



City of Hamilton

PUBLIC WORKS COMMITTEE REVISED

Meeting #: 23-017
Date: November 13, 2023
Time: 1:30 p.m.
Location: Council Chambers
Hamilton City Hall
71 Main Street West

Carrie McIntosh, Legislative Coordinator (905) 546-2424 ext. 2729

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14. GENERAL INFORMATION / OTHER BUSINESS

14.1 Amendments to the Outstanding Business List

a. Items Requiring a New Due Date:

- a. Joint Action by City of Hamilton and Hamilton Police Service to Improve Pedestrian Safety

Item on OBL: ADJ

Current Due Date: December 4, 2023

Proposed New Due Date: Q2 2024

15. PRIVATE AND CONFIDENTIAL

16. ADJOURNMENT



**PUBLIC WORKS COMMITTEE
MINUTES 23-016**

1:30 p.m.

Monday, October 30, 2023

Council Chambers

Hamilton City Hall

71 Main Street West

Present: Councillors N. Nann (Chair), E. Pauls (Vice-Chair), J. Beattie, C. Cassar, J. P. Danko, M. Francis, T. Hwang, T. Jackson, C. Kroetsch, T. McMeekin, M. Spadafora, M. Tadeson, A. Wilson and M. Wilson

THE FOLLOWING ITEMS WERE REFERRED TO COUNCIL FOR CONSIDERATION:

1. Waste Management Sub-Committee Report 23-003 - September 29, 2023 (Item 9.1)

(Francis/A. Wilson)

That the Waste Management Sub-Committee report 23-003 – September 29, 2023, be received.

Result: MOTION, CARRIED by a vote of 13 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
Yes – Ward 2 Councillor Cameron Kroetsch
Yes – Ward 3 Councillor Nrinder Nann
Yes – Ward 5 Councillor Matt Francis
Yes – Ward 4 Councillor Tammy Hwang
Yes – Ward 6 Councillor Tom Jackson
Yes – Ward 7 Councillor Esther Pauls
Yes – Ward 8 Councillor J. P. Danko
Not Present – Ward 10 Councillor Jeff Beattie
Yes – Ward 11 Councillor M. Tadeson
Yes – Ward 12 Councillor Craig Cassar
Yes – Ward 13 Councillor Alex Wilson
Yes – Ward 14 Councillor Mike Spadafora
Yes – Ward 15 Councillor Ted McMeekin

2. Opportunities to Partner with Educational Institutions to Plant Trees (PW23066) (City Wide) (Outstanding Business List Item) (Item 11.2)**(Kroetsch/Danko)**

- (a) That Forestry and Horticulture staff be authorized and directed to:
- (i) Pursue opportunities with representatives from Conservation Authorities and educational institutions (the “Organizations”) in the City of Hamilton to plan tree planting projects on lands which are readily accessed by the public and owned by these Organizations; and
 - (ii) Present these opportunities to Ward Councillors and assist in drafting motions which detail the project(s) and which requests the use of the Area Rating Special Capital Re-Investment Discretionary Funds following Ward-Specific Funding Initiatives Procedures outlined in Report FCS18014(a).
- (b) That the General Manager, Public Works, or their designate, be authorized and directed to:
- (i) Apply for grant funding on behalf of the City of Hamilton for forestry initiatives related to increasing tree canopy on all City of Hamilton owned lands;
 - (ii) Support grant applications initiated by collaborating Organizations, including not for profit organization by providing letters of support, and/or by assisting with the completion of applications for grants respecting forestry initiatives related to increasing tree canopy on all City of Hamilton owned lands;
 - (iii) Approve and execute any letters of support, grant applications, grant agreements or any other agreements and documentation required to give effect to the recommendations made within this report, provided they are in a form satisfactory to the City Solicitor; and
 - (iv) To accept any grant funding that supports forestry initiatives related to increasing tree canopy on all City of Hamilton owned lands.

Result: MOTION, CARRIED by a vote of 13 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
Yes – Ward 2 Councillor Cameron Kroetsch
Yes – Ward 3 Councillor Nrinder Nann
Not Present – Ward 5 Councillor Matt Francis
Yes – Ward 4 Councillor Tammy Hwang
Yes – Ward 6 Councillor Tom Jackson

Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

3. MacNab Street South Lighting Enhancements (Ward 2) (Item 12.1)

(Kroetsch/M. Wilson)

WHEREAS, members of the community raised safety concerns due to inadequate street lighting conditions on MacNab Street South between Bold Street to Hurst Place;

WHEREAS, adequate street lighting enhances public safety and security which promotes the use of public spaces; and

WHEREAS, the Transportation Division conducted an assessment of existing lighting levels and determined them to be lower than required, particularly on sidewalks.

THEREFORE, BE IT RESOLVED:

- (a) That the Transportation Division be directed to upgrade the existing lighting on MacNab Street South between Bold Street and Hurst Place by replacing the existing decorative street light poles and luminaires with lighting equipment that will improve the lighting of the sidewalks and roadways to City standard; and
- (b) That all costs associated with upgrading the street lighting on MacNab Street South between Bold Street and Hurst Place be funded from the Ward 2 Capital Re-investment Reserve Account (#108052) at an upset limit, including contingency, not to exceed \$40,000.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Not Present – Ward 5 Councillor Matt Francis
 Yes – Ward 4 Councillor Tammy Hwang
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie

Yes – Ward 11 Councillor M. Tadeson
 Not Present – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

FOR INFORMATION:

(a) APPROVAL OF AGENDA (Item 2)

The Committee Clerk advised of the following changes to the agenda:

6. DELEGATION REQUESTS

6.1(e) Sharon Ruttan, Canadian Council of the Blind Hamilton Chapter

6.1(f) Tim Nolan, Accessibility Hamilton Alliance

(Spadafora/McMeekin)

That the Agenda for the October 30, 2023 Public Works Committee meeting be approved, as amended.

Result: MOTION, CARRIED by a vote of 14 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 4 Councillor Tammy Hwang
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

(b) DECLARATIONS OF INTEREST (Item 3)

There were no declarations of interest.

(c) APPROVAL OF MINUTES OF PREVIOUS MEETING (Item 4)

(i) October 16, 2023 (Item 4.1)

(Beattie/Cassar)

That the Minutes of the October 16, 2023 meeting of the Public Works Committee be approved, as presented.

Result: MOTION, CARRIED by a vote of 14 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 4 Councillor Tammy Hwang
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

(d) DELEGATION REQUESTS (Item 6)**(i) Various Delegation Requests respecting the HSR Fare Assist Program (Item 6.1)****(Tadeson/Kroetsch)**

That the Delegation Requests for today's meeting be approved, as follows:

- (a) David Smith (Item 6.1(a))
- (b) James Kemp (Item 6.1(b))
- (c) Siena Trigiani (Item 6.1(c))
- (d) Bernard Akouko, Canadian National Institute for the Blind (Item 6.1(d))
- (e) Sharon Ruttan, Canadian Council of the Blind Hamilton Chapter (Added Item 6.1(e))
- (f) Tim Nolan, Accessibility Hamilton Alliance (Added Item 6.1(f))

Result: MOTION, CARRIED by a vote of 14 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson

Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 4 Councillor Tammy Hwang
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

(e) DELEGATIONS (Item 7)

(i) Various Delegations respecting the HSR Fare Assist Program (Items 7.1 and 7.2)

The following Delegates addressed the Committee respecting the HSR Fare Assist Program:

- (a) Cheryl Hurd respecting Cancellation of Complimentary HSR Ridership for Individuals Who are Blind (Item 7.1)
- (b) David Smith (Item 7.2(a))
- (c) James Kemp (Item 7.2(b))
- (d) Siena Trigiani (Item 7.2(c))
- (e) Bernard Akouko, Canadian National Institute for the Blind (Item 7.2(d))
- (f) Sharon Ruttan, Canadian Council of the Blind Hamilton Chapter (Item 7.2(e))
- (g) Tim Nolan, Accessibility Hamilton Alliance (Item 7.2(f))

(ii) (McMeekin/Beattie)

That Tim Nolan, Accessibility Hamilton Alliance, be granted an additional 5 minutes, beyond the 5-minute time limit, to complete their delegation respecting the HSR Fare Assist Program.

Result: MOTION, CARRIED by a vote of 14 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson

Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 4 Councillor Tammy Hwang
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora

(iii) (Spadafora/Francis)

That the following Delegations respecting the HSR Fare Assist Program, be received:

- (a) Cheryl Hurd respecting Cancellation of Complimentary HSR Ridership for Individuals Who are Blind (Item 7.1)
- (b) David Smith (Item 7.2(a))
- (c) James Kemp (Item 7.2(b))
- (d) Siena Trigiani (Item 7.2(c))
- (e) Bernard Akouko, Canadian National Institute for the Blind (Item 7.2(d))
- (f) Sharon Ruttan, Canadian Council of the Blind Hamilton Chapter (Item 7.2(e))
- (g) Tim Nolan, Accessibility Hamilton Alliance (Item 7.2(f))

Result: MOTION, CARRIED by a vote of 14 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 4 Councillor Tammy Hwang
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar

Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

(f) DISCUSSION ITEMS (Item 11)

**(i) Wild Waterworks and Confederation Beach Park - Future Direction
(PW23067) (Ward 5) (Item 11.1)**

(Spadafora/Cassar)

(a) That staff be directed to begin a comprehensive review of the Wild Waterworks area within the Confederation Beach Park master plan with consideration of how changes to Wild Waterworks may impact other parts of the larger park master plan, to support work including:

- (i) A report back to committee with the results of public consultation to establish guiding principles for the master plan design;
- (ii) A report back to committee with the final draft master plan for approval; and

(b) That the cost of the review be funded by reallocating \$200,000 from existing Project ID 4401956802 Beach Park Dev Program to a new Project ID.

(Francis/Spadafora)

That Report PW23067 respecting Wild Waterworks and Confederation Beach Park - Future Direction, be deferred to the December 4, 2023, Public Works Committee meeting.

Result: MOTION, CARRIED by a vote of 13 to 1, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 4 Councillor Tammy Hwang
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 No – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

(g) GENERAL INFORMATION / OTHER BUSINESS (Item 14)**(i) Amendments to the Outstanding Business List (Item 14.1)****(Spadafora/Jackson)**

That the following amendments to the Public Works Committee's Outstanding Business List, be approved:

- (1) Items Considered Complete and Needing to be Removed (Item 14.1(a))
 - (i) Opportunities to partner with Educational Institutions to Plant Trees (14.1(a)(a))
Item on OBL: ADR
Addressed as Item 11.2 (PW23066) (on today's agenda)
- (2) Items Requiring a New Due Date: (Item 14.1(b)):
 - (i) Crime Prevention Through Environmental Design Review of the City-Owned Escarpment Staircases (Item 14.1(b)(a))
Item on OBL: ADP
Current Due Date: November 13, 2023
Proposed New Due Date: December 4, 2023
 - (ii) Review of Level of Service for Winter Control in Alignment with the Principles of Vision Zero (Item 14.1(b)(b))
Item on OBL: ADN
Current Due Date: October 30, 2023
Proposed New Due Date: December 4, 2023
 - (iii) Roadway Safety Measures on Aberdeen Avenue from Queen Street to Longwood Road (Item 14.1(b)(c))
Item on OBL: AZ
Current Due Date: November 13, 2023
Proposed New Due Date: Q1 2024

Result: MOTION, CARRIED by a vote of 13 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Not Present – Ward 5 Councillor Matt Francis
 Yes – Ward 4 Councillor Tammy Hwang
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie

Yes – Ward 11 Councillor M. Tadeson
Yes – Ward 12 Councillor Craig Cassar
Yes – Ward 13 Councillor Alex Wilson
Yes – Ward 14 Councillor Mike Spadafora
Yes – Ward 15 Councillor Ted McMeekin

(h) ADJOURNMENT (Item 16)

(Tadeson/Spadafora)

That there being no further business, the meeting adjourned at 3:56 p.m.

Result: MOTION, CARRIED by a vote of 13 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
Yes – Ward 2 Councillor Cameron Kroetsch
Yes – Ward 3 Councillor Nrinder Nann
Not Present – Ward 5 Councillor Matt Francis
Yes – Ward 4 Councillor Tammy Hwang
Yes – Ward 6 Councillor Tom Jackson
Yes – Ward 7 Councillor Esther Pauls
Yes – Ward 8 Councillor J. P. Danko
Yes – Ward 10 Councillor Jeff Beattie
Yes – Ward 11 Councillor M. Tadeson
Yes – Ward 12 Councillor Craig Cassar
Yes – Ward 13 Councillor Alex Wilson
Yes – Ward 14 Councillor Mike Spadafora
Yes – Ward 15 Councillor Ted McMeekin

Respectfully submitted,

Councillor N. Nann, Chair,
Public Works Committee

Carrie McIntosh
Legislative Coordinator
Office of the City Clerk

**Questions and Comments on the
Safari Road Petition for Drainage Works and Appointment of a Drainage Engineer (PW22070) August 10, 2022
and
Preliminary Engineer’s Report Safari Road Municipal Drain, Robinson Consultants Inc., June 2023
and
Safari Road Petition for Drainage Works Request for Full Engineer’s Report (PW22070(a)), Nov 13 2023**

Submitted by: Natalie Feisthauer and Gerald Tetreault, [REDACTED]

Comments on Safari Road Petition for Drainage Works and Appointment of a Drainage Engineer

1. In the Historical Background it is stated that there has been “historical flooding” of the low-lying segment of Safari Road between Valens Road and Kirkwall Road.
 - What records or evidence exist of historical flooding? What is the definition of “historical flooding” used in this Petition?
 - We have lived around the corner from the Safari and Kirkwall Road intersection since 2005 and have only witnessed flooding of Safari Road in the last three years (2021, 2022 and 2023).

2. TOM and HW identified that the primary means for drainage of Safari Road are the private culverts at 1759 and 1727 Safari Road and determined that the blockage of these two private culverts were contributing to the high water conditions.
 - What data were used by TOM and HW to determine the cause of flooding and to identify the means of mitigation?
 - Did TOM and HW also look at weather patterns (e.g., greater than usual rainfall amounts, or frequency or unusual timing over the last three years)?
 - Did TOM and HW look at the hydrology of the wetland to determine if anything has been altered that reduced flow from the wetland (other than the blocked culverts, beaver dams, etc.) in the last three years?

3. “TOM explored the option of repairing the culverts, however they are on private property...thereby restricting the City’s ability to make the necessary repairs”. Since the blockage of these private culverts appears to be a significant cause of flooding on Safari Road:
 - Has the City communicated with the landowners to inform them of their contribution to the flooding on Safari Road which has also caused flooding of their own driveways and their own access to Safari Road?
 - What measures has the City undertaken to consult with the landowners to fix their own property (culverts) before petitioning for a Municipal Drain in the Safari Road Wetland?
 - Is there resistance from the private landowners to fix their culverts? If yes, cannot any contentious issues be resolved by mediation between the landowners and the City?
 - Is there any City mechanism to incentivise landowners to maintain their own infrastructure?
 - If the landowners have been consulted, and refuse to upgrade their culverts, what liability do the landowners hold because of the contribution of their inadequately maintained culverts to the flooding on Safari Road?

4. “Since the culverts are privately owned, and there is no Municipal Drain, the City has limited ability to intervene to address the current flooding issue or resolve the historic flooding of Safari Road”
 - What is the difference between the current flooding issue and the historic flooding issue?

- Surely public consultation/engagement/mediation on this issue with the landowners (1759, 1727, 1665 Safari Road) can go a long way to resolve this issue before undertaking a costly and ecologically damaging short-term solution of installing a Municipal Drain in the Safari Road wetland.
5. “Petitioning for a Municipal Drain is one of the legal processes available to proponents like the City to establish a legal and adequate outlet for stormwater and/or subsurface drainage as per the Ontario Drainage Act.”
 - What other legal processes are available to the City to resolve this issue?
 - The Drainage Act relates to stormwater and/or subsurface drainage, however;
 - The high water levels in Safari wetland are not stormwater; surface water is a natural hydrologic feature of a wetland and the elevated water levels are (presumably) a result of inadequate maintenance of private infrastructure
 - Installing a Municipal Drain to install or enhance subsurface drainage is to improve the arability of terrestrial agricultural systems such as providing for “improved management practices or a more profitable cropping system”¹, not to drain water from a wetland, especially a wetland of such local and regional significance as the Safari Road wetland.
 6. Regarding the statements in the Analysis and Rationale for Recommendation section: “...TOM in consultation with HW has initiated the petition as a means to investigate options to mitigate the historical flooding of Safari Road in the area between Valens Road and Kirkwall Road” and “The recommendations in this report do not commit the City to anything other than completing the preliminary report”, we appreciate that other options to resolve this issue will also be investigated, including but not limited to the raising of Safari Road.
 7. An additional option we propose the City explore is the permanent closure of Safari Road between Kirkwall Road and Valens Road. Our rationale for this option is provided later in this document.
 8. “ES is undertaking a Class Environmental Assessment (EA) associated with reconstructing Safari Road and the anticipated upgrade of road cross culverts”
 - Will there better public notice, engagement and consultation with this Class EA with local stakeholders than was conducted for the Drainage Petition? We were not aware of the Petition for Drainage or the May 9 2023 meeting to discuss the findings of the Engineer. We were only made aware of the Engineer’s Preliminary Report through happenstance, not from any communication from the City.
 9. What “traditional means” (mentioned in the Alternatives for Consideration section) were used to attempt to resolve the flooding to date?
 10. Alignment to the 2016 – 2025 Strategic Plan
 - Installing a Municipal Drain in the Safari Road wetland is not aligned with the Priority of Clean & Green – Hamilton is environmentally sustainable with healthy balance of natural and urban spaces

¹ Drainage Act RSO, 1990 c.D.17

Comments on Preliminary Engineer’s Report Safari Road Municipal Drain, Robinson Consultants Inc.

11. In the Introduction the report states: “The purpose of the proposed drain is to provide adequate drainage to the lands and roads within the drainage area”

- The *lands* shouldn’t be drained as the surrounding lands in the drainage area are wetlands. It is just road flooding that is at issue for the City.

12. Since we were not present (or aware of) the May 5 2023 meeting, can the City or Robinson Consultants provide the answers to the questions that were posed at the meeting (Section 1.2 of the Preliminary Report)?

With regard to the assumptions underlying the cause of flooding:

13. What and how were site-specific data, including geospatial data, collected during the site investigation and preliminary survey?

- Were any empirical site-specific/ground-truth data collected?
- Were historical data collected (e.g., natural baseline water flows from the wetland)?
- Will this information be provided in the Full Engineer’s Report?

14. If aerial photography was used as the primary (or only?) means to determine blockages, how was the nature and degree of channel restrictions and landform restrictions identified and measured?

- What defines “channel restrictions” and “landform restrictions” and what is the different causes between the two types of restrictions?

15. “In general, the imagery confirmed findings that blockages...to be the primary issue of concern.” The imagery only shows that there is flooding in the area, with a pattern and extent that has been observed consistently since 2021. Other than the driveways, it does not show specific blockages such as beaver dams, or other, unidentified land form restrictions.

- There is no evidence presented in the Preliminary Report of specific vegetation, sedimentation or beaver dams obstructing the natural flow of water from the Safari Road wetland
 - Where specifically has Robinson Consultants identified that vegetation and sedimentation have cause blockages to the flow channel of the wetland?
 - Where specifically has the location of beaver dams and lodges been identified?

16. Was any consideration given to other possible causes of flooding? Safari Road has only been flooded like this in the last three years (2021, 2022, 2023) – what changed after 2020?

- Changes in recent weather patterns? A similar increase in hydrology over the last three years has been observed in the watercourse draining the wetland after it crosses Kirkwall Road. This limestone bedrock stream was historically ephemeral, meaning that water flow was not continuous year-round (flow ceased during the dry months of the year). This stream is normally ephemeral throughout the length of the stream on the Kirkwall property over which it flows, even through different habitats (alvar, ash+maple swamp). However, over the last three years the duration of flow has been longer – the stream dried up later in the summer and flowed again earlier in the fall. In 2023 to date there has been continuous flow in the stream, consistent with this year’s high rainfall levels.
 - This suggests that the surface hydrology, or even hydrogeology, of the system might be altering and the Safari Road flooding cannot not be explained by blockages alone.

- Are new blockages present in the natural flow path of the wetland that did not exist prior to 2021 such as beaver dams?

With regard to proposed drainage solutions:

17. We are relieved to note that full/direct drainage of the Safari Road wetland will not be considered. Constructing and maintaining such a drain, as well as draining the wetland, would cause significant and on-going damage to the ecological biodiversity and habitat quality of this valuable Core Area of a Provincially Significant Wetland, and would permanently impair its hydrological function of water storage and filtration, something that this green infrastructure provides free of charge to the City and its citizens.
18. We agree that Options 1 and 2 are clearly not viable options to reduce flooding on Safari Road and the driveways of the affected properties.
19. Option 3a proposes actions that will allow the “establishment of a natural channel”.
 - Does this mean there is no existing naturally occurring flow path in the wetland such that one would need to be created? Is the wetland drained through sheet flow until it flows south through the culvert at Safari Road?
 - Or does Option 3a propose to increase (or re-establish higher) water flow rates in a naturally existing flow path strictly by only removing blockages?
 - Or will the “establishment of a natural channel” require sediment dredging, vegetation removal and bank creation to create what would be a “*naturalized* channel” through the wetland?
20. If Option 3a is not simply removing barriers but in fact proposes the creation of a naturalized channel would the channel design be such that the channel functions “like a stream in a natural state of stability such that it is able to transport water and sediment over time while maintaining channel form and ecological characteristics²” (i.e., Natural Channel Design³)? If done well, a channel designed under site-specific Natural Channel Design will not require future maintenance. Does Option 3a propose to use Natural Channel Design?
21. However, establishing any engineered channel in the wetland, under Natural Channel Design or not, is still very problematic because by definition establishing anything that functions like a stream in the middle of a wetland changes the hydrology and habitat of that wetland. This is in addition to the disturbance and damage caused by channel construction and maintenance.
22. Option 3a includes “removal of any permanent blockages, including beaver dams”.
 - Active beaver dams are not permanent blockages as beavers typically run out of available food sources within easy access within two to three years⁴
 - Until the food sources are exhausted however, beaver dam removal is usually an ineffective tool to clear water courses as beavers will rebuild their dams immediately, unless alternative solutions to dam management is implemented, such as pond levelers⁵. So on-going and frequent removal of

² https://www.twdb.texas.gov/publications/reports/contracted_reports/doc/1148321308_channeldesign.pdf

³ <https://www.collectionscanada.gc.ca/obj/s4/f2/dsk3/ftp04/MQ61935.pdf>

⁴ <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/beaver-guide.pdf>

⁵ <https://www.beaverinstitute.org/>

beaver dams would be required if it is a part of a flood abatement solution – with associated costs and ecological disturbances.

- Have beaver dams been identified in the Safari Road wetland? If yes, perhaps these new beaver dams have contributed to the recent flooding. An assessment would need to be made to determine if this is indeed the case, as per comment 16. If beaver dams are contributing to the problem, the situation could resolve itself without the need for human intervention as in time resident beavers will move on.
- Removal of beaver dams as part of the solution should only be considered after assessing if it will make a material difference in reducing flooding of Safari Road. Otherwise it will only add to the maintenance cost and disturbance frequency of the wetland.

23. What are the implications for the wetland if the channel is designated as a Municipal Drain? Does this mean that adjacent landowners will have a legal right to petition for dredging of the channel to further reduce water levels in the event of storms or high rainfall years?

24. How will the implementation of Option 3a affect downstream properties adjacent to the watercourse after it crosses Kirkwall Road?

- Will it increase the risk of flooding?

25. How will the implementation of Option 3a affect downstream aquatic habitat after it crosses Kirkwall Road?

- Will it change the stream habitat due to increased sediment transport from the naturalized channel?
- Will it change the hydrology of the watercourse and downstream wetlands by increasing water flows?
- As per the GRCA recommendations, hydrologic and hydraulic models need to be constructed to account for the loss of water storage in the wetland and the increased stream flows and potential for flooding downstream of the wetland

26. Weather patterns are changing due to climate change; it is entirely possible that we could experience significant periods of drought in the immediate and farther future.

- It is during droughts that the water storage and filtration capacity of a large marsh like the one on Safari Road will become increasingly critical to support plant and wildlife survival and biodiversity, as well as maintain ground water levels for drinking water wells for private residents and rural businesses, including farms.
- Installing any feature that increases the removal of water from a wetland runs the risk, in dry years, that water levels will drop to the point where the wetland can no longer function properly because of the loss of wetland-dependent plants and wildlife.
- With the drawing down of water levels, the wetland will also be at increased risk of being overrun by invasive species, which will accelerate the decline in the ecological and hydrological functioning of the wetland.

With regard to the value of the Safari Road wetland:

27. The comments provided by the GRCA in Appendix B of the Preliminary Report provides an excellent summary of the critical ecological value of the Safari Road wetland and makes clear the emphatic need, and legal requirements, to protect the ecological and hydrological integrity of this ecological gem in Hamilton's natural heritage system.

28. The wetland is considered a Confirmed Significant Wildlife Habitat as well as a Core Area, Key Natural Heritage Feature and Key Hydrological Feature in Hamilton's Rural Official Plan
29. The Safari Road wetland is part of the Beverly Swamp Complex that is 2324 hectares and spans three watersheds (Fairchild, Spencer and Bronte Creeks) and is home to many locally and regionally rare species including both southern Carolinian species and northern Great Lakes-St. Lawrence/Boreal species, making it an ecologically unique area.
30. The GRCA has indicated, as strongly as it is now able to, that they *discourage any drainage works that would destroy or degrade wetlands*.
31. The Beverly Swamp is one of the largest remaining wetlands, and one of most pristine remaining wetlands (e.g., Class 1 wetlands), in southern Ontario. The natural heritage of Beverly Swamp habitats draws visitors from both within the City and without, to enjoy passive and active recreation.
- Activities include, in the Safari Road wetland area alone, walking, running, hiking, biking, horseback riding, birdwatching, wildlife viewing, nature interpretation, hunting and simple relaxation.
 - The evidence is clear of the benefits to the physical, mental and emotional health of people being present in nature⁶, such as walking in the forest in the adjacent Hyde Tract, listening to the sounds of the marsh from Safari Road (the spring chorus of frogs calling in the marsh is wonderfully tremendous and the gulping song of an American bittern is always a humorous surprise), and observing wildlife in the wetland – watching swallows winging over cattails chasing insects and great blue herons soaring overhead in the sun-setting sky.
32. As an addendum to the Sheffield-Rockton Wetland Data Record in Appendix 2, it should be noted that this particularly Provincially Significant Wetland and surrounding area is also frequented by members of the Hamilton Naturalist Club due to the many significant species here, including species at risk that include birds, herptiles, insects and plants.
33. This past summer (2023) while visiting the flooded Safari Road more than once we spoke with birders who had come from as far away as Toronto to visit the Safari Road wetland for chance sightings of marsh-breeding birds like the Virginia Rail and Common Gallinule (these two species were present while we were chatting).
34. This summer (July 2023) we have also observed spectacularly abundant populations (100s if not 1000s of individuals) of metamorphosing leopard frogs in the warm, shallow flooded ditch on the south east side of Safari Road east of the road barrier).
35. In addition to the ecological value of the wetland for marsh breeding birds, reptiles, amphibians and other wildlife as well as for plants and insects, as stated before the wetland also provides the following ecological goods and services (EG&S): water storage capacity on the landscape that reduces the risk of downstream flooding, filtering of sediment from the water, and recharge of bedrock aquifers in the region.

Comments on the Safari Road Petition for Drainage Works Request for Full Engineer's Report, Nov 13 2023

⁶ Jimenez et al. 2021, Associations between nature exposure and health: A review of the evidence. Int J Environ Res Public Health doi:10.3390/ijerph18094790 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8125471/>

36. The content of the Petition for Drainage Works Request for Full Engineer's Report is similar to the content of the Preliminary Report, however it is unclear based on the wording if Option 3a is simply removing blockages or if it will entail any form of dredging or channel creation. This lack of clarity is discussed in detail in our earlier comments.
37. Does the Request for Full Engineer's Report commit the City under the Drainage Act to move ahead with Option 3a?
38. Alternatives for Consideration are provided below.

Alternative Solutions for Consideration:

39. Implement Option 3a in stages:
- Stage 1: Add culverts to (presumably) 1811 Safari Road driveway, and replace/properly size/lower existing culverts at 1759 and 1727 Safari Road driveways to remove the most significant blockages to the natural flow path of the Safari Road wetland
 - Monitor water levels and flooding to Safari Road for one full water year (October to October), while also recording rainfall amounts, to determine if installing/replacing culverts on the three driveways is sufficient to resolve the flooding problem on Safari Road
 - Stage 2: If after one water year flooding is not reduced to acceptable levels, then consider options 40 and 41 below (or others) before considering the installation of a Municipal Drain in the wetland.
40. Raise Safari Road as suggested in the Safari Road Petition for Drainage Works and Appointment of a Drainage Engineer (PW22070) August 10, 2022 report.

However, "we cannot solve our problems with the same thinking we used when we created them⁷". Safari Road was built right through the middle of a large, ecologically sensitive wetland. This wetland is a natural system that will fluctuate with changes in local conditions, naturally induced or otherwise, causing constant challenges to maintain the road. Climate change will continue to introduce vagaries in our weather patterns that might increase flooding to the point where even a newly raised road is inundated on a regular basis, or conversely, drought years might render the raising of Safari Road unnecessary or even harmful as the raised road then becomes a safety hazard and a barrier to wildlife movement.

Perhaps instead of fighting nature by trying to out-engineer it, which is very expensive, requires constant maintenance and is ultimately ineffective, we suggest working with nature for a more permanent, cost-effective and sustainable solution.

41. Permanently close Safari Road between Kirkwall Road and Valens Road

- We acknowledge that Safari Road is normally an established transportation route through Flamborough for private and commercial traffic, not least of which is tourist traffic from Hwy 6 to the African Lion Safari.
- However, for the last three years traffic had been successfully re-routed via Regional Road 97, Concession 8, Concession 6, Kirkwall Road, and Safari Road west of Kirkwall Road.

⁷ Albert Einstein

- There are many roads within Flamborough that are disconnected due to natural heritage features (e.g., Westover Road, Middleton Road, Concession 10). Traffic has successfully re-routed itself and the discontinuation of these roads provides protection to these natural areas.
- To our knowledge visitor traffic to the African Lion Safari has not been affected by the road closure as there are numerous access routes to the wildlife park other than Safari Road between Kirkwall and Valens Road.
- If the commercial rerouting is of economic concern to the City, an economic study should be conducted by TOM to determine the economic loss, if any, to the City or Flamborough businesses as a result of slightly longer commercial transit times through Flamborough.
- The benefits to the wetland of closing the road are clear:
 - reduced contamination of water from excess road salt, from oil, metal and tire micro-debris from cars, and from litter, including plastics, glass and cans, from vehicular traffic, all of which impact the health and reproduction of wildlife in the wetland
 - reduced risk of wildlife mortality from car collisions, especially for vulnerable wildlife like turtles and amphibians that do not display avoidance behaviour on roadways
 - reduced noise pollution from passing vehicles that interfere with mating and territorial call behaviour
 - reduced localized air pollution from vehicle emissions
- The benefits to human residents on Safari Road, and visitors to the Safari Road wetland and Hyde Tract are also clear:
 - reduced water, air and noise pollution, as well as litter, results in a healthier environment, especially for local residents
 - greatly reduced traffic, and the absence of high speed traffic, would make it much safer for Hamiltonians and visitors from outside the City to engage in walking, running, hiking, biking, horseback riding, birdwatching and wildlife viewing
 - a quiet, safe road would greatly enhance the recreational value of this part of rural Hamilton for Hamiltonians and visitors alike, both for the excellent wildlife observing opportunities and to engage in the other recreational activities described above
 - a quiet safe road for wildlife viewing would facilitate passive eco-tourism, which could be a economic benefit to the local community
 - Hamilton, by ensuring - in fact enhancing - the protection of this wetland, would be a leader in the sustainable integration of the natural environment with the human community, something that is more important than ever in this increasingly densely populated region of Ontario.
- The closure of Safari Road would not impact the reliability of emergency services, which originate from the Rockton Firehall, about 7 km to the south of the Safari Road wetland area. It is normal practice for emergency responders to route to a site using the nearest north-south axis road from Rockton and a closure of Safari Road between Kirkwall and Valens Road would not impact response times or access as they would access an emergency site from either Kirkwall or Valens Road, they would not traverse along Safari Road.
- Simple railings could be installed on the shoulders of Safari Road where water levels are deep next to the road for safety and liability reasons.

- The closure of Safari Road would not impact school buses except to modify routes; however rural school bus routes are continuously being modified as students are routinely added and removed from routes based on local demographics.
- Closure of Safari Road between Kirkwall and Valens Roads would reduce the cost of road maintenance and eliminate the need and cost of raising the road.

Thank you in advance for your time and careful consideration of our questions, comments, concerns and suggestions in our rather long submission to the November 13 2023 Hamilton Public Works Committee meeting.

We would be happy to discuss any aspect of our submission with members of the Public Works Committee as well as City Council in general.

Sincerely,

Natalie Feisthauer and Gerald Tetreault

6.1(a)

Request to Speak to Committee of Council

Submitted on Mon, 10/23/2023 - 14:29

==Committee Requested==

Committee: Public Works Committee

Will you be delegating in person or virtually? In-person

Will you be delegating via a pre-recorded video? No

==Requestor Information==

Name of Individual: John Fitzgerald

Name of Organization:

Contact Number: [REDACTED]

Email Address: [REDACTED]

Mailing Address:
[REDACTED]

Reason(s) for delegation request: to discuss the drainage petition of Safar Road. For council meeting dated November 13, 2023 at 1:30 pm

Will you be requesting funds from the City? No

Will you be submitting a formal presentation? No

6.1(b)

Request to Speak to Committee of Council

Submitted on Fri, 11/03/2023 - 10:04

==Committee Requested==

Committee: Public Works Committee

Will you be delegating in person or virtually? In-person

Will you be delegating via a pre-recorded video? No

==Requestor Information==

Name of Individual: Tina Osborne

Name of Organization:

Contact Number: [REDACTED]

Email Address: [REDACTED]

Mailing Address:

[REDACTED]

[REDACTED]

Reason(s) for delegation request: Would like to speak at the Nov. 13 Public Works meeting regarding Safari Road. I have concerns about environmental impacts.

Will you be requesting funds from the City? No

Will you be submitting a formal presentation? No

6.1(c)

Request to Speak to Committee of Council

Submitted on Fri, 11/03/2023 - 10:04

==Committee Requested==

Committee: Public Works Committee

Will you be delegating in person or virtually? In-person

Will you be delegating via a pre-recorded video? No

==Requestor Information==

Name of Individual: Paul Osborne

Name of Organization:

Contact Number: [REDACTED]

Email Address: [REDACTED]

Mailing Address:

[REDACTED]

[REDACTED]

Reason(s) for delegation request: Would like to speak at the Nov 13 meeting regarding Safari Road to give the perspective of a first responder responding to calls in the area of the closed Safari Road

Will you be requesting funds from the City? No

Will you be submitting a formal presentation? No

6.1(d)

Request to Speak to Committee of Council

Submitted on Sun, 11/05/2023 - 16:48

==Committee Requested==

Committee: Public Works Committee

Will you be delegating in person or virtually? In-person

Will you be delegating via a pre-recorded video? No

==Requestor Information==

Name of Individual: Natalie Feisthauer

Name of Organization:

Contact Number: [REDACTED]

Email Address: [REDACTED]

Mailing Address:
[REDACTED]

Reason(s) for delegation request: I wish to provide comment on the Preliminary Report "Preliminary Engineer's Report Safari Road Municipal Drain" prepared by Robinson Consultants, of the Safari Road Drainage Works Petition by the Road Authority.

Will you be requesting funds from the City? No

Will you be submitting a formal presentation? No

6.1(e)

Request to Speak to Committee of Council

Submitted on Mon, 11/06/2023 - 17:56

==Committee Requested==

Committee: Public Works Committee

Will you be delegating in person or virtually? In-person

Will you be delegating via a pre-recorded video? No

==Requestor Information==

Name of Individual: Achim Klaas

Name of Organization:

Contact Number: [REDACTED]

Email Address: [REDACTED]

Mailing Address:

[REDACTED]

Reason(s) for delegation request: Concerned property owner

Will you be requesting funds from the City? No

Will you be submitting a formal presentation? No



Preliminary Engineer's Report Safari Road Municipal Drain

Prepared For:



Hamilton

Prepared By:

Robinson Consultants Inc.
Consulting Engineers

Our Project No. B22048
June 2023

June 23, 2023

Mayor and Members of Council
City of Hamilton
71 Main St W.
Hamilton, ON L8P 4Y5

Attention: **Mr. Donald Young**
 Superintendent, WD & WCC
 Public Works

Reference: **Preliminary Engineer's Report**
 Safari Road Municipal Drain
 Our Project No. B22048

Dear Sir:

This Preliminary Engineer's Report for the Safari Road Municipal Drain, which is respectfully submitted for Council's consideration, was initiated by a petition of the Road Superintendent under Section 4 (Petition) of the Drainage Act, R.S.O. 1990, c D.17. The purpose of this report, which is completed in accordance with Section 10 of the Drainage Act is to review considerations with regard to outside agency concerns, alternative proposals, and a costing analysis of possible solutions.

All costs associated with the preliminary report will be assessed against the City of Hamilton.

If you have any questions, please feel free to contact the undersigned at 613-592-6060 extension 123.

Yours very truly,

ROBINSON CONSULTANTS INC.



Lorne Franklin, L.E.T., C.E.T., rcca, CISEC.
Licensed Drainage Technologist - Drainage Services

LJF: plw

c.c. Hector Quintero, Project Manager of Stormwater Operations and Maintenance, City of Hamilton

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LIST OF APPENDICES

Appendix A Drawings
 • Plan B22048-A1
 • Profile B22048-P1-P9
 Appendix B GRCA Consultation
 Appendix C Costing Analysis
 • Solution 3a

1.0 INTRODUCTION

Robinson Consultants Inc. was appointed by the City of Hamilton by purchase order dated September 28, 2022, to complete a Preliminary Engineer's Report on the proposed Safari Road Municipal Drain. The Preliminary Engineer's Report for the Municipal Drain was requested by the City of Hamilton due to concerns expressed by municipal staff for site specific constraints including the adjacent Provincially Significant Wetland (PSW) and that undertaking a full (typical) municipal drain construction as petitioned under Section 4 of the Drainage Act by the City of Hamilton Road Superintendent may not be feasible. The purpose of the proposed drain is to provide adequate drainage to the lands and roads within the drainage area.

The Preliminary Engineer's Report will discuss alternative solutions to drainage preferred by the Agencies as well as the solution proposed by the Drainage Engineer, estimate costs for drainage works and alternative solutions, and will provide a costing analysis. Requirements for Preliminary Reports are outlined under Section 10 of the Drainage Act, R.S.O. 1990, c D.17, and are as noted below:

- A sketched plan of the drainage works.
- An estimated cost of the works (to the extent practicable to do so).
- An environmental appraisal (where required).
- And a Benefit/Cost Statement (where required).

These items as well as any additional considerations are outlined in the sections below.

1.1 History

Robinson Consultants Inc. was retained by the City of Hamilton for the preparation of the Preliminary Engineer's Report. Site investigations and a preliminary survey were completed. The preliminary survey collected, where possible, geospatial data with regard to perceived problematic areas (water blockages or restrictions), including channel restrictions, culverts, and landform restrictions. The primary area of concern lies between the area of roadway flooding concerns (adjacent to the culvert crossing Safari Road) at the upper reach conveying flows from the south to north of Safari Road and the outlet culvert (returning flow South of Safari Road) and ultimately to the crossing of Kirkwall Road. The approximate drainage area and collected geospatial data are shown on Plan 22048-A1 with consideration for three (3) potential routing options. The three (3) options are shown on Profile Dwg's (22048-P1-P3 for Option 1, 22048-P4-P6 for Option 2 and 22048-P7-P9 for Option 3/3a). All plans and profiles are provided in **Appendix A**.

Safety, flooding, and previously required road closures were noted as the primary concern of the City Road Superintendent, along with on-going road maintenance issues. Concerns include:

- Flooding of Safari Road resulting in road closures or restricted access.
- Flooding resulting in unstable or poor road conditions.
- Safety concerns with regard to deep water immediately adjacent to the road.
- Emergency and public vehicle access (ambulance, police, fire, school-bus, etc.)
- On-going maintenance required due to poor road conditions.

Portions of the area of concern lie within the designated Provincially Significant Wetland (PSW), known as the Sheffield Rockton PSW Complex, part of larger and interconnected complex of regenerating natural areas known as the Hyde-Rockton-Beverley Complex (or Environmentally Significant Area #22 in the City of Hamilton Official Plan). This is considered the primary area of concern for the Agencies/Authorities. The area of PSW is also shown on Dwg. No. 22048-A1.

Arrangements were made for preliminary discussions and consultations with the Grand River Conservation Authority (GRCA), the Federal Department of Fisheries and Oceans (DFO), Ontario Ministry of Environment Conservation and Parks (MECP) and the Ontario Ministry of Natural Resources and Forestry (MNR) to determine areas of concern and to discuss Agency preferred alternative solutions. All parties were invited to an initial consultation meeting, however, only the GRCA attended the meeting completed on October 18, 2022. In follow-up, the GRCA provided their initial comments and concerns via e-mail dated October 26, 2022. A copy of this correspondence is provided in **Appendix B**.

In general, the GRCA indicated that any preferred solution would address the natural/environmental concerns and limit disruption to the PSW to the fullest extent possible.

Further consultation with all agencies is anticipated to be completed through the submission of this Preliminary Report.

1.2 Supplemental information and Consultation Meeting

In advance of finalization of the Preliminary Engineer's Report, a supplementary information and consultation meeting was completed to discuss the findings of the Engineer with the affected landowners and provide the opportunity for further input. The meeting was held on May 9, 2023, at 5:30pm at the Valens Community Centre.

At the time of this consultation, Safari Road was again closed due to flooding. Aerial video and imagery of the flooding event was captured on May 5, 2023, and presented along with the findings of the Engineer. In general, the imagery confirmed findings that blockages (including driveways with inadequate conveyance of flow) to be the primary issue of concern. Beyond these blockages there was no flooding evident and flow in the channel appeared minimal. The photo provided below best represents these findings.



Concerns expressed by the affected owners at the meeting included the following:

- Concern with delay – why is the process moving slow/what can be done now?
- Why should everyone have to pay if there are only a few properties causing issues?
- What authority do we have to enter on someone's land if they do not want the drain?
- Next Steps?

Ultimately, these questions/concerns were satisfactorily addressed at the information/consultation meeting. Therefore, it is our recommendation to proceed to distribution of the Preliminary Engineer's Report, and to the "Meeting to Consider" as required under the Ontario Drainage Act, R.S.O. 1990, c. D.17.

2.0 DRAINAGE SOLUTIONS

Three (3) initial routing options were considered including roadside ditching on both the North and South sides of Safari Road and one (1) along the current natural flow-path (through the PSW).

The primary drainage solutions included constructing or cleaning a continuous channel of sufficient capacity to provide adequate drainage for the lands and roads affected, outletting to the outlet crossing of Kirkwall Road. However, through engineering review in consultation with the various Agencies, it was determined that full/direct drainage would not meet Agency preferred solution requirements due to the potential impacts of drainage on the PSW.

Through survey and engineering review it was determined that routing along roadside ditches on the North or South Side of Safari Road would not be feasible as there is a significant height of land along the road of up to 9m. As such a determination was made that the natural flow path through the PSW was the only viable routing option.

As an alternative solution to a full trapezoidal channel drainage solution, consideration was given to a drainage management solution incorporating natural/existing conditions through investigation of restrictions or blockages within the system, removing any permanent blockages, including beaver dams, and associated accumulated sediment, providing beaver management, and allowing the establishment of a natural channel (identified as solution 3a). Additionally, vegetation removal within the channel may be required as necessary to provide a positive conduit for flows which in turn will permit restoration of the natural channel. This will reduce the potential negative impacts of future maintenance activities. The baseline natural channel would then be incorporated as a Municipal Drain so that maintenance of the baseline channel, ongoing beaver management and other routine maintenance can be provided by the municipality.

As a primary finding of the completed survey, it was noted that there are three (3) existing laneways that transect the PSW, allowing access from Safari Road to residences located on adjacent higher lands (outside of the limits of the PSW). The two (2) upstream laneways have culverts on the flow path allowing flow to pass. However, the condition of the culverts was generally considered to be poor and proper sizing is required to provide sufficient capacity. The third (downstream) laneway had no culvert to allow flow to pass on the natural flow path.

3.0 ALTERNATIVE SOLUTIONS

No additional alternative solutions have been given consideration for the purpose of this Preliminary Report.

4.0 SOLUTION ANALYSIS

A list of possible and/or proposed solutions and their pros and cons are provided in **Table 4.1 (following this page)**.

For the purpose of this report “Partial Drainage – Drainage Act” is define as follows:

“Partial Drainage - Drainage Act” allows for the creation of a naturalized channel through the removal of major impediments, beaver maintenance and associated sediment removal, replacement, addition and/or lowering of undersized and improperly placed culverts without modifying the natural grade and is anticipated to minimize impacts and overall disturbance within the Provincially Significant Wetland (PSW).

Whereas “Full Drainage – Drainage Act” is defined as follows:

“Full Drainage - Drainage Act” allows for the construction of a standard (trapezoidal) channel design to convey all flows related to a specific design/storm event. Consideration must then be given for the impact and effects the construction may have on the PSW.

Ultimately, Solution 3a is considered to be the only proposed viable solution.

5.0 CONSTRUCTION COSTING ANALYSIS

The construction costs associated with the only viable proposed solution is included in Table 5.1 and detailed in the Detailed Cost Estimate provided in **Appendix C**.

**Table 5.1
 Construction and Land Costs – Proposed Solutions**

No.	Description	Cost (Detailed in Appendix B)
3a	<p><u>Partial Drainage – Drainage Act</u></p> <p>Allowance for the creation of a naturalized channel through the removal of major impediments, beaver maintenance and associated sediment removal, replacement, addition and/or lowering of undersized and improperly placed culverts.</p>	<p>\$197,250.00</p>

6.0 RECOMMENDATIONS

In consideration of Construction Costs, and Costing Analysis provided above, Robinson Consultants Inc. recommends Solution #3a – “Partial Drainage – Drainage Act.” This Solution is reasonably cost effective, makes allowance for future maintenance, provides right of access without expropriation, allows for cost distribution and is considered to be an Agency approvable solution.

Solution #1 and Solution #2 – “Full Drainage – Drainage Act – Roadside Ditch” are not viable due to 9m in differential grade along the road.

**Table 4.1
 Proposed Solutions - Analysis**

No.	Solution	Pro	Con
1	Full Drainage – Drainage Act Roadside Ditch (South of Safari Rd.)		<ul style="list-style-type: none"> • Not viable due to 9m height of differential grade along the road.
2	Full Drainage – Drainage Act Roadside Ditch (North of Safari Rd.)		<ul style="list-style-type: none"> • Not viable due to 9m height of differential grade along the road.
3	Full Drainage – Drainage Act Natural Flow Path (Through PSW)	<ul style="list-style-type: none"> • Effective, controlled and engineered drainage with legislated control and provisions for future maintenance. • Ability to proceed with elimination of all potential drainage restrictions. • Payment assessed to affected landowners within the drainage boundary. • Ability to assess outside agencies for requested environmental assessments. • Replacement or lowering of culverts, adequately sized for flows and fish passage. 	<ul style="list-style-type: none"> • Substantial anticipated impacts on the PSW. • Inability to secure Agency approvals. • Difficulty of construction through the wetland area. • Anticipated substantial maintenance in the wetland area due to sedimentation and overgrowth. • Engineered Channel.
3a	Partial Drainage - Drainage Act Natural Flow Path (Through PSW) Alternative Strategies	<ul style="list-style-type: none"> • Effective drainage with legislated control and provisions for future maintenance. • Ability to proceed with elimination of significant drainage restrictions. • Payment assessed to affected landowners within the drainage boundary. • Replacement or lowering of culverts, adequately sized for flows and fish passage. • Restoration of natural flows along the natural flow path 	<ul style="list-style-type: none"> • Some (limited) disturbance of the PSW • Ultimately may not provide full relief from flooding concerns.

Solution #3 – “Full Drainage – Drainage Act – Natural Flow Path” is not recommended, as it is generally considered to not meet the Environmental Agencies requirements for approval and would result in significant disruption to the PSW and natural environmental features.

7.0 ENVIRONMENTAL CONSIDERATIONS

7.1 Grand River Conservation Authority Pre-Screening

7.1.1 Fish and Fish Habitat

Through preliminary consultation the GRCA identified the follow potential fish and fish habitat concerns:

- The watercourse flowing south of Safari Road is currently unclassified. This watercourse flows into a branch of Fairchild Creek, which is classified as warm water fish habitat by the Ontario Ministry of Natural Resources and Forestry.
- The watercourse contains a relatively diverse community of fish consisting of Blacknose Shiner, Blackside Darter, Bluntnose Minnow, Common Shiner, Creek Chub, Fathead Minnow, Greenside Darter, Hornyhead Chub, Johnny Darter, Largemouth Bass, Northern Pike, Pumpkinseed, Rainbow Darter, Rock Bass, and White Sucker.
- Several of these species prefer cool water conditions.
- GRCA recommends that no in-water take place between March 15 and July 15. Conversely, in-water work should be limited to the period between July 16 and March 14, in accordance with guidance provided by Fisheries and Oceans Canada (DFO).
- If work is being proposed in fish habitat and the appropriate mitigation measures to protect fish and fish habitat cannot be followed, consultation with Fisheries and Oceans Canada (DFO) would be highly recommended.

7.1.2 Species at Risk

Pre-Screening of the proposed Safari Road Municipal Drain was provided through the GRCA and identified the following potential Species at Risk (SAR) concerns:

According to the Ontario Natural Heritage Information Centre (NHIC), the following species at risk have been observed within the vicinity of the proposed project area:

- Bobolink (Threatened) – suitable habitat is present in hayfields and meadow areas.
- Eastern Meadowlark (Threatened) - suitable habitat is present in hayfields and meadow areas.
- Blanding's Turtle (Threatened) – suitable habitat is present throughout the wetland complex.
- Least Bittern (Threatened) – known to be breeding within the “Safari Road Wetland” as of 2022.

According to the Ontario Natural Heritage Information Centre (NHIC), the following species of conservation concern have been observed within the vicinity of the proposed project area:

- Canada Warbler (Special Concern) – suitable habitat is present within swamp and forest areas.
- Wood Thrush (Special Concern) – suitable habitat is present within swamp and forest areas.
- Eastern Ribbonsnake (Special Concern) – suitable habitat is present within and adjacent to this wetland complex.

- Snapping Turtle (Special Concern) – suitable habitat is present within and adjacent to this wetland complex.

7.1.3 Natural Heritage

Pre-Screening of the proposed Safari Road Municipal Drain was provided through the GRCA and identified the following potential Natural Heritage concerns

- In accordance with Section 6.2.16 of the GRCA's 2003 Wetlands Policy (approved March 28, 2003, Resolution No. 40-03), we would discourage any drainage works that would destroy or degrade wetlands.
- The wetland complex is mapped as being part of the Provincial Natural Heritage System and is subject to the Greenbelt Act and Greenbelt Plan.
- The wetland is identified as a Core Area, Key Natural Heritage Feature and Key Hydrologic Feature in Hamilton's Rural Official Plan.
- The wetlands within the Sheffield Rockton PSW Complex are part of a larger and interconnected complex of regenerating natural areas known as the Hyde-Rockton-Beverly Complex or Environmentally Significant Area #22 in the City of Hamilton Official Plan. Marsh, open alvar, and treed alvar communities are considered regionally significant and provide habitat for a variety of locally and provincially significant plant and animal species. Additional information regarding the important hydrological and ecological functions of this area may be found in the Natural Areas Inventory (NAI) Site Summary Report compiled by representatives of the Hamilton Conservation Authority, the Hamilton Naturalists' Club (HNC), and the City of Hamilton.
- Field inventories were last completed in 2002.

7.1.4 Habitat Features

Pre-Screening of the proposed Safari Road Municipal Drain was provided through the GRCA and identified the following potential Habitat Feature concerns:

- Based on a cursory review of available background information, the following Significant Wildlife Habitat (SWH) classifications would apply. Please note that additional SWH may be present within the wetland and/or adjacent areas:
 - The marsh area would be considered Confirmed SWH for marsh breeding birds as the following four target species are known to be breeding here as of 2022 (per eBird records):
 - Virginia Rail
 - Sora
 - Common Gallinule
 - Marsh Wren

The shallow marsh areas would be considered Candidate SHW due to the presence of the following:

- Amphibian Breeding Habitat (wetlands)
- Turtle Wintering Area

7.2 Ministry of Environment Conservation and Parks Pre-Screening

Pre-Screening of the proposed Safari Road Municipal Drain was provided through the MECP and identified the following potential Species at Risk (SAR) concerns:

- Red-headed Woodpecker
- Eastern Whip-poor-will

8.0 CONCLUSIONS

8.1 Recommended Solution

Robinson Consultants Inc. recommends that, should the City decide to proceed to a full Engineer's Report and subsequent Agency review, it should be on the basis of Solution # 3a – "Partial Drainage – Drainage Act", following the procedures of the Drainage Act.

