



**Date:** 2021-06-09

**Subject: Recommendation Report – Replacement and Relocation of Private Noise Walls onto City Right-of-Way (Citywide)**

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**Report Number:** Public Works & Engineering-2021-616

**Recommendations:**

1. **THAT** the report titled: Recommendation Report – Replacement and Relocation of Private Noise Walls onto City Right-of-Way (Citywide) to the Committee of Council Meeting of June 9, 2021, be received;
2. **THAT** homeowners continue to be responsible for the maintenance of the noise walls on their properties adjacent to City roads and replace them at their own cost when needed;

**Overview:**

- **Most noise walls on residential properties adjacent to City roads are installed on private property and property owners are responsible for the maintenance of these noise walls as per Subdivision Agreements.**
- **City regularly receives requests to replace these noise walls as most homeowners are unaware of their obligations to maintain and replace the noise wall as per the Subdivision Agreement.**
- **In November 2015, City Council supported in principle changing the City's Noise Wall Policy to increase the City's cost share to 100% for the replacement and relocation of existing private noise walls adjacent to City roads onto the City's right-of-way. Council also directed staff to report back with an Implementation Plan including a detailed assessment of existing private noise walls and funding requirements for consideration in the 2017 Capital Budget.**
- **On November 15, 2017, an information report was presented to Council highlighting that the City would incur approximately \$4.27 million per year (2017 dollars) from 2018 to 2047 and beyond if the City implemented a program to replace all private noise walls adjacent to City roads. No decision was made by Council at that time.**
- **Private noise wall inventory was updated in 2020. There are approximately 69 km of private noise walls adjacent to City roads in different states of repair with a total estimated maintenance and replacement cost of approximately \$5 million per year averaged over a period of 30 years.**
- **The City currently owns approximately 12.4 km of noise walls with the total estimated maintenance and replacement cost of \$ 26.28 million. Spreading this cost over a period of 30 years, the average annual cost to maintain and replace these noise walls is \$876,000.**

**Background:**

In November 2015 (Resolution P&IS 277-2015), City Council supported in principle to amend the City's Noise Wall Policy and the City's cost share to 100% for the replacement and relocation of existing private noise walls adjacent to City roads onto the City right-of-way including their future maintenance. Council also directed staff to report back with an Implementation Plan including a detailed assessment of existing private noise walls and funding requirements for consideration in the 2017 Capital Budget. A copy of the Resolution P&IS 277-2015 is provided as Attachment 1.

A detailed condition assessment of private noise walls including financial implications of the City assuming responsibility for these noise walls over time was carried out in 2017 and an information report was presented to Council on November 15, 2017. Highlights of the report were:

1. There were approximately 64 km of private noise walls adjacent to City Roads
2. If City decided to take on these private noise walls and relocate them on City property, the City would incur approximately \$4.27 million per year for 30 years and beyond. This funding was equivalent to approximately 1% tax levy increase at the time in perpetuity. A copy of the November 15, 2017 report is provided as Attachment 2.

It should be noted that the City no longer allows the developers to install noise walls along arterial and collector roads that would be the responsibility of the homeowners for maintenance and replacement. Noise walls installed as of November 2015 are placed on City property and become part of the City's asset inventory. There are light duty noise walls installed within subdivisions that continue to be the responsibility of the homeowners.

### **Local Improvement Process for Noise Wall Replacement**

Noise walls adjacent to City roads are generally located on private properties and homeowners are responsible to maintain and replace them at end of service life. That commitment is made by the homeowners upon signing the Subdivision Agreement at purchase.

Currently, replacement of private noise walls can be implemented through Local Improvement Process where City shares 75% of the cost of replacement and benefiting homeowners share 25%. Despite substantial subsidy provided by the City, only one Local Improvement project to replace the existing noise wall was successfully implemented in the past 10 years. The low uptake is due to high cost to the homeowners despite the subsidy. Noise walls continue to deteriorate and inability of homeowners to replace them will worsen the aesthetic of street corridors, create safety issues for pedestrians/cyclists and tarnish the overall image of the City.

### **City of Mississauga and Region of Peel Policies**

The City of Mississauga and the Region of Peel both have implemented programs that cover the full cost of replacing and relocating private noise walls adjacent to roads under their jurisdictions. The Region of Peel and the City of Mississauga each have approximately 40 km of private noise walls adjacent to roads under their jurisdictions. These quantities are significantly lower as compared to the quantity of private noise walls adjacent to City roads in Brampton. The City assuming responsibility to replace and relocate private noise walls onto City right-of-way will maintain a consistent policy across the Region. However, Brampton will incur significantly higher cost in comparison due to the quantity of private noise walls in Brampton.

This report summarizes the assessment of both private and City owned noise walls adjacent to City roads and provides recommendations to serve the best interest of the City and its residents.

## Current Situation:

### Assessment of Private Noise Walls

In summer 2020, the City completed an update to the inventory and condition of private noise walls adjacent to City roads including cost estimates. There are approximately 69 kilometres of private noise walls adjacent to City roads in different state of repair.

For the purpose of cost calculation, four different noise wall materials were reviewed and their life-cycle unit costs (per metre) assuming a typical height of 2.4 m are summarized in Table 1.

