CONSTRUCTION PLANS FOR
ARTERIAL STREET REHABILITATION
S MINGO ROAD
BETWEEN ADMIRAL PL & E 11TH ST S

PROJECT NO 144017–P, SWD 11241 & TMUA–W 17–24
ACCOUNT NUMBER 6014–5451101–040522144017

CITY UTILITIES:
THE CITY OF TULSA
UTILITY COORDINATOR
ATTN: CHRIS KOVAC
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

SURVEY NOTE
HORIZONTAL DATUM IS BASED ON OKLAHOMA STATE PLANE COORDINATE SYSTEM

VERTICAL DATUM IS BASED ON NAVD 1988

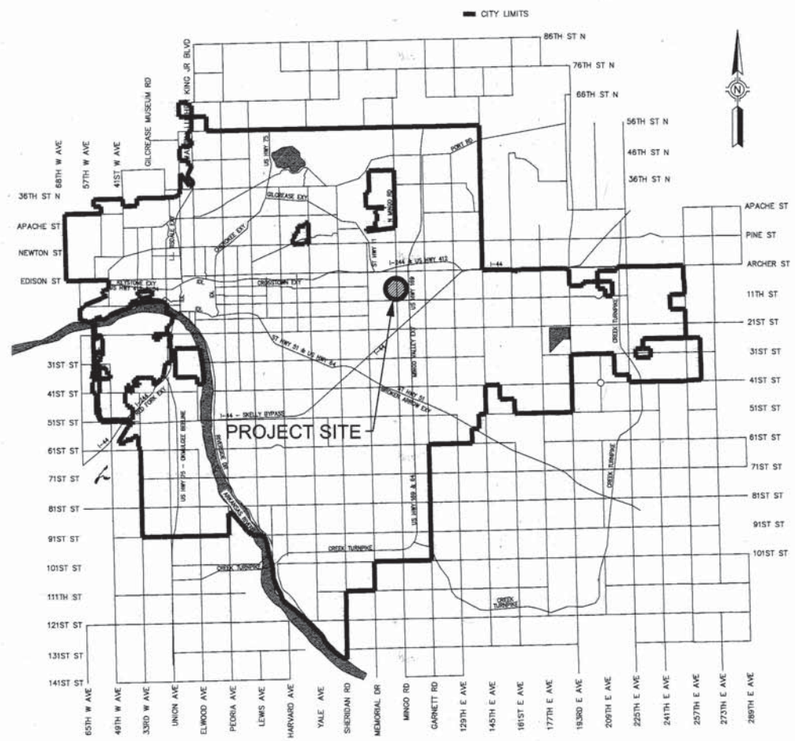
ADS # 509 1 ½" ALUMINUM CAP
N 429293.418
E 2594905.585
ELEV (NAVD 88) - 627.841'

SITE SPECIFIC BENCHMARKS AS SHOWN ON RIGHT OF WAY AND SURVEY DATA SHEET (SHEET 10)

LEGEND

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

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE



PROJECT LENGTH = 3,635 LANE FEET
= 0.69 LANE MILES
DESIGN SPEED = 40 MPH

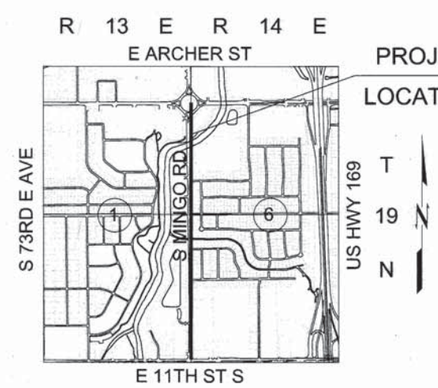
CAUTION NOTICE TO CONTRACTOR

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

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 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

THIS PROJECT COMPLIES WITH ALL OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ) REQUIREMENTS.



LOCATION MAP
SCALE: NTS

MYLAR PLANS
DATE: 20 JULY 2020

SHEET INDEX

1	TITLE SHEET
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22-24	INTERSECTION PLAN SHEETS
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28-44	CROSS SECTIONS

CITY OF TULSA STANDARD DRAWINGS
125 - PROJECT SIGN
126 - STANDARD SILT FENCE AND CONSTRUCTION ENTRANCE
304 - BEDDING DETAIL - RIGID PIPE
608 A - STREET NAME SIGNS
608 B - TRAFFIC SIGNS
625 - REMOVAL OF TRAFFIC ITEMS
702 - RESIDENTIAL CONCRETE DRIVEWAY ASPHALT STREET
725 - STANDARD PAVEMENT PATCH AND REPAIR
730 - STANDARD ASPHALT PAVEMENT CUT AND REPAIR
731 - STANDARD CONCRETE PAVEMENT CUT AND REPAIR

ODOT STANDARD DRAWINGS

DC-3	PM2-1	SSS-1	TCS9-1	TFL-1	GA31-1
FGS1-1	PM3-1	TCS5-1	TCS33-1	TSC1-3	GHW1-1
MJB-3	PSE-1	TCS6-1	TCS37-1	TSC2-3	GHW2-1
PCES-4	SMD-3	TCS7-1	TCS38-1	TSD-2	RWF3-2
PM1-1	SSA2-1	TCS8-1	TCS67-1	TWD-1	

CITY OF TULSA ADS BENCHMARK
BM 509 1½" ALUMINUM CAP - SET SW OF THE INTERSECTION OF 89TH E AVE & ADMIRAL PL
N 429293.418
E 2594905.585
ELEV 627.841

BM 2016-22 3" ALUMINUM CAP IN CONC POST - SET NE OF THE INTERSECTION OF N MEMORIAL DR & E EASTON N ST
N 430339.287
E 2592200.471
ELEV 694.877

CITY OF TULSA, OKLAHOMA

CITY OF TULSA OKLAHOMA

CITY ENGINEER — DATE 03.17.21

03.19.21
ADVERTISEMENT DATE

PREPARED BY:

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA

Lance K Woolsey
LANCE K WOOLSEY, PE NO 15383

wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS,INC
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858
OKLAHOMA CA #1460
EXP DATE 6/30/21

PROJECT NO 144017-P ARTERIAL PROJECT: S MINGO RD - ADMIRAL PL TO 11TH ST

wallace engineering
08-Oct-20 08:50:34 \\civil-server\projects\1740178 ...terial Mingo\Dgn\1-Title.dgn

PAY ITEM NOTES, REV 11/14/18

SUMMARY OF PAY QUANTITIES - ROADWAY

CITY OF TULSA

ITEM	SPEC	DESCRIPTION	NOTES (SEE SHT 3)	UNIT	QTY
1	201(A)	CLEARING AND GRUBBING	(E-1,2)	ACRE	1
2	202(A)	UNCLASSIFIED EXCAVATION	(E-3, 4, 5)(R-1)	CY	576
3	202(D)	UNCLASSIFIED BORROW	(E-5)	CY	500
4	205(A)	TYPE A - SALVAGED TOPSOIL		CY	1081
5	220	SWPPP DOCUMENTATION AND MANAGEMENT	(E-6)	LSUM	1
6	221(C)	TEMPORARY SILT FENCE	(E-7)	LF	3052
7	221(F)	TEMPORARY SILT DIKE	(E-7)	LF	200
8	230(A)	SOLID SLAB SODDING (LIKE KIND)	(E-10, 11)	SY	6283
9	303(A)	AGGREGATE BASE, TYPE A	(E-5)(S-1, 2)	CY	741
10	310(B)	SUBGRADE METHOD B	(E-5)	SY	1371
11	325	SEPARATOR FABRIC	(E-5)(S-3)	SY	3600
12	409	FABRIC REINFORCEMENT, MIRAFI MPG4	(S-4)	SY	14630
13	411(C)	ASPHALT CONCRETE TYPE S4 (PG 70-28 OK)(INSOLUBLE)	(S-5, 6, 7, 8)	TON	3362
14	411(D)	ASPHALT CONCRETE TYPE S5 (PG 70-28 OK)	(S-5, 6, 7, 8)(G-1)	TON	854
15	412	COLD MILL PAVEMENT	(S-9)	SY	14197
16	414(A)	PC CONCRETE PAVEMENT (PLACEMENT)	(S-10, 11)	SY	427
17	414(G)	PC CONCRETE FOR PAVEMENT	(S-10, 11, 12, 13)	CY	83
18	609(B)	COMBINED CURB AND GUTTER (6" BARRIER)	(S-12, 13, 15, 16)	LF	8
19	609(B)	COMBINED CURB AND GUTTER (6" MNT)	(S-12, 13, 15, 16)	LF	114
20	610(A)	CONCRETE SIDEWALK (4")	(S-12, 13, 16, 17)	SY	1837
21	610(G)	ASPHALT DRIVEWAY	(S-17)	SY	396
22	610(I)	TACTILE WARNING DEVICE-NEW		SF	150
23	612(E)	VALVE BOX, ADJUST TO GRADE	(S-12)(R-2)	EA	2
24	619(B)	REMOVAL OF ASPHALT PAVEMENT	(R-1, 2, 5, 6)	SY	298
25	619(B)	REMOVAL OF CURB	(R-1, 2, 5, 6)	LF	138
26	619(B)	REMOVAL OF ASPHALT DRIVEWAY	(R-1, 2, 5, 6)	SY	394
27	619(B)	REMOVAL OF GUARDRAIL	(R-1, 2, 5, 6)	LF	80
28	623(A)	BEAM GUARDRAIL W-BEAM SINGLE		LF	265
29	623(F)	GUARDRAIL TRAIL END TURNDOWN (31")		EA	7
30	624(E)	FENCE - STYLE CLF (4 FT HIGH, CLASS A)		LF	88
31	641	MOBILIZATION	(G-2)	EA	1
32	642	CONSTRUCTION STAKING	(G-3, 4)	EA	1
33	805(A)	REMOVAL OF TRAFFIC ITEMS	(T-1)	EA	14
34	855(A)	TRAFFIC STRIPE (4")(PLASTIC)	(T-3)	LF	15358
35	855(A)	TRAFFIC STRIPE (PLASTIC) (ARROWS)	(T-3)	EA	3
36	880(B)	CONSTRUCTION SIGNS 0 TO 6.25 SF	(T-2, 4, 5)	SD	6660
37	880(B)	CONSTRUCTION SIGNS 6.25 TO 15.99 SF	(T-2, 4, 5)	SD	9990
38	880(B)	CONSTRUCTION SIGNS 16.0 TO 32.99 SF	(T-2, 4, 5)	SD	8020
39	880(C)	BARRICADES (TYPE III)	(T-2, 4, 5)	SD	4320
40	880(E)	WARNING LIGHTS (TYPE A)	(T-5)	SD	8640
41	880(E)	WARNING LIGHTS (TYPE C)	(T-5)	SD	5625
42	880(F)	DRUMS	(T-2, 4, 5)	SD	5625
43	880(G)	TUBE CHANNELIZERS	(T-2, 4)	SD	8100
44	880(I)	FLAG PERSON	(T-6)	FD	540
45	882(B)	REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN	(T-4)	SD	540
46	SPECIAL	PROJECT SIGN (CITY OF TULSA)	(T-7)	EA	2
47	SPECIAL	TYPE I AC PATCH (ARTERIAL)	(S-21)(G-1)	CY	322
48	SPECIAL	TYPE I APC PATCH (ARTERIAL)	(S-21)(G-1)	CY	9
49	SPECIAL	SIDEWALK RAMP		EA	15
50	SPECIAL	URBAN RIGHT-OF-WAY RESTORATION	(G-5, 6, 7, 8, 9, 10)	EA	1
51	SPECIAL	OWNER ALLOWANCE		ALLOW	1
52	SPECIAL	SIGNAGE FOR LOCAL BUSINESS ACCESS (BAS-1)	(T-4)	SD	1620
53	(SP) COT 202	QUICK SET FLOWABLE FILL	(G-1)	CY	2
54	(SP) COT 643	CONTRACTOR'S QUALITY CONTROL		LSUM	1
55	(SP) COT 608(A)	GROUND SIGN	(T-2)	SF	145
56	(SP) COT 608(C)	1½" SQUARE TUBE POST		LF	8
57	(SP) COT 608(D)	1¾" SQUARE TUBE POST		LF	193
58	(SP) COT 608(E)	2" SQUARE TUBE POST		LF	57

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.

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

E-1: ALL COSTS FOR REMOVING TREES, SHRUBS, STUMPS, POSTS, AND ALL OTHER DEBRIS AND/OR OBSTRUCTIONS NOT COVERED BY A SEPARATE PAY ITEM ARE INCLUDED IN THE PRICE BID.

E-2: ALL EXISTING DRAINAGE STRUCTURES SHALL BE CLEANED AND CLEARED OF ALL SEDIMENTATION AND DEBRIS TO THE RIGHT OF WAY. COST OF CLEARING SHALL BE INCLUDED IN THE PRICE BID.

E-3: 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.

E-4: UNCLASSIFIED EXCAVATION INCLUDES REMOVAL OF AGGREGATE BASE AND MODIFIED SUBGRADE UNDER EXISTING PAVEMENT TO BE REPAIRED.

E-5: THIS QUANTITY INCLUDES AN ADDITIONAL 10% ABOVE PLAN QUANTITY FOR UNDERCUTTING OF UNSUITABLE SUBGRADE MATERIAL OR ADDITIONAL PATCHING AS DIRECTED BY THE ENGINEER.

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.

BINDER GRADE	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 TEMPORARY CONSTRUCTION.
PG 70-28 OK	<10	< 10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES.
PG 76-28 OK	>= 10	>= 10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES .
PG 76-28 E	--	--	CONTACT ODOT MATERIALS DIVISION FOR RECOMMENDED USE.

(1) USE ADT ONLY WHEN ESAL COMPUTATIONAL DATA IS NOT AVAILABLE. CALCULATE THE DESIGN ESALs BASED ON 20 YEARS.
(2) PG 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: FOR P.C. CONCRETE TYPICAL SECTIONS, CONTRACTOR MAY SUBSTITUTE INTEGRAL CURB FOR CURB & GUTTER, AND VICE VERSA, ONLY WITH APPROVAL OF THE ENGINEER, WITH NO ADJUSTMENT MADE TO UNIT PRICE OR QUANTITY.

S-11: CONCRETE PAVEMENT SHALL BE COMPLETE IN PLACE. NO PARTIAL OR FINAL PAYMENT SHALL BE MADE UNTIL PAVEMENT HAS BEEN SAWED AND SEALED. ANY SECTIONS OF PAVEMENT WITH UNAPPROVED DEVIATIONS FROM THE JOINT LAYOUT PROVIDED IN THE PLANS MAY BE REJECTED AT THE DISCRETION OF THE ENGINEER.

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.

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA
07/20/2020

SUMMARY OF PAY QUANTITIES

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

REVISION	BY	DATE

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	AEE	11/20	
HORIZONTAL:	LEAD MGR.		11/20	
	FIELD MGR.		11/21	
VERTICAL:	RECOMMENDED: HAS 2.21			CITY ENGINEER
	DESIGN MANAGER			
FILE:	DRAWING:			DATE: ~~06/11/20~~ 3.19.21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 2 OF 45 SHEETS

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24

26-Feb-21 13:05:00 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\2-PayQuant Rdy.dgn

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.

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

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: NOT USED.

D-2: NOT USED.

D-3: NOT USED.

D-4: NOT USED.

D-5: NOT USED.

D-6: NOT USED.

D-7: NOT USED.

D-8: NOT USED.

D-9: NOT USED.

D-10: NOT USED.

D-11: NOT USED.

D-12: NOT USED.

D-13: NOT USED.

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 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.

T-3: ALL PLASTIC PAVEMENT MARKINGS SHALL BE EITHER:

EXTRUDED-APPLIED THERMOPLASTIC (USE ON ASPHALT AND CONCRETE PAVEMENT).
THERMOPLASTIC PAVEMENT MARKINGS SHALL ONLY BE APPLIED WHEN THE SURFACE TEMPERATURE EXCEEDS 55°F FOR ALL OF THE SIX HOURS PRIOR TO INSTALLATION AND MAXIMUM WIND GUSTS ARE BELOW 15 MPH AT THE TIME OF APPLICATION. PRICE BID TO INCLUDE FLEX TABS OR LIKE KIND FOR POST CONSTRUCTION LANE MARKING/SEPARATION. MECHANICALLY APPLIED PREFORMED PLASTIC TAPE ("COLD TAPE") WILL NOT BE ACCEPTED.

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: THE PAY ITEM FOR FLAGGER SHALL BE PAID FOR ON A FLAG DAY (F.D.) BASIS. ONE F.D. IS ONE COMPLETE WORKDAY AS PERFORMED BY THE CONTRACTOR SET FORTH IN THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

T-7: PRICE BID FOR THIS ITEM INCLUDES INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF PROJECT SIGN.

PAY QUANTITY NOTES

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA, OK 74103
(918) 584-5858

REVISION	BY	DATE

PLAN SCALE:	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.	AEW	11/20
HORIZONTAL:	LEAD MGR.	[illegible]	11/20
	FIELD MGR.	[illegible]	7/21
VERTICAL:	RECOMMENDED: HAS 2-21 DESIGN MANAGER		

APPROVED:
CITY ENGINEER

FILE: DRAWING:
DATE: ~~08/11/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176
SHEET 3 OF 45 SHEETS

GENERAL CONSTRUCTION NOTES (REV 09/12/16)

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2009 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE CURRENT CITY OF TULSA ENGINEERING SERVICES DEPARTMENT'S STANDARD SPECIFICATIONS AND STANDARD DETAILS AND STANDARD DRAWINGS AND CITY OF TULSA SPECIAL PROVISIONS.

2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTION ON AS HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.

3. PAY ITEMS SHALL BE AS SPECIFIED ON THE CITY OF TULSA OR ON THE ODOT STANDARD DRAWINGS EXCEPT AS MODIFIED BY THE CONTRACT.

4. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.

5. THE LOCATIONS OF THE UTILITIES ARE SHOWN ACCORDING TO ALL AVAILABLE INFORMATION. THE CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER PRIOR TO COMMENCEMENT OF WORK TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATIONS. THE FOLLOWING IS A LIST OF UTILITY OWNERS; AT&T, PUBLIC SERVICE COMPANY OF OKLAHOMA (AEP), OKLAHOMA NATURAL GAS (ONG), COX COMMUNICATIONS, MCI/VERIZON, EASYTEL COMMUNICATIONS, WELLSCO VALLOR TELECOM, CITY OF TULSA-WATER AND SEWER, CITY OF TULSA-TRAFFIC OPERATIONS. SEE TITLE SHEET FOR CONTACT INFORMATION.

6. THE CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF OKLAHOMA ONE-CALL SYSTEM, INC. NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS NOR LATER THAN 48 HOURS , EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO THE COMMENCEMENT OF WORK. PHONE 1-800-522-6543.

7. THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PREVENT EXCESS MOISTURE FROM INCLEMENT WEATHER OR OTHER SOURCES FROM ENTERING ANY STREET EXCAVATION. IF EXCESS MOISTURE DOES ENTER THE EXCAVATION THROUGH THE NEGLIGENCE OF THE CONTRACTOR AND THE ADJOINING PAVEMENT IS ADVERSELY EFFECTED BY THE EXCESS MOISTURE, THE CONTRACTOR SHALL REPLACE THE ADJOINING PAVEMENT AND SUBBASE AT HIS SOLE EXPENSE.

8. THE CONTRACTOR SHALL PRESERVE THE INTEGRITY OF THE SANITARY SEWER STRUCTURES AND ALL OTHER UTILITY STRUCTURES WITHIN THE PROJECT EXTENTS.

9. THE CONTRACTOR SHALL WORK IN COOPERATION WITH THE CITY OF TULSA TO ESTABLISH, INSTALL, MAINTAIN, AND OPERATE COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. ALL FLAGMEN, BARRICADES, AND TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE FIELD ENGINEERING REPRESENTATIVE.

10. CONSTRUCTION SIGNAGE WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT ADDITION, AND APPLICABLE ODOT STANDARD DRAWINGS. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING WORK.

11. THE CONTRACTOR SHALL NOTIFY THE CITY OF TULSA FIELD ENGINEERING, 918-596-9404, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK OR PRIOR TO REMOVING TRAFFIC SIGNS.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL EXISTING TRAFFIC SIGNS AND MARKINGS REMOVED OR DAMAGED AS LISTED IN THE SIGNAGE SCHEDULE FOR THE PROJECT. ALL SIGNS AND POLES PROVIDED SHALL BE NEW AND UNDAMAGED AND SHALL MEET THE REQUIREMENTS OF COT SPECIFICATION 608 TRAFFIC SIGNS. ALL TRAFFIC MATERIALS REMOVED SHALL BE HANDLED PER COT SPECIFICATION 625 REMOVAL OF TRAFFIC ITEMS.

13. THE CONTRACTOR WILL BE RESPONSIBLE FOR PREPARATION AND DISTRIBUTION OF A WRITTEN NOTICE TO RESIDENTS 48 HOURS PRIOR TO BEGINNING PAVEMENT REMOVAL AND MILLING AND OVERLAY OPERATIONS.

14. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH THE PROJECT AT ALL TIMES.

15. ALL PUBLIC AND PRIVATE STREETS AND DRIVES SHALL BE ACCESSIBLE AT ALL TIMES.

16. ALL BROKEN CONCRETE, WASTE MATERIAL, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

17. ALL EXCAVATED MATERIAL NOT REQUIRED IN 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 WILL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY MATERIAL IS STORED ON THE PROJECT SITE AND/OR DISPOSED OF WITHIN THE CITY LIMITS.

18. ALL TREES, BRUSH AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK. TREES OUTSIDE THE FILL SLOPES AND THE TOP OF CUT SLOPES SHALL NOT BE DISTURBED EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

19. WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE CAPACITY RECOMMENDED BY THE VEHICLE MANUFACTURER OR AS PRESCRIBED BY ANY FEDERAL, STATE OR LOCAL LAW OR REGULATION.

20. ANY DAMAGE TO THE ROADWAY PAVEMENT, CURB, DRIVEWAYS OR SIDEWALK CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED TO THE ENGINEER'S SATISFACTION AND SHALL BE ACCOMPLISHED AT THE CONTRACTOR'S SOLE EXPENSE. ALL DISTURBED ITEMS SHALL BE REPAIRED TO MATCH EXISTING MATERIALS AND PATTERNING.

21. IF THE CONTRACTOR ENCOUNTERS VOIDS WHEN PATCHING STREETS, THE CONTRACTOR SHALL CALL FIELD ENGINEERING AT 918-596-7814 FOR AN INSPECTION BEFORE PROCEEDING WITH WORK.

22. THE PROJECT SHALL BE CONSTRUCTED WITH CONTINUOUS FLOW OF MATERIAL SUPPLIED TO THE PROJECT SUCH THAT THE LAYDOWN MACHINE WILL REMAIN IN MOTION. ANY DELAY IN FORWARD PROGRESSION OF THE LAYDOWN MACHINE MAY REQUIRE A TRANSVERSE JOINT AS DIRECTED BY THE ENGINEER.

23. NO FLY ASH IS ALLOWED TO BE USED ON THIS PROJECT.

24. PHYSICAL TESTING FOR QUALITY ASSURANCE SHALL BE FURNISHED BY THE CITY.

25. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY QUALITY CONTROL TESTING TO ENSURE THAT PROJECT REQUIREMENTS ARE MET.

26. MASONRY STRUCTURES SHALL NOT BE CONSTRUCTED WITHIN THE STREET RIGHT-OF-WAY.

27. ALL CONCRETE CURB AND GUTTERS SHALL BE MONOLITHIC POURS. DOWELED-ON CURBS WILL NOT BE ALLOWED.

28. NO LIFTING HOLES WILL BE ALLOWED ON ANY REINFORCED CONCRETE PIPES OR REINFORCED CONCRETE BOXES.

29. CURB RAMP CONSTRUCTION SHALL COMPLY WITH THE CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS.

30. REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.

31. 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.

32. THE SIGN PLACEMENT STATIONING AND LOCATIONS SHOWN ON THE PLAN SHEETS AND SUMMARY SHEETS ARE APPROXIMATE. EXACT STATIONING AND LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH CITY OF TULSA STANDARDS, CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES, OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.

33. POST LENGTHS SHOWN ON SIGN SUMMARY ARE APPROXIMATE. EXACT LENGTHS SHALL BE DETERMINED BY A FIELD SURVEY CONDUCTED BY THE CONTRACTOR.

34. ALL ASPHALT STREETS THAT ARE TO BE RECONSTRUCTED SHALL BE LEFT WITH A DRIVABLE SURFACE AT ALL TIMES. THE CONTRACTOR WILL NOT BE ALLOWED TO MILL OFF ALL THE ASPHALT BEFORE EXCAVATION BEGINS.

35. THE CONTRACTOR SHALL REPLACE ANY SECTION CORNERS OR OTHER PERMANENT RIGHT OF WAY MARKERS REMOVED OR DISTURBED AS A RESULT OF THE CONSTRUCTION OF 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.

36. 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.

37. STRAW OR HAY BALES AS STORMWATER BEST MANAGEMENT PRACTICES ARE NO LONGER ALLOWED ON CONSTRUCTION PROJECTS.

38. THE CONTRACTOR MUST CALL 1-800-458-4251 IMMEDIATELY IF A NATURAL GAS PIPELINE IS CUT, DAMAGED, OR OTHERWISE DISTURBED.

39. PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DICOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT.

40. 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 CONTACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK, WHICH IS NOT IN FULL COMPLIANCE WITH THE ADA WITHOUR 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.

41. 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.

42. 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.

43. CONTRACTOR SHALL NOT STORE EQUIPMENT OR MATERIALS IN THE FLOODPLAIN.

WATER GENERAL CONSTRUCTION NOTES (REV 05/18/16)

1. THE CITY OF TULSA FIELD ENGINEERING DEPARTMENT SHALL INSPECT ALL TRENCHING, BEDDING, PIPE INSTALLATION, BACKFILL AND COMPACTION. 1

2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT STANDARD SPECIFICATIONS AND STANDARD DETAILS, CITY OF TULSA ENGINEERING SERVICES DEPARTMENT.

3. 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.

4. MINIMUM COVER OVER WATER LINES SHALL BE AS NOTED ON PLANS.

5. CONTRACTOR SHALL REPLACE EXISTING GRASS WITH SEED/SOD OF SAME TYPE AND VARIETY OR AS NOTED ON PLANS.

6. CONTRACTOR SHALL BORE EXISTING TREES UNDER DRIP LINE, UNLESS DIRECTED OTHERWISE BY ENGINEER.

7. CONTRACTOR SHALL BORE EXISTING DRIVEWAYS, UNLESS DIRECTED OTHERWISE BY ENGINEER.

8. CITY CREWS ONLY ARE TO OPERATE ALL VALVES. CONTRACTOR SHALL NOTIFY CITY THRU INSPECTOR.

9. 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.

10. CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC, NOTICE OF ANY EXCAVATION NO SOONER THAN 48 HOURS OR LATER THAN 10 DAYS, EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAYS PRIOR TO COMMENCEMENT OF WORK, PHONE 1-800-522-6543.

11. 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.

12. ANY DAMAGE CAUSED BY CONTRACTOR TO ADJACENT TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE TRAFFIC ENGINEER.

13. PRIOR TO PAVEMENT SAWING AND EXCAVATION NEAR SIGNALIZED INTERSECTION, CONTRACTOR SHALL CONTACT ENGINEERING SERVICES, TRAFFIC OPERATIONS, 918-596-9766, FOR SITE SPECIFIC, UNDERGROUND TRAFFIC UTILITY LOCATES.

14. CONSTRUCTION FOR ALL ENGINEERING SERVICES 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).

15. 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.

16. ANY CHANGES FROM APPROVED PLANS SHALL BE SUBMITTED TO THE CITY OF TULSA FOR WRITTEN APPROVAL PRIOR TO INSTALLATION.

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
Lance K. Woolsey
07/20/2020

CITY OF TULSA OKLAHOMA

REVISION	BY	DATE

GENERAL NOTES

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	AEE	11/20	
HORIZONTAL:	LEAD MGR.		11/20	
	FIELD MGR.		2/21	
VERTICAL:	RECOMMENDED:		2-21	CITY ENGINEER
	DESIGN MANAGER			
FILE:	DRAWING:			DATE: ~~05/14/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 4 OF 45 SHEETS

PAY ITEM NOTES, REV 09/24/18

SUMMARY OF PAY QUANTITIES - WATER

CITY OF TULSA

ITEM	SPEC	DESCRIPTION	NOTES (THIS SHT)	UNIT	QTY
59	COT 301	RIGHT-OF-WAY CLEARING AND RESTORING, COMPLETE IN PLACE	(4, 5, 6, 7, 22, 23)	SY	100
60	COT 302	EXCAVATION AND BACKFILL, UNCLASSIFIED	(14)	CY	125
61	COT 303	MOBILIZATION		EA	1
62	COT 307	6 INCH DIP, CL 51 POLYETHYLENE WRAPPED (RJ)	(1, 2, 3, 8, 9, 11)	LF	80
63	COT 307	8 INCH DIP, CL 51 POLYETHYLENE WRAPPED (RJ)	(1, 2, 3, 8, 9, 11)	LF	60
64	COT 307	12 INCH DIP, CL 50 POLYETHYLENE WRAPPED (RJ)	(1, 2, 3, 8, 9, 11)	LF	180
65	COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)	(2, 8)	EA	4
66	COT 312	8 INCH DUCTILE IRON 45 DEGREE BEND (RJ)	(2, 8)	EA	4
67	COT 312	12 INCH DUCTILE 45 DEGREE BEND (RJ)	(2, 8)	EA	8
68	COT 312	6 INCH DUCTILE IRON SLEEVE (RJ)	(2, 8, 12)	EA	2
69	COT 312	8 INCH DUCTILE IRON SLEEVE (RJ)	(2, 8, 12)	EA	2
70	COT 312	12 INCH DUCTILE IRON SLEEVE (RJ)	(2, 8, 12)	EA	4
71	SPECIAL	CONSTRUCTION AS-BUILT	(24, 25, 27)	EA	1
72	SPECIAL	OWNER ALLOWANCE	(18)	EA	1

WATER PAY QUANTITY NOTES (09/24/18)

1. TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CITY OF TULSA. TESTING, CHLORINATION, AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH SECTION 109.3 OF THE GENERAL SPECIFICATIONS.

   A. CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, AS DIRECTED BY CITY TESTING PERSONNEL, THEN, ONCE TESTING, CHLORINATION AND FLUSHING BY CITY PERSONNEL IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM, USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.

   B. 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 EXISTING SYSTEM.

   C. ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.

2. 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.

3. 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. COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE.

4. 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.

5. ALL HYDRANTS, VALVES AND OTHER FITTINGS FROM ABANDONED WATER MAINS SHALL BE SALVAGED AND DELIVERED TO SOUTH YARD, 2317 S JACKSON. PAYMENT TO BE MADE UNDER RIGHT OF WAY CLEARING AND RESTORATION. NO ADDITIONAL PAYMENT SHALL BE MADE.

