

Legend

— CTV —	CABLE TELEVISION
— OHE —	OVERHEAD ELECTRIC LINE
— G —	GAS LINE
— SS —	SANITARY SEWER LINE
— ST —	STORM SEWER LINE
— T —	OVERHEAD TELEPHONE LINE
— UE —	UNDERGROUND ELECTRIC
— UT —	UNDERGROUND TELEPHONE
— UCTV —	UNDERGROUND CABLE TELEVISION
— WL —	WATER LINE
— X —	FENCE
CL	CENTERLINE
P/L	PROPERTY LINE
SL	SECTION LINE
BMB	BRICK MAILBOX
BOC	BACK OF CURB
BWF	BARBED WIRE FENCE
CATV BOX	CABLE TELEVISION BOX
CLF	CHAIN LINK FENCE
CGMP	CORRUGATED METAL PIPE
CRL	CONSTRUCTION REFERENCE LINE
DGDI	DOUBLE GRATE DROP INLET
DIA	DIAMETER
EL	ELEVATION
EOP	EDGE OF PAVEMENT
EX	EXISTING
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOWLINE
FOC	FACE OF CURB
FO	FIBER OPTIC
GM	GAS METER
GTR	GUTTER
GUY	GUY ANCHOR
GV	GAS VALVE
HDWL	HEADWALL
HP	HIGH POINT
LP	LIGHT POLE
MB	MAILBOX
MH	MANHOLE
OIF	ORNAMENTAL IRON FENCE
PLE	PARKING LOT LIGHT
PP	POWER POLE
PPD	POWER POLE w/DROP
PPL	POWER POLE w/LIGHT
PPLT	POWER POLE w/LIGHT AND TRANSFORMER
PPT	POWER POLE w/TRANSFORMER
PRF	PIPE RAIL FENCE
PV	PAVING GRADE
RCB	REINFORCED CONCRETE BOX
RCAP	REINFORCED CONCRETE ARCH PIPE
RCP	REINFORCED CONCRETE PIPE
RJ	RESTRAINED JOINT
RP	REFLECTOR PADDLE
R/W	RIGHT-OF-WAY
SGDI	SINGLE GRATE DROP INLET
SGN	SIGN
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STHW	STORM SEWER HEADWALL
S/W	SIDEWALK
TC	TOP OF CURB GRADE
TCE	TEMPORARY CONSTRUCTION EASEMENT
TD/TPED	TELEPHONE PEDESTAL
TS	TRAFFIC SIGN
TG	TOP OF GRATE
TH	TOP OF HEADWALL
TMH	TELEPHONE MANHOLE
TP	TELEPHONE POLE
TPD	TELEPHONE POLE w/DROP
TPL	TELEPHONE POLE w/LIGHT
TR	TOP OF RIM
TSCB	TRAFFIC SIGNAL CONTROLLER
TSL	TRAFFIC SIGNAL LIGHT POLE
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENT
WF	WOOD FENCE
WIF	WROUGHT IRON FENCE
WP	WOOD POST
W	WATER METER
WV	WATER VALVE

DESIGN CRITERIA
 ADT 2020 = 4,269
 ADT 2040 = 5,715
 V = 45 MPH

UTILITY COORDINATION BOX

	NUMBER	NOTIFIED
AT&T - EMERGENCY	800-288-2020	
COX COMMUNICATIONS - CUSTOMER SERVICE	918-806-6000	
ONG - EMERGENCY	800-664-5463	
AEP/PSO - EMERGENCY	888-216-3523	
CITY OF TULSA UTILITY COORDINATOR - TONY GLYNN	918-596-9245	
VERIZON - CUSTOMER SERVICE	888-294-6804	
WINDSTREAM - CUSTOMER SERVICE	800-347-1991	

STANDARD SPECIFICATIONS

1. CURRENT CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS GOVERN. ALL OTHER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS ADOPTED BY CITY OF TULSA.
 2. FOR TRAFFIC & STREET SIGNS REFER TO TRAFFIC OPERATIONS SPECIFICATIONS 608 - SIGNS & 625 - REMOVAL OF TRAFFIC ITEMS.

PLANS PREPARED BY

CP&Y, INC.
 20 E. 5TH STREET, SUITE 630
 TULSA, OKLAHOMA 74103
 539-215-5996
 CA#4006, RENEWAL 6-30-2023

ENGINEER'S STATEMENT

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

ENTIRE PROJECT IS WITHIN THE CORPORATE LIMITS OF CITY OF TULSA (COT).

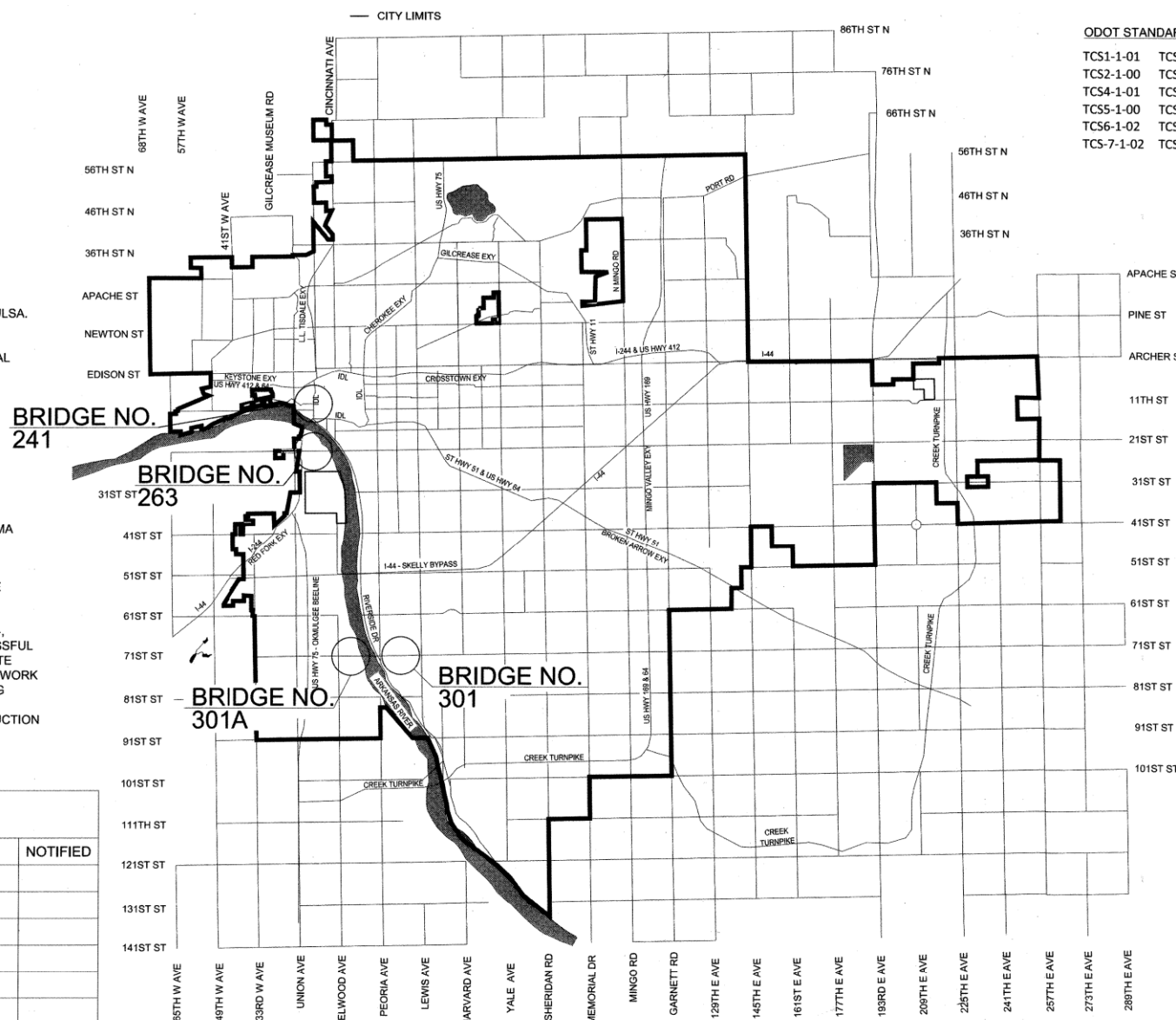
IN ACCORDANCE WITH ODOT SECTION 105.14, THE COT IS ANTICIPATING THAT THE SUCCESSFUL CONTRACTOR WILL UTILIZE THE APPROPRIATE MEANS AND METHODS TO ACCOMPLISH THE WORK DESCRIBED IN THE PLANS WITHOUT CAUSING COLLATERAL DAMAGE TO THE EXISTING INFRASTRUCTURE. CURRENT COT CONSTRUCTION BUDGETS DO NOT ALLOW FOR GROWTH OF THE PROJECT.

CONSTRUCTION PLANS FOR CITY WIDE BRIDGE REHABILITATION BRIDGE 241 ON W. 3RD ST/CHARLES PAGE BLD OVER RAILROAD (NBI 19632) BRIDGE 263 ON 23RD ST. OVER RAILROAD (NBI 19979) BRIDGE 301 ON 71ST ST. S. OVER JOE CREEK (NBI 16548) BRIDGE 301A ON 71ST ST. S. OVER RAILROAD (NBI 20543)

ACCOUNT NUMBERS

2037B0241Z.BRIDGES.BRIDGEMR.4281.42813122-541107
 2037B0263Z.BRIDGES.BRIDGEMR.4281.42813122-541107
 2037B0301Z.BRIDGES.BRIDGEMR.4281.42813122-541107
 2037B0301A.BRIDGES.BRIDGEMR.4281.42813122-541107

CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT



ODOT STANDARDS

TCS1-1-01	TCS8-1-00	TCS19-1-01
TCS2-1-00	TCS9-1-01	TCS20-1-00
TCS4-1-01	TCS10-1-00	TCS21-1-02
TCS5-1-00	TCS11-1-01	TCS22-1-00
TCS6-1-02	TCS13-1-00	LECS-5-2
TCS-7-1-02	TCS14-1-00	PM1-1-03

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PROJECT LENGTH BASED ON C.R.L. STATIONING
 BRIDGE NO. 241 LENGTH 398.25 FT. = 0.075 MI.
 BRIDGE NO. 263 LENGTH 161.81 FT. = 0.030 MI.
 BRIDGE NO. 301 LENGTH 167.50 FT. = 0.031 MI.
 BRIDGE NO. 301A LENGTH 127.50 FT. = 0.024 MI.
 PROJECT LENGTH 0.160 MI.

CP&Y
 dba STV Infrastructure

7633 E. 63RD PLACE, SUITE 310
 TULSA, OKLAHOMA 74133
 (405)-848-2346
 CERTIFICATE OF AUTHORIZATION NO. 4006
 RENEWAL DATE 6-30-27



PREPARED BY

Jose K. Joseph
 JOSE K. JOSEPH, P.E.
 CP&Y, INC. dba STV Infrastructure

09/25/2025

DATE

APPROVED BY

Val D. Ray
 CITY ENGINEER

10.09.25

DATE

10.17.25
 ADVERTISEMENT DATE



CITY WIDE BRIDGE REHABILITATION BRIDGES 241, 263, 301, 301A
 PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A

GENERAL BRIDGE NOTES

SPECIFICATIONS:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS ADOPTED BY CITY OF TULSA AND THE CURRENT CITY OF TULSA ENGINEERING SERVICES DEPARTMENT STANDARD SPECIFICATIONS AND STANDARD DETAILS AND STANDARD DRAWINGS AND CITY OF TULSA SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTION ON AS HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
3. PAY ITEMS SHALL BE AS SPECIFIED ON THE CITY OF TULSA OR ON THE ODOT STANDARD DRAWINGS EXCEPT AS MODIFIED BY THE CONTRACT.
4. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.

DESCRIPTION OF WORK:

THE WORK TO BE PERFORMED UNDER THIS CONTRACT CONSISTS OF THE REHABILITATION OF BRIDGES NO. 241 (W. 3RD ST.), NO. 263 (W. 23RD ST.), NO. 301 (E. 71ST ST.), AND NO. 301A (W. 71ST ST.). THE BRIDGES AND ROADWAY WILL REMAIN OPEN TO A MINIMUM OF ONE LANE OF TRAFFIC DURING THE COURSE OF THE PROJECT, AS DETAILED ON THE TRAFFIC CONTROL PLAN SHEETS.

BRIDGE NO. 241:

THIS INCLUDES RECONSTRUCTION OF THE CONSTRUCTION JOINTS, ELASTOMERIC MORTAR REPAIRS AT THE EXPANSION JOINTS, RAIL REPAIRS, BEAM AND DIAPHRAGM PAINTING, SUBSTRUCTURE REPAIRS, AND FLOODCOATING THE DECK AND APPROACH SLABS.

BRIDGE NO. 263:

THIS INCLUDES RECONSTRUCTION OF THE CONSTRUCTION JOINTS, ELASTOMERIC MORTAR REPAIRS AT THE EXPANSION JOINTS, SUBSTRUCTURE REPAIRS, AND FLOODCOATING THE DECK AND APPROACH SLABS.

BRIDGE NO. 301:

THIS INCLUDES RECONSTRUCTION OF THE CONSTRUCTION JOINTS, ELASTOMERIC MORTAR AT THE EXPANSION JOINTS, RAIL REPAIRS, AND SUBSTRUCTURE REPAIRS.

BRIDGE NO. 301A:

THIS INCLUDES RECONSTRUCTION OF THE CONSTRUCTION JOINTS, ELASTOMERIC MORTAR AT THE EXPANSION JOINTS, BEAM AND DIAPHRAGM REPAIR, SUBSTRUCTURE REPAIRS, AND FLOODCOATING THE DECK AND APPROACH SLABS.

VERIFICATION OF EXISTING CONDITIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY UNDERSTANDING THE NATURE OF WORK AND CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED. 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. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE OR ATTACHMENTS. ANY DAMAGE TO THE EXISTING BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER. THE ORIGINAL AS-BUILT PLANS FOR THIS PROJECT IS CURRENTLY NOT AVAILABLE.

EXISTING STEEL STRUCTURES:

ALL DEBRIS SHALL BE SWEEP CLEAN FROM THE EXISTING DECK SLAB, APPROACH SLAB, PIER CAPS AND ABUTMENT SEATS. INCLUDE ALL COSTS TO REMOVE AND DISPOSE OF THE DEBRIS IN OTHER ITEMS OF WORK.

DEBRIS REMOVAL:

REPORT ANY DETERIORATED STRUCTURAL STEEL EXPOSED DURING OPERATIONS TO THE ENGINEER FOR REMEDIAL ACTION, IF NECESSARY. PROVIDE REPLACEMENT STRUCTURAL STEEL IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 36 OR HIGHER. REPLACE COVER AND SPLICE PLATES IN WHOLE. SECTIONAL SPLICES WILL NOT BE ALLOWED. ATTACH REPLACEMENT DIAPHRAGMS WITH BOLTS UNLESS OTHERWISE APPROVED BY THE ENGINEER. REUSE EXISTING BOLT OR RIVET HOLE PATTERNS WHENEVER POSSIBLE. THE CONTRACTOR SHALL DETERMINE THE HOLE PATTERN AT LOCATIONS WITHOUT EXISTING HOLES. MAKE ALL WELDS TO SOUND STEEL. ADJUST WELD LOCATIONS AND EXTENTS OF NEW STRUCTURAL STEEL IF SOUND STEEL IS NOT FOUND AT LOCATIONS SHOWN IN THE PLANS. PERFORM ALL WELDING OPERATIONS IN ACCORDANCE WITH SECTION 724.03 OF THE SPECIFICATIONS AND THE CURRENT ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE. ALL FIELD WELDS WILL BE INSPECTED BY A REPRESENTATIVE OF CITY OF TULSA. CONTACT CITY OF TULSA AT LEAST 72 HOURS PRIOR TO THE ANTICIPATED COMPLETION OF FIELD WELDS.

SUGGESTED SEQUENCE OF CONSTRUCTION:

A SUGGESTED SEQUENCE OF CONSTRUCTION HAVE BEEN INCLUDED IN THE PLANS. THE CONTRACTOR MUST SUBMIT ANY CHANGE IN THIS SEQUENCE TO THE ENGINEER FOR APPROVAL. NO WORK SHALL BEGIN UNTIL APPROVAL FROM THE ENGINEER HAS BEEN RECEIVED.

CONCRETE:

PROVIDE ALL PEDESTAL CONCRETE EDGES WITH A 3/4" CHAMFER. PROVIDE ALL OTHER EXPOSED CONCRETE EDGES OF THE SUBSTRUCTURE WITH A 1 1/2" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. PROVIDE ALL EXPOSED CONCRETE EDGES OF THE SUPERSTRUCTURE WITH A 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. USE SIZED LUMBER FOR ALL CHAMFER STRIPS. EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.

MECHANICAL SPLICES"

THE CONTRACTOR SHALL USE MECHANICAL SPLICES TO TIE THE TRANSVERSE REINFORCING STEEL IN ACCORDANCE WITH SECTION 511.04(C)4. THE MECHANICAL SPLICES ARE NECESSARY TO TIE PHASE 1 TO PHASE 2 CONSTRUCTION. THE MECHANICAL SPLICES SHALL BE ERICO OR AN APPROVED EQUAL AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. ALL COSTS OF THE MECHANICAL SPLICES INCLUDING MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "MECHANICAL SPLICES".

PAINTING EXISTING STRUCTURE:

ALL EXISTING I-BEAMS, DIAPHRAGMS, AND BEARING ASSEMBLIES ON THE BRIDGE SHALL BE CLEANED AND SPOT PAINTED AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS USING CATEGORY "E" APPLICATION. THE CONTRACTOR MAY USE SSPC-SP-11, POWER TOOL CLEANING TO BARE METAL ON TOP FLANGE.

THE EXISTING STRUCTURAL STEEL MAY CONTAIN LEAD-BASED PAINT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS AND FOLLOW ALL SPECIFICATIONS AND REGULATIONS IN HANDLING AND TRANSPORTING LEAD-BASED PAINT. SSPC QP-2 CERTIFICATION IS NOT REQUIRED.

THE CONTRACTOR NEED ONLY APPLY THE FIRST COAT OR PRIME COAT TO THE TOP FLANGE OF ALL I-BEAMS, GIRDERS, CROSS-FRAMES (AT ABUTMENTS), AND DIAPHRAGMS (AT ABUTMENTS). THE CONTRACTOR, AT HIS OPTION, MAY USE A CATEGORY "O" PRIMER, BUT ALL LOOSE MATERIAL AND RUST MUST FIRST BE REMOVED FROM THE EXISTING STEEL SURFACE AND THE PRIMER COAT MUST MEET OSHA SLIP REQUIREMENTS.

THE COLOR OF PAINT SHALL MATCH THE COLOR OF THE PAINT ON THE EXISTING BRIDGE.

EXERCISE CARE TO ENSURE THAT NO DAMAGE IS CAUSED TO TRAFFIC DURING CLEANING AND PAINTING OPERATIONS. USE TARPS AND OTHER NECESSARY EQUIPMENT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURING THE PAINT APPLICATION.

ALL COSTS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "PAINTING EXISTING BRIDGE STRUCTURES" AND THE PRICE BID PER LUMP SUM OF "COLLECTION AND HANDLING OF WASTE".

ELASTOMERIC MORTAR AND RAPID CURE JOINT SEALANT:

THE EXPANSION JOINT SYSTEM SHALL BE XJS EXPANSION JOINT SYSTEM OR APPROVED EQUAL. THE RECESS DEPTH OF THE SILICONE SEALANT BELOW THE TOP OF THE SLAB IS DEPENDENT UPON THE JOINT WIDTH AND TEMPERATURE AT THE TIME OF INSTALLATION. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS PROVIDED IN THE SPECIFICATIONS.

INCLUDE COST OF REMOVING AND INSTALLING INCLUDING MATERIALS, TOOLS, EQUIPMENT, LABOR AND INCIDENTALS TO INSTALL THE EXPANSION JOINT SYSTEM UNDER THE CONTRACT UNIT PRICE OF "ELASTOMERIC MORTAR" AND "RAPID CURE JOINT SEALANT".

CLEANING BRIDGE SEATS:

ALL BRIDGE SEATS SHALL BE POWER WASHED AND CLEANED OF ALL DEBRIS AND ALLOWED TO DRY BEFORE APPLICATION OF ELASTOMERIC COATING. ALL COSTS OF CLEANING THE BRIDGE SEATS INCLUDING THE COSTS OF MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ELASTOMERIC COATING:

THE ELASTOMERIC COATING SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC., IM-129 AS MANUFACTURED BY CUSTOM LININGS, OR AND APPROVED EQUAL. PRODUCT INFORMATION FOR CIM 1000 CAN BE OBTAINED FROM LASTER CASTOR CORP. OF TULSA, OKLAHOMA, PHONE NUMBER 918-234-7777. PRODUCT INFORMATION FOR IM129 CAN BE OBTAINED FROM CUSTOM LININGS, PHONE NUMBER 719-395-4414.

THE ELASTOMERIC COATING SHALL BE APPLIED TO THE CONCRETE SURFACES OF THE BRIDGES AS INDICATED IN COMMON REPAIR DETAILS AND NOTES SHEET.

THE EQUIPMENT AND METHODS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.

THE COATING SHALL BE 60 MILS DRY THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE PIER AND ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL WITH THE CONCRETE PEDESTALS. SURFACE PREPARATIONS AND PRODUCT MIXING SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS AND ALL NEW CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE ELASTOMERIC COATING.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE OF "ELASTOMERIC COATING" WHICH PRICE SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

FLOOD COATING TREATMENT:

A FLOOD COAT DECK SEAL SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE.

1. THE DRIVING SURFACES OF THE BRIDGE DECK AND APPROACH SLABS.
2. THE ROADWAY FACES AND TOPS OF THE CONCRETE PARAPETS.

EXISTING PAVEMENT STRIPING SHALL BE REMOVED PRIOR TO FLOOD COAT DECK SEAL APPLICATION. ANY TRAFFIC STRIPING RENDERED INEFFECTIVE OR DAMAGED DURING THE FLOOD COAT SEAL APPLICATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR MUST PREVENT THE FLOOD COAT DECK SEAL FROM PENETRATING ANY JOINT THAT HAS BEE SEALED WITH SILICONE. IF THE FLOOD COAT DECK SEAL PENETRATES ANY SILICONE JOINT, THE CONTRACTOR, AT HIS OWN EXPENSE, WILL BE REQUIRED TO:

1. AFTER BULK CURE, REMOVE ALL FLOOD COAT DECK SEAL FROM JOINTS.
2. REMOVE AND REPLACE THE SILICONE JOINT SEALANT.

THIS WORK WILL BE PERFORMED AFTER ALL OTHER WORK ON THE BRIDGE HAS BEEN COMPLETED. ALL COST TO SEAL THE BRIDGE DECKS WITH FLOODCOAT INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "DECK AREA SEALED (FLOODCOATS)".



Jose K. Joseph 09/25/2025

LICENSED PROFESSIONAL ENGINEER SEAL

GENERAL NOTES (BRIDGE)			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 241, 263, 301, & 301A			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: MEMORIAL PLACE 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405)-848-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	2/2022
	DESIGNED	JKJ	2/2022
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	<i>HAS 9/25/25</i>	
	LEAD ENGR.	<i>HAS</i>	
HORIZONTAL:	FIELD MGR.	<i>HAS 9/25/25</i>	
VERTICAL:	RECOMMENDED:	<i>HAS 10-25</i>	
	DESIGN MANAGER	<i>HAS</i>	
FILE:	DRAWING:	DATE: 9/25/2025	
ATLAS PAGE NO:	132 & 181	SHEET 2 OF 53 SHEETS	

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9/25/2025

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BNSF RAILROAD COMPANY NOTES

NOTIFICATION OF WORK:

THE CONTRACTOR IS REQUIRED TO GIVE THE BNSF RAILROAD COMPANY AT LEAST 10 WORKING DAYS ADVANCE NOTICE, IN WRITING, BEFORE ANY WORK IS STARTED ON THE SITE. TO AVOID HAZARDS, THE BNSF RAILROAD COMPANY MAY HAVE A REPRESENTATIVE PRESENT, IF DEEMED NECESSARY, FOR THE PURPOSE OF INSPECTION AND THE ISSUANCE OF ANY APPROPRIATE INSTRUCTIONS FOR RAILROAD OPERATIONS DURING THE BRIDGE REHABILITATION OF BRIDGE NO. 241 (700 W 3RD ST.) IN CITY OF TULSA.

THE CONTRACTOR SHALL NOTIFY:

MR. TIM HUYA
MANAGER OF PUBLIC PROJECTS II
4200 DEEN ROAD
FORT WORTH, TX 76106-3099
OFFICE: 817-352-2902
EMAIL: TIM.HUYA@BNSF.COM

FLAGGING AND INSURANCE:

FLAGGING AND INSURANCE SHALL BE PROVIDED AS SPECIFIED IN SECTION 107 OF THE STANDARD SPECIFICATIONS AND IN THE SPECIAL PROVISIONS FOR RAILROAD FLAGGING (SEE PROPOSAL FOR SPECIAL PROVISIONS) AND WHAT IS STATED IN THE BNSF RAILROAD COMPANY'S RIGHT OF ENTRY AGREEMENT. BNSF RAILROAD COMPANY, AT THEIR DISCRETION, SHALL PROVIDE FLAGGING FOR THE RAILROAD DURING CONSTRUCTION OPERATIONS.

THE CONTRACTOR IS REQUIRED TO REIMBURSE BNSF RAILROAD COMPANY FOR FLAGGING SERVICES PROVIDED.

THE CONTRACTOR SHALL ALSO FURNISH SATISFACTORY EVIDENCE TO THE STATE OF OKLAHOMA THAT THEY HAVE PROVIDED INSURANCE OF THE KINDS AND AMOUNTS AS SPECIFIED IN THE SPECIAL PROVISIONS FOR RAILROAD INSURANCE AND IN THE BNSF COMPANY'S RIGHT OF ENTRY AGREEMENT.

THE CONTRACTOR WILL BE REQUIRED TO ENTER INTO A RIGHT OF ENTRY AGREEMENT WITH THE BNSF RAILROAD COMPANY BEFORE THEY WILL BE ALLOWED ON THE RAILROAD'S RIGHT-OF-WAY.

PRE-WORK MEETING:

PRIOR TO WORKING ON THE BNSF RAILROAD COMPANY'S RIGHT-OF-WAY OR IN THE VICINITY OF THEIR TRACKS, YOU MUST CONTACT THE LOCAL MANAGER OF TRACK MAINTENANCE FOR THE BNSF RAILROAD COMPANY TO COORDINATE YOUR WORK. IT IS VITAL THAT YOU HAVE CONTACT WITH THE BNSF RAILROAD COMPANY MANAGER OF TRACK MAINTENANCE PRIOR TO GETTING ON THE RAILROAD'S PROPERTY.

COORDINATION WITH RAILROAD:

THE CONTRACTOR SHALL CONDUCT CONSTRUCTION OPERATIONS IN A MANNER WHICH WILL NOT DELAY OR INTERFERE WITH TRAIN OPERATIONS. CONSTRUCTION ACTIVITY WITHIN 25 (TWENTY-FIVE) FEET OF ACTIVE TRACKS WILL REQUIRE A FLAGMAN TO BE PROVIDED BY THE BNSF RAILROAD COMPANY AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE BNSF RAILROAD COMPANY MANAGER OF TRACK MAINTENANCE, A MINIMUM OF 30 (THIRTY) CALENDAR DAYS IN ADVANCE OF WHEN FLAGGING IS REQUIRED.

SPECIAL PERMISSION MUST BE OBTAINED FROM THE BNSF RAILROAD COMPANY BEFORE MOVING ANY EQUIPMENT OR OTHER OBJECT WHICH COULD MAKE THE TRACK IMPASSABLE IF IT FELL WITHIN THE AREA SHOWN ON THE CONSTRUCTION CLEARANCE DIAGRAM.

RAILROAD FLAGGERS, PROTECTIVE SERVICES, AND PROTECTIVE DEVICES WILL BE REQUIRED, BUT NOT LIMITED TO, EVENTS WHEN:

- THE CONTRACTOR WORK ACTIVITIES ARE WITHIN 25 (TWENTY-FIVE) FEET OF THE TRACK, MEASURED FROM THE TRACK CENTERLINE.
- ACTIVITIES ARE OVER OR UNDER THE TRACK.
- CRANES OR SIMILAR EQUIPMENT WILL NOT BE POSITIONED WHERE THEY COULD FOUL THE TRACK IF THEY TIPPED OVER OR EXPERIENCED SOME OTHER CATASTROPHIC EVENT.
- IN THE OPINION OF THE BNSF RAILROAD COMPANY REPRESENTATIVE:
 - IT IS NECESSARY TO SAFEGUARD THE BNSF RAILROAD COMPANY PROPERTY, EMPLOYEES, TRAINS, ENGINES, AND FACILITIES.
 - WHEN ANY EXCAVATION IS PERFORMED BELOW THE BOTTOM OF THE ELEVATIONS AND TRACK OR OTHER BNSF RAILROAD COMPANY FACILITIES MAY BE SUBJECT TO MOVEMENT OR SETTLEMENT.
 - WHEN WORK IN ANY WAY INTERFERES WITH SAFE OPERATION OF TRAINS AND TIMETABLE SPEEDS.
 - WHEN ANY HAZARD IS PRESENTED TO RAILROAD TRACK, SIGNALS, COMMUNICATIONS, ELECTRICAL, OR OTHER FACILITIES EITHER DUE TO PERSON, MATERIAL, EQUIPMENT, OR BLASTING IN THE AREA.

PROTECTION OF RAILROAD UNDER BRIDGE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE RAILROAD TRACK BED DURING ALL CONSTRUCTION OPERATIONS. PRIOR TO ANY WORK BEING STARTED, A PROPOSED METHOD OF PREVENTING DEBRIS FROM FALLING ON THE RAILROAD TRACK BED SHALL BE SUBMITTED TO THE RAILROAD REPRESENTATIVE FOR HIS APPROVAL.

THE CONTRACTOR SHALL NOT BE PERMITTED TO LEAVE ANY WORKER SCAFFOLDING IN PLACE IN WORKING POSITION. AT THE END OF EACH WORKDAY, THE SCAFFOLDING SHALL BE REMOVED AND SET A SAFE DISTANCE FROM ANY OPERATING RAILROAD LINE. SCAFFOLDING SHALL AT ALL TIMES MAINTAIN THE MINIMUM CLEARANCE AS SHOWN ON THE "RAILROAD CONSTRUCTION CLEARANCE DIAGRAM" ON THE PLANS (THIS SHEET).

DEMOLITION OF STRUCTURES OVER RAILROAD:

ALL DEMOLITION PLANS FOR REMOVAL OF STRUCTURES OVER RAILROAD LINES SHALL BE REVIEWED AND APPROVED BY THE BNSF RAILROAD COMPANY BEFORE ANY REMOVAL MAY BEGIN.

DEMOLITION OF STRUCTURES WILL BE PERFORMED IN ACCORDANCE WITH THE RAILROAD'S "INSTRUCTIONS FOR PREPARATION OF DEMOLITION PLANS FOR STRUCTURES OVER THE BNSF RAILROAD."

BRIDGE ELEMENTS MAY BE REQUIRED TO BE CUT AND REMOVED AND NOT RUBBLIZED, RUBBLIZING WILL BE REVIEWED AND APPROVED ON A CASE-BY-CASE BASIS THROUGH BNSF RAILROAD.

BNSF RAILROAD COMPANY STANDARD REQUIREMENTS:

- THE ELEVATION OF THE EXISTING TOP-OF-RAIL SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
- ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.
- ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.
- ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
- RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.
- ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.
- FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.

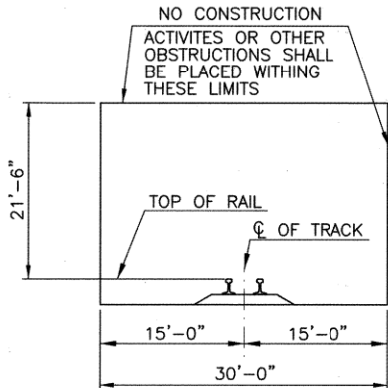
EROSION CONTROL AND DRAINAGE:

THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD. THE CONTRACTOR WILL INSTALL, MAINTAIN, AND REMOVE ALL EROSION CONTROL MEASURES DEEMED NECESSARY WITHIN THE RAILROAD RIGHT OF WAY.

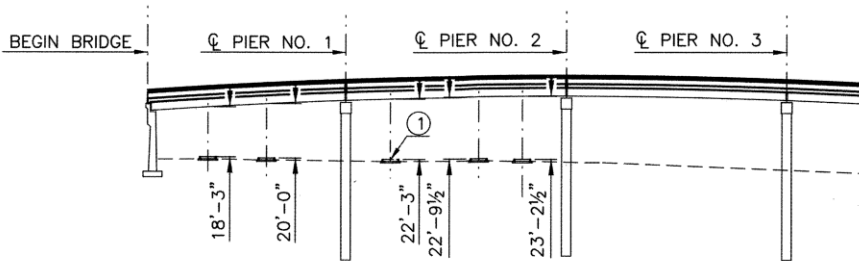
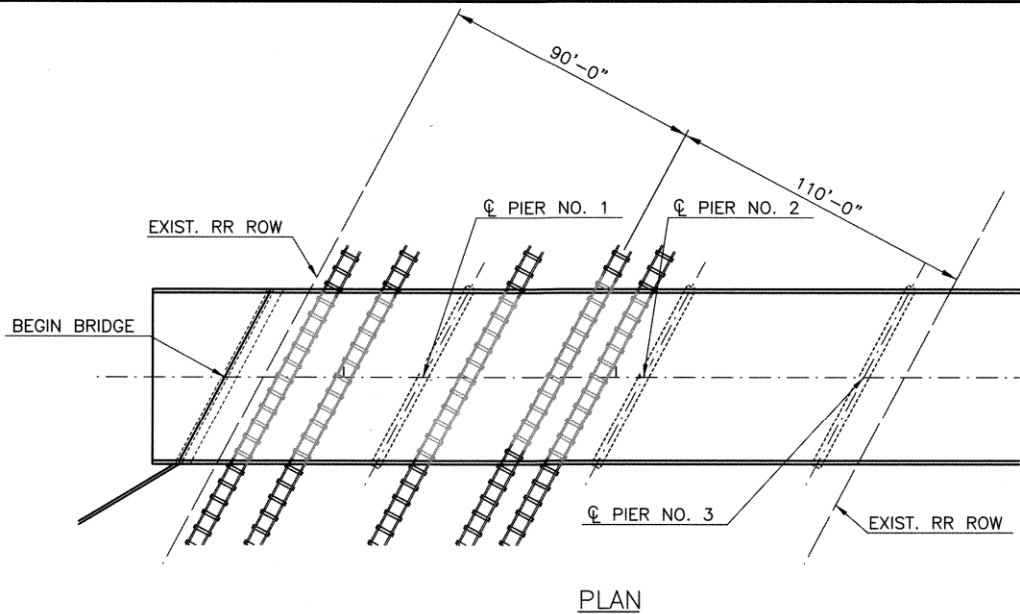
THE PROPOSED PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES. THE CONTRACTOR WILL MAINTAIN THE RAILROAD DRAINAGE AT ALL TIMES WHEN WORKING WITHIN THE RAILROAD RIGHT OF WAY.

RAIL TRAFFIC:

THE BNSF RAILROAD COMPANY HAS 2 TRAINS PER DAY AT 20 MPH, ON THE CREEK SUBDIVISION. RAIL TRAFFIC IS FOR INFORMATION PURPOSES ONLY. ACTUAL RAIL TRAFFIC MAY VARY.



RAILROAD CONSTRUCTION CLEARANCE DIAGRAM
(NORMAL TO RAILROAD)



ELEVATION

① TOP OF RAIL



Jose K. Joseph
LICENSED PROFESSIONAL ENGINEER
09/25/2025
SEAL

RAILROAD NOTES
SHEET 1 OF 2

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 241

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 948-2346
CERTIFICATE OF AUTHORIZATION NO. 4008
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.	Mhm	9/2025	
	LEAD ENGR.	JKJ	10/25	
HORIZONTAL:	N/A			
	FIELD MGR.	Mhm	10/25	
VERTICAL:	N/A			
	RECOMMENDED:	JKJ	10/25	
	DESIGN MANAGER			
FILE:	DRAWING:			CITY ENGINEER
ATLAS PAGE NO:				DATE: 9/25/2025
				SHEET 3 OF 53 SHEETS

BNSF GENERAL NOTES FOR OVERHEAD STRUCTURES

1.

COORDINATION: USE THE BNSF RAILROAD PUBLIC PROJECTS MANUAL AS A GUIDE FOR ASSISTING IN ADMINISTERING, COORDINATING, PLANNING, AND IMPLEMENTING YOUR PROJECT.
2.

DESIGN REVIEW: PRIOR TO CONSTRUCTION, OBTAIN RAILROAD REVIEW AND APPROVAL OF ALL RELEVANT CONSTRUCTION ITEMS, INCLUDING BUT NOT LIMITED TO, SHORING, TRACK & GROUND MONITORING, ERECTION, DEMOLITION, AND FALSE WORK. ALL DESIGNS MUST ADHERE TO THE MOST RESTRICTIVE PROVISIONS OF THE CURRENT BNSF AND AREMA STANDARDS AND GUIDELINES IN EFFECT AT THE TIME THE WORK IS EXECUTED. ALLOW A MINIMUM OF 4 WEEKS FOR REVIEW AND APPROVAL OF EACH SUBMITTAL. FOR SUBMITTAL NOT IN ACCORDANCE WITH THESE NOTES, LONGER REVIEW TIMES SHALL BE EXPECTED.
3.

OPERATIONS: PROJECTS SHALL BE DESIGNED SUCH THAT ALL CONSTRUCTION ACTIVITIES AND PHASING WILL NOT COMPROMISE SAFETY NOR IMPACT RAILROAD OPERATIONS.
4.

PASSING TRAINS: RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.
5.

WORK WINDOWS: CONSTRUCTION ACTIVITIES MUST BE PERFORMED WITHIN NATURALLY OCCURRING TRACK WINDOWS. COORDINATE ALL REQUEST FOR CONSTRUCTION WORK WINDOWS WITH THE RAILROAD'S DESIGNATED REPRESENTATIVE TO ENSURE THAT THE WORK IS SCHEDULED TO ELIMINATE ANY POTENTIAL DISRUPTION TO THE RAILROAD'S OPERATIONS.
6.

TOP OF RAIL SURVEY: VERIFY THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE BEFORE STARTING CONSTRUCTION. TOP-OF-RAIL SURVEY SHALL BE PERFORMED FOR 1000 FEET ON EITHER SIDE OF PROPOSED OVERHEAD STRUCTURE. ADDITIONAL VERTICAL CLEARANCE MAY BE REQUIRED FOR ADJUSTMENT OF SAG IN VERTICAL CURVE, FUTURE TRACK RAISE, FLOOD CONSIDERATIONS, CONSTRUCTION AND MAINTENANCE PURPOSES. BRING ALL DISCREPANCIES TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
7.

TEMPORARY CONSTRUCTION CLEARANCES: CONSTRUCTION ACTIVITIES ARE NOT ALLOWED WITHIN THE TEMPORARY CONSTRUCTION CLEARANCE ENVELOPE PER THE CURRENT UPRR GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS AND GUIDELINES FOR TEMPORARY SHORING.
8.

PERMANENT CLEARANCE ENVELOPE: THE MINIMUM PERMANENT VERTICAL CLEARANCE SHALL BE 23'-4" MEASURED FROM TOP OF HIGHEST RAIL TO THE LOWEST OBSTRUCTION UNDER THE STRUCTURE. THE EXTENT OF THIS VERTICAL CLEARANCE SHALL BE A MINIMUM OF 9 FEET TO THE FIELD SIDE OF THE OUTERMOST EXISTING OR FUTURE TRACKS, MEASURED PERPENDICULAR FROM THE CENTERLINE OF SAID TRACKS. IN CURVED TRACK, 9 FEET SHALL BE INCREASED EITHER 6 INCHES TOTAL OR 1.5 INCHES FOR EVERY DEGREE OF CURVE, WHICHEVER IS GREATER. THE PERMANENT VERTICAL CLEARANCE SHALL EXTEND TO COVER ALL EXISTING AND FUTURE TRACKS, INCLUDING THE SPACE IN BETWEEN.
9.

VERIFY PERMANENT CLEARANCES: ALL PERMANENT CLEARANCES SHALL BE VERIFIED THROUGHOUT CONSTRUCTION. A COMPLIANCE REPORT SHALL BE SUBMITTED TO THE RAILROAD BEFORE PROJECT CLOSING. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD.
10.

PERMANENT CLEARANCES FOR BID: THE PERMANENT VERTICAL AND HORIZONTAL DESIGN CLEARANCES, WHICH ARE SPECIFIED IN THE BID DOCUMENTS APPROVED BY THE RAILROAD, MUST BE MAINTAINED IN RELATION TO THE TOP-OF-RAIL AND CENTERLINE OF EXISTING AND FUTURE TRACKS, RESPECTIVELY. ANY REDUCTION OF THESE CLEARANCES IS NOT PERMITTED.
11.

DRAINAGE: THE PROPOSED PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.
12.

BEFORE YOU DIG: APPROPRIATE MEASURES FOR THE LOCATION AND PROTECTION OF BNSF FACILITIES SHALL BE ADDRESSED IN THE PLANS AND CONTRACT DOCUMENTS. FOR SPECIFIC RAILROAD REQUIREMENTS AND ADDITIONAL INFORMATION REFER TO WWW.BNSF.COM/BNSF-RESOURCES/PDF/ABOUT-BNSF/UTILITY.PDF. ABANDONMENT OF UTILITIES MUST FOLLOW THE BNSF GUIDELINES FOR ABANDONMENT OF SUBSURFACE UTILITY STRUCTURES.

BNSF GENERAL CONSTRUCTION REQUIREMENTS:

1.

ALL WORK WITHIN 25' OF TRACK, OVER TRACK, OR WITH POTENTIAL TO FOUL TRACK REQUIRES BNSF FLAGMAN TO BE ON SITE.
2.

ALL EQUIPMENT, MATERIALS, AND PERSONNEL SHALL REMAIN OUTSIDE THE MINIMUM CONSTRUCTION CLEARANCE ENVELOPE, EXCEPT WHEN WITHIN PREDETERMINED TRACK CURFEWS.
3.

ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT WITHIN 50 FEET DURING THE APPROACH AND PASSAGE OF A TRAIN.
4.

NO EQUIPMENT OR OUTRIGGERS SHALL BE SUPPORTED BY THE TRACK BALLAST, SUB-BALLAST, TIES OR RAILS AT ANY TIME.
5.

STORAGE AND STAGING AREAS ARE NOT PERMITTED WITHIN THE BNSF RIGHT-OF-WAY, EXCEPT WITHIN PRE-APPROVED ZONES SUCH AS EASEMENTS.
6.

TEMPORARY TRACK CROSSINGS MUST BE APPROVED BY BNSF'S LOCAL OPERATING UNIT AND BNSF MANAGER OF INDUSTRY AND PUBLIC PROJECTS PRIOR TO START OF CONSTRUCTION.
7.

TRACK CROSSING AND USE OF UPRR ACCESS ROADS/HAUL ROADS MUST BE COORDINATED WITH THE BNSF FLAGMAN (AND YARD MASTER, IF WITHIN YARD LIMITS).
8.

TEMPORARY DRAINAGE STRUCTURES AND/OR BMP'S SHALL NOT DIRECT STORMWATER TOWARDS BNSF TRACK OR ACCESS ROADS.
9.

UNATTENDED EXCAVATIONS WITHIN UPRR RIGHT OF WAY SHALL BE PROPERLY SECURED BY FENCING AND/OR COVERING(S) PER OSHA REQUIREMENTS.
10.

ALL UTILITIES WITHIN UPRR RIGHT OF WAY MUST BE IDENTIFIED AND MARKED PRIOR TO START OF CONSTRUCTION. UPRR CALL BEFORE YOU DIG 24/7: 1-800-336-9193



Jose K. Joseph 09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

BNSF RAILROAD
DOT 669494X
MILE POST 424.09
CREEK SUBDIVISION
W. 3RD STREET, TULSA

REVISION	BY	DATE	FILE:	DRAWING:	DATE: 9/25/2025
			ATLAS PAGE NO:		SHEET 4 OF 53 SHEETS

RAILROAD NOTES
SHEET 2 OF 2

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 241

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405)-848-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

MEMORIAL PLACE

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:	
N/A	DESIGNED	JKJ	4/2022		
	SURVEY				
PROFILE SCALE:	PROJ. MGR.	<i>11/24/2025</i>		<i>[Signature]</i> CITY ENGINEER	
	LEAD ENGR.	<i>11/24/2025</i>			
HORIZONTAL:	FIELD MGR.	<i>11/24/2025</i>			
N/A	RECOMMENDED:	<i>11/24/2025</i>			
VERTICAL:	N/A	DESIGN MANAGER			
			FILE:	DRAWING:	DATE: 9/25/2025
			ATLAS PAGE NO:		SHEET 4 OF 53 SHEETS

TSU RAILWAY COMPANY NOTES

NOTIFICATION OF WORK:

THE CONTRACTOR IS REQUIRED TO GIVE THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY AT LEAST 10 WORKING DAYS ADVANCE NOTICE, IN WRITING, BEFORE ANY WORK IS STARTED ON THE SITE. TO AVOID HAZARDS, THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY MAY HAVE A REPRESENTATIVE PRESENT, IF DEEMED NECESSARY, FOR THE PURPOSE OF INSPECTION AND THE ISSUANCE OF ANY APPROPRIATE INSTRUCTIONS FOR RAILROAD OPERATIONS DURING THE BRIDGE MAINTENANCE WORK ON W. 23RD ST. BRIDGE TULSA COUNTY. DOT 797236U, MILEPOST 149.09, JENKS SUBDIVISION

THE CONTRACTOR SHALL NOTIFY:

MR. WILLIAM COPELAND
MANAGER OF TRACK MAINTENANCE
UNION PACIFIC RAILROAD COMPANY
PHONE: 402-598-2204
EMAIL: WMCPELA@UP.COM

MR. JOHN PLEBANEK
RESIDENT PROJECT MANAGER
ALFRED BENESCH & COMPANY
PHONE: 414-294-8685
EMAIL: JPLEBANEK@BENESCH.COM

KEVIN TUCKER
GENERAL MANAGER
TSU RAILWAY
PHONE: 918-224-1515
EMAIL: KTUCKER@TSURAILWAY.COM

JIM HATT
PROJECT MANAGER
BENESCH
PHONE: 405-439-3451
EMAIL: JHATT@BENESCH.COM

FLAGGING AND INSURANCE:

FLAGGING AND INSURANCE SHALL BE PROVIDED AS SPECIFIED IN TSU RAILWAY COMPANY'S RIGHT OF ENTRY AGREEMENT. TSU RAILWAY COMPANY, AT THEIR DISCRETION, SHALL PROVIDE FLAGGING FOR THE RAILROAD DURING CONSTRUCTION OPERATIONS.

THE CONTRACTOR IS REQUIRED TO REIMBURSE TSU RAILWAY COMPANY FOR FLAGGING SERVICES PROVIDED.

THE CONTRACTOR SHALL ALSO FURNISH SATISFACTORY EVIDENCE TO THE CITY OF TULSA THAT THEY HAVE PROVIDED INSURANCE OF THE KINDS AND AMOUNTS AS SPECIFIED IN THE TSU RAILWAY COMPANY'S RIGHT OF ENTRY AGREEMENT.

THE CONTRACTOR WILL BE REQUIRED TO ENTER INTO A RIGHT OF ENTRY AGREEMENT WITH THE TSU RAILWAY COMPANY BEFORE THEY WILL BE ALLOWED ON THE RAILROAD'S RIGHT-OF-WAY.

PRE-WORK MEETING:

PRIOR TO WORKING ON THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY'S RIGHT-OF-WAY OR IN THE VICINITY OF THEIR TRACKS, YOU MUST CONTACT THE TSU RAILWAY COMPANY TO COORDINATE YOUR WORK. IT IS VITAL THAT YOU HAVE CONTACT WITH THE TSU RAILWAY COMPANY MANAGER PRIOR TO GETTING ON THE RAILROAD'S PROPERTY.

COORDINATION WITH RAILROAD:

THE CONTRACTOR SHALL CONDUCT CONSTRUCTION OPERATIONS IN A MANNER WHICH WILL NOT DELAY OR INTERFERE WITH TRAIN OPERATIONS. CONSTRUCTION ACTIVITY WITHIN 25 (TWENTY-FIVE) FEET OF ACTIVE TRACKS WILL REQUIRE A FLAGMAN TO BE PROVIDED BY THE TSU RAILWAY COMPANY AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE TSU RAILWAY COMPANY MANAGER, A MINIMUM OF 30 (THIRTY) CALENDAR DAYS IN ADVANCE OF WHEN FLAGGING IS REQUIRED.

SPECIAL PERMISSION MUST BE OBTAINED FROM TSU RAILWAY COMPANY BEFORE MOVING ANY EQUIPMENT OR OTHER OBJECT WHICH COULD MAKE THE TRACK IMPASSABLE IF IT FELL WITHIN THE AREA SHOWN ON THE CONSTRUCTION CLEARANCE DIAGRAM.

