

ITEM 202, PORTIONS OF STRUCTURE REMOVED,
OVER 20 FOOT SPAN, AS PER PLAN

DESCRIPTION:

THIS WORK CONSISTS OF THE REMOVAL OF THE REINFORCED CONCRETE DECK, SCUPPERS, EXPANSION JOINTS, RAILING, END FRAME ASSEMBLIES, BEARING ASSEMBLIES, ABUTMENTS (LESS PILING), AND ANY OTHER ELEMENTS INDICATED IN THE PLAN THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. IT ALSO INCLUDES DRILLING 2" DIAMETER HOLES IN THE EXISTING BEAM WEBS FOR NO. 8 BARS (ABUTMENT DIAPHRAGM REINFORCING). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING REMOVAL TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS:

BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF THE DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER, TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS:

THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL BEAMS, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G. FINISHING MACHINE, FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS:

REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

ITEM 202, PORTIONS OF STRUCTURE REMOVED,
OVER 20 FOOT SPAN, AS PER PLAN...(CONTINUED)

SUBSTRUCTURE CONCRETE REMOVAL:

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. CAREFULLY REMOVE FOOTING CONCRETE TO PRESERVE THE EXISTING PILING FOR REUSE IN THE REBUILT STRUCTURE. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH STEEL PILING THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT AND PAYMENT:

THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

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

THIS ITEM CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLAN.

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 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.

ITEM 507, STEEL PILES, MISC.: PORTIONS OF
PILES REMOVED

UPON REMOVAL OF THE EXISTING FOOTING AND REQUIRED EXCAVATION TO PLACE THE NEW FOOTING, THE CONTRACTOR SHALL CUT AND REMOVE THE PORTION OF THE EXISTING I2BP53 PILE ONE FOOT ABOVE THE PROPOSED BOTTOM OF FOOTING AS SHOWN IN THE PLANS ON SHEETS 4/28 AND 5/28.

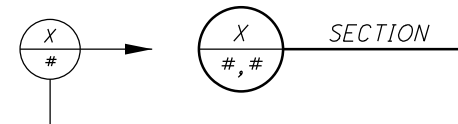
THE DEPARTMENT WILL MEASURE THIS WORK FOR EACH PILE LOCATION.

ABBREVIATIONS

THE FOLLOWING STANDARD ABBREVIATIONS ARE USED THROUGHOUT THE STRUCTURE PLAN SHEETS:

- ABUT. - ABUTMENT
- BRG. - BEARING
- c/c - CENTER TO CENTER
- C.I.P. - CAST-IN-PLACE
- C.J. - CONSTRUCTION JOINT
- CL. OR CLR. - CLEARANCE
- C.M.P. - CORRUGATED METAL PIPE
- COMP. - COMPRESSION
- CONST. - CONSTRUCTION
- DIA. OR ϕ - DIAMETER
- E.F. - EACH FACE
- EL. OR ELEV. - ELEVATION
- EQ. - EQUAL
- EX. - EXISTING
- EXP. - EXPANSION
- F.A. - FORWARD ABUTMENT
- F.F. - FAR FACE
- f/f - FACE TO FACE
- F.P. - FORWARD PIER
- FTG. - FOOTING
- FWD. - FORWARD
- FWS - FUTURE WEARING SURFACE
- HMWM - HIGH MOLECULAR WEIGHT METHACRYLATE
- JT. - JOINT
- N.F. - NEAR FACE
- NO. - NUMBER
- N.P.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
- O.C.J. - OPTIONAL CONSTRUCTION JOINT
- O.D. - OUTSIDE DIAMETER
- OHWM - ORDINARY HIGH WATER MARK
- o/o - OUT TO OUT
- P.C.P.P. - PERFORATED CORRUGATED PLASTIC PIPE
- P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
- PR. - PROPOSED
- P.V.C. - POLYVINYL CHLORIDE
- R - RADIUS
- R.A. - REAR ABUTMENT
- REF. - REFERENCE
- R.P. - REAR PIER
- SPA. - SPACE(D) OR SPACING
- STA. - STATION
- STD. DWG. OR SCD - STANDARD CONSTRUCTION DRAWING
- TEN. - TENSION
- T.O.S. - TOP OF SLOPE
- TYP. - TYPICAL

THE SYMBOLS BELOW DESIGNATE THE NAMES AND LOCATIONS OF THE SECTION DETAILS THROUGHOUT THE STRUCTURE PLANS. THE TOP LETTER DESIGNATES THE SECTION NAME. THE BOTTOM NUMBER(S) SHOW WHICH STRUCTURE SHEET NUMBER IS BEING CROSS REFERENCED.



