



**SUBJECT: Proposed sidewalk infill on Bromley Road, Linwood Crescent and Maureen Court**

**TO: Committee of the Whole**

**FROM: Transportation Services Department**

Report Number: TS-01-24

Wards Affected: 5

Date to Committee: January 8, 2024

Date to Council: January 16, 2024

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### **Recommendation:**

Approve the construction of a sidewalk on the south side of Bromley Road as outlined in transportation services department report TS-01-24; and

Approve the construction of a sidewalk on the east side of Linwood Crescen as outlined in transportation services department report TS-01-24; and

Approve the construction of a sidewalk on the east side of Maureen Court as outlined in transportation services department report TS-01-24.

### **PURPOSE:**

#### **Vision to Focus Alignment:**

- Improve integrated city mobility;
- Support sustainable infrastructure and a resilient environment;
- Building more citizen engagement, community health and culture.

#### **Burlington's Strategic Plan 2015 – 2040 Alignment:**

The development of a multi-modal transportation system is an important objective of the city and contributes to the health, well-being, and quality of life for residents of

Burlington. The need for a connected, multi-modal transportation system has been identified in Burlington's Strategic Plan.

### **A City that Moves**

People and goods move throughout the city more efficiently and safely. A variety of convenient, affordable, and green forms of transportation that align with regional patterns are the norm. Walkability within new/transitioning neighbourhoods and the downtown are a reality.

### **A Healthy and Greener City**

The City of Burlington is a leader in the stewardship of the environment while encouraging healthy lifestyles.

### **Integrated Mobility Plan Alignment:**

The recently approved Integrated Mobility Plan (IMP) recognizes that everyone is a pedestrian at some point in their trip, if only between their bus stop or parking place and their front door. This makes walking or using a mobility device a critical activity, both as a stand-alone mode and as a connection to other modes of transportation. The IMP sets the walking mode share target at 9.0% by 2051. Achieving this target will require improvements to pedestrian facilities and environments across the city. Policy direction through the IMP supports:

- The creation of a complete and connected pedestrian network;
- Improving pedestrian safety;
- Enhancements to the pedestrian experience; and
- The City's commitment to building a walkable environment.

Policy 2.1 of the IMP requires that the City examine every opportunity to fill in gaps in the existing pedestrian system and work with partners to extend the pedestrian network to new areas when the opportunity is presented. Implementation and expansion of the pedestrian network is to be achieved through the following approaches, as applicable:

- As part of new development, through the development review process;
- As part of street construction/reconstruction projects;
- As part of a retrofit project to fill in "missing links" of an existing pedestrian network; and
- As part of other capital projects.

It is through the lens of the Council-approved IMP that staff have recommended the inclusion of sidewalk infill as part of this capital project.

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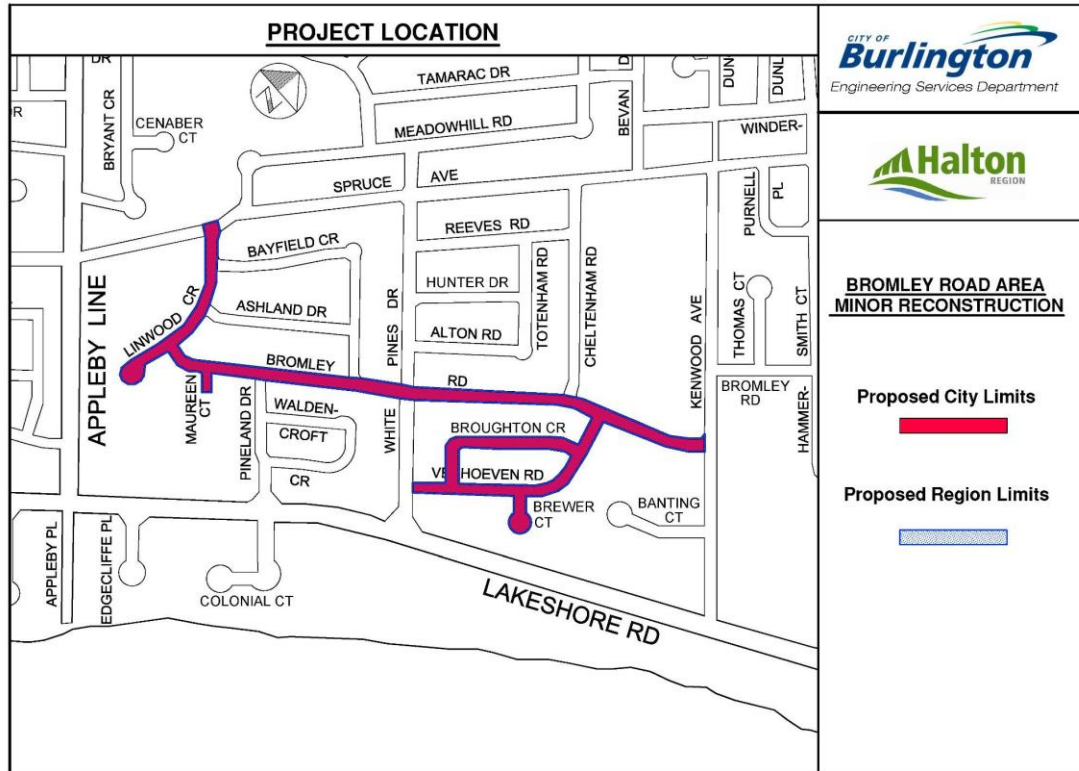
## Background and Discussion:

