



WATER AND SEWER
Engineering Design

DATE:
August 28, 2026

TO:
Plan Holders
Contractors

FROM:
Jenna Richardson
918-596-9637
jennarichardson@cityoftulsa.org

EMAIL TRANSMITTAL

ADDENDUM NO. 1

**PROJECT NO. TMUA ES 2024-04 (2) CROW CREEK SPECIFIC
REMEDICATION PLAN, CONTRACT 6**

Number of pages: **15**

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:
August 28, 2026

**ADDENDUM NO. 1
TO
PROJECT NO. TMUA ES 2024-04 (2)
CROW CREEK SPECIFIC REMEDIATION PLAN, CONTRACT 6**

This Addendum No. 1 consisting of three (3) items, submitted by Tetra Tech, 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. 1 consists of the following:

1. The attached documents list the detailed items that have been modified in Addendum No. 1. These documents shall be inclusive and apply to this project.
2. Delete the existing bid proposal form in its entirety and replace with the revised Bid Proposal located at:
<https://www.cityoftulsa.org/government/departments/public-works/engineering-services/construction-bids/>. It is the Bidder's responsibility to download the revised Bid Proposal.

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

CITY OF TULSA

A handwritten signature in blue ink, appearing to read "Eric Lee".

Eric Lee
Director

FOR

A handwritten signature in blue ink, appearing to read "HAS/TGP/AL/JR/ma".

HAS/TGP/AL/JR/ma



August 27, 2026

**ADDENDUM NO. 1
TO
PROJECT NO. TMUA ES 2024-04 (2)
CROW CREEK SPECIFIC REMEDIATION PLAN, CONTRACT 6**

This Addendum No. 1, consisting of three (3) 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. **All addenda to the contract documents should be denoted on the last page of the Proposal in the space provided.**

CONTRACT DOCUMENTS

1. The Bid Proposal has been revised to reflect pay item and quantity changes. The updated Electronic Bid Proposal must be downloaded for bidding from the City of Tulsa website:
<https://www.cityoftulsa.org/government/departments/public-works/engineering-services/construction-bids/>

PLAN SET

2. Replace Plan Sheets 2, 3, 4, 9, 10, 17, and 32 with the attached sheets.

CLARIFICATIONS IN RESPONSE TO BIDDER QUESTIONS

- 3.A **Question:** In the rare circumstance where a point repair does not have a service involved with it and the pipe is not egg shaped and is still round, could we elect to do an internal point repair where surface conditions would prohibit mechanical excavation?

Answer: Open Cut Point Repairs are preferred. Internal Point repairs will be considered only on a case-by-case basis through RFIs during construction.



TETRA TECH

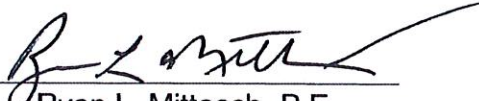
3.B Question: Is there any additional time like 30 or 60 days we can add to this contract?

Answer: An additional 30 days will be added for a revised total Construction Duration of 430 Calendar Days.

3.C Question: I wanted to verify that the advertised budget amount of this contract of \$6,548,921.00 has all the alternates included, or was it just the base bid only?

Answer: The engineer's estimate provided in the prebid meeting on August 11th included base bid plus additive alternates 1, 2, and 3.

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

BY: 
Ryan L. Mittasch, P.E.

DATE/SEAL: _____



ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET
TMUA PROJECT NO. ES 2024-04 (2)
CROW CREEK SPECIFIC REMEDIATION PLAN, CONTRACT 6

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 cells highlighted in blue.
4. Review all data input and check calculations to ensure accuracy of Bid.
5. Print 1hardcopy of the "PROPOSAL" tab, BID FORM and the "SIGNATURE PAGE" tab.
6. Complete and sign the "Signature Page" document.
6. 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: Tetra Tech, 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. ES 2024-04 (2), CROW CREEK SPECIFIC REMEDIATION PLAN, CONTRACT 6. 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
TMUA PROJECT NO. ES 2024-04 (2)
CROW CREEK SPECIFIC REMEDIATION PLAN, CONTRACT 6

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 referred to therein; to complete said work within 430 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 Engineers as set forth in the Contract.

Basis of Award

IT SHOULD BE NOTED THAT THE LOWEST RESPONSIBLE BID SHALL BE DETERMINED BY THE TOTAL BASE BID PLUS ADD ALTERNATES 1, 2, & 3. THE ITEMS IN ADDITIVE ALTERNATES NO. 1, NO. 2, & NO. 3 MAY OR MAY NOT BE INCLUDED IN THE CONTRACT AWARD AT THE SOLE DISCRETION OF THE CITY OF TULSA. ANY PROPOSAL SUBMITTED WITH THE ADDITIVE ALTERNATES INCOMPLETE SHALL BE CONSIDERED NON-RESPONSIVE

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

**PROPOSAL FOR TMUA PROJECT NUMBER ES 2024-04 (2)
CROW CREEK SPECIFIC REMEDIATION PLAN, CONTRACT 6**

BASE BID

ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	DATA INPUT UNIT PRICE	AMOUNT
1	COT 412	8 Inch Point Repair	(EA)	15		
2	COT 412	Additional Footage (8 Inch Point Repair)	(LF)	10		
3	COT 409	8 Inch Slipline SDR 21	(LF)	917		
4	COT 410	8 Inch Cured-In-Place-Pipe	(LF)	2,479		
5	COT 408	8 Inch PipeBurst, DR-17 DIPS HDPE	(LF)	1,337		
6	COT 405	8 Inch Open Cut Only, SDR 26 PVC	(LF)	623		
7	COT 412	10 Inch Point Repair	(EA)	1		
8	COT 412	Additional Footage (10 Inch Point Repair)	(LF)	10		
9	COT 409	10 Inch Slipline SDR 21	(LF)	60		
10	COT 410	10 Inch Cured-In-Place-Pipe	(LF)	50		
11	COT 408	10 Inch PipeBurst, DR-17 DIPS HDPE	(LF)	306		
12	COT 405	10 Inch Open Cut Only, SDR 26 PVC	(LF)	708		
13	COT 412	12 Inch Point Repair	(EA)	1		
14	COT 412	Additional Footage (12 Inch Point Repair)	(LF)	10		
15	COT 410	12 Inch Cured-In-Place-Pipe	(LF)	554		
16	COT 423	Obstruction Removal	(EA)	1		
17	SPECIAL PROVISION 6	External Drop Replacement	(EA)	2		
18	COT 202	Flowable Fill	(CY)	25		
19	COT 402	Pavement Removal and Replacement - Asphalt	(SY)	25		
20	COT 402	Pavement Removal and Replacement - Concrete	(SY)	278		
21	COT 402	Pavement Removal and Replacement - Concrete Driveway, Sidewalk	(SY)	32		
22	COT 402	Curb and Gutter Removal and Replacement	(ILF)	180		
23	COT 402	Sodding	(SY)	1,825		
24	COT 405,408,409,410	Service Reconections	(EA)	162		
25	COT 405,408,409,410	PVC Service, Schedule 40	(LF)	830		
26	COT 415	Video Pre-Inspection	(LF)	8,709		
27	COT 418 (Type A)	Replace Cover, Frame and Frame Seal	(EA)	44		
28	COT 418 (Type B)	Replace Frame Seal	(EA)	5		
29	COT 418 (Type C)	Replace Cover, Frame and Frame Seal, and Chimney	(EA)	7		
30	COT 418 (Type D)	Replace Frame Seal and Chimney	(EA)	9		
31	COT 418 (Type Fc)	Partial Manhole Replacement - Precast Corbel Section	(EA)	2		
32	COT 421 (Type Gg)	Interior Manhole Wall Rehabilitation	(SF)	379		
33	COT 419 (Type Gh)	Bench and Invert Rehabilitation	(EA)	1		
34	COT 421 (Type Gk)	Grout and Coat Pipe Seal	(EA)	33		
35	COT 419 (Type Go)	Plug Lift Holes , Plug Holes	(EA)	1		
36	COT 421 (Type Gp)	Seal Precast Joints	(EA)	7		
37	COT 419 (Type Gr)	Patch Lift Hole/ Patch Hole	(EA)	5		
38	COT 421 (Type Gs)	Epoxy Coating	(SF)	100		
39	COT 420 (Type I)	Manhole Step Removal and Replacement	(EA)	2		
40	COT 416	Manhole Replacement (4 Ft ID)	(EA)	14		
41	COT 416	Manhole (4 Ft ID) Additional Vertical Foot over 6 Ft depth	(VF)	38		
42	COT 416	Manhole Replacement (5 Ft ID)	(EA)	1		
43	COT 416	Manhole (5 Ft ID) Additional Vertical Foot over 6 Ft depth	(VF)	5		
44	COT 417	Lamphole Replacement	(EA)	2		
45	COT 417	Lamphole Replace Frame and Cover	(EA)	1		
46	COT 426	Sealed Lid	(EA)	23		
47	SPECIAL PROVISION 4	Clean Manhole	(EA)	1		
48	ODOT 880	Construction Traffic Control	(CD)	400		
49	COT 400.7.4	Mobilization	(EA)	1		
50	COT 400.7.4	Photographic Documentation	(EA)	1		
51	SPECIAL PROVISION 2	Construction Owner Allowance	(EA)	50,000	\$ 1.00	\$50,000.00
52	COT 334	Construction As-Builts	(LS)	1		
53	COT 335	Contractor's Quality Control	(LS)	1		
54	ODOT Spec 220	SWPPP Documentation and Management	(LS)	1		
SUB TOTAL BASE BID						\$50,000.00

ADD ALTERNATE 1

ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	DATA INPUT UNIT PRICE	AMOUNT
55	COT 412	8 Inch Point Repair	(EA)	3		
56	COT 409	8 Inch Slipline, SDR 21	(LF)	166		
57	COT 409	8 Inch Cured-In-Place-Pipe	(LF)	772		
58	COT 408	8 Inch PipeBurst, DR-17 DIPS HDPE	(LF)	784		
59	COT 405	8 Inch Open Cut Only, SDR 26 PVC	(LF)	137		
60	COT 408	15 Inch PipeBurst, DR-17 DIPS HDPE	(LF)	167		
61	COT 402	Sodding	(SY)	305		
62	COT 405,408,409,410	Service Reconections	(EA)	50		
63	COT 405,408,409,410	PVC Service, Schedule 40	(LF)	250		
64	COT 415	Video Pre-Inspection	(LF)	2,293		
SUB TOTAL ADD ALTERNATE NO. 1						