RAILROAD FLAGGERS, PROTECTIVE SERVICES, AND PROTECTIVE DEVICES WILL BE REQUIRED, BUT NOT LIMITED TO, EVENTS WHEN:

- THE CONTRACTOR WORK ACTIVITIES ARE WITHIN 25 (TWENTY-FIVE) FEET OF THE TRACK, MEASURED FROM THE TRACK CENTERLINE.
- ACTIVITIES ARE OVER OR UNDER THE TRACK.
- CRANES OR SIMILAR EQUIPMENT WILL NOT BE POSITIONED WHERE THEY COULD FOUL THE TRACK IF THEY TIPPED OVER OR EXPERIENCED SOME OTHER CATASTROPHIC EVENT.
- IN THE OPINION OF THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY REPRESENTATIVE:
 - IT IS NECESSARY TO SAFEGUARD THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY PROPERTY, EMPLOYEES, TRAINS, ENGINES, AND FACILITIES.
 - WHEN ANY EXCAVATION IS PERFORMED BELOW THE BOTTOM OF THE ELEVATIONS AND TRACK OR OTHER UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY FACILITIES MAY BE SUBJECT TO MOVEMENT OR SETTLEMENT.
 - WHEN WORK IN ANY WAY INTERFERES WITH SAFE OPERATION OF TRAINS AND TIMETABLE SPEEDS.
 - WHEN ANY HAZARD IS PRESENTED TO RAILROAD TRACK, SIGNALS, COMMUNICATIONS, ELECTRICAL, OR OTHER FACILITIES EITHER DUE TO PERSON, MATERIAL, EQUIPMENT, OR BLASTING IN THE AREA.

PROTECTION OF RAILROAD UNDER BRIDGE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE RAILROAD TRACK BED DURING ALL CONSTRUCTION OPERATIONS. PRIOR TO ANY WORK BEING STARTED, A PROPOSED METHOD OF PREVENTING DEBRIS FROM FALLING ON THE RAILROAD TRACK BED SHALL BE SUBMITTED TO THE RAILROAD REPRESENTATIVE FOR HIS APPROVAL.

THE CONTRACTOR SHALL NOT BE PERMITTED TO LEAVE ANY WORKER SCAFFOLDING IN PLACE IN WORKING POSITION. AT THE END OF EACH WORKDAY, THE SCAFFOLDING SHALL BE REMOVED AND SET A SAFE DISTANCE FROM ANY OPERATING RAILROAD LINE. SCAFFOLDING SHALL AT ALL TIMES MAINTAIN THE MINIMUM CLEARANCE AS SHOWN ON THE "RAILROAD CONSTRUCTION CLEARANCE DIAGRAM" ON THE PLANS (THIS SHEET).

DEMOLITION OF STRUCTURES OVER RAILROAD:

ALL DEMOLITION PLANS FOR REMOVAL OF STRUCTURES OVER RAILROAD LINES SHALL BE REVIEWED AND APPROVED BY THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY BEFORE ANY REMOVAL MAY BEGIN.

DEMOLITION OF STRUCTURES WILL BE PERFORMED IN ACCORDANCE WITH THE RAILROAD'S "INSTRUCTIONS FOR PREPARATION OF DEMOLITION PLANS FOR STRUCTURES OVER THE UNION PACIFIC RAILROAD."

BRIDGE ELEMENTS MAY BE REQUIRED TO BE CUT AND REMOVED AND NOT RUBBLIZED, RUBBLIZING WILL BE REVIEWED AND APPROVED ON A CASE-BY-CASE BASIS THROUGH UNION PACIFIC RAILROAD.

UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY STANDARD REQUIREMENTS:

- THE ELEVATION OF THE EXISTING TOP-OF-RAIL SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
- ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.
- ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.
- CONSTRUCTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
- RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.
- ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.
- FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.

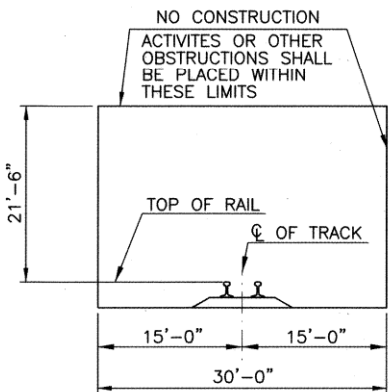
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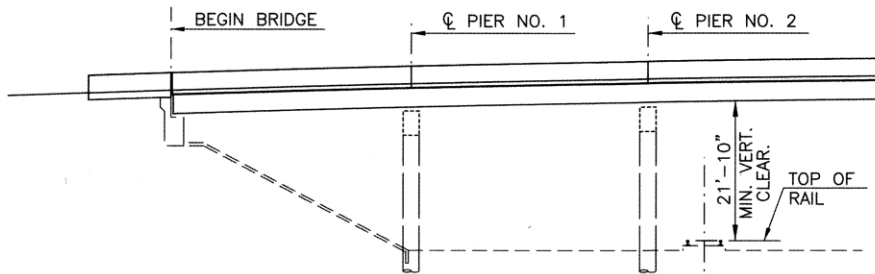
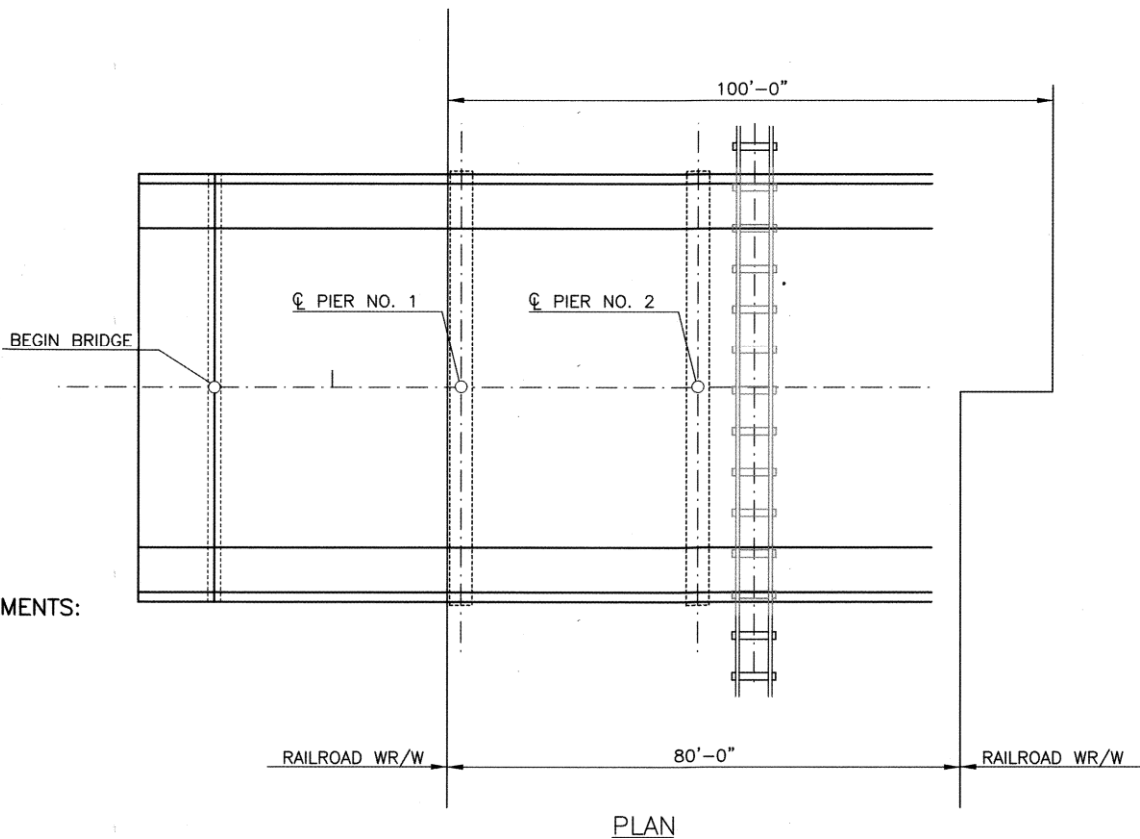
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RAIL TRAFFIC:

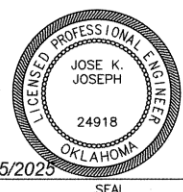
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RAILROAD CONSTRUCTION CLEARANCE ENVELOPE
(NORMAL TO RAILROAD)



ELEVATION



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

RAILROAD NOTES
SHEET 1 OF 2

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 263

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 848-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.		11/6/2025	
	LEAD ENGR.		11/6/2025	
HORIZONTAL:	N/A	FIELD MGR.	11/6/2025	
VERTICAL:	N/A	RECOMMENDED	11/6/2025	
	DESIGN MANAGER			
FILE:	DRAWING:		DATE: 9/25/2025	
ATLAS PAGE NO:			SHEET 5 OF 53 SHEETS	

UNION PACIFIC RAILROAD
DOT 797236U
MILE POST 149.09
JENKS SUBDIVISION
W. 23RD STREET, TULSA

REVISION	BY	DATE

UPRR GENERAL NOTES FOR OVERHEAD STRUCTURES

1. COORDINATION: USE THE UNION PACIFIC RAILROAD PUBLIC PROJECTS MANUAL AS A GUIDE FOR ASSISTING IN ADMINISTERING, COORDINATING, PLANNING, AND IMPLEMENTING YOUR PROJECT.
2. DESIGN REVIEW: PRIOR TO CONSTRUCTION, OBTAIN RAILROAD REVIEW AND APPROVAL OF ALL RELEVANT CONSTRUCTION ITEMS, INCLUDING BUT NOT LIMITED TO, SHORING, TRACK & GROUND MONITORING, ERECTION, DEMOLITION, AND FALSE WORK. ALL DESIGNS MUST ADHERE TO THE MOST RESTRICTIVE PROVISIONS OF THE CURRENT UPRR AND AREMA STANDARDS AND GUIDELINES IN EFFECT AT THE TIME THE WORK IS EXECUTED. ALLOW A MINIMUM OF 4 WEEKS FOR REVIEW AND APPROVAL OF EACH SUBMITTAL. FOR SUBMITTAL NOT IN ACCORDANCE WITH THESE NOTES, LONGER REVIEW TIMES SHALL BE EXPECTED.
3. OPERATIONS: PROJECTS SHALL BE DESIGNED SUCH THAT ALL CONSTRUCTION ACTIVITIES AND PHASING WILL NOT COMPROMISE SAFETY NOR IMPACT RAILROAD OPERATIONS.
4. PASSING TRAINS: RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.
5. WORK WINDOWS: CONSTRUCTION ACTIVITIES MUST BE PERFORMED WITHIN NATURALLY OCCURRING TRACK WINDOWS. COORDINATE ALL REQUEST FOR CONSTRUCTION WORK WINDOWS WITH THE RAILROAD'S DESIGNATED REPRESENTATIVE TO ENSURE THAT THE WORK IS SCHEDULED TO ELIMINATE ANY POTENTIAL DISRUPTION TO THE RAILROAD'S OPERATIONS.
6. TOP OF RAIL SURVEY: VERIFY THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE BEFORE STARTING CONSTRUCTION. TOP-OF-RAIL SURVEY SHALL BE PERFORMED FOR 1000 FEET ON EITHER SIDE OF PROPOSED OVERHEAD STRUCTURE. ADDITIONAL VERTICAL CLEARANCE MAY BE REQUIRED FOR ADJUSTMENT OF SAG IN VERTICAL CURVE, FUTURE TRACK RAISE, FLOOD CONSIDERATIONS, CONSTRUCTION AND MAINTENANCE PURPOSES. BRING ALL DISCREPANCIES TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
7. TEMPORARY CONSTRUCTION CLEARANCES: CONSTRUCTION ACTIVITIES ARE NOT ALLOWED WITHIN THE TEMPORARY CONSTRUCTION CLEARANCE ENVELOPE PER THE CURRENT UPRR GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS AND GUIDELINES FOR TEMPORARY SHORING.
8. PERMANENT CLEARANCE ENVELOPE: THE MINIMUM PERMANENT VERTICAL CLEARANCE SHALL BE 23'-4" MEASURED FROM TOP OF HIGHEST RAIL TO THE LOWEST OBSTRUCTION UNDER THE STRUCTURE. THE EXTENT OF THIS VERTICAL CLEARANCE SHALL BE A MINIMUM OF 9 FEET TO THE FIELD SIDE OF THE OUTERMOST EXISTING OR FUTURE TRACKS, MEASURED PERPENDICULAR FROM THE CENTERLINE OF SAID TRACKS. IN CURVED TRACK, 9 FEET SHALL BE INCREASED EITHER 6 INCHES TOTAL OR 1.5 INCHES FOR EVERY DEGREE OF CURVE, WHICHEVER IS GREATER. THE PERMANENT VERTICAL CLEARANCE SHALL EXTEND TO COVER ALL EXISTING AND FUTURE TRACKS, INCLUDING THE SPACE IN BETWEEN.
9. VERIFY PERMANENT CLEARANCES: ALL PERMANENT CLEARANCES SHALL BE VERIFIED THROUGHOUT CONSTRUCTION. A COMPLIANCE REPORT SHALL BE SUBMITTED TO THE RAILROAD BEFORE PROJECT CLOSING. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD.
10. PERMANENT CLEARANCES FOR BID: THE PERMANENT VERTICAL AND HORIZONTAL DESIGN CLEARANCES, WHICH ARE SPECIFIED IN THE BID DOCUMENTS APPROVED BY THE RAILROAD, MUST BE MAINTAINED IN RELATION TO THE TOP-OF-RAIL AND CENTERLINE OF EXISTING AND FUTURE TRACKS, RESPECTIVELY. ANY REDUCTION OF THESE CLEARANCES IS NOT PERMITTED.
11. DRAINAGE: THE PROPOSED PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.
12. BEFORE YOU DIG: APPROPRIATE MEASURES FOR THE LOCATION AND PROTECTION OF UPRR FACILITIES SHALL BE ADDRESSED IN THE PLANS AND CONTRACT DOCUMENTS. FOR SPECIFIC RAILROAD REQUIREMENTS AND ADDITIONAL INFORMATION REFER TO WWW.UP.COM/CBUD. ABANDONMENT OF UTILITIES MUST FOLLOW THE UPRR GUIDELINES FOR ABANDONMENT OF SUBSURFACE UTILITY STRUCTURES.

UPRR GENERAL CONSTRUCTION REQUIREMENTS:

1. ALL WORK WITHIN 25' OF TRACK, OVER TRACK, OR WITH POTENTIAL TO FOUL TRACK REQUIRES UPRR FLAGMAN TO BE ON SITE.
2. ALL EQUIPMENT, MATERIALS, AND PERSONNEL SHALL REMAIN OUTSIDE THE MINIMUM CONSTRUCTION CLEARANCE ENVELOPE, EXCEPT WHEN WITHIN PREDETERMINED TRACK CURFEWS.
3. ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT WITHIN 50 FEET DURING THE APPROACH AND PASSAGE OF A TRAIN.
4. NO EQUIPMENT OR OUTRIGGERS SHALL BE SUPPORTED BY THE TRACK BALLAST, SUB-BALLAST, TIES OR RAILS AT ANY TIME.
5. STORAGE AND STAGING AREAS ARE NOT PERMITTED WITHIN THE UPRR RIGHT-OF-WAY, EXCEPT WITHIN PRE-APPROVED ZONES SUCH AS EASEMENTS.
6. TEMPORARY TRACK CROSSINGS MUST BE APPROVED BY UPRR'S LOCAL OPERATING UNIT AND UPRR MANAGER OF INDUSTRY AND PUBLIC PROJECTS PRIOR TO START OF CONSTRUCTION.
7. TRACK CROSSING AND USE OF UPRR ACCESS ROADS/HAUL ROADS MUST BE COORDINATED WITH THE UPRR FLAGMAN (AND YARD MASTER, IF WITHIN YARD LIMITS).
8. TEMPORARY DRAINAGE STRUCTURES AND/OR BMP'S SHALL NOT DIRECT STORMWATER TOWARDS UPRR TRACK OR ACCESS ROADS.
9. UNATTENDED EXCAVATIONS WITHIN UPRR RIGHT OF WAY SHALL BE PROPERLY SECURED BY FENCING AND/OR COVERING(S) PER OSHA REQUIREMENTS.
10. ALL UTILITIES WITHIN UPRR RIGHT OF WAY MUST BE IDENTIFIED AND MARKED PRIOR TO START OF CONSTRUCTION. UPRR CALL BEFORE YOU DIG 24/7: 1-800-336-9193



Jose K. Joseph 09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

UNION PACIFIC RAILROAD
DOT 797236U
MILE POST 149.09
JENKS SUBDIVISION
W. 23RD STREET, TULSA

REVISION	BY	DATE

FILE:	DRAWING:	DATE: 9/25/2025
ATLAS PAGE NO:		SHEET 6 OF 53 SHEETS

RAILROAD NOTES
SHEET 2 OF 2

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 263

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7833 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 948-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.		9/2025	
	LEAD ENGR.		11/25	
HORIZONTAL:	FIELD MGR.		10/15	
N/A	RECOMMENDED:			
VERTICAL:	DESIGN MANAGER			
N/A				

TSU RAILWAY COMPANY NOTES

NOTIFICATION OF WORK:

THE CONTRACTOR IS REQUIRED TO GIVE THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY AT LEAST 10 WORKING DAYS ADVANCE NOTICE, IN WRITING, BEFORE ANY WORK IS STARTED ON THE SITE. TO AVOID HAZARDS, THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY MAY HAVE A REPRESENTATIVE PRESENT, IF DEEMED NECESSARY, FOR THE PURPOSE OF INSPECTION AND THE ISSUANCE OF ANY APPROPRIATE INSTRUCTIONS FOR RAILROAD OPERATIONS DURING THE BRIDGE MAINTENANCE WORK ON W. 71ST ST. BRIDGE TULSA COUNTY. DOT 435324F, MILEPOST 149.30, JENKS SUBDIVISION

THE CONTRACTOR SHALL NOTIFY:

MR. WILLIAM COPELAND
MANAGER OF TRACK MAINTENANCE
UNION PACIFIC RAILROAD COMPANY
PHONE: 402-598-2204
EMAIL: WMCPELA@UP.COM

MR. JOHN PLEBANEK
RESIDENT PROJECT MANAGER
ALFRED BENESCH & COMPANY
PHONE: 414-294-8685
EMAIL: JPLEBANEK@BENESCH.COM

KEVIN TUCKER
GENERAL MANAGER
TSU RAILWAY
PHONE: 918-224-1515
EMAIL: KTUCKER@TSURAILWAY.COM

JIM HATT
PROJECT MANAGER
BENESCH
PHONE: 405-439-3451
EMAIL: JHATT@BENESCH.COM

FLAGGING AND INSURANCE:

FLAGGING AND INSURANCE SHALL BE PROVIDED AS SPECIFIED IN TSU RAILWAY COMPANY'S RIGHT OF ENTRY AGREEMENT. TSU RAILWAY COMPANY, AT THEIR DISCRETION, SHALL PROVIDE FLAGGING FOR THE RAILROAD DURING CONSTRUCTION OPERATIONS.

THE CONTRACTOR IS REQUIRED TO REIMBURSE TSU RAILWAY COMPANY FOR FLAGGING SERVICES PROVIDED.

THE CONTRACTOR SHALL ALSO FURNISH SATISFACTORY EVIDENCE TO THE CITY OF TULSA THAT THEY HAVE PROVIDED INSURANCE OF THE KINDS AND AMOUNTS AS SPECIFIED IN THE TSU RAILWAY COMPANY'S RIGHT OF ENTRY AGREEMENT.

THE CONTRACTOR WILL BE REQUIRED TO ENTER INTO A RIGHT OF ENTRY AGREEMENT WITH THE TSU RAILWAY COMPANY BEFORE THEY WILL BE ALLOWED ON THE RAILROAD'S RIGHT-OF-WAY.

PRE-WORK MEETING:

PRIOR TO WORKING ON THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY'S RIGHT-OF-WAY OR IN THE VICINITY OF THEIR TRACKS, YOU MUST CONTACT THE LOCAL MANAGER OF TSU RAILWAY COMPANY TO COORDINATE YOUR WORK. IT IS VITAL THAT YOU HAVE CONTACT WITH THE TSU RAILWAY COMPANY MANAGER PRIOR TO GETTING ON THE RAILROAD'S PROPERTY.

COORDINATION WITH RAILROAD:

THE CONTRACTOR SHALL CONDUCT CONSTRUCTION OPERATIONS IN A MANNER WHICH WILL NOT DELAY OR INTERFERE WITH TRAIN OPERATIONS. CONSTRUCTION ACTIVITY WITHIN 25 (TWENTY-FIVE) FEET OF ACTIVE TRACKS WILL REQUIRE A FLAGMAN TO BE PROVIDED BY THE TSU RAILWAY COMPANY AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE TSU RAILWAY COMPANY MANAGER OF TRACK MAINTENANCE, A MINIMUM OF 30 (THIRTY) CALENDAR DAYS IN ADVANCE OF WHEN FLAGGING IS REQUIRED.

SPECIAL PERMISSION MUST BE OBTAINED FROM THE TSU RAILWAY COMPANY BEFORE MOVING ANY EQUIPMENT OR OTHER OBJECT WHICH COULD MAKE THE TRACK IMPASSABLE IF IT FELL WITHIN THE AREA SHOWN ON THE CONSTRUCTION CLEARANCE DIAGRAM.

RAILROAD FLAGGERS, PROTECTIVE SERVICES, AND PROTECTIVE DEVICES WILL BE REQUIRED, BUT NOT LIMITED TO, EVENTS WHEN:

- THE CONTRACTOR WORK ACTIVITIES ARE WITHIN 25 (TWENTY-FIVE) FEET OF THE TRACK, MEASURED FROM THE TRACK CENTERLINE.
- ACTIVITIES ARE OVER OR UNDER THE TRACK.
- CRANES OR SIMILAR EQUIPMENT WILL NOT BE POSITIONED WHERE THEY COULD FOUL THE TRACK IF THEY TIPPED OVER OR EXPERIENCED SOME OTHER CATASTROPHIC EVENT.
- IN THE OPINION OF THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY REPRESENTATIVE:
 - IT IS NECESSARY TO SAFEGUARD THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY PROPERTY, EMPLOYEES, TRAINS, ENGINES, AND FACILITIES.
 - WHEN ANY EXCAVATION IS PERFORMED BELOW THE BOTTOM OF THE ELEVATIONS AND TRACK OR OTHER UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY FACILITIES MAY BE SUBJECT TO MOVEMENT OR SETTLEMENT.
 - WHEN WORK IN ANY WAY INTERFERES WITH SAFE OPERATION OF TRAINS AND TIMETABLE SPEEDS.
 - WHEN ANY HAZARD IS PRESENTED TO RAILROAD TRACK, SIGNALS, COMMUNICATIONS, ELECTRICAL, OR OTHER FACILITIES EITHER DUE TO PERSON, MATERIAL, EQUIPMENT, OR BLASTING IN THE AREA.

PROTECTION OF RAILROAD UNDER BRIDGE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE RAILROAD TRACK BED DURING ALL CONSTRUCTION OPERATIONS. PRIOR TO ANY WORK BEING STARTED, A PROPOSED METHOD OF PREVENTING DEBRIS FROM FALLING ON THE RAILROAD TRACK BED SHALL BE SUBMITTED TO THE RAILROAD REPRESENTATIVE FOR HIS APPROVAL.

THE CONTRACTOR SHALL NOT BE PERMITTED TO LEAVE ANY WORKER SCAFFOLDING IN PLACE IN WORKING POSITION. AT THE END OF EACH WORKDAY, THE SCAFFOLDING SHALL BE REMOVED AND SET A SAFE DISTANCE FROM ANY OPERATING RAILROAD LINE. SCAFFOLDING SHALL AT ALL TIMES MAINTAIN THE MINIMUM CLEARANCE AS SHOWN ON THE "RAILROAD CONSTRUCTION CLEARANCE DIAGRAM" ON THE PLANS (THIS SHEET).

DEMOLITION OF STRUCTURES OVER RAILROAD:

ALL DEMOLITION PLANS FOR REMOVAL OF STRUCTURES OVER RAILROAD LINES SHALL BE REVIEWED AND APPROVED BY THE UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY BEFORE ANY REMOVAL MAY BEGIN.

DEMOLITION OF STRUCTURES WILL BE PERFORMED IN ACCORDANCE WITH THE RAILROAD'S "INSTRUCTIONS FOR PREPARATION OF DEMOLITION PLANS FOR STRUCTURES OVER THE UNION PACIFIC RAILROAD."

BRIDGE ELEMENTS MAY BE REQUIRED TO BE CUT AND REMOVED AND NOT RUBBLIZED, RUBBLIZING WILL BE REVIEWED AND APPROVED ON A CASE-BY-CASE BASIS THROUGH UNION PACIFIC RAILROAD.

UNION PACIFIC RAILROAD/TSU RAILWAY COMPANY STANDARD REQUIREMENTS:

- THE ELEVATION OF THE EXISTING TOP-OF-RAIL SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
- ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.
- ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.
- CONSTRUCTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
- RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.
- ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.
- FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.

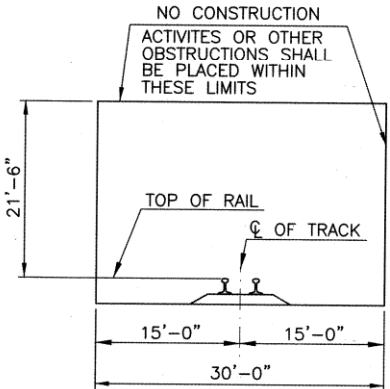
EROSION CONTROL AND DRAINAGE:

THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD. THE CONTRACTOR WILL INSTALL, MAINTAIN, AND REMOVE ALL EROSION CONTROL MEASURES DEEMED NECESSARY WITHIN THE RAILROAD RIGHT OF WAY.

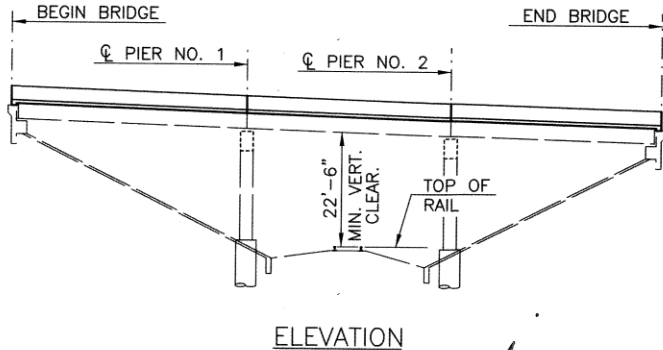
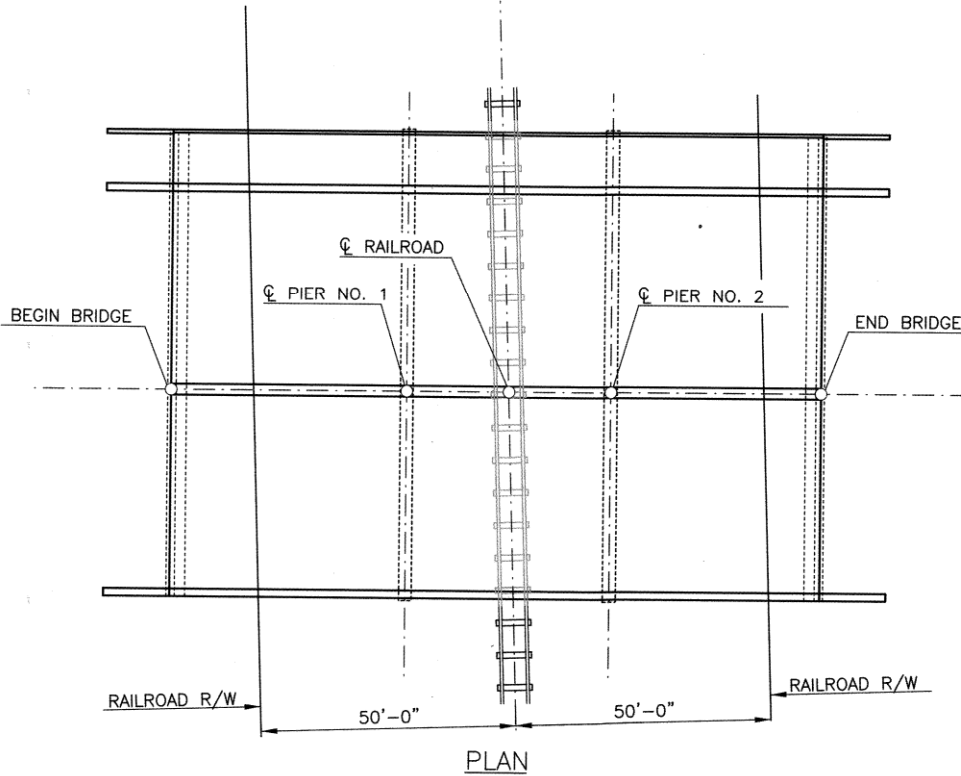
THE PROPOSED PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES. THE CONTRACTOR WILL MAINTAIN THE RAILROAD DRAINAGE AT ALL TIMES WHEN WORKING WITHIN THE RAILROAD RIGHT OF WAY.

RAIL TRAFFIC:

THE TSU RAILWAY COMPANY HAS 2 TRAINS PER DAY AT 20 MPH, ON THE JENKS SUBDIVISION. RAIL TRAFFIC IS FOR INFORMATION PURPOSES ONLY. ACTUAL RAIL TRAFFIC MAY VARY.



RAILROAD CONSTRUCTION CLEARANCE ENVELOPE
(NORMAL TO RAILROAD)



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER
SEAL

RAILROAD NOTES SHEET 1 OF 2			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301A			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y MEMORIAL PLACE 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2348 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	4/2022
	DESIGNED	JKJ	4/2022
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	W. J. 9/2025	
	LEAD ENGR.	W. J. 9/2025	
HORIZONTAL:	N/A		
VERTICAL:	N/A		
	RECOMMENDED:	W. J. 10/25	
	DESIGN MANAGER		
FILE:	DRAWING:		DATE: 9/25/2025
ATLAS PAGE NO:			SHEET 7 OF 53 SHEETS

UNION PACIFIC RAILROAD
DOT 435324F
MILE POST 144.30
JENKS SUBDIVISION
W. 71ST STREET, TULSA

REVISION	BY	DATE

5:39:06 PM
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9/25/2025
ElisoCM
c:\p\pdf_ANSID.tbi
dw: /

UPRR GENERAL NOTES FOR OVERHEAD STRUCTURES

1. COORDINATION: USE THE UNION PACIFIC RAILROAD PUBLIC PROJECTS MANUAL AS A GUIDE FOR ASSISTING IN ADMINISTERING, COORDINATING, PLANNING, AND IMPLEMENTING YOUR PROJECT.
2. DESIGN REVIEW: PRIOR TO CONSTRUCTION, OBTAIN RAILROAD REVIEW AND APPROVAL OF ALL RELEVANT CONSTRUCTION ITEMS, INCLUDING BUT NOT LIMITED TO, SHORING, TRACK & GROUND MONITORING, ERECTION, DEMOLITION, AND FALSE WORK. ALL DESIGNS MUST ADHERE TO THE MOST RESTRICTIVE PROVISIONS OF THE CURRENT UPRR AND AREMA STANDARDS AND GUIDELINES IN EFFECT AT THE TIME THE WORK IS EXECUTED. ALLOW A MINIMUM OF 4 WEEKS FOR REVIEW AND APPROVAL OF EACH SUBMITTAL. FOR SUBMITTAL NOT IN ACCORDANCE WITH THESE NOTES, LONGER REVIEW TIMES SHALL BE EXPECTED.
3. OPERATIONS: PROJECTS SHALL BE DESIGNED SUCH THAT ALL CONSTRUCTION ACTIVITIES AND PHASING WILL NOT COMPROMISE SAFETY NOR IMPACT RAILROAD OPERATIONS.
4. PASSING TRAINS: RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.
5. WORK WINDOWS: CONSTRUCTION ACTIVITIES MUST BE PERFORMED WITHIN NATURALLY OCCURRING TRACK WINDOWS. COORDINATE ALL REQUEST FOR CONSTRUCTION WORK WINDOWS WITH THE RAILROAD'S DESIGNATED REPRESENTATIVE TO ENSURE THAT THE WORK IS SCHEDULED TO ELIMINATE ANY POTENTIAL DISRUPTION TO THE RAILROAD'S OPERATIONS.
6. TOP OF RAIL SURVEY: VERIFY THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE BEFORE STARTING CONSTRUCTION. TOP-OF-RAIL SURVEY SHALL BE PERFORMED FOR 1000 FEET ON EITHER SIDE OF PROPOSED OVERHEAD STRUCTURE. ADDITIONAL VERTICAL CLEARANCE MAY BE REQUIRED FOR ADJUSTMENT OF SAG IN VERTICAL CURVE, FUTURE TRACK RAISE, FLOOD CONSIDERATIONS, CONSTRUCTION AND MAINTENANCE PURPOSES. BRING ALL DISCREPANCIES TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
7. TEMPORARY CONSTRUCTION CLEARANCES: CONSTRUCTION ACTIVITIES ARE NOT ALLOWED WITHIN THE TEMPORARY CONSTRUCTION CLEARANCE ENVELOPE PER THE CURRENT UPRR GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS AND GUIDELINES FOR TEMPORARY SHORING.
8. PERMANENT CLEARANCE ENVELOPE: THE MINIMUM PERMANENT VERTICAL CLEARANCE SHALL BE 23'-4" MEASURED FROM TOP OF HIGHEST RAIL TO THE LOWEST OBSTRUCTION UNDER THE STRUCTURE. THE EXTENT OF THIS VERTICAL CLEARANCE SHALL BE A MINIMUM OF 9 FEET TO THE FIELD SIDE OF THE OUTERMOST EXISTING OR FUTURE TRACKS, MEASURED PERPENDICULAR FROM THE CENTERLINE OF SAID TRACKS. IN CURVED TRACK, 9 FEET SHALL BE INCREASED EITHER 6 INCHES TOTAL OR 1.5 INCHES FOR EVERY DEGREE OF CURVE, WHICHEVER IS GREATER. THE PERMANENT VERTICAL CLEARANCE SHALL EXTEND TO COVER ALL EXISTING AND FUTURE TRACKS, INCLUDING THE SPACE IN BETWEEN.
9. VERIFY PERMANENT CLEARANCES: ALL PERMANENT CLEARANCES SHALL BE VERIFIED THROUGHOUT CONSTRUCTION. A COMPLIANCE REPORT SHALL BE SUBMITTED TO THE RAILROAD BEFORE PROJECT CLOSING. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD.
10. PERMANENT CLEARANCES FOR BID: THE PERMANENT VERTICAL AND HORIZONTAL DESIGN CLEARANCES, WHICH ARE SPECIFIED IN THE BID DOCUMENTS APPROVED BY THE RAILROAD, MUST BE MAINTAINED IN RELATION TO THE TOP-OF-RAIL AND CENTERLINE OF EXISTING AND FUTURE TRACKS, RESPECTIVELY. ANY REDUCTION OF THESE CLEARANCES IS NOT PERMITTED.
11. DRAINAGE: THE PROPOSED PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.
12. BEFORE YOU DIG: APPROPRIATE MEASURES FOR THE LOCATION AND PROTECTION OF UPRR FACILITIES SHALL BE ADDRESSED IN THE PLANS AND CONTRACT DOCUMENTS. FOR SPECIFIC RAILROAD REQUIREMENTS AND ADDITIONAL INFORMATION REFER TO WWW.UP.COM/CBUD. ABANDONMENT OF UTILITIES MUST FOLLOW THE UPRR GUIDELINES FOR ABANDONMENT OF SUBSURFACE UTILITY STRUCTURES.

UPRR GENERAL CONSTRUCTION REQUIREMENTS:

1. ALL WORK WITHIN 25' OF TRACK, OVER TRACK, OR WITH POTENTIAL TO FOUL TRACK REQUIRES UPRR FLAGMAN TO BE ON SITE.
2. ALL EQUIPMENT, MATERIALS, AND PERSONNEL SHALL REMAIN OUTSIDE THE MINIMUM CONSTRUCTION CLEARANCE ENVELOPE, EXCEPT WHEN WITHIN PREDETERMINED TRACK CURFEWS.
3. ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT WITHIN 50 FEET DURING THE APPROACH AND PASSAGE OF A TRAIN.
4. NO EQUIPMENT OR OUTRIGGERS SHALL BE SUPPORTED BY THE TRACK BALLAST, SUB-BALLAST, TIES OR RAILS AT ANY TIME.
5. STORAGE AND STAGING AREAS ARE NOT PERMITTED WITHIN THE UPRR RIGHT-OF-WAY, EXCEPT WITHIN PRE-APPROVED ZONES SUCH AS EASEMENTS.
6. TEMPORARY TRACK CROSSINGS MUST BE APPROVED BY UPRR'S LOCAL OPERATING UNIT AND UPRR MANAGER OF INDUSTRY AND PUBLIC PROJECTS PRIOR TO START OF CONSTRUCTION.
7. TRACK CROSSING AND USE OF UPRR ACCESS ROADS/HAUL ROADS MUST BE COORDINATED WITH THE UPRR FLAGMAN (AND YARD MASTER, IF WITHIN YARD LIMITS).
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9. UNATTENDED EXCAVATIONS WITHIN UPRR RIGHT OF WAY SHALL BE PROPERLY SECURED BY FENCING AND/OR COVERING(S) PER OSHA REQUIREMENTS.
10. ALL UTILITIES WITHIN UPRR RIGHT OF WAY MUST BE IDENTIFIED AND MARKED PRIOR TO START OF CONSTRUCTION. UPRR CALL BEFORE YOU DIG 24/7: 1-800-336-9193



Jose K. Joseph 09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

UNION PACIFIC RAILROAD
DOT 435324F
MILE POST 144.30
JENKS SUBDIVISION
W. 71ST STREET, TULSA

REVISION	BY	DATE

RAILROAD NOTES SHEET 2 OF 2			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301A			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405)-848-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	4/2022
N/A	DESIGNED	JKJ	4/2022
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	<i>11/6-9/2025</i>	
HORIZONTAL:	LEAD ENGR.	<i>10/25</i>	
N/A	FIELD MGR.	<i>10/25</i>	
VERTICAL:	RECOMMENDED:	<i>10/25</i>	
N/A	DESIGN MANAGER		
FILE:	DRAWING:	DATE: 9/25/2025	
ATLAS PAGE NO:			SHEET 8 OF 53 SHEETS

\$\$\$USERS\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILES\$\$\$
\$\$\$DATE\$\$\$
\$\$\$PLTDRV\$\$\$

PAY QUANTITIES – BRIDGE 241

TRAFFIC				
ITEM CODE	DESCRIPTION		UNIT	QUANTITY
1	855(A)	TRAFFIC STRIPE (4" WHITE)(THERMOPLASTIC) (T-3)	LF	3260
2	855(A)	TRAFFIC STRIPE (4" YELLOW)(THERMOPLASTIC) (T-3)	LF	1630
3	857(C)	REMOVABLE PAVEMENT MARKING TAPE	LF	5700
4	859	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	LF	6052
5	880(B)	SIGNS 0 TO 6.25 SF (T-2,4,5)	SD	1420
6	880(B)	SIGNS 6.26 SF TO 15.99 SF (T-2,4,5)	SD	2180
7	—	NOT USED	—	—
8	880(C)	BARRICADES (TYPE III) (T-2,4,5)	SD	420
9	880(C)	WING BARRICADES (T-2,4,5)	SD	300
10	880(E)	TYPE A LIGHT (T-5)	SD	1920
11	880(F)	DRUMS (T-2,4,5)	SD	2940
12	880(G)	TUBE CHANNELIZERS (T-2,4)	SD	540

PAY QUANTITIES – BRIDGE 301

TRAFFIC				
ITEM CODE	DESCRIPTION		UNIT	QUANTITY
25	855(A)	TRAFFIC STRIPE (4" WHITE)(THERMOPLASTIC) (T-3)	LF	1792
26	855(A)	TRAFFIC STRIPE (4" YELLOW)(THERMOPLASTIC) (T-3)	LF	896
27	857(C)	REMOVABLE PAVEMENT MARKING TAPE	LF	1926
28	859	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	LF	3438
29	880(B)	SIGNS 0 TO 6.25 SF (T-2,4,5)	SD	730
30	880(B)	SIGNS 6.26 SF TO 15.99 SF (T-2,4,5)	SD	1400
31	—	NOT USED	—	—
32	880(C)	BARRICADES (TYPE III) (T-2,4,5)	SD	420
33	880(C)	WING BARRICADES (T-2,4,5)	SD	460
34	880(E)	TYPE A LIGHT (T-5)	SD	1020
35	880(F)	DRUMS (T-2,4,5)	SD	1920
36	880(G)	TUBE CHANNELIZERS (T-2,4)	SD	360

PAY QUANTITIES – BRIDGE 301A

TRAFFIC				
ITEM CODE	DESCRIPTION		UNIT	QUANTITY
37	855(A)	TRAFFIC STRIPE (4" WHITE)(THERMOPLASTIC) (T-3)	LF	1312
38	855(A)	TRAFFIC STRIPE (4" YELLOW)(THERMOPLASTIC) (T-3)	LF	656
39	857(C)	REMOVABLE PAVEMENT MARKING TAPE	LF	1520
40	859	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	LF	3288
41	880(B)	SIGNS 0 TO 6.25 SF (T-2,4,5)	SD	300
42	880(B)	SIGNS 6.26 SF TO 15.99 SF (T-2,4,5)	SD	660
43	—	NOT USED	—	—
44	880(C)	BARRICADES (TYPE III) (T-2,4,5)	SD	300
45	880(C)	WING BARRICADES (T-2,4,5)	SD	120
46	880(E)	TYPE A LIGHT (T-5)	SD	480
47	880(F)	DRUMS (T-2,4,5)	SD	840
48	880(G)	TUBE CHANNELIZERS (T-2,4)	SD	180

PAY QUANTITIES – BRIDGE 263

TRAFFIC				
ITEM CODE	DESCRIPTION		UNIT	QUANTITY
13	855(A)	TRAFFIC STRIPE (4" WHITE)(THERMOPLASTIC) (T-3)	LF	2220
14	855(A)	TRAFFIC STRIPE (4" YELLOW)(THERMOPLASTIC) (T-3)	LF	1110
15	857(C)	REMOVABLE PAVEMENT MARKING TAPE	LF	3696
16	859	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	LF	4777
17	880(B)	SIGNS 0 TO 6.25 SF (T-2,4,5)	SD	670
18	880(B)	SIGNS 6.26 SF TO 15.99 SF (T-2,4,5)	SD	1250
19	—	NOT USED	—	—
20	880(C)	BARRICADES (TYPE III) (T-2,4,5)	SD	270
21	880(C)	WING BARRICADES (T-2,4,5)	SD	180
22	880(E)	TYPE A LIGHT (T-5)	SD	870
23	880(F)	DRUMS (T-2,4,5)	SD	1800
24	880(G)	TUBE CHANNELIZERS (T-2,4)	SD	360

PAY ITEM NOTES (VERSION: 10/13/2021)

- T-1 NOT USED
- 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° 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 NOT USED
- T-7 NOT USED

TRAFFIC GENERAL CONSTRUCTION NOTES

REMOVED MATERIAL TO BECOME PROPERTY OF CONTRACTOR AND IT SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE O.D.O.T. STANDARDS AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO ANY STRUCTURES, ROADWAY SURFACES, STRIPING, RAISED PAVEMENT MARKERS, GUARDRAIL, SLOPES, AND SIGNS SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT YELLOW SHEETING. THE FLUORESCENT YELLOW SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) REQUIREMENTS FOR TYPE VIII SHEETING.

CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN SUCH A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT ADDITION", AND APPLICABLE O.D.O.T. STANDARD DRAWINGS. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING WORK IF A CHANGE TO THE TRAFFIC CONTROL PLAN IS PROPOSED.

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL MEET O.D.O.T.'S "QUALITY STANDARDS FOR TEMPORARY TRAFFIC CONTROL DEVICES.

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.



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC)			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 241, 263, 301, & 301A			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		923 S LOWRY STREET POST OFFICE BOX 436 STILLWATER, OK 74076 (409) 743-3365 CERTIFICATE OF AUTHORIZATION NO. +205 RENEWAL DATE 6-30-26	
PLAN SCALE:	DRAWN	A/JF	03/2022
	DESIGNED	KDH	03/2022
	SURVEY	CPY	2/2022
PROFILE SCALE:	PROJ. MGR.	M/bm 9/2025	
	LEAD ENGR.	10/25	
HORIZONTAL:	FIELD MGR.	2024 10/25	
VERTICAL:	RECOMMENDED:	10/25	
	DESIGN MANAGER:		
FILE:	DRAWING:		DATE: 04/2022
ATLAS PAGE NO:	132 & 181		SHEET 9 OF 53 SHEETS

PAY QUANTITY NOTES

101. PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES. SEE SUBSECTION 109.01(B) OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
102. PAY ITEM "ELASTOMERIC COATING" SHALL CONSIST OF APPLYING CIM-1000 SURFACE FINISH TO THE TOP OF BRIDGE SEAT, DOWN 6" ON THE BRIDGE SEAT, AND UP 6" ONTO BACKWALL, ACROSS THE TOP OF THE PIER CAP, AND DOWN 6" OF THE VERTICAL FACE OF THE PIER CAPS IN ACCORDANCE WITH SECTION 509.04G OF THE STANDARD SPECIFICATIONS. SEE COMMON REPAIR DETAILS AND NOTES SHEET FOR ADDITIONAL DETAILS.
103. PAY ITEM "MECHANICAL SPLICES" SHALL BE USED TO TIE THE TRANSVERSE REINFORCING STEEL IN THE CONSTRUCTION AND EXPANSION JOINT REPAIR IN ACCORDANCE WITH SECTION 511.04.C(3). THE MECHANICAL SPLICES ARE NECESSARY TO TIE PHASE I TO PHASE II CONSTRUCTION. THE MECHANICAL SPLICES SHALL BE ERICO OR AN APPROVED EQUAL AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. ALL COSTS OF THE MECHANICAL SPLICES INCLUDING MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "MECHANICAL SPLICES".
104. PAY ITEM "PAINTING EXISTING STRUCTURES" SHALL BE USED TO PAINT ALL STRUCTURAL STEEL (BEAMS, DIAPHRAGMS, AND BEARING ASSEMBLIES) AS DESCRIBED IN THE PLANS. THE CONTRACTOR NEEDS TO ONLY APPLY THE FIRST COAT (PRIME COAT) TO THE BEAMS AND EXISTING DIAPHRAGM FLANGE TOPS AND EDGES. PRIME COAT SHALL MEET OSHA REQUIREMENTS FOR SLIP RESISTANCE. ALL COSTS OF PAINTING, TOOLS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "PAINTING EXISTING STRUCTURES".
105. PAY ITEM "COLLECTION AND HANDLING OF WASTE" SHALL BE USED TO CLEAN ALL THE STRUCTURAL STEEL (BEAMS, DIAPHRAGMS, AND BEARING ASSEMBLIES) PRIOR TO PAINTING. ALL COSTS OF BLASTING AND CLEANING INCLUDING TOOLS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "COLLECTION AND HANDLING OF WASTE".
106. THIS PAY ITEM SHALL BE USED TO REPAIR PORTIONS OF THE DECK SLAB, EXPANSION JOINTS AND CONSTRUCTION JOINTS AS DETAILED IN EXPANSION JOINT REPAIR DETAILS SHEET AND CONSTRUCTION JOINT REPAIR DETAILS SHEET RESPECTIVELY.
107. PAY ITEM "RAPID CURE JOINT SEALANT" SHALL CONSIST OF SEALING THE EXPANSION JOINTS AT ABUTMENT NO. 1, ABUTMENT NO. 2 AND PIER NO. 4.
108. THIS PAY ITEM SHALL BE USED TO REPAIR THE EXPANSION JOINTS NOSING AT ABUTMENTS AND PIER NO. 4 AS DETAILED IN EXPANSION JOINT REPAIR DETAILS SHEET.
109. CONSISTS OF REPAIR TO THE EXISTING ABUTMENTS AND PIERS AS DESCRIBED IN TYPICAL SUBSTRUCTURE REPAIR DETAILS AND NOTES ON COMMON REPAIR DETAILS AND NOTES SHEET. THE QUANTITY INCLUDES AN ADDITIONAL 21 LF FOR PREPARATION OF CRACKS ABOVE WATER AND 7 SY FOR PNEUMATICALLY PLACED MORTAR FOR USE AT THE DISCRETION OF THE CITY OF TULSA ENGINEER.
110. SEAL ALL DECK SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS AT LOCATIONS SHOWN IN THE PLANS. 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 COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". MATERIAL, EQUIPMENT, AND LABOR FOR SEALING EMERGENCY CONSTRUCTION JOINTS WILL NOT BE MEASURED FOR PAYMENT.
111. PAY ITEM "DECK AREA SEALED (FLOODCOATS)" CONSISTS OF SEALING THE ENTIRE BRIDGE DECK, PARAPET, APPROACH SLAB AND MEDIAN BARRIER IN PHASES IN ACCORDANCE WITH THE SECTION 523 OF THE STANDARD SPECIFICATIONS. APPLY FLOOD COAT ON THE APPROACH SLAB FOR A LENGTH OF 20'-0" FROM THE BEGIN/END OF BRIDGE.
112. PAY ITEM "CORROSION INHIBITOR (SURFACE APPLIED)" IS FOR APPLYING CORROSION INHIBITOR TO ALL AREAS WITH PNEUMATICALLY PLACED MORTAR IN ACCORDANCE WITH SECTION 535 OF THE STANDARD SPECIFICATIONS.
113. PAY ITEM "(PL) REPAIR BRIDGE ITEM (TYPE A)" IS FOR REPAIRING THE PARAPET AT TWO POST LOCATIONS AND REPLACING THE RAILING AT ONE LOCATION AS SHOWN IN DECK REPAIR DETAILS AND FLOODCOAT AND RAIL REPAIR DETAILS SHEETS. REPAIR THE PARAPET WITH CLASS B BRIDGE DECK REPAIR AS SHOWN IN COMMON REPAIR DETAILS AND NOTES (SIDEWALK AND PARAPET) SHEET. INCLUDE ALL COST OR REPAIR INCLUDING REMOVAL, DISPOSAL, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNDER THE CONTRACT UNIT PRICE OF "(PL) REPAIR BRIDGE ITEM (TYPE A)".
114. PAY ITEM "(PL) REPAIR BRIDGE ITEM (TYPE B)" IS FOR REPLACING THE EXISTING HANDRAIL AT THE SOUTHWEST WING AS SHOWN IN FLOODCOAT AND RAIL REPAIR DETAILS SHEET. REPLACE THE HANDRAIL WITH GALVANIZED PIPE MATCHING EXISTING DIMENSIONS. INCLUDE ALL COST OR REPAIR INCLUDING REMOVAL, DISPOSAL, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNDER THE CONTRACT UNIT PRICE OF "(PL) REPAIR BRIDGE ITEM (TYPE B)".
115. PAY ITEM "CLASS B BRIDGE DECK REPAIR" CONSISTS OF REPAIRING THE DECK WITH CLASS AA CONCRETE IN ACCORDANCE WITH SECTION 513 OF THE STANDARD SPECIFICATIONS. SEE COMMON REPAIR DETAILS AND NOTES SHEET FOR ADDITIONAL DETAILS. ADDITIONAL AMOUNT ARE PROVIDED TO USE AT DISCRETION OF FIELD ENGINEER.
116. PAY ITEM "(PL) REMOVAL OF LIGHT POLE" INCLUDES REMOVAL OF FOUR EXISTING LIGHT POLES ON THE BRIDGE AT THE LOCATIONS SHOWN ON "GENERAL PLAN AND ELEVATION" SHEET. INCLUDE ALL COST OF REMOVAL, DISPOSAL, EQUIPMENT, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNDER THE CONTRACT UNIT PRICE OF "(PL) REMOVAL OF LIGHT POLE".
117. PAY ITEM "(SP) CARBON FIBER-REINFORCED POLYMER" IS FOR APPLYING ONE LAYER OF CARBON FIBER-REINFORCED POLYMER TO THE LOCATIONS IDENTIFIED IN THE PLANS AND AS APPROVED BY THE ENGINEER, IN ACCORDANCE WITH SPECIAL PROVISIONS 524-3.

