

MITIGATION OF NOISE IMPACTS TO RESIDENTS ALONG BEDDINGTON TRAIL

EXECUTIVE SUMMARY

Hidden Valley residents reported an increase in truck traffic noise along Beddington Trail between Hidden Valley Manor NW and Hidden Valley Link NW. In 2013 September, Council directed Administration to investigate five options for reducing these traffic noise levels. The results show that a four meter tall noise barrier wall will reduce traffic noise in the community to acceptable levels for the next 20 years. Administration is recommending a noise barrier and adjusted truck route traffic access to reduce the impacts of truck route noise along this section of Beddington Trail.

ADMINISTRATION RECOMMENDATIONS

That the SPC on Transportation and Transit recommends that Council direct Administration to:

1. Continue with the plan to start construction in 2015 on a 4 meter high noise barrier along Beddington Trail.
2. Restrict truck route traffic between 1900 – 0600 hours on Monday to Saturday, and not allow truck route traffic from 1900 on Saturday through to 0600 on Monday morning along Beddington Trail between Stoney Trail NW and Country Hills Boulevard NW until such time as the recommended 4 meter high noise barrier is constructed.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2013 September 16 in NM2013-27(Attachment 1), Council directed Administration to investigate and report back to SPC on Transportation and Transit no later than 2014 February, on options to reduce noise along Beddington Trail, including but not limited to:

1. Increasing the height of the noise barrier to be built,
2. Advancing the date of the warranted noise barrier for Beddington Trail no later than early 2015,
3. Limiting the hours of operation for truck traffic on Beddington Trail from 6AM to 5PM Monday to Saturday; and no truck traffic on Sundays,
4. Allowing trucks to use only the curb lanes (slower lane) on Beddington Trail between Stoney Trail and Berkshire Blvd,
5. Removing Beddington Trail from the Truck Route bylaw.

BACKGROUND

Calgary has a Council approved Noise Barrier Retrofit Program (NBRP) (Attachment 2) which outlines the policy and details for dealing with traffic noise issues. As Calgary has grown, neighbourhoods have developed around many established truck routes, including Beddington Trail. In 2010, Transportation Planning (TP) received citizen complaints about noise and conducted a noise study along the Hidden Valley stretch of Beddington Trail. Construction of a noise barrier was proposed from that study and was prioritized as the number one project in the 2013-2015 NBRP plan. A review of the noise study is discussed in the Transportation Planning Noise Summary Report (Attachment 3) completed in 2013 December. Findings include:

- Sound levels at these homes were greater than the standard of 65 decibels for truck routes set by the *Surface Transportation Noise Policy* (Attachment 4).
- Several of the Beddington Trail homes have walk-out style lots, therefore the noise levels were measured at deck height.
- Sound levels are higher at peak traffic times of day (morning and evening rush hours).
- Sound levels are estimated to be even higher by 2032.

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INVESTIGATION: ALTERNATIVES AND ANALYSIS

Option 1 - Increasing the Height of the Noise Barrier

A noise barrier can achieve a five decibel noise level reduction when it is tall enough to break the line-of-sight from the roadway to the receiver location. Typical barriers are two to three meters tall. As many of the 34 properties adjacent to Beddington Trail have walk out basements, the recommended barrier height is four meters to lower the sound levels to meet the policy standard (Attachment 4). Increasing the height to five meters would lower noise levels by another 2.3 decibels; it would cost an extra \$500,000. Administration recommends continuing with the planned four meter high barrier.

Option 2 - Advancing the Date of the Warranted Noise Barrier

The Beddington Trail barrier has been placed first in priority ahead of ten other proposed barriers on a list for the City's 2013-2015 Noise Barrier Retrofit Program (NBRP) (Attachment 2). The Transportation Infrastructure annual budget for noise barrier construction is \$900,000. The budgets for 2012-2014 are being used by another barrier on Anderson Road that will cost \$2 million. Pending approval, the 2015 and future budgets will be used for the Beddington Trail barrier's estimated \$1.8 million cost. Therefore, unless additional funding can be found, it is not possible to advance the construction date of the noise barrier.

Option 3 - Limiting the Hours of Operation for Truck Route Traffic

Data indicates peak volume for trucks is during the morning and evening 'rush hours' (Attachment 3). These peak times align closely with existing time restrictions from 1900 - 0700 hours for some other truck routes in the NW.