Bromley Road, Verhoeven Road, Broughton Crescent, Brewer Court, Linwood Crescent and Maureen Court are aging road infrastructure assets that require renewal. The 2024 Capital Budget approved the rehabilitation of these streets. This project will be delivered as a joint Capital project with Halton Region and the rehabilitation scope includes full asphalt, sidewalk, curb/gutter replacement, localized storm sewer repairs, street lighting upgrades, water service replacement as well as, wastewater main and lateral replacement/rehabilitation.

In keeping with Strategic Directions 1.2.d, 2.1.c and 2.1.g, inclusion of sidewalks as part of the proposed reconstruction works contributes to the goal of increasing walkability.

Bromley Road, Linwood Crescent and Maureen Court provide direct connections to several significant pedestrian generators. Expansion of the pedestrian network serves to create critical linkages connecting the existing residential lands to adjacent parks, schools, and community amenities, as well as providing residents the opportunity to access transit. The proposed sidewalk infill achieves the goal of creating a completed pedestrian network and provides safe and convenient access to the pedestrian generators identified above.

A map of the project area is shown below:



Staff are in receipt of a petition dated July 4, 2023, that opposes the proposed sidewalk infill as part of this capital project. A motion memo (ADM-15-23) was sponsored by Councillor Sharman at the Council meeting of September 26, 2023, which directed staff to prepare a report that speaks to the need and justification of the proposed sidewalk infill, and present alternative design options, as applicable.

### **Council Approved Sidewalk Warrant Process**

The city's existing Sidewalk Warrant and Installation Policy (**APPENDIX A**) has been in place and utilized by Transportation Services and Engineering Department staff for over 15 years. Its purpose is to determine the need for sidewalks based on a number of technical factors, then provide a recommendation with respect to the need and placement of sidewalks.

Three critical factors are assessed to determine if a sidewalk is warranted along a local street:

- Traffic Volume
- Number of Dwellings; and
- Pedestrian Volume

#### **A) Traffic Volume**

Traffic volume is presented as Annual Average Daily Traffic (AADT) which represents the average number of vehicle trips per day. The AADT values for the streets located within the study area are summarized in **Table 1** and staff note that observed volumes fall within expected ranges for the local residential street classification.

**Table 1: Traffic Volume Data**

<b>Road Segment</b>	<b>Average Annual Daily Traffic (AADT)</b>
Bromley Rd. from Linwood Cres. To White Pines Dr.	400+ vpd*
Bromley Rd. from White Pines Dr. to Cheltenham Rd.	500+ vpd
Linwood Cres. From Bromley Rd. to Spruce Ave.	250 vpd

#### **Sidewalk Warrant Thresholds**

Sidewalk One Side Threshold	250-1000 vpd
Sidewalk Two Side Threshold	>1000 vpd

*\*Vehicles Per Day (vpd)*

## B) Dwellings within Catchment Area

Dwelling units to be considered within the catchment area are typically limited to the number houses directly fronting the street but may be expanded to include nearby areas that will receive benefit from construction of a new sidewalk. For the purposes of this analysis, only houses that directly front the impacted streets have been considered. It is recognized, though, that streets such as Ashland Drive, Bayfield Crescent and Cheltenham Road would also benefit from improved pedestrian connections. The results of this analysis are presented in **Table 2**.

