CONSTRUCTION PLANS FOR

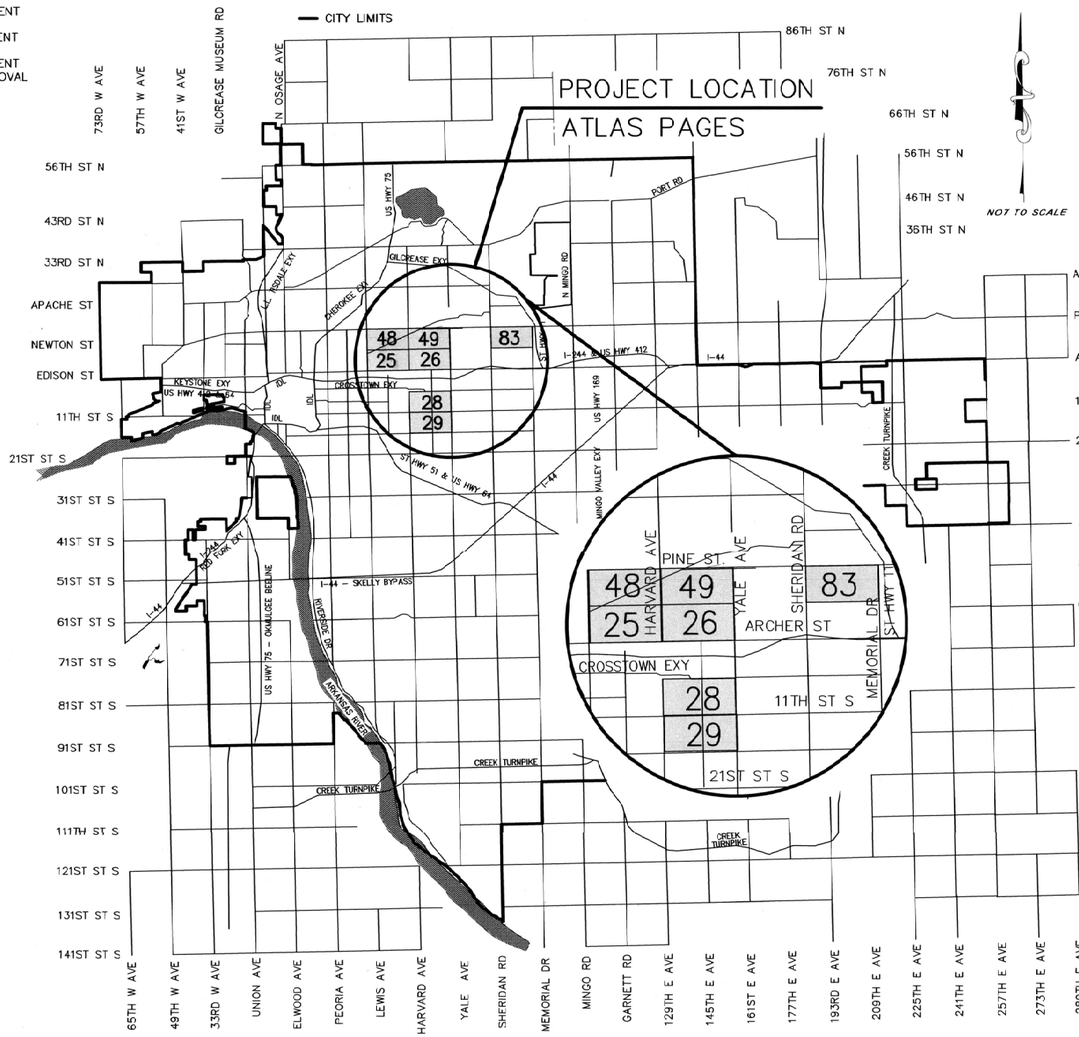
COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

TMUA PROJECT NO. ES 2025-09

WATER AND SEWER DEPARTMENT CITY OF TULSA, OKLAHOMA

LEGEND

8"	PROPOSED SEWER LINE
T	EXISTING TELEPHONE
TEL. MH	EXISTING TELEPHONE MANHOLE
TCB	EXISTING TELEPHONE CONTROL BOX
CABLE PED.	EXISTING CABLE PEDESTAL
GM	EXISTING GAS METER
GV	EXISTING GAS VALVE
G	EXISTING GAS LINE
EX. 8" SS	EXISTING SEWER LINE
SSMH	EXISTING SS MANHOLE
	EXISTING MANHOLE REMOVAL
WV	EXISTING WATER VALVE
ICV	EXISTING IRRIGATION CONTROL VALVE
FH	EXISTING FIRE HYDRANT
WM	EXISTING WATER METER
8" W	EXISTING WATER
SDMH	EXISTING STORM MANHOLE
24" RCP	EXISTING STORM LINE
CHAIN LINK FENCE	CHAIN LINK FENCE
WIRE FENCE	WIRE FENCE
FENCE OTHER	FENCE OTHER
WOOD FENCE	WOOD FENCE
ELEC. PED.	EXISTING ELECTRICAL PEDESTAL
FO	EXISTING FIBER OPTIC LINE
	EXISTING EASEMENT LINE
EM	EXISTING ELECTRIC METER
ØPP	EXISTING POWER POLE
ELEC. MH	EXISTING ELECTRIC MANHOLE
LP	EXISTING LIGHT POLE
FL	EXISTING LIGHT (FLOOD, YARD ETC.)
E	EXISTING UNDERGROUND ELECTRIC CABLE
OE	EXISTING OVERHEAD ELECTRIC WIRE
	ASPHALT
	CONCRETE PATTERN
SIGN	STREET SIGN
MB	MAILBOX
½" PIPE	IRON ROD/PIPE FOUND
BUSH, 8" PECAN	TREE OR BUSH
BM	BENCHMARK
CP	CONTROL POINT
SSMH	PROPOSED NEW MANHOLE
SSMH	REMOVE AND REPLACE MANHOLE
	ROW LINE
	PROPERTY LINE
	CONCRETE PAVEMENT REMOVAL & REPLACEMENT
	ASPHALT PAVEMENT REMOVAL & REPLACEMENT
	CONCRETE SIDEWALK REMOVAL & REPLACEMENT
	GRAVEL DRIVEWAY REMOVAL & REPLACEMENT
	LIMITS OF FLOOD ZONE BOUNDARY



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CITY OF TULSA

APPROVED BY

WATER AND SEWER DIRECTOR

6-13-2025
DATE

LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

JACOB BRUMBAUGH, P.E.
RJN GROUP, INC.

6-6-25
DATE

PREPARED BY
rjngroup
CONSULTING ENGINEERS
4500 S. GARNETT ROAD, SUITE 110
TULSA, OKLAHOMA 74146
(918) 627-9737

CERTIFICATE OF AUTHORIZATION NO. CA1979, EXP. 6/30/2025

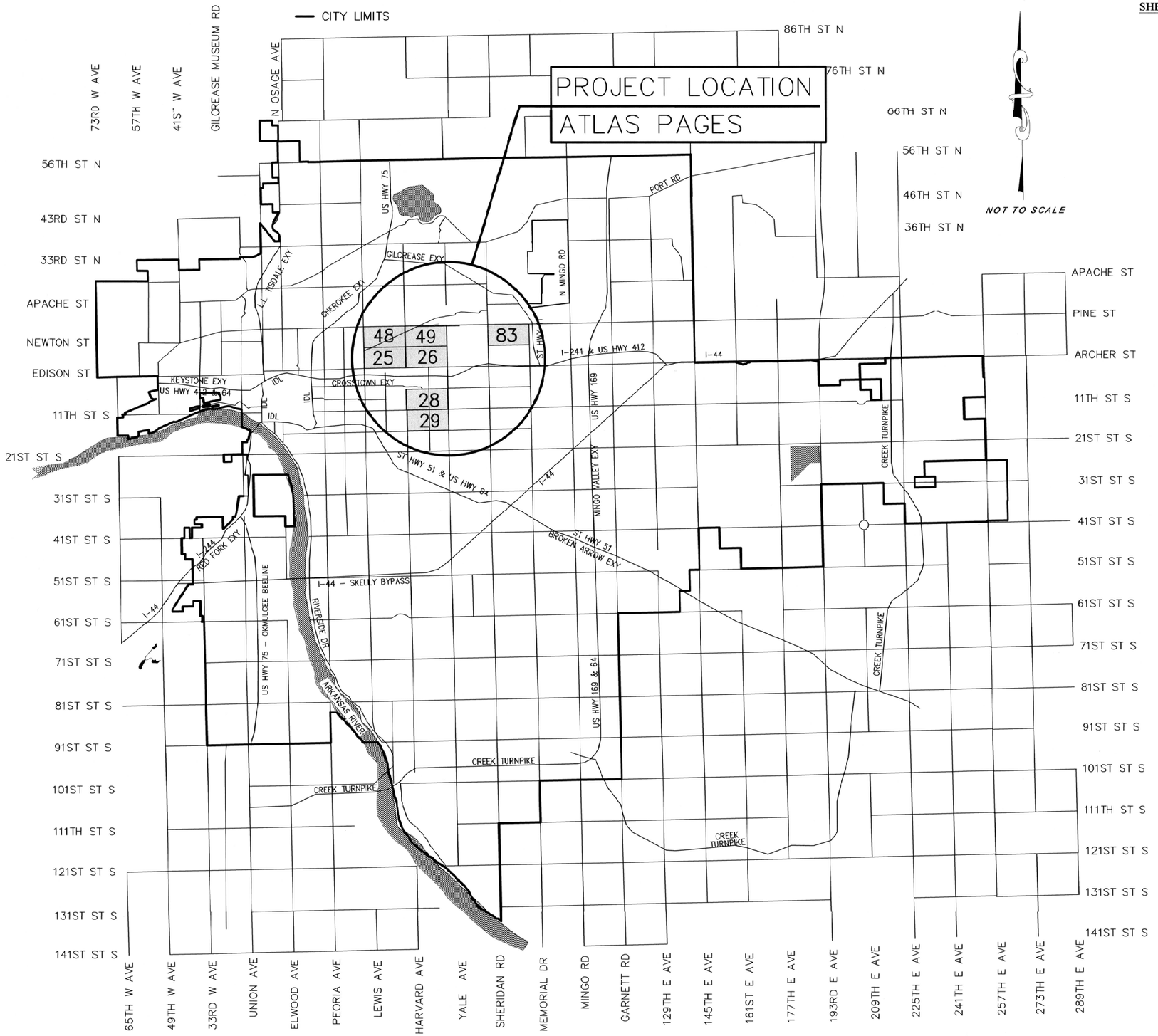
OKIE811 Know what's below 811 before you dig.

UTILITY COORDINATION INFORMATION

TULSA ENGINEERING SERVICES DEPARTMENT	
WATER DESIGN	918-596-9566
WASTEWATER DESIGN	918-596-9564
TRANSPORTATION DESIGN	918-596-9636
TRAFFIC ENGINEERING DESIGN	918-596-9741
STORMWATER DESIGN	918-596-9498
COT UTILITY COORDINATION	918-596-9245
OKLAHOMA NATURAL GAS CO.	800-664-5463
COX COMMUNICATIONS	918-806-6000
AEP/PSO	888-216-3523
AT&T	800-288-2020
MTTA	830-0024
VERIZON	888-294-6804
WINDSTREAM	800-347-1999

SURVEY DATUM:
HORIZONTAL - OKLAHOMA STATE PLANE COORDINATE (NAD 1983)
VERTICAL - (NAVD 1988)

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT - TMUA PROJECT ES 2025-09



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6-6-25

LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

LOCATION MAP & SHEET INDEX

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	6/2025	
VERTICAL	LEAD ENGR.	CC	6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO:				SHEET 2 OF 59 SHEETS

GENERAL NOTES

1. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SAFETY PLAN TO THE CITY OF TULSA FIELD ENGINEERING DEPARTMENT PRIOR TO COMMENCEMENT OF WORK. THE SAFETY PLAN SHALL ADDRESS, BUT NOT BE LIMITED TO ISSUES SUCH AS TRAFFIC CONTROL, WORK SITE SAFETY, MANHOLE VENTILATION, WORK EQUIPMENT, FIRST AID, HYGIENE, AND OTHER RELATED TOPICS. THE CONTRACTOR SHALL BE EXPECTED TO PERFORM THE WORK IN A MANNER THAT BEST PROTECTS THE SAFETY OF WORKERS, INSPECTORS, BYSTANDERS, AND OTHERS WHO MAY BE IN THE VICINITY OF THE PROJECT. FAILURE TO PERFORM THE WORK AND MAINTAIN THE SITE IN A SAFE MANNER, IN THE OPINION OF THE ENGINEER OR OWNER, SHALL BE SUFFICIENT CAUSE TO STOP ALL WORK UNTIL SAFETY PROBLEMS ARE CORRECTED.
2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE CITY OF TULSA AND ODOT ENGINEERING STANDARDS AND SPECIFICATIONS AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THIS CONTRACT.
3. THE CONTRACTOR SHALL HAVE ONE (1) EXECUTED COPY OF THE CONTRACT DOCUMENTS AT THE JOB SITE AT ALL TIMES.
4. THE CONTRACTOR SHALL, IN COOPERATION WITH THE CITY, DEVELOP AND SUBMIT FOR APPROVAL A TRAFFIC CONTROL PLAN (TCP), TO THE CITY OF TULSA PUBLIC WORKS, FIELD ENGINEERING. THIS TCP SHALL DETAIL SUCH MEASURES AS MAY BE REQUIRED TO ESTABLISH, INSTALL, MAINTAIN, AND OPERATE A COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROL SYSTEM DURING THE ENTIRE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL PLACE TRAFFIC CONTROL FLAGMEN, BARRICADES, SIGNS, SIGNALS, OR OTHER DEVICES AS MAY BE REQUIRED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION, PERMITTING, AND EXECUTION OF A STORMWATER POLLUTION PREVENTION PLAN (SWP3). THE CONTRACTOR SHALL PROVIDE ALL DOCUMENTATION REQUIRED OF SWP3 FOR REVIEW AND APPROVAL OF THE PLAN BY FEDERAL, STATE, AND LOCAL AUTHORITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, THE NOTICE OF INTENT AND THE NOTICE OF TERMINATION.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY ORANGE SAFETY FENCING AROUND ALL EXCAVATION, INCLUDING TRENCHES, PITS, VAULTS, ETC. TO MAINTAIN SECURITY AND SAFETY FOR ANIMALS, CHILDREN OR ANY BYSTANDER. THE COST OF ORANGE SAFETY FENCING SHALL BE INCLUDED IN OTHER PAY ITEMS.
7. ALL EXCAVATED MATERIAL REMOVED DURING TRENCHING OR EXCAVATION SHALL BE DISPOSED OF AT A SITE APPROVED BY THE OWNER. PRIOR TO TRENCHING AND EXCAVATION, THE CONTRACTOR SHALL SUBMIT THE PROPOSED DISPOSAL SITE TO THE ENGINEER FOR HIS REVIEW. STOCKPILING EXCAVATED MATERIALS IN STREET OR ALLEY RIGHT-OF-WAY MAY BE ALLOWED UPON APPROVAL BY THE ENGINEER. MAINTENANCE OF STOCKPILE SITE IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR MUST MAINTAIN STOCKPILE SITES IN A SAFE, POLLUTION FREE CONDITION THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL NOT STOCKPILE MATERIAL OR STORE ANY EQUIPMENT OVERNIGHT IN THE TULSA REGULATORY FLOODPLAIN.
8. BACKFILL UNDER ALL PAVED SURFACES SHALL BE TYPE "A" AGGREGATE BASE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED BY A VIBRATORY HAND TAMPER TO 95% OF THE STANDARD PROCTOR DENSITY, AS MEASURED BY THE NUCLEAR DENSITY METHOD.
9. THE CONTRACTOR SHALL PROVIDE A DETAILED ACCESS PLAN FOR THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS, CONSTRUCTION ACTIVITIES, AND PERMITS THAT MAY BE NEEDED FOR THE IMPLEMENTATION OF THIS PLAN.
10. CONTRACTOR MUST NOTIFY THE HOMEOWNER A MINIMUM OF 48 HOURS (SPECIFICATION 400) PRIOR TO BEGINNING ANY REHAB WORK OR CONSTRUCTION ON HOMEOWNER'S PROPERTY.
11. IN ALL AREAS WHERE EXCAVATION WILL OCCUR, CONTRACTOR SHALL VIDEO ALL CONCRETE PAVEMENT, BUILDINGS, FOUNDATIONS, LANDSCAPING, LAWNS AND TREES PRIOR TO CONSTRUCTION AND SUBMIT TO THE ENGINEER FOR PROJECT RECORDS.
12. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ANY EXISTING STORAGE SHEDS, LOCATED WITHIN THE CONSTRUCTION AREA, THAT ARE DAMAGED DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE CITY OF TULSA OR THE HOMEOWNER.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF THE LOCATION OF ALL EXISTING SANITARY SEWER SERVICE LATERALS IN THE PROJECT AREA. IF ENCOUNTERED OR DAMAGED DURING CONSTRUCTION, EXISTING SERVICE LATERALS SHALL BE REMOVED AND REPLACED USING PIPE OF THE SAME SIZE AND MATERIAL AS THE EXISTING SEWER AT THE CONTRACTORS EXPENSE.
14. ALL DAMAGED PAVEMENT OUTSIDE OF THE TRENCH PAY LINE SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.
15. ALL PAVEMENT REMOVAL SHALL BE SAW CUT AT THE NEAT LINES AS INDICATED IN THE SPECIFICATIONS AND STANDARD DETAILS. SAW CUTS REQUIRED FOR REMOVAL AND REPLACEMENT ITEMS SHALL BE FULL DEPTH OF THE EXISTING PAVEMENT. SAW CUTS SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS.
16. ALL CONCRETE PAVEMENTS, FLEXIBLE PAVEMENTS, CURB AND GUTTER, AND UNPAVED SURFACES SHALL BE FINISHED TO MATCH EXISTING SURROUNDING SURFACES.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING, NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.
19. CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS DAMAGED DURING THE COURSE OF CONSTRUCTION, PAYMENT SHALL BE INCLUDED IN RIGHT-OF-WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENTS SHALL BE MADE.
20. ALL SANITARY SEWER AND STORM SEWER MANHOLE CASTING AND LIDS THAT ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW ONES, AND THE OLD CASTINGS AND LIDS SHALL BE DELIVERED TO THE SEWER BASE AT 9319 E. 42nd STREET N. AND PLACED IN THE METAL RECYCLE BIN IN THE STOCKROOM AREA 918-669-6130, BETWEEN THE HOURS OF 7:30 AM AND 3:00 PM MONDAY THROUGH FRIDAY.
21. NO FILL, SPOIL, BEDDING MATERIAL OR EQUIPMENT MAY BE STORED OVERNIGHT WITHIN THE FLOOD PLAIN LIMITS.
22. ALL SANITARY SEWER MANHOLES LOCATED IN THE FLOODPLAIN SHALL BE BUILT IN ACCORDANCE WITH THE FLOODPLAIN MANHOLE SPECIFICATION WITH PADDLE - LOCK LID.

MANHOLE REHABILITATION NOTES

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

PIPELINE REHABILITATION NOTES

1. POST REHABILITATION TELEVISION INSPECTION OF LINES INSTALLED BY TRENCHLESS METHODS SHALL BE PERFORMED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE COST OF OTHER PAY ITEMS.
2. POINT REPAIR LOCATIONS ARE APPROXIMATE AND SHALL BE DETERMINED BY THE CONTRACTOR'S PRE-TELEVISION INSPECTION.
3. QUANTITIES SHOWN IN THE SUMMARY TABLE ARE AN ESTIMATE OF QUANTITIES FOR THE WORK SHOWN AND DO NOT REFLECT FINAL WORK ITEM QUANTITIES NECESSARY TO REHABILITATE PIPELINE SEGMENTS.
4. POINT REPAIR(S) SHALL BE PERFORMED USING LIKE PIPE ACCORDING TO CITY OF TULSA CONSTRUCTION SPECIFICATION SECTION 412.2.1. (I.E. EXISTING VCP WILL BE REPAIRED USING VCP, EXISTING PVC WILL BE REPAIRED USING PVC, AND EXISTING DIP WILL BE REPAIRED USING DIP). IF AN OBSTRUCTION IS ENCOUNTERED DURING CLEANING AND TELEVISION INSPECTION PRIOR TO OR DURING THE INSERTION OF THE NEW LINE THROUGH THE HOST PIPE, THE CONTRACTOR HAS THE OPTION OF USING VCP OR PVC TO REPAIR THE HOST PIPE AT THE LOCATION OF THE OBSTRUCTION. IN ALL CASES, CONCRETE PIPE SHALL BE REPLACED WITH PVC.
5. PIPELINE REHABILITATION PLANS ARE FOR REFERENCE ONLY AND DO NOT DEPICT ALL OF THE EXISTING UTILITIES.
6. PIPE EMBEDMENT WILL BE AS SHOWN IN CITY OF TULSA STANDARD DETAILS EXCEPT WHERE SPECIFICALLY NOTED ON THE PLANS.
7. CONTRACTOR SHALL SUBMIT A PROFESSIONALLY ENGINEERED TRENCH EXCAVATION SAFETY PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET OF DEPTH. (NO SEPARATE PAYMENT)
8. WHERE THERE IS DISCREPANCY BETWEEN THE PIPELINE LENGTHS TAKEN FROM ACTUAL FIELD MEASUREMENTS AND THOSE SHOWN ON THE PLANS, THE FIELD MEASUREMENTS SHALL GOVERN.
9. CONTRACTOR SHALL SUPPLY WITH HIS MONTHLY PAY REQUEST, A LIST SHOWING ALL SEWER LINES REPAIRED, THE ADDRESS OF ANY SERVICE LINES THAT ARE RECONNECTED, AND THE FOOTAGE OF THE RECONNECTION FROM THE NEAREST DOWNSTREAM MANHOLE.
10. THE TERM "PIPE BURSTING" THAT IS USED THROUGHOUT THE CONSTRUCTION DRAWINGS IS INTENDED TO INCLUDE OTHER SIMILAR TRENCHLESS PIPE REPLACEMENT METHODS, SUCH AS PIPE REAMING AND PIPE CRUSHING. IT DOES NOT INCLUDE SLIPLINING OR INSTALLATION OF CURED-IN-PLACE PIPE.
11. CONTRACTOR MUST EXERCISE DILIGENCE WHEN WORKING AROUND TREES. HOWEVER, IF DAMAGE OCCURS TO TREES LOCATED WITHIN AN EASEMENT CONTRACTOR SHALL NOT BE RESPONSIBLE.

TRAFFIC CONTROL

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

POLICE	918-596-9222
FIRE	918-596-9977
COT TRAFFIC	918-596-9744
EMSA	918-596-3043
MTTA	918-585-1195

3. REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.
4. IF WARNING LIGHTS TO BE USED ON TRAFFIC CONTROL DEVICES, TYPE "A" LIGHTS SHALL ONLY BE USED ON DEVICES WARNING OF UNEXPECTED HAZARDS, AND SHALL NOT BE USED FOR DELINEATION OF THE TRAVELED WAY. ONLY TYPE "C" WARNING LIGHTS SHALL BE USED FOR DELINEATION OF THE TRAVELED WA, AND TYPE "C" LIGHTS SHALL NOT BE USED FOR ANY OTHER PURPOSE.
5. THE CONTRACTOR SHALL NOTIFY TRAFFIC OPERATIONS 48 HOURS PRIOR TO STARTING WORK OR PRIOR TO REMOVING OR RELOCATING ANY TRAFFIC SIGNS. ALL SIGNS SHALL BE HANDLED SO AS TO AVOID ANY DAMAGE TO THE SIGN OR POST. ALL SIGNS REMOVED DUE TO CONSTRUCTION SHALL BE REINSTALLED BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL CONSTRUCTION SIGNAGE AND BARRICADING, INCLUDING, BUT NOT LIMITED TO, WASHING, REPLACEMENT, REPOSITIONING OF DEVICES. WHEN AND WHERE IT IS DEEMED NECESSARY BY THE CITY OR THE ENGINEER, THE CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL TRAFFIC CONTROL DEVICES.
7. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH THE PROJECT AREA AT ALL TIMES. LOCAL TRAFFIC TO ALL PUBLIC AND PRIVATE STREETS SHALL BE ACCESSIBLE FROM ANY DETOURS DURING THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES.
8. ROADSIDE HAZARDS SHALL BE COMPLETELY BARRICADED AROUND THEIR PERIMETER FOR SAFETY OF PEDESTRIANS AND VEHICLES. NO BARRICADES SHALL BE PLACED UNTIL ALL ADVANCED SIGNING IS IN PLACE.
9. ALL CHANNELING DEVICES, TYPE III BARRICADES, ETC., SHALL BE WEIGHTED DOWN WITH A NON-HAZARDOUS MATERIAL WHEN NECESSARY OR WHEN DIRECTED BY THE CITY OR THE ENGINEER.
10. ALL ADVANCE WARNING SIGNS SHALL BE PROVIDED WITH TYPE "A" WARNING LIGHTS.
11. ALL TYPE III BARRICADES SHALL BE FURNISHED WITH A MINIMUM OF TWO (2) TYPE "A" WARNING LIGHTS.
12. ALL CHANNELING DEVICES SHALL BE PROVIDED WITH TYPE "C" WARNING LIGHTS.

UTILITIES

1. THE LOCATIONS OF THE UTILITY LINES, AS SHOWN ON THESE DRAWINGS, ARE BASED ON ATLAS INFORMATION, UTILITY COMPANY COMMENTS, AND OBSERVED FEATURES. NEITHER THE CITY NOR THE ENGINEER ASSUMES OR IMPLIES ANY RESPONSIBILITY FOR THE ACCURACY OF THIS DATA. SERVICE LINES FROM THE MAIN UTILITY LINES TO ANY BUILDING OR FACILITY MAY NOT BE SHOWN. CONTRACTOR SHALL OBTAIN THE LOCATION OF THESE FROM THE UTILITY COMPANY AND SHALL BE HELD RESPONSIBLE FOR ANY DAMAGES TO THESE LINES OR ANY OTHER LINES OR UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT.
2. THE CONTRACTOR SHALL GIVE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC., A MINIMUM OF TWO (2) WORKING DAYS AND A MAXIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK IN ANY AREA. **PHONE: 1-800-522-6543.**
3. PRIOR TO EXCAVATING, THE CONTRACTOR IS RESPONSIBLE FOR BRACING AND SUPPORTING ANY POWER POLE OR GUY WIRE WITHIN 5 FEET OF EXCAVATION TO THE SATISFACTION OF THE OWNER AND THE UTILITY COMPANY. NO ADDITIONAL COST TO THE OWNER. IF REQUIRED, CONTRACTOR SHALL CONTACT CITY OF TULSA UTILITY COORDINATION FOR ASSISTANCE.

PLAN & PROFILE SHEET NOTES

1. CONTRACTOR MUST FIELD VERIFY ALL DEPTHS, DISTANCE ANGLES, AND GRADES OF EXISTING SANITARY SEWER PRIOR TO START OF CONSTRUCTION. (NO SEPARATE PAY ITEM).
2. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, SUPPORTING, AND PROTECTING THE INTEGRITY OF UNDERGROUND UTILITIES AND POWER POLES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL EXCAVATE ALL BURIED UTILITY CROSSINGS AHEAD OF PIPE LAYING OR THE INSTALLATION OF SHEETING OR SHORING TO AVOID UTILITY CONFLICTS. ALL COSTS ASSOCIATED WITH THIS WORK IS CONSIDERED INCIDENTAL. IF DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE UTILITY.
4. IF DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING, STRUCTURES, ETC. TO ITS ORIGINAL OR BETTER CONDITION. NO SEPARATE PAY ITEM IF LOCATED OUTSIDE OF STANDARD CONSTRUCTION PAY LIMITS.
5. TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS OF PART 1926, SUBPART P-EXCAVATION, TRENCHING, AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS AND INTERPRETATIONS.
6. CONTRACTOR SHALL VERIFY AND REINSTATE ALL ACTIVE SERVICE CONNECTIONS.
7. CONTRACTOR SHALL REPLACE ALL SERVICES TO WITHIN 2' OF THE EASEMENT LINE OR RIGHT-OF-WAY LINE.
8. DISTANCE FROM DOWNSTREAM MANHOLE TO SERVICE CONNECTION IS APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY PRIOR TO CONSTRUCTION.
9. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE RESIDENCES AT ALL TIMES.
10. WHEN REHABILITATING OR REPLACING MANHOLES, CONTRACTOR SHALL MATCH GRADE OF EXISTING OR FINISHED CONDITIONS.
11. FOR ABANDONMENT, REMOVE TOP 3 VF OF EXISTING MANHOLE/LAMPHOLE AND FILL EXISTING SANITARY SEWER AND MANHOLE/LAMPHOLE WITH CELLULAR CONCRETE OR FLOWABLE FILL. ABANDONMENT SHALL BE PERFORMED AFTER CONSTRUCTION OF ALL NEW SEWER MAINS AS PER CITY OF TULSA SPECIFICATION 333.
12. CONTRACTOR SHALL TELEVISE ANY SANITARY SEWER LINES CALLED OUT FOR ABANDONMENT TO DETERMINE LOCATION OF ACTIVE SERVICES. ANY ACTIVE SERVICES ON AN ABANDONED LINE SHALL BE RECONNECTED TO AN EXISTING OR PROPOSED SEWER MAIN IN THE IMMEDIATE VICINITY. ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF THERE IS NO SEWER MAIN IN THE VICINITY TO CONNECT THE SERVICE.

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

GENERAL CONSTRUCTION NOTES

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:
PROFILE SCALE:
HORIZONTAL:
VERTICAL

DRAWN	RLP	06/2025
DESIGNED	JWB	06/2025
SURVEY		
PROJ. MGR.	CC	06/2025
LEAD ENGR.		6/25
FIELD MGR.		

APPROVED:
DESIGN MANAGER

FILE: DRAWING: DATE: June 2025
ATLAS PAGE NO: SHEET 3 OF 59 SHEETS

ESTIMATED CONSTRUCTION QUANTITIES

PAY ITEM	SPEC. NO.	DESCRIPTION	PAY ITEM NOTE NOS.	UNIT	TOTAL
		BASE BID			
1	301, SP-10	RIGHT-OF-WAY CLEARING AND RESTORING		SY	3,940
2	302	EXCAVATION AND BACKFILL, UNCLASSIFIED	2	CY	1,490
3	307	6-INCH DIA. DIP CLASS 51, POLYETHYLENE WRAPPED (RJ)	32,33,34,35,36,37,28	LF	16
4	309	INSTALL 7-INCH DIA. SEWER PIPE OPEN CUT, DR-21 IPS HDPE	1,4,5,6,7,9	LF	22
5	312	6-INCH DIA. DUCTILE IRON 45 DEGREE BEND (RJ)	33,34,36	EA	4
6	313, SP-2	INSTALL 8-INCH DIA. SEWER PIPE OPEN CUT, ASTM D3034 SDR 26 PVC	1,4,5,6,7,9	LF	1,668
7	313, SP-2	INSTALL 8-INCH DIA. SEWER PIPE IN STEEL CASING, ASTM D3034 SDR 26 PVC	1,4,5,6,7,9	LF	81
8	314	CONSTRUCT STD. 4-FOOT DIA. MANHOLE (0-6-FOOT DEPTH)	1,6,15,28,29	EA	3
9	314	MANHOLE DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. MANHOLE	1,6,15,28,29	VF	9.7
10	314	CONSTRUCT STD. 4-FOOT DIA. DROP MANHOLE (0-6-FOOT DEPTH)	1,6,15,28,29	EA	2
11	314	MANHOLE DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. DROP MANHOLE	1,6,15,28,29	VF	8.8
12	314	CONSTRUCT SHALLOW MANHOLE, 5-FOOT DIA., CITY OF TULSA STD. DETAIL 406	1,6,15,28,29	EA	2
13	315	CONNECT TO EXISTING WATER LINE		EA	2
14	317	RELOCATE FIRE HYDRANT		EA	1
15	319	CONCRETE ENCASEMENT		CY	18
16	319	INSTALL FLOWABLE FILL	25	CY	11
17	322	24-INCH DIA. BORED STEEL CASING	30	LF	81
18	333, SP-1	ABANDON EXISTING SANITARY SEWER MANHOLE	21,22	EA	1
19	333, SP-1	ABANDON 8-INCH DIA. SANITARY SEWER PIPE	21,22	LF	1,453
20	333, SP-1	CUT AND PLUG EXISTING SEWER LINE	21,22	EA	2
21	334	CONSTRUCTION AS-BUILT		LS	1
22	335	CONTRACTOR'S QUALITY CONTROL		LS	1
23	400	MOBILIZATION		EA	1
24	400	PHOTOGRAPHIC DOCUMENTATION		EA	1
25	402	SOD REPLACEMENT		SY	1,300
26	402	CURB & GUTTER REPLACEMENT	4,27	LF	1,340
27	402	CONCRETE SIDEWALK REPLACMENT	4,27	SY	10
28	402	BRICK DRIVEWAY REPLACEMENT	4	SY	20
29	402	CONCRETE DRIVEWAY REPLACEMENT	4,27	SY	50
30	402, SP-3	CONCRETE PAVEMENT REPLACEMENT	4,27	SY	1,670
31	402	ASPHALT PAVEMENT REPLACEMENT	4,31	SY	1,040
32	402	FENCE REMOVAL AND REPLACEMENT	4	LF	50
33	405, SP-2	8-INCH OPEN CUT REPLACEMENT, SDR 26 PVC D2241	1,4,5,6,7,9	LF	564
34	405, SP-2	8-INCH OPEN CUT REPLACEMENT, SDR 26 PVC D3034	1,4,5,6,7,9	LF	669
35	408, SP-7	8-INCH PIPE BURSTING REPLACEMENT, HDPE DIPS DR-17	1,5,6,7,8,9,11,16,23	LF	4,471
36	405, 408	SERVICE RECONNECTIONS	6,12,13,14,25	EA	304
37	405, 408	SERVICE LINE REPLACEMENT	6,12,13,14,25	LF	3,330
38	409, SP-6,7,8	7-INCH DIA. SLIPLINING INSTALLATION, DR-21 IPS HDPE/ 8-INCH DIA. CURED-IN-PLACE PIPE (CIPP)	1,5,6,7,8,9,11,15,39	LF	6,211
39	412	7-INCH POINT REPAIR SDR 21 HDPE, (0-10 LF)	1,2,4,5,6,7,8,9,11,16	EA	1
40	412	15-INCH POINT REPAIR SDR 26 PVC ASTM D3034, (0-10 LF)	1,2,4,5,6,7,8,9,11,16	EA	1
41	412	15-INCH ADDITIONAL FOOTAGE POINT REPAIR SDR 26 PVC ASTM D3034	1,2,4,5,6,7,8,9,11,16	LF	25
42	415	PRE-CONSTRUCTION TELEVISION INSPECTION	3,11,16,22	LF	12,410
43	416	COMPLETE MANHOLE REPLACEMENT, STD. 4-FOOT DIA. MANHOLE (0-6-FOOT DEPTH)	1,6,10,15,16,28,29	EA	43
44	416	EXTRA DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. MANHOLE	1,6,10,15,16,28,29	VF	67.7
45	416	COMPLETE DROP MANHOLE REPLACEMENT, STD. 4-FOOT DIA. DROP MANHOLE (0-6-FOOT DEPTH)	1,6,10,15,16,28,29	EA	7
46	416	EXTRA DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. DROP MANHOLE	1,6,10,15,16,28,29	VF	25.4
47	416	COMPLETE SHALLOW MANHOLE REPLACEMENT, 5-FOOT DIA., CITY OF TULSA STD. DETAIL 406	1,6,10,15,16,28,29	EA	2
48	416	COMPLETE MANHOLE REPLACEMENT, STD. 5-FOOT DIA. MANHOLE (0-6-FOOT DEPTH)	1,6,10,15,16,28,29	EA	2
49	416	EXTRA DEPTH OVER 6-FOOT FOR STD. 5-FOOT DIA. MANHOLE	1,6,10,15,16,28,29	VF	10.9
50	418	MANHOLE REHABILITATION COVER, FRAME AND FRAME SEAL REPLACEMENT (TYPE A REPAIR)	15	EA	17
51	418	MANHOLE REHABILITATION COVER, FRAME, FRAME SEAL, AND CHIMNEY REPLACEMENT (TYPE C REPAIR)	15	EA	4
52	419	MANHOLE REHABILITATION PATCH HOLE (TYPE Gr REPAIR)	15	EA	3
53	421	MANHOLE REHABILITATION WALL REHABILITATION (TYPE Gg REPAIR)	15	SF	1,621.0
54	423	OBSTRUCTION REMOVAL	18	EA	15
55	ODOT 611 (G)	INLET, CICI DESIGN 2, COMPLETE IN-PLACE		EA	4
56	ODOT 613 (A)	15-INCH R.C. PIPE CLASS III, ROUND	24,25	LF	48
57	ODOT 613 (A)	18-INCH R.C. PIPE CLASS III, ROUND	24,25	LF	80
58	ODOT 613 (A)	21-INCH R.C. PIPE CLASS III, ROUND	24,25	LF	8
59	ODOT 613 (A)	24-INCH R.C. PIPE CLASS III, ROUND	24,25	LF	8
60	ODOT 613 (A)	30-INCH R.C. PIPE CLASS III, ROUND	24,25	LF	100
61	ODOT 613 (A)	42-INCH R.C. PIPE CLASS III, ROUND	24,25	LF	8
62	ODOT 613 (EE)	18-INCH DIA. CORRUGATED POLYPROPYLENE STORM PIPE	24,25	LF	10
63	ODOT 613 (Q)	OUTLET LATERAL HEADWALL	24,25	EA	1
64	ODOT 880, SP-9	CONSTRUCTION TRAFFIC CONTROL	19,20	LS	1
65	SP-4	OWNER'S ALLOWANCE		ALLOW	100,000
		ADDITIVE ALTERNATE NO. 1			
66	334	CONSTRUCTION AS-BUILTS		LS	1
67	335	CONTRACTOR'S QUALITY CONTROL		LS	1
68	405, 408	SERVICE RECONNECTIONS	5,12,13,14,25	EA	39
69	405, 408	SERVICE LINE REPLACEMENT	5,12,13,14,25	LF	390
70	409, SP-6,7,8	7-INCH DIA. SLIPLINING INSTALLATION, DR-21 IPS HDPE/ 8-INCH DIA. CURED-IN-PLACE PIPE (CIPP)	1,5,6,7,8,9,11,16,39	LF	1,722
71	409, SP-6,7,8	10-INCH DIA. SLIPLINING INSTALLATION, DR-21 IPS HDPE/ 12-INCH DIA. CURED-IN-PLACE PIPE (CIPP)	1,5,6,7,8,9,11,16,39	LF	166
72	412	8-INCH POINT REPAIR, CONCRETE PIPE (0-10 LF)	1,2,4,5,6,7,8,9,11,16	EA	1
73	415	PRE-CONSTRUCTION TELEVISION INSPECTION	3,11,16,22	LF	2,112
74	416	COMPLETE MANHOLE REPLACEMENT, STD. 4-FOOT DIA. MANHOLE (0-6-FOOT DEPTH)	1,6,10,15,16,28,29	EA	3
75	416	EXTRA DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. MANHOLE	1,6,10,15,16,28,29	VF	0.2
76	416	COMPLETE DROP MANHOLE REPLACEMENT, STD. 4-FOOT DIA. DROP MANHOLE (0-6-FOOT DEPTH)	1,6,10,15,16,28,29	EA	1
77	416	EXTRA DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. DROP MANHOLE	1,6,10,15,16,28,29	VF	6
78	418	MANHOLE REHABILITATION COVER, FRAME AND FRAME SEAL REPLACEMENT (TYPE A REPAIR)	15	EA	1
79	418	MANHOLE REHABILITATION COVER, FRAME, FRAME SEAL, AND CHIMNEY REPLACEMENT (TYPE C REPAIR)	15	EA	3
80	423	OBSTRUCTION REMOVAL	18	EA	5
81	ODOT 880, SP-9	CONSTRUCTION TRAFFIC CONTROL	19,20	LS	1
		ADDITIVE ALTERNATE NO. 2			
82	334	CONSTRUCTION AS-BUILTS		LS	1
83	335	CONTRACTOR'S QUALITY CONTROL		LS	1
84	405, 408	SERVICE RECONNECTIONS	6,12,13,14,25	EA	36
85	405, 408	SERVICE LINE REPLACEMENT	6,12,13,14,25	LF	360
86	409, SP-6,7,8	7-INCH DIA. SLIPLINING INSTALLATION, DR-21 IPS HDPE/ 8-INCH DIA. CURED-IN-PLACE PIPE (CIPP)	1,5,6,7,8,9,11,16,39	LF	1,562
87	415	PRE-CONSTRUCTION TELEVISION INSPECTION	3,11,16,22	LF	1,562
88	418	MANHOLE REHABILITATION COVER, FRAME AND FRAME SEAL REPLACEMENT (TYPE A REPAIR)	15	EA	1
89	418	MANHOLE REHABILITATION COVER, FRAME, FRAME SEAL, AND CHIMNEY REPLACEMENT (TYPE C REPAIR)	15	EA	1
90	421	MANHOLE REHABILITATION WALL REHABILITATION (TYPE Gg REPAIR)	15	SF	77.9
91	421	MANHOLE REHABILITATION BENCH AND INVERT REHABILITATION (TYPE Gh REPAIR)	15	EA	1
92	423	OBSTRUCTION REMOVAL	18	EA	5
93	ODOT 880, SP-9	CONSTRUCTION TRAFFIC CONTROL	19,20	LS	1

