

ITEM 614 - MAINTAINING TRAFFIC:
DO NOT EXCEED THE PERMITTED LANE CLOSURE TIMES POSTED ON THE DEPARTMENT'S PERMITTED LANE CLOSURE WEB SITE OR THE LANE VALUE CONTRACT TABLE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SUBMIT A LANE CLOSURE APPLICATION REQUEST FORM TO THE ENGINEER IN WRITING, THREE (3) WORKING DAYS IN ADVANCE OF THE LANE(S) CLOSURE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. NO LANE CLOSURES WILL BE PERMITTED DURING HOLIDAYS OR SPECIAL EVENTS, SEE SPECIAL EVENTS / HOLIDAY NOTE. MONITOR TRAFFIC FLOW AND RE-OPEN LANES IF ANY BACKUP BEGINS TO OCCUR.

MAINTAIN TRAFFIC ON THE BRIDGE ACCORDING TO STANDARD DRAWING MT-95.30 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC ON THE BRIDGE ACCORDING TO STANDARD DRAWING MT-95.40 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER

MAINTAIN TRAFFIC ON THE BRIDGE ACCORDING TO STANDARD DRAWING MT-97.10 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER

MAINTAIN TRAFFIC UNDER THE BRIDGE ACCORDING TO STANDARD DRAWING MT-95.30 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC UNDER THE BRIDGE ACCORDING TO STANDARD DRAWING MT-95.40 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.

MAINTAIN TRAFFIC UNDER THE BRIDGE ACCORDING TO STANDARD DRAWING MT-97.10 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.

CLOSING THE LANES BEFORE THE ALLOWABLE TIME AND/OR FAILURE TO RE-OPEN ALL LANES TO TRAFFIC AS DESIGNATED IN THE PLANS WILL RESULT IN A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE LISTED BELOW AND ACCORDING TO THE LANE VALUE CONTRACT PROPOSAL NOTE.

PLACE AN UNOCCUPIED PROTECTION VEHICLE, CLOSE TO THE WORK WHENEVER WORKERS ARE IN THE WORK AREA, WHENEVER MAINTAINING TRAFFIC ACCORDING TO STANDARD DRAWING MT-95.30 OR MT-97.10 OR AS DIRECTED BY THE ENGINEER. REMOVE THESE VEHICLES FROM THE PAVEMENT WHENEVER WORKERS ARE NOT IN THE WORK AREA. EQUIP THE VEHICLES WITH A 360 DEGREE ROTATING OR FLASHING AMBER BEACON CLEARLY VISIBLE FROM A MINIMUM DISTANCE OF 1 QUARTER MILE.

PERFORM ALL WORK AND SUPPLY ALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH C&MS 614 AND LATEST VERSION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

LANE VALUE CONTRACT TABLE			
DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
		EACH HOUR	
		EACH HOUR	

SPECIAL EVENTS HOLIDAY.
THE FOLLOWING HOLIDAY OR SPECIAL EVENT RESTRICTIONS APPLY.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE:
IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), PROVIDE A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP-MOUNTED EMERGENCY FLASHING LIGHTS FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED. DO NOT USE LAW ENFORCEMENT OFFICERS (LEOS) WHERE THE OMUTCD INTENDS THAT FLAGGERS ARE TO BE USED.

EMPLOY AND SUPERVISE THE ACTIONS AND PLACEMENT OF THE LEOS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SUPPLY A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. MAKE ARRANGEMENTS FOR THESE SERVICES WITH THE STATE HIGHWAY PATROL OR LOCAL GOVERNMENTS. ARRANGEMENTS INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED. CONTRACTORS MAY UTILIZE LEOS FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN SPECIFIED IN THESE PLANS, AT THEIR OWN EXPENSE.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

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.

EXISTING PLANS:
EXISTING PLANS CAN BE INSPECTED IN THE LOCAL ODOT DISTRICT OFFICE.

STEEL RESTRAINT OR PRELOAD LIMITS:
EXISTING ASTM A709 GRADE 50W OR A709 GRADE 50 - DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING 25,000 PSI (172.4 MPA)*

EXISTING ASTM A709 GRADE 36 - DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING 18,000 PSI (124.1 MPA)*

EXISTING ASTM ____ GRADE ____ DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING ____ PSI (____ MPA)*

* - IF MORE THAN ONE GRADE OF STEEL IS SELECTED, LIMIT RESTRAINT FORCES TO THE LOWER UNIT STRESS. REPLACE MATERIALS USING THE HIGHER GRADE IDENTIFIED UNLESS DIRECTED BY THE ENGINEER.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS):
AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 2, 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 C&MS 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): POUND.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS):
AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 3, FOR REMOVAL OF PORTIONS OF MAIN 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 PORTIONS OF THE EXISTING MEMBERS USING A MECHANICAL GUIDE ACCORDING TO C&MS 513.12. PROVIDE SHIELDING AS NECESSARY TO PREVENT DAMAGE TO MAIN OR SECONDARY MATERIALS THAT REMAIN. GRIND THE REMAINING CUT SURFACES OF THE EXISTING 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 (MAIN MEMBERS): POUND.

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 PROVIDED IN TABLE 2 AND 3. 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: POUND.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, DRILLING:
AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 3, FOR DRILLING MAIN OR SECONDARY MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. DRILL 2 INCH DIAMETER HOLES AT BOTH ENDS OF EACH IDENTIFIED CRACK AS DIRECTED BY THE ENGINEER. GRIND THE HOLES SMOOTH ACCORDING TO C&MS 513.19. 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 MEMBERS, DRILLING: EACH.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES:
AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 3, FOR COPING MAIN MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. PROVIDE A 2 INCH DIAMETER X 4 INCH LONG COPE ACCORDING TO PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. GRIND THE HOLES SMOOTH ACCORDING TO C&MS 513.19. 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 MEMBERS, COPE HOLES: EACH.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MAIN MEMBER, 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. PERFORMING COMPLETE PENETRATION WELDS ACCORDING TO C&MS 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 REENTRANT CORNERS WITH A ONE INCH RADIUS. REMOVE WELDING, START AND STOP DISCONTINUITIES. RADIOGRAPHIC TEST THE FINISHED WELDS ACCORDING TO C&MS 513.25A AND SUBMIT COPIES OF THE REPORTS TO THE ENGINEER. 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: FOOT.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS, FILLET WELDING:
AFTER DAMAGED AREAS HAVE BEEN INSPECTED ACCORDING TO ITEM 849 DAMAGE ASSESSMENT. PREPARE THE DAMAGED MATERIAL FOR WELDING, PERFORMING 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 C&MS 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 MAIN OR SECONDARY MEMBERS, FILLET WELDING: FOOT.

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (ONE COAT):

1.0 DESCRIPTION
THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH AN UNKNOWN EXISTING PAINT TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSISTS OF PERFORMING SURFACE PREPARATION AND APPLYING A PRIMER TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF UNKNOWN EXISTING PAINT SYSTEMS.

2.0 GENERAL
C&MS 514.05 THROUGH 514.10 AND 514.13.D APPLY UNLESS MODIFIED BY THESE NOTES.

3.0 WASHING EXISTING PAINTED SURFACES
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-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 C&MS 514.08 AND C&MS 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 C&MS 514.13.D FOR ANY DEBRIS.



ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (ONE COAT) (CONTINUED...):

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 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 ROUGHEN A MINIMUM OF ½ INCH OF THE EXISTING PAINT. CONTAIN AND DISPOSE OF WASTE GENERATED BY THE CLEANING ACCORDING TO C&MS 514.13.D.

ROUND ALL EXPOSED CORNERS OF MAIN MATERIAL TO BE PAINTED AS NECESSARY TO ACHIEVE A ¼¹⁶ INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A 45 DEGREE ANGLE.

5.0 FIELD PAINTING

APPLY THE PRIME COAT OF THE THREE-COAT PAINT SYSTEM SPECIFIED IN C&MS 708.02, ACCORDING TO C&MS 514.15, 514.16, 514.17, 514.19 AND 514.20 TO THE CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL DETERMINE THE PRIME COAT THICKNESS USING A TYPE 2 MAGNETIC GAGE AT SPOT LOCATIONS. DO NOT APPLY THE INTERMEDIATE OR FINISH COAT. THE PRIME COAT OF PAINT SHALL MEET THE MINIMUM DRY FILM THICKNESS REQUIREMENTS OF C&MS 514.20. APPLY PAINT AS FOLLOWS:

APPLY THE PRIME COAT ONLY TO THE PREPARED SURFACE OF THE BARE STEEL AND THE EXISTING UNKNOWN PAINT SYSTEM ROUGHENED BY FEATHERING.

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

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.

7.0 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 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.

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (ONE COAT) (CONTINUED...):

7.0 BASIS OF PAYMENT (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	SQUARE FEET	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL - ONE COAT, AS PER PLAN

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (TWO COAT):

1.0 DESCRIPTION

THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH AN OLDER EXISTING OZEU OR IZEU PAINT SYSTEM OR UNPAINTED WEATHERING STEEL TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSISTS OF PERFORMING SURFACE PREPARATION AND APPLYING A TWO-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

C&MS 514.05 THROUGH 514.10 AND 514.13.D APPLY UNLESS MODIFIED BY THESE NOTES.

3.0 WASHING EXISTING SURFACES

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-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 C&MS 514.08 AND C&MS 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 C&MS 514.08 AND C&MS 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 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 ½ INCH OF EACH COAT. CONTAIN AND DISPOSE OF WASTE GENERATED BY THE CLEANING ACCORDING TO C&MS 514.13.D.

ROUND ALL EXPOSED CORNERS OF MAIN MATERIAL TO BE PAINTED AS NECESSARY TO ACHIEVE A ¼¹⁶ INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A 45 DEGREE ANGLE.

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (TWO COAT) (CONTINUED...):

5.0 FIELD PAINTING

APPLY THE PRIME AND INTERMEDIATE COATS OF THE THREE-COAT PAINT SYSTEM SPECIFIED IN C&MS 708.02, ACCORDING TO C&MS 514.15, 514.16, 514.17, 514.19 AND 514.20 TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. TINT THE INTERMEDIATE 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. DO NOT APPLY THE FINISH COAT. THE PRIME AND INTERMEDIATE COAT OF PAINT SHALL MEET THE MINIMUM DRY FILM THICKNESS REQUIREMENTS OF C&MS 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 AND FINISH COAT THAT ARE EXPOSED BY FEATHERING.

AT THE PERIMETER OF THE REPAIR AREA, APPLY THE PRIME AND INTERMEDIATE COATS USING A BRUSH. IN LIEU OF BRUSHING, THE CONTRACTOR MAY DOUBLE MASK THE 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.

7.0 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 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.

ITEM	UNIT	DESCRIPTION
514	SQUARE FEET	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL - TWO COAT, AS PER PLAN

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

C&MS 514.05 THROUGH 514.10 AND 514.13.D APPLY UNLESS MODIFIED BY THESE NOTES.

3.0 WASHING EXISTING SURFACES

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-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 C&MS 514.08 AND C&MS 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 C&MS 514.08 AND C&MS 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 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 ½ INCH OF EACH COAT. CONTAIN AND DISPOSE OF WASTE GENERATED BY THE CLEANING ACCORDING TO C&MS 514.13.D.

ROUND ALL EXPOSED CORNERS OF MAIN MATERIAL TO BE PAINTED AS NECESSARY TO ACHIEVE A ¼¹⁶ 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 C&MS 708.02, ACCORDING TO C&MS 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 C&MS 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



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

5.0 FIELD PAINTING (CONTINUED...)

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.

7.0 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 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.

ITEM	UNIT	DESCRIPTION
514	SQUARE FEET	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL - THREE COAT, AS PER PLAN

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

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE PERFORM REPAIRS DEFINED IN TABLE 3, TABLE 5, OR THE HEAT STRAIGHTENING PLAN.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 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 C&MS 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.

DESIGN AGENCY



DESIGNER

XXX

REVIEWER

XXX MM-DD-YY

PROJECT ID

0

SUBSET TOTAL

0

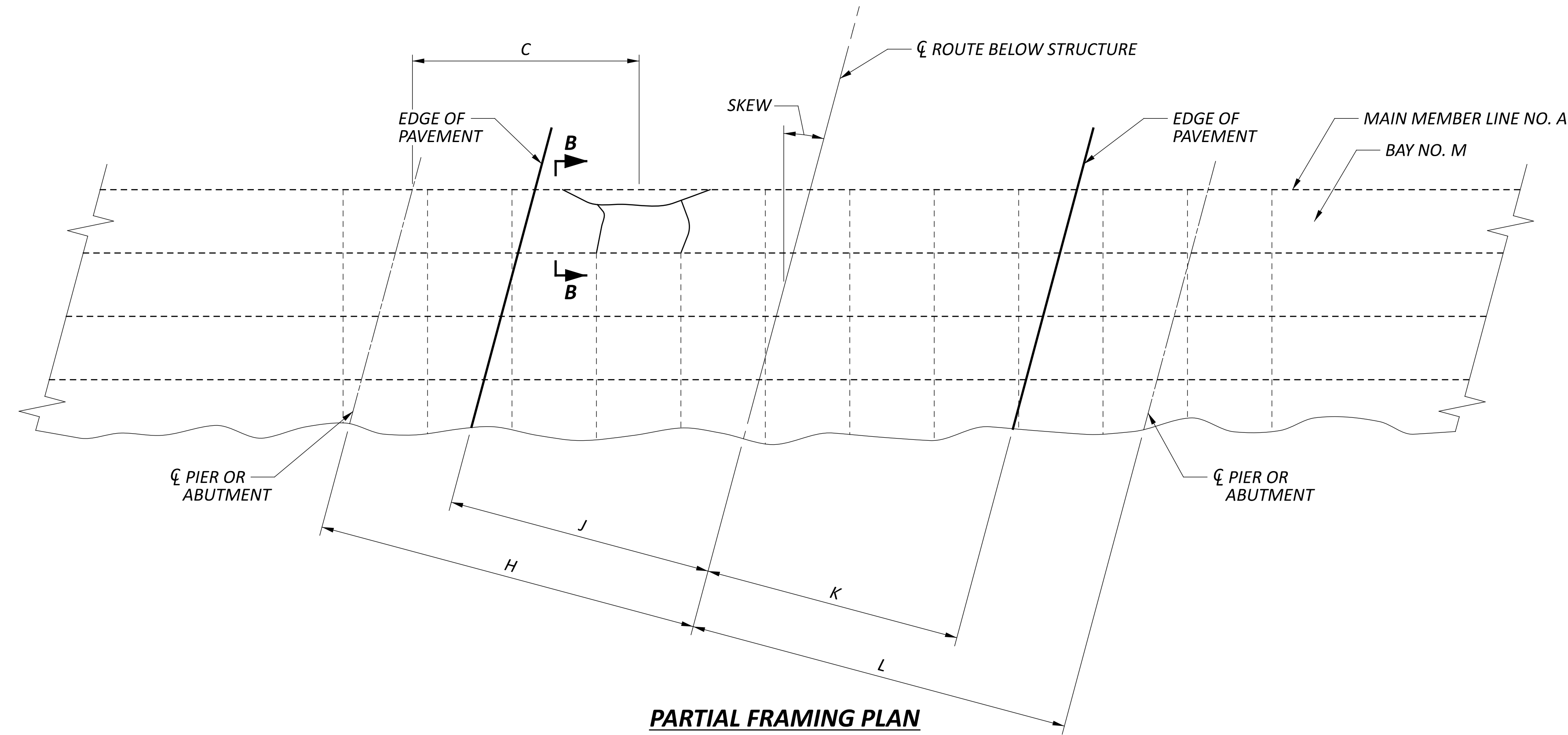
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SHEET TOTAL

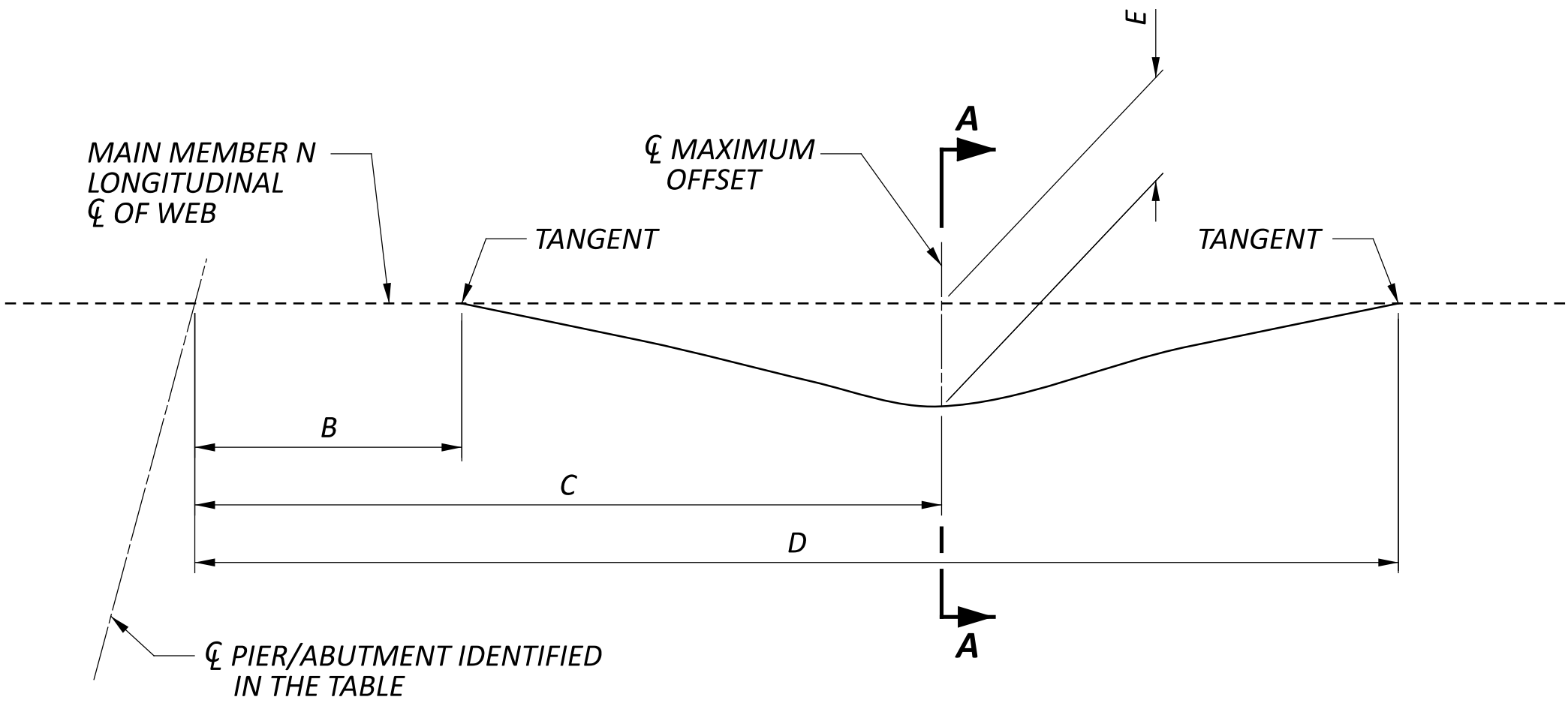
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ESTIMATED QUANTITIES								
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.
832	30000		EACH	EROSION CONTROL				
202	11501		EACH	PORTION OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS)				
202	11501		EACH	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)				
512	10600		FT.	CONCRETE REPAIR BY EPOXY INJECTION				
513	10201		LBS.	STRUCTURAL STEEL MEMBERS LEVEL UF, AS PER PLAN				
513	95030		EACH	STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, DRILLING				
513	95030		EACH	STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES				
513	95000		FEET	STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MAIN MEMBER, COMPLETE PENETRATION WELDING				
513	95000		FEET	STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MAIN OR SECONDARY MEMBER, FILLET WELDING				
514	20001		SQ. FT.	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (ONE COAT)				
514	20001		SQ. FT.	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (TWO COAT)				
514	20001		SQ. FT.	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)				
516	47001		LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				
519	11100		SQ. FT.	PATCHING CONCRETE STRUCTURE				
849	10000		LUMP	DAMAGE ASSESSMENT				
849	10500		LUMP	SURFACE PREPARATION				
849	10600		HOURL	REPAIRING DAMAGED MEMBERS BY GRINDING				
849	10700		LUMP	STRAIGHTENING DAMAGED MEMBERS				
614	11000		LUMP	MAINTAINING TRAFFIC				
614	11110		HOURL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE				
624	10000		LUMP	MOBILIZATION				