9.0 ESTIMATED TOTAL COST OF RECOMMENDED SOLUTION

The estimated cost of this solution, including the required Engineer's Report, Inspection, Administration, and Construction is \$197,250.00. This solution is considered to be the only viable proposed and cost-effective solution for the intended purpose. It is believed that this solution is generally "approvable" by Environmental Agencies and will provide a reasonable level of drainage for Safari Road as well as providing some relief for adjacent property owners.

The major benefit of the recommended works is associated with reducing the potential flooding of Safari Road, improving reliability for emergency vehicles, school busses and private vehicles as well as improving safety for residents of the City of Hamilton who are not property owners in the drainage basin of the proposed Safari Road Municipal Drain.

The costs associated with this benefit have been reasonably accommodated through the assessment of the full cost of the Preliminary report to the City of Hamilton General Levy, a total of \$37,230.00.

Therefore, all costs associated with the future Engineer's Report and any associated construction should be assessed to the affected owners in accordance with the Drainage Act, a total of \$160,020.00.

All of which is respectfully submitted,

ROBINSON CONSULTANTS INC.

A.J. Robinson, P.Eng.
Drainage Engineer



Lorne Franklin
L.E.T., C.E.T., rcca, CISEC
Licensed Engineering Technologist
Drainage Services



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Ontario
23/06/23
Licensed Engineering Technologist

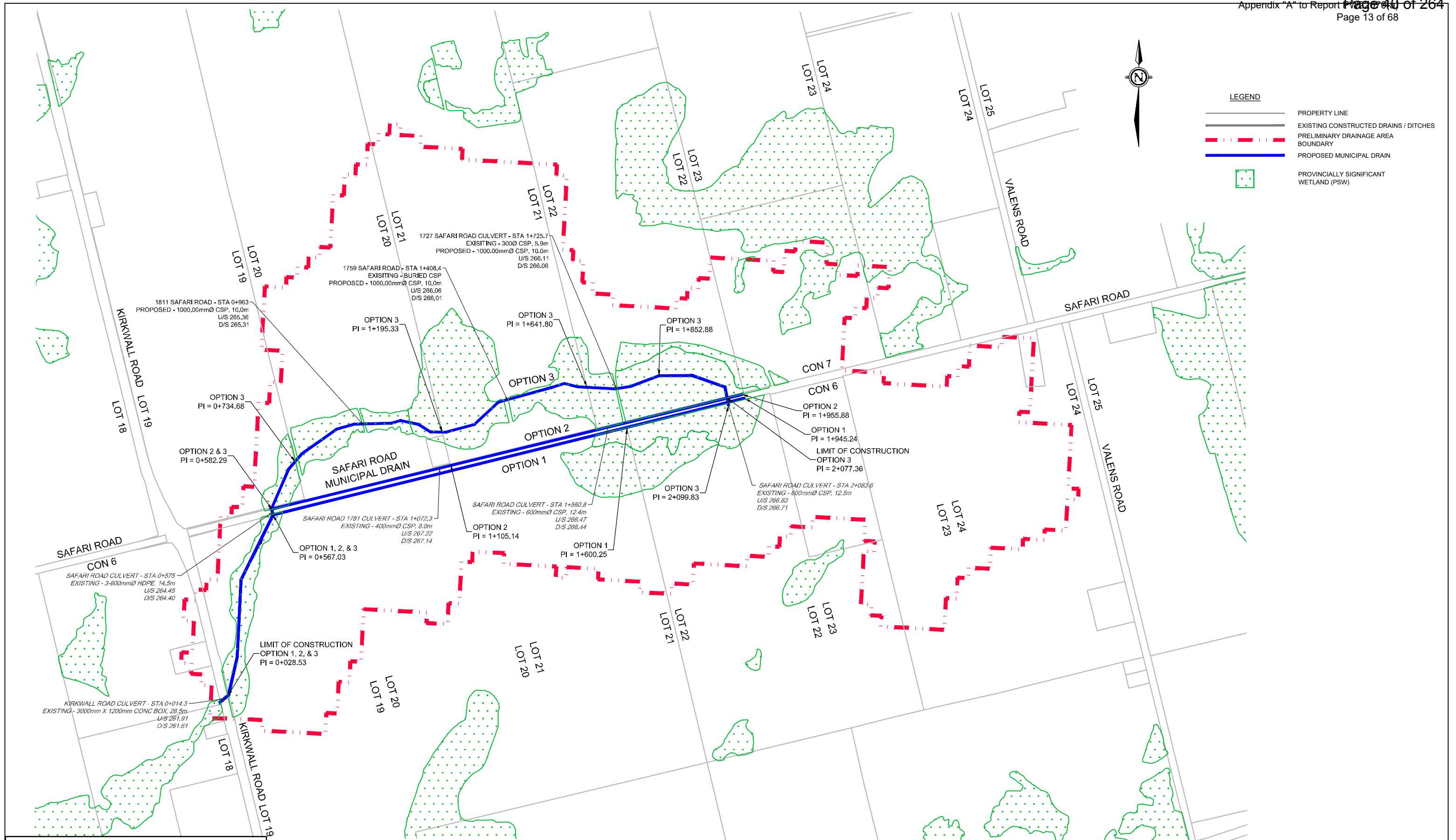
Name: L. FRANKLIN
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Appendix A

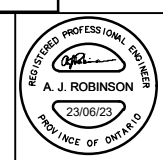
Drawings

- Plan B22048– A1
- Profile B22048-P1-P9

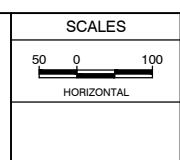


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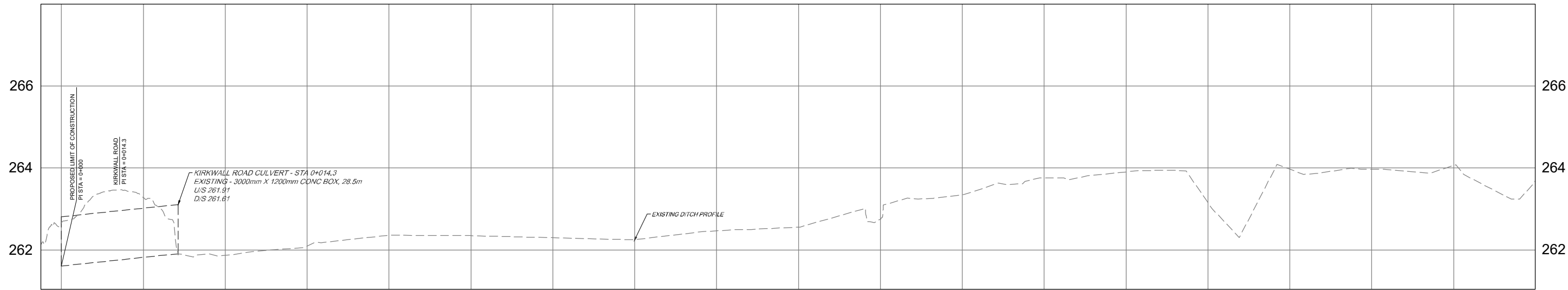


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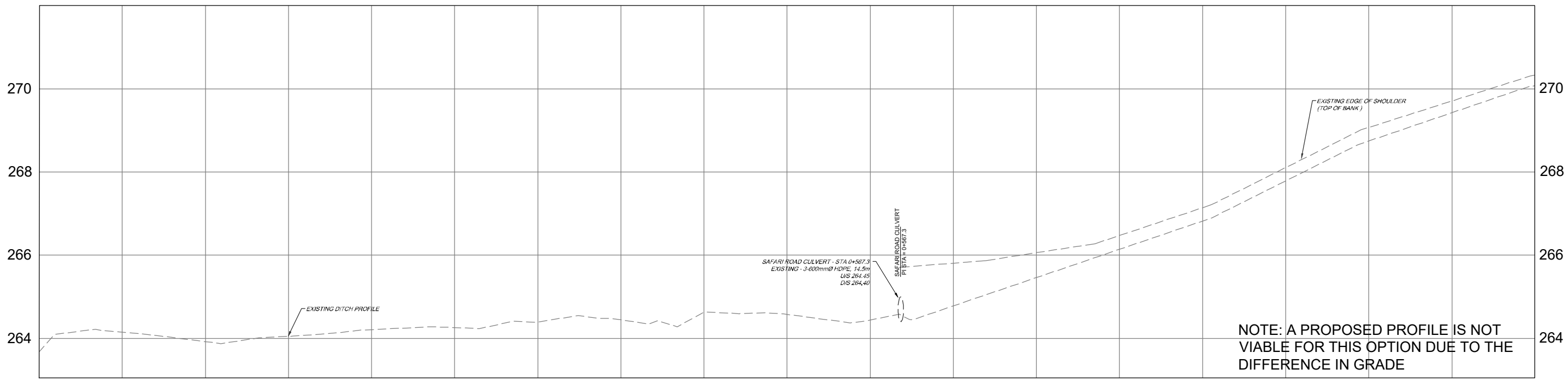
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DRAWN	JHB
CHECKED	LF
APPROVED	AJR

CITY OF HAMILTON
SAFARI ROAD MUNICIPAL DRAIN

DRAINAGE AREA PLAN
 PROJECT No. 22048
 CONTRACT No.
 DATED JUN 2023
 DWG. No. 22048-A1



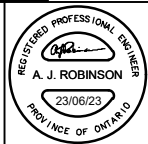
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STATION	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	



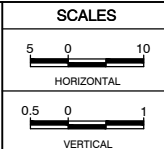
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STATION	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+560	0+580	0+600	0+620	0+640	0+660	0+680	0+700	0+720	

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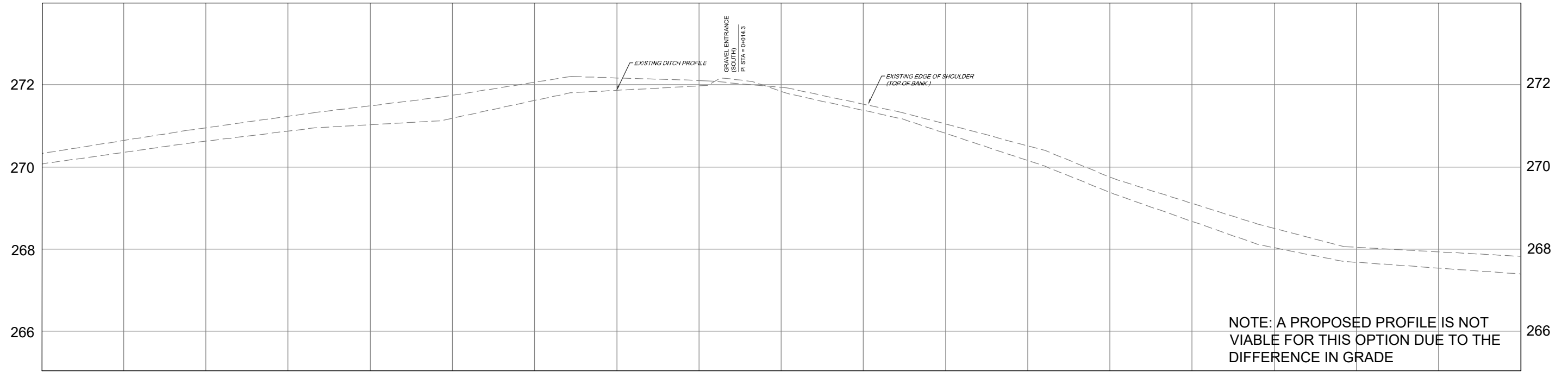
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DRAWN	JHB
CHECKED	LF
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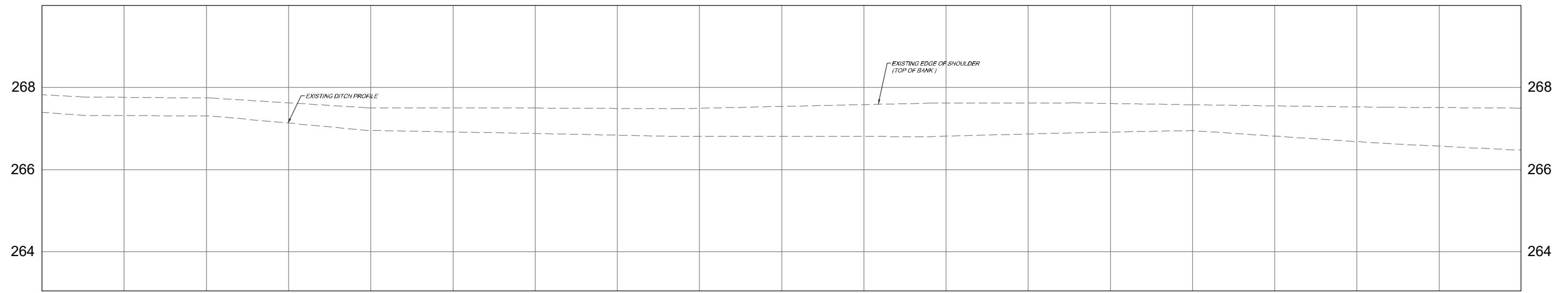
CITY OF HAMILTON
 SAFARI ROAD
 MUNICIPAL DRAIN

DRAIN PROFILE OPTION 1
 STA. 0+000 TO STA. 0+720

PROJECT No.	22048
CONTRACT No.	
DATED	JUN 2023
DWG. No.	22048-P1



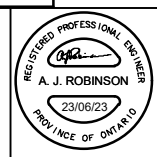
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STATION	0+720	0+740	0+760	0+780	0+800	0+820	0+840	0+860	0+880	0+900	0+920	0+940	0+960	0+980	1+000	1+020	1+040	1+060	1+080	



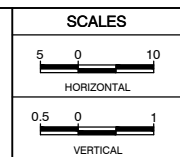
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STATION	1+080	1+100	1+120	1+140	1+160	1+180	1+200	1+220	1+240	1+260	1+280	1+300	1+320	1+340	1+360	1+380	1+400	1+420	1+440	

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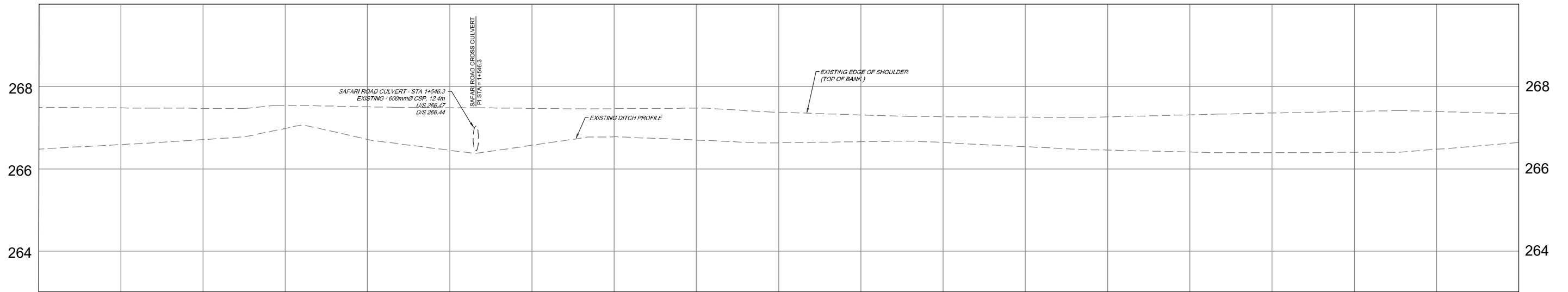
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APPROVED	AJR

CITY OF HAMILTON

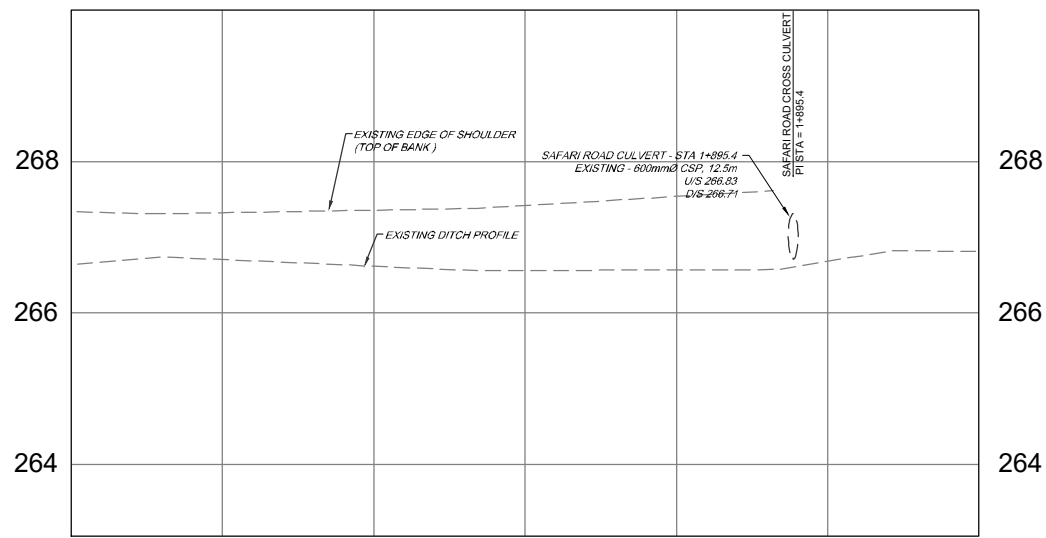
SAFARI ROAD MUNICIPAL DRAIN

DRAIN PROFILE OPTION 1
STA. 0+720 TO STA. 1+440

PROJECT No.	22048
CONTRACT No.	
DATED	JUN 2023
DWG. No.	22048-P2



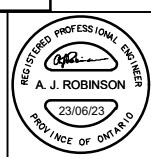
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STATION	1+440	1+460	1+480	1+500	1+520	1+540	1+560	1+580	1+600	1+620	1+640	1+660	1+680	1+700	1+720	1+740	1+760	1+780	1+800	



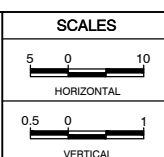
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STATION	1+800	1+820	1+840	1+860	1+880	1+900	1+920

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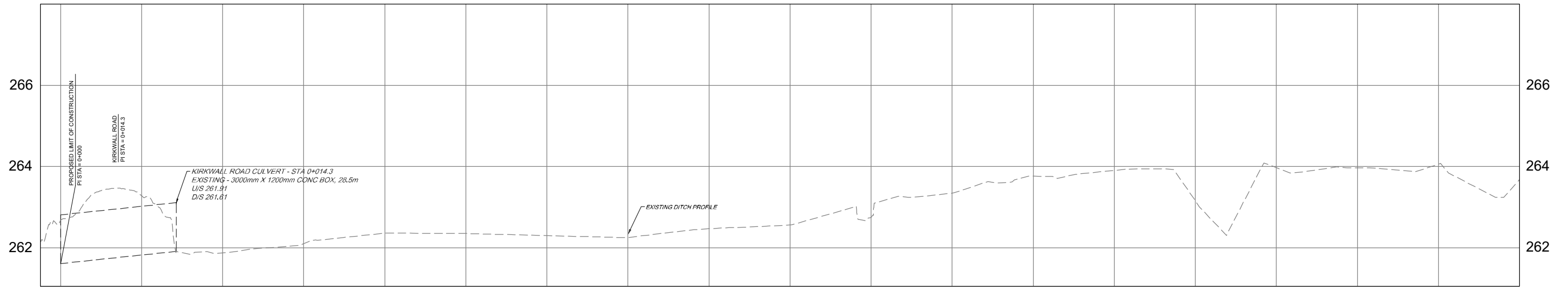
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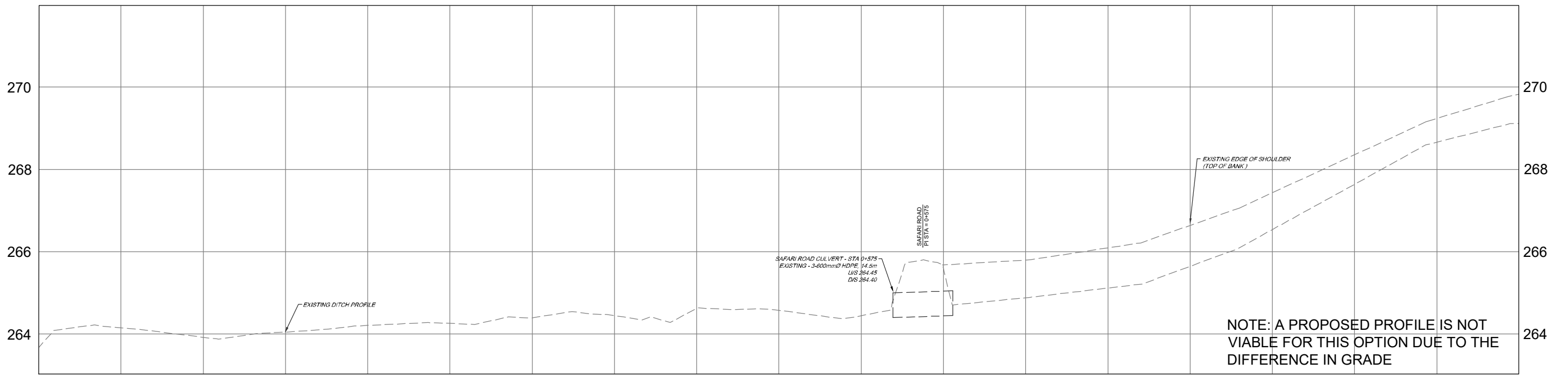
SAFARI ROAD
MUNICIPAL DRAIN

DRAIN PROFILE OPTION 1
STA. 1+440 TO STA. 1+920

PROJECT No.	22048
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DATED	JUN 2023
DWG. No.	22048-P3



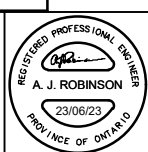
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STATION	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	



PROPOSED GRADE																				
EXISTING FIRM BOTTOM	263.66	264.15	263.92	264.05	264.21	264.26	264.39	264.45	264.63	264.59	264.44	266.60	264.89	265.12	266.65	266.54	267.64	266.66	268.11	
STATION	0+380	0+390	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+560	0+580	0+600	0+620	0+640	0+660	0+680	0+700	0+720	

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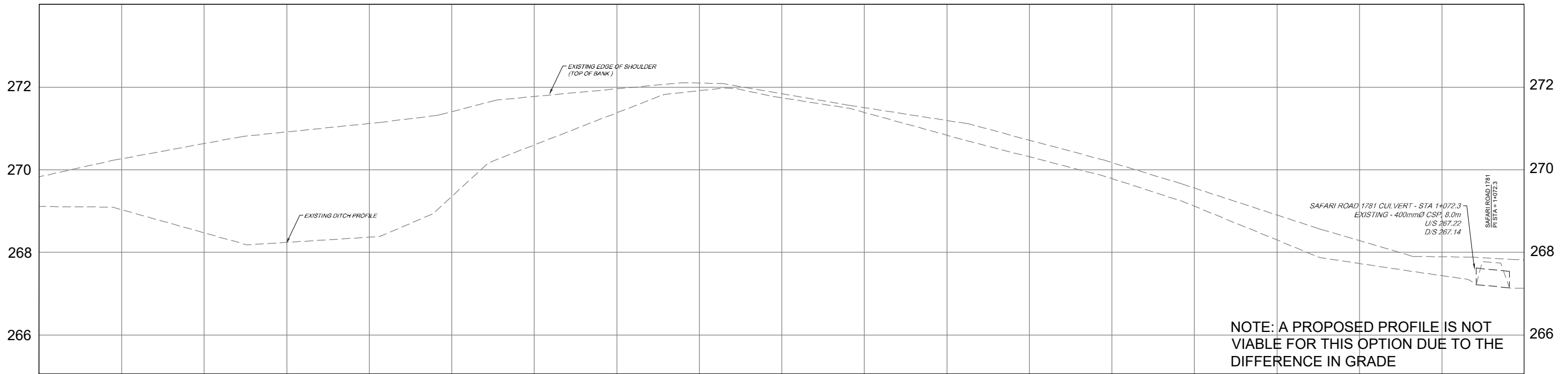
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APPROVED	AJR

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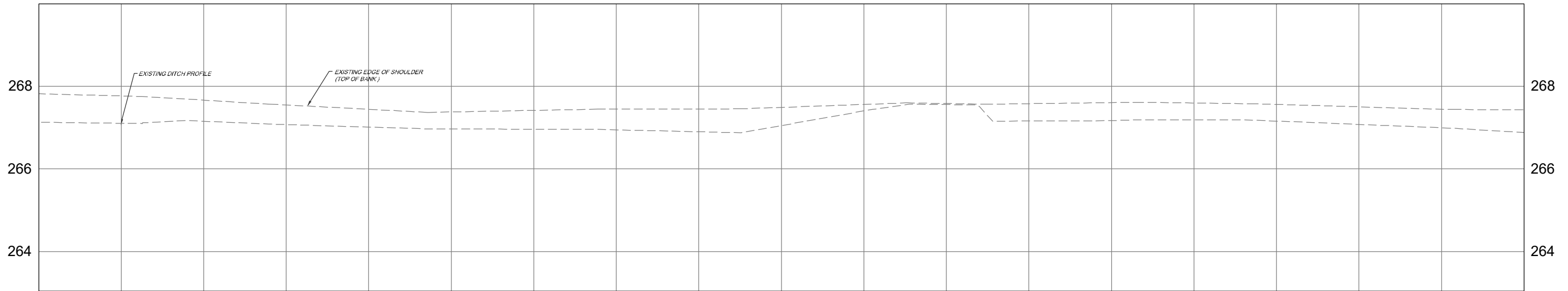
SAFARI ROAD MUNICIPAL DRAIN

DRAIN PROFILE OPTION 2
STA. 0+000 TO STA. 0+720

PROJECT No:	22048
CONTRACT No.:	
DATED:	JUN 2023
DWG. No.:	22048-P4



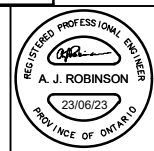
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STATION	0+720	0+740	0+760	0+780	0+800	0+820	0+840	0+860	0+880	0+900	0+920	0+940	0+960	0+980	1+000	1+020	1+040	1+060	1+080		



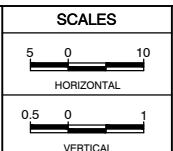
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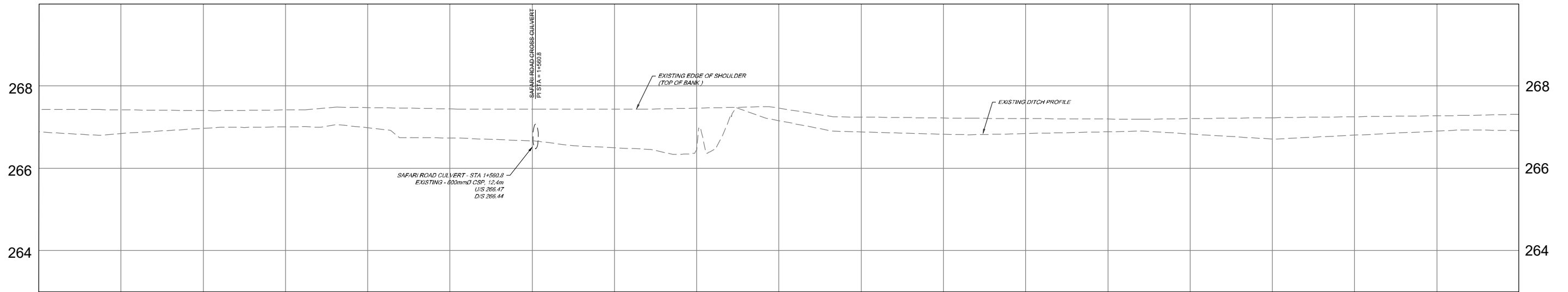
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APPROVED	AJR

CITY OF HAMILTON

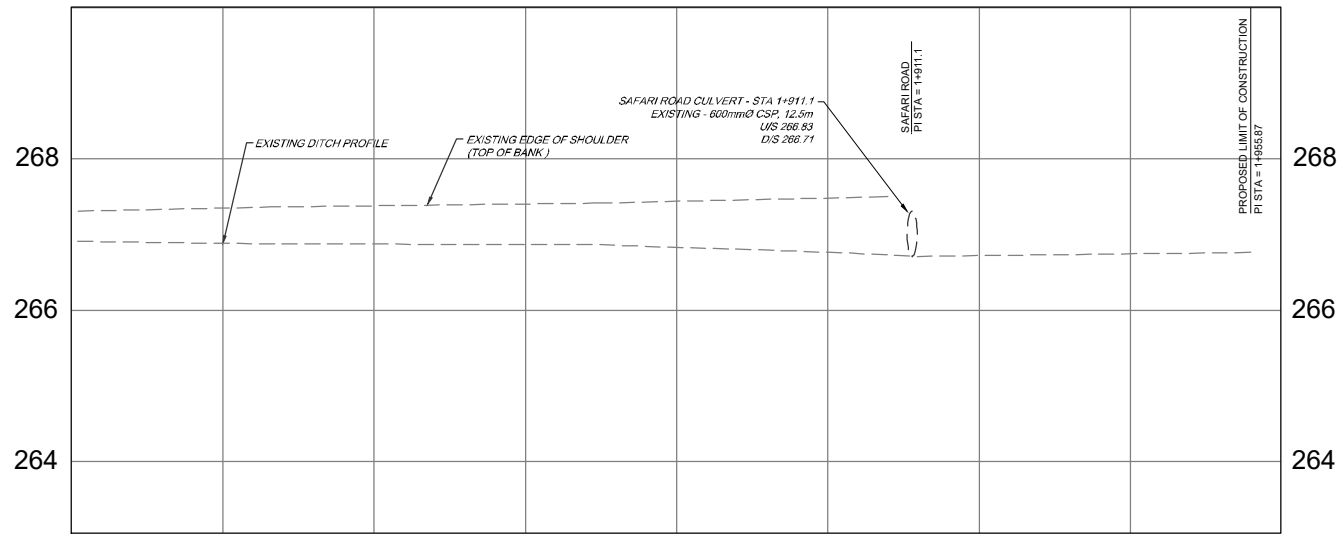
SAFARI ROAD
 MUNICIPAL DRAIN

DRAIN PROFILE OPTION 2
 STA. 0+720 TO STA. 1+440

PROJECT No.	22048
CONTRACT No.	
DATED	JUN 2023
DWG. No.	22048-P5



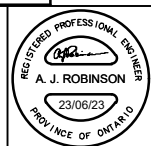
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STATION	1+440	1+460	1+480	1+500	1+520	1+540	1+560	1+580	1+600	1+620	1+640	1+660	1+680	1+700	1+720	1+740	1+760	1+780	1+800



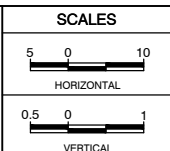
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Number: 300501335
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350 Palladium Drive
Ottawa, ON K2V 1A8
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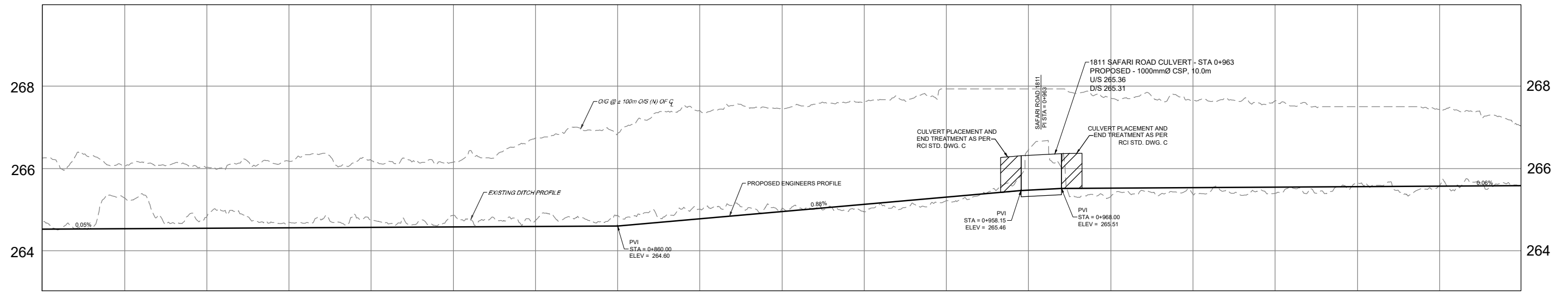
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APPROVED	AJR

CITY OF HAMILTON

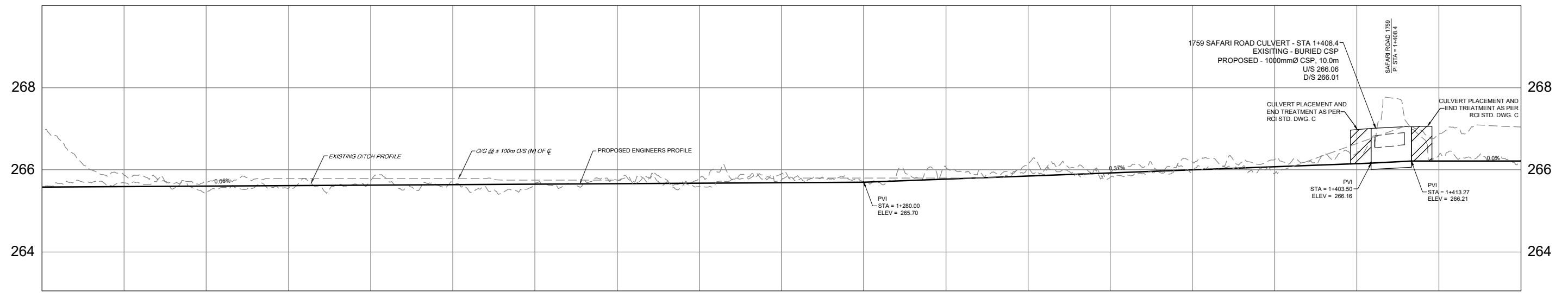
SAFARI ROAD
MUNICIPAL DRAIN

DRAIN PROFILE OPTION 2
STA. 1+440 TO STA. 1+920

PROJECT No.	22048
CONTRACT No.	
DATED	JUN 2023
DWG. No.	22048-P6



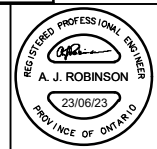
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EXISTING FIRM BOTTOM	264.71	265.29	264.63	264.69	264.74	264.66	264.74	264.65	265.01	265.03	264.95	265.22	265.46	265.31	265.37	265.39	265.63	265.59	265.59
STATION	0+720	0+740	0+760	0+780	0+800	0+820	0+840	0+860	0+880	0+900	0+920	0+940	0+960	0+980	1+000	1+020	1+040	1+060	1+080



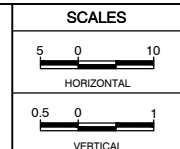
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EXISTING FIRM BOTTOM	265.59	265.66	265.44	265.55	265.73	265.70	265.66	265.75	265.79	265.75	265.69	266.07	266.16	265.93	266.19	266.25	266.41	266.35	266.23
STATION	1+080	1+100	1+120	1+140	1+160	1+180	1+200	1+220	1+240	1+260	1+280	1+300	1+320	1+340	1+360	1+380	1+400	1+420	1+440

NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	23.06.23	ISSUED FOR PRELIMINARY REPORT	AR



Professional Engineers Ontario
 23/06/23
 Licensed Engineering Technologist
 Name: L. FRANKLIN
 Number: 300501335
 Limitations: Providing plans, non-technical content of reports and other non-technical advice for submission under the Ontario Drainage Act.
 Association of Professional Engineers of Ontario



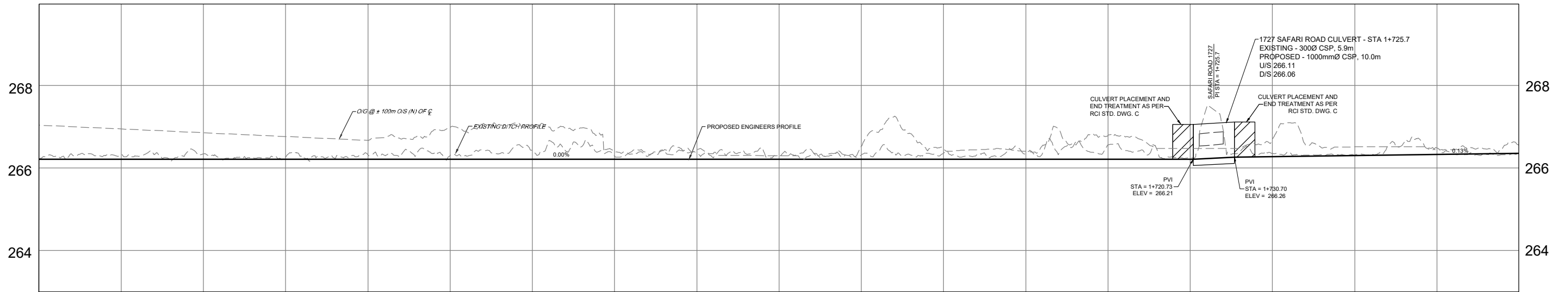
350 Palladium Drive
 Ottawa, ON K2V 1A6
 (613) 592-6060 rcii.com

DESIGN	LF
CHECKED	AJR
DRAWN	JHB
CHECKED	LF
APPROVED	AJR

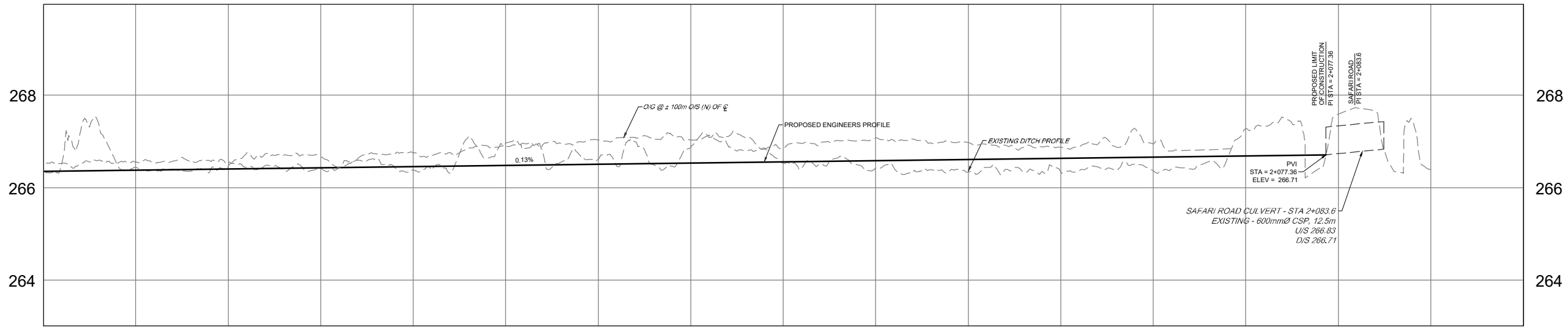
CITY OF HAMILTON
 SAFARI ROAD
 MUNICIPAL DRAIN

DRAIN PROFILE OPTION 3
 STA. 0+720 TO STA. 1+440

PROJECT No.	22048
CONTRACT No.	
DATED	JUN 2023
DWG. No.	22048-P8



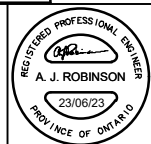
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EXISTING FIRM BOTTOM	265.23	265.32	265.34	265.27	265.32	265.34	265.47	265.40	265.44	265.29	265.32	265.36	265.36	265.56	265.26	265.35	265.37	265.46	265.34	266.35	
STATION	1+440	1+460	1+480	1+500	1+520	1+540	1+560	1+580	1+600	1+620	1+640	1+660	1+680	1+700	1+720	1+740	1+760	1+780	1+800		



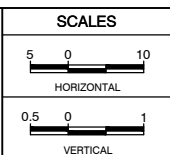
PROPOSED GRADE	266.35	266.38	266.40	266.43	266.46	266.48	266.51	266.53	266.55	266.58	266.61	266.64	266.66	266.69	266.69	266.69	266.69	266.69	266.69	266.69	266.69
EXISTING FIRM BOTTOM	265.34	265.43	265.46	265.42	265.39	265.55	265.62	265.67	265.63	265.41	265.24	265.34	265.36	265.27	267.59	267.59	267.59	267.59	267.59	267.59	267.59
STATION	1+800	1+820	1+840	1+860	1+880	1+900	1+920	1+940	1+960	1+980	2+000	2+020	2+040	2+060	2+080	2+100					

NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	23.06.23	ISSUED FOR PRELIMINARY REPORT	AR



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23/06/23
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DESIGN	LF
CHECKED	AJR
DRAWN	JHB
CHECKED	LF
APPROVED	AJR

CITY OF HAMILTON
SAFARI ROAD
MUNICIPAL DRAIN

DRAIN PROFILE OPTION 3
STA. 1+440 TO STA. 2+120

PROJECT No.	22048
CONTRACT No.	
DATED	JUN 2023
DWG. No.	22048-P9

Appendix B

GRCA Consultation



Administration Centre: 400 Clyde Road, P.O. Box 729 Cambridge, ON N1R 5W6

Phone: 519-621-2761 Toll free: 1-866-900-4722 Fax: 519-621-4844 www.grandriver.ca

October 26, 2022

Via email

Lorne Franklin
Robinson Consultants
350 Palladium Drive, Suite 210
Ottawa, Ontario, K2V 1A8
lfranklin@rcii.com

Re: Safari Road Municipal Drain Petition

Dear Lorne,

The requested OWES record and Site Summary for the Hyde-Rockton-Beverly Complex has been appended to this letter. Please note that the information contained in these reports are not specific to any one area of the wetland complex and that this complex was last evaluated in 1988.

The Grand River Conservation Authority (GRCA) offers the following comments pertaining to the Safari Road Municipal Drain Petition:

Natural Heritage

1. In accordance with Section 6.2.16 of the GRCA's 2003 Wetlands Policy (approved March 28, 2003, Resolution No. 40-03), we would discourage any drainage works that would destroy or degrade wetlands.
2. The wetland complex is mapped as being part of the Provincial Natural Heritage System and is subject to the Greenbelt Act and Greenbelt Plan.
3. The wetland is identified as a Core Area, Key Natural Heritage Feature and Key Hydrologic Feature in Hamilton's Rural Official Plan.
4. The wetlands within the Sheffield Rockton PSW Complex are part of larger and interconnected complex of regenerating natural areas known as the Hyde-Rockton-Beverly Complex or Environmentally Significant Area #22 in the City of Hamilton Official Plan. Marsh, open alvar, and treed alvar communities are considered regionally significant and provide habitat for a variety of locally and provincially significant plant and animal species. Additional information regarding the important hydrological and ecological functions of this area may be found in the Natural Areas Inventory (NAI) Site Summary Report compiled by representatives of the Hamilton Conservation Authority

(HCA), the Hamilton Naturalists' Club (HNC), and the City of Hamilton. Field inventories were last completed in 2002.

5. According to the Ontario Natural Heritage Information Centre (NHIC), the following species at risk have been observed within the vicinity of the proposed project area:
 - a. Bobolink (Threatened) – suitable habitat is present in hayfields and meadow areas.
 - b. Eastern Meadowlark (Threatened) - suitable habitat is present in hayfields and meadow areas.
 - c. Blanding's Turtle (Threatened) – suitable habitat is present throughout the wetland complex.
 - d. Least Bittern (Threatened) – known to be breeding within the “Safari Road Wetland” as of 2022.

6. According to the Ontario Natural Heritage Information Centre (NHIC), the following species of conservation concern have been observed within the vicinity of the proposed project area:
 - a. Canada Warbler (Special Concern) – suitable habitat is present within swamp and forest areas.
 - b. Wood Thrush (Special Concern) – suitable habitat is present within swamp and forest areas.
 - c. Eastern Ribbonsnake (Special Concern) – suitable habitat is present within and adjacent to this wetland complex.
 - d. Snapping Turtle (Special Concern) – suitable habitat is present within and adjacent to this wetland complex.

7. Based on a cursory review of available background information, the following Significant Wildlife Habitat (SWH) classifications would apply. Please note that additional SWH may be present within the wetland and/or adjacent areas:
 - a. The marsh area would be considered **Confirmed SWH** for marsh breeding birds as the following 4 target species are known to be breeding here as of 2022 (per eBird records):
 - Virginia Rail
 - Sora
 - Common Gallinule
 - Marsh Wren
 - b. The shallow marsh areas would be considered **Candidate SHW** due to the presence of the following:
 - Amphibian Breeding Habitat (wetlands)
 - Turtle Wintering Area

8. The watercourse flowing south of Safari Road is currently unclassified. This watercourse flows into a branch of Fairchild Creek, which is classified as warm water fish habitat by the Ontario Ministry of Natural Resources and Forestry. The watercourse contains a relatively diverse community of fishes consisting of Blacknose Shiner, Blackside Darter, Bluntnose Minnow, Common Shiner, Creek Chub, Fathead Minnow, Greenside Darter, Hornyhead Chub, Johnny Darter, Largemouth Bass, Northern Pike, Pumpkinseed, Rainbow Darter, Rock Bass, and White Sucker. Several of these species prefer cool water conditions. GRCA recommends that no in-water take place between March 15 and July 15. Conversely, in-water work should be limited to the period between July 16 and

March 14, in accordance with guidance provided by Fisheries and Oceans Canada (DFO).

9. If work is being proposed in fish habitat and the appropriate [mitigation measures to protect fish and fish habitat](#) cannot be followed, consultation with Fisheries and Oceans Canada (DFO) would be highly recommended.
10. A scoped environmental impact assessment (EIS) in accordance with the GRCA's guidelines is recommended to provide an updated characterization of the wetland areas that could be impacted by drainage works. We further recommend that the impact on hydrologic and ecological features and functions be minimized to the greatest extent possible, in accordance with GRCA policy.
11. Early consultation with the Ontario Ministry of Environment, Conservation and Parks (MOECP) is highly recommended in order to determine the need for specialized surveys of species at risk and to confirm that any drainage works would not contravene Ontario's Endangered Species Act.

Engineering

12. To assess potential downstream floodplain impacts from upstream storage removal, it is recommended that hydrologic and hydraulic models be created. The loss of storage would be accounted for in the hydrologic model, and would result in an increase to the flow in the hydraulic model.

We trust this information is of assistance. If you have any questions or require additional information, please contact me at 519-621-2763 ext. 2236 or clorenz@grandriver.ca.

Sincerely,



Chris Lorenz, M.Sc.
Resource Planner
Grand River Conservation Authority

Attachments: GRCA Resource Mapping
Sheffield-Rockton Wetland Data Record
Hyde-Rockton-Beverly Complex Site Summary
eBird Field Checklist – Westover-Safari Road – Marsh

c.c. Hector Quintero (City of Hamilton; via email)
Don Young (City of Hamilton; via email)
Amanda Wong (City of Hamilton; via email)



Safari Road



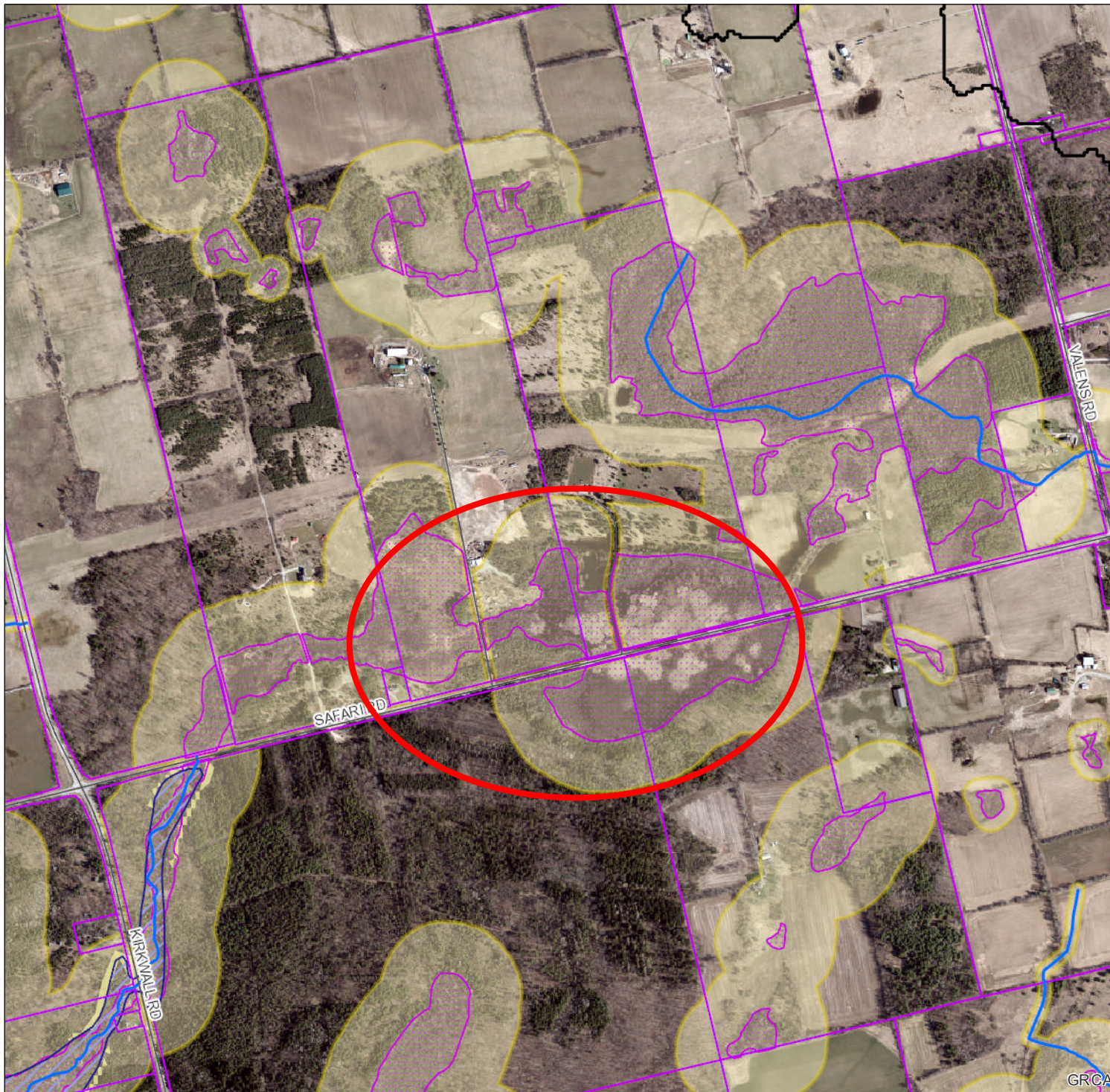
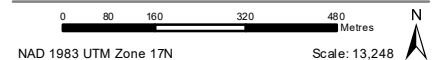
Legend

- Regulation Limit (GRCA)
- Regulated Watercourse (GRCA)
- Regulated Waterbody (GRCA)
- Wetland (GRCA)
- Floodplain (GRCA)
 - Engineered
 - Estimated
 - Approximate
 - Special Policy Area
- Slope Valley (GRCA)
 - Steep
 - Oversteep
 - Steep
- Slope Erosion (GRCA)
 - Oversteep
 - Toe
- Lake Erie Flood (GRCA)
- Lake Erie Shoreline Reach (GRCA)
- Lake Erie Dynamic Beach (GRCA)
- Lake Erie Erosion (GRCA)
- Parcel - Assessment (MPAC/MNRF)

This legend is static and may not fully reflect the layers shown on the map. The text of Ontario Regulation 150/06 supercedes the mapping as represented by these layers.

Area requiring drainage

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Disclaimer: This map is for illustrative purposes only. Information contained herein is not a substitute for professional review or a site survey and is subject to change without notice. The Grand River Conservation Authority takes no responsibility for, nor guarantees, the accuracy of the information contained on this map. Any interpretations or conclusions drawn from this map are the sole responsibility of the user.
The source for each data layer is shown in parentheses in the map legend. For a complete listing of sources and citations go to: <https://maps.grandriver.ca/Sources-and-Citations.pdf>



WETLAND DATA RECORD

- (i). WETLAND NAME AND/OR NUMBER SHEFFIELD-ROCKTON WETLAND COMPLEX
- (ii). ADMINISTRATIVE REGION CENTRAL, AND DISTRICT CAMBRIDGE
OF ONTARIO MINISTRY OF NATURAL RESOURCES
- (iii). CONSERVATION AUTHORITY JURISDICTION GRCA/HAMILTON REGIONAL CA.
 If not within a designated Conservation Authority, check here
- (iv). COUNTY OR REGIONAL MUNICIPALITY HAMILTON - WENTWORTH / WATERLOO / BRANT
- (v). TOWNSHIP FLAMBOROUGH / NORTH DUMFRIES / SOUTH DUMFRIES
- (vi). LOTS AND CONCESSIONS SEE ATTACHED

(vii). MAP AND AIR PHOTO REFERENCES

- (a) Longitude and Latitude 43° 19' 20" N 80° 10' 45" W
- (b) U.T.M. Grid Reference Zone: 17T; Grid: UT 670970
- (c) National Topographic Series Scale and Map Number(s) & Name 40 P/B CAMBRIDGE (1:50,000)
- (d) Air Photos
 - (1) Date photo taken 1978
 - (2) Scale of air photos 1:10,000
 - (3) Flight and plate numbers 4320# 123, 4321# 39-51, 4322# 417-430, 4323# 4-12, 224-229, 4324# 136-148
4325# 45-56

(viii). WETLAND SIZE AND BOUNDARIES

- (a) Single contiguous wetland area: hectares
 OR
- (b) "Wetland Complex" comprised of 28 individual wetlands as follows:.

