

MYLAR
PLANS

10/2023

THE CITY OF TULSA
UTILITY COORDINATOR
ATTN:
2317 SOUTH JACKSON AVENUE
TULSA, OKLAHOMA 74103
918.596.9649

GAS:
OKLAHOMA NATURAL GAS COMPANY
ATTN: TIM HELBIG
2319 W. EDISON
TULSA, OKLAHOMA 74121
918.831.8387

TELEPHONE:
AT&T COMMUNICATION INC.
ATTN: WAYNE GROOM
5305 EAST 71ST STREET
TULSA, OKLAHOMA 74135
918.527-7309

CABLE TELEVISION:
COX COMMUNICATIONS
ATTN: JASON HOLT
11811 E. 51ST STREET S.
TULSA, OKLAHOMA 74146
918.830-7238

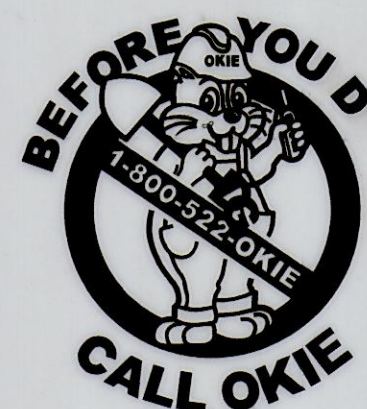
ELECTRIC:
AEP/PUBLIC SERVICE COMPANY OF OKLAHOMA
ATTN: LONNY HICKS
212 EAST SIXTH STREET
TULSA, OKLAHOMA 74119
918.250.6211

HORIZONTAL DATUM IS BASED ON OKLAHOMA STATE
PLANE COORDINATE SYSTEM

VERTICAL DATUM IS BASED ON NAVD 1988

SITE SPECIFIC BENCHMARKS AS SHOWN ON RIGHT OF WAY AND
SURVEY DATA SHEET (SHEET 9)

X	FENCE	AH	AHEAD
T	TELEPHONE OVERHEAD	BK	BACK
W	POWER LINE OVERHEAD	D.L.	DRAINAGE LENGTH
G	GAS LINE	E	EASTING
PUG	POWER UNDERGROUND	FL	FLOW LINE
TUG	TELEPHONE UNDERGROUND	GTR	GUTTER
TVUG	TV UNDERGROUND	HDPE	HIGH DENSITY POLYETHYLENE
W	WATER LINE	LF	LINEAR FEET
SS	SANITARY SEWER LINE	N	NORTHING
FM	FORCE MAIN	PC	POINT OF CURVATURE
S	STORM SEWER LINE	PI	POINT OF INTERSECTION
- - - - - A	FLOW LINE DITCH	PT	POINT OF TANGENCY
— SF —	SILT FENCE	PVC	POLYVINYL CHLORIDE
_____	PROPERTY BOUNDARY	RCP	REINFORCED CONCRETE PIPE
_____	DRAINAGE AREA BOUNDARY	SPHD	SPRINKLER HEAD
_____	RIGHT OF WAY BOUNDARY	TR	TOP OF RIM
(D)	PROPOSED MANHOLE	TYP	TYPICAL
①	PROPOSED INLET	V.C.	VERTICAL CURVE
(D)	EXISTING MANHOLE	VPI	VERTICAL POINT OF INTERSECTION
[b]	EXISTING INLET LETTER		
o	VALVE		
x	GATE VALVE		
o	REDUCER		
x	DOUBLE CHECK DETECTOR		
O	TEE		
H	PLUG VALVE		
I	11 1/4° ELBOW		
I	22 1/2° ELBOW		
I	45° ELBOW		
I	90° ELBOW		
=	TAPPING SLEEVE		
o	FIRE HYDRANT		
●	WATER METER		
□	BLOWOFF HYDRANT		
□	PLUG		



THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES.

SCALE: NONE

PROJECT LENGTH = 2605.10 LANE FEET
= 0.492 LANE MILES
DESIGN SPEED = 25 MPH

IN ACCORDANCE WITH ODOT SECTION 105.14, THE COT IS ANTICIPATING THAT THE SUCCESSFUL CONTRACTOR WILL UTILIZE THE APPROPRIATE MEANS AND METHODS TO ACCOMPLISH THE WORK DESCRIBED IN THE PLANS WITHOUT CAUSING COLLATERAL DAMAGE TO THE EXISTING INFRASTRUCTURE. THE PLANS ARE SET UP WITH THE EXPECTATION OF PERFORMING PATCHING AND CONCRETE WORK PRIOR TO MILLING OPERATIONS TO MINIMIZE CONSTRUCTION TRAFFIC LOADINGS TO REDUCED CAPACITY STREET SECTIONS. FURTHER, THE ANTICIPATED CONSTRUCTION PHASING WILL MINIMIZE THE TIME BETWEEN MILLING AND NEW ASPHALT PLACEMENT. LEAVING OPEN MILLED SECTIONS WILL BE AT THE CONTRACTOR'S RISK IN THE EVENT THAT LOCAL OR CONSTRUCTION TRAFFIC CAUSES DAMAGE TO PREVIOUSLY UNDAMAGED AREA. CURRENT COT CONSTRUCTION BUDGETS DO NOT ALLOW FOR GROWTH OF THE PROJECT.

ENTIRE PROJECT IS WITHIN THE CORPORATE LIMITS
OF THE CITY OF TULSA.

CURRENT CITY OF TULSA STANDARD SPECIFICATIONS
AND STANDARD DETAILS GOVERN. ALL OTHER
CONSTRUCTION AND MATERIALS SHALL BE IN
ACCORDANCE WITH THE 2019 OKLAHOMA STANDARD
SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. *AS*
ADOPTED BY CITY OF TULSA.
THIS PROJECT COMPLIES WITH ALL OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ)
REQUIREMENTS.

Sheet List Table

1	COVER SHEET
2	SUMMARY OF PAY QUANTITIES
3	ROADWAY PAY ITEM NOTES
4	GENERAL CONSTRUCTION NOTES
5	WATERLINE PAY QUANTITIES
6	WATERLINE PAY ITEM NOTES
7	SUMMARY OF QUANTITIES
8	STORMWATER MANAGEMENT PLAN
9	TYPICAL SECTIONS
10	TYPICAL SECTION DETAILS
11	GEOMETRICS
12	SURVEY SHEET 1
13	SURVEY SHEET 2
14	SURVEY SHEET 3
15	DEMOLITION SHEET 1
16	DEMOLITION SHEET 2
17	DEMOLITION SHEET 3
18	DRAINAGE AREA MAP
19	DRAINAGE SUMMARIES
20	KEY MAP AND BORING MAP
21	S 109TH E AVE PLAN AND PROFILE SHT 1
22	S 109TH E AVE PLAN AND PROFILE SHT 2
23	E 19TH ST PLAN AND PROFILE SHT 1
24	E 20TH ST PLAN AND PROFILE SHT 1
25	E 20TH ST S PLAN AND PROFILE SHT 2
26	INTERSECTION DETAILS
27	WATERLINE PLAN AND PROFILE SHT 1
28	WATERLINE PLAN AND PROFILE SHT 2

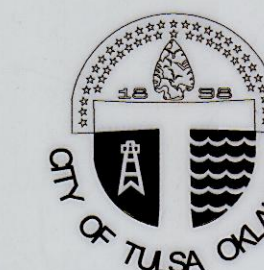
102 - PROJECT SIGN
126 - STANDARD SILT FENCE AND CONSTRUCTION ENTRANCE
304 - BEDDING DETAIL - RIGID PIPE
608A - STREET NAME SIGNS
608B - TRAFFIC SIGNS
702 - RESIDENTIAL CONCRETE DRIVEWAY ASPHALT STREET
713 - PAVEMENT REMOVAL AND REPLACEMENT
714 - PAVEMENT CUTS
725 - STANDARD PAVEMENT PATCH AND REPAIR
728 - ASPHALT PAVEMENT STANDARD DETAILS FOR RESIDENTIAL
AND COLLECTOR STREETS
730 - STANDARD ASPHALT PAVEMENT CUT AND REPAIR
731 - STANDARD CONCRETE PAVEMENT CUT AND REPAIR
764 - STANDARD REINFORCED CONCRETE STORMWATER INLETS
765 - STANDARD STORMWATER FRAMES
766 - STANDARD STORMWATER GRATES
767 - STANDARD CAST IRON CURB

TFL-2 TEMPORARY FIBER LOG
TCS8-1 CONSTRUCTION SIGNS
TCS9-1 TRAFFIC CONTROL STANDARD CONSTRUCTION SIGNS
TWD-2 TACTILE WARNING DEVICES

3/8" Iron Pin	P-K Nail	P-K Nail
EL 650.98	EL 655.72	EL 657.17
N 420358.663	N 420083.988	N 420090.696
E 2601839.286	E 2601905.299	E 2602128.572

P-K Nail	Chiseled "X"	Chiseled "X"
EL 660.26	EL 661.73	EL 660.13
N 419799.793	N 419819.251	N 419796.244
E 2601911.525	E 2602149.476	E 2602398.892

STATION NAME: 2016-3	STATION NAME: 2016-43
NORTHING 388083.64	NORTHING 392679.21
EASTING 2582626.36	EASTING 2582754.18
ELEVATION 745.84	ELEVATION 844.49



CITY OF TULSA, OKLAHOMA

Val E. Jones

DATE 09.26.25

10.10.25
ADVERTISEMENT DATE

PREPARED BY:

LANCE K. WOOLSEY, PE NO 15383

wallace

wallace design collective, pc
structural . civil . landscape . survey
123 north martin luther king jr. blvd.
tulsa, ok 74103
(918) 584-5858
oklahoma ca #1460
exp date: 06/30/2025

PATH: Z:\2240017 MZ 5027\Drawg\PRODUCTION\
FILE: 2240017 COVER.dwg
DATE: Nov 29, 2023 - 8:38AM

Non-Arterial Street Rehabilitation/Maintenance for Maintenance Zone 5027 - Project No. 2036N5027Z

\\PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\
FILE: 2240017 SUMMARY OF QUANTITIES.dwg
DATE: Dec 19, 2023 - 3:46PM

ITEMS LISTED OR SHOWN ON DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS THAT ARE NOT INCLUDED AS A SEPARATE PAY ITEM QUANTITY SHALL BE CONSIDERED INCIDENTAL AND THE COST SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS. THE PRICE BID FOR ALL WORK SHALL INCLUDE ALL MATERIALS, EQUIPMENT, LABOR, INCIDENTALS, AND ALL OTHER REQUIRED ITEMS TO COMPLETE THE WORK AS SHOWN ON PLANS AND SPECIFICATIONS.

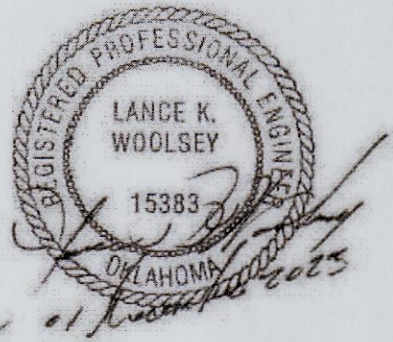
SUMMARY OF QUANTITIES (REV 11/14/2018)												
ITEM	SPEC. NO.	DESCRIPTION	PAY ITEM NOTE	UNIT	QUANTITY TOTAL	S 109TH E AVE			E 19TH PL		E 20TH ST	
						SHT 15	SHT 21	SHT 22	SHT 16	SHT 23	SHT 17	SHT 25
1	202(A)	UNCLASSIFIED EXCAVATION	E-3, 4, R-1	CY	430		188.2	99.7		95.5		19.4
2	220	SWPPP DOCUMENTATION AND MANAGEMENT	E-6	LSUM	1							
3	221(K)	TEMPORARY RBER LOG	E-7	LF	48			12.0		24.0		12.0
4	230(A)	SOLID SLAB SODDING (LIKE KIND)	E-10, 11	SY	144		71.7	56.7		6.2	6.2	3.1
5	303(A)	AGGREGATE BASE TYPE A	S-1, 2	CY	689		285.0	136.9		141.7	83.5	41.5
6	310(B)	SUBGRADE METHOD B		SY	1126		285.0	295.3		359.6	108.3	77.9
7	325	SEPARATOR FABRIC	S-3	SY	1945		866.5	368.0		439.3	153.9	117.0
8	409	FABRIC REINFORCEMENT, GLASSPAVEZ5	S-4	SY	3894		1117.1	635.0		912.1	718.3	511.0
9	411(C)	SUPERPAVE, TYPE S4 (PG 64-22) (INSOLUBLE)	S-5, 6, 7, 8	TON	436		125.1	71.2		102.2	80.5	57.2
10	411(E)	SUPERPAVE, TYPE S6 (PG 64-22)	S-5, 6, 7, 8, G-1	TON	218		62.5	35.6		51.1	40.3	28.7
11	412	COLD MILL PAVEMENT	S-9	SY	3894		1117.1	635.0		912.1	718.3	511.0
12	509(B)	CLASS A CONCRETE	S-12, 13	CY	21			6.9		6.9		6.9
13	511(A)	REINFORCING STEEL		LB	1631			543.6		543.6		543.6
14	609(A)	2'-2" COMBINED CURB AND GUTTER (6" BARRIER)	S-12, 13, 15, 16	LF	400		246.0	23.0		58.6	14.8	58.0
15	610(B)	4" CONCRETE SIDEWALK	S-12, 13, 16, 17	SY	126			103.4		22.1		
16	610(B)	6" CONCRETE DRIVEWAY	S-12, 13, 16, 17	SY	429		103.4	80.9		57.8	141.4	45.7
17	611(A)	6" DIA. MANHOLE, COMPLETE IN PLACE	D-1, 2, 3, 4, 5	EA	1		1.0					
18	611(G)	CICI INLET DESIGN NO. 2(STD), COMPLETE IN PLACE	D-2, 3, 7, 8, 9, 10, 11	EA	3		2.0					1.0
19	610(I)	TACTILE WARNING DEVICE		SF	48			16.0		16.0		16.0
20	611(I)	REPLACEMENT OF INLET FRAME AND GRATE	R-2, 4, 5	EA	6			2.0		4.0		
21	611(M)	REPLACEMENT OF CURB HOOD	R-2, 4, 5	EA	6			2.0		4.0		
22	612(A)	MANHOLE ADJUSTED TO GRADE (PUBLIC)	S-12, R-2, D-1, 2, 6	EA	1					1.0		
23	612(C)	INLET ADJUST TO GRADE	S-12, R-2, D-2, 6, 7, 9	EA	4			1.0		2.0		1.0
24	612(E)	VALVE BOXES ADJUSTED TO GRADE	S-12, R-2, D-6	EA	2		2.0					
25	613(A)	RCP, 15-INCH ROUND, COMPLETE IN PLACE	D-8, 12, 13	LF	336		336.0					
26	619(B)	REMOVAL OF CONCRETE SIDEWALK	R-1, 2, 5, 6	SY	53	30.9			22.1			
27	619(B)	REMOVAL OF CONCRETE DRIVEWAY	R-1, 2, 5, 6	SY	429	184.3			57.8		187.1	
28	619(B)	REMOVAL OF CURB AND GUTTER	R-1, 2, 5, 6	LF	448	285.0			78.6		84.8	
29	619(B)	REMOVAL OF INLET W/ HOOD & GRATE	R-1, 2, 5, 6	EA	1							1.0
30	619(B)	REMOVAL OF INLET HOOD	R-1, 2, 5, 6	EA	3	1.0			2.0			
31	641	MOBILIZATION	G-2	EA	1							
32	642	CONSTRUCTION STAKING, LEVEL II	G-3, 4	EA	1							
33	805(A)	REMOVAL OF TRAFFIC ITEMS	T-1	EA	2	1.0					1.0	
34	880(B)	SIGNS 0.00 TO 6.25 SF	T-4, 5	SD	210		45.0	45.0		30.0	45.0	45.0
35	880(B)	SIGNS 6.25 TO 15.99 SF	T-4, 5	SD	420		90.0	90.0		60.0	90.0	90.0
36	880(B)	SIGNS 16.00 SF AND UP	T-4, 5	SD	120		45.0			30.0		45.0
37	880(C)	BARRICADES (TYPE III)	T-4, 5	SD	120		45.0			30.0		45.0
38	880(E)	WARNING LIGHTS (TYPE A)	T-4, 5	SD	420		90.0	90.0		60.0	90.0	90.0
39	880(E)	WARNING LIGHTS (TYPE C)	T-4, 5	SD	623		150.0	163.0		75.0	135.0	100.0
40	880(F)	DRUMS	T-4, 5	SD	1160		315.0	225.0		150.0	270.0	200.0
41	880(G)	TUBE CHANNELIZERS	T-4, 5	SD	1160		315.0	225.0		150.0	270.0	200.0
42	SPECIAL	PROJECT SIGN (CITY OF TULSA)	T-7	EA	2							
43	SPECIAL	TYPE I AC PATCH, NON-ARTERIAL	S-21, G-1	CY	232		62.7	24.6		29.9	108.3	6.5
44	SPECIAL	URBAN RIGHT-OF-WAY RESTORATION	G-5, 6, 7, 8, 9, 10	EA	1							
45	SPECIAL	OWNER ALLOWANCE		EA	25000							
46	SPECIAL	SIDEWALK RAMP		EA	6			2.0		2.0		2.0
47	SP COT 202	QUICK SET FLOWABLE FILL	G-1, D-8	CY	1							
48	SP COT 334	CONSTRUCTION AS-BUILTS		EA	1							
49	SP COT 335	CONTRACTOR'S QUALITY CONTROL		EA	1							
50	SP COT 608(A)	GROUND SIGN	T-2	SF	16			8.0			8.0	
51	SP COT 608(C)	1 1/2" SQUARE TUBE POST		LF	3			1.5			1.5	
52	SP COT 608(D)	1 3/4" SQUARE TUBE POST		LF	21			10.5			10.5	
53	SP COT 608(E)	2" SQUARE TUBE POST		LF	6			3			3	



CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



SUMMARY OF PAY QUANTITIES

MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT



wallace design collective
123 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5856 - wallace.design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE	PROJ. MGR.	JH	12/1/23	
			HORIZONTAL:	LEAD ENGR.	JD	9/24	
			1"=20'	FIELD MGR.	JD	9/25	
			VERTICAL:	RECOMMENDED:			
			1"=5'	DESIGN MANAGER	HAS	9-23	
			FILE:	DRAWING:			DATE: 09.26.25
			ATLAS PAGE NO:	178			SHEET 2 OF 28 SHEETS

PATH: Z:\2240017\ MZ 5027\Drawg\PRODUCTION\
FILE: 2240017 PAY QUAN AND NOTES.dwg
DATE: Nov 29, 2023 -- 8:39AM

ENGINEERING SERVICES - TRANSPORTATION DESIGN
PAY ITEM NOTES (VERSION: 11/14/2018)
EARTHWORK / EROSION CONTROL / SITE PREPARATION (E1 - E11)

- E-1: NOT USED
- E-2: NOT USED
- E-3: THE CONTRACTOR SHALL BE PAID FOR UNCLASSIFIED EXCAVATION ON THE BASIS OF PLAN QUANTITY. ANY ADDITIONAL EXCAVATION REQUIRED OR OVERRUN OF PLAN QUANTITY WILL BE PAID FOR ON THE BASIS OF UNIT PRICE BID FOR THE ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SURVEY TO VERIFY ANY ADDITIONAL QUANTITIES. QUANTITY CHANGES WILL NOT BE CONSIDERED FOR LATERAL DIFFERENCES IN EXCAVATIONS RESULTING FROM CONTRACTOR'S ACTUAL SLOPED OR SHORED EXCAVATIONS
- E-4: UNCLASSIFIED EXCAVATION INCLUDES REMOVAL OF AGGREGATE BASE AND MODIFIED SUBGRADE UNDER EXISTING PAVEMENT TO BE REPAIRED.
- E-5: NOT USED
- E-6: THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
- E-7: EROSION PROTECTION SHALL BE PLACED AS FOLLOWS:
A) AROUND INLETS TO PREVENT INFLOW OF ERODED MATERIAL INTO STORM SEWER SYSTEM;
B) IN LOCATIONS THROUGHOUT PROJECT SITE, AS DETERMINED BY THE ENGINEER, TO PREVENT WASH OF ERODED MATERIAL ONTO ADJACENT PROPERTY;
C) FOR ENTIRE DURATION OF PROJECT, WITH MAINTENANCE AND REPLACEMENTS, AS DIRECTED BY THE ENGINEER;
D) WITH PERIODIC REMOVAL OF SEDIMENT IN ACCORDANCE WITH STORMWATER MANAGEMENT PLAN.
ALL COST FOR ITEMS A-D ABOVE SHALL BE INCLUDED IN UNIT PRICE BID FOR THIS ITEM.
- E-8: NOT USED
- E-9: NOT USED
- E-10: ESTIMATED QUANTITY IS BASED ON SODDING OF ALL DISTURBED AREAS OUTSIDE THE FINAL PAVING LIMITS AND WITHIN THE FINAL GRADING LIMITS AS INDICATED BY THE TOP-OF-CUT/TOE-OF-SLOPE LINE ON THE PLANS (EXCLUDING SURFACES OF STRUCTURES, FIXTURES AND APPURTENANCES). SOD SHALL BE OF LIKE-KIND TO EXISTING SOD. PRICE BID INCLUDES PLACEMENT AND COMPACTION OF SUITABLE BACKFILL. ANY EXISTING GRASSED AREAS BEYOND THE ABOVE STATED LIMITS THAT ARE DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESODDED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S SOLE EXPENSE.
- E-11: COST OF WATERING AND FERTILIZING SHALL BE INCLUDED. FERTILIZERS SHALL BE 10-20-10 AND SHALL BE APPLIED AT THE RATE OF 1.5 LBS PER 10 SQ YDS. FERTILIZER SHALL BE APPLIED PER SECTION 230.04H OF ODOT STANDARD SPECIFICATIONS. WATERING SHALL BE APPLIED AS NECESSARY UNTIL VEGETATION IS ESTABLISHED OR UNTIL THE WORK IS ACCEPTED AS COMPLETE.

SURFACING / STRUCTURES (S1 - S21)

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

S-8 (TABLE):

BINDER GRADE ²	MESALs	ADT ¹ NOTES	
PG 64-22 OK	< 3	< 5,000	USE WHEN MORE THAN 4-6 INCHES BELOW THE SURFACE.
			ALSO USE FOR SHOULDERS, DRIVEWAYS, BELOW PCC, AND TEMP. CONSTRUCTION.
PG 70-28 OK	< 10	< 10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES.
PG 76-28 OK	≥ 10	≥ 10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES.
PG 76-28 E	—	—	CONTACT ODOT MATERIALS DIVISION FOR RECOMMENDED USE.

¹ USE ADT ONLY WHEN ESAL COMPUTATIONAL DATA IS NOT AVAILABLE. CALCULATE THE DESIGN ESALs BASED ON 20 YEARS.

² PG 70-28 OK OR PG 76-28 OK MAY BE DESIRABLE IN HIGH VOLUME AREAS WHERE SLOW, STANDING, OR TURNING TRAFFIC OCCURS, SUCH AS URBAN INTERSECTIONS OR OFF-RAMPS. OFF RAMPS SHOULD AT LEAST USE THE SAME BINDER AS THE MAINLINE.

- S-9: THIS ITEM INCLUDES ALL COSTS ASSOCIATED WITH COLD MILLING AND TO PROVIDE BUTT JOINTS AS REQUIRED. NO ADDITIONAL PAYMENT SHALL BE MADE FOR COLD MILLING BEYOND THE AVERAGE DEPTH SHOWN ON THE TYPICAL SECTIONS.
- S-10: NOT USED
- S-11: NOT USED
- S-12: THE USE OF FLY-ASH IN CONCRETE IS PROHIBITED.
- S-13: INCLUDES ALL COST OF SAWED JOINTS AND SEALING OF ALL JOINTS INCLUDING LONGITUDINAL JOINTS.
- S-14: NOT USED
- S-15: THIS ITEM SHALL BE MEASURED AS THE ACTUAL AMOUNT OF CURB AND/OR GUTTER INSTALLED. NO PAYMENT WILL BE MADE FOR CURB AND/OR GUTTER THROUGH DRIVEWAYS AND INLETS.
- S-16: CURB, GUTTER, AND/OR SIDEWALK ASSOCIATED WITH THE DRIVEWAY AND THROUGH THE DRIVEWAY IS INCLUDED IN THE COST OF THE DRIVEWAY.
- S-17: ONE SIDEWALK PANEL ON EACH SIDE OF DRIVEWAYS SHALL BE A MINIMUM OF 6" THICK OR MATCH EXISTING DRIVEWAY THICKNESS, WHICHEVER IS GREATER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE COST OF THE THICKENED SIDEWALK THROUGH THIS AREA.
- S-18: NOT USED
- S-19: NOT USED
- S-20: NOT USED
- S-21: THIS PAY ITEM INCLUDES THE FOLLOWING:

- A. SAW CUTTING
- B. REMOVAL OF THE EXISTING CONCRETE AND/OR ASPHALTIC CONCRETE ROADWAY (CY)
- C. TYPE S3 ASPHALTIC CONCRETE OR PC CONCRETE COMPLETE AND IN PLACE PER DETAIL
- D. SEALING OF EDGES AND TACK COAT

DOES NOT INCLUDE THE FOLLOWING:

- A. UNCLASSIFIED EXCAVATION
- B. SUBGRADE METHOD B (SY)

- C. SEPARATOR FABRIC (SY)
- D. AGGREGATE BASE (TYPE A)
- E. ASPHALT CONCRETE LEVELING OR SURFACE COURSE

S-22: REPLACE AC 1 DRIVEWAY GUTTER, AS NEEDED, FOR POSITIVE STORMWATER DRAINAGE AND SMOOTH DRIVEWAY TRANSITIONS

REMOVAL / ADJUSTMENT (R1 - R6)

- R-1: WASTE MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN A MANNER APPROVED BY THE ENGINEER.
- R-2: ALL SAW CUTTING AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE ITEM TO BE ADJUSTED, REMOVED, REPAIRED, OR REPLACED.
- R-3: NOT USED
- R-4: NOT USED
- R-5: ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION.
- R-6: SHALL INCLUDE ALL COSTS ASSOCIATED WITH PLUGGING/ PATCHING HOLES IN EXISTING STRUCTURES TO REMAIN.
- R-7: REMOVE PAVEMENT ON CONCRETE DRIVEWAYS, APRONS AND GUTTERS DURING EDGE MILLING AND COLD MILLING OPERATIONS.

GENERAL (G1 - G10)

- G-1: LOCATIONS TO BE DETERMINED IN THE FIELD AND WORK TO BE PERFORMED AT THE DIRECTION OF THE FIELD ENGINEER. QUANTITY IS ESTIMATED AND MAY BE OMITTED IN ITS ENTIRETY.
- G-2: MAXIMUM OVERALL DOLLAR AMOUNT AND SCHEDULE OF PAYMENTS SHALL BE IN ACCORDANCE SECTION 641 OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION. EXCLUDES MOBILIZATION FOR WATERLINE WORK.
- G-3: CONSTRUCTION STAKING SHALL INCLUDE SURVEYING AND THE FURNISHING, PLACING, AND MAINTAINING OF THE CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION AND INSPECTION OF THE ENTIRE PROJECT.
- G-4: THE COST TO REPLACE REMOVED OR DAMAGED SECTION CORNERS AND ALL OTHER PERMANENT RIGHT OF WAY MARKERS SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NO ADDITIONAL PAYMENT WILL BE MADE.
- G-5: CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS DAMAGED OR REQUIRING RELOCATION DURING THE CONSTRUCTION OF THIS PROJECT TO THE SATISFACTION OF THE PROPERTY OWNER AND CITY ARBORIST. COST SHALL BE INCLUDED IN THE PRICE BID.
- G-6: ALL HOUSE NUMBERS SHALL BE REPLACED/ REESTABLISHED THROUGHOUT PROJECT LIMITS. COST TO BE INCLUDED IN URBAN RIGHT OF WAY RESTORATION. CONTRACTOR SHALL REESTABLISH DRAINS, ROOF DRAINS AND OTHER DRAINAGE THROUGH THE CURBS IN ACCORDANCE WITH CITY OF TULSA STANDARD 758. NO NEW CURB OUTLETS SHALL BE CONSTRUCTED WITHOUT APPROVAL OF THE ENGINEER.
- G-7: AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST SHALL OVERSEE ALL PLANTINGS AND/OR REMOVAL OF TREES. CONTACT CITY ARBORIST TO ACCEPT FINAL PLANTINGS.
CONTACT #: 918-596-2548
- G-8: TREE GRATES ARE NOT ACCEPTABLE PER CITY ARBORIST. CONCRETE PAVERS ARE TO BE USED AS NECESSARY AROUND TREES.
- G-9: CONTRACTOR SHALL COORDINATE WITH HOMEOWNERS TO RESET ALL PAVERS, LANDSCAPE STONE, PRIVATE SIDEWALKS AND FENCES THAT ARE DISTURBED DURING CONSTRUCTION OPERATIONS. ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED FOR RESETTING OF SUCH ITEMS IS TO BE INCLUDED IN PRICE BID FOR URBAN RIGHT OF WAY RESTORATION.
- G-10: PAY ITEM INCLUDES ALL MOWING WITHIN THE RIGHT-OF-WAY AS DIRECTED DURING CONSTRUCTION.

DRAINAGE (D1 - D15)

- D-1: THIS ITEM SHALL INCLUDE THE COST OF NEW MANHOLE FRAME AND COVER PER CITY OF TULSA STD NOS. 752, 753, 754, 761, 762, 769A, 769B AND 775. *Some Manholes shall meet COT SPEC 418.*
- D-2: THE TOTAL COST FOR RUBBERIZED ASPHALT AND/OR SILICONE AT MANHOLES, VALVE BOXES, INLETS, AND INLET APRONS, SHALL BE INCLUDED.
- D-3: NO MASONRY STRUCTURES SHALL BE CONSTRUCTED WITHIN THE RIGHT OF WAY.
- D-4: ADDITIONAL DEPTH IN A MANHOLE SHALL BE MEASURED FROM 6FT AS MEASURED FROM THE TOP OF RIM TO THE LOWEST FLOWLINE.
- D-5: ALL MANHOLES SHALL BE COMPLETE IN PLACE. THIS PAY ITEM INCLUDES FRAME, COVER, CONCRETE AND ALL OTHER INCIDENTALS REQUIRED FOR PLACEMENT.
- D-6: ALL SANITARY AND STORM SEWER MANHOLE CASTINGS AND LIDS THAT ARE LOCATED IN THE STREET AND ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW LIDS AND CASTINGS AND THE OLD ONES SHALL BE SALVAGED AND DELIVERED TO THE METAL RECYCLE BINS IN THE STOCKROOM AREA AT SEWER OPERATIONS AND MAINTENANCE, 9319 E. 42ND STREET NORTH, BETWEEN THE HOURS OF 7:30 AM AND 3:00 PM MONDAY THROUGH FRIDAY.
- D-7: INCLUDES THE COST REQUIRED TO MAKE CONNECTION AND REMOVAL OF EXISTING INLETS. THE COST OF PC CONCRETE CURB AND GUTTER THROUGH THE INLET, 5' EACH SIDE OF THE INLET, AND THE PC CONCRETE INLET APRON SHALL BE INCLUDED. GRATE AND FLOWLINE ELEVATIONS SHALL MATCH EXISTING CONDITIONS UNLESS OTHERWISE NOTED IN THE PLANS.
- D-8: QUICKSET FLOWABLE FILL SHALL BE USED TO BACKFILL AROUND STREET CURB INLETS AND REINFORCED CONCRETE PIPE, AS NEEDED, AT THE DIRECTION OF THE ENGINEER.
- D-9: ALL INLETS, COMPLETE IN PLACE, SHALL BE CAST IN PLACE CONCRETE OR PRECAST CONCRETE. THIS PAY ITEM INCLUDES ANY INLET FRAME(S), GRATE(S), HOOD(S) AND CONCRETE REQUIRED FOR COMPLETE INSTALLATION OF STRUCTURE PER THE CONSTRUCTION DOCUMENTS.
- D-10: ADDITIONAL DEPTH QUANTITIES SHALL BE MEASURED AND PAID FOR ALL INLETS EXCEEDING STANDARD DEPTH. STANDARD DEPTHS ARE AS FOLLOWS:

- A) CAST IRON CURB INLET: 3.71 VF, MEASURED FROM CENTER ELEVATION OF LOWEST CAST IRON CURB TO FLOWLINE OF OUTLET PIPE.
- B) RECESSED CURB INLET: 3.00 VF, MEASURED FROM TOP OF SLAB TO FLOWLINE OF OUTLET PIPE.
- C) STANDARD DROP INLET: SEE STANDARD DETAILS 770, 771, 772 AND 773 - VARIES BASED ON PIPE SIZE, MEASURED FROM LOWEST ELEVATION OF INFLOW APRON TO FLOWLINE OF OUTLET PIPE.