6. 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.

7. 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.

8. 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.

   A. DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, SMITH-BLAIR CAMLOCK, CLOW TUFGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THROUGH UNCASED BORES, ONLY USPIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. LOCKING GASKETS NOT PERMITTED;

   B. 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.

   C. 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.

9. 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 UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.

10. NOT USED.

11. 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 COST OF DUCTILE IRON PIPE.

12. ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN COST OF SLEEVES/ADAPTORS. 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. COST FOR EXCAVATING EXISTING WATER MAINS SHALL BE INCLUDED IN UNIT PRICE BID FOR SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.

13. NOT USED.

14. 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.

15. NOT USED.

16. NOT USED.

17. NOT USED.

18. 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 COST OF MATERIALS, LABOR, INSTALLATION AND 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.

    A. 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.

    B. 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.

    C. 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.

19. NOT USED.

20. NOT USED.

21. NOT USED.

22. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING IMPROVEMENTS. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9-FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTORS EXPENSE. STREETS, DRIVEWAYS AND ASSOCIATED ITEMS SHALL BE PAID FOR UNDER OTHER ITEMS OF WORK.

23. 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 CONTRACTORS EXPENSE.

24. 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 AND ELEVATION.

25. 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 AND ELEVATION.

26. NOT USED.

27. PRESSURE TESTING AND CHLORINATION OF WATER MAINS SHALL NOT BE PERFORMED UNTIL THE CITY INSPECTOR HAS RECEIVED REQUIRED CONSTRUCTION AS-BUILT RECORDS.

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.

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA

Lance K. Woolsey 07/20/2020

TMUA-W 17-24

SUMMARY OF PAY QUANTITIES-WATER

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA, OK 74103
(918) 584-5858

REVISION	BY	DATE

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.			
HORIZONTAL:	LEAD MGR.	CEW	12/3/20	
	FIELD MGR.		2/26/21	CITY ENGINEER
VERTICAL:	RECOMMENDED: HAS 2-21			
	DESIGN MANAGER			
FILE:	DRAWING:			DATE: ~~08/14/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 5 OF 45 SHEETS

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Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24

SUMMARY OF EARTHWORK QUANTITIES

P&P SHT NO	STATION TO STATION	UNCLASSIFIED EXCAVATION 202(A) CY	UNCLASSIFIED BORROW 202(C) CY	TYPE A-SALVAGED TOPSOIL* 205 CY
15	STA 0+00 TO STA 6+00	44	30	168
16	STA 6+00 TO STA 12+00	16	62	176
17	STA 12+00 TO STA 18+00	137	42	259
18	STA 18+00 TO STA 24+00	103	52	212
19	STA 24+00 TO STA 30+00	103	60	175
20	STA 30+00 TO STA 36+00	51	57	84
21	STA 36+00 TO STA 36+95.54	---	---	7
	TOTAL	576	313	1081

SUMMARY OF PAVING QUANTITIES

P&P SHT NO	STATION TO STATION	AGGREGATE BASE, TYPE A* 303 CY	SUBGRADE METHOD B 310(B) SY	SEPARATOR FABRIC 325 SY	FABRIC REINFORCEMENT MIRAFI MPG4 409 SY	ASPH CONC, TYPE S4 (PG 70-28 OK) (INSOLUBLE) 411(C) TON	ASPH CONC, TYPE S5 (PG 70-28 OK) 411(D) TON	PC CONCRETE PVT (PLACEMENT) 414(A) SY	PC CONCRETE FOR PAVEMENT 414(G) CY	COMB CURB & GTR (6" BARRIER) 609(B) LF	COMB CURB & GTR (6" MNT) 609(B) LF	CONCRETE SIDEWALK 610(A) SY	BEAM GUARDRAIL W BEAM SINGLE 623(A) LF	GUARDRAIL TRAIL END TURNDOWN (31") 623(F) EA	FENCE - STYLE CLF (4' HIGH, CLASS A) 624(E) LF	TYPE I APC PATCH (ARTERIAL) SPEC CY	TYPE I AC PATCH (ARTERIAL) SPEC CY	ROCK WEDGE W/SOD SPEC SY
15	STA 0+00 TO STA 6+00	33	98	216	3307	741	185	31	6	8	114	258	100	4	---	---	40	---
16	STA 6+00 TO STA 12+00	65	300	742	1918	429	107	113	22	---	---	314	---	---	---	---	62	---
17	STA 12+00 TO STA 18+00	98	247	546	2108	472	118	113	22	---	---	309	---	---	---	3	43	56
18	STA 18+00 TO STA 24+00	96	230	652	2008	450	113	72	14	---	---	290	52	1	88	---	52	56
19	STA 24+00 TO STA 30+00	123	253	673	2226	499	125	72	14	---	---	307	---	---	---	3	65	112
20	STA 30+00 TO STA 36+00	99	243	771	2501	560	140	26	5	---	---	303	113	2	---	3	60	56
21	STA 36+00 TO STA 36+95.54	---	---	---	552	124	31	---	---	---	---	56	---	---	---	---	---	---
	TOTAL	514	1371	3600	14630	3275	819	427	83	8	114	1837	265	7	88	9	322	280

*INCLUDES QUANTITIES FOR ROCK WEDGE W/ SOLID SLAB SOD

SUMMARY OF EROSION CONTROL

P&P SHT NO	STATION TO STATION	TEMPORARY SILT FENCE 221(C) LF	TEMPORARY SILT DIKE 221(F) LF	SOLID SLAB SODDING* 230(A) SY
15	STA 0+00 TO STA 6+00	320	---	942
16	STA 6+00 TO STA 12+00	580	---	940
17	STA 12+00 TO STA 18+00	587	---	1544
18	STA 18+00 TO STA 24+00	549	200	1224
19	STA 24+00 TO STA 30+00	590	---	950
20	STA 30+00 TO STA 36+00	426	---	601
21	STA 36+00 TO STA 36+95.54	---	---	82
	TOTAL	3052	200	6283

SUMMARY OF CONSTRUCTION TRAFFIC CONTROL/PERMANENT SIGN QUANTITIES

P&P SHT NO	STATION TO STATION	CONSTRUCTION SIGNING **											PERMANENT SIGNS					
		CONSTRUCTION SIGNS 0 TO 6.25 SF 880(B) SD	CONSTRUCTION SIGNS 6.25 TO 15.99 SF 880(B) SD	CONSTRUCTION SIGNS 16.00 TO 32.99 SF 880(B) SD	BARRICADES (TYPE III) 880(C) SD	WARNING LIGHTS (TYPE A) 880(E) SD	WARNING LIGHTS (TYPE C) 880(E) SD	DRUMS 880(F) SD	TUBE CHANNELIZERS 880(G) SD	FLAG PERSON 880(I) FD	REMOTE CNTRL CHNGBLE SIGN 882(B) SD	PROJECT SIGN SPECIAL EA	GROUND SIGN 608(A) SF	1½" SQUARE TUBE POST 608(B) LF	1¾" SQUARE TUBE POST 608(C) LF	2" SQUARE TUBE POST 608(D) LF	PLASTIC STRIPE, WHITE (4") 855(A) LF	PLASTIC STRIPE, YELLOW (4") 855(A) LF
15	STA 0+00 TO STA 6+00	1080	1620	1300	1620	3240	900	900	1350	90	270	1	26.5	---	42	12	2541	996
16	STA 6+00 TO STA 12+00	1080	1620	1300	360	720	900	900	1350	90	---	---	---	---	---	---	1078	1200
17	STA 12+00 TO STA 18+00	1080	1620	1300	180	360	900	900	1350	90	---	---	14.25	1.5	10.5	3	1173	1030
18	STA 18+00 TO STA 24+00	1080	1620	1300	180	360	900	900	1350	90	---	---	37.25	1.5	60.5	18	1713	1028
19	STA 24+00 TO STA 30+00	1080	1620	1300	180	360	900	900	1350	90	---	---	17.25	1.5	19.5	6	940	1024
20	STA 30+00 TO STA 36+00	1080	1620	1300	360	720	900	900	1350	90	---	---	27.75	3.0	30.0	9	1020	1039
21	STA 36+00 TO STA 36+95.54	180	270	220	1440	2880	225	225	---	---	270	1	13.0	---	19.5	6	384	192
	TOTAL	6660	9990	8020	4320	8640	5625	5625	8100	540	540	2	136	7.5	182	54	8849	6509

SUMMARY OF DRIVEWAY QUANTITIES

P&P SHT	STATION	APPROX LENGTH FT	APPROX WIDTH FT	EXIST SLOPE %	PROP SLOPE (MAX) %	AGGREGATE BASE, TYPE A* 303 CY	ASPHALT DRIVEWAY 610(G) SY	REMOVAL OF ASPHALT DRIVEWAY 619(B) SY
15	2+20 (RT)	17	20	7.4	7.4	6.4	38.4	30.5
16	11+42.8 (RT)	44	19	1.3	1.3	19	114	127
19	29+55.8 (LT)	38	26	5.7	5.7	20.3	122	122
20	32+95 (LT)	36	28	5.4	5.4	20.2	121.3	114
	TOTAL					66	396	394

SUMMARY OF REMOVAL QUANTITIES

P&P SHT NO	STATION TO STATION	CLEARING & GRUBBING 201(A) ACRE	COLD MILL PAVEMENT 412 SY	REMOVAL OF ASPH PAVEMENT 619(B) SY	REMOVAL OF CURB 619(B) LF	REMOVAL OF GUARDRAIL 619(B) LF	REMOVAL OF TRAFFIC ITEMS 625 EA
15	STA 0+00 TO STA 6+00	0.2	3298	58.1	138	---	3
16	STA 6+00 TO STA 12+00	0.2	1805	---	---	---	---
17	STA 12+00 TO STA 18+00	0.2	1996	41.5	---	---	1
18	STA 18+00 TO STA 24+00	0.2	1934	52.7	---	80	3
19	STA 24+00 TO STA 30+00	0.2	2153	128.6	---	---	2
20	STA 30+00 TO STA 36+00	0.1	2459	17.5	---	---	3
21	STA 36+00 TO STA 36+95.54	---	552	---	---	---	2
	TOTAL	1.1	14197	298	138	80	14

SUMMARY OF SIGN LOCATIONS

P&P SHT NO	LOCATION	DESCRIPTION	ACTION	MUTCD TYPE	SIZE IN	AREA/SIGN SF	# OF SIGNS EA	TOTAL AREA SF	POSTS COT 608 2" LF	1¾" LF	1½" LF
15	0+98 (LT)	RIGHT LANE MUST TURN RIGHT	REMOVE & REPLACE	R3-5(R)	30x30	6.25	1	6.25	3	10.5	---
15	2+05 (LT)	RIGHT LANE MUST TURN RIGHT	REMOVE & REPLACE	R3-5(R)	30x30	6.25	1	6.25	3	10.5	---
15	2+95 (RT)	SPEED LIMIT 40 MPH	REMOVE & REPLACE	R2-1	24x30	5.0	1	5.0	3	10.5	---
15	3+50 (RT)	RIGHT LANE ENDS	NEW	W4-2	36x36	9.0	1	9.0	3	10.5	---
17	14+85 (RT)	NEIGHBORHOOD STREET NAME BLADE (S MINGO ROAD 700)	REMOVE & REPLACE		32x9	2.0	2	4.0	3	10.5	1.5
	SAME POST	NEIGHBORHOOD STREET NAME BLADE (E 7TH ST S 9700)	REMOVE & REPLACE		32x9	2.0	2	4.0			
	SAME POST	STOP	REMOVE & REPLACE	R1-1	30x30	6.25	1	6.25			
18	20+37 (RT)	NEIGHBORHOOD STREET NAME BLADE (S MINGO ROAD 500)	REMOVE & REPLACE		32x9	2.0	2	4.0	3	10.5	1.5
	SAME POST	NEIGHBORHOOD STREET NAME BLADE (E 5TH PL S 9700)	REMOVE & REPLACE		32x9	2.0	2	4.0			
	SAME POST	STOP	REMOVE & REPLACE	R1-1	30x30	6.25	1	6.25			
18	21+79 (RT)	TUPELO CREEK	REMOVE & REPLACE		24x24	4.0	1	4.0	3	10	---
	SAME POST	TYPE 3 OBJECT MARKER	REMOVE & REPLACE	OM3-R	12x36	3.0	1	3.0			
18	21+79 (LT)	TYPE 3 OBJECT MARKER	NEW	OM3-L	12x36	3.0	1	3.0	3	10	---
18	22+22 (RT)	TYPE 3 OBJECT MARKER	REMOVE & REPLACE	OM3-L	12x36	3.0	1	3.0	3	10	---
18	23+50 (LT)	TYPE 3 OBJECT MARKER	REMOVE & REPLACE	OM3-R	12x36	3.0	1	3.0	3	10	---
18	22+22 (LT)	TUPELO CREEK	REMOVE & REPLACE		24x24	4.0	1	4.0	3	10	---
	SAME POST	TYPE 3 OBJECT MARKER	REMOVE & REPLACE	OM3-R	12x36	3.0	1	3.0			
19	25+25 (LT)	MINGO GREENWAY - HISTORIC ROUTE 66	REMOVE & REPLACE	RS-142	18x24	3.0	1	3.0	3	9	---
19	26+58 (RT)	NEIGHBORHOOD STREET NAME BLADE (S MINGO ROAD 400)	REMOVE & REPLACE		32x9	2.0	2	4.0	3	10.5	1.5
	SAME POST	NEIGHBORHOOD STREET NAME BLADE (E 4TH PL S 9700)	REMOVE & REPLACE		32x9	2.0	2	4.0			
	SAME POST	STOP	REMOVE & REPLACE	R1-1	30x30	6.25	1	6.25			
20	32+54 (RT)	NEIGHBORHOOD STREET NAME BLADE (S MINGO ROAD 300)	REMOVE & REPLACE		32x9	2.0	2	4.0	3	10.5	1.5
	SAME POST	NEIGHBORHOOD STREET NAME BLADE (E 3RD ST S 9700)	REMOVE & REPLACE		32x9	2.0	2	4.0			
	SAME POST	STOP	REMOVE & REPLACE	R1-1	30x30	6.25	1	6.25			
20	34+43 (LT)	MINGO GREENWAY - HISTORIC ROUTE 66	REMOVE & REPLACE	RS-142	18x24	3.0	1	3.0	3	9	---
20	35+00 (LT)	RIGHT LANE ENDS	NEW	W4-2(L)	36x36	9.0	1	9.0	3	9	---
20	35+90 (RT)	CIRCULAR INTERSECTION	NEW	W2-6	30x30	6.25	1	6.25	3	10.5	1.5
	SAME POST	TRAFFIC CIRCLE AHEAD	NEW	W16-12P	24x18	2.0	1	2.0			
	SAME POST	SPEED LIMIT 25 MPH	REMOVE & REPLACE	W13-1P	18x18	2.25	1	2.25			
21	36+26 (LT)	BEGIN	REMOVE & REPLACE	M14-4	24x12	2.0	1	2.0	3	10.5	---
		SPEED LIMIT 40 MPH	REMOVE & REPLACE	R2-1	24x30	5.0	1	5.0			---
21	36+80 (RT)	HISTORIC ROUTE 66	REMOVE & REPLACE	RS-142	18x24	3.0	1	3.0	3	9	---
	SAME POST	1926-1932	REMOVE & REPLACE		18x6	0.75	1	0.75			
	SAME POST	TURN LEFT	REMOVE & REPLACE	M5-1	18x18	2.25	1	2.25			
	TOTAL						40	145	57	192.5	7.5

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.

** 270 CALENDAR DAYS WERE USED TO ESTIMATE QUANITIES

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA
Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

SUMMARY OF QUANTITIES

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

PLAN SCALE:	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.	AEC	11/20
HORIZONTAL:	LEAD MGR.		11/20
	FIELD MGR.		2/21
VERTICAL:	RECOMMENDED: HAS 2.21 DESIGN MANAGER		

APPROVED: CITY ENGINEER

FILE: DRAWING: DATE: ~~05/11/20~~ 3-19-21

ATLAS PAGE NO.: 126, 127, 175 & 176 SHEET 6 OF 45 SHEETS

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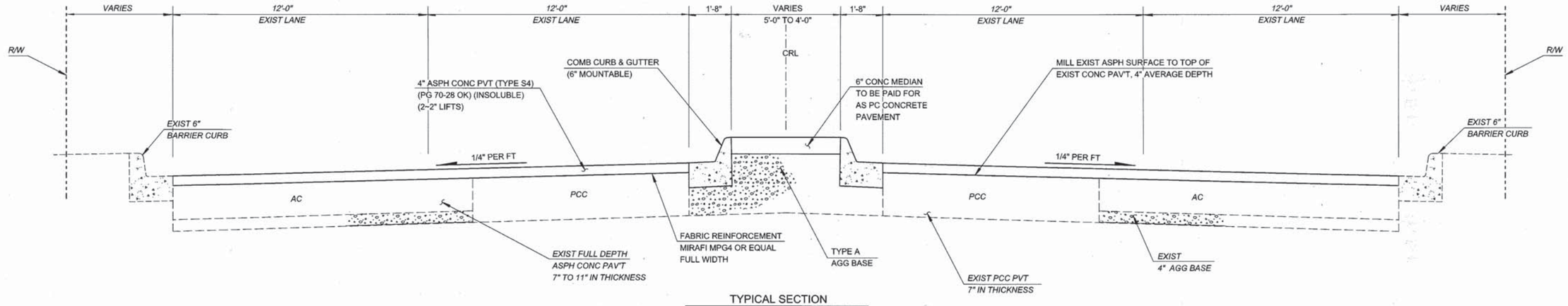
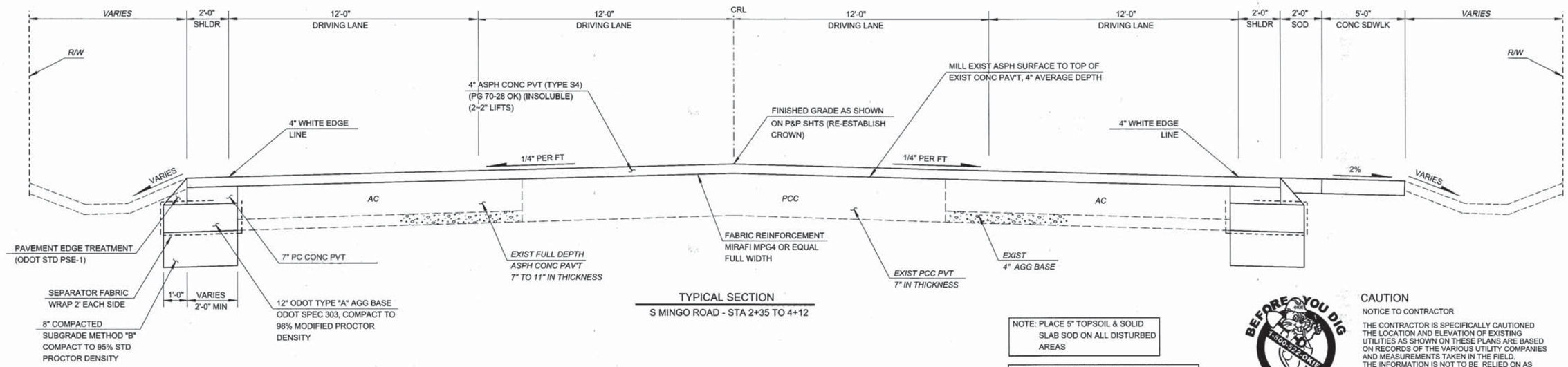
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



TYPICAL SECTION

S MINGO ROAD - STA 0+65 TO 1+07



TYPICAL SECTION

S MINGO ROAD - STA 2+35 TO 4+12

NOTE: PLACE 5" TOPSOIL & SOLID SLAB SOD ON ALL DISTURBED AREAS

NOTE: 1" SUPERPAVE TYPE S5 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

BEFORE YOU DIG CALL OKIE 1-800-522-6543

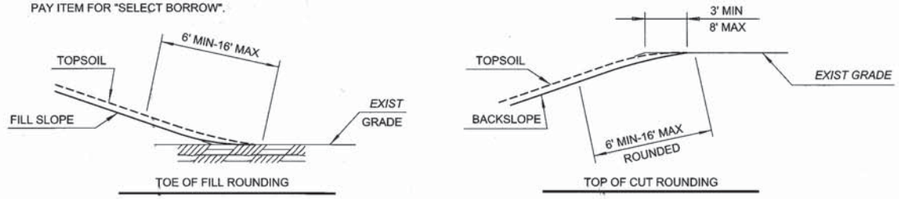
CAUTION

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

TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL,STOCKPILE,AND REPLACE IT ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATION. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS AS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR "URBAN RIGHT-OF-WAY RESTORATION",LUMP SUM.

BACKFILL NOTE:
THIS AREA TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN THE PAY ITEM FOR "SELECT BORROW".



TOE OF FILL ROUNDING

TOP OF CUT ROUNDING

ROUNDING DETAILS

INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART OF FINISHING OPERATIONS. ROUNDING SHALL BE 6'-0" MINIMUM FOR SMALLER CUTS AND FILLS TO 16'-0" MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER. COST TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA
07/20/2020

CITY OF TULSA, OKLAHOMA

REVISION	BY	DATE

TYPICAL SECTIONS

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.		11/20	
HORIZONTAL:	LEAD MGR.		11/20	
	FIELD MGR.		2/21	
VERTICAL:	RECOMMENDED: DESIGN MANAGER		2-21	CITY ENGINEER
FILE:	DRAWING:			DATE: ~~05/11/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 7 OF 45 SHEETS

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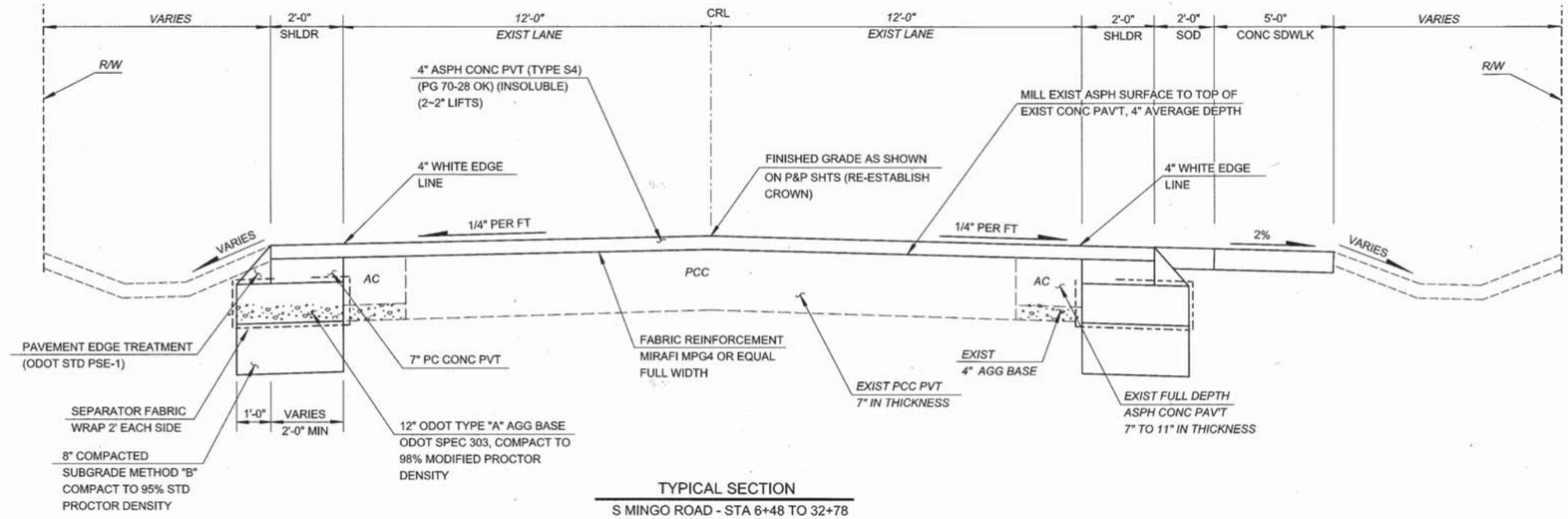
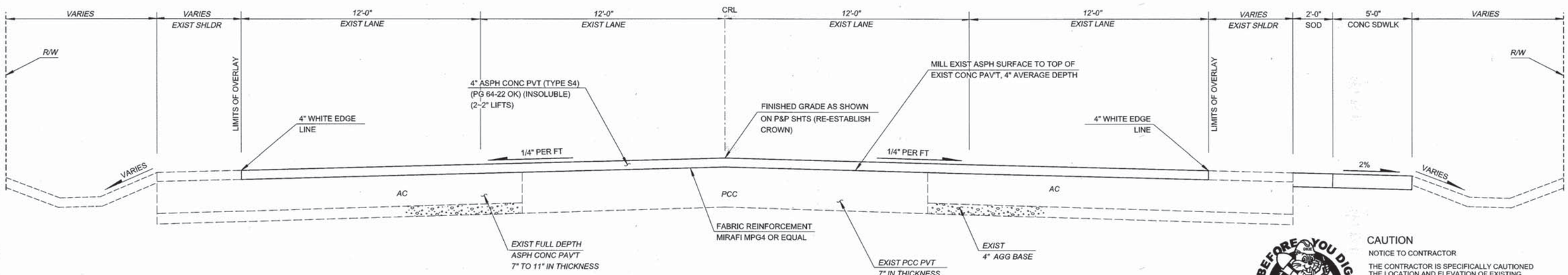
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



TYPICAL SECTION

S MINGO ROAD - STA 6+48 TO 32+78



TYPICAL SECTION

S MINGO ROAD - STA 35+12 TO 36+94

NOTE: PLACE 5" TOPSOIL & SOLID SLAB SOD ON ALL DISTURBED AREAS

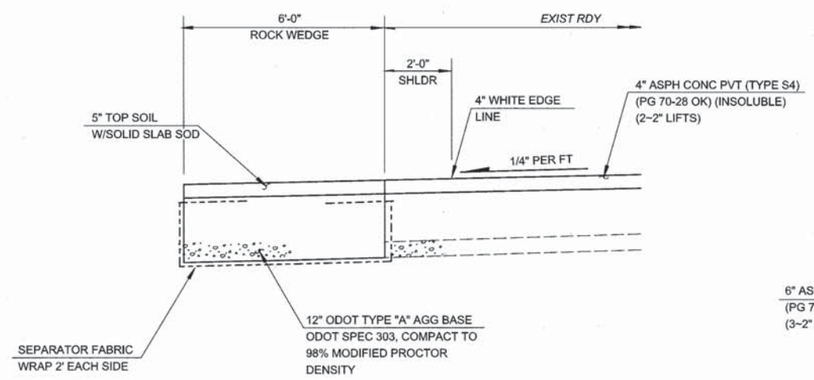
NOTE: 1" SUPERPAVE TYPE S5 LEVELING COURSE SHALL BE USED AT THE DISCRETION OF THE FIELD ENGINEER PRIOR TO PLACING THE FABRIC REINFORCEMENT AND MAY BE OMITTED IN ITS ENTIRETY

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

CAUTION

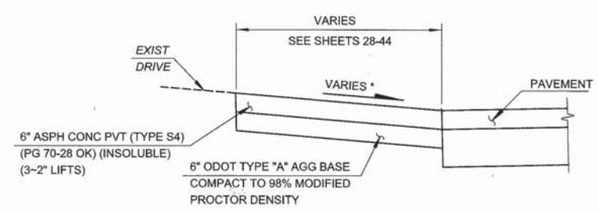
NOTICE TO CONTRACTOR

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 @ ROCK WEDGE

OUTSIDE RADII AT INTERSECTIONS



TYPICAL DRIVEWAY SECTION

* SEE CROSS SECTIONS SHTS 28-44

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA

Lance K. Woolsey 07/20/2020

TYPICAL SECTIONS

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA, OK 74103
(918) 584-5858

REVISION	BY	DATE

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	FIELD MGR.		2/21	
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FILE:	DRAWING:			DATE: ~~03/21~~ 2-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 8 OF 45 SHEETS

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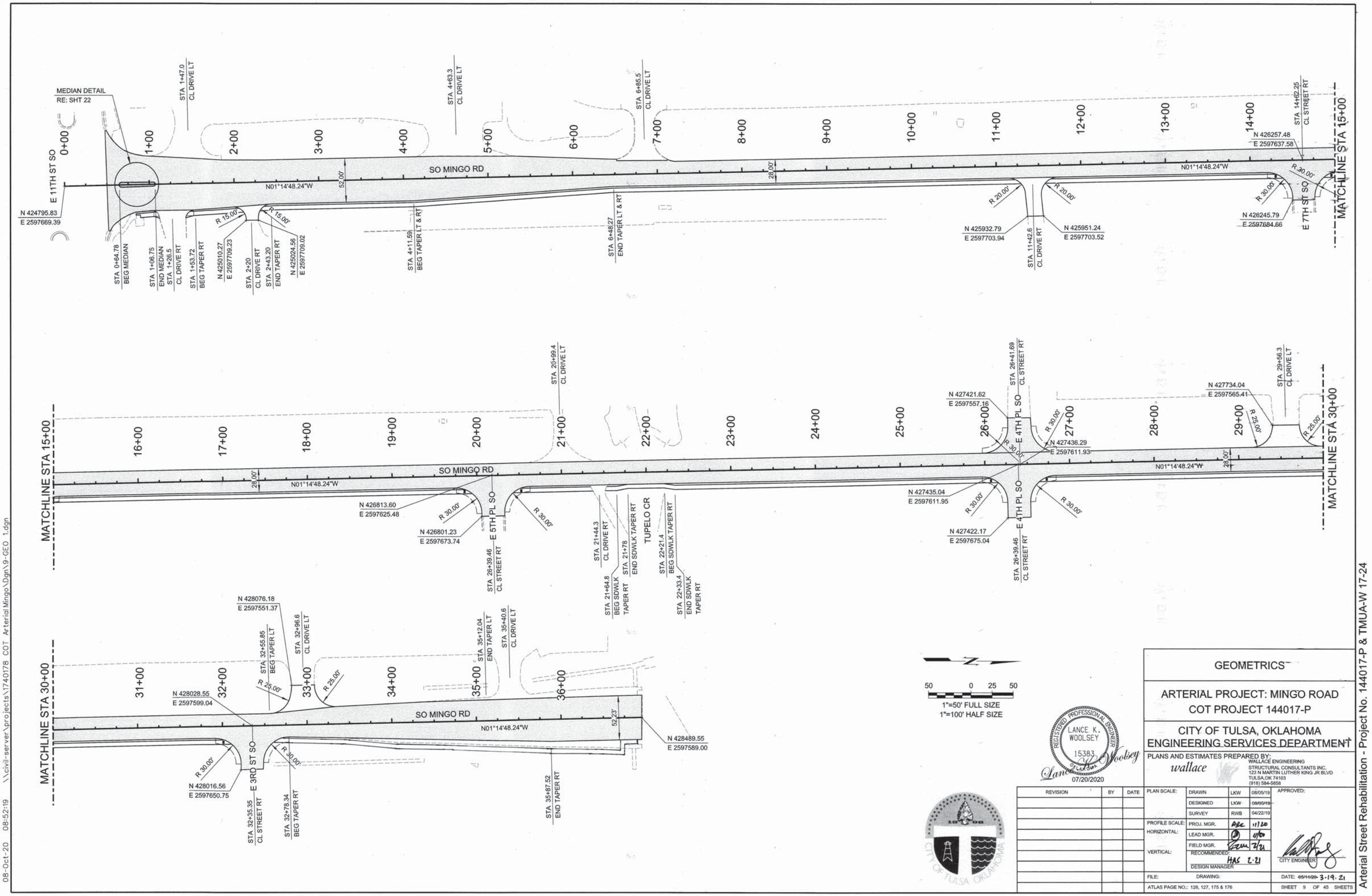
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



