

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MARCH 18, 2019
FROM:	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT:	HIGHBURY AVENUE NOISE STUDY AND REVIEW OF LOCAL IMPROVEMENT NOISE BARRIER POLICIES AND PROCEDURES

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions with respect to the Highbury Avenue Noise Study be taken:

- (a) the Environmental and Engineering Services Administrative Practices and Procedures for Noise Attenuation Barriers (Local Improvements) **BE AMENDED** based on the recommendations presented herein;
- (b) the Local Improvement process changes **BE COMMUNICATED** to property owners previously contacted; and
- (c) no further action **BE TAKEN** with regards to noise attenuation west of Highbury Avenue South unless a valid noise wall petition is received from property owners.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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- Environment and Transportation Committee - September 26, 2005 - Local Improvement Policy Amendment and Irving Place / Highbury Avenue Noise Wall
- Environment and Transportation Committee - April 03, 2006 - 2006 Highbury Avenue Noise Attenuation Barrier Irving Place
- Built and Natural Environment Committee - March 28, 2011 - Veterans Memorial Parkway and Highbury Avenue Noise Study
- Built and Natural Environment Committee - May 16, 2011 - Public Participation Meeting - Veterans Memorial Parkway and Highbury Avenue Noise Study
- Civic Works Committee, January 6, 2014 - Veterans Memorial Parkway Noise Attenuation Wall
- Civic Works Committee - November 21, 2017 - Hydro One Grant for Tree Planting
- Civic Works Committee, September 25, 2018 - Road Traffic Noise Impact Study - Highbury Avenue From Bradley Avenue to the Thames River

BACKGROUND

Purpose

The council resolution passed on October 2, 2018 directed Civic Administration to “undertake a review of comparator municipal noise abatement local improvement procedures to inform a potential update to the City of London administrative practices and procedures.” This report serves to provide Committee and Council with a review of the City’s current noise barrier local improvement policies and procedures, and to provide background on provincial regulations and local improvement procedures for other Ontario municipalities. Based on the findings from this review, recommendations are made to amend current City procedures to provide more clarity for local improvement noise barriers and to modify the cost sharing ratio with benefitting property owners.

Context

In June 2018, a road traffic noise impact study was initiated with noise monitoring near the west side residential properties along Highbury Avenue South between Bradley Avenue and the Thames River. The City retained Valcoustics, a specialist noise consultant, to conduct the study. The results of the study concluded that properties with rear-frontage facing Highbury (along the west side between Bradley and Commissioners) are experiencing elevated noise levels in their Outdoor Living Areas (OLA) and would benefit from attenuation. In the event of a project, the suggested noise mitigation measure was a 2.5 metre high noise barrier wall situated along the rear-yard property lines. The noise wall was projected to provide at least 5 *dB*A of attenuation for the OLA, which would reduce noise levels to meet minimum provincial requirements.

A council resolution passed on October 2, 2018 directed Civic Administration “to communicate the process being undertaken with all potential impacted property owners and to survey them regarding our local improvement process as well as the suggested barrier proposed by staff.” A letter was circulated to affected property owners (i.e. those who could potentially benefit from the installation of a noise wall), which included the study results and outlined the City’s local improvement process. The letter concluded with a request for feedback from property owners on the study results, the potential noise barrier and the local improvement process.

DISCUSSION

London’s Noise Barrier Policies and Procedures

The City has several sources of information for noise abatement measures including The London Plan, Design Specifications and Requirements Manual, and the Administrative Practices and Procedures. In particular, Administrative Practices and Procedures criteria pertaining to “retrofit” (local improvement) scenarios, identifies abatement on roads where adjacent residential development exists and where a road is not being widened.

EES Procedures for Retrofit (Local Improvement) Noise Barriers

The Noise Attenuation Barriers administrative procedure for “retrofit” scenarios specifies that retrofit noise barriers will be considered when the following criteria is met:

- *Adjacent to arterial roadways whose present traffic volume exceeds 10,000 vehicles per day;*

- *On a total block basis;*
- *On receipt of a sufficiently signed petition in conformity with the provisions of the Municipal Act.*

The *Street Services Implementation and Financing* procedure further identifies the cost sharing ratio for “retrofit” noise barrier construction as being two thirds property owner cost and one third City cost. Construction of a noise barrier includes engineering, and all other costs normally associated with these programs (e.g. tree clearing, grading or changes to drainage, etc.).