D-11: CAST IRON CURB INLET CONFIGURATION NAMING CONVENTION PROVIDED IN COT STANDARD NO. 755. SEPARATE DETAILS SHALL BE REFERENCED OR PROVIDED IN THE PLANS FOR NON-CITY-STANDARD INLETS.

STANDARD NAMING: CICI DES G(T) [W/AMH]

G: NUMBER OF GRATES.

T: LETTER(S) CORRESPONDING TO ARRANGEMENT OF CAST IRON HOODS TO BE INSTALLED UPSTREAM OF GRATES.

W/AMH: IF SHOWN, INLET TO BE CONSTRUCTED WITH ATTACHED ACCESS MANHOLE.

- D-12: REINFORCED CONCRETE PIPE TO BE CLASS III. ALL REINFORCED CONCRETE PIPE AND MANHOLES TO BE SUPPLIED WITH AN IMNI-FLEX JOINT GASKET OR APPROVED EQUAL. MASTIC JOINT SEALANT SHALL NOT BE ALLOWED.
- D-13: THIS PAY ITEM SHALL BE COMPLETE IN PLACE AND SHALL INCLUDE ALL PIPE, STANDARD BEDDING MATERIAL AND TRENCH EXCAVATION, JOINT GASKETS AND ALL OTHER INCIDENTALS. NO ADDITIONAL COST WILL BE MADE. PRIOR TO ACCEPTANCE, INTERIOR OF PIPE SHALL BE INSPECTED FOR DEFECTS USING SELF-PROPELLED MOBILE CLOSED-CIRCUIT CAMERA SYSTEM.

D-14: NOT USED

D-15: NOT USED

TRAFFIC (T1 - T7)

- T-1: ALL TRAFFIC MATERIALS REMOVED SHALL BE HANDLED PER COT SPECIFICATION 625 REMOVAL OF TRAFFIC ITEMS.
- T-2: REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4958-01 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 4958-01 TYPE III RETROREFLECTIVE SHEETING.
- T-3: NOT USED
- T-4: PAYMENT SHALL BE MADE ON A SIGN-DAY BASIS ONLY FOR TRAFFIC CONTROL DEVICES THAT ARE PROPERLY INSTALLED AND IN GOOD WORKING ORDER. COSTS FOR DELIVERY, INSTALLATION, RELOCATION, MAINTENANCE REMOVAL AND REPLACEMENT, AS NEEDED AT THE DISCRETION OF THE ENGINEER, INCLUDED IN UNIT PRICE BID.
- T-5: IF WARNING LIGHTS ARE 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 WAY, AND TYPE "C" LIGHTS SHALL NOT BE USED FOR ANY OTHER PURPOSE.
- T-6: NOT USED
- T-7: PRICE BID FOR THIS ITEM INCLUDES INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF PROJECT SIGN.



CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE	PROJ MGR.	JK	10/23	
			HORIZONTAL:	LEAD ENGR.	D.	9/24	
			1"=20'	FIELD MGR.	JK	9/25	
			VERTICAL:	RECOMMENDED	JK	9-25	
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 11.26.25
			ATLAS PAGE NO:	178			SHEET 3 OF 28 SHEETS

- THIS PROJECT. REPLACEMENT OF SECTION CORNERS OR ANY OTHER MONUMENTS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR AUTHORIZED TO PERFORM WORK IN THE STATE OF OKLAHOMA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL AND MAINTENANCE OF THE STORMWATER DRAINAGE. STORMWATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED.
- STRAW OR HAY BALES AS STORMWATER BEST MANAGEMENT PRACTICES ARE NO LONGER ALLOWED ON CONSTRUCTION PROJECTS.
- THE CONTRACTOR MUST CALL 1-800-458-4251 IMMEDIATELY IF A NATURAL GAS PIPELINE IS CUT, DAMAGED, OR OTHERWISE DISTURBED.
- PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT.
- ALL FEATURES OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, SIDEWALKS, CURB RAMPS, AND CROSSWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES, AND THE PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY, PUBLISHED ON JULY 26, 2011 BY THE U.S. ACCESS BOARD. WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THIS ACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK, WHICH IS NOT IN FULL COMPLIANCE WITH THE ADA WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK, WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADA, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL TRENCH WIDTHS & BEDDING MATERIAL SHALL BE AS SHOWN ON COT STANDARD PIPE BEDDING DETAIL, STANDARD NO. 751. SPECIFIED TRENCH WIDTHS SHALL BE MAINTAINED FULL DEPTH FROM THE FLOWLINE TO THE GRADING TEMPLATE. THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED.
- THE CONTRACTOR SHALL NOTIFY THE METROPOLITAN TULSA TRANSIT AUTHORITY (MTTA), ERIC SMITH 918-830-0024, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK, LANE CLOSURES OR PRIOR TO DETOURING TRAFFIC.
- CONTRACTOR SHALL NOT STORE EQUIPMENT OR MATERIAL IN THE FLOODPLAIN



NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES.

MZ 5027 COT #2036N5027Z

**CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT**

wallace
design
collective

wallace design collective, p
123 n. martin luther king jr. blv
tulsa, oklahoma 74103
918.584.5858 - wallace design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/20/22	APPROVED
			1"=20'	DESIGNED	LKW	9/20/22	
				SURVEY	RWB	9/20/22	
			PROFILE SCALE	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	D	9/24	
			1"=20'	FIELD MGR.	Paul	9/25	
			VERTICAL:	RECOMMENDED	HA	9/25	
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:		DATE: 09.24.25	
			ATLAS PAGE NO:	178		SHEET 4 OF 28 SHEETS	

PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\1
FILE: 2240017 WATERLINE PAY ITEMS.dwg
DATE: Dec 19, 2023 - 3:46PM

SUMMARY OF WATERLINE QUANTITIES BASE BID (REV 04/21/23)							
ITEM	SPEC. NO.	DESCRIPTION	PAY ITEM NOTE	UNIT	QUANTITY TOTAL	S 109TH E AVE SHT 27	E 20TH ST SHT 28
1	COT 302	EXCAVATION AND BACKFILL, UNCLASSIFIED	4, 5, 6, 7, 22, 36	CY	95	37.4	57.5
2	COT 304	CONSTRUCTION STAKING		EA	1		
3	COT 312(A)	6" D.I. SLEEVE (RJ)	2, 8, 12	EA	2	2.0	
4	COT 317(A)	6" GATE VALVE (RJ)	8	EA	2	2.0	
5	COT 317(B)	3-WAY FFE HYDRANT, IN PLACE		EA	2	1.0	1.0
6	COT 317(C)	6 INCH FFE HYDRANT EXTENSION		EA	2	1.0	1.0
7	COT 318(A)	VALVE BOX	21	EA	2	2.0	
8	COT 318(B)	VALVE BOX EXTENSION	21	VF	1	1.0	
9	COT 329(A)	PAVEMENT, REMOVAL AND REPLACEMENT (TYPE I AC PATCH, NON-ARTERIAL)	36	SY	40	26.1	14.1
10	COT 329(B)	PAVEMENT, REMOVAL AND REPLACEMENT (CURB AND GUTTER)	36	LF	10		10.0
11		NOT USED		LF	95	50.0	45.0
12	COT 329(D)	4" CONCRETE SIDEWALK, REMOVAL AND REPLACEMENT	36	SY	339	123.6	215.8
13	COT 329(E)	SIDEWALK RAMP	36	EA	2	1.0	1.0
14	COT 329(F)	SODDING AND SEEDING	23	SY	147		147.0
15	COT 333	ABANDON 6" WATERLINE	5, 9	LF	890	300.0	590.0
16	COT 334	CONSTRUCTION AS-BUILTS	24, 25, 27	EA	1		
17	COT 335	CONTRACTOR'S QUALITY CONTROL		LSUM	1		
18	SPECIAL	OWNER ALLOWANCE	18	EA	10000		
19		NOT USED		EA			
20	303(A)	AGGREGATE BASE TYPE A	S-1, 2	CY	51	22.4	28.6
21	310(B)	SUBGRADE METHOD B		SY	40	26.1	14.1
22	325	SEPARATOR FABRIC	S-3	SY	84	50.5	33.1
23	411(C)	SUPERPAVE, TYPE S4 (PG 64-22) (INSOLUBLE)	S-5, 6, 7, 8	TON	7	3.8	3.2
24	411(E)	SUPERPAVE, TYPE S6 (PG 64-22)	S-5, 6, 7, 8, G-1	TON	4	1.9	1.6
SUMMARY OF WATERLINE QUANTITIES ALTERNATE 1 DIP MATERIAL OPTION 1							
25	COT 307	6" DIP, CL 51 POLYETHYLENE WRAPPED, (RJ)	1, 2, 3, 8, 9, 11, 27, 28	LF	117	33.0	84.0
26	COT 307	6" DIP, CL 51 POLYETHYLENE WRAPPED	1, 2, 3, 9, 11, 27, 28	LF	773	267.0	506.0
27	COT 312	6" D.I. 45 DEGREE BEND (RJ)	2, 8	EA	8	4.0	4.0
28	COT 312	6"x6"x6" D.I. TEE (RJ)	2, 8	EA	2	1.0	1.0
29	COT 315	3/4" WATER SERVICE CONNECTION (SHORT)		EA	8		8.0
30	COT 315	3/4" WATER SERVICE CONNECTION (LONG)		EA	12	6.0	6.0
SUMMARY OF WATERLINE QUANTITIES ALTERNATE 2 PVC MATERIAL OPTION 2							
31	COT 309	6" PVC, AWWA C900, CLASS 200, DR-14, (RJ)	1, 2, 3, 8, 9, 10, 27, 28	LF	117	33.0	84.0
32	COT 309	6" PVC, AWWA C900, CLASS 200, DR-14	1, 2, 3, 9, 10, 27, 28	LF	773	267.0	506.0
33	COT 312	6" PVC 45 DEGREE BEND (RJ)	2, 8	EA	8	4.0	4.0
34	COT 312	6"x6"x6" D.I. TEE (RJ)	2, 8	EA	2	1.0	1.0
35	COT 315	3/4" WATER SERVICE CONNECTION (SHORT)		EA	8		8.0
36	COT 315	3/4" WATER SERVICE CONNECTION (LONG)		EA	12	6.0	6.0
SUMMARY OF WATERLINE QUANTITIES ALTERNATE 3 HDPE MATERIAL OPTION 3							
37	COT 309A	8" HDPE, AWWA C906, PE4710, DR-11, (DIPS)	1, 2, 3, 8, 9, 10, 19, 27, 28	LF	890	300.0	590.0
38	COT 312	8" DI TO HDPE ADAPTOR (RJ)		EA	2	1.0	1.0
39	COT 312	8" x 6" D.I. REDUCER (RJ)		EA	2	1.0	1.0
40	COT 312A	8" HDPE 45 DEGREE BEND (DIPS)		EA	8	4.0	4.0
41	COT 312A	8" HDPE WALL ANCHOR (DIPS)(RJ), COMPLETE IN PLACE	26	EA	2	1.0	1.0
42	COT 315	3/4" WATER SERVICE CONNECTION (SHORT)	15, 16	EA	8		8.0
43	COT 315	3/4" WATER SERVICE CONNECTION (LONG)	15, 16	EA	12	6.0	6.0

SUMMARY OF WATER METERS									
SHEET NO.	NO.	STATION	OFFSET	SERVICE ADDRESS	NORTH COORDINATE	EAST COORDINATE	SIZE	METER CAN SIZE	
22	1	14+65.55	16.6 L	1910 S. 109th E. St Ave	420204.64	2601854.72			
22	2	13+91.79	16.55 L	1916 S. 109th E. St Ave	420137.26	2601879.45			
21	3	13+17.34	18.07 L	1922 S. 109th E. St Ave	420067.12	2601884.75			
21	4	12+56.01	19.18 L	1926 S. 109th E. St Ave	420005.78	2601885.08			
21	5	11+96.78	18.16 L	1932 S. 109th E. St Ave	419946.59	2601887.50			
21	6	11+39.76	21.38 L	1936 S. 109th E. St Ave	419889.52	2601885.62			
21	7	10+84.33	30.32 L	1940 S. 109th E. St Ave	419833.89	2601877.99			
21	8	10+35.48	42.86;	1944 S. 109th E. St Ave	419784.76	2601866.60			
23	9	0+81.13	17.42 R	10906 E. 19th Pl. S.	420068.11	2601983.90			
23	10	0+13.83	47.09 L	10907 E. 19th Pl. S.	420131.24	2601915.31			
23	11	1+45.19	18.26 R	10912 E. 19th Pl. S.	420068.57	2602047.97			
23	12	1+34.24	17.73 L	10913 E. 19th Pl. S.	420104.33	2602036.29			
23	13	1+98.51	39.35 L	10917 E. 19th Pl. S.	420127.25	2602100.11			
23	14	1+86.65	29.09 R	10918 E. 19th Pl. S.	420058.62	2602089.64			
23	15	2+44.43	41.05 L	10921 E. 19th Pl. S.	420129.88	26021456.98			
23	16	2+37.85	43.80 R	10922 E. 19th Pl. S.	420044.91	2602141.13			
23	17	2+69.75	14.13 L	10927 E. 19th Pl. S.	420103.46	2602170.93			
23	18	2+66.30	21.32 R	10928 E. 19th Pl. S.	420067.97	2602169.11			
24	19	99+81.95	40.34 R	10904 E. 20th St. S.	419759.24	2601891.97			
24	20	100+16.54	64.03 L	10907 E. 20th St. S.	419864.32	2601924.17			
24	21	100+28.62	34.96 R	10908 E. 20th St. S.	419765.70	2601938.66			
24	22	101+38.20	17.54 L	10911 E. 20th St. S.	419820.83	2602046.92			
24	23	100+67.81	17.06 R	10912 E. 20th St. S.	419784.54	2601977.39			
24	24	101+36.48	17.08 R	10916 E. 20th St. S.	419786.26	2602046.04			
24	25	102+00.91	17.83' L	10917 E. 20th St. S.	419822.66	2602109.61			
24	26	101+89.55	17.29 R	10920 E. 20th St. S.	419787.26	2602099.10			
24	27	102+68.84	18.14 L	10921 E. 20th St. S.	419824.62	2602177.50			
24	28	102+74.13	17.0 R	10924 E. 20th St. S.	419789.71	2602183.66			
25	29	103+35.75	19.0 L	10927 E. 20th St. S.	419827.13	2602244.38			
25	30	103+37.27	17.05 R	10928 E. 20th St. S.	419791.11	2602246.78			
25	31	103+86.99	17.0 R	10930 E. 20th St. S.	419792.47	2602296.48			
25	32	104+95.70	65.17 L	10937 E. 20th St. S.	419877.20	2602403.15			
25	33	104+52.56	17.30 R	10938 E. 20th St. S.	419793.68	2602362.03			

SUMMARY OF VALVES AND HYDRANTS						
WATERLINE	STATION	NORTH COORDINATE	EAST COORDINATE	TYPE	OFFSET	ELEVATION
A	13+10.17	420060.79	2601920.38	6" GATE VALVE	0	651.92
A	13+05.80	420056.58	2601927.37	3-WAY FHA	24.29 R	652.01
A	104+85.91	419788.82	2602395.52	3-WAY FHA	22.97 R	653.38
A	105+24.74	419796.27	2602434.18	6" GATE VALVE	0	656.1

QUANTITIES SHOWN ARE FOR BIDDERS' INFORMATION. THEY DO NOT RELIEVE THE CONTRACTOR OF VERIFYING AND PROVIDING ALL ITEMS AS SHOWN ON THE PLANS AND SPECIFICATIONS.



CAUTION
NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES

TMUA-W 22-19

WATERLINE PAY QUANTITIES

MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT



wallace design collective, pc
123 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5658 - wallace.design



REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	CGW	9/25	
			1"=20'	FIELD MGR.	Phu	9/25	
			VERTICAL:	RECOMMENDED			
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09.26.25
			ATLAS PAGE NO:	178			SHEET 5 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\Draw\PRODUCTION\
 FILE: 2240017 WATERLINE PAY ITEMS.dwg
 DATE: Dec 19, 2023 - 3:46PM

WATER PAY QUANTITY NOTES (04/21/23)

- 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.
 - CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, AS DIRECTED BY CITY TESTING PERSONNEL. THEN, ONCE TESTING, CHLORINATION AND FLUSHING BY CITY PERSONNEL IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.
 - TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAIN SHALL BE PERFORMED BY CITY PERSONNEL ON MAINS WHICH ARE PHYSICALLY DISCONNECTED FROM THE EXISTING WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PERFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO THE EXISTING SYSTEM.
 - 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.
- 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.
- CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. THE COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
- CONTRACTOR SHALL INSURE ALL POLES WHICH ARE AFFECTED BY TRENCHING CONDITIONS ARE BRACED BY OWNERS. PAYMENT SHALL BE INCLUDED IN "RIGHT-OF-WAY CLEARING AND RESTORING". NO ADDITIONAL PAYMENT SHALL BE MADE.
- ALL HYDRANTS, VALVES AND OTHER FITTINGS FROM ABANDONED WATER MAINS SHALL BE SALVAGED AND DELIVERED TO THE SOUTH YARD AT 2317 S JACKSON AVE. PAYMENT TO BE MADE UNDER RIGHT OF WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
- CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS, ROOF DRAINS, AND FENCING DAMAGED IN THE ZONE OF CONSTRUCTION DURING THE COURSE OF CONSTRUCTION TO SATISFACTION OF THE PROPERTY OWNER. PAYMENT SHALL BE INCLUDED IN RIGHT-OF-WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
- COST OF ANY TEMPORARY LIVESTOCK FENCING AND POLES SHALL BE INCLUDED IN COST OF RIGHT OF WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
- ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RESTRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE OR FITTINGS.
 - DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, STAR STARGRIP, SMITH-BLAIR CAMLOCK, CLOW TUFGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THROUGH UNCASD BORES, ONLY USPIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. LOCKING GASKETS NOT PERMITTED.
 - POLYVINYL CHLORIDE (PVC) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. LOCKING GASKETS NOT PERMITTED; SHOULD RJ PIPE BE SPECIFIED ON BORE CASING IS REQUIRED.
 - HIGH DENSITY POLYETHYLENE (HDPE) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT.
- NO ADDITIONAL PAYMENT SHALL BE MADE.
- ALL CUT ENDS AND WHERE SALVAGED FITTINGS HAVE BEEN REMOVED FROM ABANDONED WATER LINES LEFT IN PLACE, SHALL BE PLUGGED WITH 24-IN OF CONCRETE INSIDE THE PIPE. COST OF CONCRETE PLUGGING TO BE INCLUDED IN THE UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.
- TRACER WIRE AND DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE GROUND LEVEL AS PER CONST SPEC 310. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC AND HDPE PIPE. CONST SPEC 310.1 NOW ALLOWS #12 COPPER-CLAD STEEL (CCS) WIRE, 21% CONDUCTIVITY, IN LIEU OF #8 COPPER WIRE AS TRACER WIRE ATOP PVC AND HDPE PIPE.
- DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE AS PER CONST SPEC 307.3 AND 307.4. COST WILL BE INCLUDED IN THE COST OF DUCTILE IRON PIPE.
- ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN THE COST OF PIPE. CONTRACTOR TO EXCAVATE ALL EXISTING WATER MAINS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ACCORDINGLY. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. THE COST FOR EXCAVATING EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.
- NOT USED.
- CONTRACTOR IS REMINDED TO BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1½ -IN TYPE A AGGREGATE BASE, PLACED IN 8-INCH MAXIMUM LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR DENSITY. COST TO BE INCLUDED IN COST OF EXCAVATION AND BACKFILL. NO ADDITIONAL PAYMENT SHALL BE MADE.
- WATER SERVICE CONNECTIONS SHALL INCLUDE COST OF MATERIAL, LABOR, AND EQUIPMENT TO REMOVE AND INSTALL SADDLES, SERVICE CLAMPS, CORPORATION STOPS, BENDS, 3-PART UNIONS, COUPLINGS, SETTERS AND ANY OTHER INCIDENTALS REQUIRED FOR A COMPLETE WATER SERVICE CONNECTION WITH EXCEPTION OF METER CANS, RIMS AND LIDS. NO ADDITIONAL PAYMENT SHALL BE MADE. METER CANS, LIDS AND RIMS SHALL BE PAID AS A SEPARATE BID ITEM.
 - A SHORT SERVICE SHALL BE ANY SERVICE LINE THAT IS 25-FEET OR LESS IN LENGTH. SHORT SERVICES DO NOT INCLUDE PAVEMENT REPLACEMENT.
 - LONG SERVICE SHALL BE ANY SERVICE LINE THAT IS GREATER THAN 25-FEET UP TO 80-FEET IN LENGTH. LONG SERVICES INCLUDE PAVEMENT REPLACEMENT AND/ OR COST TO BORE.
 - SERVICE LINES EXCEEDING THE ABOVE PARAMETERS WILL BE COMPENSATED FOR LINEAR FOOTAGE ABOVE AND BEYOND. COMPENSATION SHALL BE PAID AS "SERVICE LINES, EXTENSION", PER LF
- SERVICE LINES ON NON-ARTERIALS SHALL BE EITHER COPPER TUBING (TYPE K SOFT ANNEALED CONFORMING TO ASTM B 88) OR PEX TUBING (VIEGA PUREFLOW PEX BLUE 5306 OR UPONOR AQUA PEX 5206 BLUE CONFORMING TO ASTM F876/F877/F2023). PEX TUBING IS NOT PERMITTED WITHIN ARTERIAL RIGHT OF WAY. WHEN CONTRACTOR ELECTS TO USE PEX TUBING:
 - ¾-INCH WATER SERVICE CONNECTION SHALL USE 1-INCH PEX TUBING MINIMUM
 - 1-INCH WATER SERVICE CONNECTION SHALL USE 1½-INCH PEX TUBING MINIMUM
- NOT USED.

- THE "OWNER ALLOWANCE" CAN BE USED FOR VARIOUS WORK AND MISCELLANEOUS ITEMS NOT IDENTIFIED IN THE CONTRACT DOCUMENTS WITH THE FOLLOWING PROVISIONS:
 - THE ALLOWANCE SHALL BE USED FOR THE COST OF MATERIALS, LABOR, INSTALLATION, OVERHEAD, AND PROFIT FOR ADDITIONAL WORK AND MISCELLANEOUS ITEMS THAT ARE NOT IDENTIFIED IN THE CONSTRUCTION DOCUMENTS AND PLANS, AND NOT INCLUDED IN THE BID ITEMS OF THE CONTRACT.
 - THE ALLOWANCE SHALL BE USED ONLY AT THE DISCRETION OF THE CITY. ANY ALLOWANCE BALANCE REMAINING AT THE COMPLETION OF THE PROJECT WILL BE CREDITED BACK TO THE CITY ON THE FINAL APPLICATION FOR PAYMENT SUBMITTED BY THE CONTRACTOR.
 - THE CONTRACTOR SHALL PROVIDE, TO THE CITY, A WRITTEN REQUEST FOR THE USE OF ANY ALLOWANCE, WITH A SCHEDULE OF VALUES, AND ALL ASSOCIATED BACKUP INFORMATION, INCLUDING ANY TIME EXTENSIONS REQUIRED TO PERFORM THE WORK.
 - THE CONTRACTOR SHALL PROCEED WITH THE WORK INCLUDED IN THE ALLOWANCE ONLY AFTER RECEIVING A WRITTEN ORDER FROM THE ENGINEER AND CITY AUTHORIZING SUCH WORK. PROCEEDING WITH WORK IN THE ALLOWANCE WITHOUT A WRITTEN ORDER FROM THE CITY WILL BE AT THE CONTRACTOR'S EXPENSE.
- WHERE PLANS IDENTIFY A 22.5-DEG OR 11.25-DEG VERTICAL OR HORIZONTAL BEND, HDPE WILL BE DEFLECTED PER MANUFACTURER'S MINIMUM ALLOWABLE BEND RADIUS.
- NOT USED.
- TOP OF VALVE BOX SHALL BE FLUSH WITH FINISHED GRADE.
- CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITION. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9-FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE. STREETS, DRIVEWAYS AND ASSOCIATED ITEMS SHALL BE PAID FOR UNDER OTHER ITEMS OF WORK.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION. THE CONTRACTOR SHALL REPLACE THE SOD TO MATCH IN-KIND AND QUALITY. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9-FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE. THIS PAY ITEM INCLUDES ALL MOWING WITHIN THE RIGHT-OF-WAY AS DIRECTED DURING CONSTRUCTION.
- SPOT ELEVATIONS ON THE MAIN WATER LINE RELATIVE TO FINISHED GRADE SHALL BE PROVIDED AT EACH 100-FT INTERVAL, COMPLETE WITH STATION AND OFFSET. IN ADDITION, ALL VALVES, FITTINGS, FIRE HYDRANTS (TOP OF NUT) AND OTHER MAJOR APPURTENANT ITEMS SHALL BE SHOWN WITH THE PROPER DESCRIPTION, STATION, OFFSET (NORTHING, EASTING) AND ELEVATION PER PLAN SURVEY CONTROL DATUM.
- SPOT ELEVATIONS ON WATER METER CANS, VAULTS, SHALL BE SHOWN WITH THE PROPER DESCRIPTION (METER TYPE, METER SIZE, METER NUMBER, SERVICE MATERIAL, SERVICE SIZE), STATION, OFFSET (NORTHING, EASTING) AND ELEVATION PER PLAN SURVEY CONTROL DATUM. UPON DISCOVERY OF A LEAD OR GALVANIZED SERVICE LINE, NOTIFICATION SHALL BE MADE TO WATER DISTRIBUTION AND WORK SHALL CEASE UNTIL RELEASED AT WHICH TIME ANY AND ALL SERVICE LINES LOCATED THAT ARE LEAD OR GALVANIZED ARE TO BE REPLACED WITH APPROVED MATERIALS.
- WORK UNDER THIS ITEM SHALL INCLUDE FURNISHING AND INSTALLING HDPE WALL ANCHORS AS SHOWN ON DRAWINGS OR AS DIRECTED BY THE ENGINEER. THE UNIT PRICE SHALL INCLUDE THE COST OF ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED. NO ADDITIONAL PAYMENT SHALL BE MADE FOR EXCAVATION, BACKFILLING, OR CONCRETE BLOCKING.
- PRESSURE TESTING AND CHLORINATION OF WATER MAINS SHALL NOT BE PERFORMED UNTIL THE CITY INSPECTOR HAS RECEIVED THE REQUIRED CONSTRUCTION AS-BUILT RECORDS.
- MARKER BALLS SHALL BE INSTALLED ABOVE ALL FITTINGS, BLIND FLANGES, SERVICE TAPS AND EVERY 100 FEET IF THE DISTANCE BETWEEN FITTINGS IS GREATER THAN 100 FEET. THE COST OF MARKER BALLS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE. MARKERS SHALL BE VIVAX WATER MARKER BALLS OR EQUAL THAT WORK WITH THE VIVAX VLOC3 -PRO RECEIVER AND LOC3-10TX TRANSMITTER.
- NOT USED.
- AGG BASE AND SUBGRADE, PER CITY STANDARD SPECIFICATIONS AND STANDARD DETAILS 701 - 702, SHALL BE PAID UNDER EXCAVATION AND BACKFILL.
- NOT USED.
- ~~NOT USED~~
- ~~NOT USED~~
- PAVEMENT REMOVAL AND REPLACEMENT: THIS PAY ITEM SUPERSEDES CITY OF TULSA STANDARD SPECIFICATION SECTION 329.6, WITH RESPECT TO SAW CUTTING AND DOWELS AND INCLUDES THE FOLLOWING (THESE ITEMS SHALL NOT BE PAID SEPARATELY): SAWCUTTING, DOWELS, DISPOSAL OF BROKEN PAVEMENT, TEMPORARY SURFACES, ASSOCIATED EXCAVATION, PREPARATION OF SUBGRADE, FORMS OR REINFORCING, REMOVAL OR REPLACEMENT OF GRAVEL, ADDITIONAL SAW CUTTING OR REPLACEMENT OF PAVEMENT DAMAGED BY THE CONTRACTOR, JOINT SEALER, TACK COATS OR EDGE SEALING.