ADD ALTERNATE 2

ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	DATA INPUT UNIT PRICE	AMOUNT
65	COT 412	8 Inch Point Repair	(EA)	4		
66	COT 412	Additional Footage (8 Inch Point Repair)	(LF)	10		
67	COT 409	8 Inch Slipline, SDR 21	(LF)	728		
68	COT 409	8 Inch Cured-In-Place-Pipe	(LF)	513		
69	COT 405	8 inch Open Cut Only, SDR 26 PVC	(LF)	566		
70	COT 409	18 Inch Cured-In-Place-Pipe	(LF)	281		
71	COT 402	Pavement Removal and Replacement -Concrete Street	(SY)	16		
72	COT 402	Sodding	(SY)	1,187		
73	COT 405,408,409,410	Service Reconnections	(EA)	51		
74	COT 405,408,409,410	PVC Service, Schedule 40	(LF)	255		
75	COT 415	Video Pre-Inspection	(LF)	2,954		
SUB TOTAL ADD ALTERNATE NO. 2						

ADD ALTERNATE 3

ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	DATA INPUT UNIT PRICE	AMOUNT
76	COT 412	8 Inch Point Repair	(EA)	12		
77	COT 412	10 Inch Point Repair	(EA)	1		
78	COT 405,408	8 Inch Pipeburst Replacement, DR-17 DIPS HDPE	(LF)	232		
79	COT 405	8 Inch Open Cut Only, SDR 26 PVC	(LF)	1,089		
80	COT 405	21 Inch Open Cut Only, SDR 26 PVC	(LF)	50		
81	COT 402	Pavement Removal and Replacement -Asphalt	(SY)	48		
82	COT 402	Pavement Removal and Replacement -Concrete	(SY)	157		
83	COT 402	Pavement Removal and Replacement -Concrete Driveway, Sidewalk	(SY)	105		
84	COT 402	Curb and Gutter Removal and Replacement	(LF)	659		
85	COT 402	Sodding	(SY)	1,364		
86	COT 405,408,409,410	Service Reconnections	(EA)	38		
87	COT 405,408,409,410	PVC Service, Schedule 40	(LF)	190		
88	COT 415	Video Pre-Inspection	(LF)	3715		
SUB TOTAL ADD ALTERNATE NO. 3						

BASE BID	\$50,000.00
ADD ALTERNATE NO. 1	
ADD ALTERNATE NO. 2	
ADD ALTERNATE NO. 3	
BASE BID PLUS ADDITIVE ALTERNATES	\$50,000.00

Figures

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

_____ %

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, or within ninety (90) days if Federal funds are utilized, 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: _____

The undersigned acknowledge receipt of the following Addenda (give number and date of each):

PAY ITEM NOTES

1. QUANTITIES UNDER THE "EXTRA" COLUMN HEADING ARE NOT ASSOCIATED WITH ANY SPECIFIC REPAIR SHOWN ON THE PLANS AND WILL ONLY BE USED TO COMPENSATE THE CONTRACTOR FOR ADDITIONAL COSTS INCURRED DUE TO CHANGED FIELD CONDITIONS.
2. SURFACE RESTORATION ITEMS SHALL BE PAID FOR IN ACCORDANCE WITH SPECIFICATION SECTION 402.17.
3. PER SECTION 402.17.2 PAYMENT FOR "SIDEWALK AND DRIVEWAY REMOVAL AND REPLACEMENT" AND "PAVEMENT REMOVAL AND REPLACEMENT" SHALL BE PAID FOR IN SQUARE YARDS. THE PAY QUANTITY SHALL BE COMPUTED AS THE LENGTH ALONG THE CENTERLINE OF THE PIPE BEING REPLACED MULTIPLIED BY THE STANDARD PAY WIDTH. (SEE STANDARD NO. 713)
4. QUANTITY INCLUDES REQUIRED SURFACE RESTORATION FOR PLACING SERVICE LINES IN STREET R/W. NO ADDITIONAL PAYMENT WILL BE MADE FOR SURFACE RESTORATION ASSOCIATED WITH THE SERVICE LINE REPLACEMENTS.
5. THE SOD QUANTITY SHALL BE COMPUTED AS FOLLOWS - LENGTH OF GRASS ALONG SEGMENT DISTURBED x 20' WIDE DIVIDED BY 9 FOR A TOTAL SQUARE YARDS PER SEGMENT. SOD RESTORATION WIDTHS BEYOND 20' SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND NO SEPARATE PAYMENT SHALL BE MADE.
6. MANHOLES WITH INTERIOR EPOXY COATINGS SHALL NOT RECEIVE STEPS. NEW MANHOLES SHALL NOT HAVE STEPS.
7. THE CONTRACTOR SHALL REMOVE ALL DEBRIS OR FOREIGN MATERIALS FROM THE MANHOLE, CORBEL, WALL, BENCH, STEPS AND INVERT. DEBRIS SHALL BE KEPT FROM ENTERING THE SEWER LINES. CONTRACTOR SHALL AT NO EXTRA COST TO OWNER, REPLACE ANY PORTION OF THE EXISTING MANHOLE WHICH IS DAMAGED DURING CLEANING.
8. STEP REMOVAL AND REPLACEMENT (TYPE I REPAIR) WHEN SPECIFIED, SHALL BE PAID FOR ON A PER MANHOLE BASIS AND INCLUDE ALL THE STEPS IN THE MANHOLE REGARDLESS OF SIZE OR HEIGHT OF THE MANHOLE.
9. TRAFFIC CONTROL SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THIS ITEM SHALL BE PAID PER CALENDAR DAYS FOR ALL NECESSARY TRAFFIC CONTROL. PAYMENT IS NOT GUARANTEED FOR FULL AMOUNT OF CALENDAR DAYS LISTED. PAYMENT FOR TRAFFIC CONTROL WILL BE BASED ON ACTUAL CALENDAR DAYS THAT TRAFFIC CONTROL ITEMS AND/OR DEVICES ARE USED.
10. EXTERNAL SERVICE CONNECTIONS SHALL BE REPLACED AT LEAST ONE FOOT BEYOND THE UPPER BEND. IF CUSTOMER SIDE OF SERVICE LINE IS IN POOR CONDITION, THE CONTRACTOR SHALL MAKE TEMPORARY CONNECTION AND NOTIFY QUALITY ASSURANCE FOR CUSTOMER REPAIR. CONTACT BREN SUMMERLIN AT (918) 591-4393.
11. CONTRACTOR SHALL COMPLETE A SERVICE REPORT FORM FOR EACH SERVICE RECONNECTED. THIS FORM IS PROVIDED IN THE SPECIAL PROVISIONS AND SHALL BE COMPLETED AND SUBMITTED WITH EACH MONTHLY PAY REQUEST.
12. OBSTRUCTION REMOVALS MUST BE APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. ALL NECESSARY MATERIAL, LABOR, BACKFILLING, SURFACE RESTORATION, TESTING, AND INCIDENTALS SHALL BE INCLUDED. NO ADDITIONAL PAYMENT WILL BE MADE.
13. POST REHABILITATION CCTV SHALL BE INCLUDED IN THE COST OF THE REHABILITATION PAY ITEM, WITH THE EXCEPTION OF OPEN CUT, WHICH WILL BE DONE BY SEWER OPERATION MAINTENANCE. NO SEPARATE PAYMENT SHALL BE MADE.
14. FLOWABLE FILL MAY BE PERMISSIBLE WHEN NORMAL COMPACTION METHODS ARE NOT FEASIBLE, WITH ENGINEERS APPROVAL ONLY. NO MORE THAN 0.6 CY PER FOOT OF EXCAVATED DEPTH WILL BE PERMITTED.
15. WHERE PVC SEWER PIPE IS USED, THE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE ASTM D-3034 LATEST REVISION, UNLESS OTHERWISE SPECIFIED. THE STANDARD DIMENSIONS RATIO OF PVC PIPE SHALL NOT EXCEED 26. REFER TO SECTIONS 405, 406, 407 AND 408 FOR THE REQUIREMENTS OF PIPE MATERIALS OTHER THAN PVC.
16. THE CONTRACTOR SHALL INSTALL A SEALED FRAME AND COVER WHEN PERFORMING MANHOLE REPAIR TYPES "A" AND "C", WITHIN THE CITY OF TULSA REGULATORY FLOOD PLAIN BOUNDARY, AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. (SEE SPECIFICATION SECTION 426)
17. MANHOLES REQUIRING FULL REPLACEMENT OR TYPE Fc - PRECAST CORBEL SECTION, SHALL BE CONSTRUCTED WITH NO STEPS AND TO INCORPORATE, AND INCLUDE A 30" FRAME AND COVER REGARDLESS OF THE MANHOLE DIAMETER, NO ADDITIONAL PAYMENT WILL BE MADE. SEE CITY OF TULSA STANDARD DETAIL 354.
18. ALL MANHOLES DESIGNATED FOR FULL REPLACEMENT OR TYPE "Fc" REHABILITATION AND ARE WITHIN THE CITY OF TULSA REGULATORY FLOOD PLAIN WILL REQUIRE THE INSTALLATION OF AN "EJ 3200 SERIES FRAME & COVER". SEE SPECIAL PROVISION 3 AND COT STD 359.
19. THIS ITEM TO BE USED AS APPROVED BY THE ENGINEER FOR SEGMENTS WHICH MAY REQUIRE NEW SERVICE LINES DUE TO OBSTRUCTIONS/OBSTACLES FORCING THE RE-ROUTING OF EXISTING SERVICE LINES; REPLACEMENT OF EXISTING SERVICE LINES IN POOR CONDITION, OR CONSTRUCTED OF UNSATISFACTORY MATERIAL; OR REPLACEMENT OF SERVICE LINES SHOWING EXCESSIVE AMOUNTS OF INFLOW OR INFILTRATION. SERVICE LINE REPLACEMENT SHALL ONLY BE PERFORMED ON LINES AUTHORIZED BY THE ENGINEER AND SHALL BE LOCATED WITHIN THE STREET ROW OR SEWER EASEMENT AND NOT ON PRIVATE PROPERTY. NO ADDITIONAL PAYMENT WILL BE MADE FOR SURFACE RESTORATION.
20. SPECIFICATION 334.2.M ONLY APPLIES TO SEGMENTS WHERE OPEN CUT REPLACEMENT OCCURS. ALSO "SPOT ELEVATIONS ON THE MAIN SEWER LINE..." CAN EITHER BE SURVEYED ELEVATIONS OR MEASURE DOWNS RELATIVE TO FINISHED GRADE.
21. THIS ITEM SHALL BE PAID FOR AT THE UNIT PRICE BID FOR EACH COMPLETE MANHOLE DROP PIPING ASSEMBLY REGARDLESS OF DEPTH OR DIAMETER OF THE ASSOCIATED MANHOLE. THIS ITEM SHALL INCLUDE ALL COST FOR EXCAVATION, BACKFILL, DEWATERING, BY PASS PUMPING, GROUT, SEALS, FITTINGS, MANHOLE MODIFICATIONS, AND ALL LABOR AND OTHER MATERIALS FOR A COMPLETE INSTALLATION PER CITY STANDARDS.
22. SERVICE RECONNECT COVERS BOTH THE RECONNECTION OF 4" AND 6" SERVICES.
23. SERVICE LINE COVERS BOTH THE INSTALLATION OF 4" AND 6" LINES.
24. CONTRACTOR SHALL VERIFY REQUIRED DEPTHS, ANGLES, AND CONNECTING LINE DIAMETERS PRIOR TO ORDERING REPLACEMENT MANHOLE COMPONENTS.
25. PAVEMENT REMOVAL AND REPLACEMENT FOR WATER, SANITARY, AND STORMWATER MAIN INSTALLATIONS - WITH RESPECT TO SAWCUTTING AND DOWELS, AND INCLUDES THE FOLLOWING, (THESE ITEMS SHALL NOT BE PAID SEPARATELY): SAW CUTTING, DOWELS, DISPOSAL OF BROKEN PAVEMENT, TEMPORARY SURFACES, ASSOCIATED EXCAVATION, PREPARATION OF SUBGRADE, FORMS OR REINFORCING, REMOVAL OR REPLACEMENT OF GRAVEL, ADDITIONAL SAW CUTTING OR REPLACEMENT OF PAVEMENT DAMAGED BY THE CONTRACTOR, JOINT SEALER, TACK COATS, OR EDGE SEALING. THIS PAYMENT ITEM DOES NOT INCLUDE THE FOLLOWING WHICH SHALL BE PAID SEPARATELY IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS, DETAILS AND DRAWINGS: CURB AND GUTTER.
26. BACKFILL UNDER ALL PAVED SURFACES SHALL BE TYPE "A" AGGREGATE BASE PLACED IN 8 INCH MAXIMUM LIFTS AND COMPACTED BY A VIBRATORY HAND TAMPER TO 95% OF THE STANDARD PROCTOR DENSITY, AS MEASURED BY THE NUCLEAR DENSITY METHOD.
27. 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 THE 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 LUMP SUM BID FOR THIS ITEM.
28. ASPHALT PAVEMENT INSTALLED IN NON-ARTERIAL STREETS SHALL BE PG 64-22 WHILE ARTERIAL STREETS SHALL BE PG 70-28 OK-INSOLUBLE. ALL ASPHALT MIX DESIGNS SHALL BE PAID BY ASPHALT REMOVAL AND REPLACEMENT PAY ITEM. (NO SEPARATE PAYMENT).