REVISION	BY	DATE

GEOMETRICS

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

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ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 9 OF 45 SHEETS

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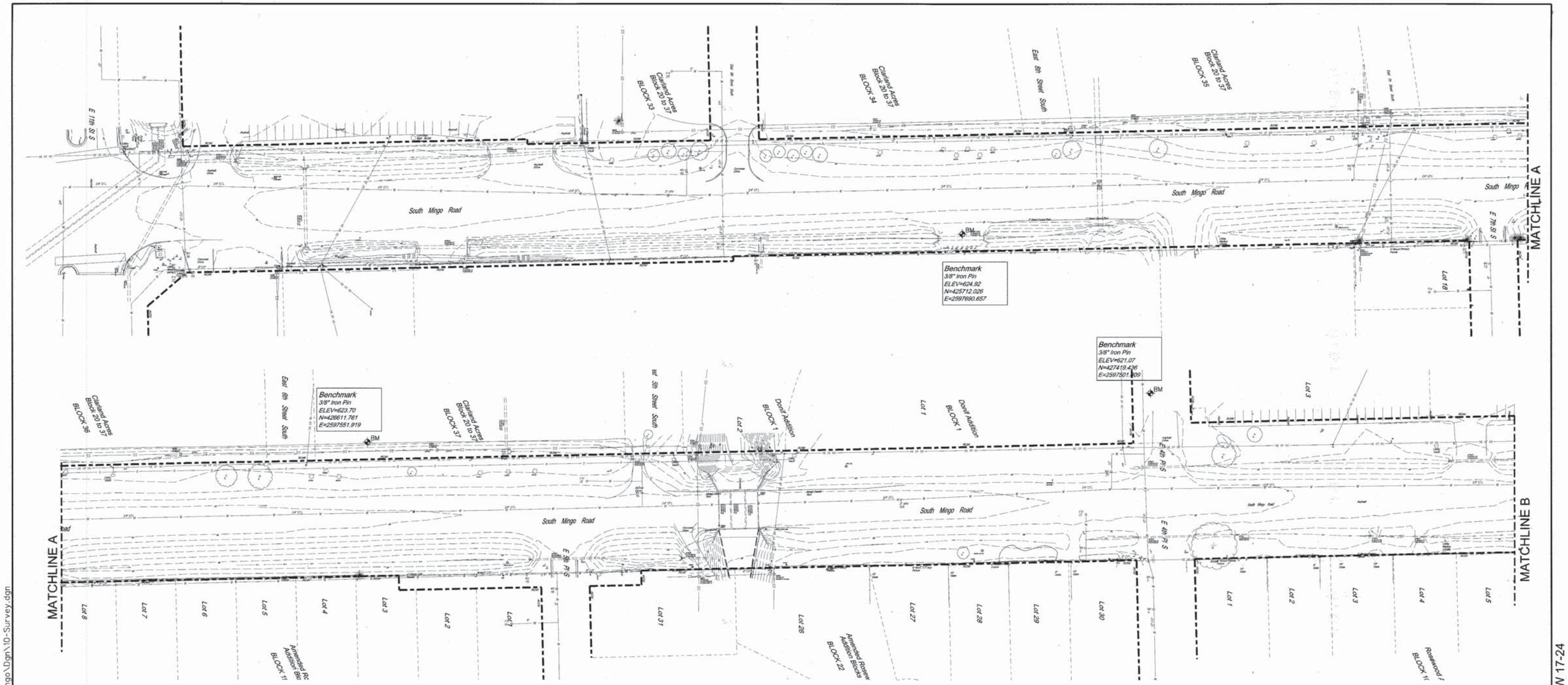
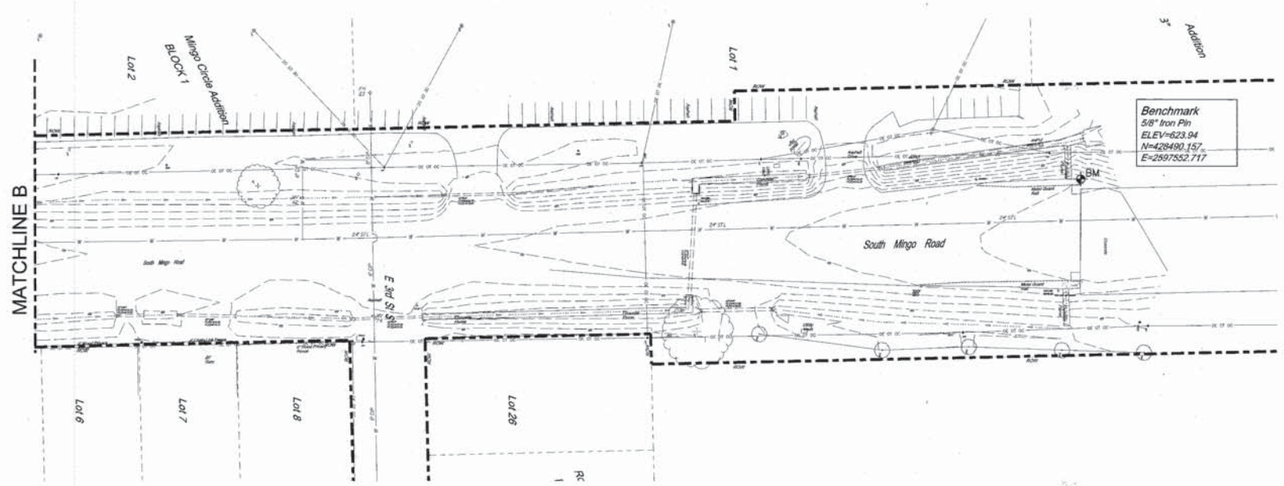
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24





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 PLAT OF 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 22ND DAY OF APRIL, 2019.

REGISTERED PROFESSIONAL LAND SURVEYOR R. WADE BENNETT 1556 OKLAHOMA

BENNETT SURVEYING, INC.

BY: R. Wade Bennett

R. WADE BENNETT
REGISTERED PROFESSIONAL LAND SURVEYOR
OKLAHOMA NO. 1556

50 0 25 50
1"=50' FULL SIZE
1"=100' HALF SIZE

CITY OF TULSA OKLAHOMA

RIGHT - OF - WAY AND SURVEY DATA

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

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FILE:	DRAWING:		
ATLAS PAGE NO.: 126, 127, 175 & 176			

APPROVED:
CITY ENGINEER
DATE: 3-19-21
SHEET—10 OF—45 SHEETS

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Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24

STORMWATER MANAGEMENT PLAN

SITE DESCRIPTION

PROJECT LIMITS: S Mingo Road between Admiral Blvd & E 11th St S

PROJECT DESCRIPTION: Pavement rehabilition and water line replacement

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

1) Place temporary sediment control devices at off site drainage locations, where runoff may leave the work site

SOIL TYPE: lean to fat clay w/sand

AREA TO BE DISTURBED: 2 Acres, paved

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

MAXIMUM ACRES TO BE DISTURBED AT ANY ONE TIME: (FOR CONTRACTOR USE) 0.5

LATITUDE AND LONGITUDE OF CENTER OF PROJECT: 36°09'14" N, 95°52'08" W

NAME OF RECEIVING WATERS: Mingo Creek

SENSITIVE WATERS OR WATERSHEDS: YES ☐ NO ☒

303(d) IMPAIRED WATERS: YES ☐ NO ☒

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

REVISED 04 /24 /2014

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- X PERMANENT SODDING, SPRIGGING OR SEEDING
- ____ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- X PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- ____ STABILIZED CONSTRUCTION ENTRANCE
- X TEMPORARY SILT FENCE
- X TEMPORARY SILT DIKES
- X TEMPORARY FIBER LOG
- ____ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- ____ DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ____ ROCK FILTER DAMS
- ____ TEMPORARY SLOPE DRAIN
- ____ PAVED DITCH W/ DITCH LINER PROTECTION
- ____ TEMPORARY DIVERSION CHANNELS
- ____ TEMPORARY SEDIMENT BASINS
- ____ TEMPORARY SEDIMENT TRAPS
- ____ TEMPORARY SEDIMENT FILTERS
- X TEMPORARY SEDIMENT REMOVAL
- ____ RIP RAP
- ____ INLET SEDIMENT FILTER
- ____ TEMPORARY BRUSH SEDIMENT FILTERS
- ____ SANDBAG BERMS
- ____ TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- ____ HAUL ROADS DAMPENED FOR DUST CONTROL
- X LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- X EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:
ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 IN AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:
PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:
PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:
A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORMS THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, IE, BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC.THE BASIC GOAL OF STORMWATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORMWATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIALS
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.15 STORMWATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORMWATER POLLUTION PREVENTION AND CONTROL
- 221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:
"ODEQ GENERAL PERMIT (OKR10) FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 18, 2017.

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA
Lance K. Woolsey
07/20/2020

STORMWATER MANAGEMENT PLAN

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
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ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 11 OF 45 SHEETS

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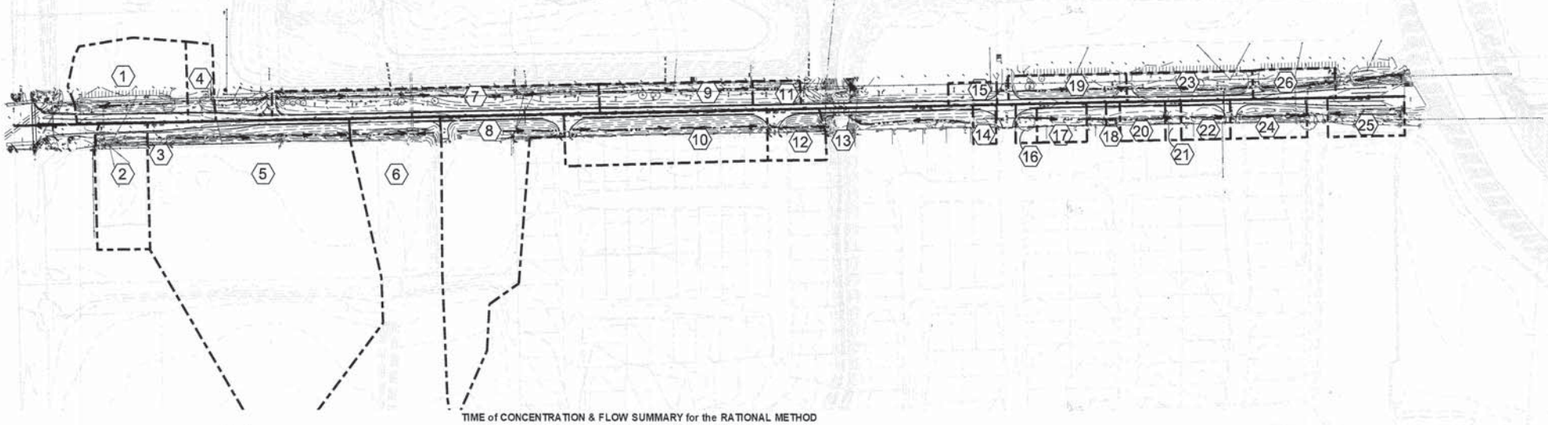
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



Zone: 2

TIME of CONCENTRATION & FLOW SUMMARY for the RATIONAL METHOD

Cf = 1.25

DA No	Description	Existing/ Proposed	Area sf	Area Ac	C	Ctr.C exp @ 1.0	CA	Grass Sheet Flow Length, ft	Grass Sheet Flow Slope, '/ft	Grass Sheet Flow Vel, fps	Grass Sheet Flow to, min	Paved Sheet Flow Length, ft	Paved Sheet Flow Slope, '/ft	Paved Sheet Flow Vel, fps	Paved Sheet Flow to, min	Overland to, min	Grass Shallow Concentrated Length, ft	Grass Shallow Concentrated Slope, '/ft	Grass Shallow Concentrated Vel, fps	Grass Shallow Concentrated tc, min	Paved Shallow Concentrated Length, ft	Paved Shallow Concentrated Slope, '/ft	Paved Shallow Concentrated Vel, fps	Paved Shallow Concentrated tc, min	Channel tc, min	Total Tc, min	Freq 100 I, in/hr	Freq 100 Q, cfs
1	1+44, 50' RT	Existing	65362	1.50	0.80	1.00	1.20	---	---	---		100	0.0050	1.50	1.11	1.11	260	0.0060	1.30	3.33	50	0.0050	1.50	0.56	3.89	5.00	10.92	13.11
2	2+39	Existing	46730	1.07	0.68	0.85	0.91	100	0.0450	1.60	1.04	---	---	---		1.04	212	0.0370	2.80	1.26	---	---	---		1.26	2.30	12.27	11.18
3	3+77, 44' RT	Existing			---			---	---	---		---	---	---			---	---	---		---	---	---					
4	4+27, 50' LT	Existing	14845	0.34	0.80	1.00	0.27	---	---	---		100	0.0070	1.70	0.98	0.98	31	0.0050	1.15	0.45	42	0.0070	1.70	0.41	0.86	1.84	12.53	3.42
5	9+13, 46' RT	Existing	396515	9.10	0.77	0.96	8.76	100	0.0100	0.70	2.38	100	0.0100	2.00	0.83	3.21	484	0.0020	0.90	8.96	365	0.0110	2.05	2.97	11.93	15.14	7.87	68.93
6	10+59	Existing	391051	8.98	0.79	0.99	8.87	100	0.0100	0.70	2.38	100	0.0190	2.80	0.60	2.98	1112	0.0040	1.05	17.65	360	0.0140	2.40	2.50	20.15	23.13	6.52	57.79
7	13+33, 66' LT	Existing	65930	1.51	0.69	0.86	1.31	---	---	---		---	---	---			640	0.0040	1.05	10.16	---	---	---		10.16	10.16	9.09	11.87
8	14+62, 46' RT	Existing	141723	3.25	0.67	0.84	2.72	100	0.0120	0.72	2.31	100	0.0040	1.45	1.15	3.46	252	0.0030	0.95	4.42	150	0.0040	1.45	1.72	6.15	9.61	9.25	25.21
9	19+61, 64' LT	Existing	31119	0.71	0.69	0.86	0.62	50	0.0600	1.80	0.46	---	---	---		0.46	396	0.0010	0.57	11.58	---	---	---		11.58	12.04	8.58	5.29
10	20+25, 47' RT	Existing	72950	1.67	0.73	0.91	1.53	75	0.0130	0.80	1.56	---	---	---		1.56	500	0.0060	1.20	6.94	---	---	---		6.94	8.51	9.60	14.67
11	20+99, 54' LT	Existing	9591	0.22	0.69	0.86	0.19	50	0.0600	1.80	0.46	---	---	---		0.46	120	0.0080	1.45	1.38	---	---	---		1.38	1.84	12.53	2.38
12	21+55, 48' RT	Existing	20454	0.47	0.69	0.86	0.40	50	0.0600	1.80	0.46	---	---	---		0.46	82	0.0060	1.20	1.14	---	---	---		1.14	1.60	12.68	5.13
13	20+85	Existing	31967232	733.87	0.75	0.94	688.00	---	---	---		---	---	---			6820	0.0060	1.20	94.72	---	---	---		94.72	94.72	2.80	1925.47
	21+00	Existing	31967232	733.87	0.75	0.94	688.00	---	---	---		---	---	---			6820	0.0060	1.20	94.72	---	---	---		94.72	94.72	2.80	1925.47
	21+13	Existing	31967232	733.87	0.75	0.94	688.00	---	---	---		---	---	---			6820	0.0060	1.20	94.72	---	---	---		94.72	94.72	2.80	1925.47
14	26+38, 37' RT	Existing	6287	0.14	0.69	0.86	0.12	50	0.0600	0.55	1.52	14	0.0150	2.50	0.09	1.61	250	0.0060	1.20	3.47	---	---	---		3.47	5.08	10.89	1.36
15	26+38, 35' LT	Existing	7749	0.18	0.70	0.88	0.16	28	1.3300	2.40	0.19	14	0.0150	2.50	0.09	0.29	122	0.0190	2.60	1.02	---	---	---		1.02	1.30	12.86	2.00
16	27+18, 36' RT	Existing	5810	0.13	0.67	0.84	0.11	60	0.0300	1.30	0.77	---	---	---		0.77	40	0.0220	2.20	0.30	---	---	---		0.30	1.07	13.01	1.45
17	28+56,40' RT	Existing	13635	0.31	0.67	0.84	0.26	60	0.0300	1.30	0.77	---	---	---		0.77	117	0.0010	0.57	3.42	---	---	---		3.42	4.19	11.29	2.96
18	28+98, 42' RT	Existing	3789	0.09	0.67	0.84	0.07	60	0.0750	1.90	0.53	---	---	---		0.53	34	0.0120	1.70	0.33	---	---	---		0.33	0.86	13.15	0.96
19	29+58, 35' LT	Existing	23439	0.54	0.67	0.84	0.45	40	0.0250	1.10	0.61	---	---	---		0.61	268	0.0050	1.15	3.88	---	---	---		3.88	4.49	11.15	5.03
20	30+64, 41' RT	Existing	12404	0.28	0.65	0.81	0.23	40	0.0500	1.60	0.42	---	---	---		0.42	142	0.0060	1.20	1.97	---	---	---		1.97	2.39	12.22	2.83
21	31+15, 41' RT	Existing	4335	0.10	0.65	0.81	0.08	52	0.0560	1.70	0.51	---	---	---		0.51	22	0.0030	0.95	0.39	---	---	---		0.39	0.90	13.13	1.06
22	32+24, 46' RT	Existing	13498	0.31	0.67	0.84	0.26	52	0.0560	1.70	0.51	---	---	---		0.51	74	0.0090	1.50	0.82	---	---	---		0.82	1.33	12.85	3.33
23	32+96, 34' LT	Existing	25335	0.58	0.70	0.88	0.51	40	0.0380	1.40	0.48	---	---	---		0.48	285	0.0030	0.95	5.00	---	---	---		5.00	5.48	10.72	5.46
24	34+38	Existing	21042	0.48	0.71	0.89	0.43	40	0.0940	2.20	0.30	---	---	---		0.30	---	---	---		180	0.0050	1.50	2.00	2.00	2.30	12.27	5.26
25	34+66, 45' RT	Existing	21042	0.48	0.71	0.89	0.43	32	0.0550	1.70	0.31	---	---	---		0.31	195	0.0170	2.00	1.63	---	---	---		1.63	1.94	12.48	5.35
26	35+40, 44' LT	Existing	17050	0.39	0.71	0.89	0.35	37	0.0500	1.70	0.36	24	0.0200	2.85	0.14	0.50	102	0.0020	0.76	2.24	71	0.0050	1.50	0.79	3.03	3.53	11.61	4.03

PIPE ANALYSIS for the RATIONAL METHOD

Zone 2 Freq 100

Str No	P&P Sht	Location	Existing/ Proposed	CA	Add'l CA	From Str No's	Tc min	I in/hr	Sum CA	Q in pipe cfs	Q cap cfs	TG ft	Inv @ US ft	K	Pipe Dia in	n	Pipe Mat'l	Frict Slp ft/ft	Invert Slp ft/ft	Flow d in	Flow A sf	Vel (act) fps	Entr Loss ft	Lngth pipe ft	HG @ US ft	Inv @ DS ft	HG @ DS ft	To Str No
1		1+44, 50' RT	Existing	1.20	1.18	2,4	5.0	10.92	2.38	26.0	53.6	624.00	621.08	0.5	30	0.012	RCP	0.0034	0.0146	14.73	2.40	10.85	0.91	48	624.49	620.38	622.88	
2		2+39	Existing	0.91			2.3	12.27	0.91	11.2	44.7	625.00	621.85	0.8	36	0.012	RCP	0.0002	0.0038	12.34	2.14	5.22	0.34	80	625.19	621.55	624.55	1
3		3+77, 44' RT	Existing								44.6	625.00	622.26	0.5	36	0.012	RCP		0.0037					51	625.26	622.07	625.07	
4		4+27, 50' LT	Existing	0.27			1.8	12.53	0.27	3.4	33.8	625.00	622.39	0.5	30	0.012	RCP	0.0001	0.0058	6.44	0.77	4.41	0.15	71	625.04	621.98	624.48	1
5		9+13, 46' RT	Existing	8.76			15.1	7.87	8.76	68.9	91.6	624.78	621.00	0.5	48	0.012	RCP	0.0020	0.0078	24.08	6.31	10.92	0.93	49	625.93	620.62	624.62	6
6		10+59	Existing	8.87	8.76	5	23.1	6.52	17.63	114.9	363.1	625.22	620.49	0.8	48	0.012	RCP	0.0055	0.0733	17.13	4.02	28.56	10.13	153	634.62	609.27	613.27	
7		13+33, 66' LT	Existing	1.31			10.2	9.09	1.31	11.9	46.9	621.71	619.00	0.8	18	0.012	RCP	0.0109	0.1689	6.18	0.54	22.09	6.06	56	626.56	609.54	611.04	
8		14+62, 46' RT	Existing	2.72			9.6	9.25	2.72	25.2	2.4	624.00	619.87	0.8	15	0.012	RCP	0.1298	0.0012	15.00	12.89	1.96	0.05	68	621.17	619.79	621.04	10
9		19+61, 64' LT	Existing	0.62			12.0	8.58	0.62	5.3	72.8	621.09	617.84	0.5	24	0.015	CMP	0.0007	0.1380	4.38	0.39	13.50	1.41	54	621.25	610.39	612.39	
10		20+25, 47' RT	Existing	1.53	2.72	8	8.5	9.60	4.25	40.8	9.0	623.14	619.41	0.8	18	0.012	RCP	0.1284	0.0062	18.00	8.07	5.05	0.32	78	621.23	618.93	620.43	12
11		20+99, 54' LT	Existing	0.19			1.8	12.53	0.19	2.4	15.7	623.01	621.76	0.5	18	0.012	RCP	0.0004	0.0189	4.75	0.37	6.39	0.32	18	623.58	621.42	622.92	13
12		21+55, 48' RT	Existing	0.40	4.25	10	1.6	12.68	4.65	59.0	24.7	621.02	618.26	0.5	18	0.012	RCP	0.2689	0.0469	18.00	4.23	13.94	1.51	35	621.27	616.62	618.12	13
13		20+85	Existing	688.00		11,12	94.7	2.80	688.00	1925.5	255.5	623.57	609.05	0.8	144	0.012	RCB	0.0044	0.0037	144.00	122.07	15.77	3.09	40	624.14	608.90	620.90	
		21+00	Existing	688.00	4.84	11,12	94.7	2.80	692.84	1939.0	210.0	623.57	608.95	0.8	144	0.012	RCB	0.0044	0.0025	144.00	150.55	12.88	2.06	40	623.01	608.85	620.85	
		21+13	Existing	688.00		11,12	94.7	2.80	688.00	1925.5	210.0	623.57	609.10	0.8	144	0.012	RCB	0.0044	0.0025	144.00	149.50	12.88	2.06	40	623.16	609.00	621.00	
14		26+38, 37' RT	Existing	0.12			5.1	10.89	0.12	1.4	4.5	622.00	620.68	0.5	15	0.012	RCP	0.0004	0.0042	5.63	0.42	3.22	0.08	60	622.01	620.43	621.68	16
15		26+38, 35' LT	Existing	0.16			1.3	12.86	0.16	2.0	6.7	621.68	619.62	0.5	18	0.012	RCP	0.0003	0.0035	6.75	0.61	3.31	0.09	52	621.21	619.44	620.94	17
16		27+18, 36' RT	Existing	0.11	0.16	15	1.1	13.01	0.27	3.5	0.5	621.70	620.65	0.5	8	0.010	PVC	0.0506	0.0008	8.00	2.72	1.30	0.01	12	621.33	620.64	621.31	18
17		28+56,40' RT	Existing	0.26	0.27	16	4.2	11.29	0.53	6.0	2.0	621.50	619.79	0.5	15	0.012	RCP	0.0074	0.0008	15.00	3.80	1.58	0.02	13	621.06	619.78	621.03	
18		28+98, 42' RT	Existing	0.07			0.9	13.15	0.07	1.0	3.5	621.00	619.74	0.5	12	0.012	RCP	0.0006	0.0083	4.28	0.25	3.82	0.11	12	620.85	619.64	620.64	20
19		29+58, 35' LT	Existing	0.45			4.5	11.15	0.45	5.0	8.5	620.00	618.05	0.5	18	0.012	RCP	0.0019	0.0056	9.96	1.00	5.01	0.19	52	619.74	617.76	619.26	23
20		30+64, 41' RT	Existing	0.23			2.4	12.22	0.23	2.8	6.5	621.43	619.35	0.5	18	0.015	CMP	0.0010	0.0050	8.35	0.80	3.52	0.10	20	620.95	619.25	620.75	21
21		31+15, 41' RT	Existing	0.08	0.93	20	0.9	13.13	1.01	13.3	6.0	621.03	619.19	0.5	18	0.015	CMP	0.0212	0.0043	18.00	3.95	3.36	0.09	40	620.78	619.02	620.52	22
22		32+24, 46' RT	Existing	0.26	1.01	21	1.3	12.85	1.27	16.3	6.9	621.00	618.33	0.5	15	0.012	RCP	0.0543	0.0098	15.00	2.89	5.54	0.25	48	619.83	617.86	619.11	24
23		32+96, 34' LT	Existing	0.51	0.45	19	5.5	10.72	0.96	10.3	5.1	620.00	616.88	0.5	18	0.012	RCP	0.0082	0.0020	18.00	3.57	2.88	0.06	50	618.44	616.78	618.28	26
24		34+38	Existing	0.43	1.27	22	2.3	12.27	1.70	20.8	17.5	620.00	616.93	0.8	24	0.012	RCP	0.0072	0.0051	24.00	3.72	5.60	0.39	68	619.32	616.58	618.58	26
25		34+66, 45' RT	Existing	0.43			1.9	12.48	0.43	5.3	23.4	621.00	618.66	0.5	24	0.015	CMP	0.0007	0.0143	7.80	0.89	6.04	0.28	47	620.94	617.99	619.99	24
26		35+40, 44' LT	Existing	0.35	2.68	23,24	3.5	11.61	3.01	34.9	7.4	618.28	618.20	0.5	18	0.012	RCP	0.0942	0.0042	18.00	8.40	4.16	0.13	48	617.83	616.00	617.50	

200 0 100 200

1"=200' FULL SIZE
1"=400' HALF SIZE

NOTE:
DRAINAGE AREAS OUTSIDE RDY ROW APPROXIMATED FROM CITY OF TULSA ATLAS SHEET CONTOURS.

ALL SIDE DRAINS AND CULVERTS ARE EXISTING.

DA 13 IS TUPELO CREEK. DRAINAGE BASIN > 200 AC, THEREFORE RATIONAL METHOD CALCULATIONS, PARAMETERS AND FLOW ESTIMATES MAY NOT BE ACCURATE OR RELIABLE. SCS TR-55 OR OTHER METHODS CAN BE USED FOR INCREASED ACCURACY AND RELIABILITY.

LEGEND

DRAINAGE AREAS ON FLOW SUMMARY CORRESPOND TO CULVERT #'S SHOWN ON PIPE ANALYSIS

(1) EXISTING CULVERT TO REMAIN

DRAINAGE AREA BOUNDARY

EXISTING ROADSIDE DITCH

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

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

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA
Lance K. Woolsey
07/20/2020

DRAINAGE MAP AND DATA TABLES

ARTERIAL PROJECT: MINGO ROAD COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

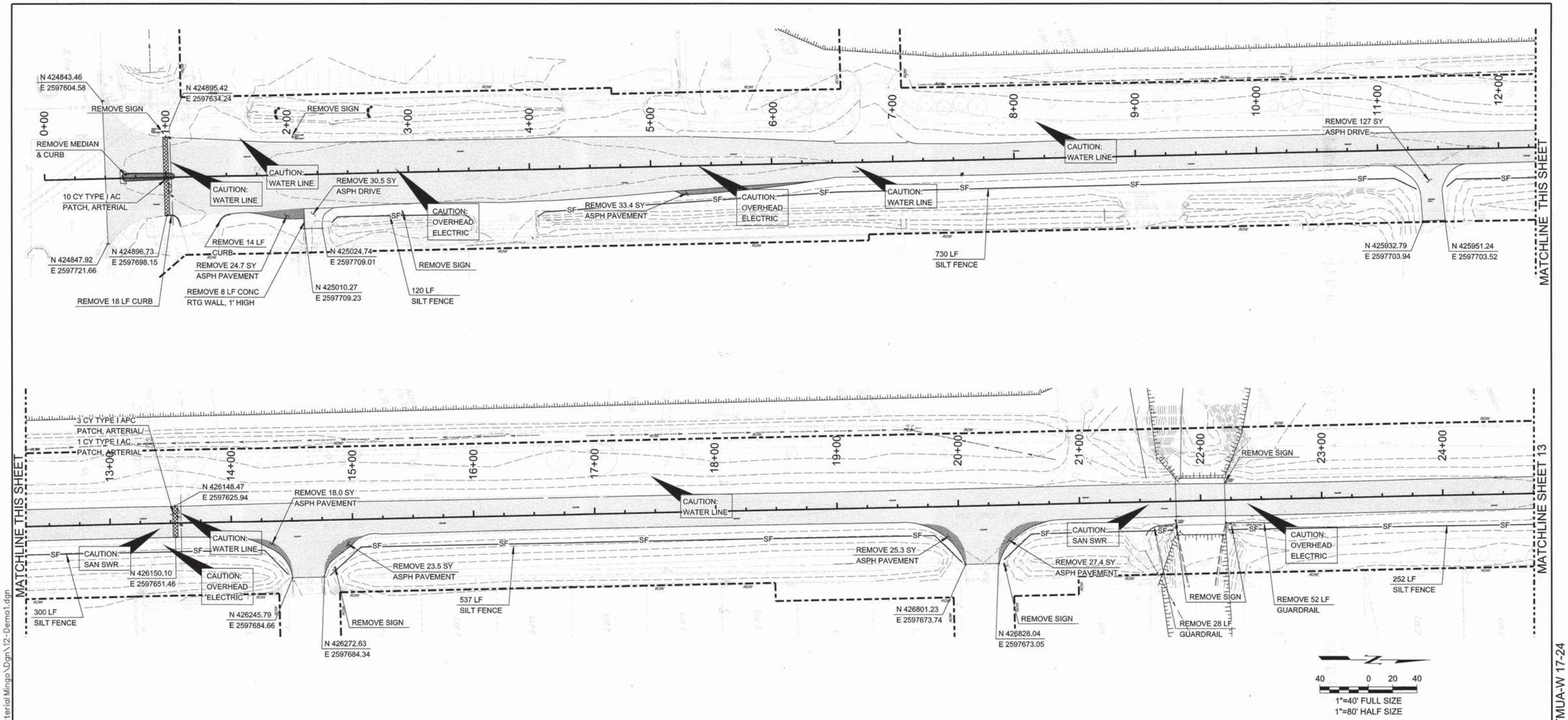
REVISION	BY	DATE

PLAN SCALE: 1"= '-0"	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.	FHD	12/20
HORIZONTAL: 1"= '-0"	LEAD MGR.	BOC	12/20
VERTICAL: 1"= '-0"	FIELD MGR.	RWB	2/21
	RECOMMENDED: HAS 2-21 DESIGN MANAGER		

APPROVED:
CITY ENGINEER
DATE: ~~05/11/20~~ 3-19-21

FILE: DRAWING:
ATLAS PAGE NO.: 126, 127, 175 & 176
SHEET 11a OF 45 SHEETS

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



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. REPLACE EXISTING CULVERT PIPES AS NOTED.
8. EROSION CONTROL TO BE INSTALLED AND MAINTAINED PER CITY OF TULSA SPECIFICATIONS AND THE STORMWATER MANAGEMENT PLAN.

