



The Regional Municipality of Durham

Works Committee Agenda

Wednesday, January 11, 2023, 9:30 a.m.

Regional Council Chambers

Regional Headquarters Building

605 Rossland Road East, Whitby

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2097.

Note: This meeting will be held in a hybrid meeting format with electronic and in-person participation. Committee meetings may be [viewed via live streaming](#).

	Pages
1. Roll Call	
2. Declarations of Interest	
3. Adoption of Minutes	
3.1 Works Committee meeting - December 7, 2022	4
4. Statutory Public Meetings	
There are no statutory public meetings	
5. Presentations	
5.1 Eric Lamain, Manager of Maintenance Operations Re: Regional Road Maintenance and Service Levels	
6. Delegations	
6.1 Greg Gordon, Energy from Waste - Waste Management Advisory Committee (EFW-WMAC) Chair, and Phil Haylock, Energy from Waste - Waste Management Advisory Committee (EFW-WMAC) Vice-Chair Re: EFW-WMAC Annual Report	
7. Waste	
7.1 Correspondence	
7.2 Reports	
a. Report #2023-WR-1 Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington	16

8. Works

8.1 Correspondence

8.2 Reports

- | | | |
|----|--|----|
| a. | Report #2023-W-1
Operational Plan for Water Supply Systems to Comply with the Safe Drinking Water Act | 31 |
| b. | Report #2023-W-2
Tender Award and Additional Financing for Regional Municipality of Durham Contract #D2022-34 for Roundabout Construction on Bowmanville Avenue (Regional Road 57) at the Regional Road 3/Concession Road 8 Intersection, in the Municipality of Clarington | 39 |
| c. | Report #2023-W-3
Approval for the Regional Municipality of Durham's Ongoing Participation in the Toronto and Region Conservation Authority's Western Durham Nearshore Water Quality Monitoring Program | 45 |
| d. | Report #2023-W-4
Declaration of Lands as Surplus and Approval to Transfer the Surplus Lands to the Town of Whitby as Part of an Agreement with the Ministry of Transportation | 50 |
| e. | Report #2023-W-5
Approval of Unbudgeted Capital Works to be Incorporated into a Subdivision Agreement with the Minto (Harmony Road) GP Inc., Including Cost Sharing in Accordance with the Region Share Policy, for the Extension and Oversizing of a Trunk Sanitary Sewer and Watermains Through the Minto Subdivision, North of Conlin Road East, West Side of Harmony Road (Regional Road 33), in the City of Oshawa | 54 |
| f. | Report #2023-W-6
Adoption of the Regional Legacy Area Servicing Policy and Update on Servicing Options for Property Owners on Bickle Drive and Roselawn Avenue, including the Sun Valley Heights Homebuilders Co-op, in the City of Oshawa | 61 |
| g. | Report #2023-W-7
Tender Award and Additional Financing for Regional Municipality of Durham Contract #D2022-16 for the Highway 401 Tunnel Liner Decommissioning at Merritt Street, in the City of Oshawa | 72 |

9. Advisory Committee Resolutions

There are no advisory committee resolutions to be considered

10. Confidential Matters

There are no confidential matters to be considered

11. Other Business

12. Date of Next Meeting

Wednesday, February 8, 2023 at 9:30 AM

13. Adjournment

Notice regarding collection, use and disclosure of personal information:

Written information (either paper or electronic) that you send to Durham Regional Council or Committees, including home address, phone numbers and email addresses, will become part of the public record. This also includes oral submissions at meetings. If you have any questions about the collection of information, please contact the Regional Clerk/Director of Legislative Services.

The Regional Municipality of Durham

MINUTES

WORKS COMMITTEE

Wednesday, December 7, 2022

A regular meeting of the Works Committee was held on Wednesday, December 7, 2022 in the Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby, Ontario at 9:30 AM. Electronic participation was offered for this meeting.

1. Roll Call

Present: Councillor Barton, Chair
Councillor Marimpietri, Vice-Chair
Councillor Cook attended for part of the meeting
Councillor Crawford
Councillor Mulcahy
Councillor Nicholson
Councillor Yamada attended for part of the meeting
Regional Chair Henry

Also

Present: Councillor Dies*
Councillor Garrod
Councillor Foster*
Councillor Jubb*
Councillor Schummer*
***denotes Councillors participating electronically**

Absent: None

Staff

Present: G. Anello, Director of Waste Management Services
E. Baxter-Trahair, Chief Administrative Officer
B. Bridgeman, Commissioner of Planning & Economic Development
J. Demanuele, Director of Business Services
B. Holmes, General Manager, DRT
M. Hubble, Manager of Environmental Services Design
L. Huinink, Director, Rapid Transportation & Transit Oriented Development,
Office of the Chief Administration Officer
J. Hunt, Director of Legal Services/Regional Solicitor
R. Inacio, Systems Support Specialist, Corporate Services – IT
R. Jagannathan, Director of Transportation and Field Services
J. Presta, Commissioner of Works
N. Taylor, Commissioner of Finance
L. Soto Maya, Committee Clerk, Corporate Services – Legislative Services

S. Ciani, Committee Clerk, Corporate Services – Legislative Services

2. Declarations of Interest

There were no declarations on interest.

3. Election of the Works Committee Vice-Chair

The Chair called for nominations for the position of Vice-Chair of the Works Committee.

Moved by Councillor Nicholson, Seconded by Councillor Yamada,

(78) That Councillor Marimpietri be nominated for the position of Vice-Chair of the Works Committee.

Moved by Councillor Crawford, Seconded by Councillor Cook,

(79) That Councillor Mulcahy be nominated for the position of Vice-Chair of the Works Committee.

Moved by Councillor Nicholson, Seconded by Councillor Yamada,

(80) That nominations be closed.

CARRIED

The Chair asked if Councillors Marimpietri and Mulcahy wished to stand.

Councillor Marimpietri indicated he would stand. Councillor Mulcahy indicated that she would stand.

The following roll call vote was taken:

Councillors	Marimpietri	Mulcahy
Cook		X
Crawford	X	
Regional Chair Henry	X	
Marimpietri	X	
Mulcahy		X
Nicholson	X	
Yamada	X	
Chair Barton		X

Totals	5	3
---------------	----------	----------

Councillor Marimpietri was selected as the Vice-Chair of the Works Committee.

4. Adoption of Minutes

Moved by Councillor Marimpietri, Seconded by Councillor Yamada,
(81) That the minutes of the regular Works Committee meeting held on
Wednesday, September 7, 2022, be adopted.
CARRIED

5. Statutory Public Meetings

There were no statutory public meetings.

6. Delegations

There were no delegations heard.

7. Presentations

7.1 Commissioner of Works and Directors Team, re: Works Departmental Overview

John Presta, Commissioner of Works, G. Anello, Director of Waste Management Services, J. Demanuele, Director of Corporate Infrastructure and Strategic Business Services, and R. Jagannathan, Director of Transportation and Field Services provided a PowerPoint Presentation with regards to a Works Departmental Overview.

Highlights of the Presentation included:

- Our Purpose Statement
- Municipal Services
- Works Department
 - Environmental Services
 - Transportation and Field Services
 - Waste Management Services
 - Corporate Infrastructure and Strategic Business Services
 - Staff
 - Looking Forward

J. Presta responded to questions from the Committee regarding the potential risks and implications of Bill 23; next steps for the remaining communal wells in the Region of Durham; the results of the consultant's report regarding the Regional Road 18 Project in Newtonville; service standards and maintenance

on Regional roads; and the re-development of the Ritson Road school in the City of Oshawa.

In response to a question from Councillor Yamada regarding whether there are cost savings by contracting out garbage collection for the Region versus in-house garbage collection like the Town of Whitby and the City of Oshawa, J. Presta advised that there was a past analysis done and that information could be provided to Councillor Yamada directly.

7.2 John Presta, Commissioner of Works, re: 2023 Water Supply and Sanitary Sewerage Systems Business Plans and Budgets (2022-W-42)

John Presta, Commissioner of Works, provided a PowerPoint Presentation with regards to the 2023 Water Supply and Sanitary Sewerage Systems Business Plans and Budgets.

Highlights of the Presentation included:

- Agenda
- Background on User Rates
 - User Rates
 - Water Trends
 - Fixed Costs
 - Cost Breakdown
 - Regulatory Requirements
 - Summary
- Water Prices in Canada
- Regional Infrastructure Assets
 - Sanitary Sewerage System
 - Water Supply System
- 2022 Accomplishments
- 2022 Water Supply and Sanitary Sewerage
 - Fixed Costs
- Proposed 2023 Water Supply Expenditures and Financing
- Proposed 2023 Sanitary Sewerage Expenditures and Financing
- 2023 Strategic Highlights
- 2023 Water Supply and Sanitary Sewerage Highlights
- 2023 Water Supply and Sanitary Sewerage Capital Program
- 2023 Major Project
 - Sanitary Sewerage
 - Water Supply
- 2023 Highlights Major Project
 - Sanitary Sewerage and Water Supply
 - Sanitary Sewerage
- 2023 Highlights - Major Projects

- Water Supply
- Sanitary Sewerage
- 2023 Business Plans and Budget
 - Risks
- Beyond the 2023 Business Plans and Budget
 - Forecasted Pressures
 - Looking Forward

Staff responded to questions from the Committee regarding whether the Region will be separating out additional costs as a result of legislative changes from Bill 23 and how it will affect the 2024 budget and onwards; the increase in staffing costs; whether there is a cost comparison for in-house design versus contracting out; preventative steps that have been identified or executed with respect to the installation of a new trunk sanitary sewer and watermain at Trulls Road, from Bloor Street to Baseline Road, and Baseline Road from Courtice Road to Trulls Road in Clarington; where a project that does not have a budget commitment but is in the forecast fits into the long-term capital plan; and whether there is a long-term plan to enhance wastewater infrastructure in the Township of Uxbridge.

In response to a question from Councillor Nicholson regarding the cost of deferring capital projects, J. Presta advised that a priority list for linear infrastructure projects (watermain and sewer projects), organized by community could be provided to him directly.

8. Waste

8.1 Correspondence

There were no items of communication considered.

8.2 Reports

There were no Waste Reports considered.

9. Works

- A) Correspondence received from Shelagh Cauchi on behalf of Wickham Street Residents in the City of Oshawa, dated August 31, 2022, re: a Sound/Pollution Barrier on Harmony Road North in the City of Oshawa
-

Discussion ensued regarding what the Region's criteria is in order to build a noise wall, and whether the residents could be informed of the Region's Policy with respect to the installation and maintenance of noise attenuation barriers in the Region of Durham.

In response to a question from Councillor Nicholson, R. Jagannathan clarified that under current Regional policy, noise assessments are completed and mitigation measures implemented only through Environmental Assessment undertakings for Regional road expansion projects (i.e., not on a retrofit basis).

Moved by Councillor Crawford, Seconded by Councillor Cook,

- (82) That the correspondence received from Shelagh Cauchi on behalf of Wickham Street Residents in the City of Oshawa, dated August 31, 2022, regarding a Sound/Pollution Barrier on Harmony Road North in the City of Oshawa be received for information; and that Report #2012-W-83: Report on the Guidelines for the Installation and Maintenance of Noise Attenuation Barriers Associated with Regional Road Expansion Projects be forwarded to Shelagh Cauchi on behalf of the Wickham Street Residents.

CARRIED

- B) Correspondence received from the Town of Whitby, dated October 3, 2022, re: Highway 412 – Installation of Ramps and Signalization Lights

Discussion ensued regarding what the costs for the Region would be with respect to the installations of ramps and signalization lights on Highway 412.

Moved by Regional Chair Henry, Seconded by Councillor Mulcahy,

- (83) That we recommend to Regional Council:

That the following resolution passed by the Town of Whitby regarding Highway 412 – Installation of Ramps and Signalization Lights be endorsed:

Whereas the traffic has increased in volume on Highway 412 since the tolls were lifted earlier this year;

Whereas residents report that the intersections of the on and off ramps at both Highway 7 and Highway 2 are difficult to navigate safely;

Whereas there is substantial growth around the Rossland Road area of Highway 412; and

Whereas the east-west roads within our municipality are increasingly congested with all the new growth, and the usage of Highway 412 is anticipated to increase substantially;

Now therefore be it resolved:

1. That the Council of the Town of Whitby requests that the Province of Ontario install entrance and exit ramps at Rossland Road on Highway 412, as well as provide for signalization lights at the intersections of the on and off ramps to provincial highways 2 and 7; and

2. That this request of Council be copied to the MTO, AMO, Region of Durham and all Durham MPPs and MPs.

CARRIED

Moved by Councillor Nicholson, Seconded by Councillor Marimpietri,
(84) That the Committee recess for 10 minutes.

CARRIED

The Committee recessed at 11:14 AM and reconvened at 11:24 AM. All Councillors were present with the exception of Councillor Yamada.

9.1 Reports

A) Works Department – 2023 Water Supply and Sanitary Sewerage Systems Business Plans and Budgets (2022-W-42)

Report #2022-W-42 from J. Presta, Commissioner of Works, was received.

Detailed discussion ensued regarding the use of reserve funds to reduce the overall Water and Sewer User rates by 2% by withdrawing from the Water Rate Stabilization Reserve Fund and the Sewer Rate Stabilization Reserve Fund; and the financial challenges that have arisen with respect to the water supply and sanitary sewerage systems coming out of the COVID-19 pandemic.

Staff responded to questions regarding whether there is a surplus in the reserve funds or if there are other financial options that could be accessed to reduce the Water and Sewer User rates; and if a breakdown of the surpluses could be received from staff prior to the Finance & Administration Committee meeting on Tuesday, December 13, 2022.

Moved by Councillor Mulcahy, Seconded by Councillor Cook,
(85) That we recommend to the Finance and Administration Committee for subsequent recommendation to Regional Council:

That the Works Committee recommends to the Finance and Administration Committee for subsequent recommendation to Regional Council that the Works Department's portion of the 2023 Water Supply System and Sanitary Sewerage System Business Plans and Budgets be approved.

