

DATE:

July 16, 2025

TO:

Plan Holders Contractors FROM:

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

EMAIL TRANSMITTAL

ADDENDUM NO. 2

PROJECT NO. ES 2020-07 C2
CITYWIDE LIFT STATION IMPROVEMENTS KINGSTON
GRAVITY SEWER

Number of pages: 24

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

Thank you, Contract Administration



DATE: July 17, 2025

ADDENDUM NO. 2 TO PROJECT NO. ES 2020-07 C2 CITYWIDE LIFT STATION IMPROVEMENTS KINGSTON GRAVITY SEWER

This Addendum No. 2 consisting of three (3) items, submitted by HUB Engineering 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

Eric Lee Director

HAS/TGP/AL/JR/kt



2001 N Willow Avenue Broken Arrow, OK 74012 P: (918) 251-0717 F: (918) 251-0754 hubengineers.com

ENGINEERS

ADDENDUM NO. 2 JULY 16, 2025

PROJECT NO. ES 2020-07, CONTRACT 2 CITY WIDE LIFT STATION IMPROVEMENTS KINGSTON GRAVITY SEWER

This Addendum No. 2, 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. This Addendum shall be attached to the Index Sheet of the Contract Documents and submitted with bid. Failure to do so shall result in the bid being deemed non-responsive.

CONTRACT DOCUMENTS:

1. BID PROPOSAL:

DELETE THE EXISTING PROPOSAL IN ITS ENTIRETY AND REPLACE WITH THE ATTACHED REVISED PROPOSAL.

THE REVISED ELECTRONIC PROPOSAL IS FOUND AT:

HTTPS://WWW.CITYOFTULSA.ORG/GOVERNMENT/DEPARTMENTS/ENGINEERINGSERVICES/CONSTRUCTION-BIDS/

IT IS THE BIDDER'S RESPONSIBILITY TO DOWNLOAD THE REVISED PROPOSAL.

CONSTRUCTION DRAWINGS:

2. REFER TO DRAWINGS COVER

ADD "YALE AVE." ABOVE "T-20-N" ON MAP IN THE UPPER LEFT CORNER.

3. REMOVE AND REPLACE DRAWING SHEETS 3, 6, 7, 14, AND X1-X10 WITH THE ATTACHED REVISED DRAWINGS MARKED ADDENDUM NO. 2.

Page No. 1

HOLLOWAY, UPDIKE AND BELLEN, INC.

Dale Seaton, P.E.

Principal

DALE SEATON 27288

ATTACHED:

SHEET 3 – GENERAL NOTES

SHEET 6 – SUMMARY OF QUANTITIES SHEET 7 – PAY ITEM NOTES - ROADWAY

SHEET 14 - SANITARY SEWER PLAN AND PROFILE

SHEETS X1-10 - CROSS SECTIONS

END OF ADDENDUM NO. 2

ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET CITYWIDE LIFT STATION - KINGSTON GRAVITY SEWER, CONTRACT 2 TMUA PROJECT NO. ES 2020-07C2

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 1 hardcopy 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.

NOTES:

1. The sheet named "FOR CONTRACTOR USE" shall be used by the contractor to export data to estimating software.

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: Holloway, Updike & Bellen, 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 2020-07C2 Citywide Lift Station - Kingston Gravity Sewer, Contract 2. 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 CITYWIDE LIFT STATION - KINGSTON GRAVITY SEWER, CONTRACT 2 TMUA PROJECT NO. ES 2020-07C2

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 <u>365 calendar days</u> 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 ADDITIVE ALTERNATE 1 (BASIS OF AWARD). ADDITIVE ALTERNATE 1 MAY OR MAY NOT BE AWARDED AT THE SOLE DISCRETION OF THE CITY OF TULSA. ANY PROPOSAL SUBMITTED WITH ADDITIVE ALTERNATE 1 INCOMPLETE SHALL BE CONSIDERED NON-RESPONSIVE.

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

PROPOSAL FOR CITYWIDE LIFT STATION - KINGSTON GRAVITY SEWER, CONTRACT 2 PROJECT NO. ES 2020-07C2 DATA INPUT ITEM SPEC UNIT PRICE NUMBER NUMBER ITEM DESCRIPTION UNIT QUANTITY AMOUNT BASE BID COT 101 PROJECT SIGN (CITY OF TULSA) EΑ COT 220 SWPPP DOCUMENTATION & MANAGEMENT EΑ 1 2 COT 301 RIGHT-OF-WAY CLEARING & RESTORING SY 8,027 3 COT 302 UNCLASSIFIED EXCAVATION AND BACKFILL CY 2,993 4 5 **COT 303** MOBILIZATION EΑ 1 2,433 6 ODOT 303(A) AGGREGATE BASE TYPE (A) CY 7 **COT 304** CONTRACTOR CONSTRUCTION STAKING EΑ 1 **COT 307** 20 INCH STEEL CASING BY BORE & JACK LF 310 8 9 **COT 307** 20 INCH CONCRETE CASING LF 30 LF 50 COT 309 6 INCH PVC AWWA C900 CLASS 200, DR 14 (WATER LINE) 10 LF 3,730 COT 313 8 INCH DIA. PVC SDR 26 11 12 **COT 314** 4.0 FOOT DIA. STANDARD MANHOLE (0-6 FEET) EΑ 16 13 **COT 314** 4.0 FOOT DIA, STANDARD MANHOLE EXTRA DEPTH OVER 6 FEET ۷F 54 14 **COT 314** 4.0 FOOT DIA. DROP MANHOLE (0-6 FEET) FΑ 1 15 **COT 314** 4.0 FOOT DIA. DROP MANHOLE EXTRA DEPTH OVER 6 FEET ۷F 8 COT 325 SODDING SY 157 16 17 COT 325 HYDROMULCHING SY 2,559 COT 327 TRENCH SAFETY PLAN EΑ 1 18 365 CD 19 **COT 327** TRAFFIC CONTROL **COT 330** SILT FENCE LF 3,265 20 **COT 331** WATER TABLE CRADLE LF 1,027 21 CONSTRUCTION AS-BUILTS LS 1 22 **COT 334** ACCEPTANCE SAMPLING/TESTING REQUIREMENTS LS 23 **COT 335** PHOTOGRAPHIC DOCUMENTATION EΑ COT 400.7.5 24 1 25 **COT 404** DEMOLISH EXISTING LIFT STATION LS 1 **COT 404** ABANDON EXISTING 6 INCH C.I. FORCE MAIN LS 1 26 LAID UP RIP RAP TON 27 ODOT 601(E) 210 TURF REINFORCEMENT MAT SY 7,745 28 ODOT 601(E) 419 29 ODOT 601(B) FILTER FABRIC SY \$100,000,00 ALLOW \$1.00 30 **SPECIAL** OWNERS ALLOWANCE 100,000 31 ODOT 202(A) UNCLASSIFIED EXCAVATION AND BACKFILL CY 2,540 SOLID SLAB SODDING SY 850 32 ODOT 230(A) ODOT 303(A) AGGREGATE BASE TYPE (A) CY 995 33 SUBGRADE METHOD "B" - 8 INCHES SY 2,965 34 ODOT 310(B)

	PROPOSAL FOR CITYWIDE LIFT STATION - KINGSTON GRAVITY SEWER, CONTRACT 2 PROJECT NO. ES 2020-07C2						
ITEM NUMBER					DATA INPUT UNIT PRICE	AMOUNT	
35	COT 325	SEPARATOR FABRIC	SY	3,111	-		
36	ODOT 411(C)	SUPERPAVE, INSOLUBLE TYPE S4 (PG 64-22 OK)	TON	272			
37	37 ODOT 411(C) SUPERPAVE, TYPE S3 (PG 64-22 OK)						
38	38 ODOT 610(B) CONCRETE DRIVEWAY (6 INCH -H.E.S.)						
39	39 ODOT 610(G) ASPHALT DRIVEWAY (6 INCH)						
40	ODOT 619(B)	T 619(B) REMOVAL OF PAVEMENT					
41	ODOT 619(B)	REMOVAL OF ASPHALT DRIVEWAY	SY	73		_	
42	ODOT 619(B)	REMOVAL OF CONCRETE DRIVEWAY	SY	9			
		TOTAL BIO)			\$100,000.00	
ADDITIVE A	ALTERNATE 1						
43	COT 301	RIGHT-OF-WAY CLEARING & RESTORING (DEDUCT)	SY	-250			
44	4 COT 302 UNCLASSIFIED EXCAVATION AND BACKFILL (DEDUCT)			-88			
45	45 COT 307 20 INCH STEEL CASING BY BORE & JACK			60			
	TOTAL ADDITIVE ALTERNATE 1						

TOTAL BASE BID TOTAL ADDITIVE ALTERNATE 1

\$100,000.00	
--------------	--

TOTAL	BID BASIS OF AW	ARD (BAS	E BID + ADDI	TIVE ALT	ERNATE 1)		\$100,000.00
Enclosed is a () Bidder's Surety	Bond, () Certified C	heck, () Cashier's Chec	k for	
					Dollars	/ \$	
						<u>(Ψ</u>	Figures
contract for the wo days, or within nin ails to execute sa	ork covered by this p	oroposal, pi eral funds a nish the req	rovided the Co are utilized, fro uired bonds a	ontract is a m the dat	warded to the und e fixed for opening	lersigne of bids	and the undersigned
Dated at Tulsa, O	klahoma, this	day of	•		, 20		
	Respectful	ly submitte	d,				
	(Complete le	gal name o	of company)				
	(State o	of Organizat	tion)				
Зу:				АТ	TEST:		
Title:					le: Corporate Secr	etary	
Printed Name:				Pri	nted Name:		(SEAL)
			Address:				
							- -
Telephone Numb	er:		_	Fa	x Number:		
The undersigned	acknowledge receip	t of the foll	owing Addend	a (give nu	mber and date of	each):	
							

