



**INVITATION TO BID AND INSTRUCTIONS TO BIDDERS**

**FY2019-030**

**UNION VALLEY DRAINAGE SYSTEM IMPROVEMENTS**

**BID OPENING**

**August 14, 2018  
2:30 p.m., Local Time**

**at the  
Central Services Complex Multipurpose Room  
City of Oak Ridge  
100 Woodbury Lane  
P. O. Box 1  
Oak Ridge, Tennessee 37831-0001**

**Telephone: (865) 425-1819  
Email: [lmajeski@oakridgetn.gov](mailto:lmajeski@oakridgetn.gov)  
Attn: Lyn Majeski**

**CITY OF OAK RIDGE, TENNESSEE**  
**Invitation to Bid and Instructions to Bidders**

**FY2019-030**

**July 30, 2018**

**Project: Union Valley Drainage System Improvements**

**Invitation**

Bids will be received by the City of Oak Ridge until 2:30 p.m. local time, August 14, 2018, then publicly opened in the Central Services Complex Multipurpose Room at 100 Woodbury Lane, Oak Ridge, Tennessee 37830, for furnishing all labor, materials, supplies, tools, and equipment necessary to perform all work and services described in the Contract attached hereto, in strict accordance with the terms and provisions of said Contract and any attachments thereto. (See attached Specifications / Scope of Work)

All bids must be completed and submitted on the Bid Form provided. All options must be bid unless the Bid Form provides otherwise. The bids shall be submitted on or before the time set for the opening of bids. Bids received after the time so set are late bids and will not be considered. Late bids, unmarked envelopes, and incorrectly marked envelopes will not be opened. Electronic bids are not accepted.

**Discrepancies**

Should the Bidder find any discrepancies in, or omission from, the bid documents, or should the Bidder be in doubt as to their meaning, the Bidder shall at once notify Lyn Majeski at (865) 425-1819 or [lmajeski@oakridgetn.gov](mailto:lmajeski@oakridgetn.gov) and obtain an interpretation or clarification prior to submitting a bid. Any interpretation or clarification given in accordance with this provision shall be in writing and will be distributed to all known Bidders. Only questions answered in writing will be binding. Oral and other interpretations or clarifications will be without legal effect. All questions must be submitted to Lyn Majeski no later than 8:00 a.m., local time, on August 10, 2018 in order to give sufficient time for responses to be sent to all prospective bidders.

**Prices**

The Bidder shall submit UNIT bid prices as specified on Bid Form. It is agreed that this bid document in its entirety is included in and made a part of the contract between the City and the successful Bidder.

Discrepancies between the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

**Withdrawal of Bids**

Bids may be withdrawn on written or telegraphic request received from Bidders prior to the time fixed for opening the bids. Such written request must be on company letterhead signed by a company official and must indicate the specific bid project and bid price to be withdrawn in order to verify the identity of the bidder.

## **Rejection of Bids**

The City reserves the right to reject any and all bids when such rejection is in the interest of the City of Oak Ridge; to reject the bid of a Bidder who has previously failed to perform properly or complete on time jobs of a similar nature; to reject the bid of a Bidder who is not, in the opinion of the City, in a position to perform the Contract, and to reject the bid of a Bidder not submitted in accordance with this Invitation to Bid.

## **References**

With the bid, each Bidder shall furnish at least three (3) references for whom work similar to that covered by the specifications herein was performed.

## **Equipment**

The Bidder shall have available under Bidder's control, tools and equipment of the type, character and amount required to complete the proposed work within the specified time. Each Bidder shall furnish a list of the tools and equipment proposed for use on the work if requested.

## **Personnel**

Each Bidder shall have available or shall agree to have available under Bidder's control sufficient equipment and personnel to complete the proposed work within the specified time.

## **Method of Work**

Upon request, each Bidder shall describe the method or methods to be used in the performance of the required work.

## **Bidders Interested in More than One Bid**

A party who has quoted prices to a Bidder is not thereby disqualified from quoting prices to other Bidders or from submitting a bid directly for the work; however, more than one bid for the same work from an individual or entity under the same or different name will not be considered.

## **Insurance**

The successful Bidder will be required to maintain Worker's Compensation, Comprehensive General Liability, and Comprehensive Automobile Liability and Property Damage Insurance in accordance with the provisions of the Contract Documents. The City of Oak Ridge, Tennessee shall be named as an additional insured.

## **Bid Surety**

Each bid shall be accompanied by a bid guarantee payable to the City in the amount of ten percent (10%) of the total bid amount. The form of the bid guarantee shall be a bid bond or other suitable instrument (i.e. cashier's check, certified check, or Letter of Credit). The bid guarantees of unsuccessful Bidders shall be return to them by the City within fifteen (15) consecutive calendar days after execution of the Contract.

### **Drug-Free Workplace Affidavit Form**

A Drug-Free Workplace Affidavit form is included in this bid package and must be submitted with the bid.

### **Completion and Performance Bond, and Labor and Material Bond**

The Contractor agrees to furnish a Completion and Performance Bond in the amount of one hundred percent (100%) of the Contract price with good and sufficient surety or sureties acceptable to the City in connection with the performance of the work under this Contract. The form and conditions of said Completion and Performance Bond shall be as prescribed by the City.

The Contractor agrees to furnish a Labor and Material Bond in the amount of one hundred percent (100%) of the Contract price with good and sufficient surety or sureties acceptable to the City, for the protection of persons furnishing labor and material in connection with the performance of the work under this Contract. The form and conditions of this bond shall be as prescribed by the City.

### **Award of Contract**

The City will make the award as soon as practicable to the lowest responsible Bidder, price and other factors considered, provided it is reasonable and in the best interest of the City. The City reserves the right to award the contract to more than one bidder if in the best interest of the City. The successful Bidder(s) shall be required to execute the Contract attached hereto.

### **Timeframe for Completion**

Work shall commence after the City's issuance of a Notice to Proceed and shall be completed within forty-five (45) calendar days of such notice, unless an alternate schedule is approved by the parties in writing.

### **City Officers and Employees Not To Have Financial Interest**

No contract shall be made with any officer or employee of the City or any firm or corporation in which any officer or employee of the City has financial interest.

### **Compliance with All Laws, Ordinances, Statutes, and Regulations**

The Contractor shall comply with all federal, state, county and local laws, ordinances, statutes, and regulations. Pursuant to City Code § 5-413, the City may not accept bids from Bidders in default of any payment of any nature due to the City, including but not limited to taxes, licenses and fees.

### **Tobacco Products**

The selected Bidder and its employees/subcontractors shall comply with all building policies, regulations, schedules and rules as set out and required by the City. Please note smoking (including e-cigarettes) and the use of tobacco products (chewing) is prohibited in City-owned facilities. For any work done at City facilities, any smoking occurring outside of the buildings must occur at least twenty (20) feet away from any entrance, open window or other opening into which smoke could infiltrate into the building. Spent smoking materials are to be properly discarded and not littered on the grounds.

### **Anti-Discrimination**

The selected Bidder, in performing the work or furnishing the services covered by this project, shall not discriminate against any person because of race, creed, color, national origin, age, sex, sexual orientation, disability, religion or other legally protected status. The City of Oak Ridge encourages the utilization of minority and women-owned businesses in its contracting and subcontracting projects.

### **Competency of Workers / Background Checks**

The selected Bidder shall only furnish employees who are competent and skilled for work under this contract. If, in the opinion of the City, an employee of the selected contractor is incompetent or disorderly, refuses to perform in accordance with the terms and conditions of the contract, threatens or uses abusive language while on City property, or is otherwise unsatisfactory, that employee shall be removed from all work under this contract. The selected contractor's employees working on this project may be subject to police background checks at the sole discretion of the City prior to commencement of the work.