CARRIED AS AMENDED LATER IN THE
MEETING ON A RECORDED VOTE
(See Following Motions)

Moved by Regional Chair Henry, Seconded by Councillor Marimpietri,
(86) That the main motion (85) of Councillor Mulcahy and Councillor Cook be amended by adding the following:

That staff report to the Finance and Administration Committee on the impact of using reserve funds to reduce the overall Water and Sewer User rates by 2%, with such report to include an assessment of the impact on Regional services and residents.

CARRIED

The main motion (85) of Councillor Mulcahy and Councillor Cook was then put to a vote and CARRIED AS AMENDED ON THE FOLLOWING RECORDED VOTE:

Yes

Councillor Cook
Councillor Crawford
Regional Chair Henry
Councillor Mulcahy
Councillor Barton, Chair

No

Councillor Marimpietri
Councillor Nicholson

Members Absent: Councillor Yamada

Declarations of Interest: None

This item will be considered at the Finance & Administration Committee meeting to be held on Tuesday, December 13, 2022.

10. Advisory Committee Resolutions

There were no advisory committee resolutions to be considered.

11. Confidential Matters

There were no confidential matters to be considered.

12. Other Business

12.1 Motion, re: the Need for an Administrative Penalties Regulation under the Resource Recovery and Circular Economy Act (RRCEA)

Moved by Regional Chair Henry, Seconded by Marimpietri,
(87) That the rules of procedure be suspended in order to introduce a motion regarding the Need for an Administrative Penalties Regulation under the Resource Recovery and Circular Economy Act (RRCEA) and a motion regarding the Expansion of a Slow Down Move Over Requirement to All Roadside Workers.

CARRIED ON A 2/3RDS VOTE

Moved by Regional Chair Henry, Seconded by Crawford,
(88) That we recommend to Regional Council:

Whereas Municipal governments support the Province's implementation of outcomes-based policies to move responsibility for end-of-life management of designated products and packaging to producers who are the most able to affect system change;

And whereas these policies can improve environmental outcomes, provide new jobs and grow Ontario's economy;

And whereas outcomes-based policies require clear consequences for non-compliance that can be administered in an effective and efficient manner;

And whereas Administrative penalties are a cost-effective tool for the regulator to hold polluters accountable, so there is less burden on the courts and taxpayers;

And whereas the Resource Productivity and Recovery Authority does not have Administrative Penalties which is impacting the ability of the regulator to ensure compliance with the regulations under the Resource Recovery and Circular Economy Act, 2016;

And whereas data provided by Resource Productivity and Recovery Authority shows there is a currently a backlog of over 2,000 cases of potential non-compliance and almost 200 known instances of non-compliance;

And whereas the Resource Productivity and Recovery Authority has found battery producers non-compliant for collection accessibility and processing;

And whereas the largest waste diversion program, the Blue Box, sees the first communities transition in a few months, ensuring the Regulator has appropriate enforcement tools to ensure servicing and outcomes are met is critical for a smooth transition for Ontarians;

Now therefore it be resolved that the Regional Municipality of Durham calls on the Provincial government to promptly pass an Administrative Penalties regulation under the Resource Recovery and Circular Economy Act, 2016;

And that a copy of this resolution be sent to:

- Hon David Piccini, Minister of the Environment, Conservation and Parks and AMO
- Durham MPP's
- Association of Municipalities of Ontario (AMO)
- All Durham Local Municipalities

- The Ontario Waste Management Association
CARRIED

12.2 Resolution, re: the Expansion of a Slow Down Move Over Requirement to All Roadside Workers

Moved by Regional Chair Henry, Seconded by Mulcahy,
(89) That we recommend to Regional Council:

Whereas the Province's Highway Traffic Act currently provides protection to select designated roadside workers (police, paramedics, and tow truck drivers), which requires motorists to slow down and move over when vehicles are stopped alongside the road;

Whereas many roadside workers (e.g., waste and recycling collectors, maintenance workers) are not currently afforded the same protection but work under the same conditions;

And whereas British Columbia passed a Slow Down Move Over law to make it safer for all roadside workers including maintenance workers, utility workers, police, fire, ambulance, tow trucks, Commercial Vehicle Safety Enforcement personnel, land surveyors, animal control workers, garbage collectors and other roadside workers;

And whereas the BC Slow Down Move Over law simplifies the messaging to all residents by requiring motorists to adhere to the requirements for all vehicles stopped alongside the road that have flashing red, blue or yellow lights;

And whereas 30 US states have established 'Slow Down Move Over' laws providing protections for waste collection workers;

And whereas multiple Associations such as the Ontario Waste Management Association, the Ontario Road Builders' Association and the Ontario Good Roads Association have advocated for amendments to Ontario's Highway Traffic Act to include all roadside workers;

Now therefore it be resolved that the Region of Durham calls on the Provincial government to promptly amend the Highway Traffic Act, like the Government of British Columbia already has, to provide the same protections to all roadside workers including waste collection workers.

And that a copy of this resolution be sent to:

- Hon Doug Ford, Premier of Ontario
- Hon Caroline Mulroney - Minister of Transportation - Ontario Ministry of Transportation
- Durham MPP's

- Association of Municipalities of Ontario (AMO)
- All Durham Local Municipalities
- The Ontario Waste Management Association

CARRIED ON THE FOLLOWING
RECORDED VOTE:

Yes

No

Councillor Crawford
Regional Chair Henry
Councillor Marimpietri
Councillor Mulcahy
Councillor Nicholson
Councillor Barton, Chair

None

Members Absent: Councillor Cook
Councillor Yamada

Declarations of Interest: None

12.3 The Ontario Good Roads Conference April 16-19, 2023

J. Presta advised that the Ontario Good Roads Conference will be held April 16-19, 2022, and that arrangements are being made for those Councillors interested in attending.

12.4 Statutory Standard of Care Training under Safe Drinking Water Act, 2002

J. Presta advised that the Statutory Standard of Care training for the councillors will be held Friday May 5, 2023.

12.5 Duffin's Creek Water Pollution Control Plant Tour

J. Presta advised that a tour of the Duffin's Creek Water Pollution Control Plant will be arranged next year.

13. Date of Next Meeting

The next regularly scheduled Works Committee meeting will be held on Wednesday, January 11, 2023 at 9:30 AM in Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby.

14. Adjournment

Moved by Councillor Nicholson, Seconded by Councillor Mulcahy,
(90) That the meeting be adjourned.

CARRIED

The meeting adjourned at 12:32 PM

Respectfully submitted,

D. Barton, Committee Chair

S. Ciani, Committee Clerk

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3540.



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-WR-1
Date: January 11, 2023

Subject:

Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That the implementation of a clear garbage bag pilot program in the Municipality of Clarington be deferred to 2025 due to the significant waste management programming changes occurring in 2024;
- B) That the implementation of a clear garbage bag pilot program in the Municipality of Clarington be approved with the following implementation parameters:
 - i) That the clear garbage bag pilot be implemented for a period of six months;
 - ii) That the clear garbage bag pilot commences in the second quarter of 2025 and include a four-week transition period before participation in the program becomes mandatory;
 - iii) That the clear garbage bag pilot project be implemented in a manner that reflects how the clear garbage bag program would operate permanently, meaning that where any visible Blue Box material, food, household hazardous waste or any other material for which a diversion program is available, is detected in the garbage bag during the mandatory phase, that the bag will not be collected and will be left at the curb;

-
- iv) That the clear garbage bag pilot project be conducted with the following performance measures with a comparison of the data pre and post pilot:
1. Garbage generation rates;
 2. Quantity of Blue Box, Green Bin and/or household hazardous material found in the garbage bag;
 3. Collection contractor injury rate;
 4. Collection route impacts (collection time, etc.);
 5. Impacts at Waste Management Facilities; and
 6. Incidence of illegal dumping complaints.
- C) That external resources to support the implementation of the clear garbage bag pilot project be retained to provide the following:
- i) An initial communication strategy and support in the planning and operating phases of the clear garbage bag pilot, including the distribution of educational material to residents in the pilot areas of the Municipality of Clarington and discussions with retail outlets and/or clear bag suppliers related to the supply of clear garbage bags to pilot project residents; and
 - ii) Waste audits to establish the baseline for the performance measures and to measure performance in the clear garbage bag pilot area in the Municipality of Clarington as compared to non-pilot areas located in other Regional Municipality of Durham municipalities during the pilot.
- D) That the pilot program costs, currently estimated at \$530,000 exclusive of taxes (2023 costs), be included in the proposed Business Plans and Budget for Waste Management Services in the applicable year and subject to the approval of Council; and
- E) That additional details regarding the Regional Municipality of Durham's waste management education programs in partnership with local school boards and details regarding the City of Orillia's clear garbage bag requirement be received for information.
-

Report:**1. Purpose**

- 1.1 This report provides an outline and timing of a proposed pilot project to study the impact of using clear garbage bags on waste diversion and driver safety in the Municipality of Clarington (Clarington).
- 1.2 In addition, this report also provides an update on the education program delivered by Waste Management Services staff in the Regional Municipality of Durham (Region) school boards and on the implementation of a clear garbage bag requirement in the City of Orillia (Orillia).

2. Background

- 2.1 At its meeting on January 26, 2022, Regional Council passed a motion directing staff to implement a one-year clear garbage bag pilot program in Clarington, and to report on the details of “how the clear bag program will be done, when, what the cost is, etcetera” at the April 2022 Regional Council meeting.
- 2.2 Report [#2022-WR-3](#) “Proposed Pilot of Mandatory Clear Garbage Bag Use in the Municipality of Clarington” was presented at the April 6, 2022, Works Committee meeting included the following information:
 - a. The previous clear garbage bag pilot conducted in the City of Pickering (Pickering) and Clarington in 2009 resulted in an approximately three per cent increase in diversion and a 14 per cent increase in the Green Bin participation rate. However, based on the extensive promotion and education program provided to residents participating in the pilot, the impact of clear garbage bags could not be distinguished from the impact of the additional resident education and awareness.
 - b. Results from other municipalities with clear garbage bag programs vary, with diversion rate increases that are temporary or inconclusive.
 - c. Conducting another clear garbage bag pilot will require significant effort, cost, and staff time, including consultant support to conduct the required waste audits and impact analysis.
 - d. Clear garbage bags are not an effective diversion tool in multi-residential buildings where garbage from all residents is comingled in common

collection bins and cannot be traced to a specific unit for compliance with diversion programs.

- e. The results of the pilot will be one of several considerations in the staff's recommendation to Council on whether or not to expand the program permanently throughout Durham Region. Implementing a clear bag program in one municipality alone will produce a negligible impact on the Region's overall diversion rate.

- 2.3 The Works Committee referred Report #2022-WR-3 back to staff until the September 7, 2022 Works Committee meeting.
- 2.4 At the September 7, 2022 Works Committee meeting, Report [#2022-WR-4](#) titled "Update on the Proposed Clear Garbage Bag Pilot in the Municipality of Clarington" was referred back to staff for a further report at the January 11, 2023 Works Committee meeting, the second committee meeting under the newly elected Council.
- 2.5 Modifications to the original recommendations adjust the timing of the budget request and pilot to accommodate the referral of Report #2022-WR-3 to the September 2022 Works Committee. The further referral of consideration of the clear garbage bag pilot to the January 2023 Works Committee meeting has also impacted program budget and schedule.

3. Revised Timing for Clear Garbage Bag Pilot

- 3.1 The proposed operation parameters for the clear garbage bag pilot are provided in Report #2022-WR-3. The timing of the pilot has been adjusted as outlined below to reflect the referral of consideration of the clear garbage bag pilot to the January 2023 Works Committee meeting and the 2023 Waste Management Business Plans and Budget process.
- 3.2 Preparatory work for the clear garbage bag pilot in Clarington was initially proposed to begin in fall 2022 with waste audits to establish baseline quantities of Blue Box, Green Bin and household hazardous waste in the garbage bags of the proposed pilot area and a control area of non-pilot homes. Communications with retailers regarding the upcoming pilot and the need for increased retail stock of clear garbage bags were also anticipated to take place in fall 2022. The schedule for the clear garbage bag pilot has been adjusted to commence in 2025 due to the significant changes in waste management services in 2024.

- 3.3 The budget for the clear garbage bag pilot will be refined in the future 2025 Waste Management Services Business Plans and Budgets and will include planning, communication and consultant support. The estimated total cost for the clear garbage bag pilot is \$530,000 (excluding applicable taxes, 2023 projection). Work on the clear garbage bag pilot is anticipated to proceed as follows:
- a. Late 2024/First Quarter 2025 – Planning for waste audits in coordination with the auditing program developed as part of the Long-term Waste Management Plan (baseline and operating). A Communications Plan will be developed to support the pilot. The audit results will need to identify potential changes in habits as a result of the 2024 program changes;
 - b. Second quarter of 2025 - Conduct the baseline waste audit in the pilot area(s) and in non-pilot communities that will act as the control;
 - c. Second quarter of 2025 – Commence communication with retailers and residents regarding the clear garbage bag pilot and timing;
 - d. Third quarter of 2025 - Launch clear garbage bag pilot and conduct waste audits to measure the impact of the program;
 - e. Fourth quarter of 2025 – Conduct additional waste audits to measure the impact of clear garbage bag requirements; and
 - f. First/Second quarter of 2026 - Compile pilot data and report to Regional Council on results of the clear garbage bag pilot.
- 3.4 If retailers in Clarington and the surrounding area are unable to stock an adequate supply of clear garbage bags to support the timing of the pilot, the Region may need to provide clear garbage bags to every household in the pilot area. The additional cost of supplying clear garbage bags is unknown at this time and will be included in the proposed 2025 budget request, if necessary. It is anticipated that the delay of the commencement of the pilot may allow for additional communication time, reducing the likely need to incur this expense.
- 3.5 The objectives and measurements for the clear garbage bag pilot as originally outlined in Report #2022-WR-3 remain unchanged.