		ITYWIDE LIFT STATION - KINGSTON GRAVITY SEWER, CONTRACT 2 PROJECT NO. ES 2020-07C2	_	
ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTIT
BASE BID				
1	COT 101	PROJECT SIGN (CITY OF TULSA)	EA	1
2	COT 220	SWPPP DOCUMENTATION & MANAGEMENT	EA	1
3	3 COT 301 RIGHT-OF-WAY CLEARING & RESTORING		SY	8,027
4	COT 302	UNCLASSIFIED EXCAVATION AND BACKFILL	CY	2,993
5	COT 303	MOBILIZATION	EA	1
6	ODOT 303(A)	AGGREGATE BASE TYPE (A)	CY	2,433
7	COT 304	CONTRACTOR CONSTRUCTION STAKING	EA	_ 1
8	COT 307	20 INCH STEEL CASING BY BORE & JACK	LF	310
9	COT 307	20 INCH CONCRETE CASING	LF	30
10	COT 309	6 INCH PVC AWWA C900 CLASS 200, DR 14 (WATER LINE)	LF	50
11	COT 313	8 INCH DIA. PVC SDR 26	LF	3,730
12	COT 314	4.0 FOOT DIA. STANDARD MANHOLE (0-6 FEET)	EA	16
13	COT 314	4.0 FOOT DIA. STANDARD MANHOLE EXTRA DEPTH OVER 6 FEET	VF	54
14	COT 314	4.0 FOOT DIA. DROP MANHOLE (0-6 FEET)	EΑ	1
15	COT 314	4.0 FOOT DIA. DROP MANHOLE EXTRA DEPTH OVER 6 FEET	VF	8
16	COT 325	SODDING	SY	157
17	COT 325	HYDROMULCHING	SY	2,559
18	COT 327	TRENCH SAFETY PLAN	EA	1
19	COT 327	TRAFFIC CONTROL	CD	365
20	COT 330			3,265
21	COT 331	WATER TABLE CRADLE	LF	1,027
22	COT 334	CONSTRUCTION AS-BUILTS	LS	1
23	COT 335	ACCEPTANCE SAMPLING/TESTING REQUIREMENTS	LS	1
24	COT 400.7.5	PHOTOGRAPHIC DOCUMENTATION	EA	1
25	COT 404	DEMOLISH EXISTING LIFT STATION	LS	1
26	COT 404	ABANDON EXISTING 6 INCH C.I. FORCE MAIN	LS	1
27	ODOT 601(E)	LAID UP RIP RAP	TON	210
28	ODOT 601(E)	TURF REINFORCEMENT MAT	SY	7,745
29	ODOT 601(B)	FILTER FABRIC	SY	419
30	SPECIAL	OWNERS ALLOWANCE	ALLOW	100,000
31	ODOT 202(A)	UNCLASSIFIED EXCAVATION AND BACKFILL	CY	2,540
32	 	SOLID SLAB SODDING	SY	850
33	 ' 	AGGREGATE BASE TYPE (A)	CY	995
34	, , ,	SUBGRADE METHOD "B" - 8 INCHES	SY	2,965
35	COT 325	SEPARATOR FABRIC	SY	3,111
36		SUPERPAVE, INSOLUBLE TYPE S4 (PG 64-22 OK)	TON	272
37	· · · ·	SUPERPAVE, TYPE S3 (PG 64-22 OK)	TON	1,177
38		CONCRETE DRIVEWAY (6 INCH -H.E.S.)	SY	9
39	- ''	ASPHALT DRIVEWAY (6 INCH)	SY	73
40	· · · ·	REMOVAL OF PAVEMENT	SY	3,111
41	 	REMOVAL OF ASPHALT DRIVEWAY	SY	73
42	· · · · ·	REMOVAL OF CONCRETE DRIVEWAY	SY	9
	ALTERNATE 1	NEWOAVE OF CONORETE DIVIACAAN	1 31	٠,
43	COT 301	RIGHT-OF-WAY CLEARING & RESTORING (DEDUCT)	SY	-250

TRAFFIC CONTROL

- ALL TRAFFIC CONTROL DEVICES, CONSTRUCTION SIGNAGE, BARRICADING, ETC. SHALL BE IN ACCORDANCE WITH THE LATEST REVISED EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). CONTRACTOR SHALL PREPARE AND SUBMIT FOR APPROVAL A
- THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTIFICATION FOR ANY AND ALL STREET/LANE CLOSURES, MODIFICATIONS, OR CHANGES TO THE TRAFFIC CONTROL MEASURES TO:

POLICE	918-596-922
FIRE	918-596-997
COT TRAFFIC	918-596-974
EMSA	918-596-304
MTTA	918-596-119
COT FIELD ENGINEERING	918-596-940

- THE CONTRACTOR SHALL NOTIFY TRAFFIC OPERATIONS 48 HOURS PRIOR TO STARTING WORK OR PRIOR TO REMOVING OR RELOCATING ANY TRAFFIC SIGNS. ALL SIGNS SHALL BE HANDLED SO AS TO AVOID ANY DAMAGE TO THE SIGN OR POST. ALL SIGNS REMOVED DUE TO CONSTRUCTION SHALL BE REINSTALLED BY THE CONTRACTOR
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL CONSTRUCTION SIGNAGE AND BARRICADING, INCLUDING BUT NOT LIMITED TO, WASHING, REPLACEMENT, AND REPOSITIONING OF DEVICES.WHEN AND WHERE IT IS DEEMED NECESSARY BY THE CITY OR ENGINEER, THE CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL TRAFFIC CONTROL
- LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH THE PROJECT AREA AT ALL TIMES, LOCAL TRAFFIC TO ALL PUBLIC AND PRIVATE STREETS SHALL BE ACCESSIBLE FROM ANY
- ROADSIDE HAZARDS SHALL BE COMPLETELY BARRICADED AROUND THEIR PERIMETER FOR SAFETY OF PEDESTRIANS AND VEHICLES. NO BARRICADES SHALL BE PLACED UNTIL ALL ADVANCED SIGNING IS IN PLACE.
- ALL CHANNELING DEVICES, TYPE III BARRICADES, ETC., SHALL BE WEIGHTED DOWN WITH A NON-HAZARDOUS MATERIAL WHEN NECESSARY OR WHEN DIRECTED BY THE CITY OR THE
- 8. ALL ADVANCE WARNING SIGNS SHALL BE PROVIDED WITH TYPE "A" WARNING LIGHTS.
- ALL TYPE III BARRICADES SHALL BE FURNISHED WITH A MINIMUM OF TWO (2) TYPE "A" WARNING
- 10. ALL CHANNELING DEVICES SHALL BE PROVIDED WITH TYPE "C" WARNING LIGHTS.
- 11. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PRIVATE RESIDENCES AND BUSINESSES AT ALL
- 12. ALL SIGNAL AND ELECTRICAL WORK TO BE DONE BY A LICENSED ELECTRICAL CONTRACTOR.

UTILITIES

- THE LOCATION OF THE UTILITY LINES, AS SHOWN ON THESE DRAWINGS, ARE BASED ON ATLAS INFORMATION AND OBSERVED FEATURES. NEITHER THE CITY NOR THE ENGINEER IMPLIES ANY RESPONSIBILITY FOR THE ACCURACY OF THIS DATA. SERVICE LINES FROM THE MAIN UTILITY LINES TO ANY BUILDING OR FACILITY MAY NOT BE SHOWN. CONTRACTOR SHALL OBTAIN THE LOCATION OF THESE FROM THE UTILITY COMPANY AND SHALL BE HELD RESPONSIBLE FOR ANY DAMAGES TO THESE LINES OR ANY OTHER LINES OR UTILITIES DURING THE CONSTRUCTION OF
- THE CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF OKLAHOMA ONE-CALL SYSTEM, INC. A MINIMUM OF TWO (2) WORKING DAYS AND A MAXIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK IN ANY AREA, PHONE: 1-800-522-6543.

SPECIAL NOTES

THIS RESTORATION SHALL INCLUDE BUT IS NOT LIMITED TO, SUCH ITEMS AS SODDING, REPLACEMENT OF SIDEWALKS, FENCES, DRIVEWAYS, AND STREET PAVEMENT, GROUTING OF

SEWER SCHEDULED TO BE ABANDONED, AND ANY OTHER ITEMS SPECIFICALLY SHOWN ON THE

ANY RESTORATION WORK DAMAGED OR DESTROYED BY THE CONTRACTOR'S SUBSEQUENT WORK SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. NO ADDITIONAL PAYMENT SHALL BE MADE FOR SEQUENTIAL RESTORATION.

PROPERTY OWNER NOTIFICATIONS

BE MEASURED FOR PAYMENT.

ALL PROPERTY OWNERS ADJACENT TO THE ALIGNMENT SHALL BE NOTIFIED OF THE PROJECT WITHIN SEVEN (7) CALENDAR DAYS BEFORE CONSTRUCTION ON OR ADJACENT TO THE PROPERTY, AND A MINIMUM OF 48 HOURS BEFORE CONSTRUCTION.

TRANSITIONS BETWEEN PIPE TYPES TRANSITION BETWEEN PIPE TYPES MAY ONLY BE MADE AT MANHOLES. IN THE EVENT THE CONTRACTOR DESIRES TO MAKE A TRANSITION BETWEEN PIPE TYPES AT ANY OTHER POINT, THEY SHALL INSTALL AN ADDITIONAL MANHOLE AT THE POINT OF TRANSITION BETWEEN THE PIPE TYPES. THIS TRANSITION MANHOLE WILL BE CONSIDERED AS INCIDENTAL WORK AND WILL NOT

ASPHALT STREET REPAIR AFTER PIPE INSTALLATION, THE CONTRACTOR SHALL BACKFILL & PATCH EXISTING ASPHALT STREETS IN ACCORDANCE WITH THE CITY OF TULSA STANDARDS DRAWING NO. 733.

CONCRETE STREET REPAIR

CONCRETE STREET REFAIR ALL CONCRETE PAYEMENT CUTS SHALL BE IN ACCORDANCE WITH DETAIL NO. 714 AND STD. DRAWING NO. 733. LIMITS OF PAYMENT ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT

TRENCH SAFETY

CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR EXCAVATION AND TRENCH SAFETY PER CITY OF TULSA SPECIFICATION NO. 112 AND GUIDELINES SET BY THE US DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). TRENCH SAFETY SHALL BE CONSIDERED INCIDENTAL WORK AND WILL NOT BE MEASURED FOR PAYMENT. CONTRACTOR REQUIRED TO PROVIDE SHORING IF NEEDED. CONTRACTOR SHALL SUBMIT SHORING AND ENGINEERING TRENCH PLAN FOR APPROVAL.