PAY ITEM NOTES

1. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING AN EROSION CONTROL PLAN BASED ON CONSTRUCTION SEQUENCING. COST TO INCLUDE SILT REMOVAL AND ANY RE-GRADING NECESSARY DUE TO EROSION.
2. PRICE TO INCLUDE ANY AND ALL ROCK EXCAVATION. NO BLASTING WILL BE ALLOWED. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK EXCAVATION.
3. CONSTRUCTION TELEVISION INSPECTION OF SANITARY SEWER QUANTITY CALCULATED BASED ON EXISTING MANHOLE LOCATIONS. CONTRACTOR SHALL USE VIDEO TO CONFIRM LOCATIONS AND DETERMINE POSITIONS OF SERVICE CONNECTIONS. ANY CLEANING REQUIRED, INCLUDING HEAVY CLEANING, SHALL BE INCLUDED IN UNIT PRICE BID FOR VIDEOTAPE INSPECTION. NO ADDITIONAL PAYMENT SHALL BE MADE.
4. FOR THE WORK BID UNDER "OPEN CUT", SURFACE RESTORATION ITEMS SHALL BE PAID FOR IN ACCORDANCE WITH SPECIFICATION SECTION 402.17 ONLY WHEN THE OPEN CUT METHOD OF REPLACEMENT IS USED. PAVEMENT REMOVAL AND REPLACEMENT SHALL BE PAID FOR IN SQUARE YARDS. THE PAY QUANTITY SHALL BE COMPUTED AS THE LENGTH ALONG THE CENTERLINE OF PIPE BEING REPLACED BY THE STANDARD PAY WIDTH (SEE CITY OF TULSA STANDARD DETAIL # 315 FOR PAY WIDTH). ALL RESTRIPING OF ARTERIAL ROADWAYS SHALL BE CONSIDERED INCIDENTAL.
5. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE BYPASS PUMPING IF NECESSARY. THE PUMP AND BYPASS LINES SHALL BE OF ADEQUATE CAPACITY AND SIZE TO HANDLE THE ANTICIPATED WET WEATHER FLOW. THE COST OF THE BYPASS INCLUDING THE PUMPS, LINES, LABOR AND OTHER MISCELLANEOUS ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE INSTALLATION. NO ADDITIONAL PAYMENT WILL BE MADE.
6. ALL TRENCHES EXCAVATED ACROSS ANY ROADWAY, SIDEWALKS, DRIVEWAYS, PARKING LOTS, ALLEYWAYS OR OTHER PAVED AREAS, SHALL BE BEDDED AND BACKFILLED IN ACCORDANCE WITH THE CITY OF TULSA STANDARD DETAIL # 713. BACKFILL IN STREET RIGHT-OF-WAY AND IN FRONT YARDS SHALL BE COMPACTED TO 95% PROCTOR DENSITY. PRICE OF AGGREGATE BASE IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE INSTALLATION. NO ADDITIONAL PAYMENT WILL BE MADE.
7. RESTORATION WILL NOT BE PAID FOR TRENCHLESS CONSTRUCTION METHODS. RESTORATION WILL BE PAID FOR OPEN CUT CONSTRUCTION METHODS.
8. IF A LINE CANNOT BE REPLACED BY TRENCHLESS METHODS, OPEN CUT MAY BE USED UPON ENGINEER'S APPROVAL. WORK AND RESTORATION SHALL THEN BE PAID USING THE UNIT PRICE BID FOR OPEN CUT OF THE CORRESPONDING PIPE SIZE AND THE UNIT PRICE BID FOR THE APPROPRIATE RESTORATION ITEMS.
9. CONNECTIONS TO ALL EXISTING MANHOLES SHALL BE CORED AND NOT BROKEN OR HAMMERED AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE REPLACEMENT.
10. ALL EXTERNAL DROPS CONNECTED TO A MANHOLE WHICH IS CALLED OUT FOR REPLACEMENT SHALL BE REPLACED AND INCLUDED IN THE UNIT PRICE BID FOR "COMPLETE DROP MANHOLE REPLACEMENT". ALL DROP CONNECTIONS CALLED OUT ON THE PLANS FOR INSTALLATION TO AN EXISTING MANHOLE THAT IS NOT BEING REPLACED SHALL BE PAID FOR UNDER THE UNIT PRICE BID FOR "REPLACE MANHOLE OUTSIDE DROP CONNECTION". EXTERNAL DROPS SHALL BE CONSTRUCTED OF LIKE MATERIAL TO THE PIPE INCOMING.
11. POST REHABILITATION TELEVISION INSPECTION OF ALL LINES INSTALLED SHALL BE PERFORMED BY THE CONTRACTOR. THE COST OF PRE CONSTRUCTION TELEVISION INSPECTION WILL NOT BE PAID FOR SEPARATELY.
12. NUMBER OF SERVICE CONNECTIONS ARE APPROXIMATE, CONTRACTOR TO VERIFY WITH THE USE OF PRE-TELEVISION INSPECTION PER SPECIFICATION 415.
13. SERVICE LATERALS LOCATED UNDER PAVEMENT SHALL BE REPLACED TO WITHIN 2' OF THE EASEMENT/RIGHT-OF-WAY LINE. ANY ADDITIONAL PIPE OR FITTINGS REQUIRED TO MAKE A GOOD CONNECTION TO THE MAIN LINE OUTSIDE OF PAVEMENT SHALL BE INCLUDED IN THE COST OF SERVICE RECONNECTION.
14. PAYMENT FOR SERVICE LATERALS SHALL INCLUDE ALL INCIDENTAL COSTS ASSOCIATED WITH THE INSTALLATION, INCLUDING, BUT NOT LIMITED TO RESTORATION, PAVEMENT REMOVAL AND REPLACEMENT, EXCAVATION, BEDDING, BACKFILL, PIPE AND FITTINGS.
15. THE MANHOLE RING, COVER, GROUT, WATERTIGHT SEAL, 80 MILS OF RAVEN 405 EPOXY OR APPROVED EQUAL AND OTHER MATERIALS INCIDENTAL TO THE CONSTRUCTION OF MANHOLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EACH ASSOCIATED MANHOLE PAY ITEM; NO ADDITIONAL PAYMENT SHALL BE MADE. 4' I.D. MANHOLES AND 5' I.D. SHALLOW MANHOLES SHALL NOT BE EPOXY COATED.
16. IF ANY BRICK SANITARY MANHOLES/STRUCTURES ASSOCIATED WITH THE IDENTIFIED SEWER LINES ARE FOUND, THE CITY SHALL BE NOTIFIED BEFORE WORK COMMENCES FOR AN EVALUATION OF REHABILITATION. REHABILITATION OF ANY BRICK SANITARY MANHOLES/STRUCTURES SHALL BE BY COMPLETED MANHOLE/STRUCTURE REPLACEMENT OR BY METHODS DESCRIBED IN SPECIFICATION 418.
17. GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY SODDING. HYDROMULCH SEEDING WILL BE ALLOWED IN UNDEVELOPED LOTS. MAXIMUM PAY LIMIT FOR SODDING AND SEEDING SHALL BE STANDARD 10-FEET ON EITHER SIDE OF THE CENTERLINE OF PIPE. MAXIMUM PAY WIDTH OF 20-FEET.
18. IF REQUIRED, PAYMENT FOR OBSTRUCTION REMOVAL SHALL BE UTILIZED TO REMOVE CONCRETE ENCASED OR DUCTILE IRON PIPE SEGMENTS DURING TRENCHLESS REPLACEMENT AND SHALL BE APPROVED BY ENGINEER. THIS PAY ITEM SHALL NOT BE PAID WHEN THE INSERTION / REMOVAL PIT IS LOCATED AT THE POINT OF OBSTRUCTION REMOVAL.
19. THE CONTRACTOR SHALL DEVELOP A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE GENERAL NOTES. TRAFFIC CONTROL SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
20. THE UNIT PRICE BID FOR CONSTRUCTION TRAFFIC CONTROL SHALL INCLUDE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THIS PROJECT.
21. ABANDONMENT SHALL BE PERFORMED AFTER CONSTRUCTION AND ACCEPTANCE OF ALL NEW SANITARY SEWER MAINS.
22. CONTRACTOR SHALL CCTV (CLOSED CIRCUIT TELEVISION INSPECTION) ALL SEWER LINES PRIOR TO ABANDONMENT TO DETERMINE LOCATION OF EXISTING SERVICE CONNECTIONS. SERVICE CONNECTIONS SHALL BE RECONNECTED TO PROPOSED SANITARY SEWER LOCATED IN THE IMMEDIATE VICINITY OF THE ABANDONED LINE. ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF THERE IS NO PROPOSED SEWER TO COLLECT THE SERVICE.
23. IN LIEU OF PIPE BURSTING, CONTRACTOR MAY ELECT TO INSTALL PIPE BY PIPE REAMING OR PIPE CRUSHING PER CITY OF TULSA STANDARD SPECIFICATIONS 406 AND 407 RESPECTIVELY.
24. REINFORCED CONCRETE PIPE TO BE CLASS III. ALL REINFORCED CONCRETE PIPE AND MANHOLES TO BE SUPPLIED WITH OMNI-FLEX JOINT GASKET OR APPROVED EQUAL. MASTIC JOINT SEALANT SHALL NOT BE ALLOWED.
25. QUICK SET CELLULAR CONCRETE OR FLOWABLE FILL TO BE USED TO BACKFILL AROUND STREET CURB INLETS AND PIPES AS DIRECTED BY THE ENGINEER.
26. WHEN CONNECTING PVC SERVICE LATERALS TO ANY PIPE OTHER THAN PVC, ROMAC STYLE 501 COUPLINGS OR ENGINEER APPROVED EQUAL SHALL BE USED. PVC COUPLINGS SHALL BE USED WHEN CONNECTING PVC PIPE. FLEXIBLE COUPLINGS SHALL NOT BE PERMITTED.
27. ALL CONCRETE USED FOR PAVING SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI.
28. ALL RISER RINGS INSTALLED ON EXISTING AND NEW MANHOLES SHALL BE CRETEX PRO-RING OR ENGINEER APPROVED EQUAL. NO CONCRETE RISER RINGS ARE PERMITTED FOR USE UNLESS APPROVED BY ENGINEER.
29. ALL NEW MANHOLES SHALL HAVE WALL JOINTS WRAPPED WITH 9" INFISHIELD GATOR WRAP AS MANUFACTURED BY SEALING SYSTEMS INC. OR ENGINEER APPROVED EQUAL. (NO SEPARATE PAYMENT).
30. ALL STEEL CASING INSTALLED SHALL HAVE A MINIMUM WALL THICKNESS OF 1/2-INCH AND BE IN ACCORDANCE WITH AWWA C200.
31. ASPHALT PAVEMENT INSTALLED IN NON-ARTERIAL STREETS SHALL BE PG 64-22 WHILE ARTERIAL STREETS SHALL BE PG 70-28 OK-INSOLUBLE. ALL ASPHALT MIX DESIGNS SHALL BE PAID BY ASPHALT REMOVAL AND REPLACEMENT PAY ITEM. (NO SEPARATE PAYMENT).
32. TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CITY OF TULSA. TESTING, CHLORINATION, AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH SECTION 109.3 OF THE GENERAL SPECIFICATIONS.
    A. CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, AS DIRECTED BY CITY TESTING PERSONNEL. THEN ONCE TESTING, CHLORINATION AND FLUSHING BY CITY PERSONNEL IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISITNG SYSTEM, USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.
    B. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAIN SHALL BE PERFOMRED BY CITY PERSONNEL ON MAINS WHICH ARE PHURSICALLY DISCONNECTED FROM THE EXISITNG WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PERFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO EXISITNG SYSTEM.
    C. ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
33. BURIED BOLTS, HARNESS LUGS, AND COUPLINGS SHALL BE GIVEN TWO COATS OF KOPPER'S BITUMASTIC 300-M (DRY MIL THICKNESS OF 16 MILS) OR EQUAL. COST TO BE INCLUDED IN UNIT PRICE BID FOR PIPE AND FITTINGS.
34. ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RESTRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PIRCE BID FOR PIPE OR FITTINGS.
    A. DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: US PIPE TRIFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, STAR STARGRIP, SMITH-BLAIR CAMLOCK. CLOW TUFGRIP OR EQUAL SHALL BE USED ON THIS PROJECT.
35. ALL CUT ENDS AND WHERE SALVAGED FITTINGS HAVE BEEN REMOVED FROM ABANDONED WATER LINES LEFT IN PLACE, SHALL BE PLUGGED WITH 24" OF CONCRETE INSIDE THE PIPE. COST OF CONCRETE PLUGGING TO BE INCLUDED IN UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.
36. DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE AS PER CONSTRUCTION SPEC 307.3 AND 307.4. COST WILL BE INCLUDED IN COST OF DUCTILE IRON PIPE.
37. ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN COST OF SLEEVES/ADAPTERS.
38. PRESSURE TESTING AND CHLORINATION OF WATER MAINS SHALL NOT BE PERFORMED UNTIL THE CITY INSPECTOR HAS RECEIVED REQUIRED CONSTRUCTION AS-BUILT RECORDS.
39. THE CONTRACTOR MAY BID EITHER SLIPLINE OR CIPP FOR THE LINE SEGMENTS INCLUDED IN THIS PAY ITEM.

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PAY QUANTITIES & NOTES

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	6/2025	
VERTICAL	LEAD ENGR.		6/26/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO:				SHEET 4 OF 59 SHEETS

| ITEM NO. | SPEC NO. | PAY QUANTITIES | | | LINE ID | | |

MANHOLE REHABILITATION WORK ITEM TABLE

ITEM NO.	COT MH ID	MH DEPTH (VF)	RELATED LINE ID	PLAN SHEET NO.	CONSTRUCT STD. 4-FOOT DIA. MANHOLE (0-6-FOOT DEPTH)	MANHOLE DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. MANHOLE	CONSTRUCT STD. 4-FOOT DIA. DROP MANHOLE (0-6-FOOT DEPTH)	MANHOLE DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. DROP MANHOLE	CONSTRUCT SHALLOW MANHOLE, 5-FOOT DIA., CITY OF TULSA STD. DETAIL 406	ABANDON EXISTING SANITARY SEWER MANHOLE	REMOVE EXISTING MANHOLE NO SEPARATE PAYMENT	COMPLETE SHALLOW MANHOLE REPLACEMENT, 5-FOOT DIA., CITY OF TULSA STD. DETAIL 406	COMPLETE MANHOLE REPLACEMENT, STD. 4-FOOT DIA. MANHOLE (0-6-FOOT DEPTH)	EXTRA DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. MANHOLE	COMPLETE DROP MANHOLE REPLACEMENT, STD. 4-FOOT DIA. DROP MANHOLE (0-6-FOOT DEPTH)	EXTRA DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. DROP MANHOLE	COMPLETE MANHOLE REPLACEMENT, STD. 5-FOOT DIA. MANHOLE (0-6-FOOT DEPTH)	EXTRA DEPTH OVER 6-FOOT FOR STD. 5-FOOT DIA. MANHOLE	MANHOLE REHABILITATION COVER, FRAME AND FRAME SEAL REPLACEMENT (TYPE A REPAIR)	MANHOLE REHABILITATION COVER, FRAME, FRAME SEAL, AND CHIMNEY REPLACEMENT (TYPE C REPAIR)	MANHOLE REHABILITATION PATCH HOLE (TYPE Gr REPAIR)	MANHOLE REHABILITATION WALL REHABILITATION (TYPE Gg REPAIR)	MANHOLE REHABILITATION BENCH AND INVERT REHABILITATION (TYPE Gh REPAIR)	COMMENTS
					314	314	314	314	314	333, SP-1	333	416	416	416	416	416	416	416	418	418	419	421	421	
					EA	VF	EA	VF	EA	EA	EA	EA	EA	VF	EA	VF	EA	VF	EA	EA	EA	EA	EA	
BASE BID																								
1	097-0721	5.8	SL01	10									1											
2	097-0725	7.7	SL04	10									1	1.7										
3	097-0676	7.1	SL05	10									1	1.1										
4	097-0668	7.8	MANHOLE REHAB	10															1			123.2		
5	097-0669	8.3	MANHOLE REHAB	10															1			129.4		
6	097-0670	5.7	MANHOLE REHAB	10															1			96.8		
7	097-0672	3.8	MANHOLE REHAB	10															1			72.9		
8	097-0706	5.7	MANHOLE REHAB	10															1		1			
9	097-0707	3.1	MANHOLE REHAB	10								1												
10	097-0711	5.7	MANHOLE REHAB	10															1			96.8		
11	097-0720	5.7	MANHOLE REHAB	10															1		1			REMOVE STEPS & PATCH HOLES
12	030-0254	5.8	SL07	11									1											
13	030-0257	3.4	SL08	11															1					
14	094-0294	6.7	SL09	11															1			109.3		
15	094-0289	9.7	SL09 & SL10 & SL11	11											1	3.7								
16	094-0290	7.7	SL11	11															1			121.9		
17	030-0524	9.8	SL12 & SL13	12															1					
18	030-0525	9.8	SL13	12																		148.3		
19	030-0438	9.6	SL14	12															1			145.8		
20	030-0439	9.1	SL14 & SL15	12																1				
21	030-0440	8.6	SL15	12															1			133.2		
22	094-0369	7.1	SL16	12									1	1.1										
23	094-0368	8.1	SL16 & SL17	12																		126.9		
24	094-0363	8.0	SL18 & SL19 & SL20	12											1	2.0								
25	094-0360	8.8	SL20 & SL22	12																1				
26	094-0362	6.1	SL21	12									1	0.1										
27	094-0361	5.4	SL21 & SL22	12									1											
28	094-0355	6.4	SL23	12															1					
29	093-0371	6.7	SL40 & SL41	14									1	0.7										
30	093-0372	9.3	SL41	14															1		1			
31	093-0318	4.5	SL42 & SL43	14									1											
32	093-0317	7.3	SL43	14																1				
33	090-0183	6.3	SL44	15															1			104.3		
34	097-0664	11.4	A & K & L	17											1	5.4								
35	097-0744	10.6	A	17									1	4.6										
36	MH-1A	7.5	A & I & J	18	1	1.5																		
37	MH-2A	9.4	A & H	18			1	3.4																
38	MH-3A	11.4	A, SL02	19			1	5.4																
39	097-0745	7.2	A	19							1													
40	097-0730	6.9	A & F	20							1													
41	MH-4A	8.7	A & F	20	1	2.6																		
42	097-0727	7.5	A & SL03	20									1	1.5										
43	097-0717	4.6	B & C	21									1											
44	097-0718	6.5	B	21									1	0.5										
45	097-0719	6.0	C & SL01	22															1			100.5		
46	097-0806	8.4	D & SL02	23									1	2.4										
47	097-0807	7.7	D	23									1	1.7										
48	097-0723	5.7	E	24									1											
49	097-0724	7.4	E & SL04	25									1	1.4										
50	MH-1E	4.5	E	25					1															
51	097-0726	4.9	E	25						1														
52	MH-1F	11.6	F	26	1	5.6																		
53	097-0731	11.0	F	26									1	5.0										
54	097-0728	7.1	G & SL03	27									1	1.1										
55	MH-1G	3.8	G	27					1															
56	097-0729	3.0	G	27								1												

6-6-25

LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

MANHOLE WORK ITEM TABLE 1

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:
PROFILE SCALE:
HORIZONTAL:
VERTICAL:

DRAWN	RLP	06/2025	APPROVED:
DESIGNED	JWB	06/2025	
SURVEY			
PROJ. MGR.	CC	06/2025	
LEAD ENGR.		6/26/25	DESIGN MANAGER
FIELD MGR.			

FILE: DRAWING
DATE: June 2025
ATLAS PAGE NO:
SHEET 6 OF 59 SHEETS

MANHOLE REHABILITATION WORK ITEM TABLE

ITEM NO.	COT MH ID	MH DEPTH (VF)	RELATED LINE ID	PLAN SHEET NO.	CONSTRUCT STD. 4-FOOT DIA. MANHOLE (0-6-FOOT DEPTH) 314 EA	MANHOLE DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. MANHOLE 314 VF	CONSTRUCT STD. 4-FOOT DIA. DROP MANHOLE (0-6-FOOT DEPTH) 314 EA	MANHOLE DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. DROP MANHOLE 314 VF	CONSTRUCT SHALLOW MANHOLE, 5-FOOT DIA., CITY OF TULSA STD. DETAIL 406 314 EA	ABANDON EXISTING SANITARY SEWER MANHOLE 333, SP-1 EA	REMOVE EXISTING MANHOLE NO SEPARATE PAYMENT 333 EA	COMPLETE SHALLOW MANHOLE REPLACEMENT, 5-FOOT DIA., CITY OF TULSA STD. DETAIL 406 416 EA	COMPLETE MANHOLE REPLACEMENT, STD. 4-FOOT DIA. MANHOLE (0-6-FOOT DEPTH) 416 EA	EXTRA DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. MANHOLE 416 VF	COMPLETE DROP MANHOLE REPLACEMENT, STD. 4-FOOT DIA. DROP MANHOLE (0-6-FOOT DEPTH) 416 EA	EXTRA DEPTH OVER 6-FOOT FOR STD. 4-FOOT DIA. DROP MANHOLE 416 VF	COMPLETE MANHOLE REPLACEMENT, STD. 5-FOOT DIA. MANHOLE (0-6-FOOT DEPTH) 416 EA	EXTRA DEPTH OVER 6-FOOT FOR STD. 5-FOOT DIA. MANHOLE 416 VF	MANHOLE REHABILITATION COVER, FRAME AND FRAME SEAL REPLACEMENT (TYPE A REPAIR) 418 EA	MANHOLE REHABILITATION COVER, FRAME, FRAME SEAL AND CHIMNEY REPLACEMENT (TYPE C REPAIR) 418 EA	MANHOLE REHABILITATION PATCH HOLE (TYPE Gr REPAIR) 419 EA	MANHOLE REHABILITATION WALL REHABILITATION (TYPE Gg REPAIR) 421 EA	MANHOLE REHABILITATION BENCH AND INVERT REHABILITATION (TYPE Gh REPAIR) 421 EA	COMMENTS
57	097-0714	5.3	H	28							1													
58	097-0715	8.4	H	28									1	2.4										
59	097-0722	7.1	I	29							1													
60	097-0710	6.6	J	29									1	0.6										
61	097-0659	10.0	K	30									1	4.0										
62	097-0666	8.1	L	31									1	2.1										
63	097-0674	7.8	M & SL05	32									1	1.8										
64	097-0675	3.9	M & SL06	32								1												
65	097-0671	5.0	N	33									1											
66	097-0673	4.6	N & SL05	33									1											
67	097-0708	6.2	O	34									1	0.2										
68	097-0709	6.1	O	34									1	0.1										
69	099-0334	9.4	P	35									1	3.4										
70	030-0256	3.8	Q & SL07 & SL08	37								1												
71	030-0261	3.8	Q	37								1												
72	030-0510	7.6	R & SL12	39									1	1.6										
73	030-0511	6.7	R	39									1	0.7										
74	094-0366	9.1	S & SL17 & SL18	40									1	3.1										
75	094-0367	7.0	S	40									1	1.0										
76	094-0364	7.3	T & SL19	41									1	1.3										
77	094-0365	8.3	T	41									1	2.3										
78	094-0354	11.2	U & SL23	42													1	5.2						
79	094-0359	7.2	U	42									1	1.2										
80	094-0326	11.7	V	43													1	5.7						
81	094-0195	5.0	W	44							1													
82	094-0196	5.3	W	44									1											
83	094-0598	3.5	W	44								1												
84	090-0160	9.3	X	46											1	3.3								
85	090-0203	10.2	Y	47									1	4.2										
86	090-0204	6.9	Y	48																		111.8		
87	090-0786	6.4	Y	48									1	0.4										
88	090-0710	14.1	Z	49									1	8.1										
89	090-0711	12.5	Z	50											1	6.5								
90	090-0712	9.0	Z	51									1	3.0										
91	090-0713	8.9	Z	52									1	2.9										
92	093-0319	3.5	AA & SL42	53								1												
93	093-0320	6.4	AA	53									1	0.4										
94	093-0373	8.4	BB	54											1	2.4								
95	093-0406	8.1	BB & CC	54 & 55											1	2.1								
96	093-0370	6.5	CC & SL40	55																	1			
ADDITIVE ALTERNATE NO. 1																								
97	094-0224	12.0	SL24 & SL33	13											1	6.0								
98	094-0225	9.5	SL24 & SL25	13															1					
99	094-0226	13.1	SL25 & SL26	13																	1			
100	094-0227	6.2	SL26 & SL27	13									1	0.2										
101	094-0228	5.0	SL27 & SL28	13																	1			
102	094-0230	7.4	SL29 & SL30 & SL31	13																	1			
103	094-0231	3.0	SL30	13									1											
104	094-0232	4.0	SL31 & SL32	13									1											
ADDITIVE ALTERNATE NO. 2																								
105	094-0243	5.7	SL33 & SL34 & SL38	13															1					
106	094-0247	4.2	SL37	13																		77.9		
107	094-0248	7.8	SL38 & SL39	13																	1			
108	094-0249	5.0	SL39	13																			1	

6-6-25

LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

MANHOLE WORK ITEM TABLE 2

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:
PROFILE SCALE: SURVEY
HORIZONTAL:
VERTICAL

DRAWN	RLF	06/2025	APPROVED:
DESIGNED	JWB	06/2025	
PROJ. MGR.	CC	06/2025	
LEAD ENGR.	CK	6/6/25	
FIELD MGR.			DESIGN MANAGER

FILE: DRAWING: DATE: June 2025
ATLAS PAGE NO: SHEET 7 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\07 MH REHAB TABLE.DWG
Jun 06, 2025
6:39:28 AM

PIPE REHABILITATION WORK ITEM TABLE											
ITEM NO.	PIPE REPLACEMENT ID	PLAN SHEET NUMBER	ATLAS PAGE	MAINTENANCE AREA	DOWNSTREAM MANHOLE	UPSTREAM MANHOLE	LENGTH (FT)	PROPOSED PIPE DIAMETER (IN)	PROPOSED PIPE MATERIAL	PROPOSED REPLACEMENT METHOD	STANDARD SPECIFICATION NO.
BASE BID											
1	A	17	83	97-N	097-0664	097-0744	32	8	SDR 26 ASTM D3034 PVC	OPEN CUT	405, SP-2
2	A	17 & 18	83	97-N	097-0744	MH-1A	385	8	SDR 26 ASTM D3034 PVC	OPEN CUT	313, SP-2
3	A	17 & 18	83	97-N	097-0744	097-0710	320			ABANDON	333, SP-1
4	A	17 & 18	83	97-N	097-0744	097-0722	193			ABANDON	333, SP-1
5	A	18	83	97-N	097-0710	097-0714	364			ABANDON	333, SP-1
6	A	18	83	97-N	MH-1A	MH-2A	357	8	SDR 26 ASTM D3034 PVC	OPEN CUT	313, SP-2
7	A	18 & 19	82 & 83	97-N	MH-2A	MH-3A	258	8	SDR 26 ASTM D3034 PVC W/ 24-INCH DIA. 1/2" THICK STEEL CASING	OPEN CUT AND BORE AND JACK	313, 322, SP-2
8	A	19 & 20	82 & 83	97-N	MH-3A	MH-4A	196	8	SDR 26 ASTM D3034 PVC	OPEN CUT	313, SP-2
9	A	20	82 & 83	97-N	MH-4A	097-0727	121	8	SDR 26 ASTM D3034 PVC	OPEN CUT	313, SP-2
10	A & E	20 & 25	82 & 83	97-N	097-0726	097-0727	242			ABANDON	333, SP-1
11	B	21	83	97-N	097-0717	097-0718	161	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
12	C	22	82 & 83	97-N	097-0717	097-0719	259	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
13	D	23	82	97-N	097-0806	097-0807	233	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
14	E	24 & 25	83	97-N	097-0723	097-0724	375	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
15	E	25	83	97-N	097-0724	MH-1E	110	8	SDR 26 ASTM D3034 PVC	OPEN CUT	313, SP-2
16	E	25	83	97-N	MH-1E	097-0726	33			ABANDON	333, SP-1
17	F	26	82	97-N	097-0730	097-0731	301			ABANDON	333, SP-1
18	F	26	82	97-N	MH-1A	MH-1F	288	8	SDR 26 ASTM D3034 PVC	OPEN CUT	313, SP-2
19	F	26	82	97-N	MH-1F	097-0731	18	8	SDR 26 ASTM D3034 PVC	OPEN CUT	313, SP-2
20	G	27	82 & 83	97-N	MH-1G	097-0729	50	8	SDR 26 ASTM D3034 PVC	OPEN CUT	405, SP-2
21	H	28	83	97-N	MH-2A	097-0715	15	7	DR-17 DIPS HDPE, CONCRETE ENCASEMENT	OPEN CUT	405, SP-2
22	H	28	83	97-N	MH-2A	097-0715	10	7	DR-17 DIPS HDPE, CONCRETE ENCASEMENT	POINT REPAIR	412
23	I	29	83	97-N	MH-1A	097-0723	7	7	DR-17 DIPS HDPE, CONCRETE ENCASEMENT	OPEN CUT	405, SP-2
24	J	29	83	97-N	MH-1A	097-0710	16	8	SDR 26 ASTM D3034 PVC	OPEN CUT	313, SP-2
25	K	30	83	97-N	097-0659	097-0664	334	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
26	L	31	83	97-N	097-0664	097-0666	148	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
27	M	32	83	97-N	097-0674	097-0675	162	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
28	N	33	83	97-N	097-0671	097-0673	10	8	SDR 26 ASTM D3034 PVC	OPEN CUT	405, SP-2
29	O	34	83	97-N	097-0708	097-0709	78	8	SDR 26 ASTM D3034 PVC	OPEN CUT	405, SP-2
30	P	35	83	99-N	099-0333	099-0334	373	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
31	Q	37	25	30-N	030-0256	030-0261	152	8	SDR 26 ASTM D3034 PVC	OPEN CUT	405, SP-2
32	R	39	26	30-N	030-0510	030-0511	211	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
33	S	40	26	94-N	094-0366	094-0367	173	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
34	T	41	26	94-N	094-0364	094-0365	108	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
35	U	42	26	94-N	094-0354	094-0359	287	8	SDR 26 ASTM D3034 PVC	OPEN CUT	405, SP-2
36	V	43	26	94-N	094-0326	094-0354	35	15	SDR 26 ASTM D3034 PVC	POINT REPAIR	412
37	W	44	26 & 49	94-N	094-0598	094-0196	348	8	SDR 26 ASTM D2241 PVC	OPEN CUT	405, SP-2
38	X	46	28	90-N	090-0159	090-0160	174	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
39	Y	47	28	90-N	090-0200	090-0203	250	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
40	Y	47 & 48	28	90-N	090-0203	090-0204	240	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
41	Y	48	28	90-N	090-0204	090-0786	10	8	SDR 26 ASTM D3034 PVC	OPEN CUT	405, SP-2
42	Z	49	29	90-N	090-0881	090-0710	309	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
43	Z	49 & 50	29	90-N	090-0710	090-0711	307	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
44	Z	50 & 51	29	90-N	090-0711	090-0712	335	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
45	Z	51 & 52	29	90-N	090-0712	090-0713	319	8	DR-17 DIPS HDPE	PIPE BURST	408, SP-7
46	AA	53	28	90-N	093-0319	093-0320	194	8	SDR 26 ASTM D2241 PVC	OPEN CUT	405, SP-2
47	BB	54	28	90-N	093-0406	093-0373	50	8	SDR 26 ASTM D3034 PVC	OPEN CUT	405, SP-2
48	CC	55	28	90-N	093-0406	093-0370	22	8	SDR 26 ASTM D2241 PVC	OPEN CUT	405, SP-2

6-6-25

LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PIPE WORK ITEM TABLE

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.		6/26/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO:				SHEET 8 OF 59 SHEETS

SLIPLINE/CURED-IN-PLACE PIPE (CIPP) REHABILITATION WORK ITEM TABLE

PIPE ID	PLAN SHEET NUMBER	ATLAS PAGE	MAINTENANCE AREA	DOWNSTREAM MANHOLE ID	DOWNSTREAM MANHOLE DEPTH (FT)	UPSTREAM MANHOLE ID	UPSTREAM MANHOLE DEPTH (FT)	NUMBER OF SERVICE RECONNECTIONS	EXISTING PIPE			PROPOSED PIPE		
									LENGTH (FT)	EXISTING NOMINAL DIAMETER (IN)	EXISTING PIPE MATERIAL	POINT REPAIRS	PROPOSED OUTSIDE PIPE DIAMETER (IN)	PROPOSED PIPE MATERIAL
BASE BID														
SL01	10	83	97-N	097-0719	6.0	097-0721	5.8	0	229	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL02	10	83	97-N	MH-3A	11.4	097-0806	8.4	2	181	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL03	10	83	97-N	097-0727	7.5	097-0728	7.1	0	75	8	VCP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL04	10	83	97-N	097-0724	7.4	097-0725	7.7	3	97	8	VCP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL05	10	83	97-N	097-0673	4.6	097-0674	7.8	2	125	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL06	10	83	97-N	097-0675	3.9	097-0676	7.1	4	224	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL07	11	25	30-N	030-0254	5.8	030-0256	3.8	2	199	8	VCP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL08	11	25	30-N	030-0256	3.8	030-0257	3.4	2	159	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL09	11	26	94-N	094-0289	9.7	094-0294	6.7	2	324	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL10	11	26	94-N	094-0223	9.5	094-0289	9.7	3	154	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL11	11	26	94-N	094-0289	9.7	094-0290	7.7	7	228	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL12	12	26	30-N	030-0510	7.6	030-0524	9.8	9	250	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL13	12	26	30-N	030-0524	9.8	030-0525	9.8	8	160	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL14	12	26	30-N	030-0438	9.6	030-0439	9.1	8	239	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL15	12	26	30-N	030-0439	9.1	030-0440	8.6	10	200	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL16	12	26	94-N	094-0368	8.1	094-0369	7.1	6	108	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL17	12	26	94-N	094-0366	9.1	094-0368	8.1	7	350	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL18	12	26	94-N	094-0363	8.0	094-0366	9.1	5	334	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL19	12	26	94-N	094-0363	8.0	094-0364	7.3	9	350	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL20	12	26	94-N	094-0360	8.8	094-0363	8.0	6	330	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL21	12	26	94-N	094-0361	5.4	094-0362	6.1	4	108	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL22	12	26	94-N	094-0360	8.8	094-0361	5.4	11	350	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL23	12	26	94-N	094-0354	11.2	094-0355	6.4	11	316	8	VCP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL40	14	28	93-N	093-0370	6.5	093-0371	6.7	11	298	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL41	14	28	93-N	093-0371	6.7	093-0372	9.3	8	222	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL42	14	28	93-N	093-0318	4.5	093-0319	3.5	0	58	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL43	14	28	93-N	093-0317	7.3	093-0318	4.5	19	291	8	VCP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL44	15	28	90-N	090-0182	9.1	090-0183	6.3	10	252	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
ADDITIVE ALTERNATE NO. 1														
SL24	13	26	94-N	094-0224	12.0	094-0225	9.5	3	166	12	CP		10.75	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL25	13	26	94-N	094-0225	9.5	094-0226	13.1	3	260	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL26	13	26	94-N	094-0226	13.1	094-0227	6.2	11	299	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL27	13	26	94-N	094-0227	6.2	094-0228	5.0	6	255	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL28	13	26	94-N	094-0228	5.0	094-0229	5.2	7	228	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL29	13	26	94-N	094-0229	5.2	094-0230	7.4	2	238	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL30	13	26	94-N	094-0230	7.4	094-0231	3.0	1	75	8	CP	STA 0+60 TO STA 0+65	7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL31	13	26	94-N	094-0230	7.4	094-0232	4.0	1	121	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL32	13	26	94-N	094-0232	4.0	094-0234	5.2	5	246	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
ADDITIVE ALTERNATE NO. 2														
SL33	13	26	94-N	094-0224	12.0	094-0243	5.7	2	90	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL34	13	26	94-N	094-0243	5.7	094-0244	5.2	5	305	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL35	13	26	94-N	094-0244	5.2	094-0245	6.2	7	300	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL36	13	26	94-N	094-0245	6.2	094-0246	4.7	9	265	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL37	13	26	94-N	094-0246	4.7	094-0247	4.2	6	218	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL38	13	26	94-N	094-0243	5.7	094-0248	7.8	3	199	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)
SL39	13	26	94-N	094-0248	7.8	094-0249	5.0	4	185	8	CP		7.125	SDR 21 IPS HDPE OR CURED-IN-PLACE-PIPE (CIPP)

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

SLIPLINE/CIPP WORK ITEM TABLE

TMUA PROJECT NO. ES 2025-09

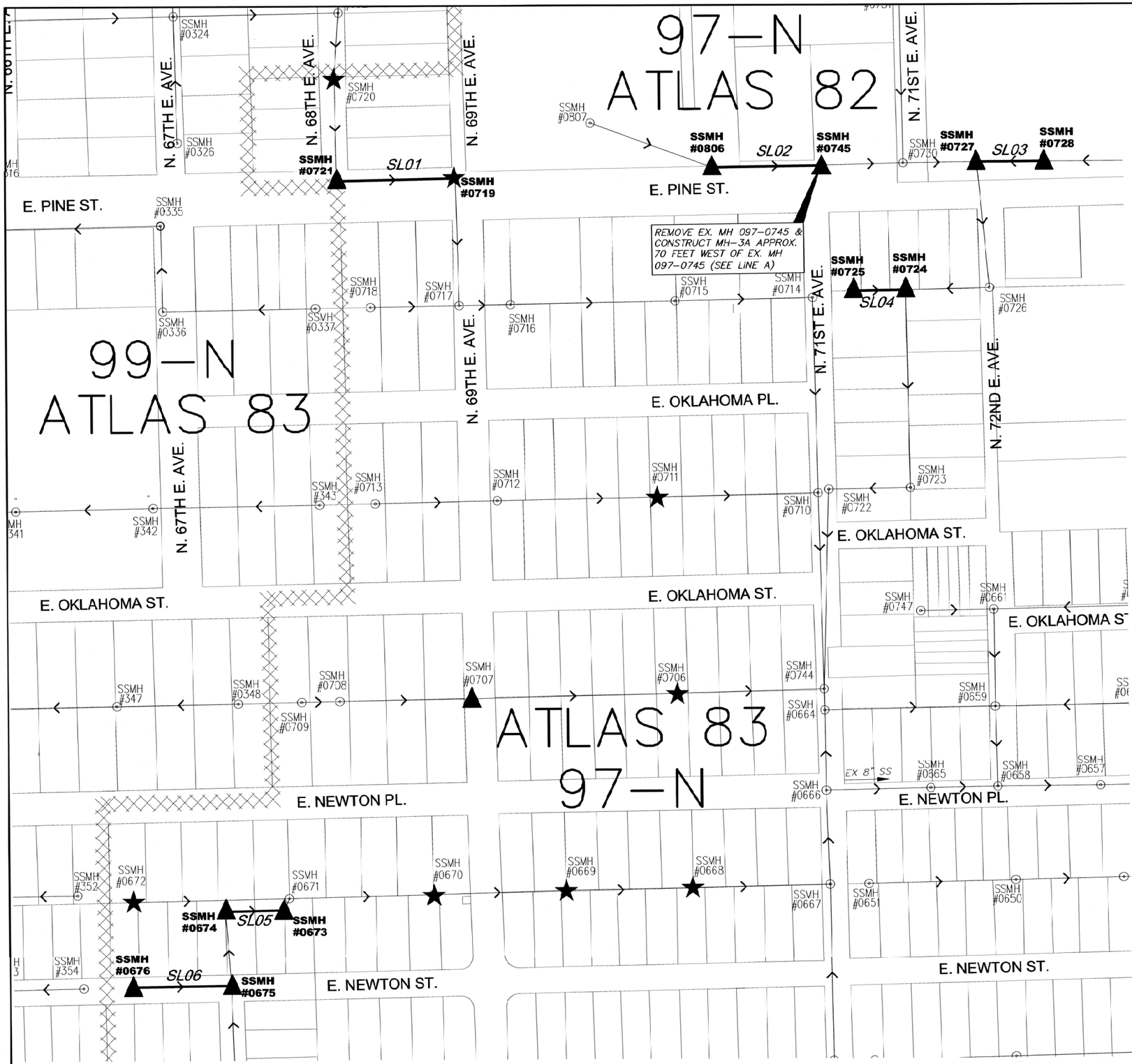
COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJM GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.		6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO:				SHEET 9 OF 59 SHEETS



NOTES

1. CONTRACTOR SHALL INSTALL CURED-IN-PLACE PIPE IN ACCORDANCE WITH PART 410 OF CITY OF TULSA'S MOST RECENT STANDARD SPECIFICATIONS. SLIPLINING SHALL BE IN ACCORDANCE WITH PART 409 OF CITY OF TULSA'S MOST RECENT STANDARD SPECIFICATIONS.
2. DESIGN PARAMETERS FOR CURED-IN-PLACE PIPE (CIPP) REHABILITATION SHALL BE BASED ON FULLY DETERIORATED DESIGN WITH A SAFETY FACTOR OF 2 IN ACCORDANCE WITH ASTM F1216. CONTRACTOR SHALL SUBMIT DESIGN TO ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK AND DESIGN SHALL BE INCLUDED WITH COMPLETE SUBMITTAL PACKAGE FOR CIPP SCOPE OF WORK. FLEXURAL MODULUS FOR THE RESIN SHALL BE A MINIMUM OF 400,000 PSI.
3. ANY SURFACE OBSTRUCTION REMOVAL & REPLACEMENT REQUIRED TO ACCESS MANHOLES SHALL BE INCLUDED IN THE BID ITEM FOR CURED-IN-PLACE OR SLIPLINE PIPE REHABILITATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CLEARING AND GRUBBING AND FENCE REMOVAL AND REPLACEMENT.
4. CONTRACTOR SHALL VERIFY ALL ACTIVE SERVICE LOCATIONS AND POSITIONS PRIOR TO CURED-IN-PLACE OR SLIPLINE PIPE REHABILITATION. ANY CLEANING REQUIRED, INCLUDING HEAVY CLEANING, SHALL BE INCLUDED IN UNIT PRICE BID FOR PRE-REHABILITATION CCTV PIPE INSPECTION.
5. SERVICE LATERALS LOCATED UNDER PAVEMENT SHALL BE REPLACED TO WITHIN 2' OF THE EASEMENT/RIGHT-OF-WAY BOUNDARY WITH DUCTILE IRON PIPE. SERVICE LATERALS LOCATED OUTSIDE OF PAVEMENT SHALL BE RECONNECTED TO THE MAIN LINE WITH AN ADDITIONAL 10 LINEAR FEET OF REPLACEMENT. ANY ADDITIONAL PIPE OR FITTINGS REQUIRED TO MAKE A GOOD CONNECTION TO THE MAIN LINE OUTSIDE OF PAVEMENT SHALL BE INCLUDED IN THE COST OF SERVICE RECONNECTION.
6. ALL SERVICE RECONNECTIONS ON CIPP/SLIPLINE REHABILITATED PIPE SEGMENTS SHALL BE MADE EXTERNALLY AND IN ACCORDANCE WITH PART 409.17 OR 410.12.4 OF CITY OF TULSA'S MOST RECENT STANDARD SPECIFICATIONS.
7. ADDITIONAL SERVICE RECONNECTIONS, REPAIRS, AND/OR OBSTRUCTION REMOVALS MAY BE REQUIRED FOLLOWING PRE-CONSTRUCTION CCTV INSPECTION PRIOR TO CURED-IN-PLACE OR SLIPLINE PIPE REHABILITATION.
8. DETAILS REGARDING THE MANHOLES SCHEDULED FOR REHABILITATION ARE IN THE MANHOLE REHABILITATION WORK ITEM TABLE ON SHEETS 6 & 7.

NOT TO SCALE

LEGEND

- MANHOLE REPLACEMENT (SEE MANHOLE WORK ITEM TABLE) ▲
- CURED-IN-PLACE (CIPP) OR SLIPLINING PIPE REHABILITATION ———
- MANHOLE REHABILITATION (SEE MH REHABILITATION WORK ITEM TABLE) ★
- SLIPLINING ID — SL05
- EXISTING SEWER ---------
- MAINTENANCE AREA ID — 94—N
- MAINTENANCE AREA BOUNDARY XXXXX

OKIE811 Know what's below 811 before you dig.

WARNING!!!

EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33759
OKLAHOMA

ATLAS PAGES 82 & 83 SLIPLINE/CIPP & MANHOLE REHABILITATION KEY MAP

TMUA PROJECT NO. ES 2025-09

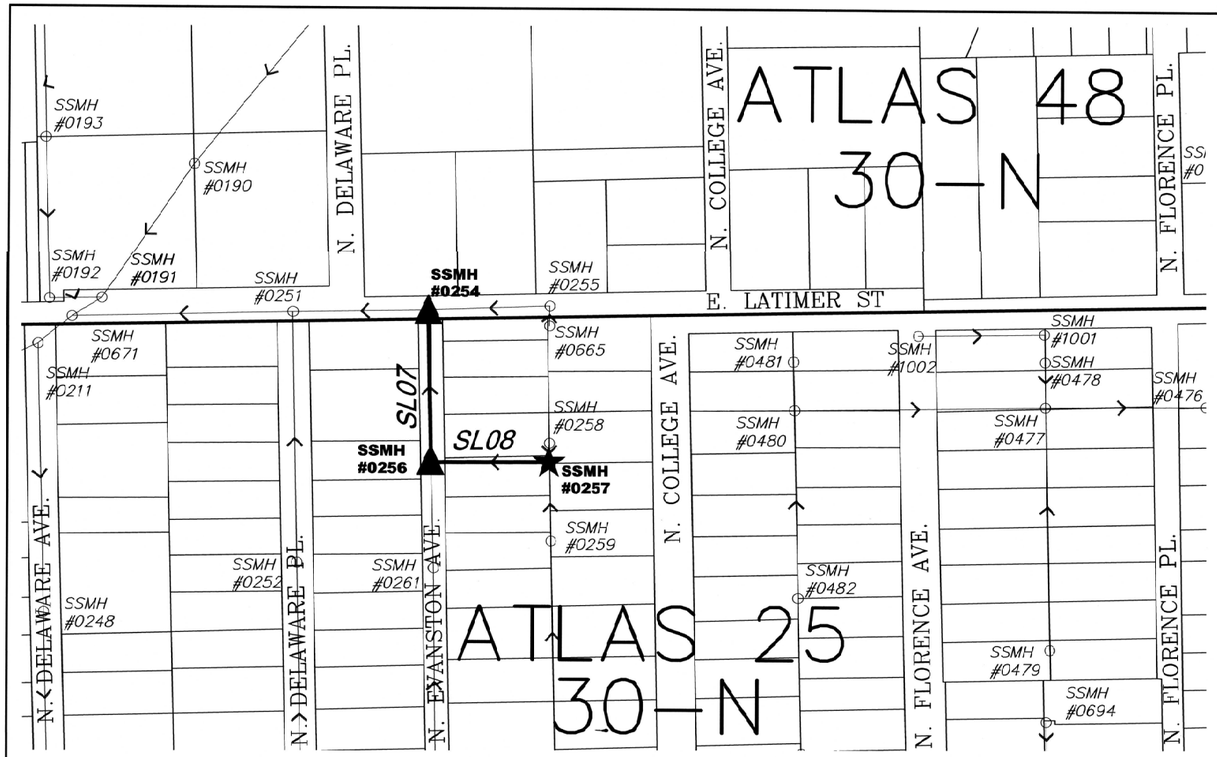
COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

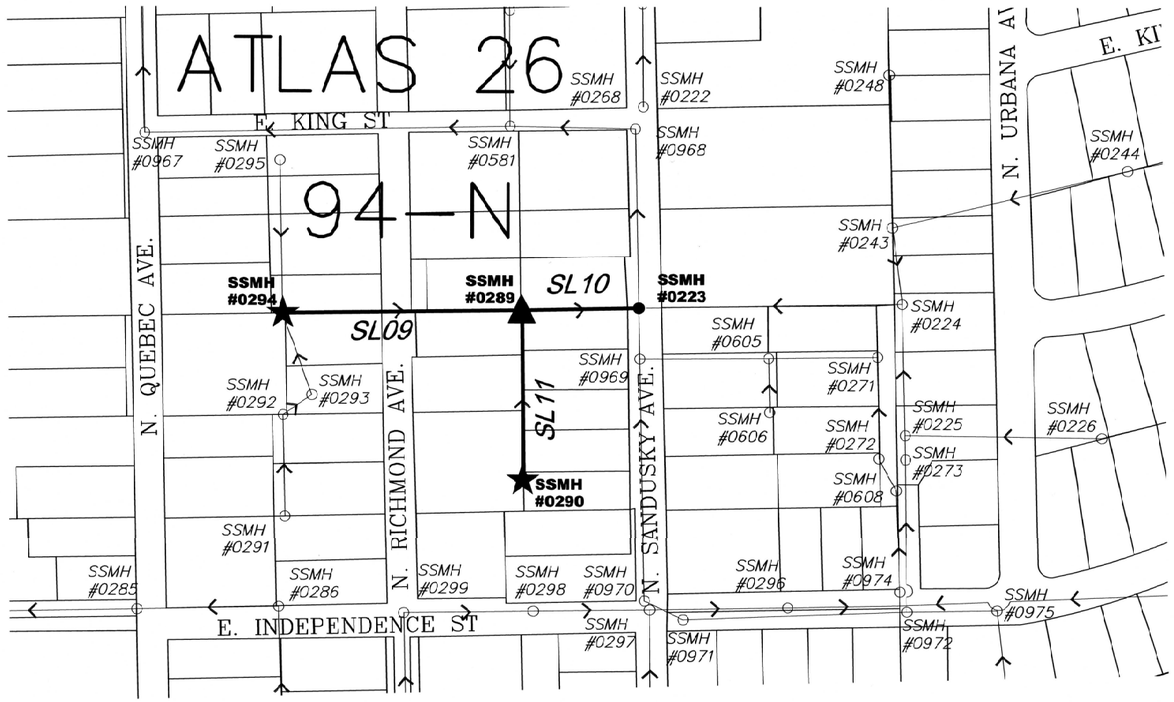
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL:	LEAD ENGR.		6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 82,83				SHEET 10 OF 59 SHEET





NOTES

1. CONTRACTOR SHALL INSTALL CURED-IN-PLACE PIPE IN ACCORDANCE WITH SPECIAL PROVISION 6. SLIPLINING SHALL BE IN ACCORDANCE WITH PART 409 OF CITY OF TULSA'S MOST RECENT STANDARD SPECIFICATIONS.
2. DESIGN PARAMETERS FOR CURED-IN-PLACE PIPE (CIPP) REHABILITATION SHALL BE BASED ON FULLY DETERIORATED DESIGN WITH A SAFETY FACTOR OF 2 IN ACCORDANCE WITH ASTM F1216. CONTRACTOR SHALL SUBMIT DESIGN TO ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK AND DESIGN SHALL BE INCLUDED WITH COMPLETE SUBMITTAL PACKAGE FOR CIPP SCOPE OF WORK. FLEXURAL MODULUS FOR THE RESIN SHALL BE A MINIMUM OF 400,000 PSI.
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NOT TO SCALE

LEGEND

- MANHOLE REPLACEMENT (SEE MANHOLE WORK ITEM TABLE) ▲
- CURED-IN-PLACE (CIPP) OR SLIPLINING PIPE REHABILITATION ———
- MANHOLE REHABILITATION (SEE MH REHABILITATION WORK ITEM TABLE) ★
- SLIPLINING ID SL05
- EXISTING SEWER - - - - - - - -
- MAINTENANCE AREA ID 94—N
- MAINTENANCE AREA BOUNDARY XXXXX

OKIE811 Know what's below 811 before you dig.