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"

MILL TO CONC BASE, APPROX 4"

REMOVE ASPHALT DRIVE

TEMPORARY SILT DIKE

— SF — TEMPORARY SILT FENCE

REMOVE ASPHALT PAVEMENT, FULL DEPTH

TYPE I APC PATCH, ARTERIAL (COT STD 725)

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA

Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

DEMOLITION/EROSION CONTROL PLAN SHT 1

ARTERIAL PROJECT: MINGO ROAD COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

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(918) 584-5858

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	ABC	11/20	
HORIZONTAL:	LEAD MGR.		11/20	
	FIELD MGR.		2/21	
VERTICAL:	RECOMMENDED:	HAS	2-21	CITY ENGINEER
	DESIGN MANAGER			
FILE:	DRAWING:			DATE: ~~05/11/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 12 OF 45 SHEETS

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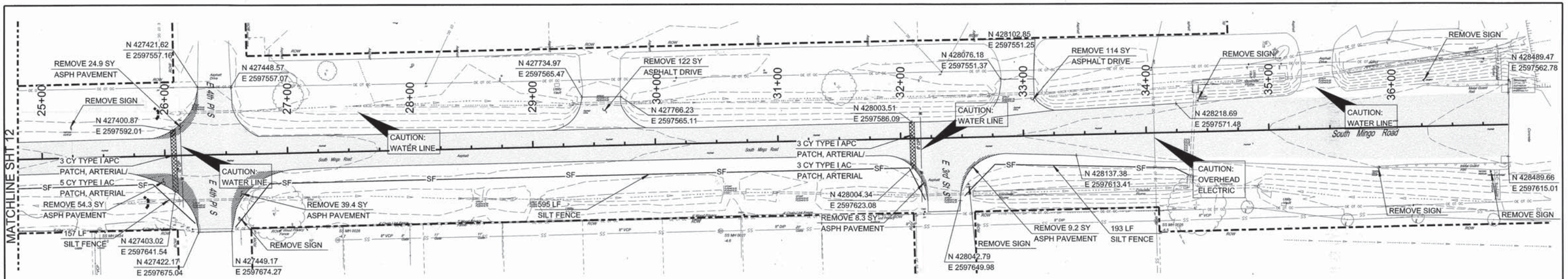
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



GENERAL DEMOLITION NOTES

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7. REPLACE EXISTING CULVERT PIPES AS NOTED.
8. EROSION CONTROL TO BE INSTALLED AND MAINTAINED PER CITY OF TULSA SPECIFICATIONS AND THE STORMWATER MANAGEMENT PLAN.

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

MILL TO CONC BASE, APPROX 4"

REMOVE ASPHALT DRIVE

TEMPORARY SILT DIKE

— SF — TEMPORARY SILT FENCE

REMOVE ASPHALT PAVEMENT, FULL DEPTH

TYPE I APC PATCH, ARTERIAL (COT STD 725)

40 0 20 40

1"=40' FULL SIZE
1"=80' HALF SIZE

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

DEMOLITION/EROSION CONTROL PLAN
SHT 2

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

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(918) 584-5858

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	AEE	11/20	
HORIZONTAL:	LEAD MGR.		11/20	
	FIELD MGR.		2/21	
VERTICAL:	RECOMMENDED: HAS 2-21 DESIGN MANAGER			CITY ENGINEER
FILE:	DRAWING:			DATE: ~~05/11/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 13 OF 45 SHEETS

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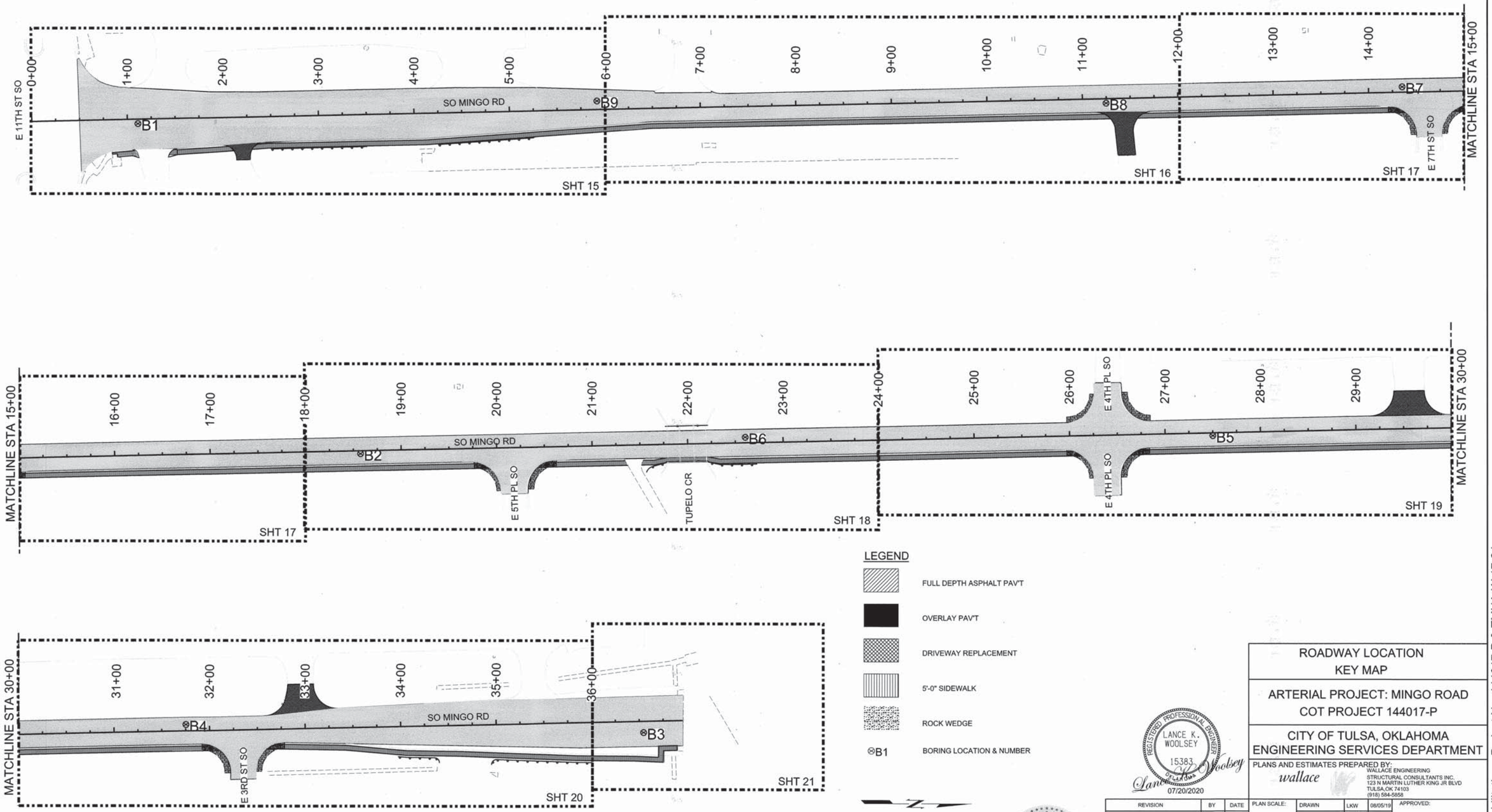
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



LEGEND

- FULL DEPTH ASPHALT PAV'T
- OVERLAY PAV'T
- DRIVEWAY REPLACEMENT
- 5'-0" SIDEWALK
- ROCK WEDGE
- ⊗B1 BORING LOCATION & NUMBER

N

50 0 25 50

1"=50' FULL SIZE
1"=100' HALF SIZE

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA

Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

ROADWAY LOCATION KEY MAP

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

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	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	AEL	11/20	
HORIZONTAL:	LEAD MGR.		4/20	
	FIELD MGR.		2/21	
VERTICAL:	RECOMMENDED: HAS 2-21			CITY ENGINEER
	DESIGN MANAGER			
FILE:	DRAWING:			DATE: ~~05/11/20~~ 3.19.21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 14 OF 45 SHEETS

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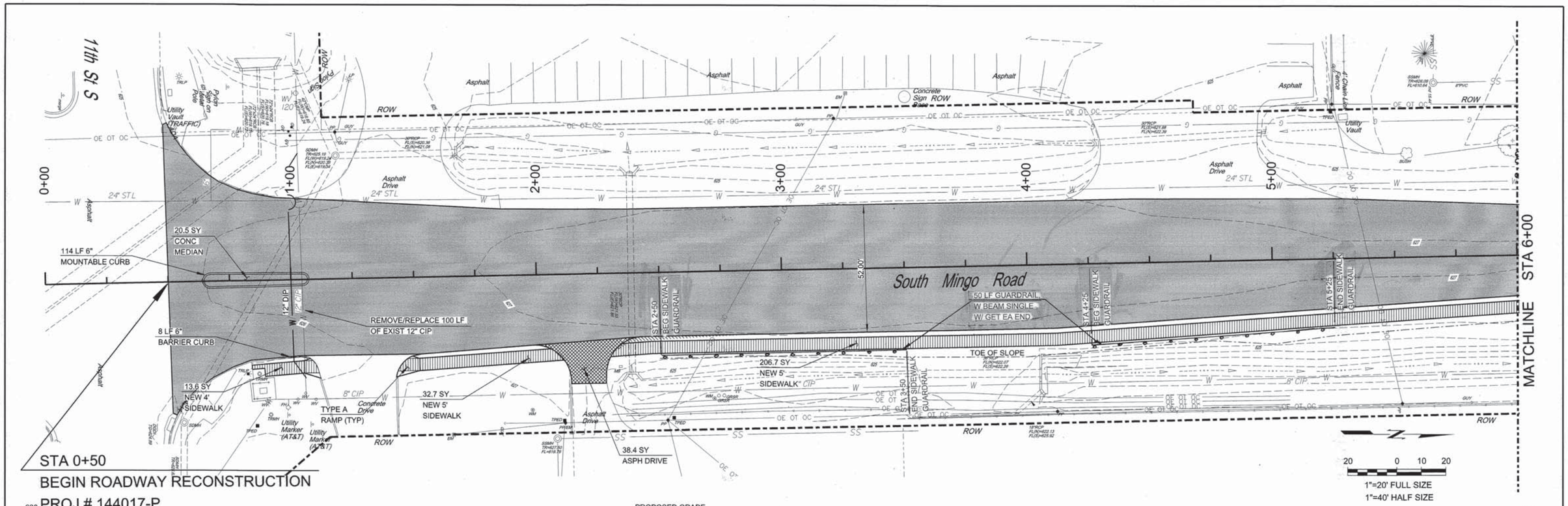
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



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PROJ # 144017-P
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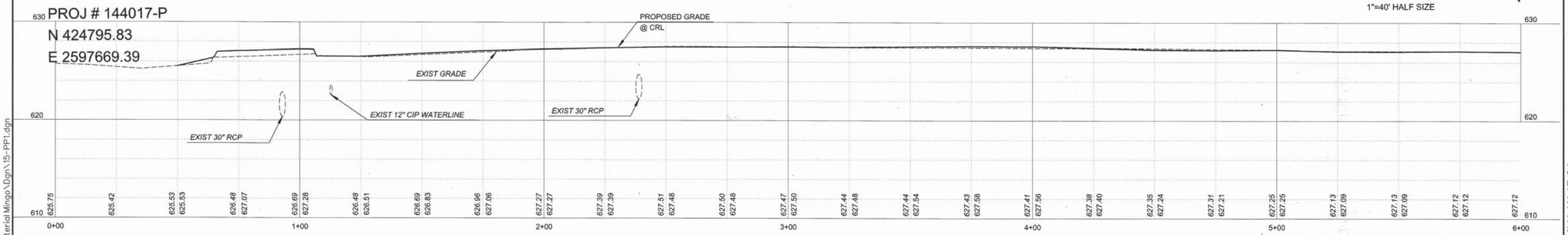

NOTE:
ALL UTILITY LOCATIONS ARE APROXIMATE. CONTRACTOR TO VERIFY EXACT LOCATION IN THE FIELD.

TACTILE DOMES TO BE INSTALLED ONLY AT STREET CROSSINGS

FOR TYPICAL SECTIONS, RE: SHTS 7-8
FOR WATERLINE REPLACEMENT, RE: SHT 27

LEGEND

- FULL DEPTH ASPHALT PAV'T
- OVERLAY PAV'T
- DRIVEWAY REPLACEMENT
- 5'-0" SIDEWALK
- ROCK WEDGE
- EXIST FLOW

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

P&P SHT 1

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
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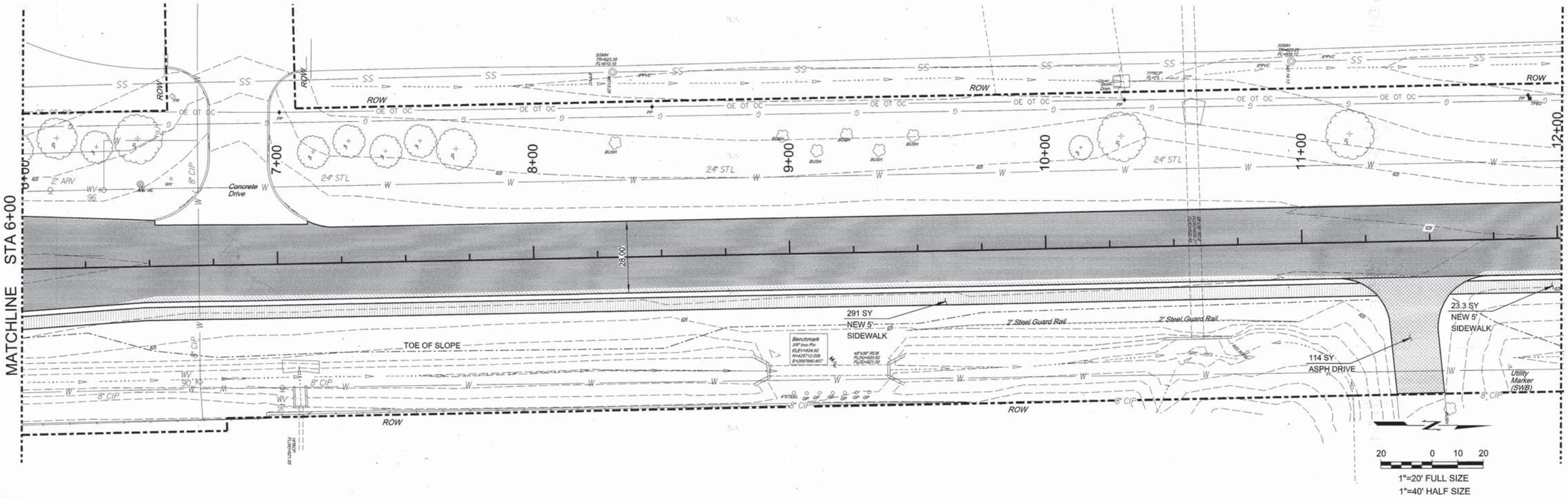
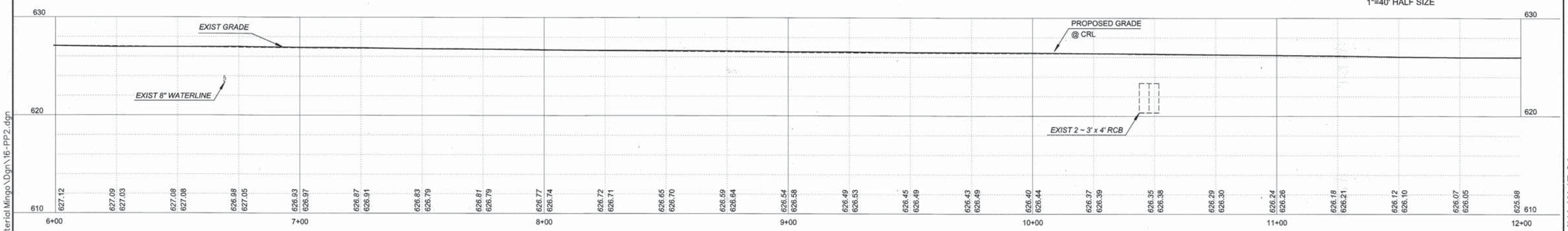
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	AKL	11/20	
HORIZONTAL: 1"=20'-0"	LEAD MGR.		11/20	
	FIELD MGR.		2/21	
VERTICAL: 1"=5'-0"	RECOMMENDED: HAS 2-21 DESIGN MANAGER			CITY ENGINEER
FILE:	DRAWING:			DATE: ~~05/11/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 15 OF 45 SHEETS

08-Oct-20 11:51:27 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\15-PP1.dgn

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24





NOTE:
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TACTILE DOMES TO BE INSTALLED ONLY AT STREET CROSSINGS

FOR TYPICAL SECTIONS, RE: SHTS 7-8
FOR WATERLINE REPLACEMENT, RE: SHT 27

LEGEND

- FULL DEPTH ASPHALT PAV'T
- OVERLAY PAV'T
- DRIVEWAY REPLACEMENT
- 5'-0" SIDEWALK
- ROCK WEDGE
- EXIST FLOW

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA
Lance K. Woolsey
07/20/2020

P&P SHT 2

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

REVISION	BY	DATE

PLAN SCALE: 1"=20'-0"	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.	AKE	11/20
HORIZONTAL: 1"=20'-0"	LEAD MGR.		11/20
	FIELD MGR.		2/21
VERTICAL: 1"=5'-0"	RECOMMENDED: DESIGN MANAGER	HAS	2-21

APPROVED: CITY ENGINEER

FILE: DRAWING:

DATE: ~~05/11/20~~ 3-19-21

ATLAS PAGE NO.: 126, 127, 175 & 176

SHEET 16 OF 45 SHEETS

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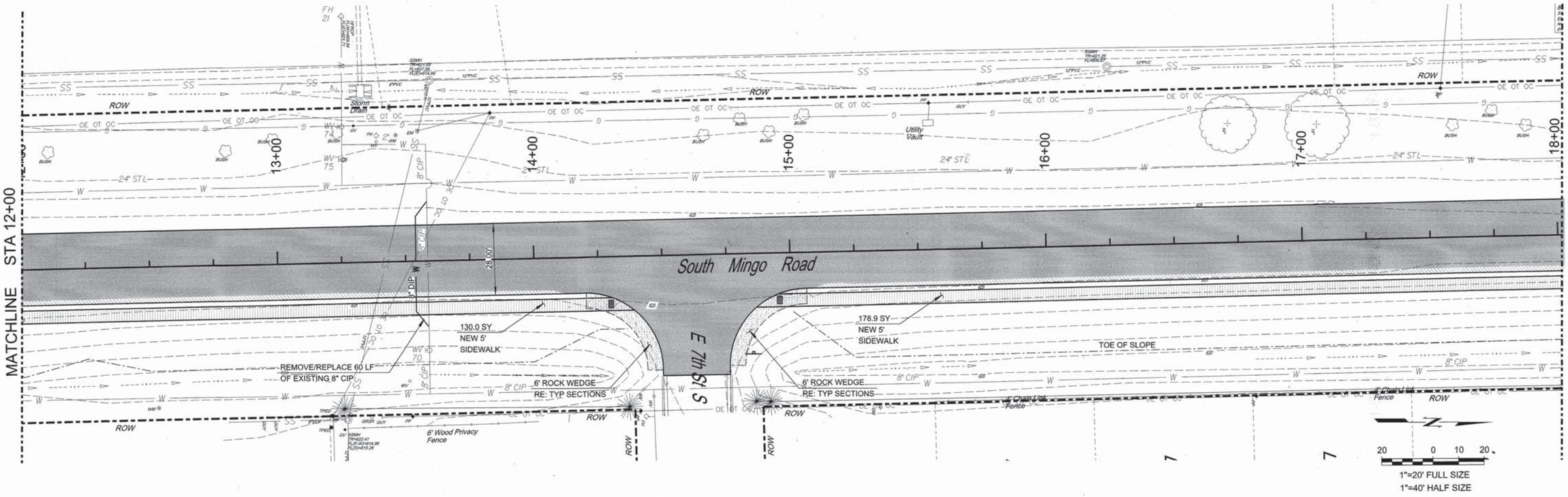
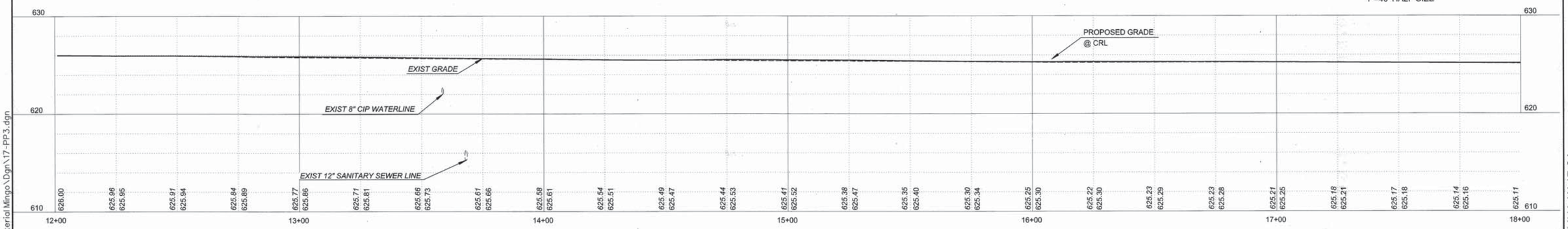
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24





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FOR TYPICAL SECTIONS, RE: SHTS 7-8
FOR WATERLINE REPLACEMENT, RE: SHT 27

LEGEND

- FULL DEPTH ASPHALT PAV'T
- OVERLAY PAV'T
- DRIVEWAY REPLACEMENT
- 5'-0" SIDEWALK
- ROCK WEDGE
- EXIST FLOW

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
07/20/2020

REVISION	BY	DATE

P&P SHT 3

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

PLAN SCALE: 1"=20'-0"	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.	AEE	11/20
HORIZONTAL: 1"=20'-0"	LEAD MGR.		2/20
VERTICAL: 1"=5'-0"	FIELD MGR.		2/21
	RECOMMENDED: DESIGN MANAGER	HAS	2-21

APPROVED:
CITY ENGINEER
DATE: ~~05/11/20~~ 3-19-21

FILE: DRAWING:
ATLAS PAGE NO.: 126, 127, 175 & 176
SHEET 17 OF 45 SHEETS

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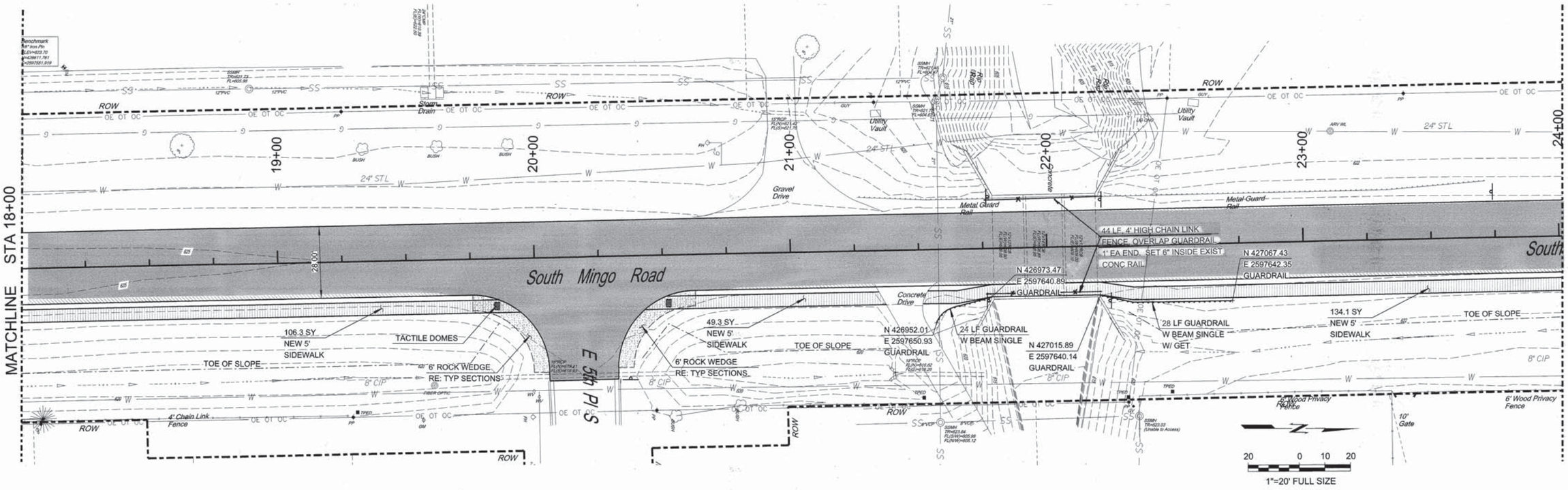
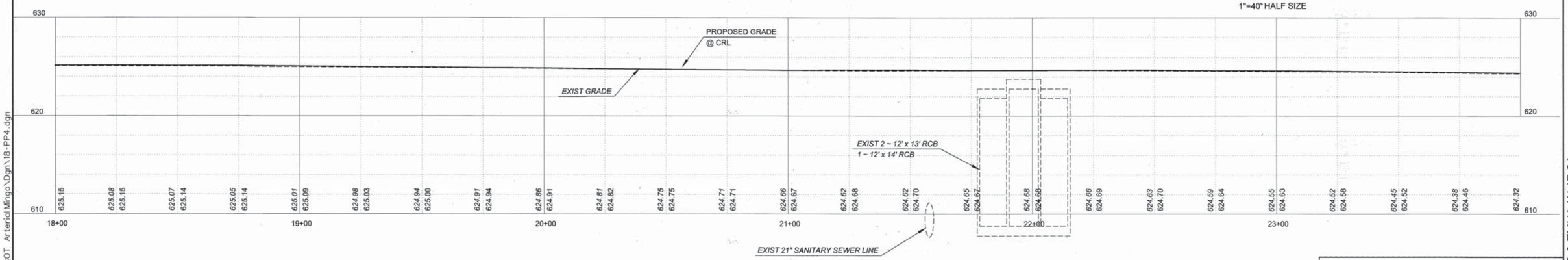
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24





LEGEND

- FULL DEPTH ASPHALT PAV'T
- OVERLAY PAV'T
- DRIVEWAY REPLACEMENT
- 5'-0" SIDEWALK
- ROCK WEDGE
- EXIST FLOW

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TACTILE DOMES TO BE INSTALLED ONLY AT STREET CROSSINGS

FOR TYPICAL SECTIONS, RE: SHTS 7-8
FOR WATERLINE REPLACEMENT, RE: SHT 27

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

P&P SHT 4

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA, OK 74103
(918) 584-5858

PLAN SCALE: 1"=20'-0"	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	ARC	11/20	
HORIZONTAL: 1"=20'-0"	LEAD MGR.		11/20	
	FIELD MGR.		2/21	
VERTICAL: 1"=5'-0"	RECOMMENDED: DESIGN MANAGER	HAS 2-21		CITY ENGINEER
FILE:	DRAWING:			DATE: ~~05/11/20~~ 3.19.21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 18 OF 45 SHEETS

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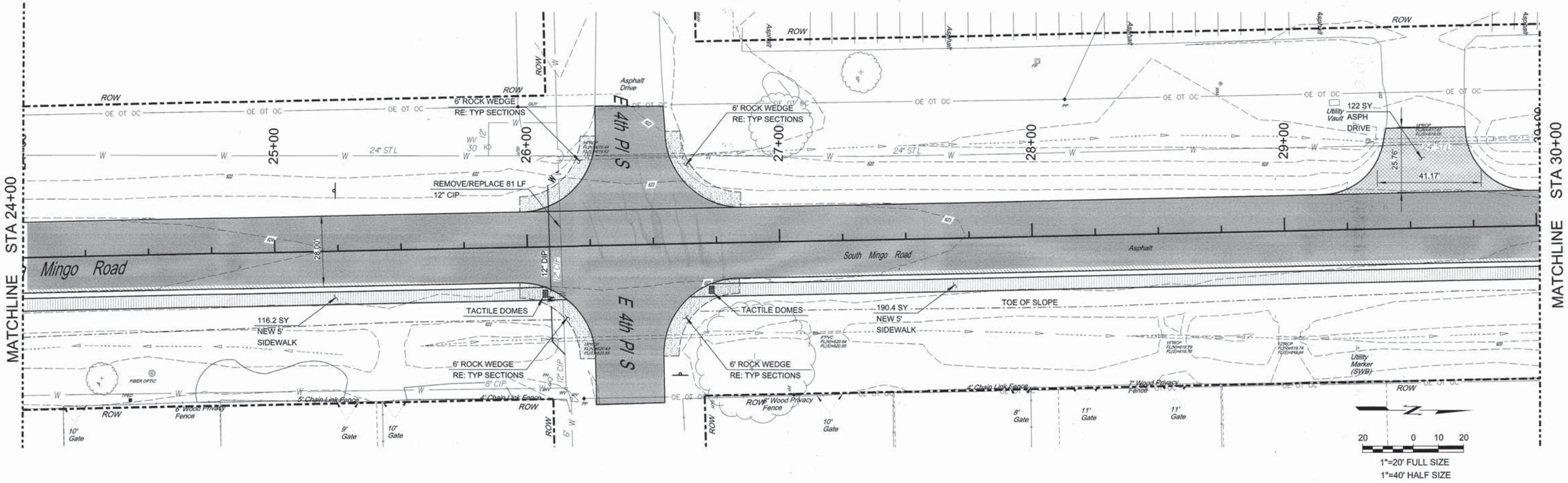
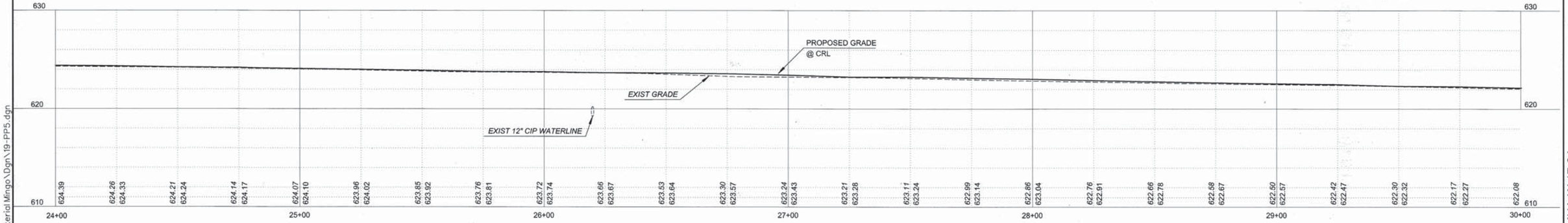
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24





