



Hamilton

# INFORMATION REPORT

<b>TO:</b>	Chair and Members Public Works Committee
<b>COMMITTEE DATE:</b>	August 10, 2022
<b>SUBJECT/REPORT NO:</b>	Claremont Access Wall Decommissioning and Rockfall Mitigation Works; Walls 3, 4, and 4A (PW22062) (Ward 2 and 8)
<b>WARD(S) AFFECTED:</b>	Ward 2 and 8
<b>PREPARED BY:</b>	Greg Wuisman (905) 546-2424 Ext.2431
<b>SUBMITTED BY:</b>	Susan Jacob Acting Director, Engineering Services Division Public Works Department
<b>SIGNATURE:</b>	

## COUNCIL DIRECTION

N/A

## INFORMATION

The following report is an update on the Public Works Department’s ongoing maintenance strategy and future planned capital works for the escarpment crossing known as the Claremont Access.

The City of Hamilton has a total of 17 escarpment access traffic corridors which are in close proximity to natural slopes or steep rock cuts, Claremont is one of these.

The Claremont Access roadway is protected against rockfall from the adjacent escarpment rock face by a combination of steel facing walls and steel bin walls installed between 1968 and 1970.

The steel facing walls are comprised of vertical posts with modular steel panels installed in horizontal segments between the posts. The steel panels are tied back into the rock face using rock anchors. The gap between the steel walls and the rock face varies and

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is up to 2 m deep in some locations. The gap was backfilled with stone. The steel facing walls provide only erosion control and have no structural retaining abilities. The Steel Bin Walls are retaining structures installed to provide resistance to the soil and rock slope. The steel bin walls consist of steel posts and panels that form closed bins filled with stone.

On the original 1968 construction drawings each wall segment along the Claremont Access was assigned an individual number for identification purposes. This numbering system was retained for report purposes by our current consultant.

Several failures of the steel facing walls have occurred along the Claremont Access over the past years. The first documented failure appears to have been in February 2012. Failures discovered in the Fall of 2016 ultimately prompted the City to close the down-bound lanes on the Claremont Access due to safety concerns.

Due to the age of the steel facing walls, their condition, and the failures observed over the past several years, structural remediation of the walls is not considered practical and consequently removal of select segments of the steel walls was programmed.

Based on our consultant's recommendations, Walls 3, 4, and 4A, as shown in Appendix "A" to Report PW22062, are programmed for removal. The consultant recommended that Wall 3A remain at this time as the stability of other walls are reliant on it.

#### Current and Future Planned Works

The consultant, Stantec Consulting Ltd., was retained to:

1. Provide monitoring of the rock face and steel facing walls. This assignment included monthly site inspections and inclinometer readings to monitor for signs of movement.
2. Carry out a Global Stability Study. The global stability of the slope and the potential impact of the steel facing wall removal on overall slope stability was assessed.
3. Prepare design and tender documents for the Steel Facing Wall decommissioning and rockfall mitigation works.
4. Provide an Options Report for remedial measures following decommissioning of the existing steel facing walls.

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All four (4) of the above assignments are currently in progress and decommissioning of the steel facing walls is scheduled to be tendered later this year (2022) with work to commence shortly thereafter.

Following a review of the various remedial alternatives to be presented by the consultant, a long-term option will be selected and the associated construction work, if applicable, and is anticipated to be tendered in 2023 with work to commence shortly thereafter.

Once the above works are completed, rehabilitation of the pavement on the Claremont Access will be undertaken and is currently scheduled for late 2024 or 2025.

**APPENDICES AND SCHEDULES ATTACHED**

Appendix “A” to Report PW22062 - Claremont Access General Arrangement Drawings