

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED
DIVISION EIGHT
BRIDGE PAINTING
TULSA COUNTY
STATE AID PROJECT NO. SSP-NBIP(506)SS
STATE JOB NO. 30318(06)

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STANDARDS TO BE INCLUDED

TRAFFIC

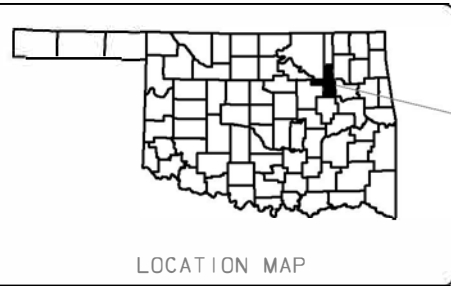
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TRAFFIC DESIGN

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 CAD, PE ENGINEER: KATIE BROWN, EI
SQUAD MEMBERS: D.GORRTH, J.LONSDALE, R.MEINERT, R. ADKINSON, A. CATLEY



TULSA COUNTY

TULSA COUNTY
BRIDGE 'E' - LOCATION NO. 7209 0482 XR
NBI NO. 18357
FACILITY CARRIED: I-444 RAMP N-E
FEATURES INTERSECTED: I-244 NB UNDER
LOCATION: 4.8 MI. N I-44
CONTROL SECTION NO. 244-72-09
TOWNSHIP T19N RANGE R12E

TULSA COUNTY
BRIDGE 'F' - LOCATION NO. 7209 0475 XR
NBI NO. 18358
FACILITY CARRIED: I-444 WB TO I-244 SB
FEATURES INTERSECTED: I-244 UNDER
LOCATION: 4.7 MI. N I-44
CONTROL SECTION NO. 444-72-94
TOWNSHIP T19N RANGE R12E

TULSA COUNTY
BRIDGE 'A' - LOCATION NO. 7209 0089NX
NBI NO. 18756
FACILITY CARRIED: I-244 WB
FEATURES INTERSECTED: 33rd W. AVE. UNDER
LOCATION: 0.8 MI. N I-44
CONTROL SECTION NO. 244-72-09
TOWNSHIP T19N RANGE R12E

TULSA COUNTY
BRIDGE 'B' - LOCATION NO. 7209 0089SX
NBI NO. 18755
FACILITY CARRIED: I-244 EB
FEATURES INTERSECTED: 33rd W. AVE. UNDER
LOCATION: 0.8 MI. N I-44
CONTROL SECTION NO. 244-72-09
TOWNSHIP T19N RANGE R12E

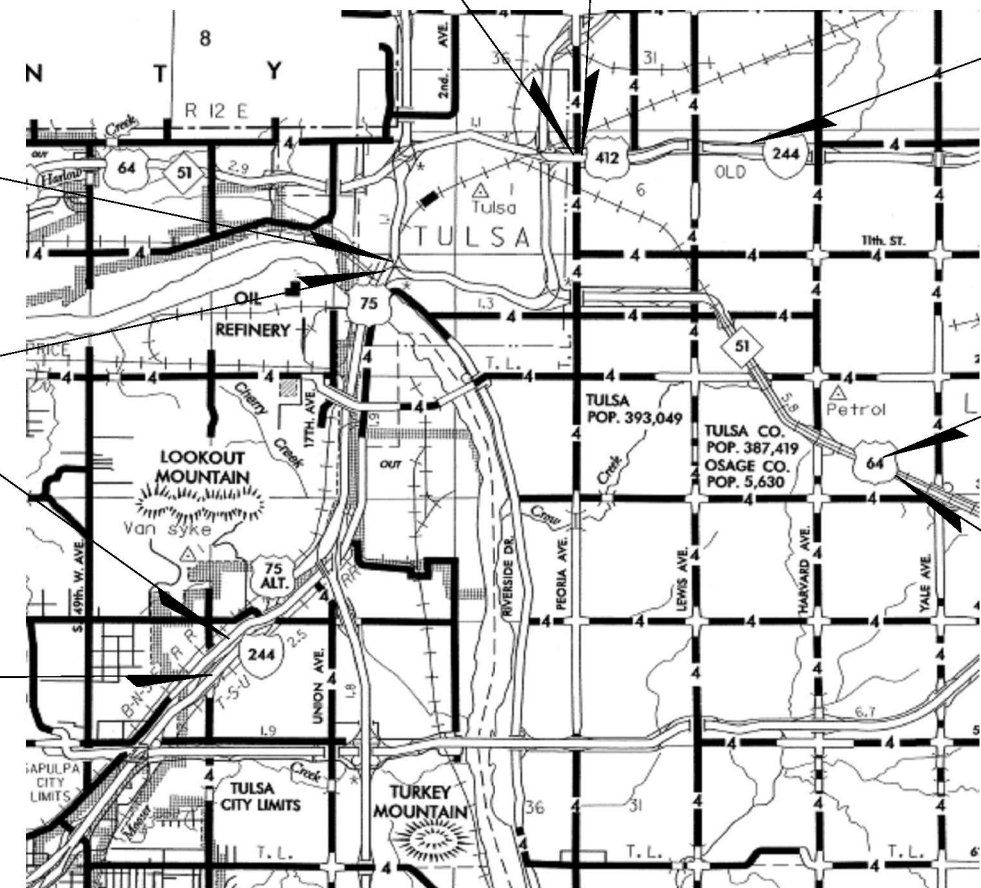
TULSA COUNTY
BRIDGE 'I' - LOCATION NO. 7209 0716SX
NBI NO. 17890
FACILITY CARRIED: I-244 EB
FEATURES INTERSECTED: PEORIA AVE.
LOCATION: .16 MI. E JCT. I-444
CONTROL SECTION NO. 244-72-09
TOWNSHIP T19N RANGE R12E

TULSA COUNTY
BRIDGE 'H' - LOCATION NO. 7209 0716NX
NBI NO. 17889
FACILITY CARRIED: I-244 WB
FEATURES INTERSECTED: PEORIA AVE.
LOCATION: .16 MI. E JCT. I-444
CONTROL SECTION NO. 244-72-09
TOWNSHIP T19N RANGE R12E

TULSA COUNTY
BRIDGE 'G' - LOCATION NO. 7209 0865 X
NBI NO. 16974
FACILITY CARRIED: I-244
FEATURES INTERSECTED: DELAWARE AVE.
LOCATION: 1.66 MI. E JCT. I-444
CONTROL SECTION NO. 244-72-09
TOWNSHIP T19N RANGE R13E

TULSA COUNTY
BRIDGE 'C' - LOCATION NO. 7280 0350NX
NBI NO. 16432
FACILITY CARRIED: SH 51WB
FEATURES INTERSECTED: PITTSBURG AVE.
LOCATION: 1.3 MI. SE 21st ST.
CONTROL SECTION NO. 51-72-80
TOWNSHIP T19N RANGE R13E

TULSA COUNTY
BRIDGE 'D' - LOCATION NO. 7280 0350SX
NBI NO. 16433
FACILITY CARRIED: SH 51EB
FEATURES INTERSECTED: PITTSBURG AVE.
LOCATION: 1.3 MI. SE 21st ST.
CONTROL SECTION NO. 51-72-80
TOWNSHIP T19N RANGE R13E



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.

OKLAHOMA DEPARTMENT OF TRANSPORTATION
BRIDGE DIVISION
MOHAMED F. ELYAZGI, P.E.
OKLA. REG. NO. 17542
DATE 7/15/2016

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DATE APPROVED _____

BY _____

CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

DATE APPROVED _____

BY _____

DIVISION ADMINISTRATOR

JP# 30318(06)

PROJECT NO SSP-NBIP(506)SS

SHEET NO. 0001

P.E. NO : 30318(01)

REVISIONS		
REV. NO.	DESCRIPTION	DATE
1	Added RR Note	7/26/16
2	Deleted Note	8/9/16

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.

DESCRIPTION OF WORK:

This project consists of cleaning and painting all structural steel in accordance with the plans, standard specifications, special provisions and notes. Care shall be taken to ensure that no damage is caused to the traffic during cleaning and painting. Tarps and other necessary equipment will be used as approved by the Engineer. It is the sole responsibility of the Contractor to ensure the paint application.

RAILROAD NOTE FOR BRIDGES 'C' & 'D'

An active BNSF Railway Bridge exists between Bridges 'C' and 'D' (SH51 WB and EB over Pittsburg Ave.)

Although this Bridge Painting project does not specify work directly under or affecting the RR Bridge, the contractor shall conduct maintenance operations in a manner which will not delay or interfere with train operations.

If the contractor discovers a need to perform maintenance work outside the limits of the Bridge railings or from the Highway surface, the contractor shall give notice to the BNSF Railway Company Roadmaster, which may result in a delay of maintenance work.

VERIFICATION OF EXISTING CONDITIONS:

All dimensions of the existing bridge components shown on the plans are approximate. The Contractor shall verify all dimensions 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, 200 N.E. 21st, Oklahoma City, OK 73105. Ask for:

Bridge 'A' & 'B': FAP I-244-2(162)089 in Tulsa County: I-244 WB & EB over 33rd West Ave.
 Bridge 'C' & 'D': FAP No. U-32(8)BR.PT. 3 in Tulsa County: SH 51 over Pittsburg Ave.
 Bridge 'E': FAP I-244-2(98)094 in Tulsa County: I-444 Ramp N-E over I-244 NB
 Bridge 'F': FAP I-244-2(100)094 in Tulsa County: I-444 WB, I-244 under
 Bridge 'G': FAP I-244-2(169)098 in Tulsa County: I-244 EB/WB over Delaware Ave.
 Bridge 'H' & 'I': FAP I-244-2(112)096 in Tulsa County: I-244 WB/EB over Peoria Ave.

PROTECTION OF TRAFFIC UNDER BRIDGES:

The Contractor shall be responsible for the protection of traffic under bridges 'A' thru 'I' during the bridge painting work. A proposed method of preventing debris from falling on the traffic below the bridges shall be submitted to the Engineer for his approval. All materials removed from the bridge shall be removed from the work area promptly. All costs for traffic protection as stated shall be included in other items of work.

EXPOSURE OF DETERIORATED STEEL:

If any deteriorated structural steel is exposed during sand blasting the Contractor shall be responsible for notifying the Engineer who in turn shall notify the Bridge Engineer as to the extent of the damage. The Bridge Engineer shall determine if any repairs are necessary and if so, what method of repair shall be used.

REMOVED MATERIAL:

All material 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. All costs of cleaning the bridge seats and pier caps shall be paid for in other items of work.

WORK SITE OBSTRUCTIONS:

All obstructions, including vegetation and debris, interfering with paint operation being performed shall be removed by the Contractor prior to beginning work. All costs associated with removal of obstructions shall be included in other items of work.

PAINT REMOVAL AND PAINTING STRUCTURAL STEEL:

All structural steel of all bridges including girders, stiffeners, diaphragm components, connection assemblies, bearing assemblies, drain pipes, and any steel used for repairs shall be cleaned and painted in accordance with section 512 and 730 of the 2009 Oklahoma Standard Specifications for Highway Construction using Category E Application.

The area of structural steel to be painted for the bridges was estimated from the existing bridge plans and obsolete standards listed therein. The State assumes no responsibility for the accuracy thereof. No compensation will be allowed for errors in the estimated area. The estimated areas of structural steel for the bridges are:

Bridge 'A': Approximately 16,200.00 S.F.
 Bridge 'B': Approximately 16,200.00 S.F.
 Bridge 'C': Approximately 3,700.00 S.F.
 Bridge 'D': Approximately 3,700.00 S.F.
 Bridge 'E': Approximately 30,600.00 S.F.
 Bridge 'F': Approximately 16,200.00 S.F.
 Bridge 'G': Approximately 34,400.00 S.F.
 Bridge 'H': Approximately 24,400.00 S.F.
 Bridge 'I': Approximately 14,000.00 S.F.

Estimated square footage is provided for Contractor's convenience. Actual quantities may vary. 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 Lump Sum price bid of "PAINTING EXISTING STRUCTURE" and the Lump Sum price bid of "COLLECTION AND HANDLING OF WASTE".

STRUCTURAL STEEL:

The pay item "Structural Steel" consists of repairing beams or replacing or repairing diaphragms and connection plates. The steel used shall be AASHTO M-270 Grade 50 or 50W in accordance with section 506 of the 2009 Oklahoma Standard Specifications for Highway Construction. The requirements for Charpy V-Notch impact tests will be waived for any of the structural steel used in the repairs.

AISC certification shall be waived. All new bolted connections and reconnections (which replace riveted connections) shall be made using A325 High Strength Bolts and Direct Tension Indicators (DTI's) in accordance with section 724.02 of the 2009 Oklahoma Standard Specifications for Highway Construction.

All new structural steel shall be cleaned and painted in accordance with section 512 of the Standard Specifications using category "N" and "E" Paint Systems. The new paint shall match the color of the existing paint system. The contractor will not be required to provide work plans for the paint system.

Any areas where existing paint is damaged by the contractor shall be spot-painted with two coats of inorganic zinc primer and one finish coat of paint at the contractor's expense and to the satisfaction of the engineer.

All costs including labor, equipment, painting, material and incidentals necessary to complete the work as described shall be included in the price bid per pounds of "STRUCTURAL STEEL".

SPECIAL NOTES FOR PAINTING:

Existing steel members are coated with lead based paint. Measures shall be taken to ensure worker safety and safety to nearby motorists or pedestrians in accordance with CFR 1926.62 and all applicable OSHA standards.

The Contractor is required to be SSPC-QP2 certified for this project. Consider the waste from cleaning existing paint to be hazardous until TCLP testing is done. Dispose of waste at an Oklahoma DEQ approved and permitted landfill, Subtitle C for Hazardous waste and Subtitle D for Non-Hazardous waste.

LABEL PAINT SYSTEM:

The Contractor shall stencil the paint types, manufacturer's name, Contractor's name, and the date of completion inside the left exterior girder at Abutment No. 1 in accordance with Section 512 of the Standard Specifications.

FINAL INSPECTION

For the final inspection, the contractor shall provide a truck or trailer mounted under-bridge aerial inspection platform that meets the minimum requirements of the trailer mounted Hydra Platform HP32, or a boom aerial lift meeting minimum requirements of the Terex TB85. Equipment provided must be sufficient to allow inspection of the substructure and the superstructure as directed by the Division VIII Bridge Engineer. Equipment must be in good working order and meet OSHA safety requirements.

Provide skilled operator(s) to properly operate the Inspection Equipment for the duration of the Bridge Inspection as required by the Division VIII Bridge Engineer.

Coordinate final inspection with the Division VIII Bridge Engineer 7 Days in advance of final inspection. All costs are to be included in the pay item Painting Existing Structure for each Bridge. Traffic Control will be paid under the existing Traffic Control pay items. If reinspections are required to inspect defective work, all cost to include Traffic Control will be at the expense of the contractor.



DIVISION EIGHT PAINT PROJECTS		TULSA COUNTY		Design	N/A	05/16
BRIDGE 'A' - 'I'				Detail	RWM	05/16
GENERAL NOTES				Check	KMS	05/16
				Squad	MAYFIELD	
				Engr.	ELYAZGI	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION					
JOB/PIECE NO. 30318(06)		SHEET NO. AB01				

ENVIRONMENTAL MITIGATION NOTES

1 MIGRATORY BIRD:

Migratory birds are protected by the federal Migratory Bird Treaty Act. These birds commonly use bridges and culverts for nesting. The nesting season for the birds runs from April 1 to August 31. Any activities which would destroy active nests or harm eggs or birds would violate the Migratory Bird Treaty Act. Migratory bird use of bridge NBI No. 18755 & 18756 has been observed during the initial survey conducted as part of the biological studies in 2016. Migratory bird use of the remaining bridges was not observed during the initial survey. Migratory birds may occupy these structures in the future nesting seasons. The Resident Engineer will evaluate the contractor's proposed work methods and conclude whether the proposed work would pose disruption to any nesting birds before work near the structure is authorized. If the proposed work will harm any 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.

