

OWNER

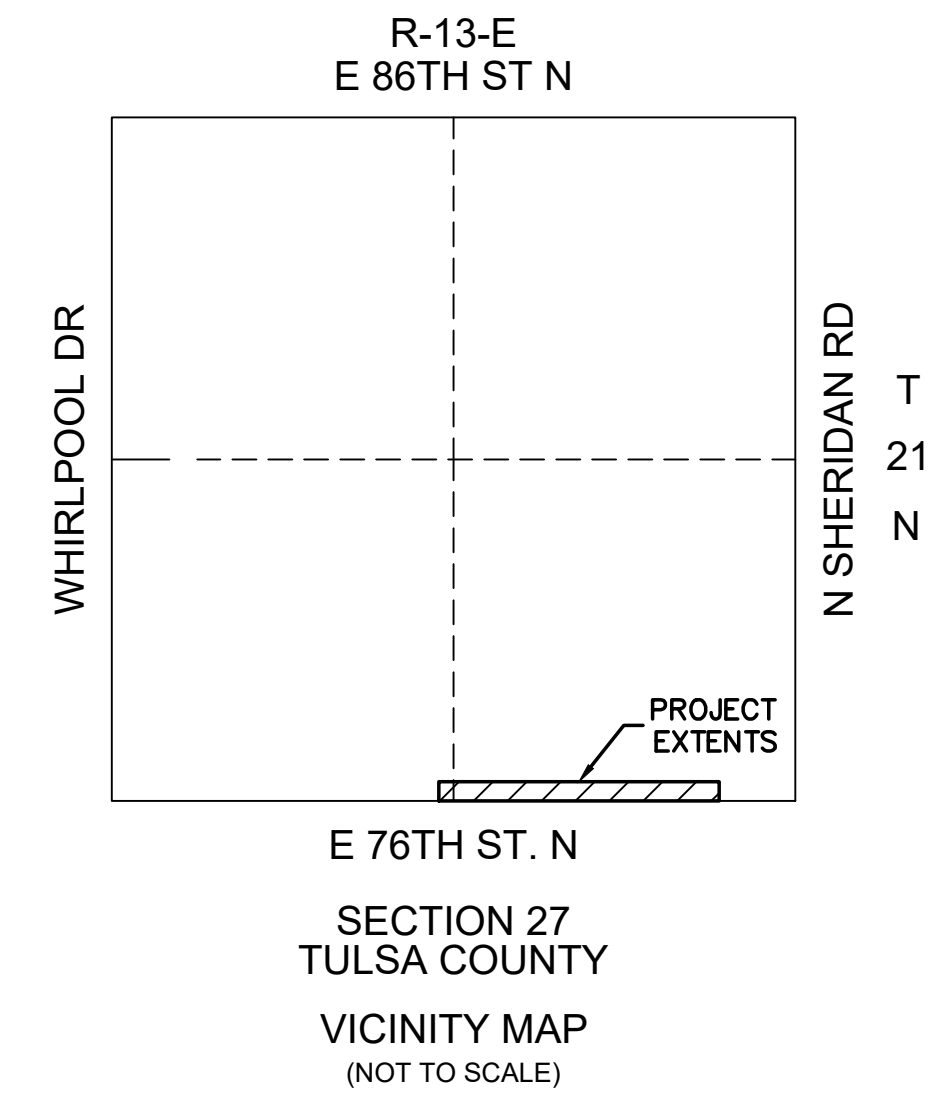
CLYDESDALE TULSA HOLDINGS, LLC
 2727 E. 21ST STREET, STE 200
 TULSA, OK 74115
 CONTACT: LOU REYNOLDS
 PHONE: 918-747-8900
 EMAIL: LREYNOLDS@ELLERDETRICH.COM

ENGINEER

Kimley»Horn
 1437 SOUTH BOULDER AVE, SUITE 930
 TULSA, OK 74119
 EMAIL: DEVIN.RANDALL@KIMLEY-HORN.COM
 PHONE: 918-380-8868
 CONTACT: DEVIN RANDALL
CITY OF TULSA DETAILS

CONSTRUCTION PLANS FOR PROJECT CLYDESDALE

IDP #228249-2025
EAST 76TH STREET NORTH
TULSA COUNTY, OKLAHOMA
74073



STANDARD	DESCRIPTION
534	10" METER WITH PRESSURE SUSTAINING VALVE AND VAULT
304A	TRENCH DETAIL WATERLINE
305	BEDDING DETAIL FLEXIBLE PIPE
306	TRENCH DETAIL CONSTRUCTION ADJACENT TO ROADWAY
307	BORE/OPEN CUT CONDUIT DETAIL
366	STANDARD DETAIL FOR MANHOLE STEP LOCATION AND INVERT DETAILS
314	STANDARD DETAIL MANHOLE STEPS
331	STANDARD DETAIL PRE-CAST SANITARY SEWER MANHOLES
358	STANDARD DETAIL PRE-CAST SANITARY SEWER MANHOLES
354	STANDARD DETAIL FRAME AND LID FOR 4' I.D. AND LARGER SANITARY MANHOLE
359	FRAME AND COVER FOR FLOOD PLAIN APPLICATION
351	BEDDING DETAIL POLYVINYL CHLORIDE FLEXIBLE SANITARY SEWER PIPE
368	STANDARD ELEVATED MANHOLE

*CONTRACTOR SHALL PROVIDE AND MAINTAIN CONSTRUCTION AS-BUILTS AS PER COT SPEC 334. SAMPLING AND TESTING SHALL BE PER COT SPEC 335.
 **ALL CONSTRUCTION TO BE IN STRICT ACCORDANCE WITH CITY OF TULSA STANDARDS AND SPECIFICATIONS.

ENGINEER'S STATEMENT
 BY MY SIGNATURE ON THESE CONSTRUCTION DOCUMENTS, I HEREBY CERTIFY THAT I AM FAMILIAR WITH THE ADOPTED ORDINANCES AND REGULATIONS OF THE CITY OF TULSA GOVERNING THE ITEMS IN THE IDP DESCRIPTION; THAT THESE PLANS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION; THE ABOVE AND FOREGOING PLANS COMPLY WITH ALL GOVERNING ORDINANCES AND THE ADOPTED STANDARDS OF THE CITY OF TULSA TO THE BEST OF MY KNOWLEDGE AND BELIEF.

ENTIRE PROJECT IS WITHIN CORPORATE LIMITS OF TULSA COUNTY. THIS PROJECT COMPLIES WITH ALL OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY(ODEQ) REQUIREMENTS.

IDP DESCRIPTION
 THIS IS A SET OF IDP PLANS FOR PROJECT CLYDESDALE LOCATED AT THE NW/4 OF N SHERIDAN RD AND E 76TH ST N IN TULSA COUNTY, OKLAHOMA. THE PROJECT WILL CONSIST OF THE FOLLOWING:
 • WATERLINE EXTENSION
 • SANITARY SEWER MANHOLE
 • SANITARY SEWER LINE ABANDONMENT

OWNER'S STATEMENT
 I HEREBY CERTIFY TO THE CITY OF TULSA, THAT THE APPROVED PLANS WILL BE IMPLEMENTED UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER.

PROJECT CLYDESDALE
 BY: _____
 TITLE: _____ DATE: _____

R.O.W. NOTE:
 BEFORE BLOCKING ANY LANE OF TRAFFIC, OR BEFORE CUTTING ANY STREET, YOU MUST FIRST COORDINATE WITH TULSA COUNTY.

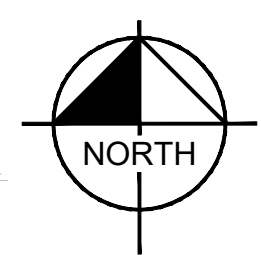
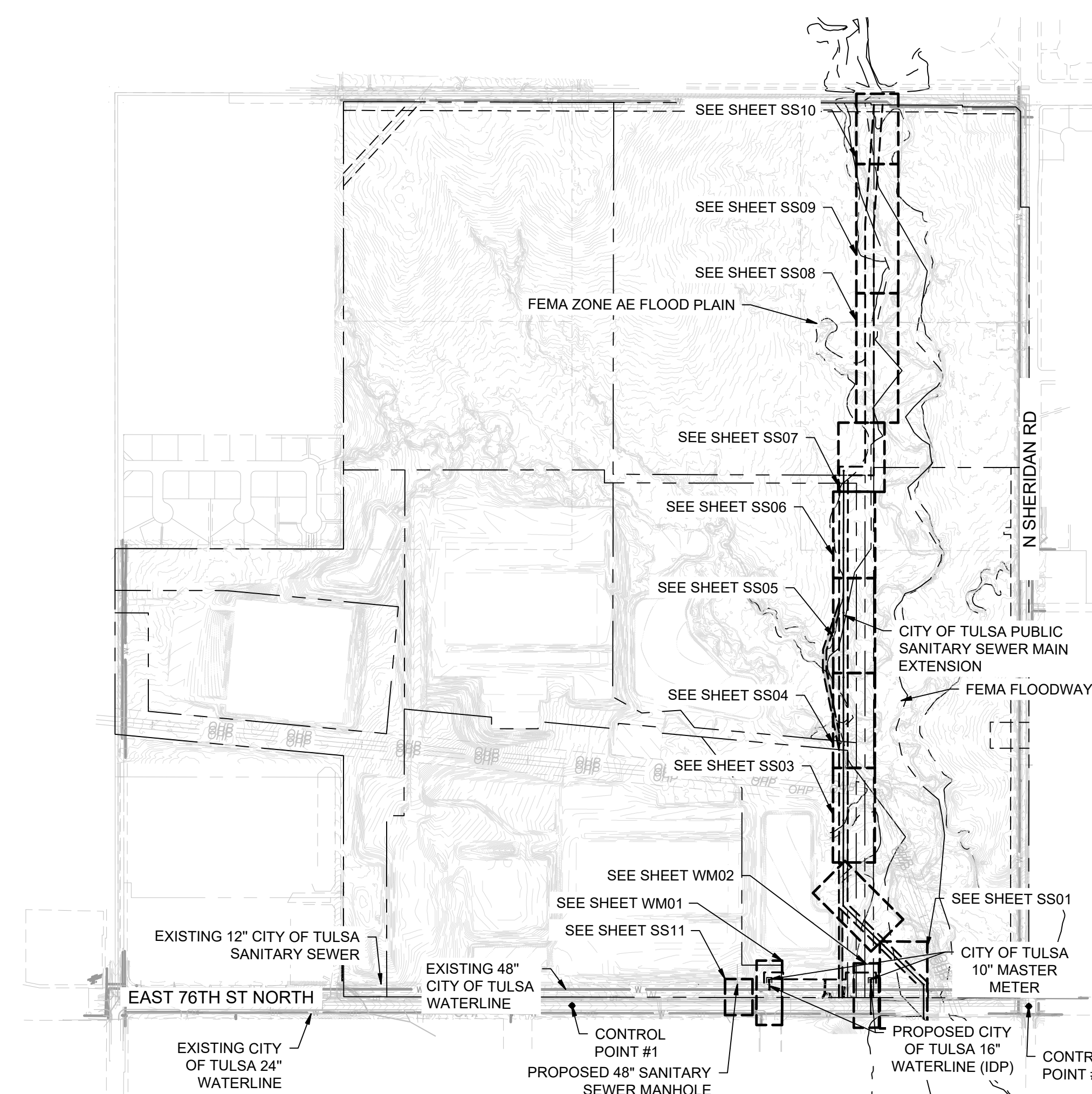
FLOODPLAIN NOTE:
 A MAP BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP, TULSA COUNTY, OKLAHOMA AND INCORPORATED AREAS. MAP NUMBER 40143C0120L WITH A REVISED DATE OF OCTOBER 16, 2012, WHICH SHOWS THE PROPERTY DESCRIBED HEREON IS LOCATED IN ZONE AE WHICH IS CLASSIFIED AS AN AREA WITHIN THE LIMITS OF THE 0.2% ANNUAL CHANCE FLOOD AND A FEMA SPECIAL FLOOD HAZARD AREA. THE CITY OF TULSA REGULATORY FLOODPLAIN MAP ATLAS, PANEL NUMBER 120, WITH EFFECTIVE DATE OF OCTOBER 2012, AND THE PROPERTY DESCRIBED HEREON IS AFFECTED.

TRAFFIC NOTE:
 TRAFFIC ACCESS ON ALL STREETS SHALL BE MAINTAINED AT ALL TIME. CONTRACTOR MUST MAINTAIN PROPER CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

WASHINGTON COUNTY RWD #3 MASTER SERVICE AGREEMENT:
 PRIOR TO CITY OF TULSA ISSUING A WATER METER PERMIT, THE MASTER SERVICE AGREEMENT BETWEEN WASHINGTON COUNTY RWD #3 AND THE CITY OF TULSA MUST BE AMENDED TO INCLUDE THE PROPOSED WATER METER VAULTS INCLUDED IN THESE CONSTRUCTION DOCUMENTS. IF THE AMENDMENT TO THE MASTER SERVICE AGREEMENT HAS NOT BEEN FINALIZED, CONTRACTOR MAY NOT PULL WATER METER PERMIT FROM THE CITY OF TULSA.

WATER NOTE:
 CONNECTIONS TO THE 48-INCH AND 24-INCH CONCRETE PIPES MUST BE MADE BY CITY OF TULSA APPROVED CONTRACTORS. CONTACT WATER DISTRIBUTION AT 918-596-9480 FOR INFORMATION ON THOMPSON PIPE GROUP, RANGELINE GROUP OR OTHER APPROVED INSTALLERS.

PLAT BOUNDARY NOTE:
 PROJECT CLYDESDALE FINAL PLAT WAS RECORDED WITH TULSA COUNTY ON 3/20/2026. THE DOCUMENT # FOR THE RECORDED FINAL PLAT IS 7228.



ITEMIZED IDP DESCRIPTION			
SPEC. NO.	ITEM DESCRIPTION	UNIT	QUANTITY
COT 312	16 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	LF	178
COT 312	24 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	LF	5
COT 534	10" METER WITH PRESSURE SUSTAINING VALVE AND VAULT	EA	2
COT 361	24"x24" INLINE TEE	EA	1
COT 312	24"x16" REDUCER	EA	1
COT 312	16"x10" REDUCER	EA	2
COT 312	JACK AND BORE 30" 1/2" STEEL CASING	LF	79
COT 361	48"x16" TAPPING SLEEVE AND VALVE	EA	1
COT 312	16" DIP 45° BEND (RJ)	EA	6
COT 368	4' I.D. MANHOLE	EA	1
COT 368	6' I.D. MANHOLE	EA	11
COT 313	24" PVC SDR-26	LF	3301

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
GE01	COVER SHEET
GE02	SANITARY SEWER IMPROVEMENT DISTRICT- OVERALL
GE03	PRE-PROJECT DRAINAGE AREA MAP
WM01	DWTR-IDP-1 PLAN AND PROFILE
WM02	DWTR-IDP-2 PLAN AND PROFILE
SS01	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS02	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS03	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS04	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS05	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS06	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS07	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS08	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS09	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS10	SSWR-IDP-EXTENSION PLAN AND PROFILE
SS11	SSWR-IDP PLAN AND PROFILE
SS12	SSWR-IDP TABLE OF STATE PLANE COORDINATES
EC01	EROSION CONTROL PLAN

PROJECT LOCATION SECTION 27, T-21N, R-13E, TULSA COUNTY
SUBDIVISION: UNPLATTED (91327)
LEGAL: S/2 SEC LESS SW SW & LESS S50 THEREOF FOR RD & LESS E50 N300 S350 SE SE & LESS BEG 1322.32N SWC TH N246.67 ELY 1329.29 S125.19 W1323.44 POB & W/2 NE LESS N60 THEREOF FOR RD & SE NE & SE SE NW SEC 27 21 13 397.643 ACS
ATLAS PAGE: 1077 AND 950

APRIL 2026

DATUM
 HORIZONTAL
 NAD 83 OKLAHOMA STATE PLANE
 COORDINATE SYSTEM NORTH ZONE 3501
 VERTICAL
 NAVD 88

CONTROL POINT #1		CONTROL POINT #2	
ELEVATION	683.38 (NAVD 1988)	ELEVATION	617.62 (NAVD 1988)
MONUMENT	3/4" REBAR	MONUMENT	MAGNAIL
LOCATION	N: 466707.64 E: 2581682.53	LOCATION	N: 466816.88 E: 2580975.73

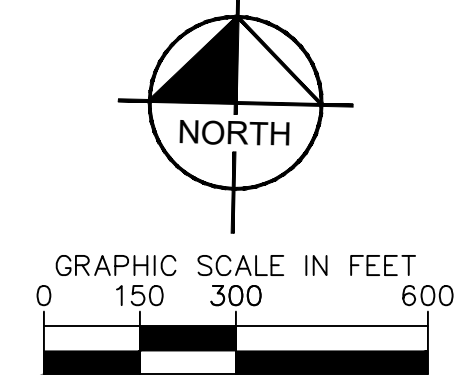
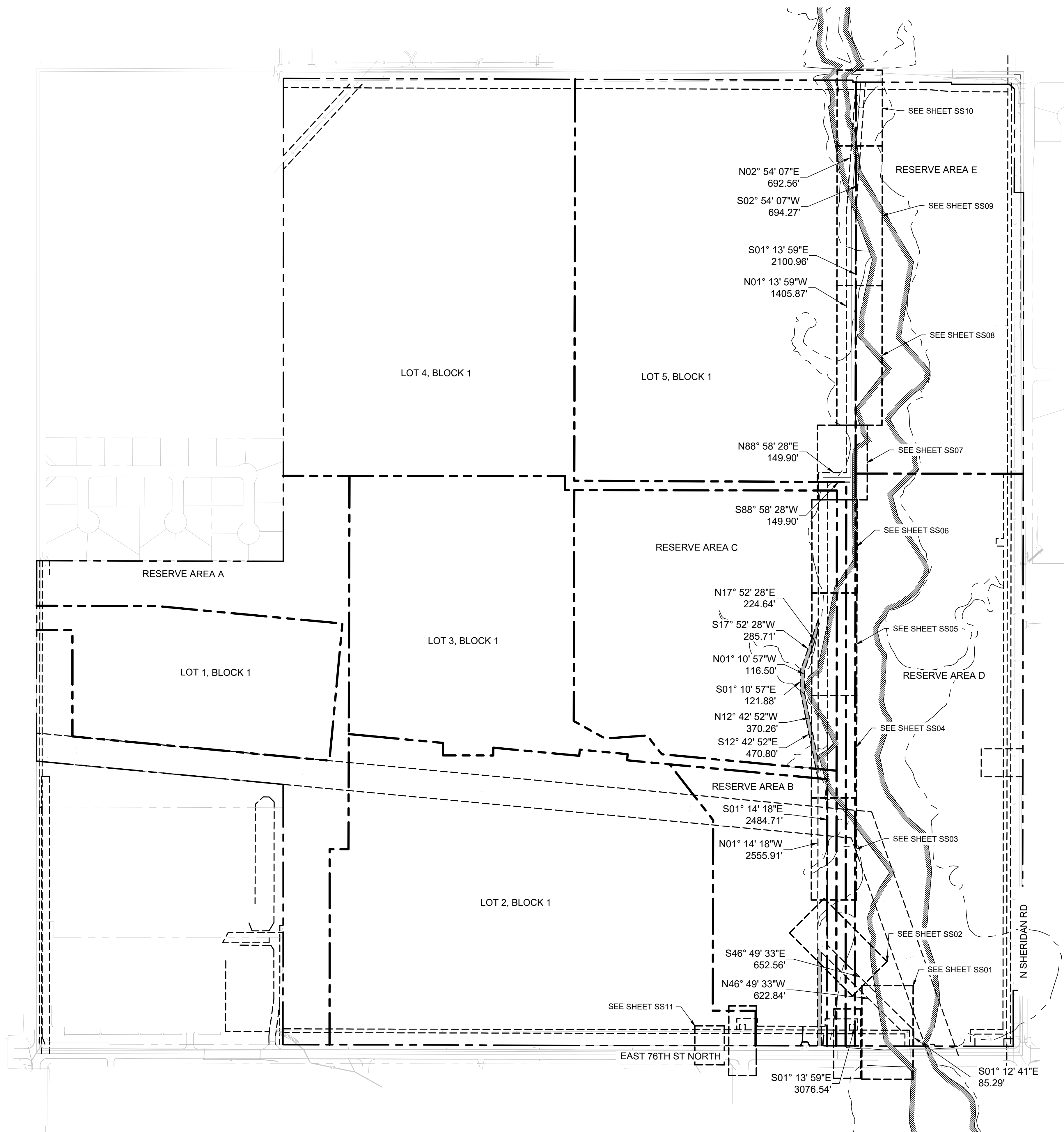


UTILITY COORDINATION BOX		
TITLE	NUMBER	CONTACT
UTILITY COORDINATION SUPERVISOR	918-596-2578	GARY MCCLENDON
INFRASTRUCTURE DEVELOPMENT MANAGER	918-596-7285	MICHAEL LING, P.E.

APPROVED FOR IDP PERMIT ONLY
 Michael Ling, PE
 Infrastructure Development Manager
 City of Tulsa

GE01

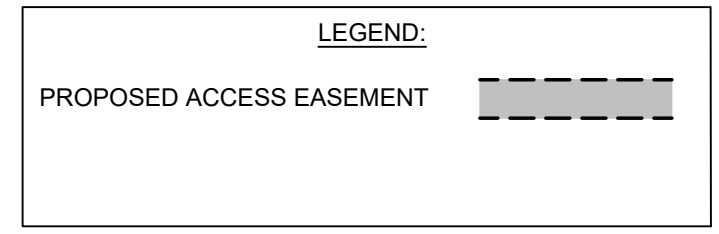
Plotted By: Burt, Hayden Date: April 16, 2026 03:17:37pm File Path: C:\ACCC\ACCDocs\Kimley-Horn\Horn\060057900_Cyl\Project Files\00_Civil\SPS\07_City of Tulsa IDP\03_Production-DWG\SSMR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE COORDINATE SYSTEM NORTH ZONE 3501
VERTICAL	NAVD 88

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	5/8" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73



SUMMARY OF SANITARY SEWER QUANTITIES				
ITEM	SPEC. NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COT 368	6" I.D. MANHOLE	EA	11
2	COT 305	24" PVC SDR-26	LF	3301
3	COT 366	4" I.D. MANHOLE	EA	1

BACKFLOW PREVENTER TABLE					
SERVICE MH #	LOT/BLOCK #	PAD FFE	U/S TR	D/S TR	BACKFLOW PREVENTER REQUIRED?
PR-MH-12	LOT 2, BLOCK 1	657.5, 640	637.90	624	NO
PR-MH-06	LOT 3, BLOCK 1	662	612.62	611.83	NO
PR-MH-10	LOT 4, BLOCK 1	660	623.11	618.12	NO
PR-MH-11	LOT 5, BLOCK 1	660	624	622.2	NO

ORDINANCE FLOW EQUATION:
 $Q_m = A^{0.8169} \times 0.01467$

FLOW CALCULATION TABLE				
SERVICE LINE	LOT/BLOCK #	ACRES	DESIGN FLOW	ORDINANCE FLOW
PR-MH-12	LOT 2, BLOCK 1	73.4	0.63	0.49
PR-MH-06	LOT 3, BLOCK 1	44.1	0.54	0.32
PR-MH-10	LOT 4, BLOCK 1	81.3	0.54	0.53
PR-MH-11	LOT 5, BLOCK 1	77.8	0.54	0.51

SEPARATE INSTRUMENT EASEMENT					
EASEMENT	TYPE	OWNER	SHEET #	BK	PG
50' CITY OF TULSA SANITARY SEWER EASEMENT	SANITARY SEWER	CLYDESDALE TULSA HOLDINGS, LLC	GE02		
20' CITY OF TULSA ACCESS EASEMENT	ACCESS	CLYDESDALE TULSA HOLDINGS, LLC	GE02		
CITY OF TULSA WATER EASEMENT	WATER	CLYDESDALE TULSA HOLDINGS, LLC	WM01		
CITY OF TULSA WATER EASEMENT	WATER	CLYDESDALE TULSA HOLDINGS, LLC	WM02		

LEGAL DESCRIPTION NOTE:
 PROJECT CLYDESDALE FINAL PLAT WAS RECORDED WITH TULSA COUNTY ON 3/20/2026. THE DOCUMENT # FOR THE RECORDED FINAL PLAT IS 7228.

