



LONDON TRANSIT COMMISSION
RAPID TRANSIT INTEGRATION STRATEGY: PART 1
Draft Interim Report



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I.0 INTRODUCTION

Dillon Consulting Limited (Dillon) was retained by the London Transit Commission (LTC) to update the 2016 Rapid Transit Integration Strategy and Financial Plan.

The purpose of this study is to:

- Identify any modifications to the local route network that are required to better integrate into the proposed Bus Rapid Transit network; and
- Confirm high-level capital (fleet) requirements and costs, operating costs, and passenger revenue projections in 2035 for both the Bus Rapid Transit Network and modified local route network.

With the approval of the Rapid Transit Master Plan in July 2017, a number of things have changed which warrant an update to the 2016 Rapid Transit Integration Strategy and Financial Plan. Bus Rapid Transit (BRT) was selected as the preferred technology and some modifications were made to the downtown routing of BRT. In addition to this, the 2019 base local route network (used as a starting point for analysis in the 2016 Rapid Transit Integration Strategy and Financial Plan) has also changed as a result of LTC's annual service planning process.

Based on these changes, recommendations from the 2016 Rapid Transit Integration Framework document were reviewed and reconciled with changes to the 2018 bus network that have since been implemented, planned adjustments to the 2019 local route network that is proposed to be modified next year, and modifications to the approved BRT network.

The purpose of this Interim Report is to provide an update to the Service Design Principles that were developed as part of the 2016 study, and resulting changes in the 2035 LTC bus network. The interim report does not include impacts on revenue service hours, peak vehicle requirements and ridership. This will be the focus on the next phase of this study.

Note:

The 2035 LTC bus network recommended in this report will be subject to further in-depth analysis and review by LTC staff as part of the annual service planning process. Given the extended nature of the forecast (and the number of variables that can change between 2020 and 2035), it is expected that the annual service plan process will lead to a number of changes to the recommendations set out in this strategy. The value of this document is to provide a strategic direction of how the LTC network should integrate with BRT and to identify the order of magnitude investment required to get there.

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2.0 PROPOSED BRT NETWORK AND ASSUMPTIONS

2.1 Bus Rapid Transit Network Assumption

The City of London started an environmental assessment called “Shift” in 2015 which assessed alternatives and defined where Rapid Transit (RT) will go, how it will look and how it will be implemented. The Rapid Transit Master Plan (RTMP) was approved by Council on July 25, 2017 and included a modification to the Rapid Transit corridors that were being considered at the time of writing the 2016 report. Some modifications from the 2016 plan include:

- a. Assume BRT is built and operating on both corridors;
- b. Assume local parallel transit service should be provided on BRT corridors to improve accessibility to stops not being used by BRT;
- c. Change to downtown configuration of BRT corridors;
- d. Change in how buses access Western University, with BRT and limited local vehicles operating on campus.

The proposed BRT network is illustrated in Figure 1.

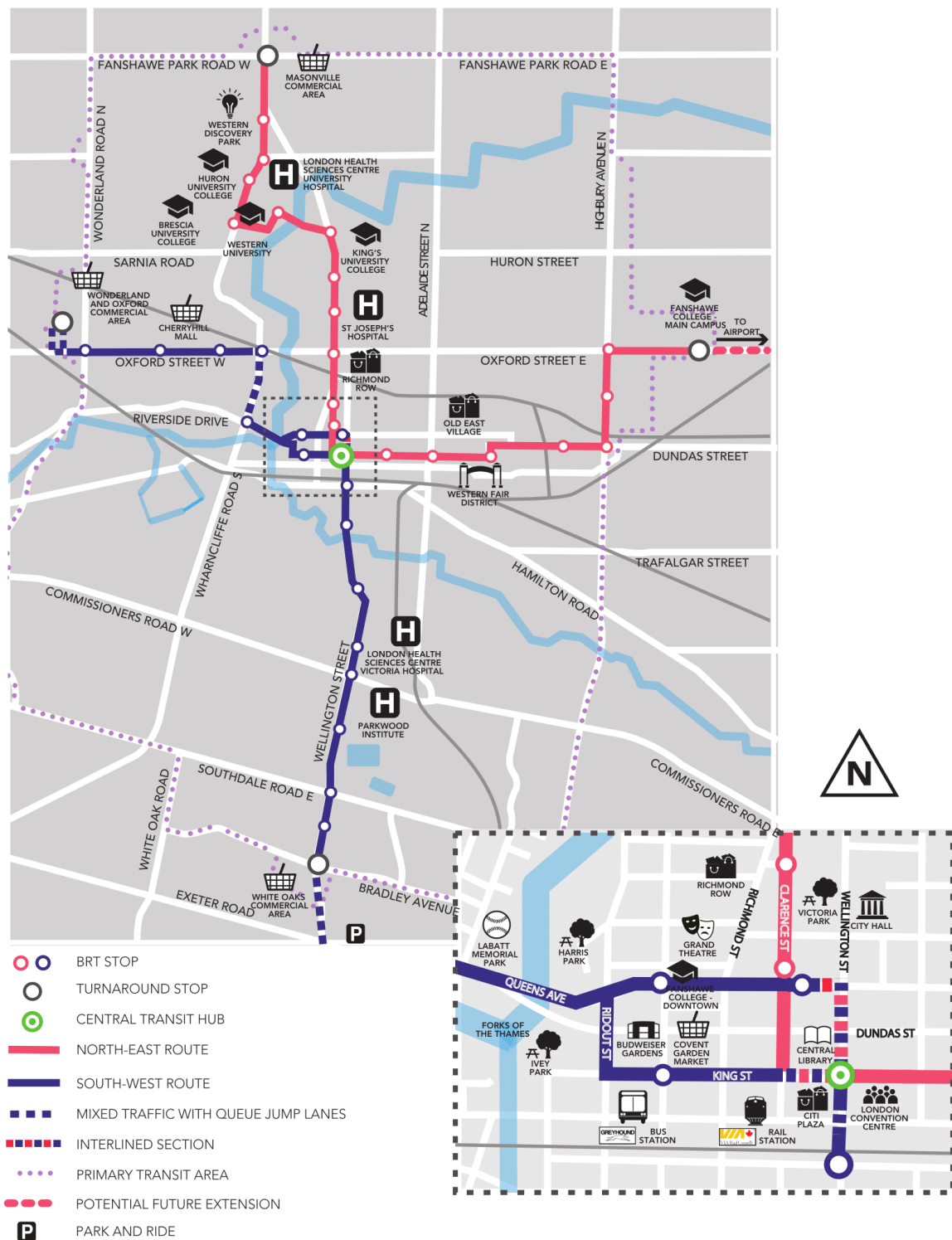
For the purposes of this report, assumptions will need to be made on the service hours and headways for BRT routes. An assumption was made that the BRT corridors would operate during the same timeframe as LTC routes for the purpose of this analysis.

BRT service is scheduled to be implemented between 2020 and 2028.

2.1.1 New Terminal / Transfer Point on Western Road

A new transit terminal/transfer point was assumed to be in place on Western Road between Sarnia Road and Windermere Road. The new terminal will accommodate transfers between the North-east BRT route and local routes. With the terminal in place, it was assumed that only the North-east BRT route and limited local routes (to provide a connection the University Hospital) will travel through the campus. The remaining local routes would connect to the terminal via Western Road (from the south and north-west) or Windermere Road (from the southeast or east).

Figure I – Proposed BRT Corridors



2.2 BRT Network Design Assumptions

There are two types of network design approaches that can be used to integrate local services with BRT: “Through-routing” and “Connection-based” networks. “Through-routing” is employed where local routes are permitted to use the BRT corridor, including the exclusive lane which provides transit vehicles priority on the network. In this design, local routes can feed into local residential areas and then connect to the BRT corridor on route to their final destination (completes full set of “feeder,” “line haul,” and “distribution” functions). This approach provides a high proportion of passengers with direct, “one-seat” travel and eliminates the unreliability associated with transfers.

A “connection-based” approach mimics the network design required for fixed-rail services. In this approach, BRT routes operate only in the BRT corridor and are protected from traffic congestion by transit priority measures. In suburban areas outside the downtown, passengers must rely on feeder bus networks, park-and-ride lots, and active transportation to access service at the stations on the BRT corridor.

For London Transit, the Rapid Transit Master Plan has recommended the use of a connection-based network outside of the downtown and a through-routing network within the downtown area (bounded by Oxford Street to the north, Waterloo Street to the east, York Street to the south and Wharncliffe Road to the west). However, this should not preclude having some services branch off from the BRT corridors and operating as through-routing services.

Based on this network philosophy, the following “guidelines” were applied when assessing potential modifications to the proposed 2019 LTC network to better connect to the proposed BRT corridors:

1. Within the downtown area, local routes are permitted to operate on exclusive BRT lanes, however, they will only be permitted to stop at designated BRT stations.
2. Outside of the downtown area, local routes will be encouraged to connect to a BRT station to allow passengers to complete their trip on BRT.
3. On six-lane roadways that include an exclusive BRT lane, local routes are permitted in the mixed traffic lane to provide a more local service while BRT vehicles would operate in a dedicated right-of-way. This allows greater stop spacing for BRT and allows better access to transit stops using a local parallel local route.
4. On four-lane roadways that include an exclusive Rapid Transit lane outside of the downtown, local routes will be permitted to use short sections of the rapid transit corridors where no other roadway option exists. When this occurs, the assumption is that local routes will only stop to pick-up/drop off passengers where bus bays have been created or at a designated Rapid Transit station.

3.0 RECOMMENDED LTC ROUTE STRUCTURE WITH BRT IN PLACE

The following section of the report describes the recommended service strategy for the local route network with the full implementation of BRT. The LTC service strategy builds on the existing 2018 service plan and planned 2019 service modifications, and identifies:

- Routes that duplicate the BRT corridors that can be eliminated or maintained for local connections;
- Routes that need to be restructured to fit within the “Connection-based” network design concept assumed for BRT;
- Potential secondary routes that will help increase transit mode share; and
- Service level enhancements to the planned 2019 network for improving connectivity to the BRT network.

3.1 Service Design Principles

Six primary service design principles have been established to guide the overall assessment of local routes and their interaction with BRT services. These principles are important in that they ensure that the resulting system will be effective and focused on the customer. Using these principles, as well as the above noted BRT Network Design assumptions as a guide (**Section 2.0**), each of the proposed 2019 local routes were assessed to determine potential modifications for better integration with the approved BRT network. The six principles are described in more detail below:

3.2 Principle #1 – Ability to Maintain Connections

Transit routes are most successful when they connect origins and destinations together. The best routes connect people directly between where they live and places where they can work, shop, learn, socialize, and take care of their personal business. They also easily connect with other routes to broaden these opportunities and do so without taking people too far out of their way. The specific application of this connectivity principle for LTC means that:

When making a decision to modify an existing local route to connect to a BRT corridor, it is important to understand whether the change will improve or worsen the ability for customers to conveniently get to an existing destination along the route. For example, if a proposed route to connect to BRT results in the route no longer stopping at other key destinations (e.g. shopping centre, medical facility, school, etc.), a decision will need to be made regarding the benefit of the modification to the customer. If more than two local connections are no longer conveniently made as a result of the proposed route modification, there may be merit in maintaining the route alignment as is.

On the other hand, existing local routes that lack a variety of destinations (serve mostly residential areas, for example) would likely benefit from a direct and more frequent connection to BRT services that provide these connections.

3.3 Principle #2 – Ability to Meet Policy-Based Headways

For the purposes of this study, it was assumed that London's proposed North-east BRT Route is planned to operate every 5 minutes during weekday peak periods and South-west BRT Route is planned to operate every 10 minutes during weekday peak periods. These are good frequencies that will generally not require customers to use a timetable, either when boarding the service directly or transferring from other regular local routes.

When transferring from the BRT service to a local route, it is important that the frequencies of the local route are enough that customers will not need to wait for excessive amounts of time during most time periods. For key local routes, service headways of no more than twice those of the BRT service are suggested, particularly during key travel periods. This means that routes that connect to the periphery of a BRT route should aim to have a minimum 10 to 20 minute service during peak periods and no less than twice the frequency of the BRT route during the midday period on weekdays and shopping hours on weekends. *For local routes that are projected to have lower ridership, decisions to adjust headways based on this principle will be based on demand and meeting minimum productivity standards in LTC's service standards document (particularly outside the weekday peak and midday periods).* Principal #6 – Exploring Alternative Service Delivery Models, could also apply for some of the low ridership areas where it will be a challenge to meet this principle, and should be explored further.

More frequent service can be operated if warranted by ridership demand. Outside of these time periods (e.g. late evenings), service frequency should be demand-based and aligned with ridership to ensure the system continues to be cost-effective. All routes will be assessed through annual reviews, and headways may be increased or decreased to suit demand as appropriate.

Table I illustrates the proposed headways for local routes that connect to the proposed BRT routes. Each potential connecting route was assessed to meet the headway guidelines identified below. The assessment of route structure modifications to integrate with the proposed BRT routes (presented in **Section 3.8** of this report) also evaluates the effectiveness of implementing the 'policy-based' headway noted in **Table I** below. For example, infrequent routes with low ridership may not warrant the policy-based headways noted below if the route were restructured to connect to the BRT network. In certain cases, it may be more cost effective to continue the route downtown with lower headways then it would be to short-turn the route at a BRT station and implement the policy-based headways noted below. This formed part of the evaluation process.

Table I – Proposed Headways for Local Routes connecting to BRT

Operating Period	Proposed Headway LTC Bus Connections
Early AM	Demand-based
AM Peak	–North-east Route - 10 South-west Route - 20
Midday (Half the Frequency of Peak BRT)	20
PM Peak	–North-east Route - 10 South-west Route - 20
Early Evening (Half the Frequency of Peak BRT)	20
Late Evening	Demand-based
Early Morning	Demand-based
Midday (Half the Frequency of Peak BRT)	20
Late Evening	Demand-based
Early Morning	Demand-based
Midday (Half the Frequency of Peak BRT)	20
Late Evening	Demand-based

3.4 Principle #3 – Directness of Service (Travel Time)

The introduction of BRT service and the resulting restructuring of local routes should not take customers too far out of their way to complete their journey or increase their overall travel time. Backtracking more than a short distance or increasing the amount of time is to be discouraged when assessing the need to restructure a local route to connect to a new BRT route.

The evaluation of local routes in **Section 3.8** of this report took into account the amount of backtracking required to make a connection to BRT and compared the change in travel time of routes from the furthest point of the route and the final destination (typically downtown London). It was assumed that the BRT routes would travel at a faster speed than local routes and that a waiting time of half of the difference between the local and BRT peak period headway would be applied (e.g. if local route headway is 10 minutes and BRT headway is 5 minutes, the average wait time would be 2.5 minutes).

As a general rule of thumb, route modifications that connect to BRT that increase travel time by more than 10 percent (or 5 minutes) from end to end were not considered to be a benefit to passengers. In this situation, consideration was made to maintain the existing alignment with service directly to the primary final destination (e.g. downtown).

3.5 Principle #4 – Minimize Duplication with BRT

The design philosophy of the BRT corridors is to operate a connection-based network with local routes. This means there is preference to connect local transit routes and operate a feeder/line haul service,

where local routes merge and connect to BRT stations and allow passengers to complete the rest of their trip on a faster and higher frequency service. Since BRT stations are typically spaced farther apart, operating local buses on these corridors with stops located between stations can slow down the progression of BRT vehicles if buses and BRT vehicles share the same right-of-way.

The 2019 network was reviewed to assess routes that overlap and provide service on the proposed BRT routes. Where this occurs, the objective was to minimize this overlap by eliminating the route or short-turning the route at a BRT station. However, this would remove a significant number of local stops if local service were removed entirely along BRT routes.

Where appropriate, service should be designed with an emphasis on maintaining connections to key destinations, serving existing local stops with high activity (Principle #1), and minimizing travel-time (Principle #3). Where this occurs, local routes will operate in mixed-traffic lanes to ensure bus stops located between BRT stations do not delay BRT vehicles.

3.6 Principle #5 – Ability to Maintain Effective Operations

With any proposed change to a route, it is important that the change continue to maintain effective operations and integration into the entire network. These system-wide operating principles include connectivity to other routes, good schedule adherence and the ability to interline and provide an efficient transit service. Each route modification was also evaluated based on the ability to maintain an effective operation.

3.7 Principle #6 – Explore Alternative Service Delivery Models for Low-Demand Areas

Alternative Service Delivery (ASD) models are another way municipalities and other transportation operators can provide public transportation service. ASDs are typically characterized by one or more of the following:

1. The use of technology, such as a mobile application to book, pay and track trips;
2. The use of smaller vehicles that provide demand-responsive service in lower demand neighbourhoods, employment areas or periods of the day; and
3. The use of third-party providers on an emergent or dedicated basis.

There are many different types of ASD models municipalities can introduce. For example, LTC could explore types of dynamic service through a taxi operator for first-mile last-mile connections between a neighbourhood transit stop and a major BRT terminal. Conversely, LTC could dedicate an existing community bus to provide demand-responsive service to/from their place of residence or employment to a BRT station. Transportation Network Companies (TNCs) such as Uber or Lyft, have also been used to provide demand-responsive service in cities across North America.

The criteria to introduce an ASD model in a new area or as a replacement to an existing fixed route service is noted below:

- The relative cost of the service should not exceed the cost of operating a conventional fixed-route in the same area;
- The removal of fixed-route service in a potential ASD area would not result in a disconnect between two fixed conventional transit services; and
- The productivity of the existing fixed route that the ASD model would replace must be less than 50% of the minimum productivity target for the majority of consecutive periods.

For areas of new growth (with the exception of infill development), ASD should be explored if the following criteria are met:

- The planned development area will be low-density, which is anticipated to result in low-ridership demand; and
- The planned development area is located on the fringe of the urban area.

3.8 Proposed Route Modifications and Application of Service Design Principles

The six principles identified above were applied to each of the proposed 2019 local routes and service levels to create a recommended 2035 network, integrated with the proposed BRT system. This is presented in **Table 2** below. The table identifies any potential issues or opportunities that would result with the introduction of BRT. Where applicable, a recommendation is made to modify the route or frequency of service. This is evaluated based on the six principles noted above.

It should be noted that the focus on these recommendations and evaluation is to integrate the 2019 local network with BRT. This does not represent a full assessment of other potential modifications that would be required in the fullness of time to the local network. LTC staff will still be required to undertake periodic strategic reviews every five-years and more detailed annual service plans to address capacity and schedule adherence issues, the need to service growing areas of the municipality, accommodating passenger requests or responding to complaints and adjusting services that do not meet the adopted service standards.