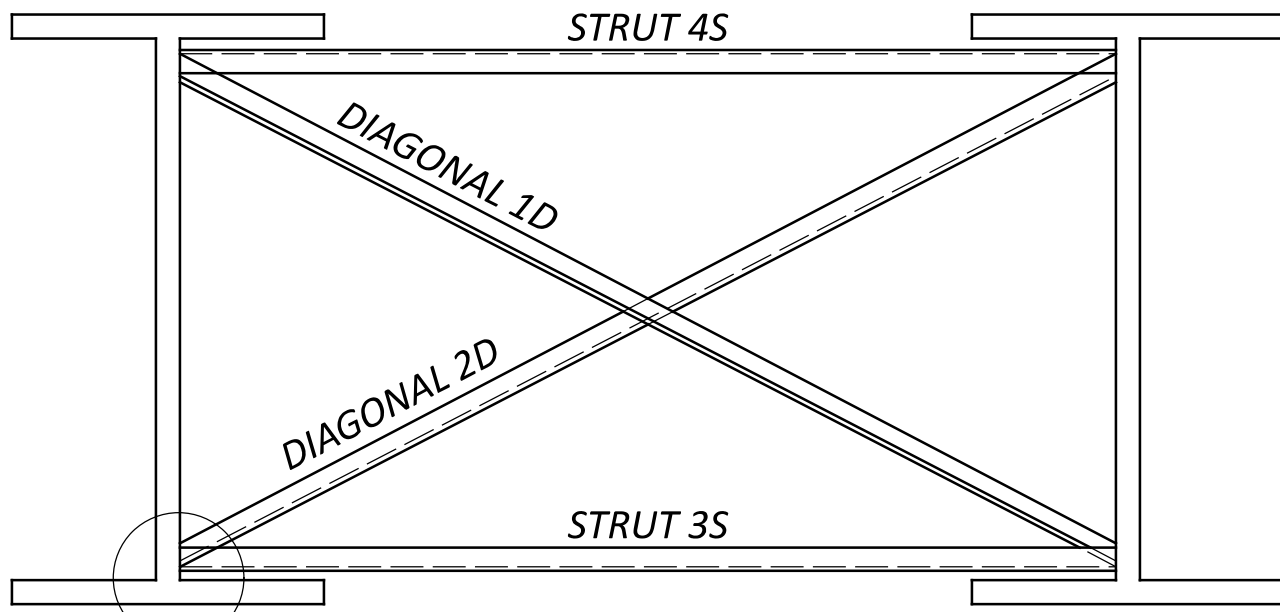


PARTIAL FRAMING PLAN



DAMAGED MAIN MEMBER PLAN VIEW

EXISTING STRUCTURE:
ROUTE ON STRUCTURE:
ROUTE BELOW STRUCTURE:
TYPE:
SPANS:
ROADWAY WIDTH:
SKEW:
ALIGNMENT:
SUPERELEVATION:
YEAR BUILT:
NUMBER OF BEAMS:
STEEL TYPE:
PAINT TYPE:
PAINT DATE:

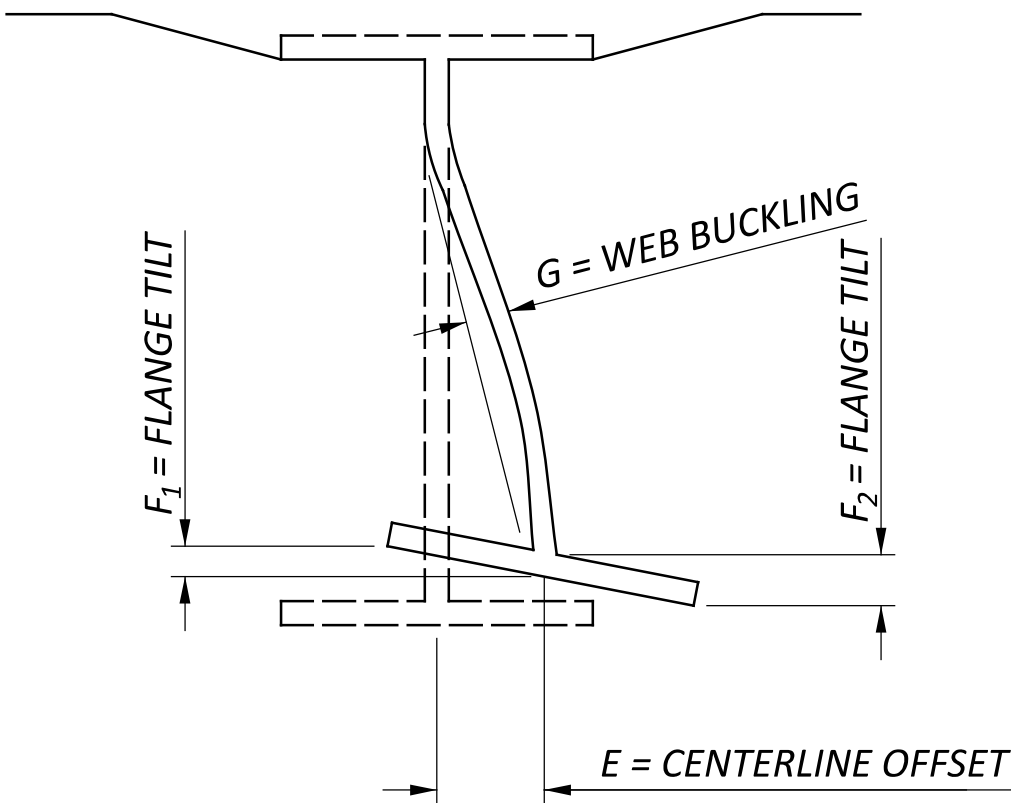


REMOVE ACCORDING TO ITEM 202-PORIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS). REPLACE BY MATCHING EXISTING DETAIL. SEE GSD-1-96 FOR ADDITIONAL CLARIFICATION.

SECTION B-B

(SECONDARY MEMBER BAY No. M)

MAIN AND SECONDARY MEMBER DAMAGE IS NOT SHOWN. FOR CLARITY SEE SECTION A-A



SECTION A-A

NEGATIVE E VALUES ARE BENT LEFT
NEGATIVE F VALUES ARE BENT DOWN
NEGATIVE G VALUES ARE BENT LEFT

N - NUMBER OF CROSSFRAME BRACES COUNTED FROM THE PIER OR ABUTMENT IDENTIFIED IN TABLE

TABLE #2 DAMAGED SECONDARY MEMBER TO BE REPLACED						
CROSSFRAME BAY M	PIER/ABUT.	N	1D	2D	3S	4S

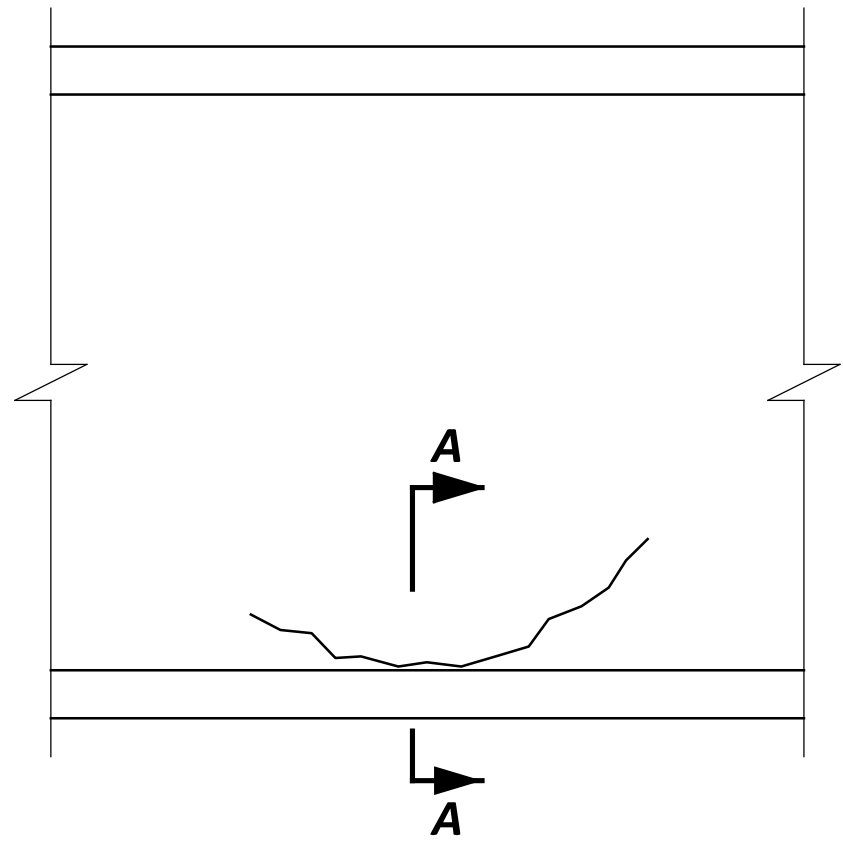
TABLE # 1 DAMAGED MAIN MEMBERS TO BE HEAT STRAIGHTENED													
DAMAGE AREA No.	MEMBER LINE No. A	PIER OR ABUT.	B	C	D	E	F1	F2	G	H	J	K	L

ORIENTATION NOTE
ABUTMENTS AND PIERS ARE NUMBERED IN THE CARDINAL DIRECTION (FROM SOUTH TO NORTH OR WEST TO EAST).

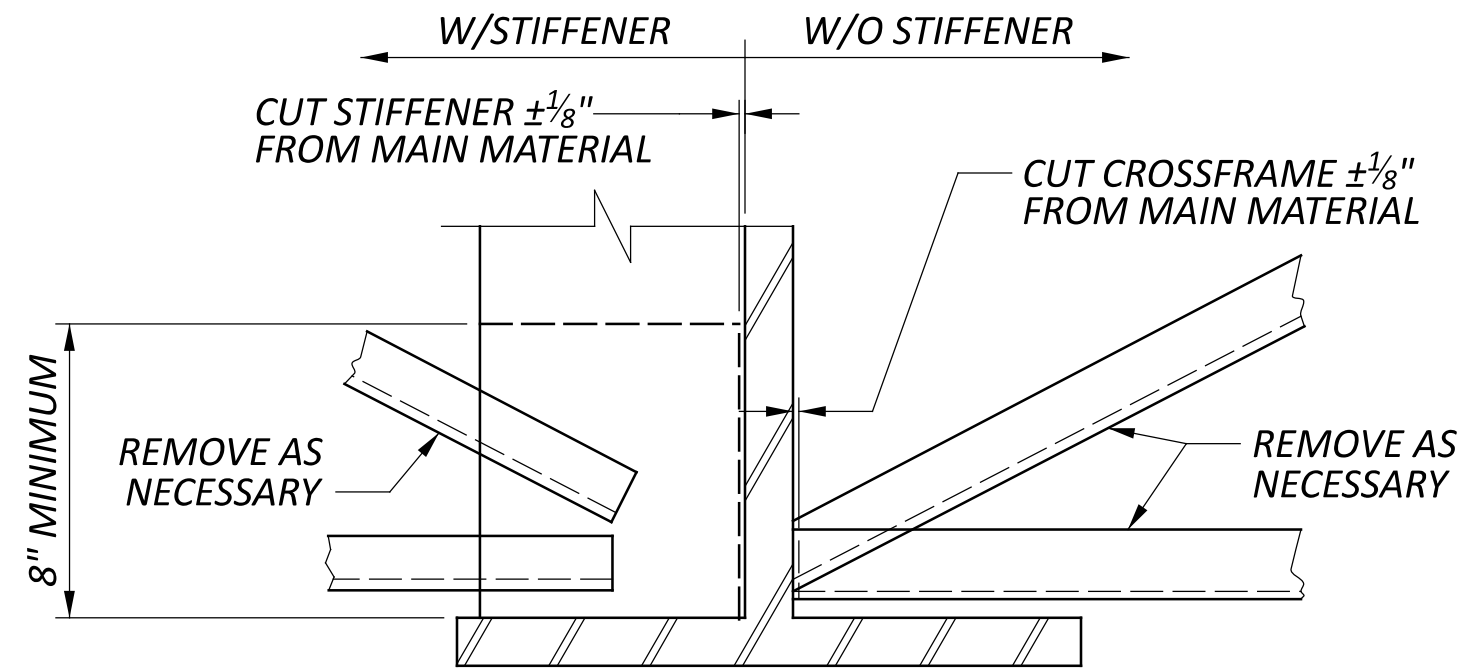
BEAMS ARE NUMBERED FROM LEFT TO RIGHT WHEN FACING IN THE CARDINAL DIRECTION.

BAYS ARE NUMBERED TO MATCH THE MAIN MEMBERLINE NUMBER TO THE LEFT OF THE CROSSFRAME BAY WHEN FACING IN THE CARDINAL DIRECTION.





(CONDITION-WEB CRACK)
COLLISION REPAIR WC1-1
SEE NOTE 1



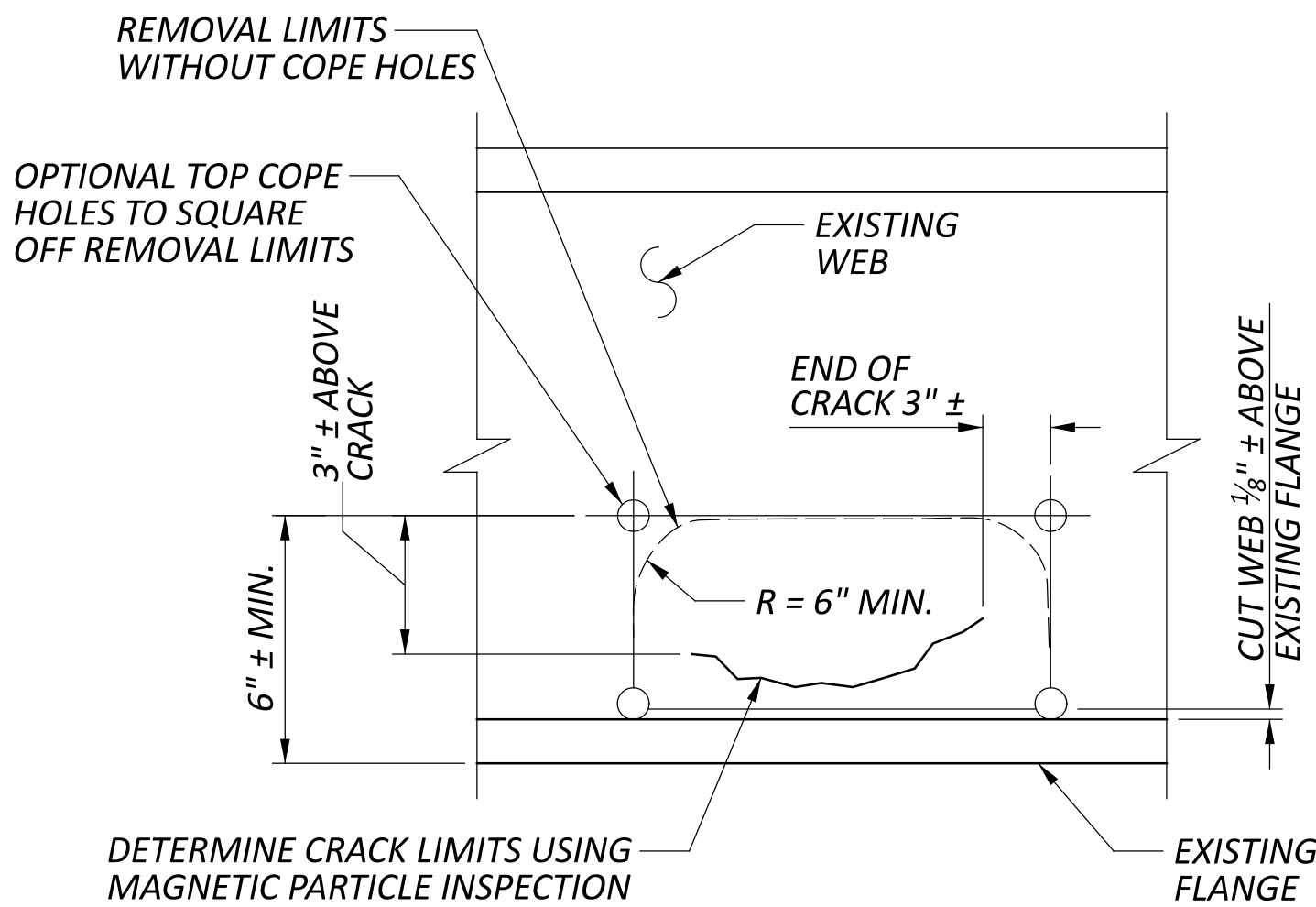
SECTION A-A
SEE NOTE 1

1. REMOVE SECONDARY MEMBERS AS NECESSARY IF APPLICABLE. CAREFULLY GRIND EXISTING WELDS FLUSH. DO NOT DAMAGE WEB OR FLANGE. PROVIDE SHIELDING AS NECESSARY
2. MARK REMOVAL AREA
3. DRILL 2 OR 4 CORNER HOLES 1" DIAMETER
4. SAW OR FLAME CUT TO REMOVE DAMAGED WEB PLATE USING A MECHANICAL GUIDE
5. PREP EXISTING MEMBER, BEVEL EDGES FOR COMPLETE PENETRATION AND FILLET WELDS
6. CUT AND BEVEL NEW PLATES, FOR COMPLETE PENETRATION AND FILLET WELDS
7. CHECK FIT OF NEW PLATES, NO GAPS EXCEEDING 1/16"
8. PERFORM WELDING
9. GRIND WELDS SMOOTH AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
10. GRIND THE INSIDE SURFACE OF ALL DRILLED CORNER HOLES OR BOTTOM COPES TO A 1" RADIUS AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
11. PERFORM NDT TESTS ACCORDING TO C&MS 513.25A
12. REPAIR SECONDARY MEMBERS IF APPLICABLE. MAKE CONNECTIONS TO MATCH EXISTING DETAILS UNLESS MODIFIED HEREIN