The London Plan

The London Plan provides additional noise wall guidance. Clause 241 states that noise walls in association with road widenings are to be avoided where possible. Clause 1768 also encourages new development patterns to minimize noise walls and Clause 1769 refers to the canyon effect created by noise walls. The Plan states that where such walls are necessary, innovative design techniques will be used relating to the materials, texture, colour, lighting, variability and overall design composition to mitigate impacts on the pedestrian environment and streetscape. Clause 1767 refers to provincial and agency input to determine attenuation measures in the absence of a City guideline. Current developments are typically configured to minimize rear yard exposure from arterial roads. However where outdoor living areas are exposed, developers are obliged to construct noise attenuation measures within private property.

Design Specifications and Requirements Manual

The *Design Specifications and Requirements Manual* provides design guidance for noise walls. The manual states that noise attenuation measures can be building setbacks, building orientation, earthen berms, noise walls, or any combination necessary to achieve an acceptable noise level, based on Ministry of Environment, Conservation and Parks (MECP) criteria.

Provincial Policies for Noise Barrier Installations

Noise mitigation policies vary between provincial authorities depending on the circumstances. The Ontario Ministry of Transportation (MTO) Environmental Guide for Noise establishes the criteria for provincial highway widenings and retrofit situations, whereas the criteria specified by Ministry of Environment, Conservation and Parks (MECP) Environmental Noise Guideline - Stationary and Transportation Sources – Approval and Planning (NPC-300) generally takes precedent for planning and approval of developments.

For local improvement noise barrier installations, MTO’s Retrofit Policy should be considered for guidance because it deals with existing developed lands adjacent to existing freeways. Table 1 below summarizes the key information relating to sound level thresholds and the recommended mitigation efforts. It should be noted that all mitigation recommendations are subject to further review of technical, economical and administrative feasibility. In addition, any noise mitigation efforts considered should provide a minimum of 5 *dB*A of attenuation to be considered effective.

Table 1: A summary of sound level thresholds and recommended mitigation efforts based on MECP/MTO criteria.

Situation		Sound Level	Mitigation
MTO	Existing Noise Sensitive Area (NSA) adjacent to existing freeways	$60 \text{ dBA} < L_{eq(24hr)}$	Consider retrofit noise control measures if noise levels in NSAs can be reduced by at least 5 dBA averaged in the first row.
MTO	Construction of new or expansion of existing roadways	$L_{eq(24hr)} < 65 \text{ dBA}$ AND $< 5 \text{ dBA}$ change to overall noise level	No mitigation effort required.
		$65 \text{ dBA} \leq L_{eq(24hr)}$ OR $\geq 5 \text{ dBA}$ change to overall noise level	Investigate and introduce noise control measures within ROW.
MECP	New development where Outdoor Living Areas (OLA) will be adjacent to arterial roadways	$L_{eq(16hr)} \leq 55 \text{ dBA}$	No mitigation effort required.
		$55 \text{ dBA} < L_{eq(16hr)} \leq 60 \text{ dBA}$	Noise control measures may be applied to reduce the sound to 55 dBA.
		$60 \text{ dBA} < L_{eq(16hr)}$	Noise control measures should be implemented to reduce the level to 55 dBA.

Review of Other Ontario Municipalities' Local Improvement Practices

In December 2018, fifteen municipalities across Ontario were contacted to discuss their approach to local improvement noise barriers. In total, nine responses were received. Of the respondents, four municipalities indicated they had noise policies that specifically addressed noise barriers for local improvements. The following is a summary of the relevant information gathered from this review.

Sound Level Criteria

When assessing a site being considered for noise attenuation, most municipalities specify the MECP criteria as their sound level thresholds for noise studies.

Types of Noise Barriers

MECP defines an 'acoustic barrier' as having a minimum surface density (face weight) of 20 kg/m². This can mean a wall, berm, wall/berm combination or similar structure that is high enough to break the line-of-sight between the noise source and the noise receptor (Outdoor Living Area of a Noise Sensitive Area), and structurally sound without cracks or surface gaps.