Table 2 – Evaluation Summary of LTC Routes with BRT in Place

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 1	<p>The existing 2018 route is proposed to be modified in 2019 to provide a continuous connection on Colbourne Street between Huron Street and Dufferin Avenue. This will provide a direct downtown connection from the Ridgeview Heights neighbourhood and St. Joseph’s Hospital in the north and the Chelsea Green neighbourhood and Victoria Hospital in the south. The route operates at a 15 min peak headway. The route splits into two branches (A/B) at Thompson Road and King Edward Avenue.</p> <p>With the implementation of BRT, the route will continue to connect with the downtown via Colborne Street (pursuant to the proposed 2019 plan)</p>	<ol style="list-style-type: none">1. Maintain route as proposed in the draft 2019 plan to connect to downtown along Colbourne Street to South Street Hospital. Maintain Route 1A/B alignment to the south.2. Reduce weekday peak headway from 15 min to 10 min (7:00am to 9:00am and 2:00pm to 6:00pm).3. Reduce Saturday base headway and early evening headway from 30 min to 20 min (8:00am to 10:00am; 5:00pm to 9:00pm).4. Reduce Sunday base headway from 30 min to 20 min (9:00am to 7:00pm).	N/A	Minimal change in travel time to the downtown core	Already meets service frequency target. Route expected to grow ridership, warranting more frequent service to the downtown.	Some duplication on Wellington Road corridor allowing some local connections for customers.	Maintained	N/A	TBD	TBD
Route 2	<p>The route services Dundas Street and Wharncliffe/Western Road, connecting Western University and Argyle Mall through the downtown. The 2A/B branches service residential neighbourhoods east of Highbury Avenue. The existing service has Route 2 operating at a 10 min peak headway to the University and along Dundas. Route 2A/2B operates at a 20 min peak headway.</p> <p>The route duplicates the proposed BRT service along Dundas Street and along Wharncliffe Road south of Oxford.</p> <p>To provide local connections along Dundas, the route should be maintained to the downtown.</p> <p>The service between downtown and Western moves a high number of students to Western University. This should be maintained to accommodate this high ridership demand.</p>	<ol style="list-style-type: none">1. No Change	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 102/106	<p>The route provides bi-directional service between the downtown and UWO via Western Road / Wharncliffe Road (102) and Richmond Street (106).</p> <p>The route operates only on weekdays in the fall and winter, at a high frequency due to a significant student residential population – 10 min headways in the AM peak, 12 min headways in the base and PM peak, and 35 min headways in the late evening. The proposed 2019 service plan will unlink Route 102 and 106, and increase the frequency on Route 102 to account for high demand.</p> <p>Route 106 duplicates the proposed BRT service along Richmond Street. There is potential to remove this route once the BRT service is operational.</p>	<ol style="list-style-type: none">Unlink Route 102 and 106.Increase frequency of Route 102 to every 5-6 min during the weekday AM peak, midday PM peak.Operate Saturday peak service at 20 min headways.Eliminate Route 106 to avoid duplication of the Richmond BRT service after completion of the Richmond corridor.	Connection between UWO and downtown is maintained.	No change to travel time along 102. Route 106 is replaced with the North Route BRT, offering rapid service along the Richmond corridor.	Frequency along the Western Road / Wharncliffe Road corridor increases to every 5-6 min to continue to serve UWO.	Elimination of Route 106 when BRT is operational to avoid duplication with Richmond BRT service.	Route 102 round trip time increased to 60min (from 40-48min) due to turnaround in the downtown.	N/A	TBD	TBD
Route 3	<p>The route services Hamilton Road and Clarke Road, connecting the to the BRT network in the downtown and residents to Argyle Mall in the east end. The route operates at a 15 min peak headway (30 min branch headway).</p> <p>There is no opportunity to modify this route to better integrate with BRT without sacrificing coverage on Hamilton Road. Improvements to frequency should be demand-based.</p>	No change.	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD
Route 4	<p>The route provides a direct connection from Fanshawe College to south-western neighbourhoods. This segment is well utilized.</p> <p>South of downtown, it parallels the Wellington BRT corridor providing a local service and allowing the Wellington BRT service to maintain longer station spacing.</p> <p>North of downtown, the route duplicates the Richmond BRT corridor to Oxford Street.</p> <p>The route also provides a direct connection between downtown and Fanshawe College, duplicating the same origin-destination pair as the East BRT corridor.</p>	<ol style="list-style-type: none">Maintain alignment south of downtown and eliminate section on Oxford Street to Fanshawe College (served by East BRT route).Re-align the route within downtown to provide a turn-around (instead of continuing north to Oxford).	<p>Minimal impacts to passengers making connections along Richmond Street and Oxford.</p> <p>Direct connections to downtown, both BRT corridors, and Fanshawe College are maintained.</p>	No change to travel time due to near-identical alignment.	Modifications to frequency should be demand based only.	Modification eliminates duplication of the North BRT corridor and origin-destination pair between downtown and Fanshawe College.	Maintained.	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 104	The route provides a direct service from downtown to Fanshawe College during the school year. While not operating on the same corridor, the route will duplicate the East BRT corridor for downtown students going to Fanshawe College.	1. Eliminated route.	Connection to Fanshawe College maintained through East BRT corridor	Travel time should be similar with transit priority in place on Eat BRT corridor. No transfers required.	Improved service frequency on East BRT corridor.	No direct duplication on corridor, but is the same Origin and Destination pattern at the East BRT corridor.	N/A	N/A	TBD	TBD
Route 5	<p>The route serves Commissioners Road and Springbank Drive, connecting into downtown at the eastern route terminus.</p> <p>Demand on this route is low during the off-peak periods, however overall productivity is fairly good during the weekday peak periods. This should increase when BRT is introduced.</p> <p>With the modified Route 24 running along Commissioners Road West (based on an assumed reconstruction of 'Snake Hill') to Griffith and Boler Road, connections to North Byron should no longer be warranted.</p> <p>This service should be slightly modified to better connect with downtown BRT at Clarence Street and Queens Avenue (no change in travel time).</p>	<ol style="list-style-type: none">1. Remove service on Commissioners Road West, Boler Road and Griffith Street in north Byron.2. Re-align routing in the downtown to better connect with BRT at Wellington Road3. Reduce Saturday base and early evening headway from 60 min to 30 min.4. Reduce Sunday peak headway from 60 min to 30min (12:00pm to 6:00pm).	N/A	N/A	Ridership on route does not warrant significant service increase. Weekend increase eliminates 60 min service.	N/A	TBD	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 6	<p>The route services Richmond Street, connecting Western University to downtown and the London Health Sciences Centre/Victoria Hospital/Parkwood Hospital, St Joseph's Hospital and University Hospital. The route operates at a 30 min peak headway.</p> <p>South of the downtown, the route could be split into two patterns, Route 6A and Route 6B on Wellington Road and High Street south of the downtown. This would provide local connections along Wellington Road and to continue to service the community along High Street. Service in these areas would be assumed to operate on half the frequency as the mainline.</p> <p>With the introduction of BRT, a local route is required on both the Richmond and Wellington corridor to provide service to stops that are not BRT stations.</p>	<ol style="list-style-type: none">1. Introduce service along the route to duplicate service on the North and South BRT corridors to Masonville Mall and White Oaks Mall.2. Remove service to/from Western University.3. Reduce weekday peak headway from 30 min to 15 min.4. Reduce weekday midday headway from 30 min to 20 min.5. Reduce weekday early evening headway from 30 min to 20 min.6. Reduce Saturday base headway from a 30 min to a 20 min headway.7. Reduce Sunday peak headway from a 30 min to a 20 min headway.	Local connections are maintained along the North and South BRT corridors.	N/A	Improved headways to maintain good connections between local stops and BRT stops along the same corridor.	The route duplicates the North and South BRT corridors, however, provides a local service with closer stop spacing on the same corridor.	TBD	N/A	TBD	TBD
Route 7	<p>The route connects Argyle Mall in the east to downtown. Route 7 operates at a 20 min peak headway.</p> <p>The current alignment for the route travels in close proximity to the BRT corridor along Dundas Street, but does not directly connect to it. Therefore, it provides a parallel local service to the East BRT corridor and a direct connection downtown from Argyle Mall and surrounding neighbourhoods.</p>	<ol style="list-style-type: none">1. As a future modification, the ridership on this route should be monitored closely. If the route attracts little ridership on Florence Street/York Street between Highbury Avenue and the downtown, consideration should be made to short turning this route at Highbury Avenue and Dundas Street and operating as a true 'feeder' service for residents along Wavell Street.	N/A	N/A	Service frequency improvements already made as part of the 2015 London Transit Route Network and Service Guidelines document.	N/A	TBD	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 9	<p>The route services the Whitehills and Gainsborough Meadows neighbourhoods with a direct connection to downtown via Sarnia Road and Platt’s Lane. Route 9A and 9B runs counterclockwise and clockwise around the Wonderland/Aldersbrook loop, respectively. The route operates at a 15 min peak headway.</p> <p>The route duplicates much of the West Route BRT service between Wonderland Road and downtown. There is potential to short-turn the route and connect to the station at Wonderland and Oxford. This would support use of the RT service and provide a new direct connection to Westhill Centre Plaza and London Mall.</p>	<ol style="list-style-type: none">1. Modify the route to continue south on Wonderland Road from the Gainsborough Meadows neighbourhood, terminating at the BRT station at Wonderland and Oxford.2. Reduce Saturday base and peak headway from 30 min to 20 min.3. Reduce Sunday peak headway from 30 min to 20 min.4. Improve service on Route 10 to accommodate capacity reduction on Sarnia Road from realignment (see Route 10).	<p>New connection provided to Westhill Centre Plaza and London Mall.</p> <p>Connection to downtown maintained via transfer onto West BRT corridor.</p> <p>Connection to UWO maintained on Route 31 (see Route 31).</p>	<p><i>To Downtown:</i></p> <p>+3 min (12%) southeastbound from Aldersbrook & Blackacres to downtown.</p> <p><i>From Downtown:</i></p> <p>+5 min (19%) northwestbound from downtown to Aldersbrook & Blackacres.</p> <p>Note: The return trip from downtown does not meet the design principle. However, there are other benefits to this route that may outweigh this principle not being met.</p>	Improved service in most time periods. Ridership warrants increase in off-peak frequency.	Modification eliminates duplication of the West BRT corridor east of Wonderland Road.	Round trip time maintained approximately the same, at 30-60 min (from 40-75 min).	N/A	TBD	TBD
Route 10	<p>The route operates from the White Oaks Mall to Western University, with limited service extending to Masonville Mall.</p> <p>Ridership is busiest north of Oxford Street to UWO and on the weekends to Masonville Mall. Route 10 operates at a 20 min peak headway.</p> <p>There is an opportunity to increase the frequency of Route 10 to accommodate existing demand and support ridership growth. This is particularly important with the realignment of Route 9 off of Sarnia Road (discussed under Route 9 above).</p> <p>Small modification at Western University to better connect passengers to BRT results in a reduction of 1.3 kilometres of the route.</p>	<ol style="list-style-type: none">1. Short-turn route at local terminate at Western University transit terminal to avoid duplication to Masonville Mall.2. Reduce weekday base and early evening headway from 30 min to 20 min.3. Reduce Saturday peak and base headway from 30 min to 20 min.4. Reduce Sunday late evening headway from 60 min to 30 min.	<p>Passengers may still connect to Masonville Mall by transferring to the BRT service at the Western University.</p>	N/A	Improved service in many off-peak time periods.	N/A	TBD	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 11	<p>The route connects Westmount Mall to the downtown, traveling along Commissioners Road, Base Line Road, Emery Street, Wharncliffe Road, and York Street. Route 11 operates at a 20 min peak headway.</p> <p>Due to the modifications to Route 24, service no longer runs to Talbot Village. Route 11 should be modified to connect residents in this area to the downtown (see Route 24).</p>	<p>I. Realign Route 11 to connect with Talbot Village (roughly bounded by Colonel Talbot Road, Raleigh Boulevard, Tillman Road and Southdale Road).</p>	<p>By revising this Route to Talbot Village, these residents will still be able to connect to the activity centre at Wonderland Road South / Southdale Road West and will now have a direct connection to the downtown.</p>	N/A	N/A	N/A	<p>Modified to replace Route 24 connection in Talbot Village to the downtown.</p> <p>Slightly modified to connect with downtown station at Clarence Street and Queens Avenue (no change in travel time)</p>	N/A	TBD	TBD
Route 12	<p>The route provides service along Wharncliffe Road, connecting residential and commercial/industrial areas in southwest London to the downtown.</p>	<p>I. Modify route in the downtown to better connect to both BRT corridors at Wellington Road</p>	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD
Route 13	<p>The route operates along Richmond Street and Wellington Road, connecting Masonville Mall, UWOC, the London Health Sciences Centre/Victoria Hospital/Parkwood Institute, and White Oaks Mall. Route 13 operates at a 15 min peak headway, and Route 13A operates at a 30 min peak headway.</p> <p>The route duplicates the North BRT corridor (north of Queens Avenue) and South BRT corridor (south of Queens Avenue).</p> <p>The service along Richmond Street and Wellington Road should be eliminated to avoid duplication with the North and South BRT routes. Route 6 is proposed to provide local service on both of these corridors.</p> <p>Only the 13A loop need to be maintained to provide local service. The Jalna Boulevard loop currently on Route 26 can also be incorporated.</p>	<p>I. Eliminate Route 13 between Masonville Mall and White Oaks Mall.</p> <p>2. Modify the 13A branch to serve the Jalna loop and create one continuous bi-directional loop route, connecting to the BRT station at White Oaks Mall.</p>	<p>Direct connection to White Oaks Mall maintained, at the BRT station.</p> <p>Connection to all other destinations maintained through a transfer to the BRT service.</p>	N/A	Frequency on A loop maintained.	Modification eliminates duplication of BRT on Richmond Street and Wellington Road.	<p>Round trip time decreased to 40 min (from 90-120 min).</p> <p>Route able to operate using a clock-face headway.</p>	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 14	<p>The route services Highbury Avenue, connecting the Ridgeview Heights neighbourhood in the north to White Oaks Mall in the south. The route is also interlined with Route 10, providing a continuous two-way peripheral route in south London. Route 14 operates at a 20 min peak headway.</p> <p>There is an opportunity to improve service as the route is a Base Arterial Route and provides connection to South Route BRT corridor at White Oaks Mall and East Route BRT corridor at Oxford St. and Highbury Ave.</p>	<ol style="list-style-type: none">1. Reduce weekday base and early evening headway from 30 min to 20 min.2. Reduce Saturday peak and base headway from 30 min to 20 min.3. Reduce Sunday late evening headway from 60 min to 30 min.	N/A	N/A	Improved service frequency at many time periods.	N/A	N/A	N/A	TBD	TBD
Route 15	<p>Due to revisions to Route 24, connections to areas along 15B will be satisfied. Therefore, 15B should be removed to ensure local service is not duplicated. To improve local connections to the Westwood power centre at Wonderland Road and Southdale Road, there should be no frequency distinction between Route 15 mainline and Route 15A. Therefore, for simplicity the 15A title should be removed.</p>	<ol style="list-style-type: none">1. Delete Route 15B.2. Reassign 15A as Route 15 and provide more service on this alignment.3. Reroute to connect to the South BRT corridor at Wellington and Commissioners.	Connections along Route 15B to the downtown will be maintained via the revised Route 11 (Viscount Road) and Route 24 (Commissioners Road) via connection to the Wellington BRT corridor (requires a transfer). Service on Cranbrook Road removed, but within walking distance of either Route 11 or 24.	TBD	N/A	N/A	TBD	N/A	TBD	TBD
Route 16	<p>The proposed 2019 plan has Route 16 operating at a 20 min peak and base headway. The route is also short-turned and no longer goes to the Summerside area.</p> <p>Proposed to be modified and no longer serve Victoria Hospital or the Summerside area.</p>	<ol style="list-style-type: none">1. Remove patterns (Route 16B), connecting to Wellington Commissioners BRT Station.2. Reduce weekday base and peak from 20 min to 15 min.3. Reduce Saturday morning mainline headway from 25 min to 20 min (8:00am to 10:00am).4. Reduce Sunday base and peak mainline headway to 20 min.	N/A	N/A	<p>The frequency increase improves connections to both BRT corridors.</p> <p>Ridership on this corridor is high and frequency improvement expected to maintain productivity targets.</p>	N/A	N/A	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 17	<p>The route primarily services Oxford Street between Argyle Mall to the east and the Riverbend and Byron neighbourhoods to the west. Route 17 operates at a 20min peak, midday and early evening headway.</p> <p>There is opportunity to improve service as the route forms part of the Frequent Transit Network.</p>	<p>1. Reduce Saturday early morning headway to 30 min.</p>	N/A	Maintaining the route provides direct east-west travel on a major corridor.	N/A	Duplicates part of the BRT corridors between Wharncliffe and Wonderland, and Highbury and Fanshawe College.	No operations issues identified.	N/A	TBD	TBD
Route 19	<p>The Route provides a direct connection between the Hyde Park Power Centre and downtown London via Hyde Park Road and Riverside. The proposed 2019 plan has Route 19 interline with 38 and 39 operating at a 30 min base and peak headway.</p> <p>There is an opportunity to connect the route to the West BRT corridor at Wonderland Road.</p> <p>There is also potential to extend service hours to improve late evening coverage.</p>	<p>1. Modify the route to eliminate the portion east of Wonderland Road to the downtown. Connect the route to the BRT Station at Oxford and Wonderland.</p> <p>2. Extend service by one hour from 11:00pm to 12:00am weekdays and Saturdays.</p>	Outside of the downtown, existing connections to destinations are maintained.	<p><i>To Downtown:</i></p> <p>+9 min (37%) increase south-eastbound from Gainsborough & Hyde Park to downtown.</p> <p><i>From Downtown:</i></p> <p>+19 min (92%) increase north-westbound from downtown to Gainsborough & Hyde Park.</p> <p>This is not within the service performance targets.</p>	<p>Does not meet policy-based headway improvement to 20 min when connecting to a BRT corridor.</p> <p>Ridership is low on this route and off-peak headway increase would likely not meet productivity targets.</p>	Modification would eliminate the portion of the service on Riverside east of the downtown	No operations issues identified.	N/A	TBD	<p>Modification to the route as noted will not meet the design principles.</p> <p>Preliminary recommendation is to Maintain Existing Route 19</p>
Route 20	<p>The route connects Fanshawe College to downtown and residential areas to the west of Western University. Route 20 operates at a 15 min peak headway.</p> <p>The route also duplicates much of the West BRT route between Wonderland Road and downtown, and the East BRT route between downtown and Fanshawe College.</p> <p>To ensure an east-west connection along Oxford Road in the central area, the route should be re-aligned between Quebec Street and Wharncliffe Road.</p>	<p>1. Re-align the route to travel along Oxford Street between Wharncliffe Road and Quebec Street. Maintain local connections to Proudfoot Lane, Cherryhill Boulevard, and Mornington Avenue.</p> <p>2. Add one roundtrip at 12:00am.</p> <p>3. Reduce Saturday early morning headway from 45 min to 40 min (6:00am to 8:00am).</p> <p>4. Reduce Saturday base headway from 30 min to 20 min.</p>	Transfer to BRT is required for passengers destined downtown. All other connections are maintained, or provided directly via new BRT service.	<p><i>To Downtown:</i></p> <p>-1 min (2%) eastbound from Oakcrossing to downtown</p> <p><i>From Downtown:</i></p> <p>-5 min (15%) westbound from downtown to Oakcrossing.</p>	Improves service frequency on Oxford Street. No additional service frequency improvements required to connect to BRT.	Modification would eliminate duplication of both the East BRT and West BRT corridors.	TBD	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 21	<p>The route serves residential neighbourhoods in northeast London, and connects directly to downtown. Route 21 operates at a 15 min peak headway.</p> <p>This route will benefit from removing service from Richmond Street to the downtown to better connect customers to the University and the BRT corridor. The revised corridor will connect to a BRT station on Richmond. The corridor also runs parallel to the east-west BRT corridor near Oxford Street at Fanshawe College. Opportunities to connect this route to this corridor should be explored.</p>	<ol style="list-style-type: none">Re-structure route to begin route at Fanshawe College, travel north to Beckworth Avenue and loop around the Huron Heights neighbourhood, travel west along Huron Street, south on McNay Street to Cheapside Street. At the intersection of Cheapside Street and Richmond, head north on Richmond to Windermere Road and south on Western Road to the new transit terminal.Increase weekday peak frequency to a 10 min headway and weekday early evening frequency to a 15 min headway.	Connections are improved with link to Fanshawe College and Western University. Downtown connection is maintained through link to BRT.	<p><i>To Downtown:</i></p> <p>-1 min (3 min) westbound from Oakville & Huron to downtown.</p> <p><i>From Downtown:</i></p> <p>+6 min (25%) eastbound from downtown to Oakville & Huron.</p>	Service frequency increased	Modification would eliminate duplication of BRT service along Richmond Street.	Round trip time increased to 100-120 min (from 60 min).	N/A	TBD	<p>TBD</p> <p>Note: Service improvements will increase travel time from downtown to Route 21. This is offset by a number of other improvements noted in the design principles.</p> <p>Route to be further assessed.</p>
Route 24	<p>The route services Viscount Road and Baseline Road, providing connections from the Talbot Village neighbourhood to the London Health Sciences Centre/Victoria Hospital/Parkwood Institute. The proposed 2019 plan proposes a routing modification to realign the route to serve Victoria Hospital and the Summerside neighbourhood. The proposal also has Route 24 operating at a 30 min AM peak and a 35 min PM peak headway and the introduction of Sunday service during the day and early evening (9:00 am to 7:00pm).</p> <p>Commissioners Road West is slated for reconstruction within the five-year horizon. Therefore, the entrance to Byron on Commissioners Road (Snake Hill) which was once inoperable for buses, can potentially service Byron on this route. The route has thus been realigned to serve the area in replacement of part of Route 5 to better connect residents on the south-west side of the city – including South BRT corridor and Victoria/Parkwood Hospitals. Route 11 to be realigned to service previous section of Talbot Village.</p>	<ol style="list-style-type: none">Modify Route 24 to service Byron via Commissioners Road West.Reduce weekday peak period headway from 30 min to 20 min (7:00am to 9:00am and 2:00pm to 6:00pm).Reduce weekday base headway from 60 min to 30 min (9:00am to 2:00pm).Introduce Saturday AM, evening and Sunday service at a 60 min headway at all time periods.	<p>Customers can still connect directly to the downtown core in northern Byron on Routes 5 and 17A.</p> <p>Customers in south Byron can connect to the downtown via a modified Route 11.</p>	N/A	Frequency to be improved to provide 20 min weekday service during peaks and 30 min off-peak.	N/A	TBD	N/A	TBD	TBD

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			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 25	<p>The route services Highbury Avenue and Fanshawe Park Road, connecting Fanshawe College with Masonville Mall. Route 25 operates at a 30 min peak headway.</p> <p>There is an opportunity to improve service as the route connects to North Route BRT corridor at Masonville Mall and East Route BRT corridor at Fanshawe College.</p>	<ol style="list-style-type: none">1. Reduce weekday peak period headway from 30 min to 15 min.2. Reduce weekday late evening headway from 60 min to 30 min (9:00pm to 12:00am), and reduce midday and early evening headway from 30 min to 20 min.3. Reduce Saturday late evening headway to 30 min (8:00am to 10:00am and 9:00pm to 12:00am).5. Reduce Sunday peak headway from 60 min to 30 min.6. Introduce new service Sunday morning at a 60 min headway (7:00am to 9:00am).	N/A	N/A	Improved service frequency during many time periods.	N/A	N/A	N/A	TBD	TBD
Route 26 / Route 93	<p>The route connects residential neighbourhoods in the south directly to downtown, traveling mainly along Wharncliffe Road, Highview Avenue, Homeview Road, and White Oak Road. In the proposed 2019 plan the route is eliminated with the replacement of Route 93 operating at a 20 min peak headway.</p> <p>Route 93 extends the existing Route 26 up Wharncliffe Road. Wharncliffe Road has been identified as an Urban Corridor in the London Plan. Urban Corridors are designated as future potential BRT corridors. Intensification is expected along the corridor in the future. The purpose of this new Express Route is to provide passengers with a direct north-south connection on the west side of London without travelling through the downtown core (similar to the Route 92 - EXPRESS Adelaide corridor). The Express Route will provide residents on the west end of London with a direct connection to the White Oaks Transit Village, Western University and the Masonville Transit Village. The corridor also intersects with the West BRT corridor.</p>	<ol style="list-style-type: none">1. Eliminate Route 26.2. Re-align Route 93 to traverse from Wharncliffe Road to Wellington Road via Highview Avenue, Ferndale Avenue, Dundalk Drive, Jalna Boulevard, and Bradley Avenue.3. Operate peak service between 7:00am and 10:00am and 3:00pm and 7:00pm with a 15 min headway, 20 min headways in the Early AM and from 10:00am to 3:00pm, and 30 min headways in the early and late evening.4. Operate Saturday service with 20 min headways during the day and 40 minute service in the Early AM and Late Evening periods.5. Operate 20 minute Sunday Day service with 40 min headways in the Base AM and Evening.	<p>Connection to White Oaks Mall maintained, and service to residential neighbourhoods continued.</p> <p>Direct connection to downtown no longer available, and passengers will be required to transfer to the South BRT service.</p>	<p>Express service is maintained for majority of route (local service is provided south of Commissioners Road only).</p> <p><i>Southbound:</i></p> <p>+5 min (15%) from northern terminal (Masonville Mall) to southern terminal (White Oaks Mall)</p> <p><i>Northbound:</i></p> <p>+9 min (28%) from southern terminal (White Oaks Mall) to northern terminal (Masonville Mall)</p>	Corridor still provides a high frequency with extension of Route 93.	Modification will encourage more connections to the Wellington BRT corridor from Southdale, reduce duplication of service on Wharncliffe Road and provide a direct express connection to Western University	No operations issues identified	N/A	TBD	<p>TBD</p> <p>Note: Travel time on the northbound approach to downtown is higher, however, service to Western University and Masonville Mall maintained.</p>

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
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Route 27	<p>The route is short, and provides service between Fanshawe College and the residential neighbourhoods to the northwest. Route 27 operates at a 15 min peak headway.</p> <p>The route has a good connection to the East Route BRT corridor, and there is opportunity to improve service as the route is a Base Arterial Route with high ridership during the school semester.</p>	<p>1. Increase fall/winter weekday peak headway from 15 min to 10 min (7:30am to 9:00am and 2:00pm to 6:00pm).</p> <p>2. Increase spring/summer weekday headway to 15 min at all time periods (7:30am to 12:00am) and Saturday late evening in the Fall to 15 min headway from 20 min headway.</p>	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD
Route 28	<p>The route provides service primarily along Wharncliffe Road and Wonderland Road, connecting Westmount Mall to a smaller residential area to the southwest. The proposed 2019 plan has Route 28 operating at a 30 min peak headway to serve the Exeter/White Oak Industiral area and connect to White Oaks Mall. The route will connect to the South Route BRT corridor at White Oaks Mall.</p>	<p>1. Ridership is very low on this route and does not warrant an increase in service.</p>	N/A	NA	NA	N/A	NA	N/A	TBD	TBD
Route 29	<p>The route is a short-turn of Route 10, and provides service between Western University and a residential area near Oxford and Wonderland, traveling mainly on Sarnia Road and Wonderland Road. Route 29 operates at a 12 to 13 min peak headway and is required to move a large number of students to the University.</p>	<p>1. No Change</p>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD
Route 30	<p>The route services predominantly employment areas, connecting to White Oaks Mall in the west. The proposed 2019 plan has Route 30 operating at a 40 min peak headway.</p>	<p>1. Reduce weekday early morning and AM and PM peak headway from 40 min to 20 min.</p>	N/A	N/A	Area is growing. Increased frequency will help accommodate new demand and better connect to the BRT.	N/A	N/A	Due to ridership growth anticipated on this route, an ASD model is not warranted.	TBD	TBD