Table 1 Life-cycle cost per metre of noise wall for different materials

Material	Cost per Metre (2021 Value)
Aluminum	\$1,855
Vinyl	\$2,095
Concrete/Composite	\$2,120
Wood	\$2,260

The per metre costs shown in Table 1 include capital, design, contract administration, contingencies, disposal and maintenance costs. Although wood noise walls are predominantly used in Brampton, their life-cycle cost is higher compared to other types because of shorter service life and frequent maintenance requirements. Aluminum has the lowest life-cycle cost but they have typically not been used in Brampton and suppliers are limited. The cost of vinyl and concrete noise walls are comparable but vinyl noise wall is not very common in Brampton. Therefore, for the purpose of costing, per metre cost of concrete noise wall was assumed because it is commonly used and multiple suppliers are available in the market.

The private noise wall condition summary, quantities, replacement and maintenance costs and approximate time horizon for replacement are summarized in Table 2.

Table 2: Private Noise Wall Assessment Summary

Condition Rating	Approx. Length of Noise wall (m)	Approx. Cost for Replacement (2021 value)	Replacement Time Horizon
Very Good	4,948	\$10,489,760	15 to 30 years
Good	16,314	\$34,585,680	10 to 15 years
Fair	27,854	\$59,050,480	5 to 10 years
Poor	12,147	\$25,751,640	2 to 5 years
Very Poor	7,363	\$15,609,560	0 to 2 years
<b>Total</b>	<b>68,626</b>	<b>\$145,487,120</b>	

As indicated in Table 2, if the City decides to replace private noise walls adjacent to City roads, approximately \$15.6 million will be required within the next two years to replace noise walls that are in very poor condition. Likewise, approximately \$41 million will be required within the next 5 years. The total cost of replacement over a period of 30 years is estimated to be \$145.5 million that would amount to approximately \$4.85 million per year. Additionally, staff resources will be required to run the program. Annual staff cost is estimated to be approximately \$150,000 that brings the average cost of taking on private noise walls to \$5 million per year. Maintenance and

replacement activities will need to be continued in perpetuity as the City would take ownership of these noise walls once replaced on to public property.

### **City-owned Noise Walls**

City-owned noise wall condition summary, quantities, replacement and maintenance costs, and approximate time horizon for replacement are summarized in Table 3.

Table 3: City-owned Noise Wall Assessment Summary

Condition Rating	Approx. Length of Noise wall (m)	Approx. Cost for Replacement (2021 value)	Replacement Time Horizon
Very Good	7,441	\$15,775,068	15 to 30 years
Good	4,672	\$ 9,905,340	10 to 15 years
Fair	85	\$ 179,818	5 to 10 years
Poor	-	-	2 to 5 years
Very Poor	199	\$ 422,898	0 to 2 years
<b>Total</b>	<b>12,398</b>	<b>\$ 26,283,124</b>	

\*Included in 2020 budget

As shown in Table 3, the City owns approximately 12.4 km of noise walls with maintenance and replacement cost of approximately \$26.3 million over a period of 30 years, which is equivalent to \$876,000 annually. Replacement of very poor noise wall is budgeted in 2020 and the project is currently ongoing. Remaining City-owned noise walls are not expected to be replaced within the next five years. As these noise walls are already part of the City's inventory, staff will continue to monitor, repair and replace as it is typical for any City-owned asset.

### **Total Cost of Noise Wall Program**

Based on discussions above on private and City-owned noise walls, if the City decides to replace private noise walls and assume ownership, the average annual cost for the noise wall program (both private and City-owned) is estimated to be \$5.88 million that would be funded from the tax levy. In light of increased investment required to keep the existing City infrastructures in a state of good repair to maintain service levels, taking on private noise walls will put significant tax burden to Brampton property owners. Therefore, it is recommended that homeowners continue to be responsible for the maintenance of the noise walls on their properties adjacent to City roads and replace them at their own cost when needed. Homeowners can continue to utilize the Local Improvement process to get subsidy from the City for noise wall replacement.

Approximately \$106,000 is being recovered from homeowners since 2010 for the replacement of noise walls through Local Improvement process. Council would also need to consider if and how to reimburse homeowners who have already paid or paying for their share of a noise wall replacement, as part of the Local Improvement Process.

### **Corporate Implications:**

#### Financial Implications:

There is no financial implication to the City as a result of recommendations in this report.

Any future operating and capital funding required for the Noise Walls program will be included in operating/capital budget submissions for consideration during future budget processes, pending Council approval.

### **Term of Council Priorities:**

This report achieves the Term of Council Priority “Brampton is a well-run City” by responsibly utilizing resources and prioritizing to keep City infrastructures in a state of good repair.

### **Conclusion:**

This report presents an assessment of both City-owned and private noise walls adjacent to City roads. The City will incur an average annual cost of approximately \$5 million for 30 years and beyond by assuming responsibility to replace and relocate private noise walls adjacent to City roads. This will have a significant tax implications as the fund will have to be raised through tax levy. Given the significant tax implication to the Brampton property owners, it is recommended that homeowners continue to be responsible for the maintenance of the noise walls on their properties adjacent to City roads and replace them at their own cost when needed.

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### **Attachments:**

- 1 - A copy of Council Resolution P&IS277-2015
- 2 – A copy of Information Report – Replacement and Relocation of Private Noise Walls onto City Right of Way dated October 24, 2017