30318(06) PAY QUANTITIES TULSA COUNTY				
0200 BRIDGE 'A' I-244 WB OVER 33RD W. AVE. NBI NO. 18756				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0201 BRIDGE 'B' I-244 EB OVER 33RD W. AVE. NBI NO. 18755				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0202 BRIDGE 'C' SH-51 WB OVER PITTSBURG AVE. NBI NO. 16432				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0203 BRIDGE 'D' SH-51 EB OVER PITTSBURG AVE. NBI NO. 16433				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0204 BRIDGE 'E' I-444 RAMP N-E OVER I-244 NB NBI NO. 18357				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0205 BRIDGE 'F' I-444 WB OVER I-244 NBI NO. 18358				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0206 BRIDGE 'G' I-244 OVER DELAWARE AVE. NBI NO. 16974				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0207 BRIDGE 'H' I-244 WB OVER PEORIA AVE. NBI NO. 17889				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0208 BRIDGE 'I' I-244 EB OVER PEORIA AVE. NBI NO. 17890				
ITEM		DESCRIPTION	UNIT	QUANTITY
512(A)	1323	PAINING EXISTING STRUCTURES	LSUM	1.00
512(B)	6303	COLLECTION & HANDLING OF WASTE	LSUM	1.00
506(A)	1322	STRUCTURAL STEEL	LB.	2,000.00

30318(06) PAY QUANTITIES TULSA COUNTY				
0640 CONSTRUCTION BRIDGES 'A' THRU 'I'				
ITEM		DESCRIPTION	UNIT	QUANTITY
641	1399	MOBILIZATION BR-1	LSUM	1.00

(BR-1):
Payment for this item will be based on plan quantities only. See section 109.01(B) of the Standard Specifications.

DIVISION EIGHT PAINT PROJECT TULSA COUNTY		Design	N/A	
BRIDGE 'A' - 'I'		Detail	RWM	05/16
GENERAL NOTES AND SUMMARY OF PAY QUANTITIES		Check	KMS	05/16
		Squad	MAYFIELD	
		Engr.	ELYAZGI	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO.	30318(06)	SHEET NO. AB02

REVISIONS		
REV. NO.	DESCRIPTION	DATE

TRAFFIC GENERAL CONSTRUCTION NOTES

EXISTING ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS. CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS.

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

THE CONTRACTOR SHALL PROVIDE A PERSON TO BE ON 24 HOUR 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 (OETA) AS A TRAFFIC CONTROL TECHNICIAN OR TRAFFIC CONTROL SUPERVISOR.

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL MEET ODOT'S "QUALITY STANDARDS FOR TEMPORARY TRAFFIC CONTROL DEVICES." CHANNELIZING DEVICES SHALL HAVE A MINIMUM HEIGHT OF 36 INCHES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE TEMPORARY TRAFFIC CONTROL DEVICES, AND SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY DEVICE DURING CONSTRUCTION.

TRAFFIC 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 PORTABLE LONGITUDINAL BARRIER.
- (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 TRUCK MOUNTED ATTENUATOR OR CHANGEABLE MESSAGE SIGN 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-65) THE PRICE BID FOR THIS ITEM SHALL INCLUDE THE FOLLOWING:
 - A. ONE OFFICIALLY MARKED OKLAHOMA HIGHWAY PATROL CAR (WHEN PROJECT INVOLVES A STATE OR FEDERAL HIGHWAY). IF AN OKLAHOMA HIGHWAY PATROL CAR IS NOT AVAILABLE, THEN A LOCAL CITY OR COUNTY LAW ENFORCEMENT VEHICLE IS TO BE USED. PRICE BID FOR THIS ITEM SHALL BE PAID ON A PER UNIT PER HOUR BASIS.
 - B. ONE OKLAHOMA HIGHWAY LAW ENFORCEMENT OFFICER WITH JURISDICTIONAL AUTHORITY TO WRITE AND ISSUE TRAFFIC CITATIONS. IF AN OKLAHOMA HIGHWAY PATROL LAW OFFICER IS NOT AVAILABLE, THEN A LOCAL CITY OR COUNTY LAW ENFORCEMENT OFFICER IS TO BE USED. THE LAW ENFORCEMENT OFFICER SHALL BE INSURED, LICENSED AND BONDED, IF REQUIRED, BY THE CONTRACTOR. THIS OFFICER SHALL BE SPECIFICALLY APPROVED AND ASSIGNED TO THIS WORK ACTIVITY.
 - C. THE CONTRACTOR SHALL MAKE ALL THE NECESSARY ARRANGEMENTS WITH THE OKLAHOMA HIGHWAY PATROL OR THE LAW ENFORCEMENT AGENCY TO PROVIDE THE REQUIRED LAW ENFORCEMENT ON THIS PROJECT.
 - D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS ANTICIPATED WEEKLY SCHEDULE TO THE OKLAHOMA HIGHWAY PATROL OR THE LOCAL LAW AGENCY TWO WEEKS IN ADVANCE OF THE WORK. THE WORK SCHEDULE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
 - E. THE OKLAHOMA HIGHWAY PATROL OR THE LOCAL LAW ENFORCEMENT AGENCY WILL BE PAID FOR A MAXIMUM OF ONE (1) HOUR, PER WORK PERIOD, TO ALLOW FOR TRAVEL TO AND FROM THE OFFICER'S PERMANENT DUTY STATION AND THE WORK SITE. THIS WILL BE PAID ONE (1) TIME PER WORK PERIOD AS DEFINED BY THE CONTRACTOR IN AGREEMENT WITH THE ENGINEER.

- (TC-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.
- (TC-76) ANY TRUCK MOUNTED ATTENUATOR USED ON THIS PROJECT SHALL HAVE PASSED ALL MANDATORY AND OPTIONAL TESTS LISTED IN NCHRP 350, TL-3 CRITERIA. THIS ITEM IS TO BE USED WHERE SHOWN IN THE STANDARD DRAWINGS OR AT THE DISCRETION OF THE ENGINEER ON SHADOW VEHICLES PROTECTING THE WORK AREAS AND TEMPORARY ROADSIDE HAZARDS.
- (TC-77) TRUCK MOUNTED ATTENUATORS ARE TO BE INSTALLED ON NON-STATE OWNED TRUCKS HAVING A MINIMUM GROSS WEIGHT RATING OF 15,000 POUNDS. EACH OF THESE TRUCKS SHALL ALSO BE EQUIPPED WITH AN ARROW DISPLAY (TYPE B).
- (TC-84) 120 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 O.D.O.T. 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.okladot.state.ok.us/traffic/qpl/index.php>

SPECIAL NOTES

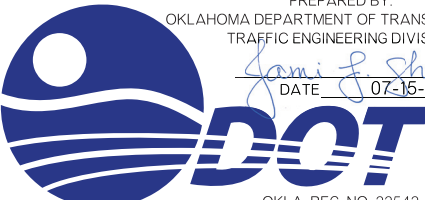

- (SP-1) PORTABLE CHANGEABLE MESSAGE SIGNS TO BE PLACED WHERE DEEMED NECESSARY BY THE ENGINEER.
- (SP-2) PORTABLE CHANGEABLE MESSAGE SIGN(S) SHALL BE PLACED 14 DAYS PRIOR TO CONSTRUCTION.
- (SP-3) TYPE "C" WARNING LIGHTS ARE NOT REQUIRED.

PAY QUANTITY SCHEDULE

0300 TRAFFIC CONTROL					
PAY ITEM	CODE NO.	DESCRIPTION	UNIT	QUANTITY	
876(A)	8482	(PL) TRUCK MOUNTED ATTENUATOR (TC-52,76,77,84)	SD	240.00	
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER (TC-1)	LF	600.00	
880(A)	8812	ARROW DISPLAY (TYPE C) (TC-84)	SD	120.00	
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF (TC-26,33,84)	SD	1,296.00	
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF (TC-26,33,84)	SD	2,448.00	
880(B)	8824	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF (TC-26,30,33,84)	SD	2,304.00	
880(C)	8842	CONSTRUCTION BARRICADES(TYPE III) (TC-26,84)	SD	1,296.00	
880(C)	8848	WING BARRICADES (TC-26,84)	SD	576.00	
880(E)	8860	WARNING LIGHTS(TYPE A) (TC-26,84)	SD	3,456.00	
880(F)	8878	DRUMS (SP-3)(TC-26,84)	SD	5,760.00	
880(G)	8890	CHANNELIZER CONES (TC-26,84)	SD	5,040.00	
880(L)	8911	TRAFFIC SURVEILLANCE, POLICE (TC-85,70)	HOURL	120.00	
882(A)	8306	PORT. CHANGEABLE MESSAGE SIGN (SP-1,2)(TC-52,84,85)	SD	268.00	

PREPARED BY:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING DIVISION

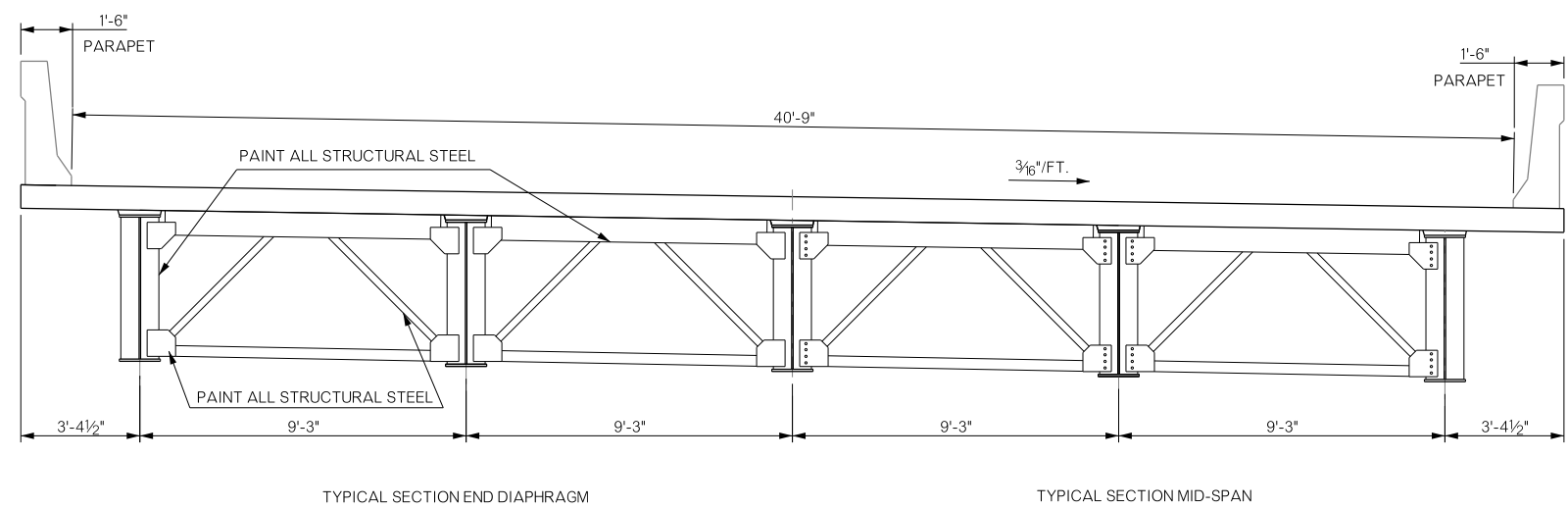
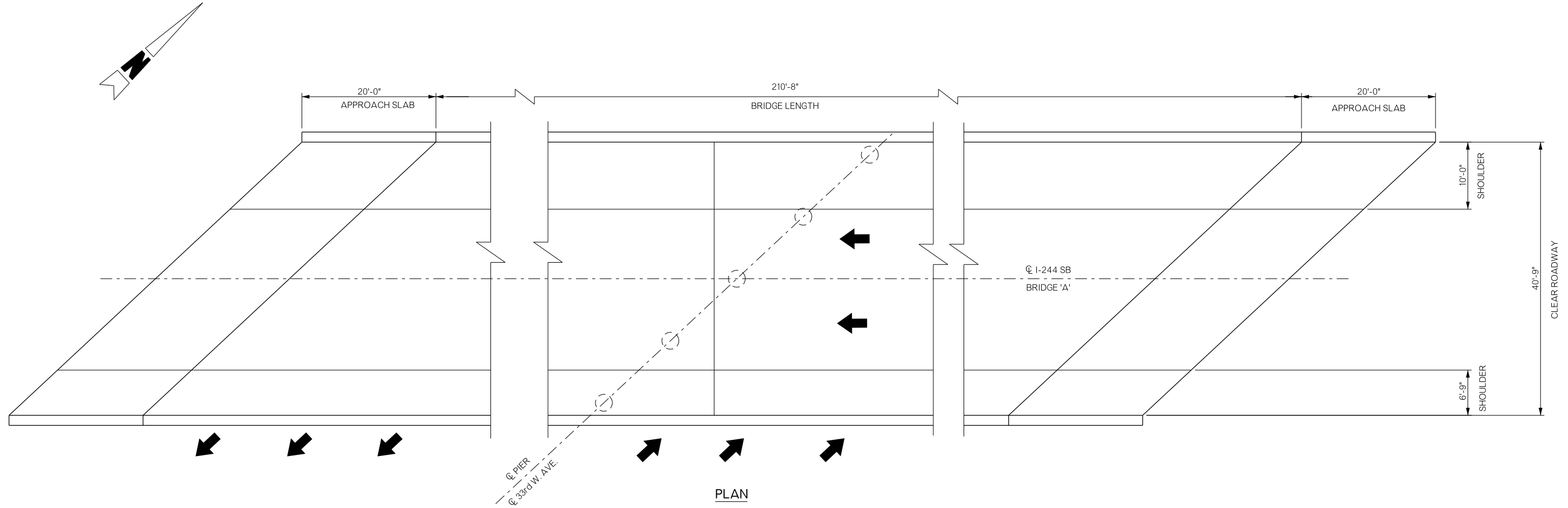
Jami L. Short
DATE 07-15-16

OKLA. REG. NO. 22542

SUMMARY OF PAY QUANTITIES & NOTES (TRAFFIC)	Drawn	JF	6/16
	Design	JF	6/16
	Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI SHORT			