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

IN ADDITION TO THE REQUIREMENTS ON SHEETS 17/28 AND 18/28, THE MEMBERS INCLUDED IN THIS ITEM ARE THE BOTTOM MOMENT PLATE REPAIR PLATES AND NEW CROSS FRAME MEMBERS.

PRIOR TO FABRICATION OF THE CROSS FRAME MEMBERS, THE CONTRACTOR SHALL:

1. FIELD LOCATE AND MARK THE LOCATIONS OF THE CROSS FRAMES ON THE EXISTING BEAMS.
2. MEASURE THE BEAM SPACING AT EACH OF THESE LOCATIONS TO ENSURE PROPER FABRICATION.

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 PREQUALIFIED 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 SS1002, TO THE STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE OF MATERIALS MANAGEMENT FOR RECORD PURPOSES.

ALL PLATES AND ANGLES SHALL BE DELIVERED TO THE PROJECT SITE SHOP PRIMED.

THE FOLLOWING QUANTITY HAS BEEN ESTIMATED FOR THE REPLACEMENT OF CROSS FRAMES:

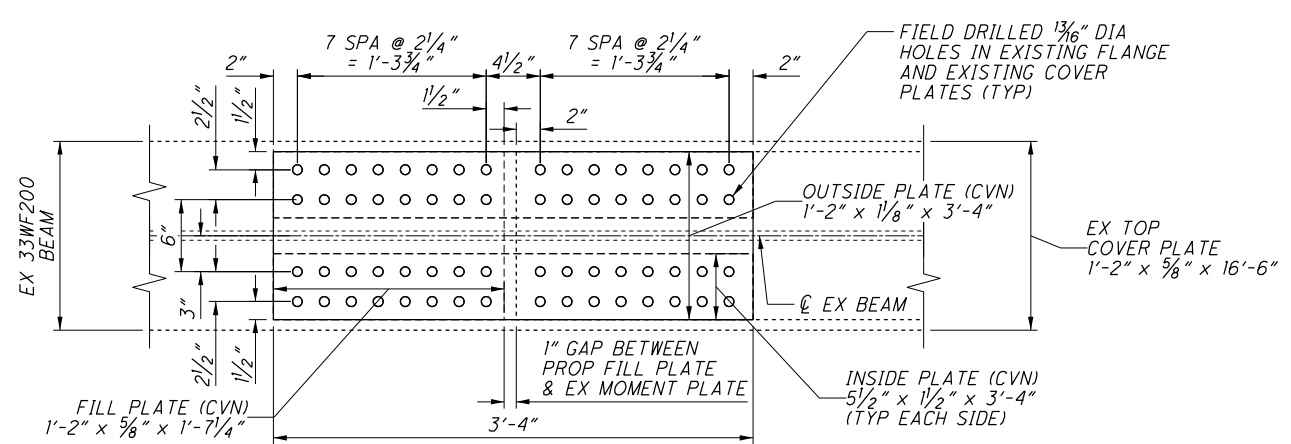
13 LOCATIONS X 23 FT. X 6.10 LBS/FT = 1824 LBS

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.

