# **TORONTO**

# REPORT FOR ACTION

# **Luminous Veil Lighting Repair and Renewal Plan**

Date: September 2, 2025

To: Economic and Community Development Committee

From: General Manager, Economic Development and Culture

Wards: 11 - University-Rosedale, 14 - Toronto-Danforth

# **SUMMARY**

This report responds to direction from the Economic and Community Development Committee to develop a plan to ensure fully functional lighting along the Luminous Veil, the public artwork integrated in the upper deck of the Prince Edward Viaduct. This landmark installation, now over a decade old, is exhibiting system failures due to environmental damage, age, and gaps in maintenance and monitoring systems.

This report outlines an immediate repair plan to restore functionality and maintenance activities to the Luminous Veil by June 2026. City staff will work with Dereck Revington, the artist who designed the Luminous Veil, and qualified professional partners to execute repairs including the replacement of key infrastructure that will eliminate lighting outages. A maintenance schedule, including regular inspections, remote monitoring, and emergency response, will be developed to ensure that the lighting remains operational and that any issues can be promptly addressed. Following immediate repairs, City staff will consider recommendations from technical experts to implement a full asset renewal to ensure long-term sustainability, improve reliability and monitoring, and restore artistic intent.

#### **HELP IS AVAILABLE**

If you or someone you know is at risk of suicide, seek help right away. Support is available from experienced professionals who are ready to listen and assist.

**In an emergency**: **Call 911** if you are in immediate danger, experiencing a crisis, or need urgent medical assistance.

**For suicide support**: Call or text **9-8-8** for free, 24/7, and confidential support. **For other services**: Call **211** to be connected to mental health and social services. **For more resources**: Visit the <u>City of Toronto's Mental Health Resources page</u>. You are not alone—help is just a call, text, or click away.

# **RECOMMENDATIONS**

The General Manager, Economic Development and Culture, recommends that:

1. Economic and Community Development Committee receive this report for information.

# FINANCIAL IMPACT

The cost to implement the immediate repairs to the Luminous Veil is estimated at \$300,000 - \$450,000, have been fully provided for in the City's 2025-2034 Economic Development and Culture's (EDC) Division's Capital Budget and Plan to complete this project. As such, there will be no impact on the current year's budget.

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This report also identifies a need for a longer-term system renewal for the Luminous Veil. This larger-scale revitalization includes a full replacement of the lighting systems. The cost of the system renewal is estimated at \$1.9 - \$2.3 million. EDC will consider options to phase this work as part of its future Capital Budget and Plan, subject to Council approval.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the information as presented in the Financial Impact Section.

# **DECISION HISTORY**

On June 10, 2025, the Economic and Community Development Committee requested the General Manager, Economic Development and Culture, to report to the Committee's September 16 meeting on the problems experienced with the lighting of the Luminous Veil, on the current contract provisions for automatic notification of malfunctioning sections of lighting, and to provide a plan and timeline to ensure fully functioning lighting of the Luminous Veil.

https://secure.toronto.ca/council/agenda-item.do?item=2025.EC21.7

At its meeting of July 9, 2025, the Economic and Community Development Committee requested the General Manager, Economic Development and Culture to include if there are any known issues regarding the functioning of the Luminous Veil as a suicide prevention barrier in the report to the September 16 meeting of the Economic and Community Development Committee.

https://secure.toronto.ca/council/agenda-item.do?item=2025.EC22.11

#### Prince Edward Viaduct and the Luminous Veil

The Prince Edward Viaduct (PEV), completed in 1919, is an iconic example of heritage architecture and is known as one of the most important infrastructure projects in Toronto's history. A principal gateway into the city, it spans the vast Don River Valley and crosses the former Lake Iroquois shoreline.

Advocacy from mental health professionals and community groups led to the integration of a permanent suicide barrier, imagined as a piece of public artwork, into the PEV. Dereck Revington Studio's winning design, Luminous Veil, was commissioned in 1998 and installed along the viaduct in 2003 (although lighting effects were not added until 2015). The Luminous Veil's innovative integration of safety, heritage, and art achieved national and international acclaim, including the Canadian Architect Award of Excellence in 1999.

The Veil has functioned as an effective suicide barrier since its installation in 2003. A 2017 study found that only one person died from suicide after the barrier was implemented, while prior to its installation, there were around 9 suicide deaths every year at the Bloor Viaduct<sup>1</sup>, making it the second most frequented suicide location in North America, after San Francisco's Golden Gate Bridge. Further, a study published in the Canadian Journal of Psychiatry in 2024 examined suicide data from 1998-2020, concluding that the barrier had "an enduring suicide prevention effect", noting that the nearly 9 annual suicides potentially prevented over 17.5 years would equate to an estimate of over 150 lives saved. The authors also conclude that the barrier demonstrated "the long-term utility of structural interventions at high-frequency sites for suicide"<sup>2</sup>. The lighting is solely a decorative feature and has no bearing on the effectiveness of the barrier itself.

