

C5.6 Concrete Slab

C5.6.1.2.1 Dead

For design under the AASHTO standard specifications the office considered the edge strip to be relatively narrow, only the width of the railing plus half the depth of the slab. When 25% of the dead load of the railing directly above was applied to the edge strip, the overall distribution of the railing loads to the bridge cross section was conservative. Under LRFD, however, the edge strip is much wider, usually 6 feet, and applying only 25% of the railing load to the edge strip would be unconservative. Therefore, the portion of the railing load to be applied to the edge strip was increased to 50%. With the increase, the railing load distribution is conservative for any bridge width more than 24 feet. At 24 feet, half the railing load will be applied to 6-foot wide edge strips and half the load to the remainder of the cross section. For greater bridge widths the remainder of the cross section will be designed to carry more than half the railing load.