The Truck Route Committee (TRC) has agreed to support a temporary restriction of truck route traffic on the Hidden Valley section of Beddington Trail from 1900 to 0600 hours Monday to Saturday, and no truck route traffic on Sundays until the noise barrier is complete (Attachment 5). This is similar to existing restrictions in the area, but gives an extra hour in the morning to account for the need to reach construction job sites by the 0700 hour start time. This complies with the Community Standards Bylaw (5M2004) time requirements for loading and unloading trucks. Industry can manage the reduced access in the short term if non-restricted hours coincide with peak travel times. Administration recommends this temporary option.

Option 4 - Allowing Trucks to Use Only the Curb Lane Between Stoney Trail and Berkshire Blvd.

TP used a noise model to estimate the drop in noise levels if trucks were limited to the curb lane along the section on Beddington Trail east of Hidden Valley Link to Hidden Valley Manor (Attachment 3). The data showed this would only make a very small change to the overall traffic noise level, and there would be no real benefit to this option.

Option 5 - Removing Beddington Trail from the Truck Route Bylaw

TP used a noise model to test the effect of removing truck route traffic from the stretch of Beddington Trail east of Hidden Valley Link to Hidden Valley Manor (Attachment 3). Using existing truck volumes, the data showed that by removing trucks, the noise level would drop to below the 65 decibel standard for all but one home. However, the reduction would be small: 2.6 decibels or less. The trucks are only a portion of the problem and a noise barrier would still be required to address the forecasted traffic noise levels for the next twenty years. Additionally, the

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report notes that removing the truck route would significantly impact the truck route network and these impacts would require further examination. The Truck Route Committee was not supportive of removing Beddington Trail from the list of truck routes for safety, operational, and cost reasons. Administration is not supportive of this option.

Stakeholder Engagement, Research and Communication

- Citizen inquiries were received by the Ward 4 Councillor's Office and TP. It was these inquiries that triggered the noise study. Citizens whose property is adjacent to the proposed noise barrier will also be contacted as part of the approvals process for constructing the barrier.
- The Truck Route Committee was consulted in order to seek input from its representatives including the trucking industry.
- Roads will create a Communication Plan to provide information to citizens and industry about the project.

Strategic Alignment

Reducing truck route noise levels by planning truck route traffic and barrier construction aligns with Calgary's Transportation Plan and Municipal Development Plan, as well as with the Business Plan and Budget Coordination (BPBC) program by:

- Ensuring connection of people, goods and services by supporting mobility of goods;
- Balancing multiple land uses by considering the needs of residents, industry and the City as a whole;
- Engaging stakeholders;
- Optimizing infrastructure and allocating capital budget based on priorities (BPBC Strategy 1M4); and
- Complying with the process for establishing noise barriers set out by the NBRP.

Social, Environmental, Economic (External)

Reducing noise pollution will help to create a healthier, less stressful environment for citizens and a more vibrant community.

Keeping the route open helps to shorten the distance trucks must travel, maintains the balance of available routes in the network, and lessens overall congestion on other routes. This helps to ensure efficient movement of all vehicles, reducing emissions.

If Beddington Trail remains open to truck route traffic, it will continue to support the efficient mobility of goods and Calgary's economy. Engaging the TRC has ensured that industry interests have been considered.

Financial Capacity

Current and Future Operating Budget:

There are no anticipated impacts to operating budget as a result of this report.

Current and Future Capital Budget:

The estimated capital construction cost of \$1.8M will be funded from 2015 and subsequent years budgets.

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Risk Assessment

Delaying construction of a noise barrier creates the possibility of higher costs in the future due to possible increases in construction costs.

If the recommendations are not approved and the noise problems continue, residents of the affected communities will continue to have a lower standard of living due to the noise impacts.

REASONS FOR RECOMMENDATIONS:

The report recommendations ensures both a short and long term reduction of noise levels along Beddington Trail, while ensuring sufficient truck route access for the commercial industry. The recommendations provide a resolution that works within budgetary and time constraints.

ATTACHMENTS

1. NM2013-27 Mitigation of Noise Impacts to Residents Along Beddington
2. Transportation Noise Information Brochure
3. Transportation Planning Noise Summary Report
4. Surface Transportation Noise Policy
5. Memo From The Truck Route Committee to Transportation Planning