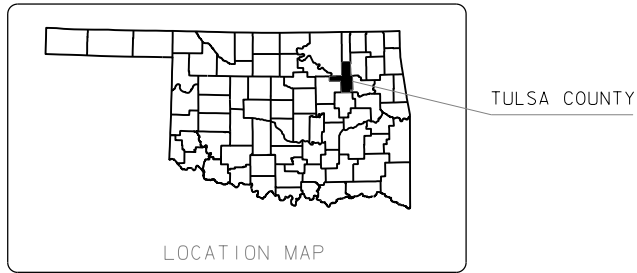


STATE OF OKLAHOMA  
 DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED  
 DIVISION EIGHT JOINT AND SEAL REPAIR  
**TULSA COUNTY**  
 STATE AID PROJECT NO. SSP-272N(183)SS  
 STATE JOB NO. 31944(04)

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T005	TRAFFIC CONTROL DETAIL OUTSIDE LANE CLOSURE I-44 WESTBOUND
T006	TRAFFIC CONTROL DETAIL INSIDE LANE CLOSURE I-44 WESTBOUND

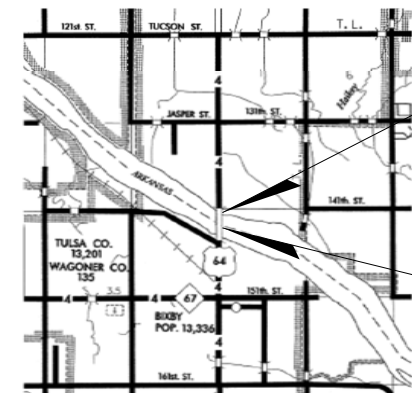


TULSA COUNTY

LOCATION MAP

TULSA COUNTY  
 BRIDGE 'C' - LOCATION NO. 7278 0269NX  
 NBINO, 20580  
 FACILITY CARRIED: I-44 WB  
 FEATURES INTERSECTED: ELWOOD AVE. AND ARK. RIV.  
 LOCATION: .7 MIE JCT US 75  
 CONTROL SECTION NO. 44-72-78  
 TOWNSHIP T19N RANGE R13E

TULSA COUNTY  
 BRIDGE 'D' - LOCATION NO. 7278 0269SX  
 NBINO, 20326  
 FACILITY CARRIED: I-44 EB  
 FEATURES INTERSECTED: ELWOOD AVE. AND ARK. RIV.  
 LOCATION: .7 MIE JCT US 75  
 CONTROL SECTION NO. 44-72-78  
 TOWNSHIP T19N RANGE R13E



TULSA COUNTY  
 BRIDGE 'B' - LOCATION NO. 7206 0429 X  
 NBINO, 22093  
 FACILITY CARRIED: US 64  
 FEATURES INTERSECTED: ARK. RIV. OVERFLOW  
 LOCATION: 4.2 M/S OF TURNPIKE  
 CONTROL SECTION NO. 64-72-06  
 TOWNSHIP T17N RANGE R13E

TULSA COUNTY  
 BRIDGE 'A' - LOCATION NO. 7206 0459 X  
 NBINO, 22107  
 FACILITY CARRIED: US 64  
 FEATURES INTERSECTED: ARKANSAS RIVER  
 LOCATION: 4.2 M/S OF TURNPIKE  
 CONTROL SECTION NO. 64-72-06  
 TOWNSHIP T17N RANGE R13E

STANDARD DRAWINGS

BRIDGE	TRAFFIC	
EJ-DTL-01E	TCS1-1-01	TCS11-1-01
FSHP-42-2-00E	TCS2-1-00	TCS14-1-00
LECS-4-1	TCS3-1-01	TCS18-1-01
	TCS4-1-01	TCS19-1-01
	TCS5-1-00	TCS20-1-00
	TCS6-1-02	TCS21-1-02
	TCS7-1-02	
	TCS8-1-00	
	TCS9-1-01	
	TCS10-1-00	

CONVENTIONAL SYMBOLS

- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- OILWELL
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- RIGHT-OF-WAY LINES - EXISTING
- RIGHT-OF-WAY LINES - NEW
- CONTROLLED ACCESS
- RIGHT-OF-WAY FENCE

2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, JANUARY 4, 2010.

TRAFFIC DESIGN

PROJECT MANAGER : JAMI SHORT  
 SQUAD SUPERVISOR : STEVE WILLIAMS

BRIDGE DESIGN

ENGINEERING MANAGER: MOHAMED ELYAZGI, PE SQUAD SUPERVISOR: KEVEN MAYFIELD  
 ASSISTANT SQUAD SUPERVISOR: KYLE STEVENS  
 ENGINEER: MIKE CAO, PE ENGINEER: KATIE BROWN, EI  
 SQUAD MEMBERS: D.GOFORTH, J.LONSDALE, R.MEINERT, R. ADKINSON, A. GATLEY

P.E. NO. : 30318(01)

PREPARED BY:  
 OKLAHOMA DEPARTMENT OF TRANSPORTATION  
 BRIDGE DIVISION  
  
 MOHAMED F. ELYAZGI, P.E.  
 OKLA. REG. NO. 17542  
 DATE 7/20/2016

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED _____	DATE APPROVED _____
BY _____ CHIEF ENGINEER	BY _____ DIVISION ADMINISTRATOR
JP# 30318(06)	PROJECT NO STPY-XXXX(X) SHEET NO. 0001

REVISIONS		
REV. NO.	DESCRIPTION	DATE

GENERAL NOTES

SPECIFICATIONS:

Comply with the requirements of the 2009 Oklahoma Standard Specifications for Highway Construction, except as modified by the Plans and Special Provisions.

VERIFICATION OF EXISTING CONDITIONS:

All dimensions of the existing bridge components shown on the Plans are approximate. The Contractor shall verify all dimensions necessary to complete the work and shall be solely responsible for the accuracy thereof.

Bidders shall fully inform themselves of the nature of the work and condition under which it will be performed. The Contractor shall adopt methods consistent with good construction practice and shall take all necessary precautions to prevent damage to the existing bridge 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.

Construction plans for the existing bridge structures may be obtained from the Reproduction Branch of the Oklahoma Department of Transportation. Ask for:

Bridge 'A' F.A.P. No. BRM-8401(14) Structure A, US-64 over Arkansas River; in Tulsa County.

Bridge 'B' F.A.P. No. BRM-8401(14) Structure B, US-64 over Arkansas River Overflow; in Tulsa County.

Bridge 'C' F.A.P. No. I-44-2(200)090 Structure B, I-44 over Arkansas River; Widening Project: 0637(44) Bridge 'B'; in Tulsa County.

Bridge 'D' F.A.P. No. I-44-2(149)090 Structure E, I-44 over Arkansas River; Widening Project: 0637(44) Bridge 'A'; in Tulsa County.

LANE CLOSURE:

The Engineer reserves the right to prohibit lane closures during holidays or special events. All work requiring the closing or narrowing of one lane of traffic on the bridges shall be performed during daylight hours only unless approved by the Engineer. The contractor shall make every effort to reopen these lane closures as soon as possible.

REMOVED MATERIAL:

All material and debris removed during this project shall become the property of the Contractor and shall be disposed of in a manner approved by the Engineer.

CLEANING BRIDGE SEATS AND PIER CAPS:

All bridge seats and pier caps shall be swept clean of all debris at the conclusion of work. All costs for cleaning the bridge seats and pier caps shall be included in other items of work.

CLEANING OF DECK DRAINS AND DRAINS AT END OF BRIDGE:

All parapet/rail openings, deck drains and drains at the ends of bridge shall be checked for functionality and cleared of all debris as needed to ensure that water drains from the bridge normally. The method for cleaning the drains shall be approved by the Engineer and shall be paid for in other items of work.

EXISTING LIGHTING AND ELECTRICAL:

Lights and electrical conduits on the bridgeS shall not be removed or disturbed. If any part is removed or damaged during construction, it shall be replaced in the original condition at the Contractor's expense, to the satisfaction of the Engineer.

SPECIAL BRIDGE NOTES

- (1) REHABILITATED EXPANSION JOINTS:  
REPAIR BRIDGE ITEM (TYPE A) (BRIDGES 'A' AND 'B')  
REPAIR BRIDGE ITEM (TYPE B) (BRIDGES 'C' AND 'D')

Remove existing expansion angles, expansion anchor bars (where required) and existing concrete on the bridge deck side of existing expansion joint and down full depth as shown in the plans. Replace existing expansion device with new Sealed Expansion Joint in accordance with the bridge standards and section 415, subsection 504.04(C) and subsection 506.05(H) of the 2009 Oklahoma Standard Specifications for Highway Construction and as shown in the plans.

The new deck concrete shall be finished by hand tining beginning within 2 feet of the concrete curb or parapet and run continuously across the width of the deck to within 2 feet of the opposite curb or parapet. No tining shall be done within 6" of any joint.

Contractor is allowed to use Early Strength Concrete at no additional cost to ODOT. All costs including labor, equipment, material, and incidentals necessary to complete the work as shown in the plans shall be included in the price bid per each of "REPAIR BRIDGE ITEM (TYPE A)" for Bridges 'A' and 'B' and "REPAIR BRIDGE ITEM (TYPE B)" for Bridges 'C' and 'D'.

- (2) REHABILITATED CONSTRUCTION JOINT SAW AND SEAL: (BRIDGES A & B )  
(See Sheet "DETAILS OF REPAIR BRIDGES 'A' & 'B' (SHEET 2 OF 2) )

Saw existing Construction Joints as shown in the plans and seal with Backer Rod and Rapid Cure Joint Sealant placed in accordance with Section 415 and Subsection 701.08G of the Standard Specifications for Highway Construction and as shown in the plans.

All costs including labor, equipment, material, and incidentals necessary to complete the work as shown in the plans shall be included in the unit price bid per Linear Foot of "RAPID CURE JOINT SEALANT".

- (3) TRAFFIC MARKER REMOVAL:  
REPAIR BRIDGE ITEM (TYPE C) (BRIDGES A, B, C & D)

Remove all Traffic Markers and repair the area(s) of removal with Class A Bridge Deck Repair or per Engineer direction. Estimated quantities:

Bridge A: 135  
Bridge B: 50  
Bridge C: 24  
Bridge D: 24

All costs including labor, equipment, material, and incidentals necessary to complete the work as shown in the plans shall be included in the unit price bid per EACH of "REPAIR BRIDGE ITEM (TYPE C)

- (4) STRUCTURE REPAIR WITH PNEUMATICALLY PLACED MORTAR:  
(BRIDGES A, B, C & D)

The pay item "Pneumatically Placed Mortar" consists of repairing surface areas of the Structure.

The actual extent of the repairs shall be determined in the field by the engineer. The repairs shall be in accordance with section 521 of the 2009 Oklahoma Standard Specifications for Highway Construction and in a manner approved by the engineer.

The removal of deteriorated concrete shall be done using hand tools. Power tools will not be allowed unless hand tools prove incapable of excavating all deteriorated concrete to sound concrete and as approved by the engineer. Should power tools be necessary, power tools shall be of a size approved by the engineer such that their use does not cause damage to the sound concrete. Any damage done to the existing reinforcing steel during the removal process shall be repaired at the contractor's expense to the satisfaction of the engineer. Any deteriorated reinforcing steel with a section loss greater than 50%, as determined by the engineer, shall be reported to the bridge engineer for remedial action. Prior to mortar application, blast clean the concrete surface and reinforcing steel free of debris and corrosion. Apply Pneumatically Placed Mortar to replace deteriorated concrete. Build up mortar to match the original lines and grades of the substructure.

The contractor may propose and use as an alternate one of the following repair methods:

- (1) Cast-In-Place Concrete
- (2) Pre-Placed Aggregate Concrete
- (3) Formed and Pumped Concrete and Mortar
- (4) Troweling and Dry-Packing of Repair Mortar

The contractor shall submit a proposed work plan of the repair method to be used to the engineer for his approval. The work plan should include surface preparation methods, patching material, bonding agents, material placing methods, and finishing methods. The contractor shall test repair an area to verify the effectiveness of the proposed repair method prior to commencement of the work. Faulty repairs shall be replaced at the contractor's expense to the satisfaction of the engineer.

All costs including labor, equipment, material, and incidentals necessary to complete the work described above shall be included in the price bid per square yard of "PNEUMATICALLY PLACED MORTAR".

- (5) BEAM ENDS REPAIR: (BRIDGE A)  
REPAIR BRIDGE ITEM (TYPE D)  
(See Sheet "DETAILS OF REPAIR BRIDGES 'A' & 'B' (SHEET 2 OF 2) )

An estimated quantity of 10 Beam Ends need repair as per the following description and as directed by the Engineer:

The Contractor shall remove unsound concrete from portion of beam to be wrapped and clean any exposed reinforcing steel. Apply Corrosion Inhibitor and Pneumatically Placed Mortar. Apply FRP to Beam End per drawing. All work shall be in accordance with 2009 Specifications.

All costs including labor, equipment, material, and incidentals necessary to complete the work described above shall be included in the price bid per EACH of "REPAIR BRIDGE ITEM (TYPE D)".

- (6) CLASS B BRIDGE DECK REPAIR: (BRIDGES A, B, C & D)

The pay item "Class B Bridge Deck Repair" has been estimated to be used as directed by the engineer to repair any area of the deck requiring such repair. The location and extent of the deck repair shall be as shown in the plans or as determined in the field by the engineer. Payment for actual repairs shall be done in accordance with section 513.04D(2) and subsection 701.20 of the 2009 Oklahoma Standard Specifications for Highway Construction.

Early strength concrete shall be used at no additional cost to ODOT. All cost of repair including labor, equipment, material, and incidentals necessary to complete the work as described above shall be included in the price bid per square yard of "CLASS B BRIDGE DECK REPAIR".

- (7) FLOOD COATING TREATMENT: (BRIDGES A, B, C & D)

A flood coat deck seal shall be applied to the driving surface of the Bridge Deck and Approach Slabs. The Contractor must protect all traffic striping from the flood coat deck seal. Any traffic striping rendered ineffective or damaged during the flood coat seal application shall be replaced at the Contractor's expense to the satisfaction of the Engineer.

The Contractor must prevent the flood coat deck seal from penetrating any joint that has been sealed with silicone. If 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 these joints.
- 2) Remove and replace the silicone joint sealant.

The application of the flood coat shall be in accordance with Section 523.04E of the Standard Specification and shall be performed only after all other work is complete.

All costs including labor, equipment, material, and incidentals necessary to complete the work described above and as shown in the plans shall be included in the unit price bid per Square Yard of "DECK AREA SEALED (FLOOD COATS)".

- (8) PAINTING BEARINGS AND DIAPHRAGM BOLTS: (BRIDGE A)

The exposed end areas of intermediate diaphragm bolts (outside beams) and all bearings (except those being replaced) shall be cleaned and painted with a zinc-rich paint system in accordance with section 512 of the 2009 Oklahoma Standard Specifications for Highway Construction and as directed by the Engineer.

There is an estimated quantity of 150 Bearings on Bridge A which need painting. All costs for completing the work as specified including labor, materials and incidentals shall be included in the unit bid price per Lump Sum of "PAINTING EXISTING STRUCTURES" and "COLLECTION AND HANDLING OF WASTE".

- (9) BEARING ASSEMBLIES REPLACEMENT: (BRIDGE A)  
REPLACE BRIDGE ITEM (TYPE A)

Bearing Assemblies are to be replaced as determined in the field by the Engineer. An estimated total of 10 bearings will need replacement. There is an estimated 95 pounds of TYPE 3 Weathering Steel per Bearing Assembly.

All cost of repair including labor, equipment, material, and incidentals necessary to complete the work as described above shall be included in the price bid per EACH of "REPLACE BRIDGE ITEM (TYPE A)".

- (10) PAINTING BEARINGS: (BRIDGE C & D)

Bearing Assemblies shall be cleaned/sand blasted and painted with a zinc-rich paint system in accordance with section 512 of the 2009 Oklahoma Standard Specifications for Highway Construction and as directed by the Engineer.

There is an estimated quantity of 160 bearings per Bridge which need painting. Some Bearing Assemblies have missing hardware, an estimated quantity of 100 lb. of structural steel should be included in this work item.

All costs for completing the work as specified including labor, materials and incidentals shall be included in the unit bid price per Lump Sum of "PAINTING EXISTING STRUCTURES".

BRIDGES 'A' - 'D' JOINT MAINT.  <b>GENERAL NOTES</b>	TULSA COUNTY		
	Design	N/A	N/A
	Detail	RWM	6/16
	Check	KMS	6/16
Squad: MAYFIELD			
Eng: ELYAZGI			
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION	
JOB/PIECE NO. 31944(04)		SHEET NO. AB01	

REVISIONS		
REV. NO.	DESCRIPTION	DATE

GENERAL NOTES

(11) REMOVAL OF VEGETATION: (BRIDGES A&B)

All trees, brush, shrubs, vines and other vegetation growing under the bridge or within ten feet of the overhang of the bridge deck shall be removed. Any vegetation or trees growing around or under the bridge or along the trail that is deemed by the Engineer to be a cause for concern to the structure shall also be removed at the discretion of the Engineer. Immediately following removal, a pre-approved herbicide should be applied per the manufacturer's instructions. All vegetation and debris shall be disposed of outside the Right-of-Way and in accordance with Section 201 of the Standard Specifications. All costs of clearing the bridge of vegetation and trees shall be included in the unit price bid per LSUM of "SELECTIVE CLEARING".

(12) MECHANICAL SPLICES: (BRIDGES A, B, C & D)

Mechanical Splices shall be used to connect the transverse reinforcing steel in the Phased Construction as specified or as shown in the plans. The Mechanical Splices shall be Erico Lenton or an approved equal. The Mechanical Splices shall satisfy the requirements of Section 511.04 C of the Standard Specifications and shall be installed in accordance with the manufacturer's specifications. All cost of installing the Mechanical Splices including the cost of materials, labor, equipment and incidentals shall be included in the unit price bid per Each of "MECHANICAL SPLICES". The lengths of reinforcing steel bars with Mechanical Splices shown in the Phase I construction bar lists include the length of the Mechanical Splice. The lengths of reinforcing steel bars to be engaged into Mechanical Splices shown in the Phase II construction bar lists do not include any additional length for engagement into the Mechanical Splices. The actual Mechanical Splice engagement lengths shall be determined by the Mechanical Splice manufacturer, and the lengths of the reinforcing steel bars to be engaged into Mechanical Splices shall be adjusted accordingly. The cost to adjust the length of any reinforcing steel shown in the plans to accommodate the Mechanical Splices will not be measured for payment and shall be included in the unit price bid per Each of "MECHANICAL SPLICES".

(13) NEW APPROACH SLAB (WEST END BRIDGE 'C')

The pay item "APPROACH SLAB" shall include the removal and disposal of existing pavement, guardrail and drain and installing new Approach Slab as specified or shown in the plans or as directed by the Engineer. All costs necessary to complete the work as specified or as shown in the plans including the cost of sawing, cutting, demolition, cleaning & straightening reinforcing steel, mechanical splices, containment and removal of debris, materials, labor, equipment and incidentals shall be included in the price bid per S.Y. of "APPROACH SLAB".

(14) NEW SLOPE DRAIN AT END OF BRIDGE (WEST END BRIDGE 'C')

The pay item "CLASS C CONCRETE" is for installing new Drain at End of Bridge as specified or shown in the plans or as directed by the Engineer. The Slope Drain is to be located at the west end of the new Approach Slab. The slope drain length is estimated at 100 ft. 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 C.Y. of "CLASS C CONCRETE".

ENVIRONMENTAL MITIGATION NOTES

MIGRATORY BIRD TREATY ACT:

Cliff Swallows and Barn Swallows are small colonial nesting birds protected by the federal Migratory Bird Treaty Act. These species commonly use bridges and culverts for nesting. The nesting season for the swallows runs from April 1 to August 31. Swallow use of all the bridges within the project has been observed during the initial surveys conducted as part of the biological studies in 2015. Any activities which would destroy active nests or harm eggs or birds would violate the Migratory Bird Treaty Act. The Resident Engineer will evaluate the contractor's proposed work methods and conclude whether the proposed work will harm the nesting birds before work near the structure is authorized. If the proposed work will harm the nesting birds, the bridge may be netted prior to April 1 or the work delayed until the nesting season is complete. Methods other than netting must be pre-approved by the ODOT Biologist.

JP 31944(04)		PAY QUANTITIES		TULSA COUNTY	
0200 BRIDGE 'A' NBI NO. 22107		US 64 OVER ARKANSAS RIVER			
ITEM	DESCRIPTION	UNIT	QUANTITY		
201 0181	SELECTIVE CLEARING (11)	LSUM	1.00		
504(G) 6390	RAPID CURE JOINT SEALANT BR-1 (2)	L.F.	590.00		
512(A) 1323	PAINTING EXISTING STRUCTURES (8)	LSUM	1.00		
512(B) 6303	COLLECTION AND HANDLING OF WASTE (8)	LSUM	1.00		
513(B) 6019	CLASS B BRIDGE DECK REPAIR (6)	S.Y.	50.00		
521(A) 6210	PNEUMATICALLY PLACED MORTAR (4)	S.Y.	100.00		
523(C) 6570	DECK AREA SEALED (FLOODCOATS) BR-1 (7)	S.Y.	12,075.00		
540 4515	(PL) REPAIR BRIDGE ITEM (TYPE A) BR-1 (1)	EA.	10.00		
540 4535	(PL) REPAIR BRIDGE ITEM (TYPE C) (3)	EA.	135.00		
540 4545	(PL) REPAIR BRIDGE ITEM (TYPE D) (5)	EA.	10.00		
545 4815	(PL) REPLACE BRIDGE ITEM (TYPE A) (9)	EA.	10.00		

JP 31944(04)		PAY QUANTITIES		TULSA COUNTY	
0201 BRIDGE 'B' NBI NO. 22093		US 64 OVER ARKANSAS RIVER OVERFLOW			
ITEM	DESCRIPTION	UNIT	QUANTITY		
201 0181	SELECTIVE CLEARING (11)	LSUM	1.00		
504(G) 6390	RAPID CURE JOINT SEALANT BR-1 (2)	L.F.	295.00		
513(B) 6019	CLASS B BRIDGE DECK REPAIR (6)	S.Y.	30.00		
521(A) 6210	PNEUMATICALLY PLACED MORTAR (4)	S.Y.	100.00		
523(C) 6570	DECK AREA SEALED (FLOODCOATS) BR-1 (7)	S.Y.	4,495.00		
540 4515	(PL) REPAIR BRIDGE ITEM (TYPE A) BR-1 (1)	EA.	4.00		
540 4535	(PL) REPAIR BRIDGE ITEM (TYPE C) (3)	EA.	50.00		

JP 31944(04)		PAY QUANTITIES		TULSA COUNTY	
0640 CONSTRUCTION					
ITEM	DESCRIPTION	UNIT	QUANTITY		
641 1399	MOBILIZATION	LSUM	1.00		

BR-1: Payment for this item will be based on the plan quantity only. See Section 109.01(b) of the Standard Specifications.

