

CONSTRUCTION PLANS FOR

ARTERIAL STREET REHABILITATION AND BRIDGE REHABILITATION E. PINE ST. MINGO RD. TO GARNETT RD. BRIDGE #225 OVER MINGO CREEK

PROJECT NO. 2436B0005Z-225, 2037B0225Z, 2036A0044Z
ACCOUNT NO. 2436B0005Z.BRIDGES.BRIDGMR.4292.42923200.541104
2037B0225Z.BRIDGES.BRIDGMR.4286.42863122.541107
2036A0044Z.STREETS.ARTRHB.4286.42863200.541106

PUBLIC WORKS DEPARTMENT

SYMBOL LEGEND

- SS--- EXISTING SANITARY SEWER LINE
- RCP--- EXISTING STORM DRAIN LINE
- FO--- EXISTING FIBER OPTIC LINE
- T--- EXISTING TELEPHONE RISER
- E--- EXISTING OVERHEAD ELECTRICAL LINE
- PUG--- EXISTING UNDERGROUND ELECTRICAL LINE
- E--- EXISTING ELECTRICAL RISER
- G--- EXISTING NATURAL GAS LINE
- W--- EXISTING WATER LINE
- △--- EXISTING ELECTRICAL TRANSFORMER
- EXISTING PAVEMENT EDGE
- EXISTING CONCRETE JOINT
- EXISTING PROPERTY LINE
- EXISTING RW
- EXISTING EASEMENT
- EXISTING BUILDING LINE
- EXISTING FENCE
- EXISTING SIGN
- WV EXISTING WATER VALVE
- WM EXISTING WATER METER
- FH EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM MANHOLE
- GM EXISTING GAS METER
- EXISTING HVAC UNIT
- LP EXISTING LIGHT POLE
- PP EXISTING POWER POLE
- ↑ EXISTING GUY WIRE
- ⊞ EXISTING TRAFFIC SIGNAL PULL BOX
- EXISTING TREE
- ⊞MB EXISTING MAILBOX
- EXISTING COMMUNICATION MANHOLE
- BORE HOLE
- ⊞ BENCHMARK
- △ VERTICAL CONTROL POINT
- 21 PARCEL NUMBER
- PROPOSED CONSTRUCTION
- FLOWLINE

SURVEY CONTROL DATA

Horizontal Control:

- (A) The bearings and coordinates used for this survey are based on the Oklahoma State Plane Coordinate System, North Zone - NAD 83 DATUM
- (B) Linear Unit is U.S. Survey Foot
- (C) Accuracy - 3rd Order or better

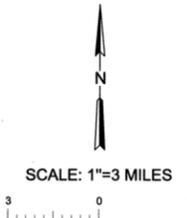
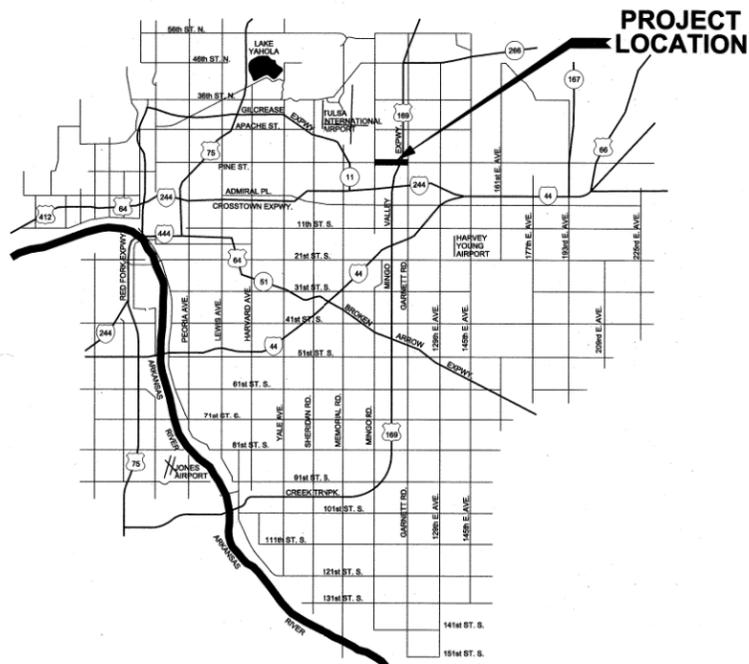
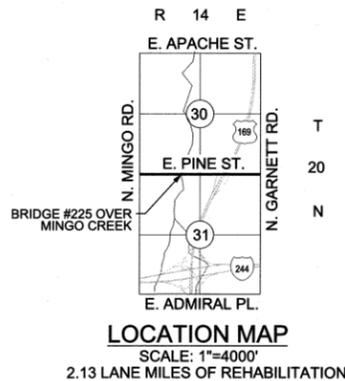
Vertical Controls:

- (A) Level Datum is NAVD 1988
- (B) Accuracy - 3rd Order or better
- (C) Permanent Benchmark: 24, 510, TD12

UTILITY COORDINATION

UTILITY	CONTACT	PHONE NO.
CITY OF TULSA	TONY GLYNN	918-596-9245
AEP/PSO	EMERGENCY	918-216-3523
ONG	EMERGENCY	800-664-5463
AT&T	EMERGENCY	800-288-2020
COX COMMUNICATIONS	CUSTOMER SERVICE	918-806-6000
VERIZON	CUSTOMER SERVICE	888-294-6804
WINDSTREAM	CUSTOMER SERVICE	800-347-1991

CURRENT CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS GOVERN. ALL OTHER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS AMENDED AND ADOPTED BY CITY OF TULSA ORDINANCE #24616.



IN ACCORDANCE WITH ODOT SECTION 105.14, THE CITY OF TULSA IS ANTICIPATING THAT THE SUCCESSFUL CONTRACTOR WILL UTILIZE THE APPROPRIATE MEANS AND METHODS TO ACCOMPLISH THE WORK DESCRIBED IN THE PLANS WITHOUT CAUSING COLLATERAL DAMAGE TO THE EXISTING INFRASTRUCTURE. THE ANTICIPATED CONSTRUCTION PHASING WILL MINIMIZE THE TIME BETWEEN MILLED STREETS AND NEW ASPHALT PLACEMENT. CURRENT CITY OF TULSA CONSTRUCTION BUDGETS DO NOT ALLOW FOR THE GROWTH OF THE PROJECT BEYOND THE EXTENTS DETAILED IN THE PLANS.

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



ADVERTISEMENT DATE: _____



BENHAM DESIGN, LLC.
15 West 6th Street, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1600

APPROVED BY:

T. Ober
CITY ENGINEER DATE: 12/5/2025

PREPARED BY:

Kristi Erickson
KRISTI ERICKSON, P.E.
OK P.E. NO. 25821
PROJECT ENGINEER



DATE: 10/31/25

P:\140_Cv\1400405 COT Pine St Bridge Rehab\21Design\Working\CIVL\07OpenRoads\1400405_COT_PineSt\Index.dgn 10/30/2025 3:12:56 PM

THE FOLLOWING CITY STANDARDS WILL BE REQUIRED

STD. NO.	STANDARD NAME	STD. NO.	STANDARD NAME
102	PROJECT SIGN	703	RESIDENTIAL ASPHALT DRIVEWAY CONCRETE STREET
126	STANDARD SILT FENCE AND CONSTRUCTION ENTRANCE	704	RESIDENTIAL ASPHALT DRIVEWAY ASPHALT STREET
601	PULL BOX INSTALLATION	706	COMMERCIAL DRIVEWAY
602	CONDUIT INSTALLATION	707	COMMERCIAL DRIVEWAY
603	SIGNAL POLE FOOTING DETAILS	708	COMMERCIAL ASPHALT DRIVEWAY
604A	INSTALLATION OF DETECTORS	713	PAVEMENT REMOVAL AND REPLACEMENT
604B	DETECTOR WIRE CONNECTION DETAIL	714	PAVEMENT CUTS
608A	STREET NAME SIGNS	725	STANDARD PAVEMENT PATCH AND REPAIR
608B	TRAFFIC SIGNS	726	ASPHALT PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL, AND COLLECTOR STREETS
611A	POLE WIRING DETAIL	727	CONCRETE PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL, AND COLLECTOR STREETS SHEET 1 OF 2
614A	TRAFFIC SIGNAL AND ACCESSORIES	729	CONCRETE PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL, AND COLLECTOR STREETS SHEET 2 OF 2
614B	SIGNAL HEAD WIRING	730	STANDARD ASPHALT PAVEMENT CUT AND REPAIR
618	BONDING DIAGRAM	731	STANDARD CONCRETE PAVEMENT CUT AND REPAIR
625	REMOVAL OF TRAFFIC ITEMS	790	STANDARD SIDEWALK RAMP
702	RESIDENTIAL CONCRETE DRIVEWAY ASPHALT STREET		

THE FOLLOWING ODOT STANDARDS WILL BE REQUIRED

ROADWAY DESIGN		TRAFFIC CONTROL	
BMPR-0	BEST MANAGEMENT PRACTICE REFERENCE MATRIX	TCS1-1-01	TRAFFIC CONTROL CONSTRUCTION NOTES
TESCA-0	TYPICAL TEMPORARY EROSION SEDIMENT CONTROL APPLICATIONS	TCS2-1-00	TRAFFIC CONTROL TABLES AND CHARTS
RSF-0	REINFORCED SILT FENCE INSTALLATION AND APPLICATIONS	TCS5-1-00	TYPICAL SIGN INSTALLATION
TRFD-0	TEMPORARY ROCK FILTER DAM APPLICATIONS	TCS6-1-02	CHANNELIZING DEVICES
SCE-0	STABILIZED CONSTRUCTION EXIT	TCS7-1-02	PLACEMENT OF ADVANCE WARNING SIGNS
SSS-2-1	SOLID SLAB SODDING	TCS8-1-00	CONSTRUCTION SIGNS
ASCD-6-1	ASPHALT SURFACING CONSTRUCTION DETAILS	TCS9-1-01	CONSTRUCTION SIGNS
CSCD-6-3	CONCRETE SURFACING CONSTRUCTION DETAILS	TCS14-1-00	CONSTRUCTION SIGNS
LECS-5-3	JOINTS AND SEALERS - LONGITUDINAL, EXPANSION/ISOLATION & CONTRACTION	TCS19-1-01	CONSTRUCTION SIGNS
LTU-5-1	LOAD TRANSFER UNITS FOR CONCRETE PAVEMENT JOINTS		
PCPR-4-2	PORTLAND CEMENT CONCRETE PAVEMENT REPAIR		
PSE-2-1	PAVEMENT SAFETY EDGE		
TWD-2-3	TACTILE WARNING DEVICES		
TRAFFIC SIGNING		TRAFFIC SAFETY	
PM1-1-03	PAVEMENT MARKING (CROSSWALKS AND LEFT TURN BAY)	THRI-1-02	GUARDRAIL BRIDGE CONNECTION-THREE BEAM (31" SYSTEM)
PM3-1-02	PAVEMENT MARKING (FIFTH LANE AND TWO LANE RURAL)	SKT-1-00	GUARDRAIL END TREATMENT (SKT-SP-MGS EXTRUDER TERMINAL) (31" SYSTEM)
PM6-1-00	PAVEMENT MARKING (ARROWS)	GA31-1-00	GUARDRAIL ANCHOR UNITS (31" SYSTEM)
		GHW1-1-00	GUARDRAIL AND HARDWARE (1 OF 2) (31" SYSTEM)
		GHW2-1-00	GUARDRAIL AND HARDWARE (2 OF 2) (31" SYSTEM)
2009 BRIDGE DESIGN			
TR4-2-00E	CONCRETE TRAFFIC RAIL (TR4)		
B40-STL-BM-BRACING-00E	STEEL BEAM BRACING DETAILS		

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INDEX & STANDARDS
ARTERIAL STREET REHABILITATION E. PINE ST. (MINGO RD. TO GARNETT RD.) & BRIDGE #225 OVER MINGO CREEK PROJECT NO. 2436B005Z-225, 2037B0225Z, 2036A0044Z
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= NA	DESIGNED	KLE	10/25	 <small>CITY ENGINEER</small>
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>From</i>	<i>11/16/25</i>	
			HORIZONTAL	PROJECT MGR	<i>MJD</i>	<i>11/04/25</i>	
			1"= NA	LEAD ENGR	<i>EAS</i>	<i>11-2025</i>	
			VERTICAL	RECOMMENDED	<i>HAS</i>	<i>11-25</i>	
			1"= NA	DESIGN MANAGER			
				FILE: 1400405-C-Index.dgn			DATE: OCTOBER 2025
				ATLAS PAGE NO.: 172, 173			SHEET 2 OF 54 SHEETS



P:\140_Civ\1400405 COT Pine St. Bridge Rehab\2\Design\Working\CVL07\OpenRoads\1400405_COT_PineSt\dgn\Sheets\1400405-C-Pay Items 01.dgn

ROADWAY					
ITEM	SPEC. NO.	DESCRIPTION	PAY ITEM NOTE	UNIT	TOTAL
1	201(A)	CLEARING AND GRUBBING	(E-1, 2)	AC	3
2	202(A)	UNCLASSIFIED EXCAVATION	(E-3, 4) (R-1) (105, 106)	CY	268
3	202(D)	UNCLASSIFIED BORROW	(G-1) (110)	CY	25
4	220	SWPPP DOCUMENTATION AND MANAGEMENT	(E-6, 7, 8, 9)	LSUM	1
5	230(A)	SOLID SLAB SODDING	(E-10, 11)	SY	106
6	303(A)	AGGREGATE BASE TYPE A	(S-1, 2) (104)	CY	253
7	310(B)	SUBGRADE METHOD B	(G-1)	SY	499
8	325	SEPARATOR FABRIC	(S-3)	SY	1,031
9	409(A)	FABRIC REINFORCEMENT (TENSAR GP50)	(S-4)	SY	24,353
10	411(C)	SUPERPAVE, TYPE S4 (PG 70-28 OK) (INSOLUBLE)	(S-5, 6, 7, 8, 23)	TON	2,730
11	411(E)	SUPERPAVE, TYPE S6 (PG 70-28 OK)	(S-5, 6, 7, 8, 23) (G-1)	TON	344
12	412	COLD MILLING PAVEMENT	(S-9, 22, 23)	SY	24,353
13	609(B)	COMBINED CURB & GUTTER (6" BARRIER)	(S-12, 13, 15, 16) (G-1) (111)	LF	272
14	610(A)	4" CONCRETE SIDEWALK	(S-12, 13, 16, 17)	SY	87
15	610(B)	6" CONCRETE DRIVEWAY (CLASS A)	(S-12, 13, 16, 17, 23)	SY	261
16	610(C)	6" CONCRETE DIVIDING STRIP	(S-12, 13)	SY	137
17	610(I)	TACTILE WARNING DEVICE - NEW		SF	40
18	619(A)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	(R-1, 2, 3, 4, 5)	LSUM	1
19	619(B)	REMOVAL OF ASPHALT PAVEMENT	(R-1, 2, 5, 6)	SY	238
20	619(B)	REMOVAL OF CONCRETE PAVEMENT	(R-1, 2, 5, 6)	SY	80
21	619(B)	REMOVAL OF CONCRETE DRIVEWAY	(S-22) (R-1, 2, 5, 6)	SY	205
22	619(B)	REMOVAL OF CURB AND GUTTER	(R-1, 2, 5, 6)	LF	44
23	619(B)	REMOVAL OF SIDEWALK	(R-1, 2, 5, 6)	SY	18
24	619(B)	REMOVAL OF GUARDRAIL	(R-2, 4, 5) (112)	LF	370
25	623(A)	BEAM GUARDRAIL W-BEAM SINGLE		LF	225
26	623(G)	GUARDRAIL END TREATMENT (31")		EA	3
27	623(I)	GUARDRAIL BRIDGE CONN-THRE BEAM (31")		EA	4
28	641	MOBILIZATION	(G-2) (101, 102)	LSUM	1
29	642(B)	CONSTRUCTION STAKING LEVEL II	(G-3, 4)	EA	1
30	805(A)	REMOVAL OF TRAFFIC ITEMS	(T-1, 9)	EA	27
31	805(D)	REMOVE AND RESET SIGN		EA	1
32	855(A)	TRAFFIC STRIPE (PLASTIC) (4" WIDE)	(T-3)	LF	19,293
33	855(A)	TRAFFIC STRIPE (PLASTIC) (8" WIDE)	(T-3)	LF	450
34	855(A)	TRAFFIC STRIPE (PLASTIC) (24" WIDE)	(T-3)	LF	184
35	855(B)	TRAFFIC STRIPE (PLASTIC) (ARROWS)	(T-3)	LF	6
36	853	GUARDRAIL DELINEATORS (TYPE 2, CODE 1)		EA	11
37	857(C)	REMOVABLE PAVEMENT MARKING TAPE (4" WIDE)		LF	15,000
38	857(F)	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)		LF	15,000
39	877(B)	DELIVER PORTABLE LONGITUDINAL BARRIER		LF	100
40	880(A)	ARROW DISPLAY	(T-4) (201)	SD	500
41	880(B)	CONSTRUCTION SIGNS 0.00 TO 6.25 SF	(T-2, 4, 5) (201, 202)	SD	8,750
42	880(B)	CONSTRUCTION SIGNS 6.26 TO 15.99 SF	(T-2, 4, 5) (201, 202)	SD	2,500
43	880(B)	CONSTRUCTION SIGNS 16.00 AND UP	(T-2, 4, 5) (201, 202)	SD	5,000
44	880(C)	BARRICADES (TYPE III)	(T-2, 4, 5) (201)	SD	2,500
45	880(E)	WARNING LIGHTS (TYPE A)	(T-4, 5) (201)	SD	8,000
46	880(E)	WARNING LIGHTS (TYPE C)	(T-4, 5) (201)	SD	17,500
47	880(F)	DRUMS	(T-2, 4, 5) (201)	SD	17,500
48	880(I)	FLAGGER	(T-6)	FD	50
49	882(B)	REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN	(T-4) (201)	SD	500
50	COT 102	PROJECT SIGN (CITY OF TULSA)	(T-7) (204)	EA	2
51	COT 202	QUICK SET FLOWABLE FILL	(S-1) (G-1)	CY	25
52	COT 327	SAFETY FENCE	(203)	LF	2,500
53	COT 334	CONSTRUCTION AS-BUILT		LSUM	1
54	COT 335	CONTRACTOR QUALITY CONTROL		LSUM	1
55	SPECIAL	STABILIZED CONSTRUCTION ENTRANCE	(G-1)	EA	2
56	SPECIAL	TYPE I AC PATCH	(S-21) (G-1)	CY	57
57	SPECIAL	TYPE I PCC PATCH	(S-21) (G-1) (103)	CY	8
58	SPECIAL	TYPE I APC PATCH	(S-21) (G-1) (103)	CY	25
59	SPECIAL	CURB RAMP		EA	4
60	SPECIAL	SIGNAGE FOR LOCAL BUSINESS ACCESS (BAS-1)	(T-4) (205)	SD	5,750
61	SPECIAL	URBAN RIGHT OF WAY RESTORATION	(G-5, 6, 7, 9, 10) (107, 108, 109)	EA	1
62	SPECIAL	OWNERS ALLOWANCE		EA	25,000

TRAFFIC					
ITEM	SPEC. NO.	DESCRIPTION	PAY ITEM NOTE	UNIT	TOTAL
87	COT 601	PULL BOX SIZE I		EA	1
88	COT 601	PULL BOX SIZE II		EA	11
89	COT 601	PULL BOX SIZE III		EA	2
90	COT602	2" SCH 40 PVC CONDUIT TRENCHED	(T-8)	LF	80
91	COT602	3" SCH 40 PVC CONDUIT TRENCHED	(T-8)	LF	21
92	COT602	(2)-3" SCH 40 PVC CONDUIT TRENCHED	(T-8)	LF	454
93	COT602	(4)-3" SCH 40 PVC CONDUIT TRENCHED	(T-8)	LF	25
94	COT602	2" HDPE SCH 40 CONDUIT (DIRECTIONAL BORE)	(T-8)	LF	50
95	COT602	(2)-3" HDPE SCH 40 CONDUIT (DIRECTIONAL BORE)	(T-8)	LF	800
96	COT 604	6'X6' LOOP DETECTOR		EA	2
97	COT 604	LOOP LEAD-IN WIRE		LF	35
98	COT 608	GROUND SIGN	(113)	SF	346
99	COT 608	1-1/2" SIGN POST	(113)	LF	84
100	COT 608	1-3/4" SIGN POST	(113)	LF	430
101	COT 608	2" SIGN POST	(113)	LF	129
102	COT 620	VIDEO DETECTION SYSTEM	(T-10)	EA	2
103	COT 611	2#14 SHIELDED ELECTRICAL CONDUCTOR WITH GROUND		LF	1,780
104	COT 611	2#14 SHIELDED ELECTRICAL CONDUCTOR		LF	100
105	COT 611	4#14 TRAFFIC SIGNAL ELECTRIC CABLE		LF	650
106	COT 611	7#14 TRAFFIC SIGNAL ELECTRIC CABLE		LF	1,500
107	COT 611	20#14 TRAFFIC SIGNAL ELECTRIC CABLE		LF	1,000
108	COT 611	GREEN #12 THHN ELECTRICAL CONDUCTOR		LF	1,500
109	COT 611	GREEN #6 THHN ELECTRICAL CONDUCTOR		LF	1,000
110	COT 626	TRAFFIC SIGNAL MAINTENANCE		HR	16
111	COT 626	SIGNAL MODIFICATIONS FOR LANE CLOSURES (PER SIGNALIZED INTERSECTION)		EA	3

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

BRIDGE #225					
ITEM	SPEC. NO.	DESCRIPTION	PAY ITEM NOTE	UNIT	TOTAL
63	501(G)	CLSM BACKFILL		CY	47
64	504(A)	APPROACH SLAB	(S-12, 301, 306, 307)	SY	139
65	504(B)	SAW-CUT GROOVING		SY	892
66	504(D)	CONCRETE RAIL (TR4)	(S-12)	LF	665
67	504(F)	HANDRAILING		LF	333
68	506(A)	STRUCTURAL STEEL M270 GRADE 50W		LB	59,360
69	507(A)	WEATHERING STEEL FIXED BEARING ASSEMBLY		EA	5
70	507(B)	WEATHERING STL EXP. BEARING ASSEMBLY		EA	5
71	509(A)	CLASS AA CONCRETE	(S-12)	CY	282
72	509(C)	CLASS A CONCRETE, SMALL STRUCTURES	(S-12, 301, 305)	CY	2
73	511(B)	EPOXY COATED REINFORCING STEEL		LB	79,950
74	512	CLEANING BRIDGE SURFACES		SY	50
75	512(B)	PAINTING EXISTING STRUCTURES		LSUM	1
76	512(B)	COLLECTION AND HANDLING OF WASTE		SF	1,060
77	515(A)	WATER REPELLENT (VISUALLY INSPECTED)		SY	806
78	518(C)	RAPID CURE JOINT SEALANT		LF	128
79	518(D)	ELASTOMERIC MORTAR		CF	12
80	520(A)	PREPARATION OF CRACKS, ABOVE WATER	(302, 303)	LF	101
81	520(C)	EPOXY RESIN, ABOVE WATER	(302)	GAL	1
82	521(A)	PNEUMATICALLY PLACED MORTAR		SY	36
83	523(A)	SEALER CRACK PREPARATION	(301)	LF	63
84	523(B)	SEALER RESIN	(301)	GAL	1
85	535	CORROSION INHIBITOR (SURFACE APPLIED)		SY	47
86	619(B)	REMOVAL OF BRIDGE ITEMS	(R-1, 304)	LSUM	1



PAY ITEMS & NOTES
(1 OF 3)

**ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK**
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

**CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT**

BENHAM Benham Design, LLC
15 W 9th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1800

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= NA	DESIGNED	KLE	10/25	 KRISTI ERICKSON CITY ENGINEER
			1"= NA	SURVEY	RDL	10/25	
			1"= NA	FIELD MGR	JRM	12/25	
			1"= NA	PROJECT MGR	MJD	11/04/25	
			1"= NA	LEAD ENGR	EAS	11-2023	 KRISTI ERICKSON CITY ENGINEER
			1"= NA	RECOMMENDED	HAS	11-25	

FILE: 1400405-C-Pay Items 01.dgn
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DATE: OCTOBER 2025
SHEET 3 OF 54 SHEETS



EARTHWORK / EROSION CONTROL / SITE PREPARATION PAY ITEM NOTES (11/14/2018)

- 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 CLEANING AND 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 NOT USED.
- E-6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT SHALL BE INCLUDED IN THE 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 PRICE BID SHALL INCLUDE MAINTENANCE, SEDIMENT REMOVAL, DISPOSAL, AND REMOVAL OF FILTERS AT PROJECT COMPLETION.
- E-9 INCLUDES 10 TYPE 1-B FILTERS.
- 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 / STRUCTURE PAY ITEM NOTES (11/14/2018)

- 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 BLOTGING, 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.

NOTE S8 (50) TABLE			
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 76-28 OK MAY BE DESIRABLE IN HIGH VOLUME AREAS WHERE SLOW, STANDING, OR TURNING TRAFFIC OCCURS, SUCH AS URBAN INTERSECTIONS OR OFF-RAMP. OFF RAMP SHOULD AT LEAST USE THE SAME BINDER AS THE MAINLINE.

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

SURFACING / STRUCTURE PAY ITEM NOTES (CONT.) (11/14/2018)

- S-21 THIS PAY ITEM INCLUDES THE FOLLOWING:
 A. SAW CUTTING
 B. REMOVAL OF THE EXISTING CONCRETE AND/OR ASPHALTIC CONCRETE ROADWAY (CY)
 C. TYPE S3 ASPHALTIC CONCRETE OR PC CONCRETE COMPLETE AND IN PLACE PER DETAIL
 D. SEALING OF EDGES AND TACK COAT
 DOES NOT INCLUDE THE FOLLOWING:
 A. UNCLASSIFIED EXCAVATION
 B. SUBGRADE METHOD B (SY)
 C. SEPARATOR FABRIC (SY)
 D. AGGREGATE BASE (TYPE A)
 E. ASPHALT CONCRETE LEVELING OR SURFACE COURSE
- S-22 REMOVE AC PAVEMENT ON CONCRETE DRIVEWAY APRONS AND GUTTERS DURING EDGE MILLING AND COLD MILLING OPERATIONS.
- S-23 REPLACE AC IN DRIVEWAY GUTTER, AS NEEDED, FOR POSITIVE STORMWATER DRAINAGE AND SMOOTH DRIVEWAY TRANSITIONS.

REMOVAL / ADJUSTMENT PAY ITEM NOTES (11/14/2018)

- 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 PAY ITEM INCLUDES REMOVAL OF ALL STRUCTURES AND OBSTRUCTIONS WITHIN PROJECT LIMITS NOT SPECIFIED BY OTHER ITEMS OF WORK.
- R-4 INCLUDES SAWING NOT INCLUDED IN OTHER ITEMS OF WORK.
- R-5 ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION.
- R-6 SHALL INCLUDE ALL COSTS ASSOCIATED WITH PLUGGING/ PATCHING HOLES IN EXISTING STRUCTURES TO REMAIN.

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PAY ITEMS & NOTES (2 OF 3)
 ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z
 CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= NA	DESIGNED	KLE	10/25	 KRISTI ERICKSON CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE HORIZONTAL:	FIELD MGR	<i>mu</i>	12/25	
			1"= NA	PROJECT MGR	<i>MD</i>	11/04/25	
			VERTICAL:	LEAD ENGR	<i>EAS</i>	11-2025	
			1"= NA	RECOMMENDED	<i>HRS</i>	11-2025	
				DESIGN MANAGER			
			FILE:	1400405-C-Pay Items 02.dgn			DATE: OCTOBER 2025
			ATLAS PAGE NO.:	172, 173			SHEET 4 OF 54 SHEETS



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GENERAL PAY ITEM NOTES (11/14/2018)

- 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 NOT USED.
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.

ROADWAY PAY ITEM NOTES - PROJECT SPECIFIC (10/31/2025)

- 101 CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A STAGING AREA.
102 SHALL INCLUDE ALL LABOR, EQUIPMENT, AND ASSOCIATED COSTS TO COMPLETE THE REQUIRED BID ITEM TO THE FULL EXTENT REQUIRED TO COMPLETE THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS.
103 FULL PANEL REPLACEMENT SHALL HAVE DOWEL JOINTED TRANSVERSE JOINTS PER ODOT STD. NO. LTU-5-1. ALL COSTS FOR DOWELED JOINTS IN FULL DEPTH PATCHING SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NO ADDITIONAL PAYMENT SHALL BE MADE.
104 QUANTITY INCLUDES 187 CY AS SHOWN ON THE SURFACING SUMMARY, 54 CY AS SHOWN ON THE DRIVEWAY SUMMARY AND 12 CY AS SHOWN ON THE CURB RAMPS SUMMARY.
105 QUANTITY INCLUDES 243 CY FOR SURFACING AND AN ADDITIONAL 25 CY FOR SIDEWALK CONSTRUCTION TO BE USED AS DIRECTED BY THE ENGINEER.
106 COST FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION SHALL BE INCLUDED IN PRICE BID FOR UNCLASSIFIED EXCAVATION.
107 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 URBAN RIGHT OF WAY RESTORATION. NO ADDITIONAL PAYMENT SHALL BE MADE.
108 CONTRACTOR SHALL ENSURE ALL POLES WHICH ARE AFFECTED BY TRENCHING CONDITIONS ARE BRACED BY OWNERS. PAYMENT SHALL BE INCLUDED IN URBAN RIGHT OF WAY RESTORATION. NO ADDITIONAL PAYMENT SHALL BE MADE.
109 COST OF ANY TEMPORARY FENCING AND POLES SHALL BE INCLUDED IN COST OF URBAN RIGHT OF WAY RESTORATION. NO ADDITIONAL PAYMENT SHALL BE MADE.
110 PAY ITEM SHALL BE USED TO FACILITATE AN ADA COMPLIANT PATHWAY FOR SIDEWALK CONSTRUCTION AS DIRECTED BY ENGINEER.
111 COST OF SELECT BACKFILL AND COMPACTION, BEHIND THE CURB, SHALL BE INCLUDED IN PRICE BID FOR CURB AND GUTTER.
112 GUARDRAIL SHALL BE REMOVED IN SUCH A MANNER THAT ALL MATERIAL CAN BE SALVAGED. BOLTS, SUPPORTS, AND OTHER HARDWARE SHALL BE REMOVED FROM RAILS, PLATES, AND POSTS AND ALL PARTS SHALL BE SORTED AND STORED AT 420 W. 23RD STREET. RAILS, PLATES, AND POSTS SHALL BE PROPERLY STACKED AND MISCELLANEOUS HARDWARE SHALL BE STACKED OR BOXED AND REASONABLE CARE EXERCISED IN HANDLING, STORAGE, AND PRESERVATION OF MATERIALS AS WILL ENSURE MAXIMUM SALVAGE VALUE FOR THE ENTIRE OPERATION.
113 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL EXISTING TRAFFIC SIGNS AND MARKINGS REMOVED OR DAMAGED AS PART OF THIS PROJECT. ALL SIGNS AND POLES PROVIDED SHALL BE NEW AND UNMAYED AND SHALL MEET THE REQUIREMENTS OF COT SPECIFICATION 608 TRAFFIC SIGNS.

TRAFFIC PAY ITEM NOTES (06/27/2025)

- 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:
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 PERFORMED BY THE CONTRACTOR AS SET FORTH IN THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
T-7 PRICE BID FOR THIS ITEM INCLUDES INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF PROJECT SIGN.
T-8 COT 602 CONDUITS: ALL CONDUIT END SHALL BE REAMED AND BUSHINGS SHALL BE INSTALLED PRIOR TO PULLING ANY WIRES.
T-9 THIS PAY ITEM INCLUDES THE REMOVAL AND DELIVERY OF THE FOLLOWING EQUIPMENT TO THE CITY OF TULSA TRAFFIC OPERATIONS SHOP AT 3801 N HARVARD AVE, WHICH IS TO REMAIN THE PROPERTY OF THE CITY OF TULSA. TRAFFIC SIGNAL ITEMS INCLUDE: MULTI-SIDED GALVANIZED TRAFFIC SIGNAL POLES, SIGNAL HEADS, PEDESTRIAN HEADS AND PUSH BUTTONS, BACK PLATES, CONTROLLER CABINET ASSEMBLY, CABINET GUARD, UNMAYED PULL BOX LIDS, MAST ARM SIGNS, ASTRO-BRACKETS, SPAN WIRE EQUIPMENT AND ANY OTHER TRAFFIC SIGNAL EQUIPMENT REMOVED EXCEPT FOR THE PULL BOXES, CONDUIT AND WIRE WHICH SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE PRICE BID SHALL INCLUDE THE REMOVAL OF ALL FOOTINGS BELOW GROUND LEVEL OR AS DIRECTED BY THE ENGINEER. FOOTINGS, GREEN ARM POLES, AND ALL OTHER SIGNAL POLES OTHER THAN THE MULTI-SIDED POLES ARE TO BECOME THE PROPERTY OF THE CONTRACTOR.
T-10 THE DETECTION SYSTEM SHALL BE ON THE TRAFFIC OPERATIONS APPROVED PRODUCTS LIST (APL). THE DETECTION SYSTEM SHALL BE VIDEO DETECTION, AND SHALL DETECT VEHICLES, BICYCLES, AND MOTORCYCLES ON A ROADWAY BY PROCESSING VIDEO DATA THAT PROVIDES VEHICLE PRESENCE, TRAFFIC FLOW DATA, AND EVENT ALARMS, FOR REAL-TIME TRAFFIC CONTROL AND MANAGEMENT SYSTEMS.
DETECTION SYSTEMS SHALL INCLUDE ALL MATERIALS INCLUDING VIDEO DETECTOR CAMERAS, VIDEO CARDS, COMMUNICATION CARDS, CABLING, AND OTHER MATERIALS AS NECESSARY TO MAKE DETECTION SYSTEM FULLY OPERATIONAL AT AN INTERSECTION.
DETECTION SYSTEM CAMERAS SHALL BE IP-ADDRESSABLE.
DETECTION SYSTEMS SHALL NOT USE COAXIAL. DETECTION SYSTEMS SHALL USE A 3-WIRE SYSTEM UTILIZING BROADBAND OVER POWER LINES (BPL) TO REDUCE INTERFERENCE IN THE SYSTEM.
201 250 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY AND FLAG DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY AND FLAG DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT COT STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY AND FLAG DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.
202 QUANTITIES SHOWN FOR CONSTRUCTION SIGNING HAVE BEEN INCREASED TO ALLOW FOR TRAFFIC CONTROL ON CROSS STREETS NOT SHOWN ON THE PLANS.

TRAFFIC PAY ITEM NOTES (CONT.) (06/27/2025)

- 203 CONTRACTOR SHALL INSTALL AND MAINTAIN SAFETY FENCE ALONG THE EDGE OF OPEN CUTS WITHIN THE CONSTRUCTION ZONE. SAFETY FENCE SHALL BE AN OPEN MESH TYPE, HIGH-DENSITY PLASTIC MATERIAL, 48-INCHES IN HEIGHT, AND COLORED INTERNATIONAL SAFETY ORANGE. FENCE SHALL BE SUPPORTED BY FENCE POSTS SPACED AT NO MORE THAN 10 FEET. PAYMENT FOR SAFETY FENCE SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT BASED ON THE TOTAL FOOTAGE USED FOR THE DURATION OF THE PROJECT. NO ADDITIONAL PAYMENT WILL BE MADE FOR MOVING THE FENCE AS THE JOB SITE CHANGES.
204 REFER TO COT STANDARD 102 FOR DETAILS TO BE DETERMINED BY THE FIELD ENGINEER.
205 CONTRACTOR SHALL INSTALL AND MAINTAIN INFORMATION SIGNS TO ADVISE PUBLIC THAT BUSINESSES ARE OPEN AND WHERE ACCESS POINTS TO THE BUSINESSES ARE LOCATED.

BRIDGE PAY ITEM NOTES (10/31/2025)

- 301 PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES ONLY. SEE SECTION 109.01B OF THE ODOT 2019 STANDARD SPECIFICATIONS.
302 ALL COST INCLUDING LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "PREPARATION OF CRACKS, ABOVE WATER" AND THE PRICE BID PER GALLON OF "EPOXY RESIN, ABOVE WATER".
303 AN ADDITIONAL 25 LF OF QUANTITY FOR ALL BRIDGES WITH THE PAY ITEM "PREPARATION OF CRACKS, ABOVE WATER" HAS BEEN INCLUDED IN THE QUANTITIES, TO BE USED AT THE DISCRETION OF THE ENGINEER.
304 PAY ITEM FOR REMOVAL OF EXISTING SUPERSTRUCTURE (INCLUDING SOUTH EXTERIOR EXISTING BEAMS AND DIAPHRAGMS), APPROACH SLABS AND EXCAVATION FOR CLSM UNDER APPROACH SLABS.
305 ALL LABOR, EQUIPMENT, AND MATERIAL REQUIRED TO FABRICATE, TRANSPORT, AND INSTALL ANTI-LOITERING DEVICES SHALL BE INCLUDED IN THE PRICE BID PER CY OF "CLASS A CONCRETE, SMALL STRUCTURES".
306 THERE IS AN ESTIMATED 50 CY OF CLASS AA CONCRETE AND FOR BOTH APPROACH SLABS. THERE IS AN ADDITIONAL ESTIMATED 7.5 CY OF CLASS AA CONCRETE FOR BOTH APPROACH SLABS.
307 THERE IS AN ESTIMATED 10,150 POUNDS OF EPOXY COATED REINFORCING STEEL FOR BOTH APPROACH SLABS. THERE IS AN ADDITIONAL 680 POUNDS OF EPOXY COATED REINFORCING STEEL IN SIDEWALKS FOR BOTH APPROACH SLABS.



Table with 2 columns: PAY ITEMS & NOTES (3 OF 3) and CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT. Includes project details for Arterial Street Rehabilitation and Benham Design, LLC information.

Table with 4 columns: REVISION, BY, DATE, PLAN SCALE. Includes drawing details for DRAWN, DESIGNED, SURVEY, PROFILE SCALE, HORIZONTAL, VERTICAL, and DESIGN MANAGER.



GENERAL CONSTRUCTION NOTES (09/12/2016)

- 1 ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS AMENDED AND ADOPTED BY CITY OF TULSA ORDINANCE #24616, THE CURRENT CITY OF TULSA PUBLIC WORKS DEPARTMENT'S STANDARD SPECIFICATIONS, STANDARD DETAILS, 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
 COX COMMUNICATIONS
 OKLAHOMA NATURAL GAS (ONG)
 PUBLIC SERVICE COMPANY OF OKLAHOMA (AEP)
 CITY OF TULSA UTILITY COORDINATOR

 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 EDITION, 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, 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 MATERIAL 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 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.

GENERAL CONSTRUCTION NOTES (CONT.) (09/12/2016)

- 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 CONTRACTOR ENCOUNTERS VOIDS WHEN PATCHING STREETS, THE CONTRACTOR SHALL CALL FIELD ENGINEERING 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 THE 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 DETERMINED 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 SHALL 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.

GENERAL CONSTRUCTION NOTES (CONT.) (09/12/2016)

- 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 DISCOLORATION 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 AUGUST 8, 2023 BY THE U.S. ACCESS BOARD. WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THIS ACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK, WHICH IS NOT IN FULL COMPLIANCE WITH THE ADA WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADA, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 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), VALERIE COURCHESNE 918-699-0291, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK, LANE CLOSURES OR PRIOR TO DETOURING TRAFFIC.
- 43 CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT IN THE FLOODPLAIN.

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GENERAL CONSTRUCTION NOTES
(1 OF 2)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= NA	DESIGNED	KLE	10/25	 KRISTI ERICKSON CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Paul</i>	11/04/25	
			HORIZONTAL:	PROJECT MGR	<i>WPD</i>	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
				RECOMMENDED			
				DESIGN MANAGER	HAS	11-25	
FILE: 1400405-C-General Notes 01.dgn							DATE: OCTOBER 2025
ATLAS PAGE NO.: 172, 173							SHEET 6 OF 54 SHEETS



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GENERAL CONSTRUCTION NOTES (CONT.) (06/20/2025)

ALL WORK AND/OR MATERIALS NOT CLASSIFIED AS A "CONTRACT PAY ITEM" SHALL BE CONSIDERED INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.

WHERE IT IS NECESSARY TO CROSS CURBING, PROTECTION AGAINST DAMAGE SHALL BE PROVIDED BY THE CONTRACTOR AND ANY DAMAGE TO THE ROADWAY PAVEMENT, CURBS, OR DRIVEWAYS CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPLACED AT THE CONTRACTOR'S SOLE EXPENSE.

BLASTING SHALL NOT BE ALLOWED.

ALL EXISTING MANHOLES, INLETS, VALVES, FIRE HYDRANTS AND METERS, WHICH ARE NOT BEING RELOCATED OR REMOVED, SHALL BE RESET TO PROPOSED CONDITIONS. ALL ITEMS THAT ARE TO BE RESET SHALL BE HANDLED WITH CARE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY RESULTING DAMAGE DURING THESE OPERATIONS.

CONTRACTOR SHALL TAKE PRECAUTION NOT TO DAMAGE EXISTING INLETS THAT ARE WITHIN THE PROJECT LIMITS THAT ARE NOT SHOWN AS PART OF THE CONSTRUCTION IN THIS PROJECT. ALL DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

PROJECT SIGNS SHALL BE PROVIDED AT ENTRANCES TO THE PROJECT AREA. THE PROJECT SIGNS SHALL BE IN PLACE PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.

CONTRACTOR SHALL DOCUMENT PRE-CONSTRUCTION SITE CONDITIONS BY MEANS OF PHOTOGRAPHS AND VIDEO TAPE WITH CITY REPRESENTATIVE BEFORE THE START OF CONSTRUCTION. COST SHALL BE CONSIDERED AS INCIDENTAL AND NO SEPARATE PAYMENT SHALL BE MADE.

THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:

- 1) ANY PERMITS OR LICENSES REQUIRED FOR CONSTRUCTION WITH THE EXCEPTION OF THE WATERSHED DEVELOPMENT PERMIT, WHICH SHALL BE OBTAINED BY THE CITY.
- 2) PROPER NOTIFICATION OF ALL NECESSARY AGENCIES PRIOR TO CONSTRUCTION AND FOR REQUIRED INSPECTIONS.
- 3) DETERMINING THE EXACT LOCATION OF ANY UTILITIES. EXISTING UTILITIES TO REMAIN IN SERVICE AT ALL TIMES. SERVICE DISRUPTION TO BE AT CONTRACTOR'S RISK AND EXPENSE.

CONTRACTOR SHALL BRACE UTILITY POLES AND/OR LINES AS NECESSARY.

GENERAL CONSTRUCTION NOTES - ROADWAY (06/20/2025)

MAILBOXES TO BE REMOVED AND RESET SHALL BE RESTORED TO SUBSTANTIALLY THE SAME CONDITION AS EXISTS AT THE BEGINNING OF CONSTRUCTION.

THE CONTRACTOR SHALL PROTECT MAILBOXES AS NECESSARY. MAILBOXES ARE TO BE MAINTAINED IN AN UPRIGHT POSITION AND ACCESSIBLE TO MAIL CARRIER'S CAR DURING CONSTRUCTION.

FOR WIDENING AND RESURFACING PROJECTS, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROP-OFF HAZARDS AND SHALL SUBMIT A SEQUENCE OF CONSTRUCTION OPERATIONS TO THE ENGINEER FOR APPROVAL, BEFORE OPERATIONS BEGIN.

EXCAVATION FOR PAVEMENT WIDENING, EXTENSION OF ROADWAY STRUCTURES, AND ASPHALT LAYING OPERATIONS THAT PRESENT AN EDGE DROP-OFF OF GREATER THAN 2 (TWO) INCHES SHALL BE LIMITED TO ONE SIDE AT A TIME. ONLY THAT AMOUNT OF OPEN TRENCH WILL BE ALLOWED THAT CAN BE SURFACED IN 2 (TWO) DAYS TIME, WITHOUT APPROVAL OF THE ENGINEER. LIGHTS, SIGNS, AND BARRICADES SHALL BE MOVED AS WORK PROGRESSES.

ASPHALT REPAIRS IN PLACE SHALL BE REMOVED WHEN DESIGNATED AND IN A MANNER APPROVED BY THE ENGINEER.

GENERAL CONSTRUCTION NOTES - SIGNING (06/20/2025)

NO SPLICES SHALL BE PERMITTED IN ANY PIPE OR WIDE FLANGE SIGN POSTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A RECORD OF ALL SIGNS AND MARKINGS TO INSURE PROPER REINSTALLATION BY THE CONTRACTOR AS APPROVED BY THE CITY OF TULSA.

FOR EXISTING GROUND MOUNTED SIGNS, MAXIMUM STUB POST PROJECTION ABOVE FOOTING/GROUND LINE SHALL BE 1-3/4" + 1/4". MAXIMUM FOOTING PROJECTION ABOVE GROUND LINE SHALL BE NO MORE THAN 2". SHOULD ADDITIONAL SOIL BE REQUIRED, THE ENGINEER SHALL DESIGNATE AN AREA TO OBTAIN ADDITIONAL SOIL.

GENERAL CONSTRUCTION NOTES - TRAFFIC OPERATIONS (06/27/2025)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EXISTING TRAFFIC SIGNAL IN A PROPER WORKING CONDITION DURING CONSTRUCTION AS DIRECTED BY THE TRAFFIC ENGINEER AND FOR FOLLOWING THE REQUIREMENTS OF COT 626 TRAFFIC SIGNAL CONSTRUCTION AND OPERATION. THE CONTRACTOR SHALL NOT PLACE NEW TRAFFIC SIGNALS INTO OPERATION UNTIL THEY HAVE BEEN PERMITTED, INSPECTED AND APPROVED BY CITY OF TULSA TRAFFIC SIGNAL INSPECTORS, AND THE CITY OF TULSA TRAFFIC OPERATIONS HAS CONTACTED THE UTILITY COMPANY TO SET UP BILLING. TRAFFIC SIGNALS SHALL ONLY BE PUT INTO OPERATION ON TUESDAYS, WEDNESDAYS, AND THURSDAYS. ALL TRAFFIC MATERIALS SHALL MEET THE REQUIREMENTS OF COT 627 PRE-QUALIFICATION FOR TRAFFIC OPERATIONS MATERIALS OR AS DIRECTED BY THE TRAFFIC ENGINEER. CONTRACTORS SHALL MEET THE REQUIREMENTS OF COT 628 SIGNAL AND LIGHTING PROJECT CONTRACTOR EXPERIENCE REQUIREMENTS.

THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FOR ELECTRICAL INSPECTION ON ALL SIGNAL AND LIGHTING WORK PER COT SPECIFICATION 626 TRAFFIC SIGNAL CONSTRUCTION AND OPERATION. USE THE FOLLOWING ADDRESS(ES) FOR THE ELECTRICAL PERMIT:

10750 E PINE ST N TRF LIGHT, TULSA 74116

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL EXISTING TRAFFIC SIGNS AND MARKINGS REMOVED OR DAMAGED AS PART OF THIS PROJECT. ALL SIGNS AND POSTS 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.

PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF ODOT STANDARDS AND SPECIFICATIONS FOR PAVEMENT MARKINGS, BUT SHALL BE PROVIDED USING TULSA STANDARD PAVEMENT MARKING LAYOUTS WHEN APPLICABLE. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.



GENERAL CONSTRUCTION NOTES
(2 OF 2)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= NA	DESIGNED	KLE	10/25	 CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Don</i>	<i>10/25</i>	
			HORIZONTAL:	PROJECT MGR	<i>MED</i>	<i>11/04/25</i>	
			1"= NA	LEAD ENGR	EAS	<i>11-2025</i>	
			VERTICAL:	RECOMMENDED			
			1"= NA	DESIGN MANAGER	HAS	<i>11-25</i>	
				FILE:	1400405-C-General Notes 02.dgn		DATE: OCTOBER 2025
				ATLAS PAGE NO.:	172, 173		SHEET 7 OF 54 SHEETS



GENERAL CONSTRUCTION NOTES - BRIDGE (06/20/2025)

GENERAL CONSTRUCTION NOTES - BRIDGE:

SPECIFICATIONS:

COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION (ODOT) STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS ADOPTED BY CITY OF TULSA, EXCEPT AS MODIFIED BY THE PLANS AND CITY OF TULSA STANDARDS.

MATERIALS:

CLASS AA CONCRETE f_c = 4,000 PSI
 CLASS A CONCRETE f_c = 3,000 PSI
 REINFORCING STEEL (GRADE 60) F_y = 60,000 PSI
 EPOXY COATED REINFORCING STEEL F_y = 60,000 PSI
 STRUCTURAL STEEL M270 (GRADE 50W) F_y = 50,000 PSI
 STAINLESS STEEL A240 (TYPE 316) F_y = 30,000 PSI
 STAINLESS STEEL A320; CLASS 2 (GRADE B8M) F_y = 58,000 PSI

LOADING (BRIDGE #224):

HL-93 OR OKLAHOMA OVERLOAD TRUCK
 20 PSF FUTURE WEARING SURFACE

DESIGN (BRIDGE #224):

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION
 ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
 ANSI/AASHTO/AWS D1.6 STRUCTURAL WELDING CODE-STAINLESS STEEL

STAY IN PLACE FORMS:

STAY IN PLACE FORMS ARE NOT ALLOWED.

DESCRIPTION OF WORK:

BRIDGE #225:
 REPLACE DECK, SOUTH EXTERIOR BEAM, SOUTH EXTERIOR BAY DIAPHRAGMS, AND BRIDGE RAILING. PAINT TOPS OF EXISTING BEAMS. CONSTRUCT SIDEWALK ON SOUTH SIDE OF BRIDGE. CONSTRUCT NEW APPROACH SLABS. NEW BRIDGE DECK JOINTS. SUBSTRUCTURE CRACK REPAIR, CONCRETE REPAIR (SOUTH PIER CAPS), PNEUMATIC MORTAR, AND ANTI-LOITERING DEVICES. BRIDGE SHALL BE CLOSED DURING CONSTRUCTION AND TRAFFIC RE-ROUTED BY DETOUR.

VERIFICATION OF EXISTING CONDITIONS:

ALL DIMENSIONS OF THE EXISTING BRIDGE COMPONENTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO CONNECT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.

BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE STRUCTURES OR ROADWAY. DAMAGE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

ABUTMENT SEAT AND PIER CAP ELEVATIONS, EXISTING TOP OF DECK AND APPROACH SLAB ELEVATIONS, BEAM AND DIAPHRAGM LENGTHS, ALL BEAM DEPTHS, ALL EXISTING BEARING ASSEMBLIES HEIGHTS, EXISTING AND DESIGN THEORETICAL HAUNCH THICKNESS, THICKNESS OF NEW BEARING ASSEMBLIES AND SHIM PLATES TO REPLACE EXISTING BEARINGS AT SOUTH EXTERIOR BEAM LINE, LENGTHS OF REINFORCING STEEL IN SCHEDULES, AND LENGTHS OF EXPANSION JOINTS SHALL BE CONFIRMED BY CONTRACTOR PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION. ALL MATERIAL THAT IS FABRICATED TO DIMENSIONS NOT FITTING EXISTING CONDITIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.