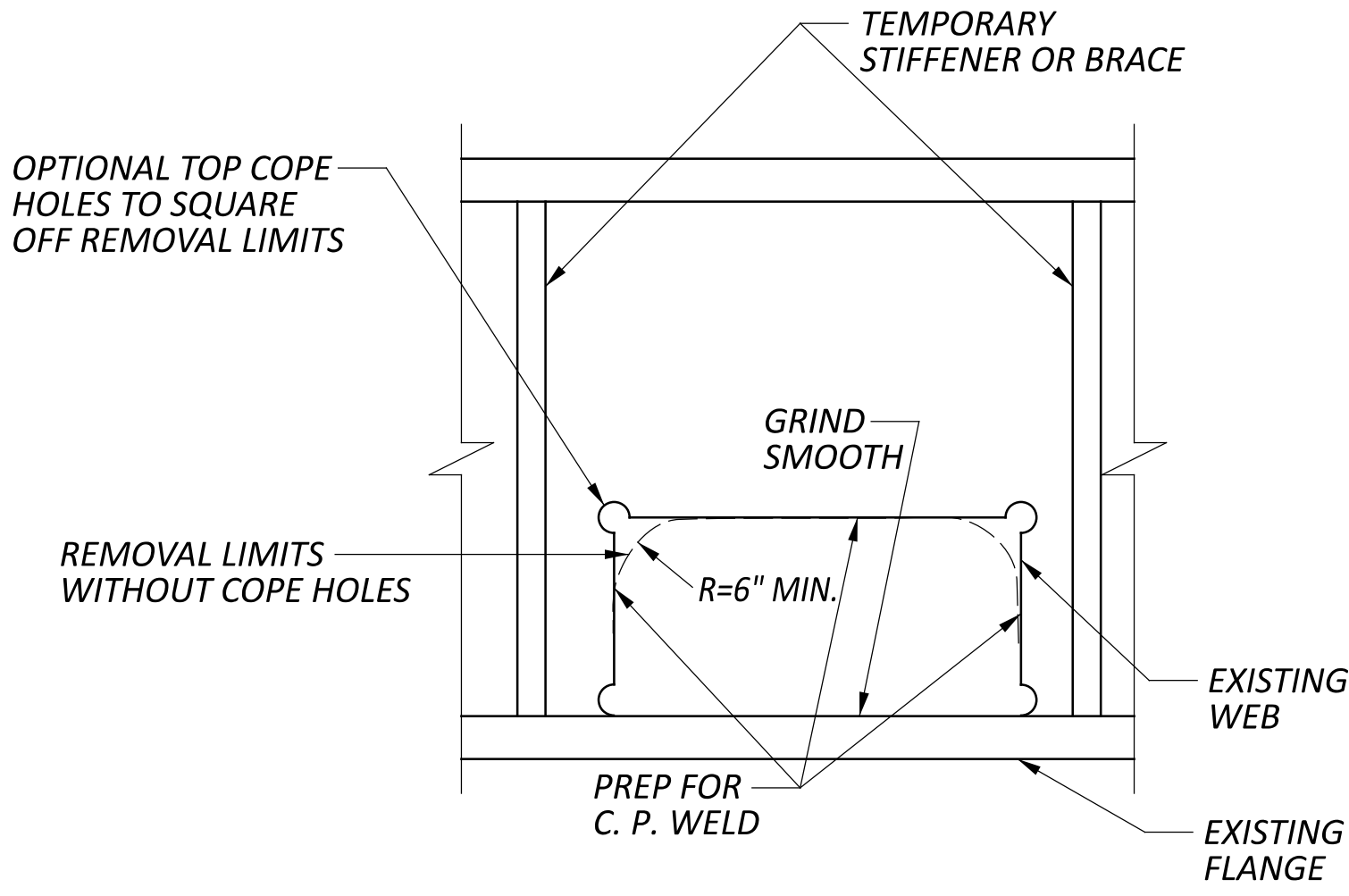
CAUTION: PROVIDE ADDITIONAL TEMPORARY OR PERMANENT STIFFENERS

TABLE #3 ITEM 513 REPAIRS									
DAMAGED AREA No.	MEMBER LINE No. A	PIER OR ABUTMENT	DIM. C	REPAIR DETAIL TYPE	DRILLING HOLES (EACH)	COPE HOLES (EACH)	STEEL MEMBER LEVEL UF (POUNDS)	CP WELD (FEET)	FILLET WELD (FEET)
				WC1					

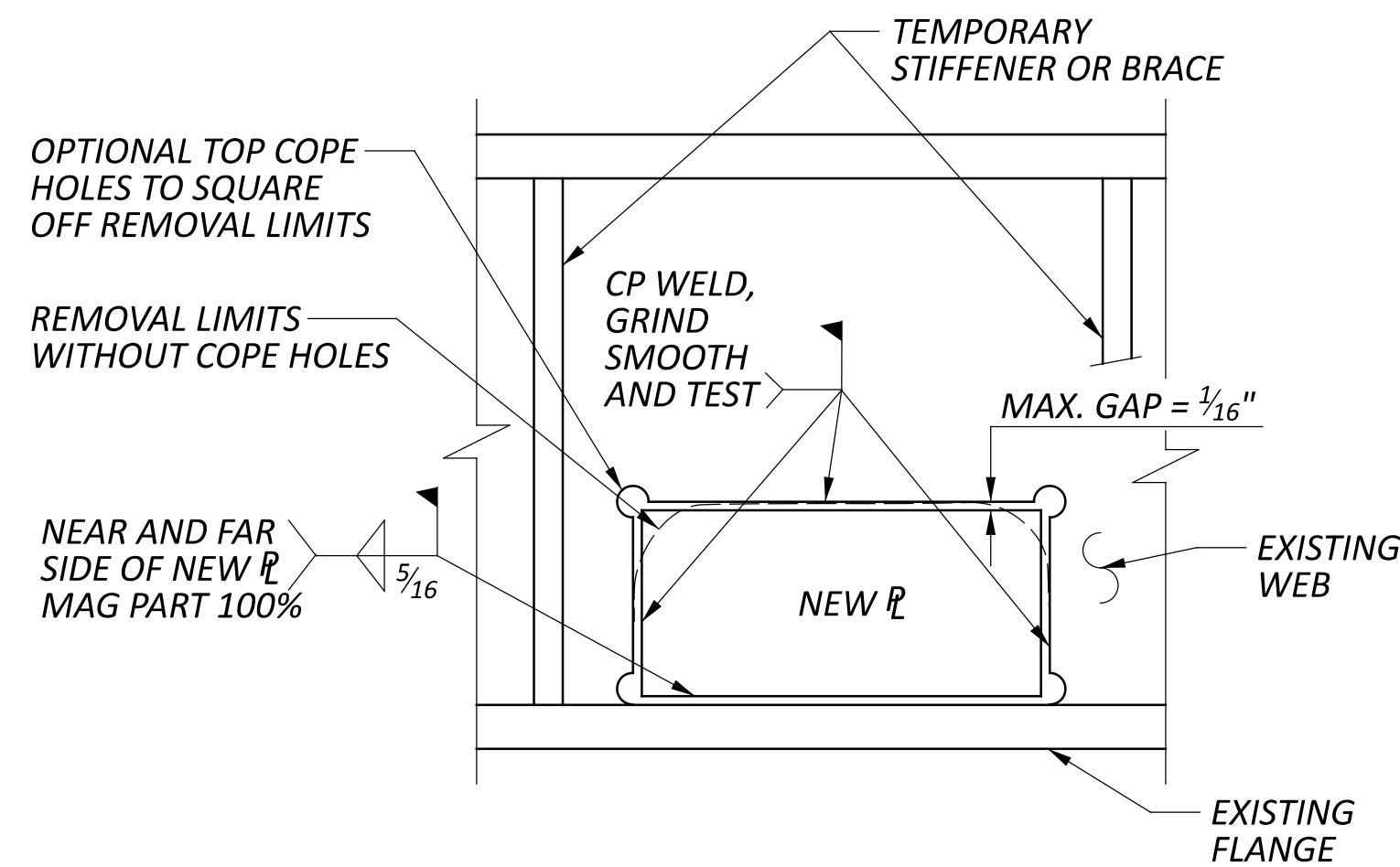
SEE PARTIAL FRAMING PLAN FOR DIMENSION C



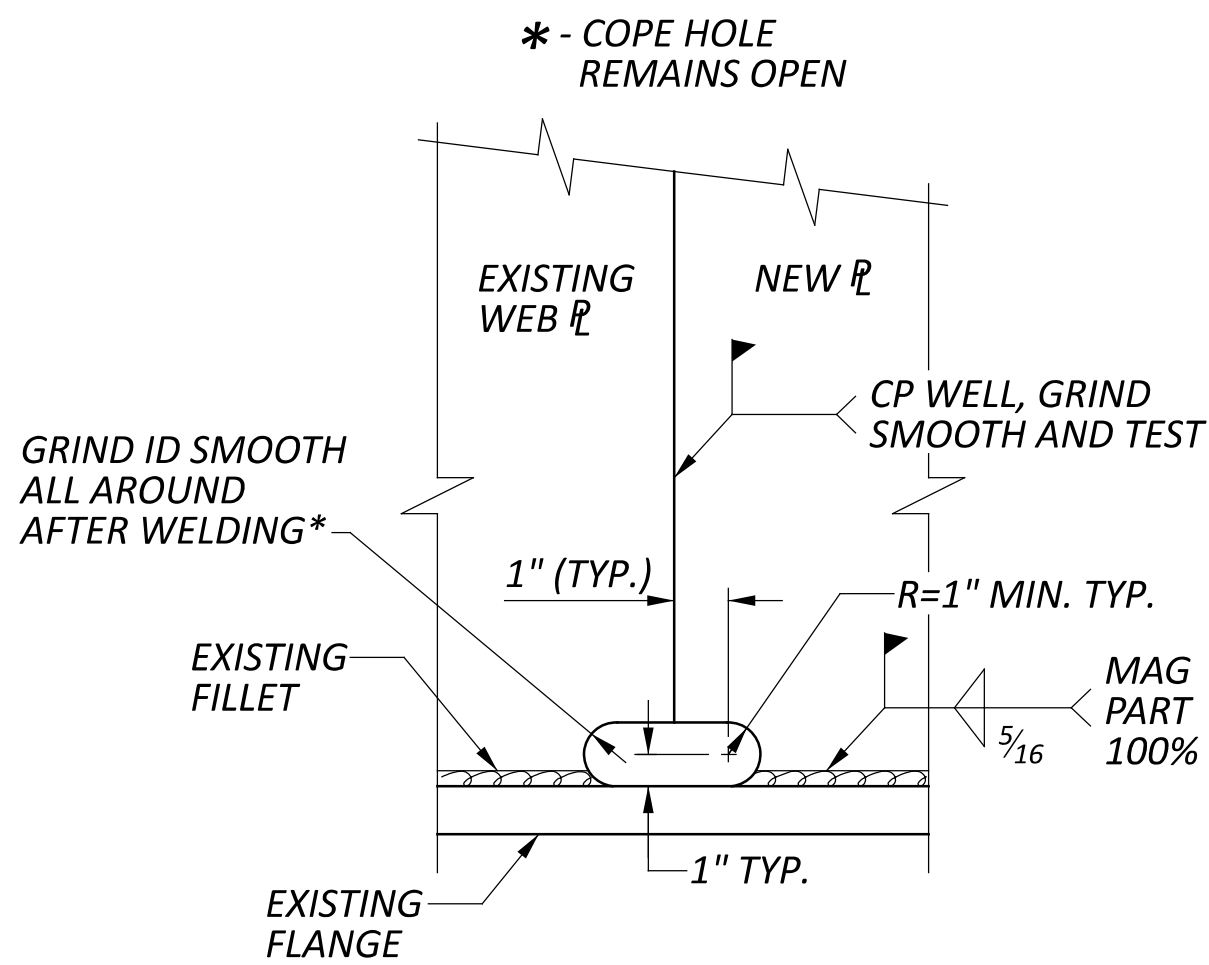
COLLISION REPAIR WC1-2
SEE NOTE 2&3



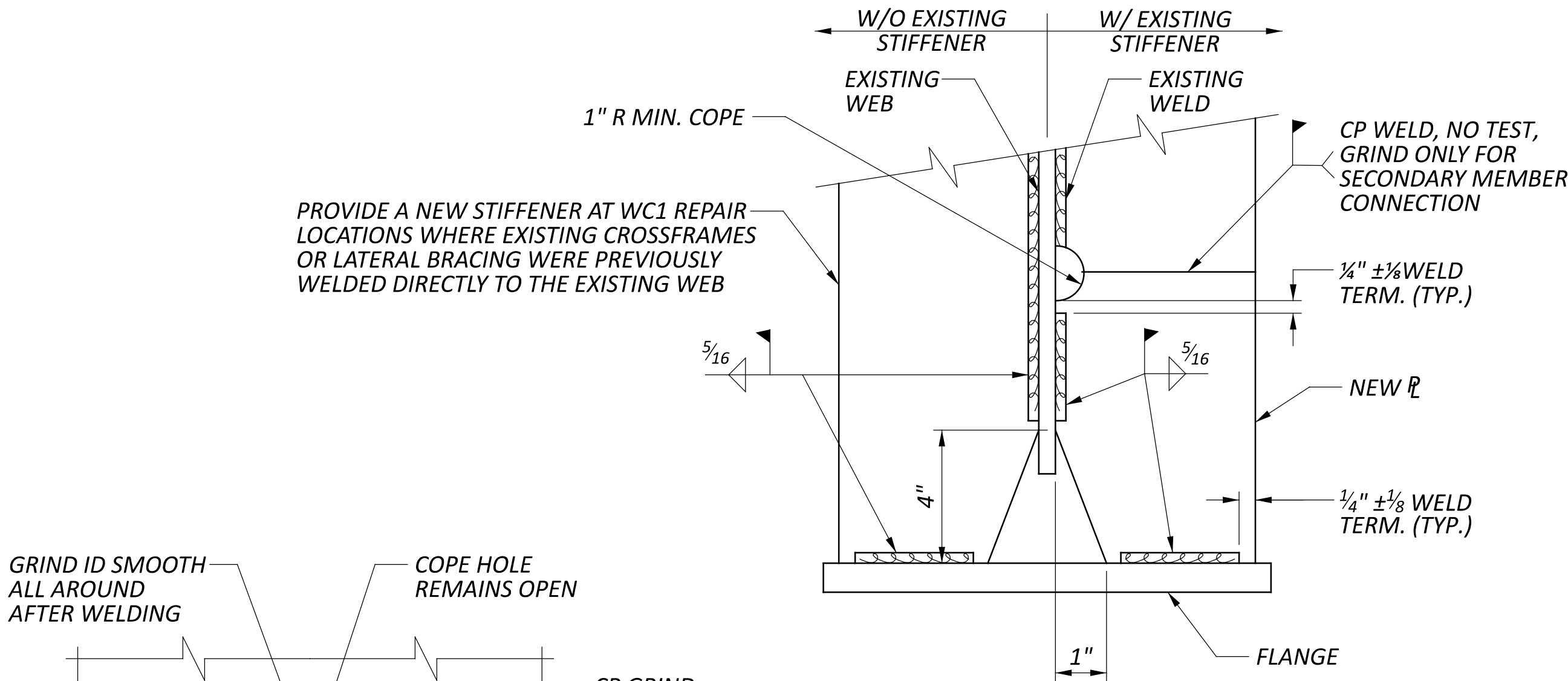
(PREP EXISTING MEMBER)
COLLISION REPAIR WC1-3
SEE NOTE 4&5



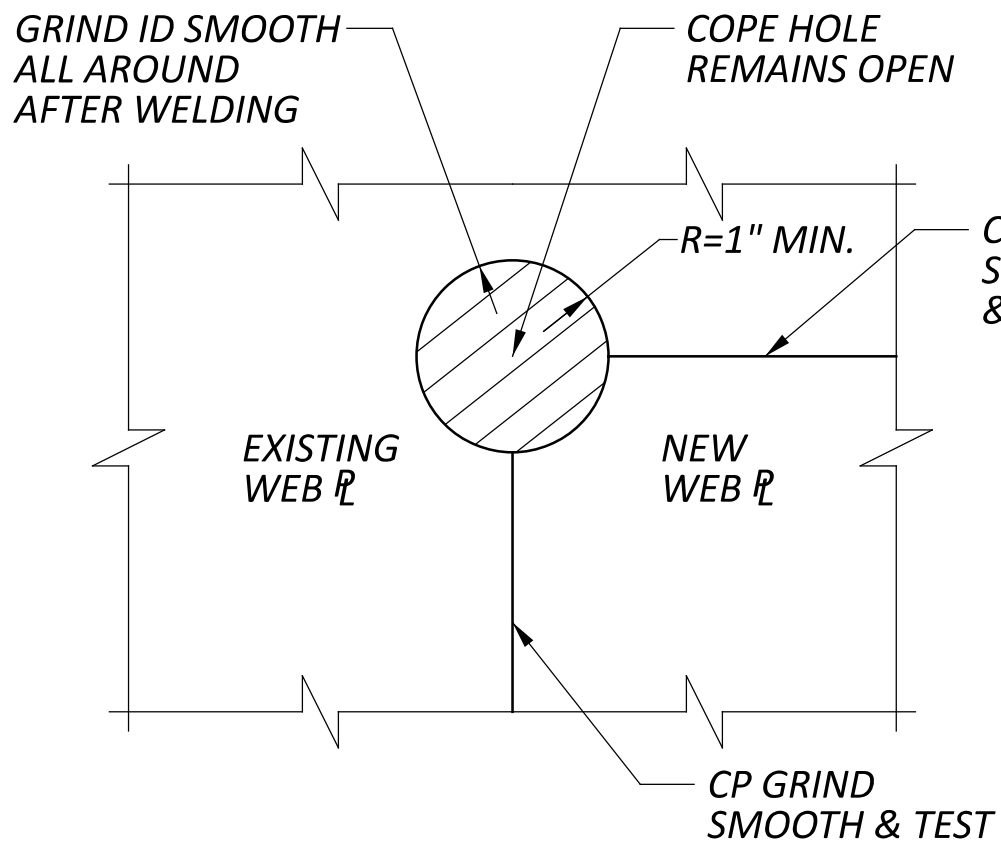
COLLISION REPAIR WC1-4
SEE NOTES 6 THROUGH 11