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			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 31	<p>The route connects residential areas in the northwest to Western University. Route 31 operates at a 30 min peak headway and interlines with Route 32.</p> <p>Ridership does not warrant service improvements, however the route is interlined with Route 32, and therefore headways should match on both routes.</p>	<ol style="list-style-type: none">1. Reduce weekday peak headway from 30 min to 15 min (7:00am to 9:00am and 2:00pm to 6:00pm).2. Reduce weekday base headway from 30 min to 20 min (9:00am and 2:00pm).3. Reduce weekday early evening headway to 30 min and introduce late evening service at a 60 min headway.4. Add new service Saturday early morning at 45 min headway (6:00am to 8:00am), reduce Saturday peak headway to 30 min, and introduce late evening Saturday service at a 60 min headway.5. Reduce Sunday peak headway from 60 min to 30 min.6. Add new service Sunday evening service at a 60 min headway.	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD

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Route 32	<p>The route connects the Ridgewood Heights and Stoney brook Acres neighbourhoods to Western University. Route 32 operates at a 30 min peak headway.</p> <p>There are a number of mid- and high-density residential buildings in this area which would benefit from direct service.</p> <p>There is potential for Route 32 to be modified to provide service to this area.</p> <p>Route modified slightly to connect directly with local transit terminal at Western University.</p>	<ol style="list-style-type: none">1. Reduce weekday peak headway from 30 min to 15 min (7:00am to 9:00am and 2:00pm to 6:00pm).2. Reduce weekday base headway from 30 min to 20 min (9:00am and 2:00pm).3. Reduce weekday early evening headway to 30 min and introduce late evening service at a 60 min headway.4. Add new service Saturday early morning at 45 min headway (6:00am to 8:00am), reduce Saturday peak headway to 30 min, and introduce late evening Saturday service at a 60 min headway5. Reduce Sunday peak headway from 60 min to 30 min.6. Add new service Sunday evening service at a 60 min headway.	Connections to UWO are maintained with proposed realignment.	N/A	Improved service, and extended operating hours on weekends	N/A	Minimal change in round trip time.	N/A	TBD	TBD
Route 33	<p>The route travels south from UWO along Western Road and Platt’s Lane, through the Cherryhill neighbourhood and Village Mall, and continues on to Proudfoot Lane and Farrah Road. Route 33 operates at a 13 min PM peak headway.</p> <p>This route was modified slightly to connect directly with local transit terminal at Western University.</p> <p>Due to the proposed elimination of Route 9 from Sarnia Road, service levels must be improved to compensate.</p>	<ol style="list-style-type: none">1. Reduce peak and midday headway during the Fall/Winter Schedule from 17 / 13 min to 10 min (7:45am to 6:00pm).	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD

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Route 34	The route connects Masonville Mall to Western University, serving residential streets to the west of Masonville Mall as well. The proposed 2019 plan has Route 34 operating in the Sunningdale area on Planetree Drive and Pinnacle Parkway on a 30 minute peak headway The route overlaps with the proposed BRT route along Richmond Street, and therefore there is potential to eliminate the portion of the route along Richmond, modifying the route to be a loop. There is also potential to reroute the alignment north of Fanshawe Park Road and improve service to provide improved connection to North BRT corridor.	<ol style="list-style-type: none">1. Modify the route to eliminate the connection to Western University. This will shorten the route with a direct connection to the BRT corridor at the Masonville terminal.2. Extend route to service Sunningdale neighbourhood.3. Reduce weekday peak period headway from 30 min to 15 min (7:30am to 9:00am and 2:30pm to 6:30pm), reduce early evening headway to 30 min.	Transfer required at the North BRT to access Western University.	N/A	Improved service during many time periods.	Modification of the route will eliminate duplication of BRT along Richmond Street	Roundtrip time decreased to 20-30 min (from 30 min). Route able to operate using a clock-face headway.	N/A	TBD	TBD
Route 35	The route connects Argyle Mall to residential streets to the southeast. The proposed 2019 plan has Route 35 operating at a 30min peak headway.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD
Route 36	The route services Oxford Street east of Fanshawe College, providing connections to the College and the airport. Route 36 operates at a 30 min peak headway. There is potential to improve service to meet growing demand to the Airport, particularly from Fanshawe College students. Route 36 also provides connection to East BRT corridor from Fanshawe College.	<ol style="list-style-type: none">1. Reduce weekday peak period headway from 30min to 15 min (7:00am to 9:00am and 2:30pm to 6:00pm).2. Extend weekday service to the early evening period at a 30 min headway (6:00pm to 12:00pm).	N/A	N/A	Improved peak service, and extended service hours.	N/A	N/A	N/A	TBD	TBD
Route 37	The route services Dundas Street, Veterans Memorial Parkway, and Sovereign Road, connecting to Argyle Mall in the north terminus. Route 37 operates at a 30 min peak headway.	<ol style="list-style-type: none">1. No Change.	N/A	N/A	N/A	N/A	N/A	Consideration should be given to an ASD if ridership does not improve.	TBD	TBD

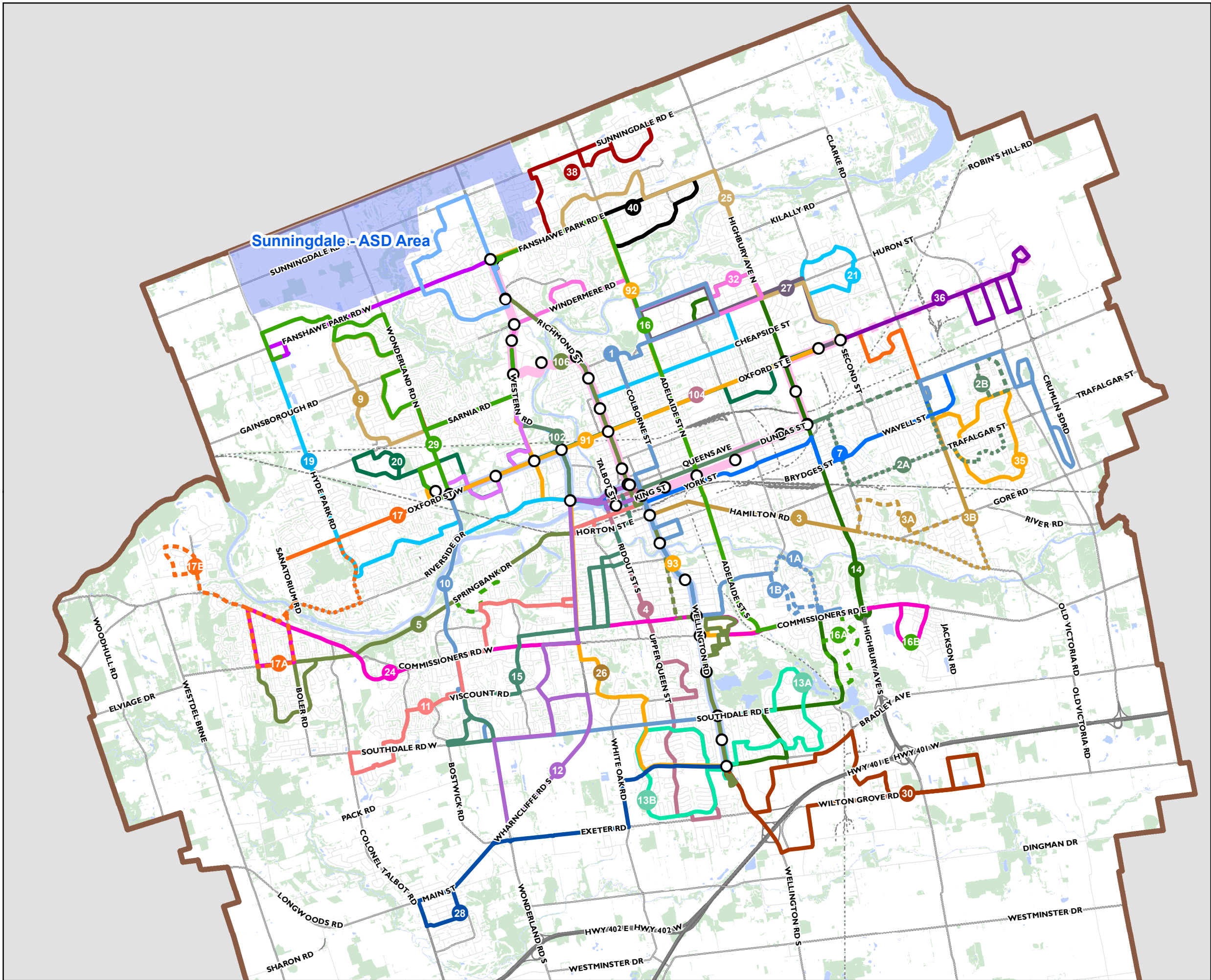
Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 38	<p>The route connects Masonville Mall to surrounding residential neighbourhoods. Route 38 operates at a 30 min peak headway and the 2019 draft plan proposes the route be interlined with Route 19 in addition to Route 39.</p> <p>There is opportunity to improve service as route provides connection to North Route BRT corridor at Masonville Mall.</p>	<ol style="list-style-type: none">1. Reduce weekday peak period headway from 30 min to 15 min (7:00am to 9:00am and 2:00pm to 6:00pm).2. Reduce Sunday Day headway from 60 min to 30 min (9:00am to 7:00pm) and introduce Sunday Early AM service at a 30 min headway.	N/A	N/A	Improved service in weekday peak periods and on Sundays.	N/A	N/A	N/A	TBD	TBD
Route 39	<p>The route services Fanshawe Park Road west of Richmond Street, connecting to Masonville Mall at the eastern terminus. Route 39 operates at a 30 min peak headway and the 2019 draft plan proposes the route be interlined with Route 19 as well as Route 38.</p> <p>There is opportunity to improve service as route provides connection to North BRT corridor at Masonville Mall.</p>	<ol style="list-style-type: none">1. Reduce weekday peak period headway from 30 min to 15 min (7:00am to 9:00am and 2:00pm to 6:00pm),3. Reduce Sunday Day headway from 60 min to 30 min (9:00am to 7:00pm) and introduce Sunday Early AM service at a 30 min headway.	N/A	N/A	Improved service in weekday peak periods and on Sundays.	N/A	N/A	N/A	TBD	TBD
Route 40	<p>The route services Fanshawe Park Road east of Richmond Street, connecting to Masonville Mall at the western terminus. Route 40 operates at a 30 min peak headway.</p> <p>The route connects to the North Route BRT corridor at Masonville Mall, and there is opportunity to improve service to better serve this connection.</p>	Reduce weekday peak period headway from 30 min to 15 min (7:00am to 9:00am and 2:00pm to 6:00pm).	N/A	N/A	Improved service in weekday peak periods and on Sundays.	N/A	N/A	N/A	TBD	TBD
Route 51, 52, 53, 54, 55	<p>These community bus routes serve three loops – the Proudfoot Loop, Cherryhill Loop, and Wonderland Loop.</p> <p>No modifications are required to these routes.</p>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Route 90	<p>This express route operates on the Richmond Wellington corridor between Masonville Mall and White Oaks Mall, duplicating much of the proposed BRT service on Richmond and Wellington.</p> <p>The route should be eliminated once BRT is introduced. Elimination of the route will be phased in accordance with completion of construction on BRT corridors.</p>	<ol style="list-style-type: none">Eliminate the northern half of the route once BRT is introduced on the North BRT corridor from downtown London to Masonville Mall.Eliminate the southern half of the route once BRT is introduced on the South BRT corridor from White Oaks Mall to downtown London.	<p>BRT will provide service to areas currently covered by Route 90.</p> <p>Currently there is no BRT stop proposed at Windermere or Grand. The closest proposed stations to these are Richmond/ Ambleside or Richmond/ University Drive, and Wellington/ South and Wellington/Bond.</p>	<p>Travel time will be the same or reduced on BRT.</p>	<p>Frequency will be increased on BRT, from 20 min peak service to 10 min peak service on the South BRT corridor and 5 minute peak service on the north corridor.</p>	<p>Modification eliminates duplication of the BRT corridor.</p>	<p>No operations issues identified.</p>	<p>N/A</p>	<p>TBD</p>	<p>TBD</p>
Route 91	<p>The route offers express service along Oxford Street from Wonderland Road to Fanshawe College. Route 91 operates at a 15 min peak headway.</p>	<ol style="list-style-type: none">Introduce weekday early evening service at a 30 min headway.	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>TBD</p>	<p>TBD</p>
Route 92	<p>The route offers express service along Adelaide Street, connecting to Masonville Mall in the north and the London Health Sciences Centre/Victoria Hospital/Parkwood Institute in the south. Route 92 operates at a 20 min peak headway.</p>	<ol style="list-style-type: none">No Change.	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>TBD</p>	<p>TBD</p>
Sunningdale Route – New ASD Area	<p>There is currently no transit service north of Fanshawe Park Road to the west of Richmond Road. There is opportunity to provide an alternative service delivery model in this area due to the circuitous and low-density built character. The route should connect with the North BRT service at Masonville Mall.</p>	<ol style="list-style-type: none">Implement alternative service delivery model in the area to connect with North BRT service at Masonville Mall.Operate service on weekdays between 7:00am and 10:00pm. <p>Operate service on Saturdays and Sundays between 9:00am and 6:00pm.</p>	<p>Provides additional connection from residential neighbourhoods in north London to BRT.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Due to the circuitous nature of the road network and the low-density character, an alternative service delivery model would be an effective mode of transportation in this area.</p>	<p>TBD</p>	<p>TBD</p>

Route	Issue / Proposal	Proposed Modification	Evaluation						Impacts to Service Hours & Bus Requirements	Recommendation
			#1 - Ability to Maintain Connections	#2 - Directness (Travel Time)	#3 - Service Frequency	#4 - Duplication with BRT	#5 - Effective Operations	#6 – Alternative Service Delivery Model		
Innovation Park – New ASD Area	There is currently no transit service in this area. There is opportunity to provide an alternative service delivery model in this area due to the circuitous and low-density built character.	<ol style="list-style-type: none">1. Implement alternative service delivery model in the area to connect with local transit service or BRT.2. Operate service on weekdays between 6:00am and 10:00pm.	N/A	N/A	N/A	N/A	N/A	Due to the circuitous nature of the road network and the low-density character, an alternative service delivery model would be an effective mode of transportation in this area.	TBD	TBD
Sharon Creek / North Lambeth – New ASD Area	There is currently no transit service in this area. There is opportunity to provide an alternative service delivery model in this area due to the circuitous and low-density built character.	<ol style="list-style-type: none">1. Implement alternative service delivery model in the area to connect with local transit service or BRT.2. Operate service on weekdays between 6:00am and 10:00pm.	N/A	N/A	N/A	N/A	N/A	Due to the circuitous nature of the road network and the low-density character, an alternative service delivery model would be an effective mode of transportation in this area.	TBD	TBD

APPENDIX A

Proposed Route Modifications



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
Alternative Service Delivery Area
Sunningdale

- LTC Bus Route
- BRT Station
- Alternative Service Delivery Areas
- Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

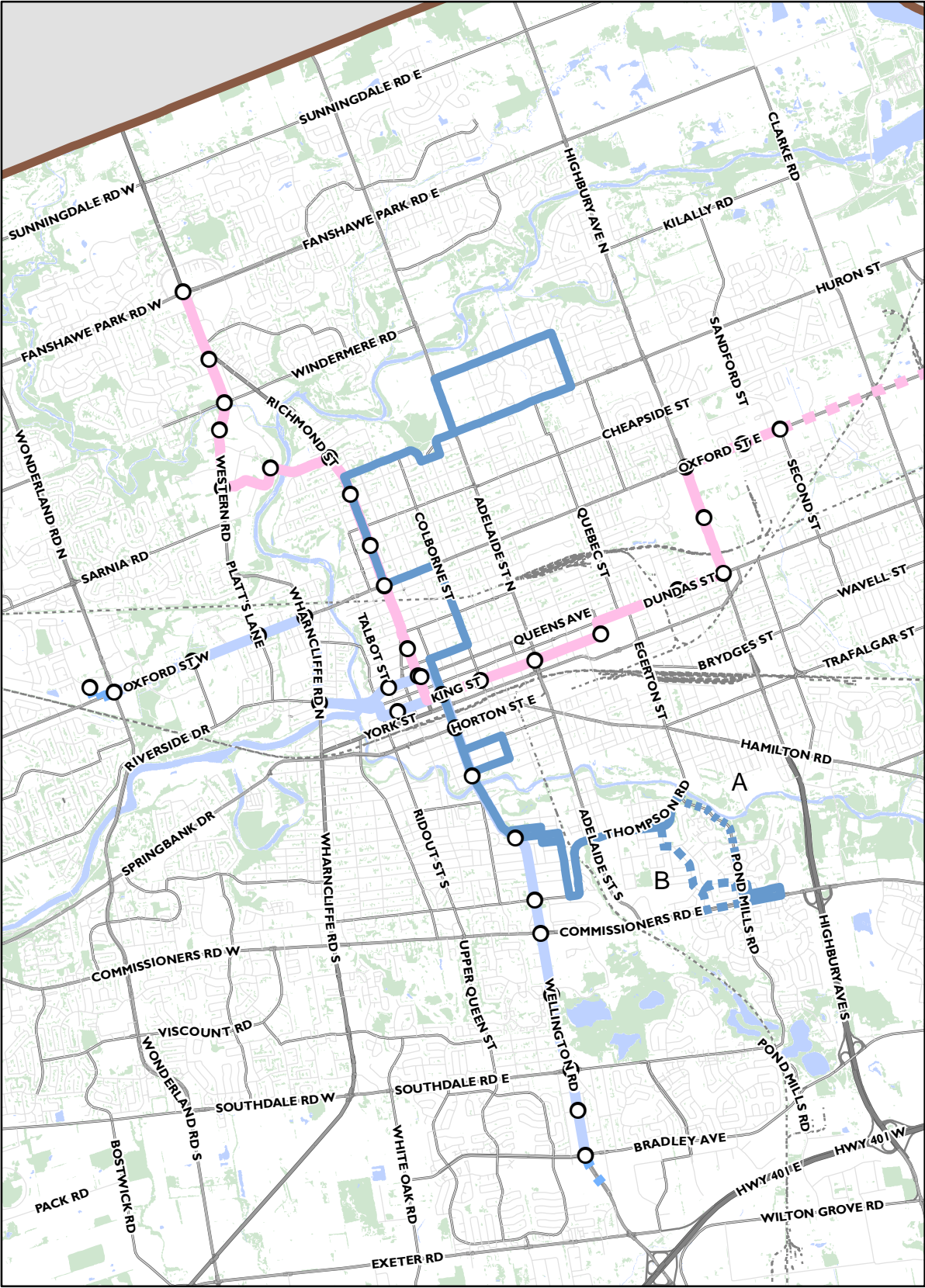


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DATA PROVIDED BY LTC

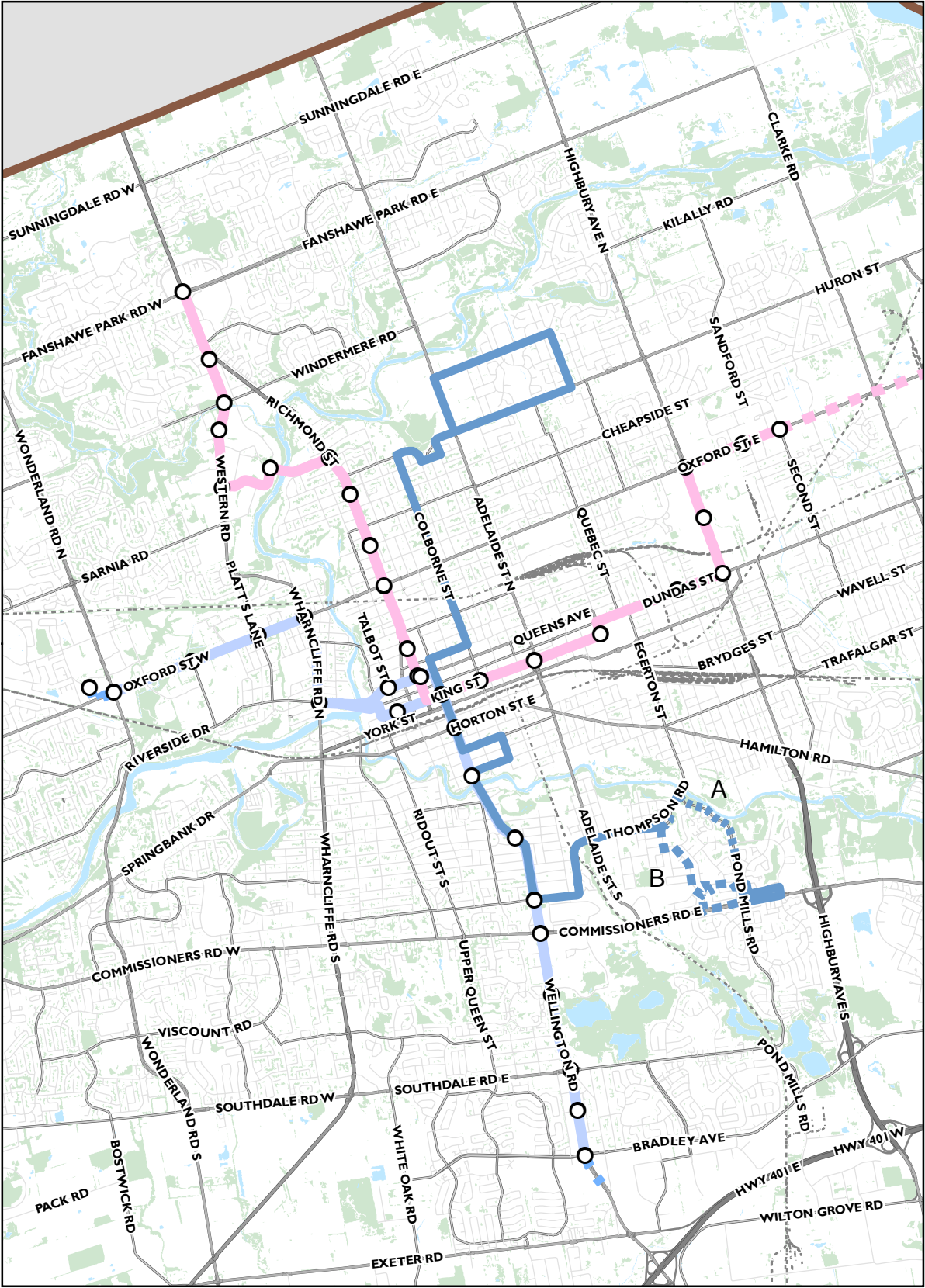
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2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 1