WARNING!!!

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6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGES 25, 26 & 48 SLIPLINE/CIPP KEY MAP

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.	JWB	6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 25,26,48				SHEET 11 OF 59 SHEETS

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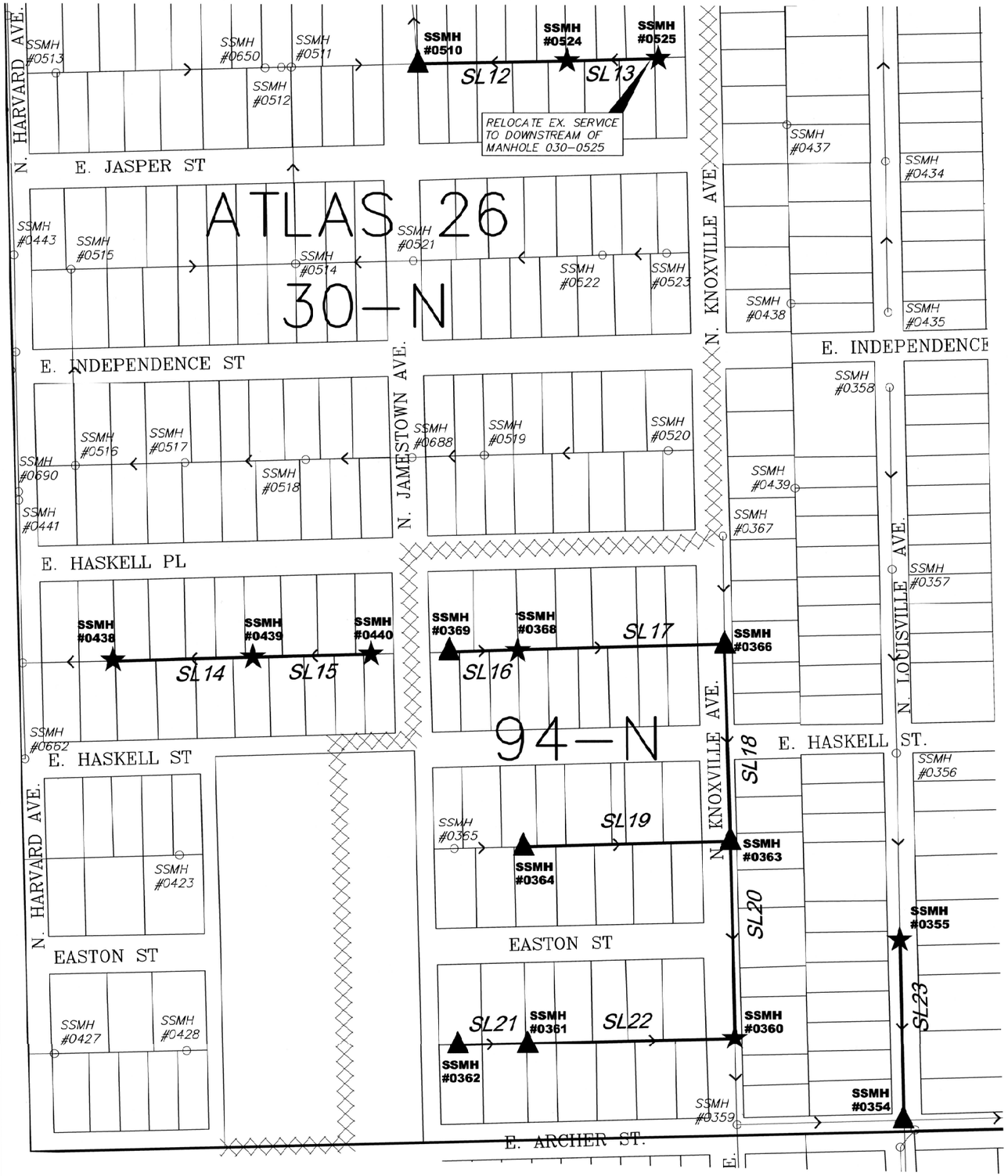

NOTES

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- CURED-IN-PLACE (CIPP) OR SLIPLINING PIPE REHABILITATION ———
- MANHOLE REHABILITATION (SEE MH REHABILITATION WORK ITEM TABLE) ★
- SLIPLINING ID — SL05
- EXISTING SEWER — — — — —
- MAINTENANCE AREA ID — 94—N
- MAINTENANCE AREA BOUNDARY — XXXXX

OKIE811 Know what's below 811 before you dig.

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6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGE 26 SLIPLINE/CIPP KEY MAP 1

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

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HORIZONTAL:	PROJ. MGR.	CC	6/6/25	
VERTICAL	LEAD ENGR.	JWB	6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 26				SHEET 12 OF 59 SHEETS

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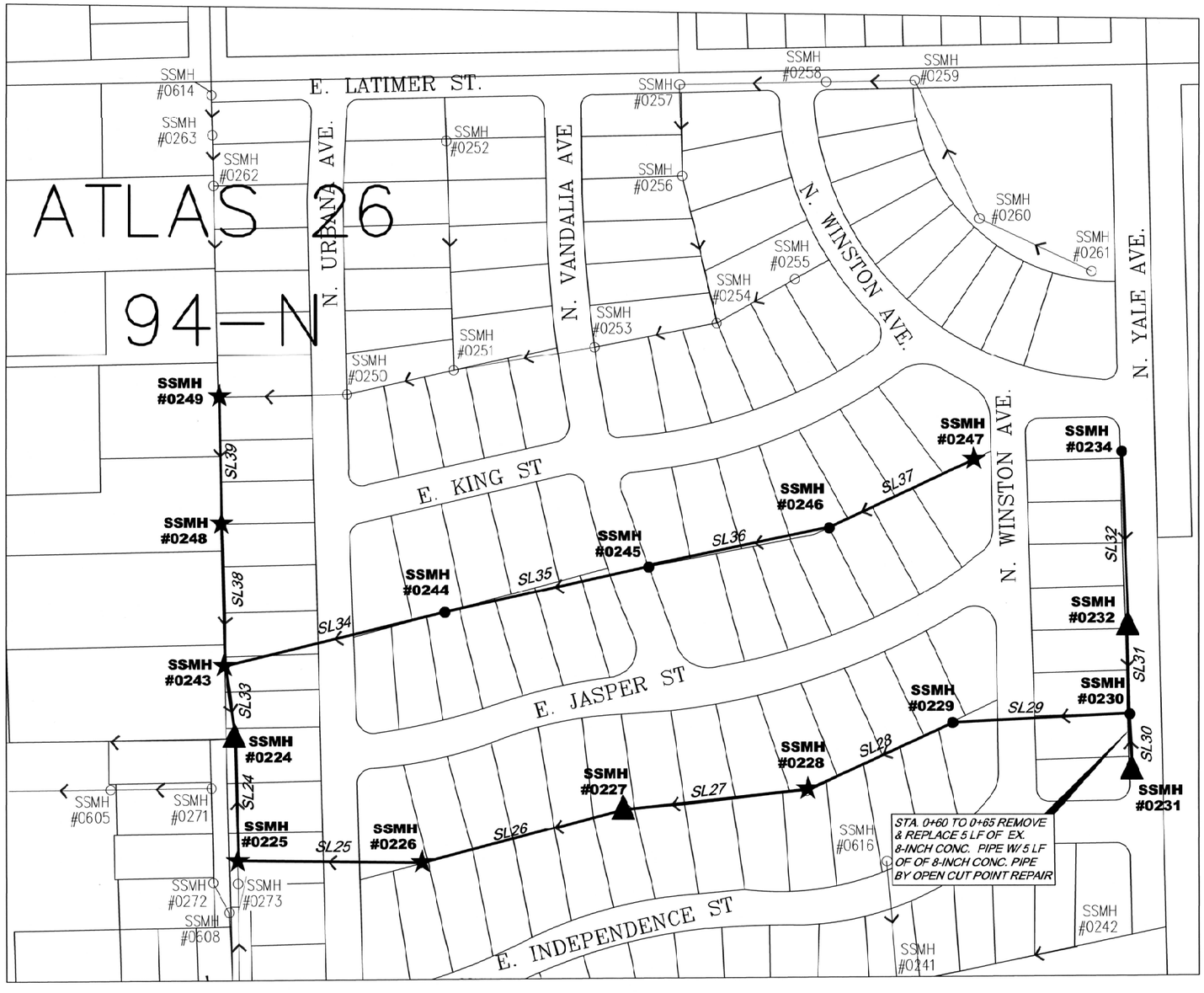

ADDITIVE ALTERNATE NO.1 : SL24 - SL32
MH 094-0224 IS INCLUDED IN ADDITIVE ALTERNATE NO. 1
ADDITIVE ALTERNATE NO.2 : SL33 - SL39

NOTES

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5. SERVICE LATERALS LOCATED UNDER PAVEMENT SHALL BE REPLACED TO WITHIN 2' OF THE EASEMENT/RIGHT-OF-WAY BOUNDARY WITH DUCTILE IRON PIPE. SERVICE LATERALS LOCATED OUTSIDE OF PAVEMENT SHALL BE RECONNECTED TO THE MAIN LINE WITH AN ADDITIONAL 10 LINEAR FEET OF REPLACEMENT. ANY ADDITIONAL PIPE OR FITTINGS REQUIRED TO MAKE A GOOD CONNECTION TO THE MAIN LINE OUTSIDE OF PAVEMENT SHALL BE INCLUDED IN THE COST OF SERVICE RECONNECTION.
6. ALL SERVICE RECONNECTIONS ON CIPP/SLIPLINE REHABILITATED PIPE SEGMENTS SHALL BE MADE EXTERNALLY AND IN ACCORDANCE WITH PART 409.17 OR 410.12.4 OF CITY OF TULSA'S MOST RECENT STANDARD SPECIFICATIONS.
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8. DETAILS REGARDING THE MANHOLES SCHEDULED FOR REHABILITATION ARE IN THE MANHOLE REHABILITATION WORK ITEM TABLE ON SHEETS 6 & 7.

NOT TO SCALE

LEGEND

- MANHOLE REPLACEMENT (SEE MANHOLE WORK ITEM TABLE) ▲
- CURED-IN-PLACE (CIPP) OR SLIPLINING PIPE REHABILITATION ——————
- MANHOLE REHABILITATION (SEE MH REHABILITATION WORK ITEM TABLE) ★
- SLIPLINING ID SL05
- EXISTING SEWER ----------
- MAINTENANCE AREA ID 94—N
- MAINTENANCE AREA BOUNDARY XXXXX

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGE 26 SLIPLINE/CIPP KEY MAP 2

TMUA PROJECT NO. ES 2025-09

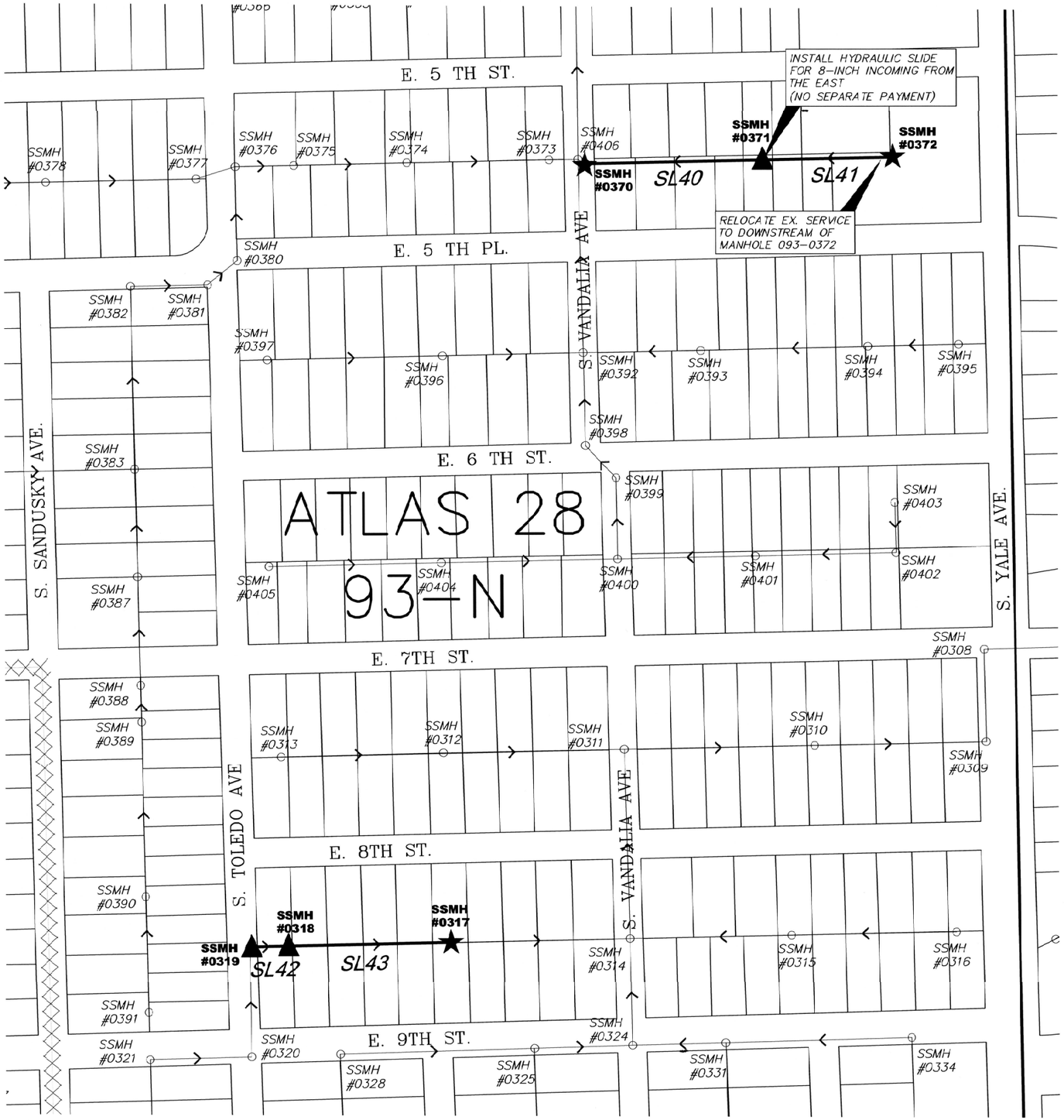
COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.		6/26/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 26				SHEET 13 OF 59 SHEETS



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3. ANY SURFACE OBSTRUCTION REMOVAL & REPLACEMENT REQUIRED TO ACCESS MANHOLES SHALL BE INCLUDED IN THE BID ITEM FOR CURED-IN-PLACE OR SLIPLINE PIPE REHABILITATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CLEARING AND GRUBBING AND FENCE REMOVAL AND REPLACEMENT.
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NOT TO SCALE

LEGEND

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- *MANHOLE REHABILITATION (SEE MH REHABILITATION WORK ITEM TABLE)* ★
- *SLIPLINING ID* SL05
- *EXISTING SEWER* - - - - - - - - -
- *MAINTENANCE AREA ID* 94—N
- *MAINTENANCE AREA BOUNDARY* ⟋⟋⟋⟋

OKIE811 Know what's below 811 before you dig.

WARNING!!!

EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGE 28 SLIPLINE/CIPP KEY MAP 1

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

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	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.	JWB	6/25	DESIGN MANAGER
	FIELD MGR.			DATE: June 2025
FILE:	DRAWING:			SHEET 14 OF 59 SHEETS
ATLAS PAGE NO: 28				

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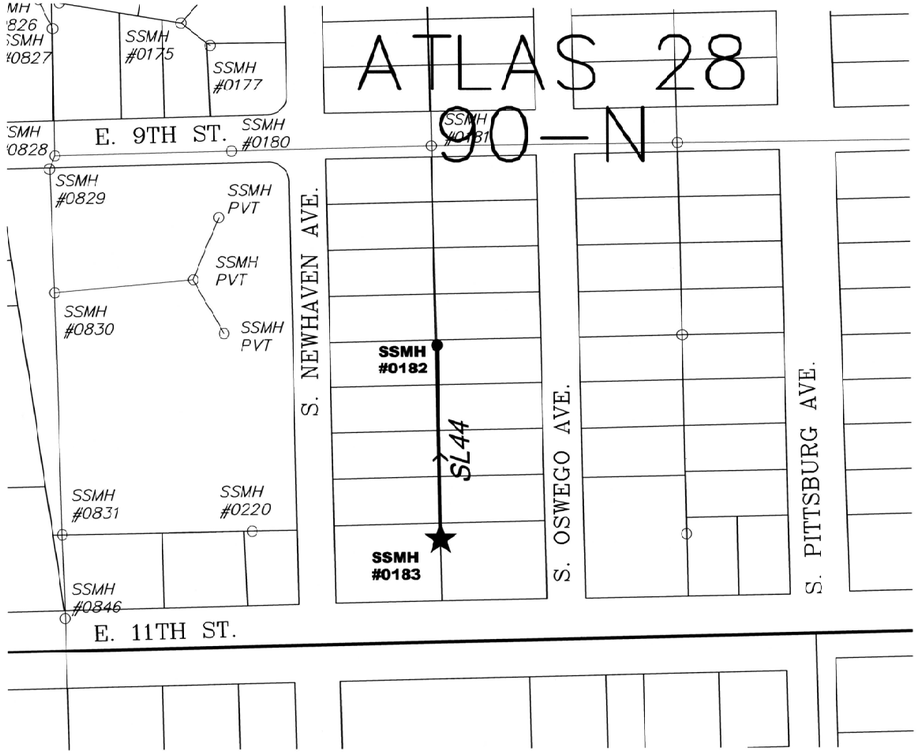
Plotted: May 30, 2025
8:43:50 AM



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LEGEND

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- *CURED-IN-PLACE (CIPP) OR SLIPLINING PIPE REHABILITATION* ——————
- *MANHOLE REHABILITATION (SEE MH REHABILITATION WORK ITEM TABLE)* ★
- *SLIPLINING ID* SL05
- *EXISTING SEWER* ----------
- *MAINTENANCE AREA ID* 94—N
- *MAINTENANCE AREA BOUNDARY* XXXXX

OKIE811 Know what's below Call before you dig.

WARNING!!!

EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGE 28 SLIPLINE/CIPP KEY MAP 2

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.	JWB	6/25	Shawna M. Ong
	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 28				SHEET 15 OF 59 SHEETS

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Plotted: June 06, 2025
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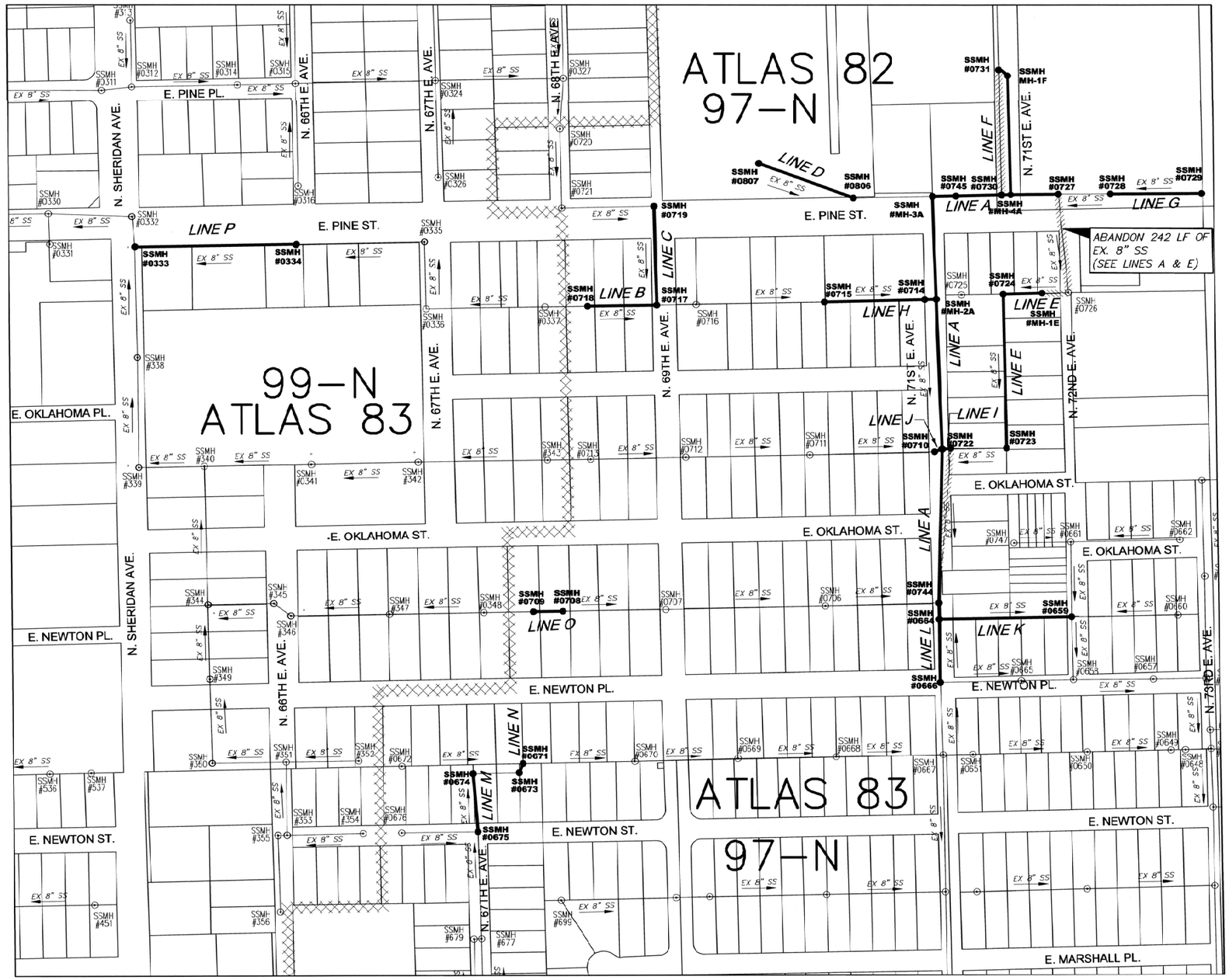

NOT TO SCALE

LEGEND

ABANDONMENT OF EXISTING SEWER

LINE A SEE SHEET 17-20
LINE B SEE SHEET 21
LINE C SEE SHEET 22
LINE D SEE SHEET 23
LINE E SEE SHEET 24-25
LINE F SEE SHEET 26
LINE G SEE SHEET 27
LINE H SEE SHEET 28
LINES I & J SEE SHEET 29
LINE K SEE SHEET 30
LINE L SEE SHEET 31
LINE M SEE SHEET 32
LINE N SEE SHEET 33
LINE O SEE SHEET 34
LINE P SEE SHEET 35

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGES 82 & 83 KEY MAP

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

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PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.		6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO. 82,83				SHEET 16 OF 59 SHEETS

CONSTRUCT 400 LF OF 8" SEWER PIPE BY OPEN CUT

STA. 0+00.00 ~ 8" SS LINE A
STA. 0+00.00 ~ 8" SS LINE L
STA. 3+34.38 ~ 8" SS LINE K
REMOVE & REPLACE
EX. MH 097-0664 W/
STD. 4' DIA. DROP MH
N=434203.79
E=2588863.49

STA. 0+32.49 ~ 8" SS
REMOVE & REPLACE
EX. MH 097-0744 W/
STD. 4' DIA. MH
N=434236.26
E=2588862.33

REMOVE & REPLACE ONE CAST IRON CURB INLET DESIGN 2
FL EX. 15" RCP =648.03

REMOVE & REPLACE 18 SY OF CONCRETE DRIVEWAY

REMOVE & REPLACE 49 SY OF ASPHALT & 35 LF OF CURB & GUTTER

ABANDON 310 LF OF EX. 8" SS SEE NOTE (1 & 2)

REPLACE ONE CAST IRON CURB INLET DESIGN 2
FL EX. 18" RCP =647.44

REMOVE & REPLACE 330 SY OF ASPHALT & 352 LF OF CURB & GUTTER

REMOVE & REPLACE 8 LF OF 15" RCP IF NECESSARY

ABANDON 178 LF OF EX. 8" SS SEE NOTE (1 & 2)

REMOVE & REPLACE 8 LF OF 18" RCP

WARNING!!! GAS MAIN USE CAUTION!!!

WARNING!!! GAS MAIN USE CAUTION!!!

HUFFMAN HEIGHTS BLOCK 3
HUFFMAN HEIGHTS BLOCK 2
LOT 10 FIGUEROA, JOSE 6948 E. OKLAHOMA ST.
LOT 11 CATHCART, RUTH MARIE 6947 E. NEWTON PL.
LOT 11 HIGHTOWER, LINDA 6945 E. OKLAHOMA ST.
LOT 13 BRITTON, ROBERT L & GLORIA J 1403 N. 71st E. AVE.
JENNINGS ADDITION BLOCK 1
E. OKLAHOMA ST. ASPHALT PAVEMENT
N. 71st E. AVE. ASPHALT PAVEMENT
1-STORY FRAME FINISHED FLOOR EL=655.05
1-STORY FRAME F.F. EL=655.37
LINE A
LINE K
LINE L
SSMH #664
BM-460
4" CHAIN LINK FENCE
WOOD SHED
"TIE-WALL"
CONC RETAINING WALL
GRAVEL
WOOD FENCE
5' WOOD RAIL FENCE
CONC WV SIGN "STOP"
22" TREE
24" TREE
18" TREE
10" TREE
42" RCP
24" RCP
18" RCP
ROW 50.00'
ROW 60.00'
MATCH LINE STA. 4+00

BENCHMARKS:

BM-460
3/8" IRON PIN SET 22' SOUTH AND 34' EAST OF EX. MH 097-0664

N=434180.63
E=2588898.17
EL=654.02

0 10' 20' 40'
SCALE: 1"= 20'

LEGEND

- ASPHALT PAVEMENT REMOVAL AND REPLACEMENT
- CONCRETE DRIVEWAY REMOVAL & REPLACEMENT

OKIE811 Know what's below 811 before you dig.

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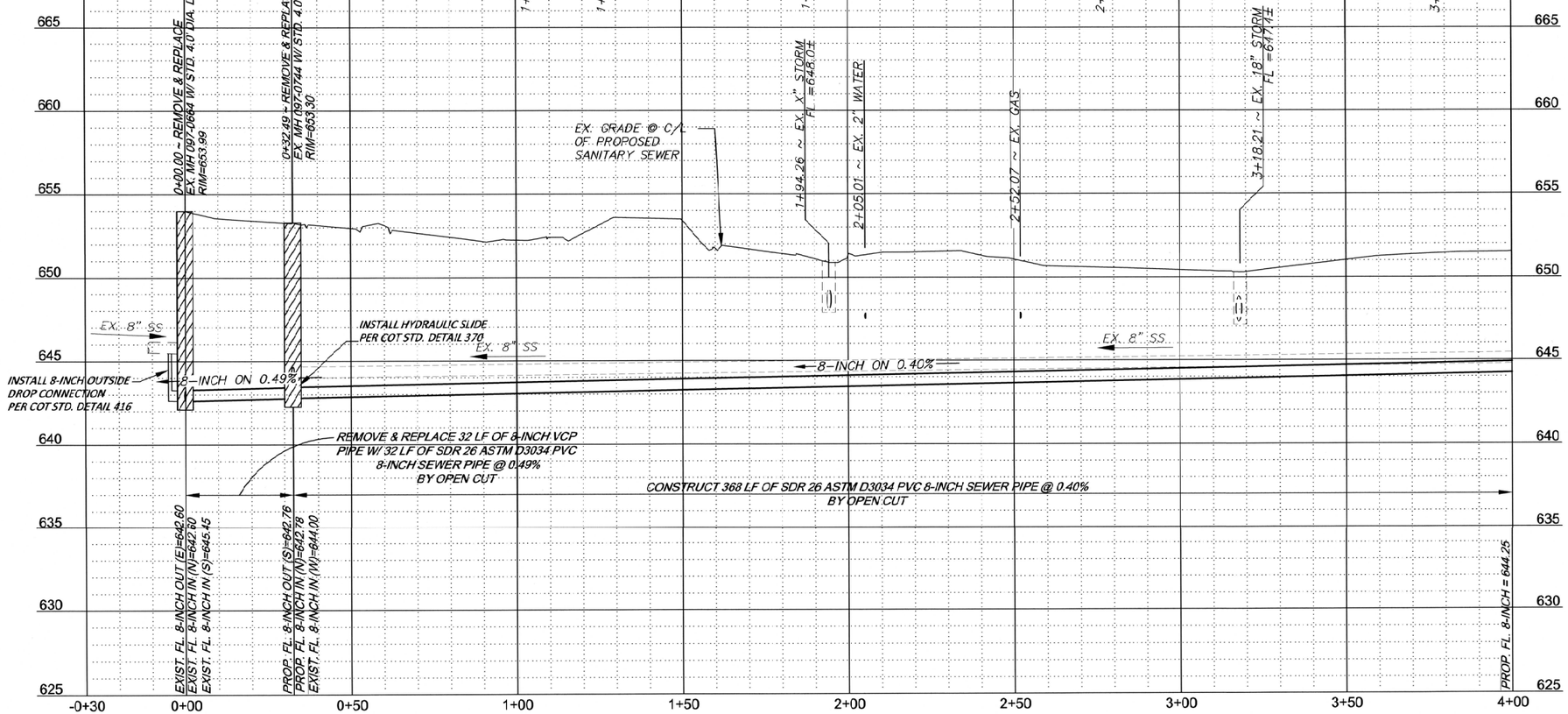

NOTES:

1. FILL EXISTING 8" SANITARY SEWER PIPE WITH CELLULAR CONCRETE OR FLOWABLE FILL. ABANDONMENT SHALL BE PERFORMED AFTER CONSTRUCTION ALL NEW SEWER MAINS.
2. CONTRACTOR SHALL TELEVISE ALL SANITARY SEWER LINES CALLED OUT FOR ABANDONMENT TO DETERMINE LOCATION OF ACTIVE SERVICES. ANY ACTIVE SERVICES ON AN ABANDONED LINE SHALL BE RECONNECTED TO AN EXISTING OR PROPOSED LINE IN THE IMMEDIATE VICINITY. ENGINEER SHALL BE CONTACTED IMMEDIATELY IF THERE IS NO SEWER MAIN IN THE VICINITY TO CONNECT THE SERVICE.
3. CONTRACTOR SHALL BRACE GAS MAIN AT INTERVALS OF 5 LF OR LESS DURING SANITARY SEWER CONSTRUCTION

6-6-25
LICENSED PROFESSIONAL ENGINEER JACOB BRUMBAUGH 33769 OKLAHOMA

STA. 0+00 TO STA. 4+00 LINE A

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
VERTICAL 1" = 4'	LEAD ENGR.		6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 83				SHEET 17 OF 59 SHEETS

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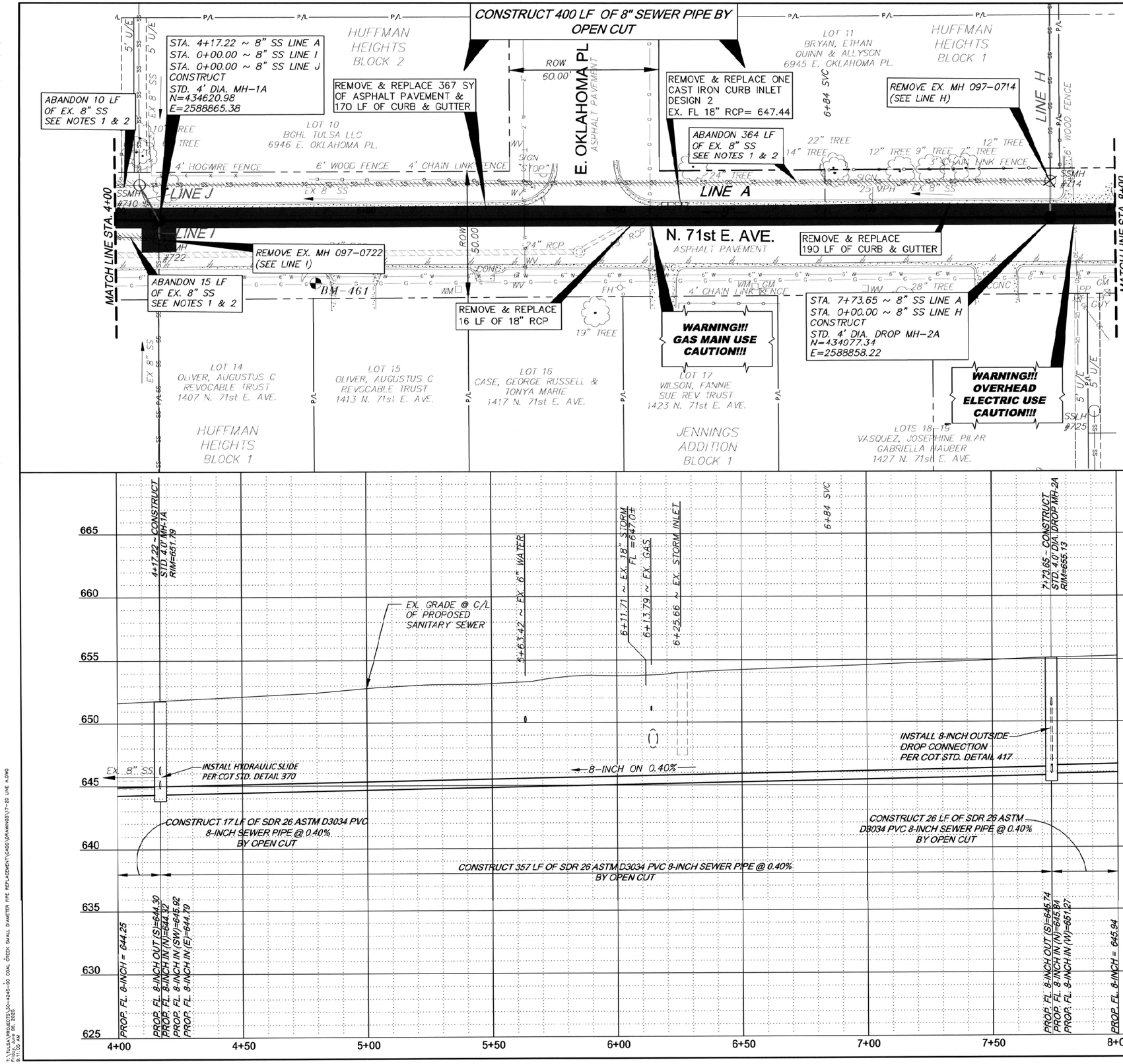
Friday, June 06, 2025
9:10:15 AM



BENCHMARKS:

BM-461
IRON PIN SET 62' NORTH AND 17' EAST OF EX. MH 097-0722

N=434683.93
E=2588889.15
EL=653.15

LEGEND

- ASPHALT PAVEMENT REMOVAL AND REPLACEMENT
- ABANDONMENT OF EXISTING SEWER

0 10' 20' 40'
SCALE: 1" = 20'

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6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

STA. 4+00 TO STA. 8+00 LINE A

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

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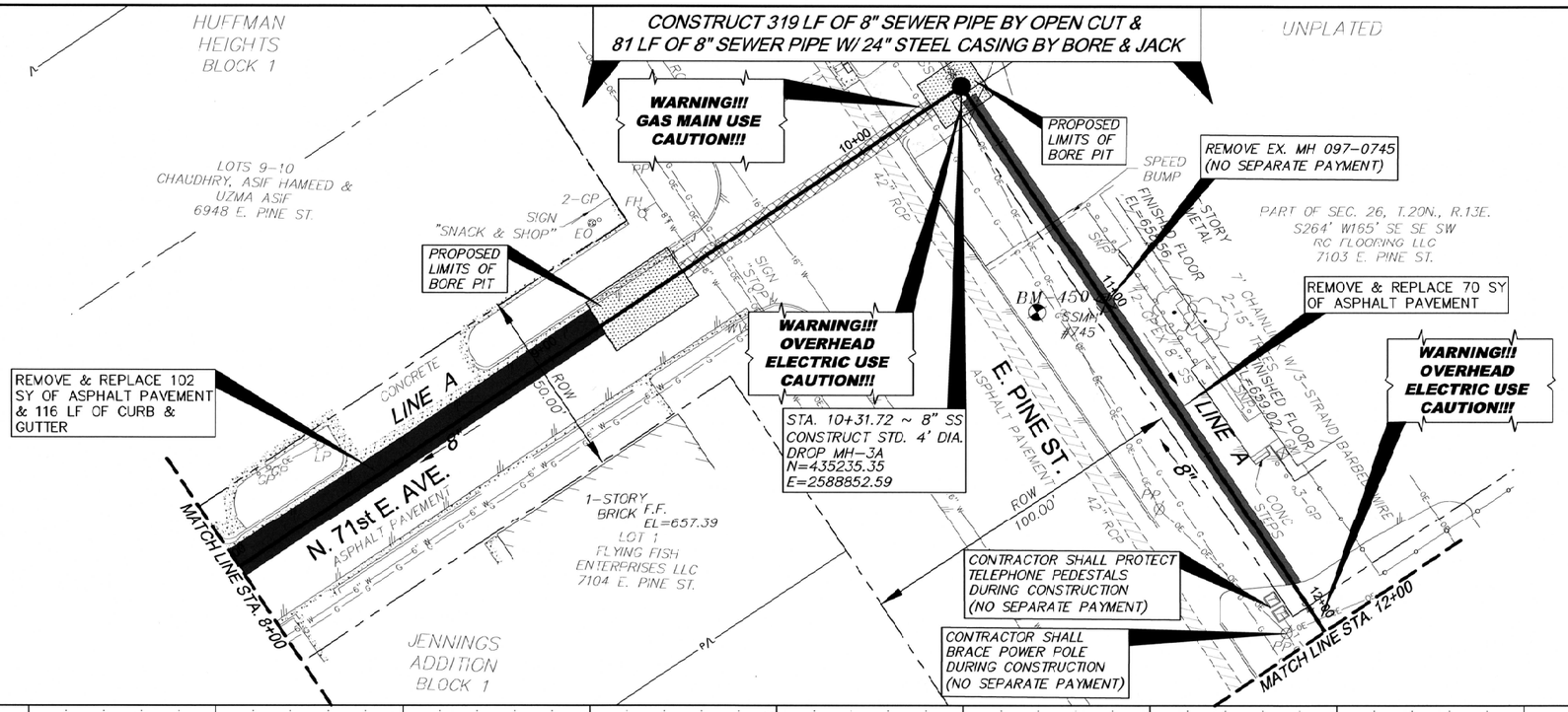
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/25	DESIGN MANAGER
VERTICAL 1" = 4'	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 83				SHEET 18 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CAD\DRAWINGS\17-20 LINE A.DWG
PLOTTED: JUNE 06, 2025
BY: RYAN PLATT



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

STA. 8+00 TO STA. 12+00 LINE A

TMUA PROJECT NO. ES 2025-09

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VERTICAL 1" = 4'	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 62,83				SHEET 19 OF 59 SHEETS

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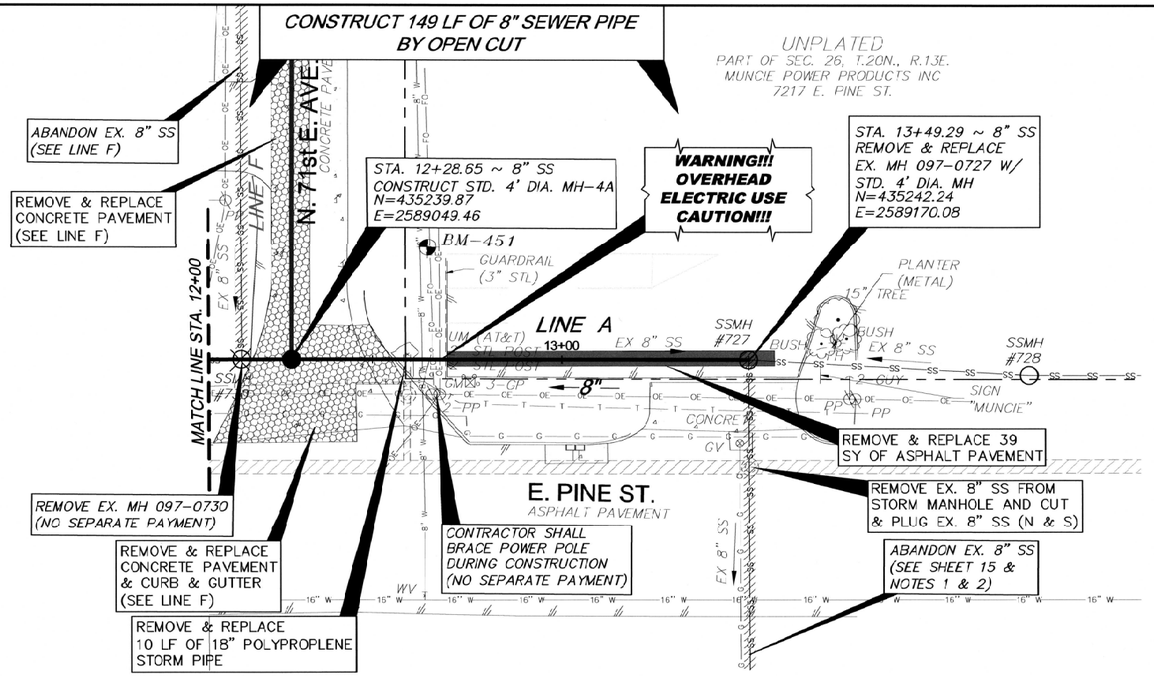
11:07:32 AM



BENCHMARKS:

BM-451
IRON PIN SET 7' WEST AND 17' SOUTH OF EX. MH 097-0730

N=435270.12
E=2589084.86
EL=655.75

LEGEND

- ASPHALT PAVEMENT REMOVAL AND REPLACEMENT
- CONCRETE PAVEMENT REMOVAL & REPLACEMENT
- ABANDONMENT OF EXISTING SEWER

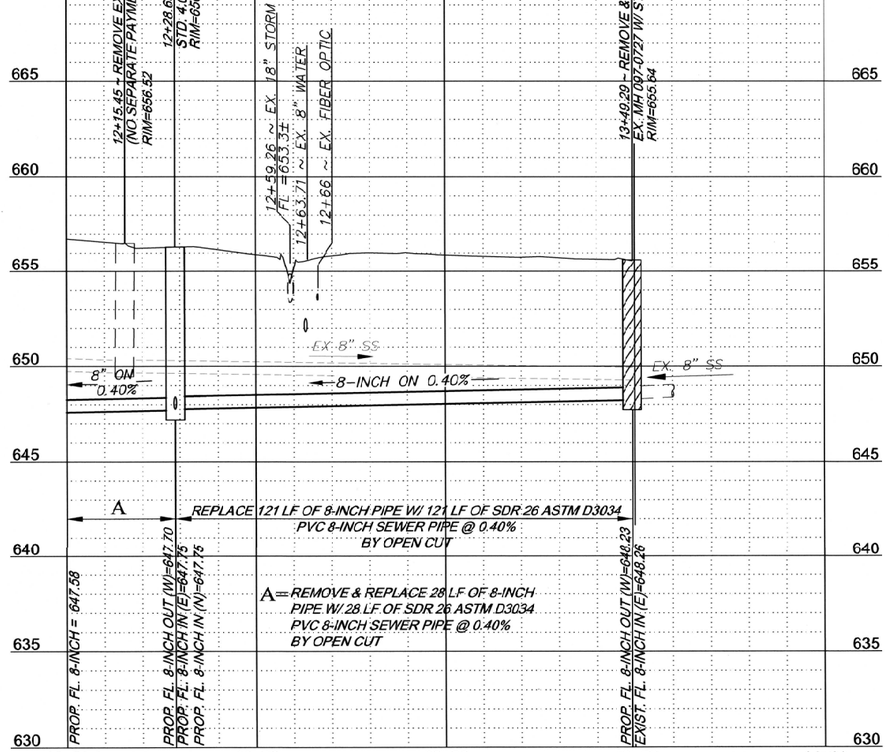
NOTES:

1. FILL EXISTING 8" SANITARY SEWER PIPE WITH CELLULAR CONCRETE OR FLOWABLE FILL. ABANDONMENT SHALL BE PERFORMED AFTER CONSTRUCTION ALL NEW SEWER MAINS.
2. CONTRACTOR SHALL TELEVISE ALL SANITARY SEWER LINES CALLED OUT FOR ABANDONMENT TO DETERMINE LOCATION OF ACTIVE SERVICES. ANY ACTIVE SERVICES ON AN ABANDONED LINE SHALL BE RECONNECTED TO AN EXISTING OR PROPOSED LINE IN THE IMMEDIATE VICINITY. ENGINEER SHALL BE CONTACTED IMMEDIATELY IF THERE IS NO SEWER MAIN IN THE VICINITY TO CONNECT THE SERVICE.
3. CONTRACTOR SHALL CALL OKLAHOMA NATURAL GAS AT 918-684-4441 PRIOR TO CONSTRUCTION CROSSING GAS LINES.