In keeping with MECP criteria for an appropriate acoustic barrier, municipalities generally prefer to use a wall for noise attenuation. Other municipalities are less likely to approve berms and berm/wall combinations. Some respondents indicated that they would consider approving a berm or berm/wall combination on a case-by-case basis.

Noise Wall Materials

There are several materials that can satisfy the MECP surface density requirement for a noise wall. Common materials for noise walls include, but are not limited to wood, concrete, brick/masonry, steel and vinyl. The most popular wall types preferred by the municipalities surveyed was found to be concrete. MTO's Designated Source Material Index does include a few concrete suppliers for absorptive and reflective walls.

Wooden noise walls exist in the City on private properties. While wooden walls can provide the density requirements, they require more maintenance by the owner and provide a much shorter service life. As a result, the City and the other municipalities survey do not install wood walls in right-of-way in preference of more durable products for long term use and to minimize future operating costs.

Ownership and Maintenance

All municipalities with noise barrier policies require that local improvement noise barrier installations are constructed on municipal ROW where possible, or on private property with an easement. The municipality is the owner of the noise barrier and they are responsible for all maintenance after installation.

Minimum Participation

While not a requirement for all municipalities, some respondents stated a minimum number of dwellings and a minimum length of wall that would be required for a local improvement noise barrier to be considered.

Cost Sharing Ratios

Most municipalities have identified their cost sharing ratio with adjacent property owners is a 50/50 split for all construction costs associated with a local improvement noise barrier cost including related engineering.

Frequency of Local Improvement Noise Barrier Installations

Based on responses from the other municipalities, there has been approximately only one noise barrier project constructed within the past 10-years that would qualify as a local improvement installation within these four municipalities. Municipalities often receive requests for noise attenuation, but there is rarely a local improvement noise barrier which proceeds to construction.

Table 2 below summarizes London’s current local improvement noise barrier procedures and compares them to other municipalities and the provincial retrofit criteria. IN general, London’s procedures align with other municipalities with the exception of the cost sharing ratio. However, the administrative practices and procedures do not stipulate typical practices.

Table 2: Summary of existing local improvement criteria for London, other Ontario municipalities and provincial authorities.

Criteria	London (Current)	Provincial Retrofit	Other Ontario Municipalities
Sound Level	MECP / MTO	MTO Retrofit	MECP / MTO
Noise Barrier Type	Not specified but typically wall	MECP	Noise Wall
Noise Wall Materials	Not specified but typically concrete	MECP	Wood or Concrete
Ownership	Not specified	Road Authority	Municipality
Minimum Participation	Total Block	N/A	Min. Length and Min. Number
Cost Sharing Ratio	$\frac{2}{3}$ Landowner $\frac{1}{3}$ City	N/A	50% Landowner 50% Municipality

Highbury Noise Study, Possible Noise Wall, and Local Improvement Process

A letter was sent to residents along Highbury Avenue South (see Appendix) pertaining to details of the road traffic noise impact study, and it requested feedback from property owners on the study results, noise barrier and the local improvement process for noise barriers. As a result, a significant amount of feedback was received from affected property owners.

Noise Issue

The majority of responses received indicated a strong opposition to the suggested noise wall. Many respondents indicated that the noise wall was unnecessary. There were some respondents that recognized a noise issue for the area, but were not in favour of the proposed noise wall.

A common response from property owners was that a noise wall is unnecessary, and noise is not an issue. Several respondents noted the expressway (Highbury Avenue) was established when they moved in, and they were aware of potential road traffic noise from the start, but it hasn't been a concern.

Some respondents noted concerns with road traffic noise at night (i.e. unable to open bedroom windows due to noise). It should be noted that retrofit noise mitigation measures along a roadway are intended to provide attenuation to the Outdoor Living Area (i.e. patio area) and not intended to provide attenuation within a dwelling given there may be private property or building limitations.

Property Owner Share of a Local Improvement Noise Wall

The letter included a preliminary estimated cost for a typical property owner's share of the local improvement noise wall. Based on past installations, a typical 15 metre (50 feet) wide lot with a per metre cost of \$1,200 for a 2.5 metre tall concrete noise wall, a property owners share would be \$12,000 (two thirds), with the City's share being \$6,000 (one third).

