process; and that all statements contained in said proposal are true; and further, that such bidder has not, directly or indirectly submitted this bid, or the contents thereof, or divulged information or data relative thereto to any association or to any member or agent thereof.
- 11.3 Each bid must be accompanied by a completed Noncollusion Affidavit provided within the contract documents.

11.4 Where there is reason to believe collusion or combination among bidders exists, the Owner reserves the right to reject the bid of those concerned.

PART 12 DELINQUENT PERSONAL PROPERTY STATEMENT

12.1 Included with the contract documents is a Delinquent Personal Property Statement to be filled out by the successful Bidder.

12.2 The statement shall be sent to both the County Auditor and the County Treasurer. A signed copy shall remain in the contract documents as well.

PART 13 ORIGINAL DOCUMENTS

13.1 All bid forms, contract forms, bonds and any other bid documents or contract documents requiring signatures shall be submitted with original signatures. No photo copies or faxed copies of signed documents shall be accepted.

PART 14 ADDENDA

14.1 The bidder shall be responsible to obtain Addenda from the web at <https://bids.ctconsultants.com>.

END OF SECTION 08/2020

PRICES TO INCLUDE

PART 1 - GENERAL

Any work shown on the plans or required in the specifications but not paid for separately as a bid item shall be included in the cost of other bid items. The amount bid for each Bid Item shall include the following:

- 1.1 All labor, materials, tools, equipment, and transportation necessary for the proper execution of the work in accordance with the Contract Documents.
- 1.2 All assistance required by the Engineer to verify compliance with the Contract Documents, including measuring for final pay quantities.
- 1.3 Project coordination and scheduling.
- 1.4 Detailed breakdown of lump sum bid items as requested by the Engineer.
- 1.5 All provisions necessary to protect workmen, the general public, and property along the work in accordance with the Contract Documents.
- 1.6 Protection and/or replacement of existing property corner monuments.
- 1.7 Record drawings of the installed location of all underground utility lines, etc.
- 1.8 All specified testing.
- 1.9 Reimbursement to Owner for costs of re-inspection or re-testing of any work not installed in compliance with the Contract Documents.
- 1.10 Construction staking of the improvements.
- 1.11 All erosion control measures in accordance with the Contract Documents.
- 1.12 Maintaining traffic.
- 1.13 Surface restoration.

PART 2 - ITEMS

All work proposed by this contract shall be quantified and paid for in accordance with the pertinent O.D.O.T. specification except as specifically altered by other provisions of this contract.

2.1 PRECONSTRUCTION VIDEOTAPE DOCUMENTATION, AS PER PLAN

Basis of Payment

The lump sum price shall include all costs associated with hiring a professional videotaping firm to document in detail the existing conditions of the entire work area and potential disturbed areas and submitting a high quality DVD or USB with audio commentary and video log.

2.2 BONDS AND INSURANCES, AS PER PLAN

Basis of Payment

A "Bonds and Insurances" item (including "Owner/Contractor Protective Policy," "All Risk Builder's Risk Insurance," and/or "Installation Floater Insurance," and all other insurance as required) has been included in the bid proposal.

2.3 CLEARING AND GRUBBING (TREE REMOVAL 18+), AS PER PLAN

Basis of Payment

This pay item is specific to the line work and does not apply to the various site works. The lump sum price shall include any and labor, equipment, and materials including but not limited to removal and disposal of all vegetation, and removal and stockpiling of topsoil within the work limits, and/or disposal of topsoil as may be necessary, and in accordance with plan details and specifications, if any. Payment shall be made progressively throughout the contract period in proportion to the percentage of work complete or as otherwise approved by the Engineer.

2.4 TEMPORARY EROSION CONTROL, INCLUDING SWPPP, AS PER PLAN

Basis of Payment

Payment shall be made progressively throughout the contract period in proportion to the percentage of work complete or as otherwise approved by the Engineer.

2.5 TYPE "A" PAVEMENT REPLACEMENT (CONCRETE), ROADWAY, AS PER PLAN

2.6 TYPE "A" PAVEMENT REPLACEMENT (CONCRETE), DRIVEWAY, ARON, OR PARKING LOT, AS PER PLAN

Method of Measurement

The method of measurement shall be on a square yard basis.