JP 31944(04)		PAY QUANTITIES		TULSA COUNTY	
0202 BRIDGE 'C' NBI NO. 20580		I-44 WB OVER ARKANSAS RIVER AND ELWOOD AVE.			
ITEM	DESCRIPTION	UNIT	QUANTITY		
504(A) 1304	APPROACH SLAB BR-1 (13)	S.Y.	212.50		
504(B) 1305	SAW CUT GROOVING BR-1	S.Y.	202.00		
504(E) 6190	42" F-SHAPED PARAPET BR-1	L.F.	50.00		
509(D) 1331	CLASS C CONCRETE (14)	C.Y.	10.00		
512(A) 1323	PAINTING EXISTING STRUCTURES (10)	LSUM	1.00		
512(B) 6303	COLLECTION AND HANDLING OF WASTE (10)	LSUM	1.00		
513(B) 6019	CLASS B BRIDGE DECK REPAIR (6)	S.Y.	20.00		
521(A) 6210	PNEUMATICALLY PLACED MORTAR (4)	S.Y.	100.00		
523(C) 6570	DECK AREA SEALED (FLOODCOATS) BR-1 (7)	S.Y.	14,090.00		
540 4525	(PL) REPAIR BRIDGE ITEM (TYPE B) BR-1 (1)	EA.	6.00		
540 4535	(PL) REPAIR BRIDGE ITEM (TYPE C) (3)	EA.	24.00		

JP 31944(04)		PAY QUANTITIES		TULSA COUNTY	
0203 BRIDGE 'D' NBI NO. 20326		I-44 EB OVER ARKANSAS RIVER AND ELWOOD AVE.			
ITEM	DESCRIPTION	UNIT	QUANTITY		
512(A) 1323	PAINTING EXISTING STRUCTURES (10)	LSUM	1.00		
512(B) 6303	COLLECTION AND HANDLING OF WASTE (10)	LSUM	1.00		
513(B) 6019	CLASS B BRIDGE DECK REPAIR (6)	S.Y.	20.00		
521(A) 6210	PNEUMATICALLY PLACED MORTAR (4)	S.Y.	100.00		
523(C) 6570	DECK AREA SEALED (FLOODCOATS) BR-1 (7)	S.Y.	4,495.00		
540 4525	(PL) REPAIR BRIDGE ITEM (TYPE B) BR-1 (1)	EA.	6.00		
540 4535	(PL) REPAIR BRIDGE ITEM (TYPE C) (3)	EA.	24.00		

BRIDGES 'A' - 'D' JOINT MAINT.		TULSA COUNTY		Design	N/A	N/A
GENERAL NOTES AND SUMMARY OF PAY QUANTITIES				Detail	RWM	6/16
				Check	KMS	6/16
				Squad: MAYFIELD		
Eng: ELYAZGI						
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		JOB/PIECE NO. 31944(04)		SHEET NO. AB02

REVISIONS		
REV. NO.	DESCRIPTION	DATE

**GENERAL CONSTRUCTION NOTES**

ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE RESIDENT ENGINEER UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, SIGNING, AND DEVICES WITHIN THE LIMITS OF CONSTRUCTION AND DETOUR ROUTE(S). ALL CONSTRUCTION SIGNING WILL BE DONE ACCORDING TO STANDARDS SET FORTH IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION", AND AS SHOWN ON TCS STANDARD DRAWINGS.

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL MEET ODOT'S "QUALITY STANDARDS FOR TEMPORARY TRAFFIC CONTROL DEVICES."

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

THE ITEMS TO BE REMOVED AND/OR RESET SHALL BE HANDLED WITH CARE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DURING THESE OPERATIONS.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

THE CONTRACTOR MUST NOTIFY THE RESIDENT ENGINEER 7 DAYS PRIOR TO ANY LANE CLOSURE.

THE CONTRACTOR SHALL PROVIDE A PERSON TO BE ON CALL AS NEEDED AS DETERMINED BY THE ENGINEER. THIS PERSON SHALL HOLD A CURRENT CERTIFICATION FROM THE AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA) OR THE OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION (OTEA) AS A TRAFFIC CONTROL TECHNICIAN OR TRAFFIC CONTROL SUPERVISOR.

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 TRAFFIC ON CROSS STREETS. A MINIMUM OF ONE LANE IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. SEE O.D.O.T. STANDARDS AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

ALL REGULATORY SIGNS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) FOR TYPE III SHEETING.

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.

THE MANUFACTURER SHALL FURNISH A TYPE 'A' CERTIFICATION IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS, LATEST EDITION, SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON THE MATERIAL SUBMITTED FOR APPROVAL.

**SPECIAL PAY QUANTITY NOTES**

- (SP-1) TYPE 'C' WARNING LIGHTS ARE NOT REQUIRED.
- (SP-2) CHANGEABLE MESSAGE SIGNS TO BE PLACED ON THE PROJECT 14 DAYS IN ADVANCE OF THE START DATE.
- (SP-3) PRICE BID TO INCLUDE ALL DELINEATORS FOR TEMPORARY IN-PLACE BARRIER WALL IN ACCORDANCE WITH TRAFFIC STANDARD TCS24-1(LATEST REVISION).
- (SP-4) REMOVE THE EXISTING TRAFFIC STRIPES ON THE BRIDGES AND APPROACHES PRIOR TO FLOODCOATING. THE NEW TRAFFIC STRIPES FOR BRIDGES AND APPROACHES SHALL BE APPLIED AFTER FLOODCOATING. ALL COSTS OF REMOVING TRAFFIC STRIPES, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER L.F. "TRAFFIC STRIPE(MULTI-POLY.) (4"WIDE).
- (SP-5) QUANTITY SHOWN INCLUDED 24,100 LF TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 20,700 LF TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND 700 LF TRAFFIC STRIPE (MULTI-POLYMER)(BLACK) AND WILL ALL BE MEASURED BY THE LINEAR FOOT OF FOUR (4") WIDE TRAFFIC STRIPE.

**PAY QUANTITY NOTES**

- (TC-1) THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC WHEN INSTALLING, RELOCATING OR DELIVERING PRECAST CONCRETE MEDIAN BARRIER.
- (TC-2) QUANTITY INCLUDES SUFFICIENT LENGTH OF MEDIAN BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. THIS SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.
- (TC-26) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THE PROJECT.  
ALL SIGNS AND BARRICADES WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.
- (TC-30) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 16.00 S.F. AND 32.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.
- (TC-33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION).  
THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.

- (TC-52) ANY USED PORTABLE CHANGEABLE MESSAGE SIGN, OR CONSTRUCTION ZONE IMPACT ATTENUATOR TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL, BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.
- (TC-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.
- (TC-75) TEMPORARY PAVEMENT MARKINGS SHALL BE IN PLACE THE SAME DAY THAT EXISTING PAVEMENT MARKINGS ARE REMOVED FROM ANY ROADWAY OPEN TO TRAFFIC. ALSO, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO THE INSTALLATION OF FINAL STRIPING.
- (TC-80) INCLUDED IN THIS ITEM SHALL BE ONE (1) ADDITIONAL UNIT TO BE USED AS A STAND BY OR REPLACEMENT. THIS STAND BY UNIT SHALL BE IMMEDIATELY ACCESSIBLE TO REPLACE A DAMAGED, STOLEN OR MALFUNCTIONING UNIT. THE AMOUNT OF TIME BETWEEN THE REMOVAL OF THE DAMAGED UNIT AND THE INSTALLATION OF THE STAND BY UNIT SHALL BE NO MORE THAN TWENTY FOUR (24) HOURS.
- (TC-84) 90 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT ODOT STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.
- (TC-85) THESE SIGNS MUST BE ON THE OKLAHOMA DEPARTMENT OF TRANSPORTATION LIST OF APPROVED CHANGEABLE MESSAGE SIGNS. FOR A LIST OF THE APPROVED SIGNS GO TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION WEBSITE AT: <http://www.okdot.state.ok.us/traffic/qpl/index.php>

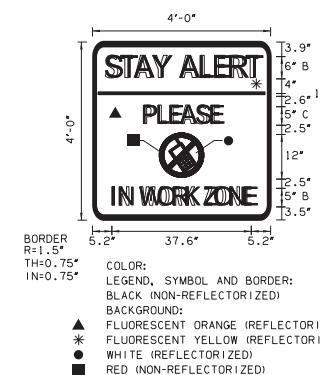
**PAY QUANTITY SCHEDULE**

0300 TRAFFIC CONTROL				
ITEM NO.	CODE NO.	DESCRIPTION	UNIT	QUANTITY
871(B)	8705	(SP)CONST. ZONE IMPACT ATTEN. (TC-52,70,80)	SD	40.00
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER (SP-3)(TC-1,2)	LF	6,112.50
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER (SP-3)(TC-1,2)	LF	18,337.50
880(A)	8812	ARROW DISPLAY (TYPE C) (TC-84)	SD	270.00
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF (TC-26,33,84)	SD	4,500.00
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF (TC-26,33,84)	SD	3,600.00
880(B)	8824	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF (TC-26,30,33,84)	SD	6,300.00
880(C)	8842	CONSTRUCTION BARRICADES(TYPE III) (TC-26,84)	SD	3,780.00
880(C)	8848	WING BARRICADES (TC-26,84)	SD	720.00
880(E)	8860	WARNING LIGHTS(TYPE A) (TC-26,84)	SD	10,080.00
880(F)	8878	DRUMS (SP-1)(TC-26,84)	SD	6,300.00
880(G)	8890	CHANNELIZER CONES (TC-26,84)	SD	7,650.00
882(A)	8306	PORTABLE CHANGEABLE MESSAGE SIGN (SP-2)(TC-52,84,85)	SD	416.00

**PAY QUANTITY SCHEDULE**

0301 TRAFFIC SIGNING & STRIPING				
ITEM NO.	CODE NO.	DESCRIPTION	UNIT	QUANTITY
856(A)	8530	TRAFFIC STRIPE (MULTI-POLY.) (4" WIDE) (SP-4,5)	LF	45,500.00

**SPECIAL CONSTRUCTION SIGN**



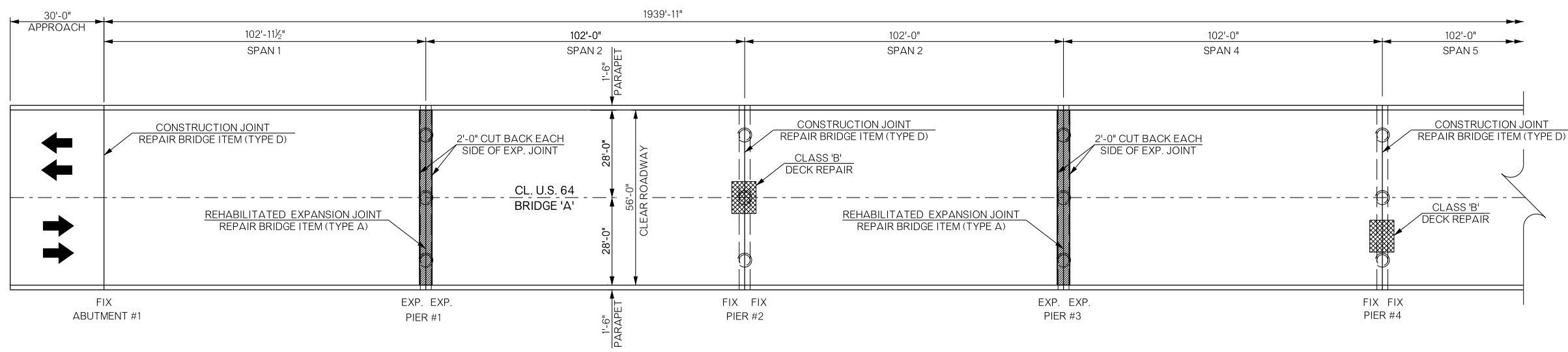
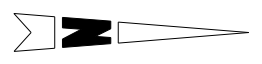
PREPARED BY:  
OKLAHOMA DEPARTMENT OF TRANSPORTATION  
TRAFFIC ENGINEERING DIVISION  
*Jami L. Short*  
DATE: 06-16-16

OKLA. REG. NO. 22542

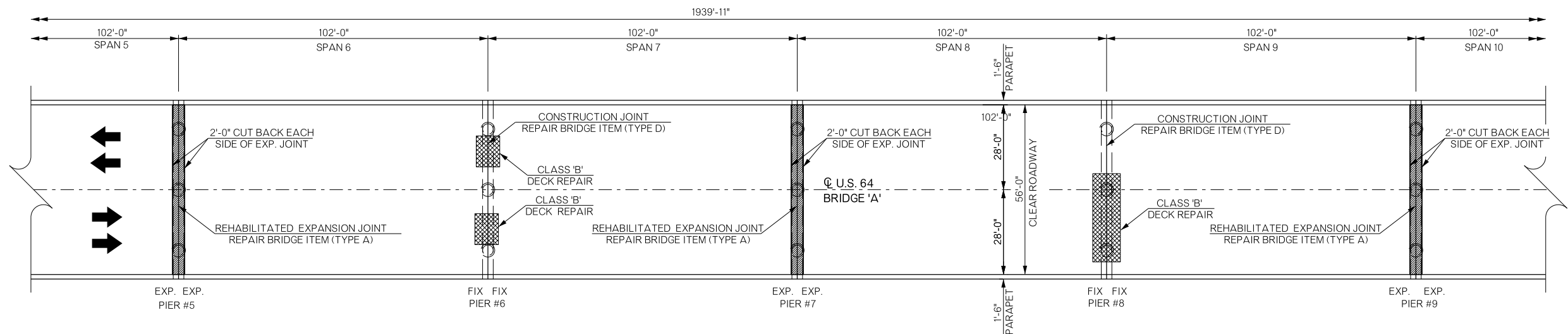
PROFESSIONAL ENGINEER  
LICENSED  
JAMI L. SHORT  
22542  
OKLAHOMA

SUMMARY OF PAY QUANTITIES & NOTES(TRAFFIC)		
Drawn	RGN	6/16
Design	RGN	6/16
Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI L. SHORT		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	
DIVISION 8	JOB/PIECE NO. 31944(04)	SHEET NO. AT01

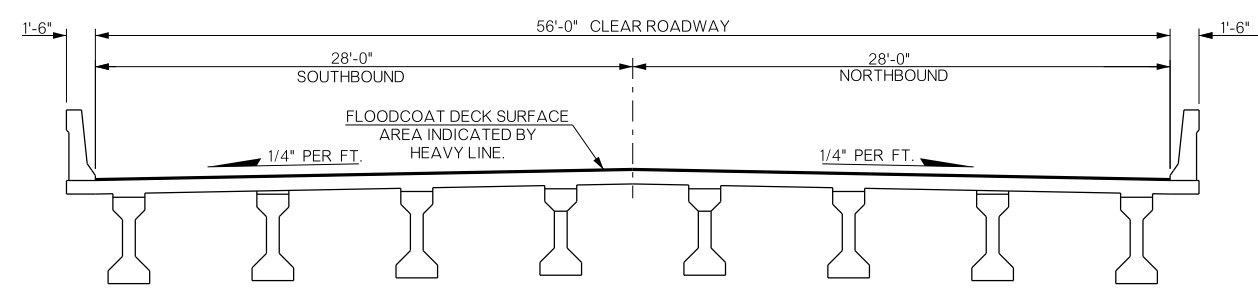
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



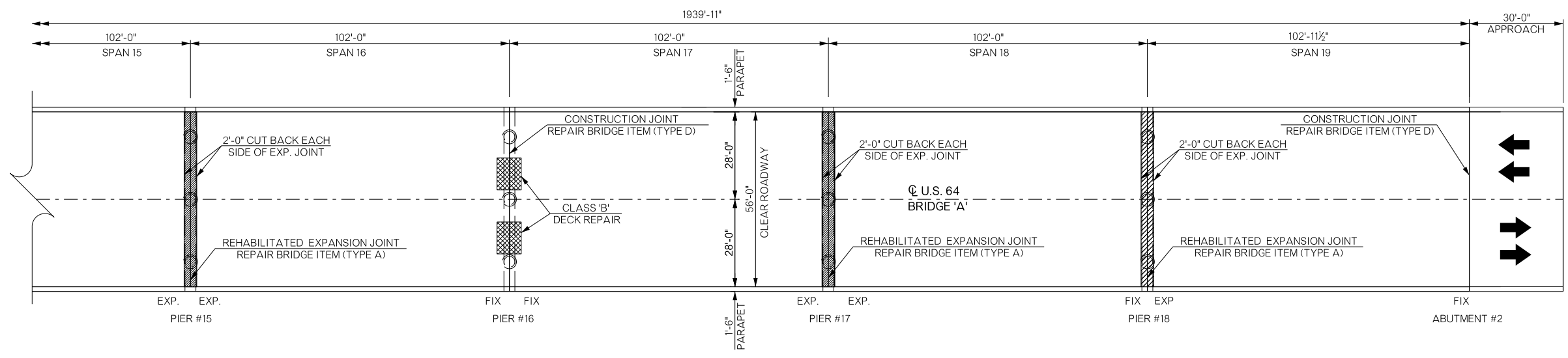
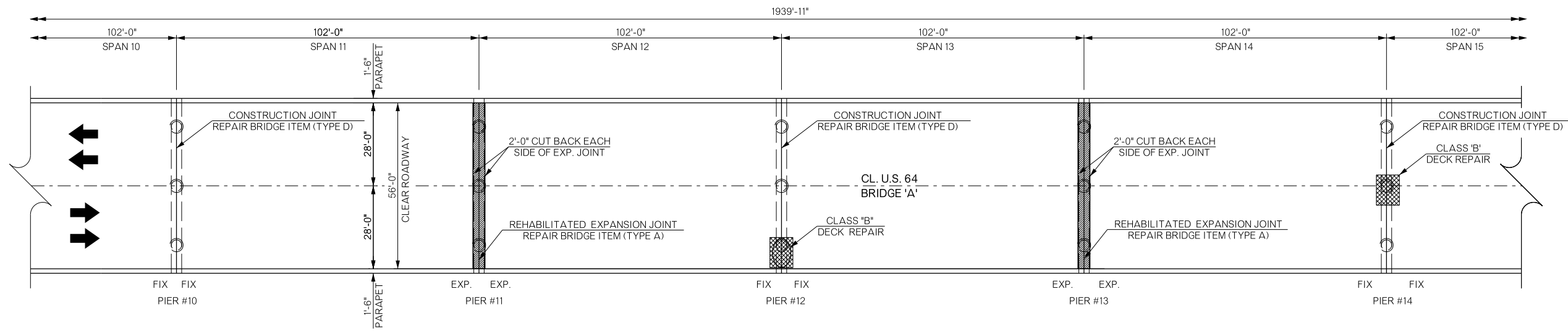
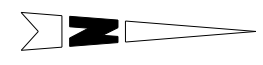
PLAN



TYPICAL CROSS SECTION

BRIDGE 'A' US 64 OVER ARKANSAS RIVER		TULSA COUNTY		Design	N/A	N/A
GENERAL PLAN AND TYPICAL SECTION BRIDGE A (SHEET 1 OF 2)				Detail	ADG	05/16
				Check	KMS	07/16
STATE OF OKLAHOMA				DEPARTMENT OF TRANSPORTATION		Sheet No. B001
JOB/PIECE NO. 31944(04)				Engr: ELYAZGI		

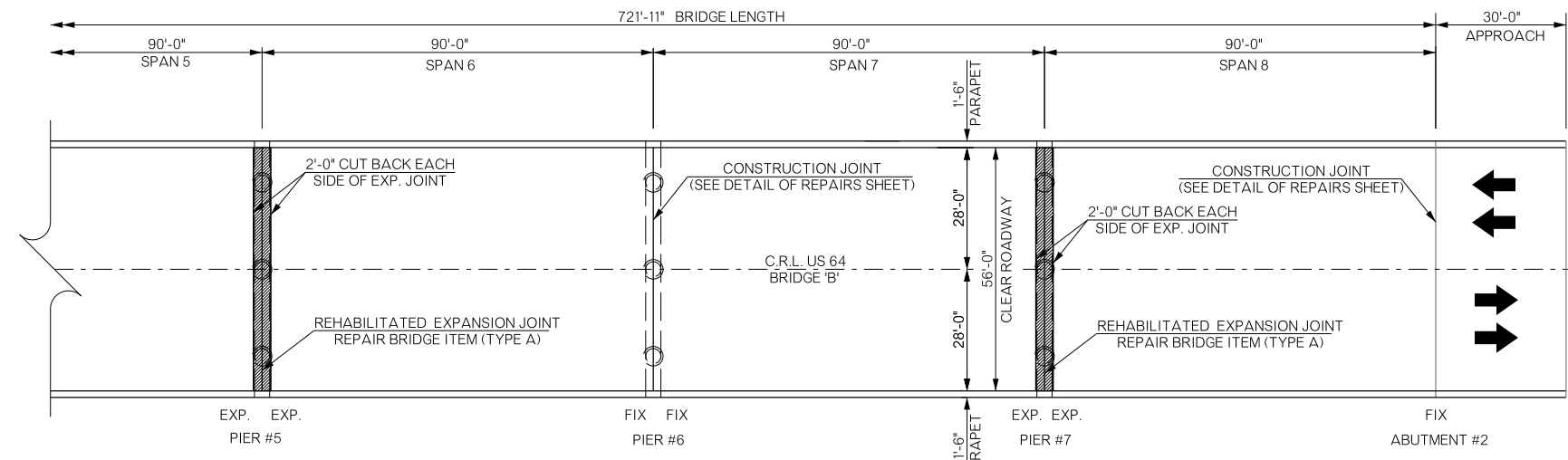
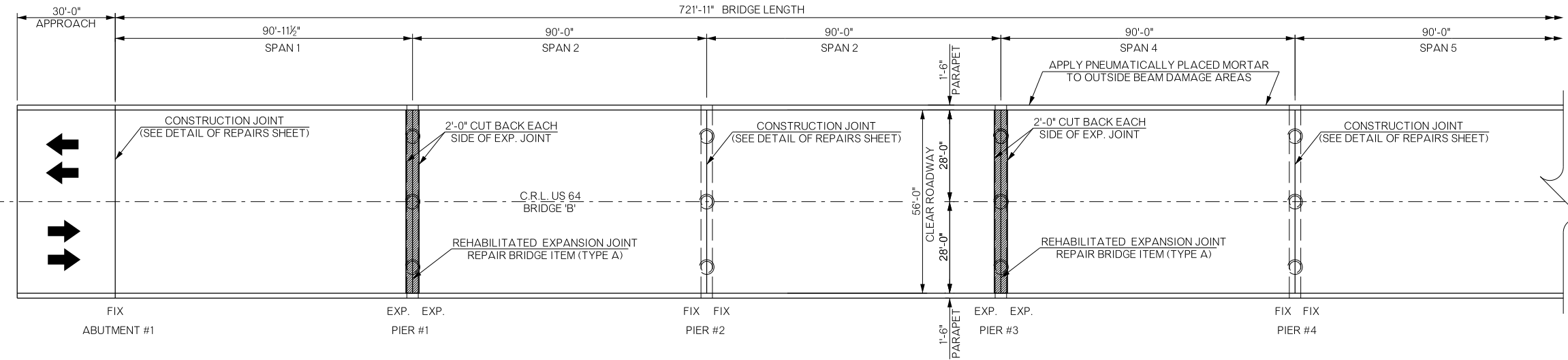
REVISIONS		
REV. NO.	DESCRIPTION	DATE



