

Title: Glenmore Trail & Deerfoot Trail Interchange, Proposed R50 for EB-NB Loop Ramp for a Design Speed of 40 km/hr

Memorandum Date: June 16, 2011

Design Exception Request Date: May 17, 2011

Region: Southern

Approval Status: Approved

Project Location					
Highway	Control Section	At km	From km	To km	Existing AADT
2	15		24.104	26.678	121,440

Project Type (Mark all that apply with an X)			
Functional Planning:	New Construction: <input checked="" type="checkbox"/>	Reconstruction:	Paving/Surfacing:
Bridge:	Operations:	Geotechnical:	Environmental:
Other:			

Summary

A request to use a radius of 50m and design speed of 40km/hr for the loop ramp connecting eastbound Glenmore Trail to northbound Deerfoot Trail due to space constraints.

Rationale for Approval/Rejection

- This loop ramp is a temporary ramp which will be removed at the ultimate stage.
- Increasing the radius to 55m would force an entire re-alignment for the NB-EB ramp. The NB-EB ramp is an existing ramp and will be removed at the ultimate stage.
- Turning movement simulations show that a WB-21 could easily travel on the ramp without encroaching on the shoulders.
- The proposed R50m is an improvement from the functional planning study which recommended R45m for a design speed of 40km/hr.

Additional Mitigation Required

Due to right of way constraints and in order to keep the existing weaving length (230m) between the NB-EB ramp and the exit ramp at Heritage Drive, a retaining wall is proposed by the consultant. Ground mounted chevron signs and a 30 km/hr ramp advisory speed sign will also be installed along the ramp to help prevent the off-tracking of large vehicles onto the shoulders and the transverse sliding in low speed icy conditions.

Key Words

Temporary ramp, Radius, Design speed, Loop ramp