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FOR TYPICAL SECTIONS, RE: SHTS 7-8
FOR WATERLINE REPLACEMENT, RE: SHT 27

LEGEND

- FULL DEPTH ASPHALT PAV'T
- OVERLAY PAV'T
- DRIVEWAY REPLACEMENT
- 5'-0" SIDEWALK
- ROCK WEDGE
- EXIST FLOW

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
Lance K. Woolsey
07/20/2020

P&P SHT 5

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
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WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
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TULSA, OK 74103
(918) 584-5858

REVISION	BY	DATE

PLAN SCALE: 1"=20'-0"	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.	ARE	11/20
HORIZONTAL: 1"=20'-0"	LEAD MGR.		11/20
	FIELD MGR.		2/21
VERTICAL: 1"=5'-0"	RECOMMENDED: DESIGN MANAGER	HBS	2-21

APPROVED:
CITY ENGINEER
DATE: ~~05/11/20~~ 3.19.21

FILE: DRAWING:
ATLAS PAGE NO.: 126, 127, 175 & 176
SHEET 19 OF 45 SHEETS

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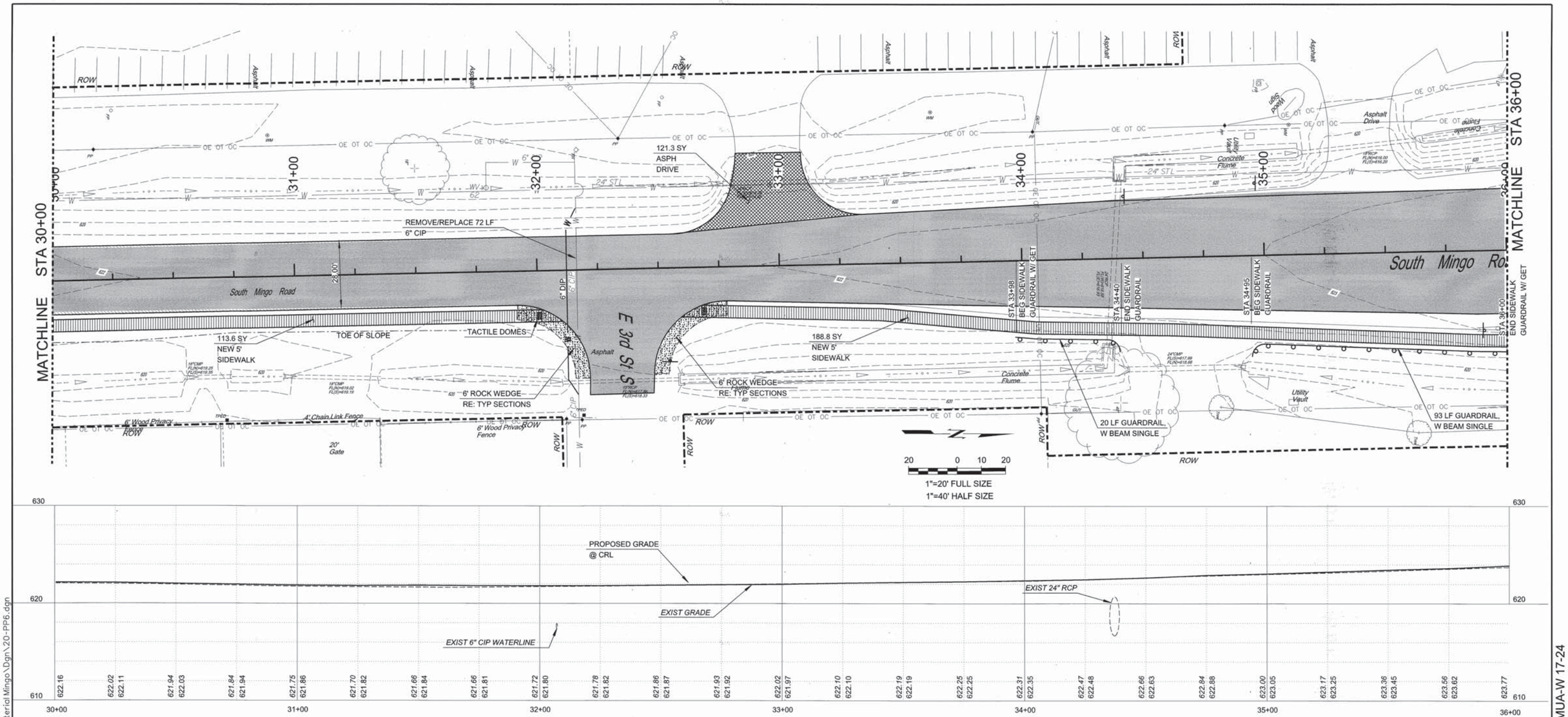
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



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FOR TYPICAL SECTIONS, RE: SHTS 7-8
FOR WATERLINE REPLACEMENT, RE: SHT 27

LEGEND

- FULL DEPTH ASPHALT PAV'T
- OVERLAY PAV'T
- DRIVEWAY REPLACEMENT
- 5'-0" SIDEWALK
- ROCK WEDGE
- EXIST FLOW

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

PLAN SCALE: 1"=20'-0"	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.	AEL	11/20
HORIZONTAL: 1"=20'-0"	LEAD MGR.		11/20
	FIELD MGR.		2/21
VERTICAL: 1"=5'-0"	RECOMMENDED: DESIGN MANAGER	HAS	2.21
FILE:	DRAWING:		
ATLAS PAGE NO.: 126, 127, 175 & 176			

APPROVED:
CITY ENGINEER
DATE: ~~05/11/20~~ 3.19.21
SHEET 20 OF 45 SHEETS

P&P SHT 6

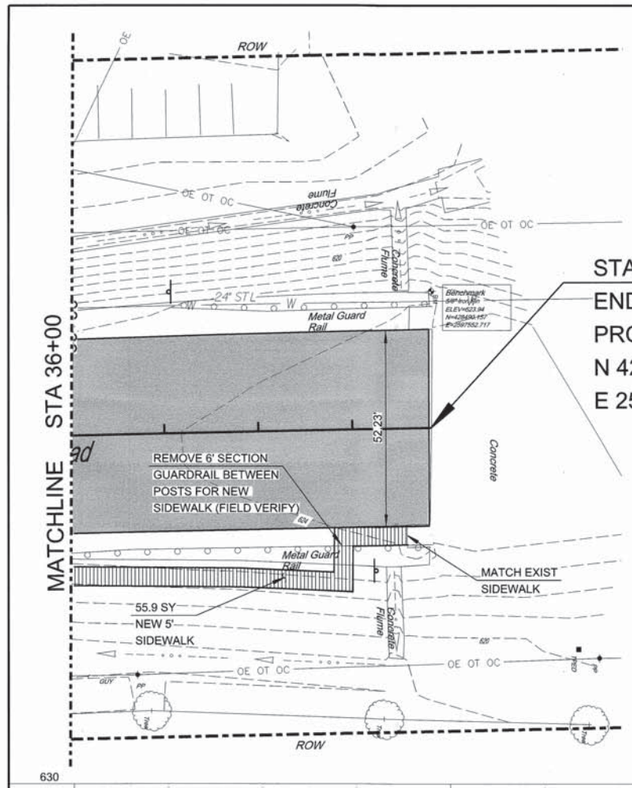
ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

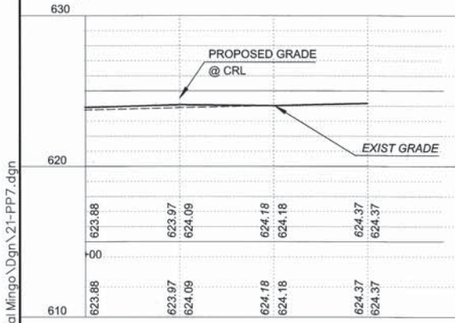
26-Feb-21 13:10:13 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\20-PP6.dgn

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



STA 36+95.54
END ROADWAY RECONSTRUCTION
PROJ # 144017-P
N 428490.13
E 2597588.99

20 0 10 20
1"=20' FULL SIZE
1"=40' HALF SIZE



LEGEND

- FULL DEPTH ASPHALT PAV'T
- OVERLAY PAV'T
- DRIVEWAY REPLACEMENT
- 5'-0" SIDEWALK
- ROCK WEDGE
- EXIST FLOW

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FOR TYPICAL SECTIONS, RE: SHTS 7-8
FOR WATERLINE REPLACEMENT, RE: SHT 27

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA
07/20/2020

REVISION	BY	DATE

PLAN SCALE: 1"=20'-0"	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.	AEC	11/20
HORIZONTAL: 1"=20'-0"	LEAD MGR.		11/20
	FIELD MGR.		2/21
VERTICAL: 1"=5'-0"	RECOMMENDED: HAS 2/21 DESIGN MANAGER		

APPROVED: CITY ENGINEER

DATE: ~~06/11/20~~ 3-19-21

FILE: DRAWING:

ATLAS PAGE NO.: 126, 127, 175 & 176

SHEET 21 OF 45 SHEETS

P&P SHT 7

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24

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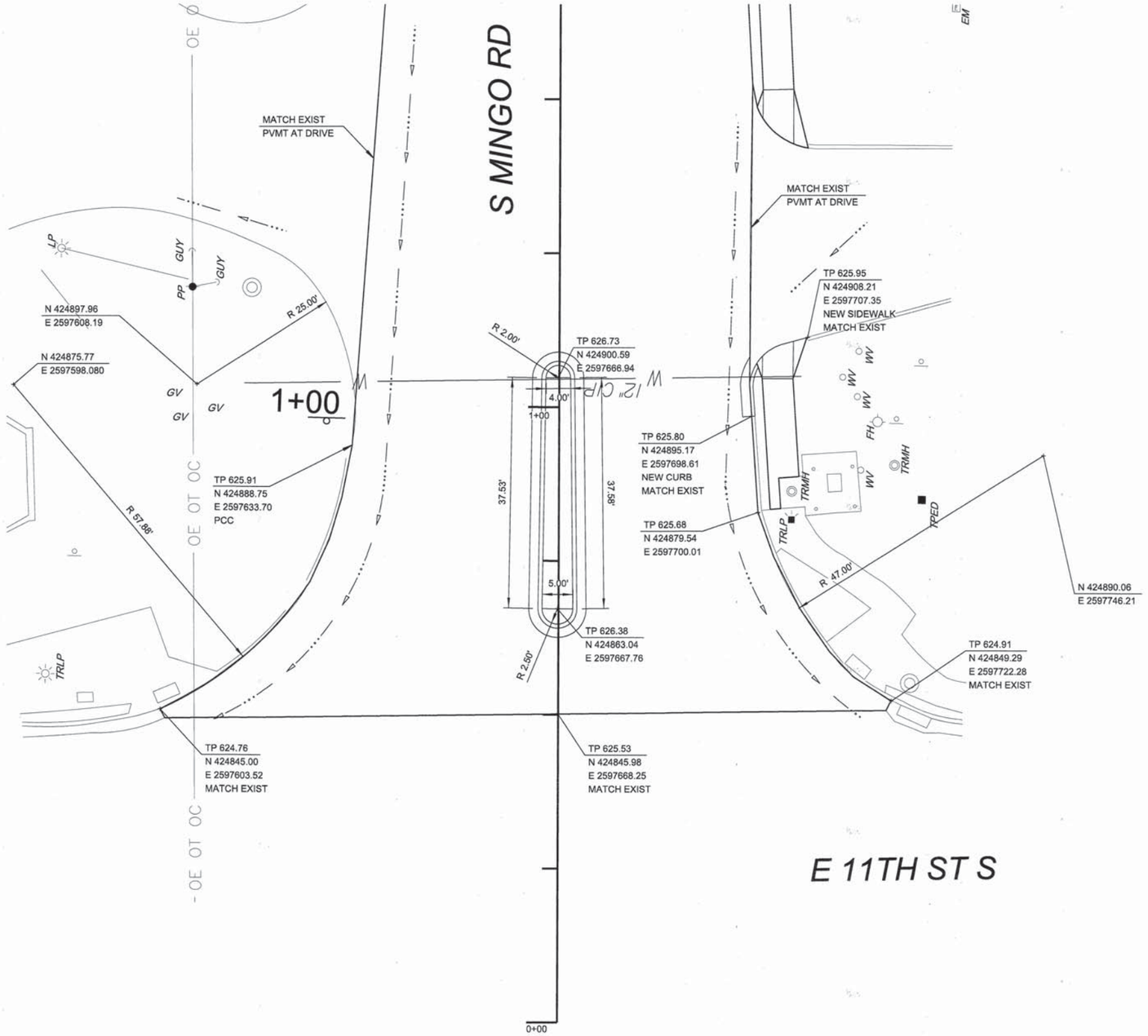

MINGO ROAD & E 11TH ST S

10 0 5 10

1"=10' FULL SIZE

1"=20' HALF SIZE

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

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA

07/20/2020

INTERSECTION PLAN
SHEET 1

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
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REVISION	BY	DATE

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	MLE	4/20	
HORIZONTAL:	LEAD MGR.		4/20	
	FIELD MGR.		7/21	
VERTICAL:	RECOMMENDED: HAS 2-21 DESIGN MANAGER			CITY ENGINEER
FILE:	DRAWING:			DATE: ~~05/11/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 22 OF 45 SHEETS

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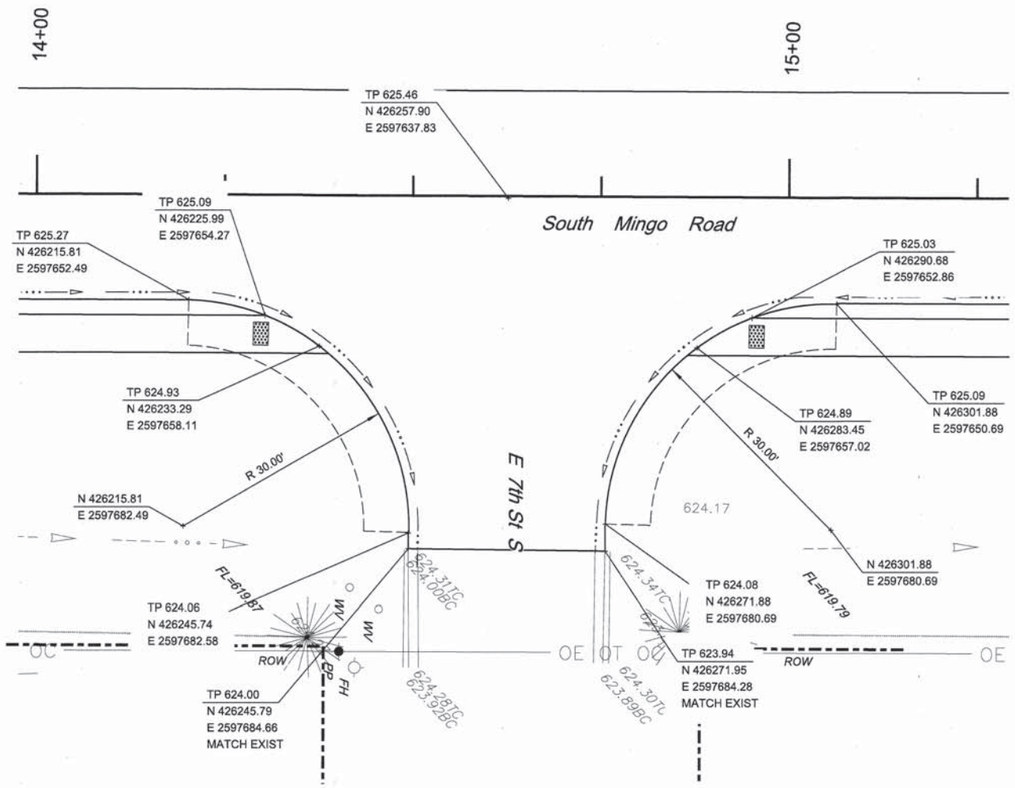
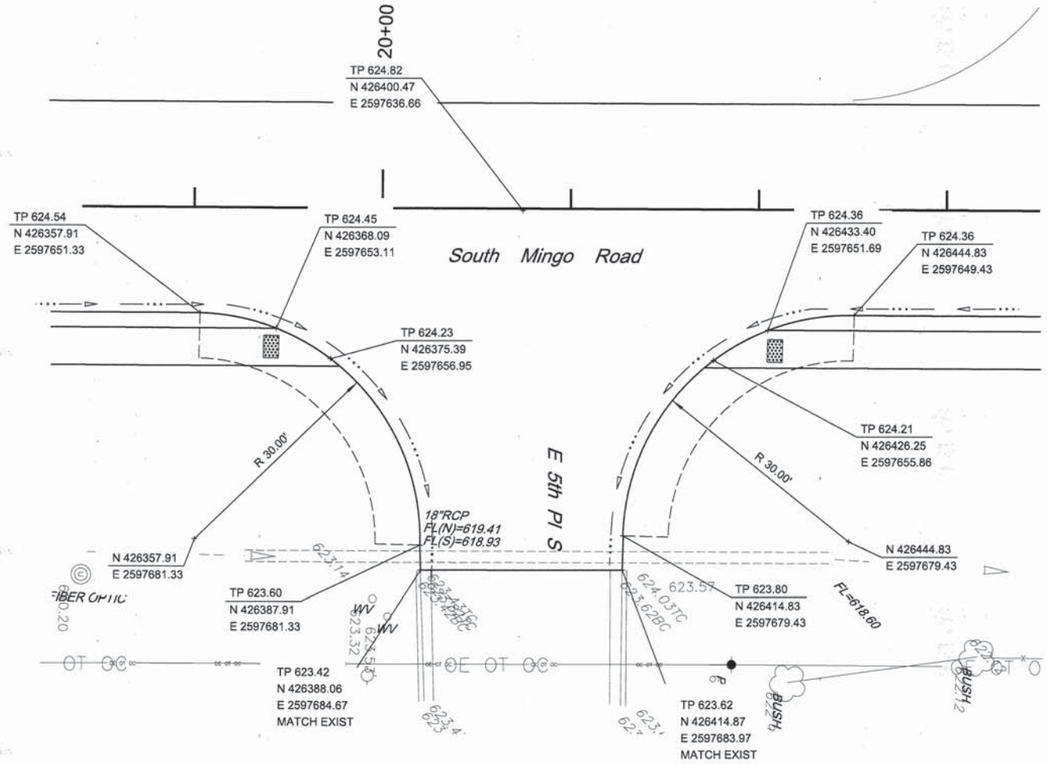
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



MINGO ROAD & E 7TH ST S



MINGO ROAD & E 5TH PL S

10 0 5 10

1"=10' FULL SIZE

1"=20' HALF SIZE

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA

Lance K. Woolsey

07/20/2020

REVISION	BY	DATE

INTERSECTION PLANS
SHEET 2

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
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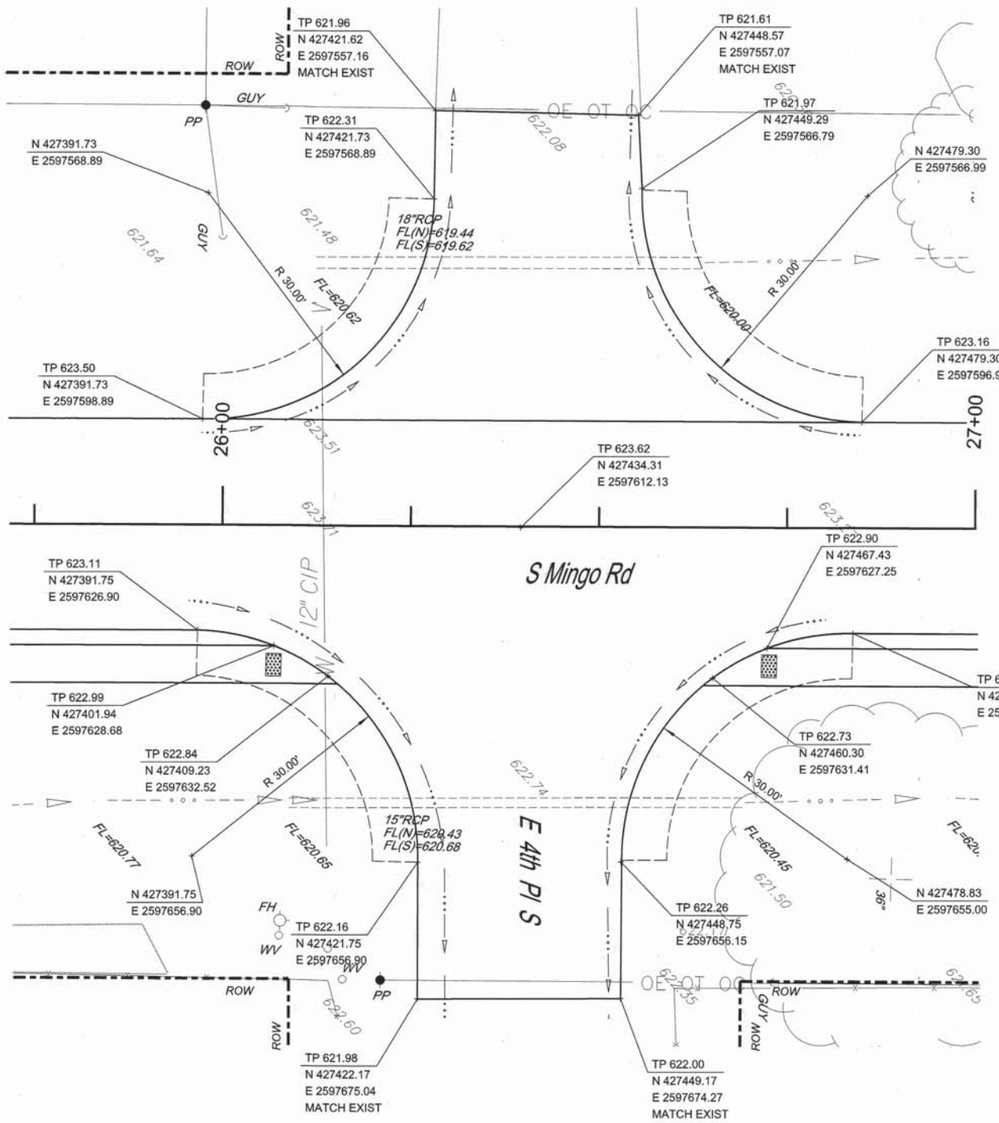
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA, OK 74103
(918) 584-5858

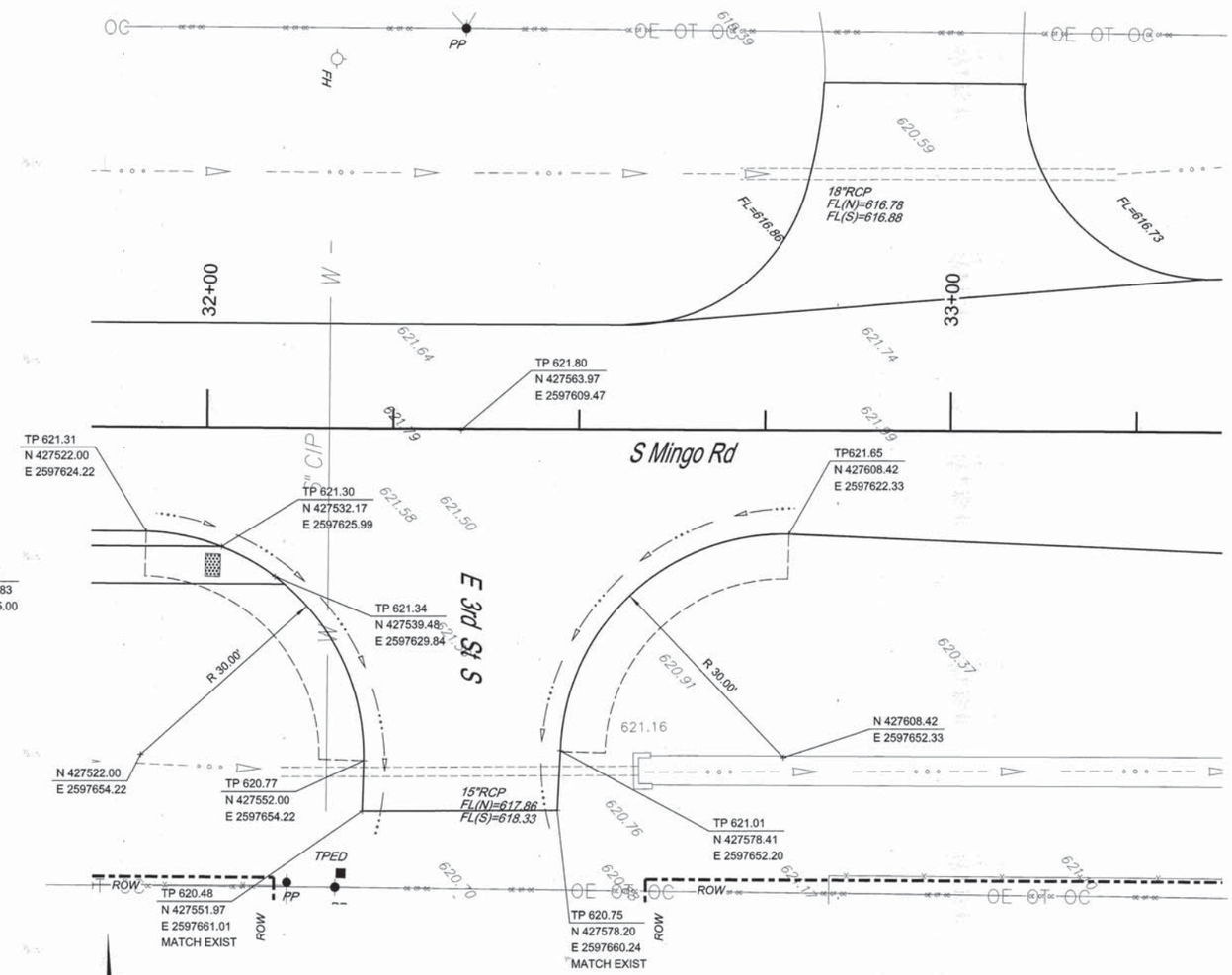
PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	NEW	11/20	
HORIZONTAL:	LEAD MGR.		4/20	
	FIELD MGR.			
VERTICAL:	RECOMMENDED:	HAS	2-21	CITY ENGINEER
	DESIGN MANAGER			
FILE:	DRAWING:			DATE: ~~06/11/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 23 OF 45 SHEETS

17-Jul-20 08:20:22 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\23-Intersection2.dgn

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



MINGO ROAD & E 4TH PL S



MINGO ROAD & E 3RD ST S

N

10 0 5 10

1"=10' FULL SIZE
1"=20' HALF SIZE

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
07/20/2020

INTERSECTION PLANS
SHEET 3

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
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STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
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REVISION	BY	DATE

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.		11/20	
HORIZONTAL:	LEAD MGR.		11/20	
	FIELD MGR.		2/21	
VERTICAL:	RECOMMENDED:		2·21	CITY ENGINEER
	DESIGN MANAGER			
FILE:	DRAWING:			DATE: 3·19·21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 24 OF 45 SHEETS

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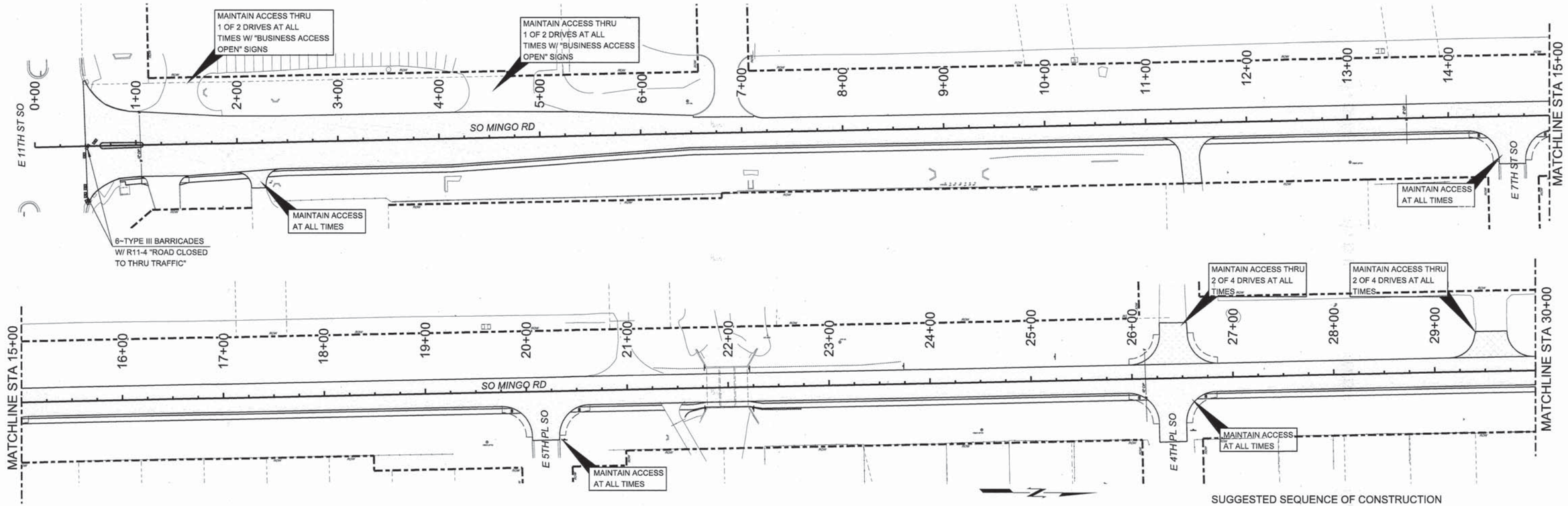
Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



LEGEND

- DRIVEWAYS TO BE REMOVED/REPLACED
- ROADWAY TO BE MILLED/OVERLAID
- FULL DEPTH ASPHALT SECTION
- 5' CONCRETE SIDEWALK
- 6' ROCK WEDGE

SUGGESTED SEQUENCE OF CONSTRUCTION

SET ADVANCED WARNING SIGNING IN ACCORDANCE WITH ODOT AND MUTCD STANDARDS, WITH APPROVAL FROM THE CITY OF TULSA. INSTALL EROSION CONTROL AS NOTED.