Basis of Payment

The basis of payment shall include but not be limited to: all labor, equipment, and materials to acceptably complete the required paved surfacing, associative pavement testing, sawcutting of various types of pavement and curbing, removal and replacement of any affected curbing, maintaining traffic, and installation of temporary surfacing as may be required.

2.7 TYPE "C" PAVEMENT REPLACEMENT (ASPHALT), ROADWAY, AS PER PLAN

2.8 TYPE "C" PAVEMENT REPLACEMENT (ASPHALT), DRIVEWAY, APRON, OR PARKING LOT, AS PER PLAN

2.9 Method of Measurement

The method of measurement shall be on a square yard basis.

Basis of Payment

The basis of payment shall include but not be limited to: all labor, equipment, and materials to acceptably complete the required paved surfacing, associative pavement testing, sawcutting of various types of pavement and curbing, removal and replacement of any affected curbing, maintaining traffic, and installation of temporary surfacing as may be required.

2.10 4-INCH CONCRETE WALK, AS PER PLAN

2.11 6-INCH CONCRETE WALK, AS PER PLAN

Method of Measurement

The method of measurement shall be as per ODOT 608.

Basis of Payment

The basis of payment shall be as per ODOT 608 with the following additions: The unit price shall be irrespective of the depth of pipe and shall include excavation, bedding, backfill, compaction, protection and/or replacement of all existing utilities (conduit, wires, cables, poles, signs, etc.); maintenance, removal and replacement of all signs, mailboxes, paper boxes, fences, or other structures.

2.12 MAINTAINING TRAFFIC, AS PER PLAN

Basis of Payment

Payment shall be made progressively throughout the contract period in proportion to the percentage of work complete or as otherwise approved by the Engineer.

2.13 CONSTRUCTION LAYOUT STAKES AND SURVEYING , AS PER PLAN

Basis of Payment

The Contractor shall retain the services of a registered, professional surveyor in Ohio. for construction staking. The Contractor shall include in his bid the lump sum charge indicated in the proposal for the construction staking. The surveyor shall bill the Contractor on a monthly basis as a percent of the staking work complete. The lump sum charge shall include re-staking as needed due to negligence of the Contractor.

All marks given shall be carefully preserved, and the Contractor shall keep the professional surveyor informed, a reasonable time in advance, of the time and places at which he intends to work in order that lines and elevations may be furnished and necessary measurements for record and payment may be made with the minimum amount of inconvenience or delay to the Owner, professional surveyor, or Contractor.

2.14 MOBILIZATION

Basis of Payment

The lump sum price shall include work consisting of the preparatory work and operation for moving in of personnel, equipment and incidentals to the project site, the assembling and setting up of equipment, storage areas, trailers and other facilities as necessary to complete the work as specified or shown.

- 2.15 PULL BOX 725.08, 18 INCH, AS PER PLAN
- 2.16 TRANSFORMER PAD, CONCRETE, AS PER PLAN
- 2.17 4 INCH SCHEDULE 40 PVC CONDUIT
- 2.18 TRANSFORMER, INSTALLED BY UTILITY OWNER

Basis of Payment

The above four items shall be paid for upon full completion of the conversion of the three phase primary overhead electrical circuit feeding the Water Booster Station to underground as per plan.

- 2.19 PIPE ABANDONED, 12" (UP TO 12")
- 2.20 PIPE ABANDONED, 24" (OVER 12" TO 36")

Basis of Payment

The lump sum price shall include trench excavation; sheeting and shoring; dewatering, including all pumping required for water in existing pipe, underground water, or surface water; support, protection and/or replacement of all existing utilities (conduit, wires, cables, poles, signs, etc.); exploratory excavation and field location of existing pipe and fittings; disposal of excess materials; cutting and removal of existing pipe; furnishing and installation of stone bedding, conduit, caps, plugs, specials, glands, megalugs, thrust blocking, bolts, jointing material, select or premium compacted backfill material; closing all valves, removal of valve boxes, and the furnishing of all labor, materials, tools and appurtenances necessary to complete the work as specified or as shown.