## Bid Submittal Instructions

Each bid must be submitted in an opaque sealed envelope marked and addressed on the outside as follows:

From: Bidder's Name  
Bidder's Address  
\*General Contractor's State of Tennessee License Number  
\*Bidder's License Date of Registration  
\*Bidder's License Category or Classification  
\*Bidder's License Expiration Date

\*If bid equals or exceeds \$25,000, include this information if a contractor's license is required for this project per the State of Tennessee's Contractors Licensing Board. (The same information must also be provided for major subcontractors.)

To:	<u>In Person or By Overnight Delivery</u>	<u>Regular Mail</u>
	Attn: Lyn Majeski Finance Department City of Oak Ridge 100 Woodbury Lane Oak Ridge, TN 37830	Attn: Lyn Majeski Finance Department City of Oak Ridge P.O. Box 1 Oak Ridge, TN 37831-0001

If the bid is submitted by mail rather than hand-delivery, the sealed envelope containing the bid must be enclosed in another envelope addressed as stated above. Bids submitted by mail should indicate on the outside envelope, lower left corner, the following: "Sealed bid for FY2019-030: Union Valley Drainage System Improvements to be opened August 14, 2018, at 2:30 p.m., local time" to ensure the bid is delivered to the appropriate person at the City in a timely fashion. Late bids are not accepted and will not be opened.

**BID FORM**

**Project: Union Valley Drainage System Improvements**

In compliance with the Invitation for Bids, dated July 30, 2018, the undersigned Bidder:

\_\_\_\_\_

\* a corporation organized and existing under the laws of the State of: \_\_\_\_\_

\* a partnership consisting of: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\*an individual trading as: \_\_\_\_\_

\_\_\_\_\_

(\*fill in as appropriate)

of the City of \_\_\_\_\_ in the State of \_\_\_\_\_ agrees that if this bid is accepted as hereinafter provided, it will furnish all labor, materials, supplies, tools, and equipment necessary to perform all work and services described in the Invitation for Bid and Instructions to Bidders, in strict accordance with the terms and provisions of the Contract attached thereto.

If written Notice of Award is received, the Bidder agrees to furnish to the City of Oak Ridge, within ten (10) working days after receipt of said Notice of Award, the required insurance certificates naming the City of Oak Ridge as an additional insured.

**BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDA:**

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_      Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_      Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Bidder understands that the City reserves the right to reject any or all bids and to waive any informality in the bidding.

Bidder agrees that this bid shall be good for a period of ninety (90) days from the date of opening. The successful bidder shall sign and return the contract for this project within ten (10) days of receipt from the City at which time this Bid Form will be incorporated by reference and said unit prices will be the unit prices used for payment under the contract.

Schedule of Prices\*

Item No	Description	Unit	Quantity	X	Column A Unit Price	=	Column B Amount
1.	Pre-Construction Cleaning & Inspection	LS	1	X		=	\$
2.	Replace Up-Stream Piping	L.F.	50	X		=	\$
3.	Junction Box Repair	Sq. Ft.	10	X		=	\$
4.	Junction Box Replace	LS	1	X		=	\$
5.	Area Drain Grate Replace	each	1	X		=	
6.	Repair Down Stream Piping	L.F.	20	X		=	\$
7.	Replace Down Stream Piping	L.F.	85	X		=	\$
8.	Repair/Restore Pavement	Sq. Yd.	19	X		=	\$
9.	Tack Coat	Sq. Yd.	19	X		=	\$
<b>TOTAL BID AMOUNT</b>							\$

\*Bid prices shall be effective for at least ninety (90) days after the bid opening date.



Bidder attests that no officers or employees of the City of Oak Ridge are members of, or have financial interest in, the business submitting this bid.

By: \_\_\_\_\_  
Signature

Telephone #: \_\_\_\_\_

Name: \_\_\_\_\_

Fax # \_\_\_\_\_

Title: \_\_\_\_\_

Email: \_\_\_\_\_

Business  
Name: \_\_\_\_\_

Date: \_\_\_\_\_

Mailing  
Address: \_\_\_\_\_

Physical  
Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Tax ID Number: \_\_\_\_\_

TN Contractors  
License Number: \_\_\_\_\_  
(if applicable)

NOTE: In accordance with the Invitation to Bid, the following attachments are required: a Bid Bond in the amount of ten percent (10%) of the total bid prices, at least three (3) references, and the Drug-Free Workplace Affidavit.

**BID BOND**

**FY2019-030**

KNOW ALL MEN BY THESE PRESENTS,

That we, \_\_\_\_\_,  
(hereinafter called the "Principal"), as Principal, and the \_\_\_\_\_, of  
\_\_\_\_\_ a

corporation duly organized under the laws of the State of \_\_\_\_\_

(hereinafter called the "Surety"), as Surety, are held and firmly bound unto the City of Oak Ridge, Tennessee, (hereinafter called the "Obligee"), as Obligee, in the sum of ten percent (10%) of the bid price for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for:

\_\_\_\_\_.

NOW THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the Invitation to Bid and Instructions to Bidders with good and sufficient surety for the faithful performance of such contract, or in the event of the failure of the Principal to enter such contract and give such bond, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ A.D. 2018.

IN THE PRESENCE OF:

\_\_\_\_\_(Seal)  
Principal

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Title

\_\_\_\_\_  
Witness

\_\_\_\_\_(Seal)  
Surety

\_\_\_\_\_  
Title

**DRUG-FREE WORKPLACE AFFIDAVIT**

STATE OF \_\_\_\_\_ )  
 )  
COUNTY OF \_\_\_\_\_ )

The undersigned principal officer of \_\_\_\_\_, an employer of five (5) or more employees, contracting with the City of Oak Ridge, Tennessee, to provide construction services, hereby states under oath as follows:

- 1. That the undersigned is a principal officer of \_\_\_\_\_ (hereinafter referred to as the "Company") and is duly authorized to execute this Affidavit on behalf of the Company.
- 2. The Company submits this Affidavit pursuant to Tennessee Code Annotated § 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services or who is awarded a contract to provide construction services or who provides construction services to the state or local government to submit an affidavit stating that such employer has a drug-free workplace program that complies with Title 50, Chapter 9 of the Tennessee Code.
- 3. The Company is in compliance with Tennessee Code Annotated § 50-9-113.

Further affiant saith not.

\_\_\_\_\_  
Principal Officer

State of \_\_\_\_\_ )  
 )ss.  
County of \_\_\_\_\_ )

Before me personally appeared \_\_\_\_\_ with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence) and who acknowledged that such person executed the foregoing affidavit for the purposes therein contained.

Witness my hand and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_.

**CONTRACT**

This Contract entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by and between the City of Oak Ridge, Tennessee, a municipal corporation, hereinafter called the "City," and \_\_\_\_\_  
\_\_\_\_\_  
a \_\_\_\_\_, hereinafter called the "Contractor."

**WITNESSETH**

In consideration of the mutual promises of the parties hereto, the parties do hereby agree as follows:

**ARTICLE 1 – Scope of This Contract**

The work to be done consists of furnishing all labor, materials, supplies, tools, equipment and other incidentals necessary to perform all work and services required for the Union Valley Drainage System Improvement project, located in Oak Ridge, Tennessee 37830, for the City of Oak Ridge, in strict accordance with the terms and provisions of this Contract, the Specifications, and the bid of the Contractor attached hereto.

In performance of this Contract, the Contractor binds himself to the City to comply fully with all provisions, undertakings, and obligations hereinafter set forth.

**ARTICLE 2 – Term**

This Contract shall become effective upon its execution and shall continue in full force and effect through December 31, 2018. Work shall commence after the City's issuance of a Notice to Proceed and shall be completed within forty-five (45) calendar days of said notice, unless an alternate schedule is approved by the parties in writing.