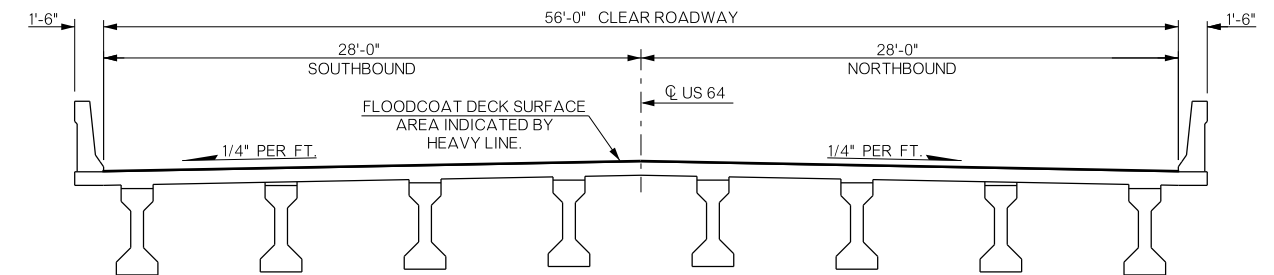
PLAN

BRIDGE 'A' US 64 OVER ARKANSAS RIVER		TULSA COUNTY		Design	N/A	N/A
GENERAL PLAN AND TYPICAL SECTION BRIDGE A (SHEET 2 OF 2)				Detail	ADG	05/16
				Check	KMS	07/16
STATE OF OKLAHOMA				DEPARTMENT OF TRANSPORTATION		
JOB/PIECE NO. 31944(04)				SHEET NO. B002		

REVISIONS		
REV. NO.	DESCRIPTION	DATE



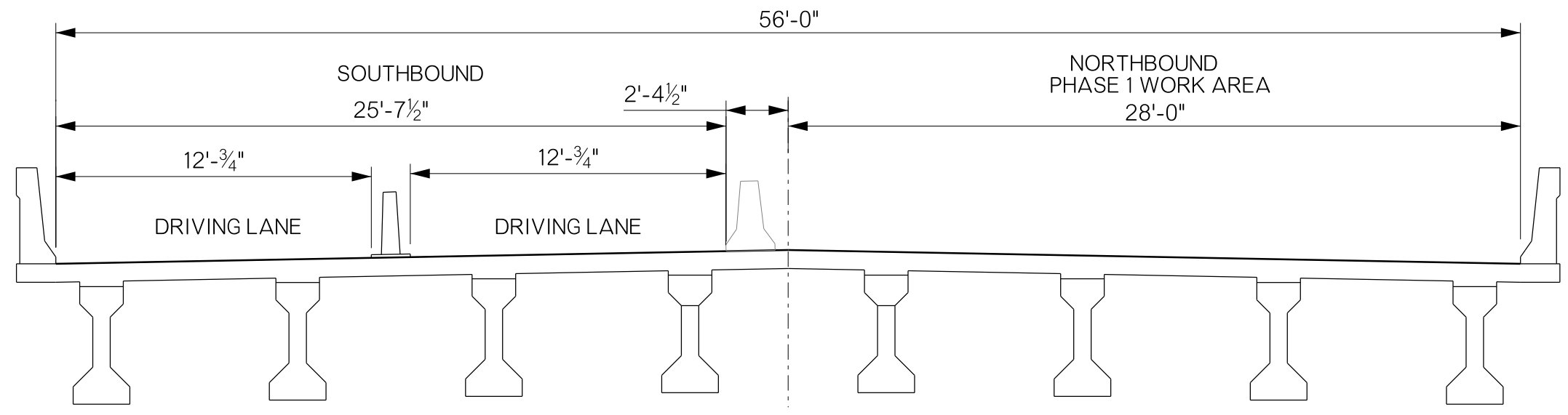
PLAN



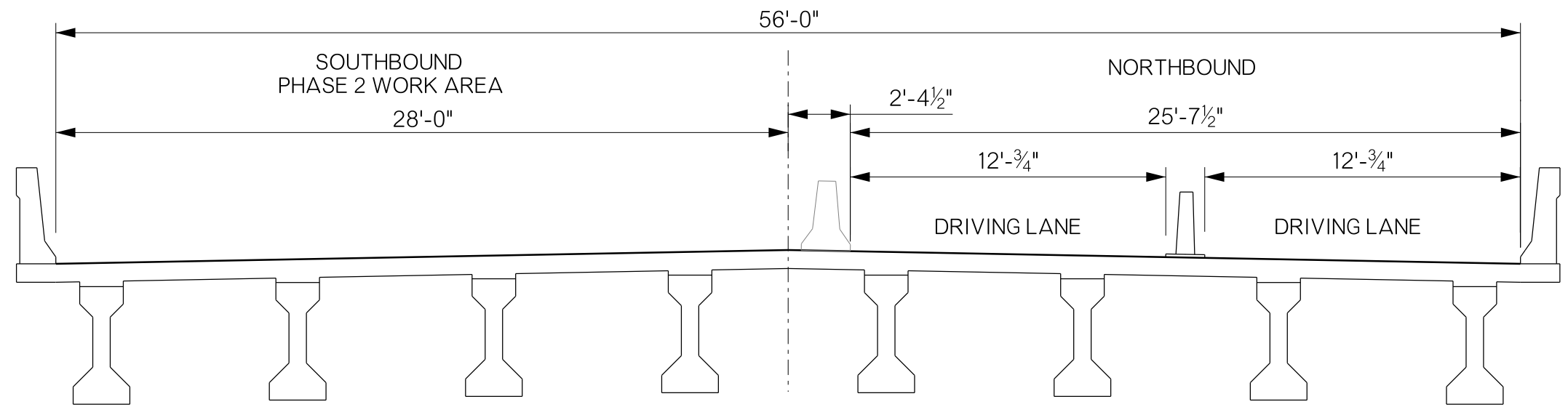
TYPICAL CROSS SECTION

BRIDGE 'B' US 64 OVER ARKANSAS RIVER OVERFLOW	TULSA COUNTY	Design	N/A	N/A
GENERAL PLAN AND TYPICAL SECTION BRIDGE B		Detail	DJG	05/16
		Check	KMS	07/16
STATE OF OKLAHOMA		Squad	MAYFIELD	
DEPARTMENT OF TRANSPORTATION		Engr.	ELYAZGI	
JOB/PIECE NO. 31944(04)	SHEET NO. B003			

REVISIONS		
REV. NO.	DESCRIPTION	DATE



**PHASE 1**

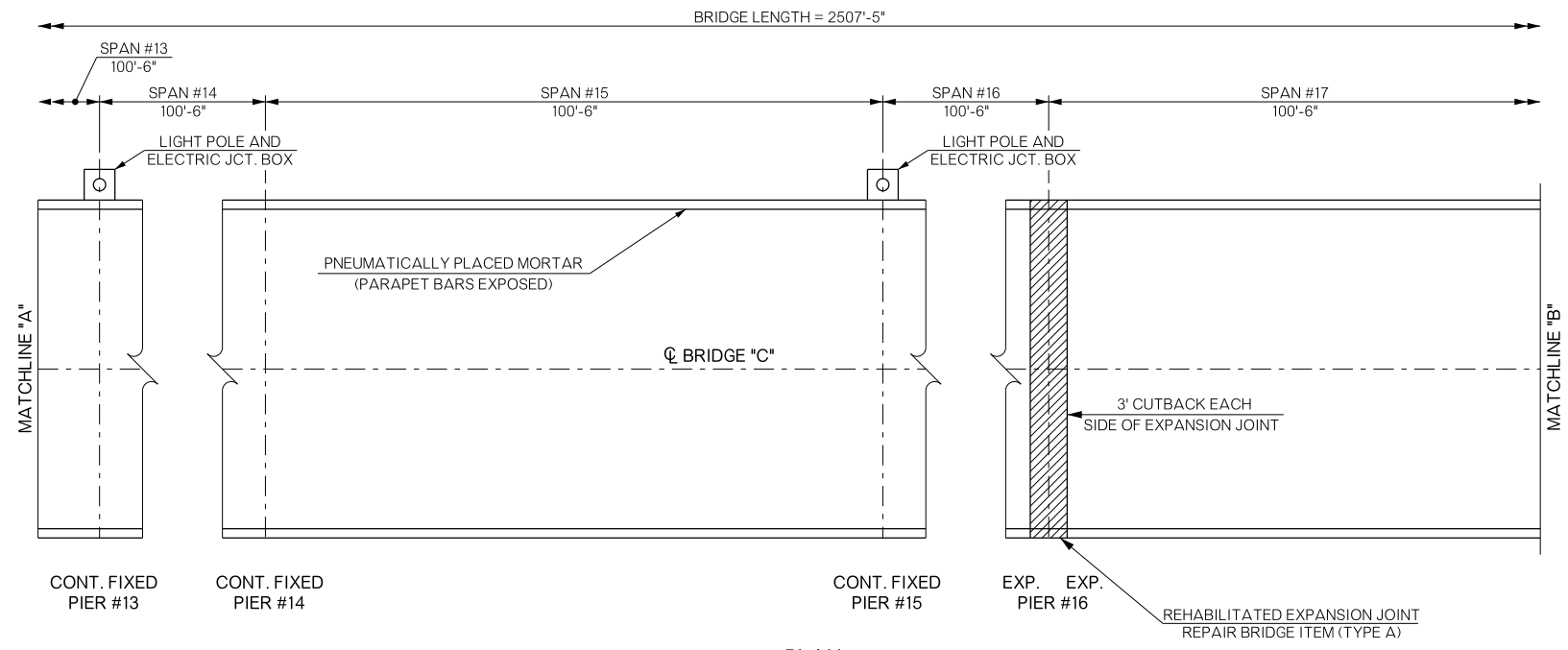
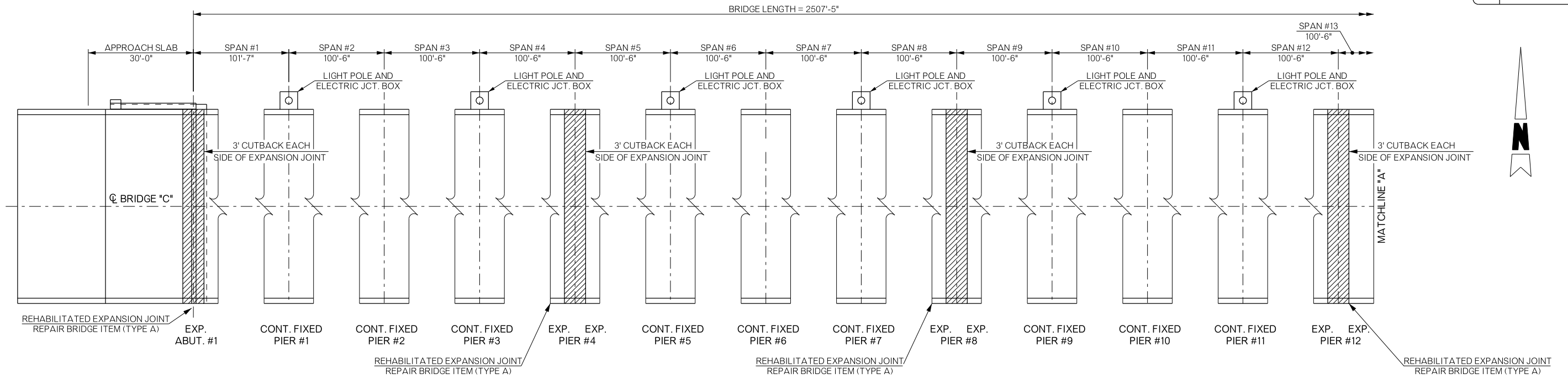


**PHASE 2**

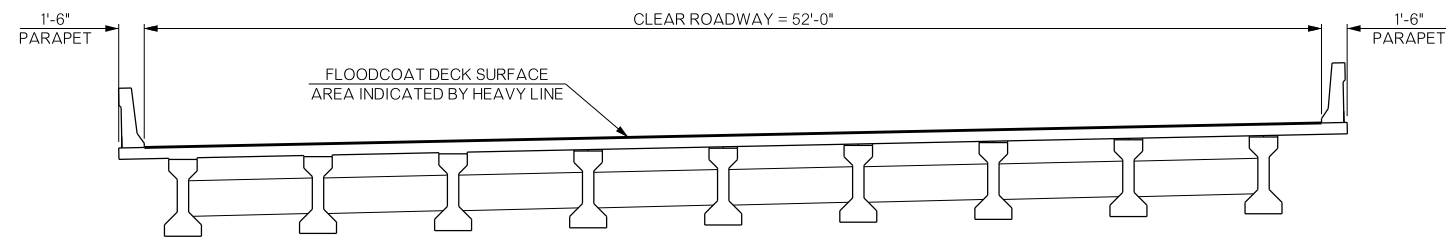
BRIDGE 'A' & 'B' US 64 OVER ARKANSAS RIVER	TULSA COUNTY	Design	N/A	N/A
BRIDGE A & B PHASING		Detail	RWM	05/16
		Check	KMS	07/16
		Squad	MAYFIELD	
		Engr.	ELYAZGI	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO. 31944(04)	SHEET NO. B004	



REVISIONS		
REV. NO.	DESCRIPTION	DATE



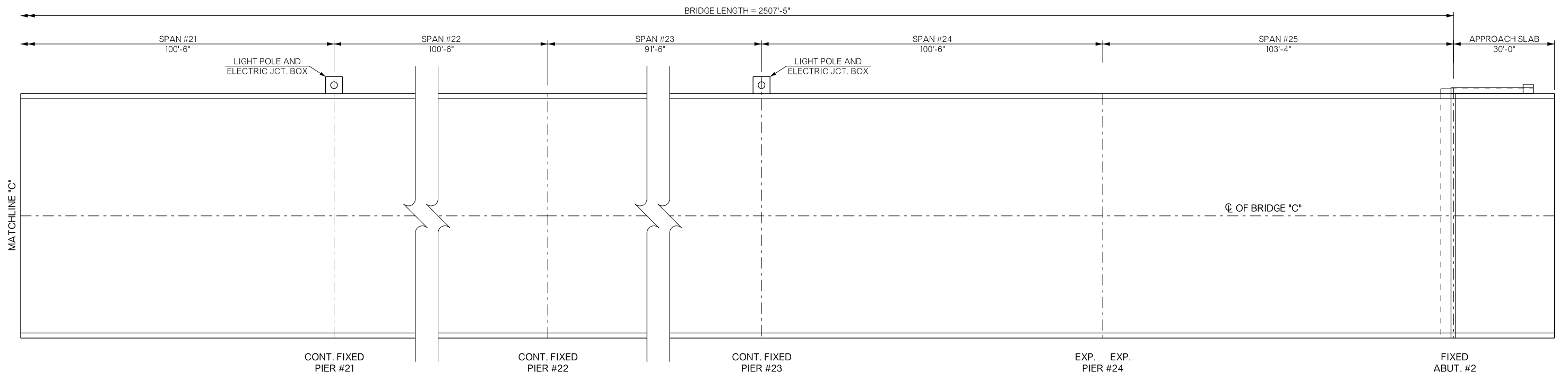
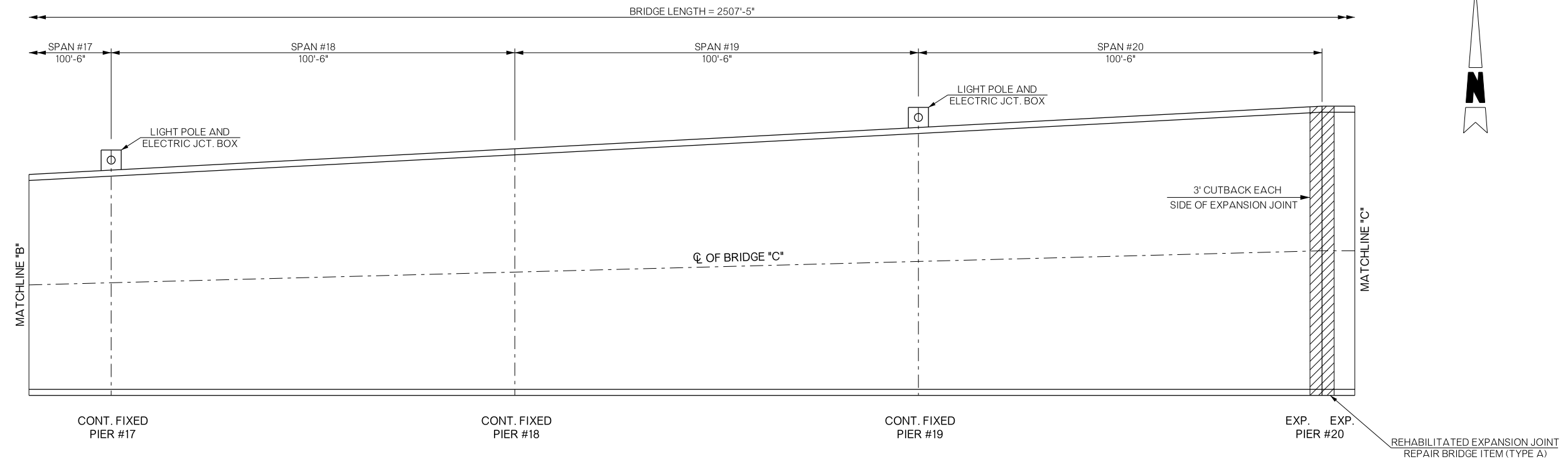
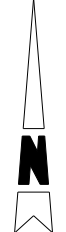
PLAN



TYPICAL CROSS SECTION

BRIDGE 'C' I-44 WB OVER ARK. RIVER & ELWOOD AVE.	TULSA COUNTY	Design	N/A	N/A
GENERAL PLAN AND TYPICAL SECTION BRIDGE C (SHEET 1 OF 2)		Detail	ADG	06/16
		Check	KMS	07/16
STATE OF OKLAHOMA		Squad:	MAYFIELD	
DEPARTMENT OF TRANSPORTATION		Engr.:	ELYAZGI	
JOB/PIECE NO. 31944(04)	SHEET NO. B005			

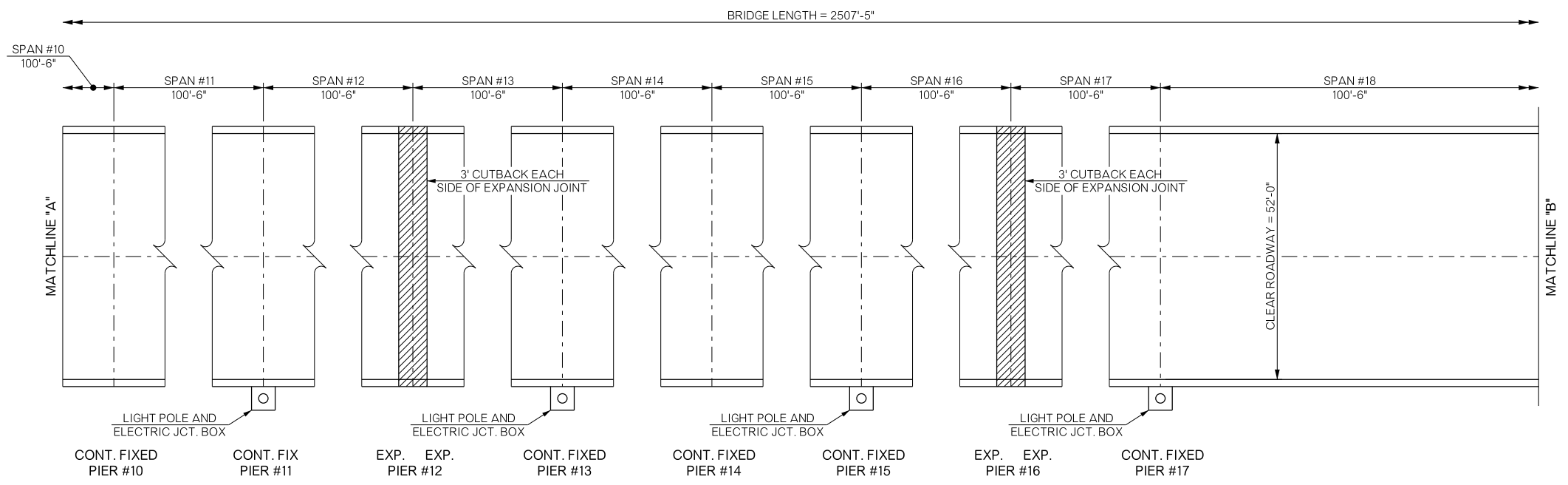
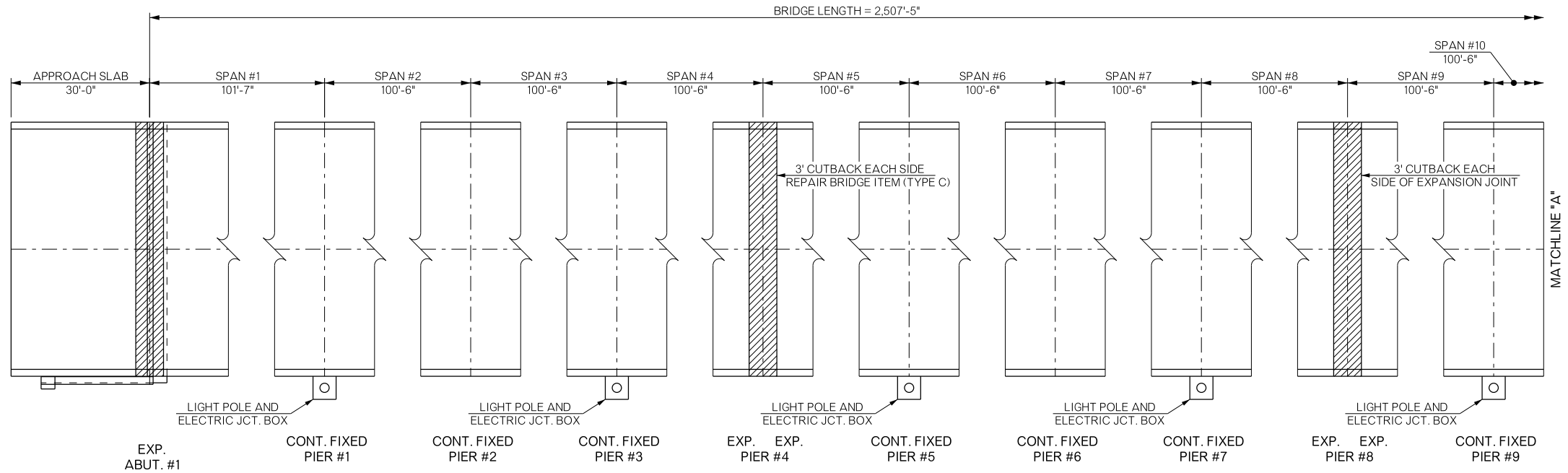
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REV. NO.	DESCRIPTION	DATE