Wetland Number (for reference purposes)	Size of each wetland in the complex	hectares
Wetland No. 1	_____	"
Wetland No. 2	_____	"
Wetland No. 3	_____	"
Wetland No. 4	_____	"
Wetland No. 5	_____	"
Wetland No. 6	_____	"
Total size of wetland complex:	_____	"
	<u>735.2</u>	

SEE ATTACHED LIST

1.0. BIOLOGICAL COMPONENT

1.1. PRODUCTIVITY VALUES

1.1.1. Growing Degree-Days

Number of accumulated growing degree-days (check one)

- <2800
- 2800 to 3200
- 3200 to 3600
- >3600

1.1.2. Soils

- Clays, loams or silts (mineral)
- Organic
- Undesignated

Estimated % of Area

90
10

1.1.3. Type of Wetland

(check one or more)

- Bog
- Fen
- Swamp
- Marsh (includes Open Water Marsh)

Estimated % of Area

94 (692.7 ha)
6 (42.5 ha)

1.1.4. Site

(check one or more)

- Isolated
- Palustrine (permanent or intermittent outflow)
- Riverine
- Riverine (at rivermouth)
- Lacustrine (at rivermouth)
- Lacustrine (on enclosed bay)
- Lacustrine (exposed to lake)

Estimated % of Area

90
10

1.1.5. Nutrient Status of Surface Water

(a) Write conductivity bridge reading and calculate T.D.S. at 25°C as per tables in Appendix VIII.

Location Sampled (i.e. inflow, outflow, etc.)	Initial Specific Conductance (µmhos/cm)	Temperature (°C)	Total Dissolved Solids (T.D.S.) (mg/l)
1 OUTFLOW	450	22	= 318.8
2 INFLOW	490	22	= 347.2
3 OUTFLOW	410	18	= 317.5
4 OUTFLOW	690	19	= 522.2
Average T.D.S.			= <u>376.4</u>

(b) Check appropriate category (from (a))

Average T.D.S. mg/l	
<100	_____
100-500	_____ <input checked="" type="checkbox"/>
501-1500	_____
>1500	_____
NO READING	_____

1.2. DIVERSITY VALUES

1.2.1. Number of Wetland Types

(check one)

- _____ One
- Two
- _____ Three
- _____ Four

1.2.2. Vegetation Communities

(enter form and map code if available, or enter dominant species if known, and appropriate code/symbol)

a) One form SEE ATTACHED

Code

_____	_____
_____	_____
_____	_____
_____	_____

b) Two forms

Code

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

c) Three forms

Code

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

d) Four forms

Code

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

e) Five forms

Code

_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

f) Six or more forms

Code

_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

WETLAND VEGETATION COMMUNITIES

	NO OF FORMS	CODE	FORMS	SPECIES	FIELD CODE	AREA
	2	S ₁	h* gc	silver maple, ash herbs	4,9,42	14.5
	2	S ₂	ts* gc	black ash, aspen, elm herbs	6,21	3.9
	3	S ₃	ts* gc ne	silver maple, willow herbs grass, sedge	7	1.3
	3	S ₄	h* ts gc	black ash, aspen, oak, willow willow, aspen herbs	5,10	7.4
	3	S ₅	c* h gc	cedar black ash jewelweed, ferns	8	9.9
	3	S ₆	h* ts gc	elm, willow " " herbs	11	6.4
6	3	S ₇	h* ts gc	white ash, elm " , dogwood, buckthorn, elm herbs	24,68	22.5
6	3	S ₈	h* ts gc	silver maple, balsam poplar, elm " " " , dogwood herbs	26	2.0
6	3	S ₉	ts* gc ne	willow, dogwood herbs grass, sedge	29,35, 38	11.5
6	3	S ₁₀	h* ts gc	silver maple, elm, willow dogwood, willow herbs	37,39,40, 46	20.4

WETLAND VEGETATION COMMUNITIES

	NP OF FORMS	CODE	FORMS	SPECIES	FIELD CODE	AREA
6	3	S ₁₁	h ⁺ ts gc	elm, white ash, aspen, silver maple " aspen, silver maple herbs	41, 68, 81, 82, 89	36.7
6	3	S ₁₂	h ⁺ ts gc	trembling aspen, white ash " , dogwood herbs	48, 61	12.9
6	3	S ₁₃	h ⁺ ts gc ne	balsam poplar, trembling aspen, willow, sil. maple aspen, willow, sil. maple herbs	49, 55, 60 63, 73	25.1
6	3	S ₁₄	h ⁺ ts gc	sil. maple, trembling aspen, willow willow, dogwood, elm herbs	62, 64	18.3
6	3	S ₁₅	h ⁺ ts gc	white ash, aspen " " , dogwood herbs	75, 89	8.2
6	3	S ₁₆	ts ⁺ gc ne	willow, black ash, silver maple herbs grass, sedge	72, 76, 85, 88	3.5
7	4	S ₁₇	h ⁺ ts gc ne	black ash, oak, elm, silver maple dogwood, basswood, willow herbs grass, sedge	13, 14, 15 22, 33, 34, 67, 69, 2, 23, 30, 52, 79	81.0
7	4	S ₁₈	h ⁺ ts gc ne	silver maple, ash " basswood, buckthorn herbs grass, sedge	18, 25, 33, 31, 36, 43, 44, 51, 53, 56, 87, 90, 57, 58, 47, 65, 74, 77, 78, 84, 71, 80, 28	299.7
8	4	S ₁₉	ts ⁺ h gc ne	willow, dogwood sil. maple, aspen herbs grass, sedge	27, 45, 66	36.2

WETLAND VEGETATION COMMUNITIES

	NP OF FORMS	CODE	FORMS	SPECIES	FIELD CODE	AREA
9	5	S ₂₀	ts ⁺ h gu ne dh	willow, dogwood, aspen, cedar willow, ash herbs grass, sedge	3, 12, 16, 20, 30	23.7
10	5	S ₂₁	ts ⁺ ls gu ne re	willow, dogwood " seedlings, jewelweed, smartweed grass, sedge cattail	westover DS ₅	1.2
11	5	S ₂₂	h ⁺ ts ls gu ne	silver maple, black ash, elm " " " , cedar " " " " sensitive fern, horsetail, jewelweed sedges	westover DS ₄	46.4
0	1					
3	2					
16	3					
6	4					
3	5					
0	6					

WETLAND VEGETATION COMMUNITIES

	NP OF FORMS	CODE	FORMS	SPECIES	FIELD CODE	AREA
	2	M ₁	gc* ne	mixed herbs grass, sedge	17	1.3
	3	M ₂	ne* ts gc	grass willow, buckthorn herbs	19	12.7
	3	M ₃	re* gc ne	cattail willow herb, nightshade grass, sedge	Westover DM ₂ 54, 70, 83	14.6
1076	4	M ₄	gc* ts ne re	herbs willow grass, sedge cattail	1, 91	3.1
1077	4	M ₅	ne* ts gc dh	grass, sedge willow herbs	32, 59	8.3
	4	M ₆	gc* ts ne re	Joe Pye weed, nightshade, jewelweed, marsh marigold willow grass, sedge cattail, iris	Westover DM ₃	2.5
1078	M ₇	M ₇	SU	submerqut veg		
1079	M ₈	M ₈	ne gc re	grasses, sedges herbs cattails		
1080	M ₉	M ₉	ds re su	dead shrubs cattails		

1.2.3. Diversity of Surrounding Habitat

(check all appropriate items)

- row crops
- pasture
- abandoned agricultural land
- deciduous forest
- coniferous forest
- urban or cottage development
- pits, quarries or mining waste disposal
- open lake or deep river
- fence rows with cover, or shelterbelts
- terrain undulating or hilly with ravines
- creek(s)

Enter Total = 10

1.2.4. Proximity to Other Wetlands

(check first appropriate category)

- i) Hydrologically connected by surface water to other wetlands (different dominant type) or open water within 1.5 km.
- ii) Hydrologically connected by surface water to other wetlands (same dominant type) within 0.5 km.
- iii) Hydrologically connected by surface water to other wetlands (different dominant type) or open water body from 1.5 to 4 km away.
- iv) Hydrologically connected by surface water to other wetlands (same dominant type) from 0.5 to 1.5 km away.
- v) Within 0.75 km of other wetlands (different dominant type) or open water body, but not hydrologically connected by surface water.
- vi) Within 1 km of other wetlands, but not hydrologically connected by surface water.
- vii) No wetland within 1.5 km.

1.2.5. Interspersion

(check one)

- Type 1
- Type 2
- Type 3
- Type 4

1.2.6. Open Water Types

(check one)

- No open water
- Type 1 _____
- Type 2 _____
- Type 3 _____
- Type 4 _____
- Type 5 _____
- Type 6 _____
- Type 7 _____
- Type 8 _____

1.3. SIZE (Biological Component)

(refer to viii)

735.2 hectares

2.0. SOCIAL COMPONENT

2.1. RESOURCE PRODUCTS WITH CASH VALUE

2.1.1. Timber (lumber and firewood)

- (1) 51 to 100% of wetland area has mature trees (>10 cm dbh, >25% cover)
- (2) _____ 10 to 50% of wetland area has mature trees (as above)
- (3) _____ Wetland has few, immature or no trees

Source of information: FIELD

2.1.2. Wild Rice

- (1) _____ Present
- (2) Absent

Source of Information: MNR

2.1.3. Commercial Fish (Bait Fish and/or Coarse Fish)

- (1) _____ Fish harvested from the wetland (as per MNR)
- (2) _____ Abundant during at least part of the year
- (3) Not abundant or only occasional
- (4) _____ Habitat not suitable for fish

Source of Information: MNR

2.1.4. Bullfrogs

- (1) _____ Present
- (2) Absent

Source of Information: FIELD

2.1.5. Snapping Turtles

(1) Present

(2) Absent

Source of Information: FIELD

2.1.6. Furbearers

(check if present)

muskrat

raccoon

beaver

mink

other

Source of Information: FIELD

2.2. RECREATIONAL ACTIVITIES

(check appropriate spaces)

Intensity of Use	Type of Wetland Associated Use			
	Hunting	Nature Appreciation or Study	Fishing	Canoeing/Boating
High				
Moderate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Low				
None Known			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Not Possible				
Source of Information	<u>COULSON (MNR)</u>			

2.3. AESTHETICS

2.3.1. Landscape Distinctness

(1) Clearly distinct

(2) Indistinct

2.3.2. Absence of Human Disturbances

2.3.2.1. Level of Disturbance

- (1) _____ Human disturbances absent or nearly so
- (2) _____ One or several singular or localized disturbances
- (3) Moderate disturbance or localized water pollution
- (4) _____ Impairment of natural quality intense in some areas or severe localized water pollution
- (5) _____ Extremely intense disturbance or water pollution severe and widespread.

2.3.2.2. Types of Disturbances

- roads
- utility corridor
- _____ buildings
- channelization
- drainage
- _____ filling
- _____ water pollution
- _____ other: _____

2.4. EDUCATION AND PUBLIC AWARENESS

2.4.1. Educational Uses

- (1) _____ Frequent - an average of 2 or more visits per year by one or more school groups, local clubs for the purpose of studying the animals, plants, environment, etc.
- (2) Infrequent - use by organized groups (one visit or less per year or only casual visits)
- (3) _____ No known visits

List groups utilizing the wetland

<u>Name of Group(s)</u>	<u>Source of Information</u>
<u>K-W FIELD NAT.</u>	<u>T. CHESKEY</u>
_____	_____
_____	_____

2.4.2. Facilities and Programs

(check one)

- (1) _____ Staffed interpretation center with shelters, trails, literature
- (2) _____ No interpretation center or staff, but a system of self-guiding trails and observation points or brochures available
- (3) No facilities or programs

2.4.3. Research and Studies

(check one)

- (1) One or more wetland-related scientific research papers published in a scientific journal
- (2) One or more reports written outlining some aspect of the wetland's natural resources
- (3) No reports or papers

List scientific papers, reports, etc.

ECOLOGISTICS LTD. (1976. HAMILTON-WENTWORTH REGION
ENVIRONMENTALLY SENSITIVE AREAS STUDY.
(HYDE TRACT + ROCKTON WETLAND)

2.5. PROXIMITY TO URBAN AREAS

(check one)

- (1) In an urban or suburban area
- (2) <10 km from a population center greater than 10,000
- (3) 10 to 60 km from a population center greater than 10,000
- (4) Isolated or relatively remote

2.6. OWNERSHIP/ACCESSIBILITY

Estimate % of area and enter in the appropriate space(s)

ACCESSIBILITY

OWNERSHIP

	Public, unrestricted activities	Public, restricted activities	Private, open to public for limited activities	Private Club, closed to public	Private or Private and posted
1) Easy at most times by road/waterway			5		95
2) Easy only at certain times of the year					
3) Limited, moderate effort required					
4) Difficult*					

* Requires extended effort due to distance from roads, navigable waterways or isolated geographical position.

Source of information FIELD

2.7. Size (Social Component)

135.2 hectares (refer to viii)

3.0. HYDROLOGICAL COMPONENT

3.1. EFFECT OF ADJOINING LARGE WATER BODY

- (1) Wetland located on the Ottawa, St. Lawrence, Niagara, Detroit or St. Clair Rivers (Go to 3.3)
- (2) Wetland bordering on one of the Great Lakes (Go to 3.3)
- (3) Wetland not located as above (Go to 3.2)

If (1) or (2), omit Section 3.2, FLOW STABILIZATION. Continue with Section 3.3, WATER QUALITY IMPROVEMENT. If (3), proceed to Section 3.2.

3.2. FLOW STABILIZATION (All wetlands except those bordering on the Great Lakes or the 5 large rivers)

3.2.1. Detention Due to Surface Area

3.2.1.1. Size of Catchment Basin above Wetland Outflow

Catchment Basin Size 126.0 sq. km

3.2.1.2. Total Size of all Detention Areas (Lakes, Reservoirs and Wetlands) Draining into the Wetland (sq. km)

List Detention Areas	Size
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
Total	<u> 0 </u> sq. km

3.2.1.3. Size of Adjoining Lake (Lacustrine wetlands only)

_____ hectares

3.2.1.4. Size of Adjoining River (Riverine wetlands only)
 (not assessed)

3.2.1.5. Location and Size of Detention Areas (Lakes, Reservoirs and Wetlands) within 30 km above and below the wetland

(NOTE: 1 sq. km = 100 ha)

(a) Detention areas above the wetland (within 30 km)

Name and/or Number of Detention Area	Distance upstream from wetland (in km)	Size (hectares)	For Scoring Use
--------------------------------------	--	-----------------	-----------------

(b) Detention areas below the wetland (within 30 km)

Name and/or Number of Detention Area	Distance downstream from wetland (in km)	Size (hectares)	For Scoring Use
--------------------------------------	--	-----------------	-----------------

TROY WETLAND	5	54.9	-4
HARRISBURG EAST	6	45.4	-4
FAIRCHILD CREEK WETLAND	8	15	-4

3.2.1.6. Land Use along River or Stream Shoreline for 20 km Below the Wetland

(Palustrine and all Riverine wetlands except those located along the 5 large rivers).

(check one)

- (1) Wetland outflow exits into a deep ravine
- (2) A village, town or urban area is located along outflow within 20 km
- (3) Not as above, and actively farmed agricultural land borders onto outflow, and

_____ ✓

length of agricultural border = <1 km
 (sum of shoreline 1-3
 on both sides of 4-8
 river within 20 km) >8

- (4) Not as above, (eg. lands bordering outflow within 20 km are forested, or abandoned by agriculture, or outflow enters another wetland or lake, etc.)

3.2.1.7. Size (Hydrological Component)

(see viii)
735.2 ha

3.2.2. Flow Augmentation (Palustrine wetlands only)

Size of Catchment basin 126.0 sq. km (See 3.2.1.1)
 Wetland Area as a % of Catchment Basin Size 5.8 %
 (Note: convert wetland area to sq. km before calculating %)

3.3. WATER QUALITY IMPROVEMENT (All wetlands)

3.3.1. Short Term Removal of Nutrients from Surface Water

3.3.1.1. Site Type (see 1.1.4 and check dominant site)

- _____ Isolated
- _____ ✓ Palustrine (with permanent or intermittent outflow)
- _____ Riverine
- _____ Riverine (at rivermouth)
- _____ Lacustrine (at rivermouth)
- _____ Lacustrine (on enclosed bay)
- _____ Lacustrine (exposed to lake)

3.3.1.2. Actual Wetland Area Dominated by Robust Emergents and Submergents
(check one)

- <5
- 5 - 50
- 51 - 100
- 101 - 250
- 251 - 500
- 501 - 1000
- >1000 hectares

3.3.1.3. Land Use in Catchment Basin
(check one)

- (1) Mainly agriculture and/or urban
- (2) Roughly 40-60% agriculture; remainder forested or abandoned agriculture
- (3) Mainly forested and/or less than 40% agriculture

3.3.2. Long Term Nutrient Trap
(check one)

- (1) Wetland located on an active delta
- (2) Wetland rivermouth but without obvious delta
- (3) Wetland with organic soils occupying 50% or more of the area
- (4) Wetland with organic soils occupying less than 50% of the area (i.e. mainly mineral or undesignated soils)

3.4. EROSION CONTROL

3.4.1. Erosion Buffer (Lacustrine and Riverine wetlands only)

NOTE: Assess for the dominant site type (see 3.3.1.1)

3.4.1.1. Riverine Wetlands (shoreland and flood plain)
(check principal vegetation form)

- (1) Trees or Shrubs
- (2) Emergents
- (3) Non-vegetated or nearly so

3.4.1.2. Lacustrine Wetlands (with or without barrier beach)
(check principal vegetation form)

- (1) Trees or Shrubs
- (2) Emergents
- (3) Submergents and Floating
- (4) Non-vegetated or nearly so

3.4.1.3. Fetch (Lacustrine wetlands or Riverine wetlands on any of the 5 large rivers)

- Maximum distance
 (1) _____ barrier beach present
 (2) _____ <2 km
 (3) _____ 2 to 8 km
 (4) _____ >8 km

3.4.2 Sheet Erosion (All except Lacustrine wetlands)
 (check the appropriate space)

Wetland Size (ha)	R FACTOR VALUE			
	<50	50-75	75-100	>100
<2				
2-5				
6-10				
11-15				
16-20				
>20			✓	

4.0. SPECIAL FEATURES COMPONENT

4.1. RARITY AND/OR SCARCITY

4.1.1. Individual Wetlands

Name of Physiographic Unit: LAKE ERIE PLAIN
Unit Number: 2

4.1.2. Wetland Type Representation (minimum size 0.5 ha)
(check one or more)

✓ Marsh
✓ Swamp
Fen
Bog

4.1.3. Individual Species

4.1.3.1. Breeding Habitat for an Endangered Animal or Plant Species

	<u>Name of Species</u>	<u>Source of Information</u>
(1)	_____	_____
(2)	_____	_____

4.1.3.2. Traditional Migration or Feeding Habitat for an Endangered Animal Species

	<u>Name of Species</u>	<u>Source of Information</u>
(1)	_____	_____
(2)	_____	_____

4.1.3.3. Breeding or Feeding Habitat for a Provincially Significant Animal Species

	<u>Name of Species</u>	<u>Source of Information</u>
(1)	<u>OPPOSSUM</u>	<u>COLLSON (MNR)</u>
(2)	<u>NORTHERN HARRIER</u>	<u>FIELD (1987)</u>

4.1.3.4. Provincially Significant Plant Species

	<u>Name of Species</u>	<u>Source of Information</u>
(1)	_____	_____
(2)	_____	_____

4.1.3.5. Regionally Significant Species

<u>Name of Species</u>	<u>Source of Information</u>
(1) <u>CARDINAL FLOWER</u>	<u>FIELD (1987, 1988)</u>
(2) <u>JUVAUD WHITE OAK</u>	<u>FIELD (1987)</u>
(3) <u>YELLOW-BREASTED CHAT</u>	<u>ECOLOGISTICS 1976</u>
(4) <u>BLACKNOSE SHINER</u>	<u>"</u>
<u>MORNING WARBLER</u>	<u>"</u>

4.2. SIGNIFICANT FEATURES AND/OR FISH AND WILDLIFE HABITAT

4.2.1. Nesting of Colonial Waterbirds
 (check one)

- (1) _____ Currently nesting; species name(s) _____
 - (2) _____ Known to have nested within past 5 years;
 species name(s) _____
 - (3) Active feeding area
 - (4) _____ None known
- Source of Information: COULSON (MNR)

4.2.2. Winter Cover for Wildlife
 (check only highest level of significance)

- (1) _____ Provincial significance for Deer _____, Moose _____
 - (2) _____ Regional significance for Deer _____, Moose _____
 - (3) _____ Local significance for Deer _____, Moose _____
 - (4) Good winter cover for other species (list):
"SMALL GAME"
 - (5) _____ Poor winter cover
- Source of Information: COULSON (MNR)

4.2.3. Waterfowl Staging
 (check only highest level of significance)

- (1) _____ National significance
 - (2) _____ Provincial significance
 - (3) _____ Regional significance
 - (4) Local or no significance
- Source of Information: MNR

4.2.4. Waterfowl Production
 (check only highest level of significance)

- (1) _____ Provincial significance
 - (2) _____ Regional significance
 - (3) Local significance
 - (4) _____ Little or no significance
- Source of Information: MNR

4.2.5. Migratory Passerine and/or Shorebird Stopover Area

(check one)

- (1) _____ High significance
- (2) _____ No significance

Source of Information: MNR

4.2.6. Significance for Fish Spawning and Rearing

(check one)

- (1) _____ Regional significance
- (2) _____ Present
- (3) _____ Unknown
- (4) _____ Not possible

Species and Source of Information: MNR

4.2.7. Unusual Geological or other Surficial Features

(check one)

- (1) _____ Present

Feature and Source of Information: _____

- (2) _____ Poorly expressed or absent

4.3. ECOLOGICAL AGE

Type of Wetland	Enter % of Area
_____ Bog	_____
_____ Fen	_____
<input checked="" type="checkbox"/> _____ Swamp	<u>94</u>
<input checked="" type="checkbox"/> _____ Marsh	<u>6</u>

INVESTIGATORS

1987: B. BERGMANN, M. RASS, N. SULLIVAN
1988: " D. STEPHENSON

AFFILIATION

1987: CAMBRIDGE MNR, 1988 ECOLOGISTICS LTD.

DATE

1988 (UNKNOWN)
JULY 13 1988

ESTIMATED TIME DEVOTED TO COMPLETING THE FIELD SURVEY IN "PERSON HOURS"

1988: 7 hrs 1987: UNKNOWN

WEATHER CONDITIONS

(i) at time of field work: 1987: UNKNOWN, 1988: hot, overcast - rain
(ii) summer conditions in general: _____

WETLAND EVALUATION RECORD

WETLAND NAME AND/OR NUMBER SHEFFIELD - ROCKTON COMPLEX

1.0 BIOLOGICAL COMPONENT

1.1. PRODUCTIVITY VALUES

1.1.1. Growing Degree-Days	<u>14</u>
1.1.2. Soils	<u>10</u>
1.1.3. Type of Wetland	<u>12</u>
1.1.4. Site	<u>4</u>
1.1.5. Nutrient Status of Surface Water	<u>20</u>
<u>TOTAL for Productivity Values</u>	<u>60</u>

1.2. DIVERSITY VALUES

1.2.1. Number of Wetland Types	<u>6</u>
1.2.2. Vegetation Communities (not to exceed 30)	<u>30</u>
1.2.3. Diversity of Surrounding Habitat	<u>10</u>
1.2.4. Proximity to Other Wetlands	<u>10</u>
1.2.5. Interspersion	<u>20</u>
1.2.6. Open Water Types	<u>0</u>
<u>TOTAL for Diversity Values</u>	<u>76</u>

1.3. SIZE (Biological Component)

50

TOTAL FOR BIOLOGICAL COMPONENT (not to exceed 250)

186

2.0 SOCIAL COMPONENT

2.1. RESOURCE PRODUCTS WITH CASH VALUE

2.1.1. Timber (lumber and firewood)	<u>20</u>
2.1.2. Wild Rice	<u>0</u>
2.1.3. Commercial Fish (Bait Fish and/or Coarse Fish)	<u>5</u>
2.1.4. Bullfrogs	<u>0</u>
2.1.5. Snapping Turtles	<u>0</u>
2.1.6. Furbearers	<u>15</u>

TOTAL for Resource Products
with Cash Value (not to exceed 60) 40

2.2. RECREATIONAL ACTIVITIES (not to exceed 70) 40

2.3. AESTHETICS

2.3.1. Landscape Distinctness	<u>5</u>
2.3.2. Absence of Human Disturbances	<u>10</u>

TOTAL for Aesthetics 15

2.4. EDUCATION AND PUBLIC AWARENESS

2.4.1. Educational Uses	<u>5</u>
2.4.2. Facilities and Programs	<u>0</u>
2.4.3. Research and Studies	<u>3</u>

TOTAL for Education and
Public Awareness 8

2.5. PROXIMITY TO URBAN AREAS 16

2.6. OWNERSHIP/ACCESSIBILITY 5

2.7. SIZE (Social Component) 20

TOTAL FOR SOCIAL COMPONENT (not to exceed 250) 144

3.0. HYDROLOGICAL COMPONENT

3.1. EFFECT OF ADJOINING LARGE WATER BODY

3.2. FLOW STABILIZATION

3.2.1. Detention Due to Surface Area

3.2.1.1. and

3.2.1.2. FIRST step (from table)

3.2.1.3. SECOND step minus 0 = 110

3.2.1.5. THIRD step minus -12 = 98

3.2.1.6. FOURTH step minus 0 = 98 ←(minimum allowable = 0)

3.2.1.7. FIFTH step plus 40 = 138

TOTAL for Detention Due to Surface Area

138

3.2.2. Flow Augmentation (from table)

40

TOTAL for Flow Stabilization

178

3.3. WATER QUALITY IMPROVEMENT

3.3.1. Short Term Removal of Nutrients from Surface Water

3.3.1.1. Site Type

2

3.3.1.2. Actual Wetland Area Dominated by Robust Emergents and Submergents

2

3.3.1.3. Land Use in Catchment Basin

10

TOTAL for Short Term Removal of Nutrients from Surface Water

14

3.3.2. Long Term Nutrient Trap

4

TOTAL for Water Quality Improvement

18

3.4. EROSION CONTROL

3.4.1. Erosion Buffer

3.4.1.1. Riverine Wetlands

0

3.4.1.2. Lacustrine Wetlands

0

3.4.1.3. Fetch

0

TOTAL for Erosion Buffer

0

3.4.2. Sheet Erosion

4

TOTAL for Erosion Control

4

TOTAL FOR HYDROLOGICAL COMPONENT (not to exceed 250)

200

4.0 SPECIAL FEATURES COMPONENT

4.1. RARITY AND/OR SCARCITY

4.1.1. Individual Wetlands	<u>35</u>
4.1.2. Wetland Type Representation	<u>10</u>
4.1.3. Individual Species	
4.1.3.1. Breeding Habitat for an Endangered Animal or Plant Species	<u>0</u>
4.1.3.2. Traditional Migration or Feeding Habitat for an Endangered Animal Species	<u>0</u>
4.1.3.3. Breeding or Feeding Habitat for a Provincially Significant Animal Species	<u>150</u>
4.1.3.4. Provincially Significant Plant Species	<u>0</u>
4.1.3.5. Regionally Significant Species	<u>30</u>
TOTAL for Individual Species (not to exceed 250) <u>180</u>	
TOTAL FOR RARITY AND/OR SCARCITY (not to exceed 250) <u>225</u>	

4.2. SIGNIFICANT FEATURES AND/OR FISH
AND WILDLIFE HABITAT

4.2.1. Nesting of Colonial Waterbirds	<u>3</u>
4.2.2. Winter Cover for Wildlife	<u>10</u>
4.2.3. Waterfowl Staging	<u>0</u>
4.2.4. Waterfowl Production	<u>5</u>
4.2.5. Migratory Passerine and/or Shorebird Stopover Area	<u>0</u>
4.2.6. Significance for Fish Spawning and Rearing	<u>0</u>
4.2.7. Unusual Geological or other Surficial Features	<u>0</u>
<u>TOTAL FOR SIGNIFICANT FEATURES AND/OR FISH AND WILDLIFE HABITAT (not to exceed 250)</u> <u>18</u>	

4.3. ECOLOGICAL AGE

2

TOTAL FOR SPECIAL FEATURES COMPONENT (not to exceed 250) 245

SUMMARY OF EVALUATION RESULTS

FOR THE SHEFFIELD - ROCKTON COMPLEX WETLAND
(name or number)

TOTAL FOR 1.0, BIOLOGICAL COMPONENT	<u>186</u>
TOTAL FOR 2.0, SOCIAL COMPONENT	<u>144</u>
TOTAL FOR 3.0, HYDROLOGICAL COMPONENT	<u>200</u>
TOTAL FOR 4.0, SPECIAL FEATURES COMPONENT	<u>245</u>
TOTAL:	775
CLASS:	1

INVESTIGATORS

D. STEPHENSON, B. BERGMANN, H. ROSS, N. SULLIVAN

AFFILIATION

MNR / ECOLOGISTICS LTD.

DATE

DEC. 1988

WETLAND	1	79.7
	2	114.6
	3	7.2
	4	1.7
	5	2.8
	6	55.4
	7	17.9
	8	1.7
	9	1.7
	10	38.6
	11	2.8
	12	2.8
	13	14.6
	14	18.9
	15	13.5
	16	2.0
	17	41.1
	18	27.6
	19	12.2
	20	25.0
	21	2.9
	22	25.2
	23	5.4
	24	23.8
	25	53.2
	26	11.3
	27	26.0
	28	5.6

TOTAL

735.2

HYDE-ROCKTON-BEVERLY COMPLEX

Municipality City of Hamilton Formerly Town of Flamborough Approximate Area 732 hectares	ESA # 22 Lot 14-23 Concession 5-7	Conservation Authority Grand River Watershed Fairchild Creek Ownership Public/Private
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GENERAL SUMMARY

The Hyde –Rockton – Beverly Complex site consists of an extensive area of previously disturbed, regenerating habitats. It is situated on a bedrock plain covered by shallow soils developed on varied substrates and moisture regimes. Outcrops of rocky ridges are scattered through the site⁴⁵⁹.

The marsh, open alvar, and treed alvar communities at this site are considered regionally significant plant communities⁵²⁸. This natural area also supports a rich breeding bird community including many significant species⁴⁵⁹.

Numerous studies have been conducted in this area including the 1991 NAI. Nature Counts surveyors collected data on birds, butterflies, herpetofauna, and plants in 2001 and 2002. This area was not surveyed as part of the Nature Counts 2 project.

EVALUATIONS

1976 Study⁵⁶

Identified the following significant features:

- plant and animal communities of the area are identified as unusual or of high quality locally within the municipality, Ontario, or Canada
- has unusually high diversity of biological communities and associated plants and animals due to a variety of geomorphological features, soils, water, sunlight, and associated vegetation and microclimate effects
- provides habitat for rare or endangered species that are endangered regionally, provincially, or nationally (two rare birds)
- area is large and undisturbed, potentially affording a sheltered habitat for species which are intolerant of human disturbance

NAI (1993)⁴⁵⁹

Significant Natural Area

- serves an important ecological function
- serves an important hydrological function
- exhibits a high diversity of biotic features
- encompasses significant communities
- provides habitat for many significant species

OMNR

Provincially Significant Wetland - Sheffield – Rockton Complex

Niagara Escarpment Plan, 2005⁶⁷⁵ - none

Greenbelt Plan, 2005⁶⁷⁶

Natural Heritage System
Protected Countryside

ESA Criteria (2003)¹⁰⁰⁸

- Significant Ecological Function
 - the area provides habitat for significant species
 - the area contains interior forest habitat (at least 100-200m from forest edge)
 - the area contains a high diversity of native plant species
 - the area contains rare biotic communities
- Significant Hydrological Function
 - the area contains a sensitive bedrock recharge zone

PHYSICAL DESCRIPTION

Physiography and Topography

This study area is located in the southwestern portion of the Flamborough Plain physiographic region. This large natural area encompasses the central portion of the extensive, gently-sloping bedrock plain stretching from Rockton, north to Kirkwall, and east to Westover. The surface topography of this area is irregular due to the combination of the southwest-northeast trend of the bedrock ridges and creeks, and the west-northwest fabric of the overburden features. Elevations range from 253 to 270 m, except for the isolated drumlin in the northern end of study area that is some 20 m higher than the surrounding plain⁴⁵⁹.

Bedrock Geology

Dolostone of the Guelph Formation is at or near surface through much of the study area and forms a gently southwest-sloping plain. The northeast-trending bedrock ridges may be resistant reefal structures. Glacial striae have been noted on outcrops along Safari Road east of Kirkwood Road²⁰².

Overburden Geology

Overburden is generally less than a metre deep and consists of sandy Wentworth Till. A well-formed drumlin is present in the northern part of this area, on the south side of Safari Road. Karrow and others have noted a wave-cut shoreline feature on the south face of this drumlin, and a borrow pit has exploited a beach gravel deposit on the northwestern end of this feature. The elevation of these shoreline features (275 m) indicates

they were created by glacial Lake Whittlesey²⁰². A level area along the western boundary of the study area consists of an isolated glaciolacustrine sand plain. Other patches of sand and silt sediments may be present²⁰².

Soils

Well-drained Farmington loam soils are present on the shallow bedrock throughout this site. Well-drained Guelph loam has developed on the drumlin and on other drift-covered knolls. A variety of soil series (Tuscola, Toledo, Vineland Beverly, and Colwood) have developed on the patches of shallow, silty to sandy, poorly- to imperfectly-drained substrates⁴⁵⁹.

Soil Type	Percentage of Study Area
BEVERLY SILT LOAM	3.26%
COLWOOD SILT LOAM	7.09%
FARMINGTON LOAM	46.95%
FLAMBORO SANDY LOAM	2.90%
GRIMSBY SANDY LOAM	0.16%
GUELPH LOAM	12.61%
LONDON LOAM	3.31%
MUCK	2.22%
PARKHILL LOAM	0.98%
STREAM COURSE	3.49%
TOLEDO SILT LOAM	9.91%
TUSCOLA SILT LOAM	4.94%
VINELAND SANDY LOAM	2.18%
TOTAL %	100.00%

Hydrogeology

Water wells in the vicinity tap a bedrock aquifer found at 12 to 20 m depth in the northern portion of the study area, and 6 to 9 m depth in the southern portion. A few wells encountered only sulphur water. The piezometric surface (250 to 268 m) slopes southwesterly, indicating that the direction of groundwater movement is coincident with that of the surface water drainage. As elsewhere in the Flamborough Plain region, the bedrock surface appears to be generally impermeable; however, groundwater recharge and/or discharge may be occurring along fracture zones. Because of the shallow soils, the bedrock aquifer is susceptible to contamination⁴⁵⁹.

Hydrology and Surface Drainage

This area is located in the headwaters of the Fairchild Creek watershed. The small pockets of wetland help maintain base flow in the small creek that drains this area⁴⁵⁹.

ECOLOGICAL LAND CLASSIFICATION

Total Area (ha)	Surveyed Area (ha)	Percentage Surveyed (%)
732.3	455	62

Number of Plant Community Types: 28
Number of Significant Plant Community Types: 2
Total Number of Significant Plant Community Polygons: 2
Survey Year: 2004

Summary (refer to accompanying CD)

Of the land surveyed in 2004, 47% (2316 ha) is coniferous plantation. The natural area is a patchwork of ecosystems primarily consisting of coniferous plantations, upland deciduous forests, lowland swamps, mixed forests, alvar, and cultural meadows and thickets.

Of the upland sites, Sugar Maple (*Acer saccharum spp. saccharum*) is the most abundant deciduous tree, with White Ash (*Fraxinus americana*), Shagbark Hickory (*Carya ovata*), Ironwood (*Ostrya virginiana*), serviceberry species (*Amelanchier spp.*), Black Cherry (*Prunus serotina*), White Pine (*Pinus strobus*), Prickly-ash (*Zanthoxylum americanum*), and Red Oak (*Quercus rubra*) as common associates. The ground layer is commonly covered with asters (*Aster spp.*), moss, Running Strawberry-bush (*Euonymus obavata*), Zig-zag Goldenrod (*Solidago flexicaulis*), Selfheal (*Prunella vulgaris ssp. vulgaris*), and violets (*Viola spp.*).

Silver Maple (*Acer saccharinum*) and Green Ash (*Fraxinus pennsylvanica*) are the dominant species in the two largest swamps in this natural area. The Silver Maple swamp (polygon 8) has some Black Ash (*Fraxinus nigra*), Bur Oak (*Quercus macrocarpa*), and Shagbark Hickory (*Carya ovata*). The understory is thick with European Buckthorn (*Rhamnus cathartica*), Prickly Ash, Choke Cherry (*Prunus virginiana*), and Black Raspberry (*Rubus occidentalis*).

The meadows and thickets are located adjacent to or amongst the coniferous plantations. Due to the thin soil layer, all of these ecosystems have been identified as a bedrock system.

Community Descriptions⁴⁶⁰

2004

Polygon 1 – Coniferous Plantation (CUP3)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Coniferous Plantation
Ranking	None
Complexes and Inclusions	
Inclusion	Bedrock Cultural Woodland (CUW2)
Inclusion Ranking	None

Polygon 2 – Cultural Plantation (CUP3)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Coniferous Plantation
Ranking	None

Polygon 3 – Bedrock Cultural Woodland (CUW2)

Polygon Description	Environmental Characteristic
Topographic Features	Alvar
Community	Mid-Age Woodland
Ranking	None

Polygon 4 – Mixed Forest (FOM)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Forest
Ranking	None

Polygon 5 – Bedrock Cultural Meadow (CUM2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Young Meadow
Ranking	None

Polygon 6 – Bedrock Cultural Meadow (CUM2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Young Meadow
Ranking	None

Polygon 7 – Bedrock Cultural Woodland (CUW2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Coniferous Plantation
Ranking	None

Polygon 8 – Silver Maple Mineral Deciduous Swamp (SWD3-2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Swamp
Ranking	G4?, S5

Polygon 9 – Bedrock Cultural Thicket (CUT2)

Polygon Description	Environmental Characteristic
Topographic Features	Alvar
Community	Mid-Age Thicket
Ranking	None
Complexes and Inclusions	
Inclusion	Mixed Forest (FOM)
Inclusion Ranking	None

Polygon 10 – Dry – Fresh White Cedar Mixed Forest (FOM4)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Forest
Ranking	None

Polygon 11 – Fresh – Moist Sugar Maple – Hardwood Deciduous Forest (FOD6-5)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Forest
Ranking	S5

Polygon 12 – Forb Mineral Meadow Marsh (MAM2-10)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Marsh
Ranking	G?, S4S5
Complexes and Inclusions	
Inclusion	Gray Dogwood Mineral Thicket Swamp (SWT2-9)
Inclusion Ranking	G5, S3S4

Polygon 13 – Scotch Pine Coniferous Plantation (CUP3-3)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Coniferous Plantation
Ranking	None

Polygon 14 – Cultural Savanna (CUS)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Savanna
Ranking	None

Polygon 15 – Dry – Fresh White Ash Deciduous Forest (FOD4-2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Forest
Ranking	G?, S5

Polygon 16 – Dry – Fresh Sugar Maple Deciduous Forest (FOD5-1)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mature Forest
Ranking	G5?, S5
Complexes and Inclusions	
Inclusion	Bedrock Cultural Thicket (CUT2)
Inclusion Ranking	None

Polygon 17 – Treed Alvar Ecosite (ALT1)

Polygon Description	Environmental Characteristic
Topographic Features	Alvar
Community	Mid-Age Savanna
Ranking	None

Polygon 18 – Dry – Fresh Sugar Maple – Ironwood Deciduous Forest (FOD5-4)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Forest
Ranking	G?, S5
Complexes and Inclusions	
Inclusion	Dry – Fresh White Pine – Sugar Maple Mixed Forest (FOM2-2)
Inclusion Ranking	G?, S5
Inclusion	Coniferous Plantation (CUP3)
Inclusion Ranking	None

Polygon 19 – Red Pine Coniferous Plantation (CUP3-1)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Coniferous Plantation
Ranking	None
Complexes and Inclusions	
Inclusion	Coniferous Plantation (CUP3)
Inclusion Ranking	None

Polygon 20 – Coniferous Plantation (CUP3)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Coniferous Plantation
Ranking	None

Polygon 21 – Green Ash Mineral Deciduous Swamp (SWD2-2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Swamp
Ranking	G?, S5
Complexes and Inclusions	
Inclusion	Bedrock Cultural Woodland (CUM2)
Inclusion Ranking	None
Complex	Forb Mineral Meadow Marsh (MAM2-10)
Complex Ranking	None

Polygon 22 – Fresh – Moist Sugar Maple Deciduous Forest (FOD6)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Forest
Ranking	None
Complexes and Inclusions	
Inclusion	Bur Oak Mineral Deciduous Swamp (SWD1)
Inclusion Ranking	G2G3Q, S3

Polygon 23 – Mineral Meadow Marsh (MAM2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Graminoid Marsh
Ranking	None
Complexes and Inclusions	
Inclusion	Ash Mineral Deciduous Swamp (SWD2)
Inclusion Ranking	None

Polygon 24 – Dry – Fresh Deciduous Forest (FOD4)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Forest
Ranking	None
Complexes and Inclusions	
Inclusion	Forest (FO)
Inclusion Ranking	None

Polygon 25 – Bedrock Cultural Thicket (CUT2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Young Thicket
Ranking	None

Polygon 26 – Fresh – Moist Lowland Deciduous Forest (FOD7)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Young Forest
Ranking	None
Complexes and Inclusions	
Inclusion	Mixed Forest (FOM)
Inclusion Rank	None

Polygon 27 – Bedrock Cultural Thicket (CUT2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Young Thicket
Ranking	None

Polygon 28 – Bedrock Cultural Meadow (CUM2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Young Forb Meadow
Ranking	None

Polygon 29 – Bedrock Cultural Thicket (CUT2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Young Thicket
Ranking	None

Polygon 30 – Bedrock Cultural Thicket (CUT2)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Young Thicket
Ranking	None

Polygon 31 – Dry – Fresh Sugar Maple – White Ash Deciduous Forest (FOD5-8)

Polygon Description	Environmental Characteristic
Topographic Features	Rolling Upland
Community	Mid-Age Forest
Ranking	G?, S5

PLANT COMMUNITIES⁴⁵⁹

Summary

A considerable portion of the study area consists of conifer plantations, including an area being intensively managed as a private Christmas tree farm. Remnant and successional communities, including wetland and terrestrial systems, are interspersed within the plantations. Much of the site is returning to a more natural condition after being severely disturbed, generally by clearing for agricultural crops and/or pasture. The marsh, open alvar, and treed alvar communities present at this site are considered locally significant communities as they represent community types which are uncommon in the Hamilton area. Alvar and/or savannah communities may be more extensive than the few blocks indicated by the available community mapping. Moreover, additional surveys of potential remnant alvar and prairie/savannah areas in the City of Hamilton are needed to fully evaluate the relative significance of these unusual habitats.

Community Description

AQUATIC

POND

WETLAND

MARSH

WET MEADOW

BROADLEAF SWAMP

TERRESTRIAL

MIXED UPLAND WOODS

Sugar Maple – White Pine – Ironwood – Bur Oak – Shagbark Hickory / Mesic to Dry-Mesic.

BROADLEAF UPLAND WOODS

Red Oak – Sugar Maple – White Ash / Mesic.

Many limestone outcrops. Young to medium-aged

stand.

Ironwood – Black Ash – Sugar Maple – White Pine / Mesic.

Bur Oak – Basswood – Sugar Maple – White Ash / Mesic.

TREED ALVAR

White Ash – White Elm – White Pine / Mesic to Dry Mesic.

Shallow sandy soils. Many patches of limestone pavement and outcrops. Dense shrub layer dominated by Prickly-ash, Choke Cherry and Downy Arrow-wood.

OPEN ALVAR

Widely-spaced Chinquapin Oak, Basswood, Trembling Aspen, Hop-hornbeam, Shagbark Hickory, Bur Oak, Black Maple, and Rock Elm. Shrub layer dominated by Prickly-ash with Gray Dogwood, Choke Cherry and Red Raspberry.

CONIFEROUS PLANTATION

Several tracts composed mainly of White Spruce and Scots, Red and White Pine. Other species planted include: Jack Pine, European Larch, Tamarack, Norway Spruce, Black Spruce, Eastern White Cedar.

OLD FIELD

MAINTAINED

Pipeline right-of-way.

FLORA AND FAUNA SUMMARY

Vascular Plants

Nature Counts surveyors recorded 199 species. Of these, 49 (25%) are introduced species¹⁰⁰¹. A total of 286 species were documented from 1977 to 1998^{26, 432, 479, 996, 1000}.

Floristic Summary⁷¹⁹

The floristic summary includes data collected from the first and second NAI's, and data collect during ELC in 2004.

FLORISTIC SUMMARY & ASSESSMENT						
	1993		2003		2004	
Species Diversity						
Total Species	182		199		238	
Native Species	129	71%	150	75%	168	71%
Exotic Species	53	29%	49	25%	70	29%
Provincially Significant Species						
S1 - S3 Species	2	2%	0	0%	2	1%
S4 Species	12	10%	15	10%	12	7%
S5 Species	112	89%	131	90%	149	91%
Co-efficient of Conservatism and Floristic Quality Index						
Co-efficient of Conservatism (CC) (average)	4.5		4.2		4.3	
CC 0 to 3	37	30%	49	34%	59	36%
CC 4 to 6	65	52%	81	55%	77	47%
CC 7 to 8	19	15%	14	10%	23	39%
CC 9 to 10	3	2%	2	1%	4	2%
Floristic Quality Index (FQI)	50		51		55	
Presence of Weedy & Invasive Species						
mean weediness	-1.6		-1.8		-1.8	
weediness = -1	23	56%	16	41%	20	37%
weediness = -2	13	32%	15	38%	23	43%
weediness = -3	5	12%	8	21%	11	20%
Presence of Wetland Species						
average wetness value	1.3		1.3		1.1	
upland	46	28%	56	29%	65	29%
facultative upland	45	27%	55	28%	59	26%
facultative	32	19%	30	15%	34	15%
facultative wetland	28	17%	36	19%	45	20%
obligate wetland	16	10%	17	9%	23	10%

Butterflies

In 2001 and 2002, Nature Counts surveyors recorded a total of 20 species¹⁰⁰¹. During the 1991 NAI, 52 species were documented including a COSEWIC Special Concern species^{998, 1000}.

Odonates

No odonates data are available for this natural area.

Fish

No fisheries data are available for this natural area.

Herpetofauna

This natural area was surveyed during the Hamilton Herpetofaunal Atlas. A total of 20 species were recorded in this area from 1984 to 1996 including three COSEWIC Special Concern species and one COSEWIC Threatened

species^{999, 1000, 388}. Nature Counts surveyors recorded four incidental sightings of species, one of which is a new record for the area¹⁰⁰⁰.

Breeding Birds

This natural area provides habitat to many significant species including those that may require interior forest habitat. Publicly owned sections of this area are frequented by bird-watchers and many breeding bird surveys have been conducted here. Nature Counts surveyors recorded 35 species in 2001 and 2002. Of these, 10 are interior forest species. Previous to 2001, a total of 83 species were observed at this area including 18 significant species^{83, 334, 393, 500, 997, 1000}.

Mammals

The Nature Counts project conducted trapping in August of 2002. Nine common species were recorded¹⁰⁰¹. A total of 18 species were documented in 1977 and 1991^{26, 1000}.

SIGNIFICANT SPECIES

Species (Year Found)	SARA	ESA	SRank	City of Hamilton
Vascular Plants				
Butternut, <i>Juglans cinerea</i> (2004) ¹⁰⁰⁴	END	END	S3?	
Cranesbill, <i>Geranium bicknellii</i> (1993) ⁴⁷⁹			S4	Rare
Fragrant Sumac, <i>Rhus aromatica</i> (1977, 1991, 1998, 2001, 2004) ^{26, 432, 1000, 1001, 1004}			S5	Rare
Grooved Yellow Flax, <i>Linum sulcatum</i> (1991) ¹⁰⁰⁰			S3	Rare
Handsome Sedge, <i>Carex formosa</i> (1993, 2001) ^{479, 1001}			S3S4	Rare
Large Canadian St. John's-wort, <i>Hypericum majus</i> (1990) ⁹⁹⁶			S5	Rare
Marsh Horsetail, <i>Equisetum palustre</i> (2004) ¹⁰⁰⁴			S5	Rare
Marsh Rush, <i>Juncus canadensis</i> (2004) ¹⁰⁰⁴			S5	Rare
Pale Sedge, <i>Carex pallescens</i> (1993, 2001) ^{479, 1001}			S5	Rare
Red Mulberry, <i>Morus rubra</i> (2004) ¹⁰⁰⁴	END	END	S2	Rare
Sedge, <i>Carex gracilescens</i> (1993) ⁴⁷⁹			S3	Rare
Smooth Ground-cherry, <i>Physalis subglabrata</i> (1991) ¹⁰⁰⁰				Rare
Thin-leaved Sunflower, <i>Helianthus decapetalus</i> (1991, 2001) ^{1000, 1001}			S5	Rare
Butterflies				
Black Dash, <i>Euphyes conspicua</i> (1990, 1991, 2002) ^{998, 1000, 1001}			S3	Common
Aphrodite Fritillary, <i>Speyeria aphrodite</i> (1990, 1991) ^{998, 1000}			S5	Rare
Eastern Pine-Elfin, <i>Incisalia niphon</i> (1991) ⁹⁹⁸			S5	Rare
Monarch, <i>Danaus plexippus</i> (1989, 1990, 1991, 2004) ^{998, 1000, 1004}	SC	SC	S2N, S4B	

Species (Year Found)	SARA	ESA	SRank	City of Hamilton
White Admiral, <i>Basilarchia arthemis arthemis</i> (1991) ^{998, 1000}			S5	Rare
Herpetofauna				
Blanding's Turtle, <i>Emydoidea blandingii</i> (1996) ³⁸⁸	THR	THR	S3	Rare
Blue-spotted Salamander, <i>Ambystoma laterale</i> (1990) ⁹⁹⁹			S4	Rare
Eastern Milk Snake, <i>Lampropeltis triangulum triangulum</i> (1986, 1990, 1991) ⁹⁹⁹	SC		S4	
Redbelly Snake, <i>Storeria occipitomaculata occipitomaculata</i> (1987) ⁹⁹⁹			S5	Rare
Eastern Ribbonsnake, <i>Thamnophis sauritus</i> (1987) ⁹⁹⁹	SC	SC	S3	Rare
Smooth Green Snake, <i>Ophedrys vernalis</i> (1987, 1990) ⁹⁹⁹			S4	Rare
Snapping Turtle, <i>Chelydra serpentina</i> (1986, 1988) ⁹⁹⁹	SC	SC	S5	
Breeding Birds				
American Bittern, <i>Botaurus lentiginosus</i> (1990, 1994) ^{83, 393}			S4	Rare
Blue-headed Vireo, <i>Vireo solitarius</i> (1992) ³⁹³			S5	Rare
Bobolink, <i>Dolichonyx oryzivorus</i> (1991) ¹⁰⁰⁰	THR	THR	S4B	
Broad-winged Hawk, <i>Buteo platypterus</i> (1990, 1993, 2002) ^{83, 393, 1001}			S5	Rare
Carolina Wren, <i>Thryothorus ludovicianus</i> (1993) ³⁹³			S4	Rare
Clay-colored Sparrow, <i>Spizella pallida</i> (1991, 1992, 1993, 1994, 1995, 1996) ^{393, 1000}			S4	Rare
Cooper's Hawk, <i>Accipiter cooperii</i> (1987, 1991, 1994, 1995) ^{393, 500, 997}	NAR	NAR	S4B	Rare
Eastern Meadowlark, <i>Sturnella magna</i> (1991, 2002) ^{1000, 583, 1001}	THR	THR	S5B	
Eastern Wood-pewee, <i>Contopus virens</i> (1991, 2002, 2004) ^{1000, 583, 1001, 1004}	SC		S5B	
Golden-crowned Kinglet, <i>Regulus satrapa</i> (1990, 1991, 1992, 1993, 1994) ^{83, 393, 1000}			S5	Rare
Golden-winged Warbler, <i>Vermivora chrysoptera</i> (1990, 1991) ^{83, 1000}	THR	SC	S4B	Rare
Long-eared Owl, <i>Asio otus</i> (1993) ³⁹³			S4	Rare
Louisiana Waterthrush, <i>Seiurus motacilla</i> (1994) ³⁹³	SC	SC	S3	Rare
Magnolia Warbler, <i>Dendroica magnolia</i> (1990) ⁸³			S5	Rare
Northern Harrier, <i>Circus cyaneus</i> (1991) ¹⁰⁰⁰	NAR		S4	Rare
Prairie Warbler, <i>Dendroica discolor</i> (1990, 1992, 1993, 1994, 1995) ^{83, 334, 393, 500}	NAR	NAR	S3S4B, SZN	Rare
Red-shouldered Hawk, <i>Buteo lineatus</i> (1990, 1991) ^{83, 1000}	SC	SC	S4	Rare
Sharp-shinned Hawk, <i>Accipiter striatus</i> (1993, 1995, 2002) ^{393, 1001}	NAR	NAR	S5	Rare

Species (Year Found)	SARA	ESA	SRank	City of Hamilton
Upland Sandpiper, <i>Bartramia longicauda</i> (1990, 1991) ^{83, 1000}			S4	Rare
Whip-poor-will, <i>Caprimulgus vociferus</i> (1990, 1992, 1993, 1994, 1996) ^{83, 393}	THR	THR	S4B	Rare
Wood Thrush, <i>Hylocichla mustelina</i> (1990, 1991) ^{83, 1000}				
Yellow-billed Cuckoo, <i>Coccyzus americanus</i> (2002) ¹⁰⁰¹			S4	Rare
Yellow-rumped Warbler, <i>Dendroica coronata</i> (1990, 1992, 1993, 1994, 1995) ^{83, 393}			S5	Rare

COVER

This section identifies habitat types available as per the most recent ELC surveys.

