

**TRAFFIC DESIGN**

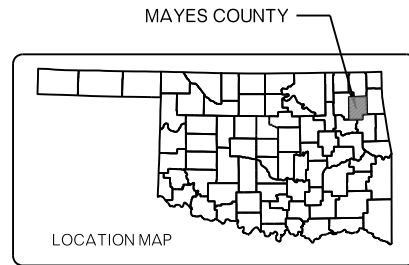
PROJECT ENGINEER : JAMI SHORT P.E.  
SQUAD SUPERVISOR : STEVEN WILLIAMS

**BRIDGE DESIGN**

ENGINEERING MANAGER: MOHAMED ELYAZGI, P.E.  
SQUAD SUPERVISOR: KEVEN MAYFIELD ASSISTANT SUPERVISOR: REBECCA ADKINSON  
SQUAD MEMBERS: JIMMY LONSDALE, ROBERT MEINERT, DONNA GOFORTH,  
ALEXANDER GATLEY, NICHOLAS WILSON

ENGINEER: MIKE CAO, P.E.  
ENGINEER: KATIE BROWN, P.E.

P.E. NO. 33366(01)



STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED  
**UNITED STATES HIGHWAY**

STATE AID PROJECT NO. SAP-249N(041)  
BRIDGE REPAIR PROJECT  
U.S. HIGHWAY NO. 412

**MAYES COUNTY**

CONTROL SECTION NO.: 412-49-18  
STATE JOB NO. 33366(04)  
BRIDGE "A" LOCATION NO. 4918-0555 NX  
NBI NO. 21690

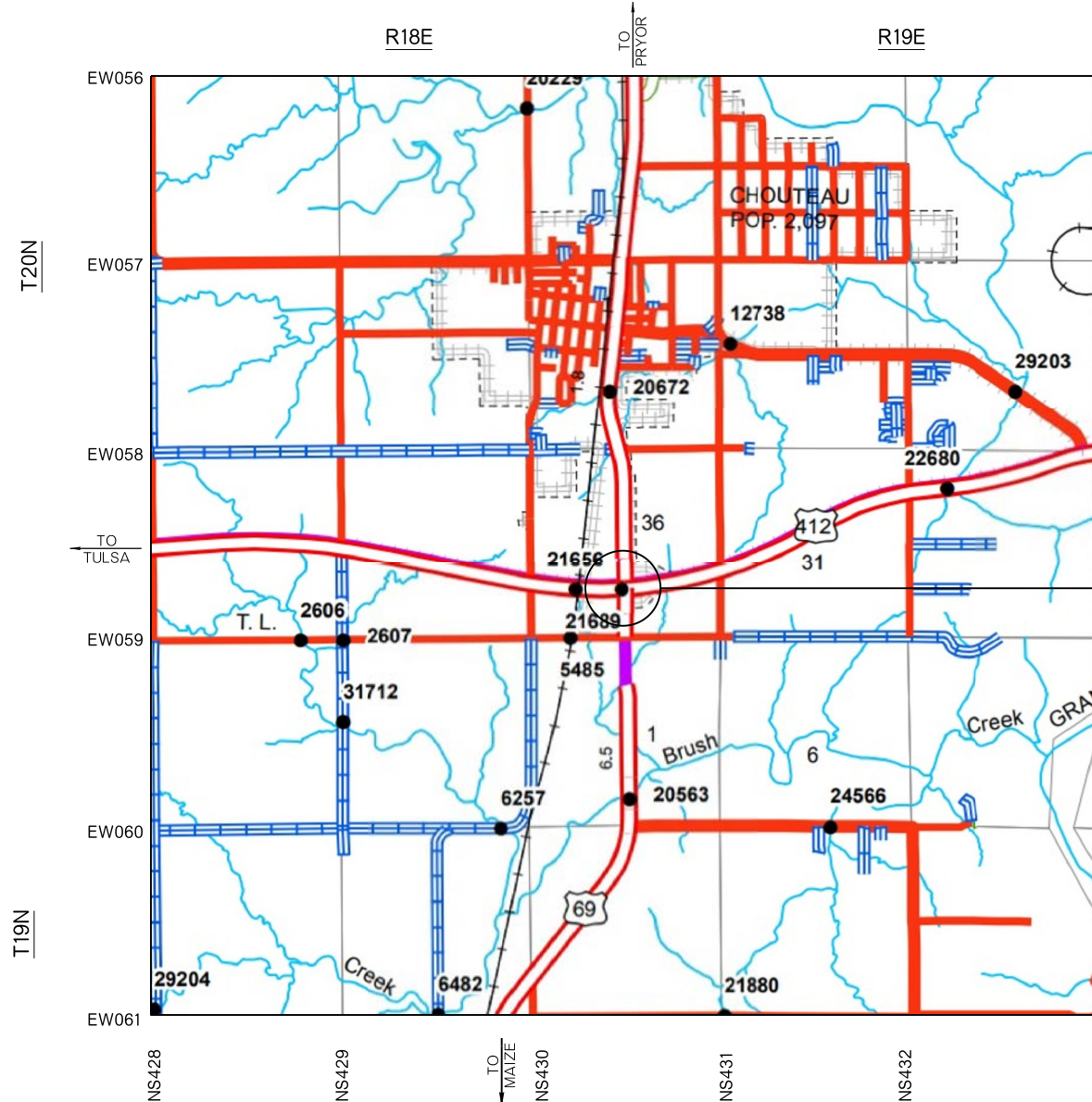
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	OKLA.	33182(04)	2017	0001	
DESCRIPTION		REVISIONS	DATE		