FIELD REPAIR BOTTOM COPE WC1-5
SEE NOTES 9 & 10

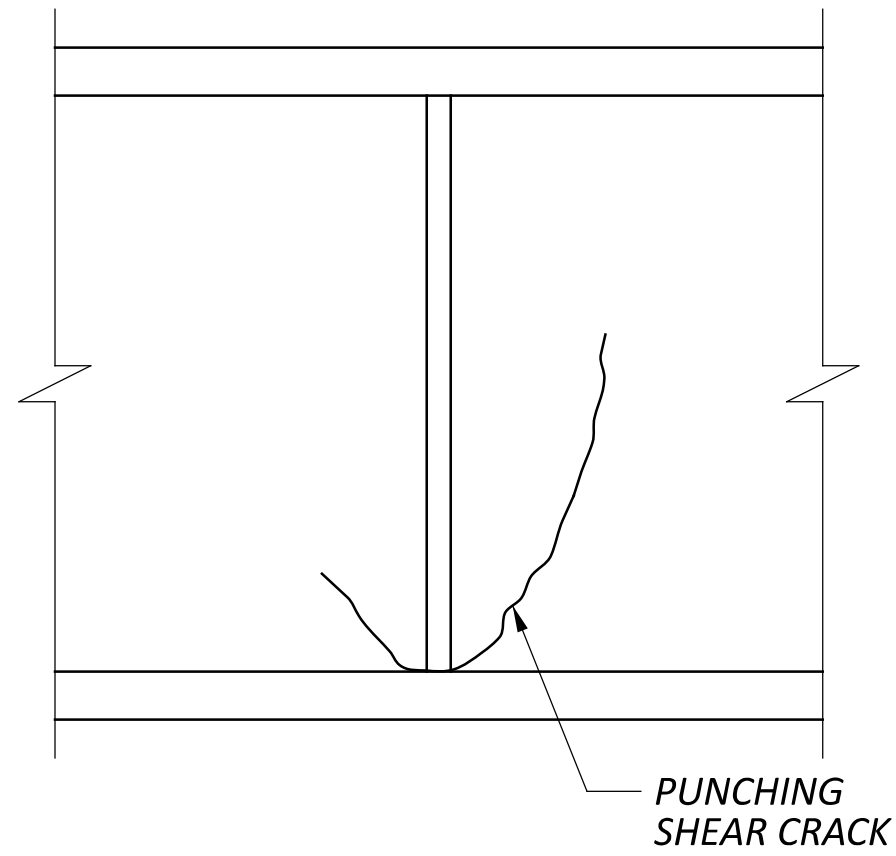


FIELD REPAIR STIFFNER WC1-7
SEE NOTE 5 THROUGH 12

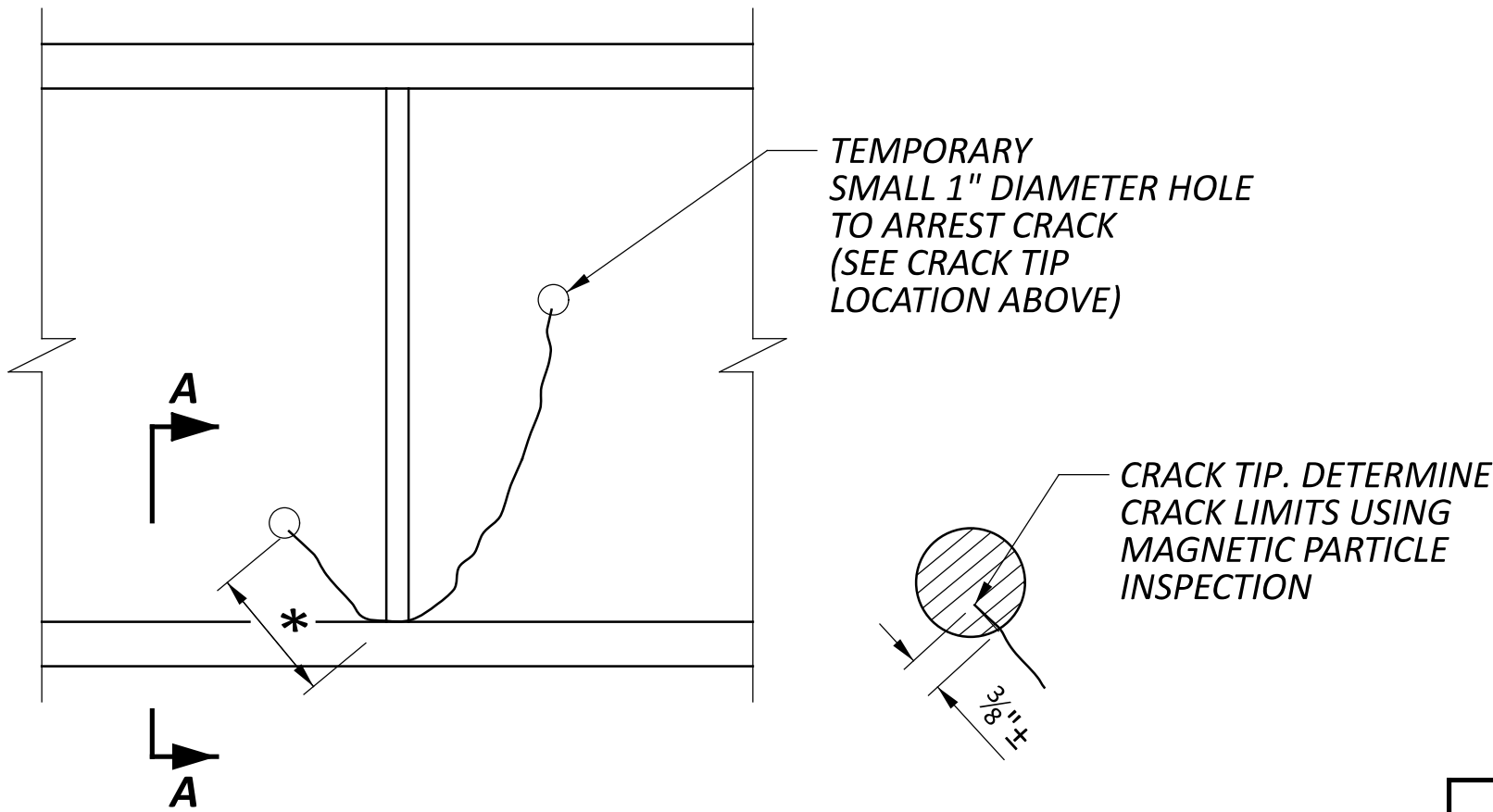


FIELD REPAIR TOP COPE WC1-6
SEE NOTES 9 & 10





COLLISION REPAIR WC2-1



COLLISION REPAIR WC2-2

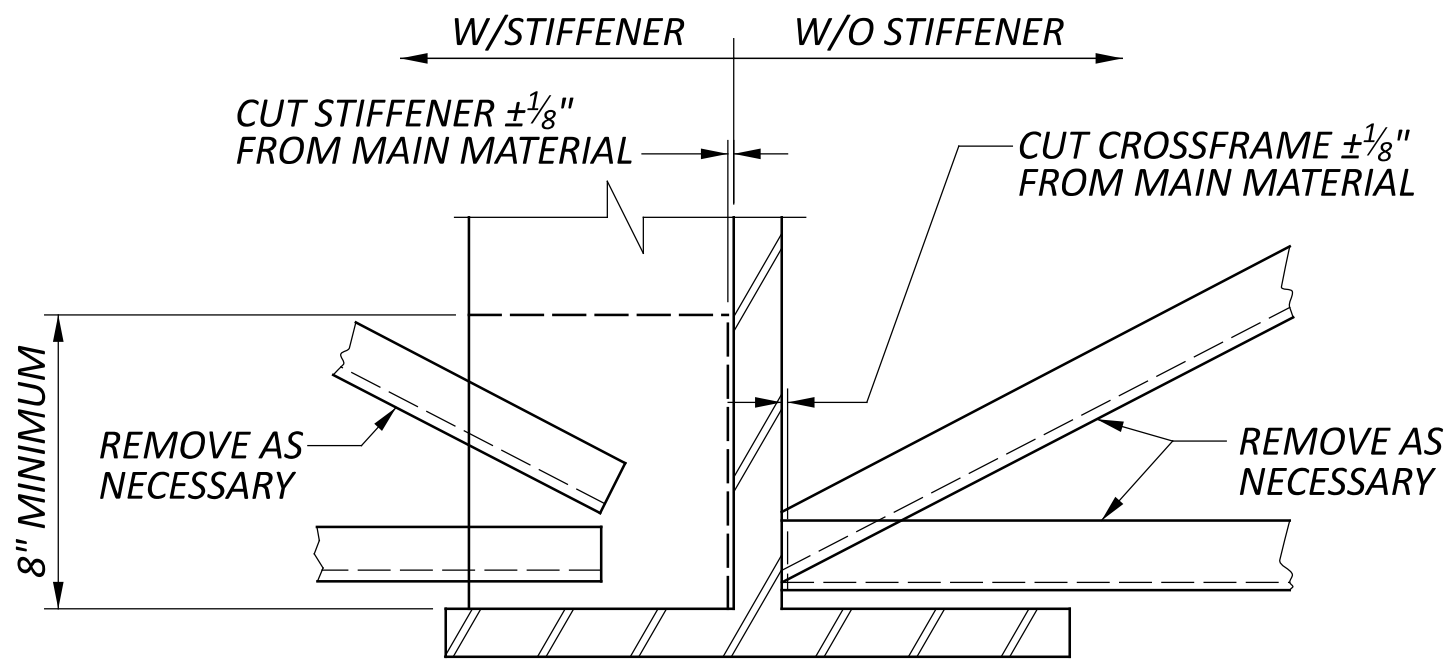
SEE NOTE 1 & 2

* - IF CRACK IS LESS THAN OR EQUAL TO 6" SEE COLLISION REPAIR WC2-5

1. ARREST CRACK TEMPORARY
 - A. MAGNETIC PARTICLE INSPECTION CRACK TO LOCATE TIP.
 - B. TEMPORARY 1" DIAMETER HOLE DRILLED TO STOP CRACK GROWTH.
2. REMOVE SECONDARY MEMBERS AS NECESSARY IF APPLICABLE
3. REMOVE STIFFENER MATERIAL AS NECESSARY
4. PREP EXISTING MATERIALS FOR COMPLETE PENETRATION WELDS
5. PERFORM COMPLETE PENETRATION WELDS ACCORDING TO CMS 513.21
6. GRIND WELDS SMOOTH AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
7. GRIND THE INSIDE SURFACE OF ALL DRILLED TOP, SIDE OR BOTTOM COPES TO A 1" RADIUS AND PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 mil
8. PERFORM NDT TESTS ACCORDING TO C&MS 513.25A
9. REPAIR SECONDARY MEMBERS IF APPLICABLE

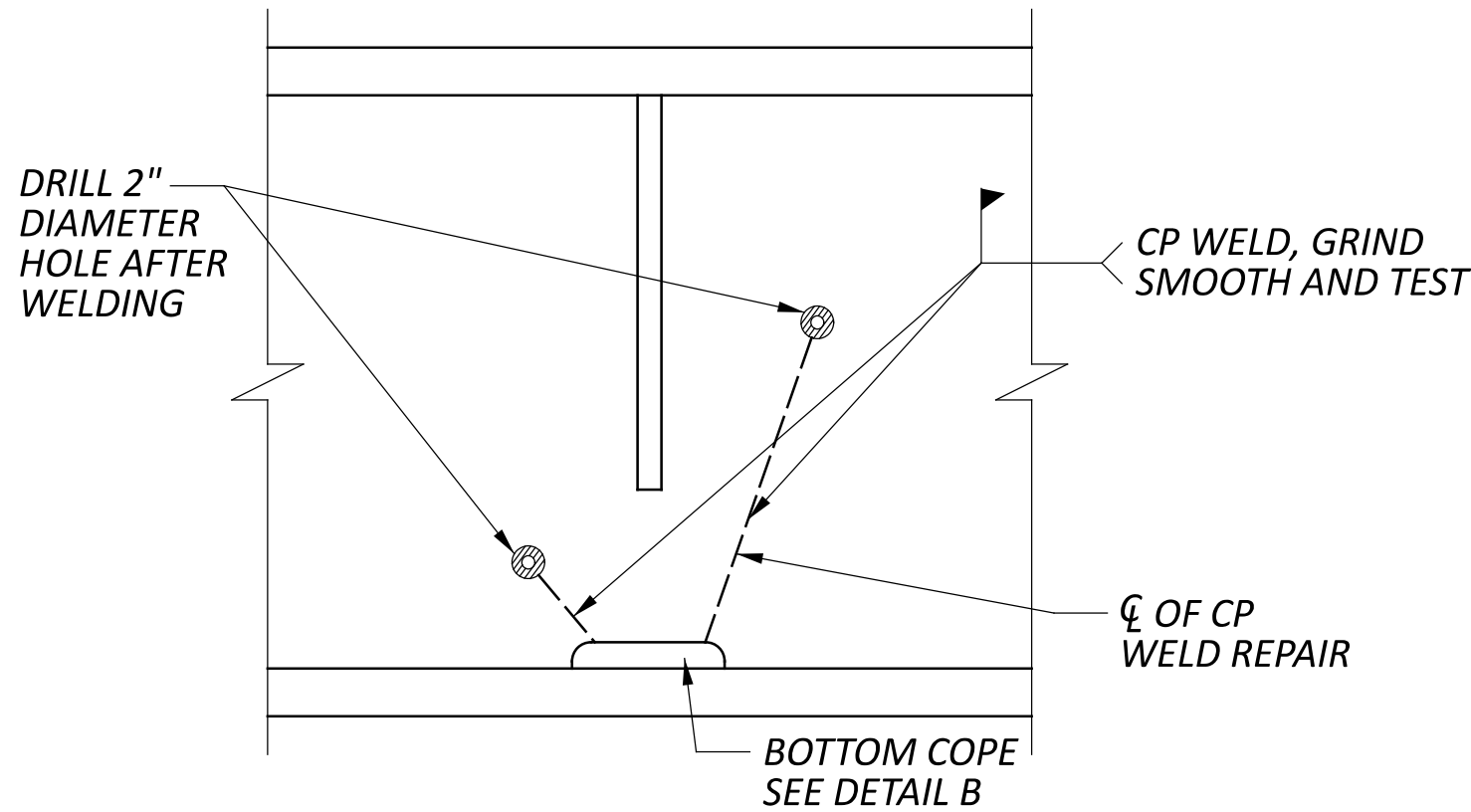
TABLE #3 ITEM 513 REPAIRS									
DAMAGED AREA No.	MEMBER LINE No. A	PIER OR ABUTMENT	DIM. C	REPAIR DETAIL TYPE	DRILLING HOLES (EACH)	COPE HOLES (EACH)	STEEL MEMBER LEVEL UP (POUNDS)	CP WELD (FEET)	FILLET WELD (FEET)
				WC2					

