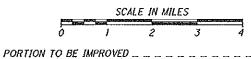
170193 Dist 9 JAC - SR 93-15.48 Brdg 3/30/2017 PID -103748 Heat Straigt

> Contract Proposal Available Contracts.dot.state.oh.us/home WWW

PROJECT LOCATION TA. 817+34.40

LOCATION MAP

LATITUDE: N39°02'19" LONGITUDE: W82°37'39"



INTERSTATE HIGHWAY. . . . . . . . . . . . . . . FEDERAL ROUTES ... .. \_ \_ \_ \_ \_ \_ STATE ROUTES \_\_ \_ \_ \_ \_ \_ \_ \_ COUNTY & TOWNSHIP ROADS. \_ \_ \_ \_ \_ \_ \_ \_ \_

#### DESIGN DESIGNATION

CURRENT ADT (2016) 11,000
DIRECTIONAL DISTRIBUTION 55%
TRUCKS 124 HOUR B&C) 4%
DESIGN SPEED 40
LEGAL SPEED 40
DESIGN FUNCTIONAL CLASSIFICATION:
04 - MINOR ARTERIAL (RURAL)
NHS PROJECT NO

# DESIGN EXCEPTIONS NONE REQUIRED UNDERGROUND UTILITIES CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG. Call Before You Dig 1-800-362-2764 Utilities Protection SERVICE

(Non-members must be called directly)

OIL & GAS PRODUCERS

1-800-925-0988 PLAN PREPARED BY:

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 9 PLANNING & ENGINEERING

UNDERGROUND PROTECTION SERVICE

### SUPPLEMENTAL SPECIAL STANDARD CONSTRUCTION DRAWINGS SPECIFICATIONS **PROVISIONS** NONE. MT-95,30 7/15/16 1/20/17 4/20/1 ENGINEERS SEAL:

### STATE OF OHIO

## DEPARTMENT OF TRANSPORTATION

JAC-93-15.48

## LICK TOWNSHIP JACKSON COUNTY

### INDEX OF SHEETS:

TITLE SHEET GENERAL NOTES MAINTENANCE OF TRAFFIC GENERAL SUMMARY SITE PLAN ESTIMATED QUANTITIES FRAMING PLAN AND TRANSVERSE SECTION BEAM DETAILS

#### PROJECT DESCRIPTION

REPAIR OF COLLISION DAMAGES TO BRIDGE NO. JAC-93-1548 BY MEANS OF HEAT STRAIGHTENING AND ASSOCIATED REPAIR WORK.

PROJECT EARTH DISTURBED AREA: (MAINTENANCE PROJECT)

ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES (MAINTENANCE PROJECT)

NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES (MAINTENANCE PROJECT)

#### 2016 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND

DATE 1-10 FT DIRECTOR, DEPARTMENT OF TRANSPORTATION

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#### UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

#### EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THIS PLAN PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

#### ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN

ALL REQUIREMENTS OF CMS 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD-FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS. SUPPLY A COPY OF THE DRAWINGS, STAMPED, SEALED AND DATED, ACCORDING TO S1002, TO THE STRUCTURAL, WELDING, AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES. THE MEMBERS INCLUDED IN THIS ITEM ARE THE  $3 \times 3 \times \frac{5}{6}$  ANGLES FOR CROSS FRAMES AND THE  $1^{1}/_{16}$ "  $\times$   $11\frac{5}{8}$ "  $\times$  4'-0" PLATE FOR BEAM 2.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE POUND UNIT PRICE FOR ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

#### ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)

AN ESTIMATED QUANTITY IS PROVIDED IN THE GENERAL SUMMARY. FOR REMOVAL OF SECONDARY MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. SUPPORT THE EXISTING MAIN MEMBERS ACCORDING TO ITEM 849, STRAIGHTENING WORK PLAN. FLAME OR SAW CUT THE EXISTING MEMBERS TO WITHIN 1/8 INCH OF THE EXISTING MAIN MATERIAL USING A MECHANICAL GUIDE ACCORDING TO CMS 513.12. PROVIDE SHIELDING AS NECESSARY TO PREVENT DAMAGE TO MAIN OR SECONDARY MATERIALS THAT REMAIN. GRIND THE EXISTING MAIN OR SECONDARY MEMBERS SMOOTH IN PREPARATION FOR COMPLETE PENETRATION OR FILLET WELDING. PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL (TO ACCOMMODATE THE PROPOSED REPLACEMENT MATERIALS). DETERMINE FINAL QUANTITIES BY FIELD MEASUREMENTS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE EACH UNIT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS), AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

#### ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL. AS PER PLAN. (THREE COAT)

1.0 DESCRIPTION:

THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH A NEWER EXISTING OZEU OR IZEU PAINT SYSTEM OR UNPAINTED WEATHERING STEEL TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSIST OF PERFORMING SURFACE PREPARATION AND APPLYING A THREE-COAT PAINT SYSTEM TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF EXISTING OZEU OR IZEU PAINT SYSTEMS OR UNPAINTED WEATHERING STEEL.

2.0 GENERAL:

CMS 514.05 THROUGH 514.10 AND 514.13.D APPLY UNLESS MODIFIED BY THESE NOTES.

3.0 WASHING EXISTING OZEU OR IZEU PAINTED SURFACES OR UNPAINTED WEATHERING STEEL: CLEAN SURFACES TO BE COATED WITH LOW PRESSURE WATER CLEANING TO REMOVE ALL DIRT, DEBRIS, ANIMAL EXCREMENT, SALT CONTAMINANTS AND OTHER ACCUMULATED FOREIGN MATERIAL IN ACCORDANCE WITH SSPC-SPI2 (LP WC), LOW PRESSURE WATER CLEANING. THE PRESSURE WASHER SHALL BE CAPABLE OF ACHIEVING AT LEAST 2000 POUNDS PER SQUARE INCH AT THE NOZZLE. WHEN USING THE POWER WASHING EQUIPMENT, THE NOZZLE SHALL BE MAINTAINED NO MORE THAN 10 INCHES FROM THE SURFACE. SUPPLY AND USE POTABLE WATER. PROVIDE TO THE ENGINEER A LETTER OF WRITTEN ACCEPTANCE FOR ANY BIODEGRADABLE DETERGENTS OR CLEANERS USED IN CONJUNCTION WITH THIS METHOD.

COLLECT AND CONTAIN WATER AND DEBRIS REMOVED DURING WASHING OPERATIONS ABOVE WATER FEATURES IN CONFORMANCE WITH CMS 514.08 AND CMS 514.13.D FOR ANY DEBRIS. CREATE SETTLEMENT COLLECTION BASINS AND STRAIN ALL WASH WATER ABOVE LAND FEATURES AS NECESSARY TO PRODUCE VISIBLY CLEAR WATER AND COMPLY WITH CMS 514.08 AND CMS 514.13.D FOR ANY DEBRIS.

4.0 SURFACE PREPARATION:

AFTER THE PRESSURE WASHED SURFACE HAS DRIED, REMOVE EXISTING PAINT COATING TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER ACCORDING TO: SSPC-SP 11, POWER TOOL CLEANING TO BARE METAL, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL

#### ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN, (THREE COAT) (CONT.)

SURFACES SHOWN IN SSPC-VIS 3: SSPC SP6. COMMERCIAL BLAST CLEANING, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 1; OR SSPC SP12 UHP WJ-4, ULTRAHIGH-PRESSURE WATER JETTING, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 4. SUPPLY BLAST WATER CONTAINING A COMMERCIALLY AVAILABLE RUST INHIBITOR AT A DOSAGE THAT PREVENTS FLASH RUSTING FOR 12 HOURS AND DOCUMENTED AS ACCEPTABLE TO THE COATING'S MANUFACTURER. THE ENGINEER WILL USE THE SSPC-VIS 1, SSPC-VIS 3 OR SSPC-VIS 4 TO DETERMINE THE ACCEPTANCE OF THE SURFACE PREPARATION. FEATHER THE EXISTING PAINT TO EXPOSE A MINIMUM OF 1/2 INCH OF EACH COAT. CONTAIN AND DISPOSE DISPOSE OF WASTE GENERATED BY THE CLEANING ACCORDING TO CMS 514.13.D.