The following table illustrates forest coverage as a percent and in area (hectares). 100 meter and 200 meter interior forest habitat is available.

Forest Cover		
Total Forested Area	100m Interior	200m Interior
48.27% (353.50ha)	13.70% (100.33ha)	2.97% (21.75ha)

Other significant habitats comprise the Hyde-Rocktown-Beverly Complex ESA. The following table illustrates other habitats available in this Natural Area:

Grasslands	Thickets	Wetlands	Aquatic
1.88% (13.74ha)	3.45% (25.27ha)	6.25% (47.78ha)	0.00% (0ha)

LAND USE AND LINKAGES

Present Land Use

The Hyde – Rockton – Beverly Complex is situated north of Highway 8 in west-central Flamborough. This natural area includes diverse land uses including many plantations, a private Christmas tree farm, public lands used for hunting and passive recreational uses, and contiguous wetlands and successional habitats. Two gas pipelines run through the complex in an east-west direction: one through the most northerly section of the complex, the other through the centre of the site⁴⁵⁹.

Adjoining lands are predominantly used for row crops and livestock but include recreational and residential areas. The Rockton airfield lies to the west. The Westfield Heritage Village and rural residential sites adjoin the eastern site boundary along Kirkwall Road⁴⁵⁹.

Linkages with Other Natural Areas

Several natural areas lie in close proximity to the Hyde – Rockton – Beverly Complex. Nearby study areas, most of which are at least weakly linked to this core area, include the Savage Tract (FLAM-95), Kirkwall Southwest (FLAM-88), Rockton Airfield West (FLAM-89), Rockton Airfield South (FLAM-91), Lynden Road & 5th Concession (FLAM-87), Patterson Tract (FLAM-86), Rockton North (FLAM-93), Westover Lowland Forest (FLAM-25), and Valens Road Woodlot (FLAM-96)⁴⁵⁹.

RECOMMENDATIONS

1. The area should be protected from development or other impacts.
2. The continuity of the entire study area and the existing linkages to peripheral natural areas should be maintained.
3. Additional field work should focus on monitoring significant species populations and include ELC surveys, especially in the alvar/savannah areas.

WATERSHED PLANS

None

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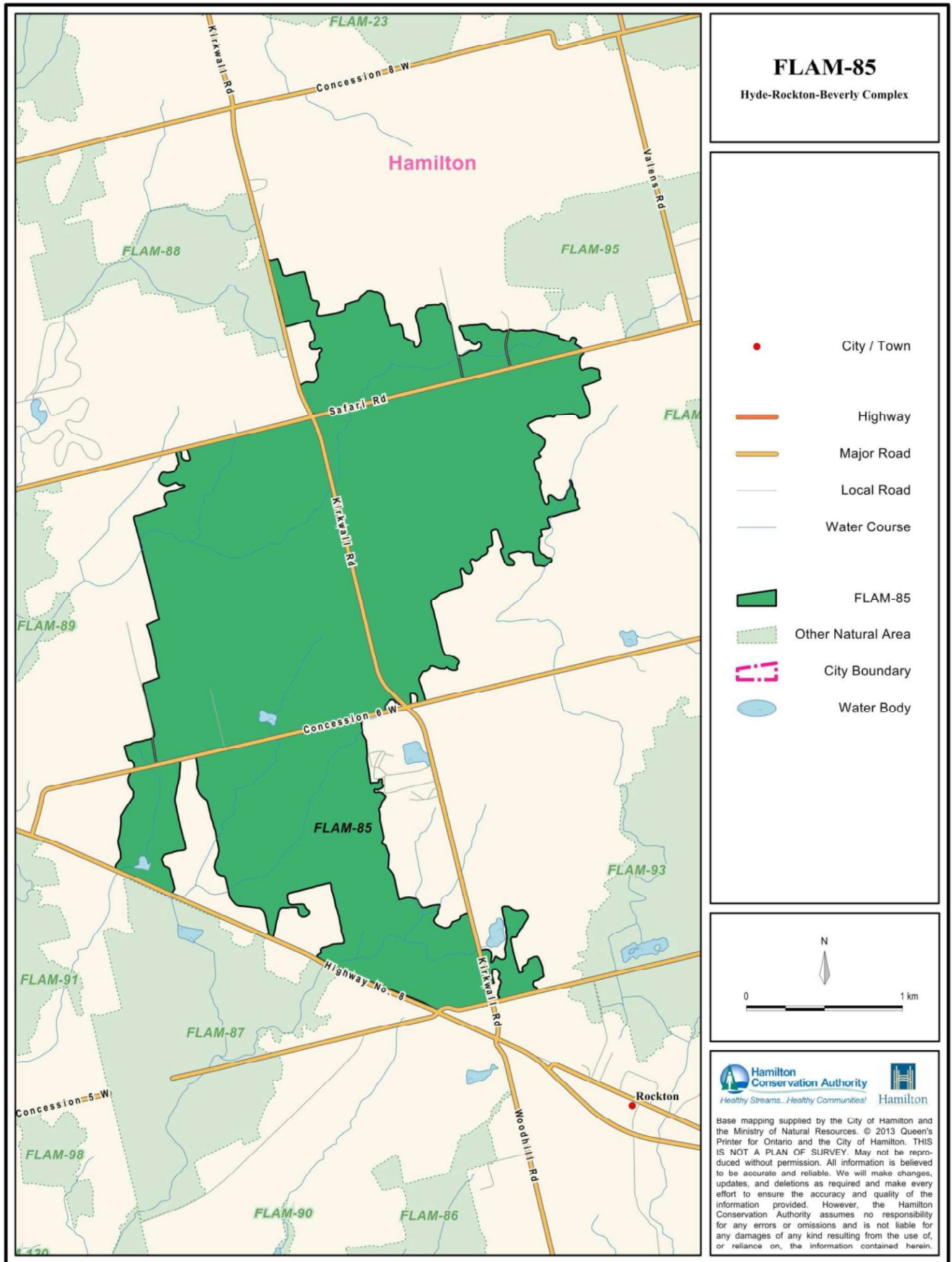
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SITE VISITS

Date	Duration	Purpose	Observers
03-June-1990	1.0 h	Birds	R. Dobos
07-June-1990	2.8 h	Birds	L. Burr
19-June-1990	3.5 h	Birds	L. Burr, B. Smith
31-July-1990	3.5 h	Birds	L. Burr
23-April-1991	4.3 h	Biological	A. Wormington
03-May-1991	4.5 h	Flora	D. Bradley
08-May-1991	1.0 h	Birds	A. Wormington, B. Lamond

14-May-1991	3.5 h	Biological	A. Wormington
27-May-1991	0.5 h	Butterflies	B. Lamond
7-June-1991	1.3 h	Birds	B. Lamond
13-June-1991	0.5 h	Butterflies	B. Lamond
21-June-1991	3.5 h	Biological	A. Wormington
28-June-1991	3.3 h	Biological	A. Wormington
18-July-1991	2.0 h	Butterflies	A. Wormington, B. Lamond
19-July-1991	4.0 h	Flora	D. Bradley, C. Salole
20-July-1991	2.0 h	Butterflies	A. Wormington
06-Aug-1991	2.0 h	Flora	B. Lamond
12-Aug-1991	1.0 h	Butterflies	B. Lamond
11-Sept-1991	4.0 h	Butterflies	B. Lamond
July-1991	Small mammal trapping; 2 lines, 225 trap-nights.		
26-June-2000	5.0 h	Fauna	B. Curry
23-April-2001	0.5 h	Fauna	B. Curry
05-May-2001		Flora	A. Goodban
06-June-2001		Flora	A. Goodban
05-July-2001	0.5 h	Fauna	A. Wormington
05-Sept-2001		Flora	A. Goodban
23-July-2002	2.0 h	Fauna	B. Curry
Aug-2002	5 days/ nights	Sm. Mammal Trapping	S. Hall, S. Irazuzta
22-July-2004	1.75 h	ELC	KM, AW, SP, GW
23-July-2004	3.5 h	ELC	GW, SP
26-July-2004	1 h	ELC	GW, SP, AW
27-July-2004	1.5 h	ELC	KM, SP
29-July-2004	4 h	ELC	KM, AW, SP, GW
30-July-2004	1 h	ELC	KM, SP, GW
03-Aug-2004	0.5 h	ELC	KM, SP, AW, GW
04-Aug-2004	0.5 h	E:C	KM, SP, GW
5-Aug-2004	1.25 h	ELC	KM, GW, SP, GW
16-Aug-2004	5 h	ELC	KM, GW, AG
17-Aug-2004	1 h	ELC	GW, AW, KM, SP

Hyde-Rockton-Beverly Complex (FLAM-85) Overview Map.



eBird Field Checklist

Westover--Safari Road--Marsh

Hamilton, Ontario, CA

ebird.org/hotspot/L1517826

137 species (+18 other taxa) - Year-round, All years

Date: _____
Start time: _____
Duration: _____
Distance: _____
Party size: _____
Notes:

This checklist is generated with data from eBird (ebird.org), a global database of bird sightings from birders like you. If you enjoy this checklist, please consider contributing your sightings to eBird. It is 100% free to take part, and your observations will help support birders, researchers, and conservationists worldwide.

Go to ebird.org to learn more!

Waterfowl

- ___ Canada Goose *Branta canadensis*
- ___ Mute Swan *Cygnus olor*
- ___ Trumpeter Swan *Cygnus buccinator*
- ___ swan sp. *Cygnus sp.*
- ___ Wood Duck *Aix sponsa*
- ___ Blue-winged Teal *Spatula discors*
- ___ Gadwall *Mareca strepera*
- ___ Mallard *Anas platyrhynchos*
- ___ Green-winged Teal *Anas crecca*
- ___ Long-tailed Duck *Clangula hyemalis*
- ___ Hooded Merganser *Lophodytes cucullatus*
- ___ duck sp. *Anatidae (duck sp.)*

Grouse, Quail, and Allies

- ___ Wild Turkey *Meleagris gallopavo*
- ___ Ruffed Grouse *Bonasa umbellus*

Grebes

- ___ Pied-billed Grebe *Podilymbus podiceps*

Pigeons and Doves

- ___ Rock Pigeon *Columba livia*
- ___ Mourning Dove *Zenaida macroura*

Cuckoos

- ___ Yellow-billed Cuckoo *Coccyzus americanus*
- ___ Black-billed Cuckoo *Coccyzus erythrophthalmus*
- ___ Yellow-billed/Black-billed Cuckoo *Coccyzus americanus/erythrophthalmus*

Nightjars

- ___ Common Nighthawk *Chordeiles minor*

Swifts

- ___ Chimney Swift *Chaetura pelagica*

Hummingbirds

- ___ Ruby-throated Hummingbird *Archilochus colubris*

Rails, Gallinules, and Allies

- ___ Virginia Rail *Rallus limicola*
- ___ Sora *Porzana carolina*
- ___ Common Gallinule *Gallinula galeata*
- ___ American Coot *Fulica americana*
- ___ rail/crake sp. *Rallidae sp. (rail/crake sp.)*

Cranes

- ___ Sandhill Crane *Antigone canadensis*

Shorebirds

- ___ Killdeer *Charadrius vociferus*
- ___ American Woodcock *Scolopax minor*
- ___ Wilson's Snipe *Gallinago delicata*
- ___ Spotted Sandpiper *Actitis macularius*
- ___ Solitary Sandpiper *Tringa solitaria*
- ___ Greater Yellowlegs *Tringa melanoleuca*
- ___ Lesser Yellowlegs *Tringa flavipes*
- ___ shorebird sp. *Charadriiformes sp.*

Gulls, Terns, and Skimmers

- ___ Ring-billed Gull *Larus delawarensis*
- ___ Herring Gull *Larus argentatus*
- ___ gull sp. *Larinae sp.*
- ___ Caspian Tern *Hydroprogne caspia*

Cormorants and Anhingas

- ___ Double-crested Cormorant *Nannopterum auritum*

Herons, Ibis, and Allies

- ___ American Bittern *Botaurus lentiginosus*
- ___ Least Bittern *Ixobrychus exilis*
- ___ Great Blue Heron *Ardea herodias*

- ___ Great Egret *Ardea alba*
___ Green Heron *Butorides virescens*

Vultures, Hawks, and Allies

- ___ Turkey Vulture *Cathartes aura*
___ Osprey *Pandion haliaetus*
___ Northern Harrier *Circus hudsonius*
___ Sharp-shinned Hawk *Accipiter striatus*
___ Cooper's Hawk *Accipiter cooperii*
___ Bald Eagle *Haliaeetus leucocephalus*
___ Broad-winged Hawk *Buteo platypterus*
___ Red-tailed Hawk *Buteo jamaicensis*
___ Buteo sp. *Buteo sp.*

Owls

- ___ Great Horned Owl *Bubo virginianus*

Kingfishers

- ___ Belted Kingfisher *Megaceryle alcyon*

Woodpeckers

- ___ Red-headed Woodpecker *Melanerpes erythrocephalus*
___ Red-bellied Woodpecker *Melanerpes carolinus*
___ Downy Woodpecker *Dryobates pubescens*
___ Hairy Woodpecker *Dryobates villosus*
___ Downy/Hairy Woodpecker *Dryobates pubescens/villosus*
___ Pileated Woodpecker *Dryocopus pileatus*
___ Northern Flicker *Colaptes auratus*
___ woodpecker sp. *Picidae sp.*

Falcons and Caracaras

- ___ American Kestrel *Falco sparverius*

Tyrant Flycatchers: Pewees, Kingbirds, and Allies

- ___ Eastern Wood-Pewee *Contopus virens*
___ Alder Flycatcher *Empidonax alnorum*

- ___ Willow Flycatcher *Empidonax traillii*
___ Alder/Willow Flycatcher (Traill's Flycatcher) *Empidonax alnorum/traillii*
___ Least Flycatcher *Empidonax minimus*
___ Empidonax sp. *Empidonax sp.*
___ Eastern Phoebe *Sayornis phoebe*
___ Great Crested Flycatcher *Myiarchus crinitus*
___ Eastern Kingbird *Tyrannus tyrannus*
___ new world flycatcher sp. *Tyrannidae sp.*

Vireos

- ___ Yellow-throated Vireo *Vireo flavifrons*
___ Warbling Vireo *Vireo gilvus*
___ Red-eyed Vireo *Vireo olivaceus*

Shrikes

- ___ Northern Shrike *Lanius borealis*

Jays, Magpies, Crows, and Ravens

- ___ Blue Jay *Cyanocitta cristata*
___ American Crow *Corvus brachyrhynchos*
___ Common Raven *Corvus corax*

Tits, Chickadees, and Titmice

- ___ Black-capped Chickadee *Poecile atricapillus*

Martins and Swallows

- ___ Northern Rough-winged Swallow *Stelgidopteryx serripennis*
___ Purple Martin *Progne subis*
___ Tree Swallow *Tachycineta bicolor*
___ Bank Swallow *Riparia riparia*
___ Barn Swallow *Hirundo rustica*
___ swallow sp. *Hirundinidae sp.*

Kinglets

- ___ Ruby-crowned Kinglet *Corthylio calendula*
___ Golden-crowned Kinglet *Regulus satrapa*

Nuthatches

- ___ Red-breasted Nuthatch *Sitta canadensis*
___ White-breasted Nuthatch *Sitta carolinensis*
___ nuthatch sp. *Sitta sp.*

Treecreepers

- ___ Brown Creeper *Certhia americana*

Gnatcatchers

- ___ Blue-gray Gnatcatcher *Polioptila caerulea*

Wrens

- ___ House Wren *Troglodytes aedon*
___ Marsh Wren *Cistothorus palustris*
___ Carolina Wren *Thryothorus ludovicianus*

Starlings and Mynas

- ___ European Starling *Sturnus vulgaris*

Catbirds, Mockingbirds, and Thrashers

- ___ Gray Catbird *Dumetella carolinensis*
___ Brown Thrasher *Toxostoma rufum*

Thrushes

- ___ Eastern Bluebird *Sialia sialis*
___ Veery *Catharus fuscescens*
___ Swainson's Thrush *Catharus ustulatus*
___ Wood Thrush *Hylocichla mustelina*
___ American Robin *Turdus migratorius*

Waxwings

- ___ Cedar Waxwing *Bombycilla cedrorum*

Old World Sparrows

- ___ House Sparrow *Passer domesticus*

Finches, Euphonias, and Allies

- ___ House Finch *Haemorhous mexicanus*
___ Purple Finch *Haemorhous purpureus*

This field checklist was generated using eBird (ebird.org)

- ___ Pine Siskin *Spinus pinus*
 ___ American Goldfinch *Spinus tristis*
 ___ finch sp. *Fringillidae* sp.

New World Sparrows

- ___ Grasshopper Sparrow *Ammodramus savannarum*
 ___ Chipping Sparrow *Spizella passerina*
 ___ Field Sparrow *Spizella pusilla*
 ___ American Tree Sparrow *Spizelloides arborea*
 ___ Dark-eyed Junco *Junco hyemalis*
 ___ White-throated Sparrow *Zonotrichia albicollis*
 ___ Vesper Sparrow *Pooecetes gramineus*
 ___ Savannah Sparrow *Passerculus sandwichensis*
 ___ Song Sparrow *Melospiza melodia*
 ___ Swamp Sparrow *Melospiza georgiana*
 ___ Eastern Towhee *Pipilo erythrophthalmus*

Blackbirds

- ___ Bobolink *Dolichonyx oryzivorus*
 ___ Eastern Meadowlark *Sturnella magna*
 ___ Baltimore Oriole *Icterus galbula*
 ___ Red-winged Blackbird *Agelaius phoeniceus*
 ___ Brown-headed Cowbird *Molothrus ater*
 ___ Rusty Blackbird *Euphagus carolinus*
 ___ Common Grackle *Quiscalus quiscula*
 ___ blackbird sp. *Icteridae* sp.

Wood-Warblers

- ___ Ovenbird *Seiurus aurocapilla*
 ___ Blue-winged Warbler *Vermivora cyanoptera*
 ___ Black-and-white Warbler *Mniotilta varia*
 ___ Tennessee Warbler *Leiothlypis peregrina*
 ___ Common Yellowthroat *Geothlypis trichas*

- ___ American Redstart *Setophaga ruticilla*
 ___ Northern Parula *Setophaga americana*
 ___ Yellow Warbler *Setophaga petechia*
 ___ Chestnut-sided Warbler *Setophaga pensylvanica*
 ___ Blackpoll Warbler *Setophaga striata*
 ___ Palm Warbler *Setophaga palmarum*
 ___ Pine Warbler *Setophaga pinus*
 ___ Yellow-rumped Warbler *Setophaga coronata*
 ___ Black-throated Green Warbler *Setophaga virens*

Cardinals, Grosbeaks, and Allies

- ___ Scarlet Tanager *Piranga olivacea*
 ___ Northern Cardinal *Cardinalis cardinalis*
 ___ Rose-breasted Grosbeak *Pheucticus ludovicianus*
 ___ Indigo Bunting *Passerina cyanea*

Others

- ___ passerine sp. *Passeriformes* sp.
 ___ bird sp. *Aves* sp.

This field checklist was generated using eBird (ebird.org)

Appendix C

Costing Analysis

- Solution 3a


**PRELIMINARY COST ESTIMATE
 SOLUTION 3A
 SAFARI ROAD MUNICIPAL DRAIN
 (PRELIMINARY ENGINEER'S REPORT)**

Project No: B22048
 Date: 23-Jun-23

Type	Item No.	Item	Unit	Cost/Unit	Quantity	Total	
Construction							
Construction	Site Preparation Activities						
		Mobilization (maximum 2% of total construction cost)	LS	\$ 1,200.00	1.00	\$ 1,200.00	
		Erosion and Sediment Control Plan	LS	\$ 1,500.00	1.00	\$ 1,500.00	
		- Straw Bale Dam c/w Sediment Trap	each	\$ 300.00	4.00	\$ 1,200.00	
		- Silt Fence	m	\$ 7.50	600.00	\$ 4,500.00	
		Vegetation Management Corridor (5m wide)	m	\$ 15.50	2048.00	\$ 31,744.00	
		Beaver Dam Removal	each	\$ 1,500.00	3.00	\$ 4,500.00	
		Fence removal and reinstatement	m	\$ 30.00	100.00	\$ 3,000.00	
	Excavation Activities						
		Earth Ex. - Ditch (full construction) - Incl. Spreading (at culverts only)	m ³	\$ 22.50	200.00	\$ 4,500.00	
		Rock Excavation (hydraulic ram)	m ³	\$ 150.00	0.00	\$ -	
	Reinstatement Activities						
		Tile Outlet Restoration/Protection	each	\$ 500.00	0.00	\$ -	
		Hand Seeding	m ²	\$ 1.50	400.00	\$ 600.00	
		1000mm dia CSP Culvert (incl. bedding, backfill and surface treatment)	m	\$ 700.00	30.00	\$ 21,000.00	
		Existing Culverts -- Remove and Dispose	each	\$ 500.00	2.00	\$ 1,000.00	
		Rock Protection - Erosion Control	m ²	\$ 27.50	0.00	\$ -	
		Rock Protection - Culvert End Treatments	each	\$ 825.00	10.00	\$ 8,250.00	
		Sub-Total - Construction Costs				\$ 74,744.00	
		Contingency Allowance - Construction				\$ 6,000.00	
		Total - Construction Costs				\$ 80,744.00	
	Engineering/Administration						
	Engineering & Administration		Preliminary Engineer's Report	LS	\$ 37,230.00	1.00	\$ 37,230.00
			Engineer's Report (apportioned by Section)	LS	\$ 53,860.00	1.00	\$ 53,860.00
			Contract Administration/Inspection	LS	\$ 22,000.00	1.00	\$ 22,000.00
			Sub-Total - Routine Engineering				\$ 113,090.00
	Total - Engineering/Administration						\$ 113,090.00
	Other						
		Allowances	LS	Not Anticipated		\$ -	
		Net HST (1.76% of All Above Noted Costs)	%	\$ 193,834.00	1.76%	\$ 3,411.48	
Total - Other Costs						\$ 3,411.48	
Sub-Total - Net Costs						\$ 197,245.48	



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Environmental Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 13, 2023
SUBJECT/REPORT NO:	Standardization of Original Equipment Manufacturer (OEM) for Parks Assets – Playgrounds, Spray Pads, Ball Diamonds, and Benches (PW23069) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Adriana Byrne (905) 546-2424 Ext. 2156 Shauna Hasselman (905) 546-2424 Ext. 7734 Ryan Van Balkom (905) 546-2424 Ext. 3445
SUBMITTED BY:	Cynthia Graham Director, Environmental Services Public Works Department
SIGNATURE:	

RECOMMENDATION

- (a) Pursuant to Procurement Policy #14 – Standardization, that the standardization of the products, services and manufacturers identified in the attached Appendices “A” Play Equipment , “B” Spray Pads, “C” Ball Diamonds and “D” Benches to Report PW23069 and as the single source of supply for the listed products, supplies and services for the Parks and Cemeteries Section be approved;
- (b) That the General Manager, Public Works, or their designate, be authorized to negotiate, enter into, and execute any required contract(s) and any ancillary documents required to give effect thereto with those suppliers identified in Appendices “A” Play Equipment, “B” Spray Pads, “C” Ball Diamonds, and “D” Benches to Report PW23069 with content acceptable to the General Manager of Public Works, and in a form satisfactory to the City Solicitor; and
- (c) That the General Manager, Public Works, or their designate, be authorized to amend any contract(s) executed and any ancillary documents as required in the event that a service provider, manufacturer, or distributor identified in Appendices “A” Play Equipment, “B” Spray Pads, “C” Ball

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SUBJECT: Standardization of Original Equipment Manufacturer (OEM) for Parks Assets – Playgrounds, Spray Pads, Ball Diamonds, and Benches (PW23069) (City Wide) – Page 2 of 7

Diamonds and “D” Benches to Report PW23069 undergoes a name change, and it shall be in a form satisfactory to the City Solicitor.

EXECUTIVE SUMMARY

The Parks and Cemeteries Section operates a network of amenities that require or benefit from the use of proprietary and design matched replacement parts, supplies, and specialized services in order to maintain amenities in a state of safe operability and good repair. These amenities include, play equipment and spray pads, ball diamonds, and benches. This practice satisfies several goals related to legislative compliance, continuity of operation, health and safety, cost-efficiency, productivity, and asset life cycle longevity.

Procurement Policy #11 – Non-competitive Procurements provides a mechanism for the Parks and Cemeteries Section to purchase specific products and services directly from a single source. This process has been utilized as required and in some instances, the Section has now exhausted the approval authority of the General Manager under this process. Since the Section’s requirements have not changed, it was determined that establishing standardization for these items pursuant to Procurement Policy #14 – Standardization, which provides guidelines for the standardization of goods and services and includes a streamlined process to purchase standardized goods and services. Report PW23069 recommends Council approval to standardize equipment, parts, supplies, and services as outlined in Appendices “A” Play Equipment, “B” Spray Pads, “C” Ball Diamonds, and “D” Bench Boards of Report PW23069 based on the business requirements of the Parks and Cemeteries Section.

Alternatives for Consideration – See Page 7

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Appendices “A”, “B”, “C”, and “D” to Report PW23069 list the products and services recommended for standardization. From 2019 through 2023, the combined expenditures relative to these vendors has averaged \$767,981.00 annually. Budget for these purchases are approved each year through the Parks and Cemeteries Operating Budget.

Staffing: The approval of the recommendations contained within this report will reduce the amount of time spent on administrative work procuring goods and services and delays in acquiring the materials and service necessary to maintain Parks amenities in an operational condition.

Legal: N/A

SUBJECT: Standardization of Original Equipment Manufacturer (OEM) for Parks Assets – Playgrounds, Spray Pads, Ball Diamonds, and Benches (PW23069) (City Wide) – Page 3 of 7

HISTORICAL BACKGROUND

Parks and Cemeteries operates more than 600 properties and a network of amenities including 288 play equipment locations, 71 spray pads, 194 baseball diamonds, and a large inventory of benches. The goal of the Parks and Cemeteries Section is to ensure the amenities are safe to use, in good working condition and available to users who are accessing the services intended. With a large number of properties and variety of amenities, successful service delivery depends on the effective coordination of operations (routine inspections) and maintenance (minor or other repairs) to ensure that amenities remain open and available for use and closures are limited. The Parks and Cemeteries Section has identified key areas where the standardization of products, services, manufacturers, and distributors are critical to service delivery: play equipment, spray pads, ball diamond maintenance and restoration, and benches.

Play Equipment and Spray Pad Parts

Since 2017, play equipment replacement parts and spray pad replacement parts have been purchased under the procurement authority, Policy # 11 – Non-competitive Procurements, single source, approved by the General Manager of Public Works. Orders for original equipment manufacturer parts have been issued to each vendor identified in Appendix “A” for play equipment and Appendix “B” for spray pads, as the manufacturers of our existing play equipment and spray pads. The Policy # 11 – Non-competitive Procurements approvals are now expired.

Ball Diamonds

Between 2018 and 2021 several competitive procurement processes were completed for ball diamond grading, restoration services and clay products. None of the resulting contracts were successful in delivering the required services at an acceptable quality and reasonable price. The 2018 Request for Tender was awarded but not renewed after the first year of the contract due to issues with vendor performance.

The 2019 Request for Quotation (RFQ) included revised specifications with a requirement for the vendor to use specialty ball diamond grading equipment, the City was only able to secure two bids. Procurement staff approved award to the low bid received. The contract was based on time and materials and the vendor was unable to complete the work in a timely manner. The result was low work output and high costs per site.

The 2020 Request for Quotation included a further revised specification to make

SUBJECT: Standardization of Original Equipment Manufacturer (OEM) for Parks Assets – Playgrounds, Spray Pads, Ball Diamonds, and Benches (PW23069) (City Wide) – Page 4 of 7

the equipment requirements more generic. Three bids were received, the lowest bidder was unable to perform the fine grading and slope restoration requirements with the equipment they had available to complete the work.

In 2021, a low dollar value purchase order (purchase order with an aggregate amount of less than \$10,000) was issued to Mar-Co Clay Products Inc. to complete as many diamonds as feasible within the budget provided. Due to the challenges with vendors, the baseball diamonds were in a poor state of repair and in 2022, a Policy # 11 – Non-competitive Procurements, single source was approved by the General Manager of Public Works to Mar-Co Clay Products Inc. to restore some of the City's ball diamonds to the appropriate grade and infield radius to ensure they are playable fields.

Throughout 2022 and 2023 Mar-Co Clay has been operating as the sole contractor for these services through the above-mentioned Policy #11 Non-competitive Procurement effort with a max budget of \$150,000. To date, Parks and Cemeteries have exhausted these funds and require standardization to continue providing a high level of service to ball diamond user groups and residents with competitive pricing. Mar-Co Clay provides these services to a quality unmatched by previous vendors and demonstrated positive user group feedback received in 2023.

Additionally, Mar-Co Clay also supplies the City with infield material (clay) which is installed annually at Bernie Arbour stadium and other clay-based fields. This clay is the preferred composition that the Parks Section uses, and it has been proven difficult to procure via Request for Quotation or Request for Tender as each manufacturer or distributor offers a different product. Mar-Co Clay's product has been the established product used by the City of Hamilton for the previous 10+ years. The operation needs and requirement for clay has surpassed our annual expected budget of \$10 000.

Bench Components and Decorative Benches

In 2017, after extensive industry research and product sampling, a Policy 11 – Non-competitive Procurements, single source was approved by the General Manager for Classic Displays and the supply of bench components (bench boards and decorative bench ends) used by Parks and Cemeteries to build standard concrete park benches, replace boards in existing benches, and repair decorative benches. This Policy 11 has now expired. Due to vandalism and requests for new benches, the need for bench boards and bench components is an annual requirement. Replacement of decorative benches is also an annual requirement.

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The City of Hamilton has a significant number of benches across the City in Parks and Open spaces. Some of these benches, at key locations – such as Bayfront Park, City Hall, and the Downtown Core – are specialty benches. As well, the City offers a commemorative bench program that includes the same specialty bench style, to individuals who wish to donate a bench amenity in a loved one's name. At this time repairs to these assets are limited as the city's current stock and supplies are almost all used. The General Manager approval limit has been reached in procuring these items.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The City of Hamilton Bylaw #17-064 - Procurement Policy, Policy #14, Section 4.14, allows for standardization.

RELEVANT CONSULTATION

- Procurement Section of the Financial Services Division to ensure adherence to the Procurement Policy.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

In consultation with the Procurement Section, the recommendations to standardize and single source with various products, manufacturers, and distributors contained within the Appendices to Report PW23069 are considered to be the best option for ensuring that:

- replacement play equipment and spray pad parts are available as required and acquired in a timely fashion;
- ball diamond products and services are available as required and acquired in a timely fashion; and
- matching parts for benches and new benches are available as required and acquired in a timely fashion.

Play Equipment and Spray Pad Parts

Play equipment and spray pads are operated and maintained by a specialized team within the Parks and Cemeteries Section who are trained to complete inspections, identify hazards and complete repairs to ensure that all play equipment meets the Canadian Standards Association standards. Every play structure in the City of Hamilton is inspected monthly. Every spray pad in the City of Hamilton is inspected every twenty days during the operating season, with additional enhanced inspections by Public Health staff at the beginning of the operating season. When replacement parts produced by the original manufacturer

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SUBJECT: Standardization of Original Equipment Manufacturer (OEM) for Parks Assets – Playgrounds, Spray Pads, Ball Diamonds, and Benches (PW23069) (City Wide) – Page 6 of 7

of the play equipment are used for repairs and maintenance, the Play Equipment team is able to complete 85% of the necessary repairs within 60 minutes. This quick turnaround for routine repairs minimizes the amount of time the equipment is closed and ensures compatibility by using original equipment manufactured parts for replacement. Any repairs that cannot be completed by staff are performed by the manufacturer either directly or through the manufacturer's designated service provider as they are available and well versed in repairing the equipment. Both play equipment and spray pad parts are proprietary to the original manufacturer and are not interchangeable.

The City of Hamilton currently has play equipment made by 10 manufacturers and spray pads made by 5 manufacturers installed in City Parks. The design, supply and installation of new play equipment and spray pads is procured through a competitive bidding process, led by the Landscape Architectural Services Section or by the Parks and Cemeteries Section capital team.

Ball Diamonds

Ball diamond maintenance and restoration is a specialized service with a limited number of service providers in Ontario. Some municipalities have chosen to provide all ball diamond maintenance and restoration services internally, whereas the City of Hamilton completes some minor work in-house and otherwise relies on external services. The Parks and Cemeteries Section has completed various competitive procurement processes for these services and awarded several contracts with little success in supporting Parks and Cemeteries Section to achieve the required level of service. Mar-Co Clay Products Inc. is the sole provider in southern Ontario for ball diamond clay products and one of the only providers of ball diamond restoration services. Over the last 10 years Mar-Co Clay Products Inc. has been the only service provider to allow the Parks and Cemeteries Section to meet the service level standard for baseball diamonds.

Bench Components and Decorative Benches

Parks and Cemeteries Section staff build and repair the benches within the parks system and in the business improvement areas. There are two different styles of benches, both styles of bench use the same recycled plastic bench boards. Classic Displays is the sole distributor for the recycled plastic bench boards in the colour that is used across the City. Standardization of the bench boards allows for the replacement of single boards which is a more cost-effective approach to managing wear and tear and vandalism than full bench replacement.

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ALTERNATIVES FOR CONSIDERATION

An alternative to the recommendations in this report is to continue under the authority of Policy # 11 – Non-competitive Procurement and General Manager approval, in the instances where that authority has not yet been exhausted. The appendices to this report identify where there is remaining approval authority of the General Manager. For both Mar-Co Clay and Classic displays staff have exhausted General Manager approval authority.

Financial: N/A

Staffing: N/A

Legal: N/A

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW23069 – Parts, Supplies, Equipment and Services for City of Hamilton Play Structures

Appendix “B” to Report PW23069 – Parts, Supplies, Equipment and Services for City of Hamilton Spray Pads

Appendix “C” to Report PW23069 – Supplies, Equipment and Maintenance Services for City of Hamilton Ball Diamonds

Appendix “D” to Report PW23069 – Component Parts, Supplies and Equipment for City of Hamilton Park Benches

**Goods and Services
for City of Hamilton Play Structures**

Vendor Name	Goods	Services	Est. Annual Spend 2023	Annual Spent 2022	Annual Spent 2021	Annual Spent 2020	Annual Spent 2019	Totals	Comments
ABC Recreation Ltd.	Replacement parts for ABC Recreation structures can only be provided by ABC Recreation Ltd. Parks requires various replacement parts on different occasions to bring play equipment that has failed CSA inspection back to compliance to ensure it is safe for children to use.	Occasionally installations and repairs to play equipment must be completed by the distributor.	\$20,000	\$36,556	\$23,907	\$1,103	\$32,619	\$114,185	
Playpower LT Canada Inc.	Replacement parts for Playpower LT Canada Inc. structures can only be provided by Playpower LT Canada Inc. Parks requires various replacement parts on different occasions to bring play equipment that has failed CSA inspection back to compliance to ensure it is safe for children to use.	Occasionally installations and repairs to play equipment must be completed by the distributor.	\$17,000	\$15,775	\$849	\$22,950		\$56,573	
Henderson Recreation	Replacement parts for Henderson Recreation structures can only be provided by Henderson Recreation. Parks requires various replacement parts on different occasions to bring play equipment that has failed CSA inspection back to compliance to ensure it is safe for children to use.	Occasionally installations and repairs to play equipment must be completed by the distributor.	\$30,000	\$19,404	\$43,597	\$11,990	\$3,840	\$108,832	

New World Park Solutions Inc.	Replacement parts for New World Park Solutions Inc. structures can only be provided by New World Park Solutions Inc. Parks requires various replacement parts on different occasions to bring play equipment that has failed CSA inspection back to compliance to ensure it is safe for children to use.	Occasionally installations and repairs to play equipment must be completed by the distributor.	\$25,000	\$18,790	\$28,303	\$10,227	\$82,320	\$82,320	
Open Space Solutions Inc.	Replacement parts for New World Park Solutions Inc. structures can only be provided by New World Park Solutions Inc. Parks requires various replacement parts on different occasions to bring play equipment that has failed CSA inspection back to compliance to ensure it is safe for children to use.	Occasionally installations and repairs to play equipment must be completed by the distributor.	\$30,000	\$9,165	\$7,547			\$46,711	
Park N Play Design Co. Ltd.	Replacement parts for Park N Play Design Co. Ltd. structures can only be provided by Park N Play Design Co. Ltd. Parks requires various replacement parts on different occasions to bring play equipment that has failed CSA inspection back to compliance to ensure it is safe for children to use.	Occasionally installations and repairs to play equipment must be completed by the distributor.	\$20,000	\$16,846	warranty work			\$36,846	New to the city in 2021
Park N Water Ltd. (Burke Play Equipment)	Replacement parts for Park N Water Ltd. structures can only be provided by Park N Water Ltd. Parks requires various replacement parts on different occasions to bring play equipment that has failed CSA inspection back to compliance to ensure it is safe for children to use.	Occasionally installations and repairs to play equipment must be completed by the distributor.	warranty work						New to the city 2023 no replacement parts ordered

S.F Scott Manufacturing Company Limited (Blue Imp)	Replacement parts for S.F. Scott Manufacturing Company Limited structures can only be provided by S.F. Scott Manufacturing Company Limited. Parks requires various replacement parts on different occasions to bring play equipment that has failed CSA inspection back to compliance to ensure it is safe for children to use.	Occasionally installations and repairs to play equipment must be completed by the distributor.	\$10,000	warranty work	warranty work			\$10,000	New to the city 2021. no replacement parts ordered
								\$455,467	

**Goods and Services
for City of Hamilton Spray Pads**

Vendor Name	Goods	Services	Est. Annual Spend 2023	Annual Spent 2022	Annual Spent 2021	Annual Spent 2020	Annual Spent 2019	Totals	Comments
Open Space Solutions INC	Replacement parts for Open Space Solutions INC structures can only be provided by Open Space Solutions INC. Parks requires various replacement parts on different occasions to bring spray pad equipment that has failed CSA inspection back to code to ensure it is operational throughout the summer months.	Occasionally installations and repairs to spray pad equipment must be completed by the distributor.		\$432	\$4,823	\$737	\$6,177	\$12,169	
ABC Recreation Ltd.	Replacement parts for ABC Recreation Ltd. structures can only be provided by ABC Recreation Ltd. Parks requires various replacement parts on different occasions to bring spray pad equipment that has failed CSA inspection back to code to ensure it is operational throughout the summer months.	Occasionally installations and repairs to spray pad equipment must be completed by the distributor.		\$6,363	\$4,706			\$11,069	
New World Park Solutions INC	Replacement parts for New World Park Solutions INC structures can only be provided by New World Park Solutions INC. Parks requires various replacement parts on different occasions to bring spray pad equipment that has failed CSA inspection back to code to ensure it is operational throughout the summer months.	Occasionally installations and repairs to spray pad equipment must be completed by the distributor.	warranty work	warranty work					New to the city 2022. No spray pad replacement parts ordered yet

<p>Park N Water Ltd.</p>	<p>Replacement parts for Park N Water Ltd. structures can only be provided by Park N Water Ltd. Parks requires various replacement parts on different occasions to bring spray pad equipment that has failed CSA inspection back to code to ensure it is operational throughout the summer months.</p>	<p>Occasionally installations and repairs to spray pad equipment must be completed by the distributor.</p>							<p>New to the city 2023. No spray pad replacement parts ordered yet</p>
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\$23,239

**Goods and Services
for City of Hamilton Ball Diamonds**

Vendor Name	Goods	Services	Est. Annual Spend 2023	Annual Spent 2022	Annual Spent 2021	Annual Spent 2020	Annual Spent 2019	Total	Comments
Mar-Co Clay Products Inc.	Provide all specialized materials (such as In field clay, Redibrick, Redi Mound, an dRedikit) necessary for the maintenance of ball diamonds with the exception of mag lime screenings.	Specialized materials and services related to the maintenance and restoration of ball diamonds.	\$ 90,500.00	\$ 43,391.15	\$ 9,463.08	\$ 1,169.15	\$ 5,959.38	\$ 150,482.76	Annual expenditure represents actual dollars spent on ball diamond grading and materials and not necessarily with Mar-Co Clay Products Inc.

**Parts and Equipment
for City of Hamilton Park Benches**

Appendix "D" to Report PW23069
Page 1 of 1

Vendor Name	Goods	Est. Annual Spend 2023	Annual Spent 2022	Annual Spent 2021	Annual Spent 2020	Annual Spent 2019	Total	Comments
Classic Displays	Park bench components including but not limited to: recycled plastic bench boards, riverside bench ends with arms, and riverside bench ends without arms. Supply and delivery of Riverside benches for full replacement due to vandalism	\$ 20,364.00	\$ 61,456.80	\$ 35,509.22	\$ 29,286.56	\$ 12,539.00	\$ 159,155.58	



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 13, 2023
SUBJECT/REPORT NO:	Updated Sewer & Drain By-law (PW23070) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Dave Alberton (905) 546-2424 Ext.1090
SUBMITTED BY:	Shane McCauley Director, Water and Wastewater Operations Public Works Department
SIGNATURE:	

RECOMMENDATION

That the By-law attached as Appendix “A” to Report PW23070, to Regulate the Installation, Connection and Use of Sewers and Drains in the City of Hamilton (Short Title: “the Sewer & Drain By-law”), which has been prepared in a form satisfactory to the City Solicitor, be enacted.

EXECUTIVE SUMMARY

The purpose of this report is to recommend the enactment of a new By-law to Regulate the Installation, Connection and Use of Sewers and Drains in the City of Hamilton attached as Appendix “A” to Report PW23070. The new By-law reflects current industry best practices for the installation of sewers and drains. Significant changes from the existing Sewer & Drain By-law are attached as Appendix “B” to Report PW23070.

Alternatives for Consideration: N/A

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: N/A

Staffing: N/A

SUBJECT: Updated Water Works By-law (PW23070) (City Wide) – Page 2 of 4

Legal: N/A

HISTORICAL BACKGROUND

The City's Sewer & Drain By-law No. 06-026 was first enacted in 2006 and has received minor amendments over the last 17 years. Most amendments were made each year to update Schedule "A" that outlines the various User Fees and Charges.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The proposed By-law is to be enacted under the authority of the *Municipal Act 2001*.

RELEVANT CONSULTATION

The proposed By-law was written as a joint initiative between Hamilton Water and Legal Services and meets applicable legal requirements for regulatory By-laws including all appropriate provisions for enforcement.

The following City Divisions are key stakeholders each of which had a representative on the Review Team:

- Planning & Economic Development: Building Division
- Planning & Economic Development: Growth Management
- Financial Planning Administration & Policy
- Hamilton Water
- Legal & Risk Management Services

The City held two Public Information Sessions designed as open-house events. They were advertised on the City's website, Social Media platforms, and in local newspapers. The advertisements are attached as Appendix "C" to Report PW23070. Invitations were extended to the Development Liaison Committee and the Hamilton and District Heavy Construction Association. Staff presented to the Development Liaison Committee at the September 11, 2023 meeting. Below is a summary of Public Information Session attendees based on their area of interest:

- Industrial, Commercial, Industrial Facilities – four
- Associations/ Consulting Companies – two
- Residents/ Other – six

A dedicated website and email address were established and made available from June 14 to July 31, 2023, allowing stakeholders to review the current and draft By-laws and submit questions and comments. The website and email address were advertised along with the Public Information Sessions.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: Updated Water Works By-law (PW23070) (City Wide) – Page 3 of 4

Staff reviewed and responded to the emails and questions received. The comments were taken into consideration by the Review Team. A summary of the feedback received through the outreach initiatives is attached as Appendix “D” to Report PW23070.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The current By-law required a full rewrite as the standards, practices and policies governing the management of the Sewer and Drains System have evolved. Gaps and industry best practices were identified and addressed, and administrative changes were made. The significant changes to the By-law are attached as Appendix “B” to Report PW23070.

Hamilton Water led a cross-departmental review to understand the City’s current challenges and limitations within the existing By-Law. Legal & Risk Management Services and Senior Management were also involved to ensure the changes were clearly articulated, legislatively appropriate, and aligned with the City’s broader goals and strategies. The review team consulted with industry professionals and analysed relevant By-laws from six local comparator municipalities, including the City of Toronto, City of London, City of Ottawa, Halton Region, Town of Markham, and City of Brantford.

Major updates and changes include:

1. Administrative changes were made to reorganize content, update definitions, and remove duplication for ease of reading.
2. Replacing Joint Use Agreements with legally enforceable reciprocal easements registered against each connected property. Joint Use Agreements exist solely between property owners and do not transfer in the event of a sale. Replacing these agreements with registered easements ensures continuity of the agreement even if the property owners change.
3. Removed the provision of allowing up to three residential or three non-residential properties to share a single connection to the mainline sewer. Now, each parcel of land must have its own individual sewer connection. This change aligns with common municipal practice and mitigates the risk to shared users in the event of a sewer line failure. Existing shared connections will be permitted to remain in place and new shared connections will only be approved at the discretion of the General Manager of Public Works. Rows of attached dwellings (townhomes) remain exempt from this provision, subject to conditions outlined in the By-Law.
4. Added language specifically defining and prohibiting sewer lateral cross-connections. A property owner will be required to participate in follow-up dye testing performed by the City when CCTV inspection data indicates a possible cross-connection. The City’s Sewer Use Bylaw 14-090, as amended, historically

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SUBJECT: Updated Water Works By-law (PW23070) (City Wide) – Page 4 of 4

has contained language prohibiting the discharge of sewage to a storm sewer, however adding this new language regarding cross-connections will strengthen the City's ability to confirm cross-connections and ensure the appropriate repairs are made.

5. Added new language outlining the proper use and connection of foundation drains and sump pumps. The conditions set forth in this section are in alignment with the City's Sewer Use Bylaw 14-090 as amended and relevant Provincial legislation.

ALTERNATIVES FOR CONSIDERATION

N/A

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW23070 – Sewer & Drain By-Law No. 23-XXX

Appendix "B" to Report PW23070 – Significant Changes to the Sewer and Drain By-law

Appendix "C" to Report PW23070 – Public Information Session Advertisements

Appendix "D" to Report PW23070 – Summary of Feedback Received

Authority: Item X, Public Works Committee
Report (Staff report number)
CM: Date

Bill No. X

CITY OF HAMILTON

BY-LAW NO. 23-xxx

To Repeal and Replace By-law No. 06-026 to Regulate the Installation, Connection and Use of Sewers and Drains in the City of Hamilton

WHEREAS sections 8, 9 and 10 of the *Municipal Act, 2001* authorize the City of Hamilton to pass by-laws necessary or desirable for municipal purposes, and in particular, paragraphs 4, 5, 6, 7 and 8 of subsection 10(2) authorize by-laws respecting public assets of the municipality, the economic, social and environmental well-being of the City, the safety and well-being of Persons, services that it is authorized to provide, and the protection of Persons and property;

AND WHEREAS section 87 of the *Municipal Act, 2001* authorizes the City of Hamilton to enter on land, at reasonable times, to inspect the discharge of any matter into the City's sewage system or into any other sewage system the contents of which ultimately empty into the City's sewage system and authorizes the City to conduct tests and take samples for this purpose;

AND WHEREAS section 132 of the *Municipal Act, 2001* provides for the City of Hamilton to authorize an Owner or Occupant of land to enter an adjoining property, at any reasonable time, for repair or alteration purposes, but only to the extent necessary to carry out the repairs or alterations;

AND WHEREAS the *Municipal Act, 2001* authorizes the City of Hamilton, amongst other things, to delegate its authority, to provide for inspections and inspection orders, and to make orders to discontinue activity or to do work.

NOW THEREFORE the Council of the City of Hamilton enacts as follows:

PART 1 – DEFINITIONS

1.1 In addition to and as an alternative to referencing this By-law by its formal numbering, this By-law may also be referred to as the "Sewer and Drain By-Law" for all purposes.

1.2 In this By-law, unless the context otherwise requires, the expression:

"Applicable Law" means any statute, law, treaty, rule, code, ordinance, by-law, regulation, permit, interpretation, certificate or order, whether now or hereafter existing, of any governmental authority, including, without limitation, the City or any judgment, decision, decree, injunction, writ, order or like action of any court, arbitrator or other governmental authority, including, without limitation, the City whether now or hereafter existing.

"Branch Connection" means any private Sewers connected to a Sewer Lateral - Private Portion and any appurtenances thereof.

"Building Drain" means the lowest horizontal piping in a building which conveys Sewage or Stormwater to the Sewer Lateral - Private Portion.

"Catch Basin" means a chamber installed to collect surface water from an open area and to trap solids, and any appurtenances thereof.

"City" means the City of Hamilton or the geographic area of the City of Hamilton, as the context requires.

"City Tree" means a tree located on a City road allowance or on City property.

"Combined Sewer" means a Sewer intended to function simultaneously as a Storm Sewer and a Sanitary Sewer.

"Comprehensive Development Guidelines and Financial Policies Manual" means the *Comprehensive Development Guidelines and Financial Policies Manual* 2019, as amended or replaced, from time to time.

"Council" means the municipal council for the City of Hamilton.

"Cross Connection" means where a fixture, appurtenance, Sanitary Building Drain, and/or Sanitary Sewer Lateral that has the potential to discharge Sewage is connected to any Stormwater Building Drain, Storm Sewer Lateral or Storm Sewer.

"Defect" means a condition in a Sewer Lateral that is determined by the General Manager of Public Works to result in a Sewer Lateral that is structurally flawed or operationally substandard, and may include, but is not limited to the following: a collapse, misaligned joint, slope problem, sag, dip, damage resulting from the discharge of materials not intended for Sewer disposal and damage resulting from nearby construction.

"Domestic Sewage" means the water-carried wastes produced from residential activities and which result from normal human living processes. Without limiting any of the foregoing, Domestic Sewage also includes contaminated water from cooling or condensing systems and air-conditioning systems from residential activities.

"Foundation Drain" means a perforated groundwater collection system located at the footing of a building and designed for the purpose of protecting the building.

"Fees and Charges" means the fees and charges prescribed by the Water and Wastewater/Storm User Fees and Charges By-law for the City, as amended or replaced from time to time.

"General Manager of Planning and Economic Development" means the General Manager of Planning and Economic Development for the City of Hamilton or the person duly authorized or designated to act in their stead, or successor.

"General Manager of Public Works" means the General Manager of Public Works for the City of Hamilton or the person duly authorized or designated to act in their stead, or successor.

"Industrial Sewage" means all water-carried wastes of the City excluding Domestic Sewage and Uncontaminated Water, and shall include all sewage from any producing, manufacturing, processing, institutional, commercial, agricultural or other operation where the sewage discharged includes significant quantities of wastes of non-human origin. Without limiting any of the foregoing, Industrial Sewage also includes contaminated water from cooling or condensing systems and air-conditioning systems from any of the foregoing operations.

"Joined Sanitary-Foundation Drain Sewer Lateral" means a Sewer for the collection and transmission of Sewage and groundwater from a Foundation Drain to a Main Sewer (see Schedule "B").

"Joint Use Agreement" means an agreement between the City and the registered legal owners of parcels of land which legally existed prior to the enactment of this By-law, and for clarification, also includes an agreement known as a joint service agreement and an agreement known as a common private drain agreement.

"Lateral Connection" means any junction, saddle or other appurtenances required to join a Sewer Lateral – Public Portion to a Main Sewer (see Schedule "A").

"Main Sewer" means any Sewer which is owned, operated, maintained, or controlled by the City and to which a Sewer Lateral – Public Portion is connected.

"Municipal Law Enforcement Officer" means any Person appointed by the City's Council or by the General Manager of Public Works to administer or enforce this By-law and includes a Person employed by the City whose duties are to enforce this By-law, and also includes, for the purposes of exercising any power of entry under this By-law, a police officer.

"Occupant" means:

- (1) Any Person who is in physical possession of a Premises, or
- (2) Any Person who has responsibility for and control over the condition of a Premises or the activities carried thereon, or control over Persons allowed to enter the Premises.

"Owner" includes:

- (1) registered owner(s) of the property, lands or building which is subject to this By-law;
- (2) both the owner in trust and the beneficial owner of property, lands or building which is subject to this By-law;
- (3) the person for the time being managing or receiving the rent of the property, lands or building, which is subject to this By-law, whether on the person's own account or as agent or trustee of any other person or who would receive the rent if the property, lands or building was let; or

- (4) a lessee or Occupant of the property, lands or building who manages or controls the condition of the property, lands, or building, which is subject to this By-law.

