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MEMORANDUM

DATE	September 24, 2020
TO	**Jeff Wright, Commissioner Transportation and Works Mississauga** **MiWay Transit**
CC	Geoff Marinoff, MiWay David Breveglieri, Development Planner, City of Mississauga Lakeview Community Partners Ltd.
SUBJECT	Lakeview Village Transit Services Plan
FROM	The Municipal Infrastructure Group Ltd. (TMIG)
PROJECT NUMBER	17201

Executive Summary

The Lakeview Team would like to initiate further discussion with City of Mississauga and MiWay staff to advance the accommodation of transit, first mile/last mile, and micro mobility solutions for Lakeview Village. TMIG has prepared this memorandum for the City of Mississauga and MiWay's review in advance of upcoming discussions, to provide additional background and context regarding the future transit servicing plan for the Lakeview Village community. This memo will summarize the transit plan to date, ultimate goal and alignment to municipal policy, ridership expectations, phased transit routing plans, bus stop locations and design, proposed internal shuttle networks, and additional proposed Transportation Demand Management (TDM) measures to promote and support long-term transit solutions.

Introduction

A Lakeview Village Transportation Considerations Report was prepared by TMIG, dated June, 2020, and was submitted in support of the proposed Official Plan, Rezoning and Draft Plan applications for the future development of Lakeview Village. The site will contain approximately 8,050 residential units, and considerable office, institutional, retail, commercial, civic and green space. The associated comprehensive transportation framework aims to promote attractive mobility alternatives to reduce automobile dependency in a stable and sustainable way while promoting the creation of strong, clean, and healthy communities.

The Lakeview Village Transportation Considerations Report was based on the Development Master Plan 4.0 (DMP 4.0), dated October 2019, which emphasizes that Lakeview Village is designed to be a multi-modal district that is well-connected to the broader pedestrian, cyclist, transit, and vehicular network. Specifically, the DMP block network and location of higher-density buildings are designed to best capitalize on the existing and future proposed transit connections and network conditions along Lakeshore Road and within the Lakeview Village community.

The Lakeview Village transit plan was discussed during a meeting with LCPL, MiWay and City staff on June 25th, 2019, where a MiWay presentation reviewed external transit plans along Lakeshore Road, and internal opportunities within LCPL lands to mitigate first-mile/last-mile issues. Following the Lakeshore Connecting Communities study, discussions began around increasing capacity and frequency along Lakeshore Road through the introduction of articulated buses, an Express Bus service between West Village and Long Branch GO Station, and corridor improvements to 2030, before rail-based transit is introduced to Mississauga by 2041. Within the Lakeview Village site, the location of interim and ultimate bus stop locations, walkability, and last-mile connections were reviewed, including the provision of local, not express, buses. Discussions were initiated around the idea of an autonomous vehicle loop, micro-mobility solutions, and the importance of Vision Zero frameworks. Accordingly, the elimination of bus lay-bys, investments into pedestrian space, and cycling patterns were considered and their impacts on transit demand, stop frequency and scalable service in the long-term for the Lakeview community.

Following a review of this memorandum, TMIG requests that a meeting be planned with LCPL, City staff and MiWay staff to discuss the contents of this transit plan and determine next steps towards the delivery of local transit service in Lakeview Village from 'Day 1' of building construction for this development.

Lakeshore Connecting Communities

Understanding that the success of local transit services within Lakeview Village will be in part dependent upon the quality, efficiency and reach of the broader transit network, and how people can connect to and from the community. Lakeshore Road has been identified in several municipal and regional studies as a transit corridor, and in particular its potential to develop into a rapid transit corridor in the future from Port Credit to Union Station, as per Metrolinx's 2008 Regional Transportation Plan (RTP), *"The Big Move"*, and reinforced by transit-supportive guidelines in the City of Mississauga Official Plan. The Metrolinx 2041 RTP identifies part of the study corridor as the route for a future Waterfront West Light Rail Transit (WLRT), signalling a necessity and commitment to bring higher-order and better quality transit to this corridor. The MiWay 5, a five-year service plan. Identifies the Lakeshore Road Corridor as a high frequency corridor in response to growing ridership demand.

Based on these future forecasts and plans, Lakeshore Connecting Communities (LCC), the Lakeshore Road Transportation Master Plan (TMP), was endorsed by Mississauga City Council in June 2019, with recommendations to implement improvements along the Lakeshore Road corridor by 2030 and beyond. These corridor improvements are identified to support all modes of travel, connecting people to places and supporting existing and future land uses, and in particular to three Community Nodes including Lakeview. As referenced in this memorandum, the short-term corridor improvements call for the creation of a Lakeshore Bus Rapid Transit (BRT) corridor, which would provide transit stops at Lakefront Promenade and at New Haig Boulevard, servicing the future Lakeview Village community. Lakeshore Connecting Communities study recommended dedicated transit lanes from East Avenue to Deta Road for express bus service, protected cycle tracks, corridor improvements such as wider sidewalks with treed landscaping, and increased enhanced bus service with five-minute headways during peak hours.

As the Lakeshore Connecting Communities and Bus Rapid Transit plans are highly influential to the transit servicing plan for Lakeview Village, LCPL requests a meeting with City staff in order to understand what next steps are planned for the LCC and BRT studies, what is remaining with the Environmental Assessment and design processes, and what the current timetable is for implementation.

1 The Lakeview Village Transit Proposal

Lakeview Village is part of the broader Lakeview Major Node. Mississauga City Council endorsed the Lakeshore Connecting Communities Transportation Master Plan in June 2019, which recommends implementing transit improvements by the year 2030 along the Lakeshore corridor within the study area including dedicated transit lanes from East Avenue to Deta Road for express bus service, enhanced with five-minute headways during peak periods. As a result, the land adjacent to Lakeshore Road East is being planned as a medium-to-high density corridor to be served with higher order transit (see LCC TMP 2019), supported by the proposed future local transit routes that will ultimately extend into the Lakeview Village site to support this transit-oriented community.

The higher average densities, range of mixed-uses, and TDM measures proposed by DMP 4.0, and detailed in the Transportation Considerations Report prepared by TMIG, will help drive higher transit ridership, support more frequent transit headways, and widen the reach of public transit service.

Local transit services provide the greatest opportunity to drive ridership at the neighbourhood level. The proposed future Lakeview transit route will operate at similar levels of service and headways to many of the existing local routes in the Lakeview area. Lakeview Village transit riders will use this future route to access local destinations, such as schools or shopping, and as a connection to the proposed Lakeshore Road Bus Rapid Transit (BRT) facility for longer trips along Lakeshore Road to the Long Branch or Port Credit GO Stations, future Hurontario LRT, and the TTC network.

1.1 Alignment with Municipal Policy

The Mississauga Official Plan (MOP) highlights the importance of creating a multi-modal city. In particular, MOP Section 13.3.7 states that:

"The Lakeview Waterfront community is designed to encourage multi-modal transportation with emphasis on transit and active transportation…As a fully realized community, transit and active transportation are intended to be viable alternatives to vehicular use and will help shape and support the future development of the Lakeview Waterfront area."

The Lakeshore Road Transportation Master Plan (TMP) calls for an integration of transportation and land use to support major development areas, such as Lakeview Village, and provide higher order transit to move people within the corridor and to connections at GO stations and other transit hubs. Accordingly, The MiWay 5, a five-year service plan, identifies the Lakeshore Road Corridor as a high frequency corridor in response to growing ridership demand and projected increases through large scale transit-oriented development in Lakeview.

Overall, city policies and guidelines include goals to achieve higher transit usage by supporting system expansion and improvements in service, convenient access and good urban design. Therefore, as a fully realized community, transit and active transportation are intended to be viable alternatives to vehicular use and will help shape and support the future development of the Lakeview Waterfront area, and serve as an inspirational example for the rest of the region.

Major Transit Station Area

A "Major Transit Station Area" (MTSA) is generally defined as the area within an approximate 500 to 800 metre radius of a transit station, representing an average 10-minute walk length. This is supported by the City of Mississauga's Transportation Master Plan (May 2019), page 136, which states that a 500 metre (10-minute) walk appropriately measures the radius of a major transit station area, such as around stations for GO Rail services, the Hurontario LRT, and the Mississauga Transitway within the City of Mississauga. Generally, 10 minutes is considered a reasonable walking distance to access work and amenities from mass public transit. In addition, the Province of Ontario's "*A Place to Grow – Growth Plan for the Greater Golden Horseshoe*" long term plan, dated May 2019, also states that *"an area including and around any existing or planned* 'higher order transit' station or stop within a 'settlement area'" is considered to be a "Major Transit Station Area" (MTSA).

As a major employment and residential district, Lakeview Village, or a portion thereof, is considered to be a Major Transit Station Area with destinations located within an acceptable walking distance of a mass transit stop. This policy is currently being further developed by the Region of Peel as part of its MTSA Review including the Lakeshore MTSAs which include Haig (MTSA #89) and Lakefront Promenade (MTSA #90) within the larger Lakeview Major Node area.

Despite the ongoing review, the specific locations of the Region's Lakeshore Corridor MTSAs and the overall proximity of the Lakeshore Rapid Transit Corridor is projected to increase the transit mode split for residents, employees and visitors to Lakeview Village. As an example, the future Lakeshore Bus Rapid Transit (BRT) would feature express bus stops along the north boundary of the subject area, with the closest stop to the LCPL lands at Haig Boulevard. With Haig Boulevard being extended south into Lakeview as 'Street I', riders on the BRT would have an un-impeded 500m walk south (to Street 'B') into the employment zone identified as the Lakeview Innovation District, the length of which is considered appropriate for a transit walking arc, according to *The Growth Plan*. The future BRT stops are also within 500m of many of the RA5 residential blocks, the proximity of which bolster the anticipated high transit mode splits in Lakeview.

The provision of transit services beyond the northern boundary and running through the interior of the Village would help eliminate any possible "first-mile/last-mile" challenges by providing even shorter and more attractive walking distances to transit stops from all corners of Lakeview. The "first-mile/last-mile" challenge is a major factor in commuters choosing to drive; therefore the proposed local transit service route would serve in easing access for the "last mile" to encourage a greater modal split towards transit and away from single-occupancy vehicles.

Local transit service would serve to further increase the transit mode split of the residential, office and commercial lands, connecting riders to local and regional destinations via the Lakeshore Road BRT, and therefore inexplicably anchor the Lakeview Village development as the foundation supporting three proposed Lakeshore MTSAs within the Lakeview Major Node area.