Implications of Revised Timing

- 3.6 Waste management services will see significant changes to its operations in the 2024 calendar year due to new regulatory requirements and contract expirations.
- 3.7 The transition of the Region's Blue Box Program to producer responsibility is scheduled to occur on July 1, 2024. This timing is determined by regulations and is not anticipated to change.
- 3.8 Although intended to be a seamless Blue Box Program transition for residents, staff are planning extensive, Region-wide communications with residents to ensure they are aware of the shift of responsibilities and potential changes to the collection vehicles on residential routes.
- 3.9 The Region's organic processing contract also expires on June 30, 2024, meaning the Region's Green Bin Program may be changed as of July 1, 2024, to align with programming changes that may be possible under a new organic processing contract.
- 3.10 The Region's most visible and high-volume diversion programs will undergo significant changes in mid-2024 which could impact the value of a clear garbage bag pilot based on the extensive promotion being planned to accompany changes to the Blue Box and Green Bin programs. Due to the changes occurring in 2024, the clear garbage bag pilot is planned to be deferred until 2025.

4. Additional Details and Clarification of the Proposed Clear Garbage Bag Pilot

- 4.1 The baseline waste audits, and follow-up audits will be conducted on select collection routes in Clarington that are in the pilot area and on select routes in non-pilot municipalities (i.e., Pickering and Township of Scugog). The same routes will be audited before and during the pilot to establish the baseline and measure changes in residents' behaviour after the implementation of a clear garbage bag requirement.
- 4.2 There will be a phase-in period at the start of the pilot to allow residents to adjust to the new requirements as has been done with previous waste collection program changes. During this time, additional education will be provided to non-compliant households to encourage proper participation in the program.

- 4.3 Measurement of any increased use by Clarington residents of the Region's Waste Management Facilities for garbage disposal during the pilot will be necessary. The approach for obtaining this measurement is being investigated but will be designed to minimize the impact on residents use and access to the Waste Management Facility.

Zero Tolerance

- 4.4 A zero-tolerance approach is not intended to be punitive to residents but serves to reinforce the Region's waste diversion requirements. Zero-tolerance is already used when residents use non-compostable plastic bags in the Green Bin, place grass clippings in the garbage or leaf and yard waste or have more than four garbage bags out for collection without tags for additional bags. Enforcing collection requirements incentivizes residents to use diversion programs and provides collection contractors with clear procedures that reinforce Regional waste reduction initiatives.
- 4.5 The Clear Garbage Bag pilot does not introduce any new diversion opportunities for residents who already use all Region diversion programs. Instead, clear garbage bags make it easier for collectors to see divertible material in the garbage and leave non-compliant bags at the curb. Collecting garbage bags with visible diversion items negates this benefit of clear garbage bags.
- 4.6 Collection contractors work efficiently to collect materials to complete all routes within the Region's designated collection hours. With recent labour shortages, collection contractors have been more pressed to complete routes within the required collection hours. Given the time constraints on collection contractors, simple and quick (pass/fail) parameters for collection are necessary.
- 4.7 The communities listed in the [Continuous Improvement Fund Clear Garbage Bag Program Implementation Toolkit](#) (CIF Toolkit) were reviewed to confirm the approach to prohibited materials in the clear garbage bag. All the communities indicate that recyclables and household hazardous wastes are not permitted in clear garbage bags. Food waste is also prohibited in communities that have an organics diversion program. Any bags containing materials which are prohibited may not be collected.

- 4.8 None of the CIF Toolkit communities indicate a permissible level of contamination below which the clear garbage bag may be collected. Every participating community indicated that garbage in opaque bags will be left at the curb. A zero-tolerance approach is not unique to the Region's pilot and, in most communities, any leeway for contamination provided to residents is not publicized.
- 4.9 Orillia published a Frequently Asked Questions page for the recent launch of their clear bag program. It indicates that soiled recycling, such as soiled tin foil, will be accepted in the clear garbage bags if it is less than 10 per cent of the garbage and the resident has also placed recycling containers for collection.

5. Waste Management Education Program in Durham School Boards

- 5.1 For several years Regional staff has delivered school education programs to engage Durham students in a fun and interactive manner on the importance of proper waste management practices and the impact of their choices on the environment. Engaging students also serves as a means for those students to advocate for proper waste practices in their own homes and workplaces.
- 5.2 These presentations were initially geared toward elementary schools and focused on the proper sorting of paper and packaging for inclusion in the Blue Box. Over time, the focus has shifted to include older students in secondary and post-secondary schools and to cover more complex waste management topics.
- 5.3 Currently, waste management education is offered in all four English-speaking school boards in Durham Region. The development of French language education modules is a priority for the 2022-2023 school year.
- 5.4 Waste management education has evolved to focus on complementing the Ontario Ministry of Education curriculum. With limited staff resources to provide in-person programming, video and online modules were developed for teachers to access and present independently of Regional staff. This shift pre-dated the pandemic but was beneficial with the shift to online school and virtual learning during the COVID-19 pandemic.

- 5.5 At the elementary school level, teachers can request virtual presentations that can be provided as pre-recorded videos or in real-time to allow more interaction with students. These have been available for the 2020-2021 and 2021-2022 school years and cover topics such as the 5Rs (Rethink, Reduce, Reuse, Recycle and Recover) and food waste. For the 2022-2023 school year, more detailed education modules are being developed on the 5Rs, composting, household hazardous waste and careers in waste management.
- 5.6 For secondary students, a virtual education program was launched in September 2021 to provide education modules on several waste management topics. These include Landfills and Perpetual Care, Integrated Waste Management, Energy from Waste and Careers in Waste Management. Education modules include background on the topic, lesson plans to help deliver course material in the classroom, videos and resources, and interactive activities.
- 5.7 The education modules for elementary and secondary students are available on an updated [School Programs](#) webpage.
- 5.8 In addition to the classroom resources outlined above, staff are developing a video library to support the general promotion and education program and diversify the resources provided to teachers and students. Completed videos are posted on the [#DurhamWaste - YouTube](#) channel and include topics such as Durham's Integrated Waste Management System; How to properly participate in the Green Bin program – "the Basics"; Benefits of Recycling; Safe with Your Waste Topics on medical sharps, batteries and others; Careers in Waste Management Series such as Waste Disposal Clerk, Landfill Management, and Waste Management Policy Planner; and Food Waste Reduction.
- 5.9 In 2021, the Waste Management education program reached over 4,000 Kindergarten to Grade 8 students in the Region's school boards and the virtual education program for high school was launched. Private schools are also included in the Region's education program.

6. Update on Orillia Clear Garbage Bag Requirement

- 6.1 Table 1 below outlines key aspects of waste management programs in the Region, Orillia and the Town of Markham (Markham). The comparison is provided to highlight commonalities and differences between the Region and two nearby municipalities requiring clear garbage bags.

- 6.2 The 2020 diversion rates as calculated by the Resource Productivity and Recovery Authority (RPRA) for all three communities are between 60 and 65.8 per cent. York Region's diversion rate is used as a proxy for Markham to ensure a common calculation method for diversion. A key factor in York Region's higher diversion rate is that diapers and pet waste are accepted in their Green Bin program. The Region estimates up to 10 per cent increased diversion is possible if contaminated organics, such as diapers and pet waste, are accepted in the Green Bin.
- 6.3 Both the Region and Orillia impose a garbage bag limit for curbside collection. However, Orillia allows only 20 free bags annually, while the Region allows 104 free bags annually with four bags permitted each collection period. Orillia residents must purchase bag tags for each bag exceeding the 20-bag limit. Markham does not impose a garbage bag limit.
- 6.4 In addition to garbage, the Markham instructs residents to place overflow Green Bin material in plastic bags for collection. York Region staff have indicated that all bagged material received from the local area municipalities that complete curbside collection is considered waste and sent for disposal.
- 6.5 Markham does not operate a Waste Management Facility for residents to drop off items for disposal that are not collected at the curb. Residents are directed to a private waste transfer station where tonnages are not included in Markham's or York Region's waste generation numbers.

Table 1 Waste Management Programs Comparison

	Region of Durham	City of Orillia	Town of Markham
Population	696,992	31,166	338,503
Area, km²	2,537	28.61	210.9
2020 RPRA Diversion Rate	62.8%	60.0%	65.8% (York Region)

	Region of Durham	City of Orillia	Town of Markham
Curbside Garbage Collection	Four bag limit with collection every other week at no charge	20 free bags per year with collection every other week; residents purchase additional bag tags for more than 20 bags per year	No garbage bag limit with collection every other week
Curbside Blue Box	Dual stream collected weekly	Dual stream collected weekly; includes Styrofoam packaging and trays in clear bags and plastic shopping bags	Single stream collected weekly in large boxes (not totes); cardboard bundled separately; excess recycling can be placed in clear bags
Curbside Green Bin	Weekly; limited to food waste and other 'clean' organics such as hair and tissues	Weekly; limited to food waste and other 'clean' organics such as hair and tissues	Weekly; includes diapers and pet waste and allows plastic bags; Overflow organics collected in clear bags
Curbside Bulky Items	Curbside collection by appointment	No curbside collection	Curbside collection of carpet and bulky items with garbage; appliances and metal items collected by appointment; fees may apply

	Region of Durham	City of Orillia	Town of Markham
Grass Clippings	Prohibited for disposal in any Region program	Collected as yard waste but must be tagged with garbage bag tag (i.e.: collected for a fee)	Prohibited for disposal in garbage or yard waste
Garbage Disposal Method	Durham York Energy Centre	City-owned landfill	Managed by York Region at various locations including Durham York Energy Centre, private EFW, and landfill
Garbage Bag Tag availability and cost	Sold as packs of 5 for \$12.50	Sold as packs of 5 for \$10.00	Not Applicable
Waste Management Facility	Three resident drop-off locations for \$5 minimum; sliding scale up to \$125/tonne for waste; \$250/tonne for fill material	One resident drop-off location for \$20 minimum; \$185/tonne for waste; \$370/tonne for construction and demolition waste	Residents directed to privately owned transfer station for garbage disposal where fees apply
Stated Goal of Clear Garbage Bag	Proposed pilot to measure impact on diversion	To divert additional Blue Box and Green Bin material and extend the life of the City landfill	To reduce risk of injury to collection workers and generate clean waste for EFW

	Region of Durham	City of Orillia	Town of Markham
Contamination/Privacy Policy	Proposed: Opaque bags not collected; Zero visible contamination; one privacy bag	Opaque bags not collected; up to 10% visible contamination allowed if recycling containers are out; two privacy bags	Opaque bags not collected; no publicized allowable contamination amount but collector discretion allowed; four privacy bags per clear bag

- 6.6 Orillia implemented a clear garbage bag requirement on February 7, 2022. A Council Information Report comparing waste tonnage for the first five weeks of the clear bag requirement to the same time the previous year was released on April 1, 2022.
- 6.7 The 46 per cent decrease in garbage tonnage year over year is attributed primarily to an increase in organics diversion which rose by 21 per cent. The impact of additional waste generation in 2021 due to COVID-19 stay-at-home orders is not discussed.
- 6.8 Based on the experience of other municipalities as detailed in the Attachment to Report #2022-WR-3, garbage generation generally decreases, and diversion increases in the first months to one year after the implementation of a clear garbage bag requirement. However, diversion numbers generally return to pre-clear bag levels after the first year.

7. Financial Implications

- 7.1 Costs for a clear garbage bag pilot commencing in 2025 will need to be developed closer to the timing for the preparation of the new budget. Anticipated costs include consultant support for communication and auditing, a promotion and education campaign and contractor collection costs. Estimates developed previously for the program totalled approximately \$530,000 and included funding related to additional audit, communication strategy development and implementation, as well as additional fees incurred related to the collection contract.

- 7.2 Costs will be included in the applicable Business Plans and Budget for Waste Management Services and subject to Council approval.
- 7.3 Staff will endeavour to reduce waste auditing costs by coordinating with other planned curbside audits where possible.

8. Relationship to Strategic Plan

- 8.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
 - a. Environmental Sustainability:
 - Goal 1.2: Increase waste diversion and resource recovery.

9. Conclusion

- 9.1 The proposed timing of planning activities for the clear garbage bag pilot must be revised to reflect the referral of the initial report to the September Works Committee and further referral of consideration of the clear garbage bag pilot to the January 2023 Works Committee.
- 9.2 Due to significant changes to waste management services occurring in 2024 the clear garbage bag pilot should be planned for 2025 with the program to be included in the proposed 2025 Waste Management Services Business Plans and Budget for Council approval.
- 9.3 An extensive and expanding waste education program in partnership with the four English school boards operating in Durham Region is supported. The French language programming to allow partnership with the two French language school boards is currently being developed for future implementation.
- 9.4 Clear garbage bag programs, like other waste management services, vary by municipality in the scope and purpose of the requirement. The proposed pilot for Clarington is designed to reflect the Regional Municipality of Durham's integrated waste management system, collection options and contracts and does not introduce any new diversion opportunities for residents.
- 9.5 This report has been reviewed by the Finance Department.

9.6 For additional information, contact: Gioseph Anello, Director, Waste Management Services, at 905-668-7711, extension 3445.

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-1
Date: January 11, 2023

Subject:

Operational Plan for Water Supply Systems to Comply with the Safe Drinking Water Act

Recommendation:

That the Works Committee recommends to Regional Council that in accordance with the requirements of the Ministry of Environment, Conservation and Parks (MECP) approvals framework for municipal drinking water systems, Regional Council acknowledge and endorse the Operational Plan for the Regional Municipality of Durham's Water Supply Systems.

Report:

1. Background

- 1.1 In Part Two (2) of the Report of the Walkerton Inquiry, Justice Dennis R. O'Connor recommended the implementation of a Water Quality Management System (WQMS) for any drinking water system. Justice O'Connor said, "The purpose of the quality management approach in the context of drinking water is to protect public health by achieving consistent good practice in managing and operating a water system".
- 1.2 The Ministry of the Environment, Climate Change and Parks (MECP) has mandated this recommendation under the Safe Drinking Water Act (SDWA) and Ontario Regulation (O. Reg.) 188/07 Licensing of Municipal Drinking Water Systems. The MECP has developed a "Made in Ontario" quality management standard that incorporates Justice O'Connor's recommendations known as the Drinking Water Quality Management Standard (DWQMS).