CITY OF TULSA PROJECT NO. 2037B0241Z		PAY QUANTITIES		BRIDGE 241 AT 3RD STREET	
ITEM CODE		ITEM	PAY ITEM NOTE	UNIT	TOTAL
49	511	MECHANICAL SPLICES	101, 103	EA	116
50	512(A)	PAINTING EXISTING STRUCTURES	104	LSUM	1
51	512(B)	COLLECTION AND HANDLING OF WASTE	105	LSUM	1
52	513(B)	CLASS B BRIDGE DECK REPAIR	115	SY	68
53	513(C)	CLASS C BRIDGE DECK REPAIR	106	SY	349
54	517	ELASTOMERIC COATING	101,102	SF	2,404
55	518(C)	RAPID CURE JOINT SEALANT	101, 107	LF	177
56	518(D)	ELASTOMERIC MORTAR	108	CF	24
57	520(A)	PREPARATION OF CRACKS, ABOVE WATER	109	LF	119
58	520(C)	EPOXY RESIN, ABOVE WATER	109	GAL	2
59	521(A)	PNEUMATICALLY PLACED MORTAR	109	SY	31
60	523(A)	SEALER CRACK PREPARATION	101, 110	LF	860
61	523(B)	SEALER RESIN	101, 110	GAL	10
62	523(C)	DECK AREA SEALED (FLOODCOATS)	101, 111	SY	3,358
63	524(A)	SP CARBON FIBER-REINFORCED POLYMER	117	SF	529
64	535	CORROSION INHIBITOR (SURFACE APPLIED)	112	SY	31
65	540	(PL) REPAIR BRIDGE ITEM (TYPE A)	113	EA	2
66	540	(PL) REPAIR BRIDGE ITEM (TYPE B)	114	EA	1
67	641	MOBILIZATION		LSUM	1
68	805(A)	(PL) REMOVAL OF LIGHT POLE	116	EA	4
69	SPECIAL	OWNER'S ALLOWANCE		EA	25,000
70	COT334	CONSTRUCTION AS-BUILT		LSUM	1
71	COT335	CONTRACTOR QUALITY CONTROL		LSUM	1
72	SPECIAL	INSURANCE FOR WORK WITHIN RAILROAD RIGHT-OF-WAY		EA	10,000
73	SPECIAL	RAILROAD FLAGMAN		EA	10,000
74	SPECIAL	COORDINATION WITH RAILROAD		EA	20,000

ITEMS LISTED OR SHOWN ON DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS THAT ARE NOT INCLUDED AS 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 THE PLANS AND SPECIFICATIONS.



Jose K. Joseph 09/25/2025

LICENSED PROFESSIONAL ENGINEER SEAL

SUMMARY OF PAY ITEMS AND NOTES			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 241			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	2/2022
N/A	DESIGNED	JKJ	2/2022
N/A	SURVEY		
PROFILE SCALE:	PROJ. MGR.	<i>MB</i>	9/2025
HORIZONTAL:	LEAD ENGR.	<i>D</i>	10/25
N/A	FIELD MGR.	<i>Em</i>	10/25
VERTICAL:	RECOMMENDED	<i>HAS</i>	10-25
N/A	DESIGN MANAGER		
N/A			
FILE:	DRAWING:		DATE: 9/25/2025
ATLAS PAGE NO:	132 & 181		SHEET 10 OF 53 SHEETS

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PAY QUANTITY NOTES

101. PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES. SEE SUBSECTION 109.01(B) OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
102. PAY ITEM "ELASTOMERIC COATING" SHALL CONSIST OF APPLYING CIM-1000 SURFACE FINISH TO THE TOP OF BRIDGE SEAT, DOWN 6" ON THE BRIDGE SEAT, AND UP 6" ON TO BACKWALL, ACROSS THE TOP OF THE PIER CAP, AND DOWN 6" OF THE VERTICAL FACE OF THE PIER CAPS IN ACCORDANCE WITH SECTION 509.04G OF THE STANDARD SPECIFICATIONS. SEE COMMON REPAIR DETAILS AND NOTES SHEET FOR ADDITIONAL DETAILS.
103. PAY ITEM "MECHANICAL SPLICES" SHALL BE USED TO TIE THE TRANSVERSE REINFORCING STEEL IN THE CONSTRUCTION JOINT REPAIR IN ACCORDANCE WITH SECTION 511.04.C(3). THE MECHANICAL SPLICES ARE NECESSARY TO TIE PHASE 1 TO PHASE 2 CONSTRUCTION. THE MECHANICAL SPLICES SHALL BE ERICO OR AN APPROVED EQUAL AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. ALL COSTS OF THE MECHANICAL SPLICES INCLUDING MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "MECHANICAL SPLICES".
104. PAY ITEM "PAINTING EXISTING STRUCTURES" SHALL BE USED TO PAINT ALL STRUCTURAL STEEL (BEAMS, DIAPHRAGMS, AND BEARING ASSEMBLIES) AS DESCRIBED IN THE PLANS. THE CONTRACTOR NEEDS TO ONLY APPLY THE FIRST COAT (PRIME COAT) TO THE BEAMS AND EXISTING DIAPHRAGM FLANGE TOPS AND EDGES. PRIME COAT SHALL MEET OSHA REQUIREMENTS FOR SLIP RESISTANCE. ALL COSTS OF PAINTING, TOOLS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "PAINTING EXISTING STRUCTURES".
105. PAY ITEM "COLLECTION AND HANDLING OF WASTE" SHALL BE USED TO CLEAN ALL THE STRUCTURAL STEEL (BEAMS, DIAPHRAGMS, AND BEARING ASSEMBLIES) PRIOR TO PAINTING. ALL COSTS OF BLASTING AND CLEANING INCLUDING TOOLS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "COLLECTION AND HANDLING OF WASTE".
106. THIS PAY ITEM SHALL BE USED TO REPAIR THE DECK SLAB CONSTRUCTION JOINTS AS DETAILED IN CONSTRUCTION JOINT REPAIR DETAILS SHEET.
107. PAY ITEM "RAPID CURE JOINT SEALANT" SHALL CONSIST OF SEALING THE CONSTRUCTION JOINTS AT THE DECK SLAB AS DETAILED IN DECK REPAIR DETAILS AND CONSTRUCTION JOINT REPAIR DETAILS SHEETS.
108. THIS PAY ITEM SHALL BE USED TO REPAIR THE DECK SLAB JOINTS AT ABUTMENTS AS DETAILED IN DECK REPAIR DETAILS SHEET.
109. CONSISTS OF REPAIR TO THE EXISTING ABUTMENTS AND PIERS AS DESCRIBED IN TYPICAL SUBSTRUCTURE REPAIR DETAILS AND NOTES ON COMMON REPAIR DETAILS AND NOTES SHEET. THE QUANTITY INCLUDES AN ADDITIONAL 11 LF FOR PREPARATION OF CRACKS ABOVE WATER AND 7 SY FOR PNEUMATICALLY PLACED MORTAR FOR USE AT THE DISCRETION OF THE CITY OF TULSA ENGINEER.
110. SEAL ALL DECK SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS AT LOCATIONS SHOWN IN THE PLANS. 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 COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". MATERIAL, EQUIPMENT, AND LABOR FOR SEALING EMERGENCY CONSTRUCTION JOINTS WILL NOT BE MEASURED FOR PAYMENT.
111. PAY ITEM "DECK AREA SEALED (FLOODCOATS)" CONSISTS OF SEALING THE ENTIRE BRIDGE DECK, PARAPET, APPROACH SLAB AND MEDIAN BARRIER IN PHASES IN ACCORDANCE WITH THE SECTION 523 OF THE STANDARD SPECIFICATIONS. APPLY FLOOD COAT ON THE APPROACH SLAB FOR A LENGTH OF 15'-0" FROM THE BEGIN/END OF BRIDGE.
112. PAY ITEM "(SP) CARBON FIBER-REINFORCED POLYMER" IS FOR APPLYING ONE LAYER OF CARBON FIBER-REINFORCED POLYMER TO THE LOCATIONS IDENTIFIED IN THE PLANS AND AS APPROVED BY THE ENGINEER, IN ACCORDANCE WITH SPECIAL PROVISIONS 524-3.
113. PAY ITEM "CORROSION INHIBITOR (SURFACE APPLIED)" IS FOR APPLYING CORROSION INHIBITOR TO ALL AREAS WITH PNEUMATICALLY PLACED MORTAR AND AREAS WITH CARBON FIBER REINFORCED POLYMER IN ACCORDANCE WITH SECTION 535 OF THE STANDARD SPECIFICATIONS.

CITY OF TULSA PROJECT NO. 2037B0263Z		PAY QUANTITIES		BRIDGE 263 AT W. 23RD STREET	
ITEM CODE		ITEM	PAY ITEM NOTE	UNIT	TOTAL
75	509(B)	CLASS A CONCRETE	101	CY	2
76	511(A)	REINFORCING STEEL	101	LB	100
77	511	MECHANICAL SPLICES	101, 103	EA	112
78	512(A)	PAINTING EXISTING STRUCTURES	104	LSUM	1
79	512(B)	COLLECTION AND HANDLING OF WASTE	105	LSUM	1
80	513(C)	CLASS C BRIDGE DECK REPAIR	106	SY	193
81	517	ELASTOMERIC COATING	101, 102	SF	1,168
82	518(C)	RAPID CURE JOINT SEALANT	101, 107	LF	416
83	518(D)	ELASTOMERIC MORTAR	108	CF	2
84	520(A)	PREPARATION OF CRACKS, ABOVE WATER	109	LF	89
85	520(C)	EPOXY RESIN, ABOVE WATER	109	GAL	2
86	521(A)	PNEUMATICALLY PLACED MORTAR	109	SY	.13
87	523(A)	SEALER CRACK PREPARATION	101, 110	LF	800
88	523(B)	SEALER RESIN	101, 110	GAL	9
89	523(C)	DECK AREA SEALED (FLOODCOATS)	101, 111	SY	1,384
90	524(A)	(SP) CARBON FIBER-REINFORCED POLYMER	112	SF	78
91	535	CORROSION INHIBITOR (SURFACE APPLIED)	113	SY	13
92	641	MOBILIZATION		LSUM	1
93	SPECIAL	OWNER'S ALLOWANCE		EA	25,000
94	COT334	CONSTRUCTION AS-BUILT		LSUM	1
95	COT335	CONTRACTOR QUALITY CONTROL		LSUM	1
96	SPECIAL	INSURANCE FOR WORK WITHIN RAILROAD RIGHT-OF-WAY		EA	10,000
97	SPECIAL	RAILROAD FLAGMAN		EA	10,000
98	SPECIAL	COORDINATION WITH RAILROAD		EA	20,000

ITEMS LISTED OR SHOWN ON DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS THAT ARE NOT INCLUDED AS 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 THE PLANS AND SPECIFICATIONS.



Jose K. Joseph 09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

SUMMARY OF PAY ITEMS AND NOTES			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 263			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	2/2022
N/A	DESIGNED	JKJ	2/2022
N/A	SURVEY		
PROFILE SCALE:	PROJ. MGR.	<i>MB</i>	9/2025
	LEAD ENGR.	<i>D</i>	10/25
HORIZONTAL:	FIELD MGR.	<i>JS</i>	10/26
N/A	RECOMMENDED	<i>HAC</i>	10/25
VERTICAL:	DESIGN MANAGER		
N/A			
N/A			
FILE:	DRAWING:		DATE: 9/25/2025
ATLAS PAGE NO:	132 & 181		SHEET 11 OF 53 SHEETS

REVISION	BY	DATE

PAY QUANTITY NOTES

101. PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES. SEE SUBSECTION 109.01(B) OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
102. PAY ITEM "ELASTOMERIC COATING" SHALL CONSIST OF APPLYING CIM-1000 SURFACE FINISH TO THE TOP OF BRIDGE SEAT, DOWN 6" ON THE BRIDGE SEAT, AND UP 6" ONTO BACKWALL, ACROSS THE TOP OF THE PIER CAP, AND DOWN 6" OF THE VERTICAL FACE OF THE PIER CAPS IN ACCORDANCE WITH SECTION 509.04G OF THE STANDARD SPECIFICATIONS. SEE COMMON REPAIR DETAILS AND NOTES SHEET.
103. PAY ITEM "CLASS B BRIDGE DECK REPAIR" CONSISTS OF REPAIRING THE DECK WITH CLASS AA CONCRETE IN ACCORDANCE WITH SECTION 513 OF THE STANDARD SPECIFICATIONS. SEE COMMON REPAIR DETAILS AND NOTES SHEET.
104. PAY ITEM "RAPID CURE JOINT SEALANT" SHALL CONSIST OF SEALING THE CONSTRUCTION JOINTS AT THE ABUTMENTS AND PIERS. SEE DECK REPAIR DETAILS.
105. THIS PAY ITEM SHALL BE USED TO REPAIR THE DECK SLAB JOINTS AT ABUTMENTS AND PIERS AS DETAILED IN DECK REPAIR DETAILS.
106. CONSISTS OF REPAIR TO THE EXISTING ABUTMENTS AND PIERS AS DESCRIBED IN TYPICAL SUBSTRUCTURE REPAIR DETAILS AND NOTES ON COMMON REPAIR DETAILS AND NOTES SHEET.
107. PAY ITEM "(SP) CARBON FIBER-REINFORCED POLYMER" IS FOR APPLYING ONE LAYER OF CARBON FIBER-REINFORCED POLYMER TO THE LOCATIONS IDENTIFIED IN THE PLANS AND AS APPROVED BY THE ENGINEER, IN ACCORDANCE WITH SPECIAL PROVISIONS 524-3.
108. PAY ITEM "CORROSION INHIBITOR (SURFACE APPLIED)" IS FOR APPLYING CORROSION INHIBITOR TO ALL AREAS WITH PNEUMATICALLY PLACED MORTAR AND AREAS WITH CARBON FIBER REINFORCED POLYMER IN ACCORDANCE WITH SECTION 535 OF THE STANDARD SPECIFICATIONS.
109. PAY ITEM SHALL BE USED TO REPAIR THE PARAPET AS SHOWN IN DECK REPAIR DETAILS SHEET DETAIL 301-IV. REPAIR THE PARAPET WITH CLASS AA CONCRETE, APPLY CORROSION INHIBITOR AFTER REMOVAL OF UNSOUND CONCRETE, BUT BEFORE PLACEMENT OF NEW CLASS AA CONCRETE. INCLUDE ALL COST OF REPAIR INCLUDING REMOVAL, DISPOSAL, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNDER THE CONTRACT UNIT PRICE OF "(PL) INSTALLATION OF BRIDGE ITEMS (TYPE A)".

CITY OF TULSA PROJECT NO. 2037B301Z		PAY QUANTITIES		BRIDGE 301 AT E. 71ST STREET	
ITEM CODE		ITEM	PAY ITEM NOTE	UNIT	TOTAL
99	509(B)	CLASS A CONCRETE	101	CY	3
100	511(A)	REINFORCING STEEL	101	LB	200
101	513(B)	CLASS B BRIDGE DECK REPAIR	103	SY	2
102	517	ELASTOMERIC COATING	101, 102	SF	1,561
103	518(C)	RAPID CURE JOINT SEALANT	101, 104	LF	412
104	518(D)	ELASTOMERIC MORTAR	105	CF	112
105	520(A)	PREPARATION OF CRACKS, ABOVE WATER	106	LF	174
106	520(C)	EPOXY RESIN, ABOVE WATER	106	GAL	3
107	521(A)	PNEUMATICALLY PLACED MORTAR	106	SY	40
108	524(A)	(SP) CARBON FIBER-REINFORCED POLYMER	107	SF	1,625
109	535	CORROSION INHIBITOR (SURFACE APPLIED)	108	SY	40
110	540	(PL) REPAIR BRIDGE ITEM (TYPE A)	109	EA	1
111	641	MOBILIZATION		LSUM	1
112	SPECIAL	OWNER'S ALLOWANCE		EA	3,000
113	COT334	CONSTRUCTION AS-BUILT		LSUM	1
114	COT335	CONTRACTOR QUALITY CONTROL		LSUM	1

ITEMS LISTED OR SHOWN ON DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS THAT ARE NOT INCLUDED AS 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 THE PLANS AND SPECIFICATIONS.



Jose K. Joseph
09/25/2025

LICENSED PROFESSIONAL ENGINEER SEAL

SUMMARY OF PAY ITEMS AND NOTES			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y MEMORIAL PLACE 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 848-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	2/2022
N/A	DESIGNED	JKJ	2/2022
N/A	SURVEY		
PROFILE SCALE:	PROJ. MGR.	<i>JKJ</i>	9/2025
HORIZONTAL:	LEAD ENGR.	<i>JKJ</i>	11/25
N/A	FIELD MGR.	<i>JKJ</i>	10/25
VERTICAL:	RECOMMENDED:	<i>JKJ</i>	10/25
N/A	DESIGN MANAGER	<i>JKJ</i>	10/25
N/A			
FILE:	DRAWING:		DATE: 9/25/2025
ATLAS PAGE NO:	132 & 181		SHEET 12 OF 53 SHEETS

REVISION	BY	DATE

PAY QUANTITY NOTES

101. PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES. SEE SUBSECTION 109.01(B) OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
102. PAY ITEM "CLSM BACKFILL" SHALL BE USED AT LOCATION SHOWN IN SHEET NO. 42 TO FILL VOIDS UNDER THE ABUTMENT SEAT. CLSM BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS. ALL COSTS INCLUDING LABOR, EQUIPMENT, MATERIAL, EXCAVATION AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACT PRICE OF "CLSM BACKFILL".
103. PAY ITEM "ELASTOMERIC COATING" SHALL CONSIST OF APPLYING CIM-1000 SURFACE FINISH TO THE TOP OF BRIDGE SEAT, DOWN 6" ON THE BRIDGE SEAT, AND UP 6" ON TO BACKWALL, ACROSS THE TOP OF THE PIER CAP, AND DOWN 6" OF THE VERTICAL FACE OF THE PIER CAPS IN ACCORDANCE WITH SECTION 509.04G OF THE STANDARD SPECIFICATIONS. SEE COMMON REPAIR DETAILS AND NOTES FOR ADDITIONAL DETAILS.
104. PAY ITEM "RAPID CURE JOINT SEALANT" SHALL CONSIST OF SEALING THE CONSTRUCTION JOINTS AT THE ABUTMENTS AND PIERS. SEE DECK REPAIR DETAILS SHEET FOR ADDITIONAL DETAILS.
105. THIS PAY ITEM SHALL BE USED TO REPAIR THE DECK SLAB JOINTS AT ABUTMENTS AND PIERS AS DETAILED IN DECK REPAIR DETAILS SHEET.
106. CONSISTS OF REPAIR TO THE EXISTING ABUTMENTS AND PIERS AS DESCRIBED IN TYPICAL SUBSTRUCTURE REPAIR DETAILS AND NOTES ON COMMON REPAIR DETAILS AND NOTES SHEET. THE QUANTITY INCLUDES AN ADDITIONAL 14 LF FOR PREPARATION OF CRACKS ABOVE WATER AND 4 SY FOR PNEUMATICALLY PLACED MORTAR FOR USE AT THE DISCRETION OF THE CITY OF TULSA ENGINEER.
107. PAY ITEM "DECK AREA SEALED (FLOODCOATS)" CONSISTS OF SEALING THE ENTIRE BRIDGE DECK, PARAPET, APPROACH SLAB AND MEDIAN BARRIER IN PHASES IN ACCORDANCE WITH THE SECTION 523 OF THE STANDARD SPECIFICATIONS. APPLY FLOOD COAT ON THE APPROACH SLAB FOR A LENGTH OF 15'-0" FROM THE BEGIN/END OF BRIDGE.
108. PAY ITEM "(SP) CARBON FIBER-REINFORCED POLYMER" IS FOR APPLYING ONE LAYER OF CARBON FIBER-REINFORCED POLYMER TO THE LOCATIONS IDENTIFIED IN THE PLANS AND AS APPROVED BY THE ENGINEER, IN ACCORDANCE WITH SPECIAL PROVISIONS 524-3.
109. PAY ITEM "CORROSION INHIBITOR (SURFACE APPLIED)" IS FOR APPLYING CORROSION INHIBITOR TO ALL AREAS WITH PNEUMATICALLY PLACED MORTAR AND AREAS WITH CARBON FIBER REINFORCED POLYMER IN ACCORDANCE WITH SECTION 535 OF THE STANDARD SPECIFICATIONS.
110. PAY ITEM SHALL BE USED TO LOCATE THE EXISTING INSERTS AND INSTALL UTILITY HANGERS TO CARRY A FUTURE STEEL CONDUIT. THE QUANTITY IS BASED ON 18 UTILITY HANGERS. INCLUDE ALL COST INCLUDING MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED IN UTILITIES HANGER DETAILS SHEET UNDER THE CONTRACT UNIT PRICE OF "(PL) INSTALLATION OF BRIDGE ITEMS".

CITY OF TULSA PROJECT NO. 2037B0301A		PAY QUANTITIES		BRIDGE 301A AT W. 71ST STREET	
ITEM CODE		ITEM	PAY ITEM NOTE	UNIT	TOTAL
115	501(G)	CLSM BACKFILL	102	CY	10
116	509(B)	CLASS A CONCRETE	101	CY	3
117	511(A)	REINFORCING STEEL	101	LB	170
118	517	ELASTOMERIC COATING	101, 103	SF	1,701
119	518(C)	RAPID CURE JOINT SEALANT	101, 104	LF	330
120	518(D)	ELASTOMERIC MORTAR	105	CF	34
121	520(A)	PREPARATION OF CRACKS, ABOVE WATER	106	LF	20
122	520(C)	EPOXY RESIN, ABOVE WATER	106	GAL	1
123	521(A)	PNEUMATICALLY PLACED MORTAR	106	SY	10
124	523(C)	DECK AREA SEALED (FLOODCOATS)	101, 107	SY	1,374
125	524(A)	(SP) CARBON FIBER-REINFORCED POLYMER	108	SF	33
126	535	CORROSION INHIBITOR (SURFACE APPLIED)	109	SY	10
127	542	(PL) INSTALLATION OF BRIDGE ITEMS	110	EA	18
128	641	MOBILIZATION		LSUM	1
129	SPECIAL	OWNER'S ALLOWANCE		EA	5,000
130	COT334	CONSTRUCTION AS-BUILT		LSUM	1
131	COT335	CONTRACTOR QUALITY CONTROL		LSUM	1
132	SPECIAL	INSURANCE FOR WORK WITHIN RAILROAD RIGHT-OF-WAY		EA	10,000
133	SPECIAL	RAILROAD FLAGMAN		EA	10,000
134	SPECIAL	COORDINATION WITH RAILROAD		EA	20,000

ITEMS LISTED OR SHOWN ON DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS THAT ARE NOT INCLUDED AS 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 THE PLANS AND SPECIFICATIONS.

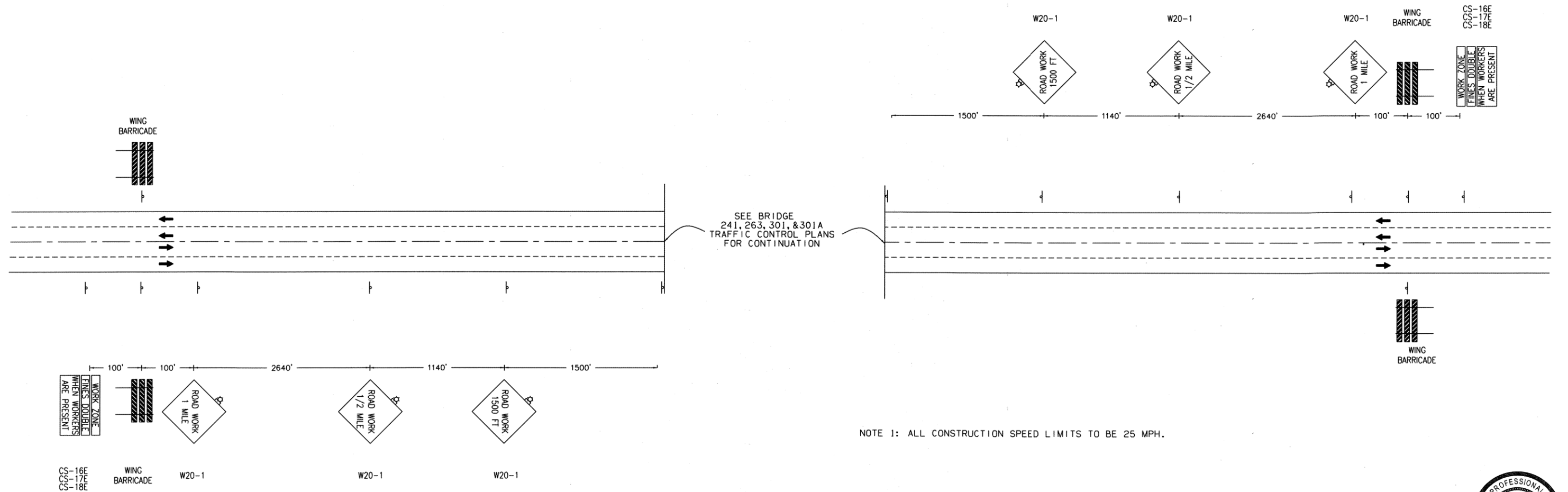


Jose K. Joseph 09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

SUMMARY OF PAY ITEMS AND NOTES			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301A			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y MEMORIAL PLACE 7833 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	2/2022
N/A	DESIGNED	JKJ	2/2022
N/A	SURVEY		
PROFILE SCALE:	PROJ. MGR.	<i>W. H. H.</i>	9/2/25
HORIZONTAL:	LEAD ENGR.	<i>JD</i>	10/25
N/A	FIELD MGR.	<i>W. H. H.</i>	10/25
VERTICAL:	RECOMMENDED:	<i>W. H. H.</i>	10-25
N/A	DESIGN MANAGER		
N/A			
FILE:	DRAWING:		DATE: 9/25/2025
ATLAS PAGE NO:	132 & 181		SHEET 13 OF 53 SHEETS

REVISION	BY	DATE

\$\$\$USERS\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$TIME\$\$\$
\$\$\$PLTDRV\$\$\$
\$\$\$DATE\$\$\$



NOTE 1: ALL CONSTRUCTION SPEED LIMITS TO BE 25 MPH.



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

ADVANCED WARNING SIGNS

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 241, 263, 301, & 301A

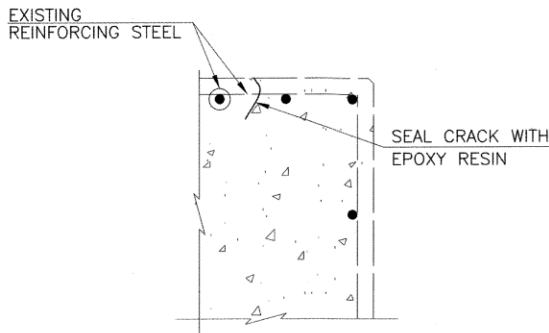
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
 **Bancroft**
923 S LOWRY STREET
POST OFFICE BOX 436
STILLWATER, OK 74076
(405) 743-3355
CERTIFICATE OF AUTHORIZATION NO. 9205
RENEWAL DATE 6-30-26

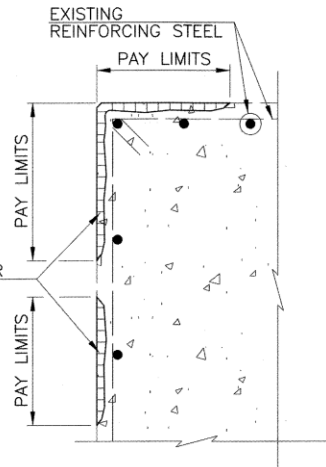
PLAN SCALE:		APPROVED:	
N.T.S.	DRAWN	AJF	03/2022
	DESIGNED	KDH	03/2022
	SURVEY	CPY	2/2022
PROFILE SCALE:	PROJ. MGR.	MGM	9/2025
HORIZONTAL:	LEAD ENGR.	Q	10/25
VERTICAL:	FIELD MGR.	TRM	10/26
	RECOMMENDED:	HSS	10/25
	DESIGN MANAGER:		
FILE:		DRAWING:	DATE: 04/2022
ATLAS PAGE NO:		132 & 181	SHEET 14 OF 53 SHEETS



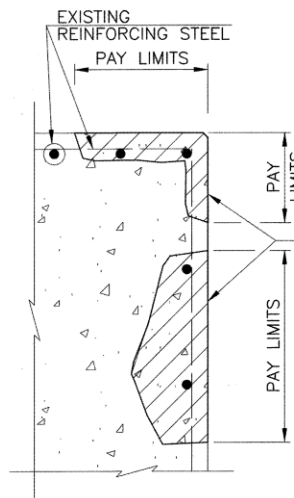
REVISION	DATE



STRUCTURAL REPAIR BY SEALING AND INJECTION

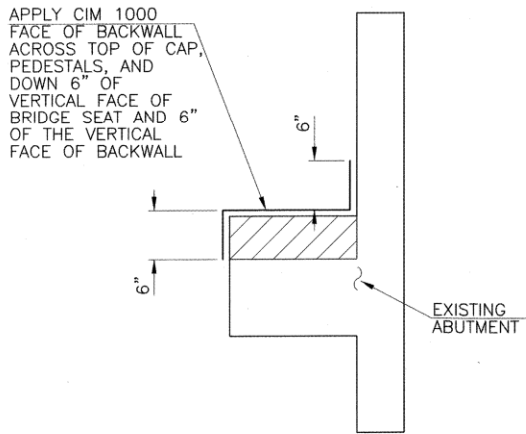


TYPE "A" REPAIR

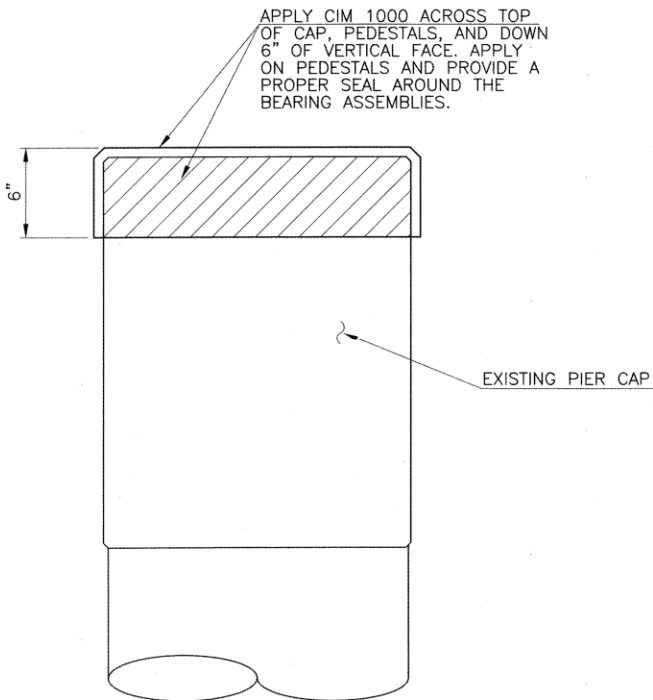


TYPE "B" REPAIR

TYPICAL SUBSTRUCTURE REPAIR



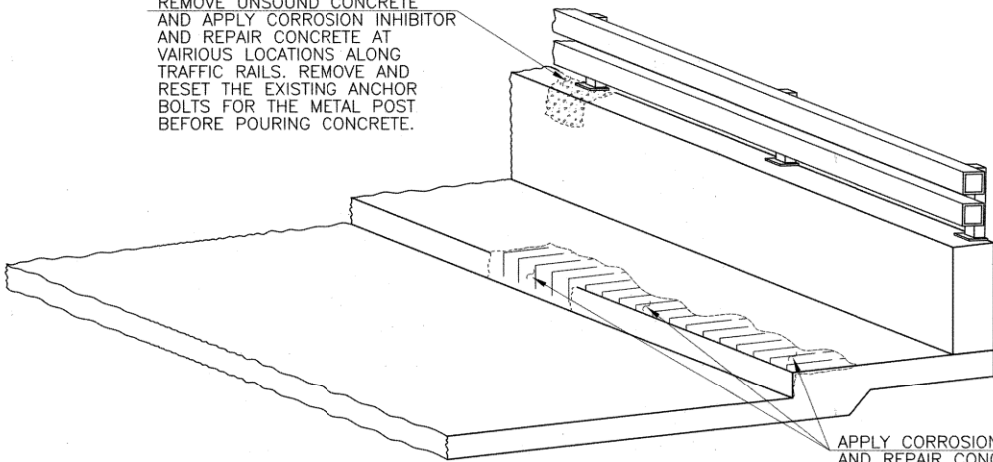
TYPICAL CIM 1000 ABUTMENT DETAIL



TYPICAL CIM 1000 PIER DETAIL

ELASTOMERIC COATING DETAILS

REMOVE UNSOUND CONCRETE AND APPLY CORROSION INHIBITOR AND REPAIR CONCRETE AT VARIOUS LOCATIONS ALONG TRAFFIC RAILS. REMOVE AND RESET THE EXISTING ANCHOR BOLTS FOR THE METAL POST BEFORE POURING CONCRETE.

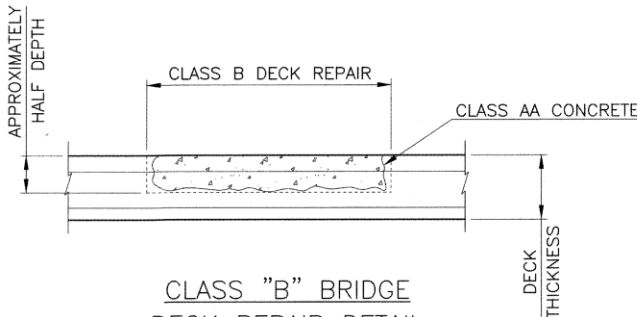


APPLY CORROSION INHIBITOR AND REPAIR CONCRETE AT VARIOUS LOCATIONS ALONG SIDEWALKS

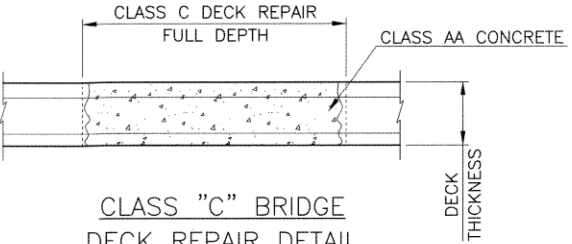
CLASS B BRIDGE DECK REPAIR (SIDEWALKS AND PARAPET)

SUBSTRUCTURE REPAIR NOTES

- A. GENERAL
- ALL SUBSTRUCTURE ELEMENTS REQUIRING REPAIRS SHALL FIRST BE BLASTED CLEAN OF ALL PAINT OR DEBRIS PRIOR TO REPAIR.
 - SUBSTRUCTURE REPAIRS SHALL CONSIST OF REMOVING ALL UNSATISFACTORY CONCRETE FROM THE EXISTING SUBSTRUCTURE AND REPLACING WITH PATCHING MATERIAL SPECIFICALLY FOR THE TYPE OF REPAIR. UNSATISFACTORY CONCRETE IS SPECIFICALLY DESCRIBED AS FOLLOWS: ANY LOOSE, DELAMINATED, UNSOUND, SEVERELY SPALLED, CRACKED OR DETERIORATED CONCRETE. ALL REMOVED MATERIAL SHALL BE PROPERLY DISPOSED OF OFF SITE. REBOND CRACKS WITH AN EPOXY RESIN SYSTEM. ALL SUBSTRUCTURE REPAIRS SHALL BE COMPLETED PRIOR TO APPLYING CORROSION INHIBITORS.
- B. CONSTRUCTION PROCEDURES
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF DAMAGED REBAR DURING CONCRETE REMOVAL FOR SUBSTRUCTURE REPAIRS.
 - THE SUBSTRUCTURE SHALL BE CLEANED AND FREE OF ALL DEBRIS AND PAINT. ALL VEGETATION SHALL BE REMOVED.
 - REMOVAL OF UNSATISFACTORY MATERIAL:
SAW CUT AROUND ALL DAMAGED AREAS. EXERCISE CAUTION DURING THE SAW CUTTING PROCEDURE. ANY REINFORCEMENT DAMAGED DUE TO SAW CUTTING SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. THE EXISTING REINFORCING STEEL IS SHOWN FOR GENERAL INFORMATION ONLY. REMOVE ALL UNSATISFACTORY MATERIAL TO A MINIMUM OF 1 1/2" BEHIND THE EXTERIOR REINFORCING STEEL, OR TO SOUND CONCRETE AS DETERMINED BY THE ENGINEER. CLEAN THE REINFORCING STEEL BY SANDBLASTING. SUPPLEMENT WITH A REINFORCING BAR OF EQUAL SIZE TO ANY CORRODED REINFORCING STEEL AS DETERMINED BY THE ENGINEER IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
 - SURFACE PREPARATION FOR HIGH DENSITY CONCRETE:
IMMEDIATELY PRIOR TO THE APPLICATION OF THE GROUT SLURRY CLEAN THE SURFACE BY SANDBLASTING AND A FILTERED AIR BLAST. A THIN COAT OF GROUT SLURRY SHALL BE SCRUBBED INTO THE DRY PREPARED SURFACE. THE GROUT MUST NOT BECOME DRY PRIOR TO THE PLACEMENT OF THE NEW CONCRETE COVER. IF THE SURFACE IS NOT ACCESSIBLE FOR APPLICATION OF GROUT SLURRY A BONDING AGENT SHALL BE ADDED TO THE HIGH DENSITY MIX.
- C. SUBSTRUCTURE REPAIRS SHALL BE CLASSIFIED AS FOLLOWS:
- STRUCTURAL REPAIR BY SEALING AND INJECTION:
SHALL BE UTILIZED ON THE SUBSTRUCTURE AND SHALL CONSIST OF THE FOLLOWING: RESTORE STRUCTURAL INTEGRITY BY INJECTING AND SEALING CRACKS, DELAMINATIONS, AND HOLLOW PLANES WITH AN EPOXY RESIN SYSTEM IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ALL COST, INCLUDING MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "PREPARATION OF CRACKS, ABOVE WATER" AND PER GALLON OF "EPOXY RESIN, ABOVE WATER".
 - TYPE "A" SUBSTRUCTURE REPAIR:
SHALL BE UTILIZED ON ALL ELEMENTS OF THE SUBSTRUCTURE EXHIBITING MINOR SURFACE SCALING, CRACKING, OR WEATHERING WHERE BOND BETWEEN THE CONCRETE AND REINFORCING STEEL HAS NOT BEEN DESTROYED. REPAIR SHALL CONSIST OF THE FOLLOWING:
CLEAN THE SURFACE BY SANDBLASTING AND A FILTERED AIR BLAST. FILL MINOR DEFECTS AND CRACKS WITH PNEUMATICALLY PLACED MORTAR IN ACCORDANCE WITH SECTION 521 OF THE STANDARD SPECIFICATIONS. ALL COST, INCLUDING MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE PER BID PER SQUARE YARDS OF "PNEUMATICALLY PLACED MORTAR".
 - TYPE "B" SUBSTRUCTURE REPAIR:
SHALL BE UTILIZED AT AREAS OF UNSATISFACTORY CONCRETE, WHERE BOND BETWEEN THE CONCRETE AND REINFORCING STEEL HAS BEEN DESTROYED AND SHALL CONSIST OF THE FOLLOWING:
REMOVE UNSATISFACTORY MATERIAL AND PREPARE THE SURFACE PER CONSTRUCTION PROCEDURES 1 THRU 4 SHOWN ABOVE IN "CONSTRUCTION PROCEDURES". REPLACE THE MATERIAL TO THE ORIGINAL CONFIGURATION. CLEAN THE SURFACE BY SANDBLASTING AND A FILTERED AIR BLAST. ALL COST, INCLUDING MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "PNEUMATICALLY PLACED MORTAR".



CLASS "B" BRIDGE DECK REPAIR DETAIL



CLASS "C" BRIDGE DECK REPAIR DETAIL

NOTES:
CLEAN AND REUSE ALL EXISTING LONGITUDINAL AND TRANSVERSE REINFORCEMENT.
CORRODED REBAR IN THE DECK WILL BE CLEANED AND LAPPED WITH SIMILAR SIZE EPOXY COATED REINFORCEMENT.



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

COMMON REPAIR DETAILS AND NOTES

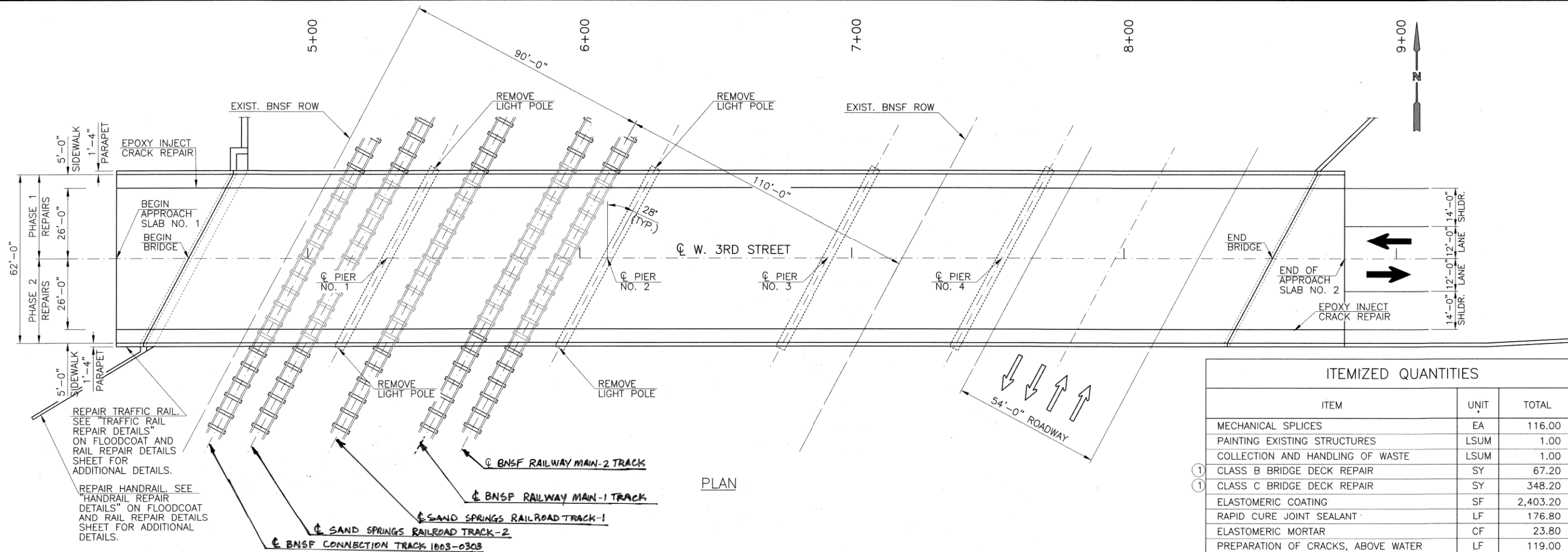
PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 241, 263, 301, 301A

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

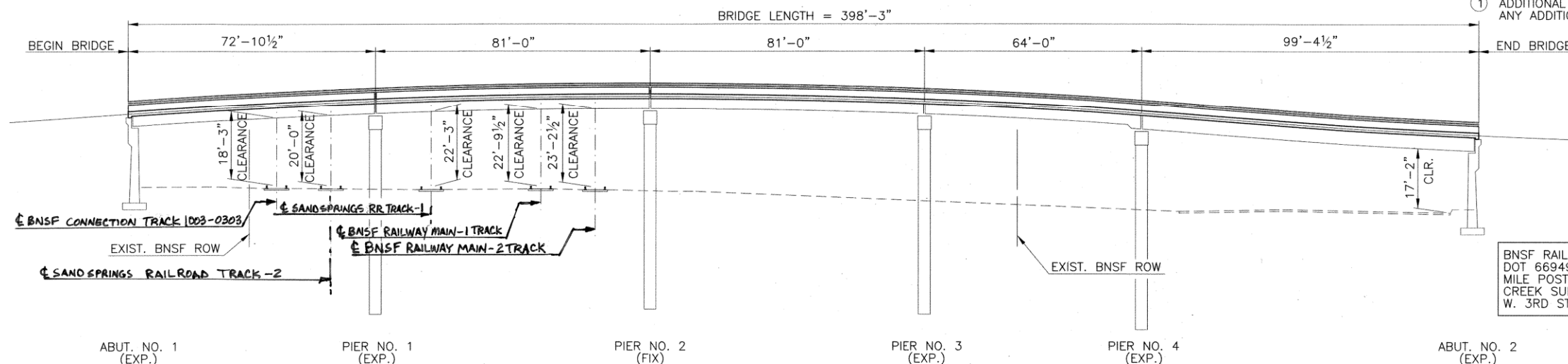
PLANS AND ESTIMATES PREPARED BY:
CP&Y
MEMORIAL PLACE
7833 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405)-848-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.	11/20/2025		
HORIZONTAL:	LEAD ENGR.	11/20/2025		
N/A	FIELD MGR.	11/20/2025		
VERTICAL:	RECOMMENDED	11/20/2025		
N/A	DESIGN MANAGER	11/20/2025		
FILE:	DRAWING:	DATE: 9/25/2025		
ATLAS PAGE NO:		SHEET 15 OF 53 SHEETS		



ITEMIZED QUANTITIES		
ITEM	UNIT	TOTAL
MECHANICAL SPLICES	EA	116.00
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION AND HANDLING OF WASTE	LSUM	1.00
1 CLASS B BRIDGE DECK REPAIR	SY	67.20
1 CLASS C BRIDGE DECK REPAIR	SY	348.20
ELASTOMERIC COATING	SF	2,403.20
RAPID CURE JOINT SEALANT	LF	176.80
ELASTOMERIC MORTAR	CF	23.80
PREPARATION OF CRACKS, ABOVE WATER	LF	119.00
EPOXY RESIN, ABOVE WATER	GAL	1.50
PNEUMATICALLY PLACED MORTAR	SY	30.02
SEALER CRACK PREPARATION	LF	860.00
SEALER RESIN	GAL	9.60
DECK AREA SEALED (FLOODCOATS)	SY	3,357.60
CORROSION INHIBITOR (SURFACE APPLIED)	SY	30.02
(SP) CARBON FIBER-REINFORCED POLYMER	SF	529.00
(PL) REPAIR BRIDGE ITEM (TYPE A)	EA	2.00
(PL) REPAIR BRIDGE ITEM (TYPE B)	EA	1.00
(PL) REMOVAL OF LIGHT POLE	EA	4.00

1 ADDITIONAL 50 SY ADDED TO ACCOUNT FOR ANY ADDITIONAL QUANTITIES IN THE FIELD



NOTE:
ALL VERTICAL CLEARANCES ARE BASED
OFF AS-BUILT PLANS.



