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The Regional Municipality of Durham Report

To: Durham Region Transit Executive Committee
From: General Manager, Durham Region Transit
Report: #2023-DRT-21
Date: October 4, 2023

Subject:

Stations, Terminals, and Hubs Strategy

Recommendation:

That the Transit Executive Committee recommends

That this report be received for information.

Report:

1. Purpose

1.1 The purpose of this report is to inform the Transit Executive Committee on the DRT strategy for stations, terminals and hubs as part of the transit network. The strategy identifies customer amenities and requirements to support passenger journeys for DRT's service delivery models (scheduled and demand response).

2. Background

2.1 In 2016, DRT launched its latest Five-Year Service Strategy that articulated the vital role of stations and terminals in providing an attractive and effective passenger experience. The strategy also identified potential terminal and station locations to support the proposed network and enhance the passenger experience.

2.2 In December 2017, the Durham Transportation Master Plan included several recommendations, including stations and terminals. Direction 2 highlighted the need to elevate the role of integrated public transit including rapid transit with the goal of transit being convenient and reliable across the Region. Action 13 recommended that transit station and terminal needs be identified, including needs

for upgrades to existing facilities and physical footprint and operational parameters for future facilities. These needs were recommended to be identified as early as possible in the planning process to enable protection of land and permit long term financial planning.

- 2.3 In 2021, DRT launched The Route Ahead, a plan to influence transit services during the pandemic recovery period as DRT rebuilds ridership, adapt service to new and emerging travel behaviours, and build the foundation for future service growth.
- 2.4 In January 2023, TEC and Regional Council approved the DRT Transit and Financing Strategy (2023-2032), that identified priorities for infrastructure, accessibility and passenger amenities by highlighting investments in new infrastructure and amenities for an enhanced customer experience while enabling expanded operational activities. The priorities included a new Harmony, Pickering Parkway and Windfield Farms terminals with improved customer information, amenities and operational support, and new transit Hubs offering improved customer amenities and information, while supporting integration of On Demand and Specialized transit services (in addition to future integration with active transportation).

3. Previous Reports and Decisions

- 3.1 Report #2020-DRT-08 DRT's Transit Stop Guidelines provided a framework for the placement and design of transit stops within the region. The guideline provides the location review process by stakeholders, assists local area municipalities during their project design activities, and support a consistent and improved transit stop environment throughout the region that meets the current and future expectations of DRT customers and the community.
- 3.2 Report #2020-DRT-12 DRT's Rural Review identified specific passenger infrastructure meant to support the efficient and effective deployment of transit services in Durham's rural areas.
- 3.3 Report #2021-DRT-20 DRT's The Route Ahead 2022-2025 was approved by TEC at its meeting on September 8, 2021, to inform the planning and implementation of transit services during the pandemic recovery period to support mobility needs of Durham residents and businesses.
- 3.4 Report #2023-DRT-05 Transit Service and Financing Strategy (2023-2032), approved by TEC and Council in February 2023, identified the commitment to unprecedented 10-year investment in DRT services, including a 127 percent

increase in revenue services, significant capital investments for fleet electrification, and priorities for infrastructure, accessibility and passenger amenities

4. Discussion

4.1 Integrating Mobility Options

The DRT transit network operates as a single cohesive network, offering On Demand, local, base, and PULSE rapid bus service. Together they provide transit mobility options to all residents of Durham Region. Existing active transportation options, such as walking and cycling, and new mobility options, such as scooter, bike and e-bike sharing programs, are key in providing first and last mile access to the transit network.

4.2 Hubs

Transfer hubs will provide connections between On Demand and scheduled bus routes and offer options for pedestrians or cyclists to leverage paths, trails, and in some cases parking infrastructure.

Hubs will be located at major intersections where scheduled bus routes are frequent, supporting longer distance trips across the Region or into Toronto and York Region. Hubs will be located based on criteria supporting a consistent, and customer-focused design across the transit network.

4.3 Terminals and Stations

Terminals and stations are key places where passengers move seamlessly through the transit system, connecting between buses, On Demand vehicles, surrounding destinations, and in the cases of stations, the GO rail service.

They are critical to service efficiency, reliability, and availability, and support the human aspect of transit service delivery by providing key infrastructure for customers, transit operators, and staff. They also play an important role for access and egress points to the transit network where pedestrian and cyclist access is particularly important.

The Stations and Terminals located within Durham Region are strategically located along east-west in the south along the Highway 401 / GO Lakeshore East corridor and the Highway 407 corridor to the north, with facilities located in each of the five municipalities along the Lakeshore. Their strategic locations provide a convenient transfer point for passengers between DRT services, access to key destinations,

and will support future growth of the transit system to align with growth across the Region.

New terminals are required to replace existing locations that do not support operational requirements where DRT is unable to provide enhanced amenities to customers, and to support growth of the greenfield development in the Region.

4.4 Rapid Transit Stations

Planned rapid transit lines, such as the Simcoe Street Rapid Transit and Durham-Scarborough Bus Rapid Transit, further enhance frequent, reliable and direct mobility options across the Region. Rapid Transit Stations located along the routes will be supported by amenities similar to a transit hub, providing a consistent customer experience. Where feasible, rapid transit services may serve DRT terminals to facilitate connections with other local routes.

5. Relationship to Strategic Plan

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

a. Environmental Sustainability

- Expand sustainable and active transportation

b. Economic Prosperity

- Position Durham Region as the location of choice for business
- Enhance communication and transportation networks to better connect people and move goods more effectively

c. Service Excellence

- Optimize resources and partnerships to deliver exceptional quality services and value

6. Conclusion

6.1 The Station, Terminals, and Hubs Strategy, informs how infrastructure will be planned to provide customer focused and convenient on-street and off-street transfer points between scheduled DRT routes and Demand Response services, and with regional rail and bus service.

DRT will make such revisions and updates to the strategy as necessary. Implementation of the strategy is subject to approval through the Region's business plans and budget process.

7. Attachments

Attachment #1: Stations, Terminals and Hubs Strategy

Respectfully submitted,

Original Signed by

Bill Holmes
General Manager, DRT

Recommended for Presentation to Committee

Original Signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer



Stations, Terminals, and Hubs Strategy

Issued: October 2023

Revised: NA



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1 Vision, Mission, and Principles

1.1 Vision

The public chooses DRT service because it is convenient and meets their mobility needs.

1.2 Mission

To deliver efficient and effective mobility solutions across the Region of Durham in the most sustainable way possible.

1.3 Principles

- Every customer trip counts.
- We provide value to customers, our stakeholders, and our community.
- We mitigate the environmental impact of our operations.
- We provide customer-centric integrated services that enable independent, spontaneous, and worry-free travel.
- We are accountable for decisions and transparent in sharing successes and failures.

2 Foreword

Effective infrastructure is key to influencing ridership by providing convenient on-street and off-street transfer points between and among regional rail and bus service, scheduled DRT routes and Demand Response services, for customers of all abilities.

