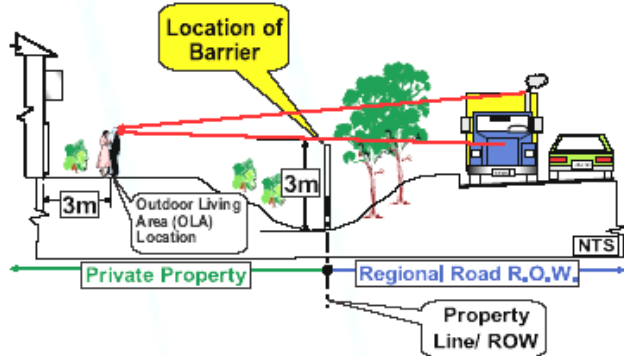


ISSUES AFFECTING IMPLEMENTATION

TOPOGRAPHY

The existing land may not permit an effective barrier installation



LIMITED BENEFIT

Barrier must achieve a noticeable (minimum 6 dBA) reduction to be Warranted.

DRAINAGE

Need to ensure surface drainage is maintained

EXISTING VEGETATION

Barriers may impact existing vegetation on property line

EXISTING UTILITIES

Barriers may conflict with utilities

These issues will be identified as part of a detailed barrier design, and their impacts will be confirmed.



Illustration of a location where a noise barrier would not be effective.

WHO DO I CONTACT FOR MORE INFORMATION?

For more information regarding the noise policy, please contact:

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Transportation Services Department
The Regional Municipality of York
1-905-830-4444 ext 3103
1-877-464-9675 ext 3103
Fax: 905-836-4590
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WHERE CAN I OBTAIN MORE INFORMATION?

Electronic copies of the following York Region documents are available:

- York Region's – Traffic Noise Mitigation Policy for Regional Roads
- York Region's – Standard Operating procedures for Traffic Noise Mitigation on Regional Roads

To obtain a copy of these documents, please email stephen.hollinger@york.ca or call 905-830-4444 ext. 3103.



Traffic Noise Mitigation Policy for Regional Roads Capital Program Projects



LESLIE STREET ROAD IMPROVEMENTS Class Environmental Assessment

WELLINGTON STREET TO MULOCK DRIVE Town of Aurora Town of Newmarket

October 2008

Policy Highlights

- York Region adopted a new noise policy in March 2006
- The new policy compares existing road noise before construction to future road conditions (mature state)
- Assessments shall consider the outdoor living area (OLA). This is the ground grade area within 4 m of the rear of a home.
- Mitigation is not warranted if predicted noise levels do not exceed 60 decibels (dBA), either existing noise levels or at the mature state of development
- Barriers must be constructed at the edge of road allowance (property line)
- Barriers must be 2.2 -2.4m high, with local exceptions permitted to 3.0m high
- Barriers must achieve a noticeable (6 dBA) reduction in noise levels to be warranted
- York Region shall assume the ownership and maintenance of any noise control measure constructed under the Capital Program
- Complementary plantings will be placed on street side of barrier.

If the barrier can not be implemented on account of the above issues, the noise policy provides for mitigation in the form of enhanced vegetative screening. Property owners will be advised of these results.



HOW IS SOUND MEASURED

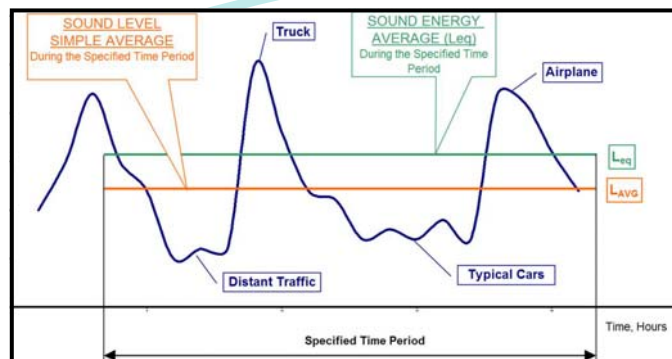
Sound that is audible to the human ear is measured in decibels (dBA). Typical backyard sound levels during the day in an urban setting vary from 50 dBA to 70 dBA. At over 60 dBA, conversation may require raising your voice. An increase of 10 dBA is perceived as a doubling of loudness. For roadways, doubling the traffic volume generally results in a 3 dBA increase.

HUMAN PERCEPTION	CHANGE IN dBA	PERCEIVED IMPACT
4x Louder	+20	Very Significant
2x Louder	+10	Significant
Louder	+5	Noticeable
No Change	+3	Insignificant
	0	

Using the same principles, a reduction in sound level is only perceived by the human to be a significant reduction if it exceeds 5 dBA.

EQUIVALENT SOUND LEVEL (Leq) CONCEPT

Sound variations occur throughout the day with the passing of large vehicles, lawnmowers, planes, etc. To determine the constant sound level over a period of time, the equivalent sound level concept is used. This results in the same total sound energy as the actual varying sound. It is not the simple average of the sound levels experienced.



NOISE ASSESSMENTS

Assessments determine whether or not noise levels exceed provincial standards, both currently as well as in the future. Assessments identify where and when traffic noise levels warrant mitigation and if noise attenuation measures (i.e. noise barriers) can be effective.

The Ministry of the Environment (MOE) has set the noise requirements standards. York Region's Noise Mitigation Policy for Regional Roads (March 23, 2006) ensure that these requirements are met and/or exceeded.

NOISE BARRIER FACTS

- The higher the barrier, the higher the noise attenuation
- Barriers are more effective at reducing automobile noise in comparison to truck noise
- The maximum practical attenuation by a noise barrier is approximately 20 dBA
- Noise barriers also mitigate sound propagation through the ground when placed between a noise source and a receptor
- The volume of traffic, truck percentages, set back distance from the roadway, traffic speed, road gradient, and pavement condition all affect the noise levels to be mitigated by noise barriers.