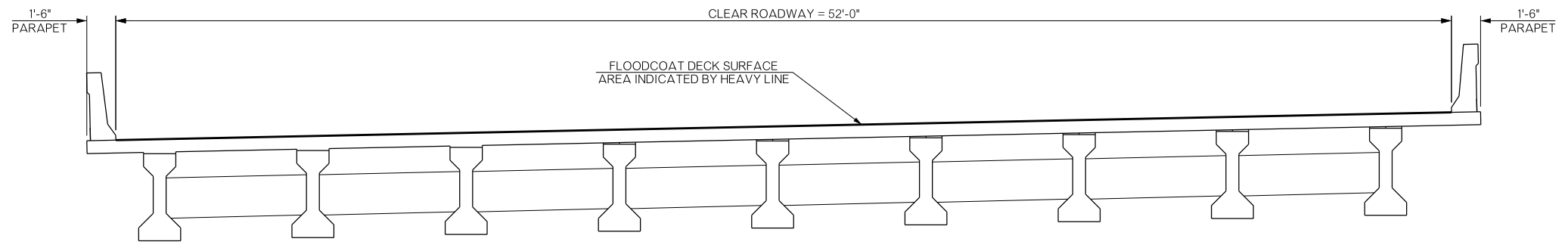
PLAN

BRIDGE 'C'		TULSA COUNTY		Design	N/A	N/A
I-44 OVER ARK. RIVER & ELWOOD AVE.				Detail	ADG	06/16
GENERAL PLAN AND TYPICAL SECTION BRIDGE C (SHEET 2 OF 2)				Check	KMS	07/16
				Squad: MAYFIELD		
		Engr: ELYAZGI				
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION				
JOB/PIECE NO. 31944(04)				SHEET NO. B006		

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

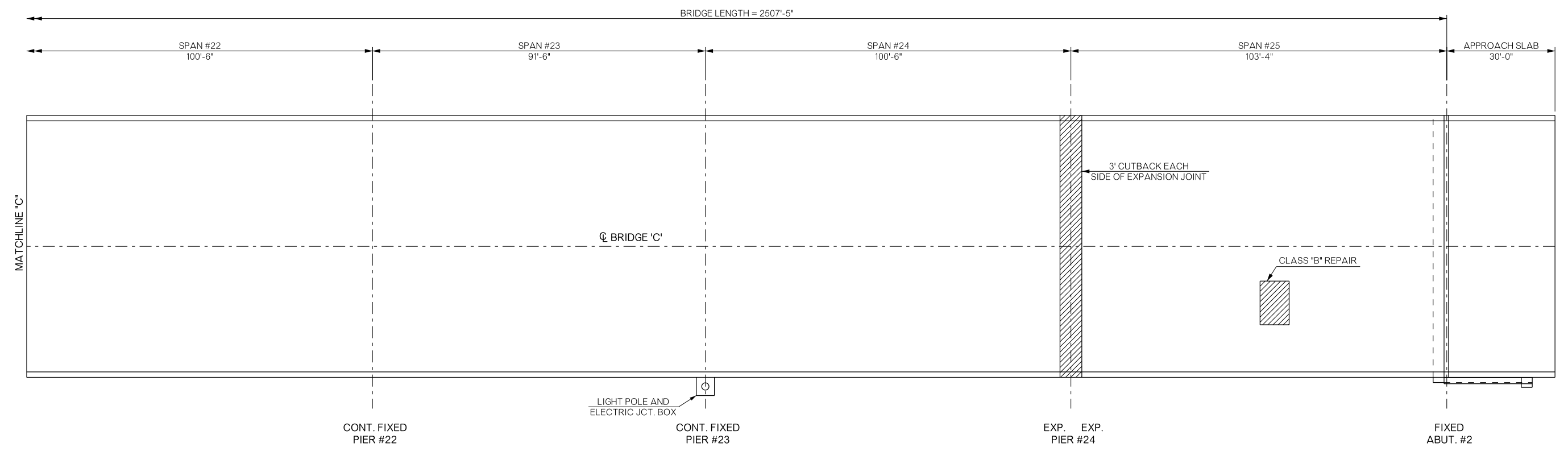
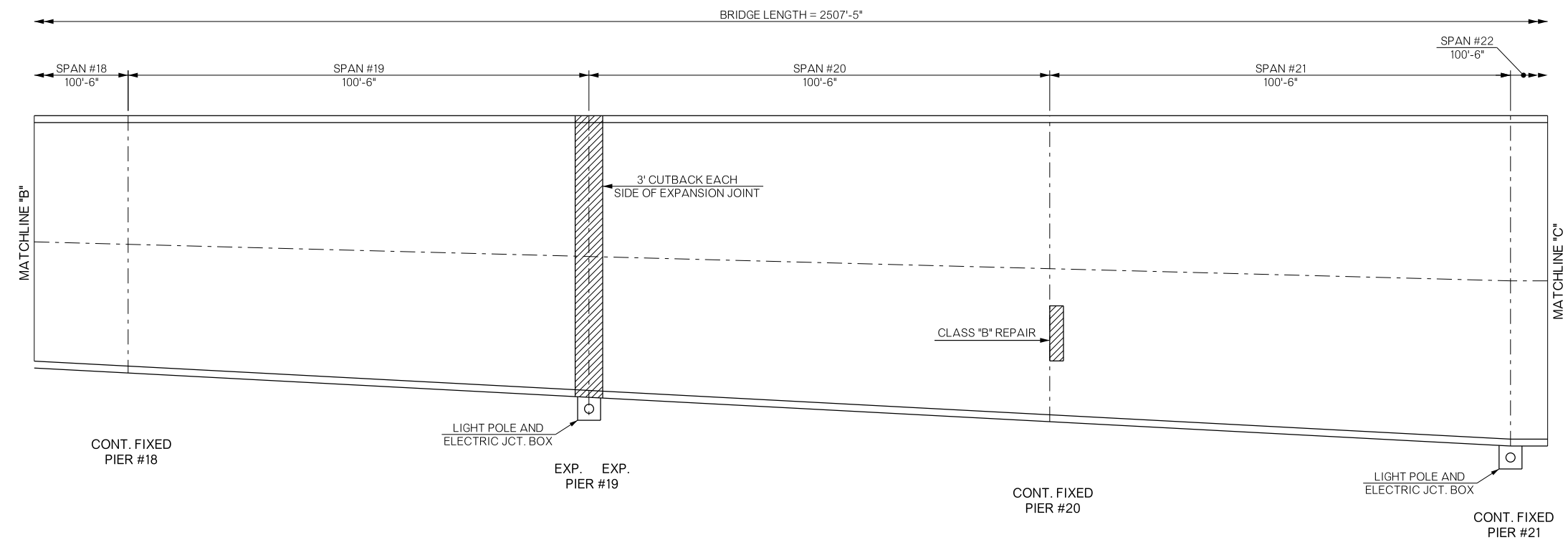


TYPICAL CROSS SECTION

REMOVE ALL TRAFFIC MARKERS AND APPLY CLASS 'A' REPAIR.

BRIDGE 'D' I-44 EB OVER ARK. RIVER & ELWOOD AVE.	TULSA COUNTY	Design	N/A	N/A
GENERAL PLAN AND TYPICAL SECTION BRIDGE D (SHEET 1 OF 2)		Detail	ADG	05/16
		Check	KMS	07/16
STATE OF OKLAHOMA		Squad:	MAYFIELD	
DEPARTMENT OF TRANSPORTATION		Engr:	ELYAZGI	
JOB/PIECE NO. 31944(04)	SHEET NO. B007			

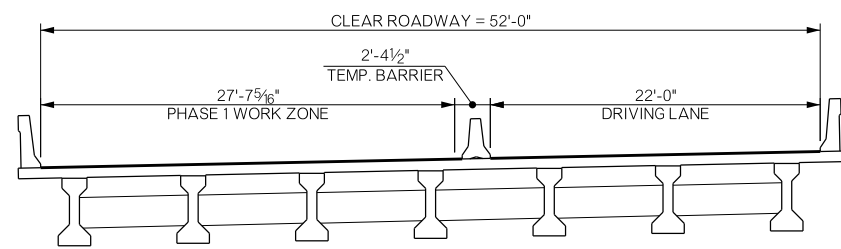
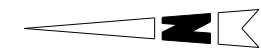
REVISIONS		
REV. NO.	DESCRIPTION	DATE



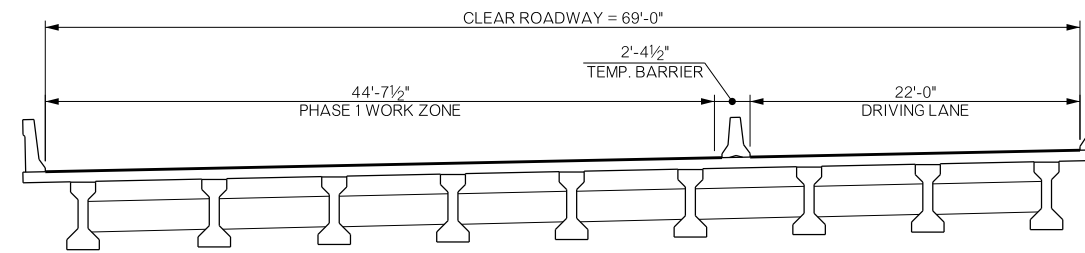
PLAN

BRIDGE "D"		TULSA COUNTY		Design	N/A	N/A
I-44 EB OVER ARK. RIVER & ELWOOD AVE.				Detail	ADG	06/16
GENERAL PLAN AND TYPICAL SECTION BRIDGE D (SHEET 2 OF 2)				Check	KMS	07/16
				Squad	MAYFIELD	
				Engr.	ELYAZGI	
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION				
JOB/PIECE NO. 31944(04)				SHEET NO. B008		

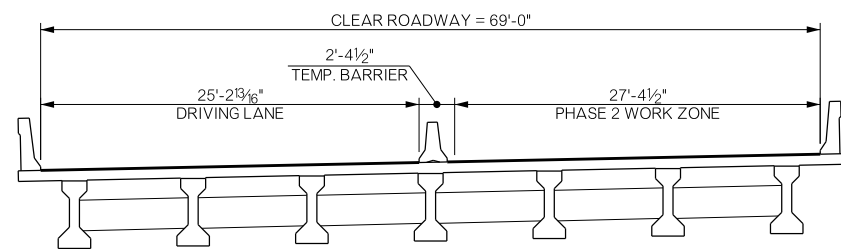
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REV. NO.	DESCRIPTION	DATE



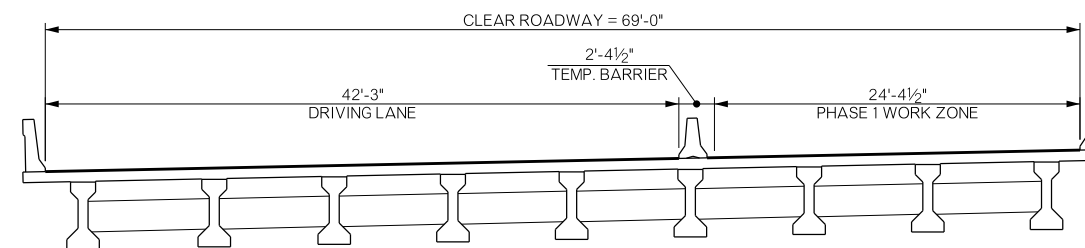
PHASE 1  
PIERS 4 - 16



PHASE 1  
PIER 20



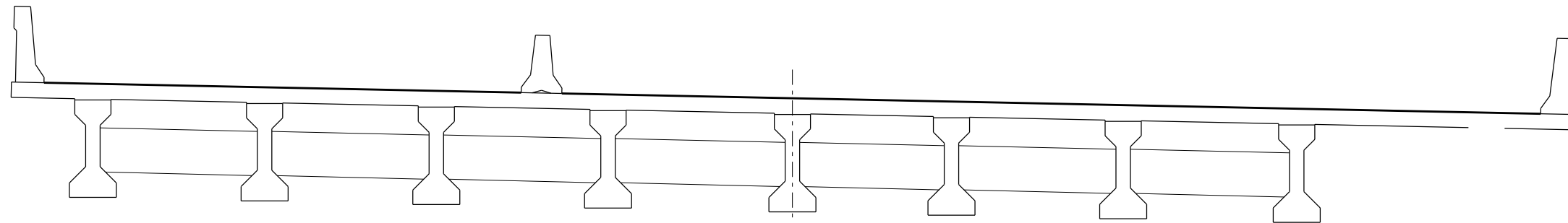
PHASE 2  
PIERS 4 - 16



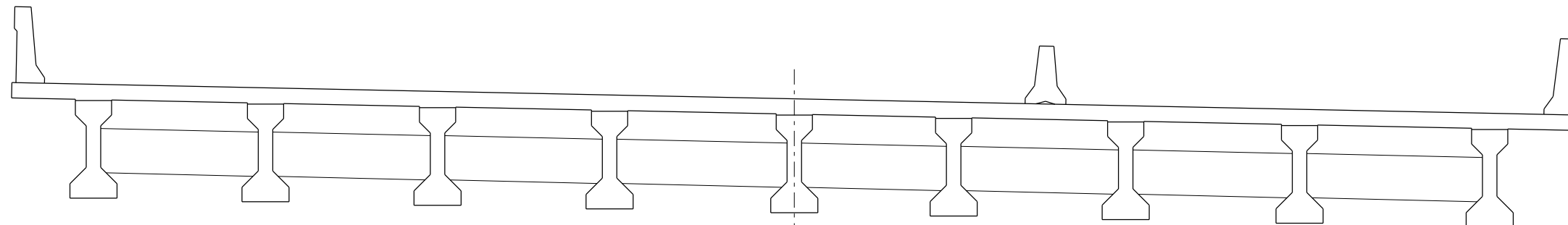
PHASE 2  
PIER 20

BRIDGE 'C' I-44 WB OVER ARK. RIVER & ELWOOD AVE.		TULSA COUNTY		Design	N/A	N/A
BRIDGE C PHASING				Detail	ADG	06/16
				Check	KMS	07/16
				Squad	MAYFIELD	
				Engr.	ELYAZGI	
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		JOB PIECE NO. 31944(04)		SHEET NO. B009

REVISIONS		
REV. NO.	DESCRIPTION	DATE



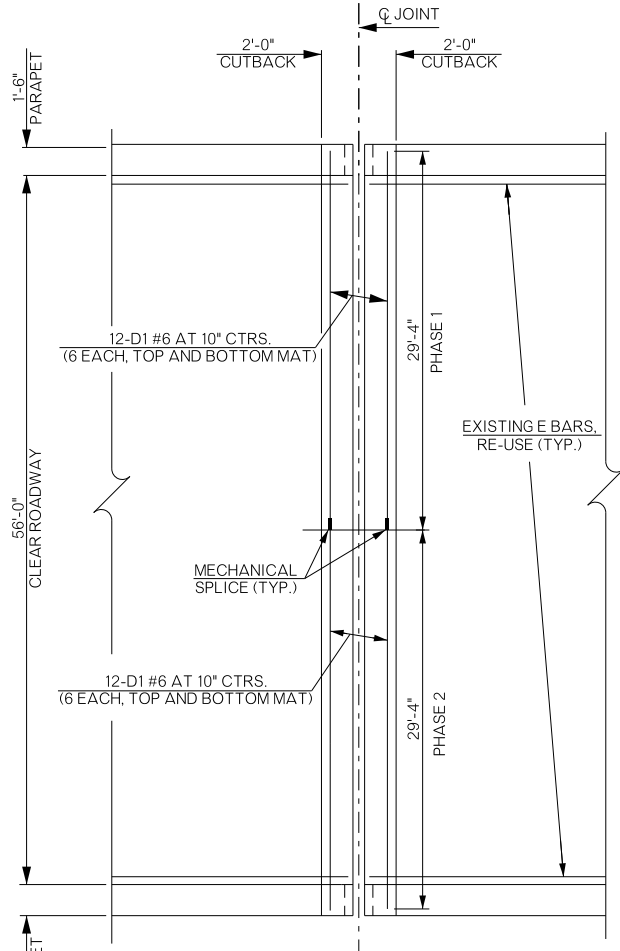
PHASE 1  
ABUT. & PIER 4



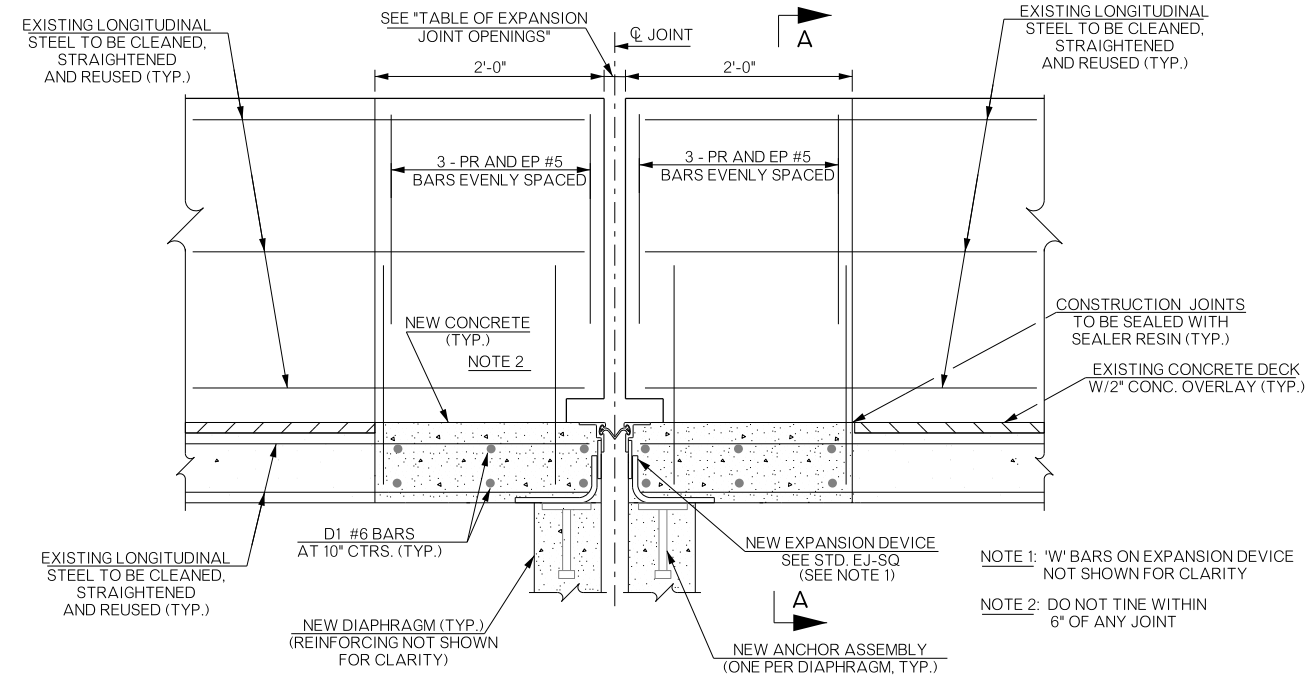
PHASE 2  
PIERS 8, 12, 16

BRIDGE 'D' I-44 EB OVER ARK. RIVER & ELWOOD AVE.	TULSA COUNTY		Design	N/A	N/A
	BRIDGE D PHASING		Detail	ADG	06/16
			Check	KMS	07/16
	Squad: MAYFIELD Engr: ELYAZGI				
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION				
JOB/PIECE NO. 31944(04)			SHEET NO. B010		

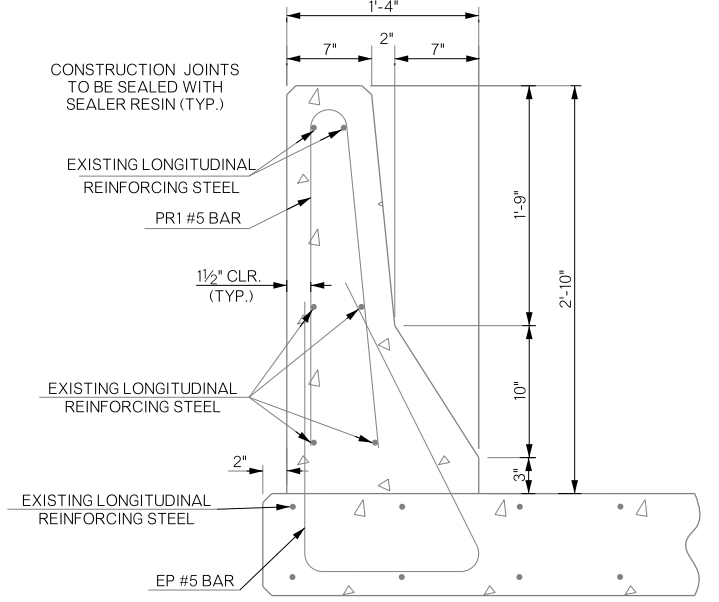
REVISIONS		
REV. NO.	DESCRIPTION	DATE



REHAB. EXP. JOINT PLAN VIEW (TYP.)