INDEX OF SHEETS

SHEET NUMBER	SHEET DESCRIPTION
0001	TITLE SHEET
AB01	GENERAL NOTES AND SUMMARY OF PAY QUANTITIES (BRIDGE)
AT01	SUMMARY OF PAY QUANTITIES (TRAFFIC)
B001	GENERAL PLAN AND ELEVATION
T001	TRAFFIC CONTROL DETAIL - US-69 UNDER US-412

STANDARDS TO BE INCLUDED FOR THIS PROJECT :

TRAFFIC	
TCS1-1-01	TCS9-1-01
TCS2-1-00	TCS11-1-01
TCS3-1-01	TCS14-1-00
TCS4-1-01	TCS17-1-00
TCS5-1-00	TCS18-1-01
TCS6-1-02	TCS19-1-01
TCS7-1-02	TCS20-1-00
TCS8-1-00	



BRIDGE "A" - LOCATION NO. 4918 0555 NX  
NBI NO. 21690  
LOCATION : 5.5 MI. EAST OF ROGERS COUNTY LINE  
CONTROL SECTION NO. 412-49-22  
TOWNSHIP T20N - RANGE R18E  
FACILITY CARRIED: US 412 WESTBOUND  
FACILITY INTERSECTED: US 69 SOUTHBOUND UNDER

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.

PREPARED BY:  
OKLAHOMA DEPARTMENT OF TRANSPORTATION  
BRIDGE DESIGN DIVISION  
*Mohamed Elyazgi*  
MOHAMED ELYAZGI, P.E.  
OKLA. REG. NO. 17542  
DATE 09/082017

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED _____	DATE APPROVED _____
BY _____ CHIEF ENGINEER	BY _____ DIVISION ADMINISTRATOR
SWO _____	PROJECT NO. SAP-249N(041)
COUNTY MAYES	HIGHWAY US-412 SHEET NO. 0001

REVISIONS		
REV. NO.	DESCRIPTION	DATE

**GENERAL NOTES**

**SPECIFICATIONS:**

COMPLY WITH THE REQUIREMENTS OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

**PLANS:**

CONSTRUCTION PLANS FOR THE EXISTING STRUCTURES, MAY BE OBTAINED FROM THE REPRODUCTIONS BRANCH OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION.