REVISIONS		
REV. NO.	DESCRIPTION	DATE



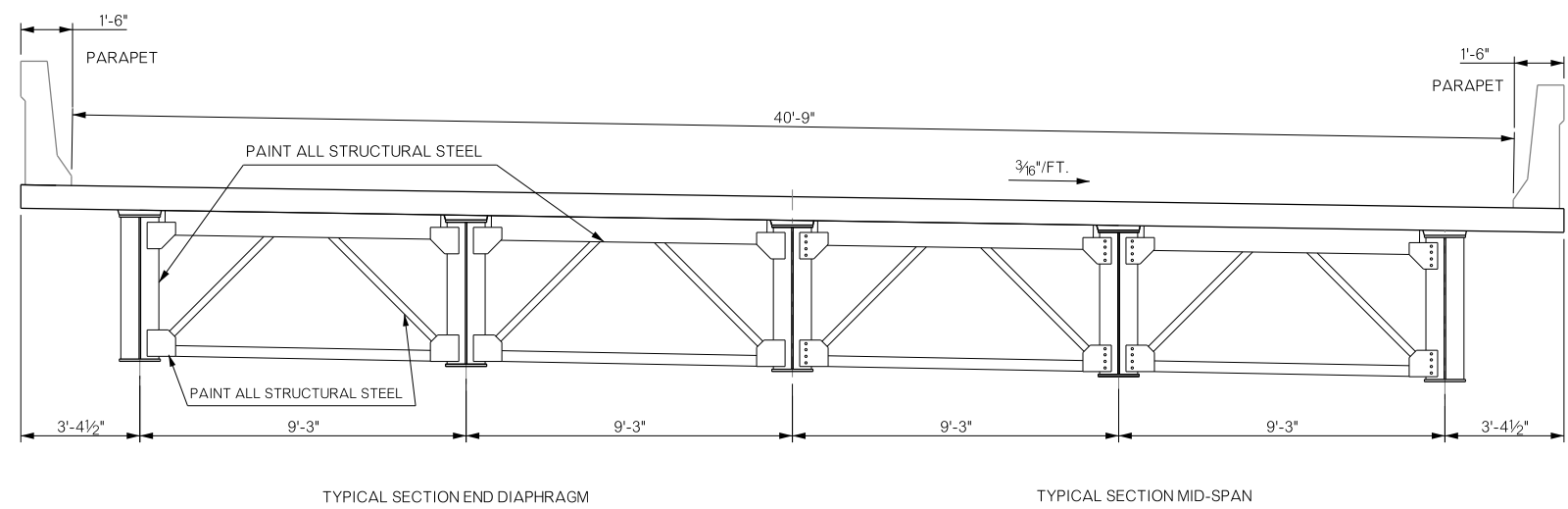
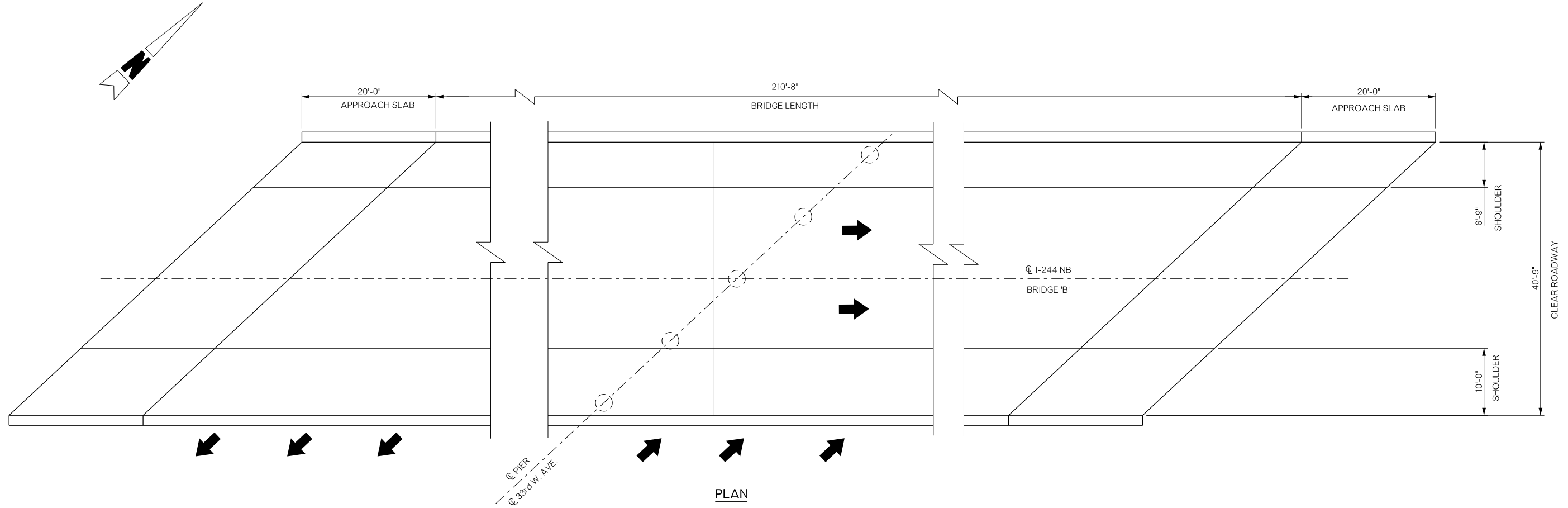
PAINT QUANTITIES - BRIDGE 'A'		
ITEM	UNIT	TOTAL
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00

BRIDGE 'A' I-244 WB OVER 33rd W. AVE. GENERAL PLAN AND SECTION (BRIDGE 'A')	TULSA COUNTY	Design	N/A	05/16
		Detail	RWM	05/16
		Check	KMS	07/16
		Squad	MAYFIELD	
		Engr:	ELYAZGI	
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		SHEET NO. B001

TYPICAL SECTION

PLAN

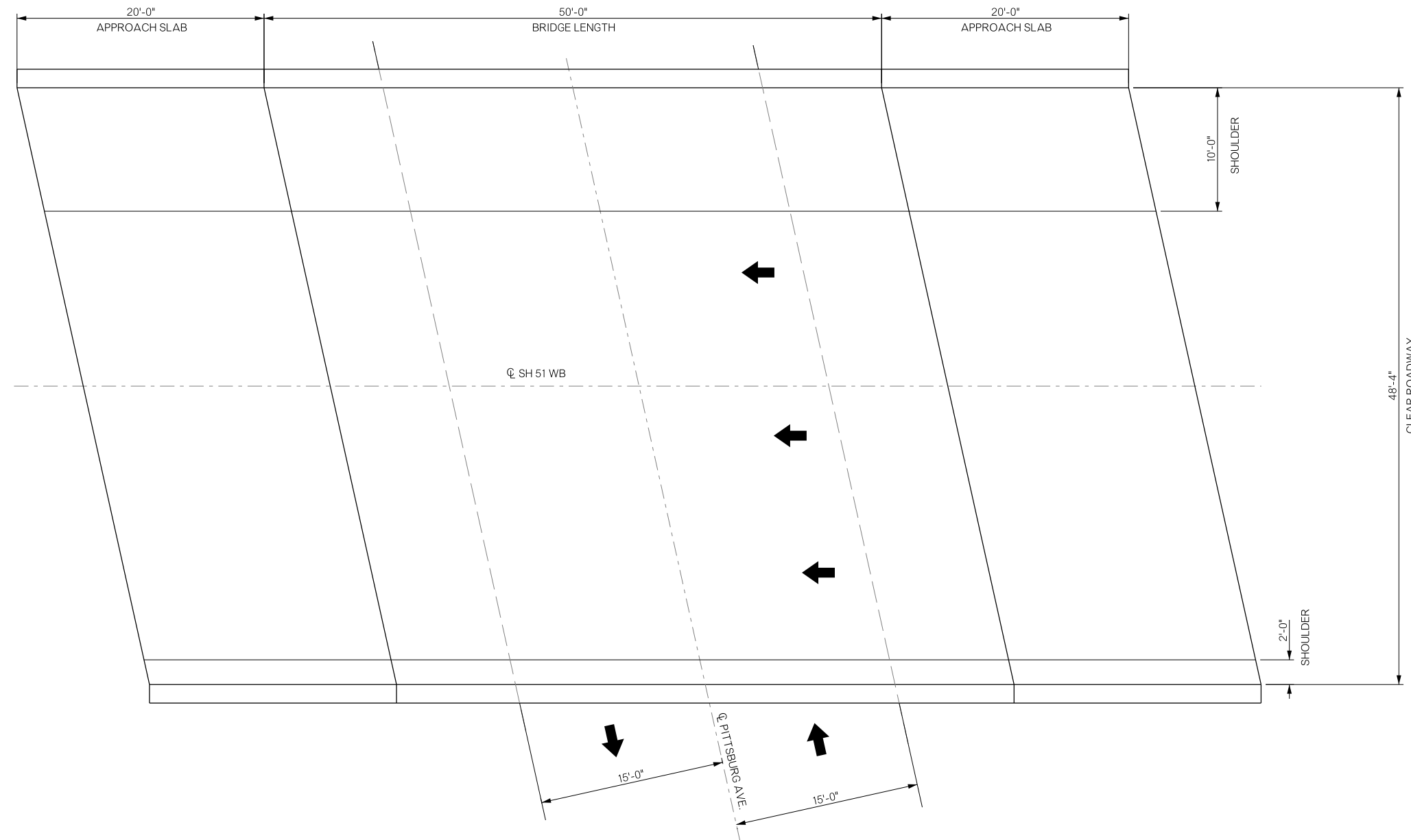
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PAINT QUANTITIES - BRIDGE 'B'		
ITEM	UNIT	TOTAL
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00

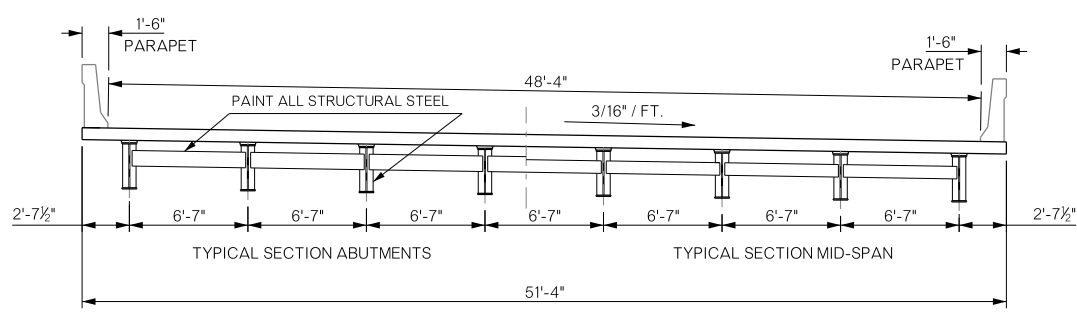
BRIDGE 'B' I-244 EB OVER 33rd W. AVE. GENERAL PLAN AND SECTION (BRIDGE 'B')	COUNTY	Design	N/A	05/16
		Detail	RWM	05/16
		Check	KMS	07/16
		Squad	MAYFIELD	
	Engr:	ELYAZGI		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOBPIECE NO. 30318(06)	SHEET NO. B002	

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

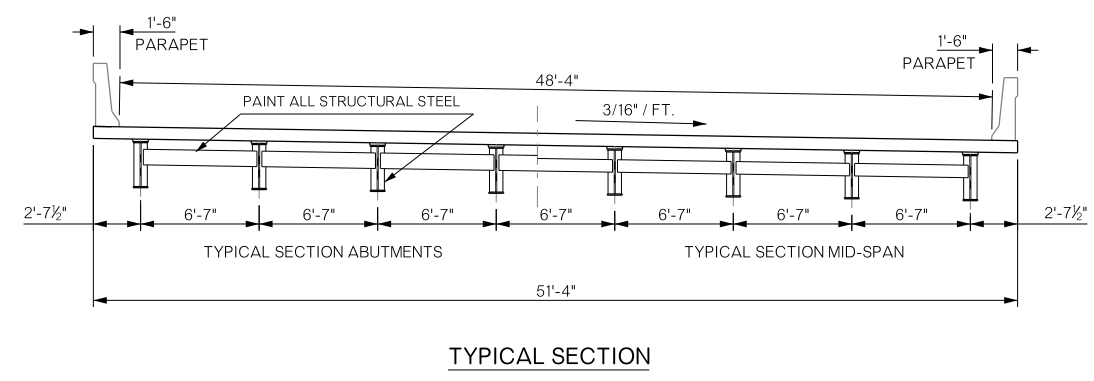
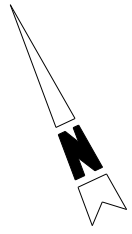
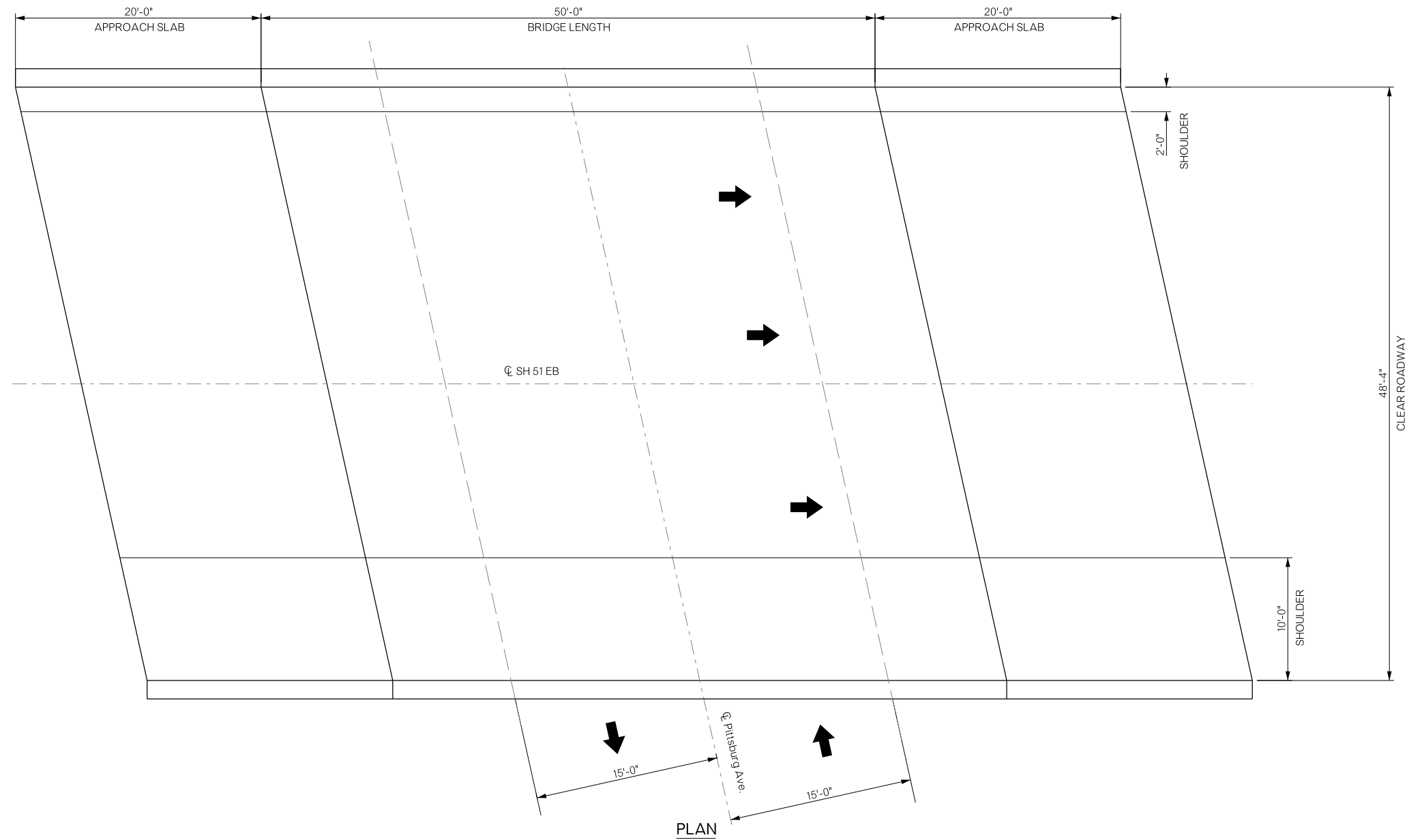
PAINT QUANTITIES - BRIDGE 'C'		
ITEM	UNIT	TOTAL
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00