WATER CONSTRUCTION NOTES

- THE CITY OF TULSA FIELD ENGINEERING DEPARTMENT SHALL INSPECT ALL TRENCHING, BEDDING, PIPE INSTALLATION, BACKFILL AND COMPACTION. /
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS AND STANDARD DETAILS OF THE CITY OF TULSA ENGINEERING SERVICES DEPARTMENT.
- EXISTING SERVICE CONNECTIONS ARE TO BE KEPT IN SERVICE UNTIL CONNECTIONS TO NEW MAIN ARE MADE. ALL SERVICE LINE RECONNECTIONS SHALL BE MADE BY THE CONTRACTOR. SERVICE RECONNECTIONS SHALL BE INSTALLED AS PER CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS.
- MINIMUM COVER OVER WATER LINES SHALL BE AS NOTED ON THE PLANS.
- CONTRACTOR SHALL REPLACE EXISTING GRASS WITH SEED/SOD OF THE SAME TYPE AND VARIETY OR AS NOTED ON PLANS.
- CONTRACTOR SHALL BORE EXISTING TREES UNDER DRIP LINE, UNLESS DIRECTED OTHERWISE BY ENGINEER.
- CONTRACTOR SHALL BORE EXISTING DRIVEWAYS, UNLESS DIRECTED OTHERWISE BY ENGINEER.
- WATER OPERATIONS SHALL OPERATE ALL VALVES ON TRANSMISSION MAINS (16" AND LARGER). CONTRACTOR SHALL OPERATE ALL VALVES ON DISTRIBUTION MAINS (SMALLER THAN 16") WITH THE COORDINATION OF FIELD ENGINEERING AND WATER OPERATIONS AND IN THE PRESENCE OF A FIELD ENGINEERING INSPECTOR.
 - ATTEMPTS WILL BE MADE WITH ASSISTANCE FROM THE CONTRACTOR TO NOTIFY ALL AFFECTED CUSTOMERS 48 HOURS IN ADVANCE, PARTICULARLY IF COMMERCIAL OR INDUSTRIAL CUSTOMERS ARE INVOLVED. PRIOR TO SHUTDOWN, FIELD ENGINEERING WILL NOTIFY WATER OPERATIONS AT 918-596-9488, GIVING AN ESTIMATED DOWNTIME. WATER OPERATIONS WILL NOTIFY THE FIRE DEPARTMENT OF ALL FIRE HYDRANTS OUT OF SERVICE AND WHEN THEY ARE BACK IN SERVICE, BY STREET ADDRESS OR INTERSECTION.
 - WHERE COMMERCIAL, INDUSTRIAL, OR CRITICAL CUSTOMERS ARE AFFECTED, AND FOR ALL LINES 16-INCH AND LARGER IN SIZE, FIELD ENGINEERING WILL REQUEST WATER OPERATIONS TO SHUT DOWN THE MAIN. THERE WILL BE A MINIMUM OF 48-HOUR NOTICE TO WATER OPERATIONS.
- CONTRACTOR SHALL PROVIDE AT LEAST 48 HOUR NOTICE TO ALL RESIDENTS OR BUSINESSES AFFECTED BEFORE TURNING OFF ANY WATER. CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING DOOR HANGERS ON AFFECTED HOMES AND BUSINESSES.
- CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC, NOTICE OF ANY EXCAVATION NO LATER THAN 48 HOURS OR SOONER THAN 10 DAYS PRIOR TO COMMENCEMENT OF WORK (EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAYS). PHONE: 1-800-522-6543.
- LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH PROJECT AT ALL TIMES. OPEN CUT STREET CROSSINGS REQUIRE AN APPROVED TRAFFIC CONTROL PLAN WITH TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH CURRENT MUTCD REQUIREMENTS.
- ANY DAMAGE CAUSED BY THE CONTRACTOR TO ADJACENT TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE TRAFFIC ENGINEER.
- PRIOR TO PAVEMENT SAWING AND EXCAVATION NEAR SIGNALIZED INTERSECTION, CONTRACTOR SHALL CONTACT ENGINEERING SERVICES AND TRAFFIC OPERATIONS (918-596-9766) FOR SITE SPECIFIC, UNDERGROUND TRAFFIC UTILITY LOCATES.
- CONSTRUCTION FOR ALL ENGINEERING SERVICE FACILITIES SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF TITLE 252, DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 626, PUBLIC WATER SUPPLY CONSTRUCTION STANDARDS, OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ).
- ALL EXCAVATED MATERIAL NOT REQUIRED IN OTHER AREAS OF THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY EXCESS MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS OF TULSA.
- ANY CHANGES FROM THE APPROVED PLANS SHALL BE SUBMITTED TO THE CITY OF TULSA FOR WRITTEN APPROVAL PRIOR TO INSTALLATION.

CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



TMUA-W 22-19

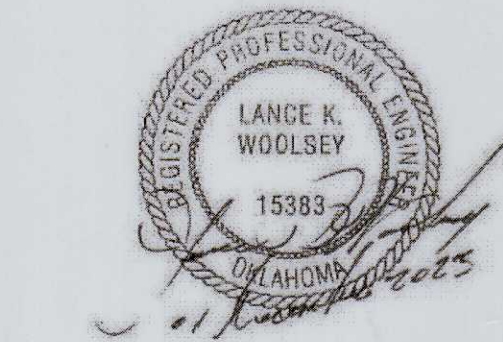
WATERLINE PAY ITEM NOTES

MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
 ENGINEERING SERVICES DEPARTMENT



wallace design collective, pc
 123 n. martin luther king jr. blvd.
 tulsa, oklahoma 74103
 918.584.5858 - wallace.design



REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	CEW	9/25	
			1"=20'	FIELD MGR.	BW	9/25	
			VERTICAL:	RECOMMENDED			
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09.26.25
			ATLAS PAGE NO:	178			SHEET 6 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\
FILE: 2240017 SUMMARIES.dwg
DATE: Dec 19, 2023 - 3:47PM

SUMMARY OF DRIVEWAY QUANTITIES									
P&P SHT NO	STATION	APPROX LENGTH	APPROX WIDTH	EXIST SLOPE	PROP SLOPE	SIDEWALK CROSS SLOPE	AGGREGATE BASE TYPE A	6" CONCRETE DRIVEWAY	REMOVAL OF CONCRETE DRIVEWAY
		FT	FT	%	%	%	CY	SY	SY
S 109TH E AVE									
21	10+44 LT	8.0	12.8	12.4	12.4	0.6	2.6	15.7	15.7
	10+62 LT	5.9	10.9	14.2	14.2	1.3	1.9	11.3	11.3
	11+62 LT	6.8	11.7	7.2	7.2	1.5	2.7	16.3	16.3
	12+22 LT	7.6	26.9	7.9	7.9	1.8	4.2	25.0	25.0
	12+82 LT	8.6	13.3	9.5	9.5	0.8	2.7	16.4	16.4
	13+38 LT	8.2	15.3	8.6	8.6	2.2	3.1	18.7	18.7
22	14+08 RT	7.1	18.1	11.6	11.6	3.4	3.2	18.9	18.9
	14+16 LT	6.7	17.1	16.7	16.7	2.9	2.7	16.1	16.1
	14+56 RT	7.6	14.6	9.6	9.6	1.9	2.6	15.8	15.8
	14+89 LT	6.5	15.5	17.3	17.3	2.2	2.2	13.4	13.4
	15+18 LT	7.1	20.7	8.7	8.7	0.3	2.8	16.7	16.7
E 19TH PL									
23	1+24 LT	7.6	14.5	4.0	4.0	0.1	2.5	15.0	15.0
	1+70 RT	8.2	15.3	11.5	11.5	1.1	2.5	14.9	14.9
	2+05 LT	7.6	13.0	11.3	11.3	0.5	2.4	14.4	14.4
	2+25 RT	6.8	14.5	8.8	8.8	1.6	2.3	13.5	13.5
E 20TH ST									
24	100+39 RT	7.5	17.3	11.2	11.2	0.4	2.8	17.0	17.0
	100+84 LT	7.1	16.3	8.6	8.6	1.7	2.7	15.9	15.9
	101+04 RT	7.6	13.9	10.1	10.1	1.0	2.3	13.8	13.8
	101+56 LT	7.5	14.6	7.1	7.1	0.2	2.4	14.2	14.2
	101+67 RT	7.1	22.5	9.1	9.1	0.6	3.3	19.5	19.5
	101+91 LT	7.3	18.1	9.8	9.8	1.2	2.8	17.0	17.0
	102+23 RT	7.1	13.3	5.8	5.8	0.1	2.5	14.9	14.9
	102+49 RT	7.1	13.8	7.6	7.6	0.9	2.3	13.7	13.7
	102+90 LT	8.4	13.9	8.6	8.6	0.7	2.6	15.4	15.4
25	103+13 RT	8.0	13.3	11.8	11.8	0.9	2.6	15.5	15.5
	103+59 LT	9.1	14.0	8.1	8.1	0.9	2.7	15.9	15.9
	104+12 LT	7.1	13.8	5.4	5.4	0.3	2.4	14.3	14.3
	TOTAL						71.8	429.2	429.2

SUMMARY OF PAVING QUANTITIES													
P&P SHT NO	STATION TO STATION	AGGREGATE BASE, TYPE A	SUBGRADE METHOD B	SEPARATOR FABRIC	FABRIC REINFORCEMENT	ASPH CONC TYPE S4 (PG 64-22 OK) (INSOLUBLE)	ASPH CONC TYPE S6 (PG 64-22 OK)	CLASS A CONCRETE	REINFORCING STEEL	2'-2" COMB CURB & GTR (6" BARRIER)	5" CONC SIDEWALK	TYPE 1 AC PATCH (NON-ARTERIAL)	PAVEMENT, REMOVAL AND REPLACEMENT (TYPE 1 AC PATCH NON-ARTERIAL)
		303(A)	310(B)	325	409	411(C)	411(C)	509	511(A)	411(C)	610(B)	SPEC	COT 329(A)
		CY	SY	SY	SY	TON	TON	CY	LB	LF	SY	CY	SY
S 109TH E AVE													
21	10+00 TO 13+50	267.8	252.8	866.5	1117.1	125.1	62.5			246.0		62.7	
22	13+00 TO 15+52	123.4	295.3	368.0	635.0	71.2	35.6	6.9	543.6	23.0	103.4	24.6	
E 19TH PL S													
23	0+00 TO 2+50	132.0	359.6	439.3	912.1	102.2	51.1	6.9	543.6	58.6	22.1	29.9	
E 20TH ST S													
24	100+00 TO 103+00	59.8	108.3	153.9	718.3	80.5	40.3			14.8		108.3	
25	103+00 TO 105+26	33.6	77.9	117.0	511.0	57.2	28.7	6.9	543.6	58.0		6.5	
	TOTAL	616.6	1093.9	1944.7	3893.5	436.2	218.2	20.7	1630.8	400.4	125.5	232.0	
WATERLINE													
27		22.4	26.1	50.5	33.4	3.8	1.9				123.6		26.1
28		28.6	14.1	33.1	28.0	3.2	1.6				215.8		14.1
	TOTAL	51.0	40.2	83.6	61.4	7.0	3.5	0.0	0.0	0.0	339.4		40.2

SUMMARY OF REMOVAL QUANTITIES							
P&P SHT NO	STATION TO STATION	COLD MILL PAVEMENT	REMOVAL OF SIDEWALK	REMOVAL OF INLET/WHOOD/GRATE	REMOVAL OF INLET HOOD	REMOVAL OF ASPH PAVT	REMOVAL OF CURB/GUTTER
		412	619(B)	619(B)	619(B)	619(B)	619(B)
		SY	SY	EA	EA	SY	LF
S 109TH E AVE							
15	10+00 TO 13+50	1117.1	30.9			22.7	252.0
15	13+00 TO 15+52	635.0			1	22.7	33.0
E 19TH PL S							
16	0+00 TO 2+50	912.1	22.1		2		78.6
E 20TH ST S							
17	100+00 TO 103+00	718.3					14.8
17	103+00 TO 105+26	511.0		1		22.7	70.0
	TOTAL	3893.5	53.0	1.0	3.0	68.1	448.4
WATERLINE							
27	10+00 TO 13+50		66.7				
28	100+00 TO 105+50		215.8				
	TOTAL	0.0	282.5	0.0	0.0	0.0	0.0

SUMMARY OF EROSION CONTROL QUANTITIES			
P&P SHT NO	STATION TO STATION	TEMPORARY FIBER LOG	SOLID SLAB SODDING
		221(K)	230(A)
		LF	SY
S 109TH E AVE			
21	10+00 TO 13+50		71.7
22	13+00 TO 15+52	12	56.7
E 19TH PL S			
23	0+00 TO 2+50	24	6.2
E 20TH ST S			
24	100+00 TO 103+00		6.2
25	103+00 TO 105+26	12	3.1
28	100+00 TO 105+26 (WATERLINE)		147.0
	TOTAL	48	290.9

SUMMARY OF EARTHWORK QUANTITIES		
P&P SHT NO	STATION TO STATION	UNCLASSIFIED EXCAVATION
		202(A)
		CY
S 109TH E AVE		
21	10+00 TO 13+50	188.2
22	13+00 TO 15+52	99.7
E 19TH PLS		
23	0+00 TO 2+50	95.5
E 20TH ST S		
24	100+00 TO 103+00	27.1
25	103+00 TO 105+26	19.4
WATERLINE		
27		37.4
28		57.5
	TOTAL	524.8

SUMMARY OF TRAFFIC CONTROL QUANTITIES									
P&P SHT NO	STATION TO STATION	CONSTRUCTION SIGNS 0 TO 6.25 SF	CONSTRUCTION SIGNS 6.25 TO 15.99 SF	CONSTRUCTION SIGNS 16.00 TO 32.99 SF	BARRICADES (TYP III)	WARNING LIGHTS (TYPE A)	WARNING LIGHTS (TYPE C)	DRUMS	TUBE CHANNELIZER
		880(B)	880(B)	880(B)	880(C)	880(E)	880(E)	880(F)	880(G)
		SD	SD	SD	SD	SD	SD	SD	SD
S 109TH E AVE									
21	10+00 TO 13+50	45	90	45	45	90	150	315	315
22	13+00 TO 15+52	45	90		45	90	163	225	225
E 19TH PL S									
23	0+00 TO 2+50	30	60	30	30	60	75	150	150
E 20TH ST S									
24	100+00 TO 103+00	45	90		45	90	135	270	270
25	103+00 TO 105+26	45	90	45	45	90	100	200	200
	TOTAL	210	420	120	210	420	623	1160	1160

SUMMARY OF DRAINAGE QUANTITIES						
P&P SHT NO	STATION TO STATION	6" DIA MANHOLE, COMPLETE IN PLACE	INLET, CIGI DES 2, COMPLETE IN PLACE	REPLACEMENT OF INLET FRAME & GRATE	REPLACEMENT OF CAST IRON HOOD	15" REINF CONC PIPE, ROUND, COMPLETE IN PLACE
		611(A)	611(G)	611(I)	611(M)	613(A)
		EA	EA	EA	EA	LF
S 109TH E AVE						
21	10+00 TO 13+50	1	1	1	1	336
22	13+00 TO 15+52			2	2	
E 19TH PL S						
23	0+00 TO 2+50			4	4	
E 20TH ST S						
24	100+00 TO 103+00					
25	103+00 TO 105+26		1			
	TOTAL	1	2	7	7	336

SUMMARY OF SIGN LOCATIONS											
P&P SHT NO	LOCATION	DESCRIPTION	ACTION	MUTCD TYPE	SIZE	AREA/SIGN	# OF SIGNS	TOTAL AREA	POSTS COT 608		
									1 1/2"	1 3/4"	2"
					IN	SF	EA	SF	LF	LF	LF
22	13+55,16' RT	NEIGHBORHOOD STREET NAME BLADE (E 19TH PL)	REMOVE & REPLACE	DBL SIDED	32x9	4.00	1	4.00	1.5	10.5	3
	SAME POST	NEIGHBORHOOD STREET NAME BLADE (S 109TH E AV)	REMOVE & REPLACE	DBL SIDED	32x9	4.00	1	4.00			
24	100+39 18' LT	NEIGHBORHOOD STREET NAME BLADE (E 20TH ST)	REMOVE & REPLACE	DBL SIDED	32x9	4.00	1	4.00	1.5	10.5	3
	SAME POST	NEIGHBORHOOD STREET NAME BLADE (S 109TH E AV)	REMOVE & REPLACE	DBL SIDED	32x9	4.00	1	4.00			
		TOTAL				16.00	4	16	3	21	6

CAUTION

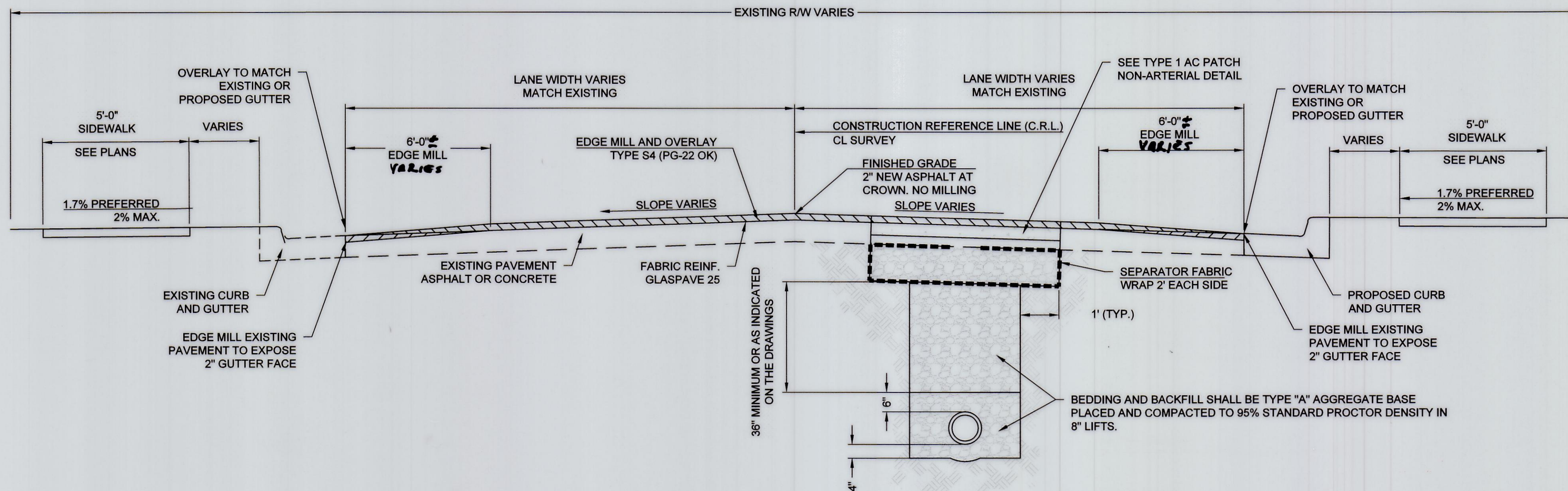
NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES

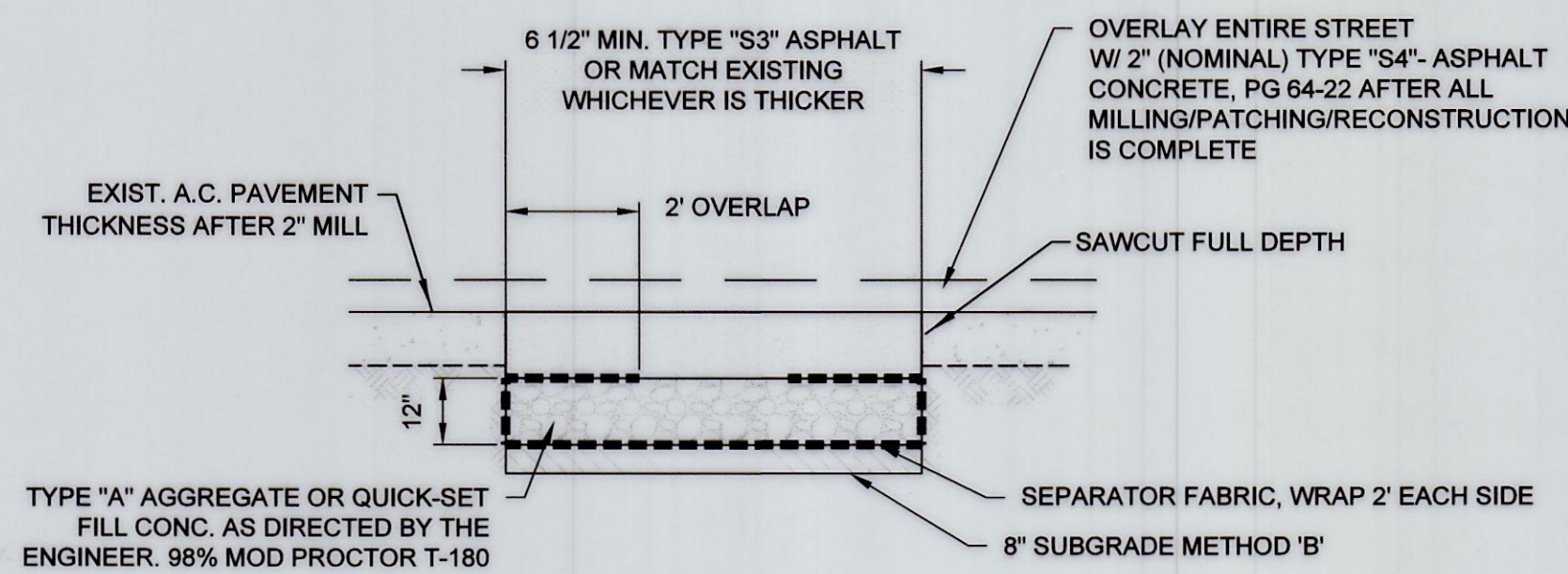


SUMMARY OF QUANTITIES				
MZ 5027 COT #2036N5027Z				
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT				
wallace design collective		wallace design collective, pc 123 n. north luther king jr. blvd. tulsa, oklahoma 74103 918.584.5858 - wallace.design		
REVISION	BY	DATE	PLAN SCALE:	APPROVED
			1"=20'	
			DRAWN: DESIGNED: LKW 9/2022	
			SURVEY: RWB 9/2022	
			PROFILE SCALE: PROJ MGR. JHT 12/23	
			HORIZONTAL: LEAD ENGR. [Signature] 9/24	
			1"=20' FIELD MGR. [Signature] 9/25	
			VERTICAL: RECOMMENDED: [Signature] 9/25	
			1"=5' DESIGN MANAGER	
			FILE: DRAWING:	DATE: 09.26.25
			ATLAS PAGE NO: 178	SHEET 7 OF 28 SHEETS

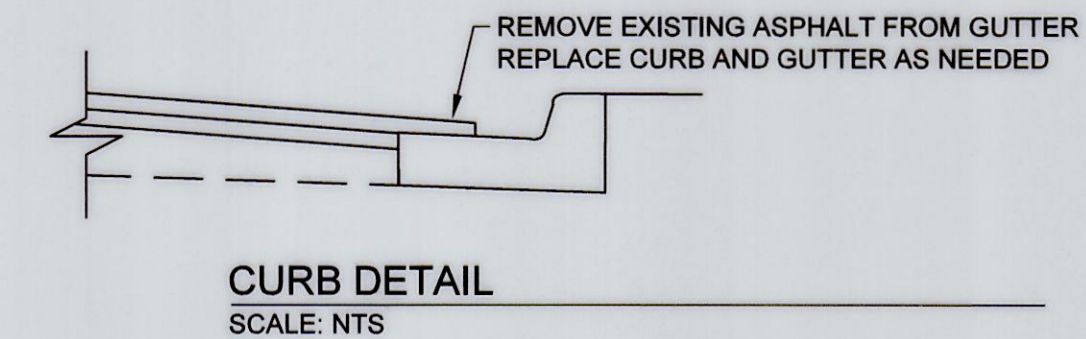
PATH: Z:\2240017_MZ_5027\Drawings\PRODUCTION\
FILE: 2240017_TYPICAL SECTIONS.dwg
DATE: Nov 29, 2023 - 8:59AM



TYPICAL SECTION EDGE & MILL OVERLAY - ENTIRE PROJECT
SCALE: NTS



TYPE I AC PATCH NON-ARTERIAL
SCALE: NTS



NOTES:

1. WHERE THE ASPHALT OVERLAY MATCHES THE EXISTING ASPHALT AT THE PROJECT LIMITS, THE CONTRACTOR SHALL SEAL BETWEEN THE NEW AC PAVEMENT AND EXISTING AC PAVEMENT WITH HOT RUBBERIZED ASPHALT.
2. SLOPE VARIES PER EXISTING CROSS SLOPES.
ASPHALT OVERLAY TO MATCH ELEVATIONS SHOWN ON P&P SHEETS 16-20.
3. 1" SUPERPAVE TYPE S6 LEVELING COURSE SHALL BE USED AT THE DISCRETION OF THE FIELD ENGINEER PRIOR TO PLACING THE FABRIC REINFORCEMENT AND MAY BE OMITTED IN ITS ENTIRETY.

CAUTION
NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



TYPICAL SECTIONS

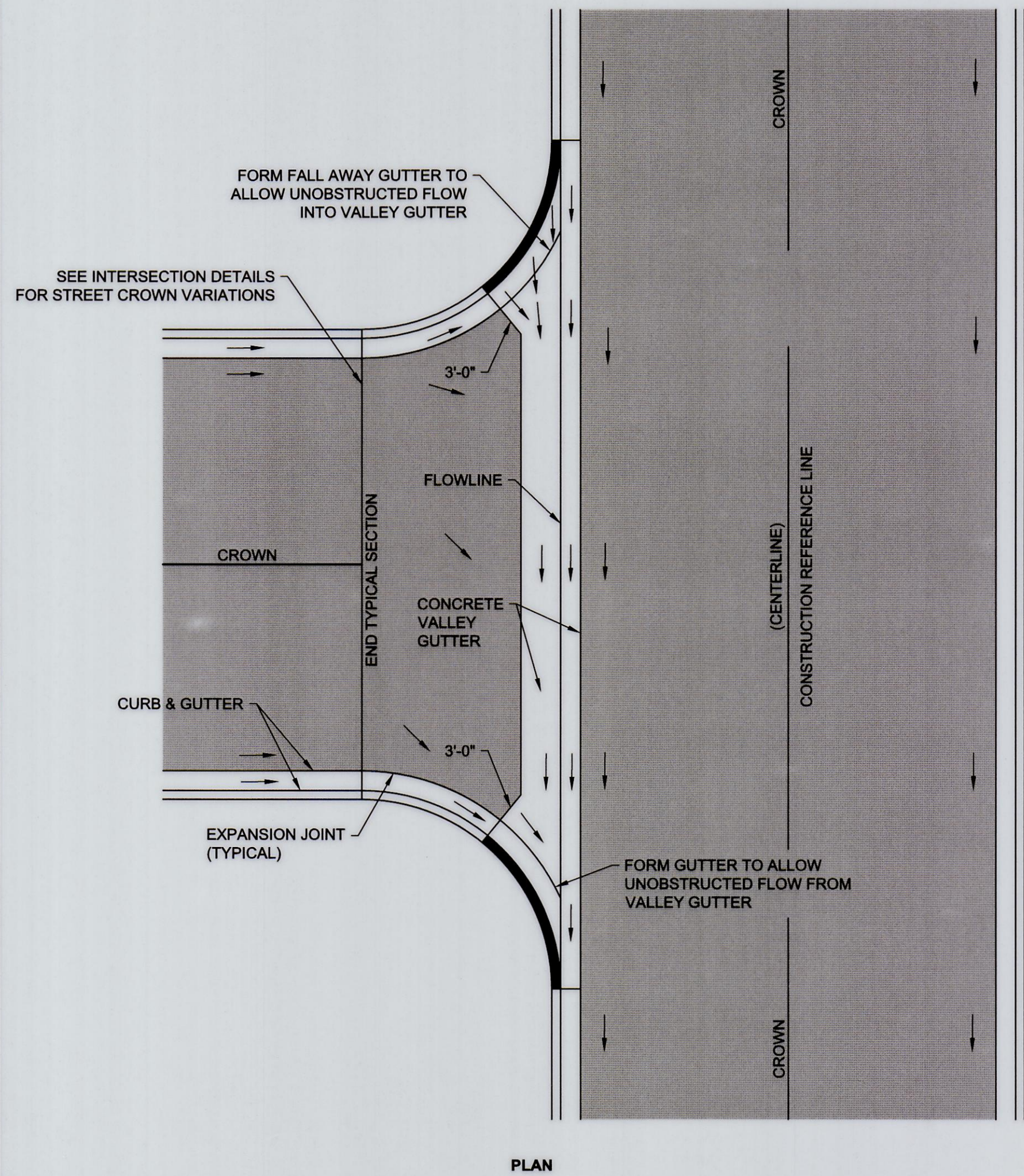
MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

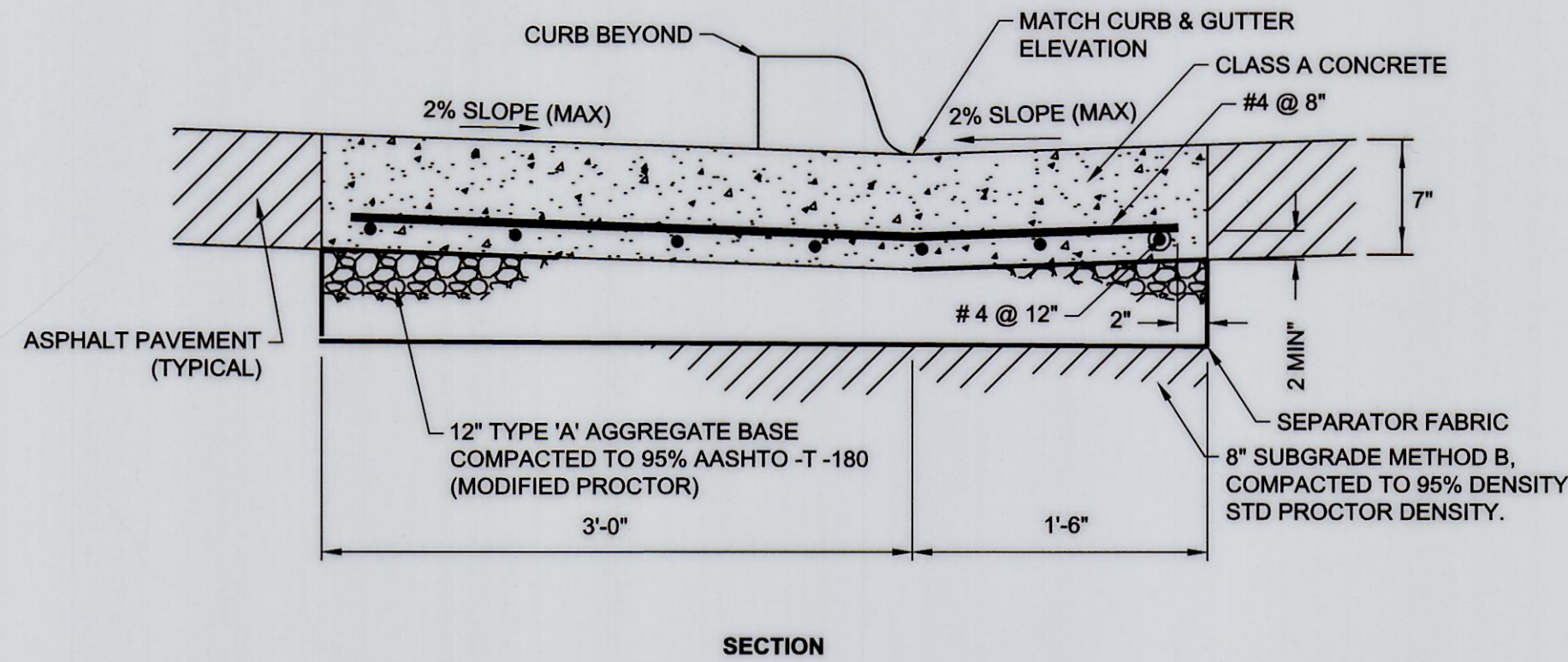
wallace design collective, pc
221 N. MARTIN LUTHER KING JR. BLVD.
TULSA, OKLAHOMA 74103
918.584.5858 - wallace.design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JHT	12/13	
			HORIZONTAL:	LEAD ENGR.	9/24		
			1"=20'	FIELD MGR.	9/25		
			VERTICAL:	RECOMMENDED:			
			1"=5'	DESIGN MANAGER	HAR 9.25		
			FILE:	DRAWING:			DATE: 09.26.25
			ATLAS PAGE NO:	178			SHEET 9 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\dwg\PRODUCTION\
FILE: 2240017 TYPICAL SECTIONS.dwg
DATE: Mar 05, 2024 - 4:12PM

