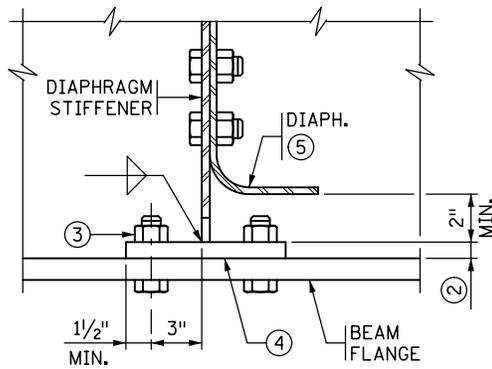


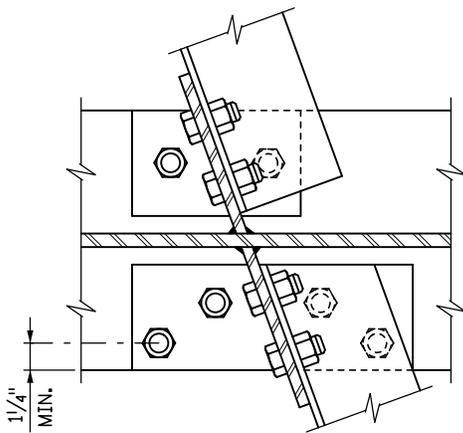
**SECTION A-A**

CONNECTION WITH 2 BOLTS  
AT INTERIOR BEAMS



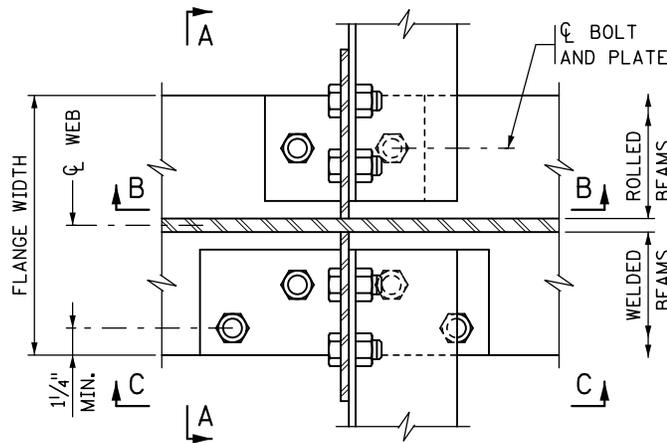
**SECTION B-B**

CONNECTION WITH 2 BOLTS



**PLAN VIEW**

AT INTERIOR BEAMS  
(UP TO 20° SKEW)

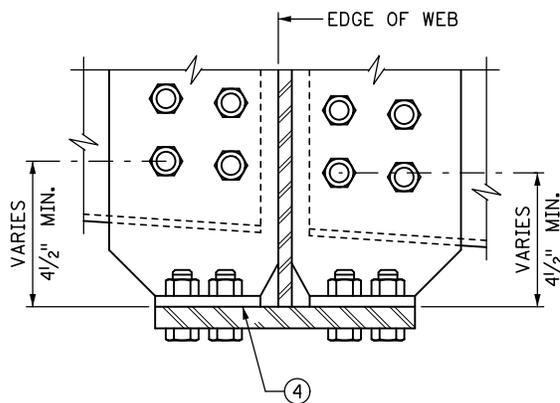


**PLAN VIEW**

AT INTERIOR BEAMS

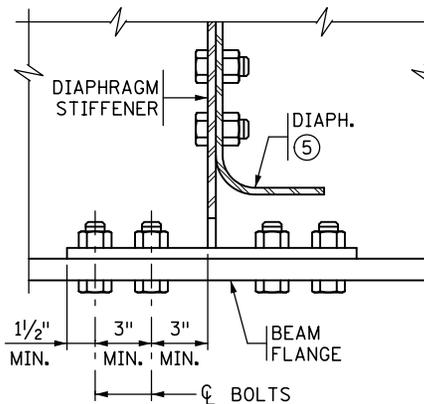
**DESIGNER NOTE**  
(REMOVE PRIOR TO PLOTTING FINAL PLAN):

DETAILS SHOWN ARE FOR STRAIGHT BEAMS ONLY. DESIGNER MUST MODIFY THE NUMBER OF BOLTS AS NECESSARY FOR CURVED BEAMS.



**SECTION A-A**

CONNECTION WITH 4 BOLTS  
AT INTERIOR BEAMS



**SECTION C-C**

CONNECTION WITH 4 BOLTS

**NOTES:**

PROVIDE STRUCTURAL STEEL PER SPEC. 3309.

- ① SEE DETAIL B411.
- ② MINIMUM PLATE THICKNESS IS 3/4".
- ③ BOLT PLATE TO BEAM FLANGE PRIOR TO WELDING PLATE TO DIAPHRAGM STIFFENER.
- ④ REMOVE LOOSE SCALE AND RUST FROM CONTACT AREA AT DIAPHRAGM CONNECTION. PROVIDE FLAT AND PRIMED SURFACE.
- ⑤ BENT PLATE DIAPHRAGMS SHOWN. FOR CROSS FRAME DIAPHRAGM SEE DETAIL B407 FOR STRAIGHT BEAMS AND DETAIL B408 FOR CURVED BEAMS.

APPROVED: NOVEMBER 22, 2002

STATE OF MINNESOTA  
DEPARTMENT OF TRANSPORTATION

REVISED  
09-11-2004  
10-28-2008  
05-24-2012  
01-05-2017

DETAIL NO.

**BOLTED FLANGE TO STIFFENER DETAIL**

**B410**

*Daniel J. Wagoner*  
STATE BRIDGE ENGINEER