FINAL ELEVATION OF BRIDGE DECK AND APPROACH SLABS SHALL MATCH ELEVATIONS EXISTING OF APPROACH ROADWAY.

ALL COST OF THE SURVEYING NECESSARY TO DETERMINE THE WORK AS DESCRIBED ABOVE INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER POUND OF STRUCTURAL STEEL M270 GRADE 50W.

ORIGINAL AND REHABILITATION CONSTRUCTION PLANS FOR THE EXISTING BRIDGE STRUCTURES, IF AVAILABLE, MAY BE OBTAINED FROM THE CITY OF TULSA. THERE ARE DISCREPANCIES IN SPAN LENGTHS AND ELEVATIONS BETWEEN THE 2025 SURVEY AND THE AVAILABLE AS-BUILT PLANS. ALL DETAILS AND QUANTITIES BASED ON ASSUMED DIMENSIONS AND ELEVATIONS AND ARE CLEARLY IDENTIFIED IN THE CONSTRUCTION PLANS.

REMOVAL OF BRIDGE ITEMS:

THE REMOVAL AND DISPOSAL OF EXISTING MATERIALS, (CONCRETE, REINFORCING STEEL, STRUCTURAL STEEL, ETC.) FROM DECK AND SOUTHERN EXTERIOR BEAM, BOTH APPROACH SLABS, EXCAVATION BELOW APPROACH SLABS FOR 1 FOOT LAYER OF CLSM, AND ANY OTHER ITEMS NECESSARY TO COMPLETE THE WORK SHOWN IN THE PLANS SHALL BE IN ACCORDANCE WITH SUBSECTION 619.04(B)(2) OF THE ODOT 2019 STANDARD SPECIFICATIONS AND BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

THE EXISTING SOUTHERN EXTERIOR BEAM MAY CONTAIN A LEAD BASED PAINT SYSTEM. THE CONTRACTOR SHALL NOT ALLOW CONSTRUCTION DEBRIS TO FALL INTO WATER BELOW, FOR BRIDGE #225.

EPOXY INJECTION:

THE EXISTING BRIDGE HAS APPROXIMATELY 55 LINEAR FEET OF CRACKS THAT SHALL BE CLEANED AND INJECTED WITH EPOXY. THE ACTUAL LOCATION AND EXTENT OF THE CRACKS TO BE SEALED SHALL BE AS SHOWN IN THE PLANS AND AS DETERMINED BY THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH SECTION 520 OF THE ODOT 2019 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL COST INCLUDING LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "PREPARATION OF CRACKS, ABOVE WATER" AND THE PRICE BID PER GALLON OF "EPOXY RESIN, ABOVE WATER".

GENERAL CONSTRUCTION NOTES - BRIDGE (CONT.) (06/20/2025)

PNEUMATICALLY PLACED MORTAR:

THE EXISTING CONCRETE SUBSTRUCTURE ELEMENTS OF THE BRIDGE WHICH ARE SPALLED, ERODED, OR BROKEN SHALL BE REPAIRED WITH PNEUMATICALLY PLACED MORTAR IN THE VARIOUS AREAS AS SHOWN ON THE PLANS OR DETERMINED BY THE ENGINEER, AND IN ACCORDANCE WITH SECTION 521 OF THE ODOT 2019 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

THE REMOVAL OF LOOSE CONCRETE SHALL BE DONE USING HAND TOOLS. POWER TOOLS WILL NOT BE ALLOWED UNLESS HAND TOOLS PROVE INCAPABLE OF EXCAVATING ALL DETERIORATED CONCRETE TO SOUND CONCRETE AND APPROVED BY THE ENGINEER. SHOULD POWER TOOLS BE NECESSARY, POWER TOOLS SHALL BE OF SUCH SIZE APPROVED BY THE ENGINEER SUCH THAT THEIR USE DOES NOT CAUSE DAMAGE TO THE SOUND CONCRETE.

ANY DAMAGE DONE TO THE EXISTING REINFORCING STEEL DURING THE REMOVAL PROCESS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER. ANY DETERIORATED REINFORCING STEEL WITH A SECTION LOSS GREATER THAN 50%, AS DETERMINED BY THE ENGINEER, SHALL BE REPORTED TO THE BRIDGE ENGINEER FOR REMEDIAL ACTION. PRIOR TO MORTAR APPLICATION, BLAST CLEAN THE CONCRETE SURFACE AND REINFORCING STEEL FREE OF DEBRIS AND CORROSION. APPLY THE PNEUMATICALLY PLACED MORTAR TO REPLACE THE DETERIORATED CONCRETE. BUILD UP MORTAR TO PROVIDE A 2" COVER OVER THE EXISTING REINFORCING STEEL.

IN THE EVENT OF A REPAIR IN WHICH THE MAIN MOMENT REINFORCING IS EXPOSED, CLASS AA CONCRETE SHALL BE USED IN PLACE OF "PNEUMATICALLY PLACED MORTAR". IN THIS CASE, THE VOLUME REQUIRING CLASS AA CONCRETE SHALL BE PAID FOR AS "CLASS AA CONCRETE" IN LIEU OF "PNEUMATICALLY PLACED MORTAR".

THE CONTRACTOR MAY PROPOSE AND USE AS AN ALTERNATE ONE OF THE FOLLOWING REPAIR METHODS:

- (1) CAST-IN-PLACE CONCRETE
- (2) FORMED AND PUMPED CONCRETE AND MORTAR

THE CONTRACTOR SHALL SUBMIT A PROPOSED WORK PLAN OF THE REPAIR METHOD TO BE USED TO THE ENGINEER FOR HIS APPROVAL. THE WORK PLAN SHOULD INCLUDE SURFACE PREPARATION METHODS, PATCHING MATERIAL, BONDING AGENTS, MATERIAL PLACING METHODS, AND FINISHING METHODS. THE CONTRACTOR SHALL TEST REPAIR AN AREA TO VERIFY THE EFFECTIVENESS OF THE PROPOSED REPAIR METHOD PRIOR TO COMMENCEMENT OF THE WORK. FAULTY REPAIRS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ALL COSTS FOR REMOVAL AND DISPOSAL OF EXISTING DETERIORATED CONCRETE, LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "PNEUMATICALLY PLACED MORTAR".

CORROSION INHIBITOR:

THIS WORK CONSISTS OF TREATING CONCRETE SURFACES WITH A PENETRATING CORROSION INHIBITOR AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH SECTION 535.04D(a) OF THE ODOT 2019 STANDARD SPECIFICATIONS AND THE MANUFACTURER SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE SURFACE APPLIED CORROSION INHIBITORS THAT ARE ORGANOFUNCTIONAL SILANE BASED, USE CORROSION INHIBITORS THAT ARE DESIGNED TO WORK ON BOTH ANODIC AND CATHODIC AREAS.

BEFORE APPLYING THE CORROSION INHIBITOR TREATMENT SYSTEMS, CLEAN ALL CONCRETE SURFACES AND EXPOSED REINFORCEMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

APPLY THE CORROSION INHIBITOR AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL COSTS FOR FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, TESTING, AND INCIDENTALS NECESSARY FOR THE SURFACE PREPARATION AND APPLICATION SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD FOR "CORROSION INHIBITOR (SURFACE APPLIED)".

ANCHORAGE INTO EXISTING CONCRETE:

REINFORCING STEEL AND DOWELS SHALL BE ANCHORED INTO EXISTING CONCRETE AS SHOWN IN THE PLANS. INSTALLATION OF NEW REINFORCING STEEL DOWELS INTO EXISTING CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 509.04.D(3) OF THE ODOT 2019 STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

DRILLING INTO EXISTING CONCRETE SHALL BE ACCOMPLISHED WITHOUT CUTTING OR DAMAGING EXISTING REINFORCING STEEL. PRIOR TO DRILLING, THE CONTRACTOR SHALL LOCATE AND MARK THE EXISTING REINFORCING STEEL WITH NONDESTRUCTIVE TOOLS. EQUIPMENT AND METHODS APPROVED BY THE ENGINEER. IF EXISTING REINFORCING STEEL IS ENCOUNTERED, THE DRILLING SHALL CEASE AND THE HOLE GROUTED. THE HOLE SHALL THEN BE RELOCATED TO CLEAR THE EXISTING REINFORCING STEEL. ADJUSTMENTS TO THE LOCATION OF THE NEW REINFORCING STEEL FROM THE PLANS SHALL BE THE MINIMUM AMOUNT TO AVOID CUTTING THE EXISTING REINFORCING STEEL AND SHALL BE APPROVED BY THE ENGINEER.

NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THE ADJUSTMENT IN NEW REINFORCING BAR LENGTHS FOR THE RELOCATION OF ANCHORAGE HOLES DUE TO THE ENCOUNTERING OF EXISTING REINFORCING STEEL.

ALL COSTS INCLUDING LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO DRILL AND EPOXY GROUT THE REINFORCING STEEL, ANCHOR BOLTS, AND DOWELS AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD OF "CLASS A CONCRETE, SMALL STRUCTURES" (ANTI-LOITERING DEVICES ONLY) OR "CLASS AA CONCRETE".

WATER REPELLENT (VISUALLY INSPECTED):

A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO LOCATIONS AS SHOWN ON THE PLANS.

AFTER REPAIRS ARE COMPLETE AND CONCRETE HAS CURED A MINIMUM OF SEVEN DAYS, A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE TR-4 RAILING, AS SHOWN IN THE PLANS. ALL COSTS INCLUDING COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "WATER REPELLENT (VISUALLY INSPECTED)".

GENERAL CONSTRUCTION NOTES - BRIDGE (CONT.) (06/20/2025)

COLLECTION AND HANDLING OF WASTE:

THE "COLLECTION AND HANDLING OF WASTE" SHALL INCLUDE LABOR, MATERIALS AND INCIDENTALS NECESSARY FOR THE CLEANING, CONTAINMENTS, STABILIZATION, INCINERATION, TRANSPORTATION AND DISPOSAL OF WASTE, SAMPLING, TESTING OF SOIL, AIR AND WASTE MATERIALS, PERMITS AND RELATED ITEMS, OTHER THAN PAINTING, AS SPECIFIED IN SECTION 512 OF THE ODOT 2019 STANDARD SPECIFICATIONS.

PAINTING EXISTING STRUCTURES:

THE EXISTING BRIDGES MAY CONTAIN A LEAD BASED PAINT SYSTEM. THIS WORK SHALL BE IN ACCORDANCE WITH SECTION 512 AND 730 OF THE ODOT 2019 STANDARD SPECIFICATIONS. A CURRENT SSPC C3 OR C5 REFRESHER-SUPERVISOR/COMPETENT PERSON CERTIFICATION FOR DELEADING INDUSTRIAL STRUCTURES FOR CONTRACT PERSONNEL RESPONSIBLE FOR WASTE COLLECTION AND DISPOSAL CERTIFICATION IS REQUIRED IN ACCORDANCE WITH 512.04A(1).

AFTER REMOVAL OF THE DECK, THE EXPOSED SURFACES OF THE TOPS OF THE EXISTING STEEL BEAMS SHALL BE CLEANED AND PAINTED.

THE PAINT SYSTEM CATEGORY SHALL BE IN ACCORDANCE WITH SECTION 512.04B(2). ALL COSTS OF CLEANING AND PAINTING INCLUDING LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUM SUM "PAINTING EXISTING STRUCTURES".

STEEL HANDRAILING:

RAILING SHALL BE MEASURED AND PAID FOR AS LINEAR FEET OF HANDRAILING, WHICH INCLUDES THE UPPER HANDRAIL PIPES, POSTS, BASEPLATES, BOLTS, 1/4" ELASTOMERIC PAD BENEATH BASEPLATE AND ACCESSORIES AS WELL AS THE 2" PIPE BETWEEN THE CONCRETE POSTS OF TR-4 RAIL. THE PIPE BETWEEN CONCRETE POSTS OF TR-4 RAIL WILL NOT BE MEASURED SEPARATELY.

ALL COSTS OF MATERIALS, INSTALLATION, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FEET OF "HANDRAILING".

STRUCTURAL STEEL M270 GRADE 50W:

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50W, UNLESS SHOWN OR NOTED OTHERWISE. HIGH STRENGTH FASTENERS SHALL CONFORM TO ASTM M164 (ASTM A325), TYPE 3. NUTS, WASHERS, AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.

ERECTED GIRDERS SHALL HAVE ALL DIAPHRAGMS INSTALLED AND CONNECTIONS COMPLETED PRIOR TO LEAVING THE JOBSITE AT THE END OF EACH DAY.

CLEANING BRIDGE SURFACES:

ALL PIER CAPS, ABUTMENT SEATS, AND PEDESTALS AND SHALL BE SWEEPED CLEAN OF RUBBLE AND DEBRIS PRIOR TO APPLICATION OF SURFACE TREATMENTS AND ALSO PRIOR TO COMPLETION OF WORK. ALL COSTS FOR LABOR, EQUIPMENT, MATERIALS, AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE COST PER SQUARE YARD OF "CLEANING BRIDGE SURFACES".



10-31-2025

GENERAL CONSTRUCTION BRIDGE NOTES

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
 15 W 6th St, Suite 900
 Tulsa, Oklahoma 74119
 (918) 492-1600
 a Haskell Company

REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:	
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER	
			1"	NA	SURVEY	RDL		10/25
			PROFILE SCALE	FIELD MGR	<i>Tom Sobel</i>			
			HORIZONTAL:	PROJECT MGR	<i>TLPS</i>	11/04/25		
			1"	NA	LEAD ENGR	EAS	11-2025	
			1"	NA	RECOMMENDED	HAS	11-25	
				DESIGN MANAGER				
				FILE:	1400405-S-Bridge Notes 01.dgn		DATE: OCTOBER 2025	
				ATLAS PAGE NO.:	172, 173		SHEET 8 OF 54 SHEETS	



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10/30/2025

SIGN SCHEDULE

SIGN NO.	SIGN LOCATION				SIGN TYPES	SIGN DIMENSION	NUMBER OF INDIVIDUAL SIGNS *	GROUND SIGN	1-1/2" SIGN POST	1-3/4" SIGN POST	2" SIGN POST	REMOVE AND RESET SIGN	COMMENTS
	ALIGNMENT	STATION	OFFSET										
	INCHES	EA	COT 608 SF	COT 608 LF									
1	E. PINE ST.	13+20	40	LT	SP-1	18 X 12	1	1.50		10.00	3.00		SPECIAL SIGN 1, REF. SIGNING & STRIPING (1 OF 2)
2	E. PINE ST.	13+12	30	RT	W4-2R	36 X 36	1	9.00	2.00	10.00	3.00		LANE ENDS
3	E. PINE ST.	14+50	30	LT								1	DOUGLAS CREEK WATERSHED
4	E. PINE ST.	14+75	20	RT	R2-1(40)	24 X 30	1	5.00	2.00	10.00	3.00		SPEED LIMIT (40 MPH)
8	E. PINE ST.	25+10	15	RT	OM3-R	12 X 36	1	3.00	2.00	10.00	3.00		OBJECT MARKER
					I-3	V X 36	1	8.00	2.00	10.00	3.00		MINGO CREEK
9	E. PINE ST.	25+10	15	LT	OM3-L	12 X 36	1	3.00	2.00	10.00	3.00		OBJECT MARKER
10	E. PINE ST.	28+95	15	RT	OM3-L	12 X 36	1	3.00	2.00	10.00	3.00		OBJECT MARKER
11	E. PINE ST.	28+95	15	LT	OM3-R	12 X 36	1	3.00	2.00	10.00	3.00		OBJECT MARKER
					I-3	V X 36	1	8.00	2.00	10.00	3.00		MINGO CREEK
12	E. PINE ST.	32+75	30	LT	R1-1	30 X 30	1	6.25					STOP
					COT 608A	V X 9	1	6.00	2.00	10.00	3.00		N 105TH E AVE. 1500
					COT 608A	V X 9	1	6.00					E PINE ST
13	E. PINE ST.	33+75	30	RT	R1-1	30 X 30	1	6.25					STOP
					COT 608A	V X 9	1	6.00	2.00	10.00	3.00		N 105TH E AVE. 1500
					COT 608A	V X 9	1	6.00					E PINE ST
14	E. PINE ST.	34+85	25	RT	M2-1	21 X 15	1	2.20	2.00	10.00	3.00		JCT
					M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
15	E. PINE ST.	38+00	30	RT	M3-1	24 X 12	1	2.00	2.00	10.00	3.00		ROUTE SIGN AUXILIARIES (NORTH)
					M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M6-3	21 X 15	1	2.20					DIRECTIONAL ARROW (STRAIGHT)
					M3-3	24 X 12	1	2.00					ROUTE SIGN AUXILIARIES (SOUTH)
16	E. PINE ST.	38+00	33	RT	M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M5-1P	24 X 24	1	4.00					ADVANCE TURN ARROW (RIGHT)
					R1-1	30 X 30	1	6.25					STOP
17	E. PINE ST.	33+75	50	LT	COT 608A	V X 9	1	6.00	2.00	10.00	3.00		N 107TH E AVE. 1500
					COT 608A	V X 9	1	6.00					E PINE ST
18	E. PINE ST.	40+50	45	RT	W12-2	36 X 36	1	9.00	2.00	10.00	3.00		WARNING SIGN (14'-9")
19	E. PINE ST.	41+20	0	RT	R4-7	24 X 30	1	5.00	2.00	10.00	3.00		KEEP RIGHT
20	E. PINE ST.	42+20	45	LT	W4-2R	36 X 36	1	9.00	2.00	10.00	3.00		LANE ENDS
21	E. PINE ST.	42+80	45	LT	R2-1(40)	24 X 30	1	5.00	2.00	10.00	3.00		SPEED LIMIT (40 MPH)
					M3-3	24 X 12	1	2.00					ROUTE SIGN AUXILIARIES (SOUTH)
22	E. PINE ST.	43+50	50	RT	M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M6-2	21 X 15	1	2.20					DIRECTIONAL ARROW (RIGHT)
23	E. PINE ST.	43+75	45	LT	W9-1	36 X 36	1	9.00	2.00	10.00	3.00		RIGHT LANE ENDS
					M3-3	24 X 12	1	2.00					ROUTE SIGN AUXILIARIES (SOUTH)
24	E. PINE ST.	44+80	50	LT	M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M6-1	21 X 15	1	2.20					DIRECTIONAL ARROW (LEFT)
25	E. PINE ST.	44+80	48	LT	R3-1	24 X 24	1	4.00	2.00	10.00	3.00		NO RIGHT TURN
					M3-1	24 X 12	1	2.00					ROUTE SIGN AUXILIARIES (NORTH)
26	E. PINE ST.	45+20	40	RT	M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M5-1	21 X 15	1	2.20					ADVANCE TURN ARROW (LEFT)
27	E. PINE ST.	46+23	3	LT	OM3-L	12 X 36	1	3.00	2.00	10.00	3.00		OBJECT MARKER
					M3-1	24 X 12	1	2.00					ROUTE SIGN AUXILIARIES (NORTH)
28	E. PINE ST.	48+15	45	RT	M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M6-1	21 X 15	1	2.20					DIRECTIONAL ARROW (LEFT TURN)
29	E. PINE ST.	48+30	50	RT	R3-1	24 X 24	1	4.00	2.00	10.00	3.00		NO RIGHT TURN
30	E. PINE ST.	49+80	0	RT	R10-12	30 X 36	1	7.50					LEFT TURN YIELD ON GREEN - ON SIGNAL POLE
					R3-4	24 X 24	1	4.00					NO U-TURN - ON SIGNAL POLE
31	E. PINE ST.	49+90	60	RT	R3-2	24 X 24	1	4.00	2.00	10.00	3.00		NO LEFT TURN
32	E. PINE ST.	47+43	7	LT	OM3-L	12 X 36	1	3.00	2.00	10.00	3.00		OBJECT MARKER
					R1-1	30 X 30	1	6.25					STOP
					R3-2	24 X 24	1	4.00	2.00	10.00	3.00		NO LEFT TURN
					COT 608A	V X 9	1	6.00					N 108TH E AVE. 1400 1500
					COT 608A	V X 9	1	6.00					E PINE ST
34	E. PINE ST.	50+50	45	RT	W4-2R	36 X 36	1	9.00	2.00	10.00	3.00		LANE ENDS
35	E. PINE ST.	51+75	45	LT	W12-2	36 X 36	1	9.00	2.00	10.00	3.00		WARNING SIGN (14'-9")
36	E. PINE ST.	54+20	30	LT	R2-1(40)	24 X 30	1	5.00	2.00	10.00	3.00		SPEED LIMIT (40 MPH)
					M3-1	24 X 12	1	2.00					ROUTE SIGN AUXILIARIES (NORTH)
37	E. PINE ST.	55+15	36	RT	M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M5-1P	24 X 24	1	4.00					ADVANCE TURN ARROW (RIGHT)
					M3-3	24 X 12	1	2.00					ROUTE SIGN AUXILIARIES (SOUTH)
38	E. PINE ST.	55+15	34	RT	M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M6-3	21 X 15	1	2.20					DIRECTIONAL ARROW (STRAIGHT)
39	E. PINE ST.	59+05	32	RT	I-3	V X 36	1	8.00	2.00	10.00	3.00		CITY OF TULSA MULCH SITE 2.5 MILES
					M6-3	21 X 15	1	2.20	2.00	10.00	3.00		DIRECTIONAL ARROW (STRAIGHT)
40	E. PINE ST.	59+55	26	LT	M2-1	21 X 15	1	2.20	2.00	10.00	3.00		JCT
					M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M3-1	24 X 12	1	2.00					ROUTE SIGN AUXILIARIES (NORTH)
41	E. PINE ST.	50+45	50	LT	M1-4	30 X 24	1	5.00	2.00	10.00	3.00		US. ROUTE SIGN (169)
					M6-1	21 X 15	1	2.20					DIRECTIONAL ARROW (RIGHT)
42	E. PINE ST.	11+30	34	RT	W9-1	36 X 36	1	9.00	2.00	10.00	3.00		RIGHT LANE ENDS
43	E. PINE ST.	43+86	2	LT	R10-12	30 X 36	1	7.50					LEFT TURN YIELD ON GREEN - ON SIGNAL POLE
					R3-4	24 X 24	1	4.00					NO U-TURN - ON SIGNAL POLE
44	E. PINE ST.	49+28	43	RT	W9-1	36 X 36	1	9.00	2.00	10.00	3.00		RIGHT LANE ENDS
TOTALS							74	346	84	430	129	1	

* FOR INFORMATION ONLY

NOTES: 1) ALL NEW SIGNS SHALL BE USED AS REPLACEMENTS FOR EXISTING SIGNS AND SHALL MEET THE CURRENT EDITION OF THE MUTCD.

2) 'V' - SIZE VARIES. REFER TO COT STD. 608A & 608B.

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:	
1 st NA			DESIGNED	KLE	10/25			
			SURVEY	RDL	10/25			
PROFILE SCALE			FIELD MGR	<i>[Signature]</i>	<i>11/04/25</i>			
HORIZONTAL:			PROJECT MGR	<i>[Signature]</i>	<i>11/04/25</i>			
VERTICAL:			LEAD ENGR	<i>[Signature]</i>	<i>11/25</i>			
RECOMMENDED			DESIGN MANAGER	<i>[Signature]</i>	<i>11-25</i>			
FILE:	1400405-C-Summaries 02.dgn						DATE:	OCTOBER 2025
ATLAS PAGE NO.:	172, 173						SHEET	10 OF 54 SHEETS



STRIPING PLAN NO.	ALIGNMENT	STATION	TO	STATION	TRAFFIC STRIPE (PLASTIC)				
					(4" WIDE)	(8" WIDE)	(24" WIDE)	(PLASTIC) (ARROWS)	
					855(A)	855A)	855(A)	855(B)	
					WHITE	YELLOW	YELLOW	WHITE	EA
1	E. PINE ST.	13+07.10	-	32+00.00	2,073	3,662	207	40	0
2	E. PINE ST.	32+00.00	-	61+47.00	6,885	6,673	243	144	6
TOTALS					8,958	10,335	450	184	6



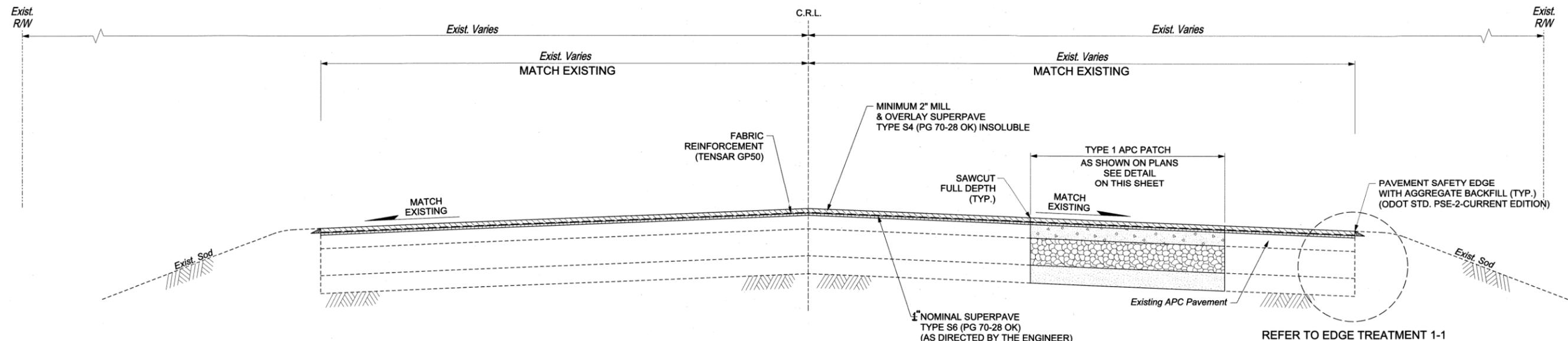
SUMMARIES
(2 OF 2)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

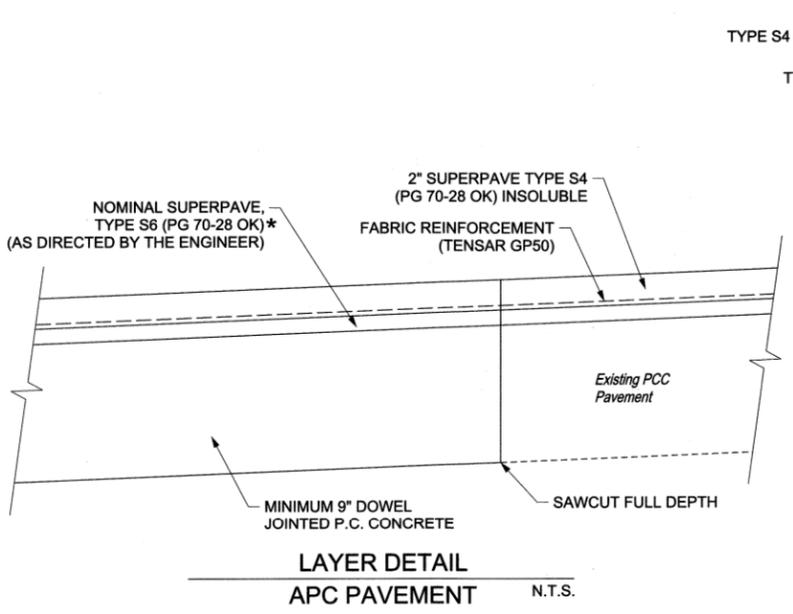


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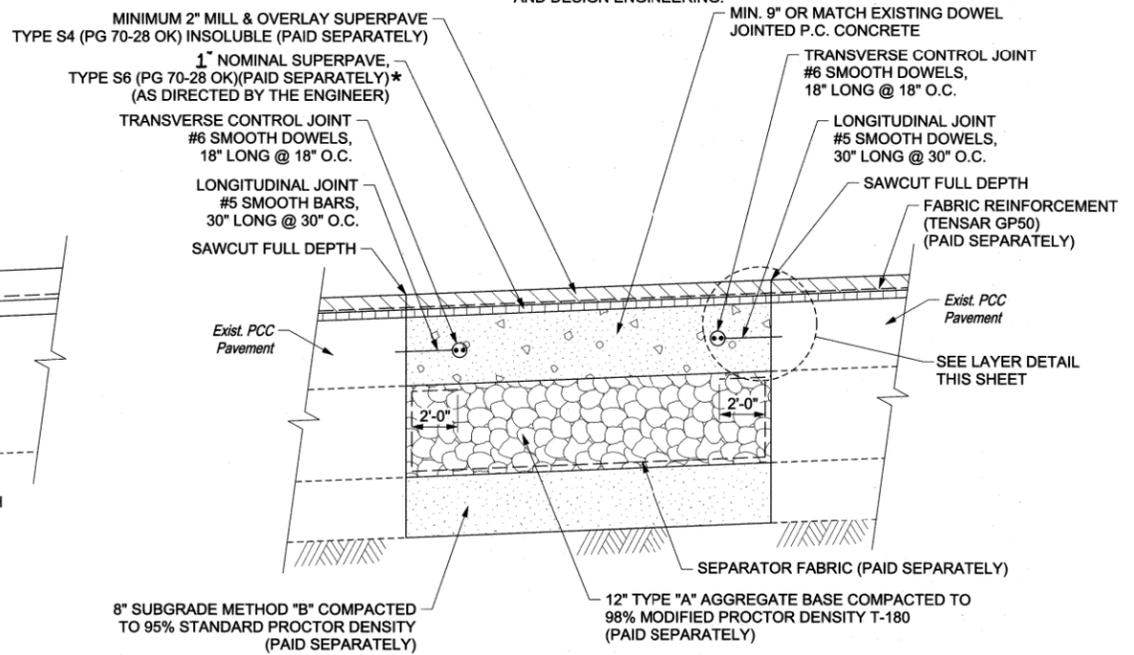
1 TYPICAL SECTION
 MILL & OVERLAY WITH TYPE 1 APC PATCH
 E. PINE ST. - STA. 13+07.10 TO STA. 25+20.21
 N.T.S.

NOTE: PATCH QUANTITIES AND LOCATIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FIELD AND DESIGN ENGINEERING.



PATCH NOTES:

- PATCH 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 (PAID SEPARATELY):
- A. UNCLASSIFIED EXCAVATION (CY)
 - B. SUBGRADE METHOD B (SY)
 - C. SEPARATOR FABRIC (SY)
 - D. AGGREGATE BASE (TYPE A)
 - E. ASPHALT CONCRETE LEVELING COURSE SUPERPAVE, TYPE S6 (PG 70-28 OK)(TON)
 - F. FABRIC REINFORCEMENT (SY)
 - G. ASPHALT CONCRETE SURFACE COURSE SUPERPAVE, TYPE S4 (PG 70-28 OK)(TON)

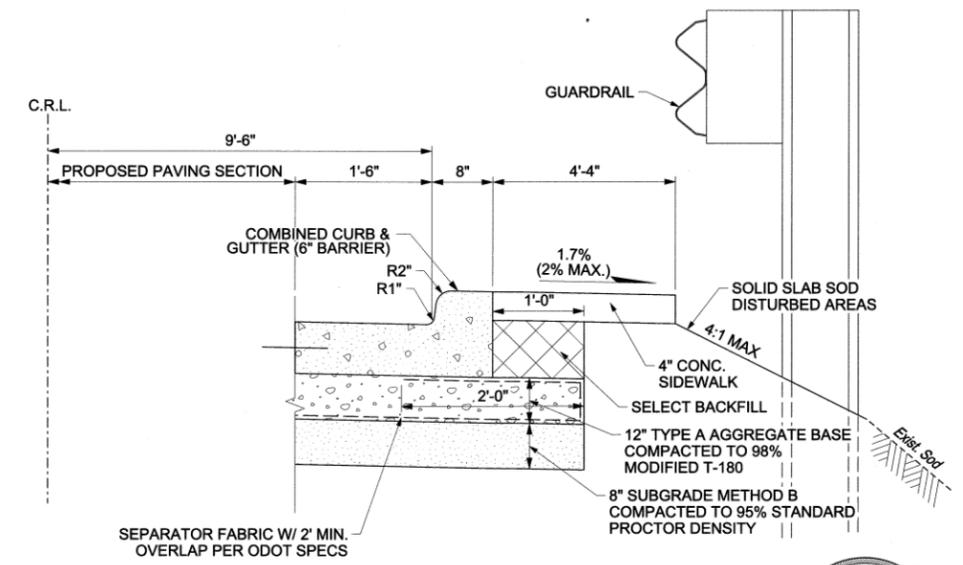


TYPE 1 APC PATCH DETAIL
 ARTERIAL N.T.S.

- GENERAL NOTES:**
- JOINT LAYOUT SHALL BE IN ACCORDANCE WITH CITY OF TULSA STANDARD DRAWINGS NO. 726 & NO. 727, AS FEASIBLE.
- MATCH EXISTING JOINTS WITH ADJUSTMENTS, AS NEEDED, AT DIRECTION OF ENGINEER.

TO BE BACKFILLED & COMPACTED AS PART OF FINISHING OPERATIONS. COST TO BE INCLUDED IN PRICE BID FOR 609(B), COMBINED CURB & GUTTER (6" BARRIER)

* SUPERPAVE TYPE S6 LEVELING COURSE SHALL BE USED AT THE DISCRETION OF THE FIELD ENGINEER PRIOR TO PLACING THE FABRIC REINFORCEMENT AND MAY BE OMITTED IN ITS ENTIRETY.



EDGE TREATMENT 1-1
 E. PINE ST. - STA. 24+73.09 TO STA. 25+20.51
 N.T.S.



TYPICAL SECTIONS
 (1 OF 2)

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

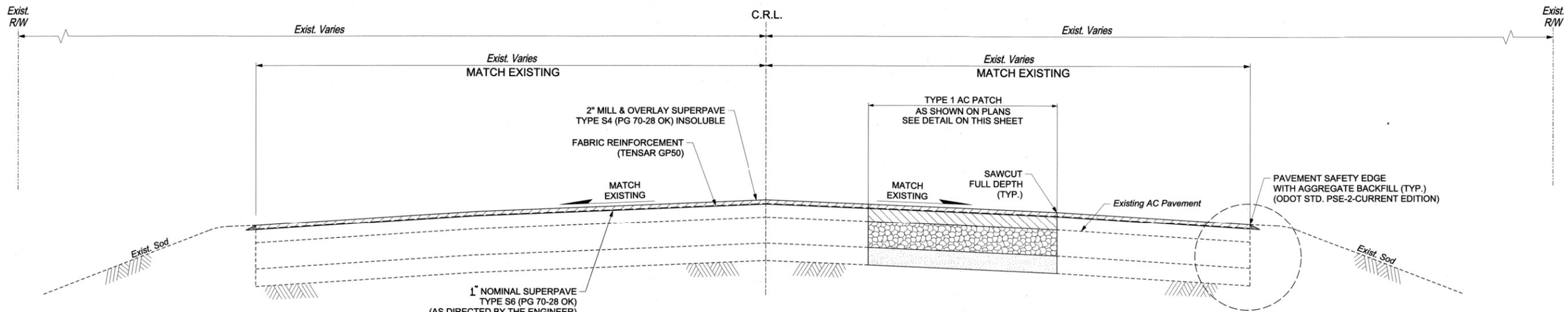
CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= NA	DESIGNED	KLE	10/25	 KRISTI ERICKSON CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	Paul	12/25	
			HORIZONTAL:	PROJECT MGR	MED	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
				RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			

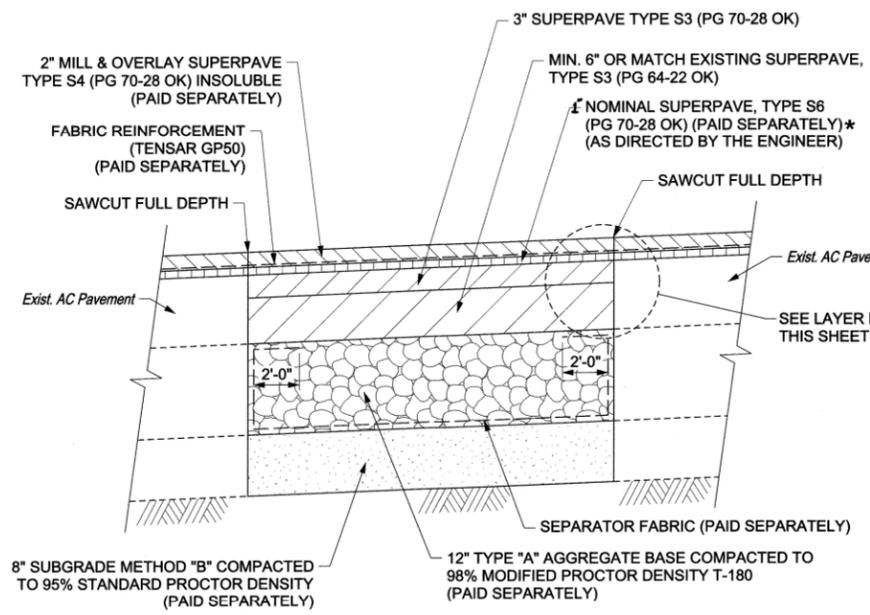
FILE: 1400405-C-TypSect 01.dgn
 ATLAS PAGE NO.: 172, 173
 DATE: OCTOBER 2025
 SHEET 11 OF 54 SHEETS



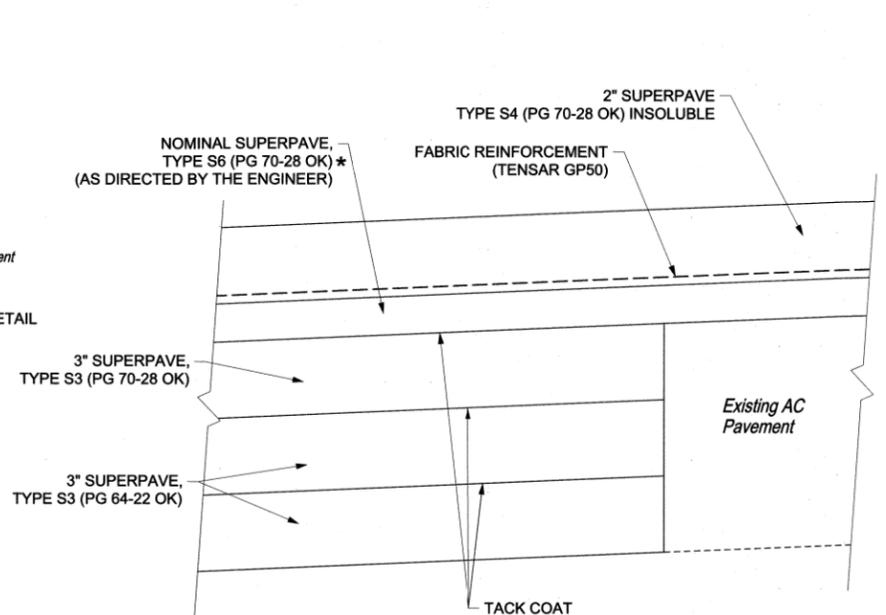


TYPICAL SECTION
MILL & OVERLAY WITH TYPE 1 AC PATCH
E. PINE ST. - STA. 28+52.37 TO STA. 61+11.40
 NOTE: PATCH QUANTITIES AND LOCATIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FIELD AND DESIGN ENGINEERING.
 N.T.S.

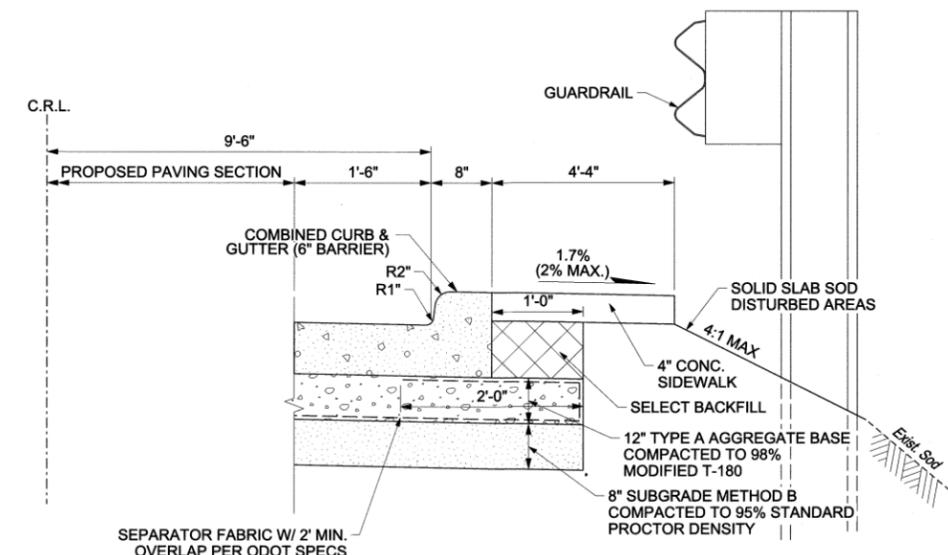
REFER TO EDGE TREATMENT 2-1



TYPE 1 AC PATCH DETAIL
ARTERIAL
 N.T.S.



LAYER DETAIL
AC PAVEMENT
 N.T.S.



EDGE TREATMENT 2-1
E. PINE ST. - STA. 28+52.37 TO STA. 28+57.37
 N.T.S.



* SUPERPAVE TYPE S6 LEVELING COURSE SHALL BE USED AT THE DISCRETION OF THE FIELD ENGINEER PRIOR TO PLACING THE FABRIC REINFORCEMENT AND MAY BE OMITTED IN ITS ENTIRETY.

SEE PATCH NOTES AND GENERAL NOTES ON SHEET 11, TYPICAL SECTIONS



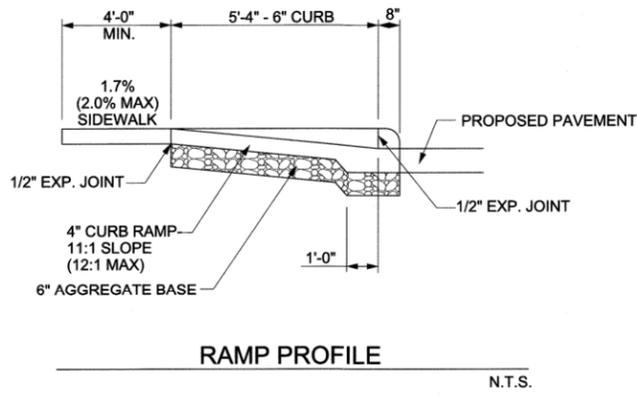
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			SURVEY	RDL		10/25	
			FIELD MGR	RM	11/04/25		
			PROJECT MGR	RLD	11/04/25		
			LEAD ENGR	EAS	11-2025		
			RECOMMENDED				
			DESIGN MANAGER	HAS	11-25		

TYPICAL SECTIONS
 (2 OF 2)
 ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z
 CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

BENHAM Design, LLC
 15 W 6th St, Suite 900
 Tulsa, Oklahoma 74119
 (918) 492-1800
 a Haskell Company

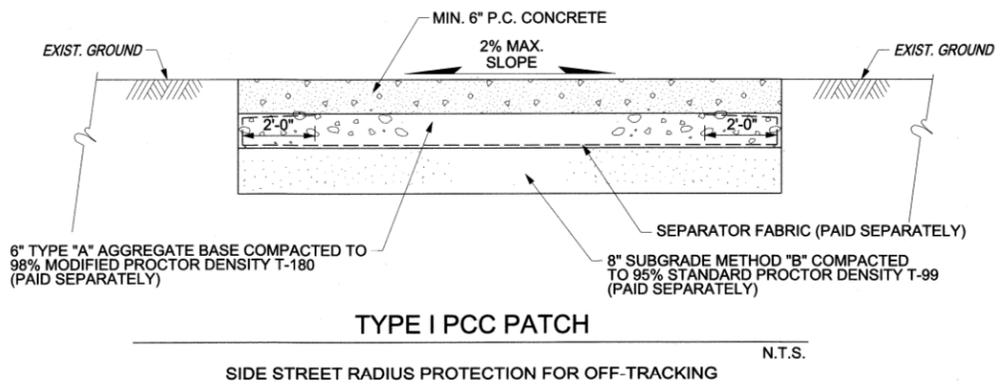
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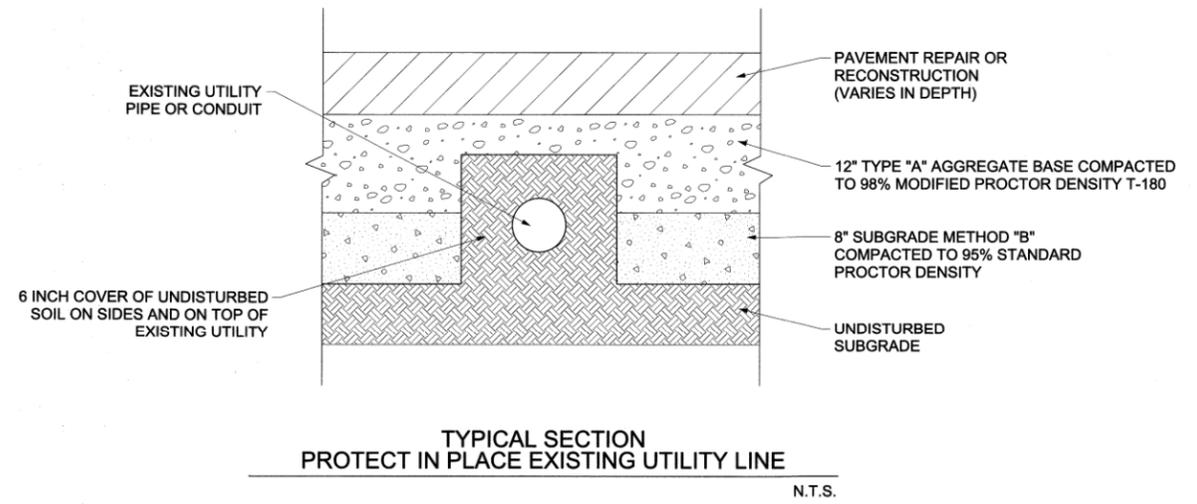


CURB RAMP NOTES:

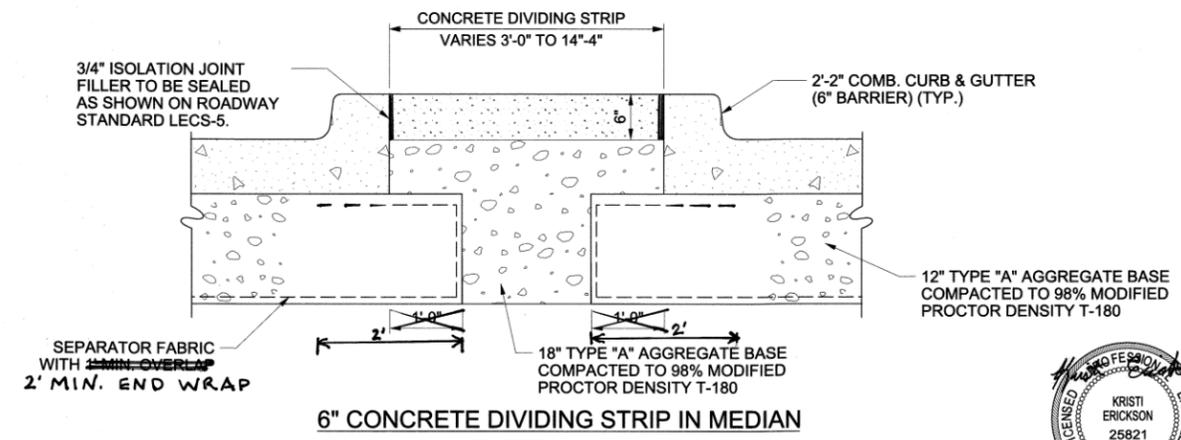
- EXCAVATION, BACKFILL, EXPANSION JOINT MATERIAL, SEALERS AND OTHER RELATED MISCELLANEOUS ITEMS WILL NOT BE PAID FOR SEPARATELY BUT THE COST THEREOF SHALL BE INCLUDED IN THE COST OF CURB RAMP.
- SURFACE TREATMENT OF THE RAMP SHALL BE THAT OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPES OF THE RAMP.
- AGGREGATE BASE SHALL BE PAID FOR SEPARATELY AND IS ESTIMATED AT 2.4 C.Y. FOR EACH CURB RAMP AT CORNER LOCATIONS.
- JOINT SEALER SHALL MEET THE REQUIREMENTS OF SECTIONS 701.08B AND 701.08E.



NOTE: CONTRACTOR SHALL DOWEL INTO EXISTING CONCRETE, IF TYING TO PAVEMENT.



NOTE: QUICK SET FLOWABLE FILL MAY BE REQUIRED ABOVE OR ALONGSIDE EXISTING UTILITY LINES TO PROVIDE ADDITIONAL COVER/PROTECTION. THIS DETERMINATION WILL BE MADE ON A CASE BY CASE BASIS IN THE FIELD AND COORDINATED BETWEEN FIELD ENGINEER, UTILITY COORDINATION, AND THE CONTRACTOR.