Stations and terminals are the anchor points of the transit system. GO Transit train stations and DRT terminals are generally the busiest locations in DRT's system. These are locations where many customers start and end their journey or transfer to another service. DRT does not currently own any station or terminal infrastructure and several existing terminals owned by third parties are at or near capacity. Stakeholders have initiated planning and design work to expand and improve these facilities with targeted investments that will benefit most customers. As DRT and public transit expands across the Region, and particularly across the lakeshore municipalities, new transit infrastructure will be essential to maximize operational efficiencies and meet customer expectations of a convenient and integrated transit network.

Transit hubs will provide convenient on-street transfer points between scheduled and Demand Response services and active transportation. The active transportation network provides a vital link between a customer's origin and destination and DRT service.

Compared to regular on-street bus stops, hubs will include enhanced shelters, amenities and improved on-road facilities to accommodate multiple vehicles and vehicle types. Hubs will be:

- Linked into the surrounding active transportation network and include bike racks.
- Strategically located to allow for easy transfers between scheduled and Demand Response services.
- Designed to accommodate customer accessibility requirements and future mobility opportunities.
- Planned in collaboration with our partners on the regional and local cycling plans to ensure cycling infrastructure links with DRT services.
- Accommodate cyclists, with bike racks installed at select stops across the network with the goal of having most of the urban area within a 10-minute bike ride of the PULSE rapid bus network.

Future dedicated rapid transit lines, including the Simcoe Street Rapid Transit, and Durham-Scarborough Bus Rapid Transit will further enhance frequent, and direct transit across the Region. Rapid Transit Stations located along the route, and not at a terminal location, will be supported by amenities similar to a transit hub, providing a consistent customer experience. Where feasible, rapid transit services will connect with DRT terminals to facilitate connections with the transit network.

Infrastructure outlined in this report will support an integrated, accessible, and customer-focused network that supports a variety of travel patterns and customer needs and operational requirements of DRT and employees.

3 Related Plans & Strategies

Infrastructure presented within this strategy is consistent with industry best-practice and approved policies and strategies shaping the vision of transit and transportation in Durham Region and the Greater Golden Horseshoe.

- DRT Bus Stop Guidelines
- DRT Rural Transit Review
- The Route Ahead Service Strategy: 2022-2025
- Durham Region Strategic Plan
- Envision Durham
- Durham Region Transportation Master Plan
- Metrolinx Regional Transportation Plan
- Greater Golden Horseshoe Transportation Plan

DRT has liaised directly with key stakeholders in planning, traffic safety, accessibility, and development at Regional and Local Area Municipalities, seeking feedback to align with the strategy and upcoming work that may impact infrastructure development.

4 Strategy

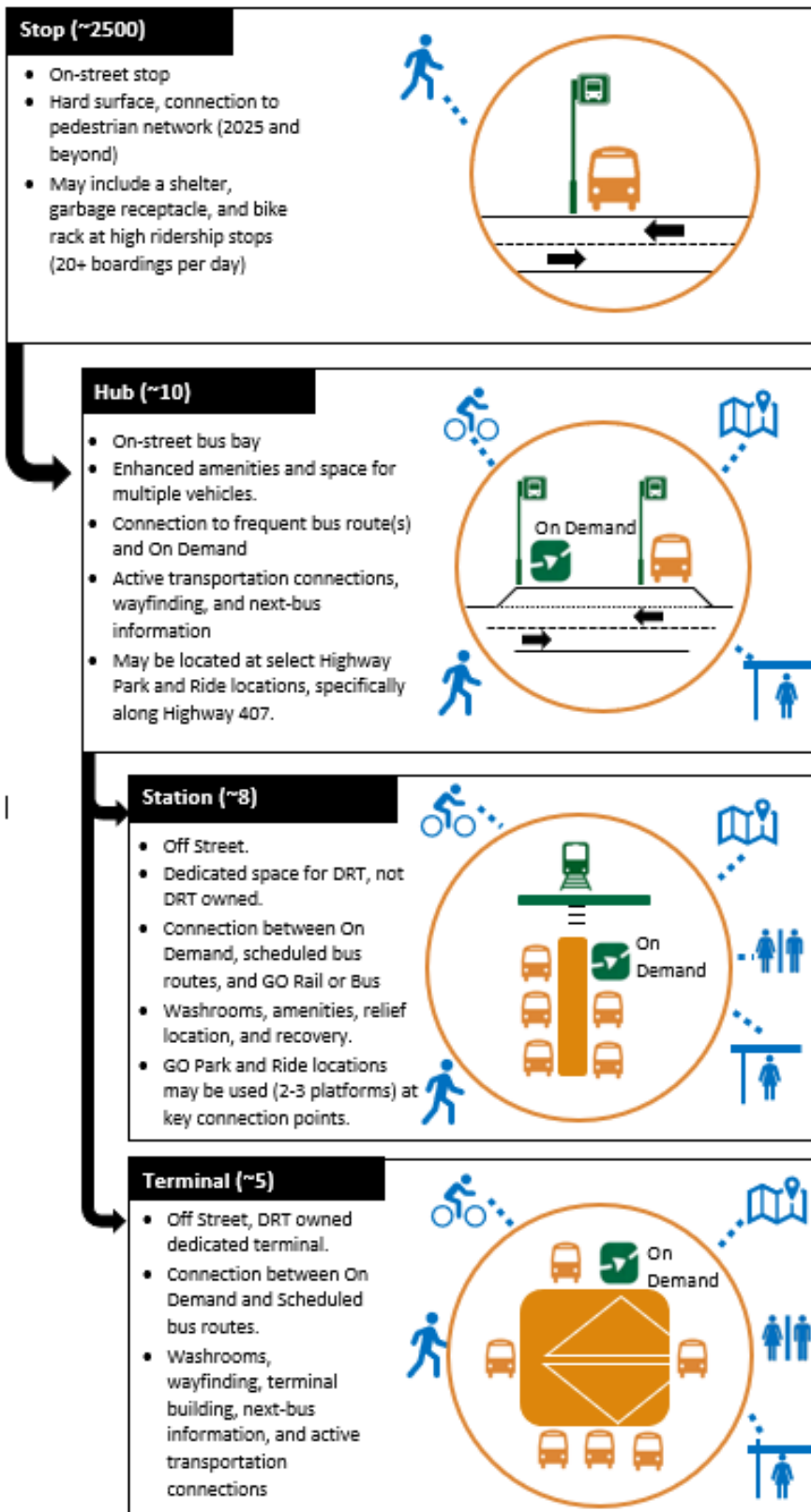
4.1 Network Integration

Mobility options and the needs and expectations of residents are evolving. New electric bicycle and scooter technology has enabled sharing pilot programs and the increasing volume of hybrid work environments is changing ridership day to day, requiring DRT to protect for future trends in the transit network and infrastructure requirements.

