

I:\ProjectData\1379\Design\Roadway\Sheets\1379\_GG00.dgn 11-JAN-2021 8:41AM r-trivoli

SHEET NUM.									PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE
2	3					9	OFFICE CALCS	01/NHS/BR	EXT	TOTAL		DESCRIPTION	SHEET NO.		
													<b>EROSION CONTROL</b>		
								1,000	832	30000	1,000	EACH	EROSION CONTROL		
													<b>STRUCTURE REPAIR (BRIDGE NO. JEF-22-0590)</b>		
							369	369	202	11401	369	LB	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS)	9	
							8	8	202	11501	8	EACH	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)	9	
							464	464	513	10201	464	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	9	
							16	16	513	95000	16	FT	STRUCTURAL STEEL, MISC.:REPAIR OF DAMAGED SECONDARY MEMBERS (FILLET WELDING)	9	
						5	10	15	513	95000	15	FT	STRUCTURAL STEEL, MISC.:REPAIR OF DAMAGED MAIN MEMBERS (COMPLETE PENETRATION WELDING)	9	
							17	17	513	95000	17	FT	STRUCTURAL STEEL, MISC.:TESTING OF EXISTING COMPLETE PENETRATION WELDS TO REMAIN	9	
							165	165	514	20001	165	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)	10	
							LS	LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	9	
							LS	LS	849	10000	LS		DAMAGE ASSESSMENT		
							LS	LS	849	10500	LS		SURFACE PREPARATION		
							2	2	849	10600	2	hour	REPAIRING DAMAGED MEMBERS BY GRINDING		
							LS	LS	849	10700	LS		STRAIGHTENING DAMAGED MEMBERS		
													<b>MAINTENANCE OF TRAFFIC</b>		
							240	240	614	11110	240	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
							1	1	614	12740	1	EACH	WORK ZONE LIGHTING SYSTEM		
6							6	6	614	18601	6	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	2	
													<b>INCIDENTALS</b>		
							LS	LS	614	11000	LS		MAINTAINING TRAFFIC		
							LS	LS	624	10000	LS		MOBILIZATION		

CALCULATED	RPT	CHECKED	CCW
<b>GENERAL SUMMARY</b>			
<b>JEF - 22 - 5.90</b>			
7 15			

STANDARD DRAWING AND SUPPLEMENTAL SPECIFICATION

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:  
GSD-1-19 REVISED 1-18-2019

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:  
849 DATED 1/18/2013

STEEL RESTRAINT OR PRELOAD LIMITS

EXISTING STRUCTURAL STEEL - ASTM A36, GRADE 36  
DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A  
JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING  
18 KSI.

EXISTING STRUCTURE PLANS

THE FOLLOWING PREVIOUS PLANS OF THE EXISTING BRIDGE  
ARE AVAILABLE FOR REFERENCE AT THE ODOT DISTRICT  
ELEVEN OFFICE IN NEW PHILADELPHIA:

ORIGINAL ROADWAY/STRUCTURE CONSTRUCTION:  
JEF-22-3.86 (1968)

STRUCTURE REHABILITATION:  
JEF-22-3.86 (1996) - PID NO. 12142

PREVIOUS BRIDGE HITS:  
JEF-22-5.90 (2014) - PID NO. 98863  
JEF-22-5.90 (2018) - PID NO. 106776

IN ADDITION, THE PREVIOUS PLANS CAN BE FOUND ON  
ODOT'S WEBSITE AT THE FOLLOWING ADDRESS:

[http://www.dot.state.oh.us/Divisions/ContractAdmin/  
Contracts/Pages/designfiles.aspx](http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Pages/designfiles.aspx)

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS 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 WHICH HAVE BEEN VERIFIED  
IN THE FIELD.

UTILITIES

THERE ARE NO KNOWN UNDERGROUND OR OVERHEAD UTILITIES  
WITHIN THE PROJECT CONSTRUCTION LIMITS.