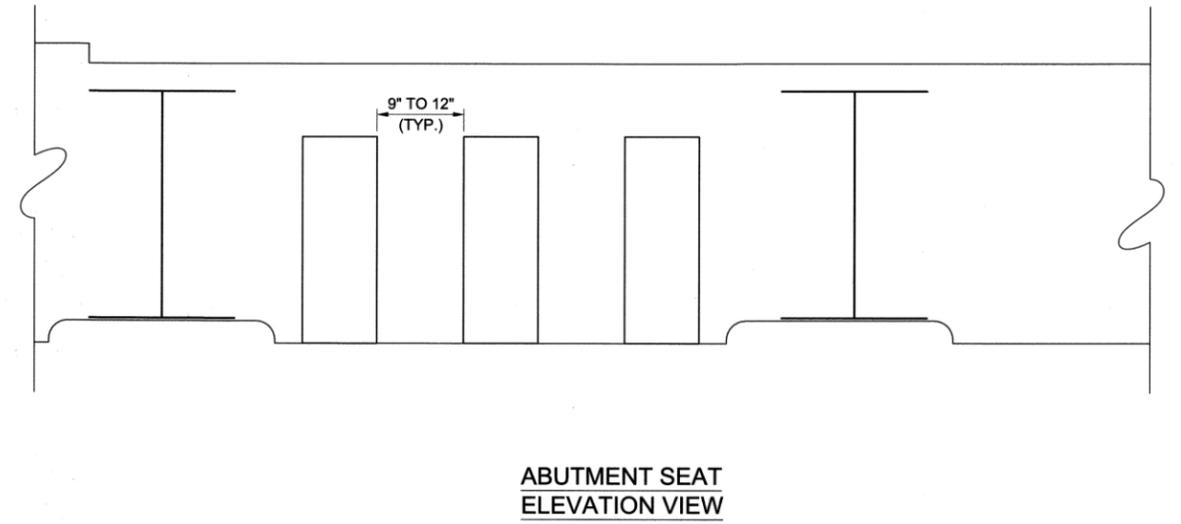
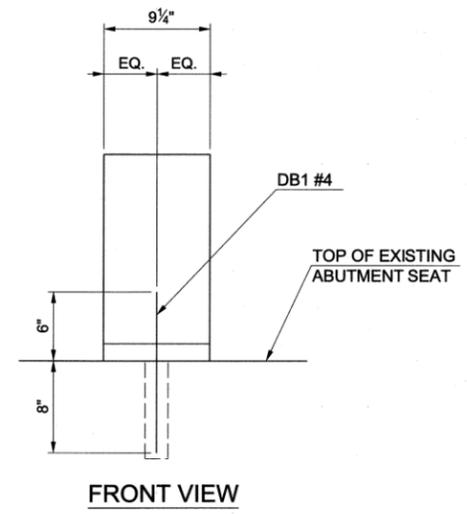
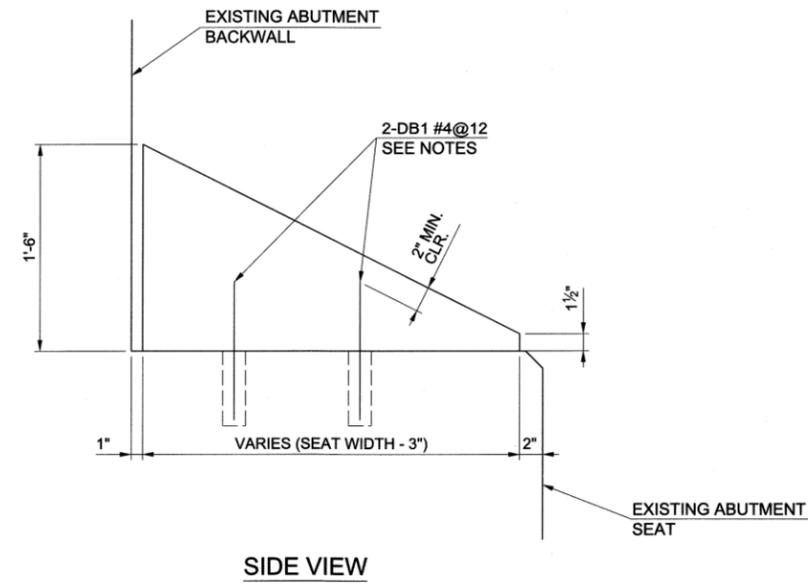
MISCELLANEOUS DETAILS
 ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z
 CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

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 15 W 6th St, Suite 900
 Tulsa, Oklahoma 74119
 (918) 492-1800
 a Haskell Company

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= NA	DESIGNED	KLE	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Zosef</i>	11/04/25	
			HORIZONTAL:	PROJECT MGR	<i>MFD</i>	11/04/25	
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			1"= NA	RECOMMENDED	HAS	11-2-025	
				DESIGN MANAGER			CITY ENGINEER
							DATE: OCTOBER 2025
							SHEET 13 OF 54 SHEETS



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ANTI-LOITERING DEVICE

NOTES:

- MATERIALS:**
 CONCRETE (CLASS A) F'C = 3 KSI
 REINFORCING STEEL F_y = 60 KSI
- CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS OF ABUTMENT SEAT AND ESTIMATED QUANTITY OF ANTI-LOITERING DEVICES REQUIRED AT EACH BRIDGE PRIOR TO CASTING THE DEVICES. DEVICES SHALL BE SPACED IN A MANNER TO LEAVE 9" TO 12" EDGE-TO-EDGE DISTANCE BETWEEN DEVICES.
- CONTRACTOR SHALL DRILL AND EPOXY GROUT A MINIMUM OF (15XDB) OR AS PER MANUFACTURER'S SPECIFICATIONS, BUT SHALL NOT BE LESS THAN 6" EMBEDMENT INTO ABUTMENT SEAT. ALL COST FOR DRILL AND EPOXY GROUT (INCLUDING DB1 DOWEL BARS) SHALL BE INCLUDED IN THE BID PRICE PER CY OF "CLASS A CONCRETE, SMALL STRUCTURES".
- CONTRACTOR SHALL AVOID EXISTING ABUTMENT SEAT REINFORCING STEEL DURING DRILLING OPERATIONS. COST FOR LOCATING EXISTING REINFORCING STEEL SHALL BE INCLUDED IN THE BID PRICE PER CY OF "CLASS A CONCRETE, SMALL STRUCTURES".
- PRE-CAST ANTI-LOITERING DEVICES SHALL BE CONNECTED TO DB1 BARS EXTENDED ABOVE THE EXISTING ABUTMENT SEAT A MINIMUM OF 6" AND SECURED WITH ODOT-APPROVED EPOXY ADHESIVE, IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- COST OF PREPARING AND CLEANING THE ABUTMENT SEATS PRIOR TO THE INSTALLATION OF THE ANTI-LOITERING DEVICES SHALL BE INCLUDED IN THE BID PRICE PER CY OF "CLASS A CONCRETE, SMALL STRUCTURES".



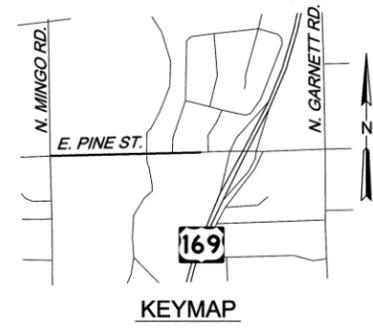
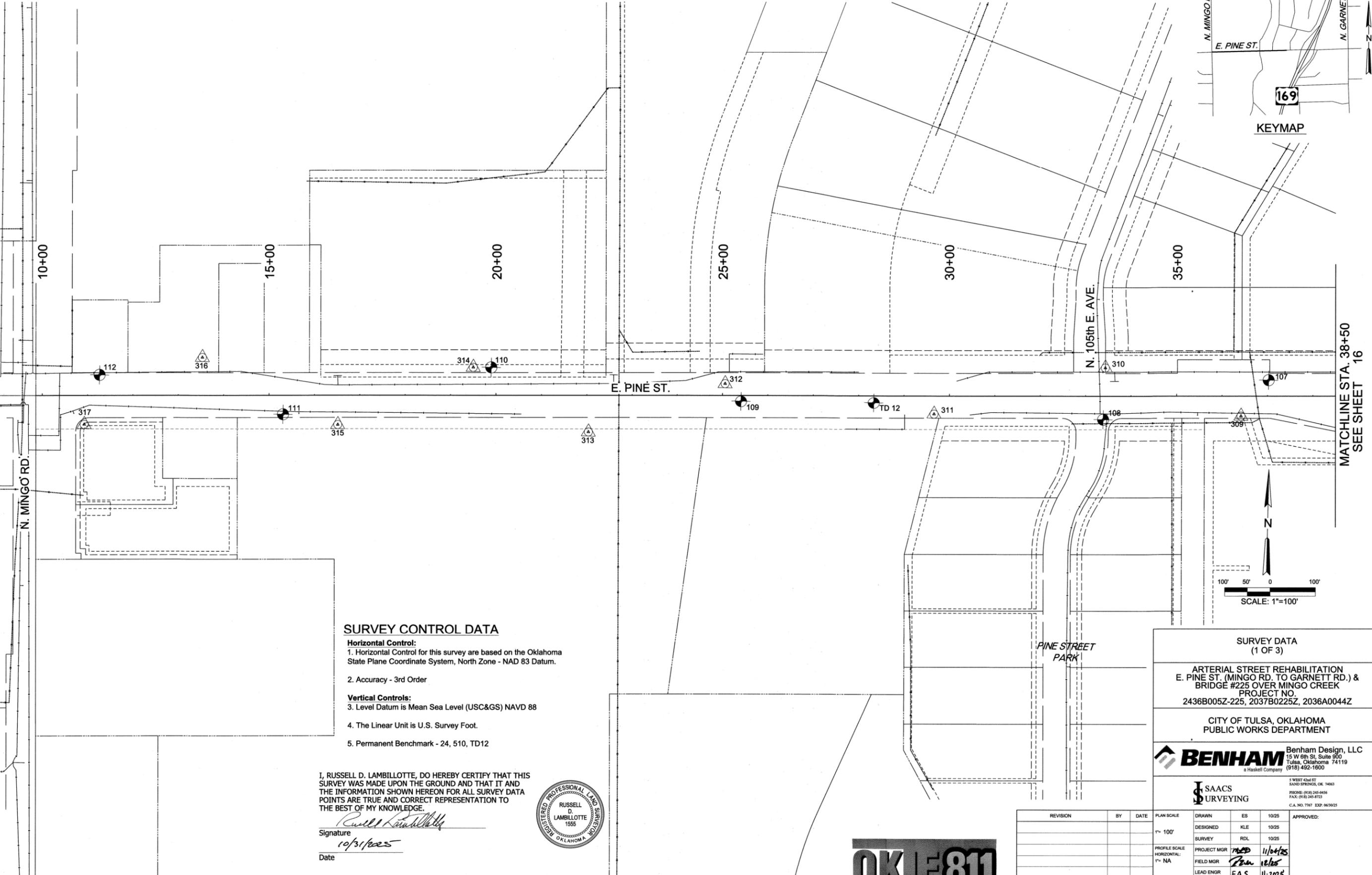
BRIDGE MISCELLANEOUS DETAILS
 ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z
 CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Rou</i>	10/25	
			HORIZONTAL:	PROJECT MGR	<i>MJD</i>	11/01/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
			1"	RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			
							DATE: OCTOBER 2025
							SHEET 14 OF 54 SHEETS



SECTION 30, T20N, R14E



MATCHLINE STA. 38+50
SEE SHEET 16

SURVEY CONTROL DATA

- Horizontal Control:**
 1. Horizontal Control for this survey are based on the Oklahoma State Plane Coordinate System, North Zone - NAD 83 Datum.
 2. Accuracy - 3rd Order
- Vertical Controls:**
 3. Level Datum is Mean Sea Level (USC&GS) NAVD 88
 4. The Linear Unit is U.S. Survey Foot.
 5. Permanent Benchmark - 24, 510, TD12

I, RUSSELL D. LAMBILLOTTE, DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE UPON THE GROUND AND THAT IT AND THE INFORMATION SHOWN HEREON FOR ALL SURVEY DATA POINTS ARE TRUE AND CORRECT REPRESENTATION TO THE BEST OF MY KNOWLEDGE.

Signature: *Russell D. Lambillotte*
 Date: 10/31/2025



SECTION 31, T20N, R14E

SURVEY DATA (1 OF 3)

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
 15 W 8th St, Suite 900
 Tulsa, Oklahoma 74119
 (918) 492-1800

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	DATE	APPROVED:
			1" = 100'	DESIGNED	KLE	10/25	 J. SAACS SURVEYING CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	PROJECT MGR	MED	11/04/25	
			HORIZONTAL:	FIELD MGR	Zan	12/25	
			1" = NA	LEAD ENGR	EAS	11-2025	
			VERTICAL:	RECOMMENDED	HAS	11-25	
			1" = NA	DESIGN MANAGER			
FILE: 1400405-C-Survey Data 01.dgn							DATE: OCTOBER 2025
ATLAS PAGE NO.: 76, 77, 115, 116, 162, 163, 217, 218, 280, 281							SHEET 15 OF 54 SHEETS



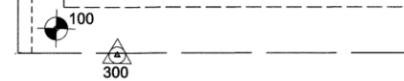
SECTION 30, T20N, R14E



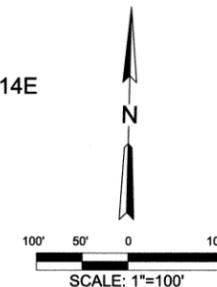
KEYMAP

SECTION 29, T20N, R14E

N. GARNETT RD.



SECTION 32, T20N, R14E



SURVEY DATA
(2 OF 3)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

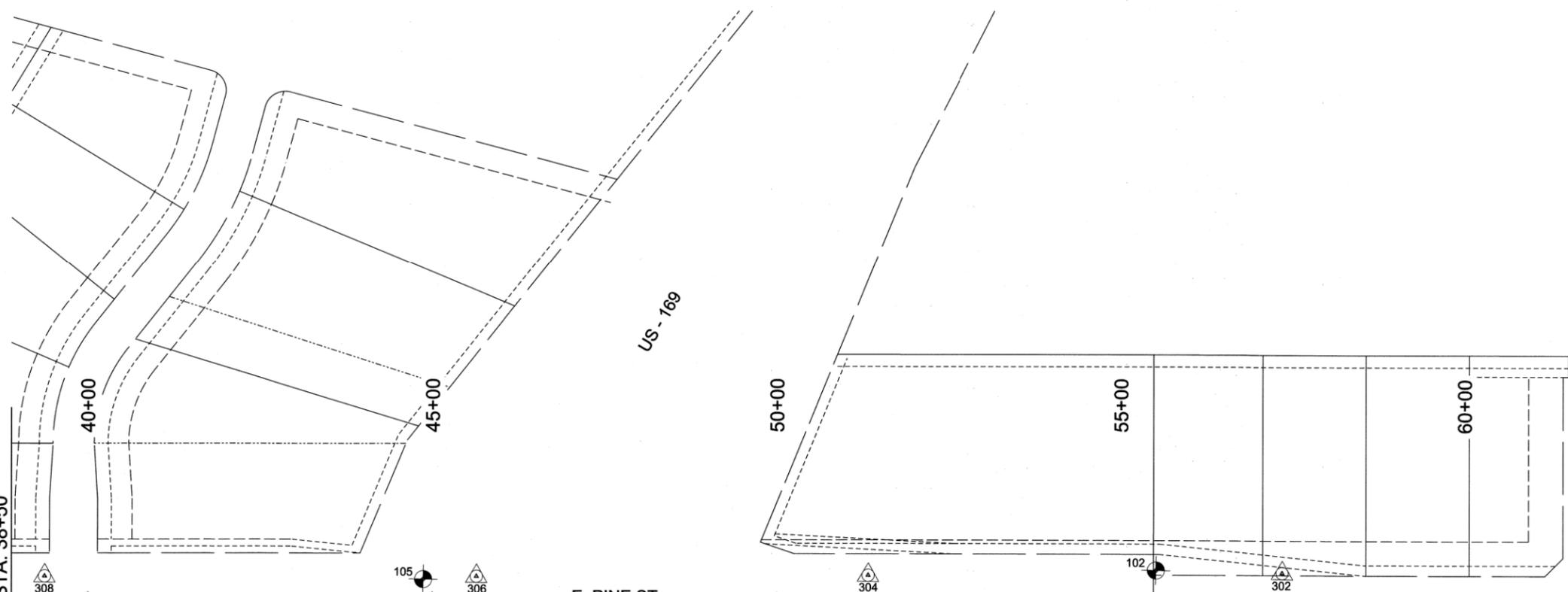
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
15 W 6th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1600
a Haskell Company

ISAACS
SURVEYING
5 WEST 42nd ST
SANB SPRINGS, OK 74063
PHONE: (918) 243-0836
FAX: (918) 243-8723
C.A. NO. 7767 EXP. 06/30/25

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	DATE	APPROVED:
			1"= 100'	DESIGNED	KLE	10/25	 CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	PROJECT MGR	MED	11/01/25	
			HORIZONTAL:	FIELD MGR	Russell	12/16/25	
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			FILE: 1400405-C-Survey Data 02.dgn				DATE: OCTOBER 2025
			ATLAS PAGE NO.: 76, 77, 115, 116, 162, 163, 217, 218, 280, 281				SHEET 16 OF 54 SHEETS

SEE SHEET 15
MATCHLINE STA. 38+50



E. PINE ST.

US - 169

40+00

45+00

50+00

55+00

60+00

106

307

305

104

103

303

101

301

SECTION 31, T20N, R14E

SURVEY CONTROL DATA

Horizontal Control:

1. Horizontal Control for this survey are based on the Oklahoma State Plane Coordinate System, North Zone - NAD 83 Datum.

2. Accuracy - 3rd Order

Vertical Controls:

3. Level Datum is Mean Sea Level (USC&GS) NAVD 88

4. The Linear Unit is U.S. Survey Foot.

5. Permanent Benchmark - 24, 510, TD12

I, RUSSELL D. LAMBILLOTTE, DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE UPON THE GROUND AND THAT IT AND THE INFORMATION SHOWN HEREON FOR ALL SURVEY DATA POINTS ARE TRUE AND CORRECT REPRESENTATION TO THE BEST OF MY KNOWLEDGE.

Signature

10/31/2025
Date



Onsite Vertical Control				
PNTNO	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	435555.664	2602742.122	654.806	BM \ CUT X ON CURB
101	435439.090	2602381.110	643.669	BM \ CUT X NW CORNER WM PAD
102	435519.366	2602002.190	633.499	BM \ CUT X ON CURB
103	435418.496	2601668.729	626.033	BM \ CUT X ON CURB
104	435397.677	2601308.741	617.049	BM \ CUT X CENTER HW
105	435481.927	2600938.076	611.948	BM \ CUT X CENTER HW
106	435367.611	2600572.057	612.454	BM \ CUT X ON CURB
107	435457.831	2600154.222	613.311	BM \ CUT X ON CURB
108	435362.184	2599792.100	613.645	BM \ CUT X ON CURB
109	435384.012	2598993.747	616.548	BM \ CUT X SOUTH SIDE NW CORNER BRIDGE
110	435447.208	2598441.042	613.660	BM \ 100D S FACE 10IN CATALPA
111	435332.916	2597984.557	610.126	BM \ CUT X SW CORNER HW
112	435412.206	2597578.488	617.208	BM \ CUT X ON CURB

Onsite Horizontal and Vertical Control				
PNTNO	NORTHING	EASTING	ELEVATION	DESCRIPTION
300	435528.283	2602809.409	654.377	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
301	435439.802	2602493.821	646.673	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
302	435519.804	2602185.322	638.336	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
303	435414.094	2601884.566	629.459	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
304	435502.514	2601583.551	623.501	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
305	435398.391	2601273.514	617.333	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
306	435487.629	2601015.223	614.492	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
307	435382.087	2600692.196	611.731	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
308	435474.791	2600388.176	613.681	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
309	435376.458	2600095.089	611.856	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
310	435477.316	2599794.427	613.809	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
311	435366.082	2599419.529	615.503	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
312	435422.72	2598957.855	614.557	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
313	435308.505	2598657.887	611.137	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
314	435446.504	2598401.474	612.617	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
315	435312.631	2598105.702	607.534	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
316	435455.491	2597804.111	611.175	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
317	435301.45	2597546.985	618.683	SCP \ 3/8 Iron Pin w CA 7767 plastic cap
318	435412.435	2597232.352	621.656	SCP \ 3/8 Iron Pin w CA 7767 plastic cap

Offsite Horizontal and Vertical Control				
PNTNO	NORTHING	EASTING	ELEVATION	DESCRIPTION
24	435517.974	2602538.348	646.568	ADS \ 5/8IN REBAR-1 1/2IN ALUMINUM CAP-FLUSH-SET IN CONCRETE-STAMPED 24, SET N.W. OF THE INTERSECTION OF PINE ST, AND GARNETT RD.
510	435334.209	2594694.795	628.677	ADS \ 5/8in REBAR-1 1/2in ALUMINUM CAP-FLUSH-STAMPED 510, SET N.W. OF THE INTERSECTION OF PINE ST, AND 89TH E. AVE.
TD12	435387.797	2599285.986	616.7	ADS \ 2IN ALUM CAP STAMPED TD 12

I, RUSSELL D. LAMBILLOTTE, DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE UPON THE GROUND AND THAT IT AND THE INFORMATION SHOWN HEREON FOR ALL SURVEY DATA POINTS ARE TRUE AND CORRECT REPRESENTATION TO THE BEST OF MY KNOWLEDGE.

Signature *Russell Lambillotte*
 Date 10/31/2025



SURVEY DATA
(3 OF 3)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
15 W 6th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1800

ISAACS SURVEYING
5 WEST 42nd ST
SAND SPRINGS, OK 74063
PHONE: (918) 245-9656
FAX: (918) 245-8723
C.A. NO. 7767 EXP. 06/30/25

PLAN SCALE	DRAWN	ES	10/25	APPROVED:
1"= NA	DESIGNED	KLE	10/25	<u><i>T. J. [Signature]</i></u> CITY ENGINEER
	SURVEY	RDL	10/25	
PROFILE SCALE	PROJECT MGR	<i>MSD</i>	11/04/25	
1"= NA	FIELD MGR	<i>Zema</i>	02/16/25	
	LEAD ENGR	<i>EAS</i>	11-2025	
VERTICAL:	RECOMMENDED	<i>HAS</i>	11-2025	
1"= NA	DESIGN MANAGER			

FILE: 1400405-C-Survey Data 03.dgn
 ATLAS PAGE NO.: 76, 77, 115, 116, 162, 163, 217, 218, 280, 281
 DATE: OCTOBER 2025
 SHEET 17 OF 54 SHEETS



REVISION	BY	DATE

STORM WATER MANAGEMENT PLAN

SITE DESCRIPTION

EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: E. PINE ST. BETWEEN MINGO RD. & GARNETT RD.

PROJECT DESCRIPTION: ARTERIAL STREET REHABILITATION

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

- 1) AS GRADING OPERATIONS PROCEED, INSTALL TEMPORARY CONTROL DEVICES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THESE DEVICES SHALL BE MAINTAINED AS REQUIRED BY THE CITY OF TULSA STANDARD SPECIFICATIONS AND THE WEEKLY INSPECTION REPORTS PER PHASE.
- 2) PLACE PERMANENT SOLID SLAB SODDING PER PHASE.

SOIL TYPE: CLAY, SHALE, SAND, SILT

TOTAL AREA OF THE CONSTRUCTION SITE: 5.14 AC

ESTIMATED AREA TO BE DISTURBED: EX. PAVEMENT=5.08 AC EX. GRASS=0.06 AC

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 5.08 AC

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 5.11 AC

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.90

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 36°10'37"N 95°51'35"W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: MINGO CREEK

SENSITIVE WATERS OR WATERSHEDS: YES NO

303(d) IMPAIRED WATERS: YES NO

IF YES, LIST IMPAIRMENT: _____

LOCATED IN A TMDL: YES NO

LAKE THUNDERBIRD TMDL: YES NO

MS4 ENTITY YES NO

IF YES, LOCATION: CITY OF TULSA

SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- SOIL RETENTION BLANKET
- PRESERVATION OF EXISTING VEGETATION
- HYDROMULCH / HYDROSEED

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 EXIT
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- 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
- TEMPORARY SEDIMENT REMOVAL
- RIP RAP
- INLET PROTECTION
- TEMPORARY BRUSH SEDIMENT BARRIERS
- SANDBAG BERMS
- TEMPORARY STREAM CROSSINGS
- FLEXAMAT / ARTICULATED CONCRETE BLOCK
- COMPOST FILTER SOCKS
- EROSION CONTROL MATS AND BLANKETS

OFFSITE VEHICLE TRACKING:

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

NOTES:

- * USE CITY OF TULSA STANDARD 126, CONSTRUCTION ENTRANCE

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 INCH 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 STORM WATER 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) FORM AND PERMIT CERTIFICATE 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, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR 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 STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2019 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 MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION, AND STORM WATER POLLUTION PREVENTION
- 221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA. ODEQ, WATER QUALITY DIVISION, NOVEMBER 1, 2023.

ADDITIONAL PERMITS REQUIRED FROM OKLAHOMA WATER RESOURCES BOARD AND/OR MUNICIPALITY FOR USE OF SURFACE, GROUND OR CITY WATER SOURCES FOR ACTIVITIES SUCH AS WATERING.



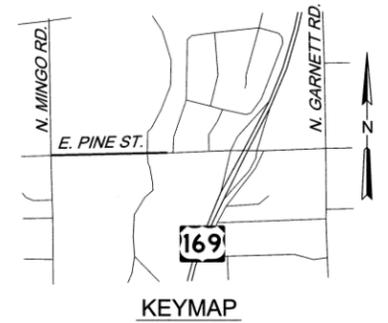
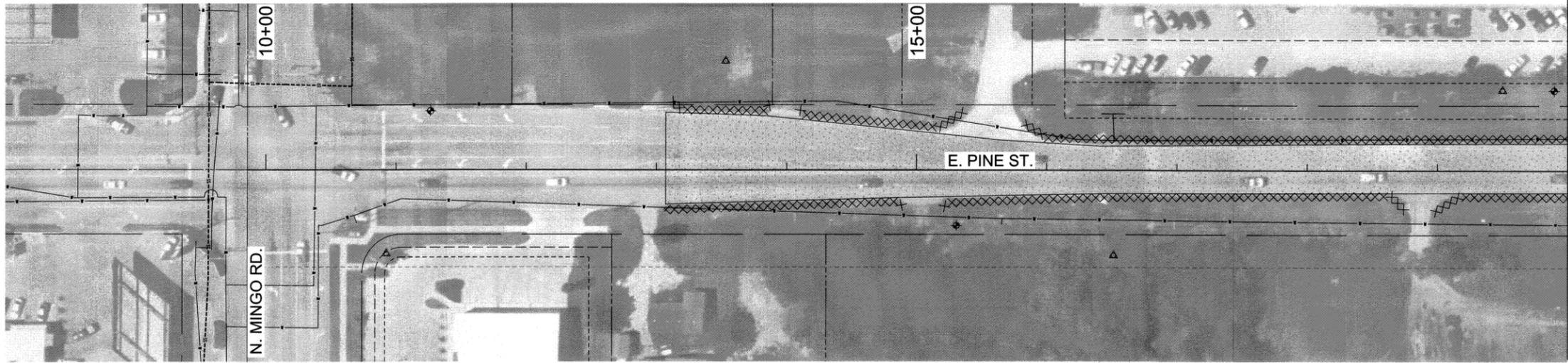
STORMWATER MANAGEMENT PLAN
ARTERIAL STREET REHABILITATION E. PINE ST. (MINGO RD. TO GARNETT RD.) & BRIDGE #225 OVER MINGO CREEK PROJECT NO. 2436B005Z-225, 2037B0225Z, 2036A0044Z
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT
BENHAM Benham Design, LLC 15 W 6th St, Suite 500 Tulsa, Oklahoma 74119 (918) 492-1600

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
1	NA		DESIGNED	KLE		10/25	
			SURVEY	RDL		10/25	
			PROFILE SCALE HORIZONTAL	FIELD MGR	<i>200</i>	<i>11/25</i>	
			VERTICAL	PROJECT MGR	<i>200</i>	<i>11/25</i>	
				LEAD ENGR	EAS	11-2023	
				RECOMMENDED			
				DESIGN MANAGER	<i>200</i>	<i>11-25</i>	
				FILE: 1400405-C-SMP.dgn			DATE: OCTOBER 2025
				ATLAS PAGE NO.: 172, 173			SHEET 18 OF 54 SHEETS



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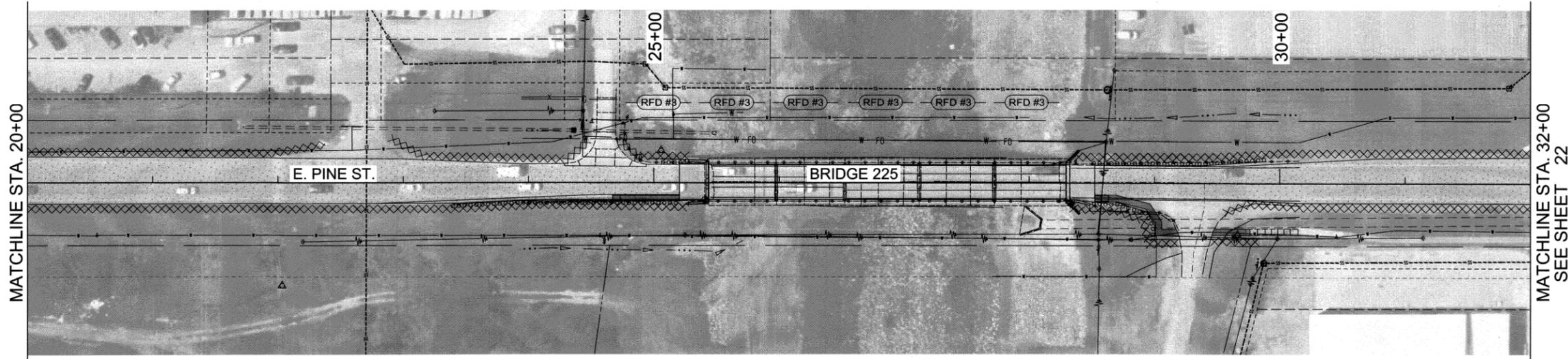
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LEGEND

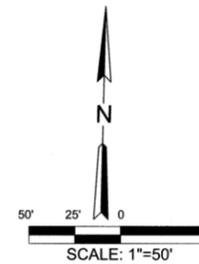
- (RFD #3)— TEMPORARY ROCK FILTER DAM (TYPE 3)
- XXXXXXXXX TEMPORARY SILT FENCE

NOTE:
 TEMPORARY SILT FENCE TO BE
 PLACED AS DETERMINED BY THE
 FIELD ENGINEER.



MATCHLINE STA. 20+00

MATCHLINE STA. 32+00
 SEE SHEET 22



**EROSION CONTROL
 (1 OF 2)**

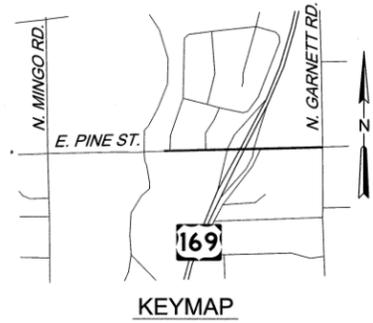
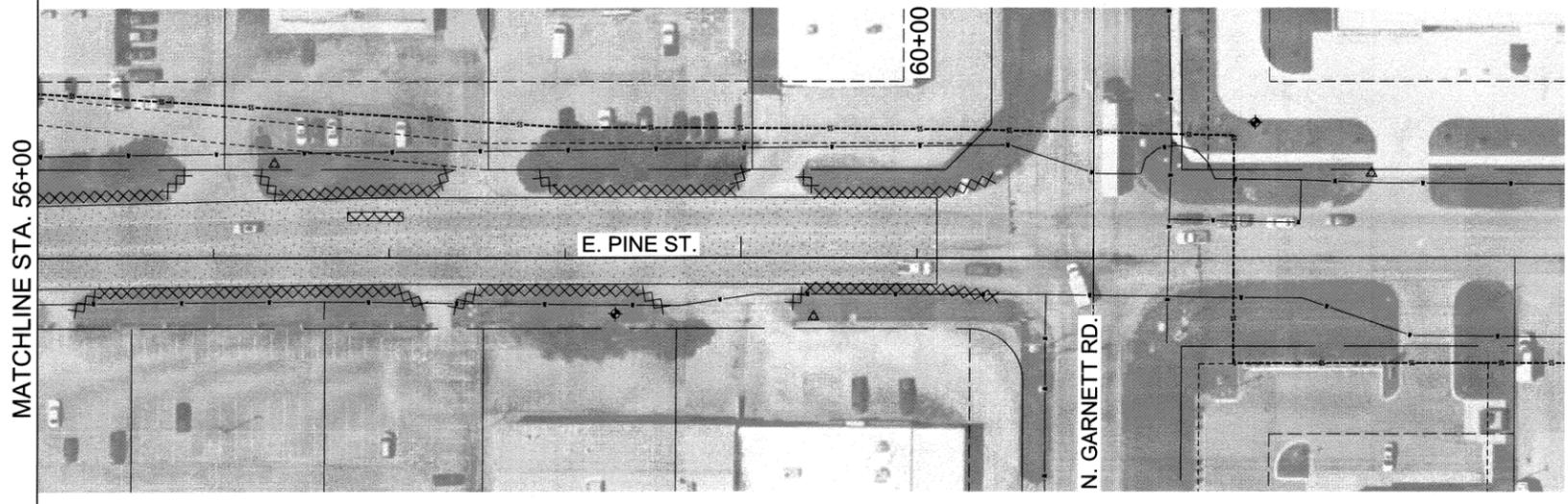
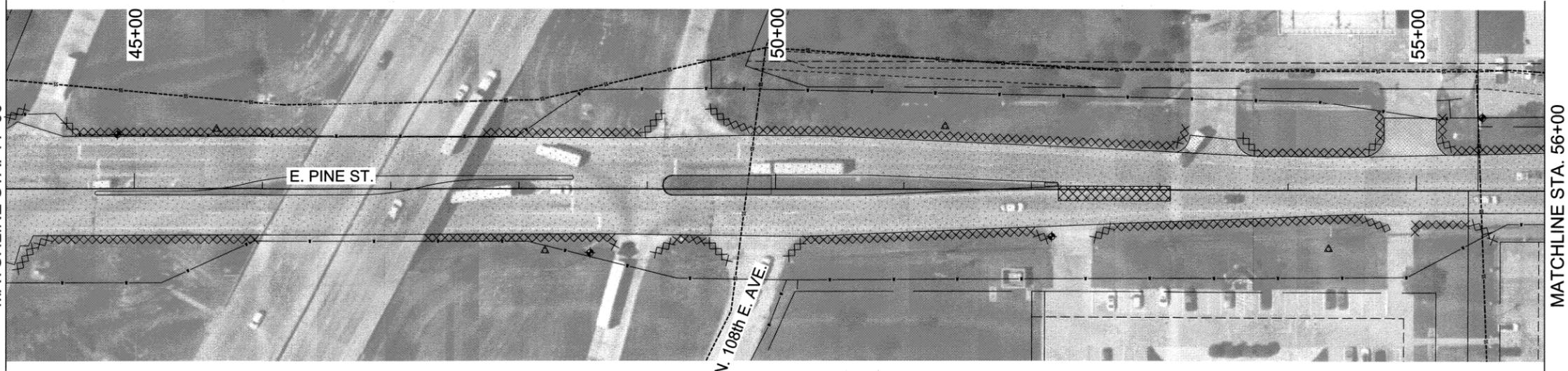
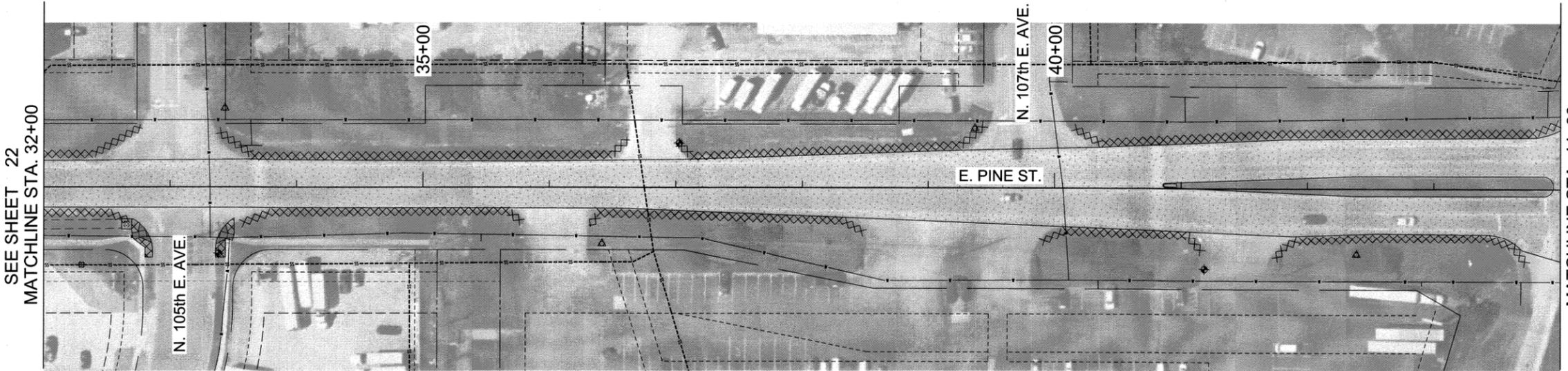
ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT



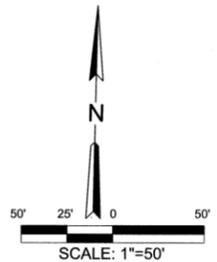
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				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	JRM	10/25	
			HORIZONTAL:	PROJECT MGR	MAD	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
				RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			
			FILE:	1400405-C-Erosion 01.dgn			DATE: OCTOBER 2025
			ATLAS PAGE NO.:	172, 173			SHEET 19 OF 54 SHEETS





- LEGEND**
- RFD #3) TEMPORARY ROCK FILTER DAM (TYPE 3)
 - TEMPORARY SILT FENCE

NOTE:
TEMPORARY SILT FENCE TO BE
PLACED AS DETERMINED BY THE
FIELD ENGINEER.



EROSION CONTROL (2 OF 2)																																																												
ARTERIAL STREET REHABILITATION E. PINE ST. (MINGO RD. TO GARNETT RD.) & BRIDGE #225 OVER MINGO CREEK PROJECT NO. 2436B005Z-225, 2037B0225Z, 2036A0044Z																																																												
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BENHAM Benham Design, LLC 15 W 6th St, Suite 900 Tulsa, Oklahoma 74119 (918) 492-1600																																																												
<table border="1"> <thead> <tr> <th>REVISION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	REVISION	BY	DATE																<table border="1"> <thead> <tr> <th>PLAN SCALE</th> <th>DRAWN</th> <th>ES</th> <th>10/25</th> <th>APPROVED:</th> </tr> </thead> <tbody> <tr> <td>1" = 50'</td> <td>DESIGNED</td> <td>KLE</td> <td>10/25</td> <td rowspan="5" style="text-align: center; vertical-align: middle;"></td> </tr> <tr> <td></td> <td>SURVEY</td> <td>RDL</td> <td>10/25</td> </tr> <tr> <td>PROFILE SCALE</td> <td>FIELD MGR</td> <td><i>Tom</i></td> <td><i>12/18</i></td> </tr> <tr> <td>HORIZONTAL</td> <td>PROJECT MGR</td> <td><i>MED</i></td> <td><i>11/14/25</i></td> </tr> <tr> <td>VERTICAL</td> <td>LEAD ENGR</td> <td>EAS</td> <td><i>11-2025</i></td> </tr> <tr> <td>1" = NA</td> <td>RECOMMENDED</td> <td>HAS</td> <td><i>11-25</i></td> <td>CITY ENGINEER</td> </tr> <tr> <td colspan="4">FILE: 1400405-C-Erosion 02.dgn</td> <td>DATE: OCTOBER 2025</td> </tr> <tr> <td colspan="4">ATLAS PAGE NO.: 172, 173</td> <td>SHEET 20 OF 54 SHEETS</td> </tr> </tbody> </table>	PLAN SCALE	DRAWN	ES	10/25	APPROVED:	1" = 50'	DESIGNED	KLE	10/25			SURVEY	RDL	10/25	PROFILE SCALE	FIELD MGR	<i>Tom</i>	<i>12/18</i>	HORIZONTAL	PROJECT MGR	<i>MED</i>	<i>11/14/25</i>	VERTICAL	LEAD ENGR	EAS	<i>11-2025</i>	1" = NA	RECOMMENDED	HAS	<i>11-25</i>	CITY ENGINEER	FILE: 1400405-C-Erosion 02.dgn				DATE: OCTOBER 2025	ATLAS PAGE NO.: 172, 173				SHEET 20 OF 54 SHEETS
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ATLAS PAGE NO.: 172, 173				SHEET 20 OF 54 SHEETS																																																								

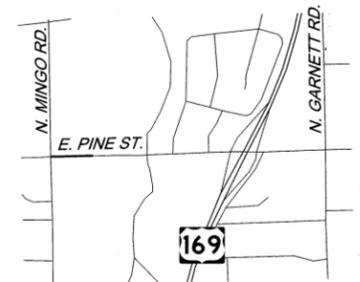
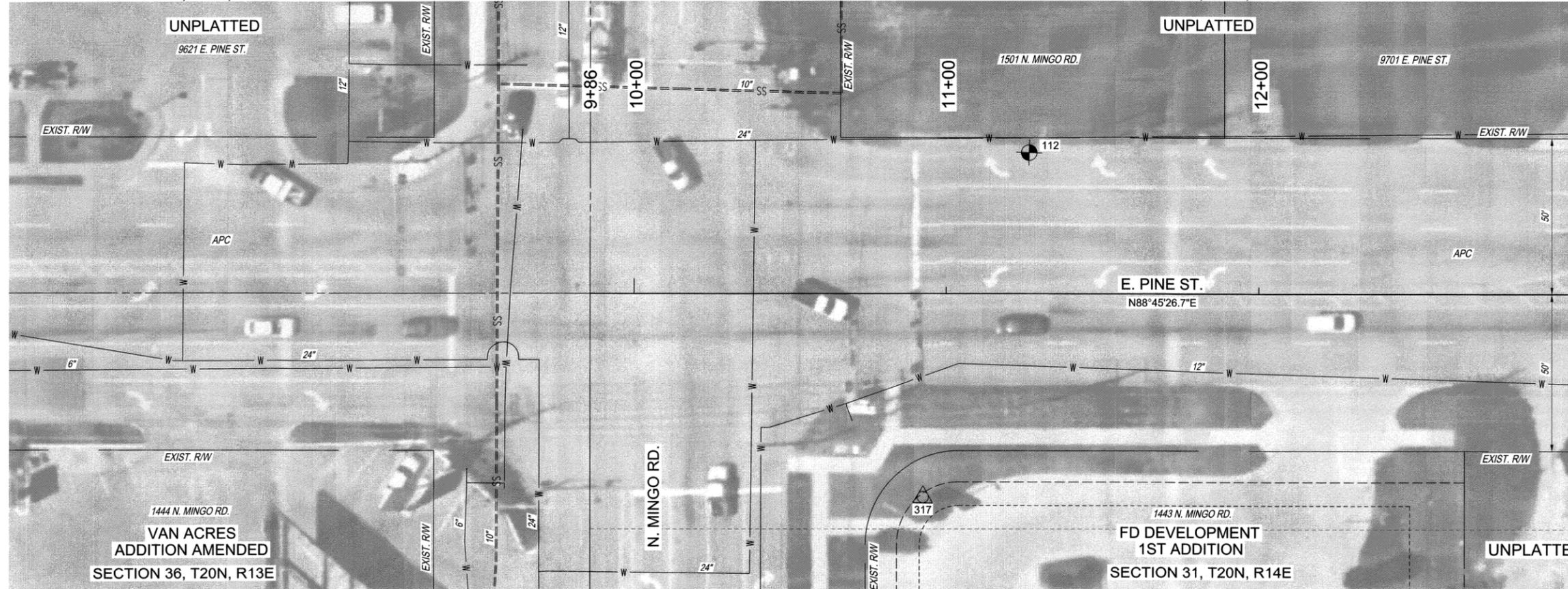


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SECTION 25, T20N, R13E

SECTION 30, T20N, R14E



KEYMAP

LEGEND

- MILL & OVERLAY
- DRIVEWAY
- PATCH
- SIDEWALK
- CURB & GUTTER
- DRIVEWAY NO.
- ① SIDEWALK
- ② TYPE 1 AC PATCH
- ③ REMOVE & REPLACE DRIVE
- ④ CURB & GUTTER
- ⑤ TYPE 1 PCC PATCH (SEE NOTE 3)

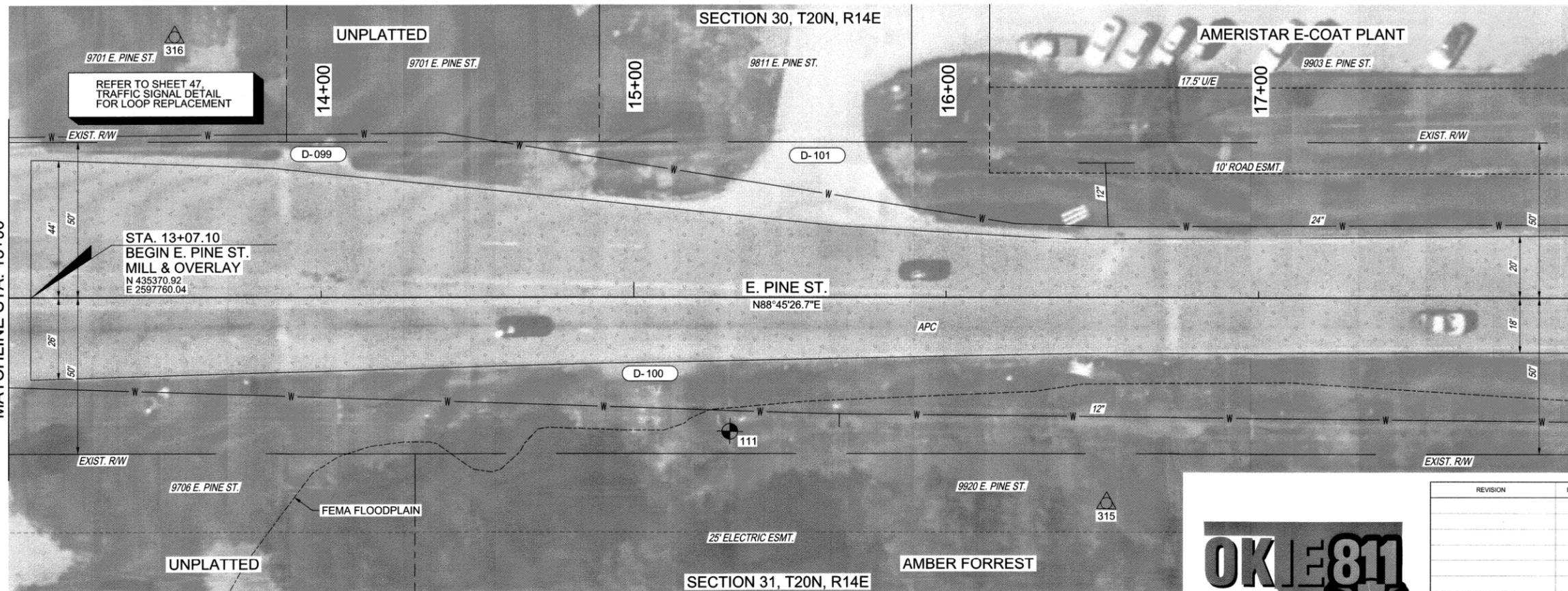
MATCHLINE STA. 13+00

BENCHMARK 111
CUT X SW CORNER HW
STA. 15+30.74, 42.86' RT. E. PINE ST.
N 435332.92, E. 2597984.56, EL. 610.13

BENCHMARK 112
CUT X ON CURB
STA. 11+26.49, 45.22' LT. E. PINE ST.
N 435412.21, E. 2597578.49, EL. 617.21

- NOTES:
1. CONTRACTOR SHALL CONTACT UTILITY OWNERS PRIOR TO CONSTRUCTION TO VERIFY UTILITY LOCATIONS.
 2. ALL EXISTING DRAINAGE STRUCTURES AND DITCHES 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 FOR CLEARING AND GRUBBING.
 3. REFER TO TYPE 1 PCC PATCH DETAIL ON MISCELLANEOUS DETAILS SHEET FOR OFF-TRACKING DETAIL.

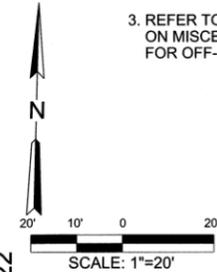
MATCHLINE STA. 13+00



MATCHLINE STA. 18+00
SEE SHEET 22

REFER TO SHEET 47,
TRAFFIC SIGNAL DETAIL
FOR LOOP REPLACEMENT

STA. 13+07.10
BEGIN E. PINE ST.
MILL & OVERLAY
N 435370.92
E 2597760.04



REHABILITATION PLAN
STA. 13+07.10 TO STA. 18+00
E. PINE ST.

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



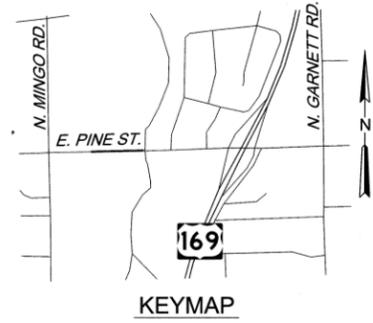
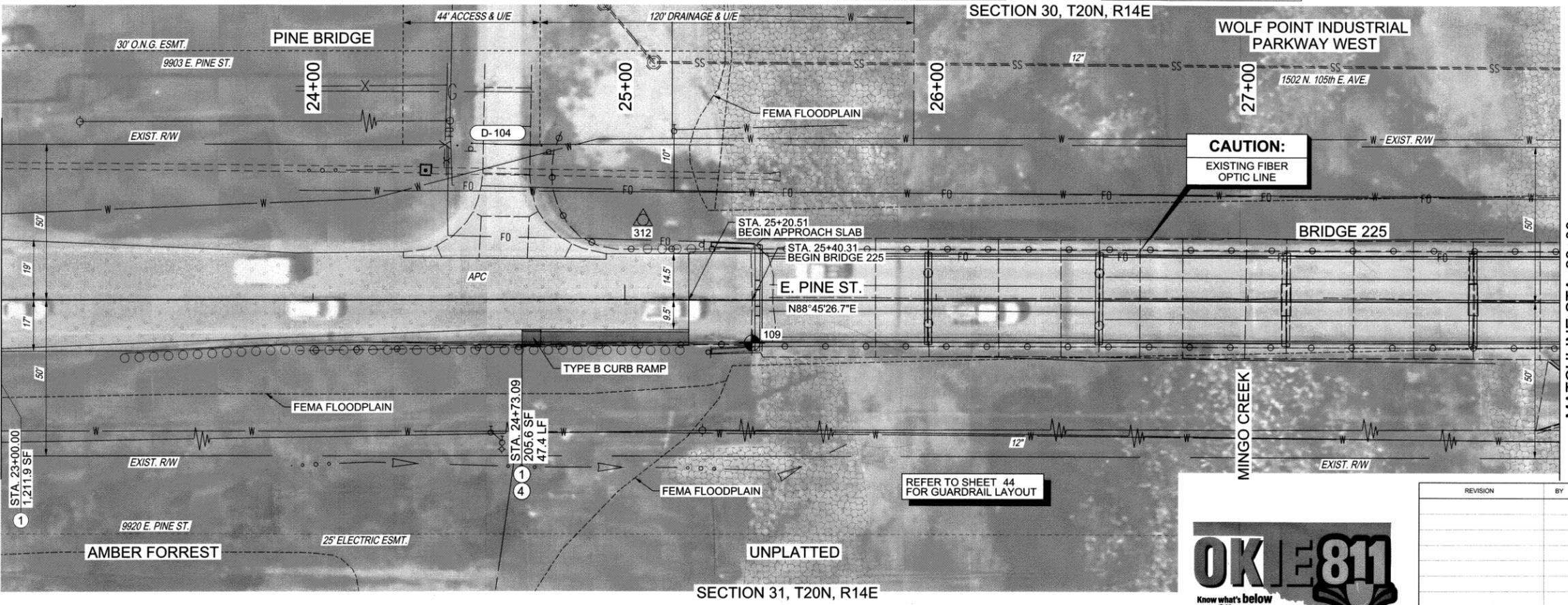
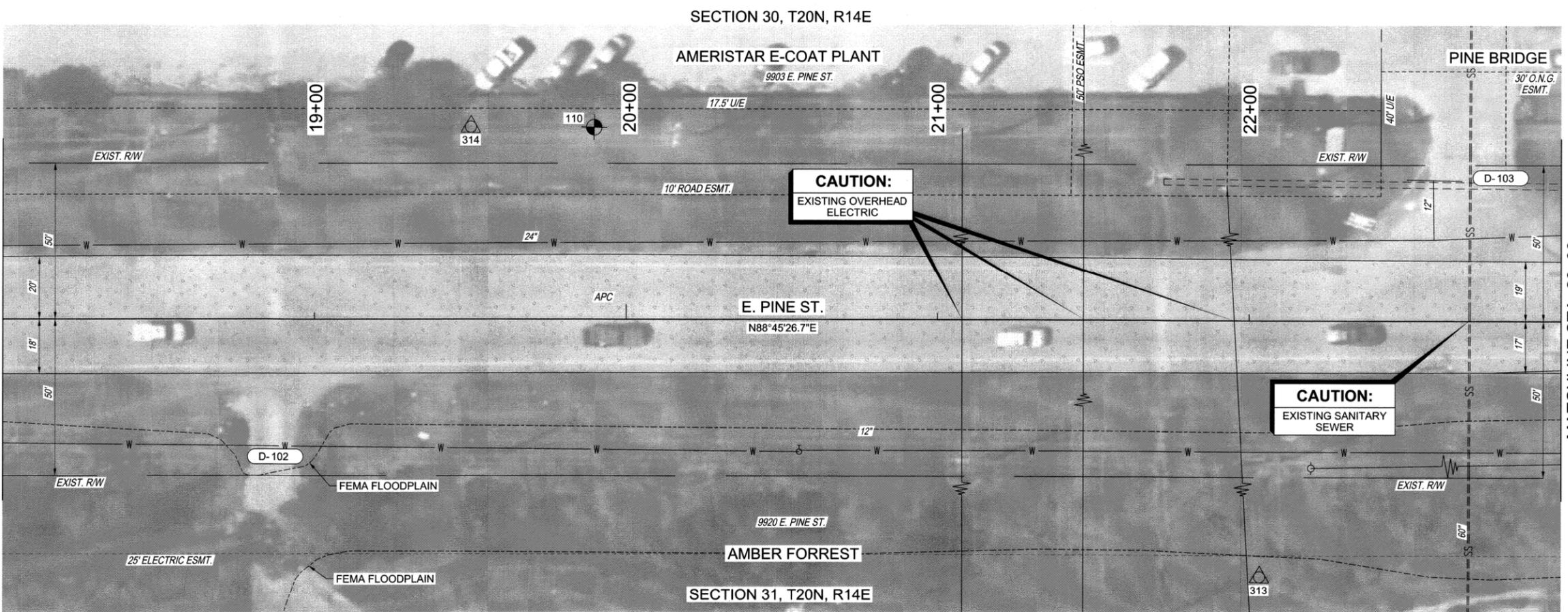
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				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	JRM	11/04/25	
			HORIZONTAL:	PROJECT MGR	MED	11/04/25	
			1"= NA	LEAD ENGR	EAS	11-2025	 KRISTI ERICKSON CITY ENGINEER
			VERTICAL:	RECOMMENDED	HRS	11-25	
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							SHEET 21 OF 54 SHEETS



SECTION 31, T20N, R14E

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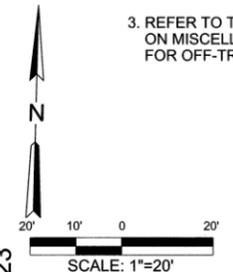
SEE SHEET 21
MATCHLINE STA. 18+00
MATCHLINE STA. 23+00
MATCHLINE STA. 28+00
MATCHLINE STA. 23+00
MATCHLINE STA. 28+00
MATCHLINE STA. 23+00



LEGEND

[Symbol]	MILL & OVERLAY
[Symbol]	DRIVEWAY
[Symbol]	PATCH
[Symbol]	SIDEWALK
[Symbol]	CURB & GUTTER
[Symbol]	DRIVEWAY NO.
①	SIDEWALK
②	TYPE 1 AC PATCH
③	REMOVE & REPLACE DRIVE
④	CURB & GUTTER
⑤	TYPE 1 PCC PATCH (SEE NOTE 3)

- NOTES:**
- CONTRACTOR SHALL CONTACT UTILITY OWNERS PRIOR TO CONSTRUCTION TO VERIFY UTILITY LOCATIONS.
 - ALL EXISTING DRAINAGE STRUCTURES AND DITCHES 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 FOR CLEARING AND GRUBBING.
 - REFER TO TYPE 1 PCC PATCH DETAIL ON MISCELLANEOUS DETAILS SHEET FOR OFF-TRACKING DETAIL.