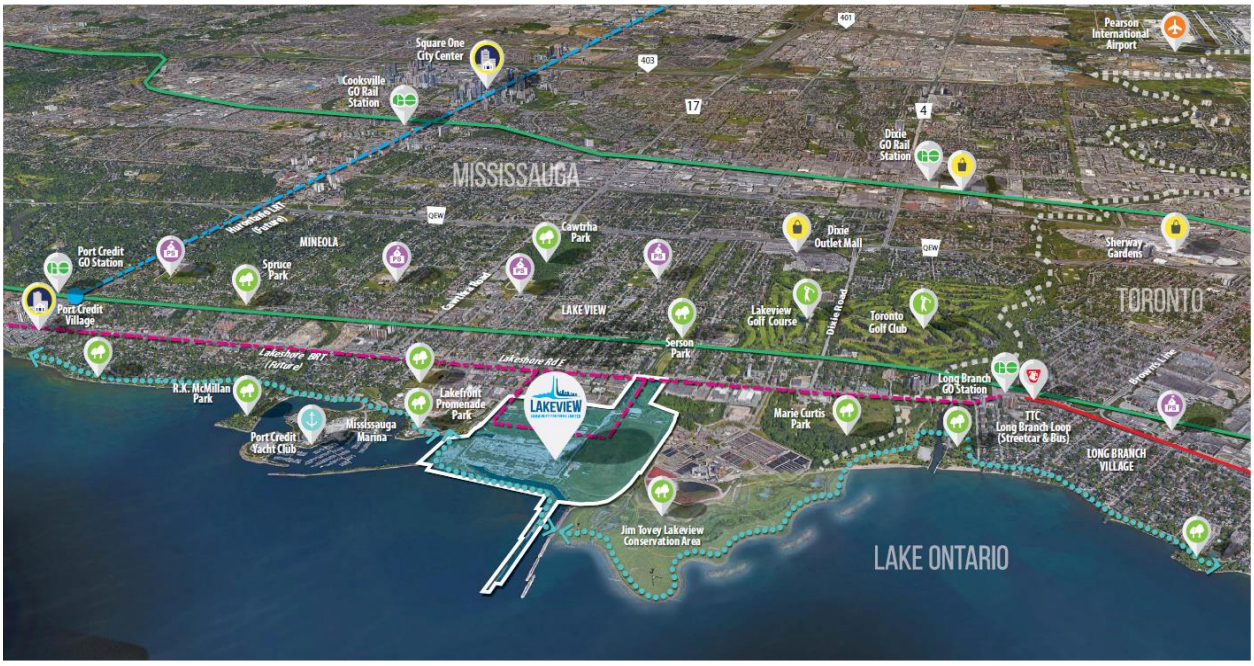
1.2 Expectation from MiWay

Transit Service from Day 1

An integrated local and regional transit network will allow future residents, employees and visitors to Lakeview Village comfortably choose transit as their primary mode of transportation to connect to major nodes around the city. Strategy 2 of Metrolinx's 2041 Regional Transportation Plan (RTP) proposes the development of a Frequent Rapid Transit Network to provide high quality transit to connect more people to more places. The network approaches the challenge of connecting multiple major population and employment nodes across the region with a range of transit options to allow people to travel quickly and seamlessly. Local transit service through communities such as Lakeview are absolutely critical to the long-term success of the network and growth of a transit mode split, as these feeder routes to regional networks and hubs (such as the Lakeshore BRT and GO stations) represent the beginning and end of a person's journey, or their first-mile and last-mile. If transit is not immediately accessible or visible within communities, people are forced to find alternatives such as cars to reach their destinations.

As shown in **Figure 1-1**, with Lakeview Village ideally situated in proximity to the Long Branch and Port Credit GO Transit stations, future Hurontario LRT, future MiWay transit facility, and a TTC transit hub, bringing local MiWay transit service to the site immediately will be important in setting the direction for how residents, employees and visitors connect to and from the site, transit hubs, local destinations and the rest of the city. The integration of local service into this layered network will help ensure the long-term sustainability of this transit-oriented community development.

Figure 1-1 Lakeview Village Site Context



Source: Development Master Plan 4.0 (October, 2019)

In order to ensure that workers and residents during the first phases of the development do not feel the need to own a car, potentially before regional transit infrastructure is ready, a fundamental component of the transportation and sustainability strategy is the provision of efficient and convenient transit services from 'Day 1'. LCPL proposes that MiWay consider providing initial stages of transit services *from the start of building construction*, rather than from first occupancy of the development itself, as is typically considered. The provision of transit service from 'Day 1' of construction will ensure that the many trades who will be working on the site will have access to and be able to commute using transit to and from Mississauga and beyond. By providing an attractive and effective mobility solution from the start, we can eliminate the need for workers, residents and visitors to own a car and thereby replace vehicle trips in the

short-term, developing a future-ready community which will see lasting success and support the sustainability for transportation solutions in the long term.

MiWay has previously made a commitment to LCPL to investigate how best to deliver transit service in the first Phase of the Lakeview development, thus providing early residents with a competitive and attractive transit option. As such, this memorandum aims to recap the opportunity, present transit solutions and set the stage for future transit planning in Lakeview Village.

2 Ridership in Lakeview Village

Local transit services provide the greatest opportunity to drive ridership at the neighbourhood level. The future Lakeview transit route is proposed to operate at similar levels of service and headways to many of the existing local routes in the Lakeview area. Lakeview Village transit riders will use this route to access local destinations, such as schools or shopping, and as a connection to the proposed Lakeshore Road BRT facility for longer trip to the Port Credit and Long Branch GO Stations, providing access to the TTC network and the future Hurontario LRT.

The higher average densities, range of mixed-uses, and TDM measures proposed within the DMP, and further detailed in the Transportation Considerations Report prepared by TMIG, dated June, 2020, will help drive higher transit ridership, will support more frequent transit service headways, and widen the reach of public transit service for all residents, employees and visitors to the Lakeview Village community.

2.1 Users

Two key elements which will draw transit riders from residential and non-residential land uses within Lakeview Village are the mixed land uses and reduced vehicular parking rates proposed across the community. The Development Master Plan 4.0 provided a snapshot of the potential for approximately 8,050 residential units, 26,012 square metres of retail and hotel space, 27,449 square metres of civic and school space, and approximately 148,209 square metres of office space, with the office space designated primarily along the Lakeview Innovation District. While the actual development size may vary, this mixed land use is a key strategy in supporting reduced vehicular demand, which redirects typical vehicle trips towards sustainable modes, such as transit, thereby increasing the ridership potential within each block.

Residential units will be concentrated within RA5-XX zoned blocks, as per **Figure 2-1**, which will feature some ground-floor commercial and retail spaces within the blocks. The overall parking rate for residential units is proposed to be reduced in consideration of the anticipated availability of reliable transit and active transportation facilities. This affirms the expectation that a significant portion of residential commuter and social trips will be taken by transit and other sustainable modes, ensuring a reliable supply of riders for local transit services.

Further, it is understood that the proposed combination of transit, walkability and a mixed land use can result in a lower level of vehicle ownership rates per household than in other neighbourhoods across the City. This is seen in other communities such as Port Credit and City Centre, which have some of the lowest vehicle ownership rates, lower than the City's average of 1.6 vehicles per household. The neighbourhood characteristics and aggressive TDM measures within Lakeview Village are anticipated to reduce individual vehicle ownership due to the convenience of public or private services and the elimination of vehicle capital costs from individuals who engage in various mobility services.

In fact, the City's Parking Master Plan states that vehicle ownership has been declining in Mississauga over the past 5 years, particularly dropping in areas with high frequency transit services, with the lowest rates of ownership in the Downtown and community nodes where there is less demand for parking. Accordingly, parking rates similar to City Centre are proposed be applied to accurately reflect the demand for residential and office parking from residents and employees in the Lakeview Village community, and in line with general trends across the city.

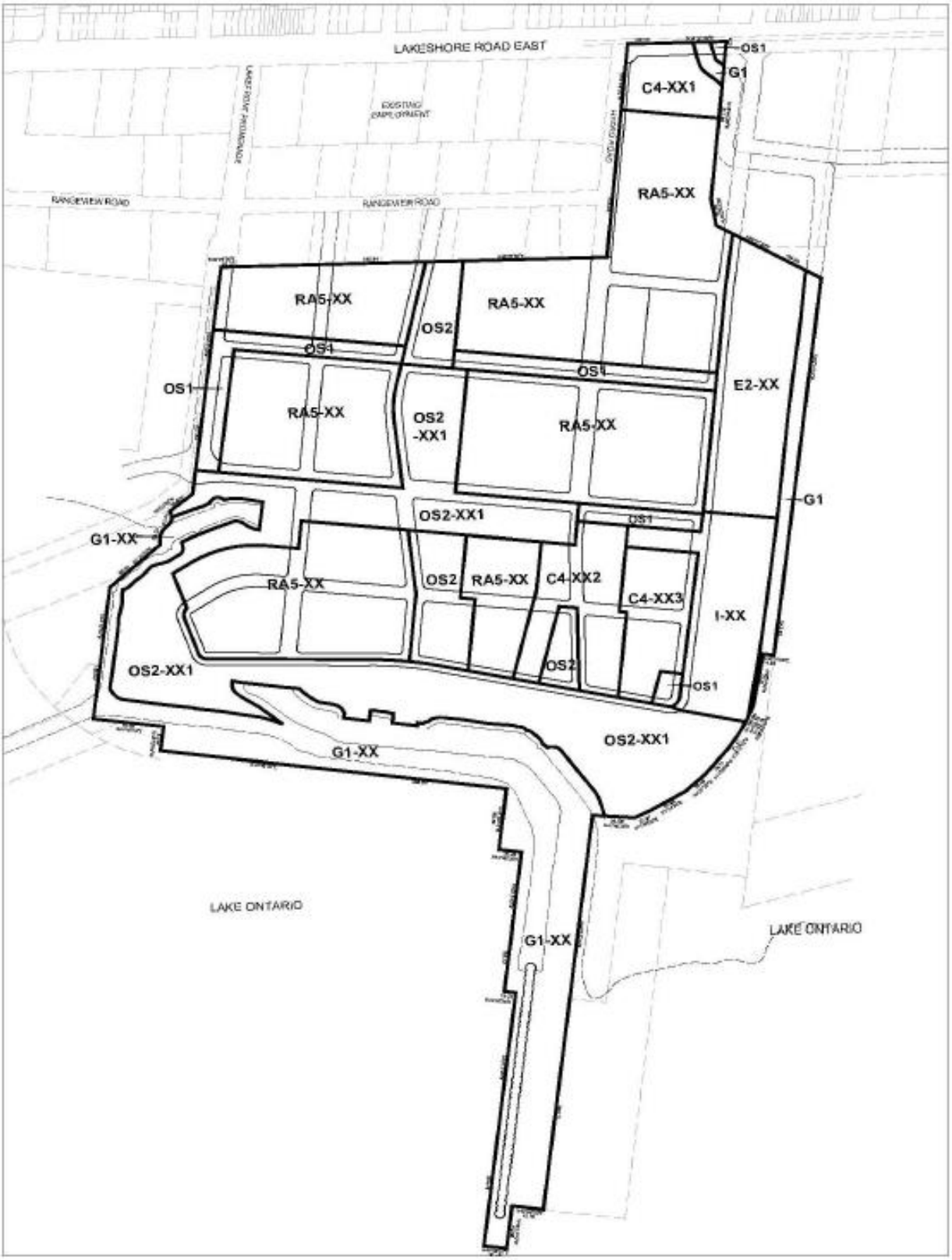
The success of the proposed reductions in parking supply are co-dependant on the availability of transit stops within Lakeview, and in particular the presence of the proposed MiWay stop along Lakefront Promenade with transit service supplied from 'Day 1 of building construction' which will be hugely impactful in encouraging future residents to swap a car purchase for a transit pass as their preferred method of transportation. This is due to the proposed location of the stop at the intersection of Lakefront Promenade and Street 'B' which is flanked to the north and south by the RA5