SEE PARTIAL FRAMING PLAN FOR DIMENSION C



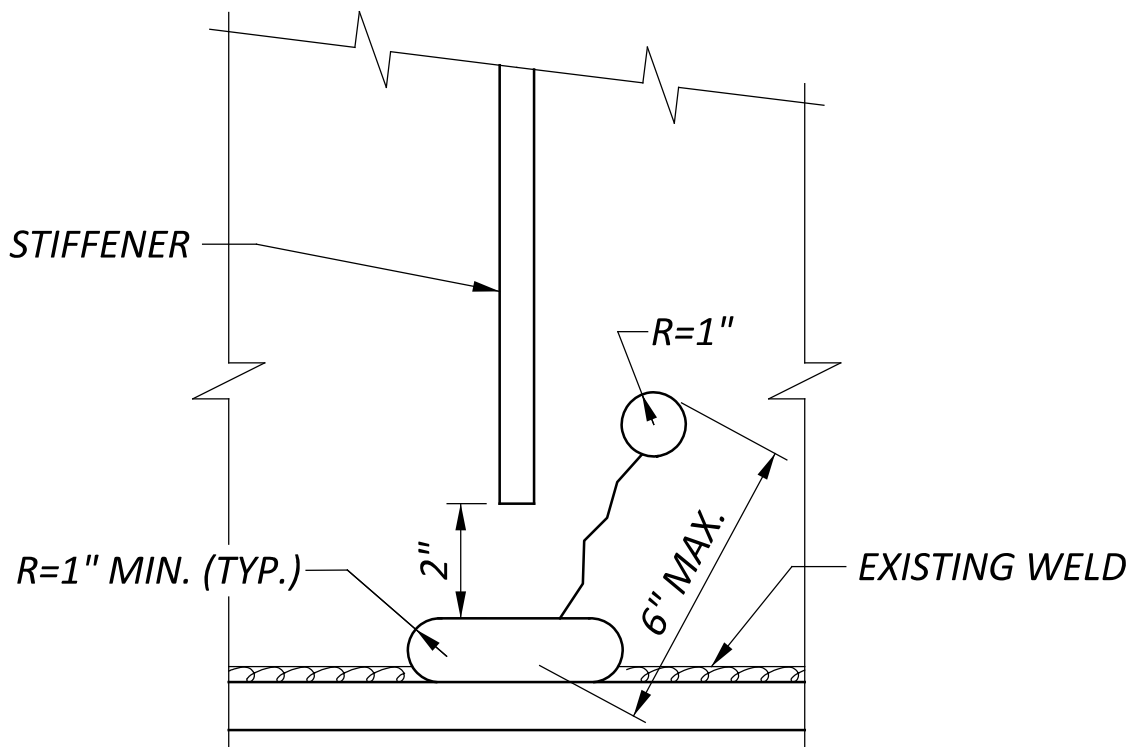
SECTION A-A

SEE NOTE 2 & 3



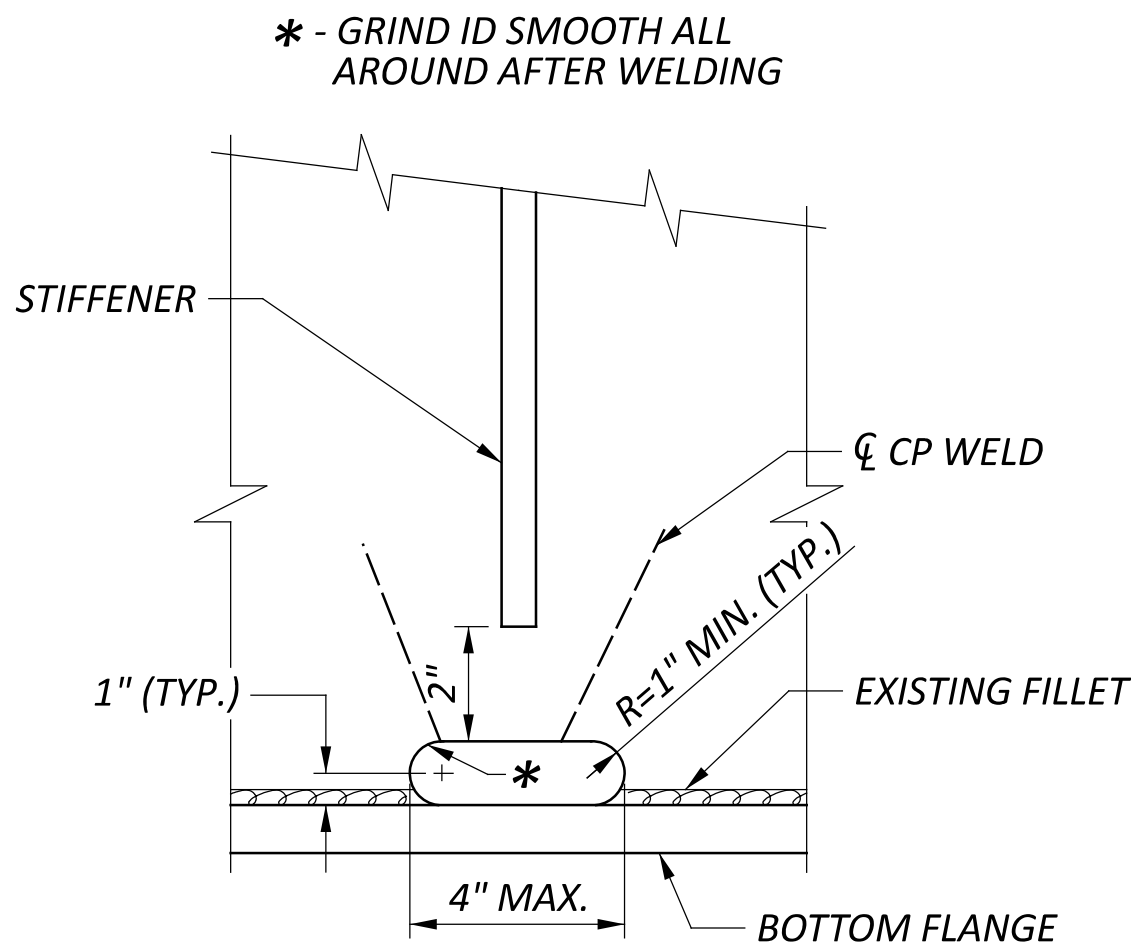
COLLISION REPAIR WC2-3

SEE NOTE 4 THROUGH 8



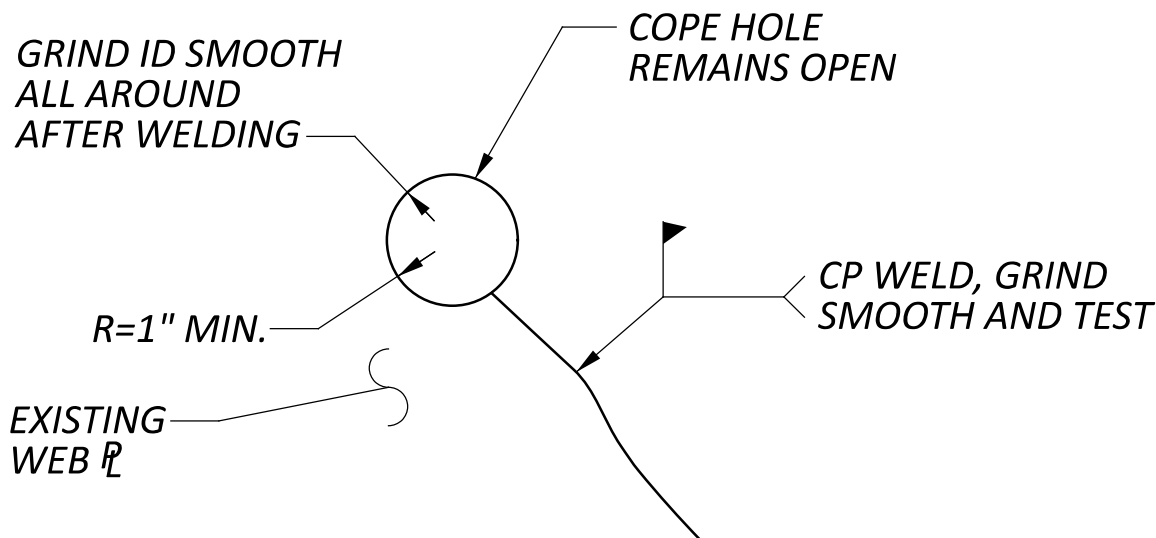
COLLISION REPAIR WC2-5

MAXIMUM NO REPAIR
SEE NOTE 7



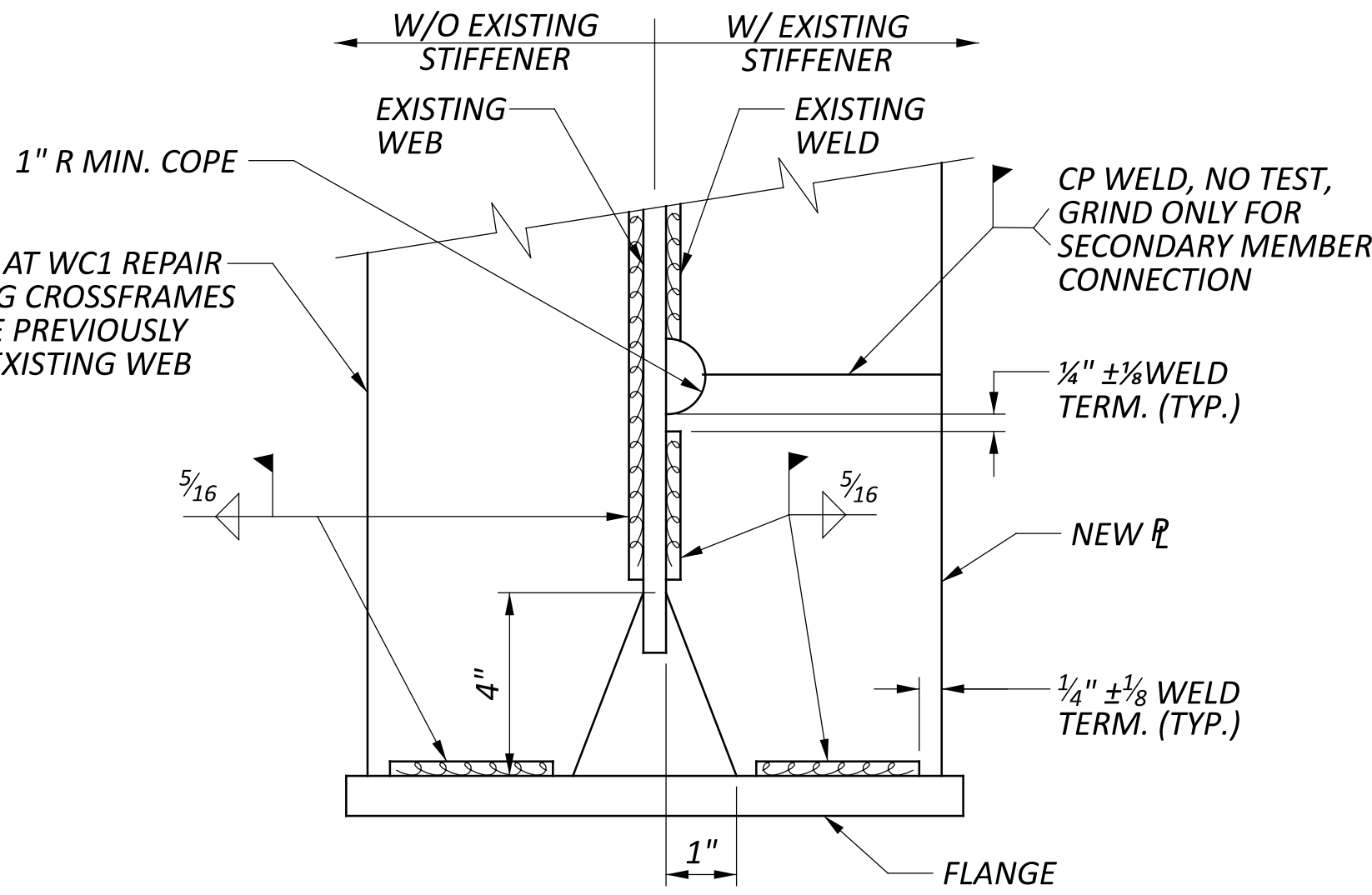
DETAIL B

SEE NOTE 7



FIELD REPAIR TOP COPES

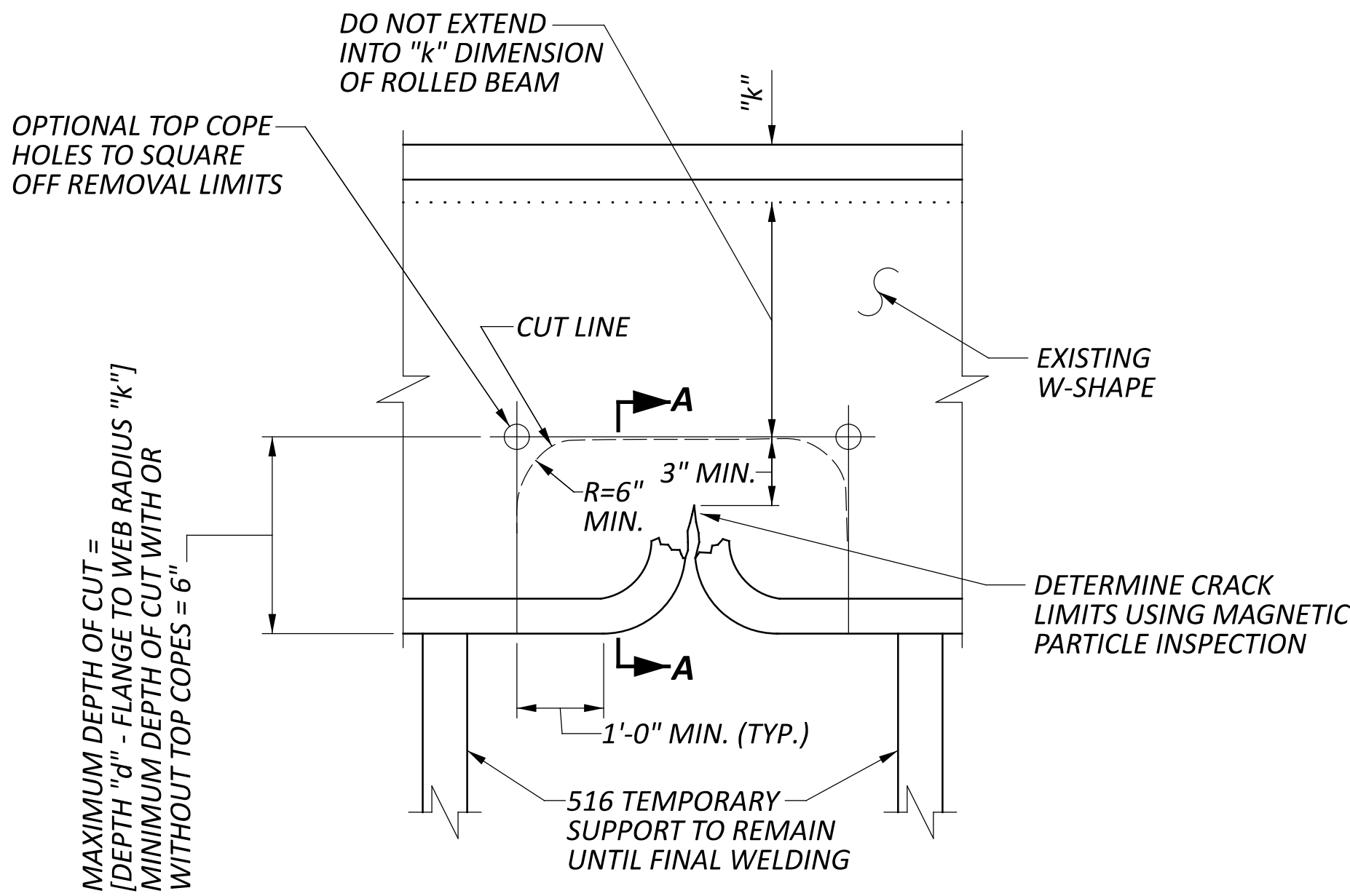
SEE NOTE 7



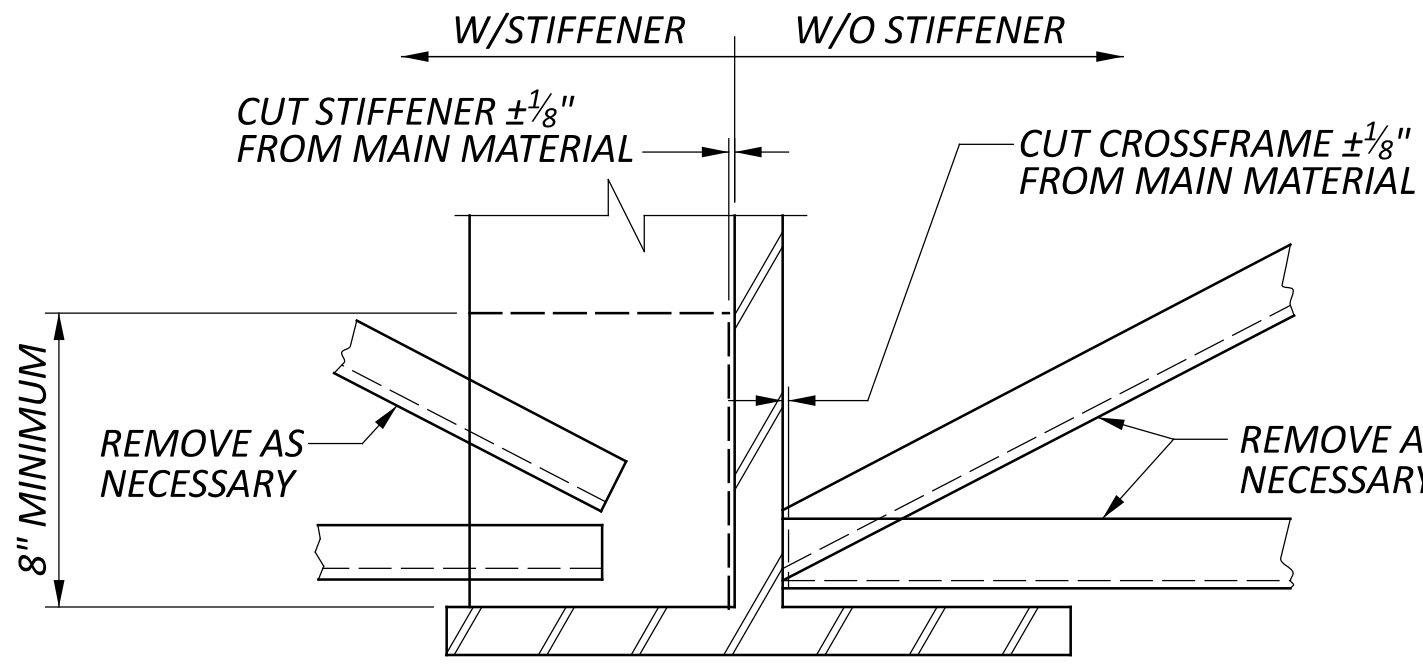
FIELD REPAIR STIFFENER WC2-6

SEE NOTE 4 THROUGH 9





PARTIAL BEAM REPLACEMENT BC1-1
SEE NOTE 1 THROUGH 3

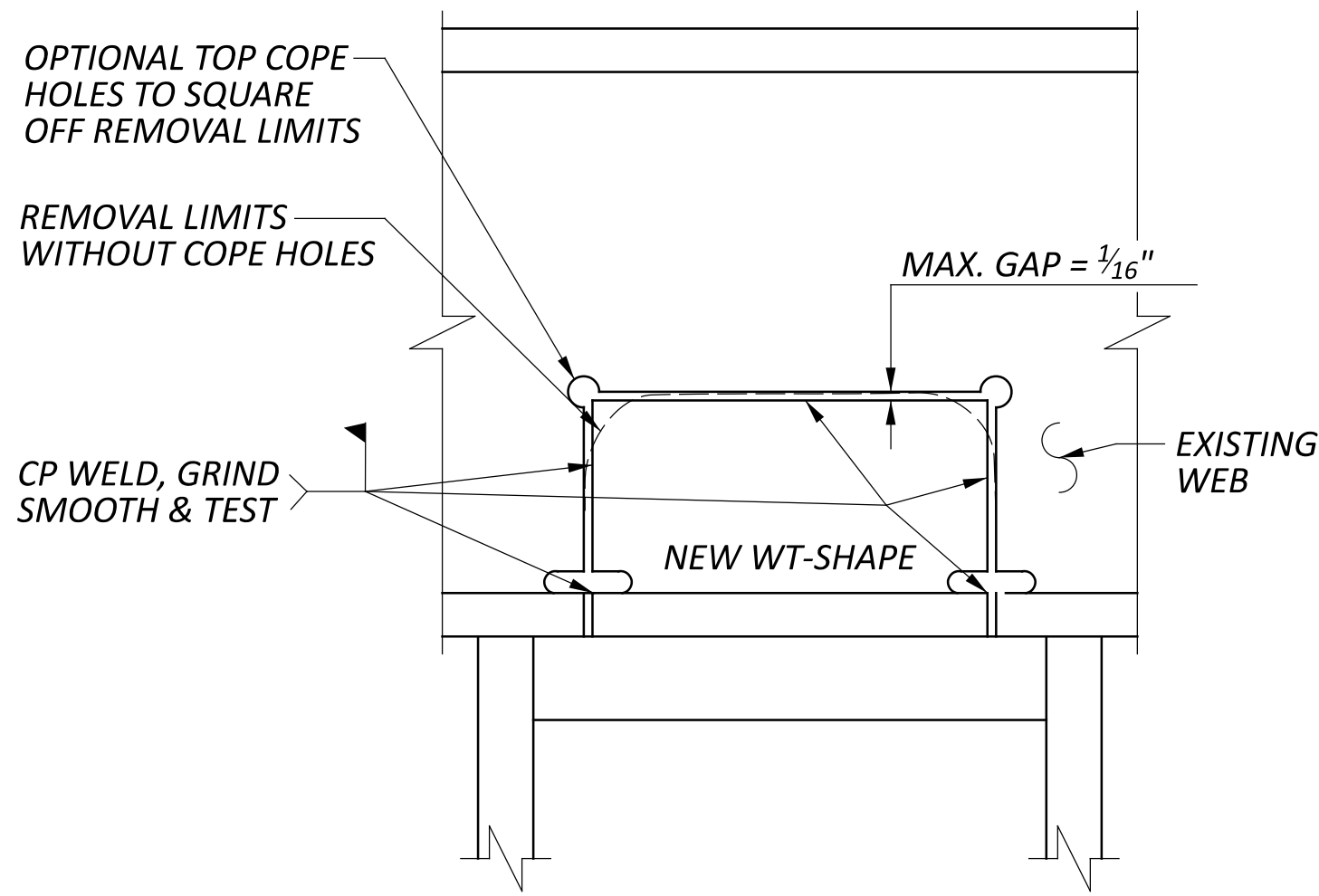


SECTION A-A
SEE NOTE 2

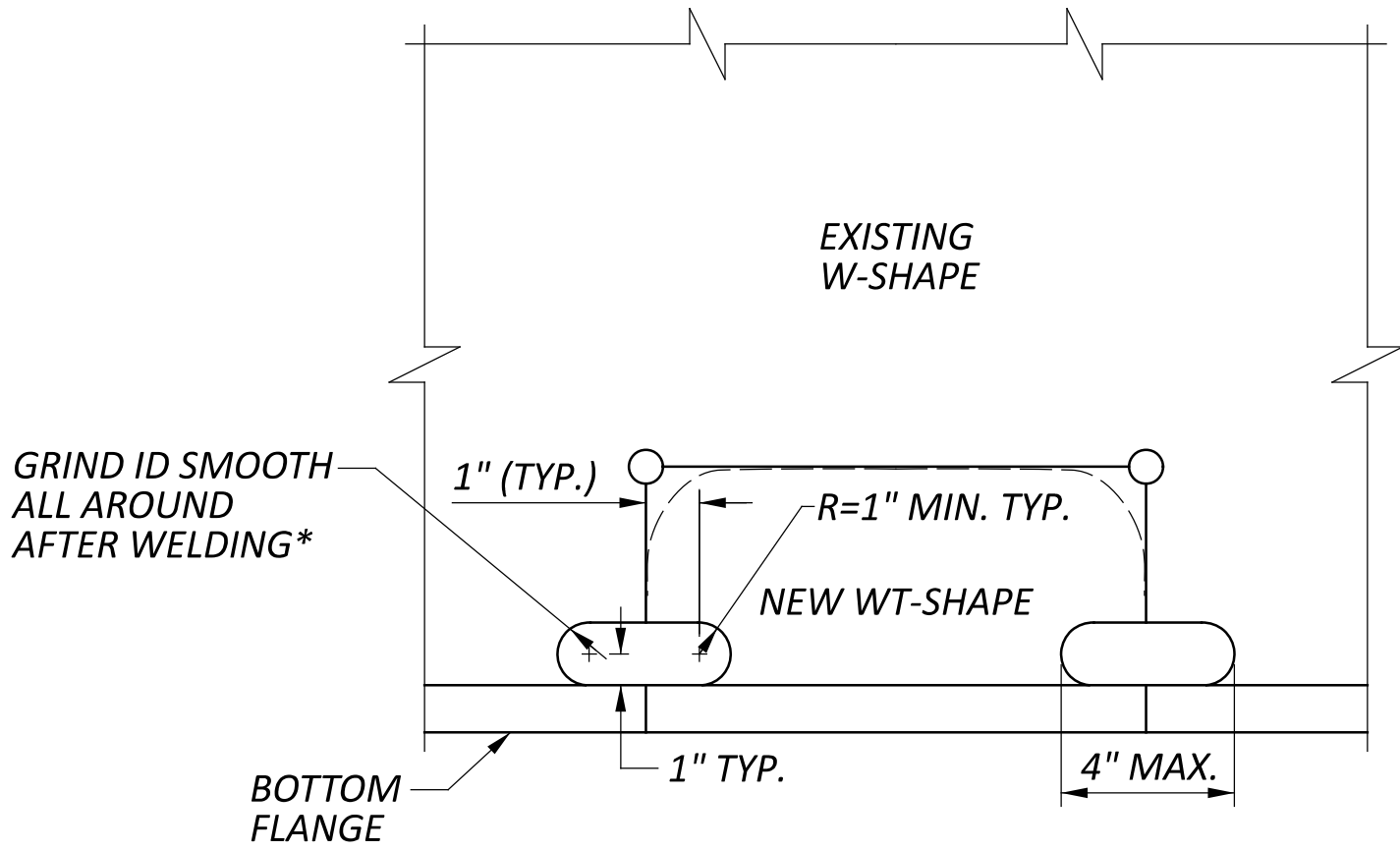
1. INSTALL TEMPORARY SUPPORT
2. REMOVE SECONDARY MEMBERS AS NECESSARY IF APPLICABLE
3. SAW OR FLAME CUT TO REMOVE DAMAGED BEAM USING A MECHANICAL GUIDE
4. PREPARE EXISTING BEAM FOR COMPLETE PENETRATION WELD BY EDGE BEVELING AND CREATING UNDERSIZED WEB COPES.
5. PREPARE NEW BEAM FOR COMPLETE PENETRATION WELD BY EDGE BEVELING AND CREATING UNDERSIZED WEB COPES.
6. ERECT NEW BEAM AND CHECK FIT UP, NO GAP EXCEEDING $\frac{1}{16}$ ", TACK WELD BEAM INTO PLACE
7. PERFORM THE COMPLETE PENETRATION FLANGE WELDING ACCORDING TO CMS 513.21 BY ATTACHING RUN OFF TABS, PERFORM WELDS, REMOVING TABS AND GRINDING ALL WELD SURFACES SMOOTH ACCORDING TO ANSI B46.1 OF 250 MIL. COMPLETE NDT TESTING ACCORDING TO C&MS 513.25A
8. PERFORM COMPLETE PENETRATION WEB WELDS ACCORDING TO 513.21 BY PERFORMING WELDS, GRINDING COPES AND ALL WELDS SMOOTH ACCORDING TO ANSI B46.1 OF 250 mil. COMPLETE NDT TESTING ACCORDING TO C&MS 513.25A.
9. REPAIR SECONDARY MEMBERS IF APPLICABLE