**ARTICLE 3 – Changes**

- A. City may, by written order, and without notice to the Sureties, make changes in the specifications of this Contract within the general scope thereof. If any such changes cause an increase or decrease in the scope of this Contract or in the time required for its performance, an equitable adjustment shall be made and this Contract shall be modified in writing accordingly.
- B. Should the Contractor encounter conditions materially different from those shown in the specifications, the City shall be notified in writing immediately of such conditions before they are disturbed. The City shall thereupon promptly investigate the conditions and if it finds that they do so materially differ from those specified, this Contract shall be modified to provide for any increase or decrease of cost and difference in time resulting from the conditions so found.

- C. Except as otherwise herein provided, no charge for any extra work or material will be allotted unless the same has been approved in writing by the City, and the price stated.

#### ARTICLE 4 – Inspections and Defective Work

All workmanship and services shall be subject to inspections, examinations and tests by the City at any and all times during the performance of this Contract. The City shall have the right to reject defective workmanship and to require correction. Rejected workmanship shall be satisfactorily corrected without charge therefore. If the Contractor fails to proceed at once to correct such defective workmanship, the City may proceed with such corrective work and the Contractor shall be liable for all direct cost occasioned in the performance therefore.

This provision does not negate, modify or replace any warranties contained elsewhere in this Contract. This provision shall survive the termination or suspension of this Contract.

Neither payment nor any provisions in the Contract document shall relieve the Contractor of responsibility for faulty materials or defective workmanship. The City shall give notice of observed defects with reasonable promptness. The deterioration due to ordinary use and normal wear is excepted from this guarantee.

The Contractor shall reimburse the City for the cost of damage, if any, as well as the cost of replacing defective materials or workmanship. If replacements are not made within ten (10) days after notice is given of such defect in workmanship, or thirty (30) days in case of materials, then the City shall have the right to make replacements and charge the cost of same to Contractor or the Contractor's surety.

#### ARTICLE 5 – Site Investigation

The Contractor represents that it has visited the site and determined the nature of the work and the difficulties and facilities attending execution of the work, and all other matters, which can in any way affect the work under this Contract.

#### ARTICLE 6 – Delays, Damages

If the Contractor refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in Article 2, or fails to complete the work within such time, the City may terminate this Contract. In such event, the City may take over the work and prosecute the same to completion by contract or otherwise, and the Contractor shall be liable to the City for any excess cost occasioned thereby. If this Contract is so terminated, the City may take possession of and utilize in completing the work such materials, appliances, tools and equipment as may be on the site of the work and necessary therefore.

#### ARTICLE 7 – Payment

As consideration for performing all work and services set forth in this Contract, and as full consideration thereof, the City agrees to pay the Contractor \$ \_\_\_\_\_ in accordance with the bid sheet of the Contractor which is incorporated by reference into this Contract. Payment shall be made after satisfactory completion of the work and approval by the City. The Contractor shall submit an invoice upon completion of the work to Roger Flynn, City Engineer, for approval and payment.

ARTICLE 8 – Final Payment

Upon completion of the work and services covered by this Contract and before final payment, the Contractor must furnish evidence to satisfy the City that all suppliers of materials used and all labor and other employees working for the Contractor pursuant to this Contract have been fully paid. Upon final payment, the City is to be released from all liability whatsoever growing out of this Contract.

ARTICLE 9 – Indemnification by Contractor

To the fullest extent permitted by all applicable laws and regulations, the Contractor hereby agrees to protect, indemnify and hold harmless the City and their consultants, agents and employees from and against any and all claims, loss, expense, damage, charges and costs direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professional and court costs), collectively referred to as "claims," for injury to or death of persons and injury to or destruction of property suffered or alleged to have been suffered as a result of any act or omission on the part of the Contractor, any of the Contractor's subcontractors, anyone for whose acts any of them may be liable, or others whose services are engaged by the Contractor or anyone directly or indirectly employed or controlled by either of them in the course of the performance of the work provided for in the Contract, except such injury, destruction or death as may be caused by the sole negligence or fault of the City.

When the City submits notice, the Contractor shall promptly defend any aforementioned action. In any and all claims against the City or any of their consultants, agents or employees by any employee of the Contractor, any of the Contractor's subcontractors, anyone for whose acts any of them may be liable, or others whose services are engaged by the Contractor or anyone directly or indirectly employed or controlled by either of them in the course of the performance of the work provided for in the Contract, the indemnification obligation described herein shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts. The limits of insurance required in this Contract shall not limit the Contractor's obligations under this article.

The terms of this article shall survive the termination or suspension of this Contract.

ARTICLE 10 – Completion and Performance Bond and Labor and Material Bond

A. Completion and Performance Bond

Prior to commencing work under this Contract, the Contractor agrees to furnish and to maintain during the term of this Contract a Completion and Performance Bond in the amount of one hundred percent (100%) of the Contract price with good and sufficient surety or sureties acceptable to the City in connection with the performance of the work under this Contract, including any amendments or extensions hereof. The form and conditions of said Performance Bond shall be as prescribed by the City. The bond will be required at the beginning of each contract term and will be in an amount equal to the contract price for that year.

In lieu of a Performance Bond, the City will accept other suitable Securities agreed upon by both parties. At all times during the term of this Contract, the Contractor shall provide the City with evidence that the Contractor has obtained such Performance Bond or Securities. A certificate from the surety showing that the bond premiums have been paid by the Contractor shall accompany the bond.

B. Labor and Material Bond

Prior to commencing work under this Contract, the Contractor agrees to furnish and to maintain during the term of this Contract a Labor and Material Bond in the amount of one hundred percent (100%) of the Contract price with good and sufficient surety or sureties acceptable to the City, conditioned that the Contractor shall promptly make payments to the persons supplying labor, material, or supplies to the Contractor or subcontractors in the performance of the work under this Contract and any amendment or extension thereof. The form and conditions of this bond shall be as prescribed by the City. The bond will be required at the beginning of each contract term and will be in an amount equal to the contract price for that year.

ARTICLE 11 – Rate of Progress

Notwithstanding any other provisions in this Contract, the Contractor shall furnish sufficient labor, materials, supplies, tools, and equipment, and shall work such hours, including overtime, Sundays, and/or Holidays, as may be necessary to carry out the work in accordance with the approved schedules for its completion not later than the respective times allowed for completion set forth in these Contract Documents. Should the Contractor refuse or fail to comply with its obligations set forth in the preceding sentence after receipt of any written directive or request by the City that the Contractor furnish additional labor, materials, supplies, tools, and equipment, and/or work additional hours, including overtime, Sundays, and/or Holidays, the City may terminate the Contractor's right to proceed with the whole or any part of the work under this Contract.

ARTICLE 12 – Compliance with All Laws, Ordinances, Statutes, and Regulations

The Contractor shall comply with all federal, state, county and local laws, ordinances, statutes, and regulations.

ARTICLE 13 – Insurance

The Contractor shall at all times during the Contract maintain in full force and effect Comprehensive General Liability, Workers' Compensation and Property Damage Insurance in the amounts set forth below and naming the City of Oak Ridge, Tennessee as an *additional insured*.

The Contractor shall maintain policies providing the following insurance protection, each policy containing a requirement that, in the event of change or cancellation, thirty (30) days' prior written notice be sent by mail to the City. Certificates of Insurance describing the coverage shall be furnished by the Contractor and shall contain the following express obligation:

"This is to certify that the policies of insurance described herein have been issued to the insured for whom this certificate is issued and are in force at this time. In the event of cancellation or material change in a policy affecting the certificate holder, thirty (30) days' prior written notice will be given the certificate holder."

1. Comprehensive General Liability:

Bodily Injury	\$300,000	each occurrence
	\$700,000	aggregate
Property Damage	\$100,000	each occurrence
Or Combined Single Limit of	\$1,000,000	

2. Workers' Compensation and Employer's Liability as provided for in applicable statutes.
3. Comprehensive Automobile Liability (Including all owned, non-owned and hired vehicles)

Bodily Injury	\$300,000	each person
	\$700,000	each occurrence
Property Damage	\$100,000	each occurrence
Or Combined Single Limit of	\$1,000,000	

The Contractor may purchase at its own expense such additional or other insurance protection as it may deem necessary. Maintenance of the required minimum insurance protection does not relieve the Contractor of responsibility for any losses not covered by the above-required policies.