# The Prince Edward Viaduct Illumination Project

The original design of the Luminous Veil incorporated a responsive LED lighting scheme that was not feasible at the time of installation in 2003. In 2013, the City commissioned the next phase of the project by engaging Dereck Revington Studio and specialist collaborators to develop a groundbreaking artistic composition of moving coloured light, which would respond in real-time to the climate and atmosphere moving around and across the bridge.

The construction of this dynamic lighting system was completed in 2015 as part of the City of Toronto Pan / Parapan Am Games Legacy Activity Initiative. This \$2.8 million investment transformed the viaduct into a uniquely monumental work of public art in the

<sup>&</sup>lt;sup>1</sup> Sinyor, M., Schaffer, A., Redelmeier, D. A., Kiss, A., Nishikawa, Y., Cheung, A. H., Levitt, A. J., & Pirkis, J. "Did the Suicide Barrier Work After All? Revisiting the Bloor Viaduct Natural Experiment and Its Impact on Suicide Rates in Toronto." *BMJ Open*, vol. 7, no. 5, 2017.

<sup>&</sup>lt;sup>2</sup> Sinyor, M., Yu Men, V., Chan, P. P. M., Sanchez Morales, D., Levitt, A. J., & Schaffer, A. "<u>Long-Term Impact of the Bloor Viaduct Suicide Barrier on Suicides in Toronto: A Time-Series Analysis</u>." *The Canadian Journal of Psychiatry*, vol. 70, no. 4, 2024.

City's collection. The lighting of the Luminous Veil was the recipient of the 2017 DARC Award for Best Light Art Scheme and the 2019 Toronto Urban Design Award.

#### **Current Condition of Artwork**

The Luminous Veil is now over a decade old and is exhibiting system failures due to environmental exposure, age, and maintenance gaps. In response to direction from the Economic and Community Development Committee, City staff engaged the artist, Dereck Revington, and technical partner, WeLight, to complete a full system assessment of the Luminous Veil and propose immediate repair solutions along with a long-term renewal plan for the City's consideration.

The assessment identified critical issues impacting the long-term stability of the Luminous Veil. Concerns span across key artwork infrastructure, including system control, power distribution, cabling, and fixtures. These elements ensure the functionality of the artwork and are constantly exposed to the harsh environment and vibrations of the bridge. Deterioration from corrosion, water ingress, rodent damage, UV wear, and connector strain is accelerated in this setting, shortening the overall life of the artwork.

The lighting infrastructure of the Luminous Veil is highly specialized; many of its custom components are produced by only a handful of manufacturers. This has led to delays in sourcing replacement parts in the past. Planned features to support maintenance, including a remote monitoring system, were never implemented due to technological constraints at the time of installation. These maintenance gaps have contributed to deterioration, leaving the system without preventive servicing or structured diagnostics.

# Immediate Repair Plan

EDC will work with the artist and technical partners to execute immediate repairs on the Luminous Veil to restore functionality prior to June 2026, in time for Toronto's hosting of the FIFA Men's World Cup.

This repair plan includes targeted interventions to eliminate gaps in the lighting. The repair plan will replace and/or upgrade deteriorated components such as power-supplies, fuses, and cables to restore functionality throughout the artwork system. Damaged lighting brackets will be repaired and failed fixtures will be replaced. This plan also reinstates a regular maintenance schedule to quickly address any issues that may arise between short-term repair and long-term renewal. The maintenance and monitoring plan will include regular inspections, remote monitoring, emergency response, and a defined list of readily available spare parts to shorten replacement turnaround time.

The cost to implement the immediate repair and maintenance plan is estimated to be \$300,000 - \$450,000. Funding for the project is available in EDC's 2025-2034 Capital Budget and Plan, as part of funds allocated for outdoor public art maintenance.

# **Long-Term Renewal Plan**

The immediate repair and intermediary maintenance plan will restore functionality to the Luminous Veil for the next 5+ years. However, with the lighting technology approaching the end of its life, a broader system renewal is still required in order to ensure the artwork's long-term viability. As such, EDC will consider a full system renewal of the Luminous Veil, which will extend the artwork's life by an additional 15+ years.

The renewal plan includes the replacement of all of the artwork's unique light fixtures. Upgrading the fixtures ensures the preservation of the artist's original intent and improves sustainability through integration of the latest developments in efficient LED technology. Additional interventions, such as upgrades to cabling and connectors, will mitigate the damage caused by the surrounding environment. This will result in a longer life for the artwork's technical components and extend replacement timelines.

The renewal plan also expands remote monitoring to include camera feeds and outage notification. Alert thresholds and response times will be established as part of an ongoing maintenance plan.

The cost of a full system renewal is estimated to be between \$1.9 - \$2.3 million. EDC will consider options to include these costs in a phased manner as part of its future capital plan. EDC will also work with Engineering and Construction Services and Transportation Services to identify opportunities to align the long-term renewal plan with other planned maintenance on the Bloor Viaduct to achieve cost efficiencies where possible.

### CONTACT

Ben Macintosh, Manager, Cultural Partnerships, Economic Development and Culture, 416-338-4903, Ben.Macintosh@toronto.ca

# **SIGNATURE**

Patrick Tobin
General Manager, Economic Development and Culture