

City of Mississauga

Memorandum



Date: 2021/11/08

To: Meadowvale Village Heritage Conservation District Subcommittee

From: Mattéa Turco

Meeting Date: 2021/11/30

Subject: Second Line West Pedestrian Alternatives

Background

In November of 2020, Councillor Carlson's office received a request from a resident to construct a sidewalk on Second Line West north of Old Derry Road. Subsequently, the Active Transportation Office was tasked with investigating the feasibility of installing a concrete sidewalk on Second Line West from Old Derry Road to the Meadowvale Conservation Area access on the north end.

Supporting Policy, Plans, and Documents

The installation of a sidewalk, or other form of accessible pedestrian path, separate from vehicle traffic is consistent with Vision Zero, the City of Mississauga's Pedestrian Master Plan, and the Multi-Year Accessibility Plan.

Vision Zero

The City of Mississauga adopted the Vision Zero approach to road safety in 2018. Vision Zero is a city wide initiative based on the fundamental principle that no loss of life on Mississauga roadways is acceptable. Vision Zero prioritizes the safety of vulnerable road users, including pedestrians, over the level of service to automobiles. While human error will always occur on city roads, there are ways to build or reconfigure the road network to minimize the impacts of a collision should they occur.

Pedestrian Master Plan

The Pedestrian Master Plan is intended to build off the policy direction from the Strategic Plan, Mississauga's Official Plan (OP), the Transportation Master Plan and other municipal planning documents. The Pedestrian Master Plan guides the development of safe and convenient walking options for people of all ages and abilities over the next 20 years. The Plan establishes a vision and goals along with corresponding recommendations and actions for improving pedestrian policies, standards, infrastructure, and programs. Once such goal is to eliminate gaps in the pedestrian network.

Multi-Year Accessibility Plan (2018-2022)

The five-year accessibility plan includes both new and continuing initiatives that will help meet the City's commitment to an inclusive community where all residents and visitors have access to City services, programs and facilities in a manner that is integrated and promotes dignity and independence. Accessibility is everyone's responsibility and will be incorporated by design into the work of all City Departments. The City continues to support the development of transportation services for residents and visitors that are barrier-free.

Meadowvale Village Heritage Conservation District

Second Line West north of Old Derry Road falls within the Meadowvale Village Heritage Conservation District (HCD), see figure 1 below.