Before commencement of work hereunder, the Contractor agrees to furnish to the City of Oak Ridge (Legal Department, P.O. Box 1, Oak Ridge, Tennessee 37831-0001) a Certificate of Insurance or other evidence satisfactory to the City to the effect that such insurance has been procured and is in force.

ARTICLE 14 – Permits and Licenses

The Contractor shall obtain, at the Contractor's expense, all permits, licenses and bonds required by law or ordinance and maintain the same in full force and effect.

ARTICLE 15 – Subcontracting and Assignment

- A. The Contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors.
- B. The Contractor shall not award, assign, transfer or pledge any work to any subcontractor without prior written approval of the City, which approval will not be given until the Contractor submits to the city a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the City may require.
- C. The Contractor shall be as fully responsible to the City for the acts and omissions of subcontractors, and of persons either directly or indirectly employed by said subcontractors, as the Contractor is for the acts and omissions of persons directly employed by the Contractor.
- D. The Contractor shall make a condition of all subcontracts and/or cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the City may exercise over the Contractor under any provision of the Contract Documents.
- E. Nothing contained in this Contract shall create any contractual relation between any subcontractor and the City.

ARTICLE 16 – Superintendence by the Contractor

The Contractor shall give its personal superintendence to the work or have a competent foreman or superintendent satisfactory to the City on the site at all times during the progress of the work, with authority to act on behalf of the Contractor.



#### ARTICLE 17 – Termination

Notwithstanding any other provisions in this Contract, the Contractor shall furnish all labor, materials, supplies, tools and equipment necessary to perform the work and services within allowed times for completion as set forth in these Contract Documents. Should the Contractor refuse or fail to comply with its obligations, or in the event the Contractor shall violate any of the provisions of this Contract, or the quality or quantity of the work performed is, in the judgment of the City, below standard and therefore unsatisfactory, the City shall have the right to cancel this Contract upon thirty (30) days written notice to the Contractor and to complete the work undertaken by the Contractor without incurring any liability to the Contractor except to pay the Contractor the fair value to the City of the work satisfactorily performed by the Contractor.

#### ARTICLE 18 – Termination of Contract for Cause

If, through any cause, the Contractor shall fail to fulfill in timely and proper manner the obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the Contractor under this Contract shall, at the option of the City, become the City's property and the Contractor shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of the Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of set-off until such time as the exact amount of damages due the City from the Contractor is determined.

#### ARTICLE 19 – Anti-Discrimination

The Contractor, in performing the work or furnishing the services covered by this Contract, shall not discriminate against any person because of race, creed, color, national origin, age, sex, sexual orientation, disability, religion or other legally protected status. The City of Oak Ridge encourages the utilization of minority and women-owned businesses in its contracting and subcontracting projects and the Contractor is encouraged to actively solicit the participation of these businesses. The Contractor shall inform all of its subcontractors and vendors providing work or services under this Contract of this requirement and shall ensure compliance therewith.

#### ARTICLE 20 – Personnel

- A. The Contractor represents that it has, or will, secure at the Contractor's expense, all personnel required to perform the work and services outlined in this Contract. Such personnel shall not be employees of or have any contractual relationship with the City.
- B. All of the services required hereunder will be performed by the Contractor or under the Contractor's supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state and local laws to perform such services.

ARTICLE 21 – Reports and Information

At such times and in such forms as the City may require, the Contractor shall furnish to the City such periodic reports as are requested by the City pertaining to the work and services covered by this Contract, the costs and obligations incurred or to be incurred in connection herewith, and any other matters covered by this Contract. The City can audit the Contractor's and the Contractor's subcontractors' financial records pertaining to this project.

ARTICLE 22 – Governing Law

This Contract is governed by the laws of the State of Tennessee.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first above written, the City of Oak Ridge, by its Mayor, by authority duly given.

APPROVED AS TO FORM AND LEGALITY:

CITY OF OAK RIDGE, TENNESSEE

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
Mayor

(CONTRACTOR)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
(Printed or Typed Name and Title)

Attachments: Specifications/Scope of Work  
Bid Documents  
Contractor's Bid

Approved by Resolution \_\_\_\_\_

**LABOR AND MATERIAL BOND**

FY2019-030

Know all men by these presents

That We \_\_\_\_\_

AS PRINCIPAL, and

\_\_\_\_\_ AS SURETY are held firmly bound unto the

\_\_\_\_\_ hereinafter called the Obligee, in the penal sum of

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

lawful money of the United States, for payment of which sum well and truly to be made, we bind ourselves, our heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS: Said Principal has entered into a certain Contract with said Obligee dated \_\_\_\_\_ 20\_\_\_\_\_ (hereinafter called the Contract) for the full and complete performance of

\_\_\_\_\_ , which Contract and the specifications for said work shall be deemed a part hereof as fully as if set out herein.

NOW, THEREFORE, the condition of this obligation is such that if said Principal and all contractors to whom any portion of the work provided for in said Contract is sublet and all assignees of said Principal and of such contractors shall promptly make payments to the persons supplying him, or them, with labor, material, fuel or supplies, for or in the prosecution of the work provided for in said Contract, or in any amendment or extension of or addition to said Contract, and for payment of reasonable attorney's fees, incurred by the Claimant or Claimants in suits on said Bond, then the above obligation shall be void; otherwise to remain in full force and effect. Provided, however, that this Bond is subject to the following conditions and limitations:

- (a) Any person, firm or corporation that has furnished labor, materials, fuel or supplies for or in the prosecution of the work provided for in said Contract shall have a direct right of action against the Principal and Surety of this Bond which right of action shall be asserted in a proceeding, instituted in the county in which the Principal does business. Such right of action shall be asserted in a proceeding instituted in the name of the Claimant or Claimants for his or their use and benefit against said Principal and Surety or either of them, (but not later than one year after the final

Labor and Material Bond  
(continued)

settlement of said Contract) in which action such claim or claims shall be adjudicated and judgment rendered thereon.

- (b) The Principal and Surety hereby designate and appoint the City Manager of the City of Oak Ridge, Tennessee, as the agent of each of them to receive and accept service of process or other pleading issued or filed in any proceeding instituted on this Bond and hereby consent that such service shall be the same as personal service on the Principal and/or Surety.
- (c) The Surety shall not be liable hereunder for any damages or compensation recoverable under any worker's compensation or employers' liability statute.
- (d) This bond is furnished in compliance with Tennessee Code Annotated Section 12-4-201 et seq.

In Witness whereof the parties hereto have executed this agreement on the day and date first above written in two counterparts, each of which shall without proof or accounting for the other counterpart, be deemed an original contract.

SIGNED, SEALED AND DELIVERED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Attest: \_\_\_\_\_

By: \_\_\_\_\_ (Seal)  
Principal

Attest: \_\_\_\_\_

By: \_\_\_\_\_ (Seal)

**COMPLETION AND PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS:

FY2019-030

THAT \_\_\_\_\_  
(Name and address of legal title of Contractor)

as Principal, hereinafter called Contractor, and \_\_\_\_\_  
SURETY, hereinafter called Surety, and held and firmly bound unto the City of Oak Ridge, as Obligee, in  
the amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators,  
successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated \_\_\_\_\_, 20\_\_\_\_\_  
entered into a Contract with the City of Oak Ridge for

\_\_\_\_\_ in accordance with the specifications and  
approved amendments, which Contract is by reference made a part hereof, including all the obligations  
thereunder, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if Contractor shall promptly and faithfully  
perform said Contract, including all the obligations thereunder, then this obligation shall be null and void,  
otherwise it shall remain in full force and effect.

