

# ***Project Manual US-61 and Route 47 Water Main Relocation***

March 15, 2024

Prepared for:  
City of Troy

by: **HR Green, Inc.**

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HR Green Project Number 2202610.01

 <p>3/15/2024</p>	<p>The professional whose signature and personal seal appears hereon assumes responsibility only for the specifications for the attached US-61 and Route 47 Water Main Relocation and disclaims (pursuit to Section 327.411 RSMO) responsibility for all other calculations, drawings, specifications, estimates, reports, surveys or other documents or instruments or revisions thereof not sealed by the undersigned professional.</p> <p><b>ENGINEERING CORPORATION CERTIFICATION</b> HR Green, Inc. is a licensed Missouri Professional Engineering Corporation. Certificate of Authority No. 2002006608.</p> <p>Garry Aronberg, PE <b>Missouri Professional Engineer License No. 019353</b> <b>My renewal date is December 31, 2024</b></p>
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## INVITATION FOR BIDS

Sealed bids for the US-61 and Route 47 Water Main Relocation will be received by the City of Troy, until **2:00 PM** prevailing local time, **May 9, 2024** in the office of the City Clerk, City Hall, 800 Cap Au Gris, Troy, Missouri, 63379, at which time the bids will be publicly opened and read aloud.

The Scope of Work includes relocation approximately 660 feet of eight-inch diameter water main and water meter and related water main components.

A bid security in the amount of five percent of the bid amount must accompany each bid conforming to the Instructions to Bidders.

The *Project Manual* and *Plans* (Bidding Documents) may be obtained from the [CityOfTroyMissouri.com](http://CityOfTroyMissouri.com) website. Bids must be submitted on the forms in the Project Manual

The City of Troy shall award based on the lowest, responsive, responsible bidder that, in its sole discretion, best meets the interests and requirements of the City of Troy. The City of Troy reserves the right to reject any bids and waive informalities not involving price, time, or changes in the WORK.

Labor used in the construction of water line relocation shall be paid a wage no less than the prevailing hourly rate of wages of work of a similar character in the subject locality as established by the Missouri Department of Labor State Wage Rate.

The City of Troy will affirmatively ensure that businesses owned and controlled by socially and economically disadvantaged individuals will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religion, creed, sex, age, ancestry, of national origin.

There will be no pre-bid meeting. Bidders shall visit the site at Bidder's schedule.

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## INSTRUCTIONS TO BIDDERS

### 1. DEFINITIONS

- 1.1 City, city, and CITY are synonymous with City of Troy.
- 1.2 Bidding Documents include the Invitation to Bid, Instructions to Bidders, the Bid Form and the proposed Contract Documents including Addenda issued before receipt of bids. The Contract Documents proposed for the Work consist of the City-Contractor Agreement, State Wage Determination, Non-Collusion Affidavit, Performance and Payment Bond, the Drawings, General Conditions, Special Conditions, Job Special Conditions, City Standard Specifications, the Construction Schedule, all Addenda, and all Modifications.
- 1.3 All definitions set forth in the General Conditions of City-Contractor Agreement or in other Contract Documents are applicable to the Bidding Documents.
- 1.4 Addenda are written or graphic documents issued before the execution of the City-Contractor Agreement which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
- 1.5 A Bid is a complete and properly signed proposal to do the Work or a designated portion thereof for the sums stipulated therein, submitted in accordance with the Bidding Documents.
- 1.6 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base to which work may be added or from which work may be deleted for sums stated in Alternate Bids.
- 1.7 An Alternate Bid is an amount stated in the Bid to be considered in place of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.
- 1.8 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials or services as described in the Bidding Documents or in the proposed Contract Documents.
- 1.9 A Bidder is a person or entity who submits a Bid.
- 1.10 A sub-bidder is a person or entity who submits a bid to a Bidder for materials or labor for a portion of the Work.

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### 2. BIDDER'S REPRESENTATIONS

- 2.1. Each Bidder by submitting a Bid represents and warrants that:
  - 2.1.1. The bidder has read and understands the Bidding Documents and the Bid is submitted in accordance with the Bid Documents.
  - 2.1.2. The bidder has visited the site, is familiar with the site conditions under which the Work is to be performed and has correlated site visit observations with the requirements of the proposed Contract Documents.
  - 2.1.3. The Bid is based upon the materials, products, systems and equipment required by the Bidding Documents.

### 3. BIDDING DOCUMENTS

- 3.1. Bidders may obtain a complete set of Bidding Documents as detailed in the Invitation for Bids.
- 3.2. Each Bidder shall use a complete set of Bidding Documents to prepare the Bid.
- 3.3. Interpretation or Correction of Bidding Documents
  - 3.3.1. Bidders shall promptly notify the City of any ambiguity, inconsistency, or error that bidders discover upon examination of the Bidding Documents or of the site and local conditions.
  - 3.3.2. Bidders may request clarification or interpretation of the Bidding Documents by making a written request that reaches the CITY at least seven days before the date for receipt of Bids.
  - 3.3.3. Any interpretation, correction or change of the Bidding Documents will be made by Addendum. Interpretations, corrections, or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretations, corrections and changes.
  - 3.3.4. If the CITY determines that clarification of the terms and conditions of the Bidding Documents is necessary, an Addendum will be made available to all Bidders known to the CITY.

### 4. SUBSTITUTIONS

- 4.1. The materials, products, systems and equipment described in the Bidding Documents establish a minimum standard of required function, dimension, appearance and quality which must be met by any proposed substitution.
- 4.2. No substitution of the materials, products, systems, and equipment described in the Bidding Documents will be considered before receipt of Bids unless written request for approval has been received by the CITY at least seven days before the date for receipt of Bids. Each substitute request shall include the following items:
  - 4.2.1. The name of the material, product, system, or equipment for which substitution will be made and a complete description of the proposed substitute including drawings, costs, performance and test data and other information necessary for an evaluation. A statement setting forth changes in other materials, products, systems or equipment or other Work that incorporation of the substitute would require shall be included in each such request. The CITY, in its sole discretion, may approve or disapprove the

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proposed substitute.

- 4.2.2. If the CITY approves any proposed substitution before receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.
- 4.2.3. No substitutions will be considered after the Contract is awarded unless specifically provided in the Contract Documents.

### 5. ADDENDA

- 5.1. Addenda will be mailed or delivered to all who are known by the CITY to have received a complete set of Bidding Documents.
- 5.2. Copies of Addenda will be made available for inspection where Bidding Documents are on file for that purpose.
- 5.3. No addenda will be issued later than four days before the date for receipt of Bids, except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.
- 5.4. Before submitting a Bid, each Bidder shall ascertain that the bidder has received all Addenda, and bidders shall acknowledge receipt of all Addenda in the Bid.

### 6. BIDDING PROCEDURE

- 6.1. Attached to the Bidding Documents is a separate, complete set of Bid Forms to be signed and submitted as the Contractor's Formal Bid. The Bid Forms include the following documents:
  - 6.1.1. Bid Form Proposal.
  - 6.1.2. Non-Collusion Affidavit.
  - 6.1.3. 5% bid security.
- 6.2. All blanks on the Bid Form shall be filled in by typewriter or manually in ink.
- 6.3. Where so indicated by the make-up of the Bid Form, dollar amounts shall be expressed in both words and figures and in case of discrepancy between the two, the amount written in words shall govern.
- 6.4. Any interlineation, alteration or erasure must be initialed by the signer of the Bid.
- 6.5. Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of his bid security, state his refusal to accept award of less than the combination of Bids he or she so stipulates. The Bidder shall make no additional stipulations on the bid form nor qualify the Bid.
- 6.6. Each copy of the Bid Form Proposal shall include the legal name of the Bidder and a statement that the Bidder is a sole proprietor, a partnership, a corporation, or some other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

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- 6.7. All copies of the Bid, the Bid Bond and any other documents required to be submitted with the Bid shall be enclosed in a sealed envelope. The envelope shall be addressed to BID FOR US-61 AND ROUTE 47 WATER MAIN RELOCATION, City Clerk, City of Troy, 800 Cap Au Gris Street, Troy, MO 63379. Also on the front of the envelope shall appear the Bidder's name and address and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face of the mailing envelope.
  - 6.8. Bids shall be deposited at the designated location before the time and date for receipt of Bids indicated in the Invitation to Bid, or any extension made by an Addendum. Bids received after the time and date for receipt of Bids will be returned unopened.
  - 6.9. The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
7. BID SECURITY
- 7.1. Each Bid shall be accompanied by a certified check or bank draft on a responsible solvent bank or a satisfactory bid bond executed by the Bidder and surety company and payable to the CITY in the amount of not less than five percent of the Base Bid plus the greatest of the Alternate Bids. If the Bidder fails to enter a contract with the CITY on the terms stated in the Bid or fails to furnish a performance bond as required by the Contract Documents, the amount of the Bid Bond shall be forfeited to the CITY as liquidated damages, not as a penalty.
  - 7.2. The CITY will have the right to retain the Bid Bond of Bidders to whom an award is being considered until either (a) the City-Contractor Agreement has been executed and the performance bond has been furnished, (b) the specified time has elapsed so that Bids may be withdrawn, or (c) all Bids have been rejected. The Bid Bond of all Bidders to whom an award is not being considered shall be returned promptly after the bid opening.
  - 7.3. The bid bond shall be by certified check or cashier's check or by bid bond issued by companies licensed for surety business in Missouri. In addition, bid bonds must be issued by companies listed in Circular 570 of the US Department of the Treasury, Fiscal Services Department or AM Best Financial Strength Rating (FSR) of B+ (Good) or better.
8. MODIFICATION OR WITHDRAWAL OF BID
- 8.1. A Bid may not be modified, withdrawn, or cancelled by the Bidder within sixty days following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting his Bid.
  - 8.2. Before the time and date designated for receipt of Bids, any Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder or by telegram. If by telegram, written confirmation over the signature of the Bidder

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shall be mailed and postmarked on or before the date and time set for receipt of Bids, and it shall be so worded as not to reveal the amount of the original Bid.

- 8.3. Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids provided that they are then fully in conformance with these instructions to Bidders.
- 8.4. The amount of the Bid Bond shall be in an amount sufficient for the Bid as modified or resubmitted.

### 9. CONSIDERATION OF BIDS

- 9.1. The properly identified Bids received on time will be opened publicly and will be read aloud.
- 9.2. The CITY shall have the right to reject any or all Bids, to reject a Bid not accompanied by a Bid bond or by other data required by the Bidding Documents, to reject a Bid which is in any way incomplete or irregular and to rebid the Work later if all Bids are rejected.
- 9.3. The CITY may make any investigation of a Bidder as it deems necessary to determine the ability of a Bidder to perform the Work. Bidders shall furnish information regarding their qualifications upon the reasonable request of the CITY. The CITY reserves the right to reject any Bids for any reason.
- 9.4. It is the intent of the CITY to award the Contract to the lowest responsible Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available.
- 9.5. The CITY shall have the right to accept Alternates in any order or combination, and to determine the low Bidder based on the sum of the Base Bid and the Alternates accepted.
- 9.6. The Bidder may be required to establish to the satisfaction of the CITY the reliability and responsibility of the persons or entities proposed to furnish and perform the Work.

### 10. AWARD OF CONTRACT

- 10.1. Following receipt to the satisfaction of the CITY of all information required under Paragraph 6.1 above, the CITY shall mail to the successful Bidder the Notice of Award of the Contract.
- 10.2. Within five working days from the date of receipt of the Notice of Award, the successful Bidder shall execute and deliver to the CITY the Contract Documents and shall furnish the Bonds required by Paragraph 8.1 below and the Certificates of Insurance required by subparagraph 10.1.3 of the General conditions. In the event the successful Bidder fails to execute and deliver the Contract Documents, the Bonds and the Certificates of Insurance as aforesaid, the CITY may consider the Bidder in default and award the Contract to another Bidder, in which case the Bid Bond of the defaulting Bidder shall be forfeited to the CITY.



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### 11. PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

- 11.1. The Contractor shall furnish a Performance Bond in an amount equal to one hundred percent of the Contract Sum as security for the faithful performance of this Contract and also a Labor and Material Payment Bond in an amount not less than one hundred percent of the Contract Sum in a penal sum not less than that prescribed by State or local law, as security for the payment of all persons performing labor on the project under this Contract and furnishing materials in connection with this Contract. The surety shall be a company licensed to do business in the State of Missouri and shall be acceptable to the CITY. The Performance Bond and the Labor and Material Payment Bond may be in one or in separate instruments.
- 11.2. The Bidder shall deliver the required bonds to the CITY not later than the date of execution of the CITY-Contractor Agreement, or if the Work is to be commenced prior thereto in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the CITY that such bonds will be furnished.
- 11.3. The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of his power of attorney.