ITEM 513, STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED  
MAIN MEMBERS, (COMPLETE PENETRATION WELDING)

AFTER DAMAGED AREAS HAVE BEEN INSPECTED ACCORDING TO  
ITEM 849, DAMAGE ASSESSMENT, PREPARE THE DAMAGED  
MATERIAL FOR WELDING. PROVIDE RUNOFF TABS FOR ALL  
COMPLETE PENETRATION WELDS. PERFORM 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 THE  
MATERIAL THICKNESS OR WIDTH OF THE NEW OR EXISTING  
MATERIALS. PREPARE ALL REENRANT CORNERS WITH A ONE  
INCH RADIUS. REMOVE WELDING, START AND STOP  
DISCONTINUITIES. RADIOGRAPHIC TEST THE FINISHED WELDS  
ACCORDING TO CMS 513.25A AND SUBMIT COPIES OF THE  
REPORTS TO THE ENGINEER FOR ACCEPTANCE. THE ENGINEER  
MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF  
MATERIALS MANAGEMENT. THE DEPARTMENT WILL INCLUDE ALL  
MATERIALS, TOOLS, LABOR, EQUIPMENT, AND INCIDENTALS  
NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT  
WITH ITEM 513, STRUCTURAL STEEL MISC.: REPAIR OF  
DAMAGED MAIN MEMBERS, COMPLETE PENETRATION WELDING.

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

ALL REQUIREMENTS OF 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 SUPPLEMENT 1002) TO THE  
STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE  
OF MATERIAL MANAGEMENT FOR RECORD PURPOSES. THE  
MEMBERS INCLUDED IN THIS ITEM ARE THE CROSS FRAME  
ANGLES AT THE LOCATIONS INDICATED ON THE FRAMING PLAN.  
THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS,  
LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO  
COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513,  
STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN.

ITEM 513, STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED  
SECONDARY MEMBERS, (FILLET WELDING)

AFTER DAMAGED AREAS HAVE BEEN INSPECTED ACCORDING TO  
ITEM 849, DAMAGE ASSESSMENT, PREPARE THE DAMAGED  
MATERIAL FOR WELDING. PERFORM 3/16 INCH FILLET WELDS  
ACCORDING TO ITEM 513 USING APPROVED ELECTRODES,  
PROCEDURES AND WELDERS. WELD EACH SECONDARY MEMBER  
ACCORDING TO PLAN DETAILS. MAGNETIC PARTICLE INSPECT  
ALL FILLET WELDS ACCORDING TO CMS 513.25B. THE  
ENGINEER MAY OBTAIN TECHNICAL ASSISTANCE FROM THE  
OFFICE OF MATERIALS MANAGEMENT. THE DEPARTMENT WILL  
INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT, AND  
INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR  
PAYMENT WITH ITEM 513, STRUCTURAL STEEL MISC.: REPAIR  
OF DAMAGED SECONDARY MEMBERS, FILLET WELDING.

ITEM 513, STRUCTURAL STEEL MISC.: TESTING OF EXISTING  
COMPLETE PENETRATION WELDS TO REMAIN

AFTER DAMAGED AREAS HAVE BEEN REPAIRED, BUT BEFORE  
THEY HAVE BEEN PAINTED, PERFORM RADIOGRAPHIC TESTING  
OF THE EXISTING COMPLETE PENETRATION WELDS FROM  
PREVIOUS BRIDGE REPAIRS. PERFORM RADIOGRAPHIC TESTING  
ACCORDING TO CMS 513.25A AND SUBMIT COPIES OF THE  
REPORTS TO THE ENGINEER FOR ACCEPTANCE. THE ENGINEER  
MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF  
MATERIALS MANAGEMENT. REPAIR ALL AREAS DESIGNATED BY  
THE ENGINEER IN ACCORDANCE WITH ITEM 513, STRUCTURAL  
STEEL MISC.: REPAIR OF DAMAGED MAIN MEMBERS, (COMPLETE  
PENETRATION WELDING).

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL  
SUMMARY AND SHALL BE USED FOR BIDDING PURPOSES FOR  
WELD REPAIRS.