Jose K. Joseph
9/25/2025
LICENSED PROFESSIONAL ENGINEER

GENERAL PLAN AND ELEVATION

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 241

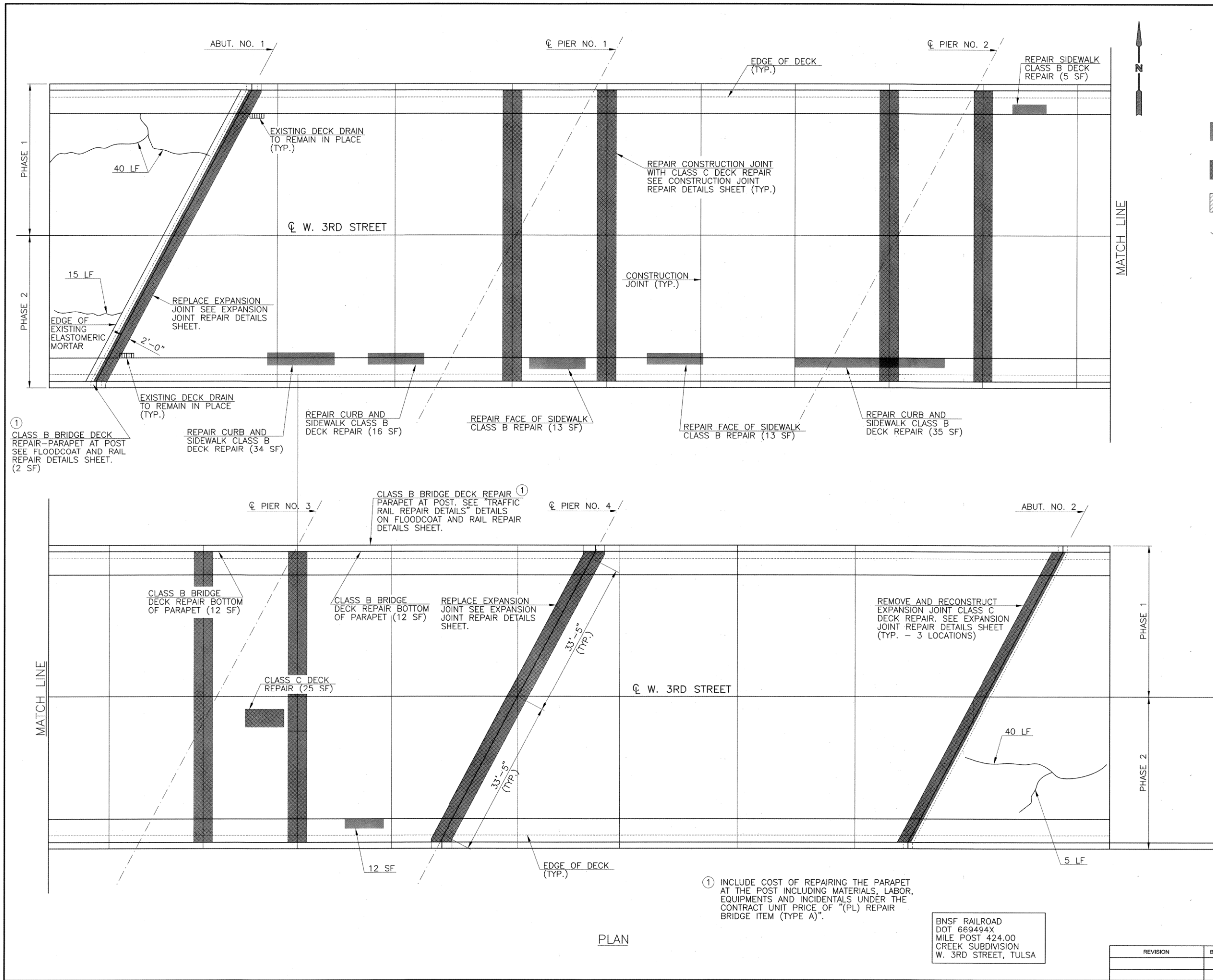
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 848-2348
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.	N/A	9/2025	
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N/A	FIELD MGR.	2	10/25	
VERTICAL:	RECOMMENDED:	10/25		
N/A	DESIGN MANAGER			
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ATLAS PAGE NO:			SHEET 16 OF 53 SHEETS	

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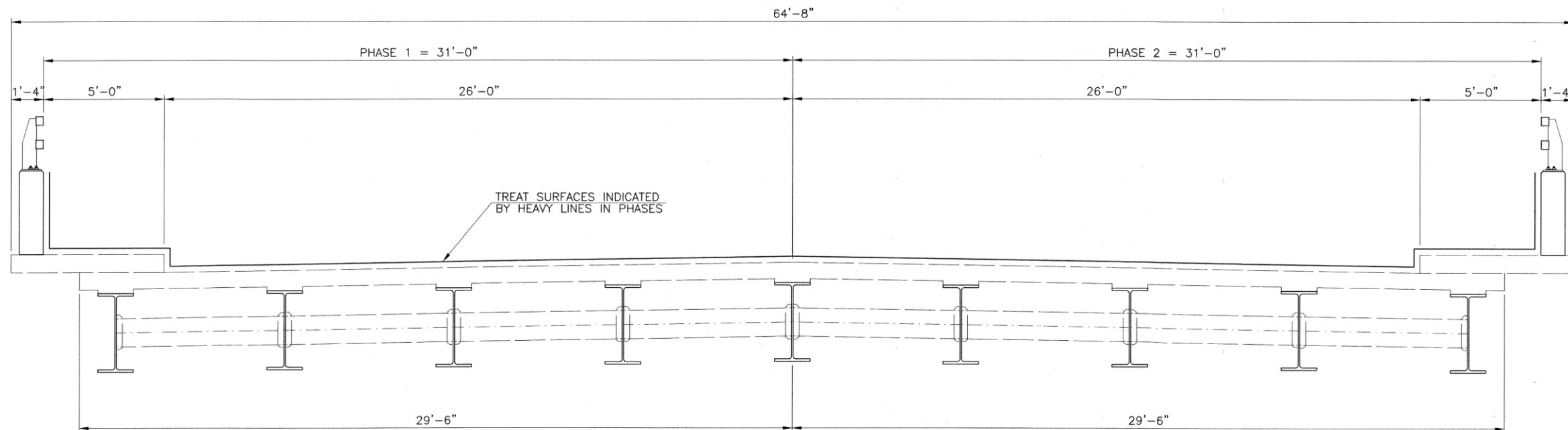
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- CLASS B DECK REPAIR
- CLASS C DECK REPAIR
- ELASTOMERIC MORTAR REPAIR
- EPOXY INJECT CRACKS IN APPROACH SLAB

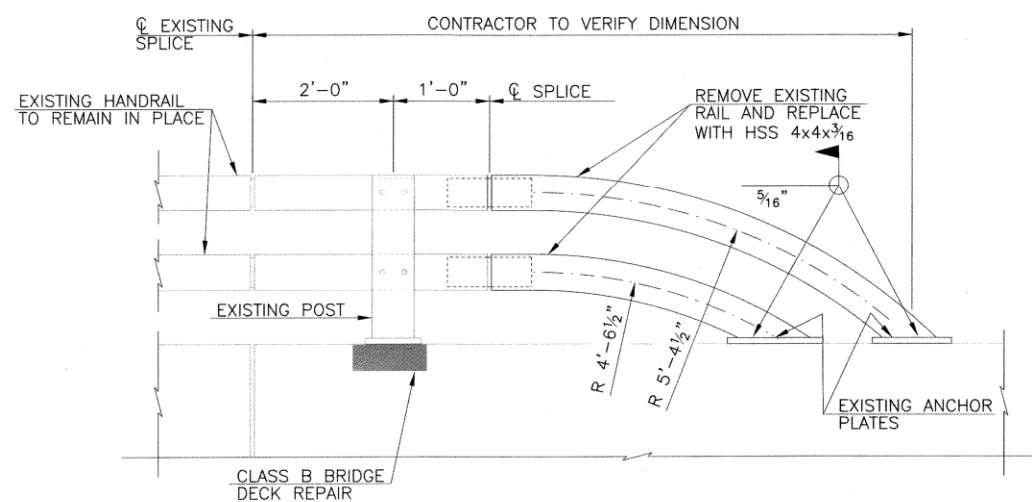
JOSE K. JOSEPH
24918
OKLAHOMA
9/25/2025
LICENSED PROFESSIONAL ENGINEER
SEAL

DECK REPAIR DETAILS									
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A									
BRIDGE REHABILITATION BRIDGE NO. 241									
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT									
PLANS AND ESTIMATES PREPARED BY: CP&Y MEMORIAL PLACE 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27									
PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:					
N/A	DESIGNED	JKJ	4/2022						
	SURVEY								
PROFILE SCALE:	PROJ. MGR.		9/2025						
HORIZONTAL:	LEAD ENGR.		10/25	CITY ENGINEER					
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FILE:	DRAWING:			DATE: 9/25/2025					
ATLAS PAGE NO:				SHEET 17 OF 53 SHEETS					

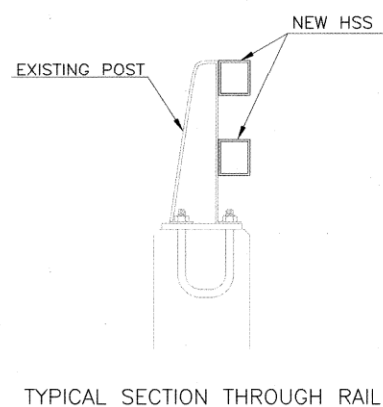


FLOOD COAT TREATMENT DETAILS

NOTE:
APPLY FLOOD COAT TREATMENT TO DECK AND APPROACH
SLAB AFTER ALL REPAIRS ARE COMPLETE IN EACH PHASE.
SEE TRAFFIC CONTROL SHEETS FOR ADDITIONAL DETAILS.



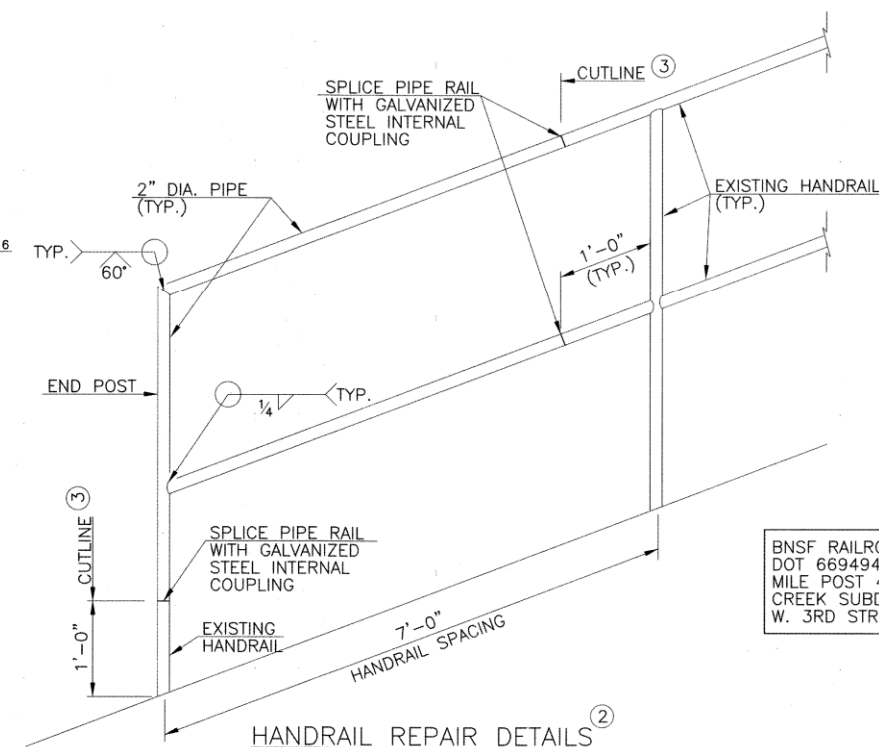
ELEVATION



TYPICAL SECTION THROUGH RAIL

TRAFFIC RAIL REPAIR DETAILS^②

NOTE:
INCLUDE ALL COST OF REPLACING THE TRAFFIC
RAIL INCLUDING REMOVAL, MATERIALS, LABOR
AND INCIDENTALS UNDER THE CONTRACT UNIT
PRICE OF "(PL) REPAIR BRIDGE ITEM TYPE "A".



HANDRAIL REPAIR DETAILS^②
(SOUTH WEST WING)

NOTE:
INCLUDE ALL COST OF REPLACING THE HANDRAIL
INCLUDING REMOVAL, MATERIALS, LABOR AND
INCIDENTALS UNDER THE CONTRACT UNIT PRICE
OF "(PL) REPAIR BRIDGE ITEM TYPE "B".

③ SAWCUT AND REMOVE THE EXISTING
HANDRAIL AND POST.



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LICENSED PROFESSIONAL ENGINEER SEAL

FLOODCOAT AND RAIL
REPAIR DETAILS

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 241

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

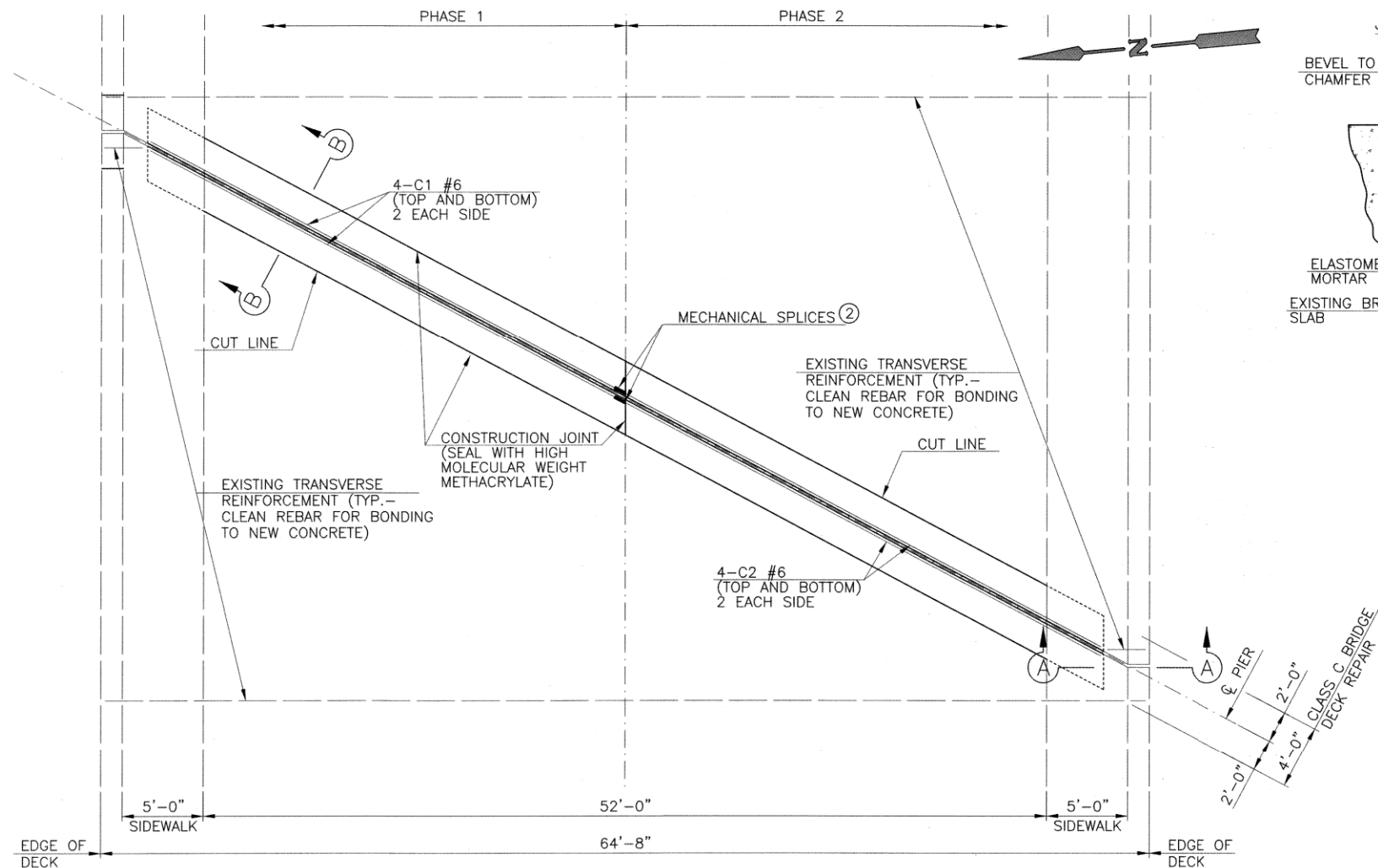
PLANS AND ESTIMATES PREPARED BY:
CP&Y MEMORIAL PLACE
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 448-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.	M. H. 9/2025		
	LEAD ENGR.	JD 10/18		
HORIZONTAL:	FIELD MGR.	JD 10/18		
N/A	RECOMMENDED:	HAS 10-25		
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ATLAS PAGE NO:				SHEET 18 OF 53 SHEETS

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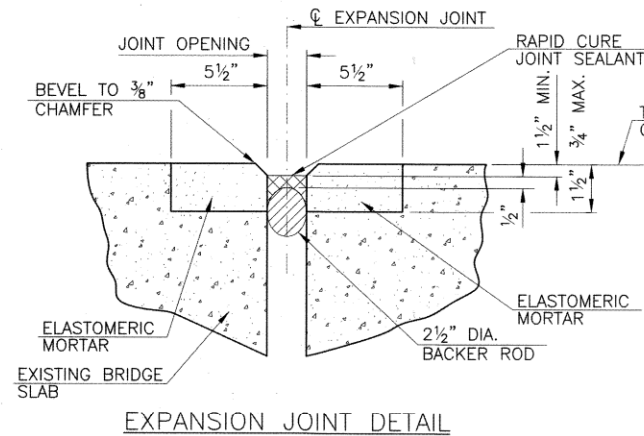
9/25/2025

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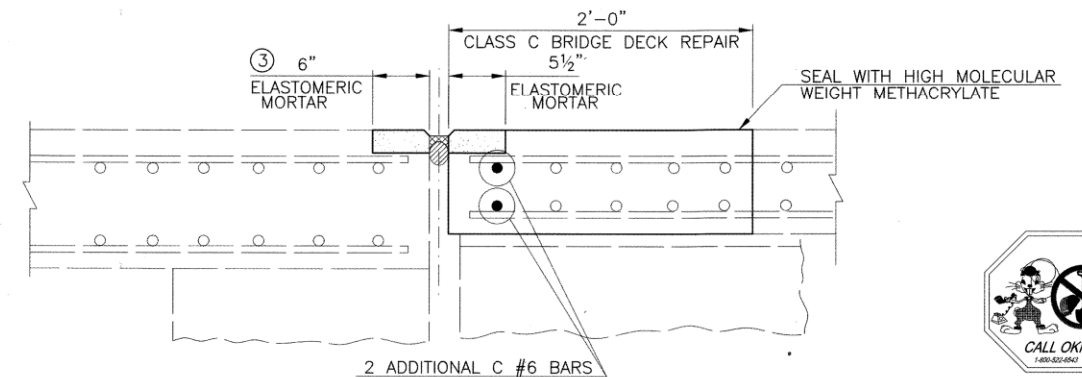
EXPANSION JOINT - PLAN VIEW
(PIER NO. 4 SHOWN, ABUTMENTS SIMILAR)

NOTES:
CLEAN AND REUSE ALL EXISTING LONGITUDINAL AND TRANSVERSE REINFORCEMENT. DO NOT CUT THROUGH THE EXISTING DECK REINFORCEMENT.
CORRODED REBAR IN THE DECK WILL BE CLEANED AND LAPPED WITH SIMILAR SIZE EPOXY COATED REINFORCEMENT.



EXPANSION JOINT BAR LIST					
EPOXY COATED REINFORCING BARS					
MARK	SIZE	NO.	FORM	LENGTH	NOTES
C1	#6	8	STR.	33'-1"	PHASE 1
C2	#6	8	STR.	33'-7"	PHASE 2, 6" ADDITIONAL LENGTH FOR MECHANICAL SPLICES

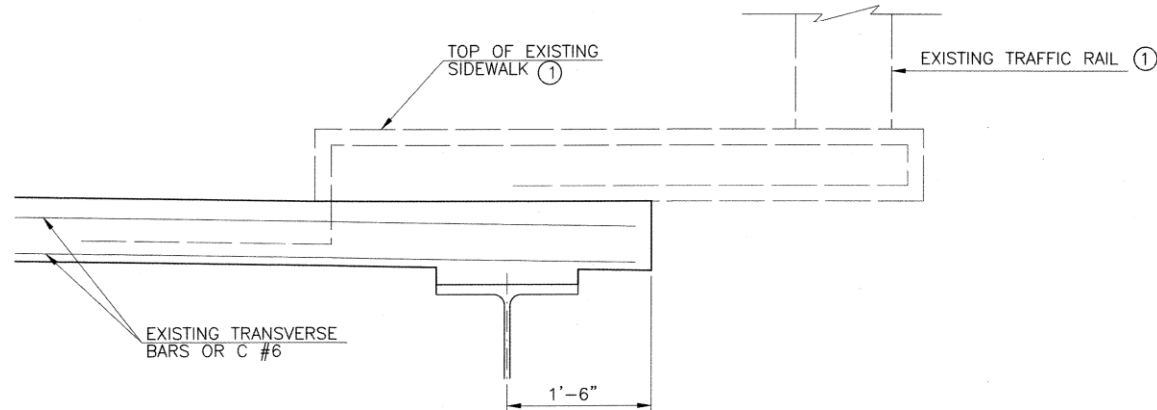
- PROVIDE TEMPORARY FORMWORK FOR EXISTING SIDEWALK AND PARAPET DURING REPAIR OF EXPANSION JOINTS. INCLUDE ALL COSTS OF TEMPORARY FORMWORK INCLUDING MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS IN CONTRACT UNIT PRICE OF "CLASS C BRIDGE DECK REPAIR". ANY DAMAGE TO THE EXISTING STRUCTURE SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
- EPOXY COAT OR GALVANIZE MECHANICAL SPLICES. INCLUDE ALL COST OF MECHANICAL SPLICES INCLUDING ADDITIONAL LAP LENGTHS, LABOR AND INCIDENTALS IN THE CONTRACT UNIT PRICE OF "MECHANICAL SPLICES".
- REMOVE TO THE LIMITS OF EXISTING ELASTOMERIC MORTAR OR TO THE WIDTH INDICATED IN THE PLANS. INCLUDE ALL COST OF REMOVING AND REPLACING ELASTOMERIC MORTAR INCLUDING LABOR, EQUIPMENT, INCIDENTALS AND MATERIALS UNDER THE CONTRACT UNIT PRICE OF "ELASTOMERIC COATING".



ABUTMENTS

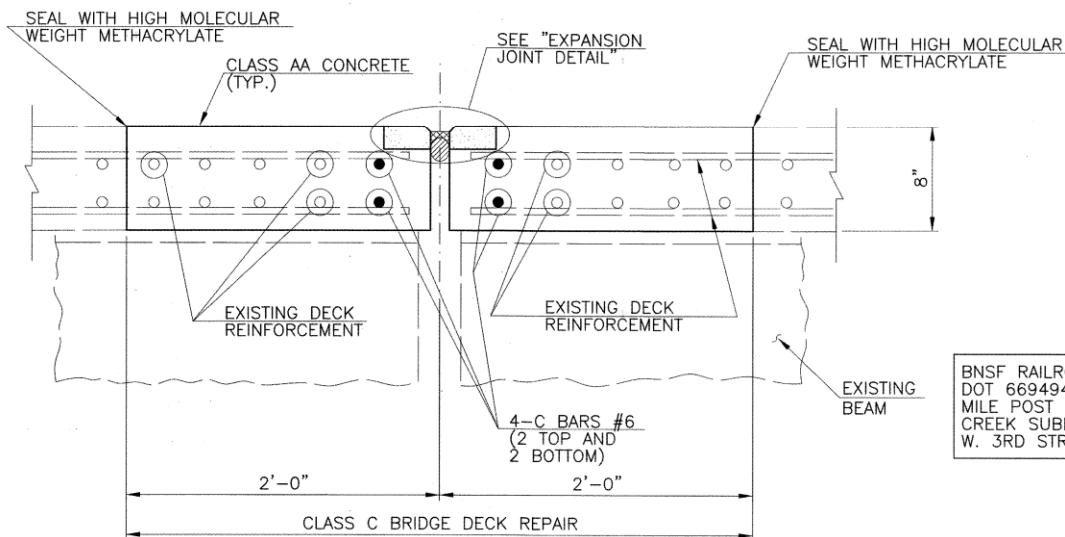


Jose K. Joseph 09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL



SECTION A-A

LONGITUDINAL BARS NOT SHOWN FOR CLARITY.
ALL LONGITUDINAL BARS SHALL BE CLEANED, STRAIGHTENED, AND LEFT IN PLACE.

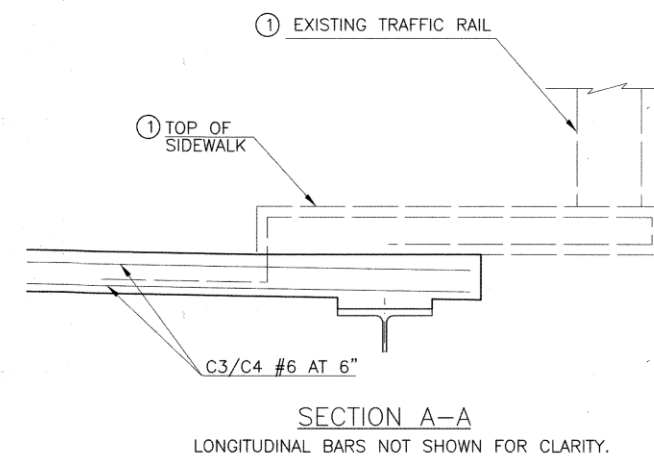


SECTION B-B

BNSF RAILROAD
DOT 669494X
MILE POST 424.00
CREEK SUBDIVISION
W. 3RD STREET, TULSA

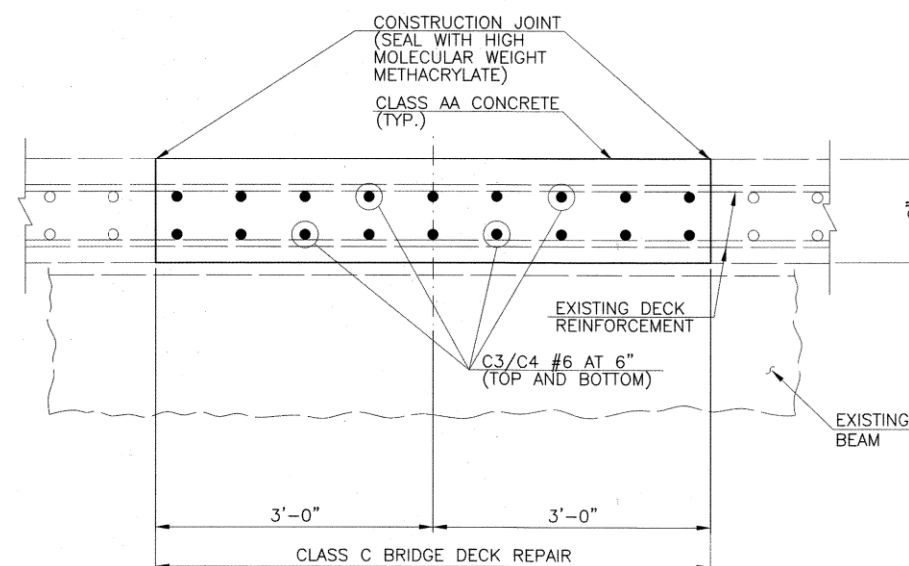
REVISION	BY	DATE

FILE:	DRAWING:	DATE: 9/25/2025
ATLAS PAGE NO:	132 & 181	SHEET 19 OF 53 SHEETS



CONSTRUCTION JOINT BAR LIST					
EPOXY COATED REINFORCING BARS					
MARK	SIZE	NO.	FORM	LENGTH	NOTES
C3	#6	108	STR.	29'-4"	PHASE 1
C4	#6	108	STR.	29'-10"	PHASE 2, 6" ADDITIONAL LENGTH FOR MECHANICAL SPLICES

SUPERSTRUCTURE QUANTITIES				
ITEM	UNIT	PHASE 1	PHASE 2	TOTAL
MECHANICAL SPLICES	EA	116.00	0.00	116.00
PAINTING EXISTING STRUCTURES	LSUM			1.00
COLLECTION AND HANDLING OF WASTE	LSUM			1.00
CLASS B BRIDGE DECK REPAIR	SY	3.30	13.90	17.20
CLASS C BRIDGE DECK REPAIR	SY	150.50	147.70	298.20
RAPID CURE JOINT SEALANT	LF	88.40	88.40	176.80
ELASTOMERIC MORTAR	CF	11.90	11.90	23.80
PREPARATION OF CRACKS, ABOVE WATER	LF	40.00	60.00	100.00
EPOXY RESIN, ABOVE WATER	GAL	0.50	0.70	1.20
SEALER CRACK PREPARATION	LF	430.00	430.00	860.00
SEALER RESIN	GAL	4.80	4.80	9.60
DECK AREA SEALED (FLOODCOATS)	SY	1,678.80	1,678.80	3,357.60
(PL) REPAIR BRIDGE ITEM (TYPE A)	EA	1.00	1.00	2.00
(PL) REPAIR BRIDGE ITEM (TYPE B)	EA		1.00	1.00
(PL) REMOVAL OF LIGHT POLE	EA	2.00	2.00	4.00



BNSF RAILROAD
DOT 669494X
MILE POST 424.00
CREEK SUBDIVISION
W. 3RD STREET, TULSA

NOTES:

CLEAN AND REUSE ALL EXISTING LONGITUDINAL.

CORRODED REBAR IN THE DECK WILL BE CLEANED AND LAPPED WITH SIMILAR SIZE EPOXY COATED REINFORCEMENT.

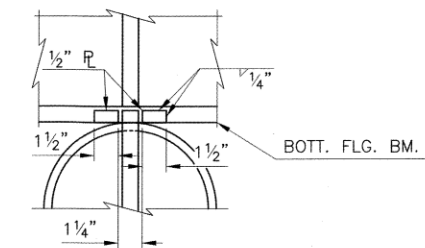
DO NOT CUT THROUGH THE EXISTING DECK REINFORCEMENT.

① PROVIDE TEMPORARY FORMWORK FOR EXISTING SIDEWALK AND PARAPET DURING REPAIR OF CONSTRUCTION JOINTS. INCLUDE ALL COSTS OF TEMPORARY FORMWORK INCLUDING MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS IN CONTRACT UNIT PRICE OF "CLASS C BRIDGE DECK REPAIR". ANY DAMAGE TO THE EXISTING STRUCTURE SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.



Jose L. Joseph 09/25/2023
 LICENSED PROFESSIONAL ENGINEER

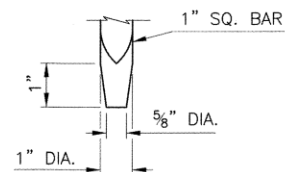
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PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A				
BRIDGE REHABILITATION BRIDGE NO. 241				
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT				
PLANS AND ESTIMATES PREPARED BY:			MEMORIAL PLACE 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405)-848-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27	
PLAN SCALE:		DRAWN	CPY	2/2022
		DESIGNED	CPY	2/2022
		SURVEY	CPY	2/2022
PROFILE SCALE:		PROJ. MGR.	11/6/2025 9/2025	
HORIZONTAL:		LEAD ENGR.	11/6/25	
VERTICAL:		FIELD MGR.	11/6/25	
		RECOMMENDED	11/6/25	
		DESIGN MANAGER	11/6/25	
FILE:			DRAWING:	
ATLAS PAGE NO:			SHEET 20 OF 53 SHEETS	



KEEPER PLATE DETAIL

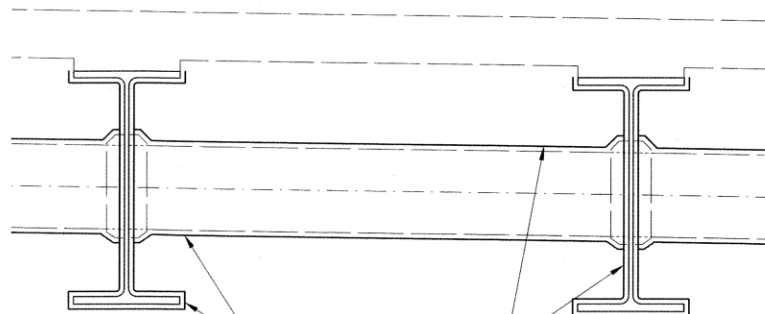


DETAIL OF STIFF. PLATE WELD



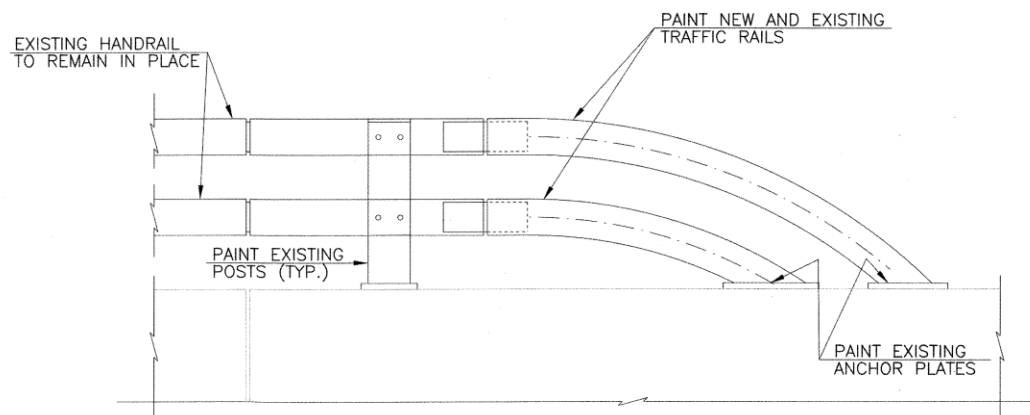
DETAIL "A"

NOTE:
MAX LENGTH OF EXPANSION TO EXPANSION SHOE = 300'

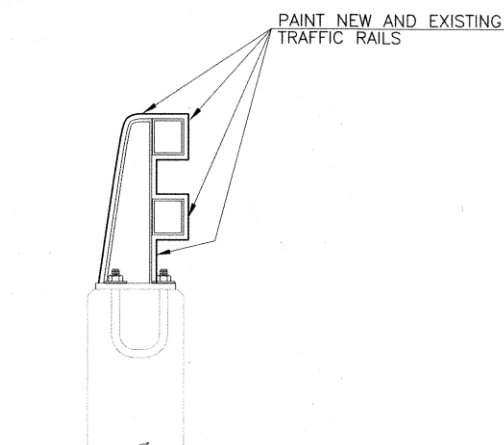


TYPICAL SECTION AT PAINT AREAS

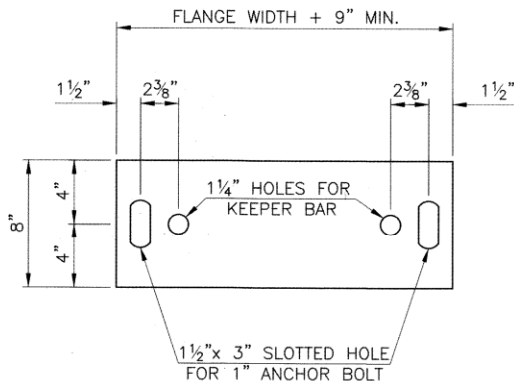
NOTE:
PAINT TOP OF GIRDERS AT CLASS C
DECK REPAIR AREAS.
PAINT EXISTING BEARING ASSEMBLIES
AT ALL ABUTMENT AND PIER LOCATIONS.



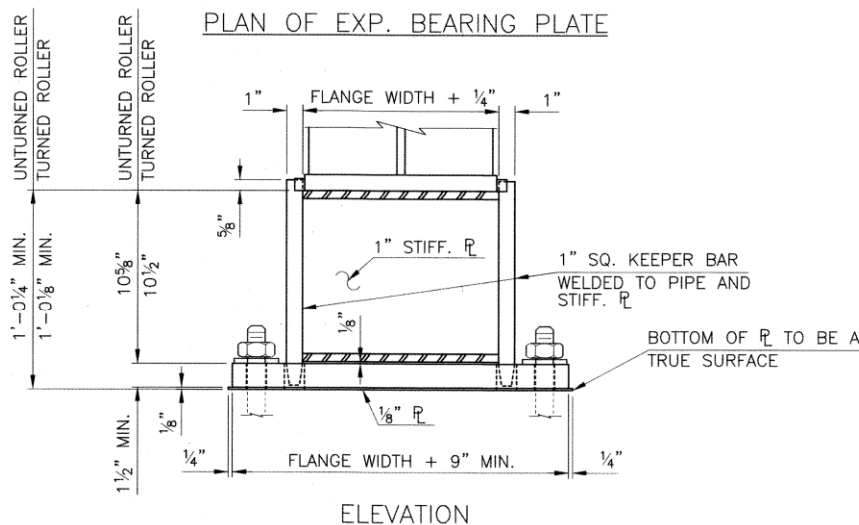
TRAFFIC RAIL PAINT DETAILS



TRAFFIC RAIL SECTION

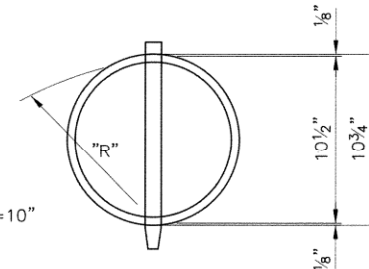


PLAN OF EXP. BEARING PLATE



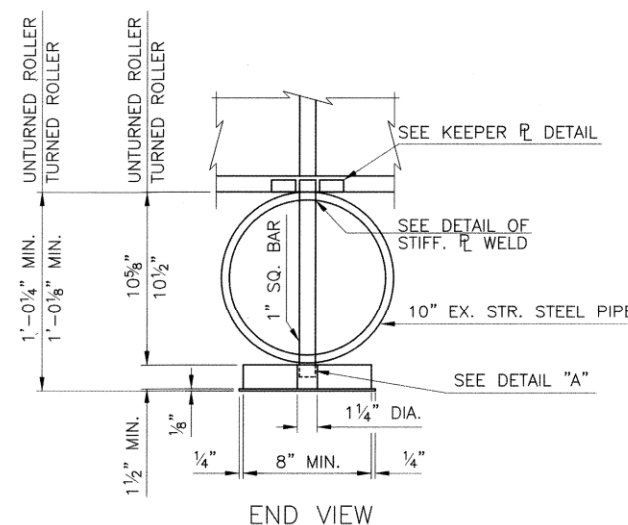
ELEVATION

NOTE:
ALLOWANCE SHALL BE MADE FOR TEMPERATURE AT THE TIME OF SETTING OF EXPANSION SHOES. EXPANSION SHOES SHALL BE SET VERTICAL FOR 60°F. FOR EACH 100' OF EXPANSION TO THE SHOE, THE TOP OF SHOE SHALL BE SET 1/8" FROM THE VERTICAL IN THE DIRECTION OF THE EXPANSION FOR EACH 15' THE TEMPERATURE IS ABOVE 60° OR 1/8" FROM THE VERTICAL IN THE DIRECTION OF THE CONTRACTION FOR EACH 15' THE TEMPERATURE IS BELOW 60°.



SECTION THRU TURNER ROLLER

NOTE:
ROLLER TO BE TURNED TO RADIUS "R"=10"



END VIEW

DETAIL OF EXP. SHOES



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

BEAM AND DIAPHRAGM PAINTING DETAILS

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 241

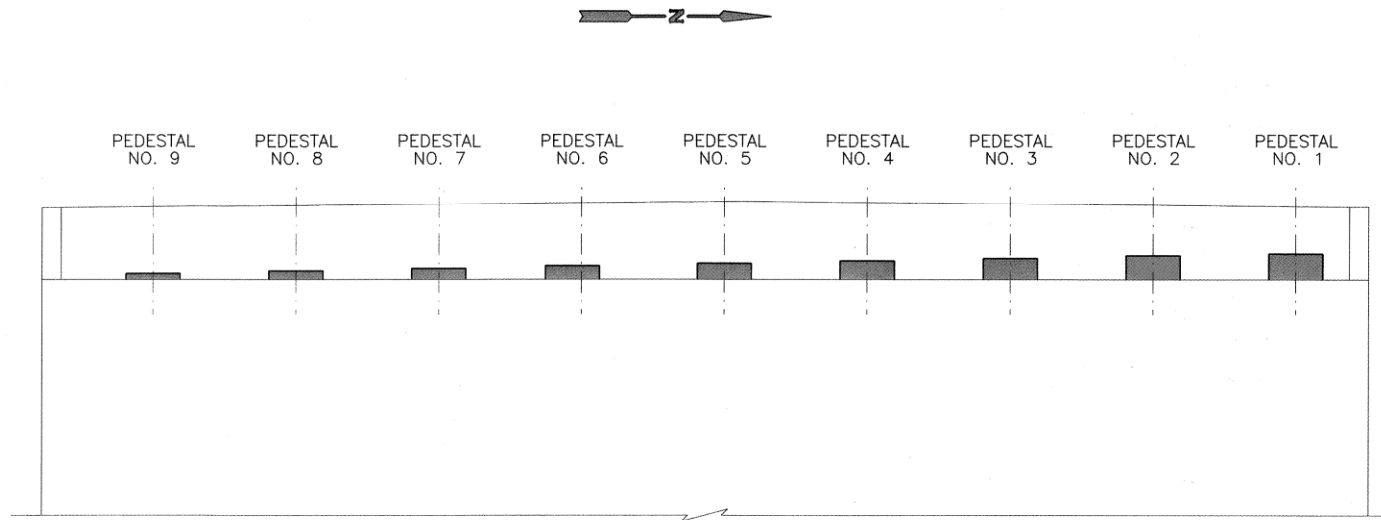
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
MEMORIAL PLACE
7833 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 948-2346
CERTIFICATE OF AUTHORIZATION NO. 4008
RENEWAL DATE 6-30-27

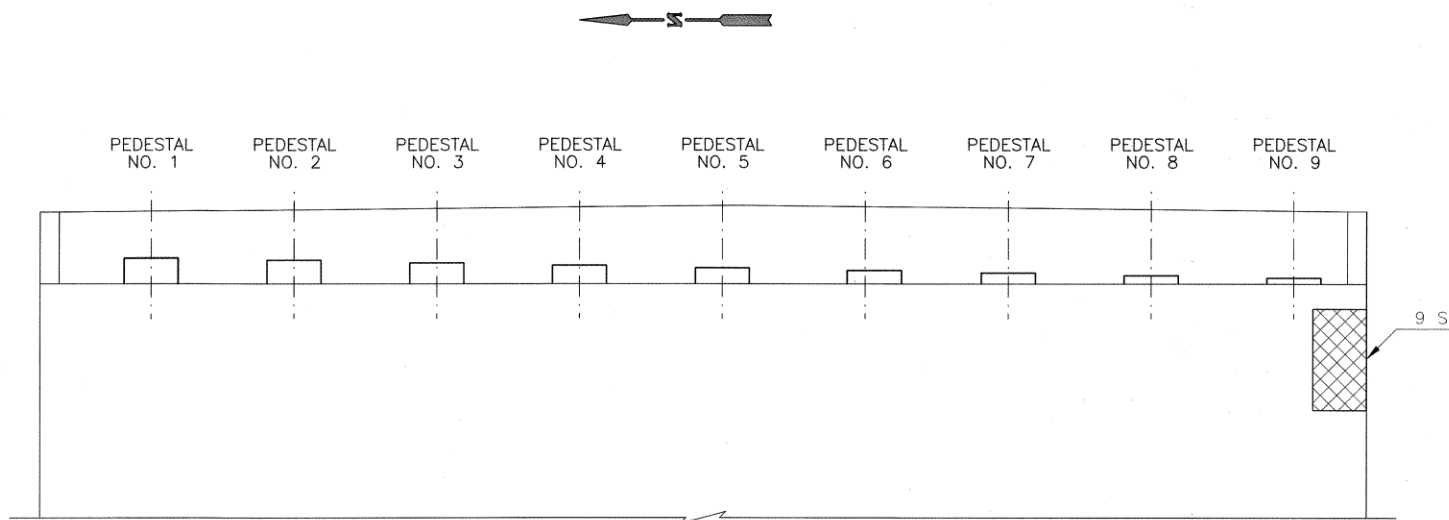
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N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.		11/25/2025	
	LEAD ENGR.		11/25/25	
HORIZONTAL:	FIELD MGR.			
N/A	RECOMMENDED:			
VERTICAL:	DESIGN MANAGER		11/25/25	
N/A				
FILE:	DRAWING:		DATE: 9/25/2025	
ATLAS PAGE NO:			SHEET 21 OF 53 SHEETS	

BNSF RAILROAD
DOT 669494X
MILE POST 424.00
CREEK SUBDIVISION
W. 3RD STREET, TULSA

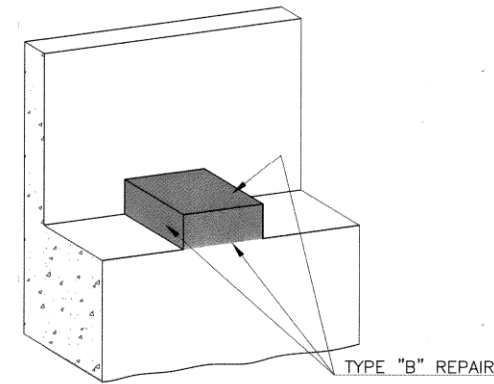
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ABUTMENT NO. 1 REPAIR



ABUTMENT NO. 2 REPAIR

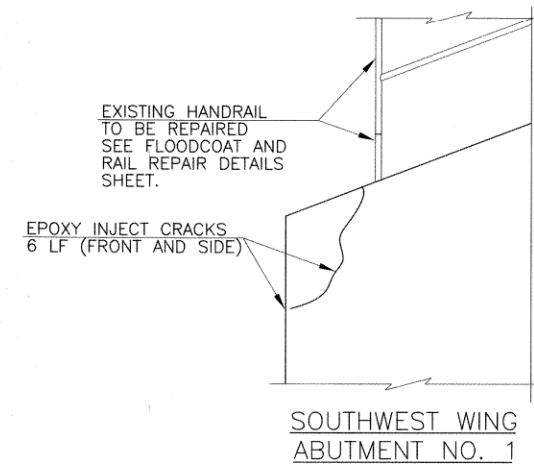


ABUTMENT NO. 1 TYPICAL PEDESTAL REPAIRS

PNEUMATICALLY PLACED MORTAR

TYPE "B" REPAIR

EPOXY INJECT CRACK



REPAIR AREAS	
LOCATION	REPAIR AREA (S.Y.)
PEDESTAL NO. 1	2.35
PEDESTAL NO. 2	2.25
PEDESTAL NO. 3	2.14
PEDESTAL NO. 4	1.99
PEDESTAL NO. 5	1.91
PEDESTAL NO. 6	1.68
PEDESTAL NO. 7	1.37
PEDESTAL NO. 8	1.13
PEDESTAL NO. 9	0.80
TOTAL	16.62



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

BNSF RAILROAD
DOT 669494X
MILE POST 424.00
CREEK SUBDIVISION
W. 3RD STREET, TULSA

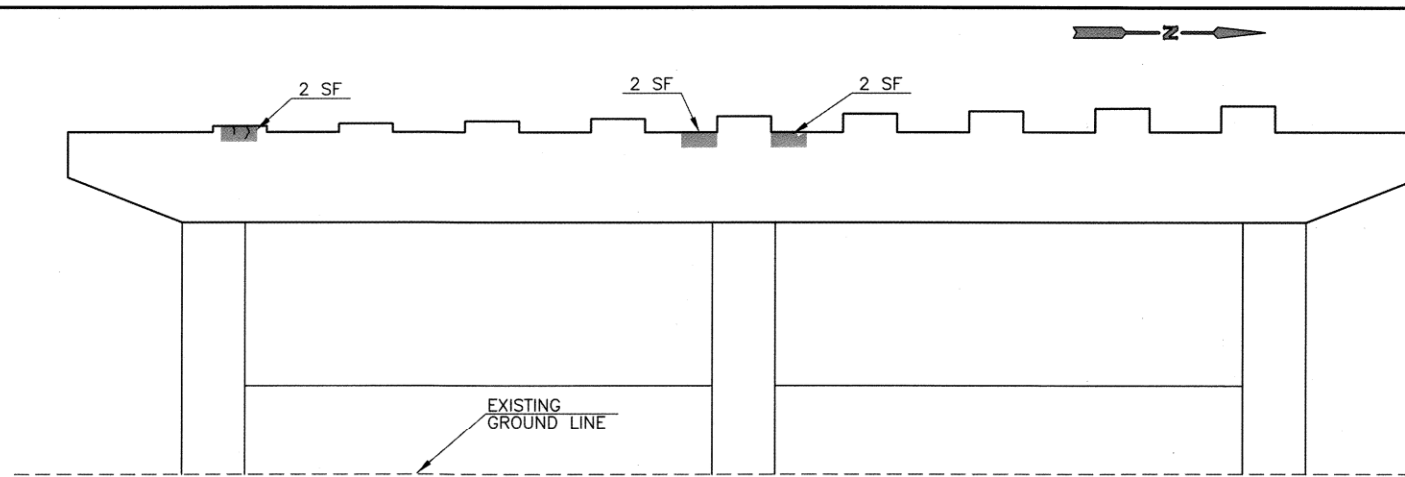
NOTE:
SEE COMMON REPAIR DETAILS AND NOTES SHEET
FOR REPAIR AND ELASTOMERIC COATING DETAILS.