ESTIMATED CONSTRUCTION QUANTITIES

Summary of Pipeline Improvements Schedule								
Item No.	Description	Specifications	Unit	Pay Item Note	Atlas Sheet			
					34	61	Extra	Total
1	8 Inch Point Repair	COT 412	(EA)	13,15	7	8		15
2	Additional Footage (8 Inch Point Repair)	COT 412	(LF)	1,13,15			10	10
3	8 Inch Slipline SDR 21	COT 409	(LF)	13,15	917			917
4	8 Inch Cured-In-Place-Pipe	COT 410	(LF)	13	2,479			2,479
5	8 Inch PipeBurst, DR-17 DIPS HDPE	COT 408	(LF)	13,15	1,038	301		1,337
6	8 Inch Open Cut Only, SDR 26 PVC	COT 405	(LF)	2,13,14,15,20	141	623		623
7	10 Inch Point Repair	COT 412	(EA)	1,13,15			1	1
8	Additional Footage (10 Inch Point Repair)	COT 412	(LF)	1,13,15			10	10
9	10 Inch Slipline SDR 21	COT 409	(LF)	1,13,15			50	50
10	10 Inch Cured-In-Place-Pipe	COT 410	(LF)	1,13			50	50
11	10 Inch PipeBurst, DR-17 DIPS HDPE	COT 408	(LF)	13,15		306		306
12	10 Inch Open Cut Only, SDR 26 PVC	COT 405	(LF)	2,13,14,15,20	447	261		708
13	12 Inch Point Repair	COT 412	(EA)	1,13,15			1	1
14	Additional Footage (12 Inch Point Repair)	COT 412	(LF)	1,13,15			10	10
15	12 Inch Cured-In-Place-Pipe	COT 410	(LF)	13	554			554
16	Obstruction Removal	COT 423	(EA)	1,12,15			1	1
17	External Drop Replacement	SPECIAL PROVISION 6	(EA)	21	1	1		2
18	Flowable Fill	COT 202	(CY)	1			25	25
19	Pavement Removal and Replacement - Asphalt	COT 402	(SY)	1,3,25,26,28			25	25
20	Pavement Removal and Replacement - Concrete	COT 402	(SY)	3,25,26	274	4		278
21	Pavement Removal and Replacement - Concrete Driveway, Sidewalk	COT 402	(SY)	3,13		32		32
22	Curb and Gutter Removal and Replacement	COT 402	(ILF)		150	10		160
23	Sodding	COT 402	(SY)	5	158	1825		1,825
24	Service Reconnections	COT 405,408,409,410	(EA)	10,11,22	118	44		162
25	PVC Service, Schedule 40	COT 405,408,409,410	(LF)	4,10,11,19,23	610	220		830
26	Video Pre-Inspection	COT 415	(LF)	13	6,069	2,640		8,709

Summary of Manhole Rehabilitation Schedule										
Item No.	Description	Specifications	Unit	Pay Item Note	Atlas Sheet					
					34	61	95	96	Extra	TOTAL
27	Replace Cover, Frame and Frame Seal	COT 418 (Type A)	(EA)	16	19	9	7	9		44
28	Replace Frame Seal	COT 418 (Type B)	(EA)		2	1		2		5
29	Replace Cover, Frame and Frame Seal, and Chimney	COT 418 (Type C)	(EA)	16	3	1		3		7
30	Replace Frame Seal and Chimney	COT 418 (Type D)	(EA)		4		3	2		9
31	Partial Manhole Replacement - Precast Corbel Section	COT 418 (Type Fc)	(EA)	17,18	1		1			2
32	Interior Manhole Wall Rehabilitation	COT 421 (Type Gg)	(SF)		327	52				379
33	Bench and Invert Rehabilitation	COT 419 (Type Gh)	(EA)	1					1	1
34	Grout and Coat Pipe Seal	COT 421 (Type Gk)	(EA)		11	3	6	13		33
35	Plug Lift Holes , Plug Holes	COT 419 (Type Go)	(EA)	1					1	1
36	Seal Precast Joints	COT 421 (Type Gp)	(EA)		5	1		1		7
37	Patch Lift Hole/ Patch Hole	COT 419 (Type Gr)	(EA)		2	1	1	1		5
38	Epoxy Coating	COT 421 (Type Gs)	(SF)	1,6					100	100
39	Manhole Step Removal and Replacement	COT 420 (Type I)	(EA)	6,8	2					2
40	Manhole Replacement (4 Ft ID)	COT 416	(EA)	17,18,24	1	8	1	4		14
41	Manhole (4 Ft ID) Additional Vertical Foot over 6 Ft Depth	COT 416	(VF)	24		21	6	9		36
42	Manhole Replacement (5 Ft ID)	COT 416	(EA)	1,17,18,24					1	1
43	Manhole (5 Ft ID) Additional Vertical Foot over 6 Ft Depth	COT 416	(VF)	1,24					5	5
44	Lamphole Replacement	COT 417	(EA)		1			1		2
45	Lamphole Replace Frame and Cover	COT 417	(EA)					1		1
46	Sealed Lid	COT 426	(EA)	16,18	2	11	2	8		23
47	Clean Manhole	SPECIAL PROVISION 4	(EA)	1,7					1	1

Summary of General Contract Quantities										
Item No.	Description	Specifications	Unit	Pay Item Note	Atlas Sheet					
					34	61	95	96	Extra	TOTAL
48	Construction Traffic Control	ODOT 880	(CD)	9						400
49	Mobilization	COT 400.7.4	(EA)							1
50	Photographic Documentation	COT 400.7.4	(EA)							1
51	Construction Owner Allowance	SPECIAL PROVISION 2	(EA)							50,000
52	Construction As-Builts	COT 334	(LS)							1
53	Contractor's Quality Control	COT 335	(LS)							1
54	SWPPP Documentation and Management	ODOT SPEC 220	(LS)	27						1

PAY QUANTITIES AND PAY ITEM NOTES	
TMUA PROJECT NO. ES 2024-04 (2)	
CROW CREEK	
SPECIFIC REMEDIATION PLAN, CONTRACT 6	
CITY OF TULSA, OKLAHOMA	
WATER AND SEWER DEPARTMENT	
PLANS AND ESTIMATES PREPARED BY:	
	TETRA TECH 7645 E. 63rd Street, Suite 301, Tulsa, OK 74133 TEL 918.249.3909



REVISION	BY	DATE	PLAN SCALE:	DRAWN	TI	04/2026	APPROVED:
Addendum No. 1	TI	8-26		DESIGNED	TI	04/2026	
				SURVEY	TI	04/2026	
			PROFILE SCALE:	PROJ. MGR.			
			HORIZONTAL	LEAD ENGR.			
			VERTICAL	FIELD MGR.			
			FILE:	DRAWING:			DATE: APRIL 2026
			ATLAS PAGE NO.:	014, 033, 060			SHEET 2 OF 49 SHEETS