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037

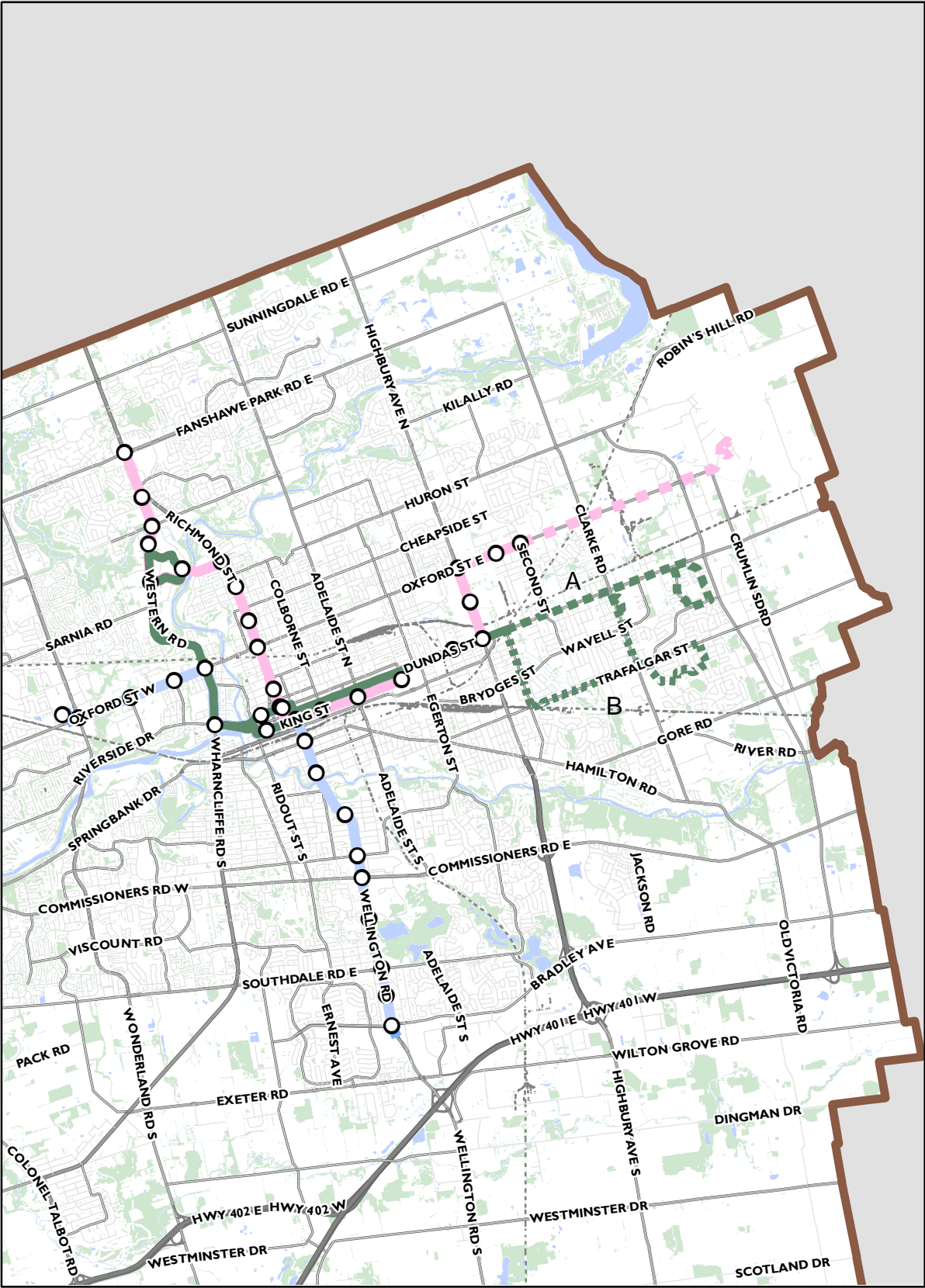


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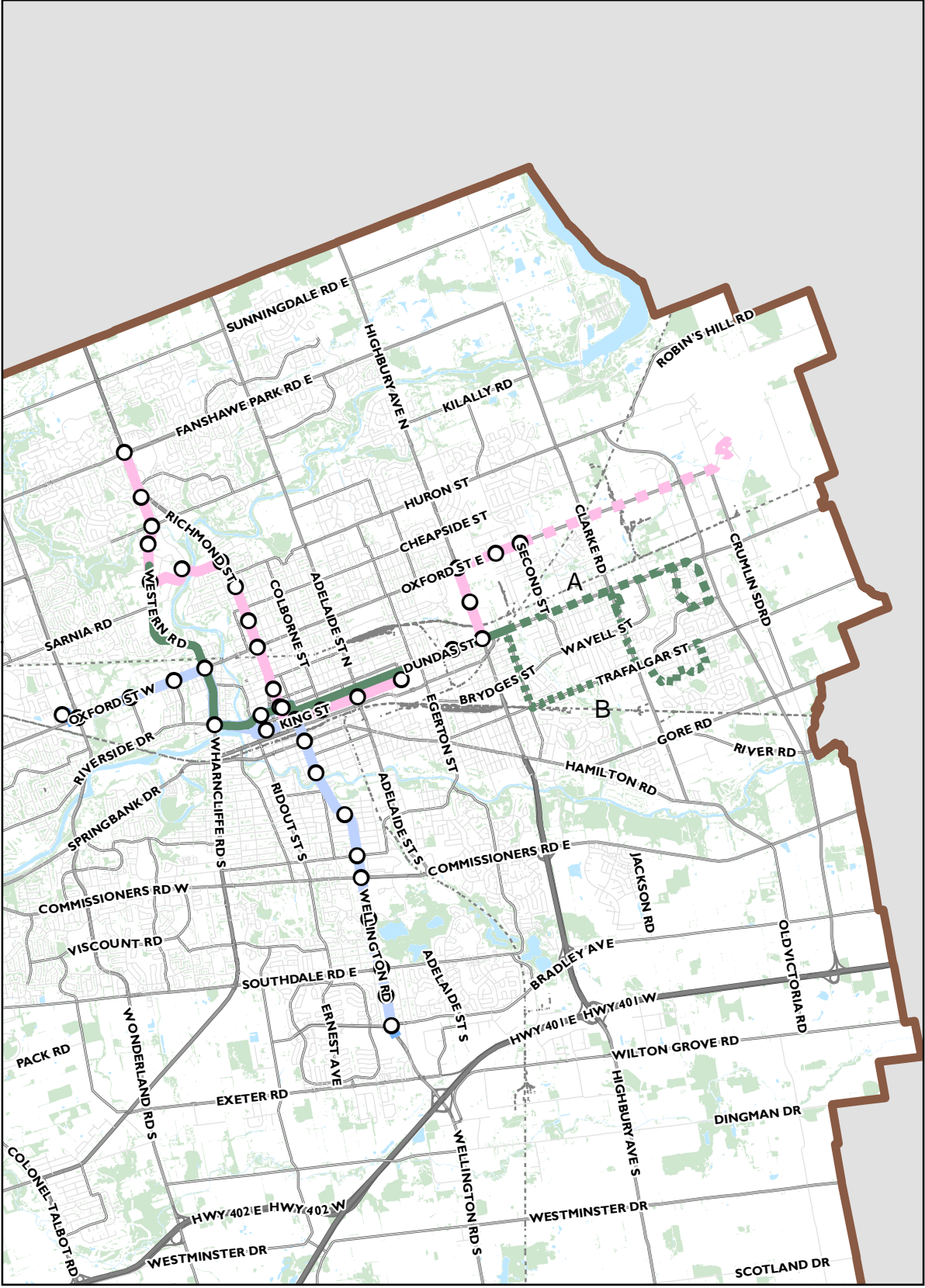
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EXISTING 2018	-	15	20	15	30	30	30	30	20	30	30	30	30	30
PROPOSED 2035	-	10	20	10	30	30	30	20	20	20	30	20	20	30

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 2

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



PROJECT: 188035

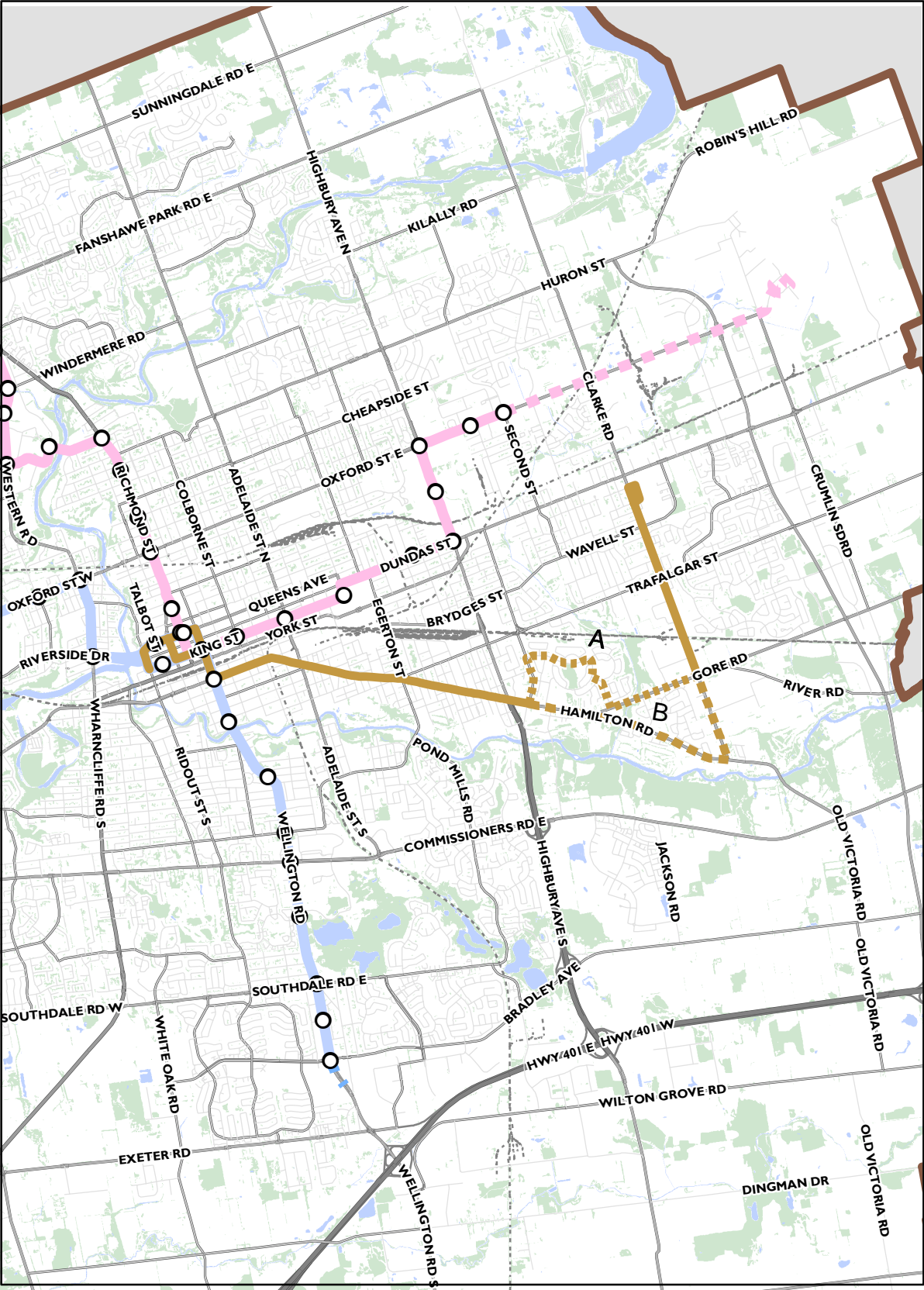
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DATE: 2018-09-24

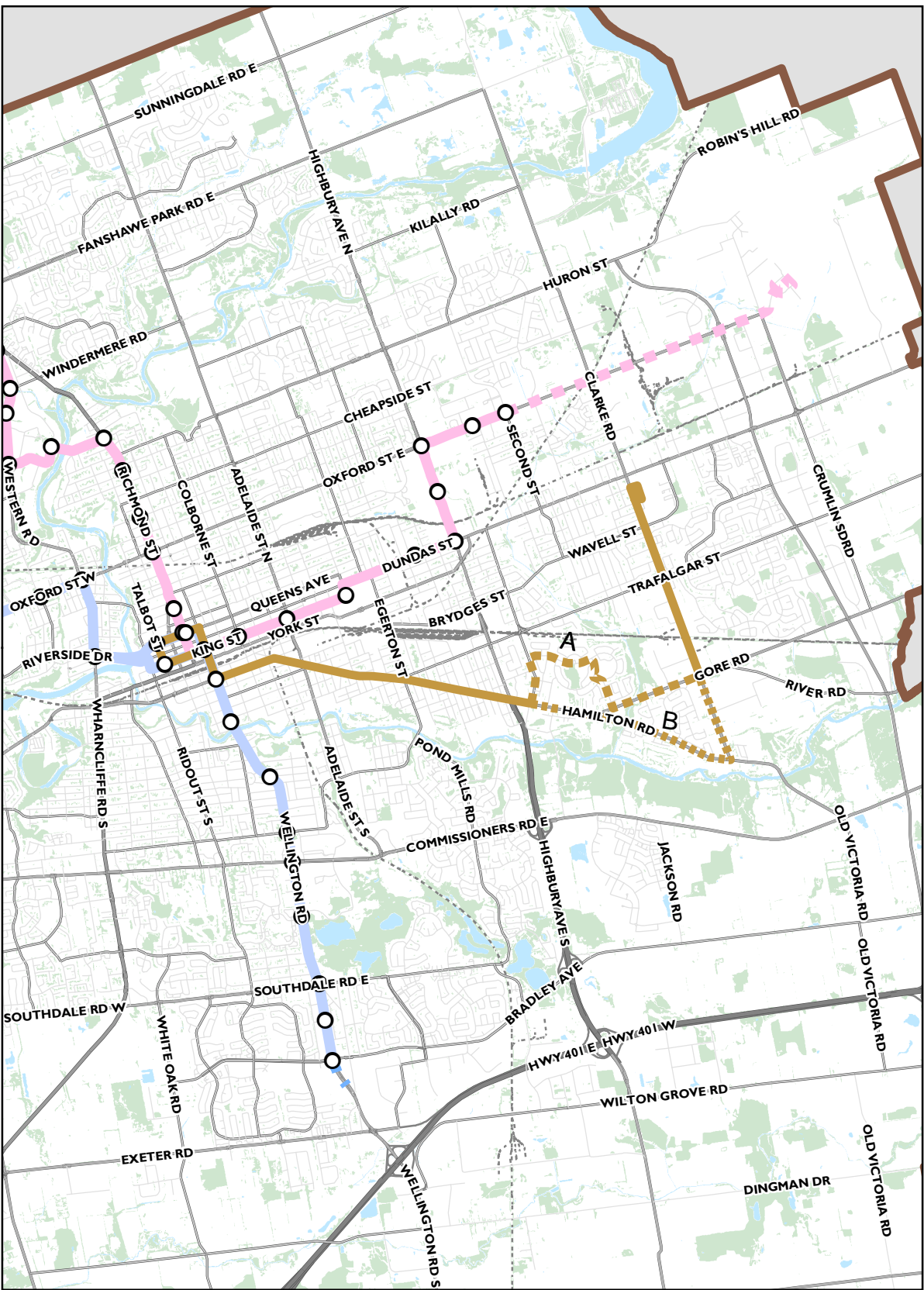
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	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	15	10	15	10	15	20	30	15	15	15	30	30	15	30
PROPOSED 2035	15	10	15	10	15	20	30	15	15	20	30	30	15	30

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK (NO CHANGE)



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 3

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037

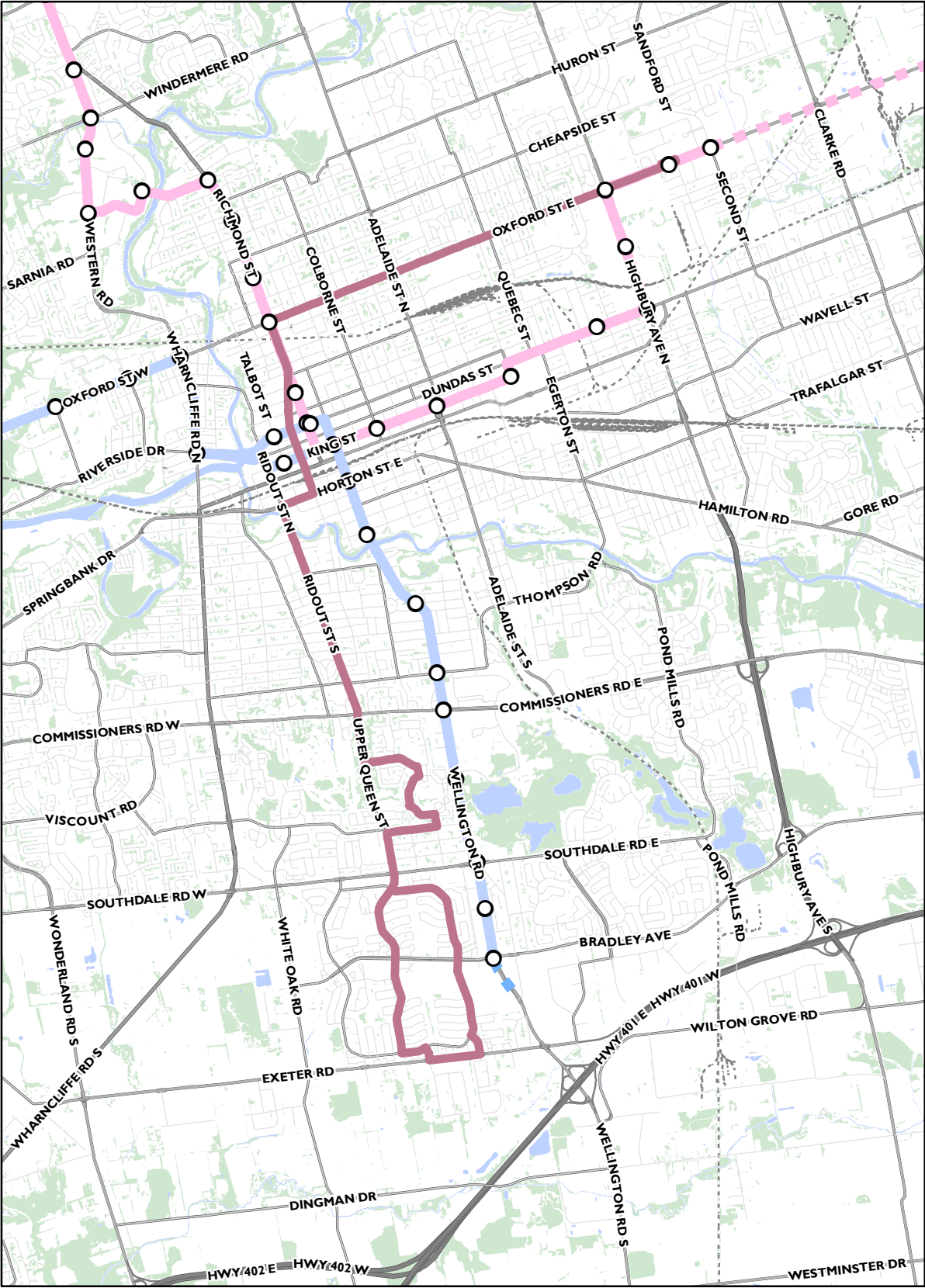


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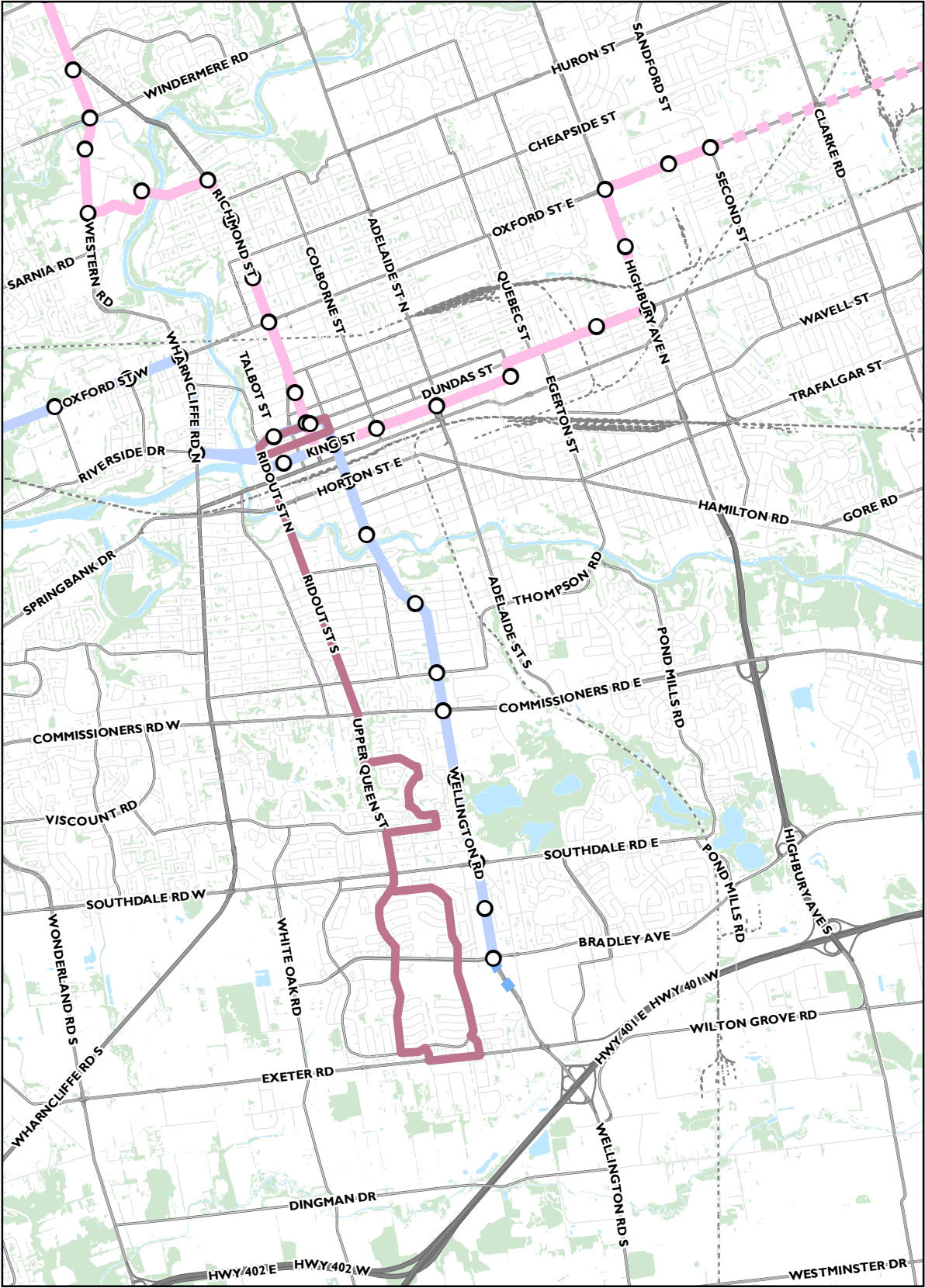
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	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	15	15	15	15	30	30	30	30	30	30	30		30	30
PROPOSED 2035	15	15	15	15	30	30	30	30	30	30	30		30	30

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 4

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- - - Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037

