

IOWA DEPARTMENT OF TRANSPORTATION

To Office Bridges and Structures Date March 22, 2006
Attention All Employees Ref No. 521.1
From Gary Novey
Office Bridges and Structures
Subject: Method's Memo No. 151 (Steel Bridges Providing Tension and Compression Flange Designation)

Proper welding and weld inspection of plate girders and rolled steel beams require identification of the tension and compression flanges. The standard flange butt-welded splice detail and intermediate stiffener detail shown on OBS SS 1021 (M1021) included with plate girder bridge plans refers to tension and compression flanges. Stiffener-to-web welds discussed in the Iowa DOT standard specifications [IDOT SS 2408.15 A.2(c)] also refers to tension and compression flanges.

For plate girder bridges, the designer shall provide on the "Girder Elevation" detail the location of tension and compression areas for both the top and bottom flange of the girder. The location of tension and compression flanges along the length of the span is to be based on the dead load inflection point of the member. These locations will normally correspond with the locations of the bolted field splices. The rolled beam standards (OBS SS RS40-BM1-04 to RS40-BM8-04) currently indicate this information on the beam elevation view.

This policy shall be followed for all plate girder (or non-standard rolled steel beam) bridges not yet turned in.

GAN/dgb/bj