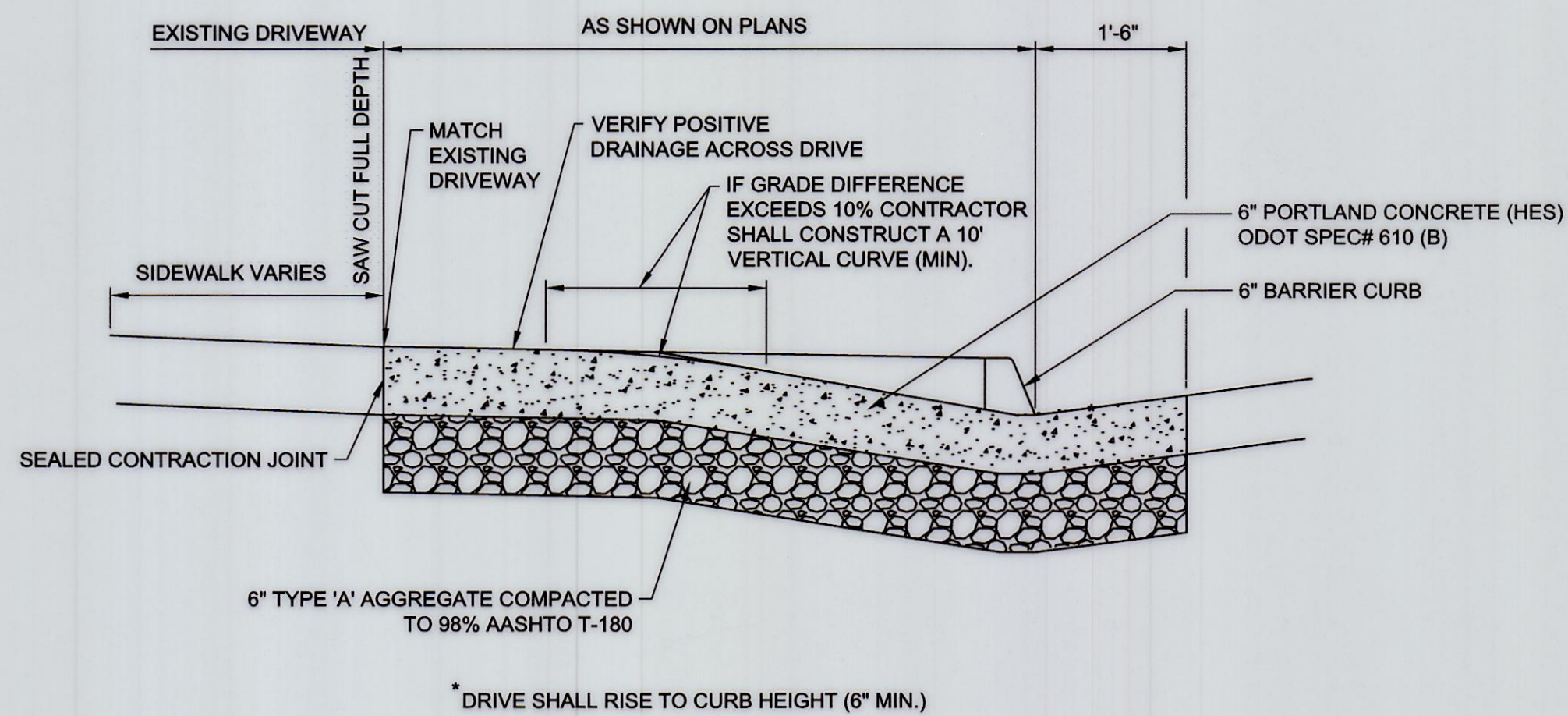
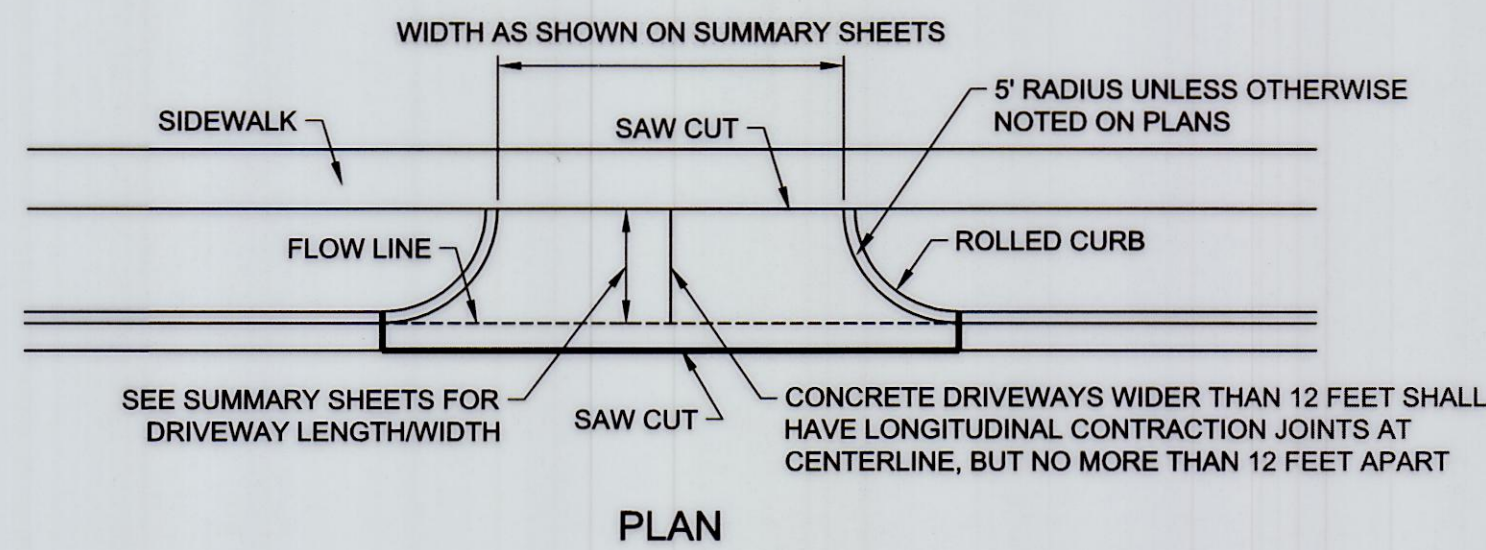
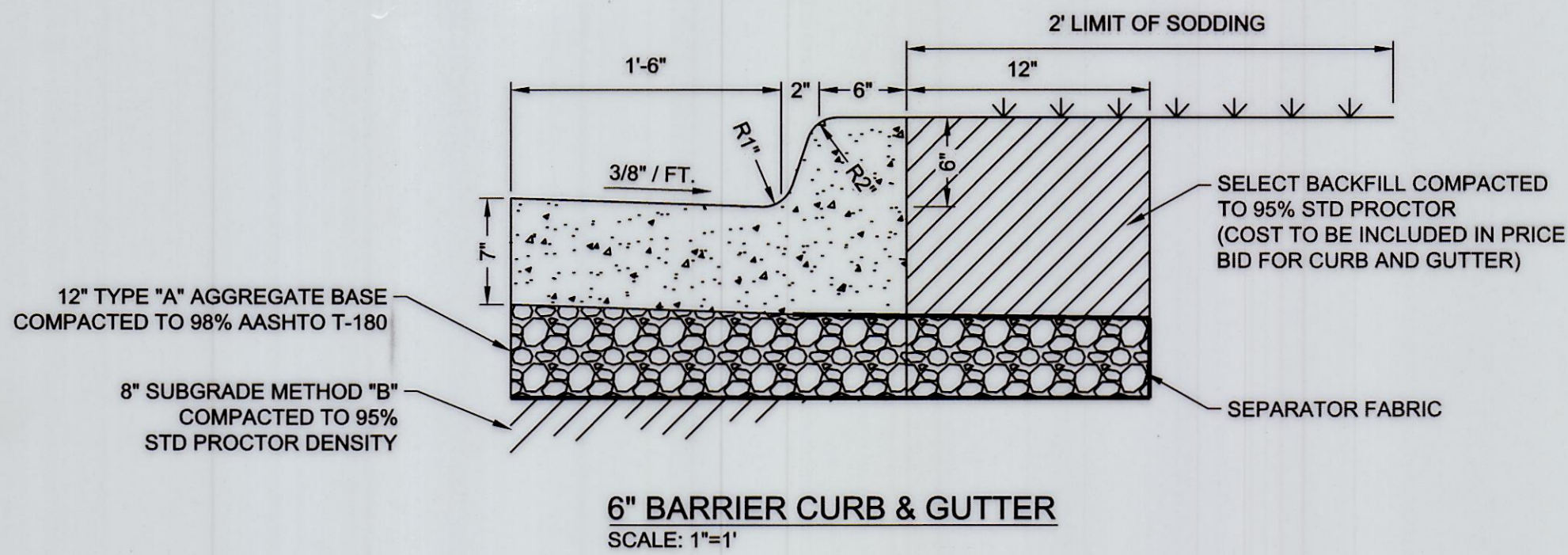


NOTE:
AT INTERSECTIONS OF E 19TH PL S AND S 109TH E AVE,
E 19TH ST AND S 109TH E AVE, E 20TH ST AND S 11TH E AVE.

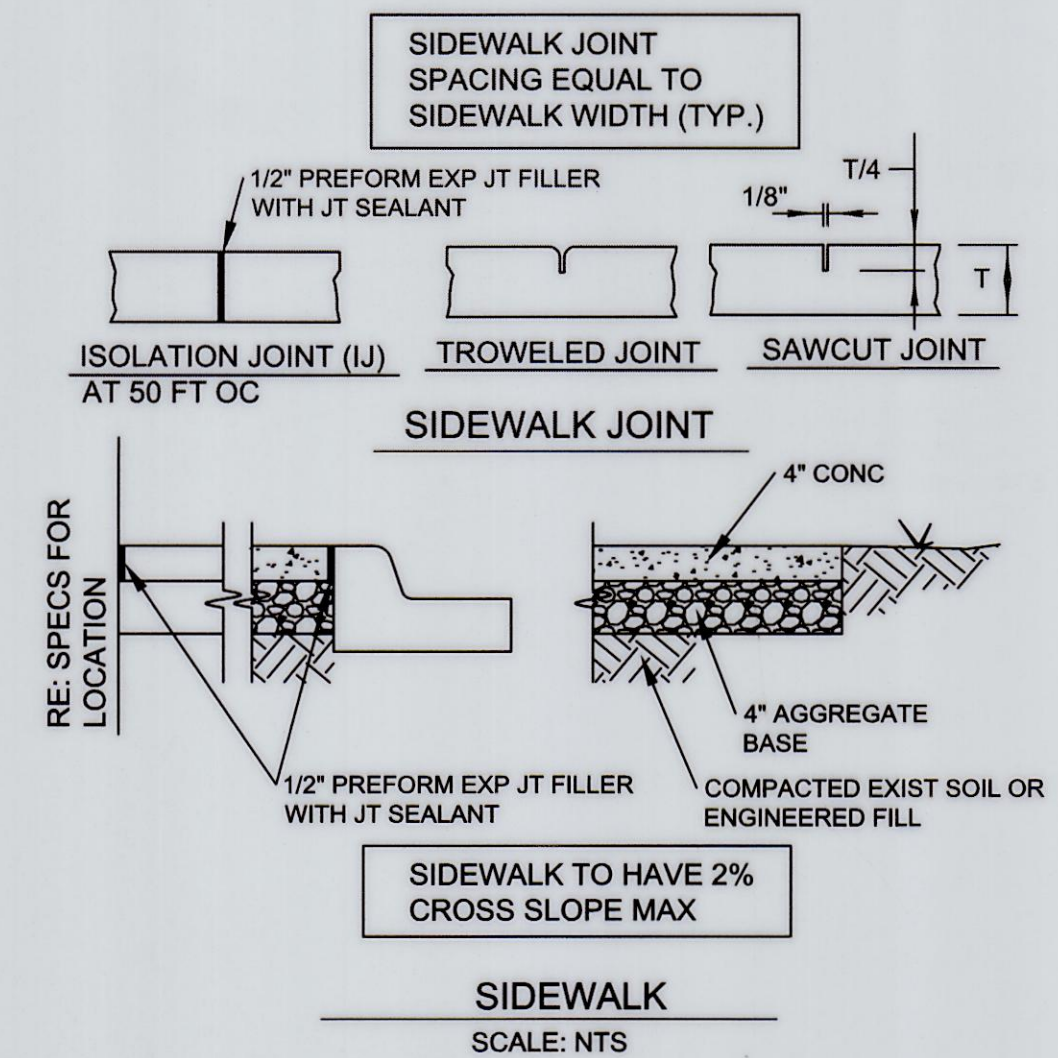
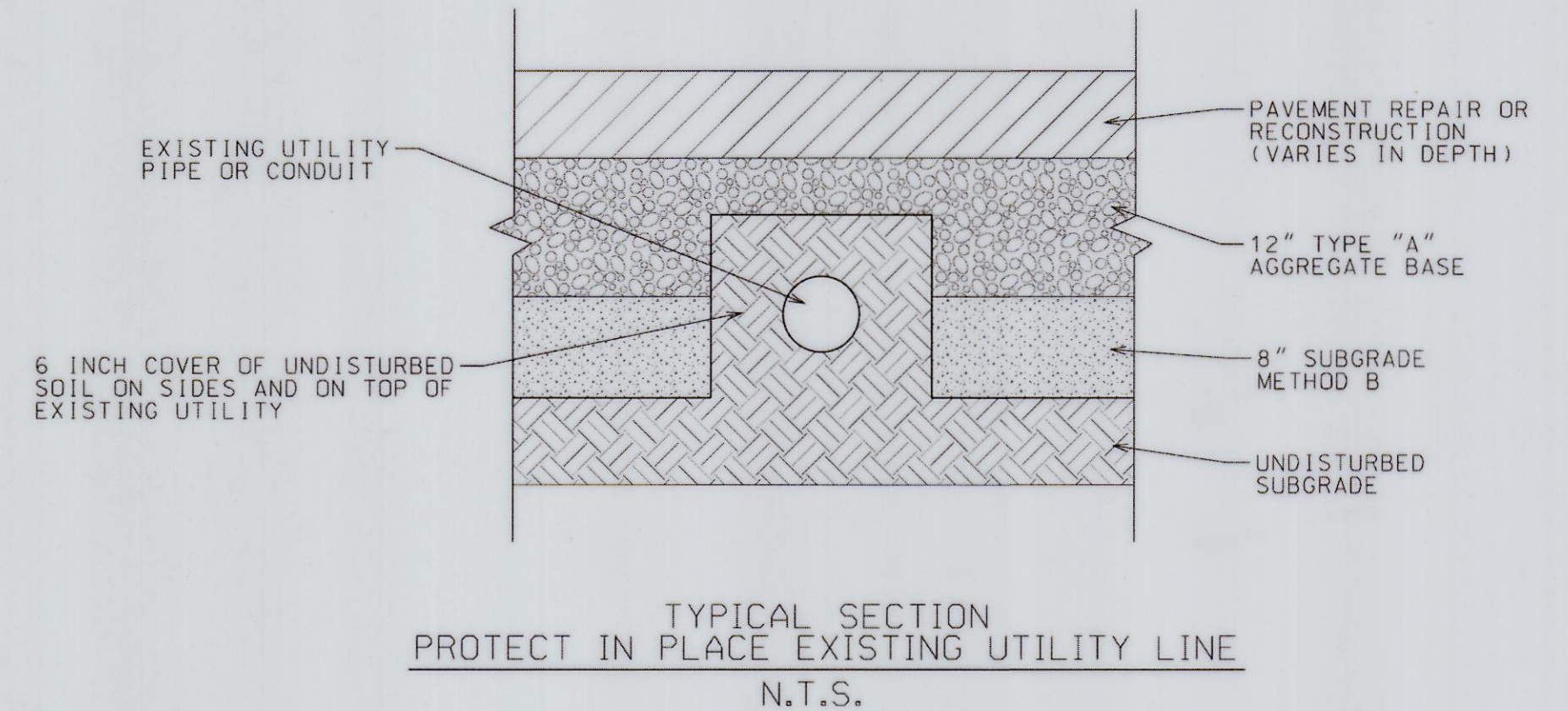
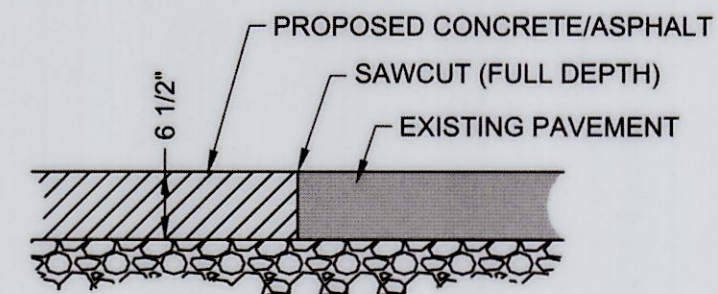
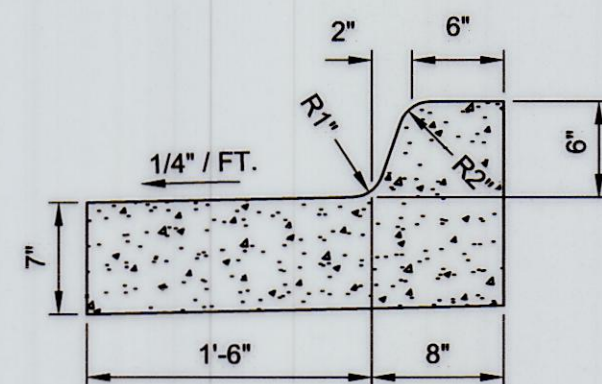


CONCRETE VALLEY GUTTER DETAIL
SCALE: NONE

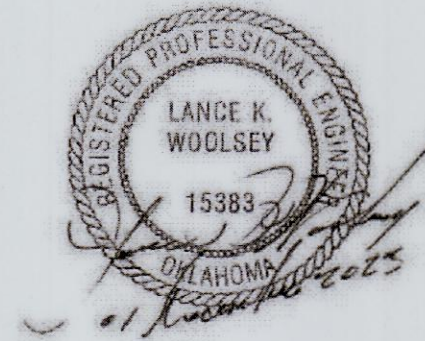
1. CONCRETE SHALL BE CLASS A AND INCLUDE REINFORCING IN PRICE BID FOR CONCRETE
2. EXPANSION JOINTS ARE REQUIRED AT INTERSECTION WITH CURB AND GUTTER.
3. PAID FOR UNDER 509(B) CLASS A CONC. AND 511 (A) REINFORCING STEEL



CONCRETE DRIVEWAY DETAIL
SCALE: NTS



CAUTION
NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



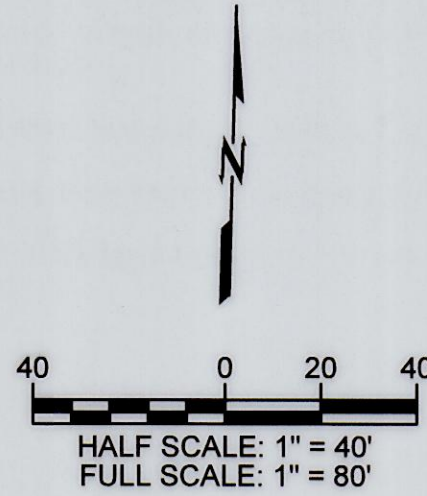
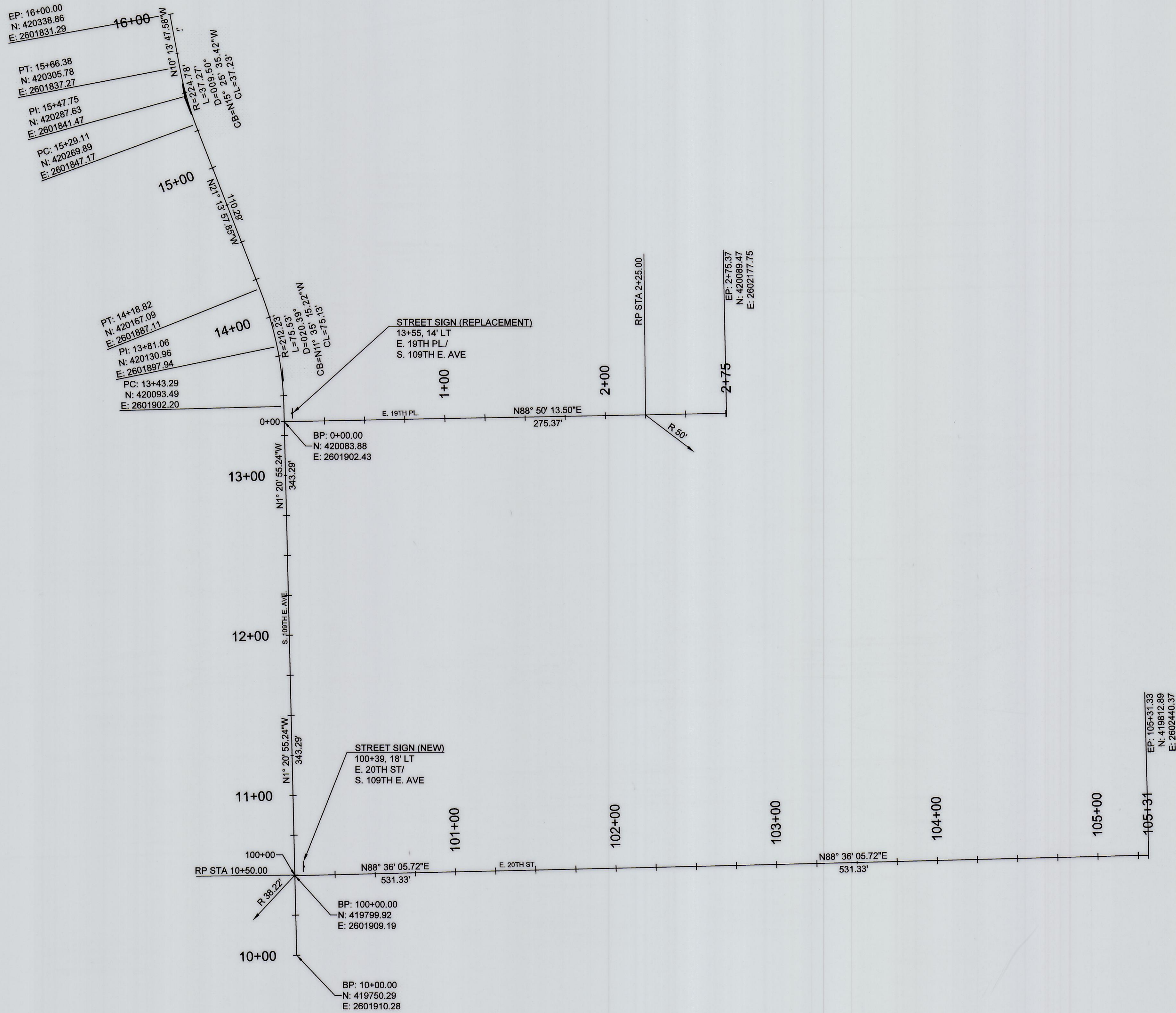
TYPICAL SECTION DETAILS

MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JCH	3/24	
			HORIZONTAL:	LEAD ENGR.	QD	1/24	
			1"=20'	FIELD MGR.	BPM	1/25	
			VERTICAL:	RECOMMENDED:			
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09.26.25
			ATLAS PAGE NO:	178			SHEET 10 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\Drawg\PRODUCTION\
FILE: 2240017 GEOMETRIC.dwg
DATE: Nov 29, 2023 - 8:44AM



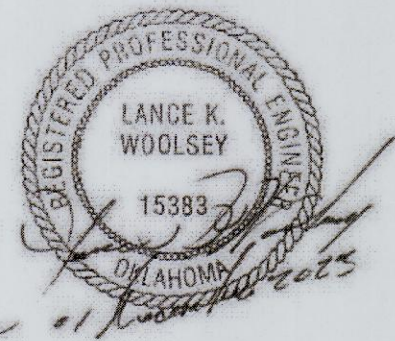
BENCHMARKS:

3/8" Iron Pin EL 650.98 N 420358.663 E 2601839.286	P-K Nail EL 655.72 N 420083.988 E 2601905.299	P-K Nail EL 657.17 N 420090.696 E 2602128.572
P-K Nail EL 660.26 N 419799.793 E 2601911.525	Chiseled "X" EL 661.73 N 419819.251 E 2602149.476	Chiseled "X" EL 660.13 N 419796.244 E 2602398.892

CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



GEOMETRICS

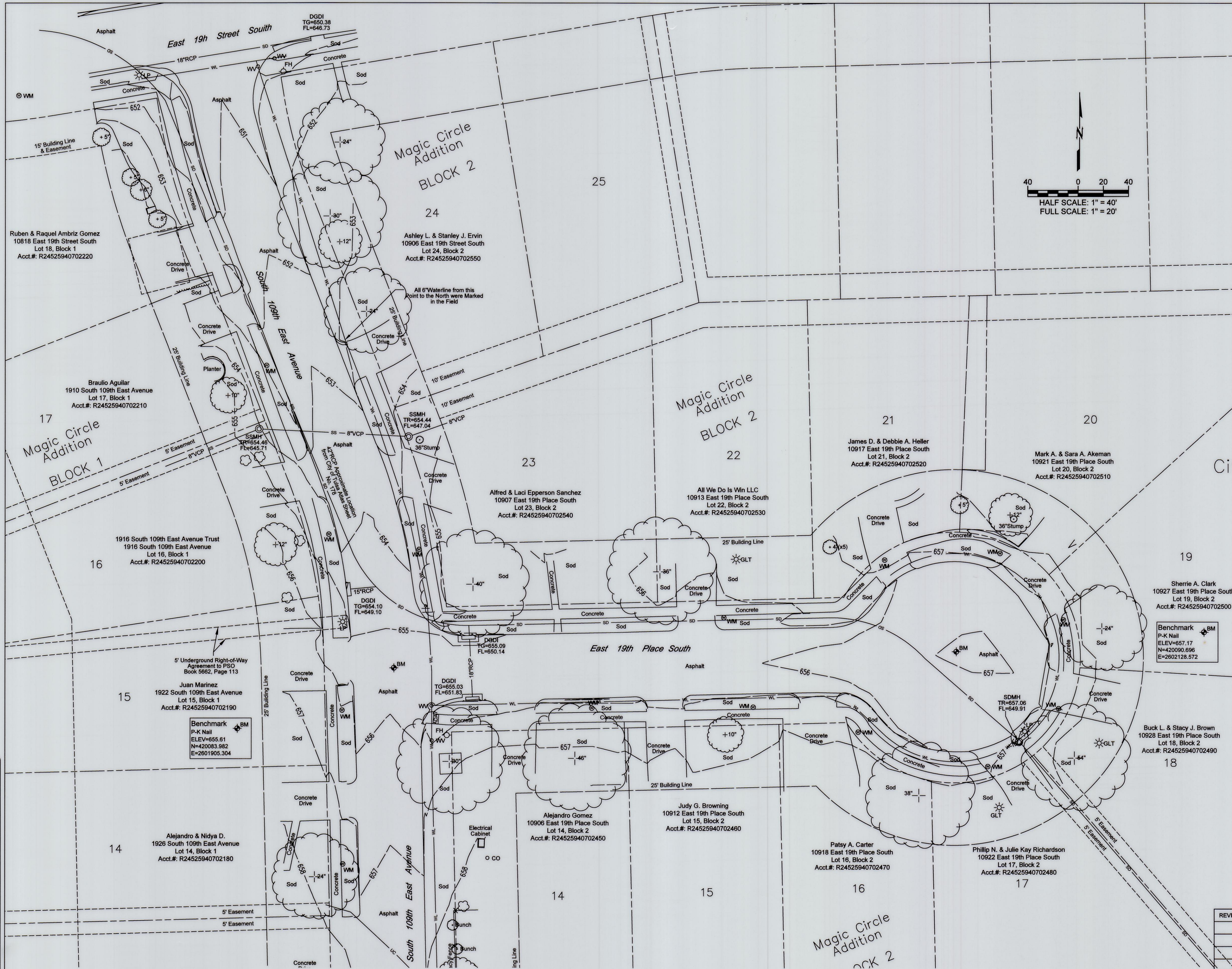
MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

wallace design collective, pc
123 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5858 - wallace design

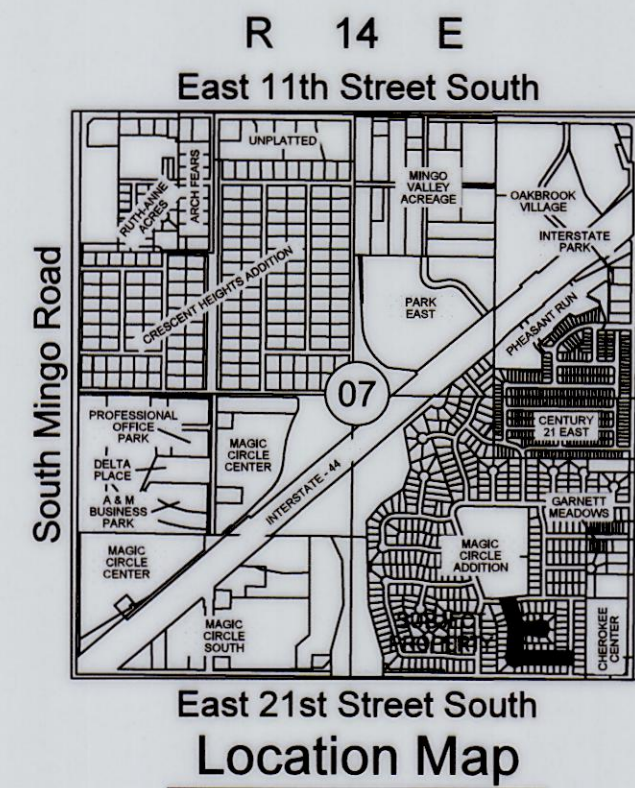
REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
				DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	①	9/23	
				FIELD MGR.	Tom	9/23	
			VERTICAL:	RECOMMENDED:	HA	9.25	
				DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09.26.23
			ATLAS PAGE NO:	178			SHEET 11 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\
FILE: 2240017 SURVEY.dwg
DATE: Nov 29, 2023 - 8:39AM



Notes

1. ABSTRACT OF TITLE OR ATTORNEY'S TITLE OPINION NOT AVAILABLE TO SURVEYOR AT DATE OF SURVEY.
2. THIS FIRM WAS NOT CONTRACTED TO RESEARCH EASEMENTS OR ENCUMBRANCES OF RECORD. NO ATTEMPT TO RESEARCH THE COUNTY RECORDS OR OTHER RECORD OFFICES WAS PERFORMED BY THIS FIRM, THEREFORE EASEMENTS MAY AFFECT THE SUBJECT TRACT THAT ARE NOT REFLECTED BY THIS PLAT.
3. ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. (CALL "OKIE" BEFORE DIGGING!!)
4. THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON GPS DATA (NAVD83).
5. THE HORIZONTAL DATUM FOR THIS SURVEY IS BASED THE OKLAHOMA STATE PLANE COORDINATE SYSTEM NAD83.



Legend

BM	BENCHMARK
CO	CLEAN OUT
DGDI	DOUBLE GRATE DROP INLET
FH	FIRE HYDRANT
FL	FLOW LINE
GM	GAS METER
GLT	GROUND LIGHT
LP	LIGHT POLE
RCP	REINFORCED CONCRETE PIPE
SD	STORM DRAIN LINE
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER LINE
SSMH	SANITARY SEWER MANHOLE
TG	TOP OF GRATE
TPED	TELEPHONE PEDESTAL
TR	TOP OF RIM
UG	UNDERGROUND GAS
VCP	VITRIFIED CLAY PIPE
WL	WATER LINE
WM	WATER METER
WV	WATER VALVE

Topographic Survey of CoT MZ 5027 Magic Circle Addition City of Tulsa, Tulsa County, Oklahoma

Surveyor's Certification

WE, BENNETT SURVEYING, INC., HEREBY CERTIFY THAT THE TOPOGRAPHICAL INFORMATION HEREON REPRESENTS A SURVEY PERFORMED UNDER OUR DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE.