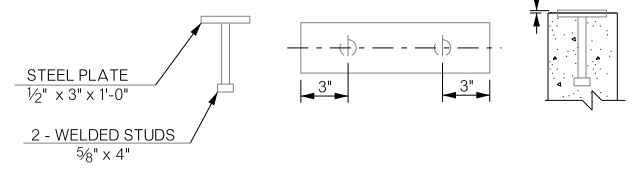
TYPICAL SECTION OF REHABILITATED EXPANSION JOINT (REPAIR BRIDGE ITEM (TYPE A))



SECTION A-A

EXPANSION JOINT OPENING SETTINGS BRIDGE 'A'			
PIERS 1, 3, 5, 7, 9, 11, 13, 15, 17		PIER 18	
TEMP. (°F)	OPENING	TEMP. (°F)	OPENING
102	1 1/8"	110	1 1/2"
94	1 1/4"	93	1 5/8"
85	1 3/8"	77	1 3/4"
77	1 1/2"	60	1 7/8"
68	1 5/8"	43	2"
60	1 3/4"	26	2 1/8"
51	1 7/8"	9	2 1/4"
43	2"		
35	2 1/8"		
26	2 1/4"		
18	2 3/8"		
9	2 1/2"		
1	2 5/8"		

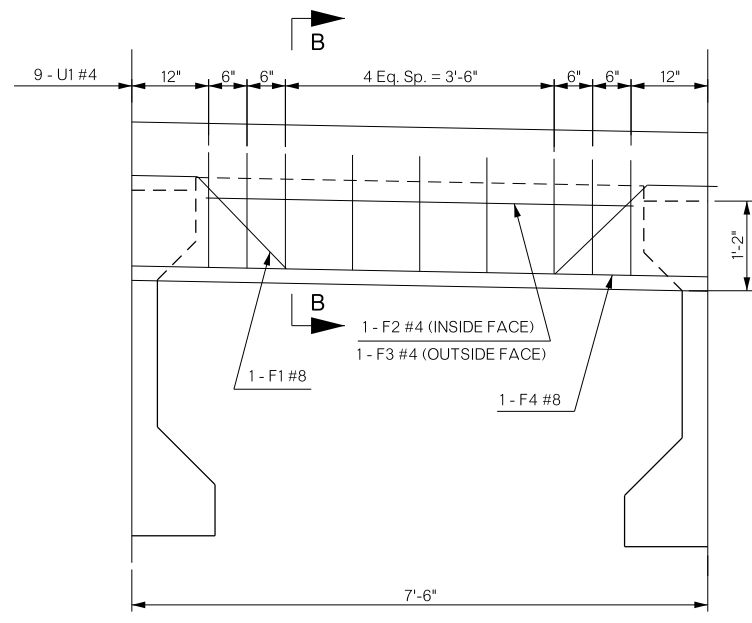
EXPANSION JOINT OPENING SETTINGS BRIDGE 'B'	
EXP. PIERS	
TEMP. (°F)	OPENING
100	1 1/4"
91	1 3/8"
81	1 1/2"
72	1 5/8"
62	1 3/4"
53	1 7/8"
43	2"
33	2 1/8"
24	2 1/4"
14	2 3/8"
5	2 1/2"



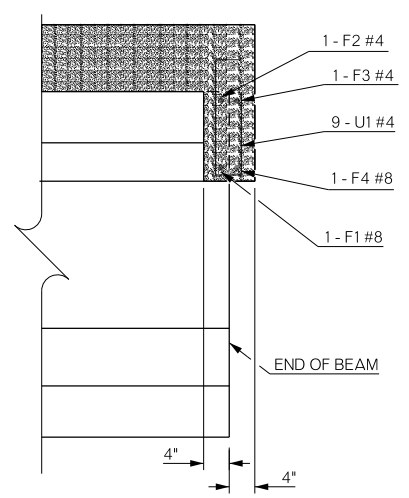
DETAIL OF ANCHOR ASSEMBLY

BAR LIST (ONE EXP. JOINT) EPOXY COATED				
MARK	NO.	SIZE	FORM	LENGTH
(A) D1	12	#6	STR.	29'-4"
(B) D1	12	#6	STR.	29'-4"
(A) EP	6	#5	BNT.	5'-5"
(B) EP	6	#5	BNT.	5'-5"
(A) F1	8	#8	BNT.	8'-8"
(B) F1	6	#8	BNT.	8'-8"
(A) F2	8	#4	STR.	5'-6"
(B) F2	6	#4	STR.	5'-6"
(A) F3	1	#4	STR.	26'-11"
(B) F3	1	#4	STR.	26'-11"
(A) F4	1	#8	STR.	26'-7"
(B) F4	1	#8	STR.	26'-7"
(A) PR	6	#5	BNT.	5'-0"
(B) PR	6	#5	BNT.	5'-0"
(A) U1	64	#4	BNT.	3'-3"
(B) U1	62	#4	BNT.	3'-3"

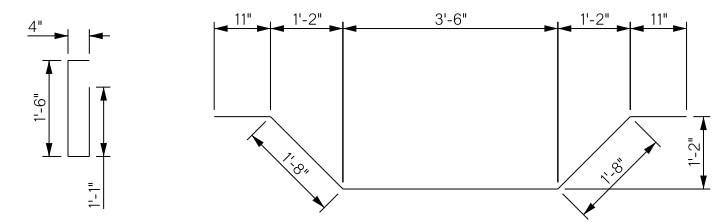
- (A) PHASE 1
- (B) PHASE 2



END DIAPHRAGM

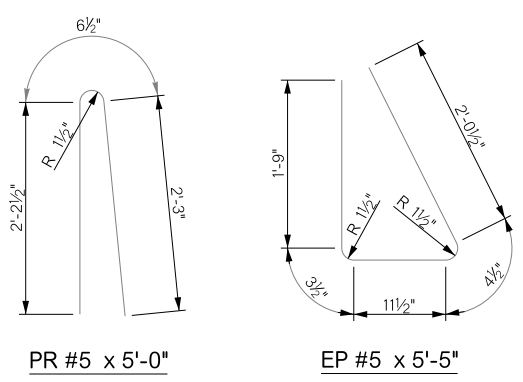


SECTION B-B



U1 #4 x 3'-3"

F1 #8 x 8'-8"



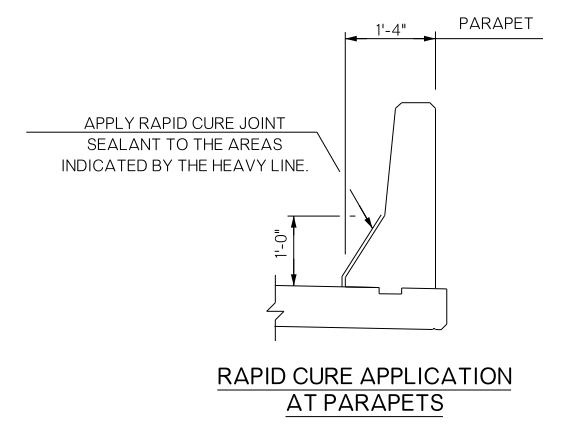
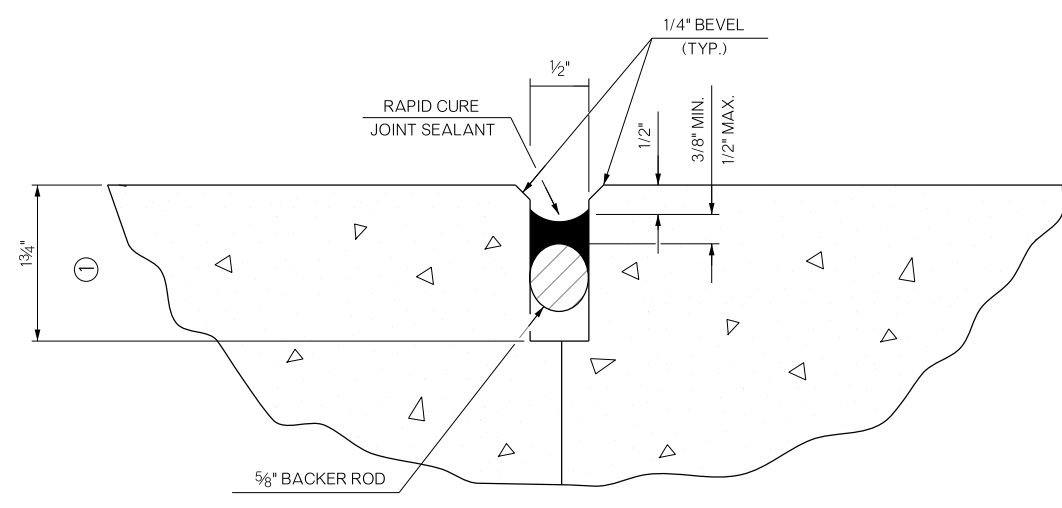
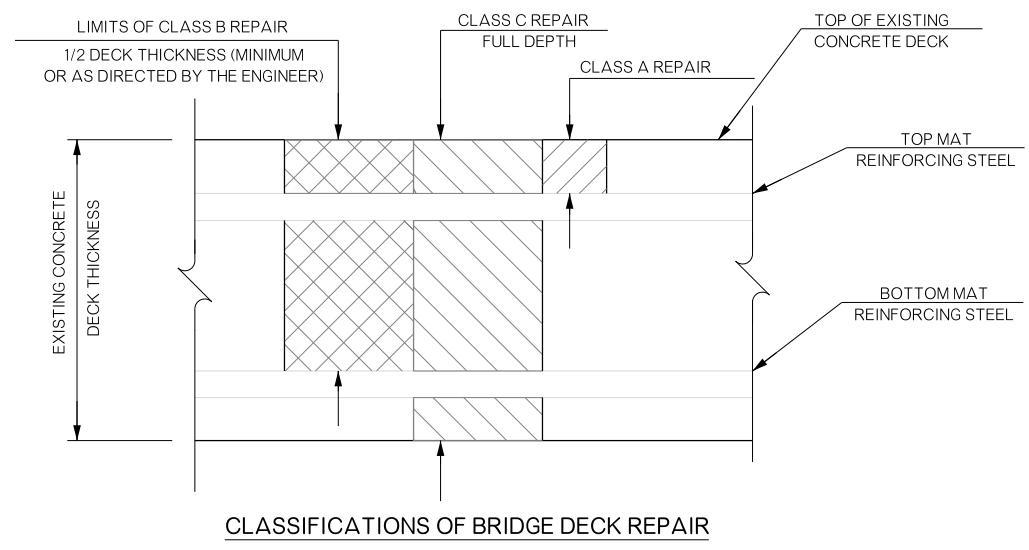
PR #5 x 5'-0"

EP #5 x 5'-5"

QUANTITIES (ONE EXPANSION JOINT)		
ITEM	UNIT	TOTAL
SEALED EXPANSION JOINT	L.F.	60.00
MECHANICAL SPLICES	EA.	14.00
STRUCTURAL STEEL	LB.	98.00
CLASS AA CONCRETE	C.Y.	11.60
EPOXY COATED REINFORCING STEEL	LB.	2,020.00
SEALER CRACK PREPARATION	L.F.	112.00
SEALER RESIN	GAL.	1.00

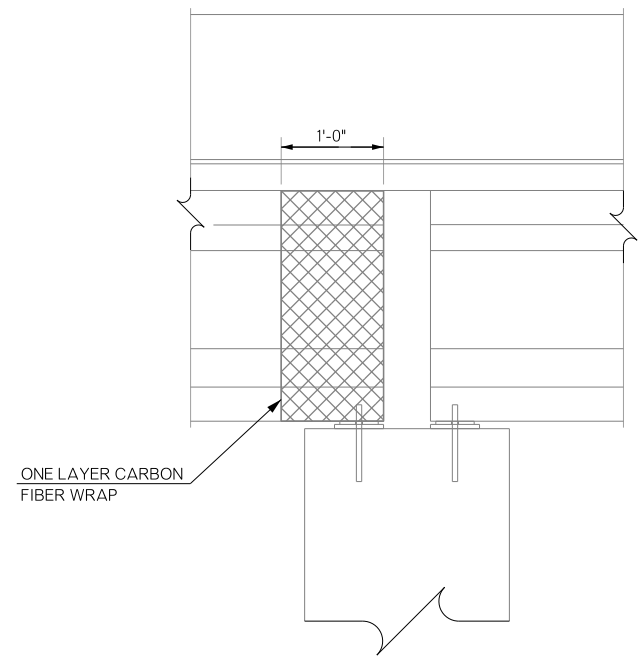
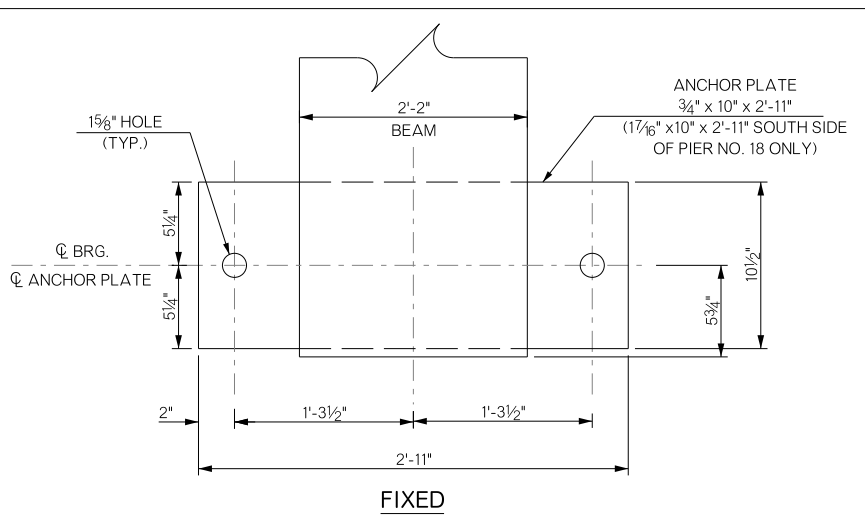
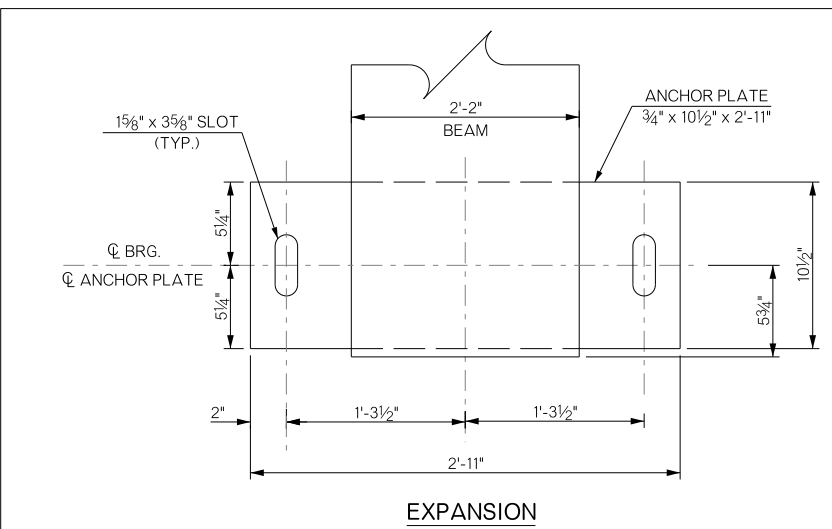
BRIDGE 'A' & 'B' US 64 OVER ARKANSAS RIVER		TULSA COUNTY	Design	N/A	N/A
DETAILS OF JOINT REPAIR BRIDGES (A & B)		Squad: MAYFIELD Engr: ELYAZGI	Detail	RWM	05/16
			Check	KMS	06/16
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO. 31944(04)	SHEET NO.	B011	

REVISIONS		
REV. NO.	DESCRIPTION	DATE

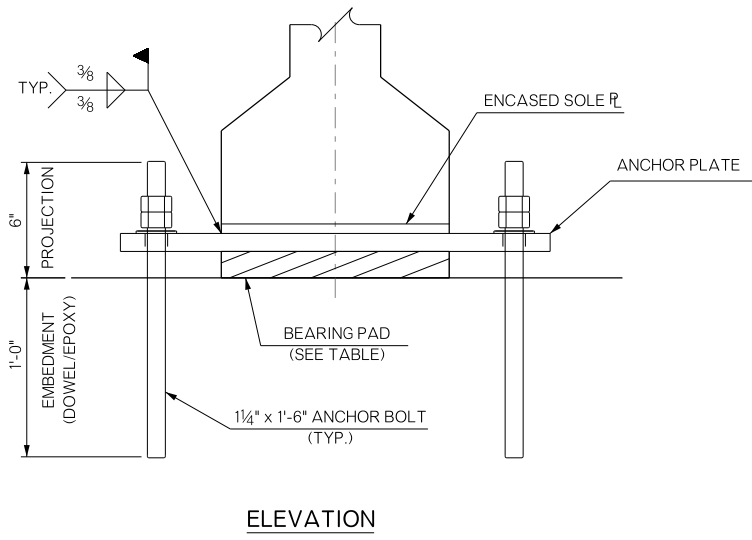


① SAW TO THE DEPTH SHOWN TO PROVIDE CLEAN STRAIGHT SURFACES.

**REHABILITATED CONSTRUCTION JOINTS**  
**SAW AND SEAL**  
**REPAIR BRIDGE ITEM (TYPE D)**



**CARBON-FIBER WRAP BEAM END (TYP.)**  
**REPAIR BRIDGE ITEM (TYPE D)**  
**(BRIDGE 'A' ONLY)**



**NOTES:** WHERE REQUIRED, DRILL OUT OLD ANCHOR BOLTS AND EPOXY NEW BOLTS IN PLACE. STRUCTURAL STEEL AND BOLTS / HARDWARE TO BE AASHTO M164 (ASTM A 325) TYPE 3 WEATHERING.

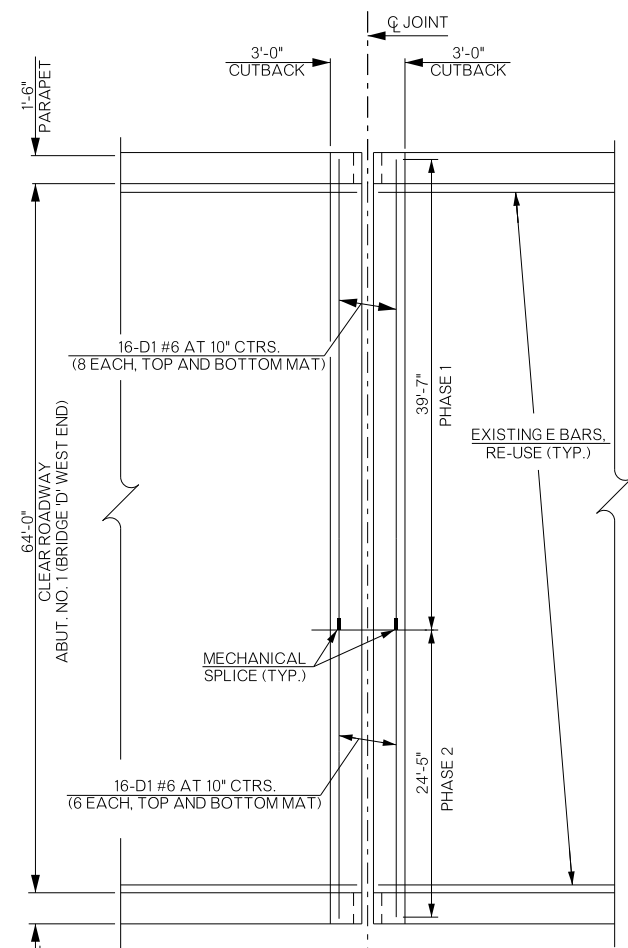
BEARING PADS 60 DUROMETER ELASTOMERIC PAD				
LOCATION	SIZE T x L x W	COVER LAYER	INNER LAYER	LAMINATE PLATE
EXPANSION	15/16" x 10" x 24 1/2"	2 - 5/16"	1 - 7/16"	2 - 1/8"
FIXED	5/8" x 9 1/2" x 24 1/2"	2 - 1/4"	N/A	1 - 1/8"

**REPLACE BRIDGE ITEM (TYPE A)**

BRIDGE A & B	TULSA COUNTY	Design	N/A	N/A
<b>DETAILS OF REPAIR (BRIDGE A &amp; B)</b>		Detail	DJG	05/16
		Check	KMS	06/16
STATE OF OKLAHOMA		Squad	MAYFIELD	
DEPARTMENT OF TRANSPORTATION		Engr.	ELYAZGI	
JOB/PIECE NO. 31944(04)	SHEET NO. B012			

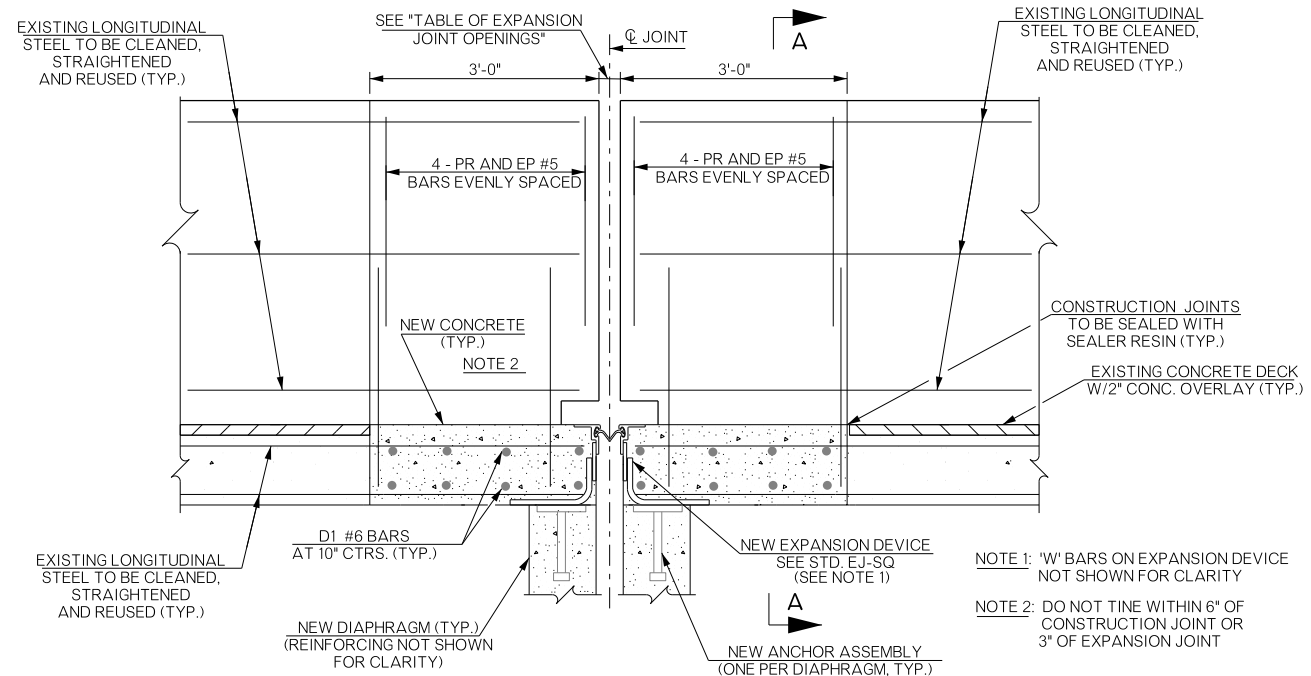


REVISIONS		
REV. NO.	DESCRIPTION	DATE



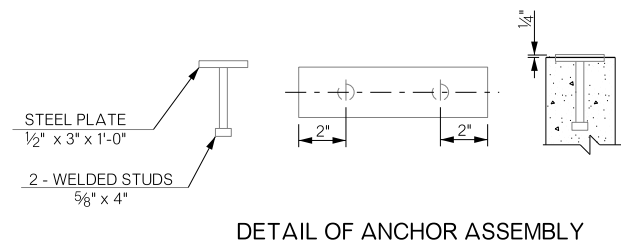
REHAB. EXP. JOINT PLAN VIEW (TYP.)