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below Call before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

STA. 12+00 TO STA. 13+42 LINE A

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025
	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	LC	06/2025
VERTICAL: 1" = 4'	LEAD ENGR.		6/25
	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 82,83			

APPROVED:

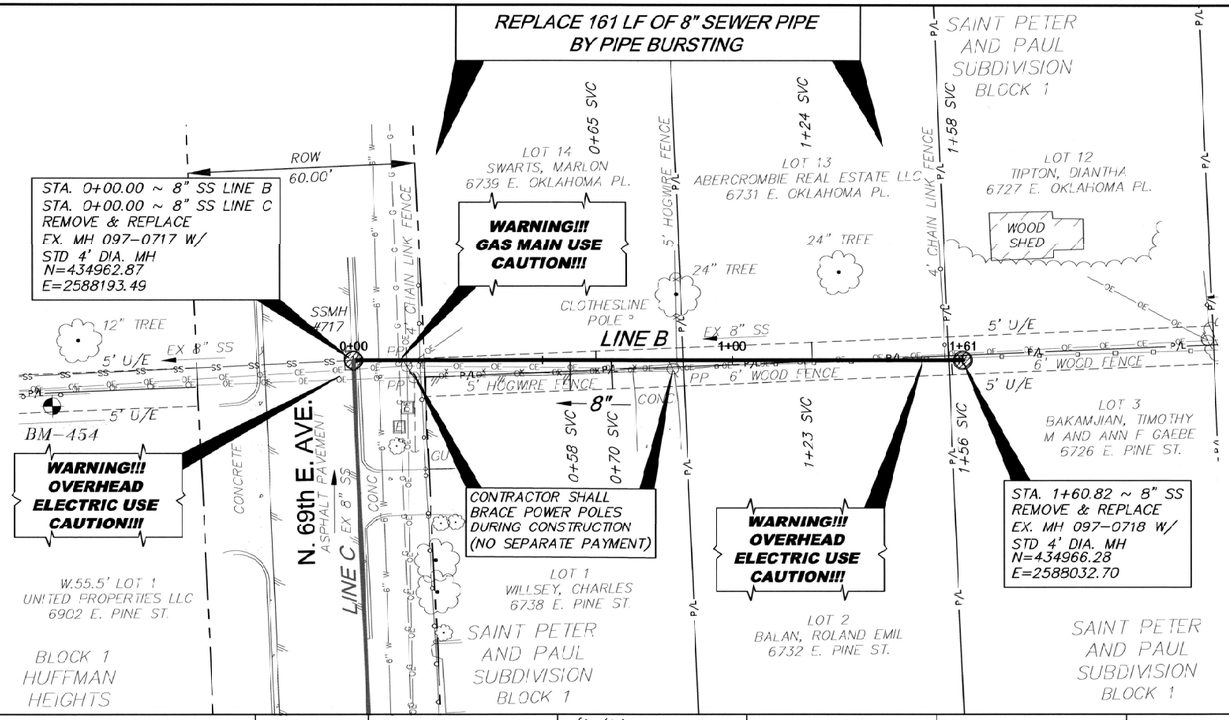
DESIGN MANAGER

DATE: June 2025

SHEET 20 OF 59 SHEETS

T:\TULSA\PROJECTS\20-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\17-20 LINE A.DWG
Jun 06, 2025 - 7:37 AM
11:52:37 AM

REPLACE 161 LF OF 8" SEWER PIPE
BY PIPE BURSTING



BENCHMARKS:

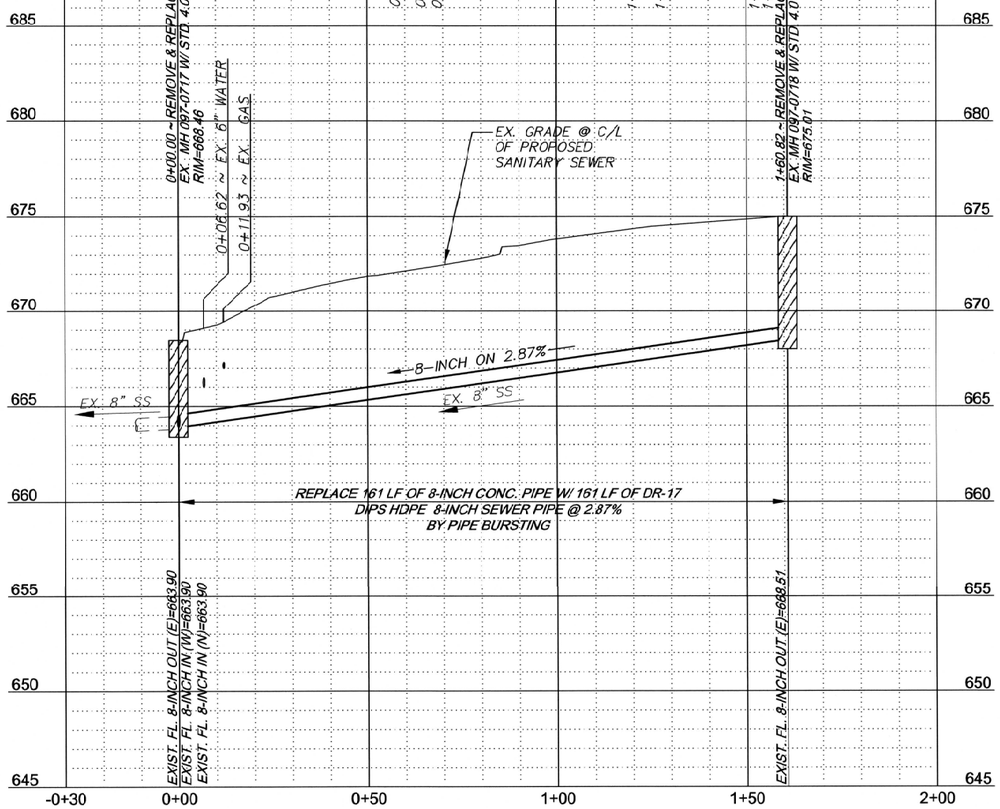
BM-454
IRON PIN SET 80' EAST & 10' NORTH OF
EX. MH 097-0717

N=434973.17
E=2588273.27
EL=668.08

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811
Know what's below
Call before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE B

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER
CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025
1" = 20'	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
VERTICAL 1" = 4'	LEAD ENGR.	KRK	6/25
	FIELD MGR.		
FILE:	DRAWING:		

APPROVED:

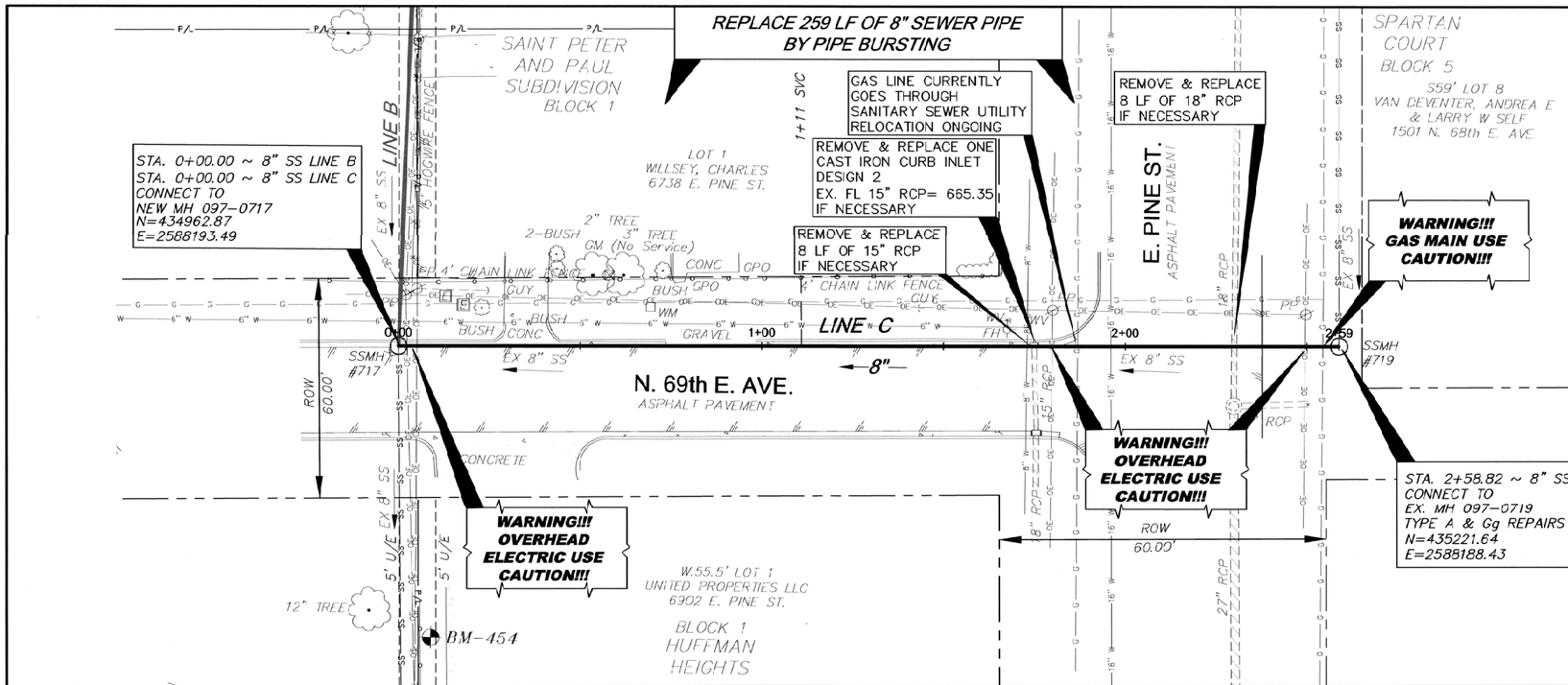
DESIGN MANAGER

DATE: June 2025

ATLAS PAGE NO: 83

SHEET 21 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4240-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\21 LINE B.DWG
Jun 03, 2025 - 8:29am
jacobbrumbaugh



BENCHMARKS:

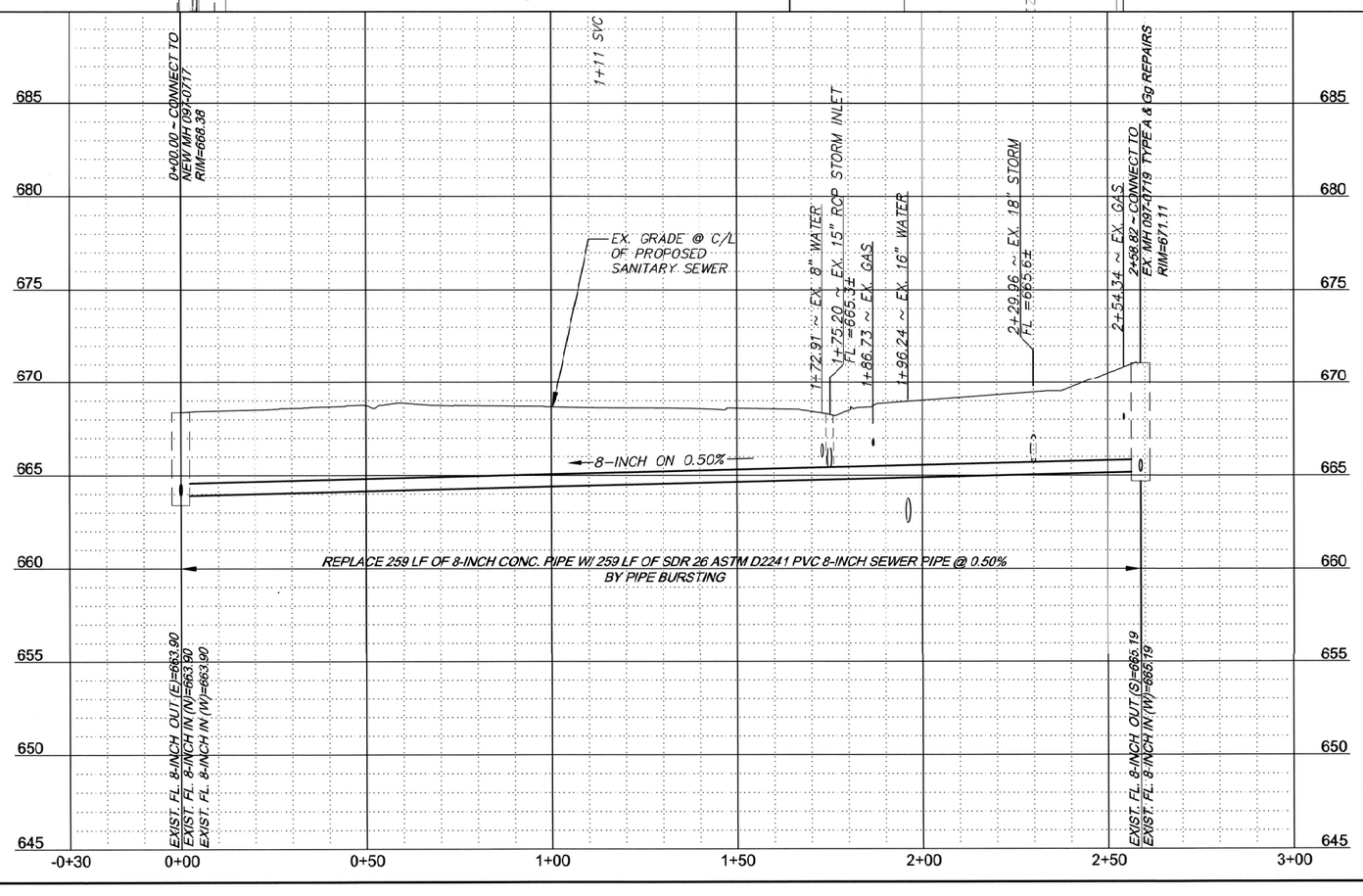
BM-454
IRON PIN SET 80' EAST & 10' NORTH OF EX. MH 097-0717

N=434973.17
E=2588273.27
EL=668.08

SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER JACOB BRUMBAUGH 33769 OKLAHOMA

PLAN & PROFILE LINE C

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NF	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/25	
VERTICAL 1" = 4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 82,83				SHEET 22 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\22 LINE C.DWG
Tuesday, June 03, 2025
1:20:52 PM

REPLACE 233 LF OF 8" SEWER PIPE BY PIPE BURSTING

BM-452

E. PINE ST.
ASPHALT PAVEMENT

ROW 100.00

ROW 90.00

27" RCP

42" RCP

UNPLATED

PART OF SEC. 26, T.20N., R.13E.
NAME BRANDS INC
6901 E. PINE ST.

CONCRETE

FLAGPOLE

MARBLE

ASPHALT PARKING

GRAVEL

SIGN

SSMH #806

SIGN

0+00

1+00

LINE D

2+00

SSMH #807

2+33

8"

EX 6" SS

EX 8" SS

RETAINING WALL (0.5' WIDE CONC)

FH

GUARDRAIL

CONCRETE

SSCO

3" STL PIPE

FINISHED FLOOR EL=667.93

ASPHALT PARKING

2+25 SVC

PART OF SEC. 26, T.20N., R.13E.
NAME BRANDS INC
6901 E. PINE ST.

UNPLATED

STA. 0+00.00 ~ 8" SS
REMOVE & REPLACE
EX. MH 097-0806 W/
STD 4' DIA. MH
N=435231.30
E=2588672.11

CONTRACTOR SHALL REMOVE SANITARY SEWER SERVICE FROM MANHOLE AND RECONNECT TO THE SANITARY SEWER MAIN.

STA. 2+32.61 ~ 8" SS
REMOVE & REPLACE
EX. MH 097-0807 W/
STD 4' DIA. MH
N=435304.34
E=2588451.26

BENCHMARKS:

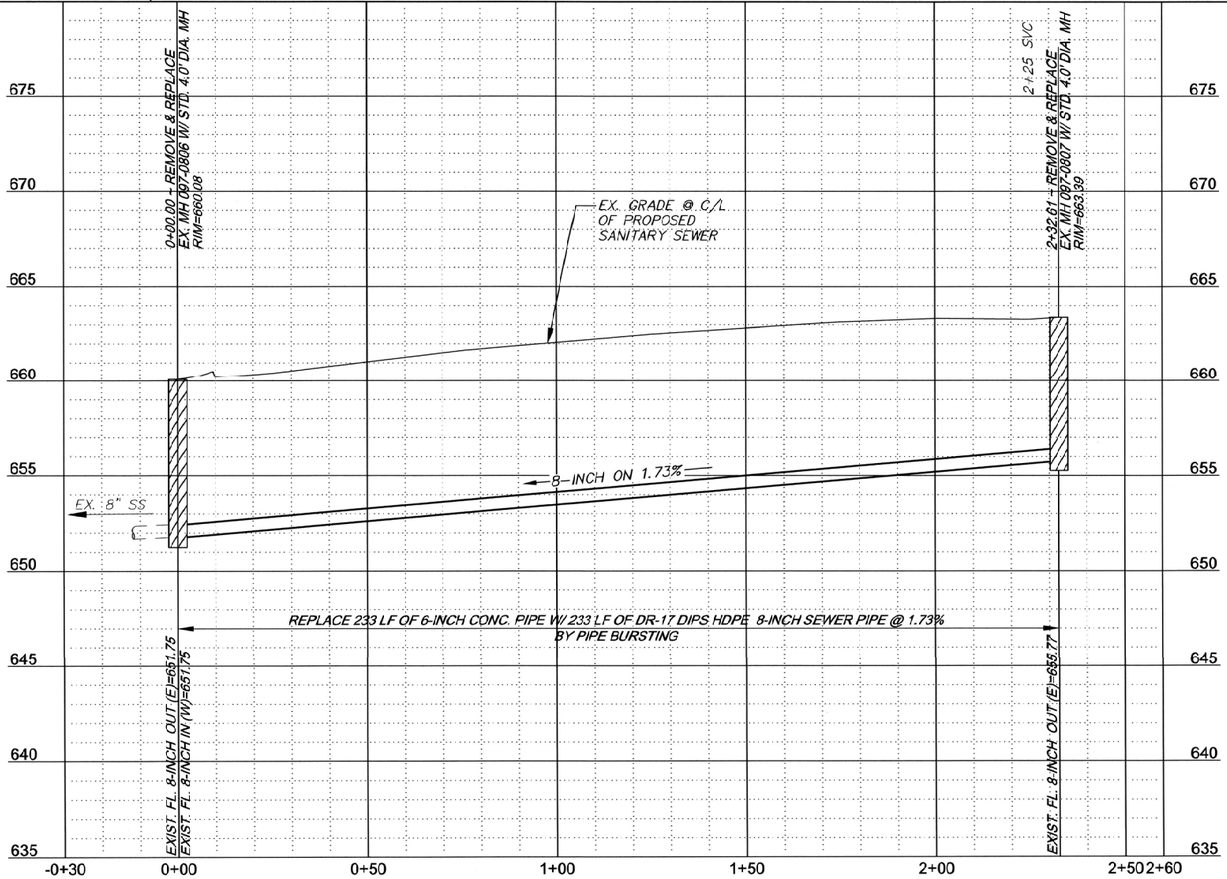
BM-452
3/8" IRON PIN SET 230' WEST AND
12' SOUTH OF EX. MH 097-0806

N=435212.19
E=2588442.25
EL=664.01

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811
Know what's below
811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION
1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

REVISION	BY	DATE

PLAN & PROFILE LINE D

TMUA PROJECT NO. ES 2025-09

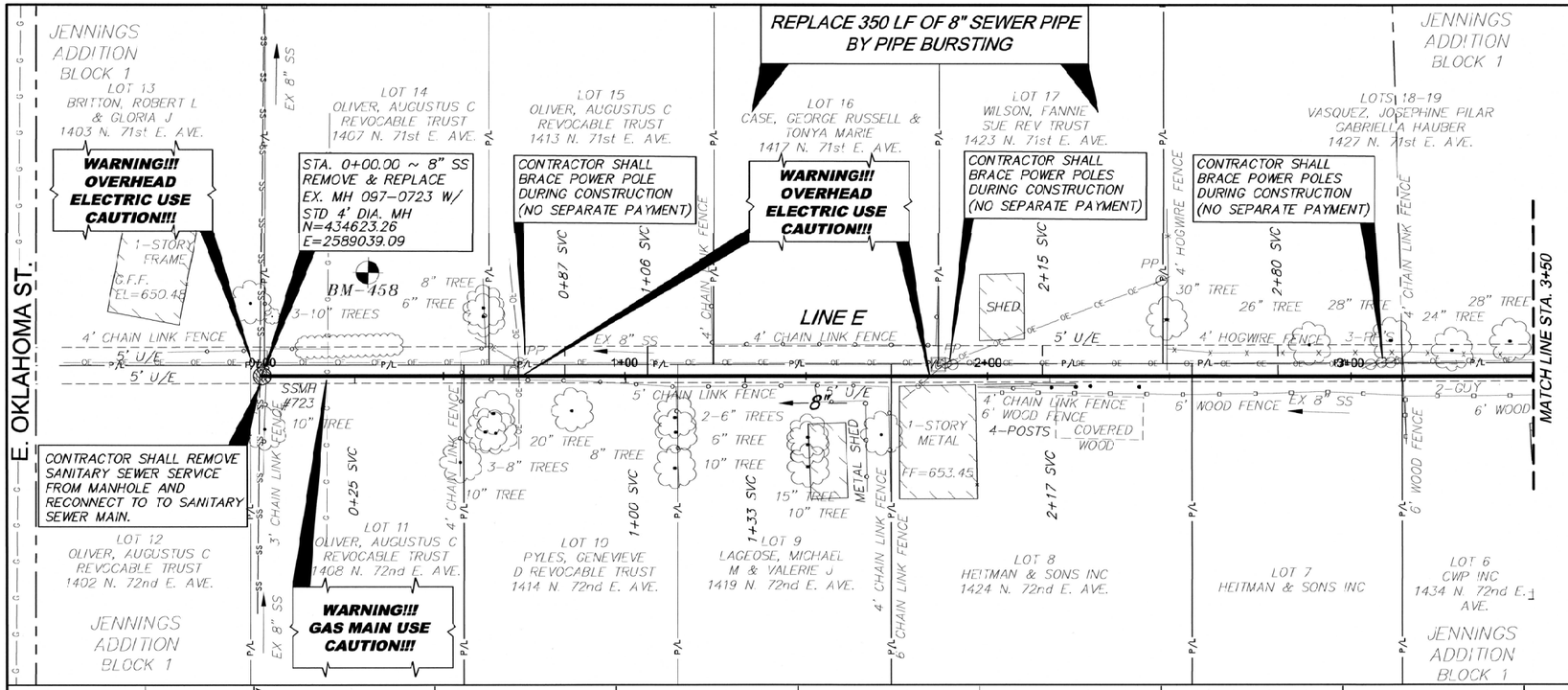
COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

PLAN SCALE: 1"=20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1"=20'	PROJ. MGR.	CC	6/2025	
	LEAD ENGR.		6/25	
VERTICAL 1"=4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 82				SHEET 23 OF 59 SHEETS

T:\TULSA\PROJECTS\25-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CAD\DRAWINGS\23 LINE D.DWG
Jun 03, 2025 - 12:21:47 PM



BENCHMARKS:

BM-458
IRON PIN SET 28' NORTH AND 28' WEST OF EX. MH 097-0723

N=434651.86
E=2589010.08
EL=650.61

0 10' 20' 40'
SCALE: 1"= 20'

NOTE:

1. LINE A SHALL BE CONSTRUCTED PRIOR TO REHABILITATION OF LINE E
2. RELOCATE EXISTING SERVICE FROM MANHOLE 097-0723 TO NEAREST SEWER MAIN.

OKIE811 Know what's below. Call before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

STA. 0+00 TO STA. 4+00 LINE E

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

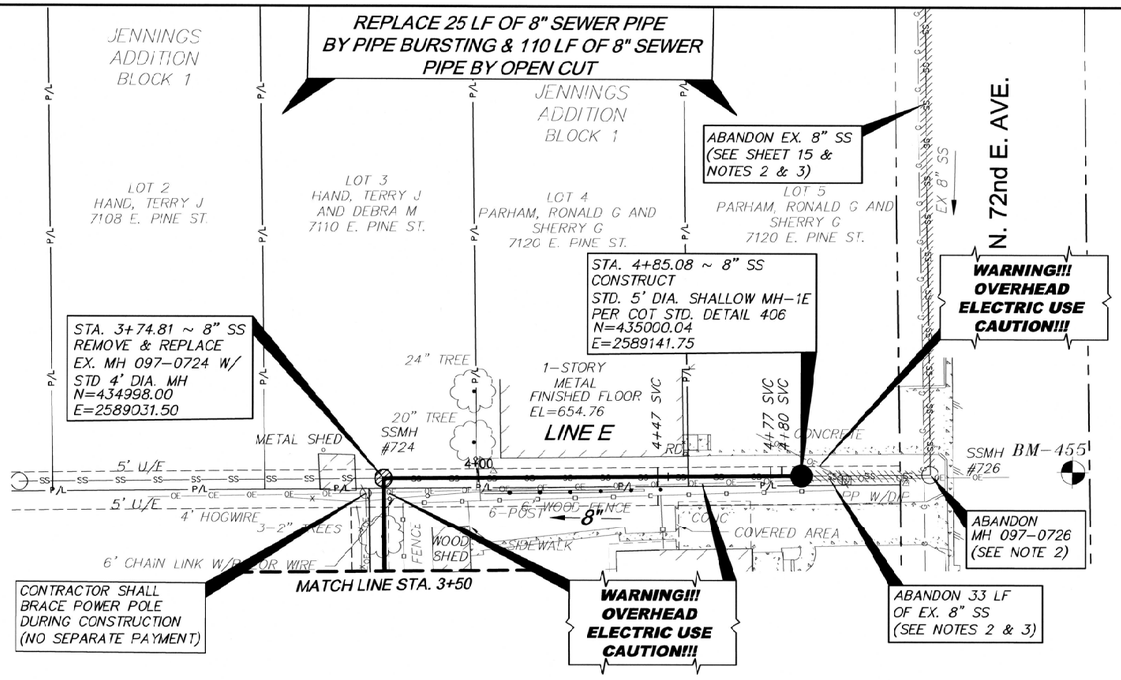
REVISION	BY	DATE

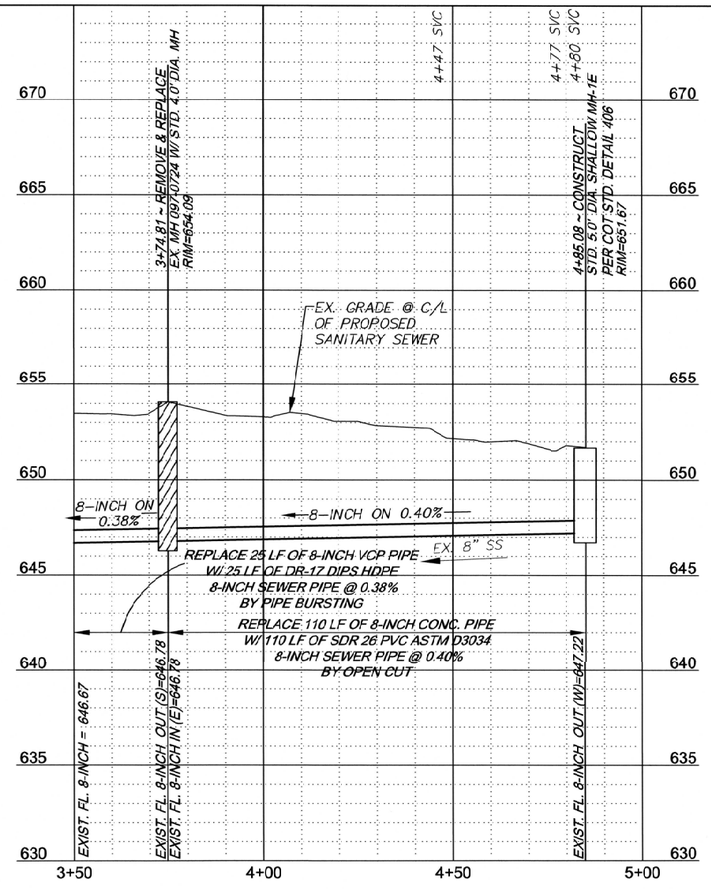
PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025
	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
	LEAD ENGR.		6/25
VERTICAL 1" = 4'	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 83			

APPROVED:

DESIGN MANAGER
DATE: June 2025
SHEET 24 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4240-100 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\24-25 LINE E - 4+00-6+21 (1).DWG
Friday, June 06, 2025
8:31 AM





BENCHMARKS:

BM-455
IRON PIN SET 38' EAST AND 1' NORTH OF EX. MH 097-0726

N=435001.79
E=2589213.39
EL=651.65

LEGEND

ABANDONMENT OF EXISTING SEWER

NOTE:

1. LINE A SHALL BE CONSTRUCTED PRIOR TO REHABILITATION OF LINE E.

2. FOR ABANDONMENT, REMOVE TOP 3 VF OF EXISTING MANHOLE AND FILL EXISTING SANITARY SEWER AND MANHOLE WITH CELLULAR CONCRETE OR FLOWABLE FILL. ABANDONMENT SHALL BE PERFORMED AFTER CONSTRUCTION OF ALL NEW SEWER MAINS.

3. CONTRACTOR SHALL TELEVISE ALL SANITARY SEWER LINES CALLED OUT FOR ABANDONMENT TO DETERMINE LOCATION OF ACTIVE SERVICES. ANY ACTIVE SERVICES ON AN ABANDONED LINE SHALL BE RECONNECTED TO AN EXISTING OR PROPOSED LINE IN THE IMMEDIATE VICINITY. ENGINEER SHALL BE CONTACTED IMMEDIATELY IF THERE IS NO SEWER MAIN IN THE VICINITY TO CONNECT THE SERVICE.

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

STA. 4+00 TO STA. 6+21 LINE E

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/6/25	
VERTICAL 1" = 4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 25				SHEET 25 OF 59 SHEETS

T:\TULSA\PROJECTS\30-1245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\24-25 LINE E - 4+00-6+21 (1).DWG
Plotted: Jun 06, 2025
9:09:57 AM

CONSTRUCT 306 LF OF 8" SEWER PIPE BY OPEN CUT

STA. 0+00.00 ~ 8" SS LINE F
STA. 12+28.65 ~ 8" SS LINE A
CONNECT TO NEW MH-4A
N=435239.87
E=2589049.39

REMOVE EX. MH 097-0730 (SEE LINE A)

ABANDON 301 LF OF EX. 8" SS (SEE NOTES 2 & 3)

REMOVE & REPLACE 71 SY OF ASPHALT

REMOVE & REPLACE HEADWALL & 8 LF OF 15" RCP

REMOVE & REPLACE 439 SY OF CONCRETE PAVEMENT

REMOVE & REPLACE 10 LF OF CURB & GUTTER

CONTRACTOR SHALL BRACE POWER POLE DURING CONSTRUCTION (NO SEPARATE PAYMENT)

STA. 2+87.76 ~ 8" SS
CONSTRUCT
STD. 4' DIA. MH-1F
N=435527.54
E=2589042.29

STA. 3+06.28 ~ 8" SS
REMOVE & REPLACE
EX. MH 097-0731
W/ STD. 4' DIA. MH
W/ COMPOSITE SEALED COVER
N=435540.19
E=2589028.76

PART OF SEC. 26, T.20N., R.13E.
S264' W165' SE SE SW
RC FLOORING LLC
7103 E. PINE ST.

UNPLATED
PART OF SEC. 26, T.20N., R.13E.
MUNCIE POWER PRODUCTS INC
ATTN KATHY WHITE
1500 N. 71st E. AVE.

UNPLATED
PART OF SEC. 26, T.20N., R.13E.
MUNCIE POWER PRODUCTS INC
7217 E. PINE ST.

HEADWALL & WING WALLS (0.8' WIDE CONC)

6' CHAINLINK FENCE W/3-STRAND BARBED WIRE

5' CHAINLINK W/3-STRAND BARBED WIRE

SIGN "NO-PARKING"

E. PINE ST.

N. 71st E. AVE.

LINE A

LINE F

ROW 90.00'

EX 8" SS

EX 8" W

12" RCP

18" RCP

42" RCP

GRAVEL

ASPHALT PAVEMENT

CONCRETE PAVEMENT

SSMH #7730

SSMH #7731

BM-451

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

BENCHMARKS:

BM-451
3/8" IRON PIN SET 50' EAST AND 29' NORTH OF EX. MH 097-0730

N=435270.12
E=2589084.86
EL=655.75

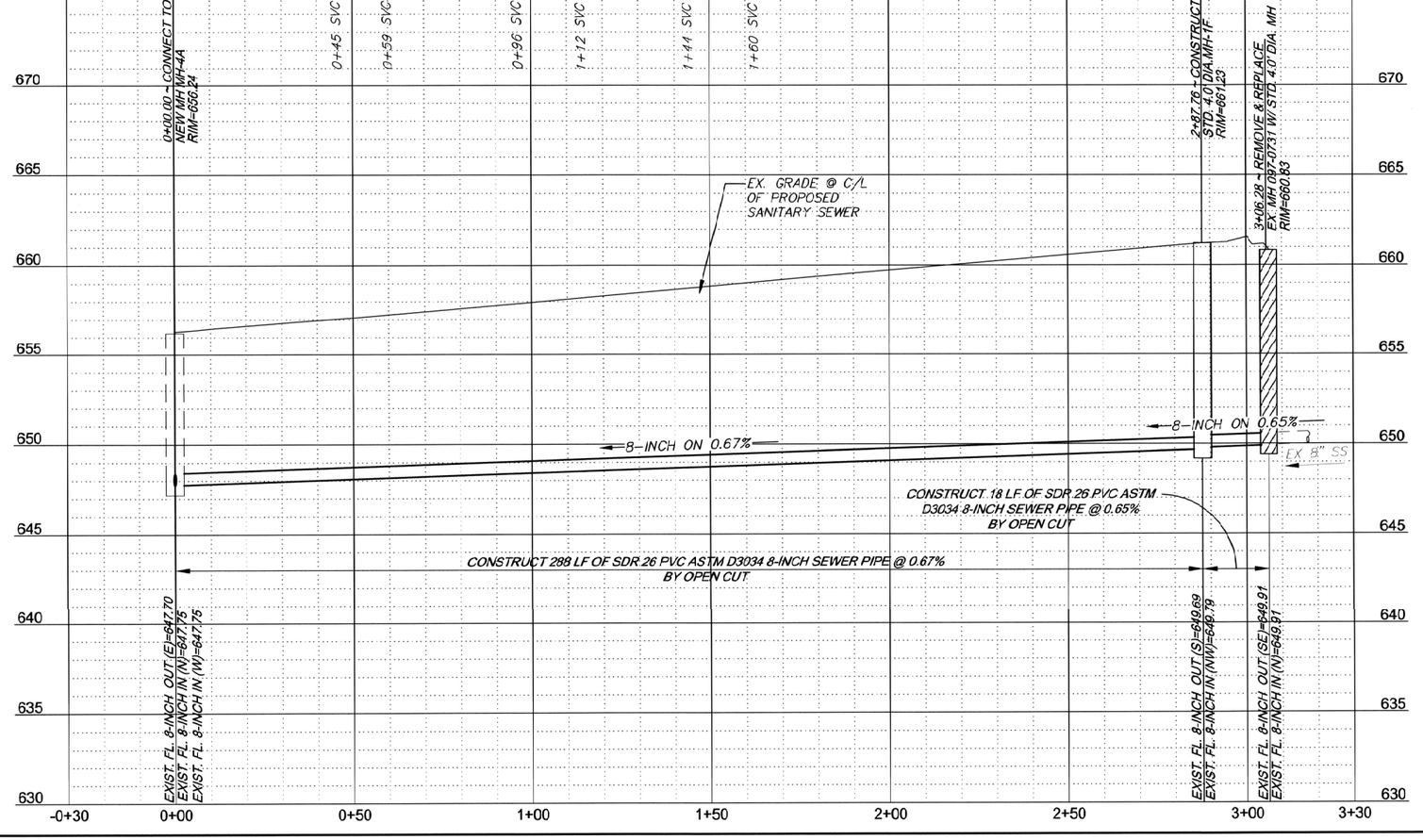
SCALE: 1" = 20'

LEGEND

- ASPHALT DRIVEWAY REMOVAL & REPLACEMENT
- CONCRETE PAVEMENT REMOVAL & REPLACEMENT
- ABANDONMENT OF EXISTING SEWER

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



NOTES:

1. LINE A SHALL BE CONSTRUCTED PRIOR TO REHABILITATION OF LINE F.
2. FILL EXISTING 8" SANITARY SEWER PIPE WITH CELLULAR CONCRETE OR FLOWABLE FILL. ABANDONMENT SHALL BE PERFORMED AFTER CONSTRUCTION ALL NEW SEWER MAINS.
3. CONTRACTOR SHALL TELEVISE ALL SANITARY SEWER LINES CALLED OUT FOR ABANDONMENT TO DETERMINE LOCATION OF ACTIVE SERVICES. ANY ACTIVE SERVICES ON AN ABANDONED LINE SHALL BE RECONNECTED TO AN EXISTING OR PROPOSED LINE IN THE IMMEDIATE VICINITY. ENGINEER SHALL BE CONTACTED IMMEDIATELY IF THERE IS NO SEWER MAIN IN THE VICINITY TO CONNECT THE SERVICE.

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE F

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RUN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025
	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
VERTICAL 1" = 4'	LEAD ENGR.		6/6/25
	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 82			

APPROVED:

DESIGN MANAGER

DATE: June 2025

SHEET 26 OF 59 SHEETS

T:\TULSA\PROJECTS\30-1245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\26 LINE F.DWG
Plotted: Jun 06, 2025
9:21:01 AM

CONSTRUCT 50 LF OF 8" SEWER PIPE BY OPEN CUT

STA. 0+00.00 ~ 8" SS
REMOVE & REPLACE
EX. MH 097-0728 W/
STD. 4' DIA. MH
N=435239.68
E=2589244.22

UNPLATED
PART OF SEC. 26, T.20N., R.13E.
MUNCIE POWER PRODUCTS INC
7217 E. PINE ST.

STA. 2+30.12 ~ 8" SS
CONSTRUCT
STD 5' DIA. SHALLOW MH-1G
PER COT STD. DETAIL 406
N=435244.16
E=2589474.29

WARNING!!!
OVERHEAD
ELECTRIC USE
CAUTION!!!

STA. 2+80.12 ~ 8" SS
REMOVE & REPLACE
EX. MH 097-0729 W/
STD. 4' DIA. SHALLOW MH
PER COT STD. DETAIL 406
N=435244.96
E=2589524.29

PART OF SEC. 26, T.20N., R.13E.
JORGENSEN, EARLE J CO INC
C/O QUINTIN & ASSOC
7311 E. PINE ST.

EX 8" SS
SSMH #728
SIGN
1+00
2+00
LINE G
SSMH #729
2-PP
8"
24" RCP
ROW 90.00'
ROW 80.00'

WARNING!!!
GAS MAIN USE
CAUTION!!!

E. PINE ST.
ASPHALT PAVEMENT

CONTRACTOR SHALL
BRACE POWER POLE
DURING CONSTRUCTION
(NO SEPARATE PAYMENT)

CONTRACTOR SHALL REMOVE
SANITARY SEWER SERVICE
FROM MANHOLE AND
RECONNECT TO TO SANITARY
SEWER MAIN.

REMOVE AND REPLACE
16 LF OF 18" RCP
(IF NECESSARY)

BM-469

BENCHMARKS:

BM-469
MAG NAIL FOUND 9' WEST & 85' SOUTH OF
EX. MH 097-0729

N=435159.79
E=2589515.41
EL=651.82

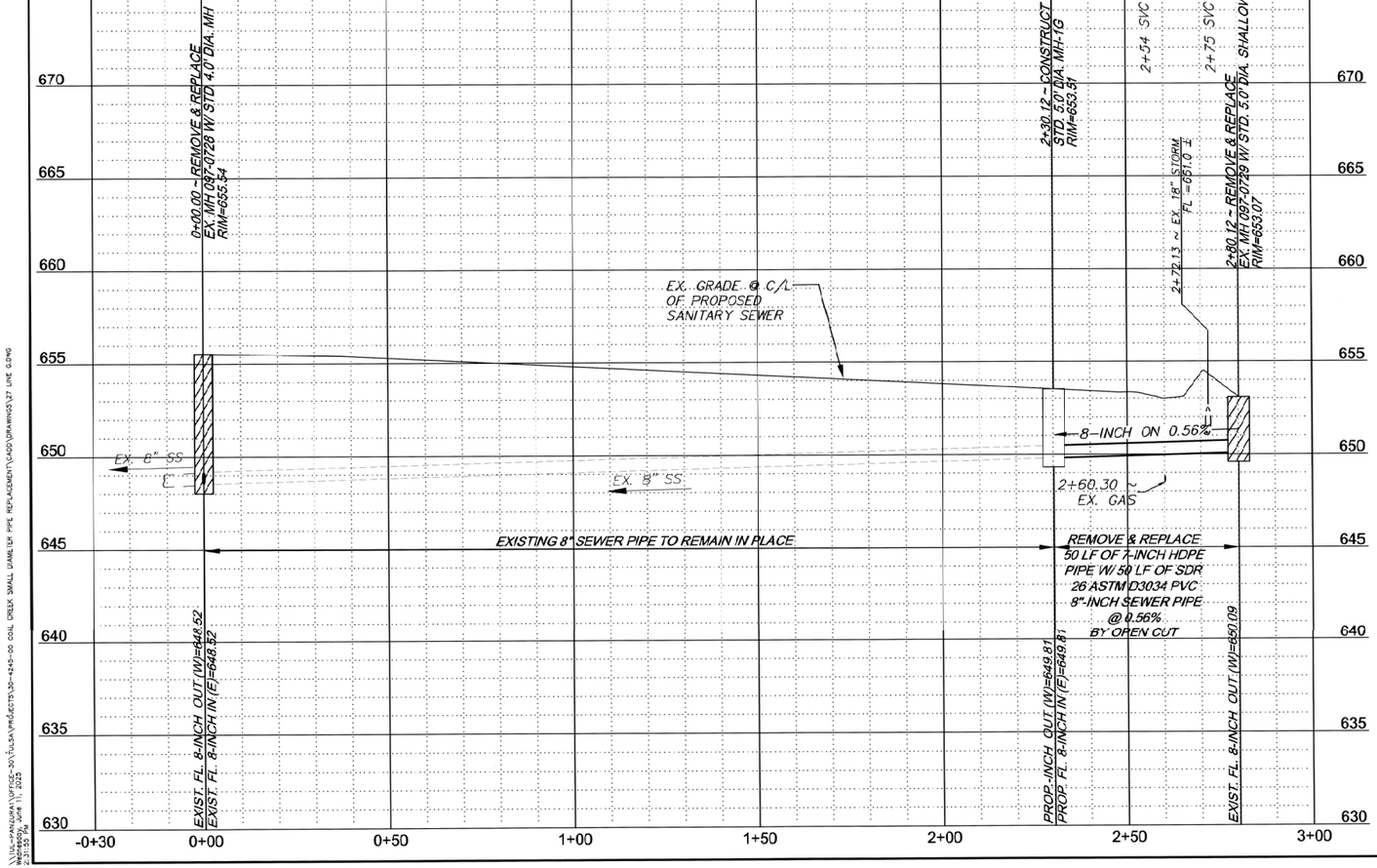
NOTE:

1. CONTRACTOR SHALL TELEVISE SEGMENT PRIOR TO CONSTRUCTION TO VERIFY THAT PIPE REPLACEMENT IS NEEDED TO REPAIR SUSPECTED PIPE SAG. CONTRACTOR SHALL PROVIDE CCTV TO ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL CALL OKLAHOMA NATURAL GAS AT 918-684-4441 PRIOR TO CONSTRUCTION CROSSING GAS LINES.
3. CONTRACTOR SHALL EXPOSE GAS LINES VIA HYDROVAC EXCAVATION PRIOR TO COMMENCING WORK ON SANITARY SEWER NO SEPARATE PAYMENT.