The majority of responses received from property owners identified their share of the cost was too high. The cost alone was a major deterrent for many property owners to even consider a local improvement noise wall. Some respondents noted the City should consider a more favourable cost sharing ratio, while many indicated the costs of a noise wall should be borne completely by the City.

Concerns that the City was proposing to initiate the Local Improvement process were received. Upon receipt of this concern, it was clarified that the distribution letter was only for information sharing and consultation. Local Improvement processes in London are only commenced upon receipt of a petition initiated by property owners.

Suggested Alternatives

Some respondents who opposed the proposed noise wall along the rear-yard line recognized a need for attenuation for the area and proposed alternatives. Suggestions for mitigation included replanting trees/foliage along the Highbury/Hydro One corridor, installing a berm, or placing the a noise wall completely on City property adjacent to Highbury.

Alternate mitigation strategies such as those suggested were reviewed/discussed during the road traffic noise impact study with the consultant. It was determined that a noise wall along the rear-yard property line of the residential dwellings would provide the most effective and cost-effective attenuation for the residential OLA while having the least land use impact considering the limitations imposed by the Hydro One corridor.

Technical Issues

Through additional investigation and homeowner feedback, some technical issues were identified that would limit the scope of the potential noise wall. The property owners along Milan place have an existing easement for a sanitary sewer in their rear yard. Access to maintenance holes are required to be maintained, and since an effective noise wall cannot have any gaps, a wall cannot be adequately installed in this location. Thus for technical reasons, a noise attenuation wall cannot be considered for Milan Place.

Quality of Living

Many property owners expressed their enjoyment of the green space behind their homes. The land between Highbury Avenue and the residential dwellings on the west side of the road are separated by an approximately 90 metre (300 feet) wide Hydro One corridor. Several residents expressed that the current corridor is visually appealing and property owners do not want to replace this view with a large concrete wall. Residents also noted that most properties have a gate in their existing rear yard fence so that they may access the corridor for recreational purposes (e.g. dog walking, cross-country skiing, etc.). The installation of a 2.5 metre tall concrete wall would completely block access to this communal green space.

Proposed Changes to London's Local Improvement Noise Barrier Procedures

Based on a review of the City's current procedures, provincial requirements, other municipal practices and feedback received from property owners, the following are proposed changes to the City procedures for local improvement noise barriers.

Sound Level

Adjust EES Administrative Practices and Procedures to identify a minimum noise level to focus consideration to areas of need considering The London Plan policies which is discouraging noise walls. The use of the MTO Retrofit noise criteria is most relevant to Local Improvement scenarios.

Noise Barrier Type

In keeping with the spirit of The London Plan, the City should be open to the three main types of noise abatement barriers: walls, berms and berm/wall combinations. Noting, however, that each option presents its own challenges. Significant use of noise walls create unappealing walled cities. While berms can be more visually appealing, they have a significant space requirement and the potential to cause drainage issues associated with the change in site grading.

Materials

It is recommended the City procedures be more descriptive with respect to noise wall materials. In adhering to MECP's requirements, the acoustic barrier surface density should be noted as a requirement. This follows typical City practices. The City has traditionally used products on the Provincial Designated Sources of Materials (DSM) Index to ensure quality and durability. DSM specified walls have established quality control, known durability and lower ongoing operating costs. As other products become available on the market, staff will monitor the performance of these and evaluate their inclusion as an accepted product to achieve value for money.

Ownership and Maintenance

Clarify through EES Administrative Practices and Procedures that local improvement noise walls must be installed on municipal ROW or on private property (easement) enabling the City to have access for future maintenance.

Cost Sharing Ratios

The benefits of noise walls lie solely with the adjacent property owner. However, considering historical circumstances around which retrofit scenarios occur, it is recommended to adjust the EES Administrative Practices and Procedures to specify a more equitable cost sharing ratio: using a 50/50 split similar to other municipalities in Ontario.