REPRODUCTION BRANCH  
OKLAHOMA DEPARTMENT OF TRANSPORTATION  
200 NE 21ST STREET  
OKLAHOMA CITY, OKLAHOMA 73105

ASK FOR: MAF-593(223) MAYES COUNTY,  
US 412 OVER US 69

**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 CONSTRUCT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.

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

**DESCRIPTION OF WORK:**

THE WORK UNDER THIS CONTRACT CONSISTS PRIMARILY OF THE REPAIR OF A PRESTRESSED CONCRETE BEAM BY THE APPLICATION OF PNEUMATICALLY PLACED MORTAR AND CARBON FIBER WRAP AS SHOWN IN THE PLANS.

CARE SHALL BE TAKEN TO ENSURE THAT NO DAMAGE IS CAUSED TO THE TRAFFIC DURING THESE ACTIONS. NECESSARY EQUIPMENT WILL BE USED AS APPROVED BY THE ENGINEER. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE SAFETY OF THE TRAVELING PUBLIC AND THE ADEQUACY OF THE REPAIRS.

**REMOVED MATERIAL:**

ALL MATERIAL REMOVED DURING THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED IN A MANNER APPROVED BY THE ENGINEER.

**PNEUMATICALLY PLACED MORTAR**

THE PAY ITEM "PNEUMATICALLY PLACED MORTAR" CONSISTS OF REPAIRING THE SURFACE AREA OF THE SUBSTRUCTURE.

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 DAMAGED CONCRETE SHALL BE DONE USING HAND TOOLS. POWER TOOLS WILL NOT BE ALLOWED UNLESS HAND TOOLS PROVE INCAPABLE OF EXCAVATING ALL DAMAGED 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 DAMAGED 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".

**CARBON FIBER-REINFORCED POLYMER:**

THE PAY ITEM "CARBON FIBER-REINFORCED POLYMER" CONSISTS OF WRAPPING THE LENGTH OF THE AREA REPAIRED ON SPAN NO. 1, BEAMS 1 AS SHOWN IN THE PLANS. REPAIRED BEAMS SHALL BE WRAPPED FROM THE BOTTOM OF BEAM WEB TO THE BOTTOM OF THE BEAM WEB ON THE OPPOSITE SIDE OF THE BEAM COVERING THE ENTIRE BEAM FLANGE AS SHOWN IN THE PLANS.

ALL UNSOUND CONCRETE ON THE PRESTRESSED CONCRETE BEAMS SHALL BE REMOVED AND PATCHED PRIOR TO THE CARBON FIBER-REINFORCED POLYMER WRAP. (SEE "PNEUMATICALLY PLACED MORTAR" NOTE). THE PAY QUANTITY SHOWN IS FOR AREA TO BE REPAIRED. THE CONTRACTOR SHALL APPLY ONE (1) LAYER OF CARBON FIBER MATERIAL TO THE AREA AS SHOWN ON THE PLANS.

ALL COSTS FOR COMPLETING THE WORK AS SPECIFIED INCLUDING LABOR, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE REPAIR SHALL BE INCLUDED IN THE UNIT BID PRICE PER SQUARE FOOT OF "CARBON FIBER-REINFORCED POLYMER".

**CORROSION INHIBITOR:**

THE WORK CONSISTS OF TREATING CONCRETE SURFACES WITH A PENETRATING CORROSION INHIBITOR BEFORE STARTING BRIDGE DECK REPLACEMENT WORK. SUBMIT TO THE ENGINEER A WORK PLAN DESCRIBING THE TREATMENT PROCEDURES TO BE USED. CORROSION INHIBITOR SHALL BE APPLIED TO ALL AREAS RECEIVING CLASS AA CONCRETE AND AS DIRECTED BY THE ENGINEER.

ALL COSTS FOR COMPLETING THE WORK AS SPECIFIED INCLUDING MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "CORROSION INHIBITOR".

**ENVIRONMENTAL NOTE**

**MIGRATORY BIRD:**

MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. MANY BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR MOST BIRD SPECIES EXTENDS FROM APRIL 1 TO AUGUST 31. NO SURVEY WAS DONE ON THIS PROJECT. THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST AT 405-521-2515 IF ANY BIRD USE OF THE EXISTING STRUCTURES IS OBSERVED. IF BIRDS ARE OBSERVED THEN PAINTING, REPAIR, RETROFIT, REHABILITATION, OR DEMOLITION OF THE EXISTING BRIDGE/STRUCTURES SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND MARCH 31, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED.