- 2.21 CONNECT NEW WATER MAIN TO EXISTING WATER MAIN, AS PER PLAN

Measurement

The quantity to be paid shall be the number of locations the new pipe is connected to the existing pipe with the specified fitting as shown on the plans or as directed.

Basis of Payment

The unit price shall be full compensation for each connection made including, but not limited to: earth and/or rock excavation, backfill, disposal of surplus material, furnishing and installing joint material, long solid sleeve, fittings, saw cutting pipe, removal of existing caps or plugs and making connections as required, joint restraints, thrust blocking, polyethylene encasement, removal, and furnishing all labor, tools, materials and appliances necessary to complete the work as specified or as shown.

- 2.22 6" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C909 PVCO, AS PER PLAN
- 2.23 8" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C909 PVCO, AS PER PLAN
- 2.24 12" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C909 PVCO, AS PER PLAN
- 2.25 16" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MECHANICAL JOINTS AND FITTINGS
- 2.26 24" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MECHANICAL JOINTS AND FITTINGS

Method of Measurement

The method of measurement shall be as per ODOT Item 638 and as detailed in the plans.

Basis of Payment

The basis of payment shall be as per ODOT Item 638 with the following additions; the unit price shall also include rock excavation, all necessary pipe fittings, bends, specials, branches, plugs, bulkheads, backfilling as specified, blow off and sampling assemblies as needed or directed; chlorination, chlorination sampling and testing, bacteria sampling and testing, zinc anode caps for all bolts; joint restraint; blow off assemblies as needed or directed; furnishing, installing and operation necessary pumps, pipes and appurtenances necessary for trench dewatering; support protection, relocation and/or replacement of all existing utilities (sanitary force mains, storm and sanitary sewers, culverts, gas lines, curb drains, catch basins, underground conduit, wires, cables, utility poles, signs, etc.); excavating sanitary laterals and utilities in advance of waterline to determine depth in order to install waterline at specified vertical offset from utilities; installing and maintaining temporary traffic surface in paved areas; maintenance, removal and replacement of all signs, mailboxes, paper boxes, fences, guardrails, or other structures; regrading of ditches and/or swales; and the furnishing of all labor, materials, tools and appurtenances necessary to complete the work as specified or as shown. For this project the unit price for water main shall include the tree clearing and stump grinding required per the plan intent.

- 2.27 1" COPPER SERVICE BRANCH (SHORT), AS PER PLAN
- 2.28 1" COPPER SERVICE BRANCH (LONG), AS PER PLAN
- 2.29 1.5" COPPER SERVICE BRANCH (SHORT), AS PER PLAN
- 2.30 1.5" COPPER SERVICE BRANCH (LONG), AS PER PLAN
- 2.31 2" COPPER SERVICE BRANCH (SHORT), AS PER PLAN
- 2.32 2" COPPER SERVICE BRANCH (LONG), AS PER PLAN

Method of Measurement

The method of measurement shall be as per ODOT 638 except that the water service connections shall be paid per each as short service connections or long service connections for the diameter designated on the plans or directed by the Engineer regardless of length of the connection. Short service connections shall be those which the water main is on the same side of centerline of the pavement as the lot serviced. Long service connections shall be those which the water main is on the opposite side of centerline of the pavement as the lot serviced.

Basis of Payment

The basis of payment shall be as per ODOT 638 with the following exceptions: The unit price shall also include connection to the existing service at locations designated on the plans; exploratory and other excavation and field location of existing service connections, new curb stops and boxes, corporation stops, copper services, all fittings and adapters necessary to connect to new or existing meters, blocking, backfill, bedding, all restoration and the furnishing of all labor, materials, tools and appurtenances necessary to complete the work as specified or as shown.

Note: The Contractor shall bore or push service connections across the roadway. Drive aprons and sidewalks shall be protected and avoided during connection work unless the shut-off is located in the apron or sidewalk. If shut-off is located in the apron or sidewalk, the contractor will be paid under the contract unit price bid for the various apron and sidewalk line items. It may be necessary to bore under existing utilities if sufficient depth of cover cannot be otherwise maintained.