TYPICAL SECTION

BRIDGE 'C'	TULSA COUNTY	Design	N/A	05/16	
SH51 WB OVER PITTSBURG AVE.		Detail	RWM	05/16	
GENERAL PLAN AND SECTION (BRIDGE 'C')		Check	KMS	07/16	
		Squad	MAYFIELD		
		Engr:	ELYAZGI		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO.	30318(06)	SHEET NO.	B003

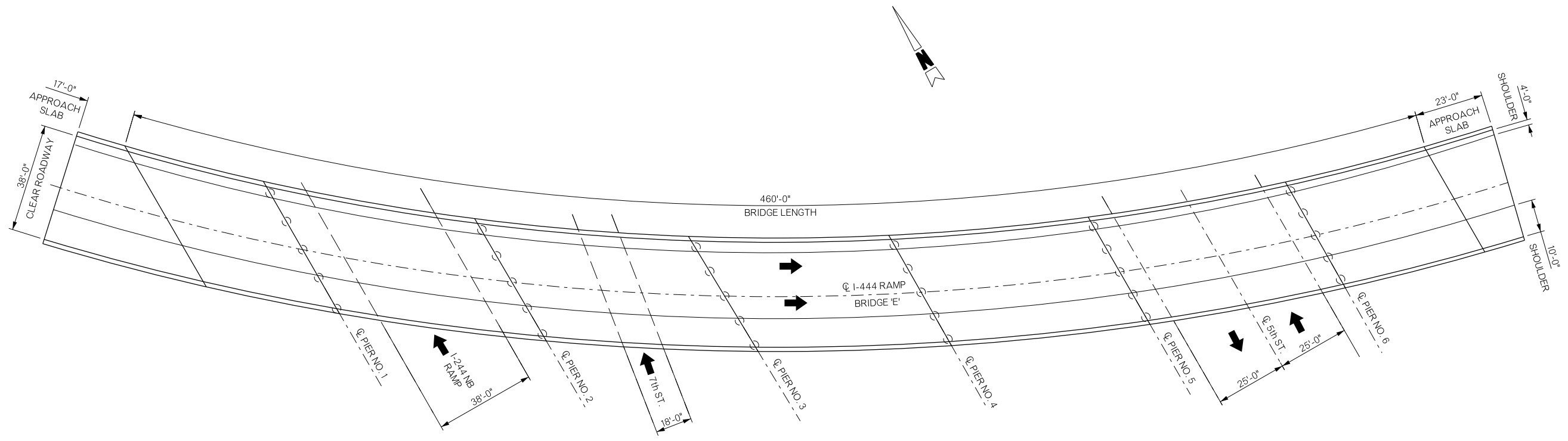
REVISIONS		
REV. NO.	DESCRIPTION	DATE



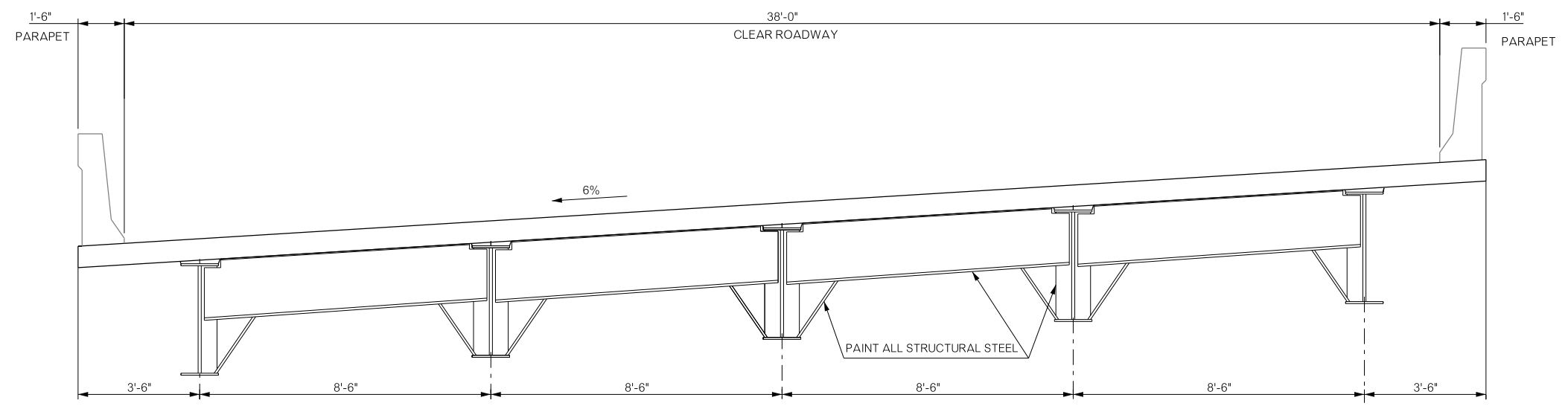
PAINT QUANTITIES - BRIDGE 'D'		
ITEM	UNIT	TOTAL
PAINING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00

BRIDGE 'D' SH51 EB OVER PITTSBURG AVE. GENERAL PLAN AND SECTION (BRIDGE 'D')	TULSA COUNTY		Design	N/A	05/16
			Detail	RWM	05/16
			Check	KMS	07/16
			Squad	MAYFIELD	
		Engr:	ELYAZGI		
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION			
		JOB/PIECE NO.	30318(06)		
				SHEET NO. B004	

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

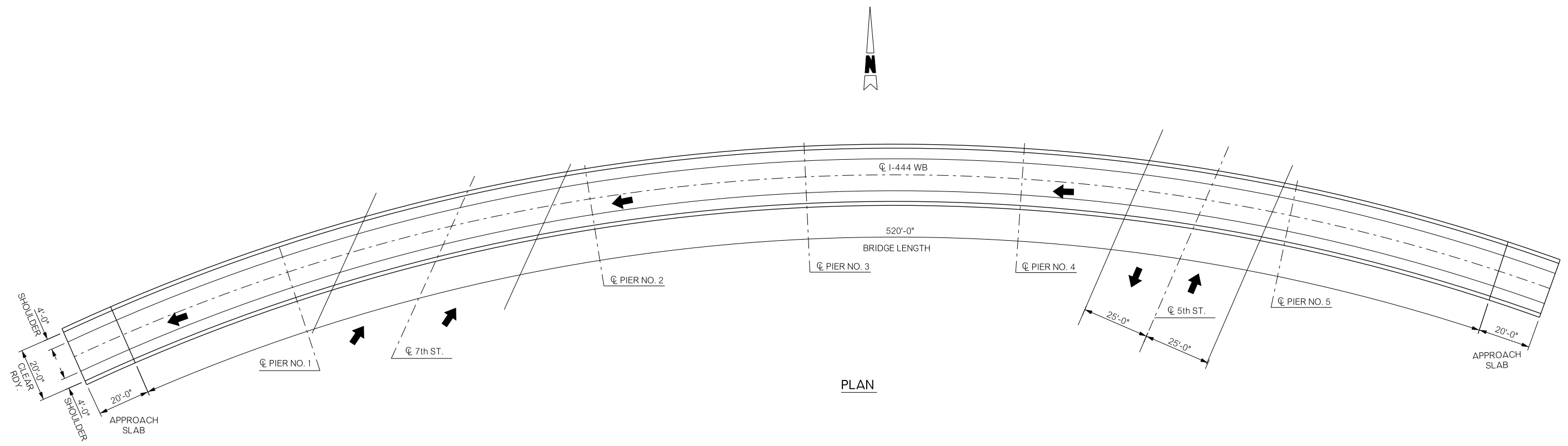


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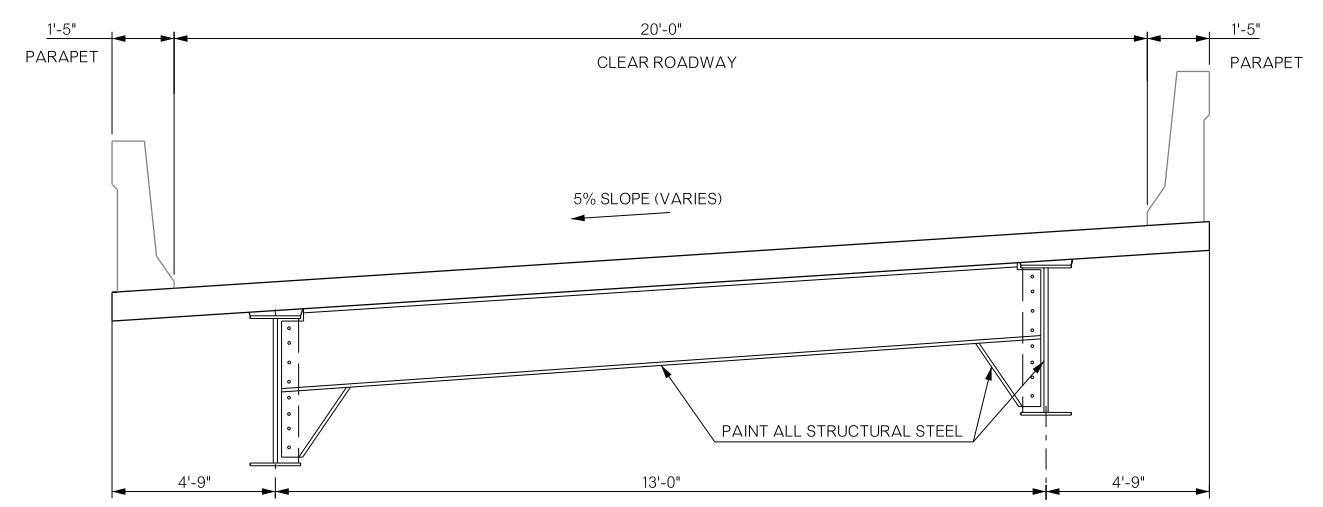
PAINT QUANTITIES - BRIDGE 'E'		
ITEM	UNIT	TOTAL
PAINING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00

BRIDGE 'E' I-444 RAMP N-E OVER I-244 NB GENERAL PLAN AND SECTION (BRIDGE 'E')	TULSA COUNTY	Design	N/A	05/16	
		Detail	RWM	05/16	
		Check	KMS	07/16	
		Squad	MAYFIELD		
		Engr.	ELYAZGI		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO.	30318(06)	SHEET NO.	B005

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

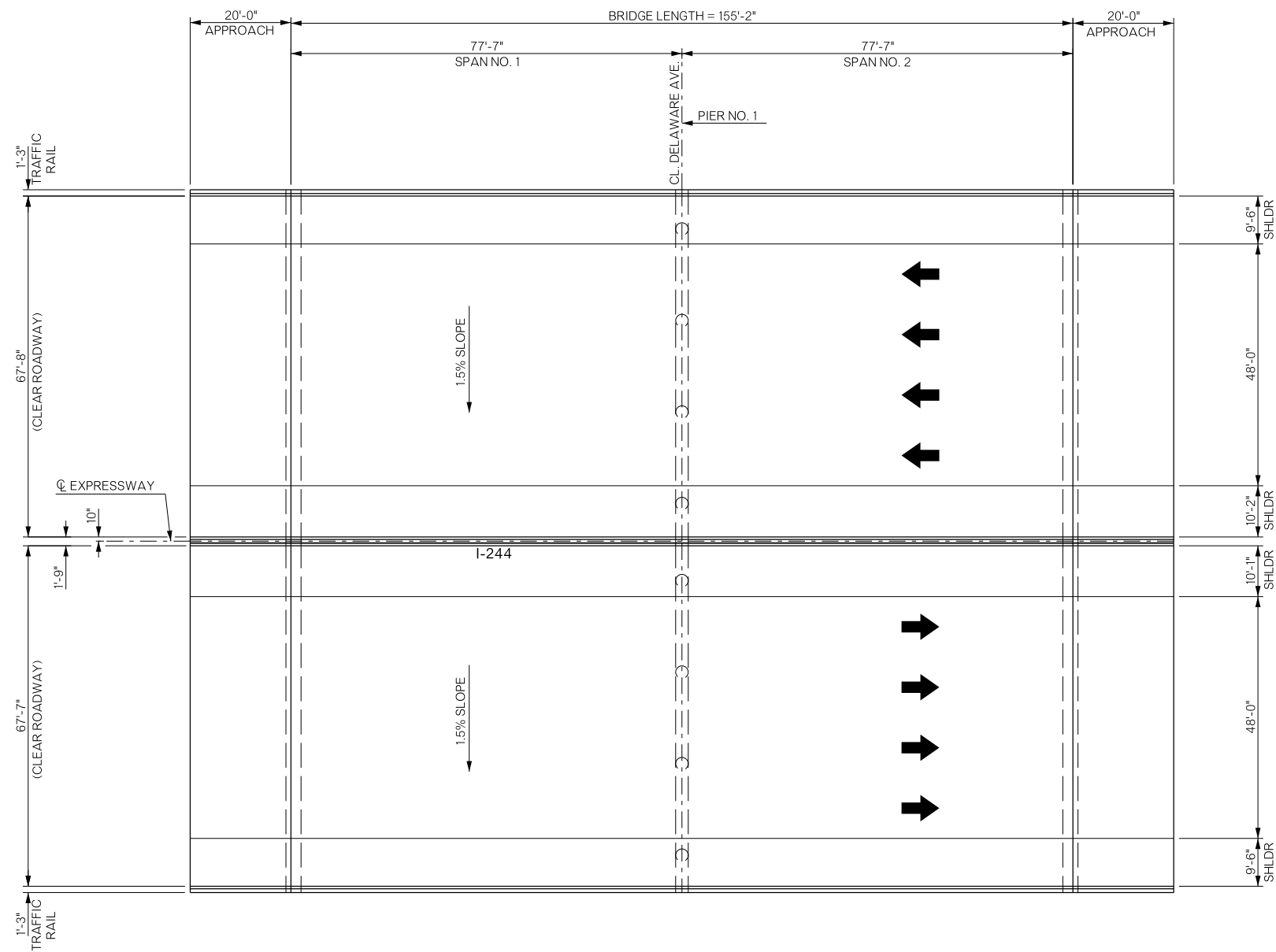


TYPICAL SECTION

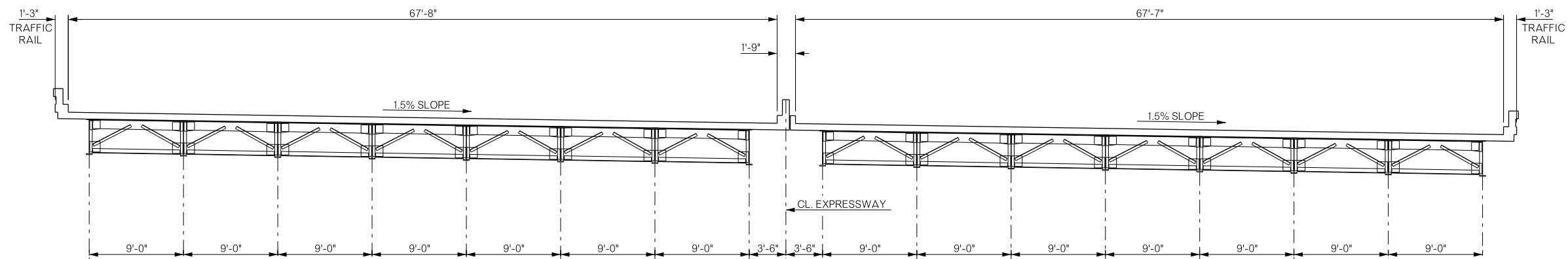
PAINT QUANTITIES - BRIDGE 'F'		
ITEM	UNIT	TOTAL
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00