REHABILITATION PLAN
STA. 18+00 TO STA. 28+00
E. PINE ST.

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC 15 W 6th St, Suite 300 Tulsa, Oklahoma 74119 (918) 492-1600		APPROVED: DATE: OCTOBER 2025
FILE: 1400405-C-Plan02.dgn	ATLAS PAGE NO.: 172, 173	SHEET 22 OF 54 SHEETS



REVISION	BY	DATE

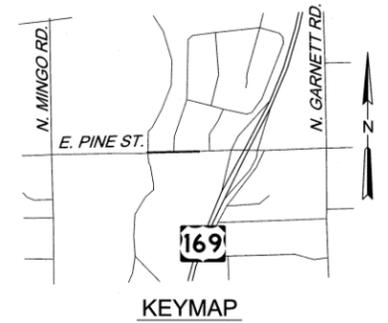
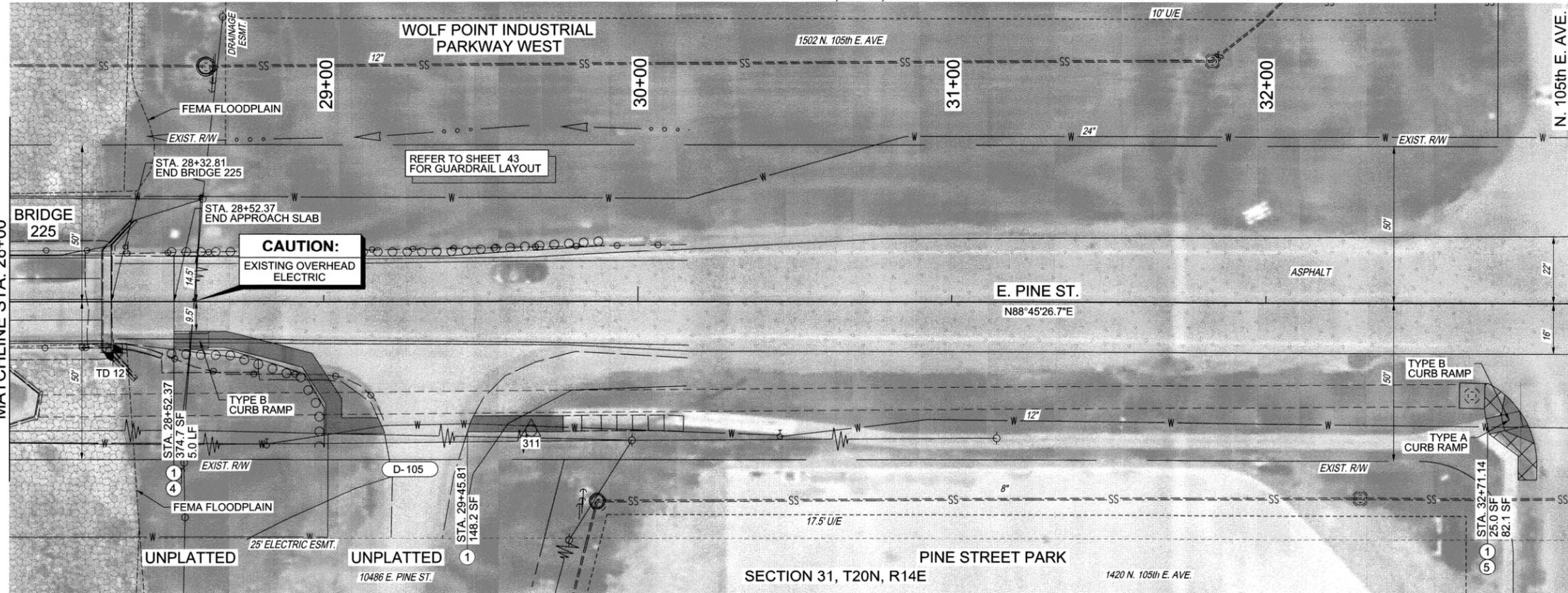
BENCHMARK 109
CUT X SOUTH SIDE NW CORNER BRIDGE
STA. 25+40.80, 13.66' RT. E. PINE ST.
N 435384.01, E. 2598993.75, EL. 616.55

BENCHMARK 110
100D S FACE 10IN CATALPA
STA. 19+89.60, 61.51' LT. E. PINE ST.
N 435447.21, E. 2598441.04, EL. 613.66

CAUTION:
EXISTING FIBER OPTIC LINE

REFER TO SHEET 44
FOR GUARDRAIL LAYOUT

SECTION 30, T20N, R14E



LEGEND

- MILL & OVERLAY
- DRIVEWAY
- PATCH
- SIDEWALK
- CURB & GUTTER
- DRIVEWAY NO.
- ① SIDEWALK
- ② TYPE 1 AC PATCH
- ③ REMOVE & REPLACE DRIVE
- ④ CURB & GUTTER
- ⑤ TYPE 1 PCC PATCH (SEE NOTE 3)

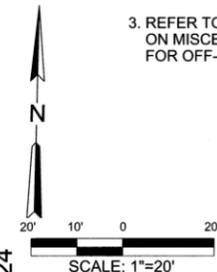
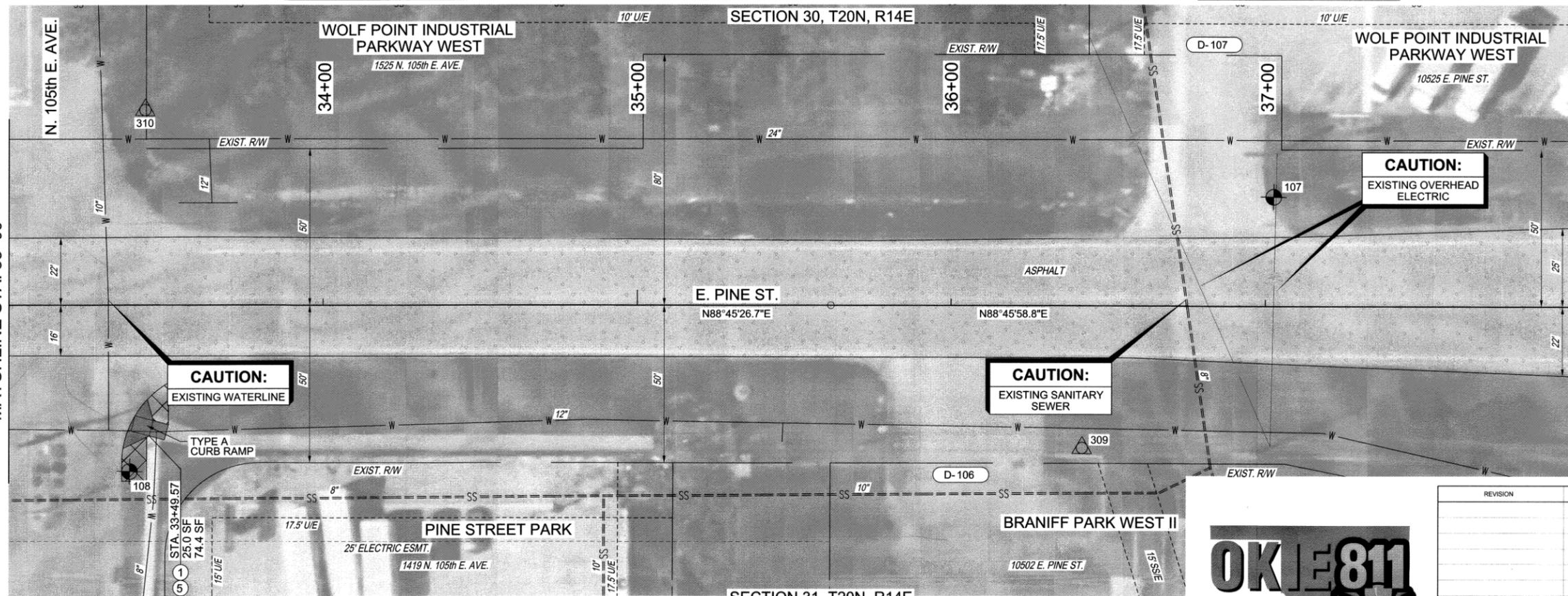
BENCHMARK TD12
 ADS - 2IN ALUM CAP STAMPED TD 12
 STA. 28+33.06, 16.21' RT. E. PINE ST.
 N 435387.80, E. 2599285.99, EL. 616.70

BENCHMARK 107
 CUT X ON CURB
 STA. 37+02.60, 35.00' LT. E. PINE ST.
 N 435457.83, E. 2600154.22, EL. 613.31

BENCHMARK 108
 CUT X ON CURB
 STA. 33+38.50, 52.79' RT. E. PINE ST.
 N 435362.18, E. 2599792.10, EL. 613.65

- NOTES:
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 3. REFER TO TYPE 1 PCC PATCH DETAIL ON MISCELLANEOUS DETAILS SHEET FOR OFF-TRACKING DETAIL.

SECTION 30, T20N, R14E



REHABILITATION PLAN
 STA. 28+00 TO STA. 38+00
 E. PINE ST.

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

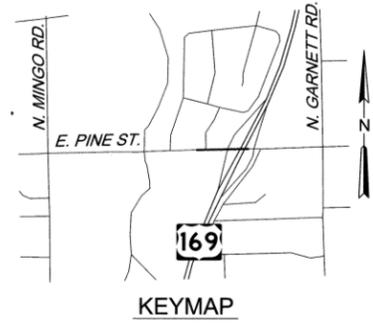
BENHAM Benham Design, LLC 15 W 9th St, Suite 900 Tulsa, Oklahoma 74119 (918) 492-1600		APPROVED:
REVISION	BY	DATE
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1"= 20'	DESIGNED	KLE 10/25
PROFILE SCALE	SURVEY	RDL 10/25
HORIZONTAL	FIELD MGR	JEM 10/25
1"= NA	PROJECT MGR	MAD 11/14/25
VERTICAL	LEAD ENGR	EAS 11-2025
1"= NA	RECOMMENDED	
	DESIGN MANAGER	HAS 11/25
FILE: 1400405-C-Plan03.dgn		DATE: OCTOBER 2025
ATLAS PAGE NO.: 172, 173		SHEET 23 OF 54 SHEETS



SECTION 31, T20N, R14E

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SECTION 30, T20N, R14E



LEGEND

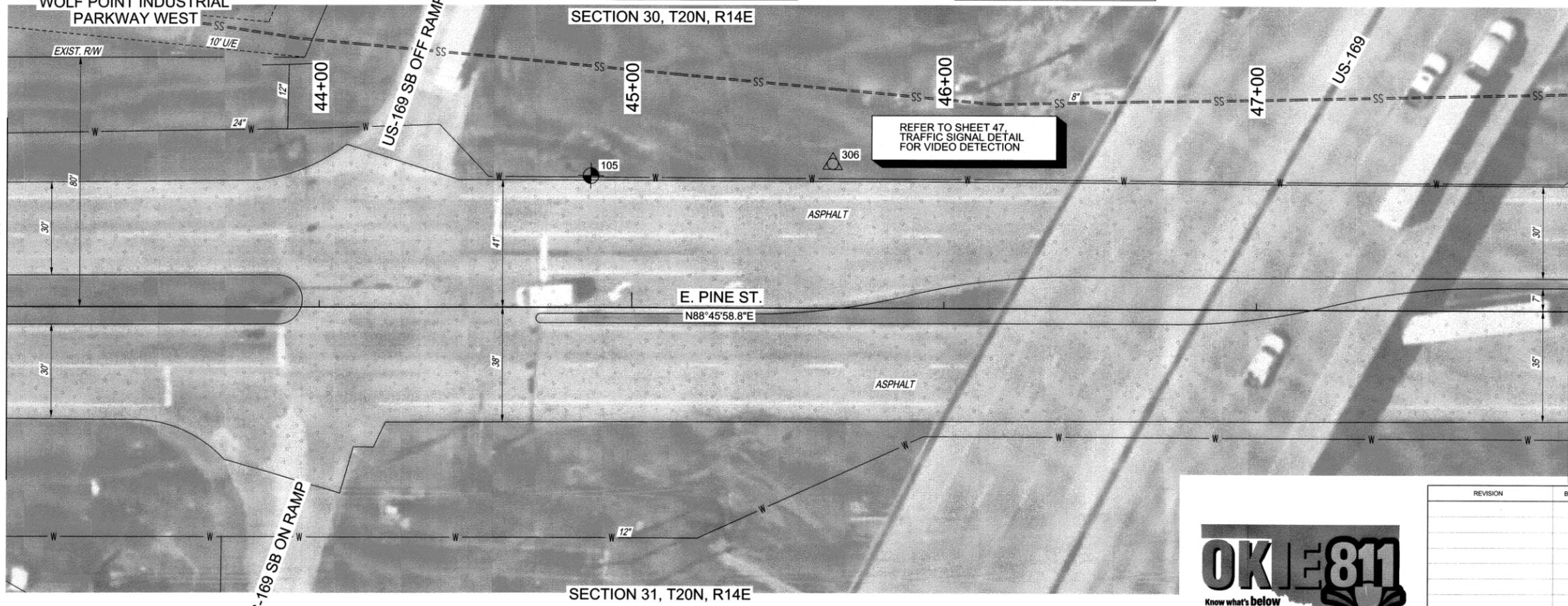
	MILL & OVERLAY
	DRIVEWAY
	PATCH
	SIDEWALK
	CURB & GUTTER
	DRIVEWAY NO.
	SIDEWALK
	TYPE 1 AC PATCH
	REMOVE & REPLACE DRIVE
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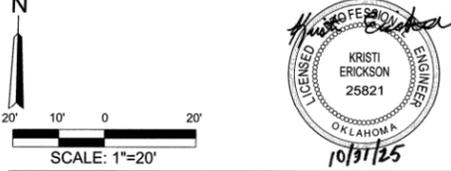
BENCHMARK 105
CUT X CENTER HW
STA. 44+86.79, 42.21 LT. E. PINE ST.
N 435481.93, E. 2600938.08, EL. 611.95

BENCHMARK 106
CUT X ON CURB
STA. 41+18.40, 64.19' RT. E. PINE ST.
N 435367.61, E. 2600572.06, EL. 612.45

SECTION 30, T20N, R14E



MATCHLINE STA. 48+00
SEE SHEET 25



REHABILITATION PLAN
STA. 38+00 TO STA. 48+00
E. PINE ST.

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

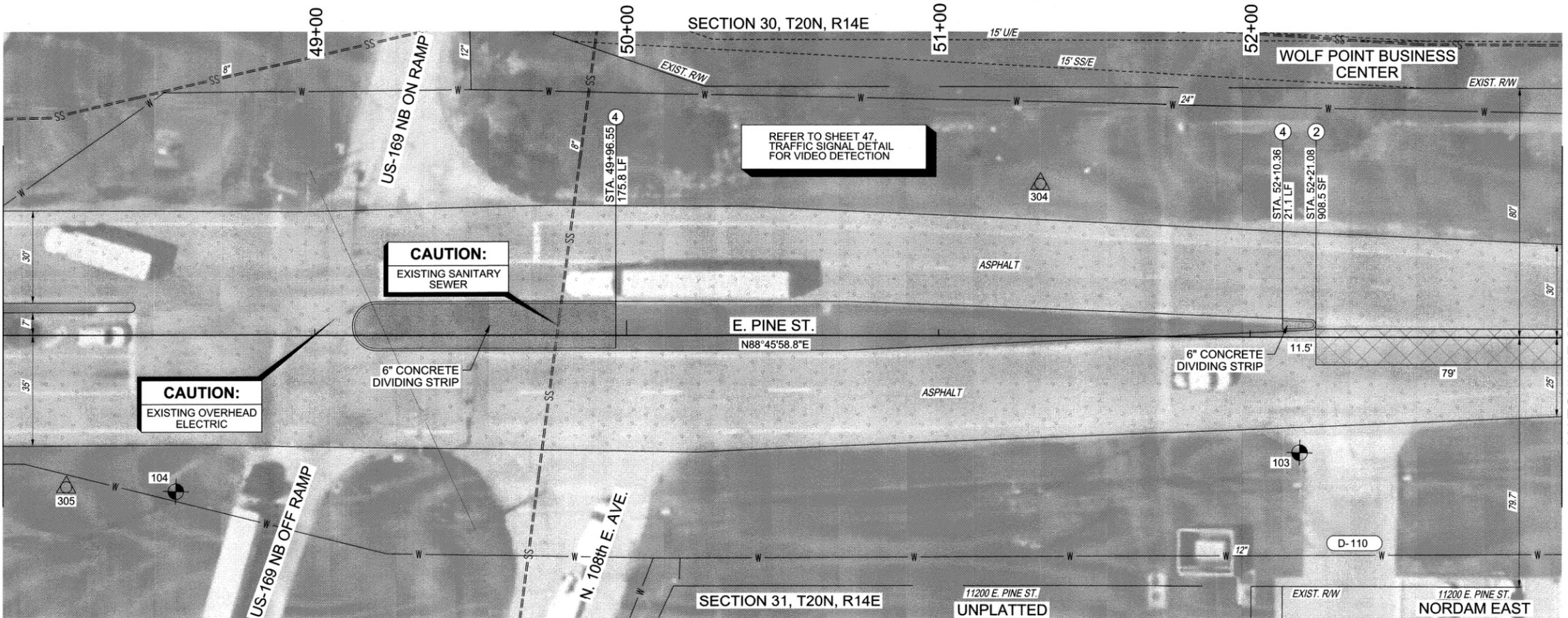
BENHAM Benham Design, LLC
15 W 9th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1600

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	DATE	APPROVED:
			1" = 20'	DESIGNED	KLE	10/25	 CITY ENGINEER DATE: OCTOBER 2025 SHEET 24 OF 54 SHEETS
				SURVEY	ROL	10/25	
			PROFILE SCALE	FIELD MGR	EA	11/04/25	
			HORIZONTAL	PROJECT MGR	EA	11/04/25	
			VERTICAL	LEAD ENGR	EA	11/04/25	
				RECOMMENDED	EA	11/25	
				DESIGN MANAGER	EA	11/25	
			FILE:	1400405-C-Plan04.dgn			
			ATLAS PAGE NO.:	172, 173			



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10/30/2025

SEE SHEET 24
MATCHLINE STA. 48+00

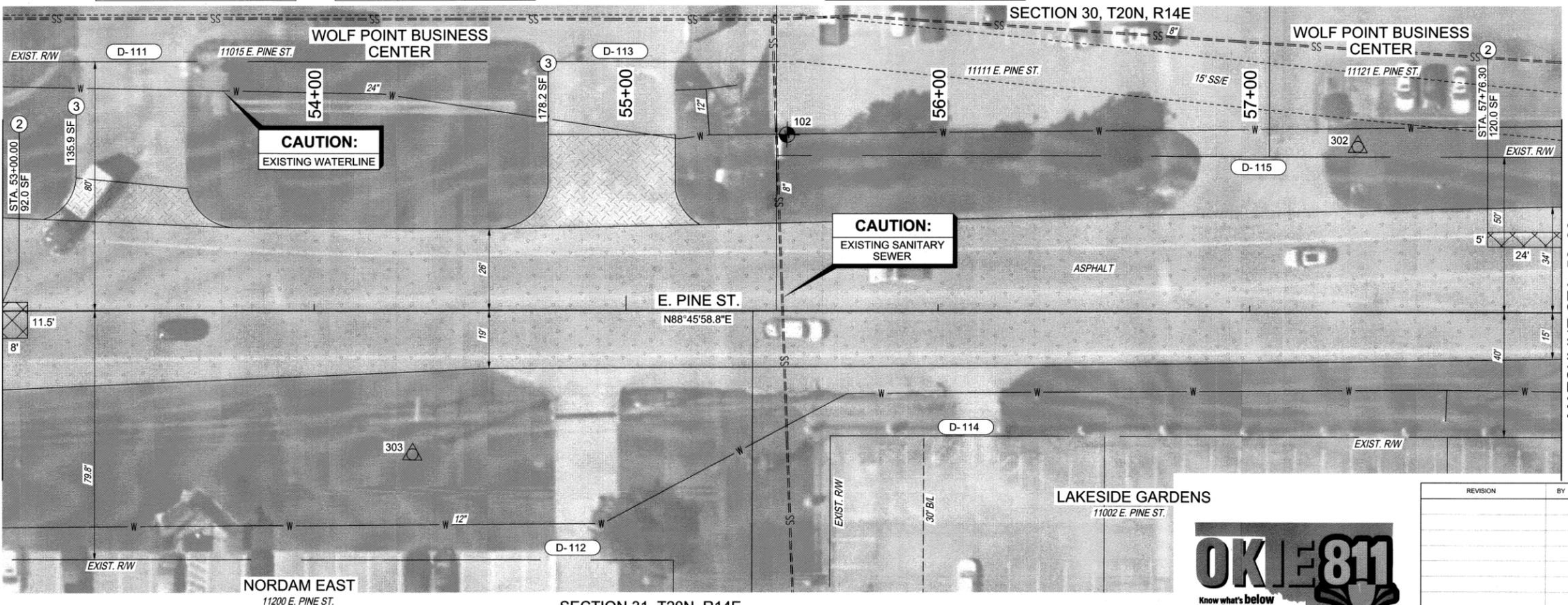


BENCHMARK 102
CUT X ON CURB
STA. 55+51.47, 56.73' LT. E. PINE ST.
N 435519.37, E. 2602002.19, EL. 633.50

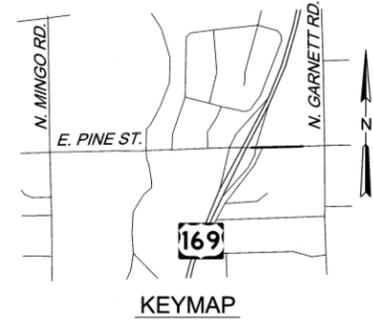
BENCHMARK 103
CUT X ON CURB
STA. 52+15.91, 36.93' RT., E. PINE ST.
N 435418.50, E. 2601668.73, EL. 626.03

BENCHMARK 104
CUT X CENTER HW
STA. 48+55.56, 50.00' RT. E. PINE ST.
N 435397.68, E. 2601308.74, EL. 617.05

MATCHLINE STA. 53+00



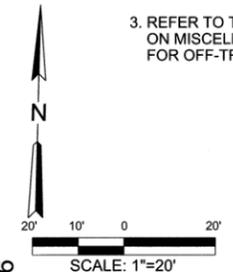
MATCHLINE STA. 58+00
SEE SHEET 26



LEGEND

	MILL & OVERLAY
	DRIVEWAY
	PATCH
	SIDEWALK
	CURB & GUTTER
	DRIVEWAY NO.
	1 SIDEWALK
	2 TYPE 1 AC PATCH
	3 REMOVE & REPLACE DRIVE
	4 CURB & GUTTER
	5 TYPE 1 PCC PATCH (SEE NOTE 3)

- NOTES:**
- CONTRACTOR SHALL CONTACT UTILITY OWNERS PRIOR TO CONSTRUCTION TO VERIFY UTILITY LOCATIONS.
 - ALL EXISTING DRAINAGE STRUCTURES AND DITCHES 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 FOR CLEARING AND GRUBBING.
 - REFER TO TYPE 1 PCC PATCH DETAIL ON MISCELLANEOUS DETAILS SHEET FOR OFF-TRACKING DETAIL.



REHABILITATION PLAN
STA. 48+00 TO STA. 58+00
E. PINE ST.

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC 15 W 6th St, Suite 900 Tulsa, Oklahoma 74119 (918) 492-1600		APPROVED:
FILE: 1400405-C-Plan05.dgn	DATE: OCTOBER 2025	
ATLAS PAGE NO.: 172, 173	SHEET 25 OF 54 SHEETS	

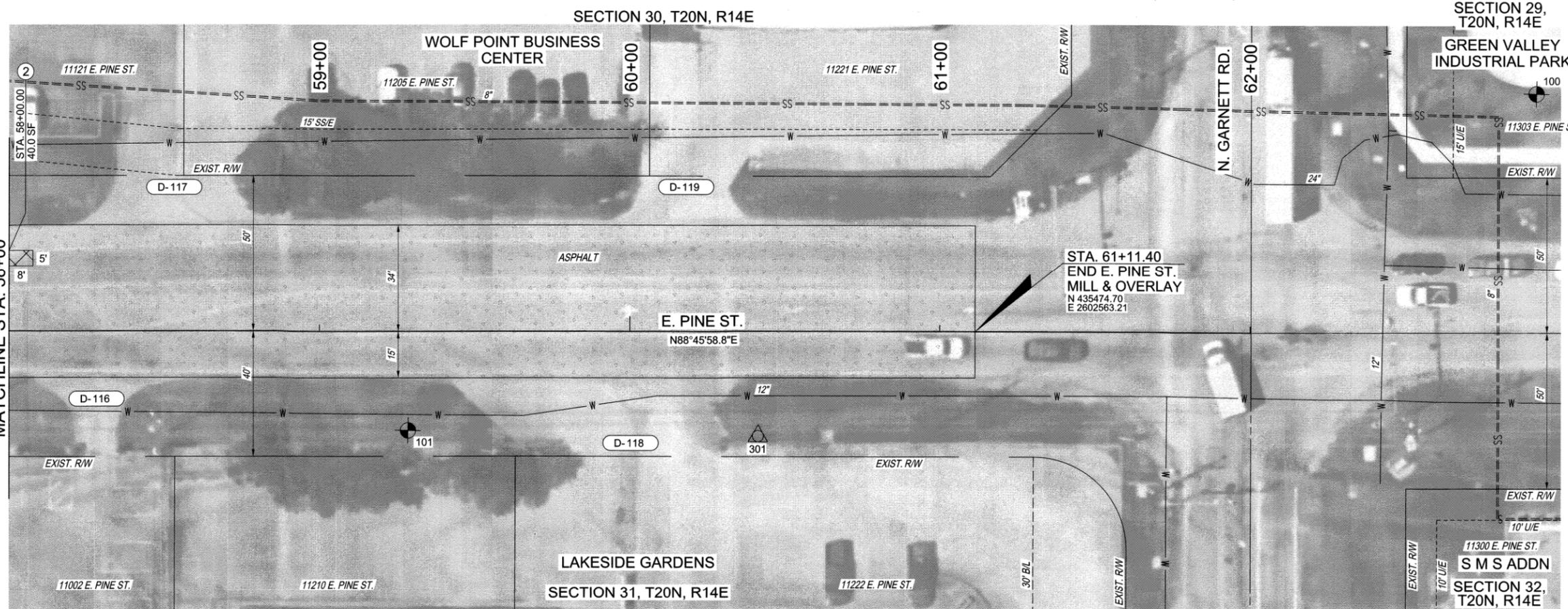
LAKESIDE GARDENS
11002 E. PINE ST.



REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	DATE	APPROVED:
			1"= 20'	DESIGNED	KLE	10/25	
				SURVEY	RDL	10/25	

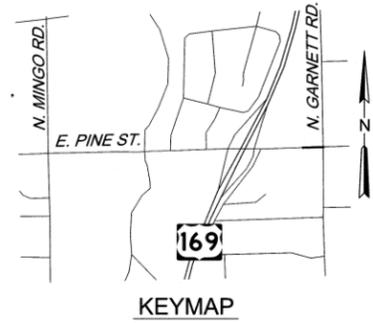
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SEE SHEET 25
 MATCHLINE STA. 58+00



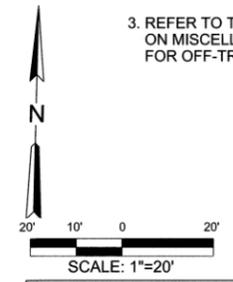
BENCHMARK 101
 CUT X NW CORNER WM PAD
 STA. 59+28.57, 31.68' RT. E. PINE ST.
 N 435439.09, E. 2602381.11, EL. 643.67

BENCHMARK 100
 CUT X ON CURB
 N 435555.66, E. 2602742.12, EL. 654.81



- LEGEND**
- MILL & OVERLAY
 - DRIVEWAY
 - PATCH
 - SIDEWALK
 - CURB & GUTTER
 - DRIVEWAY NO.
 - ① SIDEWALK
 - ② TYPE 1 AC PATCH
 - ③ REMOVE & REPLACE DRIVE
 - ④ CURB & GUTTER
 - ⑤ TYPE 1 PCC PATCH (SEE NOTE 3)

- NOTES:**
1. CONTRACTOR SHALL CONTACT UTILITY OWNERS PRIOR TO CONSTRUCTION TO VERIFY UTILITY LOCATIONS.
 2. ALL EXISTING DRAINAGE STRUCTURES AND DITCHES 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 FOR CLEARING AND GRUBBING.
 3. REFER TO TYPE 1 PCC PATCH DETAIL ON MISCELLANEOUS DETAILS SHEET FOR OFF-TRACKING DETAIL.



REHABILITATION PLAN
 STA. 58+00 TO STA. 61+11.40
 E. PINE ST.

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

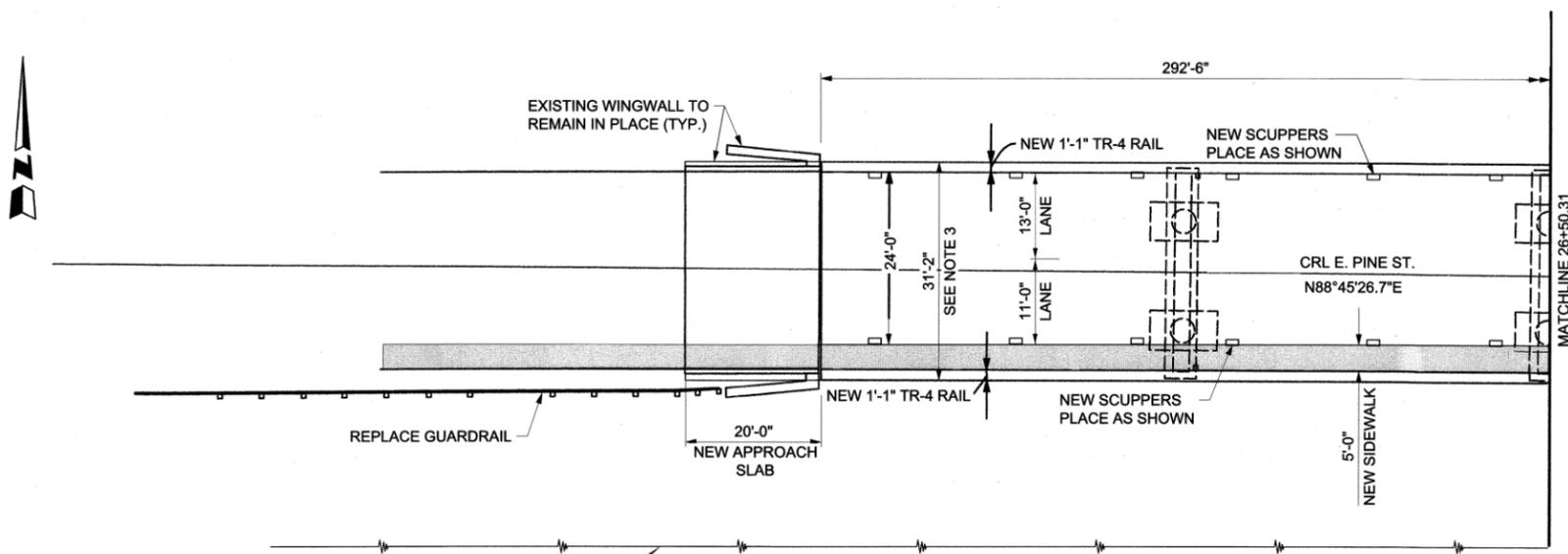
CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
 15 W 9th St, Suite 900
 Tulsa, Oklahoma 74119
 (918) 492-1600

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	DATE	APPROVED:
			1"=20'	DESIGNED	KLE	10/25	 KRISTI ERICKSON CITY ENGINEER
				SURVEY	RDL	10/25	
				FIELD MGR	ZEM	12/25	
				PROJECT MGR	TRD	11/04/25	
				LEAD ENGR	EAS	11/20/25	 EAS DESIGN MANAGER
				RECOMMENDED	HAS	11/25	
FILE: 1400405-C-Plan06.dgn							DATE: OCTOBER 2025
ATLAS PAGE NO.: 172, 173							SHEET 26 OF 54 SHEETS

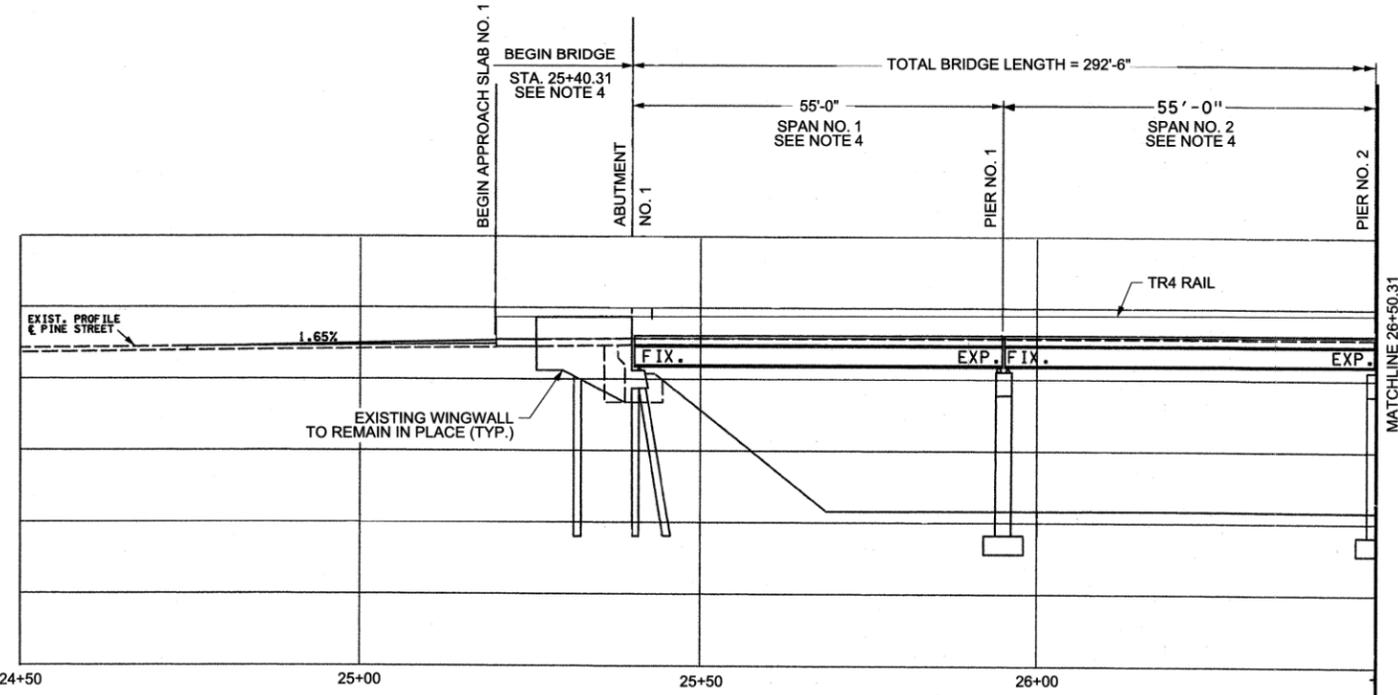


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CAUTION:
OVERHEAD POWER LINE

PLAN
N.T.S.



ELEVATION
N.T.S.

NOTE:
ALL DETAILS ARE NOT TO SCALE



CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

NOTES:

- ALL DIMENSIONS AND COMPONENTS OF EXISTING BRIDGE SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY REPAIR LOCATIONS ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AND BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
- BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE STRUCTURE AND ROADWAY. DAMAGE DUE TO THE CONSTRUCTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.
- FINAL CONSTRUCTED WIDTH OF BRIDGE IS 2" WIDER THAN EXISTING, BASED ON AS-BUILT PLANS.
- 1977 AS-BUILTS (SPANS 1 AND 2), 2008 REHAB PLANS, INSPECTION REPORTS AND 2025 SURVEY ALL HAVE DIFFERENT SPAN LENGTHS AND ELEVATIONS. NO AS-BUILTS ARE AVAILABLE FOR THE ORIGINAL BRIDGE (SPANS 3-5). THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND MATERIALS REQUIRED TO COMPLETE THE WORK AS DESCRIBED IN THESE PLANS. SEE BRIDGE GENERAL NOTES "VERIFICATION OF EXISTING CONDITIONS".
- ALL MATERIAL THAT IS FABRICATED TO DIMENSIONS NOT FITTING EXISTING CONDITIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.



BRIDGE 225 OVER MINGO CREEK
GENERAL PLAN AND ELEVATION
(1 OF 2)

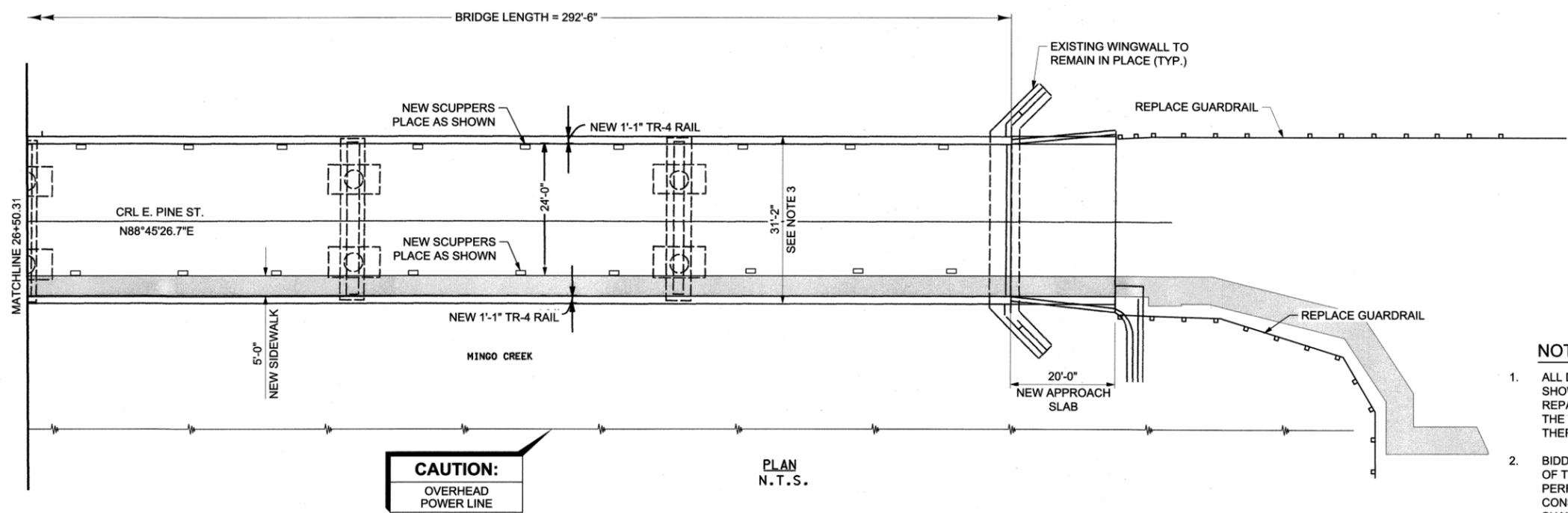
ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



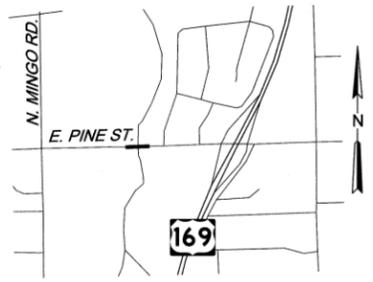
REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE HORIZONTAL:	FIELD MGR	<i>Paul Rife</i>	<i>11/04/25</i>	
				PROJECT MGR	<i>MED</i>	<i>11/04/25</i>	
			VERTICAL:	LEAD ENGR	EAS	<i>11-2023</i>	
				RECOMMENDED			
				DESIGN MANAGER	<i>PA</i>	<i>11-25</i>	
			FILE:	1400405-S-225-Details\01.dgn			DATE: OCTOBER 2025
			ATLAS PAGE NO.:	172, 173			SHEET 27 OF 54 SHEETS

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CAUTION:
OVERHEAD
POWER LINE

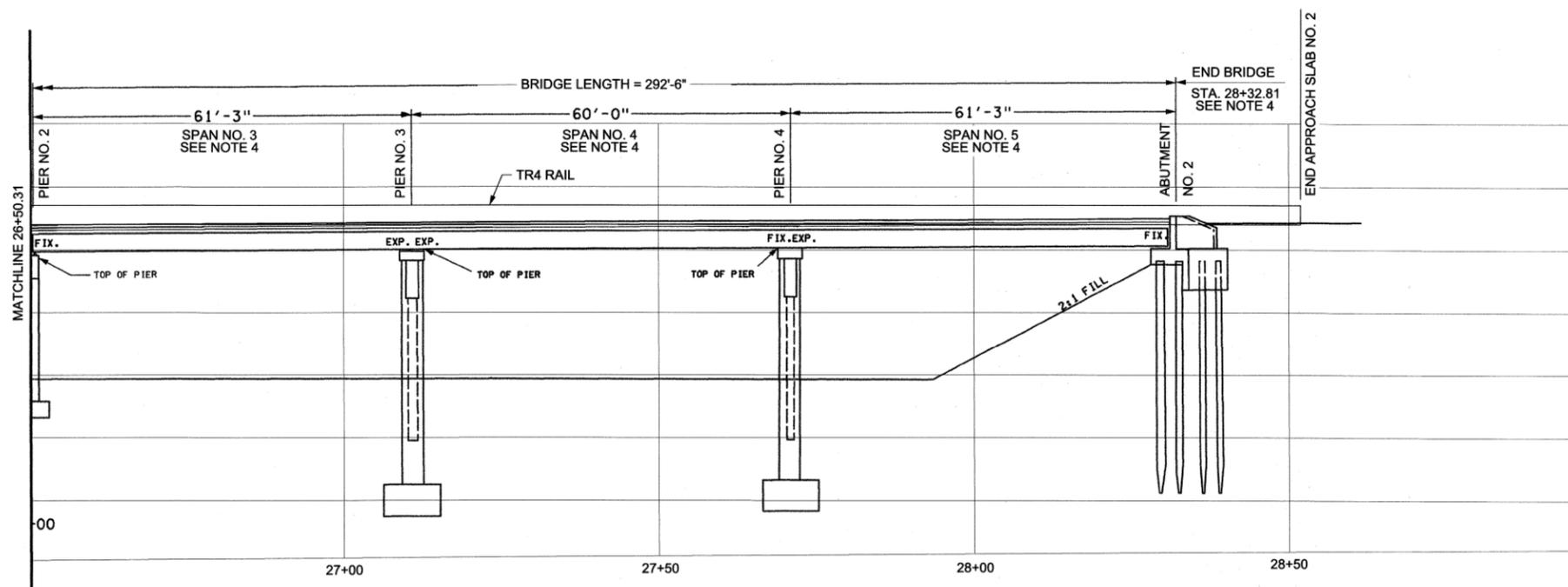
PLAN
N.T.S.



CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

NOTES:

- ALL DIMENSIONS AND COMPONENTS OF EXISTING BRIDGE SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY REPAIR LOCATIONS ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AND BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
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- FINAL CONSTRUCTED WIDTH OF BRIDGE IS 2" WIDER THAN EXISTING, BASED ON AS-BUILT PLANS.
- 1977 AS-BUILTS (SPANS 1 AND 2), 2008 REHAB PLANS, INSPECTION REPORTS AND 2025 SURVEY ALL HAVE DIFFERENT SPAN LENGTHS AND ELEVATIONS. NO AS-BUILTS ARE AVAILABLE FOR THE ORIGINAL BRIDGE (SPANS 3-5). THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND MATERIALS REQUIRED TO COMPLETE THE WORK AS DESCRIBED IN THESE PLANS. SEE BRIDGE GENERAL NOTES "VERIFICATION OF EXISTING CONDITIONS".
- ALL MATERIAL THAT IS FABRICATED TO DIMENSIONS NOT FITTING EXISTING CONDITIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.



ELEVATION
N.T.S.