33366(04)		PAY QUANTITIES		MAYES COUNTY	
0500 BRIDGE 'A' - NBI 21690 - US 412 OVER US 69					
ITEM		DESCRIPTION	UNIT	QUANTITY	
521(A)	6210	PNEUMATICALLY PLACED MORTAR	SY	1.00	
524(A)	6610	(SP) CARBON FIBER-REINFORCED POLYMER	SF	11.20	
535	6130	(SP) CORROSION INHIBITOR (SURFACE APPLIED)	SY	1.00	

33366(04)		PAY QUANTITIES		MAYES COUNTY	
0640 CONSTRUCTION					
ITEM		DESCRIPTION	UNIT	QUANTITY	
641	1399	MOBILIZATION	L SUM	1.00	

BRIDGE A US 412 OVER US 69		MAYES COUNTY		Design		
GENERAL NOTES AND PAY ITEMS (BRIDGE)				Detail	NOW	08/17
				Check	JLL	9/17
				Squad:	MAYFIELD	
				Engr.:	ELYAZGI	
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		JOB/PIECE NO. 33366(04)		SHEET NO. AB01

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 7 DAYS IN ADVANCE OF THE START DATE.

TRAFFIC CONTROL PAY QUANTITY NOTES

(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 TRUCK MOUNTED 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-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) 5 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.okladot.state.ok.us/traffic/qpl/index.php>

PAY QUANTITY					
0300 TRAFFIC CONTROL					
ITEM NO.	CODE NO.	DESCRIPTION		UNIT	QUANTITY
876(A)	8482	(PL)TRUCK MOUNTED ATTENUATOR	(TC-52,76,77,84)	SD	5.00
880(A)	8812	ARROW DISPLAY (TYPE C)	(TC-84)	SD	5.00
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	(TC-23,26,33,84)	SD	60.00
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	(TC-26,33,84)	SD	120.00
880(B)	8824	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	(TC-26,30,33,84)	SD	130.00
880(C)	8842	CONSTRUCTION BARRICADES(TYPE III)	(TC-26,84)	SD	140.00
880(C)	8848	WING BARRICADES	(TC-26,84)	SD	10.00
880(E)	8860	WARNING LIGHTS(TYPE A)	(TC-26,84)	SD	190.00
880(F)	8878	DRUMS	(SP-1)(TC-26,84)	SD	265.00
880(G)	8890	CHANNELIZER CONES	(TC-26,84)	SD	195.00
882(A)	8306	PORTABLE CHANGEABLE MESSAGE SIGN	(SP-2)(TC-52,84,85)	SD	24.00

SPECIAL CONSTRUCTION SIGN



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)