Whenever Contractor shall be, and declared by City to be, in default under the Contract or any part  
thereof, the City having performed the City's obligation thereunder, the Surety may promptly remedy the  
default, or shall promptly at the City's option:

- (1) Complete the Contract in accordance with its terms and conditions; OR
- (2) Obtain a bid or bids for submission to the City for completing the Contract in accordance with  
the terms and conditions, and upon determination by Owner and Surety of lowest responsible  
bidder, arrange for a contract between such bidder and the City and make available as work  
progresses (even though there shall be a default or a succession of defaults under the  
Contract or contracts of completion arranged under this paragraph) sufficient funds to pay the  
cost of completion or any obligations thereunder.

Any suit under this bond must be instituted before the expiration of two years from the date on which final  
payment under the Contract falls due.

SIGNED AND SEALED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D., 20\_\_\_\_\_  
IN THE PRESENCE OF:

\_\_\_\_\_  
Witness

By \_\_\_\_\_  
Principal (Seal)

\_\_\_\_\_  
Witness

By \_\_\_\_\_  
Surety (Seal)

## **SPECIFICATIONS / SCOPE OF WORK**

### **1.0 SCOPE OF WORK – CONTRACTOR RESPONSIBILITIES**

The scope of this Contract is generally:

- A. Repair or replacement of storm drainage system located at 117 Union Valley Road, approximately 750 feet west of S. Illinois Ave. System to be repaired consists of 130 linear feet (LF) of forty eighty (48) inch diameter corrugated metal pipe (CMP) and a precast concrete junction box.
- B. All regulations and requirements of the City of Oak Ridge must be followed in construction of the various components of the project.
- C. CONTRACTOR must abide by all regulations and requirements of Occupational Safety and Health Administration (OSHA).
- D. CONTRACTOR is solely responsible for maintaining a safe work environment for his/her employees and for public safety relating to the project.
- E. CONTRACTOR shall be responsible for any damage resulting from his/her activities. CONTRACTOR shall be responsible for restoration of surfaces damaged during activities, and for yard restoration where grass is disturbed or rutting is caused by CONTRACTOR operating his/her equipment.
- F. The work includes but may not necessarily be limited to:
  - 1. CONTRACTOR to provide materials, labor and equipment for the repair and/or replacement of up to 130 LF of CMP and a 6' X 6' precast concrete junction box.
  - 2. Provide proper work zones and traffic safety.
  - 3. Provide proper erosion control.
  - 4. Restore pavement as required.
- G. Paving CONTRACTOR shall be TDOT pre-qualified and approved.

### **2.0 CONTRACT**

- A. This Contract will become effective when the notice to proceed is issued and will remain in effect until complete. Anticipated completion to be within forty-five (45) calendar days.

### **3.0 INFORMATION FOR BIDDERS**

- A. For the information and guidance of bidders, the following explanation of the Bid Form items is made: The omission of reference to any item in this description shall not; however, alter the intent of the Bid Form or relieve the CONTRACTOR of the necessity of furnishing, such as part of the Contract(s).

- B. The City of Oak Ridge (City) desires to repair the drainage system as efficiently as possible. The award of this contract will be based on the lowest and best bid for the replacement of the entire system. The City may determine after cleaning and inspection that a portion of the existing system may be repaired and not replaced. The City reserves the right to reduce the material quantities and will pay for only quantities actually installed.
- C. The quantities set forth in the Bid Form represent those required to replace the entire drainage system. These quantities are given to establish a uniform basis for the comparison of Bids. Unit prices are used as a means of computing the final figures for Bid and Contract purposes, for periodic payments for work performed, for determining value of additions or deletions, and wherever else as is reasonable.

#### **4.0 MEASUREMENTS AND PAYMENTS**

##### **4.1 Definition of Units**

- A. Units by which payment will be calculated are defined in the section applicable to each operation. Dewatering for all items shall be considered incidental.
- B. Payment will be made on the basis of work actually performed, completing each item in the Contract, such work including, but not limited to, the furnishing of all necessary materials, labor, equipment, transportation, and clean-up, to complete the construction as described in the Specifications.
- C. Notwithstanding any other Sections, paragraphs, sentences, or words in the Contract documents, payments shall not be made for work not performed, materials not supplied and/or any other item/items for which the OWNER does not receive the benefit described or intended.

##### **4.2 Cut-Off Date**

Due to the short duration of this project progress payments will not be required. The CONTRACTOR will submit one (1) invoice upon completion of the project.

##### **4.3 Format and Data Required**

- A. The pay request should be a summary sheet showing each pay item, the unit cost per item, number of items, extended cost per item, and total cost of work completed during period. Submit applications typed on an Application for Payment form with itemized data typed on 8-1/2" x 11" white paper. Application should display the contractor's letterhead and reference the City's contract number.
- B. Provide itemized data on continuation sheet if needed.

## **5.0 WORK INSTRUCTIONS**

### **5.1 Sequence**

- A. CONTRACTOR shall be responsible for notifying individual local businesses when work is taking place that will affect access to or use of their property prior to construction. CONTRACTOR is not responsible for issuing press releases prior to work. It is recommended that any agreements between the CONTRACTOR and business be recorded in writing. CONTRACTOR shall provide OWNER with written documentation of contact(s).
- B. Prior to beginning of any work, the CONTRACTOR shall take video recordings and/or photographs of the project work area in accordance with Section 5.2.
- C. Prior to ordering materials, CONTRACTOR to confirm size and dimensions of existing infrastructure to insure new material is compatible.
- D. Prior to ordering material, CONTRACTOR shall provide OWNER shop drawings for all items called for in the specifications or site plan drawing(s).
- E. Prior to working in roadway, CONTRACTOR shall set-up work zone(s) for traffic, pedestrian, and worker safety using signage and/or flaggers, per section six (6) of the Manual on Uniform Traffic Control Devices.
- F. Coordinate all work with the OWNER to ensure a successful project. The schedule and actual construction operations must be approved by the OWNER.
- G. Execute Construction Schedule to minimize disruption to the OWNER'S facilities, the public convenience and safety, and to maximize Project construction efficiency. CONTRACTOR is responsible for notifying local emergency services prior to lane or road closures, and at the completion of work.
- H. Construct the work in stages to provide for public convenience.

### **5.2 Pre- and Post-Construction Video and Photographic Record**

- A. The CONTRACTOR shall furnish all equipment, labor, and materials required to provide the OWNER with construction videos and/or photographs of the Project area. This shall be done when private property could be affected or the potential for claims for damage that is pre-existing are possible. Documented areas should include, but not be limited to, private driveways, parking lots, landscaping, and vehicles.
- B. Photos and/or videos shall become the property of the OWNER and none of the videos and photographs herein shall be published without express permission of the OWNER.
- C. Following completion of the work, additional videos and/or photos shall be made showing the same areas and features as in the pre-construction video or photographs. All conditions, which might later be subject to disagreement, shall be shown in sufficient detail to provide a basis for decisions.
- D. Compensation for pre- and post-video and photographic records shall be considered incidental.



## **6.0 WORK SPECIFICATIONS**

### **6.1 Job Conditions**

Immediately notify the OWNER of any unexpected or unusual conditions. Discontinue work until OWNER provides notification to resume Work.

### **6.2 Quality Assurance**

- A. Adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts, and who are completely familiar with the specific requirements and the methods needed for the proper performance of the Work in this Section, shall be provided and used to complete the Work.
- B. Equipment adequate in size, capacity, and numbers to accomplish the Work in a timely manner shall be provided and used to complete the Work.
- C. CONTRACTOR shall provide adequate on-the-job supervision of all Work and workmen to insure that the Work meets all requirements of the Contract.