ITEM 513, STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED  
MAIN MEMBERS, (COMPLETE PENETRATION WELDING)...5 FEET

MEASURE AREAS TO BE TESTED BY THE FOOT OF EXISTING  
COMPLETE PENETRATION WELDS IN PLACE AFTER THE INITIAL  
REPAIRS ARE MADE. PAYMENT FOR THIS ITEM OF WORK SHALL  
INCLUDE ALL WORK LISTED ABOVE (EXCEPT FOR REQUIRED  
REPAIRS) AND SHALL INCLUDE ALL MATERIALS, TOOLS, LABOR,  
EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE  
ABOVE WORK.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN  
(MAIN MEMBERS)

AN ESTIMATED QUANTITY IS PROVIDED FOR PARTIAL REMOVAL  
OF BEAM 1, AS DETERMINED BY FIELD INSPECTION AND  
ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS  
DIRECTED BY THE ENGINEER. SUPPORT THE EXISTING  
MEMBERS ACCORDING TO ITEM 849, STRAIGHTENING WORK  
PLAN. SAW CUT THE EXISTING MEMBERS 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 MEMBER SMOOTH IN PREPARATION FOR  
COMPLETE PENETRATION 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. THE DEPARTMENT WILL  
INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND  
INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR  
PAYMENT WITH ITEM 202, PORTIONS OF STRUCTURE REMOVED,  
AS PER PLAN (MAIN MEMBERS).

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

AN ESTIMATED QUANTITY IS PROVIDED 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  
SECONDARY 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 MEMBER 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. THE  
DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR,  
EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE  
ABOVE WORK FOR PAYMENT WITH ITEM 202, PORTIONS OF  
STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS).

ITEM 516, JACKING AND TEMPORARY SUPPORT OF  
SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR REPOSITIONING EXISTING  
STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED  
IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS  
501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE  
CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE  
DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE  
STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE  
JACKING OPERATION AND INSTALL SUPPORTS TO THE  
SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND  
SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR  
APPROVAL.

EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK  
FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH  
CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST  
OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE  
BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT  
AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR  
PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR  
THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

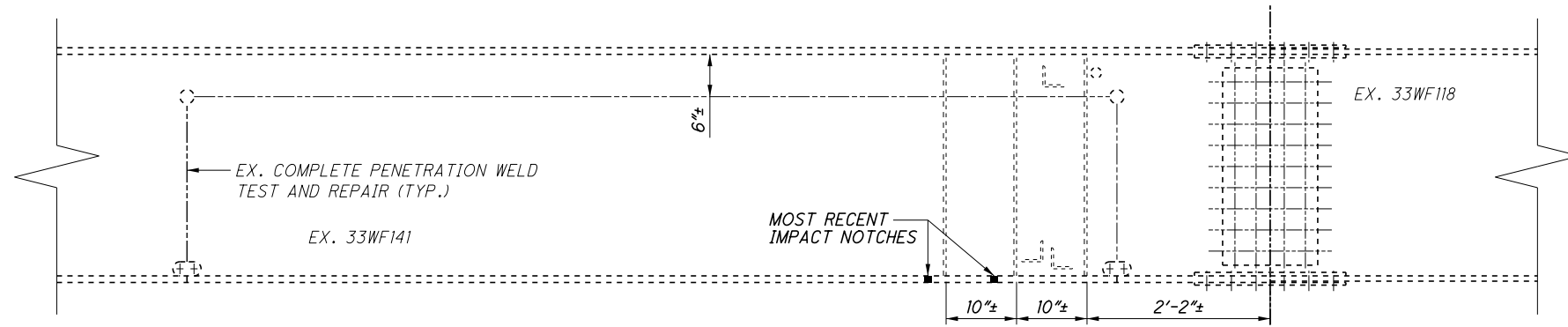
THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM  
BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES  
AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND  
TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

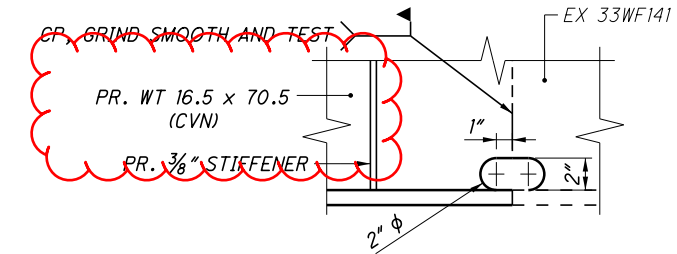
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DESIGNED RPT CHECKED DUL	DRAWN RPT REVISED -	REVIEWED MVC	DATE 11/12/20	DESIGN AGENCY O.D.O.T. DISTRICT 11 ENGINEERING
		STRUCTURE FILE NUMBER 4101804		
STRUCTURE NOTES BRIDGE NO. JEF-22-0590 C.R. 22A OVER U.S. 22				JEF - 22.5.90 PID No. 113791
2 / 8				9 15