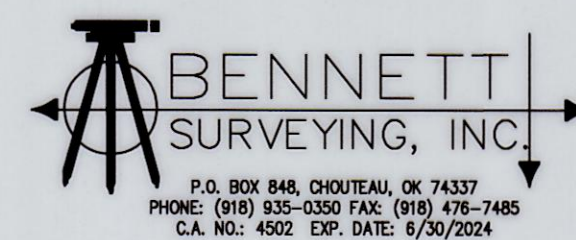
THIS TOPO SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS, AS ADOPTED BY THE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS FOR THE STATE OF OKLAHOMA.

WITNESS MY HAND AND SEAL THIS 20TH DAY OF SEPTEMBER, 2022.



BY:

Cliff Bennett
CLIFF BENNETT
REGISTERED PROFESSIONAL LAND SURVEYOR
OKLAHOMA NO. 1815



CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES

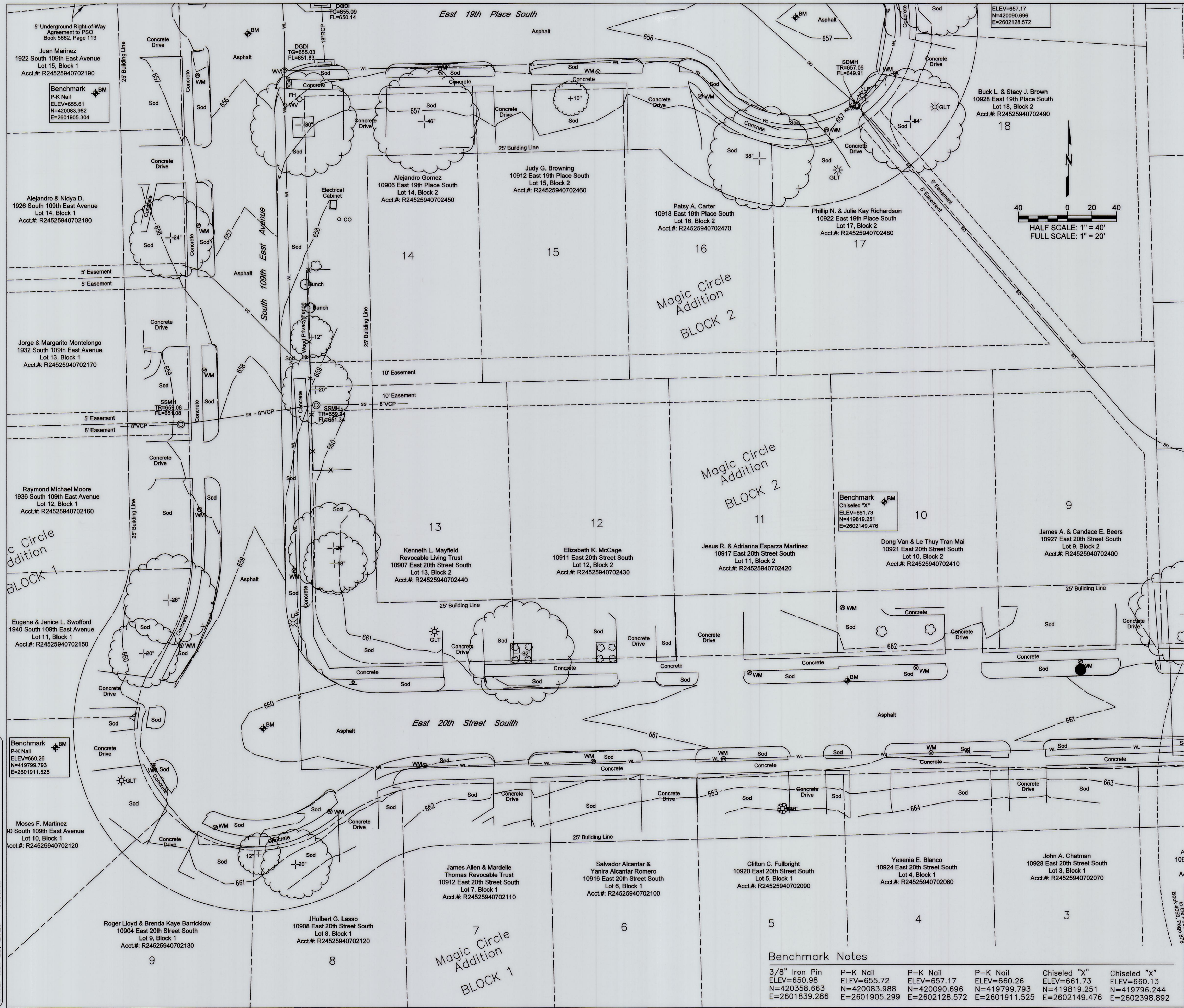


Benchmark Notes

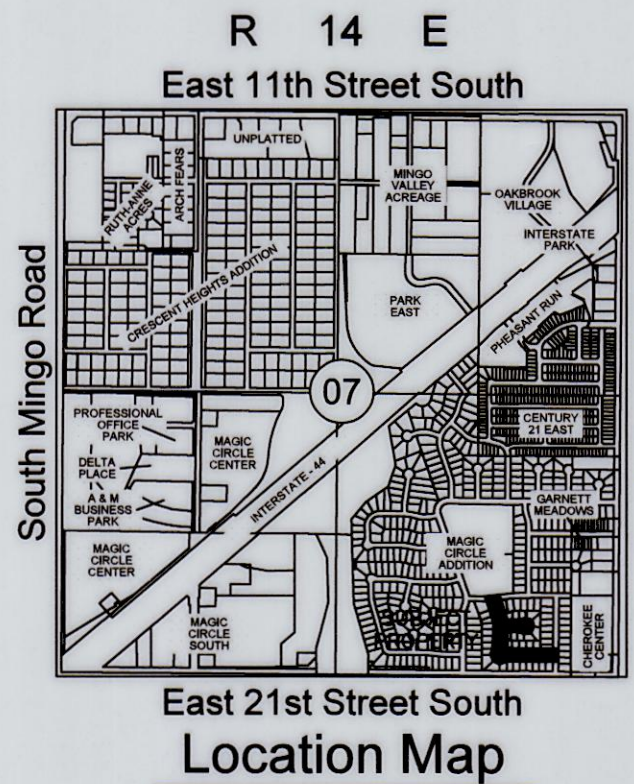
3/8" Iron Pin ELEV=650.98 N=420358.663 E=2601839.286	P-K Nail ELEV=655.72 N=420083.988 E=2601905.299	P-K Nail ELEV=657.17 N=420090.696 E=2602128.572	P-K Nail ELEV=660.26 N=419799.793 E=2601911.525	Chiseled "X" ELEV=661.73 N=419819.251 E=2602149.476	Chiseled "X" ELEV=660.13 N=419796.244 E=2602398.692
---	--	--	--	--	--

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE	PROJ MGR.	JH	12/13	
			HORIZONTAL:	LEAD ENGR.	Q	9/24	
			1"=20'	FIELD MGR.	EM	9/25	
			VERTICAL:	RECOMMENDED			
			1"=5'	DESIGN MANAGER	HWS	9-24	
			FILE:	DRAWING:			DATE: 09.26.25
			ATLAS PAGE NO:	178			SHEET 12 OF 28 SHEETS

Non-Arterial Street Rehabilitation/Maintenance for Maintenance Zone 5027 - Project No. 2036N5027Z



- Notes
1. ABSTRACT OF TITLE OR ATTORNEY'S TITLE OPINION NOT AVAILABLE TO SURVEYOR AT DATE OF SURVEY.
 2. THIS FIRM WAS NOT CONTRACTED TO RESEARCH EASEMENTS OR ENCUMBRANCES OF RECORD. NO ATTEMPT TO RESEARCH THE COUNTY RECORDS OR OTHER RECORD OFFICES WAS PERFORMED BY THIS FIRM, THEREFORE EASEMENTS MAY AFFECT THE SUBJECT TRACT THAT ARE NOT REFLECTED BY THIS PLAN.
 3. ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. (CALL "OKIE" BEFORE DIGGING!!)
 4. THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON GPS DATA (NAVD88).
 5. THE HORIZONTAL DATUM FOR THIS SURVEY IS BASED THE OKLAHOMA STATE PLANE COORDINATE SYSTEM NAD83.



- Legend
- BM BENCHMARK
 - CO CLEAN OUT
 - DGDI DOUBLE GRATE DROP INLET
 - FH FIRE HYDRANT
 - FL FLOW LINE
 - GM GAS METER
 - GLT GROUND LIGHT
 - LP LIGHT POLE
 - RCP REINFORCED CONCRETE PIPE
 - SD STORM DRAIN LINE
 - SDMH STORM DRAIN MANHOLE
 - SS SANITARY SEWER LINE
 - SSMH SANITARY SEWER MANHOLE
 - TG TOP OF GRATE
 - TPED TELEPHONE PEDESTAL
 - TR TOP OF RIM
 - UG UNDERGROUND GAS
 - VCP VITRIFIED CLAY PIPE
 - WL WATER LINE
 - WM WATER METER
 - WV WATER VALVE

Topographic Survey of CoT MZ 5027 Magic Circle Addition City of Tulsa, Tulsa County, Oklahoma

Surveyor's Certification

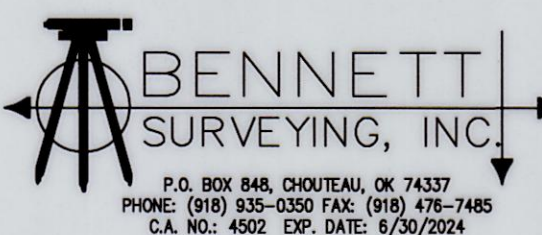
WE, BENNETT SURVEYING, INC., HEREBY CERTIFY THAT THE TOPOGRAPHICAL INFORMATION HEREON REPRESENTS A SURVEY PERFORMED UNDER OUR DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE.

THIS TOPO SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS, AS ADOPTED BY THE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS FOR THE STATE OF OKLAHOMA.

WITNESS MY HAND AND SEAL THIS 20TH DAY OF SEPTEMBER, 2022.



BY: *Cliff Bennett*
CLIFF BENNETT
REGISTERED PROFESSIONAL LAND SURVEYOR
OKLAHOMA NO. 1815



CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



SURVEY SHEET 2

MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

wallace design collective, pc
1221 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5856 - wallace.design

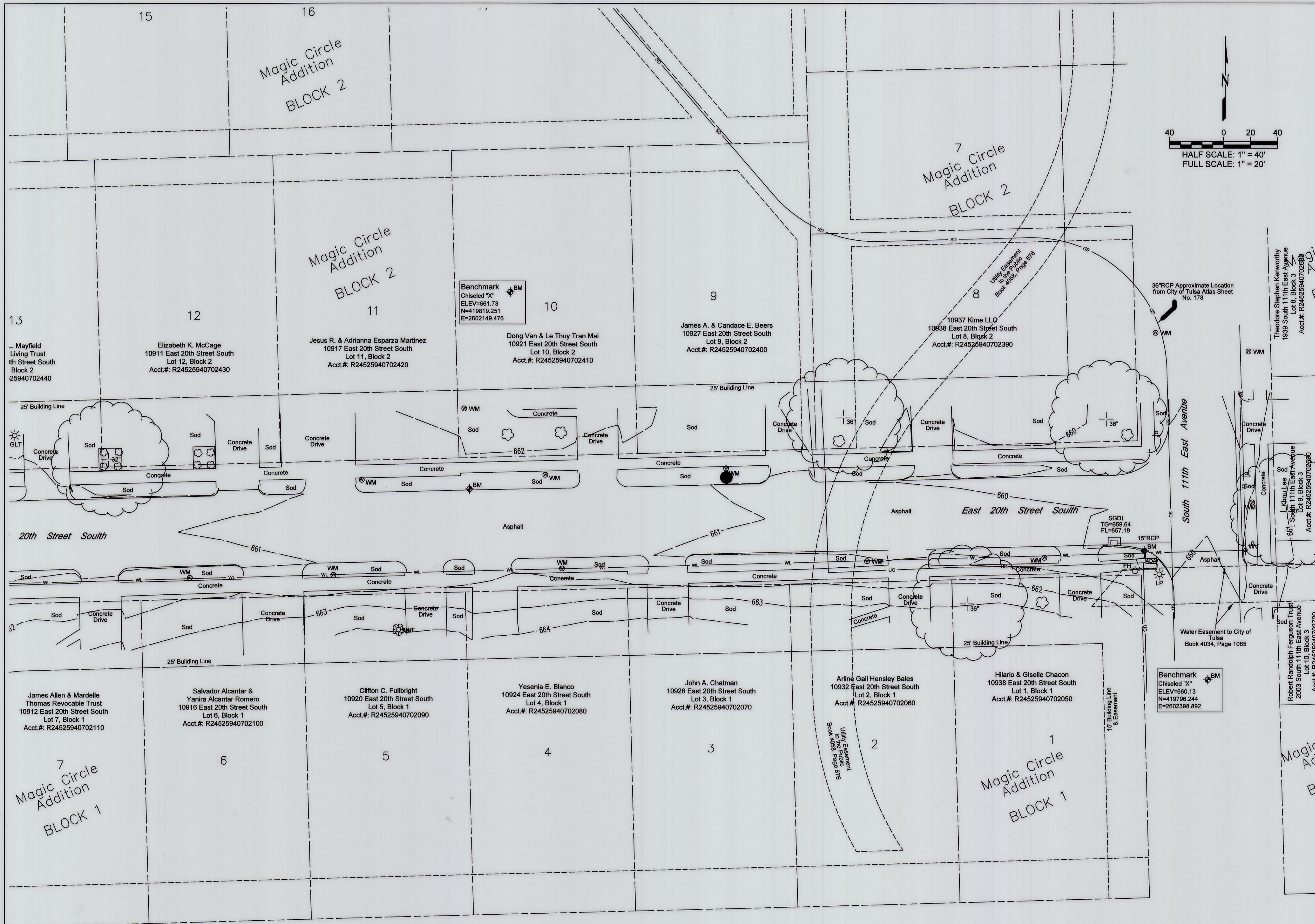
REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/20/22	APPROVED
			1"=20'	DESIGNED	LKW	9/20/22	
				SURVEY	RWB	9/20/22	
			PROFILE SCALE	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	9/24		
			1"=20'	FIELD MGR.	9/25		
			VERTICAL:	RECOMMENDED:			
			1"=5'	DESIGN MANAGER	HAR 9.25		
			FILE:	DRAWING:			DATE: 09.24.25
			ATLAS PAGE NO:	178			SHEET 13 OF 28 SHEETS

Benchmark Notes

3/8" Iron Pin	P-K Nail	P-K Nail	P-K Nail	Chiseled "X"	Chiseled "X"
ELEV=650.98	ELEV=655.72	ELEV=657.17	ELEV=660.26	ELEV=661.73	ELEV=660.13
N=420358.663	N=420083.988	N=420090.696	N=419799.793	N=419819.251	N=419796.244
E=2601839.286	E=2601905.299	E=2602128.572	E=2601911.525	E=2602149.476	E=2602398.892

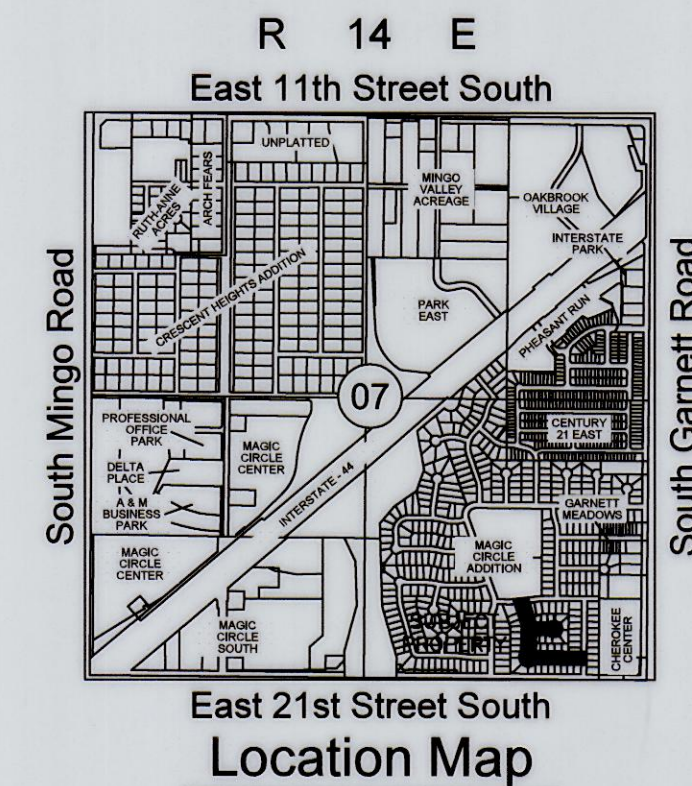
PATH: Z:\2240017 MZ 5027\Draw\PRODUCTION\
FILE: 2240017 SURVEY.dwg
DATE: Nov 29, 2023 - 8:39AM

PATH: Z:\2240017 MZ 5027\Draw\PRODUCTION\
FILE: 2240017 SURVEY.dwg
DATE: Nov 29, 2023 8:39AM



Notes

1. ABSTRACT OF TITLE OR ATTORNEY'S TITLE OPINION NOT AVAILABLE TO SURVEYOR AT DATE OF SURVEY.
2. THIS FIRM WAS NOT CONTRACTED TO RESEARCH EASEMENTS OR ENCUMBRANCES OF RECORD. NO ATTEMPT TO RESEARCH THE COUNTY RECORDS OR OTHER RECORD OFFICES WAS PERFORMED BY THIS FIRM, THEREFORE EASEMENTS MAY AFFECT THE SUBJECT TRACT THAT ARE NOT REFLECTED BY THIS PLAT.
3. ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. (CALL "OKIE" BEFORE DIGGING!!)
4. THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON GPS DATA (NAVD88).
5. THE HORIZONTAL DATUM FOR THIS SURVEY IS BASED THE OKLAHOMA STATE PLANE COORDINATE SYSTEM NAD83.



Legend

BM	BENCHMARK
CO	CLEAN OUT
DGDI	DOUBLE GRATE DROP INLET
FH	FIRE HYDRANT
FL	FLOW LINE
GM	GAS METER
GLT	GROUND LIGHT
LP	LIGHT POLE
RCP	REINFORCED CONCRETE PIPE
SD	STORM DRAIN LINE
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER LINE
SSMH	SANITARY SEWER MANHOLE
TG	TOP OF GRATE
TPED	TELEPHONE PEDESTAL
TR	TOP OF RIM
UG	UNDERGROUND GAS
VCP	VITRIFIED CLAY PIPE
WL	WATER LINE
WM	WATER METER
WV	WATER VALVE

Topographic Survey of CoT MZ 5027 Magic Circle Addition City of Tulsa, Tulsa County, Oklahoma

Surveyor's Certification

WE, BENNETT SURVEYING, INC., HEREBY CERTIFY THAT THE TOPOGRAPHICAL INFORMATION HEREON REPRESENTS A SURVEY PERFORMED UNDER OUR DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE.

THIS TOPO SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS, AS ADOPTED BY THE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS FOR THE STATE OF OKLAHOMA.

WITNESS MY HAND AND SEAL THIS 20TH DAY OF SEPTEMBER, 2022.



BY: *Cliff Bennett*
CLIFF BENNETT
REGISTERED PROFESSIONAL LAND SURVEYOR
OKLAHOMA NO. 1815



**BENNETT
SURVEYING, INC.**
P.O. BOX 848, OKMUTUAL, OK 74137
PHONE: (918) 935-0350 FAX: (918) 476-7485
C.A. NO.: 4502 EXP. DATE: 6/30/2024



CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES

Benchmark Notes

3/8" Iron Pin ELEV=650.98 N=420358.663 E=2601839.286	P-K Nail ELEV=655.72 N=420083.988 E=2601905.299	P-K Nail ELEV=657.17 N=420090.696 E=2602128.572	P-K Nail ELEV=660.26 N=419799.793 E=2601911.525	Chiseled "X" ELEV=661.73 N=419819.251 E=2602149.476	Chiseled "X" ELEV=660.13 N=419796.244 E=2602398.892
---	--	--	--	--	--

SURVEY SHEET 3

MZ 5027 COT #2036N5027Z

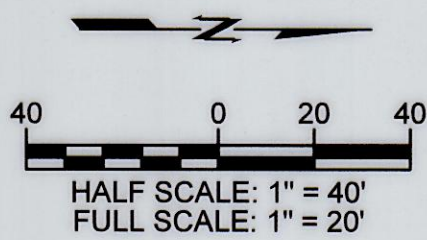
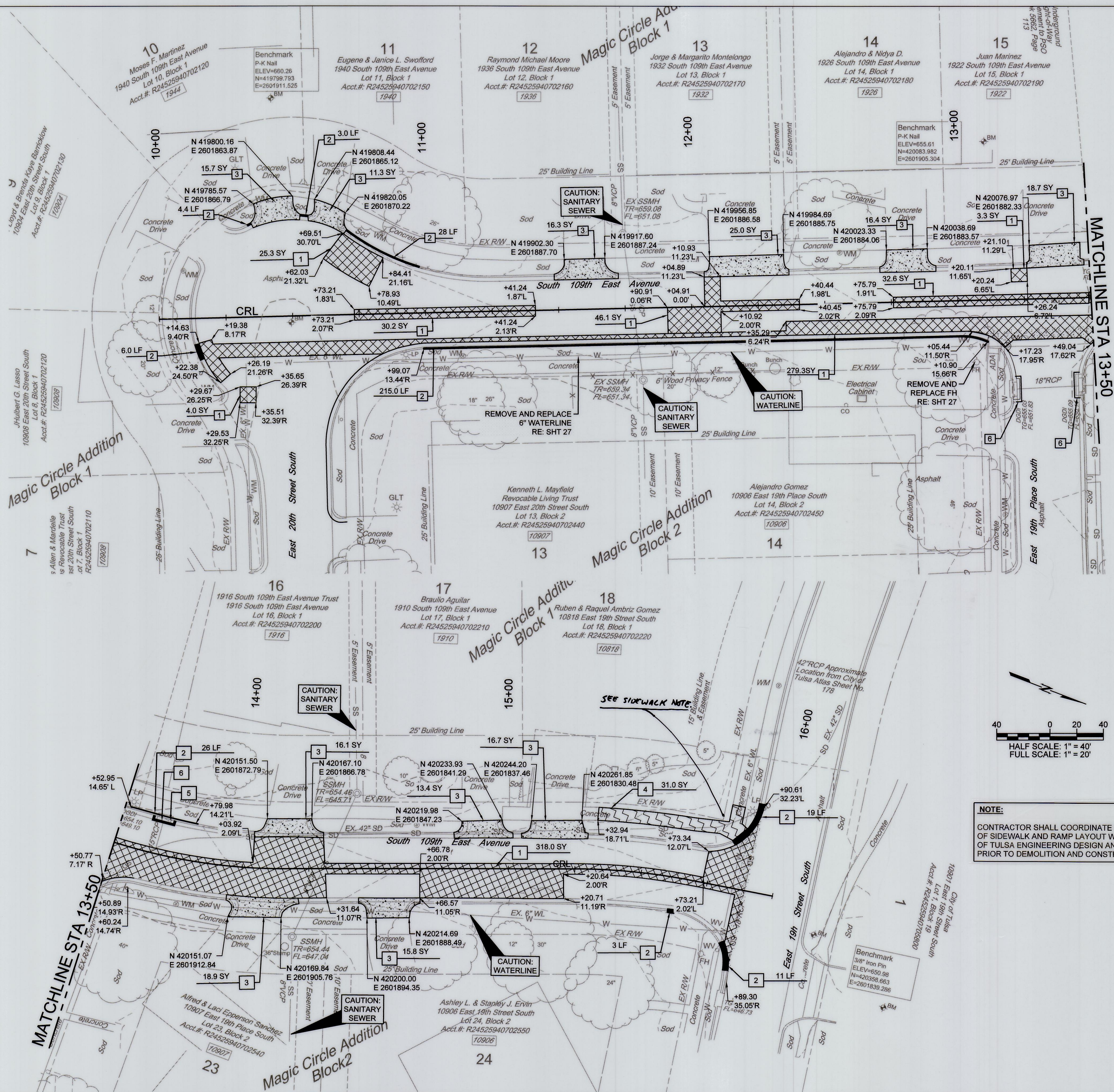
**CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT**



wallace design collective, pc
123 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5858 - wallace.design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/20/22	APPROVED
			1"=20'	DESIGNED	LKW	9/20/22	
				SURVEY	RWB	9/20/22	
			PROFILE SCALE:	PROJ. MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	JH	9/24	
			1"=20'	FIELD MGR.	JH	9/25	
			VERTICAL:	RECOMMENDED:	JH	9-25	
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09-26-25
			ATLAS PAGE NO:	178			SHEET 14 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027 Dwg\PRODUCTION\
FILE: 2240017 DEMOLITION.dwg
DATE: Nov 29, 2023 - 8:39AM



- GENERAL DEMOLITION NOTES**
1. ALL CONCRETE AND ASPHALT SHALL BE SAW CUT FULL DEPTH AND REMOVED OFF SITE UNLESS NOTED OTHERWISE.
 2. CONTRACTOR SHALL PROTECT ALL SURVEY CONTROL POINTS.
 3. CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS OFF SITE.
 4. ON-SITE VEGETATION SHALL BE PROTECTED AS NOTED. IN DESIGNATED PROTECTION AREAS WHERE THE CONTRACTOR DOES NOT PROTECT VEGETATION AS NOTED, CONTRACTOR SHALL RESTORE VEGETATION TO EXISTING CONDITION AT NO ADDITIONAL EXPENSE TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.
 5. ALL EXISTING POWER POLES, POWER LINES AND GUY LINES TO REMAIN.
 6. ALL EXISTING FIRE HYDRANTS, WATER METERS AND WATER VALVES TO REMAIN, UNLESS NOTED OTHERWISE.
 7. EROSION CONTROL TO BE INSTALLED AND MAINTAINED PER CITY OF TULSA SPECIFICATIONS AND THE STORMWATER MANAGEMENT PLAN PRIOR TO BEGINNING DEMOLITION.
 8. MILL AND OVERLAY ALL REMAINING PAVEMENT AFTER PATCHING

WATERLINE DEMOLITION AND REPLACEMENT
RE: SHEETS 27 AND 28.

REMOVE DRIVEWAYS AS NOTED, TO THE
LIMITS SHOWN BY COORDINATES

COST TO REMOVE, RESET OR REPLACE
MAILBOXES IS INCLUDED IN PRICE BID FOR
"URBAN ROW RESTORATION"

COST TO REMOVE OTHER ITEMS, NOTED OR
OTHERWISE, WHICH MAY ARISE SHALL BE
INCLUDED IN PRICE BID FOR "REMOVAL OF
STRUCTURES AND OBSTRUCTIONS"

LEGEND

- | | | |
|---|---|--|
| 1 | REMOVE PAVEMENT & BASE, TYPE 1 AC PATCH NON ART.
RE: SHEET 9 | |
| 2 | CURB/GUTTER REPLACEMENT
RE: SHEET 10 | |
| 3 | DRIVEWAY REPLACEMENT
RE: SHEET 10 | |
| 4 | SIDEWALK REPLACEMENT
RE: SHEET 10 | |
| 5 | TEMPORARY FIBER LOG INLET PROTECTION | |
| 6 | REPLACE CONCRETE HOOD AND GRATES | |
| 7 | VALLEY GUTTER RE: SHEET 10 | |

Benchmark

3/8" Iron Pin EL 650.98 N 420358.663 E 2601839.286	P-K Nail EL 655.72 N 420083.988 E 2601905.299	P-K Nail EL 657.17 N 420090.696 E 2602128.572
P-K Nail EL 660.26 N 419799.793 E 2601911.525	Chiseled "X" EL 661.73 N 419819.251 E 2602149.476	Chiseled "X" EL 660.13 N 419796.244 E 2602398.892

- SUGGESTED GENERAL
SEQUENCE OF CONSTRUCTION**
1. DRIVEWAY REPLACEMENT
 2. PAVEMENT PATCHING
 3. MILL
 4. VALLEY GUTTER AND CURB AND GUTTER
 5. OVERLAY

NOTE:
CONTRACTOR SHALL COORDINATE ORIENTATION
OF SIDEWALK AND RAMP LAYOUT WITH THE CITY
OF TULSA ENGINEERING DESIGN AND FIELD ENGINEER
PRIOR TO DEMOLITION AND CONSTRUCTION.