CONSTRUCT SOUTHBOUND LANE, LEAVING NORTHBOUND OPEN FOR LOCAL TRAFFIC. MAINTAIN ACCESS AS SHOWN ON THE PLANS.

CONSTRUCT NORTHBOUND LANE, LEAVING SOUTHBOUND OPEN FOR LOCAL TRAFFIC. MAINTAIN ACCESS AS SHOWN ON THE PLANS.

CONSTRUCT SIDEWALK AND REPLACE GURDRAILS AS SHOWN ON PLANS.

COMPLETE PAVEMENT MARKINGS AND INSTALL REPLACEMENT SIGNAGE. REMOVE EROSION CONTROL.

TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL WORK IN COOPERATION WITH THE CITY OF TULSA TO ESTABLISH, INSTALL, MAINTAIN AND OPERATE COMPLETE, ADEQUATE AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL PLACE TRAFFIC CONTROL DEVICES WITHIN THE VICINITY OF THE CONSTRUCTION AS REQUIRED. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND APPROVED BY THE CITY OF TULSA.

2. LOCAL TRAFFIC SHALL BE MAINTAINED THROUGHOUT THE PROJECT AT ALL TIMES. ALL PUBLIC AND PRIVATE STREETS AND DRIVES SHALL BE ACCESSIBLE FOR LOCAL TRAFFIC FROM ANY DETOUR DURING CONSTRUCTION OF THIS PROJECT. VARIANCES TO THIS REQUIREMENT SHALL BE MADE THROUGH THE PUBLIC WORKS DEPARTMENT OF THE CITY OF TULSA.

3. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO LANE CLOSURES WILL BE KEPT TO A MINIMUM AND BE CLOSED FOR AS SHORT A DURATION AS POSSIBLE. ACCESS TO RESIDENTS' DRIVEWAYS AND FOR EMERGENCY VEHICLES, SCHOOL SUSES, ETC SHALL BE MAINTAINED EXCEPT WHEN CLOSURE IS ABSOLUTELY NECESSARY. PROPER NOTIFICATION MUST BE GIVEN PRIOR TO ANY CLOSURE.

4. LOCAL TRAFFIC, IE A RESIDENT WITH DRIVEWAY ON THE STREET BEING CONSTRUCTED, SHALL BE ALLOWED VEHICULAR ACCESS TO AND FROM THEIR DRIVEWAY AT ALL TIMES EXCEPT WHEN THE DRIVEWAY IS BEING DEMOLISHED OR RE-CONSTRUCTED OR AT SUCH TIMES WHEN EXCAVATION OR PLACEMENT OF ROADWAY MATERIALS IS OCCURRING IMMEDIATELY IN FRONT OF THE DRIVEWAY. 18-24 HOURS PRIOR TO THESE ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE RESIDENT(S) THAT ACCESS

TRAFFIC CONTROL NOTES, CONT

TO THE DRIVEWAY SHALL BE RESTRICTED. THE CONTRACTOR SHALL ADVISE THE RESIDENT THROUGH PERSONAL CONTACT, OR THE USE OF DOOR HANGERS WHICH WILL OUTLINE SPECIFICALLY THE BEGINNING DATE, TIME AND DURATION THE DRIVEWAY WILL BE INACCESSIBLE. DOOR HANGERS SHALL PROVIDE A PHONE NUMBER AND CONTACT PERSON WHICH THE RESIDENT MAY CONTACT IN CASE OF QUESTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO ADVISE RESIDENTS EACH DIFFERENT PERIOD IN WHICH THE DRIVEWAY IS TO BE INACCESSIBLE.

5. UNDER NO CIRCUMSTANCES SHALL A St UNDER CONSTRUCTION BE INACCESSIBLE OVER A WEEKEND OR HOLIDAY. THE CONTRACTOR SHALL SCHEDULE WORK SO THAT, AS A MINIMUM, RESIDENCES WITH DRIVEWAYS ON THE St BEING CONSTRUCTED, SHALL BE ABLE TO ACCESS THEIR DRIVEWAY FROM A COMPACTED AGGREGATE BASE SURFACE DURING A WEEKEND PERIOD OR HOLIDAY. A WEEKEND PERIOD IS DEFINED AS BEING FROM 5:00 PM ON FRIDAY TO 8:OO AM ON MONDAY.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL CONSTRUCTION SIGNAGE AND BARRICADES INCLUDING, BUT NOT LIMITED TO, WASHING, REPLACING AND REPOSITIONING THE DEVICES. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL ALL TRAFFIC CONTROL DEVICES DEEMED NECESSARY BY THE CITY OF TULSA, DUE TO CHANGING TRAFFIC CONDITIONS.

7. NO BARRICADES SHALL BE PLACED IN THE ROADWAY UNTIL ALL ADVANCE WARNING SIGNAGE IS IN PLACE.

8. ROADSIDE HAZARDS SHALL BE COMPLETELY BARRICADED AROUND THE PERIMETER FOR THE SAFETY OF PEDESTRIANS AS WELL AS VEHICLES.

TRAFFIC CONTROL NOTES, CONT

9. ALL CHANNELING DEVICES SHALL BE WEIGHED DOWN WITH A NON-HAZARDOUS MATERIAL IF DEEMED NECESSARY AND SO DIRECTED BY THE CITY OF TULSA.

10. ALL ADVANCE WARNING SIGNS SHALL REQUIRE ONE TYPE A LIGHT; ALL TYPE III BARRICADES SHALL REQUIRE TWO TYPE A LIGHTS; ALL CHANNELING DEVICES SHALL REQUIRE ONE TYPE C LIGHT.

11. ALL SIGNAGE SHALL BE SUBMITTED TO AND APPROVED BY THE CITY OF TULSA.

12. REFERENCE MUTCD FOR ADVANCE WARNING SIGNS AND PLACEMENT.

13. USE TYPE III BARRICADES FOR LANE CLOSURE W/IN ACTIVE WORK ZONES.

14. PLACE TUBE CHANNELIZERS AT 20' CENTERS THRU ACTIVE WORK ZONES.

REGISTERED PROFESSIONAL ENGINEER LANCE K. WOOLSEY 15383 OKLAHOMA
Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

PLAN SCALE:	DRAWN	LKW	08/05/19	APPROVED:
	DESIGNED	LKW	08/05/19	
	SURVEY	RWB	04/22/19	
PROFILE SCALE:	PROJ. MGR.	AAR	11/20	
HORIZONTAL:	LEAD MGR.		11/20	
	FIELD MGR.	ZSM	2/21	
VERTICAL:	RECOMMENDED: HAS 2-21 DESIGN MANAGER			CITY ENGINEER
FILE:	DRAWING:			DATE: ~~06/11/20~~ 3-19-21
ATLAS PAGE NO.: 126, 127, 175 & 176				SHEET 25 OF 45 SHEETS

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA,OK 74103
(918) 584-5858

SUGGESTED TRAFFIC SEQUENCING

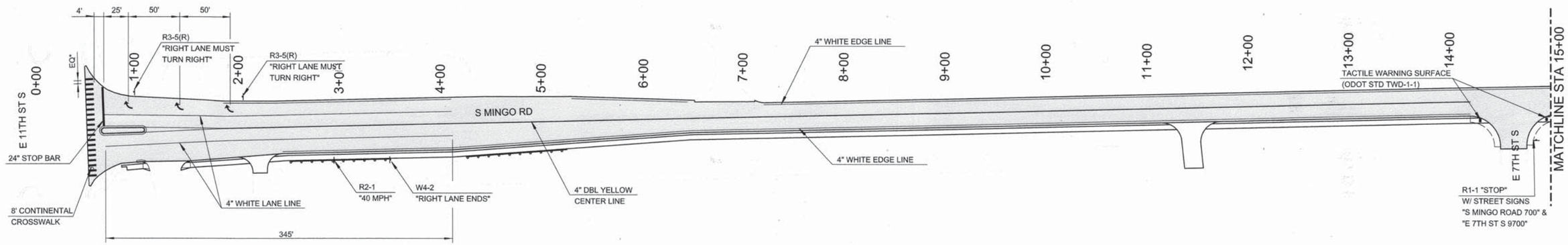
ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

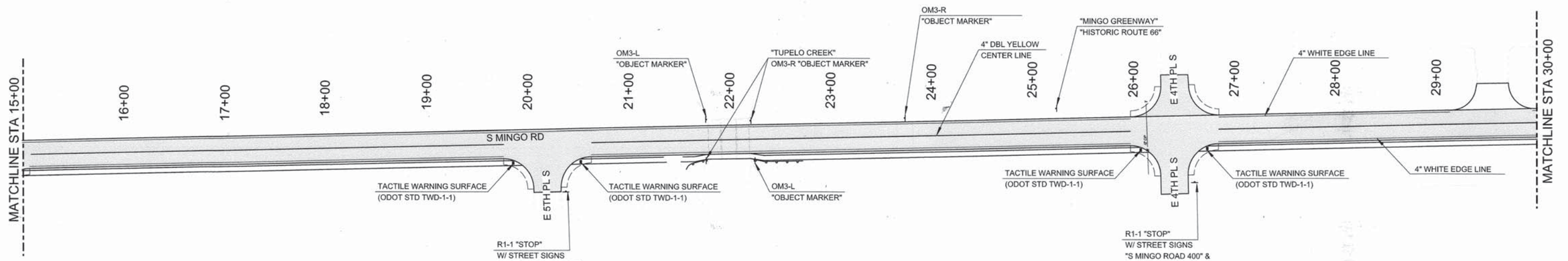
CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

17-Jul-20 08:21:14 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\25-traffic control.dgn

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24

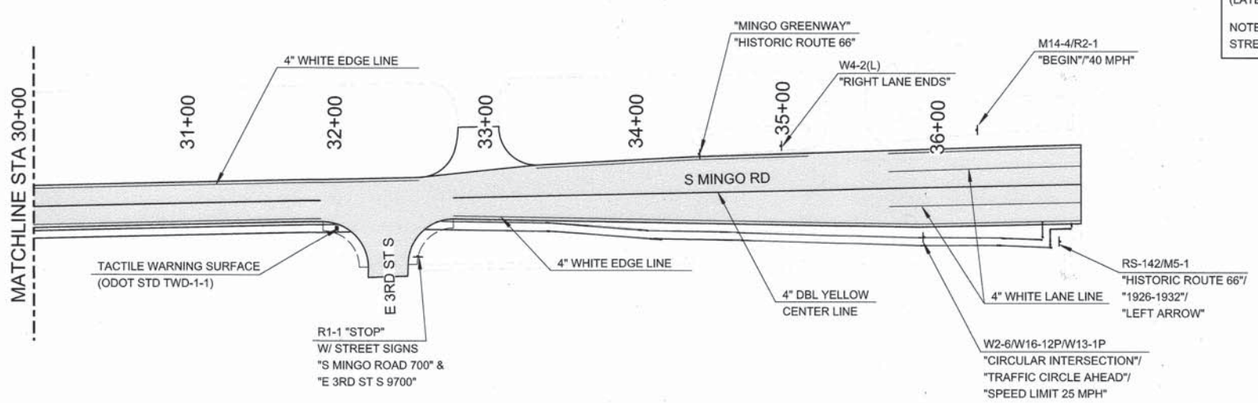
*CROSSWALK BARS ARE TO BE EQUALLY SPACED. HOWEVER, THE BARS SHALL ALSO BE PLACED IN LINE W/ THE LANE LINES AT CENTRELINE OF EACH LANE WHENEVER POSSIBLE TO AVOID WHEEL PATHS.





FOR DIMENSIONS NOT SHOWN ON THE PLANS FOR PAVEMENT MARKINGS, REFERENCE SHALL BE MADE TO ODOT STANDARD DRAWINGS PM1-1, PM2-1 & PM3-1 (LATEST REVISIONS).

NOTE: TACTILE DOMES TO BE INSTALLED ONLY AT STREET CROSSINGS



50 0 25 50

1"=50' FULL SIZE
1"=100' HALF SIZE

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA

Lance K. Woolsey
07/20/2020

REVISION	BY	DATE

SIGNAGE/PAVEMENT MARKINGS

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
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WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
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PLAN SCALE:	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL:	LEAD MGR.	LKW	01/21
	FIELD MGR.		2/21
VERTICAL:	RECOMMENDED:	HAS	2-21
	DESIGN MANAGER		

APPROVED:

CITY ENGINEER

DATE: ~~06/11/20~~ 3-19-21

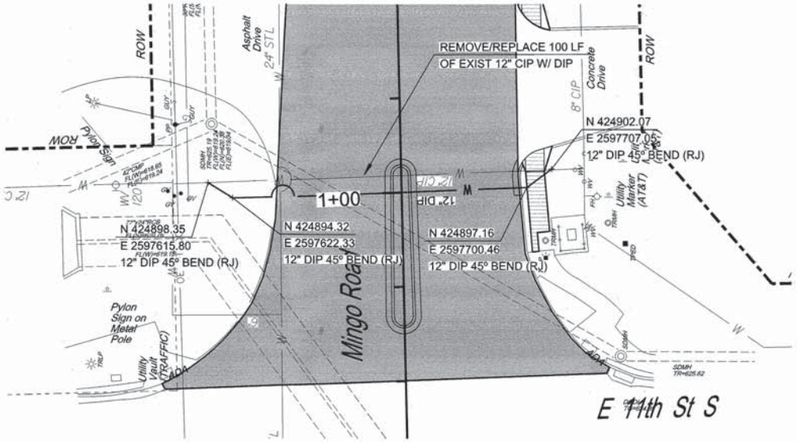
FILE: DRAWING:

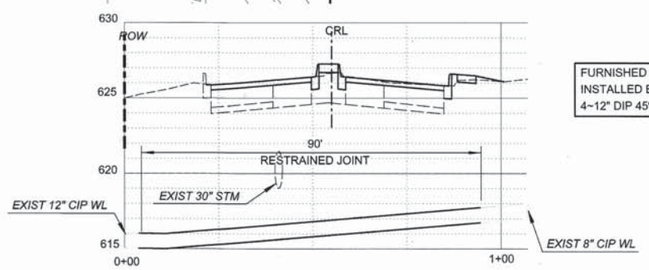
ATLAS PAGE NO.: 126, 127, 175 & 176

SHEET 26 OF 45 SHEETS

23-Feb-21 08:04:13 \\CIVIL-SERVER\Projects\1740178 COT Arterial Mingo\Dgn\26-sign & stripe plan.dgn

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24

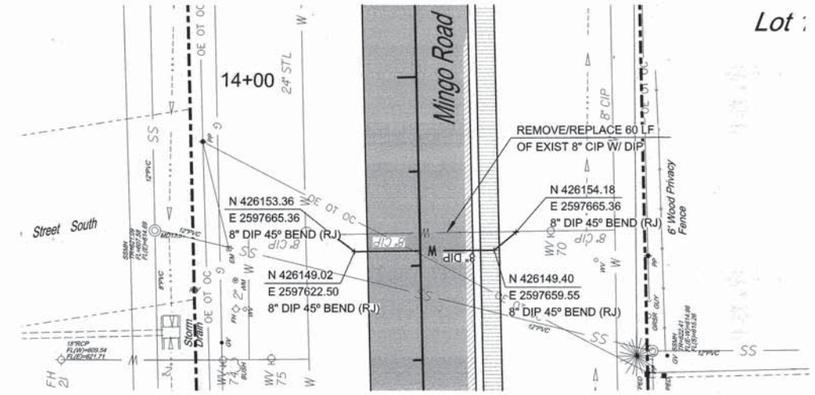


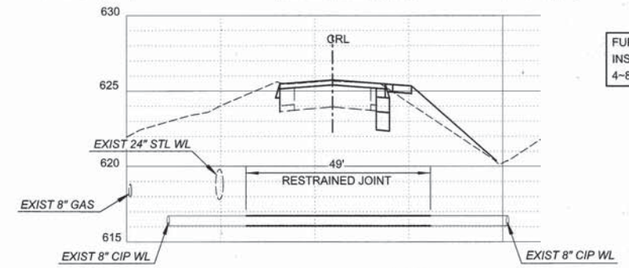


FURNISHED BY CONTRACTOR, INSTALLED BY CONTRACTOR: 4~12" DIP 45° BENDS

STA 1+00 - 12" DIP

SCALE: 1"=20' HOR
1"=5' VERT





FURNISHED BY CONTRACTOR, INSTALLED BY CONTRACTOR: 4~8" DIP 45° BENDS

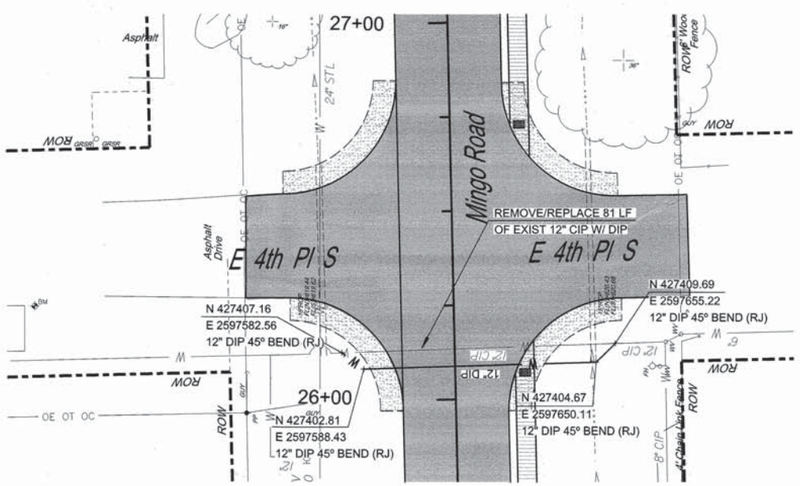
STA 13+54 - 8" DIP

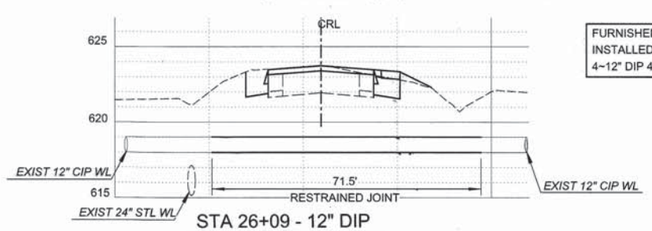
SCALE: 1"=20' HOR
1"=5' VERT

N

20 0 10 20

1"=20' FULL SIZE
1"=40' HALF SIZE





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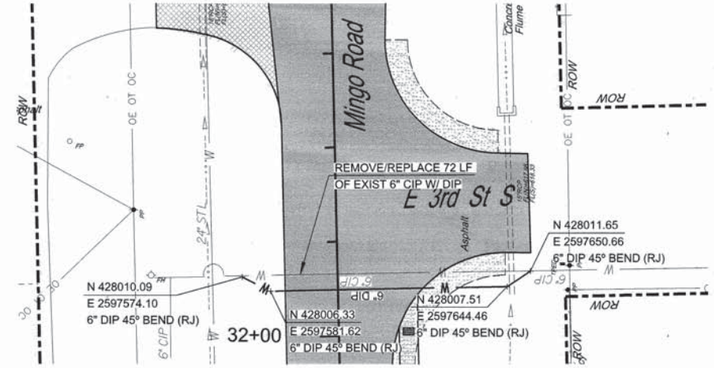
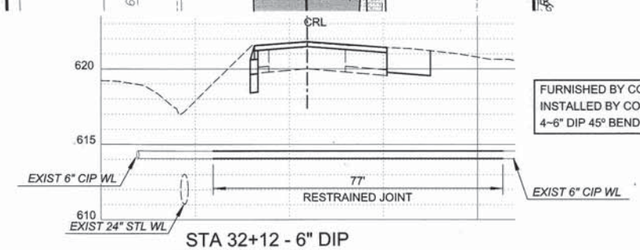
STA 26+09 - 12" DIP

SCALE: 1"=20' HOR
1"=5' VERT





FURNISHED BY CONTRACTOR, INSTALLED BY CONTRACTOR: 4~6" DIP 45° BENDS

STA 32+12 - 6" DIP

SCALE: 1"=20' HOR
1"=5' VERT

NOTE: ALL UTILITY LOCATIONS ARE APROXIMATE. CONTRATOR TO VERIFY EXACT LOCATION IN THE FIELD.

REGISTERED PROFESSIONAL ENGINEER
LANCE K. WOOLSEY
15383
OKLAHOMA
07/20/2020

TMUA-W 17-24

WATER LINE PLAN SHEET

ARTERIAL PROJECT: MINGO ROAD
COT PROJECT 144017-P

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
wallace
WALLACE ENGINEERING
STRUCTURAL CONSULTANTS INC.
123 N MARTIN LUTHER KING JR BLVD
TULSA, OK 74103
(918) 584-5858

REVISION	BY	DATE

PLAN SCALE: 1"=20'-0"	DRAWN	LKW	08/05/19
	DESIGNED	LKW	08/05/19
	SURVEY	RWB	04/22/19
PROFILE SCALE:	PROJ. MGR.		
HORIZONTAL: 1"=20'-0"	LEAD MGR.	CEW	12/20
	FIELD MGR.	RZM	2/21
VERTICAL: 1"=5'-0"	RECOMMENDED: DESIGN MANAGER	HAS	2-21
FILE:	DRAWING:		
ATLAS PAGE NO.: 126, 127, 175 & 176			

APPROVED:

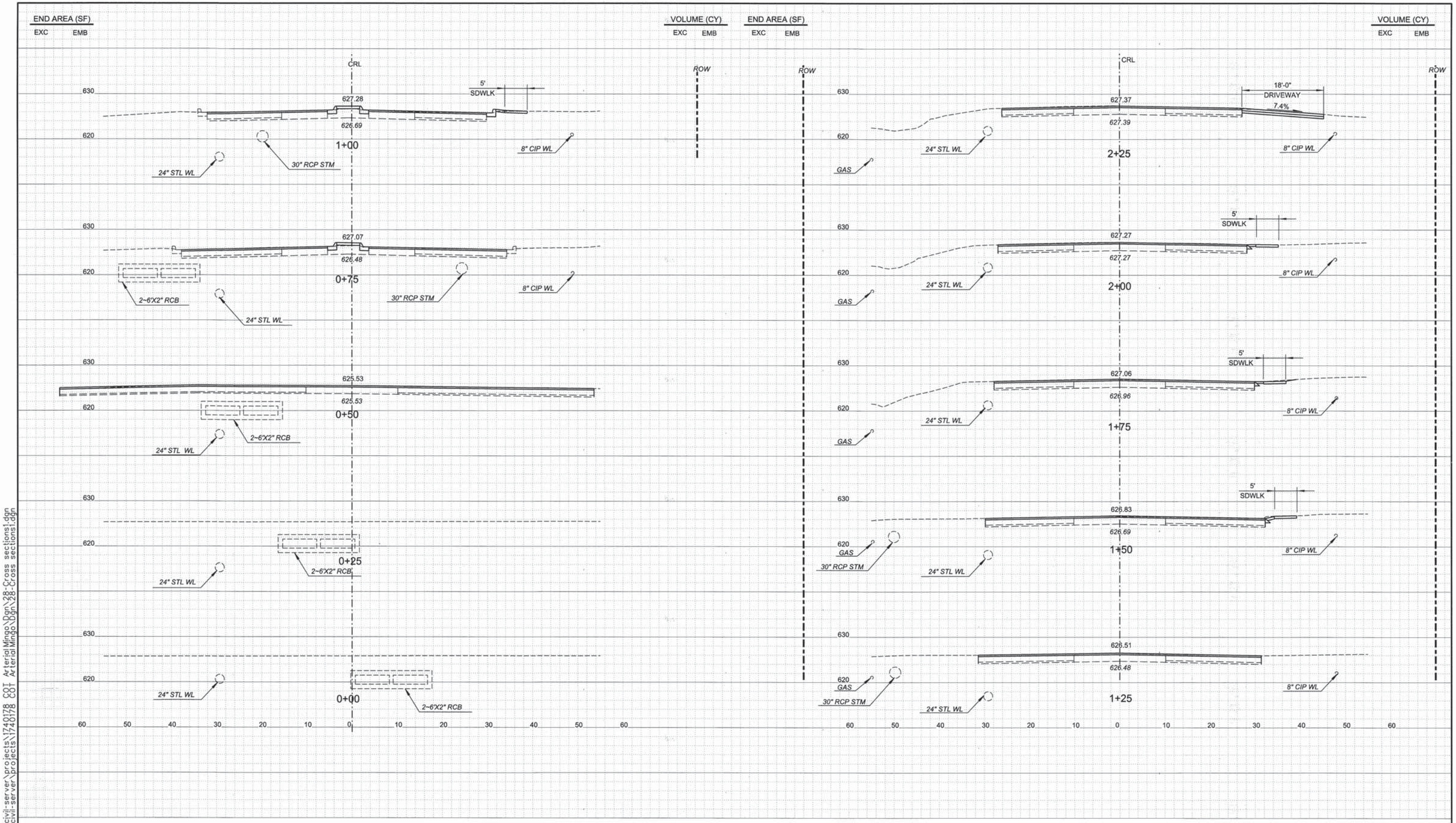
CITY ENGINEER

DATE: ~~05/11/20~~ 3-19-21

SHEET 27 OF 45 SHEETS

08-Oct-20 11:45:02 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\27-WLPP1.dgn

Arterial Street Rehabilitation - Project No. 144017-P & TMUA-W 17-24



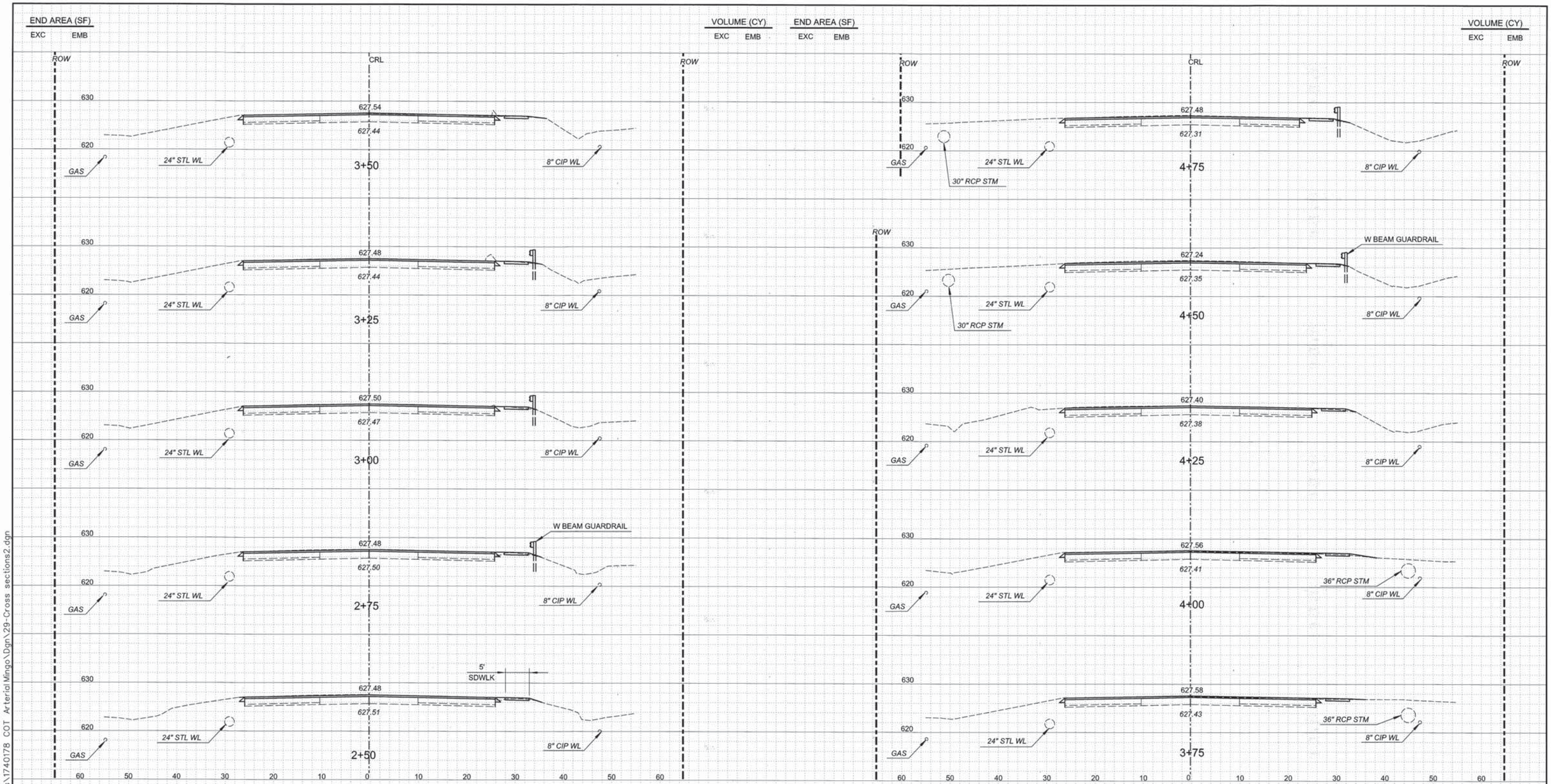
EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 0+00 TO 2+25

SHEET 28 OF 45 SHEETS

\\civil-server\projects\1740178 COT Arterial Mingo\Dgn\28-Cross sections1.dgn
\\civil-server\projects\1740178 COT Arterial Mingo\Dgn\28-Cross sections1.dgn
17-Jul-20 08:31:01
17-Jul-20 08:31:01