ROUND ALL EXPOSED CORNERS OF MAIN MATERIAL TO BE PAINTED AS NECESSARY TO ACHIEVE A 1/16 INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A 45 DEGREE ANGLE.

#### 5.0 FIELD PAINTING:

APPLY THE PRIME, INTERMEDIATE AND FINISH COATS OF THE THREE-COAT PAINT SYSTEM SPECIFIED IN CMS 708.02, ACCORDING TO CMS 514.15, 514.16, 514.17, 514.19 AND 514.20 TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. TINT THE FINISH COAT TO APPROXIMATELY THE SAME COLOR AS THE EXISTING FINISH COLOR, UNPAINTED WEATHERING STEEL OR AS DESIGNATED IN THE CONTRACT. MATCH THE COLOR TO THE ENGINEERS SATISFACTION. THE ENGINEER WILL DETERMINE THE PRIME AND INTERMEDIATE COAT THICKNESS USING A TYPE 2 MAGNETIC GAGE AT SPOT LOCATIONS. THE PRIME, INTERMEDIATE, AND FINISH COAT OF PAINT SHALL MEET THE MINIMUM DRY FILM THICKNESS REQUIREMENTS OF CMS 514.20.

#### APPLY PAINT AS FOLLOWS:

A. APPLY THE PRIME COAT ONLY TO THE PREPARED SURFACE OF THE BARE STEEL AND THE EXISTING PRIME COAT EXPOSED BY FEATHERING. DO NOT APPLY THE PRIME COAT TO THE ADJACENT INTERMEDIATE COAT.

B. APPLY CAULK AFTER PRIMING

C. APPLY THE INTERMEDIATE COAT TO THE NEW PRIME COAT AND TO THE EXISTING INTERMEDIATE COATS THAT ARE EXPOSED BY FEATHERING.

D. APPLY THE FINISH COAT TO THE NEW INTERMEDIATE COAT AND TO THE EXISTING FINISH COATS THAT ARE EXPOSED BY FEATHERING.

AT THE PERIMETER OF THE REPAIR AREA, APPLY THE PRIME, INTERMEDIATE AND FINISH COATS WITH A BRUSH. IN LIEU OF BRUSHING THE CONTRACTOR MAY DOUBLE MASK AREAS NOT TO BE COATED AND SPRAY TO FEATHERED REMOVAL LINES.

BLEND REPAIR AREAS WITH THE ADJACENT COATING TO PROVIDE A FINISHED SURFACE IN THE PATCHED AREAS THAT IS SMOOTH AND HAS AN EVEN PROFILE WITH THE ADJACENT SURFACE.

#### 6.0 MEASUREMENT:

THE DEPARTMENT WILL MEASURE FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN BY THE NUMBER OF SQUARE FEET OF STRUCTURAL STEEL PAINTED.

THE DEPARTMENT WILL DETERMINE THE SURFACE AREA BY TAKING EXACT FIELD MEASUREMENTS OF ALL PAINTED SURFACES AND CALCULATIONS.

#### ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN, (THREE COAT) (CONT.)

7.0 BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE SQ FT CONTRACT PRICES AS FOLLOWS:

THE DEPARTMENT MAY CONSIDER PAINT AS ELIGIBLE FOR PAYMENT FOR MATERIAL ON-HAND AS SPECIFIED IN 109.10, HOWEVER. ONLY PAINT THAT THE CONTRACTOR CAN PROVE TO THE ENGINEER WILL BE USED DURING THE CONSTRUCTION SEASON IS ELIGIBLE FOR PAYMENT. THE CONTRACTOR SHALL PROVIDE THE ENGINEER CALCULATIONS INDICATING THE TOTAL SQUARE FEET OF STEEL TO BE PAINTED DURING THE CONSTRUCTION SEASON. THE CONTRACTOR SHALL ALSO PROVIDE CALCULATIONS SHOWING THE TOTAL NUMBER OF GALLONS REQUIRED.

IF THE CONTRACTOR CAUSES DAMAGE OR INJURY TO PUBLIC OR PRIVATE PROPERTY, THE DEPARTMENT WILL NOT PAY FOR RESTORING THE PROPERTY TO ITS ORIGINAL CONDITION.

THE DEPARTMENT WILL NOT PAY FOR REPAIRING ADJACENT COATINGS DAMAGED DURING THE WASHING, POWER TOOL CLEANING OR BLAST CLEANING OPERATION.

THE DEPARTMENT WILL NOT PAY FOR REMOVING AND REPLACING AN AREA OF COATING BECAUSE A SPOT OR MAXIMUM AVERAGE THICKNESS EXCEEDS THE MAXIMUM SPOT THICKNESS.

THE DEPARTMENT WILL NOT PAY FOR ADDITIONAL TESTING REQUIRED BY ANY HAULER, TREATMENT FACILITY, DISPOSAL FACILITY OR LANDFILL.

THE DEPARTMENT WILL NOT PAY FOR ACCESSING, INSPECTING, AND REPAIRING AREAS THAT ARE NOT FOUND TO BE IN CONFORMANCE WITH THE SPECIFICATIONS AND PERTINENT CONTRACT DOCUMENTS.

ALL OTHER REQUIREMENTS OF THIS FIELD PAINTING SPECIFICATION ARE CONSIDERED INCIDENTAL TO THE WORK.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE SQ FT UNIT PRICE FOR ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COATS) AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

#### ITEM 513 - STRUCTURAL STEEL, MISC.: BEAM REPAIR

THIS ITEM CONSIST OF REMOVING A 4' (FOOT) LONG BY 11/16" HIGH SECTION OF BEAM 1 AFTER ITEM 849, STRAIGHTENING DAMAGED MEMBERS HAS BEEN PREFORMED ON THE BEAMS. LOCATE THE SECTION OF THE BEAM AS DETAILED ON SHEET 8 WHERE THE FLANGE HAS BEEN HIT AND WHERE SECTION LOSS IN THE WEB HAS OCCURRED. REMOVE THE SECTION OF BEAM AS DESCRIBED IN ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ONCE THE DAMAGED SECTION OF BEAM HAS BEEN REMOVED, PREFORM ITEM 513. STRUCTURAL STEEL MEMBERS. LEVEL UF. AS PER PLAN AS DETAILED ON SHEET 8.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE LUMP UNIT PRICE FOR ITEM 513 - STRUCTURAL STEEL, MISC.: BEAM REPAIR AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

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BEFORE THE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAME(S) AND TELEPHONE NUMBER(S) OF A PERSON OR PERSONS WHO CAN BE CONTACTED TWENTY-FOUR (24) HOURS PER DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR WILL ADVISE THE DISTRICT PUBLIC INFORMATION OFFICER AT (740) 774-8834, OR FAX (740) 773-2710 FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE PROJECT ENGINEER WILL PROVIDE ASSISTANCE/ CLARIFICATION FOR ANY QUESTIONS.