MANHOLES 1 - 10 SHALL REQUIRE A FLOOD PLAIN FRAME & COVER PER STD 359. MANHOLES 11-17 SHALL REQUIRE STD 402. NO STEPS ON ANY MANHOLE. ALL MANHOLE LIDS SHALL BE IN ACCORDANCE WITH STD 354, WITH 30-INCH LIDS

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL NECESSARY BYPASS PUMPING DURING SANITARY SEWER CONSTRUCTION. NO ADDITIONAL PAYMENT SHALL BE MADE. CONTRACTOR MUST ENSURE PROPER PROTOCOLS IN PLACE FOR 24-HOUR MONITOR BYPASS PUMPING AND THAT THE CONTRACTOR MUST COMPLETE A SOM BYPASS PUMPING FORM BEFORE COMPLETING ANY BYPASS

CONSTRUCTION LIMITS

ALL CONSTRUCTION AND SPOILS ON PRIVATE PROPERTY SHALL BE CONFINED TO THE PERMANENT AND TEMPORARY CONSTRUCTION EASEMENTS. ALL CONSTRUCTION AND SPOILS IN THE CITY OR STATE RIGHT-OF-WAY SHALL BE CONFINED TO THE ROW LIMITS AND NOT EXCEED 28 L.F. FROM PROPOSED ALIGNMENT.



SHEET 3 OF 32 SHEET

3	CALES ACCORDING	. 1
REVISION	BY	DATE
ADDENDUM 2	DAS	7/16/2025
		D
GENERAL NOTES(2)	

TMUA PROJECT NUMBER ES 2020-07

CITYWIDE LIFT STATION IMPROVEMENTS **GRAVITY SEWER**

CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT

PLANS AND EST	I_I_ HOLLO		PDIKE +	BELLEN, Inc.
	2001 H WIL	LOW AVE. B		I, OKLAHOMA 74012
PLAN SCALE:	DRAWN	PGM	07/2025	APPROVED:
	DESIGNED	TJR	07/2025	1.1/
PROFILE SCALE:	SURVEY	cwc	07/2025	win
HORIZONTAL:	PROJ. MGR.			to
	LEAD ENGR.			161
VERTICAL	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:	21 TMUAK	INGST	DATE: 2025

ATLAS PAGE NO: 120, 167



ITEM NO.	SPEC. NO	ITEM DESCRIPTION	PAY ITEM NOTE	UNIT	QUANTITY
		SANITARY SEWER (BASE BID)			
1	COT 101	PROJECT SIGN (CITY OF TULSA)		EA	1
2	COT 220	SWPPP DOCUMENTATION & MANAGEMENT		EA	1
3	COT 301	RIGHT-OF-WAY CLEARING & RESTORING	1, 2, 3, 11	SY	8,027
4	COT 302	UNCLASSIFIED EXCAVATION AND BACKFILL		CY	2,993
5	COT 303	MOBILIZATION		EA	1
6	ODOT 303(A)	AGGREGATE BASE TYPE (A)		CY	2,433
7	COT 304	CONTRACTOR CONSTRUCTION STAKING		EA	1
8	COT 307	20 INCH STEEL CASING BY BORE & JACK	8	LF	310
9	COT 307	20 INCH CONCRETE CASING		LF	30
10	COT 309	6 INCH PVC AWWA C900 CLASS 200, DR 14 (WATER LINE)	13	LF	50
11	COT 313	8 INCH DIA. PVC SDR 26	3, 4, 6, 12	LF	3,730
12	COT 314	4.0 FOOT DIA. STANDARD MANHOLE (0-6 FEET)	14, 15, 16, 17	EA	16
13	COT 314	4.0 FOOT DIA. STANDARD MANHOLE EXTRA DEPTH OVER 6 FEET	14, 15, 16, 17	VF	54
14	COT 314	4.0 FOOT DIA. DROP MANHOLE (0-6 FEET)	14, 15, 16, 17	EA	1
15	COT 314	4.0 FOOT DIA. DROP MANHOLE EXTRA DEPTH OVER 6 FEET	14, 15, 16, 17	VF	8
16	COT 325	SODDING	5	SY	157
17	COT 325	HYDROMULCHING	5	SY	2,559
18	COT 327	TRENCH SAFETY PLAN		EA	1
19	COT 327	TRAFFIC CONTROL	10, 18, 19	CD	365
20	COT 330			LF	3,265
21	COT 331 WATER TABLE CRADLE		6	LF	1,027
22	COT 334	CONSTRUCTION AS-BUILTS		LS	1
23	COT 335	ACCEPTANCE SAMPLING/TESTING REQUIREMENTS		LS	1
24	COT 400.7.5	PHOTOGRAPHIC DOCUMENTATION		EA	1
25	COT 404	DEMOLISH EXISTING LIFT STATION	7	LS	1
26	COT 404	ABANDON EXISTING 6 INCH C.I. FORCE MAIN		LS	1
27	ODOT 601(E)	LAID UP RIP RAP		TON	210
28	ODOT 601(E)	TURF REINFORCEMENT MAT		SY	7,745
29	ODOT 601(B)	FILTER FABRIC		SY	419
30	SPECIAL	OWNER'S ALLOWANCE	9	ALLOW	100,000
		ROADWAY (BASE BID)			
31	ODOT 202(A)	UNCLASSIFIED EXCAVATION AND BACKFILL	E-1, E-2	CY	2540
32	ODOT 230(A)		E-10, E-11	SY	850
33		AGGREGATE BASE TYPE (A)	S-1,S-2,S-23	CY	995
34	ODOT 310(B)	SUBGRADE METHOD "B" - 8 INCHES		SY	2965
35	COT 325	SEPARATOR FABRIC	S-3	SY	3111
36		SUPERPAVE, INSOLUBLE TYPE S4 (PG 64-22 OK)	S-5,S-6,S-7,S-8	TON	272
37		SUPERPAVE, TYPE S3 (PG 64-22 OK)	S-5,S-6,S-7,S-8,G-1	TON	1177
38	ODOT 610(B)		S-12,S-13,S-16,S-17	SY	9
39		ASPHALT DRIVEWAY (6 INCH)	S-12,S-13,S-16,S-17	SY	73
40		REMOVAL OF PAVEMENT	R-1, R-2, R-5, R-6, R-7	SY	3111
41	ODOT 619(B)		R-1, R-2, R-5, R-6, R-7	SY	73
42	ODOT 619(B)		R-1, R-2, R-5, R-6, R-7	SY	9
		SANITARY SEWER (ADDITIVE ALTERNATE NO.			_
43	COT 301	RIGHT-OF-WAY CLEARING & RESTORING (DEDUCT)	1, 2, 3, 11	SY	-250
44	COT 302	UNCLASSIFIED EXCAVATION AND BACKFILL (DEDUCT)		CY	-88

COT 307 20 INCH STEEL CASING BY BORE & JACK

PAY ITEM NOTES (SANITARY SEWER)

- ITEM INCLUDES THE COST FOR REMOVAL OF TREES AND SHRUBS WITHIN EASEMENTS AND REMOVING AND REPLACING EXISTING FENCE AND SIDEWALK IF DISTURBED BY CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE MADE.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING, NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.
- 3. CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS DAMAGED DURING THE COURSE OF CONSTRUCTION, PAYMENT SHALL BE INCLUDED IN RIGHT-OF-WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENTS SHALL BE MADE.
- ITEM INCLUDES THE COST OF RELOCATING, ADJUSTING AND BRACING OF EXISTING UTILITIES IF NECESSARY, NO ADDITIONAL PAYMENTS SHALL BE MADE
- 5. DEVELOPED AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY SODDING. HYDROMULCH SEEDING WILL BE ALLOWED IN UNDEVELOPED LOTS AT NO ADDITIONAL COST TO THE CITY OF TULSA. MAXIMUM PAY LIMIT FOR SODDING AND SEEDING SHALL BE STANDARD 10 FEET ON EITHER SIDE OF CENTERLINE OF PIPE. MAXIMUM PAY WIDTH OF 20
- WATER TABLE CRADLE SHALL BE USED WHERE TRENCH CONDITIONS WARRANT ITS USE AS APPROVED BY THE ENGINEER. SHALL BE INSTALLED PER STANDARD DRAWING NO. 367.
- ITEM INCLUDES THE DEMOLITION OF STRUCTURES, CONCRETE PAVEMENT, CONCRETE DRIVEWAY, LIFT STATION FENCING, PIPE CULVERT, RE-GRADING LIFT STATION AREA AND RE-ESTABLISHING THE DITCH, REPLACE EXISTING PRIVATE FENCE IN AREA WHERE LIFT STATION WAS WITH LIKE KIND, AND SODDING OF ALL DISTURBED AREAS. IT ALSO INCLUDES DELIVERY OF ALL SALVAGED ITEMS, DISPOSAL OF REMAINING ITEMS. ALSO INCLUDES COST OF PUMPING SEWAGE AROUND THE EXISTING LIFT STATION DURING THE TIME OF THE LIFT STATION'S REMOVAL FROM SERVICE UNTIL CONSTRUCTION OF THE NEW GRAVITY LINE IS COMPLETED AND IN SERVICE.
- ITEM INCLUDES THE COST OF EXCAVATING AND BACKFILLING BORE PIT AND RECEIVING PIT. INCLUDES REMOVAL OF EXISTING 8" SEWER MAIN AND MANHOLES IN PROPOSED ALIGNMENT. NO SEPARATE PAYMENT SHALL BE MADE.
- ITEM INCLUDES THE COST OF ALL COMPONENTS AS SPECIFIED IN THE SPECIAL PROVISIONS.
- 10. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN SIGNED AND SEALED BY A LICENSED ENGINEER IN THE STATE OF OKLAHOMA FOR APPROVAL.
- 11. ALL TREES DISTURBED IN THE DESIGNATED "UP WITH TREES" AREA SHALL BE REMOVED AND REPLANTED OR REPLACED IN LIKE-KIND AS REQUIRED BY THE CITY OF TULSA URBAN FORESTER, DO NOT REPLANT TREES WITHIN 20 FEET FROM THE CENTERLINE OF THE SEWER LINE IN EITHER DIRECTION.
- 12. PAY ITEM SHALL INCLUDE ALL COSTS FOR FLOWABLE FILL TO SEPARATE 24" STORM SEWER FROM PROPOSED SANITARY SEWER.
- 13. PAY ITEM SHALL INCLUDE ALL COSTS ASSOCIATED TO LOWER WATERLINE. INCLUDING, BUT NOT LIMITED TO, BENDS, SLEEVES, EXCAVATION, AND BACKFILL.
- 14. THE MANHOLE RING, COVER, GROUT, WATERTIGHT SEAL, 80 MILS OF RAVEN 405 EPOXY OR APPROVED EQUAL AND OTHER MATERIALS INCIDENTAL TO THE CONSTRUCTION OF MANHOLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EACH ASSOCIATED MANHOLE PAY ITEM: NO ADDITIONAL PAYMENT SHALL BE MADE. 4-FOOT I.D. MANHOLES AND 5-FOOT I.D. SHALLOW MANHOLES SHALL NOT BE EPOXY COATED.
- 15. ALL RISER RINGS INSTALLED ON EXISTING AND NEW MANHOLES SHALL BE CRETEX PRO-RING OR ENGINEER APPROVED EQUAL. NO CONCRETE RISER RINGS ARE PERMITTED FOR USE UNLESS APPROVED BY ENGINEER.
- 16. ALL NEW MANHOLES SHALL HAVE WALL JOINTS WRAPPED WITH 9-INCH INFI-SHIELD GATOR WRAP AS MANUFACTURED BY SEALING SYSTEMS INC. OR ENGINEER APPROVED
- 17. ALL NEW MANHOLES SHALL HAVE 30-INCH LIDS.