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BID

BID TIME\_\_\_\_\_

BID DATE\_\_\_\_\_

TO: City of Troy, Missouri

The bidder declares that bidder has had an opportunity to examine the site of the work and the contract documents, and that the bidder has prepared this proposal upon the basis thereof, having carefully examined the site and having read and understood all the Contract Documents, and Addenda \_\_\_\_\_

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and being familiar with the local conditions affecting the work, hereby proposes to furnish all labor, materials, equipment, and services required for the performance and completion of said project in accordance with the said Contract Documents including the following itemized bid form.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Street Address)

\_\_\_\_\_  
(City / State / Zip Code)

\_\_\_\_\_  
(Telephone Number)

\_\_\_\_\_  
(E-mail Address)

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## BID FORM

\_\_\_\_\_  
Contractor Name

Item No.	Description	Units	Quantity	Unit Price	Extension
1.	Protection and Restoration	LS	1		
2.	Mobilization	LS	1		
3.	Water Main Pipe	LF	548		
4.	Water Main Pipe in Casing	LF	127		
4.	Excavation	CY	481		
6.	Granular Backfill	CY	79		
7.	Gate Valve	EA	1		
8.	Fire Hydrant Assembly	EA	2		
9.	Fittings: elbows, tees	EA	3		
10.	Wet Tap	EA	1		
11.	Water Meter Replacement	EA	1		
12.	Testing	LS	1		
13.	Abandon Water Main	LS	1		
<b>TOTAL</b>					

TOTAL BID IN WORDS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Contractor Signature

\_\_\_\_\_  
Contractor Name Printed or Typed

\_\_\_\_\_  
Contractor Company

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**NON-CULLUSION AFFIDAVIT**

STATE OF \_\_\_\_\_ )  
 ) SS.  
COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_  
\_\_\_\_\_ being

first duly sworn, deposes and says that he is

\_\_\_\_\_  
(Title of Person Signing)

of

\_\_\_\_\_  
\_\_\_\_\_

(Name of Bidder)

that all statements made and facts set out in the proposal for the above project are true and correct; and that the bidder (The person, firm, association, or corporation making said bid) has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such bid or any contract which may result from its acceptance.

Affiant further certifies that bidder is not financially interested in, or affiliated with, any other bidder for the above project.

By \_\_\_\_\_

By \_\_\_\_\_

By \_\_\_\_\_

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

\_\_\_\_\_(Notary Public)

My Commission Expires \_\_\_\_\_

# US-61 AND ROUTE 47 WATER MAIN RELOCATION

## CITY-CONTRACTOR AGREEMENT

**THIS AGREEMENT** is by and between the City of Troy, Missouri (hereinafter called OWNER) and (hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants herein set forth, agree as follows:

### ARTICLE 1 – WORK

- 1.1 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: relocation approximately 660 feet of eight-inch diameter water main and water meter and related water main components.

### ARTICLE 2 – ENGINEER

- 2.1 The Project has been designed by HR Green, Inc, who is hereinafter called ENGINEER. City of Troy officials shall act as OWNER's REPRESENTATIVE, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

### ARTICLE 3 – CONTRACT TIMES

- 3.1 *Time of the Essence.* All time limits for Milestones, if any, substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 3.2 *Days to Achieve Substantial Completion and Final Payment.* The Work will be substantially completed within 45 calendar days from the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 52 calendar days after the date when the Contract Times commence to run.
- 3.3 *Liquidated Damages.* CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER \$200 for each day that expires after the time specified in Paragraph 4.02 for Substantial Completion until the Work

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is substantially complete. After Substantial Completion if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER \$400 for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

### ARTICLE 4 – CONTRACT PRICE

- 4.1 For all Work, at the prices stated in CONTRACTOR'S Bid, attached hereto as an exhibit.

### ARTICLE 5 – PAYMENT PROCEDURES

- 5.1 *Submittal and Processing of Payments.* CONTRACTOR shall submit Applications for Payment in accordance with the Payment and Completion article of the General Conditions.

### ARTICLE 6 – CONTRACTOR'S REPRESENTATIONS

- 6.1 *Representations.* To induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:
- 6.1.1 *CONTRACTOR has examined and carefully studied the Contract Documents and other related data identified in the Bidding Documents.*
  - 6.1.2 CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  - 6.1.3 CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
  - 6.1.4 CONTRACTOR has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions and (2) reports and drawings of a Hazardous Environmental Conditions, if any, at the Site which has been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General conditions.
  - 6.1.5 CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at

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or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto.

- 6.1.6 CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, with the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- 6.1.7 CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- 6.1.8 CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- 6.1.9 CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- 6.1.10 The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## ARTICLE 7 – CONTRACT DOCUMENTS

7.1 *Contents.* The Contract Documents consist of the following:

- 1. This Agreement;
- 2. Performance Bond;
- 3. Payment Bond;
- 4. General Conditions;
- 5. State Wage Rates
- 6. Specifications
- 7. Drawings;
- 8. Exhibits to this Agreement (enumerated as follows):
  - a. Notice to Proceed;
  - b. CONTRACTOR's Bid;

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- 7.2 *Changes.* The Contract Documents may only be amended, modified or supplemented as provided in the General Conditions.

### ARTICLE 8 – MISCELLANEOUS

- 8.1 *Terms.* Terms used in this Agreement will have the meanings indicated in the General Conditions.
- 8.2 *Assignment of Contract.* No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 8.3 *Successors and Assigns.* OWNER and CONTACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.
- 8.4 *Severability.* Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.



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IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER, and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective May 20, 2024 (which is the Effective Date of the Agreement).

OWNER:

City of Troy, Missouri

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

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

Address for giving notices:

800 Cap-Au-Gris  
Troy, Missouri 63379

CONTRACTOR:

\_\_\_\_\_

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

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

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:

Name: Ron Sconce  
Title: Mayor  
Address: 800 Cap-Au-Gris  
Troy, MO 63379

Phone: (636) 528-4712  
Facsimile: (636) 462-1613

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

### PAYMENT AND PERFORMANCE BOND

If the cost of this Contract is estimated to exceed fifty thousand dollars, Contractor shall furnish a bond with good and sufficient sureties in an amount equal to one-hundred percent (100%) of the Contract Sum as security for the faithful performance of this Contract, and such bond, among other conditions, shall be conditioned for the payment of any and all materials, incorporated, consumed or used in connection with the construction of such work, and all insurance premiums, both for compensation and for all other kinds of insurance and for all labor performed in such work whether by subcontractor or otherwise and for payments to all parties and suppliers involved with the performance of the Contract. The surety shall be a company licensed to do business in the State of Missouri and shall be acceptable to the CITY.

**Note-This Contract contains a binding arbitration provision which may be enforced by the parties.**

# US-61 AND ROUTE 47 WATER MAIN RELOCATION

## GENERAL CONDITIONS OF CITY-CONTRACTOR AGREEMENT

### ARTICLE I – CONTRACT DOCUMENTS

#### 1.1 DEFINITIONS

- 1.1.1 The Contract Documents. The Contract documents consists of the CITY-Contractor Agreement, General Conditions of the CITY-Contractor Agreement, , the Performance Payment Bond, the Drawings, the Specifications, the Job Special Provisions, the Construction Schedule, all Addenda and all Modifications issued after execution of the Contact. A Modification is (1) a written amendment to the Contract signed by both parties, or (2) a Change Order.
- 1.1.2 The Contract. The Contract documents form the Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, both written and oral, including the bidding documents. The Contract may be amended or modified only by a Modification as defined in Subparagraph 1.1.1.
- 1.1.3 The Work. The term Work includes all labor necessary to complete the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in such construction.
- 1.1.4 The Project. The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part.
- 1.1.5 Notice to Proceed. The written notice from the CITY notifying the Contractor of the date on or before which he is to begin prosecution of the work.

#### 1.2 EXECUTION, CORRELATION, INTENT, AND INTERPRETATIONS

- 1.2.1 The Contract Documents shall be signed in not less than triplicate by the CITY and Contractor.
- 1.2.2 The Contractor represents that he has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents.
- 1.2.3 The Contract Documents are complementary, and what is required by anyone shall be as binding as if required by all. The intention of the Contract Documents is to include all labor, materials, equipment, and other items as provided in Subparagraph 3.3 necessary for execution and

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## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

completion of the Work. Words which have well-known technical or trade meanings are used herein in accordance with such recognized meanings.

### **1.3 COPIES FURNISHED AND OWNERSHIP**

1.3.1 Unless otherwise provided in the Contract Documents, the Contractor will be furnished a maximum of six copies, free of charge, of the Drawings and Specifications for the execution of the work.

1.3.2 All Drawings, Specifications and copies thereof furnished by the CITY are and shall always remain property of the CITY. Such documents shall not be used on any other project. At the conclusion of the job, the Contractor shall submit one set of mark ups for as-built record drawings.

## **ARTICLE 2 – CITY**

### **2.1 DEFINITION**

2.1.1 The CITY is the person or organization identified as such in the CITY-Contractor Agreement and is referred to throughout the Contract Documents as singular in number and masculine in gender. The term CITY means the CITY or its authorized representative.

### **2.2 CITY'S RIGHT TO STOP THE WORK**

2.2.1 If the Contractor fails to correct defective Work or fails to supply materials or equipment in accordance with the Contract Documents, the CITY may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

### **2.3 CITY'S RIGHT TO CONDUCT THE WORK**

2.3.1 If the Contractor defaults or neglects to conduct the Work in accordance with the Contract Documents, or fails to perform any provision of the Contract, the CITY may, after seven (7) days' written notice to the Contractor and without prejudice to any other remedy he may have, make good such deficiencies. In such case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the CITY promptly upon request.

## **ARTICLE 3 – CONTRACTOR**

### **3.1 DEFINITION**

3.1.1 The Contractor is the person or organization identified as such in the CITY-Contractor Agreement and is referred to throughout the Contract

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## US-61 AND ROUTE 47 WATER MAIN RELOCATION

Documents as singular in number and masculine in gender. The term Contractor means the Contractor or his authorized representative.

### 3.2 SUPERVISION AND CONSTRUCTION PROCEDURES

3.2.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work.

### 3.3 LABOR AND MATERIALS

3.3.1 Unless otherwise specifically noted, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work.

3.3.2 The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him. If the CITY reasonably objects to any person employed by the Contractor, the employee shall be immediately dismissed.

3.3.3 The Contractor shall execute and complete the Work in such a manner that avoids jurisdictional and other disputes among labor unions.

### 3.4 WARRANTY

3.4.1 The Contractor warrants to the CITY that all materials and equipment furnished under the Contract and incorporated in the Work will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not so conforming to these standards shall be considered defective. If required by the CITY, the Contractor shall furnish satisfactory evidence as to the kind and quality of all materials and equipment.

### 3.5 PERMITS, FEES, AND NOTICES

3.5.1 The Contractor shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the Work.

3.5.2 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the Work. If the Contractor observes that any of the Contract Documents are at variance therewith in any respect, he shall promptly notify the CITY in writing and any necessary changes shall be adjusted by appropriate Modification. If the Contractor performs any Work

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## US-61 AND ROUTE 47 WATER MAIN RELOCATION

knowing it to be contrary to such laws, ordinances, rules and regulations and without such notice to the CITY, the Contractor shall assume full responsibility thereof and shall bear all costs attributable thereto.

### 3.6 SUPERINTENDENT

3.6.1 The Contractor shall employ a competent superintendent and necessary assistants who "shall be in attendance" on the project site at all times during the progress of all work for the duration of the total project. The superintendent shall be responsible for the satisfactory progression of the work and to ensure that all work conforms with the plans and specifications. The superintendent shall relay any conflicts or discrepancies that arise in the plans to the CITY's representative for resolution or interpretation. Submit the name of superintendent and his or her qualifications at the time of bids and shall be approved in writing by the CITY. Do not change the superintendent except with written consent or at the request of the CITY. The superintendent shall represent the Contractor and all communications given to the superintendent shall be as binding as if given to the Contractor.

### 3.7 RESPONSIBILITY FOR THOSE PERFORMING THE WORK

3.7.1 The Contractor shall be responsible to the CITY for the acts and omissions of all his employees and all Subcontractors, their agents and employees and all other persons performing any of the Work under a Contract with the Contractor.

