
Traffic Noise

Purpose

This Procedure has been prepared in support of Council Policy SER-009-027, Traffic Noise, to provide the design noise levels and descriptors, design criteria and the responsibilities of Noise Attenuation.

A. Attenuation of Traffic Noise for New Residential Developments

1. The Developer is required to provide a Noise Impact Assessment recommending design of Noise Attenuation measures to not exceed a 55 dBA Leq (24 Hour) maximum noise level for the outdoor amenity area at the projected road design capacity. The Director, Planning and Development Services, at their sole discretion, may relax the design in the interests of practicality, however, under no circumstances shall the Noise Attenuation measures, as designed, permit outdoor noise levels greater than the 60 dBA Leq (24 Hour) at the projected road design capacity, measured 5 metres from the facade of the nearest dwellings and 1.5 metres above the ground or deck elevation at that point.
2. Traffic noise levels will be estimated using the most recent version of Traffic Noise Model (TNM) software published by the Federal Highway Administration or any other noise modelling tool acceptable to the County. When traffic noise analyses are made, print outs from the model containing the input data and expected sound levels will be attached to the Noise Impact Assessment for consideration by the County.
3. Road design capacity traffic volumes used in the Noise Impact Assessment to calculate projected traffic noise levels on Major Roadways shall be:
 - 4 lane arterial road – 27,000 vehicles per day;
 - 6 lane arterial road – 40,000 vehicles per day;
 - Provincial Highways and Class I rural grid roads – 27,000 vehicles per day;
 - Class II rural grid roads – 7,500 vehicles per day;

except where an approved Functional Planning Study or Strathcona County Transportation Model indicate higher design traffic volumes.

4. Percentage of medium and heavy trucks used in the Noise Impact Assessment to calculate projected traffic noise levels on Major Roadways shall be based on existing traffic counts, except where an approved Functional Planning Study or Strathcona County Transportation Model indicate higher ratios.
5. The Developer shall construct, or provide funds for the construction of, all Noise Attenuation measures required to meet the design outdoor noise level at the road design capacity.
6. Excepting Sustainable Urban Villages, when the predicted outdoor noise levels are below the 55 dBA Leq (24 Hour) maximum at the projected road capacity *without* the provision of an attenuation facility, the minimum acceptable requirement shall be a 1.8 metre high

double board wood fence. This minimum requirement may be relaxed at the sole discretion of the Director, Planning and Development Services, in circumstances where the vicinity of the house is screened from the roadway by sufficient vegetation. The screening property must be municipal reserve, environmental reserve, public utility lot or such designation or use that would not be expected to change during the design life of the dwelling.

7. Absorptive materials will be preferred over reflective noise attenuation measures. Developers are encouraged to explore the availability of alternative construction material for Noise Attenuation.

B. Attenuation of Traffic Noise for Existing Residential Developments

1. In areas where the measured noise levels, 5 metres from the rear facade of the dwelling and 1.5 metres above the ground or deck elevation at that point, exceed 65 dBA Leq (24 Hour), Council will consider, on a priority and availability of funds basis, the construction of such Noise Attenuation measures that are determined by Administration to have the desired attenuation effect.
2. Where residents would prefer a more expensive Noise Attenuation measure than that proposed by the County, they may petition on a local improvement charge basis to pay the difference in cost for the enhanced facility.
3. Where residents would prefer Noise Attenuation in advance of the County's ability to provide it, in accordance with the *Municipal Government Act*, RCA 2000, M-26, they may petition for the construction of such Noise Attenuation measures at any time on a 100% local improvement charge basis.
4. The residents will be assisted by the Transportation Planning and Engineering department in the determination of the design and estimated cost of petitioned Noise Attenuation measures. In conjunction with the petition process, all residents adjacent to the property line on which the facility will be constructed must sign a working easement agreement prior to implementation of the project.

Responsibilities

Planning and Development Services Department is responsible to:

1. Require that Noise Impact Assessments be conducted for new Residential Developments proposed to be constructed in the Vicinity of a Major Roadway;
2. Ensure that new Residential Developments are planned and constructed with provision of appropriate Noise Attenuation measures to maintain traffic noise within the prescribed design outdoor noise level.

Transportation and Agriculture Services Department is responsible to:

1. Upon request, conduct noise measurements for existing Residential Developments and report results to requesting party;
2. Notify Transportation Planning and Engineering Department of any noise measurements exceeding outdoor noise level of 65 dBA Leq (24 Hour).

Transportation Planning and Engineering Department is responsible to:

1. Report to Council any noise measurements exceeding outdoor noise level of 65 dBA Leq (24 Hour);
2. As directed by Council, review, design, and install alternate Noise Attenuation measures for Residential Developments where outdoor noise level of 65 dBA Leq (24 Hour) has been exceeded.

Residents requesting noise measurements for existing Residential Development are responsible to:

1. Ensure that privately owned Noise Attenuation fencing or walls are in good repair;
2. Allow private property access to facilitate noise measurement, site inspection, and any other action reasonably required by the County to assess noise barrier condition and noise level.

Procedure Record

Policy No: SER-009-027

Next Review Date: September 4, 2022

Last Review Date: September 4, 2019

Administrative Review: Planning and Development Services

Approved by:

Signed – Rob Coon
Kevin Glebe
Interim Chief Commissioner

September 4, 2019
Date