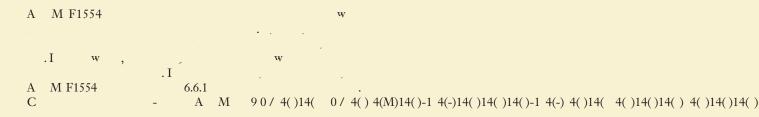
# steel interchange

## **Nuts and Washers for Anchor Rods**

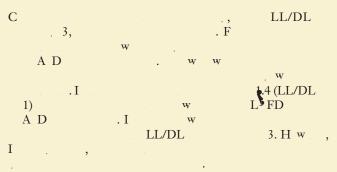
What is the proper material specification for anchor rod nuts and washers?



# steel interchange

### **Using Phi and Omega**

On page 2-10 in the 13th Edition AISC  $C_{i,j,j,j}$  it states, The general relationship between the safet factor () and the resistance factor ( $\phi$ ) is = 1.5/ $\phi$ . Does this relationship also e tend to the loading, meaning if factored LRFD loads are provided can an engineer use the LRFD loads divided b 1.5 with ASD resistance factors?



Charles J. Carter, S.E., P.E., Ph.D.

#### **Torsion in HSS**

How do ou determine the Warping Constant (C) for HSS?

Brad Davis, S.E., Ph.D.

#### **Braced Frame Beam Design**

On pages 3-47 and 3-48 of the AISC D, a procedure is outlined for determining the a ial force in a chevron braced frame beam. On page 3-48, the a ial force is calculated as the average of the tension and compression resultants. Could ou please e plain the justification for this average value? From statics, it seems that it should instead be treated as a straight sum of the two resultants.