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below Before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE G

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

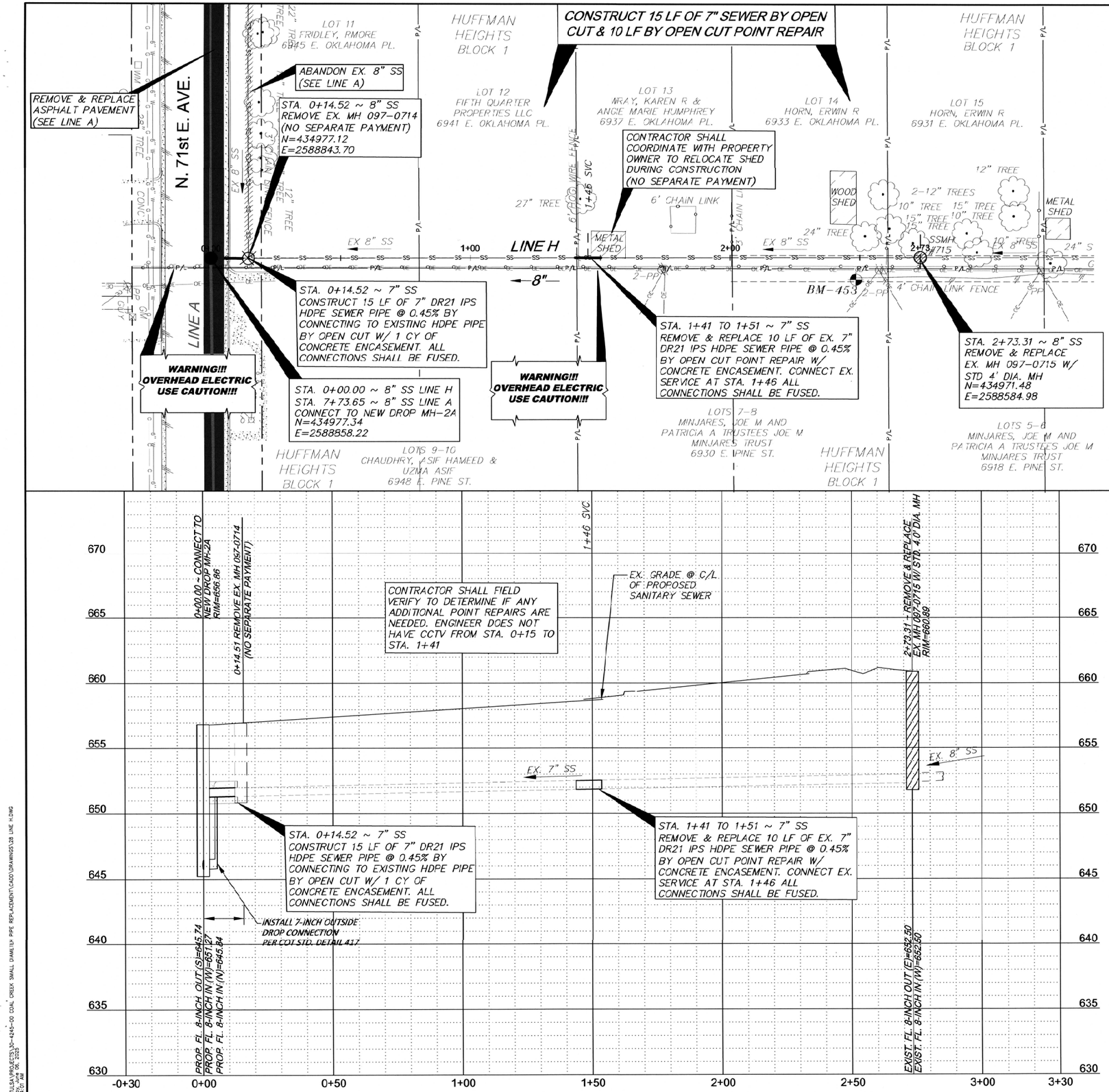
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
VERTICAL 1" = 4'	LEAD ENGR.		6/26/25	DESIGN MANAGER
FILE:	FIELD MGR.			DATE: June 2025
ATLAS PAGE NO: 82,83	DRAWING:			SHEET 27 OF 59 SHEETS

J:\UL-PANDURA\OFFICE-JOY\TULSA\PROJECTS\20-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CAD\DRAWINGS\27 LINE G.DWG
Wed-6/25/25 June 11, 2025
2:31:55 PM



BENCHMARKS:

BM-453
MAG NAIL SET 24' EAST AND 8' NORTH OF EX. MH 097-0715

N=434980.47
E=2588609.61
EL=660.29

LEGEND

ABANDONMENT OF EXISTING SEWER

NOTE:

1. LINE A SHALL BE CONSTRUCTED PRIOR TO THE REHABILITATION OF LINE H.

0 10' 20' 40'
SCALE: 1" = 20'

OKIE811 Know what's below Call before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE H

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

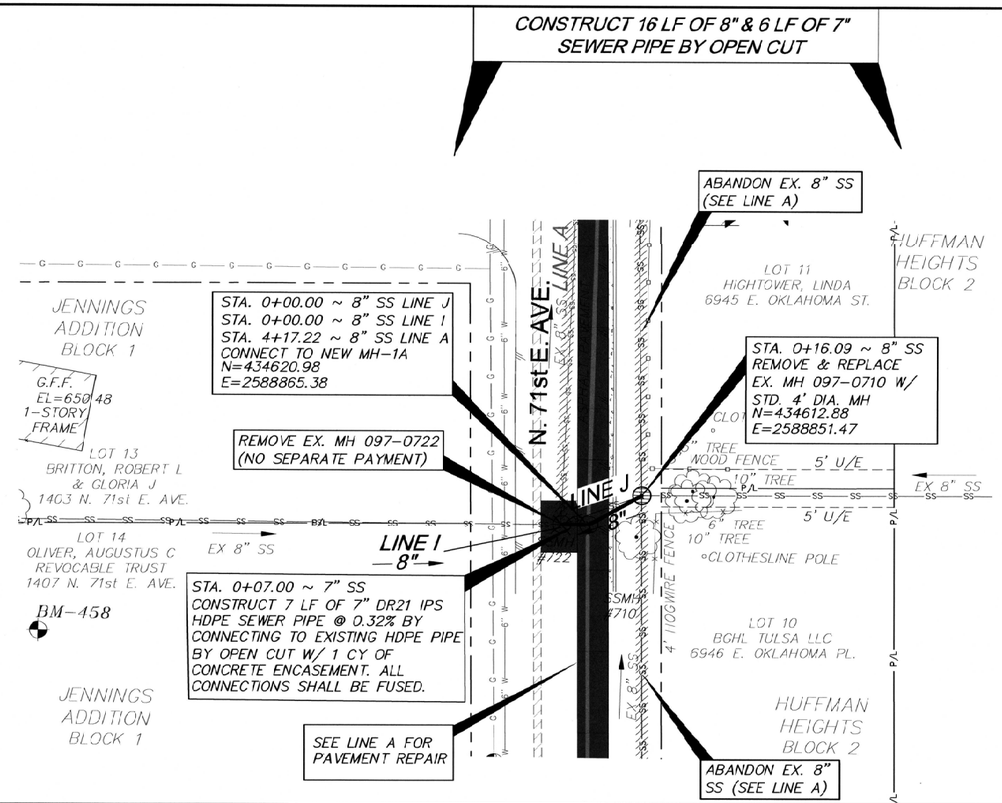
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
1" = 20'	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NF	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
VERTICAL 1" = 4'	LEAD ENGR.		6/25	
	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 83				SHEET 28 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\28 LINE H.DWG
Jun 06, 2025
9:24:51 AM



BENCHMARKS:

BM-458
IRON PIN SET 137' EAST & 28' NORTH
OF EX. MH 097-0722

N=434651.86
E=2589010.08
EL=650.61

0 10' 20' 40'
SCALE: 1"= 20'

LEGEND

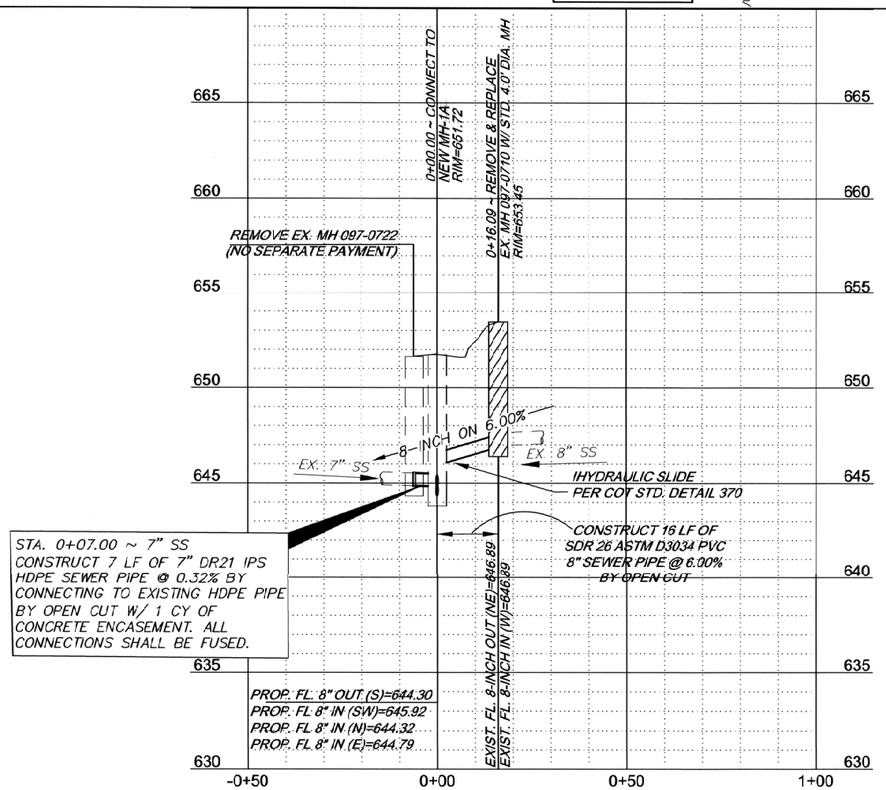
ABANDONMENT OF EXISTING SEWER

NOTE:

1. LINE A SHALL BE CONSTRUCTED PRIOR TO THE REHABILITATION OF LINE I & J.

OKIE811
Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINES I & J

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/25	
VERTICAL 1" = 4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 83				SHEET 29 OF 59 SHEETS

T:\TULSA\PROJECTS\30-1245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\29 LINE I & J.DWG
Friday, June 06, 2025
0:25:18 AM

CONSTRUCT 334 LF OF 8" SEWER PIPE BY PIPE BURSTING

ROW 50.00'

N. 72nd E. AVE.

ASPHALT PAVEMENT EX 8" SS

BREWER ADDITION BLOCK 1

LOT 1 ZACARIAS, MOISES PEREZ & PILAR HERNANDEZ CHABLE 7121 E. NEWTON PL.

LOT 2 GOMEZ, NANCY MARLENE & ALEJANDRO BECERRA CAMPOS 7115 E. NEWTON PL.

LOT 3 HARMON, RONALD JR 7111 E. NEWTON PL.

LOT 4 IPOCK, BRIAN P C/O DUNCAN IPOCK 7107 E. NEWTON PL.

LOT 5 WILSON, PATRICIA L 7103 E. NEWTON PL.

HUFFMAN HEIGHTS BLOCK 3

LOT 11 CATHCART, RUTH MARIE 6947 E. NEWTON PL.

LINE K

LINE L

LINE A

N. 71st E. AVE.

ROW 50.00

UNPLATTED S60' W140' E165' N/2 SE NE NW SEC 35 20 13 BALL, BRADLEY L AND RHONDA K 1336 N. 72nd E. AVE.

UNPLATTED S60' W/2 NW SE NE NW LESS W25' SEC 35 20 13 BALL, BRADLEY L & RHONDA K 1339 N. 71st E. AVE.

BENCHMARKS:

BM-463
3/8" IRON PIN SET 7' WEST AND 32' NORTH OF EX. MH 097-0659

N=434243.53
E=2589191.84
EL=652.14

BM-460
3/8" IRON PIN SET 22' SOUTH AND 34' EAST OF EX. MH 097-0664

N=434180.63
E=2588898.17
EL=654.02

0 10' 20' 40'
SCALE: 1" = 20'

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

WARNING!!! GAS MAIN USE CAUTION!!!

STA. 0+00.00 ~ 8" SS REMOVE & REPLACE EX. MH 097-0659 W/ STD 4' DIA. MH N=434211.48 E=2589197.78

STA. 3+34.38 ~ 8" SS LINE K
STA. 0+00.00 ~ 8" SS LINE L
STA. 0+00.00 ~ 8" SS LINE A
CONNECT TO NEW DROP MH 097-0664
N=434203.79
E=2588863.49

CONTRACTOR SHALL BRACE POWER POLES DURING CONSTRUCTION (NO SEPARATE PAYMENT)

SEE UTILITY SUPPORT CROSSING DETAIL SEE MISCELLANEOUS DETAILS (NO SEPARATE PAYMENT)

SEE LINE A FOR PAVEMENT REPAIR

SSMH #659

SSMH #664

SSMH #744

BM-460

BM-463

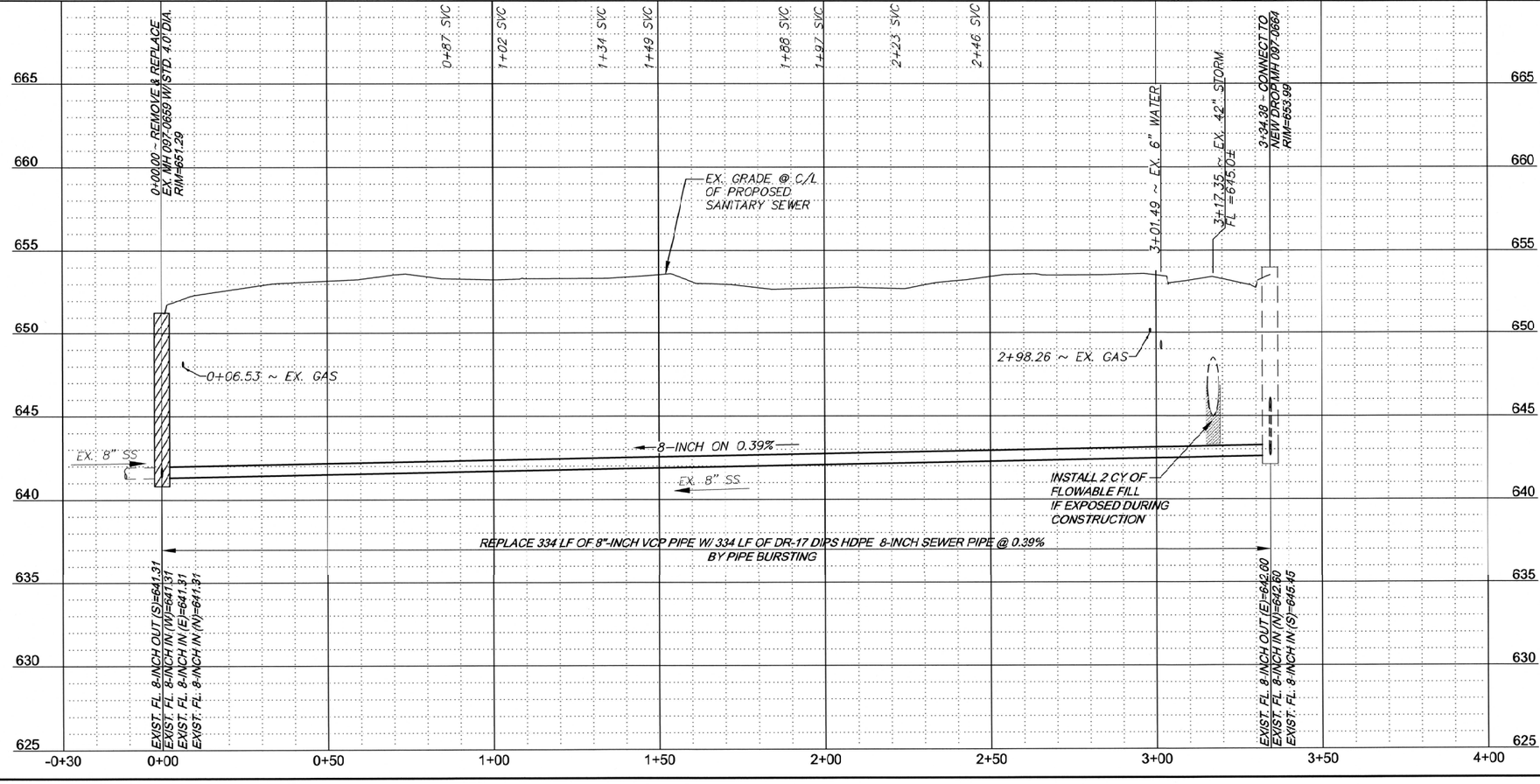
0+87 SVC
1+02 SVC
1+34 SVC
1+49 SVC
1+88 SVC
1+97 SVC
2+23 SVC
2+46 SVC

2+16 SVC

42" RCP

OKIE811 Know what's below Call before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

REVISION	BY	DATE

PLAN & PROFILE LINE K

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025
	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CL	06/2025
VERTICAL 1" = 4'	LEAD ENGR.		6/6/25
	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 83			

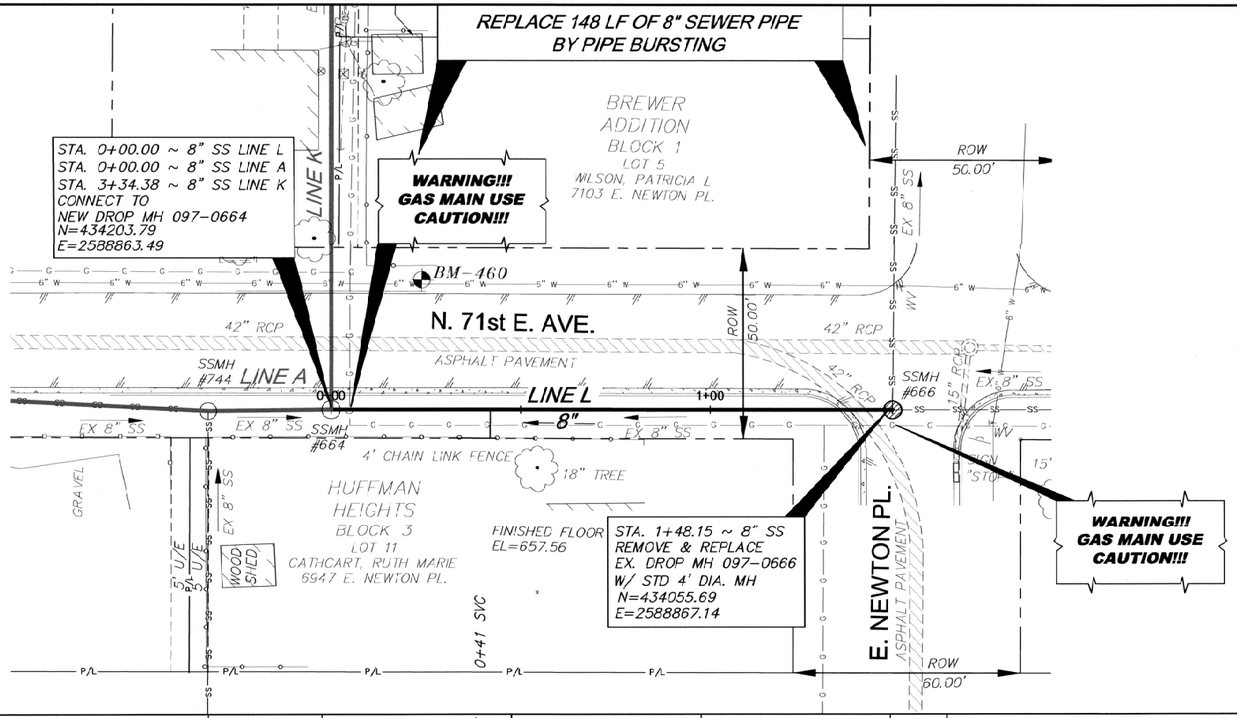
APPROVED:

DESIGN MANAGER

DATE: June 2025

SHEET 30 OF 59 SHEETS

T:\TULSA PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\30 LINE K.DWG
Friday, June 06, 2025
8:29 AM



BENCHMARKS:

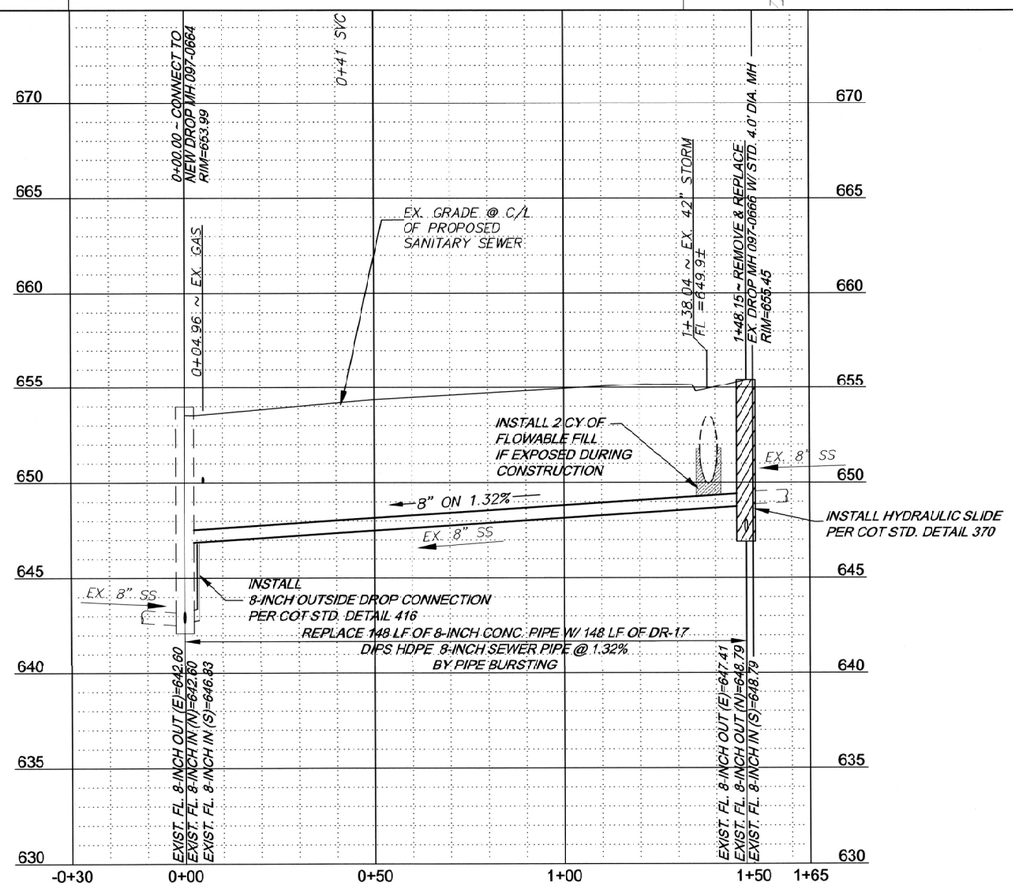
BM-460
3/8" IRON PIN SET 22' SOUTH AND 34' EAST
OF EX. MH 097-0664

N=434180.63
E=2588898.17
EL=654.02

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811
Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE L

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER
CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025
1" = 20'	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
	LEAD ENGR.		6/26/25
VERTICAL 1" = 4'	FIELD MGR.		

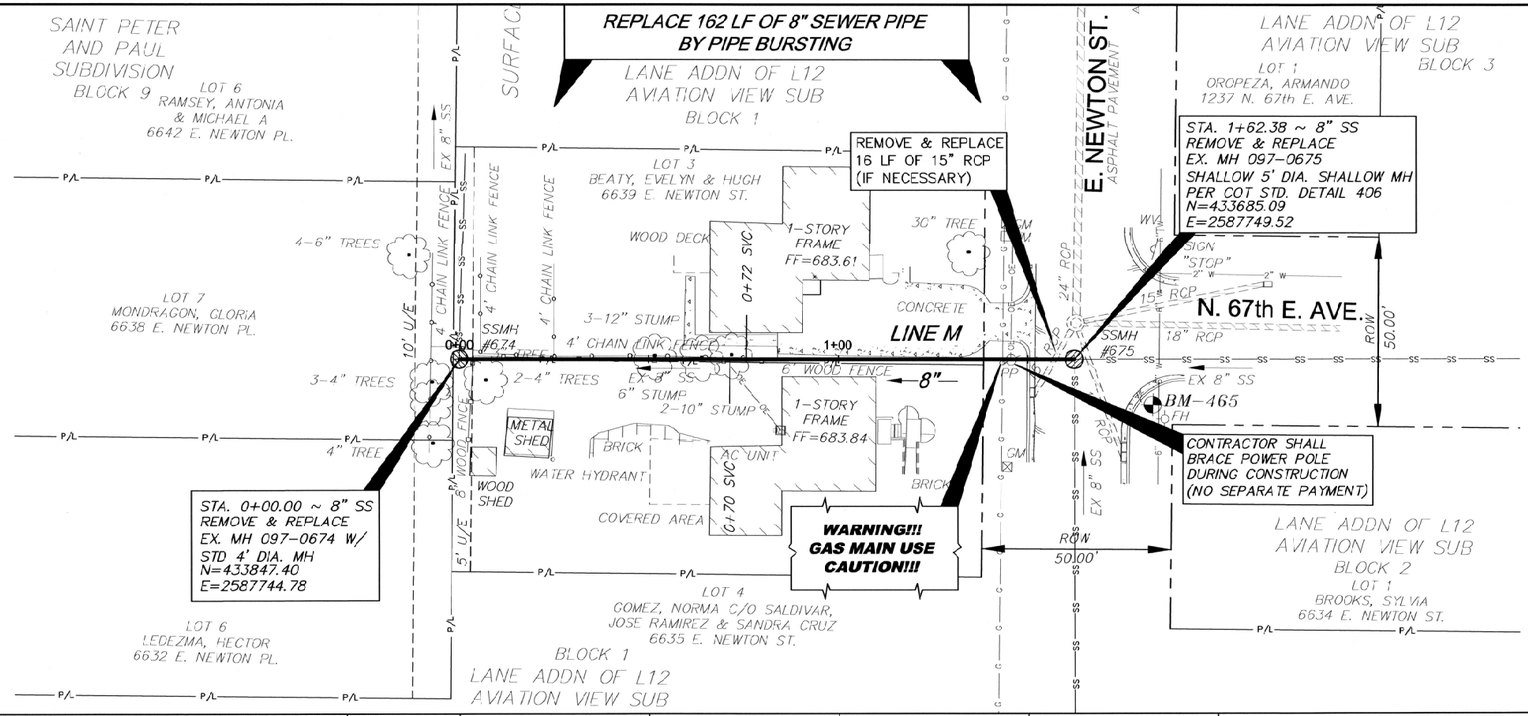
APPROVED:

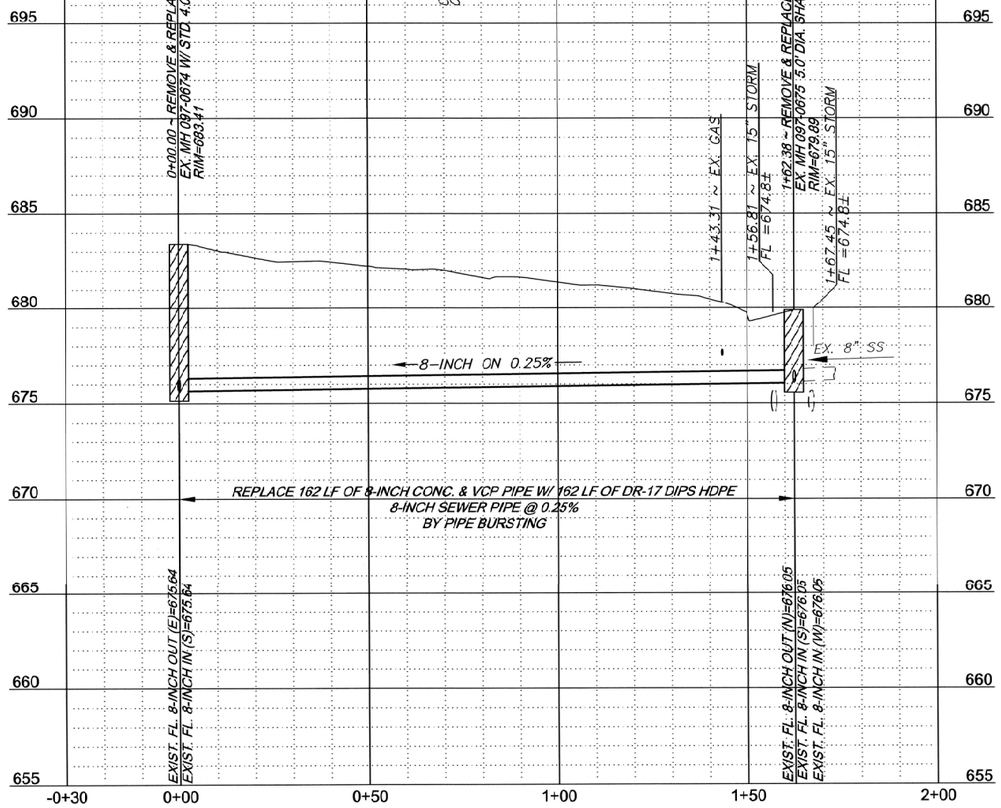
DESIGN MANAGER

FILE: DRAWING: DATE: June 2025

ATLAS PAGE NO: 83 SHEET 31 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4243-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\31 LINE L.DWG
Plotted: JUN 06, 2025
By: RLP





OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33759
OKLAHOMA

REVISION	BY	DATE

PLAN & PROFILE LINE M

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

PLAN SCALE:	DRAWN	RLP	06/2025
1" = 20'	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
	LEAD ENGR.		6/26/25
VERTICAL 1" = 4'	FIELD MGR.		
FILE:	DRAWING:		

APPROVED:

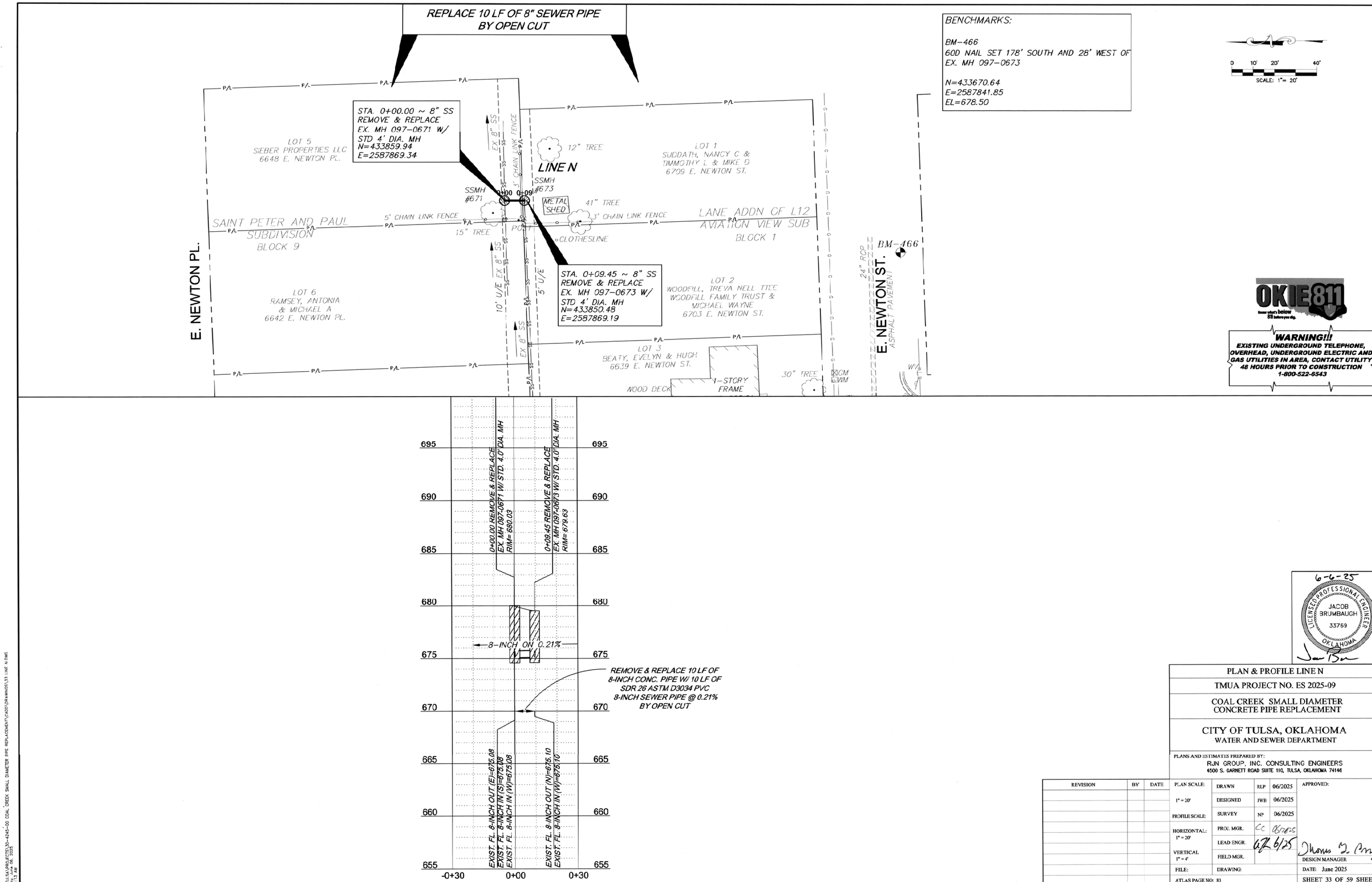
DESIGN MANAGER

DATE: June 2025

ATLAS PAGE NO: 83

SHEET 32 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\13 LINE M.DWG
Friday, June 06, 2025
8:30:52 AM



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE N

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

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	DESIGNED	JWB	06/2025	
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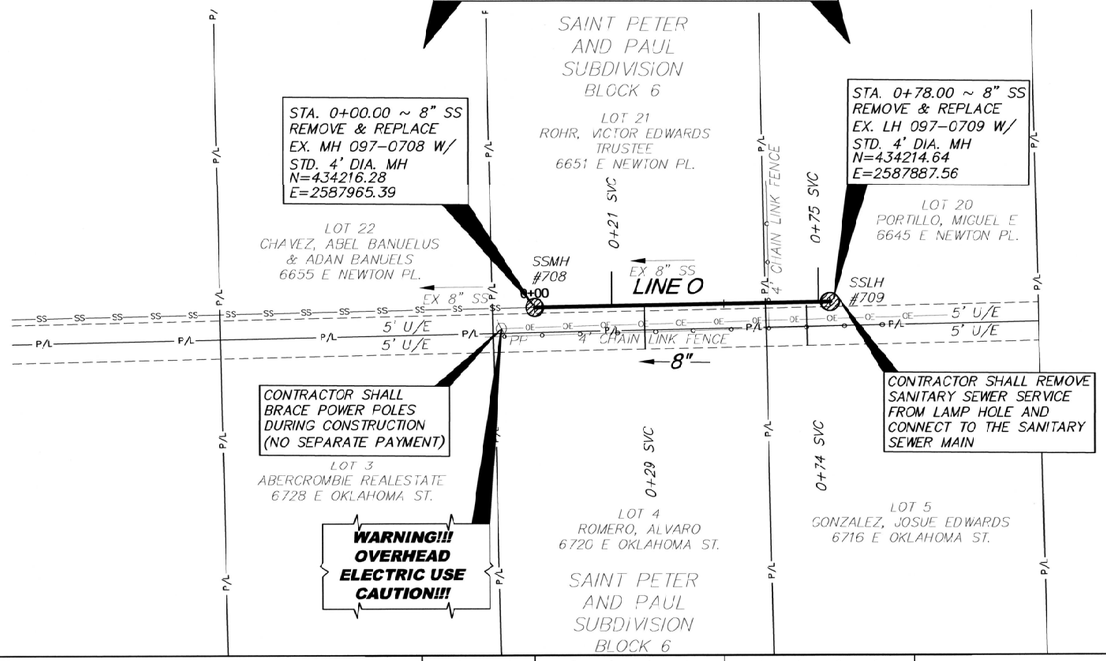
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/25	
VERTICAL 1" = 4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 83				SHEET 33 OF 59 SHEETS

REPLACE 78 LF OF 8" SEWER PIPE BY OPEN CUT



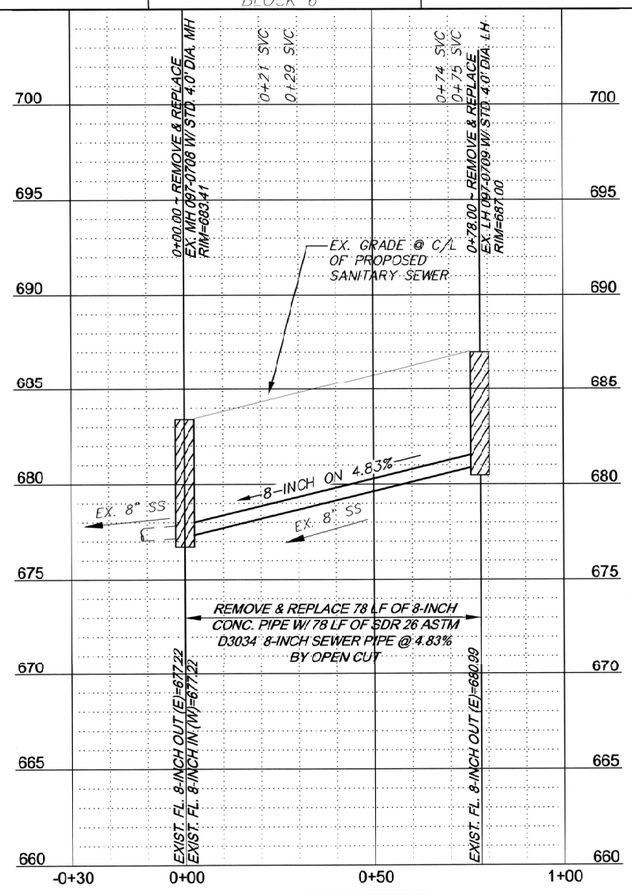
BENCHMARKS:

BM-41840
CHISELD "X" SET 242' EAST AND 11' WEST OF EX. MH 097-0709
(NOT SHOWN)
N=434255.84
E=2588207.61
EL=669.79

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33759
OKLAHOMA

PLAN & PROFILE LINE O

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

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RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

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1" = 20'	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
VERTICAL 1" = 4'	LEAD ENGR.		6/6/25	DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 83				SHEET 34 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\34 LINE O.DWG
Friday, June 06, 2025
9:32:12 AM

REPLACE 373 LF OF 8" SEWER PIPE
BY PIPE BURSTING

BENCHMARKS:

BM-518
MAG NAIL SET 24' WEST & 25' SOUTH OF
EX. MH 099-0334

N=435089.76
E=2587276.95
EL=684.13

STA. 3+72.62 ~ 8" SS
REMOVE & REPLACE
EX. MH 099-0334 W/
STD. 4' DIA. MH
N=435114.30
E=2587301.67

STA. 0+00.00 ~ 8" SS
CONNECT TO
EX. MH 099-0333
N=435106.19
E=2586929.10

E. PINE ST.
ASPHALT PAVEMENT

N. SHERIDAN RD.
ASPHALT PAVEMENT

LINE P

W.120' N.150'
SOUTH PEORIA LLC
1453 N. SHERIDAN RD.

BLOCK A
SAINT PETER AND PAUL
SUBDIVISION

E.180' N.150' W.300'
HA, HOWARD
6520 E. PINE ST.

BLOCK A
SAINT PETER AND PAUL
SUBDIVISION

W.15' LOT 4 & ALL LOT 5
HA, HOWARD
6524 E. PINE ST.

BLOCK 2
SAINT PETER AND PAUL
SUBDIVISION

E.60' LOT 4
6290 LLC
6528 E. PINE ST.