## **7.0 PRE-CONSTRUCTION CLEANING AND INSPECTION**

- A. Prior to ordering materials, the CONTRACTOR will clean to the point necessary to allow visual inspection the drainage piping downstream of the junction box and the junction box. City Public Works personnel have previously excavated a portion of the downstream CMP and determined it is partially collapsed. The excavation has been backfilled for public safety. The CONTRACTOR will reopen the excavation and remove the collapsed portion of CMP. CONTRACTOR shall not damage downstream CMP.
- B. CONTRACTOR will clean the remaining portion of the downstream pipe by hand or by using a jet rodder, vacuum truck and/or high pressure washer or by any means acceptable to both CONTRACTOR and OWNER. Debris may be removed using a vactor or captured at the downstream headwall and removed. Debris shall not be allowed to wash downstream. The junction box is known to have captured wood waste and debris. CONTRACTOR will remove this debris thru opening after pipe is removed. All waste material will become property of CONTRACTOR.
- C. City Public Works Department will provide video inspection equipment and personnel to inspect the CMP.
- D. Pre-construction cleaning and inspection will be compensated under pay item one (1). Payment will be lump sum. Dewatering shall be considered incidental. Cost of excavation will be considered incidental to cleaning and will be included in the per foot price for pipe replacement. All excavation will be unclassified.

## **8.0 REPLACEMENT OF UPSTREAM PIPE**

### **8.1 Material**

- A. Pipe
  - 1. Pipe shall be high density polyethylene (HDPE) corrugated pipe with integrally formed smooth interior. Nominal size for pipe is based on nominal inside diameter. Pipe material shall be HDPE, meeting the minimum requirement for cell classification of 435400C as described in

ASTM D3350. Pipe shall meet ASTM F2306.

2. Pipe joints shall be bell and spigot with gasket meeting requirement of ASTM F477.

B. Mortar

1. Mortar for masonry shall conform to ASTM C20-64T Type M. This is one (1) part of Type II masonry cement and three (3) parts of sand by volume.

C. Concrete

1. Concrete shall be plant mixed conforming to ASTM C33 for aggregate and ASTM C94 for ready mix concrete. Concrete shall not have a slump over four (4) inches, and shall not be placed when air temperature is below 40° Fahrenheit. Concrete shall be air entrained with five (5) to seven (7) percent air.

## 8.2 Installation

Installation shall be in accordance with manufactures instructions and guidelines and ASTM D2321.

- A. Excavate to a depth below the existing pipe necessary to ensure the trench bottom is stable. The trench bottom shall be shaped to secure uniform support throughout the length of the pipe. A space shall be excavated under the bell of each pipe joint.

B. Bedding material shall be either:

1. Class I Angular, 0.25 to 1.5 inch graded stone. Voids in the fill material may be filled with crushed stone and/or gravel. All material must pass the 1.5 inch sieve less than fifty (50) percent passing the #4 sieve and less than five (5) percent may pass the #200 sieve.
2. Class II Coarse sand and gravel with maximum size being 1.5 inches and including variously graded sands and gravels with a small percentage of granular, non-cohesive fines. All material must pass the 1.5 inch sieve less than 50% passing the #4 sieve and less than five (5) percent may pass the #200 sieve.
3. Class III Fine sand and clayey gravels that includes fine sand, sand-clayey mixtures and gravel-clay mixtures with a plasticity index less than 7%. Material gradation should be such that twelve (12) percent to fifty (50) percent of the fines pass the #200 sieve and 100% passes the 1.5 inch sieve and approximately fifty (50) percent of the course passing the #4 sieve.

- C. Class II and III bedding shall be compacted to a minimum of ninety (90) percent of standard Proctor density.

D. Backfill

1. Haunch and backfill material shall be Class I, II, or III, extending not less than six (6) inches above top of pipe.

- E. Final backfill outside of pavement may be #57 stone or earthen spoil from excavation.
- F. All sewer or storm lines in the roadway or within three (3) feet of back of curb or edge of pavement shall be backfilled above the embedment material to within thirteen and one half (13½) inches of finished grade elevation with #57 stone. For storm lines in the roadway, the final six (6) inches of backfill below the binder shall be #67 crusher run placed in one (1) lift and compacted. Storm lines not under roadway, but within three (3) feet of back or curb or edge of pavement, shall be backfilled above the embedment material to the surface with #57 stone.
- G. Minimum cover in non-traffic areas shall be twelve (12) inches, and forty-eight (48) inches in traffic areas.
- H. Construction Methods
  - 1. Excavation shall be to the existing lines and grades.
  - 2. Pipe shall be laid from downstream to upstream.
  - 3. The trench shall be kept free of water during installation. Pipe shall not be laid in flowing water or stream.
- I. After installation of pipe, construct an inlet pad with grouted rip-rap stone. Pad should be as shown on drawing. Pad should be constructed using stone with average dimension range as follows:
 

1.	>16 inch	0%
2.	11-13	10%-14%
3.	9-11	15%-21%
4.	4-9	20%-28%
5.	<4	5% - 7%
6.	<1	2% or less

Excavate below the inlet invert of the pipe to provide adequate depth such that the top of the pad will be at or slightly below the inlet invert. Place the larger stones in the lower course. Chink spaces between stones by firmly pushing smaller stones into place.

Furnish an air entrained concrete or mortar, per sections 8.1 (B) or (C). Fill the spaces between stones using sufficient concrete or mortar to completely fill the spaces, except leaving the face surface of stone exposed.
- J. All materials and labor for installation of upstream piping will be compensated under pay item two (2). Compensation shall be per linear foot. Compensation for item 8.2.I shall be included in pay item two (2).

## **9.0 JUNCTION BOX REPAIR OR REPLACEMENT**

### **9.1 Preparation**

- A. Clean and inspect per section 7.0. The City believes the junction box can be reused and only minor or no repair is necessary.

### **9.2 Repair**

- A. If the junction box requires minor repair correct visible leaks by use of a leak stopping and concrete plugging material. Approved products are Drycon-Octoplug, Quad-Plug or Strong-Plug to be applied per manufacturer's instructions.
- B. Depressions, holes and very rough area(s) shall be filled and smoothed by use of a plugging, smoothing and filling material. Approved products are Octocrete, Hyperform or QSR which are to be applied per manufactures instructions.
- C. Any other defects observed that cannot be repaired per section 9.2 A or B and that will not impair the function or expected life of the junction box shall be evaluated by the City Engineer or his designee to determine if repair is needed and, if so, to establish procedure.
- D. Materials and labor for repair of junction box, if necessary, will be compensated under pay item three (3). Compensation shall be per square foot.

### **9.3 Replacement of Junction Box, If Necessary**

- A. Confirm dimensions prior to ordering precast junction box. Precast junction box shall meet specification in ASTM C913.
- B. Excavate to required depth and remove materials that are unstable or unsuitable for a good foundation. Prepare a level, compacted foundation extending a minimum of one (1) foot below and beyond the junction box base.
- C. Provide a subbase of twelve (12) inches of Class I granular material, compact with mechanical tamping equipment.
- D. Set base plumb and level aligning junction box invert with pipe invert elevation.
- E. Existing round area drain grate should be re-used if possible.
- F. Materials and labor to replace junction box, if necessary, shall be compensated under pay item four (4). Compensation shall be lump sum.
- G. Materials and labor for replacement of round drain grate, if required, shall be compensated under pay item five (5). Compensation shall be lump sum.

## **10.0 REPAIR OF DOWNSTREAM PIPE**

### **10.1 Preparation**

- A. Excavate, clean and remove damaged CMP per section 7.0 (A).

- B. Public Works personnel will inspect and determine whether to proceed with repair or replacement.

### **10.2 Material**

- A. Pipe shall be a minimum of fourteen (14) gauge CMP.
- B. Pipe shall be steel meeting ASTM A 760 and be galvanized meeting ASTM A 929.

### **10.3 Installation**

- A. Prepare pipe bed as described in Section 8.2 (A).
- B. Cut existing CMP end square and cut new CMP to correct length.
- C. Prepare pipe bedding as described in Section 8.2 (B).
- D. Install new pipe section into junction box. Use an H-12 CMP type coupling to join new and old pipe, and use mortar or concrete to seal pipe into junction box.
- E. Backfill as described in section 8.2 (D).
- F. Materials and labor to repair downstream pipe shall be compensated under pay item five (5). Compensation shall be per linear foot.