2.33 12" CONDUIT DIRECTIONALLY BORED WITHOUT CASING, AS PER PLAN

Method of Measurement

The number of lineal feet of horizontal directionally drilled waterline to be measured for payment under this item shall be the actual length of specified pipe measured along the horizontal length of the directionally drilled waterline from the face of the boring pit to the face of the receiving pit (for deep piping installed between sheeted pits) or between the limit indicated on the plans where drilling is initiated from the surface. Payment will only be made for directionally drilled water main that is accepted and part of the final approved installation.

Basis of Payment

The unit price per lineal foot of specified directionally drilled waterline stipulated in the proposal shall include earth and/or rock excavation, disposal of soil, boring and receiving pit design and installation, maintenance of drilling fluids, high density polyethylene pipe and fittings, temporary sheeting and shoring, pit dewatering, spill containment and the furnishing of all labor, materials, tools, equipment and appliances necessary to complete the work as specified or shown.

The unit price stipulated shall also include field staking of improvement and staking of easements.

The unit price shall include verification of the location and elevation of all critical vertical alignment utility crossings prior to the installation of any new improvements. The Contractor shall be responsible for the replacement of all items damaged by the Contractor outside of the limits shown on the Standard Details and/or Contract Drawings.

2.34 16-INCH WATER MAIN, DUCTILE IRON PIPE, ANSI CLASS 52, BOLTLESS RESTRAINED, BORED WITHOUT CASING, AS PER PLAN

Method of Measurement

The number of lineal feet of horizontal directionally drilled waterline to be measured for payment under this item shall be the actual length of specified pipe measured along the horizontal length of the directionally drilled waterline from the face of the boring pit to the face of the receiving pit (for deep piping installed between sheeted pits) or between the limit indicated on the plans where drilling is initiated from the surface. Payment will only be made for directionally drilled water main that is accepted and part of the final approved installation.

Basis of Payment

The unit price per lineal foot of specified directionally drilled waterline stipulated in the proposal shall include earth and/or rock excavation, disposal of soil, boring and receiving pit design and installation, maintenance of drilling fluids, boltless restrained ductile iron pipe and fittings, temporary sheeting and shoring, pit dewatering, spill containment and the furnishing of all labor, materials, tools, equipment and appliances necessary to complete the work as specified or shown.

The unit price stipulated shall also include field staking of improvement and staking of easements.

The unit price shall include verification of the location and elevation of all critical vertical alignment utility crossings prior to the installation of any new improvements. The Contractor shall be responsible for the replacement of all items damaged by the Contractor outside of the limits shown on the Standard Details and/or Contract Drawings.

2.35 6" GATE VALVE AND VALVE BOX, AS PER PLAN

2.36 8" GATE VALVE AND VALVE BOX, AS PER PLAN

2.37 12" GATE VALVE AND VALVE BOX, AS PER PLAN

2.38 16" GATE VALVE AND VALVE BOX, AS PER PLAN

Method of Measurement

The quantity to be paid shall be the number each of valves and boxes installed per the plans and specifications.

Basis of Payment

The unit price shall include each valve and valve box set to finish grade, where shown on the plans and as specified, installed complete including excavation regardless of soil or rock type, backfill per typical trench details, testing, and furnishing all labor, materials, tools, and appurtenances necessary to complete the work as specified or as shown.

2.39 6 INCH HYDRANT ASSEMBLY, INCLUDING 6 INCH VALVE AND VALVE BOX,
AS PER PLAN

Method of Measurement

The quantity to be paid shall be as per ODOT 638.

Basis of Payment

The basis of payment shall be as per ODOT 638 with the following additions: The unit price shall also include the hydrant tee branch with restrained fittings and nipples, nuts and bolts with zinc anode caps, gate valve, valve box, earth and/or rock excavation, clearing and grubbing, setting hydrant to finished grade including furnishing and placing hydrant extensions as required, removal and disposal of all surplus and unsuitable material, furnishing and placing the specified bedding and backfill, blocking, concrete, protection and/or possible relocation of all other existing utilities and repaired, if damaged by the Contractor and grass restoration.