LF

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- △ 18. TRAFFIC CONTROL SHALL BE 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
- 19. 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.



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REVISION	BY	DATE
ADDENDUM 2	DAS	7/16/202

SUMMARY OF QUANTITIES

TMUA PROJECT NUMBER ES 2020-07

CITYWIDE LIFT STATION IMPROVEMENTS **GRAVITY SEWER**

CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT

NS AND EST	IMATES PREPARE	DBY:		
	2001 N WIL	LOW AVE. B		- BELLEN, Inc. CORLAHOMA 74012 754
N SCALE:	DRAWN	PGM	07/2025	APPROVED:
	DESIGNED	TJR	07/2025	170
ILE SCALE:	SURVEY	cwc	07/2025	al
IZONTAL:	PROJ. MGR.			forep
	LEAD ENGR.			161
TICAL	FIELD MGR.			DESIGN MANAGER
E:	DRAWING: 2	21 TMUAK	DATE: 2025	
AS PAGE NO	D: 120, 167			SHEET 6 OF 32 SI

PAY ITEM NOTES (ROADWAY)

- EARTHWORK / EROSION CONTROL / SITE PREPARATION (E1 E11)
- E-1: ALL COSTS FOR REMOVING TREES, SHRUBS, STUMPS, POSTS, AND ALL OTHER DEBRIS AND/OR OBSTRUCTIONS NOT COVERED BY A SEPARATE PAY ITEM ARE INCLUDED IN THE PRICE BID.
- E-2: ALL EXISTING DRAINAGE STRUCTURES SHALL BE CLEANED AND CLEARED OF ALL SEDIMENTATION AND DEBRIS TO THE RIGHT OF WAY. COST OF CLEARING SHALL BE INCLUDED IN THE PRICE BID.
- E-3: NOT USED
- E-4: NOT USED.
- E-5: NOT USED.
- E-6: NOT USED
- E-7: NOT USED
- E-8: NOT USED.
- E-9: NOT USED
- E-10: ESTIMATED QUANTITY IS BASED ON SODDING OF ALL DISTURBED AREAS OUTSIDE THE FINAL PAVING LIMITS AND WITHIN THE FINAL GRADING LIMITS AS INDICATED BY THE TOP-OF-CUT/TOE-OF-SLOPE LINE ON THE PLANS (EXCLUDING SURFACES OF STRUCTURES, FIXTURES AND APPURTENANCES). SOD SHALL BE OF LIKE-KIND TO EXISTING SOD. PRICE BID INCLUDES PLACEMENT AND COMPACTION OF SUITABLE BACKFILL. ANY EXISTING GRASSED AREAS BEYOND THE ABOVE SEATED LIMITS THAT ARE DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESODDED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS SOLE EXPENSE.
- E-11: COST OF WATERING AND FERTILIZING SHALL BE INCLUDED. FERTILIZERS SHALL BE 10-20-10 AND SHALL BE APPLIED AT THE RATE OF 1.5LBS PER 10 SQ YDS, FERTILIZER SHALL BE APPLIED PER SECTION 230.04H OF ODOT STANDARD SPECIFICATIONS. WATERING SHALL BE APPLIED AS NECESSARY UNTIL VEGETATION IS ESTABLISHED OR UNTIL THE WORK IS ACCEPTED AS COMPLETE.

SURFACING / STRUCTURES (S1 - S8)

- S-1: TYPE A AGGREGATE BASE WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 90% OF THE PATCHING, OUICK SET FLOWABLE FILL WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 10% OF THE PATCHING. ACTUAL QUANTITIES TO BE DETERMINED BY THE
- S-2: INCLUDES COMPACTION OF AGGREGATE UP TO 98% AASHTO T180 MODIFIED PROCTOR.
- S-3: SEPARATOR FABRIC SHALL BE USED AT ALL PAVEMENT PATCHES AND RECONSTRUCTION SECTIONS. THE SEPARATOR FABRIC SHALL BE CUT AND OVERLAPPED A MINIMUM OF 2 FT AT ALL EDGES OF THE REPAIR
- S-4: NOT USED.
- S-5: THE COST OF TACK COAT, EDGE JOINT SEAL MATERIAL AND SCREENINGS FOR BLOTTING, AND ALL LABOR ASSOCIATED WITH THESE ITEMS, SHALL BE INCLUDED IN ASPHALT CONCRETE.
- S-6: ESTIMATED AT 112 LBS PER SQ YD PER 1 INCH THICK
- S-7: ODOT PAY FACTOR FOR AVERAGE LOT DENSITY SHALL NOT BE USED FOR THIS PROJECT. FAILURE TO REACH AVERAGE LOT DENSITY OF 92%-97% WILL RESULT IN REJECTION OF WORK.
- S-8: A HIGHER GRADE OF ASPHALT BINDER THAN IS INDICATED ON THE PLANS MAY BE USED, BUT AT NO ADDITIONAL COST TO THE CITY.
- S-8 (TABLE):

BINDER GRADE PG 64-22 OK	MESALs < 3	ADT NOTES(1.) < 5,000	USE WHEN MORE THAN 4-6 INCHES BELOW THE SURFACE. ALSO USE FOR SHOULDERS, DRIVEWAYS, BELOW PCC, AND TEMPORARY CONSTRUCTION.
PG 70-28 OK	< 10	< 10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES.
PG 76-28 OK	>= 10	>= 10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES.
PG 76-28 E		-	CONTACT ODOT MATERIALS DIVISION FOR RECOMMENDED USE.

- (1) USE ADT ONLY WHEN ESAL COMPUTATIONAL DATA IS NOT AVAILABLE. CALCULATE THE DESIGN ESALS BASED ON 20 YEARS.
- (2) PG 76-28 E OK OR PG 76-28 OK MAY BE DESIREABE IN HIGH VOLUME AREAS WHERE SLOW STANDING, OR TURNING TRAFFIC OCCURS, SUCH AS URBAN INTERSECTIONS OR OFF-RAMPS. OFF RAMPS SHOULD AT LEAST USE THE SAME BINDER AD THE MAINLINE.

- S-12: THE USE OF FLY-ASH IN CONCRETE IS PROHIBITED.
- S-13: INCLUDES ALL COST OF SAWED JOINTS AND SEALING OF ALL JOINTS INCLUDING LONGITUDINAL JOINTS.
- S-16: CURB, GUTTER, AND/OR SIDEWALK ASSOCIATED WITH THE DRIVEWAY AND THROUGH THE DRIVEWAY IS INCLUDED IN THE COST OF THE DRIVEWAY.
- S-17: ONE SIDEWALK PANEL ON EACH SIDE OF DRIVEWAYS SHALL BE A MINIMUM OF 6" THICK OR MATCH EXISTING DRIVEWAY THICKNESS, WHICHEVER IS GREATER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE COST OF THE THICKENED SIDEWALK THROUGH THIS AREA.

GENERAL

G-1: LOCATIONS TO BE DETERMINED IN THE FIELD AND WORK TO BE PREFORMED AT THE DIRECTION OF THE FIELD ENGINEER. QUANTITY IS ESTIMATED AND MAY BE OMITTED IN ITS ENTIRETY

REMOVAL / ADJUSTMENT (R1-R6)

- R-1: WASTE MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN A MANNER APPROVED BY THE ENGINEER.
- R-2: ALL SAW CUTTING AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE ITEM TO BE ADJUSTED, REMOVED, REPAIRED, OR REPLACED.
- R-3: NOT USED.
- R-4: NOT USED.
- R-5; ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION.
- R-6: SHALL INCLUDE ALL COSTS ASSOCIATED WITH PLUGGING/ PATCHING HOLES IN EXISTING STRUCTURES TO REMAIN.
- R-7: PAVEMENT REMOVAL AND REPLACEMENT FOR WATER, SANITARY, AND STORMWATER MAIN INSTALLATIONS - 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
 - XI. THIS PAY ITEM DOES NOT INCLUDE THE FOLLOWING WHICH SHALL BE PAID SEPARATELY IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS, DETAILS AND DRAWINGS:
 - CURB AND GUTTER