THE CONTRACTOR SHALL ARRANGE FOR ALL MAINTENANCE OF TRAFFIC OPERATIONS SUCH THAT THERE WILL BE NO OBSTRUCTIONS TO THE CONTINUOUS FLOW OF TRAFFIC ON S.R. 32. ALL INTERSECTIONS AND DRIVEWAYS SHALL BE OPEN TO TRAFFIC AT ALL TIMES UNLESS OTHERWISE SHOWN IN THE PLAN.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE FOLLOWING SEQUENCE OF WORK IS SUGGESTED:

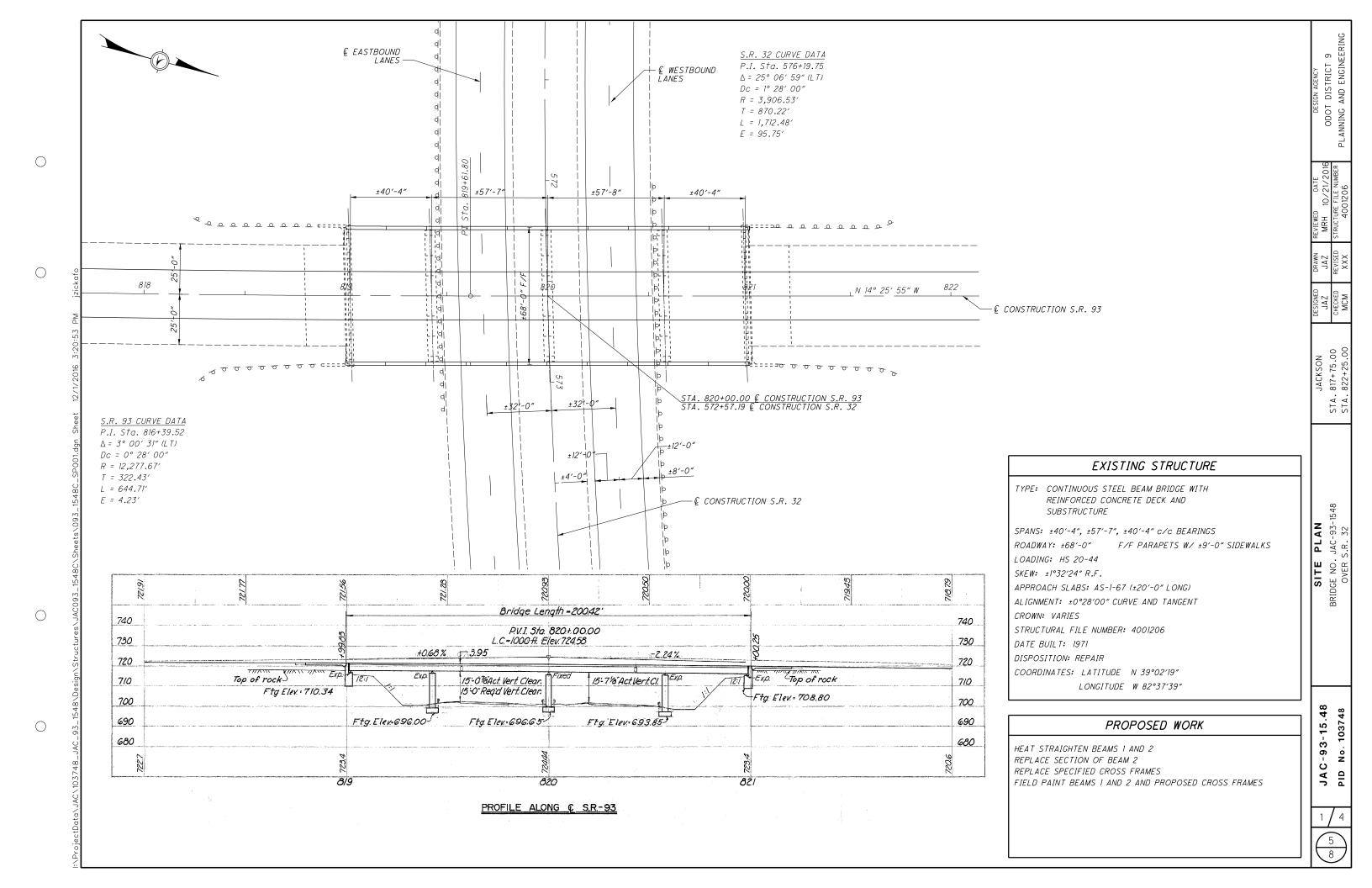
MAINTAIN TRAFFIC ON S.R. 32 IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-95.30. ALL LANES SHALL BE REOPENED TO TRAFFIC DURING PERIODS WHEN THE CONTRACTOR IS NOT WORKING.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO PREFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