BM-518

SCALE: 1" = 20'

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION
1-800-522-6543

0+00.00 ~ CONNECT TO EX. MH 099-0333 R/M=681.34

0+19.32 ~ EX. 12" WATER

EX. GRADE @ C/L OF PROPOSED SANITARY SEWER

3+72.62 ~ REMOVE & REPLACE EX. MH 099-0334 W/ STD. 4' DIA. MH R/M=684.30

8-INCH ON 0.63%

EX. 8" SS

INSTALL HYDRAULIC SLYDE PER COT STD. DETAIL 370

REPLACE 373 LF OF 8-INCH VCP PIPE W/ 373 LF OF DR-17 DIPS HDPE 8INCH SEWER PIPE @ 0.63% BY PIPE BURSTING

EXIST. FL. 8-INCH OUT (N)=672.15
EXIST. FL. 8-INCH IN (E)=672.55
EXIST. FL. 8-INCH IN (S)=672.15

EXIST. FL. 8-INCH OUT (W)=674.90
EXIST. FL. 8-INCH IN (E)=674.90

695 690 685 680 675 670 665 660 655

-0+30 0+00 0+50 1+00 1+50 2+00 2+50 3+00 3+50 4+00

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33759
OKLAHOMA

PLAN & PROFILE LINE P

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER
CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

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4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

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VERTICAL 1" = 4'	LEAD ENGR.		6/25
	FIELD MGR.		
FILE:	DRAWING:		

APPROVED:

DESIGN MANAGER

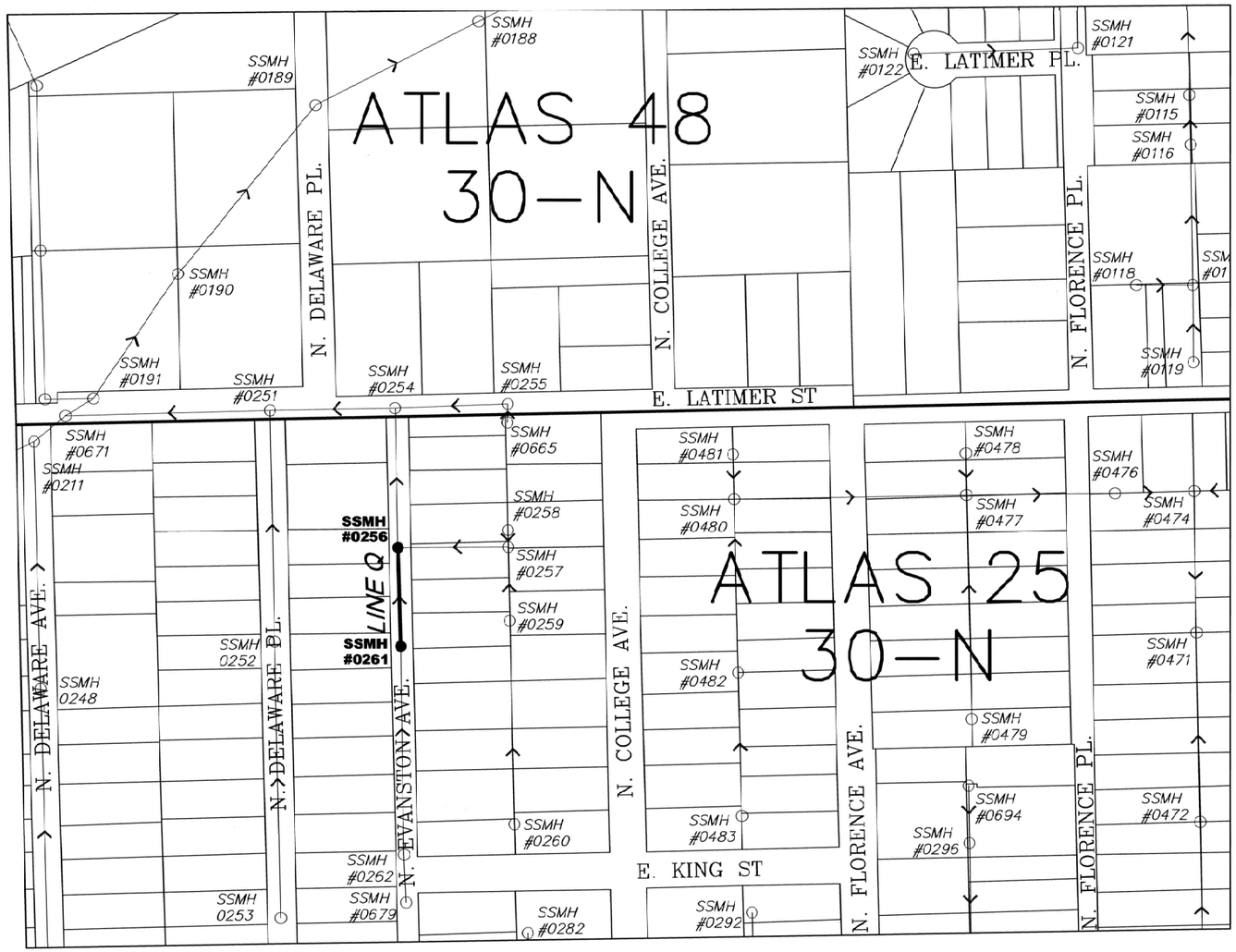
DATE: June 2025

ATLAS PAGE NO: 83

SHEET 35 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\35 LINE P.DWG
Plotted: Jun 06, 2025
9:33:25 AM

NOT TO SCALE



LINE Q SEE SHEET 37

6-6-25

LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGE 30 KEY MAP

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

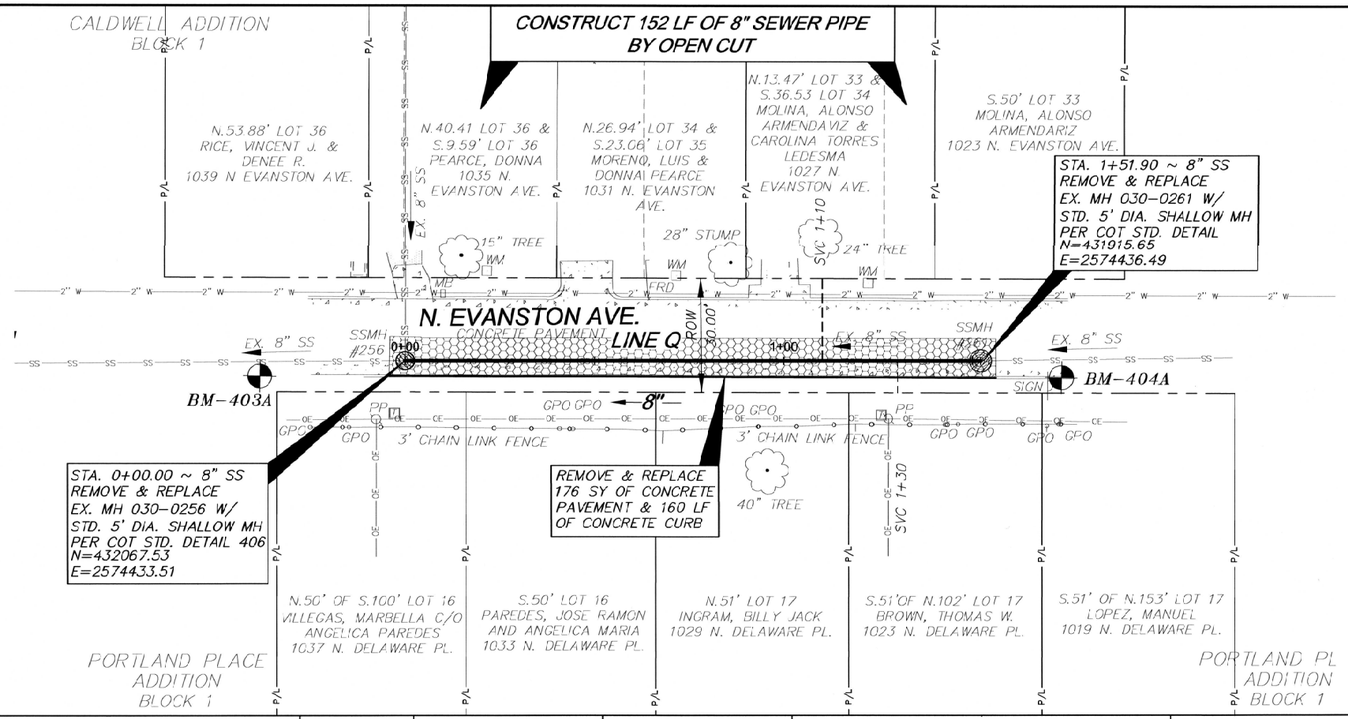
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
1" = 20'	DESIGNED	JW3	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/25	DESIGN MANAGER
VERTICAL 1" = 4'	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 25,48				SHEET 36 OF 59 SHEETS

T:\TULSA\PROJECTS\ES-4246-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\36 ATLAS 30 KEY MAP.DWG
Thursday, June 05, 2025
1:37:01 PM



BENCHMARKS:

BM-403A
CHISELED "X" SET 39' NORTH AND 4' WEST OF EX. MH 030-0256

N=432105.88
E=2574428.76
EL=722.59

BM-404A
CHISELED "X" SET 21' SOUTH AND 6' WEST OF EX. MH 030-0261

N=431894.21
E=2574432.47
EL=726.09

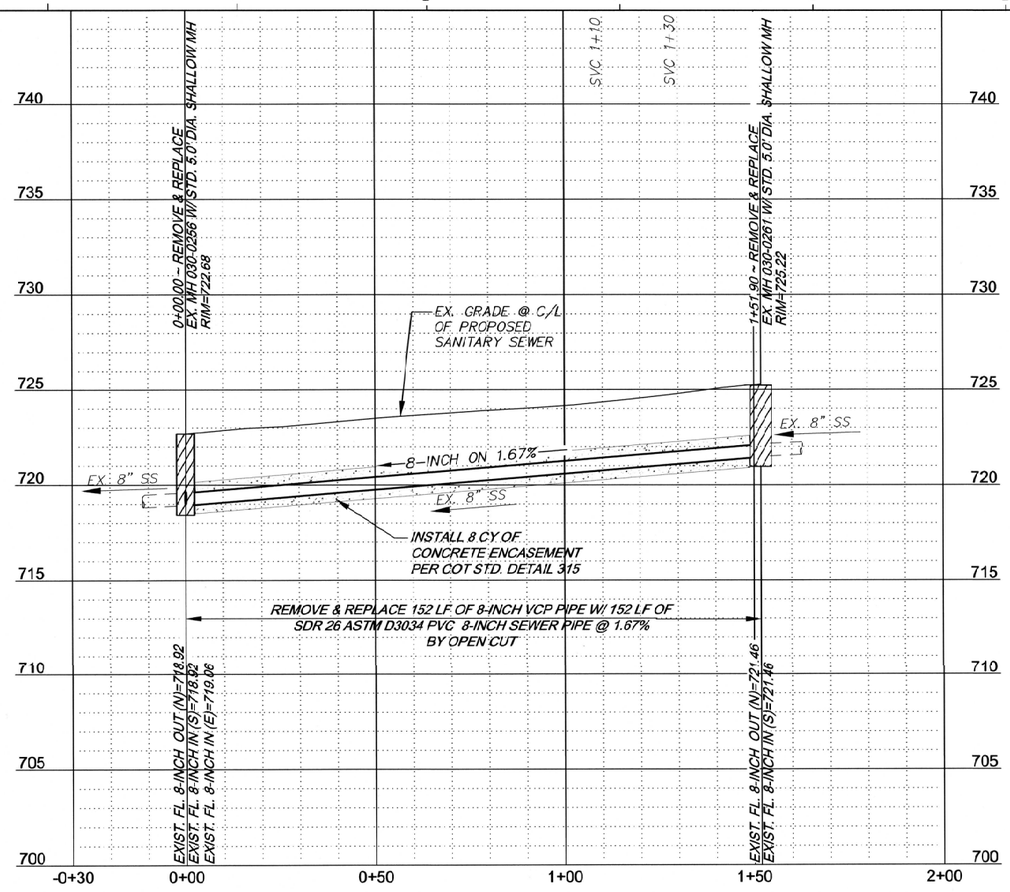
LEGEND

CONCRETE PAVEMENT REMOVAL & REPLACEMENT

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE Q

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

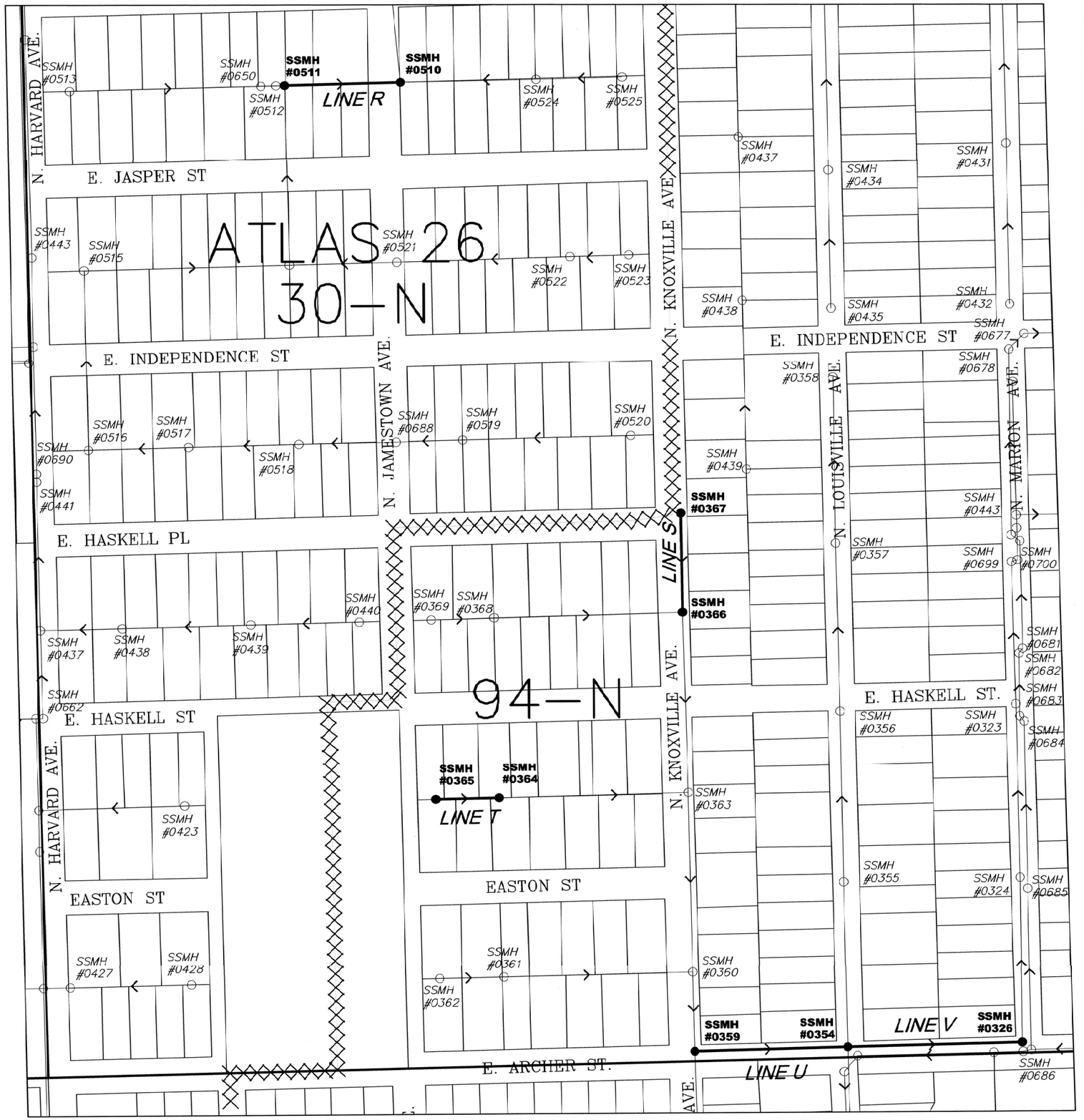
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

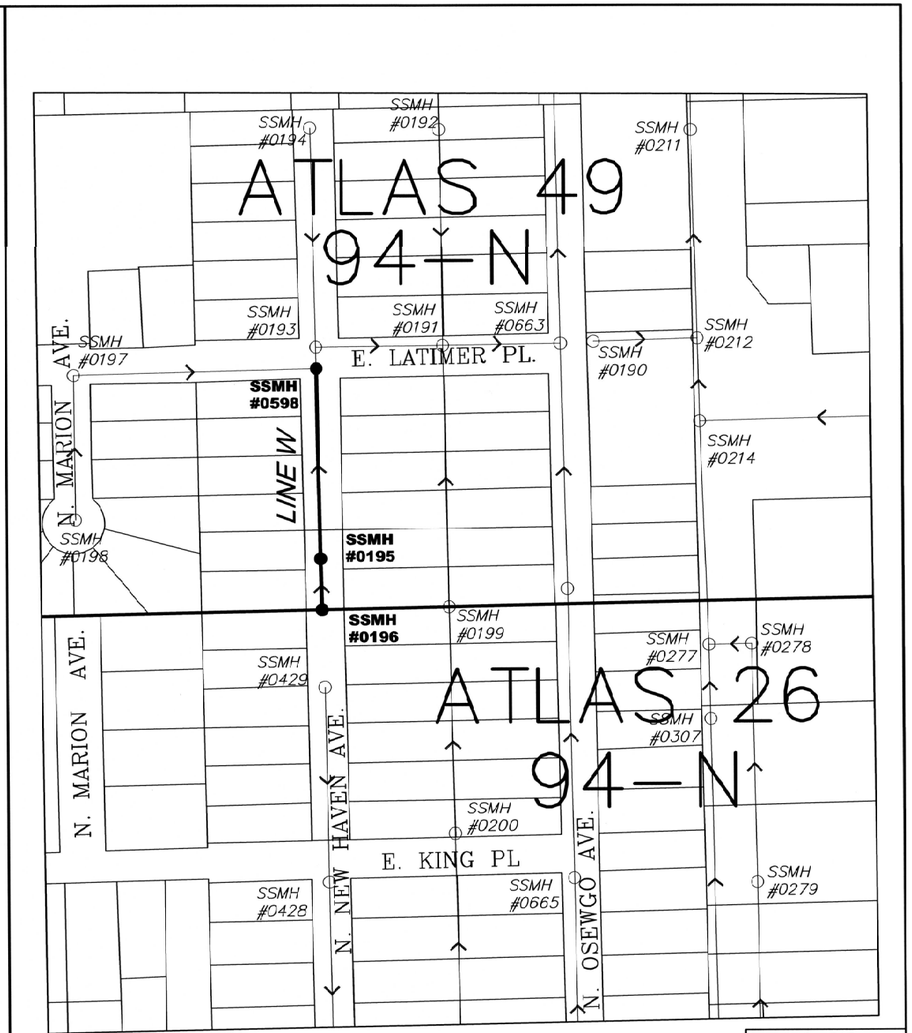
PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
1" = 20'	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NF	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
VERTICAL 1" = 4'	LEAD ENGR.	KR	6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 25				SHEET 37 OF 59 SHEETS

J:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\37 LINE Q.DWG
Jun 06, 2025 - 9:28:19 AM





LINE R SEE SHEET 39
LINE S SEE SHEET 40
LINE T SEE SHEET 41
LINE U SEE SHEET 42
LINE V SEE SHEET 43
LINE W SEE SHEET 44

NOT TO SCALE

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGES 26 & 49 KEY MAP

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.	KR	6/25	DESIGN MANAGER
VERTICAL 1" = 4'	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 26,48				SHEET 38 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\38 ATLAS 26 & 49 KEY MAP.DWG
Tuesday, June 03, 2025
1:38:35 PM

CONSTRUCT 211 LF OF 8" SEWER PIPE BY PIPE BURSTING

N. JAMESTOWN AVE.

HARVARD HILLS BLOCK 2

LOT 10 ZUNIGA HERRERA, TEOFILO 3503 E. JASPER ST.

HARVARD HILLS BLOCK 3

LOT 22 PENDERGRASS, RODNEY 3343 E. JASPER ST.

E.2' LOT 20 & LOT 21 PUENTE, JOSE LUIS SANCHEZ & DULCE MARIEL TORRES ORTIZ 3341 E. JASPER ST.

E.2' LOT 19 & W.48' LOT 20 SHUMAN, ROBERT ALLEN 3335 E. JASPER ST.

E.26' LOT 18 & W.48' LOT 19 SANDER, LARRY W 3331 E. JASPER ST.

HARVARD HILLS BLOCK 3

STA. 0+00.00 ~ 8" SS
REMOVE & REPLACE
EX. MH 030-0510 W/
STD. 4' DIA. MH
N=431490.52
E=2577099.29

CONTRACTOR SHALL BRACE POWER POLE DURING CONSTRUCTION (NO SEPARATE PAYMENT)

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

BM-467

BM-402A

LINE R

STA. 2+11.09 ~ 8" SS
REMOVE & REPLACE
EX. MH 030-0511 W/
STD. 4' DIA. MH
N=431487.17
E=2576888.23

BENCHMARKS:

BM-467
IRON PIN SET 13' WEST AND 26' SOUTH OF EX. MH 030-0510

N=431463.83
E=2577086.98
EL=691.94

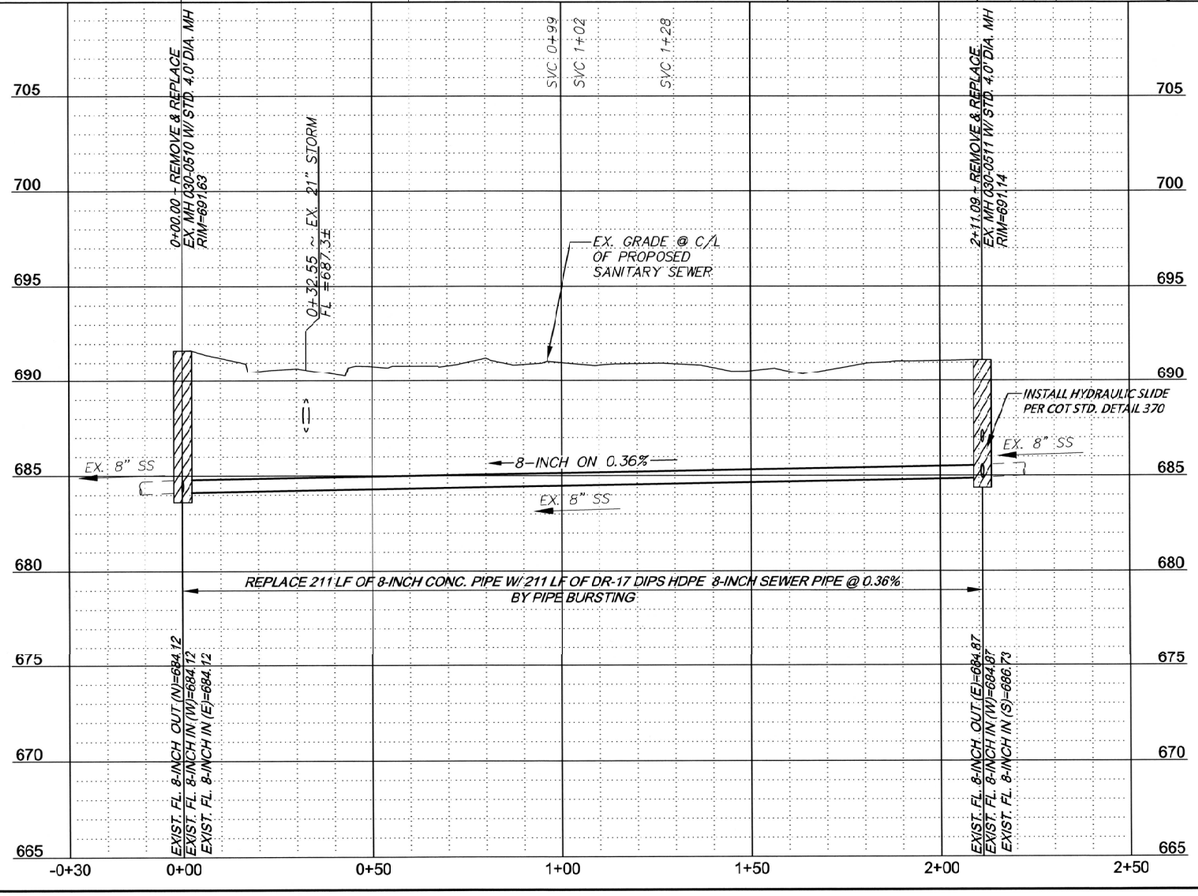
BM-402A
IRON PIN SET 22' WEST AND 2' NORTH OF EX. MH 030-0511

N=431489.27
E=2576866.26
EL=692.06

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

REVISION	BY	DATE

PLAN & PROFILE LINE R

TMUA PROJECT NO. ES 2025-09

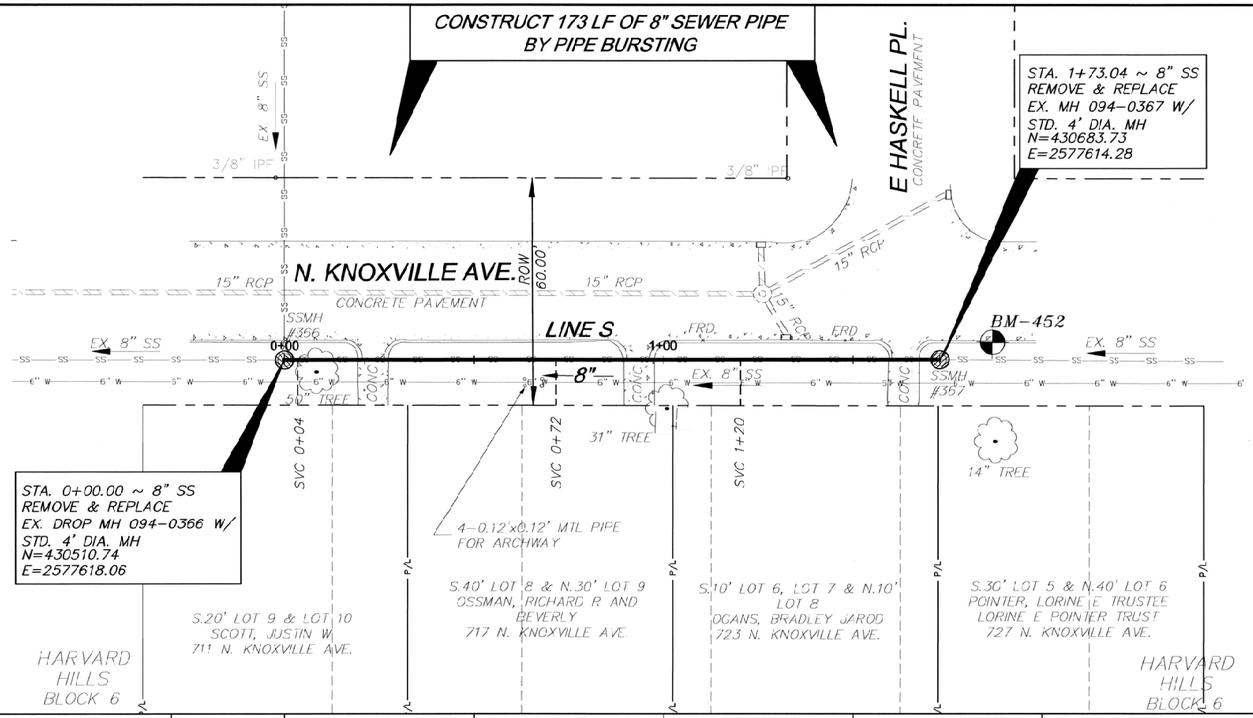
COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

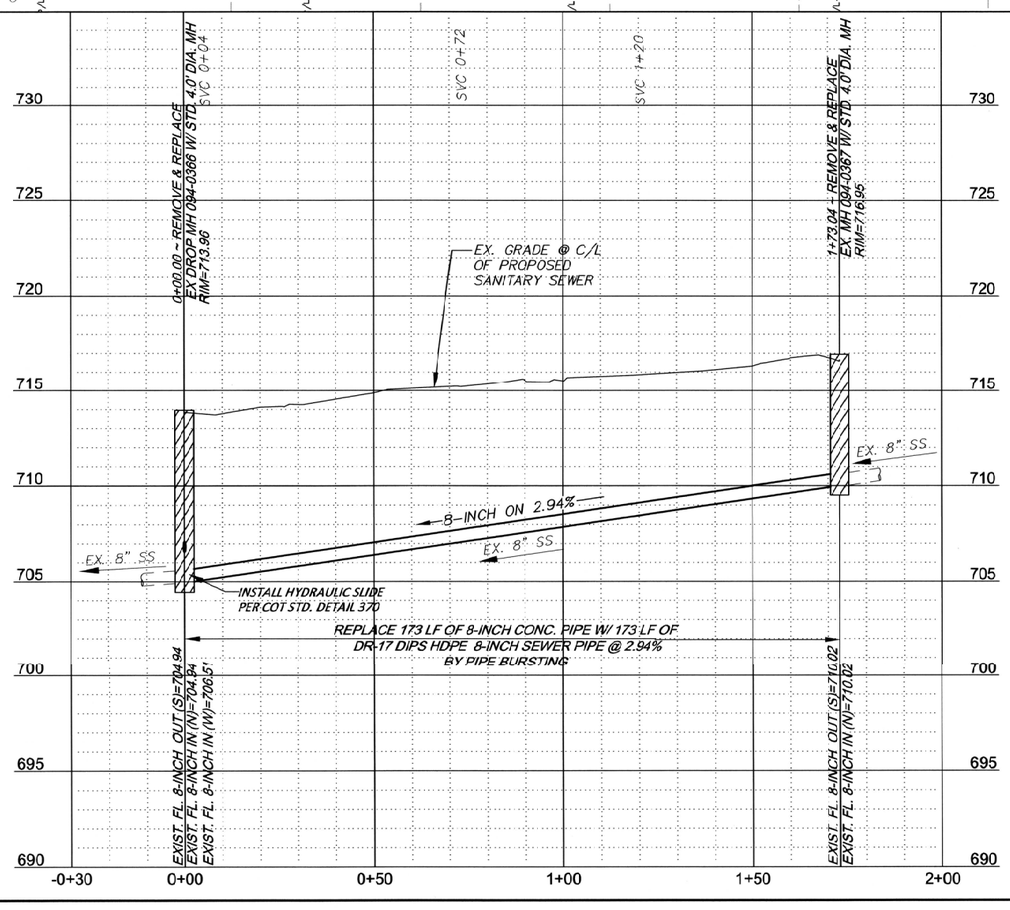
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NF	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/6/25	DESIGN MANAGER
VERTICAL 1" = 4'	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 26				SHEET 39 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\39 LINE R.DWG
Jun 03, 2025
1:38:29 PM





BENCHMARKS:

BM-452
CHISELED "X" SET 14' NORTH AND 5' WEST OF EX. MH 094-0367

N=430697.51
E=2577609.45
EL=716.86

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below. Call before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE S

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025
1" = 20'	DESIGNED	JWB	06/2025
PROFILE SCALE	SURVEY		
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
VERTICAL 1" = 4'	LEAD ENGR.		6/6/25
	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 26			

APPROVED:

DESIGN MANAGER

DATE: June 2025

SHEET 40 OF 59 SHEETS

I:\TULSA\PROJECTS\30-4248 '20 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\40 LINE S.DWG
Jun 17, 2025
1:45:16 PM

CONSTRUCT 108 LF OF 8" SEWER PIPE BY PIPE BURSTING

E.12.5' LOT 12, LOT 13 & W.5' LOT 14
BT PROPERTIES LLC
3515 E. EASTON ST.

E.30' LOT 11 & W.37.5' LOT 12
DEBON, THERESA J
3507 E. EASTON ST.

LOT 10 & W.20' LOT 11
NEUBAUER, SUSAN R
3503 E. EASTON ST.

N. JAMESTOWN AVE.

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

STA. 1+08.21 ~ 8" SS
REMOVE & REPLACE
EX. MH 094-0365 W/
STD. 4' DIA. MH
N=430166.82
E=2577167.73

BM-454

BM-465

LINE T

STA. 0+00.00 ~ 8" SS
REMOVE & REPLACE
EX. MH 094-0364 W/
STD. 4' DIA. MH
N=430169.22
E=2577275.91

CONTRACTOR SHALL BRACE POWER POLE DURING CONSTRUCTION (NO SEPARATE PAYMENT)

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

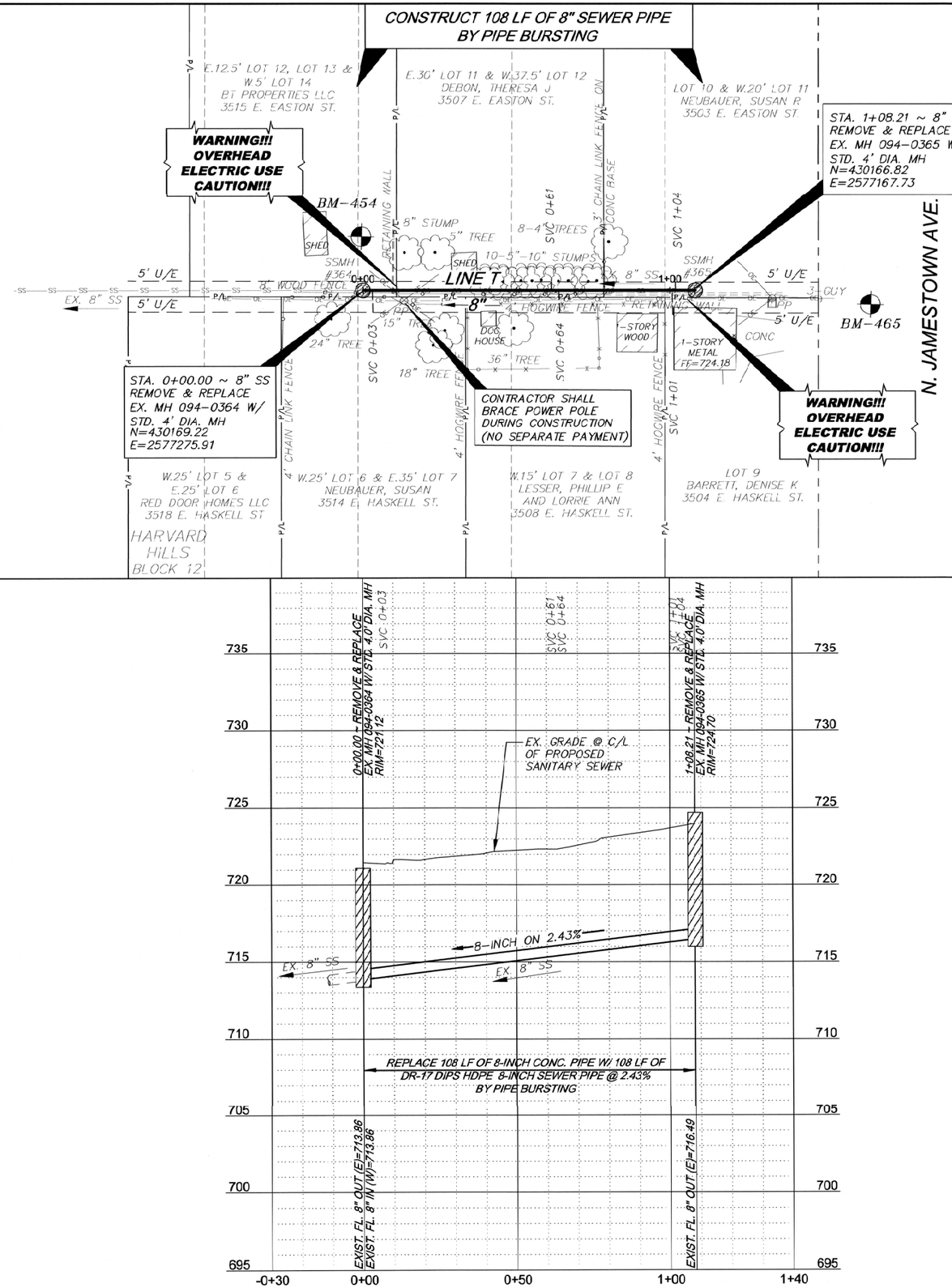
W.25' LOT 5 & E.25' LOT 6
RED DOOR HOMES LLC
3518 E. HASKELL ST.

W.25' LOT 6 & E.35' LOT 7
NEUBAUER, SUSAN
3514 E. HASKELL ST.

W.15' LOT 7 & LOT 8
LESSER, PHILLIP E AND LORRIE ANN
3508 E. HASKELL ST.

LOT 9
BARRETT, DENISE K
3504 E. HASKELL ST.

HARVARD HILLS BLOCK 12



BENCHMARKS:

BM-454
IRON PIN SET 1' EAST AND 18' SOUTH OF EX. MH 094-0364

N=430151.75
E=2577276.89
EL=721.01

BM-465
IRON PIN SET 57' WEST AND 6' NORTH OF EX. MH 094-0365

N=430170.15
E=2577110.49
EL=723.37

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE T

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025
1" = 20'	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
	LEAD ENGR.		6/26/25
VERTICAL 1" = 4'	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 26			

APPROVED:

DESIGN MANAGER

DATE: June 2025

SHEET 41 OF 59 SHEETS

T:\TULSA\PROJECTS\ES-4245-09 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\41 LINE T.DWG
Jun 26, 2025 - 1:41:08 PM

CONSTRUCT 287 LF OF 8" SEWER PIPE BY OPEN CUT

N. LOUISVILLE AVE.

N. KNOXVILLE AVE.

E. ARCHER ST.

LINE U

LAMB ADDITION REUB LANTZ ADDITION BLOCK 1

SEQUOYAH HILLS ADDITION BLOCK 1

FEDERAL HEIGHTS SECOND ADDITION BLOCK 19

HARVARD HILLS BLOCK 11

LOT 1 & N.2' LOT 2 DIXON LORA L 44 N. LOUISVILLE AVE.

LOT 1 BROWN, OBIE G AND NANCY L 47 N. KNOXVILLE AVE.

LOT 12 TIDMORE, B D & TERRI L REV TRUST C/O B D & TERRI L TIDMORE TTEES 104 N. LOUISVILLE AVE.

LOT 12 CARTWRIGHT, SUSAN H 103 N. KNOXVILLE AVE.

WARNING!!! GAS MAIN USE CAUTION!!!

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

REMOVE & REPLACE 8 LF OF 18" RCP

REMOVE & REPLACE UP TO 100 LF OF 30" RCP AS NECESSARY

STA. 0+00.00 ~ 8" SS
REMOVE & REPLACE
EX. DROP MH 094-0354
W/ STD. 5' DIA. MH
N=429695.39
E=2577922.23

REMOVE & REPLACE 424 SY OF CONCRETE PAVEMENT

REMOVE & REPLACE 8 LF OF 21" RCP

STA. 2+87.48 ~ 8" SS
REMOVE & REPLACE
EX. MH 094-0359 W/
STD. 4' DIA. MH
N=429689.43
E=2577634.81

BM-451
1" PIPE

ROW 50.00'

ROW 60.00'

SVC 0+91

SVC 2+06

1-STORY FRAME

GRAVEL

0+00 1+00 2+00

8"

BENCHMARKS:

BM-451
CHISELED "X" SET 4' WEST AND 26' NORTH OF EX. MH 094-0359

N=429715.07
E=2577630.34
EL=703.67

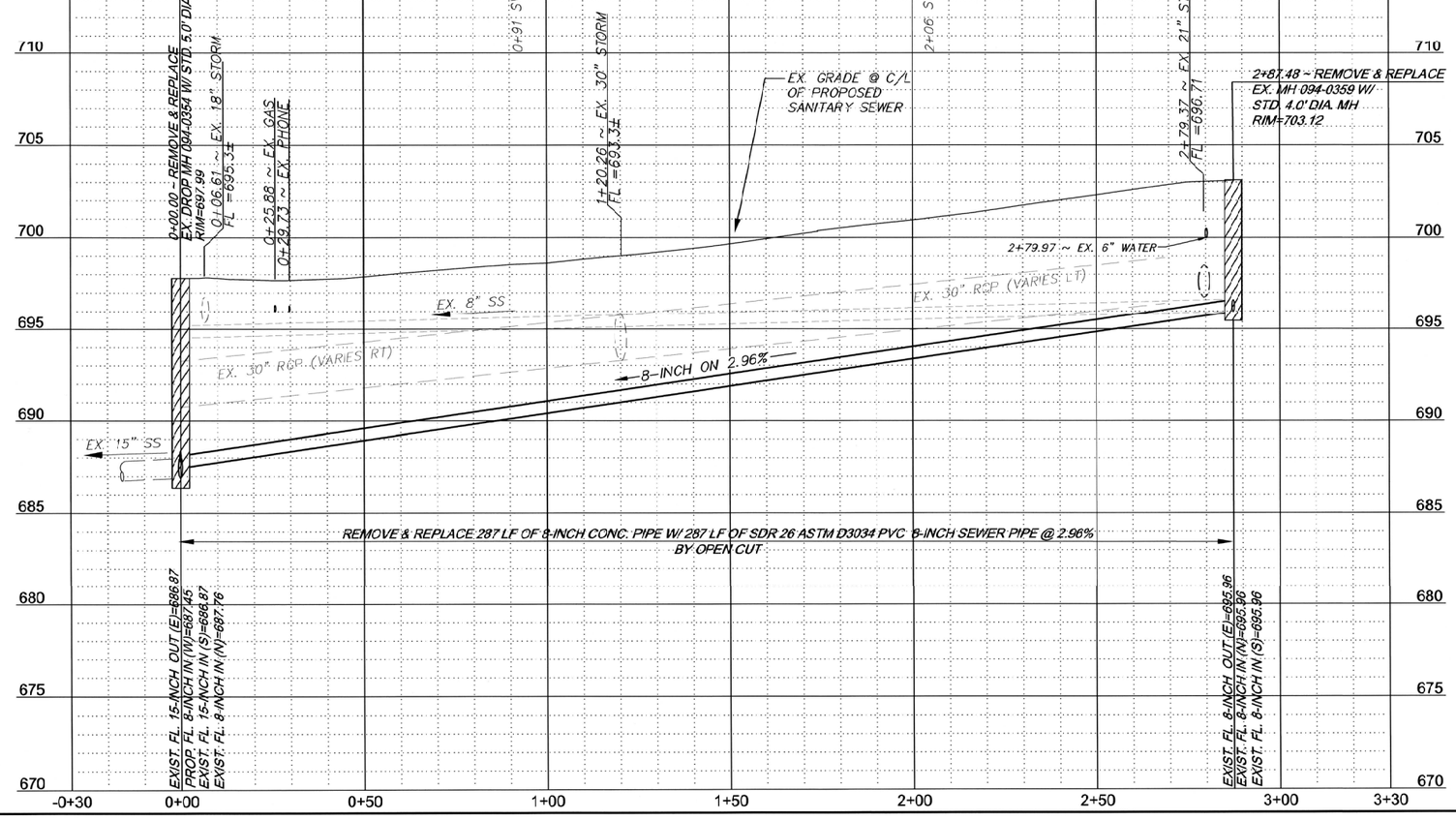
LEGEND

CONCRETE PAVEMENT REMOVAL & REPLACEMENT

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

REVISION	BY	DATE

PLAN & PROFILE LINE U

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025
	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
VERTICAL 1" = 4'	LEAD ENGR.		6/6/25
	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 26			

APPROVED:

DESIGN MANAGER

DATE: June 2025

SHEET 42 OF 59 SHEETS

N:\ES_PROJ\04 \10 PROJECTS \20-10\TULSA\PROJECTS\20-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\42 LINE U.DWG
Wednesday, June 11, 2025 4:23:59 PM

CONSTRUCT 35 LF OF 15" SEWER PIPE
BY POINT REPAIR

BENCHMARKS:

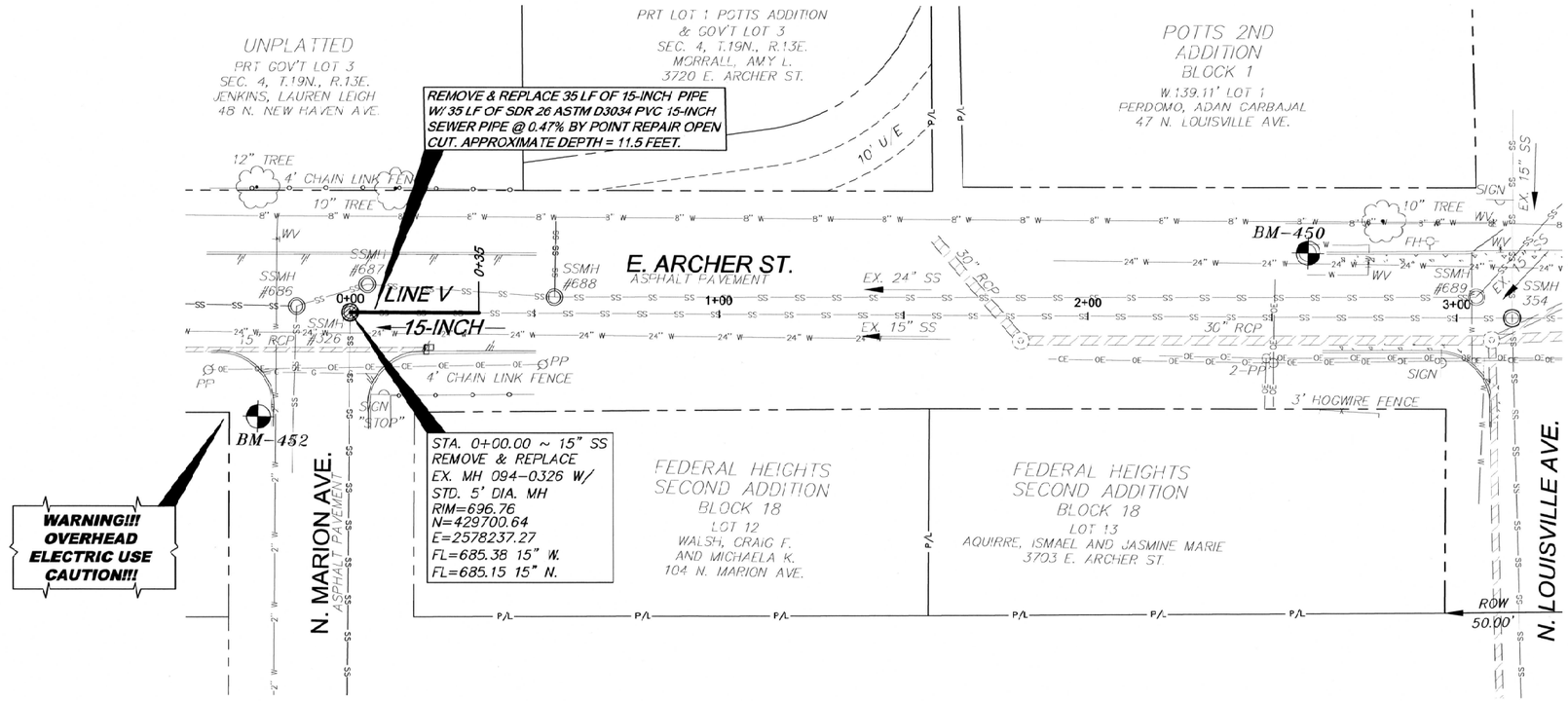
BM-450
IRON PIN SET 45' EAST AND 11' SOUTH OF
EX. MH 030-0689

N=429679.04
E=2577977.95
EL=698.13

BM-452
IRON PIN SET 28' NORTH AND 25' EASTOF
EX. MH 094-0326

N=429729.49
E=2578261.50
EL=696.92

0 10' 20' 40'
SCALE: 1"= 20'



OKIE811
Know what's below
811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE V

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER
CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1"=20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1"=20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/25	
VERTICAL 1"=4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO. 26				SHEET 43 OF 59 SHEETS

T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\43 LINE V.DWG
Tuesday, June 03, 2025
1:42:50 PM

CONSTRUCT 348 LF OF 8" SEWER PIPE BY OPEN CUT

FEDERAL HEIGHTS SECOND ADDITION AMENDED BLOCK 2
LOT 7 CUTTER, DEBRA L AND TIMOTHY J 1129 N. NEW HAVEN AVE.
E. LATIMER PL.
CONCRETE PAVEMENT
EX. 8" SS
EX. 18" RCP
FEDERAL HEIGHTS SECOND ADDITION AMENDED BLOCK 5
LOT 10 CAMPOS, FERNANDO ROMO 1121 N. NEW HAVEN AVE.
LOT 9 MOORE, ERIC 1117 N. NEW HAVEN AVE.
LOT 8 DAY, RICHARD A 1113 N. NEW HAVEN AVE.
LOT 7 MASK, TOBY MICHAEL & RANDALL ALAN FISHER 1109 N. NEW HAVEN AVE.
FEDERAL HEIGHTS SECOND ADDITION AMENDED BLOCK 1A
LOT 9 JENSEN, MICHAEL 1103 N. NEW HAVEN AVE.
LOT 10 KING, BUCKY J AND MARCI L 1055 N. NEW HAVEN AVE.
LOT 11 KING, BUCKY J AND MARCI L 1051 N. NEW HAVEN AVE.