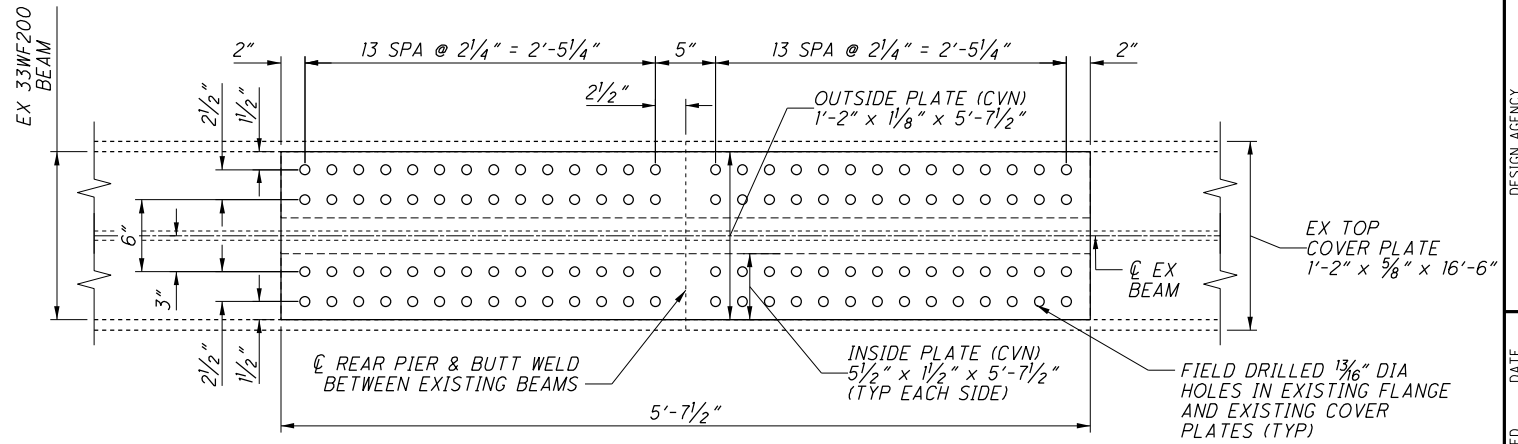
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STRUCTURE NOTES	DESIGN AGENCY ODOT DISTRICT 11 ENGINEERING	DATE 1/19/22	REVIEWED RPT 1/19/22	STRUCTURE FILE NUMBER 1000969
BRIDGE NO. CAR-00043-23-470 OVER BIG SANDY CREEK	DRAIN MVC REVISED -	DESIGNED MVC CHECKED DUL		
CAR - 43 - 23 - 12 PID No. 106764				
3 / 28				
31 56				