"Permit" means the Sewer permit issued by the City.

"Permit Holder" means a Person to whom a Permit has been issued, and includes another Person performing work on behalf of such Person.

"Person" includes an individual, association, partnership, corporation, municipality, regional municipality, provincial or federal agency, or an agent or employee of any of those entities.

"Private Sewage Collection System" means a privately-owned network of Sewage collection pipes, maintenance holes, interceptors, private Sewage lift stations, holding tanks, pump systems, and appurtenances, servicing two or more buildings, discharging to the Sewage Works.

"Premises" means a building or structure or either of them located on a property.

"Property Line" means the legal boundary between two parcels of land registered in the Ontario Land Registry office; particularly, the line that distinguishes the public road allowance from any other parcel of land (see Schedule "A").

"Sanitary Building Drain" means a Building Drain that conducts Sewage and connects to a Sanitary Sewer Lateral – Private Portion (see Schedule "A").

"Sanitary Sewer" means a Main Sewer for the collection and transmission of Sewage.

"Sanitary Sewer Lateral" means both the Sanitary Sewer Lateral – Private Portion and the Sanitary Sewer Lateral – Public Portion.

"Sanitary Sewer Lateral – Private Portion" means a pipe that is connected to a Sanitary Building Drain 1000 mm outside the wall of a building and that conducts Sewage to the Sanitary Sewer Lateral – Public Portion or any other place of disposal (see Schedule "A").

"Sanitary Sewer Lateral – Public Portion" means a pipe that conducts Sewage from a Sanitary Sewer Lateral – Private Portion to a Main Sewer (see Schedule "A").

"Sewage" means Domestic Sewage and/or Industrial Sewage.

"Sewage Works" means all Sewers, sewer systems, pumping stations, sewage treatment plants and other works for the collection, acceptance, transmission, treatment and disposal of Sewage and Stormwater.

"Sewer" shall mean a pipe or conduit for carrying Sewage and Stormwater, or either of them.

"Sewer Lateral" means both the Sanitary Sewer Lateral and the Storm Sewer Lateral.

"Sewer Lateral – Private Portion" means both the Sanitary Sewer Lateral – Private Portion and the Storm Sewer Lateral – Private Portion.

"Sewer Lateral – Public Portion" means both the Sanitary Sewer Lateral – Public Portion and the Storm Sewer Lateral – Public Portion.

"Special Service Agreement" means an agreement between the City and the registered owner of a parcel of land which is entered into in the circumstances described in Part 4 of this By-law and for clarification, also includes an agreement known as a special sewer agreement.

"Storm Sewer" means a Main Sewer that conveys Stormwater.

"Stormwater" means rain, ground or surface water, drainage from land, water from the melting of snow or ice, and Uncontaminated Water.

"Stormwater Building Drain" means a Building Drain that conveys Stormwater to a Storm Sewer Lateral – Private Portion (see Schedule "A").

"Storm Sewer Lateral" means the Storm Sewer Lateral – Private Portion and the Storm Sewer Lateral – Public Portion (see Schedule "A").

"Storm Sewer Lateral – Private Portion" means a pipe that is connected to a Stormwater Building Drain 1000 mm outside the wall of a building and that conducts Stormwater to the Storm Sewer Lateral- Public Portion. This includes the portion of a drainage system between a Catch Basin and a Storm Sewer Lateral- Public Portion, or another place of disposal (see Schedule "A").

"Storm Sewer Lateral – Public Portion" means a Sewer Lateral – Public Portion that conveys Stormwater from a Storm Sewer Lateral – Private Portion to a Storm Sewer (see Schedule "A").

"Uncontaminated Water" means water to which no matter has been added as a consequence of its use, or to modify its use, by any Person.

PART 2 – INTERPRETATION AND APPLICATION OF BY-LAW

- 2.1 This By-law applies within the geographic limits of the City of Hamilton and regulates the installation, connection and use of sewers and drains within the entirety of that geographic area.
- 2.2 Despite section 2.1, the General Manager of Public Works may waive the application of all or part of this By-law, if the General Manager of Public Works is satisfied that the matter is adequately regulated through another By-law, statute, or planning approval that meets or exceeds the requirements of this By-law.
- 2.3 Any Person who performs any action under the authority of this By-law, including any Permit, exception, right or privilege granted, issued or exercised pursuant to this By-law, shall do so in accordance with all Applicable Law. In the event that there is a conflict or inconsistency between this By-law and any such Applicable law, such conflict shall be resolved in accordance with the normal principles of statutory interpretation but with the intent, to the extent possible, to resolve all such conflicts in favour of the most stringent and restrictive provisions that will best protect the health and safety of the citizens of the City.

- 2.4 The necessary grammatical changes required to make the provisions of this By-law applicable to corporations, partnerships, trusts, and individuals, male or female, and to include the singular or plural meaning where the context so requires, shall in all cases be assumed as though fully expressed.
- 2.5 The insertion of headings and the division of this By-law into sections and subsections are for convenience of reference only and shall not affect the interpretation thereof.
- 2.6 Any reference in this By-law to any statutes, regulations, manuals, or By-laws shall be deemed to be a reference:
 - (1) In the event of the amendment or restatement of any such statute, regulation, manual or By-law, to such amended or restated statute, regulation, manual or By-law; and,
 - (2) In the event of the repeal and replacement of any such statute, regulation, manual or By-law, to such replacement statute, regulation, manual or By-law.
- 2.7 Where a court of competent jurisdiction declares any section or part of a section of this By-law to be invalid, the remainder of this By-law shall continue in force unless the court makes an order to the contrary.
- 2.8 If Fees and Charges are applicable to the receipt of any Permit, or to the granting of any exception or any other rights or privileges hereunder, the full payment of such Fees and Charges shall be a necessary prerequisite to the lawful exercise of any such Permits, exceptions, rights or privileges.

PART 3 – ADMINISTRATION AND ENFORCEMENT

- 3.1 The General Manager of Public Works and the General Manager of Planning and Economic Development are responsible for the administration of this By-Law in all areas where the City has jurisdiction and control over Sewage Works.
- 3.2 All Municipal Law Enforcement Officers are authorized to enforce this Bylaw.
- 3.3 Where the General Manager of Public Works is responsible for the administration of a provision of this By-law, the General Manager of Public Works is authorized to delegate the responsibility for the administration of that provision to any employee or agent of the Public Works Department of the City.
- 3.4 Where the General Manager of Planning and Economic Development is responsible for the administration of a provision of this By-law, the General Manager of Planning and Economic Development is authorized to delegate the responsibility for the administration of that provision to any employee or agent of the Planning and Economic Development Department of the City.
- 3.5 The General Manager of Public Works is authorized to take such actions that are necessary to administer and enforce this By-law. Such actions include, but are not limited to:
 - (1) Arranging for:

- (a) The assistance or work of City staff, City agents, or the assistance of Police Officers;
 - (b) The making of orders or other requirements and the imposition of conditions as authorized under this By-law;
 - (c) the obtaining of court orders or warrants as may be required;
 - (d) the commencement of such actions on behalf of the City to recover costs or restrain contravention of this By-law as deemed necessary; and
- (2) prescribing the format and content of any forms or other documents under this By-law.
- 3.6 The General Manger of Public Works, Director, all Managers and all City employees in the Hamilton Water Division of the Public Works Department of the City of Hamilton are appointed as Municipal Law Enforcement Officers for the purposes of the administration and enforcement of this By-law and the applicable sections of the *Municipal Act, 2001*.
- 3.7 The General Manager of Public Works may assign Municipal Law Enforcement Officers appointed under section 3.6, to enforce this By-law and Municipal Law Enforcement Officers so assigned or appointed by Council to enforce this By-law shall have the authority to:
- (1) carry out inspections;
 - (2) make orders or other requirements as authorized under this By-law;
 - (3) issue Permits; and
 - (4) give immediate effect to any orders or other requirements made under this By-law.
- 3.8 The General Manager of Public Works may assign duties or delegate tasks under this By-law to be carried out in the General Manager of Public Work's absence or otherwise.

PART 4 – CONNECTION WHERE LAND NOT DIRECTLY SERVICED

- 4.1 Where a parcel of land does not abut on a highway or other public right-of-way in which there is a Main Sewer to which such land may readily be drained, but there is a nearby Main Sewer to which the land may be readily drained and for the cost of which such parcel of land has not been specially assessed, such property Owner may make a request to the General Manager of Planning and Economic Development to be connected to such other Main Sewer.
- 4.2 If the General Manager of Planning and Economic Development approves the request for a connection under section 4.1, it shall be a condition of such approval that:
- (1) the property Owner pays the City the fee set forth in the applicable City by-law;
 - (2) the property Owner obtains a Permit; and
 - (3) the connection to the separate properties is supported by a legally enforceable reciprocal easement registered against every property so connected, which reciprocal easement shall also, either expressly or through reference to another registered document, impose reciprocal maintenance obligations between each property Owner satisfactory to the City and which shall include the City as a part for the purpose of:
 - (a) recording the consent of the City to the form and content of the reciprocal maintenance obligations; and

- (b) prohibiting the discharge or amendment of the reciprocal easement without the express consent and approval of the City.

PART 5 – SEWER LATERALS – PRIVATE PORTION AND PUBLIC PORTION

- 5.1 No Person is to install or permit the installation of any Sewer Lateral for the conveyance of both Sewage and Stormwater, except with the prior written consent of the General Manager of Public Works.
- 5.2 Where only a Combined Sewer is available, a Sanitary Sewer Lateral and a separate Storm Sewer Lateral are to be installed, ensuring that the Storm Sewer Lateral – Public Portion is connected to the Sanitary Sewer Lateral – Public Portion within one metre of the Combined Sewer.
- 5.3 Where a Sanitary Sewer is available, every Person installing a Sanitary Sewer Lateral – Private Portion is responsible:
 - (1) to connect to a Sanitary Sewer Lateral – Public Portion; and
 - (2) to ensure the Sanitary Sewer Lateral – Public Portion meets the requirements of Part 8 of this By-law.
- 5.4 Where a Storm Sewer is available, every Person installing a Storm Sewer Lateral – Private Portion is responsible:
 - (1) to connect to a Storm Sewer Lateral – Public Portion; and
 - (2) to ensure the Storm Sewer Lateral – Public Portion meets the requirements of Part 8 of this By-law.
- 5.5 No Person shall install or permit the installation of a Joined Sanitary-Foundation Drain Sewer Lateral.
- 5.6 Notwithstanding sections 5.1 and 5.5, a Person may repair an existing Joined Sanitary-Foundation Drain Sewer Lateral.
- 5.7 No Person shall do anything to alter, damage or obstruct any part of a Sewer Lateral which is shared with an adjacent property or other Owner nor shall they allow such alterations, damages or obstructions to continue.

Sewer Lateral Cross Connections

- 5.8 No person is to connect, or permit to be connected, a Sanitary Building Drain or Joined Sanitary-Foundation Drain Sewer Lateral to a Storm Sewer Lateral or Storm Sewer.
- 5.9 No person is to connect or permit to be connected, any fixture or appurtenance that may discharge Sewage to a Stormwater Building Drain or to a Storm Sewer Lateral.
- 5.10 Where the City has reason to suspect that a Cross Connection may exist, the City may require the Owner to, within 30 days of written notice, conduct a dye test inspection of the Sewer Lateral and/or the fixtures or appurtenances connected to the Building Drain. The

City shall provide the dye test and will responsible for the costs to supply and administer the test.

Shared Laterals – Residential

- 5.11 Where land is used for residential purposes, not more than one lot, building or Premises, is to be connected to one Sanitary Sewer Lateral or to one Storm Sewer Lateral unless the General Manager of Public Works concludes that it is necessary and advisable to authorize the exception and has granted prior written consent.
- 5.12 Notwithstanding section 5.11, where the land is used for single family residential purposes, two lots, buildings or Premises may be connected to one existing Sewer Lateral – Public Portion if the connection legally existed prior to the enactment of this Bylaw and each of the following requirements remain continuously satisfied at all times:
- (1) the registered Owners of the lots, buildings, Premises shall maintain, repair and make necessary replacement of the existing Sewer Lateral – Public Portion and the Sewer Lateral – Private Portion; and
 - (2) the connection is supported by a legally enforceable reciprocal easement registered against every property so connected, which reciprocal easement shall also, either expressly or through reference to another registered document, impose reciprocal maintenance obligations between each property Owner satisfactory to the City and which shall include the City as a party for the purpose of:
 - (a) recording the consent of the City to the form and content of the reciprocal maintenance obligations; and
 - (b) prohibiting the discharge or amendment of the reciprocal easement without the express consent and approval of the City.
- 5.13 Notwithstanding section 5.11, all dwellings within a row of attached dwellings may be connected into one Sanitary Sewer Lateral – Public Portion or one Storm Sewer Lateral – Public Portion, or both, if:
- (1) in the case of one shared Sanitary Sewer Lateral – Public Portion, each dwelling, or group of dwellings, has its own separate Sanitary Building Drain connected to a shared Sanitary Sewer Lateral – Private Portion, or,
 - (2) in the case of one shared Storm Sewer Lateral – Public Portion, each dwelling, or group of dwellings, has its own separate Stormwater Building Drain connected to a shared Storm Sewer Lateral – Private Portion, or,
- 5.14 Notwithstanding section 5.11, in all other cases, all dwellings shall remain in the same ownership, and the registered Owner(s) of the dwellings must receive the prior written consent of the City, in the City's sole discretion.
- 5.15 Notwithstanding section 5.11, where the land is used for residential purposes and two or more lots, buildings or premises are already connected to one Sewer Lateral - Public Portion, for which there is no Joint Use Agreement with the City, the City will pay fifty percent (50%) of the cost of the installation of each additional Sewer Lateral - Public Portion required so that no more than one lot, building or premises is connected into one Sewer Lateral - Public Portion.

Shared Laterals – Non-Residential

- 5.16 Where land is used for non-residential purposes, not more than one lot or building or premises is to be connected to one Sewer Lateral, unless the General Manager of Public Works has granted prior written consent.
- 5.17 Notwithstanding section 5.15, where a group of buildings are erected on one parcel of land under one ownership, all units or buildings may be connected into one Sanitary Sewer Lateral – Public Portion or one Storm Sewer Lateral – Public Portion, or both, if:
- (1) in the case of one shared Sanitary Sewer Lateral – Public Portion, each unit or building has its own separate Sanitary Building Drain connected to a shared Sanitary Sewer Lateral – Private Portion located outside the building; and,
 - (2) in the case of one shared Storm Sewer Lateral – Public Portion, each unit or building has its own separate Stormwater Building Drain connected to a shared Storm Sewer Lateral – Private Portion located outside the building; and,
 - (3) all units or buildings remain under the same Owner; and,
 - (4) the registered Owner(s) of all units or buildings receive the prior written consent of the City, in the General Manager of Public Works sole discretion.

Subdivided Lots

- 5.18 Where any lot which is drained into a Main Sewer is subdivided, each subdivided part is to be drained by a Sewer Lateral which is not connected to any other land.

PART 6 – PERMIT, BOND AND NOTICE

Sanitary Sewer Laterals, Branch Connections and Lateral Connections

- 6.1 With the exception of work done by duly authorized employees of the City or by authorized licensed and bonded contractors working on behalf of the City, no Person is to commence any work including, but not limited to constructing, reconstructing, repairing, installing, altering, or connecting, the whole or any part of any:
- (1) Sanitary Sewer Lateral – Private Portion, or any appurtenance thereof, or Branch Connection to a Sanitary Sewer Lateral – Private Portion, without a Permit; or,
 - (2) Sanitary Sewer Lateral – Public Portion, or any appurtenance thereof, or Lateral Connection of a Sanitary Sewer Lateral – Public Portion:
 - (a) without a Permit; and,
 - (b) if required, obtaining a road cut permit from the City.

Storm Sewer Laterals, Catch Basins, Branch Connections and Lateral Connections

- 6.2 With the exception of work done by duly authorized employees of the City or by authorized licensed and bonded contractors working on behalf of the City, no Person is to commence any work including, but not limited to constructing, reconstructing, repairing, installing, altering or connecting, the whole or any part of any:

- (1) Storm Sewer Lateral – Private Portion, or any appurtenance thereof, Catch Basin connected to a Storm Sewer Lateral – Private Portion, or Branch Connection to a Storm Sewer Lateral – Private Portion, without a Permit; or,
 - (2) Storm Sewer Lateral – Public Portion, or any appurtenance thereof, or Lateral Connection of a Storm Sewer Lateral – Public Portion:
 - (a) without a Permit; and,
 - (b) if required, obtaining a road cut permit from the City.
- 6.3 The Permits required under sections 6.1 and 6.2 shall not be issued for any Sewer Lateral – Private Portion or any Sewer Lateral – Public Portion where, in the opinion of the General Manager of Planning and Economic Development, the Sanitary Sewer or Storm Sewer for which the Permit has been applied, has inadequate capacity to permit the additional connection.
- 6.4 Permits under this By-law shall only be issued after the payment of the prescribed fee therefor.
- 6.5 If work requiring a Permit is carried out on private property, the Owner and Occupant shall provide free and clear access for the purpose of inspecting and approving the work.
- 6.6 No Person shall perform or permit others to perform work for which a Permit is required under this By-law without first obtaining a Permit in accordance with this By-law and any other City By-laws.
- 6.7 It is a condition of every Permit that all work shall be performed in accordance with Applicable Law.
- 6.8 It is a condition of every Permit that all work performed under a Permit shall be inspected by the General Manager of Planning and Economic Development before it is put into service.
- 6.9 No Person shall provide false or inaccurate information in an application for a Permit.
- 6.10 No Person is to perform or commence any work of repairing any part of any Sewer Lateral, or appurtenance thereof, until after the Person has notified the General Manager of Public Works. The Owner or its authorized representative shall apply for a Permit by submitting a complete application that includes all of the following:
 - (1) the full name and full address of the Person who is to do the work;
 - (2) where required by the City, the Permit fees as prescribed by Council;
 - (3) four (4) copies of proper plans and specifications; and,
 - (4) and in the case of an industrial or commercial premise a complete analysis of the wastes to be discharged to all Sewer Laterals – Public Portion.
- 6.11 The City may waive the requirement for plans, specifications and analysis described in 6.10(3) and (4), in the City's sole discretion.
- 6.12 A Permit is the property of the City and is not transferable.

- 6.13 The General Manager of Public Works may refuse to issue any Permit if the applicant of the proposed Permit or the Person responsible for carrying out the work is not in compliance with this By-law in respect of the property for which the Permit is sought.
- 6.14 The General Manager of Public Works may refuse to issue a Permit if the work for which the Permit is sought would contravene Applicable Law.
- 6.15 The General Manager of Public Works may issue a Permit after receipt of a completed application including any revised or additional information required by the General Manager of Public Works and the prescribed application fees.
- 6.16 Any Permit issued by the General Manager of Public Works under this By-law may be subject to such conditions as they specify. Such conditions may include but are not limited to:
 - (1) providing notice of commencement and completion of work;
 - (2) identifying the contractor or Person carrying out any of the work;
 - (3) obtaining locates for utilities and making all necessary arrangements with respect to any utilities that will be impacted;
 - (4) carrying out all the work at the Permit Holders expense;
 - (5) in the event that the contractor or Person carrying out the work pursuant to (b) above is unsatisfactory to the General Manager of Public Works, substituting an alternative which is satisfactory to the General Manager of Public Works;
 - (6) performing any necessary restoration; and,
 - (7) providing performance security, including but not limited to a letter of credit.
- 6.17 A Permit Holder shall immediately inform the General Manager of Public Works of any change to:
 - (1) the information contained in an application for a Permit;
 - (2) the information contained in a Permit that has been issued;
 - (3) the characteristics of the work for which the Permit has been issued;
 - (4) cancellation of the work; or,
 - (5) any matter in relation to the satisfaction of any conditions imposed within a Permit.
- 6.18 The General Manager of Public Works may require one or more of revised or additional information, additional prescribed fees, or a fresh application with respect to a change under section 6.17.
- 6.19 The General Manager of Public Works may:
 - (1) alter or revoke the terms and conditions of any Permit after it has been issued; and,
 - (2) add new conditions to any Permit.
- 6.20 A Permit expires on the earlier of:
 - (1) if the Permit contains an expiry date, such date;
 - (2) if the Permit does not contain an expiry date, 365 days after the Permit was issued;
 - (3) on the date that the work is completed; or,
 - (4) on the date that the Permit is revoked.

- 6.21 If the work will not be completed before the Permit expires under subsection 6.20, the Permit Holder may apply for an extension of not less than seven (7) days prior to the expiry date.
- 6.22 The General Manager of Public Works may approve an application for an extension having regard for:
- (1) the work to be completed during the extension;
 - (2) the progress of work up until the date of the application;
 - (3) the performance of the Permit Holder up until the date of the application;
 - (4) any potential conflict that may result from the extension with other planned or ongoing activity on, in or under the road; and,
 - (5) the safety and convenience of the public.
- 6.23 A Permit Holder cannot apply for more than one extension and shall make a new application under section 6.10 for any other continuation or resumption of work commenced under an expired Permit.
- 6.24 The General Manager of Public Works may revoke a Permit if, in the General Manager of Public Work's opinion:
- (1) the Permit Holder fails to comply with the conditions of a Permit, or this By-law;
 - (2) the Permit Holder substantially discontinues the work for a period of more than 180 days;
 - (3) the Permit Holder provides false or inaccurate information to the City in connection with the Permit;
 - (4) the Permit Holder or any Person doing work on behalf of the Permit Holder has failed to comply with Applicable Law; or,
 - (5) suspension or revocation is necessary as a result of an emergency.
- 6.25 Notice of the suspension or revocation of a Permit may be given by contacting a Permit Holder in writing, by telephone or by email in accordance with the information provided on the Permit application.

PART 7 – STANDARDS FOR PIPE AND FITTINGS

- 7.1 No Person shall use any pipe, fittings and/or other appurtenances for Sewer Laterals, Branch Connections, or Lateral Connections, unless the pipe, fittings and/or appurtenances meet the standards set by the General Manager of Planning and Economic Development in the City's *Construction and Materials Specification Manual*, as amended, or set by Applicable Law, as the case may be, in respect of works described under this By-Law.
- 7.2 No Person is to install or permit an installation of any Sewer Lateral – Public Portion:
- (1) that in the sole discretion of the General Manager of Planning and Economic Development, is of a capacity that is inadequate; or
 - (2) of a diameter that is less than that of the Building Drain; or
 - (3) of a diameter less than 150 mm.

PART 8 – INSTALLATION OF SEWER LATERALS

- 8.1 Every Person shall ensure that all new Sewer Laterals, or modifications to existing ones, are designed, constructed, and installed with adherence to the City's *Comprehensive Development Guidelines and Financial Policies Manual*.
- 8.2 Every Sewer Lateral is to be designed, constructed and installed in accordance with generally accepted good practice, with all joints completed with suitable materials and in a proper workmanlike manner, finished clean and smooth on both the outside and inside of the pipe, and, at the Property Line, having the top of the pipe at least 2.2 m below the level of the finished surface of the roadway opposite that point, or at such higher elevation only as may be necessitated by the level of the Main Sewer.
- 8.3 Every Lateral Connection is to be constructed with proper "T" or "Y" fittings. Saddles may only be used where approved by the General Manager of Public Works.
- 8.4 The slope of any Sewer Lateral must not be less than one (1) percent grade.
- 8.5 Every Sewer Lateral, throughout its length from the Main Sewer to the building or other place to be drained, is to be laid, as nearly as practicable, in a straight line in a trench at a right angle from the Main Sewer and at a distance of at least 2.5 m from any existing water service pipe that was installed prior to the installation of the Sewer Lateral. The 2.5 m between trenches is to be measured horizontally between the closest parts of the water service pipe and the Sewer Lateral. Only one Storm Sewer Lateral and one Sanitary Sewer Lateral are to be installed in one trench.
- 8.6 Where excavation of bedrock is required for more than twenty-five percent (25%) of the length of the trench in order to install the Sewer Lateral, then the installation of the Sewer Lateral may be permitted, with the prior approval of the General Manager of Public Works, in the same trench as the water service pipe upon all of the following conditions:
- (1) all water service pipes are to be laid 1.6 m below the finished grade with a minimum of 150 mm of granular material being placed under such pipe;
 - (2) in all places, the crown of the Sewer Lateral must be at least 500 mm below the invert of the water service pipe;
 - (3) the Sewer Lateral is to be installed prior to the water service pipe; and,
 - (4) to the satisfaction of the General Manager of Public Works.
- 8.7 Where a Sewer Lateral – Public Portion is installed and backfilled prior to the installation of the Sewer Lateral – Private Portion, the end of the Sewer Lateral – Public Portion at the Property Line is to be:
- (1) tightly sealed with a proper cap;
 - (2) carefully marked so that it can be readily located after the backfill is placed; and,
 - (3) made readily distinguishable by painting the end of the Sanitary Sewer Lateral – Public Portion, which is not connected to the Main Sewer, red.
- 8.8 No Person shall use a Sewer Lateral – Public Portion until:
- (1) the Main Sewer has been accepted by the City and is in operation; and,

- (2) the roof is on the building.
- 8.9 A maintenance access hole is to be constructed by the Owner of the lands at the Owner's cost and expense and in accordance with plans approved by the General Manager of Planning & Economic Development:
- (1) at the junction of the Main Sewer for every Sewer Lateral – Public Portion having a diameter equal to or greater than 300 mm; and,
 - (2) in the case of every Sewer Lateral – Private Portion regardless of size, carrying Industrial Sewage, in compliance with the requirements of the City's Sewer Use By-law No. 14-090, as amended.
- 8.10 The Owner of the lands being serviced by a Sewer Lateral – Public Portion is responsible that no part of the Sewer Lateral – Public Portion, any appurtenance thereof, or Lateral Connection is back filled or hidden from view, until written notice has been given to and the work inspected by the General Manager of Planning & Economic Development.
- 8.11 No Person shall use an existing Sewer Lateral – Public Portion as the outlet for a new Sewer Lateral – Private Portion until it has been determined by a closed-circuit television inspection, that the Sewer Lateral – Public Portion is of adequate size, at a proper depth and grade, connected to the appropriate Main Sewer, and in good condition that is considered acceptable to the General Manager of Planning & Economic Development.
- 8.12 All roadways, shoulders, curbs, sidewalks, sodding and other works disturbed during the installation of a Sewer Lateral – Public Portion or maintenance access hole shall be reinstated to a condition:
- (1) that is at least equal to that existing before it was disturbed; and,
 - (2) that is acceptable to the General Manager of Public Works.

PART 9 – PARKING AREA DRAINAGE

- 9.1 The Owner of a parking area for vehicles that is not contained within a building shall ensure that such parking area is drained by Catch Basins, Storm Sewer Laterals and/or other appropriate Stormwater drainage systems, in such manner as is approved by the General Manager of Public Works. Refer to *Comprehensive Development Guidelines and Financial Policies Manual*, *Stormwater Management* section for guidance.

PART 10 – DOWNSPOUTS

- 10.1 Every Owner shall extend all roof water drainage downspouts so that Stormwater flow exits the downspout to a splash pad to prevent erosion, a minimum distance of 0.6 m from the exterior walls of a building.
- 10.2 No Person shall direct or permit the direction of a roof water downspout to grade in such a manner which causes damage from accumulation of Stormwater or any other adverse effect to an adjacent property.

- 10.3 The Owner of any building which has a roof water downspout discharging Stormwater into the Sewer Lateral shall disconnect the downspout from the underground portion at grade and cap the underground portion to prevent the ingress of Stormwater subject to section 10.2.
- 10.4 An Owner may make an application to the General Manager of Public Works for an exemption from the provisions of section 10.1 where compliance would create a hazardous condition or is not technically feasible.
- 10.5 No Person shall direct or connect a roof water downspout to a Foundation Drain.

PART 11 – FOUNDATION DRAINS/SUMP PUMPS

- 11.1 No Person shall discharge a Foundation Drain or other piping system which collects Stormwater or groundwater to a Sanitary Sewer.
- 11.2 Existing connections of Foundation Drains shall be removed from the Sewage Works unless considered impractical by the General Manager of Public Works, at their sole discretion.
- 11.3 The Foundation Drain flow from a building shall be discharged in one of the following manners:
 - (1) via a sump pump to a Storm Sewer by means of a Stormwater Building Drain; or,
 - (2) via a sump pump to the ground surface, provided that the discharge does not create continually wet ground conditions and/or does not create any adverse effect upon adjacent properties or municipal sidewalks or roads; or,
 - (3) via a sump pump to a dry well system, provided that appropriate soil and groundwater testing is completed to establish the suitability of using a dry well system.
- 11.4 Where there exists a Joined Sanitary-Foundation Drain Lateral, the City may provide financial assistance to the Owner, upon written application, for its disconnection from the Sewage Works, subject to budget approval by Council, the availability of funds and the discretion of the General Manager of Public Works.
- 11.5 Where a sump pump is required by the engineering design, it shall be installed within the property's basement in accordance with the *Building Code Act, 1992* and be maintained by the Owner of the property at their expense.

PART 12 – MAINTENANCE, REPAIR AND REPLACEMENT OF SEWER LATERALS

- 12.1 The Owner of lands drained into any Main Sewer, at the Owner's cost and expense, shall:
 - (1) properly maintain and clean any Sewer Lateral – Private Portion and any Sewer Lateral – Public Portion;
 - (2) repair and/or make necessary replacement of any Defect found within any Sewer Lateral – Private Portion; and,

- (3) repair any roadway, shoulder, sidewalk, curb, sodding and any other existing work that is:
 - (a) damaged by reason of any Defect found within any Sewer Lateral – Private Portion; or,
 - (b) disturbed by reason of the maintaining, repairing or replacement of the Sewer Lateral – Private Portion.

12.2 The City, at the City's cost and expense shall:

- (1) repair and/or make necessary replacement of any defect found within any Sewer Lateral – Public Portion; and
- (2) repair any roadway, shoulder, sidewalk, curb, sodding and any other existing work that is:
 - (a) damaged by reason of any Defect found within any Sewer Lateral – Public Portion; or,
 - (b) disturbed by reason of the repairing or replacement of the Sewer Lateral – Public Portion.
- (3) Notwithstanding subsection 12.2(1) and 12.2(2), the Owner shall be responsible, at their own cost and expense, in the following circumstances:
 - (a) where any blockage or Defect in the Sewer Lateral – Public Portion is deemed by the General Manager of Public Works to be a result of negligence by the Owner or Occupant of the lands serviced by the Sewer Lateral – Public Portion; or,
 - (b) where the Owner of the lands serviced by the Sewer Lateral – Public Portion has entered into a Special Service Agreement. In such a situation, the Owner who receives the benefit from such Special Service Agreement shall maintain, repair, and make any necessary replacement of the entire Sewer Lateral until such time as a Sewer Lateral is connected to the Main Sewer abutting the lands.

12.3 In order for the City to repair and replace the Sewer Lateral – Public Portion as set out in section 12.2, the City shall provide Sewer Lateral cleaning and/or investigation services upon request and receiving prior written consent by the Owner or Occupant of the lands who have experienced a loss of Sewer service. In such circumstances, the Owner or Occupant, as applicable, shall pay a fee for the completed Sewer Lateral cleaning and/or investigation services as referenced in the Fees and Charges, should the results indicate that:

- (1) there is no Defect in the Sewer Lateral – Public Portion; or,
- (2) a blockage or Defect in the Sewer Lateral – Public Portion is deemed by the General Manager of Public Works to be a result of the negligence of an Owner or Occupant serviced by the Sewer Lateral – Public Portion.

12.4 In order for the City to repair and replace the Sewer Lateral – Public Portion as set out in section 12.2, the City may also provide Sewer Lateral cleaning and/or investigation services upon the initiative of the City, at their sole discretion, and with the written consent

of the Owner or Occupant prior to commencing the services. Upon the City's initiation, the City shall be responsible for the costs of the Sewer Lateral cleaning and/or investigation services.

12.5 Notwithstanding section 12.3, the Owner or Occupant of the land who has experienced a loss of sewer service may retain a contractor to provide Sewer Lateral cleaning and/or investigation services. The City will reimburse the Owner or Occupant, as applicable, for the costs of such Sewer Lateral cleaning and/or investigation services upon all of the following conditions being fulfilled:

- (1) the Owner or Occupant provides to the City an original invoice from the contractor for the cleaning and/or investigation services;
- (2) the Owner or Occupant provides to the City a closed-circuit television (CCTV) record of the Sewer Lateral which provides a clear unobstructed image of the condition of the Sewer Lateral after the cleaning;
- (3) the Owner or Occupant provides to the City surface locates of all defects identified by the contractor to be in the Sewer Lateral, in a manner and a standard acceptable to the City; and,
- (4) the Sewer Lateral Defects are located on the Sewer Lateral – Public Portion; or there are tree roots from a City Tree in the Sewer Lateral – Private Portion. In cases where tree roots from a City Tree exist in the Sewer Lateral – Private Portion, the City will only reimburse the Owner or Occupant, as applicable, in accordance with section 12.6.

The City's reimbursement of contractor expenses will be no greater than the amounts set out in the Fees and Charges, less the City's administration fee. Equipment purchases, supply purchases, and equipment rental costs are not eligible for reimbursement by the City.

12.6 Notwithstanding section 12.1, where tree roots from a City Tree have entered a Sewer Lateral – Private Portion, the City will reimburse the Owner or Occupant of the lands on which the Sewer Lateral – Private Portion is located, on a one-time basis, for the cost of the permanent repair or replacement of the entire Sewer Lateral – Private Portion, up to a maximum of \$1,500.00. To be eligible for the one-time reimbursement, all of the following conditions must be met:

- (1) permanent repair or replacement of the entire Sewer Lateral – Private Portion must utilize materials and installation methods approved by the General Manager of Public Works;
- (2) the repair or replacement must be completed in accordance with all applicable City standards and any other Applicable Law; and,
- (3) the Sewer Lateral is on residential property.

12.7 In order for the City to repair and replace the Sewer Lateral – Public Portion as set out in section 12.2, it may be necessary to remove driveways landscaping, or vegetation which are located within City property. City staff will restore the property in so far as is practical to its original condition.

Entry of Adjoining Property for Maintenance Purposes

- 12.8 Where a Sewer Lateral – Private Portion is found to cross adjoining lands without an easement, the Owner is authorized to enter the adjoining lands at any reasonable time in accordance with the conditions set out in section 132 of the *Municipal Act, 2001*, for the purpose of making repairs or alterations to their Sewer Lateral – Private Portion provided said access is only to the extent necessary to carry out the repairs or alterations.
- 12.9 Nothing in this By-law in any way relieves the Person purporting to exercise the right of entry conferred herein in accordance with the *Municipal Act, 2001* from any liability for any damage or injury to any Person or property caused by, or arising in any way out of, the exercise of the said right of entry or any activity in relation thereto or from the requirement to obtain any permit or approval or comply with any Applicable Law, by-law, or regulation with respect to the proposed works.

Shared Laterals with a Joint Use Agreement

- 12.10 Shared Sanitary Sewer Laterals with a Joint Use Agreement registered on title against the subject lands shall be maintained in accordance with the terms of the Agreement.

Shared Laterals with No Joint Use Agreement

- 12.11 Shared Sanitary Sewer Laterals with no Joint Use Agreement registered on title against the subject lands are subject to the terms of Part 5 of this By-law.

Prevention of Leaks

- 12.12 No Owner shall permit any leak to occur from a Sanitary Sewer Lateral, Private Sewage Collection System, Sewage holding tank, septic tank, or any other private Sewage treatment system and shall take corrective action to repair any leak.
- 12.13 If City staff, through their operational activities, suspect a Sanitary Sewer Lateral is defective, the Owner shall be required to perform a closed-circuit television (CCTV) inspection to identify any Defects or sources of inflow and infiltration subject to the following conditions:
- (1) the inspection shall meet the most current Lateral Assessment and Certification Program (LACP) standards and be undertaken by a qualified contractor and provided to the City;
 - (2) the General Manager of Public Works will determine whether the Sewer Lateral is in good condition with no Defects; and,
 - (3) Sewer Laterals found to be defective will be repaired or replaced as appropriate as per this By-law, at the Owner's expense.
- 12.14 Every Owner of a Private Sewage Collection System shall:
- (1) properly operate their facilities;
 - (2) promptly resolve any maintenance needs; and,
 - (3) regularly inspect the system to ensure it complies with this By-law.

PART 13 – REMOVAL OR DEMOLITION OF BUILDINGS

- 13.1 Prior to the removal or demolition of a building, the Owner of the building is responsible that every Sewer Lateral – Public Portion is exposed at the Property Line and reasonable notice is given to the General Manager of Public Works so that it may be inspected and the Owner:
- (1) if the Sewer Lateral – Public Portion meets the requirements of this By-law and is in good condition, is responsible for the plugging of that Sewer Lateral – Public Portion at the Property Line such that it is completely sealed from the entry of Stormwater; and,
 - (2) if the Sewer Lateral – Public Portion does not meet the requirements of this By-law and is not in good condition, is responsible:
 - (a) to disconnect that Sewer Lateral – Public Portion at the Main Sewer; and,
 - (b) for the proper plugging of the Lateral Connection of the Main Sewer, and all such work that is required is to be done by an authorized licensed and bonded contractor; and,
 - (3) in respect of the roadways, shoulders, curbs, sidewalks, sodding and other works disturbed during the removal or plugging of the Sewer Lateral – Public Portion, is responsible to reinstate the same to a condition:
 - (a) that is at least equal to that existing before they were disturbed; and,
 - (b) that is acceptable to the General Manager of Public Works.
- 13.2 When a building connected to a Private Sewage Collection System is removed or demolished, the Owner of the building is responsible for plugging the connection to the Private Sewage Collection System such that it is completely sealed from the entry of Stormwater.
- 13.3 No Person shall connect to a plugged Sewer Lateral – Public Portion without an application for a Permit and payment of any applicable fees in accordance with the Fees and Charges.

PART 14 – GENERAL PROHIBITIONS

Obstructing Watercourses

- 14.1 No Person shall obstruct, allow the obstruction of, or maintain any obstruction in any open or closed drainage facility or natural watercourse.
- 14.2 The City may by a notice in writing, require the Owner of the lands or any other Person, obstructing or allowing the obstruction of or maintaining the obstruction of any drainage facility or natural watercourse, to do within a specified time all such work as the City determines is necessary to remove the obstruction as specified in the said notice, in their sole discretion.

Damaging or Obstructing Sewer

- 14.3 No Person shall do anything likely to damage or obstruct any part of the Sewage Works of the City.

Tampering with City Sewage System

- 14.4 No Person shall tamper with any part of the Sewage Works of the City or trespass into any Main Sewer or other part of the Sewage Works.

PART 15 – ADMINISTRATION AND ENFORCEMENT

Entry and Inspections

- 15.1 A Municipal Law Enforcement Officer may enter on land at any reasonable time and in accordance with the conditions set out in sections 435 and 437 of the *Municipal Act, 2001* for the purpose of carrying out an inspection to determine whether or not the following are being complied with:
- (1) an order or other requirement made under this By-law;
 - (2) a condition of a Permit; or,
 - (3) an order made under section 431 of the *Municipal Act, 2001*.
- 15.2 A Municipal Law Enforcement Officer, for the purposes of the inspection under section 15.1 and in accordance with the conditions set out in section 436 of the *Municipal Act, 2001*, may:
- (1) require the production for inspection of documents or things relevant to the inspection;
 - (2) inspect and remove documents or things relevant to the inspection for the purpose of making copies or extracts;
 - (3) require information in writing or otherwise as required by a Municipal Law Enforcement Officer from any Person concerning a matter related to the inspection; and,
 - (4) alone or in conjunction with a Person possessing special or expert knowledge, make examinations or take tests, samples or photographs necessary for the purposes of the inspection.
- 15.3 A Municipal Law Enforcement Officer may undertake an inspection pursuant to an order issued by a provincial judge or justice of the peace under section 438 of the *Municipal Act, 2001*, in accordance with the conditions set out in that section, where the General Manager of Public Works has been prevented or is likely to be prevented from carrying out an inspection under section 15.1.

Orders and Remedial Actions

- 15.4 If a Municipal Law Enforcement Officer is satisfied that a contravention of this By-law has occurred, the Municipal Law Enforcement Officer may make an order pursuant to section 444 of the *Municipal Act, 2001* requiring the Person who contravened the By-law or who caused or permitted the contravention or the Owner or Occupier of the land on which the contravention occurred to discontinue the contravening activity.

- 15.5 An order under section 15.4 shall set out:
- (1) reasonable particulars of the contravention adequate to identify the contravention and the location of the land on which the contravention occurred; and,
 - (2) the date or dates by which there must be compliance with the order, which may be of immediate effect should the Municipal Law Enforcement Officer determine that the circumstances warrant.
- 15.6 If an Municipal Law Enforcement Officer is satisfied that a contravention of this By-law has occurred, the Municipal Law Enforcement Officer may make an order pursuant to section 445 of the *Municipal Act, 2001* requiring the Person who has contravened this By-law or who caused or permitted the contravention or the Owner or Occupier of a land on which the contravention occurred to do work to correct the contravention.
- 15.7 An order under section 15.6 shall set out:
- (1) reasonable particulars of the contravention adequate to identify the contravention and the location of the land on which the contravention occurred;
 - (2) the work to be completed which may include but is not limited to requiring that prior to performing any work, all necessary Permits or other approvals be applied for and obtained;
 - (3) the date or dates by which the work must be completed; and,
 - (4) notice that if the order is not complied with, then the work may be done at the expense of the Person ordered to do the work.
- 15.8 An order under section 15.5 or 15.7 may be given by contacting a Permit Holder in writing or by email in accordance with the information provided on the Permit application or, if there is no Permit application, by contacting the Person the General Manager of Public Works determines to be responsible for the work Personally or by registered mail at their last known address.
- 15.9 Where a time frame is set out in an order or other document for carrying out any action, an Municipal Law Enforcement Officer may extend the time for compliance beyond the established time frame provided such extension is required and is acceptable to the Municipal Law Enforcement Officer

PART 16 – PENALTY

Fine for Contravention – Individual

- 16.1 Every Person who contravenes a provision of this By-law and every director or officer of a corporation who knowingly concurs in a contravention by the corporation of a provision of this By-law, upon conviction, shall be liable to a fine of not less than \$50 and not more than \$50,000 for a first offence and to a fine of not less than \$100 and not more than \$75,000 for any subsequent offence.

Fine for Contravention – Corporation

- 16.2 Despite section 16.1, if a corporation is convicted of an offence under this By-law, it shall be liable to a fine of not less than \$495 and not more than \$100,000 for a first offence and to a fine of not less than \$1,000 and not more than \$100,000 for any subsequent offence.

Fine for Contravention – Continuing Offence – Individual

- 16.3 Despite section 16.1 and 16.2, in the case of a continuing offence, every Person who contravenes any of the sections set out in this By-law and every director or officer of a corporation who knowingly concurs in a contravention by the corporation of any of this By-law, upon conviction, shall be liable to a fine of not less than \$100 and not more than \$10,000 for each day or part day that the offence continues and the total of all of the daily fines for the offence shall not be limited to \$100,000.

Fine for Contravention – Continuing Offence – Corporation

- 16.4 Despite section 16.1, 16.2 and 16.3, in the case of a continuing offence, if a corporation is convicted of an offence for any of the sections set out in this By-law, it shall be liable to a fine of not less than \$495 and not more than \$10,000 for each day or part day that the offence continues and the total of all of the daily fines for the offence shall not be limited to \$100,000.

Special Fines

- 16.5 In addition to any other fine under sections 16.1, 16.2, 16.3 or 16.4 or a combination of the foregoing, every Person who gains an economic advantage or economic gain from contravening this By-law shall be liable to a special fine in an amount equal to the fair market value of the economic advantage or economic gain so obtained from the contravention.

PART 17 – SCHEDULES

- 17.1 Schedule "A" Property Drainage Terminology and Schedule "B" Joined Sanitary-Foundation Drain Later vs. Best Practice, forms part of this By-law.

PART 18 – REPEAL, TRANSITION AND ENACTMENT

- 18.1 City of Hamilton By-law 06-026, being a by-law to regulate the installation, connection and use of sewers and drains in the City of Hamilton, passed and enacted on February 15, 2006, as amended, and including all amendments, is hereby repealed.
- 18.2 Every reference to the City's By-law 06-026 and predating the enactment of this By-law shall be deemed to be a reference to this By-law.
- 18.3 Despite the repeal of By-law No. 06-026 under section 18.1:

- (1) that By-law shall continue to apply to proceedings in respect of offences that occurred before its repeal; and,
- (2) all approvals issued under that By-law that are in effect at the time of the repeal shall be deemed to be approvals issued under this By-law with all necessary modifications, and all the rules, requirements and regulations of this By-law shall apply.

PART 19 – SHORT TITLE

19.1 This By-law may be known and referred to as "The Sewer and Drain By-law".

PART 20 – EFFECTIVE DATE

20.1 This By-law shall come into force and take effect on **xxxx**, 2023.

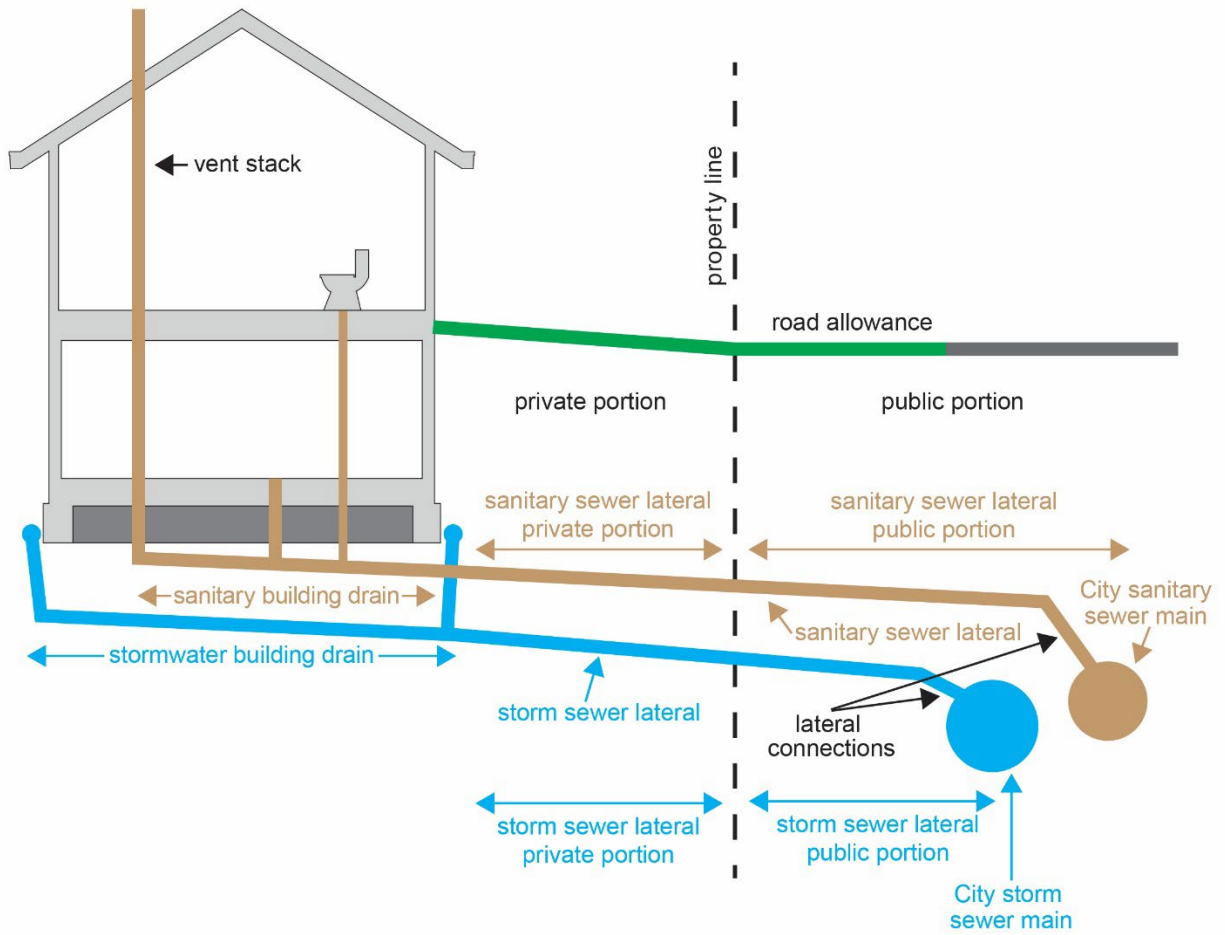
PASSED AND ENACTED the xx day of xxxx, 2023.

MAYOR

CLERK

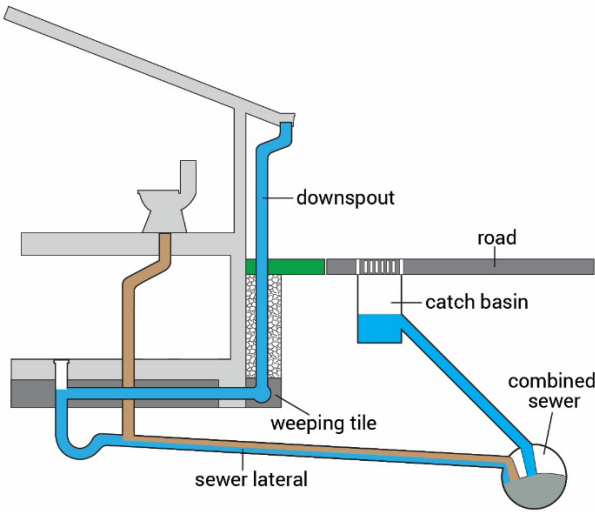
SCHEDULE "A"

Property Drainage Terminology

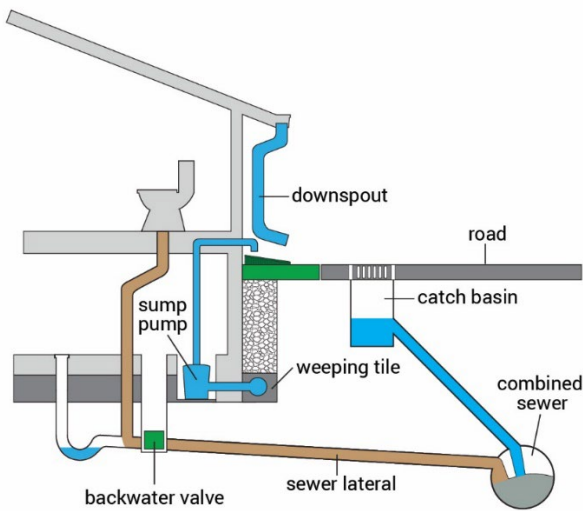


SCHEDULE "B"

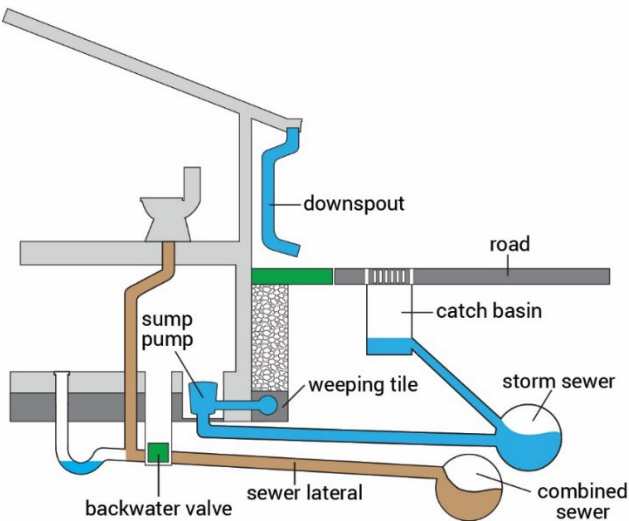
Joined Sanitary-Foundation Drain Lateral vs. Best Practice



This illustrates typical drainage where a Combined Sewer is present, and a Joined Sanitary-Foundation Drain Lateral is in place.