NOTE:
ALL DETAILS ARE
NOT TO SCALE

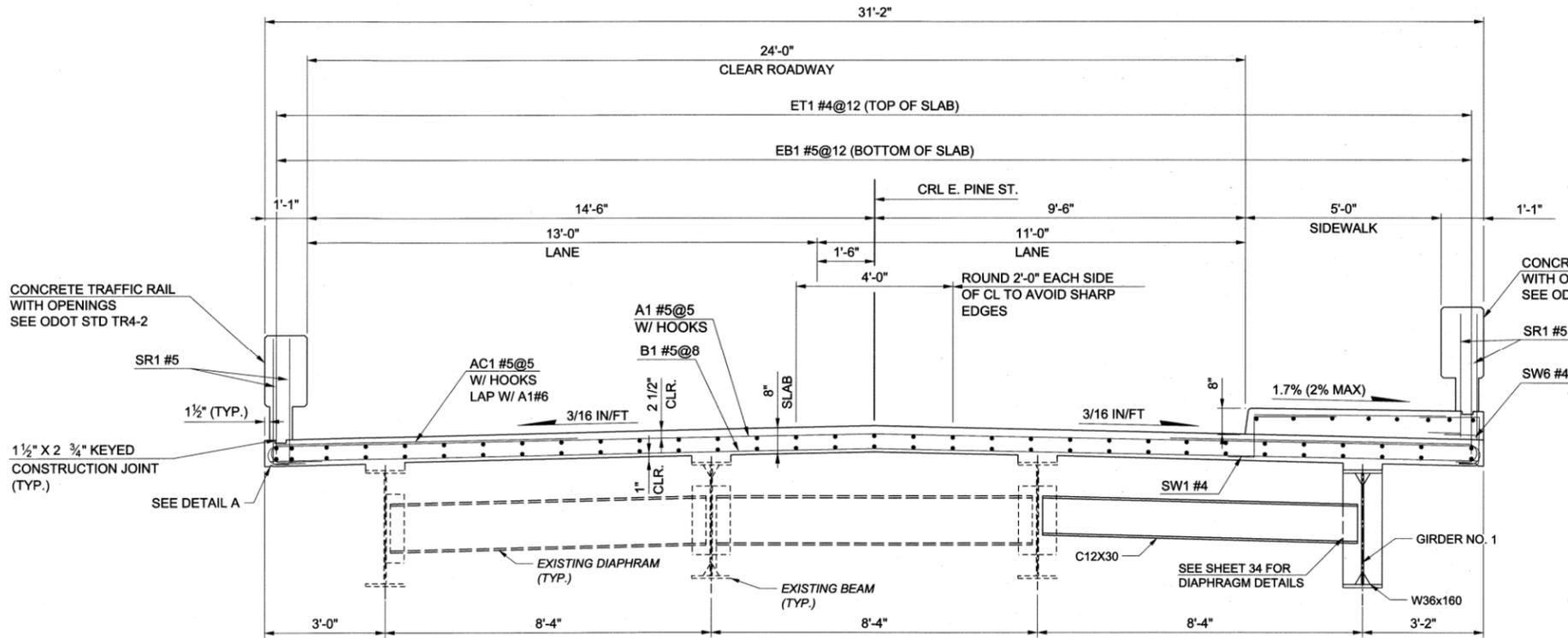


BRIDGE 225 OVER MINGO CREEK
GENERAL PLAN AND ELEVATION
(2 OF 2)
ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

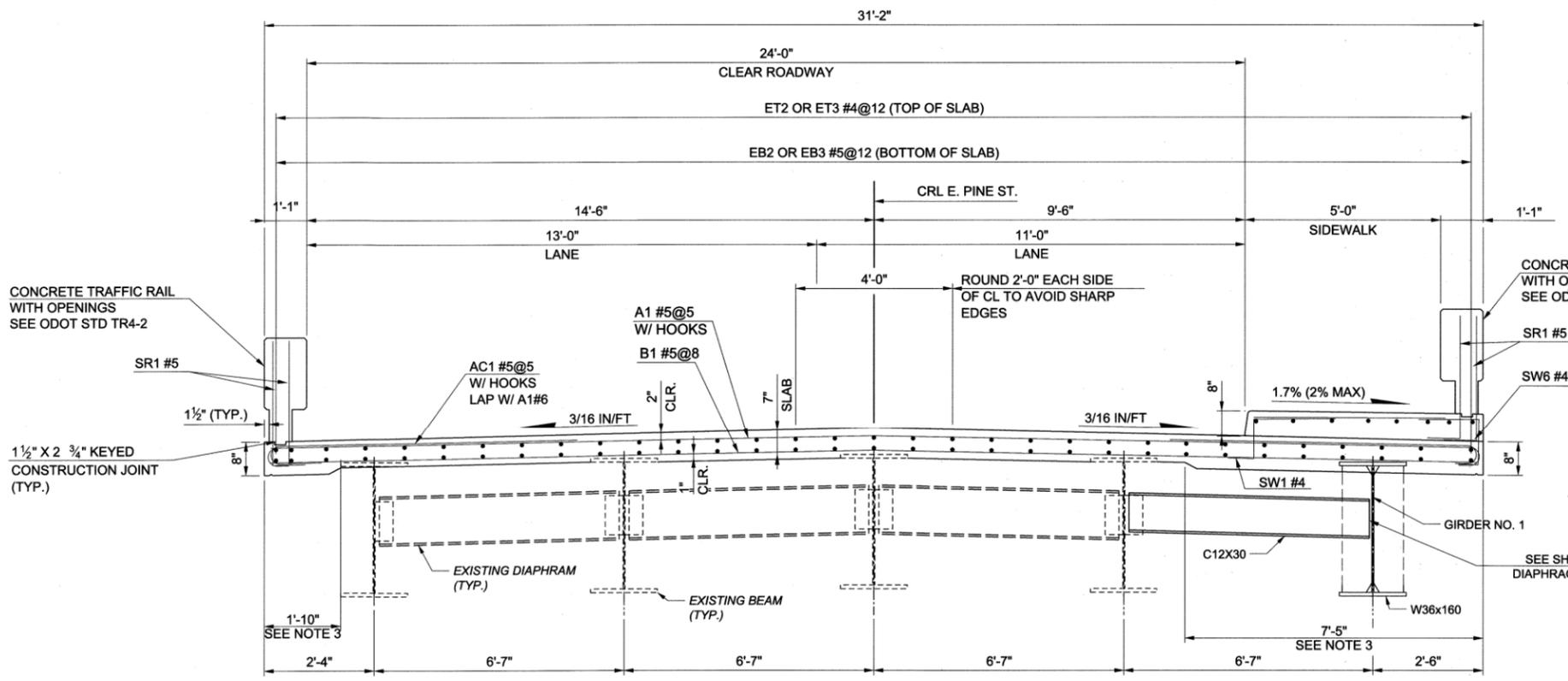


REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>[Signature]</i>		
			HORIZONTAL:	PROJECT MGR	<i>[Signature]</i>	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
				RECOMMENDED			
				DESIGN MANAGER	<i>[Signature]</i>	11-25	
			FILE:	1400405-S-225-Detail02.dgn			DATE: OCTOBER 2025
			ATLAS PAGE NO.:	172, 173			SHEET 28 OF 54 SHEETS

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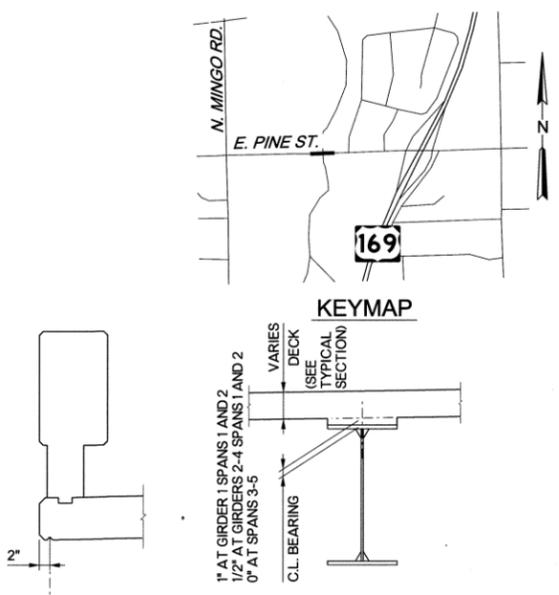
**TYPICAL SECTION
 SPANS NO. 1 AND 2
 (LOOKING EAST)**



**TYPICAL SECTION
 SPANS NO. 3, 4 AND 5
 (LOOKING EAST)**

NOTE:
 ROTATE HOOKS ON A1 AND AC1 BARS
 TO MAINTAIN MINIMUM CLEARANCE.

**CONTRACTOR SHALL FIELD
 VERIFY ALL DIMENSIONS,
 MATERIALS, QUANTITIES AND
 ALL INCIDENTALS PRIOR TO
 FABRICATION OF MATERIALS OR
 CONSTRUCTION**



BEAM HAUNCH DETAIL
 PLAN QUANTITIES FOR CLASS AA CONCRETE INCLUDE BEAM HAUNCHES. THE HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM THE BOTTOM OF THE DECK SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHT (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND ROADWAY GRADE) AFTER ERECTION OF THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHT FOR PAYMENT.

- NOTES:**
- ALL DIMENSIONS AND COMPONENTS OF EXISTING BRIDGE SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY REPAIR LOCATIONS ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AND BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
 - BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE STRUCTURE AND ROADWAY. DAMAGE DUE TO THE CONSTRUCTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE
 - DECK THICKNESS SHALL TRANSITION FROM 7" TO 8" OVER A 4" LENGTH.



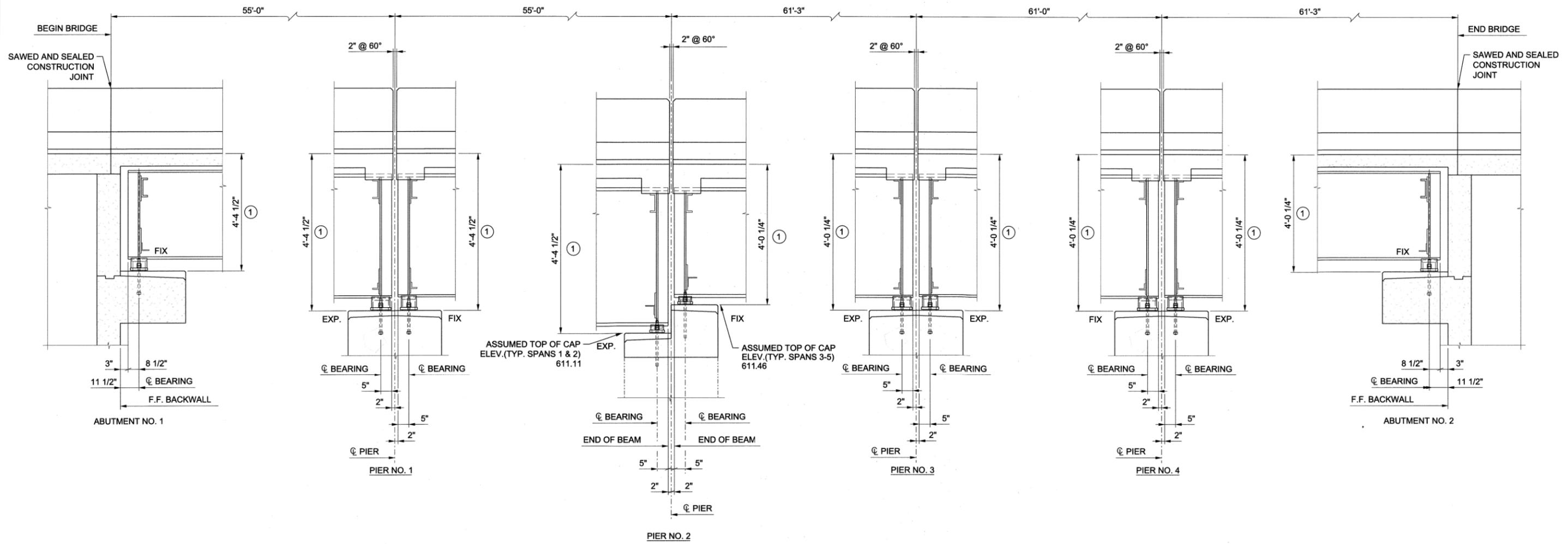
**BRIDGE 225 OVER MINGO CREEK
 SUPERSTRUCTURE DETAILS
 (1 OF 8)**
**ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z**
**CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT**

BENHAM Benham Design, LLC
 15 W 6th St, Suite 900
 Tulsa, Oklahoma 74119
 (918) 492-1600
 a Haskell Company

REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>[Signature]</i>	12/25	
			HORIZONTAL:	PROJECT MGR	<i>[Signature]</i>	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2023	
				RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			
							CITY ENGINEER
							DATE: OCTOBER 2025
							SHEET 29 OF 54 SHEETS



CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION



**LONGITUDINAL SECTION
GIRDER
(NEW SOUTH BEAM)**

NOTES:

- ① DIMENSION IS FROM TOP OF DECK SLAB TO BOTTOM OF BEARING ASSEMBLY AT ϕ BEARING.



BRIDGE 225 OVER MINGO CREEK
SUPERSTRUCTURE DETAILS
(2 OF 8)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

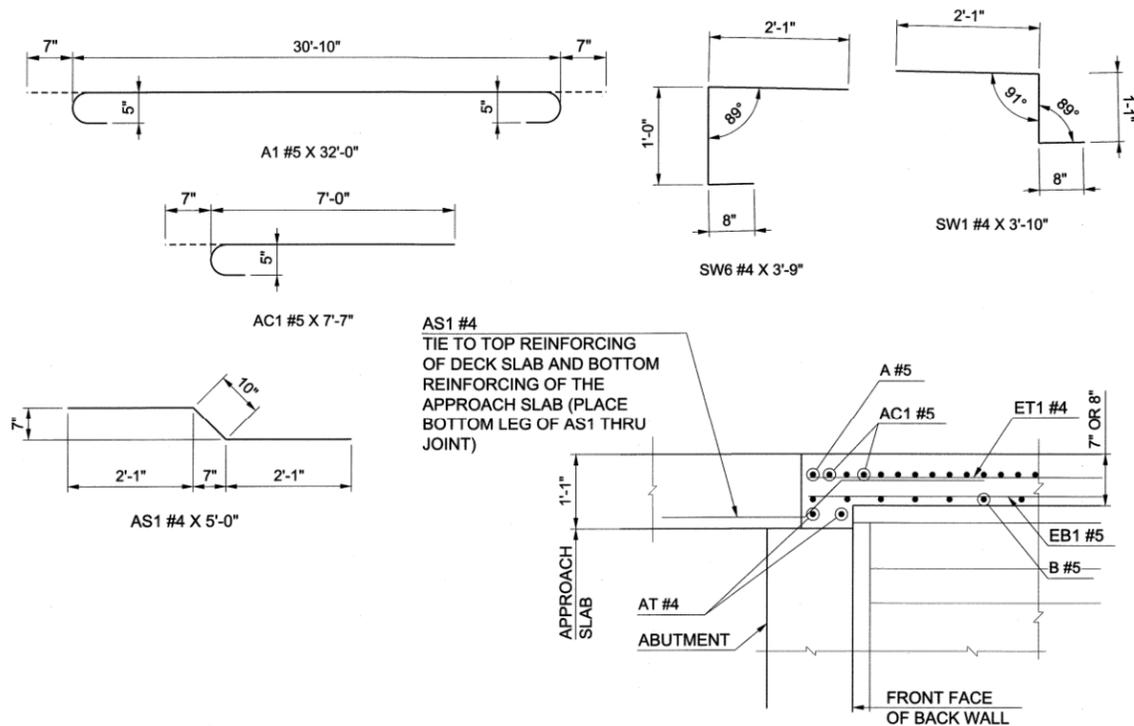


REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER DATE: OCTOBER 2025
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Tom</i>	<i>12/25</i>	
			HORIZONTAL:	PROJECT MGR	<i>TMED</i>	<i>11/04/25</i>	
			VERTICAL:	LEAD ENGR	<i>EAS</i>	<i>11-2023</i>	
				RECOMMENDED	<i>HAS</i>	<i>11-25</i>	DESIGN MANAGER
				FILE:	1400405-S-225-Detail16.dgn		
				ATLAS PAGE NO.:	172, 173		



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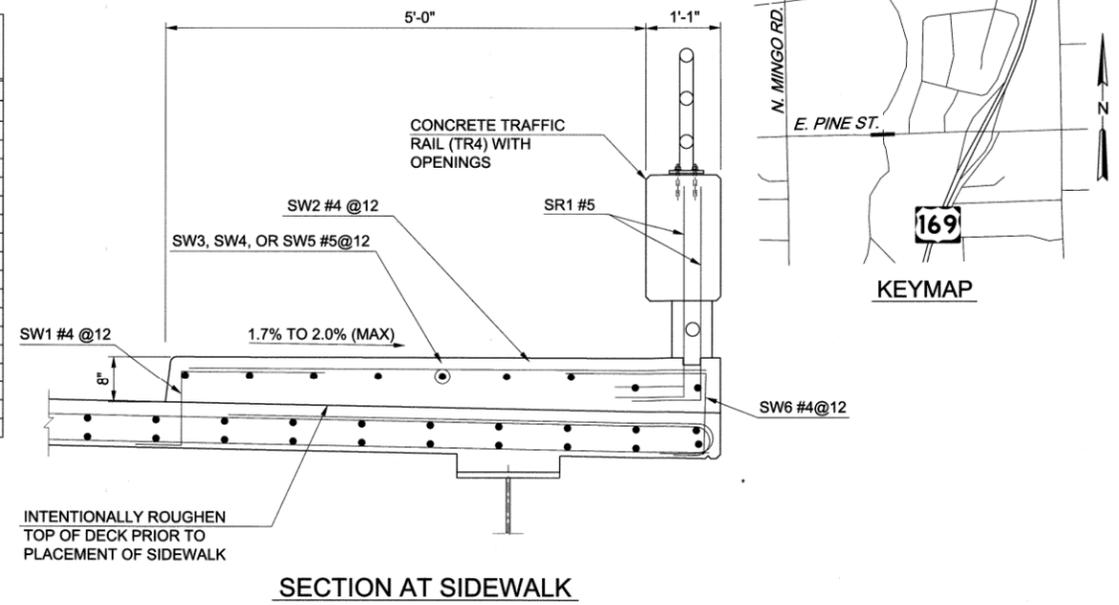
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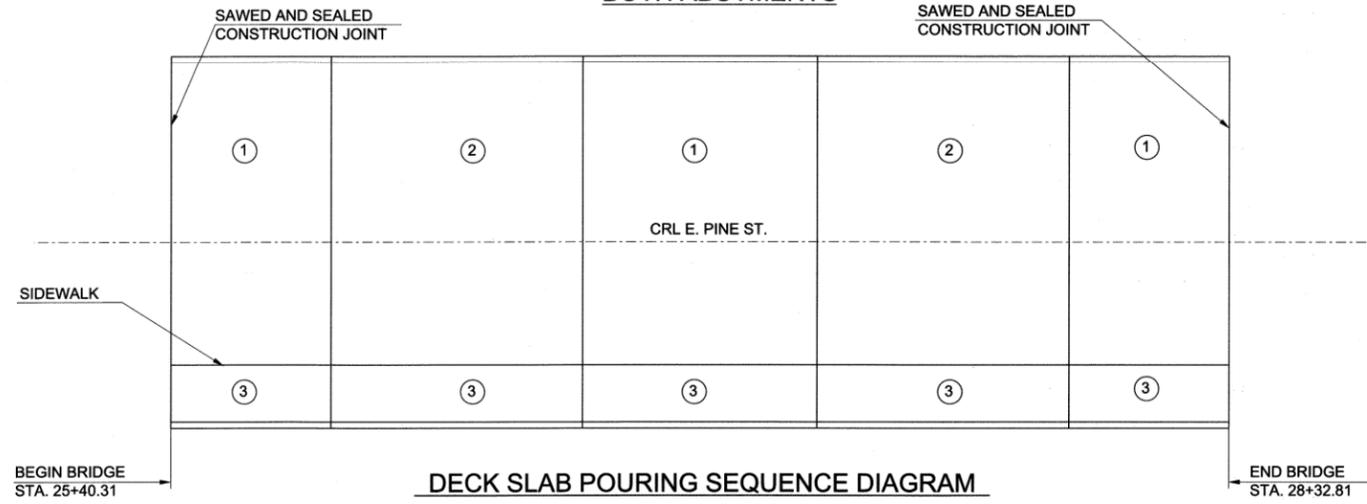
BAR LIST - SUPERSTRUCTURE
(ONE SHOWN, ONE REQUIRED)

MARK	SIZE	QTY.	FORM	LENGTH	VARIANCE
EPOXY COATED					
A1	#6	587	BNT.	32'-0"	---
AC1	#6	1174	BNT.	6'-11"	---
AS1	#4	64	BNT.	5'-0"	---
B1	#5	442	STR.	30'-10"	---
ET1	#4	64	STR.	54'-10"	---
ET2	#4	64	STR.	63'-1"	INCLUDES 1-24" LAP
ET3	#4	32	STR.	59'-10"	---
EB1	#5	64	STR.	54'-10"	---
EB2	#5	64	STR.	64'-1"	INCLUDES 1-36" LAP
EB3	#5	32	STR.	59'-10"	---
SR1	#5	576	BNT.	4'-1"	---
SW1	#4	297	BNT.	3'-10"	---
SW2	#4	297	STR.	5'-10"	---
SW3	#5	14	STR.	54'-10"	---
SW4	#5	14	STR.	64'-1"	INCLUDES 1-36" LAP
SW5	#5	7	STR.	59'-10"	---
SW6	#4	297	BNT.	3'-9"	---

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

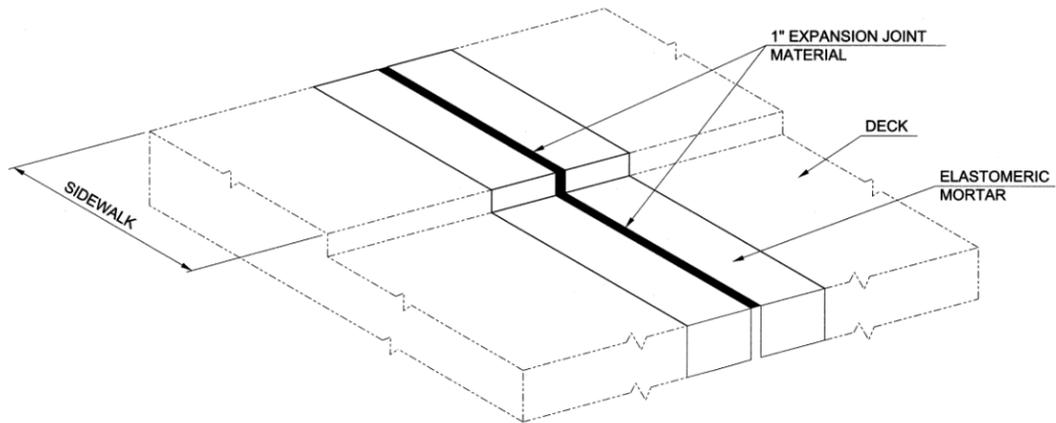


SECTION DECK AND APPROACH SLAB BOTH ABUTMENTS

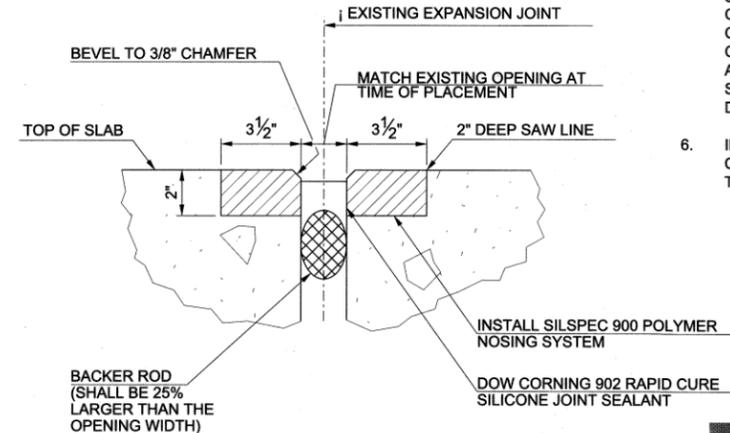


NOTES:

- EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS DECK FORM HANGERS, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES, THAT WILL REMAIN IN PLACE IN THE DECK SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.
- PLACE DECK SLAB CONCRETE ONE SECTION AT A TIME CONSISTENT WITH THE DECK SLAB POURING SEQUENCE DIAGRAM. IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF THE TRAFFIC OR AS DIRECTED BY THE ENGINEER. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED DECK SLAB WITHIN 5 FEET OF ANY CONSTRUCTION JOINT UNTIL THE CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT. CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYS.
- BARS SHALL BE CONTINUOUS THRU CONSTRUCTION JOINTS AT FIXED PIERS. DO NOT LAP WITHIN 10 FEET OF CENTERLINE OF FIXED PIER. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS.
- SEAL ALL DECK SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE ALL COST OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COSTS OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.
- DECK SLAB POURING SEQUENCE: THE DECK SLAB IS DIVIDED INTO SECTIONS BETWEEN CONSTRUCTION JOINTS AS SHOWN. PLACE THE DECK SLAB CONCRETE OF EACH SECTION IN THE NUMERICAL SEQUENCE INDICATED. SECTIONS OF THE DECK SLAB WITH THE SAME NUMBER MAY BE PLACED IN ANY ORDER. SECTIONS IN SEQUENCE 2 MAY BE PLACED BEFORE ALL OF SEQUENCE 1 ARE COMPLETED IF SEQUENCE 1 AT THE COMMON CONSTRUCTION JOINT IS COMPLETE. SECTIONS IN SEQUENCE 5 MAY BE PLACED BEFORE ALL OF SEQUENCE 4 ARE COMPLETED IF SEQUENCE 4 AT THE COMMON JOINT IS COMPLETE. BUT UNDER NO CIRCUMSTANCES WILL A SECTION OF SEQUENCE 2 OR SEQUENCE 5 BE POURED BEFORE THE ADJACENT SECTIONS HAVE BEEN IN PLACE FOR AT LEAST 48 HOURS. POUR SIDEWALK AND CONCRETE TRAFFIC RAIL 48 HOURS (MINIMUM) AFTER THE DECK IS IN PLACE.
- INSTALL ALL DIAPHRAGMS AND TIGHTEN ALL BOLTS BEFORE PLACING CONCRETE FOR THE DECK SLAB OR APPLYING OTHER MASSIVE LOADS TO THE BEAMS.



(BRIDGE RAILING NOT SHOWN FOR CLARITY)
TYPICAL DETAIL EXPANSION JOINT AT CURB



ELASTOMERIC MORTAR INSERT DETAIL
 NTS

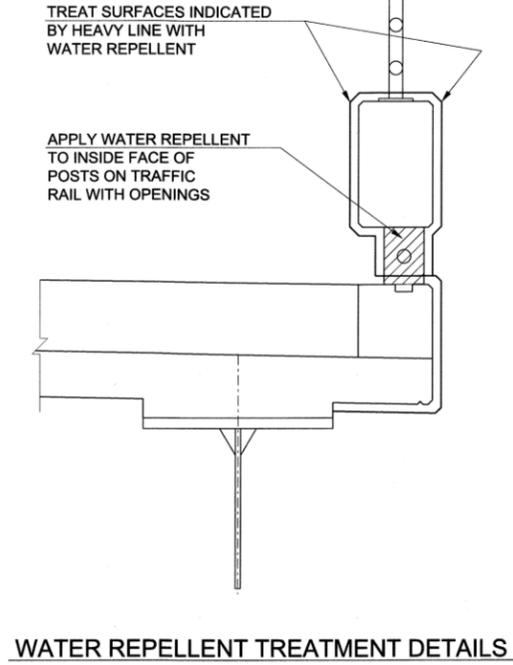


BRIDGE 225 OVER MINGO CREEK
 SUPERSTRUCTURE DETAILS
 (3 OF 8)
 ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z
 CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

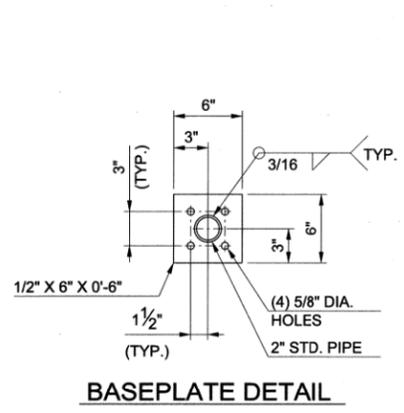


REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE HORIZONTAL:	FIELD MGR	<i>Zou</i>	<i>12/15</i>	
			1"	PROJECT MGR	<i>MCD</i>	<i>11/04/25</i>	
			VERTICAL:	LEAD ENGR	<i>EAS</i>	<i>11-2023</i>	
			1"	RECOMMENDED	<i>HK</i>	<i>11-25</i>	
				DESIGN MANAGER			<i>Zou</i> CITY ENGINEER
							DATE: OCTOBER 2025
							SHEET 31 OF 54 SHEETS

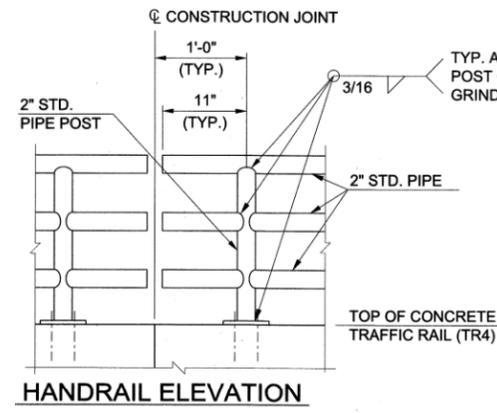
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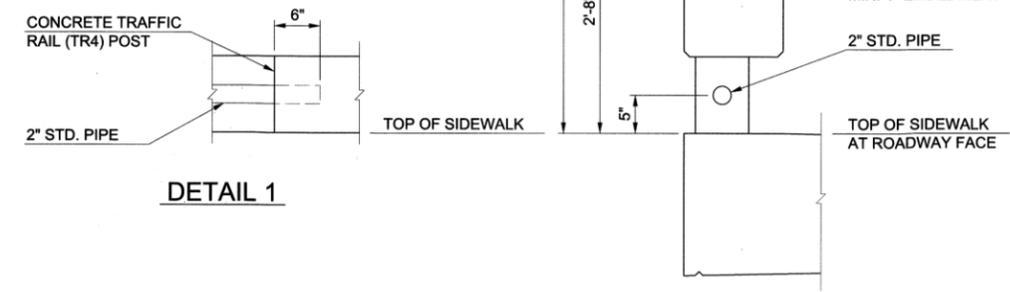
WATER REPELLENT TREATMENT DETAILS



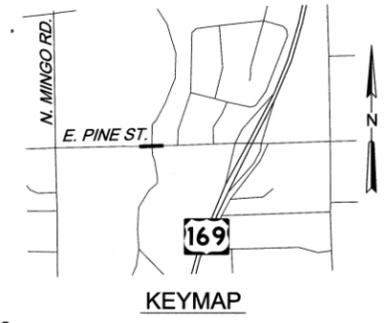
BASEPLATE DETAIL



HANDRAIL ELEVATION

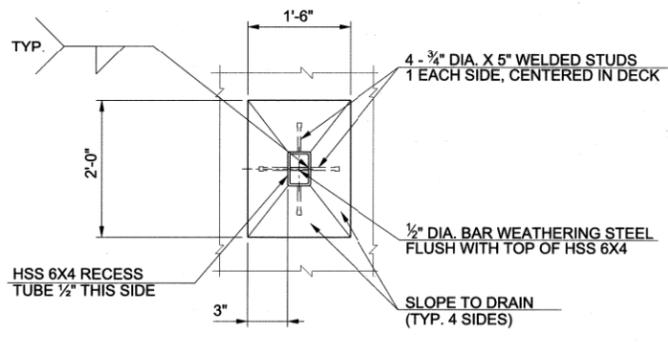


TYPICAL SECTION THRU RAIL

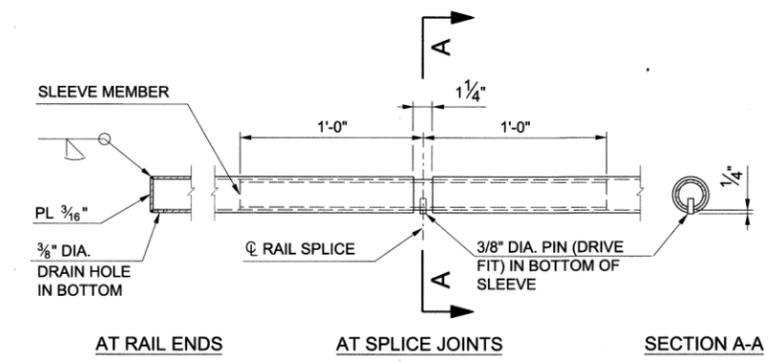


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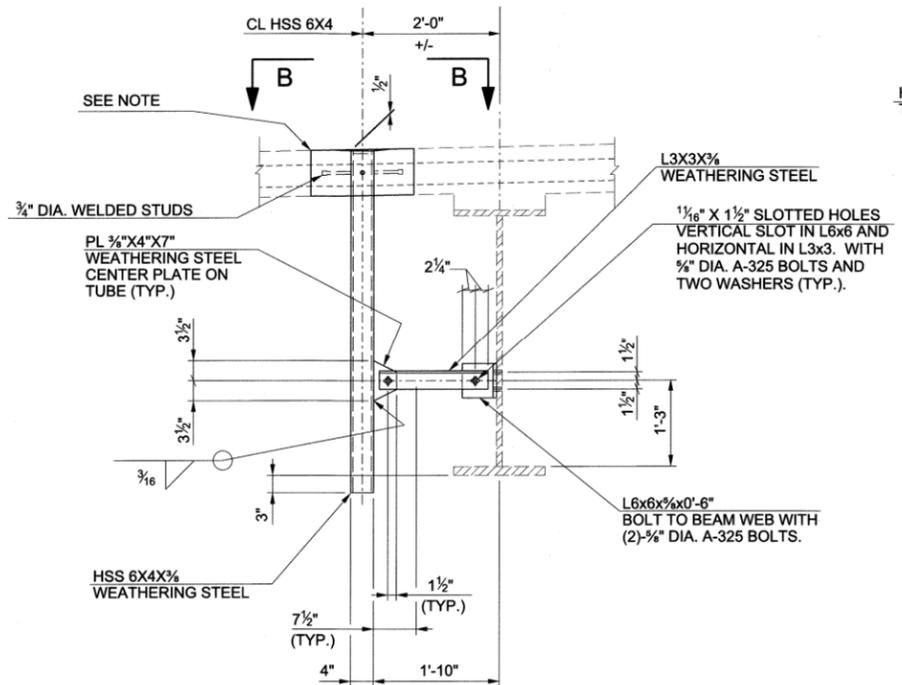
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION



SECTION B-B



HANDRAIL FABRICATION DETAILS



TYPICAL SECTION AT SCUPPER

PIPE RAILING NOTES:

1. THE CONTRACTOR SHALL FIELD VERIFY AND PROVIDE SUBMITTALS TO THE ENGINEER FOR APPROVAL PRIOR TO THE CONSTRUCTION OF THE STEEL PIPE RAILING.
2. STEEL PIPE RAILING AND POSTS SHALL BE 2" DIA. STD. STEEL PIPE CONFORMING TO ASTM A36 SPECIFICATIONS. ALL MATERIAL SHALL BE STRUCTURAL STEEL WITH A MINIMUM YIELD STRENGTH OF 36,000 P.S.I.. ALL POSTS SHALL BE VERTICAL. ALL WELDS SHALL BE 3/16" FILLET WELDS (UNLESS NOTED OTHERWISE). GRIND ALL WELDS AND EDGES SMOOTH.
3. STEEL RAILING, POSTS AND BASE PLATES SHALL BE BLACK POWDER COATED. BOLTS SHALL BE STAINLESS STEEL AND NOT REQUIRE BLACK POWDER COAT.
4. CARE SHALL BE TAKEN TO AVOID SCRATCHING, MARRING, DENTING, DISCOLORING OR OTHERWISE DAMAGING THE RAILING OR POSTS. ANY MEMBER DAMAGED AS TO DETRACT FROM THE APPEARANCE OF THE COMPLETED RAILING WILL BE REJECTED AND SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

NOTES:

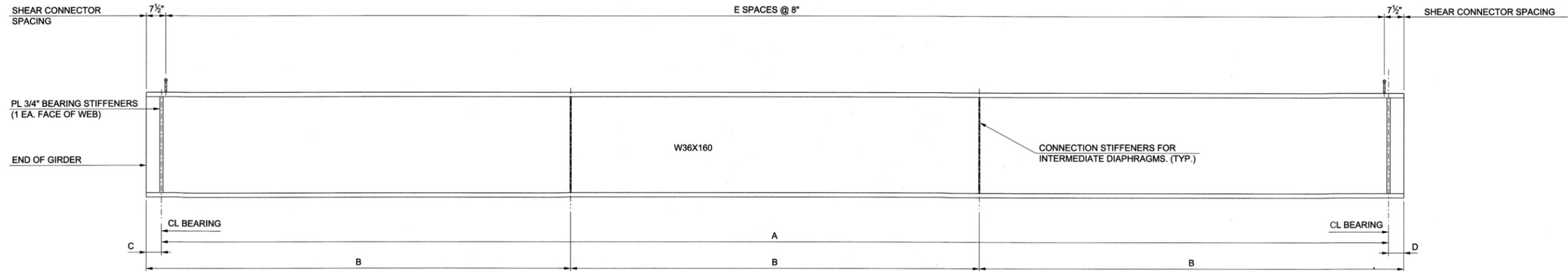
1. TYPICAL SECTION SHOWN IS FOR SCUPPERS LOCATED ON THE NORTH SIDE OF THE BRIDGE. SCUPPERS ON SOUTH SIDE OF BRIDGE SHALL BE PLACED ADJACENT TO THE SIDEWALK CURB.
2. DECK REINFORCING SHALL NOT BE FIELD CUT TO AVOID SCUPPERS, BUT PLACED IN FULL LENGTHS IN A MANNER THAT ACCOMODATES SCUPPERS.

BRIDGE 225 OVER MINGO CREEK
SUPERSTRUCTURE DETAILS
(4 OF 8)
ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE HORIZONTAL:	FIELD MGR	<i>[Signature]</i>	<i>[Signature]</i>	
			1"	PROJECT MGR	<i>[Signature]</i>	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
			1"	RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			CITY ENGINEER
							DATE: OCTOBER 2025
							ATLAS PAGE NO.: 172, 173
							SHEET 32 OF 54 SHEETS



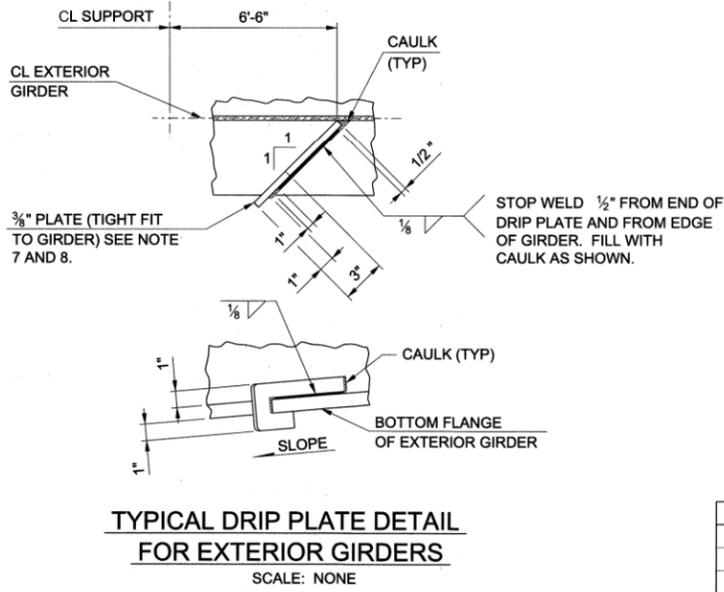
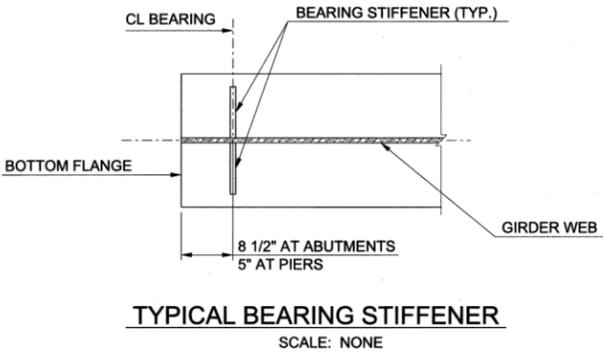
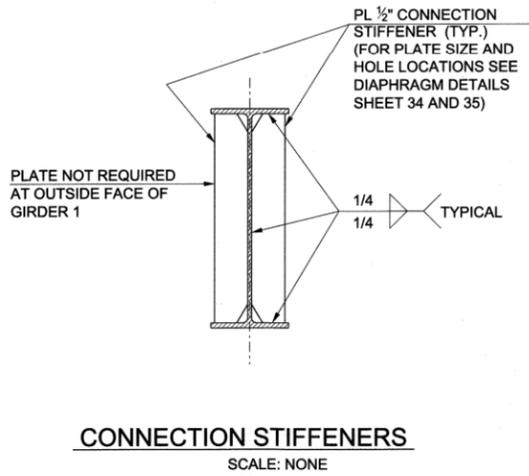
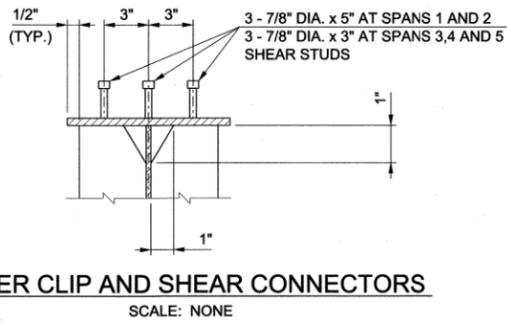
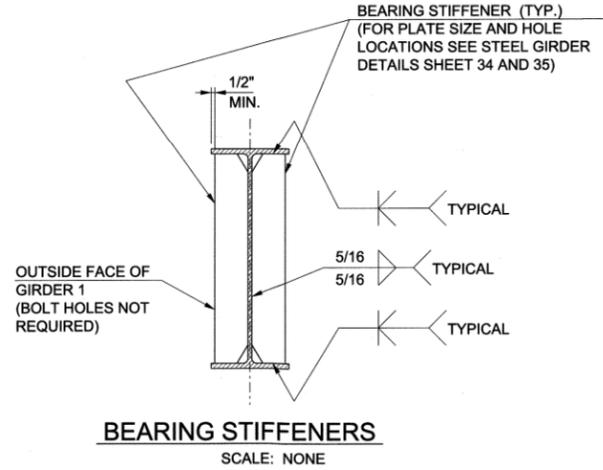
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

DIMENSION TABLE						
SPAN	BEAM LENGTH	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E
1	54'-7"	53'-5 1/2"	18'-2"	8 1/2"	5"	81
2	54'-8"	53'-10"	18'-3"	5"	5"	81
3	60'-11"	60'-1"	20'-4"	5"	5"	91
4	59'-8"	58'-10"	19'-11"	5"	5"	89
5	60'-10"	59'-8 1/2"	20'-3"	5"	8 1/2"	90

BEAM ELEVATION

NOTES:

- EXISTING BEAMS NOT BEING REPLACED AT SPANS 3-5 MAY REQUIRE THE ADDITION OF SHEAR STUDS.
- W36X160 AND STIFFENER PLATES SHALL CONFORM TO THE CHARPY V-NOTCH REQUIREMENTS.
- GIRDERS, DIAPHRAGMS AND CONNECTIONS SHALL BE FABRICATED FOR TOTAL DEAD LOAD FIT CONDITION.
- ALL STRUCTURAL STEEL SHALL BE M270 GRADE 50W STEEL.
- CL BEARING TO CL BEARING LENGTH IS TAKEN ALONG THE GIRDER WEB AND TOP FLANGE WITH DIAPHRAGMS PLACED AS SHOWN IN THE GIRDER ELEVATION.
- GIRDERS ARE DRAWN AND DIMENSIONS SHOWN AS IF THE TOP FLANGE OF GIRDERS WERE IN A TRULY HORIZONTAL POSITION. SHOP DRAWINGS SHALL INCLUDE ADJUSTMENTS AS NECESSARY TO ACCOUNT FOR VERTICAL CURVE AND DEAD LOAD DEFLECTIONS.
- ALL FILLET WELDS SHALL BE TERMINATED $\frac{3}{8}$ " \pm $\frac{1}{8}$ " FROM EDGES OF STIFFENERS AS PER AWS D1.5 SECT 9.15.
- DRIP PLATES SHALL BE PLACED ON THE OUTSIDE OF THE EXTERIOR GIRDERS ON THE UP GRADE SIDE OF ABUTMENT AND EACH PIER.
- ALL COST OF DRIP PLATE, WELD, CAULK AND LABOR NEEDED FOR INSTALLATION SHALL BE INCLUDED IN THE UNIT PRICE BID PER LB. FOR "STRUCTURAL STEEL".
- BEAM AND DIAPHRAGMS LENGTHS AND OVERALL HEIGHTS OF BEAMS SHALL BE CONFIRMED BY CONTRACTOR PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION. SURVEY OF BRIDGE PRIOR TO CONSTRUCTION REQUIRED. ALL MATERIAL THAT IS FABRICATED TO DIMENSIONS NOT FITTING EXISTING CONDITIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
- SEE BRIDGE GENERAL NOTES "VERIFICATION OF EXISTING CONDITIONS".
- ALL DIMENSIONS AND COMPONENTS OF EXISTING BRIDGE SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY REPAIR LOCATIONS ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AND BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
- BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE STRUCTURE AND ROADWAY. DAMAGE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

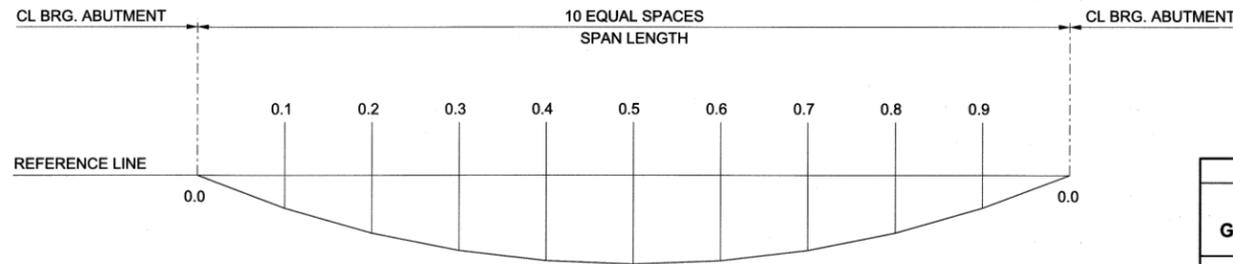


BRIDGE 225 OVER MINGO CREEK SUPERSTRUCTURE DETAILS (5 OF 8)
 ARTERIAL STREET REHABILITATION E. PINE ST. (MINGO RD. TO GARNETT RD.) & BRIDGE #225 OVER MINGO CREEK
 PROJECT NO. 2436B005Z-225, 2037B0225Z, 2036A0044Z
 CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER DATE: OCTOBER 2025
				SURVEY	RDL	10/25	
			PROFILE SCALE HORIZONTAL:	FIELD MGR	<i>Tom Jones</i>	11/04/25	
			1"	PROJECT MGR	<i>MBD</i>	11/04/25	
			VERTICAL:	LEAD ENGR	<i>EAS</i>	11-2023	
			1"	RECOMMENDED	<i>EAS</i>	11-2023	
				DESIGN MANAGER	<i>HAS</i>	11-25	
				FILE:	1400405-S-225-Detail11.dgn		
				ATLAS PAGE NO.:	172, 173		

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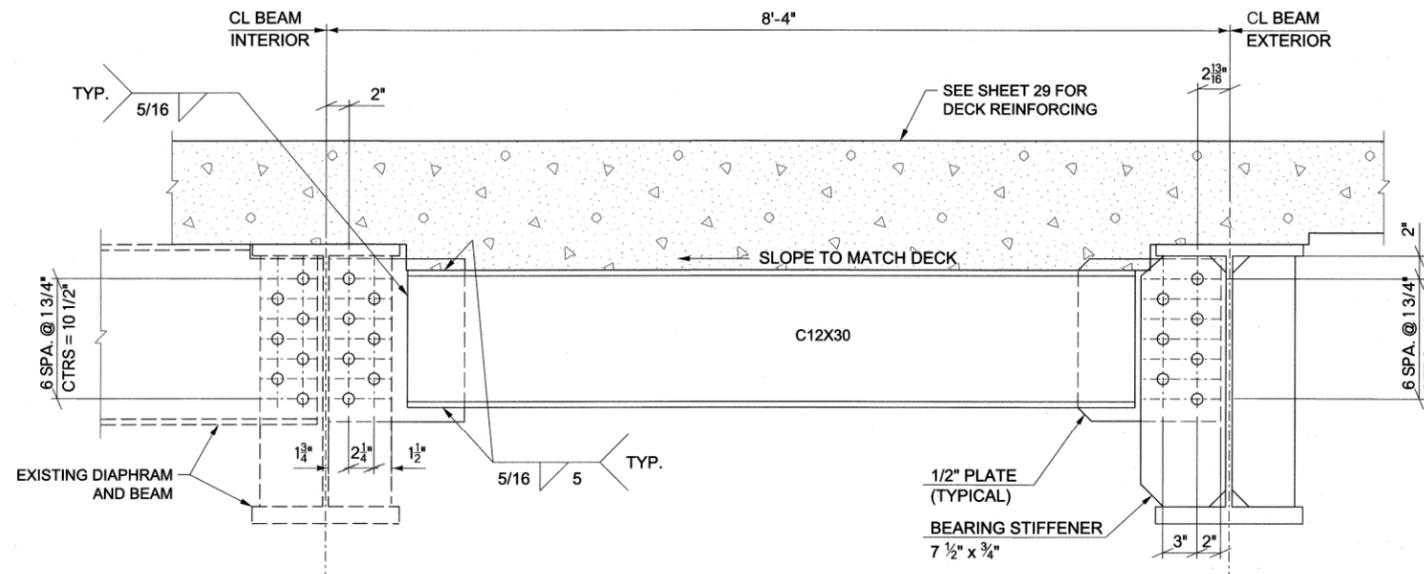
DEAD LOAD DEFLECTION DIAGRAM SPANS 1 AND 2

SCALE: NONE

ORDINATES	TENTH PT.	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
SPANS 1 & 2 GIRDER 1 (NEW)	AVERAGE STEEL	0.00	0.05	0.09	0.12	0.14	0.15	0.14	0.12	0.09	0.05	0.00
	AVERAGE CONCRETE	0.00	0.24	0.46	0.62	0.73	0.77	0.73	0.63	0.46	0.24	0.00
	AVERAGE TOTAL	0.00	0.29	0.55	0.74	0.87	0.92	0.87	0.75	0.55	0.29	0.00
SPANS 1 & 2 AVG. GIRDER 2-4 (EXISTING)	AVERAGE STEEL	0.00	0.05	0.09	0.12	0.14	0.15	0.14	0.12	0.09	0.05	0.00
	AVERAGE CONCRETE	0.00	0.21	0.39	0.53	0.62	0.65	0.62	0.53	0.39	0.21	0.00
	AVERAGE TOTAL	0.00	0.26	0.48	0.65	0.76	0.80	0.76	0.65	0.48	0.26	0.00

NOTES:

- DEFLECTION IS IN INCHES.
- POSITIVE VALUE INDICATES DEFLECTION IS DOWNWARD.
- CONCRETE LOAD INCLUDES SLAB, HAUNCHES AND PARAPETS AND STAY-IN-PLACE FORMS.



**END DIAPHRAM
SPAN NO. 1 AND SPAN NO. 2**

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

NOTES:

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- BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE STRUCTURE AND ROADWAY. DAMAGE DUE TO THE CONSTRUCTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.
- BEAM AND DIAPHRAGMS LENGTHS AND OVERALL HEIGHTS OF BEAMS SHALL BE CONFIRMED BY CONTRACTOR PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION. SURVEY OF BRIDGE PRIOR TO CONSTRUCTION REQUIRED. ALL MATERIAL THAT IS FABRICATED TO DIMENSIONS NOT FITTING EXISTING CONDITIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.

SEE BRIDGE GENERAL NOTES "VERIFICATION OF EXISTING CONDITIONS".