To be successful, DRT services must be planned to operate as one cohesive network, offering On Demand, local, base, and PULSE rapid bus services to meet a variety of travel requirements that offer convenient transfers in a customer-centric environment. To support this breadth of service, a variety of connecting infrastructure is necessary.

DRT infrastructure, including bus stops, terminals, and stations, are usually the location of a customer's initial interaction with the transit network. Transfer hubs will provide connections between On Demand and scheduled bus routes, offering the option for pedestrians or cyclists to capitalize on paths, trails, and parking infrastructure. Stations and terminals will offer a connection hub, maintaining service reliability with effective recovery and relief locations, wayfinding, and amenities to protect customers from inclement weather. These elements work collaboratively to provide a positive customer experience and support an integrated DRT network (Figure 1).

Figure 1: Integrated Transit Network Infrastructure



4.2 Operational Support

To provide an efficient, reliable, and accessible system, facilities and infrastructure must exist to support operational requirements throughout the network. Terminals and stations enable transit service to reset between trips to maintain service reliability and minimize non-productive travel to transit garages. Planned infrastructure will support:

- **Recovery:** Recovery between trips ensures that subsequent trips remain on-time, and cascading delays are avoided.
- **Clear roadways:** Dedicated terminals and stations remove buses from the live lane, ensuring that recovery, relief, or staging of vehicles does not impede traffic flow. In the event of delays, dedicated platforms ensure sufficient space for all vehicles.
- **Increased Capacity:** Terminals are designed to support continued ridership and service growth. Dedicated recovery, growth, and route-specific platforms will mitigate congestion, protect for future service needs, and provide a consistent customer and operator experience.
- **Essential amenities:** Terminals and stations provide operators with access to basic amenities including washrooms and break rooms to support a healthy workplace.
- **Relief:** Structuring the network to enable an operator to start and/or end their shift at a terminal or station significantly improves system efficiency and productivity as buses are not required to return to the garage between shifts.

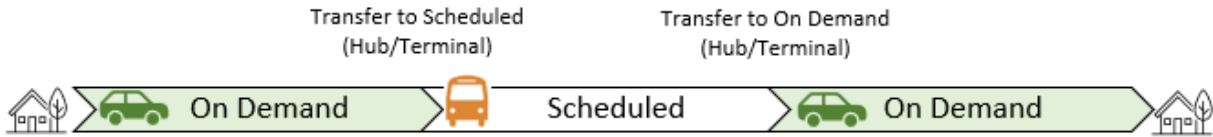
New transit facilities will be required to provide effective transit services for new growth and greenfield development in the Region. Planned growth and entirely new communities in Seaton, Kedron, North Brooklin, Bowmanville, and beyond will require infrastructure to support new service delivery. DRT must establish landmark facilities early in the development cycle to protect for future growth and establish transit as a reliable travel option.

4.3 Hubs

A transfer hub is an enhanced on-street transit stop for On Demand and conventional vehicles to use at the same time. Hubs are designed to support all customers transferring between services within a fully accessible environment.

On Demand Specialized transit customers with conditional eligibility will use a combination of On Demand and scheduled bus service to complete their trip, depending on their origin and destination (Figure 2). Typically, the integrated trips would be those where the origin and destination are a significant distance apart.

Figure 2: Integrated On Demand Trip



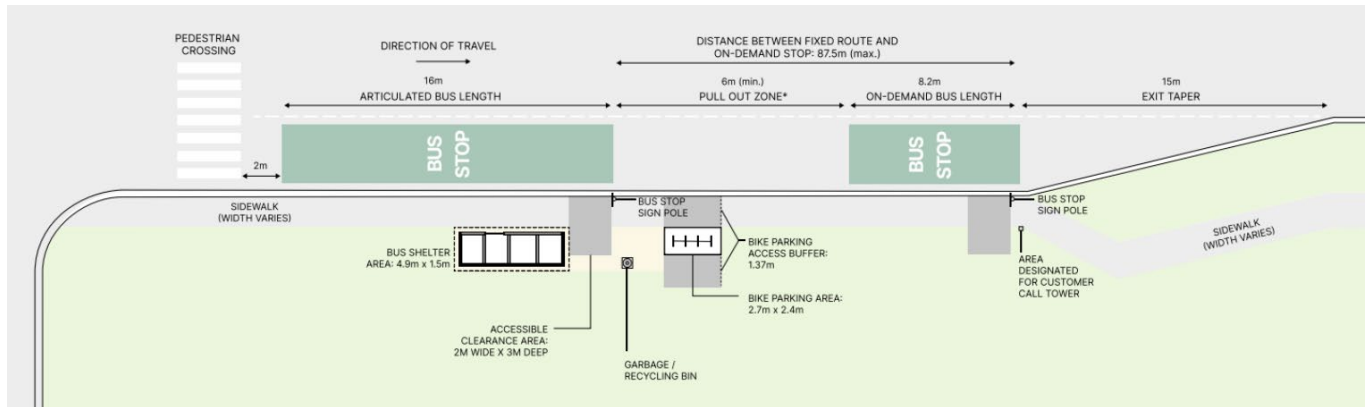
The deployment of integrated On Demand requires a network of transfer locations spread across the Region, accommodating a variety of travel patterns, and supporting a safe environment for all customers.

4.3.1 Design

Hubs will be located at major intersections where scheduled bus routes are frequent, supporting longer distance trips across the Region or into Toronto and York Region. Hubs are designed with equity in mind, benefiting all customers, regardless of their ability.

Hubs will be configured within a bus bay large enough to support a 60-foot articulated bus, that may include a dedicated transit priority queue jump lane to indicate that only buses are able to travel through the intersection from that lane. Additionally, the design will include pavement markings which identify the bus bay as a transit only zone at the far side of the intersection. This concept is illustrated in **Figure 3**.

Figure 3: Conceptual Hub Design



This type of transit priority queue jump lane and open bus bay can be found along Burnhamthorpe Road East in the City of Mississauga (**shown in Figure 4**). In this example, buses queue in the right-turn lane and travel straight through the intersection during the green light. Signage along the near side intersection approach lane identifies that the lane is right turn only with exception for buses. The far side bus bays are coloured red and identified with “Bus Only” pavement markings to discourage passenger vehicles from entering the bay.