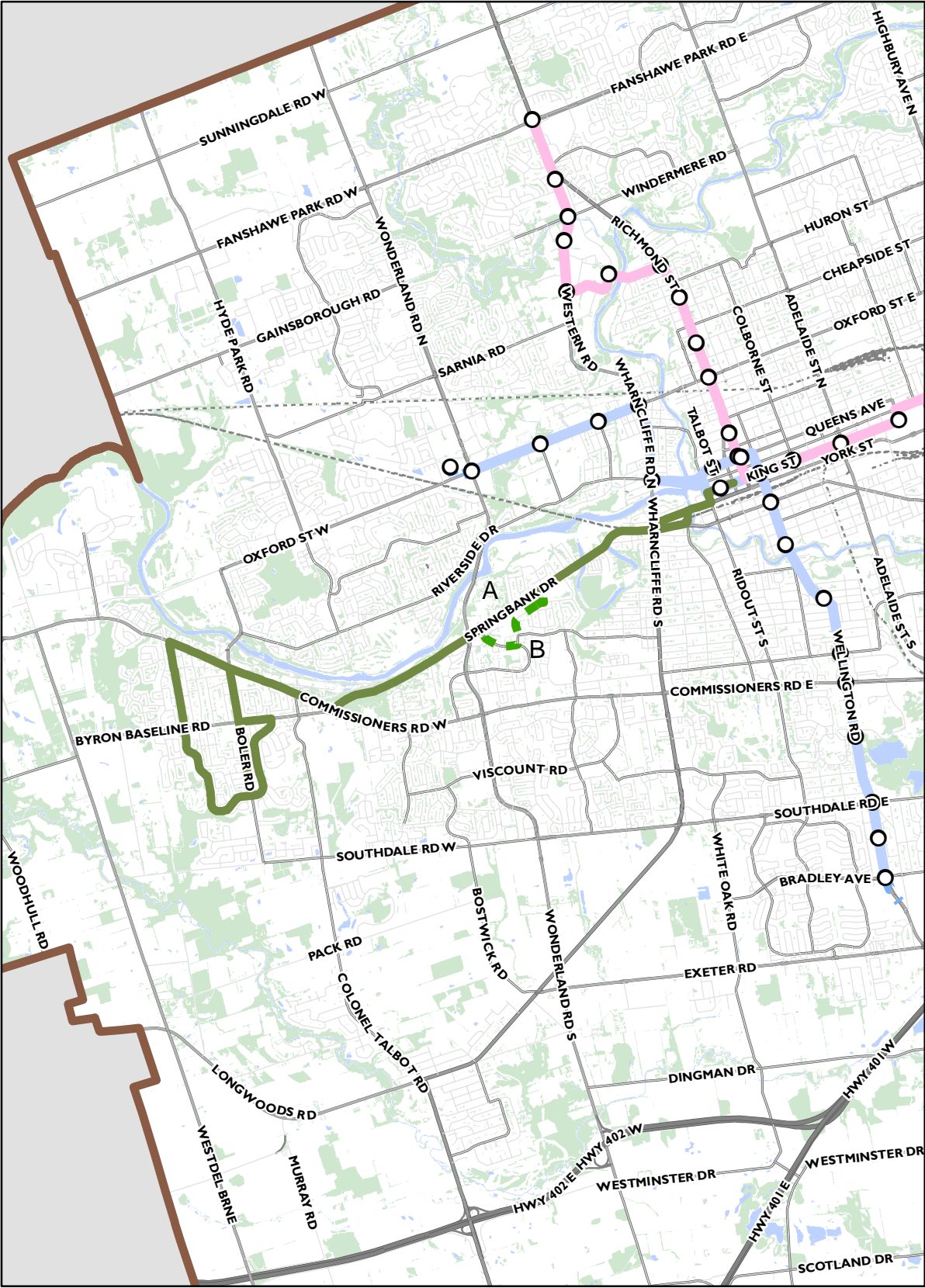


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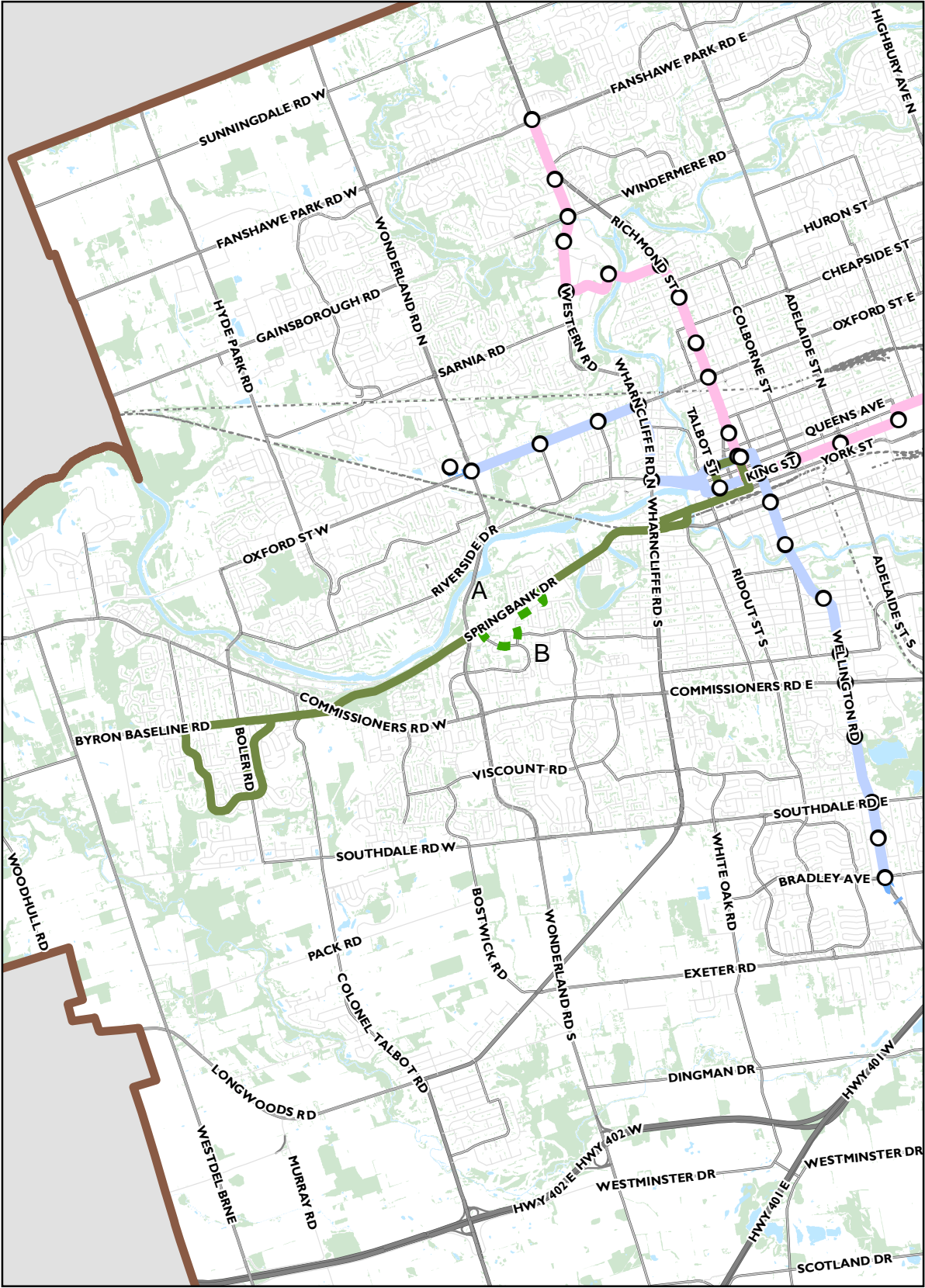
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EXISTING 2018	30	15	30	15	20	30	30	25	30	30	30	45	30	30
PROPOSED 2035	30	15	30	15	20	30	30	25	30	30	30	45	30	30

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 5

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



PROJECT: 188035

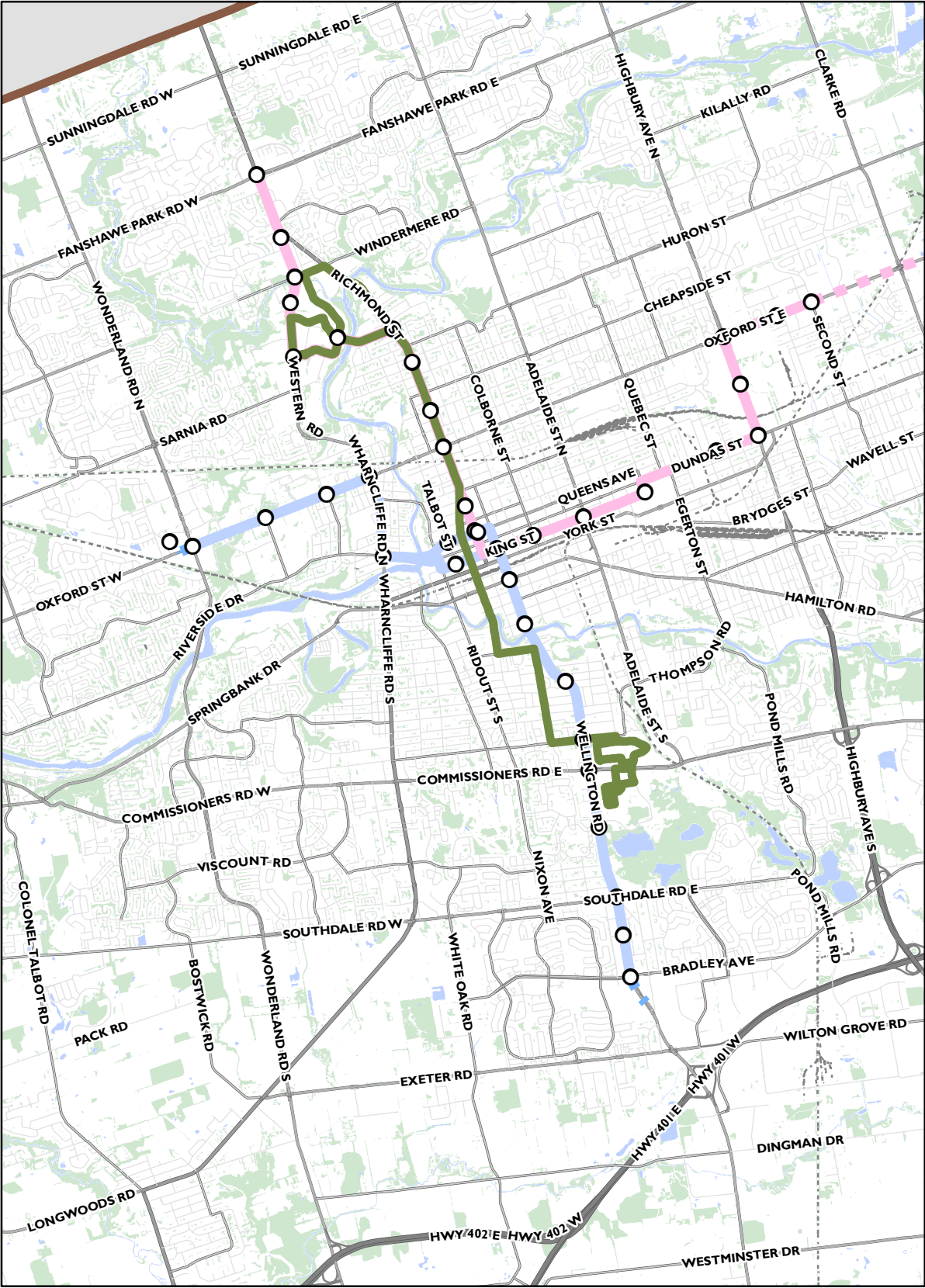
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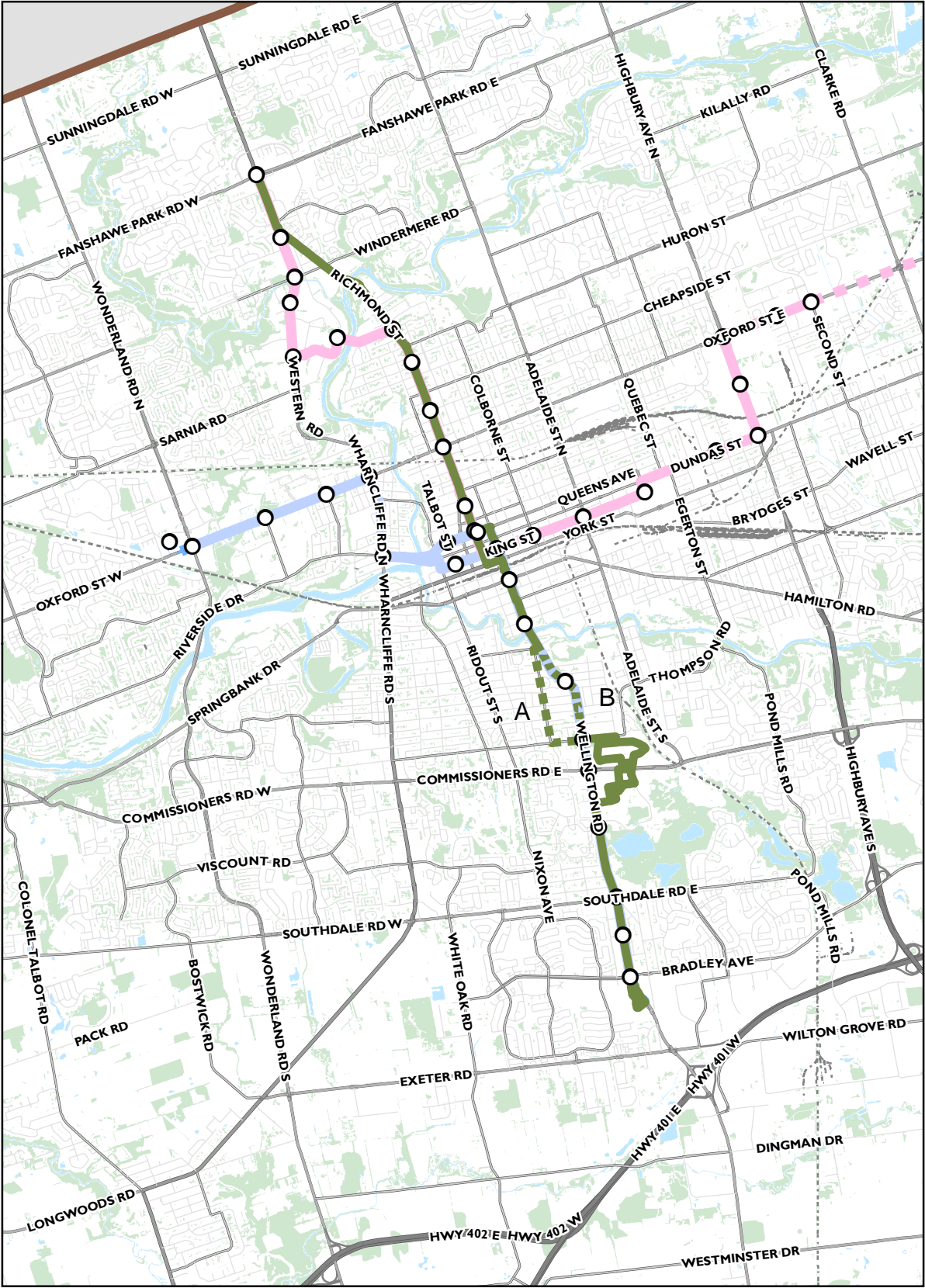
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EXISTING 2018	30	30	30	30	60	60	60	60	30	60	60		60	60
PROPOSED 2035	30	30	30	30	60	60	60	30	30	30	60		30	60

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 6

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037

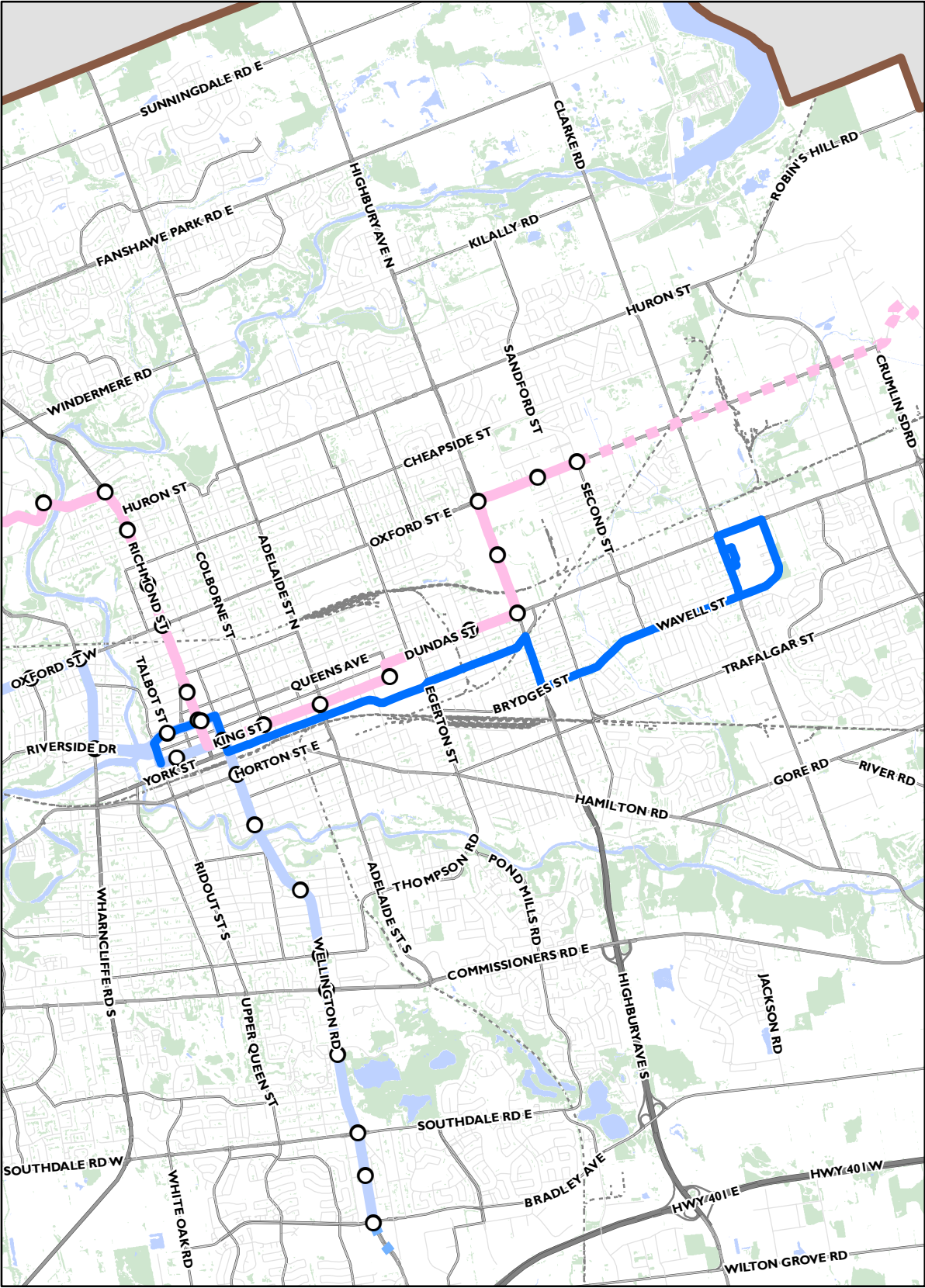


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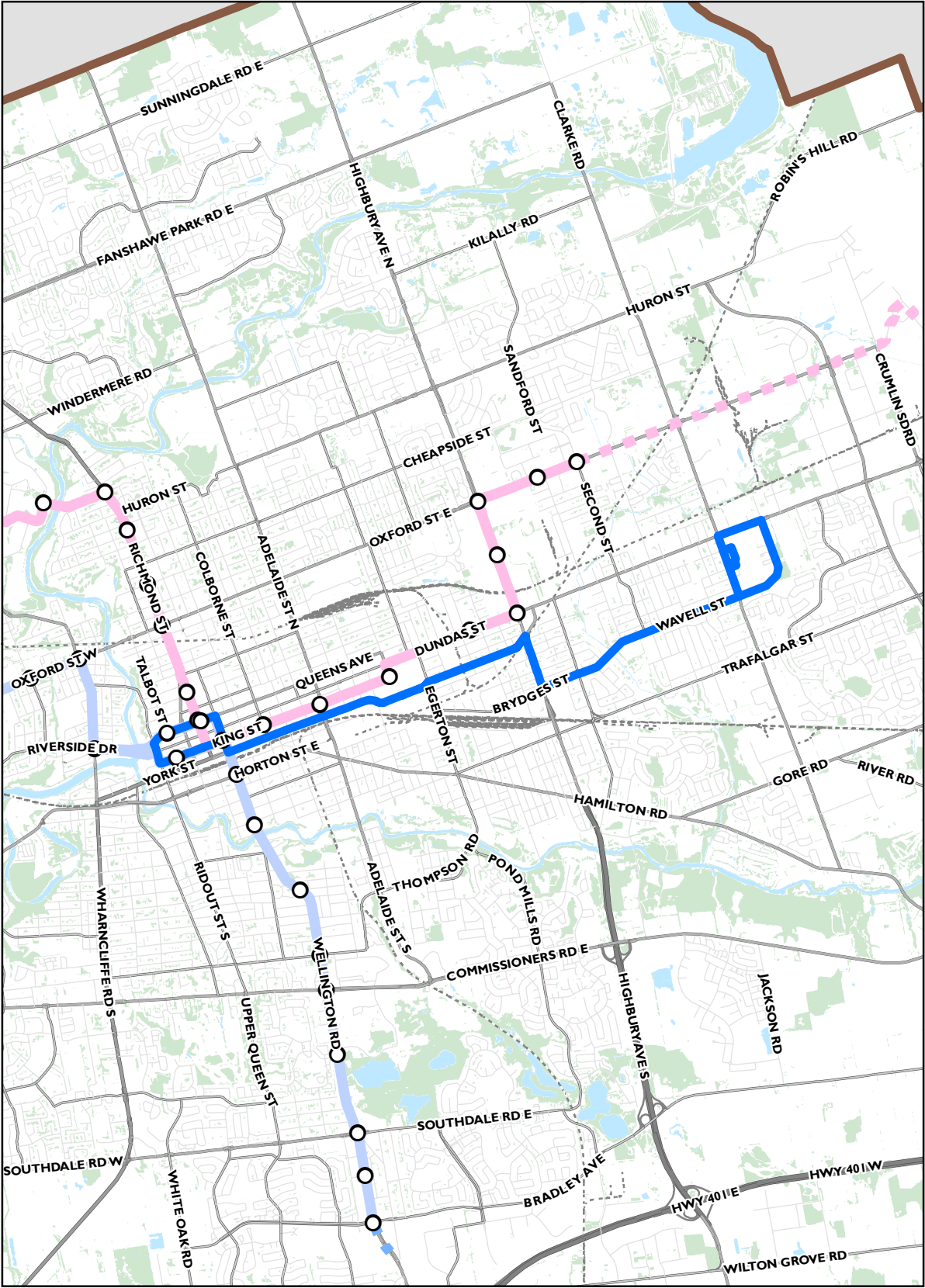
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EXISTING 2018	30	30	30	30	30	30	35	30	20	30	30	30	30	30
PROPOSED 2035	20	15	20	15	20	30	35	20	20	30	30	30	20	30

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 7

- LTC Bus Route
- BRT Station
- Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