residential zones, as shown in **Figure 2-1**. The proximity of the proposed stop to the residential blocks dramatically reduces the walking distances otherwise required to access the Lakeshore BRT stop at Lakefront Promenade, and serves to provide residents with transit from their front door.

Similarly, the office uses along the Lakeview Innovation District, zoned E2-XX and I-XX in **Figure 2-1**, are planned with a greater transit mode split and reduced parking supply in order to shift future employees to transit to get to/from work. The Lakeview Innovation District will be well-served by transit via the proposed Lakeshore BRT stop at Haig Boulevard, as well as the proposed stop within the Village at Street 'B'. The availability of the Street 'B' bus stop is crucial to ensure that employees in the southern half of the corridor have a convenient and accessible 10-minute walk to a transit stop. The proposed New Haig Boulevard & Street 'B' bus stop will also directly serve the needs of students and staff at the school proposed directly adjacent to the stop. The provision of the internal bus stop is critical to reduce the peak hour vehicle trips along the Innovation District and support the City and Region's sustainable mode split for commuters.

Finally, the proposed internal bus stop along Street 'A' at Street 'F' will be a crucial point to serve the needs of the high density residential blocks, employees and visitors to commercial uses around Lakeview Square (300 m away), and for public programming spaces along Ogden Park, Waterfront Commons and the waterfront. This central location was selected over a potential stop at Street 'H' in order to appropriate spacing between stops, support a 10-minute walkshed within Lakeview Village, and abide by the City's request to limit the number of stops in the area. With so many land uses and visitor-attracting destinations within a 10 minute walking distance of this centrally proposed bus stop, the provision of MiWay transit service from the initial opening day of these spaces will be an important factor to reduce vehicle demand and support the envisioned 50% sustainable mode share. Accordingly, the commercial and public land uses around the future Street 'A' stop will provide a significant portion of the riders required to support this internal local transit route, with weekday evening, and weekend peak period demands which will be complementary to those of the residential and commercial peak periods for the proposed stops along Lakefront Promenade and New Haig Boulevard.

Figure 2-1 Development Lot Codes - "Schedule A" of the by-law to amend Zoning By-law Number 0225-2007



2.2 Lakeview Village Ridership Forecasts

Lakeview Village has been designed with a fine grain road network that provides a high level of pedestrian connectivity throughout the development, and the permeability of the network is enhanced by off-street pedestrian paths and pedestrian mews that will cut through development blocks. As a result, pedestrian facilities will provide direct walking connections to the proposed transit stops within Lakeview Village and to the express bus stops located at Lakefront Promenade and Haig Boulevard. Wider sidewalks and closing gaps in the network helps Lakeview promote local and regional transit use and expand the 400-metre (5-minute walk) pedestrian walkshed shown in **Figure 2-2.**

Transit-supportive guidelines in Official Plan and Metrolinx policies recommend density within a 5-10 minute walking distance, which is considered an acceptable pedestrian catchment area, and is consistent with MiWay's recommended minimum walking distance. All development in Lakeview Village is within a 5-10 minute walk from all proposed transit stops on Lakeshore Road and within the site.

Figure 2-2 Lakeview Village Pedestrian Catchment Area

Note: The latest transit plan realigns the proposed stop on Haig Boulevard further north at the intersection with Street 'B'.

Despite the considerable walkability and access to transit within the Lakeview development, a conservative transit mode split was applied to the total residential peak hour trip generation within TMIG's Transportation Considerations Report, dated June 2019. From 8,050 residential units located primarily within the RA5-XX zoned blocks as shown in **Figure 2-1**, a total of 15,750 residents are forecasted, with 2,835 trips in the AM peak hour and 3,229 trips in the PM peak hour. A conservative transit mode split of 22.5% and 17.5% was applied to the AM and PM peak hours, equating to 639 and 566 person trips, respectively, and adjusted for directional distribution.

Non-residential trip generation was broken down by retail, office, research & development, community centre, and hotel land uses, with transit reductions applied to all uses, with the exception of hotels, following mixed-use considerations and adjustments. A total of 1,256 and 1,913 total new trips were forecasted for the AM and PM peak hours, respectively.

Table 2-1 summarizes the directional distribution of residential and non-residential peak hour trips by transit.

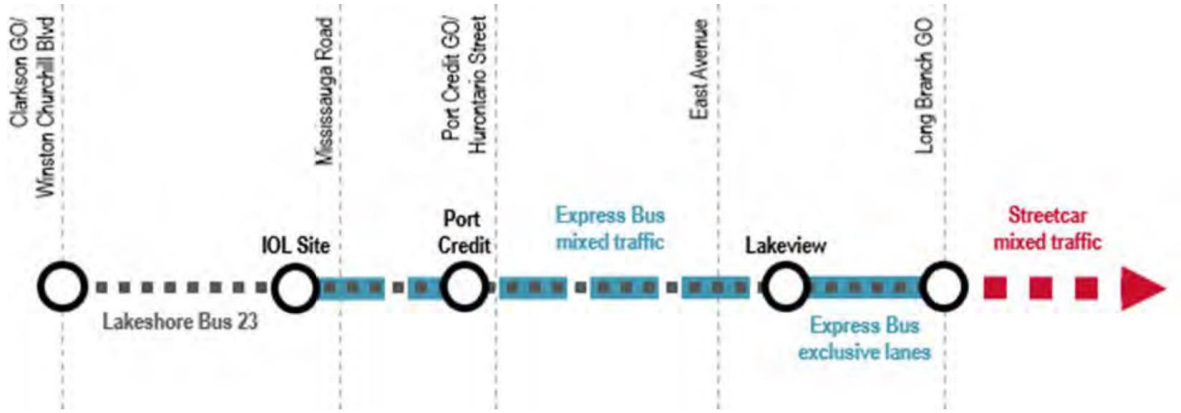
Table 2-1 Site Transit Trip Generation

	Weekday AM Peak Hour Trips			Weekday PM Peak Hour Trips		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Residential	160	479	**639**	345	221	**566**
Non-Residential						
Retail	17	11	28	50	47	97
Office	156	21	177	18	126	144
Research & Development	59	16	75	8	61	69
Community Centre	39	20	59	33	38	71
Non-Residential Total	**271**	**68**	**339**	**109**	**272**	**381**
Total Transit Trips	431	547	**978**	454	493	**947**

In total, **978** and **947** bi-directional person trips are forecasted to be taken by transit in the AM and PM peak hours, respectively, from all residential and non-residential uses within Lakeview Village. As stated, this takes into account a conservative transit modal split of 22.5% and 17.5% applied to the AM and PM peak hours, respectively. However, as Lakeview is targeting a 50% sustainable mode split, inclusive of transit and active transportation, and in alignment with the City's objective and Region's goal, we can anticipate even higher transit trips than those projected in **Table 2-1**.

The expected Lakeview Village ridership forecasts outlined above are significant when taken in context of the proposed scope of a rapid transit expansion along Lakeshore Road, as shown in **Figure 2-3**, as per Phase 2B of the transit implementation plan in the Lakeshore Road TMP.

Figure 2-3 Phase 2B Bus Rapid Transit Implementation



Source: Draft Lakeshore Road Transportation Master Plan and Implementation Strategy (May 2019)

While options including a TTC Streetcar extension westward and a Hurontario LRT extension eastward are considered, the TMP recommends the implementation of a stand-alone interim Lakeshore rapid transit (BRT) for the corridor. The proposed Lakeshore BRT is expected to increase the peak hour ridership (peak period direction passengers per hour) from the existing 200 riders to 650 - 1,200 transit riders. The recommended ultimate solution (beyond 2041), proposes extending the TTC streetcar from Long Branch GO to Mississauga Road and is expected to attract 1,700 – 2,300 transit riders in the peak hour.

The forecasted AM and PM peak hour transit ridership of 978 and 947, respectively, from Lakeview Village represents a considerable portion of the total expected ridership of 650 to 1,200 riders for the entire Lakeshore corridor during peak hours. Based on these metrics, the provision of local transit in Lakeview Village will be a fundamental component in supporting the Lakeshore Road BRT in the interim condition, for both AM and PM peak hour ridership forecasts, despite being in proximity to only three transit stops along the Lakeshore corridor. In the ultimate condition, Lakeview Village will continue to markedly support the forecasted ridership requirements of the municipal rapid transit corridor.

The aggressive transit mode split within Lakeview Village, in support of the City's objective and Region's goal of a 50% sustainable mode share, is in part dependent upon the provision of accessible, efficient, and convenient local MiWay transit service to stops within the community. Reducing walking distances to transit by providing stops in the community will attract more transit riders from Lakeview's mixed-use blocks, who can utilize the planned fine grain pedestrian and cycling network to comfortably connect to local and regional transit services.