BRIDGE 'F' I-444 WB TO I-244 SB GENERAL PLAN AND SECTION (BRIDGE 'F')	TULSA COUNTY		Design	N/A	05/16
			Detail	RWM	05/16
			Check	KMS	07/16
			Squad	MAYFIELD	
		Engr:	ELYAZGI		
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		JOB/PIECE NO. 30318(06)	SHEET NO. B006

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

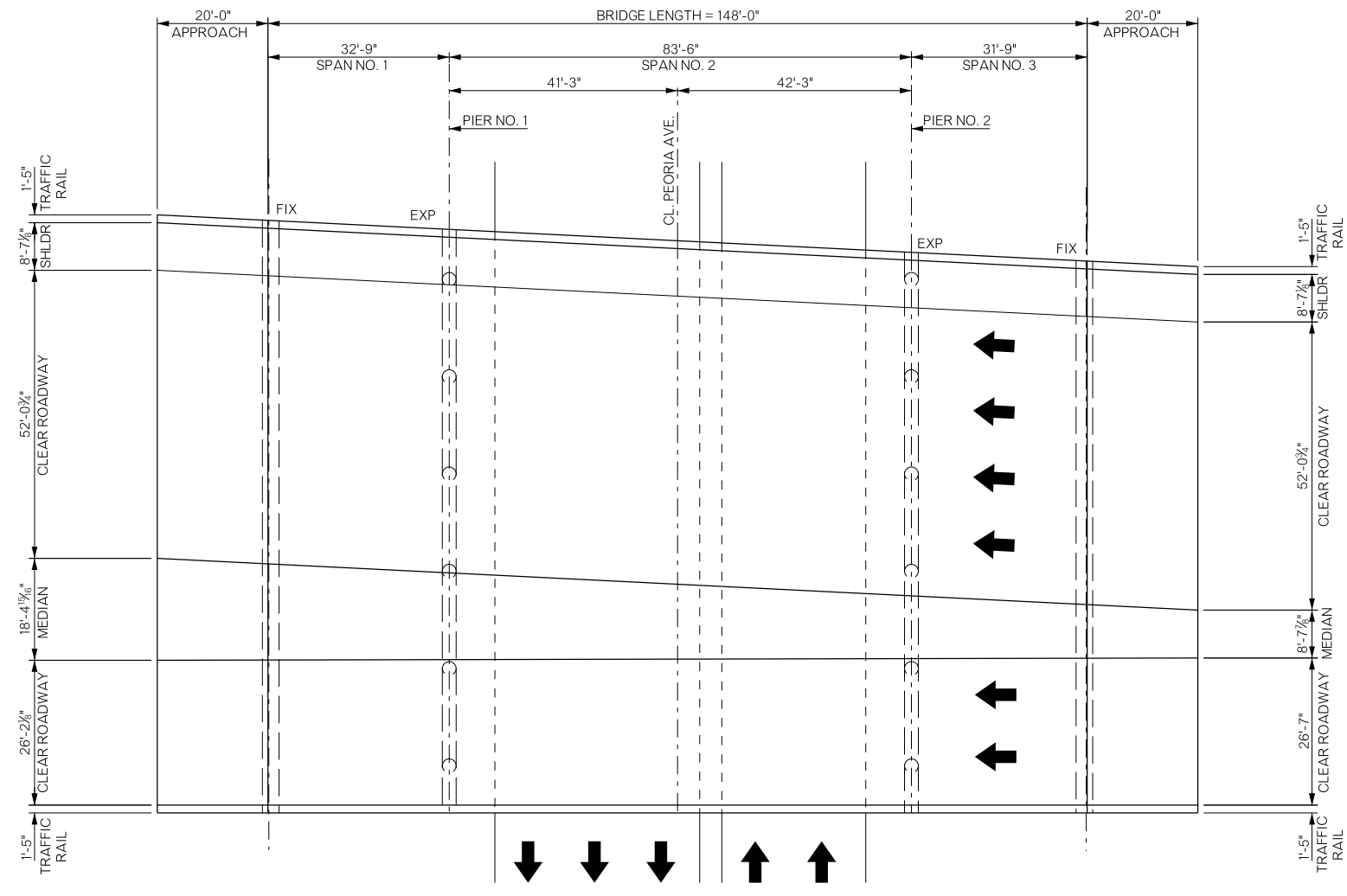


TYPICAL CROSS SECTION

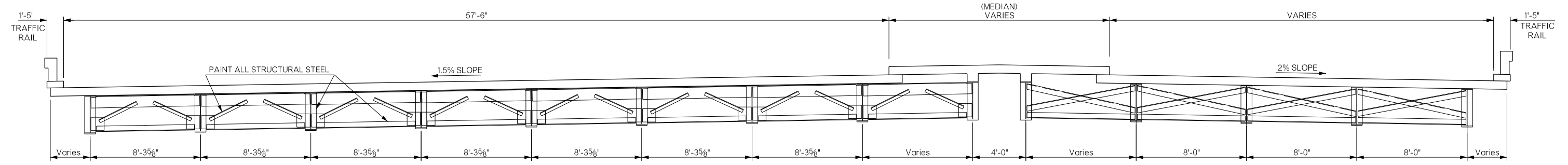
PAINT QUANTITIES - BRIDGE 'G'		
ITEM	UNIT	TOTAL
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00

BRIDGE 'G' I-244 OVER DELAWARE AVE.	TULSA COUNTY	Design	N/A	N/A
GENERAL PLAN AND SECTION (BRIDGE 'G')		Detail	JLL	3/16
		Check	KMS	07/16
STATE OF OKLAHOMA		Squad	ELYAZGI	
DEPARTMENT OF TRANSPORTATION		Engr:	ELYAZGI	
JOB/PIECE NO. 30318(06)	SHEET NO. B007			

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



HALF SECTION AT INTERMEDIATE DIAPHRAGM

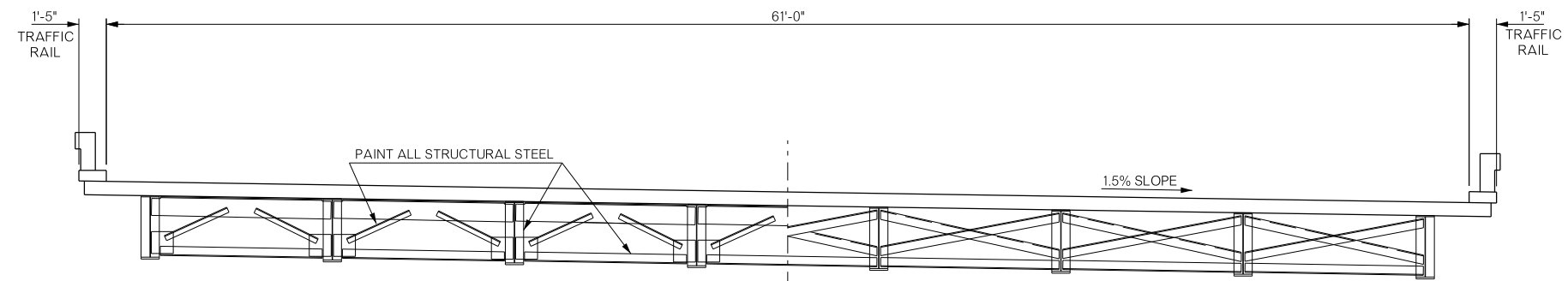
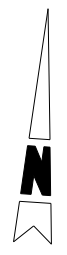
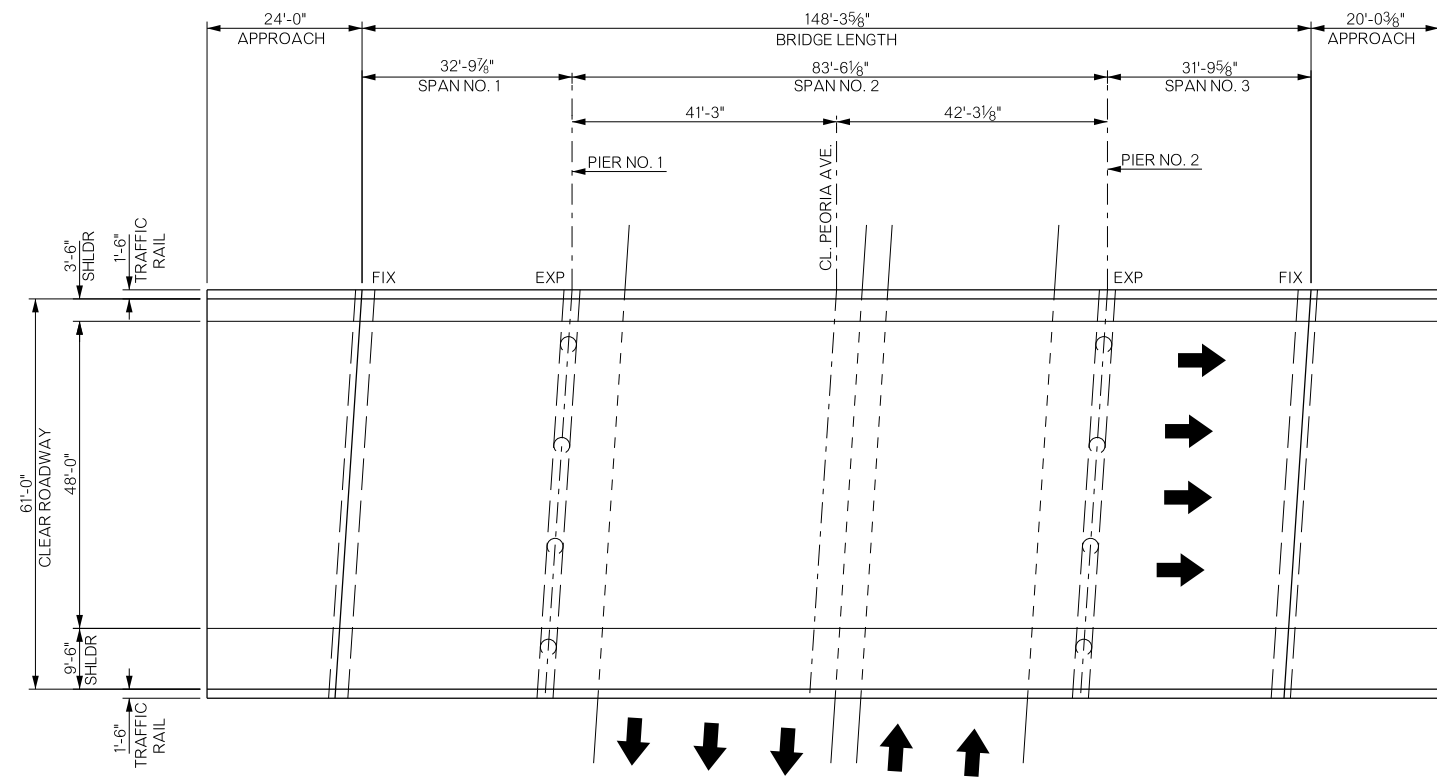
HALF SECTION AT END DIAPHRAGM

TYPICAL CROSS SECTION

PAINT QUANTITIES - BRIDGE 'H'		
ITEM	UNIT	TOTAL
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00

BRIDGE 'H' I-244 WB OVER PEORIA AVE. GENERAL PLAN AND SECTION (BRIDGE 'H')	TULSA COUNTY	Design	N/A	N/A	
		Detail	JLL	05/16	
		Check	KMS	07/16	
		Squad	MAYFIELD		
	Engr.	ELYAZGI			
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOBPIECE NO.	30318(06)	SHEET NO.	B008

REVISIONS		
REV. NO.	DESCRIPTION	DATE



HALF SECTION AT END DIAPHRAGM

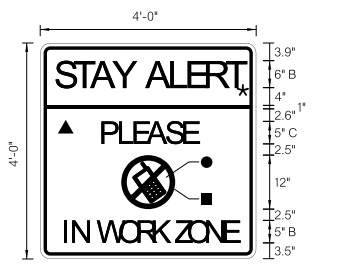
HALF SECTION AT INTERMEDIATE DIAPHRAGM

TYPICAL CROSS SECTION

PAINT QUANTITIES - BRIDGE 'I'		
ITEM	UNIT	TOTAL
PAINTING EXISTING STRUCTURES	LSUM	1.00
COLLECTION & HANDLING OF WASTE	LSUM	1.00
STRUCTURAL STEEL	LB.	2,000.00