REMOVE & REPLACE 16 LF OF 18" RCP IF NECESSARY

STA. 3+48.16 ~ 8" SS
REMOVE & REPLACE
EX. LH 094-0196 W/
STD. 4' DIA. MH
N=432334.97
E=2578523.75

BM-408A
BM-407A
10" TREE
34" TREE
GM (NO SERVICE)
N. NEW HAVEN AVE.
CONCRETE PAVEMENT
ROW 50.00'
LINE W
0+00
1+00
2+00
3+00
SSMH #193
SSMH #195
SSMH #196
8"
1/2" IPF
IPP
4' CHAIN LINK FENCE
SIGN "STOP"
30" TREE
32" TREE
2-5" TREES
6" TREE
14" TREE

STA. 0+00.00 ~ 8" SS
REMOVE & REPLACE
EX. MH 094-0598 W/
STD. 5' DIA. SHALLOW MH
PER COT STD. DETAIL 406
N=432683.09
E=2578518.76

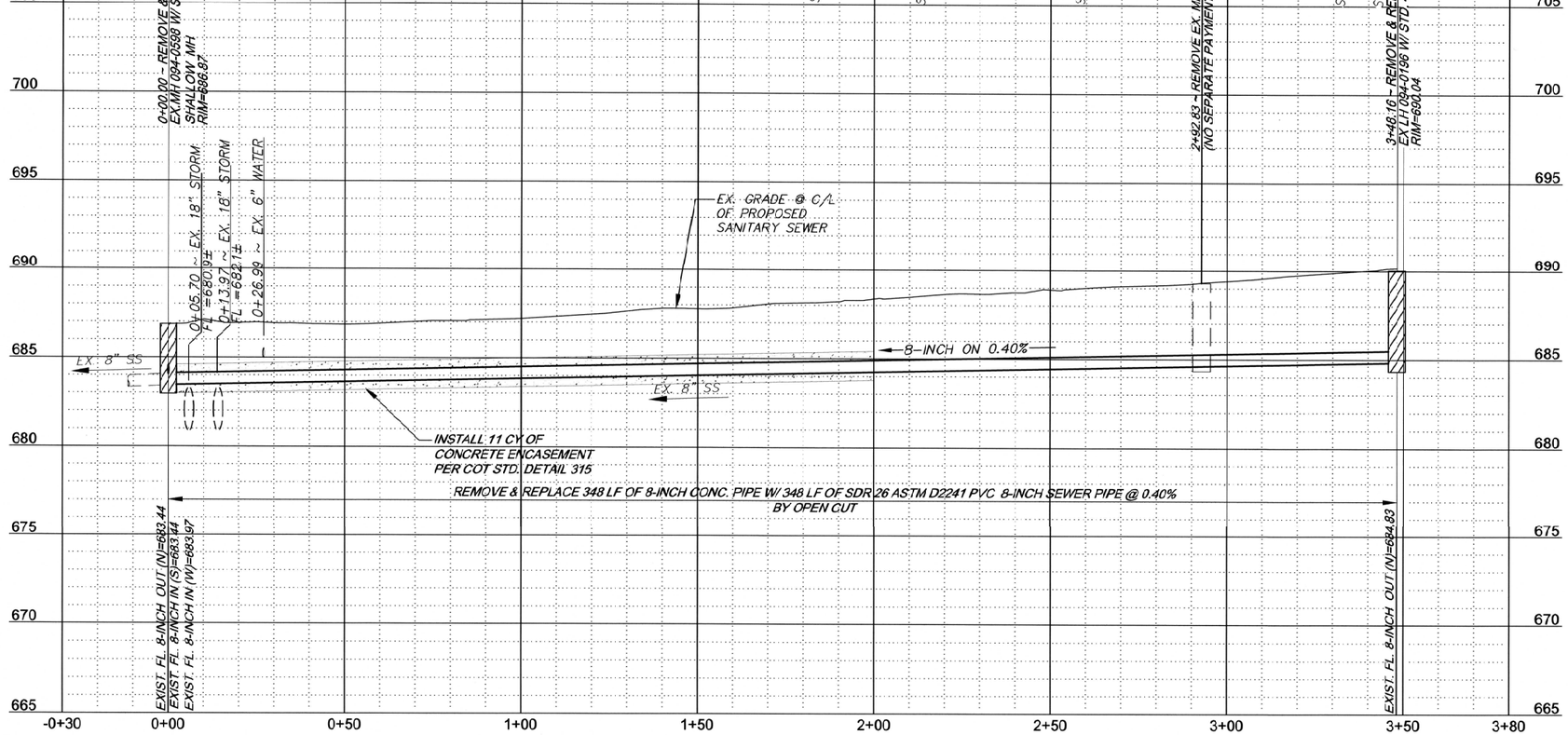
REMOVE & REPLACE
526 SY OF CONCRETE
PAVEMENT & 220 LF
OF CONCRETE CURB

STA. 2+92.83 ~ 8" SS
REMOVE
EX. MH 094-0195
(NO SEPARATE PAYMENT)

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

4' CHAIN LINK FENCE
LOT 6 BRATTON, MARIA 30 N. NEW HAVEN AVE.
FEDERAL HEIGHTS SECOND ADDITION AMENDED BLOCK 3
LOT 2 OKIE DOKEY LIVING LLC 1118 N. NEW HAVEN AVE.
LOT 3 ESTES, PAMELA G 1114 N. NEW HAVEN AVE.
LOT 4 DOWNING, JERRY & ZELDA 1110 N. NEW HAVEN AVE.
LOT 1 STRAESSLE, THOMAS M AND RHONDA F 1104 N. NEW HAVEN AVE.
LOT 2 ACUNA, CLARANELL AND ARTHUR 1054 N. NEW HAVEN AVE.
LOT 3 ARCIGA, ESMERALDA & MIGUEL DE JESUS MALDONADO 1052 N. NEW HAVEN AVE.
LOT 1 BRUNE, CARL & JUDY M BURTON 1122 N. NEW HAVEN AVE.
FEDERAL HEIGHTS SECOND ADDITION AMENDED BLOCK 4
FEDERAL HEIGHTS SECOND ADDITION AMENDED BLOCK 2A

SVC 0+60
SVC 1+00
SVC 1+81
SVC 2+10
SVC 2+59
SVC 3+31
SVC 3+47



BENCHMARKS:

BM-408A
CHISELED "X" SET 24' NORTH AND 24' EAST OF EX. MH 094-0598
N=432706.81
E=2578541.00
EL=687.19

BM-407A
CHISELED "X" SET 13' NORTH AND 24' EAST OF EX. MH 094-0196
N=4323347.80
E=2578546.79
EL=689.81

0 10' 20' 40'
SCALE: 1"= 20'

LEGEND

CONCRETE PAVEMENT REMOVAL & REPLACEMENT

OKIE811 Know what's below 811 before you dig.

WARNING!!! EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE W

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

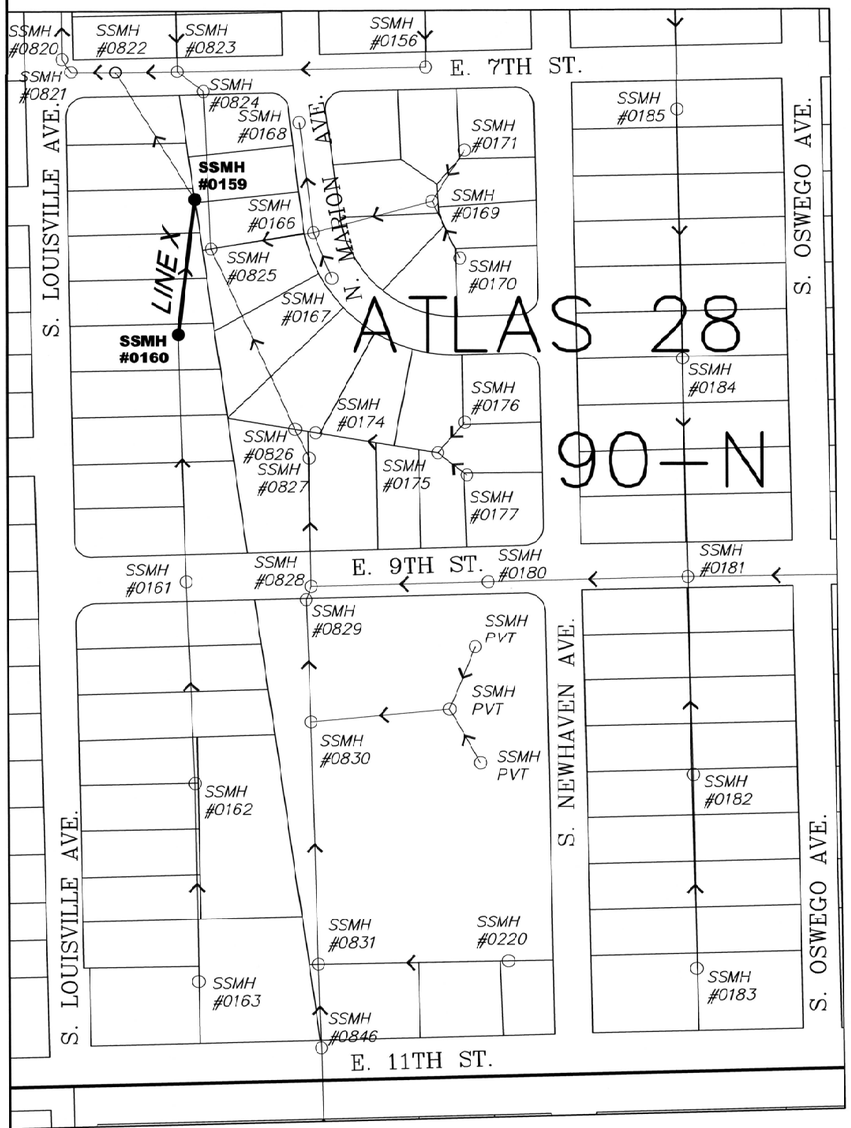
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

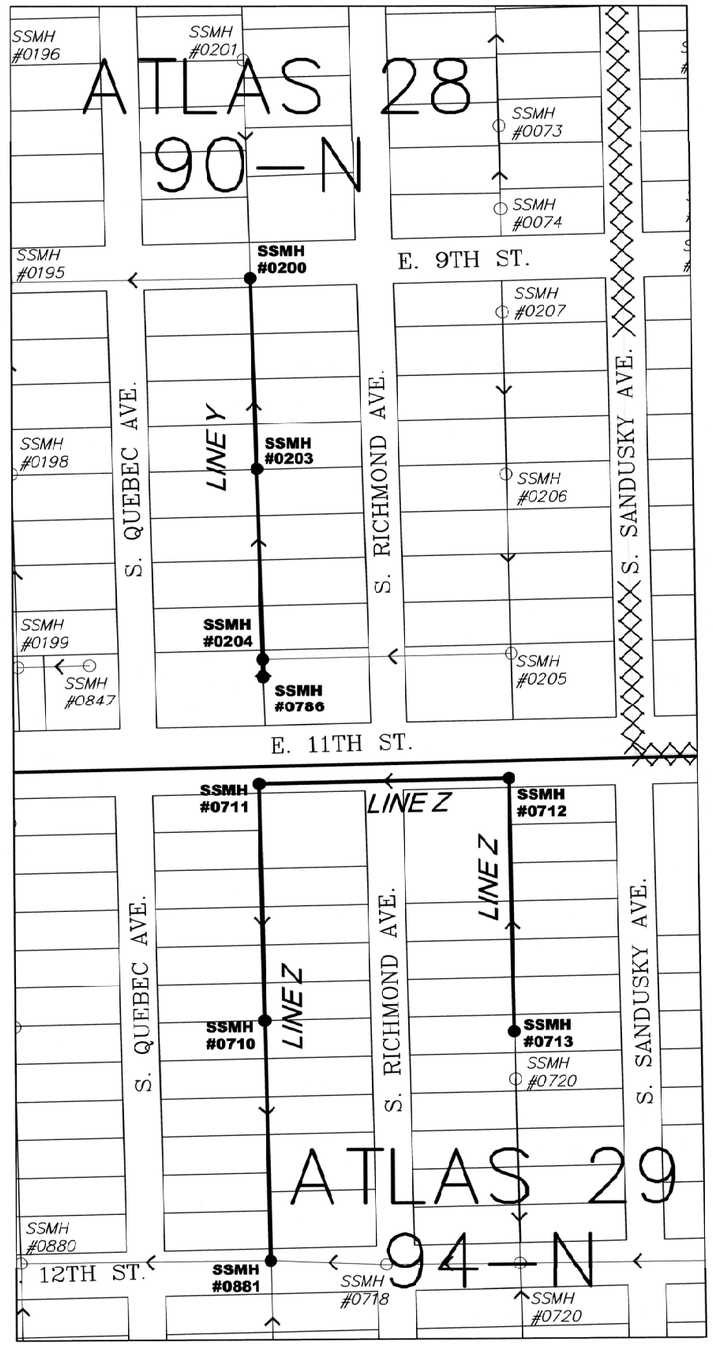
REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CL	06/2025	
	LEAD ENGR.		6/6/25	DESIGN MANAGER
VERTICAL 1" = 4'	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 26,49				SHEET 44 OF 59 SHEETS

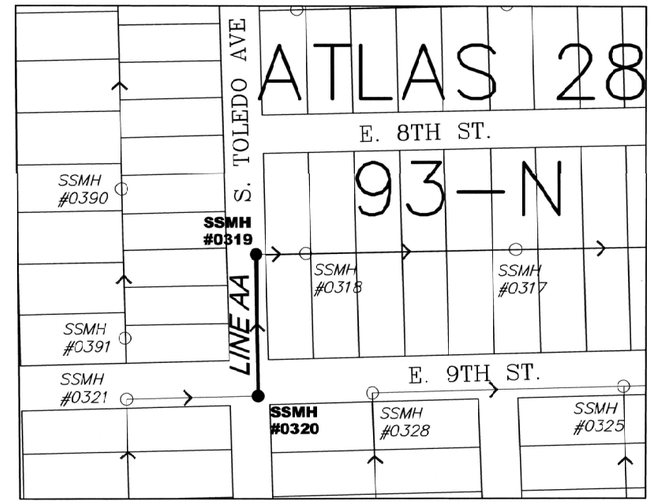
T:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\44 LINE W.DWG
Jun 03, 2025 - 11:48:29 AM



LINE X SEE SHEET 46

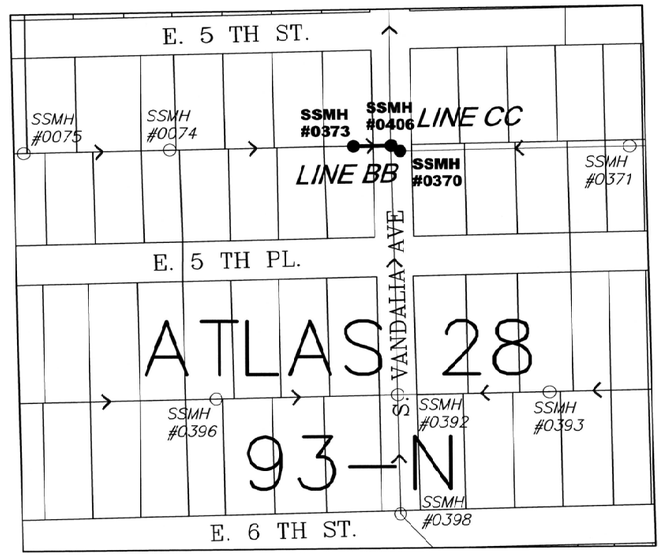


LINE Y SEE SHEETS 47-48
LINE Z SEE SHEETS 49-52



LINE AA SEE SHEET 53

NOT TO SCALE



LINE BB SEE SHEET 54
LINE CC SEE SHEET 55

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

ATLAS PAGES 28 & 29 KEY MAP

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025
1" = 20'	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
	LEAD ENGR.	JWB	6/25
VERTICAL 1" = 4'	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 26			

APPROVED:
DESIGN MANAGER
DATE: June 2025
SHEET 45 OF 59 SHEETS

T:\TULSA\PROJECTS\35-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\45 ATLAS KEY MAP 28 & 29.DWG
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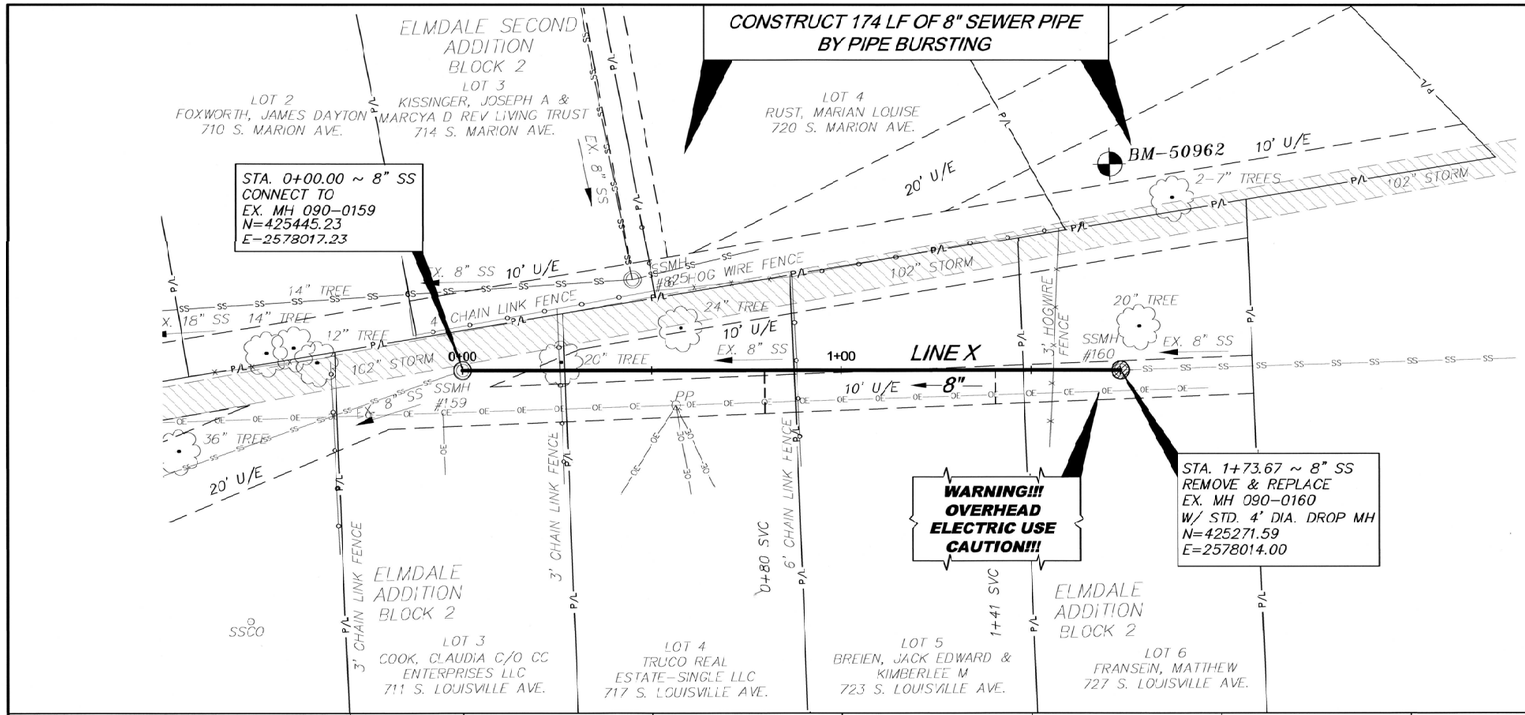
11:44:29 AM



BENCHMARKS:

BM-50962
MAG NAIL SET 5' NORTH AND 54' EAST OF EX. MH 090-0160

N=425273.39
E=2578068.51
EL=660.29

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE X

TMUA PROJECT NO. ES 2025-09

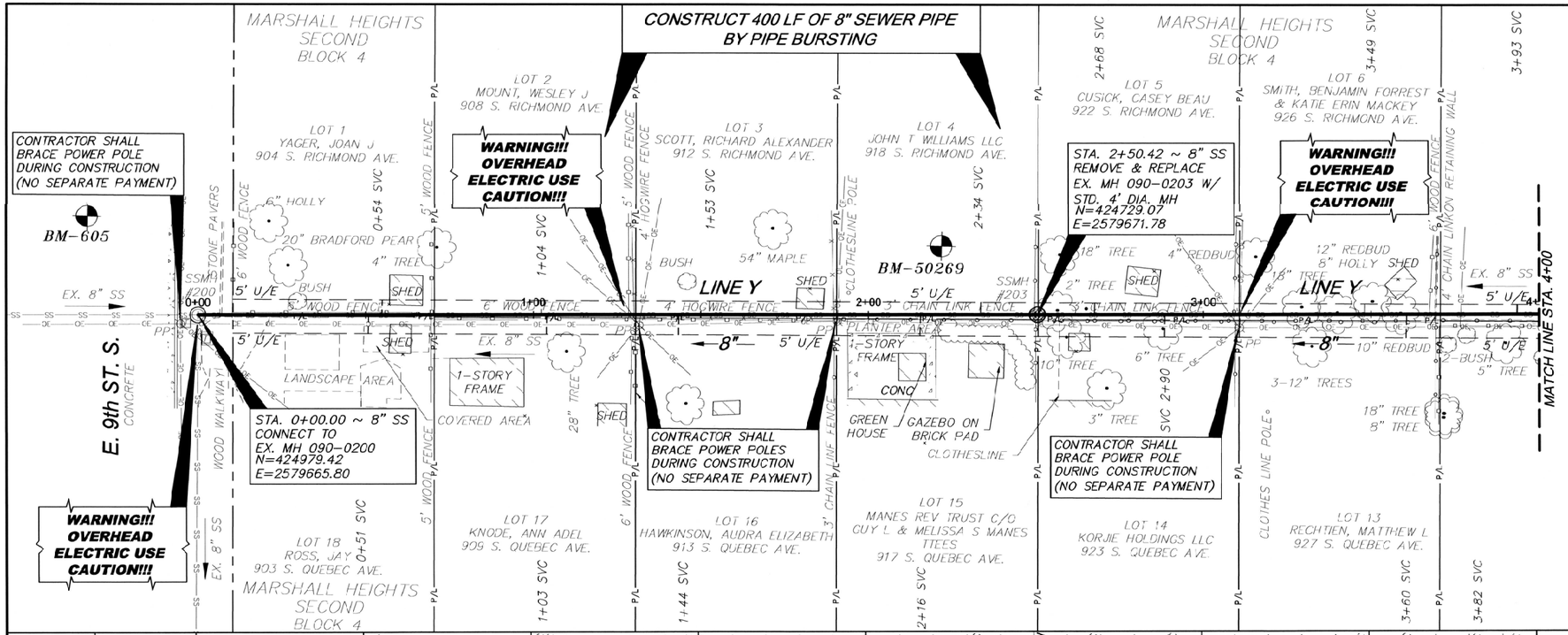
COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

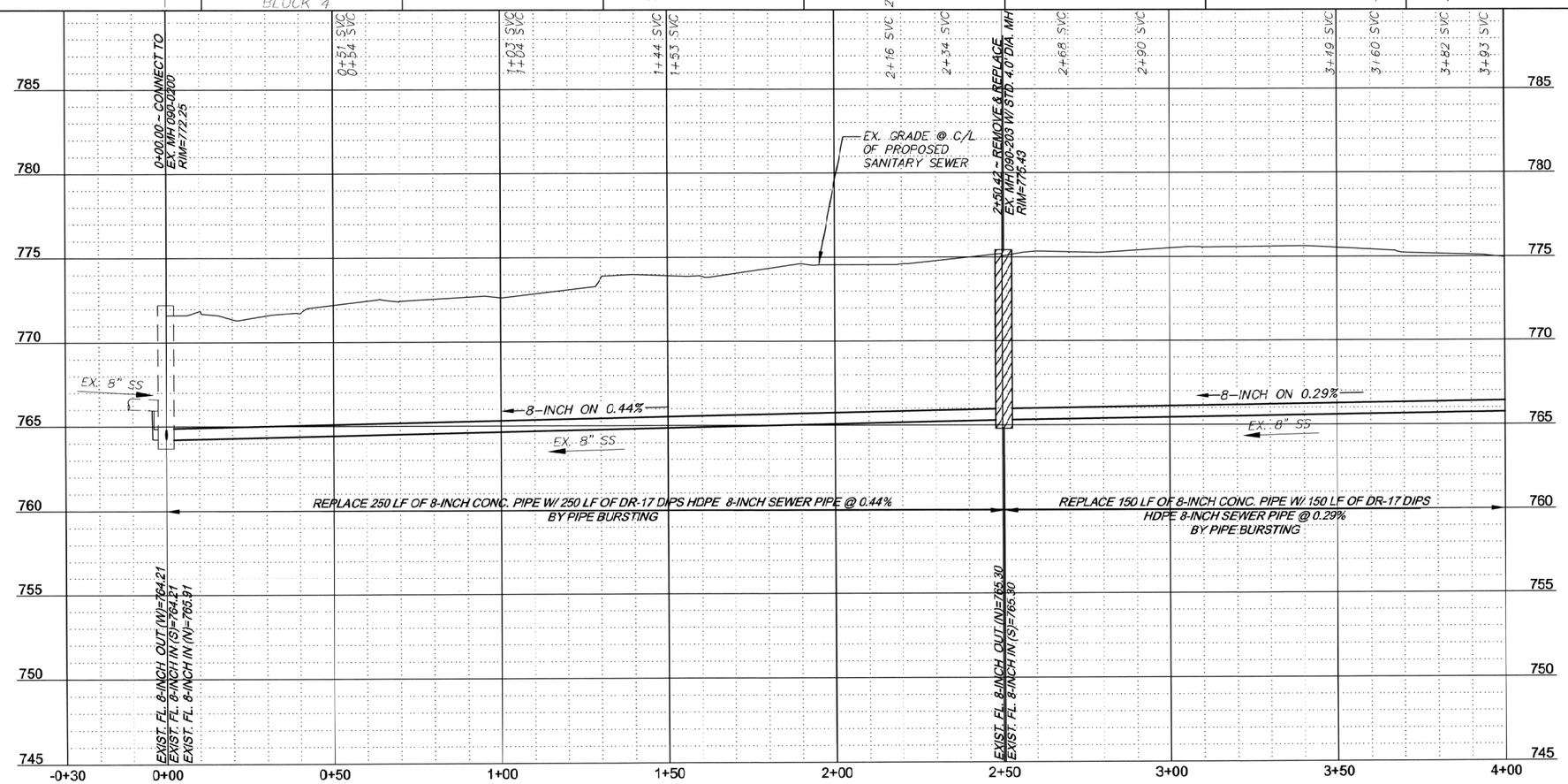
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1"=20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1"=20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.	AZL	6/25	DESIGN MANAGER
VERTICAL 1"=4'	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 28				SHEET 46 OF 59 SHEETS





BENCHMARKS:

BM-605
CHISELED "X" SET 35' NORTH AND 30' EAST OF EX. MH 090-0200

N=425013.23
E=2579694.29
EL=772.28

BM-50269
IRON PIN SET 29' NORTH AND 20' EAST OF EX. MH 090-0203

N=424758.18
E=2579691.36
EL=775.64

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below Call before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE Y

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

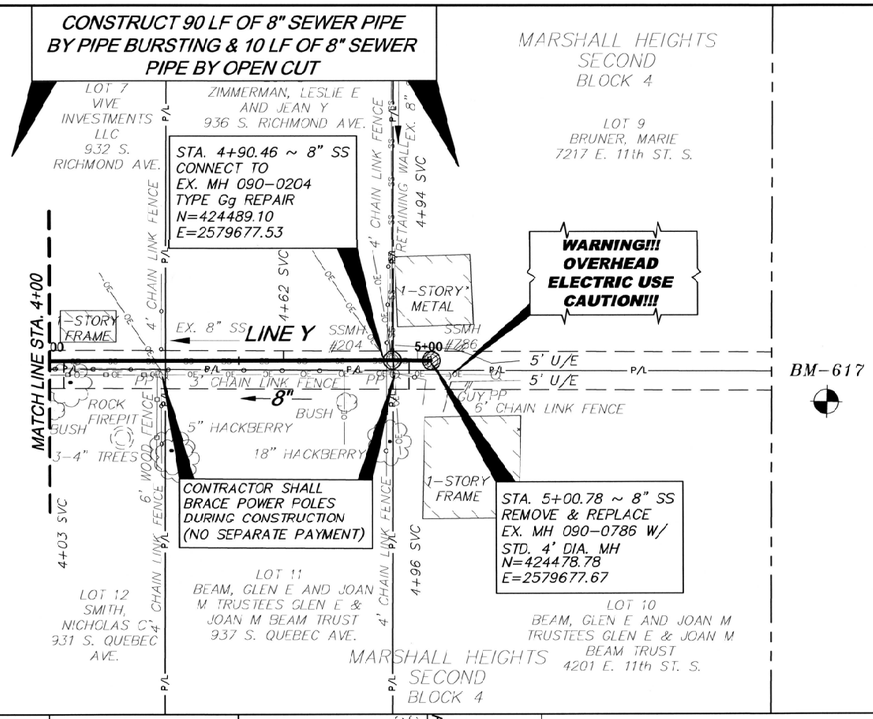
REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025
	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NF	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
VERTICAL 1" = 4'	LEAD ENGR.		6/26/25
	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 28			

APPROVED:
DESIGN MANAGER
DATE: June 2025
SHEET 47 OF 59 SHEETS

T:\TULSA\PROJECTS\20-424-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\17-48 LINE Y.DWG
Friday, June 06, 2025
2:34:28 PM

CONSTRUCT 90 LF OF 8" SEWER PIPE BY PIPE BURSTING & 10 LF OF 8" SEWER PIPE BY OPEN CUT

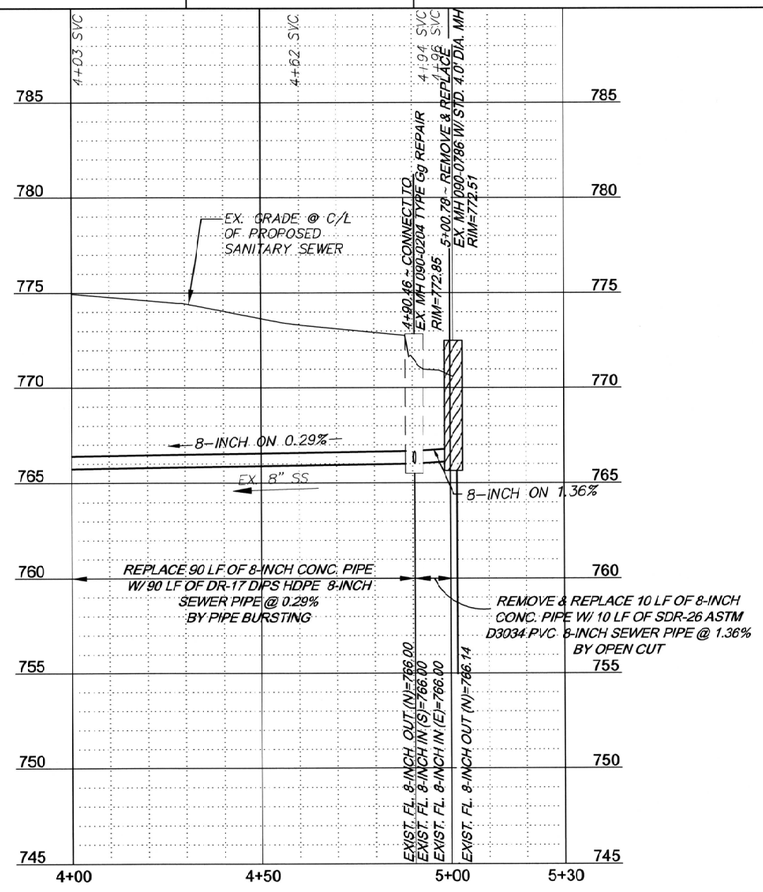


BENCHMARKS:

BM-617
CHISELED "X" SET 105' SOUTH AND 11' WEST OF EX. MH 090-0786

N=424374.25
E=2579669.18
EL=766.66

0 10' 20' 40'
SCALE: 1"= 20'



OKIE811 know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

REVISION	BY	DATE

PLAN & PROFILE LINE Y

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025
	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
VERTICAL 1" = 4'	LEAD ENGR.		6/25
	FIELD MGR.		
FILE:	DRAWING:		

APPROVED

DESIGN MANAGER

DATE: June 2025

ATLAS PAGE NO: 28

SHEET 48 OF 59 SHEETS

I:\TULSA\PROJECTS\30-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\47-48 LINE Y.DWG
Wednesday, June 04, 2025
7:34:29 AM

CONSTRUCT 400 LF OF 8" SEWER PIPE BY PIPE BURSTING

STA. 0+00.00 ~ 8" SS
CONNECT TO
EX. MH 090-0881
N=423697.91
E=2579689.32

BENCHMARKS:

BM-50713
CHISELED "X" SET 8' SOUTH AND 22' EAST OF EX. MH 090-0881

N=423690.37
E=2574447.14
EL=766.17

BM-50721
IRON PIN SET 84' NORTH AND 13' WEST OF EX. MH 090-0710

N=424089.80
E=2579665.91
EL=764.26

SCALE: 1" = 20'

WARNING!!! OVERHEAD ELECTRIC USE CAUTION!!!

CONTRACTOR SHALL BRACE POWER POLE DURING CONSTRUCTION (NO SEPARATE PAYMENT)

STA. 3+08.64 ~ 8" SS
REMOVE & REPLACE
EX. MH 090-0710 W/
STD. 4' DIA. MH
N=424006.44
E=2579681.21

MATCH LINE STA. 4+00

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

EX. GRADE @ C/L OF PROPOSED SANITARY SEWER

0+00.00 - CONNECT TO EX. MH 090-0881 RIM=766.64

3+08.64 ~ REMOVE & REPLACE EX. MH 090-0710 W/ STD. 4' DIA. MH RIM=767.34

EXIST. FL. 10-INCH OUT (W)=752.08
EXIST. FL. 8-INCH IN (N)=752.08
EXIST. FL. 8-INCH IN (S)=752.08
EXIST. FL. 8-INCH IN (E)=752.08

EXIST. FL. 8-INCH OUT (S)=753.24
EXIST. FL. 8-INCH IN (N)=753.24

EXIST. FL. 8-INCH=753.48

EX. 8" SS

8-INCH ON 0.38%

8-INCH ON 0.26%

REPLACE 309 LF OF 8-INCH VCP PIPE W/ 309 LF OF DR-17 DIPS HDPE 8-INCH SEWER PIPE @ 0.38% BY PIPE BURSTING

REPLACE 91 LF OF 8-INCH CONC. PIPE W/ 91 LF OF DR-17 DIPS HDPE 8-INCH SEWER PIPE @ 0.26% BY PIPE BURSTING

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE Z

TMUA PROJECT NO. ES 2025-09

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CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

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4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

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PROFILE SCALE:	DESIGNED	JWB	06/2025	
HORIZONTAL: 1" = 20'	SURVEY	NP	06/2025	
VERTICAL 1" = 4'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.		6/6/25	DESIGN MANAGER
FILE:	FIELD MGR.			DATE: June 2025
ATLAS PAGE NO: 29	DRAWING			SHEET 49 OF 59 SHEETS

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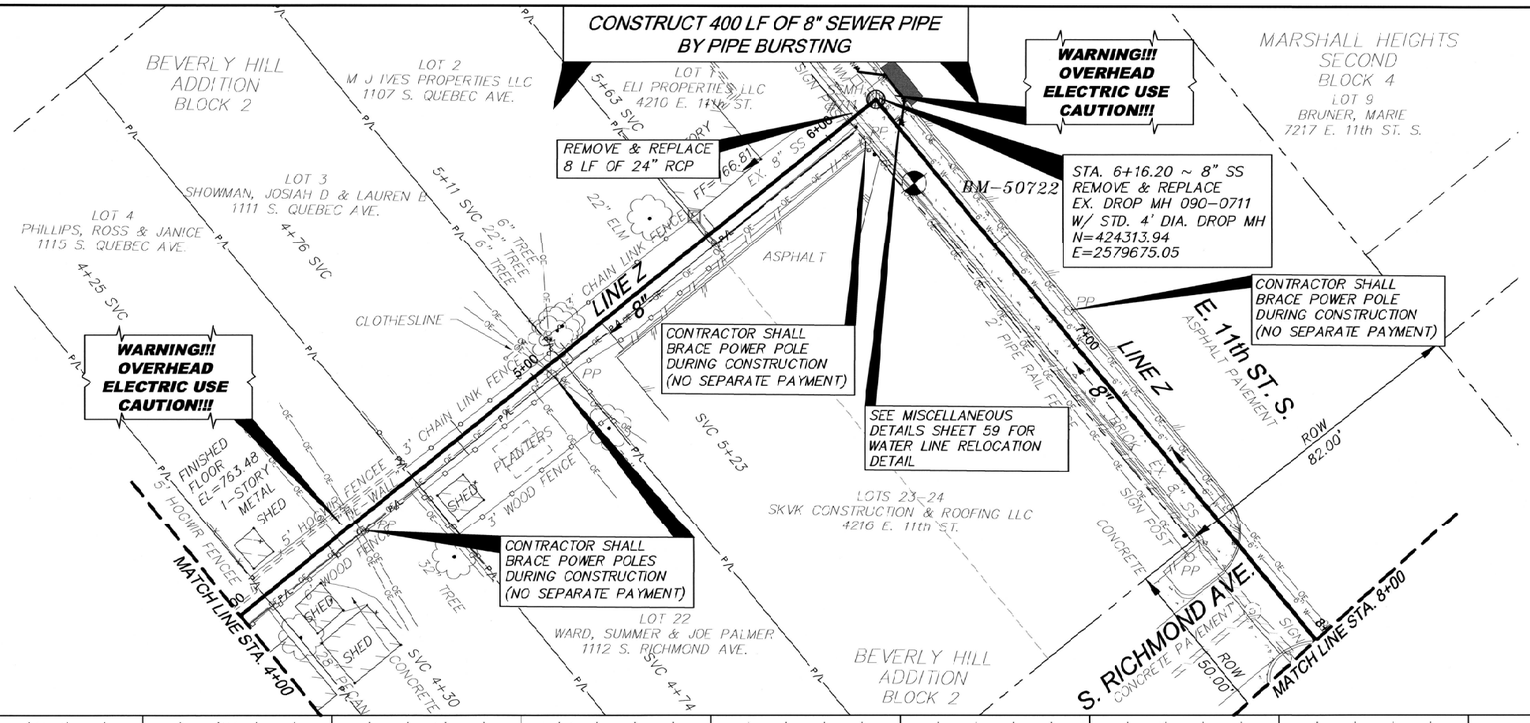


BENCHMARKS:

BM-50722
MAG NAIL SET 25' EAST AND 6' SOUTH OF EX. MH 090-0711

N=424308.35
E=2579698.62
EL=766.85

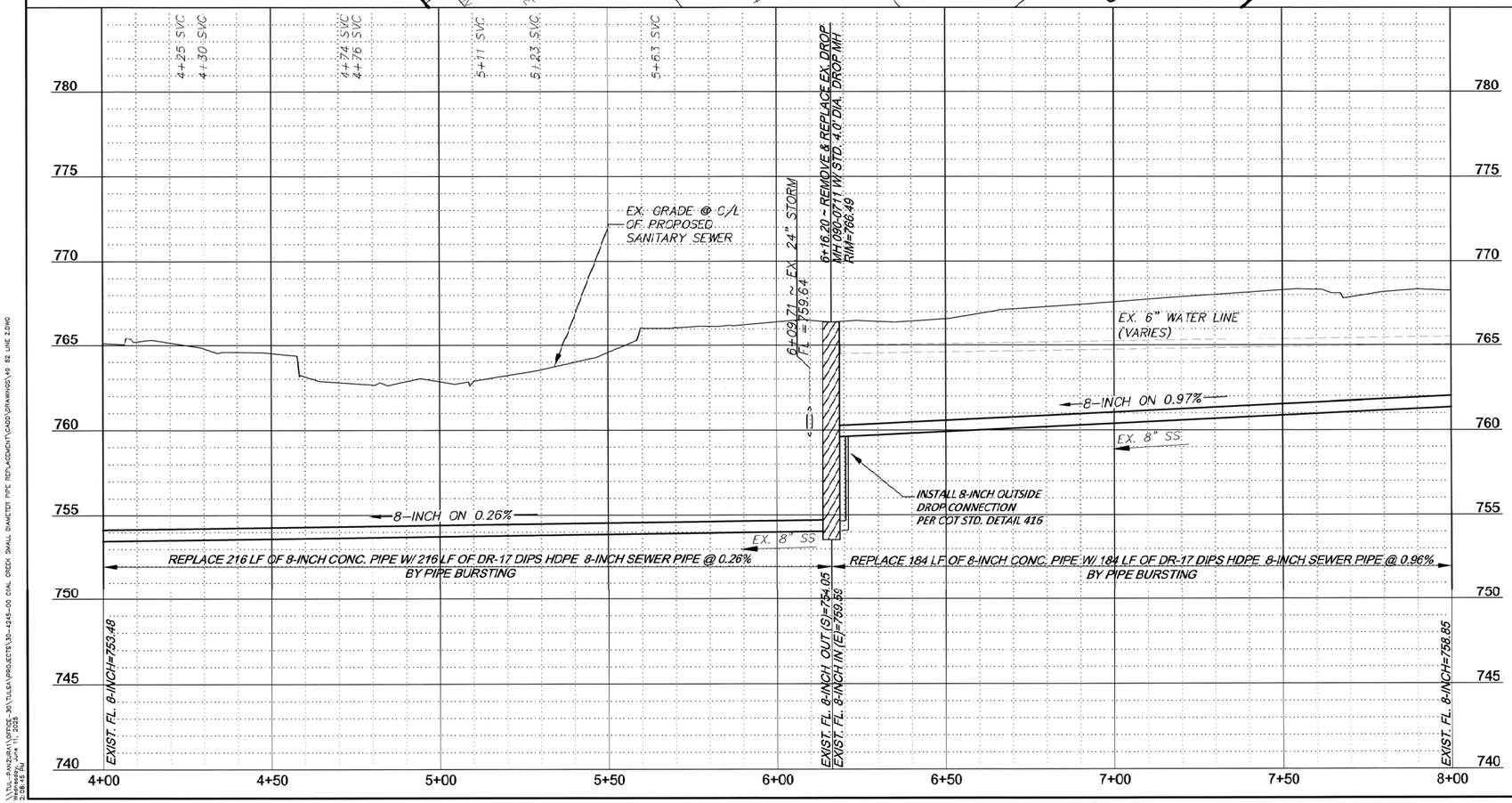
LEGEND

ASPHALT PAVEMENT REMOVAL AND REPLACEMENT (SEE MISCELLANEOUS DETAIL SHEET)

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811
Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE Z

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

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4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

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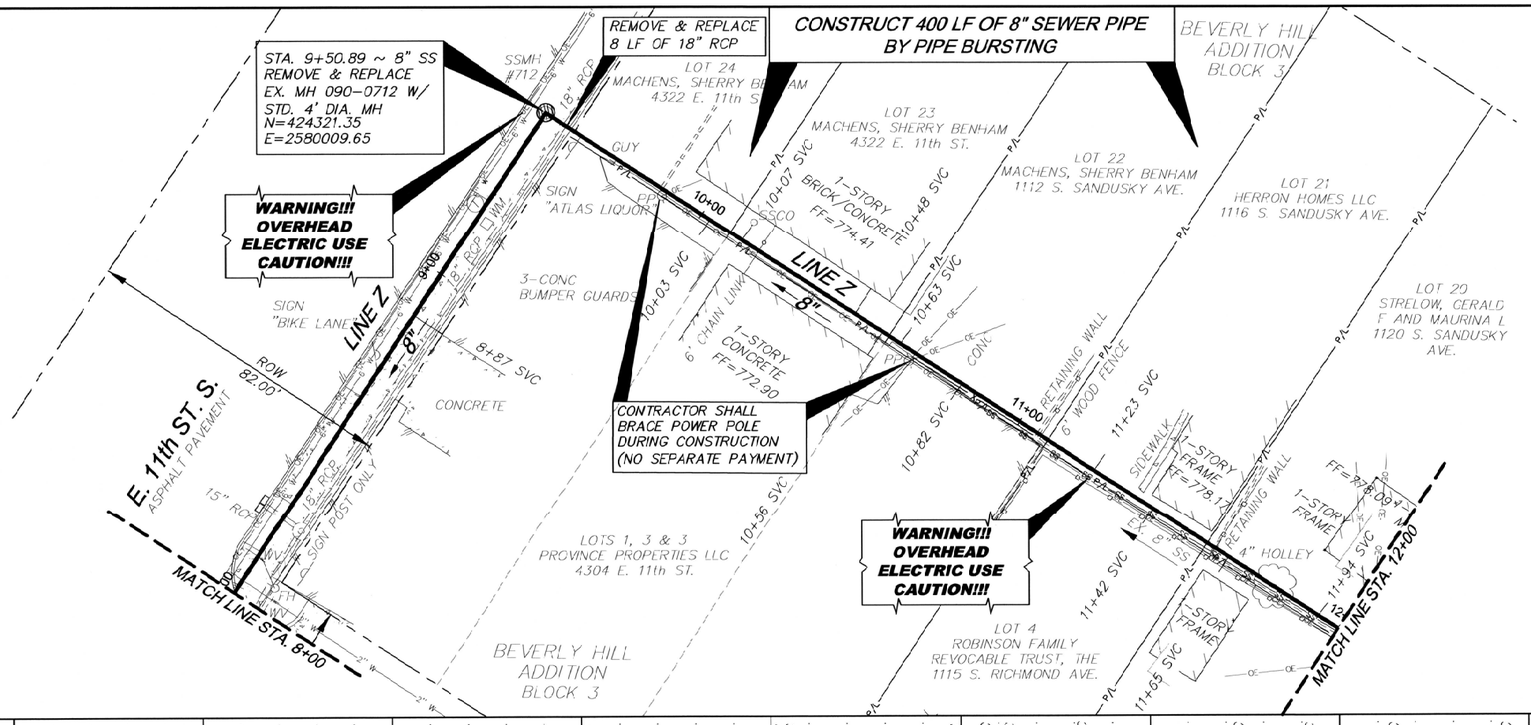
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.	GJR	6/25	
VERTICAL 1" = 4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 29				SHEET 50 OF 59 SHEETS



BENCHMARKS:

BM-50722
MAG NAIL SET 25' EAST AND 6' SOUTH OF EX. MH 090-0711
(SEE PREVIOUS SHEET)
N=424308.35
E=2579698.62
EL=766.85

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig

WARNING!!!
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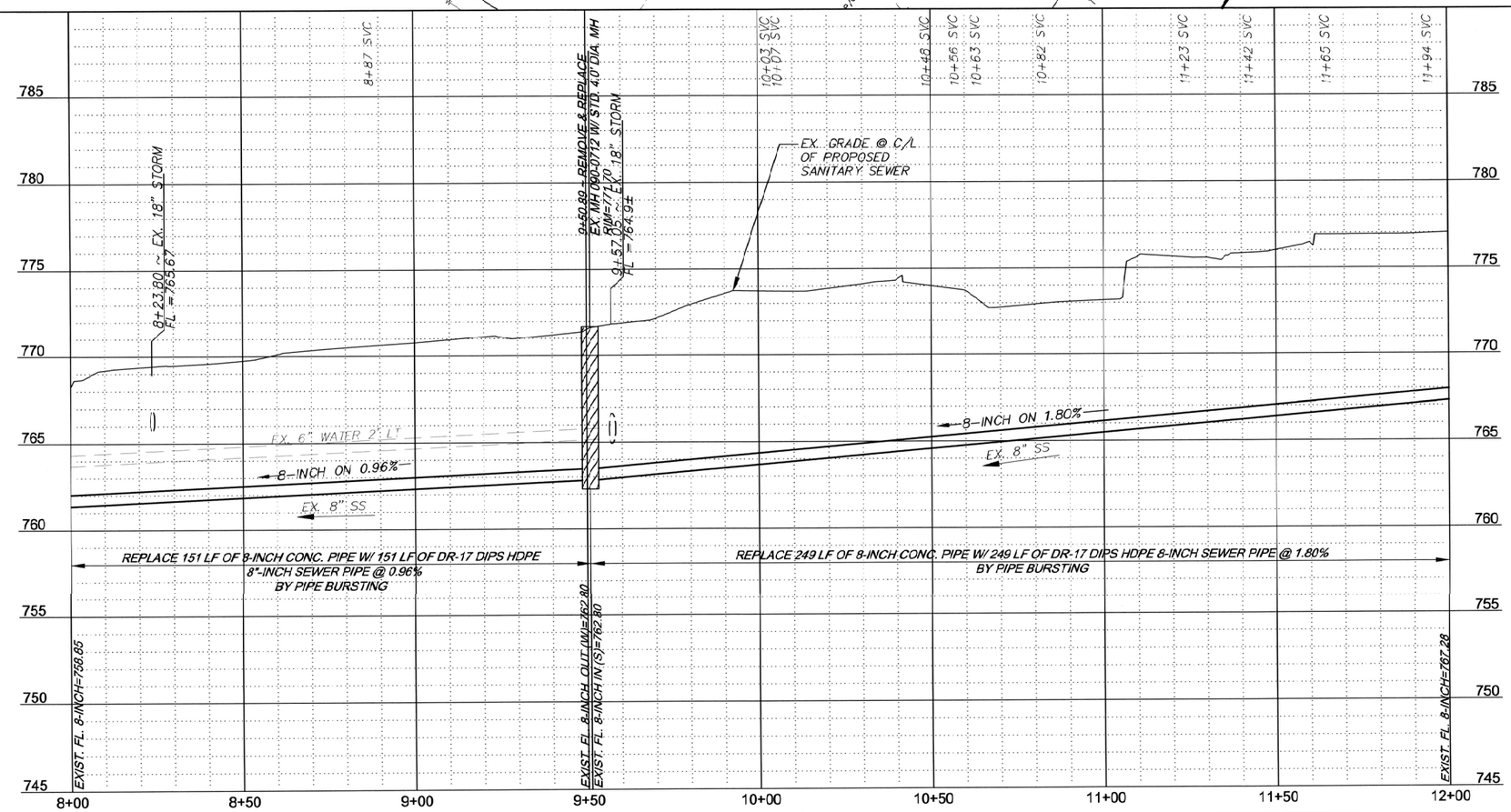