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MAP CHECKED BY: DAK
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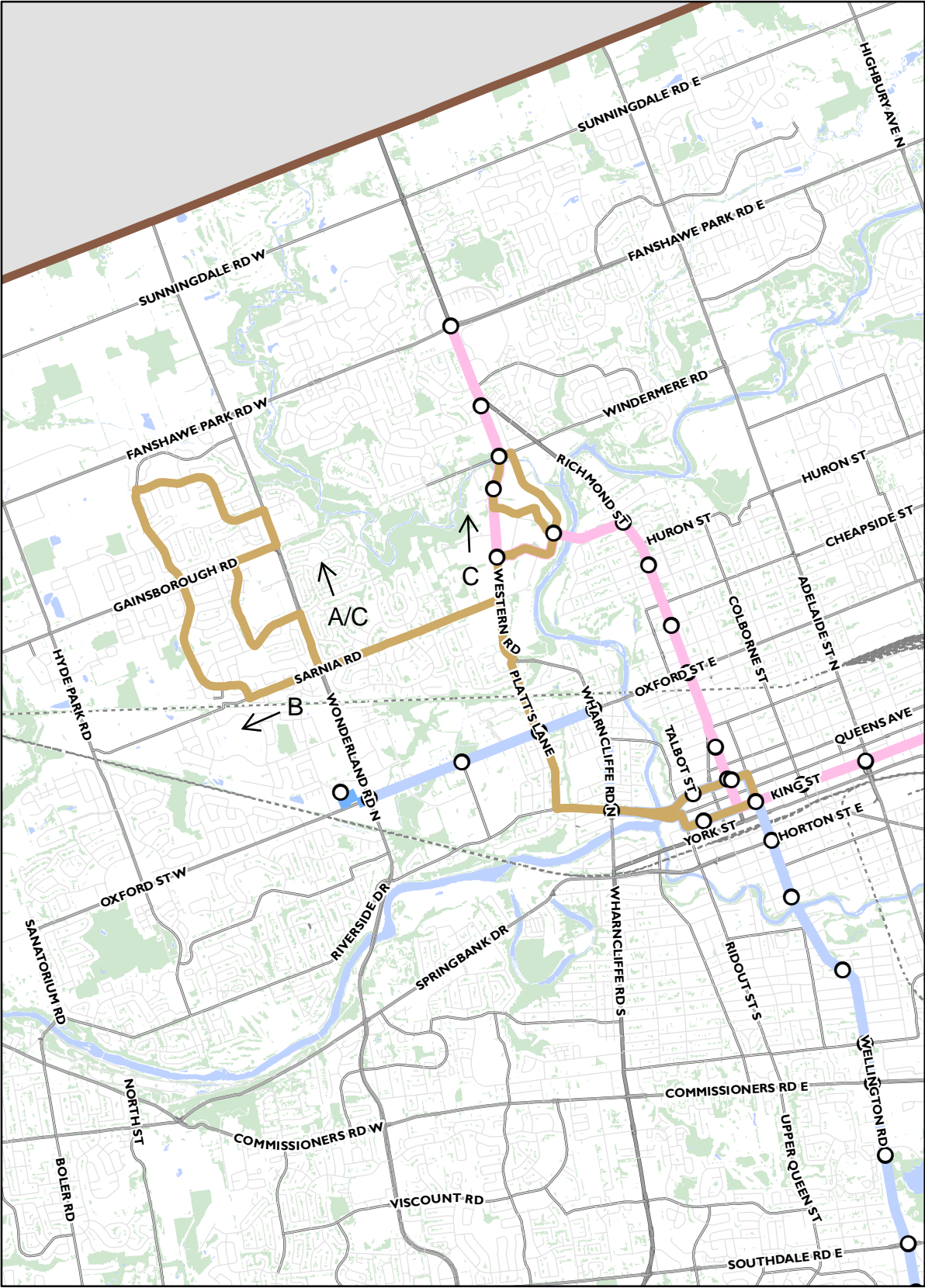
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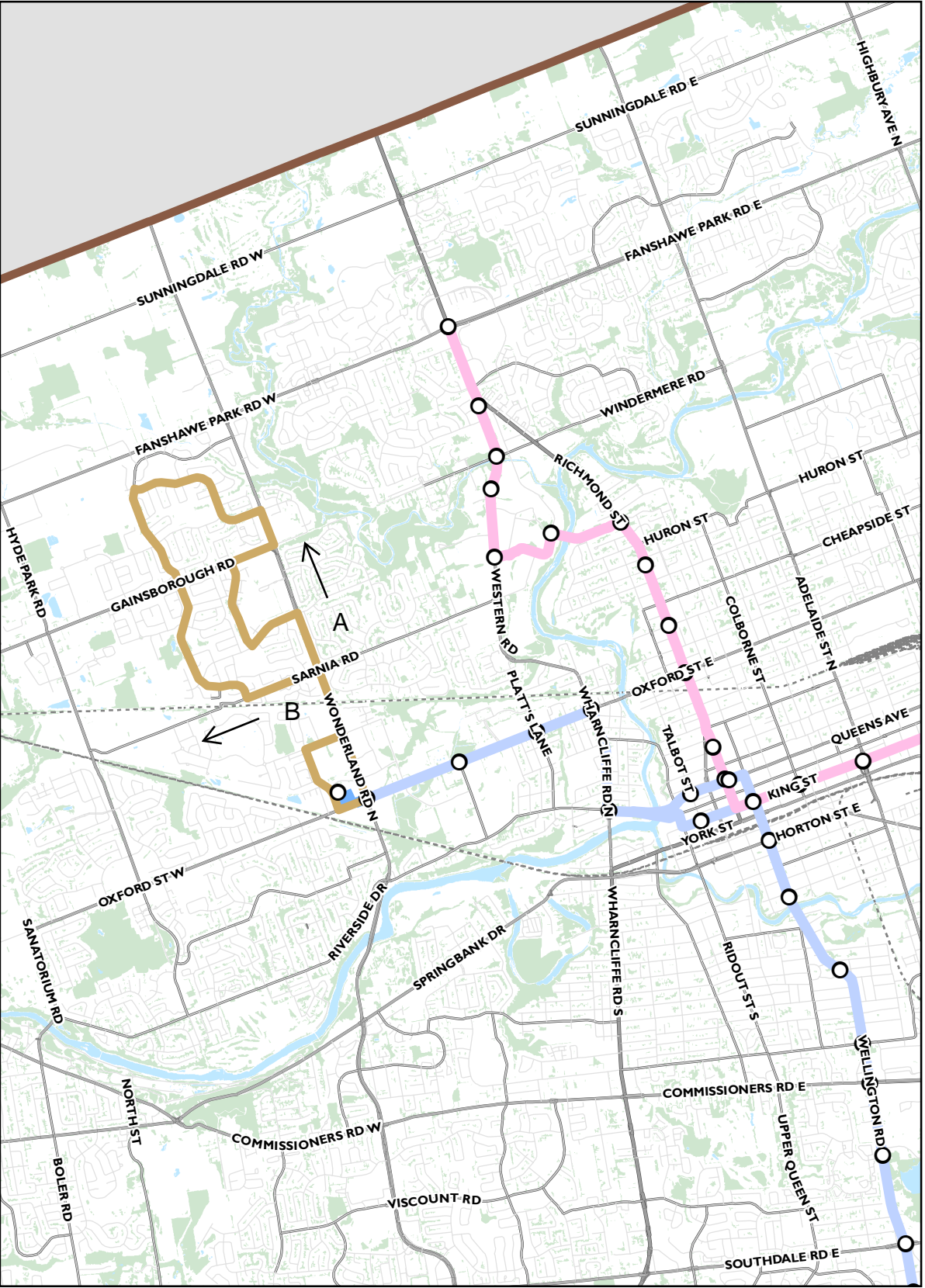
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EXISTING 2018	30	20	30	20	30	30	60	30	30	30	30	-	30	30
PROPOSED 2035	30	20	30	20	30	30	60	30	30	30	30	-	30	30

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 9

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
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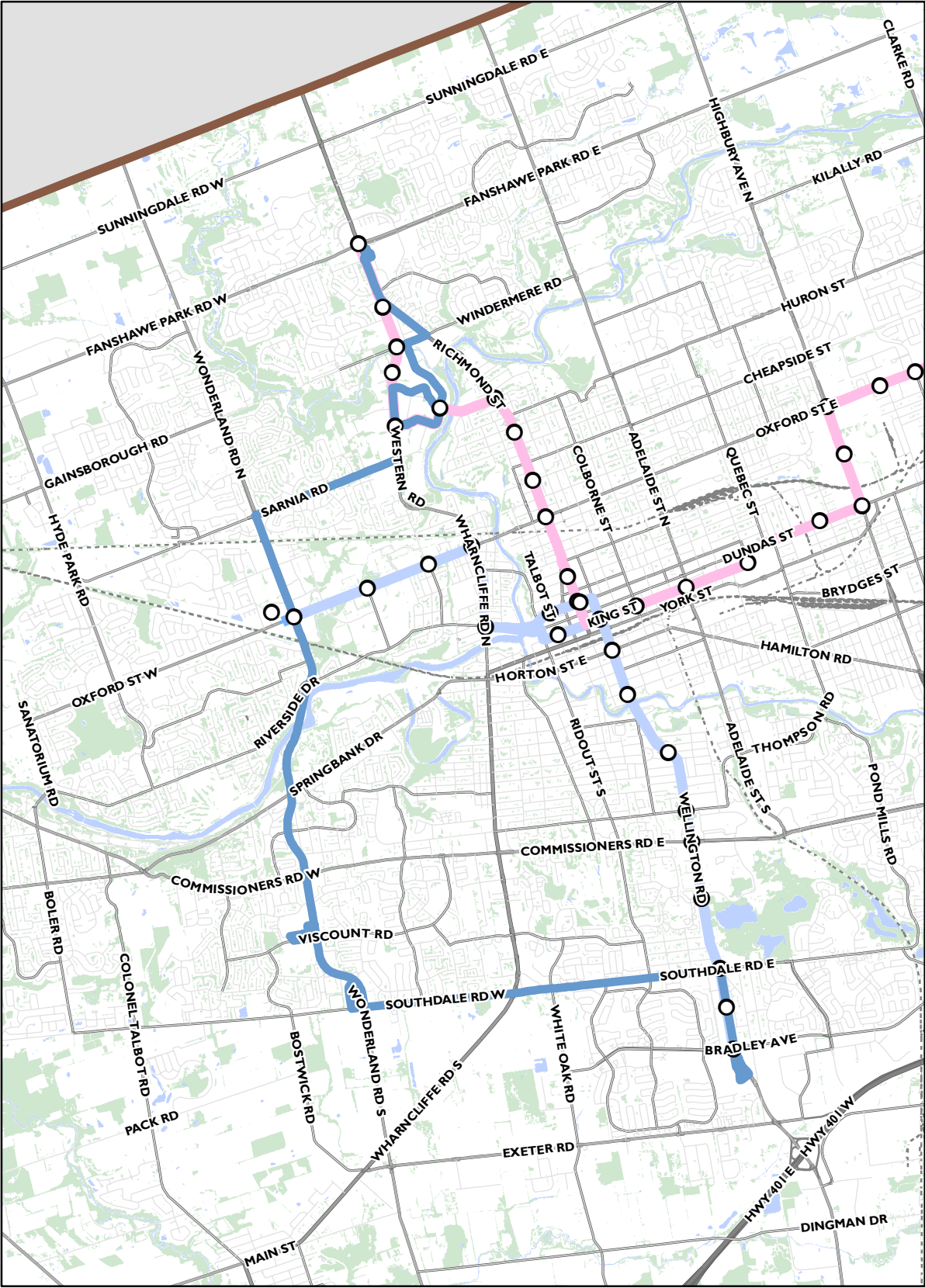
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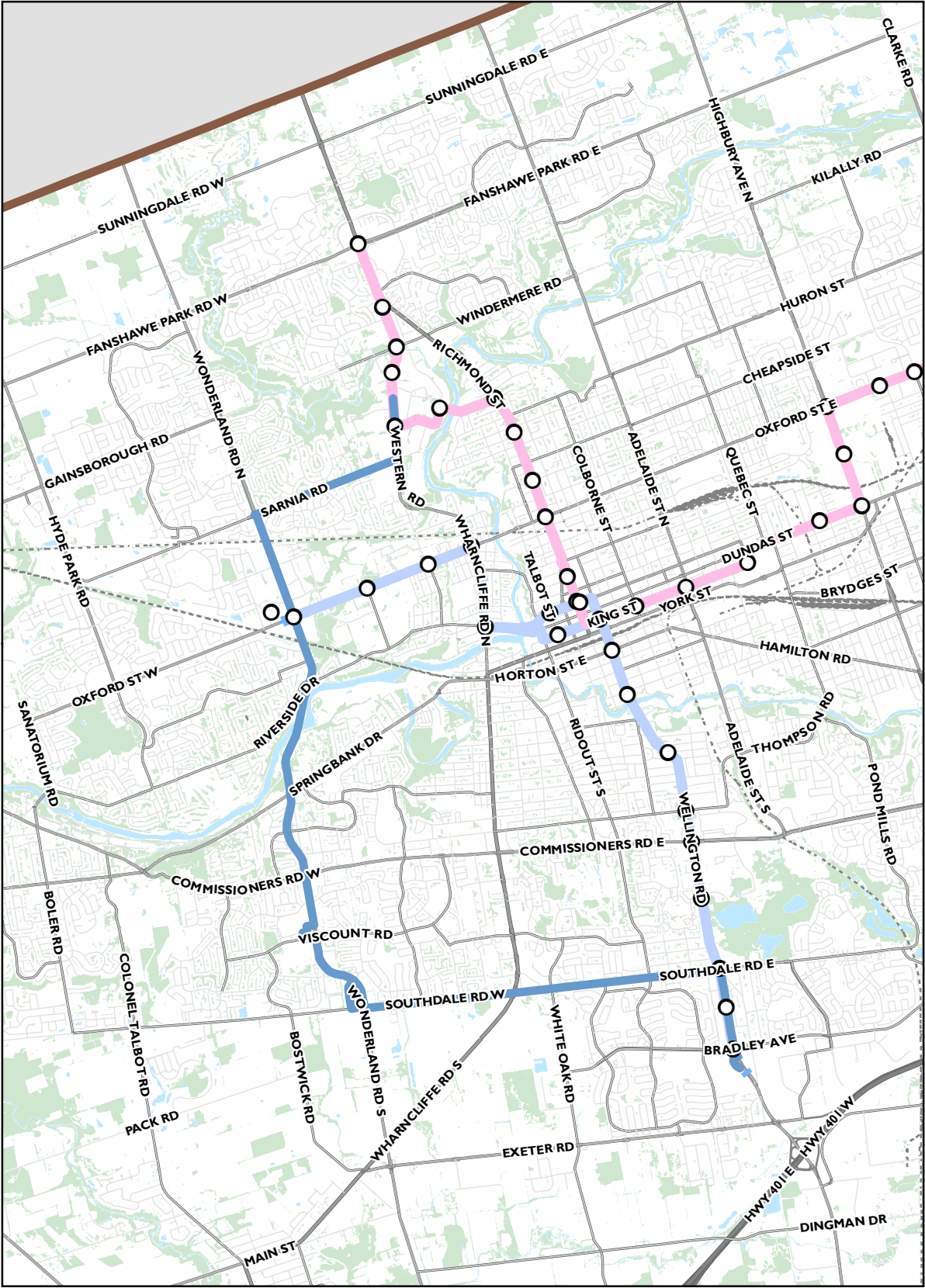
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EXISTING 2018	15	15	15	15	30	30	30	30	30	30	30	30	30	30
PROPOSED 2035	15	15	15	15	30	30	30	20	20	30	30	30	20	30

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 10

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

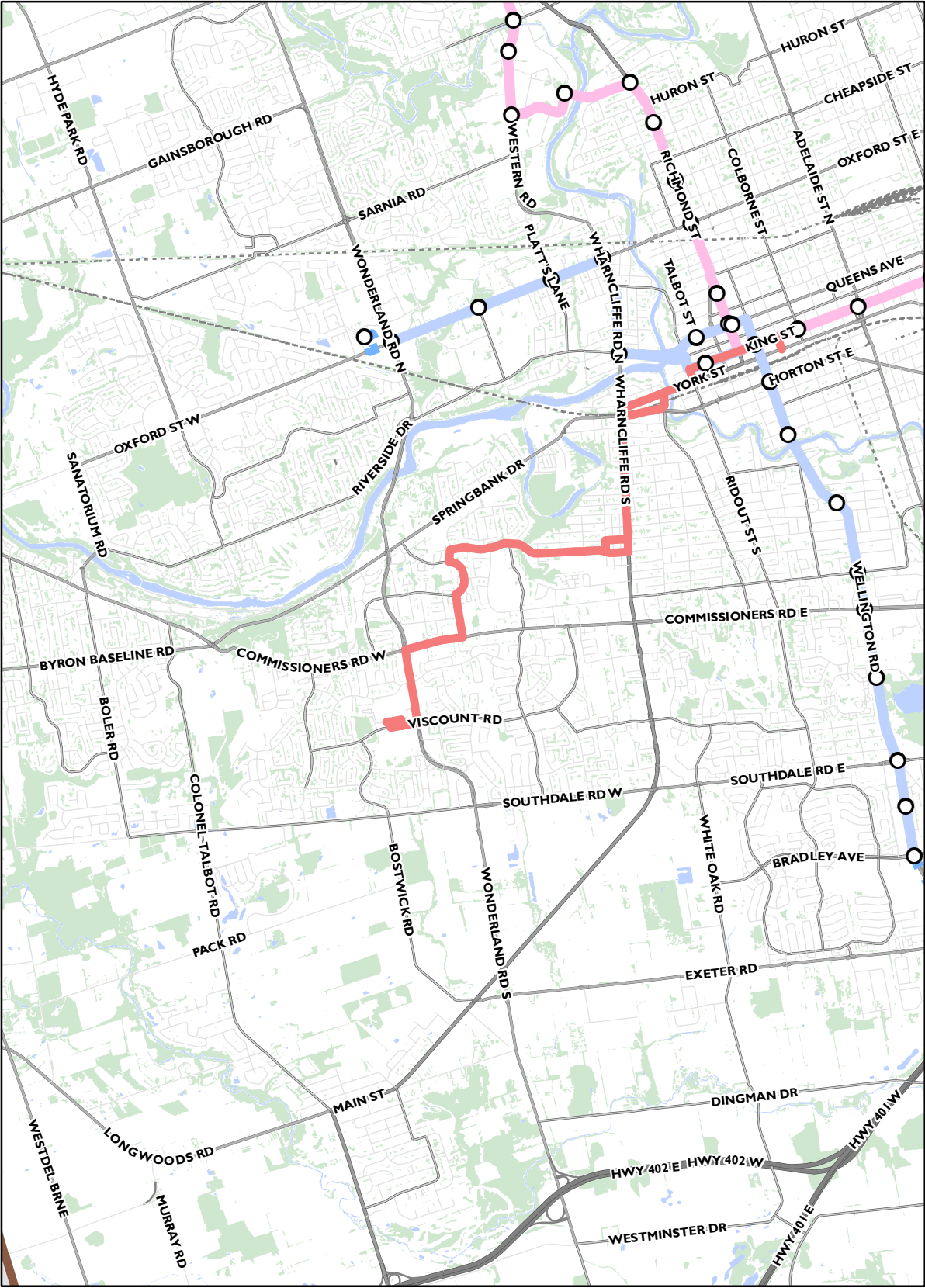
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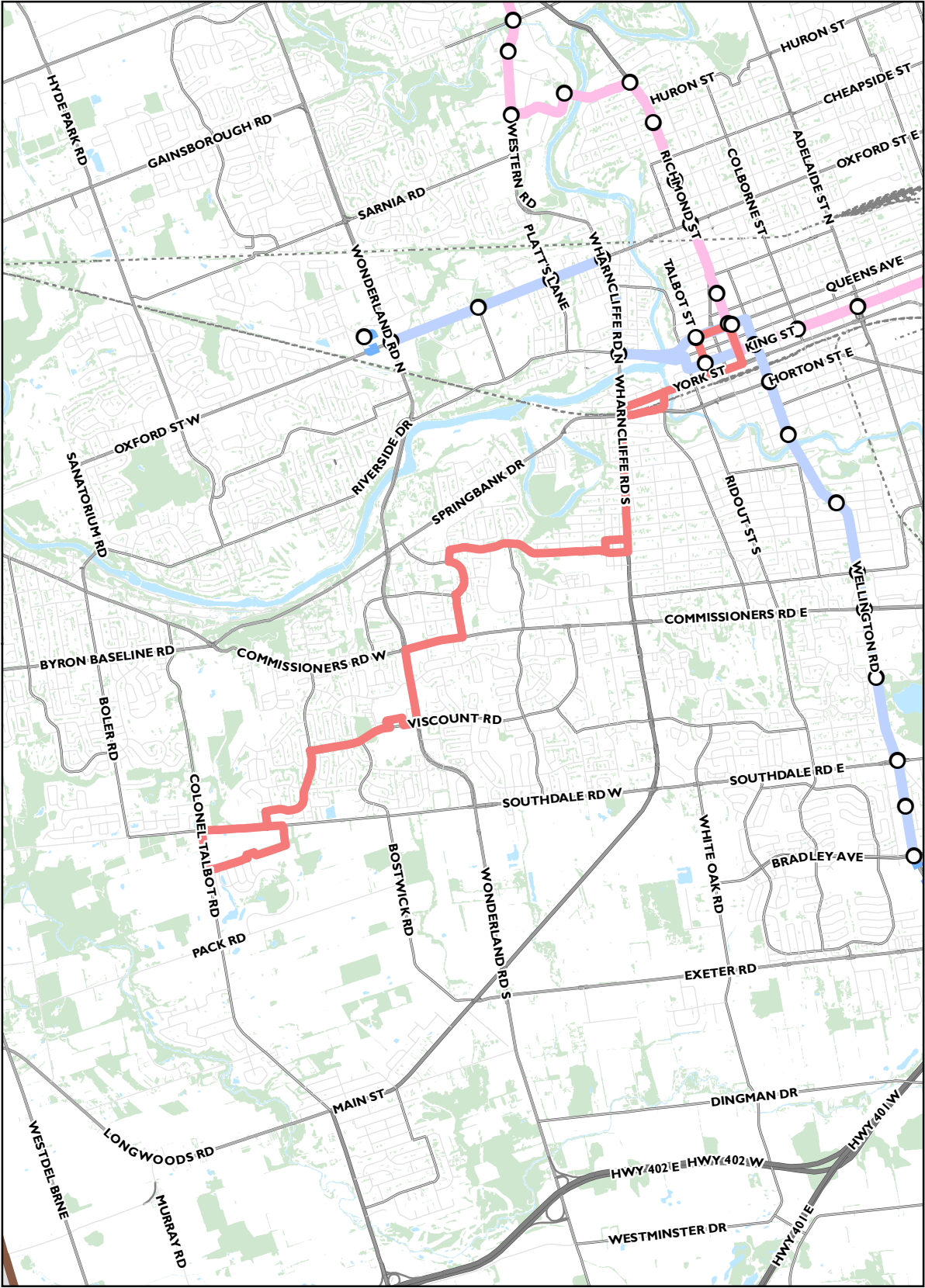
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EXISTING 2018	30	20	30	20	30	30	60	30	30	30	30	45	30	60
PROPOSED 2035	30	20	20	20	20	30	60	20	20	30	30	45	30	30