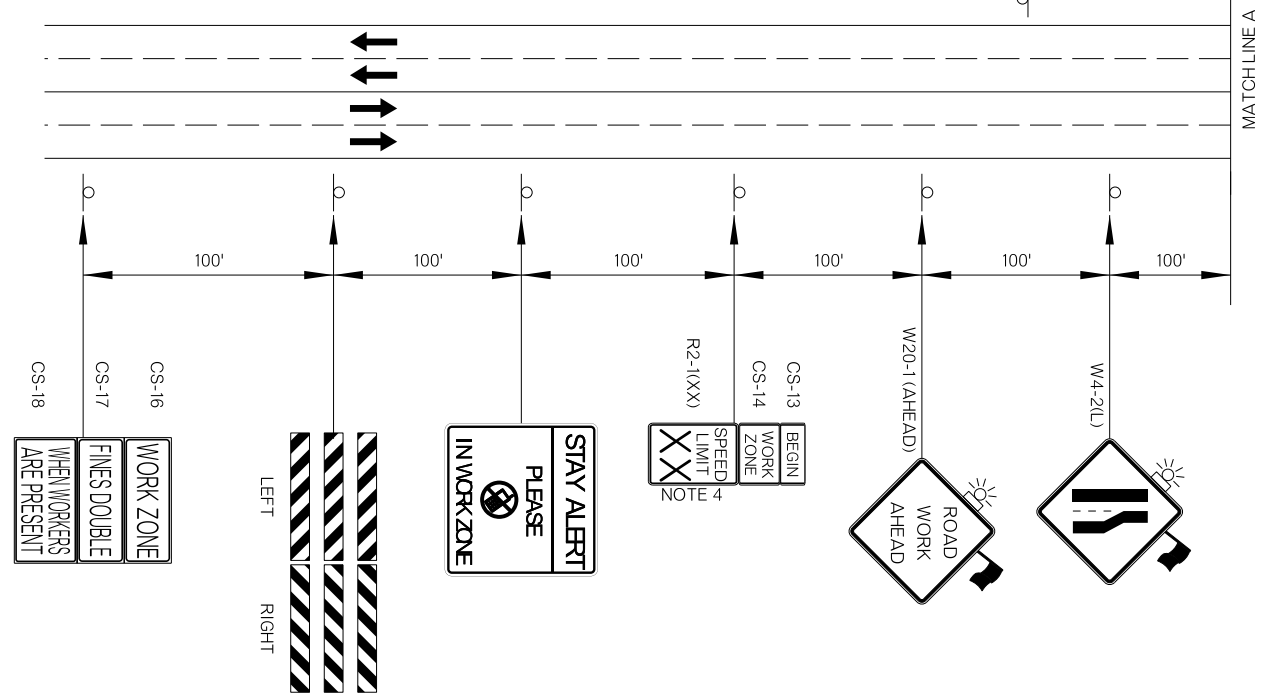
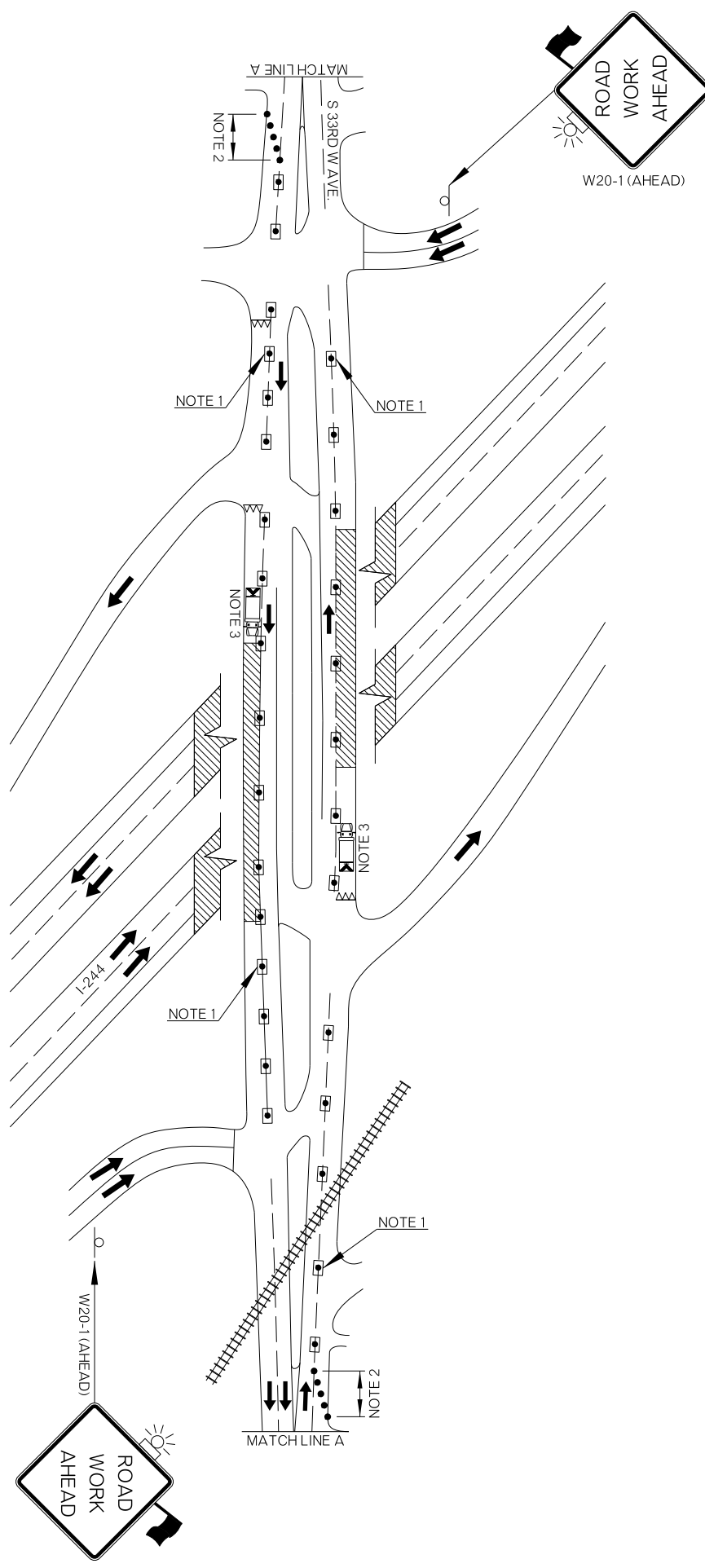
BRIDGE 'I'	TULSA COUNTY	Design	N/A	N/A	
I-244 EB OVER PEORIA AVE.		Detail	JLL	05/16	
GENERAL PLAN AND SECTION (BRIDGE 'I')		Check	KMS	07/16	
		Squad	MAYFIELD		
		Engr.	ELYAZGI		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOBPIECE NO.	30318(06)	SHEET NO.	B009

REVISIONS		
REV. NO.	DESCRIPTION	DATE



BORDER
R=1.5"
TH=0.75"
IN=0.75"

- COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
★ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
■ RED (TRANSPARENT)



THERE IS NO SUGGESTED SEQUENCE OF CONSTRUCTION IN THIS DRAWING. INSIDE AND OUTSIDE LANES SHALL BE WORKED AS STATED IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THE DETAILS SHOWN ARE FOR ONE LANE OF TRAFFIC CONTROL. ALL TRAFFIC CONTROL FOR THE ALTERNATE LANE WILL BE OPPOSITE OF THAT SHOWN.

NOT TO SCALE

KEY:

	SIGN
	DRUM
	CHANNELIZING CONE
	WORK AREA
	SHADOW VEHICLE
	TRUCK MOUNTED ATTENUATOR
	TYPE III BARRICADE

NOTE 1
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE 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 CHANNELIZER CONES, TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS AREA.

NOTE 3
THE SHADOW VEHICLE SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE WHENEVER WORKERS ARE IN THE WORK AREA. THIS VEHICLE SHALL BE REMOVED FROM THE ROADWAY WHENEVER WORKERS ARE NOT IN THE WORK AREA. THIS VEHICLE SHALL BE EQUIPPED WITH AN ACTUATED FLASHING OR REVOLVING YELLOW LIGHT.

NOTE 4
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

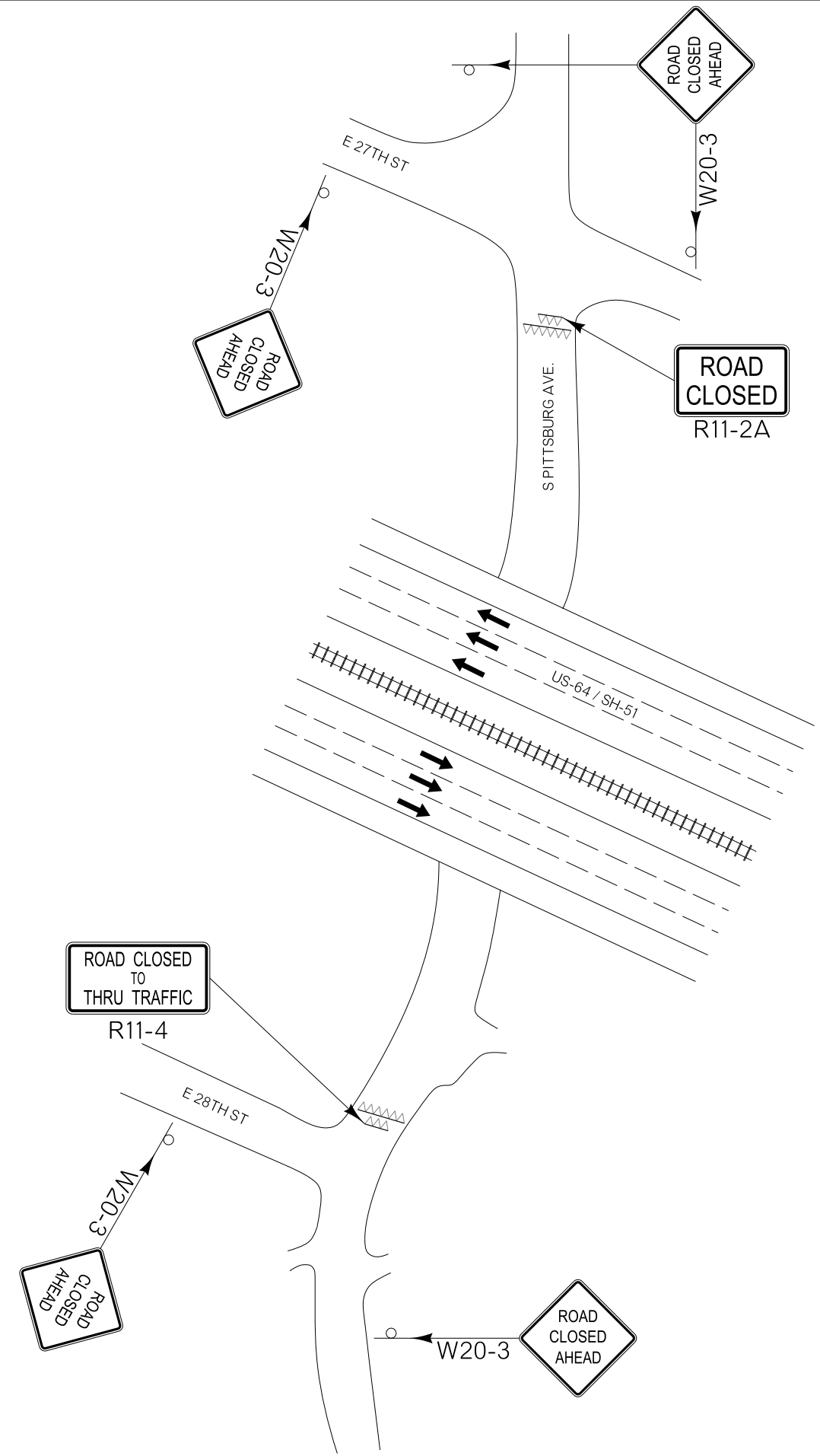
TRAFFIC CONTROL DETAIL
(BRIDGES A & B)

Drawn	JF	6/16
Design	JF	6/16
Checked	SEB	6/16

TRAFFIC ENGINEERING
JAMI SHORT

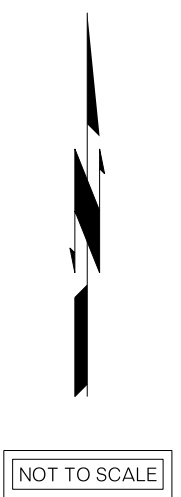
STATE OF OKLAHOMA	DIVISION 8	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO. 30318(06)	SHEET NO. T001
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REVISIONS		
REV. NO.	DESCRIPTION	DATE



KEY:

	SIGN
	TYPE III BARRICADE

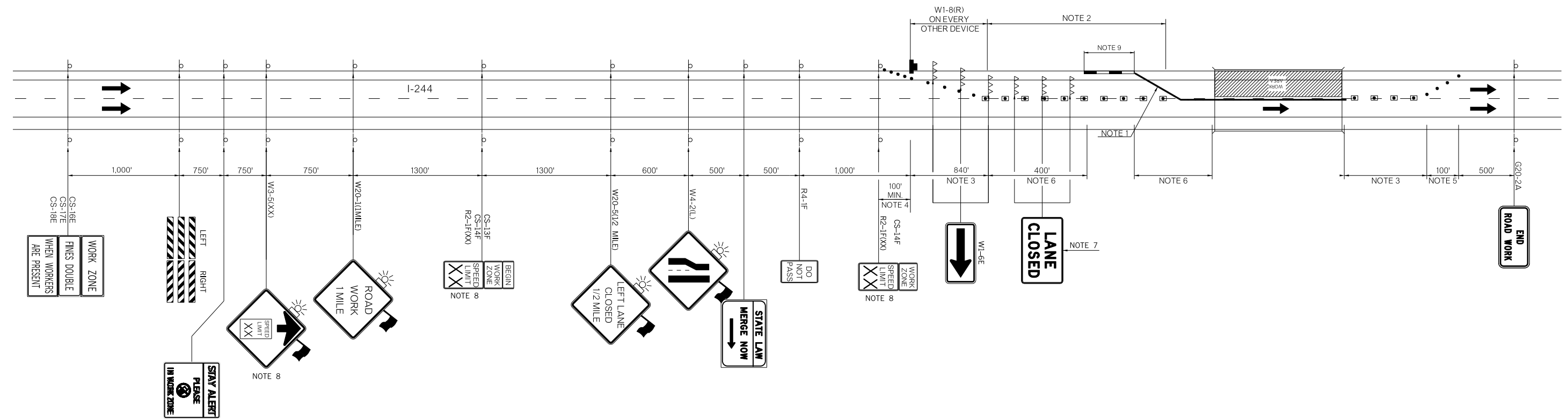


TRAFFIC CONTROL DETAIL (BRIDGES C & D)	Drawn	JF	6/16
	Design	JF	6/16
	Checked	SEB	6/16
TRAFFIC ENGINEERING JAMI SHORT			
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION	
DIVISION 8	JOB/PIECE NO. 30318(06)	SHEET NO. T002	

REVISIONS		
REV. NO.	DESCRIPTION	DATE

ALL MERGING AND EXIT RAMP ARE TO REMAIN OPEN AND ACCESSABLE AT ALL TIMES.

THIS TRAFFIC CONTROL DETAIL IS FOR EAST I-244 & WEST I-244 TO NORTH 75



NOTE 1

SPEED *	FLARE RATE (MINIMUM)
40 M.P.H.	9 TO 1
45 M.P.H.	10 TO 1
50 M.P.H.	11 TO 1
55 M.P.H.	12 TO 1
60 M.P.H.	13 TO 1
65 M.P.H.	14 TO 1
70 M.P.H.	15 TO 1
75 M.P.H.	16 TO 1

* POSTED SPEED LIMIT PRIOR TO CONSTRUCTION

NOTE 2
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE 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 3
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 II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 4
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 5
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

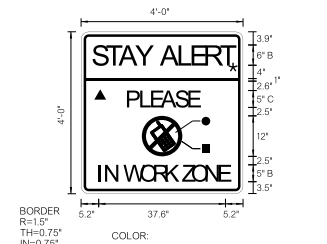
NOTE 6
A LONGITUDINAL BUFFER AREA, TO ALLOW WORKERS TIME TO EVACUATE THE WORK AREA, SHOULD BE PROVIDED. FOR GUIDELINES ON SETTING THE LENGTH OF THIS BUFFER, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION). ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND THE JUDGEMENT OF THE ENGINEER.

NOTE 7
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 8
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOTE 9
IF CLEAR ZONE CAN BE MET BY FLARING MEDIAN BARRIER, THE CONST. ZONE IMPACT ATTENUATORS MAY BE OMITTED. SEE FLAIR RATE TABLE.