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						8		8	202	11501	8	EACH	STRUCTURE OVER 20 FOOT SPAN (JAC-93-1548) PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	2	1
						1,848		1,848	513	10201	1,848		STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	2	-
						LS		LS	513	95020	LS	20	STRUCTURAL STEEL, MISC.: BEAM REPAIR	2	_
						311		311	514	20001	311	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN	2	_
0						LS		LS	849	10000	LS		DAMAGE ASSESSMENT		
						LS 3		LS 3	849 849	10500 10600	LS 3	HOUR	SURFACE PREPARATION REPAIRING DAMAGED MEMBERS BY GRINDING		<u>-</u>
						LS		LS	849	10700	LS		STRAIGHTENING DAMAGED MEMBERS		_
								LS	614	11000	LS		INCIDENTALS  MAINTAINING TRAFFIC		_
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ITEM	EXTENSION	UNIT	DESCRIPTION	CALCULATION	TOTAL	SEE SHEET
202	11501	EACH	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN		8	2
513	10201	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	±30' PER LOCATION x 8 LOCATIONS x 6.10 LB/FT = 1464.0 LB + 4' WELDED PLATE x 96 LB/FT = 384 LB	1848	2
513	95020		STRUCTURAL STEEL, MISC.: BEAM REPAIR		LS	2
514	20001	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN	W33x220: ±2.77' PERIMETER x ±18' LENGTH = 49.9 SO. FT. + W33x152: ±2.06' PERIMETER x 10' = 20.6 SO. FT. + ANGLES: 1' PERIMETER x ±30' PER LOCATION x 8 LOCATIONS = 240 SO. FT.	311	2
849	10000		DAMAGE ASSESSMENT		LS	
849	10500		SURFACE PREPARATION		LS	
849	10600	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING	± 0.1 HR/FT x 28′ = 2.8 HOUR	3	
849	10700	ноон	STRAIGHTENING DAMAGED MEMBERS	2 0.1 m// 1 / 20 - 2.0 moun	LS	
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QUANTITIES (01/BRO/BR)