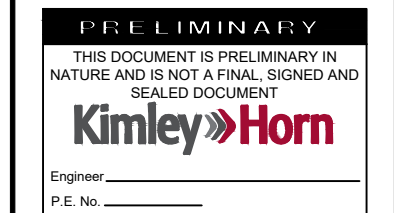


APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE
 Infrastructure Development Manager
 City of Tulsa

NO.	REVISIONS	DATE	BY

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119
 PHONE: 918-380-8888 FIRM NO. 2740 EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM



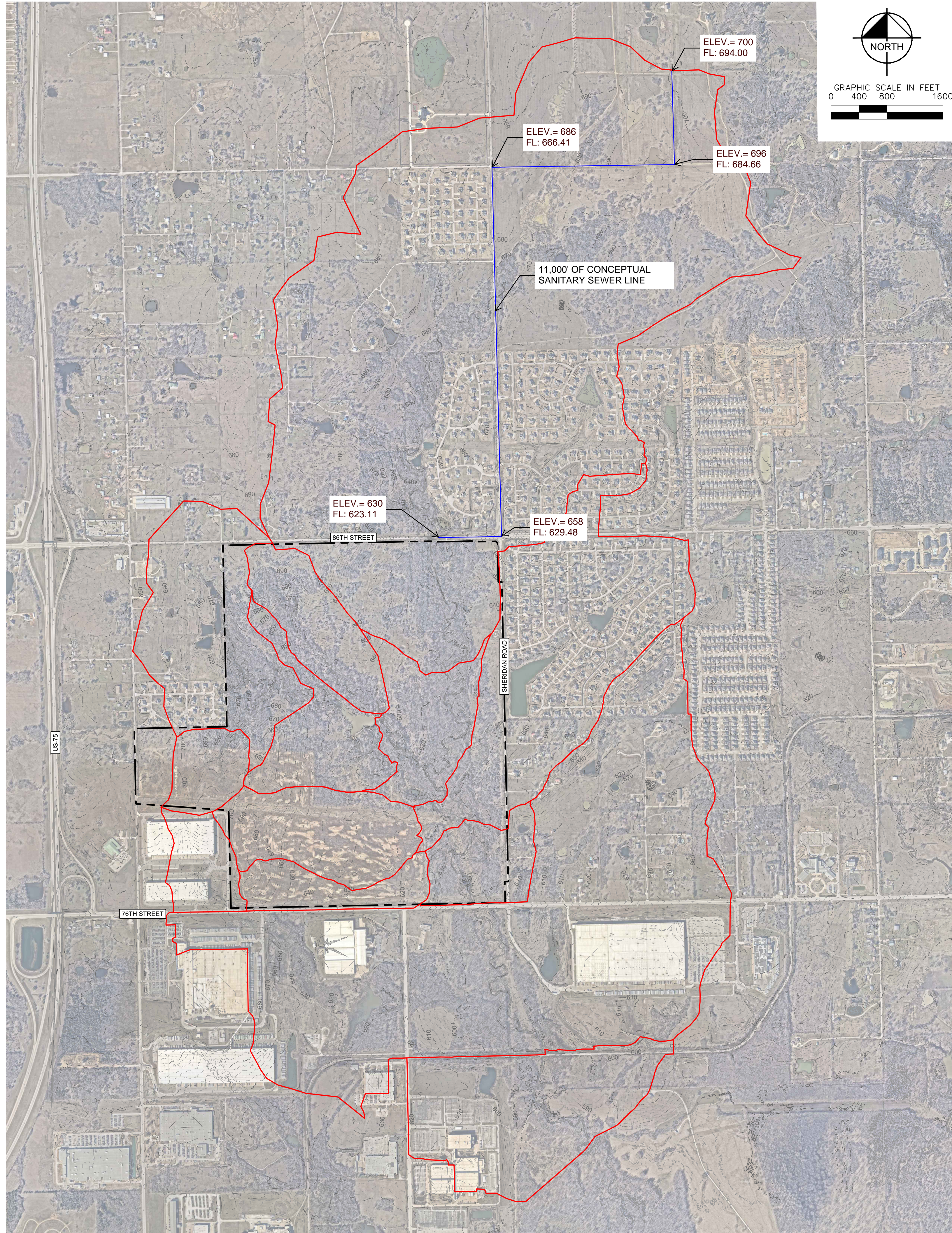
KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY	DR
DRAWN BY	DB
CHECKED BY	DR

PROJECT
 CLYDESDALE

SANITARY SEWER
 IMPROVEMENT -
 OVERALL

SHEET NUMBER
 GE02

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



Legend

- Property Boundary
- Pre-Project Drainage Area
- 450
- 2-FT Existing Topography

Image Source: NearMap (February 2025)

ORDINANCE FLOW EQUATION

$$Q_m = A^{0.8169} \times 0.01467$$

DRAINAGE AREA CALCULATIONS

DA	AREA (AC)	Qm (MGD)
DRAINAGE AREA	2262.32	8.07

MAXIMUM ELEVATION AT OUR SITE:
 $697' - (11,000' \times 0.006) + (25' \times 0.1) = 617.5'$
 *ASSUMING 3' COVER OF STARTING ELEVATION OF 700'
 *ASSUMING 0.7% SLOPE
 *ASSUMING 25 MANHOLES WITH 0.1 DROP
 PROPOSED ELEVATION LEAVING OUR SITE IS 614'

No.	REVISIONS	DATE	BY

Kimley-Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 S BOULDER AVE. SUITE 930, TULSA, OK 74119
 PHONE: 918-269-3191 FAX: 918-269-3190
 WWW.KIMLEY-HORN.COM

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL SIGNED AND SEALED DOCUMENT

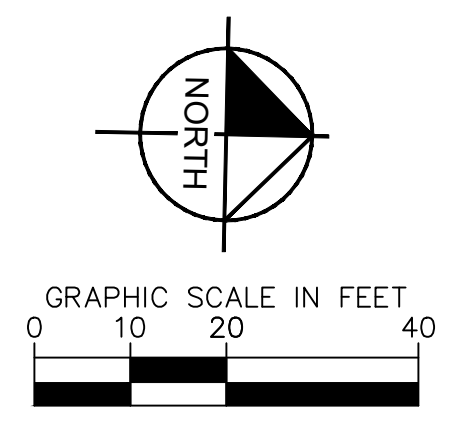
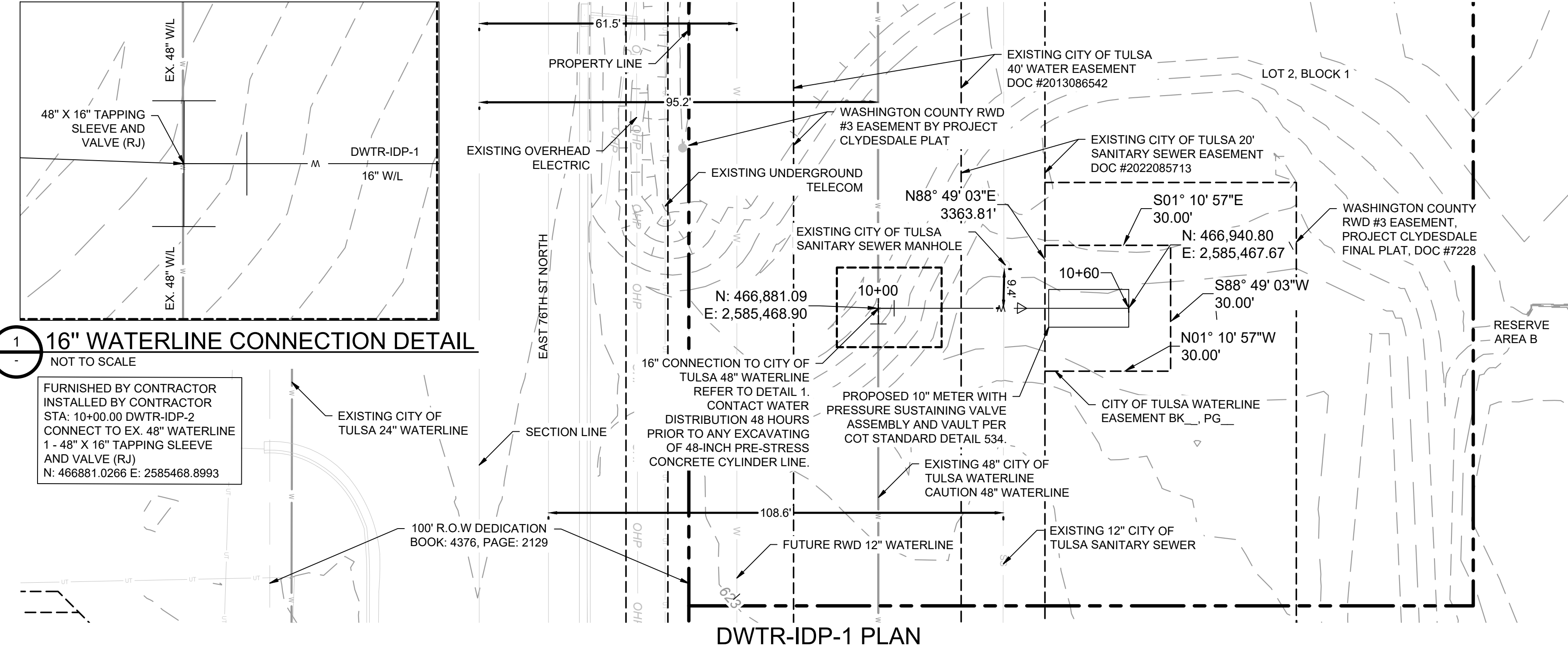
Kimley-Horn

KHA PROJECT	CYLEDSDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY:	DR
DRAWN BY:	DB
CHECKED BY:	DR

PROJECT
 CLYLEDSDALE

PRE-PROJECT
 DRAINAGE AREA MAP

Plotted By: Burt, Hayden Date: April 16, 2026 02:59:09pm File Path: C:\ACCV\ACCDocs\Kimley-Horn\Projects\City of Tulsa\DWTR-IDP-1\DWTR-IDP-1.dwg - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any part of this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE COORDINATE SYSTEM NORTH ZONE 3501
VERTICAL	NAVD 88

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

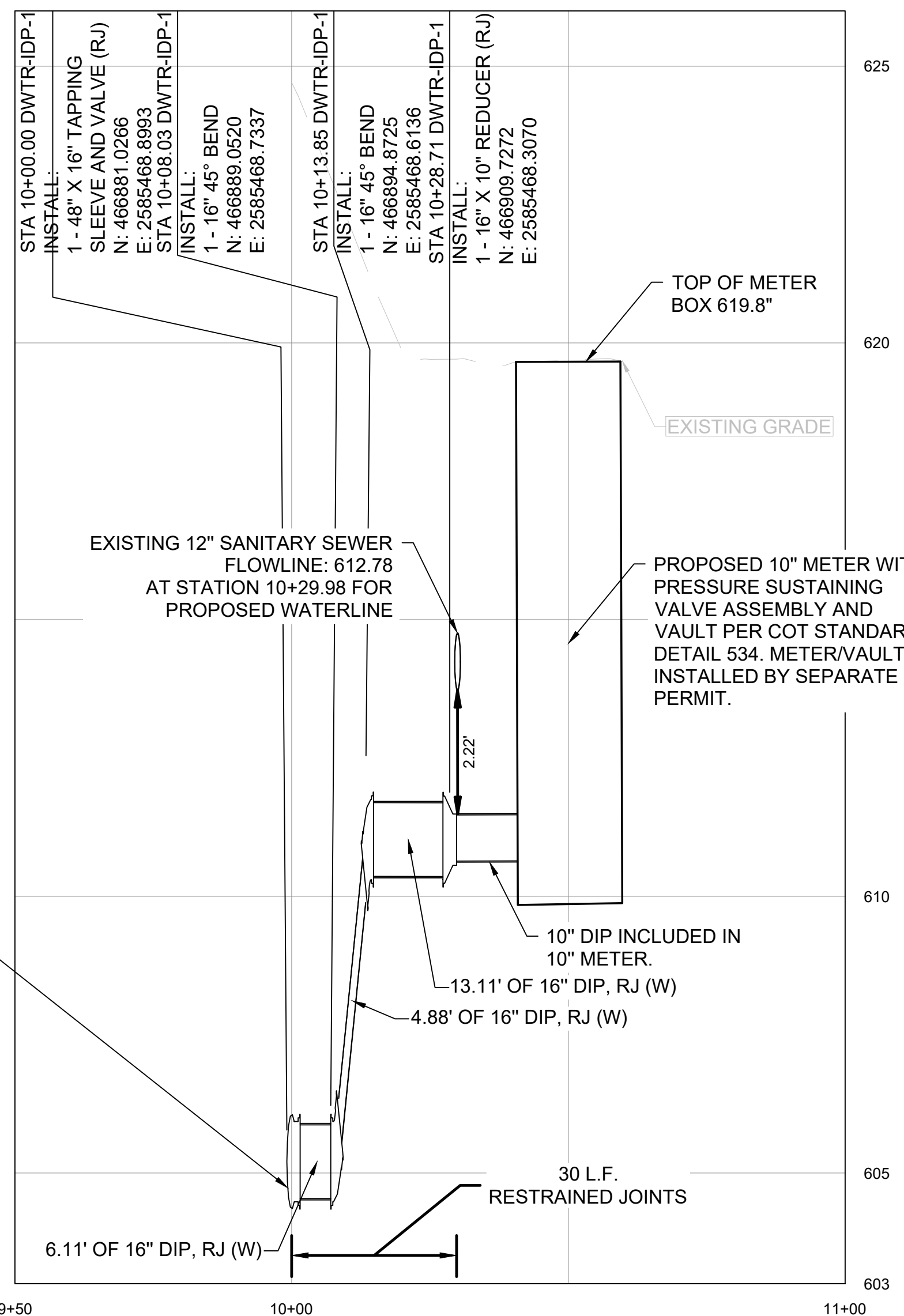
CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

SUMMARY OF WATERLINE QUANTITIES				
ITEM	SPEC. NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COT 312	16 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	LF	24
4	COT 534	10" METER WITH PRESSURE SUSTAINING VALVE AND VAULT	EA	1
5	COT 361	48"X16" TAPPING SLEEVE AND VALVE	EA	1
7	COT 312	16"X10" REDUCER	EA	1
8	COT 312	16" DIP 45° BEND (RJ)	EA	2

16" WATERLINE CONNECTION DETAIL
NOT TO SCALE

FURNISHED BY CONTRACTOR
INSTALLED BY CONTRACTOR
STA: 10+00.00 DWTR-IDP-2
CONNECT TO EX. 48" WATERLINE
1 - 48" X 16" TAPPING SLEEVE
AND VALVE (RJ)
N: 466881.0266 E: 2585468.8993

- WATERLINE NOTES:**
- TESTING, CHLORINATING AND FLUSHING NOTES PERFORMED IN ACCORDANCE WITH GENERAL SPECIFICATIONS, SECTION 109.3.
 - TESTING AND CHLORINATION TO BE PERFORMED BY CITY OF TULSA.
 - NO WATER SERVICE CONNECTIONS WILL BE ALLOWED UNDER IDP SCOPE OF WORK.
 - WATER OPERATIONS SHALL OPERATE ALL VALVES ON TRANSMISSION MAINS (16" AND LARGER). CONTRACTOR SHALL OPERATE ALL VALVES ON DISTRIBUTION MAINS (SMALLER THAN 16") WITH THE COORDINATION OF FIELD ENGINEERING AND WATER OPERATIONS AND IN THE PRESENCE OF A FIELD ENGINEERING INSPECTOR.
 - ATTEMPTS WILL BE MADE WITH ASSISTANCE FROM THE CONTRACTOR TO NOTIFY ALL AFFECTED CUSTOMERS 48 HOURS IN ADVANCE, PARTICULARLY IF COMMERCIAL OR INDUSTRIAL CUSTOMERS ARE INVOLVED. PRIOR TO SHUTDOWN, FIELD ENGINEERING WILL NOTIFY WATER OPERATIONS, AT 918-598-9488, GIVING AN ESTIMATED DOWNTIME. WATER OPERATIONS WILL NOTIFY THE FIRE DEPARTMENT OF ALL FIRE HYDRANTS OUT OF SERVICE AND WHEN THEY ARE BACK IN SERVICE, BY STREET ADDRESS OR INTERSECTION.
 - WHERE COMMERCIAL, INDUSTRIAL, OR CRITICAL CUSTOMERS ARE AFFECTED, AND FOR ALL LINES 16 INCH AND LARGER IN SIZE, FIELD ENGINEERING WILL REQUEST WATER OPERATIONS TO SHUT DOWN THE MAIN. THERE WILL BE A MINIMUM OF 48 HOURS NOTICE TO WATER OPERATIONS.
 - ALL WATER LINES SHOWN TO BE RESTRAINED JOINT.



CONNECT TO CITY OF TULSA 48" WATERLINE. ELEVATION BASED ON CITY OF TULSA RECORD DRAWINGS. CONTRACTOR TO VERIFY DEPTH. ENTIRE INSTALLED WATER LINE TO BE RESTRAINED JOINT. CONTACT WATER DISTRIBUTION 48 HOURS PRIOR TO AN EXCAVATING OF 48-INCH PRE-STRESS CONCRETE CYLINDER LINE.

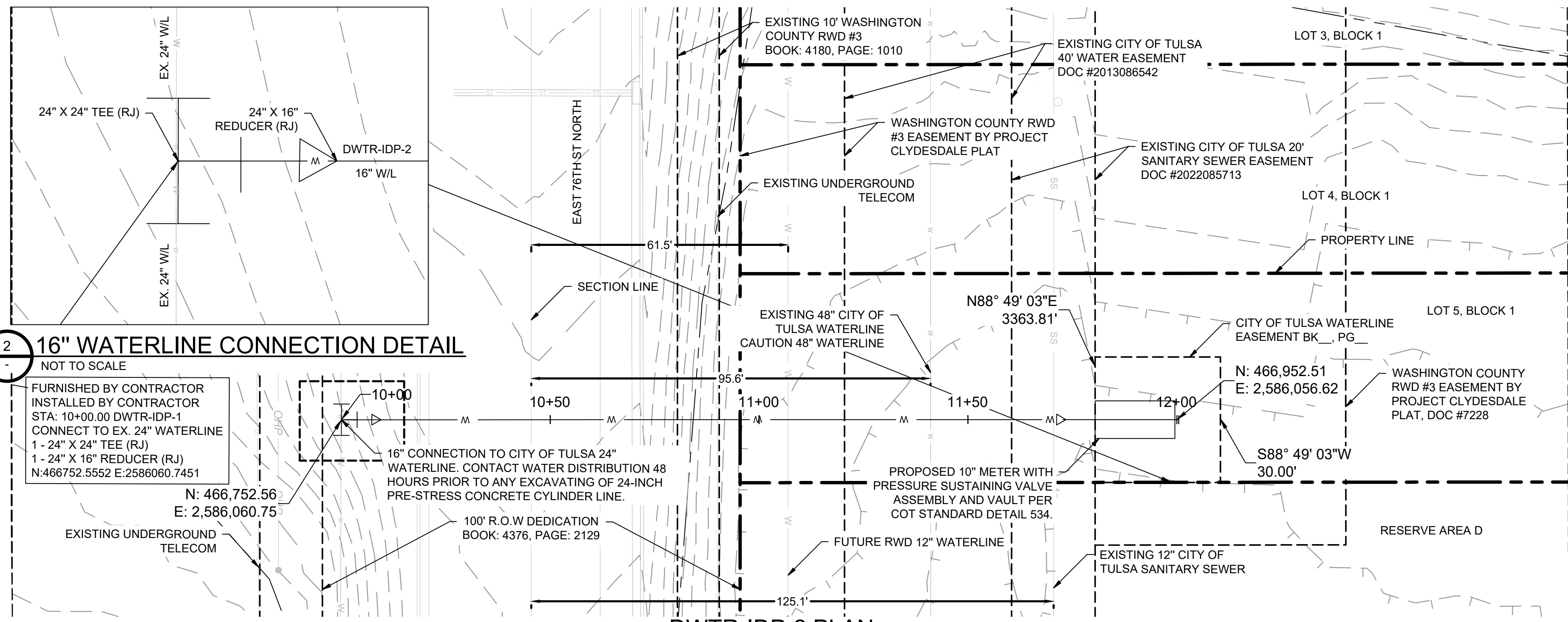


APPROVED FOR IDP PERMIT ONLY

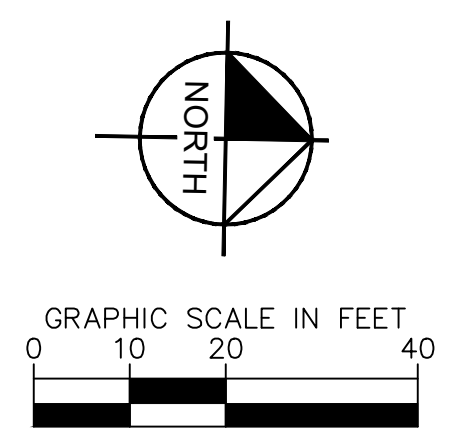
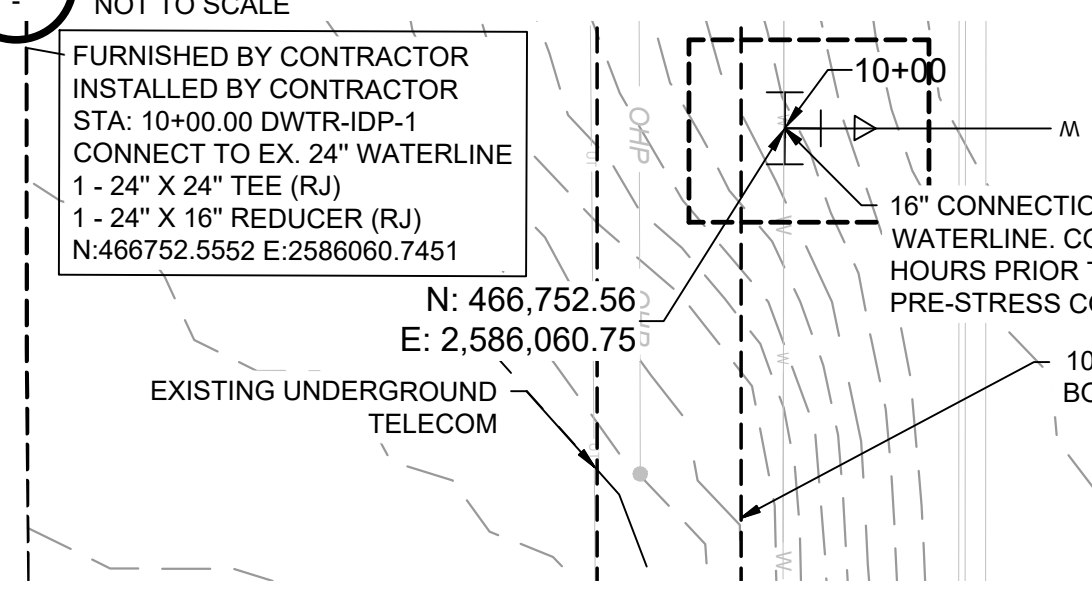
Michael Ling, PE Date
Infrastructure Development Manager
City of Tulsa

<p style="font-size: 8px; margin-top: 5px;">© 2025 KIMLEY-HORN AND ASSOCIATES, INC. 1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119 PHONE: 918-380-8888 FIRM NO. 2740 EXP. JUNE 30, 2027 WWW.KIMLEY-HORN.COM</p>	<p style="font-size: 10px; margin: 0;">KHA PROJECT CLYDESDALE</p> <p style="font-size: 10px; margin: 0;">DATE APRIL 2026</p> <p style="font-size: 10px; margin: 0;">SCALE: AS SHOWN</p> <p style="font-size: 10px; margin: 0;">DESIGNED BY: DR</p> <p style="font-size: 10px; margin: 0;">DRAWN BY: DB</p> <p style="font-size: 10px; margin: 0;">CHECKED BY: DR</p>
<p style="font-size: 14px; margin: 0;">PROJECT CLYDESDALE</p>	
<p style="font-size: 14px; margin: 0;">DWTR-IDP-1 PLAN AND PROFILE</p>	
<p style="font-size: 12px; margin: 0;">SHEET NUMBER WM01</p>	

Plotted By: Burt, Hayden Date: April 16, 2026 02:59:15pm File Path: C:\ACCC\ACCDocs\Kimley-Horn\Horn\060057900_Cyl\Project Files\DWTR-IDP-2\DWTR-IDP-2.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any part of this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



16" WATERLINE CONNECTION DETAIL



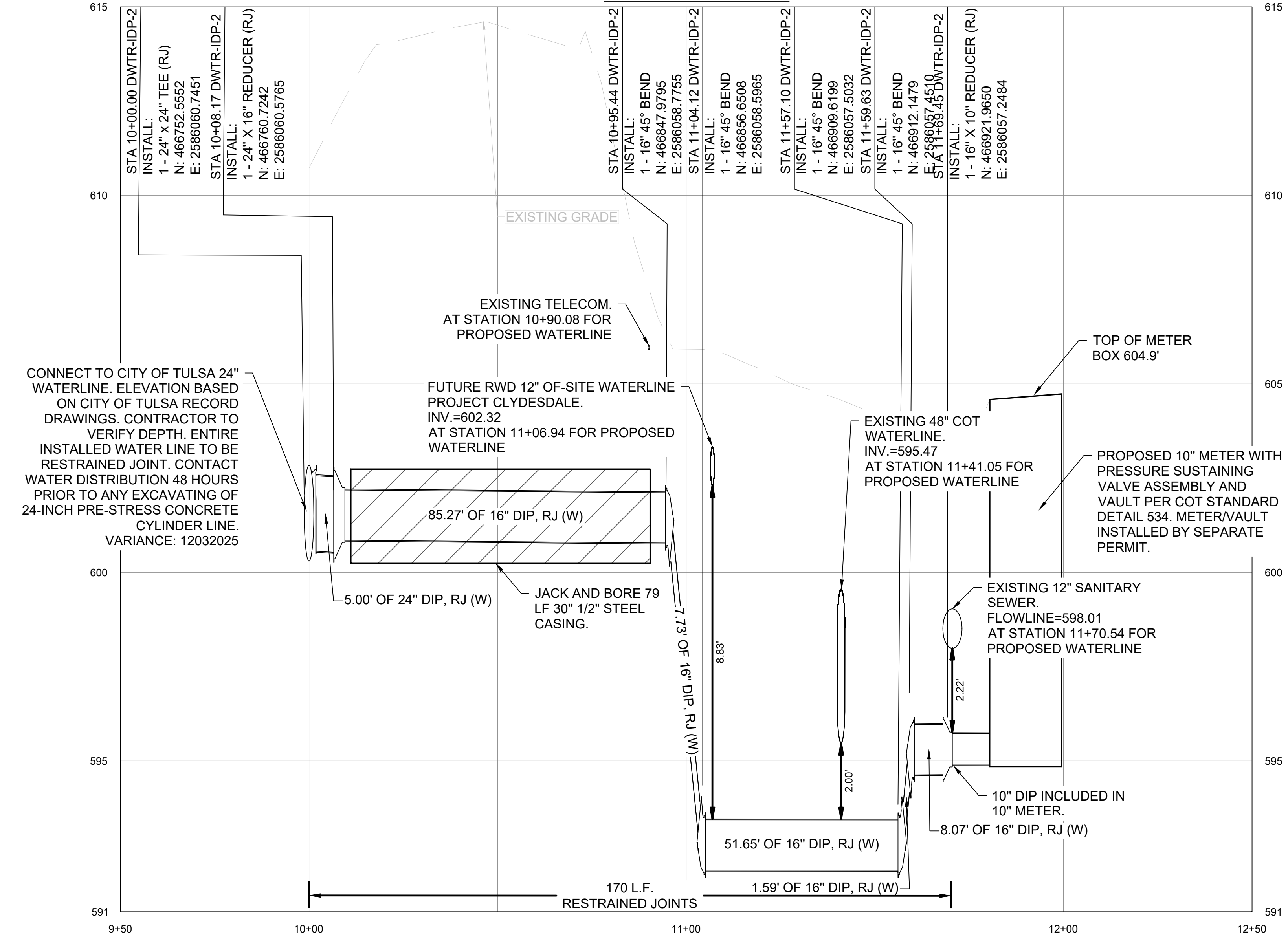
DATUM
 HORIZONTAL
 NAD 83 OKLAHOMA STATE PLANE
 COORDINATE SYSTEM NORTH ZONE 3501
 VERTICAL
 NAVD 88

CONTROL POINT #1
 ELEVATION 683.38 (NAVD 1988)
 MONUMENT 3/4" REBAR
 LOCATION N: 466707.64
 E: 2581682.53

CONTROL POINT #2
 ELEVATION 617.62 (NAVD 1988)
 MONUMENT MAGNAIL
 LOCATION N: 466816.88
 E: 2580975.73

- WATERLINE NOTES:**
- TESTING, CHLORINATING AND FLUSHING NOTES PERFORMED IN ACCORDANCE WITH GENERAL SPECIFICATIONS, SECTION 109.3.
 - TESTING AND CHLORINATION TO BE PERFORMED BY CITY OF TULSA.
 - NO WATER SERVICE CONNECTIONS WILL BE ALLOWED UNDER IDP SCOPE OF WORK.
 - WATER OPERATIONS SHALL OPERATE ALL VALVES ON TRANSMISSION MAINS (16" AND LARGER). CONTRACTOR SHALL OPERATE ALL VALVES ON DISTRIBUTION MAINS (SMALLER THAN 16") WITH THE COORDINATION OF FIELD ENGINEERING AND WATER OPERATIONS AND IN THE PRESENCE OF A FIELD ENGINEERING INSPECTOR.
 - ATTEMPTS WILL BE MADE WITH ASSISTANCE FROM THE CONTRACTOR TO NOTIFY ALL AFFECTED CUSTOMERS 48 HOURS IN ADVANCE, PARTICULARLY IF COMMERCIAL OR INDUSTRIAL CUSTOMERS ARE INVOLVED. PRIOR TO SHUTDOWN, FIELD ENGINEERING WILL NOTIFY WATER OPERATIONS, AT 918-598-9488, GIVING AN ESTIMATED DOWNTIME. WATER OPERATIONS WILL NOTIFY THE FIRE DEPARTMENT OF ALL FIRE HYDRANTS OUT OF SERVICE AND WHEN THEY ARE BACK IN SERVICE, BY STREET ADDRESS OR INTERSECTION.
 - WHERE COMMERCIAL, INDUSTRIAL, OR CRITICAL CUSTOMERS ARE AFFECTED, AND FOR ALL LINES 16 INCH AND LARGER IN SIZE, FIELD ENGINEERING WILL REQUEST WATER OPERATIONS TO SHUT DOWN THE MAIN. THERE WILL BE A MINIMUM OF 48 HOURS NOTICE TO WATER OPERATIONS.
 - ALL WATER LINES SHOWN TO BE RESTRAINED JOINT.