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

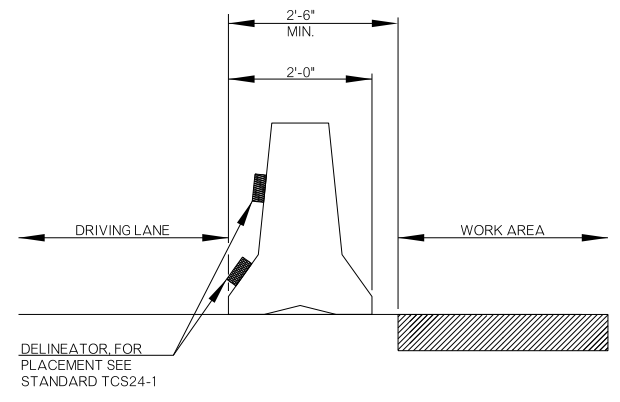


BORDER
R=15'
TH=0.75"
IN=0.75"

COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
★ FLUORESCENT YELLOW (REFLECTORIZED)
■ WHITE (REFLECTORIZED)
● RED (TRANSPARENT)

KEY:

	SIGN
	DRUM
	CHANNELIZING CONE
	WORK AREA
	TYPE III BARRICADE
	ARROW DISPLAY
	CONST. ZONE IMPACT ATTENUATOR
	PORTABLE LONGITUDINAL BARRIER



NOT TO SCALE

TRAFFIC CONTROL DETAIL
(UNDER BRIDGES E & F)

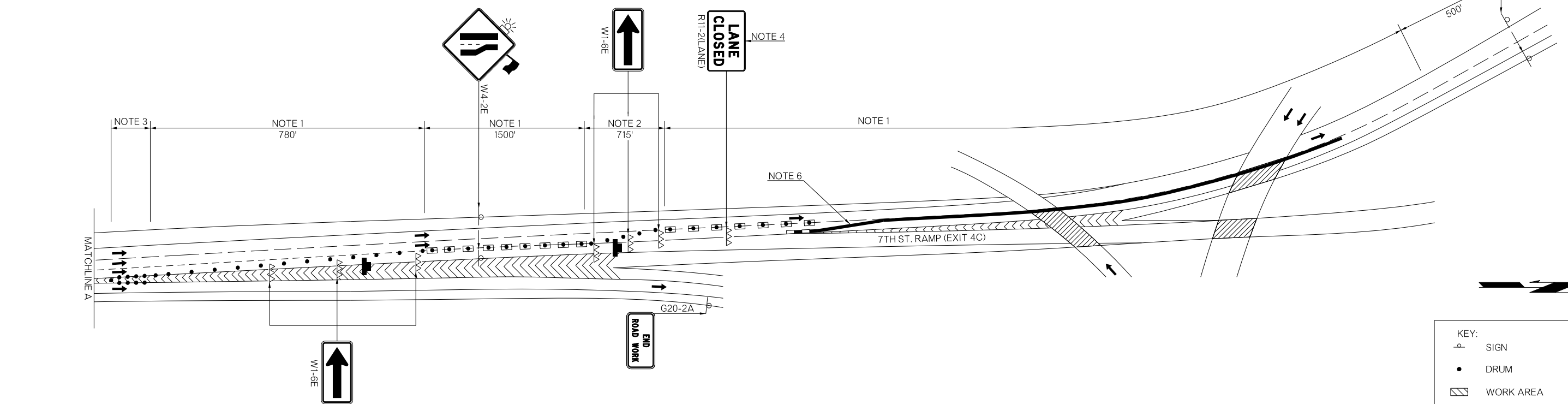
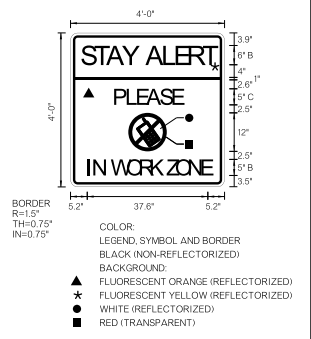
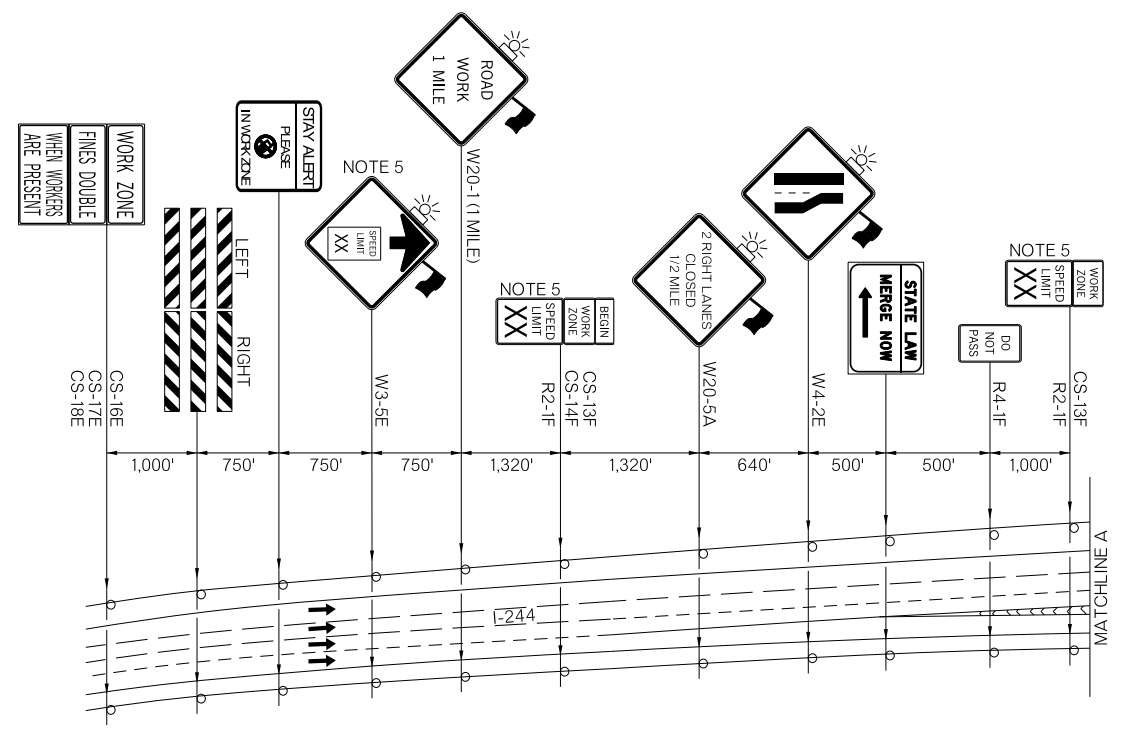
Drawn	JF	6/16
Design	JF	6/16
Checked	SEB	6/16

TRAFFIC ENGINEERING
JAMI SHORT

STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION
DIVISION 8	JOB/PIECE NO. 30318(06)
	SHEET NO. T003

REVISIONS		
REV. NO.	DESCRIPTION	DATE

CLOSURE OF THE 7TH ST. RAMP (EXIT 4C) WILL BE ALLOWED FROM FRIDAY 5:00 PM TO MONDAY 6:00 AM TO PAINT SECTIONS OVER 7TH ST. RAMP (EXIT 4C)



KEY:

- SIGN
- DRUM
- WORK AREA
- ARROW DISPLAY
- TYPE III BARRICADES
- CHANNELIZER CONE
- CONST. ZONE IMPACT ATTENUATOR
- PORTABLE LONGITUDINAL BARRIER

NOTE 1
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 50 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES; IT 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 THROUGH THIS TAPER.

NOTE 4
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 5
CONSTRUCTION SPEED LIMIT SHALL BE DETERMINED BY THE DIVISION ENGINEER.

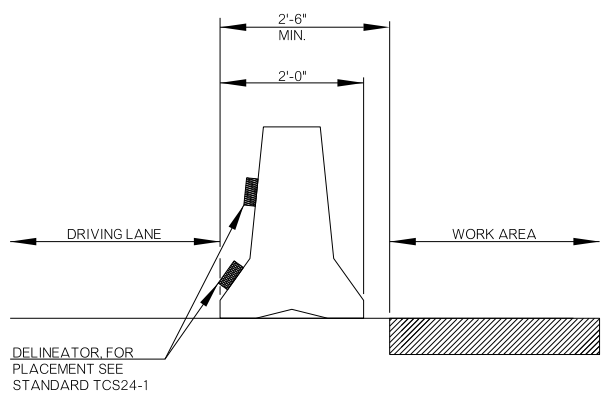
FOR ADDITIONAL INFORMATION ABOUT TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION).

NOTE 6

FLARE RATES FOR CONCRETE MEDIAN BARRIER IN TEMPORARY TRAFFIC CONTROL ZONES

SPEED *	FLARE RATE (MINIMUM)
40 M.P.H.	9 TO 1
45 M.P.H.	10 TO 1
50 M.P.H.	11 TO 1
55 M.P.H.	12 TO 1
60 M.P.H.	13 TO 1
65 M.P.H.	14 TO 1
70 M.P.H.	15 TO 1
75 M.P.H.	16 TO 1

* POSTED SPEED LIMIT PRIOR TO CONSTRUCTION



NOT TO SCALE

**TRAFFIC CONTROL DETAIL
(BRIDGES E & F)**

Drawn	JF	6/16
Design	JF	6/16
Checked	SEB	6/16

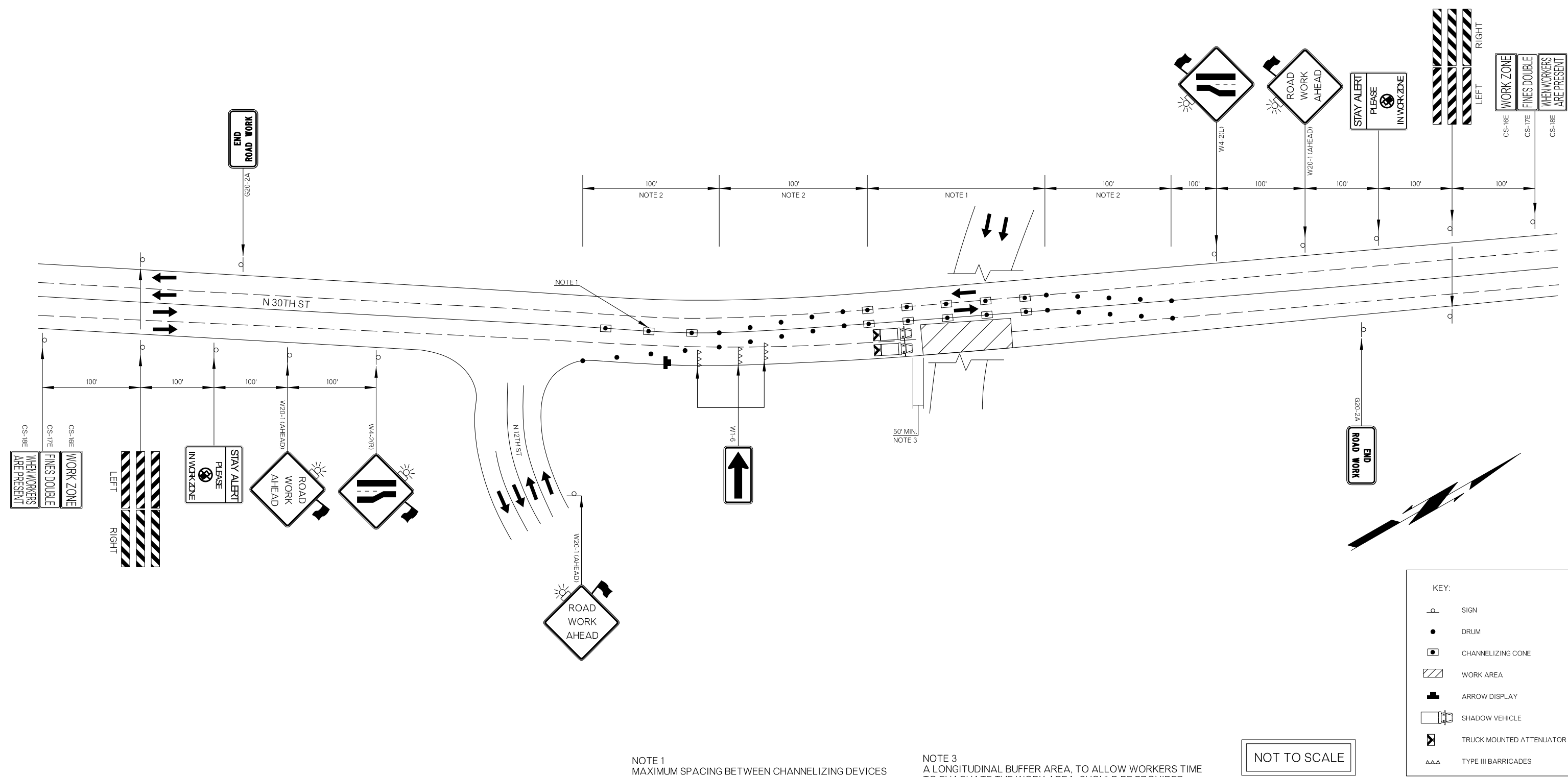
TRAFFIC ENGINEERING
JAMI SHORT

STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	DIVISION 8
JOB/PROJECT NO. 30318(06)		SHEET NO. T004

TULSA COUNTY/

REVISIONS		
REV. NO.	DESCRIPTION	DATE

THERE IS NO SUGGESTED SEQUENCE OF CONSTRUCTION IN THIS DRAWING. THE DETAILS SHOWN ARE FOR ONE LANE OF TRAFFIC CONTROL. ALL TRAFFIC CONTROL FOR THE ALTERNATE LANE WILL BE OPPOSITE OF THAT SHOWN.



NOTE 1
 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 II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2
 A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

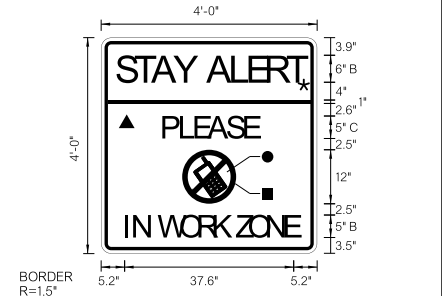
NOTE 3
 A LONGITUDINAL BUFFER AREA, TO ALLOW WORKERS TIME TO EVACUATE THE WORK AREA, SHOULD BE PROVIDED. FOR GUIDELINES ON SETTING THE LENGTH OF THIS BUFFER, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION). ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND THE JUDGEMENT OF THE ENGINEER.