BRIDGE 225 OVER MINGO CREEK
SUPERSTRUCTURE DETAILS
(6 OF 8)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

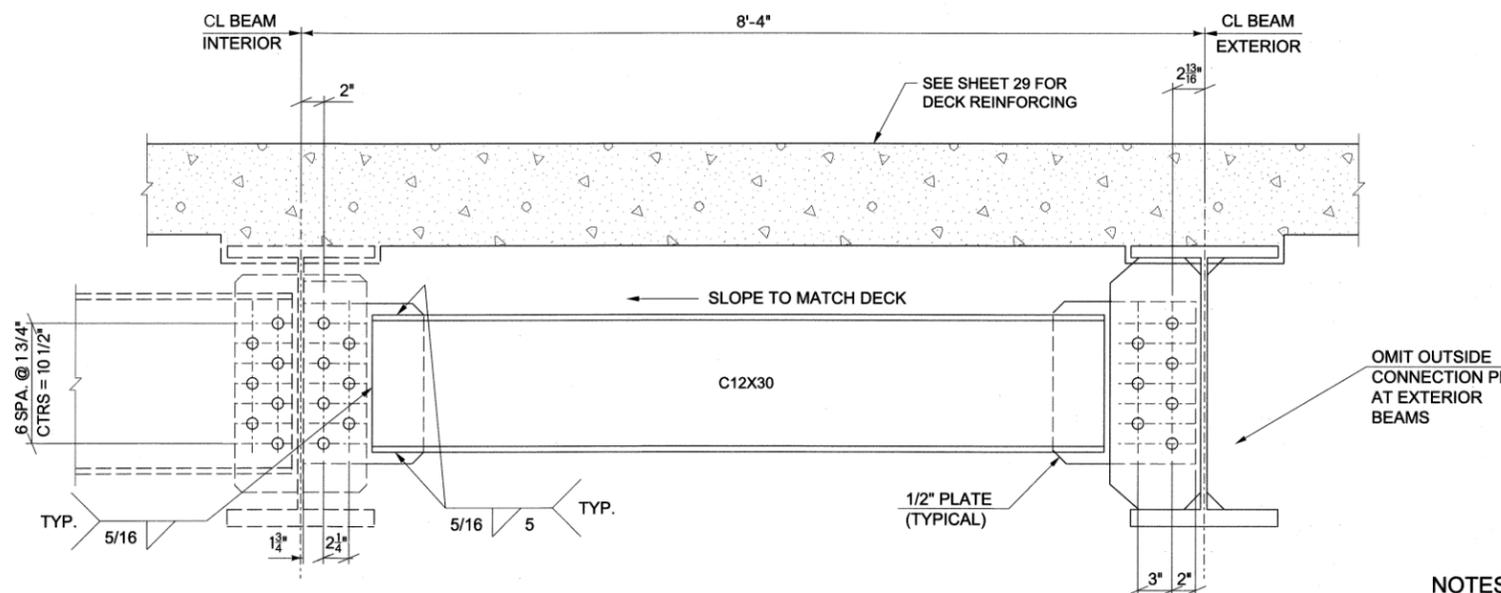


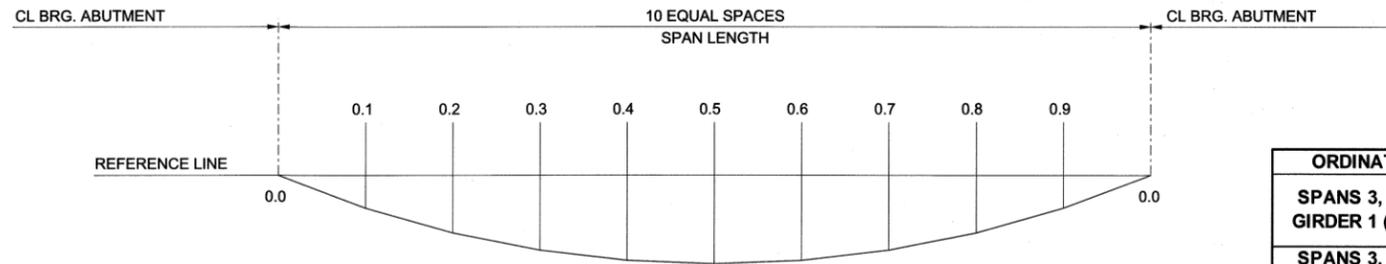
REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE HORIZONTAL:	FIELD MGR	<i>[Signature]</i>	12/15	
			1"	PROJECT MGR	<i>[Signature]</i>	11/16/25	
			VERTICAL:	LEAD ENGR	EAS	11/2/25	
			1"	RECOMMENDED			
				DESIGN MANAGER	<i>[Signature]</i>	11-25	
				FILE: 1400405-S-225-Detail12.dgn			DATE: OCTOBER 2025
				ATLAS PAGE NO.: 172, 173			SHEET 34 OF 54 SHEETS

NOTES:

- ALL BOLTED CONNECTIONS SHALL BE 1" DIA. HIGH STRENGTH BOLTS (A325) WITH DIRECT TENSION INDICATORS AS SPECIFIED IN SECTION 506 OF THE STANDARD SPECIFICATIONS. THE "CALIBRATED WRENCH" METHOD SHALL NOT BE USED. ALL BOLT HOLES SHALL BE 1 1/8" DIA.

**INTERMEDIATE DIAPHRAM
SPAN NO. 1 AND SPAN NO. 2**



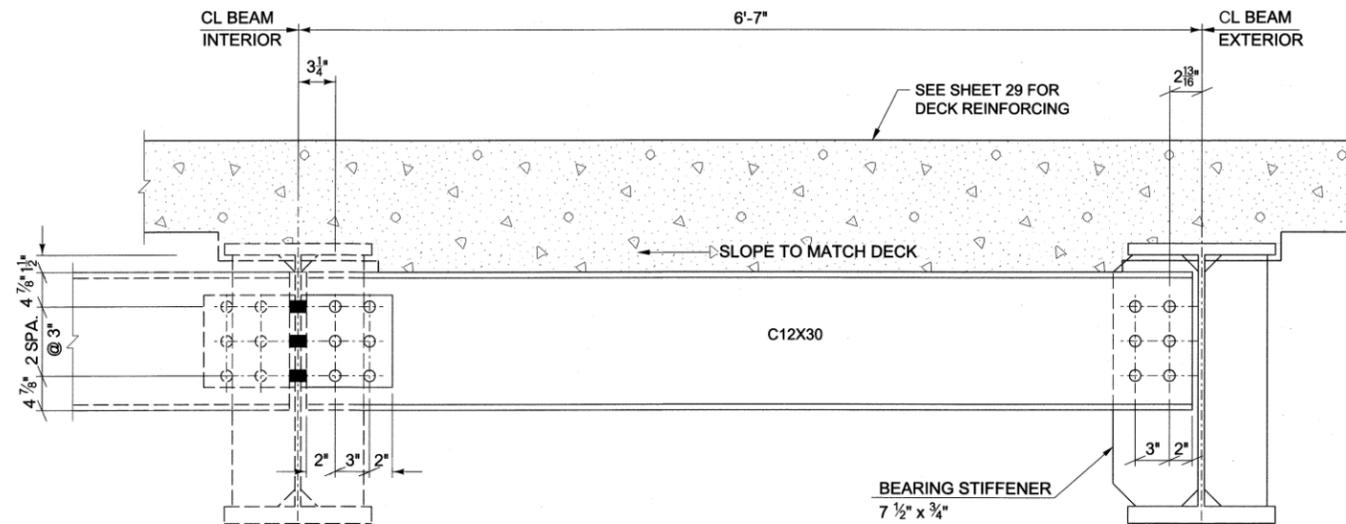


DEAD LOAD DEFLECTION DIAGRAM SPANS 3,4 AND 5
SCALE: NONE

ORDINATES	TENTH PT.	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
SPANS 3, 4 & 5 GIRDER 1 (NEW)	AVERAGE STEEL	0.00	0.07	0.13	0.18	0.21	0.22	0.21	0.18	0.13	0.07	0.00
	AVERAGE CONCRETE	0.00	0.29	0.56	0.76	0.90	0.94	0.90	0.77	0.56	0.30	0.00
	AVERAGE TOTAL	0.00	0.36	0.69	0.94	1.11	1.16	1.11	0.95	0.69	0.37	0.00
SPANS 3, 4 & 5 AVG. GIRDER 2-5 (EXISTING)	AVERAGE STEEL	0.00	0.07	0.13	0.18	0.21	0.22	0.21	0.18	0.13	0.07	0.00
	AVERAGE CONCRETE	0.00	0.23	0.44	0.60	0.69	0.73	0.69	0.60	0.44	0.23	0.00
	AVERAGE TOTAL	0.00	0.30	0.57	0.78	0.90	0.95	0.90	0.78	0.57	0.30	0.00

NOTES:

- DEFLECTION IS IN INCHES.
- POSITIVE VALUE INDICATES DEFLECTION IS DOWNWARD.
- CONCRETE LOAD INCLUDES SLAB, HAUNCHES AND PARAPETS. AND STAY-IN-PLACE FORMS.



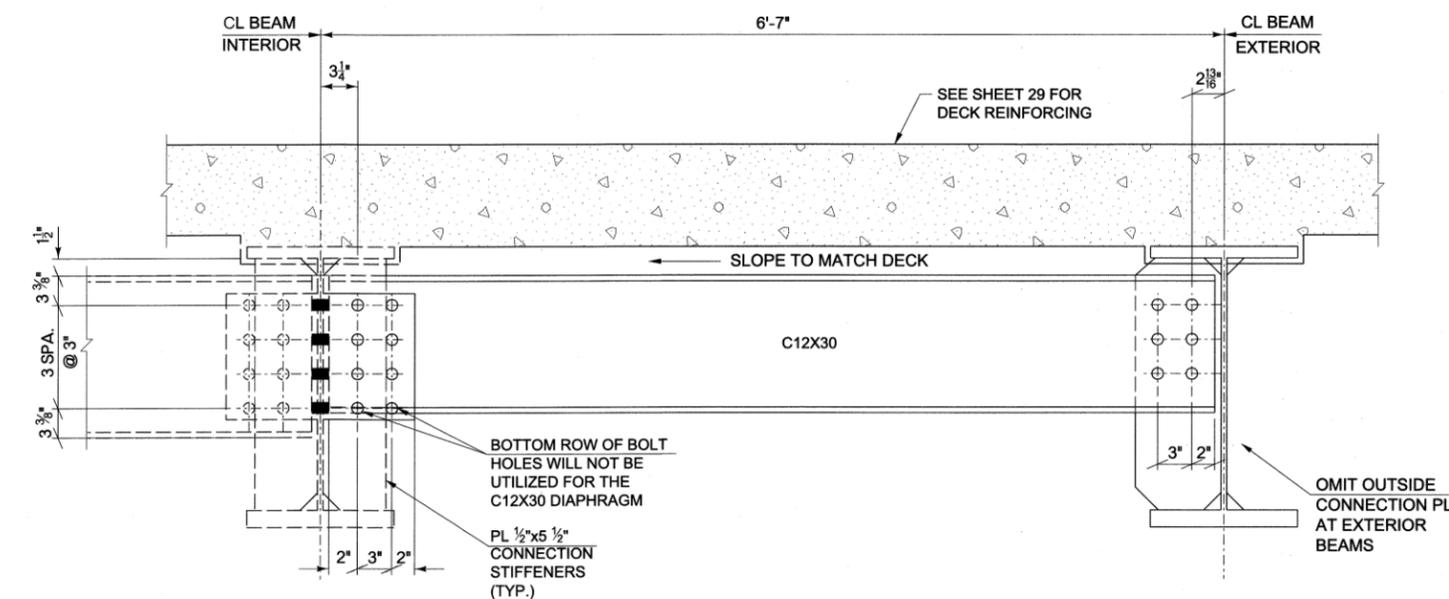
END DIAPHRAGM
SPAN NO. 3, SPAN NO. 4 AND SPAN NO. 5

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

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SEE BRIDGE GENERAL NOTES "VERIFICATION OF EXISTING CONDITIONS".



INTERMEDIATE DIAPHRAGM
SPAN NO. 3, SPAN NO. 4 AND SPAN NO. 5

NOTES:

- ALL BOLTED CONNECTIONS SHALL BE 1" DIA. HIGH STRENGTH BOLTS (A325) WITH DIRECT TENSION INDICATORS AS SPECIFIED IN SECTION 506 OF THE STANDARD SPECIFICATIONS. THE "CALIBRATED WRENCH" METHOD SHALL NOT BE USED. ALL BOLT HOLES SHALL BE 1 1/8" DIA.

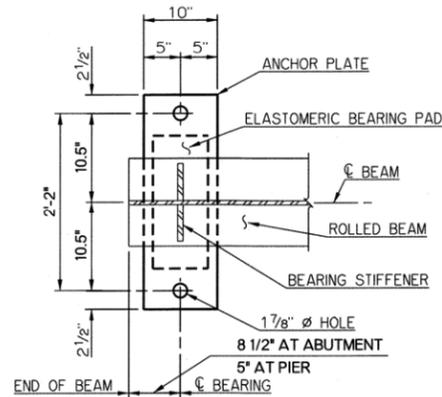


BRIDGE 225 OVER MINGO CREEK
SUPERSTRUCTURE DETAILS
(7 OF 8)
ARTERIAL STREET REHABILITATION
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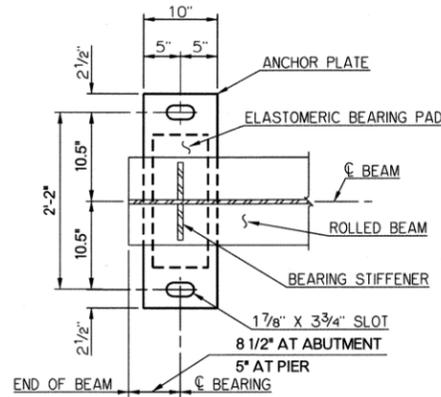


REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>[Signature]</i>		
			HORIZONTAL:	PROJECT MGR	<i>[Signature]</i>	11/04/25	
				LEAD ENGR	EAS	11-2025	
			VERTICAL:	RECOMMENDED	HAS	11-25	
				DESIGN MANAGER	<i>[Signature]</i>		CITY ENGINEER
			FILE:	1400405-S-225-Detail13.dgn			DATE: OCTOBER 2025
			ATLAS PAGE NO.:	172, 173			SHEET 35 OF 54 SHEETS

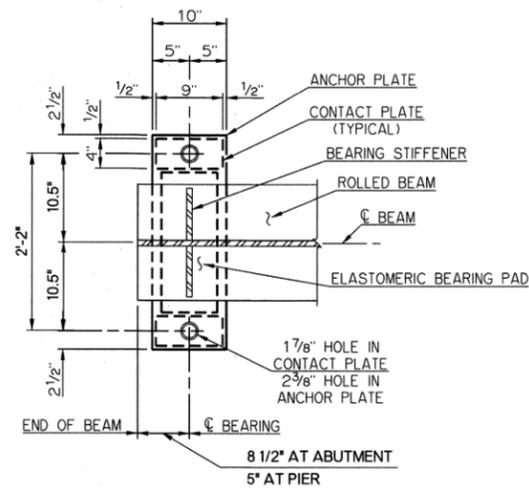
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION



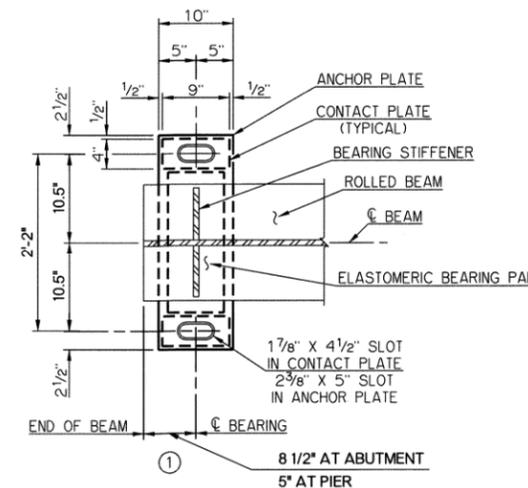
FIXED BEARING PLAN
ANCHOR BOLT ASSEMBLIES NOT SHOWN
(ABUTMENT 1, PIER 1 AHEAD)



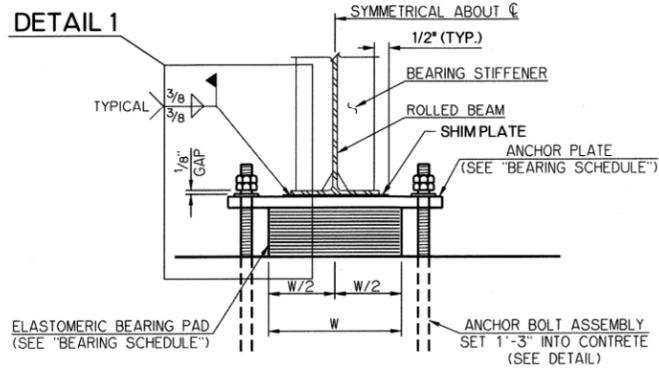
EXPANSION BEARING PLAN
ANCHOR BOLT ASSEMBLIES NOT SHOWN
(PIER 1 BACK, PIER 2 BACK)



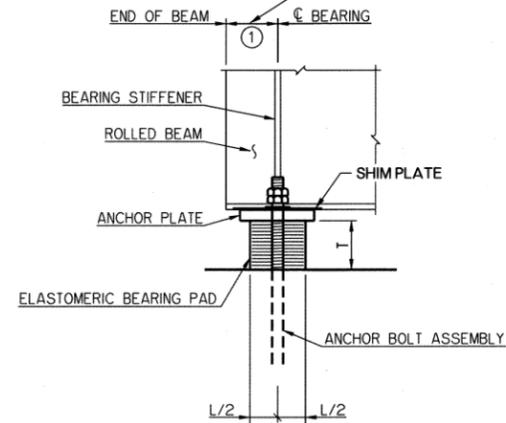
FIXED BEARING PLAN
ANCHOR BOLT ASSEMBLIES NOT SHOWN
(PIER 2 AHEAD, PIER 4 BACK, ABUTMENT 2)



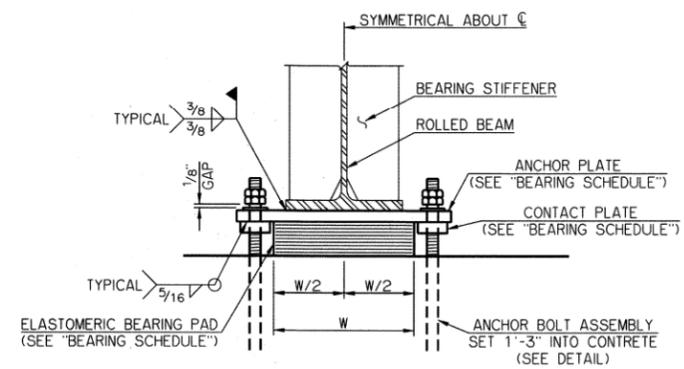
EXPANSION BEARING PLAN
ANCHOR BOLT ASSEMBLIES NOT SHOWN
(PIER 3, PIER 4 AHEAD)



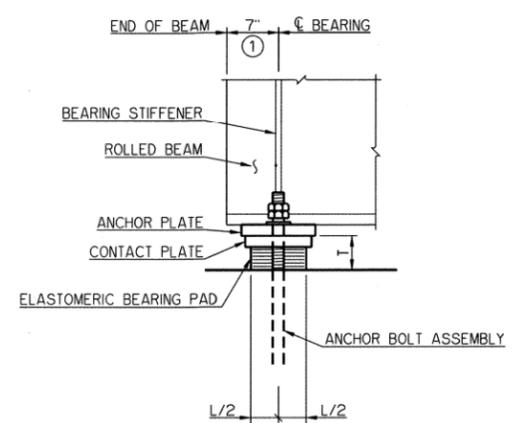
END VIEW



SIDE VIEW



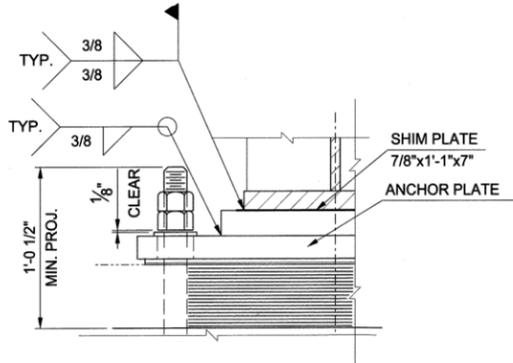
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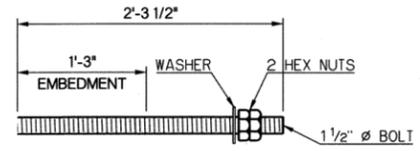
SIDE VIEW

BEARING DETAILS
(SPANS 1 AND 2)

BEARING DETAILS
(SPANS 3, 4 AND 5)



DETAIL 1



ANCHOR BOLT ASSEMBLY DETAIL

BEARING ASSEMBLY SCHEDULE								
BEARING ASSEMBLY		ANCHOR PLATE		60 DUROMETER ELASTOMERIC BEARING PAD (A-36 STEEL LAMINATES)				
BEARING LOCATION	BEARING TYPE	"A" BEVEL SLOPE %	PLATE DIMENSIONS	SIZE (T x L x W)	NUMBER OF INTERIOR LAYERS	HEIGHT OF INTERIOR LAYERS	NUMBER OF 1/8" LAMINATES	HEIGHT OF EXTERIOR LAYERS (IN)
ABUTMENT NO. 1	FIX.	0.00	1 1/2" x 10" x 2'-2"	5 1/8" x 7" x 1'-4"	9	3/8"	10	1/4"
PIER NO. 1 (SPAN 1)	EXP.	0.00	1 1/2" x 10" x 2'-2"	5 1/8" x 7" x 1'-4"	9	3/8"	10	1/4"
PIER NO. 1 (SPAN 2)	FIX.	0.00	1 1/2" x 10" x 2'-2"	5 1/8" x 7" x 1'-4"	9	3/8"	10	1/4"
PIER NO. 2 (SPAN 3)	EXP.	0.00	1 1/2" x 10" x 2'-2"	5 1/8" x 7" x 1'-4"	9	3/8"	10	1/4"
PIER NO. 2 (SPAN 4)	FIX.	0.00	1 1/2" x 10" x 2'-2"	3 5/8" x 7" x 1'-4"	6	3/8"	9	1/4"
PIER NO. 3 (SPAN 5)	EXP.	0.00	1 1/2" x 10" x 2'-2"	3 5/8" x 7" x 1'-4"	6	3/8"	9	1/4"
PIER NO. 3 (SPAN 6)	EXP.	0.00	1 1/2" x 10" x 2'-2"	3 5/8" x 7" x 1'-4"	6	3/8"	9	1/4"
PIER NO. 4 (SPAN 7)	FIX.	0.00	1 1/2" x 10" x 2'-2"	3 5/8" x 7" x 1'-4"	6	3/8"	9	1/4"
PIER NO. 4 (SPAN 8)	EXP.	0.00	1 1/2" x 10" x 2'-2"	3 5/8" x 7" x 1'-4"	6	3/8"	9	1/4"
ABUTMENT NO. 2	FIX.	0.00	1 1/2" x 10" x 2'-2"	3 5/8" x 7" x 1'-4"	6	3/8"	9	1/4"

ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY AT EXPANSION BEARING DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.

NOTE:
ALL DETAILS ARE NOT TO SCALE



BRIDGE 225 OVER MINGO CREEK SUPERSTRUCTURE DETAILS (8 OF 8)

ARTERIAL STREET REHABILITATION E. PINE ST. (MINGO RD. TO GARNETT RD.) & BRIDGE #225 OVER MINGO CREEK PROJECT NO. 2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
15 W 6th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1600

REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	DATE	APPROVED:
			1"	DESIGNED	KSJ	10/25	
			1"	SURVEY	RDL	10/25	
			1"	FIELD MGR	<i>DRR</i>	11/04/25	
			1"	PROJECT MGR	<i>MCD</i>	11/04/25	
			1"	LEAD ENGR	<i>EAS</i>	11-2025	
			1"	RECOMMENDED	<i>HAS</i>	11-2025	
				DESIGN MANAGER			

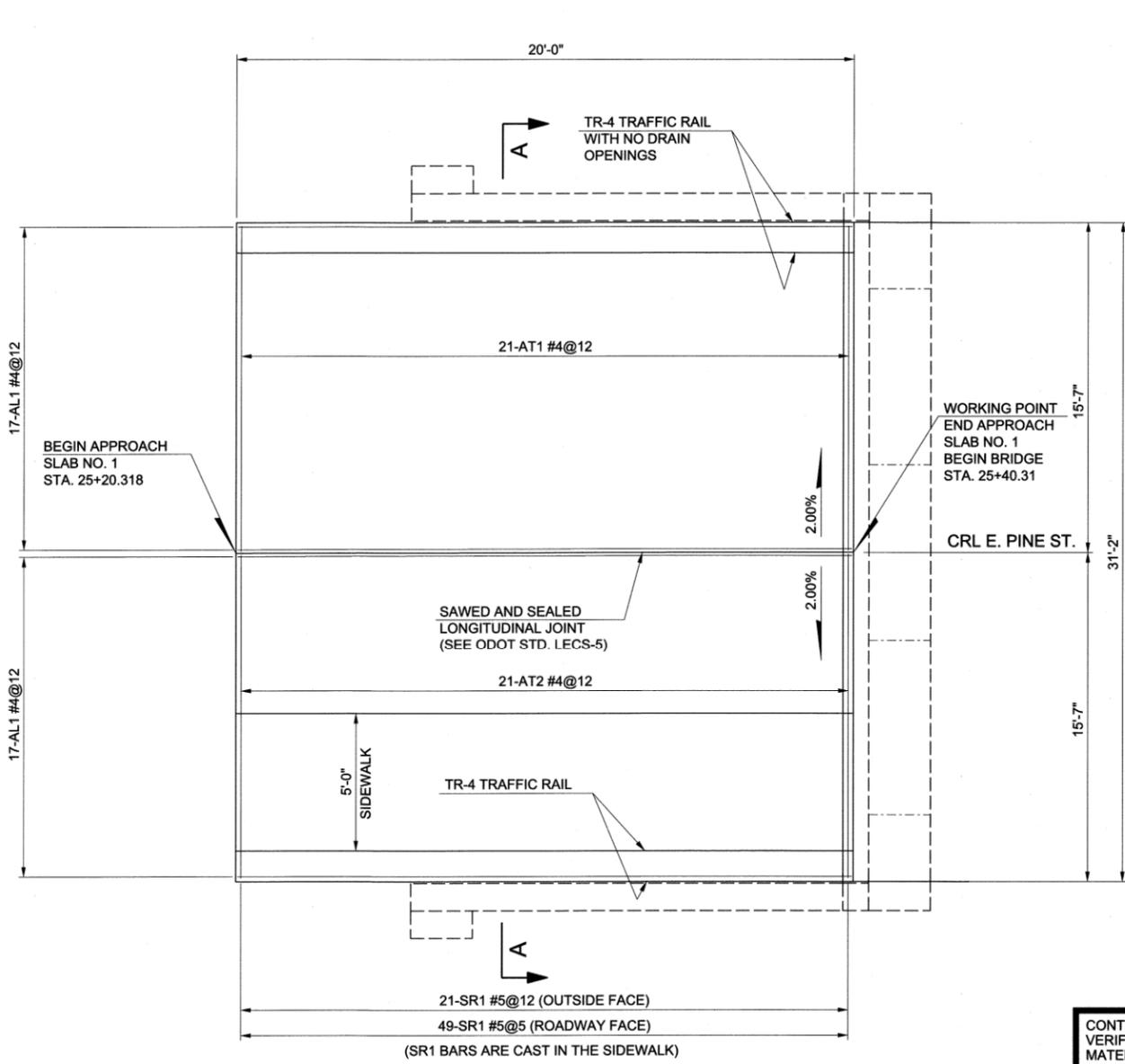
FILE: 1400405-S-225-Detail03.dgn
ATLAS PAGE NO.: 172, 173
DATE: OCTOBER 2025
SHEET 36 OF 54 SHEETS

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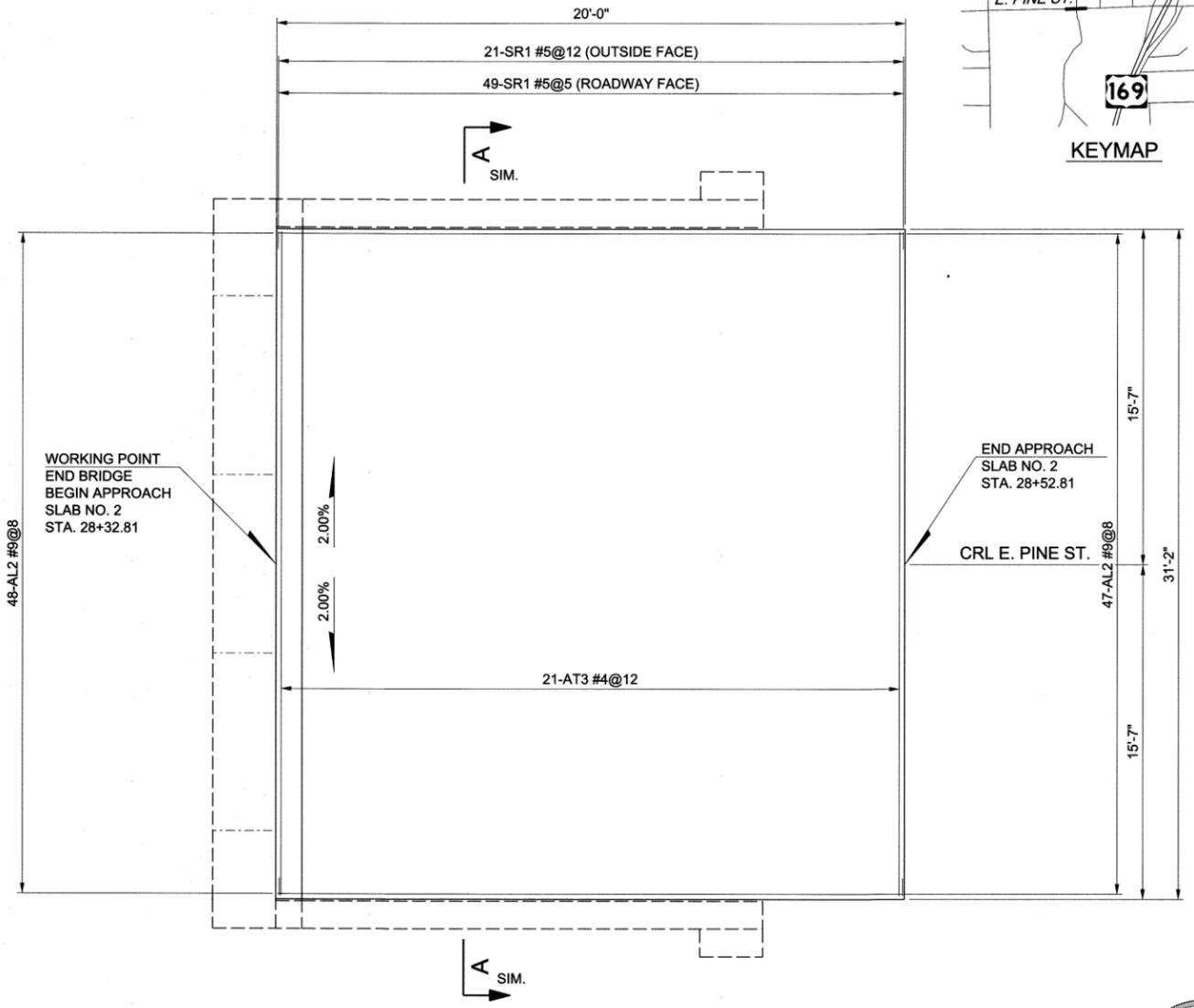
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10/30/2025



TOP REINFORCING MAT DETAIL
APPROACH SLAB NO. 1

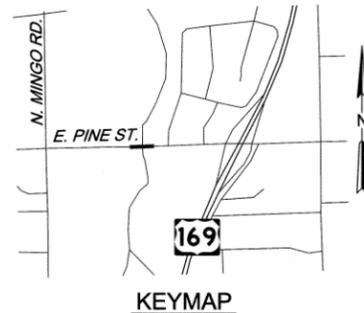


BOTTOM REINFORCING MAT DETAIL
APPROACH SLAB NO. 2

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

NOTES:

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BRIDGE 225 OVER MINGO CREEK
APPROACH SLAB DETAILS
(1 OF 2)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

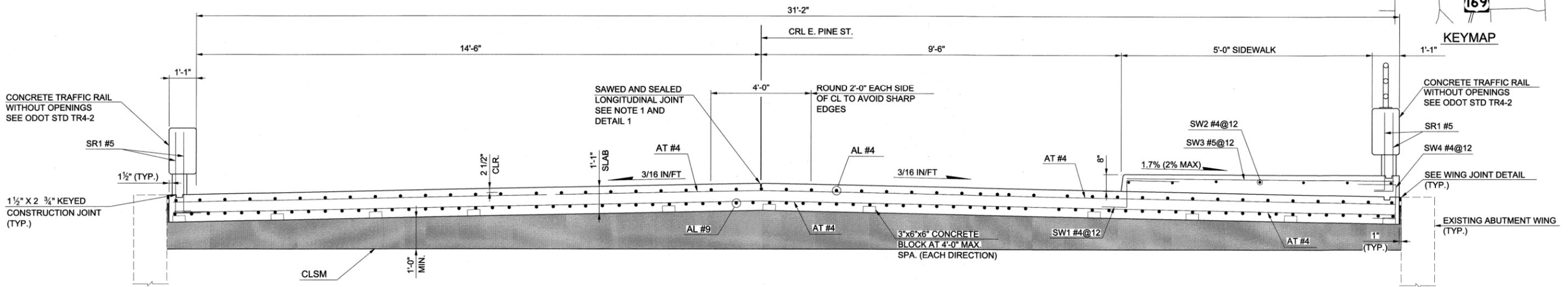
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE HORIZONTAL:	FIELD MGR	<i>[Signature]</i>	11/10/25	
			1"	PROJECT MGR	<i>[Signature]</i>	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
			1"	RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			
				FILE:	1400405-S-225-Details\08.dgn		DATE: OCTOBER 2025
				ATLAS PAGE NO.:	172, 173		SHEET 37 OF 54 SHEETS



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10/30/2025



SECTION A-A

NOTES:

- ALL DIMENSIONS AND COMPONENTS OF EXISTING BRIDGE SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY REPAIR LOCATIONS ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AND BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
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**BAR LIST - APPROACH SLAB
(ONE SHOWN, TWO REQUIRED)**

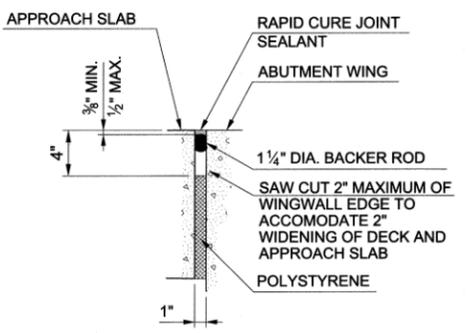
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EPOXY COATED					
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AT2	#4	21	STR.	15'-3"	
AT3	#4	21	STR.	30'-10"	
AL1	#4	34	STR.	19'-10"	
AL2	#9	47	STR.	19'-10"	
SR1	#5	140	BNT.	4'-1"	
SW1	#4	21	BNT.	4'-0"	
SW2	#4	21	STR.	5'-10"	
SW3	#5	7	STR.	19'-10"	
SW4	#4	21	BNT.	4'-2"	

- NOTES:
- FOR SR1 #5 BEND DETAIL SEE ODOT STD. TR4-2.

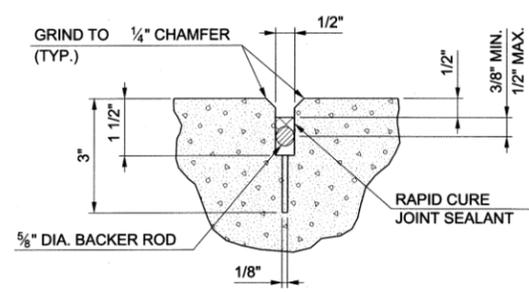
NOTES:

- PLACE REINFORCING IN THE TOP OF THE APPROACH SLAB 2" FROM EITHER SIDE OF SAWED AND SEALED LONGITUDINAL JOINT.
- FOR ADDITIONAL DETAILS OF CONCRETE TRAFFIC RAIL, ODOT STD. TR4-2. SEE CONCRETE TRAFFIC RAIL (TR4) DETAILS.
- THE COSTS OF CLASS AA CONCRETE (INCLUDING FOR SIDEWALK), REINFORCING STEEL (INCLUDING SR1 BARS AND SIDEWALK), BACKER ROD, RAPID CURE JOINT SEALANT, SAW-CUTS OF WINGWALLS, AND EXCAVATION FOR CLSM ARE TO BE INCLUDED IN THE UNIT PRICE PER SY OF APPROACH SLAB.

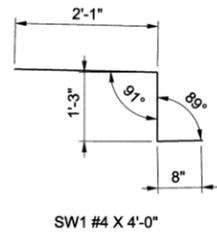
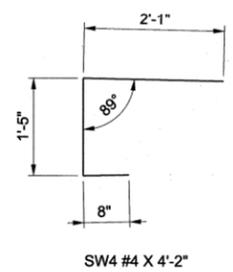
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION



WING JOINT DETAIL
SCALE: 1 1/2" = 1'-0"



DETAIL 1
SCALE: NONE
FOR ADDITIONAL DETAILS SEE STD. LECS-5-2



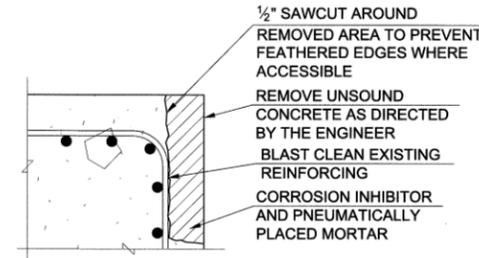
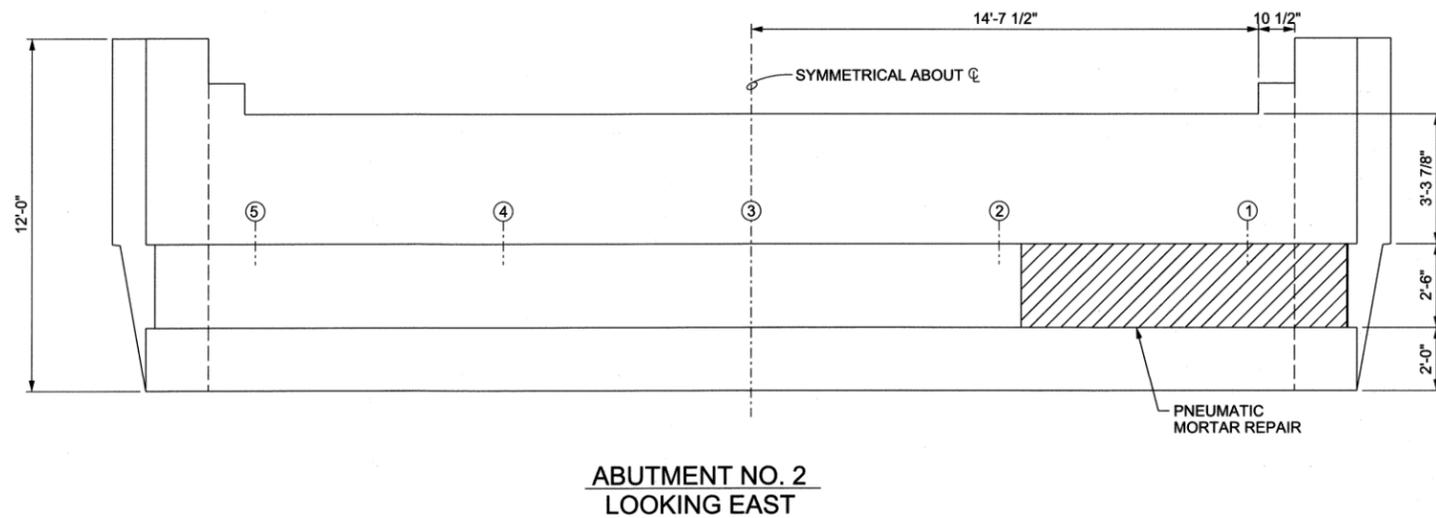
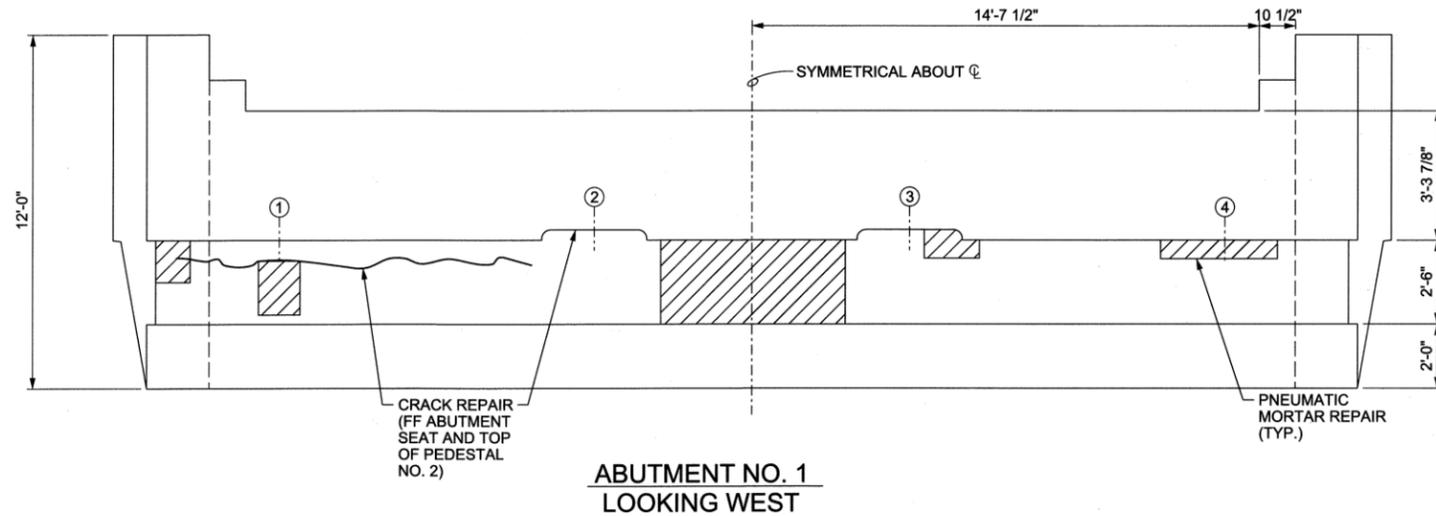
BRIDGE 225 OVER MINGO CREEK
APPROACH SLAB DETAILS
(2 OF 2)
ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 EAS LEAD ENGR RECOMMENDED 11/04/25 11-2025 HAS DESIGN MANAGER
			1"	SURVEY	RDL	10/25	
			1"	FIELD MGR	THU	11/04/25	
			1"	PROJECT MGR	THU	11/04/25	
			1"	LEAD ENGR	EAS	11-2025	
			1"	RECOMMENDED	EAS	11-2025	DATE: OCTOBER 2025
				DESIGN MANAGER	HAS	11-25	SHEET 38 OF 54 SHEETS



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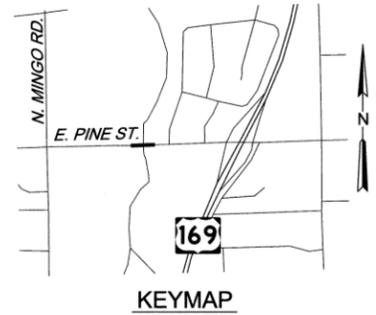


**TYPICAL DETAIL
PNEUMATICALLY PLACED MORTAR REPAIR**

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

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BRIDGE 225 OVER MINGO CREEK SUBSTRUCTURE REPAIR (1 OF 5)	
ARTERIAL STREET REHABILITATION E. PINE ST. (MINGO RD. TO GARNETT RD.) & BRIDGE #225 OVER MINGO CREEK PROJECT NO. 2436B005Z-225, 2037B0225Z, 2036A0044Z	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
BENHAM	Benham Design, LLC 15 W 9th St, Suite 900 Tulsa, Oklahoma 74119 (918) 492-1800 a Haskell Company

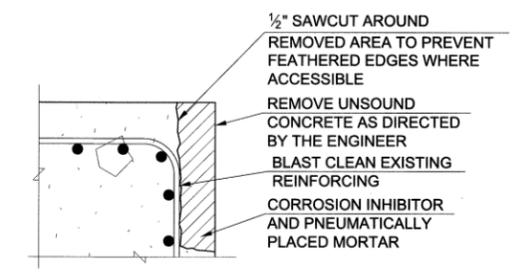
REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER DATE: OCTOBER 2025
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>[Signature]</i>	<i>11/01/25</i>	
			HORIZONTAL:	PROJECT MGR	<i>[Signature]</i>	<i>11/01/25</i>	
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				RECOMMENDED	<i>[Signature]</i>	11-25	
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			FILE:	1400405-S-225-Detail14.dgn			DATE: OCTOBER 2025
			ATLAS PAGE NO.:	172, 173			SHEET 39 OF 54 SHEETS



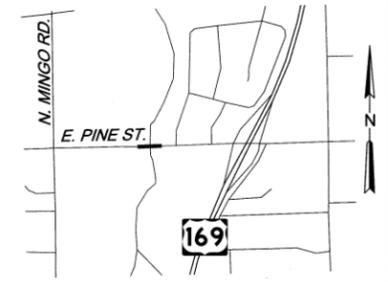
**NOTE:
ALL DETAILS ARE
NOT TO SCALE**

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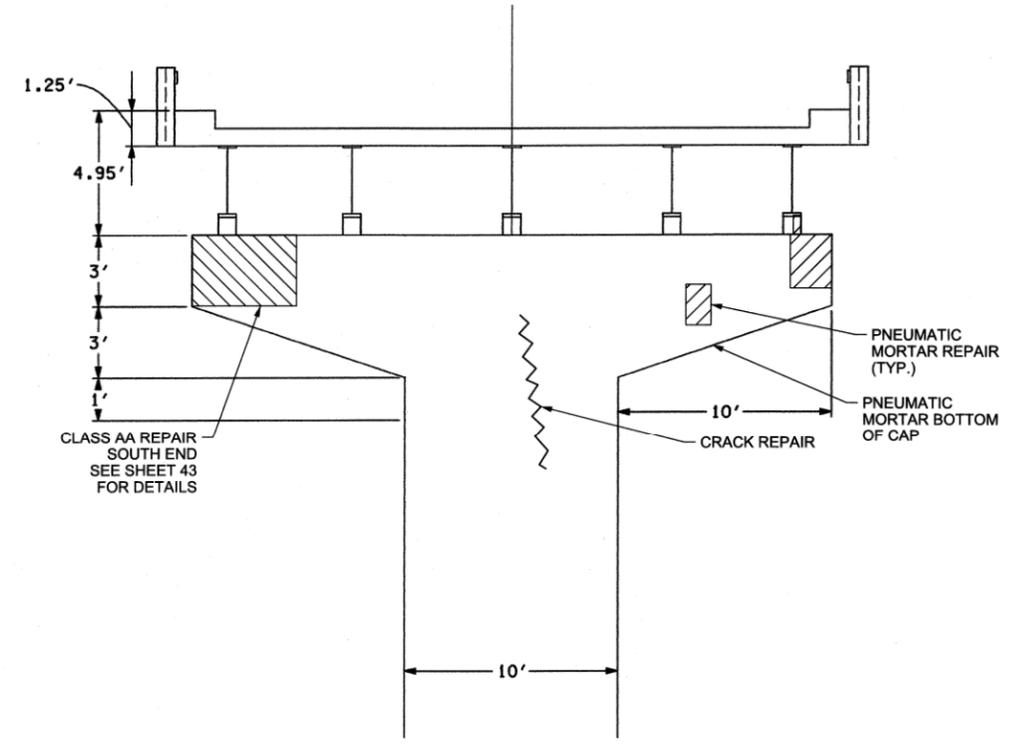
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION



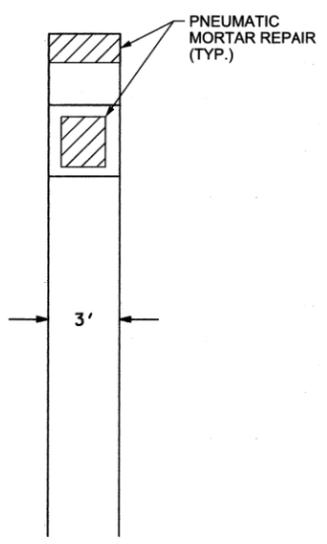
TYPICAL DETAIL
PNEUMATICALLY PLACED MORTAR REPAIR



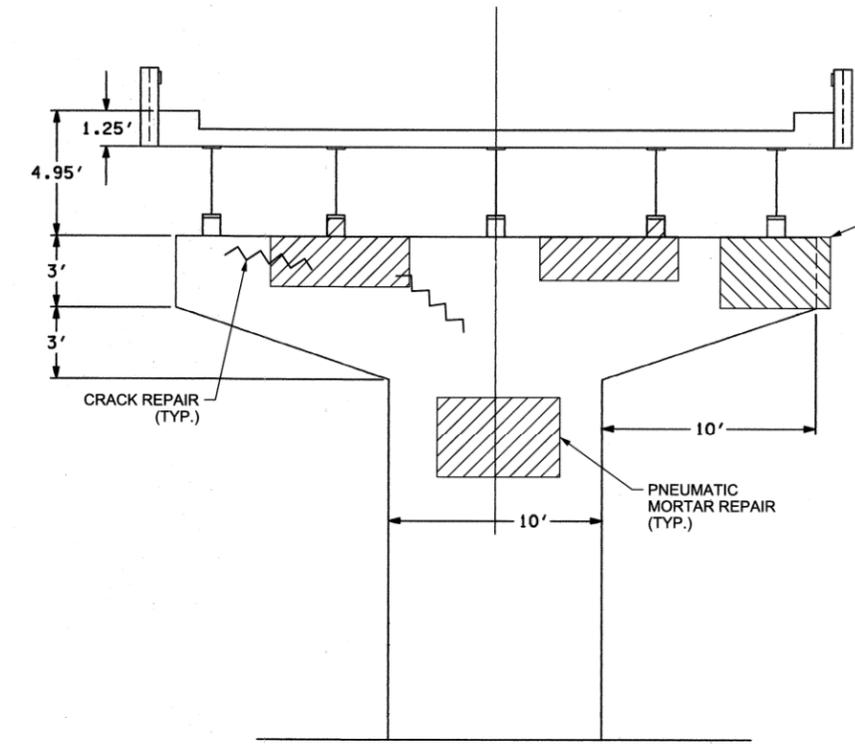
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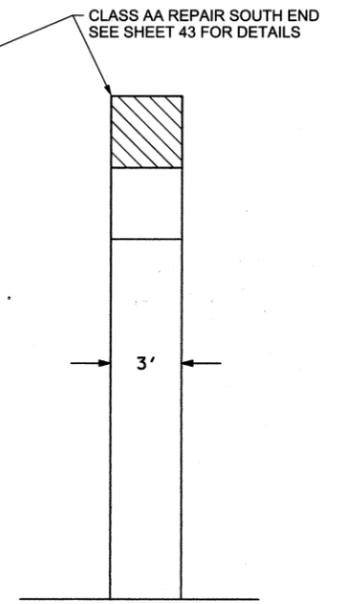
ELEVATION - PIER NO. 4
EAST FACE



PIER NO. 4 END VIEW
NORTH FACE



ELEVATION - PIER NO. 4
WEST FACE



PIER NO. 4 END VIEW
SOUTH FACE

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BRIDGE 225 OVER MINGO CREEK
 SUBSTRUCTURE REPAIR
 (2 OF 5)
 ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z
 CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

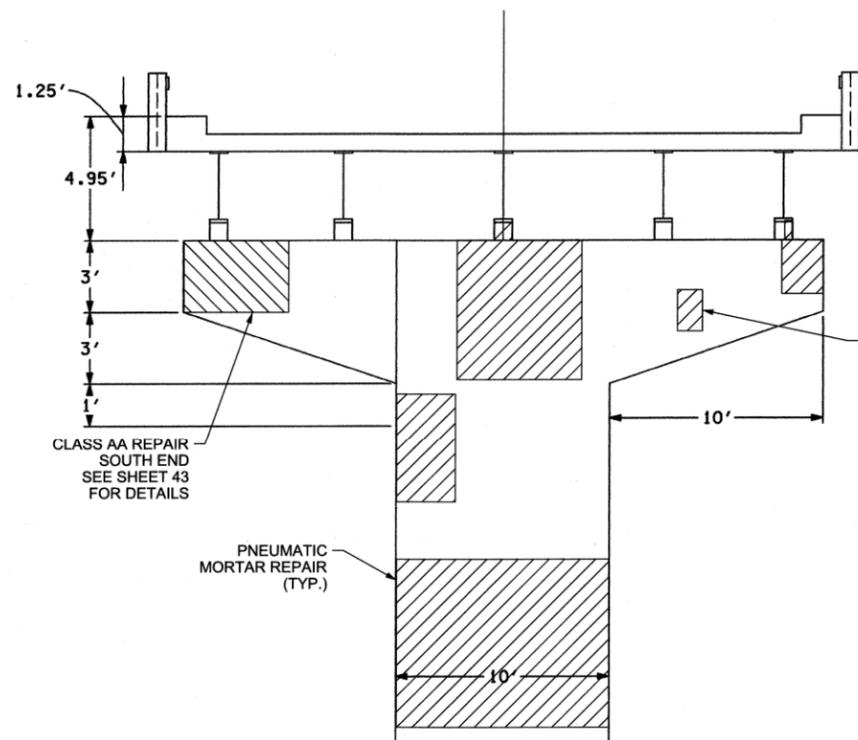
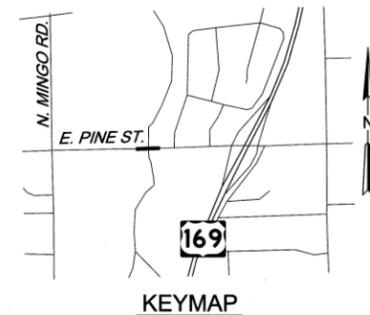


REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER DATE: OCTOBER 2025
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>[Signature]</i>	11/16/25	
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			VERTICAL:	LEAD ENGR	EAS	11-2025	
			1"	RECOMMENDED	<i>[Signature]</i>	11-25	
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				ATLAS PAGE NO.:	172, 173		

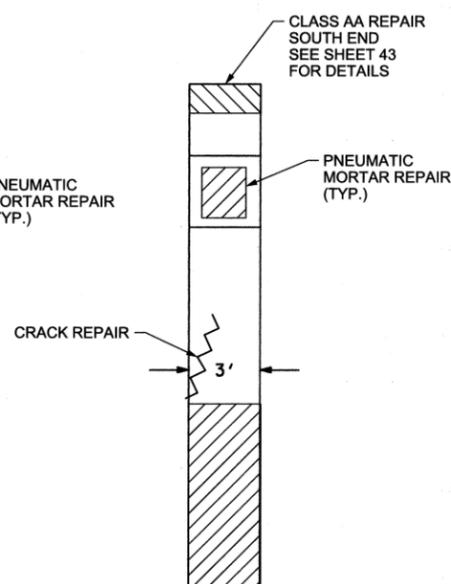
NOTE:
ALL DETAILS ARE
NOT TO SCALE



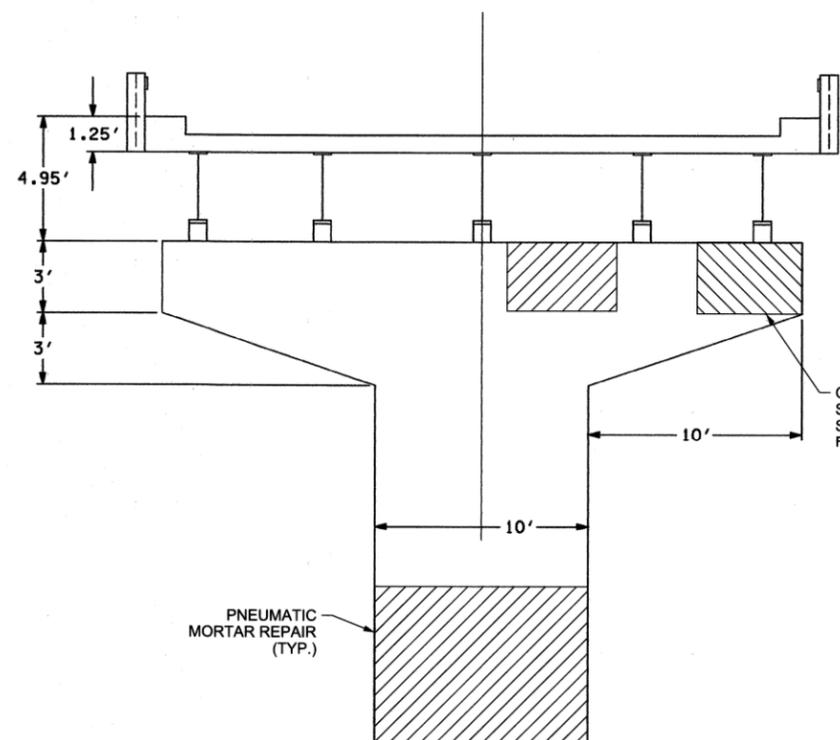
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION



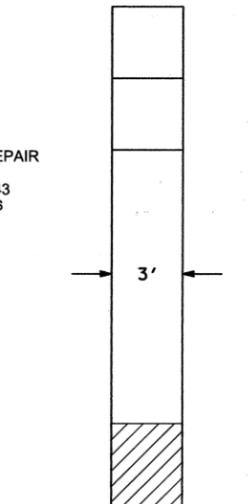
ELEVATION - PIER NO. 3 EAST FACE



PIER NO. 3 END VIEW SOUTH FACE



ELEVATION - PIER NO. 3 WEST FACE



PIER NO. 3 END VIEW NORTH FACE

NOTES:

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BRIDGE 225 OVER MINGO CREEK
SUBSTRUCTURE REPAIR
(3 OF 5)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

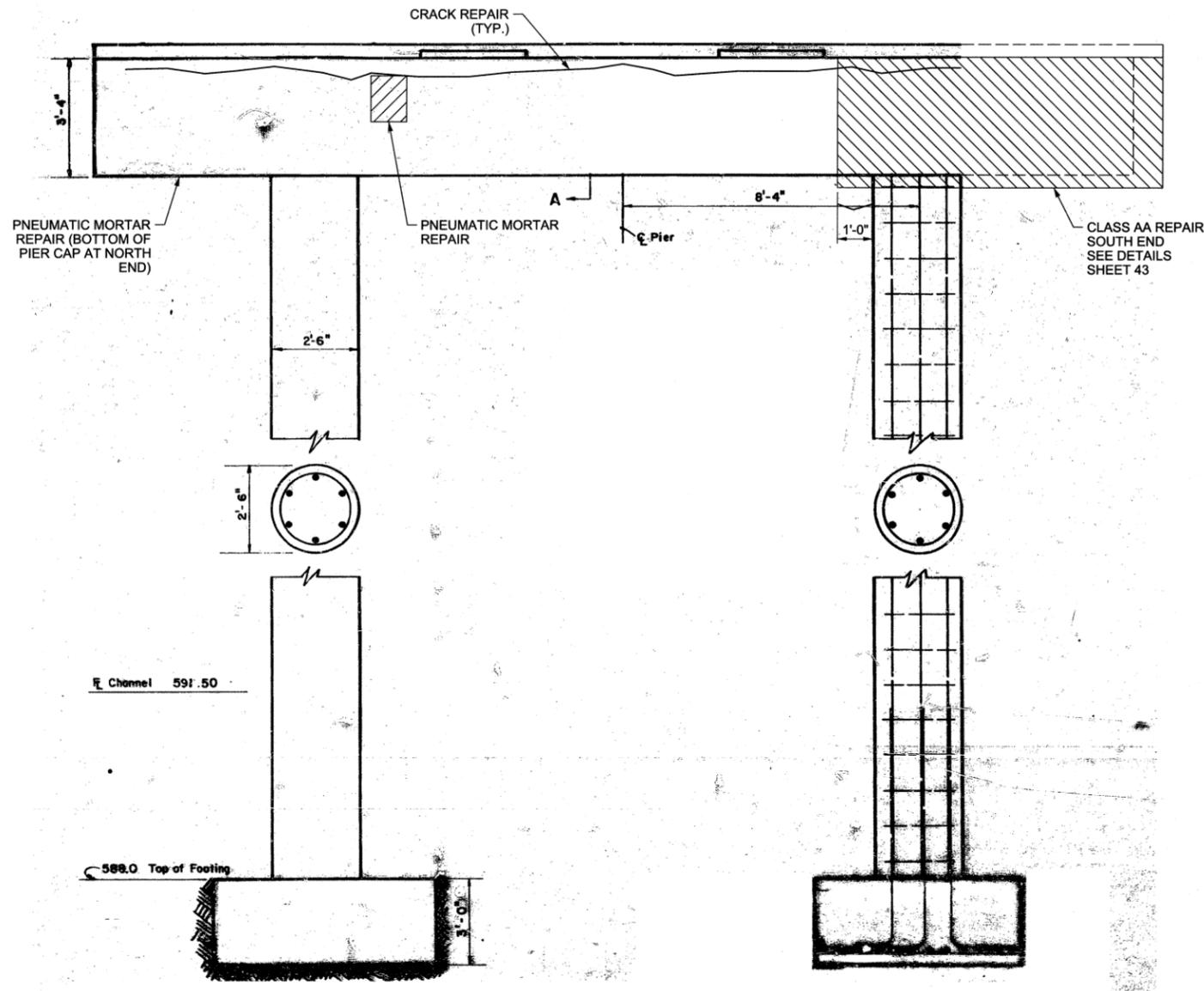
BENHAM Benham Design, LLC
15 W 6th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1600

REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	 CITY ENGINEER DATE: OCTOBER 2025
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>John</i>	10/25	
			HORIZONTAL:	PROJECT MGR	<i>MJD</i>	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2-2025	
				RECOMMENDED	HAS	8-25	
				DESIGN MANAGER			
			FILE:	1400405-S-225-Detail06.dgn			
			ATLAS PAGE NO.:	172, 173			

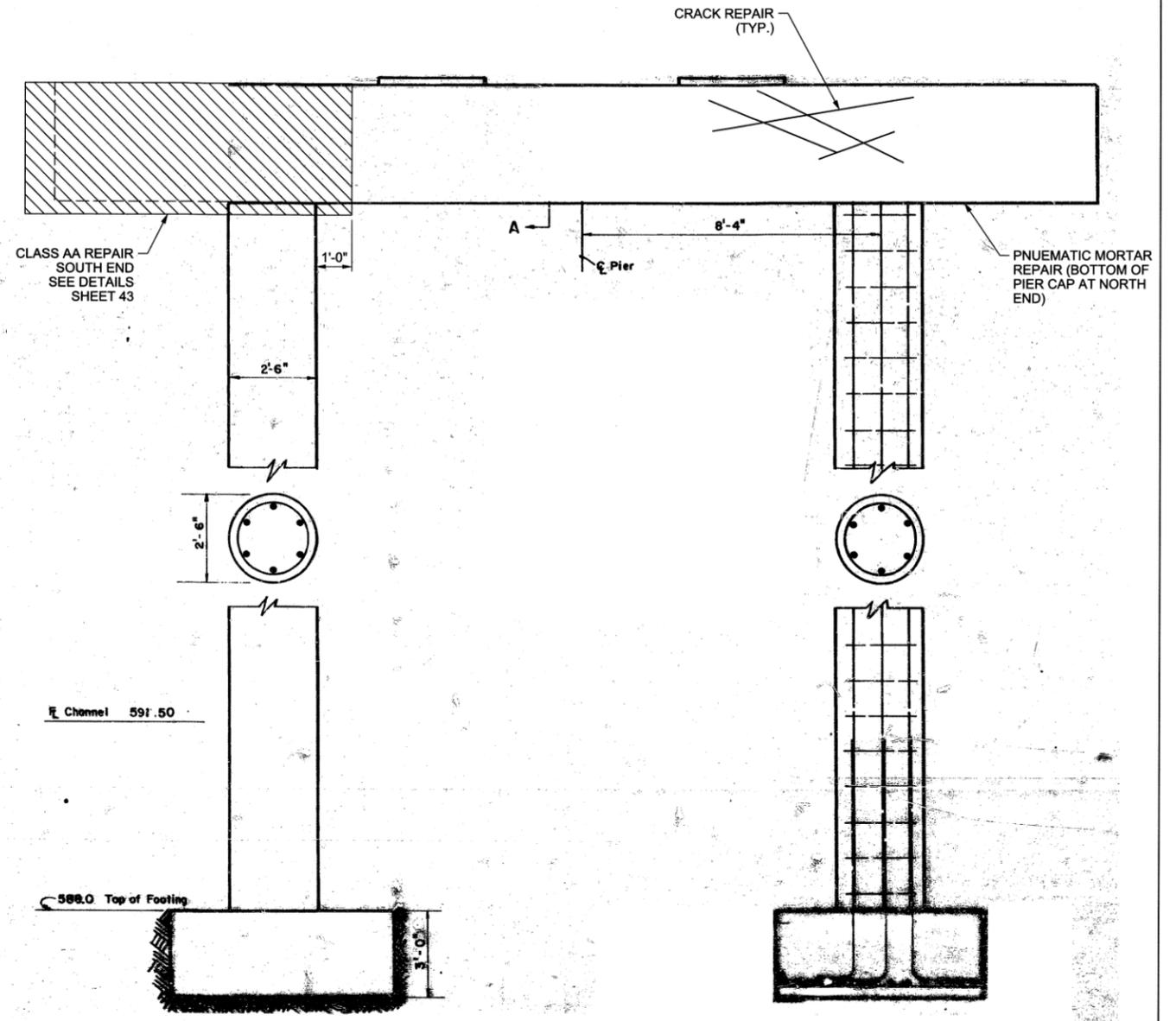
NOTE:
ALL DETAILS ARE
NOT TO SCALE



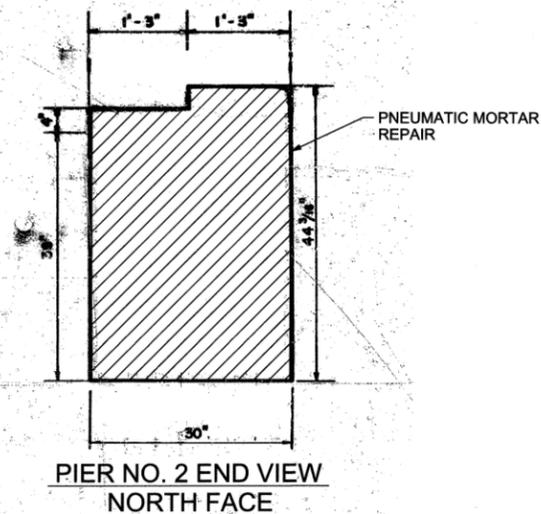
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ELEVATION - PIER NO. 2
WEST FACE



ELEVATION - PIER NO. 1
EAST FACE



PIER NO. 2 END VIEW
NORTH FACE

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION

NOTES:

- ALL DIMENSIONS AND COMPONENTS OF EXISTING BRIDGE SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY REPAIR LOCATIONS ALL DIMENSIONS NECESSARY TO COMPLETE THE WORK AND BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.
- BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE STRUCTURE AND ROADWAY. DAMAGE DUE TO THE CONSTRUCTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

NOTE:
ALL DETAILS ARE
NOT TO SCALE



BRIDGE 225 OVER MINGO CREEK
SUBSTRUCTURE REPAIR
(4 OF 5)

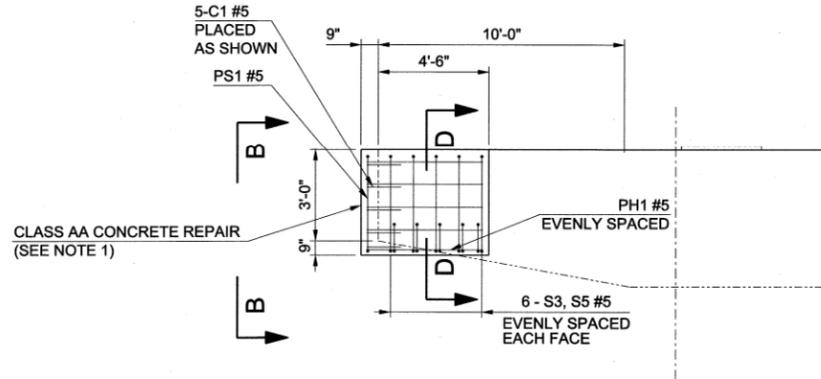
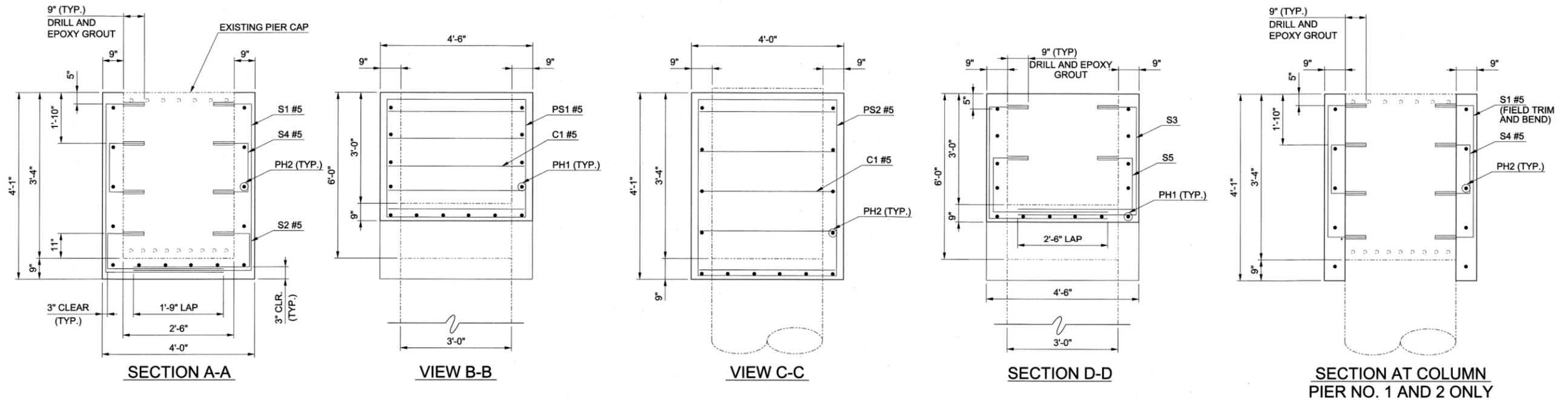
ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



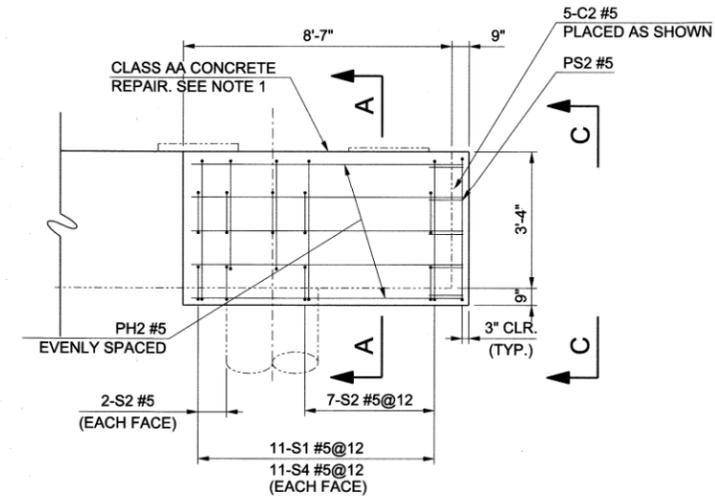
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				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	JWS	12/25	
			HORIZONTAL:	PROJECT MGR	MED	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
				RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			
			FILE:	1400405-S-225-Details05.dgn			
			ATLAS PAGE NO.:	172, 173			

P:\140_Civ\1400405 COT Pine St. Bridge Rehab\2\Design\Working\CVL07OpenRoads\1400405_COT_PineSt\dgn\Sheets\1400405-S-225-Details\07.dgn

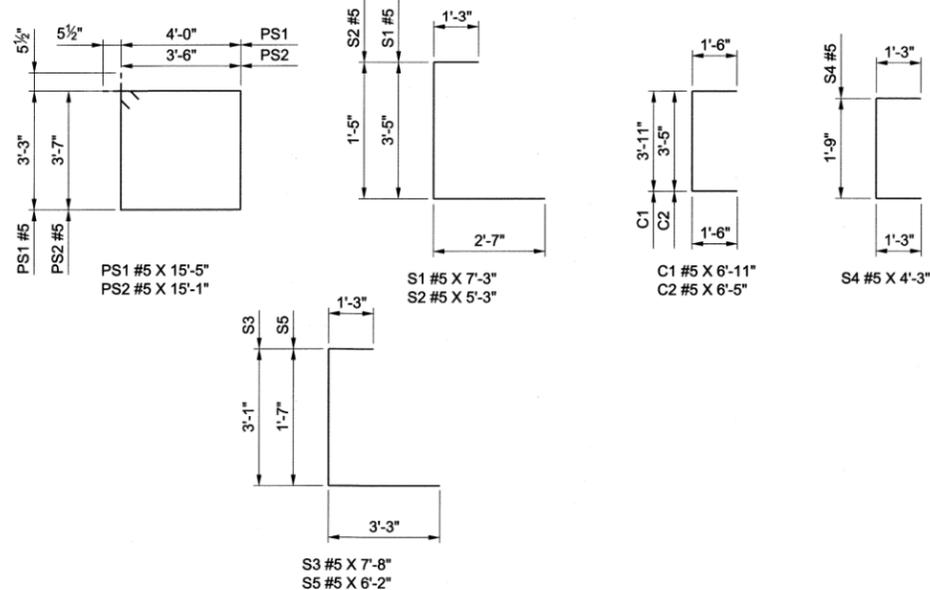


SOUTH END OF PIER CAP
PIER 3 AND 4 - LOOKING WEST

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, MATERIALS, QUANTITIES AND ALL INCIDENTALS PRIOR TO FABRICATION OF MATERIALS OR CONSTRUCTION



SOUTH END OF PIER CAP
PIER 1 AND 2 - LOOKING EAST



PIER CAP BAR LIST (ONE SHOWN, ONE REQUIRED)					
EPOXY COATED REINFORCING					
MARK	SIZE	QTY.	FORM	LENGTH	REMARKS
PH1	#5	20	STR.	4'-9"	
PH2	#5	20	STR.	8'-10"	
S1	#5	44	BNT.	7'-3"	
S2	#5	36	BNT.	5'-3"	
S3	#5	24	BNT.	7'-8"	
S4	#5	44	BNT.	4'-3"	
S5	#5	24	BNT.	6'-2"	
PS1	#5	2	BNT.	15'-5"	
PS2	#5	2	BNT.	15'-1"	
C1	#5	10	BNT.	6'-11"	
C2	#5	10	BNT.	6'-5"	

NOTE:
ALL DETAILS ARE NOT TO SCALE

NOTES:

1. REMOVE UNSOUND CONCRETE, CLEAN EXPOSED REINFORCEMENT, APPLY CORROSION INHIBITOR AND REPAIR WITH CLASS AA CONCRETE.
2. ALL NEW REINFORCING TO HAVE 2" CLEAR UNLESS NOTED OTHERWISE.
3. ALL EDGES OF PIER CAP SHALL HAVE A 1 1/2" CHAMFER.
4. CONTRACTOR SHALL DRILL AND EPOXY GROUT A MINIMUM OF (15xdb) OR AS PER MANUFACTURER'S SPECIFICATIONS. ALL COSTS FOR DRILL AND EPOXY GROUT SHALL BE INCLUDED IN THE BID PRICE PER LB OF "EPOXY COATED REINFORCING STEEL".



BRIDGE 225 OVER MINGO CREEK
SUBSTRUCTURE REPAIR
(5 OF 5)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	BEW	10/25	APPROVED:
			1"	DESIGNED	KSJ	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Tom 11/25</i>		
			HORIZONTAL:	PROJECT MGR	<i>MJD 11/25</i>		
			VERTICAL:	LEAD ENGR	<i>EAS 11-2025</i>		
				RECOMMENDED	<i>HAS 11-25</i>		
				DESIGN MANAGER	<i>HAS 11-25</i>		
							CITY ENGINEER
							DATE: OCTOBER 2025
							SHEET 43 OF 54 SHEETS

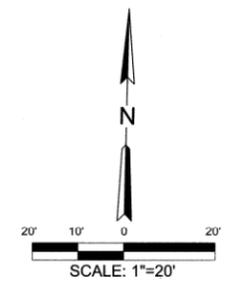
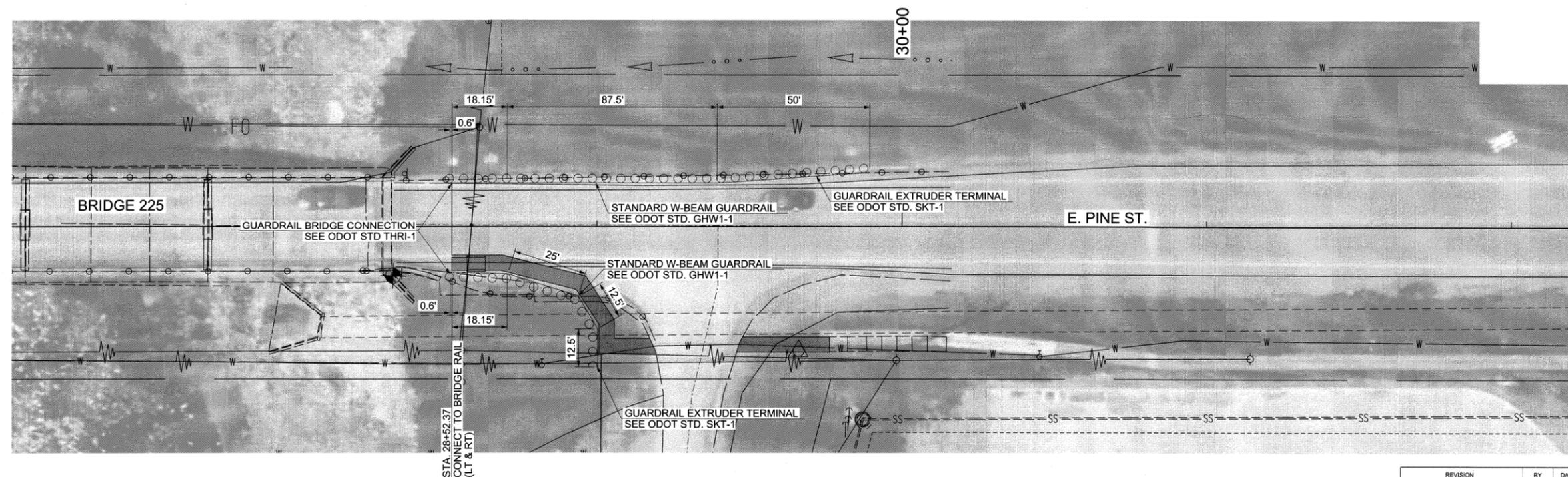
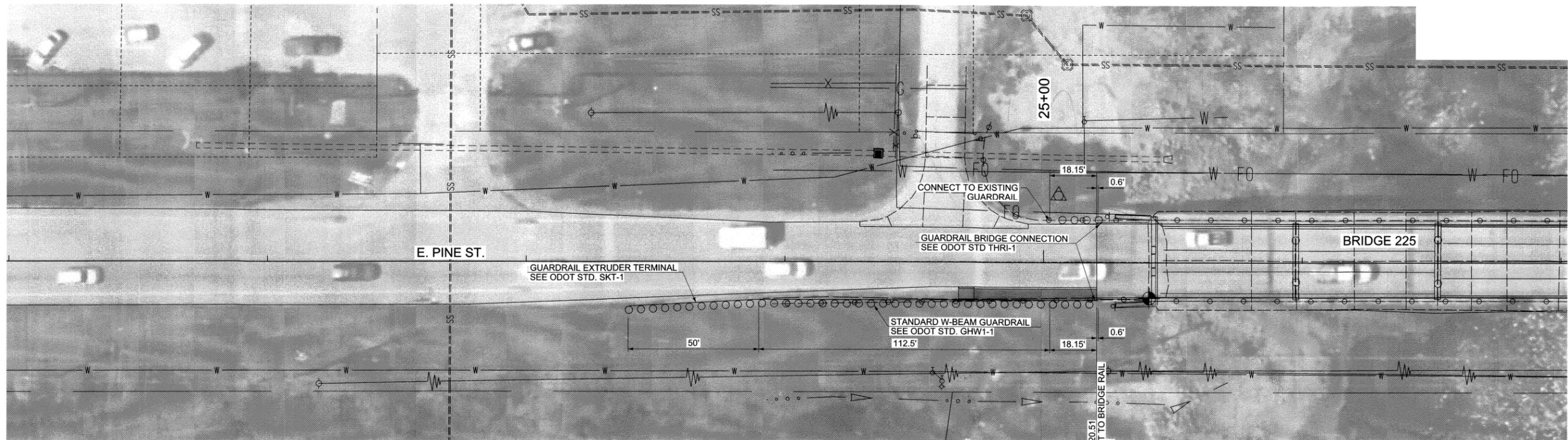
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10/30/2025

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10/30/2025



GUARDRAIL LAYOUT

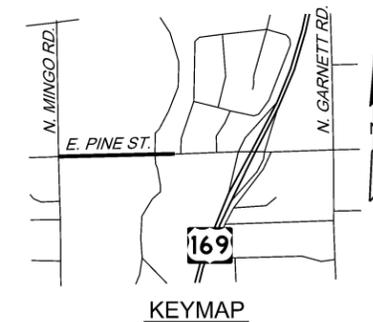
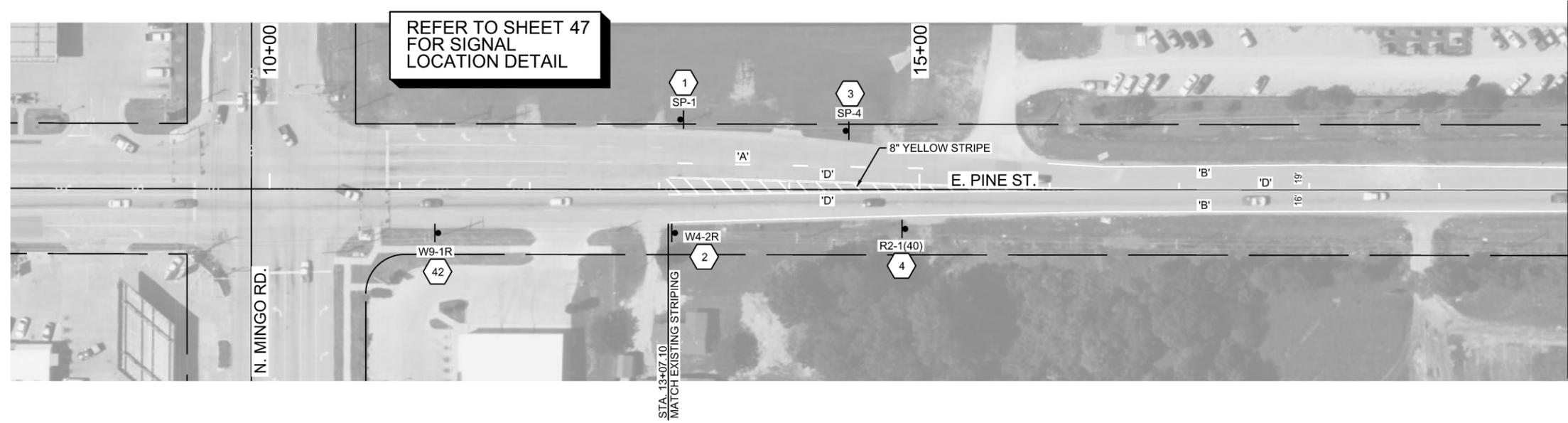
ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT



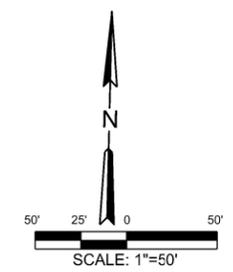
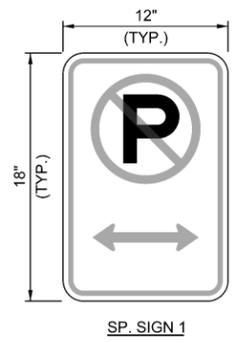
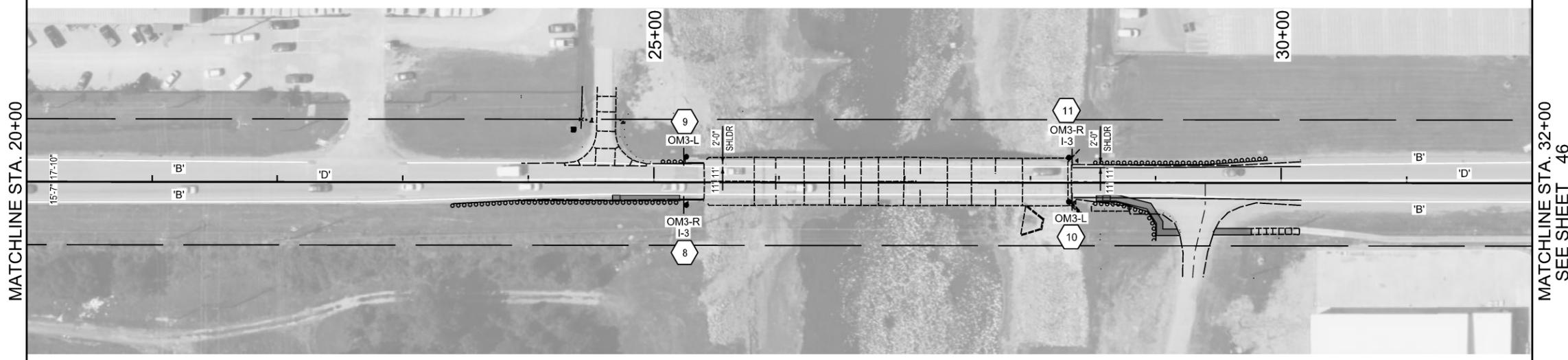
REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"=NA	DESIGNED	KLE	10/25	 CITY ENGINEER DATE: OCTOBER 2025 SHEET 44 OF 54 SHEETS
			1"=NA	SURVEY	RDL	10/25	
			1"=NA	FIELD MGR	<i>Tom 12/25</i>		
			1"=NA	PROJECT MGR	<i>MSB 11/04/25</i>		
			1"=NA	LEAD ENGR	<i>EAS 11-20-25</i>		
				RECOMMENDED	<i>H+S 11-25</i>		
				DESIGN MANAGER			
				FILE:	1400405-C-Guardrail 01.dgn		
				ATLAS PAGE NO.:	172, 173		





LEGEND:

- TYPE 'A' LINE
4" BROKEN WHITE LINE
- TYPE 'B' LINE
4" SOLID WHITE LINE
- TYPE 'D' LINE
4" DOUBLE YELLOW CENTERLINE LINE
- TYPE 'F' LINE
24" SOLID WHITE LINE (STOP LINE)
- ARROW PAVEMENT MARKING
- SIGN NUMBER
- PROPOSED SIGN
- EXISTING SIGN



SIGNING AND STRIPING
(1 OF 2)

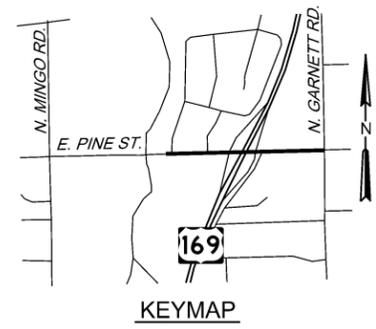
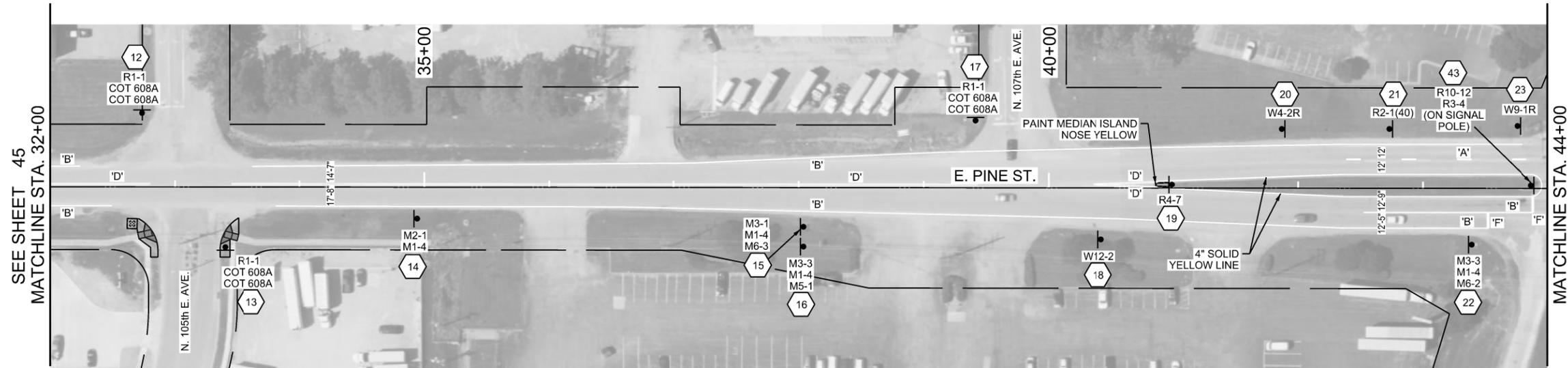
ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
15 W 6th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1600
a Haskell Company

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1" = 50'	DESIGNED	KLE	10/25	 KRISTI ERICKSON CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Tom</i>	11/1/25	
			HORIZONTAL:	PROJECT MGR	<i>MSB</i>	11/1/25	
			VERTICAL:	LEAD ENGR	<i>LSB</i>	11/25	
				RECOMMENDED			
				DESIGN MANAGER	<i>KAJ</i>	11-25	
			FILE: 1400405-C-Striping 01.dgn				DATE: OCTOBER 2025
			ATLAS PAGE NO.: 172, 173				SHEET 45 OF 54 SHEETS

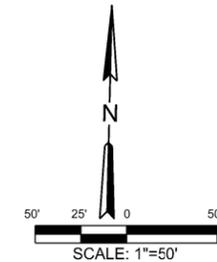
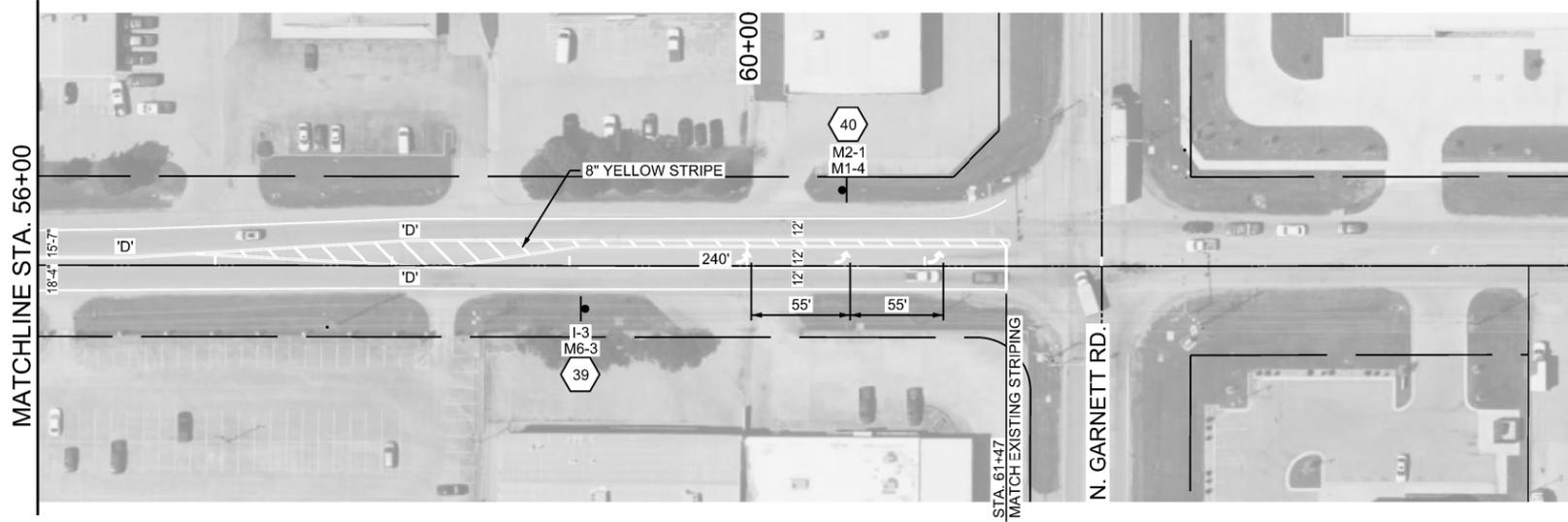
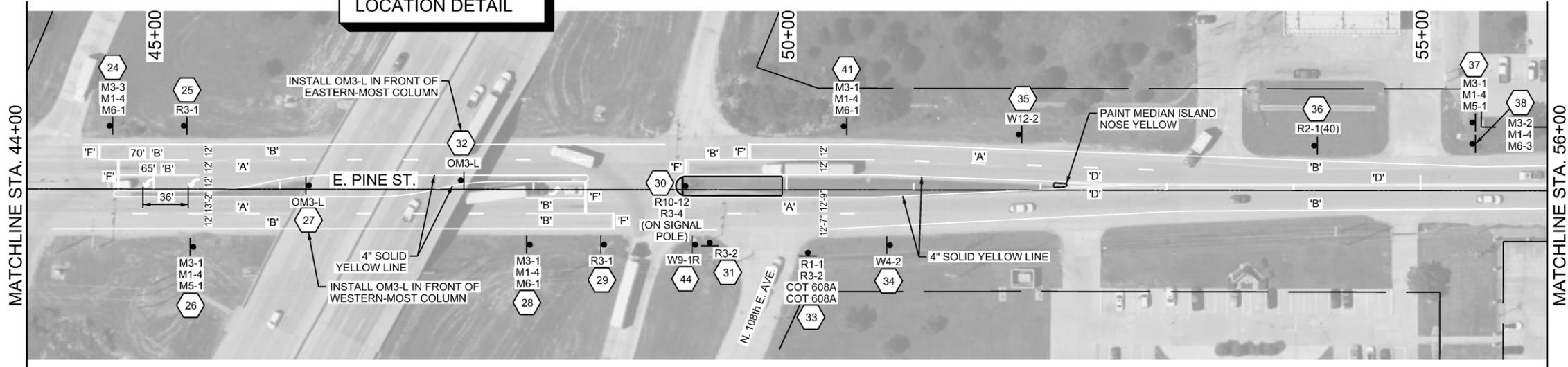




LEGEND:

- TYPE 'A' LINE
4" BROKEN WHITE LINE
- TYPE 'B' LINE
4" SOLID WHITE LINE
- TYPE 'D' LINE
4" DOUBLE YELLOW CENTERLINE LINE
- TYPE 'F' LINE
24" SOLID WHITE LINE (STOP LINE)
- ARROW PAVEMENT MARKING
- SIGN NUMBER
- PROPOSED SIGN
- EXISTING SIGN

REFER TO SHEET 48 FOR SIGNAL LOCATION DETAIL



SIGNING AND STRIPING
(2 OF 2)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

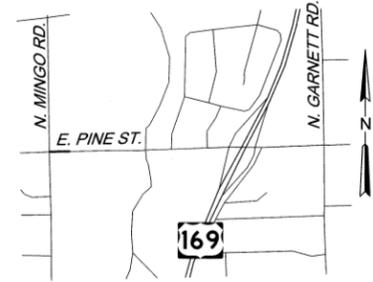
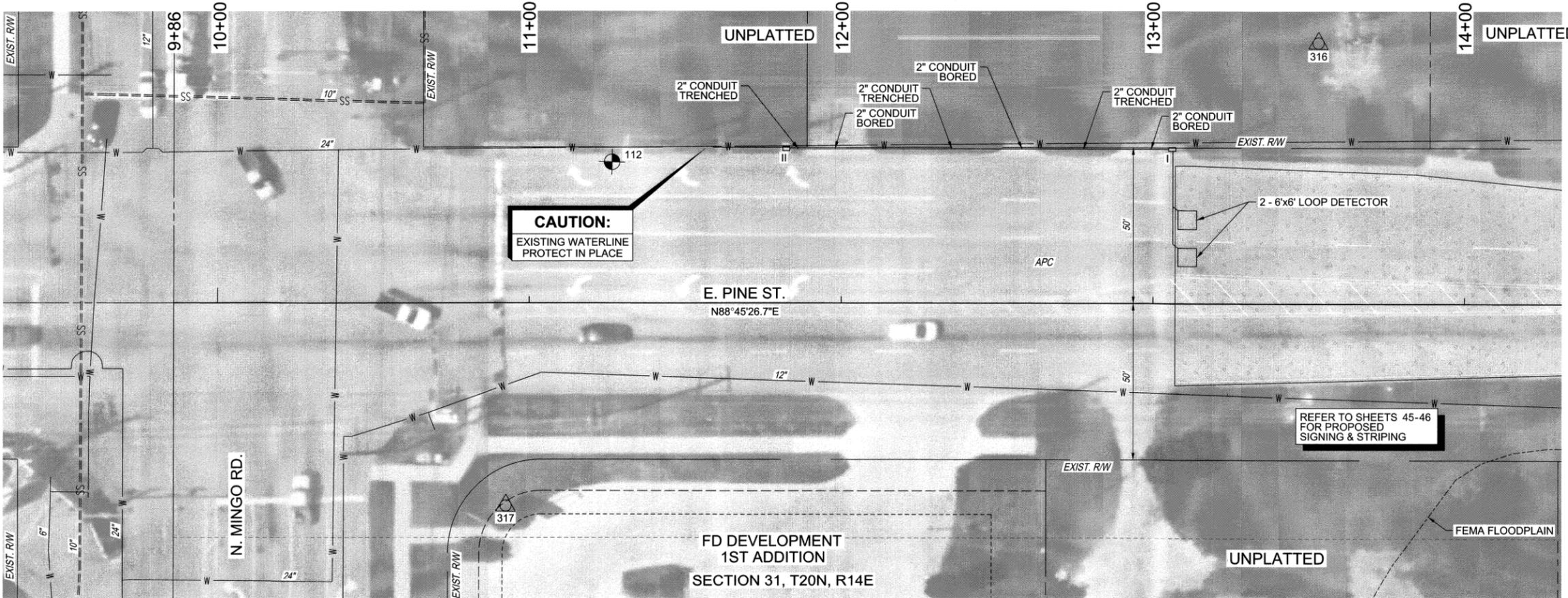
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
15 W 6th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1600
a Haskell Company

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1" = 50'	DESIGNED	KLE	10/25	 KRISTI ERICKSON CITY ENGINEER
				SURVEY	ROL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Ben</i>	10/25	
			HORIZONTAL: 1" = NA	PROJECT MGR	<i>MSD</i>	11/6/25	
			VERTICAL: 1" = NA	LEAD ENGR	<i>RSB</i>	11/25	
				RECOMMENDED	<i>HAS</i>	11-25	
				DESIGN MANAGER			
			FILE: 1400405-C-Striping 02.dgn				DATE: OCTOBER 2025
			ATLAS PAGE NO.: 172, 173				SHEET 46 OF 54 SHEETS



SECTION 30, T20N, R14E



KEYMAP

NOTES:

1. EXISTING POLES ARE TO REMAIN IN PLACE.
2. ALL SIGNALS AND ASSOCIATED EQUIPMENT TO BE CONSTRUCTED USING CITY OF TULSA STANDARDS.

CAUTION:
EXISTING WATERLINE
PROTECT IN PLACE

REFER TO SHEETS 45-46
FOR PROPOSED
SIGNING & STRIPING

BENCHMARK 111
CUT X SW CORNER HW
STA. 15+30.74, 42.86' RT. E. PINE ST.
N 435332.92, E. 2597984.56, EL. 610.13

BENCHMARK 112
CUT X ON CURB
STA. 11+26.49, 45.22' LT. E. PINE ST.
N 435412.21, E. 2597578.49, EL. 617.21

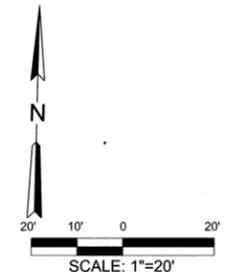
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRAFFIC SIGNAL IN A PROPER WORKING CONDITION DURING CONSTRUCTION AS DIRECTED BY THE TRAFFIC ENGINEER AND FOR FOLLOWING THE REQUIREMENTS OF COT 626 TRAFFIC SIGNAL CONSTRUCTION AND OPERATION. ALL TRAFFIC MATERIALS SHALL MEET THE REQUIREMENTS OF COT 627 PRE-QUALIFICATION FOR TRAFFIC OPERATIONS MATERIALS OR AS DIRECTED BY THE TRAFFIC ENGINEER. CONTRACTORS SHALL MEET THE REQUIREMENTS OF COT 628 SIGNAL AND LIGHTING PROJECT CONTRACTOR EXPERIENCE REQUIREMENTS.

NOTES:

- EXISTING POLES ARE TO REMAIN IN PLACE.
- ALL SIGNALS AND ASSOCIATED EQUIPMENT TO BE CONSTRUCTED USING CITY OF TULSA STANDARDS.
- ABANDON ALL EXISTING CONDUITS.
- REMOVE EXISTING PULL BOXES.
- EXISTING ELECTRICAL SERVICE, TRAFFIC SIGNAL CONTROLLER, AMPLIFIER CABINET AND TRAFFIC SIGNAL POLES TO REMAIN.