While the urban design elements and active transportation infrastructure planned as part of the Lakeview Village development will significantly contribute to achieving a 50% sustainable mode share within the community, in accordance with the Region of Peel's Sustainable Transportation Strategy (STS), transit service will require additional capacity and a greater deal of transit priority, based on key issues identified by the Region.

By committing to local transit service to stops within Lakeview Village from 'Day 1' of building construction for the development, MiWay can help ensure that transit and active transportation are not only viable alternatives to private vehicular use, but will help shape and support the travel habits of trade workers, future residents, employees and visitors to the area. Enhanced transit, a fine grain road network, extensive active transportation facilities, and the use of Transportation Demand Management measures will reduce reliance on private auto travel, reduce congestion, and mitigate greenhouse gas emissions, contributing to a more sustainable and livable community.

2.3 MiWay Ridership Thresholds / Requirements

The City of Mississauga's Transportation Master Plan, dated May 2019, has a core vision statement saying that *"In Mississauga, everyone and everything will have the freedom to move safely, easily, and efficiently to anywhere at any time."* This directs the City's planning for the next phase of transportation investments which are now focused on key nodes, such as Lakeview, and corridors, such as Lakeshore Road, within the city. Investing in high quality transit to connect communities with high density and mixed-uses is an important part of the action plan, which includes a goal to provide the "Freedom of Choice" via *"an integrated network, where people and goods have viable options for moving within and beyond the city."*

The TMP lays out almost 100 Actions to lead the city towards 6 goals, which all tie together to support the provision of high-quality, efficient and reliable transit for residents across the city. This is echoed in the 2009 Action Plan: Move, which states the City's goal of establishing transit stops within a 10-minute walk, deemed the critical threshold, for 75% of Mississauga residents. In the plan, it is highlighted that if people have to walk farther than 10 minutes to transit, many will simply drive instead. It is also noted that establishing transit stops within a 10-minute walk for 100% of Mississauga residents is *"impractical given our historical development pattern"*, however a more feasible, realistic, yet ambitious target is set to accommodate 75% of all residents and business within a 10-minute walk of a transit stop.

Therefore, while the city does not have a numerical threshold for the amount of density and ridership required to bring transit service to a community, it does have the aspirational goal of bringing such service to 75% of the city. Lakeview Village is ideally planned and located along a major corridor and within a major node, providing ample potential to help the city meet that target. In fact, by diverting the small link of MiWay's existing Route #23 from Lakeshore Road into Lakeview Village, nearly 2.5% of the City's population will be serviced by transit within a 10-minute walking distance, assuming 20,000 new residents and a City population of 800,000 people.

The provision of local MiWay transit services from 'Day 1' of building construction for the development, via an internal transit loop, is critical to ensure that all trade workers, future residents, employees, and visitors can access their destinations, starting or ending within a 10-minute walk of a local transit stop. While the future Lakeshore BRT stops are an important element within the network, the local bus stops along Lakefront Promenade, Street 'A', and New Haig Boulevard are the critical points to ease the first-mile/last-mile barrier to transit and draw large ridership numbers to the transit route.

3 Routing

3.1 Proposed Transit Route

The long-term local transit plan for Lakeview Village utilizes the planned major collector road network in the north-south and east-west directions. These roads will form part of u-shaped circuitous route accessing Lakeshore Road East between Lakefront Promenade and New Haig Boulevard (north-south), with an internal east-west connection via Street 'A', to make travel by transit as attractive as possible to new residents, employees and visitors of Lakeview Village.

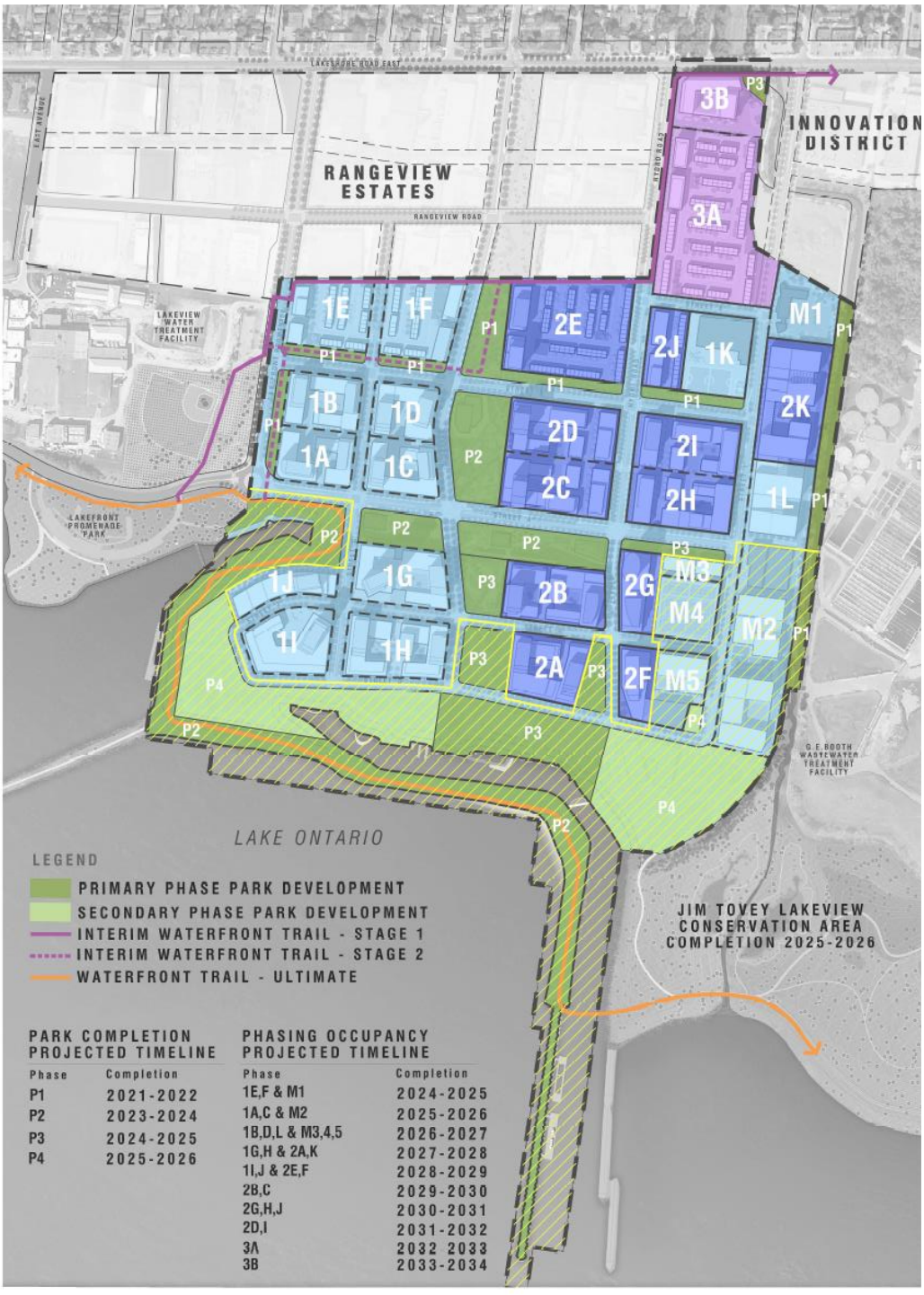
Figure 3-1 Proposed Lakeview Village Transit Routing

Within the Lakeview Village district, two short-term transit routes are proposed to best serve trade workers, initial residents, and visitors during the early phases of the development. Specifically, the interim route will be well-utilized by visitors travelling to Lakefront Promenade Park as well as the vast waterfront and Lakeview park system which is targeted to be completed and open the public prior to the completion of Phase 1 of construction. Accordingly, the 'Short-term Stage 1' transit route will follow Lakefront Promenade south to the proposed round-a-bout at Street 'A' and then return north back along Lakefront Promenade to Lakeshore Road. This initial interim route, illustrated in **Figure 3-1**, is mainly anticipated to best serve the commuting needs of trade workers during building construction, the early phases of residential occupancy, and visitors to the public park lands along the waterfront.

As subsequent phases of the Lakeview development are opened and occupied by residents and businesses, the second interim transit route, illustrated in **Figure 3-1** as 'Short-term Stage 2', is proposed to replace the 'Stage 1' transit route in order to expand transit access within Lakeview. This Stage 2 short-term transit connection is designed to utilize Lakefront Promenade, Street 'A' north of Waterway Common, and Hydro Road, as shown in **Figure 3-1**, with stops at the intersections of Lakefront Promenade at Street 'B', and Street 'A' at Street 'F'. There is the potential here to add temporary transit stops at the intersection of Hydro Road and Street 'B', to be confirmed through further consultation with MiWay and dependant on the final phasing of the development. **Figure 3-2** presents the currently proposed draft Phasing Plan for Lakeview Village, dated June 18, 2020.

Finally in **Figure 3-1**, the solid thin blue line indicates the long-term scenario with the routing shifting from Hydro Road to New Haig Boulevard, with a third stop at the intersection of New Haig Boulevard at Street 'B'. There is the potential for an autonomous shuttle route in the long-term scenario. The proposed routing in the long-term condition aims to ensure all areas within Lakeview Village are easily accessible by local transit services. **Section 4** below details the design of the proposed bus stops as well as the connection for the two newly proposed stops at Lakeshore Road.

Figure 3-2 Draft Lakeview Village Phasing Plan – Dated June 5, 2020



3.2 Interim Transit Loops

As shown in **Figure 3-1,** two transit routes are proposed in the interim condition. The Short-term Stage 1 transit routing will circulate north-south along Lakefront Promenade, primarily serving the needs of workers during building construction, early residents, and visitors to the publically-accessible waterfront park lands. The Short-term Stage 2 transit route will extend the service east into Lakeview Village lands, and is proposed to follow Street 'A' and Hydro Road back to Lakeshore Road. The ultimate transit routing will extend beyond Hydro Road onto the New Haig Boulevard when that connection to Lakeshore Road is fully realized. The transit routing plan is designed to be flexible, so that transit can be incorporated as the development is phased and as regional transit plans are implemented along Lakeshore Road East.

While **Figure 3-1** illustrates the anticipated short-term bus routes, the actual route of initial transit service will be governed by the overall system services in operation at the time of first occupancy, the latest phasing and occupation percentage of the development, and also the practical integration of the new route into the broader Lakeview Village construction program. The Lakeview Village Phasing Plan is shown in **Figure 3-2**, illustrating how the interim and ultimate transit loops are proposed in consideration of the development plan.