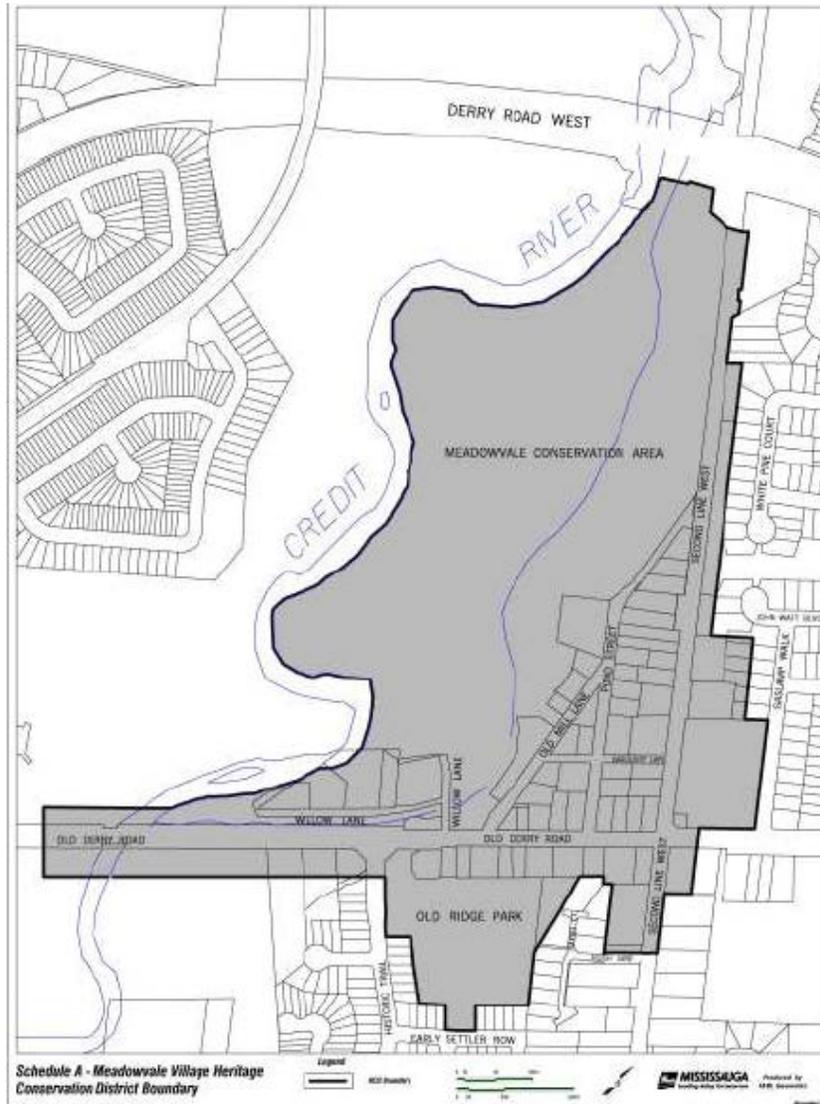


Figure 1: Meadowvale Village Heritage Conservation District Boundary

Relevant heritage attributes listed in the Meadowvale Village Heritage Conservation District Plan include:

- a) a land pattern that retains the layout and plan of generous lots and pedestrian oriented narrow roadways of the 1856 Bristow Survey, spatial organization of narrow streets with soft vegetation and no shoulders, large diameter trees and a visual relationship which blends from public to private space among front and side yards void of privacy fencing; and,
- b) long term tradition of rural village-like streetscapes without curbs, with no formalized parking, sidewalks (except on Old Derry Road), modest signage and limited modest lighting;

It is important to note that Policy 5 of the HCD Plan does allow for the implementation of new sidewalks where required to meet accessibility needs.

Existing Conditions

The existing conditions on Second Line West north of Old Derry Road consist of a 7.0 metre paved asphalt surface divided into two (2) 3.5 metre lanes with a yellow centre line and white edge markings.



Figure 2: cross-section of Second Line West north of Old Derry Road

The norther portion of Second Line West from Derry Road to Pond Street has a small gravel shoulder on either side bordered by a drainage ditch and vegetation.



Figure 3: northern section of Second Line West (google street view)

The portion of Second Line West from Old Derry Road to Pond Street is more constrained with large embankments adjacent to the paved portion of the road as well as private property features such as driveways, garages and landscaping.

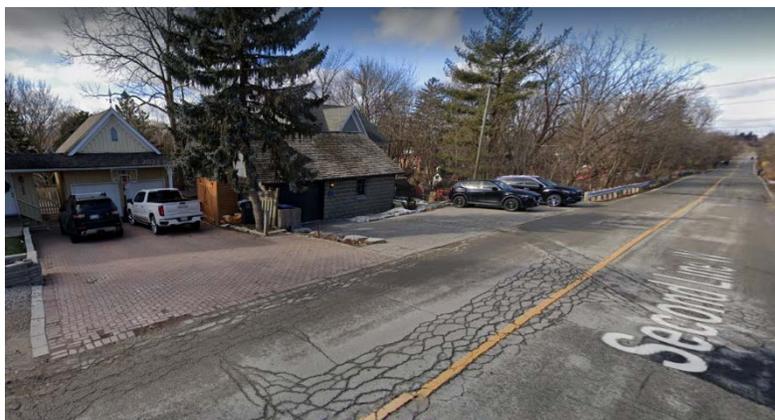


Figure 4: southern portion of Second Line West (google street view)

Design Alternatives

The Active Transportation Office investigated four alternatives to accommodate a separate pedestrian space on Second Line West.

Alternative 1

Urbanize the road and implement a concrete sidewalk on one or both sides of Second Line West.