LEGEND

- I = PULL BOX SIZE I
- II = PULL BOX SIZE II



SIGNAL LOCATION DETAIL
(1 OF 2)

ARTERIAL STREET REHABILITATION
E. PINE ST. (MINGO RD. TO GARNETT RD.) &
BRIDGE #225 OVER MINGO CREEK
PROJECT NO.
2436B005Z-225, 2037B0225Z, 2036A0044Z

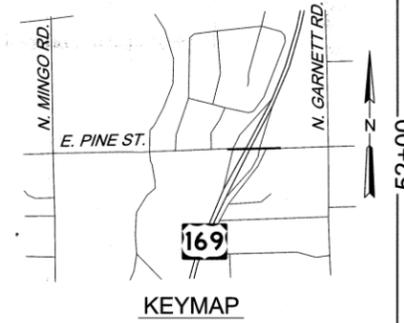
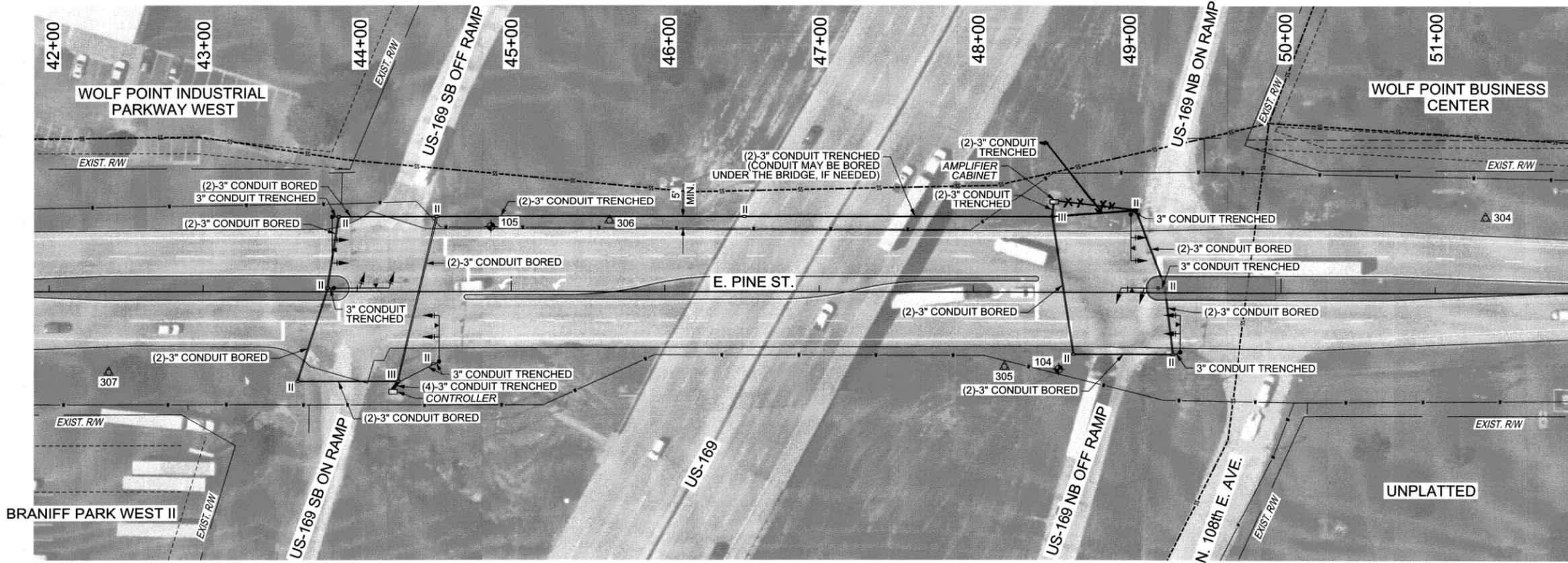
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
15 W 6th St, Suite 900
Tulsa, Oklahoma 74119
(918) 492-1800

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	DATE	APPROVED:
			1" = 20'	DESIGNED	KLE	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	RSB	11/15	
			HORIZONTAL	PROJECT MGR	MSD	11/15	
			VERTICAL	RECOMMENDED	HAS	11/25	
				DESIGN MANAGER	HAS	11/25	CITY ENGINEER
							DATE: OCTOBER 2025
							ATLAS PAGE NO.: 172, 173
							SHEET 47 OF 54 SHEETS



P:\1140_Civ\11400405_COT Pine St. Bridge Rehab\2\Design\Working\CIVL07\OpenRoads\1400405_COT_PineSt\cogn\Sheets\1400405-C-Signal Location Det 02.dgn 3:41:38 PM 10/30/2025



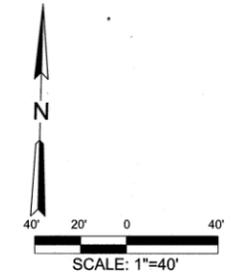
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRAFFIC SIGNAL IN A PROPER WORKING CONDITION DURING CONSTRUCTION AS DIRECTED BY THE TRAFFIC ENGINEER AND FOR FOLLOWING THE REQUIREMENTS OF COT 626 TRAFFIC SIGNAL CONSTRUCTION AND OPERATION. ALL TRAFFIC MATERIALS SHALL MEET THE REQUIREMENTS OF COT 627 PRE-QUALIFICATION FOR TRAFFIC OPERATIONS MATERIALS OR AS DIRECTED BY THE TRAFFIC ENGINEER. CONTRACTORS SHALL MEET THE REQUIREMENTS OF COT 628 SIGNAL AND LIGHTING PROJECT CONTRACTOR EXPERIENCE REQUIREMENTS.

BENCHMARK 105
 CUT X CENTER HW
 STA. 44+86.79, 42.21 LT. E. PINE ST.
 N 435481.93, E. 2600938.08, EL. 611.95

BENCHMARK 104
 CUT X CENTER HW
 STA. 48+55.56, 50.00' RT. E. PINE ST.
 N 435397.68, E. 2601308.74, EL. 617.05

NOTES:

- EXISTING POLES ARE TO REMAIN IN PLACE.
- ALL SIGNALS AND ASSOCIATED EQUIPMENT TO BE CONSTRUCTED USING CITY OF TULSA STANDARDS.
- ABANDON ALL EXISTING CONDUITS.
- REMOVE ALL EXISTING PULL BOXES AT THE INTERSECTIONS. ABANDON ALL OTHER POLE BOXES.
- EXISTING ELECTRICAL SERVICE, TRAFFIC SIGNAL CONTROLLER, AMPLIFIER CABINET, TRAFFIC SIGNAL POLES AND SIGNAL HEADS TO REMAIN.
- REPLACE ALL WIRING FROM THE CONTROLLER TO THE TRAFFIC SIGNAL POLES. REPLACE ALL WIRING FROM THE CONTROLLER TO THE AMPLIFIER CABINET. REPLACE ALL WIRING FROM THE AMPLIFIER CABINET TO THE TRAFFIC SIGNAL POLES. ALL WIRING SHALL BE CONTINUOUS. UNDERGROUND SPLICES ARE NOT ALLOWED.
- INSTALL NEW VIDEO DETECTION SYSTEM PER COT SPECIFICATIONS PART 620. EVERY APPROACH TO EACH INTERSECTION SHALL HAVE A VIDEO DETECTION CAMERA INSTALLED ON THE MAST ARM.



SIGNAL LOCATION DETAIL
 (2 OF 2)

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

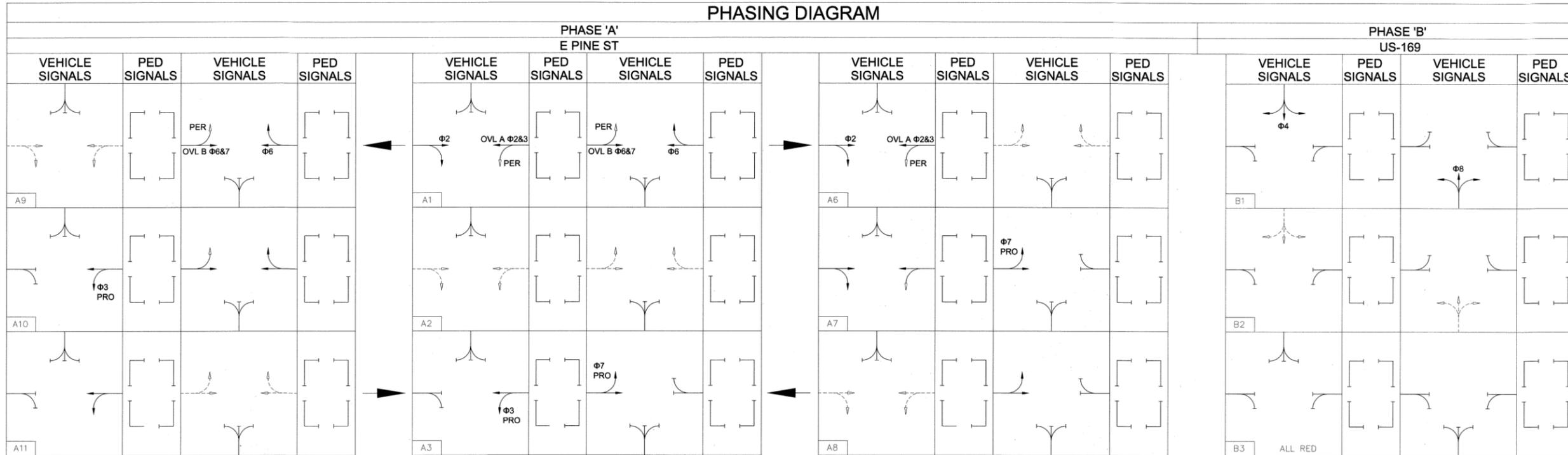
BENHAM Benham Design, LLC
 15 W 6th St, Suite 900
 Tulsa, Oklahoma 74119
 a Haskell Company (918) 492-1600

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= 20'	DESIGNED	KLE	10/25	 CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	Ben	10/25	
			HORIZONTAL:	PROJECT MGR	MFD	11/6/25	
			VERTICAL:	LEAD ENGR	LSG	11/25	
				RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			

FILE: 1400405-C-Signal Location Det 02.dgn
 ATLAS PAGE NO.: 172, 173
 DATE: OCTOBER 2025
 SHEET 48 OF 54 SHEETS



PHASING DIAGRAM

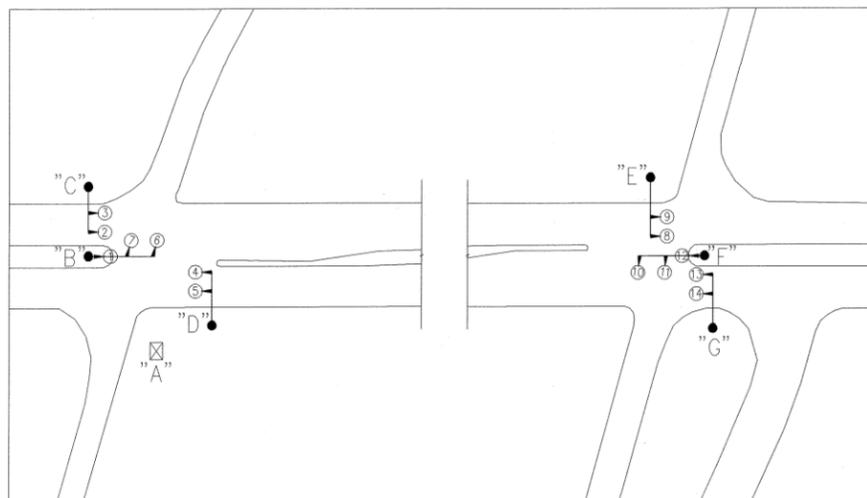


→ GREEN
 - - - YELLOW
 — RED
 PRO = PROTECTED
 PER = PERMISSIVE

SEQUENCE CHART

DIRECTION	BLOCK #	SIGNAL HEAD #								PED. SIGNAL HEAD #			
		1	2,3	4,5	6,7	8,9	10,11	12	13,14	---	---	---	---
		VEHICLE PHASES								PED PHASES			
		Φ3	OVLA Φ2&3	Φ2	Φ4	Φ6	Φ8	Φ7	OVLB Φ6&7	P2	P4	P6	P8
MOVEMENT	WBLT	WB	EB	SB	WB	NB	EBLT	EB	E-W	N-S	E-W	N-S	
Φ2, Φ6, OVLA, OVLB	A1	G	G	G	R	G	R	G	G	---	---	---	---
Φ2 CLR, Φ6 CLR	A2	Y	Y	Y	R	Y	R	Y	Y	---	---	---	---
Φ3 PRO, Φ7 PRO, OVLA, OVLB	A3	←G	R	R	R	R	R	←G	R	---	---	---	---
Φ3 CLR, Φ7 CLR	A4	←Y	R	R	R	R	R	←Y	R	---	---	---	---
ALL RED	A5	R	R	R	R	R	R	R	R	---	---	---	---
Φ2, OVLA, Φ6 CLR	A6	G	G	G	R	Y	R	Y	Y	---	---	---	---
Φ2, OVLA, Φ7 PRO	A7	G	G	G	R	R	R	←G	G	---	---	---	---
Φ2 CLR, OVLA CLR, Φ7 PRO	A8	Y	Y	Y	R	R	R	←G	G	---	---	---	---
Φ2 CLR, Φ6, OVLB	A9	Y	Y	Y	R	G	R	G	G	---	---	---	---
Φ3 PRO, Φ6, OVLB	A10	←G	G	R	R	G	R	G	G	---	---	---	---
Φ3 PRO, Φ6 CLR	A11	←G	G	R	R	Y	R	Y	Y	---	---	---	---
Φ4, Φ8	B1	R	R	R	G	R	G	R	R	---	---	---	---
Φ4 CLR, Φ8 CLR	B2	R	R	R	Y	R	Y	R	R	---	---	---	---
ALL RED	B3	R	R	R	R	R	R	R	R	---	---	---	---
FLASHING OPERATION	---	---	FR	FR	FR	FR	FR	---	FR	---	---	---	---

INTERSECTION PHASING & SIGNAL HEAD NO.'S



THIS SHEET WAS PROVIDED BY THE CITY OF TULSA.

FIELD MGR: [Signature]
 PROJECT MGR: [Signature]
 LEAD ENGR: [Signature]
 RECOMMENDED: [Signature]
 DESIGN MANAGER APPROVED: [Signature]
 CITY ENGINEER: [Signature]

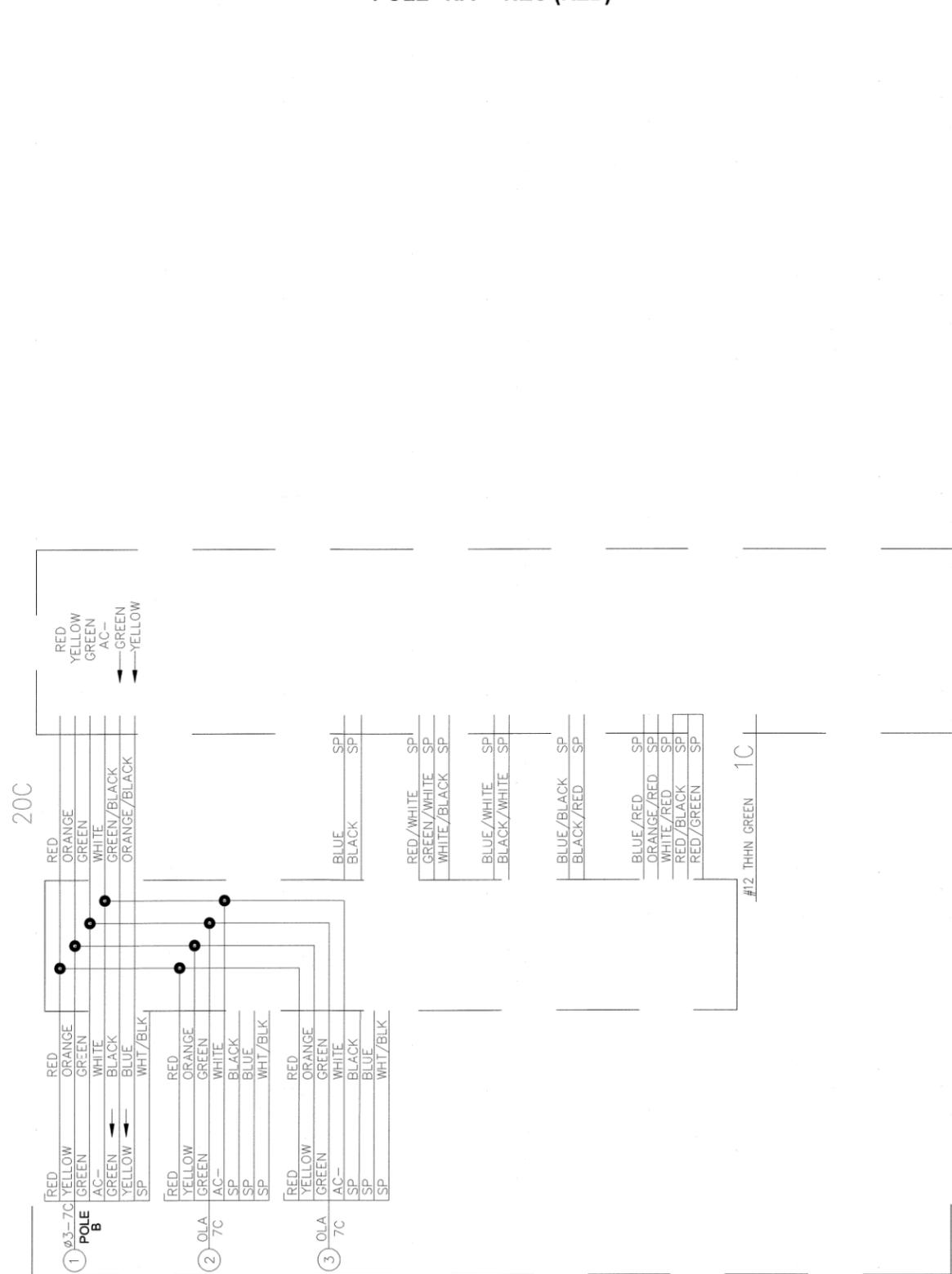
CITY OF TULSA, OKLAHOMA

Pine St and US-169
Phasing and Sequencing

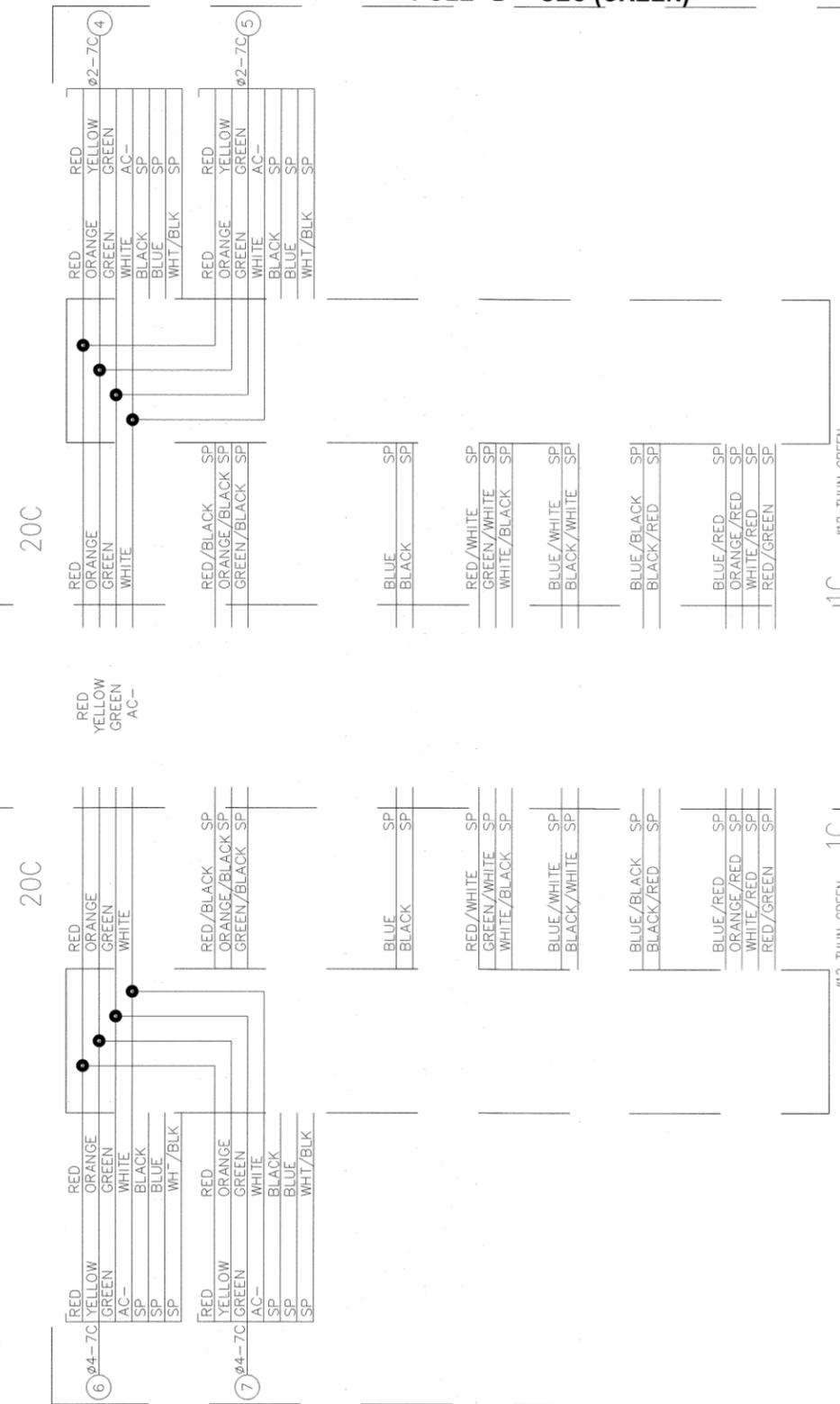
POLE "NA" - NEC (RED)

POLE "D" - SEC (GREEN)

SIGNAL HEAD NO.	WIRING IN SIGNAL HEAD		WIRING IN POLE BASE TERMINAL	WIRING IN CONDUIT WIRE COLOR	WIRING IN CONTROLLER FUNCTION	WIRING IN CONDUIT WIRE COLOR	WIRING IN POLE BASE TERMINAL	WIRING IN SIGNAL HEAD CABLE IDENT.
	FUNCTION	WIRE COLOR						



POLE "C" - NWC (BLUE)



POLE "B" - WEST MEDIAN (ORANGE)

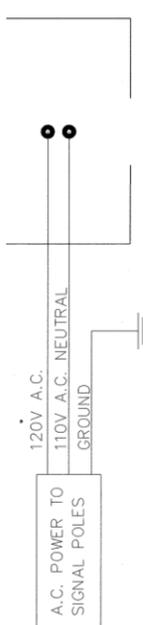
NOTE:
IF JUMPERS OR OTHER CONNECTIONS ARE MADE IN THE FIELD DURING INSTALLATION, AND ARE ACCEPTED BY THE ENGINEER THIS SHOULD BE SHOWN ON THE WIRING DIAGRAM FOR FUTURE REFERENCE.

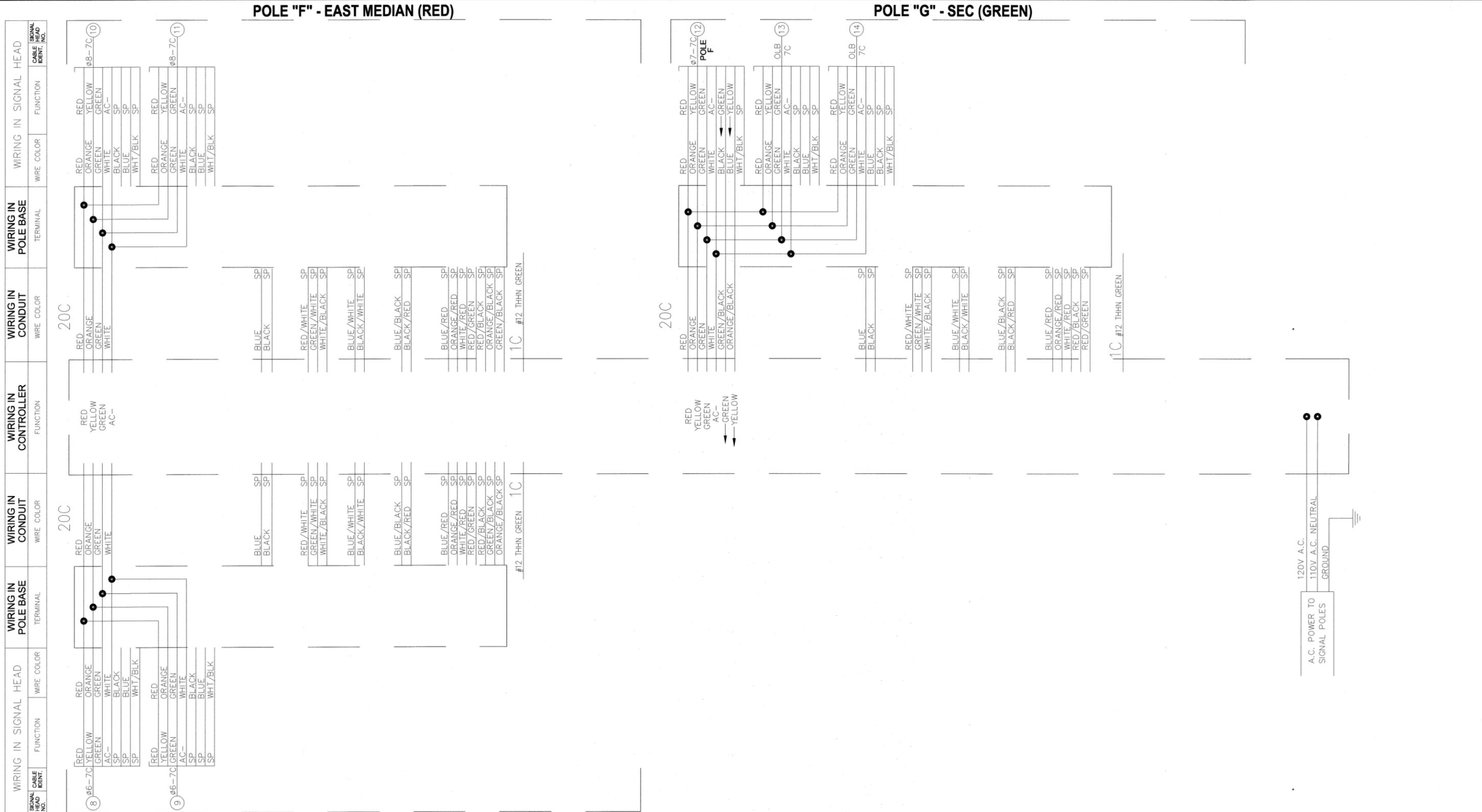
THIS SHEET WAS PROVIDED BY THE CITY OF TULSA.

REVISION	BY	DATE

FIELD MGR	<i>[Signature]</i>
PROJECT MGR	<i>[Signature]</i>
LEAD ENGR	<i>[Signature]</i>
RECOMMENDED	<i>[Signature]</i>
DESIGN MANAGER APPROVED	<i>[Signature]</i>
CITY ENGINEER	<i>[Signature]</i>

CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
E PINE ST AND US-169 WEST END WIRING DIAGRAM	
DATE:	SHEET 50 OF 54 SHEETS





POLE "F" - EAST MEDIAN (RED)

POLE "G" - SEC (GREEN)

POLE "E" - NWC (BLUE)

NOTE:
IF JUMPERS OR OTHER CONNECTIONS ARE MADE IN THE FIELD DURING
INSTALLATION, AND ARE ACCEPTED BY THE ENGINEER THIS SHOULD BE
SHOWN ON THE WIRING DIAGRAM FOR FUTURE REFERENCE.

**THIS SHEET WAS PROVIDED
BY THE CITY OF TULSA.**

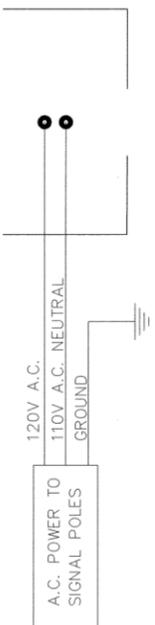
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PROJECT MGR	<i>[Signature]</i>
LEAD ENGR	<i>[Signature]</i>
RECOMMENDED	<i>[Signature]</i>
DESIGN MANAGER APPROVED	<i>[Signature]</i>
CITY ENGINEER	

**CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT**

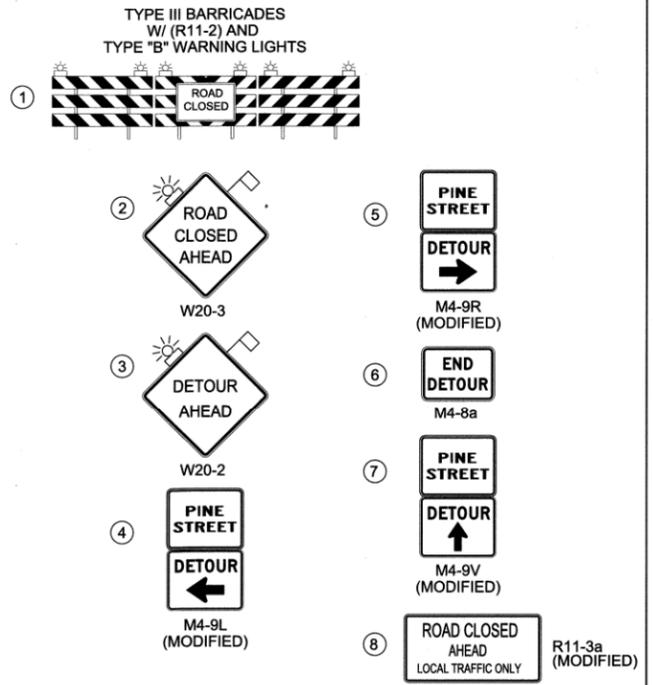
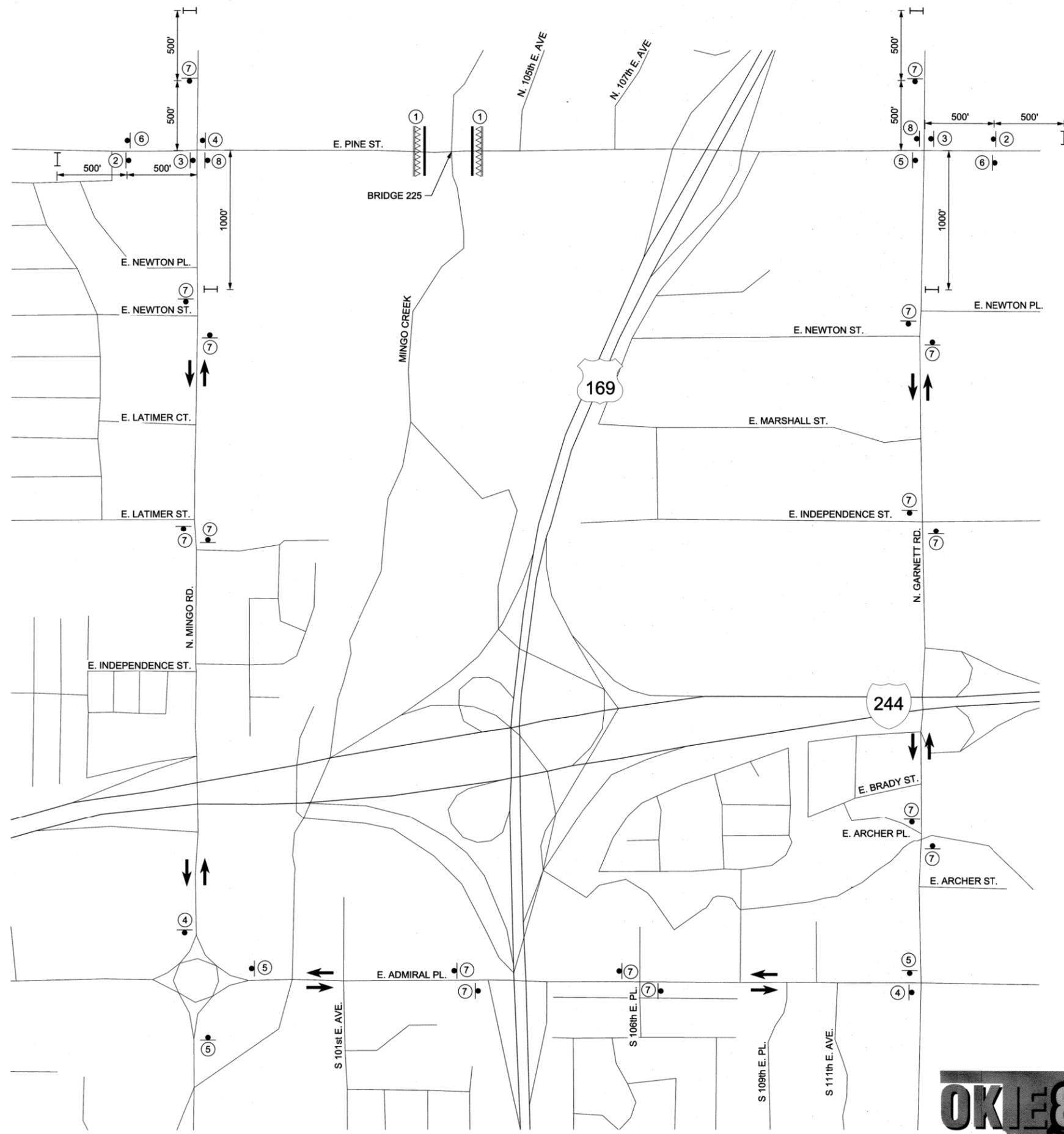
**E PINE ST AND US-169 EAST END
WIRING DIAGRAM**

DATE: SHEET 51 OF 54 SHEETS

REVISION	BY	DATE

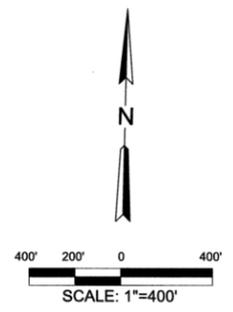


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 10/30/2025



LEGEND

- PORTABLE CHANGABLE MESSAGE SIGN
- SIGN
- TYPE III BARRICADE
- PORTABLE LONGITUDINAL BARRIER



DETOUR MAP

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

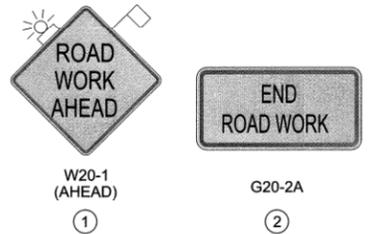
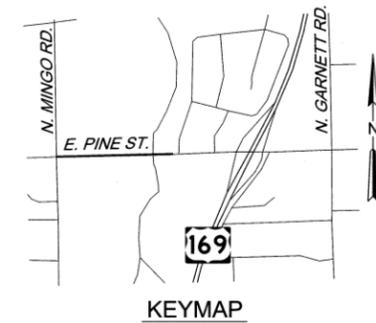
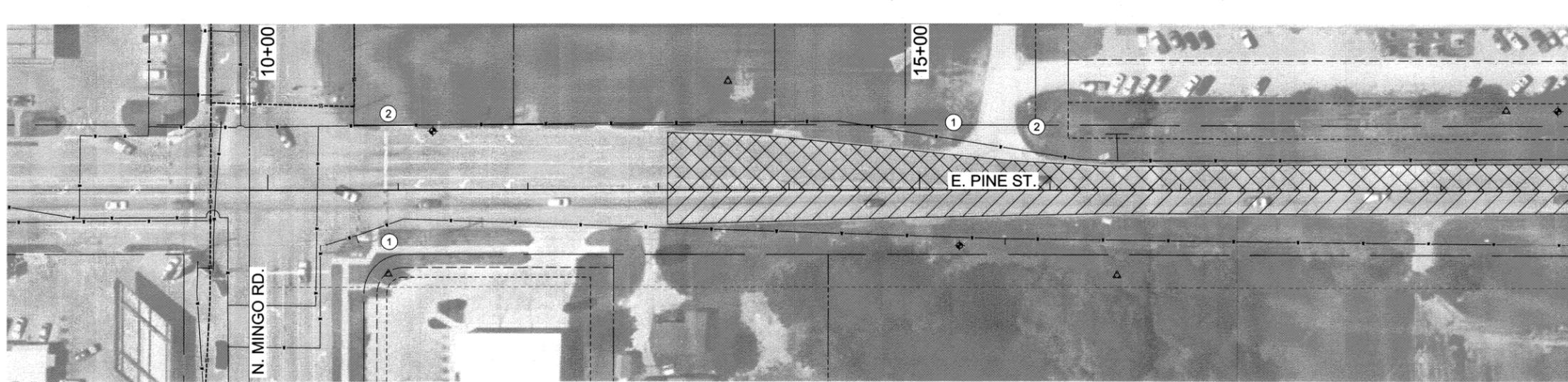
BENHAM Benham Design, LLC
 15 W 6th St, Suite 900
 Tulsa, Oklahoma 74119
 (918) 492-1600

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= NA	DESIGNED	KLE	10/25	 CITY ENGINEER
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	<i>Ben M</i>		
			HORIZONTAL:	PROJECT MGR	<i>MED</i>	11/04/25	
			VERTICAL:	LEAD ENGR	<i>EAS</i>	11-2025	
			1"= NA	RECOMMENDED	<i>HAS</i>	11-25	
				DESIGN MANAGER			

FILE: 1400405-C-DeTour_01.dgn
 ATLAS PAGE NO.: 172, 173
 DATE: OCTOBER 2025
 SHEET 52 OF 54 SHEETS



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NOTE:
 OPEN MILLED OR EXPOSED SURFACES WILL BE AT THE CONTRACTOR'S RISK IN THE EVENT LOCAL OR CONSTRUCTION TRAFFIC CAUSES DAMAGE TO ANY SURFACES.

BUSINESS AND RESIDENTIAL ACCESS TO REMAIN OPEN DURING THE ENTIRETY OF THE PROJECT.

BUSINESS ACCESS SIGNS SHALL BE USED DURING CONSTRUCTION.

TRAFFIC CONTROL SHALL USE MUTCD STANDARDS WITH A 25 MPH CONSTRUCTION SPEED ZONE.

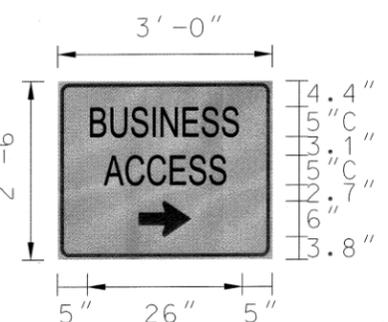
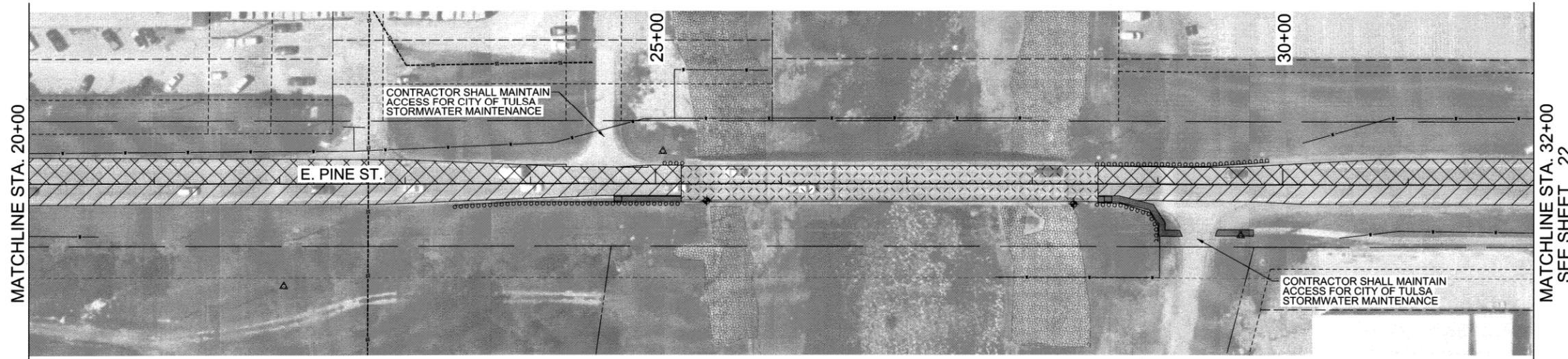
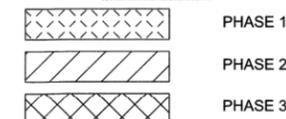
CLOSE BRIDGE FOR CONSTRUCTION ACTIVITIES. USE TYPE III BARRICADES ACROSS THE ROADWAY WITH ROAD CLOSED SIGNS AND DETOUR SIGNS SHALL ALIGN WITH CURRENT MUTCD STANDARD: DETOUR FOR A CLOSED STREET (TA-20)

ONE LANE OF TRAFFIC MUST REMAIN OPEN AT ALL TIMES AFTER BRIDGE CONSTRUCTION IS COMPLETE.

CONSTRUCTION SEQUENCE PROPOSED ORDER OF PAVEMENT CONSTRUCTION

- STEP 1 BRIDGE CONSTRUCTION
- STEP 2 PATCH & CONCRETE WORK
- STEP 3 MILL PAVEMENT
- STEP 4 OVERLAY

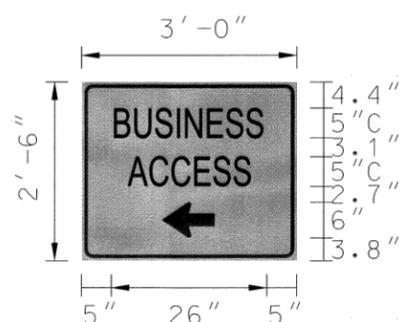
LEGEND:



BORDER
 R=1.5"
 TH=0.63
 IN=0.38

SIGN NUMBER	SP. SIGN BAS(R)
WIDTH x HGHT.	3'-0" x 2'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
LEGENDBORDER	TYPE: Reflective
	COLOR: Blue
	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	270	13.5	3.8	6	9



BORDER
 R=1.5"
 TH=0.63
 IN=0.38

SIGN NUMBER	SP. SIGN BAS(L)
WIDTH x HGHT.	3'-0" x 2'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
LEGENDBORDER	TYPE: Reflective
	COLOR: Blue
	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	90	13.5	3.8	6	9

Dimensions are in inches.tenths Letter locations are panel edge to lower left corner

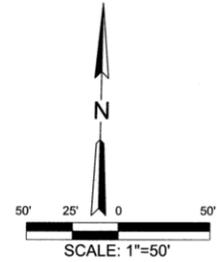
LETTER POSITIONS (X)										LENGTH	SERIES/SIZE
B	U	S	I	N	E	S	S				C 2000
5	8.7	12.3	16	17.8	21.7	24.8	28.2			26	5
A	C	C	E	S	S						C 2000
7.7	11.5	15.2	19	22.1	25.5					20.7	5

SIGN BAS(R)
7.5 SF

Dimensions are in inches.tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SERIES/SIZE
B	U	S	I	N	E	S	S				C 2000
5	8.7	12.3	16	17.8	21.7	24.8	28.2			26	5
A	C	C	E	S	S						C 2000
7.7	11.5	15.2	19	22.1	25.5					20.7	5

SIGN BAS(L)
7.5 SF



REQUIRED SEQUENCE OF CONSTRUCTION AND TRAFFIC CONTROL (1 OF 2)

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

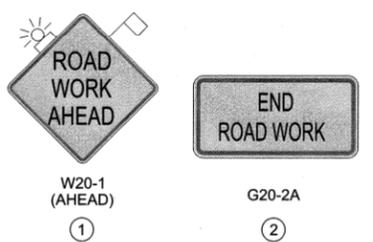
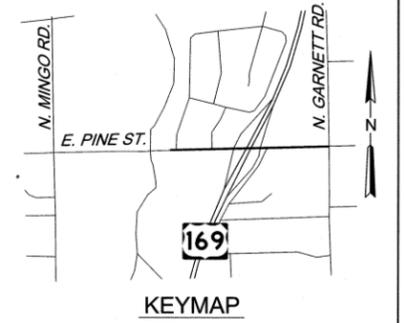
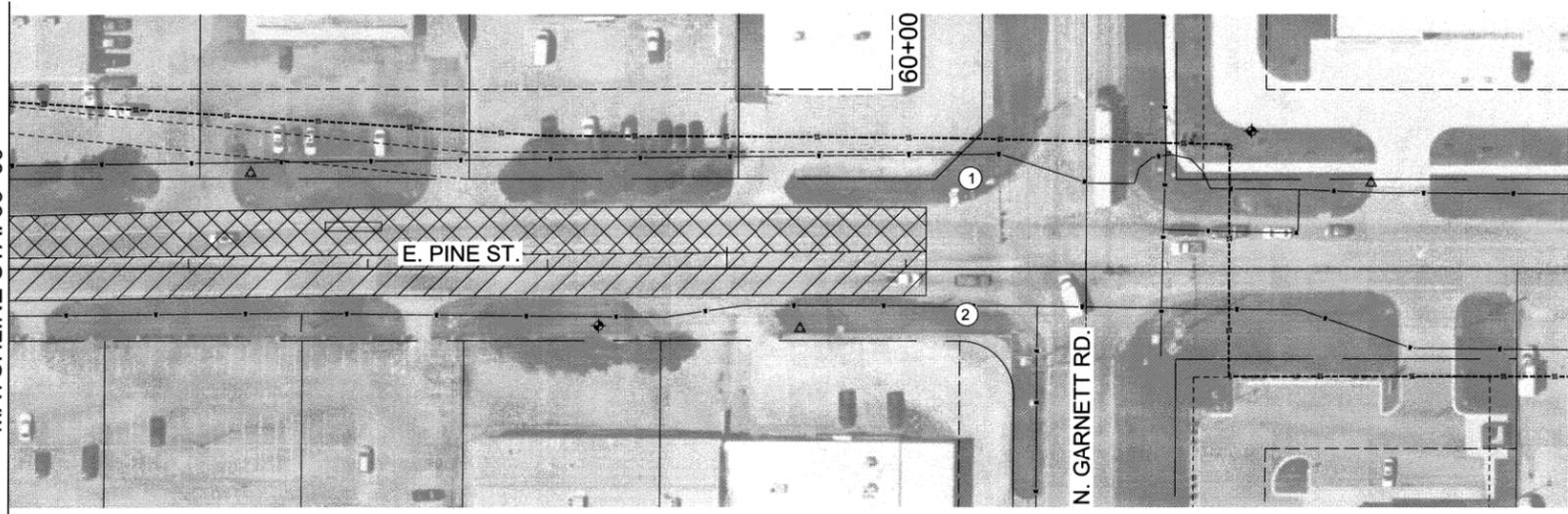
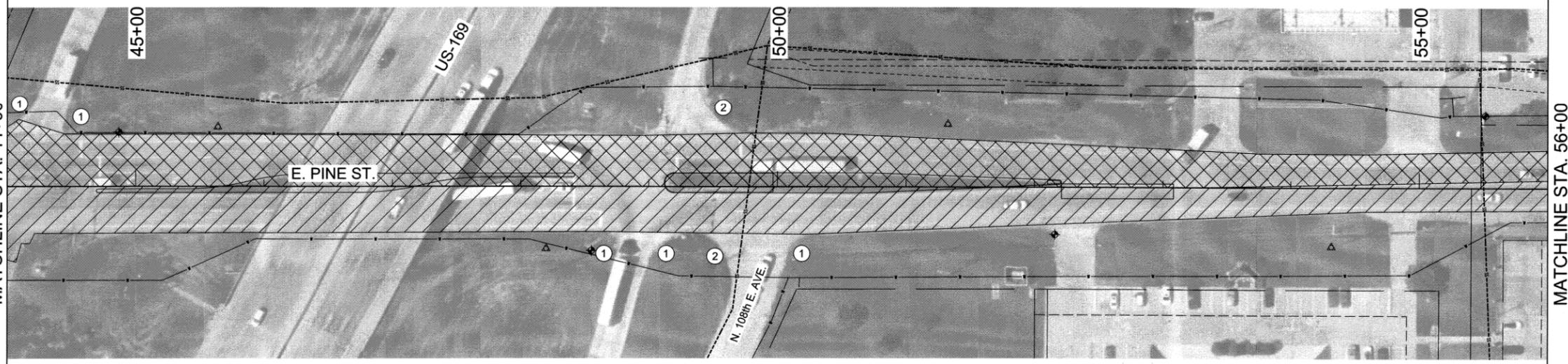
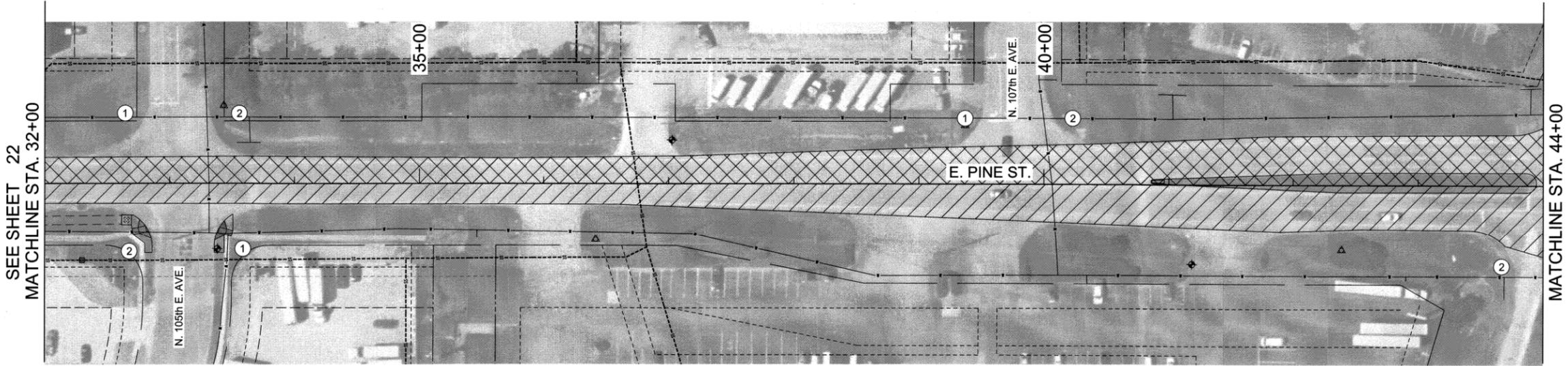
CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT



REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	10/25	APPROVED:
			1"= 50'	DESIGNED	KLE	10/25	
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	Ben R/S		
			HORIZONTAL:	PROJECT MGR	MES	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11-2025	
			RECOMMENDED	DESIGN MANAGER	HAS	11-25	
			FILE: 1400405-C-Const Seq 01.dgn				DATE: OCTOBER 2025
			ATLAS PAGE NO.: 172, 173				SHEET 53 OF 54 SHEETS



P:\140_CivIn\1400405 COT Pine St. Bridge Rehab\2\Design\Working\CIVL\07\OpenRoads\1400405-COT_PineSt\cogn\Sheets\1400405-C-Const Seq 02.dgn
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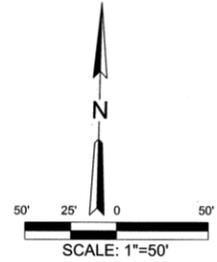


NOTE :
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 BUSINESS AND RESIDENTIAL ACCESS TO REMAIN OPEN DURING THE ENTIRETY OF THE PROJECT.
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 TRAFFIC CONTROL SHALL USE MUTCD STANDARDS WITH A 25 MPH CONSTRUCTION SPEED ZONE.
 CLOSE BRIDGE FOR CONSTRUCTION ACTIVITIES. USE TYPE III BARRICADES ACROSS THE ROADWAY WITH ROAD CLOSED SIGNS AND DETOUR SIGNS SHALL ALIGN WITH CURRENT MUTCD STANDARD: DETOUR FOR A CLOSED STREET (TA-20)
 ONE LANE OF TRAFFIC MUST REMAIN OPEN AT ALL TIMES AFTER BRIDGE CONSTRUCTION IS COMPLETE.

- CONSTRUCTION SEQUENCE PROPOSED ORDER OF PAVEMENT CONSTRUCTION**
- STEP 1 BRIDGE CONSTRUCTION
 - STEP 2 PATCH & CONCRETE WORK
 - STEP 3 MILL PAVEMENT
 - STEP 4 OVERLAY

LEGEND:

- PHASE 1
- PHASE 2
- PHASE 3



REQUIRED SEQUENCE OF CONSTRUCTION AND TRAFFIC CONTROL (2 OF 2)

ARTERIAL STREET REHABILITATION
 E. PINE ST. (MINGO RD. TO GARNETT RD.) &
 BRIDGE #225 OVER MINGO CREEK
 PROJECT NO.
 2436B005Z-225, 2037B0225Z, 2036A0044Z

CITY OF TULSA, OKLAHOMA
 PUBLIC WORKS DEPARTMENT

BENHAM Benham Design, LLC
 15 W 6th St, Suite 300
 Tulsa, Oklahoma 74119
 a Haskell Company (918) 492-1600

REVISION	BY	DATE	PLAN SCALE	DRAWN	ES	DATE	APPROVED:
			1"= 50'	DESIGNED	KLE	10/25	 CITY ENGINEER DATE: OCTOBER 2025
				SURVEY	RDL	10/25	
			PROFILE SCALE	FIELD MGR	Jen	10/25	
			HORIZONTAL:	PROJECT MGR	MEB	11/04/25	
			VERTICAL:	LEAD ENGR	EAS	11/20/25	
				RECOMMENDED	HAS	11-25	
				DESIGN MANAGER			

FILE: 1400405-C-Const Seq 02.dgn
 ATLAS PAGE NO.: 172, 173