NOTE: DIMENSIONS SHOWN ARE FOR ABUT. NO. 1, BRIDGE 'D'. SEE SHEET 'DETAILS OF REPAIR (BRIDGE C & D)' FOR OTHER LOCATIONS

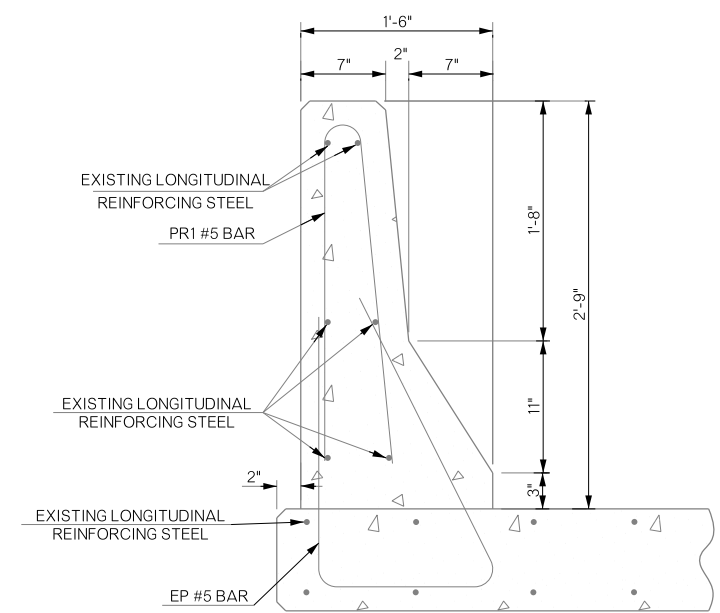


TYPICAL SECTION OF REHABILITATED EXPANSION JOINT

EXPANSION JOINT OPENING SETTINGS BRIDGE 'C' & 'D'	
EXP. PIERS / ABUT.	OPENING
103	5/8"
90	1"
82	1 1/4"
73	1 1/2"
60	1 7/8"
52	2 1/8"
43	2 3/8"
30	2 3/4"
22	3"
13	3 1/4"
5	3 1/2"



DETAIL OF ANCHOR ASSEMBLY



SECTION A-A

(ALL PARPET LOCATIONS EXCEPT FOR PIER 20)

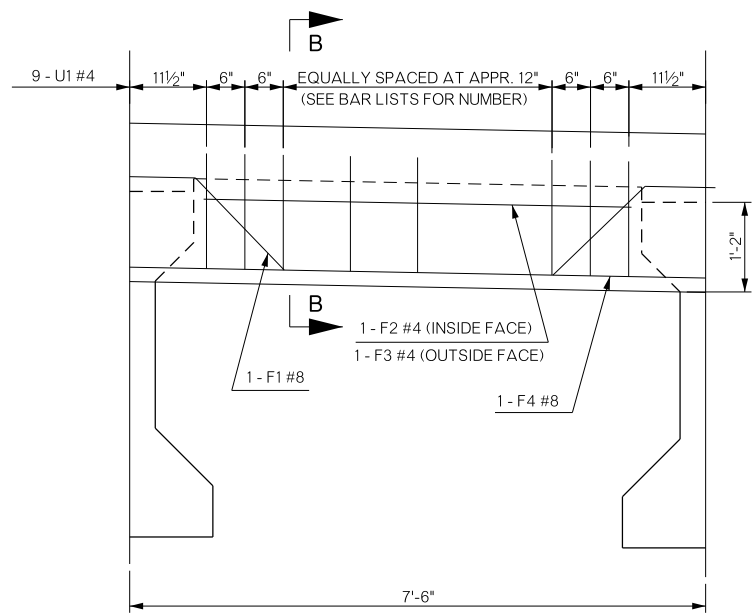
BAR LIST  
(BRIDGE 'D', ABUT. NO. 1)  
EPOXY COATED

MARK	NO.	SIZE	FORM	LENGTH
(A) D1	16	#6	STR.	40'-9"
(B) D2	16	#6	STR.	25'-7"
(A) EP	8	#5	BNT.	5'-5"
(B) EP	8	#5	BNT.	5'-5"
(A) F1	8	#8	BNT.	8'-8"
(B) F1	6	#8	BNT.	8'-8"
(A) F2	8	#4	STR.	5'-6"
(B) F2	6	#4	STR.	5'-6"
(A) F3	1	#4	STR.	26'-11"
(B) F3	1	#4	STR.	26'-11"
(A) F4	1	#8	STR.	26'-7"
(B) F4	1	#8	STR.	26'-7"
(A) PR	6	#5	BNT.	5'-0"
(B) PR	6	#5	BNT.	5'-0"
(A) U1	64	#4	BNT.	3'-3"
(B) U1	62	#4	BNT.	3'-3"

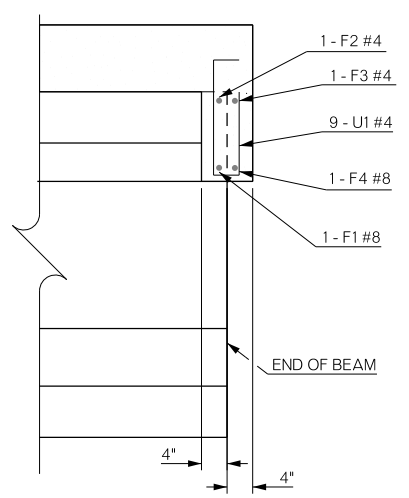
(A) PHASE 1  
(B) PHASE 2

QUANTITIES  
(BRIDGE 'D', ABUT. NO. 1)

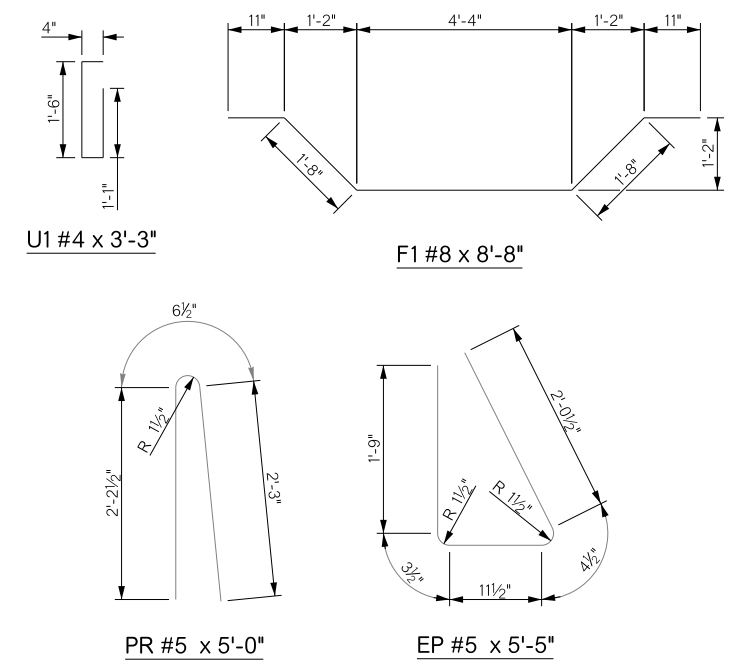
ITEM	UNIT	TOTAL
SEALED EXPANSION JOINT	L.F.	70.00
MECHANICAL SPLICES	EA.	14.00
STRUCTURAL STEEL	LB.	98.00
CLASS AA CONCRETE	C.Y.	11.60
EPOXY COATED REINFORCING STEEL	LB.	2,020.00
SEALER CRACK PREPARATION	L.F.	106.00
SEALER RESIN	GAL.	0.70



END DIAPHRAGM

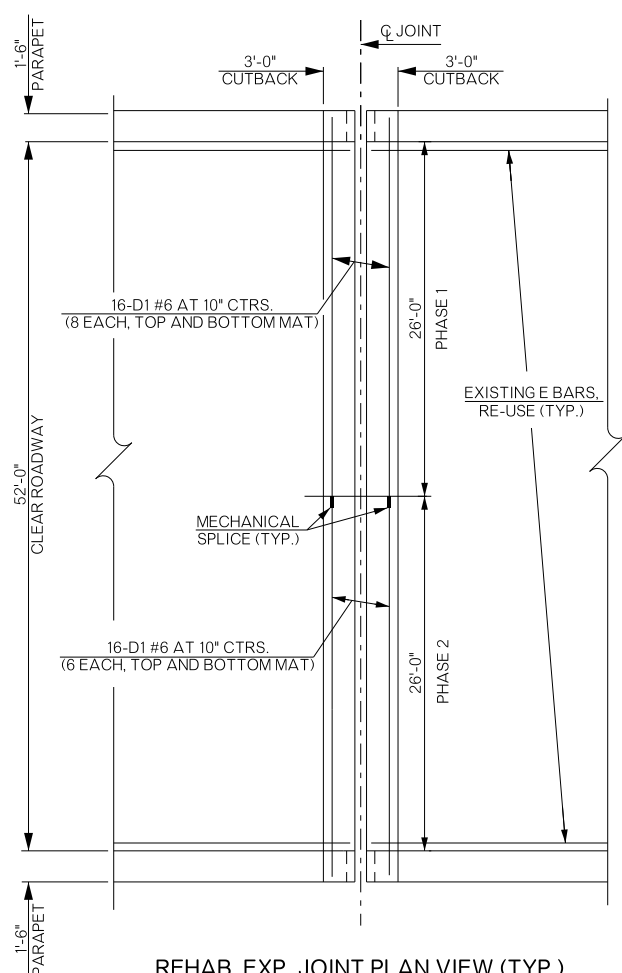


SECTION B-B

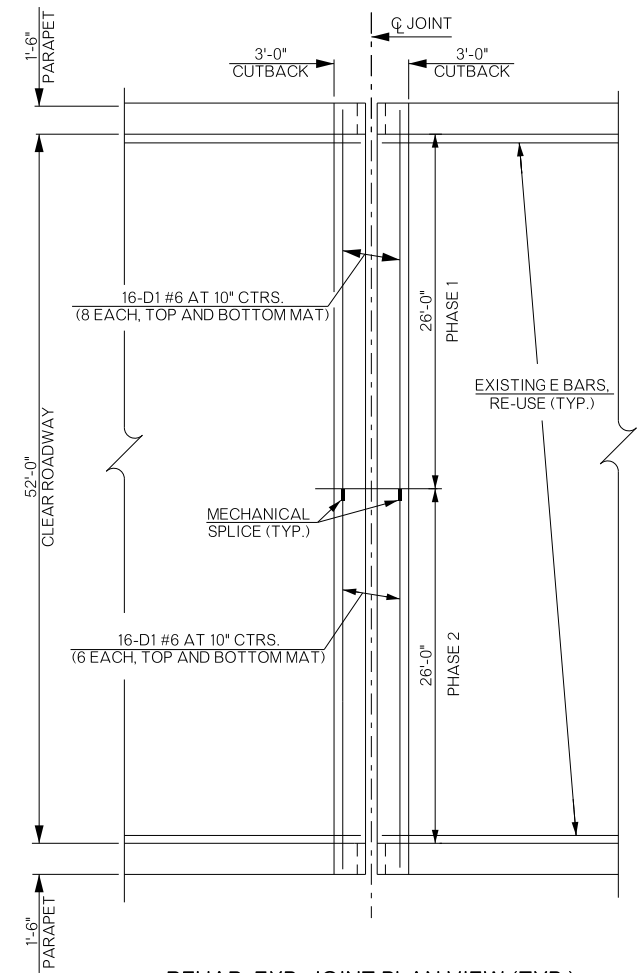


BRIDGE 'C' & 'D' I-44 OVER ARK. RIVER & ELWOOD AVE.		TULSA COUNTY		Design	N/A	N/A
DETAILS OF JOINT REPAIR (BRIDGE C & D)				Detail	ADG	06/16
				Check	KMS	07/16
STATE OF OKLAHOMA				Squad		
DEPARTMENT OF TRANSPORTATION				Engr:		
JOBPIECE NO. 31944(04)				SHEET NO. B013		

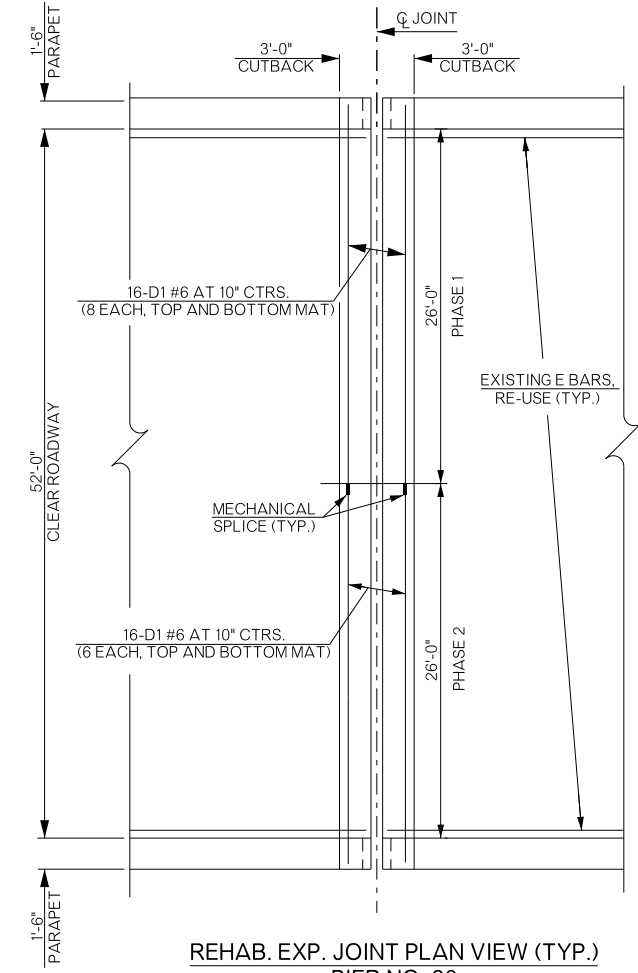
REVISIONS		
REV. NO.	DESCRIPTION	DATE



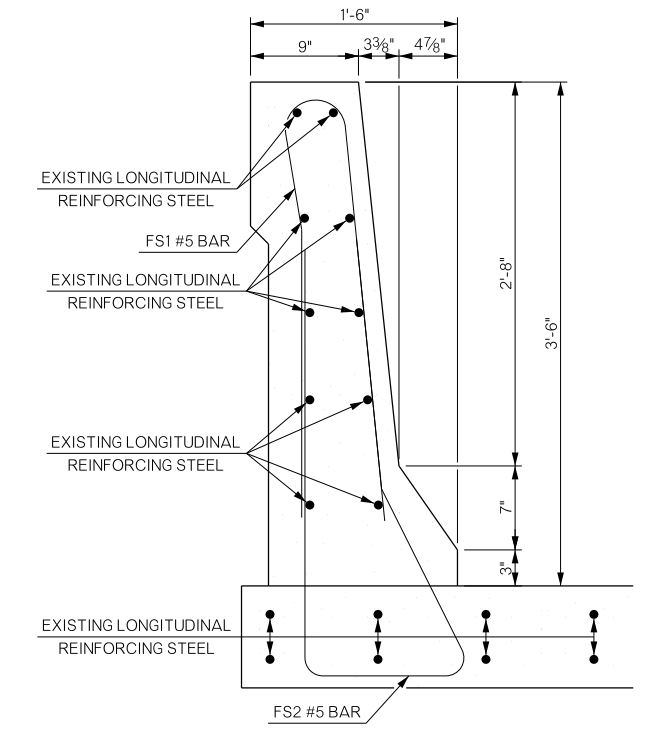
REHAB. EXP. JOINT PLAN VIEW (TYP.)  
EXP. PIER 4, BRIDGE 'D'



REHAB. EXP. JOINT PLAN VIEW (TYP.)  
PIERS 4, 8, 12, 16 BRIDGE 'C'  
PIERS 8, 12, 16 BRIDGE 'D'



REHAB. EXP. JOINT PLAN VIEW (TYP.)  
PIER NO. 20



PARAPET AT PIER NO. 20

BAR LIST (BRIDGE 'D', PIER NO. 4) EPOXY COATED				
MARK	NO.	SIZE	FORM	LENGTH
D1	16	#6	STR.	40'-9"
D2	16	#6	STR.	25'-7"
EP	8	#5	BNT.	5'-5"
EP	8	#5	BNT.	5'-5"
F1	8	#8	BNT.	8'-8"
F1	6	#8	BNT.	8'-8"
F2	8	#4	STR.	5'-6"
F2	6	#4	STR.	5'-6"
F3	1	#4	STR.	26'-11"
F3	1	#4	STR.	26'-11"
F4	1	#8	STR.	26'-7"
F4	1	#8	STR.	26'-7"
PR	6	#5	BNT.	5'-0"
PR	6	#5	BNT.	5'-0"
U1	64	#4	BNT.	3'-3"
U1	62	#4	BNT.	3'-3"

Ⓐ PHASE 1  
Ⓑ PHASE 2

QUANTITIES (BRIDGE 'D', PIER NO. 4)		
ITEM	UNIT	TOTAL
SEALED EXPANSION JOINT	L.F.	70.00
MECHANICAL SPLICES	EA.	14.00
STRUCTURAL STEEL	LB.	98.00
CLASS AA CONCRETE	C.Y.	11.60
EPOXY COATED REINFORCING STEEL	LB.	2,020.00
SEALER CRACK PREPARATION	L.F.	106.00
SEALER RESIN	GAL.	0.70

BAR LIST (PIERS 4, 8, 12, 16 BRIDGE 'C') PIERS 8, 12, 16 BRIDGE 'D')				
EPOXY COATED				
MARK	NO.	SIZE	FORM	LENGTH
D1	16	#6	STR.	40'-9"
D2	16	#6	STR.	25'-7"
EP	8	#5	BNT.	5'-5"
EP	8	#5	BNT.	5'-5"
F1	8	#8	BNT.	8'-8"
F1	6	#8	BNT.	8'-8"
F2	8	#4	STR.	5'-6"
F2	6	#4	STR.	5'-6"
F3	1	#4	STR.	26'-11"
F3	1	#4	STR.	26'-11"
F4	1	#8	STR.	26'-7"
F4	1	#8	STR.	26'-7"
PR	6	#5	BNT.	5'-0"
PR	6	#5	BNT.	5'-0"
U1	64	#4	BNT.	3'-3"
U1	62	#4	BNT.	3'-3"

Ⓐ PHASE 1  
Ⓑ PHASE 2

QUANTITIES (BRIDGE 'D', PIER NO. 4)		
ITEM	UNIT	TOTAL
SEALED EXPANSION JOINT	L.F.	70.00
MECHANICAL SPLICES	EA.	14.00
STRUCTURAL STEEL	LB.	98.00
CLASS AA CONCRETE	C.Y.	11.60
EPOXY COATED REINFORCING STEEL	LB.	2,020.00
SEALER CRACK PREPARATION	L.F.	106.00
SEALER RESIN	GAL.	0.70

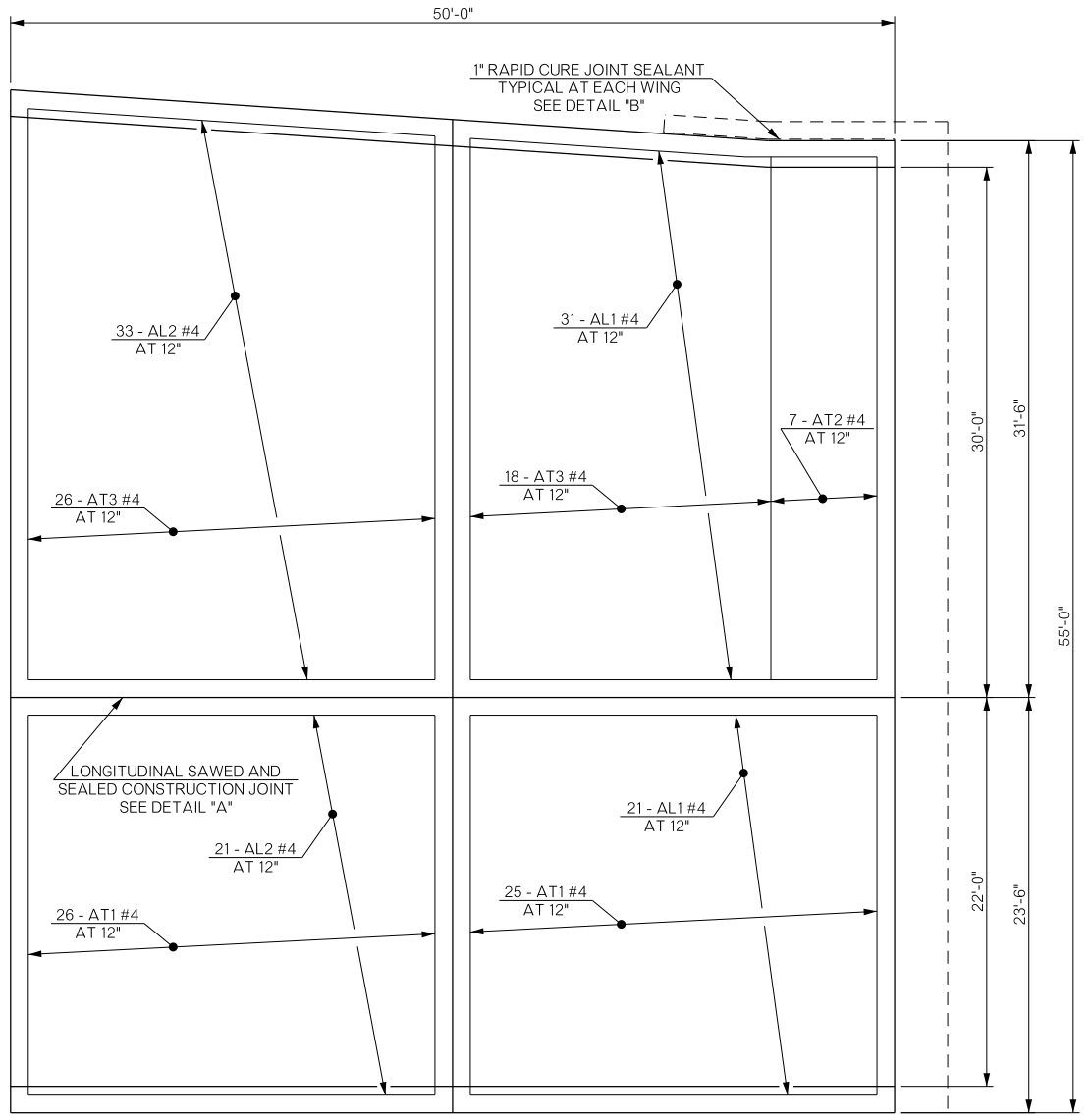
BAR LIST (PIER NO. 20) EPOXY COATED				
MARK	NO.	SIZE	FORM	LENGTH
D1	16	#6	STR.	40'-9"
D2	16	#6	STR.	25'-7"
EP	8	#5	BNT.	5'-5"
EP	8	#5	BNT.	5'-5"
F1	8	#8	BNT.	8'-8"
F1	6	#8	BNT.	8'-8"
F2	8	#4	STR.	5'-6"
F2	6	#4	STR.	5'-6"
F3	1	#4	STR.	26'-11"
F3	1	#4	STR.	26'-11"
F4	1	#8	STR.	26'-7"
F4	1	#8	STR.	26'-7"
PR	6	#5	BNT.	5'-0"
PR	6	#5	BNT.	5'-0"
U1	64	#4	BNT.	3'-3"
U1	62	#4	BNT.	3'-3"

Ⓐ PHASE 1  
Ⓑ PHASE 2

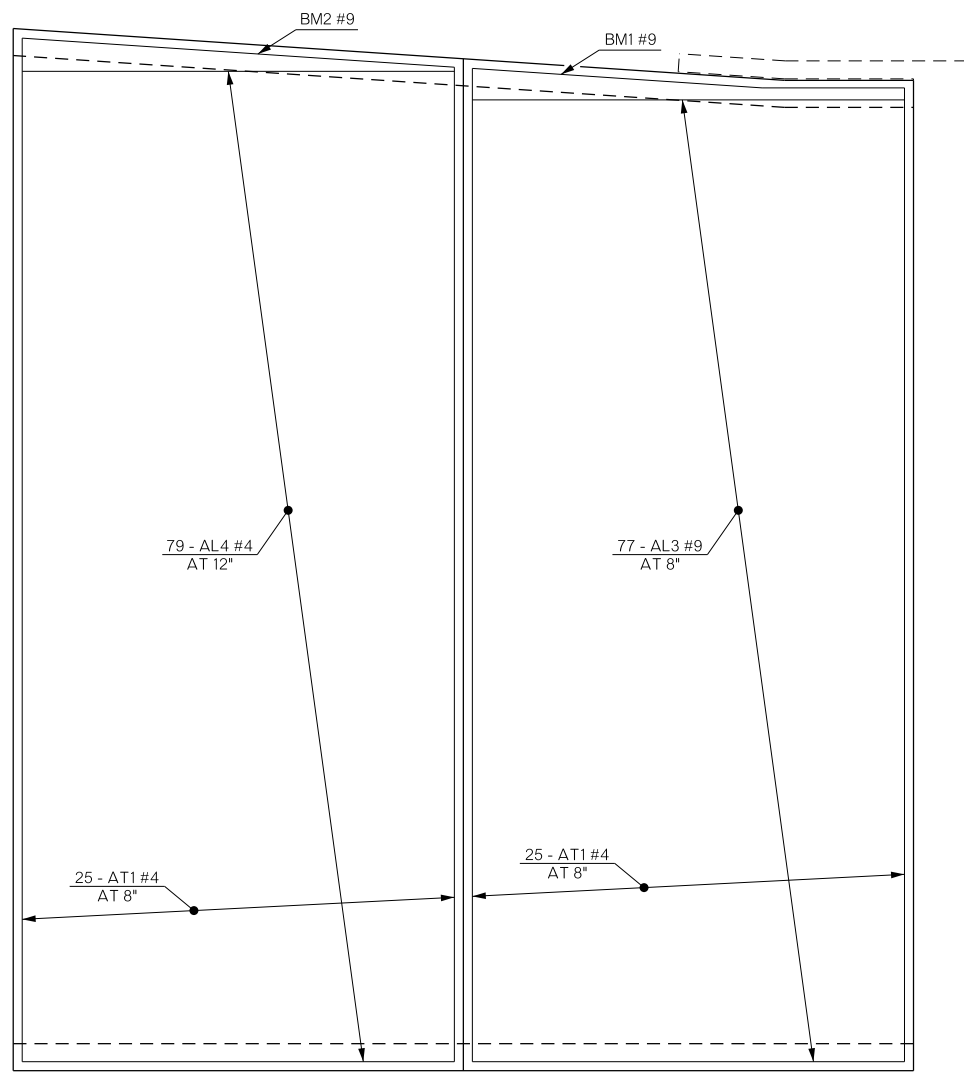
QUANTITIES (PIER NO. 20)		
ITEM	UNIT	TOTAL
SEALED EXPANSION JOINT	L.F.	70.00
MECHANICAL SPLICES	EA.	14.00
STRUCTURAL STEEL	LB.	98.00
CLASS AA CONCRETE	C.Y.	11.60
EPOXY COATED REINFORCING STEEL	LB.	2,020.00
SEALER CRACK PREPARATION	L.F.	106.00
SEALER RESIN	GAL.	0.70

BRIDGE 'C' & 'D' I-44 OVER ARK. RIVER & ELWOOD AVE.  <b>DETAILS OF REPAIR</b> (BRIDGE C & D)	TULSA COUNTY		Design	N/A	N/A
			Detail	ADG	05/16
			Check	KMS	06/16
			Squad	MAYFIELD	
		Engr.	ELYAZGI		
<b>STATE OF OKLAHOMA</b>		<b>DEPARTMENT OF TRANSPORTATION</b>			
		JOB/PIECE NO.	31944(04)		SHEET NO.
					B014

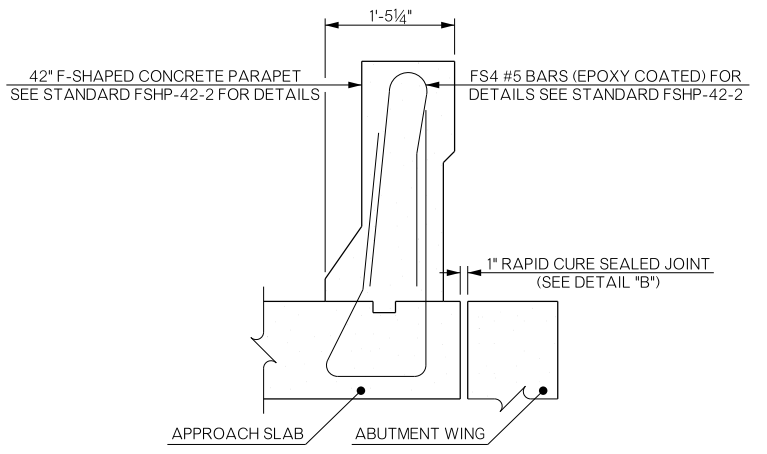
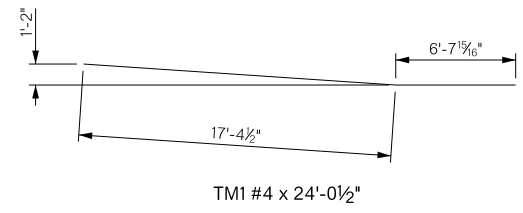
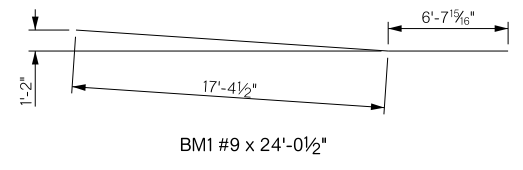
REVISIONS		
REV. NO.	DESCRIPTION	DATE



TOP REINFORCING  
MAT DETAIL



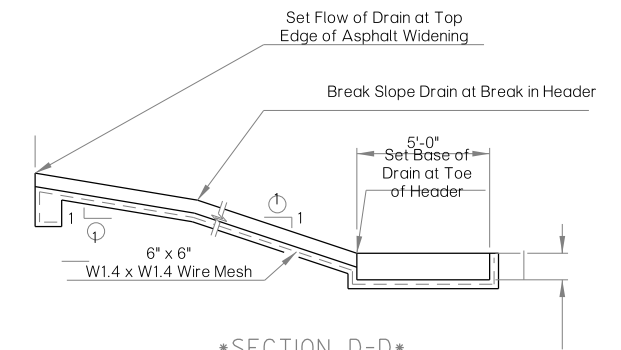
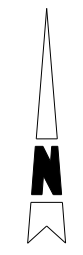
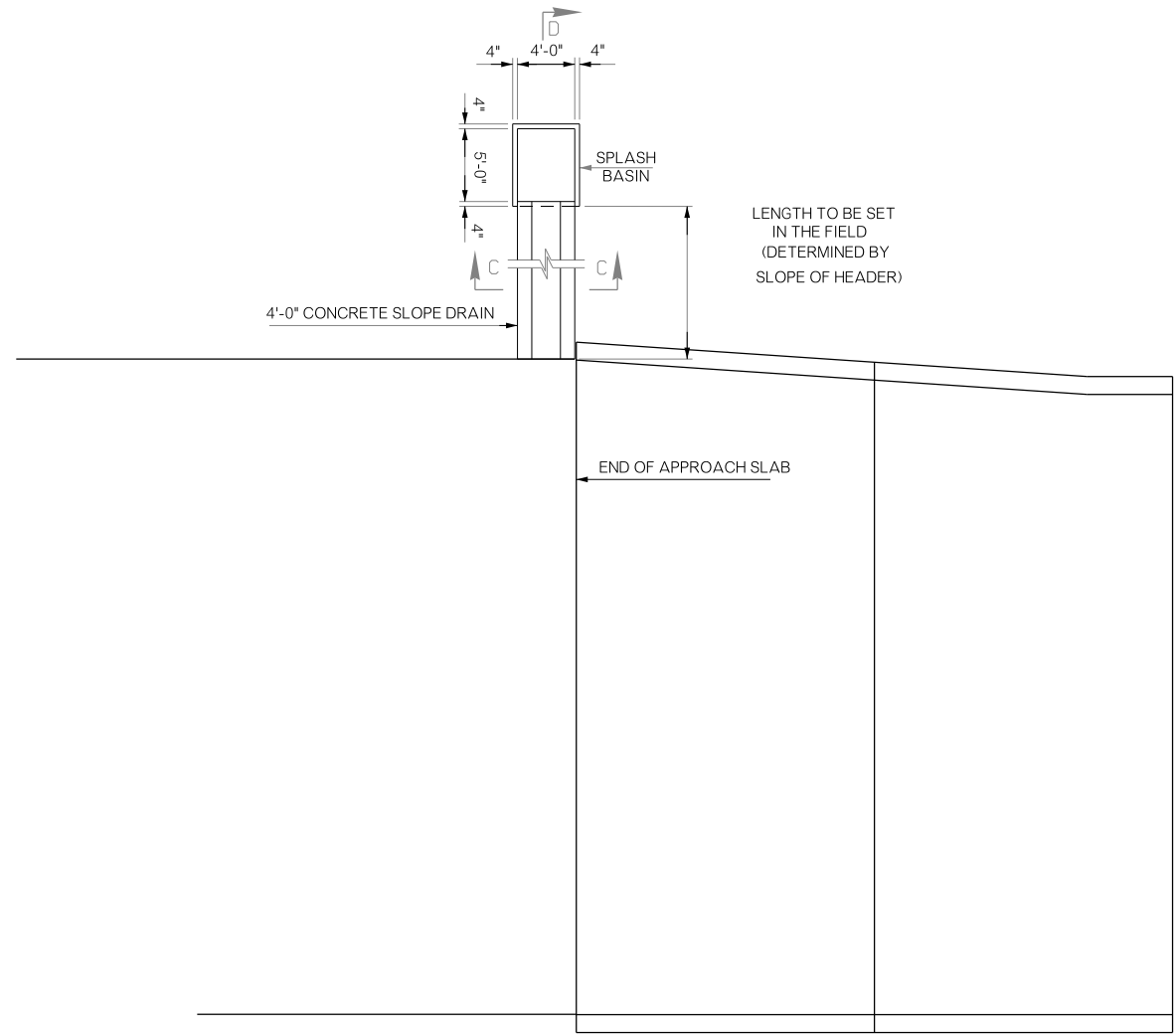
BOTTOM REINFORCING  
MAT DETAIL



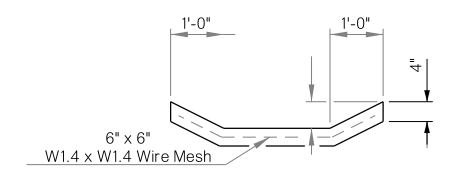
DETAIL OF APPROACH SLAB AT ABUTMENT WING

BRIDGE 'C' I-44 OVER ELWOOD & ARKANSAS RIVER	TULSA COUNTY	Design	N/A	N/A
APPROACH SLAB DETAILS		Detail	ADG	07/16
		Check	KMS	07/16
STATE OF OKLAHOMA		Squad	MAYFIELD	
DEPARTMENT OF TRANSPORTATION		Engr:	ELYAZGI	
JOB/PIECE NO. 31944(04)	SHEET NO. B015			

REVISIONS		
REV. NO.	DESCRIPTION	DATE



**\*SECTION D-D\***  
Slope to Match Slope of Header

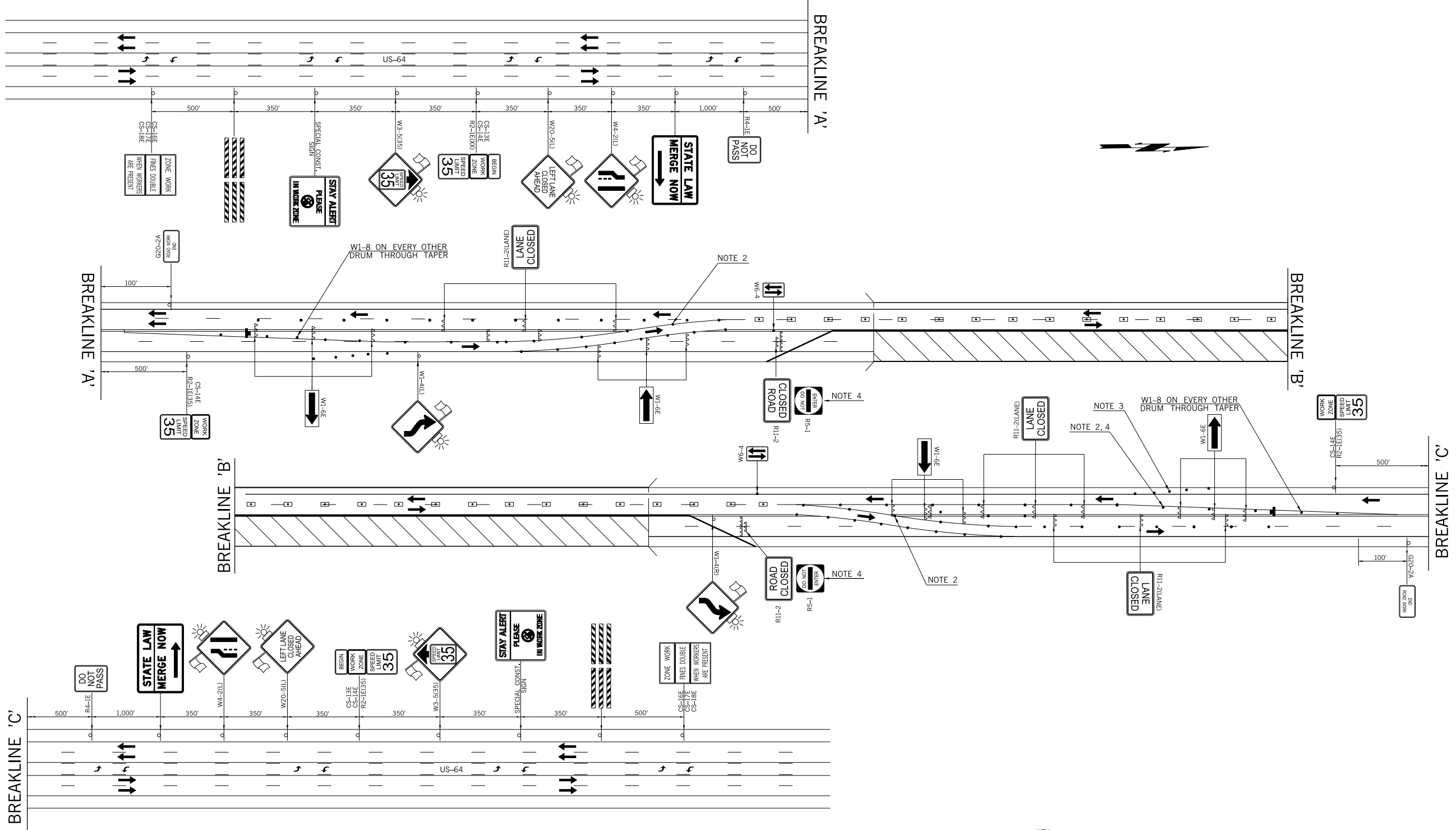


**\*SECTION C-C\***

APPROACH SLAB WITH DRAIN AT END OF BRIDGE

BRIDGE 'C' I-44 WB OVER ARK. RIVER & ELWOOD AVE.	TULSA COUNTY	Design	N/A	N/A
DRAIN AT END OF BRIDGE (BRIDGE C)		Detail	ADG	06/16
		Check	KMS	07/16
		Squad	MAYFIELD	
		Engr.	ELYAZGI	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO. 31944(04)	SHEET NO. B016	

REVISIONS		
REV. NO.	DESCRIPTION	DATE



**NOTE 1**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 2**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 3**  
 A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THRU THIS AREA.

**NOTE 4**  
 A SUFFICIENT NUMBER OF TYPE III BARRICADES, WITH SIGNS AS SHOWN, SHALL BE USED TO COMPLETELY CLOSE THE ROADWAY TO TRAFFIC FROM THE EDGE OF PAVEMENT TO THE EDGE OF PAVEMENT.

FOR INFORMATION REGARDING THE LENGTHS OF TAPERS, TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION).

- KEY:**
- SIGN
  - DRUM
  - CHANNELIZER CONE
  - WORK AREA
  - ARROW DISPLAY
  - TYPE III BARRICADE
  - PORT. LONG. BARRIER

DRAWING NOT TO SCALE

BRIDGES 'A' & 'B'

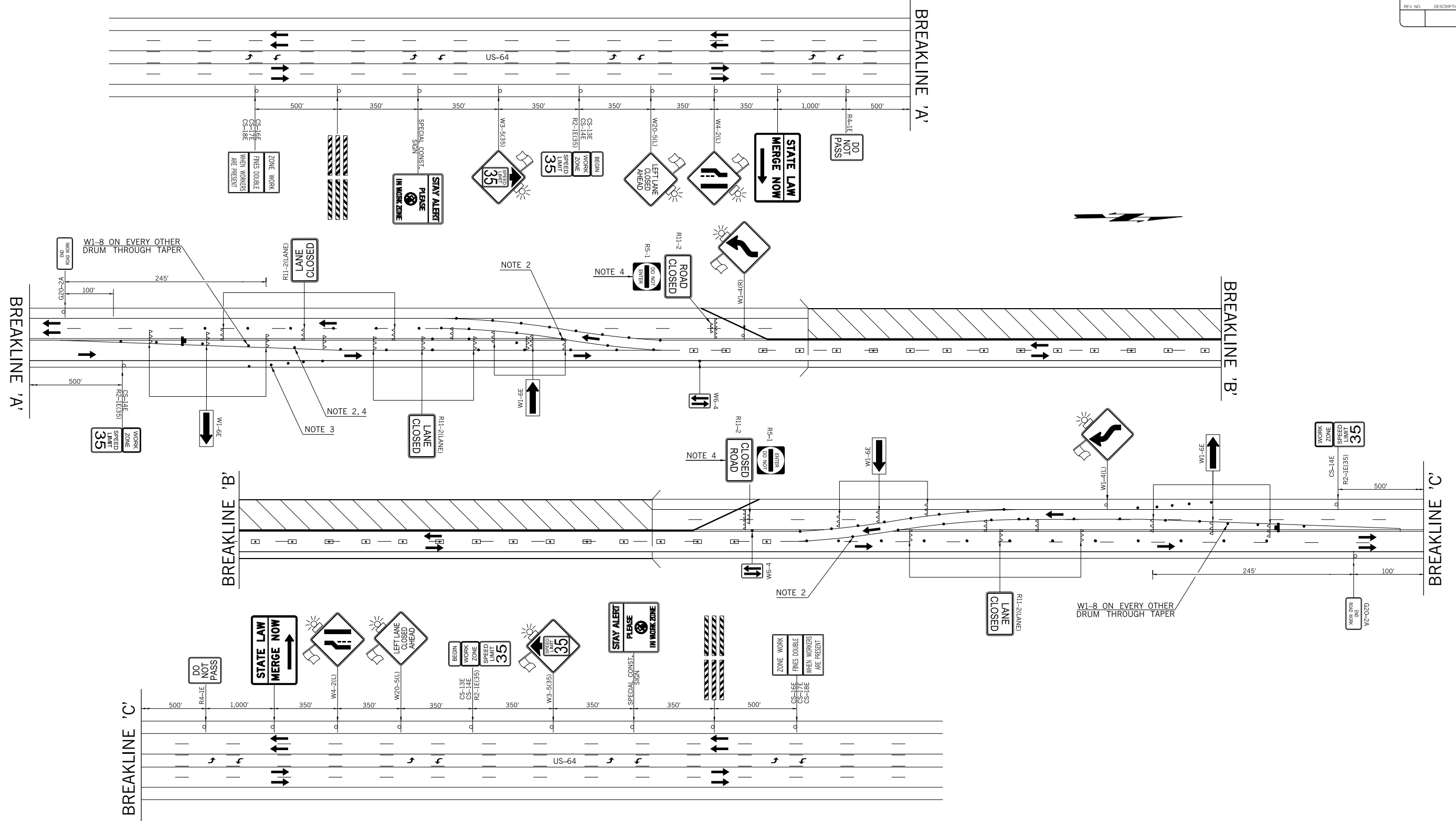
**TRAFFIC CONTROL DETAIL**  
**US-64 NORTHBOUND LANES CLOSED**

Drawn	RGN	6/16
Design	RGN	6/16
Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI L. SHORT		

STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	DIVISION 8
JOB/PIECE NO. 31944(04)		SHEET NO. T001

MULTIPLE COUNTY/

REVISIONS		
REV. NO.	DESCRIPTION	DATE



**NOTE 1**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 2**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 3**  
 A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THRU THIS AREA.

**NOTE 4**  
 A SUFFICIENT NUMBER OF TYPE III BARRICADES, WITH SIGNS AS SHOWN, SHALL BE USED TO COMPLETELY CLOSE THE ROADWAY TO TRAFFIC FROM THE EDGE OF PAVEMENT TO THE EDGE OF PAVEMENT.

FOR INFORMATION REGARDING THE LENGTHS OF TAPERS, TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION).

- KEY:**
- SIGN
  - DRUM
  - CHANNELIZER CONE
  - WORK AREA
  - ARROW DISPLAY
  - TYPE III BARRICADE
  - PORT. LONG. BARRIER

BRIDGES 'A' & 'B'

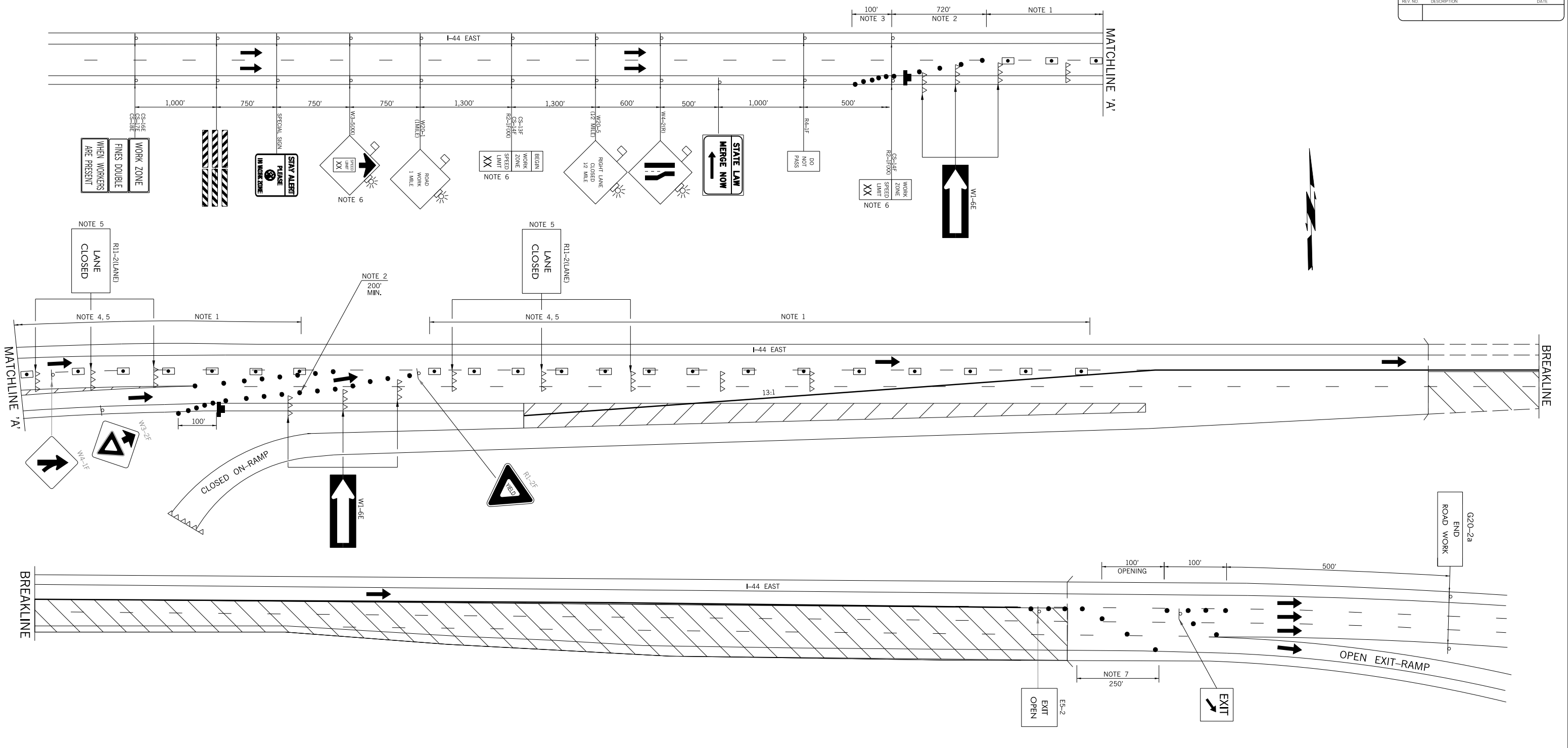
<b>TRAFFIC CONTROL DETAIL</b>		
<b>US-64 SOUTHBOUND LANES CLOSED</b>		
Drawn	RGN	6/16
Design	RGN	6/16
Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI L. SHORT		
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION
DIVISION 8	JOB/PROJECT NO. 31944(04)	SHEET NO. T002

DRAWING NOT TO SCALE

MULTIPLE COUNTY/

OUTSIDE BORDER IS ON A NON-PRINTING LEVEL

REVISIONS		
REV. NO.	DESCRIPTION	DATE



**NOTE 1**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE III BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 2**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE III BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 3**  
 A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

**NOTE 4**  
 A LONGITUDINAL BUFFER AREA, TO ALLOW WORKERS TIME TO EVACUATE THE WORK AREA, SHOULD BE PROVIDED. FOR GUIDELINES ON SETTING THE LENGTH OF THIS BUFFER, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION). ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND THE JUDGEMENT OF THE ENGINEER.

**NOTE 5**  
 TYPE III BARRICADES WITH SIGNS READING "LANE CLOSED" (R11-2) SHALL BE PLACED EVERY 2,000 FEET THROUGH ACTIVITY AREA. THESE TYPE III BARRICADES AND SIGNS MAY BE OMITTED ON MOVING OPERATIONS AND SHORT DURATION PROJECTS.

**NOTE 6**  
 CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

**NOTE 7**  
 DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.  
 FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION).

- KEY:**
- SIGN
  - DRUM
  - CHANNELIZER CONE
  - WORK AREA
  - ARROW DISPLAY
  - TYPE III BARRICADES
  - C. Z. IMPACT ATTENUATOR
  - PORT. LONG. BARRIER

DRAWING NOT TO SCALE

**BRIDGES 'C' & 'D'**

**TRAFFIC CONTROL DETAIL  
 OUTSIDE LANE CLOSURES  
 I-44 EASTBOUND**

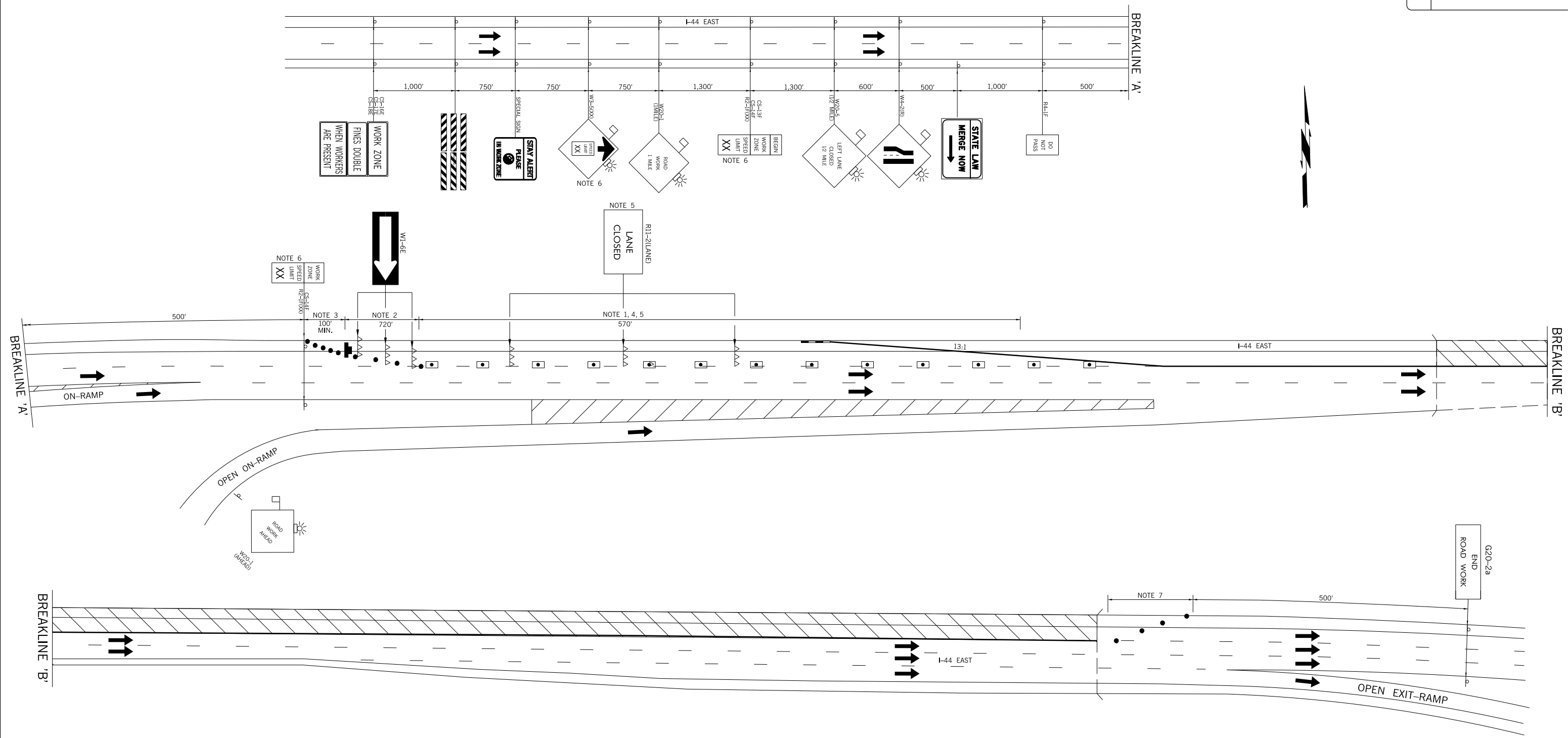
Drawn	RGN	6/16
Design	RGN	6/16
Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI L. SHORT		

STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB PIECE NO. 31944041
DIVISION 8		SHEET NO. 7003

OUTSIDE BORDER IS ON A NON-PRINTING LEVEL

TULSA COUNTY//

REVISIONS		
REV. NO.	DESCRIPTION	DATE



**NOTE 1**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE III BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 2**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE III BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 3**  
 A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

**NOTE 4**  
 A LONGITUDINAL BUFFER AREA, TO ALLOW WORKERS TIME TO EVACUATE THE WORK AREA, SHOULD BE PROVIDED. FOR GUIDELINES ON SETTING THE LENGTH OF THIS BUFFER, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION). ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND THE JUDGEMENT OF THE ENGINEER.

**NOTE 5**  
 TYPE III BARRICADES WITH SIGNS READING "LANE CLOSED" (R11-2) SHALL BE PLACED EVERY 2,000 FEET THROUGH ACTIVITY AREA. THESE TYPE III BARRICADES AND SIGNS MAY BE OMITTED ON MOVING OPERATIONS AND SHORT DURATION PROJECTS.

**NOTE 6**  
 CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION).

- KEY:**
- SIGN
  - DRUM
  - ▨ WORK AREA
  - ➡ ARROW DISPLAY
  - ▲▲▲ TYPE III BARRICADES
  - ◻ CHANNELIZER CONE
  - C. Z. IMPACT ATTENUATOR
  - PORT. LONG. BARRIER

DRAWING NOT TO SCALE

**BRIDGES 'C' & 'D'**

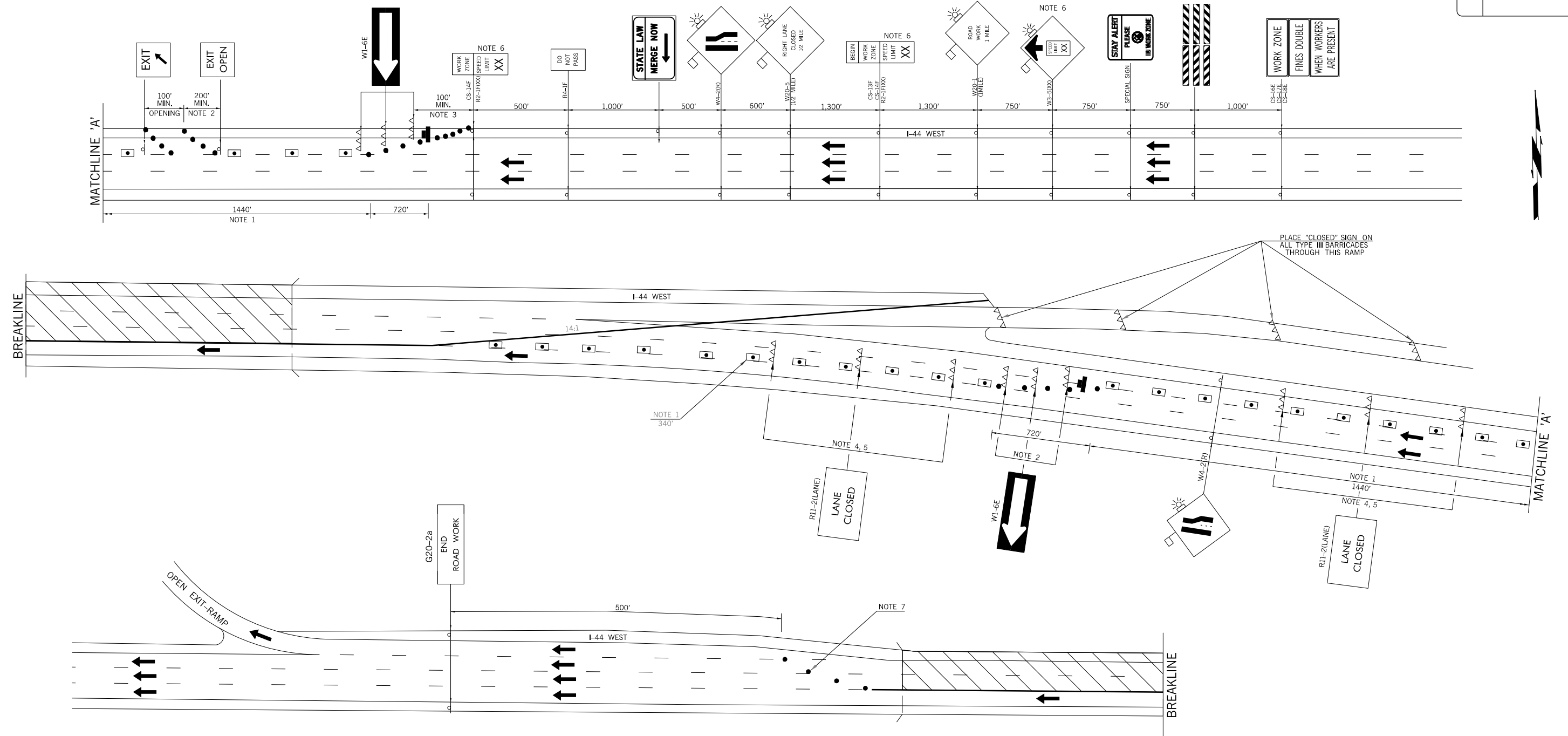
**TRAFFIC CONTROL DETAIL  
 INSIDE LANE CLOSURE  
 I-44 EASBOUND**

Drawn	RGN	6/16
Design	RGN	6/16
Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI L. SHORT		
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION
DIVISION 8	JOB/PIECE NO. 31944(04)	SHEET NO. T004

MULTIPLE COUNTY/



REVISIONS		
REV. NO.	DESCRIPTION	DATE



**NOTE 1**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE III BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 2**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 50 FEET FOR TYPE III BARRICADES, VERTICAL PANELS OR DRUMS.

**NOTE 3**  
 A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

**NOTE 4**  
 A LONGITUDINAL BUFFER AREA, TO ALLOW WORKERS TIME TO EVACUATE THE WORK AREA, SHOULD BE PROVIDED. FOR GUIDELINES ON SETTING THE LENGTH OF THIS BUFFER, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION). ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND THE JUDGEMENT OF THE ENGINEER.

**NOTE 5**  
 TYPE III BARRICADES WITH SIGNS READING "LANE CLOSED" (R11-2) SHALL BE PLACED EVERY 2,000 FEET THROUGH ACTIVITY AREA. THESE TYPE III BARRICADES AND SIGNS MAY BE OMITTED ON MOVING OPERATIONS AND SHORT DURATION PROJECTS.

**NOTE 6**  
 CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

**NOTE 7**  
 DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION).

- KEY:**
- SIGN
  - DRUM
  - WORK AREA
  - ARROW DISPLAY
  - TYPE III BARRICADES
  - CHANNELIZER CONE
  - C. Z. IMPACT ATTENUATOR
  - PORT. LONG. BARRIER

DRAWING NOT TO SCALE

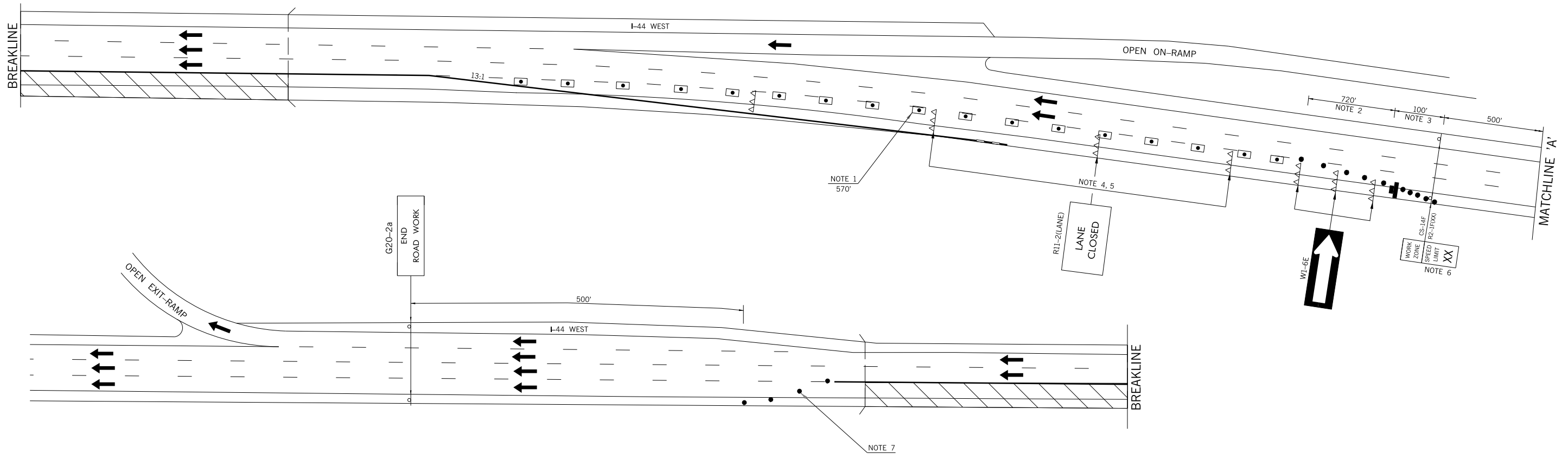
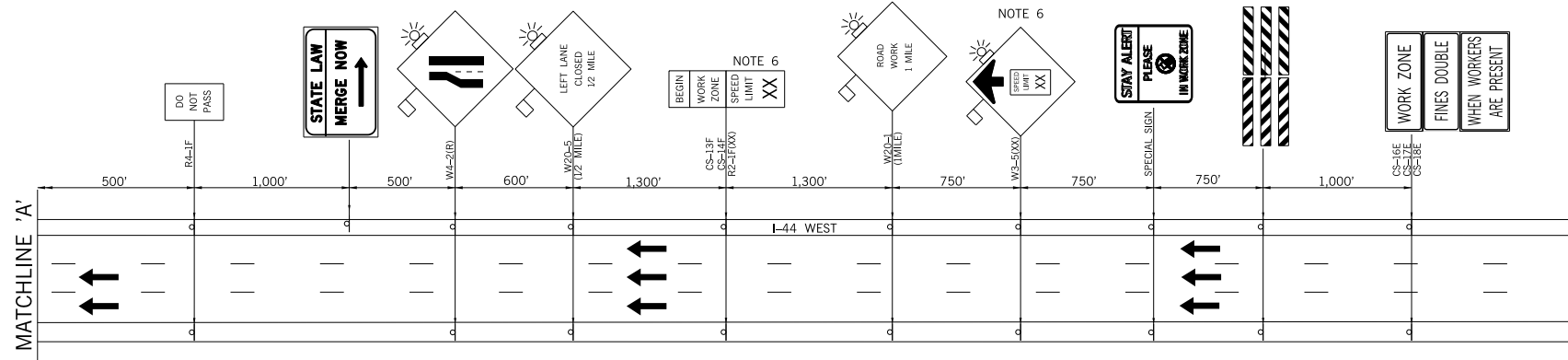
BRIDGES 'C' & 'D'

**TRAFFIC CONTROL DETAIL  
 OUTSIDE LANE CLOSURE  
 I-44 WESTBOUND**

Drawn	RGN	6/16
Design	RGN	6/16
Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI L. SHORT		
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION
DIVISION 8	JOB/PIECE NO. 31944(04)	SHEET NO. T005

MULTIPLE COUNTY/

REVISIONS		
REV. NO.	DESCRIPTION	DATE



**NOTE 1**  
 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE III BARRICADES, VERTICAL PANELS OR DRUMS.

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**NOTE 5**  
 TYPE III BARRICADES WITH SIGNS READING "LANE CLOSED" (R11-2) SHALL BE PLACED EVERY 2,000 FEET THROUGH ACTIVITY AREA. THESE TYPE III BARRICADES AND SIGNS MAY BE OMITTED ON MOVING OPERATIONS AND SHORT DURATION PROJECTS.

**NOTE 6**  
 CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

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FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION).

- KEY:
- SIGN
  - DRUM
  - WORK AREA
  - ARROW DISPLAY
  - TYPE III BARRICADES
  - CHANNELIZER CONE
  - C. Z. IMPACT ATTENUATOR
  - PORT. LONG. BARRIER

BRIDGES 'C' & 'D'

**TRAFFIC CONTROL DETAIL  
 INSIDE LANE CLOSURE  
 I-44 WESTBOUND**

Drawn	RGN	6/16
Design	RGN	6/16
Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI L. SHORT		

STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	DIVISION 8
JOB/PIECE NO. 31944(04)		SHEET NO. T006

DRAWING NOT TO SCALE