CONTRACTOR SHALL CLEAN AND SUPPLEMENT ALL
EXISTING REINFORCEMENT WITH NEW
REINFORCEMENT AT PEDESTALS. INCLUDE COST
FOR SUPPLEMENTAL REINFORCEMENT UNDER THE
CONTRACT UNIT PRICE OF "PNEUMATICALLY PLACED
MORTAR".

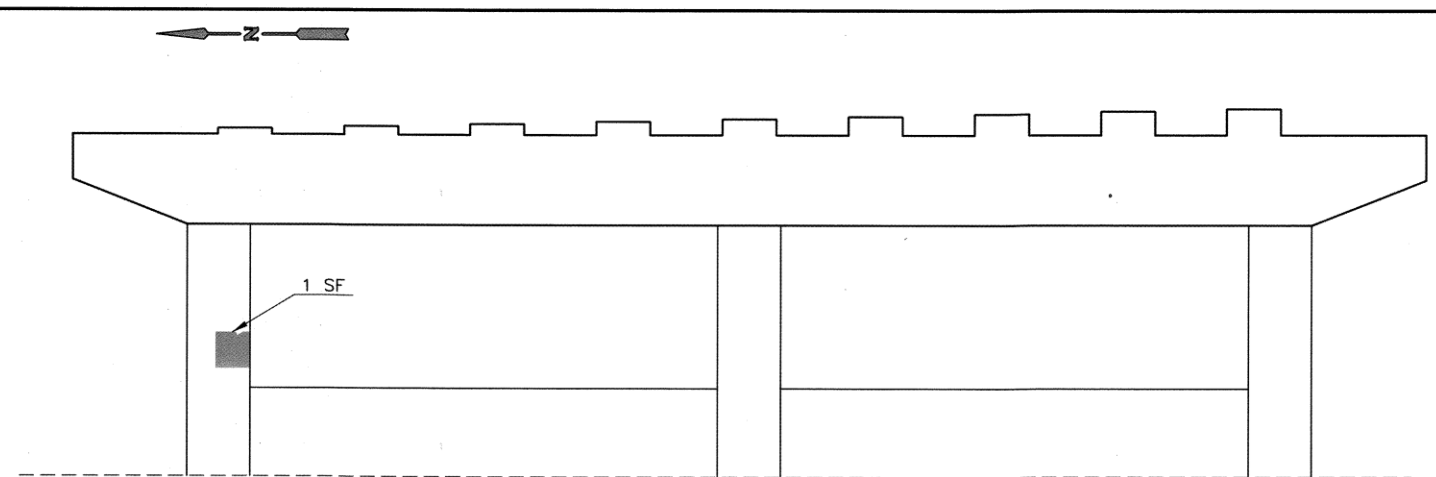
REVISION	BY	DATE

ABUTMENT REPAIR DETAILS			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 241			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y		MEMORIAL PLACE 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27	
PLAN SCALE:	DRAWN	LRJ	4/2022
N/A	DESIGNED	JKJ	4/2022
	SURVEY		
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VERTICAL:	RECOMMENDED	<i>W. 10/25</i>	
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ATLAS PAGE NO:		SHEET 22 OF 53 SHEETS	

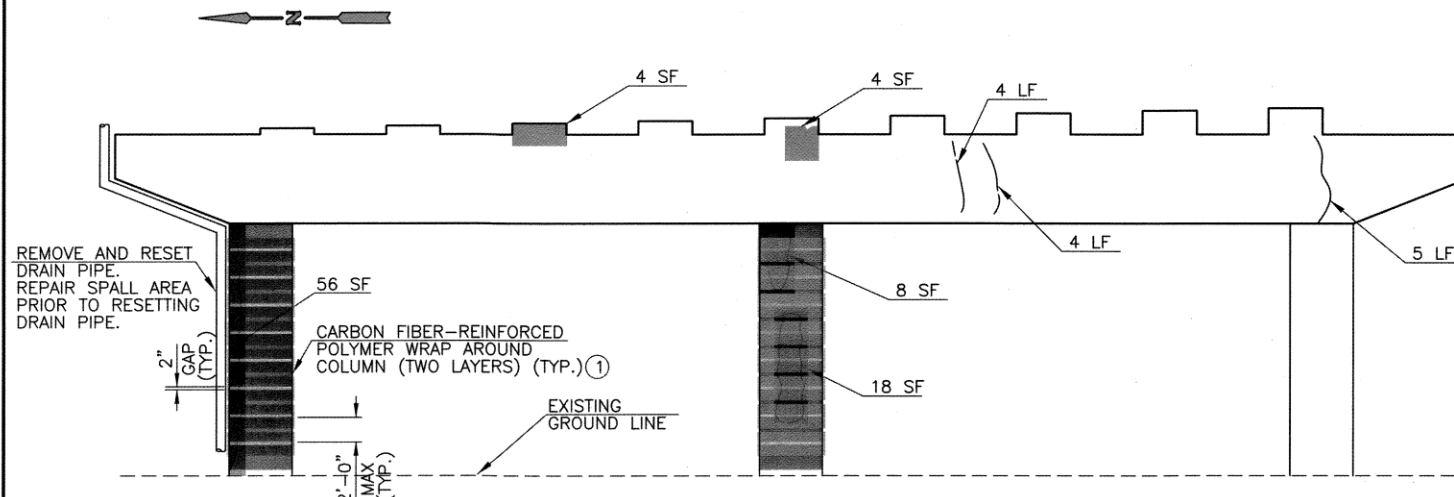
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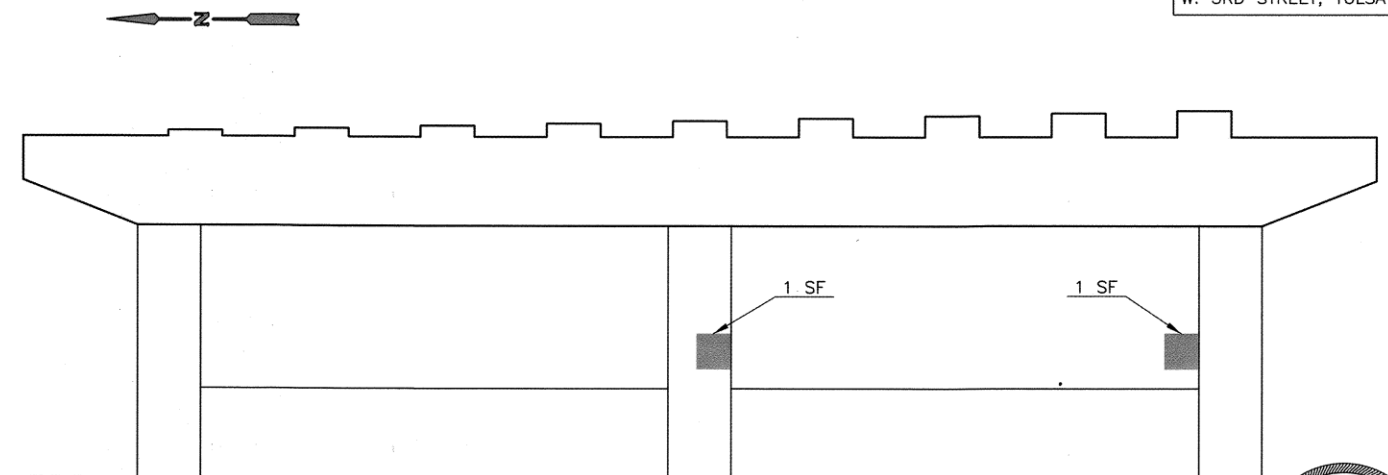
ELEVATION (EAST FACE)
PIER NO. 1



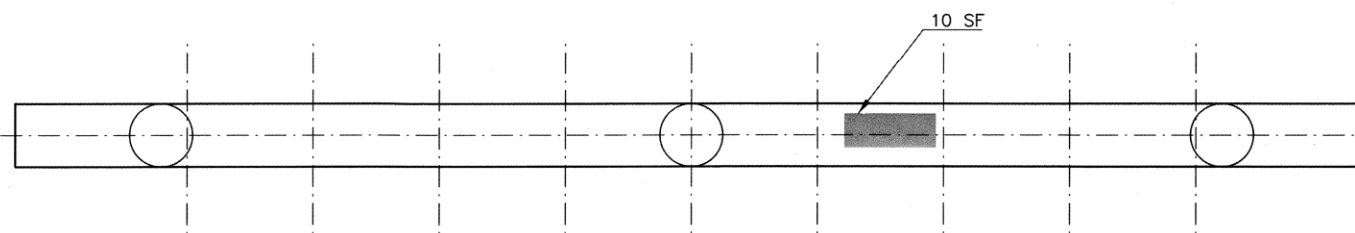
ELEVATION (WEST FACE)
PIER NO. 2



ELEVATION (WEST FACE)



ELEVATION (WEST FACE)
PIER NO. 3



BOTTOM VIEW
PIER NO. 4

NOTE:
SEE COMMON REPAIR DETAILS AND NOTES SHEET FOR REPAIR AND ELASTOMERIC COATING DETAILS.

CONTRACTOR SHALL CLEAN AND SUPPLEMENT ALL EXISTING REINFORCEMENT WITH NEW REINFORCEMENT AT PEDESTALS. INCLUDE COST FOR SUPPLEMENTAL REINFORCEMENT UNDER THE CONTRACT UNIT PRICE OF "PNEUMATICALLY PLACED MORTAR".

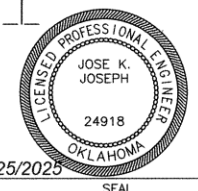
- CARBON FIBER-REINFORCED POLYMER WRAP
- PNEUMATICALLY PLACED MORTAR
- EPOXY INJECT CRACK

- ① CONSTRUCTION NOTES:
1. REMOVE UNSOUND CONCRETE AND CLEAN ALL EXPOSED REINFORCING STEEL.
 2. REPAIR WITH PNEUMATICALLY PLACED MORTAR.
 3. APPLY CORROSION INHIBITOR AFTER REPAIRING WITH PNEUMATICALLY PLACED MORTAR.
 4. APPLY ONE LAYER OF CARBON FIBER-REINFORCED POLYMER.
 5. APPLY SECOND LAYER OF CARBON FIBER-REINFORCED POLYMER AND OVERLAP AT LEAST 6" MINIMUM WITH FIRST LAYER.

NOTES:
INSTALLATION OF THE CARBON FIBER-REINFORCED POLYMER SHALL BE APPLIED PER THE MANUFACTURER'S SPECIFICATIONS AND SHALL BE APPROVED BY THE ENGINEER. ALL COSTS OF CARBON FIBER-REINFORCED POLYMER ON THE BEAMS INCLUDING MATERIAL, EPOXY, LABOR, EQUIPMENT AND ANY INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "(SP) CARBON FIBER-REINFORCED POLYMER".

SUMMARY OF QUANTITIES (SUBSTRUCTURE)								
ITEM	UNIT	ABUTMENT NO. 1	PIER NO. 1	PIER NO. 2	PIER NO. 3	PIER NO. 4	ABUTMENT NO. 2	TOTAL
ELASTOMERIC COATING	SF	350.80	425.40	425.40	425.40	425.40	350.80	2,403.20
PREPARATION OF CRACKS, ABOVE WATER	LF	6.00				13.00		19.00
EPOXY RESIN, ABOVE WATER	GAL	0.10				0.20		0.30
PNEUMATICALLY PLACED MORTAR	SY	16.62	0.70	0.20	0.30	11.20	1.00	30.02
CORROSION INHIBITOR (SURFACE APPLIED)	SY	16.62	0.70	0.20	0.30	11.20	1.00	30.02
(SP) CARBON FIBER-REINFORCED POLYMER	SF					529.00		350.00

BNSF RAILROAD
DOT 669494X
MILE POST 424.00
CREEK SUBDIVISION
W. 3RD STREET, TULSA



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER

PIER REPAIR DETAILS			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 241			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y 7833 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE: N/A	DRAWN DESIGNED SURVEY	LRJ JKJ	4/2022 4/2022
PROFILE SCALE: N/A	PROJ. MGR. LEAD ENGR. FIELD MGR. RECOMMENDED DESIGN MANAGER	<i>Wm 9/25/25</i> <i>JD 9/25/25</i> <i>Wm 9/25/25</i> <i>Wm 9/25/25</i> <i>Wm 9/25/25</i>	APPROVED: <i>Wm 9/25/25</i> CITY ENGINEER
HORIZONTAL: N/A	FILE:	DRAWING:	DATE: 9/25/2025
VERTICAL: N/A	ATLAS PAGE NO:		SHEET 23 OF 53 SHEETS



1. ROAD CLOSED BARRICADE R11-2
2. ROAD CLOSED DETOUR BARRICADE R11-2 M4-9R
3. ROAD CLOSED DETOUR BARRICADE R11-2 M4-9L
4. ROAD CLOSED AHEAD W20-3
5. DETOUR AHEAD W20-2
6. ROAD CLOSED TO THRU TRAFFIC R11-4
7. DETOUR M4-9L
8. DETOUR M4-9R
9. DETOUR M4-9V
10. END DETOUR M4-80

PHASE 1 & PHASE 2 DETOUR CONSTRUCTION

1. SHIFT SOUTH HEAVY TRAFFIC WAY TRAFFIC UNDERNEATH BRIDGE 241, TO DETOUR DURING CONSTRUCTION.

NOTES

1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION SEQUENCE
AND TRAFFIC CONTROL - PHASES 1 & 2 DETOUR

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 241

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

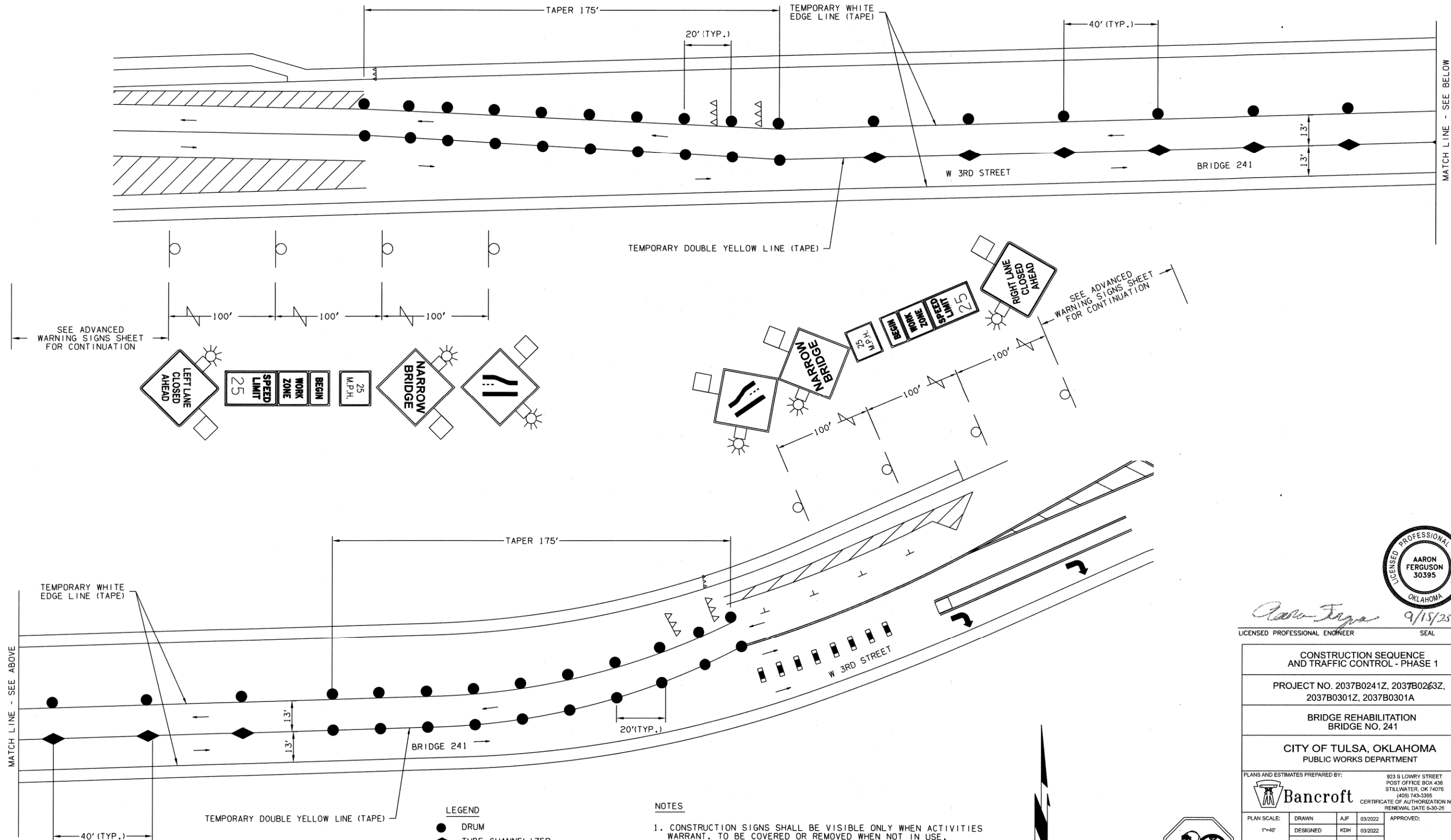
PLANS AND ESTIMATES PREPARED BY: 923 S LOWRY STREET
POST OFFICE BOX 436
STILLWATER, OK 74075
(405) 743-3355
Bancroft CERTIFICATE OF AUTHORIZATION NO. 9205
RENEWAL DATE 6-30-26

PLAN SCALE:	DRAWN	AJF	03/2022	APPROVED:
N.T.S.	DESIGNED	KDH	03/2022	
	SURVEY	CPY	2/2022	
PROFILE SCALE:	PROJ. MGR.	Mham 9/2025		
HORIZONTAL:	LEAD ENGR.	CPY 10/25		
VERTICAL:	FIELD MGR.	Mham 10/25		
	RECOMMENDED:	Mham 10-25		
	DESIGN MANAGER:			
FILE:	DRAWING:		DATE: 04/2022	
ATLAS PAGE NO:	132 & 181		SHEET 24 OF 53 SHEETS	



\$\$\$USER\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$TIME\$\$\$
\$\$\$PLTDR\$\$\$
\$\$\$DATE\$\$\$

\$\$\$TIME\$\$\$
\$\$\$PLTDRV\$\$\$
\$\$\$DATE\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$



- LEGEND
- DRUM
 - ◆ TUBE CHANNELIZER
 - TRAFFIC CONTROL SIGN ASSEMBLY
 - ▽ TYPE III BARRICADE
 - TRAFFIC DIRECTION

NOTES

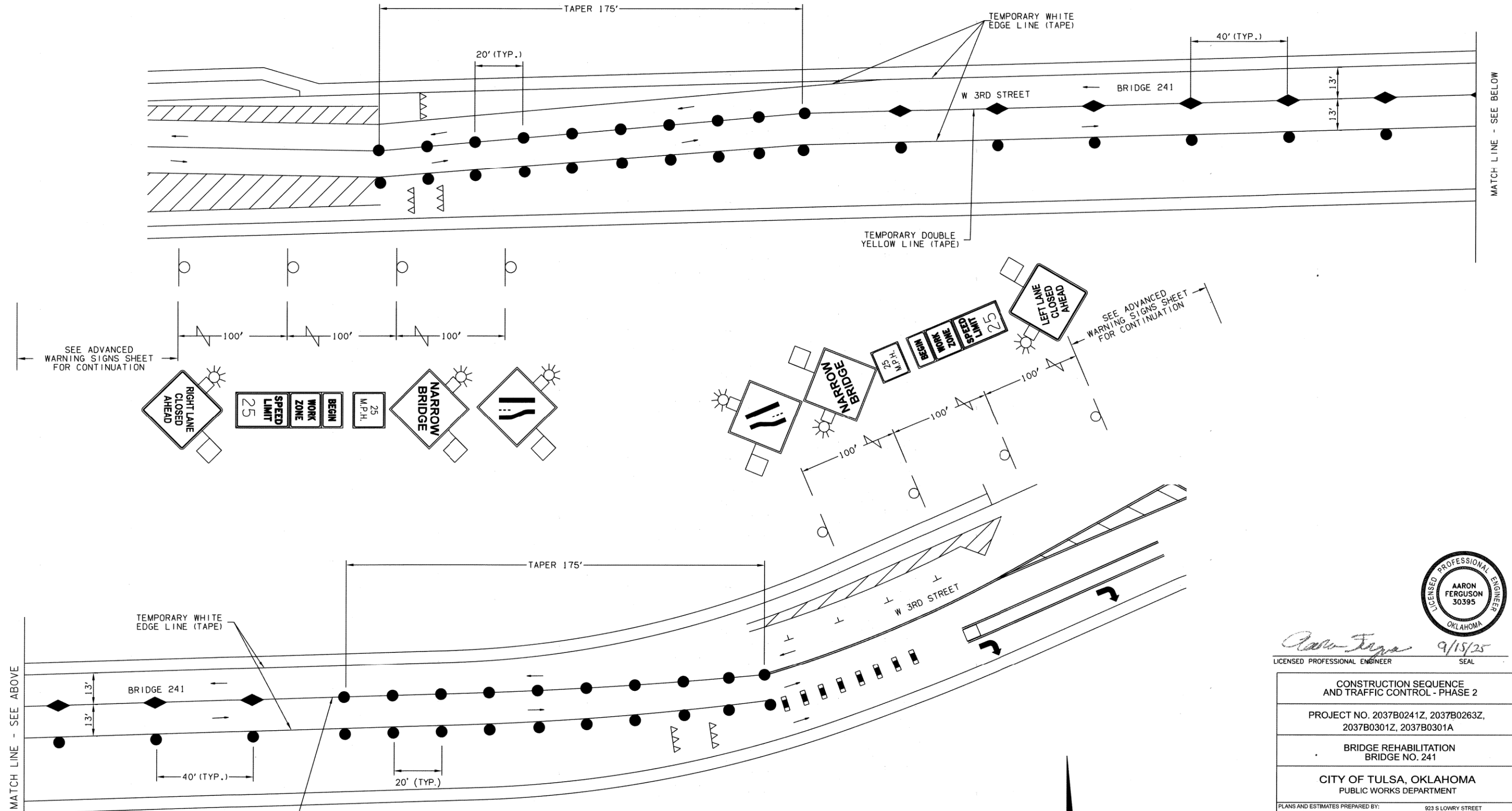
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. SIDEWALK TO REMAIN OPEN AND UNOBSTRUCTED DURING CONSTRUCTION.
3. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
4. COORDINATE WITH THE RAILROAD DURING CONSTRUCTION.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS.
6. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.
7. REMOVE ANY CONFLICTING ROAD STRIPING IN THE TRAFFIC CONTROL ZONE.



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL - PHASE 1			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 241			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: Bancroft		923 S LOWRY STREET POST OFFICE BOX 436 STILLWATER, OK 74076 (405) 743-3305 CERTIFICATE OF AUTHORIZATION NO. 9205 RENEWAL DATE 6-30-26	
PLAN SCALE: 1"=40'	DRAWN A/JF	03/2022	APPROVED:
	DESIGNED KDH	03/2022	
	SURVEY CPY	2/2022	
PROFILE SCALE:	PROJ. MGR. M/9/2025		
	LEAD ENGR. D/10/25		
HORIZONTAL: N/A	FIELD MGR. B/10/25		
VERTICAL: N/A	RECOMMENDED H/10-25		
	DESIGN MANAGER		
FILE:	DRAWING:	DATE: 04/25/25	
ATLAS PAGE NO:	132 & 181	SHEET 25 OF 53 SHEETS	

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\$\$\$WORKSPACE\$\$\$
\$\$\$FILES\$\$\$
\$\$\$DATE\$\$\$
\$\$\$PLTDRV\$\$\$
\$\$\$TIME\$\$\$



MATCH LINE - SEE ABOVE

MATCH LINE - SEE BELOW

- LEGEND**
- DRUM
 - ◆ TUBE CHANNELIZER
 - ⊕ TRAFFIC CONTROL SIGN ASSEMBLY
 - ▽ TYPE III BARRICADE
 - TRAFFIC DIRECTION

- NOTES**
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
 2. SIDEWALK TO REMAIN OPEN AND UNOBSTRUCTED DURING CONSTRUCTION.
 3. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
 4. COORDINATE WITH THE RAILROAD DURING CONSTRUCTION.
 5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS.
 6. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.
 7. REMOVE ANY CONFLICTING ROAD STRIPING IN THE TRAFFIC CONTROL ZONE.

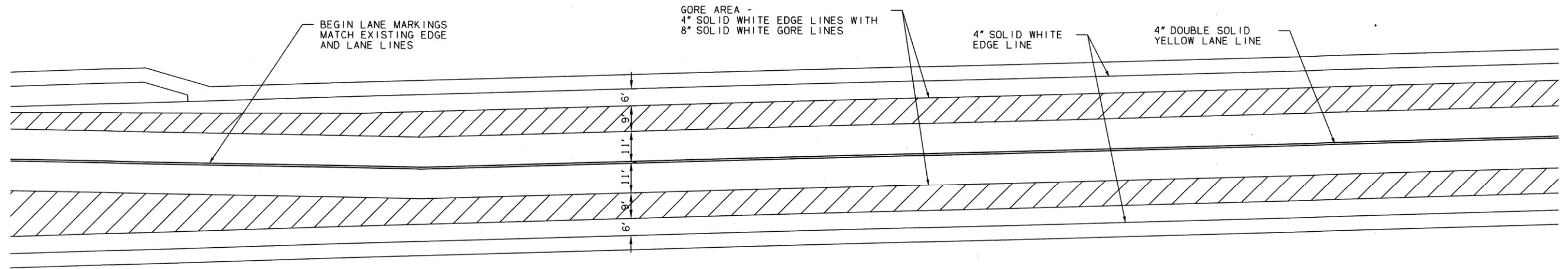


Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL - PHASE 2			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 241			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		923 S LOWRY STREET POST OFFICE BOX 438 STILLWATER, OK 74076 (405) 743-3395 CERTIFICATE OF AUTHORIZATION NO. 9205 RENEWAL DATE 6-30-26	
PLAN SCALE: 1"=40'	DRAWN KDH	A/JF	03/2022
	DESIGNED KDH		03/2022
	SURVEY CPY		2/2022
PROFILE SCALE:	PROJ. MGR. M/Jan 9/2025	APPROVED:	
	LEAD ENGR. D 11/15		
HORIZONTAL:	FIELD MGR. Paul 10/25		
VERTICAL:	RECOMMENDED		
	DESIGN MANAGER HAS 10-25	CITY ENGINEER	
FILE:	DRAWING:	DATE: 04/2022	
ATLAS PAGE NO:	132 & 181	SHEET 26 OF 53 SHEETS	

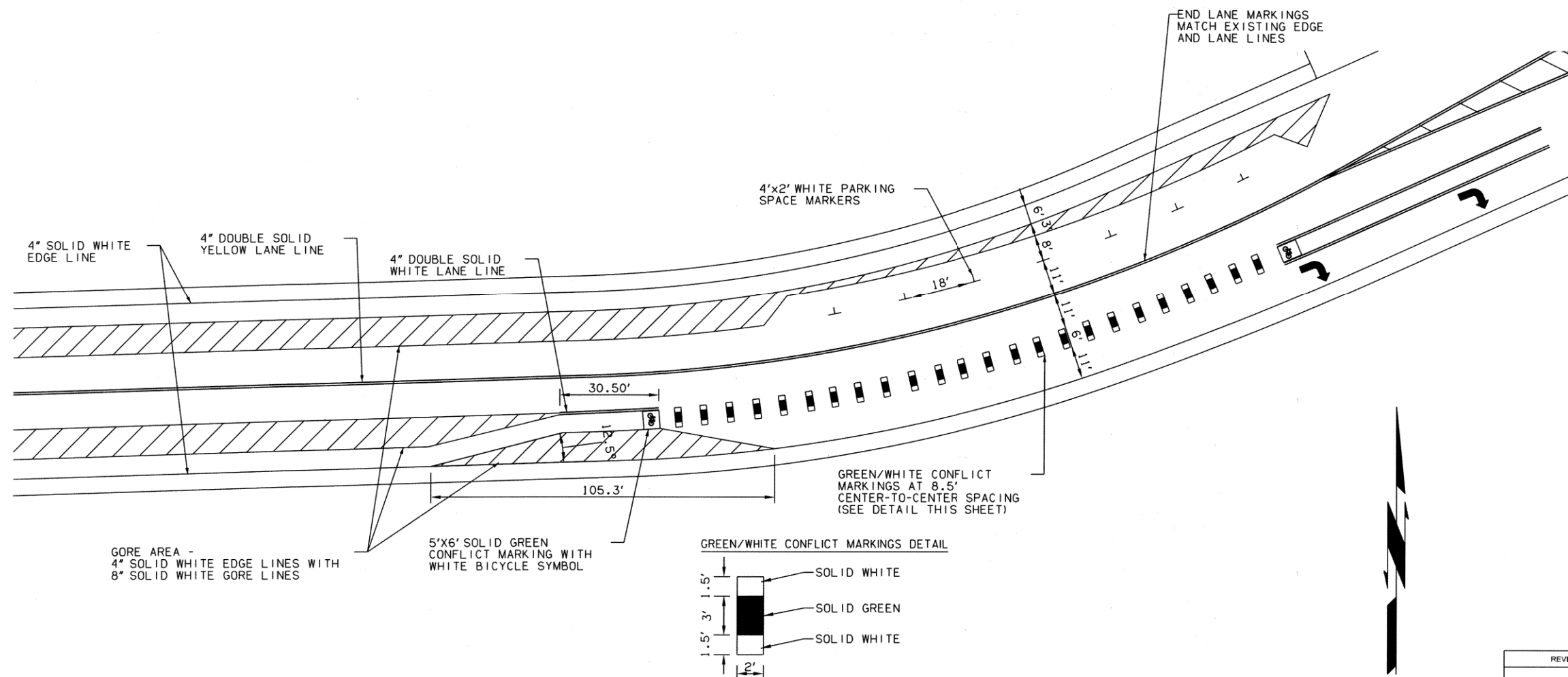


REVISION	DATE



NOTES

1. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. ALL STRIPING SHALL MATCH EXISTING STRIPING AT PROJECT TERMINAL POINTS.
3. ALL EXISTING SIGNS ARE TO REMAIN IN PLACE.
4. SEE ODOT STANDARDS PM1-1-03 AND PM4-1-02 FOR ADDITIONAL DETAILS.

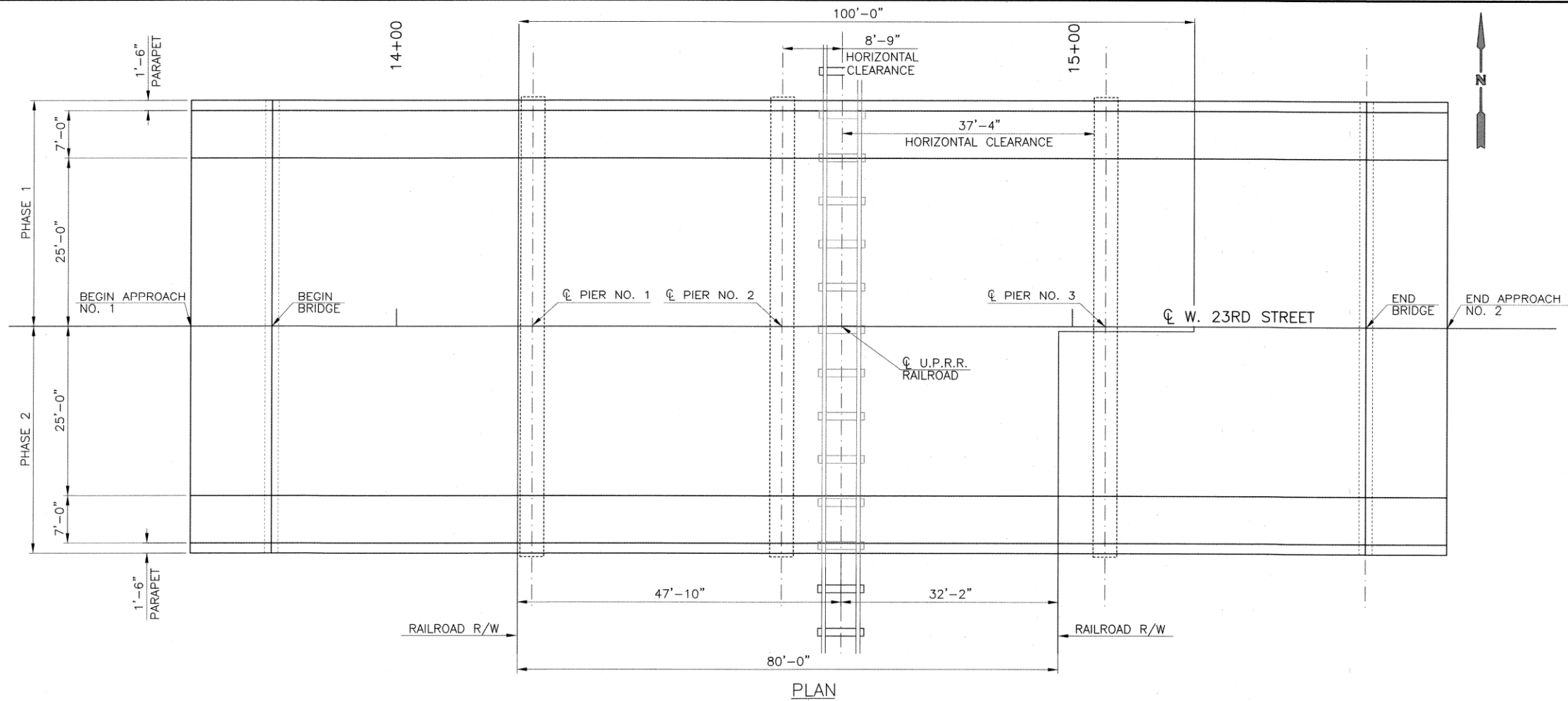


Aaron Ferguson 9/15/25
 LICENSED PROFESSIONAL ENGINEER SEAL

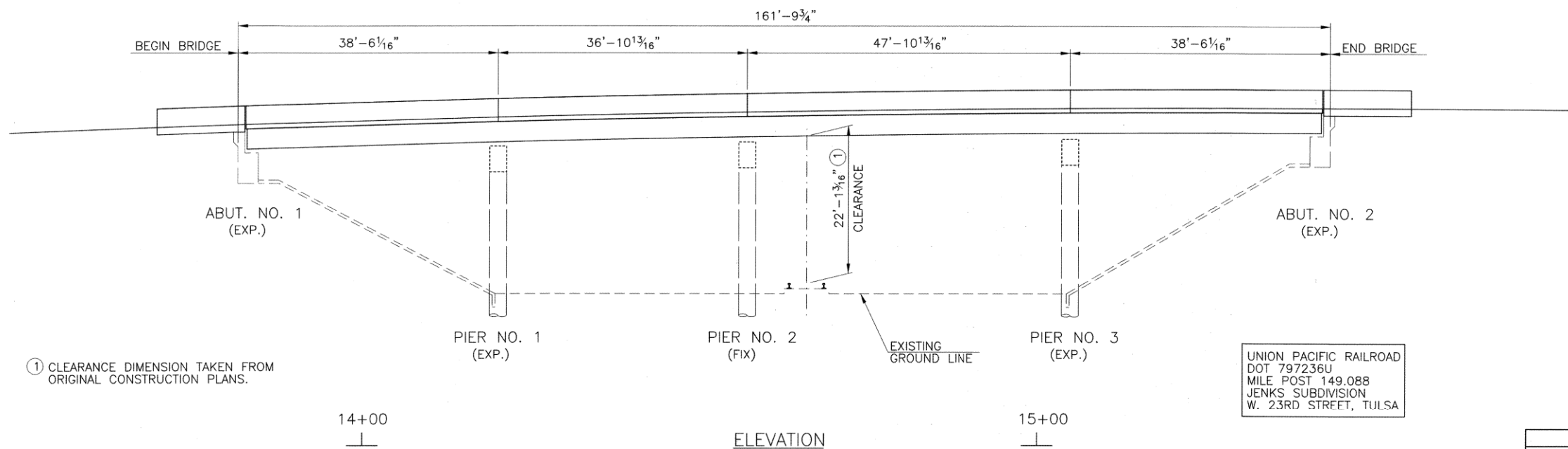
PAVEMENT MARKINGS			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 241			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		923 S LOWRY STREET POST OFFICE BOX 438 STILLWATER, OK 74076 (405) 743-3355 CERTIFICATE OF AUTHORIZATION NO. 9205 RENEWAL DATE 6-30-26	
PLAN SCALE:	DRAWN	AJF	03/2022
1"=40'	DESIGNED	KDH	03/2022
	SURVEY	CPY	2/2022
PROFILE SCALE:	PROJ. MGR.	M. J. 9/22/25	
	LEAD ENGR.	D. 10/2025	
HORIZONTAL:	FIELD MGR.	R. 10/25	
VERTICAL:	RECOMMENDED	H. 10-25	
	DESIGN MANAGER		
FILE:	DRAWING:	DATE:	04/2022
ATLAS PAGE NO:	132 & 181	SHEET	27 OF 53 SHEETS

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 \$\$\$WORKSPACE\$\$\$
 \$\$\$FILE\$\$\$

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9/25/2025
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ITEMIZED QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	CY	1.20
REINFORCING STEEL	LB	100.00
MECHANICAL SPLICES	EA	112.00
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION AND HANDLING OF WASTE	LSUM	1.00
CLASS C BRIDGE DECK REPAIR	SY	193.00
ELASTOMERIC COATING	SF	1,168.00
RAPID CURE JOINT SEALANT	LF	416.00
ELASTOMERIC MORTAR	CF	1.10
PREPARATION OF CRACKS, ABOVE WATER	LF	89.00
EPOXY RESIN, ABOVE WATER	GAL	1.30
PNEUMATICALLY PLACED MORTAR	SY	12.70
SEALER CRACK PREPARATION	LF	800.00
SEALER RESIN	GAL	9.00
DECK AREA SEALED (FLOODCOATS)	SY	1,383.40
(SP) CARBON FIBER-REINFORCED POLYMER	SF	78.00
CORROSION INHIBITOR (SURFACE APPLIED)	SF	12.70



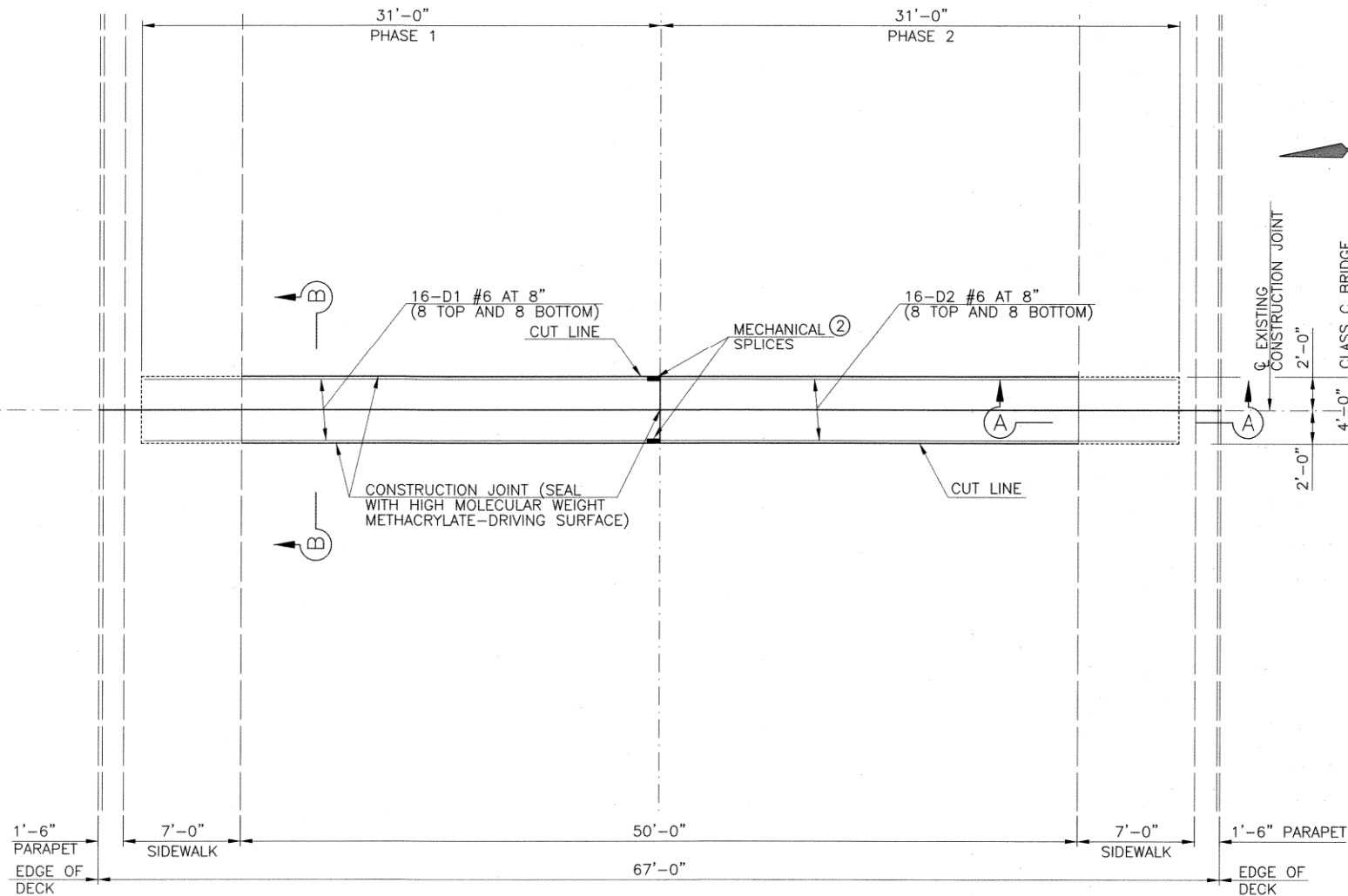
① CLEARANCE DIMENSION TAKEN FROM ORIGINAL CONSTRUCTION PLANS.

UNION PACIFIC RAILROAD
DOT 797236U
MILE POST 149.088
JENKS SUBDIVISION
W. 23RD STREET, TULSA

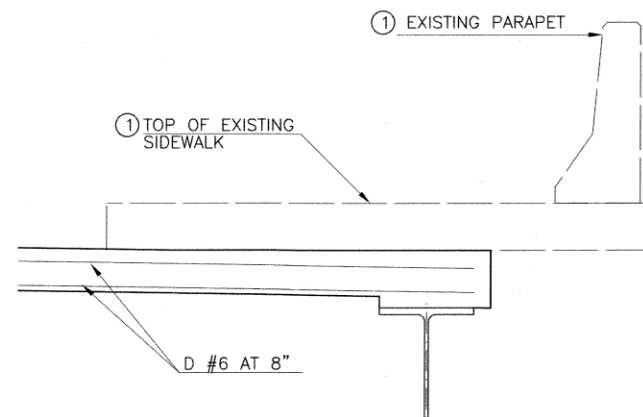


Jose K. Joseph
9/25/2025
LICENSED PROFESSIONAL ENGINEER
SEAL

GENERAL PLAN AND ELEVATION		
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A		
BRIDGE REHABILITATION BRIDGE NO. 263		
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY: CP&Y 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27		
PLAN SCALE:	DRAWN	LRJ 4/2022
N/A	DESIGNED	JKJ 4/2022
	SURVEY	
PROFILE SCALE:	PROJ. MGR.	9/25/25
	LEAD ENGR.	9/25/25
HORIZONTAL:	FIELD MGR.	10/25/25
N/A	RECOMMENDED	10/25/25
VERTICAL:	DESIGN MANAGER	10/25/25
N/A		
FILE:	DRAWING:	CITY ENGINEER
ATLAS PAGE NO:		DATE: 9/25/2025
		SHEET 28 OF 53 SHEETS

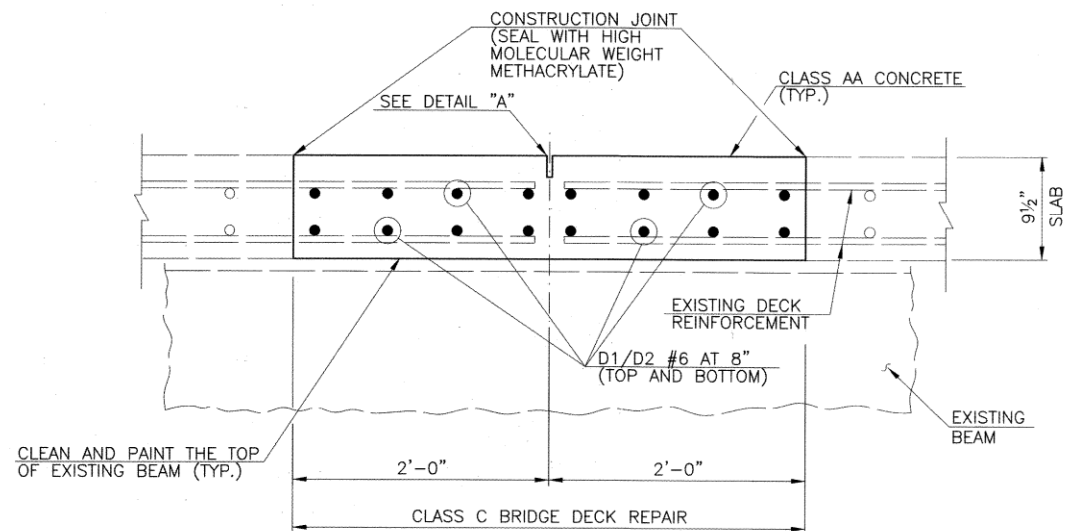


CONSTRUCTION JOINT - PLAN VIEW



SECTION A-A
LONGITUDINAL BARS NOT SHOWN FOR CLARITY.

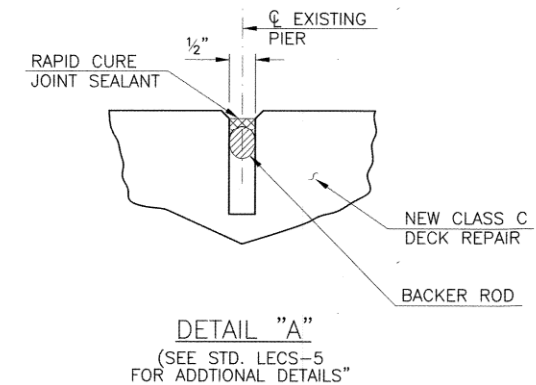
- ① PROVIDE TEMPORARY FORMWORK FOR EXISTING SIDEWALK AND PARAPET DURING REPAIR OF CONSTRUCTION JOINTS. INCLUDE ALL COSTS OF TEMPORARY FORMWORK INCLUDING MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS IN CONTRACT UNIT PRICE OF "CLASS C BRIDGE DECK REPAIR". ANY DAMAGE TO THE EXISTING STRUCTURE SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.



SECTION B-B

NOTES:
CLEAN AND REUSE ALL EXISTING LONGITUDINAL.
CORRODED REBAR IN THE DECK WILL BE CLEANED AND LAPPED WITH SIMILAR SIZE EPOXY COATED REINFORCEMENT.

UNION PACIFIC RAILROAD
DOT 797236U
MILE POST 149.088
JENKS SUBDIVISION
W. 23RD STREET, TULSA



- ② EPOXY COAT OR GALVANIZE MECHANICAL SPLICES. INCLUDE ALL COST OF MECHANICAL SPLICES INCLUDING ADDITIONAL LAP LENGTHS, LABOR, AND INCIDENTALS IN THE CONTRACT UNIT PRICE OF "MECHANICAL SPLICES".