4 Transit Stops

4.1 Proposed Bus Stop Locations

As shown in **Figure 3-1**, and detailed in **Section 4.3** below, there are three proposed bus stop locations within the Lakeview Village community along the proposed u-shaped route. One transit stop will be available along Lakefront Promenade for the short-term Stage 1 route, at least two stops will be available in the Stage 2 interim condition (with the potential for a third, described below) with the transit loop following Hydro Road / Street 'H' from Street 'A' to Lakeshore Road East, and at least three stops in the long-term condition utilizing New Haig Boulevard / Street 'I'. Dependent upon the final phasing of the development, a third *temporary* bus stop may be recommended in the interim condition at the intersection of Hydro Road and Street 'B' in order to provide more convenient transit access to the surrounding residential blocks.

The first stop will be located along Lakefront Promenade, at the intersection with Street 'B', with the bus stops proposed to be located on the near side, or approach side, of the intersection. Riders will be able to access northbound buses towards Lakeshore Road East and southbound buses which will continue eastbound along Street 'A' before turning back towards Lakeshore Road. Bus shelter pads will be provided for the stops on both sides of the road.

The second stop will be located along Street 'A' at Street 'F', adjacent to Ogden Park and Waterway Common. The bus stops are proposed to be located on the near side, or approach side, of the intersection. Eastbound riders will continue along Street 'A' and north along Hydro Road or New Haig Boulevard, in the interim and ultimate conditions, respectively, towards Lakeshore Road East. Westbound riders will continue along Street 'A' then continue north along Lakefront Promenade towards Lakeshore Road. Bus shelter pads will be provided for the stops on both sides of the road.

The third stop will be located along New Haig Boulevard / Street 'I' at Street B, directly south of the proposed school location. The bus stops are proposed to be located on the near side, or approach side, of the intersection. Riders will be able to access northbound buses towards Lakeshore Road East and southbound buses which will continue westbound along Street 'A' before turning back northbound along Lakefront Promenade towards Lakeshore Road. Bus shelter pads will be provided for the stops on both sides of the road.

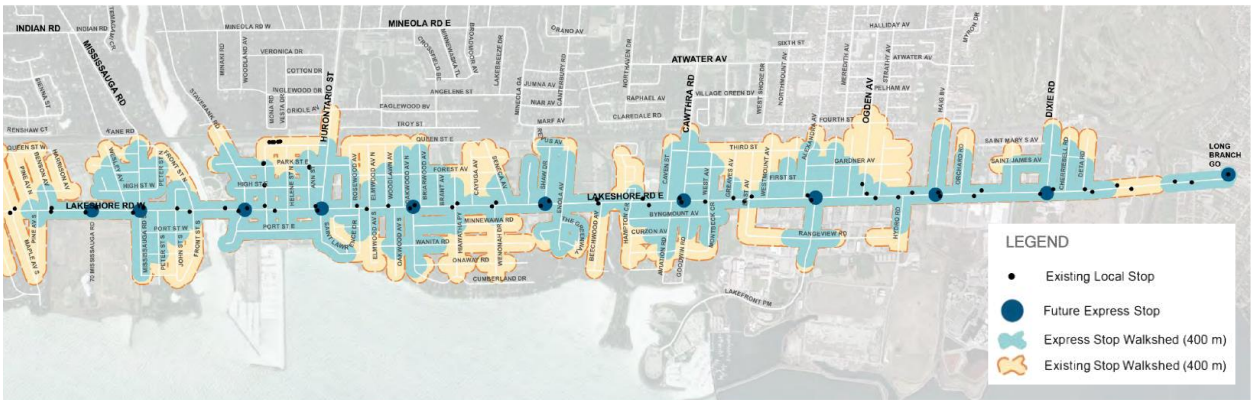
In addition to the three proposed bus stops within LCPL lands, additional consultation with MiWay is requested to discuss the potential to provide northbound bus stops on Lakefront Promenade and New Haig Boulevard at Lakeshore Road in order to facilitate ridership transfers to the Lakeshore BRT. At the intersection of Lakeshore Road and Lakefront Promenade, the proposed eastbound curbside bus stop, shown in **Figure 4-2**, facilitates transfers *from* the BRT to the local route which will continue south along Lakefront Promenade. However, a stop is recommended in the northbound direction, before or immediately after the local route turns left onto Lakeshore Road, in order to facilitate transfers *onto* the BRT. Similarly, a stop is recommended at New Haig Boulevard prior to the local route's northbound right onto Lakeshore Road. These proposed bus stops are outside of LCPL lands, and as a result are currently not shown in the Composite Plan, which will be updated.

4.2 Future Stops on Lakeshore

As discussed above, the Lakeshore Road Transportation Master Plan (TMP) identified transit improvements along Lakeshore Road that include dedicated transit lanes from East Avenue to Deta Road for express bus service and corridor improvements such as increased transit frequency and priority. The express bus service will travel along proposed dedicated median transit lanes and make use of median bus stops in the segment along the Lakeview Village site, east of East Avenue to Etobicoke Creek near the City's eastern boundary. Curbside transit facilities are proposed along the Lakeshore Road corridor for local routes to support express bus service and enhanced corridor transit routes. The design of Lakeshore Road will protect for Transit Signal Priority with transit stops and shelter locations selected for providing good access and high speed service through the corridor.

Figure 4-1 illustrates the existing local and future preferred express bus stop locations for the Lakeshore corridor, from 70 Mississauga Road to Long Branch GO station, inclusive of stops accessing Lakeview Village, and the 400 metre (5-minute walk) pedestrian catchment area being serviced.

Figure 4-1 Lakeshore Road TMP Preferred Express Bus Stop Locations & Pedestrian Catchment Area



Source: Draft Lakeshore Road Transportation Master Plan and Implementation Strategy (May 2019)

As shown in **Figure 4-1**, the dedicated median transit lanes will provide centre median bus stops for express transit service along Lakeshore Road, with stops at Lakefront Promenade, Haig Boulevard, and Dixie Road. The stops at Lakefront Promenade and Haig Boulevard will provide direct transit connections into Lakeview Village along two collector roads servicing the site. **Figure 4-2**, extracted from the TMP, provides an example layout of a BRT bus stop located in the median of Lakeshore Road East.

Figure 4-2 Example Median BRT Stop Layout – Lakefront Promenade

Source: Draft Lakeshore Road Transportation Master Plan and Implementation Strategy (May 2019)

As proposed above, we recommend additional consultation with MiWay to explore the provisions of additional bus stops at the intersections of Lakeshore Road at Lakefront Promenade and New Haig Boulevard, as the local route makes its northbound left and northbound right turns on Lakeshore, respectively, in order to facilitate smoother transfers to and from the local route and the BRT. These stops would be proposed for inclusion if it is determined that the currently planned Lakeshore bus stop locations do not efficiently support the transfer of riders at these intersections.

In addition, a temporary bus stop may be proposed at the intersection of Hydro Road and Street 'B' in the interim condition, dependent upon the final phasing plan of the development.

We understand that MiWay may run express buses from Clarkson GO station to Long Branch GO station until the transit hub is completed at 70 Mississauga Road, becoming a new transit node for the Lakeshore corridor, in close proximity to the Lakeview site.

4.2.1 Maintaining Existing Service

Currently, the Lakeshore Road East corridor is primarily serviced by MiWay Route #23 which provides local bus service from Clarkson GO Station to Long Branch GO Station, with a loop in Port Credit to service the Port Credit GO Station. Existing bus stops within proximity of Lakeview Village are located at Lakefront Promenade, Ogden Avenue, Hydro Road and Haig Boulevard. Route #5 Dixie also services the stops at Ogden Road, Hydro Road and Haig Boulevard.

As shown in **Figure 3-1**, future transit stops will be located on Lakeshore Road at Lakefront Promenade and at Haig Boulevard, to serve riders along the future Bus Rapid Transit route. It is anticipated that the existing stop at Hydro Road may be removed due to its proximity to the future BRT stop less than 200 m away at Haig Boulevard. However, based on our review, the existing stop at Ogden Avenue should remain service due to its distance from the Lakefront Promenade and Haig Boulevard BRT stops, of approximately 270 m and 410 m, respectively. While existing users of the Hydro Road stop will have a choice between stops just 200 m in either direction, deemed a comfortable walking distance, the riders serviced by the Ogden Road stop primarily originate from a larger walkshed north of Lakeshore Road as shown in **Figure 4-1**. Many of these riders originating from the low-density residential streets on either side of Ogden Road already have first-mile distances between 200 and 400 m, at least, and would not be supported by stops an additional 200 m away. Therefore it is understood that local bus service should be maintained for residents and employees at Ogden Road in both the eastbound and westbound directions, in order to ensure an acceptable walking distance to transit for all existing users.

Therefore, LCPL proposes that Route #23 be split into Route #23A and Route #23B, with the former route maintaining existing MiWay bus service along Lakeshore Road and servicing stops including at Ogden Avenue. We propose that the new Route #23B would enter Lakeview Village and follow the transit route proposed in **Figure 3-1**. The proposed split bus route will ensure that there is no disruption to riders using the existing Lakeshore stop at Ogden Avenue, while ensuring effective local bus service is provided within the Lakeview Village community.

4.2.2 Response to Draft Plan Comments

In response to comments obtained following the City of Mississauga's review of LCPL's Draft Plan submission, by the Transit Reviewer, we note the following.

Comment #1: This site is currently serviced by MiWay Routes 5 and 23 on Lakeshore Road East. Please be advised that Lakeshore Connecting Communities is a master plan in development for the future of Lakeshore Road. This study will look at how to best connect the communities along Lakeshore Road (i.e. Clarkson, Port Credit, and Lakeview) while preserving and enhancing their unique character and sense of place.

Response: *Acknowledged.*

Comment #2: Convenient and accessible pedestrian linkages are to be provided between the existing sidewalk network and MiWay services/stops. Pedestrian walkway connections to the existing municipal sidewalk are necessary to ensure accessibility, reduce walking time and encourage transit use.

Response: *The 'Composite Streetscape Plan for Lakeview Village' illustrates the sidewalks and pedestrians mews throughout the site, which provide convenient and accessible pedestrian linkages to and from the existing sidewalk network and MiWay services and stops.*

Comment #3: The cost of any boulevard improvements/reinstatement, including any impact to MiWay infrastructure, as necessary to accommodate this development shall be borne by the developer. Please be advised that all costs associated with the removal and reinstatement of existing transit shelters will be the responsibility of the proponent with the work being completed by MiWay's Shelter Contractor. Payment for the cost of relocating a transit shelter shall be arranged directly with the shelter contractor prior to the shelter being removed and/or relocated. MiWay's Infrastructure Management Team coordinates stop and shelter relocations and must be contacted at least two weeks prior to the commencement of construction.