CONCLUSION

Local Improvement Process

A review of London's existing local improvement policies and procedures was undertaken in consideration of provincial policies, local improvement procedures for other Ontario municipalities and feedback received from local property owners. The findings of this review concluded that some minor changes to EES Procedures for Retrofit Noise Barriers would provide additional guidance for future local improvement noise barrier studies, present definitive options for mitigation, and present London property owners with a more equitable share of construction costs associated with local improvement noise barriers. A summary of the proposed changes is presented below in table 3.

Table 3: Summary of proposed changes to EES Administrative Practices and Procedures for Noise Attenuation Barriers (Local Improvements)

Criteria	London (Current)	London (Proposed Changes)
Sound Level	MECP / MTO	MTO Retrofit
Noise Barrier Type	Not specified	Noise Wall, Berm, or Berm/Wall Combo
Noise Wall Materials	Not specified	Designated Sources of Materials List
Ownership	Not specified	Municipality (ROW or easement)
Minimum Participation	Total block	Total block
Cost Sharing Ratio	$\frac{2}{3}$ Landowner $\frac{1}{3}$ City	50% Landowner 50% Municipality

Highbury Avenue

The results of the 2018 road traffic noise impact study for the residential properties west of the Highbury Avenue South corridor (between Bradley Avenue and the Thames River) assessed a potential local improvement noise wall for properties situated between Bradley and Commissioners. Feedback received from the affected property owners identified a number of concerns. Based on the feedback received, it is recommended to update property owners on revisions to the local improvement process and undertake no further action regarding noise attenuation in the area unless a local improvement is initiated by the property owners.

The local improvement process is designed to provide property owners some control of the process - a property owner petition is required to initiate a local improvement. In the future, should a local improvement noise wall be requested by the community, the proposed changes to London's local improvement procedures can assist with lessening the costs to affected property owners.

Acknowledgements

This report was prepared with the assistance of Matt Davenport, EIT, Engineer in Training and Karl Grabowski, P.Eng., Transportation Design Engineer of the Transportation Planning and Design Division.

SUBMITTED BY:	RECOMMENDED BY:
DOUG MACRAE, P.ENG., MPA DIRECTOR, ROADS AND TRANSPORTATION	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER

KPG/md

Attachments: Appendix A - Letter to residents (January 2, 2019)

Appendix A

Letter to the residents (January 2, 2019)



The Corporation of the City of London

300 Dufferin Avenue
P.O. Box 5035
London ON N6A 4L9

January 02, 2019

Dear Property Owner:

**Re: Highbury Avenue South Traffic Noise Study
Bradley Avenue to the Thames River**

After receiving several concerns from residents noting elevated noise levels along the Highbury Avenue South corridor, the City retained a specialist noise consultant to study the noise levels being encountered within the residential properties which back onto the roadway.

As you may recall in 2017, Hydro One undertook maintenance operations within their corridor, which cleared the underbrush and trees between the rear yards and Highbury Avenue South. This corridor is 90 to 100 metres (295 to 330 feet) wide. The removal of this material improved the sightline to the freeway and possibly the travel of noise towards the residential properties.

The consultant completed the noise monitoring in June of 2018. The results were communicated in a report to the Civic Works Committee on September 25, 2018. The report is available on www.london.ca by typing "meetings" in the search bar. Following the Ontario Ministry of Transportation (MTO) Guideline, noise attenuation may be considered at the following locations:

- Milan Place
- Banbury Crescent
- Sundridge Crescent
- Sundridge Court
- Lysanda Avenue
- Lysanda Court
- 720 Deveron Crescent
- 730 Deveron Crescent

Please see the attached maps for more information. The recommended noise attenuation in these locations is a 2.5 metre high barrier (noise wall) along the rear property line (i.e. only for properties with rear yards adjacent to Hydro One / Highbury Avenue South corridor).

Noise wall installation along Highbury Avenue South is subject to the City of London's Local Improvement Procedures. This process is subject to provincial regulations and City procedures and requires community support and participation. Information regarding actions that trigger a local improvement and the Local Improvement Process have been attached for reference.

Noise walls are also installed during road widenings adjacent to existing rear yards when the project increases traffic noise by bringing the traffic noise source closer to the property line. However, the City of London is not planning to widen Highbury Avenue South within the next 20-years.