**Table 2: Number of Dwellings/Catchment Data**

Road	Number of Dwellings
Bromley Road	90
Linwood Crescent	17
Maureen Court	2

## Sidewalk Warrant Thresholds

Sidewalk No Sides Threshold	<30 or Cul-de-Sac
Sidewalk One Side Threshold	30-100
Sidewalk Two Side Threshold	>100

## C) Pedestrian Volume

The volume of pedestrian traffic is determined based upon manual counts that are undertaken during the AM and PM peak periods and represents the total number of pedestrians observed walking along the road during the peak hour. Counts are undertaken during the Spring and Fall months on a “typical” weekday between the hours of 7:30 AM to 9:30 AM and 2:30 PM to 4:30 PM. The resulting pedestrian volumes are summarized in **Table 3**.

**Table 3: Summarized Pedestrian Counts**

<b>Road Segment</b>	<b>AM Count (7:30am-9:30am)</b>	<b>PM Count (2:30pm-4:30pm)</b>
Bromley Road (Linwood Crescent to White Pines Road)	Peak Hour = 22 Pedestrians	Peak Hour = 11 Pedestrians
Bromley Road (White Pines Road to Kenwood Avenue)	Peak Hour = 49 Pedestrians	Peak Hour = 47 Pedestrians

### **Sidewalk Warrant Thresholds**

	<b>AM Peak Hour</b>	<b>PM Peak Hour</b>
Sidewalk One Side Threshold	>15 per hour	>15 per hour
Sidewalk Two Side Threshold	>30 per hour	>30 per hour

The initial technical recommendation based upon the warrant criteria, is summarized in **Table 4**.

**Table 4: Warrant Recommendation**

<b>Road</b>	<b>Warrant Recommendation</b>
Bromley Road	Sidewalk On One Side
Linwood Crescent	Sidewalk Not Warranted
Maureen Court	Sidewalk Not Warranted

In addition to the technical analyses, staff take into consideration a number of other land use and transportation factors that can influence the recommendation to provide additional pedestrian infrastructure based upon proximity to significant pedestrian generators.

Bromley Road, Linwood Crescent and Maureen Court are in close proximity to several significant pedestrian generators, namely:

- Transit Stop at Lakeshore Road and White Pines Drive - 300 metres
- St. Patrick's Catholic Church - 800 metres
- St. Patrick's Catholic Elementary School - 750 metres
- Bromley Park - 400 metres
- Skyway Arena - 800 metres
- Lakeside Shopping Village - 1000 metres

Based on the Sidewalk Warrant and Installation Policy, a sidewalk on one side is warranted on Bromley Road. Based on the proximity to pedestrian generator review, staff recommend that sidewalk (one side) be implemented on Linwood Crescent and Maureen Court as this project offers a significant opportunity to enhance safety and connectivity within the neighbourhood. Staff's recommendation (**Table 5**) aligns with the strategic policy directions contained within Vision to Focus (V2F), aligns with the mobility policies contained within the IMP, and support the City's Vision Zero goals.

**Table 5: Staff Recommendation**

Road	Recommendation
Bromley Road	Sidewalk On One Side
Linwood Crescent	Sidewalk On One Side
Maureen Court	Sidewalk On One Side

### Proposed Options

Following the need and justification analysis, Transportation Services recommends including sidewalk infill as part of the Bromley Road Area Minor Reconstruction project. Various design options for the location of the sidewalk were evaluated based on the following key guiding principles:

- Enhance public safety and connectivity to key destinations;
- Minimize impact to existing trees and greenspace;
- Rebalance and repurpose existing hardscape where practical;
- Mitigate impact to private property (landscaping, trees, driveways)
- Minimize conflicts with existing utilities;
- Control adverse effects to drainage;
- Reduce speeding;
- Maximize onsite parking availability.