Figure 4: Bus Only Queue Jump Lane, Mississauga Ontario

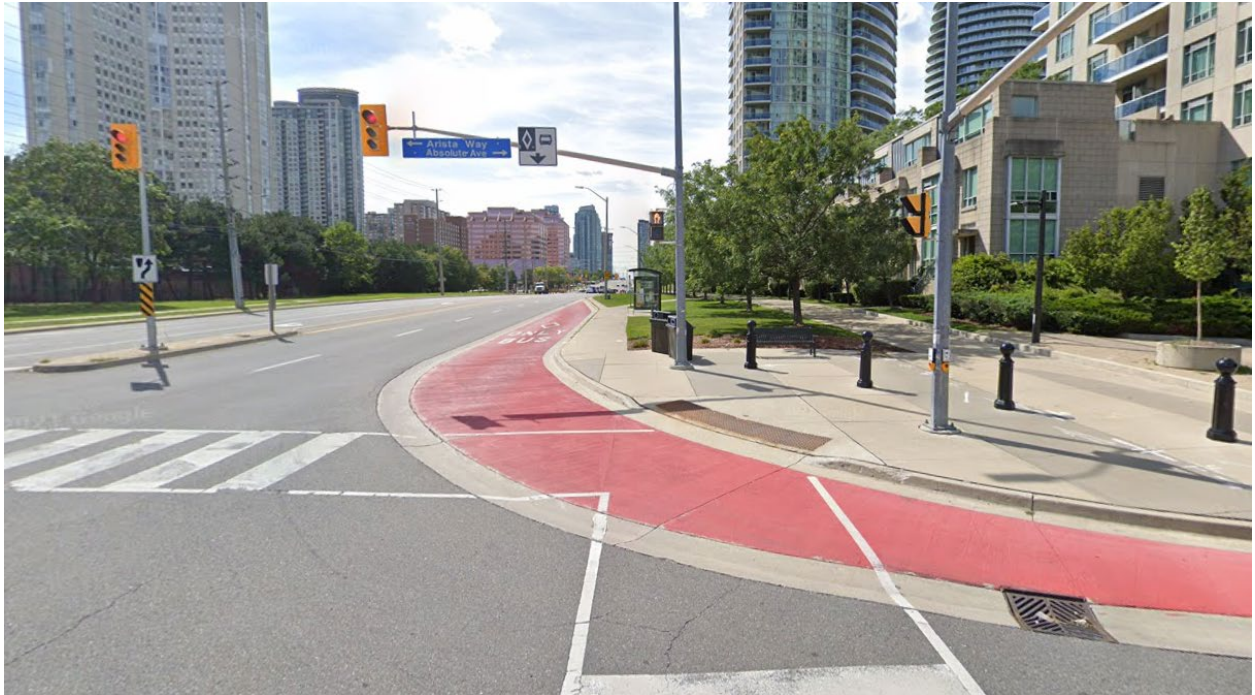
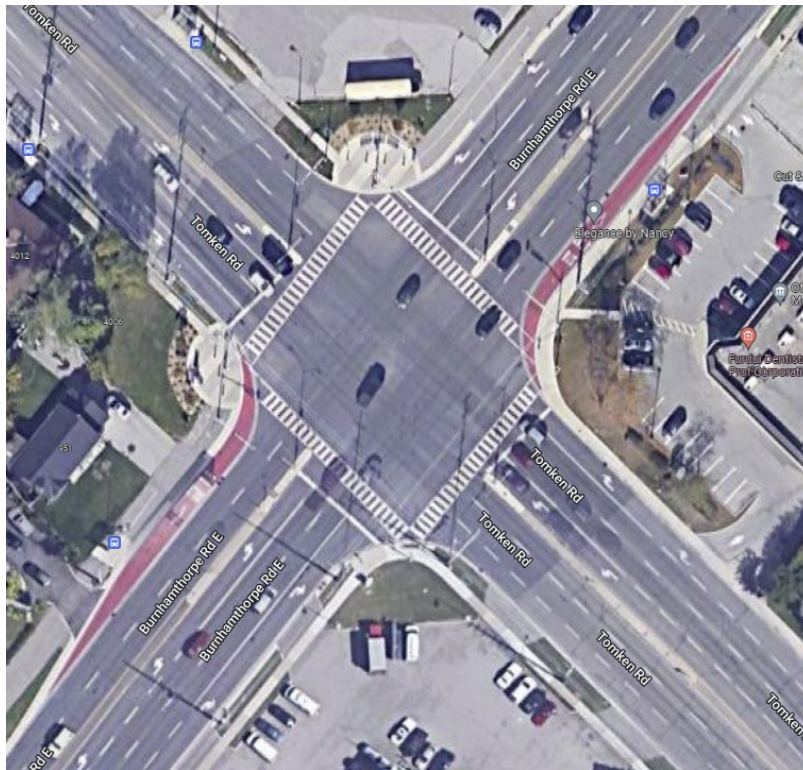


Figure 5 demonstrates this concept on multiple corners of a major intersection, as intended with DRT transfer hubs. The specific configuration of an intersection will depend on nearby infrastructure including stations or terminals, operating bus routes, and available right-of-way.

Figure 5: Far-side bus bays, Burnhamthorpe Road, Mississauga



An ideal configuration will require a right of way of approximately 45m in length, and 3.5m in width on the far-side of the intersection, inclusive of the merging space back into mixed traffic. If the full right of way requirement is not available, alternative configurations may be considered including:

- First in, first out bus bay: shorter bus bay which allows one vehicle to serve at a time.
- Off-street bus bay: in select locations, space may be available to pull buses off-street into a dedicated stop location, such as a transit loop.

Hub design may be unique to each location dependent on adjacent development, available right of way, and pedestrian connections. Each hub location will be designed in consultation with local area municipalities, Regional Works, utilities providers, and other location-specific stakeholders.

4.3.2 Amenities

Hubs are uniquely planned to support connecting service delivery models (On Demand and Scheduled) and provide enhanced customer amenities and accessibility features, outlined in **Table 1** below.

Table 1: Hub Infrastructure

Element	Details
Accessible Hard Surface	In accordance with AODA legislation, accessible hard surfaces will be present, connecting all doors of the bus to the pedestrian network.
Active transportation network	Active transportation connections maintain a safe and accessible walking paths, but also encourage first-mile, last-mile connections to transit infrastructure.
Shelter	Large shelter (at least one) will be installed at each hub, with an estimated size of 1.5m x 5m. Where feasible, additional shelters or larger size shelters will be considered to provide customers a waiting area protected from inclement weather.
Benches	Benches provide a higher level of infrastructure for passenger comfort. At least one bench, accommodating two seats, will be in each shelter, or on the hard surface.
Waste Receptacle	Waste receptacles will be installed at all hubs.
Bicycle Parking	Bicycle racks will be installed at all hubs, connected to bicycle/multi use paths if applicable. Per current design guidelines, bicycle racks will accommodate up to four standard bicycles.
Shared Active Transportation	Hubs will be considered as part of future bike share or e-bike share pilot programs, enabling e-bike chargers and bicycle parking.
Wayfinding and customer information	Hubs will include enhanced signage and wayfinding, including real-time next-bus information and service alerts, customer phone and social media contact information, braille signage, and auditory announcements with key service alerts, notices of service change.
Lighting	Overhead lighting, via solar bus shelter lighting, overhead streetlights, or another comparable design will be included at all hubs, promoting safe and accessible travel at all hours.
Branding	The hubs will leverage planned DRT branding style guide to provide consistent and familiar customer experience.
Public Art	Hubs are an ideal location to display public art, which may include benches, artwork, colourful glass on shelters, or creative architecture, and will be considered on a case-by-case basis based on available space and sightlines. A framework will be developed to determine how public art is selected in

Customer Call Tower	Space for two-way communication with DRT customer service will be protected for further consideration in the future, should such technology be pursued. Alternatively, a call-tower enabling emergency communication directly to 911 may be installed.
Fixed Electrical Power Connections	To support the enhanced real-time next-bus information, real-time customer service alerts, lighting, and future requirements to support shared active transportation modes (bike and scooter), hubs will be built and equipped with electrical power supply.
Pick up and drop off	For hubs located in Durham's rural areas, locations will provide opportunities for pick up and drop off areas.
Park and Ride	For hubs located in Durham's rural areas, locations will provide opportunities for park and ride in partnership with local municipalities.