Under the Municipal Act, the City of London can undertake work (i.e. install a noise wall) on private property as a local improvement. The City's Local Improvement Procedures stipulates a cost sharing for the construction of noise walls on private property: 2/3

property owner and 1/3 City cost. Costs per property would be determined based on the width of the property to receive the improvement.

Noise walls placed by the City under capital projects are of a cementitious composition for long-term durability and reliability. Wooden noise walls are sometimes constructed in developments on private property; these have a shorter service life and higher maintenance costs. The design of the wall would include engineering analysis to confirm the soil conditions and grading necessary to provide the full benefit.

For example, based on an average property width of 15 metres (50 feet) adjacent to Hydro One / Highbury Avenue South and a typical construction cost per metre for a sound absorbent wall (2.5 metres in height) of \$1,200, the following table presents the cost sharing between the City and property owner of a lot of that width:

	Total Cost	City of London Share (1/3)	Property Owner Share (2/3)
Noise Wall Construction Cost (\$/m)	\$1,200	\$400	\$800
Rear Yard Length (m)	15		
Total Estimated Cost	\$18,000	\$6,000	\$12,000

In general, under a local improvement, the cost for an average property owner would be in the range of \$12,000 (+HST).

The above estimate is assuming free access to the rear yards to construct the noise wall as would be available with a road widening project. Unfortunately, the Hydro One corridor exists between Highbury Avenue South and the rear yards on the west side of the roadway. This corridor presents a challenge to gain access for engineering design, construction and future maintenance. Therefore, the installation of a noise wall would be subject to the approval of Hydro One. If acceptable to Hydro One, there may be agreements and additional associated cost to proceed for surveys, design and construction of an access roadway.

A review of the noise wall local improvement process is underway. The City is interested in hearing your thoughts about this study, the local improvement process and the potential noise wall for your property.

For questions, comments and concerns, please contact the undersigned at 519.661.2489 x5232 or email mdavenport@london.ca.