CONSTRUCTION JOINT BAR LIST

EPOXY COATED REINFORCING BARS					
MARK	SIZE	NO.	FORM	LENGTH	NOTES
D1	#6	112	STR.	30'-10"	PHASE 1
D2	#6	112	STR.	31'-4"	PHASE 2, 6" ADDITIONAL LENGTH FOR MECHANICAL SPLICES



Jose K. Joseph 09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION JOINT REPAIR DETAILS

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

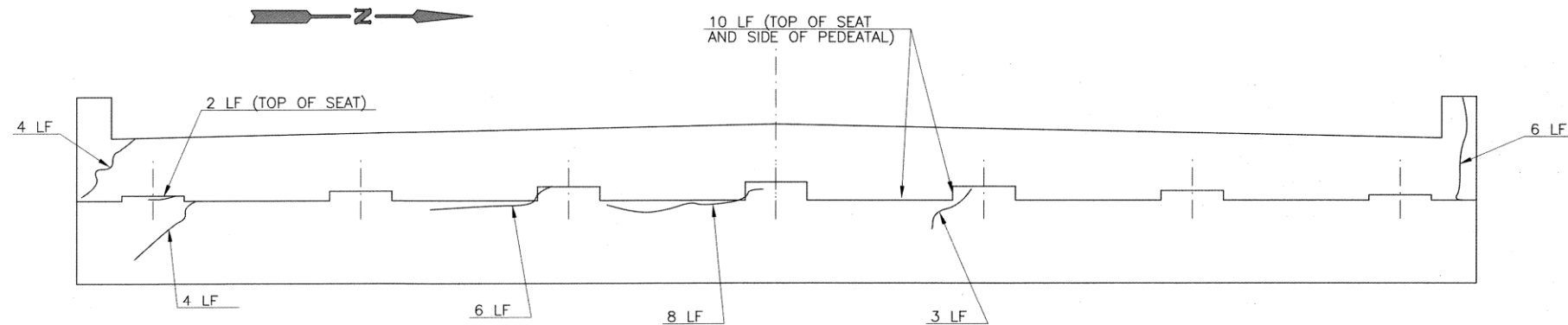
BRIDGE REHABILITATION
BRIDGE NO. 263

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

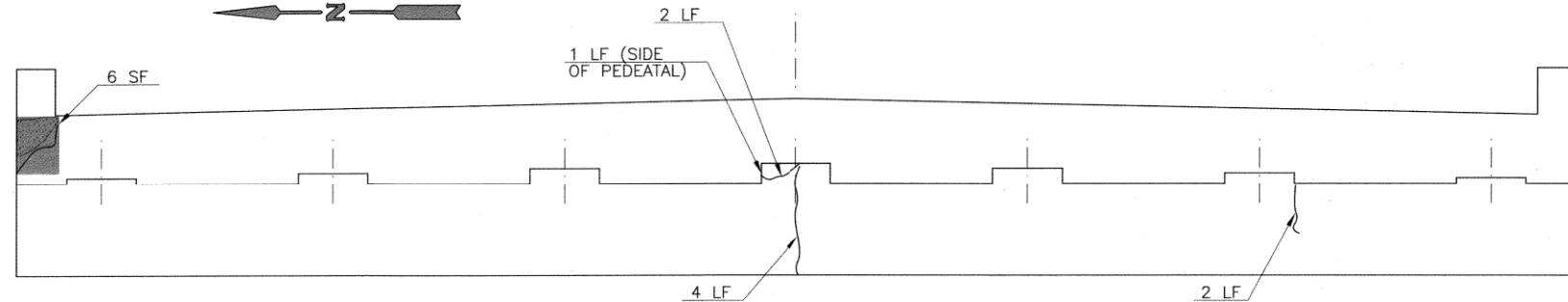
PLANS AND ESTIMATES PREPARED BY:
CP&Y MEMORIAL PLACE
7833 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 948-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	CPY	2/2022	APPROVED:
N/A	DESIGNED	CPY	2/2022	
	SURVEY	CPY	2/2022	
PROFILE SCALE:	PROJ. MGR.	11/2021	9/2025	
HORIZONTAL:	LEAD ENGR.	10/2021	10/2025	
VERTICAL:	FIELD MGR.	10/2021	10/2025	
	RECOMMENDED:	10/2021	10/2025	
	DESIGN MANAGER:			
FILE:	DRAWING:		DATE: 9/25/2025	
ATLAS PAGE NO:	132 & 181		SHEET 30 OF 53 SHEETS	

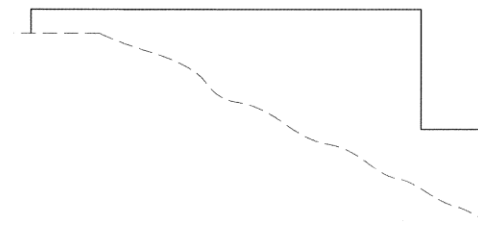
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9/25/2025
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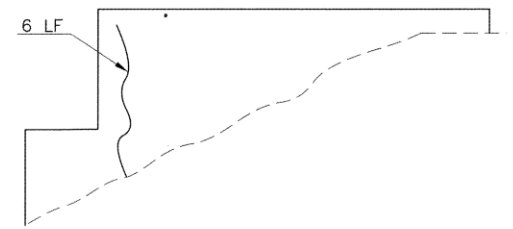
ELEVATION
ABUT. NO. 1



ELEVATION
ABUT. NO. 2

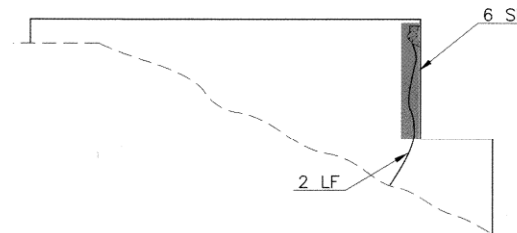


SOUTHWEST WING

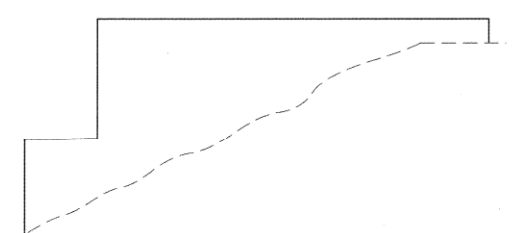


NORTHWEST WING

ABUTMENT NO. 1 WINGS



NORTHEAST WING



SOUTHEAST WING

ABUTMENT NO. 2 WINGS

 PNEUMATICALLY PLACED MORTAR

 EPOXY INJECT CRACK

NOTE:
CLEAN ALL DEBRIS ON TOP OF ABUTMENT SEAT BEFORE
STARTING ANY REPAIRS. INCLUDE ALL COST OF CLEANING
AND REPAIRING OF ABUTMENT SEAT INCLUDING MATERIALS,
INCIDENTALS, LABOR AND EQUIPMENT UNDER THE CONTRACT
UNIT PRICE OF "PNEUMATICALLY PLACED MORTAR".

SEE COMMON REPAIR DETAILS AND NOTES SHEET
FOR REPAIR AND ELASTOMERIC COATING DETAILS.

UNION PACIFIC RAILROAD
DOT 797236U
MILE POST 149.088
JENKS SUBDIVISION
W. 23RD STREET, TULSA

SUMMARY OF QUANTITIES (SUBSTRUCTURE)							
ITEM	UNIT	ABUTMENT NO. 1	PIER NO. 1	PIER NO. 2	PIER NO. 3	ABUTMENT NO. 2	TOTAL
ELASTOMERIC COATING	SF	228.40	230.50	250.20	230.50	228.40	1,168.00
CLASS A CONCRETE	CY	0.60				0.60	1.20
REINFORCING STEEL	LB	50.00				50.00	100.00
PREPARATION OF CRACKS, ABOVE WATER	LF	49.00	11.00	6.00	12.00	11.00	89.00
EPOXY RESIN, ABOVE WATER	GAL	0.60	0.20	0.10	0.20	0.20	1.30
PNEUMATICALLY PLACED MORTAR	SY		2.80	2.00	6.50	1.40	12.70
(SP) CARBON FIBER-REINFORCED POLYMER	SF		26.00	26.00	26.00		78.00
CORROSION INHIBITOR (SURFACE APPLIED)	SY		2.80	2.00	6.50	1.40	12.70



Jose K. Joseph
9/25/2025
LICENSED PROFESSIONAL ENGINEER
SEAL

ABUTMENT REPAIR DETAILS
SHEET 1 OF 2

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

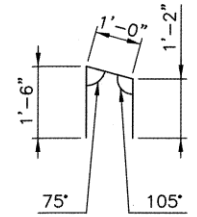
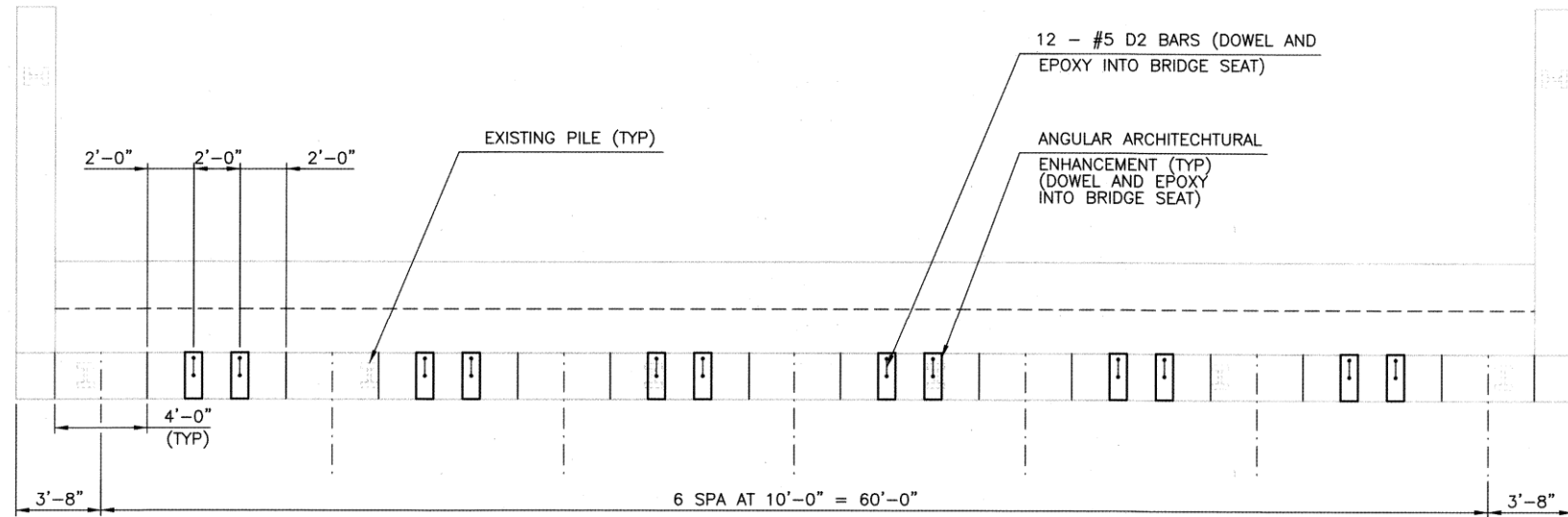
BRIDGE REHABILITATION
BRIDGE NO. 263

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405)-948-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

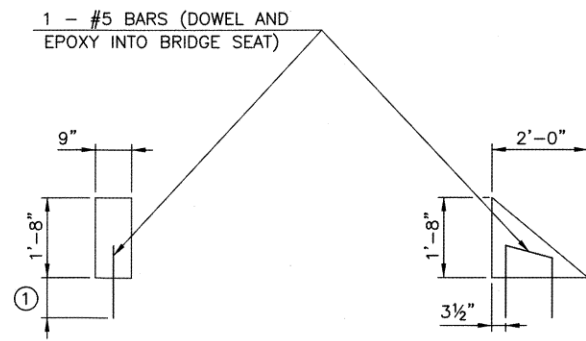
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N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.	<i>John Joseph</i>	9/25/25	
	LEAD ENGR.	<i>John Joseph</i>	9/25/25	
HORIZONTAL:	FIELD MGR.	<i>John Joseph</i>	9/25/25	
N/A	RECOMMENDED:	<i>John Joseph</i>	9/25/25	
VERTICAL:	DESIGN MANAGER	<i>John Joseph</i>	9/25/25	
N/A				

REVISION	BY	DATE	FILE:	DRAWING:	DATE: 9/25/2025
			ATLAS PAGE NO:		SHEET 31 OF 53 SHEETS



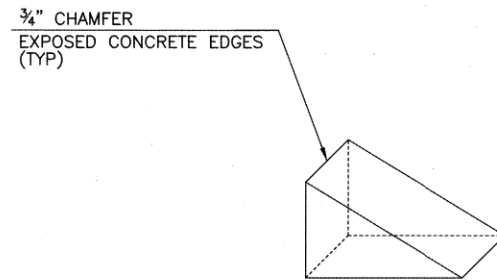
D2 #5 X 3'-8"

PLAN OF ANGULAR ARCHITECTURAL ENHANCEMENT AT ABUTMENT NO. 1
ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2
OPPOSITE HAND

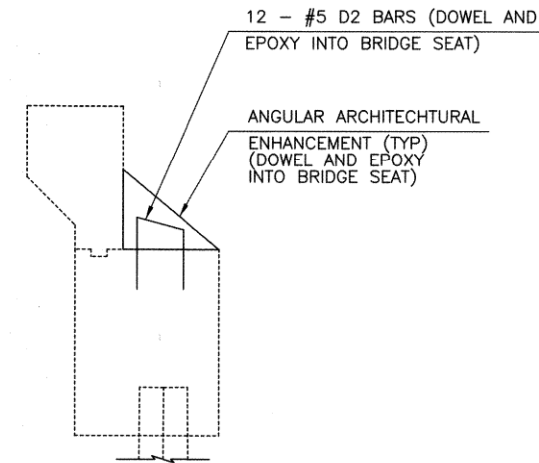


ELEVATION
① 10" MINIMUM EMBEDMENT

TYPICAL SECTION



ISOMETRIC VIEW



SECTION THRU ABUTMENT AT PILE

ANGULAR ARCHITECTURAL ENHANCEMENTS
INSTALL 12 AT EACH ABUTMENT, COSTS INCLUDED IN
"CLASS A CONCRETE" AND "REINFORCING STEEL"

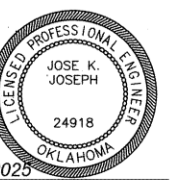
BAR LIST - ABUTMENT NO. 1				
MARK	SIZE	NO.	FORM	LENGTH
D2	#5	12	BNT.	3'-8"

BAR LIST - ABUTMENT NO. 2				
MARK	SIZE	NO.	FORM	LENGTH
D2	#5	12	BNT.	3'-8"

SUMMARY OF QUANTITIES - ABUTMENT NO. 1		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	CY	0.60
REINFORCING STEEL	LB	50.00

SUMMARY OF QUANTITIES - ABUTMENT NO. 2		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	CY	0.60
REINFORCING STEEL	LB	50.00

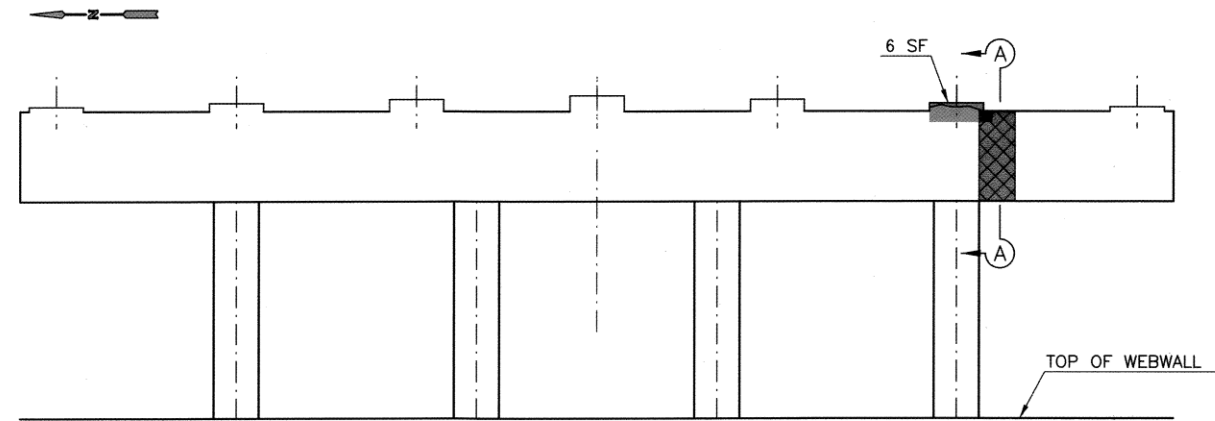
UNION PACIFIC RAILROAD
DOT 797236U
MILE POST 149.088
JENKS SUBDIVISION
W. 23RD STREET, TULSA



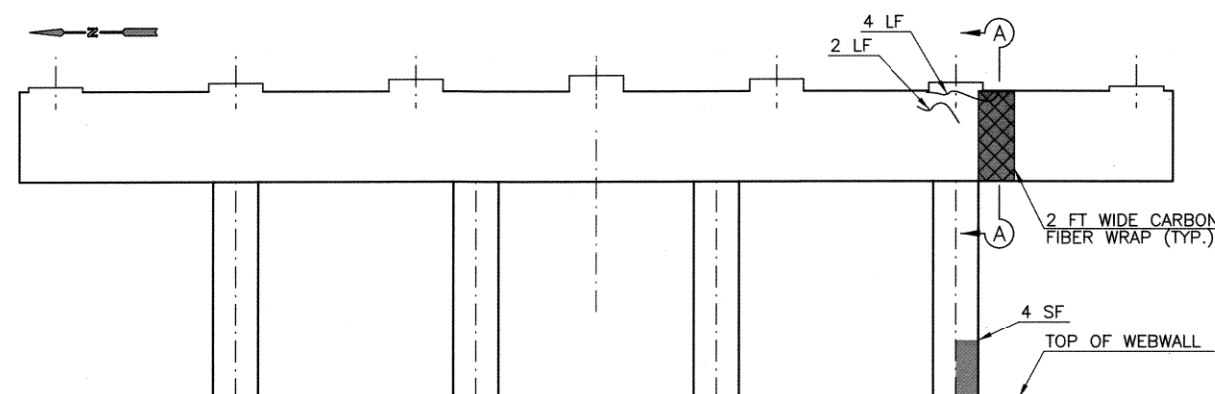
Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER
SEAL

ABUTMENT REPAIR DETAILS SHEET 2 OF 2			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 263			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE: N/A	DRAWN DESIGNED SURVEY	LRJ JKJ	4/2022 4/2022
PROFILE SCALE:	PROJ. MGR.	9/25/2025	APPROVED:
HORIZONTAL:	LEAD ENGR.	11/15	
VERTICAL:	FIELD MGR.	10/16	
	RECOMMENDED	10/25	
	DESIGN MANAGER		
FILE:	DRAWING:	DATE: 9/25/2025	
ATLAS PAGE NO:			SHEET 32 OF 53 SHEETS

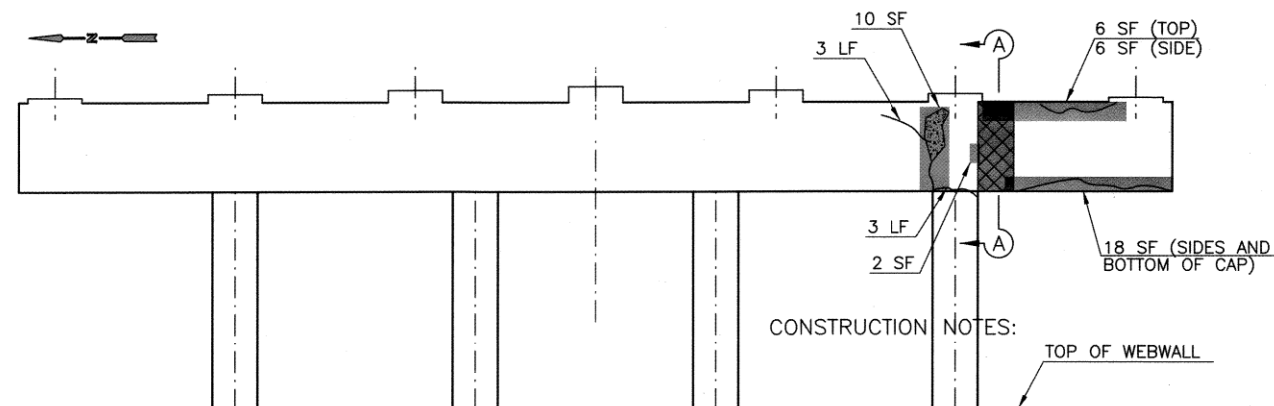
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9/25/2025
ElisoCM
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pw: /



ELEVATION
PIER NO. 1 WEST FACE

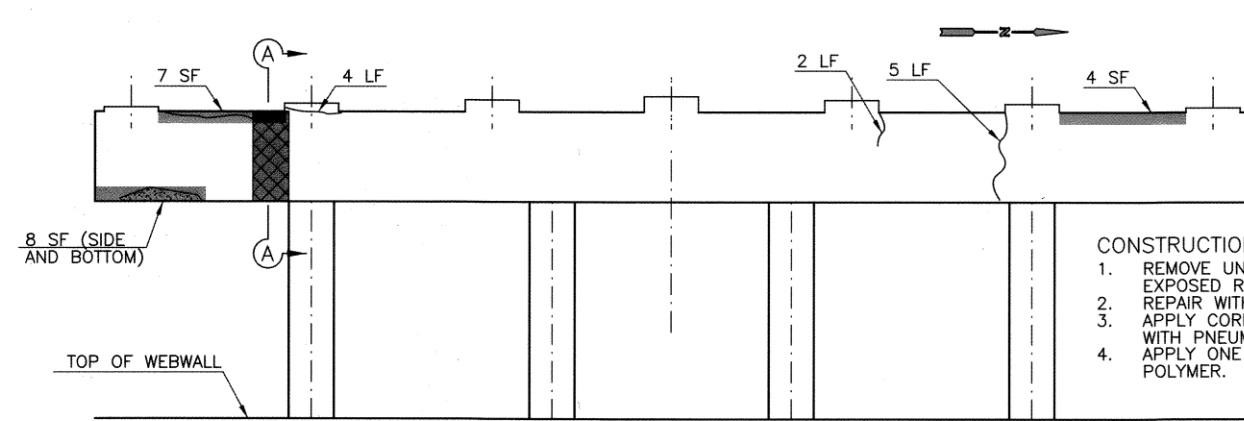


ELEVATION
PIER NO. 2 WEST FACE

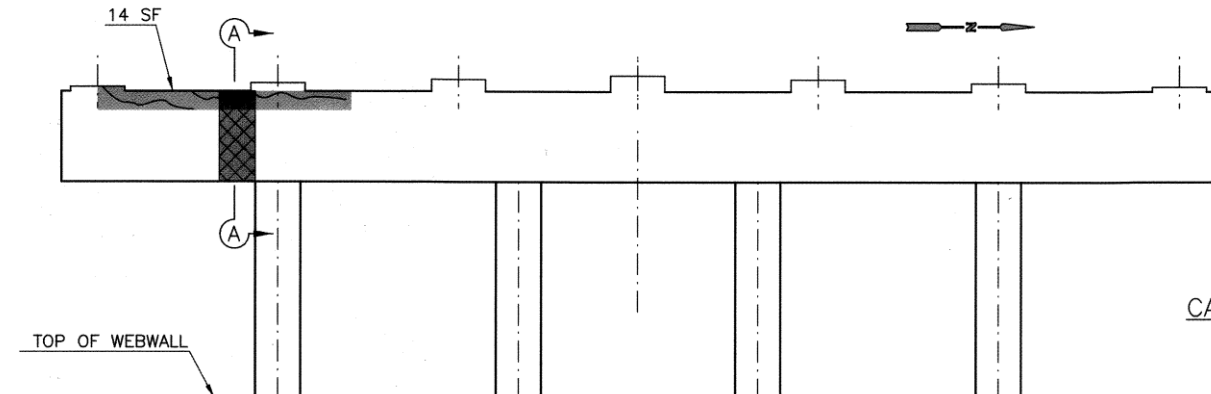


ELEVATION
PIER NO. 3 WEST FACE

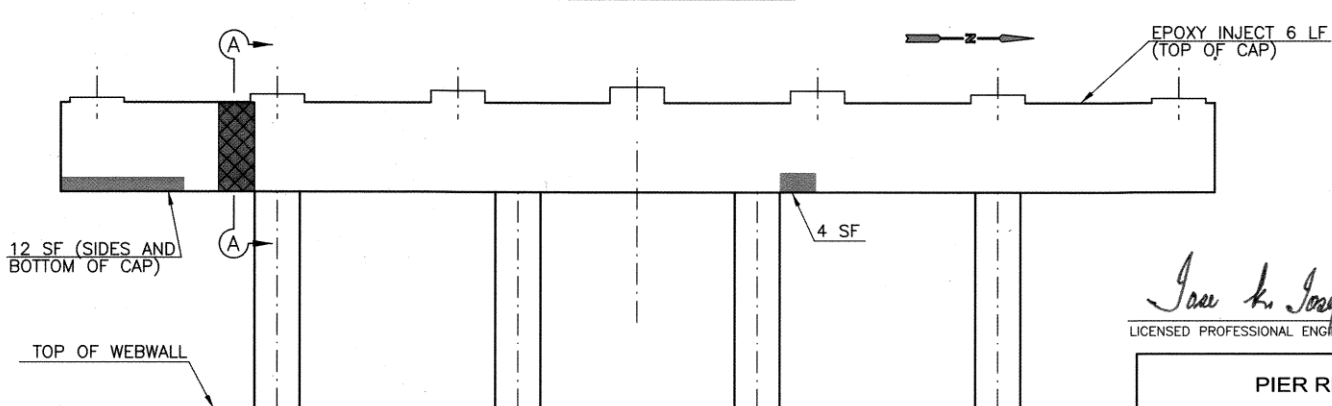
NOTES:
INSTALLATION OF THE CARBON FIBER-REINFORCED POLYMER SHALL BE APPLIED PER THE MANUFACTURER'S SPECIFICATIONS AND SHALL BE APPROVED BY THE ENGINEER. ALL COSTS OF CARBON FIBER-REINFORCED POLYMER ON THE BEAMS INCLUDING MATERIAL, EPOXY, LABOR, EQUIPMENT, AND ANY INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "(SP) CARBON FIBER-REINFORCED POLYMER".



ELEVATION
PIER NO. 1 EAST FACE



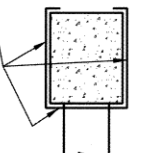
ELEVATION
PIER NO. 2 EAST FACE



ELEVATION
PIER NO. 3 EAST FACE

- CONSTRUCTION NOTES:
1. REMOVE UNSOUND CONCRETE AND CLEAN ALL EXPOSED REINFORCING STEEL.
 2. REPAIR WITH PNEUMATICALLY PLACED MORTAR.
 3. APPLY CORROSION INHIBITOR AFTER REPAIRING WITH PNEUMATICALLY PLACED MORTAR.
 4. APPLY ONE LAYER OF CARBON FIBER-REINFORCED POLYMER.

2 FEET WIDE CARBON FIBER REINFORCED POLYMER AROUND THE SIDES AND BOTTOM OF PIER CAP. EXTEND 6" ON TOP OF PIER CAP



SECTION A-A

CARBON FIBER-REINFORCED POLYMER DETAIL

PNEUMATICALLY PLACED MORTAR

EPOXY INJECT CRACK

2 FEET WIDE CARBON FIBER REINFORCED POLYMER AROUND THE SIDES AND BOTTOM OF PIER CAP

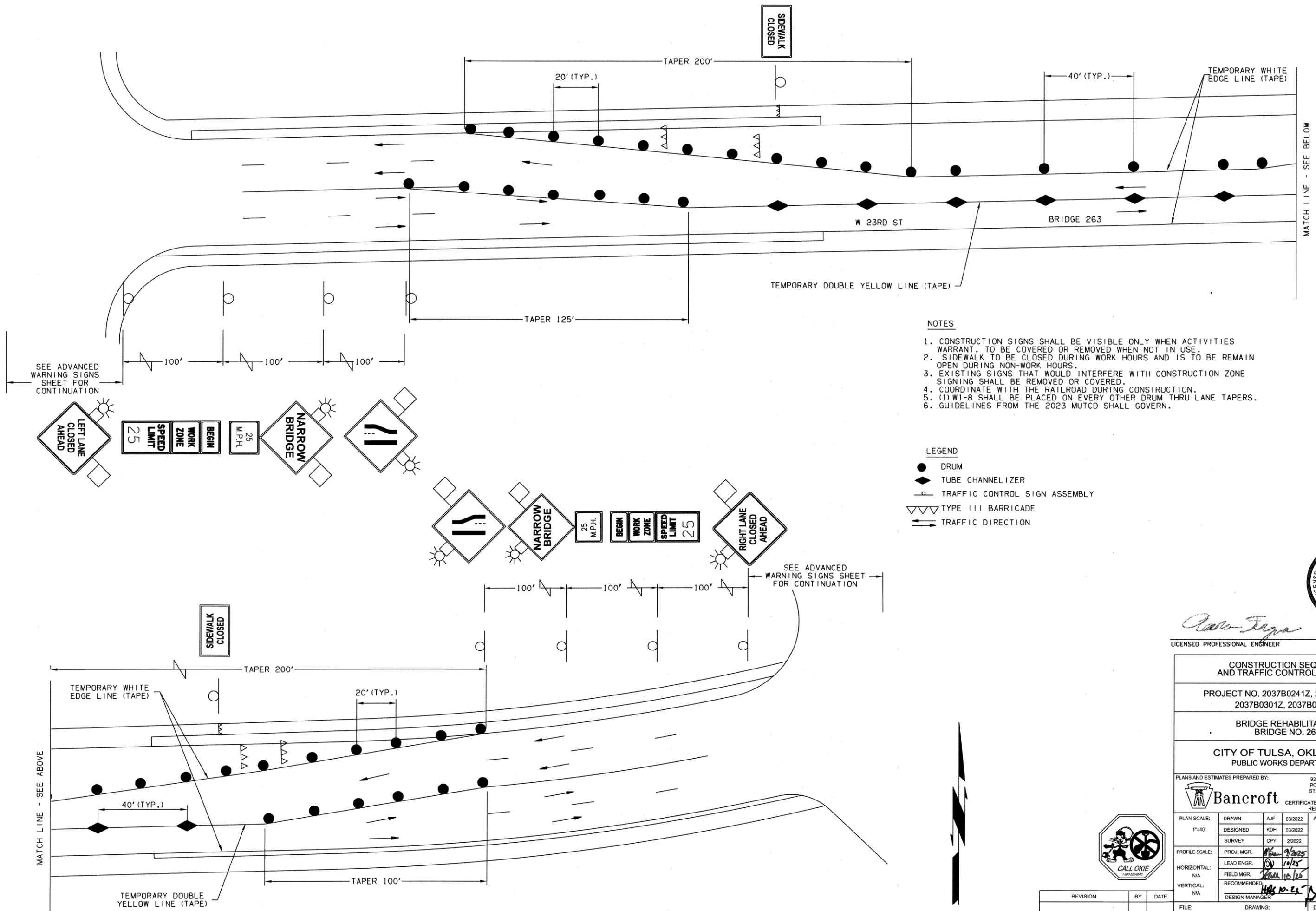
UNION PACIFIC RAILROAD
DOT 797236U
MILE POST 149.088
JENKS SUBDIVISION
W. 23RD STREET, TULSA



Jose K. Joseph
9/25/2025
LICENSED PROFESSIONAL ENGINEER

PIER REPAIR DETAILS			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 263			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y MEMORIAL PLACE 7833 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405)-848-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	4/2022
	DESIGNED	JKJ	4/2022
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		11/20/2025
	LEAD ENGR.		10/25
HORIZONTAL:	N/A	FIELD MGR.	10/16
VERTICAL:	N/A	RECOMMENDED	10/22/25
	DESIGN MANAGER		
FILE:	DRAWING:		DATE: 9/25/2025
ATLAS PAGE NO:			SHEET 33 OF 53 SHEETS

\$\$\$USER\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$DATE\$\$\$
\$\$\$PLTDRVS\$\$\$



NOTES

1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. SIDEWALK TO BE CLOSED DURING WORK HOURS AND IS TO BE REMAIN OPEN DURING NON-WORK HOURS.
3. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
4. COORDINATE WITH THE RAILROAD DURING CONSTRUCTION.
5. (1) W-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS.
6. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.

LEGEND

- DRUM
- ◆ TUBE CHANNELIZER
- ▬ TRAFFIC CONTROL SIGN ASSEMBLY
- ▽▽▽ TYPE III BARRICADE
- TRAFFIC DIRECTION



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION SEQUENCE
AND TRAFFIC CONTROL - PHASE 1

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 263

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: 923 S LOWRY STREET
POST OFFICE BOX 436
STILLWATER, OK 74076
(405) 743-3355
Bancroft CERTIFICATE OF AUTHORIZATION NO. 9205
RENEWAL DATE 6-30-26

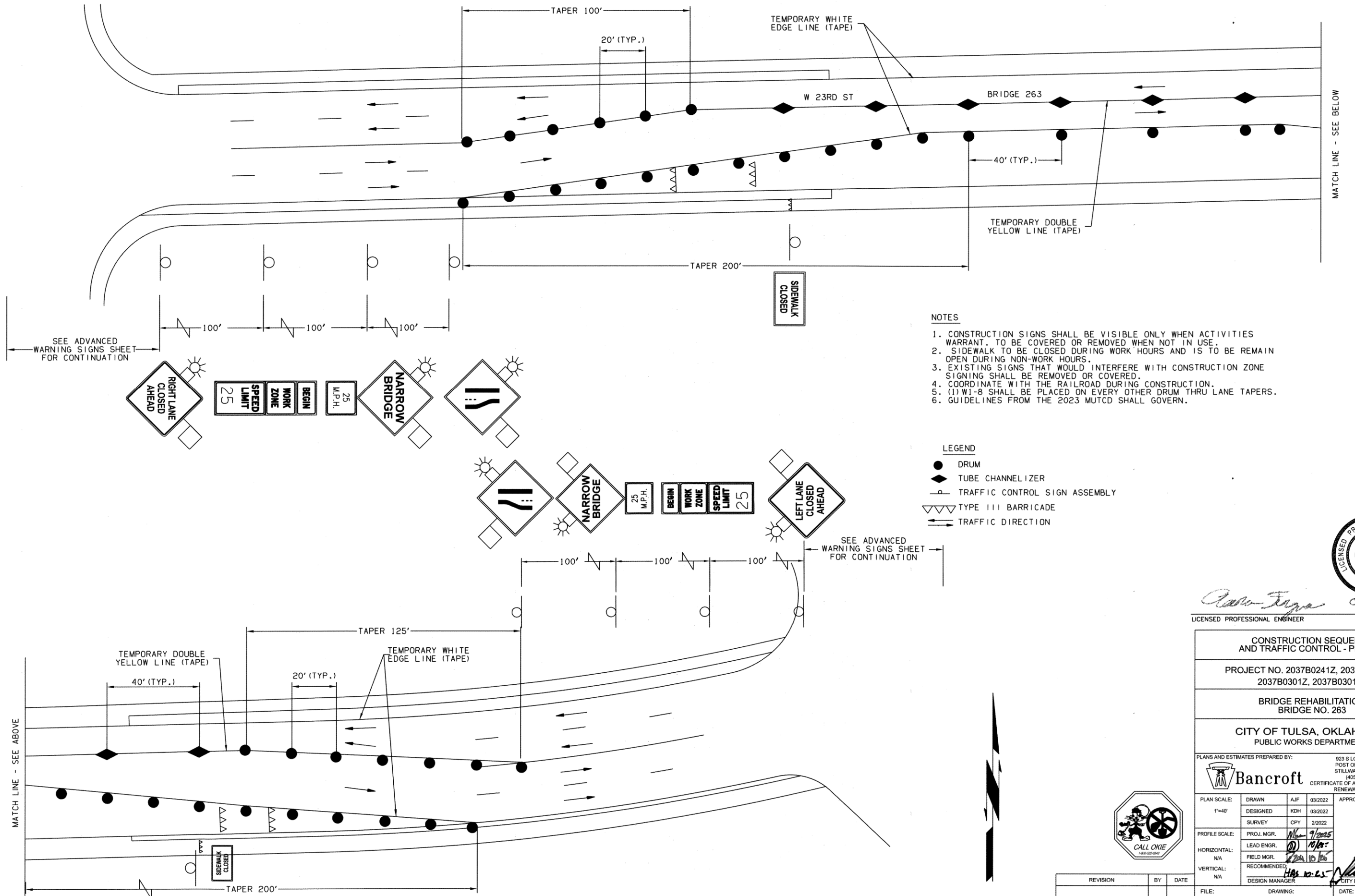
PLAN SCALE:	DRAWN	AJF	03/2022	APPROVED:
1"=40'	DESIGNED	KDH	03/2022	
	SURVEY	CPY	2/2022	
PROFILE SCALE:	PROJ. MGR.	AB	9/2025	
	LEAD ENGR.	CV	10/25	
HORIZONTAL:	FIELD MGR.	MM	10/25	
VERTICAL:	RECOMMENDED	MM	10/25	
N/A	DESIGN MANAGER			

REVISION	BY	DATE	FILE:	DRAWING:	DATE: 04/2022
			ATLAS PAGE NO:	132 & 181	SHEET 34 OF 53 SHEETS

\$\$\$USERS\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$

\$\$\$TIME\$\$\$
\$\$\$PLTDRVS\$\$\$

\$\$\$DATE\$\$\$



NOTES

1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. SIDEWALK TO BE CLOSED DURING WORK HOURS AND IS TO BE REMAIN OPEN DURING NON-WORK HOURS.
3. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
4. COORDINATE WITH THE RAILROAD DURING CONSTRUCTION.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS.
6. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.

LEGEND

- DRUM
- ◆ TUBE CHANNELIZER
- TRAFFIC CONTROL SIGN ASSEMBLY
- ▽ TYPE III BARRICADE
- TRAFFIC DIRECTION



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL - PHASE 2

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 263

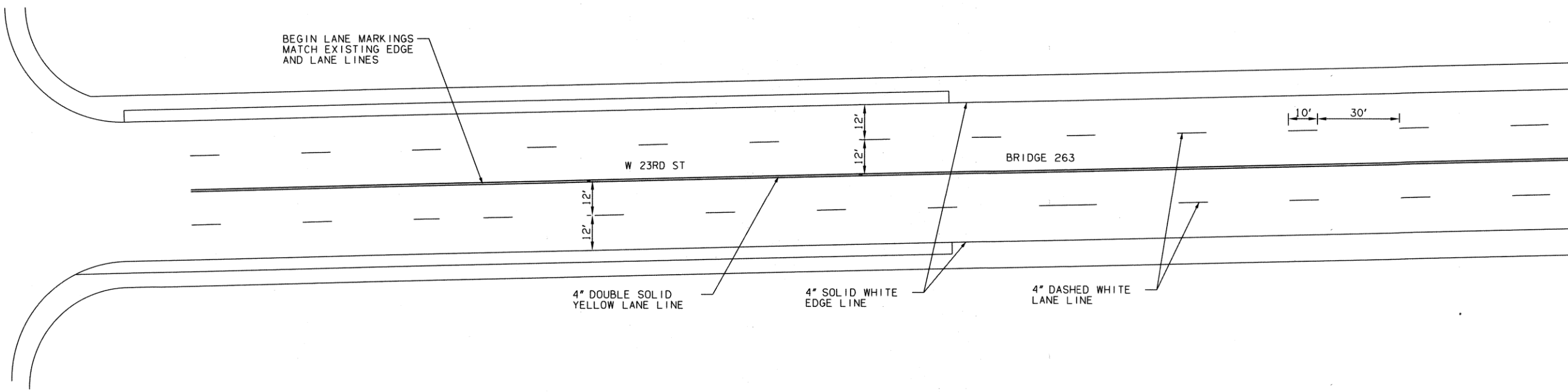
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
 Bancroft
923 S LOWRY STREET
POST OFFICE BOX 436
STILLWATER, OK 74075
(405) 743-3355
CERTIFICATE OF AUTHORIZATION NO. 9205
RENEWAL DATE 6-30-26

PLAN SCALE:	DRAWN	A/JF	03/2022	APPROVED:
1"=40'	DESIGNED	KDH	03/2022	
	SURVEY	CPY	2/2022	
PROFILE SCALE:	PROJ. MGR.	N/A	9/2025	
	LEAD ENGR.	D	10/25	
HORIZONTAL:	FIELD MGR.	10/25	10/25	
VERTICAL:	RECOMMENDED:	10/25	10/25	
	DESIGN MANAGER			
FILE:	DRAWING:		DATE: 04/2022	
ATLAS PAGE NO:	132 & 181		SHEET 35 OF 53 SHEETS	



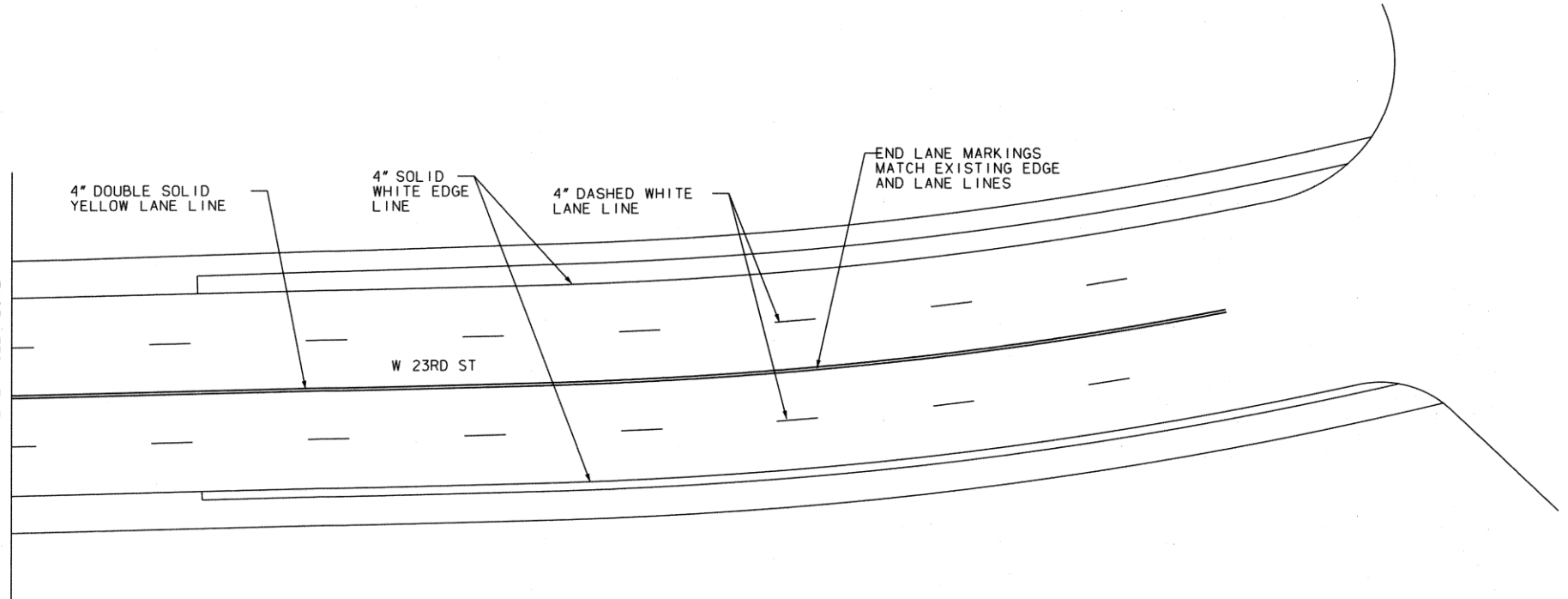
REVISION	BY	DATE



MATCH LINE - SEE BELOW

NOTES

1. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. ALL STRIPING SHALL MATCH EXISTING STRIPING AT PROJECT TERMINAL POINTS.
3. ALL EXISTING SIGNS ARE TO REMAIN IN PLACE.
4. SEE ODOT STANDARDS PM1-1-03 AND PM4-1-02 FOR ADDITIONAL DETAILS.



MATCH LINE - SEE ABOVE



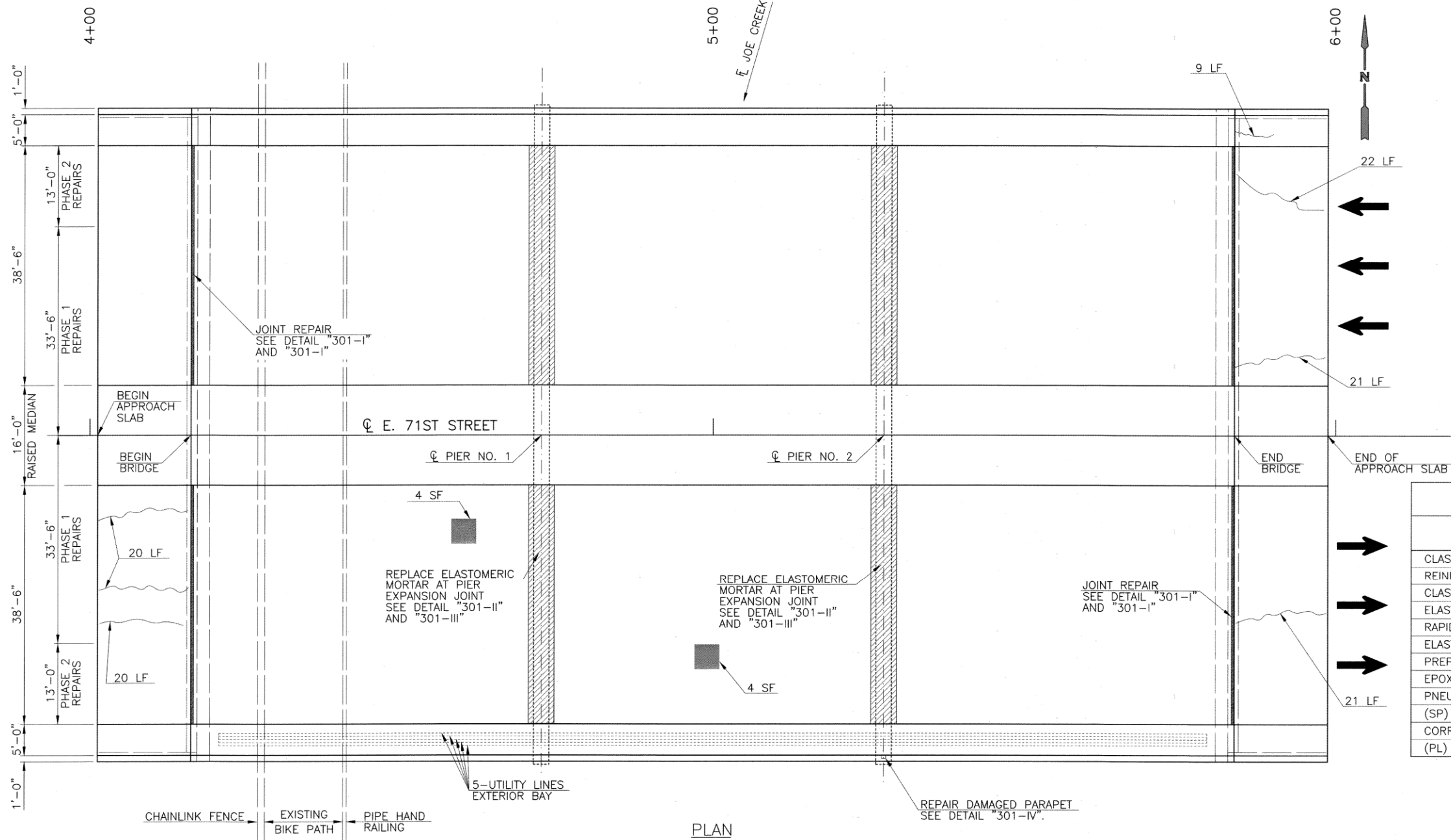
Aaron Ferguson
9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

PAVEMENT MARKINGS			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 263			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: Bancroft 923 S LOWRY STREET POST OFFICE BOX 436 STILLWATER, OK 74076 (405) 743-3355 CERTIFICATE OF AUTHORIZATION NO. 9205 RENEWAL DATE 6-30-26			
PLAN SCALE: 1"=40'	DRAWN A/JF 03/2022	DESIGNED KDH 03/2022	SURVEY CPY 2/2022
PROFILE SCALE:	PROJ. MGR. 1/10/25	LEAD ENGR. 10/15/25	FIELD MGR. 10/15/25
HORIZONTAL: N/A	RECOMMENDED 10-23	DESIGN MANAGER	CITY ENGINEER
VERTICAL: N/A	DATE: 04/2022	SHEET 36 OF 46 SHEETS	

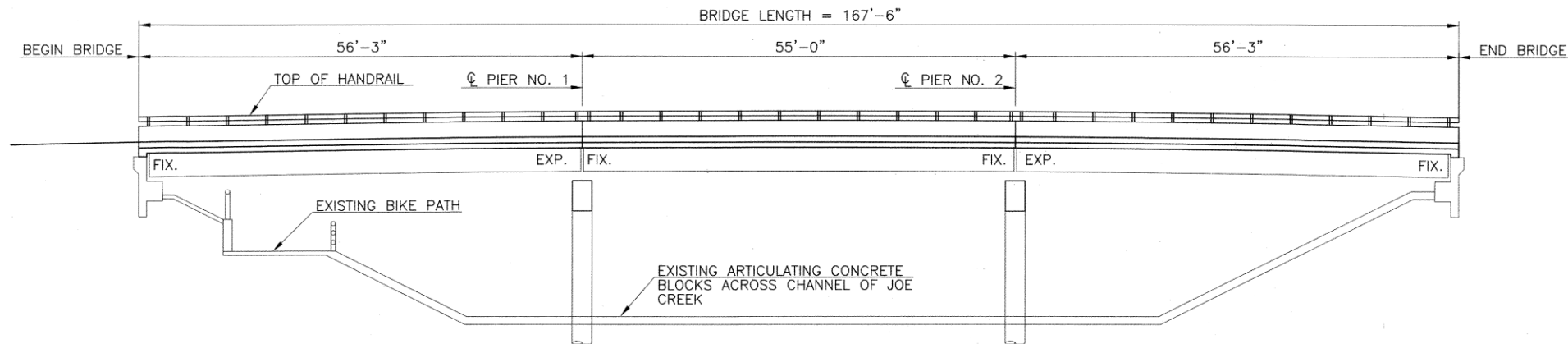


REVISION	BY	DATE

\$\$\$USER\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$DATE\$\$\$
\$\$\$PLTDR\$\$\$
\$\$\$TIME\$\$\$



PLAN



ELEVATION

NOTE:
SEE DECK REPAIR DETAILS SHEET FOR DETAILS
"301-I", "301-II", "301-III", AND "301-IV".