SHEET 7 OF 32 SHEETS

ORIGINAL DRAWING	SCALES ACCORDINGLY	
REVISION	BY	DATE
ADDENDUM 2	DAS	7/16/202
		-
PAY ITEM NOTES - F	ROADWAY	

TMUA PROJECT NUMBER ES 2020-07

CITYWIDE LIFT STATION IMPROVEMENTS GRAVITY SEWER

CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT

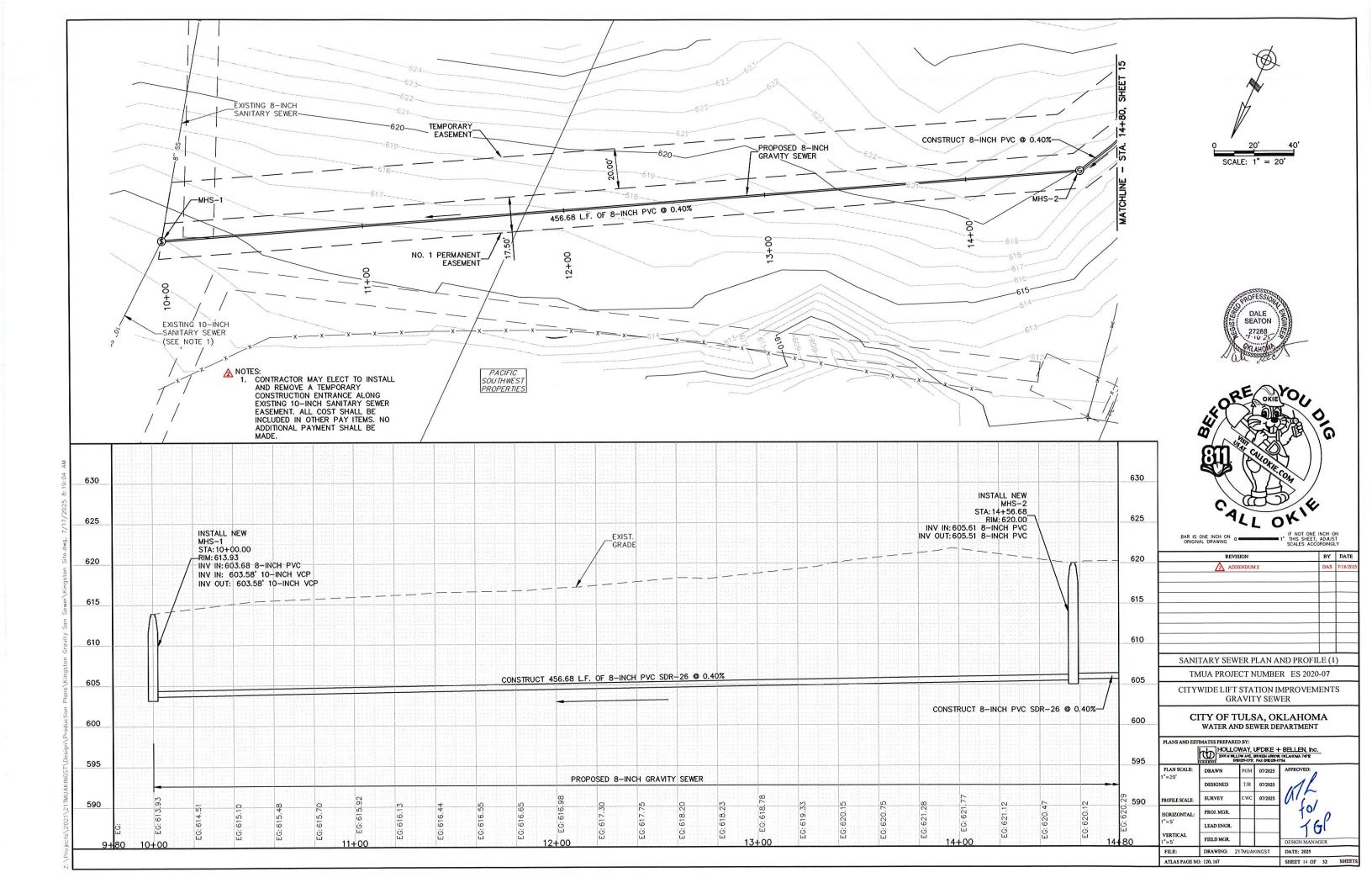
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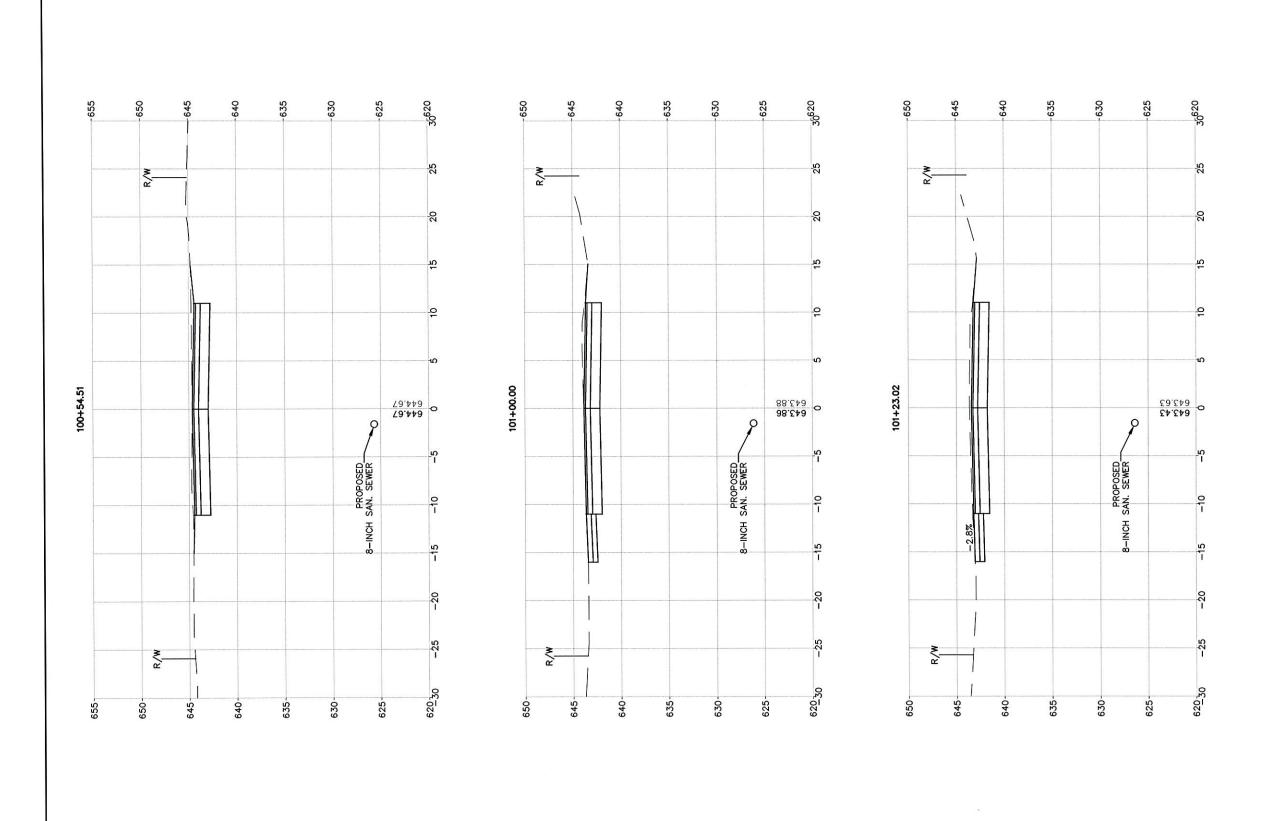
PLANS AND ESTIMATES PREPARED BY

ATLAS PAGE NO: 120, 167

SURVEY PROFILE SCALE PROJ. MGR. IORIZONTAL FIELD MGR. DRAWING: 21TMUAKINGST DATE: 2025







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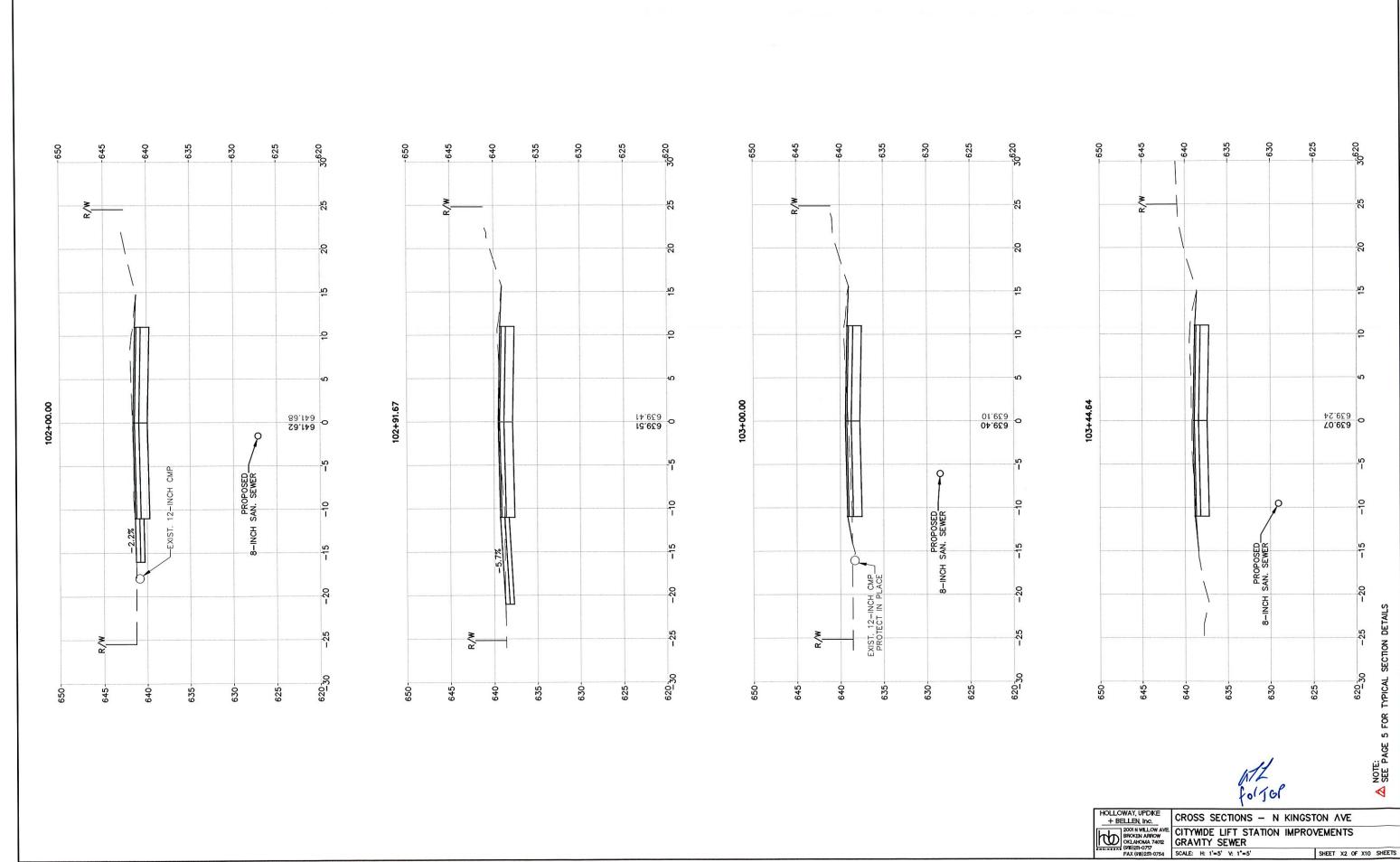
2001 N WILLOW AYE.
BROCES ARROW
OKLAHOMA 74012
(998)251-0777
FAX (998)251-0754