Yours truly,

Matt Davenport, EIT

Engineer in Training

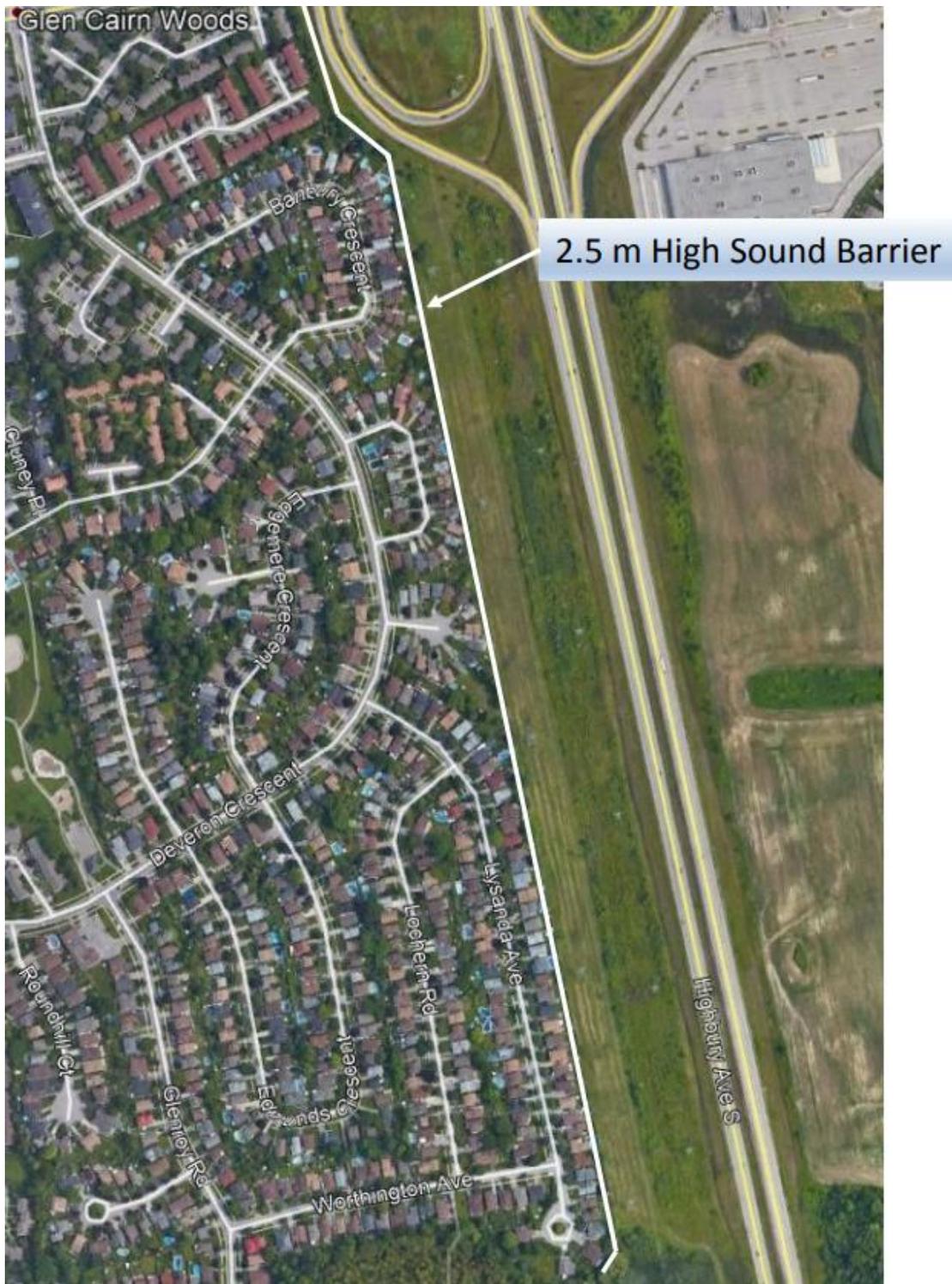
Transportation Planning and Design

Office: 519.661.2489 x5232 Fax: 519.661.4734

Attachments: Potential Locations for Noise Wall (map)
Local Improvement Triggers
Local Improvement Process Diagram

cc: Clr. Steven Hillier, Doug MacRae, Karl Grabowski

Potential Locations for Noise Wall



Banbury Crescent, Sundridge Crescent, Sundridge Court, Lysanda Avenue, Lysanda Court, 720 Deveron Crescent, 730 Deveron Crescent



Milan Place

Local Improvement Triggers

Trigger 1: Minister of Health or Municipal Board of Health Initiated Local Improvement

At any time, a local improvement can be initiated by the Minister of Health or Municipal Board of Health (Health Unit). The most likely reason a Health Unit would require a local improvement is a wide-scale failed sanitary septic system or unsafe drinking well water. As with all local improvements the majority of the costs for the improvement would be borne by the benefiting property owner. A Health Unit initiated local improvement is relatively uncommon.

Trigger 2: Property Owner Initiated Local Improvement

Property owners can successfully initiate a local improvement if two-thirds of the owners, representing a minimum of one-half of the assessed property value, petition in favour of undertaking the work.

If a municipality receives a sufficient petition against undertaking the work as a local improvement, or in other words the local improvement petition fails, the regulation states that the municipality shall not undertake the work as a local improvement within two years after receiving the petition.

Trigger 3: Council Initiation of a Local Improvement

City Council can successfully initiate a local improvement, unless it receives a petition against undertaking the local improvement, signed by at least a majority of the owners, representing at least one-half of the value of the lots, within 30 days after notice is given to the public. A City led initiative has a lower approval threshold (one-half versus two-thirds) when compared to property owner initiated local improvements. Section 15 of the Council Policy Manual outlines the City's policies related to local improvements. The policy was last updated at the September 18, 2017 Strategic Priorities and Policy Committee meeting.

Trigger 4: Approval from the Ontario Municipal Board

At any time, a local improvement can be initiated based on an approval from the Ontario Municipal Board. Local improvements would be considered by the Ontario Municipal Board in instances when a petition of property owners or an initiative of City Council has failed.