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 11

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

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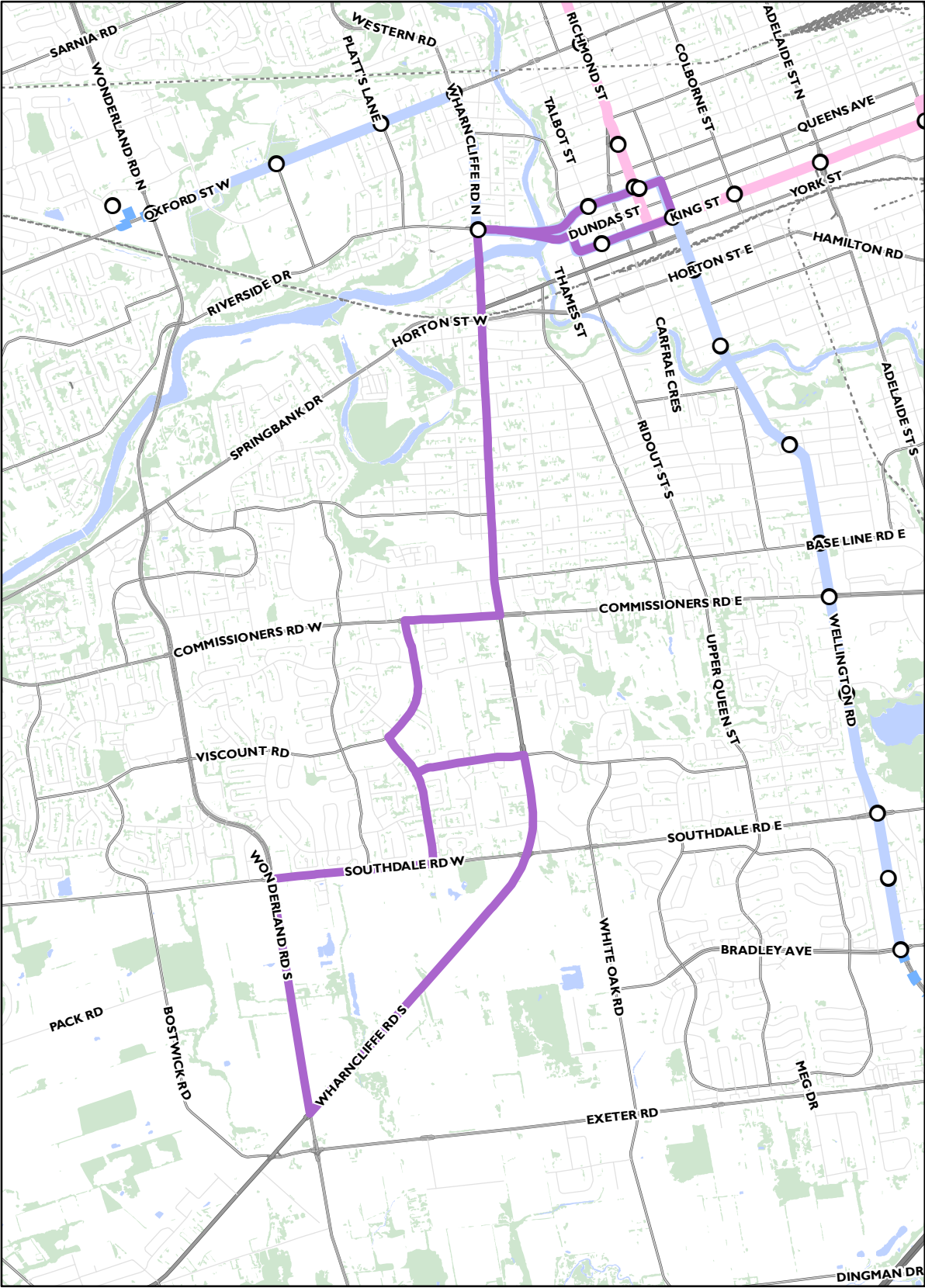
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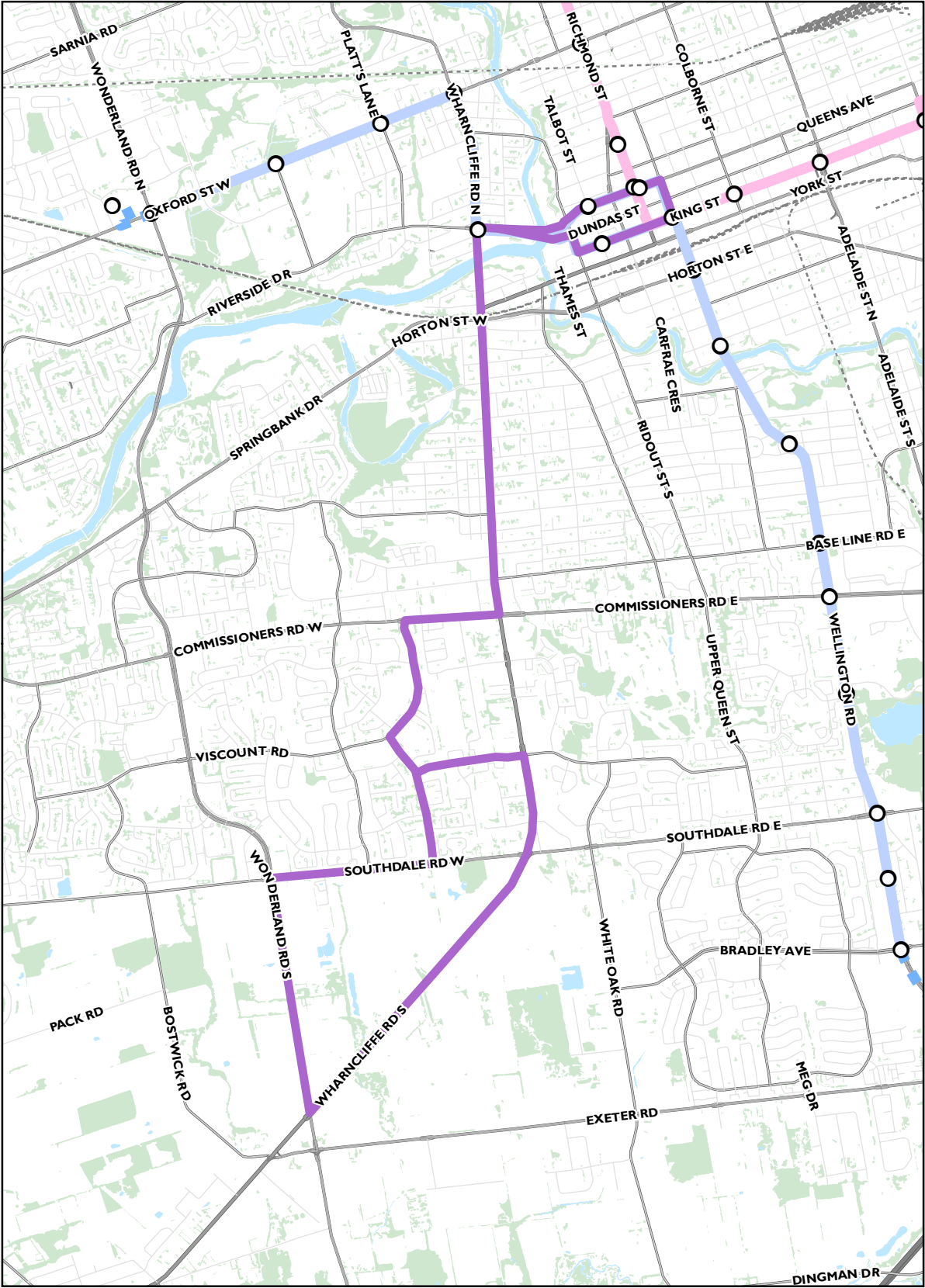
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EXISTING 2018	30	20	30	20	30	60	60	30	30	30	60		30	60
PROPOSED 2035	30	20	30	20	30	60	60	30	30	30	60		30	60

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 12

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
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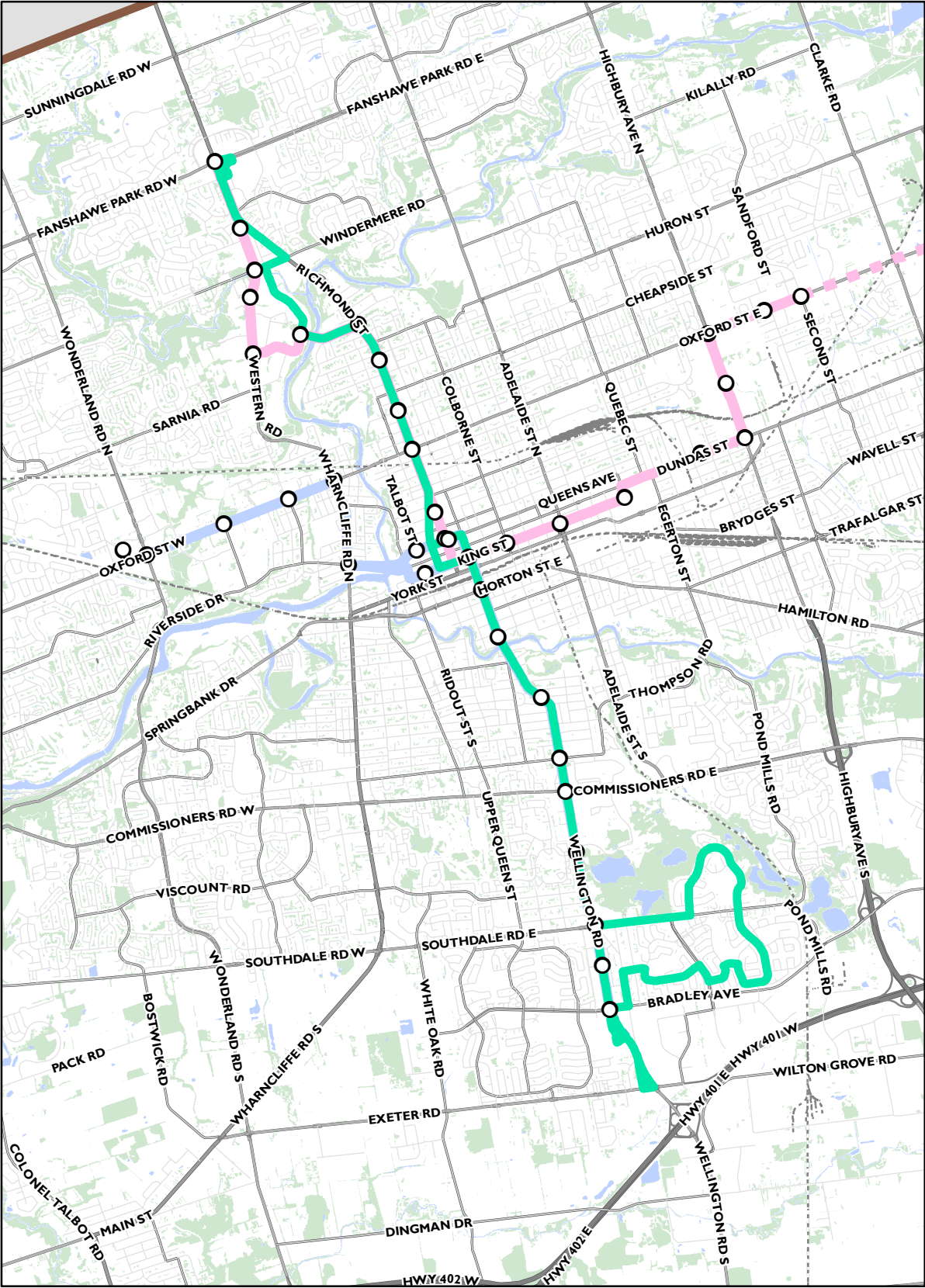
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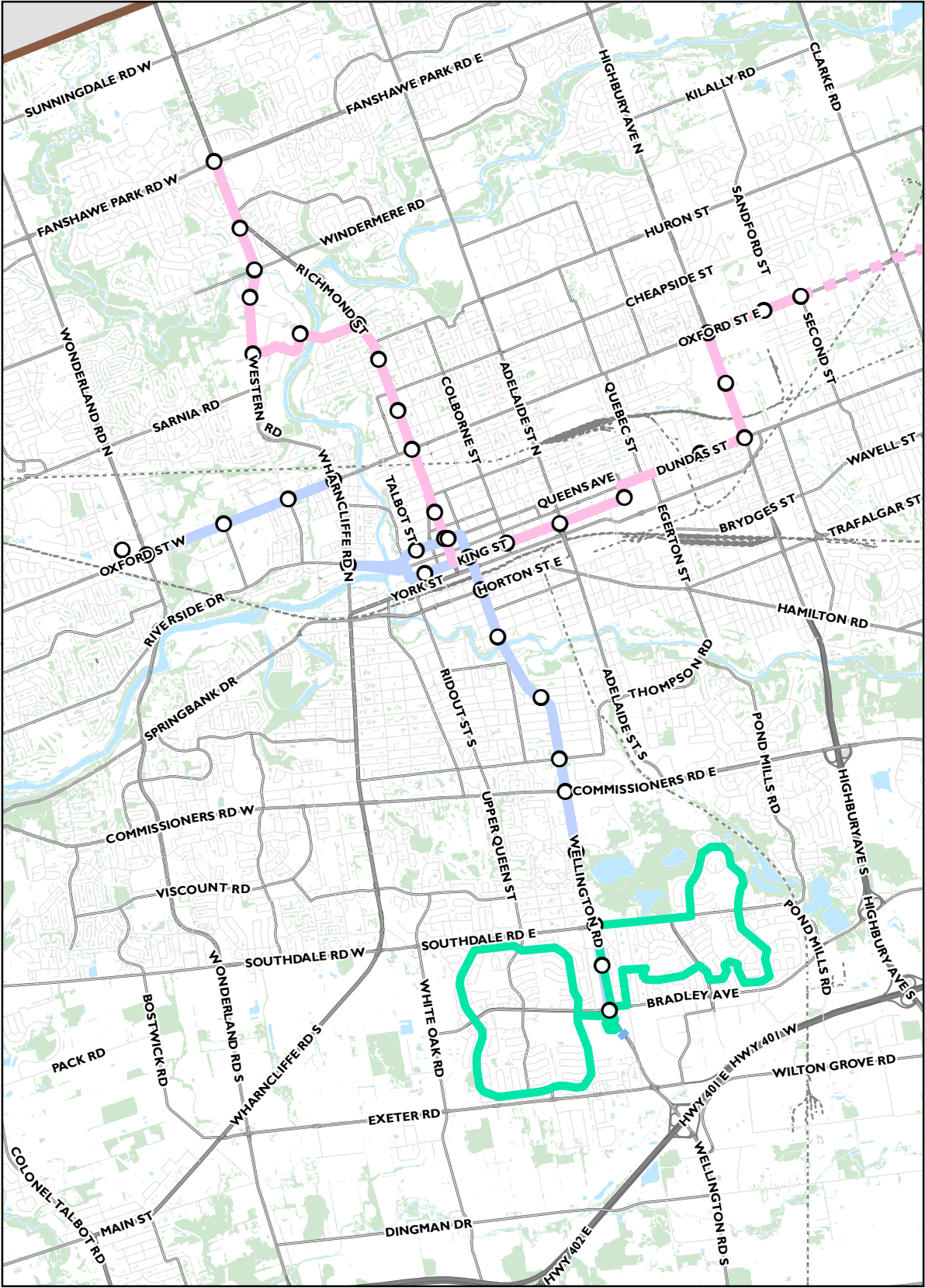
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	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	20	30	20	30	60	60	30	30	30	60	60	60	60
PROPOSED 2035	30	20	30	20	30	60	60	30	30	30	60	60	60	60

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 13

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

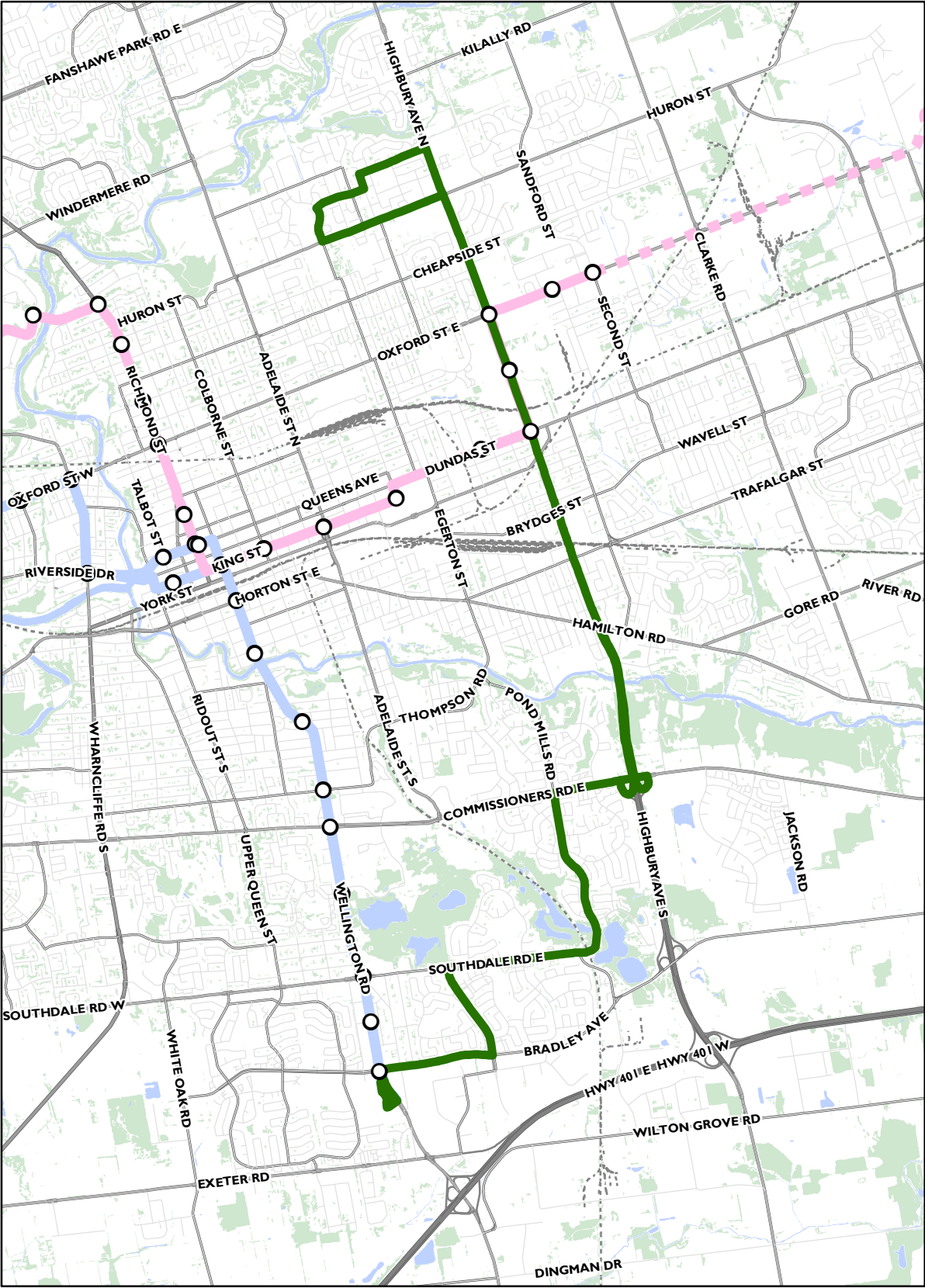
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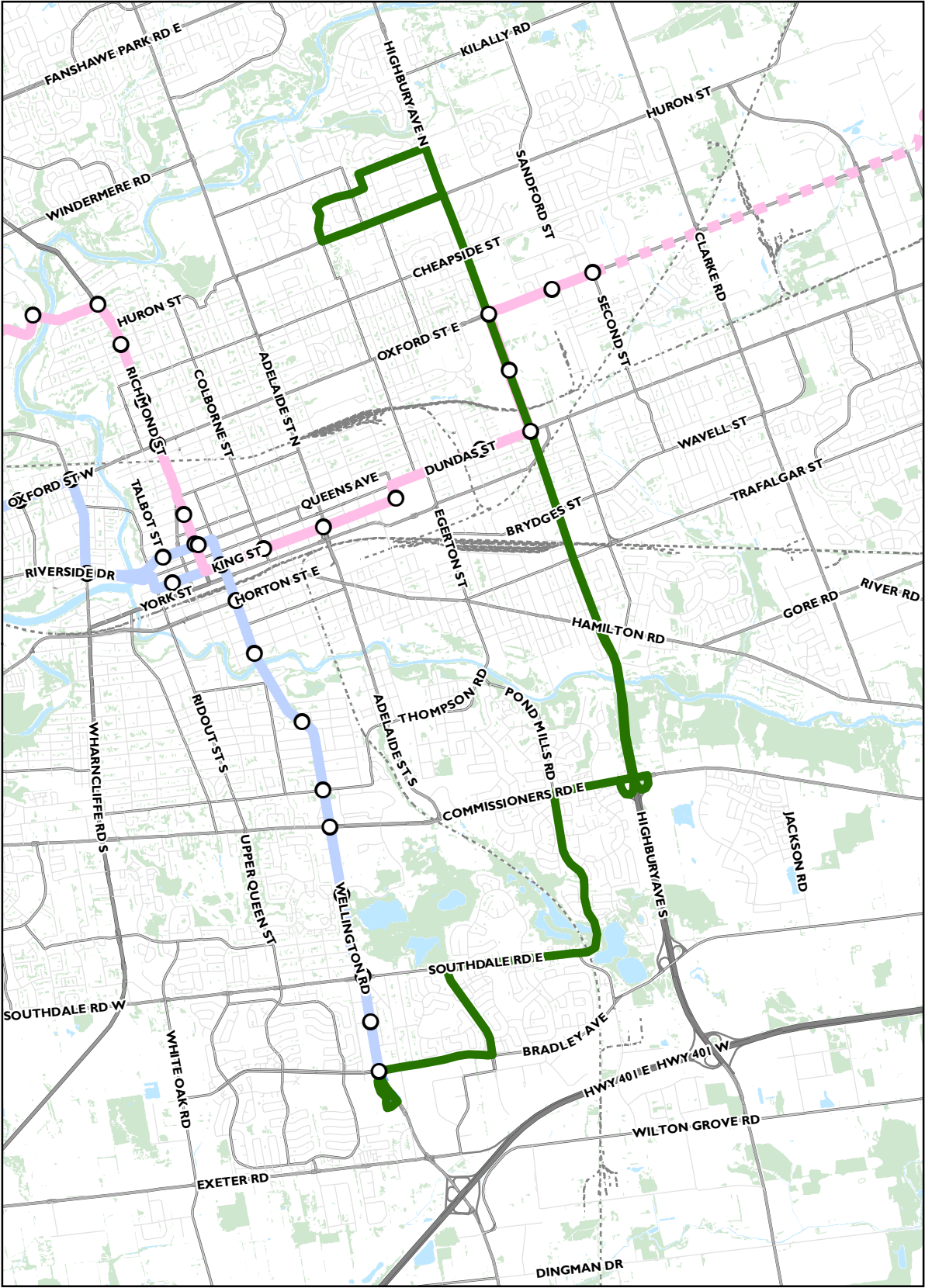
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	15	15	15	15	20	30	30	20	15	20	30	35	30	30
PROPOSED 2035	15	15	15	15	20	30	30	20	15	20	30	30	20	30