PAY ITEM NOTES

1. QUANTITIES UNDER THE "EXTRA" COLUMN HEADING ARE NOT ASSOCIATED WITH ANY SPECIFIC REPAIR SHOWN ON THE PLANS AND WILL ONLY BE USED TO COMPENSATE THE CONTRACTOR FOR ADDITIONAL COSTS INCURRED DUE TO CHANGED FIELD CONDITIONS.
2. SURFACE RESTORATION ITEMS SHALL BE PAID FOR IN ACCORDANCE WITH SPECIFICATION SECTION 402.17.
3. PER SECTION 402.17.2 PAYMENT FOR "SIDEWALK AND DRIVEWAY REMOVAL AND REPLACEMENT" AND "PAVEMENT REMOVAL AND REPLACEMENT" SHALL BE PAID FOR IN SQUARE YARDS. THE PAY QUANTITY SHALL BE COMPUTED AS THE LENGTH ALONG THE CENTERLINE OF THE PIPE BEING REPLACED MULTIPLIED BY THE STANDARD PAY WIDTH. (SEE STANDARD NO. 713)
4. QUANTITY INCLUDES REQUIRED SURFACE RESTORATION FOR PLACING SERVICE LINES IN STREET R/W. NO ADDITIONAL PAYMENT WILL BE MADE FOR SURFACE RESTORATION ASSOCIATED WITH THE SERVICE LINE REPLACEMENTS.
5. THE SOD QUANTITY SHALL BE COMPUTED AS FOLLOWS - LENGTH OF GRASS ALONG SEGMENT DISTURBED x 20' WIDE DIVIDED BY 9 FOR A TOTAL SQUARE YARDS PER SEGMENT. SOD RESTORATION WIDTHS BEYOND 20' SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND NO SEPARATE PAYMENT SHALL BE MADE.
6. MANHOLES WITH INTERIOR EPOXY COATINGS SHALL NOT RECEIVE STEPS. NEW MANHOLES SHALL NOT HAVE STEPS.
7. THE CONTRACTOR SHALL REMOVE ALL DEBRIS OR FOREIGN MATERIALS FROM THE MANHOLE, CORBEL, WALL, BENCH, STEPS AND INVERT. DEBRIS SHALL BE KEPT FROM ENTERING THE SEWER LINES. CONTRACTOR SHALL AT NO EXTRA COST TO OWNER, REPLACE ANY PORTION OF THE EXISTING MANHOLE WHICH IS DAMAGED DURING CLEANING.
8. STEP REMOVAL AND REPLACEMENT (TYPE I REPAIR) WHEN SPECIFIED, SHALL BE PAID FOR ON A PER MANHOLE BASIS AND INCLUDE ALL THE STEPS IN THE MANHOLE REGARDLESS OF SIZE OR HEIGHT OF THE MANHOLE.
9. TRAFFIC CONTROL SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THIS ITEM SHALL BE PAID PER CALENDAR DAYS FOR ALL NECESSARY TRAFFIC CONTROL. PAYMENT IS NOT GUARANTEED FOR FULL AMOUNT OF CALENDAR DAYS LISTED. PAYMENT FOR TRAFFIC CONTROL WILL BE BASED ON ACTUAL CALENDAR DAYS THAT TRAFFIC CONTROL ITEMS AND/OR DEVICES ARE USED.
10. EXTERNAL SERVICE CONNECTIONS SHALL BE REPLACED AT LEAST ONE FOOT BEYOND THE UPPER BEND. IF CUSTOMER SIDE OF SERVICE LINE IS IN POOR CONDITION, THE CONTRACTOR SHALL MAKE TEMPORARY CONNECTION AND NOTIFY QUALITY ASSURANCE FOR CUSTOMER REPAIR. CONTACT BREN SUMMERLIN AT (918) 591-4393.
11. CONTRACTOR SHALL COMPLETE A SERVICE REPORT FORM FOR EACH SERVICE RECONNECTED. THIS FORM IS PROVIDED IN THE SPECIAL PROVISIONS AND SHALL BE COMPLETED AND SUBMITTED WITH EACH MONTHLY PAY REQUEST.
12. OBSTRUCTION REMOVALS MUST BE APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. ALL NECESSARY MATERIAL, LABOR, BACKFILLING, SURFACE RESTORATION, TESTING, AND INCIDENTALS SHALL BE INCLUDED. NO ADDITIONAL PAYMENT WILL BE MADE.
13. POST REHABILITATION CCTV SHALL BE INCLUDED IN THE COST OF THE REHABILITATION PAY ITEM, WITH THE EXCEPTION OF OPEN CUT, WHICH WILL BE DONE BY SEWER OPERATION MAINTENANCE. NO SEPARATE PAYMENT SHALL BE MADE.
14. FLOWABLE FILL MAY BE PERMISSIBLE WHEN NORMAL COMPACTION METHODS ARE NOT FEASIBLE, WITH ENGINEERS APPROVAL ONLY. NO MORE THAN 0.6 CY PER FOOT OF EXCAVATED DEPTH WILL BE PERMITTED.
15. WHERE PVC SEWER PIPE IS USED, THE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE ASTM D-3034 LATEST REVISION, UNLESS OTHERWISE SPECIFIED. THE STANDARD DIMENSIONS RATIO OF PVC PIPE SHALL NOT EXCEED 26. REFER TO SECTIONS 405,406,407 AND 408 FOR THE REQUIREMENTS OF PIPE MATERIALS OTHER THAN PVC.
16. THE CONTRACTOR SHALL INSTALL A SEALED FRAME AND COVER WHEN PERFORMING MANHOLE REPAIR TYPES "A" AND "C". WITHIN THE CITY OF TULSA REGULATORY FLOOD PLAIN BOUNDARY, AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. (SEE SPECIFICATION SECTION 426)
17. MANHOLES REQUIRING FULL REPLACEMENT OR TYPE Fc - PRECAST CORBEL SECTION, SHALL BE CONSTRUCTED WITH NO STEPS AND TO INCORPORATE, AND INCLUDE A 30" FRAME AND COVER REGARDLESS OF THE MANHOLE DIAMETER, NO ADDITIONAL PAYMENT WILL BE MADE. SEE CITY OF TULSA STANDARD DETAIL 354.
18. ALL MANHOLES DESIGNATED FOR FULL REPLACEMENT OR TYPE "Fc" REHABILITATION AND ARE WITHIN THE CITY OF TULSA REGULATORY FLOOD PLAIN WILL REQUIRE THE INSTALLATION OF AN "EJ 3200 SERIES FRAME & COVER". SEE SPECIAL PROVISION 3 AND COT STD 359.
19. THIS ITEM TO BE USED AS APPROVED BY THE ENGINEER FOR SEGMENTS WHICH MAY REQUIRE NEW SERVICE LINES DUE TO OBSTRUCTIONS/OBSTACLES FORCING THE RE-ROUTING OF EXISTING SERVICE LINES; REPLACEMENT OF EXISTING SERVICE LINES IN POOR CONDITION, OR CONSTRUCTED OF UNSATISFACTORY MATERIAL; OR REPLACEMENT OF SERVICE LINES SHOWING EXCESSIVE AMOUNTS OF INFLOW OR INFILTRATION. SERVICE LINE REPLACEMENT SHALL ONLY BE PERFORMED ON LINES AUTHORIZED BY THE ENGINEER AND SHALL BE LOCATED WITHIN THE STREET ROW OR SEWER EASEMENT AND NOT ON PRIVATE PROPERTY. NO ADDITIONAL PAYMENT WILL BE MADE FOR SURFACE RESTORATION.
20. SPECIFICATION 334.2.M ONLY APPLIES TO SEGMENTS WHERE OPEN CUT REPLACEMENT OCCURS. ALSO "SPOT ELEVATIONS ON THE MAIN SEWER LINE..." CAN EITHER BE SURVEYED ELEVATIONS OR MEASURE DOWNS RELATIVE TO FINISHED GRADE.
21. THIS ITEM SHALL BE PAID FOR AT THE UNIT PRICE BID FOR EACH COMPLETE MANHOLE DROP PIPING ASSEMBLY REGARDLESS OF DEPTH OR DIAMETER OF THE ASSOCIATED MANHOLE. THIS ITEM SHALL INCLUDE ALL COST FOR EXCAVATION, BACKFILL, DEWATERING, BY PASS PUMPING, GROUT, SEALS, FITTINGS, MANHOLE MODIFICATIONS, AND ALL LABOR AND OTHER MATERIALS FOR A COMPLETE INSTALLATION PER CITY STANDARDS.
22. SERVICE RECONNECT COVERS BOTH THE RECONNECTION OF 4" AND 6" SERVICES.
23. SERVICE LINE COVERS BOTH THE INSTALLATION OF 4" AND 6" LINES.
24. CONTRACTOR SHALL VERIFY REQUIRED DEPTHS, ANGLES, AND CONNECTING LINE DIAMETERS PRIOR TO ORDERING REPLACEMENT MANHOLE COMPONENTS.
25. PAVEMENT REMOVAL AND REPLACEMENT FOR WATER, SANITARY, AND STORMWATER MAIN INSTALLATIONS - WITH RESPECT TO SAWCUTTING AND DOWELS, AND INCLUDES THE FOLLOWING, (THESE ITEMS SHALL NOT BE PAID SEPARATELY): SAW CUTTING, DOWELS, DISPOSAL OF BROKEN PAVEMENT, TEMPORARY SURFACES, ASSOCIATED EXCAVATION, PREPARATION OF SUBGRADE, FORMS OR REINFORCING, REMOVAL OR REPLACEMENT OF GRAVEL, ADDITIONAL SAW CUTTING OR REPLACEMENT OF PAVEMENT DAMAGED BY THE CONTRACTOR, JOINT SEALER, TACK COATS, OR EDGE SEALING. THIS PAYMENT ITEM DOES NOT INCLUDE THE FOLLOWING WHICH SHALL BE PAID SEPARATELY IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS, DETAILS AND DRAWINGS: CURB AND GUTTER.
26. BACKFILL UNDER ALL PAVED SURFACES SHALL BE TYPE "A" AGGREGATE BASE PLACED IN 8 INCH MAXIMUM LIFTS AND COMPACTED BY A VIBRATORY HAND TAMPER TO 95% OF THE STANDARD PROCTOR DENSITY, AS MEASURED BY THE NUCLEAR DENSITY METHOD.
27. 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 THE 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 LUMP SUM BID FOR THIS ITEM.
28. ASPHALT PAVEMENT INSTALLED IN NON-ARTERIAL STREETS SHALL BE PG 64-22 WHILE ARTERIAL STREETS SHALL BE PG 70-28 OK-INSOLUBLE. ALL ASPHALT MIX DESIGNS SHALL BE PAID BY ASPHALT REMOVAL AND REPLACEMENT PAY ITEM. (NO SEPARATE PAYMENT).