TABLE #3 ITEM 513 REPAIRS									
DAMAGED AREA No.	MEMBER LINE No. A	PIER OR ABUTMENT	DIM. C	REPAIR DETAIL TYPE	DRILLING HOLES (EACH)	COPE HOLES (EACH)	STEEL MEMBER LEVEL UF (POUNDS)	CP WELD (FEET)	FILLET WELD (FEET)
				BC1					

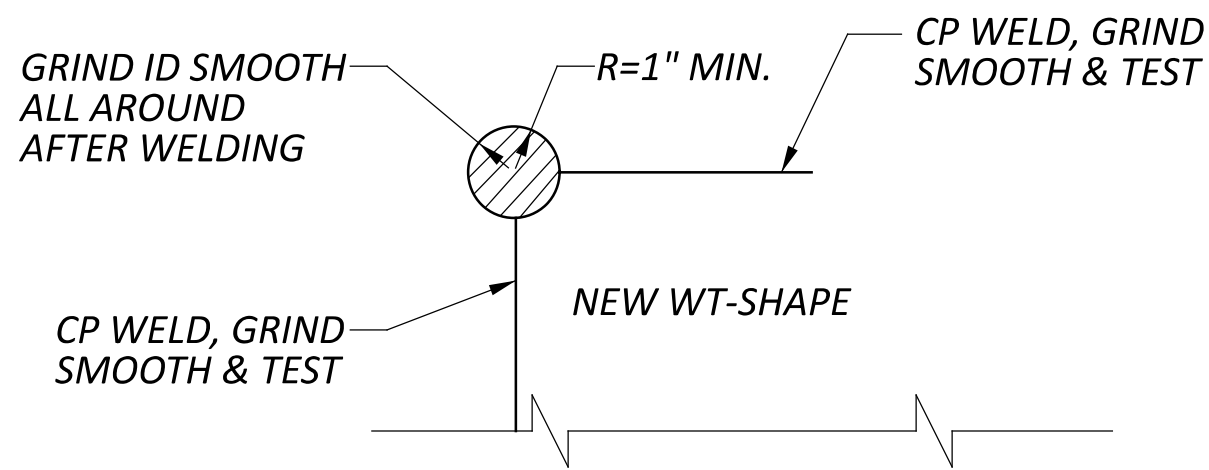
SEE PARTIAL FRAMING PLAN FOR DIMENSION C



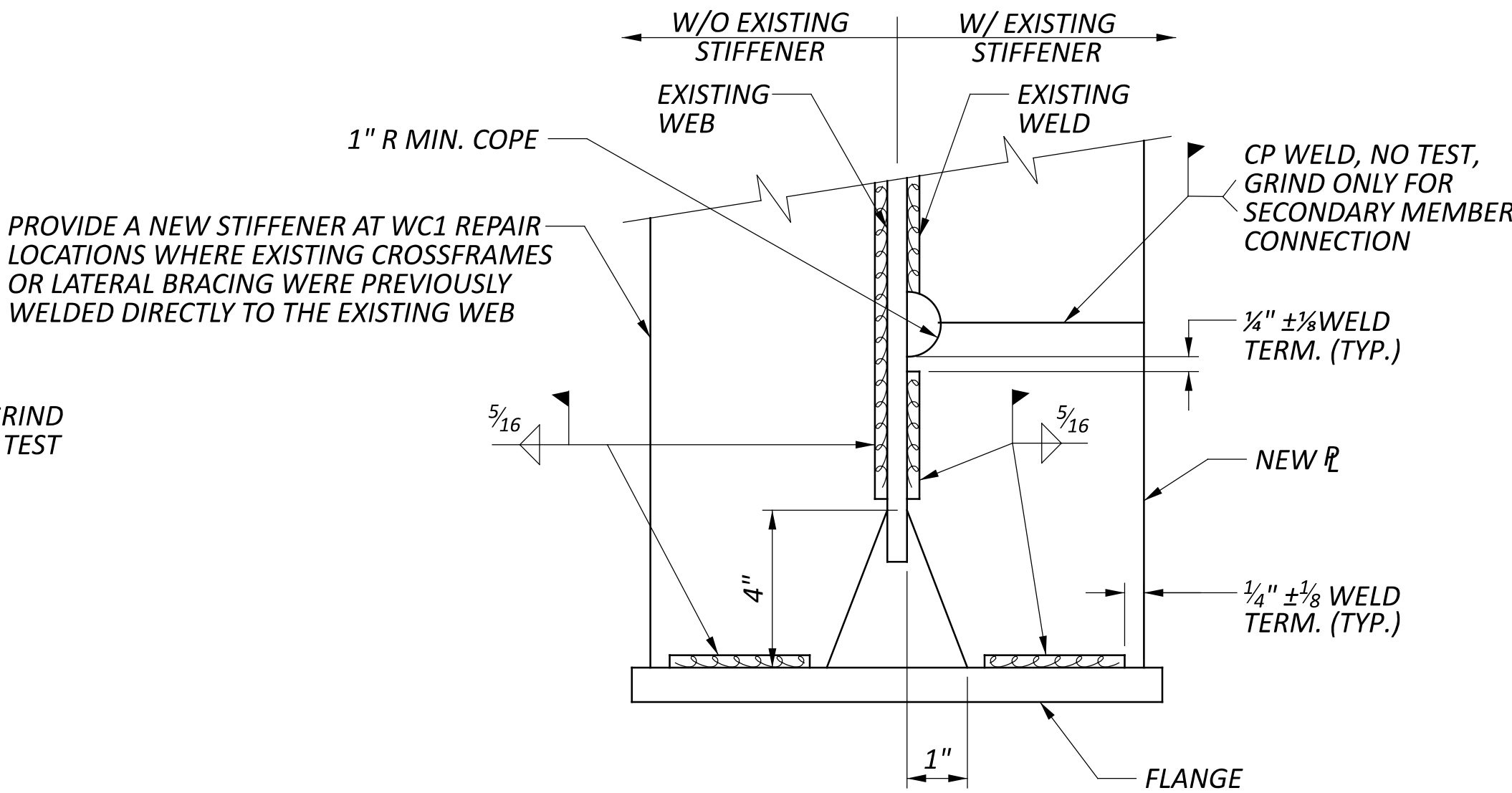
PARTIAL BEAM REPLACEMENT BC1-2
SEE NOTE 3 THROUGH 8