SUMMARY OF WATERLINE QUANTITIES				
ITEM	SPEC. NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COT 312	16 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	LF	154
2	COT 312	24 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)	LF	5
4	COT 534	10" METER WITH PRESSURE SUSTAINING VALVE AND VAULT	EA	1
5	COT 361	24"X24" INLINE TEE	EA	1
6	COT 312	24"X16" REDUCER	EA	1
7	COT 312	16"X10" REDUCER	EA	1
8	COT 312	JACK AND BORE 30" 1/2" STEEL CASING	LF	79
9	COT 312	16" DIP 45° BEND (RJ)	EA	4



DWTR-IDP-2 PROFILE



APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date
 Infrastructure Development Manager
 City of Tulsa

NO.	REVISIONS	DATE	BY

Kimley-Horn
 © 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119
 PHONE: 918-580-8888 FIRM NO. 2740. EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM

PRELIMINARY
 THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.
 Kimley-Horn
 Engineer
 P.E. No. _____

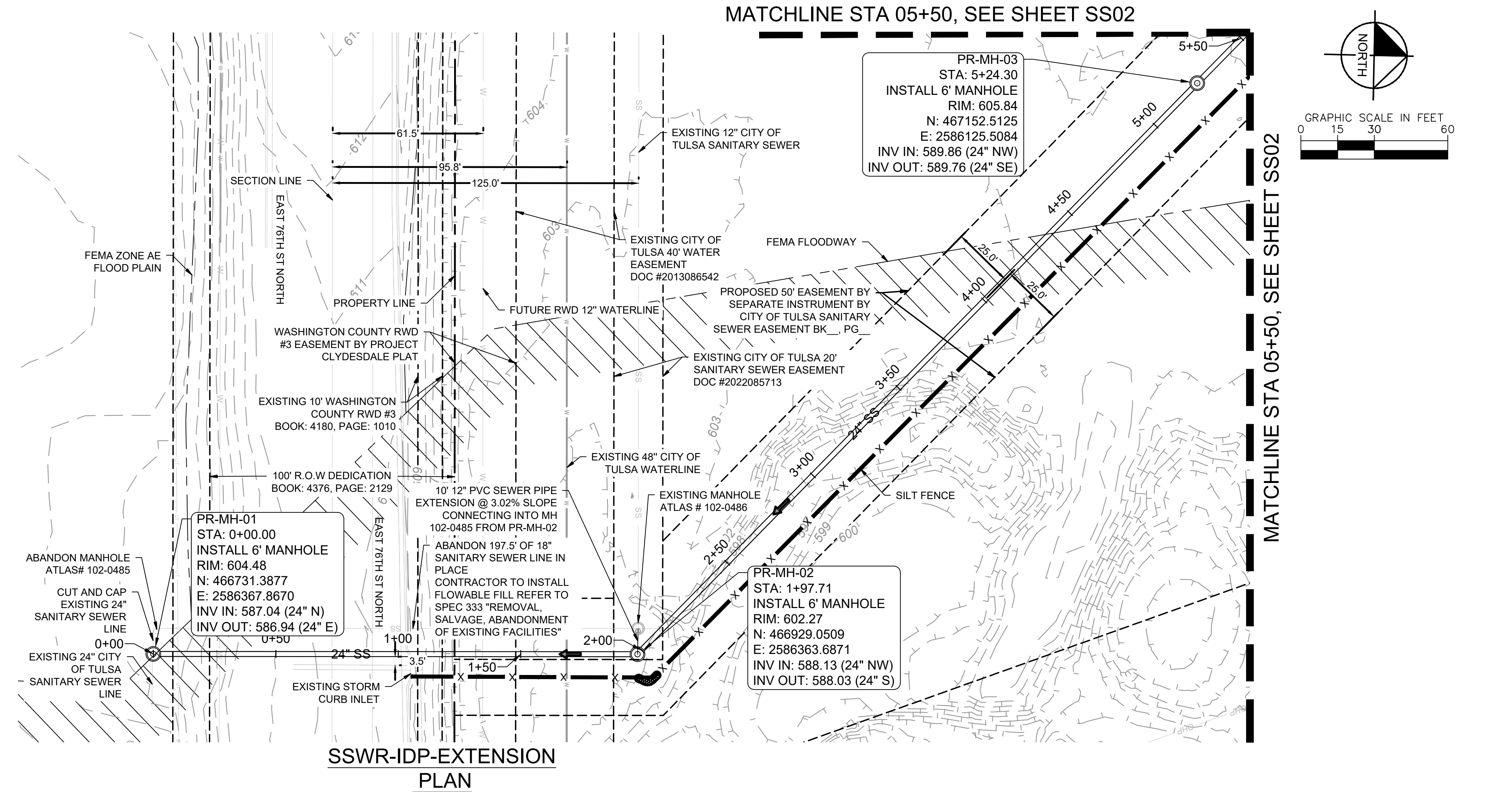
KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY	DR
DRAWN BY	DB
CHECKED BY	DR

PROJECT
 CLYDESDALE

DWTR-IDP-2
 PLAN AND PROFILE

SHEET NUMBER
WM02

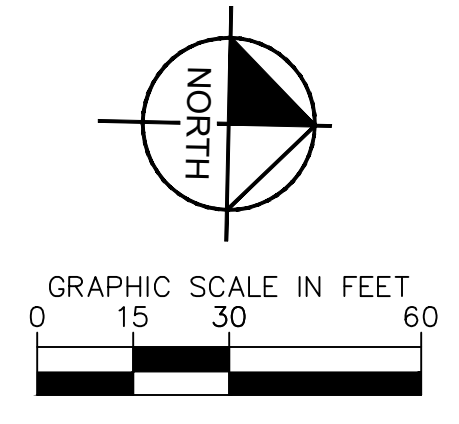
Plotted By: Randall, Devin Date: April 22, 2026 08:12:20am File Path: C:\ACC\ACCDocs\Kimley-Horn\060057900_CVL\Project Files\00_Civil\SSPS\07_City of Tulsa IDP\03_Production-DWG\CVL-1A-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any portion of this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE COORDINATE SYSTEM NORTH ZONE 5501
VERTICAL	NAVD 88

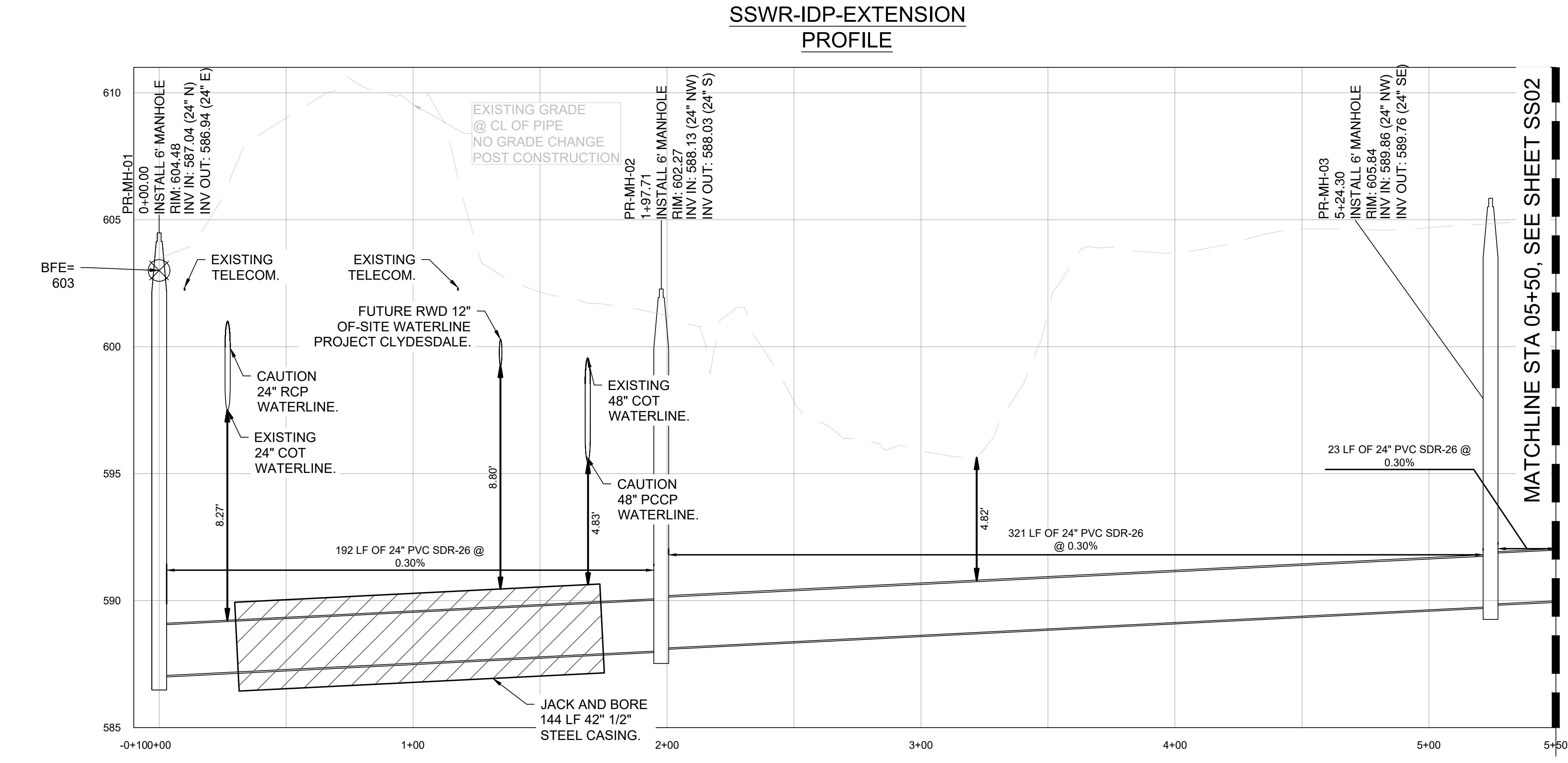
CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4\"/>

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73



SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY SERVICES ENTERING THE BUILDING.
- THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24\"/>



NO.	REVISIONS	DATE	BY

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE., SUITE 800 TULSA, OK 74119
 PHONE: 918-580-8888 FIRM NO. 2740 EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM

KHA PROJECT	
CLYDESDALE	DATE
APRIL 2026	SCALE: AS SHOWN
DESIGNED BY: DR	DRAWN BY: DB
CHECKED BY: DR	

PROJECT
 CLYDESDALE

SSWR-IDP-EXTENSION
BEGINNING TO 05+50
PLAN & PROFILE

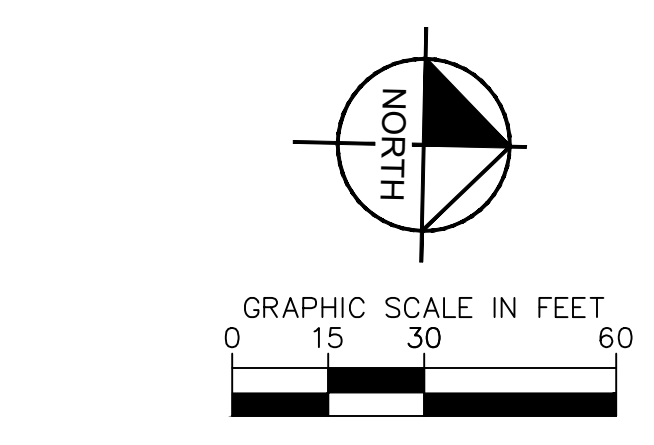
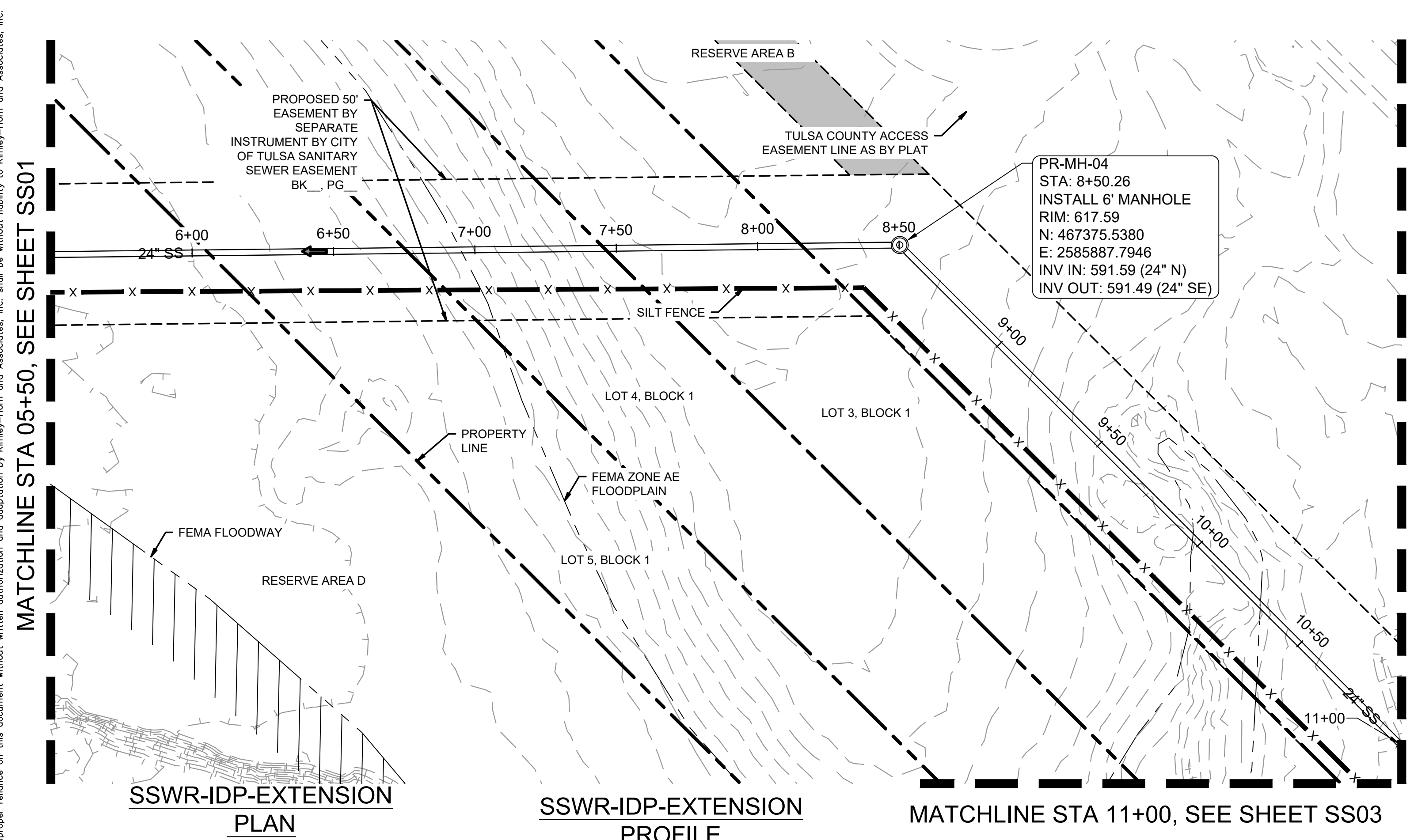
SHEET NUMBER
SS01

APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date
 Infrastructure Development Manager
 City of Tulsa



Plotted By: Burt, Hayden Date: April 16, 2026 03:17:42pm File Path: C:\ACCC\ACCDocs\Kimley-Horn\Projects\Files\00_Civil\SPS\07_City of Tulsa_IDP\03_Production-DWG\SSWR-CYL-1A-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

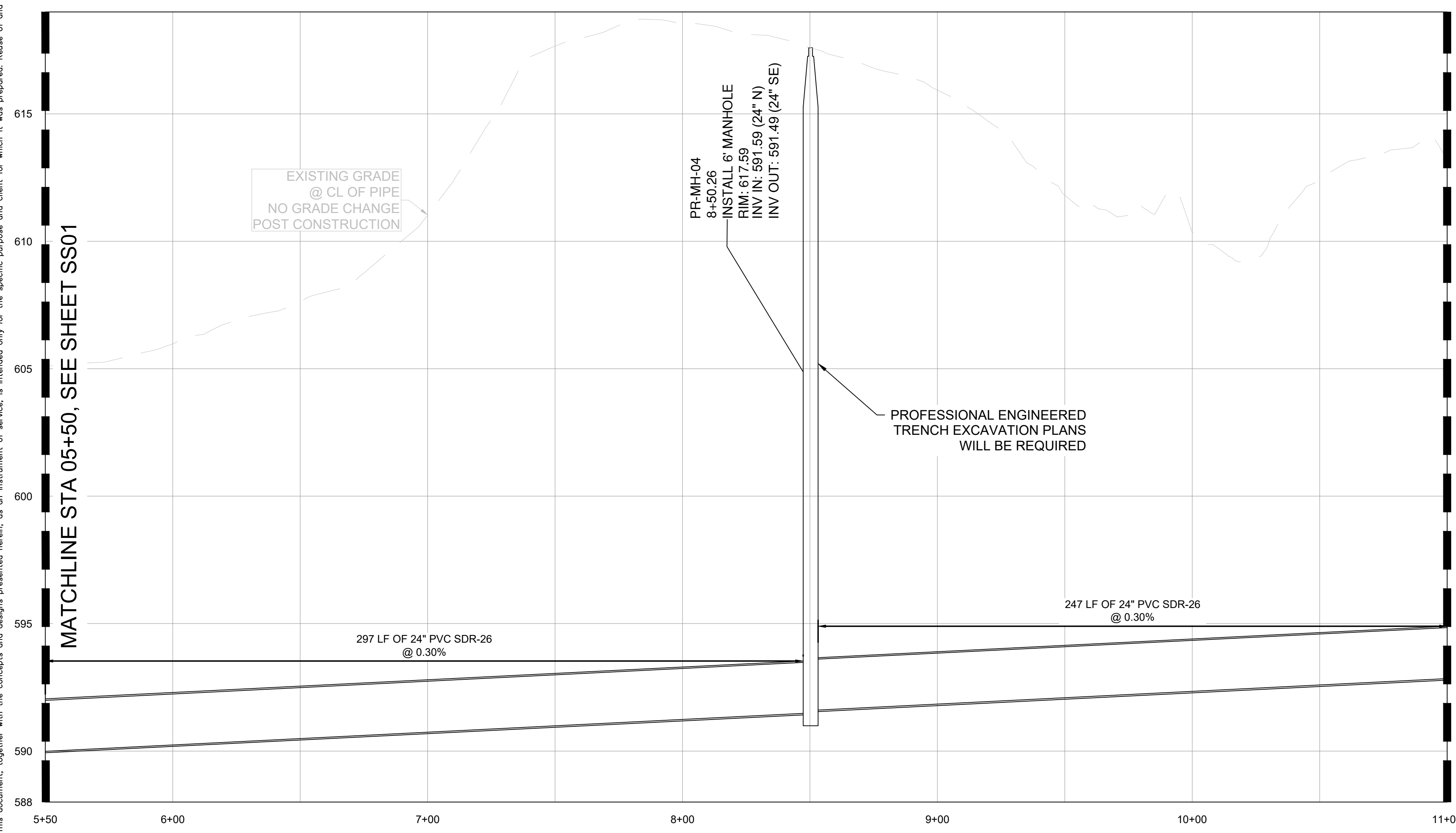


DATUM	
HORIZONTAL NAD 83 OKLAHOMA STATE PLANE COORDINATE SYSTEM NORTH ZONE 3501	
VERTICAL NAVD 88	

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

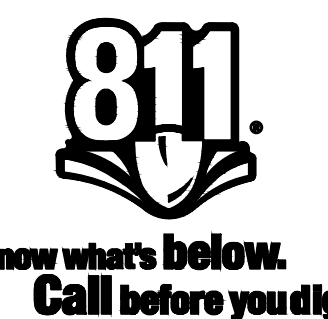
LEGEND:	
PROPOSED ACCESS EASEMENT	



MATCHLINE STA 11+00, SEE SHEET SS03

SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24" AND 48" WATERLINES. CONTRACTOR SHALL COORDINATE WITH CITY OF TULSA PRIOR TO INTERRUPTING WATER SERVICE FOR THESE CONNECTIONS (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- IF ANY ACTIVE EXISTING SERVICE LINES ARE CUT OFF BY REMOVAL OF SANITARY SEWER LINE AND MANHOLE, THEN THEY MUST BE RECONNECTED TO THE MAIN FOR SERVICE AT THE DEVELOPER'S EXPENSE.
- VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
- THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9-FEET FROM THE CROSSING, WHERE POSSIBLE.
- ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 10-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH ODEQ CHAPTER 626.
- ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND ODEQ STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
- CONTRACT SHALL SUBMIT PROFESSIONAL ENGINEERED TRENCH EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- CONTRACTOR WILL BE REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS. EXISTING MANHOLES SHALL BE VACUUM TESTED PRIOR TO ANY MODIFICATIONS AND AFTER WORK IS COMPLETED.
- SEWERS AND MANHOLES TO BE ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE WITH A BULKHEAD OR PREFORMED PLUG AND SHALL BE COMPLETELY FILLED WITH CLEAN SAND, CELLULAR CONCRETE OR FLOWABLE FILL.
- FRAMES AND COVERS FROM ANY STRUCTURES SCHEDULED FOR ABANDONMENT SHALL BE RETURNED TO THE CITY SEWER AND OPERATIONS MAINTENANCE AT 9319 E 42ND STREET NORTH BETWEEN 7:30 AM AND 3:00 PM MONDAY THRU FRIDAY. AT A MINIMUM ALL STRUCTURES SHALL BE COMPLETELY REMOVED TO A POINT THREE (3) FEET BELOW THE FINAL GRADE, OR THE DEPTH NOTED ON THE DRAWINGS. SAND OR FLOWABLE FILL SHALL BE USED TO FILL THE STRUCTURE.
- THE DEVELOPER SHALL MAKE ANY NEEDED MODIFICATIONS TO EXISTING MANHOLE IN ORDER TO COMPLY WITH CURRENT CITY OF TULSA STANDARDS OR MAINTENANCE REQUIREMENTS. THE DEVELOPER SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH INTERNAL INSPECTION, REHAB PLAN PREPARATION AND CONSTRUCTION.
- SERVICE TEES SHALL BE CONSTRUCTED AS PART OF IDP. SERVICE CONNECTION TO BUILDINGS SHALL BE DONE SEPARATELY AS A SEWER TAP PERMIT.
- BACKFLOW PREVENTER MUST BE INSTALLED IF BUILDING SITE IS BELOW THE UPSTREAM/DOWNSTREAM MANHOLE RIM+ 1'
- CONCRETE MANHOLES, ASSOCIATED WITH MAINS 15" ID AND LARGER, TO BE DESIGNED WITH INTERIOR EPOXY COATING OR FIBERGLASS WITH NO COATING.
- MANHOLE LID SHOULD BE 3200 SERIES COMPOSITE UTILITY ACCESS COVER WITH QUARTER TURN ADJUSTABLE LOCKS MANUFACTURED BY EAST JORDAN PER CITY STANDARDS FOR MANHOLES IN FLOODPLAIN.
- ALL MANHOLES MUST HAVE 30" LIDS AND COVERS AND NO STEPS.
- WATER AND SANITARY SEWER SEPARATION (OUTSIDE TO OUTSIDE OF PIPES) TO BE MINIMUM TWO (2) FEET VERTICAL & TEN (10) FEET HORIZONTAL PER ODEQ REGULATIONS. WHEN WATER AND SEWER SEPARATION CANNOT BE MAINTAINED, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE. SANITARY SEWER MUST BE INSTALLED AND TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH COT STANDARD SPECIFICATION PART 203 AND ODEQ STANDARD 252-626-19-2(e).
- RIPRAP DESIGN AND INSTALLATION SHALL COMPLY WITH THE MORE STRINGENT OF THE FOLLOWING: (1) DOT STANDARD SPECIFICATIONS ADOPTED BY THE CITY OF TULSA (2) CURRENT CITY OF TULSA STORMWATER MANAGEMENT CRITERIA MANUAL