ESTIMATED CONSTRUCTION QUANTITIES - ADD ALTERNATE 1

Add Alternate No. 1

Summary of Pipeline Improvements Schedule							
Item No.	Description	Specifications	Unit	Pay Item Note	Atlas Sheet		
					95	Extra	Total
55	8 inch Point Repair	COT 412	(EA)	13,15	3		3
56	8 inch Slipline SDR 21	COT 409	(LF)	13,15	166		166
57	8 inch Cured-in-Place-Pipe	COT 410	(LF)	13,15	772		772
58	8 inch PipeBurst, DR-17 DIPS HDPE	COT 408	(LF)	2,13	784		784
59	8 inch Open Cut Only, SDR 26 PVC	COT 405	(LF)	2,13,14,15	137		137
60	15 inch PipeBurst, DR-17 DIPS HDPE	COT 408	(LF)	2,13	167		167
61	Sodding	COT 402	(SY)	5	305		305
62	Service Reconnections	COT 405,408,409,410	(EA)	10,11,22	50		50
63	PVC Service, Schedule 40	COT 405,408,409,410	(LF)	4,10,11,19,23	250		250
64	Video Pre-Inspection	COT 415	(LF)	13	2293		2,293

ESTIMATED CONSTRUCTION QUANTITIES - ADD ALTERNATE 2

Add Alternate No. 2

Summary of Pipeline Improvements Schedule							
Item No.	Description	Specifications	Unit	Pay Item Note	Atlas Sheet		
					60	95	Total
65	8 Inch Point Repair	COT 412	(EA)	13,15		4	4
66	Additional Footage (8 Inch Point Repair)	COT 412	(LF)	1,13,15		10	10
67	8 Inch Slipline SDR 21	COT 409	(LF)	13,15		728	728
68	8 Inch Cured-In-Place-Pipe	COT 410	(LF)	13	178	335	513
69	8 Inch Open Cut Only, SDR 26 PVC	COT 405	(LF)	2,13,14,15		566	566
70	18 Inch Cured-In-Place-Pipe	COT 410	(LF)	13		281	281
71	Pavement Removal and Replacement - Concrete	COT 402	(SY)	3		16	16
72	Sodding	COT 402	(SY)	5		1187	1187
73	Service Reconnections	COT 405,408,409,410	(EA)	10,11,22	1	50	51
74	PVC Service, Schedule 40	COT 405,408,409,410	(LF)	4,10,11,19,23	5	250	255
75	Video Pre-Inspection	COT 415	(LF)	13	178	2776	2954

ESTIMATED CONSTRUCTION QUANTITIES - ADD ALTERNATE 3

Add Alternate No. 3

Summary of Pipeline Improvements Schedule							
Item No.	Description	Specifications	Unit	Pay Item Note	Atlas Sheet		
					96	Extra	Total
76	8 Inch Point Repair	COT 412	(EA)	13,15	12		12
77	10 Inch Point Repair	COT 412	(EA)	13,15	1		1
78	8 Inch PipeBurst, DR-17 DIPS HDPE	COT 408	(LF)	2,13,15	232		232
79	8 Inch Open Cut Only, SDR 26 PVC	COT 405	(LF)	2,13,14,15	1089		1089
80	21 Inch Open Cut Only, SDR 26 PVC	COT 408	(LF)	2,13,14,15	50		50
81	Pavement Removal and Replacement - Asphalt	COT 402	(SY)	3	48		48
82	Pavement Removal and Replacement - Concrete	COT 402	(SY)	3	157		157
83	Pavement Removal and Replacement - Concrete Driveway, Sidewalk	COT 402	(SY)	13	105		105
84	Curb and Gutter Removal and Replacement	COT 402	(LF)		699		699
85	Sodding	COT 402	(SY)	5	1364		1364
86	Service Reconnections	COT 405,408,409,410	(EA)	10,11,22	38		38
87	PVC Service, Schedule 40	COT 405,408,409,410	(LF)	4,10,11,19,23	190		190
88	Video Pre-Inspection	COT 415	(LF)	13	3715		3715



REVISION		BY	DATE	PLAN SCALE:	DRAWN	TI	04/2026	APPROVED:	
1	Addendum No. 1	TI	8-26		DESIGNED	TI	04/2026		
					SURVEY	TI	04/2026		
					PROFILE SCALE: HORIZONTAL	PROJ. MGR.			
						LEAD ENGR.			
				VERTICAL	FIELD MGR.				
					FILE:	DRAWING:	---	DESIGN NUMBER	
				ATLAS PAGE NO.:	34,61,95,96		DATE: APRIL 2026		
						SHEET 3 OF 49 SHEETS			

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GENERAL NOTES

1. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SAFETY PLAN TO THE CITY OF TULSA FIELD ENGINEERING DEPARTMENT PRIOR TO COMMENCEMENT OF WORK. THE SAFETY PLAN SHALL ADDRESS, BUT NOT BE LIMITED TO ISSUES SUCH AS TRAFFIC CONTROL, WORK SITE SAFETY, MANHOLE VENTILATION, WORK EQUIPMENT, FIRST AID, HYGIENE, AND OTHER RELATED TOPICS. THE CONTRACTOR SHALL BE EXPECTED TO PERFORM THE WORK IN A MANNER THAT BEST PROTECTS THE SAFETY OF WORKERS, INSPECTORS, BYSTANDERS, AND OTHERS WHO MAY BE IN THE VICINITY OF THE PROJECT. FAILURE TO PERFORM THE WORK AND MAINTAIN THE SITE IN A SAFE MANNER, IN THE OPINION OF THE ENGINEER OR OWNER, SHALL BE SUFFICIENT CAUSE TO STOP ALL WORK UNTIL SAFETY PROBLEMS ARE CORRECTED.
2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE CITY OF TULSA ENGINEERING STANDARDS AND SPECIFICATIONS, IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THIS CONTRACT, AND IN ACCORDANCE WITH ODOT STANDARDS.
3. THE CONTRACTOR SHALL HAVE ONE (1) EXECUTED COPY OF THE CONTRACT DOCUMENTS AT THE JOB SITE AT ALL TIMES.
4. THE CONTRACTOR SHALL, IN COOPERATION WITH THE CITY, DEVELOP AND SUBMIT FOR APPROVAL A TRAFFIC CONTROL PLAN (TCP), TO THE CITY OF TULSA PUBLIC WORKS, FIELD ENGINEERING. THIS TCP SHALL DETAIL SUCH MEASURES AS MAY BE REQUIRED TO ESTABLISH, INSTALL, MAINTAIN, AND OPERATE A COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROL SYSTEM DURING THE ENTIRE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL PLACE TRAFFIC CONTROL FLAGMEN, BARRICADES, SIGNS, SIGNALS, OR OTHER DEVICES AS MAY BE REQUIRED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION, PERMITTING, AND EXECUTION OF A STORMWATER POLLUTION PREVENTION PLAN (SWP3). THE CONTRACTOR SHALL PROVIDE ALL DOCUMENTATION REQUIRED OF SWP3 FOR REVIEW AND APPROVAL OF THE PLAN BY FEDERAL, STATE, AND LOCAL AUTHORITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, THE NOTICE OF INTENT AND THE NOTICE OF TERMINATION.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY ORANGE SAFETY FENCING AROUND ALL EXCAVATION, INCLUDING TRENCHES, PITS, VAULTS, ETC. TO MAINTAIN SECURITY AND SAFETY FOR ANIMALS, CHILDREN OR ANY BYSTANDER. THE COST OF ORANGE SAFETY FENCING SHALL BE INCLUDED IN OTHER PAY ITEMS.
7. PRIOR TO EXCAVATING, THE CONTRACTOR IS RESPONSIBLE FOR BRACING OR SUPPORTING ANY POWER OR UTILITY POLE OR GUY WIRE WITHIN 5 FEET OF EXCAVATION TO THE SATISFACTION OF THE OWNER AND THE UTILITY COMPANY, AT NO ADDITIONAL COST TO THE OWNER.
8. ALL EXCAVATED MATERIAL REMOVED DURING TRENCHING OR EXCAVATION SHALL BE DISPOSED OF AT A SITE APPROVED BY THE OWNER. PRIOR TO TRENCHING AND EXCAVATION, THE CONTRACTOR SHALL SUBMIT THE PROPOSED DISPOSAL SITE TO THE ENGINEER FOR REVIEW. STOCKPILING EXCAVATED MATERIALS IN STREET OR ALLEY RIGHT-OF-WAY MAY BE ALLOWED UPON APPROVAL BY THE ENGINEER. MAINTENANCE OF STOCKPILE SITE IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR MUST MAINTAIN STOCKPILE SITES IN A SAFE, POLLUTION FREE CONDITION THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL NOT STOCKPILE MATERIAL OR STORE ANY EQUIPMENT OVERNIGHT IN THE TULSA REGULATORY FLOODPLAIN.
9. BACKFILL UNDER ALL PAVED SURFACES SHALL BE TYPE "A" AGGREGATE BASE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED BY A VIBRATORY HAND TAMPER TO 95% OF THE STANDARD PROCTOR DENSITY, AS MEASURED BY THE NUCLEAR DENSITY METHOD.
10. THE CONTRACTOR SHALL PROVIDE A DETAILED ACCESS PLAN FOR THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS, CONSTRUCTION ACTIVITIES, AND PERMITS THAT MAY BE NEEDED FOR THE IMPLEMENTATION OF THIS PLAN.
11. CONTRACTOR MUST NOTIFY THE HOMEOWNER A MINIMUM OF 48 HOURS (SPECIFICATION 400) PRIOR TO BEGINNING ANY REHAB WORK OR CONSTRUCTION ON HOMEOWNER'S PROPERTY.