2.40 24" GATE VALVE AND VAULT, AS PER PLAN

Basis of Payment

The lump sum price bid shall include locating and staking of the work and work limits, clearing and grubbing; demolition, removal of structures and obstructions, disposal of undesirable and excess materials, erosion control, traffic control, supply water to property owners affected by the work, coordination with and assistance to the Owner and member cities, confirmation of existing conditions including pipe outside diameters, locations and sizes; access drives, excavation, sheeting and shoring, dewatering, support and/or relocation of existing utilities, installation of vault, demolition and replacement of existing pipe, valves, fittings and appurtenances; supply and installation of all new pipe, anode bag assemblies, valves, fittings and appurtenances; fill, backfill, compaction, concrete encasement, concrete waterproofing, pipe and joint restraints; Installation of sump pump, electrical service, panel board replacement, conduit, breakers, etc.; clean-up, site restoration including seeding and mulching, and all labor, materials, machinery, tools and appliances necessary to complete the work shown on the contract drawings and as specified.

2.41 VALVE VAULT ADJUSTED TO GRADE

Basis of Payment

The lump sum price bid shall include locating and staking of the work and work limits, demolition, removal of structures and obstructions, disposal of undesirable and excess materials, erosion control, traffic control, supply water to property owners affected by the work, coordination with and assistance to the Owner and member cities, excavation, sheeting and shoring, dewatering, support and/or relocation of existing utilities, reconstruction of vault, installation of new access manhole; fill, backfill, compaction, concrete encasement, concrete waterproofing; clean-up, site restoration including seeding and mulching, and all labor, materials, machinery, tools and appliances necessary to complete the work shown on the contract drawings and as specified.

2.42 WATER BOOSTER STATION SURGE VALVE REPLACEMENT, AS PER PLAN

Method of Measurement

The method of measurement shall be as per ODOT Item 638 and as detailed in the plans.

Basis of Payment

The basis of payment shall be as per ODOT Item 638 with the following additions; the lump sum price shall also include rock excavation, all necessary flanged pipe, fittings, bends, butterfly valves, surge relief valve, specials, branches, plugs, bulkheads, backfilling as specified, blow off and sampling assemblies as needed or directed; chlorination, chlorination sampling and testing, bacteria sampling and testing, zinc anode caps for all bolts; joint restraint; blow off assemblies as needed or directed; furnishing, installing and operation necessary pumps, pipes and appurtenances necessary for trench dewatering; support protection, relocation and/or replacement of all existing utilities (sanitary force mains, storm and sanitary sewers, culverts, gas lines, curb drains, catch basins, underground conduit, wires, cables, utility poles, signs, etc.); installing French drain for drainage mitigation measures, including site regrading and fence work; maintenance, removal and replacement of all fences, guardrails, or other structures; regrading of ditches and/or swales; and the furnishing of all labor, materials, tools and appurtenances necessary to complete the work as specified or as shown. For this project the lump sum price for booster pumping station surge relief valve replacement shall include site regrading, trench drain installation and piping, tree clearing and stump grinding, and other site work required per the plan intent. **Electrical service and transformer are included under separate bid items.**

2.43 PIPE REMOVED, 12" (UP TO 24")

Method of Measurement

The method of measurement shall be as per ODOT Item 202 and as detailed in the plans.

Basis of Payment

The basis of payment shall be as per ODOT Item 202 and as detailed in the plans.

2.44 ELECTRICAL COMPANY CHARGES ALLOWANCE

Basis of Payment

A utility allowance has been included in the bid proposal to be utilized as directed by the Engineer for payment to support utilities, relocate and/or repair utilities that are not shown on the contract drawings. The amount to be paid to the Contractor and the amount utilized in the allowance shall be the invoice amount from the utility company without any mark up by the Contractor. Any portion of the allowance not utilized shall be credited to the Owner.

