

DESIGN BULLETIN #54/2007

Divided Highway Cross Section with C-D Road or Exit Ramp/Entrance Ramp on Alberta Highways

Summary

This Bulletin is issued to inform practitioners of the current standard cross-section that should be applied for new construction and /or major reconstruction on Alberta highways. The standard cross-section attached shows the “minimum” dimensions that should be achieved at structures (normally interchanges) and the cross-section away from structures.

Background

The department has adopted a practice of constructing highways with an “open” design to promote safety, provide maximum flexibility for future stages and to minimize maintenance costs.

The attached cross-section can be built with a minimum number of roadside hazards and therefore less need for roadside barriers. This reduces the frequency of snow drifting and the need for snow clearing.

The 17 m outer separation minimum dimension has been adopted to provide sufficient space between roadways so that a depressed section ditch may be constructed. This has been found to be needed to prevent drivers from crossing over between roadways at locations where crossing is prohibited. Such illegal cross-overs (from the mainline to the auxiliary road and vice-versa) can lead to operational problems. Illegal cross-overs could be prevented by using a roadside barrier however this defeats the purpose of the “open” cross section.

Recommendations:

1. Use the attached cross-section for all new construction of divided highways and bridges.
2. On retrofit of existing divided highways at interchange locations, designers should strive to achieve the cross-section shown in the attached. The attached drawing should be a template for the “final” cross-section if bridge re-construction is required. Where a different cross-section is proposed for an interim or final stage, this should be justified and approved as a design exception.

Effective Date: July 18, 2007.

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Attachment: [Mainline with C-D Road or Exit Ramp/Entrance Ramp](#)