Best Practice recommends that downspouts discharge to the ground surface, and the Foundation Drain should discharge to the ground if the soil conditions permit or connect to the Storm Sewer if available



Significant Changes to the Sewer and Drain By-law

By-law Section	Change Type	Change detail	Notes/Comments
Intro (pg.1)	Revise	Updated clauses to most current legal texts	Standard legal
Part 1 - Definitions:	Add	Applicable Law Comprehensive Development Guidelines and Financial Policies Manual Cross Connection Fees and Charges Permit Permit Holder Person Premises Property	New term referenced in bylaw
	Remove	General Manager of Finance and Corporate Services Road Sewage Treatment Plant	No longer referenced in Bylaw
	Revise	Several other remaining definitions	Definitions updated for clarity/context
Part 2 - Interpretation and Application of By-law	Add Revise	Updated legal terms	Updated to reflect current standardized language for the interpretation and application of any City of Hamilton By-law
Part 3 - Administration and Enforcement	Add Revise	General updates to 3.1-3.4 for clarity Added sections 3.5-3.8	Additional clauses required to allow for the proper enforcement of By-Law Previous iteration did not contain sufficient legal backing to enforce via the Municipal Act
Part 4 - Connection Where Land Not Directly Serviced	Revise	Changed requirement from a "Special Service Agreement" to a "...a legally enforceable reciprocal easement registered against every property so connected"	Proper legal process: a registered easement automatically transfers in the sale of a property, a SSA does not transfer so reliably/easily. Changes have been made throughout the bylaw to replace Joint Use Agreements and Special Service Agreements with legally enforceable reciprocal easements
	Revise	General updates to 5.1-5.6 for clarity	No substantial content change

Part 5 - Sewer Laterals - Private Portion and Public Portion	Add	5.7 -5.10	Protection for persons with shared sewer lateral services without a recorded Joint Use Agreement and the explicit prohibition of Cross Connections of any kind
	Revise	5.11-5.13 - Shared Laterals Residential	One parcel, one lateral approach. Removed the permission going forward to connect to 3 separate parcels of land to the same sewer lateral. 5.12 allows for shared residential lateral connections that existed prior to this by-law update (2023)
	Revise	5.14-5.15 - Shared Laterals Non-Residential	
	Revise	5.16 - Subdivided Lots	Each subdivided portion requires its own lateral unless the GM PW authorizes a written exception
	Remove	Throughout section	All notwithstanding clauses permitting multiple parcels to connect to one lateral. Any exceptions to this are required to be authorized in writing by the GM PW or GM P&ED
Part 6 - Permit, Bond and Notice	Revise	Entire section wording (no substantial content change)	Removed specific bonding/insurance language, updated structure of this section to refer to standardized bonding/insurance requirements to do work for the City of Hamilton
Part 7 - Standards for Pipe Fittings	Revise	Minor updates to references	No content change
Part 8 - Installation of Sewer Laterals	Revise	Minor updates to references	No content change
Part 9 - Parking Area Drainage	Add	9.2	Added reference to <i>Comprehensive Development Guidelines and Financial Policies Manual</i>
Part 10 - Downspouts	Revise	Minor updates to references	Removed "recommendations" as they are not permitted in by-law structure. By-law must refer back to a governance/Applicable Law
Part 11 - Foundation Drains/Sump Pumps		Minor updates to references	No content change

Part 12 - Maintenance, Repair, and Replacement of Sewer Laterals			
	Add	12.8 - Entry of Adjoining Property for Maintenance Purposes 12.9 - Shared Laterals with a Joint Use Agreement 12.10 - Shared Laterals without a Joint Use Agreement 12.11, 12.12 - Prevention of Leaks 12.13 - Private Sewage Collection System responsibilities	Permitted under Municipal Act, language and reference included in this by-law Define legal responsibilities of each party Define legal responsibilities of each party New New
Part 13 - Removal or Demolition of Buildings	Revise	Minor updates to references	No content change
Part 14 - Administration and Enforcement	No change	14.1-14.3 are from the Miscellaneous Prohibitions (13) in previous by-law	No content change
	Add	14.4 - 14.6 - Entry and Inspections 14.7 - 14.11 - Orders and Remedial Actions	As found in the Municipal Act, defines the ability to enforce the by-law which was missing in the previous by-law
Part 15 - Schedules	Add	Images to support definition terms	Might be moved down a section to allow Penalties to follow Part 14 Administration & Enforcement
Part 16 - Penalty	Add	Outlines penalties and fines for offenses	As found in Municipal Act, supports the administration and enforcement
Part 17 - Repeal, Transition, and Enactment	-	Standard transitional language	
Schedule A	Remove	Schedule A (Schedule of Fees and Charges) from existing By-Law 06-026	This schedule and the Waterworks By-law Schedule of Fees & Charges have been moved to a consolidated 'Fees & Charges By-law'. Allows schedules to be updated each year without having to repeal and update the parent by-laws each time
	Add	Schedule A	Schedule A in the new by-law will be the supporting images/graphics which will be a visual aid to assist in understanding some definition terms
Schedule B	Remove	Schedule B (Performance Bond) from existing By-Law 06-026	Outdated and irrelevant form. Bonding is covered by standard conditions in Part 6, no additional form required

Public Information Session Advertisements

LinkedIn – June 15, 2023

Post



We are hosting two upcoming Public Information Centres for the community to review and learn more about the proposed changes to the Sewer and Drain By-law and the Water Works By-Law:

- PIC 1: Friday, June 23 (10am – 2pm) at the Hamilton Museum of Steam & Technology – 900 Woodward Avenue, Hamilton
- PIC 2: Tuesday, June 27 (4pm – 6pm) at the Canadian Warplane Heritage Museum - 9280 Airport Road, Mount Hope

The two sessions will be an open house format with an opportunity to ask questions of staff. If you have any questions or comments after the PIC, please email: HWBylawPIC@hamilton.ca

15

2 reposts

Analytics

Post title	Post type	Audience	Impressions	Views	Clicks	CTR	Reactions
<p>We are hosting two upcoming Public Information Centres for the community to...</p> <p>Posted by Alley Stennett</p> <p>6/15/2023</p> <p>Boost</p>	Text	All followers	5,764	-	96	1.67%	15

Twitter – June 15, 2023

Post



City of Hamilton 
@cityofhamilton



We are hosting two Public Information Centres for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law:

June 23 (10am – 2pm) at the Hamilton Museum of Steam & Technology
June 27 (4 – 6pm) at the Canadian Warplane Heritage Museum

11:19 AM · Jun 15, 2023 · 1,879 Views

Analytics



City of Hamilton  @cityofhamilton · Jun 15

We are hosting two Public Information Centres for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law:

June 23 (10am – 2pm) at the Hamilton Museum of Steam & Technology...



0



1



1

Impressions ⓘ

1,883

Engagements ⓘ

11

Detail expands ⓘ

7

New followers ⓘ

0

Profile visits ⓘ

1

Twitter – June 22, 2023

Post



We're hosting a Public Information Centre for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law on June 27 from 4pm - 6pm at the Canadian Warplane Heritage Museum.

2:19 PM · Jun 22, 2023 · 2,830 Views

Analytics

City of Hamilton @cityofhamilton · Jun 22

We're hosting a Public Information Centre for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law on June 27 from 4pm - 6pm at the Canadian Warplane Heritage Museum.

3	1	2

Impressions ⓘ	Engagements ⓘ	Detail expands ⓘ
2,831	22	11
	New followers ⓘ	Profile visits ⓘ
	0	4

Facebook – June 23, 2023

Post

 **City of Hamilton**
 23 Jun 2023 11:19 AM

We are hosting an upcoming Public Information Centre for the community to review and learn more about the proposed changes to the Sewer and Drain By-law and the Water Works By-Law:

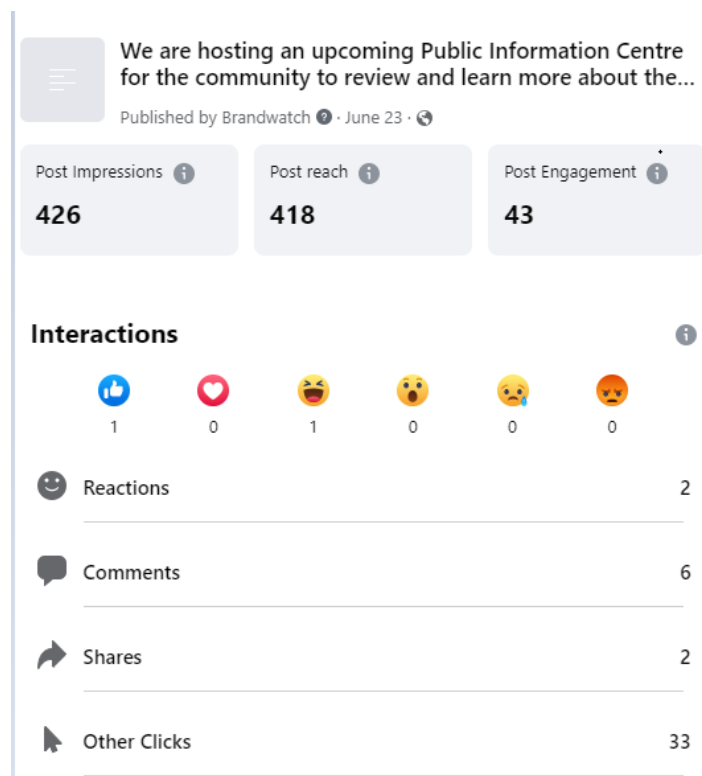
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  2

1 Comments 2 Shares

Analytics



Twitter – June 26, 2023

Post



We're hosting a Public Information Centre for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law on June 27 from 4pm - 6pm at the Canadian Warplane Heritage Museum.

2:19 PM · Jun 26, 2023 · 3,147 Views

Analytics

City of Hamilton @cityofhamilton · Jun 26

We're hosting a Public Information Centre for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law on June 27 from 4pm - 6pm at the Canadian Warplane Heritage Museum.

2

5

0

Impressions ⓘ
3,149

Engagements ⓘ
21

Detail expands ⓘ
11

New followers ⓘ
0

Profile visits ⓘ
3

Stoney Creek News – June 15, 2023

Stoney Creek News | Thursday, June 15, 2023 | 18

NOTICE OF PUBLIC INFORMATION CENTRE Sewer and Drain By-law & Water Works By-law Updates

The City of Hamilton is currently undertaking a review and update of two key by-laws: the **Sewer and Drain By-law** and the **Water Works By-law**. These revisions aim to modernize the content by aligning with current practices, including industry best practices, and City policies. Prior to presenting the revised by-laws to Council, Hamilton Water would like to provide stakeholders with an opportunity to become informed about the significant changes that may impact them.

You are invited to attend a **Public Information Centre (PIC)** where you can review the proposed changes and offer feedback. Two sessions of the PIC will be held, providing the same information at both venues.

Session 1:

Date: Friday, June 23, 2023
Time: 10am – 2pm
Location: Hamilton Museum of Steam & Technology – 900 Woodward Avenue, Hamilton

Session 2:

Date: Tuesday, June 27, 2023
Time: 4pm – 6pm
Location: Canadian Warplane Heritage Museum – 9280 Airport Road, Mount Hope

The two sessions will be an open house format with an opportunity to ask questions of staff. If you have any questions or comments after the PIC, please email: HWBylawPIC@hamilton.ca.

For further details on the **Sewer and Drain By-law** visit: www.hamilton.ca/WasteWaterCollection.

For further details on the **Water Works By-law** visit: www.hamilton.ca/WaterDistribution.

If you have any accessibility requirements to participate in this event, please call 905-546-2424 Ext. 5924 or email HWBylawPIC@hamilton.ca. Advance requests are encouraged to enable us to meet your needs adequately.

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

This Notice Issued in the Hamilton Community News on June 15 and June 22, 2023.



hamiltonnews.com

Hamilton Community News – June 15 and 22, 2023

NOTICE OF PUBLIC INFORMATION CENTRE

Sewer and Drain By-law & Water Works By-law Updates

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This Notice Issued in the Hamilton Community News on June 15 and June 22, 2023.



Mountain News – June 15 and 22, 2023

NOTICE OF PUBLIC INFORMATION CENTRE

Sewer and Drain By-law & Water Works By-law Updates

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Time: 10am – 2pm

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Session 2:

Date: Tuesday, June 27, 2023

Time: 4pm – 6pm

Location: Canadian Warplane Heritage Museum – 9280 Airport Road, Mount Hope

The two sessions will be an open house format with an opportunity to ask questions of staff. If you have any questions or comments after the PIC, please email: HWBylawPIC@hamilton.ca.

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For further details on the **Water Works By-law** visit: www.hamilton.ca/WaterDistribution.

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This Notice Issued in the Hamilton Community News on June 15 and June 22, 2023.



31 | Mountain News | Thursday, June 22, 2023

hamiltonnews.com

Hamilton Spectator – June 15 and 22, 2023

**NOTICE OF PUBLIC INFORMATION CENTRE
 Sewer and Drain By-law &
 Water Works By-law Updates**

The City of Hamilton is currently undertaking a review and update of two key by-laws: the **Sewer and Drain By-law** and the **Water Works By-law**. These revisions aim to modernize the content by aligning with current practices, including industry best practices, and City policies. Prior to presenting the revised by-laws to Council, Hamilton Water would like to provide stakeholders with an opportunity to become informed about the significant changes that may impact them.

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This Notice Issued in The Hamilton Spectator on June 15 and June 22, 2023.




Summary of Feedback Received

How the Feedback was Received	Feedback	City Response and Comments
Public Information Session, WW By-Law Email Address	If disconnection of downspouts is required (Part 10), what reimbursement will the City offer?	Referenced existing support programs offered by the City. The City of Hamilton offers property owners of single-family residential homes a grant (subsidy) of up to \$2000 for the disconnection of downspouts, installation of a backwater valve and other eligible works that help to reduce the risk of basement flooding.
WW By-law Email Address	Request a copy of the current and revised by-law	Provided to the requestor
WW By-law Email Address	There needs to be transition rules. For example, by-law changes should not apply to engineering servicing submissions that has been received by the City and is currently under review or approved.	The requirements of the proposed By-law will come into effect when the By-law is approved by Council.
WW By-law Email Address	Under section 5.11, is servicing for a secondary dwelling an exception?	If the secondary dwelling is on the same parcel of land, then it is permitted to share the same lateral connection as the principal dwelling. Each lot or parcel of land requires its own separate lateral connection to the mainline sewer.
WW By-law Email Address	Under section 12.11 – there is policy which encourages service separation and cost sharing by the City. Is this policy being maintained?	Yes, the existing supports remain unchanged and are listed in 12.12
Public Information Session	Can a lot be serviced by more than one sewer lateral? For example, a large parcel of land with multiple buildings or a large building such as warehousing etc.	Yes. The by-law revision aims to prevent multiple parcels of land being drained through a one connection; a single parcel of land is permitted to have more than one connection to the mainline sewer if the site warrants multiple service points.
Public Information Session, DLIG Presentation	Can you confirm that attached dwellings (ie. Townhouses) will still be permitted to share service connections?	Section 5.13 states that all dwellings within a row of attached dwellings may be connected into one Sanitary Sewer Lateral – Public Portion or one Storm Sewer Lateral – Public Portion, or both, under the specifically defined criteria. These provisions remain unchanged from the previous bylaw.



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 13, 2023
SUBJECT/REPORT NO:	Updated Water Works By-law (PW23071) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Dave Alberton (905) 546-2424 Ext. 1090
SUBMITTED BY:	Shane McCauley Director, Water and Wastewater Operations Public Works Department
SIGNATURE:	

RECOMMENDATION

- (a) That the By-law attached as Appendix “A” to Report PW23071, to Regulate the Management, Distribution, and Maintenance of the Water Works System of the City of Hamilton (Short Title: “Water Works By-law”) which has been prepared in a form satisfactory to the City Solicitor, be enacted; and,
- (b) Upon enactment of the By-law that staff be directed to apply to the Ministry of the Attorney General for approval of set fines for offences under the By-law.

EXECUTIVE SUMMARY

The purpose of this report is to recommend the enactment of a new By-law to Regulate the Management, Distribution and Maintenance of the Water Works System, attached as Appendix “A” to Report PW23071. The existing By-law (R84-026) is 39 years old and required a full rewrite. The new By-law includes the addition of a Resource Manual as a supporting document attached as Appendix “B” to Report PW23071, a Set Fines Schedule attached as Appendix “C” to Report PW23071 allowing the City of Hamilton (City) to issue tickets and impose fines, and several significant changes which are attached as Appendix “D” to Report PW23071.

Alternatives for Consideration – N/A

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: Updated Water Works By-law (PW23071) (City Wide) – Page 2 of 4

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: N/A

Staffing: N/A

Legal: By-law enforcement officers within Hamilton Water will be able to issue fines per the Set Fines Schedule attached as Appendix “C” to Report PW23071.

HISTORICAL BACKGROUND

The City’s By-law R84-026, enacted in 1984, has only received minor amendments over the last 39 years. Most of those amendments were to update the User Fees and Charges each year until 2021 when the By-law was amended to create a separate Water and Wastewater/Storm Fees and Charges By-law.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The proposed By-law is to be enacted under the authority of the *Municipal Act, 2001*.

RELEVANT CONSULTATION

The proposed By-law was written as a joint initiative between Hamilton Water and Legal Services and meets applicable legal requirements for regulatory By-laws including all appropriate provisions for enforcement.

The following City Divisions are key stakeholders, each of which had a representative on the Review Team:

- Planning & Economic Development - Building Division
- Planning & Economic Development - Growth Management
- Corporate Services - Financial Planning Administration & Policy
- Public Works - Hamilton Water
- Corporate Services - Legal & Risk Management Services

The City held two Public Information Sessions, designed as open-house events. They were advertised on the City's website, Social Media platforms, and local newspapers. The advertisements are attached as Appendix “E” to Report PW23071. Invitations were extended to the Development Liaison Committee and the Hamilton and District Heavy Construction Association. Staff presented to the Development Liaison Committee at its September 11, 2023 meeting. Below is a summary of Public Information Session attendees based on their area of interest:

- Industrial, Commercial, Industrial Facilities – four (4)

OUR Vision: To be the best place to raise a child and age successfully.

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SUBJECT: Updated Water Works By-law (PW23071) (City Wide) – Page 3 of 4

- Associations/Consulting Companies – two (2)
- Residents/Other – six (6)

A dedicated website and email address were established and made available from June 14 to July 31, 2023, allowing stakeholders to review the current and draft By-laws and submit questions and comments. The website and email address were advertised along with the Public Information Sessions.

Staff reviewed and responded to the two (2) emails and questions received. The comments were taken into consideration by the Review Team. A summary of the feedback received through the outreach initiatives is attached as Appendix “F” to Report PW23071.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The current By-law required a full rewrite as the standards, practices and policies governing the management of the Water Works System have evolved. Gaps and industry best practices were identified and addressed, administrative changes were implemented, and a Resource Manual and a Set Fines Schedule were created resulting in significant changes to the By-law which are attached as Appendix “D” to Report PW23071.

1. A thorough review of the existing By-law was completed to identify gaps and industry best practices by consulting with or reviewing the by-laws and set fines schedules of the following Municipalities:

<ul style="list-style-type: none"> ▪ City of Kingston ▪ City of Ottawa ▪ City of Toronto 	<ul style="list-style-type: none"> ▪ City of London ▪ City of Sudbury ▪ Halton Region
---	--
2. Administrative changes were made to reorganize content, updated definitions, and remove duplication for ease of reading.
3. A Resource Manual attached as Appendix “B” to Report PW23071 was created to improve overall readability, understanding of the By-law, and allow for updates to administrative requirements, when necessary.
4. The existing By-law did not include short wording for enforcement including issuing tickets and fines. A Set Fines Schedule attached as Appendix “C” to Report PW23071 was created so that existing staff can issue fines to those that refuse to comply with the By-law requirements.

ALTERNATIVES FOR CONSIDERATION – N/A

SUBJECT: Updated Water Works By-law (PW23071) (City Wide) – Page 4 of 4

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW23071 – Water Works By-law No. 23-XXX

Appendix “B” to Report PW23071 – Water Works By-law Resource Manual

Appendix “C” to Report PW23071 – Set Fines Schedule to By-law No. 23-XXX

Appendix “D” to Report PW23071 – Significant Changes

Appendix “E” to Report PW23071 – Public Information Session Advertisements

Appendix “F” to Report PW23071 – Summary of Feedback Received

Authority: Item X, Public Works Committee
Report (Staff report number)
CM: Date

Bill No. X

CITY OF HAMILTON

BY-LAW NO. 23-XXX

To Regulate the Management, Distribution and Maintenance of the Water Works Systems

WHEREAS sections 8, 9 and 10 of the *Municipal Act, 2001* authorize the City of Hamilton to pass by-laws necessary or desirable for municipal purposes, and in particular, paragraphs 4, 5, 6, 7 and 8 of subsection 10(2) authorize by-laws respecting public assets of the municipality, the economic, social and environmental well-being of City, the safety and well-being of Persons, services that it is authorized to provide, and the protection of Persons and Property;

AND WHEREAS sections 78 to 81 of the *Municipal Act, 2001* authorize the City of Hamilton, amongst other things, to enter onto land to install, construct, connect, maintain, inspect, repair, alter or disconnect pipes and other works for the distribution of water, and to shut off or reduce supply in certain circumstances;

AND WHEREAS the *Municipal Act, 2001* authorizes the City of Hamilton, amongst other things, to delegate its authority, to provide for inspections and inspection orders, and to make orders to discontinue activity or to do work;

NOW THEREFORE the Council of the City of Hamilton enacts as follows:

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PART 1 – DEFINITIONS

1.1 In addition to and as an alternative to referencing this By-law by its formal numbering, this By-law may also be referred to as the "Water Works By-law" for all purposes.

1.2 In this By-law:

"Adapter" means an Adapter owned by the City and rented to a water user in accordance with section 4.15 and 4.16 which is used to make a temporary connection to the Water Distribution System and includes a hydrant adapter which provides a link to a fire hydrant and a road adapter which provides a link to the Watermain;

"Adapter Rental Agreement" means the rental agreement prescribed by the General Manager from time to time as the agreement that must be signed by any Person who rents an Adapter from the City, which agreement shall contain terms and conditions specified by the General Manager;

"Applicable Law" means any statute, law, treaty, rule, code, ordinance, by-law, regulation, Permit, interpretation, certificate or order, whether now or hereafter existing, of any governmental authority, including, without limitation, the City or any judgment, decision, decree, injunction, writ, order or like action of any court, arbitrator or other governmental authority, including, without limitation, the City whether now or hereafter existing. Without limiting the generality of the foregoing, Applicable Law shall include the following non-comprehensive examples of Applicable Law:

- (1) O. Reg. 170/03;
- (2) The Watermain Disinfection Procedure;
- (3) The Water Works By-law Resource Manual;
- (4) O. Reg. 388/97;
- (5) the National Fire Protection Association Standards
- (6) the Building Code Act and O. Reg. 332/12; and,
- (7) AWWA Standards.

"Arrears Policy" means the City of Hamilton Water and Wastewater/Storm Arrears Policy No. PP-0004 approved by Council from time to time;

"Auxiliary Water Supply" means any well, cistern, tank, or supply of water that is not part of the Water Distribution System.

"Average Daily Water Consumption" means the mean daily water consumption amount calculated on the basis of a representative billing period for the Premises;

"AWWA Standards" means the standards adopted by the American Waterworks Association, as they may be amended from time to time;

"Backflow Prevention By-law" means the City's By-law 10-103;

"Billing Agent" means any party engaged by the City that provides one or more services to support all functions related to customer information and billing operations for all the City's water and wastewater/storm customers. If the City has not engaged a party to provide the said services, reference to the Billing Agent shall be deemed to be references to the City itself;

"By-Pass Valve Assembly" means an arrangement of shut off valves and water piping that redirect the flow of water around the Water Meter during testing, repair or meter replacement so that work can progress without interrupting the flow of water to premises;

"City" means the municipality of the City of Hamilton or the geographic area of the City of Hamilton, as the context requires;

"Council" means the municipal council for the City of Hamilton;

"Emergency" means a situation or an impending situation that constitutes a danger that could result in harm or damage to Persons, Property, or the environment including the loss of an essential service or damage to other infrastructure/equipment.

"Emergency Work" means work that is required to reduce or eliminate an Emergency;

"Fees and Charges" means the fees and charges prescribed by the Water and Wastewater/Storm Fees and Charges By-law for the City;

"General Manager" means the General Manager of Public Works, the General Manager of Planning and Economic Development, or the Chief Building Official, as the context requires, and includes their designates or successors. All Hamilton Building Department, Planning and Economic Development staff, and Water

Department staff shall be deemed to be acting as the General Manager's designate in carrying out their duties under this by-law;

"MECP" means the Ontario Ministry of Environment, Conservation and Parks or any successor Ministry substantially fulfilling the same role.

"Occupier" means any Person who has use, possession or control of any Property or Premises or their authorized agent, servant or employee of such occupier;

"Municipal Law Enforcement Officer" means any Person appointed by the City's Council or by the General Manager to administer or enforce this By-law and includes a Person employed by the City whose duties are to enforce this By-law, and also includes, for the purposes of exercising any power of entry under this By-law, a police officer;

"Owner" means the registered owner or owners of a Property or their authorized agent(s), but does not include a mortgagee unless the mortgagee is in possession of the Property;

"Permit" is a noun that means any one or more of the following Permits issued under this By-law:

- (1) a Water Service Permit;
- (2) a Water Service Line Repair Permit;
- (3) a Disconnection of Services Permit; and,
- (4) a Relocation of a Private Hydrant Permit.

"permit" is a verb that means, in connection with a Person who has care and maintenance of a Property or otherwise is legally capable of preventing or terminating the occurrence of an event, allowing that event to occur or failing to terminate its continuation;

"Permit Holder" means a Person to whom a Permit has been issued, and includes another Person performing work on behalf of such Person;

"Person" includes an individual, association, partnership, corporation, municipality, regional municipality, provincial or federal agency, or an agent or employee of any of those entities;

"Premises" means a building or structure or either of them located on a Property;

"Private Fire Hydrant" means an above grade accessible valve assembly and hydrant secondary valve that is connected to an underground privately owned Watermain for the purposes of fire suppression;

"Private Fire Protection System" means any private booster pumps, sprinkler systems, Private Fire Hydrants or other private system supplementing or in addition to, but excluding, the public fire protection system (Public Fire Hydrants and supporting infrastructure), with the designated purpose of such private fire protection system being fire protection and fire suppression;

"Private Service Line" means a privately-owned Service Line connected to the Service Connection at the Property line or the limit of the City easement to the Premises or Property and includes Water Meter Chambers;

"Public Fire Hydrant" means an above grade valve assembly, including any secondary valve, that is connected to an underground municipal Watermain for the purposes of fire suppression and Watermain flushing;

"Public Service Line" means a publicly owned Service Line connected to the Watermain, designed to carry water from the Water Distribution System to the Service Connection at the Property line or easement limit;

"Property" means a parcel of land described in a deed or other document legally capable of conveying title to or a fee simple interest in land; and,

- (1) **"Mixed-use Property"** means a Property containing both Residential and Non-Residential Uses;
- (2) **"Multi-Residential Property"** means a Residential Property on which there are multiple residential units;
- (3) **"Non-Residential Property"** means a Property that is neither a Residential Property nor a Mixed-use Property; and,
- (4) **"Residential Property"** means a Property on which the primary land uses are residential.

"Property Line" means the real or imaginary line that represents the legal division between a Property and the abutting Road;

"Remote Reading Unit" means a device or mechanism which is owned by the City that is used to record or transmit, or both, the water consumption reading of a Water Meter and may be installed at a separate location from the Water Meter. A remote reading unit is of one of two types:

- (1) a remote touchpad that is wired directly to the meter and is read manually; or,

(2) advanced metering infrastructure that transmits a signal to a remote receiver.

"Road" means a public highway pursuant to the *Municipal Act, 2001*;

"Service Connection" means the connection that joins a Service Line to the Watermain;

"Service Line" means the line connecting a Watermain to a Premises or Property consisting of a Private Service Line and Public Service Line;

"Substandard" is an adjective that refers to a situation, matter, or thing that does not comply with Applicable Law;

"Substandard Service" means a water service line that does not meet the requirements of Applicable Law

"Tamper" means to break, damage, destroy, deface, add to or remove from a thing;

"Vacant Premise" means a dwelling, building, or property that is unattended.

"Water Meter" means a device or mechanism which is owned by the City and used for the purpose of measuring the flow or quantity, or both, of water for billing revenue and, in circumstances where multiple units' locations or units on a Property are serviced from a single Service Line; and,

(1) **"Primary Meter"** means the Water Meter that measures the total consumption on a Service Line; and,

(2) **"Submeter"** means any Water Meter that is subsidiary to the Primary Meter, but does not mean a private water quantity measuring device pursuant to subsection 5.6;

"Water Meter Chamber" means a below grade vault constructed to house a Water Meter;

"Water Meter Plumbing Assembly" means that part of a private plumbing system consisting of the valves, pipes, connections, by-passes, and other appurtenances used to install, test and/or maintain a water meter;

"Watermain" means a pipe for the conveyance of potable water to water storage facilities and serviced properties;

"Watermain Disinfection Procedure" means the Watermain Disinfection Procedure issued by the MECF. As of the date of the passage of this By-law, the Watermain

Disinfection Procedure also applies to a Service Line that has a diameter equal to or greater than four inches;

"Water Distribution System" means facilities of the City, including buildings, structures, plant, machinery, equipment, Water Meters, Public Fire Hydrants, appurtenances, devices, conduits, intakes, outlets, Watermains, and other works designed for the collection, production, treatment, transmission, storage, supply or distribution of water, or any part of the foregoing , and includes lands occupied for such purposes and uses;

"Water Works By-law Resource Manual" means the Water Works By-law Resource Manual approved by the General Manager from time to time;

PART 2 – INTERPRETATION AND APPLICATION

2.1 This Part contains provisions related to the interpretation and application of the By-law and is intended to be of general application to this entire By-law.

2.2 This By-law applies within the geographic limits of the City of Hamilton and regulates the provision and consumption of water as a public utility within the entirety of that geographic area.

2.3 Despite section 2.2, the General Manager may waive the application of all or part of this By-law if the General Manager is satisfied that the matter is adequately regulated through another By-law, statute, or planning approval that meets or exceeds the requirements of this By-law.

2.4 (1) Any person who performs any action under the authority of this By-law, including any Permit, exception, right or privilege granted, issued or exercised pursuant to this By-law, shall do so in accordance with all Applicable Law. In the event that there is a conflict or inconsistency between this By-law and any such Applicable law, such conflict shall be resolved in accordance with the normal principles of statutory interpretation but with the intent, to the extent possible, to resolve all such conflicts in favour of the most stringent and restrictive provisions that will best protect the health and safety of the citizens of Hamilton.

(2) Subject to subsection (1), in the event of any conflict or inconsistency between any of the provisions of this By-Law and the Water Works By-law Resource Manual, the provisions of this By-law shall take precedence over the Water Works By-law Resource Manual to the extent necessary to resolve such conflict or inconsistency.

2.5 The necessary grammatical changes required to make the provisions of this By-law applicable to corporations, partnerships, trusts and individuals, male or female, and

to include the singular or plural meaning where the context so requires, shall in all cases be assumed as though fully expressed.

2.6 The insertion of headings and the division of this By-law into sections and subsections are for convenience of reference only and shall not affect the interpretation thereof.

2.7 Any reference in this By-law to any statutes, regulations, manuals, procedures, or By-laws shall be deemed to be a reference:

(1) in the event of the amendment or restatement of any such statute, regulation, manual, procedure, or By-law, to such amended or restated statute, regulation, manual, procedure or By-law; and,

(2) in the event of the repeal and replacement of any such statute, regulation, manual, procedure, or By-law, to such replacement statute, regulation, manual, procedure, or By-law.

2.8 Where a court of competent jurisdiction declares any section or part of a section of this By-law invalid, the remainder of this By-law shall continue in force unless the court makes an order to the contrary.

2.9 Nothing in this By-law constitutes a guarantee or assurance that there shall be an uninterrupted supply of water at any location within the City or that any standard of water pressure will be met or maintained at any given time in any location within the City.

2.10 Any reference in this By-law to a prescribed form is a reference to the applicable form under Applicable Law.

2.11 Where any Person requests or claims to be entitled to any approval, exception, relief, or any special consideration or benefit capable of being issued by the General Manager under this By-law, application shall be made to the General Manager in accordance with the forms, processes, and other procedural and substantive requirements of the Water Works By-law Resource Manual, Applicable Law, and the payment of all applicable Fees and Charges.

PART 3 – GENERAL PROHIBITIONS

3.1 This Part sets forth a number of General Prohibitions applicable to this By-law that are of general application to the connection to the Water Distribution System and the use of water within the City of Hamilton.

3.2 No Person shall connect, permit to be connected, or allow to remain connected to the Water Distribution System, any pipe, fixture, fitting, container, appliance, vehicle,

machine or similar contrivance which may under any circumstances allow for water to be drawn from or into the Water Distribution System, except in compliance with this By-law.

3.3 No Person shall use water that has been drawn from the Water Distribution System otherwise than in compliance with this By-law.

3.4 (1) No Person, other than the City, through its own forces or contractors hired by it, shall perform any work on the Water Distribution System.

(2) Subsection (1) does not apply if this By-law or an exception provided by the General Manager provides otherwise.

3.5 No Person shall hinder or obstruct or attempt to hinder or obstruct any Person who is exercising a power or performing a duty under this By-law.

3.6 No Person shall provide false or inaccurate information in any application submitted under this By-law, or in any other document or thing required to be submitted by this By-law or the Water Works By-law Resource Manual.

3.7 No Person shall Tamper with or permit Tampering with:

(1) any part of the Water Distribution System; or,

(2) any permanent or temporary device installed as part of a Service Line, including the Water Meter, seals, or related appurtenances for the purpose of measuring, sampling, testing or by-passing of water.

3.8 No Person, other than the City, shall:

(1) interfere, in any way, with any part of the Water Distribution System;

(2) place or cause to be placed any structure, building material, or other material including earth, snow, trees, shrubs, plants, fences, berms, or other obstruction of any kind whatsoever at a distance of less than one metre from any part of the Water Distribution System;

(3) who is an Owner or Occupier allow on their Property or any Road adjacent to their Property, any obstruction, including the accumulation of snow or ice, of any kind whatsoever at a distance of less than one metre from any part of the Water Distribution System;

(4) conceal any part of the Water Distribution System with any type of structure, plant or object; or,

(5) deface, paint, or decorate any part of the Water Distribution System.

PART 4 – CONNECTION TO THE WATER DISTRIBUTION SYSTEM

4.1 This Part contains provisions that apply to a number of different aspects of connection of Properties and Premises to the Water Distribution System.

Water Service Connections

4.2 No Person shall make connection between the Water Distribution System and any Property located outside the geographic limits of the City of Hamilton unless a written agreement authorizing such connection has been executed by the City and the other municipality in which such Property is situate.

4.3 No Person shall make connection to the Water Distribution System unless a Water Service Permit has been issued authorizing such connection.

4.4 Not more than one Service Connection may be made for any Property, and not more than one Property may be serviced through a single Service Connection.

4.5 All Service Connection installations shall be in accordance with specifications set out in the Water Service Permit, the Water Works By-law Resource Manual, and shall be inspected and approved by the General Manager.

Exceptions to Section 4.4

4.6 Despite section 4.4:

(1) more than one but not more than three Properties may remain connected to one Service Connection if the Service Connection legally existed prior to the enactment of this By-law and the Service Connection continues in use and is not upgraded or modified. For purposes of this section:

(a) a Service Connection is only deemed to have legally existed prior to the enactment of this By-law if the City issued a Water Service Permit for the Service Connection when it was established; and,

(b) a Service Connection is not deemed to have legally existed prior to the enactment of this By-law if any subsequent non-compliance with section 4.4 has occurred as a result of a transfer pursuant to a consent issued pursuant to the subdivision control provisions of the Planning Act; and,

(2) the General Manager may approve additional Service Connections to a Property, as set forth below

(a) The General Manager may approve any number of Service Connections for a Non-Residential Property where such Service Connections are required in connection with any land uses on the Non-Residential Property;

(b) The General Manager may approve an additional Service Connection for each separate building containing residential uses on a Residential Property;

(c) The General Manager may approve one or more additional Service Connections on any Property:

(i) If a plan of subdivision in respect of the Property has received draft plan approval pursuant to the Planning Act, and any additional Service Connections that are requested are in compliance with the terms of the applicable draft plan approval; or,

(ii) In advance of the formal transfer of a portion of a Property by deed or transfer in circumstances where:

A. A Consent has been issued pursuant to the Planning Act;

B. Any additional Service Connections requested are in compliance with the terms and conditions of the Consent;

C. All rights of appeal in respect of the Consent have either terminated or any appeals have been finally resolved; and,

D. All conditions relating to the Consent have been fully and completely satisfied.

(d) The General Manager may approve one (1) additional Service Connection for each separate building containing residential uses on a Multi-Residential Property where the Residential Units are arranged vertically within a building or buildings and each building for which the additional Service Connection is sought has a height in excess of eighty-four (84) metres.

(e) The General Manager may approve further Service Connections to a total not greater than the number of Residential Units on a Multi-Residential Property where the Residential Units are arranged horizontally within one or more buildings on the Property; and,

(f) The General Manager may approve further Service Connections for a Mixed-use Property by applying rules (a) through (d) with necessary

modifications to the portions of the Mixed-use Property containing Residential Uses and Non-Residential Uses respectively.

Installation of Service Lines

- 4.7 (1) All Service Line installations shall be done in compliance with Applicable Law.
- (2) No Property connected to the Water Distribution System shall be serviced by an Auxiliary Water Supply.
- (3) If a Property is connected to the Water Distribution System, no Person shall either connect an Auxiliary Water Supply to any part of the Property or permit any existing connection to an Auxiliary Water Supply to any part of the Property to continue.
- (4) Provided that there is no possible physical interconnection between the Auxiliary Water Supply and a plumbing system on a Property that is connected to the Water Distribution System, nothing in this Section shall prohibit the Owner of the Property from using an Auxiliary Water Supply, if:
- (a) The provisions of the Backflow Prevention By-law apply to the Property; and,
 - (b) The Property is in compliance with the Backflow Prevention By-law.
- (5) For purposes of subsection (4), a system in which the Auxiliary Water Supply is separated by one or more valves shall be deemed to be a physical interconnection.

Maintenance, Repair, Replacement, and Inspection of Service Lines

- 4.8 (1) No Person shall repair an existing Service Line or associated fittings and appurtenances unless a Water Service Line Repair Permit authorizing such repair has been issued under this By-law.
- (2) No Person shall replace an existing Service Line unless a Water Service Permit authorizing such replacement has been issued under this By-law.
- (3) All Service Line repairs and replacement shall be done in compliance with Applicable Law.
- (4) All Private Service Lines shall be maintained, repaired, replaced, and inspected as required by Applicable Law, and at the expense of the Owner.

(5) No Owner or Occupier shall permit leaking of a Private Service Line located within their Property.

(6) Unless otherwise specified by the General Manager, if a replacement Service Line is installed by a Permit holder, the Permit holder shall install the replacement Service Line in the same location as a Service Line being replaced. If the General Manager authorizes a different location for the replacement Service Line, and additional excavation or pavement restoration is required, the Owner shall pay all additional excavation and restoration costs.

Abandonment of Service Lines

4.9 No Person shall abandon an existing Service Line unless a Disconnection Permit authorizing such abandonment has been issued under this By-law.

4.10 (1) Every Person acting under a Disconnection Permit shall ensure that:

- (a) the existing Service Line is disconnected at the Watermain;
- (b) the Service Connection is disconnected and removed in accordance with the Water Works By-law Resource Manual; and,
- (c) if required by the General Manager, the Service Line is removed.

(2) The Owner of the Property or Premise shall pay all costs associated with the disconnection and removal of any Service Line.

(3) Every person who demolishes any building shall disconnect the existing water Service Line associated with such building pursuant to a Disconnection Permit issued under this By-law, provided that the General Manager may authorize the continued usage of the existing Service Line to service a replacement building if:

- (a) A building permit has been issued for such replacement building; and,
- (b) The General Manager is satisfied that the Service Line meets all requirements of Applicable Law, is in good condition, and is otherwise suitable to service the replacement building.

Substandard Service Replacement

4.11 If an Owner has:

- (1) Replaced an existing Substandard Private Service Line under a Water Service Permit with a Private Service Line that meets Applicable Law; and,
- (2) Notified the General Manager in writing that the Owner's Property or Premises is serviced by a Substandard Public Service Line, and the Owner's submission is determined by the General Manager to be accurate,

the General Manager shall replace the existing Substandard Public Service Line with a Public Service Line that meets Applicable Law.

Upgrading a Service Line

4.12 If the Owner of a Property delivers a written request to the General Manager requesting the installation of a Public Service Line that is greater than 25 mm diameter, the General Manager may approve the Owner's request, but the Owner shall be responsible for the installation of the Public Service Line and the Private Service Line and any required Permits at its sole cost.

Restoration

4.13 If excavation in the Road allowance is required for the purpose of installation, replacement or abandonment of a Service Connection or a Service Line, the cost of all restoration carried out by the City of Hamilton shall be paid by the Permit holder, except where the repair is being carried out in conjunction with the replacement done pursuant to subsection 4.12, in which case the cost shall be paid by the City in accordance with the Road Excavation Permit.

Connection Where Land Not Directly Serviced

4.14 (1) Where a Property abuts a Road in which there is no public Watermain to which such Property may be readily connected, but there is another public Watermain to which the Property may be readily connected, and for the cost of which such Property has not been specially assessed, such Property Owner may make a request to the General Manager – Planning & Economic Development to be connected to such other public Watermain.

(2) If the General Manager – Planning & Economic Development approves the request for a connection under subsection 4.14 (1), it shall be a condition of such approval that:

- (a) a Water Meter is installed and maintained in accordance with the specifications set out in the Water Works By-law Resource Manual, by and at the expense of the Owner;

- (b) the Private Service Lines are connected to each other on the private side of the Water Meter;
- (c) the distribution of the water to the separate Properties is supported by a legally enforceable reciprocal easement registered against every Property so connected, which reciprocal easement shall also, either expressly or through reference to another registered document, impose reciprocal maintenance obligations between each Property owner satisfactory to the City and which shall include the City as a party for the purpose of:
 - (i) recording the consent of the City to the form and content of the reciprocal maintenance obligations;
 - (ii) prohibiting the discharge or amendment of the reciprocal easement without the express consent and approval of the City; and,
- (d) the Property Owner obtains a Water Service Line Permit.

Temporary Connection through Adapter Rental

4.15 No Person shall use an Adapter to make a connection to the Water Distribution System otherwise than in accordance with the terms and conditions of the Adapter Rental Agreement.

4.16 The Adapter Rental Agreement may only be issued for municipal projects and Watermain commissioning, or in other circumstances with the consent of the Water Distribution Overall Responsible Operator or the General Manager.

PART 5 - WATER METERS

5.1 This Part is intended to contain the rules related to Water Meters that are used and installed pursuant to this By-law.

5.2 Unless otherwise permitted under this By-law:

- (1) one (1) Water Meter shall be installed on every Service Line; and,
- (2) no alteration shall be made to by-pass a Water Meter to allow for non-metered water to be drawn from the Water Distribution System.

5.3 (1) Every Owner and Occupier shall permit the installation of a Water Meter on any Service Line connected to the Water Distribution System, and in the event that any Owner or Occupier refuses or neglects to permit the installation of a Water Meter

at any Property so connected, the General Manager may, in addition to any other penalty under this By-law, disconnect the Property from the Water Distribution System until a Water Meter is installed.

(2) Every Owner and Occupier shall allow the installation of a Remote Reading Unit used for remotely collecting consumption data from a Water Meter for base billing, trouble shooting, and analysis.

(3) If advanced metering infrastructure is available at any Property, any remote reading unit installed at that property shall be of that type. In the event that the Owner requests a touchpad Remote Reading Unit, a touchpad Remote Reading Unit shall be installed, and the Owner pay all applicable Fees and Charges.

5.4 No Person other than the City, or its designated contractors, shall install, seal, replace, maintain, repair, inspect, or remove Water Meters and Remote Reading Units. All such work shall be done in compliance with the Water Works By-law Resource Manual and all other Applicable Laws

5.5 Every Owner shall maintain the Water Meter Plumbing Assembly in a condition that meets the requirements of all Applicable Law.

5.6 An Owner or Occupier may install its own private water quantity measuring device if it is connected on the outlet side of a Water Meter. Any such private water quantity measuring device is deemed for all purposes to be privately-owned plumbing and not part of the Water Distribution System and shall neither be the responsibility of the City nor shall it form the basis for any billing for water consumption.

Physical Location of the Water Meter

5.7 (1) Every Water Meter shall be physically located as follows:

(a) for Service Lines under 38 mm in diameter,

(i) If the point where the Service Line enters the Premises is less than 60 metres from the Property Line, the water meter shall be located at the point where the Service Line enters the Premises; or,

(ii) If the point where the Service Line enters the Premises is more than 60 metres from the Property Line, the water meter shall be located in a Water Meter Chamber constructed and maintained in accordance with the specifications set out in the Water Works By-law Resource Manual by and at the expense of the Owner.

(b) for Service Lines 38 mm in diameter or larger,

(i) If the point where the Service Line enters the Premises is less than 10m from the Property Line, the water meter shall be located at the point where the Service Line enters the Premises; or,

(ii) If the point where the Service Line enters the Premises is greater than 10m from the Property Line, the water meter shall be located in a chamber at Property Line constructed and maintained in accordance with the specifications set out in the Water Works By-law Resource Manual by and at the expense of the Owner.

(2) If, in the opinion of the General Manager, unacceptable environmental or unsafe conditions exist or would result from locating the Water Meter in accordance with section 5.7(1), the Water Meter shall be located in an alternate location satisfactory to the General Manager, and in a Water Meter Chamber, where required, constructed and maintained in accordance with the specifications set out in the Water Works By-law Resource Manual by and at the expense of the Owner.

5.8 No Person shall re-locate a Water Meter from the location in which it is installed, except as may be approved by the General Manager.

5.9 An Owner who wishes to relocate a Water Meter the Owner may make an application therefor to the General Manager:

Size of the Water Meter

5.10 Water Meters shall be sized in accordance with the Water Works By-law Resource Manual.

5.11 (1) If an Owner wishes or is required by reason of an increase in the diameter of the Service Line to the Property, to change the size of a Water Meter the Owner may make an application to the General Manager.

Water Meter By-Pass Valve Assembly

5.12 On every metered water service the Owner shall install at its expense a By-Pass Valve Assembly in accordance with the specifications set out in the Water Works By-law Resource Manual, except where:

- (1) the service supplies only a single residential property;
- (2) the Service Line is under 50mm diameter; or,
- (3) in the opinion of the General Manager, a By-Pass Valve Assembly is not required,

and no person shall install a By-Pass Valve Assembly where (1), (2), or (3) apply.

5.13 The Water Meter by-pass valve required as part of the By-Pass Valve Assembly pursuant to section 5.12 shall be sealed and tagged in the closed position at the time it is installed and may only be opened with the consent of the General Manager.

5.14 When a By-Pass Valve Assembly is required in accordance with section 5.12, the Owner shall supply, install, and maintain at its expense the inlet valve, the outlet valve and by-pass valves to the Water Meter in accordance with the specifications set out in the Water Works By-law Resource Manual.

5.15 When a By-Pass Valve Assembly is required in accordance with section 5.12, and the General Manager determines that the seal on the by-pass valve is broken or the by-pass valve has been opened without the consent of the General Manager, the Owner shall,

(1) pay the Average Daily Water Consumption for the Premises during the time period when the seal was broken or the by-pass valve opened, as determined by the General Manager of Finance and Corporate Services;

(2) do anything necessary to restore the by-pass valve to the closed and sealed position, at the Owner's expense;

(3) pay all applicable Fees and Charges, associated with the restoration of the by-pass valve to the closed a sealed position; and

(4) if requested by the General Manager, permit the installation of a Water Meter on the by-pass within 60 days of the request at the Owner's expense.

5.16 (1) When the General Manager determines that a by-pass has been installed contrary to section 5.12, to allow for non-metered water to be drawn from the Water Distribution System without the consent of the General Manager, the Owner shall,

(a) pay the Average Daily Water Consumption for the Premises during the time period when the by-pass was installed, as determined by the General Manager Finance and Corporate Services;

(b) within 60 days of a request by the General Manager, remove the by-pass and take such action as is required to restore the Water Meter to the specifications set out in the Water Works By-law Resource Manual;

(c) pay all applicable Fees and Charges associated with the removal of the by-pass and restoration of the Water Meter;

(2) Where the Owner fails to remove the by-pass or take such action as is required to restore the Water Meter in accordance with the specifications set out in the Water Works By-law Resource Manual, the Premise shall be billed pursuant to the Consecutive Estimate Policy until such time as the Owner completes the removal and restoration to the satisfaction of the General Manager.

Access

5.17 Upon request of the General Manager, the Owner and Occupier of the Premises or Property on which the Water Meter is located shall provide free and clear access to:

- (1) the Water Meter, meter reading equipment, or other appurtenances, for the purposes of meter reading, inspection, repair, installation, maintenance, or removal; and,
- (2) the By-Pass Valve Assembly for the purposes of inspection, repair, installation, maintenance, or removal.

Responsibilities of the Owner and Occupier

5.18 The Owner and Occupier of the Premises or Property on which the Water Meter is located shall:

- (1) take all precautions necessary to prevent:
 - (a) damage to the Water Meter from any cause including frost, fire, hot water or vandalism; and
 - (b) the loss of the Water Meter, where it is removed from the Premises or Property without the consent of the General Manager, whether by theft or otherwise;
- (2) immediately notify the City of any leaks or problems with the Water Meter which may require repair or replacement;
- (3) immediately notify the City's Billing Agent of any abnormally high-water billing resulting from unexplained, extraordinary or unusual circumstances;
- (4) pay all applicable Fees and Charges for the repair or replacement of a lost, damaged or stolen Water Meter; and,
- (5) if the Property has a Water Meter Chamber, maintain the Water Meter Chamber in good condition, free of water, dirt, and debris.

Accuracy and Testing of Water Meters

5.19 (1) The accuracy of a Water Meter shall be measured in accordance with the Water Works By-law Resource Manual.

(2) In circumstances where water consumption is measured by a Primary Meter and one or more Submeters, any conflict between the measurements recorded by the Primary Meter and any Submeters shall be resolved in favour of the higher measurement.

5.20 Except as otherwise provided in section 7, where a Water Meter fails to record water consumption accurately, the Owner and Occupier shall pay the Average Daily Water Consumption for the Premises or Property until such time as the Water Meter is repaired or replaced to the satisfaction of the General Manager.

5.21 An Owner or Occupier may apply to have a Water Meter tested for accuracy by submitting a written request to the City's Billing Agent on the prescribed form as set out in the Water Works By-law Resource Manual.

5.22 Water Meter testing carried out by the General Manager pursuant to an application made under section 5.19 may be carried out at the Premises or off-site.

5.23 (1) Where a Water Meter tested for accuracy under section 5.19:

(a) is found to under-register or be within 2% of the upper accuracy limit set out in the AWWA Standards for all three flow rates, no adjustments will be made to the account for metered water rates; or

(b) is found to exceed 2% of the upper accuracy limit set out in the AWWA Standards at one or more of the tested flow rates, the Water Meter will be calibrated or removed from service, the account for metered water rates will be adjusted, and the prescribed Water Meter testing fee will be credited to the account.

(2) The metered water rate account adjustment under subsection 5.23(1)(b) will:

(a) be for a rate equal to the difference between the upper accuracy limit set out in the AWWA Standards and the accuracy percentage registered by the meter test, and

(b) not exceed a period of 120 days prior to the date on which the Water Meter was calibrated or removed from service.

Exceptions to section 5.2(1)

5.24 Despite section 5.2(1):

(1) The General Manager may approve the installation of additional Water Meters, in addition to the Primary Meter, as set forth below:

(a) The General Manager may approve any number of Submeters if such Submeters are required in connection with any land uses on a Non-Residential or Mixed-use Property; and

(b) The General Manager may approve further Submeters in connection with a Multi-Residential Property if each residential unit on the Multi-Residential Property will have a Submeter.

(2) A Service Line that only provides water to a Private Fire Protection System does not require a Water Meter.

PART 6 – FIRE PROTECTION SYSTEMS

6.1 This Part contains rules that apply to public fire hydrants and private fire protection systems.

Public Fire Hydrants

6.2 No person shall open or operate a Public Fire Hydrant unless the person opening or operating the Public Fire Hydrant is a member of any one or more of the following groups:

- (1) A City staff member acting in the course of their duties;
- (2) A member of a municipal Fire Department acting in the course of their duties; or,
- (3) Another person authorized by the General Manager

6.3 No Person shall relocate an existing Public Fire Hydrant unless approved by the General Manager and such relocation, including the design of the Public Fire Hydrant so relocated, is in compliance with Applicable Law. If approved, the applicant shall pay all costs and expenses associated with the relocation of an existing Public Fire Hydrant, and the installation of a new Public Fire Hydrant, if required.

Private Fire Protection Systems

6.4 No Person shall install or maintain any part of a Private Fire Protection System other than in compliance with Applicable Law.

6.5 No Person shall use any water from any Private Fire Protection System which is connected to the Water Distribution System, for any purpose other than fire fighting or maintenance of the Private Fire Protection System except on written authority from the General Manager of Public Works.

6.6 (1) No Person shall relocate an existing Private Fire Hydrant without a Permit issued under this By-law and such relocation, including the design of the Private Fire Hydrant, is in compliance with Applicable Law.

(2) The applicant shall pay all costs and expenses associated with the relocation of an existing Private Fire Hydrant, and the installation of a new Private Fire Hydrant, if required.

PART 7 - PROTECTION OF WATER USERS AND THE WATER DISTRIBUTION SYSTEM

7.1 This Part contains rules that are designed to protect the integrity of the Water Distribution System and the health and safety of its users.

To Prevent Damage to Private Equipment

7.2 (1) No direct connection shall be made, maintained or used between a Service Line and Watermain and any steam boiler, condenser, air conditioning unit, or other plant or equipment liable to damage as a result of the shutting off of the water, or as a result of fluctuations in water pressure in the Watermain, but in all such cases, either the water for such equipment is to be drawn from a tank into which the water has first been discharged from the Service Line, or some other suitable arrangement, acceptable to the General Manager, is to be made.

