

Stoney Trail and Nose Hill Drive Interchange Independent Review of Proposed Interchange Design

July 2011

Study Background

The Calgary Ring Road and Transportation Utility Corridor (TUC) concept was developed in the 1970's, and the northern portion of the Ring Road was named Stoney Trail in 1981 by the Calgary City Council.

A 1996 study called "*Functional Planning Study – Stoney Trail, Trans-Canada Highway (west) to Deerfoot Trail*" was published and subsequently, 7.4 km of Stoney Trail was constructed between the Trans-Canada Highway and Country Hills Boulevard NW. In 2003, Earth Tech (Canada) Inc. was retained to review the 1996 functional study based on changes to the forecast land use and development rates north of Stoney Trail for the Calgary 1.5 million population horizon. Findings were documented in the report titled "*Calgary Ring Road – Stoney Trail: Trans-Canada Highway to Deerfoot Trail.*"

The proposed interchange design from the 2003 Study can be viewed on the Alberta Transportation Web Site at the following location:

http://www.transportation.alberta.ca/Content/docType490/production/UL_west.pdf

AECOM has been retained by Alberta Transportation to undertake a Functional Planning Study, Detail Design and Construction for the interchange at Stoney Trail and Nose Hill Drive in the City of Calgary. An information session was held in the Community of Scenic Acres on June 23, 2010 to present the recommended interchange configuration, detour staging and pathway systems for the project.

A group of residents in Scenic Acres, through the Community Association, requested that an independent review of the design of the proposed interchange be undertaken. Alberta Transportation retained the firm of Morrison Hershfield (MH) to conduct this review.

MH met with the representatives of the community group on May 10, 2011. The resident's group provided input into the task list used by MH as determined at the May 10th meeting. A mid-study conference call was held on June 2, 2011 between MH and the community group.

Three interchange options were reviewed:

- a) having Nose Hill Drive go under Stoney Trail on the current alignment of Nose Hill Drive
- b) having Nose Hill Drive go over Stoney Trail on the current alignment of Nose Hill Drive

- c) having Nose Hill Drive go over Stoney Trail on the alignment shown at the June 2010 information session

Study Conclusions

A presentation of the results of the independent review by Morrison Hershfield was made to the community representatives on June 16, 2011. A copy of the presentation is available on the project website at:

<http://www.transportation.alberta.ca/stnhdgp.htm>

The review conducted by Morrison Hershfield (MH) does not support the option of taking Nose Hill Drive under Stoney Trail due to safety issues related to ramp grades, exit spacing and driver expectations.

For the two options taking Nose Hill Drive over Stoney Trail, the options were compared on the basis of geometrics, construction staging, constructability, noise analysis, impacts on 12 Mile Coulee, impacts to the Canadian Pacific Rail bridge structure, requirements for retaining walls and visual impacts.

MH's preferred alignment is the alignment shown at the June 2010 information session, approximately 60 metres north of the existing signalized intersection on Stoney Trail at Nose Hill Drive NW. The primary reasons for this conclusion are due to the geometry of this option and the lower construction cost (estimated to be \$6.0 million less than the option using the existing alignment).

Concerns raised by the community representatives regarding noise and visual impacts associated with the preferred alignment were discussed at the meeting. Noise levels for the preferred alignment compared to using the existing alignment on Nose Hill Drive are only marginally higher (ranging from 0 to 2 decibels). However the noise levels are well below the levels requiring noise mitigation based on Alberta Transportation's Noise Guidelines. To address the concern regarding Nose Hill Drive being brought closer to the adjacent existing homes overlooking the interchange area, a proposed landscaping plan has been developed. This will minimize the visual impact of the changed road alignment.

Alberta Transportation is in agreement with the conclusion of the independent review of the project to maintain the design of the Nose Hill Drive / Stoney Trail Interchange on the alignment shown at the June 2010 information session. A drawing of the proposed interchange can be viewed on the project website at:

<http://www.transportation.alberta.ca/Content/docType490/production/stnhd-ohb3.pdf>