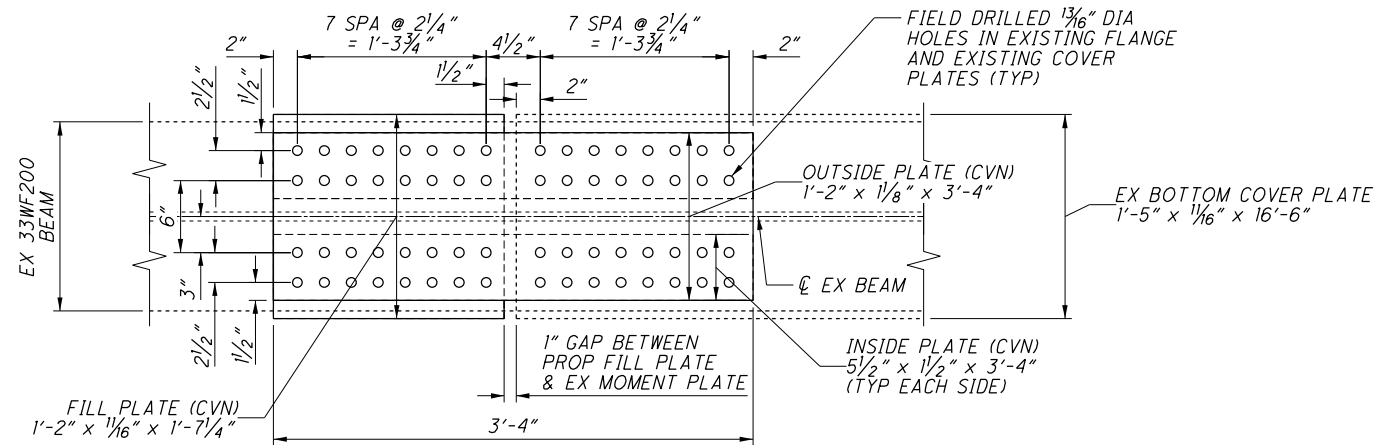
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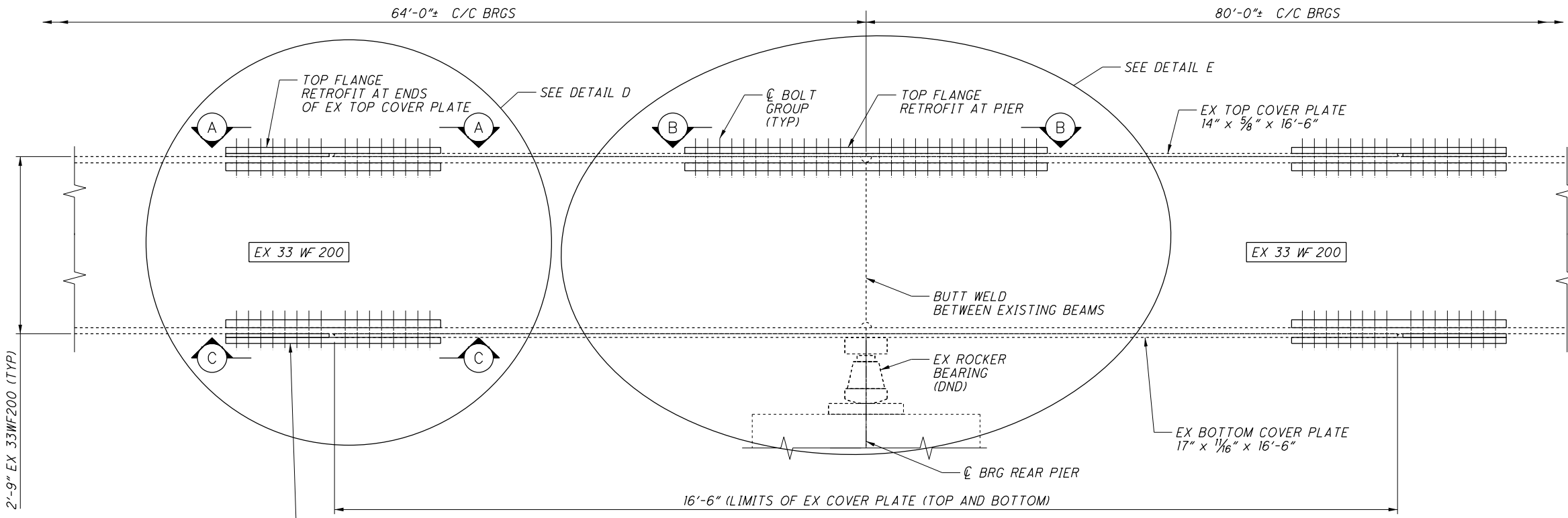
VIEW A-A - COVER PLATE END RETROFIT DETAIL ON TOP FLANGE
(REAR PIER WEST END SHOWN, FORWARD PIER EAST END SIMILAR)



VIEW B-B - COVER PLATE DETAIL ON TOP FLANGE AT PIER
(REAR PIER SHOWN, FORWARD PIER SIMILAR)



VIEW C-C - COVER PLATE END RETROFIT DETAIL ON BOTTOM FLANGE
(REAR PIER WEST END SHOWN, FORWARD PIER EAST END SIMILAR)



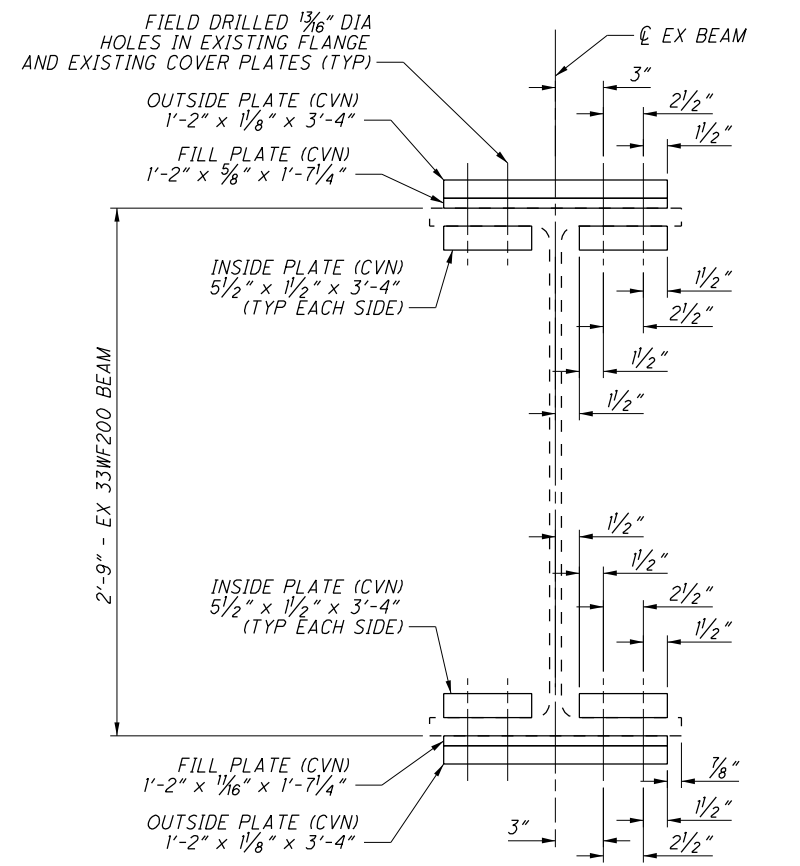
TYPICAL FATIGUE RETROFIT DETAILS AT PIER
(TYPICAL AT 10 LOCATIONS)