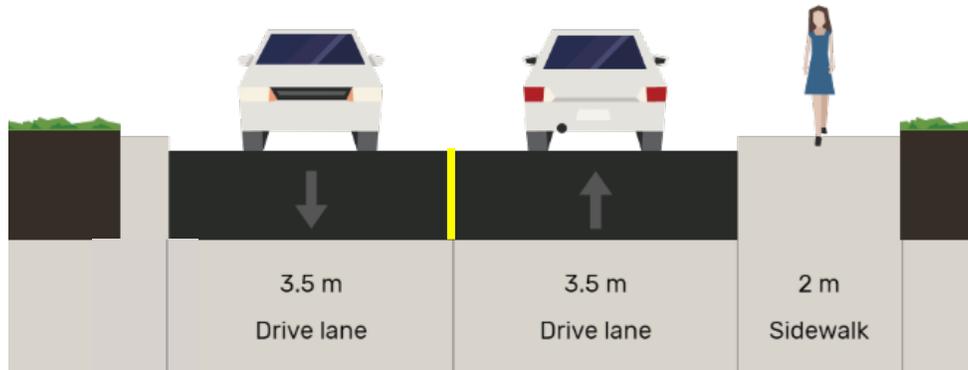


Figure 5: Cross-section Alternative 1

Alternative 2

Complete a full widening of Second Line West so that a separate pedestrian space can be accommodated on one side of the paved road. Separate the travel lanes from the pedestrian space with bollards and/or precast curbs.

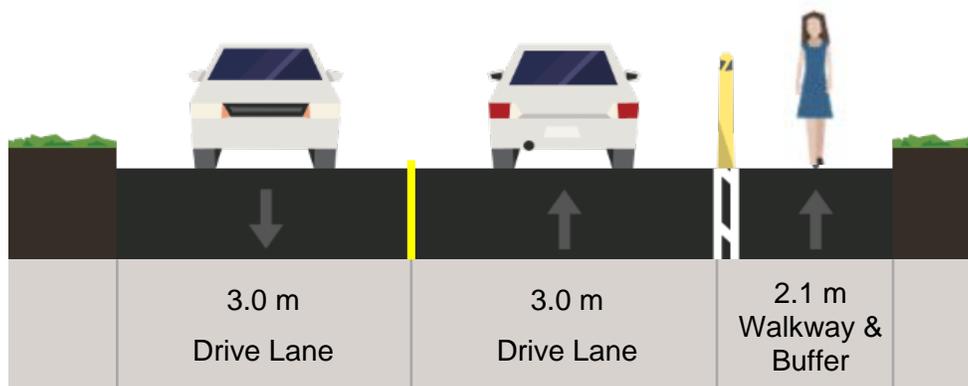


Figure 6: Cross-Section of Alternative 2

Alternative 3

Slightly widen the asphalt surface of Second Line West by 0.5 metres without requiring changes to the subgrade of the roadway in order to fit a minimum 1.5 metre painted walkway on the paved portion of the road.

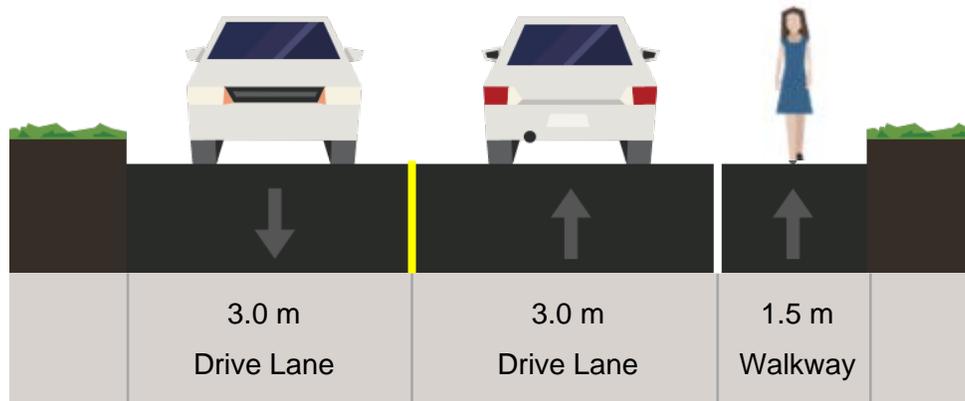


Figure 7: Cross-Section of Alternative 3

Alternative 4

Take the width of the walkway out of the existing asphalt surface. This alternative would keep the existing pavement width the same and only change the pavement markings on the road.