CROSS SECTIONS - N KINGSTON AVE

CITYMDE LIFT STATION IMPROVEMENTS
GRAVITY SEWER

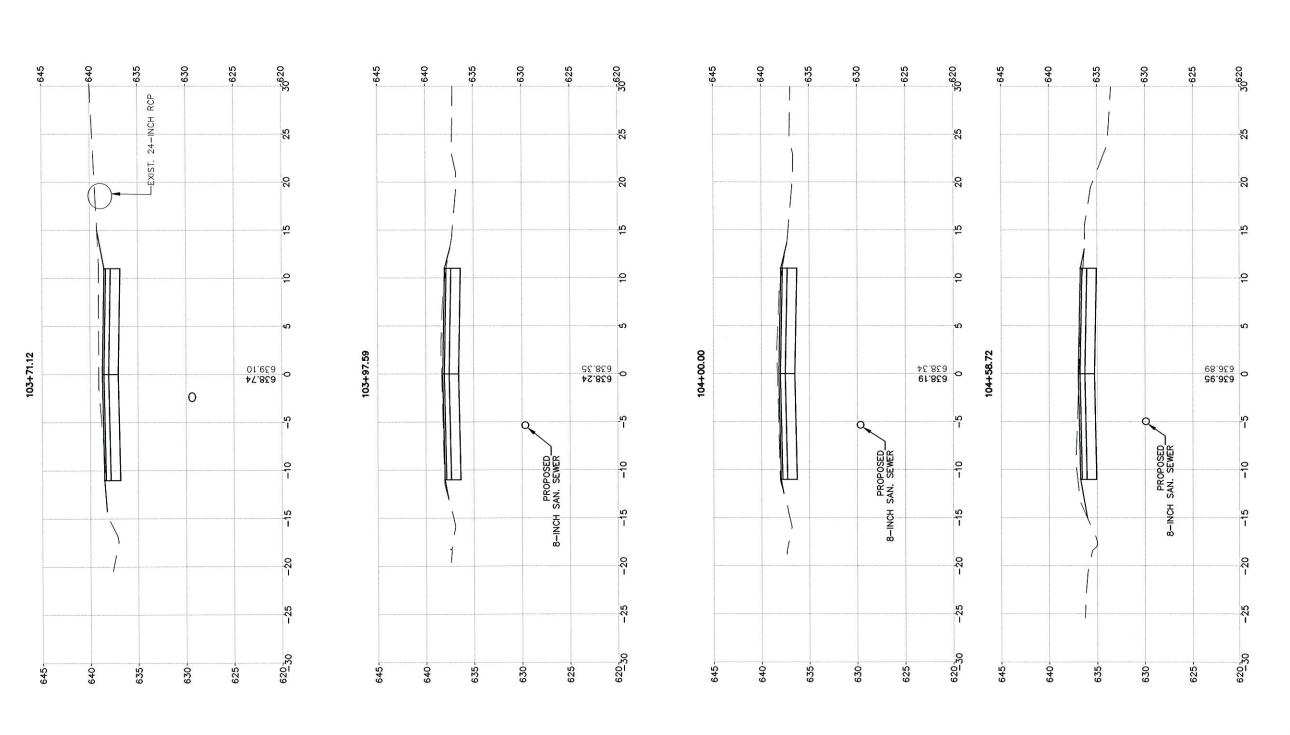
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SHEET X1 OF X10 SHEETS



CITYWDE LIFT STATION IMPROVEMENTS
GRAVITY SEWER
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SHEET X2 OF X10 SHEETS



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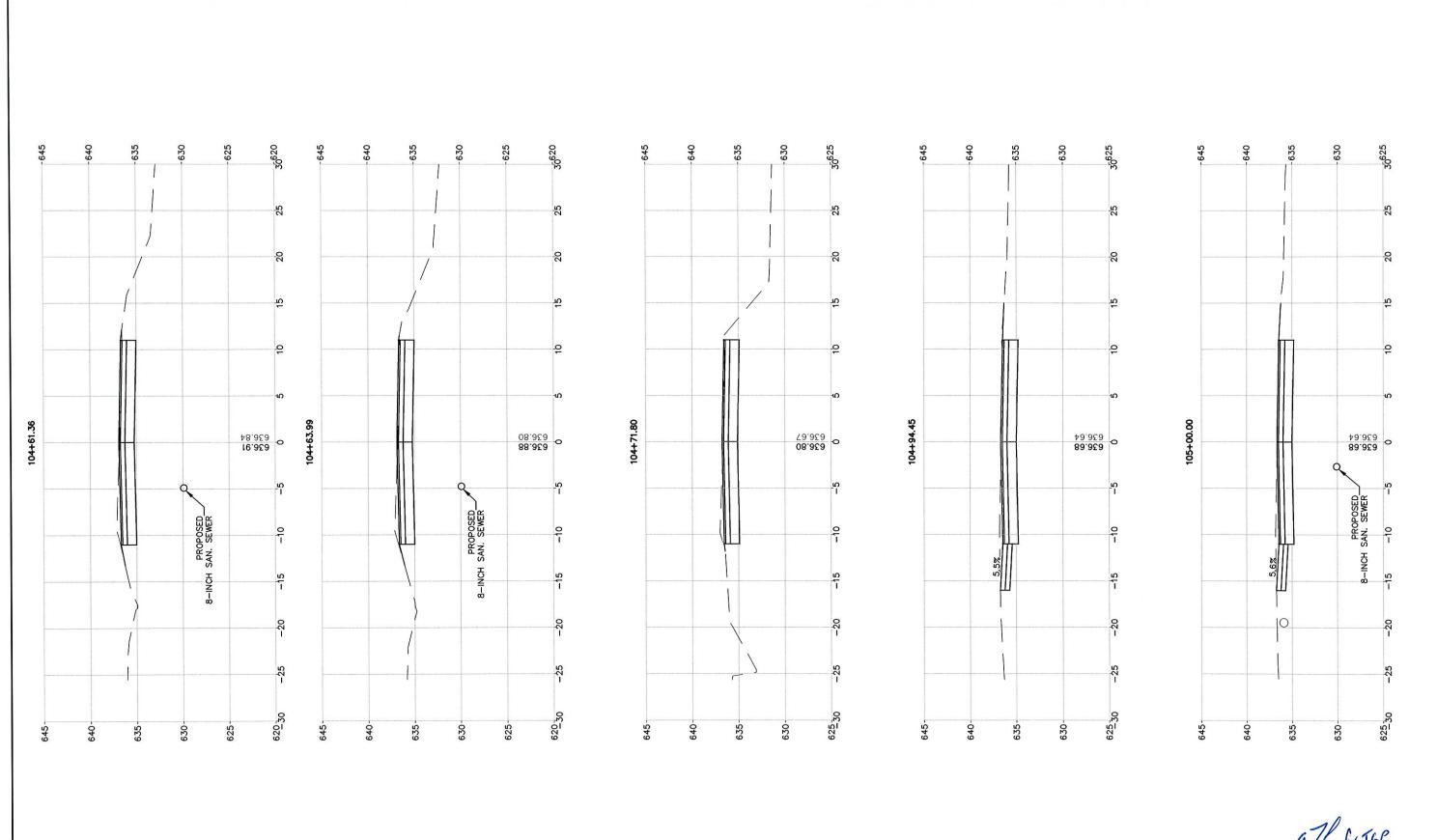
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OKLANDAR 74012
(99)251-0754