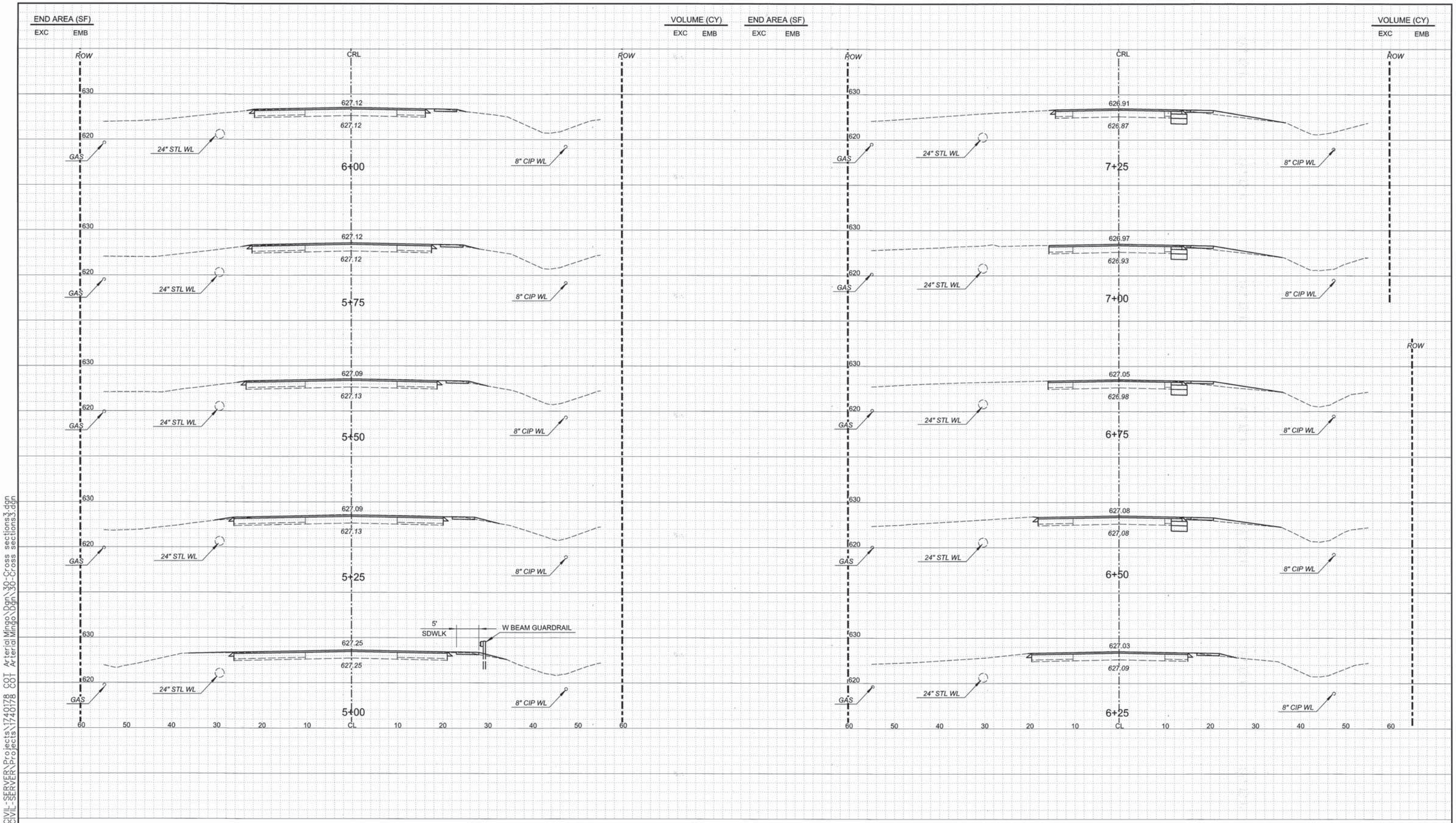
EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL, SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 2+50 TO 4+75

SHEET 29 OF 45 SHEETS

23-Feb-21 07:36:58 \\CIVIL-SERVER\Projects\1740178 COT Arterial Mingo\Dgn\29-Cross sections2.dgn



EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 5+00 TO 7+25

SHEET 30 OF 45 SHEETS

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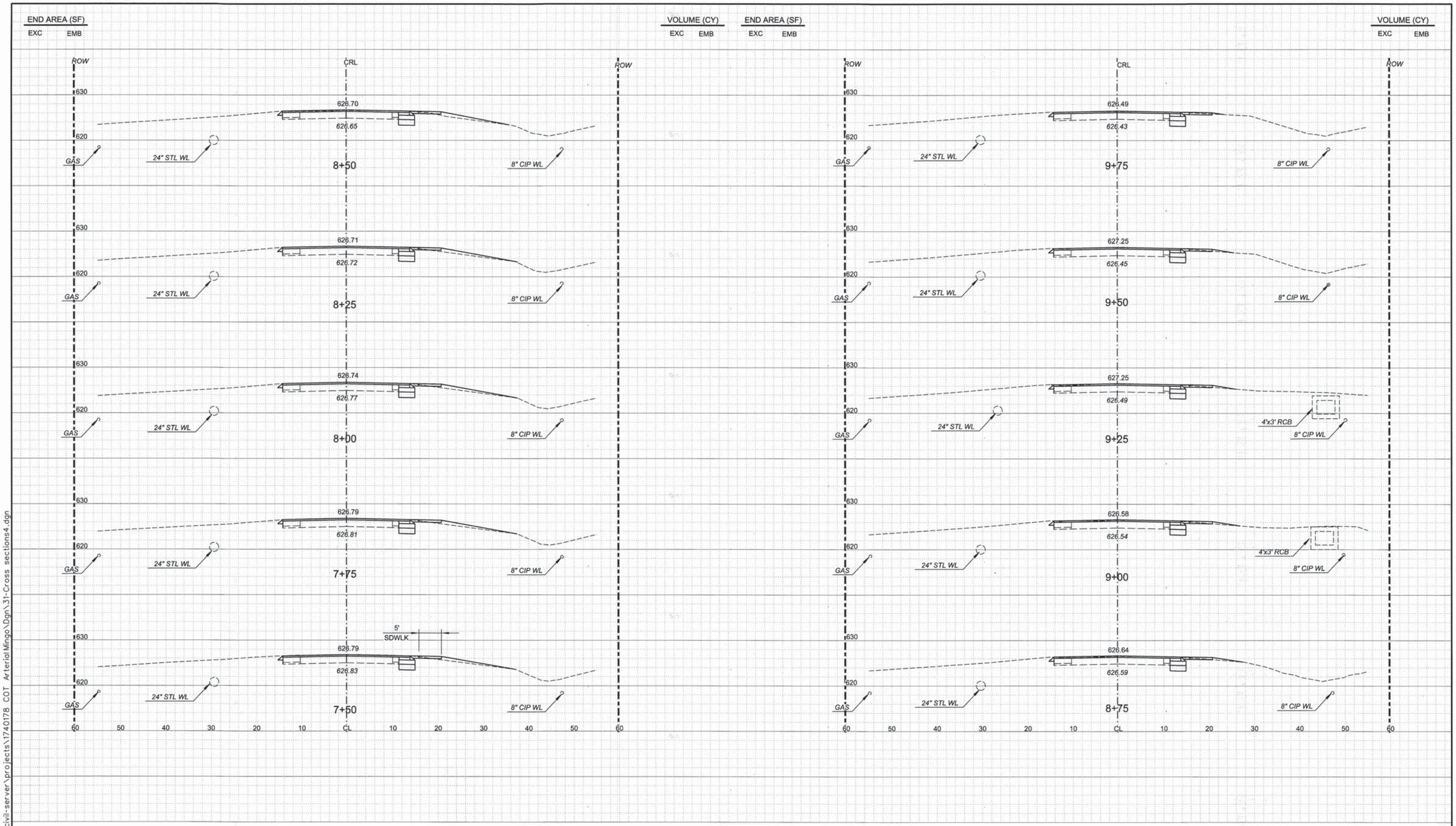

EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 7+50 TO 9+75

SHEET 31 OF 45 SHEETS

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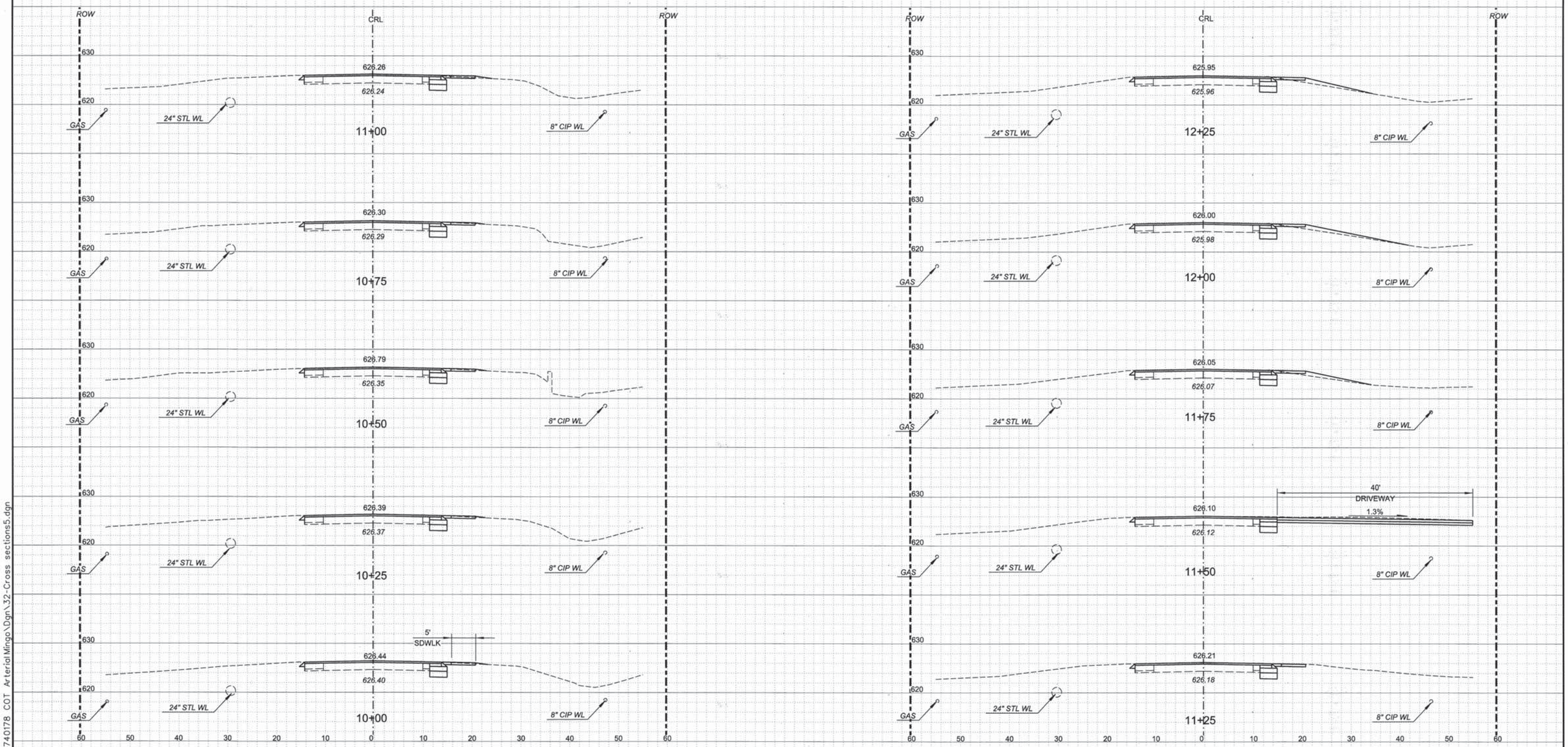
END AREA (SF) EXC EMB | VOLUME (CY) EXC EMB | END AREA (SF) EXC EMB | VOLUME (CY) EXC EMB



EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 10+00 TO 12+25

SHEET 32 OF 45 SHEETS

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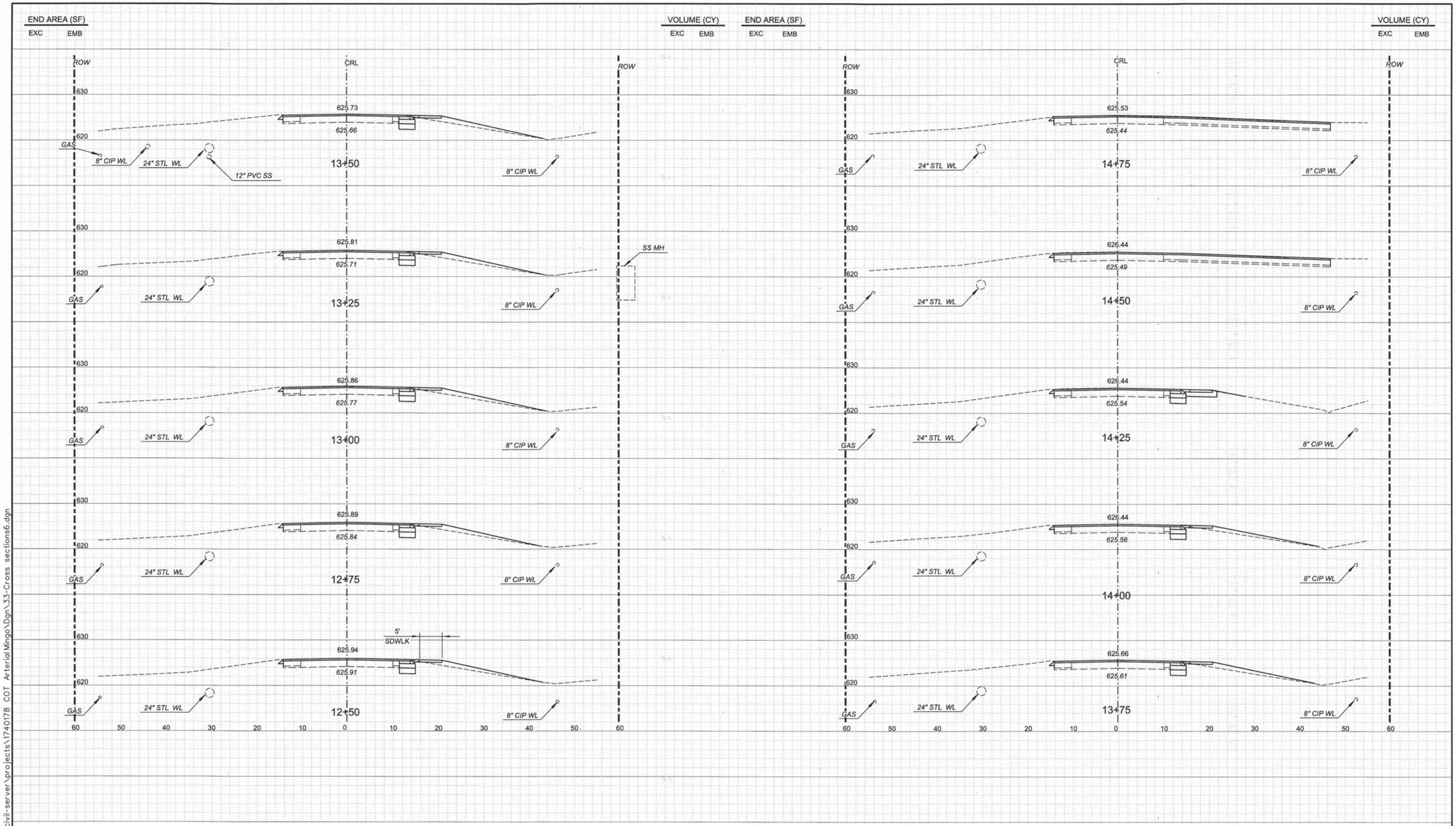

EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 12+50 TO 14+75

SHEET 33 OF 45 SHEETS

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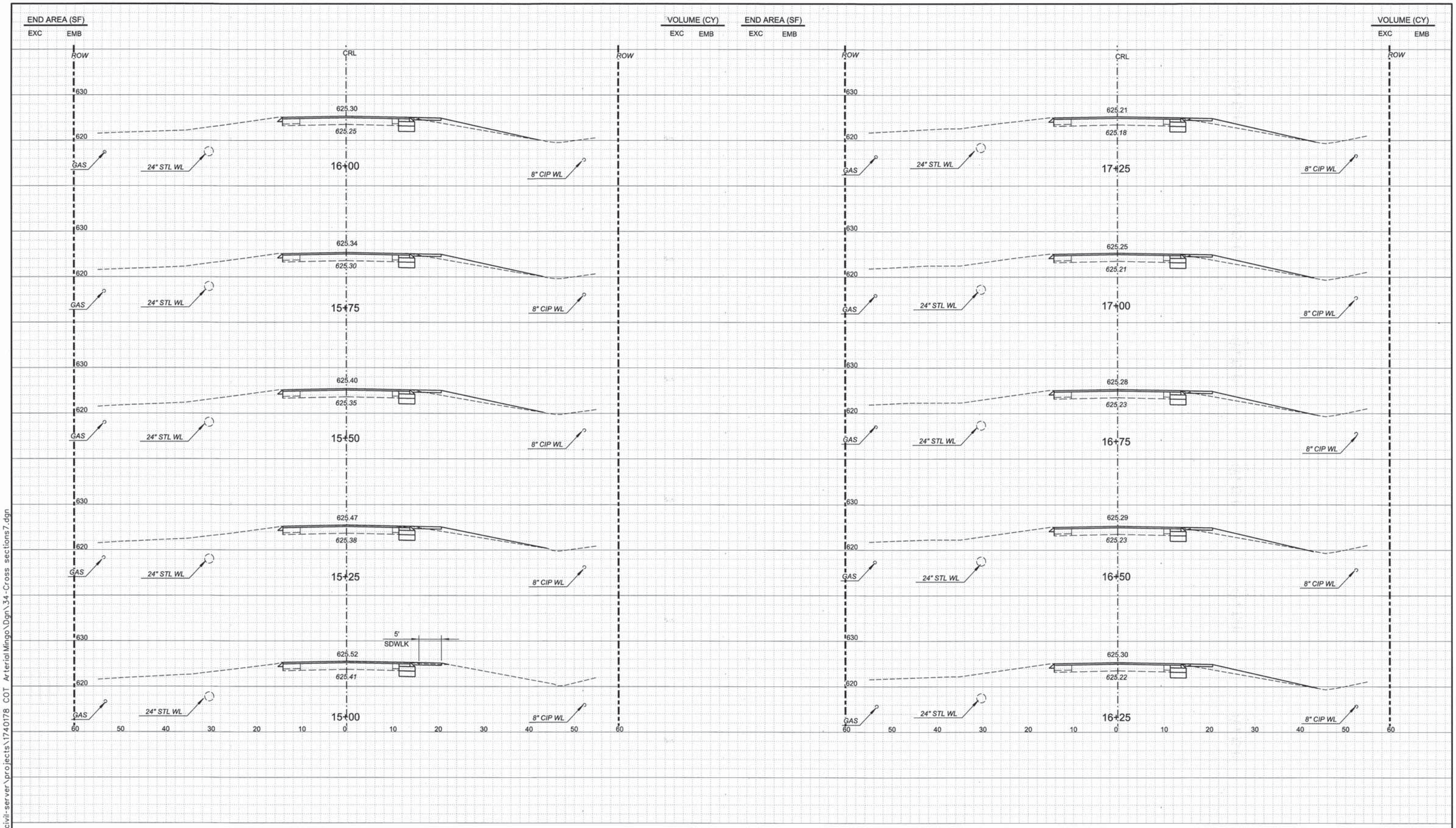

EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 15+00 TO 17+25

SHEET 34 OF 45 SHEETS

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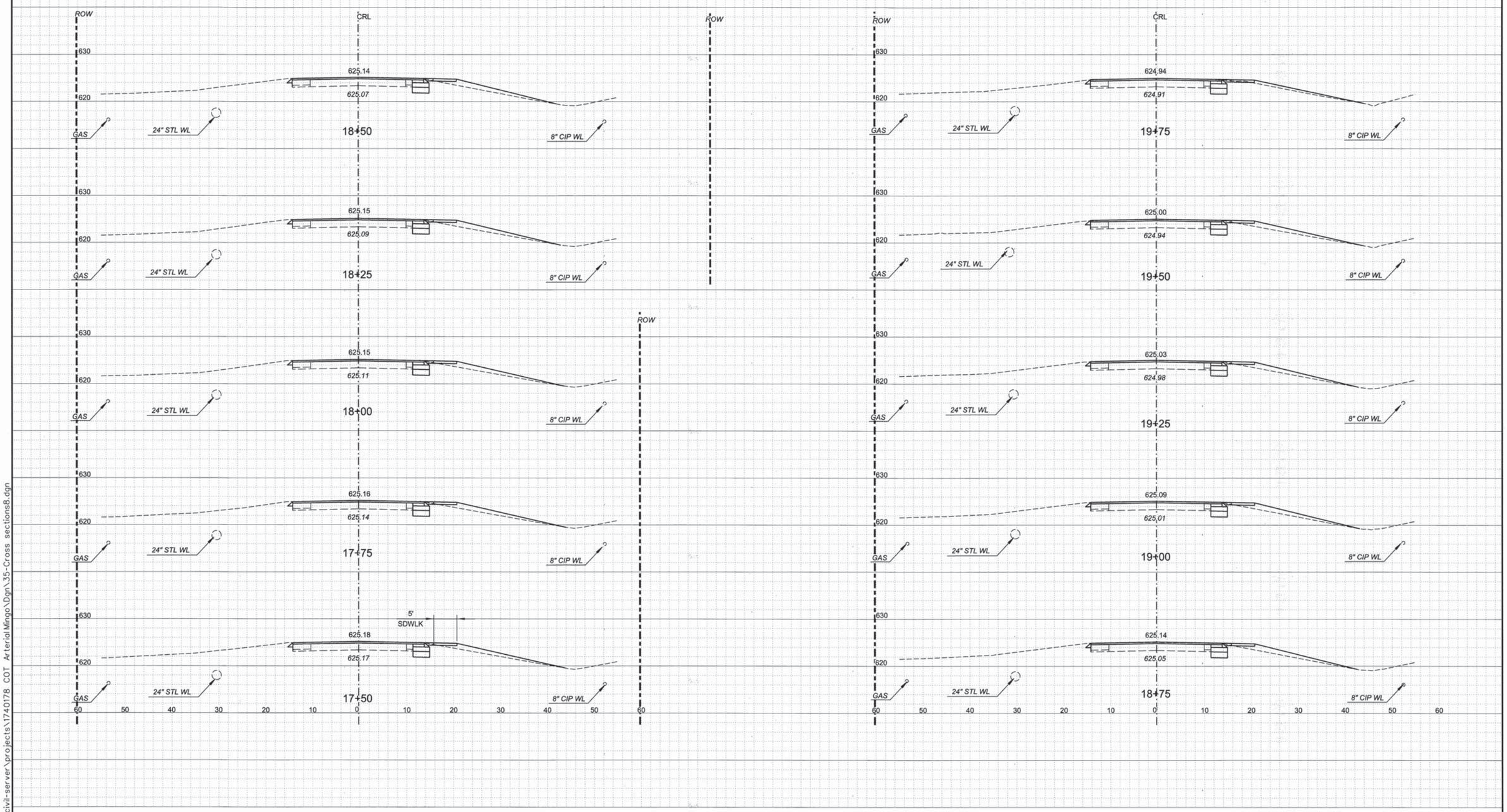

EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 17+50 TO 19+75

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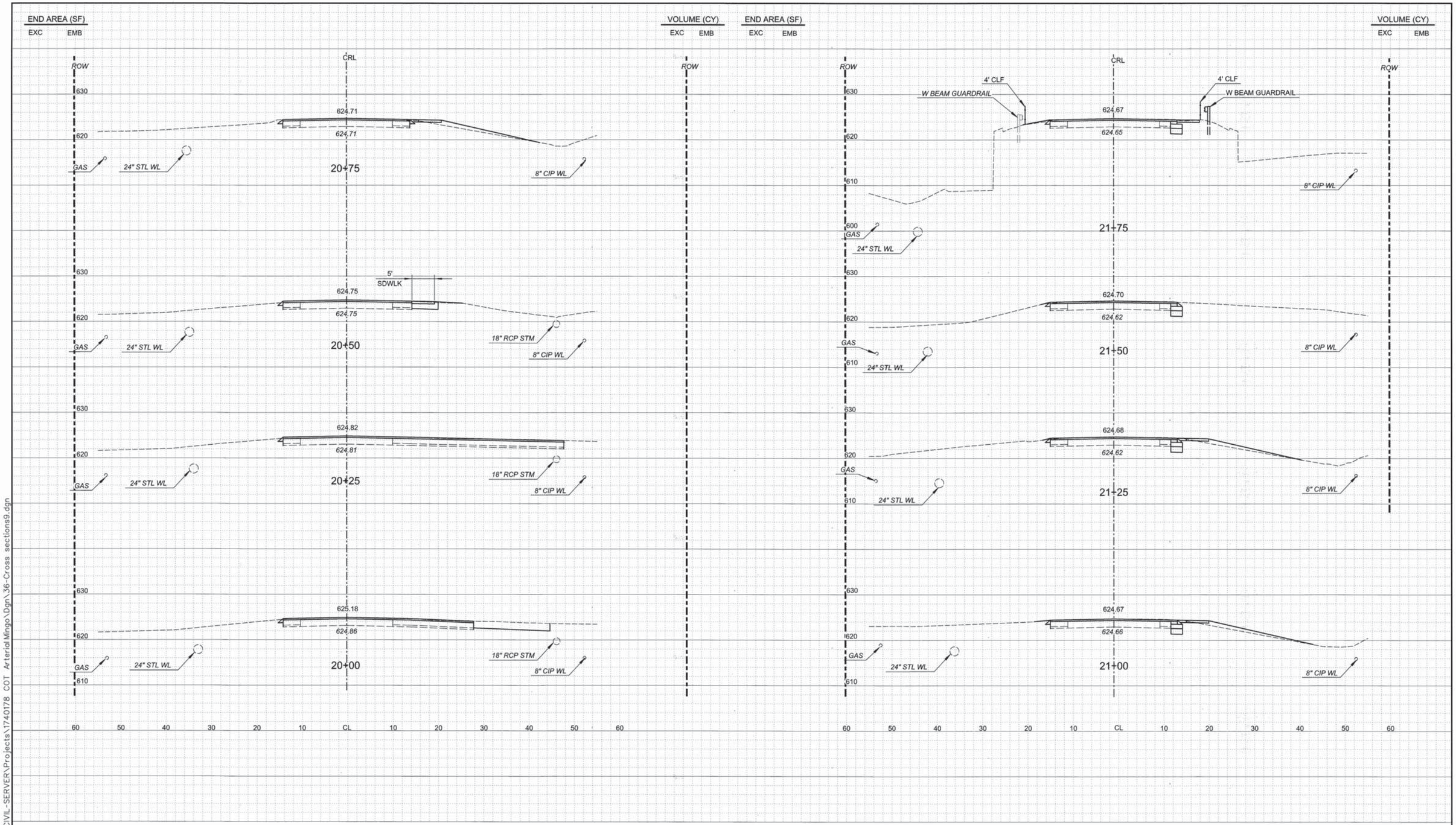

EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 20+00 TO 21+75

SHEET 36 OF 45 SHEETS

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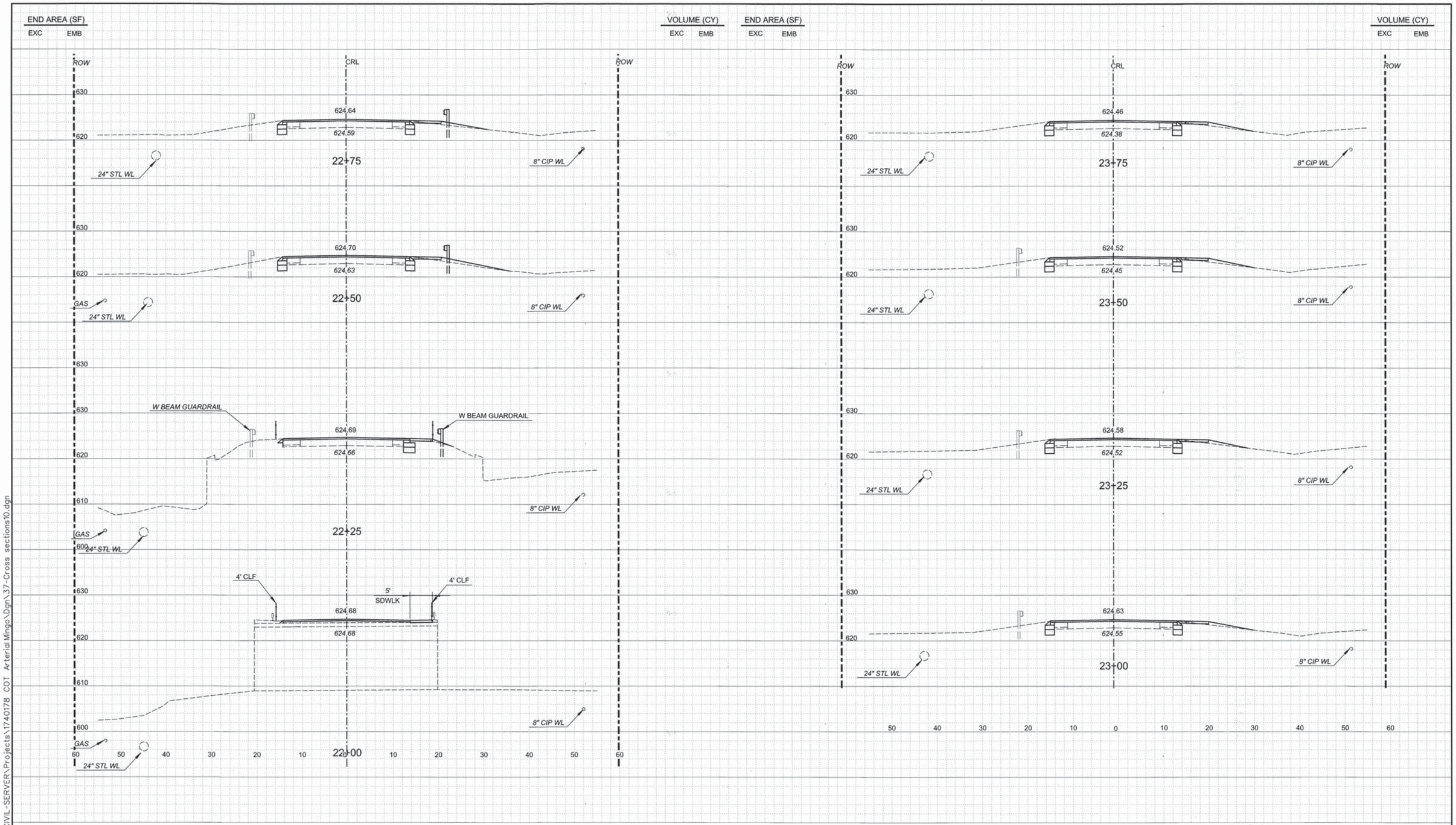

EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 22+00 TO 23+75

SHEET 37 OF 45 SHEETS

23-Feb-21 07:37:45 \\CIVIL-SERVER\Projects\1740178 COT Arterial Mingo\Dgn\37-Cross sections10.dgn