### 3.8 DRAWINGS AND SPECIFICATIONS AT THE SITE

3.8.1 The Contractor shall maintain at the site for the CITY one copy of all Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications, in good order and marked to record all changes made during construction. The Drawings, marked to record all changes made during construction, shall be delivered to the CITY upon completion of the Work. The Contractor shall also maintain on the project site a survey level, legs, and rod at all times, which are deemed adequate by the project engineer.

### 3.9 CLEANING UP

3.9.1 The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. The Contractor shall not "stockpile" any material on the jobsite and all excavated material shall be hauled off the site at the time of excavation. However, stockpiling of materials delivered and used on the same day will be allowed if all materials are in place or removed at the end of the day.

3.9.2 The Contractor is responsible for securing a project storage site which shall not be located on CITY Right-of-Way without prior written consent of the

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## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

CITY. After completion of the Work the Contractor shall remove all remaining waste materials and rubbish from and about the Project as well as all tools, construction equipment, machinery and surplus materials, and shall clean all surfaces and leave the Work "broomclean" or its equivalent, except as otherwise specified.

### **3.10 INDEMNIFICATION**

3.10.1 The Contractor shall indemnify and hold harmless the CITY and its agents and employees from and against any and all claims, damages, losses and expenses including attorneys' fees arising out of or resulting in any way, directly or indirectly, from the performance of the Work, including, but not limited to, any such claim, damage, loss or expense that is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom unless such claims, damages or losses are caused solely by the negligent act of the CITY.

3.10.2 In any and all claims against the CITY or any of its agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any one of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 3.11 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 workmen's compensation acts, disability benefit acts or other employee benefit acts.

### **3.11 CASH ALLOWANCES**

3.11.1 The Contractor acknowledges and agrees that the Contract Sum includes all cash allowances specified in the Contract Documents.

## **ARTICLE 4 – SUBCONTRACTORS**

### **4.1 DEFINITION**

4.1.1 A Subcontractor is a person or organization who has a direct contract with the Contractor to perform any of the Work. The term Subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Subcontractor or his authorized representative.

4.1.2 A Sub-subcontractor is a person or organization who has a direct or indirect contract with a Subcontractor to perform any of the Work. The term Sub-subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Sub-subcontractor or an authorized representative thereof.

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## US-61 AND ROUTE 47 WATER MAIN RELOCATION

4.1.3 Nothing contained in the Contract Documents shall create any contractual relation between the CITY and any Subcontractor or Sub-subcontractor.

### 4.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

4.2.1 Unless otherwise specified in the Contract Documents or in the Instructions to Bidders, the Contractor shall submit a completed and signed Subcontractor Approval form, along with other required Bid documents to the CITY. Contractor shall complete and submit a Supplemental Subcontractor Approval form to the CITY in the event of any substitution or addition of a Subcontractor by the Contractor. No work shall be performed by a Subcontractor until such Subcontractor has been approved by the CITY.

4.2.2 Before awarding the contract, the CITY will notify the Bidder in writing if the CITY, after due investigation, objects to any person or entity proposed by the Bidder pursuant to the subparagraph above. If the CITY objects to any such proposed person or entity, the Bidder may, at his option, (1) withdraw his Bid, or (2) submit an acceptable substitute person or entity with no adjustment in his bid price.

4.2.3 Contractor shall not subcontract more than forty nine percent of the total Contract cost.

4.2.4 The CITY reserves the right to reject a Subcontractor, if in the CITY's sole discretion, delays may result in the performance of Work because of Subcontractor's other obligation. The Contractor shall be held responsible, in addition to the submission of the "Subcontractor Approval Form," to apprise the CITY of any additional work which a Subcontractor accrues throughout the duration of the project. This shall include work for the CITY under a different Contract, or any other person or entity. If such said additional work shall detrimentally impact the progression of the Work under this Contract, the CITY retains the right to require the Contractor to submit a substitute Subcontractor for this work at no additional cost to the CITY.

4.2.5 The Contractor shall not contract with any Subcontractor or any person or organization (including those who are to furnish materials or equipment fabricated to a special design), for proposed proportions of the Work designated in the Contract Documents or in the Instruction to Bidders or, if none is so designated, with any Subcontractor proposed for the principal portions of the Work, who has been rejected by the CITY.

4.2.6 If the CITY requires a change of any proposed Subcontractor or person or organization during the execution of the Work approved under the present Contract, the Contract Sum shall be increased or decreased by the difference in cost resulting from such change and an appropriate Change

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## US-61 AND ROUTE 47 WATER MAIN RELOCATION

Order shall be issued.

- 4.2.7 The Contractor shall not make any substitution for any proposed Subcontractor or person or organization who has not been accepted by the CITY before the Contract Award, unless the substitution is accepted by the CITY in writing before such substitution.

### 4.3 SUBCONTRACTUAL RELATIONS

- 4.3.1 All work performed for the Contractor by a Subcontractor shall be pursuant to an appropriate agreement between the Contractor and Subcontractor (and where appropriate between Subcontractors and Sub-subcontractors) which shall:

1. require the Work to be performed in accordance with the requirements of the Contract Documents;
2. require submission to the Contractor of applications for payment under each Subcontract to which the Contractor is a party, in reasonable time to enable the Contractor to apply for payment in accordance with Article VIII hereof;
3. require that all claims for additional costs, extensions of time, damages for delays or otherwise with respect to Subcontracted portions of the Work shall be submitted to the Contractor (via any Subcontractor or Sub-subcontractor where appropriate) in sufficient time so that the Contractor may comply in the manner provided in the Contract Documents for like claims by the Contractor upon the CITY;
4. waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by the property insurance described in Paragraph 10.2, except such rights as they may have to the proceeds of such insurance held by the CITY as trustee under Paragraph 10.2;
5. obligate each Subcontractor specifically to consent to the provisions of this Paragraph 4.3; and require the Subcontractor (and the Sub-subcontractor to indemnify and hold harmless the CITY against all claims, damages, losses, expenses and attorneys' fees arising out of or resulting from the performance of the Work by Subcontractor, and its agents and employees, unless such claims, damages or losses are caused solely by the negligent act of the CITY.

### 4.4 PAYMENTS TO SUBCONTRACTORS

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## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

- 4.4.1 The Contractor shall pay each Subcontractor upon receipt of payment from the CITY, an amount equal to the percentage of completion allowed to the Contractor on account of such Subcontractor's Work, less the percentage retained from payments to the Contractor. The Contractor shall also require each Subcontractor to make similar payments to his Subcontractors.
- 4.4.2 If the CITY withholds payment to the Contractor for any cause which is the fault of the Contractor and not the fault of a particular Subcontractor, the Contractor shall pay that Subcontractor on demand for its Work to the extent completed.
- 4.4.3 The CITY shall not have any obligation to pay or to see to the payment of any sum to any Subcontractor or Sub-subcontractor.

### **ARTICLE 5 –MISCELLANEOUS PROVISIONS**

#### **5.1 GOVERNING LAW**

- 5.1.1 The Contract shall be governed by the laws of the State of Missouri.

#### **5.2 SUCCESSORS AND ASSIGNS**

- 5.2.1 The CITY and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract without the prior written consent of the other, nor shall the Contractor assign any sums due or to become due to him hereunder, without the prior written consent of the CITY.

#### **5.3 NOTICES**

- 5.3.1 Any notice to any party pursuant to or in relation to the Contract shall be in writing and shall be deemed to have been duly given when delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or when deposited in the United States mail, registered or certified with postage prepaid addressed to the last business address known to the party giving the notice.

#### **5.4 RIGHTS AND REMEDIES**

- 5.4.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

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## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

### **5.5 ROYALTIES AND PATENTS**

5.5.1 The Contractor shall pay all royalties and license fees payable on all designs, processes or products used in connection with the Work or incorporated therein, unless otherwise agreed upon by the CITY. The Contractor shall defend all suits or claims for infringement of any patent rights and shall indemnify and hold the CITY harmless from and against any loss on account thereof.

### **5.6 PAYMENT AND PERFORMANCE BOND**

5.6.1 The Contractor shall furnish the payment and performance bond conforming to the Instructions to Bidders.

## **ARTICLE 6 – TIME**

### **6.1 DEFINITIONS**

6.1.1 The Contract Time is the period of time allotted in the Contract Documents for completion of the Work.

6.1.2 The date of commencement of the Work is the date established in the written Notice to Proceed from the CITY to the Contractor.

6.1.3 The term "day" as used in the Contract Documents shall mean calendar day.

### **6.2 PROGRESS AND COMPLETION**

6.2.1 All time limits stated in the Contract Documents are of the essence of the Contract.

6.2.2 The Contractor shall begin the Work on the date of commencement provided in the CITY-Contractor Agreement. The Contractor shall carry the Work forward expeditiously with adequate forces and shall complete it within the Contract Time and in accordance with the Construction Schedule.

## **ARTICLE 7 – PAYMENT AND COMPLETION**

### **7.1 CONTRACT SUM**

7.1.1 The Contract Sum is stated in the CITY-Contractor Agreement and is the total amount payable by the CITY to the Contractor for the performance of the Work.

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## US-61 AND ROUTE 47 WATER MAIN RELOCATION

### 7.2 APPLICATION FOR PAYMENT

- 7.2.1 By 12:00 P.M. on or before the twentieth of the month, upon substantial completion of various stages of the Work, and upon final completion of the Work, the Contractor shall submit to the CITY an itemized Application for Payment pursuant to the CITY-Contractor Agreement on such forms and supported by such data substantiating the Contractor's right to payment as the CITY may require.
- 7.2.2 If payments are to be made on account of materials or equipment to be incorporated into the Work and delivered and suitably stored at the site, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other documents satisfactory to the CITY to establish the CITY's title to such materials or equipment or to otherwise protect the CITY's interest.
- 7.2.3 The Contractor warrants and guarantees that title to all Work, materials and equipment covered by an Application for Payment, whether incorporated into the Work or not, will pass to the CITY upon the receipt of such payment by the Contractor, free and clear of all liens, claims, security interests or encumbrances (hereinafter referred to as "liens").

### 7.3 PAYMENT

- 7.3.1 If the Contractor has made Application for Payment as above, the CITY will, in accordance with the CITY-Contractor Agreement, make payment to the Contractor for such amount as it determines to be properly due pursuant to the Contractor's Application for Payment, or state in writing the CITY's reasons for withholding all or any portion of such payment.
- 7.3.2 No progress payment, nor any partial or entire use or occupancy of the Work by the CITY, shall constitute an acceptance of any Work not completed in accordance with the Contract Documents.

### 7.4 COMPLETION AND FINAL PAYMENT

- 7.4.1 Upon receipt of written notice from the Contractor that the Work is fully completed and ready for final inspection and acceptance, and upon receipt of a final application for Payment, the CITY will promptly make such inspection and, when the CITY finds the Work acceptable under the Contract Documents and the Contract fully performed, the CITY will make final payment to the Contractor in accordance with the CITY-Contractor Agreement.
- 7.4.2 The final payment shall not become due until the Contractor submits to the CITY (1) an Affidavit that all payrolls, bills for materials and equipment, and other indebtedness incurred in connection with the execution and

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## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

completion of the Work for which the CITY or its property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of the surety, if applicable, to final payment, (3) an affidavit stating the Contractor has fully complied with the provisions and requirements of the Prevailing Wage Law, Section 290.210 through 290.340 as amended by MO.Rev. Stat. 1994, and (4) if required by the CITY, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the CITY. If any Subcontractor refuses to furnish a release or waiver required by the CITY, the Contractor may furnish a bond satisfactory to the CITY indemnifying the CITY against any liability relating to such Subcontractor. If any such claimed liability remains unsatisfied after all payments are made, the Contractor shall refund to the CITY all moneys that the CITY may be compelled to pay in discharging such claimed liability, including all costs and reasonable attorneys' fees.

- 7.4.3 The acceptance of final payment shall constitute a waiver of all claims by the Contractor, except those previously made in writing and still unsettled.

