

STANDARD DRAWING AND SUPPLEMENTAL SPECIFICATION

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:  
GSD-1-19                      REVISED                      7-19-2024

AND THE FOLLOWING SUPPLEMENTAL SPECIFICATION  
800                      DATED                      7-18-2025  
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.

DESIGN STRESSES:

STRUCTURAL STEEL (PROPOSED):  
ASTM A572 - YIELD STRENGTH 50 KSI

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 C&MS, 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.

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 OR 250 mil. DO NOT OVER-GRIND AS TO REDUCE THE  
MATERIAL THICKNESS OR WIDTH OF THE NEW OR EXISTING MATERIALS.  
PREPARE ALL REENTRANT 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 PENETRATIONS 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 STIFFENERS  
LOCATED ON EVERY BEAM AND DETAILED ON SHEET P.17, AND THE  
WELDED WT AND FLANGE MEMBERS USED TO REPAIR BEAMS 1-6. 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 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 MAIN 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 REMAINING CUT  
SURFACES OF THE EXISTING MAIN 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 MATERIAL). 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 MATERIAL). 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 JACKING OPERATIONS, CRACKING OF THE CONCRETE  
SUPERSTRUCTURE, SEPARATIONS 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 NECESSITATED BY THE JACKING  
OPERATION. 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.

STRUCTURE NOTES  
BRIDGE NO.

SFN

DESIGN AGENCY



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REVIEWER

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

THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH AN OZEU PAINT SYSTEM TO CORRECT DAMAGE FROM PROJECT OPERATIONS. ALL NEW STIFFENERS, CROSS FRAMES, BEAM REPAIRS, AND THE PORTIONS OF BEAMS 1-6 THAT ARE HEAT STRAIGHTENED SHALL BE PAINTED. PAINT ALL AREAS OF EXISTING CROSS FRAMES REMOVED/REATTACHED AS PART OF THE PROJECT. THIS WORK CONSISTS OF PERFORMING SURFACE PREPARATION AND APPLYING A THREE-COAT PAINT SYSTEM TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF EXISTING OZEU PAINT SYSTEMS. ALL WORK SHALL BE AS DIRECTED BY THE ENGINEER.

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

WASHING EXISTING OZEU PAINTED SURFACES:  
CLEAN SURFACES TO BE COATED WITH LOW PRESSURE WATER CLEANING TO REMOVE ALL DIRT, DEBRIS, ANIMAL EXCREMENT, SLAT CONTAMINANTS AND OTHER ACCUMULATED FOREIGN MATERIAL IN ACCORDANCE WITH SSPC-SP12 (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 CLS 514.13D FOR ANY DEBRIS. CREATE SETTLEMENT COLLECTIONS 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.

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-SP11, POWER TOOL CLEANING TO BARE METAL, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS3; SSPC SP6, COMMERCIAL BLAST CLEANING, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS1; 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-VIS4. 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-VIS1, SSPC-VIS3 OR SSPC-VIS4 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 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.

(CONTINUED...)

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

(CONTINUED...)

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 OR AS DESIGNATED IN THE CONTRACT. MATCH THE COLOR TO THE ENGINEER'S 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, IF NECESSARY.

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.

BASIS OF PAYMENT:  
THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE 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 WILL BE USED DURING 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 EXCEED THE MAXIMUM SPOT THICKNESS.

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

(CONTINUED...)

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

(CONTINUED...)

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.

| ITEM | UNIT  | DESCRIPTION                                                          |
|------|-------|----------------------------------------------------------------------|
| 514  | SQ FT | FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT) |

PAINT COLOR:  
THE URETHANE FINISH COAT SHALL BE FEDERAL COLOR NO. 15526-BLUE.

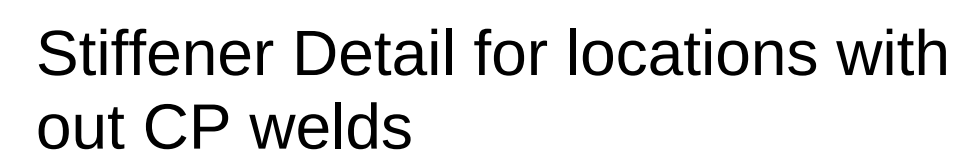
MEASUREMENT:  
THE DEPARTMENT WILL MEASURE ITEM 514, FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT) ON A SQ FT BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED PAINTING QUANTITY AT THE CONTRACT PRICE FOR ITEM 514, FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT) FOR SPOT REPAIR OF EXISTING STRUCTURAL STEEL.

ABBREVIATIONS

THE FOLLOWING ABBREVIATIONS ARE USED THROUGHOUT THE PLANS:

ABUT. - ABUTMENT  
BRG. - BEARING  
c/c - CENTER TO CENTER  
Ø OR DIA. - DIAMETER  
EX. OR EXIST. - EXISTING  
FWD. - FORWARD  
L.F. - LEFT FORWARD  
o/o - OUT TO OUT  
SCD - STANDARD CONSTRUCTION DRAWING  
TYP. - TYPICAL





NOTE: PLACE 3 STIFFNERS CENTERED AT THE POINT OF IMPACT ON EACH REPAIRED BEAM. SPACING IS 1'-3" C/C.