12. IN ALL AREAS WHERE EXCAVATION WILL OCCUR, CONTRACTOR SHALL VIDEO ALL CONCRETE PAVEMENT, BUILDINGS, FOUNDATIONS, LANDSCAPING, LAWNS AND TREES PRIOR TO CONSTRUCTION AND SUBMIT TO THE ENGINEER FOR PROJECT RECORDS.
13. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ANY EXISTING STORAGE SHEDS, LOCATED WITHIN THE CONSTRUCTION AREA, THAT ARE DAMAGED DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE CITY OF TULSA OR THE HOMEOWNER.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF THE LOCATION OF ALL EXISTING SANITARY SEWER SERVICE LATERALS IN THE PROJECT AREA. IF ENCOUNTERED OR DAMAGED DURING CONSTRUCTION, EXISTING SERVICE LATERALS SHALL BE REMOVED AND REPLACED USING PIPE OF THE SAME SIZE AND MATERIAL AS THE EXISTING SEWER AT THE CONTRACTOR'S EXPENSE.
15. CONTRACTOR MUST EXERCISE DILIGENCE WHEN WORKING AROUND TREES. HOWEVER, IF DAMAGE OCCURS TO TREES LOCATED WITHIN AN EASEMENT CONTRACTOR SHALL NOT BE RESPONSIBLE.
16. ALL PAVEMENT REMOVAL SHALL BE SAW CUT AT THE NEAT LINES AS INDICATED IN THE SPECIFICATIONS AND STANDARD DETAILS. SAW CUTS REQUIRED FOR REMOVAL AND REPLACEMENT ITEMS SHALL BE FULL DEPTH OF THE EXISTING PAVEMENT. SAW CUTS SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS.
17. ALL CONCRETE PAVEMENTS, FLEXIBLE PAVEMENTS, CURB AND GUTTER, AND UNPAVED SURFACES SHALL BE FINISHED TO MATCH EXISTING SURROUNDING SURFACES.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING, NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.
19. IF ANY BRICK SANITARY MANHOLES/STRUCTURES ASSOCIATED WITH THE IDENTIFIED SEWER LINES ARE FOUND, THE CITY SHALL BE NOTIFIED BEFORE WORK COMMENCES FOR AN EVALUATION OF REHABILITATION. REHABILITATION OF ANY BRICK SANITARY MANHOLES/STRUCTURES SHALL BE BY COMPLETED MANHOLE/STRUCTURE REPLACEMENT OR BY METHODS DESCRIBED IN SPECIFICATION 418.
20. ALL SANITARY SEWER AND STORM SEWER MANHOLE CASTING AND LIDS THAT ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW ONES, AND THE OLD CASTINGS AND LIDS SHALL BE DELIVERED TO THE SEWER BASE AT 9319 E 42nd STREET N. AND PLACED IN THE METAL RECYCLE BIN IN THE STOCKROOM AREA 918-669-6130, BETWEEN THE HOURS OF 7:30 AM AND 3:00 PM MONDAY THROUGH FRIDAY.
21. ALL SANITARY SEWER MANHOLES LOCATED IN THE FLOODPLAIN SHALL BE BUILT IN ACCORDANCE WITH THE FLOODPLAIN MANHOLE SPECIFICATION WITH PADDLE - LOCK LID.
22. THE CONTRACTOR SHALL SUBMIT A TRENCH EXCAVATION PLAN, SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, FOR ALL LOCATIONS WHERE TRENCH OR SHAFT EXCAVATION EXCEEDS 20 FEET DEEP.
23. IF NECESSARY, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE BYPASS PUMPING DURING SANITARY SEWER CONSTRUCTION. CONTRACTOR SHALL SUBMIT A SEWER BYPASS PLAN PRIOR TO CONSTRUCTION.
24. CONTRACTOR SHALL MAINTAIN SEWER FLOW AT ALL TIMES DURING BYPASS PUMPING OPERATIONS. THE PUMP AND BYPASS LINES SHALL BE OF ADEQUATE CAPACITY AND SIZE TO HANDLE THE ANTICIPATED WET WEATHER FLOW. LIQUID LEVELS SHALL NOT BE ALLOWED TO OVERFLOW OR BACK-UP INTO ANY CUSTOMER'S DWELLING OR BUSINESS.
25. THE COST OF BYPASS PUMPING INCLUDING THE PUMPS, LINES, LABOR AND ANY OTHER ASSOCIATED ITEMS REQUIRED TO MAINTAIN BYPASS PUMPING SHALL BE INCLUDED IN OTHER ITEMS OF WORK. NO ADDITIONAL PAYMENT WILL BE MADE FOR BYPASS PUMPING. CONTRACTOR IS REQUIRED TO SUBMIT WRITTEN BYPASS PUMPING NOTIFICATION FORM TO SEWER OPERATIONS AND MAINTENANCE AT LEAST ONE WEEK PRIOR TO BYPASS PUMPING. SEE SPECIAL PROVISIONS.
26. ALL MANHOLES, PIPE SIZES AND LENGTH, DEFECTS, SURFACE TYPES AND THEIR LOCATIONS SHOWN IN THE PLANS ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL INFORMATION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING THE WORK.
27. TO CONTROL EROSION AND SEDIMENTS FROM STORMWATER RUNOFF, FINAL STABILIZATION OF DISTURBED AREAS AND SLOPES SHALL BE ACHIEVED BY ESTABLISHING PERMANENT VEGETATIVE COVER OR INSTALLING APPROVED PERMANENT SURFACE MATERIALS OR STRUCTURES. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 14 DAYS OF PROJECT COMPLETION. FOR PROJECTS EXCEEDING 40 ACRES OR LOCATED WITHIN ONE (1) MILE OF AN IMPAIRED/TMDL WATERBODY, THE CONTRACTOR SHALL COMPLETE FINAL SOIL STABILIZATION MEASURES WITHIN 7 DAYS OF PROJECT COMPLETION.
28. ALL WORK SHALL BE CONDUCTED IN A MANNER THAT COMPLIES WITH THE CITY'S MUNICIPAL STORMWATER DISCHARGE PERMIT (MS4), POLLUTION ORDINANCE, AND STORMWATER MANAGEMENT PROGRAM (SMWP). CONTRACTORS WILL PREVENT THE DISCHARGE OF POLLUTANTS INTO THE CITY'S STORM SEWER SYSTEM OR WATERS OF THE STATE TO THE MAXIMUM EXTENT PRACTICABLE. CONSTRUCTION VEHICLE WASH WATERS ARE NOT TO BE DISCHARGED INTO CITY OF TULSA WATERS OR WATERS OF THE STATE.

29. IF ROCK IS ENCOUNTERED AND THE CONTRACTOR CHOOSES TO BLAST, BLASTING WILL CONFORM TO THE CITY OF TULSA BLASTING ORDINANCE. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE CONSIDERED INCIDENTAL TO UNCLASSIFIED EXCAVATION AND BACKFILL. ALL LOCATIONS FOR BLASTING SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.

MANHOLE REHABILITATION NOTES

1. REPLACEMENT MANHOLES SHALL HAVE FLOW LINE AND RIM ELEVATIONS SET TO MATCH THOSE OF EXISTING MANHOLES UNLESS OTHERWISE NOTED BY THE ENGINEER. FRAMES AND COVERS SHALL BE PROVIDED IN ACCORDANCE WITH SPECIFICATION REQUIREMENTS.
2. CONTRACTOR SHALL ENSURE THAT ALL MANHOLE FRAME AND COVER CASTINGS HAVE MACHINED SEATING SURFACES WITH A TIGHT FIT AND COMPLY WITH THE OTHER PROVISIONS OF THE MATERIALS SPECIFICATION.
3. ACTIVE LEAKING JOINTS OR OTHER DEFECTS OBSERVED BY THE CONTRACTOR, BUT NOT SCHEDULED FOR REHABILITATION, SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY UPON DETECTION.
4. IN AREAS OF MANHOLE REPAIRS, CONTRACTOR SHALL PLACE SPOILS ON PLASTIC SHEETS, PLYWOOD OR OTHER SUITABLE GROUND PROTECTION.
5. THE MANHOLE DEPTHS SHOWN ON THE PLANS ARE FROM SURVEY. HOWEVER, ACCURATE FIELD MEASUREMENTS SHALL BE UTILIZED FOR ANY MANHOLE REPLACEMENT OR REHABILITATION.
6. ALL NEW, WALL REHABILITATION, AND REPLACEMENT MANHOLES SHALL NOT HAVE STEPS INSTALLED. MANHOLE WALL REHABILITATION TYPE Gg AND Gs REPAIRS, SHALL HAVE STEPS REMOVED AND ARE CONSIDERED INCIDENTAL TO WALL REHABILITATION PAY ITEMS.
7. CONTRACTOR SHALL BE REQUIRED TO VACUUM TEST ALL NEW MANHOLE INSTALLATIONS AND EXISTING MANHOLES WHERE COMPLETE REHABILITATION IS PERFORMED, IN ACCORDANCE WITH THE CITY OF TULSA ENGINEERING STANDARDS AND SPECIFICATIONS.
8. ALL FRAMES AND COVERS FOR NEW MANHOLES INSTALLED ON THE PROJECT SHALL HAVE A MINIMUM CLEAR OPENING OF 30-INCHES REGARDLESS OF MANHOLE SIZE. NEW MANHOLE FRAMES AND COVERS INSTALLED ON EXISTING MANHOLES MAY HAVE CLEAR OPENING LESS THAN 30-INCHES WITH ENGINEER APPROVAL.

PIPELINE REHABILITATION NOTES

1. POST REHABILITATION TELEVISION INSPECTION OF LINES INSTALLED BY TRENCHLESS METHODS SHALL BE PERFORMED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE COST OF OTHER PAY ITEMS.
2. POINT REPAIR LOCATIONS ARE APPROXIMATE AND SHALL BE DETERMINED BY THE CONTRACTOR'S PRE-TELEVISION INSPECTION.
3. QUANTITIES SHOWN IN THE SUMMARY TABLE ARE AN ESTIMATE OF QUANTITIES FOR THE WORK SHOWN AND DO NOT REFLECT FINAL WORK ITEM QUANTITIES NECESSARY TO REHABILITATE PIPELINE SEGMENTS.
4. POINT REPAIR(S) SHALL BE PERFORMED USING LIKE PIPE ACCORDING TO CITY OF TULSA CONSTRUCTION SPECIFICATION SECTION 412.2.1. (I.E. EXISTING VCP WILL BE REPAIRED USING VCP, EXISTING PVC WILL BE REPAIRED USING PVC, AND EXISTING DIP WILL BE REPAIRED USING DIP). IF AN OBSTRUCTION IS ENCOUNTERED DURING CLEANING AND TELEVISION INSPECTION PRIOR TO OR DURING THE INSERTION OF THE NEW LINE THROUGH THE HOST PIPE, THE CONTRACTOR HAS THE OPTION OF USING VCP OR PVC TO REPAIR THE HOST PIPE AT THE LOCATION OF THE OBSTRUCTION. IN ALL CASES, CONCRETE PIPE SHALL BE REPLACED WITH PVC.
5. PIPELINE REHABILITATION PLANS ARE FOR REFERENCE ONLY AND DO NOT DEPICT ALL OF THE EXISTING UTILITIES.
6. PIPE EMBEDMENT WILL BE AS SHOWN IN CITY OF TULSA STANDARD DETAILS EXCEPT WHERE SPECIFICALLY NOTED ON THE PLANS.
7. CONTRACTOR SHALL SUPPLY WITH HIS MONTHLY PAY REQUEST, A LIST SHOWING ALL SEWER LINES REPAIRED, THE ADDRESS OF ANY SERVICE LINES THAT ARE RECONNECTED, AND THE FOOTAGE OF THE RECONNECTION FROM THE NEAREST DOWNSTREAM MANHOLE.
8. THE TERM "PIPE BURSTING" THAT IS USED THROUGHOUT THE CONSTRUCTION DRAWINGS IS INTENDED TO INCLUDE OTHER SIMILAR TRENCHLESS PIPE REPLACEMENT METHODS, SUCH AS PIPE REAMING AND PIPE CRUSHING. IT DOES NOT INCLUDE SPLITLINING OR INSTALLATION OF CURED-IN-PLACE PIPE.



REVISION	BY	DATE
1	Tt	8-26

GENERAL NOTES	
TMUA PROJECT NO. ES 2024-04 (2)	
CROW CREEK	
SPECIFIC REMEDIATION PLAN, CONTRACT 6	
CITY OF TULSA, OKLAHOMA	
WATER AND SEWER DEPARTMENT	
PLANS AND ESTIMATES PREPARED BY:	
 TETRA TECH 7645 E. 63rd Street, Suite 301, Tulsa, OK 74133 TEL 918.249.3909	
PLAN SCALE:	APPROVED:
DRAWN: Tt 04/2026	DESIGNED: Tt 04/2026
SURVEY: Tt 04/2026	PROJ. MGR.:
PROFILE SCALE:	LEAD ENGR.:
HORIZONTAL:	FIELD MGR.:
VERTICAL:	FILE:
DRAWING:	DATE: APRIL 2026
ATLAS PAGE NO.:	SHEET 4 OF 49 SHEETS



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ATLAS 34- LINE REHAB SCHEDULE

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ATLAS 34 - LINE SCHEDULE					
TMUA PROJECT NO. ES 2024-04 (2)					
CROW CREEK					
SPECIFIC REMEDIATION PLAN, CONTRACT 6					
 CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT PLANS AND ESTIMATES PREPARED BY:  TETRA TECH 7645 E. 63rd Street, Suite 301, Tulsa, OK 74133 TEL 918 249 3909					
DATE 26	PLAN SCALE:	DRAWN	TI	04/2026	APPROVED: 
		DESIGNED	ti	04/2026	
		SURVEY	ti	04/2026	
		PROJ MGR.			
		LEAD ENGR.			
	VERTICAL	FIELD MGR.			
PROFILE SCALE HORIZONTAL					
FILE:		DRAWING:			
ATLAS PAGE NO.: 34		SHEET 9 OF 49 SHEETS			

ATLAS 34- MANHOLE REHAB SCHEDULE

Atlas	Basin	MH	Diameter (ft)	Depth (ft) (Rim to Invert)	Grade to Rim	Drop Manhole	Address	Surface Type	TYPE A (EA)	TYPE B (EA)	TYPE C (EA)	TYPE D (EA)	TYPE Fc (EA)	TYPE Gg (SF)	TYPE Gh (EA)	TYPE Gk (EA MH)	TYPE Go (EA MH)	TYPE Gp (EA)	TYPE Gr (EA MH)	TYPE Gs (SF)	MANHOLE REPLACEMENT, 4' I.D. (EA)	Additional Depth OVER 6' FOR 4' I.D. (VF)	DROP MANHOLE REPLACEMENT 4' I.D. (EA)	Additional Depth OVER 6' FOR 4' I.D. DROP (VF)	MANHOLE REPLACEMENT 5' I.D. (EA)	Additional Depth OVER 6' FOR 5' I.D. (VF)	DROP MANHOLE REPLACEMENT 5' I.D. (EA)	Additional Depth OVER 6' FOR 5' I.D. DROP (VF)	LAMP/HOLE REPLACEMENT (EA)	REPLACE LAMP/HOLE FRAME AND COVER (EA)	SEALED LID (EA)	MANHOLE STEP REMOVAL AND REPLACEMENT, TYPE I (PER MH)	
34	34	034-0606	4	10.10	0	No	2210 S Main St	Concrete Pavement			1																						
34	44	044-0005	4	9.12	0.38	No	2720 Riverside Dr	Grass/Dirt	1									1														1	1
34	44	044-0028	4	10.8	0	No	2347 Riverside Dr	Concrete Pavement				1																					
34	44	044-0031	4	9.76	1.75	Yes	39 E 24th St S	Grass/Dirt		1																							
34	44	044-0033	4	9.55	0.26	No	87 E 24th St S	Grass/Dirt				1						1															
34	44	044-0034	4	14.69	0	No	25 E 25th St	Grass/Dirt	1										1														
34	44	044-0035	4	15.76	0	Yes	2424 S Boston Ave	Grass/Dirt						197.9																			
34	44	044-0036	0.667	6.01	0	No	95 E 24th St S	Grass/Dirt													1												
34	44	044-0038	4	15.3	0	No	130 E 24th St	Grass/Dirt	1																								
34	44	044-0040	4	8.1	0	No	125 E 24th St	Grass/Dirt	1																								
34	44	044-0041	4	9.28	0	No	125 E 24th St	Grass/Dirt	1																								
34	44	044-0043	4	6.30	0	No	2 Woodward Blvd	Grass/Dirt	1																								
34	44	044-0044	4	8.32	0.48	No	135 E 24th St	Grass/Dirt		1																							
34	44	044-0045	4	8.48	0.24	No	2509 S Boston Pl	Grass/Dirt	1																								
34	44	044-0046	4	11.75	0	No	33 E 26th St	Grass/Dirt	1																								
34	44	044-0049	4	13.88	0.20	No	2504 S Boston Pl	Grass/Dirt	1																								
34	44	044-0050	4	8.6	0	No	23 E 26th Pl	Grass/Dirt	1																								
34	44	044-0051	4	10.96	0	No	116 E 26th St	Grass/Dirt	1																								
34	44	044-0052	4	16.3	0	Yes	130 E 26th St	Grass/Dirt	1								1																
34	44	044-0053	4	12.5	1.1	No	133 E 26th Pl	Grass/Dirt									1																
34	44	044-0054	4	11.85	0	No	32 E 26th Pl	Grass/Dirt					1				1																
34	44	044-0055	4	8.32	0	No	116 E 26th Pl	Grass/Dirt	1										1														
34	44	044-0056	4	6.7	-0.15	No	116 E 26th Pl	Grass/Dirt	1																								
34	44	044-0057	4	14.18	0	No	135 E 26th Ct	Grass/Dirt	1								1																
34	44	044-0058	4	6.50	0	No	2641 S Boston Pl	Grass/Dirt	1								1																
34	44	044-0059	4	7.9	0	No	2609 S Boston Pl	Grass/Dirt	1																								
34	44	044-0066	4	6.2	0	No	2651 S Boston Pl	Grass/Dirt									1																
34	44	044-0068	4	4.86	0.32	No	2663 S Boston Pl	Grass/Dirt	1								1																
34	44	044-0071	4	11.18	0	No	2526 S Cincinnati Ave	Grass/Dirt									1																
34	44	044-0075	0.667	11.42	0	No	2614 S Cincinnati Ave	Grass/Dirt																									
34	44	044-0176	4	11.92	0	No	2405 S Peoria Ave	Concrete Collar				1																					
34	44	044-0499	4	10.25	0	No	15 E 26th St	Grass/Dirt						128.7				1															
34	44	044-0565	4	11.37	0	No	2642 S Boston Ave	Grass/Dirt				1					1																
34	44	044-0566	4	10.47	0	No	2642 S Boston Ave	Grass/Dirt			1							1															
34	44	044-0629	4	12.3	0.99	No	2550 S Cincinnati Ave	Grass/Dirt			1																						1
34	44	044-0675	4	9.95	0	No	4 E 26th St	Grass/Dirt	1																								

REHABILITATION METHODS

TYPE A
REPLACEMENT OF MANHOLE COVER, FRAME AND FRAME SEAL (418)

TYPE B
REPLACEMENT OF MANHOLE FRAME SEAL (418)

TYPE C
REPLACEMENT OF MANHOLE COVER, FRAME, FRAME SEAL AND CHIMNEY (418)

TYPE D
REPLACEMENT OF MANHOLE FRAME SEAL AND CHIMNEY (418)

TYPE Fc
PRECAST CORBEL SECTION (418)

TYPE Gg
INTERIOR MANHOLE WALL REHABILITATION (421)

TYPE Gh
BENCH AND INVERT REHABILITATION (419)

TYPE Gk
PIPE SEAL REHABILITATION (421)

TYPE Go
PLUG LIFT HOLES, PLUG HOLES (419)

TYPE Gp
SEAL PRE-CAST JOINTS (421)

TYPE Gr
PATCH HOLE (419)

TYPE Gs
EPOXY COATING (421)

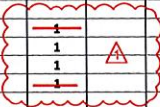
TYPE I
REPLACEMENT OF MANHOLE STEPS - AT THE TIME OF MANHOLE REHABILITATION, MANHOLE STEPS SHALL BE EVALUATED AND REPLACED ON A PER-MANHOLE BASIS, AND INCLUDE ALL THE STEPS IN THE MANHOLE REGARDLESS OF SIZE OR HEIGHT OF THE MANHOLE. (420)

TYPE I
CLEAN MANHOLE (Special)

MANHOLE REPLACEMENT
COMPLETE MANHOLE REPLACEMENT (416)

MANHOLE REPLACEMENT
ADDITIONAL FOOTAGE (416)

LAMP/HOLE REPLACEMENT
LAMP/HOLE REPLACEMENT (417)