- 1.3 The DWQMS is part of the Municipal Drinking Water Licensing (MDWL) Program which is the approvals framework for municipal residential drinking-water systems. The requirements for this license are:
- A drinking water works permit;
 - A permit to take water;
 - An approved operational plan;
 - An accredited operating authority; and
 - An approved financial plan, if required.
- 1.4 The DWQMS program, which is part of the Works Department Integrated Management System (IMS), provides the operational plan and the accredited operating authority. The Regional Municipality of Durham (Region) has had an approved operational plan since 2009 that includes both Plant Operations and Maintenance Operations with respect to the water systems. The original Operational Plan was acknowledged and endorsed by Regional Council in December 10, 2008 and has since been updated to reflect minor revisions and the new DWQMS 2.0 standard. There is no stated time at which the Operational Plan must be reviewed, updated, and endorsed. However, moving forward this will be done after each municipal election once all elected representatives of Regional Council have been officially sworn in for the term.
- 1.5 Twenty-one (21) elements are addressed in the Operational Plan which includes:
- Quality Management System (QMS) – Document a Quality Management System;
 - Quality Management System Policy – Foundation for the Quality Management System;
 - Commitment and Endorsement – Written endorsement of the Operational Plans;
 - QMS Representative – Identification of the person to maintain the QMS;
 - Document and Records Control;
 - Drinking-Water System – Description of the Drinking Water System;

- Risk Assessment and Risk Assessment Outcomes – Identification and assessment of potential hazards to the Drinking Water System;
- Organizational Roles, Responsibilities and Authorities;
- Competencies – Requirements for personnel whose duties may directly affect the drinking water quality;
- Personnel Coverage – Procedures to ensure sufficient staffing;
- Communications – Description of both Internal and External communications;
- Essential Supplies and Services – List of suppliers that are essential to the supply of safe drinking water;
- Review and Provision of Infrastructure;
- Infrastructure Maintenance, Rehabilitation and Renewal – Review of the adequacy of infrastructure;
- Sampling, Testing and Monitoring;
- Measurement and Recording Equipment Calibration and Maintenance;
- Emergency Management;
- Internal Audits;
- Management Review – Review of the Operational Plans to ensure adequacy; and
- Continual Improvement.

1.6 There are specific responsibilities listed in the DWQMS for the different levels of management of the water supply systems as shown below, which must be listed in the Operational Plan.

- a. Regional Municipality of Durham, Regional Chair and Regional Council (Owner)

The Region, represented by an elected Regional Chair and Council, is responsible for ensuring a safe and reliable water supply for the citizens of

the Region who are connected to the municipal water supply system. The Owner has the authority to delegate the management of the Water Supply System to qualified and competent staff.

- 1.7 In keeping with the legislated requirements, the DWQMS must identify the Top Management. This person or group of people is defined as the highest level of management who makes decisions about the Quality Management System and who will make recommendations about the water supply systems to the Owner. The identified Top Management group in the Operational Plan consists of the Director of Environmental Services, the Director of Transportation and Field Services, the Manager of Maintenance Operations and Fleet Services and the Manager of Plant Operations. This group has the following responsibilities listed in the Operational Plan:

a. Commissioner of Works

The Owner has delegated the overall responsibility for the management of the water systems to the Commissioner of Works. The Commissioner has the authority to ensure that competent staff is in place at the Director and Manager level to ensure safe and reliable drinking water and who will make decisions on the Quality Management System and recommendations to the Owner.

(Top Management)

b. Directors - Environmental Services and Transportation and Field Services

Through the approval of the Operational Plan and for the purposes of the DWQMS as indicated in the DWQMS Organizational Chart (Attachment #1), the Owner has delegated the responsibility for the management of the municipal water supply systems to this group who will report on the status of the Operational Plan to the Owner. The group is responsible for the overall management of the DWQMS and the water supply system. They have the authority to ensure that competent management staff is in place to ensure there is safe and reliable drinking water. They have the responsibility to guide and coach the staff to ensure they are kept current and up to date on changes in technology, legislation, and other matters that impact the water supply systems. They are responsible for signing the Commitment and Endorsement of the Operational Plan on behalf of

the Owner, the Quality Policy and the Notice of Appointment of the IMS Coordinator.

c. **Managers – Plant Operations and Maintenance Operations**

The Managers are responsible for ensuring that the Operational Plan and the DWQMS are implemented and maintained, as well as ensuring that there is competent management in place at the water supply plants and in the distribution systems. This will ensure a safe and reliable water supply and ensure compliance with regulations. Managers are responsible for maintaining long-term planning and budgets, and for reporting to the Directors on the status of the water supply. This group is responsible for administering, directing and improving the water supply to ensure its safe, efficient and cost-effective operation and maintenance. They are also responsible for reviewing and approving the policies and procedures in the IMS Manual.

1.8 As identified above, the responsibility for the overall management of the DWQMS lies with the Top Management Group. The Owner is responsible for ensuring a safe and reliable water supply for the users of the Region's municipal water supply systems and provides support, as required, to ensure that the system remains compliant with legislation. The Drinking Water Quality Management System Policy that defines the Region's commitment to water quality is included for reference (Attachment #2).

1.9 The Operational Plan has been included for reference (Attachment No. 3). The additional references in the Operational Plan can be located using the IMS drive [WORKS-IMS - Home \(sharepoint.com\)](#)

2. Previous Reports and Decisions

2.1 Regional Council previously acknowledged and endorsed the Operational Plan as outlined in Report No. 2008-W-146 on December 10, 2008.

3. Relationship to Strategic Plan

3.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

- a. Goal 1.4: Demonstrate leadership in sustainability and addressing climate change

- b. Goal 5.3: Demonstrate commitment to continuous quality improvement and communicating results

4. Conclusion

- 4.1 In accordance with the requirements of the Ministry of Environment, Conservation and Parks approvals framework for municipal drinking water systems, Regional Council's acknowledgement and endorsement of the Operational Plan for the Regional Municipality of Durham's Water Supply Systems is recommended. Through this, Regional Council will give authority to the Directors of Environmental Services and Transportation and Field Services to sign the Commitment and Endorsement of the Operational Plan on their behalf.
- 4.2 For additional information, contact: Ian Mcilwham, Manager, Compliance, at 905-668-7711, extension 3736.

5. Attachments

- 5.1 Attachment #1: Drinking Water Quality Management System Organizational Chart
- 5.2 Attachment #2: Drinking Water Quality Management System Policy
- 5.3 Attachment #3: [Link to the Operational Plan](#)

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

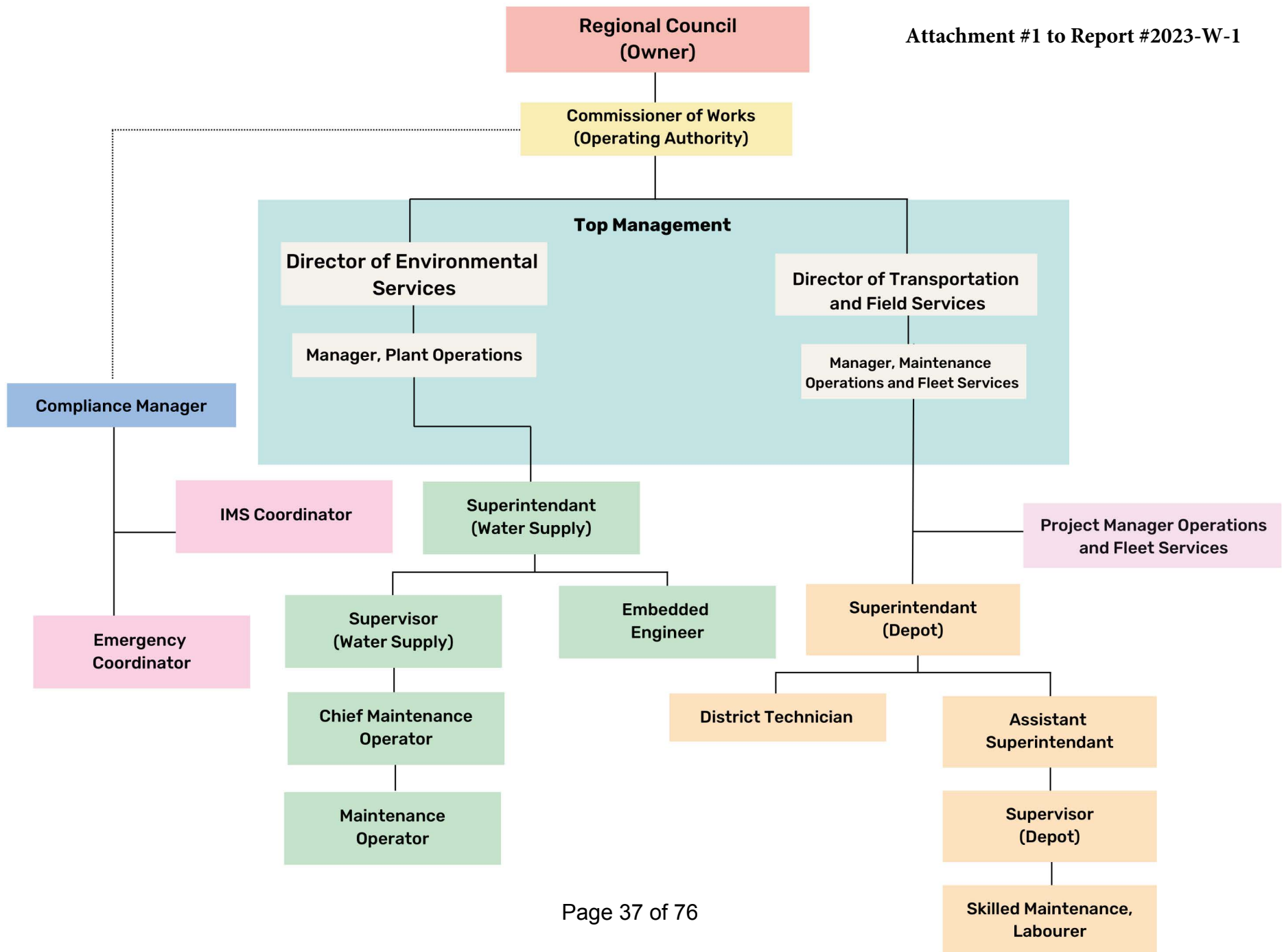
Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

DWQMS ORGANIZATION CHART

Attachment #1 to Report #2023-W-1





Drinking Water Quality Management System Policy

The Regional Municipality of Durham, Works Department, Plant Operations and Maintenance Operations Divisions are committed to:

- The maintenance and continual improvement of the Quality Management System.
- Providing safe drinking water to consumers
- Complying with applicable legislation and regulations
- Striving to reduce environmental impacts

This commitment to implement and continually strive to improve the effectiveness of the Quality Management System will be accomplished through the following quality objectives:

- To provide safe and reliable water treatment and distribution services in an efficient and effective manner that meet or exceeds Provincial water quality requirements.
- To provide a team oriented work environment that encourages personal development and continual improvement by ensuring that training and resources are available to all employees.
- To invest in infrastructure, technology and process improvement to enhance water service delivery.
- To measure the effectiveness of the Quality System through recording and tracking of incidents and their resolutions.

This commitment covers all the water systems that are owned and/or operated by the Regional Municipality of Durham.

Dated: November 15, 2022

A handwritten signature in black ink, appearing to read 'Brad Dobson'.

Brad Dobson
Acting Director of Environmental Services

A handwritten signature in black ink, appearing to read 'Ramesh Jagannathan'.

Ramesh Jagannathan
Director of Transportation and Field Services



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-2
Date: January 11, 2023

Subject:

Tender Award and Additional Financing for Regional Municipality of Durham Contract #D2022-34 for Roundabout Construction on Bowmanville Avenue (Regional Road 57) at the Regional Road 3/Concession Road 8 Intersection, in the Municipality of Clarington

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That the low compliant bid of Hard-Co Construction Ltd. in the amount of \$4,960,341* be awarded for Regional Municipality of Durham Contract #D2022-34 for Roundabout Construction on Bowmanville Avenue (Regional Road 57) at the Regional Road 3/Concession Road 8 Intersection, in the Municipality of Clarington, resulting in a total estimated project cost of \$7,708,142;
- B) That the previously approved project budget of \$5,469,247 for Regional Municipality of Durham Contract #D2022-34 be increased by \$2,238,895 to a revised total project budget of \$7,708,142;
- C) That the funding for the additional project commitments in the amount of \$2,238,895 be provided as follows:

Previously Approved Financing

Municipality of Clarington	\$19,247
Roads Capital Budget (Project ID; R1603)	
Residential DC	\$3,413,700
Commercial DC	\$412,200

Industrial DC	\$219,600
Road Capital Reserve	<u>\$1,404,500</u>
Total Regional Financing	\$5,450,000
Total Previously Approved Financing	<u>\$5,469,247</u>
 Proposed Additional Financing	
Municipality of Clarington	\$10,599
2022 Regional Roads Program	
Residential DC, at the discretion of the Commissioner of Finance	\$1,395,731
Commercial DC, at the discretion of the Commissioner of Finance	\$168,533
Industrial DC, at the discretion of the Commissioner of Finance	\$89,786
Property tax sources, at the discretion of the Commissioner of Finance	<u>574,246</u>
Total Additional Regional Financing	\$2,228,296
Total Proposed Additional Financing	<u>\$2,238,895</u>
Total Revised Financing	<u>\$7,708,142</u>

Report:**1. Purpose**

- 1.1 The purpose of this report is to obtain approval for additional financing and to award Regional Municipality of Durham (Region) Contract #D2022-34 for roundabout construction on Bowmanville Avenue (Regional Road 57) at the Regional Road 3/Concession Road 8 intersection, in the Municipality of Clarington (Clarington).
- 1.2 Dollar amounts followed by an asterisk (*) are before applicable taxes.

2. Project Background

- 2.1 The Region completed the detailed design for a roundabout on Bowmanville Avenue (Regional Road 57) at Regional Road 3/Concession Road 8 in Clarington. The proposed work will include the construction of a roundabout at the intersection of Bowmanville Avenue (Regional Road 57) and Regional Road 3/Concession Road 8. The work will include grading, new pavement, storm sewers, culverts, roadway illumination, concrete sidewalk ramps, and the removal of the existing temporary traffic signals. It is anticipated that construction will start in the spring of 2023.