## **11.0 REPLACEMENT OF DOWNSTREAM PIPE**

### **11.1 Preparation**

- A. CONTRACTOR shall set-up work zone(s) for traffic, pedestrian, and worker safety using signage and/or flaggers, per section six (6) of the Manual on Uniform Traffic Control Devices.
- B. Excavate and remove remaining pipe. Spoil material may be disposed of at the City owned Elza Gate dump site located in east Oak Ridge.

### **11.2 Material**

- A. Pipe shall be as described in Section 8.1 (A).

### **11.3 Installation**

- A. Install pipe as described in Section 8.2 (A) thru (D) and 8.2 (H).
- B. Backfill pipe as described in Section 8.2 (E) thru (G).
- C. Materials and labor to replace downstream pipe shall be compensated under pay item six (6). Compensation shall be per linear foot.

## **12.0 PAVEMENT REPAIR**

### **12.0 Preparation**

- A. Irregular shaped areas should be saw cut to provide clean straight lines prior to patching.
- B. Milling will not typically be required. If needed, milling shall be performed at a minimum width of four (4) feet at any intersection, pavement joint or driveway to allow for a smooth uniform and level transition from new pavement to existing pavement.
- C. Unless otherwise advised, the milling material may be transported by CONTRACTOR to be disposed of at Elsa Gate spoil site, located in east Oak Ridge.

### **12.2 Application of Bituminous Base Course**

- A. Bituminous base course shall be applied in accordance with TDOT Section 307, if possible. The base course material shall conform to TDOT specification 307-01.07 grade BM.
- B. Application of hot mix asphalt shall take not take place when surface and ambient temperature is less than 50<sup>o</sup> F.
- C. Receiving surface must be dry prior to application of hot mix asphalt.
- D. Asphalt mix shall be applied at a minimum temperature of 225<sup>o</sup> F.
- E. Compaction will be by rolling with a steel wheel roller when possible, or by use of a Wacker packer when area is too small for a steel wheel roller.
- F. Compacted depth of Bituminous base course shall be not less than five and one half (5½) inches.
- G. Application of bituminous base course will be compensated under pay item four (4). Payment will be per cubic yard (0.15 yd<sup>3</sup>/sq. yd.).

### **12.3 Application of Tack Coat**

- A. The size of the typical repair or patch will not be large enough to require tack. If needed, tack shall be applied at the rate of 0.10 gallon per square yard, unless otherwise approved by the OWNER. After application, sufficient time shall be allowed for separation of water, and before asphalt is applied.
- B. Prior to installation of tack (if required) or overlay, the base course surface shall be cleaned of all loose material by means of either power broom or hand broom(s). Loose material will become the property of the CONTRACTOR and will be removed from the site. The material shall not be allowed to pile up in or be disposed of on adjacent properties or yards.
- C. Tack shall only be applied to areas that received the top layer of asphalt that day.
- D. Proper precautions shall be used to prevent traffic from passing through the tack coat area.
- E. Application of tack coat will be compensated under pay item nine (9). Payment will be per square yard.

#### **12.4 Application of Surface Course**

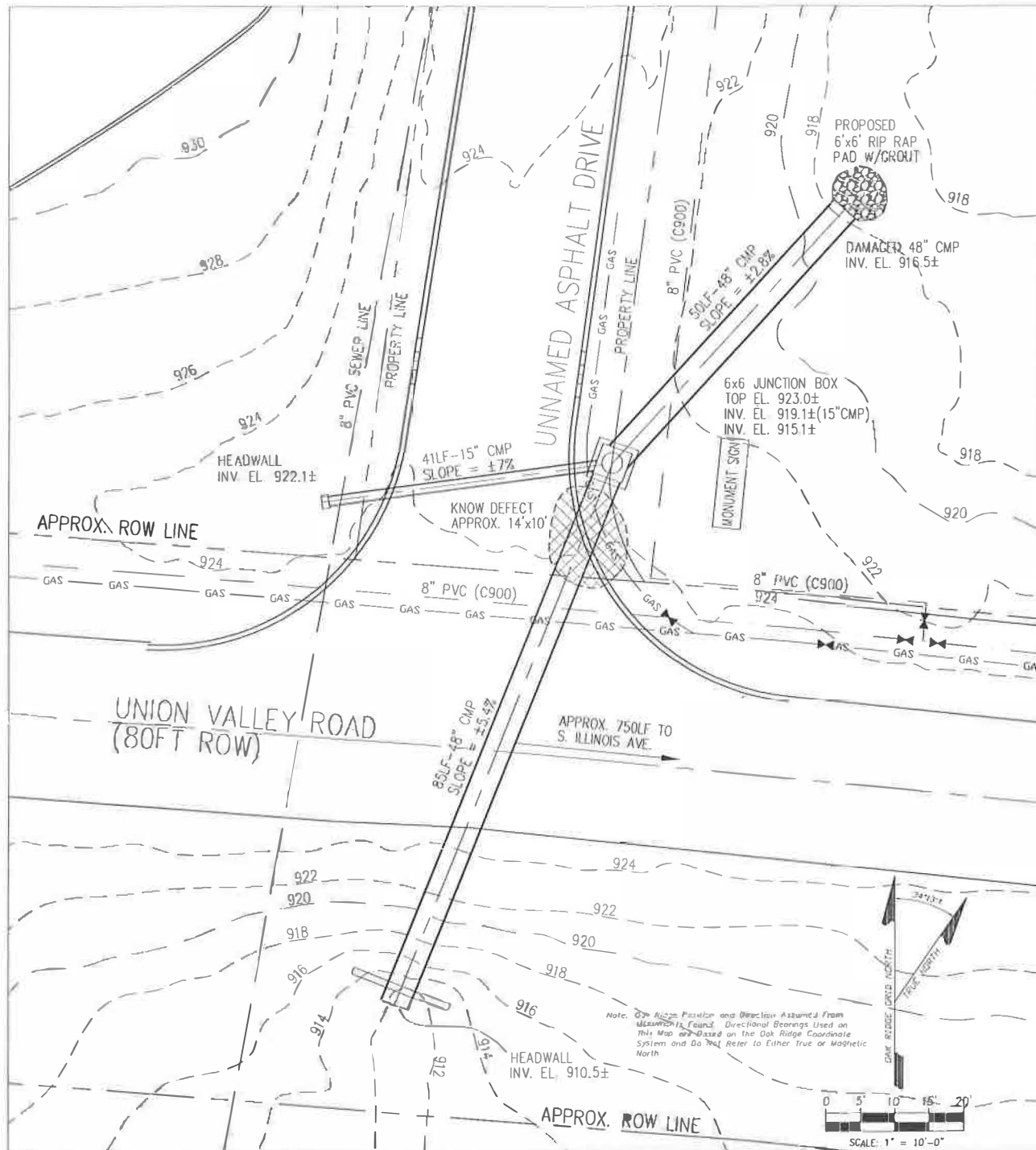
- A. Surface course shall be applied in accordance with TDOT section 407, if possible. The surface course material shall conform to TODT specification 411-01 grade E.
- B. Application of hot mix asphalt shall not take place when surface and ambient temperature is less than 50° F.
- C. Receiving surface must be dry prior to application of hot mix asphalt.
- D. Asphalt mix shall be applied at a minimum temperature of 225° F.
- E. Compaction shall be by rolling with a steel wheel roller.
- F. Compacted depth of surface course shall not be less than two (2) inches.
- G. Materials and labor to repair pavement shall be compensated under pay item eight (8). Compensation shall be square yard and shall include all items in Section 12.0, except item 12.3.

#### **13.0 CLEAN-UP AND WARRANTY**

- A. Clean-up and final completion of Work.
  - 1. Upon acceptance of the installation Work and testing (if applicable), the CONTRACTOR shall reinstate the Project areas affected by the operations.
  - 2. Damage repair to yards, lawns, sidewalks, driveways, roads, and other utilities associated with the Work, shall be the sole responsibility, and at the sole expense, of the CONTRACTOR, unless specifically designated for payment under the Contract Unit Price Schedule.
- B. Warranty
  - 1. During the warranty period, which shall be defined as twelve (12) calendar months after acceptance by the OWNER, any defects which will affect the integrity or strength of the manhole shall be repaired at the CONTRACTOR'S expense, in a manner mutually agreed to by the OWNER and the CONTRACTOR.

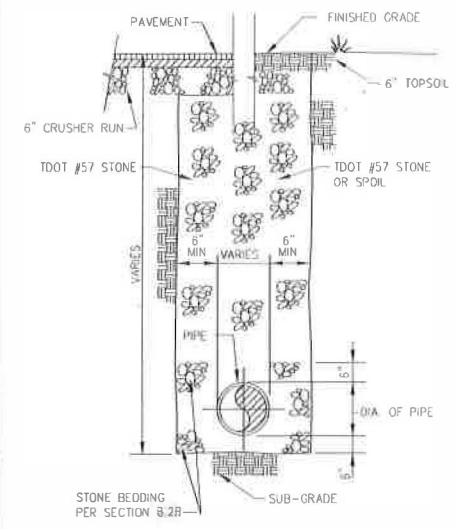
#### **14.0 APPENDIX**

- 1. Drainage System Improvements (see attached drawing dated May 14, 2018, titled "Site Plan, Profile, & Details")

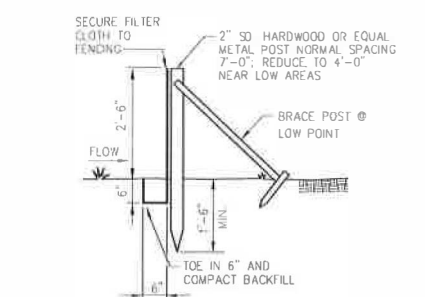


PLAN VIEW

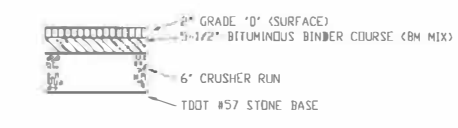
- NOTES**
- SCOPE OF WORK SHALL BE TO DIG UP/CLEANOUT EXISTING JUNCTION BOX TO EVALUATE THE EXISTING CONDITION TO DETERMINE WHETHER IT CAN BE REUSED ALONG WITH DETERMINING CONDITION OF PIPE CONNECTIONS.
  - BASE BID TO INCLUDE REPLACING TWO STORM 48" DRAINAGE PIPES, JUNCTION BOX, AND REUSE ONE HEADWALL.
  - ALL DISTURBED AREAS OUTSIDE OF PAVING TO HAVE SEED AND STRAW APPLIED.



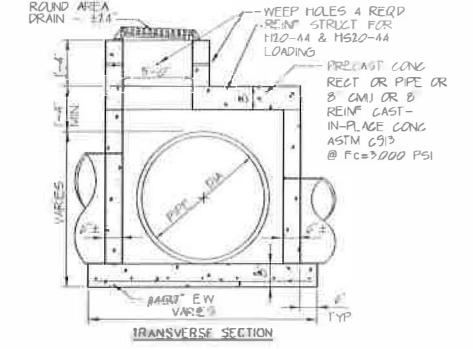
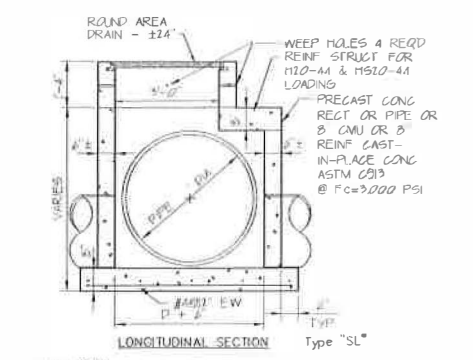
1 TYP. TRENCHING  
SCALE: NTS



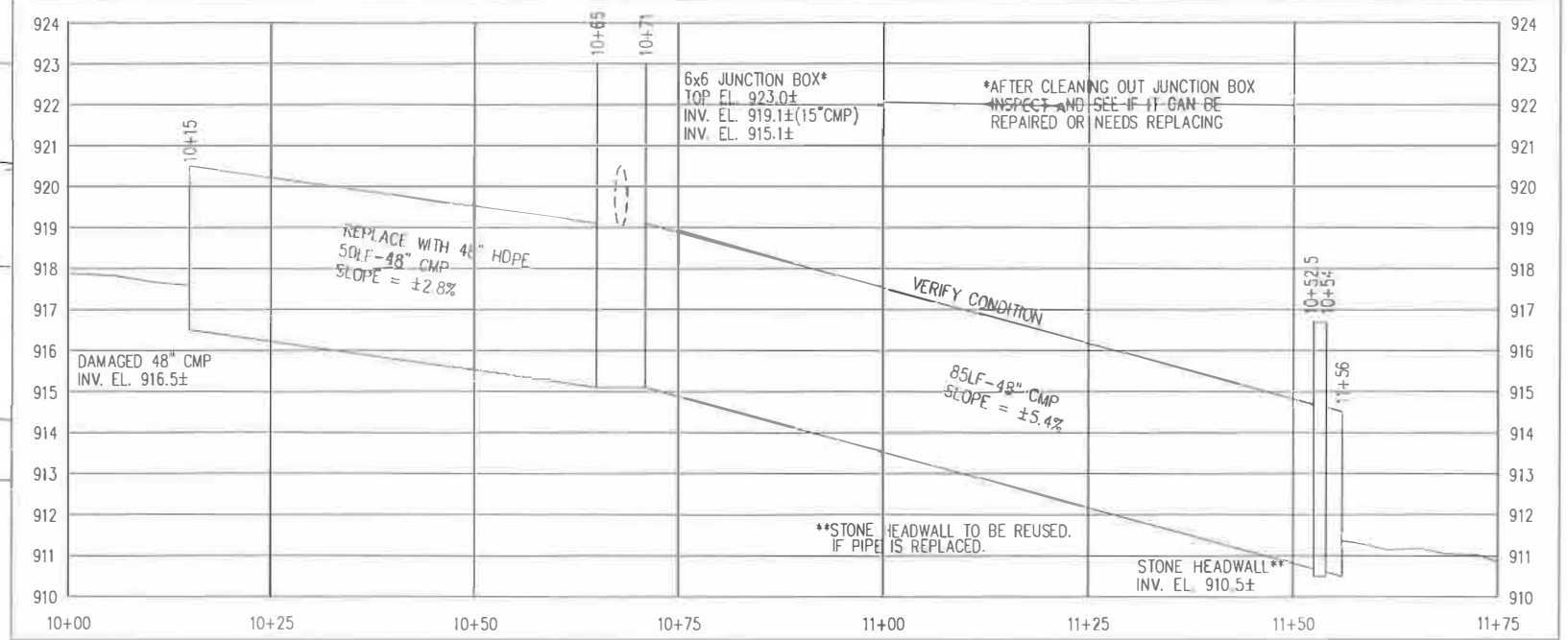
2 SILT FENCE  
SCALE: NTS



3 PAVEMENT SECTION  
SCALE: NTS



3 JUNCTION BOX STRUCTURE  
IF REQUIRED SCALE: NTS



STORM DRAIN PROFILE  
SCALE: 1"=10' (HORZ.); 1"=2' (VERT.)

DATE 5/14/18	CITY OF OAK RIDGE PUBLIC WORKS ENGINEERING			JOB NO. 03-2018
SCALE 1"=10'				SHEET 1
DRAWN BY B. MILLS	PROJECT DRAINAGE SYSTEM IMPROVEMENTS 117 UNION VALLEY ROAD	TITLE SITE PLAN, PROFILE, & DETAILS		
APPROVED BY R. FLYNN				