- CLASS B DECK REPAIR
- ELASTOMERIC MORTAR REPAIR
- EPOXY CRACK INJECTION

ITEMIZED QUANTITIES

ITEM	UNIT	TOTAL
CLASS A CONCRETE	CY	2.40
REINFORCING STEEL	LB	200.00
CLASS B BRIDGE DECK REPAIR	SY	2.00
ELASTOMERIC COATING	SF	1,560.20
RAPID CURE JOINT SEALANT	LF	400.00
ELASTOMERIC MORTAR	CF	111.30
PREPARATION OF CRACKS, ABOVE WATER	LF	174.00
EPOXY RESIN, ABOVE WATER	GAL	2.10
PNEUMATICALLY PLACED MORTAR	SY	39.80
(SP) CARBON FIBER-REINFORCED POLYMER	SF	1,625.00
CORROSION INHIBITOR (SURFACE APPLIED)	SY	39.80
(PL) REPAIR BRIDGE ITEM (TYPE A)	EA	1.00



Jose K. Joseph
9/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

GENERAL PLAN AND ELEVATION

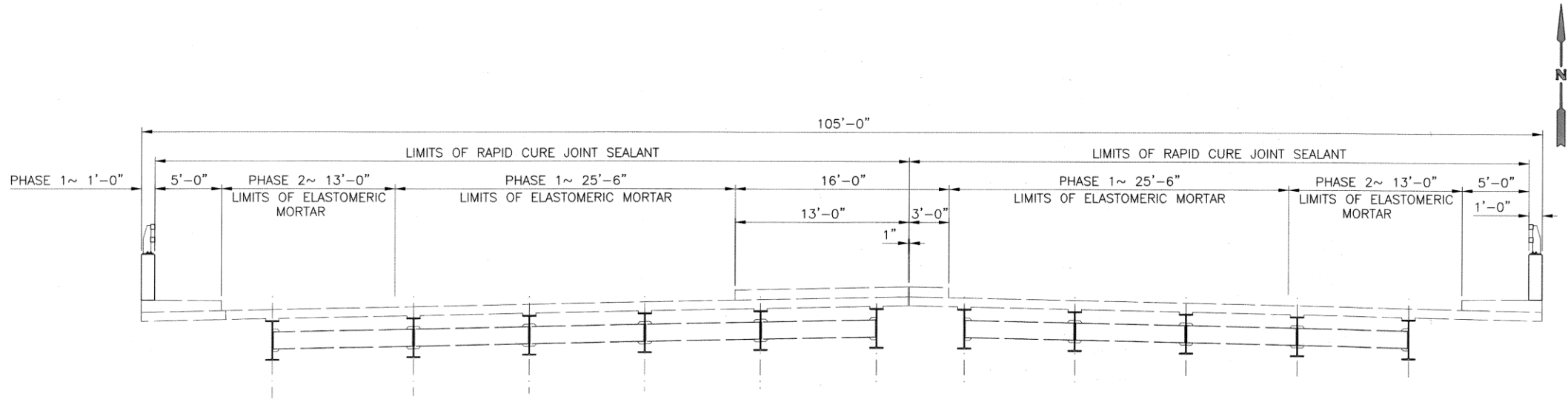
PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 301

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

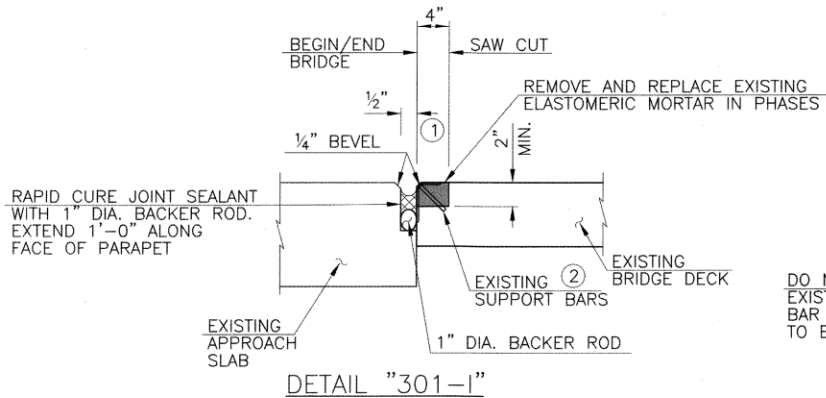
PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 848-2348
CERTIFICATE OF AUTHORIZATION NO. 4008
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.			
	LEAD ENGR.			
HORIZONTAL:	FIELD MGR.			
N/A	RECOMMENDED			
VERTICAL:	DESIGN MANAGER			
N/A				
FILE:	DRAWING:			DATE: 9/25/2025
ATLAS PAGE NO:				SHEET 37 OF 53 SHEETS

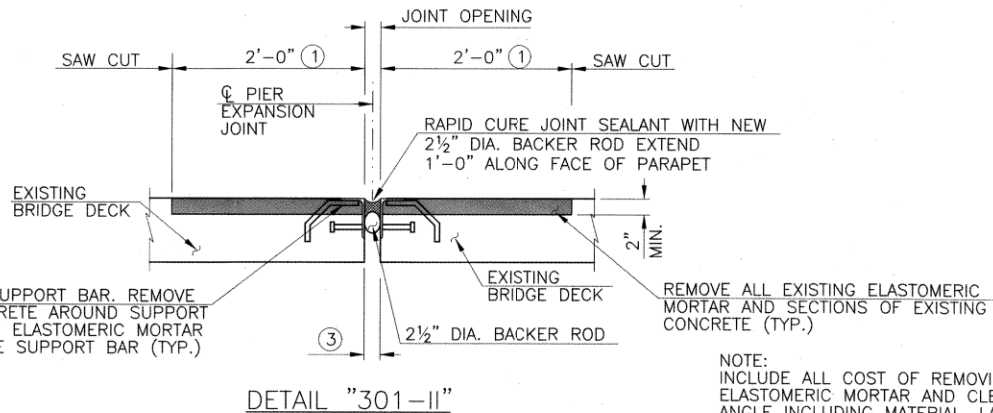


TYPICAL SECTION

SUMMARY OF QUANTITIES (SUPERSTRUCTURE)				
ITEM	UNIT	PHASE 1	PHASE 2	TOTAL
CLASS B BRIDGE DECK REPAIR	SY	1.00	1.00	2.00
RAPID CURE JOINT SEALANT	LF	268.00	144.00	412.00
ELASTOMERIC MORTAR	CF	73.70	37.60	111.30
PREPARATION OF CRACKS, ABOVE WATER	LF	102.00	31.00	133.00
EPOXY RESIN, ABOVE WATER	GAL	1.20	0.40	1.60
(PL) REPAIR BRIDGE ITEM (TYPE A)	EA		1.00	1.00



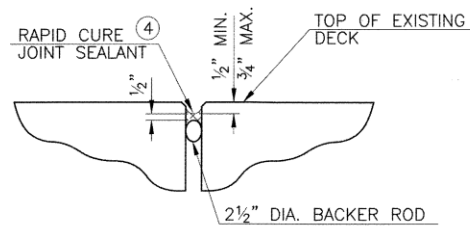
- SAWCUT EXISTING APPROACH SLAB TO CREATE A JOINT. INCLUDE ALL COST OF CUTTING THE JOINT AND PLACING THE BACKER ROD AND JOINT SEALANT INCLUDING LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS UNDER THE CONTRACT UNIT PRICE OF "RAPID CURE JOINT SEALANT".
- REMOVE EXISTING ANGLE AND CUT SUPPORT BARS AS REQUIRED. DO NOT CUT ANY EXISTING REINFORCING STEEL. COST TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF "ELASTOMERIC MORTAR".



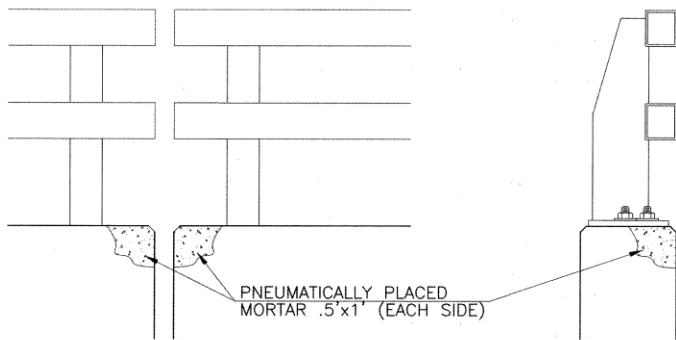
- WIDTH OF JOINT OPENING TO MATCH EXISTING JOINT WIDTH UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

NOTE:
INCLUDE ALL COST OF REMOVING THE EXISTING ELASTOMERIC MORTAR AND CLEANING THE EXISTING ANGLE INCLUDING MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS UNDER THE CONTRACT UNIT PRICE OF "ELASTOMERIC MORTAR".

INCLUDE ALL COST OF REMOVING THE EXISTING RAPID CURE JOINT SEALANT AND BACKER ROD AND REPLACING WITH NEW BACKER ROD AND RAPID CURE JOINT SEALANT UNDER THE CONTRACT UNIT PRICE OF "RAPID CURE JOINT SEALANT".



- INCLUDE ALL COST OF REMOVAL AND REPLACEMENT OF RAPID CURE JOINT SEALANT INCLUDING LABOR AND MATERIALS UNDER THE CONTRACT UNIT PRICE OF "RAPID CURE JOINT SEALANT".



ELEVATION

END

DETAIL "301-IV"

NOTE:
REMOVE UNSOUND CONCRETE AND CLEAN ALL EXPOSED REINFORCING. REPAIR WITH PNEUMATICALLY PLACED MORTAR AND APPLY CORROSION INHIBITOR AFTER ALL REPAIRS ARE COMPLETE. INCLUDE ALL COST OF REMOVAL, REPAIR, INCIDENTALS, EQUIPMENT AND MATERIALS UNDER THE CONTRACT UNIT PRICE OF "REPAIR BRIDGE ITEM - TYPE A".



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

DECK REPAIR DETAILS

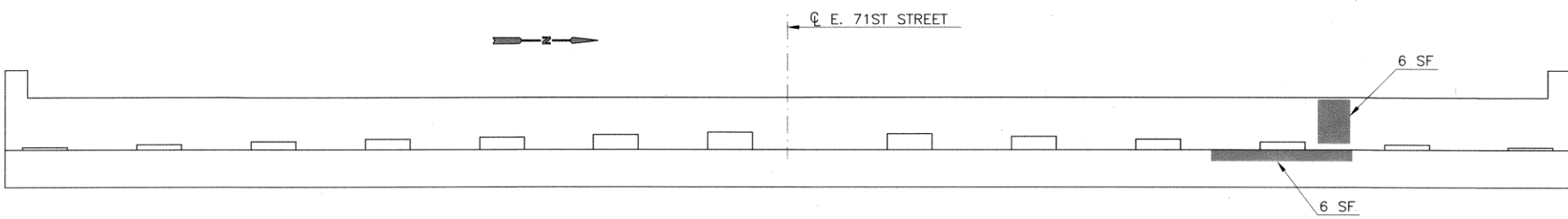
PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 301

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 848-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.	11/25/2025		
	LEAD ENGR.	10/25		
HORIZONTAL:	FIELD MGR.	10/25		
N/A	RECOMMENDED			
VERTICAL:	DESIGN MANAGER	10/25		
N/A				
FILE:	DRAWING:		DATE: 9/25/2025	
ATLAS PAGE NO:				SHEET 38 OF 53 SHEETS



ELEVATION
ABUTMENT NO. 1

 PNEUMATICALLY PLACED MORTAR
 EPOXY INJECTION CRACK REPAIR

NOTE:
SEE COMMON REPAIR DETAILS AND NOTES SHEET
FOR REPAIR AND ELASTOMERIC COATING DETAILS.

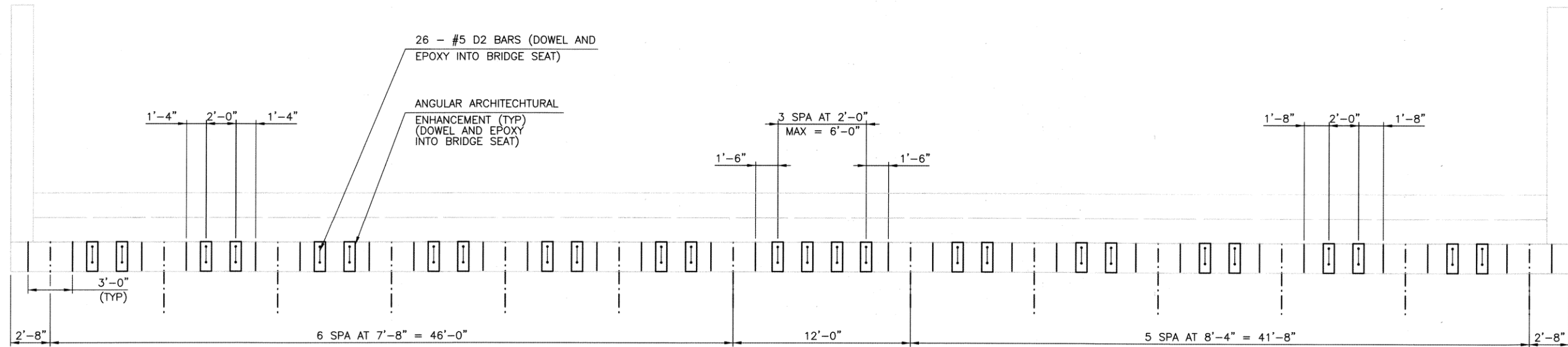
SUMMARY OF QUANTITIES (SUBSTRUCTUIRE)						
ITEM	UNIT	ABUTMENT NO. 1	PIER NO. 1	PIER NO. 2	ABUTMENT NO. 2	TOTAL
CLASS A CONCRETE	CY	1.20			1.20	2.40
REINFORCING STEEL	LB	100.00			100.00	200.00
ELASTOMERIC COATING	SF	348.70	431.40	431.40	348.70	1,560.20
PREPARATION OF CRACKS, ABOVE WATER	LF		15.00	26.00		41.00
EPOXY RESIN, ABOVE WATER	GAL		0.20	0.30		0.50
PNEUMATICALLY PLACED MORTAR	SY	1.40	19.80	20.00		39.80
(SP) CARBON FIBER-REINFORCED POLYMER	SF		726.00	899.00		1,625.00
(SP) CORROSION INHIBITOR (SURFACE APPLIED)	SY	1.40	19.80	20.00		39.80



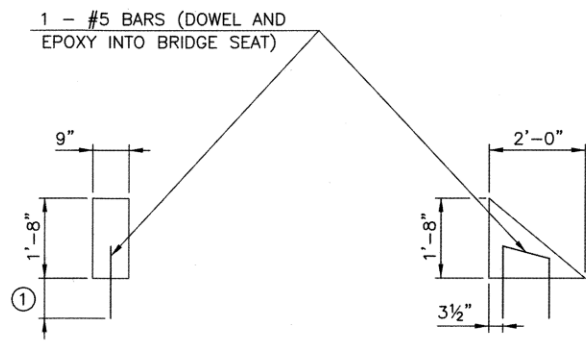
Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER

ABUTMENT REPAIR DETAILS SHEET 1 OF 2			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405)-848-2348 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	4/2022
N/A	DESIGNED	JKJ	4/2022
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	<i>Alison 9/25/25</i>	
HORIZONTAL:	LEAD ENGR.	<i>JKJ 10/25</i>	
N/A	FIELD MGR.	<i>JKJ 10/25</i>	
VERTICAL:	RECOMMENDED:	<i>JKJ 10-25</i>	
N/A	DESIGN MANAGER	<i>JKJ 10-25</i>	
FILE:	DRAWING:	DATE: 9/25/2025	
ATLAS PAGE NO:		SHEET 39 OF 53 SHEETS	

REVISION	BY	DATE

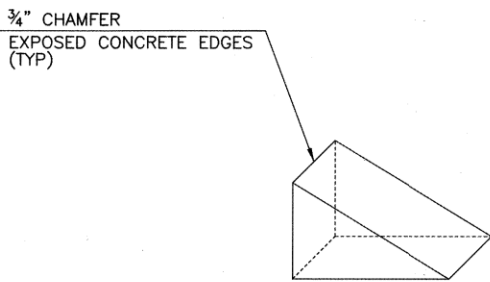


PLAN OF ANGULAR ARCHITECTURAL ENHANCEMENT AT ABUTMENT NO. 1
ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 OPPOSITE HAND

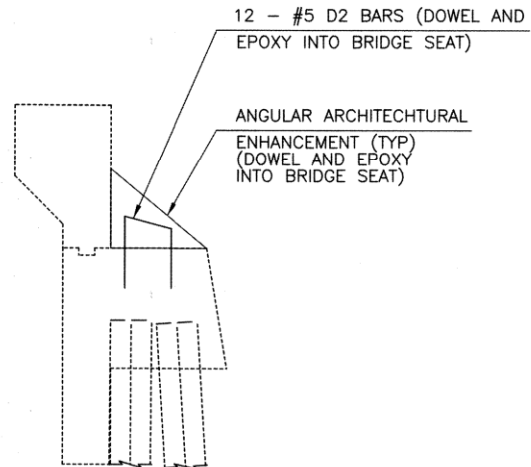


ELEVATION
① 10" MINIMUM EMBEDMENT

TYPICAL SECTION



ISOMETRIC VIEW



SECTION THRU ABUTMENT AT PILE

ANGULAR ARCHITECTURAL ENHANCEMENTS
INSTALL 12 AT EACH ABUTMENT, COSTS INCLUDED IN
"CLASS A CONCRETE" AND "REINFORCING STEEL"

BAR LIST - ABUTMENT NO. 1				
MARK	SIZE	NO.	FORM	LENGTH
D2	#5	26	BNT.	3'-8"

BAR LIST - ABUTMENT NO. 2				
MARK	SIZE	NO.	FORM	LENGTH
D2	#5	26	BNT.	3'-8"

SUMMARY OF QUANTITIES - ABUTMENT NO. 1		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	CY	1.20
REINFORCING STEEL	LB	100.00

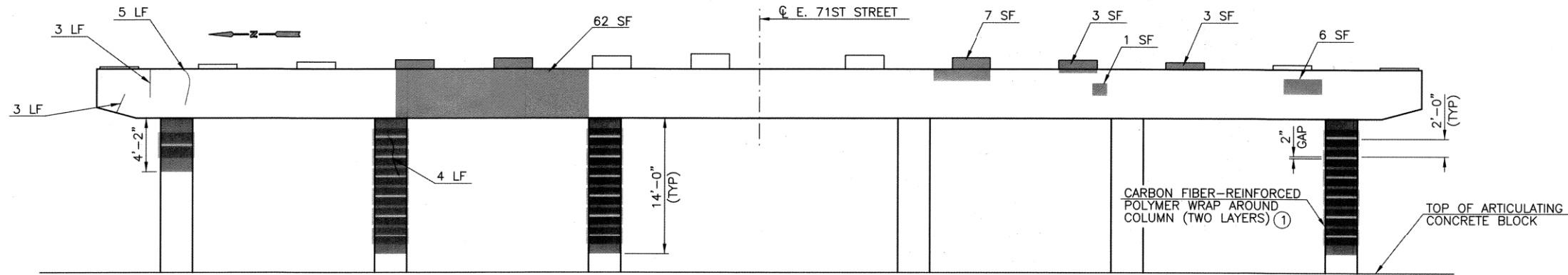
SUMMARY OF QUANTITIES - ABUTMENT NO. 2		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	CY	1.20
REINFORCING STEEL	LB	100.00

REVISION	BY	DATE

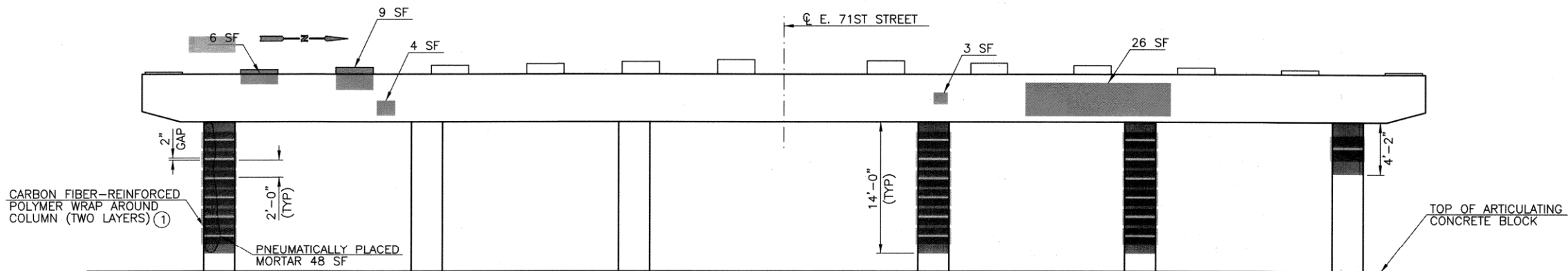
FILE:	DRAWING:	DATE: 9/25/2025
ATLAS PAGE NO:		SHEET 40 OF 53 SHEETS



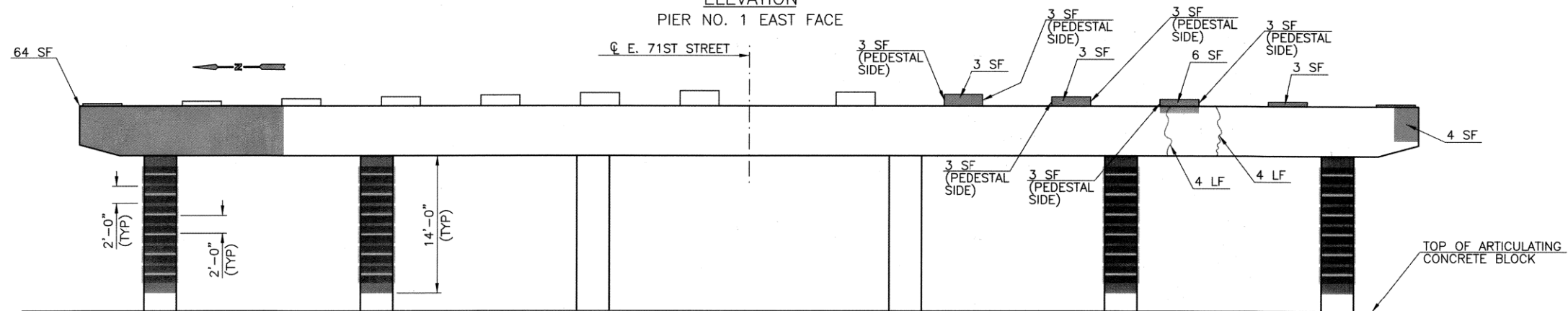
ABUTMENT REPAIR DETAILS SHEET 2 OF 2	
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A	
BRIDGE REHABILITATION BRIDGE NO. 301	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
PLANS AND ESTIMATES PREPARED BY: CP&Y 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27	
PLAN SCALE: N/A	DRAWN: LRJ 4/2022 DESIGNED: JKJ 4/2022 SURVEY:
PROFILE SCALE: N/A	PROJ. MGR. LEAD ENGR. FIELD MGR. RECOMMENDED: DESIGN MANAGER:
HORIZONTAL: N/A	
VERTICAL: N/A	



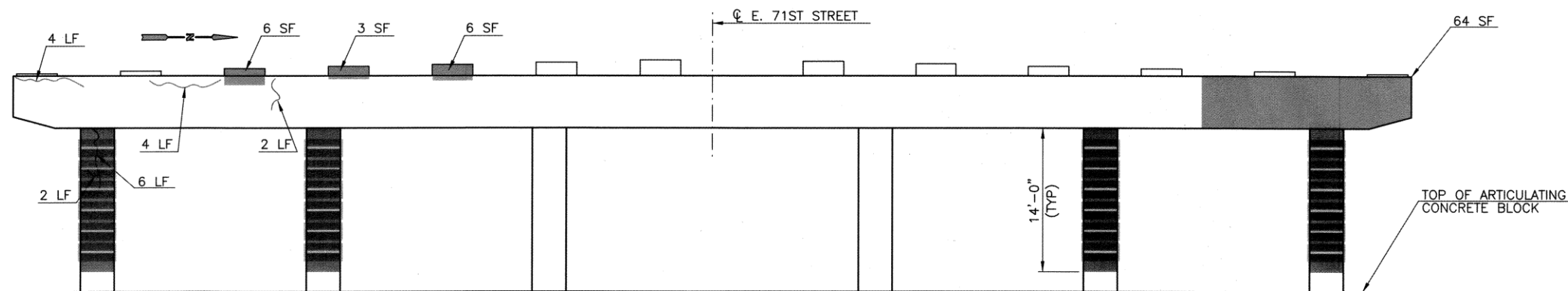
ELEVATION
PIER NO. 1 WEST FACE



ELEVATION
PIER NO. 1 EAST FACE



ELEVATION
PIER NO. 2 WEST FACE



ELEVATION
PIER NO. 2 EAST FACE

- PNEUMATICALLY PLACED MORTAR
- CARBON FIBER-REINFORCED POLYMER WRAP
- EPOXY INJECTION CRACK REPAIR

① CONSTRUCTION NOTES:

1. REMOVE UNSOUND CONCRETE AND CLEAN ALL EXPOSED REINFORCING STEEL.
2. REPAIR WITH PNEUMATICALLY PLACED MORTAR.
3. APPLY CORROSION INHIBITOR AFTER REPAIRING WITH PNEUMATICALLY PLACED MORTAR.
4. APPLY ONE LAYER OF CARBON FIBER-REINFORCED POLYMER.
5. APPLY SECOND LAYER OF CARBON FIBER-REINFORCEMENT AND OVERLAP AT LEAST 6" MINIMUM WITH FIRST LAYER.

NOTES:

INSTALLATION OF THE CARBON FIBER-REINFORCED POLYMER SHALL BE APPLIED PER THE MANUFACTURER'S SPECIFICATIONS AND SHALL BE APPROVED BY THE ENGINEER. ALL COSTS OF CARBON FIBER-REINFORCED POLYMER ON THE BEAMS INCLUDING MATERIAL, EPOXY, LABOR, EQUIPMENT AND ANY INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "(SP) CARBON FIBER-REINFORCED POLYMER".



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

PIER REPAIR DETAILS

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 301

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

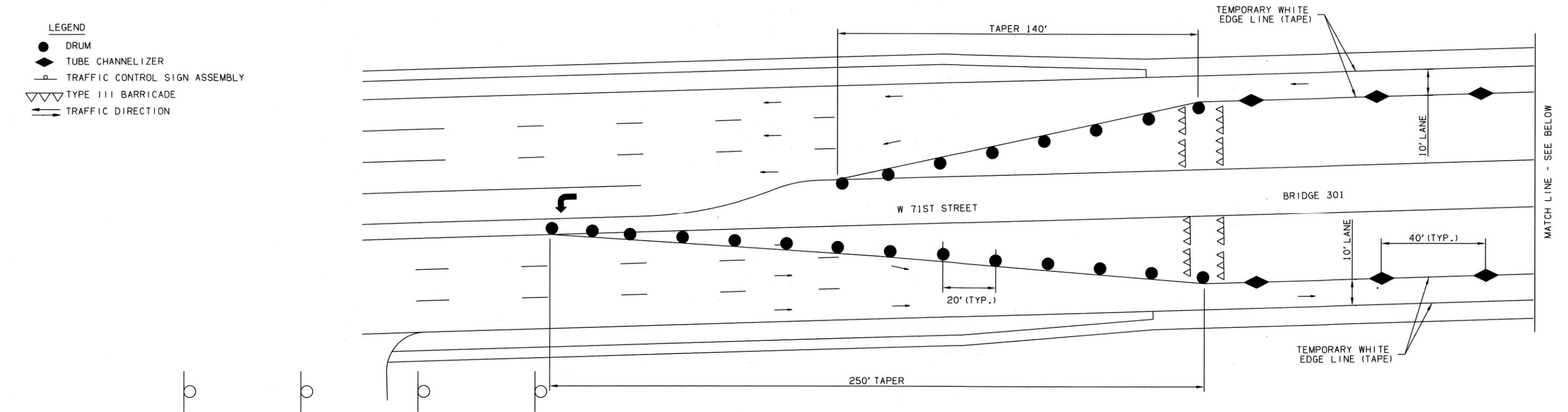
PLANS AND ESTIMATES PREPARED BY:
CP&Y
MEMORIAL PLACE
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 948-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.		11/26/2025	
	LEAD ENGR.		10/16/25	
HORIZONTAL:	FIELD MGR.		10/16/25	
VERTICAL:	RECOMMENDED		10-25	
	DESIGN MANAGER			

FILE:	DRAWING:	DATE: 9/25/2025
ATLAS PAGE NO:		SHEET 41 OF 53 SHEETS

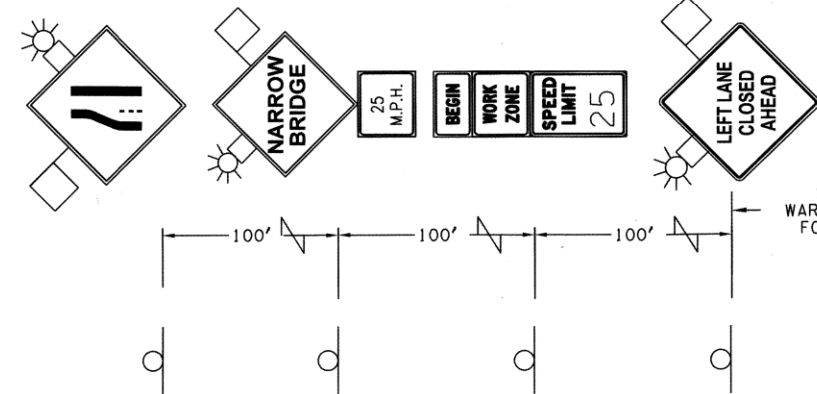
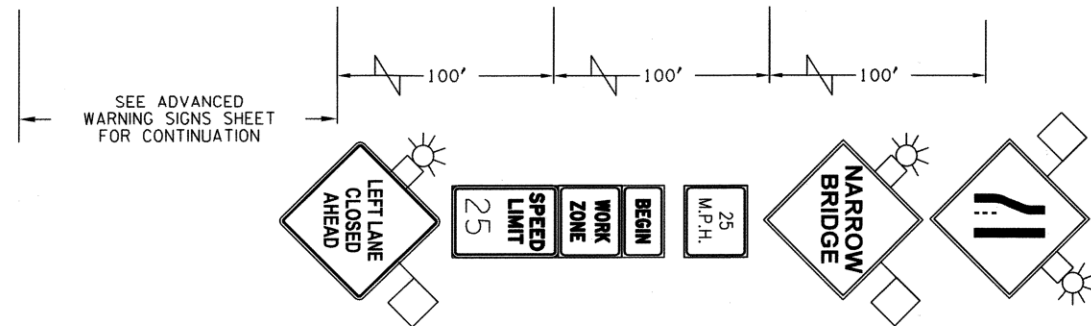
REVISION	BY	DATE

- LEGEND
- DRUM
 - ◆ TUBE CHANNELIZER
 - TRAFFIC CONTROL SIGN ASSEMBLY
 - ▽ TYPE III BARRICADE
 - TRAFFIC DIRECTION



NOTES

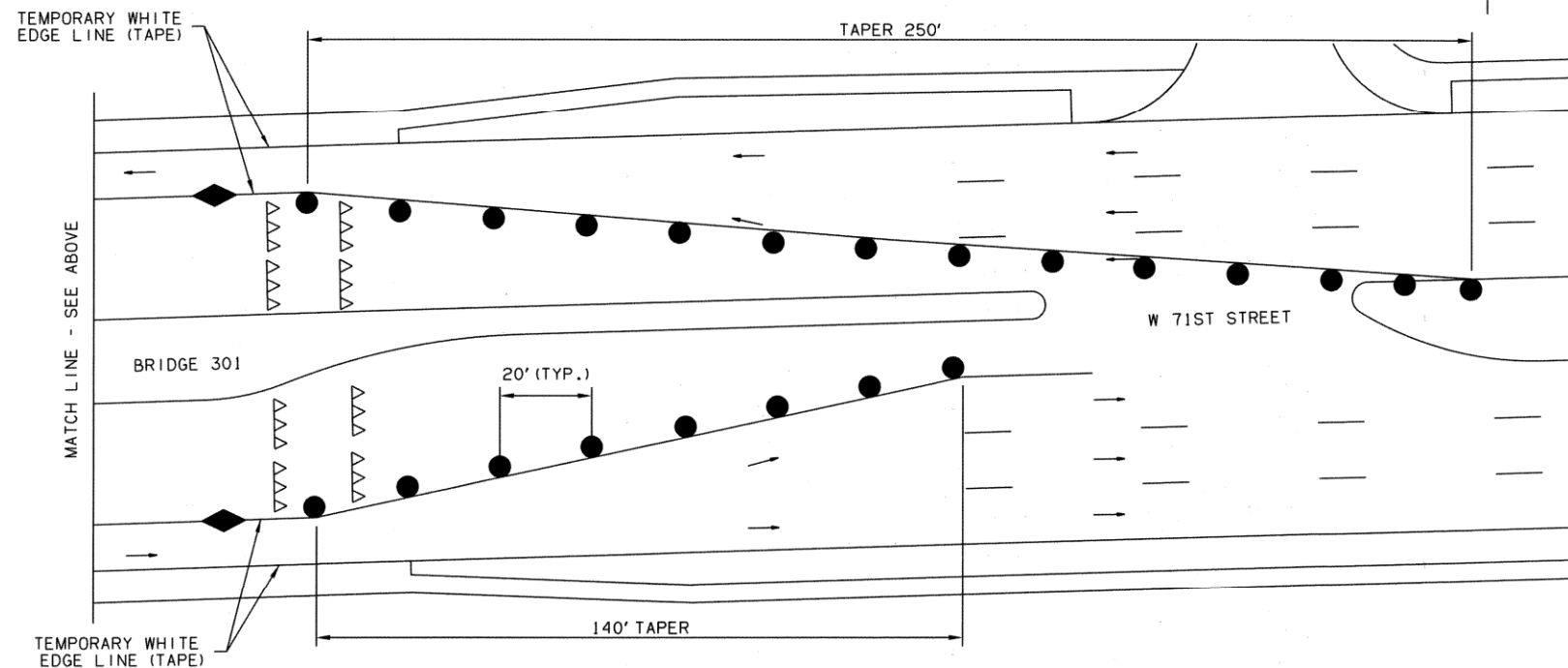
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. COORDINATE WITH THE RAILROAD DURING CONSTRUCTION.
4. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS.
5. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.



SEE ADVANCED WARNING SIGNS SHEET FOR CONTINUATION



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL



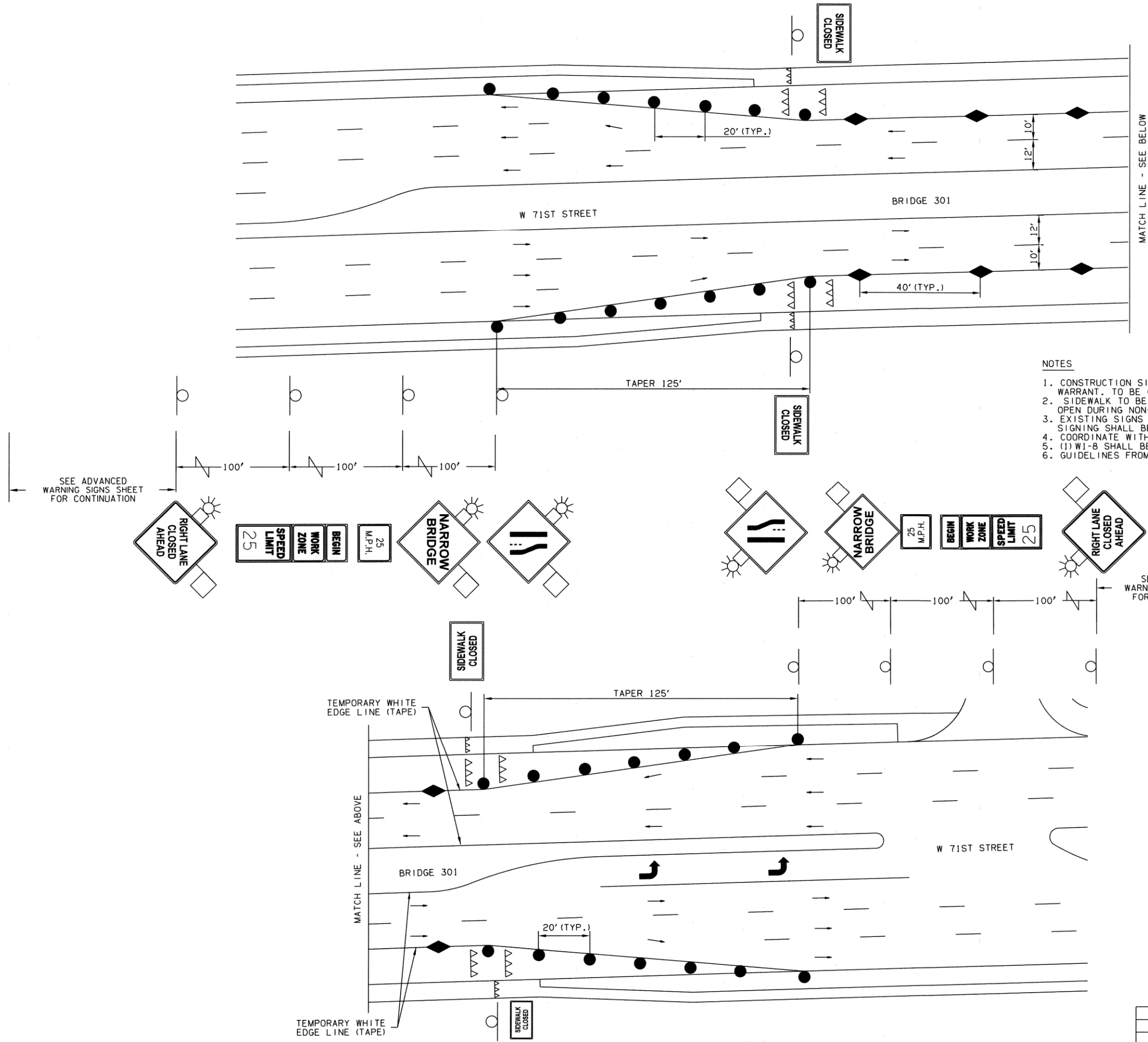
REVISION	DATE

FILE:	DRAWING:	DATE: 04/2022
ATLAS PAGE NO:	132 & 181	SHEET 42 OF 53 SHEETS

CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL - PHASE 1	
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A	
BRIDGE REHABILITATION BRIDGE NO. 301	
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT	
PLANS AND ESTIMATES PREPARED BY: Bancroft	
923 S LOWRY STREET POST OFFICE BOX 436 STILLWATER, OK 74076 (405) 743-3355 CERTIFICATE OF AUTHORIZATION NO. 9205 RENEWAL DATE 6-30-26	
PLAN SCALE: 1"=40'	DRAWN: AJF 03/2022
DESIGNED: KDH 03/2022	SURVEY: CPY 2/2022
PROFILE SCALE: N/A	PROJ. MGR. M. 9/2025
HORIZONTAL: N/A	LEAD ENGR. 1/1/25
VERTICAL: N/A	FIELD MGR. 1/1/25
RECOMMENDED: N/A	DESIGN MANAGER: 10-25 J. 1/1/25
APPROVED:	CITY ENGINEER

\$\$\$USER\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$DATE\$\$\$
\$\$\$PLTDRV\$\$\$

\$\$\$USER\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$DATE\$\$\$
\$\$\$PLTDRVS\$\$\$
\$\$\$TIME\$\$\$



NOTES

1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. SIDEWALK TO BE CLOSED DURING WORK HOURS AND IS TO BE REMAIN OPEN DURING NON-WORK HOURS.
3. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
4. COORDINATE WITH THE RAILROAD DURING CONSTRUCTION.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS.
6. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.

LEGEND

- DRUM
- ◆ TUBE CHANNELIZER
- ▬ TRAFFIC CONTROL SIGN ASSEMBLY
- ▽▽▽ TYPE III BARRICADE
- TRAFFIC DIRECTION

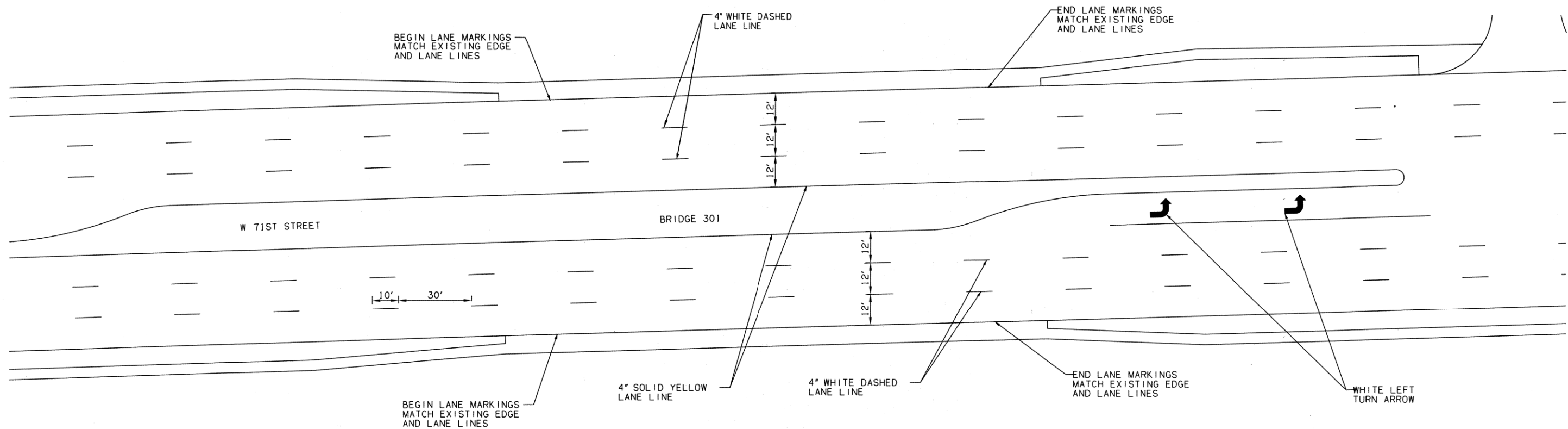


Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL - PHASE 2			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		923 S LOWRY STREET POST OFFICE BOX 436 STILLWATER, OK 74076 (405) 743-3355 CERTIFICATE OF AUTHORIZATION NO. 9205 RENEWAL DATE 6-30-26	
PLAN SCALE:	DRAWN	A/JF	03/2022
	DESIGNED	KDH	03/2022
	SURVEY	CPY	2/2022
PROFILE SCALE:	PROJ. MGR.	<i>W. H. H.</i>	9/2025
	LEAD ENGR.	<i>D. J.</i>	10/25
	FIELD MGR.	<i>W. H. H.</i>	10/25
	RECOMMENDED	<i>W. H. H.</i>	10/25
	DESIGN MANAGER	<i>W. H. H.</i>	10/25
	CITY ENGINEER	<i>W. H. H.</i>	10/25
FILE:	DRAWING:	DATE:	04/2022
ATLAS PAGE NO:	132 & 181	SHEET	43 OF 53 SHEETS



\$\$\$USER\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$DATE\$\$\$
\$\$\$PLTDRVS\$\$\$
\$\$\$TIME\$\$\$



NOTES

1. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. ALL STRIPING SHALL MATCH EXISTING STRIPING AT PROJECT TERMINAL POINTS.
3. ALL EXISTING SIGNS ARE TO REMAIN IN PLACE.
4. SEE ODOT STANDARDS PM1-1-03 AND PM4-1-02 FOR ADDITIONAL DETAILS.



Aaron Ferguson
9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

PAVEMENT MARKINGS

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 301

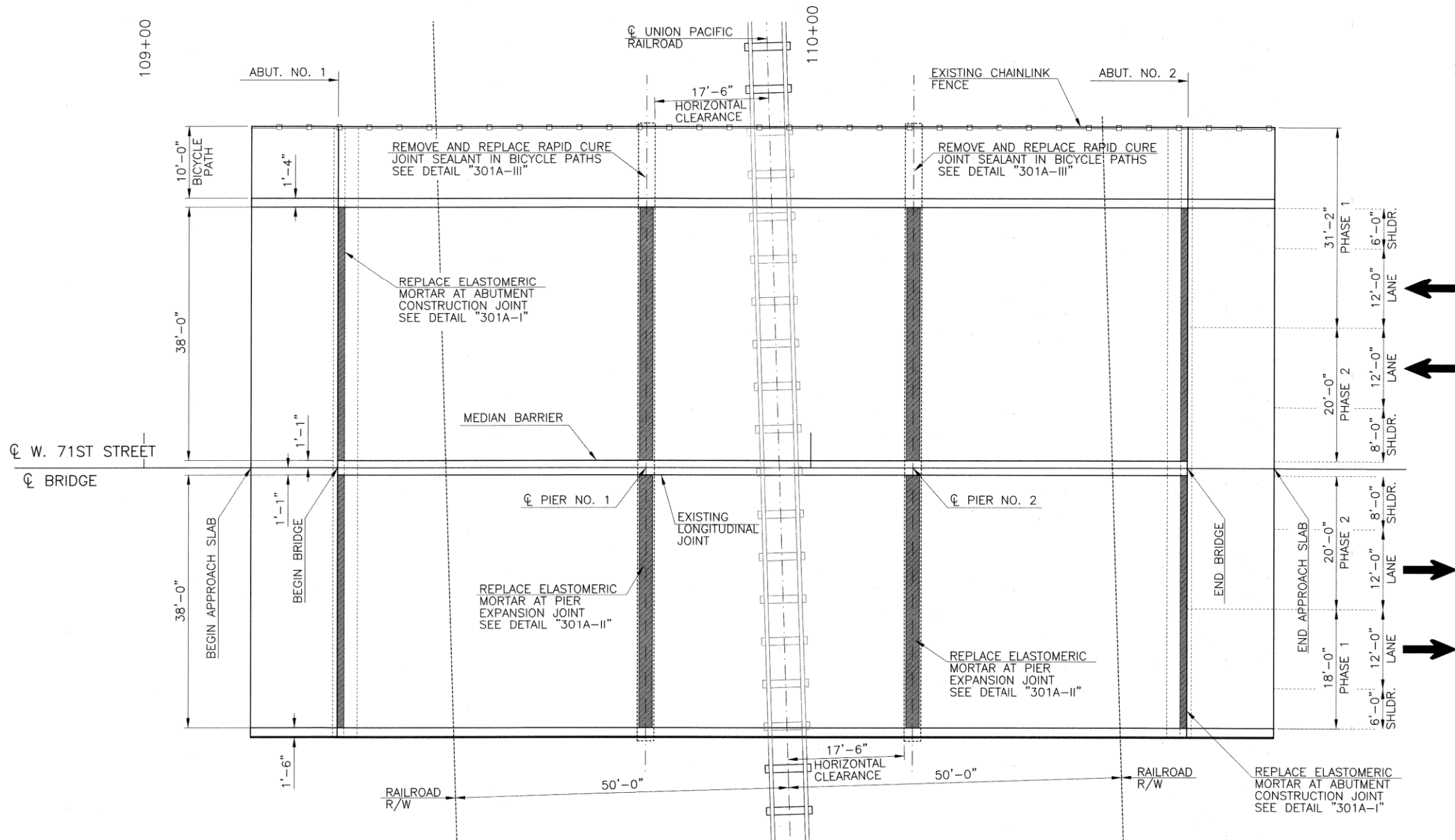
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: 923 S LOWRY STREET
POST OFFICE BOX 436
STILLWATER, OK 74076
(405) 743-3355
Bancroft
CERTIFICATE OF AUTHORIZATION NO. 9205
RENEWAL DATE 6-30-26

PLAN SCALE:	DRAWN	AJF	03/2022	APPROVED:
DESIGNED	KDH	03/2022		
SURVEY	CPY	2/2022		
PROFILE SCALE:	PROJ. MGR.	11/2025		
LEAD ENGR.	10/25			
HORIZONTAL:	FIELD MGR.	10/25		
RECOMMENDED:	DESIGN MANAGER	10/25		
VERTICAL:	N/A			



REVISION	DATE
FILE:	DRAWING:
ATLAS PAGE NO:	132 & 181
SHEET 44 OF 53 SHEETS	

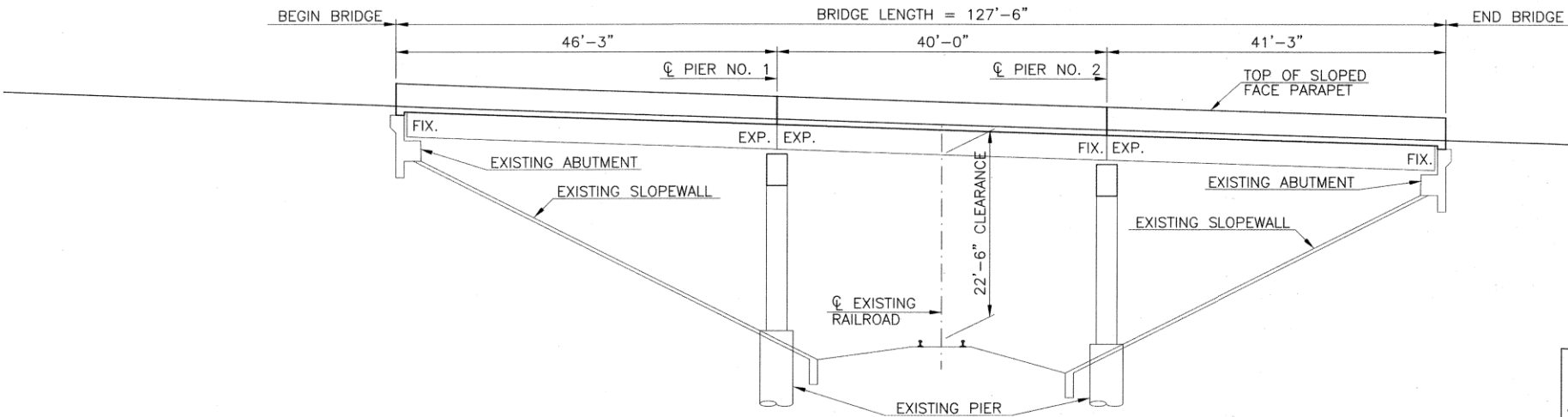


PLAN

ELASTOMERIC MORTAR REPAIR AND RAPID CURE JOINT SEALANT

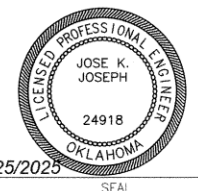
NOTE:
SEE DECK REPAIR DETAILS SHEET FOR
DETAIL "301A-I" AND DETAIL "301A-II".