As a conceptual reference, many of the elements outlined in Table 1 have been successfully implemented by transit agencies(Figures 6 to 9).

Figure 6: Bus stop with real-time schedules, seating, shelter and bicycle parking, Netherlands



Figure 7: Bus stop with large accessible pad, seating, shelter, and integrated active transportation, Kansas City



Figure 8: Public Art Integration to Bus Shelter, Metro Vancouver





shelter, pedestrian tactile surface, linear stop, Calgary Alberta



Figure 9: Transfer Hub comparable amenities: garbage can, bench, canopy

4.3.3 Location Selection

The location of DRT Hub's will be established using standard criteria supporting the construction of infrastructure, developing a consistent brand, and customer-focused design across Durham Region. Initial hub selection will be based on the criteria highlighted in Table 2. Hub location(s) with the highest overall score in each area will be selected for design and construction.

Table 2: Location Selection Criteria

Criteria	Details	Proposed Weight
Available Right of Way	Right of way required for transit hub must be available for Durham Region use (if not Regionally owned).	Pass/Fail
Transit Frequency	<p>Urban transfer hubs are to be located on PULSE rapid bus routes or on routes where a minimum of 15-minute headway is available seven days per week. from early morning until late night (approximately 7am to 10 pm).</p> <p>Rural transfer hubs must be located where a scheduled bus route operates 7 days per week.</p>	Pass/Fail
Utilities	Electrical supply to support lighting, next-bus information or other technology must be available.	Pass/Fail
Network Connectivity	The number of routes operating at the hub provides flexibility in integrated travel. In addition to the frequent bus route indicated above, a minimum of one additional bus route must operate; more bus routes will receive a higher score.	30%
Pedestrian Connection	Sidewalk connections must exist to all transfer hubs. Pedestrian connections along both corridors, and on both sides of the intersection preferred.	30%
Transit Ridership	Implementation at high-ridership intersections drive maximum impact of transfer hubs. At a minimum, bus stops must meet DRT standards for shelters and garbage receptacles, meeting a ridership of 20 boardings per day. Higher scoring allocated to highest ridership intersections.	30%
Integrated Active Transportation	Built or planned dedicated bicycle lanes or multi-use paths to support additional active transportation options.	10%
Total		100%

To support coverage and equitable access across the Region, 10 transfer hub intersections are expected to be developed between 2023-2032 (Table 3).

Table 3: Planned Hub Distribution, 2023-2032

Municipality	Planned Hubs	Rationale
Ajax	2	<ul style="list-style-type: none"> • Access to several frequent cross-regional routes • No DRT-owned terminal in Ajax to support integration. • High ridership in urban areas
Whitby	2	<ul style="list-style-type: none"> • Access to several frequent cross-regional routes • No DRT-owned terminal in Whitby to further support integration • Recommend one location in Brooklin, aligned with future development. • High ridership in urban areas
Pickering	2	<ul style="list-style-type: none"> • Access to several frequent cross-regional routes • Location north of Highway 2; distance from Pickering Parkway Terminal/Pickering Station • Recommend one location in Seaton, aligned with development. • High ridership in urban areas
Uxbridge	1	<ul style="list-style-type: none"> • High On Demand ridership in rural areas • High need for transfers to the 905
Scugog (Port Perry)	1	<ul style="list-style-type: none"> • High On Demand ridership in rural areas • High need for transfers to the 905
Oshawa	1	<ul style="list-style-type: none"> • Access to several frequent cross-regional routes. • Recommend location in connection with future Shirley Road Park and Ride. • High ridership in urban areas.
Clarington (Bowmanville)	1	<ul style="list-style-type: none"> • Growing market with expansion of Lakeshore East GO line, located adjacent to the new GO rail station. • High On Demand ridership in rural areas.

4.4 Terminals and Stations

4.4.1 Overview

The primary role of stations and terminals is the efficient and seamless movement of customers between different modes of transportation. They are critical to service efficiency, reliability, and availability, and support the human aspect of transit service delivery by providing key infrastructure to transit operators. They also play an important role for access and egress points to the transit network where pedestrian and cyclist access is particularly important.

A station encompasses a bus terminal within it, but also includes an interface with GO Transit's commuter rail operation. The infrastructure and service integration between DRT bus and GO rail services is key to reach high use of alternative transportation modes when accessing rails services.

The key components of bus terminal function include the following:

- Bus Bays and Platforms: Designated stopping locations for buses to accommodate pick-up and drop-off functions, typically signed for specific routes through static or variable signage. May be arranged in a saw-tooth, linear or drive through configuration to allow efficient ingress and egress of vehicles.
- Ingress & Egress Points: Access points for buses between the bus terminal and the public right of way, typically crossing the sidewalk and curb bike lane (where existing).
- Building Envelope: Terminal station buildings including footprint on the site plan.
- Pedestrian Crossings: Designated places for interaction with pedestrians and buses.
- Recovery Space: Spaces for buses to take scheduled recovery time or to park while out of revenue service, may be separate from or combined with the pick-up/drop-off bay.
- Operator Facilities: Washrooms and break space for bus operators during recovery.
- Future-Ready Utilities: Provisions for future systems such as dynamic signage and electrification infrastructure for buses and other modes.
- Active Transportation Integration: Interface between bus terminal and active modes such as walking and cycling and their associated infrastructure.

DRT bus terminals are strategically located throughout Durham Region, providing a convenient transfer point for passengers between DRT services, access to key destinations, and support of service excellence including vehicle recovery locations, and amenities. Existing DRT terminals were constructed based on the number of routes serving each area at the time. As the Region continues to grow, DRT continues to

introduce new and expanded routes, expand On Demand service, and increase frequency on key corridors. DRT must consider the expansion of terminals to the network to accommodate service growth.

4.4.2 Existing Infrastructure

4.4.2.1 Terminals

DRT currently operates from of the Oshawa Centre Terminal, Pickering Parkway Terminal located on Pickering Parkway adjacent Pickering Town Centre, and Harmony Terminal located in the Smart Centres Oshawa Plaza. These locations lack sufficient capacity to support planned growth, amenities required by employees, and amenities expected by of DRT customers.