3. Tender Information

- 3.1 Tenders were received for Regional Contract #D2022-34, for Roundabout Construction at Bowmanville Avenue (Regional Road 57) and Regional Road 3/Concession Road 8 in Clarington, on November 17, 2022, with nine compliant bids. The tenders received are as follows:

Bidder	Total Tender Amount*
Hard-Co Construction Ltd.	\$4,960,341
KAPP Infrastructure Inc.	\$4,989,377
Fermar Paving Ltd.	\$5,030,065
Primrose Contracting (Ont.) Inc.	\$5,144,000
Elirpa Construction & Materials Ltd.	\$5,459,279
Dufferin Construction Company	\$5,691,619
GIP Paving Inc.	\$5,932,056
Trisan Construction	\$6,756,095
Dig-Con International Ltd.	\$7,984,465

- 3.2 The total approved budget is \$5,469,247. The lowest compliant bid amount for the project, plus engineering and contract administration services, Regional costs, and contingencies total \$7,708,142. The difference between the tendered and budgeted amount is due to global inflation pressures caused by supply chain disruptions and cost increases in labour, equipment, and material.

- 3.3 It is recommended that the lowest compliant bidder, Hard-Co Construction Ltd., be awarded Regional Contract #D2022-34.

4. Financial Implications

- 4.1 Section 15.3 of the Region's Budget Management Policy states that the approval of the applicable Standing Committee and Regional Council for additional project financing requirements exceeding \$250,000 prior to the award of the applicable contract is required.

- 4.2 The proposed changes to the project costs are as follows:

Project Component	Approved Project Budget R1603	Approved Municipal Illumination Budget	Total Approved Project Budget	Proposed Change R1603	Proposed Municipal Illumination Change	Total Change	Revised Total Budget
Tender (excluding taxes)	\$3,291,716	\$14,575	\$3,306,291	\$1,645,378	\$8,672	\$1,654,050	\$4,960,341
Net HST	\$57,934	\$256	\$58,190	\$28,959	\$152	\$29,111	\$87,301
Engineering/ Property/ Utilities/ Contract Admin	\$1,701,791	\$2,958	\$1,704,749	\$254,491	\$867	\$255,358	\$1,960,107
Contingency	\$398,559	\$1,458	\$400,017	\$299,468	\$908	\$300,376	\$700,393
Total Costs	\$5,450,000	\$19,247	\$5,469,247	\$2,228,296	\$10,599	\$2,238,895	\$7,708,142

- 4.3 Financing for the award of Regional Contract #D2022-34, Roundabout Construction on Bowmanville Avenue at the Regional Road 3/Concession Road 8 Intersection, is available from the following sources:

Previously Approved Financing

Municipality of Clarington

\$19,247

Roads Capital Budget (Project ID; R1603)	
Residential DC	\$3,413,700
Commercial DC	\$412,200
Industrial DC	\$219,600
Road Capital Reserve	<u>\$1,404,500</u>
Total Regional Financing	\$5,450,000
Total Previously Approved Financing	<u>\$5,469,247</u>
Proposed Additional Financing	
Municipality of Clarington	\$10,599
2022 Regional Roads Program	
Residential DC, at the discretion of the Commissioner of Finance	\$1,395,731
Commercial DC, at the discretion of the Commissioner of Finance	\$168,533
Industrial DC, at the discretion of the Commissioner of Finance	\$89,786
Property tax sources, at the discretion of the Commissioner of Finance	<u>574,246</u>
Total Additional Regional Financing	\$2,228,296
Total Proposed Additional Financing	<u>\$2,238,895</u>
Total Revised Financing	<u>\$7,708,142</u>

5. Conclusion

- 5.1 It is recommended that the low compliant bidder, Hard-Co Construction Ltd., be awarded Regional Contract #D2022-34 for roundabout construction at Bowmanville Avenue (Regional Road 57) and Regional Road 3/Concession Road 8, in the Municipality of Clarington.

- 5.2 It is also recommended that the reallocation of funding at the discretion of the Commissioner of Finance to provide additional financing in the amount of \$2,228,296 be approved.
- 5.3 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the financial recommendations.
- 5.4 For additional information, please contact Dan Waechter, Manager, Construction Management Services, at 905-668-7711 extension 3550, or Reid McGregor, Manager, Transportation Design, at 905-668-7711 extension 3502.

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-3
Date: January 11, 2023

Subject:

Approval for the Regional Municipality of Durham's Ongoing Participation in the Toronto and Region Conservation Authority's Western Durham Nearshore Water Quality Monitoring Program

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That the Regional Municipality of Durham continue participation as a municipal partner with Toronto and Region Conservation Authority's Western Durham Nearshore Water Quality Monitoring Program until the program ceases or the Regional staff of Durham and York determine that participation is no longer required; and
 - B) That financing for the annual contribution to the program, currently set at \$135,000 and shared with York Region at the applicable cost-sharing ratio (currently shared at approximately 18 per cent Durham Region, 82 per cent York Region) be provided in the annual Business Plans and Budgets for the York Durham Sanitary Sewerage System.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to seek approval for the Regional Municipality of Durham (Region) to continue participation in the Toronto and Region Conservation Authority's (TRCA) Western Durham Nearshore Water Quality Monitoring Program as a municipal partner with financing for this program to be

provided from within the annual York Durham Sanitary Sewerage System Business Plans and Budget.

2. Background

- 2.1 The Western Durham Nearshore Water Quality Monitoring program has been collecting water quality data from the nearshore of Lake Ontario between the Rouge River and Carruthers Creek since 2006. The design of the water quality program has progressed through multiple iterations over this period to meet the evolving needs of the research scientists. The study design used from 2015 to 2018 integrates the original survey designs in place up to 2014, with further refinements to the location of sampling sites, concentrating efforts on areas closer to the shoreline.
- 2.2 Sample collection for this program has been coordinated with the Ontario Ministry of the Environment, Conservation and Parks (MECP) nearshore surveys and Environment and Climate Change Canada's (ECCC) offshore surveys across the Western Durham waterfront, including maintaining one 5 kilometre (km) sampling site to bridge the gap between TRCA's nearshore sampling locations and ECCC's offshore water quality surveys.
- 2.3 TRCA publishes plain language reporting of water quality patterns through a series of technical reports. The content of these reports is based on existing data presented at conferences (available on the project [website](#)) with additional analysis being completed where applicable. The intended audience for these reports is the public, non-government organizations, regional staff and local stakeholders who have shown a great interest in water quality conditions in the nearshore of Lake Ontario within western Durham.
- 2.4 In addition to the plain language reporting, TRCA will explore the feasibility of communicating water quality results from this program to the public and key stakeholders through a virtual platform.

3. 2023 Workplan

- 3.1 In partnership with TRCA, the Western Durham Nearshore Monitoring program will build upon the results attained in previous years' spatial and temporal trend analysis to further understand the importance of natural versus anthropogenic influences on nearshore water quality. Areas of focus are:

- Advancing integration of nearshore data and scientific knowledge attained with available watershed science to identify management recommendations;
 - Undertaking a new project to align with the 2023 Cooperative Monitoring and Science Initiative (CSMI) for Lake Ontario;
 - Completing a monitoring program that will inform long-term trends in water quality within the nearshore of Lake Ontario in Western Durham;
 - Advancing research analysis and publication of the data collected in collaboration with academic and other partner organizations to help inform management decisions for Lake Ontario and its tributaries; and
 - Continuing to provide technical and logistical support to partner organizations working on initiatives along the western Durham waterfront of Lake Ontario, including providing subject matter expertise to communities and task teams.
- 3.2 In 2023, TRCA proposes to focus on conducting a project for the 2023 Lake Ontario CSMI, building upon and leveraging other programs, and the results and knowledge attained in the 2021-2022 work. This project will allow TRCA to further the scientific understanding of influences on the nearshore, influence the design of new projects and how watersheds are managed to improve water quality.
- 3.3 Every five years, there is a bi-national effort to focus research in Lake Ontario as part of the CSMI for the lake. The CSMI, instituted under the Science Annex of the 2012 Great Lakes Water Quality Agreement, is an effort to coordinate science and monitoring activities in the Great Lakes to provide detailed information to environmental managers.
- 3.4 The CSMI is an opportunity to share the nearshore expertise gained through the Western Durham Nearshore Monitoring program with those involved in studying Lake Ontario.

4. Justification for Ongoing Participation

- 4.1 Durham has been a municipal partner in TRCA's Western Durham Nearshore Monitoring program since 2006. TRCA are experts in nearshore water quality and have established a network of water quality monitoring locations across western Durham.
- 4.2 Currently, there is no other water quality monitoring program established in Durham that focuses on the nearshore area of Lake Ontario. Participating in this

program will not require the purchase of additional equipment or extra staff to establish a new program.

- 4.3 Durham benefits from the continued support of this program by utilizing the monitoring results and reporting to further our understanding of the nearshore area of Lake Ontario, specifically algae growth, nutrient transportation and loading and water quality.

5. Financial Implications

- 5.1 The total estimated cost for this program is \$135,000* in 2023. The level of financial contribution varies annually based on the annual workplan. The cost of this water quality monitoring program is shared with the Region of York through the operation of the Duffin Creek Water Pollution Control Plant based on the actual annual plant flow for each Region. Durham's portion of this cost allocation is approximately 18 per cent annually.
- 5.2 Financing for the 2023 workplan is available within the 2023 Business Plans and Budgets for the York Durham Sanitary Sewerage System as follows:

	Durham Region Share (18%)	York Region Share (82%)	Total Agreement Value
2023 Amount*	\$24,300	\$110,700	\$135,000

- 5.3 Financing for future workplans will be included in the Business Plans and Budgets for the York Durham Sanitary Sewage System until the initiative winds down or Regional staff determine that participation as municipal partners is no longer required.

6. Relationship to Strategic Plan

- 6.1 Participation in the Western Durham Nearshore Monitoring program aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Goal 2: Community Vitality
 - 2.2 Enhance community safety and well-being
 - b. Goal 5: Service Excellence

- 5.1 Optimize resources and partnerships to deliver exceptional quality services and value
- 5.2 Collaborate for a seamless service experience
- 5.3 Demonstrate commitment to continuous quality improvement and communicating results

7. Conclusion

- 7.1 It is recommended that Regional Council approve the ongoing participation in the Western Durham Nearshore Monitoring program until the initiative ceases or the Regions of Durham and York determine that participation as municipal partners is no longer required.
- 7.2 This report has been reviewed by the Finance Department.
- 7.3 For additional information, contact: Tavis Nimmo, Acting Manager, Technical Support at 905-668-7711, extension 3737.

Respectfully submitted,

Original signed by:

John Presta, P.Eng. MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-4
Date: January 11, 2023

Subject:

Declaration of Lands as Surplus and Approval to Transfer the Surplus Lands to the Town of Whitby as Part of an Agreement with the Ministry of Transportation

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That property known as Old Lake Ridge Road, in the Town of Whitby and The Town of Ajax, legally described as Part 4 on 40R-30216 and all of PIN 26494-0745 in the Regional Municipality of Durham, Town of Whitby and Town of Ajax be declared as surplus to Regional Municipality of Durham requirements;
 - B) That the requirements of Section 3 of Regional By-Law #52-95 be waived to facilitate the land transfer between the Regional Municipality of Durham and The Town of Whitby;
 - C) That the Regional Municipality of Durham's solicitors be authorized to complete the transfer of lands as described, to the Town of Whitby for a nominal sum; and
 - D) That authority be granted to the Commissioner of Works to execute any documents necessary to complete the conveyance to the Town of Whitby.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to declare a portion of the right of way owned by the

Regional Municipality of Durham (Region) as surplus to the Region's requirements (Attachment #1) and to convey the said land to the Town of Whitby (Whitby).

2. Background

- 2.1 As part of the Ministry of Transportation's (MTO) Highway 407, Phase 1 project, Lake Ridge Road (formerly Regional Road 23) between Highway 401 and Kingston Road/ Dundas Street (Highway 2) has been realigned to the west to facilitate a new Highway 401 bridge and interchange. The realignment has resulted in a section of Lake Ridge Road (now Old Lake Ridge Road) from Almond Avenue to Cresser Avenue no longer serving as an arterial road. The Region, MTO and Whitby agreed to transfer this segment of the road to Whitby. The Town of Ajax (Ajax) has indicated that it has no interest in ownership.
- 2.2 *The Public Transportation and Highway Improvement Act* only allows the transfer of a roadway to the municipality in which the roadway is located. As Lake Ridge Road is the boundary road between the Towns of Whitby and Ajax, MTO could not directly transfer the road to Whitby. Therefore, the Region agreed to accept the transfer of this section of the roadway from MTO and then transfer it to Whitby.

3. Property Disposition

- 3.1 The property is located south of Kingston Road/Dundas Street (Highway 2) and east of Lake Ridge Road (formerly Regional Road 23), being a portion of Old Lake Ridge Road from Almond Avenue to Cresser Avenue and having an area of 6,826.1 square metres (1.69 acres).
- 3.2 Regional By-law #52-95 established the procedures governing the sale of real property. The initial step in the disposal process is to declare the real property as surplus to Regional requirements. As the land was only transferred to the Region to facilitate the transfer to The Town of Whitby, the lands can be declared surplus without circulating internally.
- 3.3 The property will be transferred to Whitby directly for a nominal sum.

4. Financial Implications

- 4.1 Costs associated with the completion of the land transfer are estimated to be minimal.

5. Relationship to Strategic Plan

- 5.1 This report aligns with the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Economic Prosperity
Goal 3.3: Enhance communication and transportation networks to better connect people and move goods more effectively.
 - b. Service Excellence
Goal 5.1: Optimize resources and partnerships to deliver exceptional quality services and value.

6. Conclusion

- 6.1 Regional staff recommend that Part 4 on 40R-30216 and all of PIN 26494-0745 be declared surplus to the Regional Municipality of Durham's needs and that the land be conveyed to the Town of Whitby for a nominal sum.
- 6.2 This report has been reviewed by the Legal Services Division of the Corporate Services Department
- 6.3 For additional information, contact Christine Dunkley, Manager, Financial Services and Corporate Real Estate at 905-668-7711, extension 3475.