Response: *Acknowledged. The proponent, LCPL, agrees to coordinate with MiWay with regards to any boulevard improvements or impacts to MiWay infrastructure and take responsibility for all associated costs. We will coordinate with MiWay's Infrastructure Management Team for any stop and shelter relocations within appropriate time frames.*

Comment #4: Boulevard areas at intersections are to be barrier-free (i.e. minimize any above ground utilities/street furniture along the boulevard at intersections) and be hard surface treatment for accessibility. Within the Lakeshore Connecting Communities Master Plan, stops along Lakeshore Road have been proposed to relocate to more strategic locations as development occurs. As such, stop #2744 on Lakeshore Road East at Hydro Road (adjacent to the 1082 Lakeshore Road East site) will be relocated to the nearside location of the intersection. Please be advised that MiWay requires a 15m clearance with concrete passenger landing pad to provide safe access for passengers exiting from the back doors of a 40ft or 60ft bus. The hard surface passenger landing pad is to connect with proposed sidewalk/pedestrian linkages. The applicant is to ensure all proposed trees and grates (or any other street furniture) are removed from the intersection of Lakeshore Road East at Hydro Road. The applicant is to amend all plans and drawings to reflect these changes. The applicant is advised that MiWay's standard drawings are available online as part of the Standard Drawings Manual for the Transportation and Works Department, City of Mississauga (Available at: http://www.mississauga.ca/portal/business/transit). Please refer to Standard Drawing #2250020 to depict the future relocation of the aforementioned stop #2744 on Lakeshore Road East at Hydro Road (MiWay will relocate to the nearside southwest location of the intersection on Lakeshore Road East at Hydro Road).

Response: *Acknowledged. The proponent, LCPL, agrees to coordinate with MiWay as required to ensure any and all relocated or new bus stops abide by MiWay's clearance and design specifications and standard drawings. In particular we will ensure that the boulevard areas for relocated bus stops on Lakeshore Road, including stop #2744 on Lakeshore Road East at Hydro Road, are barrier-free with appropriate surface treatments applied.*

Comment #5: MiWay's Infrastructure Management Team coordinates stop and shelter relocations and must be contacted at 905-615-3200 ext. 3825 at least two weeks prior to the commencement of construction. Should any road/boulevard works (including lane disruptions) impact existing transit infrastructure (stop #2744) or service (routes), the applicant is required to contact MiWay's Infrastructure Management Team at 905-615-3200 ext. 3825 at least two weeks prior to submission of the Road Occupancy Permit (ROP), and include information on proposed traffic management plans.

Response: *Acknowledged. LCPL will contact MiWay's Infrastructure Management Team prior to any stop or shelter relocations, and road or boulevard construction that may impact existing transit infrastructure.*

4.3 Bus Stop Design

The proposed bus stops within Lakeview Village have been specifically designed in accordance with city standards. **Figures 4-3** and **4-4** illustrate the City of Mississauga's Transportation and Works Standard Drawings for nearside and far-side bus stops for standard buses, respectively.

Figure 4-3 Mississauga Transit Nearside Bus Stop Standard Drawing

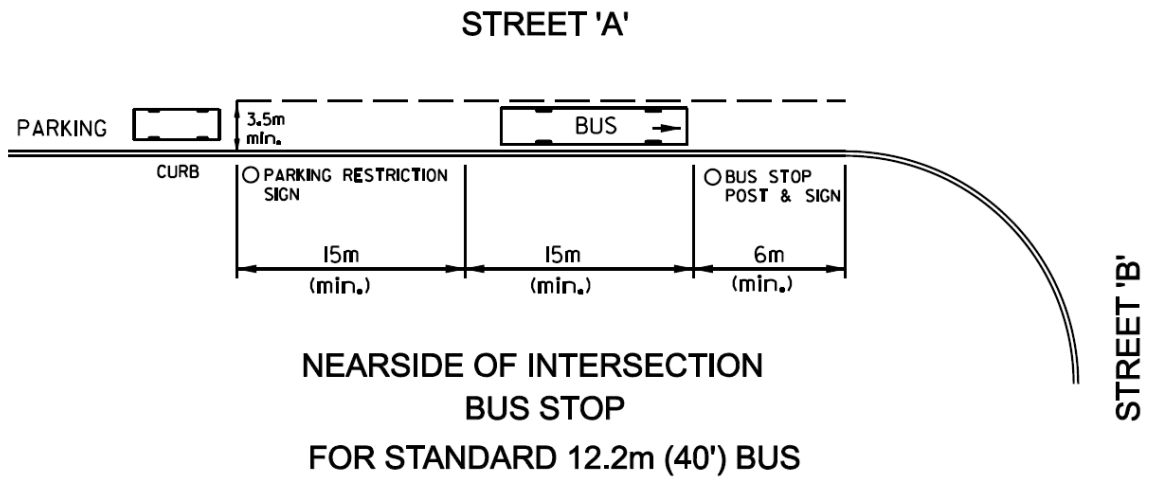
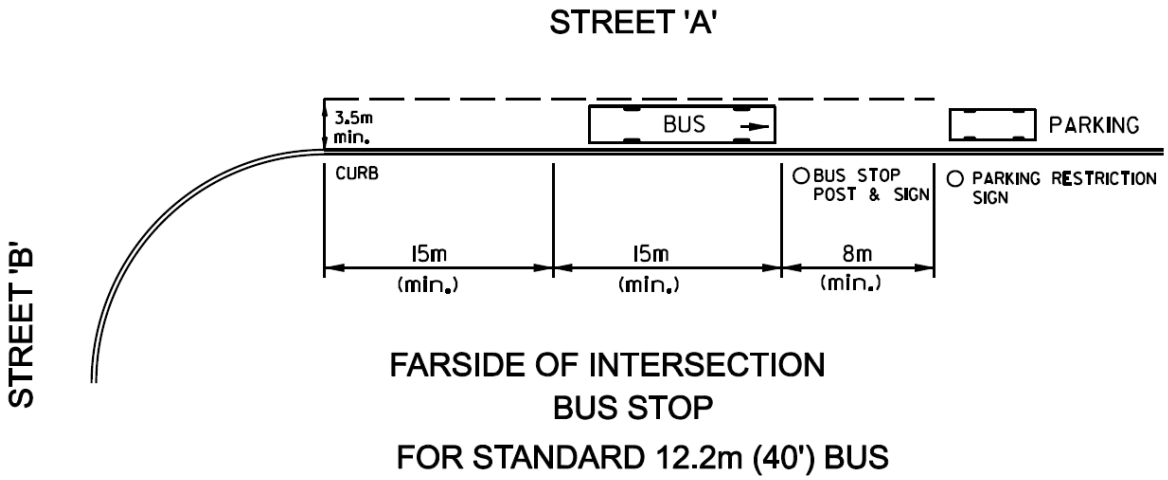


Figure 4-4 Mississauga Transit Far-Side Bus Stop Standard Drawing



As per the Lakeview Village Composite Plan, and illustrated in **Figures 4-5, 4-6,** and **4-7**, all nearside and far-side bus stops along the Lakeview corridors are designed according to the Mississauga Transportation Works Guidelines and Standards.

It is noted that as per Standard Drawing 2260.010 and 2260.020, the minimum width of the bus stops are required to be 3.5 metres. The lane widths along Street 'A', 'B', 'F', 'I' and Lakefront Promenade are 3.35 metres, which would usually require a 3 metre width for the bus stops. However, it is determined that although bus stops require a 3 metre width, the 3.35 metre lane width will accommodate MiWay's transit stop standards. This is due to the fact that within Lakeview Village, MiWay staff have required all bus stops to be located within the general purpose travel lane as to not disrupt transit services. Therefore with no transit lay-bys to consider, it is deemed that there is sufficient space to

accommodate these bus stops within the road network, while ensuring that buses are not slowed down as they try to merge back into the general purpose lane.

In the following figures, the hatched areas represent the functional areas for both nearside and far-side bus stop locations. There is no parking permitted within the functional area in order to allow the bus stop to function efficiently, with space for buses to transfer riders safely, maneuver, or have a second bus in queue.