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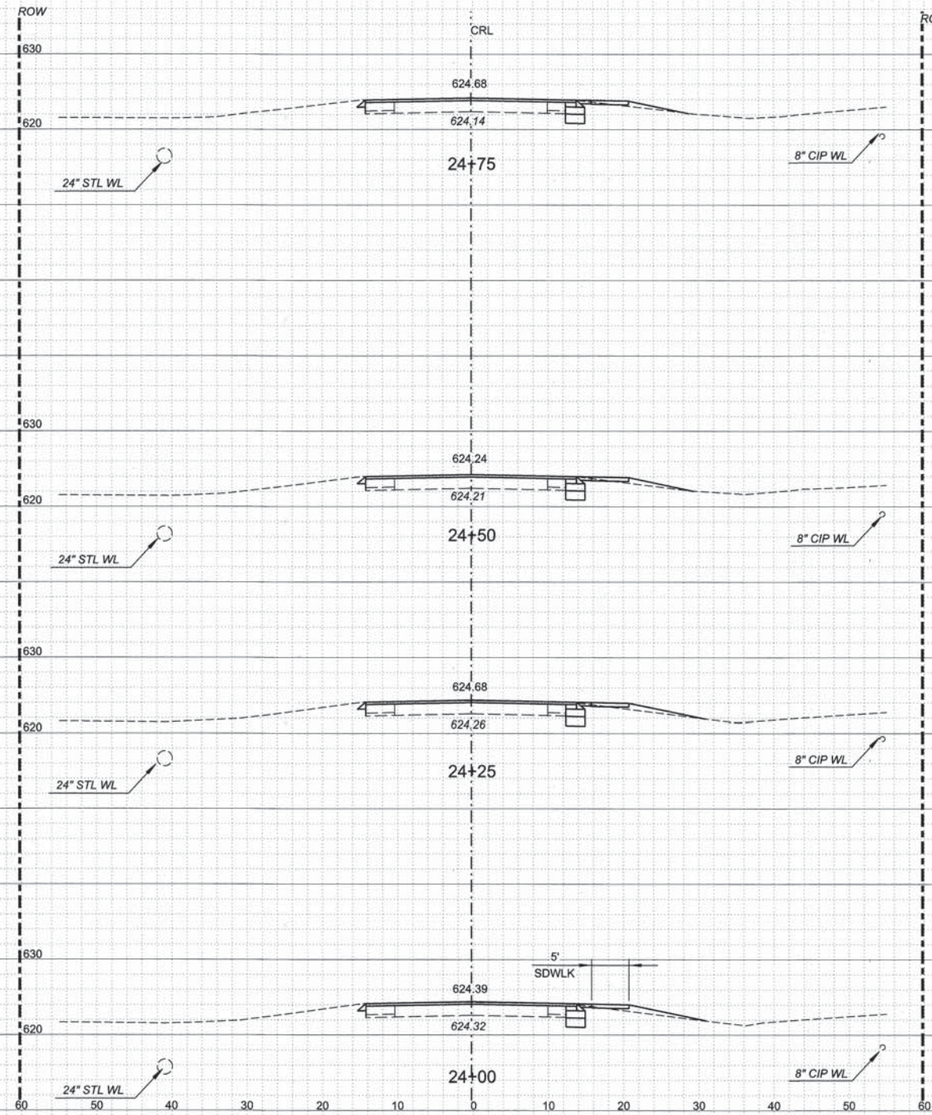

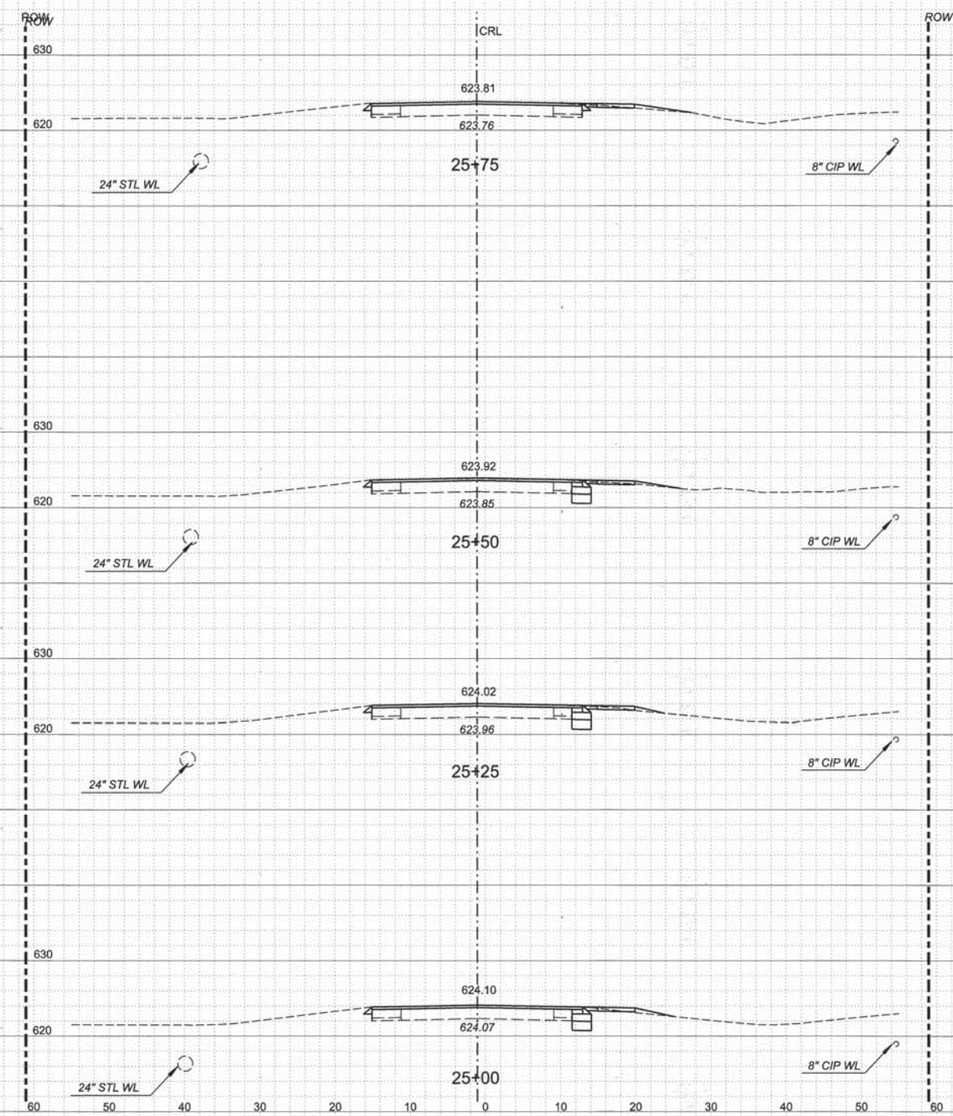

EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 24+00 TO 25+75

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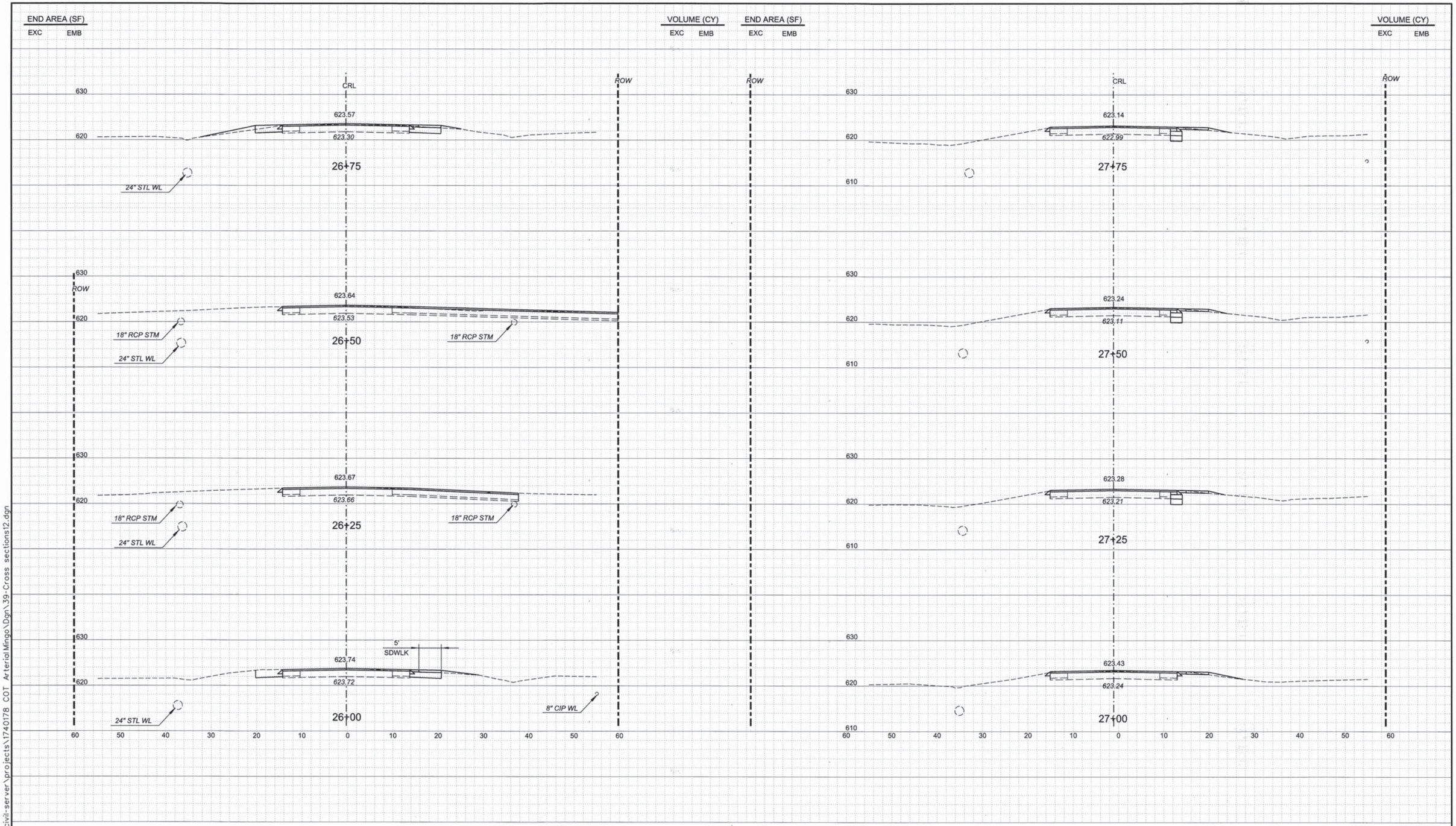


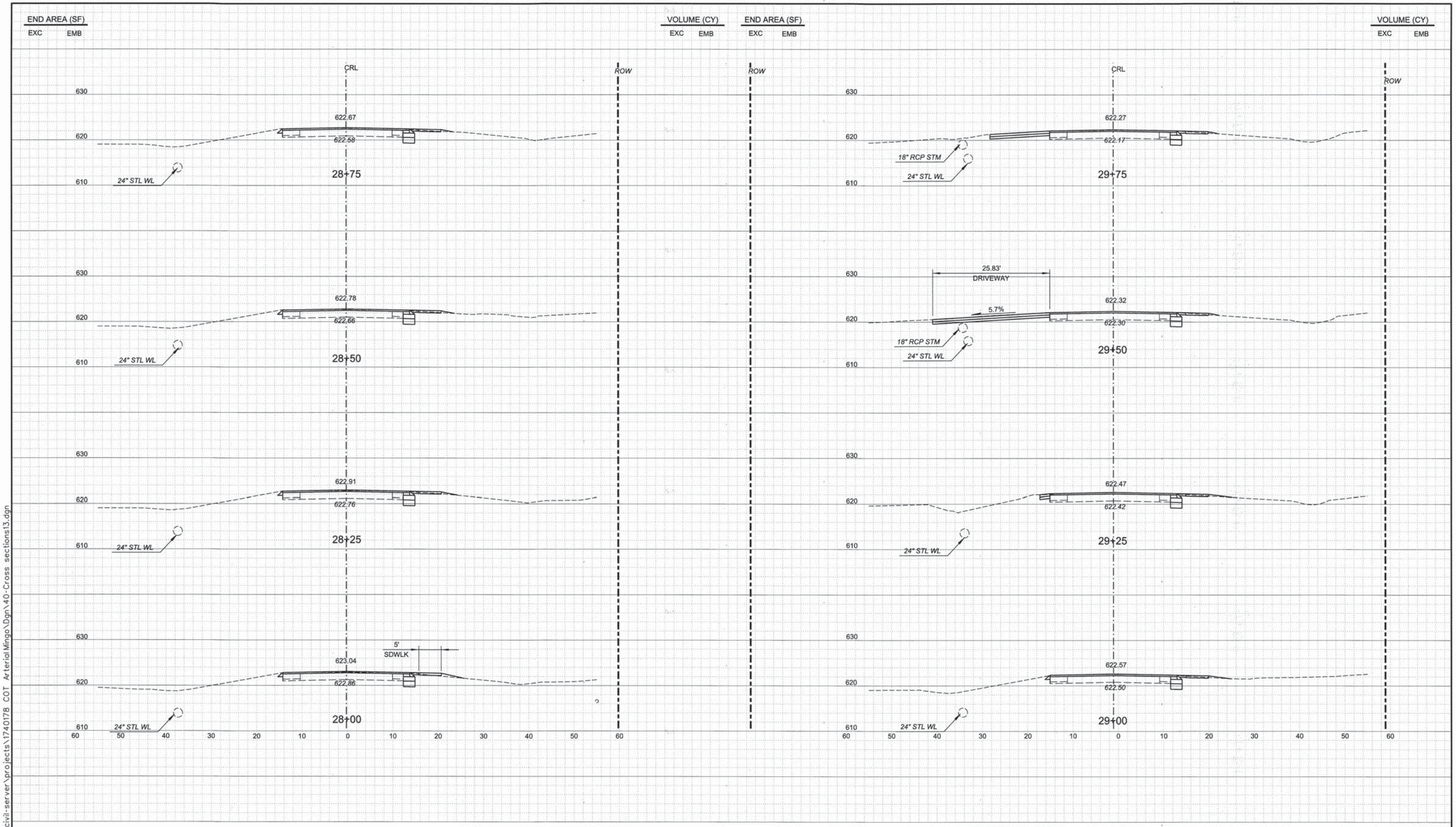
EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 26+00 TO 27+75

SHEET 39 OF 45 SHEETS

17-Jul-20 08:32:49 \\civil-server\projects\1740178 COT ArterialMingo\Dgn\39-Cross sections12.dgn



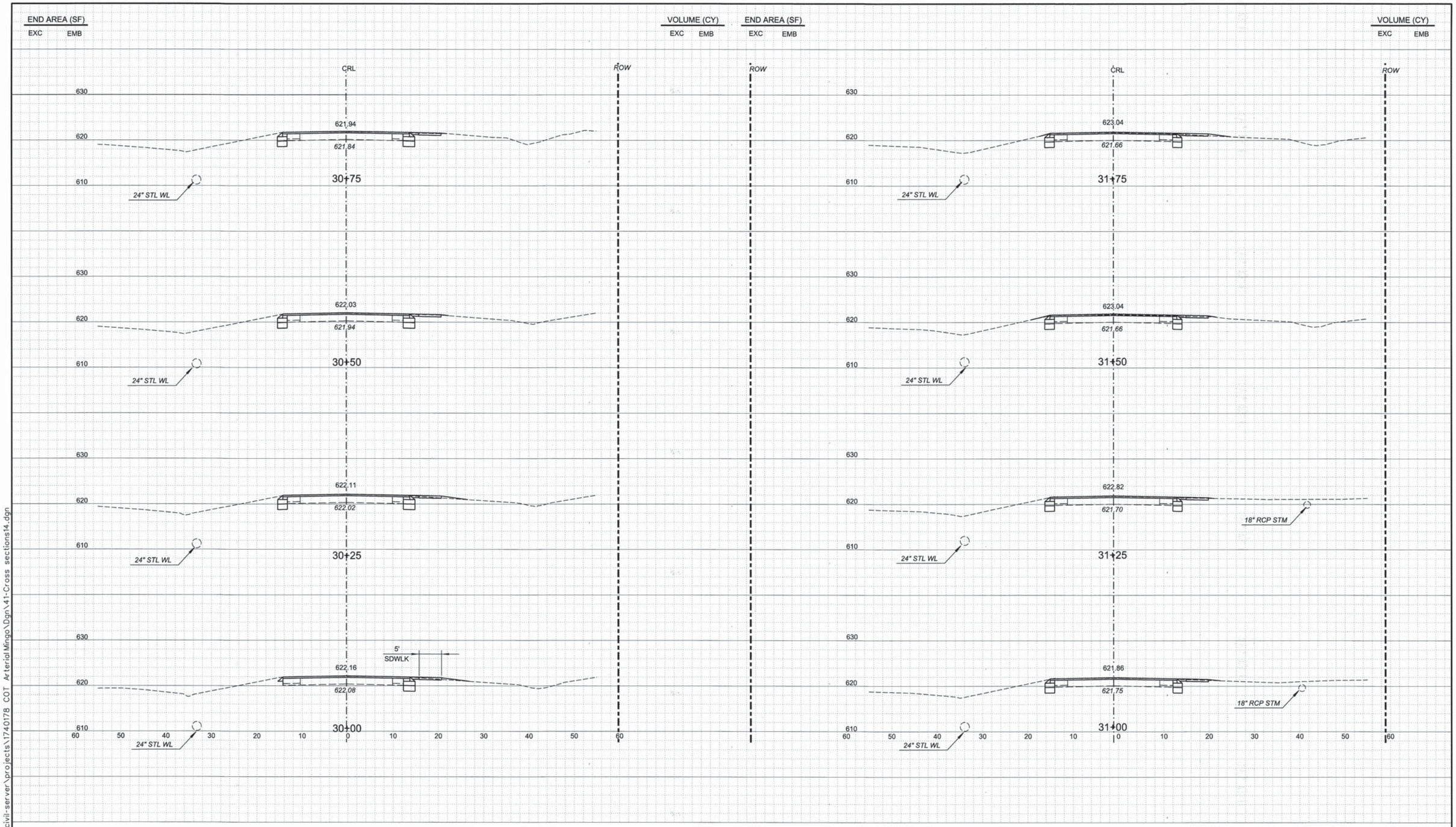
EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 28+00 TO 29+75

SHEET 40 OF 45 SHEETS

17-Jul-20 08:32:55 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\40-Cross sections13.dgn

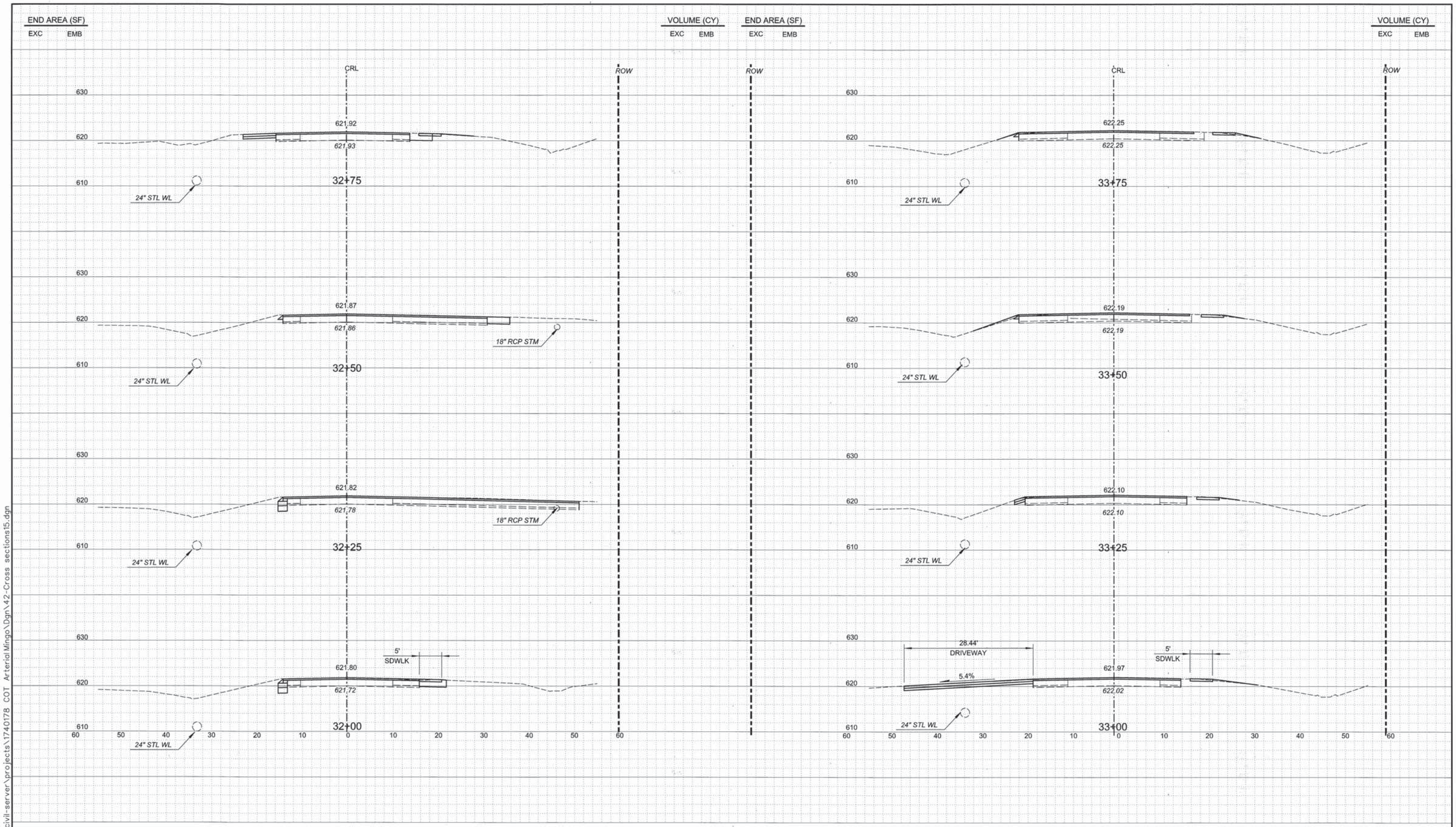


EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 30+00 TO 31+75

17-Jul-20 08:33:03 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\41-Cross sections14.dgn



EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

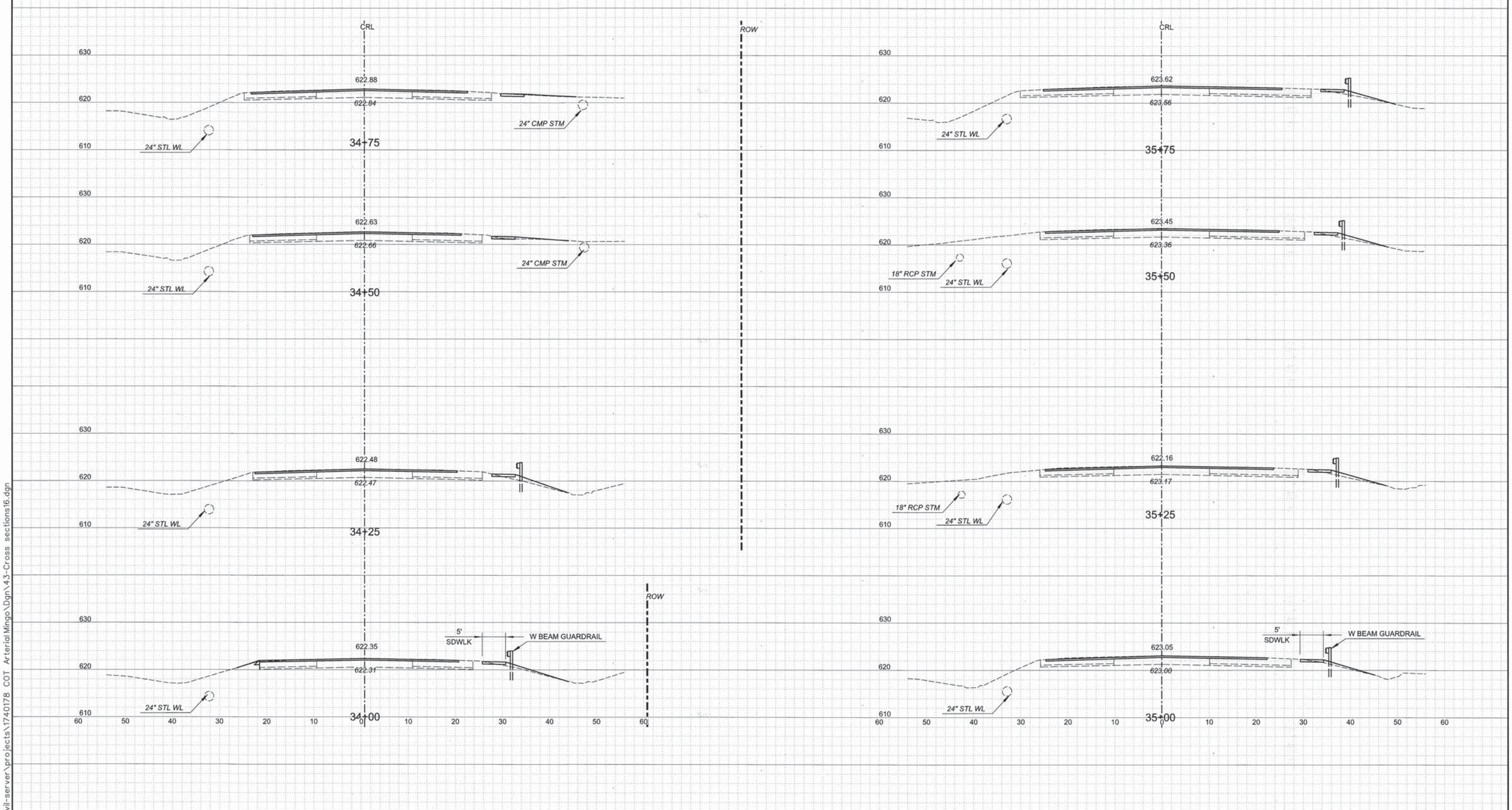
COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 32+00 TO 33+75

SHEET 42 OF 45 SHEETS

26-Feb-21 13:09:26 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\42-Cross sections15.dgn

END AREA (SF)		VOLUME (CY)		END AREA (SF)		VOLUME (CY)	
EXC	EMB	EXC	EMB	EXC	EMB	EXC	EMB



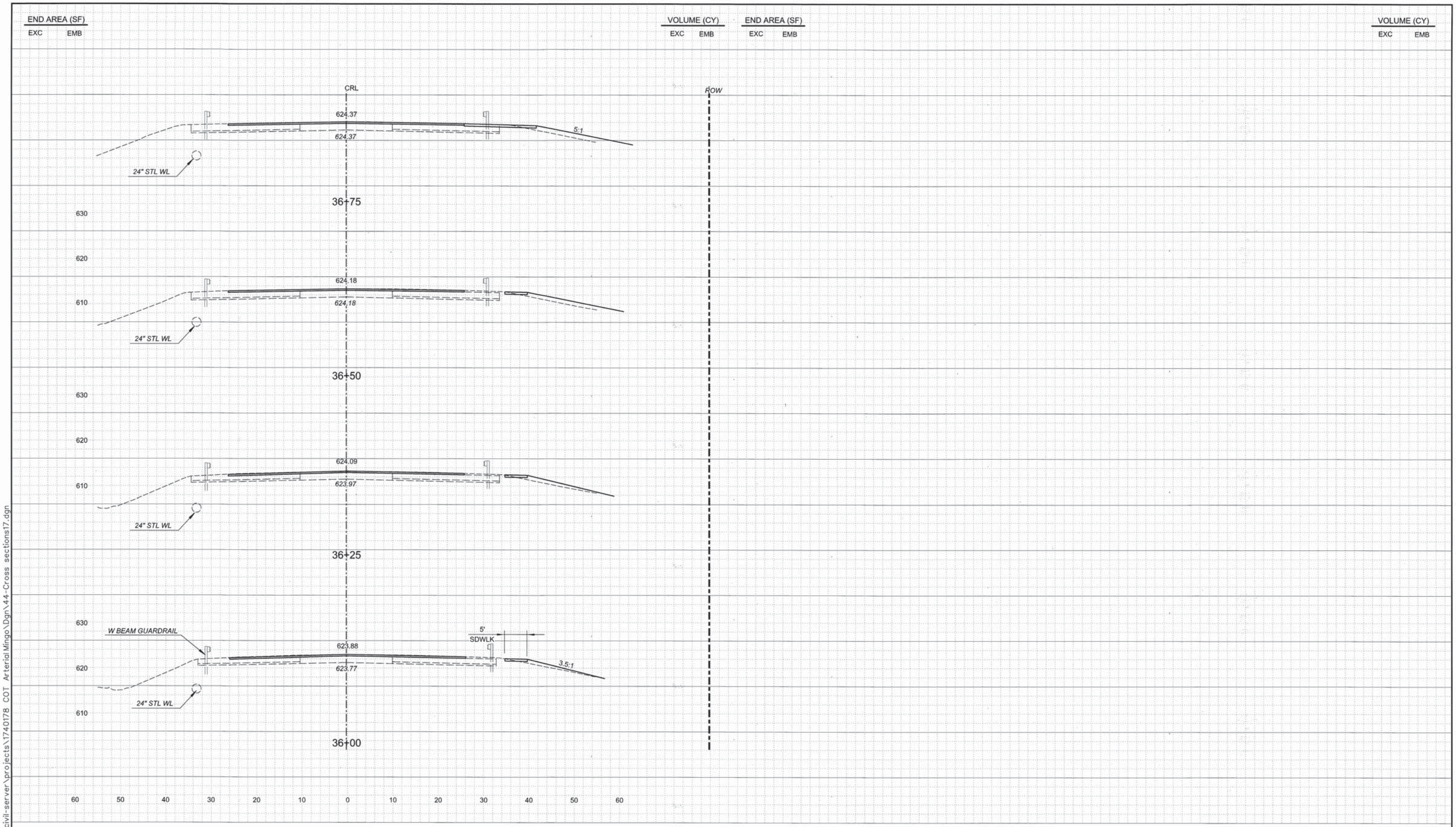
EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 34+00 TO 35+75

SHEET 43 OF 45 SHEETS

26-Feb-21 13:09:05 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\43-Cross sections16.dgn



EXIST UTILITIES ARE SHOWN IN APPROX RELATION TO CRL. SIZE & DEPTHS TO BE FIELD VERIFIED,

COT PROJECT 144017-P, MINGO ARTERIAL

CROSS SECTIONS
STA 36+00 TO 36+75

SHEET 44 OF 45 SHEETS

26-Feb-21 13:08:33 \\civil-server\projects\1740178 COT Arterial Mingo\Dgn\44-Cross sections17.dgn