NOTES

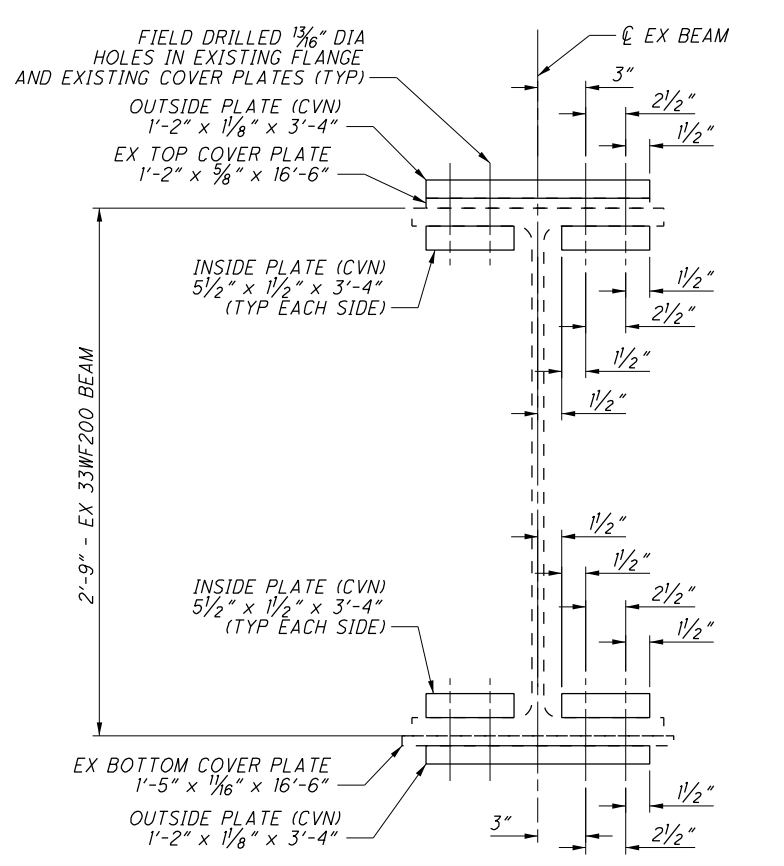
1. CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
2. HIGH STRENGTH BOLTS FOR THE COVER PLATE FIELD SPLICES SHALL BE 3/4" DIAMETER ASTM A325, TYPE 1, GALVANIZED.
3. ALL MATERIALS AND LABOR REQUIRED TO CONSTRUCT THE COVER PLATE FIELD SPLICES AS DETAILED ON THIS SHEET SHALL BE INCLUDED FOR PAYMENT WITH ITEM 513 STRUCTURAL STEEL, LEVEL UF.
4. FIELD PAINTING OF ALL PROPOSED STRUCTURAL STEEL DETAILED ON THIS SHEET SHALL BE INCLUDED FOR PAYMENT WITH ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT AND ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT.
5. IN AREAS WHERE PROPOSED COVER PLATES INTERFERE WITH EXISTING CROSSFRAMES, CONTRACTOR SHALL REMOVE AND RE-WELD EXISTING CROSSFRAME ASSEMBLIES TO FACILITATE INSTALLATION OF COVER PLATES. FOR CROSSFRAMES REQUIRING REMOVAL WHICH ARE ATTACHED TO BEAM 3, THE CONTRACTOR SHALL INSTALL TEMPORARY TRANSVERSE TIMBER BLOCKING NEAR THESE LOCATIONS. REMOVAL OF CROSSFRAMES SHALL BE PAID FOR UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN. RE-ATTACHMENT OF THE CROSSFRAMES AND INSTALLATION OF TEMPORARY TIMBER BLOCKING SHALL BE PER ARCHIVE STANDARD DRAWING GSD-1-96 (REVISED 7-19-02) AND ARE PAID FOR UNDER ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN.
6. SEE SHEET 18/28 FOR DETAILS D AND E.