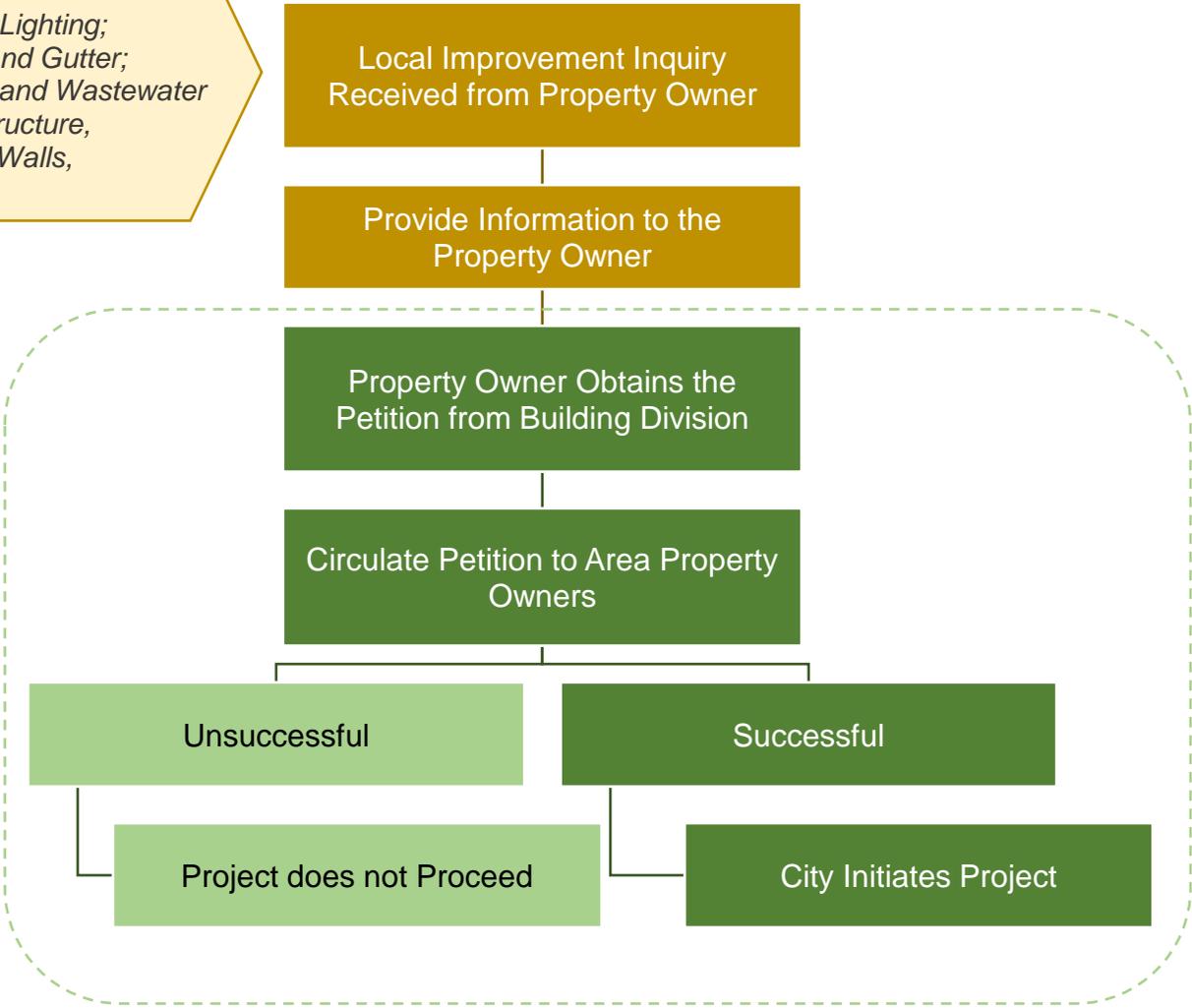
In making a decision the board member considers:

- 1) Whether the project is needed in the public interest;
- 2) Whether the process under which the local improvement is approved is fair and properly carried out by the municipality; and
- 3) Whether the amounts assigned to the affected property owners are derived from a fair and established methodology.

Ontario Municipal Board initiated local improvements are uncommon.

Local Improvement Process Diagram

- Examples of Local Improvements:**
- Street Lighting;
 - Curb and Gutter;
 - Water and Wastewater Infrastructure,
 - Noise Walls,
 - Etc.



Successful "Property Owner Initiated Local Improvements" require a petition signed by $\frac{2}{3}$ of the owners representing $\frac{1}{2}$ of the assessed property value.