To Prevent Damage to Products

(2) No direct connection shall be made, maintained or used, between a Service Line from the Watermain and any food vat or other plant or equipment in which the quality of any product might be adversely affected by fluctuations in the quantity or quality of any water supplied, but in all such cases, either the water for such purpose is to be drawn from a tank into which the water has first been discharged from the Service Line, or some other suitable arrangement, acceptable to the General Manager, is to be made.

(3) A tank or other arrangement made pursuant to subsections (1) and (2) shall not be considered an Auxiliary Water Supply.

To Protect Potability

- (4) No Person shall install, maintain or use any connection with any part of a water supply system which is or may be connected to a Watermain whereby foreign matter, or non-potable water may enter the Water Distribution System.

Prohibited Equipment

- 7.3 (1) No Person shall install, maintain or connect to the Water Distribution System any sump pump or other device deriving power from the Water Distribution System or any other water-using equipment not normally found in a plumbing system.

**WASTING OF WATER
Lawn-Watering Restrictions**

7.4 No person using water supplied from the Water Distribution System shall water or permit to be watered any lawn, garden, or any sidewalk or Road, except during the days specified below.

- (1) In areas having municipal street addresses:
- (a) on that side of the street where the municipal numbers are odd, lawns, gardens, or Roads may be watered on odd-numbered days of the calendar month;
 - (b) on that side of the street where the municipal numbers are even, lawns, gardens, or Roads may be watered on even numbered days of the calendar month.
- (2) In areas having no municipal street address:
- (a) on the west or north side of the street, lawns, gardens, or Road may be watered on odd-numbered days of the calendar month;
 - (b) on the east or south side of the street, lawns, gardens, or Road may be watered on even-numbered days of the calendar month.

Shortage of Water

7.5 In the event of a water shortage resulting from any cause (including but not limited to an emergency), the General Manager may declare that there is a shortage of water and may prescribe further restrictions (including but not limited to the extension of lawn watering restriction) on the use of water as may seem necessary in the public interest.

Check Valves Required Where Two or More Services

- 7.6 (1) Wherever there are two or more residential Service Lines connected into one plumbing system or in to one Premises where there is an interconnection, each Service Line is to be provided with a City approved check valve so located as to prevent re-entry of water to the Watermain, installed and maintained at the expense of the Owner.
- (2) Where a residential water Service Line is a looped service, a check valve and a thermal expansion device must be installed and maintained at the expense of the Owner in the plumbing system as may be further detailed in the Water Works By-law Resource Manual.

Protection from Frost

- 7.7 No Person shall install, maintain or use any plumbing which is not properly protected to prevent freezing.

Vacant Premises

- 7.8 (1) Whenever any Premises having a water service becomes a Vacant Premise, the Owner of the Vacant Premise shall, within 60 days of the vacancy notify the General Manager, in writing, to shut off the water and shall pay the applicable Fees and Charges:
- (a) the applicable Fees and Charges for turning the water off and when the Premises is no longer a Vacant Premise, the applicable Fees and Charges shall be paid by the Owner for turning the water on again; and,
 - (b) the applicable Fees and Charges associated with the daily water fixed charge portion of the metered water rates during the time period that the water is shut off.
- (2) Where the Owner of a Vacant Premise fails to notify the General Manager of Public Works as set out in subsection (1), the City of Hamilton may, once aware of the Vacant Premise and upon at least 60 days of notification to the Owner, shut off the water.
- (3) Subsections (1) and (2) do not apply to a Water Service that provides water to a Private Fire Protection System.

PART 8 – PERMITS

- 8.1 This Part contains general rules applicable to all Permits issued under this By-law.

8.2 Permits under this By-law shall only be issued after the payment of the prescribed fee therefor.

8.3 If work requiring a Permit is carried out on private property, the Owner and Occupier shall provide free and clear access to the City for the purpose of inspecting and approving work. Water to any Premises or Property shall not be connected until the work is approved pursuant to an inspection carried out.

8.4 (1) No Person shall perform or permit others to perform work for which a Permit is required under this By-law without first obtaining a Permit in accordance with this By-law.

(2) Despite anything in this By-law requiring otherwise, Emergency Work may be performed without first obtaining a Permit if the General Manager is notified immediately upon discovery of the Emergency and a Permit is applied for the next business day after the General Manager is notified.

8.5 It is a condition of every Permit that all work shall be performed in accordance with Applicable Law.

8.6 It is a condition of every Permit that all work performed under a Permit shall be inspected by the City before it is put into service.

8.7 The Owner or its authorized representative shall apply for a Permit by submitting a complete application on the prescribed form that includes any materials, documents, or other things required by Applicable Law.

8.8 Every Permit issued under this By-law is the Property of the City and is not transferable.

8.9 The General Manager may refuse to issue any Permit if the applicant or the Person responsible for carrying out the work is not in compliance with this By-law or the Water Works By-law Resource Manual in respect of the Premises for which the Permit is sought.

8.10 The General Manager may refuse to issue a Water Service Permit if the Premises or Property does not lie along a Watermain, there is insufficient supply of water for the Premises or Property, or if the work for which the permit is sought would contravene Applicable Law.

8.11 The General Manager may refuse to issue a Private fire hydrant Relocation Permit if the proposed location is not sufficiently accessible to the Fire Department.

8.12 The General Manager may issue a Permit after receipt of a completed application including any revised or additional information required by the General Manager and the prescribed application fees. In addition to the requirements of this by-law, in making the

decision to issue or refuse a Permit, the General Manager shall have regard for the Water Works By-law Resource Manual.

8.13 Any permit issued by the General Manager under this by-law may be subject to such conditions as they may specify. Such conditions may include but are not limited to:

- (1) providing notice of commencement and completion of work;
- (2) identifying the Contractor or person carrying out any work;
- (3) specifying any qualifications or other requirements for any Contractor or person carrying out any work.
- (4) obtaining locates for utilities and making all necessary arrangements with respect to any utilities that will be impacted;
- (5) carrying out all the work at the Permit Holders expense;
- (6) in the event that the Contractor or person carrying out the work pursuant to (2) above is unsatisfactory to the General Manager, substituting an alternative which is satisfactory to the General Manager;
- (7) Performing any necessary restoration; and
- (8) providing performance security, including but not limited to a letter of credit.

8.14 (1) A Permit Holder shall immediately inform the General Manager of any change to:

- (a) the information contained in an application for a Permit;
- (b) the information contained in a Permit that has been issued;
- (c) the characteristics of the work for which the Permit has been issued;
- (d) cancellation of the work; or
- (e) any matter in relation to the satisfaction of any conditions imposed within a permit.

(2) The General Manager may require any one or more of revised or additional information, additional prescribed fees, or a fresh application with respect to a change under subsection 8.14(1).

8.15 The General Manager may:

- (1) alter or revoke the terms and conditions of any Permit after it has been issued; and,
 - (2) add new conditions to any Permit.
- 8.16 A Permit expires on the earlier of:
- (1) if the Permit contains an expiry date, such date;
 - (2) if the Permit does not contain an expiry date, 365 days after the Permit was issued;
 - (3) on the date that the work is completed; or
 - (4) on the date that the Permit is revoked.
- 8.17 (1) If the work will not be completed before the Permit expires under section 8.16, the Permit Holder may apply for an extension not less than seven days prior to the expiry date.
- (2) The General Manager may approve an application for an extension having regard for:
- (a) work to be completed during the extension;
 - (b) the progress of work up until the date of the application;
 - (c) the performance of the Permit Holder up until the date of the application;
 - (d) any potential conflict that may result from the extension with other planned or ongoing activity on, in or under the Road; and,
 - (e) the safety and convenience of the public.
- (3) A Permit Holder cannot apply for more than one extension and shall make a fresh application under subsection 4.2 for any other continuation or resumption of work commenced under an expired Permit.
- 8.18 The General Manager may revoke a Permit if, in the General Manager's opinion:
- (1) the Permit holder fails to comply with the conditions of a Permit, this By-law or the Water Works By-law Resource Manual;
 - (2) the Permit holder substantially discontinues the work for a period of more than 180 days;

- (3) the Permit holder provides false or inaccurate information to the City in connection with the Permit;
- (4) the Permit holder or any Person doing work on behalf of the Permit Holder has failed to comply with any applicable statutes, regulations, standards, codes, by-laws, rules or similar requirements; and,
- (5) suspension or revocation is necessary as a result of an Emergency.

8.19 Notice of the suspension or revocation of a Permit may be given by contacting a Permit Holder in writing, by telephone or by email in accordance with the information provided on the Permit application.

PART 9 – ADMINISTRATION AND ENFORCEMENT

9.1 This Part contains those provisions necessary for the administration and enforcement of this By-law.

9.2 The General Manager is authorized to take such actions that are necessary to administer and enforce this By-law. Such actions include but are not limited to:

- (1) arranging for:
 - (a) the assistance or work of City staff, City agents or the assistance of police Officers;
 - (b) the making of orders or other requirements and the imposition of conditions as authorized under this By-law;
 - (c) the obtaining of court orders or warrants as may be required;
 - (d) the commencement of such actions on behalf of the City to recover costs or restrain contravention of this By-law as deemed necessary; and,
- (2) prescribing the format and content of any forms or other documents including the Water Works By-law Resource Manual under this By-law.

9.3 The General Manager, Director, Managers and all City employees in the Hamilton Water Division of the Public Works Department of the City of Hamilton are appointed as Municipal Law Enforcement Officers for the purposes of the administration and enforcement of this By-law and the applicable sections of the *Municipal Act, 2001*.

9.4 The General Manager may assign Municipal Law Enforcement Officers appointed under section 9.3 to enforce this By-law and Municipal Law Enforcement Officers so assigned or appointed by Council to enforce this By-law shall have the authority to:

- (1) carry out inspections;
- (2) make orders, commence prosecutions, or fulfill other requirements as authorized under this By-law and the Water Works By-law Resource Manual;
- (3) issue Permits; and,
- (4) give immediate effect to any orders or other requirements made under this By-law.

9.5 The General Manager may assign duties or delegate tasks under this By-law to be carried out in the General Manager's absence or otherwise.

Entry and Inspections

9.6 A Municipal Law Enforcement Officer may enter on land at any reasonable time and in accordance with the conditions set out in sections 435 and 437 of the *Municipal Act, 2001* for the purpose of carrying out an inspection to determine whether or not the following are being complied with:

- (1) an order or other requirement made under this By-law;
- (2) a condition of a Permit issued under this By-law; or,
- (3) an order made under section 431 of the *Municipal Act, 2001*.

9.7 A Municipal Law Enforcement Officer, for the purposes of the inspection under section 9.6 and in accordance with the conditions set out in section 436 of the *Municipal Act, 2001*, may:

- (1) require the production for inspection of documents or things relevant to the inspection;
- (2) inspect and remove documents or things relevant to the inspection for the purpose of making copies or extracts;
- (3) require information in writing or otherwise as required by a Municipal Law Enforcement Officer from any Person concerning a matter related to the inspection;

(4) alone or in conjunction with a Person possessing special or expert knowledge, make examinations or take tests, samples or photographs necessary for the purposes of the inspection.

9.8 A Municipal Law Enforcement Officer may undertake an inspection pursuant to an order issued by a provincial judge or justice of the peace under section 438 of the *Municipal Act, 2001*, in accordance with the conditions set out in that section, where the General Manager has been prevented or is likely to be prevented from carrying out an inspection under section 9.6.

Orders and Remedial Actions

9.9 If a Municipal Law Enforcement Officer is satisfied that a contravention of this By-law has occurred, the Municipal Law Enforcement Officer may make an order pursuant to Section 444 of the *Municipal Act, 2001* requiring the Person who contravened the By-law or who caused or permitted the contravention or the Owner or Occupier of the Property or Premises on which the contravention occurred to discontinue the contravening activity.

9.10 An order under section 9.9 shall set out:

- (1) reasonable particulars of the contravention adequate to identify the contravention and the location of the Property or Premises on which the contravention occurred; and,
- (2) the date or dates by which there must be compliance with the order, which may be of immediate effect should the Municipal Law Enforcement Officer determine that the circumstances warrant.

9.11 If an Municipal Law Enforcement Officer is satisfied that a contravention of this By-law has occurred, the Municipal Law Enforcement Officer may make an order pursuant to Section 445 of the *Municipal Act, 2001* requiring the Person who has contravened this By-law or who caused or permitted the contravention or the Owner or Occupier of a Property or Premises on which the contravention occurred to do work to correct the contravention.

9.12 An order under section 9.11 shall set out:

- (1) reasonable particulars of the contravention adequate to identify the contravention and the location of the Property or Premises on which the contravention occurred;
- (2) the work to be completed which may include but is not limited to requiring that prior to performing any work, all necessary Permits or other approvals be applied for and obtained;

- (3) the date or dates by which the work must be completed; and,
- (4) notice that if the order is not complied with, then the work may be done at the expense of the Person ordered to do the work.

9.13 An order under section 9.9 and 9.11 may be given by contacting a Permit Holder in writing or by email in accordance with the information provided on the Permit application or, if there is no Permit application, by contacting the Person the General Manager determines to be responsible for the work Personally or by registered mail at their last known address.

9.14 Where a time frame is set out in an order or other document for carrying out any action, a Municipal Law Enforcement Officer may extend the time for compliance beyond the established time frame provided such extension is required and is acceptable to the Municipal Law Enforcement Officer.

City Carrying Out Work

9.15 Where a Person does not comply with a direction or a requirement, including an order or a condition of a Permit under this By-law or the Municipal Act 2001 to do a matter or thing, the General Manager, with such assistance by others as may be required, may carry out such direction, requirement or order at the Person's expense.

9.16 Where the costs of doing a matter or thing under section 9.15 are estimated to be within the delegated Approval Authority as set out in the City's Procurement Policy By-law:

- (1) the General Manager may proceed without further approval in accordance with the delegated Approval Authority as set out in the City's Procurement Policy By-law; or,
- (2) the General Manager may proceed with approval of an authorized Person or of Council in accordance with delegated Approval Authority as set out in the City's Procurement Policy By-law.

9.17 The City may recover the costs of doing a matter or thing under section 9.15 and 9.16 by means of any one or more of:

- (1) bringing an action;
- (2) charging the applicable Fees and Charges.

9.18 The City reserves the right to call on or redeem any performance security or performance bonding in connection with work performed under section 9.15.

Water Shut-off

- 9.19 (1) In addition to other remedies available to the City, the City may shut off or restrict the supply of water where,
- (a) work performed on a Private Service Line or the Water Distribution System, in the opinion of the General Manager, poses a risk of contamination;
 - (b) the fees or charges payable under this By-law remain unpaid; access to the Water Meter is not provided in accordance with Applicable Law, including this By-law;
 - (c) any work requiring a Permit is performed without a Permit;
 - (d) work has been performed pursuant to a Permit, but all conditions of the Permit have not been satisfied;
 - (e) any contravention of this By-law.
- (2) The Owner and Occupier shall pay all prescribed fees associated with the shut off.
- (3) The General Manager may shut off water:
- (a) upon giving reasonable notice in accordance with Section 81(3) of the *Municipal Act 2001* of the shut off; or,
 - (b) in case of Emergency, without notice; or,
 - (c) at any time to complete maintenance or repairs to the Water Distribution System.

PART 10 – PENALTIES

10.1 This Part contains essential provisions in relation to the creation and application of penalties for the contravention of this By-law.

10.2 Every Person who contravenes any provision of this By-law is guilty of an offence and upon conviction is liable to a fine as provided for by the *Provincial Offences Act*, R.S.O. 1990, Chapter P.33, as amended.

Fine- for Contravention

10.3 Every person who contravenes a provision of this By-law and every director or officer of a corporation who knowingly concurs in a contravention by the corporation of a provision of this By-law, upon conviction, shall be liable to a fine of not less than \$50 and

not more than \$50,000 for a first offence and to a fine of not less than \$100 and not more than \$75,000 for any subsequent offence.

Fine- for Contravention- Corporation

10.4 Despite Section 10.3, if a corporation is convicted of an offence under this By-law, it shall be liable to a fine of not less than \$495 and not more than \$100,000 for a first offence and to a fine of not less than \$1,000 and not more than \$100,000 for any subsequent offence.

Fine- for Contravention- Continuing Offence

10.5 Despite Section 10.3 and 10.4, in the case of a continuing offence, every person who contravenes any of the sections set out in this By-law and every director or officer of a corporation who knowingly concurs in a contravention by the corporation of any of this By-law, upon conviction, shall be liable to a fine of not less than \$100 and not more than \$10,000 for each day or part day that the offence continues and the total of all of the daily fines for the offence shall not be limited to \$100,000.

Fine- for Contravention- Continuing Office- Corporation

10.6 Despite Section 10.3, 10.4 and 10.5, in the case of a continuing offence, if a corporation is convicted of an offence for any of the sections set out in this By-law, it shall be liable to a fine of not less than \$495 and not more than \$10,000 for each day or part day that the offence continues and the total of all of the daily fines for the offence shall not be limited to \$100,000.

Special Fines

10.7 In addition to any other fine under Sections 10.3, 10.4, 10.5 or 10.6 or a combination of the foregoing, every person who gains an economic advantage or economic gain from contravening this By-law shall be liable to a special fine in an amount equal to the fair market value of the economic advantage or economic gain so obtained from the contravention.

PART 11 - FEES AND CHARGES

11.1 The provisions of this Part are intended to become and are hereby included within and incorporated by reference into the Water and Wastewater/Storm Fees and Charges By-law.

Liability for Water Rates

11.2 The Owner and Occupier of a Premise or Property supplied with water from the Water Distribution System shall be jointly and severally liable to pay the prescribed water rates as set out in The Water and Wastewater/Storm User Fees and Charges By-law.

11.3 Unpaid and overdue accounts for fees and charges related to the consumption of water are subject to the Arrears Policy.

11.4 The Owner and Occupier shall be jointly and severally liable to pay the daily water fixed charge portion of the metered water rates whether the Water Meter is removed, or the water service is shut off at the Property line, until such time as the Service Line is permanently disconnected at the Watermain.

Rates Where Failure to Comply

11.5 In addition to any other remedy available under this By-law, where the Owner or Occupier fails or refuses to allow the installation of a Water Meter in accordance with section 5.3, the Owner and Occupier shall be jointly and severally liable to pay the Average Daily Water Consumption for the Premises until such time as the Water Meter is installed to the satisfaction of the General Manager.

11.6 (1) In addition to any other remedy available under this By-law, where access to the Water Meter is not provided in accordance with section 5.17, and where no representative or insufficient historical consumption exists for the account, the Owner and Occupier shall be jointly and severally liable to pay an estimated amount calculated in accordance with the Water and Wastewater Consecutive Estimated Accounts Policy PP-0009 approved by Council from time to time; until such time as access is provided.

(2) If the General Manager receives the consumption data for water actually supplied to the Premises or Property, and where such actual amount is greater than the estimated amounts invoiced under subsection 7.6(1), the Owner and Occupier shall be jointly and severally liable to pay for the greater amount.

Agreements for Water Supply

11.7 Where the City enters into an agreement for the supply of water with a municipality or the Owner or Occupier of any Property outside of the City, the rates payable shall be as set out in those agreements. Where the City enters into an agreement for the supply of non-potable water with the Owner or Occupier, the rates payable shall be as set out in those agreements. Except as explicitly provided in such agreements, or where there is an explicit conflict with such agreements, this By-law is in full force and effect.

Interpretation

11.8 If Fees and Charges are applicable to the receipt of any Permit, or to the granting of any exception or any other rights or privileges hereunder, the full payment of such Fees and Charges shall be a necessary prerequisite to the lawful exercise of any such Permits, exceptions, rights or privileges.

11.9 Inspection fees are in addition to and are not included within Permit fees.

PART 12 – REPEAL, TRANSITION AND ENACTMENT

12.1 This Part contains essential provisions respecting the repeal of the existing By-law, the enactment of this By-law, and other amendments and transitional provisions needed to support the coming into force of this By-law.

12.2 The Regional By-law No. R84-026 of The Regional Municipality of Hamilton-Wentworth is hereby repealed.

12.3 Every reference to the Regional By-law No. R84-026 predating the enactment of this By-law shall:

(1) Where the reference is in a City By-law or other legislative enactment of the City other than the Water and Wastewater/Storm Fees and Charges By-law (for which specific provision is made in section 12.5 below), such reference is hereby amended to be a reference to this By-law with the words "Hamilton Water Works By-law" substituted for the applicable reference to Regional By-law No. R84-026; and,

(2) Where the reference is in a document other than a City By-law or other legislative enactment of the City, such reference is hereby deemed to be a reference to this By-law.

12.4 Despite the repeal of By-law R84-026 under section 12.2:

(1) That by-law shall continue to apply to proceedings in respect of offences that occurred before its repeal; and,

(2) All approvals issued under that by-law that are in effect at the time of the repeal shall be deemed to be approvals issued under this By-law with all necessary modifications, and all the rules, requirements and regulations of this By-law shall apply.

12.5 Despite section 12.3(1), the Water and Wastewater/Storm Fees and Charges By-law is amended by deleting section 11 and substituting the following therefor:

(1) This By-law shall be read and applied in accordance with the Hamilton Water Works By-law, including without limitation Part 11 thereof, and any matters or things contained in the Hamilton Water Works By-law shall:

(a) Prevail over the contents of this By-law in the event of any conflict or inconsistency; and,

(b) Incorporate any provisions or other requirements set forth therein in relation to Fees and Charges which are contained within the Hamilton Water Works By-law, but which are not in this By-law.

12.6 This By-law comes into force on the date of its passing.

PASSED this ____ day of _____, 2023

Andrea Horwath
Mayor

Janet Pilon
City Clerk



Hamilton

**WATER WORKS
BY-LAW RESOURCE
MANUAL**

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WATER WORKS BY-LAW RESOURCE MANUAL

CONTACTS

For questions/comments related to this Manual,
call the City of Hamilton's Customer Contact Centre at
905-546-CITY (2489) or email Hamilton Water at ww_csr@hamilton.ca

Introduction

Welcome to the Water Works By-law Resource Manual. The purpose of the resource manual is to provide easy reference to the City of Hamilton's drawings, processes, policies and permits for residents, contractors and consultants. This document is designed to be a resource supplement to the Water Works By-law 23-XXX with direct links to important web pages containing more information, drawings and forms. The procedures and instructions outlined in this document are in accordance with all applicable legislation, City of Hamilton By-laws, applicable standards and the Drinking Water Quality Management System.

All pertinent website links are located in Appendix "A".

Introduction

Definitions

The following is a list of defined terms used throughout Water Works By-law 23-XXX and this manual:

“Adapter” means an Adapter owned by the City and rented to a water user in accordance with section 4.15 and 4.16 of the Water Works By-law, which is used to make a temporary connection to the Water Distribution System and includes a hydrant Adapter which provides a link to a fire hydrant and a Road Adapter which provides a link to the Watermain;

“Adapter Rental Agreement” means the rental agreement prescribed by the General Manager from time to time as the agreement that must be signed by any Person who rents an Adapter from the City, which agreement shall contain terms and conditions specified by the General Manager;

“Applicable Law” means any statute, law, treaty, rule, code, ordinance, by-law, regulation, Permit, interpretation, certificate or order, whether now or hereafter existing, of any governmental authority, including, without limitation, the City or any judgment, decision, decree, injunction, writ, order or like action of any court, arbitrator or other governmental authority, including, without limitation, the City whether now or hereafter existing. Without limiting the generality of the foregoing, Applicable Law shall include the following non-comprehensive examples of Applicable Law:

- (1) O. Reg. 170/03;
- (2) The Watermain Disinfection Procedure;
- (3) The Water Works By-law Resource Manual;
- (4) O. Reg. 388/97;
- (5) the National Fire Protection Association Standards
- (6) the Building Code Act and O. Reg. 332/12; and,
- (7) AWWA Standards.

“Arrears Policy” means the City of Hamilton Water and Wastewater/Storm Arrears Policy No. PP-0004 approved by Council from time to time;

“Auxiliary Water Supply” means any well, cistern, tank, or supply of water that is not part of the Water Distribution System;

“AWWA Standards” means the standards adopted by the American Water Works Association, as they may be amended from time to time;

“Backflow Prevention By-law” means the City’s By-law 10-103;

“By-Pass Valve Assembly” means an arrangement of shut off valves and water piping that redirect the flow of water around the Water Meter during testing, repair or meter replacement so that work can progress without interrupting the flow of water to premises;

“City” means the municipality of the City of Hamilton or the geographic area of the City of Hamilton, as the context requires;

“Council” means the municipal council for the City of Hamilton;

“Emergency” means a situation or an impending situation that constitutes a danger that could result in harm or damage to Persons, Property, or the environment including the loss of an essential service or damage to other infrastructure/equipment;

“Emergency Work” means work that is required to reduce or eliminate an Emergency;

“Fees and Charges” means the fees and charges prescribed by the Water and Wastewater/Storm Fees and Charges By-law for the City;

“General Manager” means the General Manager of Public Works, the General Manager of Planning and Economic Development, or the Chief Building Official, as the context requires, and includes their designates or successors. All Hamilton Building Department, Planning and Economic Development staff, and Water Department staff shall be deemed to be acting as the General Manager’s designate in carrying out their duties under this By-law;

“MECP” means the Ontario Ministry of Environment, Conservation and Parks (previously the “MOE”) or any successor Ministry substantially fulfilling the same role;

“Occupier” means any Person who has use, possession or control of any Property or Premises or their authorized agent, servant or employee of such occupier;

“Municipal Law Enforcement Officer” means any Person appointed by the City’s Council or by the General Manager to administer or enforce this By-law and includes a Person employed by the City whose duties are to enforce this By-law, and also includes, for the purposes of exercising any power of entry under this By-law, a police officer;

“Owner” means the registered owner or owners of a Property or their authorized agent(s), but does not include a mortgagee unless the mortgagee is in possession of the Property;

“Permit” is a noun that means any one or more of the following Permits issued under this By-law:

- (1) a Water Service Permit;
- (2) a Water Service Line Repair Permit;
- (3) Disconnection of Services Permit; and
- (4) a Relocation of a Private Hydrant Permit.

“permit” is a verb that means, in connection with a Person who has care and maintenance of a Property or otherwise is legally capable of preventing or terminating the occurrence of an event, allowing that event to occur or failing to terminate its continuation;

“Permit Holder” means a Person to whom a Permit has been issued, and includes another Person performing work on behalf of such Person;

“Person” includes an individual, association, partnership, corporation, municipality, regional municipality, provincial or federal agency, or an agent or employee of any of those entities;

“Premises” means a building or structure or either of them located on a Property;

“Private Fire Hydrant” means an above grade accessible valve assembly and hydrant secondary valve that is connected to an underground privately owned Watermain for the purposes of fire suppression and Watermain flushing;

“Private Fire Protection System” means any private booster pumps, sprinkler systems, Private Fire Hydrants or other private system supplementing or in addition to, but excluding, the public fire protection system (Public Fire Hydrants and supporting infrastructure), with the designated purpose of such private fire protection system being fire protection and fire suppression;

“Private Service Line” means a privately-owned Service Line connected to the Service Connection at the street line, Property line or the easement limit to Premises or Property and includes Water Meter Chambers;

“Public Fire Hydrant” means an above grade valve assembly, including any secondary valve, that is connected to an underground municipal Watermain for the purposes of fire suppression and Watermain flushing;

“Public Service Line” means a publicly owned Service Line connected to the Watermain, designed to carry water from the Water Distribution System to the Service Connection at the street line, Property line or easement limit;

“Property” means a parcel of land described in a deed or other document legally capable of conveying title to or a fee simple interest in land; and

- (1) **“Mixed-use Property”** means a Property containing both Residential and Non-Residential Uses;
- (2) **“Multi-Residential Property”** means a Residential Property on which there are multiple residential units;
- (3) **“Non-Residential Property”** means a Property that is neither a Residential Property nor a Mixed-use Property; and
- (4) **“Residential Property”** means a Property on which the primary land uses are residential.

“Property Line” means the real or imaginary line that represents the legal division between a Property and the abutting Road;

“Road” means a public highway pursuant to the Municipal Act, 2001;

“Service Connection” means the connection that joins a Service Line to the Watermain;

“Service Line” means the line connecting a Watermain to a Premises or Property consisting of a Private Service Line and Public Service Line;

“Substandard” is an adjective that refers to a situation, matter, or thing that does not comply with Applicable Law;

“Substandard Service” means a water service line that does not meet the requirements of Applicable Law;

“Water Meter” means a device or mechanism which is owned by the City and used for the purpose of measuring the flow or quantity, or both, of water for billing revenue and, in circumstances where multiple units’ locations or units on a Property are serviced from a single Service Line; and

- (1) **“Primary Meter”** means the Water Meter that measures the total consumption on a Service Line; and
- (2) **“Submeter”** means any Water Meter that is subsidiary to the Primary Meter, but does not mean a private water quantity measuring device pursuant to subsection 5.6;

“Water Meter Chamber” means a below grade vault constructed to house a Water Meter;

“Watermain” means a pipe for the conveyance of potable water to water storage facilities and serviced Properties;

“Watermain Disinfection Procedure” means the Watermain Disinfection Procedure issued by the MOE. Currently, the Watermain Disinfection Procedure, also applies to a Service Line that has a diameter equal to or greater than four inches;

“Water Distribution System” means facilities of the City, including buildings, structures, plant, machinery, equipment, Water Meters, Public Fire Hydrants, appurtenances, devices, conduits, intakes, outlets, Watermains, and other works designed for the collection, production, treatment, transmission, storage, supply or distribution of water, or any part of the foregoing , and includes lands occupied for such purposes and uses;

“Water Works By-law Resource Manual” means the Water Works By-law Resource Manual approved by the General Manager from time to time.

Order of Precedence

In the event of any inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:

1. Applicable Legislation: Acts and Regulations
2. City of Hamilton By-laws
3. Applicable Standards
4. Drinking Water Quality Management System
5. Safe Drinking Water Act and Ontario Regulation 170/03 – Licensed Water Operator and Operator-in-Charge

1. Applicable Legislation: Acts and Regulations

The City requires that all work performed in relation to the Water Distribution System be performed in accordance with all applicable legislation including but not limited to the Safe Drinking Water Act, 2002, S.O. 2002, c. 32, the Occupational Health and Safety Act, R.S.O. 1990, c. O.1 and all MECP requirements including but not limited to guidelines and standards.

Acts and Regulations:

- [Safe Drinking Water Act](#)
- [Building Code Act, 1992, and Ontario Regulation 332/12](#)
- [Municipal Act, 2001](#)
- [Municipal Freedom of Information and Protection of Privacy Act](#)
- [Occupational Health and Safety Act, R.S.O. 1990, c. O.1](#)
- [Ontario Fire Code Regulation, Ontario Regulation 388/97](#)
- [Ontario Regulation 170/03 under the Safe Drinking Water Act, 2002, S.O. 2002, c. 32](#)
- [Planning Act, R.S.O. 1990, c. P.13](#)

Applicable Law, as defined in the Water Works By-law, shall include but limited to the following:

- [Ontario Regulation 170/03: Drinking Water Systems](#)
- [The Watermain Disinfection Procedure](#)
- [Ontario Regulation 388/97: Fire Code](#)
- [National Fire Protection Association Standards](#)
- [Building Code Act, 1992, and Ontario Regulation 332/12](#)
- [AWWA Standards](#)

2. City of Hamilton By-laws

The full list of City By-laws can be found on the City website:

City of Hamilton By-laws

The following is a list of by-laws either listed within the Water Works By-law or applicable to it, as amended from time to time:

- **Backflow Prevention By-law No. 10-103**
Every Owner of a Property to which this By-law applies, shall ensure that a backflow prevention device is installed in respect of Premise isolation in every building or structure supplied by the Water Distribution System.
- **Hamilton Building By-law No. 15-058**
A by-law under the Building Code Act, 1992 respecting permits and related matters.
- **City's Procurement Policy By-law No. 20-20**
To ensure that the procurement function meets the current and future needs of the corporation, provides an economical and efficient service and is considered a value-added partner in the securing of goods and/or services for the corporation.
- **Property Standards By-law No. 10-221**
A by-law to prescribe standards for the maintenance and occupancy of Property.

- **Water and Wastewater/Storm Fees and Charges for Services, Activities and Use of Property Provided by the City of Hamilton By-law No. 20-255**
A by-law to establish the annual water and wastewater/storm Fees and Charges for services, activities and use of Property provided by the City.
- **Tariff of Planning and Growth Management Fees By-law No. 19-108**
A by-law that authorizes municipalities to prescribe a tariff of fees for the processing of applications made in respect of planning matters.

3. Applicable Standards

Standards that are listed within Water Works By-law or applicable to it can be found on the websites of the following organizations:

- [American Water Works Association](#)
- [Ministry of Environment, Conservation and Parks \(MECP\)](#)
- [National Fire Protection Association](#)

4. Drinking Water Quality Management System

The City has implemented the Drinking Water Quality Management System (DWQMS) which requires all personnel who may impact the quality of drinking water, be aware of the Quality Management System requirements.

Anyone working on the Water Distribution System is required to have awareness of the City's DWQMS under the Safe Drinking Water Act and to act accordingly in all their actions regarding the Drinking Water System. More information on the DWQMS can be found on the City's website:

[Drinking Water Quality Management System](#)

5. Safe Drinking Water Act and Ontario Regulation 170/03 – Licensed Water Operator and Operator-in-Charge

The purpose of the Safe Drinking Water Act is to provide for the protection of human health and the prevention of drinking water health hazards through the control and regulation of drinking water systems and drinking water testing.

Section 12 (1) of the Safe Drinking Water Act states:

"No person shall operate a municipal drinking water system or a regulated non- municipal drinking water system unless the person holds a valid operator's certificate issued in accordance with the regulations."

The full version of the Safe Drinking Water Act can be found on the Province of Ontario's website:

[Safe Drinking Water Act](#)

Construction and Material Specifications Manual

The Construction and Material Specifications Manual contains standards for the construction of roads, sewers and watermains in the City. This document was created and is maintained by the Engineering Services Division, Contracts and Standards Section. It is used as a reference by City staff, contractors, consultants, and suppliers. These specifications can be found on the City's website:

[Construction and Material Specifications Manual](#)

The Construction and Material Specifications Manual contains the following:

General Conditions

- Form 200 - General Conditions
- Form 300 - General Construction Requirements

Standard Conditions

- Form 400 - Specification for the Installation of Watermains
- Form 500 - Specification for Sewer Pipe and CCTV Inspection
- Form 600 - Granular Fill Materials
- Form 700 - Specifications for Portland Cement Concrete
- Form 800 - Specifications for Hot-Mix Asphalt
- Form 900 - Specifications for Standard Compaction Requirements
- Form 1000 - Amendments to O.P.S.S. and O.P.S.D.

Linear Design Guidelines

- This guideline is currently under development by the Engineering Services Division, Design Section and is not currently available.

Approved Products

- The Standards and Approved Products Listing and Guidelines provides a list of approved materials and products to be used for Watermain construction.
- The list of approved products along with the Product Approval Application for new products can be found on the City's website:

[Standards and Approved Products Listing and Guidelines](#)

Standard Drawings

- Standard Road and Watermain drawings can be found on the City’s website:

Construction and Material Specifications

Drawing Number	Description
WM-200.01	Bedding & Backfill for Concrete & PVC Watermains and Water Services
WM-200-.02	Bedding & Backfill for Ductile Iron Watermains and Water Services
WM-207.01	Piping Arrangement for 19-25mm Diameter Water Service Connection and Yard Service
WM-207.02	Piping Arrangement for 19-25mm Diameter Water Service Connections in a Common Trench
WM-207.03	Insulation Details for Water Services at Gooseneck
WM-207.04	Piping for 100mm to 300mm Diameter Water Service Connection & Yard Service to Meter with Cut in Tee & Sleeve
WM-207.05	Piping for 100mm to 300mm Diameter Water Service Connection & Yard Service to Meter using Tapping Sleeve & Valve
WM-207.06	Piping Arrangement for 50mm Diameter Water Service Connection and Yard Service

Water Permits

Permits are issued by the General Manager to allow an applicant to perform work related to the Water Distribution System or its appurtenances. A Permit will be required when an applicant's proposed work includes:

- The disconnection, installation, upgrade, repair or replacement of a Private or Public Service Line;
- The installation of a Water Meter (under the Building Permit); and/or
- Private Fire Hydrant Re-location.

Work is subject to inspection when completed as outlined in the Permit. It is the responsibility of the Permit Holder to contact the City to schedule the required inspection(s). If work is completed and the Permit Holder has not called for inspection as required, the work may need to be exposed or excavated to ensure that it meets the City standard. Work must be completed to the satisfaction of the City and is subject to the Water Works By-law.

Water Permit Process and Design Requirements

The City's Growth Management Division, Development Engineering Approvals Section has created a Sewer and Water Permit Process. The purpose is to assist applicants in preparing drawings for approval and convey the City's preferences and expectations for system design drawings. This process can be found on the City's website:

Sewer and Water Permit Process and Design Requirements

In order to obtain Permits for a Non-Residential Property or a Multi-Residential Property, the applicant must provide an appropriate drawing to the Growth Management Division, Development Engineering Approvals Section for review and approval by emailing DevEngApprovals@hamilton.ca.

Information that may be required on a Permit application includes:

- the name, municipal address, telephone number, and email address of the applicant and the Person responsible for the work;
- payment of the prescribed application fees in a manner as required by the General Manager;
- if required by the General Manager, zoning verification confirming that the proposed use is permitted under the City's Zoning By-laws;
- if required, a signed indemnity satisfactory to the General Manager;
- if required, evidence of insurance coverage satisfactory to the General Manager;

- if required, security as required by the General Manager;
- any proposed Road closure;
- any other Permits or Permit applications issued by the City related to the work;
- the requirement for any proposed relocation of a Public Fire Hydrant, removal or bagging of a parking meter, prohibition of curb parking, relocation of a bus stop or street-light pole, change to pavement markings or change to a traffic control device or signage including a temporary adjustment to traffic control signal timing or interference with a traffic signal loop;
- revised or additional information to determine if the Permit should be issued as required by the General Manager; and
- a signed acknowledgment that it is the responsibility of a Permit Holder to inform any purchaser of their Premises or Property that the Permit is not transferable, and that the purchaser must apply for a new Permit under the Water Works By-law unless otherwise approved by the City's Building By-law 15-058 or approved by the General Manager.

For Service Connections including installation, maintenance, repair and inspection, abandonment, and replacement of Service Lines:

- where the Service Line to be installed, maintained or repaired is 50mm (2") or larger, detailed engineering drawings stamped by a professional engineer licensed to practice in the Province of Ontario are required; and

For Public Fire Hydrant or Road Adapter rentals, the following information may be required:

- type of Adapter required;
- the proposed location of the Adapter installation/source Public Fire Hydrant location;
- the proposed rental term;
- description of work requiring the Adapter;
- prescribed usage deposit and damage deposit; and
- if applicable, the City contract number/City contact name.

For relocation of existing Public or Private Fire Hydrant where connection or disconnection from the City Watermain is required:

- detailed engineering drawings showing the proposed new location of the Public or Private Fire Hydrant stamped by a professional engineer licensed to practice in the Province of Ontario are required.

A Permit may be refused if:

- the Premises or Property does not lie along a Watermain;
- there is insufficient supply of water for the Premises or Property;
- the Service Connection would contravene an official plan under the Planning Act R.S.O. 1990, c. P.13, as may be amended;
- for a Private Fire Hydrant Relocation Permit, if the proposed location is not sufficiently accessible to the Fire Department; and
- the prescribed application fees have not been paid.

Water Service Connections and Service Lines

Sizing of Water Service Pipe

Size and capacity of potable water system pipes shall be designed in accordance with 7.6.3.1, of Division B, of the Ontario Building Code. The Ontario Building Code can be found on the Province of Ontario's website and more information on pipe sizing can be found on the Sizing of Water Service Pipe Form on the City's website:

- [Ontario Building Code](#)
- [Sizing of Water Service Pipe Form: One Dwelling Unit](#)
- [Sizing of Water Service Pipe Form: More than One Dwelling Unit](#)

Installation of Service Lines

- Standard drawings can be found on the City's website:
[Construction and Material Specifications](#)
(Form 400 - Specification for the Installation of Watermains)
- Connection where land not directly serviced requires the creation of a Special Water Service Agreement and/or Joint Water Service Agreement that is supported by a legally enforceable reciprocal easement registered against every Property. To initiate this process for development applications, email: DevEngApprovals@hamilton.ca.
- The Sewer and Water Permit Process and Design Requirements can be found on the City's website:
[Sewer and Water Permit Process and Design Requirements](#)
- Where there is a looped service, a check valve and a thermal expansion device must be installed in the plumbing system per the Standard Drawing for Piping and Chamber for Residential Looped Services – WM-209.04. The update to this drawing is currently under review and once completed, will be available on the City's website:
[Construction and Material Specifications Manual](#)
- All Auxiliary Water Supplies must be disconnected prior to connecting to the Water Distribution System. The exception may be properties to which the provisions of the Backflow Prevention By-law apply and the Property is in compliance with the By-law.
- All Service Line installations shall be done in compliance with:
 - Ontario Regulation 170/03 – Drinking Water Systems;
 - the Watermain Disinfection Procedure; and
 - all other Applicable Laws.

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit (R9 Permit)	Residential Property: private side new line upsizing or renovation/ demolition/ rebuild	https://www.hamilton.ca/home-property-and-development/building-renovating/eplans-online-building-permit-application-process	Building Division, City Hall, 71 Main St W, 3rd floor

Permit Requirements:

- The Building Division and Growth Management will not issue Permits until an Excavation Permit is issued for required work completed within the roadway;
- If the Service Line required is greater than 25mm (1”) the applicant is required to replace both the public and private sides (from the Water Meter to the Watermain); and
- If the Service Line is being split on the private side (after the Water Meter) the applicant must follow the Hamilton Water Primary/Sub Metering Process.

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit (R9 Permit): interior plumbing	Residential Property (single family): private side new line or replacement (excludes Substandard Services)	https://www.hamilton.ca/home-property-and-development/building-renovating/eplans-online-building-permit-application-process	Building Division, City Hall, 71 Main St W, 3rd floor
Water Service Permit (Water Connection: Water and Sewer Permit) Water Service from building to Property Line.			

Permit Requirements:

- Installation of 25mm (1”) or greater copper is required. The Service Line size is based on Ontario Building Code requirements (It could be less than 25mm (1”) based on the number of fixture units it serves).

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit (Water and Sewer Permit)	Non-Residential / Multi-Residential Property: new or replacement (private and public side)	In person at service counter (bonded contractor applies for Water and Sewer Permit and Excavation Permit)	Growth Management Division, City Hall, 71 Main St W, 6th Floor

Permit Requirements:

- For connection to the Watermain, engineering drawings must be approved, engineering review fees paid, Sewer / Water Permit approved and issued by the General Manager.
- An Excavation Permit for excavations within the Road allowance.

Private Fire Protection Systems

Private fire lines are to be used only for the purpose of fire protection. Water used for domestic purposes must come from a dedicated domestic Service Connection connected directly to the municipal Watermain, not a stand-alone fire service line. However, it is acceptable to have a Private Service Line (generally 100mm to 200mm) from the Watermain with the domestic service (usually 25mm or 50mm, 1” or 2”) branching off that main line at the Property Line. The main line then continues, with a check valve in chamber at the Property Line, into the building as the fire service.

Building Permits are required for Private Fire Protection Systems within buildings, including any required backflow devices.

A swing check valve must be installed on the dedicated fire line or on the fire line portion of a combined Service Line at the Property Line per the standard drawing. The standard drawing is currently under review by the Standards and Approved Products Committee and will be available once it has been finalized on the City’s website:

[Construction and Material Specifications Manual](#)

Substandard Water Service Line Replacement Program (based on material type or Service Line sizing)

General information related to residential Substandard Service replacement of the private and public side can be found on the City’s website:

Water Service Line

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit	Residential (Substandard Service, replacement or repair) private and public side	Available at Hamilton Water storefront or by e-mailing waterstorefront@hamilton.ca	Hamilton Water, 330 Wentworth St. N

Permit Requirements:

- A size and type approval may be required and an inspection; and
- < 20mm (3/4”) Service Line and/or substandard material (eg: lead).
- An Excavation Permit for excavations within the Road allowance.

Water Service Line Replacements

Standard drawings can be found on the City’s website:

Construction and Material Specifications Manual

(Form 400 - Specification for the Installation of Watermains)

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit (R9)	Residential	https://www.hamilton.ca/home-property-and-development/building-renovating/eplans-online-building-permit-application-process	Building Division, City Hall, 71 Main St W, 3rd floor

Permit Requirements:

- The Building Division does not issue an R9 Permit for the private side until a Road Excavation Permit is issued;
- An Excavation Permit for excavations within the Road allowance;

- If the Service Line required is greater than 25mm (1”) the applicant is required to replace both the public and private sides (from the Water Meter to the Watermain); and
- The Service Line must be properly disconnected (stubbed) at the Property Line or at the Watermain per the Disconnection of Services Process.

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit (R9 Permit): interior plumbing • WC (Water and Sewer) Permit: Water Service Line from building to Property Line.	Residential Property: private side new line / replacement (excludes Substandard Services)	https://www.hamilton.ca/home-property-and-development/building-renovating/eplans-online-building-permit-application-process	Building Division, City Hall, 71 Main St W, 3rd floor

Permit Requirements:

- Installation of 25mm (1”) or greater copper pipe is required. Service size is based on Ontario Building Code requirements (could be less than 25mm (1”) based on fixture units it serves).

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit	Residential Property: private and public side Substandard Service, replacement or repair	Available at Hamilton Water storefront	Hamilton Water, 330 Wentworth St N

Permit Requirements:

- A size and type approval and inspection;
- An Excavation Permit for any excavation within the road allowance; and
- < 20mm (3/4”) Service Line and/or substandard material (e.g. lead)

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit	Non-Residential / Multi-Residential Property: new or replacement private and public side	In person at the service counter (bonded contractor applies for Water/Sewer Permit and Excavation Permit)	Growth Management Division, City Hall, 71 Main St W, 6th Floor

Permit Requirements:

- For connections to the Watermain, engineering drawings must be approved, engineering review fees paid, Sewer/Water permit approved and issued by the General Manager; and
- An Excavation Permit for excavations within the Road allowance.

Abandonments and Disconnection of Services

- Information on approved methods of abandonment and disconnection of services can be found on the [Disconnection of Services Form](#).
- When a building is being demolished, the Service Line shall be abandoned and disconnected at the Watermain prior to the Demolition Permit being issued unless the City has approved the Service Line for reuse.
- All chambers within the roadway must be removed.
- For services smaller than 50mm (2"):
 - the main stop is to be turned off, the Service Line is to be cut as close to the main stop as possible to allow for the service piping material to be crimped over; or
 - if the main stop is found to be leaking, arrangements to be made with Hamilton Water in order to schedule a Watermain shutdown to allow, at the discretion of the on-site City Inspector, for the installation of either a threaded plug or clamp to be installed in place of the main stop.
- For services 50mm (2"):
 - Arrangements to be made with Hamilton Water to schedule a Watermain shutdown for the contractor to remove the saddle and corporation stop from the Watermain. Either a full seal clamp can be installed (preferred) or the section of Watermain removed only if the pipe is found to be in a compromised state.
- For services greater than 50mm (2"):
 - arrangements to be made with Hamilton Water in order to schedule a Watermain shutdown for the contractor to remove the tee/section of pipe to allow for installation of a "like for like" material section of Watermain and accompanying couplings approved by the City.

Disconnection of Shared Services

Where a shared service is being replaced and the Service Line is on a neighbour's Property the following steps shall be followed when disconnecting:

1. Remove the Y connection on the Service Line; or if not practical,
2. Cap the Service Line at or near Property Line; or if not practical,
3. Cap outside the foundation wall; or if not practical,
4. Cap below floor level with permanent cover with concrete placed over top.
This option is not ideal for dirt floor basements as the Service Line could be easily disturbed during any future renovations.

Water Meters

Water Meters are required for all water services in the City. Permits are required for Water Meters. More information can be found on the City’s website:

[Sewer and Water Permit Process and Design Requirements](#)

Note: The sizing of Water Meters is done in accordance with [AWWA M22 – Sizing Water Service Lines and Meters](#).

Standard drawings related to Water Meters can be found on the City’s website:

[Construction and Material Specifications Manual](#)

Drawing Number	Description
WM-210.01	Piping for Multi-Unit Residential (3 Storeys and above) or ICI Moderate Hazard 16mm to 50mm Diameter Meter for Internal Installation
WM-210.02	Piping for Multi-Unit Residential (3 Stores and above) or ICI Moderate Hazard 100mm to 250mm Diameter Meters for Internal Installation
WM-210.03	Piping for ICI, High Hazard 16mm to 50mm Diameter Meter for Internal Installation
WM-210.04	Piping for ICI, High Hazard 10mm to 250mm Diameter Meter for Internal Installation
WM-211.01	Standard Remote Installation for 16-25mm Diameter Meters
WM-211.02	Alterations of Existing 16-25mm Diameter Piping Prior to Meter Installation
WM-211.03	Piping for Residential 16mm to 50mm Diameter Meter for Internal Installation
WM-211.04	Meter Pipe Spacer Installation
WM-211.05	Satellite Water Meter Installation for 16mm to 25mm Diameter Services

New Home Residential Meters

This type of Water Meter is included as part of the Building Department Permit Process.

New Non-Residential and Multi-Residential Meters

Permit Name	Applicable To	Where to Apply	Issued By
Water Meter Permit (L17 Permit)	Non-Residential Property / Multi-Residential Property: new or replacement issued at the same time as the Water Permit	In person at service counter	Growth Management Division, City Hall, 71 Main St W, 6th Floor

Permit Requirements:

- Noted on the Site Servicing Plan that is reviewed by the Development Approvals section.

Water Meter By-Pass Valve Assembly

For Service Lines 50mm (2”) and over, Non-Residential and Multi-Residential Properties with buildings over three stories require a Water Meter By-Pass Valve Assembly to be installed. The specifications for the installation of the Water Meter By-Pass Assembly can be found in the drawings on the City’s website:

Construction and Material Specifications Manual

Drawing Number	Description
WM-210.01	Piping for Multi-Unit Residential (3 Storeys and above) or ICI Moderate Hazard 16mm to 50mm Diameter Meter for Internal Installation
WM-210.02	Piping for Multi-Unit Residential (3 Stores and above) or ICI Moderate Hazard 100mm to 250mm Diameter Meters for Internal Installation
WM-210.03	Piping for ICI, High Hazard 16mm to 50mm Diameter Meter for Internal Installation
WM-210.04	Piping for ICI, High Hazard 10mm to 250mm Diameter Meter for Internal Installation

WM-234.01	Piping and Chamber for Multi-Unit Residential 100mm to 250mm Diameter Meter Installation (1800mm X 2400mm/3000mm/3500mm Precast Meter Chambers) *(Size 24" x 36")
WM-234.02	Piping and Chamber for Multi-Unit Residential (3 Storeys and Above) or ICI Moderate Hazard 100mm to 250mm Diameter Meter Installation (1800 X 2400mm and 1800mm X 3000mm Precast Meter Chambers) *(Size 24" x 36")
WM-234.03	Piping and Chamber for ICI, High Hazard 100mm to 250mm Diameter Meter Installation (1800mm X 2400mm and 1800mm X 3000mm Precast Meter Chambers) *(Size 24" x 36")

Water Meter Chambers

Standard drawings related to Water Meter Chambers can be found on the City's website:

Construction and Material Specifications Manual

Drawing Number	Description
WM-208	Remote Receptacle Installation for Meter Chambers
WM-209.01	Piping and Chamber for Residential 16mm to 50mm Diameter Meter Installation
WM-209.02	Piping and Chamber for Multi-Unit Residential (3 Storeys and Above) or ICI Moderate Hazard 16mm to 50mm Diameter Meter Installation
WM-209.03	Piping and Chamber for ICI High Hazard 16mm to 50mm Diameter Meter Installation
WM-234.01	Piping and Chamber for Multi-Unit Residential 100mm to 250mm Diameter Meter Installation (1800mm X 2400mm/3000mm/3500mm Precast Meter Chambers)
WM-234.02	Piping and Chamber for Multi-Unit Residential (3 Storeys and Above) or ICI Moderate Hazard 100mm to 250mm Diameter Meter Installation (1800 X 2400mm and 1800mm X 3000mm Precast Meter Chambers)

WM-234.03	Piping and Chamber for ICI, High Hazard 100mm to 250mm Diameter Meter Installation (1800mm X 2400mm and 1800mm X 3000mm Precast Meter Chambers)
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Maintenance of Water Meter Chambers

Water Meter Chambers must be maintained in good condition with the frame and cover in good working order. The condition of the concrete must be sound. The Water Meter Chamber must be clear of any debris, mud or water and the access ladder must be in working order.

Submeters

Submeter requests can be submitted to meteroperations@hamilton.ca using the Submeter Application Form. Requests will be reviewed by Customer Service and Community Outreach, Meter Operations staff.

Note: A Building Permit is required for plumbing work inside buildings. The Building Permit Process can be found on the City’s website:

Building Permit Process

A Submeter General Information Sheet is currently under development by the Hamilton Water, Customer Service and Community Outreach Section and will be available once complete.

Standard drawings related to the installation of Submeters can be found on the City’s website:

Construction and Material Specifications Manual

Drawing Number	Description
WM-211.05	Submeter Installation for 16mm to 25mm Diameter Services

Upsizing or Downsizing a Water Meter

Requests to upsize or downsize a Water Meter can be submitted to meteroperations@hamilton.ca using the Upsizing or Downsizing a Water Meter Request Form. Requests will be reviewed by Customer Service and Community Outreach, Meter Operations staff.