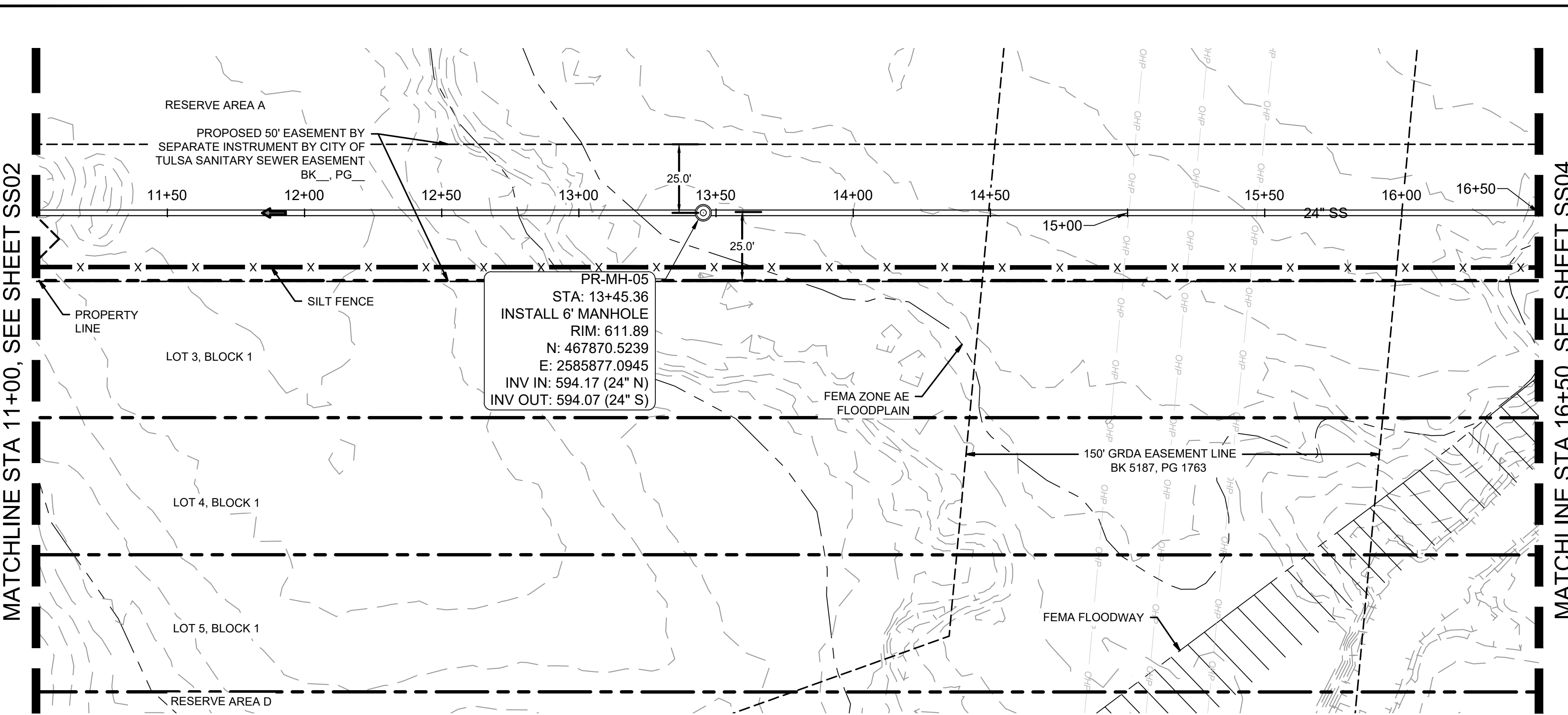


APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date
Infrastructure Development Manager
City of Tulsa

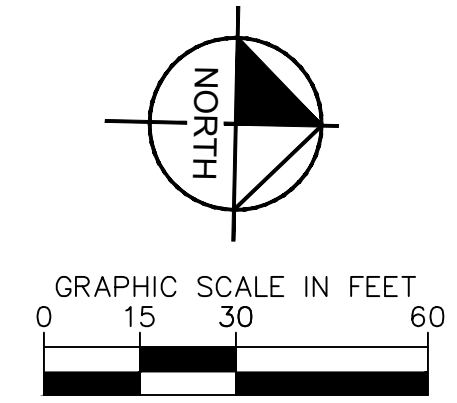
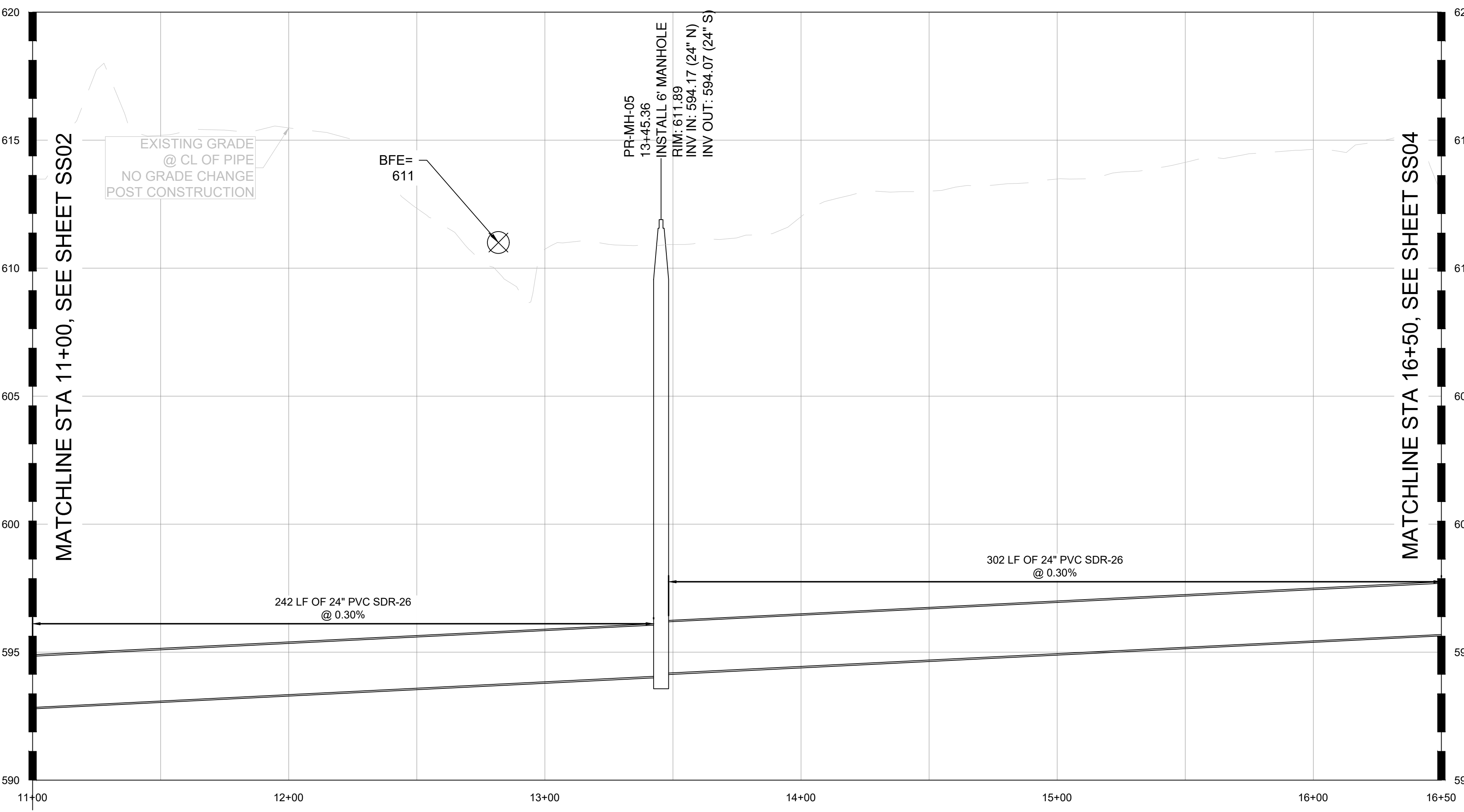
<p>© 2025 KIMLEY-HORN AND ASSOCIATES, INC. 1437 SOUTH BOULDER AVE, SUITE 800 TULSA, OK 74119 PHONE: 918-580-8888 FIRM NO. 2740 EXP. JUNE 30, 2027 WWW.KIMLEY-HORN.COM</p>	<p>PRELIMINARY</p> <p>THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT</p> <p>Engineer P.E. No. _____</p>								
<p>KHA PROJECT CLYDESDALE</p> <p>DATE APRIL 2026</p> <p>SCALE: AS SHOWN</p> <p>DESIGNED BY: DR</p> <p>DRAWN BY: DB</p> <p>CHECKED BY: DR</p>	<p>PROJECT CLYDESDALE</p> <p>SSWR-IDP-EXTENSION 05+50 TO 11+00 PLAN & PROFILE</p>								
<p>SHEET NUMBER SS02</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>REVISIONS</th> <th>DATE</th> <th>BY</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	REVISIONS	DATE	BY				
NO.	REVISIONS	DATE	BY						

Plotted By: Burt, Hoyden Date: April 16, 2026 02:59:32pm File Path: C:\ACC\ACCDocs\Kimley-Horn\Projects\SSWR-IDP-Extension\DWG\CYL-1A-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



**SSWR-IDP-EXTENSION
PLAN**

**SSWR-IDP-EXTENSION
PROFILE**



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE
COORDINATE SYSTEM	NORTH ZONE 3501
VERTICAL	
NAVD	88

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24" AND 48" WATERLINES. CONTRACTOR SHALL COORDINATE WITH CITY OF TULSA PRIOR TO INTERRUPTING WATER SERVICE FOR THESE CONNECTIONS (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- IF ANY ACTIVE EXISTING SERVICE LINES ARE CUT OFF BY REMOVAL OF SANITARY SEWER LINE AND MANHOLE, THEN THEY MUST BE RECONNECTED TO THE MAIN FOR SERVICE AT THE DEVELOPER'S EXPENSE.
- VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
- THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9-FEET FROM THE CROSSING, WHERE POSSIBLE.
- ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 10-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH ODEQ CHAPTER 626.
- ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND ODEQ STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
- CONTRACT SHALL SUBMIT PROFESSIONAL ENGINEERED TRENCH EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- CONTRACTOR WILL BE REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS. EXISTING MANHOLES SHALL BE VACUUM TESTED PRIOR TO ANY MODIFICATIONS AND AFTER WORK IS COMPLETED.
- SEWERS AND MANHOLES TO BE ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE WITH A BULKHEAD OR PREFORM SAND AND SHALL BE COMPLETELY FILLED WITH CLEAN SAND, CELLULAR CONCRETE OR FLOWABLE FILL.
- FRAMES AND COVERS FROM ANY STRUCTURES SCHEDULED FOR ABANDONMENT SHALL BE RETURNED TO THE CITY SEWER AND OPERATIONS MAINTENANCE AT 9319 E 42ND STREET NORTH BETWEEN 7:30 AM AND 3:00 PM MONDAY THRU FRIDAY. AT A MINIMUM ALL STRUCTURES SHALL BE COMPLETELY REMOVED TO A POINT THREE (3) FEET BELOW THE FINAL GRADE, OR THE DEPTH NOTED ON THE DRAWINGS. SAND OR FLOWABLE FILL SHALL BE USED TO FILL THE STRUCTURE.
- THE DEVELOPER SHALL MAKE ANY NEEDED MODIFICATIONS TO EXISTING MANHOLE IN ORDER TO COMPLY WITH CURRENT CITY OF TULSA STANDARDS OR MAINTENANCE REQUIREMENTS. THE DEVELOPER SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH INTERNAL INSPECTION, REHAB PLAN PREPARATION AND CONSTRUCTION.
- SERVICE TEES SHALL BE CONSTRUCTED AS PART OF IDP. SERVICE CONNECTION TO BUILDINGS SHALL BE DONE SEPARATELY AS A SEWER TAP PERMIT.
- BACKFLOW PREVENTER MUST BE INSTALLED IF BUILDING SITE IS BELOW THE UPSTREAM/DOWNSTREAM MANHOLE RIM+ 1'
- CONCRETE MANHOLES, ASSOCIATED WITH MAINS 15" ID AND LARGER, TO BE DESIGNED WITH INTERIOR EPOXY COATING OR FIBERGLASS WITH NO COATING.
- MANHOLE LID SHOULD BE 3200 SERIES COMPOSITE UTILITY ACCESS COVER WITH QUARTER TURN PADLOCKS MANUFACTURED BY EAST JORDAN PER CITY STANDARDS FOR MANHOLES IN FLOODPLAIN.
- ALL MANHOLES MUST HAVE 30" LIDS AND COVERS AND NO STEPS.
- WATER AND SANITARY SEWER SEPARATION (OUTSIDE TO OUTSIDE OF PIPES) TO BE MINIMUM TWO (2) FEET VERTICAL & TEN (10) FEET HORIZONTAL PER ODEQ REGULATIONS. WHEN WATER AND SEWER SEPARATION CANNOT BE MAINTAINED, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE. SANITARY SEWER MUST BE INSTALLED AND TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH COT STANDARD SPECIFICATION PART 203 AND ODEQ STANDARD 252-626-19-2(e).
- RIPRAP DESIGN AND INSTALLATION SHALL COMPLY WITH THE MORE STRINGENT OF THE FOLLOWING: (1) COT STANDARD SPECIFICATIONS ADOPTED BY THE CITY OF TULSA (2) CURRENT CITY OF TULSA STORMWATER MANAGEMENT CRITERIA MANUAL



APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date
Infrastructure Development Manager
City of Tulsa

No.	REVISIONS	DATE	BY

Kimley-Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119
PHONE: 918-580-8888 FIRM NO. 2740, EXP. JUNE 30, 2027
WWW.KIMLEY-HORN.COM

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

Kimley-Horn

Engineer
P.E. No. _____

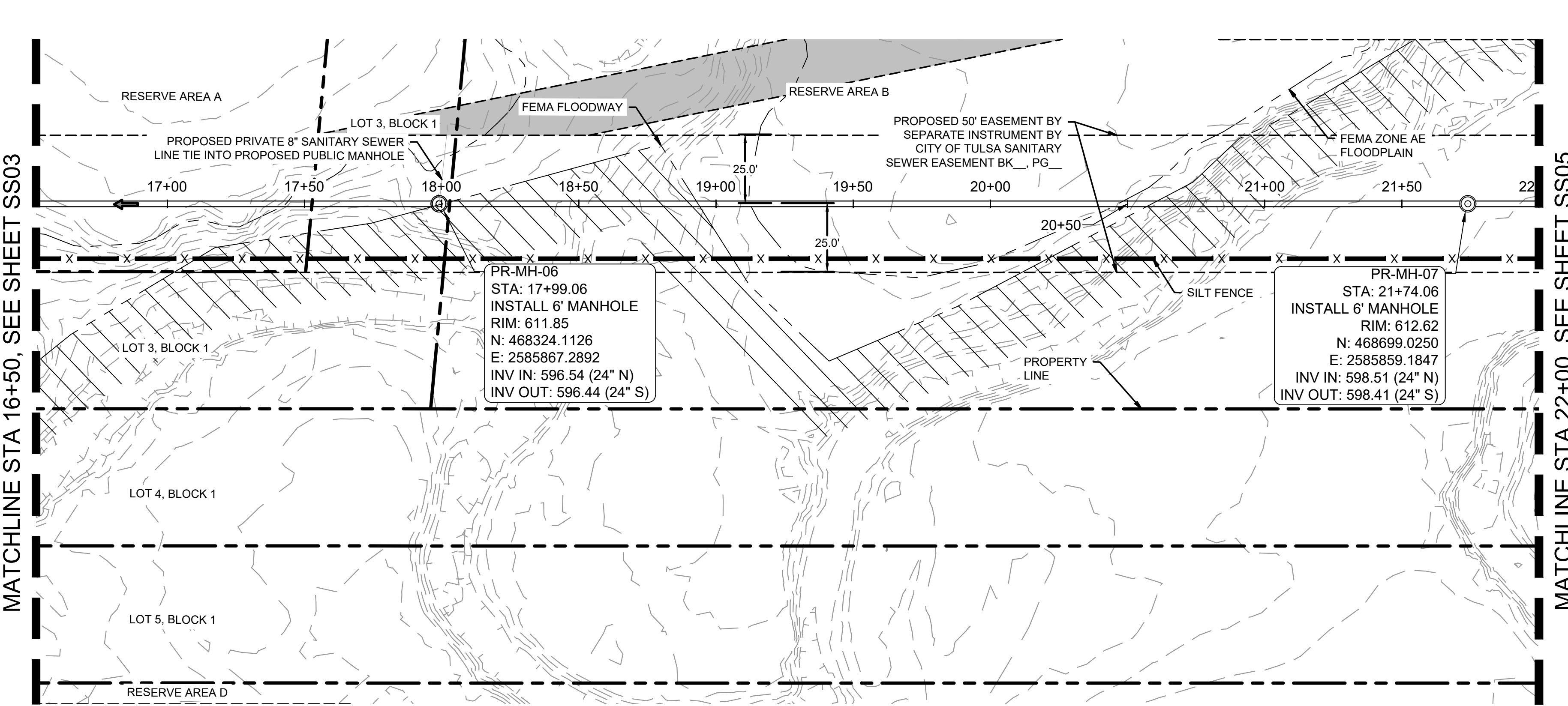
KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY	DR
DRAWN BY	DB
CHECKED BY	DR

**PROJECT
CLYDESDALE**

**SSWR-IDP-EXTENSION
20+50 TO 26+00
PLAN & PROFILE**

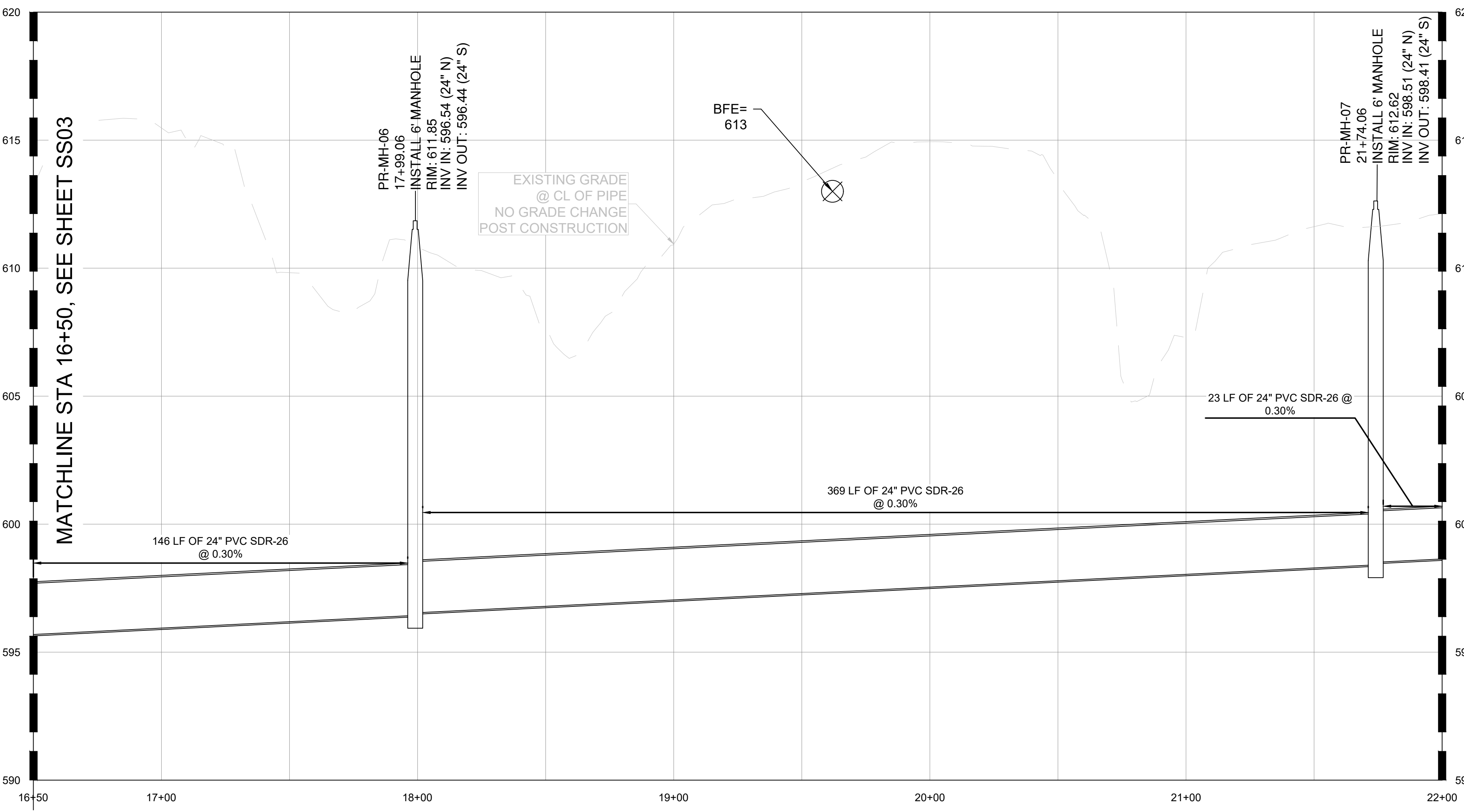
SHEET NUMBER
SS03

Plotted By: Burt, Hayden Date: April 16, 2026 03:17:47pm File Path: C:\ACCC\ACCDocs\Kimley-Horn\Projects\Files\00_Civil\SPS_07_City of Tulsa_IDP_03_Production-DWG\CYL-1A-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



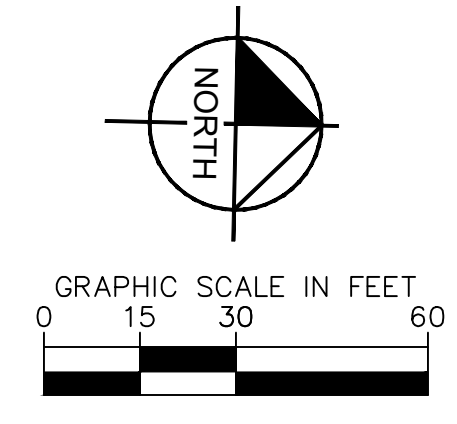
**SSWR-IDP-EXTENSION
PLAN**

**SSWR-IDP-EXTENSION
PROFILE**



MATCHLINE STA 16+50, SEE SHEET SS03

MATCHLINE STA 22+00, SEE SHEET SS05



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE
COORDINATE SYSTEM	NORTH ZONE 3501
VERTICAL	
NAVD	88

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	5/8" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

LEGEND:	
PROPOSED ACCESS EASEMENT	

SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24" AND 48" WATERLINES. CONTRACTOR SHALL COORDINATE WITH CITY OF TULSA PRIOR TO INTERRUPTING WATER SERVICE FOR THESE CONNECTIONS (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- IF ANY ACTIVE EXISTING SERVICE LINES ARE CUT OFF BY REMOVAL OF SANITARY SEWER LINE AND MANHOLE, THEN THEY MUST BE RECONNECTED TO THE MAIN FOR SERVICE AT THE DEVELOPER'S EXPENSE.
- VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
- THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9-FEET FROM THE CROSSING, WHERE POSSIBLE.
- ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 10-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH ODEQ CHAPTER 626.
- ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND ODEQ STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
- CONTRACT SHALL SUBMIT PROFESSIONAL ENGINEERED TRENCH EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- CONTRACTOR WILL BE REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS. EXISTING MANHOLES SHALL BE VACUUM TESTED PRIOR TO ANY MODIFICATIONS AND AFTER WORK IS COMPLETE.
- SEWERS AND MANHOLES TO BE ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE WITH A BULKHEAD OR PREFORMED PLUG AND SHALL BE COMPLETELY FILLED WITH CLEAN SAND, CELLULAR CONCRETE OR FLOWABLE FILL.
- FRAMES AND COVERS FROM ANY STRUCTURES SCHEDULED FOR ABANDONMENT SHALL BE RETURNED TO THE CITY SEWER AND OPERATIONS MAINTENANCE AT 9319 E 42ND STREET NORTH BETWEEN 7:30 AM AND 3:00 PM MONDAY THRU FRIDAY. AT A MINIMUM ALL STRUCTURES SHALL BE COMPLETELY REMOVED TO A POINT THREE (3) FEET BELOW THE FINAL GRADE, OR THE DEPTH NOTED ON THE DRAWINGS. SAND OR FLOWABLE FILL SHALL BE USED TO FILL THE STRUCTURE.
- THE DEVELOPER SHALL MAKE ANY NEEDED MODIFICATIONS TO EXISTING MANHOLE IN ORDER TO COMPLY WITH CURRENT CITY OF TULSA STANDARDS OR MAINTENANCE REQUIREMENTS. THE DEVELOPER SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH INTERNAL INSPECTION, REHAB PLAN PREPARATION AND CONSTRUCTION.
- SERVICE TEES SHALL BE CONSTRUCTED AS PART OF IDP. SERVICE CONNECTION TO BUILDINGS SHALL BE DONE SEPARATELY AS A SEWER TAP PERMIT.
- BACKFLOW PREVENTER MUST BE INSTALLED IF BUILDING SITE IS BELOW THE UPSTREAM/DOWNSTREAM MANHOLE RIM+ 1'
- CONCRETE MANHOLES, ASSOCIATED WITH MAINS 15" ID AND LARGER, TO BE DESIGNED WITH INTERIOR EPOXY COATING OR FIBERGLASS WITH NO COATING.
- MANHOLE LID SHOULD BE 3200 SERIES COMPOSITE UTILITY ACCESS COVER WITH QUARTER TURN ADLOCKS MANUFACTURED BY EAST JORDAN PER CITY STANDARDS FOR MANHOLES IN FLOODPLAIN.
- ALL MANHOLES MUST HAVE 30" LIDS AND COVERS AND NO STEPS.
- WATER AND SANITARY SEWER SEPARATION (OUTSIDE TO OUTSIDE OF PIPES) TO BE MINIMUM TWO (2) FEET VERTICAL & TEN (10) FEET HORIZONTAL PER ODEQ REGULATIONS. WHEN WATER AND SEWER SEPARATION CANNOT BE MAINTAINED, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE. SANITARY SEWER MUST BE INSTALLED AND TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH COT STANDARD SPECIFICATION PART 203 AND ODEQ STANDARD 252.626-19-2(e).
- RIPRAP DESIGN AND INSTALLATION SHALL COMPLY WITH THE MORE STRINGENT OF THE ODEQ OR STANDARD SPECIFICATIONS ADOPTED BY THE CITY OF TULSA (2) CURRENT CITY OF TULSA STORMWATER MANAGEMENT CRITERIA MANUAL



APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date
Infrastructure Development Manager
City of Tulsa

No.	REVISIONS	DATE	BY

Kimley-Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1437 SOUTH BOULDER AVE, SUITE 900 TULSA, OK 74119
PHONE: 918-580-8888 FIRM NO. 2740. EXP. JUNE 30, 2027
WWW.KIMLEY-HORN.COM

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

Kimley-Horn

Engineer
P.E. No. _____

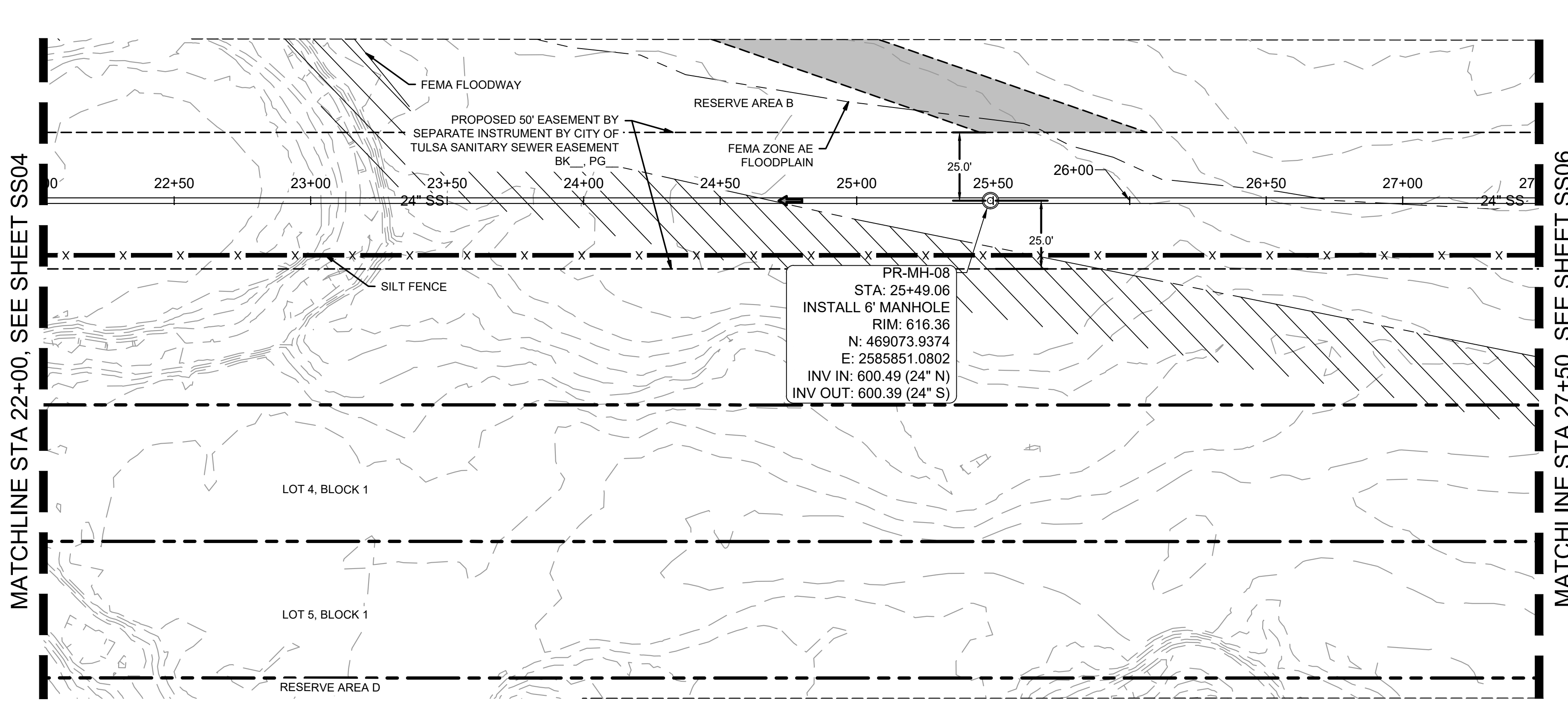
KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY	DR
DRAWN BY	DB
CHECKED BY	DR

**PROJECT
CLYDESDALE**

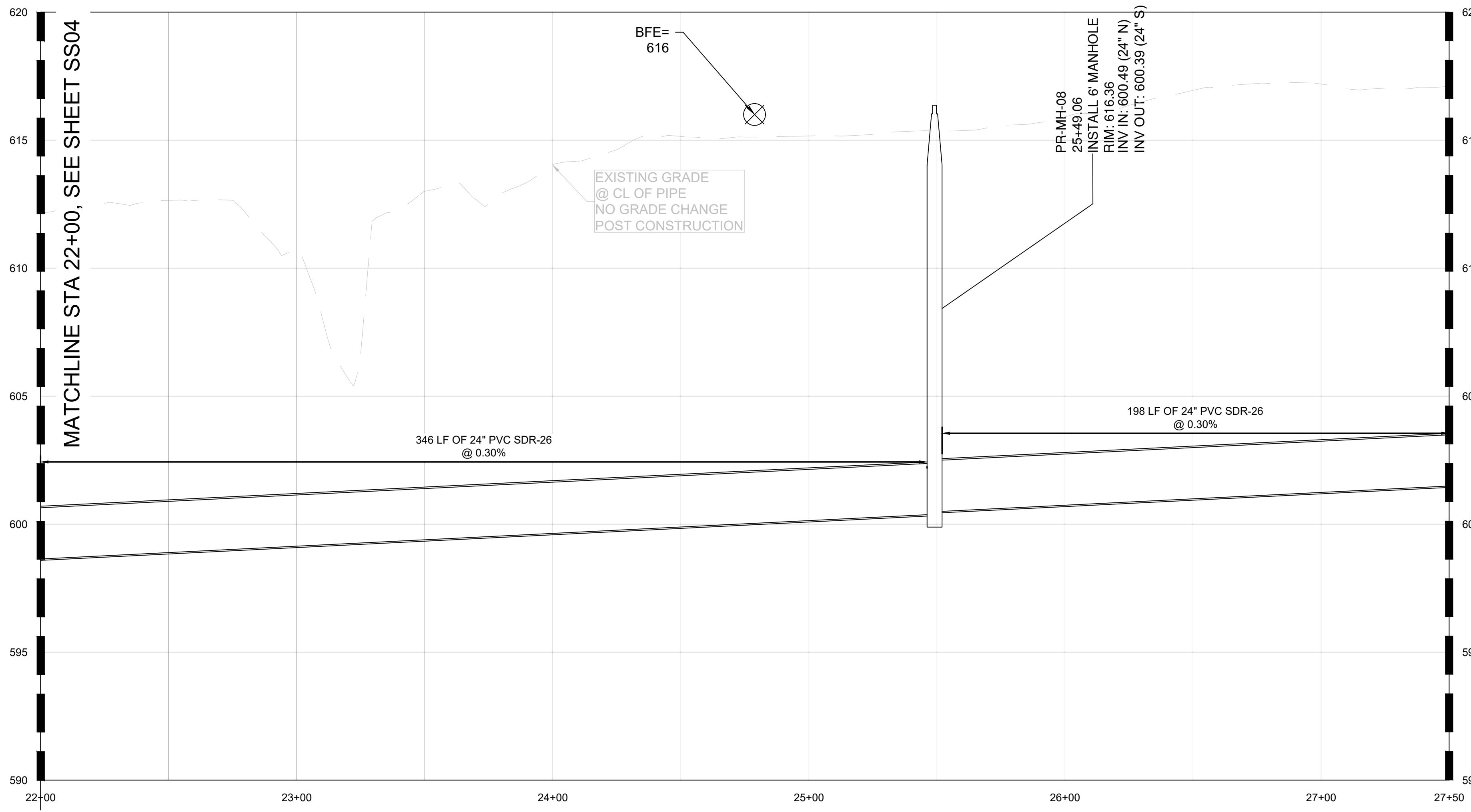
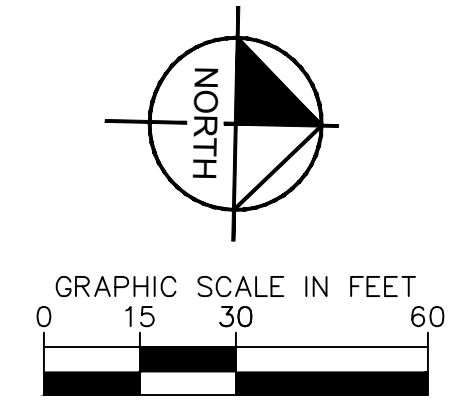
**SSWR-IDP-EXTENSION
26+00 TO 31+50
PLAN & PROFILE**

SHEET NUMBER
SS04

Plotted By: Burt, Hayden Date: April 16, 2026 03:17:54pm File Path: C:\ACC\ACCDocs\Kimley-Horn\060057900_CVL\Project Files\00_Civil\SPS_07_City of Tulsa_IDP_03_Production-DWG\SSW-IDP-EXTENSION-DWG\SSW-IDP-EXTENSION-DWG.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any part of this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



PR-MH-08
 STA: 25+49.06
 INSTALL 6' MANHOLE
 RIM: 616.36
 N: 469073.9374
 E: 2585851.0802
 INV IN: 600.49 (24" N)
 INV OUT: 600.39 (24" S)



SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POT HOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24" AND 48" WATERLINES. CONTRACTOR SHALL COORDINATE WITH CITY OF TULSA PRIOR TO INTERRUPTING WATER SERVICE FOR THESE CONNECTIONS (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- IF ANY ACTIVE EXISTING SERVICE LINES ARE CUT OFF BY REMOVAL OF SANITARY SEWER LINE AND MANHOLE, THEN THEY MUST BE RECONNECTED TO THE MAIN FOR SERVICE AT THE DEVELOPER'S EXPENSE.
- VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
- THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9-FEET FROM THE CROSSING, WHERE POSSIBLE.
- ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 10-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH ODEQ CHAPTER 626.
- ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND ODEQ STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
- CONTRACT SHALL SUBMIT PROFESSIONAL ENGINEERED TRENCH EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- CONTRACTOR WILL BE REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS. EXISTING MANHOLES SHALL BE VACUUM TESTED PRIOR TO ANY MODIFICATIONS AND AFTER WORK IS COMPLETE.
- SEWERS AND MANHOLES TO BE ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE WITH A BULKHEAD OR PREFORM SAND AND SHALL BE COMPLETELY FILLED WITH CLEAN SAND, CELLULAR CONCRETE OR FLOWABLE FILL.
- FRAMES AND COVERS FROM ANY STRUCTURES SCHEDULED FOR ABANDONMENT SHALL BE RETURNED TO THE CITY SEWER AND OPERATIONS MAINTENANCE AT 9319 E 42ND STREET NORTH BETWEEN 7:30 AM AND 3:00 PM MONDAY THRU FRIDAY. AT A MINIMUM ALL STRUCTURES SHALL BE COMPLETELY REMOVED TO A POINT THREE (3) FEET BELOW THE FINAL GRADE, OR THE DEPTH NOTED ON THE DRAWINGS. SAND OR FLOWABLE FILL SHALL BE USED TO FILL THE STRUCTURE.
- THE DEVELOPER SHALL MAKE ANY NEEDED MODIFICATIONS TO EXISTING MANHOLE IN ORDER TO COMPLY WITH CURRENT CITY OF TULSA STANDARDS OR MAINTENANCE REQUIREMENTS. THE DEVELOPER SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH INTERNAL INSPECTION, REHAB PLAN PREPARATION AND CONSTRUCTION.
- SERVICE TEES SHALL BE CONSTRUCTED AS PART OF IDP. SERVICE CONNECTION TO BUILDINGS SHALL BE DONE SEPARATELY AS A SEWER TAP PERMIT.
- BACKFLOW PREVENTER MUST BE INSTALLED IF BUILDING SITE IS BELOW THE UPSTREAM/DOWNSTREAM MANHOLE RIM+ 1'
- CONCRETE MANHOLES, ASSOCIATED WITH MAINS 15" ID AND LARGER, TO BE DESIGNED WITH INTERIOR EPOXY COATING OR FIBERGLASS WITH NO COATING.
- MANHOLE LID SHOULD BE 3200 SERIES COMPOSITE UTILITY ACCESS COVER WITH QUARTER TURN ADOLCS MANUFACTURED BY EAST JORDAN PER CITY STANDARDS FOR MANHOLES IN FLOODPLAIN.
- ALL MANHOLES MUST HAVE 30" LIDS AND COVERS AND NO STEPS.
- WATER AND SANITARY SEWER SEPARATION (OUTSIDE TO OUTSIDE OF PIPES) TO BE MINIMUM TWO (2) FEET VERTICAL & TEN (10) FEET HORIZONTAL PER ODEQ REGULATIONS. WHEN WATER AND SEWER SEPARATION CANNOT BE MAINTAINED, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE. SANITARY SEWER MUST BE INSTALLED AND TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH COT STANDARD SPECIFICATION PART 203 AND ODEQ STANDARD 252-626-19-2(e).
- RIPRAP DESIGN AND INSTALLATION SHALL COMPLY WITH THE MORE STRINGENT OF THE FOLLOWING: (1) COT STANDARD SPECIFICATIONS ADOPTED BY THE CITY OF TULSA (2) CURRENT CITY OF TULSA STORMWATER MANAGEMENT CRITERIA MANUAL



APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date
 Infrastructure Development Manager
 City of Tulsa

No.	REVISIONS	DATE	BY

Kimley-Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119
 PHONE: 918-580-8888 FIRM NO. 2740. EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM

PRELIMINARY
 THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

Kimley-Horn
 Engineer
 P.E. No. _____

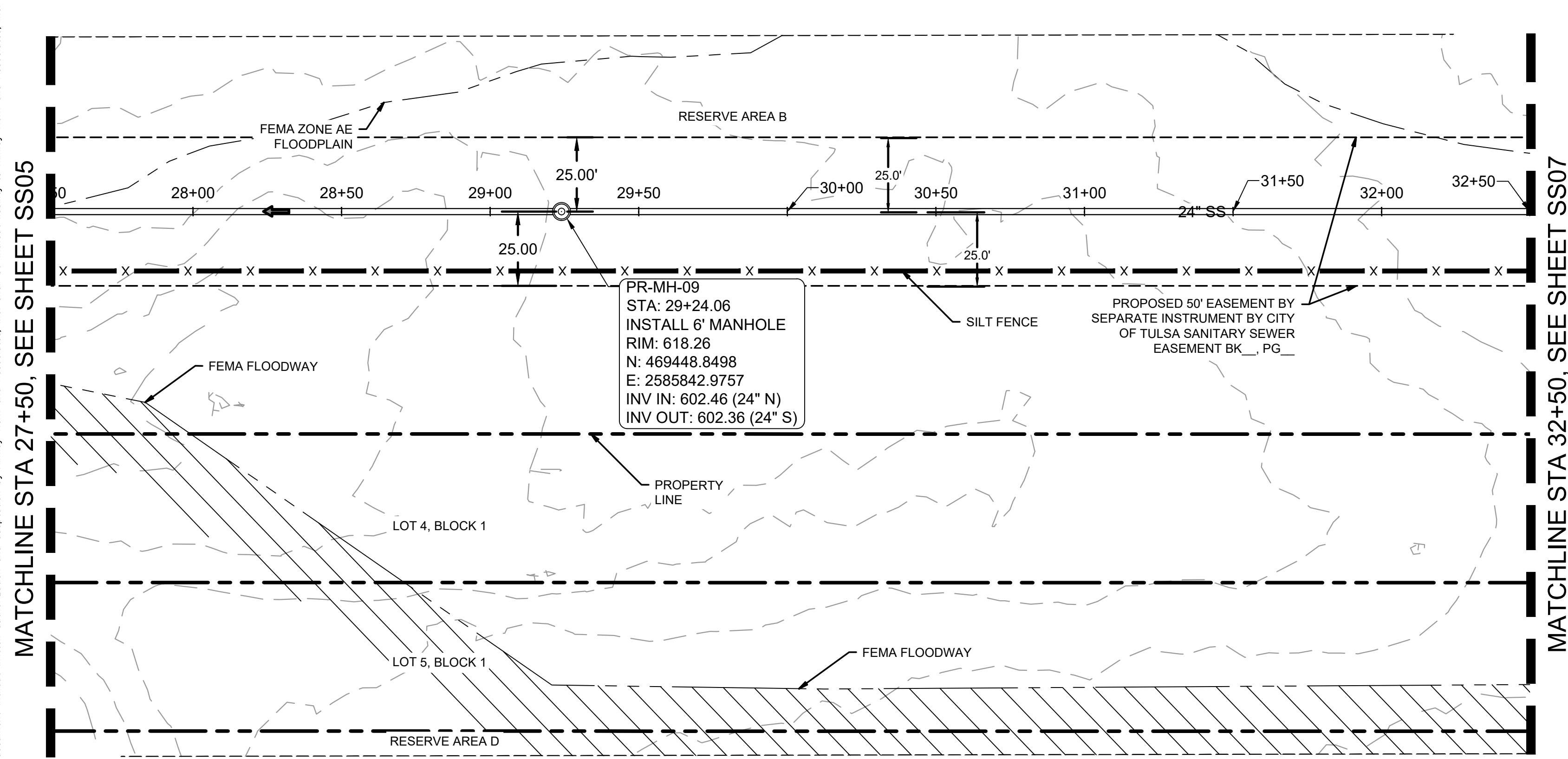
KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY	DR
DRAWN BY	DB
CHECKED BY	DR

PROJECT
 CLYDESDALE

SSWR-IDP-EXTENSION
 31+50 TO 37+00
 PLAN & PROFILE

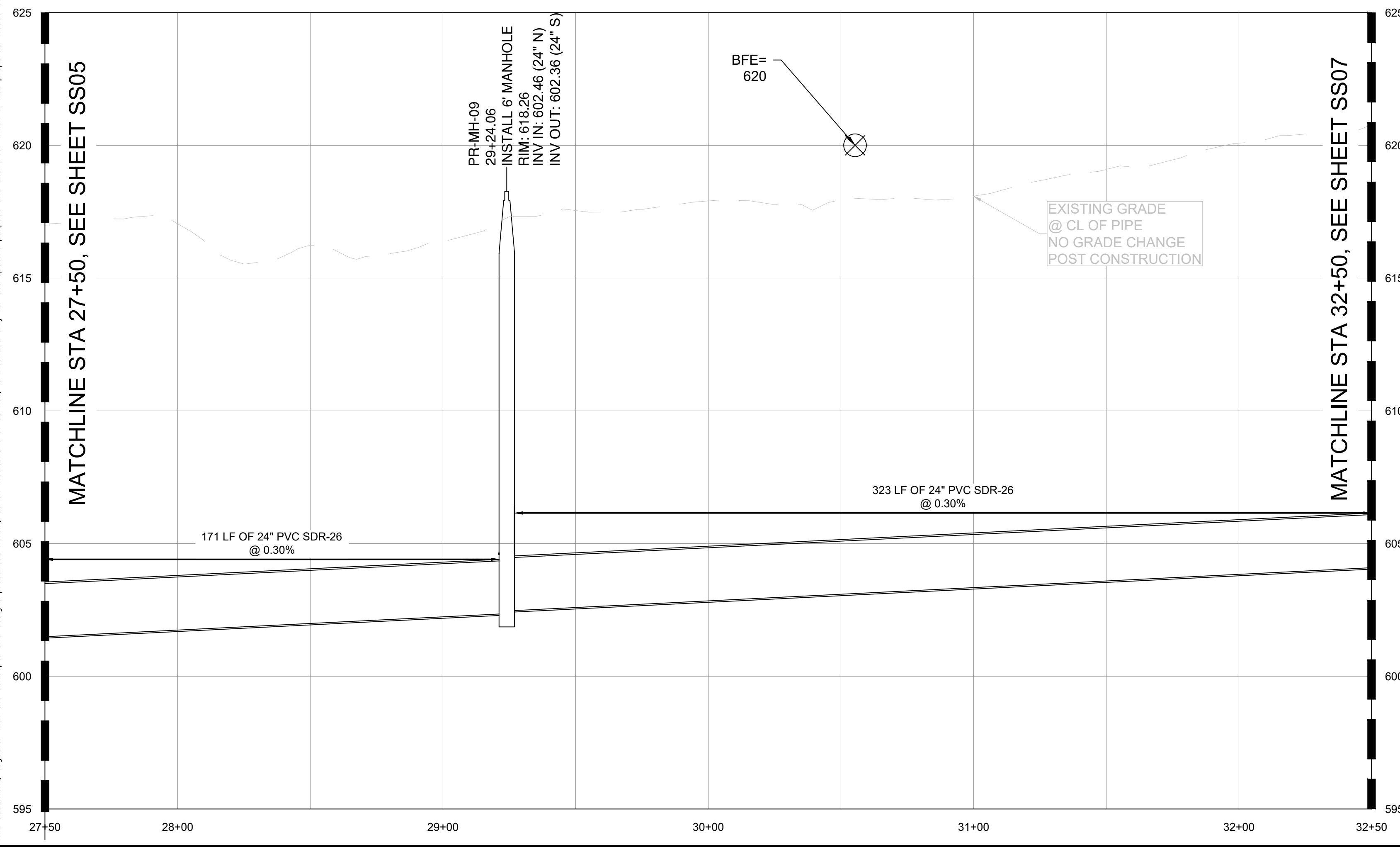
SHEET NUMBER
SS05

Plotted By: Burt, Hayden Date: April 16, 2026 02:59:47pm File Path: C:\ACC\ACCDocs\Kimley-Horn\060057900_Civil\Project Files\00_Civil\SPS\07_City of Tulsa IDP\03_Production-DWG\SSWR-IDP-1A-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



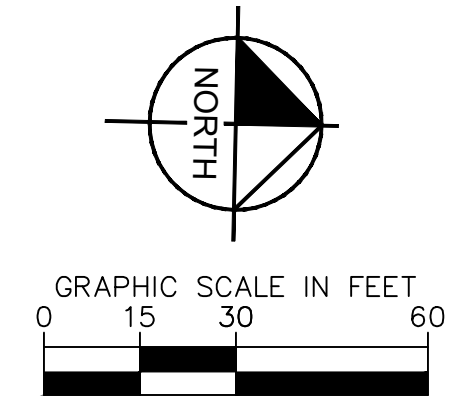
SSWR-IDP-EXTENSION
PLAN

SSWR-IDP-EXTENSION
PROFILE



SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POT HOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5- FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24" AND 48" WATERLINES. CONTRACTOR SHALL COORDINATE WITH CITY OF TULSA PRIOR TO INTERRUPTING WATER SERVICE FOR THESE CONNECTIONS (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- IF ANY ACTIVE EXISTING SERVICE LINES ARE CUT OFF BY REMOVAL OF SANITARY SEWER LINE AND MANHOLE, THEN THEY MUST BE RECONNECTED TO THE MAIN FOR SERVICE AT THE DEVELOPER'S EXPENSE.
- VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
- THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9- FEET FROM THE CROSSING, WHERE POSSIBLE.
- ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 10- FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH ODEQ CHAPTER 626.
- ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND ODEQ STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
- CONTRACT SHALL SUBMIT PROFESSIONAL ENGINEERED TRENCH EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- CONTRACTOR WILL BE REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS. EXISTING MANHOLES SHALL BE VACUUM TESTED PRIOR TO ANY MODIFICATIONS AND AFTER WORK IS COMPLETE.
- SEWERS AND MANHOLES TO BE ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE WITH A BULKHEAD OR PREFORMED PULL AND SHALL BE COMPLETELY FILLED WITH CLEAN SAND, CELLULAR CONCRETE OR FLOWABLE FILL.
- FRAMES AND COVERS FROM ANY STRUCTURES SCHEDULED FOR ABANDONMENT SHALL BE RETURNED TO THE CITY SEWER AND OPERATIONS MAINTENANCE AT 9319 E 42ND STREET NORTH BETWEEN 7:30 AM AND 3:00 PM MONDAY THRU FRIDAY. AT A MINIMUM ALL STRUCTURES SHALL BE COMPLETELY REMOVED TO A POINT THREE (3) FEET BELOW THE FINAL GRADE, OR THE DEPTH NOTED ON THE DRAWINGS. SAND OR FLOWABLE FILL SHALL BE USED TO FILL THE STRUCTURE.
- THE DEVELOPER SHALL MAKE ANY NEEDED MODIFICATIONS TO EXISTING MANHOLE IN ORDER TO COMPLY WITH CURRENT CITY OF TULSA STANDARDS OR MAINTENANCE REQUIREMENTS. THE DEVELOPER SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH INTERNAL INSPECTION, REHAB PLAN PREPARATION AND CONSTRUCTION.
- SERVICE TEES SHALL BE CONSTRUCTED AS PART OF IDP. SERVICE CONNECTION TO BUILDINGS SHALL BE DONE SEPARATELY AS A SEWER TAP PERMIT.
- BACKFLOW PREVENTER MUST BE INSTALLED IF BUILDING SITE IS BELOW THE UPSTREAM/DOWNSTREAM MANHOLE RIM+ 1'
- CONCRETE MANHOLES, ASSOCIATED WITH MAINS 15" ID AND LARGER, TO BE DESIGNED WITH INTERIOR EPOXY COATING OR FIBERGLASS WITH NO COATING.
- MANHOLE LID SHOULD BE 3200 SERIES COMPOSITE UTILITY ACCESS COVER WITH QUARTER TURN PADDLE LOCKS MANUFACTURED BY EAST JORDAN PER CITY STANDARDS FOR MANHOLES IN FLOODPLAIN.
- ALL MANHOLES MUST HAVE 30" LIDS AND COVERS AND NO STEPS.
- WATER AND SANITARY SEWER SEPARATION (OUTSIDE TO OUTSIDE OF PIPES) TO BE MINIMUM TWO (2) FEET VERTICAL & TEN (10) FEET HORIZONTAL PER ODEQ REGULATIONS. WHEN WATER AND SEWER SEPARATION CANNOT BE MAINTAINED, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE. SANITARY SEWER MUST BE INSTALLED AND TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH COT STANDARD SPECIFICATION PART 203 AND ODEQ STANDARD 252-626-19-2(e).
- RIPRAP DESIGN AND INSTALLATION SHALL COMPLY WITH THE MORE STRINGENT OF THE FOLLOWING STANDARDS: (1) DOT STANDARD SPECIFICATIONS ADOPTED BY THE CITY OF TULSA (2) CURRENT CITY OF TULSA STORMWATER MANAGEMENT CRITERIA MANUAL