2.45 GAS COMPANY CHARGES ALLOWANCE

Basis of Payment

A utility allowance has been included in the bid proposal to be utilized as directed by the Engineer for payment to support utilities, relocate and/or repair utilities that are not shown on the contract drawings. The amount to be paid to the Contractor and the amount utilized in the allowance shall be the invoice amount from the utility company without any mark up by the Contractor. Any portion of the allowance not utilized shall be credited to the Owner.

2.46 REMOVAL OF HYDRANTS

Method of Measurement

The method of measurement shall be as per ODOT Item 638.

Basis of Payment

The basis of payment shall be as per ODOT Item 638 with the following additions; installation of a plug on the service line, removal of structures and obstructions, disposal of undesirable and excess materials, erosion control, traffic control, coordination with and assistance to the Owner and member cities, excavation, sheeting and shoring, dewatering, support and/or relocation of existing utilities, fill, backfill, compaction; clean-up, site restoration including seeding and mulching, and all labor, materials, machinery, tools and appliances necessary to complete the work shown on the contract drawings and as specified, delivery and preservation of hydrants to the City of Lorain at a location determined by the City.

2.47 PRIVATE LEAD SERVICE (OR GALVANIZED FOLLOWING CITY LSL) LINE REPLACEMENT (50 LF OR LESS, COMPLETE)

Method of Measurement

The method of measurement shall be as per ODOT 638 except that the water service connections shall be paid per each as for the diameter designated on the plans or directed by the Engineer for up to 50 LF of length of the connection.

Basis of Payment

The basis of payment shall be as per ODOT 638 with the following exceptions: The unit price shall also include all coordination with water service customer, connection to the existing service at locations designated on the plans and terminating inside the building with a new, appropriately sized ball valve; exploratory excavation and field location of existing service connections, copper services, all fittings and adapters necessary to connect to new or existing meters, blocking, restoration and the furnishing of all labor, materials, tools and appurtenances necessary to complete the work as specified or as shown.

2.48 PRIVATE LEAD OR GALVANIZED SERVICE LINE REPLACEMENT BEYOND CITY LEAD SERVICE LINE PER LF

Method of Measurement

The method of measurement shall be as per ODOT 638 for the diameter designated on the plans or directed by the Engineer.

Basis of Payment

The basis of payment shall be as per ODOT 638 with the following exceptions: The unit price shall also include connection to the existing service at locations designated on the plans; exploratory excavation and field location of existing service connections, disposal of undesirable and excess materials, copper services, all fittings and adapters necessary to connect to new or existing meters, blocking, restoration and the furnishing of all labor, materials, tools and appurtenances necessary to complete the work as specified or as shown. The length of additional service line replacement to be paid for under this item shall be for the actual length of service line that exceeds 50 LF as included in Bid Item 2.47 above. All other fittings, valves, appurtenances, etc. needed above shall be included under Bid Item 2.47.

2.49 PRIVATE GALVANIZED SERVICE LINE REPAIR/REPLACEMENT NOT CONNECTED TO LEAD SERVICE LINE PER LF

Method of Measurement

The method of measurement shall be as per ODOT 638 for the diameter designated on the plans or directed by the Engineer. The length of replacement paid under this item shall only be for length outside the public ROW; with reconnection within the ROW included under the appropriate water service lines as included in Bid Items 2.27 through 2.32 above.

Basis of Payment

The basis of payment shall be as per ODOT 638 with the following exceptions: The unit price shall also include all coordination with water service customer; connection to the existing service at locations designated on the plans; exploratory excavation and field location of existing service connections, disposal of undesirable and excess materials, copper services, all fittings and adapters necessary to connect to new or existing meters, blocking, restoration and the furnishing of all labor, materials, tools and appurtenances necessary to complete the work as specified or as shown.

2.50 SEEDING AND MULCHING

Method of Measurement

The method of measurement shall be made on a square yard basis.

Basis of Payment

This item shall include but not be limited to: furnishing and placement of topsoil, testing of topsoil, finish grading, seed, fertilizers, lime, water, maintenance, mowing, and all else necessary to establish a grass turf over all disturbed areas to be grassed.