7. Attachments

Attachment #1: Location Map – Old Lake Ridge Road, Whitby

Respectfully submitted,

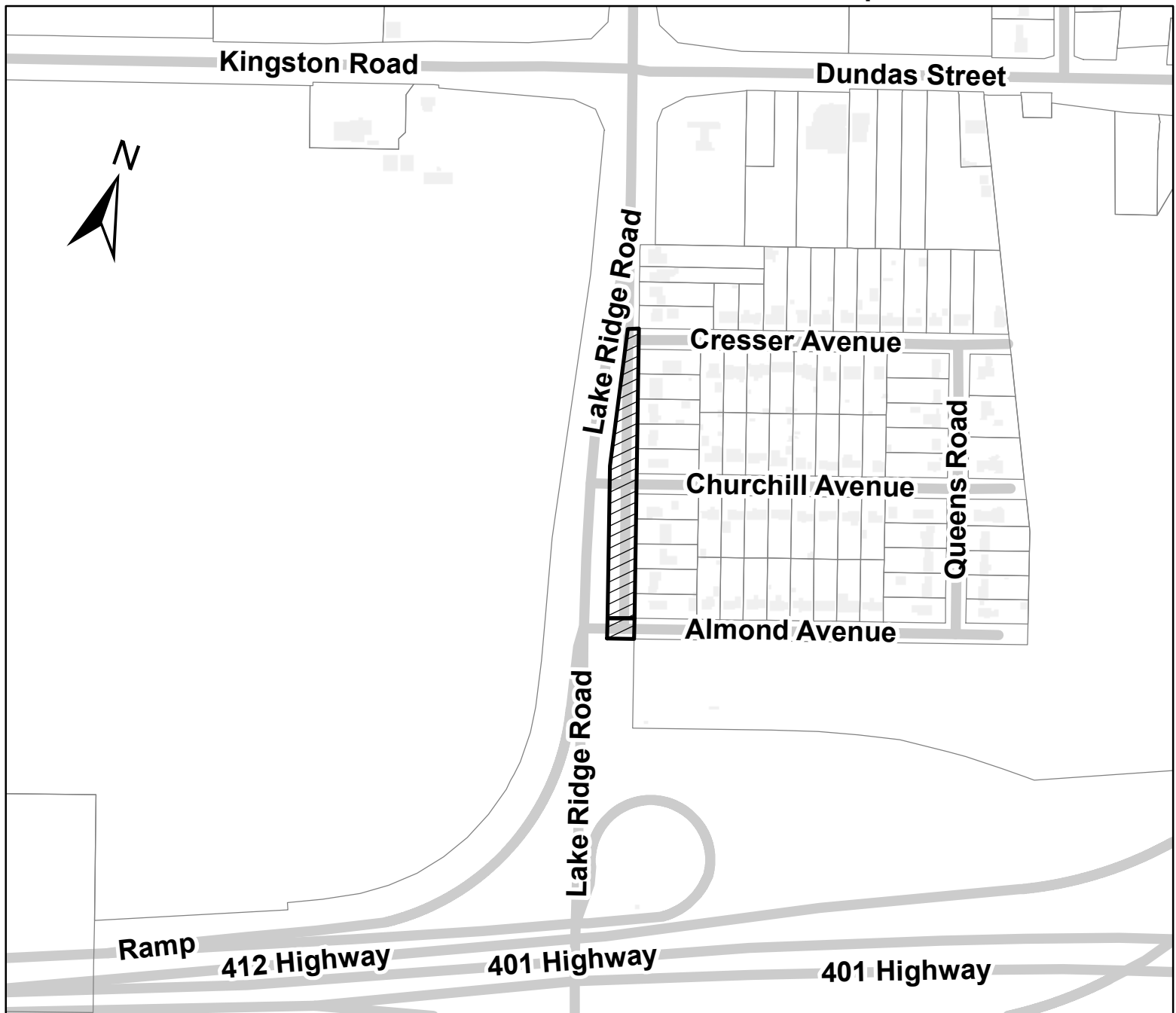
Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

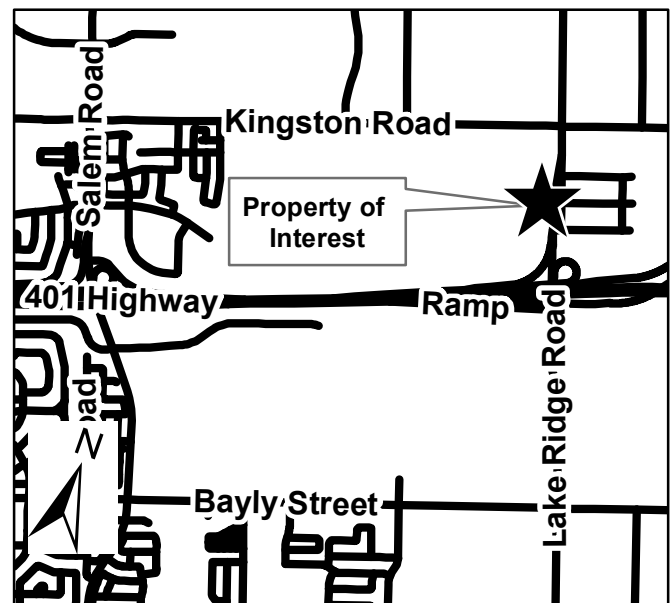


Attachment #1 - Location Map Surplus Land Old Lake Ridge Road Town of Whitby/Town of Ajax



 Property of Interest
 Assessment Parcels

GIS Data: Produced by Durham Region, 2019.
 2017 Contours/2017 Drainage/2017 Orthophotography provided by © First Base Solutions Inc.
 © MPAC and its suppliers. All rights reserved. Not a Plan of Survey.
 © Teranet Enterprises Inc. and its suppliers. All rights reserved. Not a Plan of Survey.
 This map has been produced from a variety of sources. The Region of Durham does not make any representations concerning the accuracy, likely results, or reliability of the use of the materials. The Region hereby disclaims all representations and warranties.
 Flood Plain data is licensed "as is" © CLOCA, GRCA, KRCA, LSRCA and TRCA. This data is provided to the Region of Durham for internal use only, and excludes all representations, warranties, obligations and liabilities, whether express or implied, in relation to the Information. For other uses, including spatial analysis, the respective Conservation Authority must be contacted.





The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-5
Date: January 11, 2023

Subject:

Approval of Unbudgeted Capital Works to be Incorporated into a Subdivision Agreement with the Minto (Harmony Road) GP Inc., Including Cost Sharing in Accordance with the Region Share Policy, for the Extension and Oversizing of a Trunk Sanitary Sewer and Watermains Through the Minto Subdivision, North of Conlin Road East, West Side of Harmony Road North (Regional Road 33), in the City of Oshawa

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That unbudgeted capital works estimated at \$1,804,900 for the Regional share of the trunk sanitary sewer and watermains in the Kedron Secondary Plan, in the City of Oshawa, be approved;
- B) That the Regional Municipality of Durham be authorized to enter into a Subdivision Agreement with Minto (Harmony Road) GP Inc. for the extension and oversizing of a trunk sanitary sewer and watermains through the Minto Subdivision, approximately 750 metres north of Conlin Road East, west of Harmony Road North (Regional Road 33), in the City of Oshawa, including a Regional share amount estimated at \$1,804,900, for an estimated total project cost of \$5,052,100; and
- C) That financing for the subdivision agreement, including the Regional Share amount be provided from the following sources:

Sanitary Sewer:

Developer's Share – Sanitary Sewer

Minto (Harmony Road) GP Inc.

\$1,755,000

Total Developer's Sanitary Sewer Share	<u>\$1,755,000</u>
---	---------------------------

Regional Costs – Sanitary Sewer

Reallocation of Funds

2022 Sanitary Sewerage System Capital Budget

Item No. 79: Thickson Rd. Sub-trunk sanitary sewer
from Glengowan St. to Conlin Rd. (Project ID: D2103)

Residential Development Charge Reserve Fund	\$1,023,901
---	-------------

Commercial Development Charge Reserve Fund	63,821
--	--------

User Rate	<u>299,678</u>
-----------	----------------

Total Regional Share – Sanitary Sewer	<u>\$1,387,400</u>
--	---------------------------

Total Sanitary Sewer	<u>\$3,142,400</u>
-----------------------------	---------------------------

Watermain:

Developer's Share - Watermain

Minto (Harmony Road) GP Inc.	<u>\$1,492,200</u>
------------------------------	--------------------

Total Developer's Watermain Share	<u>\$1,492,200</u>
--	---------------------------

Regional Costs – Watermain

2022 Water Supply System Capital Budget

Item No. 304 Allowance for Regional share for works in conjunction
with residential subdivision development (Project ID: M2210)

Residential Development Charge Reserve Fund	\$365,730
---	-----------

Commercial Development Charge Reserve Fund	9,185
--	-------

User Rate	<u>42,585</u>
-----------	---------------

Total Regional Share – Watermain	<u>\$417,500</u>
---	-------------------------

Total Watermain	<u>\$1,909,700</u>
------------------------	---------------------------

Total Developer's Share	<u>\$3,247,200</u>
--------------------------------	---------------------------

Total Regional Share	<u>\$1,804,900</u>
-----------------------------	---------------------------

Total Project Financing	<u>\$5,052,100</u>
--------------------------------	---------------------------

Report:**1. Purpose**

- 1.1 The purpose of this report is to obtain approval for unbudgeted capital work and to enter into a Subdivision Agreement with the Minto (Harmony Road) GP Inc. (Minto), including cost sharing in accordance with the Regional Municipality of Durham's (Region) Share Policy, related to the construction of a proposed trunk sanitary sewer and watermains in the City of Oshawa.

2. Background

- 2.1 Minto plans to develop their Draft Plan of Subdivision, located approximately 750 metres (m) north of Conlin Road on both sides of Harmony Road (Regional Road 33) within the Kedron Secondary Plan Area in Oshawa. To develop the lands, the construction of a 675 millimetre (mm) diameter trunk sanitary sewer and watermains through the Minto Subdivision is required. Minto also requires a 200 mm diameter sanitary sewer, a 300 mm diameter watermain and a 400 mm diameter watermain to be constructed internal to the subdivision. All proposed cost sharing will be in accordance with the Region's Share Policy within the Region's Development Charges Study.
- 2.2 The Region's Share Policy requires the developer to pay for the works required to service the subject development, with the Region responsible for the balance of the cost. In this case, Minto would be responsible to pay for the cost to construct a 200 mm diameter sanitary sewer, and the Region would be responsible to pay the cost of oversizing these pipes to a 675 mm diameter sanitary sewer downstream from the future northern Type C arterial road, to be known as Nancy Diamond Boulevard right-of-way, to an outlet on Harmony Road.
- 2.3 The Region would be responsible to pay 50 per cent of the cost for a 300 mm watermain along the future Nancy Diamond Boulevard right-of-way as well as oversizing this pipe to a 400 mm diameter watermain where the abutting lands are a part of a future subdivision. The length of these abutting lands is approximately 395 metres. The Region would also be responsible for the extension of a 450 mm sanitary sewer and 300 mm watermain along the future Nancy Diamond Boulevard right-of-way.
- 2.4 The developer will be responsible for 100 per cent of the local sanitary sewer and water supply services contained within the plan of subdivision.

- 2.5 Regional staff have standing authority to approve cost sharing in keeping with the Policy up to a maximum Regional Share of \$500,000 for Subdivision Agreements. As this project exceeds the authorized amount, Regional Council's approval is required.
- 2.6 All other requirements of the Regional Subdivision Agreement will be in place, including the posting of a letter of credit for 100 per cent of the cost of the works, Regional inspection requirements and the two-year infrastructure maintenance period.

3. Previous Reports and Decisions

- 3.1 There are no previous reports/decisions related to this report.

4. Financing

- 4.1 Section 14.2.2 of the Region's Budget Management Policy requires approval of Works Committee and Regional Council for purchases of unbudgeted capital expenditures in excess of \$50,000.
- 4.2 The financing of \$5.05 million including the Developer's share of \$3.25 million and the Region's share of \$1.8 million for the oversizing and abutting costs can be provided as follows:

Sanitary Sewer:

Developer's Share – Sanitary Sewer

Minto (Harmony Road) GP Inc.

\$1,755,000

Total Developer's Sanitary Sewer Share

\$1,755,000

Regional Costs – Sanitary Sewer

Reallocation of Funds

2022 Sanitary Sewerage System Capital Budget

Item No. 79: Thickson Rd. Sub-trunk sanitary sewer

from Glengowan St. to Conlin Rd. (Project ID: D2103)

Residential Development Charge Reserve Fund

\$1,023,901

Commercial Development Charge Reserve Fund

63,821

User Rate

299,678

Total Regional Share – Sanitary Sewer

\$1,387,400

Total Sanitary Sewer

\$3,142,400

Watermain:**Developer's Share - Watermain**

Minto (Harmony Road) GP Inc.	<u>\$1,492,200</u>
------------------------------	--------------------

Total Developer's Watermain Share	<u>\$1,492,200</u>
--	---------------------------

Regional Costs – Watermain

2022 Water Supply System Capital Budget

Item No. 304 Allowance for Regional share for works in conjunction
with residential subdivision development (Project ID: M2210)

Residential Development Charge Reserve Fund	\$365,730
---	-----------

Commercial Development Charge Reserve Fund	9,185
--	-------

User Rate	<u>42,585</u>
-----------	---------------

Total Regional Share – Watermain	<u>\$417,500</u>
---	-------------------------

Total Watermain	<u>\$1,909,700</u>
------------------------	---------------------------

Total Developer's Share	<u>\$3,247,200</u>
--------------------------------	---------------------------

Total Regional Share	<u>\$1,804,900</u>
-----------------------------	---------------------------

Total Project Financing	<u>\$5,052,100</u>
--------------------------------	---------------------------

- 4.3 Construction of the Thickson Road Sub-trunk sanitary sewer is directly related to development activity for the service area. Based on the development requirements, this project is not proceeding in 2022 and consequently will be re-budgeted in 2023.