ESTIMATED

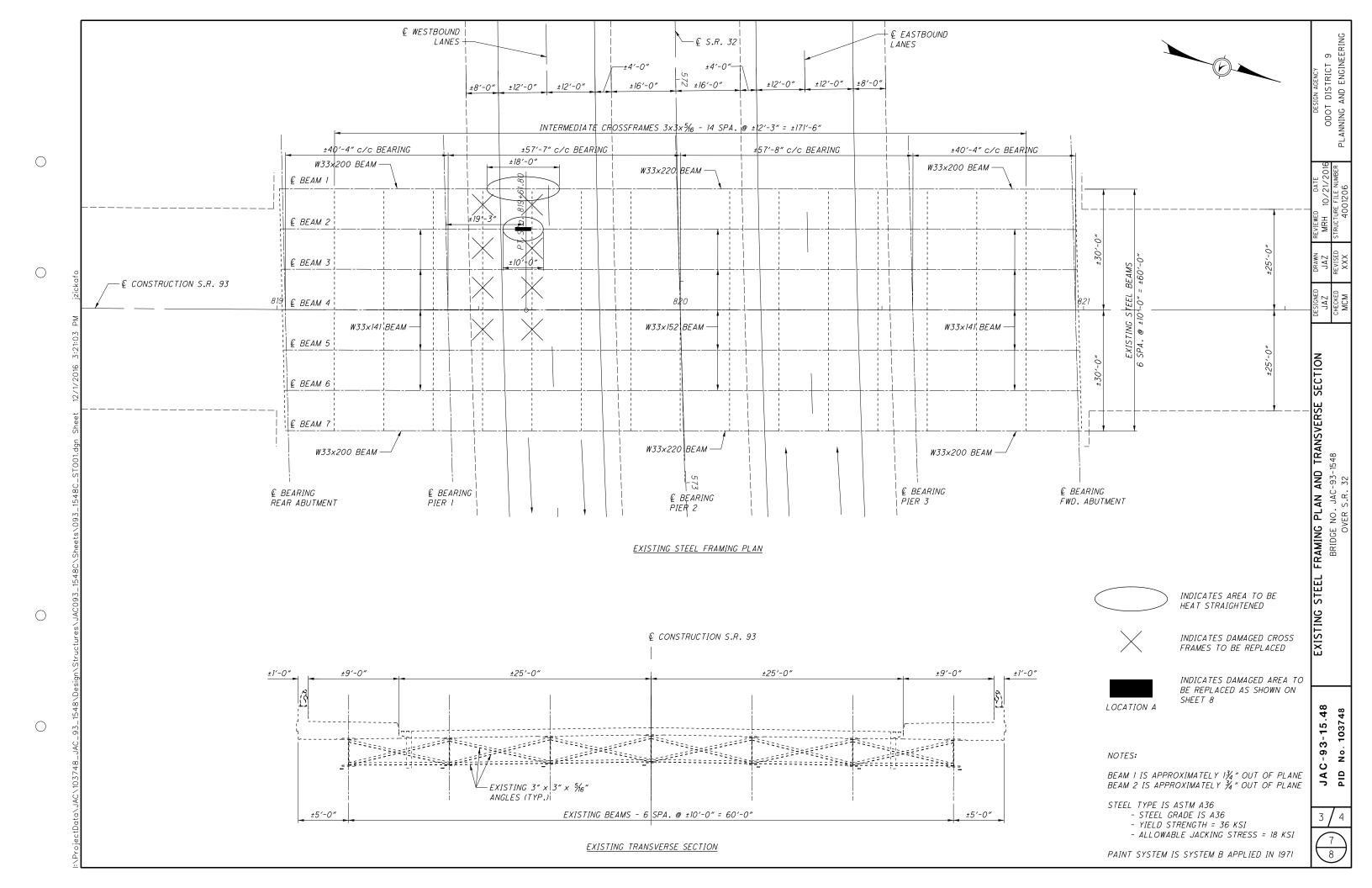
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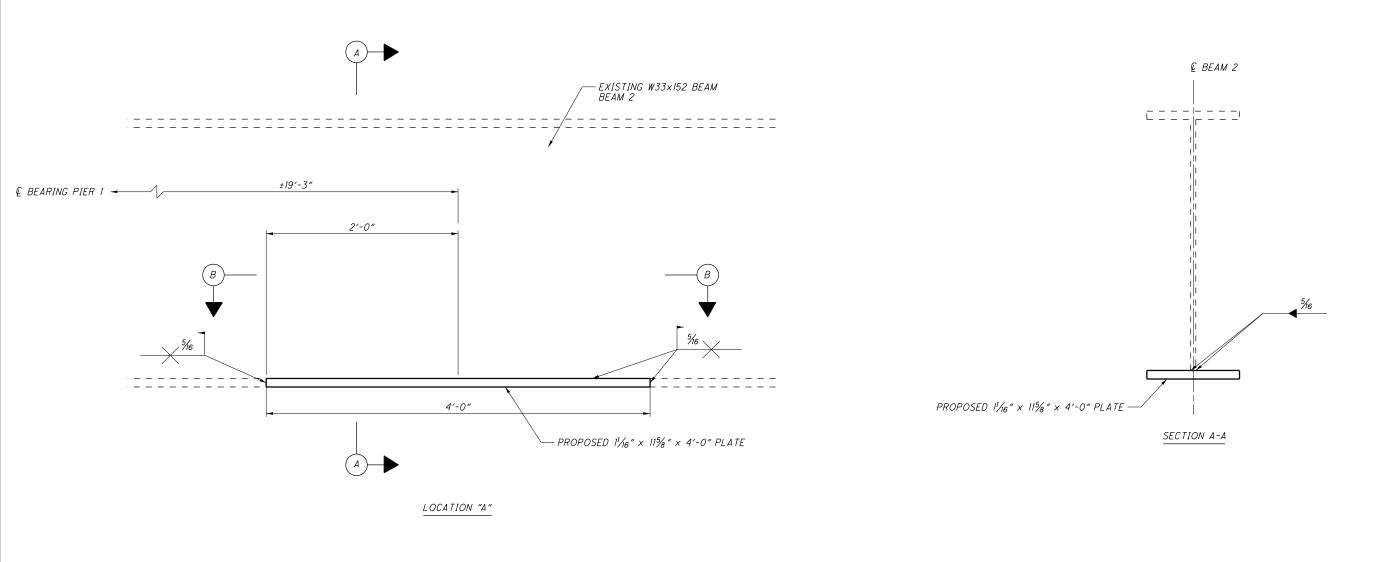
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CALC: CHECKED: JAZ MRH DATE: 8/22/16