FIELD REPAIR BOTTOM COPE BC1-3
SEE NOTE 8

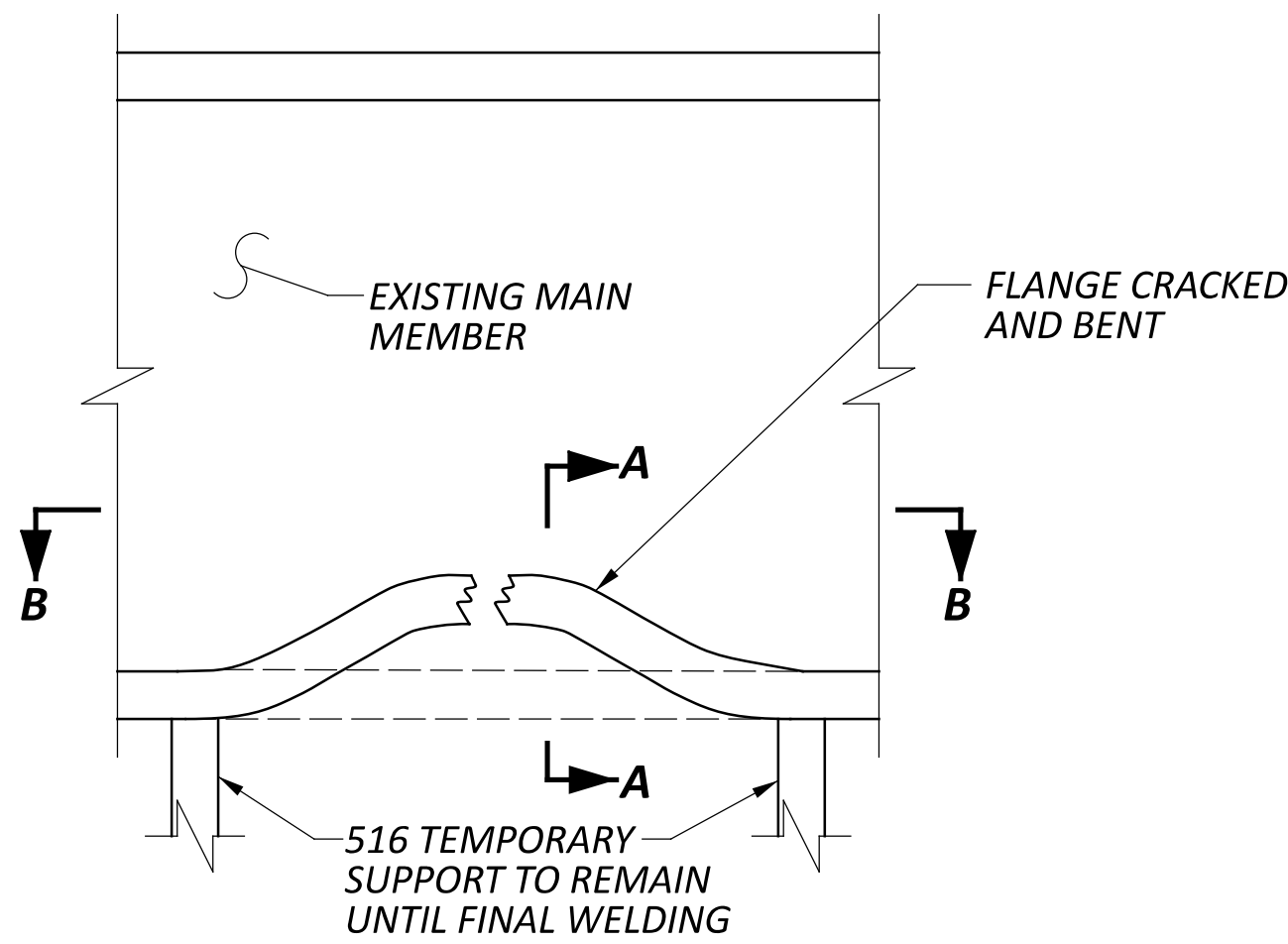


FIELD REPAIR TOP BC1-4
SEE NOTE 8

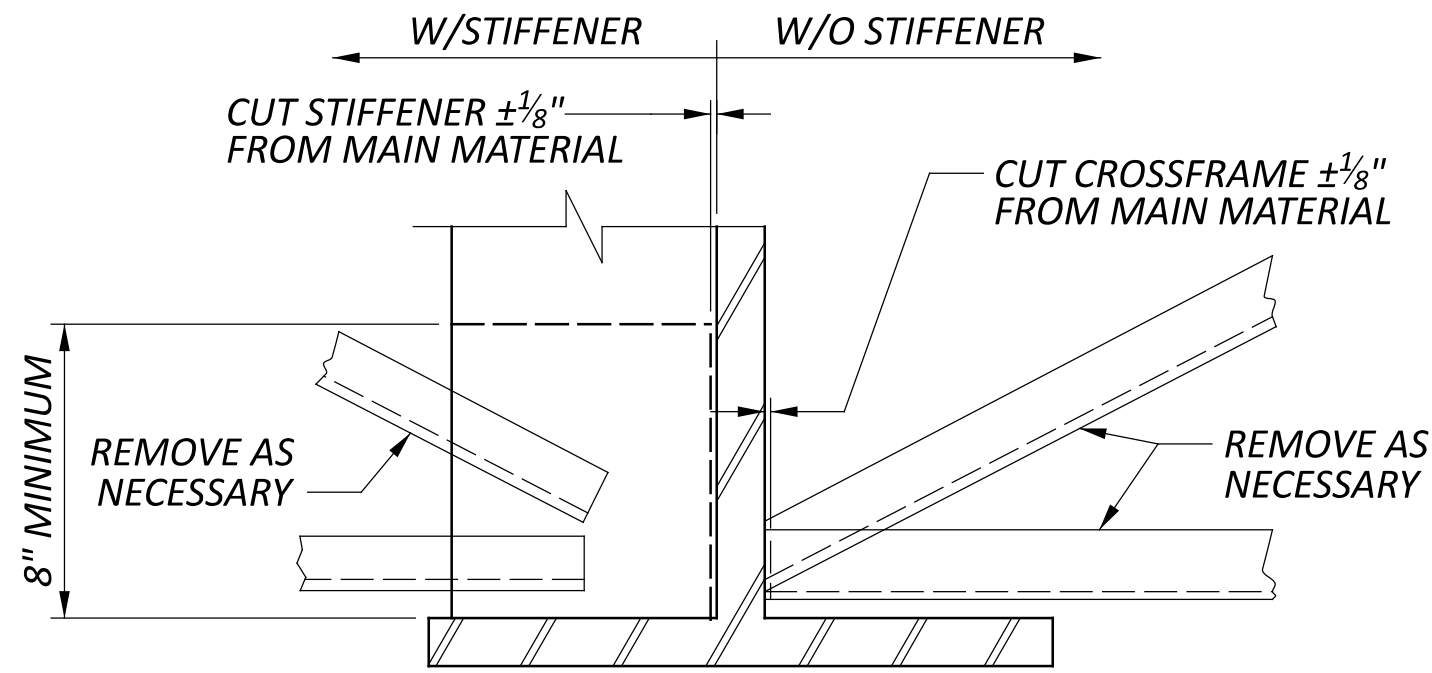


FIELD REPAIR STIFFNER BC1-5
SEE NOTE 8 & 9

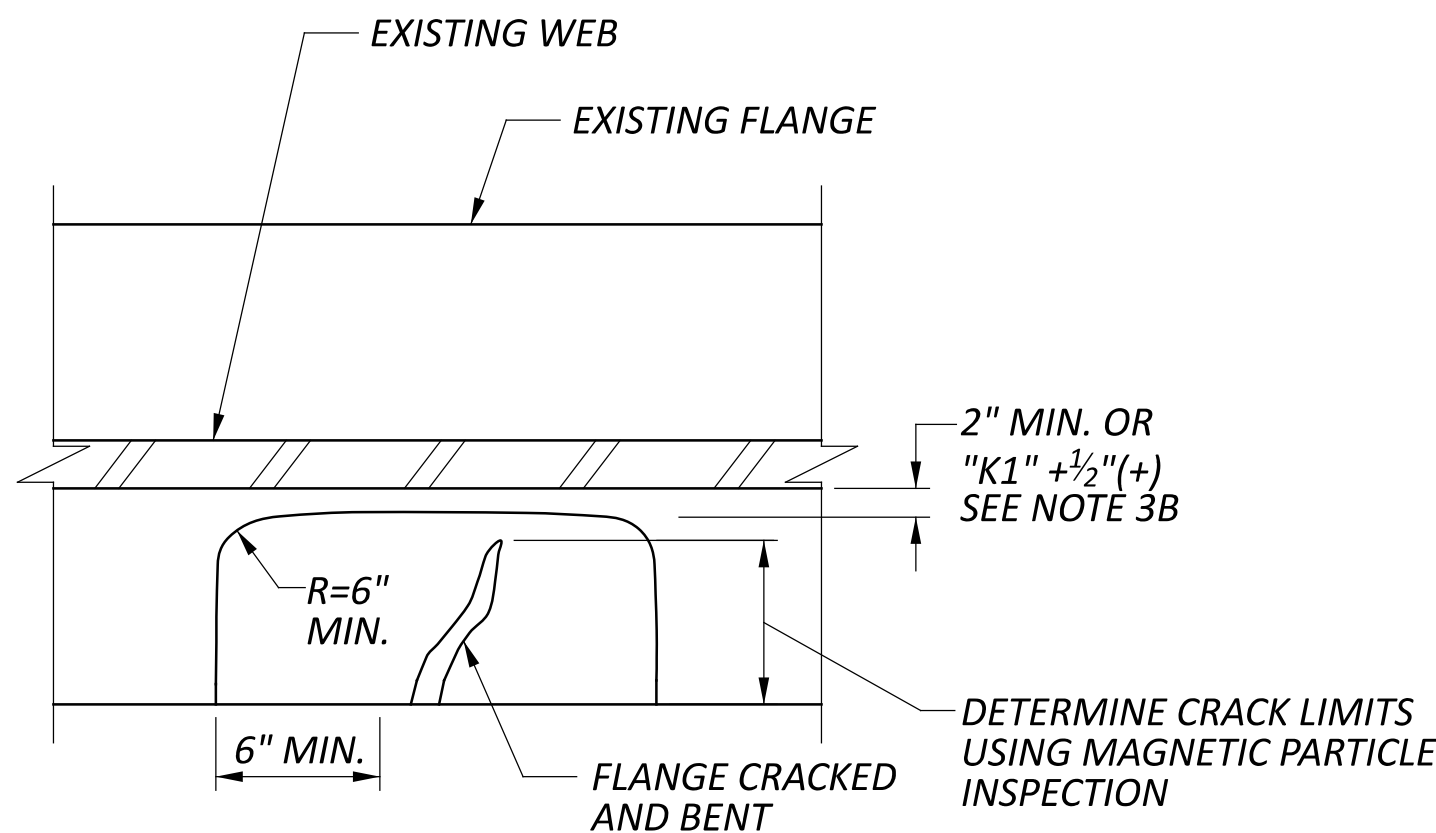




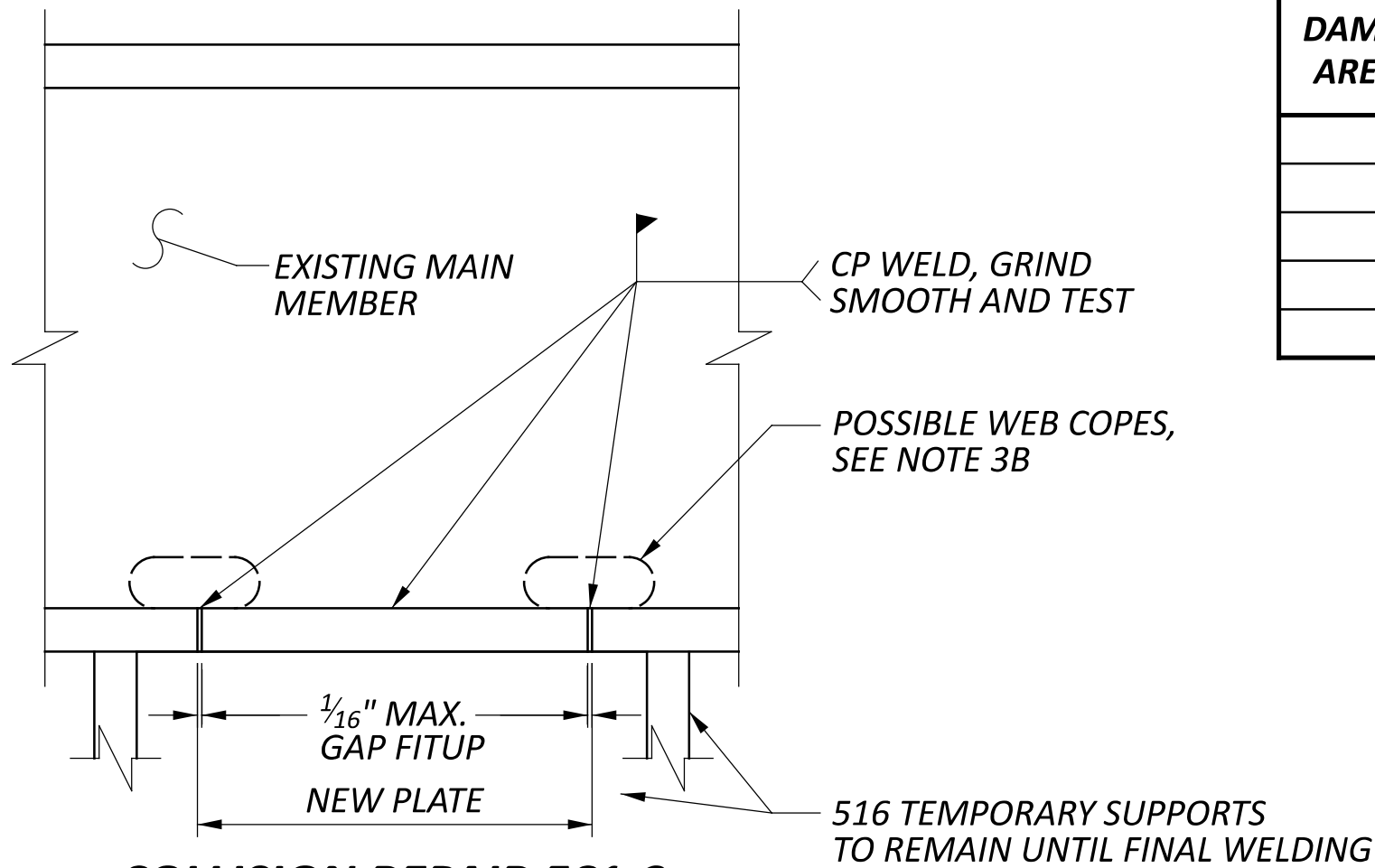
(CONDITION-FLANGE CRACK)
COLLISION REPAIR FC1-1
SEE NOTE 1



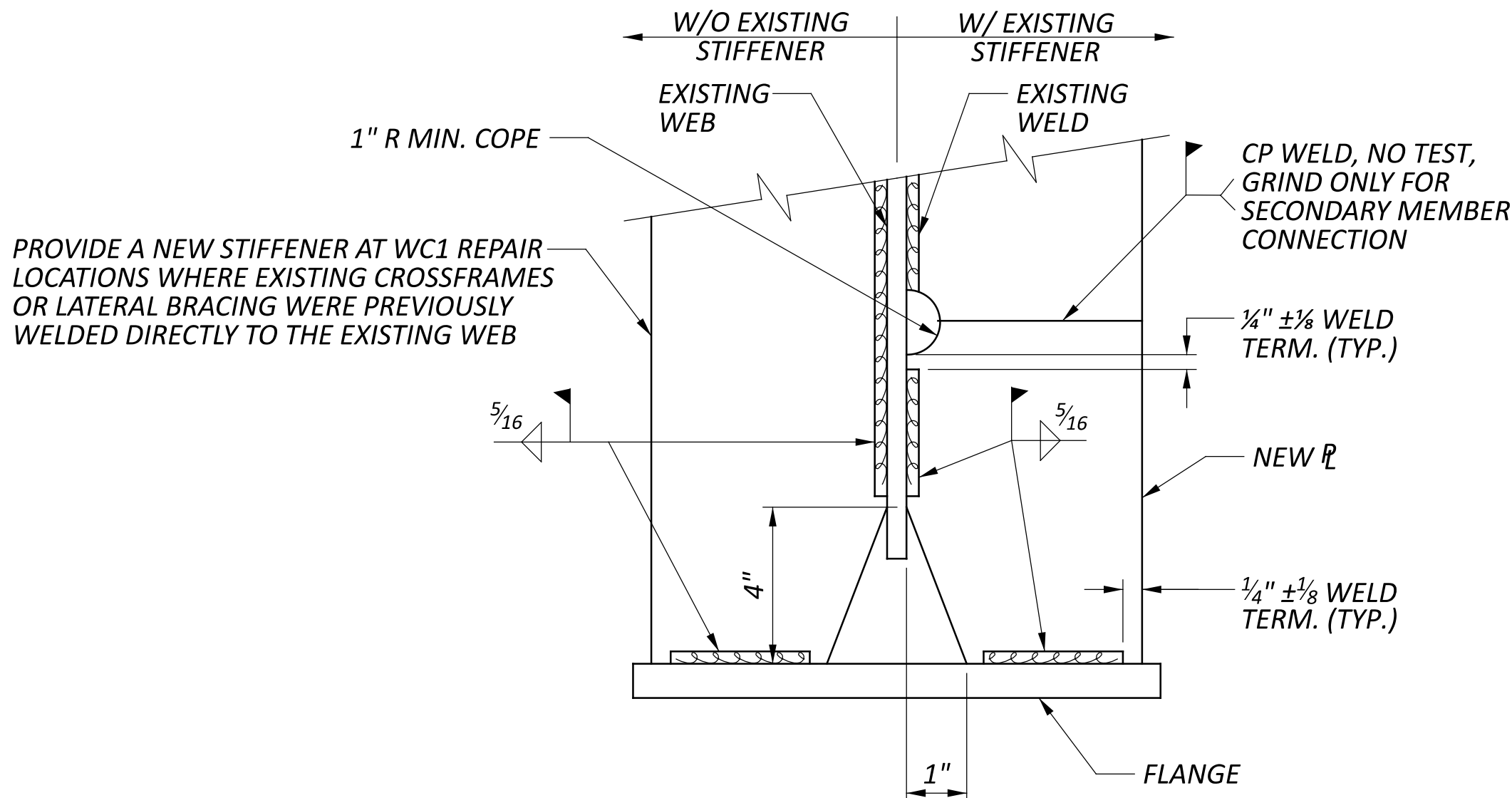
SECTION A-A
SEE NOTE 1



SECTION B-B
SEE NOTES 3 THROUGH 5



COLLISION REPAIR FC1-2
SEE NOTES 6, 7, AND 8



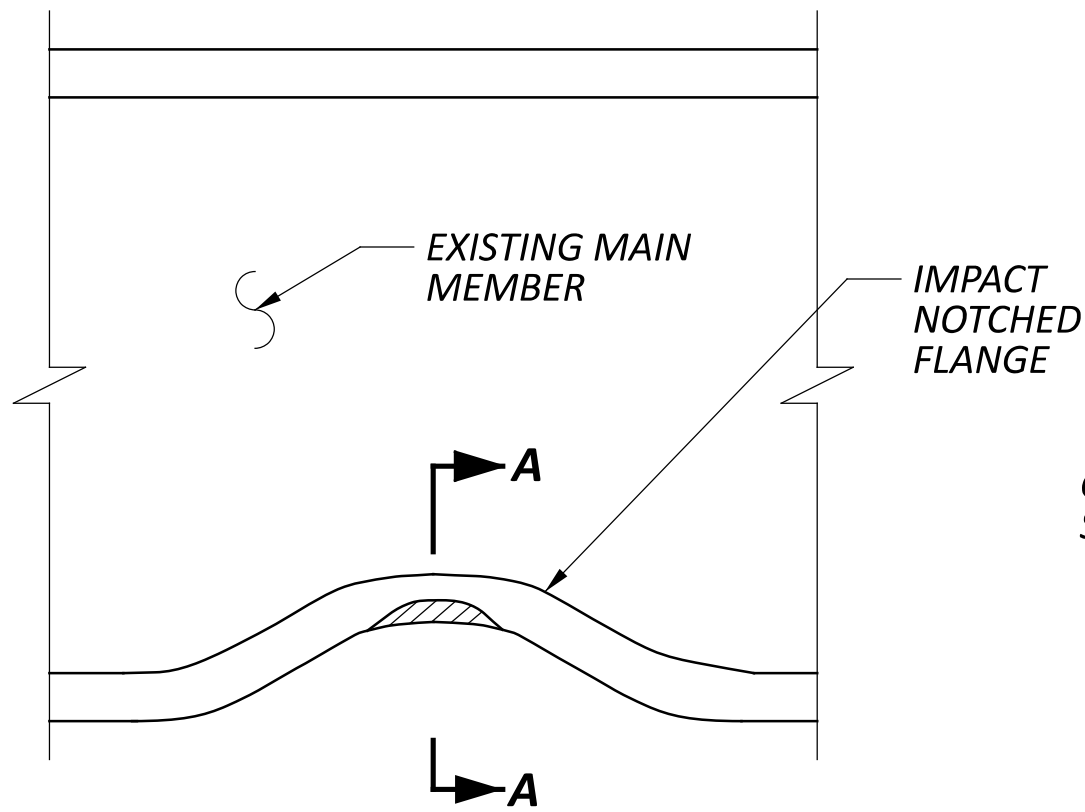
FIELD REPAIR STIFFENER FC1-3
SEE NOTE 6 THROUGH 9

1. INSTALL TEMPORARY SUPPORT
2. REMOVE SECONDARY MEMBERS AS NECESSARY IF APPLICABLE
- 3A. SAW OR FLAME CUT TO REMOVE DAMAGED FLANGE USING A MECHANICAL GUIDE
- 3B. IF THE CRACK EXTENDS BEYOND THE REMOVAL LIMITS SHOWN REMOVE THE ENTIRE WIDTH OF FLANGE. REMOVE THE WEB WELDS OR WEB MATERIAL AS REQUIRED TO DEVELOP A CONTINUOUS COMPLETE PENETRATION FLANGE WELD. SEE WEB COPE AND REMOVAL DETAILS ON COLLISION REPAIR PLAN INSERT SHEET WC1 OR BC1.
4. PREPARE EXISTING FLANGE FOR A COMPLETE PENETRATION WELD BY EDGE BEVELING.
5. PREPARE NEW FLANGE MATERIAL THAT MATCHES THE THICKNESS OF THE EXISTING PLATE BY EDGE BEVELING
6. ERECT NEW FLANGE AND CHECK FIT UP, NO GAP EXCEEDING 1/16", TACK WELD PLATE IN PLACE
7. PERFORM THE COMPLETE PENETRATION FLANGE WELDING ACCORDING TO C&MS 513.21 BY ATTACHING RUNOFF TABS, PERFORM WELDS, REMOVE THE TABS AND GRIND ALL WELDED SURFACES SMOOTH ACCORDING TO ANSI B46.1 OF 250 mil
8. PERFORM NDT TESTING ACCORDING TO C&MS 513.25A
9. REPAIR SECONDARY MEMBERS IF APPLICABLE

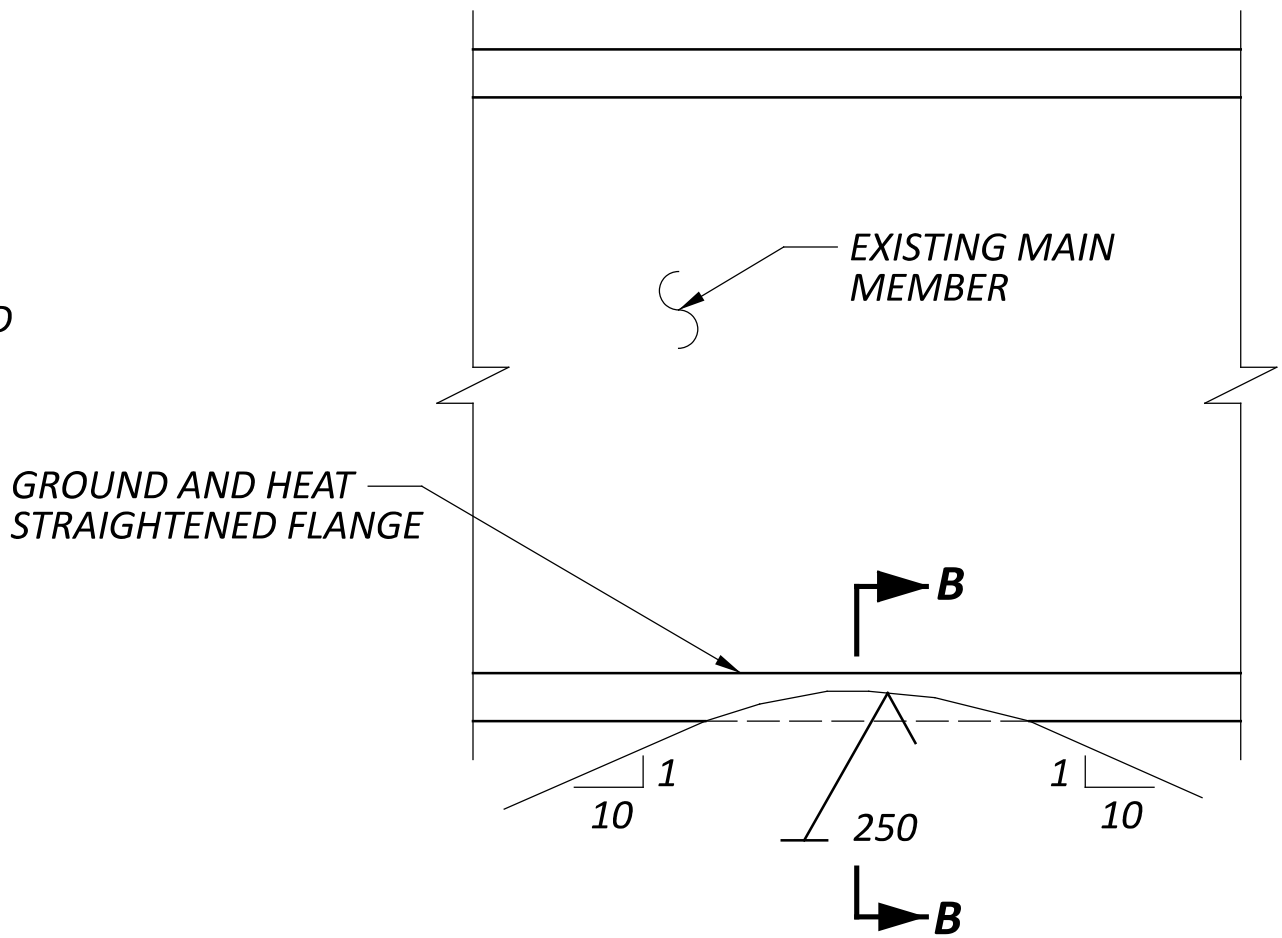
TABLE #3 ITEM 513 REPAIRS									
DAMAGED AREA No.	MEMBER LINE No. A	PIER OR ABUTMENT	DIM. C	REPAIR DETAIL TYPE	DRILLING HOLES (EACH)	COPE HOLES (EACH)	STEEL MEMBER LEVEL UP (POUNDS)	CP WELD (FEET)	FILLET WELD (FEET)
				FC1					

SEE PARTIAL FRAMING PLAN FOR DIMENSION C

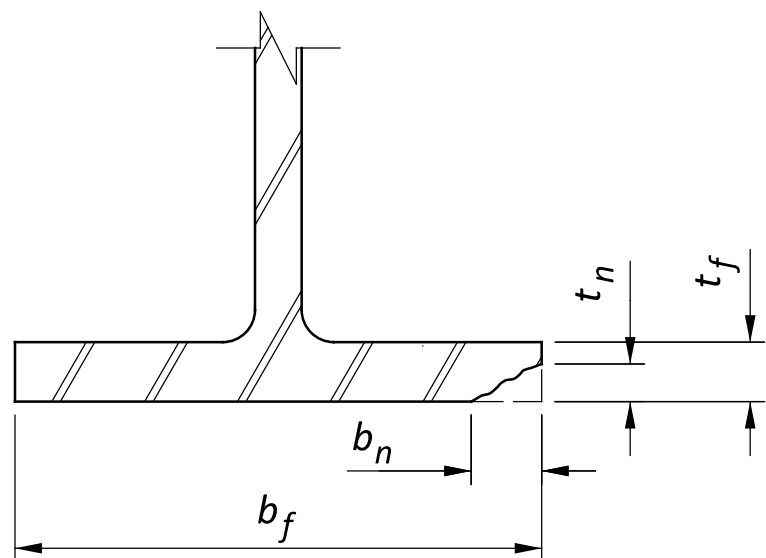




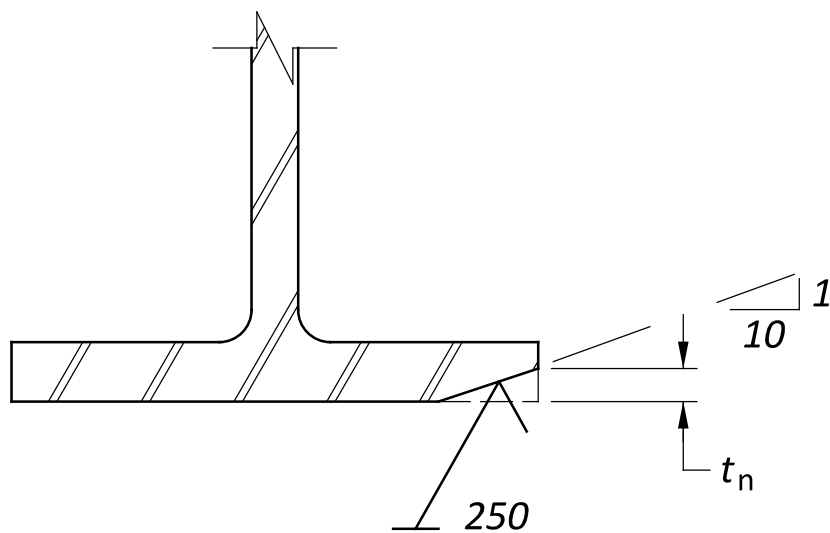
COLLISION REPAIR FC2-1
SEE NOTE 1



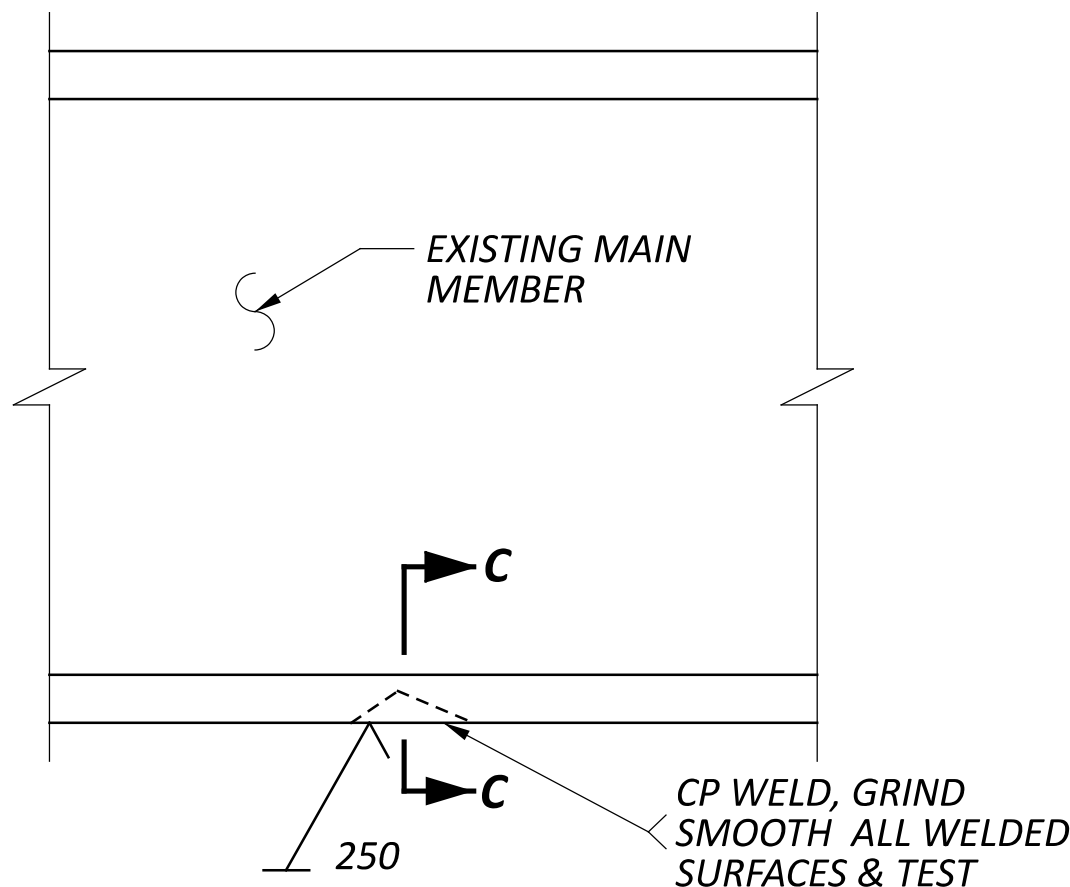
COLLISION REPAIR FC2-2
IF AREA (t_n , b_n) AFTER GRINDING $\leq 98\%$ OF AREA (t_f , b_f) NOTE #3 APPLIES