Oshawa Centre Terminal

The Oshawa Centre Terminal is owned by and located within the Oshawa Centre. It is composed of a u-shape linear sidewalk supporting approximately six standard buses and six standard transit shelters. Operator washrooms and crew room are available in a space leased by DRT. Approximately 4,500 customer trips occur at Oshawa Centre Terminal daily and customer amenities are limited.

The future Thornton Station on the GO Lakeshore East line will serve as DRT's new terminal replacing the current Oshawa Centre Terminal. DRT service will continue to support customers travelling to the Oshawa Centre through it's on-street transit stops on Gibb Street, Stevenson Rd and King Street.

Harmony Terminal

The current Harmony Terminal is located within the Smart Centres Oshawa Plaza and includes a linear sidewalk of approximately 85 metres in length with two standard transit bus shelters. Operational and customer amenities are limited and the terminal operates beyond its capacity today. Temporary operator washrooms installed during the pandemic are no longer available following the expiration and an agreement with the property owner.

The location plays a pivotal role along the eastern boundary of the City of Oshawa and the Highway 407 corridor, currently serving approximately 2,300 customer trips daily. It is the eastern terminus for two PULSE rapid bus services (Rossland and Taunton) and the heavily travelled 920 connecting Durham Region with the TTC subway network. For the 2023-2032 period, transit service to the terminal is expected to increase by 43 per cent, from 28 trips per hour to over 40 trips per hour. As part of the 2023 Budget, land is planned for purchase adjacent to Harmony Road. The terminal is planned to include:

- Approximately 1.5 acres of dedicated land, with access/egress both North and Southbound on Harmony Road

- 7-8 bus platforms, two of which will support future articulated bus operation
- New terminal building providing customer amenities, such as heated waiting area, real-time departure information, and rest areas
- Recovery space, improving service reliability
- Operator washrooms and break facility
- Active transportation integration including bike racks, sidewalk connections, and consideration for bike and/or scooter share programs, in alignment with the Regional Cycling Plan.

Pickering Parkway Terminal

The current Pickering Parkway Terminal is located on the Pickering Parkway at the pedestrian bridge crossing Highway 401 to the Pickering GO station. It is composed a linear sidewalk of approximately 60 metres in length and three standard transit shelters. Operational and customer amenities are limited with no potential for growth; the location operates beyond its capacity today. Portable operator washrooms are currently available based on an agreement with the City of Pickering. The existing land area poses significant barriers, as planned development may reduce available land in the future.

The location plays a pivotal role along the Western boundary of Durham Region and the Highway 401 corridor, currently serving approximately 1,400 customer trips daily. It is the eastern terminus for two PULSE rapid bus services (Rossland and Kingston short tun) and supports the interface with the Pickering GO Station.

The terminal supports the operation of key east-west transit routes from Pickering to Oshawa, and to Metrolinx GO rail Lakeshore East Line. The location also supports all services operating within the City of Pickering.

Pickering Parkway Terminal is planned to continue to be a key transfer facility between DRT services, accommodating routes to serve new growth areas, including the Seaton community. With a forecast 47 percent population growth in Pickering, nearly 81,000 additional customers are expected to use Pickering Parkway Terminal annually by 2032. For the 2023-2032 period, transit service to the terminal is expected to increase by 70 per cent, from 28 trips per hour to over 46 trips per hour.

A new terminal space including operator amenities, recovery, and increased capacity for 10 vehicles is planned for development. In the short term, DRT seeks to acquire land off-site to support vehicle relief, recovery, and operator amenities. Development of additional bus platforms will align with planned changes to the Pickering City Centre master plan, should land be available.

4.4.2.2 Stations

Durham Region Transit currently operates from dedicated platforms within Metrolinx-owned terminals at Pickering, Ajax, Whitby, and Oshawa Stations. Stations offer the opportunity for customers to transfer between DRT and GO rail or bus services.

4.4.3 Future

4.4.3.1 Terminals

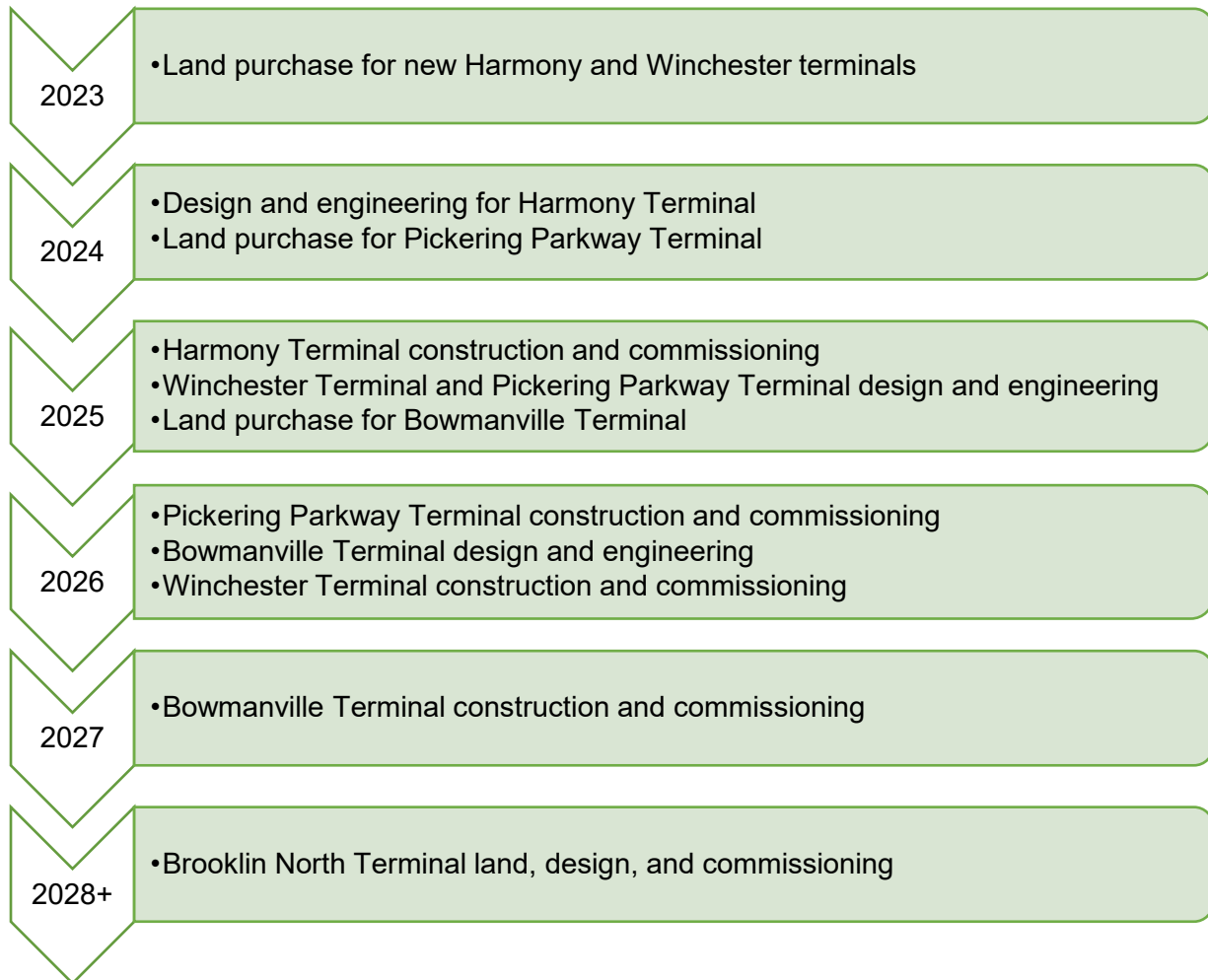
New transit growth is planned throughout the Region, with particularly high levels of growth in greenfield areas around Highway 407, and east toward Bowmanville. DRT currently has limited infrastructure in these areas outside of Harmony Terminal, and there is a requirement for future terminals as outlined in Table 4, to support existing and growth services.

Table 4: Planned New Growth Terminals (2023-2032)

Terminal	Location (Approximate)	Notes
Winchester Terminal	Simcoe St. / Windfields Farm Dr.	<ul style="list-style-type: none"> • Available land currently under consideration (late 2023 purchase) • Proximity to Ontario Tech University / Durham College North Campus • Natural terminal point for local Oshawa routes • Supports service to greenfield development in Kedron and North Oshawa • 8 platforms, approximately 1.5 acres of land required
Bowmanville Terminal	Urban Bowmanville (Location TBD)	<ul style="list-style-type: none"> • Establishes transfer point between routes, and close connection to planned Bowmanville Station (GO Rail) • Opportunity for additional routes serving Bowmanville and surrounding area • Recovery, relief, and break facility, improving operational efficiency and service reliability • Separate from Rail Station transfer hub, located centrally in urban core to facilitate transfers between routes
Brooklin North Terminal	Brooklin (Location TBD)	<ul style="list-style-type: none"> • Established transfer point in northern Whitby, currently lacking • Supports planned greenfield development in Brooklin, and future growth routes • Recovery, relief, and break facility, improving operational efficiency and service reliability • Opportunity to align with pending road reconstruction in Brooklin, ensuring infrastructure meets DRT needs • 5-6 platforms, including recovery space

4.4.3.2 Timeline

The concurrent development of five transit terminals within the forecast period will require strong partnerships with Local Area Municipalities and Regional stakeholders. Service and funding considerations were included in the approved DRT Service and Financing Strategy (2023-2032) approved by Regional Council in February 2023. Phasing of the terminals is summarized below.



Additional infrastructure, or adjustments to the prioritization of terminals are subject to evolving operational needs or changes to significant development or infrastructure timelines, including the extension of the Lakeshore East Rail line to Bowmanville.

4.4.3.3 Stations

In alignment with the Metrolinx GO Rail Expansion Plan, the Lakeshore East GO Rail Line is planned for expansion to Bowmanville, establishing up to four new GO Stations shown in **figure 9** below:

- Thornton's Corners East Station (Oshawa)
- Ritson Road Station (Oshawa)

- Courtice Station (Courtice)
- Bowmanville Station (Bowmanville)

Configuration, final location, and road network adjustments for these stations will be confirmed and finalized as part of the associated programs.

To support operation at new GO rail stations and ensure adequate operating requirements and operator amenities, the following infrastructure will be required at each station based on DRT's 10-year service strategy.

Table 5: DRT infrastructure requirements at new GO Stations

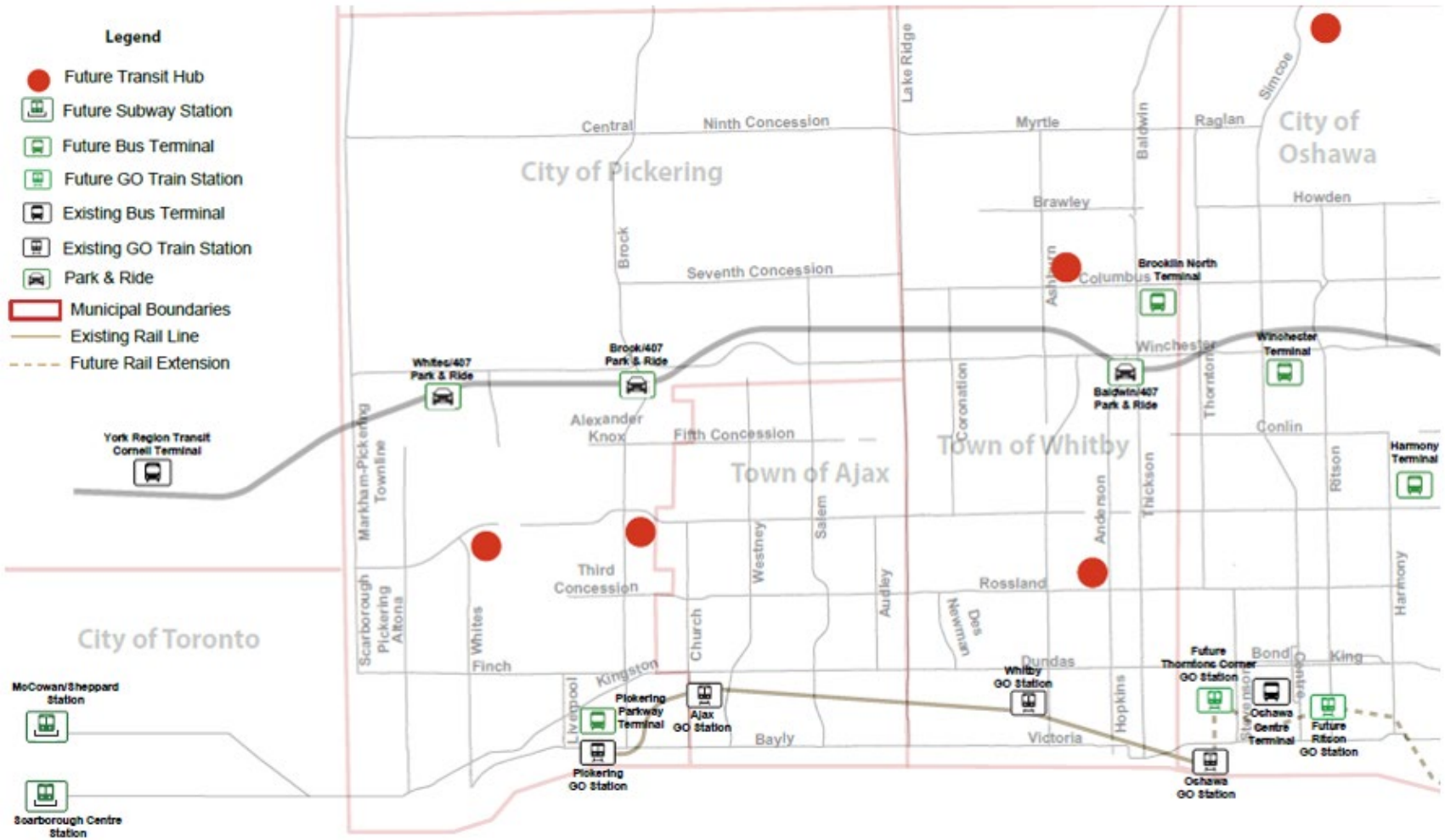
Station	Platforms	Projected Hourly Bus Movement (2041)	Key Highlights
Thornton's Corners East	9 1 protected for articulated bus operation	34 per hour 8 routes	<ul style="list-style-type: none"> • 10-minute service on PULSE 902 and 917 • 15-minute service on local Oshawa routes to support growth • Growth platform to support future needs • On Demand transfers
Ritson	4 2 protected for articulated bus operation	32 per hour 4 routes	<ul style="list-style-type: none"> • 5-minute service on PULSE 900 and 901 • Two new local routes • On Demand transfers
Courtice	5	16 per hour 4 routes	<ul style="list-style-type: none"> • 15-minute service on Route 411 and 423 • Two new local routes to support growth • On Demand transfers
Bowmanville	-	-	Transfer Hub (see section 3)