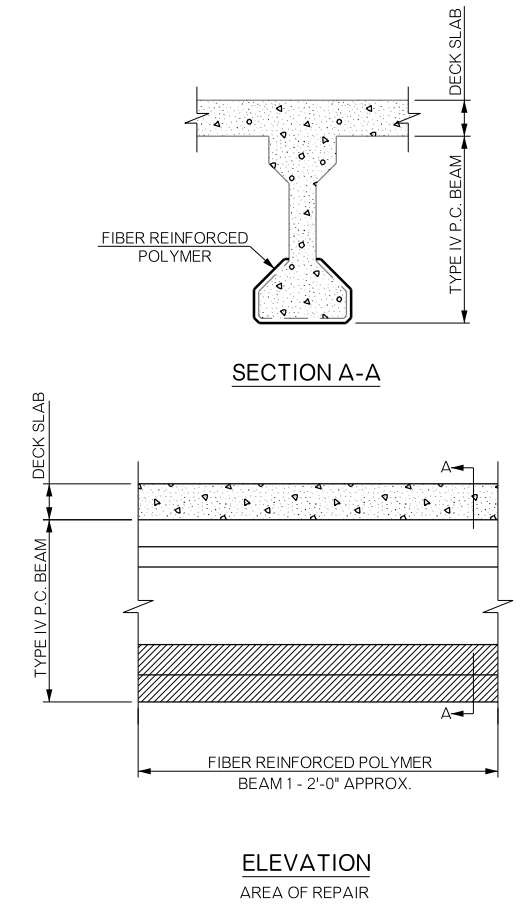
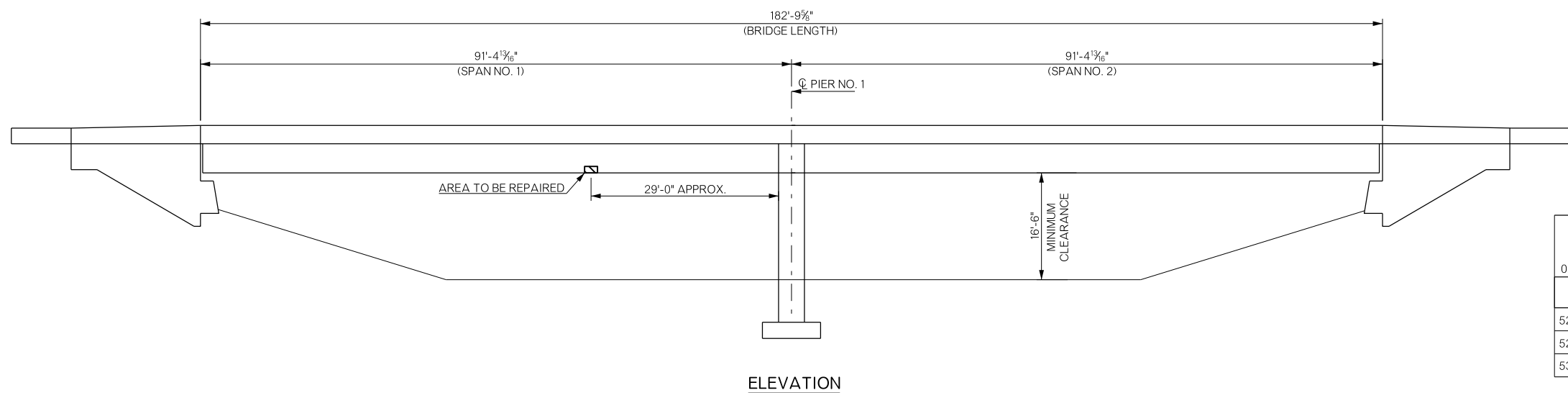
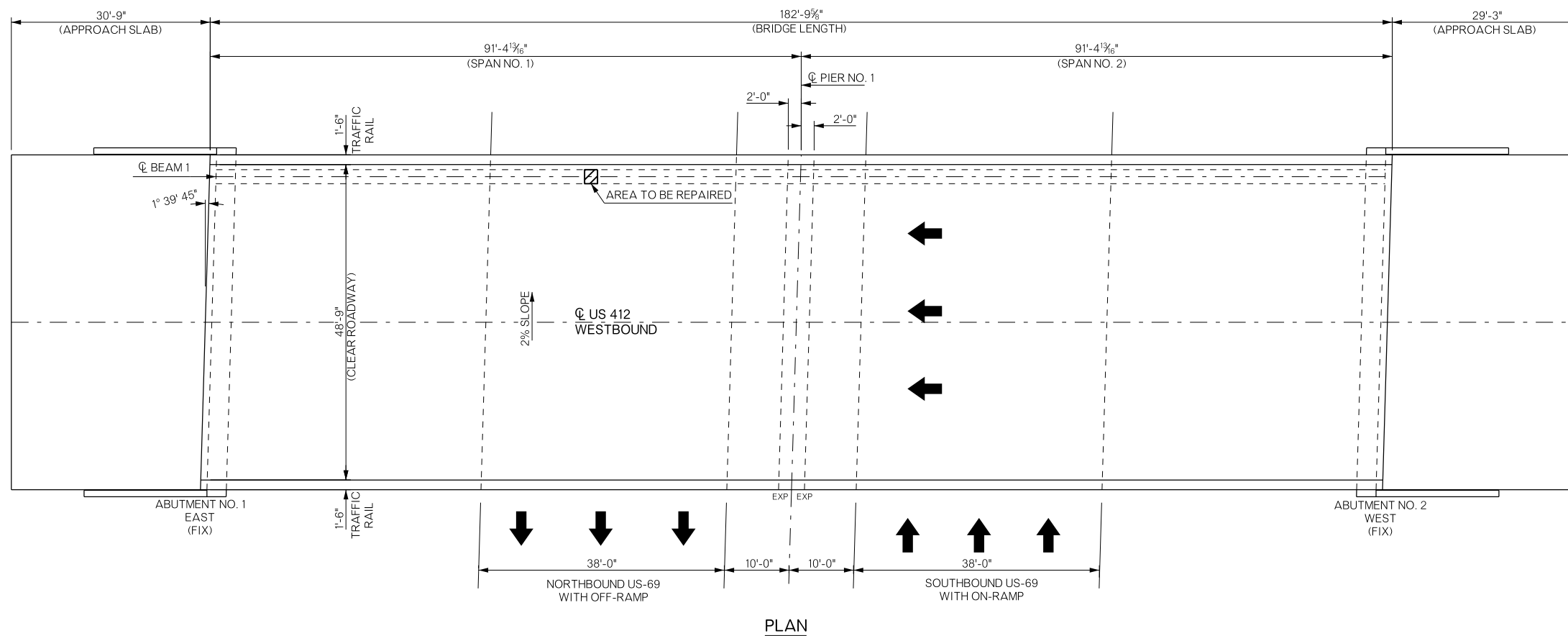
PREPARED BY:  
OKLAHOMA DEPARTMENT OF TRANSPORTATION  
TRAFFIC ENGINEERING DIVISION  
*Jami L. Short*  
DATE: 09-08-17