DESIGN AGENCY	EMHT
DATE	02/27/20
REVIEWED	CAS
DRAWN	RJE
DESIGNED	RJE
CHECKED	RJM
STRUCTURE FILE NUMBER	1000969
FATIGUE RETROFIT DETAILS	
BRIDGE NO. CAR-00043-23-470	
OVER BIG SANDY CREEK	
CAR-43-23-12	PID No. 106764
17/28	45
	56

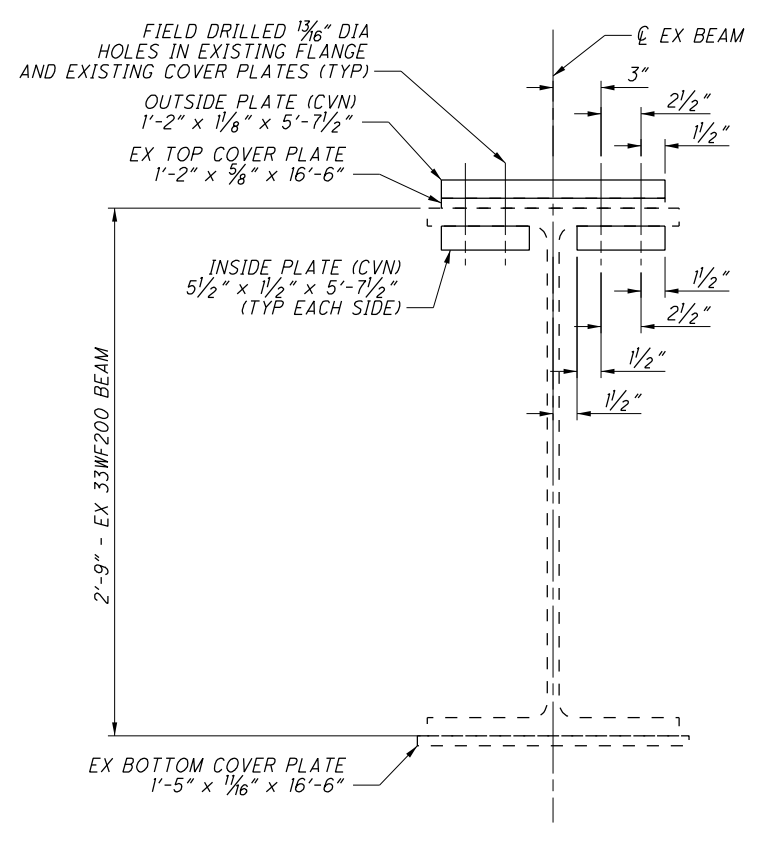
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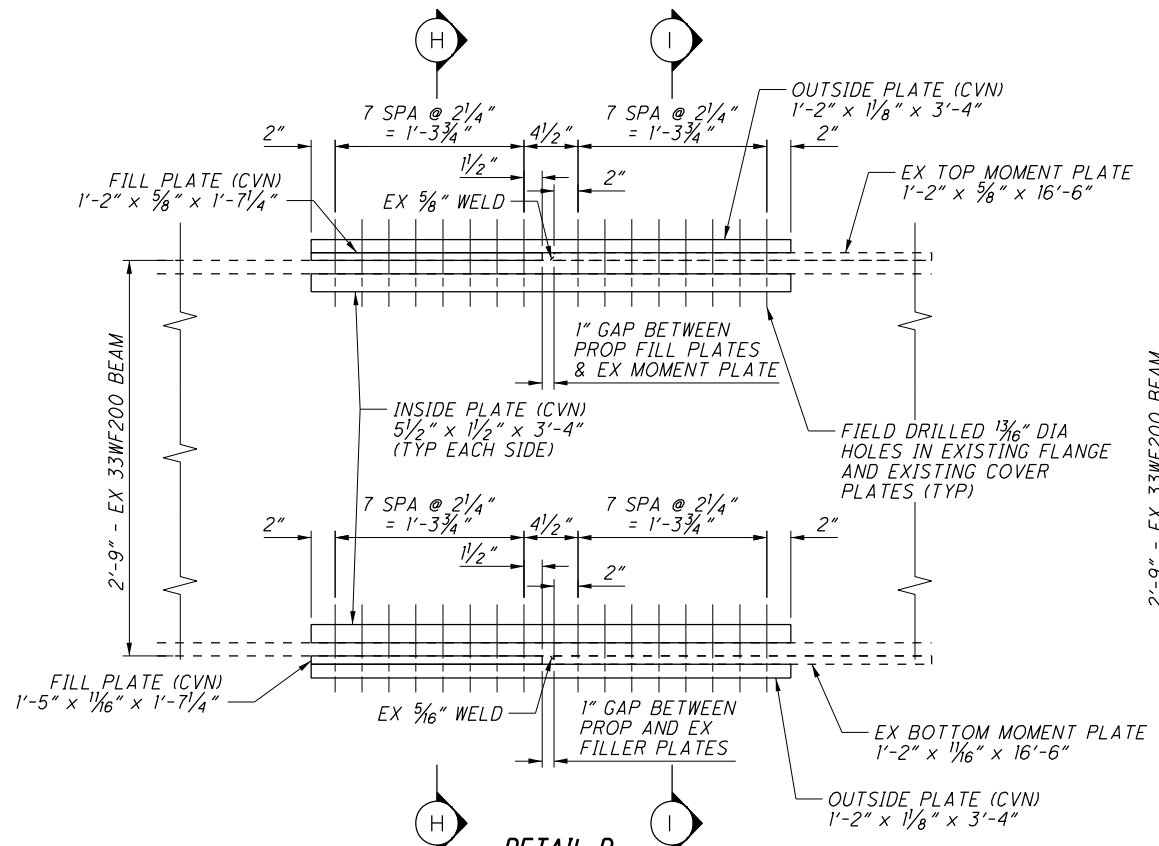
SECTION H-H
(DIMENSIONS SYMMETRICAL ABOUT \bar{C} BEAM)