In alignment with these principles, four (4) design options for the location of a sidewalk on one side of Bromley Road, Linwood Crescent and Maureen Court were developed (as summarized in **Table 6**) and presented at a public meeting. In response to feedback

received at the Public Information Center (PIC) and subsequent onsite meetings with area residents, staff's Preferred Option 4 was further refined to develop Recommended Option 4A.

**Table 6: Options Presented to the Public at the Public Information Centre**

LOCATION	OPTION #1	OPTION #2	OPTION #3	OPTION #4 (Preferred)
<b>Bromley Rd. -</b> Linwood Cr. to White Pines Dr.	North side of the street with boulevard  South side of the street combination of curb-faced and with boulevard	North side of the street with boulevard  South side of the street with boulevard (Linwood Dr. to Maureen Ct. and west side at White Pines Rd.).	South side, with boulevard  North side, with boulevard (west side of White Pines Dr.)	South side, curb-faced, with road narrowing
<b>Bromley Rd. -</b> White Pines Dr. to Cheltenham Rd.	North sided and south side, curb-faced	North side, curb-faced	South side, curb-faced	South side, curb-faced
<b>Linwood Cr. -</b> Spruce Ave. to Bromley Rd.	East side, curb-faced	East side, curb-faced	East side, curb-faced	East side, curb-faced
<b>Maureen Ct.</b>	East side, curb-faced with road narrowing	East side, curb-faced with road narrowing	East side, curb-faced with road narrowing	East side, curb-faced with road narrowing

### **Recommended Option – Option 4A**

#### *A) Lindwood Crescent from Spruce Avenue to Bromley Road*

Utilizing the side property lots along Lindwood Crescent, Option 4A recommends implementing a curb-faced sidewalk on the east side of Lindwood Crescent from Spruce Avenue to Bromley Road. This arrangement avoids interference with private driveways, minimizes the impact on existing trees, and allows for the retention of on-street parking within close proximity to the park.

#### *B) Bromley Road from Lindwood Crescent to White Pines Drive*

To mitigate substantial impacts to existing trees, private properties, and conflicts with existing utilities along Bromley Road from Lindwood Crescent to White Pine Drive, Option 4A recommends repurposing the current asphalt road hardscape by reducing the road width to create space for a new curb-faced sidewalk on the south side. Reducing the road width has an additional advantage of lowering vehicle speed; however, this adjustment comes at the cost of eliminating on-street parking (approximately 70



spaces). Consultation with Parking Services staff has confirmed that the loss of potential street parking is acceptable.

*C) Bromley Road North Side Existing Sidewalk – Immediately West of Bayfield Crescent and Cheltenham Road*

Considering the present state of the existing sidewalk and in the absence of future plans to extend sidewalks along the north side of Bromley Road, Option 4A recommends removing the short sidewalk stretch immediately west of Bayfield Crescent and Cheltenham Road and opting not to replace it, as it does not contribute to a connected pedestrian network.

*D) Bromley Road North Side from Bayfield Crescent to White Pines Drive*

Sidewalk infill on the north side of Bromley Road and west of White Pines Drive is recommended to maintain a pedestrian connection from the nearest controlled intersection to the Bayfield Crescent area.

*E) Bromley Road from White Pines Drive to Cheltenham Road*

In general, the favourable alignment of existing trees in relation to the current curb location enables the incorporation of a curb-faced sidewalk on the south side of Bromley Road without modifications to the existing road width. This proposed design maximizes on-street parking while minimizing the impact on private property.

*F) Maureen Court from Bromley Road to Park Entrance*

Sidewalk installation on the east side of Maureen Court is recommended due to smaller existing tree size and lesser grade adjacent the existing curb. Road narrowing and sidewalk installation on the east side will not require earth retainment and will pose a reduced future risk to both the existing trees and new sidewalk. Reducing the width of the road comes at the cost of eliminating approximately four (4) on-street parking spaces. The loss of street parking is acceptable given that only two dwellings front Maureen Court and both have large driveways. Bromley Park is considered a local park and as such, active transportation is the preferred mode of travel to and from the park. Staff do not anticipate vehicle trips to access the park.