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE
COORDINATE SYSTEM	NORTH ZONE 3501
VERTICAL	
NAVD	88

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

NO.	REVISIONS	DATE	BY

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119
PHONE: 918-580-8888 FIRM NO. 2740. EXP. JUNE 30, 2027
WWW.KIMLEY-HORN.COM

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.
Kimley-Horn
Engineer
P.E. No. _____

KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY	DR
DRAWN BY	DB
CHECKED BY	DR

PROJECT
CLYDESDALE

SSWR-IDP-EXTENSION
37+00 TO 42+50
PLAN & PROFILE

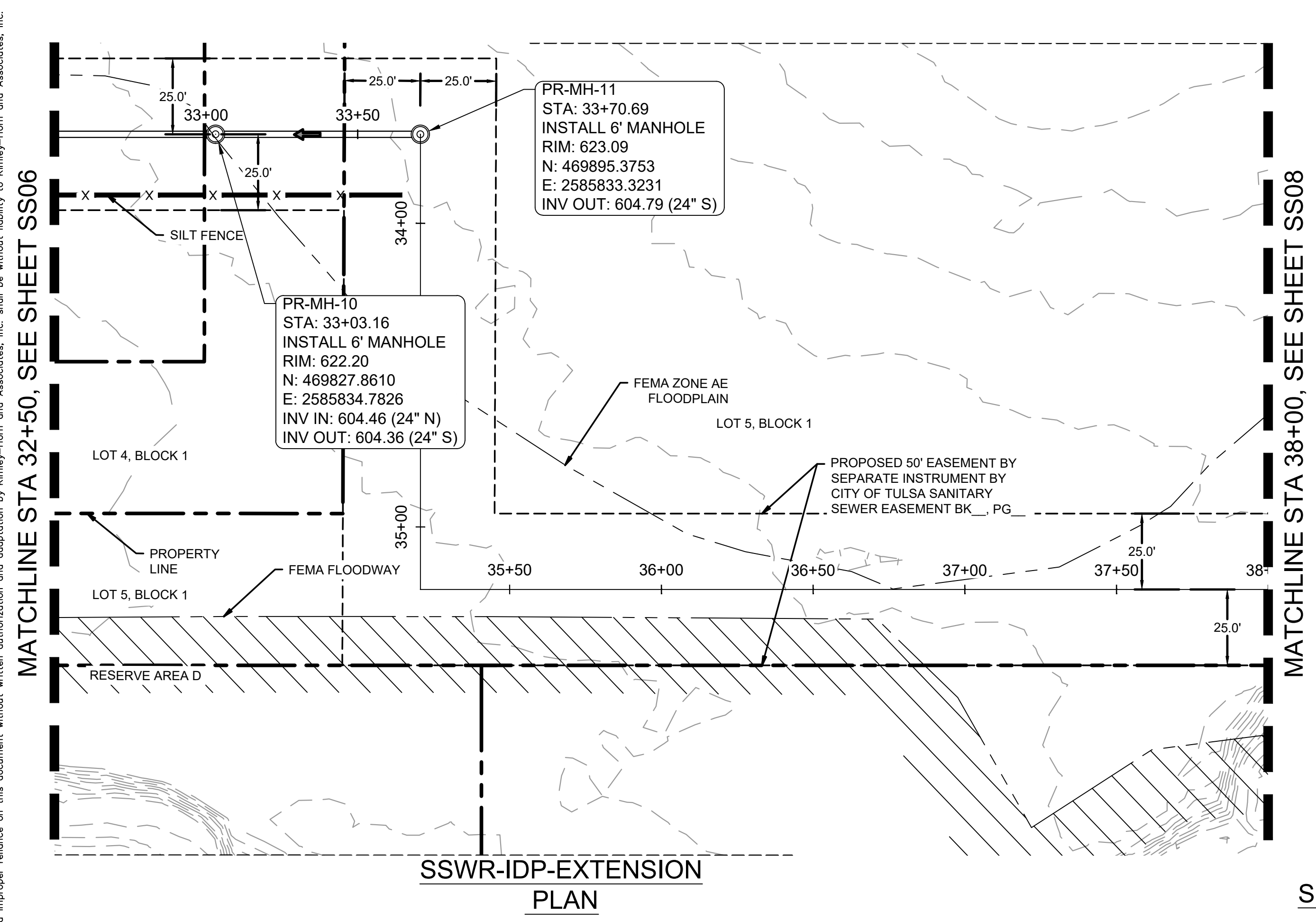
SHEET NUMBER
SS06



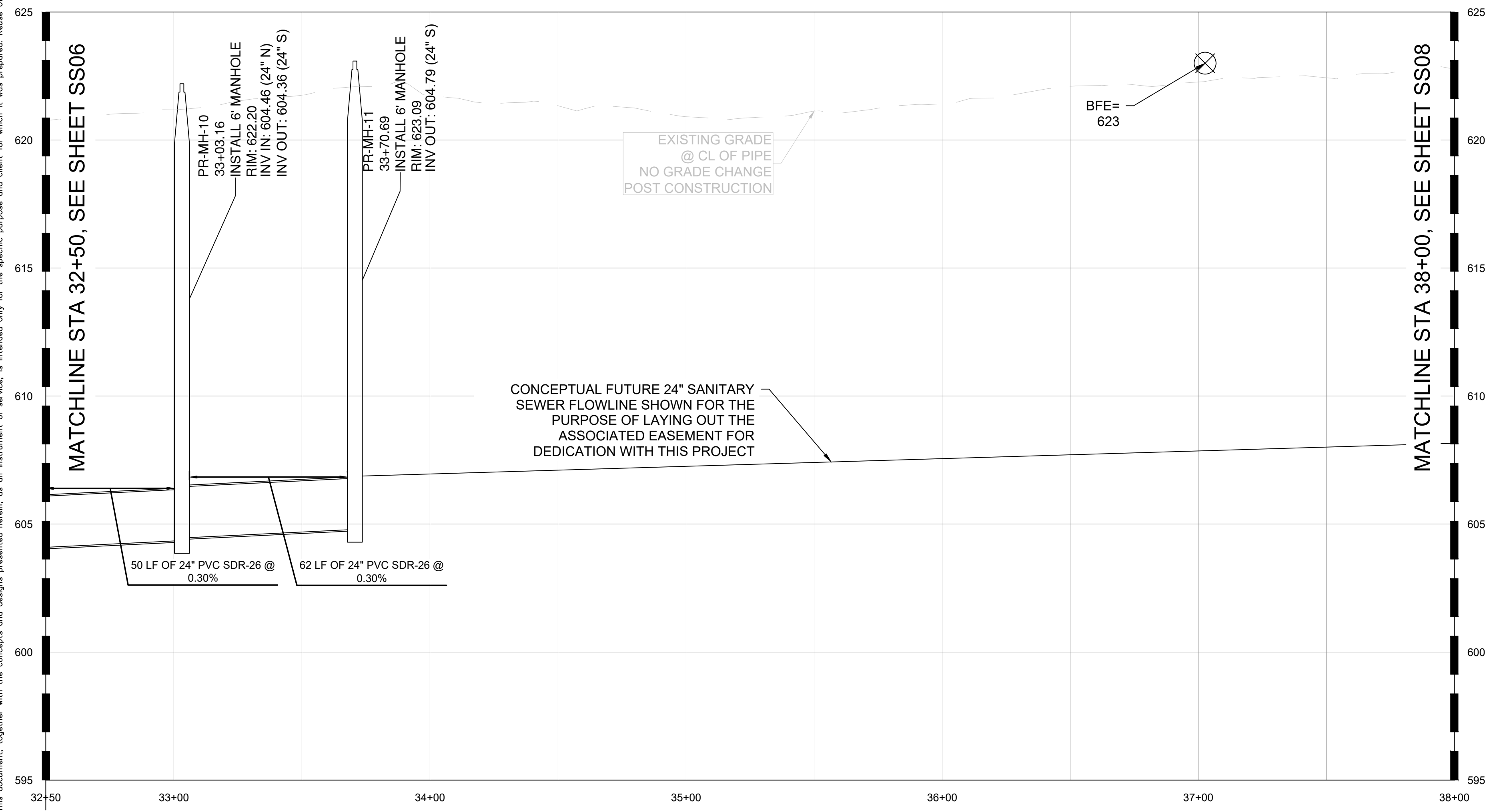
APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date
Infrastructure Development Manager
City of Tulsa

Plotted By: Burt, Hoyden Date: April 16, 2026 02:59:54pm File Path: C:\ACC\ACCDocs\Kimley-Horn\060057900_CVL\Project Files\00_Civil\SPS\07_City of Tulsa IDP\03_Production-DWG\SSW-IDP-EXTENSION-PLAN.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Release of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

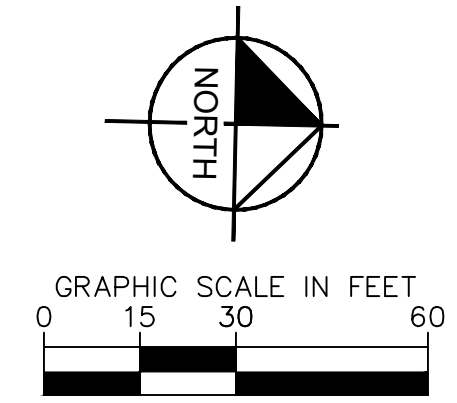


SSWR-IDP-EXTENSION
PROFILE



SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY SERVICES ENTERING THE BUILDING.
- THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24" AND 48" WATERLINES. CONTRACTOR SHALL COORDINATE WITH CITY OF TULSA PRIOR TO INTERRUPTING WATER SERVICE FOR THESE CONNECTIONS (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- IF ANY ACTIVE EXISTING SERVICE LINES ARE CUT OFF BY REMOVAL OF SANITARY SEWER LINE AND MANHOLE, THEN THEY MUST BE RECONNECTED TO THE MAIN FOR SERVICE AT THE DEVELOPER'S EXPENSE.
- VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
- THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9-FEET FROM THE CROSSING, WHERE POSSIBLE.
- ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 10-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH ODEQ CHAPTER 626.
- ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND ODEQ STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
- CONTRACT SHALL SUBMIT PROFESSIONAL ENGINEERED TRENCH EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- CONTRACTOR WILL BE REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS. EXISTING MANHOLES SHALL BE VACUUM TESTED PRIOR TO ANY MODIFICATIONS AND AFTER WORK IS COMPLETED.
- SEWERS AND MANHOLES TO BE ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE WITH A BULKHEAD OR PREFORMED PLUG AND SHALL BE COMPLETELY FILLED WITH CLEAN SAND, CELLULAR CONCRETE OR FLOWABLE FILL.
- FRAMES AND COVERS FROM ANY STRUCTURES SCHEDULED FOR ABANDONMENT SHALL BE RETURNED TO THE CITY SEWER AND OPERATIONS MAINTENANCE AT 9319 E 42ND STREET NORTH BETWEEN 7:30 AM AND 3:00 PM MONDAY THRU FRIDAY. AT A MINIMUM ALL STRUCTURES SHALL BE COMPLETELY REMOVED TO A POINT THREE (3) FEET BELOW THE FINAL GRADE, OR THE DEPTH NOTED ON THE DRAWINGS. SAND OR FLOWABLE FILL SHALL BE USED TO FILL THE STRUCTURE.
- THE DEVELOPER SHALL MAKE ANY NEEDED MODIFICATIONS TO EXISTING MANHOLE IN ORDER TO COMPLY WITH CURRENT CITY OF TULSA STANDARDS OR MAINTENANCE REQUIREMENTS. THE DEVELOPER SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH INTERNAL INSPECTION, REHAB PLAN PREPARATION AND CONSTRUCTION.
- SERVICE TEES SHALL BE CONSTRUCTED AS PART OF IDP. SERVICE CONNECTION TO BUILDINGS SHALL BE DONE SEPARATELY AS A SEWER TAP PERMIT.
- BACKFLOW PREVENTER MUST BE INSTALLED IF BUILDING SITE IS BELOW THE UPSTREAM/DOWNSTREAM MANHOLE RIM+ 1'
- CONCRETE MANHOLES, ASSOCIATED WITH MAINS 15" ID AND LARGER, TO BE DESIGNED WITH INTERIOR EPOXY COATING OR FIBERGLASS WITH NO COATING.
- MANHOLE LID SHOULD BE 3200 SERIES COMPOSITE UTILITY ACCESS COVER WITH QUARTER TURN ADOLDS MANUFACTURED BY EAST JORDAN PER CITY STANDARDS FOR MANHOLES IN FLOODPLAIN.
- ALL MANHOLES MUST HAVE 30" LIDS AND COVERS AND NO STEPS.
- WATER AND SANITARY SEWER SEPARATION (OUTSIDE TO OUTSIDE OF PIPES) TO BE MINIMUM TWO (2) FEET VERTICAL & TEN (10) FEET HORIZONTAL PER ODEQ REGULATIONS. WHEN WATER AND SEWER SEPARATION CANNOT BE MAINTAINED, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE. SANITARY SEWER MUST BE INSTALLED AND TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH COT STANDARD SPECIFICATION PART 203 AND ODEQ STANDARD 252-626-19-2(e).
- RIPRAP DESIGN AND INSTALLATION SHALL COMPLY WITH THE MORE STRINGENT OF THE FOLLOWING: (1) COT STANDARD SPECIFICATIONS ADOPTED BY THE CITY OF TULSA (2) CURRENT CITY OF TULSA STORMWATER MANAGEMENT CRITERIA MANUAL



DATUM	
HORIZONTAL	
NAD 83 OKLAHOMA STATE PLANE	
COORDINATE SYSTEM NORTH ZONE 3501	
VERTICAL	
NAVD 88	

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE, SUITE 800 TULSA, OK 74119
 PHONE: 918-580-8888 FIRM NO. 2740, EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM

PROJECT
CLYDESDALE

DATE
APRIL 2026

SCALE
AS SHOWN

DESIGNED BY
DR

DRAWN BY
DB

CHECKED BY
DR

PROJECT
CLYDESDALE

SSWR-IDP-EXTENSION
42+50 TO 48+00
PLAN & PROFILE

SHEET NUMBER
SS07

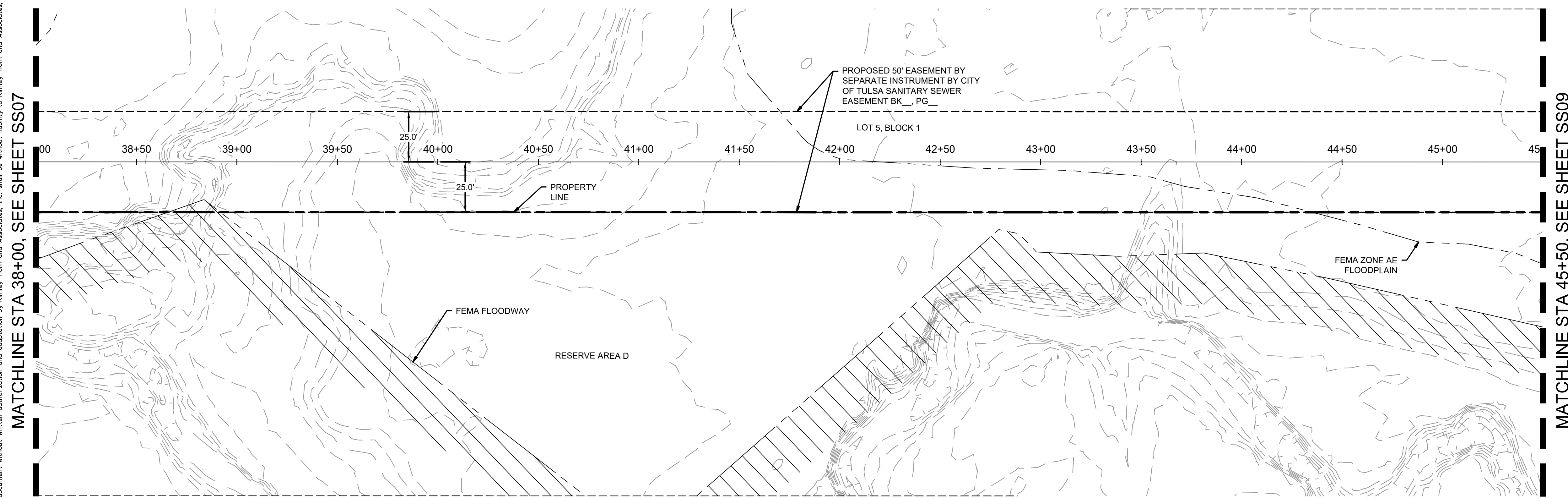
DATE
 REVISIONS
 No.



APPROVED FOR IDP PERMIT ONLY

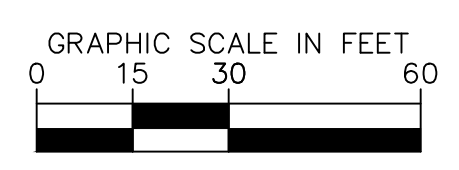
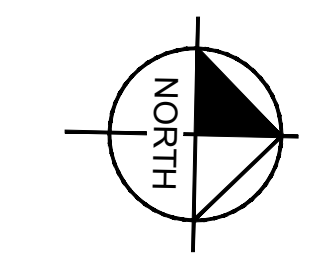
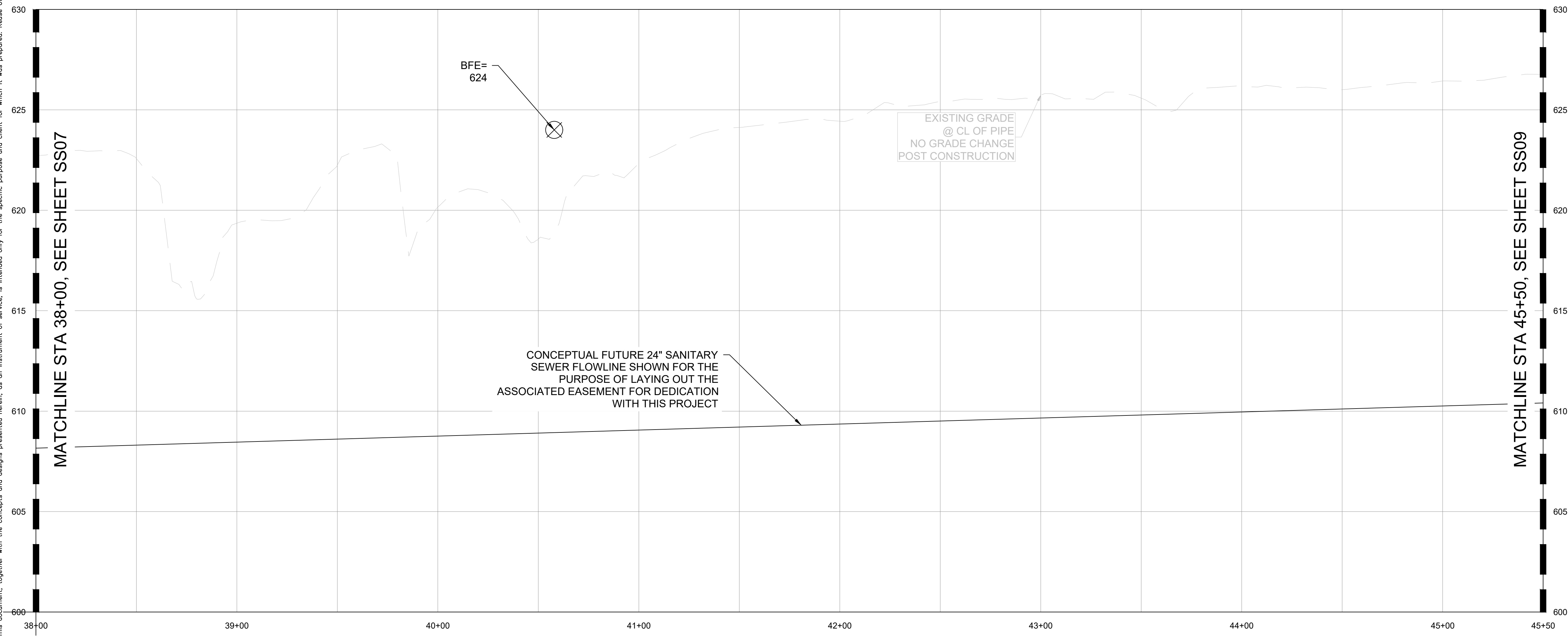
 Michael Ling, PE Date
 Infrastructure Development Manager
 City of Tulsa

Plotted By: Burt, Hayden Date: April 16, 2026 02:59:59pm File Path: C:\ACCV\ACCDocs\Kimley-Horn\Horn\0600057900_CVL\Project Files\00_Civil\SPS_07_City of Tulsa IDP\03_Production-DWG\SSWR-IDP-SS08.dwg
 This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



SSWR-IDP-EXTENSION
PLAN

SSWR-IDP-EXTENSION
PROFILE



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE
COORDINATE SYSTEM	NORTH ZONE 3501
VERTICAL	NAVD 88

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

NO.	REVISIONS	DATE	BY

Kimley-Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119
 PHONE: 918-380-8888 FIRM NO. 2740 EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

Kimley-Horn

Engineer
 P.E. No. _____

KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY	DR
DRAWN BY	DB
CHECKED BY	DR

PROJECT
CLYDESDALE

SSWR-IDP-EXTENSION
48+00 TO 55+50
PLAN & PROFILE

SHEET NUMBER
SS08

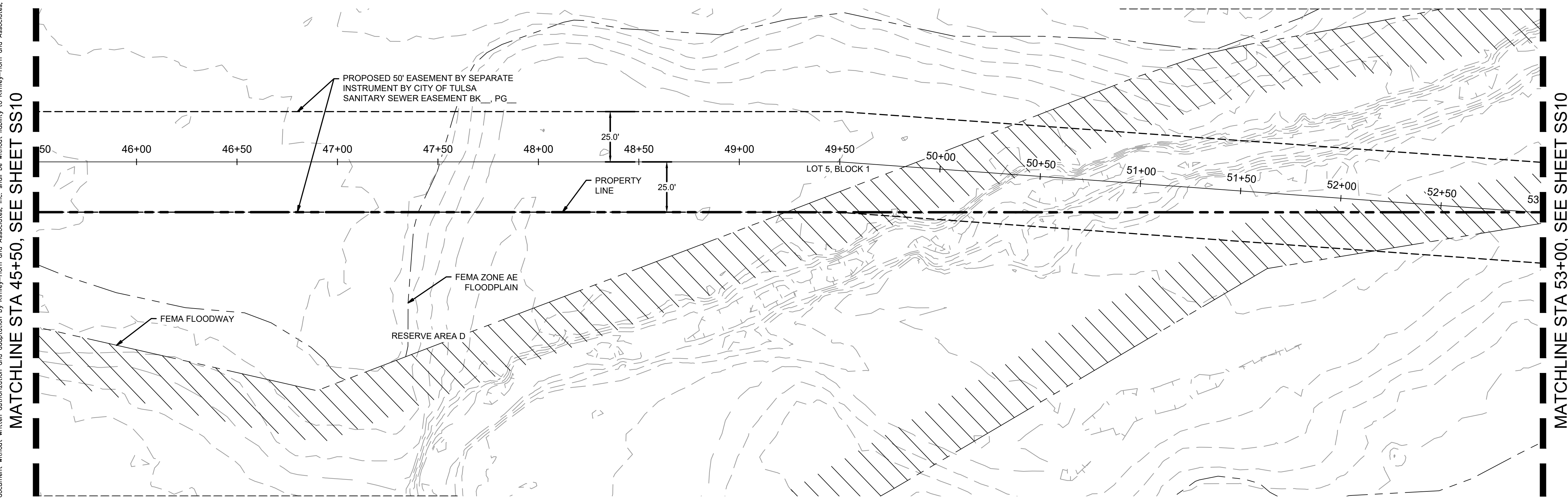


Know what's below.
Call before you dig.