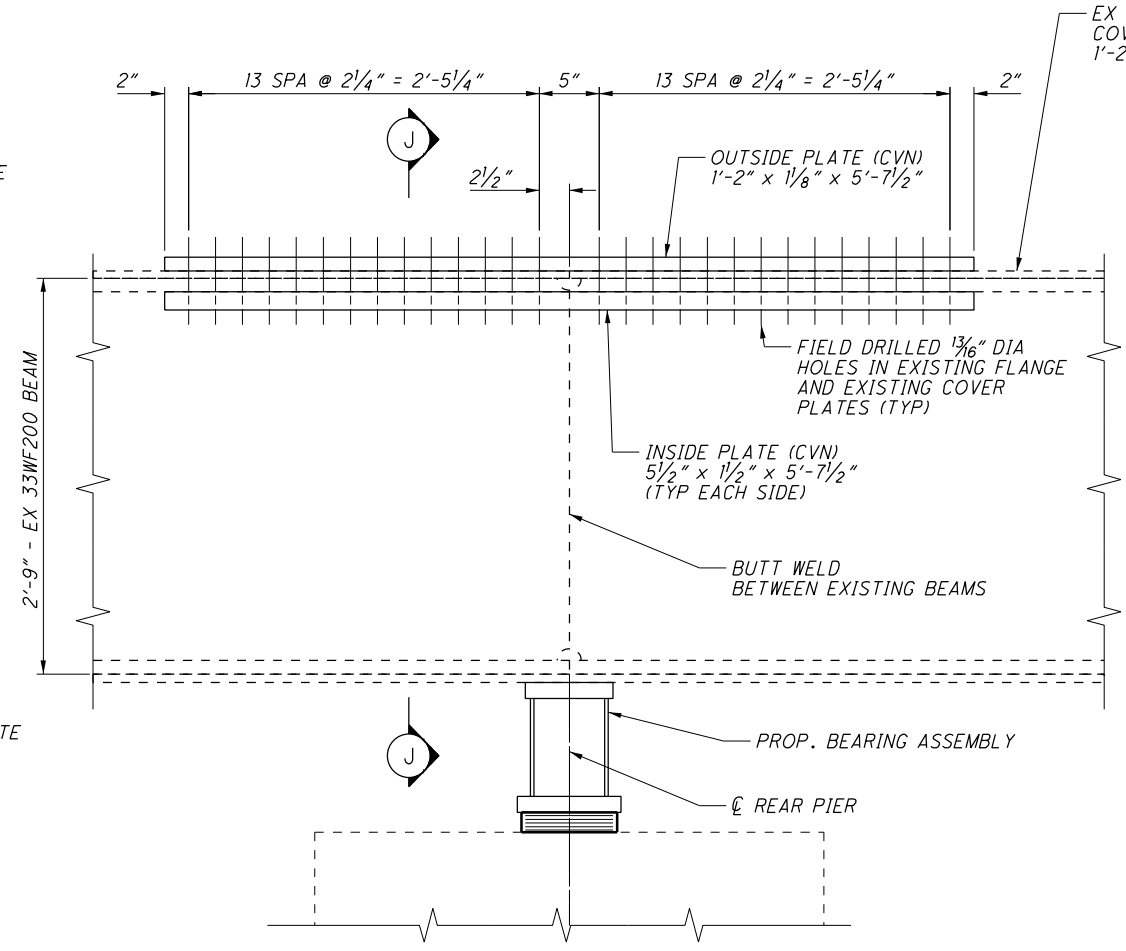
SECTION I-I
(DIMENSIONS SYMMETRICAL ABOUT \bar{C} BEAM)