In alignment with DRT Service Guidelines, routes are most efficient when anchored to key destinations with direct routing between them, and regular headways. The development of additional infrastructure at new rail stations will establish anchor points throughout the network, increasing ridership and establishing a network of transfer locations.

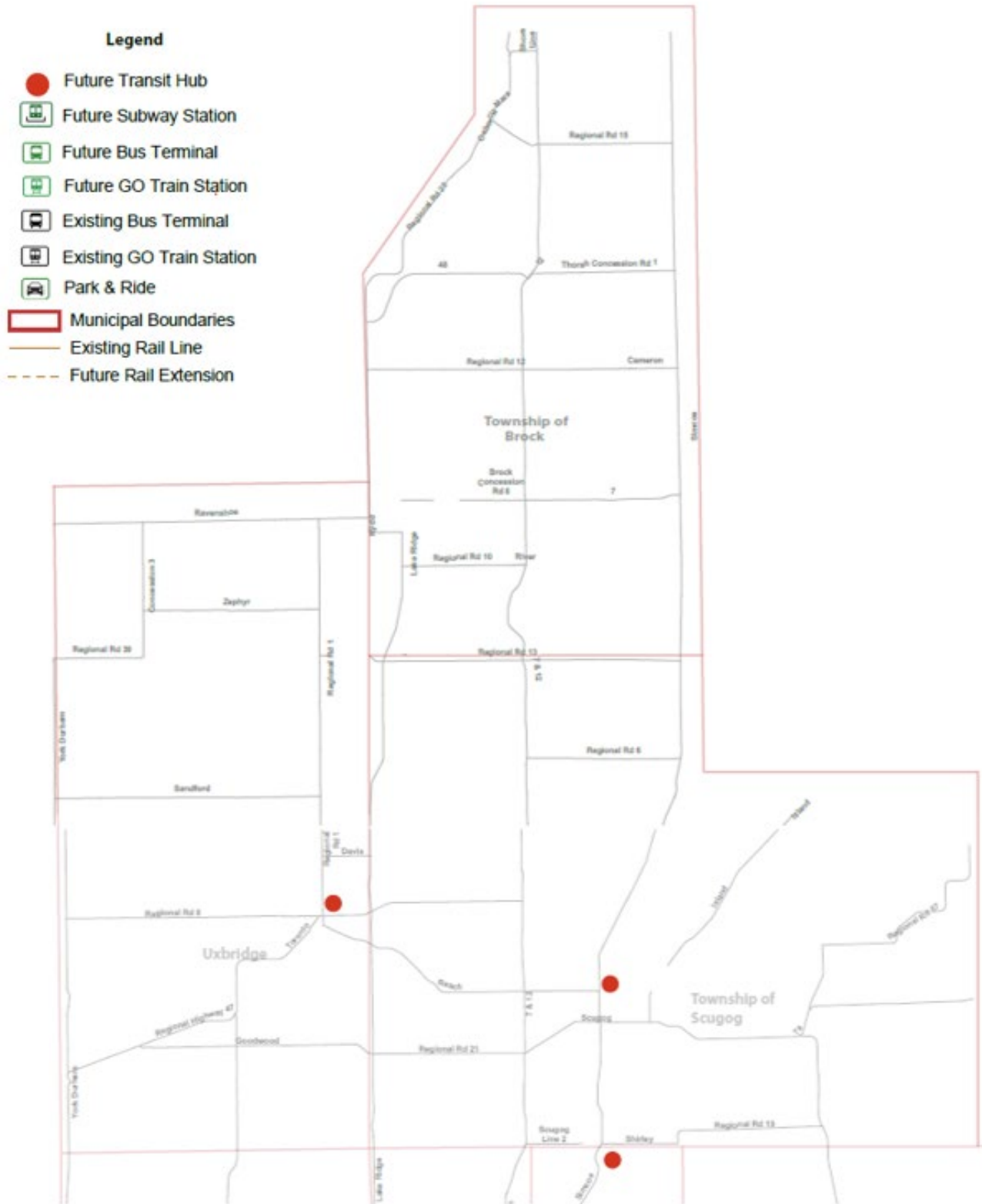
Appendix 1: Station, Terminals, and Hubs – Customer Amenity Guidelines

Amenity	Stop	Hub	Terminal	RT Station
Accessible Hard Surface	x	x	x	x
Pedestrian Connection	x	x	x	x
Shelter	Minimum 20 boardings per day	x	x	x
Benches	Minimum 20 boardings per day	x	x	x
Garbage Receptacle	Minimum 20 boardings per day	x	x	x
Bicycle Parking	Within 10 min bike ride of urban area	x	x	x
Bike Share / Active Share		x	x	x
Signage and Wayfinding	x	x	x	x
Lighting	x	x	x	x
Branding	x	x	x	x
Public Art		x	x	x
Customer Call Tower		x	x	x
Fixed Electrical Power Connections		x	x	x
Operator Washroom and Crew Room		x	x	x
Real Time Departures & Service Alerts		x	x	x

Appendix 2: Station, Terminals, and Hubs – Pickering, Ajax, Whitby, Oshawa, Toronto, York Region



Appendix 3: Station, Terminals, and Hubs – Brock, Scugog, Uxbridge



Appendix 4: Station, Terminals, and Hubs – Clarington