5. Relationship to Strategic Plan

- 5.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

- a) Goal 5 Service Excellence – to provide exceptional value to Durham taxpayers through responsive, effective and fiscally sustainable services delivery.
 - Priority 5.1 – Optimize resources and partnerships to deliver exceptional quality services and value.

6. Conclusion

- 6.1 It is recommended that Regional Council enter into a Subdivision Agreement with Minto (Harmony Road) GP Inc. containing the foregoing provisions and that the capital works be approved as identified in the report.
- 6.2 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the financial recommendation.
- 6.3 For additional information, contact: Charlotte Pattee, Development Approvals Engineer, at 905-668-7711, extension 3435.

7. Attachments

Attachment #1: Location Plan

Respectfully submitted,

Original signed by:

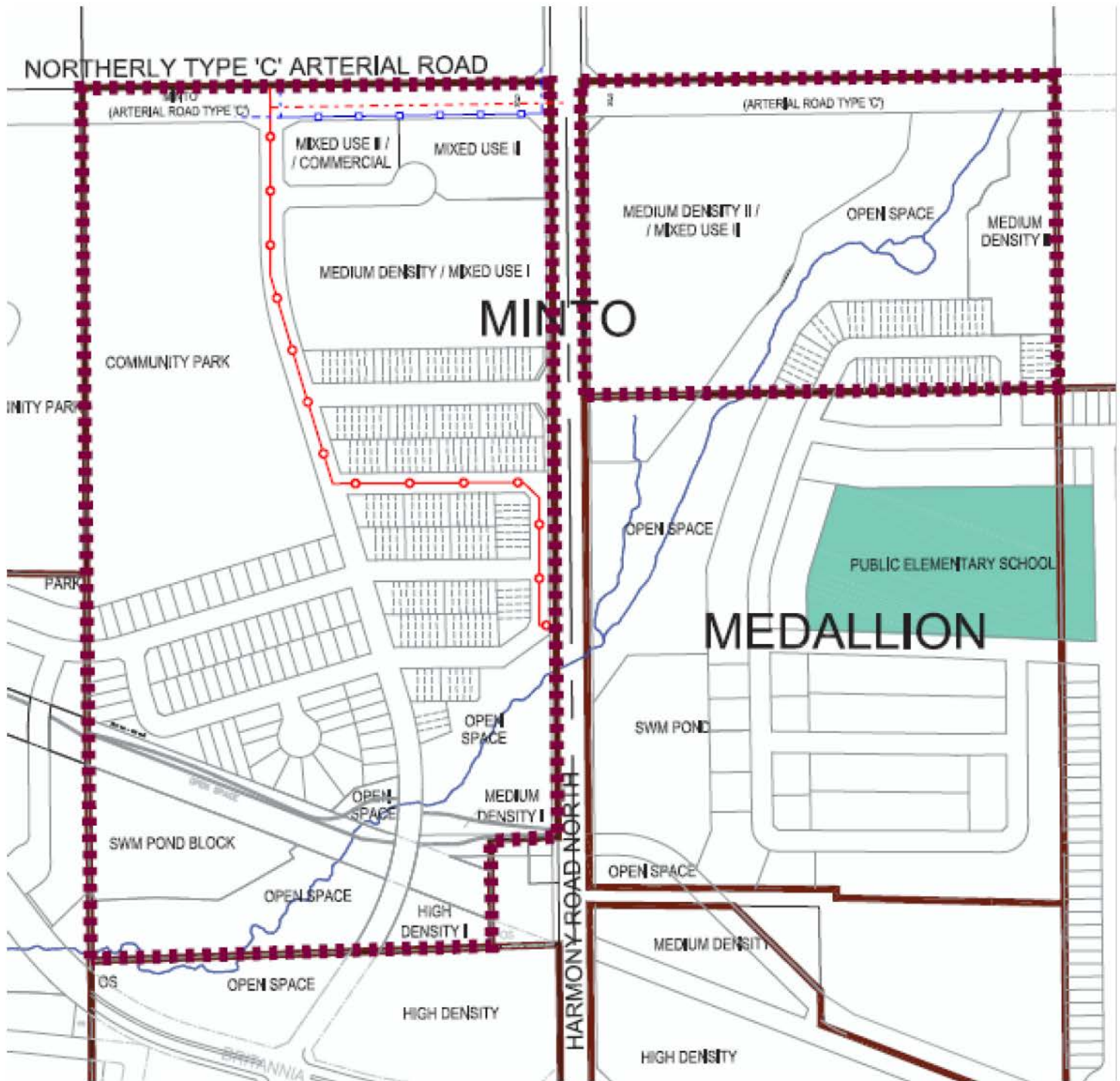
John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

LOCATION PLAN



LEGEND

- 100% Region share sanitary sewer
- Oversizing sanitary sewer
- 100% Region share watermain
- 50% minimum size watermain
- Limit of Minto's property



The Regional Municipality of Durham Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-6
Date: January 11, 2023

Subject:

Adoption of the Regional Legacy Area Servicing Policy - and Update on Servicing Options for Property Owners on Bickle Drive and Roselawn Avenue, including the Sun Valley Heights Homebuilders Co-op, in the City of Oshawa

Recommendations:

That the Works Committee recommends to Regional Council

- A) That the Regional Legacy Area Servicing Policy included as Attachment #1 to this report be approved and adopted;
 - B) That a review of payment terms related to frontage charges for the extension of water supply and sanitary sewerage services to service legacy areas be reviewed as part of the 2024 User Rate Study; and
 - C) That a copy of this report be provided to the residents of Bickle Drive and Roselawn Avenue, Sun Valley Heights Homebuilders Co-op in the City of Oshawa, and the York Durham Ministry of the Environment, Conservation and Parks office.
-

Report:

1. Purpose

1.1 The purpose of this report is to:

- a. Recommend that Regional Municipality of Durham (Region) Council adopt a Regional Legacy Area Servicing Policy (Attachment #1, including alternative financing terms for servicing legacy areas); and

- b. Provide Regional Council with an update to Works Committee Report #2022-W-40 - Servicing Options for Property Owners on Bickle Drive and Roselawn Avenue, including the Sun Valley Heights Homebuilders Co-op, in the City of Oshawa (Attachment #2 - Map of Sun Valley Heights Homebuilders Co-op).

2. Background

- 2.1 The primary goal of the Regional Official Plan related to water supply and sanitary sewerage infrastructure is sequential development. There are very few legacy areas within the Region's urban boundary where residential development consisting of more than one sequential property occurred prior to water supply and/or sanitary sewerage infrastructure being available.
- 2.2 Legacy areas are serviced by the Region via a successful petition in keeping with Ontario Regulation 586/06 under the Municipal Act, 2001, S.O. 2001, C. 25 (Act). In the absence of available Federal/Provincial grant funding and/or where private services are failing for most of the property owners within the legacy area, petitions have a low success rate.
- 2.3 While the costs for servicing may be reduced by servicing a large area rather than an individual property, petitions still tend to fail as there is a requirement for property owners to pay frontage fees on the date the service becomes available, even if they choose not to connect to the municipal system at that time. When a service is extended past legacy areas through the traditional development process, frontage fees are not required until the property owner chooses to connect to the service.

3. Proposed Regional Legacy Area Servicing Policy

- 3.1 A Regional legacy area can be defined as an area within the urban boundary where the existing properties are serviced by private wells and private sewage disposal systems.
- 3.2 When a road within a legacy area is scheduled for reconstruction, there are economies of scale for installing watermains and/or sanitary sewers infrastructure at the same time.
- 3.3 When the conditions of the proposed Regional Legacy Area Servicing Policy are met, the Region will plan to include the extension of watermains and/or sanitary sewers within a capital road reconstruction project within a legacy area. These conditions include: 1) the local municipality has identified that the local road requires reconstruction based on a condition assessment; and 2) the local

municipality has approved the road reconstruction and associated funding to proceed with the road project.

- 3.4 To recover costs, current frontage and connection charges shall be applicable in conformance with Water Supply System By-Law Number #89-2003 and Sewer System By-Law Number #90-2003.
- 3.5 Funding for the construction of the work shall be to the satisfaction of the Commissioner of Finance. Projects related to servicing legacy areas shall be approved within the annual Water Supply and Sanitary Sewerage Budgets.
- 3.6 Section 326 under the Act permits a municipality to pass a by-law that would:
- a. identify a special service¹;
 - b. determine which of the costs, including capital costs, debenture charges, charges for depreciation or a reserve fund, of the municipality are related to that special service;
 - c. designate the area of the municipality in which the residents and property owners receive or will receive an additional benefit from the special service that is not received or will not be received in other areas of the municipality;
 - d. determine the portion and set out the method of determining the portion of the costs determined in clause (b) which represent the additional costs to the municipality of providing the additional benefit in the area designated in clause (c); and
 - e. determine whether all or a specified portion of the additional costs determined in clause (d) shall be raised under subsection (4). 2001, c. 25, s. 326 (1); 2006, c. 32, Sched. A, s. 136 (1).
- 3.7 By approving a by-law in accordance with this provision in the Act where appropriate, the Region could recover costs immediately from property owners through the imposition of frontage and connection charges to recover the costs to install the water and/or sanitary sewerage infrastructure, any decommissioning costs related to the private communal system and require immediate connection

¹ The Act defines a special service as a service or activity of a municipality or a local board of the municipality that is: (a) not being provided or undertaken generally throughout the municipality; or (b) being provided or undertaken at different levels or in a different manner in different parts of the municipality.

to the services installed. This condition will be necessary and applicable under circumstances where the private communal system must be decommissioned.

4. Sun Valley Servicing Update and Policy Application

- 4.1 There is a joint benefit to the Region and the Sun Valley Heights Homebuilders Co-op (Sun Valley) property owners to extend water supply services into the community and decommission the existing private communal well that is operated by the Region. As noted previously in Works Committee Report #2022-W-40, the existing private communal well is at risk of failing which would leave 17 property owners without potable water.
- 4.2 The extension of municipal services is planned with the reconstruction of Thornton Road North from Conlin Road to the north of Bickle Drive, in the City of Oshawa, which will bring municipal services adjacent to the Sun Valley system.
- 4.3 The Sun Valley service area would meet the definition of a legacy area under the proposed Regional Legacy Area Servicing Policy.
- 4.4 Through the proposed Policy, a watermain could be constructed within the future local road project issued by City of Oshawa staff for the reconstruction of Bickle Drive and Roselawn Avenue.
- 4.5 By Regional Council approving a by-law for the Sun Valley property owners in accordance with Section 326 under the Act, the Region would recover costs immediately from the Sun Valley property owners once the infrastructure is available to connect to through the imposition of current frontage and connection charges to cover their share of the cost of the watermain, the imposition of the full cost of the decommissioning of the communal well, and would require that all Sun Valley property owners connect within three months to the watermain to allow for the decommissioning of the private communal well.

5. Estimated Costs for Sun Valley Property Owners

- 5.1 The majority of lots within Sun Valley have a frontage of 30.48 metres. The 2022 frontage fee for a 150-millimetre (mm) watermain is \$460 per metre and the current connection fee for a 19-mm water service is \$3,700. The frontage fee is subject to annual adjustments made during the approval of the Water Supply and Sanitary Sewerage Budgets.
- 5.2 The estimated cost of decommissioning the private communal well, shared equally amongst the Sun Valley property owners, is approximately \$5,000 per property. It is important to note that this estimate is subject to change based on

actual project tender costs, project timing, local construction activity and supply chain issues, etc.

- 5.3 Work on private property for Sun Valley property owners to connect to the new water service is estimated to range between \$1,000 to \$5,000 depending on the condition and/or location of their existing water service connection in the home. Estimated costs will be higher should the existing water service connection on private property need to be fully replaced. This estimate is subject to change based on project timing, local construction activity, supply chain issues, or other influencing factors.
- 5.4 A watermain is planned within the Thornton Road reconstruction project. The Sun Valley owners are serviced with a private communal well within the urban area. Due to the condition of the Sun Valley private well and potential failure, it is recommended that water frontage and connection charges be applied when the watermain is operational.
- 5.5 The estimated average cost to Sun Valley property owners based on 2022 frontage and connection charges, including their equal share to decommission the private communal well and work on private property to reconnect their water service connection is summarized in the table below and is subject to change based on project timing as identified above.

Element	Estimated Cost Per Lot (\$ 2022)
Frontage charges (30.48 metres x \$460 per metre) (rounded)	14,100
Service Connection Fee	3,700
Well Decommissioning - estimated cost share	5,000
Work on Private Property (average)	3,000
Total Estimated Average Cost per Lot	25,800

6. Relationship to Strategic Plan

- 6.1 This report aligns with the following strategic goals and priorities in the Durham Region Strategic plan:

a. Goal 5 – Service Excellence

Objective 5.1: Optimize resources and partnerships to deliver exceptional quality services and value.

7. Conclusion

- 7.1 It is recommended that this Regional Legacy Area Servicing Policy be approved and adopted by Regional Council.
- 7.2 With the approval of the proposed Policy, a by-law will be prepared and presented to Regional Council for the construction of a watermain along Bickle Drive and Roselawn Avenue, including the Sun Valley Heights Homebuilders Co-op, imposing immediate connection to the watermain, authorizing the decommissioning of the existing private communal well, and imposing current frontage and connection fees payable by the property owners so that Regional costs are immediately recovered.
- 7.3 This Report has been reviewed by the Finance Department and Legal Services. Both the Commissioner of Finance and Regional Solicitor concur with the recommendations.
- 7.4 For additional information, contact: Mike Hubble, Manager of Environmental Services Design, at 905-668-7711 extension 3460.

8. Attachment

Attachment #1: Regional Legacy Area Servicing Policy

Attachment #2: Map of Sun Valley Heights Homebuilders Co-op

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer

Regional Legacy Area Servicing Policy

1. Purpose

- 1.1 This policy provides a procedure for the extension of water supply and sanitary sewerage infrastructure to Legacy Areas.