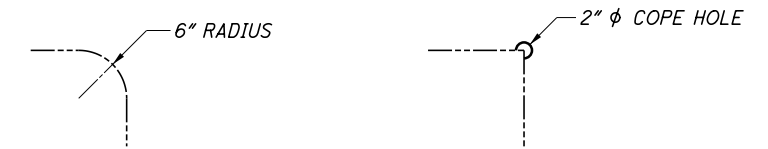
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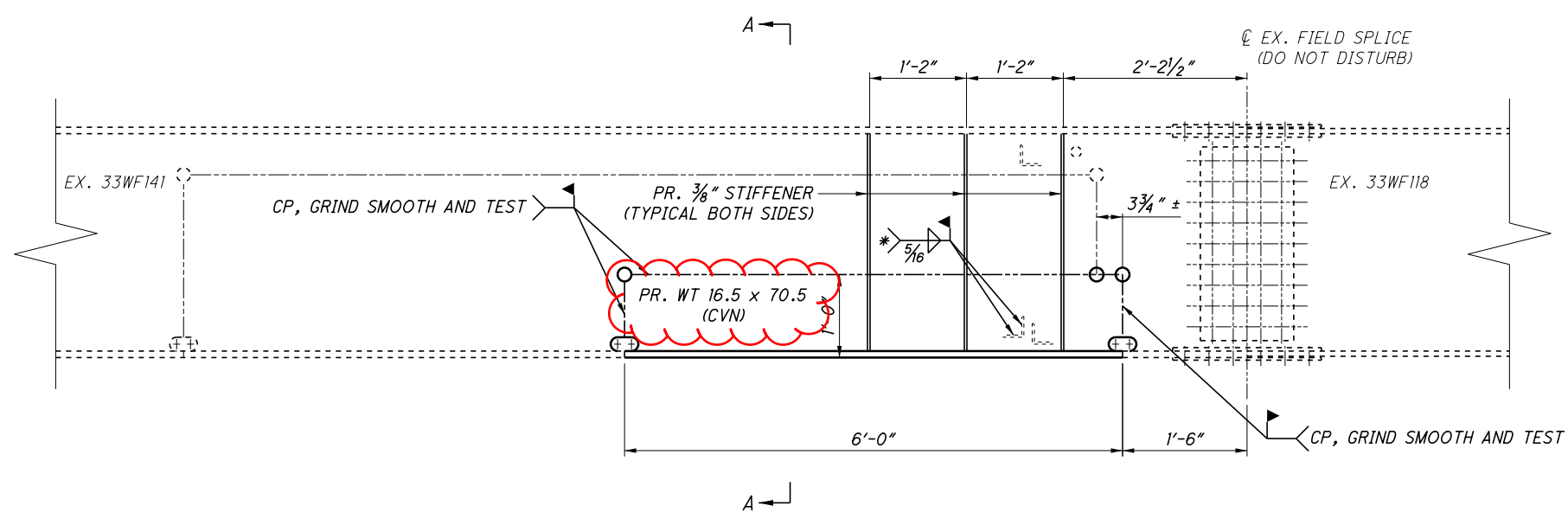
EXISTING BEAM 1 ELEVATION VIEW  
(LOOKING UPSTATION)



BOTTOM COPE HOLE DETAIL  
DETAIL IS SYMMETRIC ABOUT COMP. PEN. WELD  
ALL DIMENSIONS TYPICAL  
(FORWARD SHOWN, REAR SIMILAR)