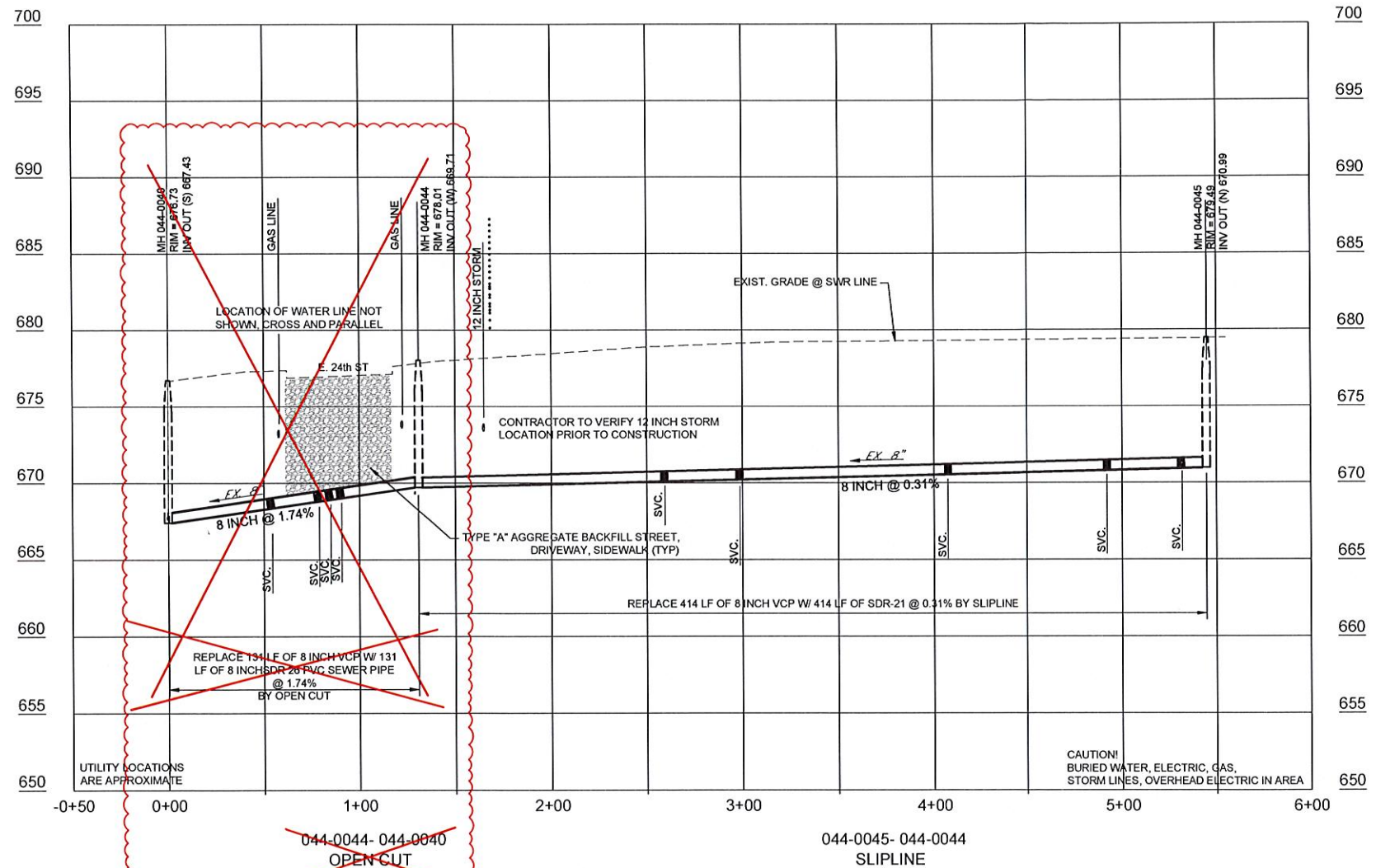
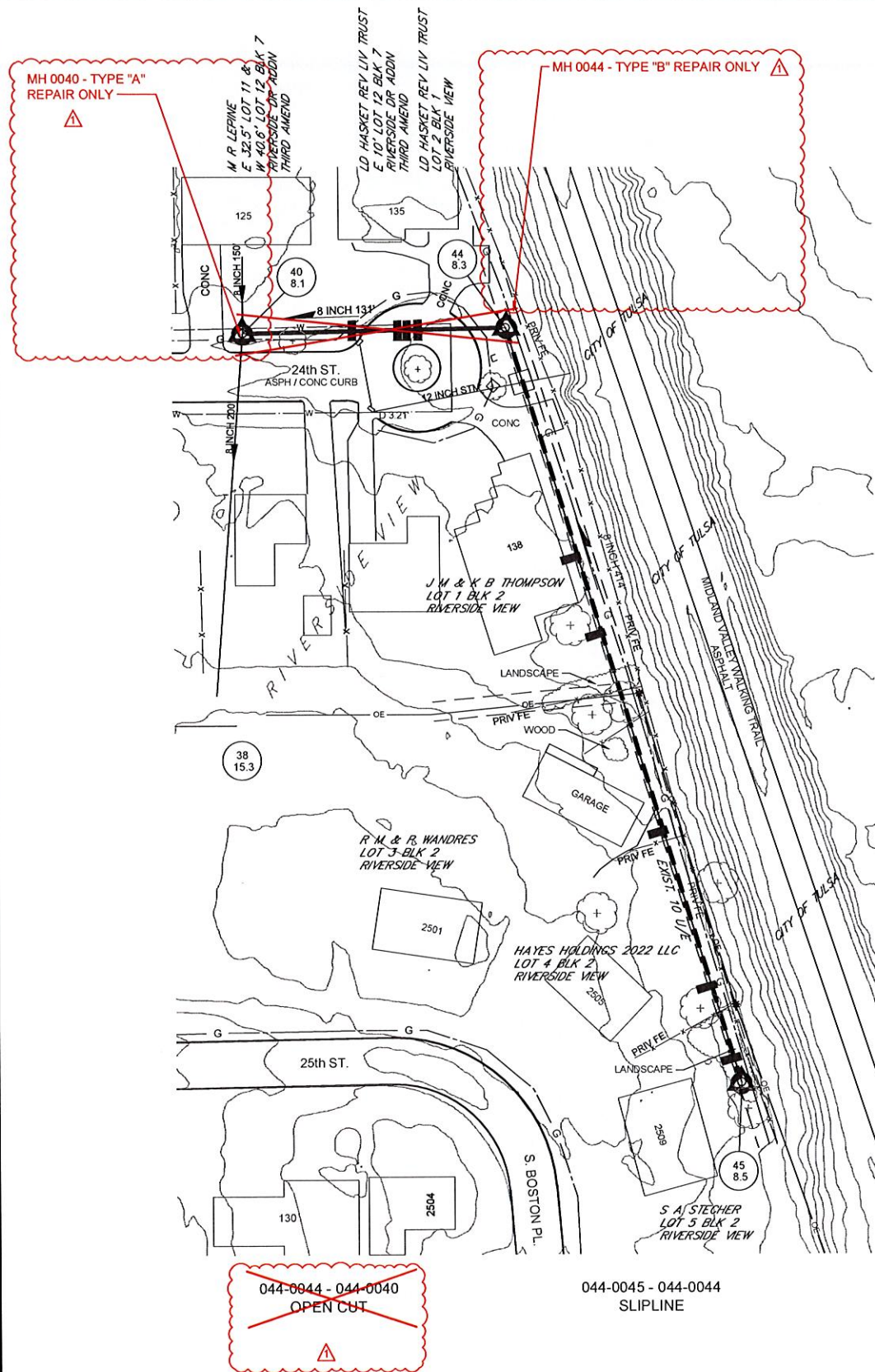


ATLAS 34 - MANHOLE SCHEDULE
TMUA PROJECT NO. ES 2024-04 (2)
CROW CREEK
SPECIFIC REMEDIATION PLAN, CONTRACT 6
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT
PLANS AND ESTIMATES PREPARED BY:
 TETRA TECH
7645 E. 63rd Street, Suite 301, Tulsa, OK 74133 TEL 918 249 3909

REVISION	BY	DATE	PLAN SCALE:	DRAWN	TI	04/2026	APPROVED:
1	Addendum No. 1	8-26		DESIGNED	TI	04/2026	
				SURVEY	TI	04/2026	
			PROFILE SCALE:	PROJ. MGR.			
			HORIZONTAL	LEAD ENGR.			
			VERTICAL	FIELD MGR.			
			FILE:	DRAWING:			
			ATLAS PAGE NO.:	34			

DESIGN MANAGER
DATE: APR 2026
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POINT REPAIR

LINE REPLACEMENT
OPEN CUT OR PIPEBURST

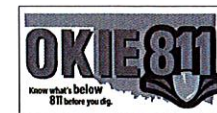
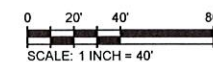
SLIPLINE OR CIPP



APPROXIMATE LOCATION EXISTING SERVICE TAP,
CONTRACTOR TO VERIFY LOCATIONS THROUGH
PRECONSTRUCTION CCTV DATA

NOTE:
FOR LINE WORK IN PAVED AREAS, PAVEMENT AND
TRENCHING TO BE COMPLETED PER CITY OF TULSA
STD. 713.

GAS LINE LOCATIONS SHOWN ARE FROM OKLAHOMA
NATURAL GAS ATLAS AND ARE APPROXIMATE



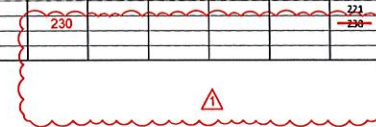
SERVICE LOCATIONS ARE APPROXIMATE,
CONTRACTOR TO VERIFY WITH PRE-CCTV

ATLAS 34 - DETAILS 7	
TMUA PROJECT NO. ES 2024-04 (2)	
CROW CREEK	
SPECIFIC REMEDIATION PLAN, CONTRACT 6	
CITY OF TULSA, OKLAHOMA	
WATER AND SEWER DEPARTMENT	
PLANS AND ESTIMATES PREPARED BY:	
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7645 E. 63rd Street, Suite 301, Tulsa, OK 74133 TEL 918.249.3909	

REVISION	BY	DATE	PLAN SCALE:	DRAWN	TI	04/2026	APPROVED:
Addendum No. 1	TI	8-26	1" = 40'	DESIGNED	TI	04/2026	
				SURVEY	TI	04/2026	
			PROFILE SCALE:	PROJ. MGR.			
			1" = 40'	LEAD ENGR.			
			VERTICAL	FIELD MGR.			
			1" = 5'				
			FILE:	DRAWING:			
			ATLAS PAGE NO.:	34			

DESIGNER: *typ*
DATE: APRIL 2026
SHEET 17 OF 49 SHEETS

ATLAS 95- LINE REHAB SCHEDULE

[illegible]

ATLAS 95 - LINE SCHEDULE - ADD ALTERNATE 1			
TMUA PROJECT NO. ES 2024-04 (2)			
CROWCREEK			
SPECIFIC REMEDIATION PLAN, CONTRACT 6			
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:			
		TETRA TECH 7645 E. 63rd Street, Suite 301, Tulsa, OK 74133 TEL918 247-3909	
E 26	PLAN SCALE:	DRAWN TI 04/2026 DESIGNED TI 04/2026 SURVEY TI 04/2026	APPROVED:
	PROFILE SCALE: HORIZONTAL	PROJ. MGR. ☐ LEAD ENGR. ☐ FIELD MGR. ☐	 DESIGN MANAGER
	VERTICAL		
FILE:		DRAWING:	
ATLAS PAGE NO.: 61		DATE: APRIL 2026	
		SHEET 32 OF 49 SHEETS	