### **ARTICLE 8 – PROTECTION OF PERSONS AND PROPERTY**

#### **8.1 SAFETY PRECAUTIONS AND PROGRAMS**

- 8.1.1 The Contractor shall initiate, maintain and supervise safety precautions and programs in connection with the performance of the Work.
- 8.1.2 In accordance with Section 292.675 RSMo (2008 HB 1549), any person signing a contract to work on the construction of public works for any public body shall provide a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for their on-site employees which includes a course in construction safety and health approved by OSHA or similar program approved by the department which is as least as stringent as an approved OSHA program. All employees are required to complete the program within sixty days of beginning work on such construction project. Any employee found on the worksite subject to this section without documentation of the successful completion of the course shall allowed twenty days to produce such documentation before being subject to removal from the project.

The contractor shall forfeit as a penalty to the Owner \$2,500 plus one hundred \$100 for each employee employed by the contractor or subcontractor for each calendar day or portion thereof such employee is employed without the required training. The penalty shall not begin to accrue until the time period in this section has elapsed. The Owner shall withhold and retain all sums and amounts due and owed as a result of any violation of this section when making payments to the contractor under the contract. The contractor may withhold from any subcontractor sufficient

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## US-61 AND ROUTE 47 WATER MAIN RELOCATION

sums to cover any penalties the Owner has withheld from the contractor resulting from the subcontractor's failure to comply with the terms of this section. If the payment has been made to the subcontractor without withholding, the contractor may recover the amount of the penalty resulting from the fault of the subcontractor in an action maintained in the circuit court in the county in which the public works project is located. \_In determining whether a violation of this section has occurred and whether the penalty of this section shall be imposed, the Department of Labor and Industrial Relations shall investigate any claim of violation. Upon completing such investigation, the Department shall notify the Owner and any party found to be in violation of this section of its findings and whether a penalty shall be assessed. Determinations under this section may be appealed in the circuit court in the country in which the public works project is located. The Department may establish rules and regulations for the purpose of implementing the provisions of this section.

### 8.2 SAFETY OF PERSONS AND PROPERTY

- 8.2.1 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to:
- 8.2.1.1 All employees on the Work and all other people who may be affected by the Work.
  - 8.2.1.2 All the Work, all the materials, and equipment be incorporated into the Work whether on or off site under the care or control of the Contractor or Contractor's subcontractors.
  - 8.2.1.3 Other property at the site or adjacent to the site including vegetation, walks, roadways, driveways, parking areas, buildings, and utilities not designated for removal or replacement.
- 8.2.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority having jurisdiction over the safety of persons or property to protect them from damage, injury or loss. The Contractor shall erect and maintain all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying the CITY and users of adjacent utilities. The Contractor shall provide signs, barrels, or any other safety devices which the CITY deems necessary for public safety. No additional payment will be made and this work shall be considered incidental to the Contract. The CITY may place safety devices as it deems necessary if the Contractor fails to provide the required items within 24 hours of notification. The Contract Sum shall be reduced by the cost of these devices.
- 8.2.3 When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall execute such activities under the supervision of properly qualified personnel.

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## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- 8.2.4 All damage or loss to any property caused in whole or in part by the Contractor, any Subcontractor, or any Sub-subcontractor, or anyone directly or indirectly employed by anyone for whose acts they may be liable, shall be remedied by the Contractor. The CITY shall document any complaint by any person regarding damage or loss to property caused by Contractor by requesting such complainant to complete a Damage Claim form. A copy of the Damage Claim form shall be submitted by the CITY to the Contractor and the Contractor shall correct the problem, repair such damage or otherwise compensate the complainant or file a claim for such damage with Contractor's insurance company within ten (10) days of the receipt of the Damage Claim form from the CITY. If the CITY shall have a legitimate basis for believing that such claim is valid, the CITY shall have the option to withhold payment of funds until (i) such damages are repaired; or (ii) the CITY has been provided with evidence that the Contractor has made restitution to the complainant.
- 8.2.5 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated in writing by the Contractor to the CITY.

### ARTICLE 9 – INSURANCE

#### 9.1 CONTRACTOR'S LIABILITY INSURANCE

##### 9.1.1 Coverage

Workers Compensation	Limit of Liability as by Statute
Commercial General Liability	\$1,000,000 each occurrence \$1,000,000 aggregate
Automobile Liability Insurance Including Non-owned, Leased, & Hired Vehicles	\$1,000,000 combined single limit

- 9.1.2 **Insurance General Conditions.** The CONTRACTOR agrees to, at the CONTRACTOR's expense, purchase and maintain throughout the life of this contract herein stipulated minimum insurance with companies licensed in Missouri and possessing a minimum current AM Best, Inc. rating of B++8, or approved unlicensed companies in the State of Missouri with policies and forms satisfactory to Lincoln County. All policies will contain an endorsement providing that written notice be given to the CITY at least ten calendar days before termination, cancellation, or reduction in coverage of any policy.

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## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- 9.1.3 **Waiver of Subrogation or Transfer of Rights of Recovery.** The policies required herein, except Workers' Compensation and Professional Liability, shall contain a waiver of subrogation or in the alternative, a waiver of transfer of rights of recovery against the City of Troy, the City's agents, representatives, officers, directors, officials, and employees for any claims arising out of the CONTRACTOR's work or service.
- 9.1.4 **Additional Insureds.** The insurance policies required by this Contract, except Workers' Compensation and Professional Liability, shall name the City of Troy, its agents, representatives, officers, directors, officials, and employees as Additional Insured with a CG 20 10 or similar endorsement. The CONTRACTOR agrees that the insurance required herein will be primary and that any insurance carried by the City will be excess and not contributing.
- 9.1.5 **Endorsements and Certificate.** The following provisions are also required for insurance(s) and evidence of such shall be satisfied by Certificate(s) and Endorsements. And insurance company authorized to transact business in the State of Missouri shall issue the Certificates. The Contractor shall, within ten days after award of bid, furnish the City with Certificates of Insurance for the required insurance coverage. Endorsements for the Waiver of Transfer of Rights and Additional Insureds shall be provided as indicated in above, unless contained within the basic policy(ies) and then confirmed by written statement signed by the insurance agent broker ad/or underwriter in a form acceptable to the City. "City of Troy, a political subdivision of the State of Missouri, it Board members, officers, employees, agents, and other officials" shall be listed as certificate holder. If room does not permit, this verbiage can be entered into the description of operations. However, if the latter method is used, the certificate holder shall be listed only as City of Troy, Missouri, 800 Cap-au-Gris, Troy, Missouri 63379.
- 9.1.6 **SUBCONTRACTORS.** In the event any the Work is subcontracted, the Contractor shall require that subcontractor to provide Workers' Compensation insurance for all the subcontractor's employees engaged in the Work, unless such employees are covered by protection afforded by the Contractor's Workers' Compensation insurance. In case any class of employees engaged in hazardous work under the Contract is not protected under the Workers' Compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, adequate employer's general liability insurance for the protection of their employees that are not otherwise protected.

### 9.2 PROPERTY INSURANCE

- 9.2.1 Unless otherwise provided, the Contractor shall purchase and maintain property insurance upon the entire Work at the site to the full insurable value thereof. This insurance shall include the interests of the CITY, the

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## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

Contractor, Subcontractors and Sub-subcontractors in the Work and shall insure against the perils of Fire, Extended Coverage, Vandalism and Malicious Mischief.

- 9.2.2 Certificates of Insurance acceptable to the CITY shall be filed with the CITY before commencement of the WORK. Certificates of Insurance must state on the certificate: "The CITY is an additional insured." These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled until at least fifteen days' before written notice has been given to the CITY.
- 9.2.3 Any loss insured by property insurance maintained by the CITY shall be adjusted with the CITY and made payable to the CITY as trustee for the insured, as their interests may appear, subject to the requirements of any applicable mortgagee clause.
- 9.2.4 The CITY and Contractor waive all rights against each other for damages caused by fire or other perils to the extent covered by insurance provided under this Paragraph 10.2 and the Contract Documents, CITY-Contractor Agreement, except such rights as they may have to the proceeds of such insurance held by the CITY as trustee. The Contractor shall require similar waivers by Sub-contractors and Sub-subcontractors in accordance with these General Conditions.

### **ARTICLE 10 – CHANGES IN THE WORK**

#### **10.1 CHANGE ORDERS**

- 10.1.1 The CITY, without invalidating the Contract, may order Changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, with the Contract Sum and the Construction Schedule being adjusted in accordance with the CITY-Contractor Agreement. All such changes in the Work shall be authorized by Change Order, and shall be executed under the applicable conditions of the Contract Documents.
- 10.1.2 A Change order is a written order to the Contractor signed by the CITY, issued after the execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum or the Construction Schedule. The Contract Sum and the Contract Time may be changed only by Change Order.
- 10.1.3 The cost or credit to the CITY resulting from a Change in the Work shall be determined in accordance with the CITY-Contractor Agreement.

**GC**

## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

### **10.2 CLAIMS FOR ADDITIONAL COST**

10.2.1 If the Contractor wishes to make a claim for an increase in the Contract Sum, he shall give the CITY written notice thereof within twenty (20) days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work. No such claim shall be valid unless so made. If the CITY and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by arbitration. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

### **10.3 MINOR CHANGES IN THE WORK**

10.3.1 The CITY shall have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or the Construction Schedule and not inconsistent with the intent of the Contract Documents. Such changes may be affected by written Field Order or by other written order. Such changes shall be binding on the CITY and the Contractor.

## **ARTICLE 11 – UNCOVERING AND CORRECTION OF WORK**

### **11.1 UNCOVERING OF WORK**

11.1.1 If any Work should be covered contrary to the request of the CITY, it must, if required by the CITY, be uncovered for his observation, and replaced, at the Contractor's expense.

11.1.2 If any Work has been covered which the CITY has not specifically requested to observe prior to being covered, the CITY may request to see such Work and it shall be uncovered by the Contractor. If such Work is found to be in accordance with the Contract Documents, the Cost of uncovering and replacement shall, by appropriate Change Order, be charged to the CITY. If such Work be found not in accordance with the Contract Documents, the Contractor shall pay such costs.

### **11.2 CORRECTION OF WORK**

11.2.1 The Contractor shall promptly correct all Work rejected by the CITY as defective or as failing to conform to the Contract Documents, whether observed before or after substantial completion of the Work, and whether fabricated, installed or completed. The Contractor shall bear all cost of correcting such rejected Work.

11.2.2 All such defective or non-conforming Work under Subparagraphs 11.2.1 and 11.2.2 shall be removed from the site if necessary, and the Work shall be corrected to comply with the Contract Documents without additional cost to the CITY.

**GC**

## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

11.2.3 The Contractor shall bear the cost of making good all work of separate contractors destroyed or damaged by such removal or correction.

11.2.4 If the Contractor fails to correct such defective or non-conforming Work, the CITY may correct it in accordance with Paragraph 2.3.

### **11.3 ACCEPTANCE OF DEFECTIVE OR NON-CONFORMING WORK**

11.3.1 If the CITY prefers to accept defective or non-conforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect an appropriate reduction in the Contract Sum or, if the amount is determined after final payment, it shall be paid by the Contractor.

## **ARTICLE 12 – SPECIAL PROVISIONS**

### **12.1 OVERTIME**

12.1.1 To provide sufficient control of work, the Contractor shall be required to inform the CITY of scheduled overtime work, including work on Saturdays, Sundays, and CITY holidays as given below at least forty-eight hours in advance of overtime work. If the Contractor fails to appear on a scheduled overtime period, the CITY shall deduct the cost for the CITY's assigned personnel from the Contract Sum for the time period scheduled.

### **12.2 CITY HOLIDAYS**

12.3 The ten City holidays are listed below.

New Year's Day  
Martin Luther King Jr. Day  
President's Day  
Memorial Day  
Independence Day  
Labor Day  
Veterans Day  
Thanksgiving Day  
Day after Thanksgiving  
Christmas Day

### **12.4 PRECONSTRUCTION CONFERENCE**

12.4.1 A preconstruction conference may be held prior to the issuance of a notice to proceed with the Work. This meeting will be attended by the Contractor, the CITY Trustees, and representatives of the various utility companies that have facilities in the project area if applicable. The meeting date will be established after the taking of bids and at a time convenient to all parties.

**GC**

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

### 12.5 SEQUENCE OF WORK

- 12.5.1 A schedule of the Contractor's work shall be submitted to the CITY for approval as required under Article V of the Agreement. It shall contain a listing of the order in which the Contract items will be constructed and the approximate dates for starting and finishing each Contract item.
- 12.5.2 The Contractor shall furnish the CITY his proposed sequence and schedule for the completion of all work for their review and approval prior to the time of the preconstruction conference. The CITY shall have the right to specify the order of construction as deemed necessary.