DATE: 10/21/16





#### WELDING REQUIREMENTS

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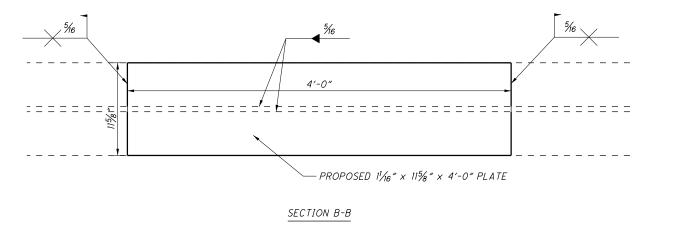
#### FULL PENETRATION WELDS

PREPARE THE DAMAGED MATERIAL FOR WELDING, PROVIDE RUNOFF TABS FOR ALL COMPLETE PENETRATION WELDS. PERFORMING COMPLETE PENETRATION WELDS ACCORDING TO CMS 513 USING APPROVED ELECTRODES, PROCEDURES AND WELDERS. REMOVE RUNOFF TABS AND GRIND THE COMPLETED EDGES SMOOTH. GRIND THE COMPLETED WELDS SMOOTH AND FLUSH WITH THE ADJACENT SURFACES TO PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL. DO NOT OVER GRIND AS TO REDUCE MATERIAL THICKNESS OR WIDTH OF THE NEW OR EXISTING MATERIALS. PREPARE ALL REENTRANT CORNERS WITH A ONE INCH RADIUS. REMOVE WELDING, START STOP DISCONTINUITIES. RADIOGRAPHIC TEST THE FINISHED WELDS ACCORDING TO CMS 513.25A AND SUBMIT COPIES OF THE REPORT TO THE ENGINEER. THE ENGINEER MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF MATERIALS

### FILLET WELDS

PREPARE THE DAMAGED MATERIAL FOR WELDING, PERFORMING 1/6 INCH FILLET WELDS ACCORDING TO CMS 513 USING APPROVED ELECTRODES, PROCEDURES AND WELDERS. MAGNETIC PARTICLE INSPECT ALL FILLET WELDS ACCORDING TO CMS 513.25B. THE ENGINEER MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF MATERIALS MANAGEMENT.

ALL TOOLS, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED FOR PAYMENT WITH ITEM 513, STRUCTURAL STEEL, MISC.: BEAM REPAIR UNLESS SEPARATELY ITEMIZED IN THE PLANS.



JAC-93-15.48 PID No. 103748

BEAM DETAILS

BRIDGE NO. JAC-93-154

OVER S.R. 32

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