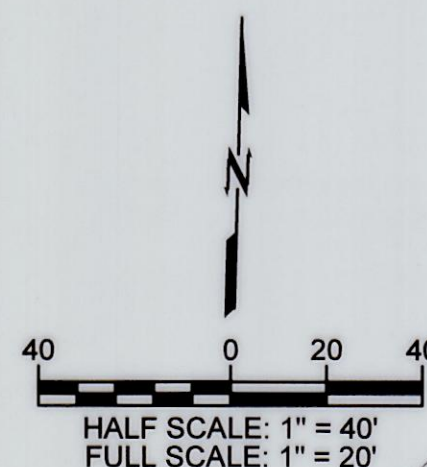
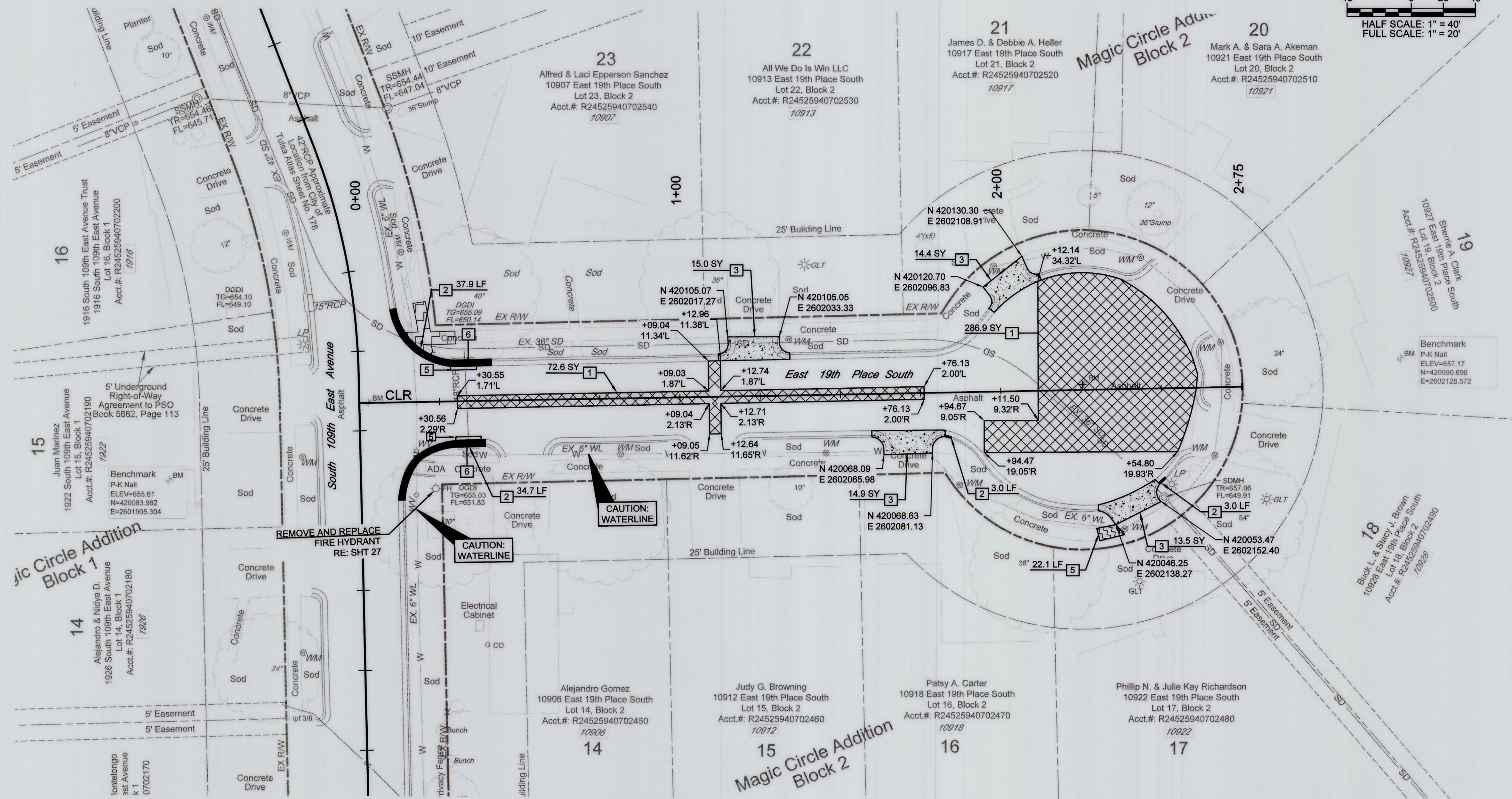


CAUTION
NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED
THE LOCATION AND ELEVATION OF EXISTING
UTILITIES AS SHOWN ON THESE PLANS ARE BASED
ON RECORDS OF THE VARIOUS UTILITY COMPANIES
AND MEASUREMENTS TAKEN IN THE FIELD.
THE INFORMATION IS NOT TO BE RELIED ON AS
BEING EXACT OR COMPLETE. THE CONTRACTOR
MUST CALL THE LOCAL UTILITY LOCATION CENTER
AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO
REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



DEMOLITION SHEET 1				
MZ 5027 COT #2036N5027Z				
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT				
wallace design collective		wallace design collective, pc 12311 martin luther king jr. blvd. tulsa, oklahoma 74103 918.584.5858 - wallace design		
REVISION	BY	DATE	PLAN SCALE:	APPROVED
			1"=20'	
			DRAWN	GRA
			DESIGNED	LKW
			SURVEY	RWB
			PROJ MGR.	JH 12/13
			LEAD ENGR.	D 9/24
			FIELD MGR.	BW 9/25
			RECOMMENDED:	HAS 9-25
			DESIGN MANAGER	
			FILE:	DATE: 07.24.25
			ATLAS PAGE NO: 178	SHEET 15 OF 28 SHEETS

PATH: Z:\2240017_MZ_5027\Drawg\PRODUCTION\
FILE: 2240017 DEMOLITION.dwg
DATE: Nov 29, 2023 - 8:39AM



GENERAL DEMOLITION NOTES

1. ALL CONCRETE AND ASPHALT SHALL BE SAW CUT FULL DEPTH AND REMOVED OFF SITE UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL PROTECT ALL SURVEY CONTROL POINTS.
3. CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS OFF SITE.
4. ON-SITE VEGETATION SHALL BE PROTECTED AS NOTED. IN DESIGNATED PROTECTION AREAS WHERE THE CONTRACTOR DOES NOT PROTECT VEGETATION AS NOTED, CONTRACTOR SHALL RESTORE VEGETATION TO EXISTING CONDITION AT NO ADDITIONAL EXPENSE TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.
5. ALL EXISTING POWER POLES, POWER LINES AND GUY LINES TO REMAIN.
6. ALL EXISTING FIRE HYDRANTS, WATER METERS AND WATER VALVES TO REMAIN, UNLESS NOTED OTHERWISE.
7. EROSION CONTROL TO BE INSTALLED AND MAINTAINED PER CITY OF TULSA SPECIFICATIONS AND THE STORMWATER MANAGEMENT PLAN PRIOR TO BEGINNING DEMOLITION.
8. MILL AND OVERLAY ALL REMAINING PAVEMENT AFTER PATCHING

WATERLINE DEMOLITION AND REPLACEMENT
RE: SHEETS 27 AND 28.

REMOVE DRIVEWAYS AS NOTED, TO THE
LIMITS SHOWN BY COORDINATES

COST TO REMOVE, RESET OR REPLACE
MAILBOXES IS INCLUDED IN PRICE BID FOR
"URBAN ROW RESTORATION"

COST TO REMOVE OTHER ITEMS, NOTED OR
OTHERWISE, WHICH MAY ARISE SHALL BE
INCLUDED IN PRICE BID FOR "REMOVAL OF
STRUCTURES AND OBSTRUCTIONS"

LEGEND

- | | | |
|---|---|--|
| 1 | REMOVE PAVEMENT & BASE, TYPE 1 AC PATCH NON-ART.
RE: SHEET 9 | |
| 2 | CURB/GUTTER REPLACEMENT
RE: SHEET 10 | |
| 3 | DRIVEWAY REPLACEMENT
RE: SHEET 10 | |
| 4 | SIDEWALK REPLACEMENT
RE: SHEET 10 | |
| 5 | TEMPORARY FIBER LOG INLET PROTECTION | |
| 6 | REPLACE CONCRETE HOOD AND GRATES | |

Benchmark

3/8" Iron Pin EL 650.98 N 420358.663 E 2601839.286	P-K Nail EL 655.72 N 420083.988 E 2601905.299	P-K Nail EL 657.17 N 420090.696 E 2602128.572
P-K Nail EL 660.26 N 419799.793 E 2601911.525	Chiseled "X" EL 661.73 N 419819.251 E 2602149.476	Chiseled "X" EL 660.13 N 419796.244 E 2602398.892

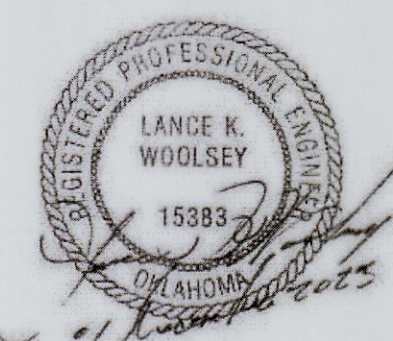
CAUTION

NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED
THE LOCATION AND ELEVATION OF EXISTING
UTILITIES AS SHOWN ON THESE PLANS ARE BASED
ON RECORDS OF THE VARIOUS UTILITY COMPANIES
AND MEASUREMENTS TAKEN IN THE FIELD.
THE INFORMATION IS NOT TO BE RELIED ON AS
BEING EXACT OR COMPLETE. THE CONTRACTOR
MUST CALL THE LOCAL UTILITY LOCATION CENTER
AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO
REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



SUGGESTED GENERAL SEQUENCE OF CONSTRUCTION

1. DRIVEWAY REPLACEMENT
2. PAVEMENT PATCHING
3. MILL
4. VALLEY GUTTER AND CURB AND GUTTER
5. OVERLAY



DEMOLITION SHEET 2

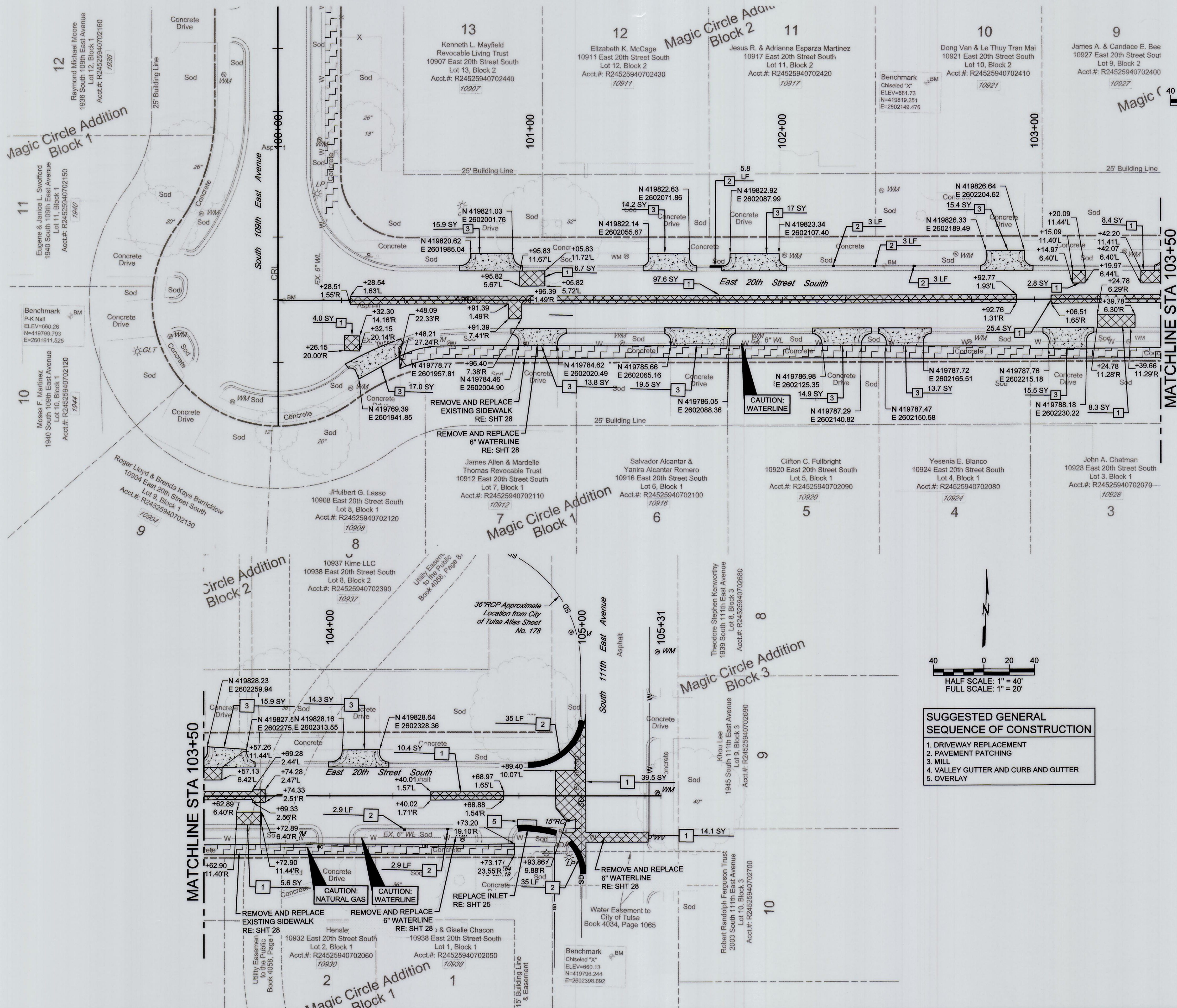
MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

wallace design collective, pc
123 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5858 - wallace design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	9/6/23		
			1"=20'	FIELD MGR.	9/6/23		
			VERTICAL:	RECOMMENDED:	HAS 9-25		
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09.20.25
			ATLAS PAGE NO:	178			SHEET 16 OF 28 SHEETS

PATH: Z:\2240017.MZ 5027.Dwg\PRODUCTION\
FILE: 2240017 DEMOLITION E-W.dwg
DATE: Nov 29, 2023 - 8:39AM



- ### GENERAL DEMOLITION NOTES
1. ALL CONCRETE AND ASPHALT SHALL BE SAW CUT FULL DEPTH AND REMOVED OFF SITE UNLESS NOTED OTHERWISE.
 2. CONTRACTOR SHALL PROTECT ALL SURVEY CONTROL POINTS.
 3. CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS OFF SITE.
 4. ON-SITE VEGETATION SHALL BE PROTECTED AS NOTED. IN DESIGNATED PROTECTION AREAS WHERE THE CONTRACTOR DOES NOT PROTECT VEGETATION AS NOTED, CONTRACTOR SHALL RESTORE VEGETATION TO EXISTING CONDITION AT NO ADDITIONAL EXPENSE TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.
 5. ALL EXISTING POWER POLES, POWER LINES AND GUY LINES TO REMAIN.
 6. ALL EXISTING FIRE HYDRANTS, WATER METERS AND WATER VALVES TO REMAIN, UNLESS NOTED OTHERWISE.
 7. EROSION CONTROL TO BE INSTALLED AND MAINTAINED PER CITY OF TULSA SPECIFICATIONS AND THE STORMWATER MANAGEMENT PLAN PRIOR TO BEGINNING DEMOLITION.
 8. MILL AND OVERLAY ALL REMAINING PAVEMENT AFTER PATCHING.

WATERLINE DEMOLITION AND REPLACEMENT
RE: SHEETS 27 AND 28.

REMOVE DRIVEWAYS AS NOTED, TO THE
LIMITS SHOWN BY COORDINATES

COST TO REMOVE, RESET OR REPLACE
MAILBOXES IS INCLUDED IN PRICE BID FOR
"URBAN ROW RESTORATION"

COST TO REMOVE OTHER ITEMS, NOTED OR
OTHERWISE, WHICH MAY ARISE SHALL BE
INCLUDED IN PRICE BID FOR "REMOVAL OF
STRUCTURES AND OBSTRUCTIONS"

LEGEND

- | | | |
|---|---|--|
| 1 | REMOVE PAVEMENT & BASE, TYPE 1 AC PATCH NON-ART.
RE: SHEET 9 | |
| 2 | CURB/GUTTER REPLACEMENT
RE: SHEET 10 | |
| 3 | DRIVEWAY REPLACEMENT
RE: SHEET 10 | |
| 4 | SIDEWALK REPLACEMENT
RE: SHEET 10 | |
| 5 | TEMPORARY FIBER LOG INLET PROTECTION | |
| 6 | REPLACE CONCRETE HOOD AND GRATES | |

Benchmark

3/8" Iron Pin	P-K Nail	P-K Nail
EL 650.98	EL 655.72	EL 657.17
N 420358.663	N 420083.988	N 420090.696
E 2601839.286	E 2601905.299	E 2602128.572
P-K Nail	Chiseled "X"	Chiseled "X"
EL 660.26	EL 661.73	EL 660.13
N 419799.793	N 419819.251	N 419796.244
E 2601911.525	E 2602149.476	E 2602398.892

SUGGESTED GENERAL SEQUENCE OF CONSTRUCTION

1. DRIVEWAY REPLACEMENT
2. PAVEMENT PATCHING
3. MILL
4. VALLEY GUTTER AND CURB AND GUTTER
5. OVERLAY

DEMOLITION SHEET 3

MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

wallace design collective
wallace design collective, pc
1221 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5858 - wallace design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	JD	9/24	
			1"=20'	FIELD MGR.	JK	9/25	
			VERTICAL:	RECOMMENDED			
			1"=5'	DESIGN MANAGER	HAS	9/25	
			FILE:	DRAWING:			DATE: 09/26/25
			ATLAS PAGE NO:	178			SHEET 17 OF 28 SHEETS

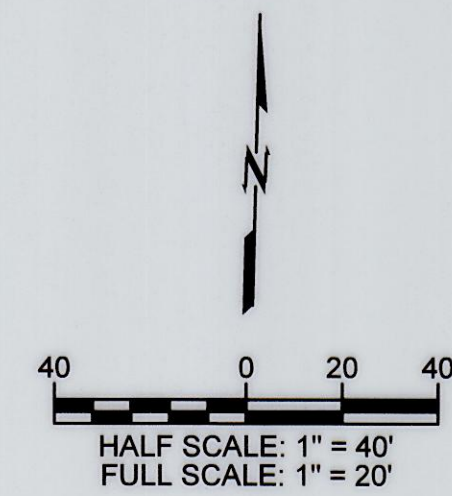
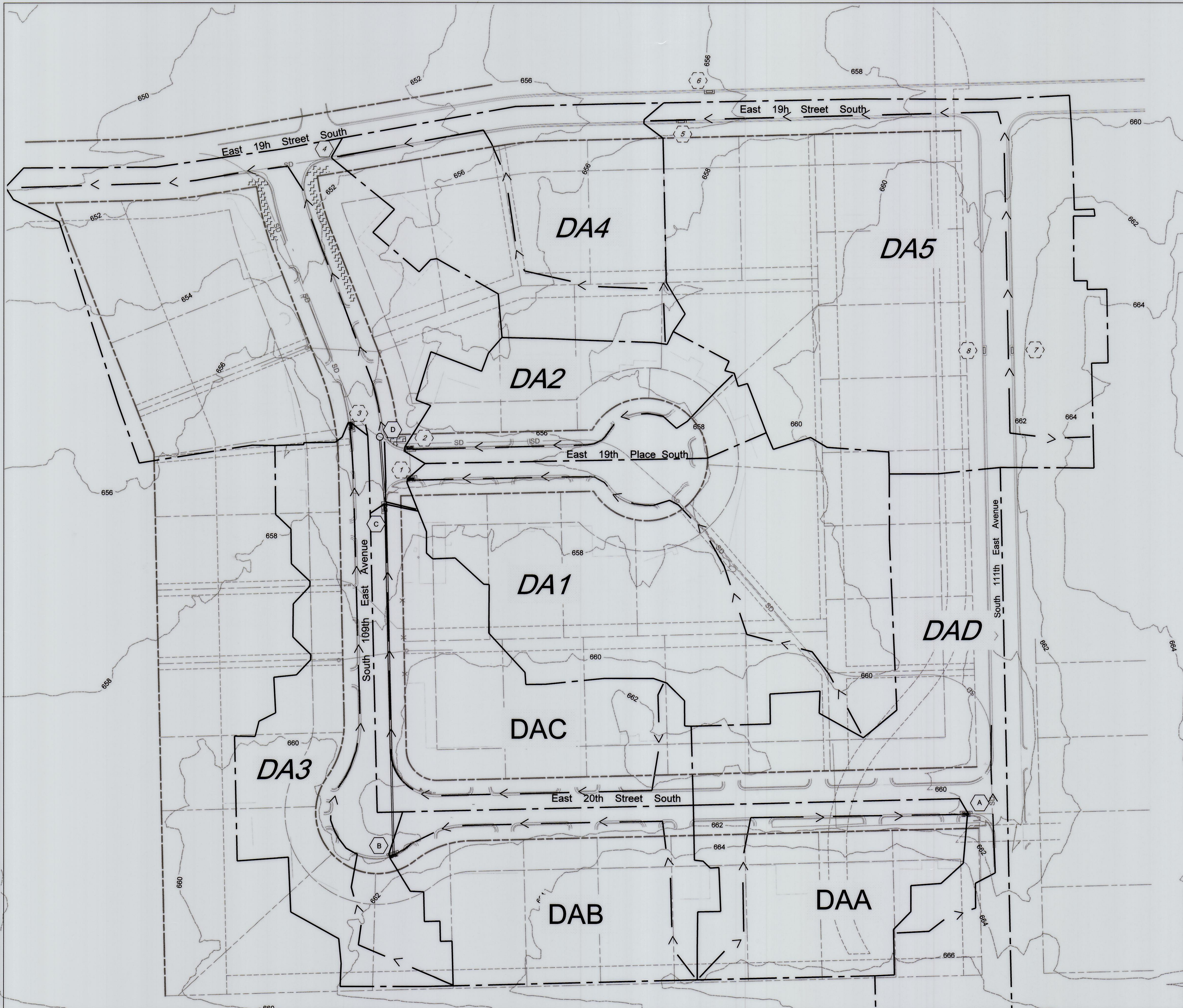


CAUTION





NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED
THE LOCATION AND ELEVATION OF EXISTING
UTILITIES AS SHOWN ON THESE PLANS ARE BASED
ON RECORDS OF THE VARIOUS UTILITY COMPANIES
AND MEASUREMENTS TAKEN IN THE FIELD.
THE INFORMATION IS NOT TO BE RELIED ON AS
BEING EXACT OR COMPLETE. THE CONTRACTOR
MUST CALL THE LOCAL UTILITY LOCATION CENTER
AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO
REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES

PATH: Z:\2240017 MZ 5027\Drawings\PRODUCTION\
FILE: 2240017 DRAINAGE AREA.dwg
DATE: Nov 29, 2023 - 8:40AM



LEGEND

-  EXISTING STRUCTURE TO REMAIN
-  PROPOSED STRUCTURE
-  DRAINAGE AREA BOUNDARY
-  FLOW PATH

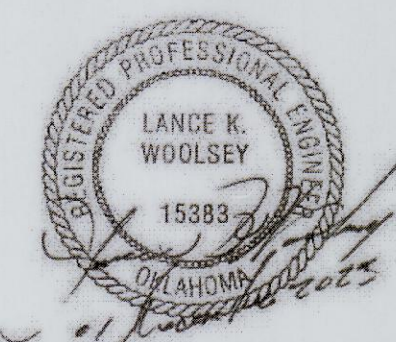
NOTE:
DRAINAGE AREAS OUTSIDE RDP
RW APPROXIMATED FROM LIDAR
2' CONTOURS FROM OK MAPS.

DA4, DA5 & DAD ARE OUTSIDE
PROJECT LIMITS AND SHOWN
FOR REFERENCE ONLY.



CAUTION NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED
THE LOCATION AND ELEVATION OF EXISTING
UTILITIES AS SHOWN ON THESE PLANS ARE BASED
ON RECORDS OF THE VARIOUS UTILITY COMPANIES
AND MEASUREMENTS TAKEN IN THE FIELD.
THE INFORMATION IS NOT TO BE RELIED ON AS
BEING EXACT OR COMPLETE. THE CONTRACTOR
MUST CALL THE LOCAL UTILITY LOCATION CENTER
AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO
REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



DRAINAGE AREA MAP

MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

wallace design collective, pc
1221 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5656 - wallace design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=40'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	BDC	9/24	
			1"=40'	FIELD MGR.	JH	9/25	
			VERTICAL:	RECOMMENDED	JH		
			N/A	DESIGN MANAGER	JH		
			FILE:	DRAWING:			DATE: 09.24.25
			ATLAS PAGE NO:	178			SHEET 18 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\Drawings\PRODUCTION\
FILE: 2240017 DRAINAGE AREA.dwg
DATE: Nov 29, 2023 - 8:40AM

STORM SEWER SUMMARY TABLE, MZ 5027 COT #2036N5027Z																																						
STR NO. (UPSTREAM)	ALIGNMENT	STA	OFFSET	SIDE	DESCRIPTION	COT STD DWG	NORTHING	EASTING	MANHOLES												INLETS						STORM SEWER PIPE REINF. CONC. PIPE, CLASS III			STR NO. (UPSTREAM)								
									RIM ELEV	FLOWLINE IN			FLOWLINE OUT			INNER STR HT (6' STD)	ADD'L DEPTH			TOP OF CURB ELEV	TOP OF GRATE ELEV	FLOWLINE OUT	INNER STR HT (CICI 3.71' STD)	CICI-2	ADD'L DEPTH	15"	18"	24"										
																	4' I.D.	5' I.D.	6' I.D.							4' I.D.	5' I.D.	6' I.D.	ROUND		ROUND	ROUND						
																	611(A)	611(A)	611(A)							611(B)	611(B)	611(B)	613(A) COT215		613(A) COT215	613(A) COT215						
										FT	FROM STR	PIPE SIZE	ELEV	TO STR	PIPE SIZE	ELEV	FT	EA	EA	EA	VF	VF	VF	FT	FT	FT	FT	EA	VF		LF	LF	LF					
B	S. 109TH E. AVE.	10+13.69	12.76	RT	INLET, CICI DES 2 W/ 284LF 15" ROUND	764	419764.55	2601922.73	-	-	-	-	-	-	-	-	-	659.88	659.38	654.97	4.41	1	1	284	-	-	B											
C	S. 109TH E. AVE.	13+67.03	13.8	LT	INLET, CICI DES 2 W/ 52LF 15" ROUND	764	420115.27	2601886.62	-	-	-	-	-	-	-	-	-	656.74	656.24	651.48	4.76	1	1	52	-	-	C											
MH-1	S. 109TH E. AVE.	13+55.50	9.84	RT	MANHOLE, 6' ID, OVER EX 42" RCP	775	420106.48	2601911.30	655.00	I-5	15"	650.83	-	42"	unk.	5.00	-	-	1	-	-	1	-	-	-	-	-	MH1										
STREET TOTAL - S. 109TH E. AVE.																	-	-	1	-	-	1												2	2	336	-	-
PROJECT TOTAL																	-	-	1	-	-	1												2	2	336	-	-

PIPE DESIGN TABLE																
	Start Node	Invert (Start) (ft)	Stop Node	Invert (Stop) (ft)	Length (ft)	Slope (%)	Conduit Shape	Material	Manning's n	Diameter (in)	Flow (ft³/s)	Capacity (Full Flow) (ft³/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Velocity (Maximum) (ft/s)	Velocity (Half Full) (ft/s)
SD-1	MH1	652.00	I5	653.00	52.0	1.88	circ	RCP	0.012	15	3.87	10.41	652.55	653.55	3.87	7.82
SD-2	I5	653.00	I6	655.00	284.0	0.71	circ	RCP	0.012	15	1.33	6.40	652.60	655.42	3.92	4.81

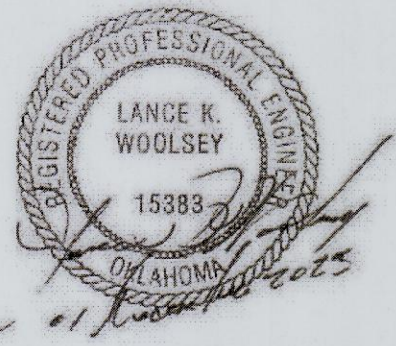
INLET DESIGN TABLE (RATIONAL)																								
DRAINAGE AREA BASIN	INLET NO.	DRAINAGE AREA (SF)	DRAINAGE AREA (ACRES)	RATIONAL "C"	REACH GRASS (FEET)	SLOPE GRASS (%)	VELOCITY GRASS (FPS)	REACH PAVING (FEET)	SLOPE PAVING (%)	VELOCITY PAVING (FPS)	TOTAL Tc (MIN)	I 100 (IN/HR)	Q 100 (CFS)	% SLOPE AT INLET	SUM Q 100 AT INLET (CFS)	D 100 INLET (FEET)	MAX DEPTH AT INLET (FEET)	Q INTERCEPTED (CFS)	Q 100 BYPASS (CFS)	TO STRUCTURE	CLOGGING FACTOR	INLET DESIGN		NOTES
DA1	1	38,878	0.89	0.45	159	0.02	1.0	360	0.00	1.19	7.6	9.9	3.98	0.34	6.38	0.27	0.38	3.41	3.36	-	1.00	Double Grate Design 2	bypasses north and west	
DA2	2	24,713	0.57	0.45	53	0.02	1.0	238	0.00	1.19	4.2	11.3	2.88	0.34	2.88	0.26	0.38	2.21	0.67	-	1.00	Double Grate Design 2	bypasses north and west	
DA3	3	69,988	1.61	0.40	150	0.02	1.0	215	0.02	2.50	4.6	11.1	7.12	1.51	9.00	0.36	0.38	4.50	2.16	-	1.00	Double Grate Design 2	bypasses north and west	
DAA	A	26,503	0.61	0.45	147	0.02	1.0	174	0.01	1.87	4.0	11.4	3.11	0.85	3.11	0.23	0.38	2.09	1.02	-	1.00	Double Grate Design 2	bypasses east and north	
DAB	B	38,133	0.88	0.45	88	0.02	0.9	430	0.01	2.03	5.2	10.8	4.26	0.02	4.26	0.23	0.38	2.54	1.88	3	1.00	Double Grate Design 2	-	
DAC	C	32,647	0.75	0.45	133	0.02	1.0	222	0.02	2.50	3.6	11.6	3.90	1.51	3.90	0.17	0.38	1.33	2.40	-	1.00	Double Grate Design 2	bypasses north and west	

NOTE:
DRAINAGE AREAS OUTSIDE RDY
RW APPROXIMATED FROM LIDAR
2' CONTOURS FROM OK MAPS.

CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



DRAINAGE SUMMARIES

MZ 5027 COT #2036N5027Z

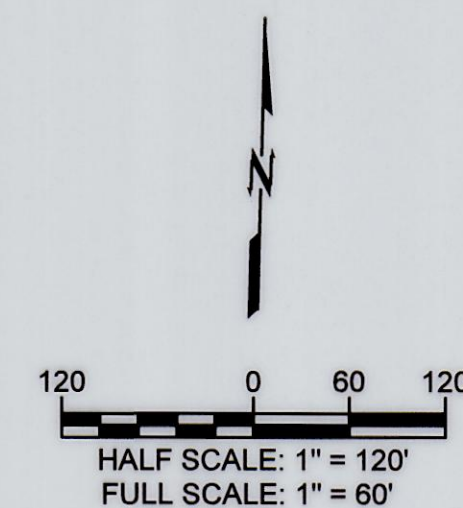
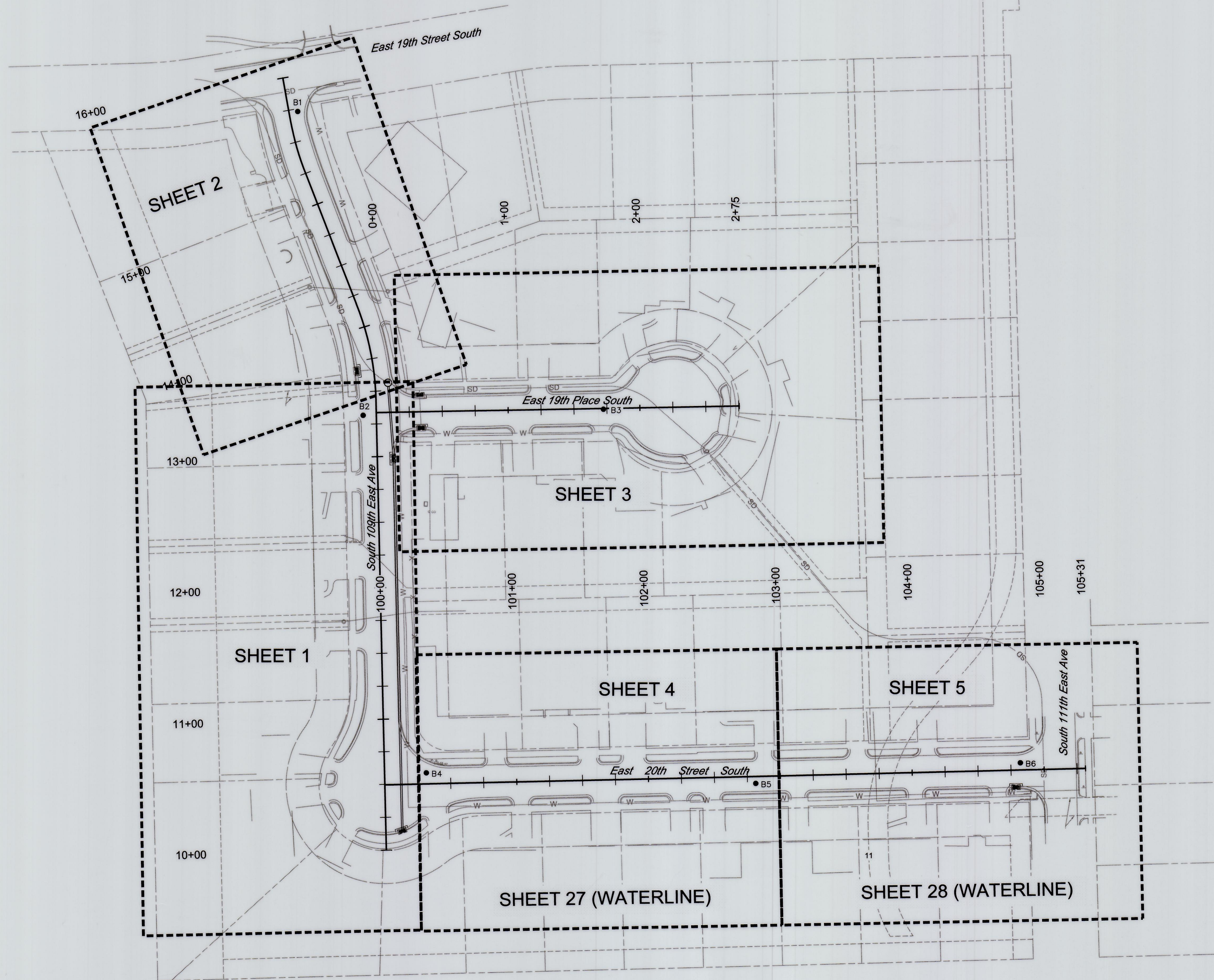
CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT



wallace design collective, pc
123 n. north luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5858 - wallace.design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			N/A	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	BDC	9/24	
			N/A	FIELD MGR.	Per 9/25		
			VERTICAL:	RECOMMENDED:	Thomas G. M		
			N/A	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09/24/25
			ATLAS PAGE NO:	178			SHEET 19 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\
FILE: 2240017 ROAD KEY MAP.dwg
DATE: Nov 29, 2023 - 8:40AM



CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES

KEY MAP AND BORING MAP

MZ 5027 COT #2036N5027Z

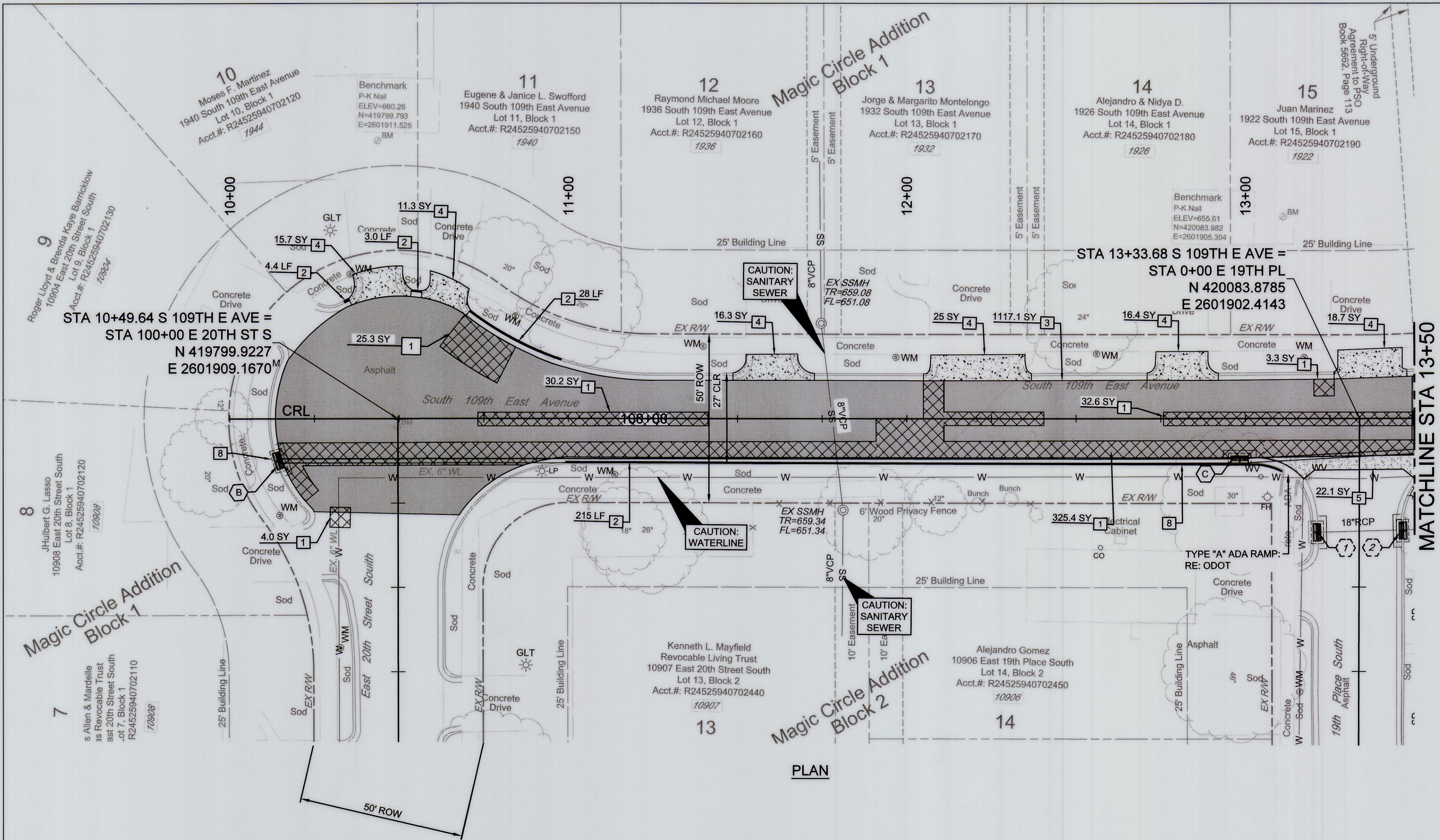
**CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT**



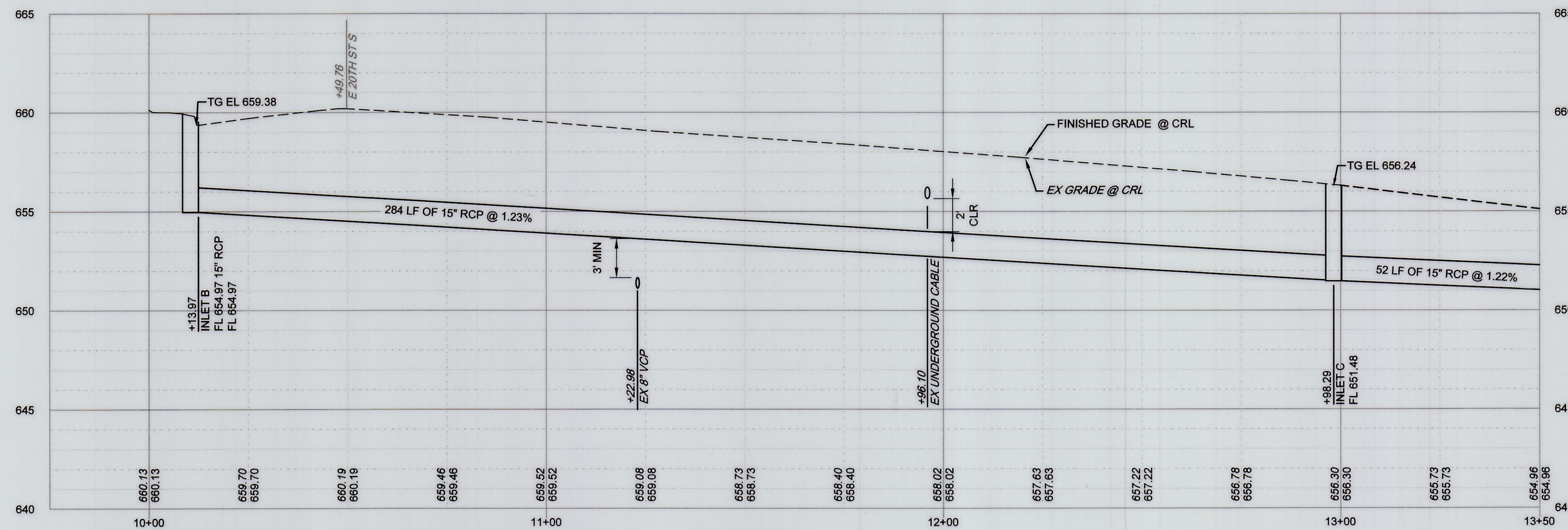
wallace design collective, pc
123 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5658 - wallace.design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/20/22	APPROVED
			1"=40'	DESIGNED	LKW	9/20/22	
				SURVEY	RWB	9/20/22	
			PROFILE SCALE	PROJ MGR.	JH	11/7/23	
			HORIZONTAL:	LEAD ENGR.	DI	9/27	
			1"=40'	FIELD MGR.	DAW	9/25	
			VERTICAL:	RECOMMENDED:			
			N/A	DESIGN MANAGER	HA	9-25	
			FILE:	DRAWING:			DATE: 09-26-23
			ATLAS PAGE NO:	178			SHEET 20 OF 28 SHEETS

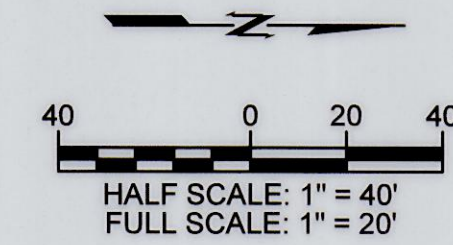
PATH: Z:\240017_MZ_5027\DWG\PRODUCTION\
FILE: 240017_PLAN_PROFILES_109th.dwg
DATE: Dec 19, 2023 - 3:48PM



PLAN



PROFILE
HORIZ SCALE 1"=20'
VERT SCALE: 1"=5'



LEGEND

- 1 FULL DEPTH ASPHALT PATCH
(TYPE I AC PATCH-NON ARTERIAL)
RE: SHEET 9
- 2 CURB/GUTTER REPLACEMENT
RE: SHEET 10
- 3 MILL/OVERLAY PAVEMENT
RE: SHEET 9
- 4 CONCRETE DRIVE
RE: SHEET 10
- 5 VALLEY GUTTER
RE: SHEET 10
- 6 SIDEWALK REPLACEMENT
RE: SHEET 10
- 7 REPLACE HOOD AND GRATE
RE: CITY OF TULSA
- 8 REMOVE & REPLACE INLET
RE: ODOT

DRAINAGE INLET NUMBER

Benchmark

3/8" Iron Pin EL 650.98 N 420358.663 E 2601839.286	P-K Nail EL 655.72 N 420083.988 E 2601905.299	P-K Nail EL 657.17 N 420090.696 E 2602128.572
P-K Nail EL 660.26 N 419799.793 E 2601911.525	Chiseled "X" EL 661.73 N 419819.251 E 2602149.476	Chiseled "X" EL 660.13 N 419796.244 E 2602398.892

WATERLINE DEMOLITION AND REPLACEMENT
RE: SHEETS 27 AND 28.



CAUTION
NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED
THE LOCATION AND ELEVATION OF EXISTING
UTILITIES AS SHOWN ON THESE PLANS ARE BASED
ON RECORDS OF THE VARIOUS UTILITY COMPANIES
AND MEASUREMENTS TAKEN IN THE FIELD.
THE INFORMATION IS NOT TO BE RELIED ON AS
BEING EXACT OR COMPLETE. THE CONTRACTOR
MUST CALL THE LOCAL UTILITY LOCATION CENTER
AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO
REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES

PLAN AND PROFILE S 109TH E AVE SHT 1
STA 10+00 TO 13+50

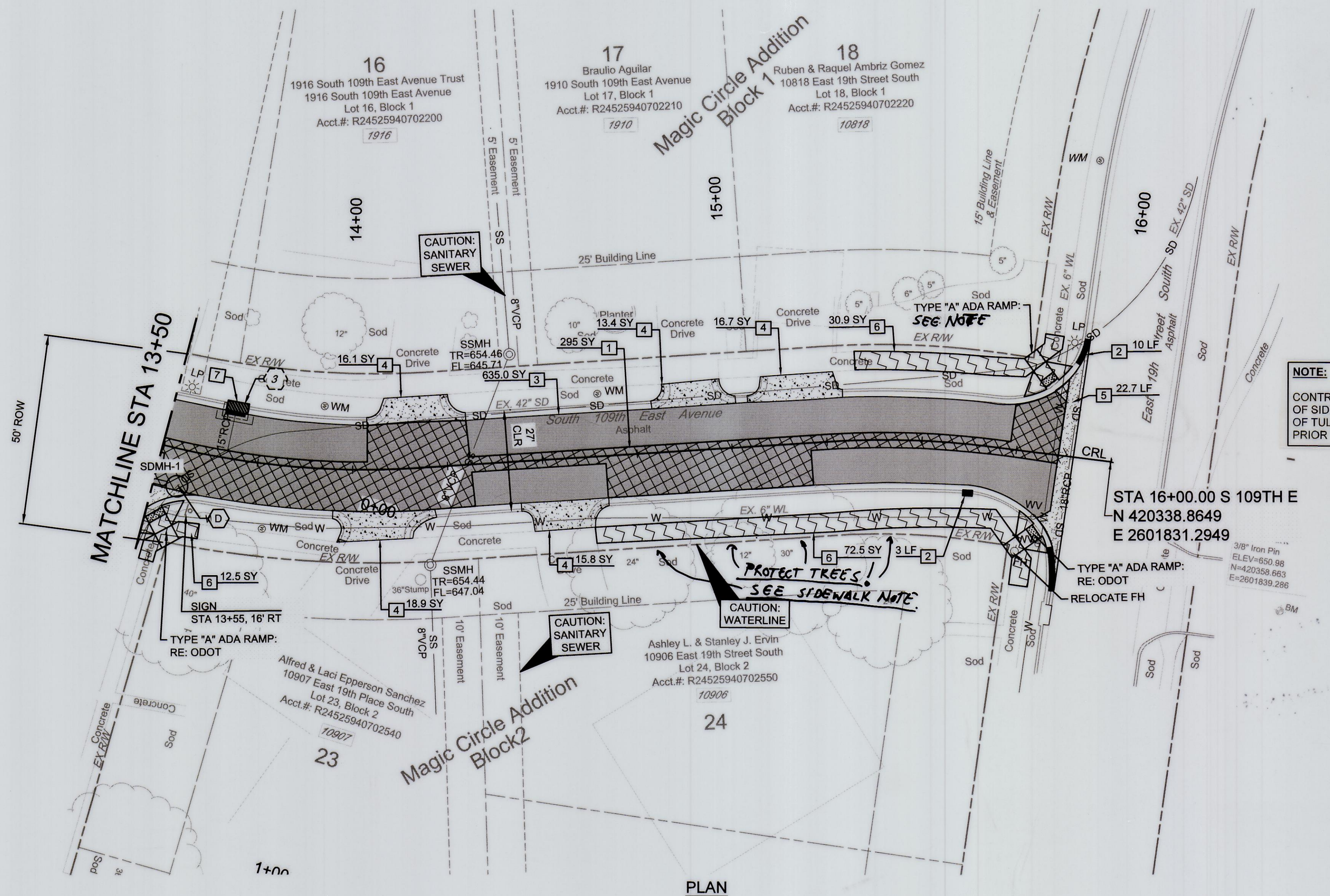
MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

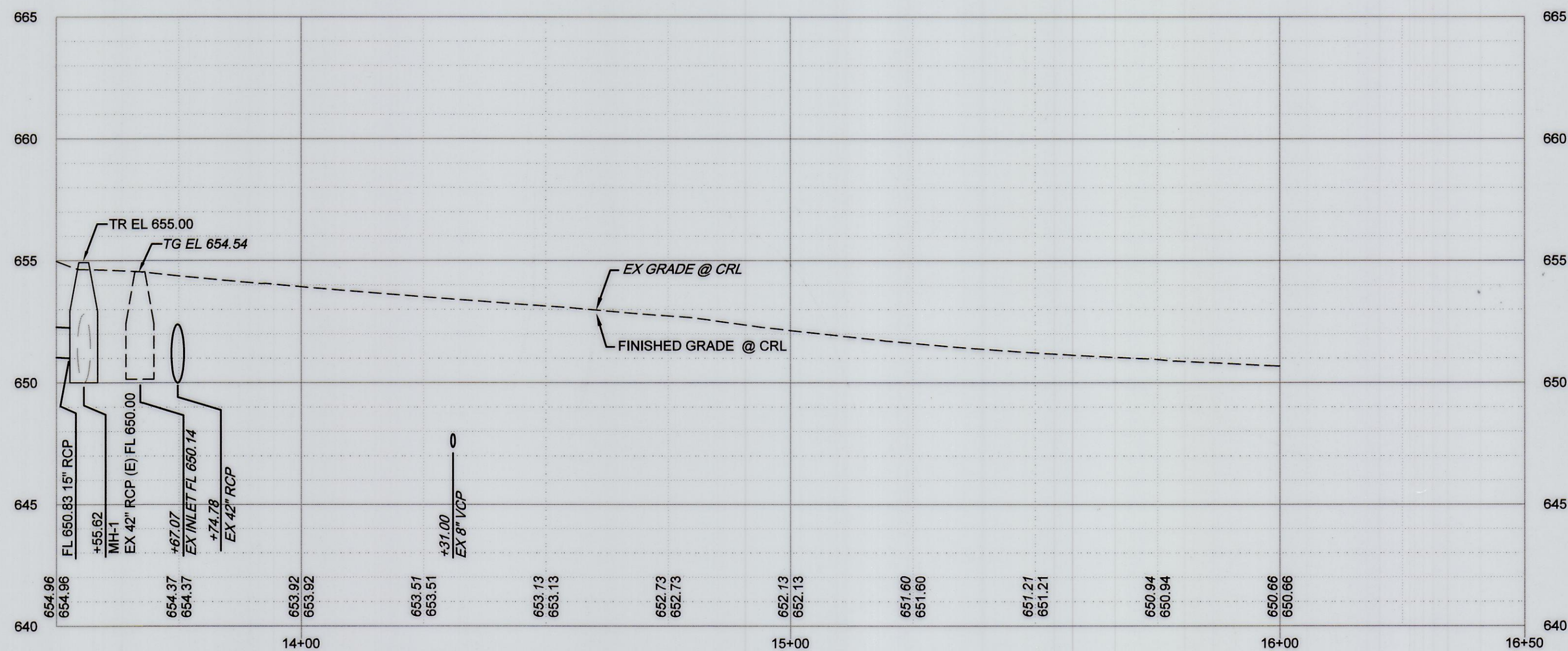
wallace design collective, pc
123 N. Martin Luther King Jr. Blvd.
Tulsa, Oklahoma 74103
918.584.5558 - wallace.design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	APPROVED
			1"=20'	DESIGNED	LKW	9/2022
				SURVEY	RWB	9/2022
			PROFILE SCALE:	PROJ MGR.	JH	12/23
			HORIZONTAL:	LEAD ENGR.	9/24	
			1"=20'	FIELD MGR.	9/25	
			VERTICAL:	RECOMMENDED:		
			1"=5'	DESIGN MANAGER	9.25	
			FILE:	DRAWING:		DATE: 09.26.25
			ATLAS PAGE NO: 178			SHEET 21 OF 28 SHEETS

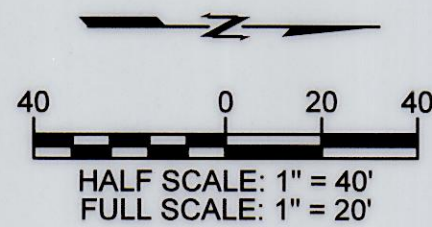
PATH: Z:\240017 MZ 5027\DWG\PRODUCTION\
FILE: 240017 PLAN PROFILES 109th.dwg
DATE: Nov 28, 2023 8:40AM



PLAN



PROFILE
HORIZ SCALE 1"=20'
VERT SCALE: 1"=5'



LEGEND

- | | | |
|---|---|--|
| 1 | FULL DEPTH ASPHALT PATCH
(TYPE I AC PATCH-NON ARTERIAL)
RE: SHEET 9 | |
| 2 | CURB/GUTTER REPLACEMENT
RE: SHEET 10 | |
| 3 | MILLOVERLAY PAVEMENT
RE: SHEET 9 | |
| 4 | CONCRETE DRIVE
RE: SHEET 10 | |
| 5 | VALLEY GUTTER
RE: SHEET 10 | |
| 6 | SIDEWALK REPLACEMENT
RE: SHEET 10 | |
| 7 | REPLACE HOOD AND GRATE
RE: CITY OF TULSA | |
| 8 | REMOVE & REPLACE INLET
RE: ODOT | |

DRAINAGE INLET NUMBER

Benchmark

3/8" Iron Pin EL 650.98 N 420358.663 E 2601839.286	P-K Nail EL 655.72 N 420083.988 E 2601905.299	P-K Nail EL 657.17 N 420090.696 E 2602128.572
P-K Nail EL 660.26 N 419799.793 E 2601911.525	Chiseled "X" EL 661.73 N 419819.251 E 2602149.476	Chiseled "X" EL 660.13 N 419796.244 E 2602398.892

WATERLINE DEMOLITION AND REPLACEMENT
RE: SHEETS 27 AND 28.

CAUTION
NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



S 109TH E AVE PLAN AND PROFILE SHT 2
STA 13+50 TO 16+00

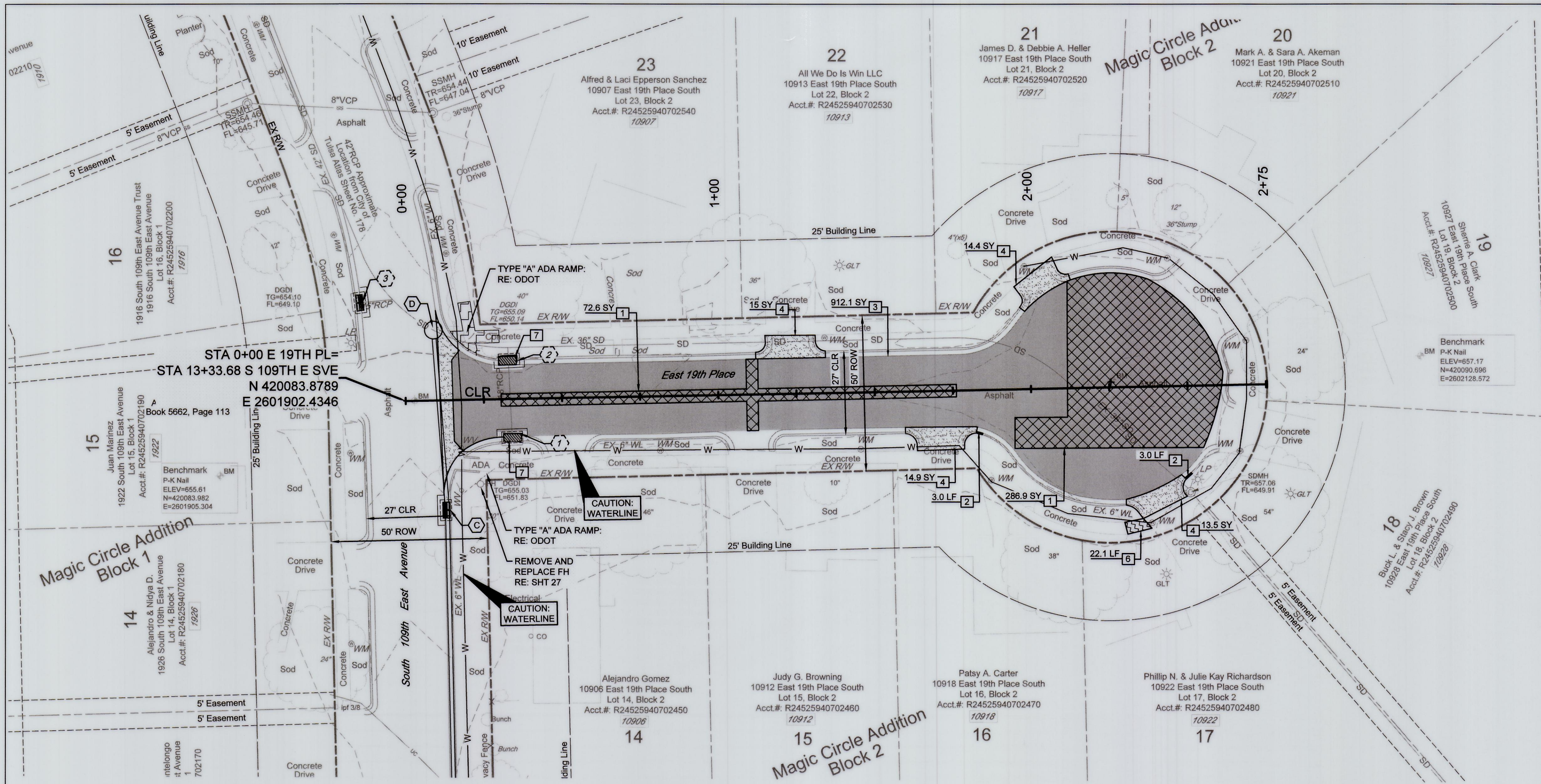
MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

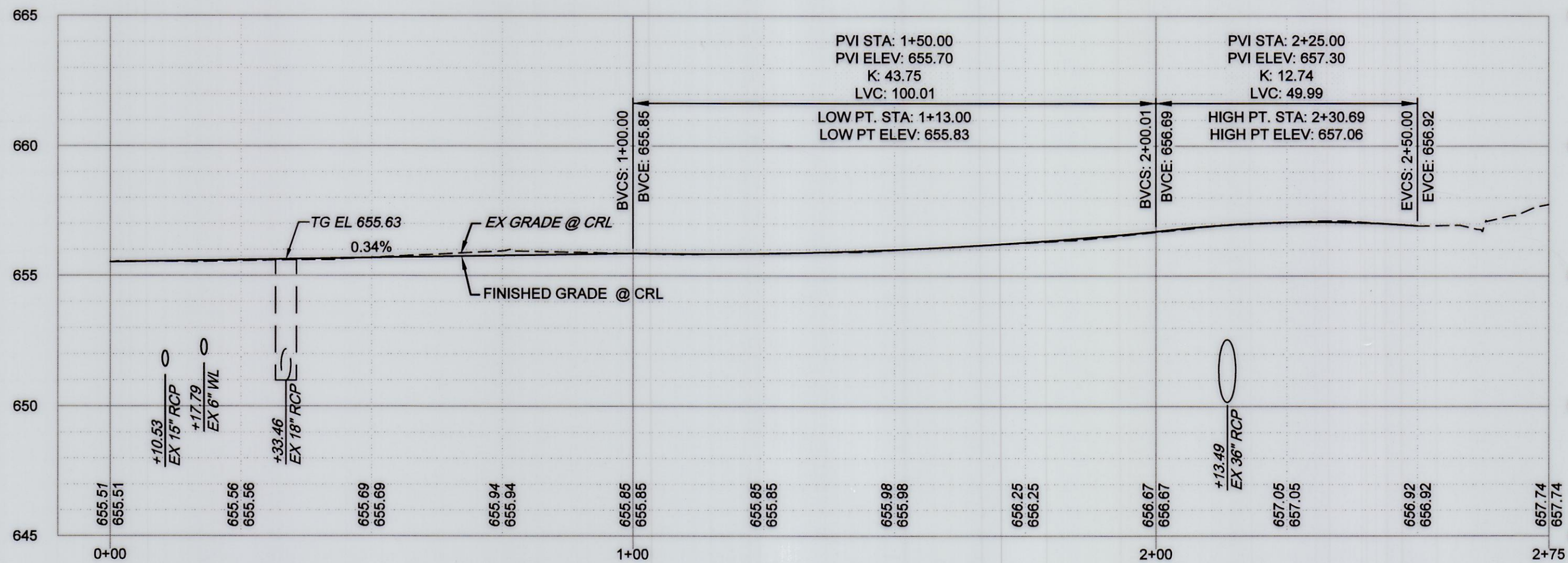
wallace design collective, pc
221 N. Martin Luther King Jr. Blvd.
Tulsa, Oklahoma 74103
918.584.5858 - wallace.design

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	Q	9/24	
			1"=20'	FIELD MGR.	From 9/25		
			VERTICAL:	RECOMMENDED:	HN	9/25	
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09.26.23
			ATLAS PAGE NO:	178			SHEET 22 OF 28 SHEETS

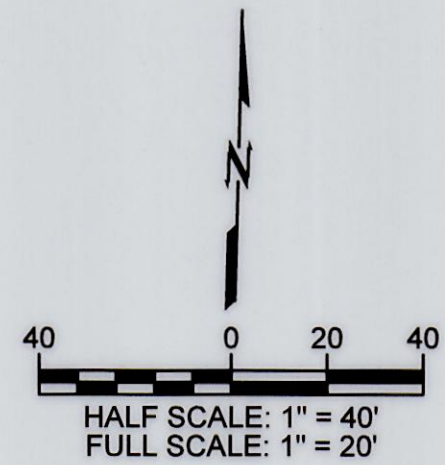
PATH: Z:\2240017 MZ 5027\Draws\PRODUCTION\1
FILE: 2240017 PLAN PROFILES 19th.dwg
DATE: Nov 29, 2023 8:40AM



PLAN



PROFILE
HORIZ SCALE 1"=20'
VERT SCALE 1"=5'



LEGEND

- 1 FULL DEPTH ASPHALT PATCH (TYPE I AC PATCH-NON ARTERIAL) RE: SHEET 9
- 2 CURB/GUTTER REPLACEMENT RE: SHEET 10
- 3 MIL/OVERLAY PAVEMENT RE: SHEET 9
- 4 CONCRETE DRIVE RE: SHEET 10
- 5 VALLEY GUTTER RE: SHEET 10
- 6 SIDEWALK REPLACEMENT RE: SHEET 10
- 7 REPLACE HOOD AND GRATE RE: CITY OF TULSA
- 8 REMOVE & REPLACE INLET RE: ODOT

DRAINAGE INLET NUMBER

Benchmark

3/8" Iron Pin EL 650.98 N 420358.663 E 2601839.286	P-K Nail EL 655.72 N 420083.988 E 2601905.299	P-K Nail EL 657.17 N 420090.696 E 2602128.572
P-K Nail EL 660.26 N 419799.793 E 2601911.525	Chiseled "X" EL 661.73 N 419819.251 E 2602149.476	Chiseled "X" EL 660.13 N 419796.244 E 2602398.892

WATERLINE DEMOLITION AND REPLACEMENT
RE: SHEETS 27 AND 28.

CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



PLAN AND PROFILE E 19TH PL
STA 0+00 TO 2+75

MZ 5027 COT #2036N5027Z

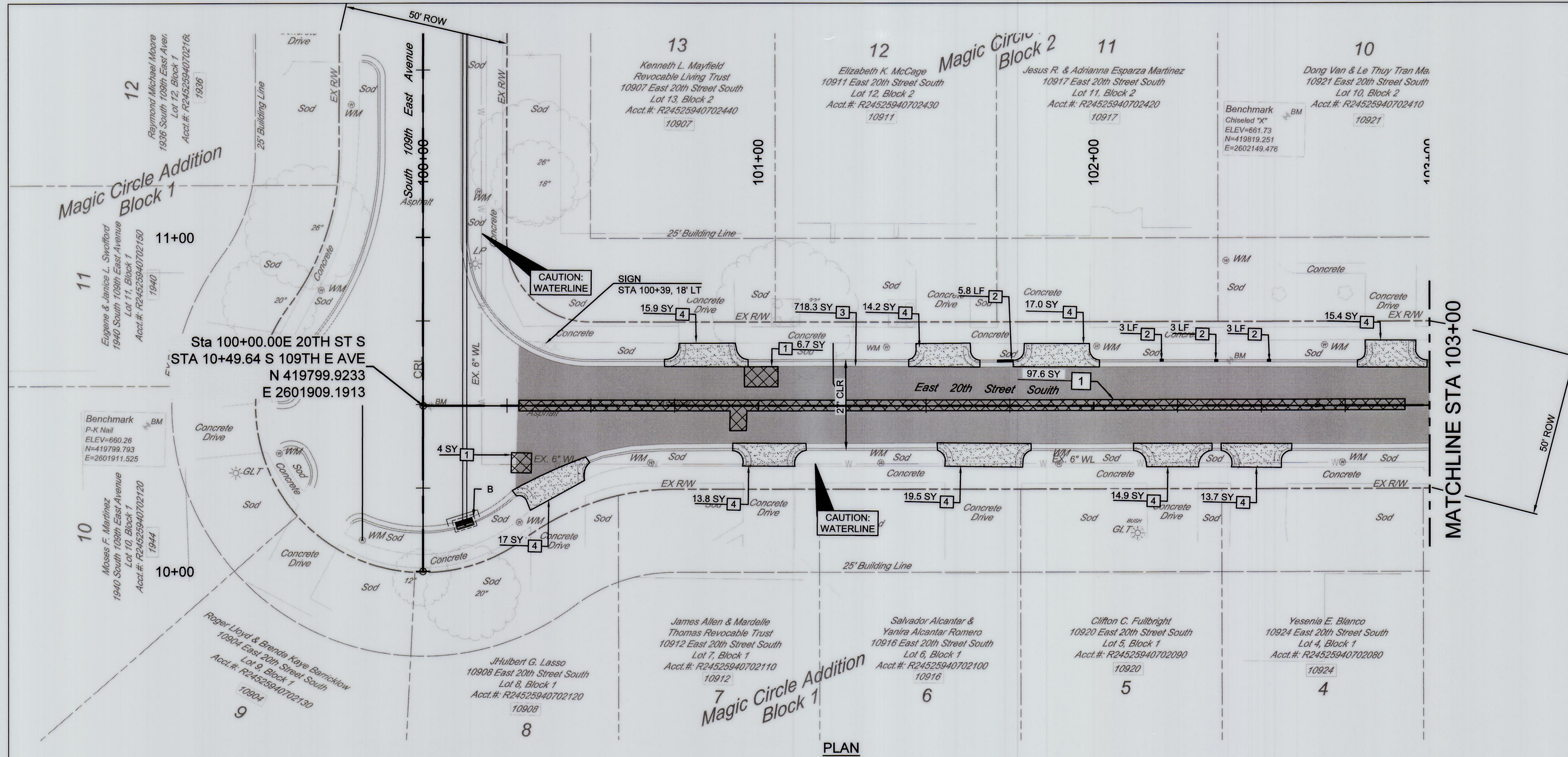
CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT



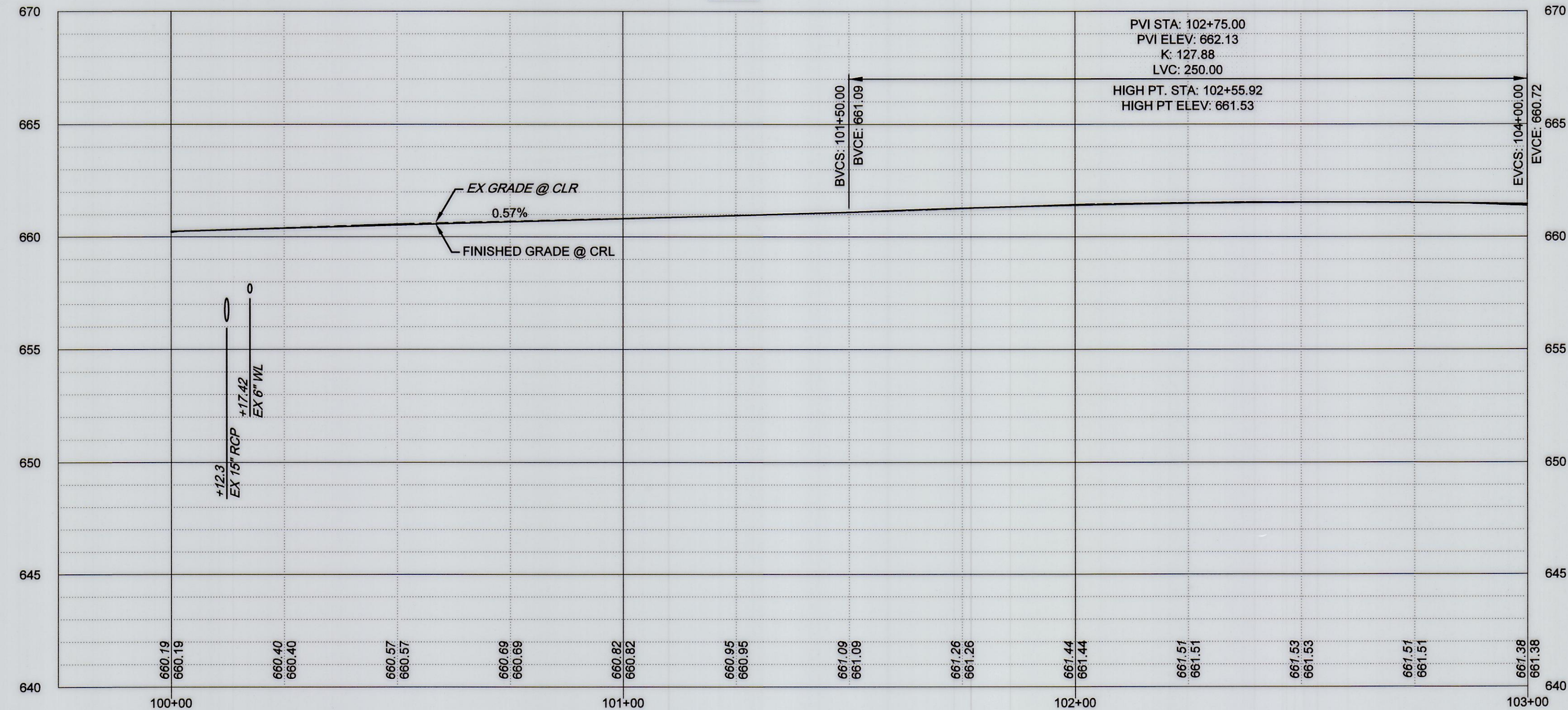
wallace design collective, pc
123 n. martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5858 wallacedesign.com

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE	PROJ MGR.		12/23	
			HORIZONTAL:	LEAD ENGR.		9/24	
			1"=20'	FIELD MGR.		9/25	
			VERTICAL:	RECOMMENDED			
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 12-25
			ATLAS PAGE NO: 178				SHEET 23 OF 28 SHEETS

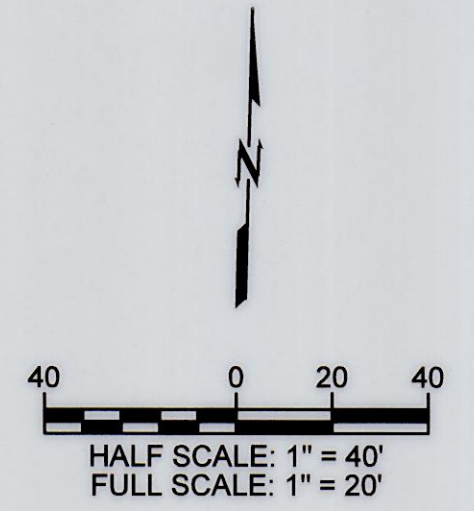
PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\FILE: 2240017 PLAN PROFILES 20th.dwg
DATE: Nov 29, 2023 - 8:40AM



PLAN



PROFILE
HORIZ SCALE: 1"=20'
VERT SCALE: 1"=5'



LEGEND

- | | | |
|---|---|--|
| 1 | FULL DEPTH ASPHALT PATCH
(TYPE I AC PATCH-NON ARTERIAL)
RE: SHEET 9 | |
| 2 | CURB/GUTTER REPLACEMENT
RE: SHEET 10 | |
| 3 | MILLOVERLAY PAVEMENT
RE: SHEET 9 | |
| 4 | CONCRETE DRIVE
RE: SHEET 10 | |
| 5 | VALLEY GUTTER
RE: SHEET 10 | |
| 6 | SIDEWALK REPLACEMENT
RE: SHEET 10 | |
| 7 | REPLACE HOOD AND GRATE
RE: CITY OF TULSA | |
| 8 | REMOVE & REPLACE INLET
RE: ODOT | |

DRAINAGE INLET NUMBER

Benchmark

3/8" Iron Pin	P-K Nail	P-K Nail
EL 650.98	EL 655.72	EL 657.17
N 420358.663	N 420083.988	N 420090.696
E 2601839.286	E 2601905.299	E 2602128.572
P-K Nail	Chiseled "X"	Chiseled "X"
EL 660.26	EL 661.73	EL 660.13
N 419799.793	N 419819.251	N 419796.244
E 2601911.525	E 2602149.476	E 2602398.892

WATERLINE DEMOLITION AND REPLACEMENT
RE: SHEETS 27 AND 28.

CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED
THE LOCATION AND ELEVATION OF EXISTING
UTILITIES AS SHOWN ON THESE PLANS ARE BASED
ON RECORDS OF THE VARIOUS UTILITY COMPANIES
AND MEASUREMENTS TAKEN IN THE FIELD.
THE INFORMATION IS NOT TO BE RELIED ON AS
BEING EXACT OR COMPLETE. THE CONTRACTOR
MUST CALL THE LOCAL UTILITY LOCATION CENTER
AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO
REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



E 20TH ST S PLAN AND PROFILE SHT 1
STA 100+00 T 103+00

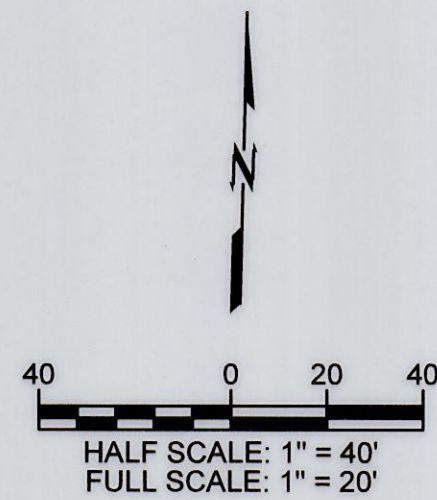
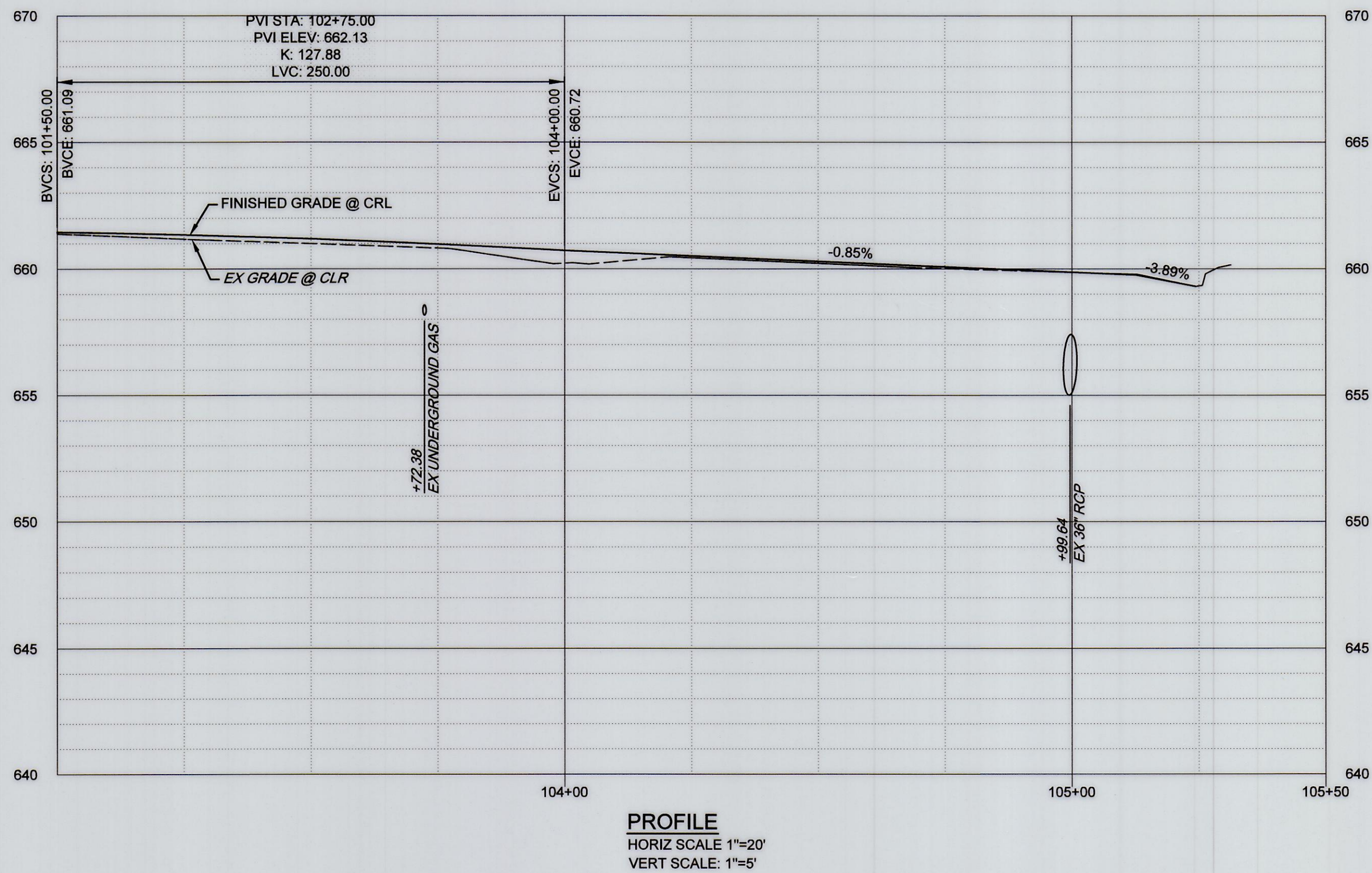
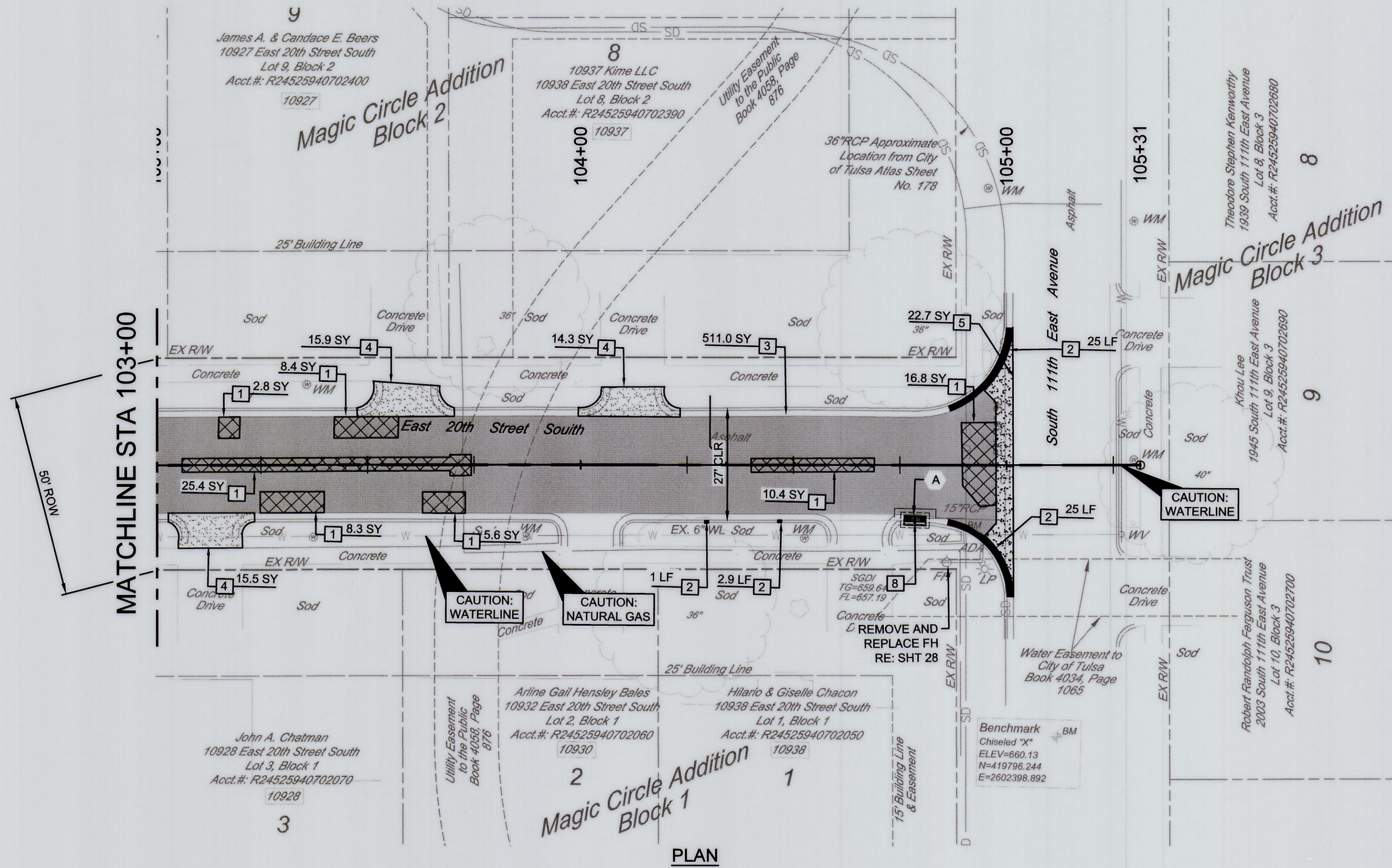
MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

wallace design collective, pc
12311 martin luther king jr. blvd.
tulsa, oklahoma 74103
918.584.5858 - wallacedesign

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/2022	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	Q	9/24	
			1"=20'	FIELD MGR.	JH	9/25	
			VERTICAL:	RECOMMENDED:	HAK	9-25	
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:			DATE: 09/26/23
			ATLAS PAGE NO:	178			SHEET 24 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\1
FILE: 2240017 PLAN PROFILES 20th.dwg
DATE: Dec 19, 2023 - 3:48PM



LEGEND

- | | | |
|---|---|--|
| 1 | FULL DEPTH ASPHALT PATCH
(TYPE I AC PATCH-NON ARTERIAL)
RE: SHEET 9 | |
| 2 | CURB/GUTTER REPLACEMENT
RE: SHEET 10 | |
| 3 | MILL/OVERLAY PAVEMENT
RE: SHEET 9 | |
| 4 | CONCRETE DRIVE
RE: SHEET 10 | |
| 5 | VALLEY GUTTER
RE: SHEET 10 | |
| 6 | SIDEWALK REPLACEMENT
RE: SHEET 10 | |
| 7 | REPLACE HOOD AND GRATE
RE: CITY OF TULSA | |
| 8 | REMOVE & REPLACE INLET
RE: ODOT | |

DRAINAGE INLET NUMBER

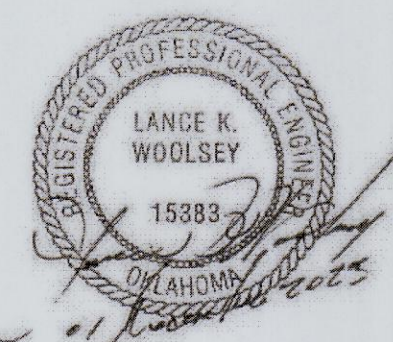
Benchmark

3/8" Iron Pin	P-K Nail	P-K Nail
EL 650.98	EL 655.72	EL 657.17
N 420358.663	N 420083.988	N 420090.696
E 2601839.286	E 2601905.299	E 2602128.572
P-K Nail	Chiseled "X"	Chiseled "X"
EL 660.26	EL 661.73	EL 660.13
N 419799.793	N 419819.251	N 419796.244
E 2601911.525	E 2602149.476	E 2602398.892

WATERLINE DEMOLITION AND REPLACEMENT
RE: SHEETS 27 AND 28.

CAUTION NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES



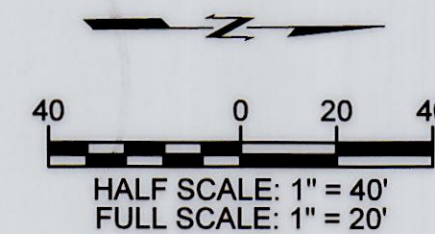
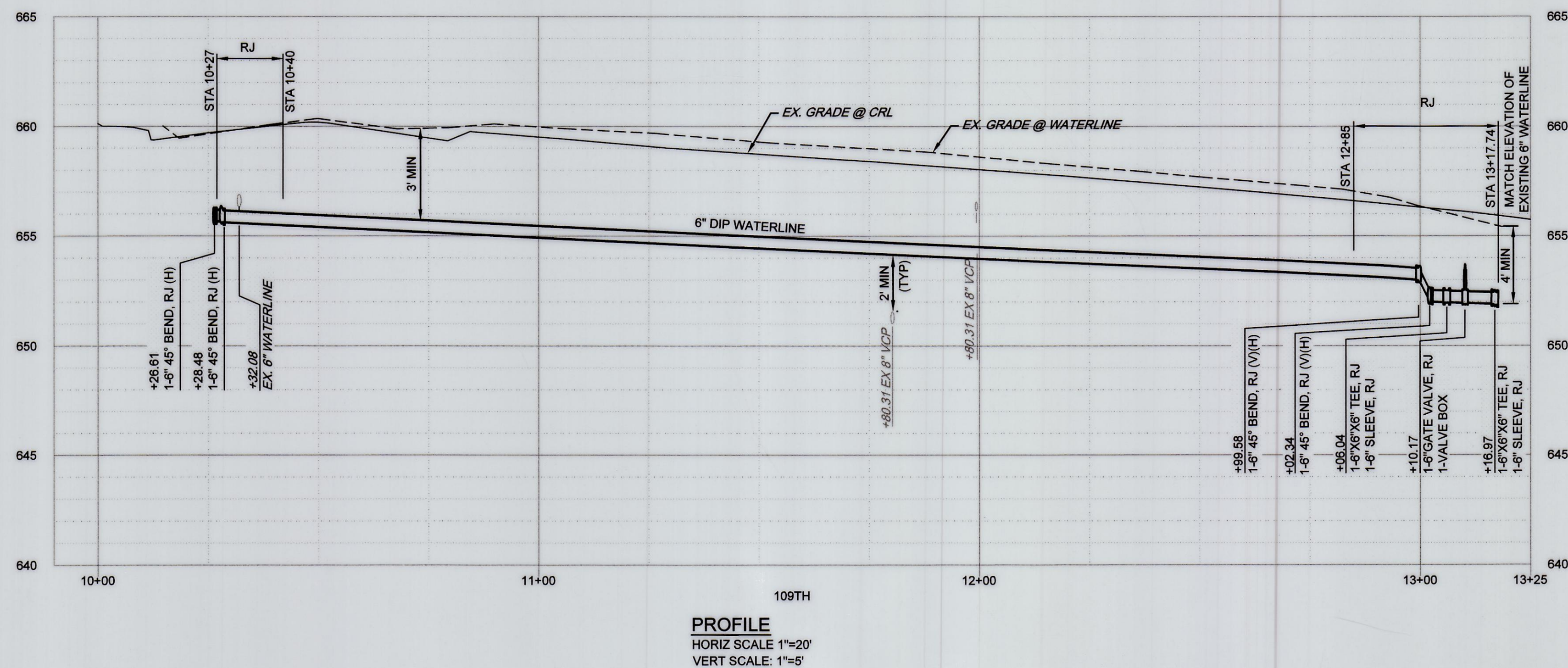
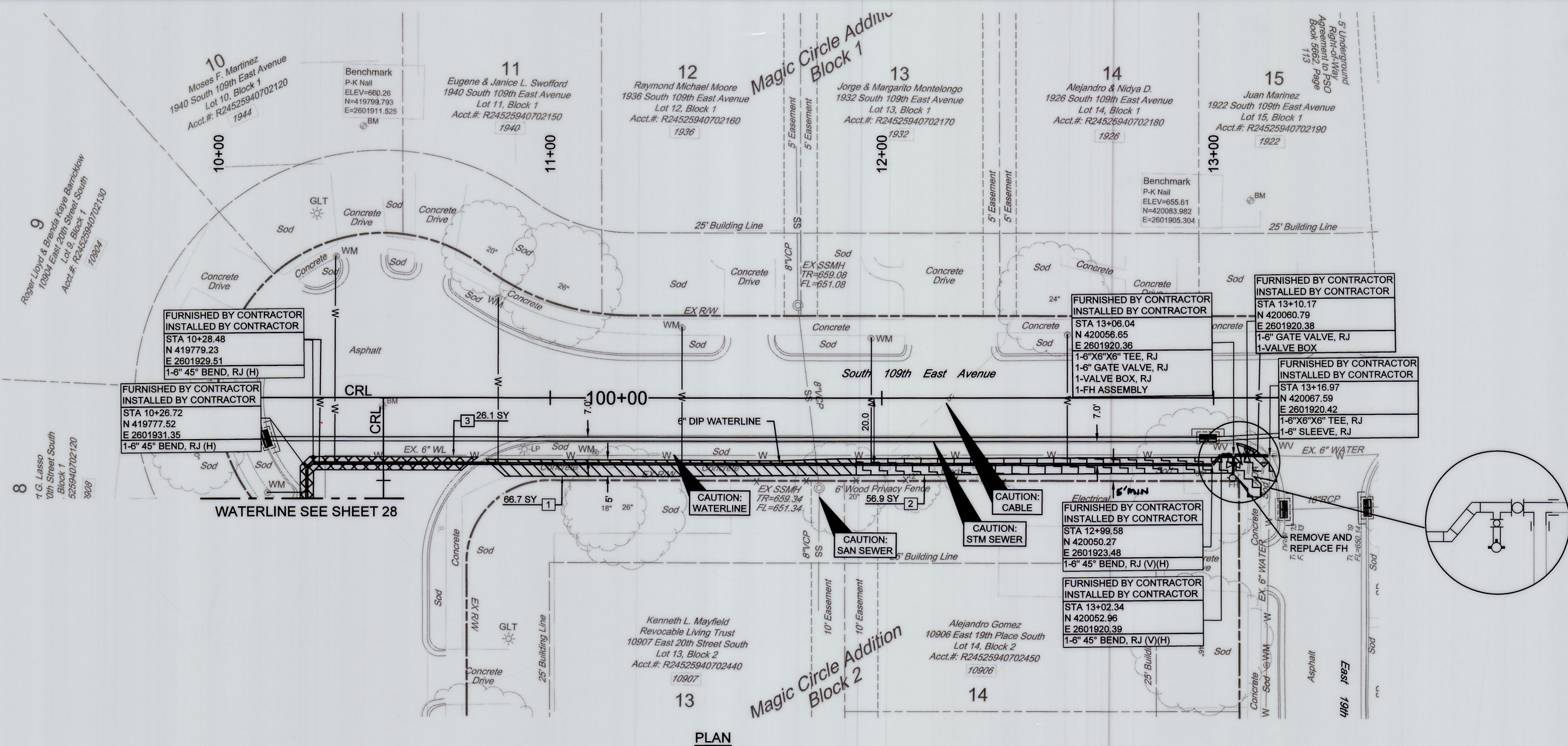
E 20TH ST S PLAN AND PROFILE SHT 2 STA 103+00 TO 105+50

MZ 5027 COT #2036N5027Z

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

wallace design collective
wallace design collective, pc
221 N. Martin Luther King Jr. Blvd.
Tulsa, Oklahoma 74103
918.584.5856 - wallacedesign

REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	DATE	APPROVED
			1"=20'	DESIGNED	LKW	9/2022	
				SURVEY	RWB	9/2022	
			PROFILE SCALE:	PROJ MGR.	JH	12/23	
			HORIZONTAL:	LEAD ENGR.	9/24		
			1"=20'	FIELD MGR.	9/25		
			VERTICAL:	RECOMMENDED:			
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:		DATE:	09.26.25
			ATLAS PAGE NO:	178		SHEET	25 OF 28 SHEETS



- ### LEGEND

- 1 REMOVE / REPLACE CONCRETE SIDEWALK
RE: SHEET 7
- 2 NEW SIDEWALK
RE: SHEET 7
- 3 FULL DEPTH ASPHALT PATCH
(TYPE 1 AC PATCH NON-ARTERIAL)
RE: SHEET 6

- 2** NEW SIDEWALK
RE. SHEET 3

- 3** FULL DEPTH ASPHALT PATCH
(TYPE 1 AC PATCH NON-ARTERIAL)
RE: SHEET 6

SERVICE CONNECTIONS THIS SHEET

- | | |
|---|--------------|
| 0 | - 3/4" SHORT |
| 0 | -1" SHORT |
| 6 | -3/4" LONG |
| 0 | -1" LONG |

- | | |
|---|-----------|
| 0 | -1" SHORT |
|---|-----------|

- | | |
|---|------------|
| 6 | -3/4" LONG |
|---|------------|

- | | |
|---|----------|
| 0 | -1" LONG |
|---|----------|

Benchmark

3/8" Iron Pin
EL 650.98
N 420358.663
E 2601839.286

P-K Nail
EL 655.72
N 420083.988
E 2601905.299

P-K Nail
EL 657.17
N 420090.696
E 2602128.572

P-K Nail
EL 660.26
N 419799
E 260191

Chiseled "X"
EL 661.73
N 419819.251
E 2602149.476

Chiseled "X"
EL 660.13
N 419796.244
E 2602398.892

MAXIMUM PIPE DEFLECTION, HORIZONTAL OR VERTICAL SHALL BE 1"30' PER JOINT. THE DEFLECTION NOTED SHALL BE SPACED EVENLY OVER THE STATIONS SHOWN

CAUTION

NOTICE TO CONTRACTOR

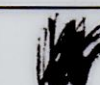
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXIST FIELD LOCATIONS OF THE UTILITIES.

TMUA-W 22-19


**WATERLINE PLAN AND PROFILE SHT 1
S 109TH E AVE**

MZ 5027 COT #2036N5027Z

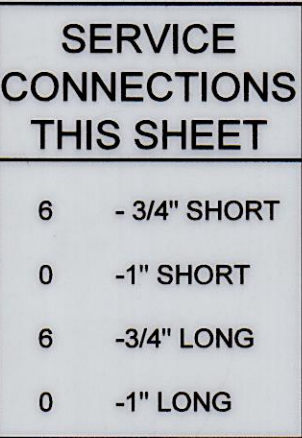
**CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT**



wallace
design
collective


REVISION	BY	DATE	PLAN SCALE:	DRAWN	GRA	9/20/22	APPROVED
			1"=20'	DESIGNED	LKW	9/20/22	
				SURVEY	RWB	9/20/22	
			PROFILE SCALE	PROJ MGR.	JH	12/03	
			HORIZONTAL:	LEAD ENGR.	COW	9/24	
			1"=20'	FIELD MGR.	BW	9/25	
			VERTICAL:	RECOMMENDED	JH	9/25	
			1"=5'	DESIGN MANAGER			
			FILE:	DRAWING:		DATE: 09.30.25	
			ATLAS PAGE NO:	178			SHEET 27 OF 28 SHEETS

PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\
FILE: 2240017 WATER PLAN PROFILES.dwg
DATE: Nov 29, 2023 - 8:41AM



TMUA-W 22-19

MZ 5027 COT #2036N5027Z



wallace
design
collective

wallace design collective, p
123 n. martin luther king jr. blv
tulsa, oklahoma 74103
918.584.5858 · wallace.design

Non-Arterial Street Rehabilitation/Maintenance for Maintenance Zone 5027 - Project No. 2036N5027Z

PATH: Z:\2240017 MZ 5027\DWG\PRODUCTION\
FILE: 2240017 WATER PLAN PROFILES.dwg
DATE: Nov 29, 2023 - 8:41AM