Figure 4-5 Lakefront Promenade at Street 'B' Bus Stop Design

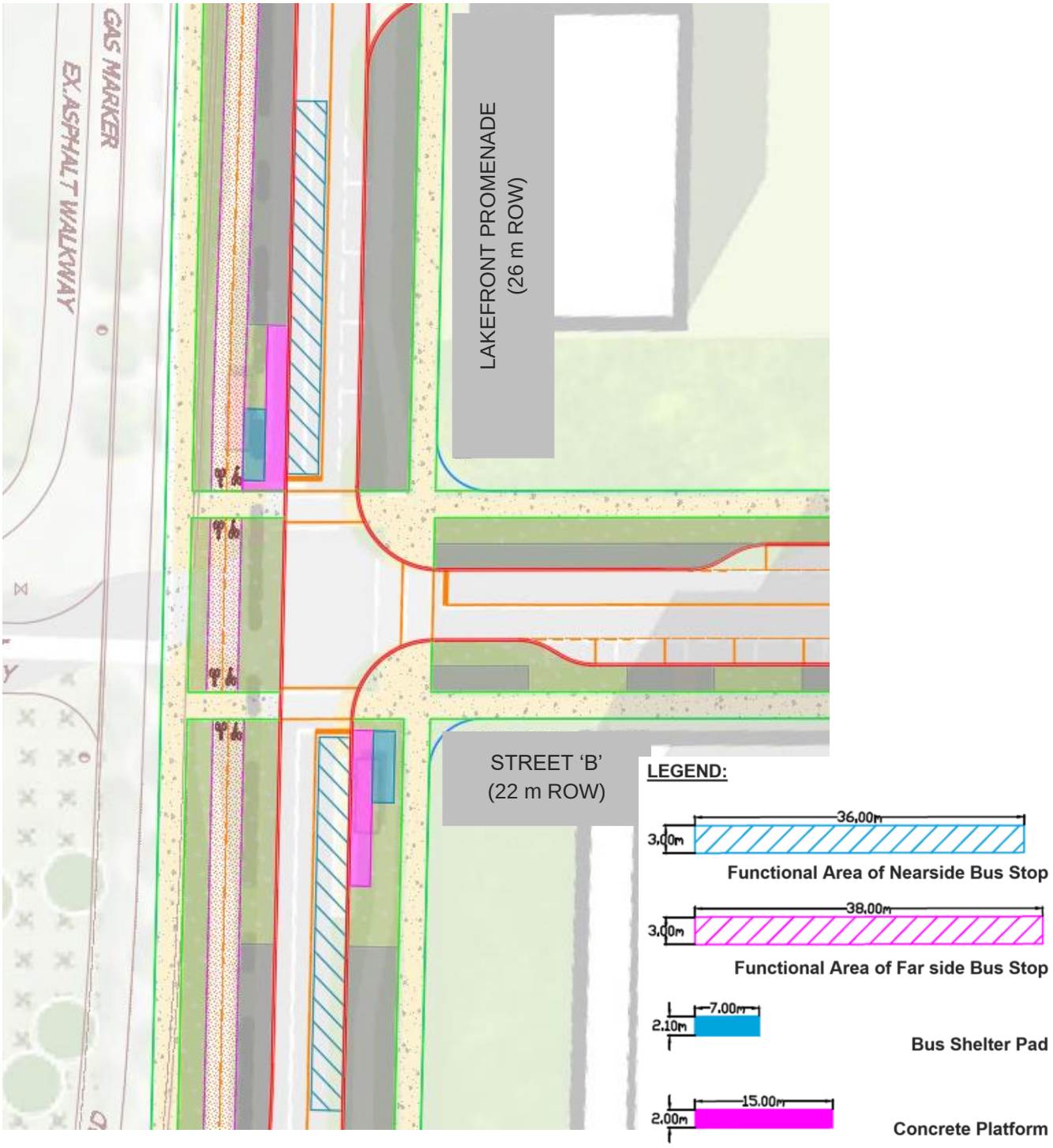


Figure 4-6 Street 'A' at Street 'F' Bus Stop Design

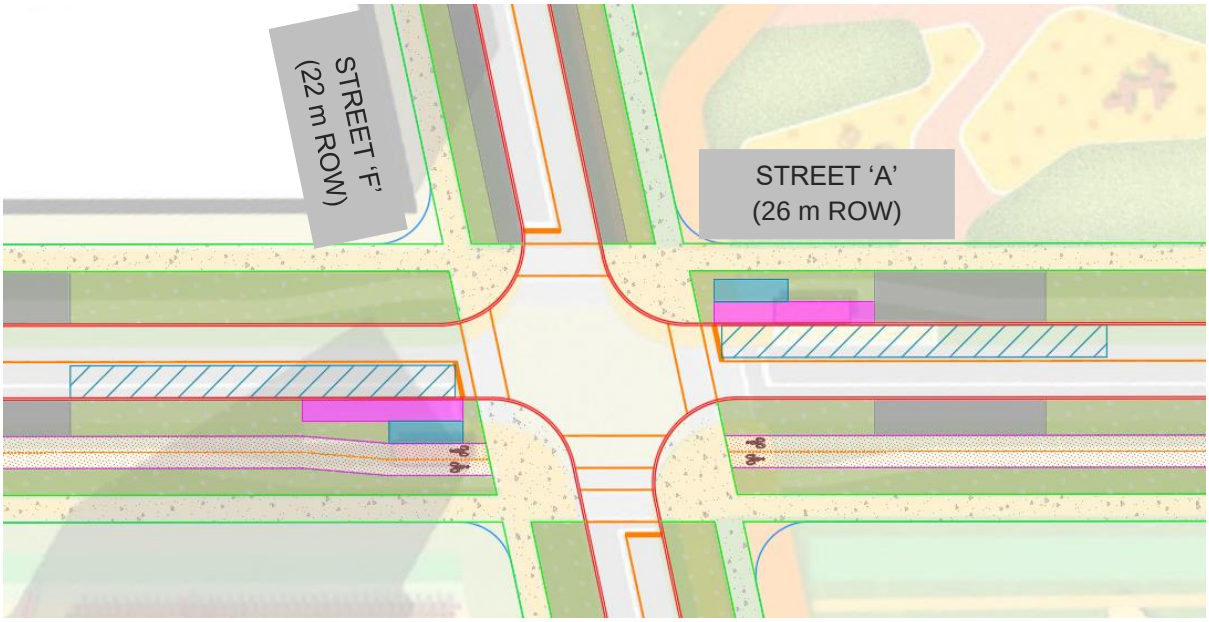
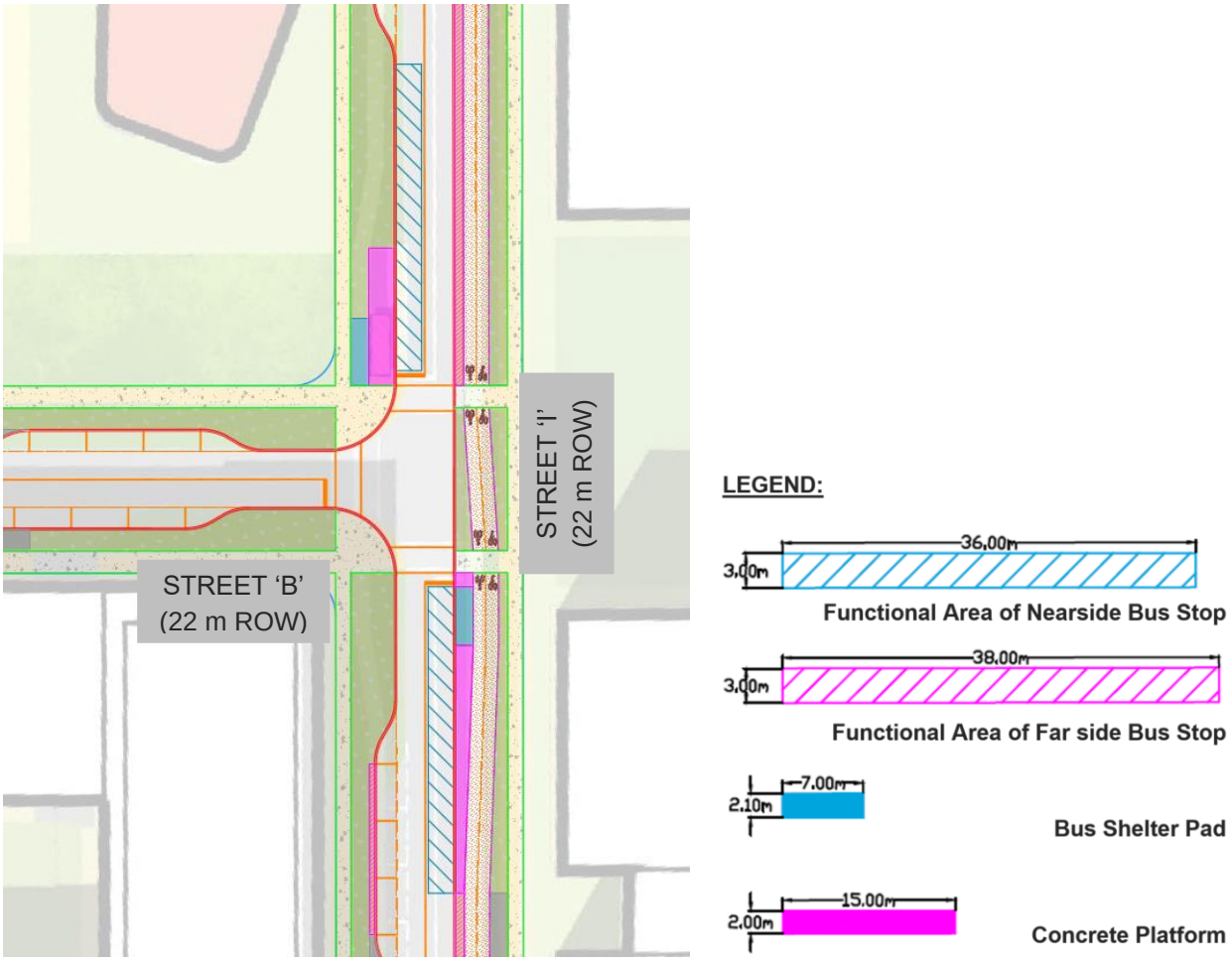


Figure 4-7 Street 'I' at Street 'B' Bus Stop Design



5 Internal Network

5.1 Lakeview Bus Shuttles

To ensure new residents, employees and visitors generated by and attracted to the community can rely upon, and become familiar with, attractive and competitive transit service at the onset of development, it is recommended that the City of Mississauga Transit Division investigate the opportunity to modify or add bus routes into and through Lakeview Village at first occupancies. Currently, local public transit within the vicinity of the Lakeview Village site is operating at satisfactory service levels, however this is expected to change as the Lakeview Major Node continues to grow and intensify and new transit and mobility options are established.

To support this vision, LCPL is recommending a joint venture with MiWay to operationalize local shuttle bus services between the initial phases of the Lakeview Village development and Lakeshore Road (and potentially other main destinations such as Port Credit and Long Branch GO Stations, local transit hubs, and Square One) until transit demand satisfies the City's threshold to fully provide public transit routes through the site. This local shuttle bus service would serve an enhancement to existing transit services around the Lakeview Major Node, and help build ridership demand through a demonstrated commitment to providing mobility alternatives to cars from the onset of building construction through to first occupancy of the development. In short, a Lakeview shuttle service, in coordination with MiWay, would serve to bridge the gap and act as a stepping stone between existing conditions and the future build-out of the Village and its transit routing network.

LCPL would like to review this opportunity and discuss the feasibility of such a service, as part of the commitment to providing full transit service from Day 1 of development construction, through further consultations with MiWay and the City of Mississauga staff.

Shuttle to/from GO Stations

A primary function of local shuttle buses would be to provide primarily peak hour direct service from Lakeview Village to Port Credit and Long Branch GO Stations. This interim shuttle bus route would serve to support and promote the use of local transit services for short and long-distance travel by residents, employees and visitors, working to develop a base ridership which can be eventually transferred to public transit buses when available. Therefore, LCPL would like MiWay to consider a shuttle service loop operating between the development and nearby GO Stations which would assist in discouraging car usage and ownership, and thereby increase the initial and ultimate transit mode split for the Lakeview community.

5.2 Autonomous Shuttles

The shuttle transportation solution could eventually transition to a full autonomous shuttle, moving passengers along the pre-determined route shown in **Figure 3-1**. Autonomous shuttles are quickly becoming a mobility alternative in forward-looking cities, as the technology improves and adapts to various urban environments, and cities look for innovative ways to solve the "first-mile/last-mile" challenge.

Governments have been exploring driverless shuttle technology as a new option for residents and visitors to get around their cities and close the last mile gap. Cities including Edmonton, Vancouver, New York, Detroit, Las Vegas and Austin have begun piloting autonomous shuttle buses, which carry fewer people than a full-size bus and run on shorter fixed routes through their downtowns. For cities and their partners, a major benefit of these pilot programs has been using the shuttles to educate the general public about autonomous vehicles (AVs) and get them comfortable traveling in one.

Autonomous shuttles are seen as a key bridge to the full deployment of autonomous vehicles (AVs) – they run on predictable routes on the same streets, so they do not have to deal with significant variability. Autonomous shuttles can prepare riders for the driverless experience and also act as data collection tools for the broader autonomous network.

This futuristic mobility option may become a viable solution and is an option to be considered to be implemented as part of the transportation strategy to provide Lakeview Village with a safe, reliable and efficient option for moving around the community and subsequently connecting to supplement the city's transit network. The autonomous shuttle fixed to

a circuitous route could potentially transform from an interim alternative to serve as the long-term transit solution within the Lakeview Village community.

We also note that one of the Desired Outcomes for the Lakeview Innovation District Vision is to advance solutions and technologies around mobility. An autonomous shuttle pilot within Lakeview would provide a terrific sandbox for mobility tech firms and start-ups to tie their research and development into the Lakeview pilot.

6 Transportation Demand Management (TDM) Measures

The Lakeview Village Draft Transportation Considerations Report, prepared by TMIG, dated April 2020, proposes a comprehensive Transportation Demand Management (TDM) Plan to guide the provision of alternative transportation options beyond single-occupant vehicles (SOV), in line with the Region of Peel and City of Mississauga Official Plans. The TDM Plan outlines the following array of measures and strategies to respond to the mobility needs of employees, residents and patrons, and promote the use of more active and sustainable transportation modes. The strategies include physical, operational, financial, and organization measures to reduce auto-dependency and support a host of health and environmental benefits.

The mix of public and open spaces that connect precincts, provide an opportunity for TDM connections through integrated cycling networks, frequent and accessible local transit services, access to regional transit through Bus Rapid Transit (BRT) connections at Lakeshore Road, trails plans along the Waterfront and green spaces, and established sidewalk connectivity in a modified grid pattern *"designed to facilitate seamless movement and permeability throughout the pedestrian-scaled village"*.

The following hard and soft TDM measures, cited from the Transportation Considerations Report dated April 2020, were proposed to meet the objectives and targets of the Lakeview Village DMP and are supportive of higher transit modal splits and the implementation of local transit services within the Village.

6.1 Information Distribution

The City of Mississauga and Metrolinx in collaboration with the developers are to provide contents and materials for inclusion into an information package for all new residents on available pedestrian trails, cycling, and transit facilities and carpool options including community map, regional and municipal transit (MiWay) route maps, GO Transit route map and schedules, and information on the City of Mississauga Smart Commute organization and its programs.

The distribution of information may also extend beyond the reach of individual residents and businesses to the broader public via a public Wi-Fi network. The publically available internet could provide residents, employees, and visitors to the community with accurate and real-time transit schedules, the location and availability of ride-sharing vehicles, taxis, shared bikes, e-bikes and e-scooters, and directional information for active transportation facilities throughout the Lakeview Village community.

Providing real time transit information can encourage the use of transit since information will be up-to-date and users will know when they can go to their stop. The information also increases rider safety, security and convenience. Real-time information about transit scheduled and connections can be provided through various forms of media and in varying locations including building lobbies and common areas. In alignment with the idea of a public Wi-Fi network, an up-to-date transportation network mobile app, such as the widely-used *"Transit App"* or a public MiWay app, could serve as the platform to share real-time updates.

6.2 Wayfinding Signage

Visible and effective signage to support wayfinding by marking designated pathways to transit, stops and stations, with directional guidance, is an important element in enhancing access to transit. When access to transit is convenient and safe, more riders will be attracted to use the service. The Lakeview Team is interested in coordinating with the city to ensure the provision of an integrated and connected network of wayfinding options to transit and other municipal

transportation facilities is provided. This would not only support the Lakeview Sustainability Strategy but it would also support the recommendations of the City's Smart City Strategy

6.3 Transit Incentives

Given the location of the site is adjacent to reliable transit options, the developer(s) are to consider providing each residential dwelling unit with a pre-loaded PRESTO card (value to be determined) as an incentive to promote transit usage. The availability and convenience of local transit stops within the Village will incentivize residents to use their Presto cards and choose transit for local and regional trips, instead of vehicular travel.

6.4 Transit Amenities

The developer will consider the inclusion of amenities to provide transit users with places to rest, seek shelter and for convenience. These include benches, transit shelters, trash bins, signage, bike racks, planters, restrooms, etc. As per the City's TDM Strategy and Implementation Plan, the provision of such amenities are found to increase the use of nearby transportation facilities in urban areas.

6.5 Micro-Transit

Flexible local transit services will be essential to connect residents, employees and visitors to destinations within Lakeview Village, and facilitate movement around the development. Micro-mobility alternatives, such as bike-share, e-bikes, e-scooters, VTOLs, e-VTOLs, and future options, will serve as first-mile/last-mile solutions within the Lakeview community and across the city.

Future micro-transit providers may become formal feeders to core public transit routes, addressing accessibility challenges for some residents, and supporting the growing car-free lifestyle of younger generations.

6.6 Bicycle Parking

The provision of bicycle parking throughout Lakeview Village will encourage the use of bicycles as an alternative travel mode beyond the private automobile. The supply of both long-term and short-term bicycle parking will be strongly encouraged in all blocks to serve the needs of both residents, employees and visitors to Lakeview Village.

Cyclists will be able to utilize cycling facilities within Lakeview Village to reach bus stops and connect to regional transit in order to expand their reach to destinations across the region. This combination serves as a viable solution to first-mile/last-mile transportation challenges across the city, with bike racks provided on the front of all MiWay buses. In addition, the presence of bicycle parking facilities integrated as part of the street furniture around any future Lakeshore BRT stops, or at the Port Credit or Long Branch GO Stations will strengthen the larger cycling network and support the success of cycling to and from the Lakeview Village site.

The integration of cycling and transit infrastructure supports the Lakeview Village Sustainability Strategy and will also serve to attract cyclists and residents from all over the city who can utilize regional and local transit routes to reach Lakeview destinations and cycle along the Waterfront Trail.

6.7 Bike Repair Stations

Public bike repair stations will be located throughout the site to allow cyclists to perform repairs should the need arise and will provide items such as common tools and an air pump. These public bicycle repair stations would be best located adjacent to main bicycle parking areas and local MiWay transit stops to support multi-modal transportation hubs across Lakeview Village.

6.8 Bike Share Systems / E-Bikes / E-Scooters

Metrolinx's 2016 GO Rail Station Access Plan suggested the Inspiration Lakeview planning area as a potential bike share location to work in conjunction with those located at nearby Long Branch and Port Credit GO Stations.

Bike share programs provide residents and employees of a city or downtown area access to bicycles without the responsibility of owning, maintaining, and storing a bicycle themselves. The City of Mississauga's Cycling Master Plan, which aims to make the city safer for and more appealing to cyclists, called for the creation of bike-share systems and the City's Transportation Master Plan recommended creating a shared system of bikes, e-bikes or e-scooters.

City of Mississauga staff are currently starting a study to determine available options and models including publicly owned and operated, privately owned and operated as well as mixed publicly and privately owned and operated. This will include a review of bikes, e-bikes and e-scooters that operate within a docked (devices are picked up and dropped off at specific locations) and dockless (users can park the device within certain zones) style.

Currently, the Ontario Highway Traffic Act doesn't allow e-scooters on roads and sidewalks. The Government of Ontario is in the process of reviewing that Act. Active, shared mobility is certainly coming to Mississauga, with questions only surrounding how it will be regulated.

For Lakeview Village, the integration of cycling infrastructure with local and regional transit service stops will serve as a prime example of how active transportation and micro-mobility solutions can be married to traditional transportation services to help residents, employees and visitors connect, and complete the first-mile or last-mile of their journey in a sustainable manner.

7 Conclusion

In conclusion, the commitment from MiWay to provide transit service to the Lakeview Village community from 'Day 1' of building construction for the proposed development is a critical element to support the long-term transportation and sustainability strategies of the Lakeview community as well as to provide transit service to the many trades, from Mississauga and beyond, who will help to build this community from the ground up. The provision of local transit service provides the greatest opportunity to drive transit ridership at the neighbourhood level and foster a culture of using transit and sustainable transportation modes from the first phases of this master planned development. By having a local bus route in an interim form from 'Day 1' of building construction, trade workers have the opportunity to utilize transit services for their commute to and from Lakeview, Mississauga and beyond. In the longer term, future residents and employees will be more enticed to adopt transit rather than car ownership, which will be hugely supportive towards the City's objective and Region's goal to reach a 50% sustainable mode split within the city. While the city does not have a particular density threshold required to support transit, Lakeview Village will be a major opportunity to support MiWay's goal of bringing quality transit service to 75% of the city.

The placement of the proposed internal transit stops has been curated to ensure that all residents, employees, businesses and destinations are within a 10-minute walking distance, a length supported by MiWay, City Official Plan, Provincial Growth Plan, and Metrolinx policies and objectives. As a result, utilizing a conservative transit mode split from the Transportation Considerations Report prepared by TMIG, dated June 2020, it is clear that the mixed-use Lakeview community will draw considerable ridership, sufficient to support a local transit route, and even supply a significant portion of the total ridership forecasts for the Lakeshore BRT.

The proposed interim and ultimate transit loops are designed to be flexible and to follow the draft Phasing Plan for the development, with all stops designed to meet the Mississauga Transportation Works Guidelines and Standards. While the future Lakeshore BRT stops are an important element within the network, the proposed local bus stops along Lakefront Promenade, Street 'A', and New Haig Boulevard are truly the critical points to ease the first-mile/last-mile barrier to transit, draw large ridership numbers to the transit route, and support the overall long-term transportation sustainability objective of the Lakeview Village development and the City of Mississauga.

As noted above, the Lakeview Team is interested in meeting with City staff and MiWay staff to advance discussions around mobility solutions for Lakeview Village. The above provides the background and context for this dialog.