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE Z

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

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PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
VERTICAL 1" = 4'	LEAD ENGR.		6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 29				SHEET 51 OF 59 SHEETS

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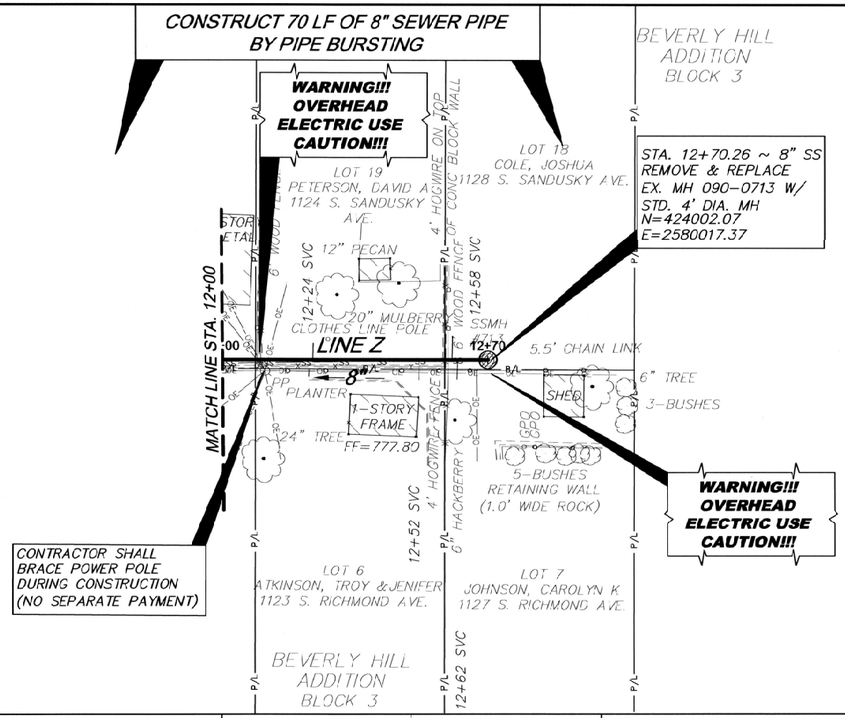
7:29:12 AM



BENCHMARKS:

BM-50722
MAG NAIL SET 25' EAST AND 6' SOUTH OF EX. MH 090-0711
(SEE PREVIOUS SHEET)
N=424308.35
E=2579698.62
EL=766.85

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
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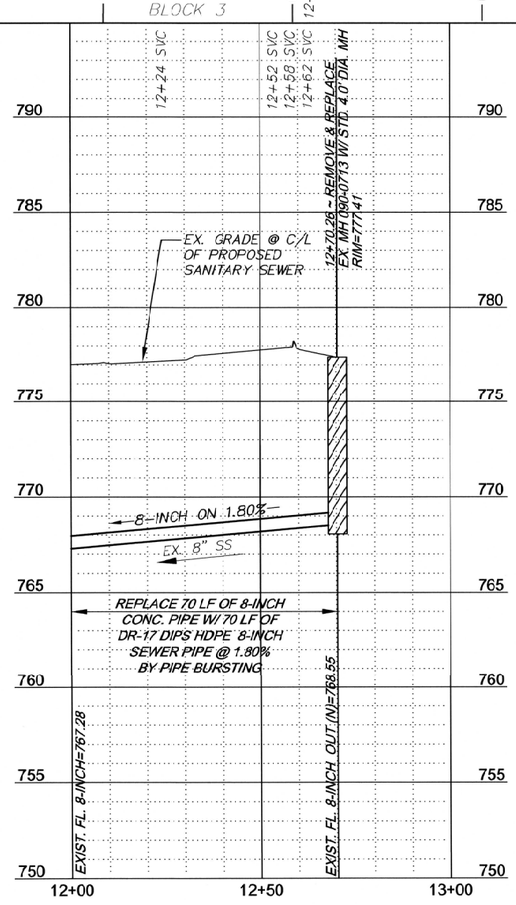

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33769
OKLAHOMA

PLAN & PROFILE LINE Z

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HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.	JWB	6/6/25	
VERTICAL 1" = 4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 29				SHEET 52 OF 59 SHEETS

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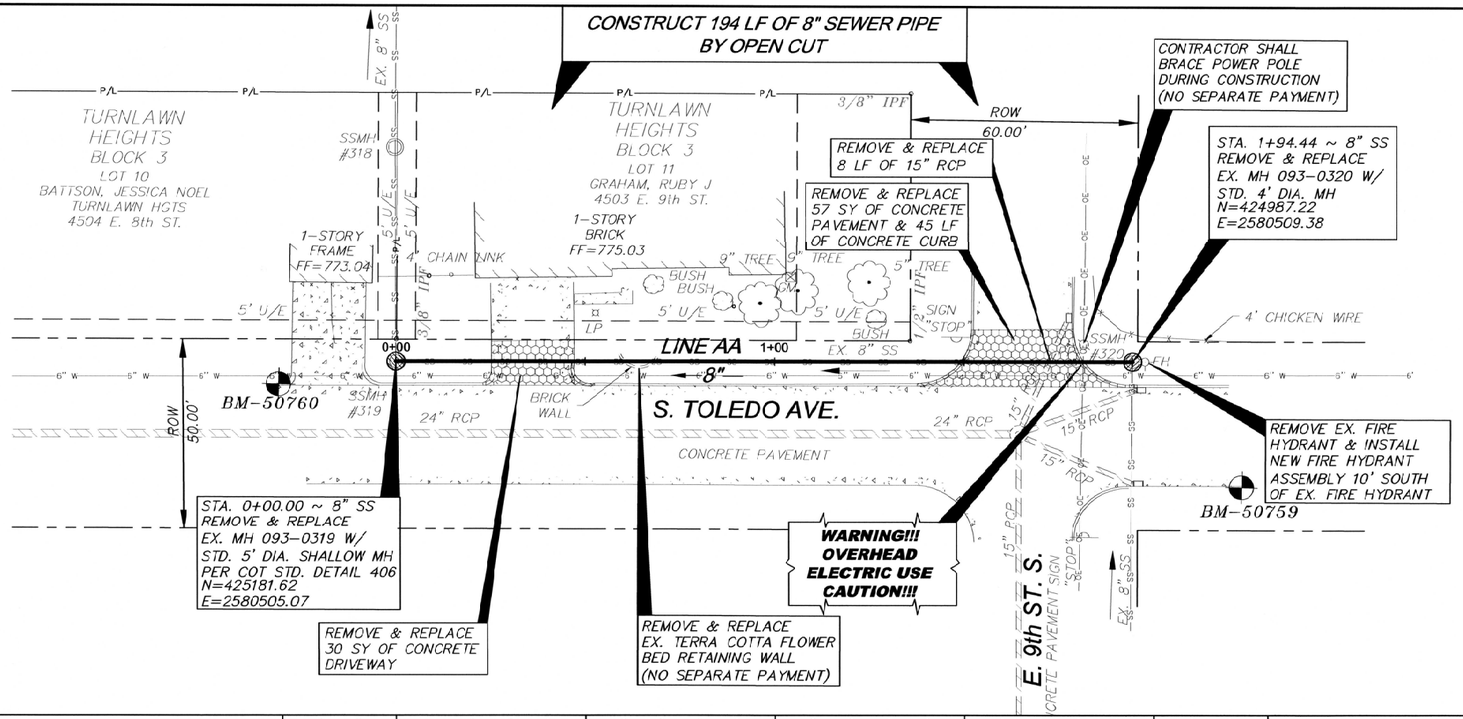

BENCHMARKS:

BM-50760
CHISELED "X" SET 31' NORTH AND 7' WEST OF EX. MH 093-0319

N=425212.48
E=2580498.41
EL=769.90

BM-50759
CHISELED "X" SET 32' WEST AND 29' SOUTH OF EX. MH 093-0320

N=424957.79
E=2580477.06
EL=775.44

0 10' 20' 40'
SCALE: 1"= 20'

LEGEND

CONCRETE PAVEMENT REMOVAL & REPLACEMENT

OKIE811 Know what's below 811 before you dig.

WARNING!!!
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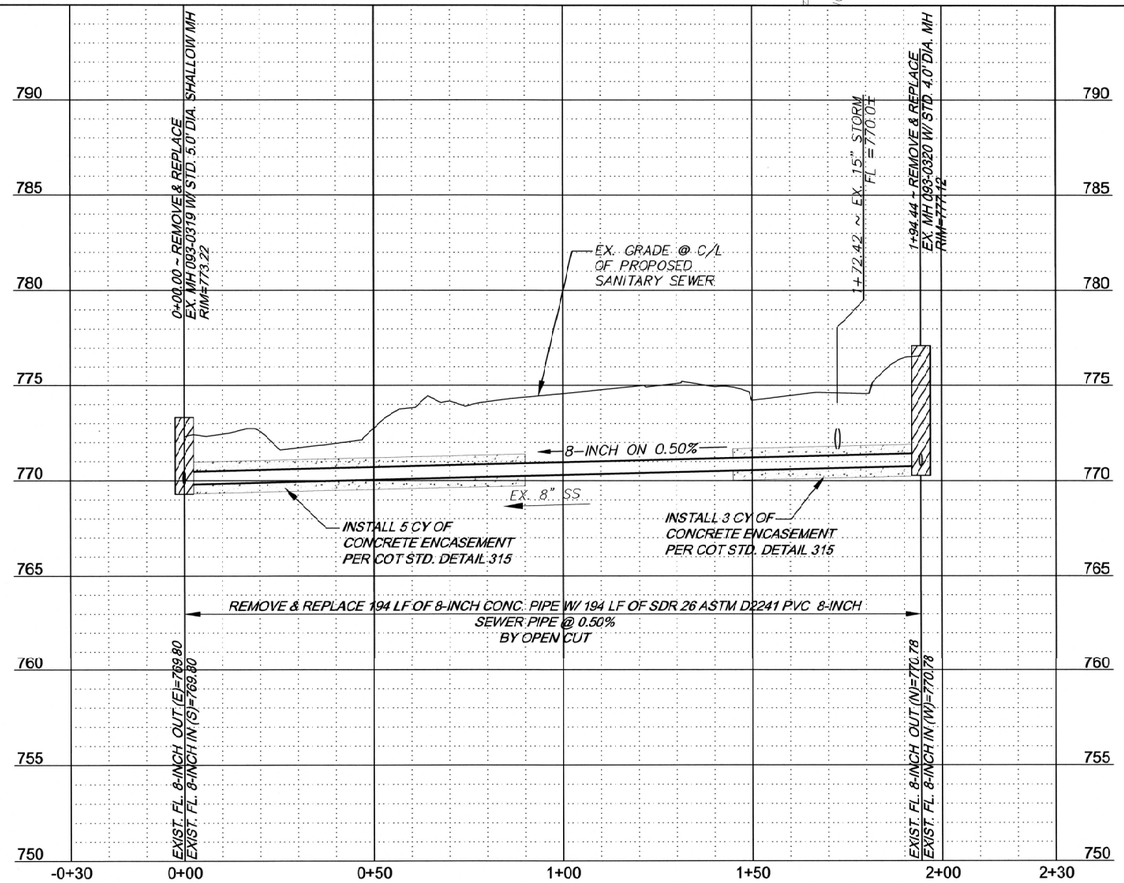

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE AA

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
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4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

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	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1"=20'	PROJ. MGR.	CC	06/2025	
	LEAD ENGR.	KZ	6/25	
VERTICAL 1"=4'	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 28				SHEET 53 OF 59 SHEETS

I:\TULSA\PROJECTS\20-4245-00 COAL CREEK SMALL DIAMETER PIPE REPLACEMENT\CADD\DRAWINGS\53 LINE AA.DWG
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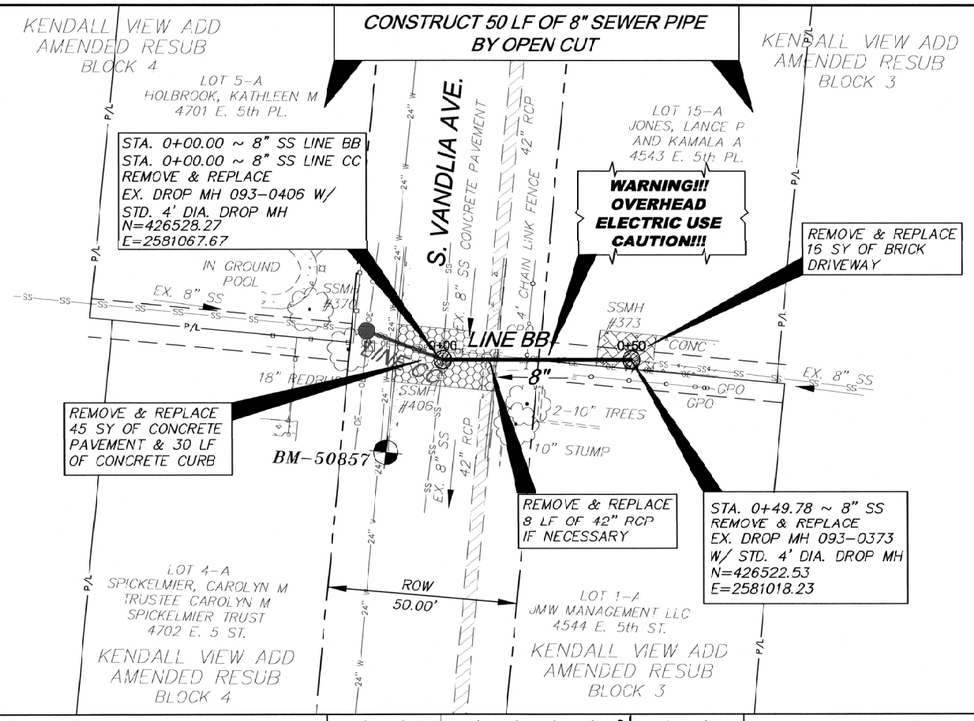


BENCHMARKS:

BM-50857
CHISELED "X" SET 13' EAST AND 25' NORTH OF EX. MH 093-0406

N=426554.11
E=2581079.87
EL=738.19

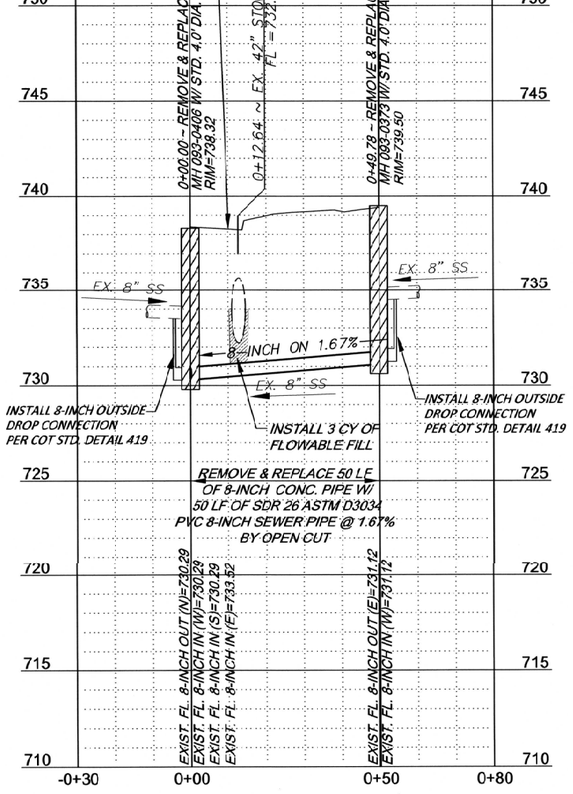
LEGEND

- CONCRETE PAVEMENT REMOVAL & REPLACEMENT
- BRICK DRIVEWAY REMOVAL & REPLACEMENT

0 10' 20' 40'
SCALE: 1"= 20'

OKIE811 Know what's below 811 before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543



6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE BB

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025
1" = 20'	DESIGNED	JWB	06/2025
PROFILE SCALE:	SURVEY	NP	06/2025
HORIZONTAL: 1" = 20'	PROJ. MGR.	CC	06/2025
VERTICAL 1" = 4'	LEAD ENGR.		6/6/25
	FIELD MGR.		
FILE:	DRAWING:		
ATLAS PAGE NO: 28			

APPROVED:

DESIGN MANAGER

DATE: June 2025

SHEET 54 OF 59 SHEETS

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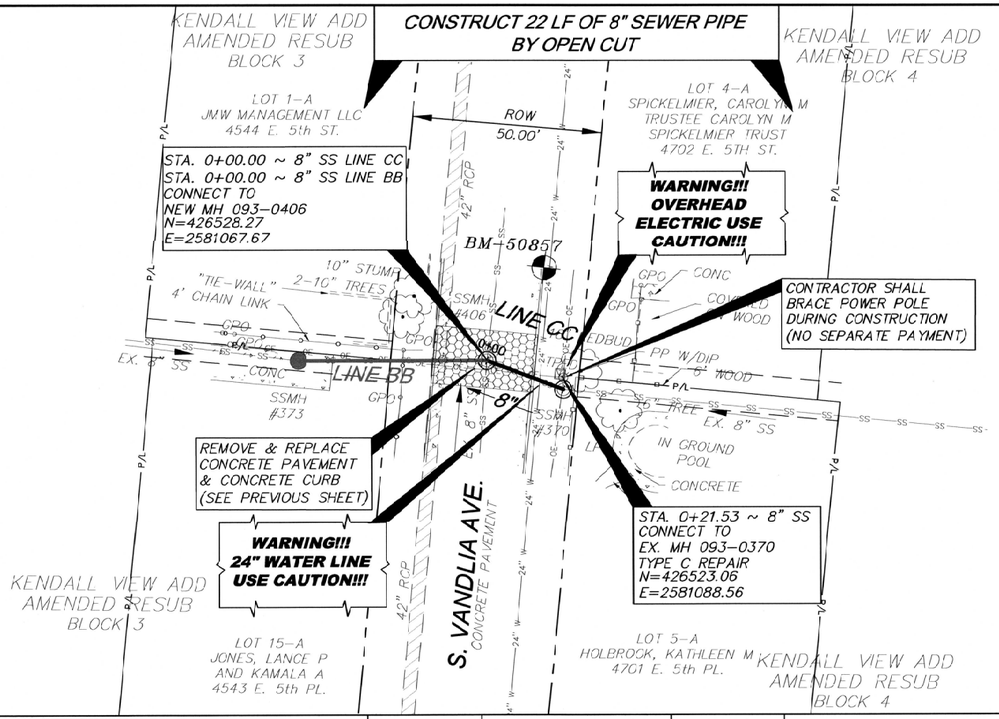

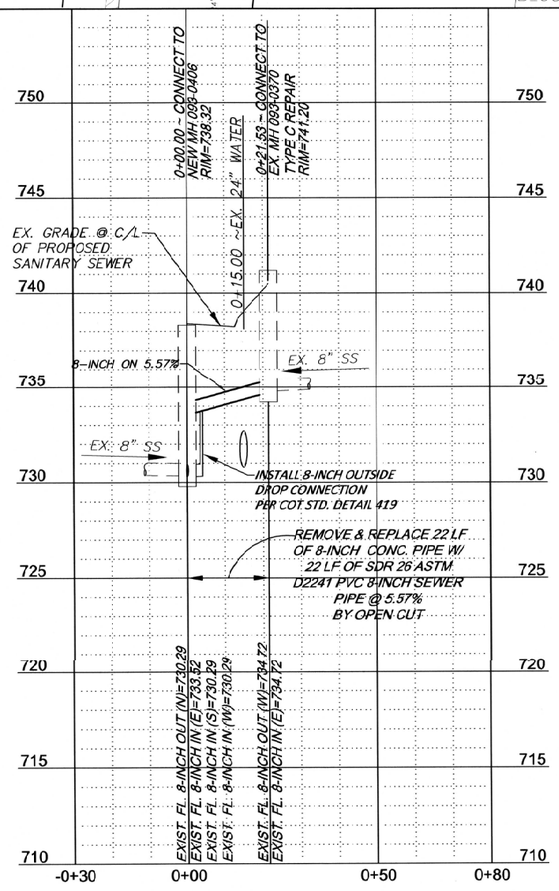

BENCHMARKS:

BM-50857
CHISELED "X" SET 1.3' EAST AND 25' NORTH OF EX. MH 093-0406

N=426554.11
E=2581079.87
EL=738.19



LEGEND

CONCRETE PAVEMENT REMOVAL & REPLACEMENT

NOTE:

1. CITY OF TULSA FLOWLINE CREWS SHALL BE NOTIFIED A MINIMUM OF 72- HOURS IN ADVANCE OF CONSTRUCTION CROSSING OF TRANSMISSION MAIN. THE CONTRACTOR SHALL CALL 918-596-8037 TO NOTIFY. CONSTRUCTION CROSSING CAN NOT PROCEED UNLESS CITY OF TULSA FLOWLINE PERSONNEL IS ON SITE.

OKIE811 Know what's below Call before you dig.

WARNING!!!
EXISTING UNDERGROUND TELEPHONE, OVERHEAD, UNDERGROUND ELECTRIC AND GAS UTILITIES IN AREA, CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT OKIE AT 1-800-522-6543

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

PLAN & PROFILE LINE CC

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE: 1" = 20'	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY	NP	06/2025	
HORIZONTAL: 1" = 20'	PROJ. MGR.	CL	06/2025	
	LEAD ENGR.		6/6/25	DESIGN MANAGER
VERTICAL 1" = 4'	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO: 28				SHEET 55 OF 59 SHEETS

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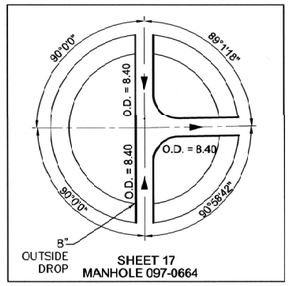
NEW & REPLACEMENT MANHOLES



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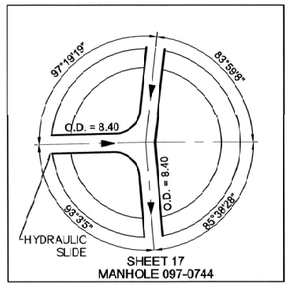

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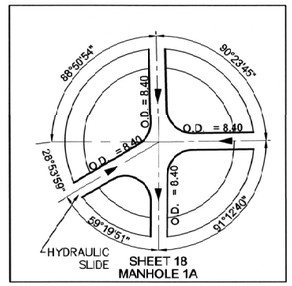

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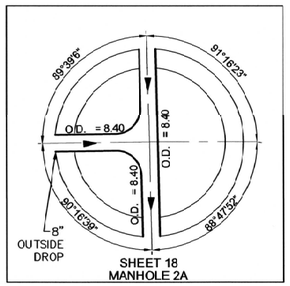
MANHOLE 1A



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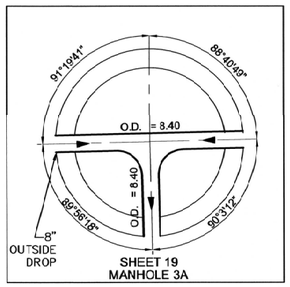
MANHOLE 2A



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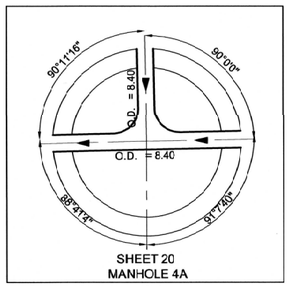
MANHOLE 3A



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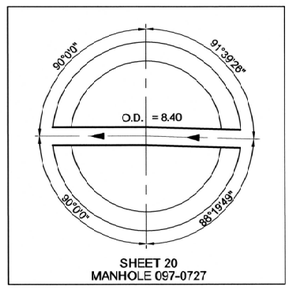

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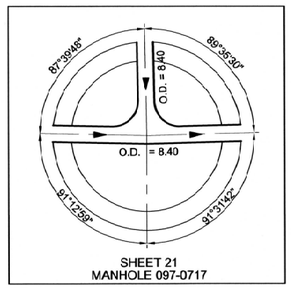

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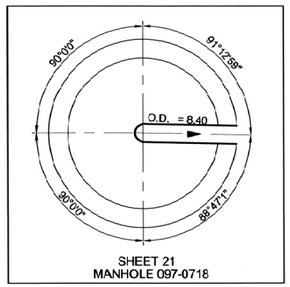

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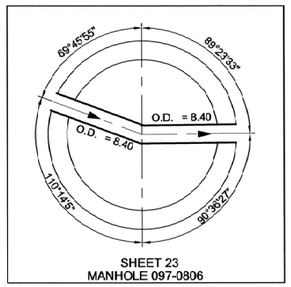

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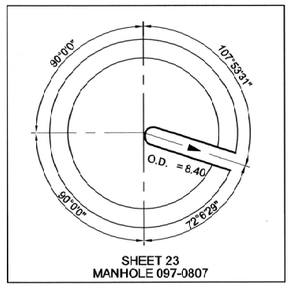
MANHOLE 097-0806



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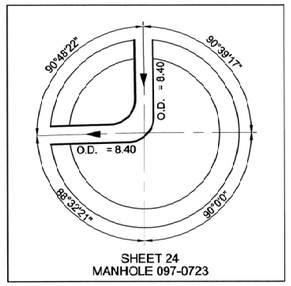

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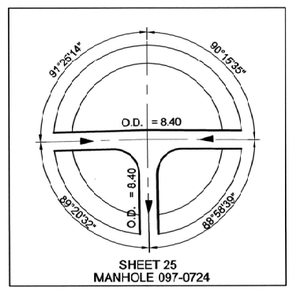

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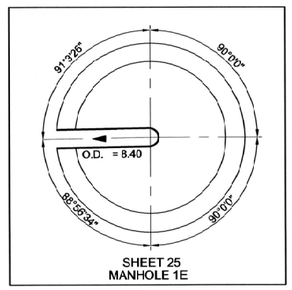
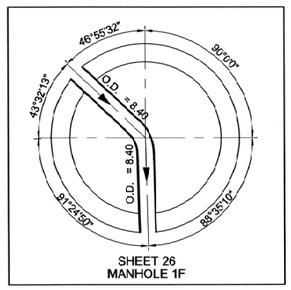
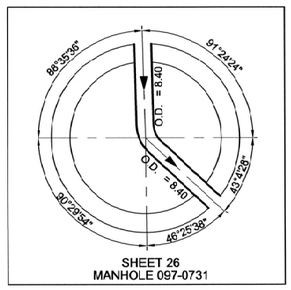


SHEET 25
MANHOLE 1E



SHEET 26
MANHOLE 1F



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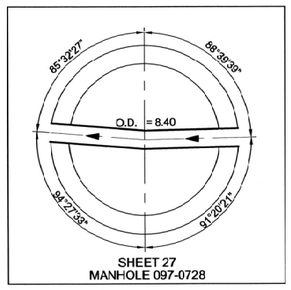

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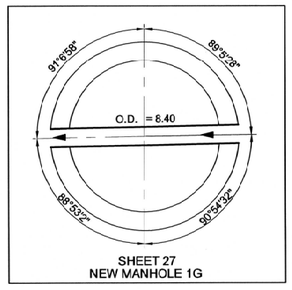
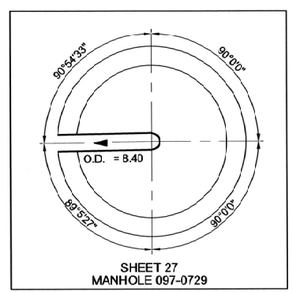
MANHOLE 097-0728



SHEET 27
NEW MANHOLE 1G



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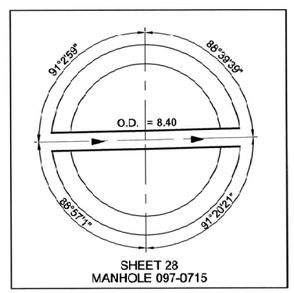
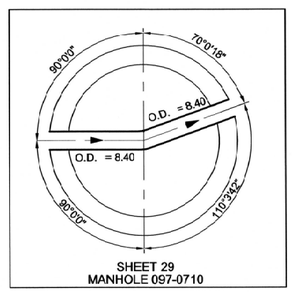


SHEET 28
MANHOLE 097-0715



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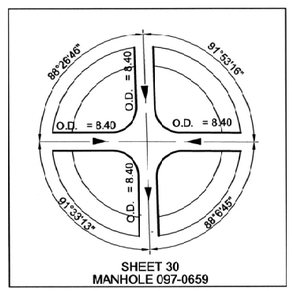

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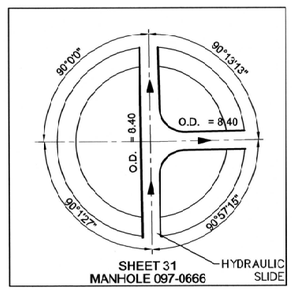

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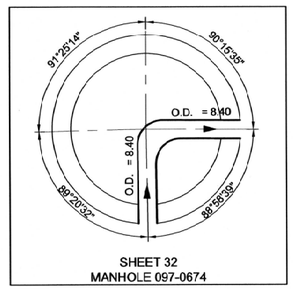


SHEET 32
MANHOLE 097-0674

NOT TO SCALE

6-6-25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

MANHOLE LAYOUT

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

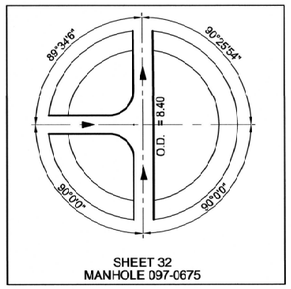
CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.		6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO:				SHEET 56 OF 59 SHEETS

NEW & REPLACEMENT MANHOLES



SHEET 32
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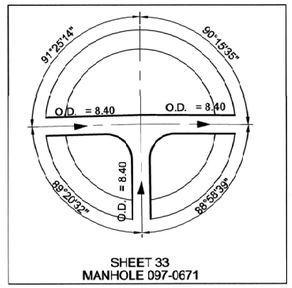

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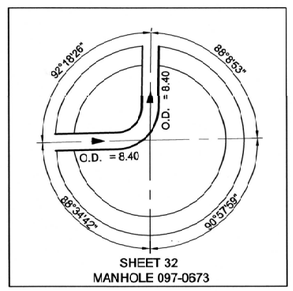

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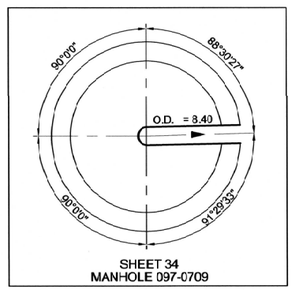

SHEET 34
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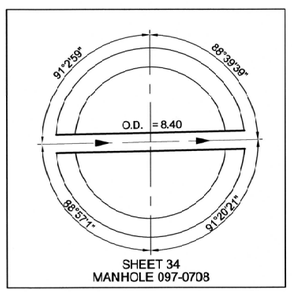

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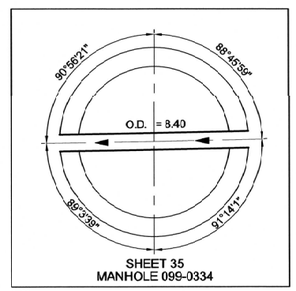

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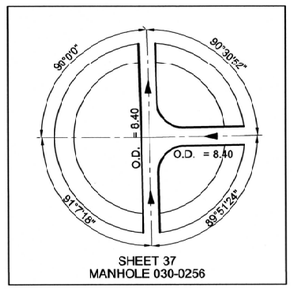

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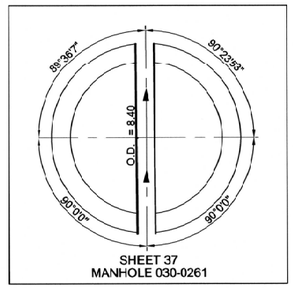

SHEET 37
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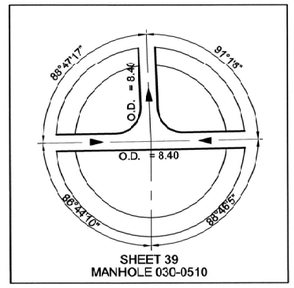
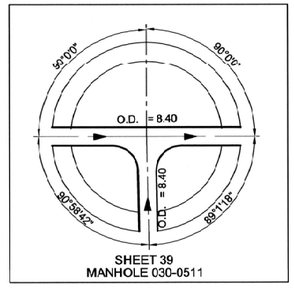
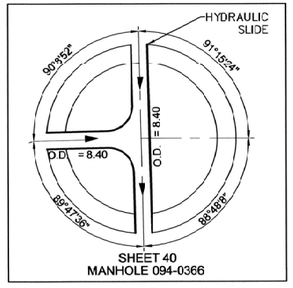


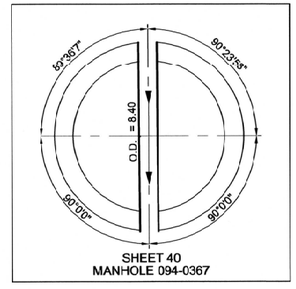
SHEET 39
MANHOLE 030-0510



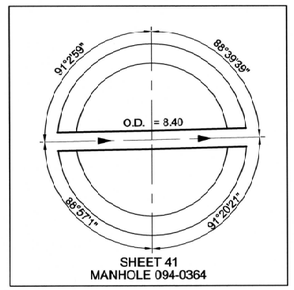
SHEET 39
MANHOLE 030-0511



SHEET 40
MANHOLE 094-0366



SHEET 40
MANHOLE 094-0367



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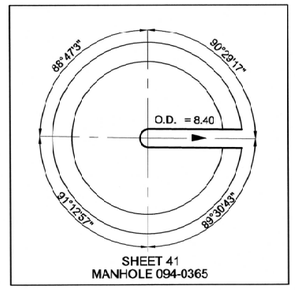
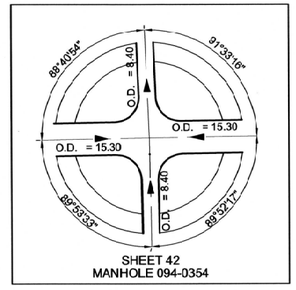
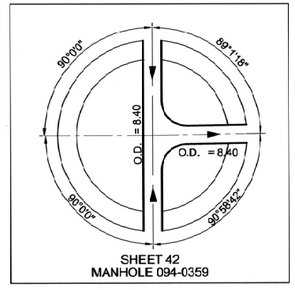
MANHOLE 094-0364



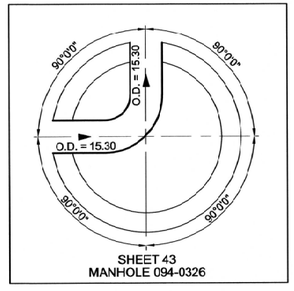
SHEET 41
MANHOLE 094-0365



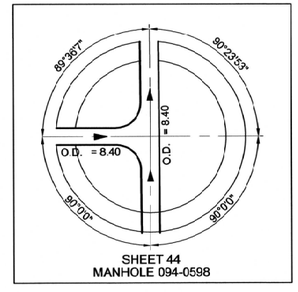
SHEET 42
MANHOLE 094-0354



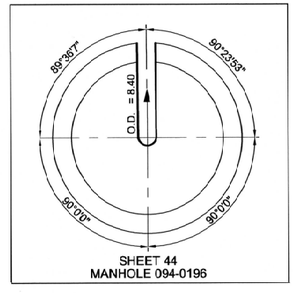
SHEET 42
MANHOLE 094-0359



SHEET 43
MANHOLE 094-0326



SHEET 44
MANHOLE 094-0598



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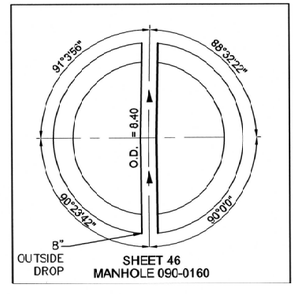
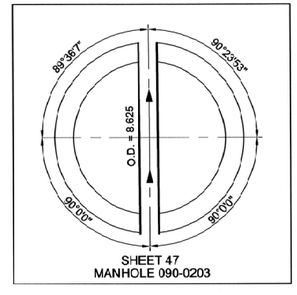
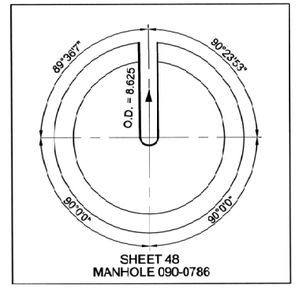
MANHOLE 094-0196



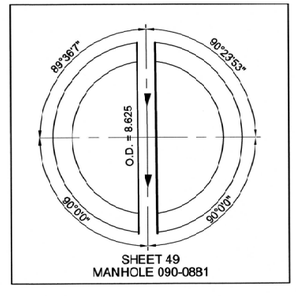
SHEET 46
MANHOLE 090-0160



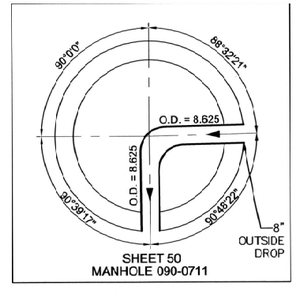
SHEET 47
MANHOLE 090-0203



SHEET 48
MANHOLE 090-0786



SHEET 49
MANHOLE 090-0881



SHEET 50
MANHOLE 090-0711


NOT TO SCALE

6/6/25
LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

MANHOLE LAYOUT

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
WATER AND SEWER DEPARTMENT

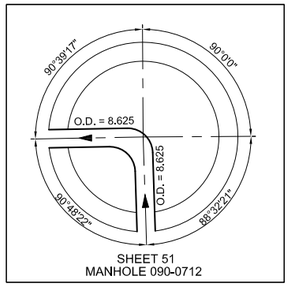
PLANS AND ESTIMATES PREPARED BY:
RJN GROUP, INC. CONSULTING ENGINEERS
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

PLAN SCALE:	DRAWN	RLP	06/2025	APPROVED:
	DESIGNED	JWB	06/2025	
PROFILE SCALE:	SURVEY			
HORIZONTAL:	PROJ. MGR.	CC	06/2025	
VERTICAL	LEAD ENGR.		6/6/25	DESIGN MANAGER
	FIELD MGR.			
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO:				SHEET 57 OF 59 SHEETS

NOT TO SCALE

NEW & REPLACEMENT MANHOLES



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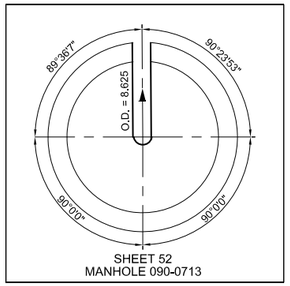
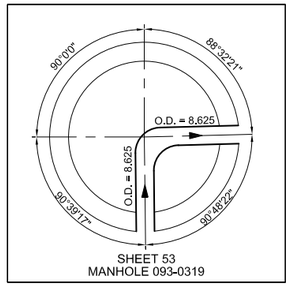
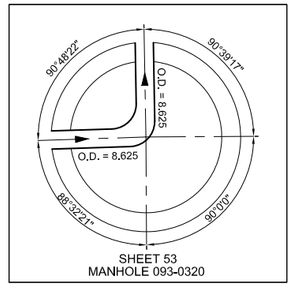
MANHOLE 090-0712



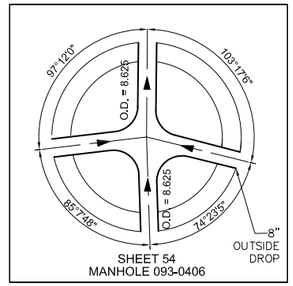
SHEET 52
MANHOLE 090-0713



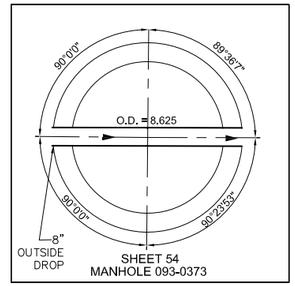
SHEET 53
MANHOLE 093-0319



SHEET 53
MANHOLE 093-0320



SHEET 54
MANHOLE 093-0406



SHEET 54
MANHOLE 093-0373

LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

MANHOLE LAYOUT

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER
CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
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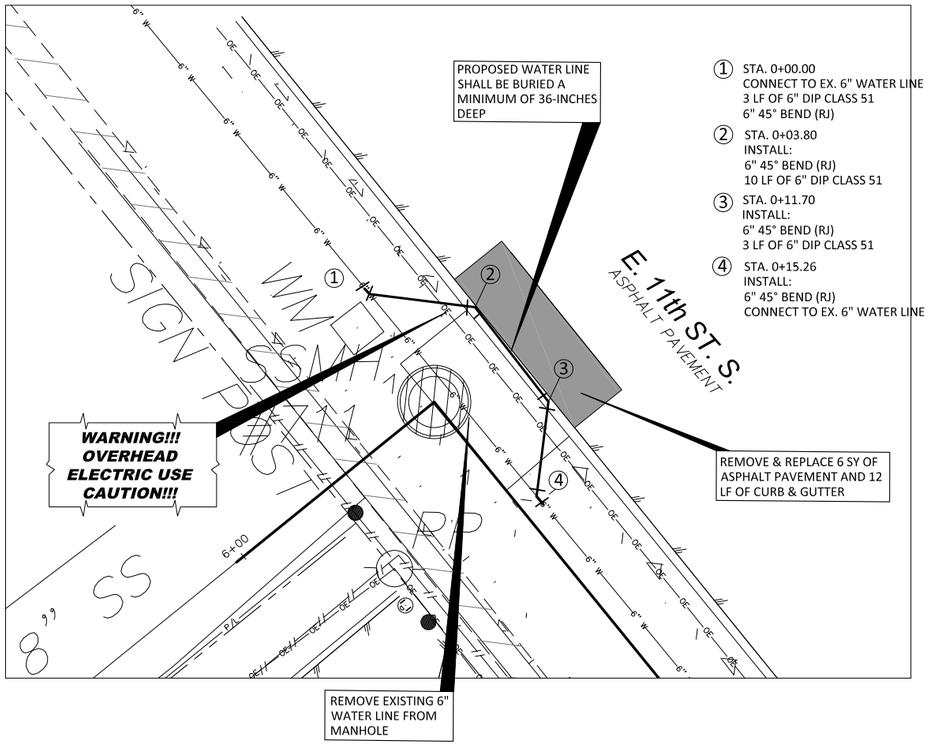
4500 S. GARNETT ROAD SUITE 110, TULSA, OKLAHOMA 74146

REVISION	BY	DATE

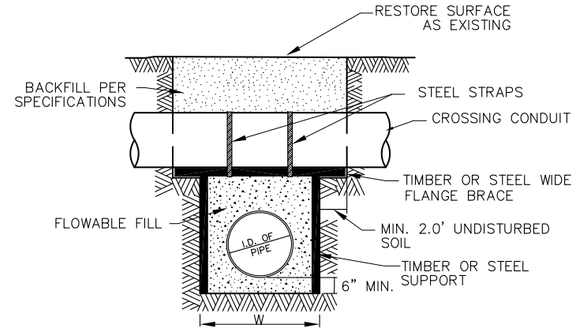
PLAN SCALE:
PROFILE SCALE:
HORIZONTAL:
VERTICAL

DRAWN	RLP	06/2025	APPROVED:
DESIGNED	JWB	06/2025	
SURVEY			
PROJ. MGR.			
LEAD ENGR.			
FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:		DATE: June 2025
ATLAS PAGE NO:			SHEET 58 OF 59 SHEETS



LINE Z WATER LINE RELOCATION PLAN

SCALE = 1"= 5'



NOTE:

1. W= TRENCH WIDTH STANDARD PLUS WIDTH OF SUPPORTS.
2. PLACE A MINIMUM OF 10 LINEAR FEET OF FLOWABLE FILL IN TRENCH EACH WAY OF CROSSING UTILITY OUTSIDE WALL. FLOWABLE FILL SHALL BE INCLUDED IN PAY ITEM FOR UTILITY CROSSING SUPPORT.

UTILITY CROSSING SUPPORT

NTS

LICENSED PROFESSIONAL ENGINEER
JACOB BRUMBAUGH
33769
OKLAHOMA

MISCELLANEOUS DETAILS

TMUA PROJECT NO. ES 2025-09

COAL CREEK SMALL DIAMETER CONCRETE PIPE REPLACEMENT

CITY OF TULSA, OKLAHOMA
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	DESIGNED	JWB	06/2025	
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HORIZONTAL:	PROJ. MGR.			
VERTICAL	LEAD ENGR.			
	FIELD MGR.			DESIGN MANAGER
FILE:	DRAWING:			DATE: June 2025
ATLAS PAGE NO:				SHEET 59 OF 59 SHEETS