SECTION J-J
(DIMENSIONS SYMMETRICAL ABOUT \bar{C} BEAM)



DETAIL D
(REAR PIER, WEST END SHOWN, FORWARD PIER, EAST END SIMILAR)



DETAIL E
(REAR PIER SHOWN, FORWARD PIER SIMILAR)

NOTES

1. CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
2. HIGH STRENGTH BOLTS FOR THE COVER PLATE FIELD SPLICES SHALL BE 3/4" DIAMETER ASTM A325, TYPE 1, GALVANIZED.
3. ALL MATERIALS AND LABOR REQUIRED TO CONSTRUCT THE COVER PLATE FIELD SPLICES AS DETAILED ON THIS SHEET SHALL BE INCLUDED FOR PAYMENT WITH ITEM 513 STRUCTURAL STEEL, LEVEL UF.
4. FIELD PAINTING OF ALL PROPOSED STRUCTURAL STEEL DETAILED ON THIS SHEET SHALL BE INCLUDED FOR PAYMENT WITH ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT AND ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT.
5. IN AREAS WHERE PROPOSED COVER PLATES INTERFERE WITH EXISTING CROSSFRAMES, CONTRACTOR SHALL REMOVE AND RE-WELD EXISTING CROSSFRAME ASSEMBLIES TO FACILITATE INSTALLATION OF COVER PLATES. FOR CROSSFRAMES REQUIRING REMOVAL WHICH ARE ATTACHED TO BEAM 3, THE CONTRACTOR SHALL INSTALL TEMPORARY TRANSVERSE TIMBER BLOCKING NEAR THESE LOCATIONS. REMOVAL OF CROSSFRAMES SHALL BE PAID FOR UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN. RE-ATTACHMENT OF THE CROSSFRAMES AND INSTALLATION OF TEMPORARY TIMBER BLOCKING SHALL BE PER ARCHIVED STANDARD DRAWING GSD-1-96 (REVISED 7-19-02) AND ARE PAID FOR UNDER ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN.
6. SEE SHEET 17/28 FOR LOCATIONS OF DETAILS D AND E.

DESIGN AGENCY	EMHT
DATE	02/27/20
REVIEWED	CAS
DRAWN	RJE
DESIGNED	RJE
CHECKED	RJM
STRUCTURE FILE NUMBER	1000969
FATIGUE RETROFIT DETAILS (CONT.)	
BRIDGE NO. CAR-00043-23-470	
OVER BIG SANDY CREEK	
CAR-43-23-12	PID No. 106764
18/28	46
	56