CROSS SECTIONS - E ZION ST CITYMDE LIFT STATION IMPROVEMENTS
GRAVITY SEWER

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SHEET X3 OF X10 SHEETS



 Δ see page 5 for typical section details

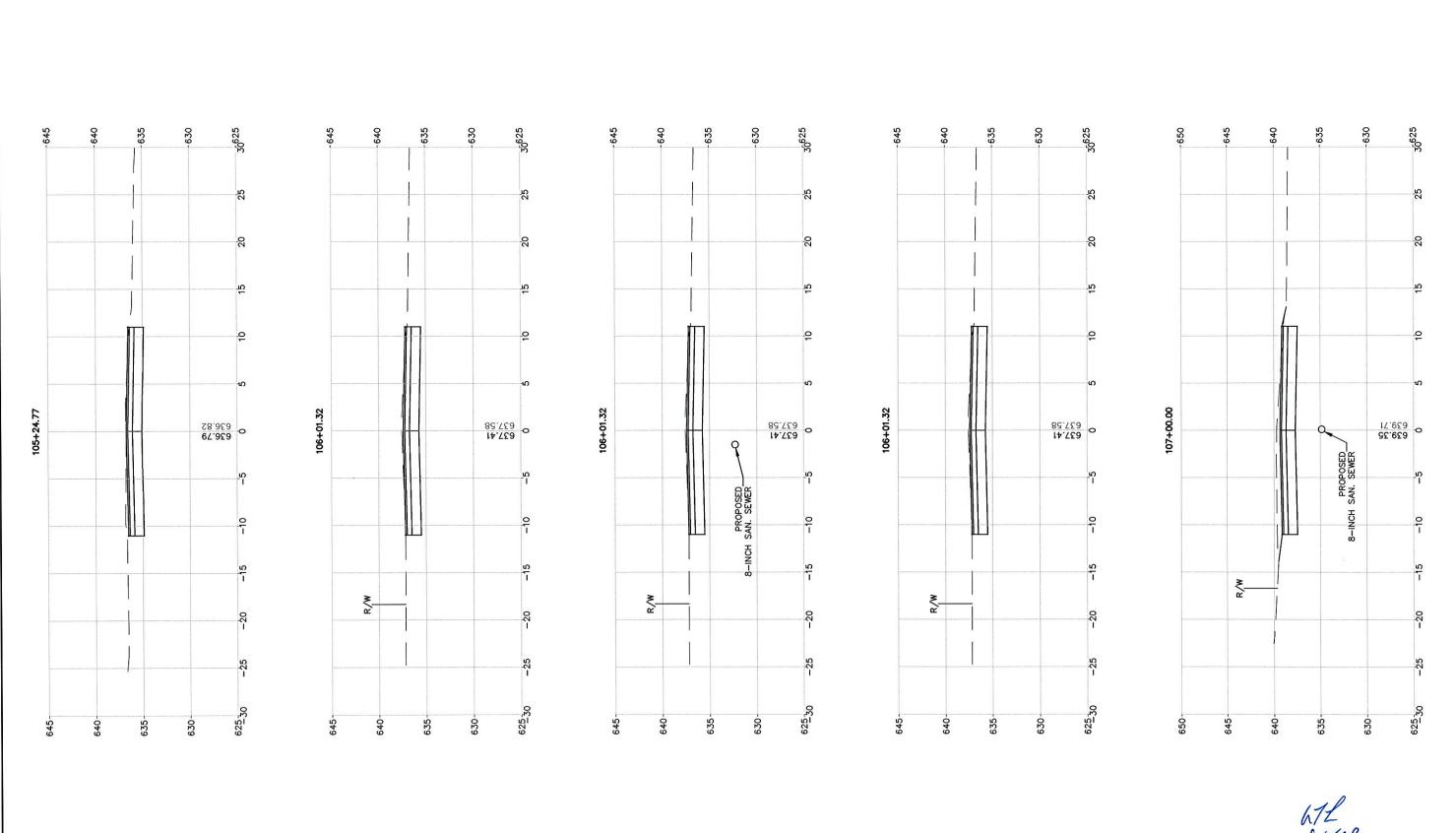
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BROKEN APROW
OKLAHOMA 74012
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CROSS SECTIONS - E ZION ST CITYMDE LIFT STATION IMPROVEMENTS
GRAVITY SEWER

SCALE: H: 1'=5' V: 1'=5' SHEET X4 OF

SHEET X4 OF X10 SHEETS



 Δ see page 5 for typical section details

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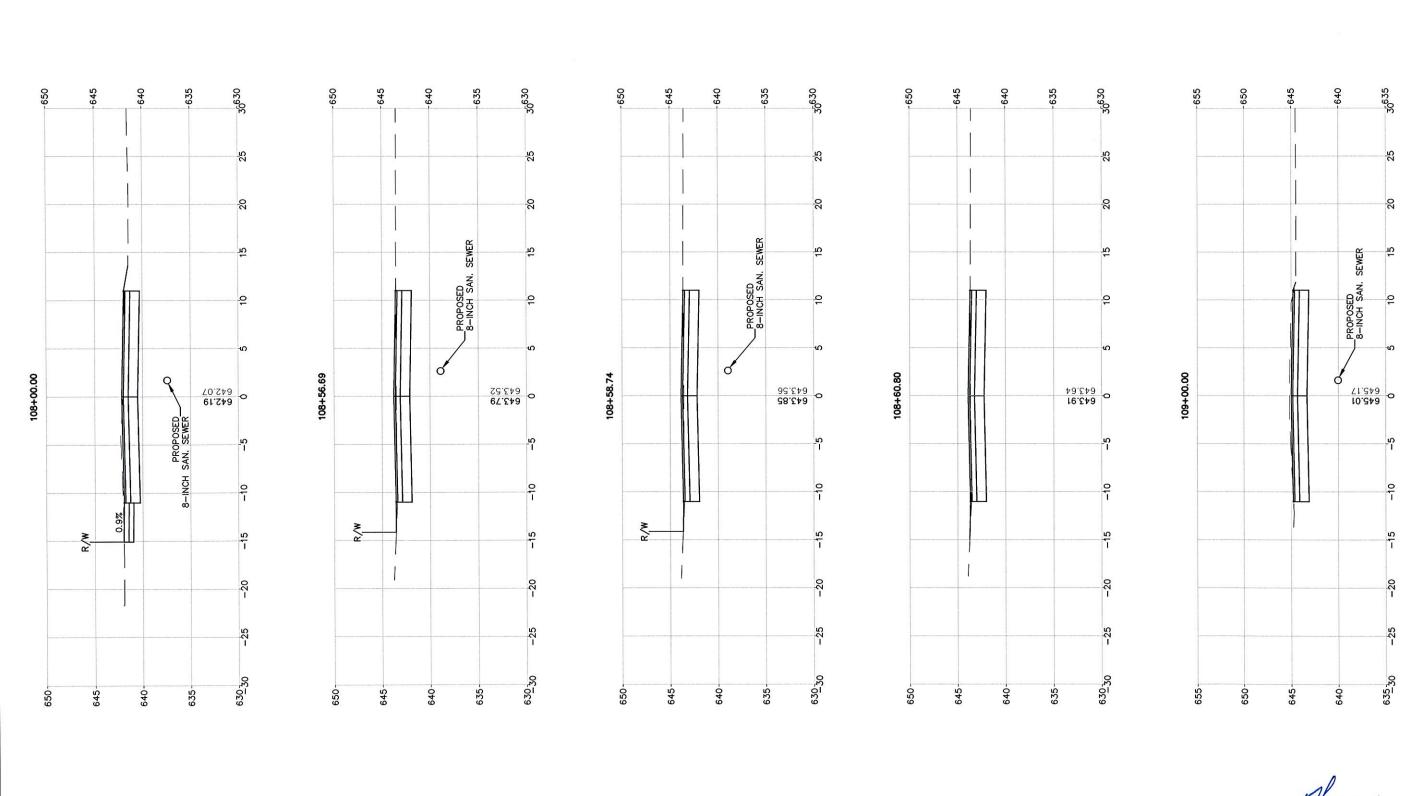
ERGINEERA FAX (98)251-0754

CROSS SECTIONS - E ZION ST

CITYMDE LIFT STATION IMPROVEMENTS
GRAVITY SEWER

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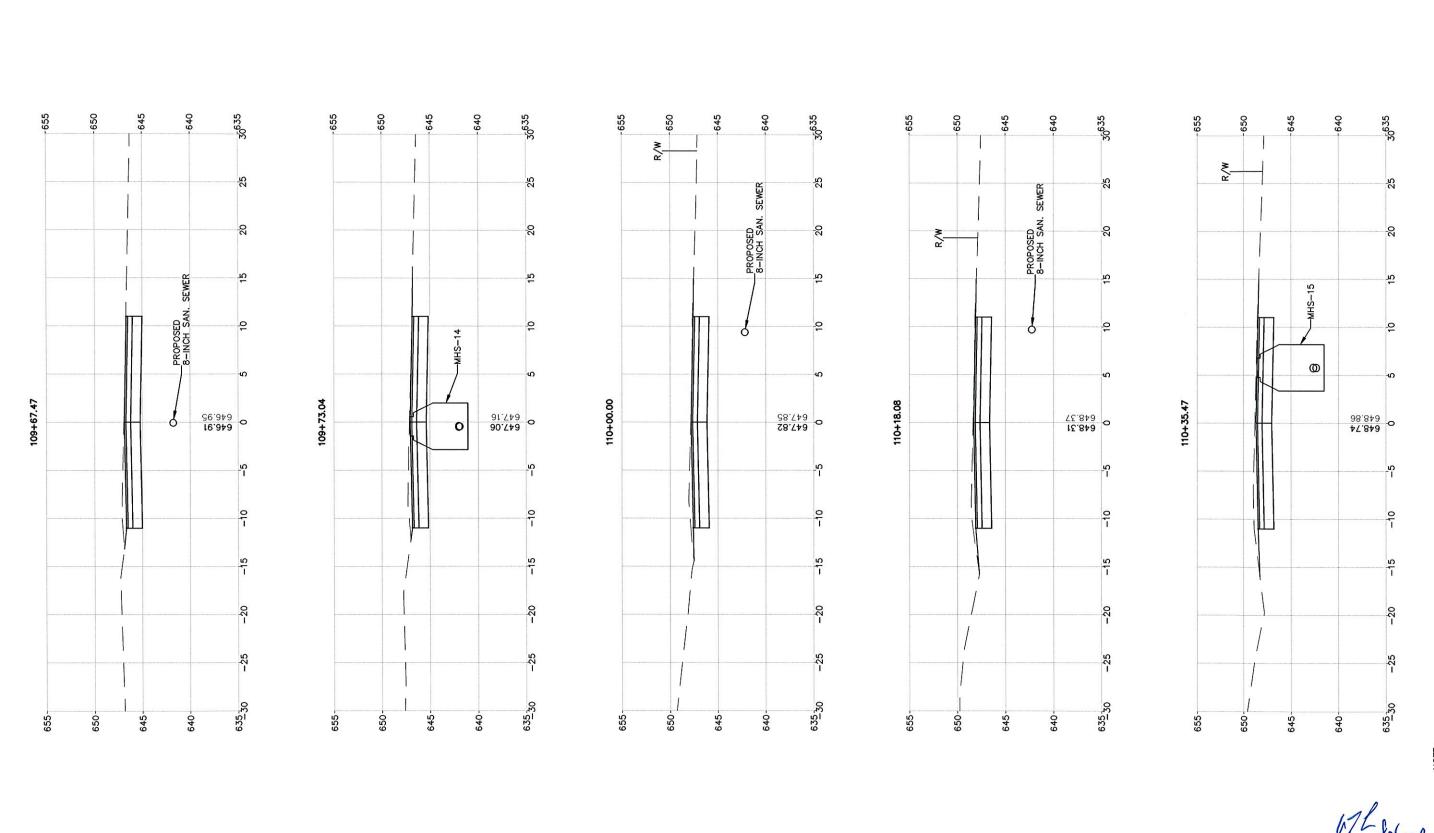
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CROSS SECTIONS — E ZION ST

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GRAVITY SEWER

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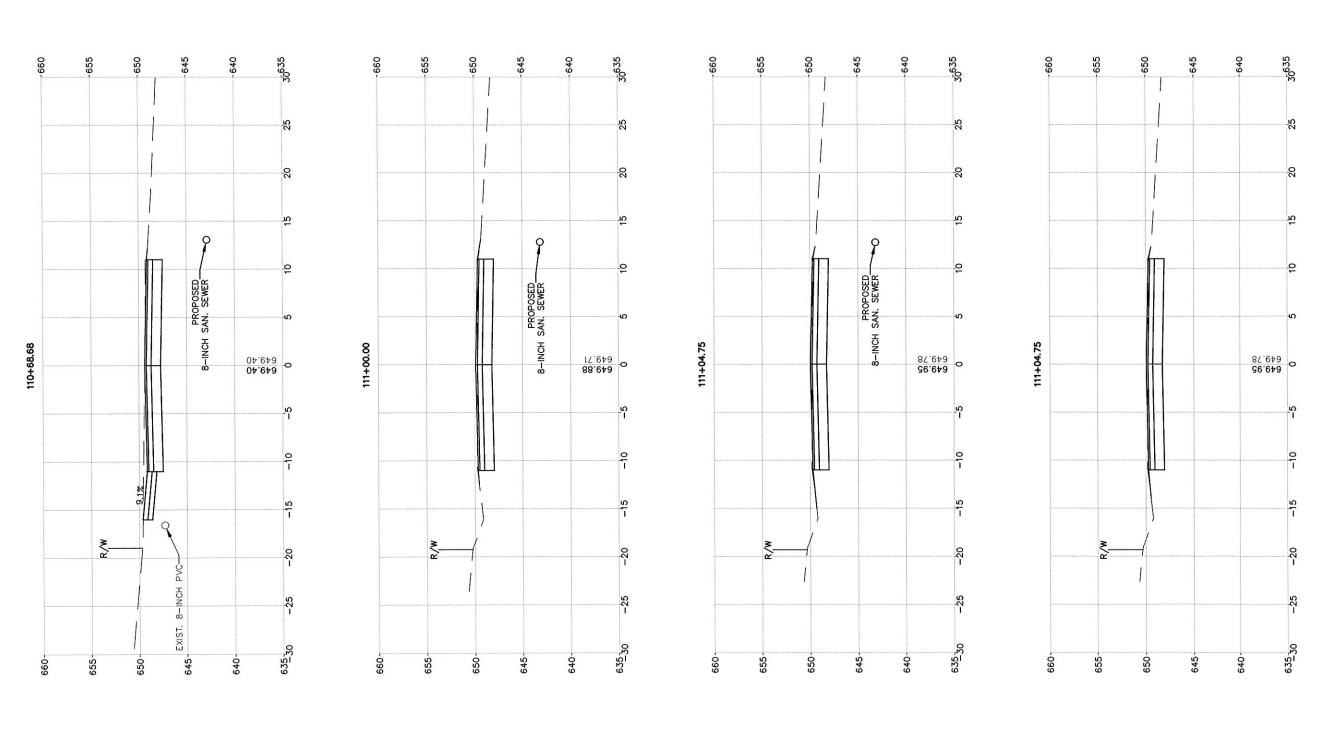


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GRAVITY SEWER

SCALE: H: 1'=5' V: 1'=5' SHEET X7 OF CROSS SECTIONS - N MAPLEWOOD AVE

SHEET X7 OF X10 SHEETS



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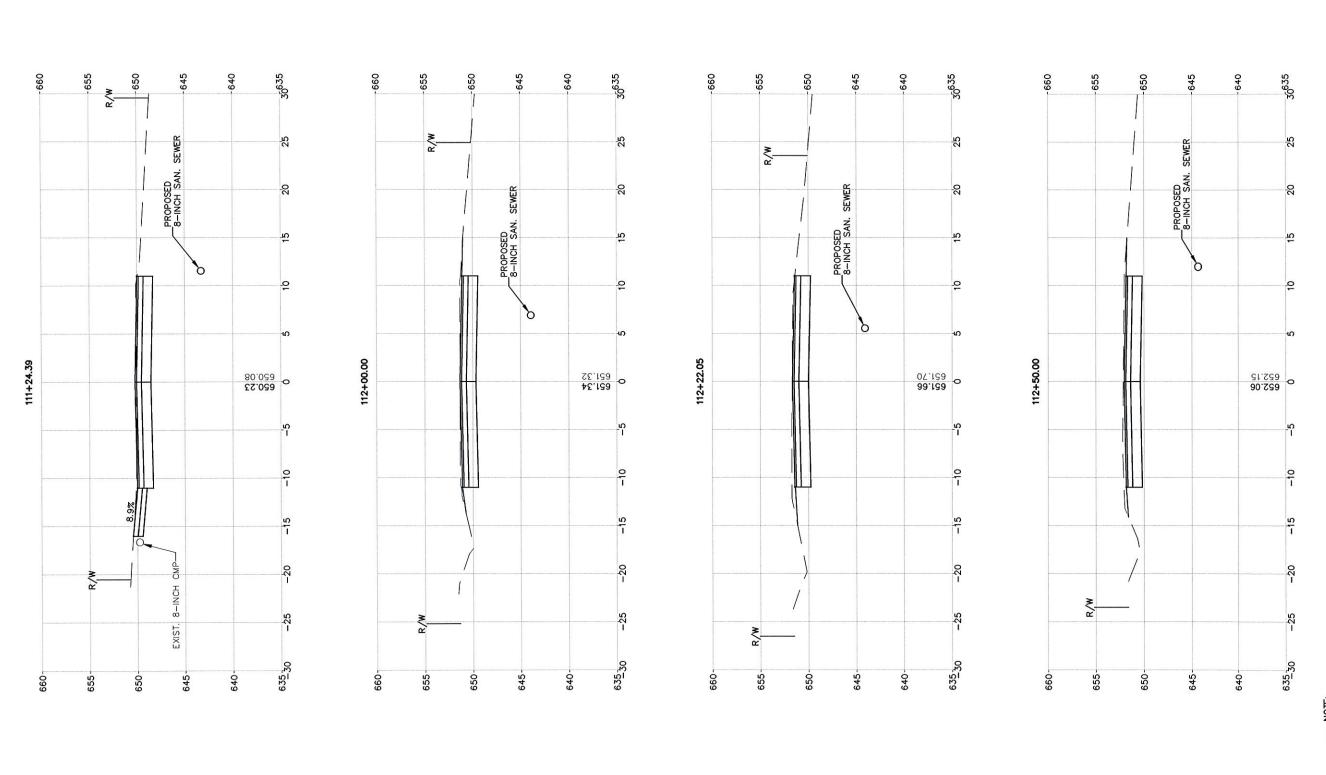
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CROSS SECTIONS - N MAPLEWOOD AVE

CITYMDE LIFT STATION IMPROVEMENTS
GRAVITY SEWER

SCALE: H: 1'=5' V: 1"=5' SHEET X8 OF X10

SHEET X8 OF X10 SHEETS



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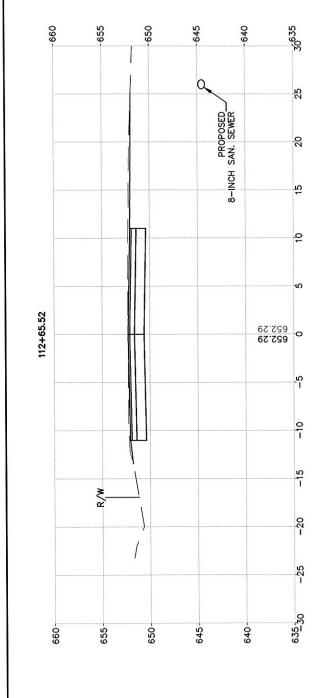
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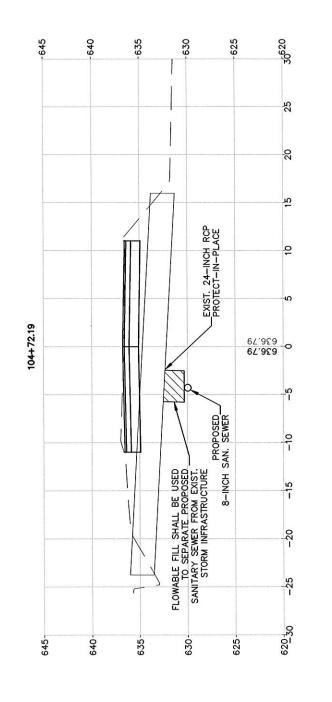
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GRAVITY SEWER

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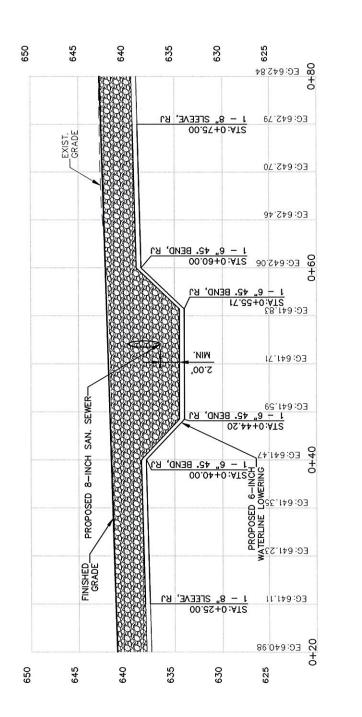
SHEET X9 OF X10 SHEETS



A SEE PAGE 5 FOR TYPICAL SECTION DETAIL



STORMWATER CROSSING



WATERLINE PROFILE

W/ fo/56

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CROSS SECTIONS - N MAPLEWOOD AVE

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SCALE: H: 1'=5' V: 1"=5' SHEET X10 OF X10 SHEETS