



## **Southeast Stoney Trail Project Noise Attenuation Overview Fall 2011**

As part of the design, construction and operations of the Southeast Stoney Trail Project, Chinook Roads Partnership contracted Patching Associates Acoustical Engineering Ltd. (PAAE) to assess the potential noise impact of the future Stoney Trail SE road infrastructure from north of 17 Avenue SE along the Stoney Trail SE corridor to east of the Macleod Trail interchange. Aerial images and maps of Stoney Trail SE are located on the Project website at [www.sestproject.ca](http://www.sestproject.ca).

The purpose of noise analysis was to determine the predicted noise levels generated by future traffic on Stoney Trail SE for the existing first row of residences adjacent to the project and, if required, the height of noise mitigation measures needed to maintain Alberta Transportation's target noise level of 65 dBA Leq (24-hour equivalent sound level).

According to Alberta Transportation, noise is defined as the sounds generated by vehicles operating on the highway. It includes but is not limited to engine/exhaust sounds and road contact sounds. PAAE included Alberta Transportation's noise attenuation guidelines in their analysis, and the Project's contractual agreement for noise attenuation. The noise analysis was concluded in fall 2011 and PAAE's Noise Report dated September 26, 2011 is posted on the Project website.

### **Noise Attenuation Guideline Summary**

According to Alberta Transportation, for construction or improvements of highways through cities and other urban areas, Alberta Transportation will adopt a noise level of 65 dBA Leq<sub>24</sub> (A-weighted 24-hour equivalent sound level) measured 1.2 metres above ground level and 2 metres inside the property line (outside the highway right-of-way). The measurements should be adjusted to the 10 year planning horizon value, as a threshold to consider noise mitigation measures.

For the Southeast Stoney Trail Project, if the noise level exceeds 65 dBA Leq<sub>24</sub>, Chinook Roads Partnership is responsible to implement noise mitigation measures such as walls or grass berms.

Chinook Roads Partnership is responsible for noise attenuation measures for all new infrastructure built as part of the Southeast Stoney Trail Project. If a residential community is built after October 1, 2009, that is adjacent to the Project's new infrastructure, the new community's development proponent will be responsible for noise attenuation within the new community.

For a copy of Alberta Transportation's *Noise Attenuation Guidelines for Provincial Highways under Provincial Jurisdiction within Cities and Urban Areas*, please refer to Appendix B of PAAE's Noise Report on the Project website, or visit Alberta Transportation at [www.transportation.alberta.ca](http://www.transportation.alberta.ca).



## Noise Mitigation for Residences

In the Noise Report, PAAE provides noise level modeling, readings and contour drawings for residences adjacent to the new Stoney Trail SE infrastructure.

Residences with recorded noise levels below 65 dBA Leq<sub>24</sub> are deemed to be receiving adequate noise mitigation from existing screening, or are far enough away from the roadway to be within the noise attenuation guidelines.

Based on the model results, PAAE identified three areas along the future Stoney Trail SE infrastructure that are predicted to exceed the target noise level and where noise mitigation is required:

- 1) Auburn Bay – one noise wall on the east side of Deerfoot Trail SE generally between Auburn Bay Green SE and Auburn Grove SE.
- 2) Cranston – one noise wall on the west side of Deerfoot Trail SE generally between Cranberry Close SE and Cranberry Lane SE.
- 3) Applewood Park - one noise wall on the north side of 17 Avenue SE generally between 76 Street SE and 70 Street SE.

The design and placement of noise walls will be consistent with previous Alberta Transportation noise mitigation measures. Chinook Roads Partnership will be contacting residents directly adjacent to the areas noted above prior to noise wall installation to provide design details and other information.

Further information may be obtained by viewing PAAE's Noise Report on the Project website. Questions or comments may also be sent to Chinook Roads Partnership as noted below.

## Contact Us

### Construction Information:

Chinook Roads Partnership

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### Overall Project Information:

Alberta Transportation

Telephone: 310-0000 (toll free in Alberta)

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