Collaboratively developed with the Forestry department, Option 4A identifies the optimal placement for the warranted one-side sidewalk along Bromley Road, Linwood Crescent, and Maureen Court. The development process prioritized minimizing impacts to existing trees during implementation and looked for opportunities to enhance the growing potential of current mature trees. Further refinement of the sidewalk alignment is expected through detailed design finalization.

## **Risk:**

As identified in Report TS-07-23 (Integrated Mobility Plan Final Report) staff advised that it was imperative that the IMP be considered in its entirety, as its many components are mutually supportive so that the sum is greater than the parts. Council approved and adopted the IMP, which implements integrated mobility and pedestrian policies contained within the Official Plan, directs staff to seek to eliminate gaps in infrastructure through alignment with capital projects, and sets aggressive mode-share targets that align with the vision of Council and the Community to reduce dependence on the private automobile and minimize climate impacts of vehicular travel.

The recommendation to include sidewalk infill and eliminate gaps in the pedestrian network implements the vision, values and goals of the Council-approved IMP and adheres to Pedestrian Policy 2.1 – Create a complete and connected pedestrian network. The recommended design (Option 4A) represents a balanced approach that has sought trade-offs between the direction to improve safe mobility options for vulnerable road users and improving connectivity, creating an accessible and sustainable transportation system, while minimizing impacts to adjacent landowners and the natural environment.

Refusal of the recommendation to include sidewalk infill as part of this capital project will result in a lost opportunity to deliver on the goals and objectives of the IMP. In an urbanized environment, construction of connected pedestrian facilities through alignment with capital projects is the action that will position the City to shift mode share and achieve the targets set out in both Vision to Focus and the Climate Action Plan.

Deferral of the decision to include sidewalk infill as part of this capital project will result in unanticipated delays to the project schedule and may negatively impact the Region's capital program and plans for replacing both the watermain and sanitary sewer as part of this joint project with the City.

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## **Financial Matters:**

The Bromley Road - Area Minor Reconstruction (RL0320) project has an approved budget of \$4,335,000.

Deferral of this reconstruction project will result in a potential cost escalation of \$1,170,000 if the project is delayed and unable to be delivered with the Region of Halton works.

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## **Climate Implications:**

The sustainable, multi-modal approach of the IMP aligns with the objectives of Provincial policy including the Growth Plan, 2020 and Provincial Policy Statement, as well as the City's Official Plan, Strategic Plan and Climate Action Plan. This report recommends incorporating pedestrian facilities through infill as part of a reconstruction/renewal project. This approach supports a critical shift towards achieving the desired pedestrian mode share. The lens of sustainability and environmental resiliency has been considered in the development of alternative designs with the goal of reducing auto mode share and its associated impacts of greenhouse gas emissions.

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## **Engagement Matters:**

A Public Information Center (PIC) was held on Wednesday, October 25, 2023, at Tansley Woods Community Centre. Area residents were notified by:

- Direct mail, and
- Advertisement in the Burlington Post.

At the meeting, attending residents received a project update containing high-level project details, options proposed, details about the PIC and a comment sheet containing a section where residents can indicate their option preference and have space for comments that would be sent back to staff. All project updates have been made available on the City's website from the dedicated project page ([Burlington.ca/bromleyroad](https://burlington.ca/bromleyroad)).

The meeting provided:

- Public Process and Important Dates for Committee and Council
- Project Construction Details and Budget
- Four (4) Proposed Sidewalk Location Options
- Background Information
- Description and justification for the recommendation of including sidewalks along Bromley Road, Linwood Crescent and Maureen Court
- An open forum for residents to ask questions and gain clarity
- Extra comment sheets

Feedback from the residents was received before, during and after the PIC.

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## **Conclusion:**

Staff recommend that sidewalks be constructed on the south side of Bromley Road, on the east side of Linwood Crescent and on the east side of Maureen Court as presented in Option 4A of this report.

Respectfully submitted,

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**Appendices:**

A. Sidewalk Warrant and Installation Policy

**Report Approval:**

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.