ITEMIZED QUANTITIES		
ITEM	UNIT	TOTAL
CLSM BACKFILL	CY	10.00
CLASS A CONCRETE	CY	2.20
REINFORCING STEEL	LB	170.00
ELASTOMERIC COATING	SF	1,701.00
RAPID CURE JOINT SEALANT	LF	330.00
ELASTOMERIC MORTAR	CF	33.80
PREPARATION OF CRACKS, ABOVE WATER	LF	6.00
EPOXY RESIN, ABOVE WATER	GAL	0.10
PNEUMATICALLY PLACED MORTAR	SY	5.50
DECK AREA SEALED (FLOODCOATS)	SY	1,373.70
(SP) CARBON FIBER-REINFORCED POLYMER	SF	32.50
CORROSION INHIBITOR (SURFACE APPLIED)	SY	10.00
(PL) INSTALLATION OF BRIDGE ITEMS	EA	18.00



ELEVATION

UNION PACIFIC RAILROAD
DOT 435324F
MILE POST 144.30
JENKS SUBDIVISION
W. 71ST STREET, TULSA

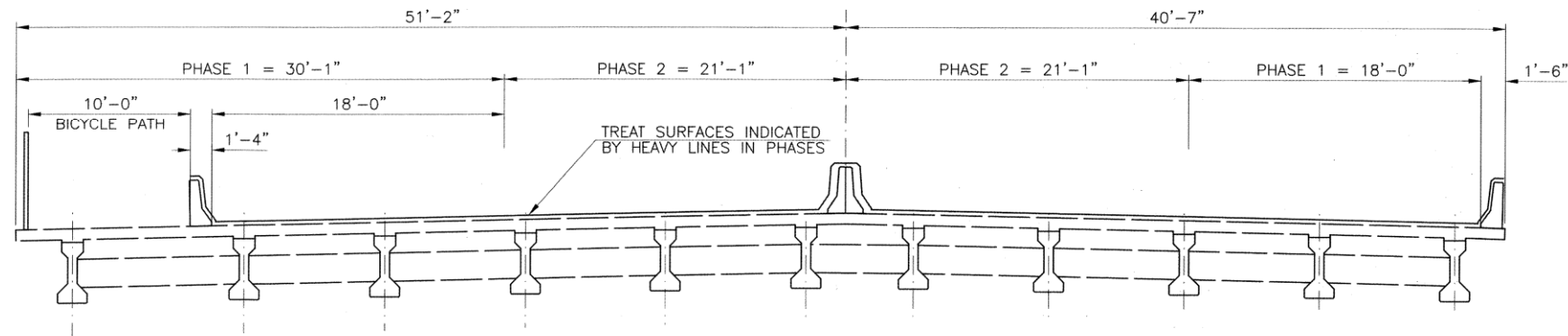


Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER

GENERAL PLAN AND ELEVATION			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301A			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		MEMORIAL PLACE 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 948-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27	
PLAN SCALE:	DRAWN	LRJ	4/2022
	DESIGNED	JKJ	4/2022
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	11/20/2025	APPROVED: CITY ENGINEER
HORIZONTAL:	LEAD ENGR.	10/25	
	FIELD MGR.	10/25	
VERTICAL:	RECOMMENDED	10-25	
DESIGN MANAGER		DATE: 9/25/2025	
FILE:		DRAWING:	
ATLAS PAGE NO:		SHEET 45 OF 53 SHEETS	

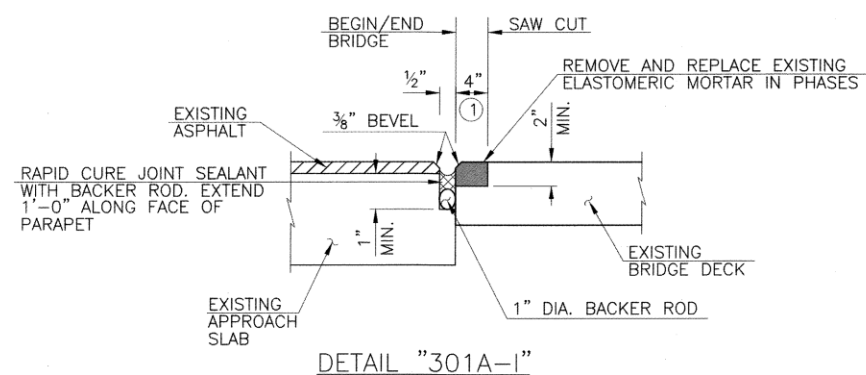
REVISION	BY	DATE

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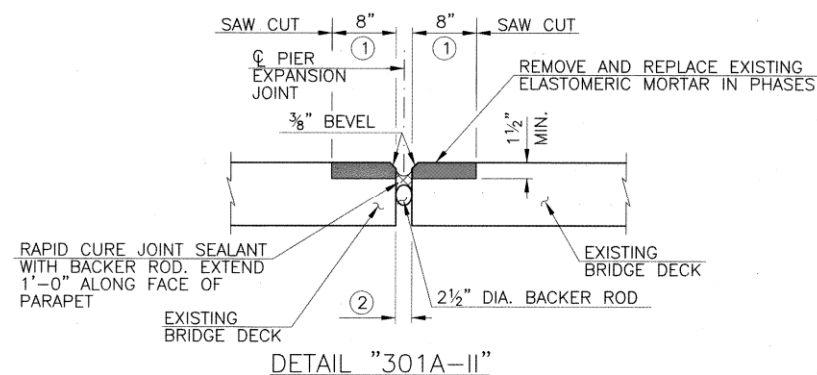
FLOOD COAT TREATMENT DETAILS

NOTE:
APPLY FLOOD COAT TREATMENT TO DECK AND APPROACH
SLAB AFTER ALL REPAIRS ARE COMPLETE IN EACH PHASE.
SEE TRAFFIC CONTROL SHEETS FOR ADDITIONAL DETAILS.



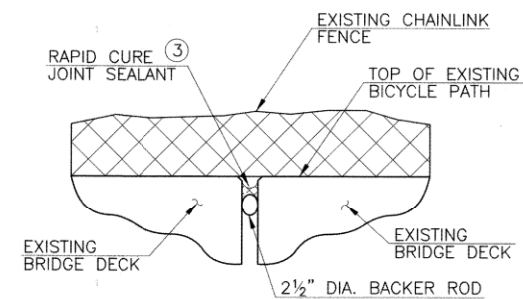
DETAIL "301A-I"

- 1 REMOVE ALL EXISTING ELASTOMERIC MORTAR. THE EXTENDS OF THE REMOVAL MAY VARY FROM THE DIMENSIONS SHOWN. INCLUDE ALL COST OF REMOVAL AND REPLACEMENT OF ELASTOMERIC MORTAR AND RAPID CURE JOINT SEALANT, INCLUDING LABOR AND MATERIALS UNDER THE CONTRACT UNIT PRICE OF "ELASTOMERIC MORTAR" AND "RAPID CURE JOINT SEALANT".



DETAIL "301A-II"

- 2 WIDTH OF JOINT OPENING TO MATCH EXISTING JOINT WIDTH UNLESS DIRECTED OTHERWISE BY THE ENGINEER.



DETAIL "301A-III"

- 3 INCLUDE ALL COST OF REMOVAL AND REPLACEMENT OF RAPID CURE JOINT SEALANT WITHIN THE BICYCLE PATH INCLUDING LABOR AND MATERIALS UNDER THE CONTRACT UNIT PRICE OF "RAPID CURE JOINT SEALANT".

UNION PACIFIC RAILROAD
DOT 435324F
MILE POST 144.30
JENKS SUBDIVISION
W. 71ST STREET, TULSA



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

DECK REPAIR DETAILS

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

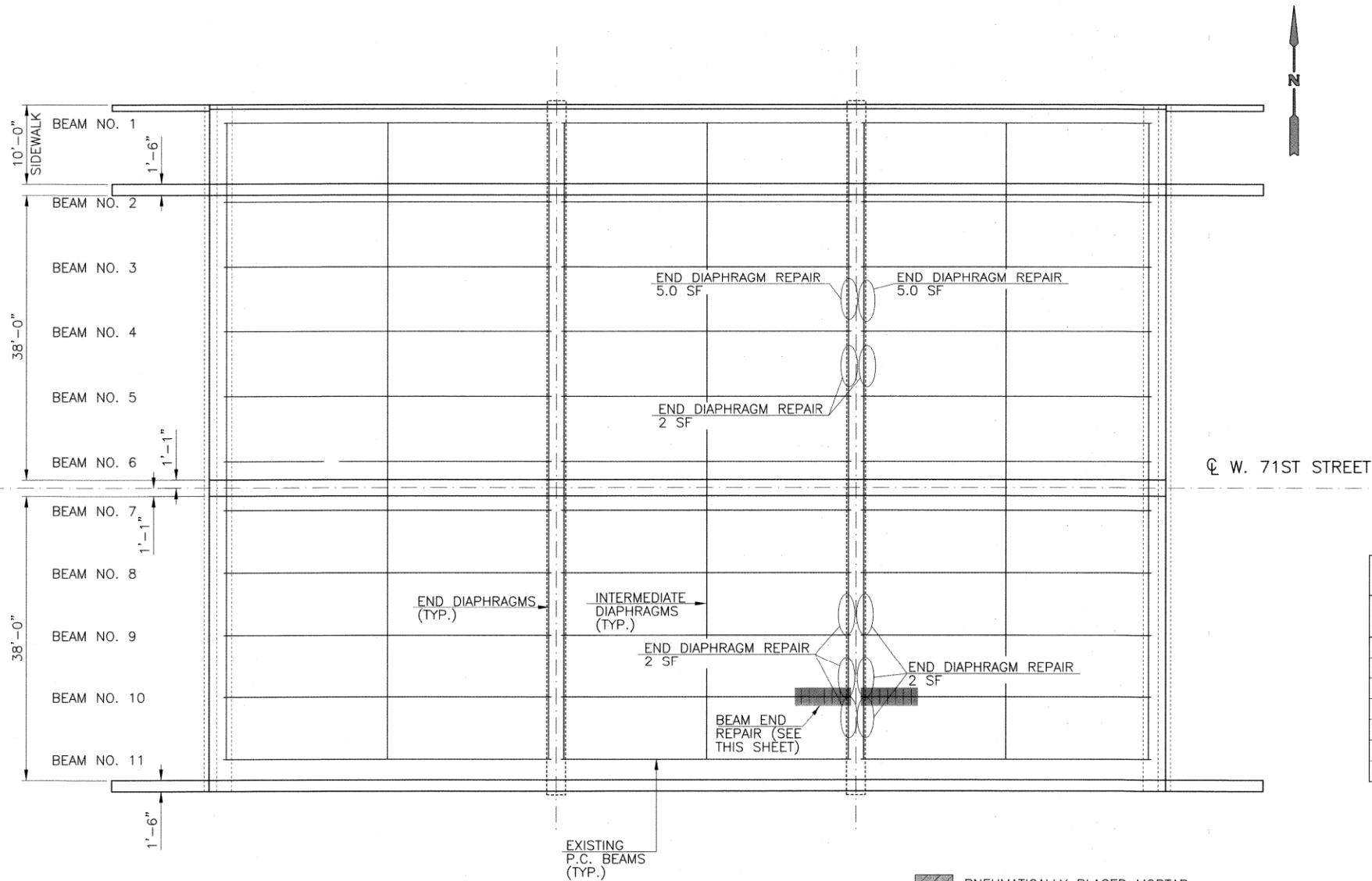
BRIDGE REHABILITATION
BRIDGE NO. 301A

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 948-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.			
	LEAD ENGR.			
HORIZONTAL:	FIELD MGR.			
	RECOMMENDED			
VERTICAL:	DESIGN MANAGER			
FILE:	DRAWING:			
ATLAS PAGE NO:				

REVISION	BY	DATE



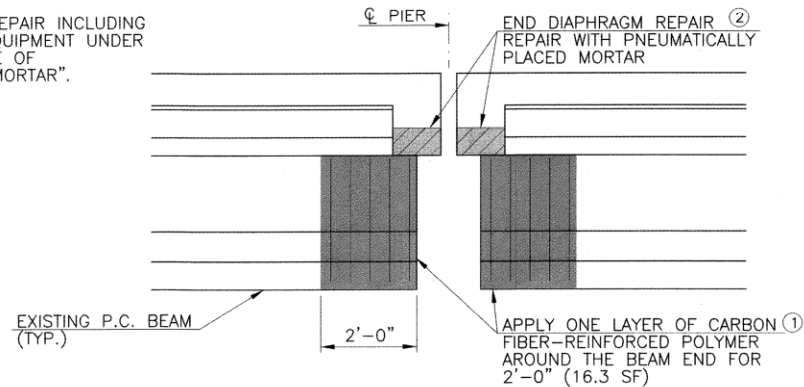
SUMMARY OF QUANTITIES (SUPERSTRUCTURE)				
ITEM	UNIT	PHASE 1	PHASE 2	TOTAL
RAPID CURE JOINT SEALANT	LF	152.00	178.00	330.00
ELASTOMERIC MORTAR	CF	16.00	17.80	33.80
PNEUMATICALLY PLACED MORTAR	SY	1.60	0.50	2.10
DECK AREA SEALED (FLOODCOATS)	SY	647.90	725.80	1,373.70
(SP) CARBON FIBER-REINFORCED POLYMER	SF	32.50		32.50
CORROSION INHIBITOR (SURFACE APPLIED)	SY	5.30	0.50	5.80
(PL) INSTALLATION OF BRIDGE ITEMS	EA	18.00		18.00

NOTES:
INSTALLATION OF THE CARBON FIBER-REINFORCED POLYMER SHALL BE APPLIED AS PER THE MANUFACTURER'S SPECIFICATIONS AND SHALL BE APPROVED BY THE ENGINEER.

ALL COSTS OF CARBON FIBER-REINFORCED POLYMER ON THE BEAMS INCLUDING MATERIAL, EPOXY, LABOR, EQUIPMENT AND ANY INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "(SP) CARBON FIBER-REINFORCED POLYMER".

OMIT CORROSION INHIBITOR AND CARBON FIBER-REINFORCED POLYMER AT END DIAPHRAGMS AND ANCHOR PLATE LOCATIONS.

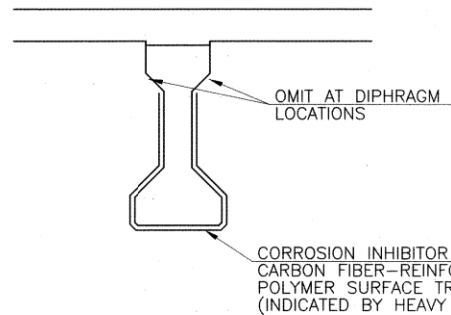
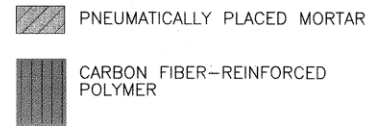
② INCLUDE ALL COST FOR REPAIR INCLUDING MATERIALS, LABOR AND EQUIPMENT UNDER THE CONTRACT UNIT PRICE OF "PNEUMATICALLY PLACED MORTAR".



TYPICAL BEAM AND END DIAPHRAGM REPAIR DETAIL

- ① CONSTRUCTION NOTES:
1. REMOVE UNSOUND CONCRETE AND CLEAN ALL EXPOSED REINFORCING STEEL AND APPLY AN INORGANIC ZINC PRIMER TO ANY EXPOSED REINFORCING STRANDS.
 2. REPAIR WITH PNEUMATICALLY PLACED MORTAR.
 3. APPLY CORROSION INHIBITOR AFTER REPAIRING WITH PNEUMATICALLY PLACED MORTAR.
 4. APPLY ONE LAYER OF CARBON FIBER-REINFORCED POLYMER.

FRAMING PLAN



TYPICAL BEAM AND END DIAPHRAGM REPAIR DETAIL

UNION PACIFIC RAILROAD
DOT 435324F
MILE POST 144.30
JENKS SUBDIVISION
W. 71ST STREET, TULSA



Jose K. Joseph
LICENSED PROFESSIONAL ENGINEER
09/25/2025
SEAL

BEAM AND DIAPHRAGM REPAIR DETAILS

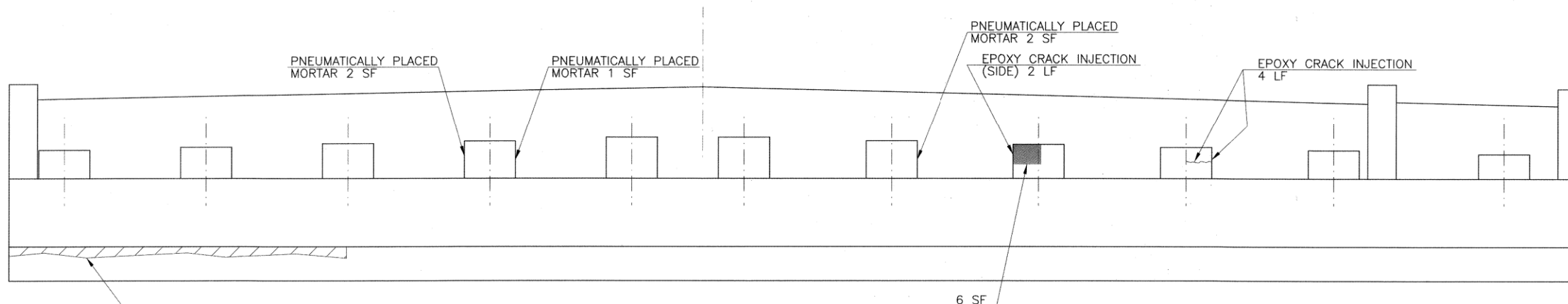
PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 301A

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405)-848-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	KJK	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.	W. 9/2025		
	LEAD ENGR.	W. 10/25		
HORIZONTAL:	N/A			
	FIELD MGR.	W. 10/25		
VERTICAL:	N/A			
	RECOMMENDED	W. 10/25		
	DESIGN MANAGER			
FILE:	DRAWING:		DATE: 9/25/2025	
ATLAS PAGE NO:				SHEET 47 OF 53 SHEETS

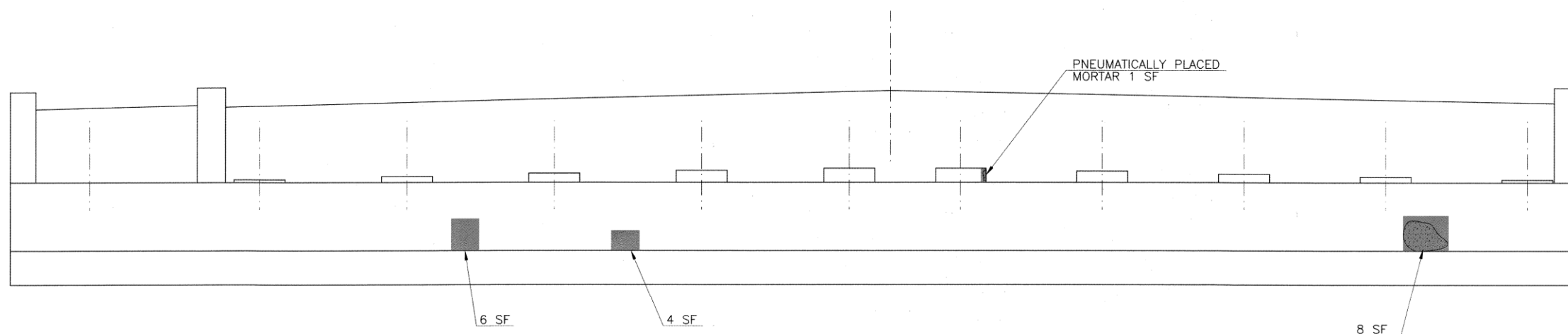


ELEVATION
ABUTMENT NO. 1

 PNEUMATICALLY PLACED MORTAR REPAIR

 EPOXY INJECTION CRACK REPAIR

NOTE:
SEE COMMON REPAIR DETAILS AND NOTES SHEET FOR REPAIR AND ELASTOMERIC COATING DETAILS.



ELEVATION
ABUTMENT NO. 2

SUMMARY OF QUANTITIES (SUBSTRUCTURE)						
ITEM	UNIT	ABUTMENT NO. 1	PIER NO. 1	PIER NO. 2	ABUTMENT NO. 2	TOTAL
CLSM BACKFILL	CY	10.00				10.00
CLASS A CONCRETE	CY	1.10			1.10	2.20
REINFORCING STEEL	LB	85.00			85.00	170.00
ELASTOMERIC COATING	SF	440.70	409.80	409.80	440.70	1,701.00
PREPARATION OF CRACKS, ABOVE WATER	LF	6.00				6.00
EPOXY RESIN, ABOVE WATER	GAL	0.10				0.10
PNEUMATICALLY PLACED MORTAR	SY	1.30			2.20	3.40
CORROSION INHIBITOR (SURFACE APPLIED)	SY	2.00			2.20	4.20

UNION PACIFIC RAILROAD
DOT 435324F
MILE POST 144.30
JENKS SUBDIVISION
W. 71ST STREET, TULSA



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER

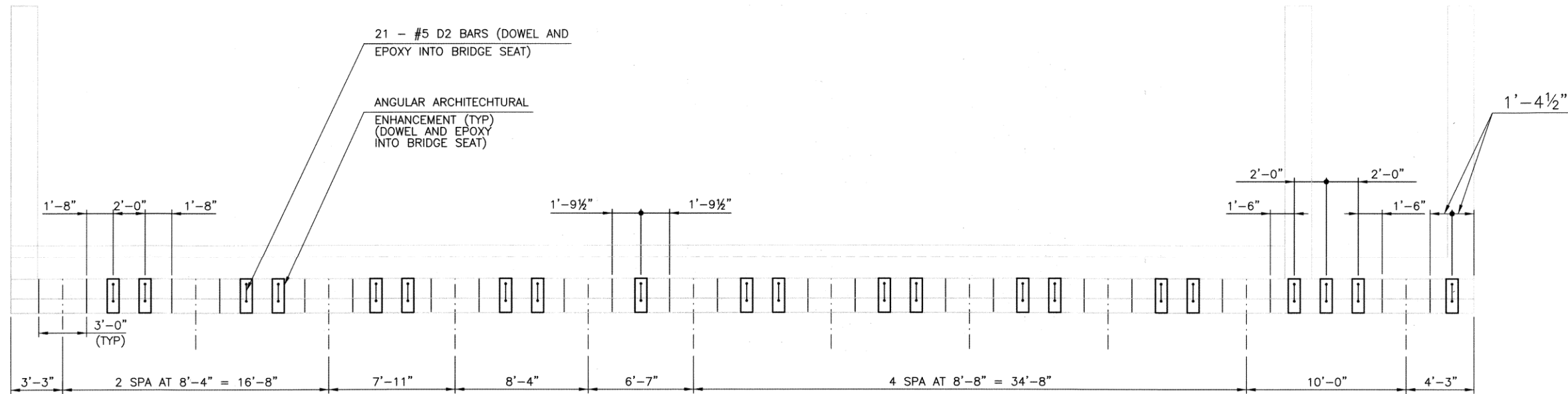
.ABUTMENT REPAIR DETAILS SHEET 1 OF 2			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301A			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: CP&Y MEMORIAL PLACE 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405)-848-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27			
PLAN SCALE:	DRAWN	LRJ	4/2022
N/A	DESIGNED	JKJ	4/2022
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	<i>JKJ</i>	9/2025
HORIZONTAL:	LEAD ENGR.	<i>JKJ</i>	9/25
N/A	FIELD MGR.	<i>JKJ</i>	10/25
VERTICAL:	RECOMMENDED	<i>JKJ</i>	10-25
N/A	DESIGN MANAGER	<i>JKJ</i>	
FILE:	DRAWING:	DATE: 9/25/2025	
ATLAS PAGE NO:			SHEET 48 OF 53 SHEETS

REVISION	BY	DATE

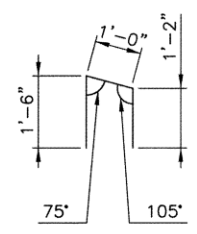
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9/25/2025

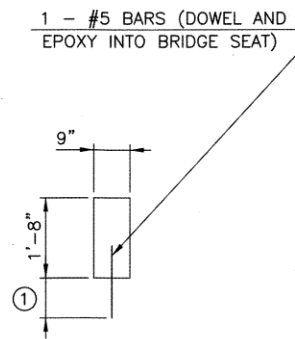
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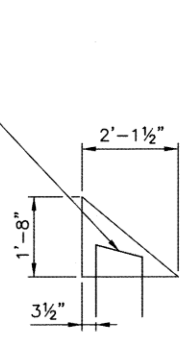
PLAN OF ANGULAR ARCHITECTURAL ENHANCEMENT AT ABUTMENT NO. 1
ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 OPPOSITE HAND



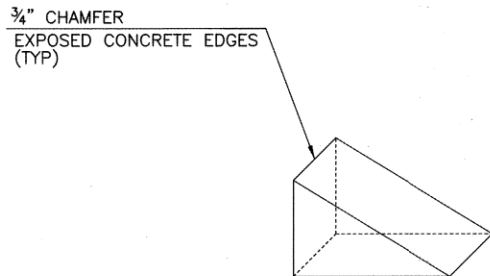
D2 #5 X 3'-8"



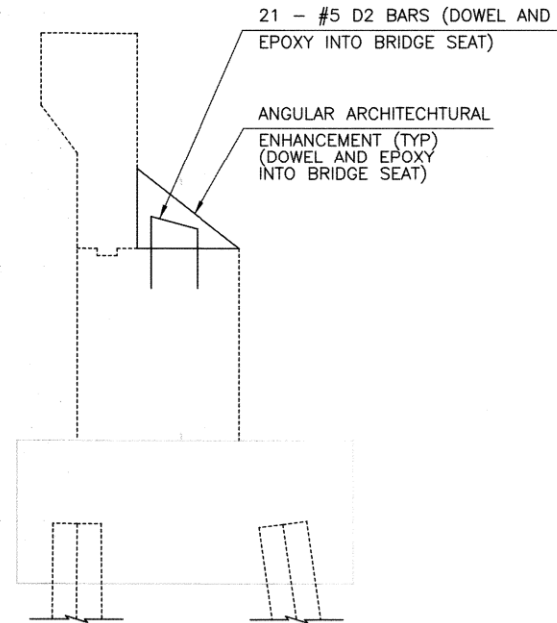
ELEVATION
① 10" MINIMUM EMBEDMENT



TYPICAL SECTION



ISOMETRIC VIEW



SECTION THRU ABUTMENT AT PILE

ANGULAR ARCHITECTURAL ENHANCEMENTS
INSTALL 12 AT EACH ABUTMENT, COSTS INCLUDED IN
"CLASS A CONCRETE" AND "REINFORCING STEEL"

BAR LIST - ABUTMENT NO. 1				
MARK	SIZE	NO.	FORM	LENGTH
D2	#5	21	BNT.	3'-8"

BAR LIST - ABUTMENT NO. 2				
MARK	SIZE	NO.	FORM	LENGTH
D2	#5	21	BNT.	3'-8"

SUMMARY OF QUANTITIES - ABUTMENT NO. 1		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	CY	1.10
REINFORCING STEEL	LB	85.00

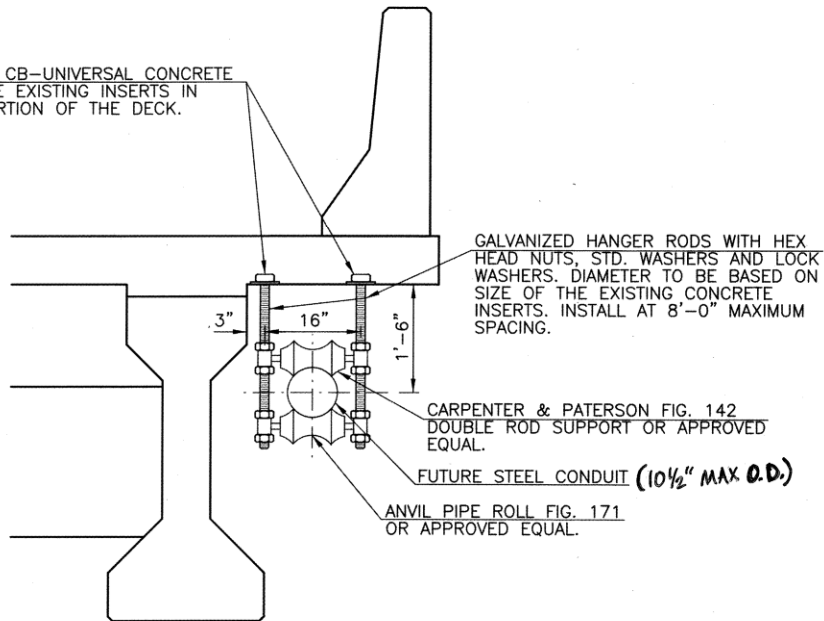
SUMMARY OF QUANTITIES - ABUTMENT NO. 2		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	CY	1.10
REINFORCING STEEL	LB	85.00

UNION PACIFIC RAILROAD
DOT 435324F
MILE POST 144.30
JENKS SUBDIVISION
W. 71ST STREET, TULSA

JOSE K. JOSEPH
LICENSED PROFESSIONAL ENGINEER
24918
OKLAHOMA
9/25/2025
SEAL

ABUTMENT REPAIR DETAILS SHEET 2 OF 2				
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A				
BRIDGE REHABILITATION BRIDGE NO. 301A				
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT				
PLANS AND ESTIMATES PREPARED BY: CP&Y 7633 E. 63RD PLACE, SUITE 310 TULSA, OKLAHOMA 74133 (405) 848-2346 CERTIFICATE OF AUTHORIZATION NO. 4006 RENEWAL DATE 6-30-27				
PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.		9/2/25	
	LEAD ENGR.		10/5/25	
HORIZONTAL:	FIELD MGR.		10/10/25	
N/A	RECOMMENDED:		10/10/25	
VERTICAL:	DESIGN MANAGER		10/10/25	
N/A				
FILE:	DRAWING:		DATE: 9/25/2025	
ATLAS PAGE NO:				SHEET 49 OF 53 SHEETS

① EXISTING GRINNELL CB-UNIVERSAL CONCRETE INSERT 282 LOCATE EXISTING INSERTS IN THE OVERHANG PORTION OF THE DECK.



UTILITIES HANGER DETAIL

① IF UNIVERSAL CONCRETE INSERTS ARE NOT LOCATED ON THE EXISTING BRIDGE, THEN PROVIDE $\frac{3}{4}$ " DIAMETER POST INSTALLED EPOXY ANCHORS (HILTI HIT-HY 200 OR APPROVED EQUAL) WITH 4" MINIMUM EMBEDMENT AT 8'-0" MAXIMUM SPACING. ATTACH A GALVANIZED COUPLER TO INSTALL THE UTILITY HANGER. INCLUDE ALL COST OF POST INSTALLED ANCHORS INCLUDING MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS UNDER THE CONTRACT UNIT PRICE OF "(PL) INSTALLATION OF BRIDGE ITEMS".

CONSTRUCTION NOTES

CONTRACTOR SHALL INSTALL A UTILITY HANGER ON THE SOUTH CANTILEVER OF THE BRIDGE DECK. STEEL CONDUIT TO BE INSTALLED AT A LATER DATE.

ALL UTILITY HANGER FITTINGS SHALL BE RIGID GALVANIZED STEEL IN ACCORDANCE WITH SECTION 709 OF THE STANDARD SPECIFICATIONS. CONDUIT CLAMPS AND CONNECTIONS SHALL BE GALVANIZED MALLEABLE IRON. GALVANIZING SHALL BE IN ACCORDANCE WITH SECTION 724.06 OF THE STANDARD SPECIFICATIONS.

AT EACH EXPANSION JOINT, PROVIDE A CONDUIT EXPANSION DEVICE TO ACCOMMODATE BRIDGE MOVEMENT.

CONTRACTOR TO SUBMIT LAYOUT, DRAWINGS AND CALCULATIONS TO THE ENGINEER PRIOR TO INSTALLATION. DRAWINGS AND CALCULATIONS OF THE PROPOSED HANGER SYSTEM SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA.

ALL COSTS OF THE UTILITY HANGER INSTALLATION INCLUDING MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "(PL) INSTALLATION OF BRIDGE ITEMS".



Jose K. Joseph
09/25/2025
LICENSED PROFESSIONAL ENGINEER SEAL

UTILITIES HANGER DETAIL

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 301A

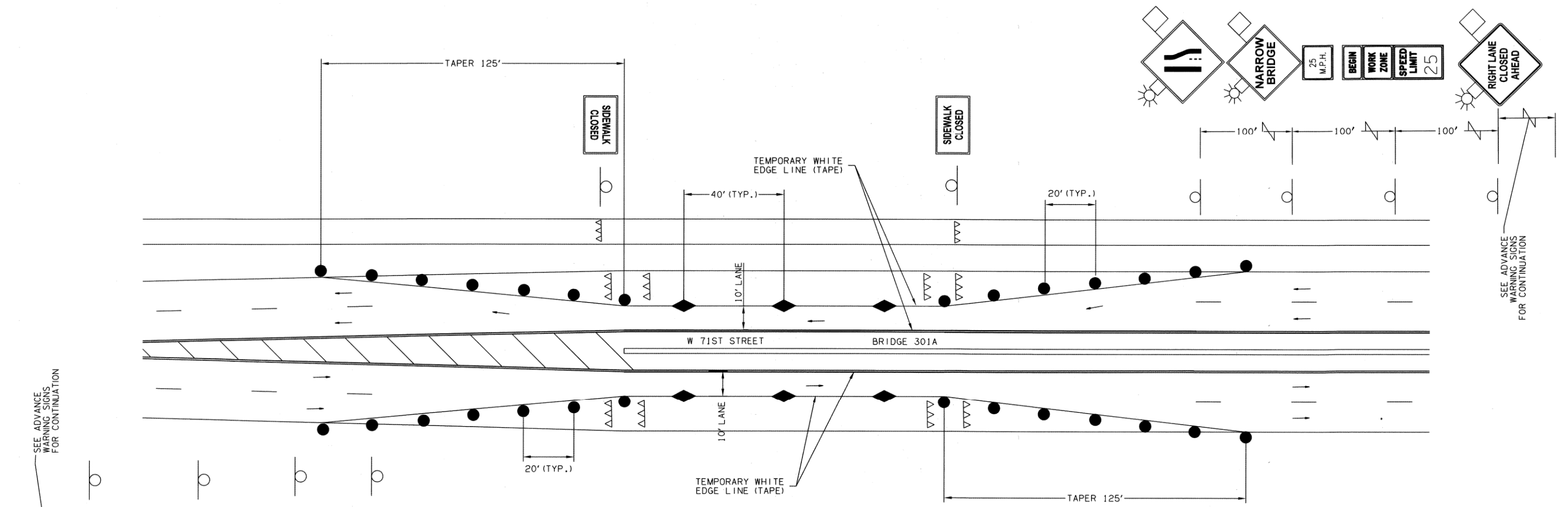
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
CP&Y
MEMORIAL PLACE
7633 E. 63RD PLACE, SUITE 310
TULSA, OKLAHOMA 74133
(405) 448-2346
CERTIFICATE OF AUTHORIZATION NO. 4006
RENEWAL DATE 6-30-27

PLAN SCALE:	DRAWN	LRJ	4/2022	APPROVED:
N/A	DESIGNED	JKJ	4/2022	
	SURVEY			
PROFILE SCALE:	PROJ. MGR.		9/2025	
HORIZONTAL:	LEAD ENGR.		10/15	
N/A	FIELD MGR.		10/15	
VERTICAL:	RECOMMENDED		10/15	
N/A	DESIGN MANAGER		10/21	
FILE:	DRAWING:		DATE: 9/25/2025	
ATLAS PAGE NO:			SHEET 50 OF 53 SHEETS	

UNION PACIFIC RAILROAD
DOT 435324C
MILE POST 144.30
JENKS SUBDIVISION
W. 71ST STREET, TULSA

\$\$\$TIME\$\$\$
\$\$\$PLTDRV\$\$\$
\$\$\$DATE\$\$\$
\$\$\$USER\$\$\$
\$\$\$ME\$\$\$
\$\$\$POWER\$\$\$
\$\$\$WELL\$\$\$



NOTES

1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. SIDEWALK TO BE CLOSED DURING WORK HOURS AND IS TO BE REMAIN OPEN DURING NON-WORK HOURS.
3. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
4. COORDINATE WITH THE RAILROAD DURING CONSTRUCTION.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS.
6. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.

LEGEND

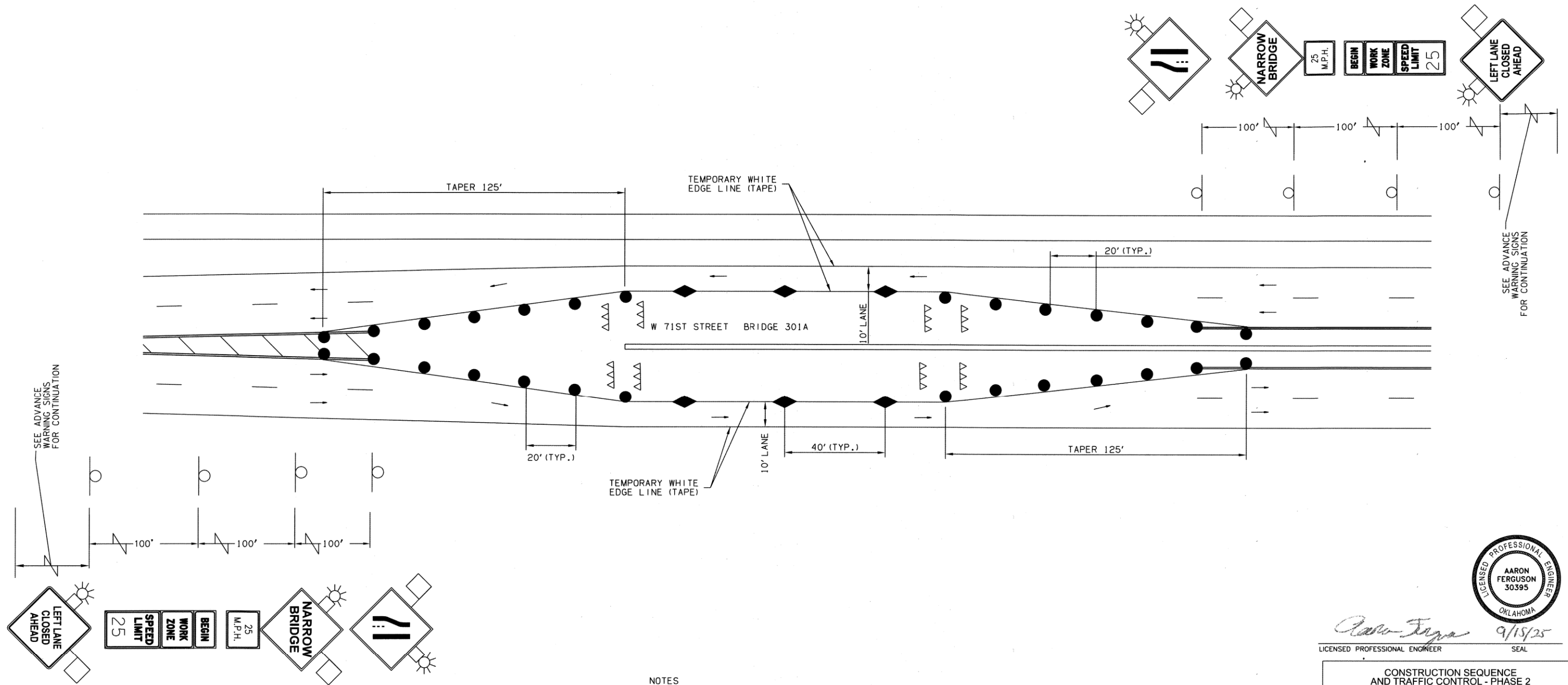
- DRUM
- ◆ TUBE CHANNELIZER
- TRAFFIC CONTROL SIGN ASSEMBLY
- ▽▽▽ TYPE III BARRICADE
- TRAFFIC DIRECTION



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL - PHASE 1			
PROJECT NO. 2037B0241Z, 2037B0263Z, 2037B0301Z, 2037B0301A			
BRIDGE REHABILITATION BRIDGE NO. 301A			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:		923 S LOWRY STREET POST OFFICE BOX 436 STILLWATER, OK 74076 (405) 743-3355 CERTIFICATE OF AUTHORIZATION NO. 9205 RENEWAL DATE 6-30-28	
Bancroft			
PLAN SCALE:	DRAWN:	AJF	03/2022
1"=40'	DESIGNED:	KDH	03/2022
	SURVEY:	CPY	2/2022
PROFILE SCALE:	PROJ. MGR.:	N/A	9/15/25
	LEAD ENGR.:	CALL OKIE	10/15/25
HORIZONTAL:	FIELD MGR.:	N/A	10/15/25
VERTICAL:	RECOMMENDED:	N/A	10/15/25
	DESIGN MANAGER:	N/A	10/15/25
FILE:	DRAWING:		DATE: 04/2022
ATLAS PAGE NO:	132 & 181		SHEET 51 OF 53 SHEETS

\$\$\$USERS\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$DATE\$\$\$
\$\$\$PLTDRVS\$\$\$
\$\$\$TIME\$\$\$



NOTES

1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. COORDINATE WITH THE RAILROAD DURING CONSTRUCTION.
4. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS.
5. GUIDELINES FROM THE 2023 MUTCD SHALL GOVERN.

LEGEND

- DRUM
- ◆ TUBE CHANNELIZER
- TRAFFIC CONTROL SIGN ASSEMBLY
- △△△ TYPE III BARRICADE
- TRAFFIC DIRECTION



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL - PHASE 2

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 301A

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:



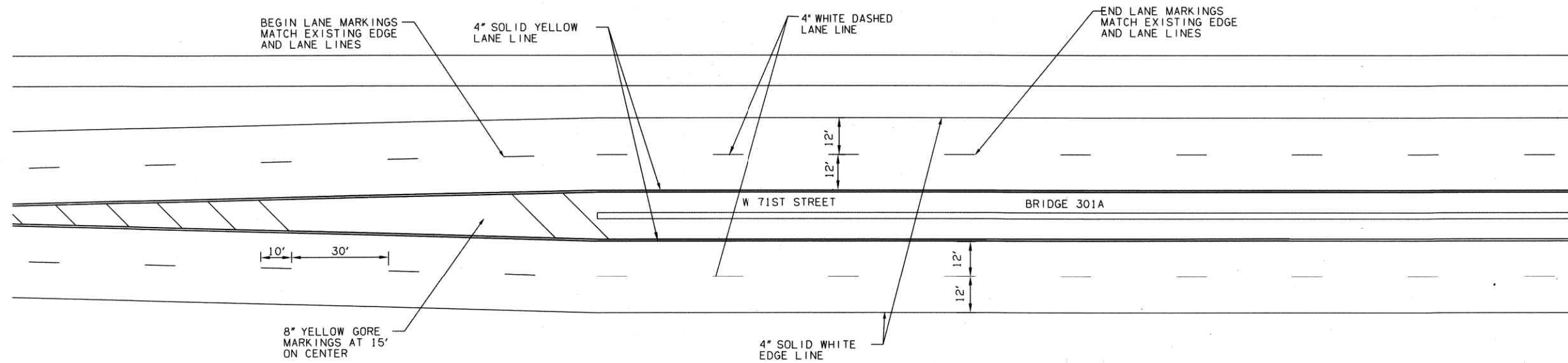
Bancroft

923 S LOWRY STREET
POST OFFICE BOX 436
STILLWATER, OK 74076
(405) 743-3305
CERTIFICATE OF AUTHORIZATION NO. 9205
RENEWAL DATE 6-30-26

PLAN SCALE:	DRAWN	AJF	03/2022	APPROVED:
1"=40'	DESIGNED	KDH	03/2022	
	SURVEY	CPV	2/2022	
PROFILE SCALE:	PROJ. MGR.	9/2025		
	LEAD ENGR.	10/25		
HORIZONTAL:	FIELD MGR.	10/25		
VERTICAL:	RECOMMENDED:	10/25		
	DESIGN MANAGER			



REVISION	DATE	FILE:	DRAWING:	DATE: 04/2022
		ATLAS PAGE NO:	132 & 181	SHEET 52 OF 53 SHEETS



NOTES

1. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. ALL STRIPING SHALL MATCH EXISTING STRIPING AT PROJECT TERMINAL POINTS.
3. ALL EXISTING SIGNS ARE TO REMAIN IN PLACE.
4. SEE ODOT STANDARDS PM1-1-03 AND PM4-1-02 FOR ADDITIONAL DETAILS.



Aaron Ferguson 9/15/25
LICENSED PROFESSIONAL ENGINEER SEAL

PAVEMENT MARKINGS

PROJECT NO. 2037B0241Z, 2037B0263Z,
2037B0301Z, 2037B0301A

BRIDGE REHABILITATION
BRIDGE NO. 301A

CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: 923 S LOWRY STREET
POST OFFICE BOX 436
STILLWATER, OK 74076
(405) 743-3355
Bancroft CERTIFICATE OF AUTHORIZATION NO. 9205
RENEWAL DATE 6-30-26

PLAN SCALE: 1"=40'	DRAWN	AJF	03/2022	APPROVED: <i>[Signature]</i> CITY ENGINEER
	DESIGNED	KDH	03/2022	
	SURVEY	CPV	2/2022	
PROFILE SCALE:	PROJ. MGR.	<i>[Signature]</i>	9/2025	DATE: 04/2022
HORIZONTAL:	LEAD ENGR.	<i>[Signature]</i>	11/25	
VERTICAL:	FIELD MGR.	<i>[Signature]</i>	10/25	
N/A	RECOMMENDED:	<i>[Signature]</i>	10/25	
N/A	DESIGN MANAGER	<i>[Signature]</i>		
FILE:	DRAWING:			
ATLAS PAGE NO:	132 & 181			SHEET 53 OF 53 SHEETS



REVISION	DATE

\$\$\$USER\$\$\$
\$\$\$WORKSPACE\$\$\$
\$\$\$FILE\$\$\$
\$\$\$TIME\$\$\$
\$\$\$PLTDRV\$\$\$
\$\$\$DATE\$\$\$