**DOT**  
OKLA. REG. NO. 22542

LICENSED PROFESSIONAL ENGINEER  
JAMI L. SHORT  
22542  
OKLAHOMA

DIVISION 8 US-412	MAYES COUNTY	DETAIL:	VR	8/17
SUMMARY OF PAY QUANTITIES & NOTES (TRAFFIC)		CHECK:	AF	8/17
		ENGINEER:	SEB	8/17
STATE OF OKLAHOMA		GROUP:	WILLIAMS	
DEPARTMENT OF TRANSPORTATION		EM:	SHORT	
JOB/PIECE NO. 33366(04)	SHEET NO. AT01			

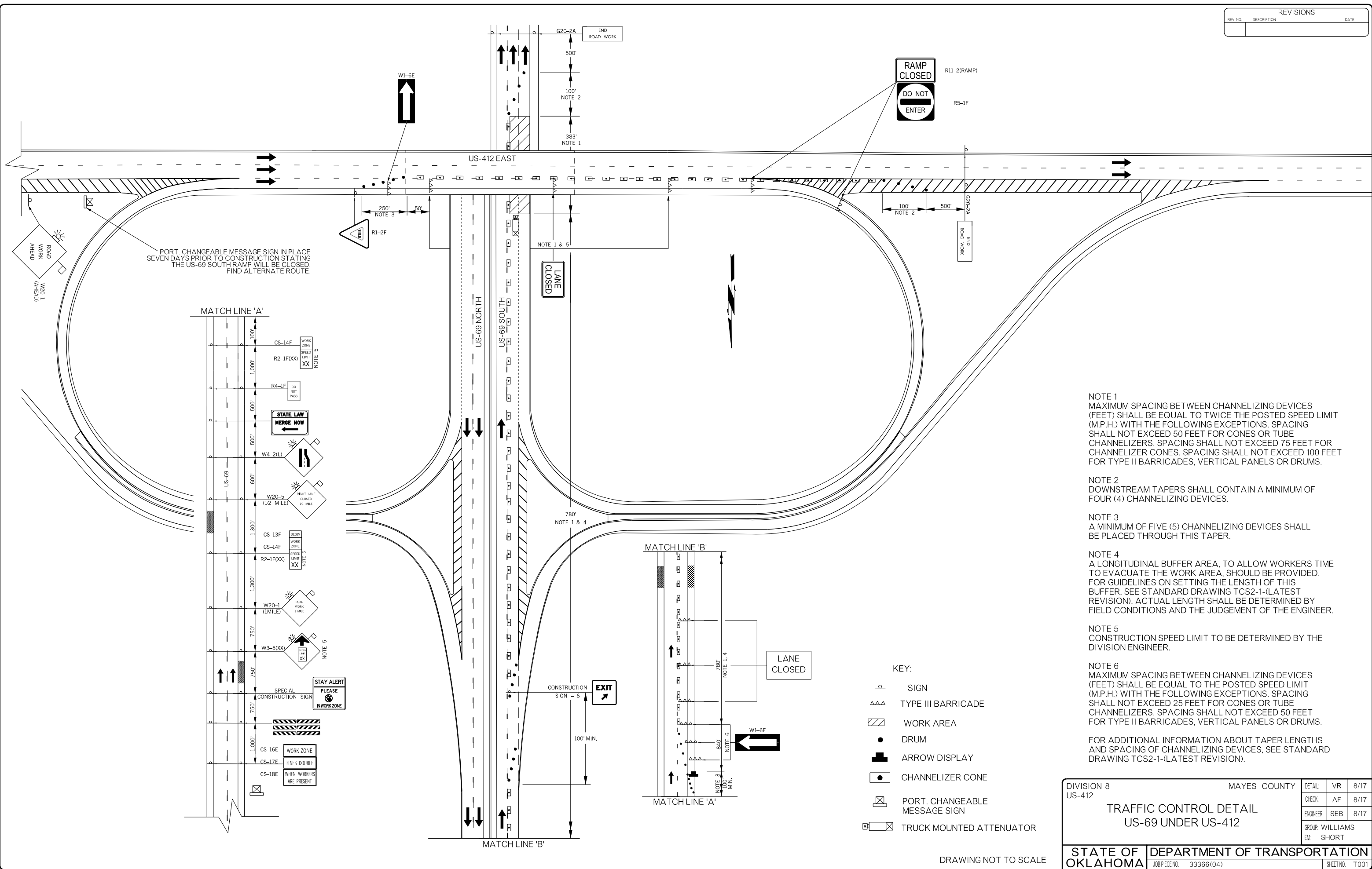
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PAY QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
0200	BRIDGE 'A' - NBI 21690 US-412 OVER US-69		
521(A) 6210	PNEUMATICALLY PLACED MORTAR	SY	1.00
524(A) 6610	(SP) CARBON FIBER-REINFORCED POLYMER	SF	11.20
535 6130	(SP) CORROSION INHIBITOR (SURFACE APPLIED)	SY	1.00

BRIDGE A US 412 OVER US 69	MAYES COUNTY	Design		
GENERAL PLAN AND ELEVATION		Detail	NOW	08/17
		Check	JLL	9/17
		Squad	MAYFIELD	
		Engr.	ELYAZGI	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO. 33366(04)	SHEET NO. B001	

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PORT. CHANGEABLE MESSAGE SIGN IN PLACE SEVEN DAYS PRIOR TO CONSTRUCTION STATING THE US-69 SOUTH RAMP WILL BE CLOSED. FIND ALTERNATE ROUTE.

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

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

**NOTE 6**  
 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.

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

- KEY:**
- SIGN
  - △△△ TYPE III BARRICADE
  - ▨ WORK AREA
  - DRUM
  - ➔ ARROW DISPLAY
  - CHANNELIZER CONE
  - ⊠ PORT. CHANGEABLE MESSAGE SIGN
  - ⊞ TRUCK MOUNTED ATTENUATOR

DIVISION 8 US-412	MAYES COUNTY	DETAIL: VR 8/17
<b>TRAFFIC CONTROL DETAIL US-69 UNDER US-412</b>		CHECK: AF 8/17
		ENGINEER: SEB 8/17
GROUP: WILLIAMS		EM: SHORT
<b>STATE OF OKLAHOMA</b>		<b>DEPARTMENT OF TRANSPORTATION</b>
JOB/PIECE NO. 33366(04)	SHEET NO. T001	

DRAWING NOT TO SCALE

OUTSIDE BORDER IS ON A NON-PRINTING LEVEL