ALTERNATE CORNER DETAILS



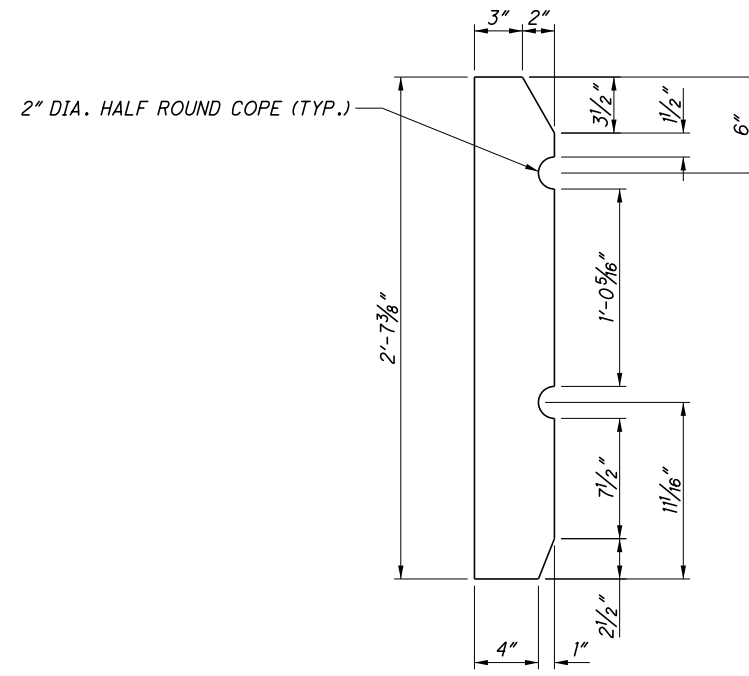
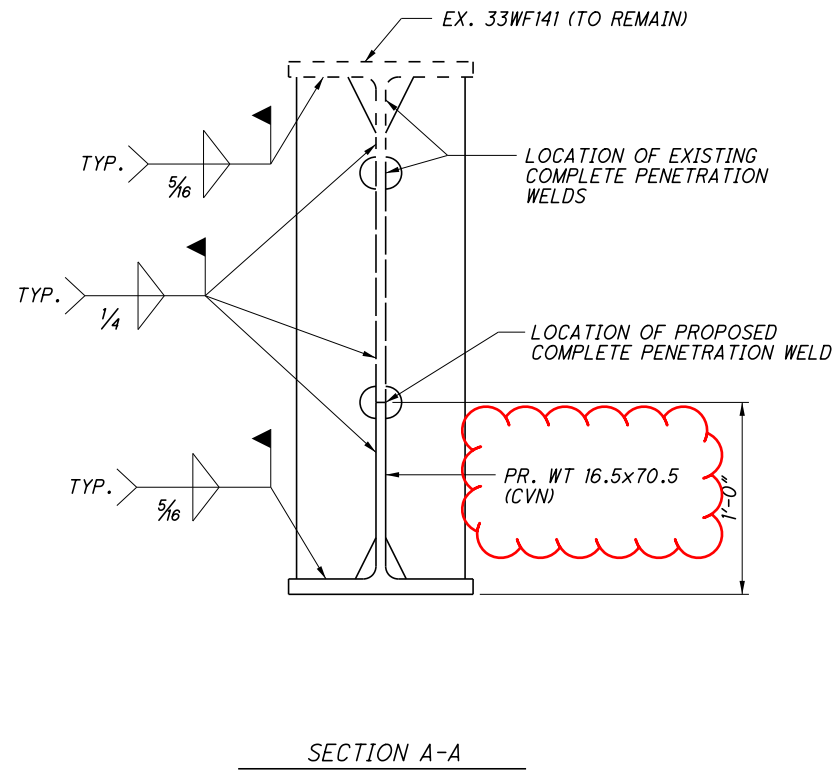
PROPOSED BEAM 1 ELEVATION VIEW  
(LOOKING UPSTATION)

\* - TYPICAL ALL ANGLES

NOTES:

1. THE LOWER CROSSFRAME ANGLES SHALL BE REMOVED FROM BEAM 1, AND REATTACHED TO THE NEWLY PLACED WT SECTION.
2. GRIND THE INSIDE FACE OF ALL COPE HOLES PROVIDE A SURFACE FINISH TO ANSI B46.1 OF 250 mil.
3. FOR SECTION A-A AND STIFFENER PLATE DETAILS SEE SHEET 6/8.
4. FOR DETAILS NOT SHOWN, SEE SCD GSD-1-19.

DESIGNED RPT CHECKED DUL	DRAWN RPT REVISED -	REVIEWED MVC	DATE 11/12/20	DESIGN AGENCY O.D.O.T. DISTRICT 11 ENGINEERING
BRIDGE NO. JEF-22-0590 CR 22A OVER US 22				BEAM #1 REPAIR DETAILS - 2
JEF-22-5.90 PID No. 113791				5/8
12 15				



**STIFFENER DETAIL**  
 3/8" THICK, ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN