

IF YOU'VE EVER ASKED YOURSELF "WHY?" *Modern Steel Construction*

CB Series Beams

C F_y CB

That would depend on the year of the design and material production. This CB-shape designation was largely used in the late 1920s and early 1930s when the ASTM A9 minimum yield point was 33 ksi and the basic AISC allowable working stress was 18 ksi. The AISC basic working stress was revised to 20 ksi in 1936. If you have a date for the project, you may want to verify the exact time of the construction.

AISC Design Guide 15 is a reference for historic shapes and specifications. This guide contains listings of which ASTM material standards were in effect during a specific period of time, as well as which AISC specifications were in effect. Design guides are available free to AISC members at [www.aisc.org](#).

AISC has also developed a historic specifications CD, which is available as a free download for AISC members and ePubs subscribers at [www.aisc.org](#).

There was an article published in the February 2007 issue of *Modern Steel Construction* ([www.aisc.org](#)) called "Evaluation of Existing Structures." This article also includes historical information of this nature.

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Drilled-in Anchors

14 167.C f_u f_t f_u f_t f_u f_t

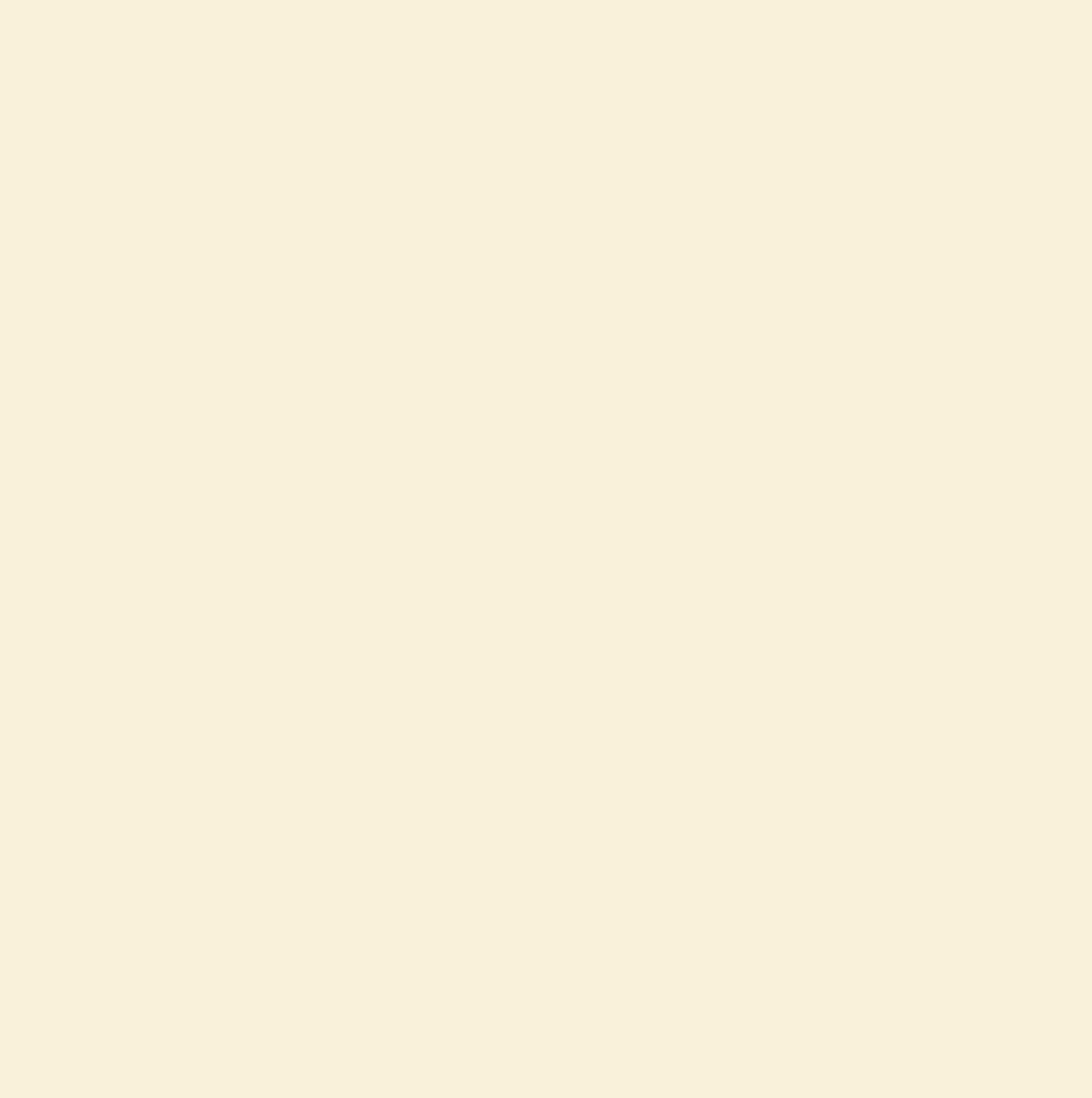
You appear to have a mixture of new and old shapes. The section properties for the W14×311 are listed in Table 1-1 of the current 13th edition *Steel Construction Manual*. You will find the section properties for the other three shapes in the 7th edition AISC manual. The CD that is issued as part of the 13th edition manual contains the AISC Shapes Database v13.0 and 13.0H (the H is for

Use of Grade 65 Steel

D f_u f_t A D ~ FD?

There are inherent safety factors built into the specification strength equations regardless of the material type, for both ASD and LRFD. The AISC specification does not place safety factors on the material type, but rather on the limit state being considered. Note that only certain materials are listed for use under the auspices of the specification. See Section A3 for those listings.

steel interchange



The steel interchange is a complex structure consisting of multiple levels of steel beams and girders. It is designed to facilitate the flow of traffic between different directions and levels of the highway. The steel structure is supported by a network of steel columns and beams, providing a strong and durable framework for the interchange.

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