APPROVED FOR IDP PERMIT ONLY

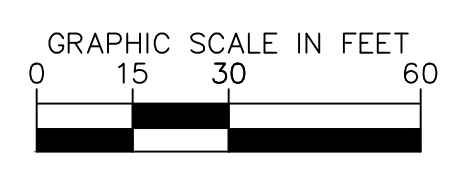
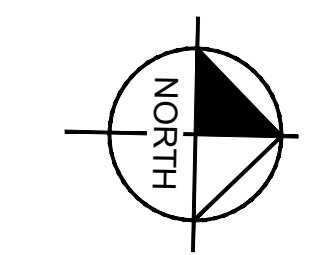
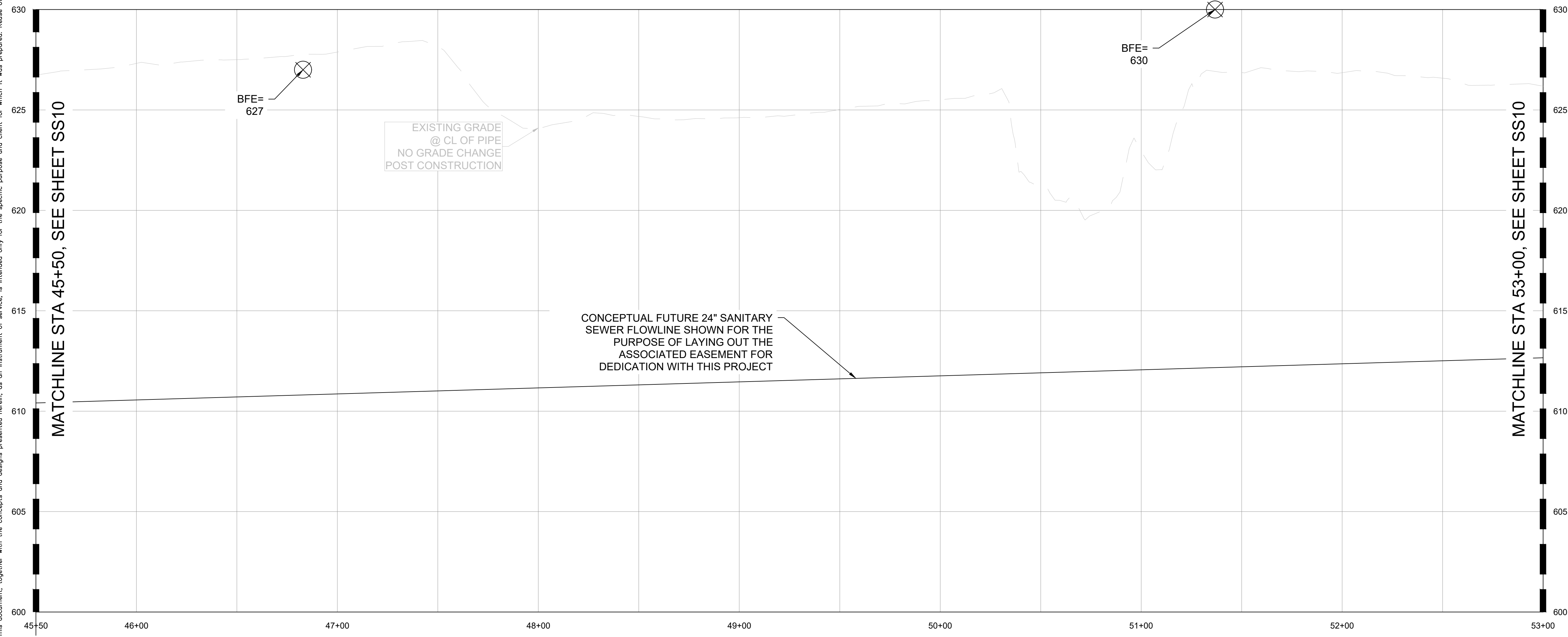
Michael Ling, PE Date
 Infrastructure Development Manager
 City of Tulsa

Plotted By: Burt, Hayden Date: April 16, 2026 03:00:04pm File Path: C:\ACCC\ACCDocs\Kimley-Horn\060057900_CLY\Project Files\00_Civil\SPS\07_City of Tulsa IDP\03_Production-DWG\SSWR-IDP-1A-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



SSWR-IDP-EXTENSION
PLAN

SSWR-IDP-EXTENSION
PROFILE



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE
COORDINATE SYSTEM	NORTH ZONE 3501
VERTICAL	NAVD 88

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

REVISIONS	
No.	DATE

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1437 SOUTH BOULDER AVE. SUITE 900 TULSA, OK 74119
PHONE: 918-380-8888 FIRM NO. 2740 EXP. JUNE 30, 2027
WWW.KIMLEY-HORN.COM

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

Engineer: _____
P.E. No.: _____

KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY	DR
DRAWN BY	DB
CHECKED BY	DR

PROJECT
CLYDESDALE

SSWR-IDP-EXTENSION
55+50 TO 63+00
PLAN & PROFILE

SHEET NUMBER
SS09



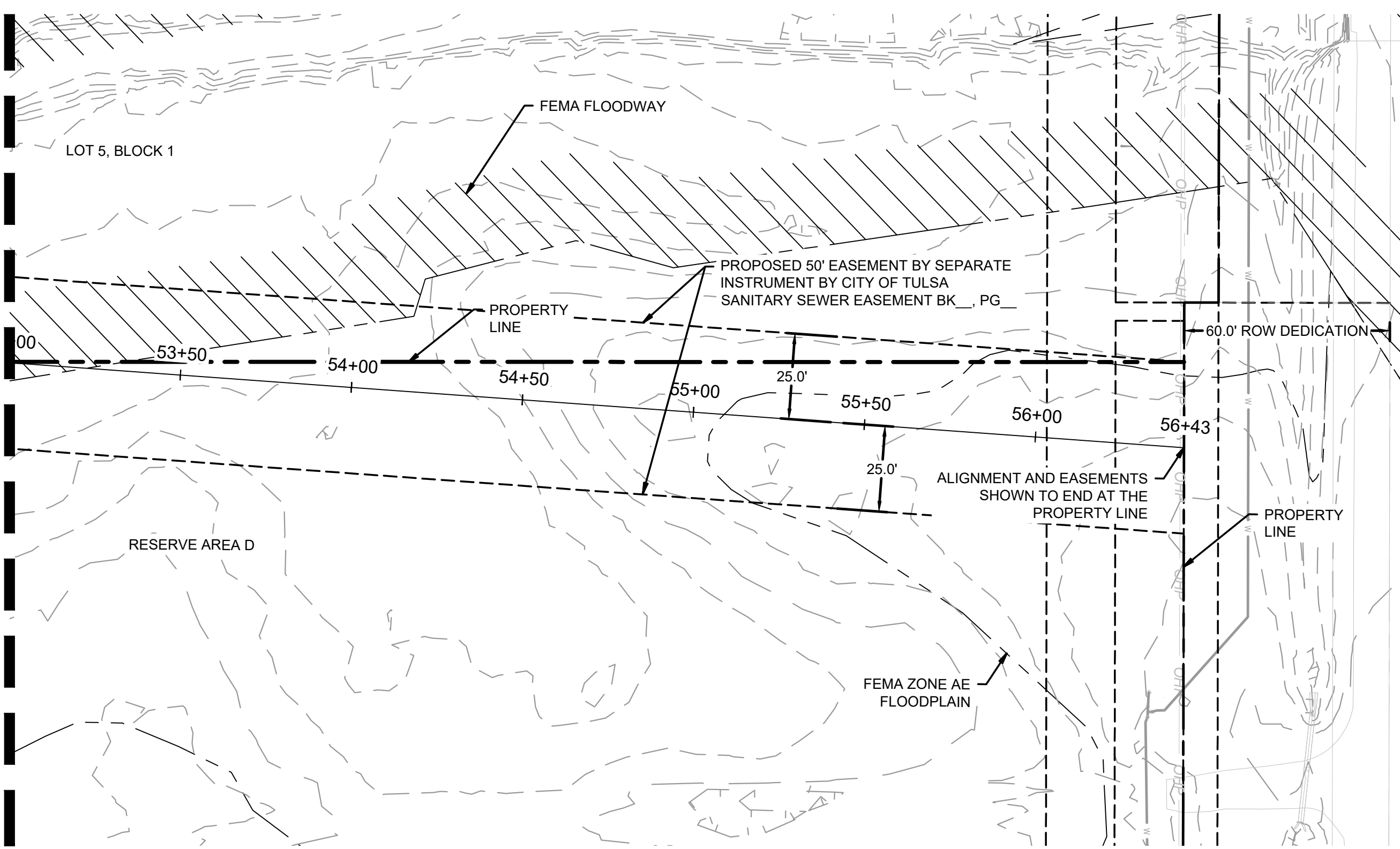
Know what's below.
Call before you dig.

APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date _____
Infrastructure Development Manager
City of Tulsa

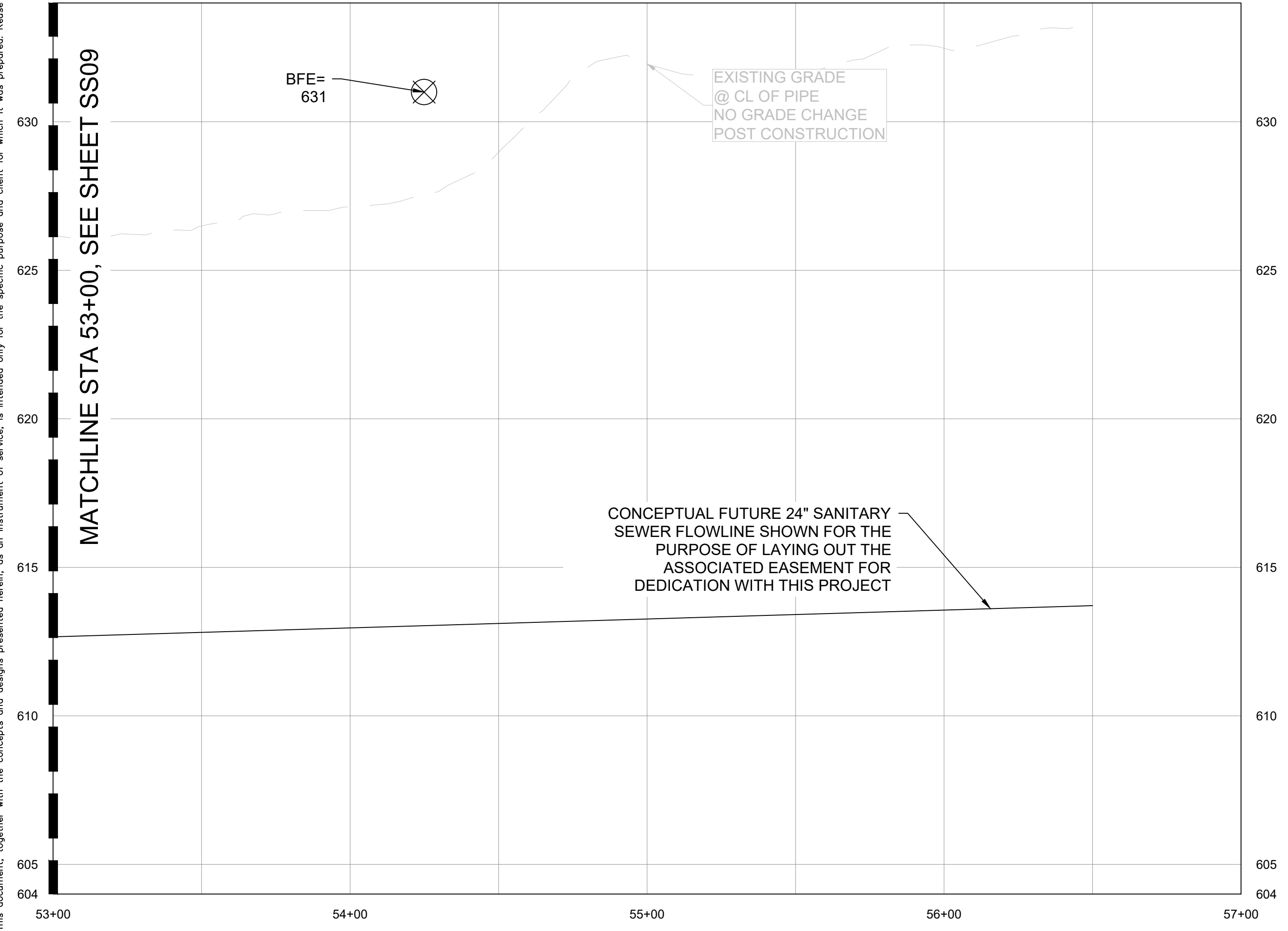
Plotted By: Burt, Hayden Date: April 16, 2026 03:00:09pm File Path: C:\ACC\ACCDocs\Kimley-Horn\060057900_CVL\Project Files\00_Civil\SPS\07_City of Tulsa IDP\03_Production-DWG\SSWR-IDP-1A-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

MATCHLINE STA 53+00, SEE SHEET SS09

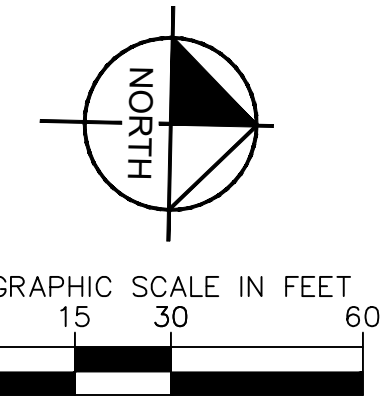


**SSWR-IDP-EXTENSION
PLAN**

**SSWR-IDP-EXTENSION
PROFILE**



MATCHLINE STA 53+00, SEE SHEET SS09



DATUM	
HORIZONTAL	NAD 83 OKLAHOMA STATE PLANE
COORDINATE SYSTEM	NORTH ZONE 3501
VERTICAL	
NAVD	88

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73

SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY SERVICES ENTERING THE BUILDING.
- THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24" AND 48" WATERLINES. CONTRACTOR SHALL COORDINATE WITH CITY OF TULSA PRIOR TO INTERRUPTING WATER SERVICE FOR THESE CONNECTIONS (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- IF ANY ACTIVE EXISTING SERVICE LINES ARE CUT OFF BY REMOVAL OF SANITARY SEWER LINE AND MANHOLE, THEN THEY MUST BE RECONNECTED TO THE MAIN FOR SERVICE AT THE DEVELOPER'S EXPENSE.
- VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
- THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9-FEET FROM THE CROSSING, WHERE POSSIBLE.
- ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 10-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH ODEQ CHAPTER 626.
- ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND ODEQ STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
- CONTRACT SHALL SUBMIT PROFESSIONAL ENGINEERED TRENCH EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- CONTRACTOR WILL BE REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS. EXISTING MANHOLES SHALL BE VACUUM TESTED PRIOR TO ANY MODIFICATIONS AND AFTER WORK IS COMPLETE.
- SEWERS AND MANHOLES TO BE ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE WITH A BULKHEAD OR PREFORMED PULL AND SHALL BE COMPLETELY FILLED WITH CLEAN SAND, CELLULAR CONCRETE OR FLOWABLE FILL.
- FRAMES AND COVERS FROM ANY STRUCTURES SCHEDULED FOR ABANDONMENT SHALL BE RETURNED TO THE CITY SEWER AND OPERATIONS MAINTENANCE AT 9319 E 42ND STREET NORTH BETWEEN 7:30 AM AND 3:00 PM MONDAY THRU FRIDAY. AT A MINIMUM ALL STRUCTURES SHALL BE COMPLETELY REMOVED TO A POINT THREE (3) FEET BELOW THE FINAL GRADE, OR THE DEPTH NOTED ON THE DRAWINGS. SAND OR FLOWABLE FILL SHALL BE USED TO FILL THE STRUCTURE.
- THE DEVELOPER SHALL MAKE ANY NEEDED MODIFICATIONS TO EXISTING MANHOLE IN ORDER TO COMPLY WITH CURRENT CITY OF TULSA STANDARDS OR MAINTENANCE REQUIREMENTS. THE DEVELOPER SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH INTERNAL INSPECTION, REHAB PLAN PREPARATION AND CONSTRUCTION.
- SERVICE TEES SHALL BE CONSTRUCTED AS PART OF IDP. SERVICE CONNECTION TO BUILDINGS SHALL BE DONE SEPARATELY AS A SEWER TAP PERMIT.
- BACKFLOW PREVENTER MUST BE INSTALLED IF BUILDING SITE IS BELOW THE UPSTREAM/DOWNSTREAM MANHOLE RIM+ 1'
- CONCRETE MANHOLES, ASSOCIATED WITH MAINS 15" ID AND LARGER, TO BE DESIGNED WITH INTERIOR EPOXY COATING OR FIBERGLASS WITH NO COATING.
- MANHOLE LID SHOULD BE 3200 SERIES COMPOSITE UTILITY ACCESS COVER WITH QUARTER TURN ADOLDS LOCKS MANUFACTURED BY EAST JORDAN PER CITY STANDARDS FOR MANHOLES IN FLOODPLAIN.
- ALL MANHOLES MUST HAVE 30" LIDS AND COVERS AND NO STEPS.
- WATER AND SANITARY SEWER SEPARATION (OUTSIDE TO OUTSIDE OF PIPES) TO BE MINIMUM TWO (2) FEET VERTICAL & TEN (10) FEET HORIZONTAL PER ODEQ REGULATIONS. WHEN WATER AND SEWER SEPARATION CANNOT BE MAINTAINED, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE. SANITARY SEWER MUST BE INSTALLED AND TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH COT STANDARD SPECIFICATION PART 203 AND ODEQ STANDARD 252-626-19-2(e).
- RIPRAP DESIGN AND INSTALLATION SHALL COMPLY WITH THE MORE STRINGENT OF THE FOLLOWING: (1) COT STANDARD SPECIFICATIONS ADOPTED BY THE CITY OF TULSA (2) CURRENT CITY OF TULSA STORMWATER MANAGEMENT CRITERIA MANUAL



APPROVED FOR IDP PERMIT ONLY
 Michael Ling, PE Date
 Infrastructure Development Manager
 City of Tulsa

Kimley-Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE, SUITE 800 TULSA, OK 74119
 PHONE: 918-580-8888 FIRM NO. 2740. EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

Kimley-Horn

Engineer
P.E. No. _____

DATE: APRIL 2026

SCALE: AS SHOWN

DESIGNED BY: DR

DRAWN BY: DB

CHECKED BY: DR

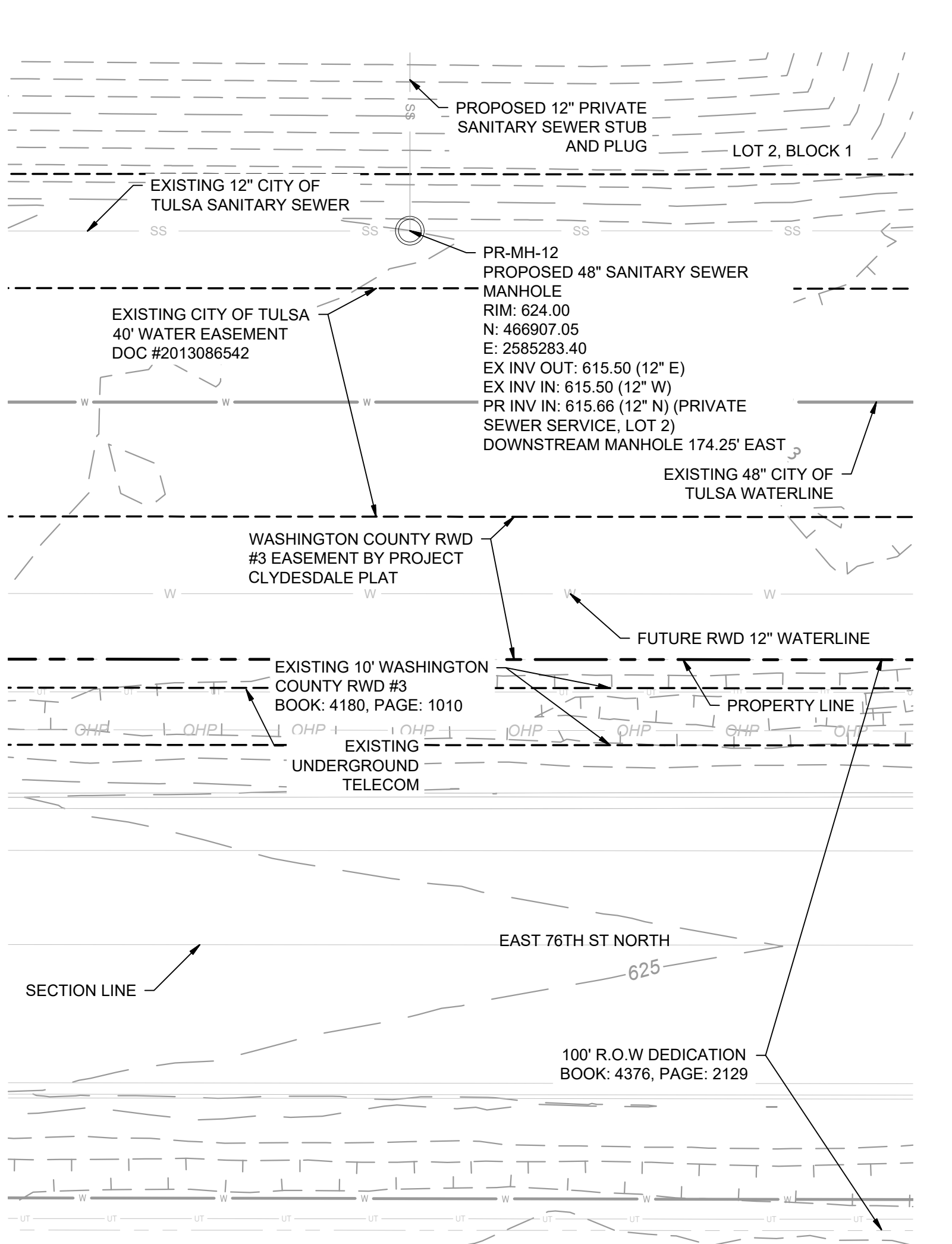
KHA PROJECT
CLYDESDALE

**PROJECT
CLYDESDALE**

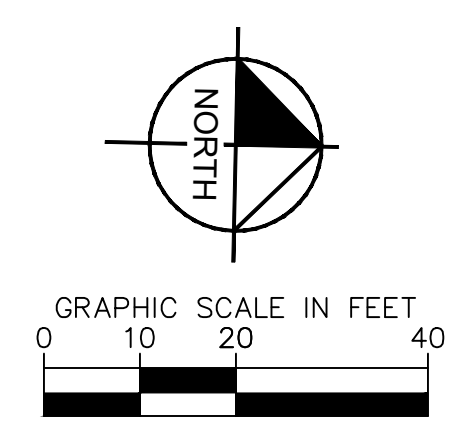
SSWR-IDP-EXTENSION
63+00 TO 67+00
PLAN & PROFILE

SHEET NUMBER
SS10

Plotted By: Burt, Hayden Date: April 16, 2026 03:00:14pm File Path: C:\ACCC\ACCDocs\Kimley-Horn\060057900_CVL\Project Files\00_Civil\SPS\07_IDP\03_Production\DWGS\CYL\1-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any part of this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



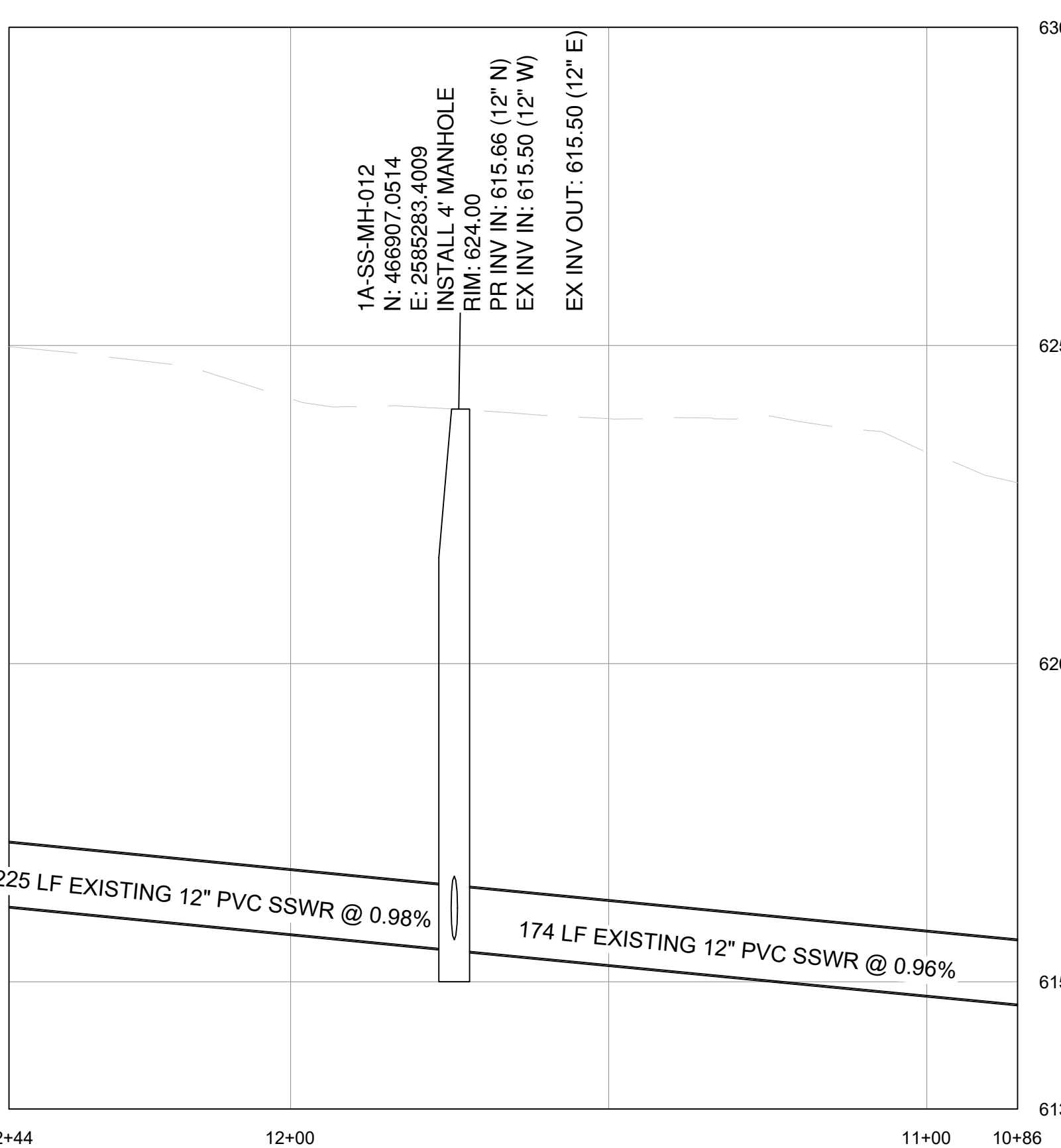
SSWR-IDP-EXTENSION PLAN



DATUM	
HORIZONTAL NAD 83 OKLAHOMA STATE PLANE COORDINATE SYSTEM NORTH ZONE 3501	
VERTICAL NAVD 88	

CONTROL POINT #1	
ELEVATION	683.38 (NAVD 1988)
MONUMENT	3/4" REBAR
LOCATION	N: 466707.64 E: 2581682.53

CONTROL POINT #2	
ELEVATION	617.62 (NAVD 1988)
MONUMENT	MAGNAIL
LOCATION	N: 466816.88 E: 2580975.73



SSWR-IDP-EXTENSION PROFILE

SANITARY SEWER NOTES:

- ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AND WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWATER CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE.
- CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE WATER AND WASTEWATER IMPROVEMENTS.
- ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
- EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, ODEQ, AND AWWA STANDARDS, TO KEEP WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES.
- ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT.
- CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
- CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF THE CITY OF TULSA 24" AND 48" WATERLINES. CONTRACTOR SHALL COORDINATE WITH CITY OF TULSA PRIOR TO INTERRUPTING WATER SERVICE FOR THESE CONNECTIONS (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- IF ANY ACTIVE EXISTING SERVICE LINES ARE CUT OFF BY REMOVAL OF SANITARY SEWER LINE AND MANHOLE, THEN THEY MUST BE RECONNECTED TO THE MAIN FOR SERVICE AT THE DEVELOPER'S EXPENSE.
- VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
- THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE. THIS WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- CONTRACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 9-FEET FROM THE CROSSING, WHERE POSSIBLE.
- ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 10-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS SHALL COMPLY WITH ODEQ CHAPTER 626.
- ALL WATER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND ODEQ STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
- CONTRACT SHALL SUBMIT PROFESSIONAL ENGINEERED TRENCH EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.
- CONTRACTOR WILL BE REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS. EXISTING MANHOLES SHALL BE VACUUM TESTED PRIOR TO ANY MODIFICATIONS AND AFTER WORK IS COMPLETE.
- SEWERS AND MANHOLES TO BE ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE WITH A BULKHEAD OR PREFORMED PLUG AND SHALL BE COMPLETELY FILLED WITH CLEAN SAND, CELLULAR CONCRETE OR FLOWABLE FILL.
- FRAMES AND COVERS FROM ANY STRUCTURES SCHEDULED FOR ABANDONMENT SHALL BE RETURNED TO THE CITY SEWER AND OPERATIONS MAINTENANCE AT 9319 E 42ND STREET NORTH BETWEEN 7:30 AM AND 3:00 PM MONDAY THRU FRIDAY. AT A MINIMUM ALL STRUCTURES SHALL BE COMPLETELY REMOVED TO A POINT THREE (3) FEET BELOW THE FINAL GRADE, OR THE DEPTH NOTED ON THE DRAWINGS. SAND OR FLOWABLE FILL SHALL BE USED TO FILL THE STRUCTURE.
- THE DEVELOPER SHALL MAKE ANY NEEDED MODIFICATIONS TO EXISTING MANHOLE IN ORDER TO COMPLY WITH CURRENT CITY OF TULSA STANDARDS OR MAINTENANCE REQUIREMENTS. THE DEVELOPER SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH INTERNAL INSPECTION, REHAB PLAN PREPARATION AND CONSTRUCTION.
- SERVICE TEES SHALL BE CONSTRUCTED AS PART OF IDP. SERVICE CONNECTION TO BUILDINGS SHALL BE DONE SEPARATELY AS A SEWER TAP PERMIT.
- BACKFLOW PREVENTER MUST BE INSTALLED IF BUILDING SITE IS BELOW THE UPSTREAM/DOWNSTREAM MANHOLE RIM+ 1'
- CONCRETE MANHOLES, ASSOCIATED WITH MAINS 15" ID AND LARGER, TO BE DESIGNED WITH INTERIOR EPOXY COATING OR FIBERGLASS WITH NO COATING.
- MANHOLE LID SHOULD BE 3200 SERIES COMPOSITE UTILITY ACCESS COVER WITH QUARTER TURN ADOLDS LOCKS MANUFACTURED BY EAST JORDAN PER CITY STANDARDS FOR MANHOLES IN FLOODPLAIN.
- ALL MANHOLES MUST HAVE 30" LIDS AND COVERS AND NO STEPS.
- WATER AND SANITARY SEWER SEPARATION (OUTSIDE TO OUTSIDE OF PIPES) TO BE MINIMUM TWO (2) FEET VERTICAL & TEN (10) FEET HORIZONTAL PER ODEQ REGULATIONS. WHEN WATER AND SEWER SEPARATION CANNOT BE MAINTAINED, THE SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE. SANITARY SEWER MUST BE INSTALLED AND TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH COT STANDARD SPECIFICATION PART 203 AND ODEQ STANDARD 252-626-19-2(e).
- RIPRAP DESIGN AND INSTALLATION SHALL COMPLY WITH THE MORE STRINGENT OF THE FOLLOWING: (1) CDOT STANDARD SPECIFICATIONS ADOPTED BY THE CITY OF TULSA (2) CURRENT CITY OF TULSA STORMWATER MANAGEMENT CRITERIA MANUAL



APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE Date
Infrastructure Development Manager
City of Tulsa

KHA PROJECT
CLYDESDALE

DATE
APRIL 2026

SCALE: AS SHOWN

DESIGNED BY: DR

DRAWN BY: DB

CHECKED BY: DR

PROJECT CLYDESDALE

SSWR-IDP PLAN AND PROFILE

SHEET NUMBER

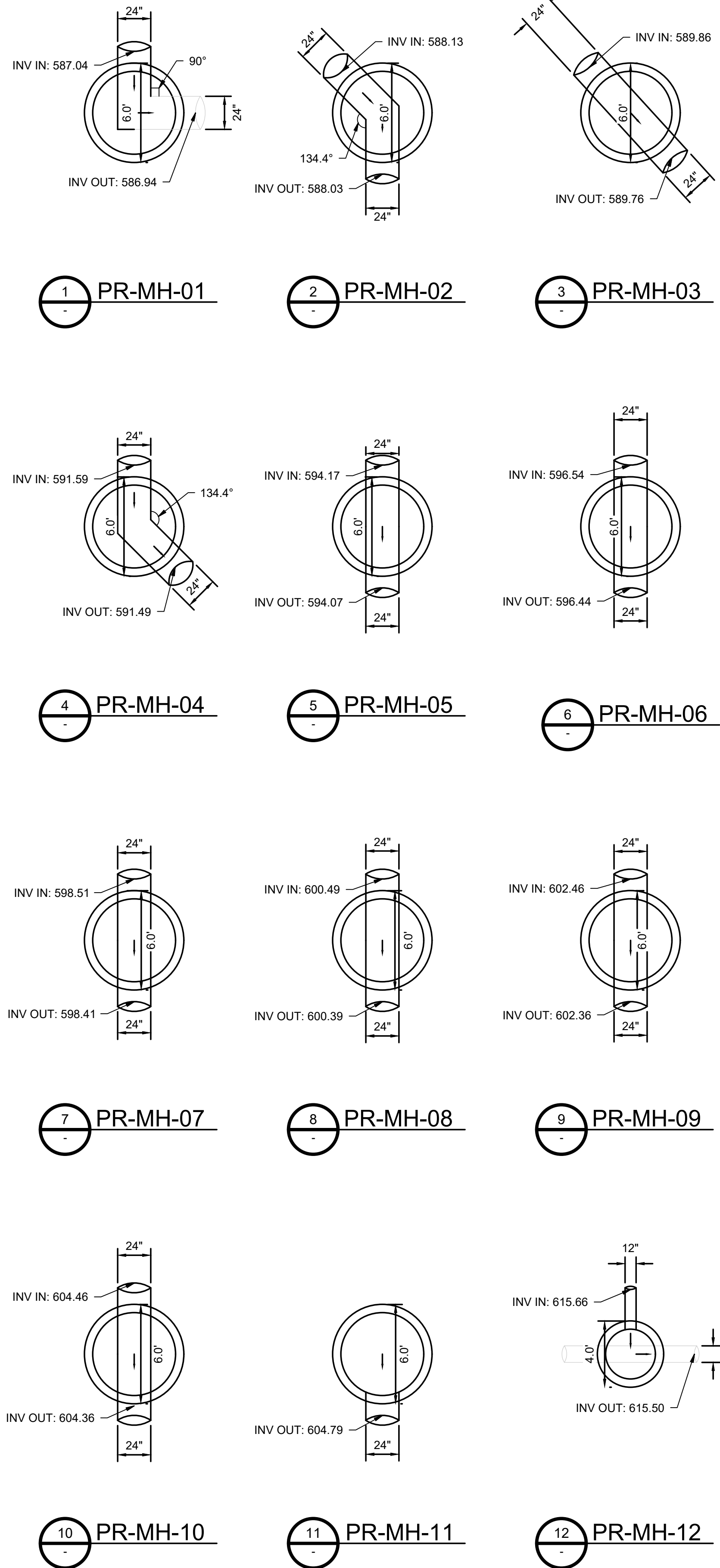
SS11

No.	REVISIONS	DATE	BY

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119
PHONE: 918-580-8888 FIRM NO. 2740. EXP. JUNE 30, 2027
WWW.KIMLEY-HORN.COM

Plotted By: Burt, Hayden Date: April 16, 2026 03:00:19pm File Path: C:\ACCC\ACCCDocs\Kimley-Horn\060057900_Cyl\Project Files\00_Civil\SPS\07_IDP_City of Tulsa_IDP\03_Production-DWG\CYL-1A-IDP - SSMR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

STATE PLANE COORDINATES	
STRUCTURE NAME:	NORTHING & EASTING
PR-MH-01	N: 466731.3877 E: 2586367.8670
PR-MH-02	N: 466929.0509 E: 2586363.6871
PR-MH-03	N: 467152.5125 E: 2586125.5084
PR-MH-04	N: 467375.5380 E: 258887.7946
PR-MH-05	N: 467870.5239 E: 2585877.0945
PR-MH-06	N: 468324.1126 E: 2585867.2892
PR-MH-07	N: 468699.0250 E: 2585859.1847
PR-MH-08	N: 469073.9374 E: 2585851.0802
PR-MH-09	N: 469073.9374 E: 2585842.9757
PR-MH-10	N: 469827.8610 E: 2585834.7826
PR-MH-11	N: 469895.3753 E: 2585833.3231
PR-MH-12	N: 466907.05 E: 2585283.40
EX-MH-102-0485	N: 466732.28 E: 2586358.68
EX-MH-102-0486	N: 466929.05 E: 2586353.21



PIPE DEFLECTION CALCULATIONS:

Pipe Diameter = 24"
 SDR = 26
 Maximum Depth = 26'
 - 25.5' of native soil
 - 0.5' of crushed rock
 E' (Modulus of Soil Reaction):
 - E' = 400 PSI (Fine-Grained Soils (LL < 50)); Soils with medium to no plasticity, CL, ML, ML - CL, with less than 25% coarse-grained particles) & (Moderate, 85% - 95% & Procter, 40% - 70%)
 - E' = 3000 PSI (Crushed Rock) & (Moderate, 85% - 95% & Procter, 40% - 70%)
 - E' = (((400 PSI) * (25.5')) + ((3000 PSI) * (0.5'))) / ((25.5') + (0.5')) = 450 PSI (Weighted Average)
 Deflection Lag Factor (DL) = 1
 Live Load (W) = N/A (No Traffic)
 Pipe Stiffness (PS) = 115 PSI
 Bedding Factor (K) = 0.1
 Unit Weight of Soil = 0.65973 PSI
 Vertical Soil Pressure (P) = 17.153 PSI

 Deflection % = (((DL) * (K) * (P)) + ((K) * (W))) * 100 / (((0.149) * (PS)) + ((0.061) * (E')))

Deflection = 3.85%



APPROVED FOR IDP PERMIT ONLY

Michael Ling, PE _____ Date
 Infrastructure Development Manager
 City of Tulsa

KHA PROJECT		CLYDESDALE	
DATE	APRIL 2026	SCALE	AS SHOWN
DESIGNED BY	DR	DRAWN BY	DB
CHECKED BY	DR		

PROJECT
CLYDESDALE

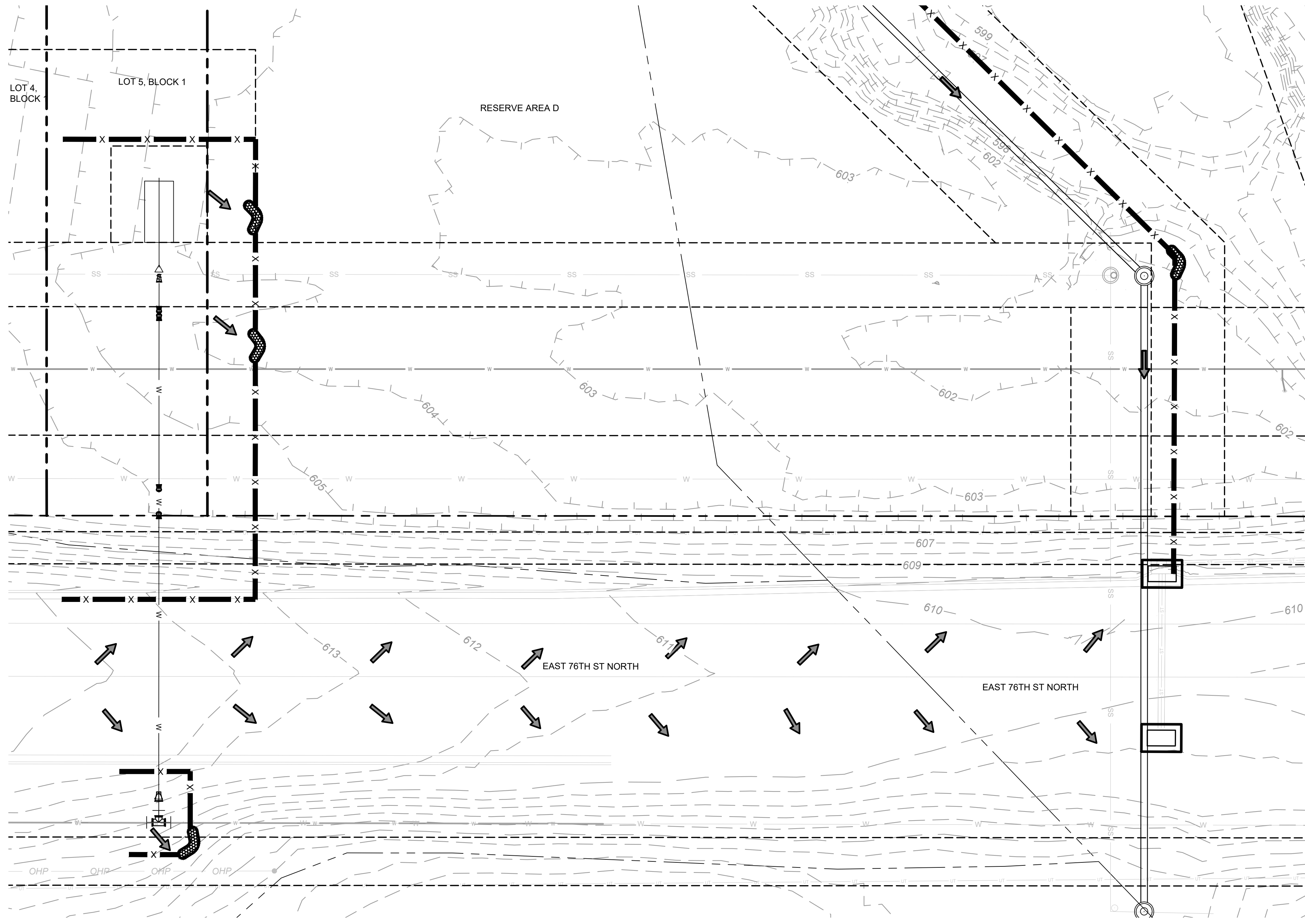
SSWR-IDP
TABLE OF STATE
PLANE COORDINATES

SHEET NUMBER
SS12

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE. SUITE 900 TULSA, OK 74119
 PHONE: 918-380-8888 FIRM NO. 2740 EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM

NO.	REVISIONS	DATE	BY

Plotted By: Burt, Hayden Date: April 16, 2026 03:00:24pm File Path: C:\ACCC\ACCDocs\Kimley-Horn\Horn\060057900_CVL\Project Files\00_Civil\SPS\07_City of Tulsa IDP\03_Production-DWG\SSW\CYL-1A-IDP - SSWR.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

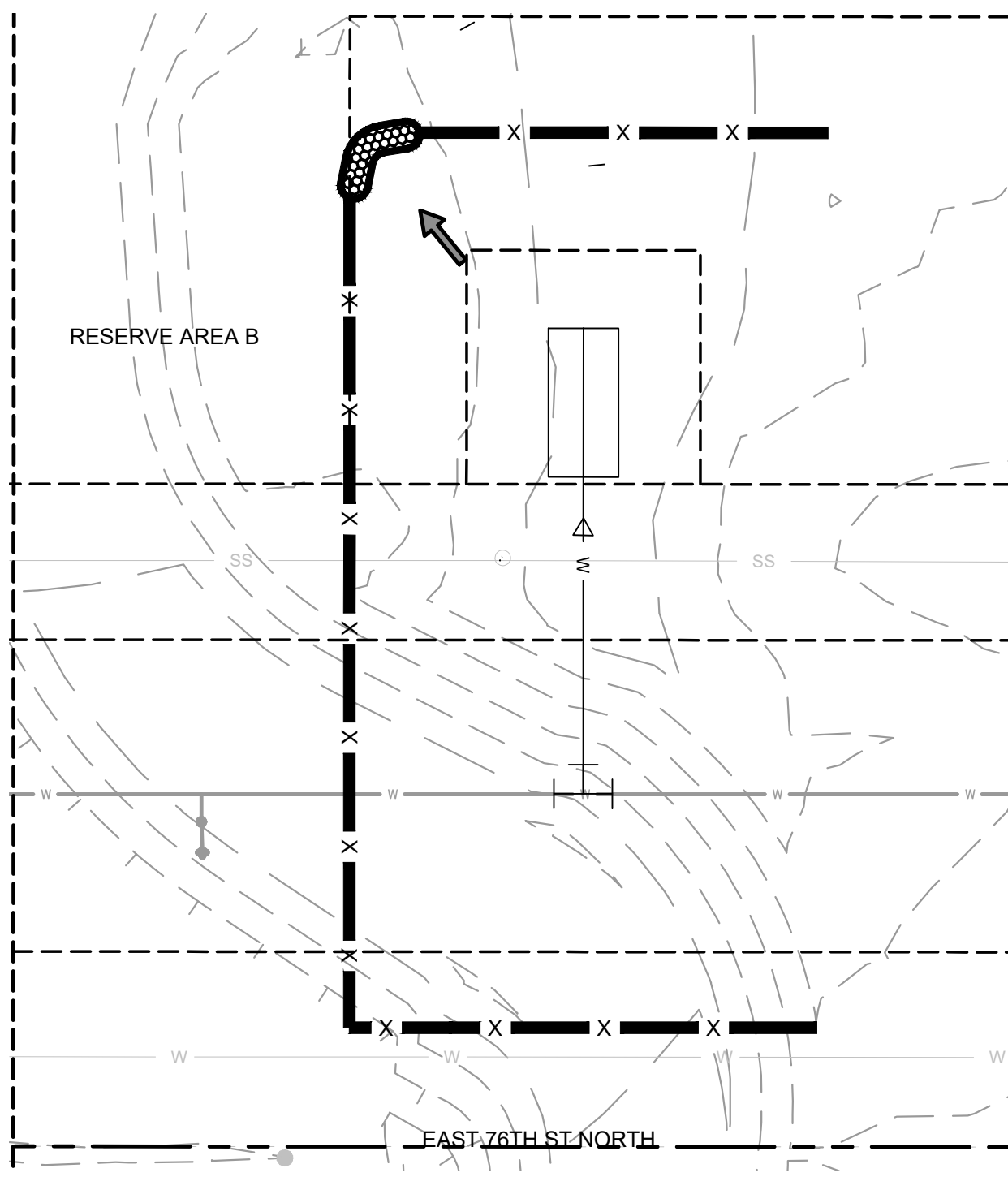


1 DWTR-IDP-2 EROSION CONTROL
SCALE 1:20

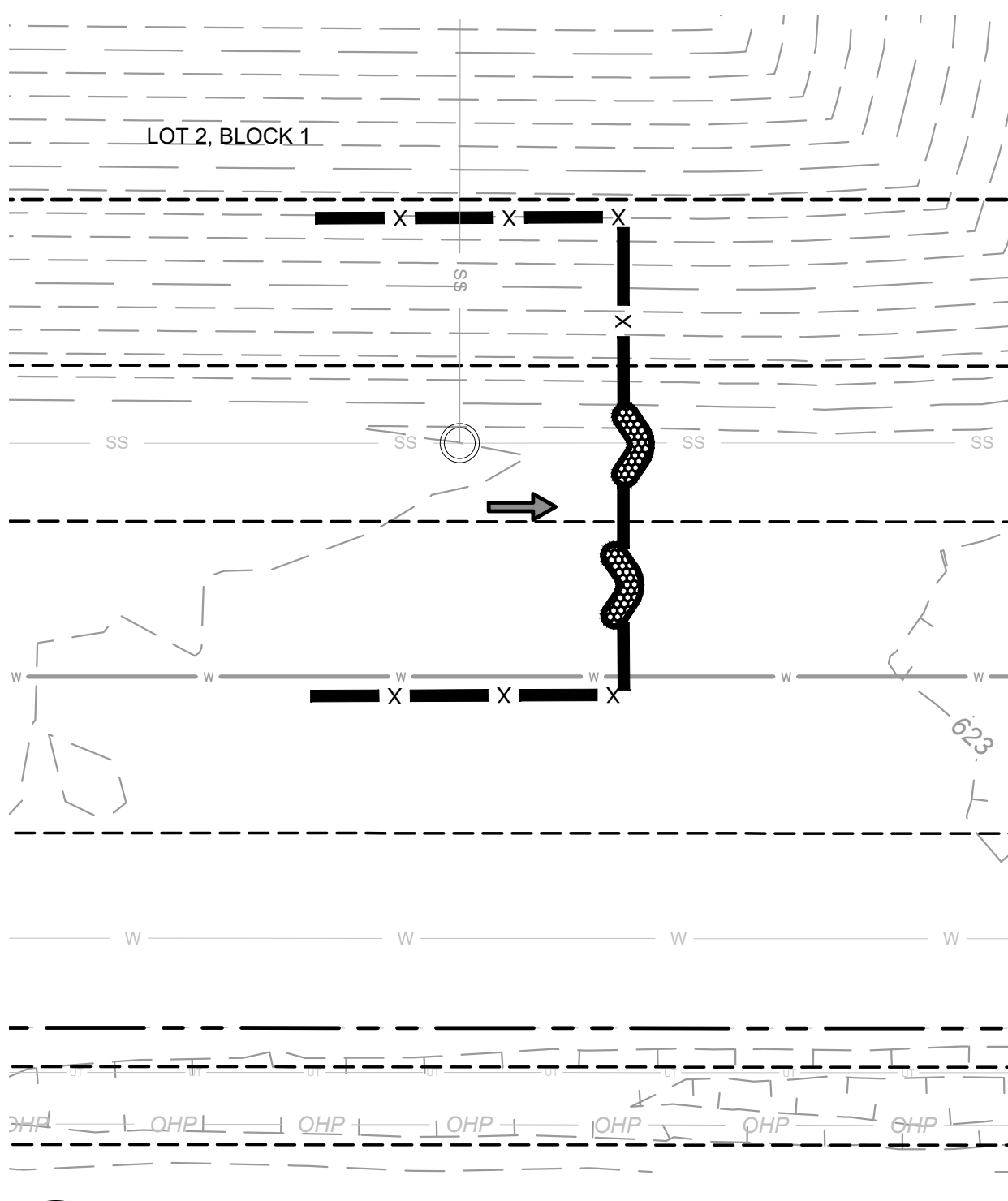
LEGEND

	EXISTING CONTOUR
	DIRECTION OF FLOW
	FILTER BARRIER (SILT FENCE)
	CURB INLET PROTECTION
	ROCK DAM

- EROSION CONTROL NOTES:**
1. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED PER TULSA COUNTY REGULATIONS.
 2. EROSION CONTROL MEASURES FOR THE SANITARY SEWER EXTENSION IS SHOWN ON THE SANITARY SEWER PLAN SHEETS.



2 DWTR-IDP-1 EROSION CONTROL
SCALE 1:20



3 SSWR-IDP PROPOSED MANHOLE EROSION CONTROL
SCALE 1:20



No.	REVISIONS	DATE	BY

Kimley-Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
 1437 SOUTH BOULDER AVE., SUITE 900 TULSA, OK 74119
 PHONE: 918-380-8888 FIRM NO. 2740 EXP. JUNE 30, 2027
 WWW.KIMLEY-HORN.COM

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

Kimley-Horn

Engineer: _____
 P.E. No.: _____

KHA PROJECT	CLYDESDALE
DATE	APRIL 2026
SCALE	AS SHOWN
DESIGNED BY:	DR
DRAWN BY:	DB
CHECKED BY:	DR

PROJECT
CLYDESDALE

EROSION CONTROL PLAN

SHEET NUMBER
EC01