Note: A Building Permit is required for plumbing work inside of buildings. The Building Permit Process can be found on the City’s website:

[Building Permit Process](#)

Large Water Meters

A Large Water Meter Responsibility and Maintenance Information document is currently under development by the Hamilton Water, Customer Service and Community Outreach Section and will be available once complete.

Relocating a Water Meter

Requests to relocate a Water Meter can be submitted to meteroperations@hamilton.ca using the Moving a Water Meter Request Form. Requests will be reviewed by Hamilton Water staff.

Note: A building permit is required for plumbing work inside of buildings. The Building Permit Process can be found on the City’s website:

[Building Permit Process](#)

Permit Name	Applicable To	Where to Apply	Issued By
Water Service Permit (R9 Permit)	Residential Property	https://www.hamilton.ca/home-property-and-development/building-renovating/eplans-online-building-permit-application-process	Building Division, City Hall, 71 Main St W, 3rd floor

Water Meter Testing

You may request for a Water Meter accuracy test be performed on your Water Meter. There is an applicable service fee for this test which varies with the size of the Water Meter. If the Water Meter is found to be registering more than 2% in error, the Property Owner is responsible for the cost of the test and the replacement cost of the Water Meter; otherwise the cost is covered by the City. The fee includes the removal of the existing Water Meter and installation of the replacement. The accuracy of a Water Meter shall be measured in accordance with AWWA Standards. Information regarding testing for Water Meter accuracy can be found on the City’s website:

[Water Meters](#)

Water Billing

Water Rates

City water rates can be found on Alectra Utilities' website:

[Alectra Utilities](#)

Billing Policies

The City's billing policies can be found on Alectra Utilities' website:

[Alectra Utilities](#)

These policies include:

Policy Number	Policy Name
PP-0004	City of Hamilton Water and Wastewater/Storm Arrears Policy
PP-0005	City of Hamilton Water Leak Adjustment Policy
PP-0011	City of Hamilton Water and Wastewater/Storm Extraordinary Circumstance Bill Adjustment Policy
PP-0015	Water and Wastewater / Storm Back-billing Policy
PP-0012	City of Hamilton Water and Wastewater/Storm Billing Payment Arrangement Policy

Backflow Prevention

Backflow prevention is required on all Non-Residential and Multi-Residential Properties over three stories in accordance with the Backflow Prevention By-law and Ontario Building Code. For more information respecting the Backflow Prevention Program, survey requirements and selection of devices, please refer to the City's website:

[Hamilton Backflow Prevention](#)

Fire Hydrants

Public Fire Hydrants

Standard drawings related to Public Fire Hydrants are available on the City’s website:

Construction and Material Specifications Manual

Drawing Number	Description
WM-203.01	Hydrant Installation
WM-203.02	Hydrant Installation using Anchor Tee
WM-203.03	Relocation of Ditches at Hydrants

Public Fire Hydrant Relocation Requests

Requests to relocate a Public Fire Hydrant can be made by filling out the Public Fire Hydrant Relocation Request Form. Requests are reviewed by City staff on a case by case basis to determine operational feasibility. For questions or to start the application process please contact the City’s Customer Contact Centre at 905-546-CITY (2489).

Relocation of a Public Fire Hydrant is at the sole discretion of Hamilton Water and all costs associated with the move plus 33% (see the Water and Wastewater/ Storm User Fees and Charges By-law for the current year) will be billed to the requestor. This fee includes:

- a precondition survey of the trenching conditions (soil, rock, etc.);
- excavation and removal of the existing Public Fire Hydrant;
- cost to supply and install the new Public Fire Hydrant and appurtenances;
- temporary and permanent restoration; and
- all Permits, service charges and administrative fees.

Private Fire Hydrants

- Any modification to or relocation of a Private Fire Hydrant requires a Sewer/Water Permit issued by Growth Management.

Permit Name	Applicable To	Where to Apply	Issued By
Water/Sewer Permit (L6 Permit)	Non-Residential / Multi-Residential Property: new or replacement private and public side	In person at service counter (bonded contractor applies for Water/Sewer Permit and Road Excavation Permit)	Growth Management Division, City Hall, 71 Main St W, 6th Floor

Permit Requirements:

- Engineering drawings must be approved;
- Engineering review fees paid; and
- Sewer/Water Permit approved and issued by General Manager.

Public Fire Hydrant Road Adapter Rental Agreement

Water use for short-term construction projects, movie/filming, etc. will primarily use an Adapter to provide temporary water usage at a specific location. Only an authorized City Water Distribution Operator or Inspector may connect and disconnect the Fire Hydrant Adapter/Road Adapter. Public Fire Hydrant/Road Adapter rental requests will be reviewed by the City. To initiate the process please contact hydrantadaptors@hamilton.ca to fill out an Adapter Rental Application Form.

A heated enclosure (hot box) shall be used and constructed in such a manner as to protect the Public Fire Hydrant and Adapters from freezing. Approval of the construction and use of the hot box is at the discretion of the Overall Responsible Operator (ORO) or designate. Consultation with Water Distribution and Wastewater Collection staff may be requested to aid with questions related to hot box construction.

The Adapter remains the property of the City. The City reserves the right to take possession of the Adapter at any time for any reason.

Public Water Fill Stations and User Fees

The City has two Bulk Water Filling Stations. They are located at 1422 Cormorant Road, Ancaster and 70 Dartnall Road, Hamilton. These stations are open 24 hours a day, 7 days a week unless otherwise posted. Typically, these stations are utilized by water hauler companies, farmers and those who require bulk water and have the proper equipment to access and store water. For more information on how to obtain a permit and to register for an account, please visit the City's website:

[Bulk Water Filling](#)



Hamilton

**APPENDIX A
TO WATER WORKS
BY-LAW RESOURCE
MANUAL**

-

RESOURCE LINKS

Resource Links

The following is a list of website addresses linked throughout the Water Works By-law Resource Manual. Links are in order as they first appear in the Manual:

Link in Manual	Referenced Website Address
Safe Drinking Water Act	https://www.ontario.ca/laws/statute/02s32
Building Code Act, 1992, Ontario Regulation 332/12	https://www.ontario.ca/laws/statute/92b23
Municipal Act, 2001	https://www.ontario.ca/laws/statute/01m25
Municipal Freedom of Information and Protection of Privacy Act	https://www.ontario.ca/laws/statute/90m56
Occupational Health and Safety Act, R.S.O. 1990, c.O.1	https://www.ontario.ca/laws/statute/90o01
Ontario Fire Code Regulation, Ontario Regulation 388/97	https://www.ontario.ca/laws/regulation/970388
Ontario Regulation 170/03 under the Safe Drinking Water Act, 2002, S.O. 2002, c. 32	https://www.ontario.ca/laws/regulation/030170
Planning Act, R.S.O. 1990, c. P.13	https://www.ontario.ca/laws/statute/90p13
The Watermain Disinfection Procedure	https://www.ontario.ca/page/water-main-disinfection-procedure
National Fire Protection Association Standards	https://www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/List-of-Codes-and-Standards

Link in Manual	Referenced Website Address
Building Code Act and Ontario Regulation 322/12	https://www.ontario.ca/laws/regulation/120332
AWWA Standards	https://www.awwa.org/Publications/Standards
City of Hamilton By-laws	https://www.hamilton.ca/city-council/by-laws-enforcement/search-by-laws
American Water Works Association	https://www.awwa.org/
Ministry of Environment, Conservation and Parks	https://www.ontario.ca/page/ministry-environment-conservation-parks
Drinking Water Quality Management System	https://www.hamilton.ca/home-neighbourhood/water-wastewater-stormwater/water-treatment-distribution/drinking-water-quality
Safe Drinking Water Act	https://www.ontario.ca/laws/regulation/030170
Construction and Material Specifications Manual	https://www.hamilton.ca/build-invest-grow/planning-development/planning-policies-guidelines/construction-and-material
Standards and Approved Products Listing and Guidelines	https://www.hamilton.ca/build-invest-grow/planning-development/planning-policies-guidelines/standards-and-approved-products
Construction and Material Specifications	https://www.hamilton.ca/build-invest-grow/planning-development/planning-policies-guidelines/construction-and-material
Disconnection of Services Form	https://www.hamilton.ca/sites/default/files/2023-02/buildingpermit-disconnection-services-form-2023.pdf
Sewer and Water Permit Process and Design Requirements	https://www.hamilton.ca/build-invest-grow/planning-development/planning-policies-guidelines/sewer-and-water-permit-process
Ontario Building Code	https://www.ontario.ca/laws/regulation/120332
Sizing of Water Service Pipe Form: One Dwelling Unit	https://www.hamilton.ca/sites/default/files/2022-11/buildingpermit-eplans-sizing-water-pipe-one-dwelling-fillable.pdf

Link in Manual	Referenced Website Address
Sizing of Water Service Pipe Form: More than One Dwelling Unit	https://www.hamilton.ca/sites/default/files/2022-11/buildingpermiteplans-sizing-water-pipe-more-than-one-dwelling-fillable.pdf
Water Service Line	https://www.hamilton.ca/home-neighbourhood/house-home/home-water-services/water-service-line-replacement
AWWA M22 – Sizing Water Service Lines and Meters	https://engage.awwa.org/PersonifyEbusiness/Bookstore/Product-Details/productId/44766350
Building Permit Process	https://www.hamilton.ca/build-invest-grow/construction-renovation/residential-building-renovation/apply-building-permit
Water Meters	https://www.hamilton.ca/home-neighbourhood/house-home/home-water-services/water-meters
Alectra Utilities	https://alectrautilities.com/hamilton-water-and-wastewaterstormwater-rates-2023
Hamilton Backflow Prevention	https://www.hamilton.ca/build-invest-grow/operating-business/commercial-water-sewer/backflow-prevention-program
Bulk Water Filling	https://www.hamilton.ca/build-invest-grow/operating-business/commercial-water-sewer/water-hauler

CITY OF HAMILTON

Set Fine Schedule – Part 1 Provincial Offences Act

BY-LAW NO. 23-XXX

Item	COLUMN 1: Short Form Wording	COLUMN 2: Provision Creating or Defining the Offence	COLUMN 3: Set Fine
1	Prohibited / Unauthorized Connection and Disconnection to the Water Distribution System	s. 3.2, 4.2, 4.3, 4.4, 4.6, 4.7, 4.14, 4.15, 7.2(4), 7.3	\$750
2	Prohibited drawing from the Water Distribution System	s. 3.3	\$750
3	Tamper with or cause or permit the tampering with any part of the water distribution system	s. 3.7(1)	\$500 + cost recovery (cost + 33%)
4	Cause or permit obstruction of a hydrant, valve, water meter, or meter chamber	s.3.8	\$250
5	Emergency Shortage of Water: contravene any restrictions imposed under subsection 9.5(1)	s. 7.5	\$250
6	Lawn-Watering Restrictions	s. 7.4	\$50
7	Unauthorized use of a public fire hydrant	s.6.2	\$500 / Part 3
8	Unauthorized use of water from any private fire protection system which is connected to the City of Hamilton waterworks system	s.6.5	\$500 / Part 3
9	Tamper with Fire Hydrant	s. 3.7(1)	1 st offence: \$500 Subsequent offence: \$1000 / Part 3
10	Unapproved connection, disconnection, locking or unlocking or permit the connection, disconnection, locking or unlocking of an adaptor	s. 4.15	\$250
11	Cause or permit the tampering of a water meter, seal placed on a water meter, valve or by pass	s. 5.2(2), 5.4, 5.13	\$500 + revenue cost
12	Not permitting installation of a water meter and meter reading equipment	s. 5.3	\$500 + revenue cost
13	Obstruct free access to the water meter	s. 5.17	\$250
14	Tamper with a by-pass valve assembly – broken seal or open by-pass valve or fail to repair the by-pass valve	s. 3.7(2), 5.13	\$500
15	Owner failed to maintain Water Meter Plumbing Assembly and Meter Chamber in good working order	s. 5.5	\$500
16	Fail to obtain a Permit / Undertake work on the Water Distribution System without a Permit	s. 8.4	\$500
17	Hinder or obstruct, or attempt to hinder or obstruct, any person who is exercising a power or performing a duty under this By-law	s. 3.5	\$500

Significant Changes to PW23XXX being a By-law to Regulate the Management, Distribution, and Maintenance of the Water Works System of the City of Hamilton

Change	Rationale	Existing By-law R84-026	Revised By-law PW23XXX
Water Works By-law Resource Manual:	The Resource Manual provides an easy reference to the City's drawings, processes, policies, and permits for stakeholders. This document is designed to be a resource supplement to the Water Works By-law, with direct links to important web pages, drawings, and forms	Absent from by-law	New
Water Service Line Sizing	Align with the current Building Code requirements	¾" (20mm) is the standard water service line size	¾" (20mm) is the minimum water service line size and 1" (25mm) is the standard water service line size
Service Connections	Clarifies the number of water service lines that can service a property	Up to 3 properties (Residential and ICI) may be connected via 1 water service connection	Only one water service line off of the watermain is permitted for single residential and laneway properties Up to 3 properties (Residential and ICI) may be connected to 1 service connection provided that a legal connection existed prior to the enactment of the new by-law The General Manager may approve additional service connections with exceptions.
Service Line Connections and Physical Connections	Protect the Water Distribution System by eliminating auxiliary water supply connections.	No person shall install, maintain or use any connection with any part of a water supply system which is or may be connected to a	No Property connected to the Water Distribution System shall be serviced by an Auxiliary Water Supply (i.e. Well) Provided that there is no possible physical interconnection between the Auxiliary Water Supply and a plumbing system on a Property

Change	Rationale	Existing By-law R84-026	Revised By-law PW23XXX
		watermain of the Regional Corporation, whereby foreign matter, non-potable water, or water from a private well may enter the Regional water system.	that is connected to the Water Distribution System, nothing in this Section shall prohibit the Owner of the Property from using an Auxiliary Water Supply provided that the requirements of the Backflow Prevention By-law are met.
Water Distribution System Obstructions	Ensures unobstructed access to the Water Distribution System for maintenance and emergency work conducted by the City	No person shall obstruct or interfere with the operation, maintenance or control of the water system or its appurtenances (details are absent)	No obstructions within 1 meters of Water Distribution System Assets
Operating Water Distribution System Assets	All work related to the Water Distribution System must be carried out by authorized personnel	Absent from by-law	No Person, other than the City or its approved contractors shall perform any work on the Water Distribution System unless otherwise approved by the General Manager
Private Infrastructure Repairs	City inspection of repairs to private infrastructure (water service lines and watermains) is mandatory for Multi-Residential and Non-Residential properties	Absent from by-law	All Private Service Lines shall be maintained, repaired, replaced, and inspected as required by Applicable Law, and at the expense of the Owner
Private Fire Service Lines	Property Owners are responsible for installing a single check valve at property line for all Private Fire Service Lines 4" (100mm) and larger	Requirement for a suitable check valve (details were absent)	The requirement for a single check valve to be installed at property line for all site plans with private watermains connected to the municipal water supply system which services more than 100mm service

Change	Rationale	Existing By-law R84-026	Revised By-law PW23XXX
Water Meters – Primary & Submeters	Property Owners must install a Water Meter on every Service Line regardless of the property type	A primary meter was not required on every service line if sub meters existed	A primary meter is required on every service line regardless of whether sub meters exist
Physical Location of the Water Meter	Outlines the required installation locations for Water Meters	The water meter is located at the point where the service pipe enters the building where a suitable location inside a building cannot be made or where the building is more than 60m from the property line the meter is to be installed at the property line	For Service Lines 38 mm in diameter or larger: If the point where the Service Line enters the Premises is less than 10m from the Property Line, the water meter shall be located at the point where the Service Line enters the Premises; or, If the point where the Service Line enters the Premises is greater than 10m from the Property Line, the water meter shall be located in a chamber at Property Line constructed and maintained in accordance with the specifications set out in the Water Works By-law Resource Manual by and at the expense of the Owner.
Set Fines Schedule	Allows the City to issue tickets and fines for By-law contraventions	Absent from by-law	New
Connection Where Land Not Directly Serviced	Property Owners may request connection to an alternative watermain if there is access	The owner may apply and receive written permission to enter into a Special Water Servicing Agreement	Requires a legally enforceable easement agreement registered on title along with any required Special Water Servicing Agreement and/or Joint Water Servicing Agreement.
City Carrying Out Work	The City may complete work and recover the costs from the Property Owner if they do not fulfill their obligations.	Absent from by-law	Where a Person does not comply with a direction, requirement, or order the City may carry out such direction, requirement or order at the Person's expense.

Appendix "E" to Report PW23XXX Public Information Session Advertisements

LinkedIn – June 15, 2023

Post



We are hosting two upcoming Public Information Centres for the community to review and learn more about the proposed changes to the Sewer and Drain By-law and the Water Works By-Law:

- PIC 1: Friday, June 23 (10am – 2pm) at the Hamilton Museum of Steam & Technology – 900 Woodward Avenue, Hamilton
- PIC 2: Tuesday, June 27 (4pm – 6pm) at the Canadian Warplane Heritage Museum - 9280 Airport Road, Mount Hope

The two sessions will be an open house format with an opportunity to ask questions of staff. If you have any questions or comments after the PIC, please email: HWBylawPIC@hamilton.ca

15

2 reposts

Analytics

Post title	Post type	Audience	Impressions	Views	Clicks	CTR	Reactions
<p>We are hosting two upcoming Public Information Centres for the community to...</p> <p>Posted by Alley Stennett</p> <p>6/15/2023</p> <p>Boost</p>	Text	All followers	5,764	-	96	1.67%	15

Twitter – June 15, 2023

Post



We are hosting two Public Information Centres for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law:

June 23 (10am – 2pm) at the Hamilton Museum of Steam & Technology
June 27 (4 – 6pm) at the Canadian Warplane Heritage Museum

11:19 AM · Jun 15, 2023 · 1,879 Views

Analytics

City of Hamilton @cityofhamilton · Jun 15

We are hosting two Public Information Centres for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law:

June 23 (10am – 2pm) at the Hamilton Museum of Steam & Technology...

0

1

1

Impressions ⓘ

1,883

Engagements ⓘ

11

Detail expands ⓘ

7

New followers ⓘ

0

Profile visits ⓘ

1

Twitter – June 22, 2023

Post



We're hosting a Public Information Centre for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law on June 27 from 4pm - 6pm at the Canadian Warplane Heritage Museum.

2:19 PM · Jun 22, 2023 · 2,830 Views

Analytics

City of Hamilton @cityofhamilton · Jun 22

We're hosting a Public Information Centre for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law on June 27 from 4pm - 6pm at the Canadian Warplane Heritage Museum.

3	1	2

Impressions ⓘ
2,831

Engagements ⓘ
22

Detail expands ⓘ
11

New followers ⓘ
0

Profile visits ⓘ
4

Facebook – June 23, 2023

Post

 **City of Hamilton**
Hamilton 23 Jun 2023 11:19 AM

We are hosting an upcoming Public Information Centre for the community to review and learn more about the proposed changes to the Sewer and Drain By-law and the Water Works By-Law:

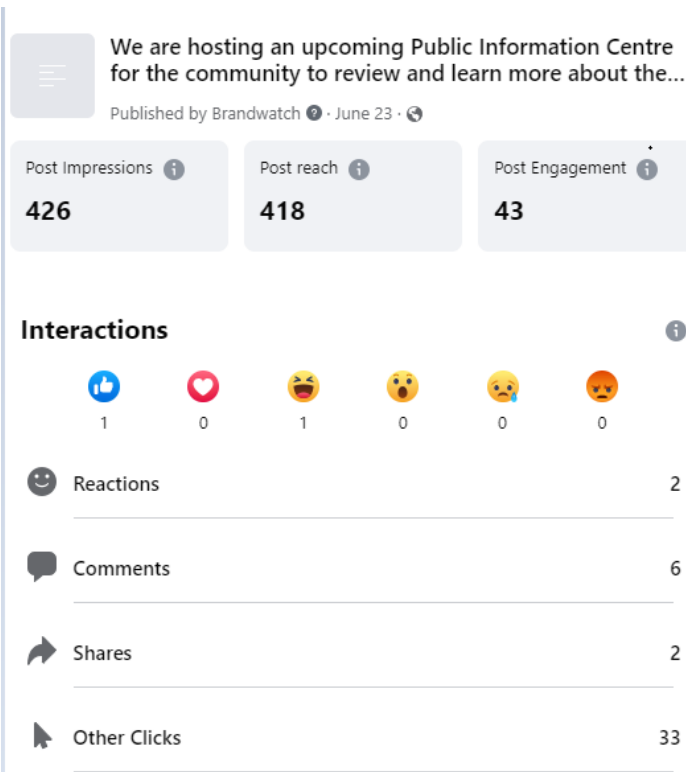
Tuesday, June 27 (4pm – 6pm) at the Canadian Warplane Heritage Museum - 9280 Airport Road, Mount Hope

The session will be an open house format with an opportunity to ask questions of staff. If you have any questions or comments after the PIC, please email: HWBylawPIC@hamilton.ca.

  2 

1 Comments 2 Shares

Analytics



Twitter – June 26, 2023

Post



City of Hamilton 
@cityofhamilton



We're hosting a Public Information Centre for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law on June 27 from 4pm - 6pm at the Canadian Warplane Heritage Museum.

2:19 PM · Jun 26, 2023 · 3,147 Views

Analytics

 **City of Hamilton**  @cityofhamilton · Jun 26

We're hosting a Public Information Centre for the community to learn more about our review of the Sewer and Drain By-law and the Water Works By-Law on June 27 from 4pm - 6pm at the Canadian Warplane Heritage Museum.



2



5



0

Impressions ⓘ

3,149

Engagements ⓘ

21

Detail expands ⓘ

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Stoney Creek News – June 15, 2023

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NOTICE OF PUBLIC INFORMATION CENTRE Sewer and Drain By-law & Water Works By-law Updates

The City of Hamilton is currently undertaking a review and update of two key by-laws: the **Sewer and Drain By-law** and the **Water Works By-law**. These revisions aim to modernize the content by aligning with current practices, including industry best practices, and City policies. Prior to presenting the revised by-laws to Council, Hamilton Water would like to provide stakeholders with an opportunity to become informed about the significant changes that may impact them.

You are invited to attend a **Public Information Centre (PIC)** where you can review the proposed changes and offer feedback. Two sessions of the PIC will be held, providing the same information at both venues.

Session 1:

Date: Friday, June 23, 2023
Time: 10am – 2pm
Location: Hamilton Museum
of Steam & Technology – 900
Woodward Avenue, Hamilton

Session 2:

Date: Tuesday, June 27, 2023
Time: 4pm – 6pm
Location: Canadian Warplane
Heritage Museum – 9280
Airport Road, Mount Hope

The two sessions will be an open house format with an opportunity to ask questions of staff. If you have any questions or comments after the PIC, please email: HWBylawPIC@hamilton.ca.

For further details on the **Sewer and Drain By-law** visit:
www.hamilton.ca/WasteWaterCollection.

For further details on the **Water Works By-law** visit:
www.hamilton.ca/WaterDistribution.

If you have any accessibility requirements to participate in this event, please call 905-546-2424 Ext. 5924 or email HWBylawPIC@hamilton.ca. Advance requests are encouraged to enable us to meet your needs adequately.

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

This Notice Issued in the Hamilton Community
News on June 15 and June 22, 2023.



hamiltonnews.com

Hamilton Community News – June 15 and 22, 2023

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Session 1:	Session 2:
Date: Friday, June 23, 2023	Date: Tuesday, June 27, 2023
Time: 10am – 2pm	Time: 4pm – 6pm
Location: Hamilton Museum of Steam & Technology – 900 Woodward Avenue, Hamilton	Location: Canadian Warplane Heritage Museum – 9280 Airport Road, Mount Hope

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Mountain News – June 15 and 22, 2023

NOTICE OF PUBLIC INFORMATION CENTRE

Sewer and Drain By-law & Water Works By-law Updates

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This Notice Issued in the Hamilton Community
News on June 15 and June 22, 2023.



Hamilton Spectator – June 15 and 22, 2023

**NOTICE OF PUBLIC INFORMATION CENTRE
Sewer and Drain By-law &
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This Notice Issued in The Hamilton Spectator on June 15 and June 22, 2023.



Appendix "F" to Report PW23xxx – Summary of Feedback Received


How the Feedback was Received	Feedback	City Response and Comments
Public Information Session	The resident felt that 100% compliance for submetering in a townhouse complex was unreasonable.	It was explained to them that 100% compliance for submetering is required for billing purposes to ensure that each unit is billed based on their water consumption.
WW By-law Email Address	Request a copy of the current and revised by-law	Provided to the requestor
WW By-law Email Address	There needs to be transition rules. For example, by-law changes should not apply to engineering servicing submissions that has been received by the City and is currently under review or approved.	The requirements of the proposed By-law will come into effect when the By-law is approved by Council.
WW By-law Email Address	Under the definition of General Manager does not include Planning and Economic Development (PED). Currently PED is involved in the approving of servicing, issuance of permits and inspection of the servicing. If the By-law is suggesting the transfer of responsibilities to another Department, we request that new processes documented and clearly communicated with stakeholders to ensure a smooth transition. It has happened in the past when changes occur stakeholders are bounced from department to department due to unclear processes.	The definition of "General Manager" will be updated to include the General Manager of Planning and Economic Development.
WW By-law Email Address	By-law is silent on the maintenance of the public service line. Public service line is maintained by City under the current by-law.	The City has an inherent obligation to maintain its assets.
WW By-law Email Address	Section 4.6 (1)(a), it has been a requirement for a Joint Use Agreement to be registered on title in this situation. In cases where it exists illegally there is a City policy which encourages the separation for individual service connections with the City contributing 100% for the public service line.	There is not a policy in place for the City to pay to separate shared water services. The property owner would be required to remove/upgrade/maintain all Service Connections per the requirements of the by-law.

How the Feedback was Received	Feedback	City Response and Comments
WW By-law Email Address	Section 4.14 combines two different scenarios. Firstly, where a property does not have frontage on a municipal watermain and secondly (b) and (c) refers to shared services; should separate. Under the first scenario is a Special Service Agreement required to be registered on title?	Shared services require a legally enforceable reciprocal easement registered against every Property so connected per Section 4.14.
WW By-law Email Address	4.14 (c) speaks to reciprocal easements. What is the City's role on the easement? Is there an easement template? On a common element road condo development, will an easement be required by all owners?	Section 4.14(c) deals with legally enforceable reciprocal easement of which the City is a party: Section 4.14(1)(c) i and ii: which shall include the City as a party for the purpose of: (i) recording the consent of the City to the form and content of the reciprocal maintenance obligations; (ii) prohibiting the discharge or amendment of the reciprocal easement without the express consent and approval of the City; and,
WW By-law Email Address	Current policy does not require a water meter on a service connection to a multi-residential development (ie. condominium). Is this policy being maintained?	All Service Lines must be metered per Section 5.2 of the proposed By-law. 5.2 Unless otherwise permitted under this By-law: (1) one (1) Water Meter shall be installed on every Service Line; and, (2) no alteration shall be made to by-pass a Water Meter to allow for non-metered water to be drawn from the Water Distribution System
WW By-law Email Address	Can more than one building, all located within a property be connected to one public service line (ie. secondary dwelling units)?	Additional Service Connections may be approved per Section 4.6(2) of the proposed By-law. 4.6 (2) The General Manager may approve additional Service Connections to a Property, as set forth below (a) The General Manager may approve any number of Service Connections for a Non-Residential Property where such Service Connections are required in connection with any land uses on the Non-Residential Property;

How the Feedback was Received	Feedback	City Response and Comments
		(b) The General Manager may approve an additional Service Connection for each separate building containing residential uses on a Residential Property;
WW By-law Email Address	Request for a copy of the Water Works By-Law Resource Manual	Provided to the requestor.
DLIG Presentation	Question: Can you confirm if auxiliary water supply needs to be disconnection on residential properties?	Auxiliary water supply cannot be directly connected to the Water Distribution System and must meet the requirements of the Backflow Prevention By-law.



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Waste Management Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 13, 2023
SUBJECT/REPORT NO:	Award of Request for Tender C11-45-23 for the Operation, Maintenance, Removal and Disposal Services for the City of Hamilton's Household Hazardous Waste Depots (PW23072) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Raffaella Morello (905) 546-2424 Ext. 3926
SUBMITTED BY:	Angela Storey Director, Waste Management Public Works Department
SIGNATURE:	

RECOMMENDATION

- (a) That the General Manager, Public Works be authorized and directed to execute, on behalf of the City, the Contract, including any ancillary agreements or documents related thereto regarding C11-45-23 Operation, Maintenance, Removal and Disposal Services for Three City of Hamilton Household Hazardous Waste (HHW) Depots, with GFL Environmental Services Inc. in a form satisfactory to the City Solicitor; and
- (b) That the City submit a letter to the Ontario Ministry of the Environment, Conservation and Parks and Resource Productivity and Recovery Authority to advocate that the Province broadens the list of designated materials under Ontario Regulation 449/21 and ensures full compensation for municipalities which collect designated materials through the Province's Municipal Hazardous and Special Waste program.

EXECUTIVE SUMMARY

The City's current Municipal Hazardous and Special Waste program is provided under contract with GFL Environmental Services Inc. who operates the City's three household hazardous waste depots including the transportation and disposal or recycling of

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SUBJECT: Award of Request for Tender C11-45-23 Operation, Maintenance, Removal and Disposal Services for the City of Hamilton's Household Hazardous Waste Depots (PW23072) (City Wide) – Page 2 of 8

materials collected at the depots. The City's Municipal Hazardous and Special Waste program currently accepts materials which are both designated under Ontario Regulation 449/21: Hazardous and Special Products and are eligible for compensation through Extended Producer Responsibility, and materials which are not designated under Ontario Regulation 449/21 and therefore not eligible for compensation. A summary of the designated and non-designated materials is included in Table 1 in Report PW23072.

The existing contract for the operation of the City's household hazardous waste depots will end on December 31, 2023. To facilitate the provision of continued service, staff initiated the procurement process earlier this year to obtain a service provider for a new contract. The City issued Request for Tender C11-45-23 for the operation of the City's household hazardous waste depots and for the transportation and disposal or recycling of household hazardous waste materials. The service contract is for a three-year period, with the option of two additional one-year periods. Through the procurement process, GFL Environmental Services Inc. was the sole bidder for Tender C11-45-23 and has been deemed the successful bidder.

The purpose of Report PW23072 is to seek approval to award and execute an agreement with GFL Environmental Services Inc. to operate the City's three household hazardous waste depots and continue to manage both designated and non-designated household hazardous waste materials and for staff to submit a letter to the Ontario Ministry of the Environment, Conservation and Parks and Resource Productivity and Recovery Authority to advocate that the Province broadens the list of designated materials under Ontario Regulation 449/21 and ensures full compensation for municipalities which collect designated materials through the Province's Municipal Hazardous and Special Waste program.

Alternatives for Consideration – See Page 6

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: By approving the recommendations in Report PW23072, the 2024 operating budget to manage both designated and non-designated household hazardous waste materials will increase to net cost of approximately \$2.32M. When compared to the current contractual budget of \$0.74M in 2023 which includes the management of both designated and non-designated materials. This will result in an increase of approximately \$1.58M inclusive of funding from the stewardship programs for designated materials. The cost increase is attributed to several factors including:

SUBJECT: Award of Request for Tender C11-45-23 Operation, Maintenance, Removal and Disposal Services for the City of Hamilton's Household Hazardous Waste Depots (PW23072) (City Wide) – Page 3 of 8

- The age of the current service contract – the current contract was originally awarded as a co-operative tender with Halton Region in 2016 and was subsequently extended as approved by Council as a single source procurement, pursuant to Procurement Policy #11 – Non-competitive Procurements; and
- The rising cost associated with higher labour rates for the depot operations as well as the transportation and processing of household hazardous waste materials.

The contract cost includes the fixed costs for the operation of the three household hazardous waste depots and the variable costs for the transportation and disposal or recycling of household hazardous waste materials. The variable costs are based on the projected amount of material received and the variable costs may fluctuate (lower or higher) during the contract based on the quantity and type of material received at the depots.

Staffing: N/A

Legal: Legal Services will be consulted on the contract preparation and execution of the agreement with the successful bidder.

HISTORICAL BACKGROUND

The City of Hamilton operates three household hazardous waste depots which are located at the Dundas Community Recycling Centre, Kenora Community Recycling Centre, and Mountain Community Recycling Centre. The depots are open the same hours as the Community Recycling Centres to accept household hazardous waste from residents, i.e. 8:00 a.m. to 6:00 p.m. Monday to Saturday year-round, excluding statutory holidays.

In 2016, the City awarded Contract T-025-15 to Hotz Environmental Services Inc. as the successful bidder for a cooperative Tender issued with Halton Region for the operation of the household hazardous waste depots and transportation and processing of household hazardous waste materials. Since 2016, Hotz Environmental Services Inc. was acquired by Envirosystems Inc., followed by Terrapure, who in turn, was acquired by GFL Environmental Inc. in 2021. The original Contract T-025-15 was for an initial three-year term until April 1, 2019 and two additional one-year terms until April 1, 2021.

Due to the delay of the Ontario Government's finalizing of the Ontario Regulation 449/21 and the uncertainty of its impact to municipal programs, the contract was subsequently extended under Policy 11 (Non-competitive Procurement) of Procurement

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By-law 20-205 as amended. On July 6, 2022, Public Works Committee approved Report PW22059 which directed staff to maintain the existing service level for the Municipal Hazardous and Special Waste program and extend the current contract until December 31, 2023.

Regulation 449/21

On October 1, 2021, the Ontario Government approved Regulation 449/21 which transitioned the Household Hazardous Waste program to the Extended Producer Responsibility system where it was expected that producers of household hazardous material would be fully responsible for program funding and the collection and management of products. Instead, the final Regulation only defined which products would fall under Extended Producer Responsibility.

Producers currently use municipal collection sites to manage these materials due to the considerable environmental, health and safety precautions and approvals that are required to manage these materials. Since the implementation of the Regulation, only a limited portion of the Municipal Hazardous and Special Waste program costs for Ontario municipalities are funded by the provincial stewardship programs.

Historically, funding levels do not cover all related costs and the City as well as most municipalities collect additional household hazardous waste materials that are not designated to provide a safe disposal option for residents and prevent hazardous materials from impacting the natural environment, watercourses, and municipal landfills.

Currently, only 15 out of 58 material types accepted in the City's Municipal Hazardous Special Waste program are designated under the Regulation. A summary of the household hazardous waste materials which are either designated or non-designated under Regulation 449/21 is included in Table 1.

Table 1. Examples of materials currently collected at City household hazardous waste depots

Designated Material	Non-Designated Material
Antifreeze	Aerosols
Barometers, thermometers and thermostats	Fire extinguishers
Dry cell batteries	Flammable organics
Fertilizers (limited quantities)	Fuels
Oil filters	Inorganic acids & bases, i.e. ammonia, pool chemicals
Paints and coatings	Pathological waste, i.e. needles

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Solvents Propane cylinder – small, non-refillable	Pharmaceuticals
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As part of Report PW22059 in July 2022, Council approved that the operating budget would continue to include household hazardous waste materials which are not designated under Regulation 449/21 and not eligible for reimbursement under Ontario’s Extended Producer Responsibility system.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Maintaining the current level of service at the City’s household hazardous waste depots supports the guiding principles of the City’s Solid Waste Management Master Plan.

The recommendations in this Report are in accordance with By-law 20-205 as amended Procurement Policy, Policy #5.3 (Request for Tenders).

RELEVANT CONSULTATION

The recommendations in Report PW23072 were prepared in consultation with staff from:

- Corporate Services Department – Financial Services and Taxation Division (Procurement Section)
- Corporate Services Department – Financial Planning and Administration Division (Finance and Administration Section)
- Corporate Services Department – Legal and Risk Management Services Division (Legal Services Section)

Staff is involved with inter-municipal waste management working groups and meetings organized by the Municipal Waste Association to gather information on the management of household hazardous waste programs in other municipalities to help inform the City’s decision-making process. Staff completed a municipal scan among several communities to assess the service level provided for the household hazardous waste program (i.e. depots, collection events), method of operation (i.e. municipal staff or contracted), and materials collected (i.e. designated or non-designated) and found that most Ontario municipalities offer household hazardous waste programs by depot or events and have continued to accept both designated and non-designated materials. A number of municipalities who have recently procured or started new contracts have reported that they have experienced the same type of increase to their contracts for operations and processing of household hazardous waste as Hamilton staff are seeing in this procurement process.

SUBJECT: Award of Request for Tender C11-45-23 Operation, Maintenance, Removal and Disposal Services for the City of Hamilton's Household Hazardous Waste Depots (PW23072) (City Wide) – Page 6 of 8

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The objective of the recommendations in Report PW23072 is to operate the household hazardous waste depots in a sustainable and fiscally responsible manner.

The current contract for the management of the City's Municipal Hazardous and Special Waste program will expire by December 31, 2023 with no further options for extension. Staff initiated the procurement process earlier in 2023 and issued Request for Tender C11-45-23 to solicit bids for the for the operation of the City's household hazardous waste depots and for the transportation and disposal or recycling of household hazardous waste materials. The City received one compliant bid in response to Tender C11-45-23 from GFL Environmental Services Inc.; however, the cost from the bid submission is substantially higher than the current contract. Staff from the Waste Management Division and the Procurement Section met with GFL Environmental Services Inc. staff to debrief their bid.

This meeting enabled staff to confirm that costs related to designated materials collected at the hazardous waste depots would not be charged to the City as the contractor will be compensated for these materials under the Regulation. To prevent disruption or reduction in City services, staff is recommending that the contract for C11-45-23 be awarded to the compliant bidder, GFL Environmental Services Inc. The operation of hazardous waste programs is highly specialized and therefore there is a limited number of contractors in Ontario that are involved with this service.

Contract C11-45-23 is for a three-year term commencing upon the award of the contract with the option to extend the contract for two additional one-year terms. Based on the Request for Tenders C11-45-23 bid submission, it is recommended that the City continue to operate the three household hazardous waste depots and collect both designated and non-designated materials which would provide a consistent level of service as the current program. Staff will monitor the actual costs and will report on any budget variance as required.

Staff are also recommending the continued pressure on the Ministry of the Environment, Conservation and Parks as well as the Resource Productivity and Recovery Authority to advocate that the Province continues to broaden the list of designated materials under Ontario Regulation 449/21 which would lead to full compensation for municipalities which collect designated materials through the Province's Municipal Hazardous and Special Waste program.

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ALTERNATIVES FOR CONSIDERATION

Alternative #1 - Council could approve a service level change to the City's Municipal Hazardous and Special Waste program to collect and process only non-designated household hazardous waste materials and award the Tender C11-45-23 to the successful bidder based on the bid cost to operate the household hazardous waste depots and transport and dispose of non-designated household hazardous waste materials.

Financial: Revising the current program to accept only non-designated household hazardous waste materials would result in a projected annual program cost of \$1.98M. This will result in an increase of approximately \$1.24M when compared to the 2023 Operating Budget for the Municipal Hazardous and Special Waste program. In comparison to the recommendation, this alternative would force the Producer Responsibility Organizations to source alternative drop off locations for materials designated under the Regulation.

By not accepting designated materials at the City's hazardous waste depots, the City would not be eligible for any compensation from Producers. This alternative would allow fewer types of materials to be collected at the household hazardous waste depots, which may increase the risk of household hazardous waste materials being disposed of in other waste programs such as garbage or recycling or increase the occurrence of illegal dumping of designated materials. The cost is estimated to be approximately \$360 per event for City staff to collect illegally dumped material. The cost to process, transport and dispose of the material would be in addition to and would vary by material type.

To facilitate the City's ending the collection of designated materials, the City would end existing agreements with Producer Responsibility Organizations and would begin communicating the Program change to residents through the annual Recycling and Waste Calendar and by updating the online Program information resources.

Staffing: N/A

Legal: N/A

Alternative #2 – Council could approve a service level change to the City's Municipal Hazardous and Special Waste program to stop operating the household hazardous waste depots entirely.

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SUBJECT: Award of Request for Tender C11-45-23 Operation, Maintenance, Removal and Disposal Services for the City of Hamilton's Household Hazardous Waste Depots (PW23072) (City Wide) – Page 8 of 8

Financial: Discontinuing the Municipal Hazardous and Special Waste program would result in a projected annual savings of \$0.74M based on the current fixed costs to operate the household hazardous waste depots and variable costs for the collection and processing of household hazardous waste materials. Eliminating the Municipal Hazardous and Special Waste program would likely cause an increase in illegally dumped household hazardous waste materials at the City's waste facilities as well as other locations within the City, e.g. local environment, sewer system, etc.

The City's cost is approximately \$360 per event to collect illegally dumped materials. The cost to process, transport and dispose of the material would be in addition to and would vary by material type. The City may incur additional costs for any environmental clean-ups required for spills of household hazardous waste. There would also be increased risk to the City's waste collection fleet and waste processing facilities if household hazardous waste is placed in other waste streams.

To facilitate the City's closure of the hazardous waste depots, the City would end existing agreements with Producer Responsibility Organizations and would begin communicating the Program change to residents through the annual Recycling and Waste Calendar and by updating the online Program information resources.

Staffing: N/A

Legal: N/A

APPENDICES AND SCHEDULES ATTACHED

N/A



Hamilton

**ACCESSIBLE TRANSIT SERVICES REVIEW SUB-COMMITTEE
REPORT 23-001**

Thursday, June 29, 2023

2:30 p.m.

Room 264

Hamilton City Hall

Present: Councillors C. Cassar, C. Kroetsch, M. Tadeson

**THE FOLLOWING ITEMS WERE REFERRED TO THE PUBLIC WORKS COMMITTEE
FOR CONSIDERATION:**

1. Appointment of Chair and Vice-Chair (Item 1)

- (a) That Councillor Tadeson be appointed Chair of the Accessible Transit Services Review Sub-Committee for 2022-2026.
- (b) That Councillor Kroetsch be appointed Vice-Chair of the Accessible Transit Services Review Sub-Committee for 2022-2026.

FOR INFORMATION:

(a) CHANGES TO THE AGENDA (Item 2)

The Clerk advised the following changes to the Agenda:

6. DELEGATION REQUESTS

- 6.1 Anthony Frisina, respecting ensuring the disability community is heard when it comes to accessible and affordable transit (for a future meeting)
- 6.2 Khadija Zafar, Accessibility Hamilton Alliance, respecting Accessible Transportation (for a future meeting)
- 6.3 Marianne Longo, McMaster University Physical Activity Centre of Excellence, respecting the function and reliability of the DARTS system (for a future meeting)

- 6.4 Dr. Jeff Preston, King's University College at Western University, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (for today's meeting)
- 6.5 Sharon Ruttan, Canadian Council of the Blind Hamilton Chapter, respecting Accessibility on HSR (for a future meeting)
- 6.6 Tim Nolan, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (for today's meeting)
- 6.7 Tim Nolan, Accessibility Hamilton Alliance, respecting Item 10.1, Proposed Revisions to the Accessible Transit Services Review Sub-Committee Terms of Reference (for today's meeting)
- 6.8 Mark McNeil, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (for today's meeting)

The agenda for the June 29, 2023 meeting of the Accessible Transit Services Review Sub-Committee was approved, as amended.

(b) DECLARATIONS OF INTEREST (Item 3)

There were no declarations of interest.

(c) APPROVAL OF MINUTES OF PREVIOUS MEETING (Item 4)

(i) July 17, 2018 (Item 3.1)

The Minutes of the July 17, 2018 Accessible Transit Services Review Committee meeting were approved, as presented.

(d) DELEGATION REQUESTS (Item 6)

The following Delegation Requests, were approved as presented:

- (i) Anthony Frisina, respecting ensuring the disability community is heard when it comes to accessible and affordable transit (for a future meeting) (Added Item 6.1)
- (ii) Khadija Zafar, Accessibility Hamilton Alliance, respecting Accessible Transportation (for a future meeting) (Added Item 6.2)

- (iii) Marianne Longo, McMaster University Physical Activity Centre of Excellence, respecting the function and reliability of the DARTS system (for a future meeting) (Added Item 6.3)
- (iv) Dr. Jeff Preston, King's University College at Western University, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (for today's meeting) (Added Item 6.4)
- (v) Sharon Ruttan, Canadian Council of the Blind Hamilton Chapter, respecting Accessibility on HSR (for a future meeting) (Added Item 6.5)
- (vi) Tim Nolan, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (for today's meeting) (Added Item 6.6)
- (vii) Tim Nolan, Accessibility Hamilton Alliance, respecting Item 10.1, Proposed Revisions to the Accessible Transit Services Review Sub-Committee Terms of Reference (for today's meeting) (Added Item 6.7)
- (viii) Mark McNeil, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (for today's meeting) (Added Item 6.8) - **WITHDRAWN**

(e) DELEGATIONS (Item 7)

- (i) **Dr. Jeff Preston, King's University College at Western University, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (Added Item 7.1)**

Dr. Jeff Preston, King's University College at Western University, addressed Committee respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA).
- (ii) **Tim Nolan, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (Added Item 7.2)**

Tim Nolan addressed Committee respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA).
- (iii) **Tim Nolan, Accessibility Hamilton Alliance, respecting Item 10.1, Proposed Revisions to the Accessible Transit Services Review Sub-Committee Terms of Reference (for today's meeting) (Added Item 7.3)**

Tim Nolan addressed Committee respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA).

The following Delegations, were received:

- (i) Dr. Jeff Preston, King's University College at Western University, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (Added Item 7.1)
- (ii) Tim Nolan, respecting Item 8.1, Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (Added Item 7.2)
- (iii) Tim Nolan, Accessibility Hamilton Alliance, respecting Item 10.1, Proposed Revisions to the Accessible Transit Services Review Sub-Committee Terms of Reference (for today's meeting) (Added Item 7.3)

For further disposition on (i) and (ii), refer to Item (g)(i) and for further disposition on (iii), refer to Item (g)(i).

(f) STAFF PRESENTATIONS (Item 8)

- (i) Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act (AODA) (Item 8.1)**

Michelle Martin, Manager, Accessible Transit Services, addressed Committee respecting Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act, with the aid of a presentation.

The presentation from Michelle Martin, Manager, Accessible Transit Services, respecting Overview of Requirements for Accessible Transit Services Under the Accessibility for Ontarians with Disabilities Act, was received.

(g) DISCUSSION ITEMS (Item 10)

- (i) Proposed Revisions to the Accessible Transit Services Review Sub-Committee Terms of Reference (Item 10.1)**

The Revised Terms of Reference of the Accessible Transit Services Review Sub-Committee, were referred to staff for report back to the next meeting of the Accessible Transit Services Review Sub-Committee with recommendations on:

- (a) The appropriateness of the membership;

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- (b) The addition of two members of the public to the membership, including a description of experience, skills and qualifications;
- (c) The reporting requirements for staff in the context of the terms of reference of the Advisory Committee for Persons with Disabilities' Transportation Working Group to avoid duplication of reporting on Accessible Transit Services.

(h) ADJOURNMENT (Item 13)

There being no further business, the Accessible Transit Services Review Sub-Committee was adjourned at 4:14 p.m.

Respectfully submitted,

Councillor M. Tadeson, Chair
Accessible Transit Services Review
Sub-Committee

Tamara Bates
Legislative Coordinator
Office of the City Clerk

12.1

CITY OF HAMILTON

MOTION

Public Works Committee: November 13, 2023

MOVED BY COUNCILLOR J. BEATTIE.....

SECONDED BY COUNCILLOR T. JACKSON.....

Road Resurfacing on First Road West from Isaac Brock Drive to Branthaven Drive (Ward 9)

WHEREAS, First Road West from Highland Road to Isaac Brock Drive was resurfaced back in 2018 by Engineering to extend the roadway life expectancy, and not continued north of Isaac Brock Drive because of upcoming development work; and

WHEREAS, First Road West from Isaac Brock Drive to Branthaven Drive Ward 9, is optimal for road resurfacing to extend the life of the roadway and therefore improve service levels and reduce maintenance costs.

THEREFORE, BE IT RESOLVED:

- (a) That the Transportation Division be directed to resurface the road and associated concrete works on First Road West between Isaac Brock Drive to Branthaven Drive;
- (b) That all costs associated with the road resurfacing scope of work be funded from the Ward 9 Minor Maintenance accounts 4031911609 (\$69,704) and 4032311609 (\$230,296) at an upset limit, including contingency, not to exceed \$300,000, with construction anticipated to be completed in 2024; and
- (c) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

12.2

CITY OF HAMILTON

MOTION

Public Works Committee: November 13, 2023

MOVED BY COUNCILLOR M. FRANCIS.....

SECONDED BY COUNCILLOR.....

Parkette at 505 Beach Boulevard, Hamilton (Ward 5)

WHEREAS, the parks in Ward 5 provide valuable recreation and connectivity opportunities to residents;

WHEREAS, 505 Beach Boulevard, is city-owned property which could be designated a parkette, located in the Beach Community, Hamilton; and

WHEREAS, resources are limited, and this work will be initiated in 2024 for design and public consultation with construction in a future year, subject to unforeseen challenges such as procurement timing, supply chain issues or other factors.

THEREFORE, BE IT RESOLVED:

- (a) That staff be directed to add the creation of a parkette at 505 Beach Boulevard, to workplans to start in 2024, at a cost of \$57,853 to be funded from the Hamilton Beach Park Reserve (#108037); and
- (b) That the General Manager of Public Works be authorized and directed to approve and execute any and all required agreements and ancillary documents, in a form satisfactory to the City Solicitor, related to the creation of a parkette at 505 Beach Boulevard, Hamilton.

13.1

CITY OF HAMILTON

NOTICE OF M O T I O N

Public Works Committee: November 13, 2023

MOVED BY COUNCILLOR BEATTIE.....

Remembrance Day Crosswalk Design for the Stoney Creek Saltfleet Memorial, and at other Memorial Locations in the City

WHEREAS, Remembrance Day, marks the end of hostilities during the First World War, which ended on the 11th hour of the 11th day of the 11th month in 1918;

WHEREAS, Remembrance Day in Canada honours the service and sacrifice of our Armed Forces, Veterans, and their families, who have served, and continue to serve our country during times of war, conflict and peace. Particularly the First & Second World Wars, the Korean War, and all conflicts since then in which members of the Canadian Armed Forces have participated;

WHEREAS, Since 1921, the Poppy has stood as a national symbol of Remembrance to recognize the sacrifice of soldiers in times of war and is often worn on the left lapel close to the heart. The Poppy is a powerful symbol of Remembrance, worn by millions of Canadians and our Commonwealth partners, each year;

WHEREAS, the Dominion Command of The Royal Canadian Legion has registered the trademark of the Poppy image and the Poppy insignia as a protected mark through an Act of Parliament in 1948;

WHEREAS, any proposed usage of the Poppy symbol must be submitted to and approved by the Dominion Command of The Royal Canadian Legion in compliance with the Legion Poppy Manual; and

WHEREAS, the Stoney Creek Saltfleet Memorial located at the south-west corner of King Street and Queenston Road (Highway 8) was constructed in 1922, in memory of the men of Saltfleet Township, who gave their lives in the First World War and is one of the many locations throughout the City that is used to observe Remembrance Day every November 11th.

THEREFORE, BE IT RESOLVED:

- (a) That the Transportation Division contact the Dominion Command of The Royal Canadian Legion and seek permission to use the poppy and/or other significant symbols in the crosswalk on King Street closest to the Stoney Creek Saltfleet Memorial in the name of honoring those who served and continue to serve in the nation’s defense; and

- (b) That upon the conclusion of the application process with the Dominion Command of The Royal Canadian Legion the Transportation Division work with Wards 10 and 5 on a final crosswalk design for the Stoney Creek Saltfleet Memorial, and at other memorial locations in the City, to be implemented for Remembrance Day 2024.

13.2

CITY OF HAMILTON

NOTICE OF M O T I O N

Public Works Committee: November 13, 2023

MOVED BY COUNCILLOR J. BEATTIE.....

Funding of Water Service Installation for a Community Garden Located at 200 Jones Road, Stoney Creek (Ward 10)

WHEREAS, a community garden had been in place and operated by Kiwanis at 200 Jones Road, Stoney Creek for over ten years;

WHEREAS, the demolition of the former Kiwanis community building on the property in 2022 resulted in the water service for the community garden being removed and the garden ceasing to operate;

WHEREAS, there is continued interest from residents to be able to access a community garden to grow their own food and to provide fresh produce to others in the community and the food bank located in adjacent the Stoney Creek Municipal Service Centre building;

WHEREAS, the lands where the former Kiwanis building stood are now vacant and provide an ideal new location for the community garden on the property but require a new water service to be installed for the community garden to operate; and

WHEREAS Neighbourhood Development has supported community initiatives that create opportunities to support engagement and make positive change in neighbourhoods;

THEREFORE, BE IT RESOLVED:

- (a) That installation of a water service from the Municipal Service Centre building to the new community garden location, located at 200 Jones Road, at a cost of \$11,696, in funding be allocated from the following:
 - (i) A one-time commitment not to exceed \$5,000 from the Neighbourhood Development 2023 Operating Budget, Dept ID 624023; and
 - (ii) A one-time upset limit including contingency not to exceed \$6,696 from the Ward 10 Non-Property Tax Revenue Account #3301609610.