2. Background

- 2.1 The primary goal of the Regional Municipality of Durham (Region) Official Plan related to water supply and sanitary sewerage infrastructure is sequential development. There are legacy areas within the Region's urban boundary where residential development consisting of more than one sequential property occurred prior to water supply and/or sanitary sewerage infrastructure being available.
- 2.2 Legacy Areas are serviced by the Region via a successful petition in keeping with Ontario Regulation 586/06 under the *Municipal Act, 2001, S.O. 2001, C. 25*. In the absence of available Federal/Provincial grant funding and/or where private well and sewage disposal systems are in poor condition or failing for the majority of the property owners within the legacy area, petitions have had a historical low success rate.
- 2.3 While the costs for servicing may be reduced by servicing a large area rather than an individual property, petitions still tend to fail as there is a requirement for property owners to pay frontage fees on the date the service becomes available, even if they choose to not connect to the municipal system at that time. When a service is extended past legacy areas through the traditional development process, frontage fees are not required until the property owner chooses to connect to the service.

3. Policy

- 3.1 There are economies of scale for installing water supply and/or sanitary sewerage infrastructure where a road within a legacy area is scheduled for reconstruction.
- 3.2 The Region shall include the extension of watermains and/or sanitary sewers to service a legacy area when the Region or a local municipality identifies the need for a full road reconstruction under the following conditions:

- a. The project is within the urban boundary as identified by the Regional Official Plan;
 - b. Watermains and/or sanitary sewers do not currently exist within the project limits; and
 - c. It is sequential and technically feasible to include watermains and/or sanitary sewers within the road reconstruction project.
- 3.3 Funding for the construction work shall be to the satisfaction of the Commissioner of Finance. Projects related to servicing legacy areas shall be approved within the annual Water Supply and Sanitary Sewerage Budgets.
- 3.4 Current Frontage and Connection Charges shall be applicable in conformance with Water Supply System By-Law Number 89-2003 and Sewer System By-Law Number 90-2003.
- 3.5 Where the conditions of this policy are met, and where appropriate, Regional Council will pass a by-law in accordance with Section 326 under the *Municipal Act, 2001, S.O. 2001, C. 25*, to:
- a. Authorize the construction of a watermain and/or a sanitary sewer;
 - b. Authorize the decommissioning of any existing infrastructure (i.e., private communal well and/or private sewage disposal system);
 - c. Authorize, immediately upon the completion of the water supply and/or sanitary sewerage works system, the imposition of current frontage and connection charges and the communal system decommissioning costs upon the property owners impacted; and
 - d. Require that all property owners connected to the communal system disconnect within 3 months to allow for the decommissioning of the existing private communal system.
- 3.6 A by-law will be necessary and applicable under circumstances where the communal or private system must be decommissioned.

4. Definition of Terms

Connection Fee	Shall be the fee outlined in the latest version of the Regional Municipality of Durham Water Supply System and Sanitary Sewerage System Fees and Charges schedule, updated annually;
Frontage Fee	Shall be the fee outlined in the latest version of the Regional Municipality of Durham Water Supply System and Sanitary Sewerage System Fees and Charges schedule, updated annually;
Individual service connection	Shall refer to a water or sanitary service connection that services an individual property and is located within the municipal right-of-way; and
Legacy Area	Located within the Region's urban boundary where residential development consisting of more than one sequential property occurred prior to water supply and/or sanitary sewerage infrastructure being available and where water supply and/or sanitary sewerage is now adjacent to or abuts the legacy area and is sequentially available.

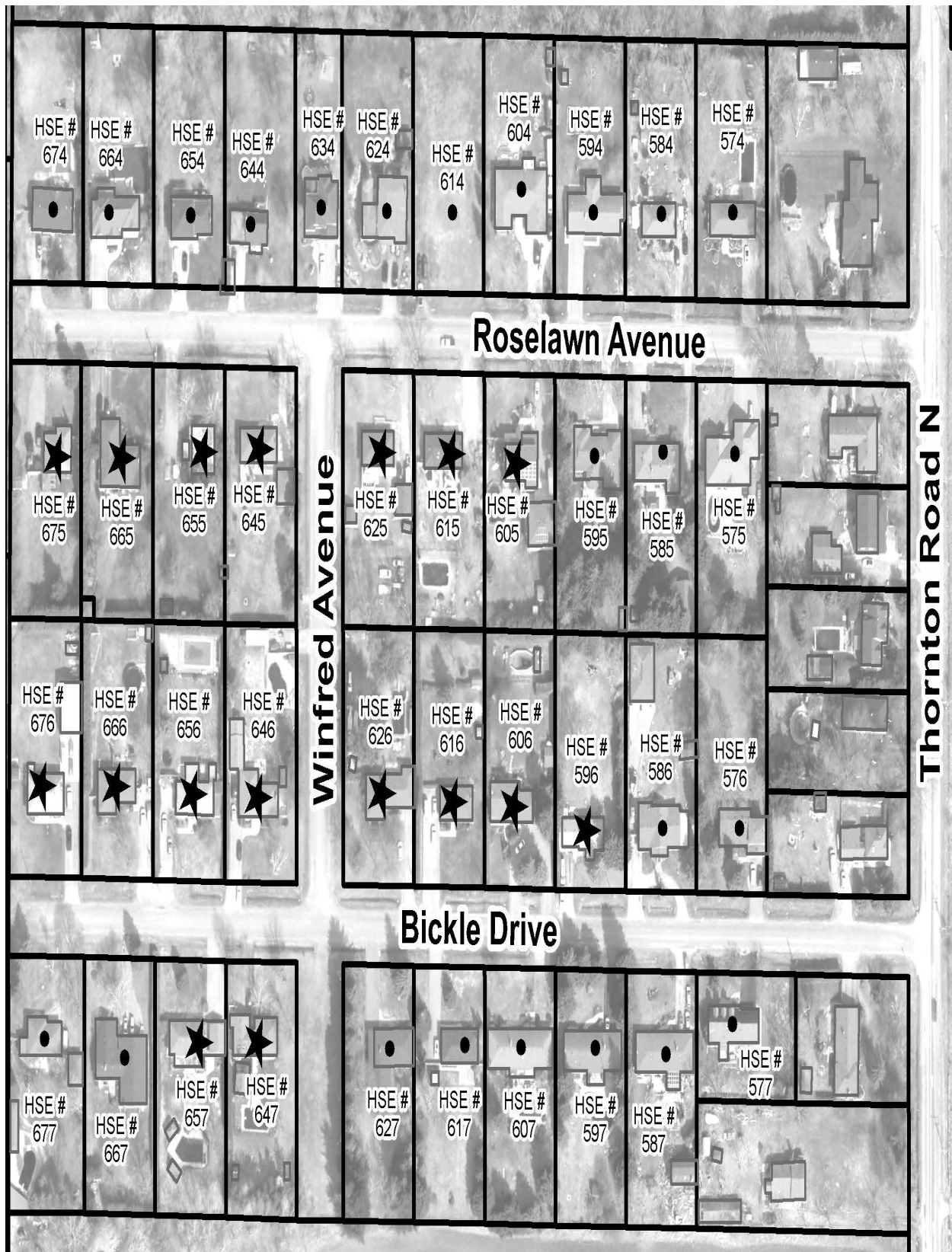
5. Procedure

- 5.1 As part of the local area municipality's or the Region's road reconstruction program, water supply and/or sanitary sewerage infrastructure will be included to service properties within legacy areas.
- 5.2 Individual services connection(s) will be provided by the Region from the watermain or sanitary sewer to the property line only.
- 5.3 Prior to connecting to the new individual service connection, the property owner must apply for a new service connection permit from the Region and pay the current applicable Frontage and Connection Fees in accordance with Regional Municipality of Durham Water Supply System By-law #89-2003 and Sanitary Sewerage System By-law #90-2003. Service Connection permits will be issued once the local service is in operation.
- 5.4 Where a by-law is passed related to the legacy area, the property owners must connect to the municipal system within the timeframes in the by-law to allow for the decommissioning of any communal infrastructure.

6. References

- *Municipal Act, 2001, S.O. 2001, C. 25*
- Regional Municipality of Durham Water Supply System By-Law Number #89-2003
- Regional Municipality of Durham Sewer System By-Law Number #90-2003

Map of Sun Valley Heights Homebuilders Co-op



Note: Star denotes homes currently connected to the Private Communal Well



The Regional Municipality of Durham

Report

To: Works Committee
From: Commissioner of Works
Report: #2023-W-7
Date: January 11, 2023

Subject:

Tender Award and Additional Financing for Regional Municipality of Durham Contract #D2022-16 for the Highway 401 Tunnel Liner Decommissioning at Merritt Street, in the City of Oshawa

Recommendations:

That the Works Committee recommends to Regional Council:

- A) That the low compliant bid of Tydon Contracting Ltd. in the amount of \$1,686,076*, be awarded for Regional Municipality of Durham Contract #D2022-16 for the Highway 401 Tunnel Liner Decommissioning at Merritt Street, in the City of Oshawa, resulting in a total estimated project cost of \$2,260,000;
 - B) That the previously approved project budget of \$1,350,000 for Regional Municipality of Durham Contract #D2022-16 be increased by \$910,000 to a revised total project budget of \$2,260,000, with the increase in financing to be provided from sanitary sewer user rate sources at the discretion of the Commissioner of Finance; and
 - C) That the Commissioner of Finance be authorized to execute any documents related to the award of the tender.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to obtain approval for additional financing to award Regional Municipality of Durham (Region) Contract #D2022-16 for the Highway 401 Tunnel Liner Decommissioning at Merritt Street, in the City of Oshawa (Oshawa).

1.2 Dollar amounts followed by an asterisk (*) are before applicable taxes.

2. Project Background

- 2.1 In 2003, the Region tendered Contract #D2003-018 for the construction of a sanitary sewer inside a steel liner crossing Highway 401 at Merritt Street in Oshawa. The steel liner was installed using trenchless technology.
- 2.2 The project encountered many challenges, including the contractor having difficulty keeping the liner on its intended alignment and grade. The surrounding soil was also compromised during construction and a sinkhole formed outside of the lanes of traffic, causing an immediate highway closure for emergency repairs due to safety concerns. The liner installation was eventually completed. However due to the alignment of the liner, the sanitary sewer was never installed and the Region terminated the contract.
- 2.3 Given the age of the steel liner, the uncertainty around its original condition and degradation over time and to mitigate the associated risks, the steel liner needs to be properly abandoned by filling it with grout.
- 2.4 In 2019, the Region retained the services of R.V. Anderson Associates Ltd. (RVA) to complete the detailed design of the Highway 401 Tunnel Liner Decommissioning. The proposed solution includes settlement and heave monitoring of the highway surface, exposing the steel liner, closed-circuit television (CCTV) investigation to determine the condition of the liner, installing injection ports and filling the liner with a flowable grout, and permanently restoring the pavement surface. Any voids in the sub-base of the highway will also be pressure grouted.
- 2.5 With consideration to the risks noted above, the Region undertook a contractor pre-qualification process under Request for Pre-Qualification (RFPQ) #1078-2022. The purpose of this process was to ensure that only those contractors experienced in specialty grouting were permitted to bid. The following three contractors were short-listed:
- Clearway Construction Inc.
 - Keller Foundations Ltd.
 - Tydon Contracting Ltd.

- 2.6 The Ministry of Transportation – Ontario (MTO) has advised they will soon be tendering a contract for the reconstruction of bridges at Simcoe Street South (Regional Road 2) and Albert Street, in Oshawa. The MTO has advised that this contract could last up to three years over which time the Region will not be permitted to undertake any works in the vicinity of their project, including the decommissioning of the Merritt Street Tunnel. The bridge reconstruction contract is expected to commence in May 2023. To ensure that the Merritt Street tunnel liner is decommissioned in advance of the MTO's project, the tunnel liner decommissioning contract should proceed as soon as possible.

3. Tender Information

- 3.1 Tenders were received for Regional Contract D2022-16 for the Highway 401 Tunnel Liner Decommissioning at Merritt Street in Oshawa on December 13, 2022, with two compliant bids. The tenders received are as follows:

Bidder	Total Tender Amount (excluding applicable taxes)
Tydon Contracting Ltd.	\$1,686,076
Clearway Construction Inc.	\$2,591,414

- 3.2 The total approved budget is \$1,350,000. The lowest compliant bid amount for the project, plus engineering and contract administration services, Regional internal costs, and contingencies total \$2,260,000. Additional funding in the amount of \$910,000 will be required. The difference between the tendered and budgeted amount is a result of the difficulty in quantifying the risk on this project, as well as global inflation pressures caused by supply chain disruptions and cost increases in labour, equipment, and material.
- 3.3 It is recommended that the lowest compliant bidder, Tydon Contracting Ltd., be awarded Regional Contract #D2022-16.

4. Financial Implications

- 4.1 Section 15.3 of the Region's Budget Management Policy states that the approval of the applicable Standing Committee and Regional Council for additional project financing requirements exceeding \$250,000 prior to the award of the applicable contract is required.

- 4.2 Additional financing in the amount of \$910,000 for the award of Tender #D2022-16 for the Highway 401 Tunnel Liner Decommissioning at Merritt Street will be provided from sanitary sewer user rate sources at the discretion of the Commissioner of Finance:

Project Component	Approved Project Budget Project ID O0615 (User Rate Financing)	Proposed Change (User Rate Financing)	Revised Total Budget
Tender (excluding taxes)	\$790,000	\$896,076	\$1,686,076
Net HST	13,906	15,772	29,678
Engineering/Property/ Utilities/Contract Admin	234,252	0	234,252
Contingency	311,842	(1,848)	309,994
Total Costs	\$1,350,000	\$910,000	\$2,260,000

5. Conclusion

- 5.1 It is recommended that Regional Council grant approval to award Contract #D2022-16 to the lowest compliant bidder, Tydon Contracting Ltd., for the Highway 401 Tunnel Liner Decommissioning at Merritt Street, in the City of Oshawa.
- 5.2 It is recommended that additional financing be approved in the amount of \$910,000 and be provided from sanitary sewer user rate sources at the discretion of the Commissioner of Finance.
- 5.3 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the financial recommendations.

- 5.4 For additional information, please contact Mike Hubble, Manager, Environmental Services Design, at 905-668-7711 extension 3460, or Dan Waechter, Manager, Construction Management Services, at 905-668-7711 extension 3550.

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer