



**WATER AND SEWER**  
Engineering Design

**DATE:**  
JULY 17, 2025

**TO:**  
Plan Holders  
Contractors

**FROM:**  
Jenna Richardson  
918-596-9637  
[jennarichardson@cityoftulsa.org](mailto:jennarichardson@cityoftulsa.org)

# EMAIL TRANSMITTAL

ADDENDUM NO. 2

**PROJECT NO. TMUA-W 21-02 TO #1**  
**21ST STREET WATER LINE REPLACEMENT**

Number of pages: **11**

All addenda to the contract documents should be denoted on the  
last page of the Proposal in the space provided.

Thank you,  
Contract Administration



**WATER AND SEWER**  
Engineering Design

**DATE:**  
July 17, 2025

**ADDENDUM NO. 2  
TO  
PROJECT NO. TMUA-W 21-02 TO #1  
21ST STREET WATER LINE REPLACEMENT**

This Addendum No. 2 consisting of four (4) items, submitted by Freese and Nichols, is hereby made a part of the Contract Documents to the same extent as though it were originally included therein and shall supersede anything contained in the Plans and Specifications with which it might conflict. **All addenda to the contract documents should be denoted on the last page of the Proposal in the space provided.**

This Addendum No. 2 consists of the following:

1. The attached documents list the detailed items that have been modified in Addendum No. 2. These documents shall be inclusive and apply to this project.

**All other provisions of the Plans and Specifications shall remain in full force and effect.**

**CITY OF TULSA**

A blue ink signature of Eric Lee, consisting of a stylized, cursive "E" followed by a signature that appears to be "Lee".

Eric Lee  
Director

*HAS* *MW*  
*for* *CW* *JR*  
HAS/TGP/CW/JR

July 17, 2025

**ADDENDUM NO. 2**

**TULSA METROPOLITAN UTILITY AUTHORITY  
WATERLINE REPLACEMENT CITY WIDE  
PROJECT NO. TMUA 21-02 TO 1**

This Addendum No. 2 consisting of four (4) items, is hereby made a part of the Contract documents to the same extent as though it were originally included therein, and shall supersede anything contained in the Plans and Specifications with which it might conflict. **This addendum shall be attached to the Index Sheet of the Contract Documents and submitted with the bid.**

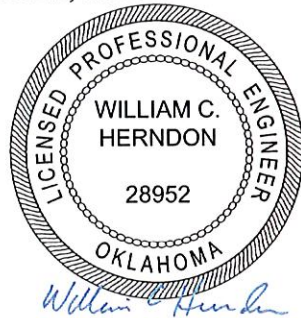
This Addendum No. 2 consists of the following:

1. Bid Proposal Form - Delete the existing Proposal in its entirety and replace with revised Proposal. The revised Proposal can be found at:  
<https://www.cityoftulsa.org/government/departments/public-works/engineering-services/construction-bids/> for Project Number - TMUA-W 21-02, TO #1 - 21st Street Waterline Replacement. It is the Bidder's responsibility to download the revised Proposal for submittal. Revisions are summarized below:
  - a. Added Line Items:
    - i. Line Item 009 – 6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)
    - ii. Line Item 013 – 8 INCH DILE IRON 45 DEGREE BEND (RJ)
    - iii. Line Item 018 – 16 INCH X 16 INCH DUCTILE IRON TEE (RJ)
  - b. Unit and quantity change on Line Item 044 – TRAFFIC CONTROL
2. Drawings
  - a. Sheet 2, Summary of Quantities
    - i. Line Item 009 – 6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)
    - ii. Line Item 013 – 8 INCH DILE IRON 45 DEGREE BEND (RJ)
    - iii. Line Item 018 – 16 INCH X 16 INCH DUCTILE IRON TEE (RJ)
    - iv. Line Item 044 – TRAFFIC CONTROL
    - v. Line Item 059 – ABANDON WATERLINE 6-INCH
    - vi. Line Item 060 – ABANDON WATERLINE 8-INCH
    - vii. Line Item 061 – ABANDON WATERLINE 16-INCH
  - b. Sheet 3, Water Pay Item Notes
    - i. Added pay item note 37; which is further described in below addendum item 3.
3. Pay Item – Pavement Removal and Replacement for Water, Sanitary, and Stormwater Main Installations

- a. This pay item supersedes City of Tulsa Standard Specification Section 329.6, with respect to saw cutting and dowels, and includes the following (these items shall not be paid separately):
    - i. Saw cutting
    - ii. Dowels
    - iii. Disposal of broken pavement
    - iv. Temporary surfaces
    - v. Associated excavation
    - vi. Preparation of subgrade
    - vii. Forms or reinforcing
    - viii. Removal or replacement of gravel
    - ix. Additional saw cutting or replacement of pavement damaged by the Contractor
    - x. Joint sealer, tack coats, or edge sealing
  - b. This pay item does not include the following which shall be paid separately in accordance with City Standard Specifications, Details, and Drawings:
    - i. Curb and Gutter
4. Contractor Q&A Log

All other provisions of the Plans and Specifications shall remain in full force and effect.

FREESE AND NICHOLS, INC.



William C. Herndon, P.E.  
Project Manager

07/17/2025



**ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET**  
**21st WATER LINE REPLACEMENT**  
**TMUA-W\_21-02 TO#1**

**Please read the following instructions carefully.**

1. After opening this file re-save it as your company's name.
2. Open the BID FORM Sheet from the tabs below.
3. Input the unit price of the appropriate pay item in the Data Input cells.
4. Review all data input and check calculations to ensure accuracy of Bid.
5. Print 1 hardcopy of the "PROPOSAL" tab, BID FORM and the "SIGNATURE PAGE" tab.
6. Complete and sign the "Signature Page" document.
7. Submit hardcopy and electronic disk with Contract Documents and Specifications for Bid opening date.

**LEGEND**

- \$ 1.00 Cells Requiring Data Input.
- \$ 1.00 Internal Data Transfer.
- \$ 2.00 Calculated Results.

**AGREEMENT FOR USING ELECTRONIC BID PROPOSAL**

By and Between: Freese and Nichols, Inc., (ENGINEER) and RECIPIENT. The enclosed electronic media is provided pursuant to your request and is for your limited use in connection with your submittal of Bid Proposal for **Project No. TMUA-W 21-02 TO#1**. In no event shall the information be used for any other purpose or be released to third parties without the written consent of the ENGINEER. In the event of a discrepancy between the hard copy and this electronic media at delivery or in the future, the hard copy shall govern. ENGINEER hereby disclaims any and all liability for the consequences from use of the electronic media and makes no warranty or guarantee of accuracy. RECIPIENT shall assume full responsibility for the uses and consequences of the electronic media. It is agreed that ENGINEER has and retains ownership of the electronic media. ENGINEER does not warrant or guarantee that the electronic data is compatible with RECIPIENT'S computer hardware or software, and ENGINEER'S responsibility for the electronic media is limited to replacement of defective media for a period of thirty (30) days after delivery to RECIPIENT. By opening and using this FILE, You AGREE to these TERMS AND CONDITIONS.

**PROPOSAL  
21st WATER LINE REPLACEMENT  
TMUA-W\_21-02 TO#1**

TO: TULSA METROPOLITAN UTILITY AUTHORITY  
CITY OF TULSA, OKLAHOMA

THE UNDERSIGNED BIDDER, having carefully examined the drawings, specifications, and other Contract Documents of the above project presently on file in the City Clerk, City of Tulsa Oklahoma:

CERTIFIES THAT he has inspected the site of the proposed work and has full knowledge of the extent and character of the work involved, construction difficulties that may be encountered, and materials necessary for construction, class and type of excavation, and all other factors affecting or which may be affected by the specified work; and

CERTIFIES THAT he has not entered into collusion with any other bidder or prospective bidder relative to the project and/or bid: and

HEREBY PROPOSES: to enter into a contract to provide all necessary labor, materials, equipment and tools to completely construct and finish all the work required by the Contract Documents hereto attached and other documents referred to therein: to complete said work within 210 calendar days after the work order is issued; and to accept in full payment therefore the amount set forth below for all work actually performed as computed by the Engineer as set forth in the Contract.

**Basis of Award**

THE BID PROPOSAL INCLUDES A BASE BID WITH NO ALTERNATES. IT SHOULD BE NOTED THAT THE LOWEST RESPONSIBLE TOTAL BID SHALL BE DETERMINED BY THE BASE BID. ANY PROPOSAL SUBMITTED WITH ANY INCOMPLETE PAY ITEMS SHALL BE CONSIDERED NON-RESPONSIVE.

**Note:** - Item numbers omitted are not a part of the Contract.

**PROPOSAL  
21ST WATER LINE REPLACEMENT  
TMUA-W\_21-02 TO#1**

BID ITEM	SPEC NO.	DESCRIPTION	UNIT	QTY	DATA INPUT UNIT PRICE	TOTAL EACH ITEM
<b>BASE BID:</b>						
001	COT 301	RIGHT-OF-WAY CLEARING AND RESTORING, COMPLETE IN PLACE	SY	3550		\$ -
002	COT 302	EXCAVATION AND BACKFILL, UNCLASSIFIED	CY	3450		\$ -
003	COT 303	MOBILIZATION	EA	1		\$ -
004	COT 304	CONSTRUCTION STAKING	EA	1		\$ -
005	COT 334	CONSTRUCTION AS-BUILTS	EA	1		\$ -
006	COT 307	6 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	LF	300		\$ -
007	COT 307	8 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	LF	10		\$ -
008	COT 307	16 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	LF	3240		\$ -
009	COT 312	6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)	EA	2		\$ -
010	COT 312	16 INCH DUCTILE IRON 11-1/4 DEGREE BEND (RJ)	EA	1		\$ -
011	COT 312	16 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)	EA	2		\$ -
012	COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)	EA	22		\$ -
013	COT 312	8 INCH DUCTILE IRON 45 DEGREE BEND (RJ)	EA	2		\$ -
014	COT 312	16 INCH DUCTILE IRON 45 DEGREE BEND (RJ)	EA	12		\$ -
015	COT 312	6 INCH X 6 INCH DUCTILE IRON TEE (RJ)	EA	2		\$ -
016	COT 312	16 INCH X 6 INCH DUCTILE IRON TEE (RJ)	EA	13		\$ -
017	COT 312	16 INCH X 8 INCH DUCTILE IRON TEE (RJ)	EA	1		\$ -
018	COT 312	16 INCH X 16 INCH DUCTILE IRON TEE (RJ)	EA	1		\$ -
019	COT 312	6 INCH DUCTILE IRON SLEEVE (RJ)	EA	12		\$ -
020	COT 312	8 INCH DUCTILE IRON SLEEVE (RJ)	EA	1		\$ -
021	COT 312	16 INCH DUCTILE IRON SLEEVE (RJ)	EA	3		\$ -
022	COT 312	6 INCH DUCTILE IRON PLUG (RJ)	EA	11		\$ -
023	COT 312	8 INCH DUCTILE IRON PLUG (RJ)	EA	2		\$ -
024	COT 312	16 INCH DUCTILE IRON PLUG (RJ)	EA	3		\$ -
025	COT 315	PRIVATE SERVICE CONNECTION BY LICENSED BONDED PLUMBER	EA	33		\$ -
026	COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)	EA	13		\$ -
027	COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)	EA	15		\$ -
028	COT 315	3/4 INCH WATER METER CAN, LID & RIM	EA	28		\$ -
029	COT 315	1 INCH WATER SERVICE CONNECTION (LONG)	EA	3		\$ -
030	COT 315	1 INCH WATER METER CAN, LID & RIM	EA	3		\$ -
031	COT 315	1-1/2 INCH WATER SERVICE CONNECTION (LONG)	EA	1		\$ -
032	COT 315	1-1/2 INCH WATER SERVICE CONNECTION (SHORT)	EA	1		\$ -
033	COT 315	1-1/2 INCH WATER METER CAN, LID & RIM	EA	1		\$ -
034	COT 315	2 INCH WATER SERVICE CONNECTION (SHORT)	EA	1		\$ -
035	COT 315	2 INCH WATER METER CAN, LID & RIM	EA	1		\$ -
036	COT 317	6 INCH GATE VALVE (RJ)	EA	15		\$ -
037	COT 317	8 INCH GATE VALVE (RJ)	EA	1		\$ -
038	COT 317	16 INCH GATE VALVE (RJ)	EA	8		\$ -
039	COT 317	4 INCH AIR RELIEF VALVE ASSEMBLY	EA	2		\$ -
040	COT 317	3-WAY FIRE HYDRANT, IN PLACE	EA	4		\$ -
041	COT 318	VALVE BOX	EA	24		\$ -
042	COT 325	SODDING AND SEEDING	SY	100		\$ -
043	COT 326	STREET WASH DOWN	LF	3240		\$ -
044	COT 327	TRAFFIC CONTROL (PER MUTCD)	CD	180		\$ -
045	COT 328	16 INCH BORE (W/OUT CASING)	LF	335		\$ -
046	COT 329	PAVEMENT, REMOVAL AND REPLACEMENT (ASPHALT)	SY	4170		\$ -
047	COT 329	PAVEMENT, REMOVAL AND REPLACEMENT (CONCRETE)	SY	290		\$ -
048	COT 329	PAVEMENT, REMOVAL AND REPLACEMENT (CURB & GUTTER)	LF	180		\$ -
049	COT 329	PAVEMENT, REMOVAL AND REPLACEMENT (CONCRETE SIDEWALK)	SY	90		\$ -
050	COT 329	SAWCUT	LF	8250		\$ -
051	COT 330	EROSION CONTROL MEASURES	SY	10780		\$ -
052	COT 335	CONTRACTOR QUALITY CONTROL	LSUM	1		\$ -
053	COT 857(C)	REMOVABLE 4" PAVEMENT MARKING TAPE	LF	3500		\$ -
054	SPECIAL	PROJECT SIGN (CITY OF TULSA)	EA	1		\$ -
055	SPECIAL	OWNER ALLOWANCE	ALLOW	1	\$50,000.00	\$ 50,000.00
056	SPECIAL	WATER LOCATOR BALLS	EA	135		\$ -
057	NOT USED					
058	SPECIAL	TEMPORARY PIPING AND APPURTENANCES	LF	4000		\$ -
059	COT 333	ABANDON WATERLINES 6-INCH	LF	300		\$ -
060	COT 333	ABANDON WATERLINES 8-INCH	LF	10		\$ -
061	COT 333	ABANDON WATERLINES 16-INCH	LF	3240		\$ -
<b>TOTAL BASE BID</b>						<b>\$ 50,000.00</b>

BASE BID (ITEMS 001 thru 061)

\$ 50,000.00

Enclosed is a ( ) Bidder's Surety Bond, ( ) Certified Check, ( ) Cashier's Check for

Words Dollars (\$ Figures)

which the City of Tulsa may retain or recover as liquidated damages in the event that the undersigned fails to enter into contract for the work covered by this proposal, provided the Contract is awarded to the undersigned within thirty (30) days from the date fixed for opening of bids and the undersigned fails to execute said Contract and furnish the required bonds and other requirements as called for in these Contract Documents within thirty (30) days after award of Contract.

Dated at Tulsa, Oklahoma, this day of , 20.

Respectfully submitted,

(Complete legal name of company)

(State of Organization)

By:

ATTEST:

Title:

Title: Corporate Secretary

Printed Name:

Printed Name:

(SEAL)

Address:

Telephone Number:

Fax Number:

By signing above the bidder acknowledges receipt of the following Addenda (give number and date of each):



**CONTRACTOR'S USE  
21ST WATER LINE REPLACEMENT  
TMUA-W\_21-02 TO#1**

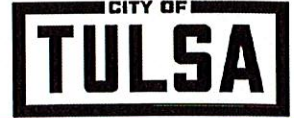
BID ITEM	SPEC NO.	DESCRIPTION	UNIT	QTY	DATA INPUT UNIT PRICE	TOTAL EACH ITEM
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012	COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)	EA	22		\$ -
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<b>TOTAL BASE BID</b>						<b>\$ 50,000.00</b>



Innovative approaches  
Practical results  
Outstanding service

## Contractor Q&A Log

Project Name	TMUA 21-02 TO#1 21st Water Line
Project Code	TUL22470
Date	Wednesday, July 16, 2025



Date Received	Company Name	Question	Response
6/26/2025	Crossland Heavy Contractors	Can you please provide the geotechnical report for the above referenced project?	FNI provided geotechnical report for 21st Water Line project on 6-27-2025
6/30/2025	Crossland Heavy Contractors	It has been brought to our attention that there is currently no pay item to cover "6 inch ductile iron 22-1/2 Degree Bend." Can these items be added to the bid form?	Request accepted. FNI provided Bid Item number 009 "6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)" and revision to Drawings Sheet 2 "Summary of Quantities" within Addendum No. 1 submitted 7-3-2025
6/30/2025	Crossland Heavy Contractors	It has been brought to our attention that there is currently no pay item to cover "6 inch ductile iron plug." Can these items be added to the bid form?	Request denied. Bid Item number 022 (previously number 019) covers "6 INCH DUCTILE IRON PLUG (RJ)"
6/30/2025	Crossland Heavy Contractors	It has been brought to our attention that there is currently no pay item to cover "6 inch ductile iron tee." Can these items be added to the bid form?	Request accepted. FNI provided Bid Item number 018 "16 INCH DUCTILE IRON TEE (RJ)" and revision to Drawings Sheet 2 "Summary of Quantities" within Addendum No. 1 submitted 7-3-2025
7/1/2025	Shrum Excavation	Is the existing water line asbestos?	The COT has confirmed the presence of asbestos in/on/around the existing water line to some quantity. However, the exact condition of the pipe material is unknown at this time.
7/1/2025	Shrum Excavation	Can the contractor close the east bound lanes from STA 0+00 to STA 32+50 until the project is completed?	The COT has accepted the closure of the two eastbound lanes along the proposed project length for the duration of the project.



SUMMARY OF PAY QUANTITIES														
ITEM	SPEC NO.	DESCRIPTION	PAY ITEM NOTE	QUANTITY	UNIT	SHEET								
BASE BID						GEN	13	14	15	16	17	18	19	
1	COT 301	RIGHT-OF-WAY CLEARING AND RESTORING, COMPLETE IN PLACE	4, 5, 6, 7, 22	3550	SY	-	575	560	530	555	550	530	243	
2	COT 302	EXCAVATION AND BACKFILL, UNCLASSIFIED	14	3450	CY	-	580	420	430	680	575	500	260	
3	COT 303	MOBILIZATION		1	EA	1	-	-	-	-	-	-	-	
4	COT 304	CONSTRUCTION STAKING		1	EA	1	-	-	-	-	-	-	-	
5	COT 334	CONSTRUCTION AS-BUILTS	24, 25, 27	1	EA	1	-	-	-	-	-	-	-	
6	COT 307	6 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	1, 2, 3, 8, 9, 11, 27, AH 1, 2, 3, 4	300	LF	-	75	50	30	40	50	30	25	
7	COT 307	8 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	1, 2, 3, 8, 9, 11, 27, AH 1, 2, 3, 4	10	LF	-	-	10	-	-	-	-	-	
8	COT 307	16 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	1, 2, 3, 8, 9, 11, 27, AH 1, 2, 3, 4	3240	LF	-	500	500	500	515	500	500	218	
9	COT 307	6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)		2, 8	2	EA	-	2	-	-	-	-	-	
10	COT 312	16 INCH DUCTILE IRON 11-1/4 DEGREE BEND (RJ)		2, 8	1	EA	1	-	-	-	-	-	-	
11	COT 312	16 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)		2, 8	2	EA	-	-	-	-	-	-	2	
12	COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)		2, 8	22	EA	-	2	2	4	2	4	4	
13	COT 312	8 INCH DUCTILE IRON 45 DEGREE BEND (RJ)		2, 8	2	EA	-	-	2	-	-	-	-	
14	COT 312	16 INCH DUCTILE IRON 45 DEGREE BEND (RJ)		2, 8	12	EA	-	6	2	-	2	-	2	
15	COT 312	6 INCH X 6 INCH DUCTILE IRON TEE (RJ)		2, 8	2	EA	-	1	-	-	1	-	-	
16	COT 312	16 INCH X 6 INCH DUCTILE IRON TEE (RJ)		2, 8	13	EA	-	2	2	2	1	2	2	
17	COT 312	16 INCH X 8 INCH DUCTILE IRON TEE (RJ)		2, 8	1	EA	-	-	1	-	-	-	-	
18	COT 312	16 INCH X 16 INCH DUCTILE IRON TEE (RJ)		2, 8	1	EA	-	-	-	-	1	-	-	
19	COT 312	6 INCH DUCTILE IRON SLEEVE (RJ)		2, 8, 12	12	EA	-	2	1	2	1	2	2	
20	COT 312	8 INCH DUCTILE IRON SLEEVE (RJ)		2, 8, 12	1	EA	-	-	1	-	-	-	-	
21	COT 312	16 INCH DUCTILE IRON SLEEVE (RJ)		2, 8, 12	3	EA	-	1	-	-	1	-	1	
22	COT 312	6 INCH DUCTILE IRON PLUG (RJ)		2, 8	11	EA	-	2	-	2	1	2	2	
23	COT 312	8 INCH DUCTILE IRON PLUG (RJ)		2, 8	2	EA	-	-	2	-	-	-	-	
24	COT 312	16 INCH DUCTILE IRON PLUG (RJ)		2, 8	3	EA	-	1	-	-	1	-	1	
25	COT 315	PRIVATE SERVICE CONNECTION BY LICENSED BONDED PLUMBER	13, 17	33	EA	-	2	8	5	5	7	6	-	
26	COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)	15, 16, 17	13	EA	-	2	2	1	4	2	2	-	
27	COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)	15, 16, 17	15	EA	-	-	4	4	1	3	3	-	
28	COT 315	3/4 INCH WATER METER CAN, LID & RIM		28	EA	-	2	6	5	5	5	5	-	
29	COT 315	1 INCH WATER SERVICE CONNECTION (LONG)	15, 16, 17	3	EA	-	-	-	-	-	2	1	-	
30	COT 315	1 INCH WATER METER CAN, LID & RIM		3	EA	-	-	-	-	-	2	1	-	
31	COT 315	1-1/2 INCH WATER SERVICE CONNECTION (LONG)	15, 16, 17	1	EA	1	-	-	-	-	-	-	-	
32	COT 315	1-1/2 INCH WATER SERVICE CONNECTION (SHORT)	15, 16, 17	1	EA	-	-	1	-	-	-	-	-	
33	COT 315	1-1/2 INCH WATER METER CAN, LID & RIM		1	EA	-	-	1	-	-	-	-	-	
34	COT 315	2 INCH WATER SERVICE CONNECTION (SHORT)	15, 16, 17	1	EA	-	-	1	-	-	-	-	-	
35	COT 315	2 INCH WATER METER CAN, LID & RIM		1	EA	-	-	1	-	-	-	-	-	
36	COT 317	6 INCH GATE VALVE (RJ)	8	15	EA	-	3	2	2	2	2	2	2	
37	COT 317	8 INCH GATE VALVE (RJ)	8	1	EA	-	-	1	-	-	-	-	-	
38	COT 317	16 INCH GATE VALVE (RJ)	8	8	EA	-	1	1	1	2	1	1	1	
39	COT 317	4 INCH AIR RELIEF VALVE ASSEMBLY		2	EA	-	1	-	-	-	1	-	-	
40	COT 317	3-WAY FIRE HYDRANT, IN PLACE		4	EA	-	1	1	-	1	-	1	-	
41	COT 318	VALVE BOX	21	24	EA	-	4	4	3	4	3	3	3	
42	COT 325	SODDING AND SEEDING	23	100	SY	-	30	15	-	15	5	1	-	
43	COT 326	STREET WASH DOWN		3240	LF	-	500	500	500	515	500	500	218	
44	COT 327	TRAFFIC CONTROL (PER MUTCD)	TC 1, 2, 3	180	CD	180	-	-	-	-	-	-	-	
45	COT 328	16 INCH BORE (W/OUT CASING)		335	LF	-	50	100	40	-	-	100	45	
46	COT 329	PAVEMENT, REMOVAL AND REPLACEMENT (ASPHALT)		37	4170	SY	-	440	630	610	600	625	700	
47	COT 329	PAVEMENT, REMOVAL AND REPLACEMENT (CONCRETE)		37	290	SY	-	270	-	-	-	-	-	
48	COT 329	PAVEMENT, REMOVAL AND REPLACEMENT (CURB & GUTTER)		37	180	LF	-	50	45	15	20	15	20	
49	COT 329	PAVEMENT, REMOVAL AND REPLACEMENT (CONCRETE SIDEWALK)		37	90	SY	-	10	30	10	10	10	-	
50		NOT USED												
51	COT 330	EROSION CONTROL MEASURES		10780	SY	-	1667	1667	1667	1717	1667	1667	727	
52	COT 335	CONTRACTOR QUALITY CONTROL		1	LSUM	1	-	-	-	-	-	-	-	
53	COT 857(C)	REMOVABLE 4" PAVEMENT MARKING TAPE		3500	LF	-	500	500	500	500	500	500	500	
54	SPECIAL	PROJECT SIGN (CITY OF TULSA)		1	EA	1	-	-	-	-	-	-	-	
55	SPECIAL	OWNER ALLOWANCE	18	1	ALLOW	1	-	-	-	-	-	-	-	
56	SPECIAL	WATER LOCATOR BALLS	28	138	EA	-	21	24	18	20	20	19	16	
57		NOT USED												
58	SPECIAL	TEMPORARY PIPING AND APPURTENANCES	TEMP 1, 2	4000	LF	2	570	578	570	570	570	570	570	
59	SPECIAL	ABANDON WATERLINE 6-INCH		300	LF	300	-	-	-	-	-	-	-	
60	SPECIAL	ABANDON WATERLINE 8-INCH		10	LF	10	-	-	-	-	-	-	-	
61	SPECIAL	ABANDON WATERLINE 16-INCH		3240	LF	3240	-	-	-	-	-	-	-	

WATER FITTING TABLE			
STATION	FITTING TYPE	NORTHING	EASTING
0+02.45	1-16" 45° BEND, RJ	418691.92	2562699.10
0+29.56	16" 45° BEND, RJ	418711.46	2562717.89
0+41.41	1-16" 45° BEND, RJ	418711.69	2562729.75
0+44.40	1-16" 45° BEND, RJ	418711.74	2562732.73
0+77.95	1-6" 22.5° BEND, RJ	418728.03	2562765.97
0+83.05	1-6"X6" TEE, RJ	418679.07	2562772.03
0+83.53	1-6" 45° BEND, RJ	418687.20	2562772.35
0+87.69	1-6"45° BEND, RJ	418718.10	2562775.91
0+87.71	1-16"X6" TEE, RJ	418712.59	2562776.03
0+95.49	1-6" 45° BEND, RJ	418698.92	2562784.08
0+95.73	1-16"X6" TEE, RJ	418712.74	2562784.05
4+62.52	1-16" 45° BEND, RJ	418719.94	2563150.77
4+69.10	1-16" 45° BEND, RJ	418720.08	2563157.35
5+17.01	1-16" 45° BEND, RJ	418721.06	2563205.25
5+21.39	1-16" 45° BEND, RJ	418721.15	2563209.63
5+24.57	1-6"45° BEND, RJ	418703.85	2563213.16
5+27.40	1-6"45° BEND, RJ	418706.63	2563215.93
5+27.42	1-16"X6" TEE, RJ	418721.28	2563215.65
5+31.40	1-6"45° BEND, RJ	418724.36	2563219.58
5+31.42	1-16"X8" TEE, RJ	418721.36	2563219.66
5+35.07	1-6"45° BEND, RJ	418727.84	2563223.17
8+62.28	1-16"X6" TEE, RJ	418726.94	2563550.46
12+74.46	1-6" 45° BEND, RJ	418729.43	2563962.69
12+74.46	1-16"X6" TEE, RJ	418736.51	2563962.53
12+84.52	1-6" 45° BEND, RJ	418719.12	2563973.00
12+85.06	1-6"45° BEND, RJ	418741.49	2563973.02
12+87.12	1-6"45° BEND, RJ	418739.83	2563975.11
12+87.12	1-16"X6" TEE, RJ	418736.81	2563975.18
17+60.31	1-6"45° BEND, RJ	418722.93	2564448.83
17+60.34	1-6"X6" TEE, RJ	418724.07	2564448.83
17+60.85	1-16"X6" TEE, RJ	418747.82	2564448.79
17+66.21	1-6"45° BEND, RJ	418758.97	2564453.89
17+66.29	1-6"45° BEND, RJ	418716.82	2564454.95
17+71.76	1-16"X16" TEE, RJ	418748.07	2564459.69
17+71.87	1-16"45° BEND, RJ	418753.18	2564459.69
21+38.74	1-6"45° BEND, RJ	418761.67	2564826.47
21+40.28	1-6"45° BEND, RJ	418760.11	2564828.04
21+40.28	1-16"X6" TEE, RJ	418756.58	2564828.11
21+44.09	1-6"45° BEND, RJ	418725.32	2564832.61
21+62.12	1-6"45° BEND, RJ	418742.98	2564850.26
21+62.43	1-16"X6" TEE, RJ	418757.06	2564850.26
26+08.10	1-16"X6" TEE, RJ	418766.71	2565295.82
26+08.19	1-6"45° BEND, RJ	418770.09	2565295.85
26+11.84	1-6"45° BEND, RJ	418758.78	2565299.73
26+11.86	1-16"X6" TEE, RJ	418766.79	2565299.58
26+14.58	1-6"45° BEND, RJ	418776.36	2565302.11
26+14.63	1-6"45° BEND, RJ	418755.97	2565302.58
30+88.37	1-16"X6" TEE, RJ	418776.45	2565776.00
30+88			



WATER PAY ITEM NOTES (TYPICAL):

1. TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CITY OF TULSA. TESTING, CHLORINATION, AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH SECTION 109.3 OF THE GENERAL SPECIFICATIONS.
- A. CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, AS DIRECTED BY CITY TESTING PERSONNEL, THEN, ONCE TESTING, CHLORINATION AND FLUSHING BY CITY PERSONNEL IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM, USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.
- B. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAIN SHALL BE PERFORMED BY CITY PERSONNEL ON MAINS WHICH ARE PHYSICALLY DISCONNECTED FROM EXISTING WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PERFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO EXISTING SYSTEM.
- C. ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
2. BURIED BOLTS, HARNESS LUGS, AND COUPLINGS SHALL BE GIVEN TWO COATS OF KOPPER'S BITUMASTIC 300-M (DRY MIL THICKNESS OF 16 MILS) OR EQUAL. COST TO BE INCLUDED IN UNIT PRICE BID FOR PIPE AND FITTINGS.
3. CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. THE COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE.
4. CONTRACTOR SHALL INSURE ALL POLES WHICH ARE AFFECTED BY TRENCHING CONDITIONS ARE BRACED BY OWNERS. PAYMENT SHALL BE INCLUDED IN "RIGHT-OF-WAY CLEARING AND RESTORING". NO ADDITIONAL PAYMENT SHALL BE MADE.
5. ALL HYDRANTS, VALVES AND OTHER FITTINGS FROM ABANDONED WATER MAINS SHALL BE SALVAGED AND DELIVERED TO THE SOUTH YARD, 2317 S JACKSON AVE. PAYMENT TO BE MADE UNDER WATER LINE ABANDONMENT. NO ADDITIONAL PAYMENT SHALL BE MADE.
6. CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS, ROOF DRAINS, AND FENCING DAMAGED IN THE ZONE OF CONSTRUCTION DURING THE COURSE OF CONSTRUCTION TO SATISFACTION OF THE PROPERTY OWNER. PAYMENT SHALL BE INCLUDED IN RIGHT-OF-WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
7. COST OF ANY TEMPORARY LIVESTOCK FENCING AND POLES SHALL BE INCLUDED IN COST OF RIGHT OF WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
8. ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RESTRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE OR FITTINGS.
- A. DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, STAR STARGRIP, SMITH-BLAIR CAMLOCK, CLOW TUGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THROUGH UNCASSED BORES, ONLY USPIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. LOCKING GASKETS NOT PERMITTED;
- B. POLYVINYL CHLORIDE (PVC) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. LOCKING GASKETS NOT PERMITTED; SHOULD RJ PIPE BE SPECIFIED ON BORE CASING IS REQUIRED.
- C. HIGH DENSITY POLYETHYLENE (HDPE) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. NO ADDITIONAL PAYMENT SHALL BE MADE.
9. ALL CUT ENDS AND WHERE SALVAGED FITTINGS HAVE BEEN REMOVED FROM ABANDONED WATER LINES LEFT IN PLACE, SHALL BE PLUGGED WITH 24-IN OF LEAN CONCRETE OR NON-SHRINK GROUT INSIDE THE PIPE. ALL WATER MAINS TO BE ABANDONED SHALL ALSO BE FILLED TO 100% OF THE ABANDONED PIPE VOLUME. FILL MATERIAL SHALL BE EITHER CELLULAR CONCRETE OR FLOWABLE FILL AS APPROVED BY THE ENGINEER. COST OF CONCRETE PLUGGING AND FILLING TO BE INCLUDED UNDER WATER LINE ABANDONMENT. NO ADDITIONAL PAYMENT SHALL BE MADE.
10. TRACER WIRE AND DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE GROUND LEVEL AS PER CONST SPEC 310. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC AND HDPE PIPE. CONST SPEC 310.1 NOW ALLOWS #12 COPPER-CLAD STEEL (CCS) WIRE, 21% CONDUCTIVITY, IN LIEU OF #8 COPPER WIRE AS TRACER WIRE ATOP PVC AND HDPE PIPE.
11. DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE AS PER CONST SPEC 307.3 AND 307.4. COST WILL BE INCLUDED IN COST OF DUCTILE IRON PIPE.
12. ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN THE COST OF PIPE. CONTRACTOR TO EXCAVATE ALL EXISTING WATER MAINS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ACCORDINGLY. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. THE COST FOR EXCAVATING EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.
13. AT THE DIRECTION OF THE ENGINEER, CONTRACTOR SHALL FURNISH A "LICENSED AND BONDED PLUMBER", WHICH SHALL INCLUDE ALL COSTS OF LABOR, TOOLS, PERMIT FEES, AND EQUIPMENT TO REROUTE THE EXISTING CUSTOMER SERVICE ON CUSTOMER PROPERTY TO THE PROPOSED CUSTOMER METER CAN. COST SHALL NOT EXCEED AN ALLOWANCE OF \$1000 PER OCCURRENCE. MATERIALS COST SHALL BE INCLUDED UNDER THE UNIT PRICE FOR WATER SERVICE CONNECTION AND/OR WATER SERVICE LINE EXTENSION. NO ADDITIONAL PAYMENT SHALL BE MADE.
14. CONTRACTOR IS REMINDED TO BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1½" IN TYPE A AGGREGATE BASE, PLACED IN 8-INCH MAXIMUM LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR DENSITY. COST TO BE INCLUDED IN THE UNIT PRICE FOR EXCAVATION AND BACKFILL. NO ADDITIONAL PAYMENT SHALL BE MADE. ALL PATCHES PER ACPA (AMERICAN CONCRETE STANDARDS ASSOCIATION) STANDARDS."
15. WATER SERVICE CONNECTIONS SHALL INCLUDE COST OF MATERIAL, LABOR AND EQUIPMENT TO REMOVE AND INSTALL SADDLES, SERVICE CLAMPS, CORPORATION STOPS, BENDS, 3-PART UNIONS, COUPLINGS, SETTERS AND ANY OTHER INCIDENTALS REQUIRED FOR A COMPLETE WATER SERVICE CONNECTION WITH THE EXCEPTION OF METER CANS, RIMS AND LIDS. NO ADDITIONAL PAYMENT SHALL BE MADE. METER CANS, LIDS AND RIMS SHALL BE PAID AS A SEPARATE BID ITEM.
- A. SHORT SERVICE SHALL BE ANY SERVICE LINE THAT IS 25- FEET OR LESS IN LENGTH. SHORT SERVICES DO NOT INCLUDE PAVEMENT REPLACEMENT.
- B. LONG SERVICE SHALL BE ANY SERVICE LINE THAT IS GREATER THAN 25- FEET UP TO 80- FEET IN LENGTH. LONG SERVICES INCLUDE PAVEMENT REPLACEMENT AND/ OR COST TO BORE.
- C. SERVICE LINES EXCEEDING THE ABOVE PARAMETERS WILL BE COMPENSATED FOR LINEAR FOOTAGE ABOVE AND BEYOND. COMPENSATION SHALL BE PAID AS "SERVICE LINES, EXTENSION", PER LF
16. SERVICE LINES ON NON-ARTERIALS SHALL BE EITHER COPPER TUBING (TYPE K SOFT ANNEALED CONFORMING TO ASTM B 88) OR PEX TUBING (VIEGA PUREFLOW PEX BLUE 5306 OR UPONOR AQUA PEX 5206 BLUE CONFORMING TO ASTM F876/F877/F2023). PEX TUBING IS NOT PERMITTED WITHIN ARTERIAL RIGHT OF WAY. WHEN CONTRACTOR ELECTS TO USE PEX TUBING:
- A. ¾-INCH WATER SERVICE CONNECTION SHALL USE 1-INCH PEX TUBING MINIMUM
- B. 1-INCH WATER SERVICE CONNECTION SHALL USE 1½-INCH PEX TUBING MINIMUM
17. CONTRACTOR'S PLUMBER SHALL PROVIDE AN INFORMATIONAL BROCHURE TO THE PROPERTY OWNERS OUTLINING THE STEPS REQUIRED TO THOROUGHLY FLUSH THEIR WATERLINES AFTER CONNECTION TO THE NEW WATER MAIN. ALL COSTS TO PRODUCE AND DISTRIBUTE THE BROCHURE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM.
18. THE "OWNER ALLOWANCE" CAN BE USED FOR VARIOUS WORK AND MISCELLANEOUS ITEMS NOT IDENTIFIED IN THE CONTRACT DOCUMENTS WITH THE FOLLOWING PROVISIONS:
- A. THE ALLOWANCE SHALL BE USED FOR THE COST OF MATERIALS, LABOR, INSTALLATION, OVERHEAD, AND PROFIT FOR ADDITIONAL WORK AND MISCELLANEOUS ITEMS THAT ARE NOT IDENTIFIED IN THE CONSTRUCTION DOCUMENTS AND PLANS, AND NOT INCLUDED IN THE BID ITEMS OF THE CONTRACT. EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO:
- I. WATER SERVICE LINES OF UNKNOWN OR UNEXPECTED SIZE.
- B. THE ALLOWANCE SHALL BE USED ONLY AT THE DISCRETION OF THE CITY. ANY ALLOWANCE BALANCE REMAINING AT THE COMPLETION OF THE PROJECT WILL BE CREDITED BACK TO THE CITY ON THE FINAL APPLICATION FOR PAYMENT SUBMITTED BY THE CONTRACTOR.
- C. THE CONTRACTOR SHALL PROVIDE, TO THE CITY, A WRITTEN REQUEST FOR THE USE OF ANY ALLOWANCE, WITH A SCHEDULE OF VALUES, AND ALL ASSOCIATED BACKUP

INFORMATION, INCLUDING ANY TIME EXTENSIONS REQUIRED TO PERFORM THE WORK.