### 12.6 CONSTRUCTION LIMITS

- 12.6.1 The construction limits consist of the street rights-of-way and acquired easements. The Contractor shall limit operations to the construction limits.
- 12.6.2 The Contractor shall acquire the property owner's permission for any activity outside the public right-of-way or easement areas.

### 12.7 TESTING

- 12.7.1 Materials Testing and Inspection Service: The CITY may employ and pay for a qualified independent materials and geotechnical testing laboratory to perform testing and inspection service during construction operations.

### 12.8 OSHA TEN HOUR TRAINING REQUIREMENTS

- 12.8.1 Missouri Law, 292.675 RSMO, requires any awarded contractor and its subcontractor(s) to provide a ten-hour Occupational Safety and Health Administration (OSHA) Construction Safety Program (or a similar program approved by the Missouri Department of Labor and Industrial Relations as a qualified substitute) for their on-site employees (laborers, workmen, drivers, equipment operators, and craftsmen) who have not previously completed such a program and are directly engaged in actual construction of the improvement (or working at a nearby or adjacent facility used for construction of the improvement). The awarded contractor and its subcontractor(s) shall require all such employees to complete this ten-hour program, pursuant to 292.675 RSMO, unless they hold documentation on their prior completion of said program. Penalties, for Non-Compliance include contractor forfeiture to the Contracting Authority in the amount of \$2,500, plus \$100 per contractor and subcontractor employee for each calendar day such employee is employed beyond the elapsed time period for required program completion under 292.675 RSMO.

## **US-61 AND ROUTE 47 WATER MAIN RELOCATION**

### **12.9 MATERIALS INSPECTIONS**

12.9.1 All technicians who perform materials sampling and testing shall be deemed as qualified by virtue of successfully completing the MoDOT requirements contained in EPG 106.18 Technician Certification Program, for that specific technical area.

### **12.10 PERFORMANCE OF WORK / SECOND-TIER SUBCONTRACTING**

12.10.1 The prime contractor on the project must perform, with its own staff, contract work amounting to not less than 30% of the total original contract price. Furthermore, second-tier subcontracting will not be permitted on the project. It will be the responsibility of the contractor to ensure that subcontractors do not subcontract any portion of the work.

**GC**

# US-61 AND ROUTE 47 WATER MAIN RELOCATION

## JOB SPECIAL PROVISIONS

# US-61 AND ROUTE 47 WATER MAIN RELOCATION

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### ENGINEER OF RECORD CERTIFICATION

	<p>The professional whose signature and personal seal appears hereon assumes responsibility only for the <b>JOB SPECIAL PROVISIONS A through X</b> attached herewith and disclaims (pursuit to Section 327.411 RSMO) responsibility for all other calculations, drawings, specifications, estimates, reports, surveys or other documents or instruments or revisions thereof not sealed by the undersigned professional.</p> <p><b>ENGINEERING CORPORATION CERTIFICATION</b>                  HR Green, Inc. is a licensed Missouri Professional Engineering Corporation. Certificate of Authority No. 2002006608.</p> <p><b>Missouri Professional Engineer License No. 019353</b>  <b>My renewal date is</b> December 31, 2024</p>
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\_\_\_\_\_  
 Date Garry Aronberg, PE

# US-61 AND ROUTE 47 WATER MAIN RELOCATION

## **JOB SPECIAL PROVISIONS**

The US-61 and Route 47 Water Main Relocation, shall be constructed in accordance with the Water and Wastewater Construction Specifications (City of Troy Water Specifications attached at the end of the JSPs) except as modified by these job special provisions (JSP).

If a question arises that is not addressed by the Job Special Provisions for this project, the CONTRACTOR shall submit a Request for Information (RFI) to the bidding agency project manager and allow at least 48 hours for a response.

### **A. DEFINITIONS**

- 1.0** Unless otherwise stated, all references to “plans” refer to the construction plans provided with this contract.
- 2.0** The work or the Work signifies the construction project that is the subject to these construction documents.

### **B. PROJECT CONTACT FOR CONTRACTOR / BIDDER QUESTIONS**

- 1.0** All questions concerning this project shall be forwarded to the project contact listed below.  
Jeff Burkemper  
City of Troy  
Public Works Superintendent  
(636) 528-4646  
jeff@cityoftroymissouri.com

### **C. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT**

- 1.0** The Contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police and other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the Contractor shall notify police or other emergency agencies immediately as needed. The Project Manager shall also be notified when the Contractor requests emergency assistance.
- 2.0** In addition to the 911 emergency telephone number for ambulance, fire or police services, the following agencies may also be notified of accident or emergency within the project limits.

<i>City of Troy:</i>	<i>(636) 528-4712</i>
<i>Troy Police</i>	<i>911 and (636) 528-4725</i>
<i>Fire</i>	<i>911</i>
<i>Ameren UE:</i>	<i>1-800-552-7583</i>



## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- 3.0** This list is not all inclusive.
- 4.0** The Contractor shall notify enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the Contractor completes this notification with enforcement and emergency agencies, a report shall be furnished to the project manager.
- 5.0** **Basis of payment.** Emergency provisions and incident management and corresponding equipment, materials, labor, and time are incidental to the work and no separate payment shall be made.

### **D. SHOP DRAWINGS AND SUBMITTALS**

- 1.0** The Contractor shall submit PDF copies of submittals and shop drawings to the City Public Works Superintendent for review before work begins. If extensive changes are necessary, corrected PDF documents shall be resubmitted for subsequent review. Review copies will be returned to the Contractor after review.
- 2.0** The Contractor shall thoroughly review the shop drawings for compliance with the contract drawings and specifications before submittal. The shop drawings shall be stamped "reviewed" by the Contractor before submittal.
- 3.0** Shop drawings, manufacturer's brochures, or samples shall be made through the General Contractor. Identify each item submitted for review by reference to specification paragraph number and plan sheet number. If the item described or submitted is not exactly as specified by the plans and specifications, the contractor shall identify in writing the deviation and indicate how the substitute will function as well as the specified item.
- 4.0** If substitutions for the specified items are accepted, the submitting Contractor is responsible for all costs incurred due to the changes from plans and specifications including additional design costs, material and equipment costs, and any appurtenant cost that may be incurred by other trades.
- 5.0** The City of Troy, and MoDOT and the design engineer are not responsible for failing to detect errors in the shop drawings.
- 6.0** The following submittals are required:
- Progress schedule,
  - Soil erosion control measures,
  - Pipe material and manufacturers installation recommendations,
  - Fittings material and manufacturers installation recommendations,
  - Valves material and manufacturers installation recommendations,
  - Restrained joint fittings material and manufacturers installation recommendations,
  - Fire hydrant and associated fittings and valves,

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- Polyethylene encasement material and manufacturers installation recommendations,
- Warning tape,
- Tracer wire.

**7.0 Basis of payment.** Preparation and handling of submittals and shop drawings shall be considered incidental to the Work and no separate payment shall be made.

### **E. MEASUREMENT AND PAYMENT**

**1.0 General.** The total Contract Price shall cover all Work required by the Contract Documents. All costs in connection with the proper and successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction plant, equipment, and tools; and performing all necessary labor and supervision to fully complete the Work, shall be included in the unit and lump sum prices bid. All Work not specifically set forth as a pay item in the Bid Form shall be considered incidental to the Work and no separate payment shall be made.

**2.0 Incidentals.** There will be no direct pay for the following items, or any other items not specifically identified within these plans and specifications – they are incidental to other pay items of to the Work: Haul-off of excess soil, Survey to stakeout the Work and prepare pay requests, resetting surveyed property corners by Missouri-licensed surveyor when property corners are damaged by the contractor's activities.

### **F. EXCESS MATERIAL AND DEBRIS DISPOSAL**

**1.0** Removal and disposal of excess materials shall comply with Missouri law for waste disposal.

**2.0 Basis of payment.** Disposal of excess material and debris is incidental to the Work and no separate payment shall be made.

### **G. CONSTRUCTION LIMITS, EQUIPMENT AND MATERIAL STORAGE**

**1.0** Work will be confined to the construction limits. The construction limits are the roadway right-of-way that is closed for roadway construction. The construction site will be closed by the roadway contractor before the water main relocation project begins. Coordinate water main relocation work with the roadway contractor to occur before major roadway construction work begins. Traffic control will be completed by the roadway contractor.

**2.0** Before the Contractor commences work at the site, the contracting agency project manager will meet with the Contractor to jointly identify on-site work limits and areas for the Contractor to use for material and equipment storage.

**3.0 Basis of payment.** Maintaining operations within the construction limits is incidental to the Work and no separate payment shall be made.

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

### H. PROGRESS SCHEDULE

- 1.0 The contractor shall submit a schedule during the pre-construction meeting.
- 2.0 The Contractor shall provide the City with scheduled work projections on a weekly basis. These projections shall address the anticipated work for the upcoming week.
- 3.0 **Basis of payment.** Progress schedule is incidental to the Work and no separate payment shall be made.

### I. WORK RESTRICTIONS

- 1.0 **Work Restrictions.** The Contractor shall not perform any construction operation during weekends, or holidays. The Contractor shall not perform any construction operations between the hours of 6:00 p.m. and 7:00 a.m. unless authorized by the City of Troy project manager.
- 2.0 **Basis of payment.** Conforming to work restrictions is incidental to the Work and no separate payment shall be made.

### J. RIGHT TO INSPECT

- 1.0 City of Troy project manager may make inspections of the work at any time and the Contractor shall cooperate and allow City of Troy project manager access to all parts of the work.
- 2.0 **Basis of payment.** Conforming to the right to inspect is incidental to the Work and no separate payment shall be made.

### K. PROTECTION AND RESTORATION

- 1.0 All work areas shall be kept neat and clean during all phases of construction and shall be “broom clean” at the end of each day. Stormwater erosion and siltation control shall be installed to minimize prevent migration of silt on to paved surfaces and into storm inlets and roadside stormwater swales.
- 2.0 Before starting work, the Contractor shall thoroughly inspect and document the project site conditions with color photographs or videos. The photographs or videos shall include all proposed work areas and nearby areas. This inspection will serve as protection for the Contractor and City. The survey and documentation will also guide restoration.
- 3.0 The Contractor shall provide a sanitary facilities and trash barrel within a reasonable distance (typically within 200 feet) of the work. The trash barrel will be labeled as such and emptied at least weekly. Litter and trash produced by the contractor’s activities shall be deposited promptly in the trash barrels and in no case shall the contractor-generated litter and trash be allowed to be wind-blown from the construction area.

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- 4.0** The Contractor shall locate and protect from damage, electrical power poles, overhead power lines, buried power lines, communication lines, and sanitary sewer lines. The Contractor shall coordinate and cooperate with other utilities that may be working on the site.
- 5.0** Major roadway construction will commence shortly after completion of the water main work. Restoration within the construction limits will include filling and compacting water main trenches to the line and grade shown in the plans and removing water main construction debris and equipment.
- 5.1** Pavement and walks that were removed as essential to water main work shall be replaced with granular fill from the top of the initial pipe backfill to the existing grade.
- 5.2** Unpaved areas shall be filled with compacted earth salvaged from the trenching. The top six inches shall be topsoil salvaged from the trench operation. Seed and straw shall be placed on all unpaved areas disturbed by the contractor's activities.
- 6.0** Restoration shall include the repair, replacement and relocation of landscaping and other site improvements that are damaged by the contractor's activities. Restoration to such damage landscaping and site improvements shall be to equal or better condition in accordance with the pre-construction survey.
- 7.0** Restoration shall also include preparation of as-built record drawings as required in Section 1.14 of the Standard Specifications.
- 8.0** **Basis of Payment.** Payment for protection and restoration will be made at the lump sum bid price and shall include all labor, materials, equipment, and tools necessary to restore the site as described in this specification section.

### **L. MOBILIZATION**

- 1.0** Mobilization shall consist of scheduling and mobilizing equipment, materials and personnel necessary to complete the WORK under this contract including the items listed below:
- Preparation of this contract,
  - Purchase of insurance and bonds,
  - Supervision of the work,
  - Stakeout of the work using CAD files provided by the project designer,
  - Coordination with the roadway contractor,
  - Coordination with subcontractors,
  - Coordination with utilities for locating utilities and for protection of utilities,
  - Notification of nearby businesses of watermain work and short service interruptions,
  - Shop drawing preparation and submittal to City of Troy project manager,
  - Preparation of pay requests and invoices,
  - Field verification of conditions and water main connection points,
  - Construction surveying to stakeout the work,
  - Tree, bush, and pavement removal necessary to relocate the water main and to abandon existing water main,

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- Sanitary facilities for the Contractor's crew,
- Demobilization and removal of Contractor's tools and equipment at end of Work.

**2.0 Basis of Payment.** Payment for mobilization shall be based on the contract lump sum bid price.

### **M. WATER MAIN PIPE, BEDDING, INITIAL BACKFILL, THRUST BLOCKS AND RESTRAINED JOINTS**

**1.0 Water Main Pipe.** All pipe shall be PVC or ductile iron (DIP).

#### **1.1 PVC Pipe**

- 1.1.1** PVC pipe shall conform to AWWA Standard C900 DR 18 with outside diameter equal to DIP and pressure rated for at least 200 psi at 73,4 degrees F.
- 1.1.2** PVC compounds used shall be certified suitable for potable water product by NSF Standard Number 61.
- 1.1.3** PVC joints shall be bell and spigot with rubber ring with ring groove for seating the gasket.
- 1.1.4** Restrained joints shall be used where indicated in the plans.
- 1.1.5** Installation shall follow manufacturers recommendations.

#### **1.2 DIP**

- 1.2.1** DIP shall conform to AWWA C-151 and AWWA C-104 in pressure class 250 psi with cement lining and seal coated.
- 1.2.2** Install DIP with polyethylene encasement meeting AWWA C-600.
- 1.2.3** Joints shall be push-on type with rubber gaskets conforming to AWWA C-111.
- 1.2.4** Restrained joints shall be used where indicated in the plans.
- 1.2.5** Installation shall follow manufacturers recommendations.

**2.0 Installation.** The new water main shall be installed as shown in the plans and in the Standard Specifications and as detailed below.

- 2.1** The water main shall be placed on a six-inch deep bedding of compacted 1-inch clean crushed limestone as shown in the details of the plans. Compacted shall be to 95 percent of maximum density as tested by Standard Proctor Method (ASTM D698).
- 2.2** Initial backfill (pipe zone backfill) shall be compacted 1-inch clean crushed limestone as shown in the details of the plans. Compaction shall be to 95 percent of maximum density as tested by Standard Proctor Method (ASTM D698).
- 2.3** Upper backfill in unpaved areas shall be compacted earth. Compaction shall be to 95 percent of maximum density as tested by Standard Proctor Method (ASTM D698).
- 2.4** Upper backfill in paved areas is specified in the granular fill section of these JSPs.
- 2.5** Tracer wire shall be placed on top of the pipe and taped to the top of the pipe.
- 2.6** Warning tape shall be placed 18 inches above the top of the pipe as shown in the plans.
- 2.7** Ductile iron pipe shall be encased in polyethylene sleeves.

**3.0 Separation of water Main and Sewers.**

- 3.1** Locate and identify sanitary sewers and sanitary sewer service lines (sanitary laterals).
- 3.2** Where sanitary sewers and sanitary laterals cross the water main, adjust the vertical location of the water main to be 18 inches above the sewer line.
- 3.3** If 18-inch vertical separation is not possible, lay the water main so that both joints will be as far as possible from the sanitary sewer.

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

### 4.0 Basis of Payment.

- 4.1 Water main pipe will be measured by the lineal foot of pipe. Payment for the length of water main pipe shall be by the contract unit bid price for water main. Payment shall include pipe, polyethylene encasement, tracer wire, warning tape, restrained joints, thrust blocks, and labor and equipment used for installation of water main pipe
- 4.2 Payment for bedding, initial backfill, earth backfill, granular backfill is given in the Excavation section of these JSPs.
- 4.3 Payment for fittings and fire hydrant assembly is given in other sections of these JSPs.

### N. CASING PIPE

- 1.0 Casing pipe for 8-inch carrier pipe shall be 20-inch diameter ¼ - inch thick welded steel pipe.
- 2.0 After installation of carrier pipe, the ends of the casing pipe shall be sealed with pre-formed seals of other approved material.
- 3.0 Carrier pipe in casing shall be supported by "RAC1" type spacers or approved equal placed at 6-ft intervals.

### 4.0 Basis of Payment.

- 4.1 Casing pipe will be measured by the lineal foot of casing. Payment for the length of casing pipe shall be by the contract unit bid price for casing pipe.
- 4.2 Payment shall include labor and equipment used for installation of casing pipe, installation of carrier pipe, spacers, seals, and tracer wire.

12.

### O. GATE VALVE

- 1.0 The mechanical joint gate valves and corresponding valve box shall be installed as shown in the plans and Water and Wastewater Construction Specifications (City of Troy Water Specifications attached at the end of the JSPs).

13.

### 2.0 Basis of Payment.

- 2.1 Gate valve will be measured by count.
- 2.2 Payment for gate valve shall be based on the contract unit bid price.
- 2.3 Labor and equipment used for installation are incidental and no separate payment shall be made.
- 2.4 Excavation, bedding, and backfill are paid for separately as defined in other sections of these specifications and special provisions.

### P. FIRE HYDRANT ASSEMBLY

- 1.0 The fire hydrant assembly and joints shall conform to the City of Troy Water and Wastewater Construction Specifications (City of Troy Water Specifications attached at the end of the JSPs).

JSP

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

**2.0 Basis of Payment.** Fire hydrant assembly will be measured by count. Payment for fire hydrant assembly shall be based on the contract unit bid price for fire hydrant assembly. Polyethylene encasement, painting, labor, and equipment used for installation are incidental and no separate payment shall be made. Excavation, bedding, backfill are paid for separately as defined in other sections of these specifications and special provisions.

### **Q. FITTINGS**

**1.0** Fittings shall include bend fittings, tees, and crosses. Fittings shall be installed as shown in the plans and City of Troy Water Specifications.

**2.0 Basis of Payment.** Fittings will be counted. Payment for fittings shall be based on the contract unit bid price. Polyethylene encasement, labor, and equipment used for installation are incidental and no separate payment shall be made. Excavation, restrained joints, bedding and backfill are paid for separately as defined in other sections of these specifications and special provisions.

### **R. WET TAP**

**1.0** Wet tap connections shall be installed as shown in the plans and City of Troy Water Specifications.

**2.0 Basis of Payment.** Wet tap will be measured by count. Payment for wet tap shall be based on the contract unit bid price for wet tap. Labor and equipment used for installation are incidental and no separate payment shall be made.

### **S. WATER SERVICE CONNECTION**

**1.0** Water service connection shall be installed as shown in the plans and in the City of Troy Water Specifications.

**2.0 Basis of Payment.** Service connection will be measured by count. Payment for service connection shall be based on the contract unit bid price. Labor and equipment used for installation are incidental and no separate payment shall be made.

### **T. POLYETHYLENE ENCASEMENT**

**1.0** Polyethylene encasement shall be installed on the ductile iron water main pipe and fittings.

**2.0 Basis of Payment.** Polyethylene encasement will not be measured. Polyethylene encasement is incidental to the work. No separate payment shall be made for polyethylene encasement.

### **U. TRACER WIRE**

**1.0** Tracer wire shall be installed as shown in the details in the plans. Tracer wire along fire hydrant assembly is not required.

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- 2.0 Tracer wire shall be a single solid No. 12 copper wire. Splices shall be made with splice kits made for tracer wire service.
- 3.0 Tracer wire shall be tested for continuity after backfill is completed. Contractor shall repair the tracer wire installation if continuity test fails.
- 4.0 **Basis of Payment.** Tracer wire will not be measured. Tracer wire is incidental to the Work. No separate payment shall be made for Tracer Wire.

### V. WARNING TAPE

- 1.0 Warning tape shall be installed as shown in the details.
- 2.0 Warning tape shall be at least 3 inches wide made of bonded layer plastic with a metallic foil core. The tape shall be blue in color with a caution phrase referring to water pipe below.
- 3.0 **Basis of Payment.** Warning tape will not be measured. Warning tape is incidental to the Work. No separate payment shall be made for warning tape.

### W. EXCAVATION

- 1.0 Excavation shall be made as shown in the plans and Standard Specifications.
- 2.0 Excavation pay line limits shall be as follows:
  - 2.1 Pay Length shall be the vertical projection to the surface along the water main, fittings, and fire hydrant assembly.
  - 2.2 Pay Width shall be 2 foot wider than the outside diameter of the water main pipe or casing.
  - 2.3 Pay Depth shall extend from 6 inches below the invert of the water main pipe to the *existing* surface as shown on the plans.
- 3.0 Maximum Width of Trench shall be as follows: Below the crown of the pipe or below the crown of the casing, the maximum width of the trench shall be 1 foot wider than the outside diameter of the pipe or casing.
- 4.0 **Basis of Payment.**
  - 4.1 Payment for the excavation shall be by the contract unit bid price for excavation.
  - 4.2 Excavation shall be measured by the excavation payline line limits volume.
    - 4.2.1 Pay Length shall be the vertical projection to the surface along the water main, fittings, and fire hydrant assembly.
    - 4.2.2 Pay Width shall be 1 foot wider than the outside diameter of the water main pipe or casing.
    - 4.2.3 Pay Depth shall extend from 6 inches below the invert of the water main pipe to the *existing* surface as shown on the plans.
  - 4.3 Excavation shall include trenching, crushed stone bedding, crushed stone initial backfill, earth backfill, and disposal of excess soil.



## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- 4.4 Labor and equipment, exploratory excavation to locate buried utilities and obstructions, and excavation and fill beyond the excavation pay line limits are incidental to excavation and no separate payment shall be made.
- 4.5 Exploratory excavation to locate buried utilities and obstructions are incidental to excavation and no separate payment shall be made.
- 4.6 Excavation and fill beyond the excavation pay line limits are incidental to excavation and no separate payment shall be made.
- 4.7 Removal of pavement is incidental to excavation and to mobilization and no separate payment shall be made.
- 4.8 Granular fill used for upper backfill is specified in the granular fill sections of these JSPs.

### X. GRANULAR FILL

- 1.0 **Installation** of granular fill used as upper backfill under pavement shall be as shown in the plans and Standard Specifications.
- 2.0 **Granular fill** shall be 1-inch clean crushed limestone compacted to 95 percent of maximum density as tested by Standard Proctor Method (ASTM D698).
- 3.0 **Pay limits for granular backfill above the initial backfill** shall be as follows:
  - 3.1 Length shall be the vertical projection to the surface along the water main, fittings, and fire hydrant assembly as shown in the profile in the plans.
  - 3.2 Width shall be 1 foot wider than the outside diameter of the water main pipe or casing.
  - 3.3 Depth shall extend from the initial backfill to the top of the existing pavement surface as shown on the plans.
- 4.0 **Basis of Payment.**
  - 4.1 Granular backfill above the initial backfill shall be measured by the backfill volume within the pay line limits.
  - 4.2 Payment for the granular backfill shall be by the contract unit bid price for granular backfill.
  - 4.3 Granular backfill outside of the payline limits and labor and equipment used for installation of granular backfill above the initial backfill are incidental to granular fill and no separate payment shall be made.

### Y. TESTING AND DISINFECTION

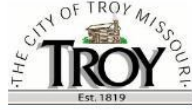
- 1.0 Testing shall be completed as shown in the City of Troy Water Specifications.
- 2.0 **Basis of Payment.** Payment for testing shall be based on the contract lump sum bid price for testing. Labor, equipment, and testing laboratories and instruments used for testing are incidental and no separate payment shall be made.

### Z. ABANDON WATER MAIN

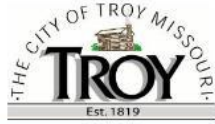
- 1.0 After realigned water main is in service, abandon in-place water main as shown in the plans and in these specifications.

## US-61 AND ROUTE 47 WATER MAIN RELOCATION

- 2.0** The ends of the water main to be abandoned shall be securely blocked and filled with flowable fill or grout.
- 3.0** **Basis of Payment.** Payment for abandonment shall be based on the contract lump sum bid price for abandon water main. Labor and equipment and flowable fill or grout are incidental and no separate payment shall be made.
- AA.** **SALVAGE**
- 1.0** After capping ends of lines and installing thrust blocks, water meters and water valves that are indicated in the plans to be removed and salvaged to the City of Troy Water Department shall be removed carefully to eliminate damage and transported to the Water Department yard as directed by the City project manager.
- 2.0** **Basis of Payment.** Salvage shall not be measured. Salvage is incidental to Abandon Water Main and no separate payment shall be made.



# **WATER & WASTEWATER CONSTRUCTION SPECIFICATIONS**



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## CONTRACTOR GUARANTEE

The Contractor shall guarantee that all work is free from any and all defects in workmanship and materials, and that all apparatus will develop the capacities and characteristics specified.

I have read the Water / Wastewater Construction Specifications of the City of Troy Missouri. I understand that if I do not follow what is required in the Water / Wastewater Specification handbook that I will be in violation of ordinance 881 B of the City of Troy Missouri and could be issued with a stop work order on the project if the deficiencies are not corrected within 24 hours.

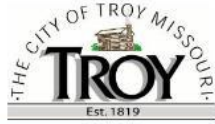
No work will take place on any project within the City Limits of Troy Missouri until the Contractor signs this agreement.

The agreement will be signed and dated at the Troy City Hall by the Water / Wastewater Contractor.

I agree to follow the Water / Wastewater Specifications Handbook of the City of Troy Missouri, Ordinance 881 B.

Contractors Signature \_\_\_\_\_

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



## **BEFORE YOU DIG**

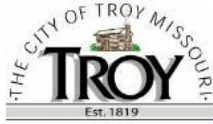
### Locations

Before you dig, or if you need locations, you will need to contact:

1. Missouri One-Call System: 1-800-344-7483
2. The City of Troy will only locate water and sewer lines that are maintained by the City of Troy.
3. Some utilities may not be participating in the Missouri One-Call system, therefore, it is the responsibility of the person wanting locates to notify any other utilities that may be in the area.

**NOTE: INSPECTIONS ARE REQUIRED ON EVERYTHING BEFORE BEING COVERED.**

**ALL INSPECTIONS FROM THE CITY REQUIRE A MINIMUM OF 24 HOURS NOTICE. CALL (636) 528-1254.**



CITY OF TROY

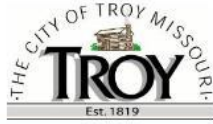
The City of Troy would like to cooperate with Contractors as much as possible, and make their time spent in Troy as pleasant as possible. We need contractors to comply with the following:

- 1. Before beginning construction, all permit fees must be paid.
- 2. Before beginning construction, water and wastewater right to connect fees must be paid.

<u>Meter Size</u>	<u>Water Right to Connect Fee</u>
3/4"	\$300.00
1"	\$544.00
1 1/2"	\$864.00
2"	\$1024.00
3"	\$3004.00
4"	\$3784.00
6"	\$6104.00

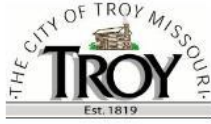
Sewer Right to Connect Fee \$4000.00

- 3. If it becomes necessary to block traffic on the streets, it will be the contractors responsibility to notify the Police Department, Fire Department, Ambulance District, Troy R-III School District, Troy City Maintenance Department, and any one else as directed by the City.
- 4. All materials shall be supplied by the contractor except meters which shall be supplied by the City of Troy.
- 5. If digging up a street, it must be replaced to its original condition or better by the contractor



## **RESPONSIBILITIES OF THE INSPECTOR WHEN PERFORMING RIGHT TO CONNECT WATER AND SEWER TAPS**

1. TO THE CITY OF TROY:
  - A. Ensures work meets all specifications outlined in this specification book.
  - B. Ensures collection of all fees before work begins.
  
2. TO THE CONTRACTOR:
  - A. Is familiar with the plans and specifications
  - B. Reviews all phases of construction
  - C. Acts as the City of Troy's liason with the project
  - D. Compares work performed to the requirements of the plans and specifications
  - E. Reports unsatisfactory or questionable workmanship, materials or methods
  - F. Does not accept unsatisfactory work
  - G. Does not ask for more than what is required by the plans and specifications



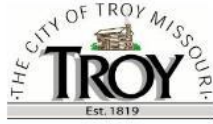
## INSTALLATION OF WATER MAINS

**NOTE: INSPECTIONS ARE REQUIRED ON EVERYTHING BEFORE BEING COVERED.**

### ALWAYS KEEP THE WATER MAINS ON EASEMENT

1. Water mains shall be located 5 feet behind the curb unless otherwise approved, as not to interfere with other utility locations.
2. All water mains shall be 6 inches in diameter, or larger. The pipe shall have a minimum pressure rating (PR) of 200 psi. All water mains of PVC materials shall be certified by NSF and listed in NSF standard 61.
3. All water mains shall be buried at a depth to allow a minimum cover of 42" and maximum of 72". If fill is placed over existing water main, the water main shall be adjusted to appropriate grade if water main coverage exceeds 72".
4. Rocky soils shall require bedding 6" under and 6" over water pipe.
5. Fire hydrants must be Mueller Steamer Centurion-8423, American Darling-B84B, Clow Medallion Hydrant or Kennedy Guardian K81D and painted YELLOW in color. All valves must be a Mueller-A-236, American Darling, Clow or Kennedy mechanical joint resilient wedge gate valve with stainless steel bolts, compliant with AWWA C502.
6. A fire hydrant is required at the end of all dead-end waterlines, including those that may be extended at a later date.
7. All fire hydrants are to have valves flanged to the tee or swivel anchored and hydrant shall be swivel anchored to the valve. Clean 1 inch rock shall be used to backfill above the weep holds of the fire hydrant.
8. The contractor shall place all fire hydrants between 1-1/2-3 feet from the street curb (measured from the edge of the fire hydrant). The bury line shall be set 6 inches higher in elevation than top of curb.
9. The contractor shall place the "steamer" outlet of the fire hydrant toward the street.
10. Fire Hydrant distances: 600 feet Residential, 300 feet Commercial (Measurement would be parallel with the street. all cul-de-sacs shall have a Fire Hydrant.)





**ORDINANCE 881B**

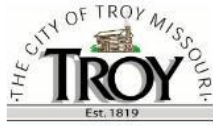
11. All water lines are to be installed in a straight line (no bends or sags in individual pipes). A 5% deflection in joints is allowed. Bends in cul-de-sacs are to be made with 22-1/2 elbows unless other fittings are approved.
12. These water bends (45, 22-1/2, 11-1/4) and Tees, 4-ways, etc are to be made with mechanical joint fittings with mega lugs and concrete blocking. Ninety (90) degree bends are not allowed. The mechanical joint shall be wrapped in plastic prior to placement of concrete. Concrete is not to be on nuts and bolts.
13. Minimum concrete bearing area shall be as follows:

Pipe Size	Tees	45°Bends	22.25°Bends	11.25°Bends
6"	2	1	1	1
8"	3	2	1	1
10"	4	3	2	2
12"	5	4	2	2
14"	7	6	3	3
16"	9	7	4	4
18"	12	9	5	5
20"	15	11	6	6
24"	21	16	8	8

Based on the City’s Representative’s observations and approval, the preceding bearing areas can be adjusted for other soil conditions.

Cemented Sand or Hardpan	Multiply above 0.5
Gravel	Multiply above 0.7
Hard Dry Clay	Multiply above 0.7
Soft Clay	Multiply above 2.0

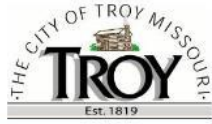
14. Concrete encasement required to DNR Specification when crossing storm and sanitary sewers when not meeting the following separations.
  - When the sanitary sewer crosses a water main or the water main crosses the sanitary sewer it shall have a clearance of 18 inches vertical
  - When the sanitary sewer and water main run side by side they shall have a clearance of 10 feet of horizontal separation between the two lines. (They cannot be ran in the same ditch unless they are separated 10 feet)
  - When the storm sewer crosses the water main or when the water main crosses the storm sewer it shall have a clearance of 12 inches vertical.
  - When the storm sewer and water main run side by side they shall have a clearance of 3 feet of horizontal separation between the two lines. (Cannot be run in the same ditch unless they are separated 3 feet)



## ORDINANCE 881B

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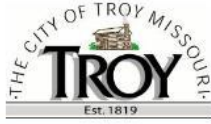
15. Must attach coated, copper-clad steel, 12-gauge tracer wire, taped to the top of the pipe every 10 feet. All wire must run up the outside of the valve box and is to be folded over the top of the valve box under the lid. Wire shall not be run inside of valve box.
16. Must use a DryConn Direct Bury Lug for all splicing of tracing wire.
17. When backfilling, no debris larger than 6" in diameter will be allowed.
18. All creek crossings will require ductile iron pipe. If less than 3 feet of cover, concrete encasement with riprap is required.
19. All open mains shall be properly capped when the main is unattended for more than four (4) hours. Duct tape the end closed so that is visually seen.
20. Valve distance: Not more than 1 block or 800 feet Residential, Not more than 500 feet Commercial. Two valves are required at all tees. Three valves are required at all four-ways.
21. All bore casings, except service lines, shall have casing spacers every 10 feet.
22. All water sprinkler and fire suppression systems must have an approved backflow prevention device. Devices will be initially tested and test results faxed or mailed to city hall.
23. Any changes have to be resubmitted to the City's engineer for approval. (All changes must be put on the as-built plans.)
24. Easements shall be provided for water mains, and all utilities on the record plat.
25. As-built drawings must be sent to the City of Troy before the project can be considered final. (Mains, valves, fire hydrants, tees and bends)
26. In addition to these specifications, all work will conform to current AWWA standards.



## WATER MAIN TESTING

1. All testing shall be performed by the contractor and observed by a City of Troy representative.
2. Final pressure test: The water main must be pumped up to 150 PSI, and maintain this pressure for one hour without any drop in pressure. The water department may require a higher pressure test if deemed necessary, the water superintendent will observe this test.
3. A chlorine test is required. It must initially test at 25 PPM, or greater, and twenty-four (24) hours later 10 PPM must be present. The water department must test it, and have 24-hour notice prior to that inspection. The main will be tested for CL2 every 1,200 feet of pipe.
4. Bac-T test will be performed by the contractor according to AWWA standards

**To schedule testing call City of Troy at 636-528-1254.**

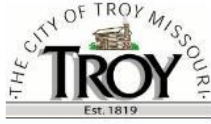


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## WATER TAPS, SERVICE LINES, METERS

1. All meters must be placed between the water main and dwelling.
2. Meter Pits are to be set 14 feet from the curb and set to correct finish grade level.
3. The meter well lid shall be set to finish grade.
4. The water service line shall be a minimum of 30" deep.
5. 1" service line may feed two residential lots with single meter pit placed on the property line between the two lots.
6. Taps are to be made at the 10:00 or 2:00 o'clock position on the water main. (NO BACKLOOPS). Taps shall not be located closer than (1) one foot from each other and shall be staggered on the main.
7. Type "K" copper line or CTS plastic line (with stiffener inserts) is to be installed from the tap to the meter setter up to (1) one inch. Lines over (1) one inch may be class 200 PVC.
8. A coated, copper-clad steel, 12-gauge tracer wire shall be run with service line from the main to the top of the yoke inside of the meter pit. Drycon splices will be supplied for splicing service wire to main wire.
9. All service lines under the streets are to have a 2" PVC SCH-40 casings installed. This shall also apply if electrical transformers are placed on top of a water line. In this case, the 2" SCH-40 casing shall be placed under the street and under the transformer ending 10 feet on the other side of the transformer, at a minimum of 30" depth. Larger casings may be required depending on service size requested or required. Only one service line per casing will be allowed.
10. Water is to be turned off and on by City of Troy Water Department only. Sale day service is provided between 7:00 a.m. and 3:00 p.m. Call the City of Troy Water Department at (636) 528-4712.
11. Any damages incurred to the water metering system including but not limited to ring, lid, yoke, meter, valve, valve box, and locate wire, is the builders responsibility until the final occupancy is issued.

**Call the City of Troy (636) 528-1254 to order meters and supplies. You must give a minimum of 24 hours notice for supplies to be issued.**



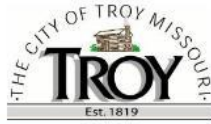
## SEWER MAIN INSTALLATION

**SANITARY SEWERS SHALL NOT BE CONNECTED TO A LIVE SEWER LINE UNTIL AFTER THE SEWER SYSTEM HAS BEEN INSPECTED AND APPROVED BY THE CITY OF TROY**

**NOTE: INSPECTIONS ARE REQUIRED ON EVERYTHING BEFORE BEING COVERED.**

### **ALWAYS KEEP THE SEWER MAIN ON EASEMENT**

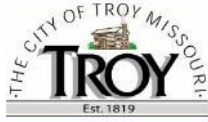
1. Sewer mains are to be at least 8" PVC SDR35 pipe, with integral bell gasket joints, laid at design grade in prepared granular bedding.
2. Granular bedding shall be 1" clean rock. Bedding shall extend from 3" below the pipe to 6" over. Tamp bedding into area below haunch to assure support.
3. All sewer mains 20 feet or more in depth are to be C900 PVC
4. Brick shall not be used on sanitary manholes.
5. All sanitary sewer manholes shall be waterproofed with waterproofed on the exterior in accordance with the Missouri D.N.R. specification 10CSR-8, 120(7)(E).
6. All manhole joints must be sealed with two layers of sealant tape on every joint and ring.
7. All steps inside the manhole must be placed in line and the last step not to be more than 2 feet from the top of the manhole. Step spacing shall not exceed 16".
8. Standard frame and lid shall be Neenah LiftMate frame, solid gasketed lid or equal.
9. All pipes shall have positive drainage through manholes. No flat base structures are allowed. All terminal manholes shall have positive drainage.



## ORDINANCE 881B

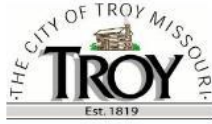
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10. All terminal lines shall have a manhole. No lamp-holes or clean-outs are allowed at the end of a terminal line.
11. All trench backfill under paved areas shall be 1" minus rock backfill and all trench backfills may be earth materials (free of large clods or stones, nothing over a 6" diameter).
12. All sewer main taps will have a saddle or tee; no laterals will be connected directly into the sewer main without a saddle or tee.
13. All sewer laterals must be a minimum of 4" schedule SDR 35 pipe.
14. A clean-out is to be placed within 3' of the structure and every 100' thereafter.
15. A coated, copper-clad steel, 12-gauge tracer wire shall be run with all sewer laterals and brought up and taped to the cleanout.
16. Sewer lines crossing creeks and streams should be ductile iron encased in concrete if there is less than 3 foot of covering.
17. All creek crossing over / under or through creeks and streams shall be ductile iron pipe.
18. Ductile iron pipe laid on piers shall be strapped down by a minimum ½" by 2" straps so that bells are not in center of the creek.
19. Sewer service drop into a manhole is allowed. The drop must be installed per Missouri DNR specifications.
20. Each single family detached residential unit must have it's own separate sewer lateral connection to the sewer main.
21. Any changes have to be resubmitted to the City's engineer for approval. (All changes must be put on the as-built plans.)
22. Easements shall be provided for storm sewers, sanitary sewers and all utilities on the record plat
23. As-built drawings must be sent to the City before the project can be turned in as completed.
24. Any damages to City of Troy infrastructure shall be repaired by the contractor.



## SANITARY FORCE MAINS

1. Sanitary Force Mains – The pipes shall be PVC 1120, SDR21, Class 200. Four-inch diameter pipe is the minimum allowed unless pump design requires otherwise.
2. All sanitary force mains shall be marked by placing warning tape marked with sewer attached to top of force main.
3. Must attach a coated, copper-clad steel, 12-gauge tracer wire, taped to the top of the pipe. All wire must run up inside the valve box.
4. Use a DryConn Direct Bury Lug splice kit for all splicing of tracer wire.
5. Tracer wire must be available for location every 500 feet. The connecting box will be a valve box with a sewer top hat lid .
6. All creek crossings with less than 3 feet of cover require concrete encasement of the main.
7. All sewer lines crossing over / under or through creeks and streams shall be ductile iron pipe.
8. Ductile iron pipe laid on piers shall be strapped down by a minimum ½” by 2” straps.
9. Ductile iron pipe shall be laid so that bells are not in center of creek.
10. All open mains shall be properly capped when the main is unattended for more than 4 hours. Duct tape the end closed so it is visually seen.
11. All bore casing, except service lines, shall have casing spacer every 10 feet.
12. All gate valves must be Mueller, Clow, Kennedy or American Darling mechanical joint resilient wedge gate valves in accordance with AWWA C502.
13. All sanitary force mains are to be installed in a straight line (no bends in individual pipes). A 5% deflection in joints is allowed.
14. Ninety-degree elbows are not allowed, and mega lugs are required on all mechanical joint fittings.

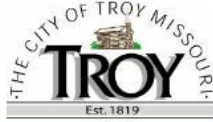


## ORDINANCE 881B

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15. Rocky soils shall require bedding 6” under and 6” over sanitary pipe.
16. Easement shall be provided for sanitary force mains, and all utilities on the record plat.
17. As built drawings must be sent to the City of Troy before the project can be considered final.
18. The Building department shall be notified at least 24 hours prior to construction of sanitary force mains for coordination and inspections
19. Any changes have to be resubmitted to the City’s engineer for approval. (All changes must be put on the as-built plans.
20. Final Pressure Test: The sanitary force main must be pumped up to 50 PSI over the normal operating pressure and maintain this pressure for one hour without any drop in pressure. The sewer department may require a higher pressure test if deemed necessary.
21. Testing will be observed by the City of Troy. 24 hour notice is required. To contact the City of Troy, call 636-528-1254.





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## CITY OF TROY STANDARD TESTING REQUIREMENTS FOR SANITARY SEWERS AND MANHOLES

**SANITARY SEWERS SHALL NOT BE CONNECTED TO A  
LIVE SEWER LINE UNTIL AFTER THE SEWER SYSTEM  
HAS BEEN INSPECTED AND APPROVED BY THE CITY OF  
TROY IN ACCORDANCE WITH THE BELOW PROVISIONS.**

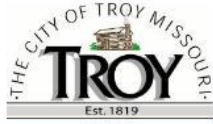
After the sewer system has been completed, it shall be the responsibility of the contractor to flush the entire system, the manholes shall be to grade. Manholes and sewer mains shall be required to complete the following inspections / testing.

1. Deflection Testing: The building department shall be present during testing.
2. Low-Pressure Air Testing: The building department shall be present during testing.
3. Vacuum Testing: The building department shall be present during testing.
4. Video Inspection: The sewer department shall be present during testing.

It shall be the responsibility of the contractor installing the sewer system to provide all equipment and material necessary to complete the required testing and conduct the testing in accordance with the manufacturer's recommendations and all required safety standards. No sewer system will be approved or accepted and no escrow shall be authorized to be released that has not passed 100 % testing as required herein.

It shall be the responsibility of the City of Troy to provide the Video equipment to perform the video inspection.

Alternate testing methods may be utilized provided such testing is approved in advance by the City of Troy and meet the minimum standard adopted by the Missouri Department of Natural Resources. As a minimum, all testing shall conform to the following:



## ORDINANCE 881B

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1. Deflection Testing:

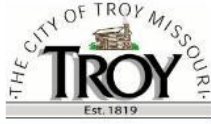
100% of the total projects footage will be mandrel tested. This test must be completed not less than thirty (30) days after final backfill. Testing shall be completed by using a rigid ball or mandrels with diameters equal to ninety-five (95%) of the inside diameter of the pipe. Test shall be performed without mechanical pulling devices. No pipes shall exceed a deflection of five (5%) percent. The contractor shall perform a deflection test with the building department present.

2. Low-Pressure Air Testing:

100% of the total project footage will be air tested. All testing must be completed in accordance with ASTM 1417. After completion of the system but prior to the connection of residential units, low-pressure testing shall be performed on sewer lines and laterals. Isolate the section of sewer line to be tested. All branches, laterals, tees and wyes must be plugged and braced adequately to withstand the test pressure. Air pressure must be introduced into the system to achieve four (4) PSI and then stabilized to a minimum of three and one-half (3-1/2) PSI in excess of the ground water pressure above the top of the sewer for at least two (2) minutes and then the air supply disconnected. The time-pressure drop method shall be used and shall conform to the following: Minimum times to drop from 3.5 PSI to 2.5 PSI are shown on the table marked "Appendix A." The contractor shall perform the Low-Pressure Air Testing with the building department present.

3. Vacuum Testing:

100% of the total manholes will be vacuumed tested. All testing must be completed in accordance with ASTM C-1244. After completion of the system but prior to the connection of residential units, a vacuum test shall be performed on manholes. Sewer lines and lateral lines within the manhole must be plugged during testing. A vacuum of ten (10") inches of mercury shall be drawn on the manholes, the valve on the vacuum line test head shall be measured for the vacuum drop to 9 inches of mercury. Test passes if vacuum remains at 10 inches (10") of HG or not less than 9 inches (9") of HG in one (1) minutes. The contractor shall perform the Vacuum Testing with the building department present.



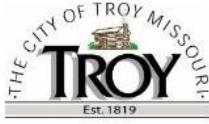
## ORDINANCE 881B

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4. Video Inspection:  
100% Video inspection of all manholes and sewer mains. All entry points shall be easily accessible for inspection. The sewer department will perform the video inspection.
5. Failure of Deflection / Low-pressure air / Vacuum and Video Tests: All failed areas will need to be repaired and retested with each failure.
6. The third time the City of Troy has to perform a test the contractor will reimburse the City of Troy per the inspector hourly wage. This will be paid before the City of Troy will allow the system to be connected to the city's system.

**NOTE:**

**SANITARY SEWERS SHALL NOT BE CONNECTED TO A LIVE SEWER LINE UNTIL AFTER THE SEWER SYSTEM HAS BEEN INSPECTED AND APPROVED BY THE CITY OF TROY IN ACCORDANCE WITH THE ABOVE PROVISIONS.**



ORDINANCE 881B

**ALL SEWER AND WATER MAINS SHALL HAVE A ONE (1) YEAR WARRANTY FROM THE DATE THE CITY OF TROY ACCEPTS THEM. WARRANTY WILL BEGIN UPON DEDICATION.**

The following is a letter requesting the city to accept the dedication of water mains, sewer mains, and any fire hydrant(s) that have been installed at the site:

**SAMPLE LETTER**

Date

City of Troy  
200 Main Street  
Troy, MO 63379

I, \_\_\_\_\_, upon completion and inspection of the installation of the water mains, sewer mains, lift station, appurtenances, and fire hydrants, wish to have the City of Troy accept dedication. The one (1) year warranty will start from the date of dedication acceptance from the Board of Aldermen.

Date of acceptance of dedication \_\_\_\_\_

Warranty period \_\_\_\_\_ to \_\_\_\_\_

Location: \_\_\_\_\_

Owner: \_\_\_\_\_

-----  
**FINISH GRADE AGREEMENT**

I, the undersigned, due to the fact that the finish grades have not been established at \_\_\_\_\_ Subdivision, will take full responsibility to adjust meter wells, manholes, fire hydrants, valve boxes, and water mains to the proper elevations at the times these grades are established.

Signature: \_\_\_\_\_ Dated: \_\_\_\_\_

Company: \_\_\_\_\_

# Missouri

## Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

# Annual Wage Order No. 30

Section 057  
**LINCOLN COUNTY**

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by  
Todd Smith, Director  
Division of Labor Standards

Filed With Secretary of State: \_\_\_\_\_ **March 10, 2023**

Last Date Objections May Be Filed: **April 10, 2023**

Prepared by Missouri Department of Labor and Industrial Relations

Building Construction Rates for  
LINCOLN County

Section 057

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	\$27.38*
Boilermaker	\$27.38*
Bricklayer	\$62.95
Carpenter	\$63.60
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	\$27.38*
Plasterer	
Communications Technician	\$27.38*
Electrician (Inside Wireman)	\$72.78
Electrician Outside Lineman	\$27.38*
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	\$27.38*
Glazier	\$27.38*
Ironworker	\$67.84
Laborer	\$52.30
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	\$27.38*
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	\$67.23
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	\$50.30
Plumber	\$74.70
Pipe Fitter	
Roofer	\$55.77
Sheet Metal Worker	\$72.09
Sprinkler Fitter	\$27.38*
Truck Driver	\$27.38*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

\*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

\*\*The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in RSMO Section 290.210.

Heavy Construction Rates for  
LINCOLN County

Section 057

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	\$27.38*
Millwright	
Pile Driver	
Electrician (Outside Lineman)	\$27.38*
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$54.14
General Laborer	
Skilled Laborer	
Operating Engineer	\$66.99
Group I	
Group II	
Group III	
Group IV	
Truck Driver	\$27.38*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

\*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

\*\*The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

# OVERTIME and HOLIDAYS

## OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, **"overtime work"** shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

## HOLIDAYS

January first;  
The last Monday in May;  
July fourth;  
The first Monday in September;  
November eleventh;  
The fourth Thursday in November; and  
December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.