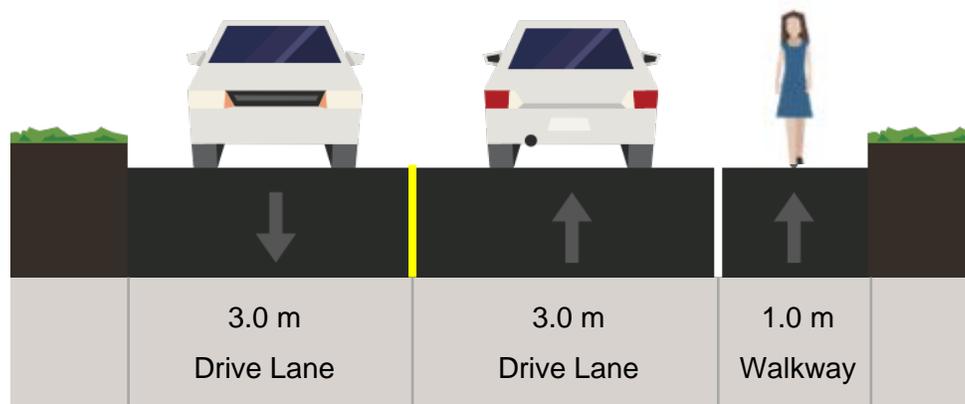


Figure 8: Cross-Section of Alternative 4

Feasibility Assessment of Alternatives

Second Line West is scheduled for road rehabilitation in 2022. This means that the existing asphalt surface will be repaved and repainted. Any of the above alternatives would be completed in conjunction with the road rehabilitation project.

Alternative 1

The existing rural cross-section of the road makes installing a sidewalk more difficult. While it is possible to place a concrete sidewalk within a rural cross-section without urbanizing the road, the drainage ditch and embankments along this section of Second Line West do not support the implementation of a concrete sidewalk without urbanizing the road. The existing drainage ditch, embankments, trees, vegetation, hydro poles, and retaining walls are all conflicts that would need to be addressed if a sidewalk were to be implemented.

Understanding that the lack of sidewalks and rural cross sections are considered to be a heritage characteristic, and that urbanizing Second Line West would constitute a major change not supported by HCD designation, Alternative 1 is not a preferred option for accommodating pedestrians within the corridor. If the concrete sidewalk alternative were to be pursued, the City would be required to go through a heritage application process, which would include the completion of a heritage impact assessment by an outside heritage consultant to provide justifications as to why a sidewalk was required and provide recommendations on how a sidewalk could be implemented with minimal impacts the look and feel of the HCD.

Alternative 2

A full widening of the road would maintain the rural cross-section and provide physical separation for pedestrians from vehicle traffic; however, it would require changes to the subgrade of the road which would impact surrounding drainage ditches, embankments, trees, and other vegetation. In order to accommodate the space needed to fully widen the road, the drainage ditch would need to be relocated; however, the existing embankments on either side of the road prevent relocation. The lack of drainage ditches could increase the amount of runoff from the road onto the lower properties to the west of Second Line West leading to flooding. For this reason, Alternative 2 is not deemed feasible.

Alternative 3

A survey of the existing road found that the asphalt portion of the road could be widened by half a metre without impacting the subgrade of the road or any surrounding drainage ditches, embankments, or vegetation. The additional asphalt space could be allocated to pedestrians along with a portion of the travel lanes to meet minimum accessibility widths without any major impacts to the right-of-way. This would allow a 1.5 metre walkway to be painted on the road and provide a space for pedestrians to walk separate from vehicle travel lanes; however, with no physical separation from the road, this alternative would not improve pedestrian safety to the extent that Alternative 2 would.

Alternative 4

The existing pavement width is 7.0 metres wide, separated into two travel lanes of 3.5 metres each. If both travel lanes were narrowed to the minimum 3.0 metres it would leave only 1.0 metre of asphalt space for pedestrians. Alternative 4 is not feasible as the minimum pedestrian clear space required by the Accessibility for Ontarians with Disabilities Act (AODA) is 1.5 metres.

Recommendations

Alternative 3 is the preferred option as it is the least impactful, it aligns with the heritage attributes listed in the Meadowvale Village Heritage Conservation District Plan, and it provides a separate space for pedestrians while maintaining minimum AODA requirements.

Next Steps and Timelines

1. Move forward with detailed design of the preferred alternative based on feedback from the Meadowvale Village Heritage Conservation District Subcommittee.
2. Present the preferred alternative to the Heritage Advisory Committee in early 2022.
3. Construct the walkway in coordination with the Road Rehabilitation scheduled for 2022.

Prepared by: Mattéa Turco, Active Transportation Coordinator