- D. THE CONTRACTOR SHALL PROCEED WITH THE WORK INCLUDED IN THE ALLOWANCE ONLY AFTER RECEIVING A WRITTEN ORDER FROM THE ENGINEER AND CITY AUTHORIZING SUCH WORK. PROCEEDING WITH WORK IN THE ALLOWANCE WITHOUT A WRITTEN ORDER FROM THE CITY WILL BE AT THE CONTRACTOR'S EXPENSE.
19. WHERE PLANS IDENTIFY A 22.5-DEG OR 11.25-DEG VERTICAL OR HORIZONTAL BEND, HDPE WILL BE DEFLECTED PER MANUFACTURER'S MINIMUM ALLOWABLE BEND RADIUS.
20. WHERE PLANS IDENTIFY A CROSS, HDPE WILL USE TWO (2) TEES. NO ADDITIONAL PAYMENT SHALL BE MADE.
21. TOP OF VALVE BOX SHALL BE FLUSH WITH FINISHED GRADE.
22. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITION. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9- FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTORS EXPENSE. STREETS, DRIVEWAYS AND ASSOCIATED ITEMS SHALL BE PAID FOR UNDER OTHER ITEMS OF WORK.
23. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION. THE CONTRACTOR SHALL REPLACE THE SOD TO MATCH IN-KIND AND QUALITY. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9- FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTORS EXPENSE. THIS PAY ITEM INCLUDES ALL MOWING WITHIN THE RIGHT-OF-WAY AS DIRECTED DURING CONSTRUCTION. NETTING SHALL BE REMOVED FROM SOD PRIOR TO PLACEMENT.
24. SPOT ELEVATIONS ON THE MAIN WATER LINE RELATIVE TO FINISHED GRADE SHALL BE PROVIDED AT EACH 100-FT INTERVAL, COMPLETE WITH STATION AND OFFSET. IN ADDITION, ALL VALVES, FITTINGS, FIRE HYDRANTS (TOP OF NUT) AND OTHER MAJOR APPURTENANT ITEMS SHALL BE SHOWN WITH THE PROPER DESCRIPTION, STATION, OFFSET (NORTHING, EASTING) AND ELEVATION PER PLAN SURVEY CONTROL DATUM.
25. SPOT ELEVATIONS ON WATER METER CANS, VAULTS, SHALL BE SHOWN WITH THE PROPER DESCRIPTION (METER TYPE, METER SIZE, METER NUMBER, SERVICE MATERIAL, SERVICE SIZE), STATION, OFFSET (NORTHING, EASTING) AND ELEVATION PER PLAN SURVEY CONTROL DATUM. UPON DISCOVERY OF A LEAD OR GALVANIZED SERVICE LINE, NOTIFICATION SHALL BE MADE TO WATER DISTRIBUTION AND WORK SHALL CEASE UNTIL RELEASED AT WHICH TIME ANY AND ALL SERVICE LINES LOCATED THAT ARE LEAD OR GALVANIZED ARE TO BE REPLACED WITH APPROVED MATERIALS.
26. WORK UNDER THIS ITEM SHALL INCLUDE FURNISHING AND INSTALLING HDPE WALL ANCHORS AS SHOWN ON DRAWINGS OR AS DIRECTED BY THE ENGINEER. THE UNIT PRICE SHALL INCLUDE THE COST OF ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED. NO ADDITIONAL PAYMENT SHALL BE MADE FOR EXCAVATION, BACKFILLING, OR CONCRETE BLOCKING.
27. PRESSURE TESTING AND CHLORINATION OF WATER MAINS SHALL NOT BE PERFORMED UNTIL THE CITY INSPECTOR HAS RECEIVED THE REQUIRED CONSTRUCTION AS-BUILT RECORDS.
28. MARKER BALLS SHALL BE INSTALLED ABOVE ALL FITTINGS, BLIND FLANGES, SERVICE TAPS AND EVERY 100 FEET, IF THE DISTANCE BETWEEN FITTINGS IS GREATER THAN 100 FEET. THE COST OF MARKER BALLS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE. MARKERS SHALL BE VIVAX WATER MARKER BALLS OR EQUAL THAT WORK WITH THE VIVAX VLOC3 -PRO RECEIVER AND LOC3-10TX TRANSMITTER.
29. COST INCLUDES EBAA MEGASTOPS OR EQUAL, INSTALLED ON ALL PVC JOINTS THROUGH BORES TO PREVENT OVERBELLING.
30. AGG BASE AND SUBGRADE, PER CITY STANDARD SPECIFICATIONS AND STANDARD DETAILS 701 - 702 AND 713 SHALL BE PAID UNDER EXCAVATION AND BACKFILL.
31. AGG BASE AND SUBGRADE, PER CITY STANDARD SPECIFICATIONS AND STANDARD DETAILS 703 - 704 AND 713 SHALL BE PAID UNDER EXCAVATION AND BACKFILL.
32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
33. EROSION PROTECTION SHALL BE PLACED AS FOLLOWS:
- A. AROUND INLETS TO PREVENT INFLOW OF ERODED MATERIAL INTO STORM SEWER SYSTEM.
- B. IN LOCATIONS THROUGHOUT PROJECT SITE, AS DETERMINED BY THE ENGINEER, TO PREVENT WASH OF ERODED MATERIAL ONTO ADJACENT PROPERTY.
- C. FOR ENTIRE DURATION OF PROJECT, WITH MAINTENANCE AND REPLACEMENTS, AS DIRECTED BY THE ENGINEER;
- D. WITH PERIODIC REMOVAL OF SEDIMENT IN ACORDANCE WITH STORMWATER MANAGEMENT PLAN. ALL COSTS FOR ITEMS A-D ABOVE SHALL BE INCLUDED IN UNIT PRICE BID FOR THIS ITEM.
34. PRICE BID SHALL INCLUDE MAINTENANCE, SEDIMENT REMOVAL, DISPOSAL, AND REMOVAL OF FILTERS AT PROJECT COMPLETION.
35. INCLUDES ## TYPE [X] FILTERS
36. MAILBOXES SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH USPS REGULATIONS. CONTINUOUS MAIL SERVICE SHALL BE MAINTAINED DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE THE USE OF TEMPORARY MAILBOXES USED DURING CONSTRUCTION WITH THE USPS.
37. THIS PAY ITEM SUPERCEDES CITY OF TULSA STANDARD SPECIFICATION SECTION 329.6, WITH RESPECT TO SAW CUTTING AND BOWELS, AND INCLUDES THE FOLLOWING (THESE ITEMS SHALL NOT BE PAID SEPARATELY):
- A. SAW CUTTING
- B. DOWELS
- C. DISPOSAL OF BROKEN PAVEMENT
- D. TEMPORARY SURFACES
- E. ASSOCIATED EXCAVATION
- F. PREPARATION OF SUBGRADE
- G. FORMS OR REINFORCING
- H. REMOVAL OR REPLACEMENT OF GRAVEL
- I. ADDITIONAL SAW CUTTING OR REPLACEMENT OF PAVEMENT DAMAGED BY THE CONTRACTOR
- J. JOINT SEALER, TACK COATS, OR EDGE SEALING
- THIS PAY ITEM DOES NOT INCLUDE THE FOLLOWING, WHICH SHALL BE PAID SEPARATELY IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS, DETAILS, AND DRAWINGS:
- A. CURB AND GUTTER.
- WATER CONSTRUCTION NOTES:
34. THE CITY OF TULSA FIELD ENGINEERING DEPARTMENT SHALL INSPECT ALL TRENCHING, BEDDING, PIPE INSTALLATION, BACKFILL AND COMPACTION.
35. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT STANDARD SPECIFICATIONS AND STANDARD DETAILS OF THE CITY OF TULSA PUBLIC WORKS DEPARTMENT.
36. EXISTING SERVICE CONNECTIONS ARE TO BE KEPT IN SERVICE UNTIL CONNECTIONS TO NEW MAIN ARE MADE. ALL SERVICE LINE RECONNECTIONS SHALL BE MADE BY THE CONTRACTOR. SERVICE RECONNECTIONS SHALL BE INSTALLED AS PER CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS.
37. MINIMUM COVER OVER WATER LINES SHALL BE AS NOTED ON PLANS.
38. CONTRACTOR SHALL REPLACE EXISTING GRASS WITH SEED/SOD OF THE SAME TYPE AND VARIETY OR AS NOTED ON PLANS.
39. CONTRACTOR SHALL BORE EXISTING TREES UNDER DRIP LINE, UNLESS DIRECTED OTHERWISE BY ENGINEER.
40. CONTRACTOR SHALL BORE EXISTING DRIVEWAYS, UNLESS DIRECTED OTHERWISE BY ENGINEER.
41. WATER OPERATIONS SHALL OPERATE ALL VALVES ON TRANSMISSION MAINS (16" AND LARGER). CONTRACTOR SHALL OPERATE ALL VALVES ON DISTRIBUTION MAINS (SMALLER THAN 16") WITH THE COORDINATION OF FIELD ENGINEERING AND WATER OPERATIONS AND IN THE PRESENCE OF A FIELD ENGINEERING INSPECTOR.
- D. ATTEMPTS WILL BE MADE WITH ASSISTANCE FROM THE CONTRACTOR TO NOTIFY ALL AFFECTED CUSTOMERS 48-HOURS IN ADVANCE, PARTICULARLY IF COMMERCIAL OR INDUSTRIAL CUSTOMERS ARE INVOLVED. PRIOR TO SHUTDOWN, FIELD ENGINEERING WILL NOTIFY WATER OPERATIONS, AT 918-596-9488, GIVING AN ESTIMATED DOWNTIME. WATER OPERATIONS WILL NOTIFY THE FIRE DEPARTMENT OF ALL FIRE HYDRANTS OUT OF SERVICE AND WHEN THEY ARE BACK IN SERVICE, BY STREET ADDRESS OR INTERSECTION.
- E. WHERE COMMERCIAL, INDUSTRIAL, OR CRITICAL CUSTOMERS ARE AFFECTED, AND FOR ALL LINES 16-INCH AND LARGER IN SIZE, FIELD ENGINEERING WILL REQUEST WATER OPERATIONS TO SHUT DOWN THE MAIN. THERE WILL BE A MINIMUM OF 48-HOUR NOTICE TO WATER OPERATIONS.

9. CONTRACTOR SHALL PROVIDE AT LEAST 48 HOUR NOTICE TO ALL RESIDENTS OR BUSINESSES AFFECTED BEFORE TURNING OFF ANY WATER. CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING DOOR HANGERS ON AFFECTED HOMES AND BUSINESSES.
10. CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC, NOTICE OF ANY EXCAVATION NO LATER THAN 48 HOURS OR SOONER THAN 10 DAYS PRIOR TO COMMENCEMENT OF WORK (EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAYS) PHONE 1-800-522-6543.
11. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH PROJECT AT ALL TIMES. OPEN CUT STREET CROSSINGS REQUIRE AN APPROVED TRAFFIC CONTROL PLAN WITH TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH CURRENT MUTCD REQUIREMENTS.
12. ANY DAMAGE CAUSED BY THE CONTRACTOR TO ADJACENT TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE TRAFFIC ENGINEER.
13. PRIOR TO PAVEMENT SAWING AND EXCAVATION NEAR SIGNALIZED INTERSECTION, CONTRACTOR SHALL CONTACT ENGINEERING SERVICES AND TRAFFIC OPERATIONS (918-596-9766), FOR SITE SPECIFIC, UNDERGROUND TRAFFIC UTILITY LOCATES.
14. CONSTRUCTION FOR ALL ENGINEERING SERVICES FACILITIES SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF TITLE 252, DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 626, PUBLIC WATER SUPPLY CONSTRUCTION STANDARDS, OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ).
15. ALL EXCAVATED MATERIAL NOT REQUIRED IN OTHER AREAS OF THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY EXCESS MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS OF TULSA.
16. ANY CHANGES FROM THE APPROVED PLANS SHALL BE SUBMITTED TO THE CITY OF TULSA FOR WRITTEN APPROVAL PRIOR TO INSTALLATION.

ASBESTOS HANDLING PAY ITEM NOTES:

- AH-1. CONTRACTOR SHALL PROVIDE DOCUMENTATION ON EACH CONNECTION WHERE AN ASBESTOS CEMENT LINE WAS LOCATED AND REMOVED.
- AH-2. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF ANY ASBESTOS CEMENT MATERIAL OBSERVED, BUT LEFT IN PLACE.
- AH-3. ANY WASTE MATERIAL OF LINES THAT ARE DETERMINED TO BE ASBESTOS CEMENT SHOULD BE PROPERLY DISPOSED BY A CONTRACTOR LICENSED FOR ASBESTOS-CONTAINING MATERIALS.
- AH-4. CONNECTIONS TO EXISTING LINES THAT ARE DETERMINED TO BE ASBESTOS CEMENT SHALL BE MADE BY A CONTRACTOR LICENSED FOR ASBESTOS-CONTAINING MATERIALS.

TRAFFIC CONTROL PAY ITEM NOTES:

- TC-1. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST ADDITION. ONE LANE OF TRAFFIC MUST REMAIN OPEN IN BOTH DIRECTIONS AT ALL TIMES.
- TC-2. CONTRACTOR TO DEVELOP AND SUBMIT A DETAILED TRAFFIC CONTROL PLAN FOR APPROVAL BEFORE COMMENCING ANY WORK. TCP SHOULD INCLUDE DIAGRAMS, SIGNAGE, AND DETOUR ROUTES. LIMIT TRAFFIC CONTROL TO BE ONE BLOCK AT A TIME.
- TC-3. PHASE CONSTRUCTION SO THAT NO MORE THAN 50 FEET OF TRENCH IS OPEN AT A TIME.

TEMPORARY PIPING & APPURTENANCES PAY ITEM NOTES:

- TEMP-1. UPON REQUEST, CONTRACTOR TO UTILIZE PAY ITEM TO PROVIDE NECESSARY MATERIALS TO KEEP EXISTING LINES IN OPERATION DURING CONSTRUCTION.
- TEMP-2. ALL TEMPORARY PIPING AND MATERIALS MUST COMPLY WITH ODEQ CONSTRUCTION STANDARDS. CONTRACTOR TO ENSURE TEMPORARY PIPES ARE ADEQUATELY SIZED TO HANDLE THE REQUIRED FLOW WITHOUT CAUSING PRESSURE DROPS OR SERVICE INTERRUPTIONS.



REVISION		BY	DATE
Δ	ADDENDUM NO. 2	WCH	7/16/2025
WATER PAY ITEM NOTES			
PROJECT NUMBER TMUA-W_21-02 TO#1			
21ST STREET WATER LINE REPLACEMENT			
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: FREESE AND NICHOLS, INC.		5100 E. SKELLY DRIVE SUITE 802 TULSA, OK 74135 (539) 444-8677	
PLAN SCALE:	DRAWN	MM	05/2025
1"=N/A	DESIGNED	BHT	05/2025
	SURVEY	NP	07/2022
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL 1"=N/A	LEAD ENGR.		
	FIELD MGR.		
VERTICAL 1"=N/A	RECOMMENDED:		
	DESIGN MANAGER		
FILE: GN-ALL-GN-NOTES.dwg		DATE:	
ATLAS PAGE NO: 14, 15, 33, & 34		SHEET 3 OF 20 SHEETS	