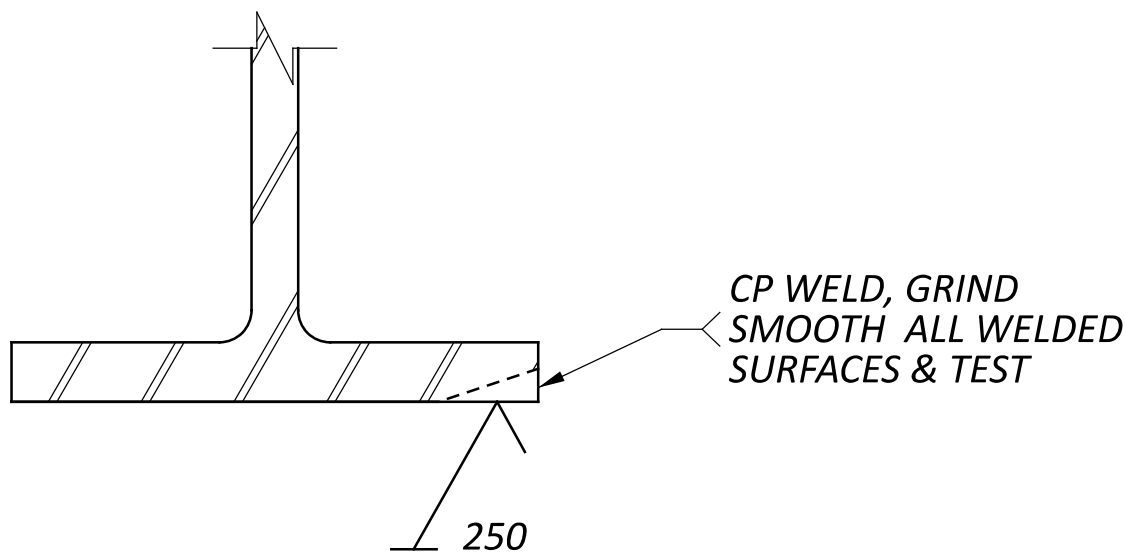
SECTION A-A
SEE NOTE 1 THROUGH 4
(FLANGE NOT SHOWN WITH BEND FOR CLARITY)



SECTION B-B
SEE NOTE 3



COLLISION REPAIR FC2-3
IF AREA (t_n , b_n) AFTER GRINDING $\geq 98\%$ OF AREA (t_f , b_f) NOTE 4 & 5 APPLIES



SECTION C-C
SEE NOTE 4 & 5

1. DETERMINE IF IMPACT NOTCH IS CRACKED USING MAGNETIC PARTICLE INSPECTION
2. IF CRACK DOES NOT EXTEND THROUGH THE FLANGE. DETERMINE DEPTH OF CRACK BY GRINDING
3. IF NOTCH OR PARTIAL DEPTH CRACK CAN BE REMOVED BY GRINDING ACCORDING TO SUPPLEMENTAL SPECIFICATION 849, REPAIR DAMAGED MEMBERS. PERFORM GRINDING ACCORDING TO SUPPLEMENTAL SPECIFICATION 849 AND AS ILLUSTRATED IN DETAIL FC2-2
4. IF NOTCH OR PARTIAL DEPTH CRACK MUST BE REPAIRED BY WELDING ACCORDING TO SUPPLEMENTAL SPECIFICATION 849 REPAIRING DAMAGED MEMBERS, AS ILLUSTRATED IN DETAIL FC2-3. PERFORM COMPLETE PENETRATION WELDING ACCORDING TO C&MS 513.21 BY ATTACHING RUN OFF TABS AND GRIND ALL WELDED SURFACES SMOOTH ACCORDING TO ANSI B46.1 OF 250 mil
5. PERFORM NDT TESTING ACCORDING TO C&MS 513.25A

TABLE #3 ITEM 513 REPAIRS									
DAMAGED AREA No.	MEMBER LINE No. A	PIER OR ABUTMENT	DIM. C	REPAIR DETAIL TYPE	DRILLING HOLES (EACH)	COPE HOLES (EACH)	STEEL MEMBER LEVEL UP (POUNDS)	CP WELD (FEET)	FILLET WELD (FEET)
				FC2					

SEE PARTIAL FRAMING PLAN FOR DIMENSION C



ITEM 614 - MAINTAINING TRAFFIC:
WORK WITH THE DISTRICT WORK ZONE MANAGER TO SELECT AND EDIT THE APPROPRIATE STANDARD NOTE PARAGRAPHS A THROUGH F AND INCLUDE THE SELECTED STANDARD DRAWING REFERENCES ON THE TITLE SHEET

- A. MAINTAIN TRAFFIC ON THE BRIDGE ACCORDING TO STANDARD DRAWING MT-95.30 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.
- B. MAINTAIN TRAFFIC ON THE BRIDGE ACCORDING TO STANDARD DRAWING MT-95.40 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.
- C. MAINTAIN TRAFFIC ON THE BRIDGE ACCORDING TO STANDARD DRAWING MT-97.10 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.
- D. MAINTAIN TRAFFIC UNDER THE BRIDGE ACCORDING TO STANDARD DRAWING MT-95.30 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.
- E. MAINTAIN TRAFFIC UNDER THE BRIDGE ACCORDING TO STANDARD DRAWING MT-95.40 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.
- F. MAINTAIN TRAFFIC UNDER THE BRIDGE ACCORDING TO STANDARD DRAWING MT-97.10 CLOSE THE RIGHT OR LEFT LANES AS NEEDED OR DIRECTED BY THE ENGINEER.

WORK WITH THE DISTRICT WORK ZONE MANAGER TO EDIT THE STANDARD LANE VALUE CONTRACT TABLE.

LANE VALUE CONTRACT TABLE			
DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
		EACH HOUR	
		EACH HOUR	

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE:
WORK WITH THE DISTRICT WORK ZONE MANAGER TO DETERMINE IF A LEO IS REQUIRED. MODIFY THE ESTIMATED QUANTITIES SHEET TO INCLUDE OR EXCLUDE THE LEO PAYMENT ITEM.

SPECIAL EVENTS HOLIDAY
WORK WITH THE DISTRICT WORK ZONE MANAGER TO IDENTIFY ANY SPECIAL EVENT OR HOLIDAY RESTRICTIONS. LIST THE DATES AND TIME ASSOCIATED WITH EACH EVENT.

STEEL RESTRAIN OR PRELOAD LIMITS:
WORK WITH THE DISTRICT BRIDGE ENGINEER TO IDENTIFY THE APPROPRIATE EXISTING STEEL GRADE AND LIMITING UNIT STRESS. WHICH IS EQUAL TO 50% OF THE STEEL MATERIALS YIELD STRENGTH (FY) IN POUNDS PER SQUARE INCH.

EXISTING ASTM ____ GRADE ____ DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING 50% OF THE YIELD STRENGTH OF ____ PSI

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (MAIN MEMBERS):
WORK WITH THE DISTRICT BRIDGE ENGINEER TO PERFORM AN ON THE GROUND INSPECTION TO DETERMINE IF EXISTING MAIN MATERIAL STEEL REPLACEMENT WILL BE REQUIRED. SEE THE VARIOUS POSSIBLE TABLE # 3, REPAIR DETAILS WC1, WC2, BC1 AND FC1 TO ESTIMATE A QUANTITY OF REMOVAL FOR EACH REPAIR TYPE. INCLUDE A SUMMATION OF ALL TABLE # 3 REMOVAL QUANTITIES ON THE ESTIMATED QUANTITY SHEET

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS):
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE IF EXISTING SECONDARY MATERIAL STEEL REPLACEMENT WILL BE REQUIRED. SEE THE VARIOUS POSSIBLE TABLE # 3, REPAIR DETAILS WC1, WC2, BC1, FC1 AND TABLE # 2 HEAT STRAIGHTENING PLAN TO ESTIMATE A QUANTITY OF REMOVAL FOR EACH REPAIR TYPE. INCLUDE A SUMMATION OF ALL TABLE # 2 AND # 3 REMOVAL QUANTITIES ON THE ESTIMATED QUANTITY SHEET.

ITEM 512 - CONCRETE REPAIR BY EPOXY INJECTION:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE IF EPOXY INJECTION WILL BE REQUIRED TO FILL THE GAP BETWEEN THE MAIN STEEL MEMBERS AND THE CONCRETE DECK. INCLUDE THIS PAYMENT ITEM IF EPOXY INJECTION IS NECESSARY. ESTIMATE A QUANTITY AT EACH DAMAGED AREA. PROVIDE DATA FOR TABLE 4 PLUS ANY NECESSARY ADDITIONAL DETAILS. INCLUDE A SUMMATION OF ALL QUANTITIES ON THE ESTIMATED QUANTITY SHEET.

ITEM 513 - STRUCTURAL STEEL MEMBERS LEVEL UF, AS PER PLAN:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE IF EXISTING STEEL MATERIAL REPLACEMENT WILL BE REQUIRED. SEE THE VARIOUS POSSIBLE TABLE # 3, REPAIR DETAILS WC1, WC2, BC1, FC1 AND TABLE # 2 HEAT STRAIGHTENING PLAN TO ESTIMATE A QUANTITY OF REPLACEMENT MATERIALS FOR EACH REPAIR TYPE. INCLUDE A SUMMATION OF ALL TABLE # 2 AND # 3 REPLACEMENT QUANTITIES ON THE ESTIMATED QUANTITY SHEET.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS DRILLING:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE IF DRILLED HOLES WILL BE REQUIRED TO ARREST CRACK GROWTH. SEE THE VARIOUS POSSIBLE TABLE # 3 REPAIR DETAILS WC1, WC2, BC1 AND FC1 TO ESTIMATE A QUANTITY OF DRILLED HOLES FOR EACH REPAIR TYPE. INCLUDE A SUMMATION OF ALL TABLE # 3 DRILLED HOLES ON THE ESTIMATED QUANTITY SHEET.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE IF COPED HOLES WILL BE REQUIRED FOR WELD REPAIR. SEE THE VARIOUS POSSIBLE TABLE # 3 REPAIR DETAILS WC1, WC2, BC1 AND FC1 TO ESTIMATE A QUANTITY OF COPED HOLES FOR EACH REPAIR TYPE. INCLUDE A SUMMATION OF ALL TABLE # 3 COPED HOLES ON THE ESTIMATED QUANTITY SHEET.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MAIN MEMBERS, COMPLETE PENETRATION WELDING:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE IF COMPLETE PENETRATION WELD REPAIRS WILL BE REQUIRED. SEE THE VARIOUS POSSIBLE TABLE # 3 REPAIR DETAILS WC1, WC2, BC1, FC1 AND FC2 TO ESTIMATE A QUANTITY OF COMPLETE PENETRATION WELDING FOR EACH REPAIR TYPE. INCLUDE THE COMPLETE PENETRATION WELDS NECESSARY TO REPAIR STIFFENER OR GUSSET PLATE MATERIALS THAT ARE DIRECTLY ATTACHED TO MAIN MATERIAL FLANGES AND WEBS AS PART OF THIS QUANTITY. INCLUDE A SUMMATION OF ALL TABLE # 3 COMPLETE PENETRATION WELDING ON THE ESTIMATED QUANTITY SHEET.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED SECONDARY MEMBERS: FILLET WELDING:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE IF FILLET WELD REPAIRS WILL BE REQUIRED. SEE THE VARIOUS POSSIBLE TABLE # 3 REPAIR DETAILS WC1, WC2, BC1, FC1, FC2 AND TABLE # 2 HEAT STRAIGHTENING PLAN TO ESTIMATE A QUANTITY OF FILLET WELDS FOR EACH REPAIR TYPE. IDENTIFY ALL FILLET WELDS NECESSARY TO ATTACH NEW MAIN OR SECONDARY MEMBERS DIRECTLY IDENTIFIED IN THE REPAIR DETAILS OR NEEDED TO REPAIR MEMBERS REMOVED TO CREATE ACCESS FOR THE MAIN MEMBER REPAIRS. INCLUDE A SUMMATION OF ALL TABLE # 2 AND # 3 FILLET WELDING ON THE ESTIMATED QUANTITY SHEET.

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (ONE COAT), (TWO COAT), OR (THREE COAT) PAINT SYSTEM REPAIRS:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE THE TYPE AND, AGE OR CONDITION OF THE EXISTING PAINT SYSTEM. THREE SEPARATE PAINT SYSTEMS ARE INCLUDED AS PLAN INSERT NOTES TO MATCH POSSIBLE PAINT TYPE, REMAINING LIFE OR EXISTING CONDITION COMBINATIONS. SELECT THE MOST APPROPRIATE PAINT SYSTEM AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. SEE THE VARIOUS POSSIBLE: TABLE # 2 HEAT STRAIGHTENING PLAN; TABLE # 3 REPAIR DETAILS WC1, WC2, BC1, FC1, FC2; AND THE HEAT STRAIGHTENING WORK TO ESTIMATE A QUANTITY OF FIELD PAINTING NECESSARY FOR EACH REPAIR. INCLUDE A SUMMATION OF ALL SURFACE AREA NECESSARY FOR PAINT REPAIRS FROM TABLES # 2, # 3 AND THE HEAT STRAIGHTENING PLAN ON THE ESTIMATED QUANTITY SHEET.

THE THREE FIELD PAINTING NOTE TITLES AND DESCRIPTIONS ARE LISTED BELOW:

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (ONE COAT):

1.0 DESCRIPTION. THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH AN UNKNOWN EXISTING PAINT TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSISTS OF PERFORMING SURFACE PREPARATION AND APPLYING A PRIMER TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF UNKNOWN EXISTING PAINT SYSTEMS.

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (TWO COAT):

1.0 DESCRIPTION. THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH AN OLDER 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 TWO-COAT PAINT SYSTEM TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF EXISTING OZEU OR IZEU PAINT SYSTEMS OR UNPAINTED WEATHERING STEEL.

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

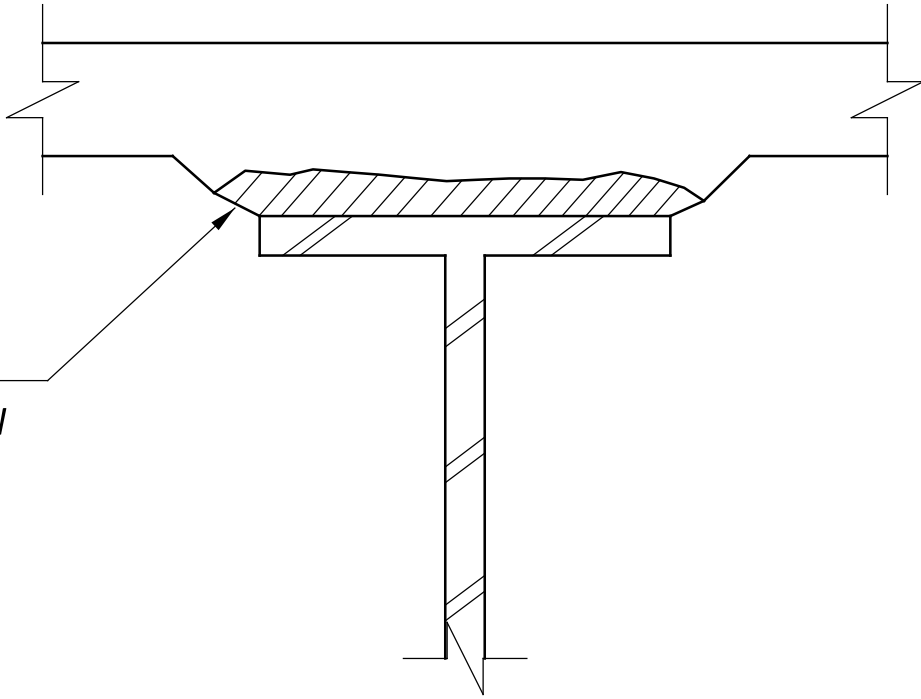
1.0 DESCRIPTION. THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH AN NEWER EXISTING OZEU OR IZEU PAINT SYSTEM OR UNPAINTED WEATHERING STEEL TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSIST OF PERFORMING SURFACE PREPARATION AND APPLYING A THREE-COAT PAINT SYSTEM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

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. INCLUDE THIS PAYMENT ITEM IF RESETTING OF BEARINGS IS NECESSARY. PROVIDE TABLE # 5 IDENTIFYING WHICH BEARINGS ARE TO BE RESET.

ITEM 519 - PATCHING CONCRETE STRUCTURES:
PERFORM A FIELD INSPECTION AS DIRECTED BY THE DISTRICT BRIDGE ENGINEER. DETERMINE IF CONCRETE PATCHING WILL BE REQUIRED. INCLUDE THIS PAYMENT ITEM IF CONCRETE PATCHING IS NECESSARY. ESTIMATE A QUANTITY FOR EACH DAMAGED AREA. PROVIDE A TABLE # 6 AND ANY NECESSARY DETAILS IN THE PLAN. INCLUDE A SUMMATION OF ALL QUANTITIES ON THE ESTIMATED QUANTITY SHEET.



REPAIR GAP BETWEEN STEEL MEMBERS
AND CONCRETE USING EPOXY INJECTION
ACCORDING TO C&MS 512 AFTER ALL
REPAIR OR STRAIGHTENING WORK HAS
BEEN COMPLETED



EPOXY INJECTION

TABLE 4 DAMAGED MEMBERS TO BE EPOXY INJECTED

DAMAGED AREA	MEMBER LINE	PIER OR ABUTMENT	C	LINEAR FEET

SEE PLAN FOR DIMENSION C

TABLE 5 DAMAGED MEMBER, BEARINGS TO BE RESET

DAMAGED AREA	MEMBER LINE	PIER OR ABUTMENT	BEARING TYPE	QUANTITY

SEE PARTIAL FRAMING PLAN FOR DETAILS.
INCLUDE THESE REPAIRS IN ITEM 516, JACKING & TEMPORARY SUPPORT OF SUPERSTRUCTURE,
AS PER PLAN FOR PAYMENT.

TABLE 6 DAMAGED MEMBER, CONCRETE PATCHING

DAMAGED AREA	MEMBER LINE	PIER OR ABUTMENT	C	SQUARE FEET

SEE PARTIAL FRAMING PLAN FOR DETAILS.
INCLUDE THESE REPAIRS IN ITEM 519, PATCHING CONCRETE STRUCTURE FOR PAYMENT.