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

NOT TO SCALE

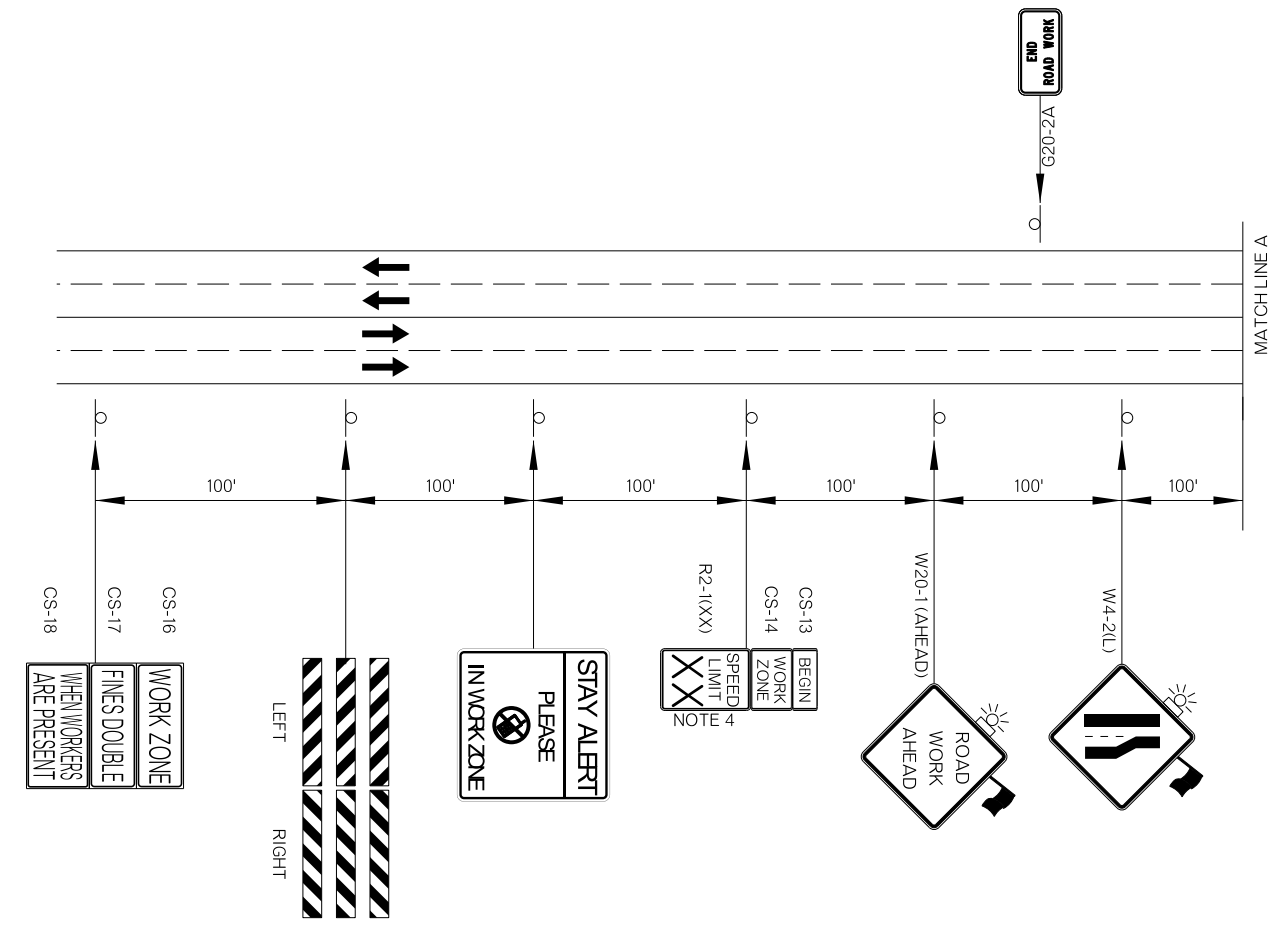
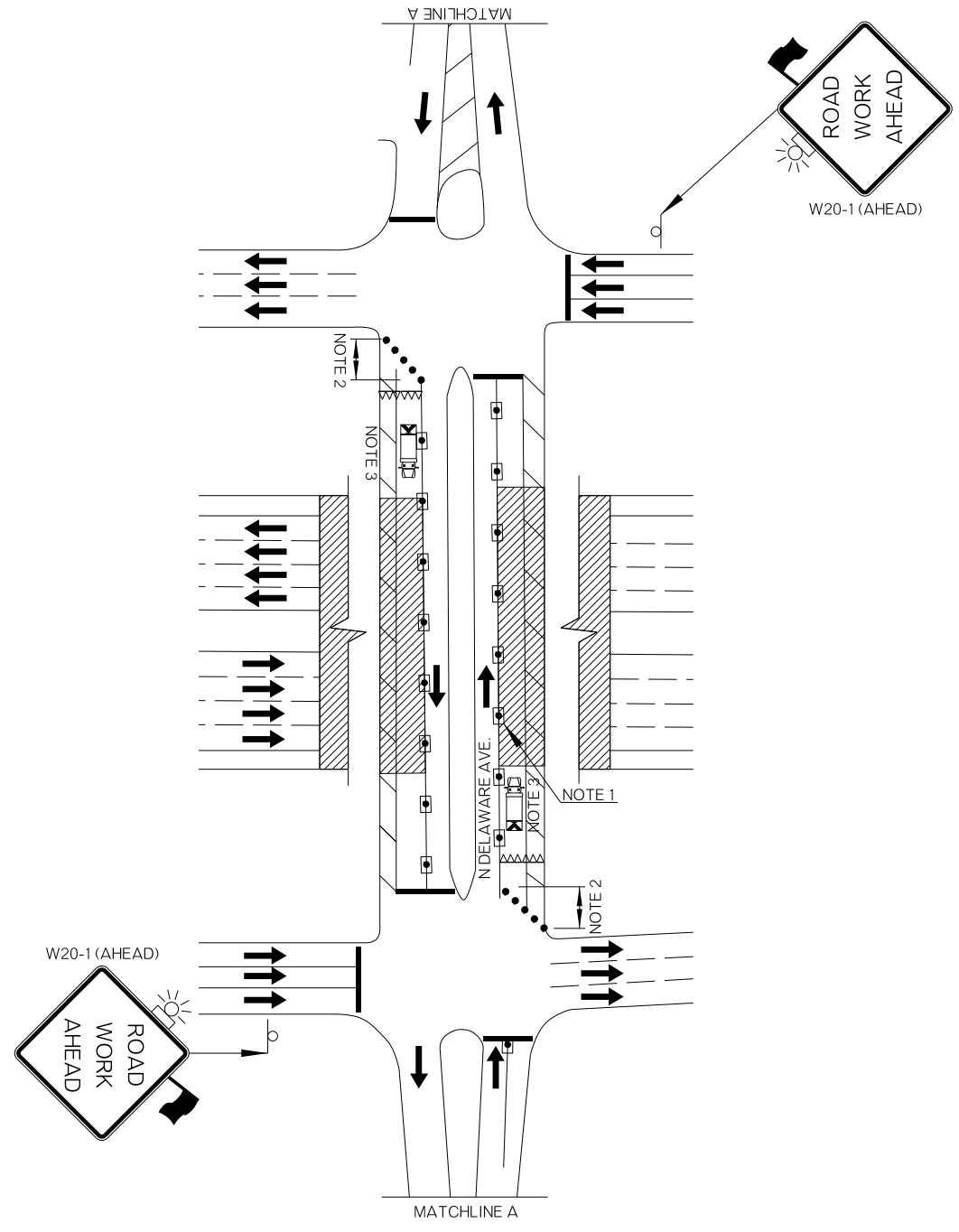
TRAFFIC CONTROL DETAIL (30TH ST)			Drawn	JF	6/16	
			Design	JF	6/16	
STATE OF OKLAHOMA			Checked	SEB	6/16	
			TRAFFIC ENGINEERING JAMI SHORT			
DEPARTMENT OF TRANSPORTATION		DIVISION 8	JOB/PIECE NO.	30318(06)	SHEET NO.	T005

REVISIONS		
REV. NO.	DESCRIPTION	DATE



BORDER
R=1.5"
TH=0.75"
IN=0.75"

COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
★ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
■ RED (TRANSPARENT)



THERE IS NO SUGGESTED SEQUENCE OF CONSTRUCTION IN THIS DRAWING. INSIDE AND OUTSIDE LANES SHALL BE WORKED AS STATED IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THE DETAILS SHOWN ARE FOR ONE LANE OF TRAFFIC CONTROL. ALL TRAFFIC CONTROL FOR THE ALTERNATE LANE WILL BE OPPOSITE OF THAT SHOWN.

KEY:

	SIGN
	DRUM
	CHANNELIZING CONE
	WORK AREA
	SHADOW VEHICLE
	TRUCK MOUNTED ATTENUATOR
	TYPE III BARRICADE

NOTE 1
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE 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 CHANNELIZER CONES, TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS AREA.

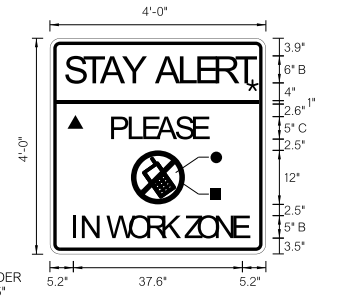
NOTE 3
THE SHADOW VEHICLE SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE WHENEVER WORKERS ARE IN THE WORK AREA. THIS VEHICLE SHALL BE REMOVED FROM THE ROADWAY WHENEVER WORKERS ARE NOT IN THE WORK AREA. THIS VEHICLE SHALL BE EQUIPPED WITH AN ACTUATED FLASHING OR REVOLVING YELLOW LIGHT.

NOTE 4
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

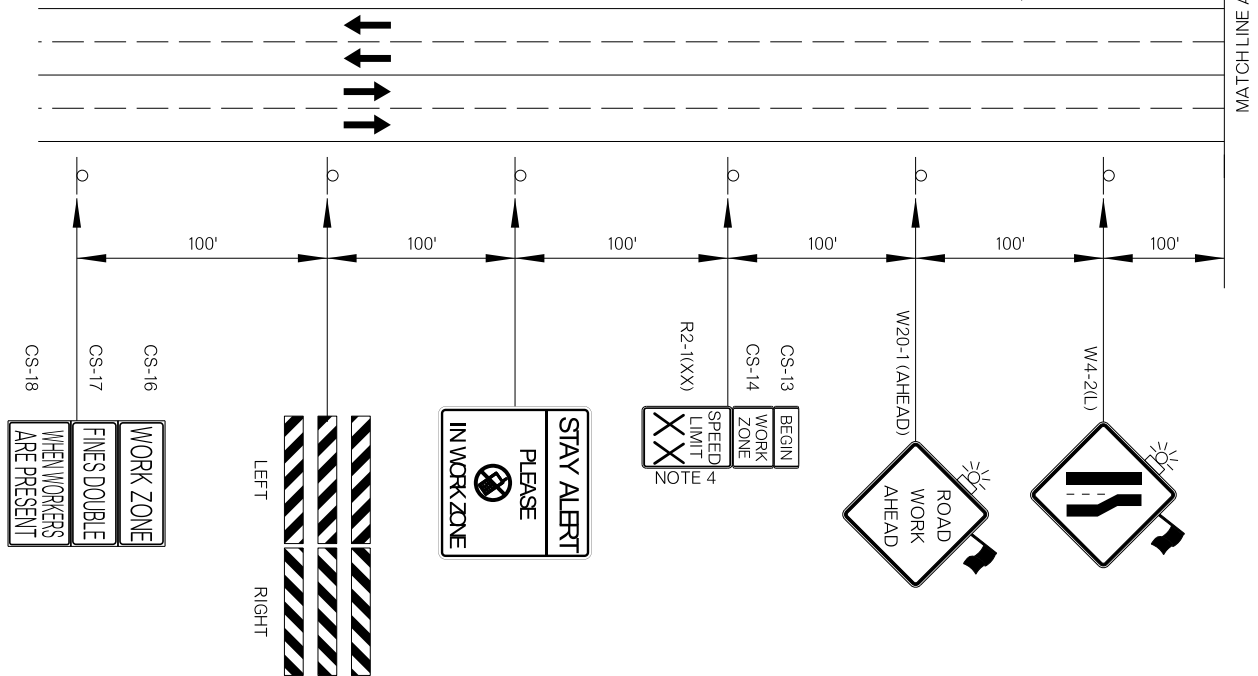
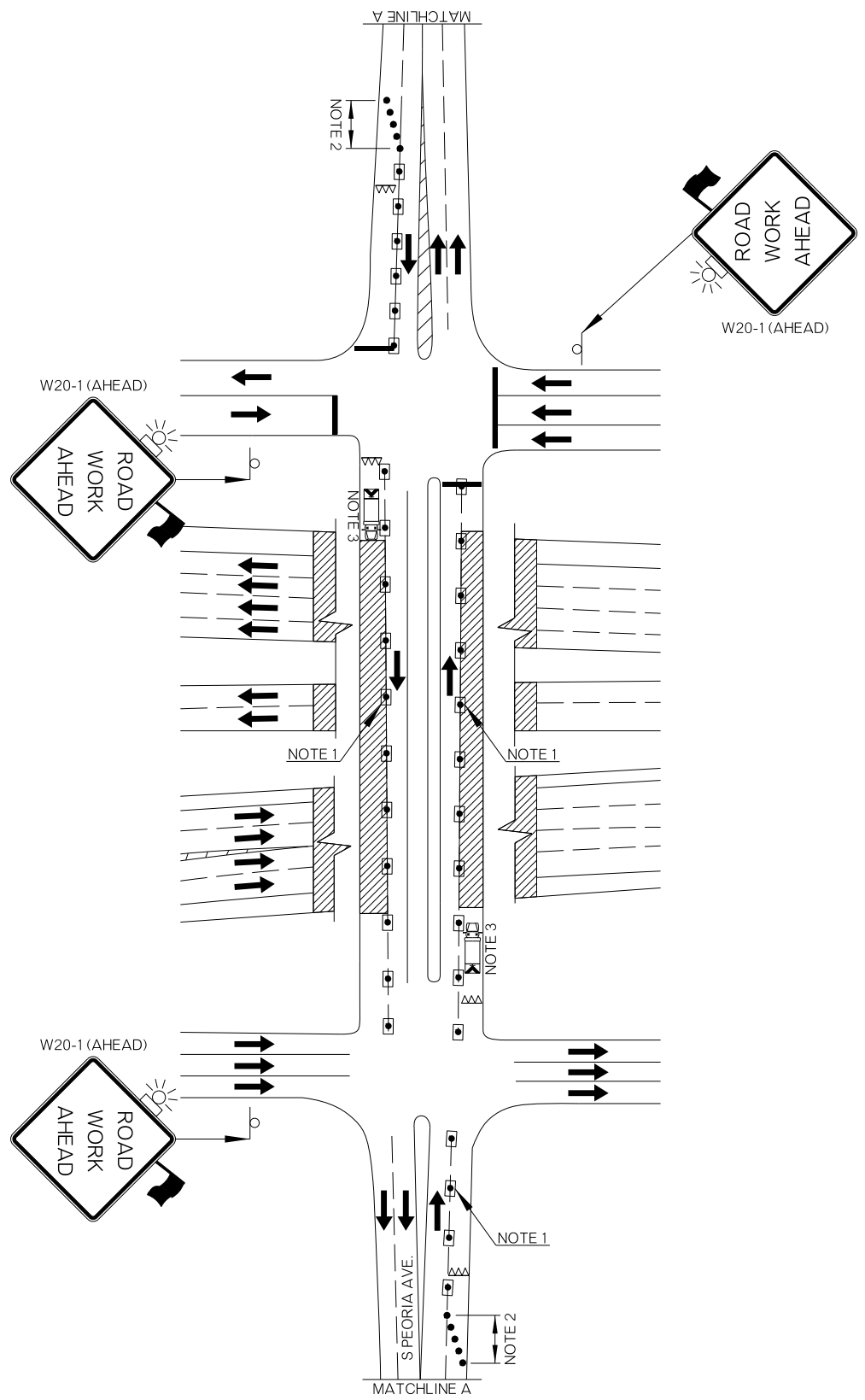
NOT TO SCALE

TRAFFIC CONTROL DETAIL (BRIDGE G)			Drawn	JF	6/16
			Design	JF	6/16
STATE OF OKLAHOMA			Checked	SEB	6/16
			TRAFFIC ENGINEERING JAMI SHORT		
DEPARTMENT OF TRANSPORTATION		DIVISION 8	JOB PIECE NO.	30318(06)	SHEET NO. T006

REVISIONS		
REV. NO.	DESCRIPTION	DATE



- BORDER
R=1.5"
TH=0.75"
IN=0.75"
- COLOR:
LEGEND, SYMBOL AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
★ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
■ RED (TRANSPARENT)



THERE IS NO SUGGESTED SEQUENCE OF CONSTRUCTION IN THIS DRAWING. INSIDE AND OUTSIDE LANES SHALL BE WORKED AS STATED IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THE DETAILS SHOWN ARE FOR ONE LANE OF TRAFFIC CONTROL. ALL TRAFFIC CONTROL FOR THE ALTERNATE LANE WILL BE OPPOSITE OF THAT SHOWN.

KEY:

	SIGN
	DRUM
	CHANNELIZING CONE
	WORK AREA
	SHADOW VEHICLE
	TRUCK MOUNTED ATTENUATOR
	TYPE III BARRICADE

NOTE 1
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NOTE 2
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NOTE 4
CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.

NOT TO SCALE

TRAFFIC CONTROL DETAIL (BRIDGES H & I)		Drawn	JF	6/16
		Design	JF	6/16
STATE OF OKLAHOMA		Checked	SEB	6/16
		TRAFFIC ENGINEERING JAMI SHORT		
DEPARTMENT OF TRANSPORTATION		DIVISION 8	JOB/PIECE NO. 30318(06)	SHEET NO. T007