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 14

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

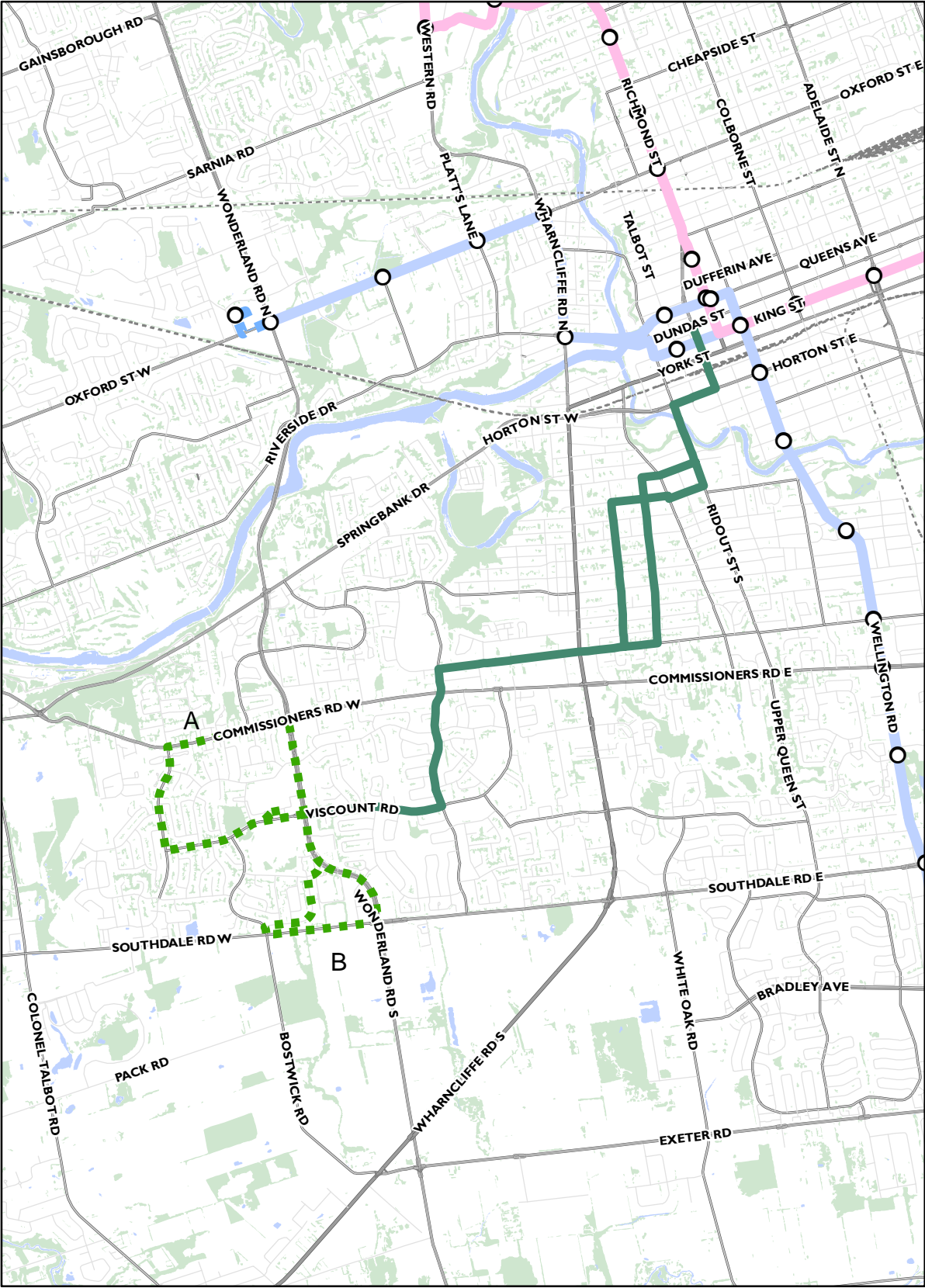
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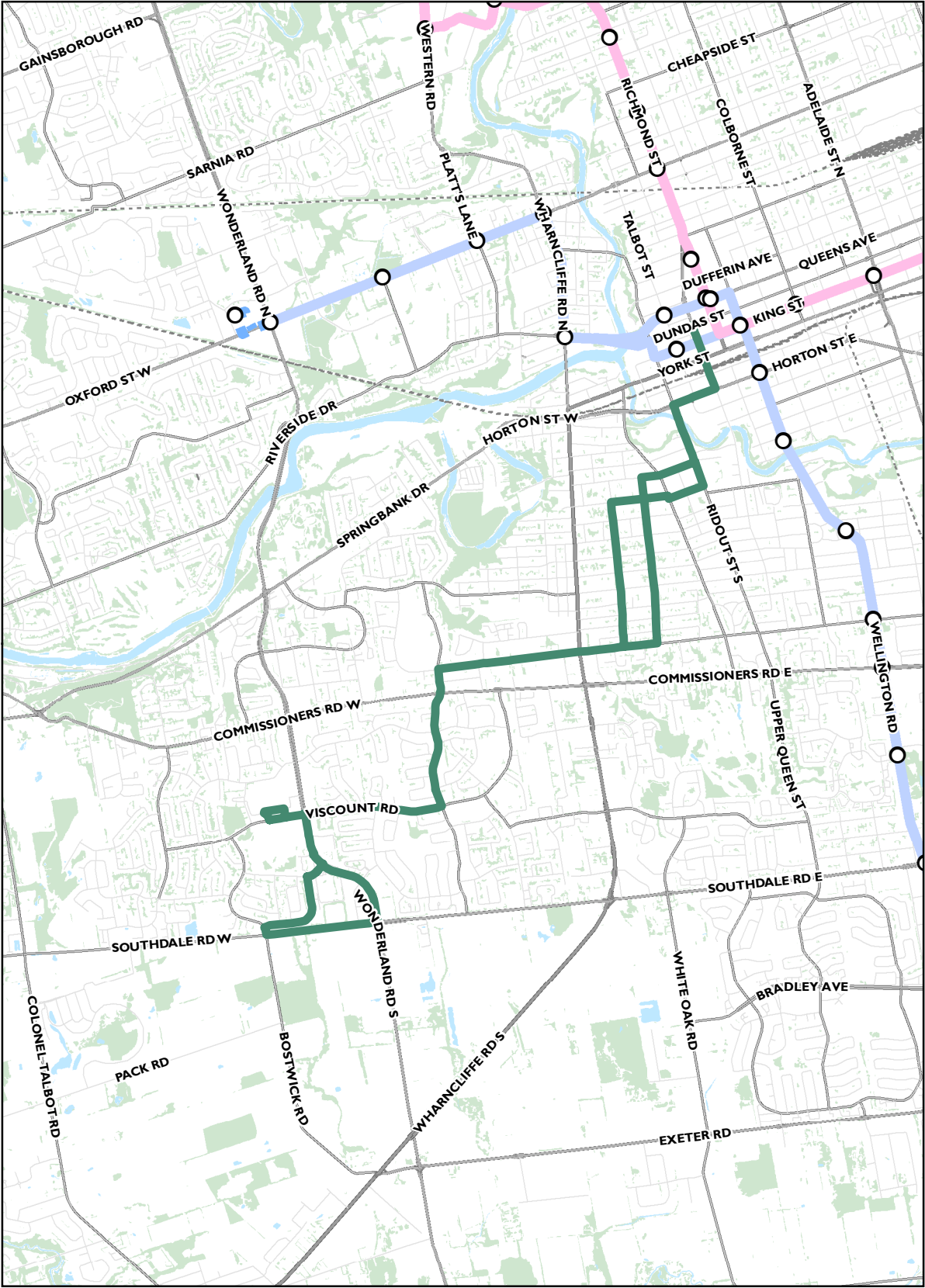
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STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	20	30	20	30	30	60	30	30	30	30	45	30	60
PROPOSED 2035	30	20	20	20	20	30	60	20	20	30	30	45	30	30

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 15

- LTC Bus Route
- BRT Station
- Municipal Boundary
- Alternative Service Delivery Areas
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037

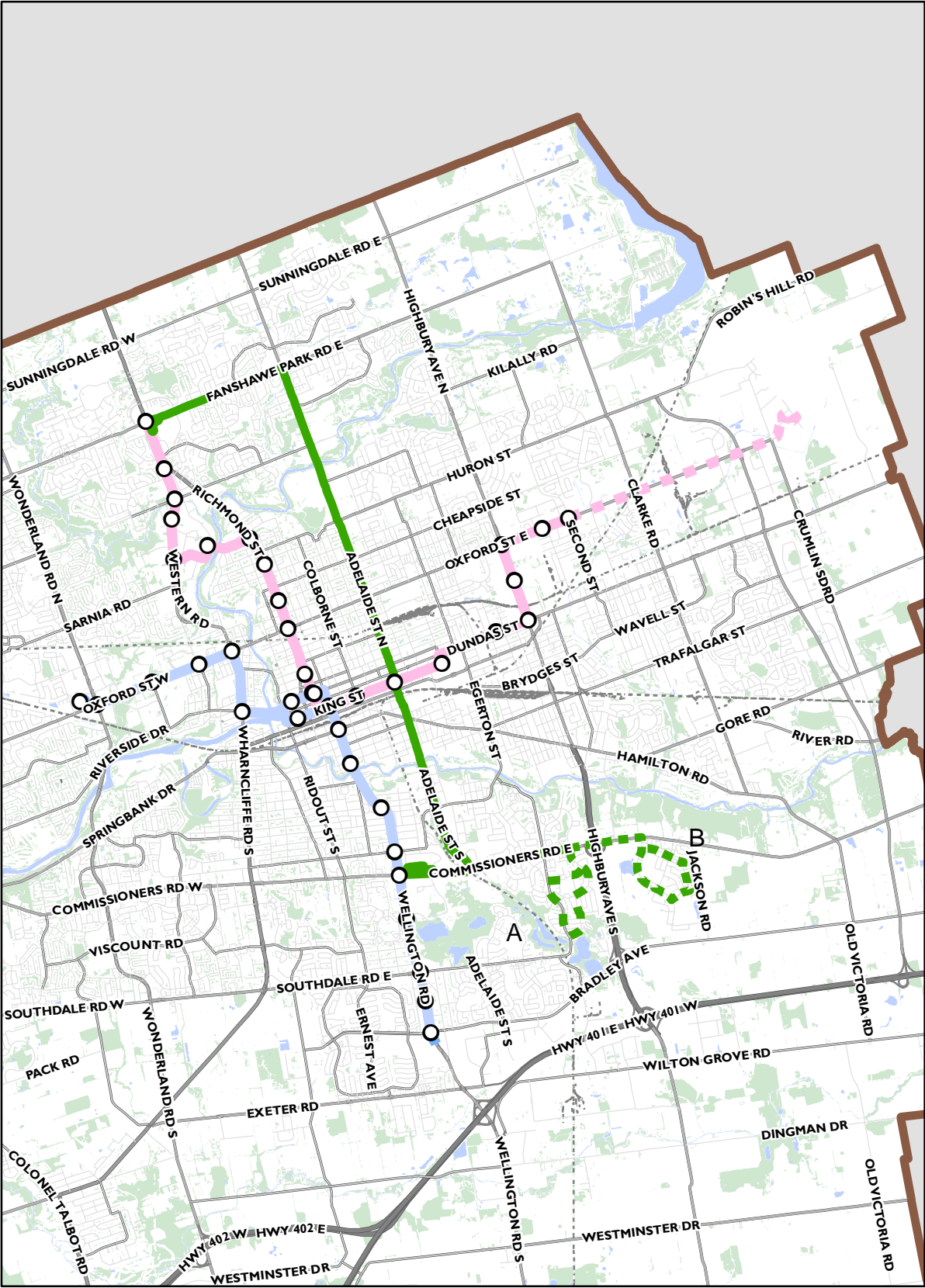


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DATE: 2018-09-24

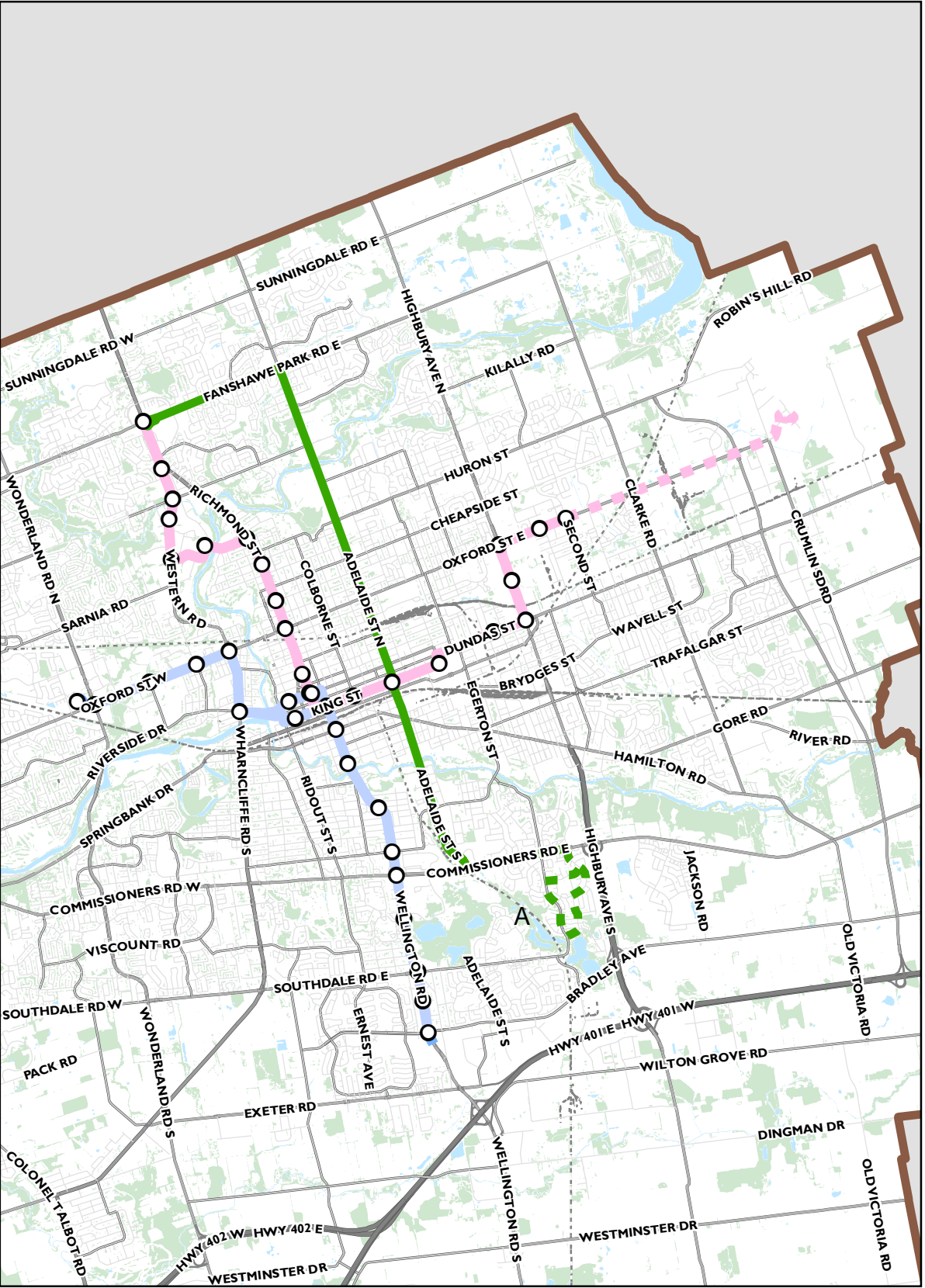
	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	15	15	15	15	20	30	30	30	20	30	30	60	30	30
PROPOSED 2035	15	15	15	15	20	30	30	30	20	30	30	60	30	30

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 16

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037

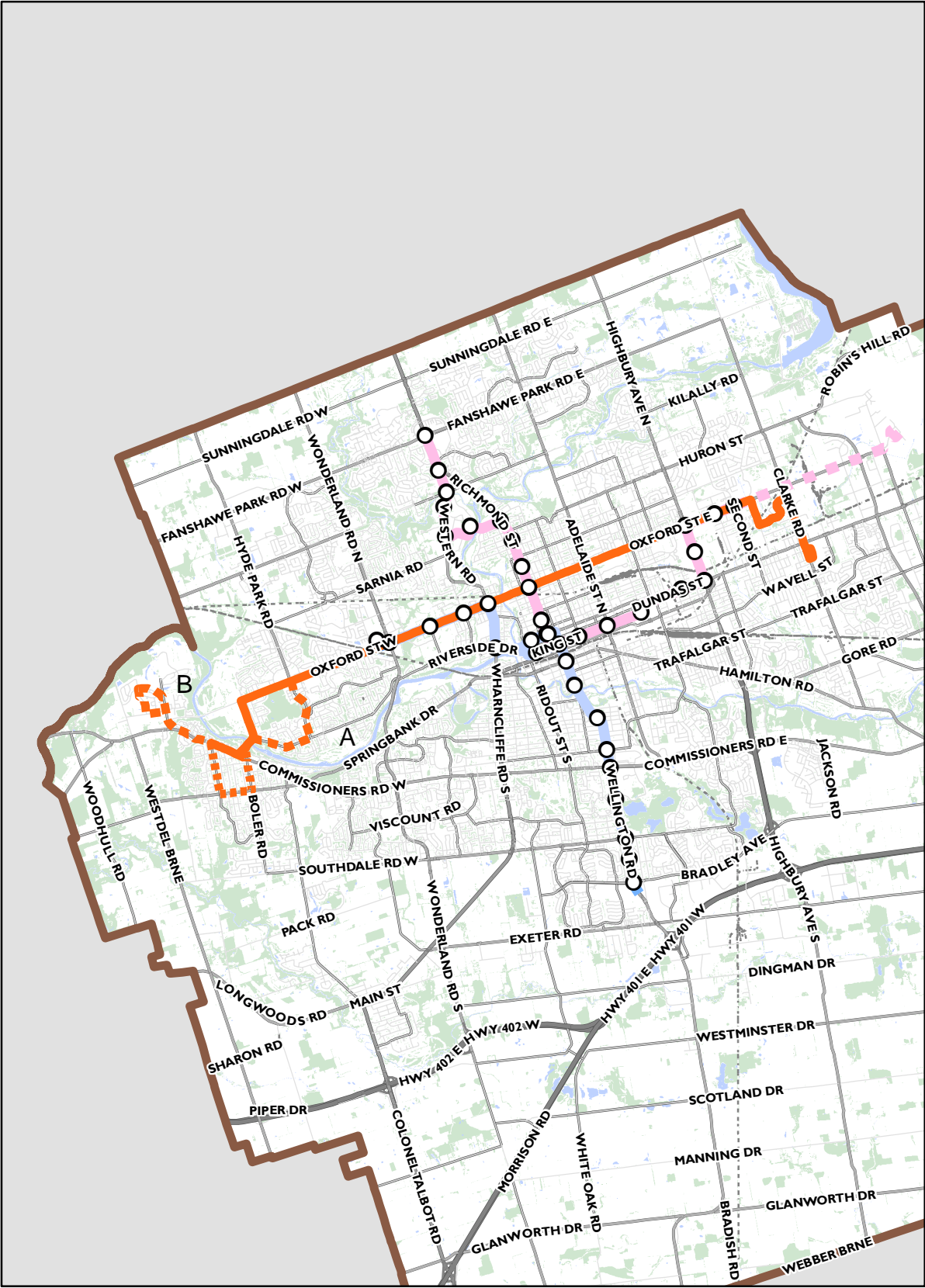


PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-25

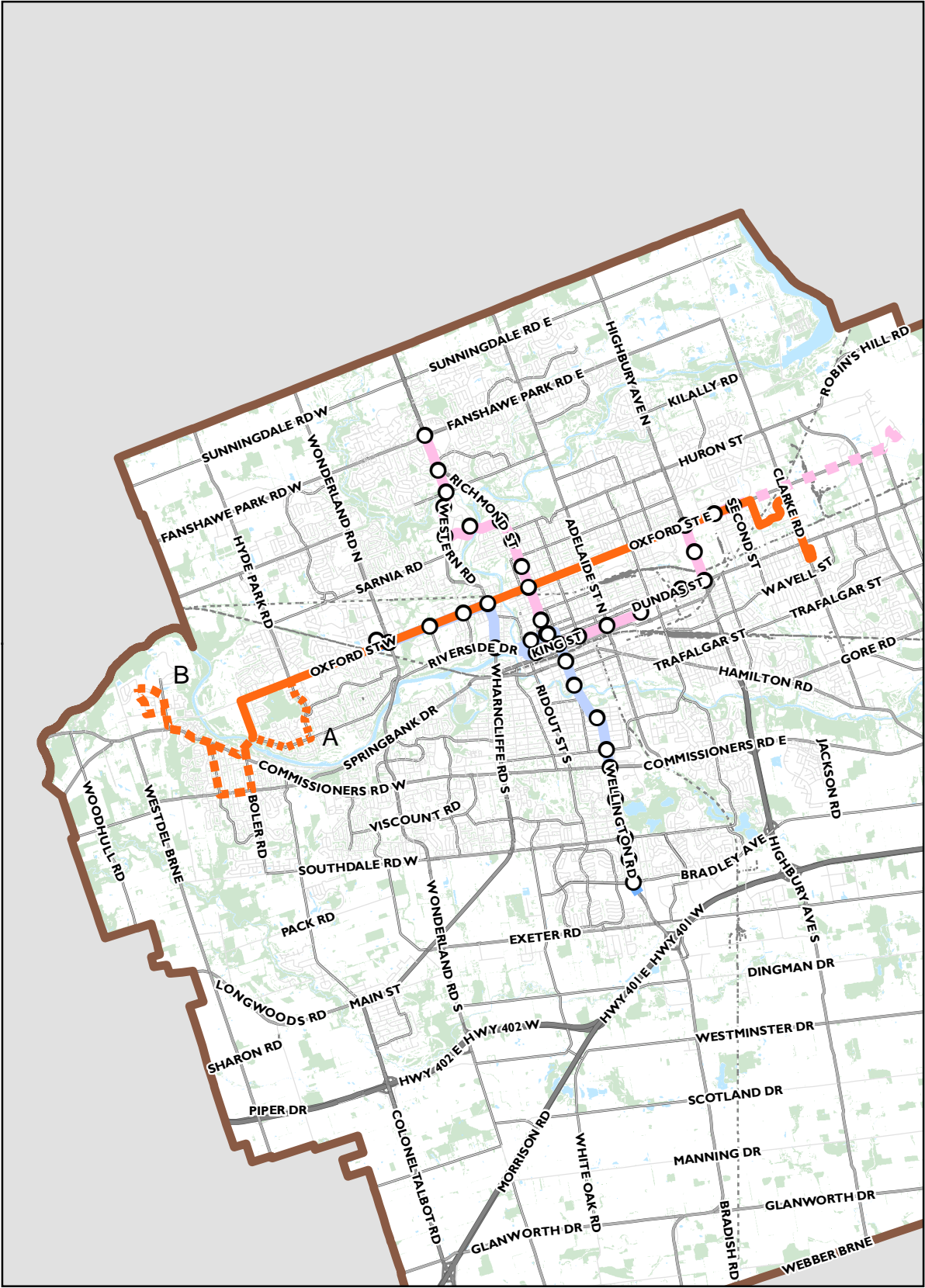
	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	20	20	20	20	30	30	20	25	20	20	30	40	30	30
PROPOSED 2035	20	15	15	15	30	30	20	25	20	20	30	20	20	30

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 17

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037

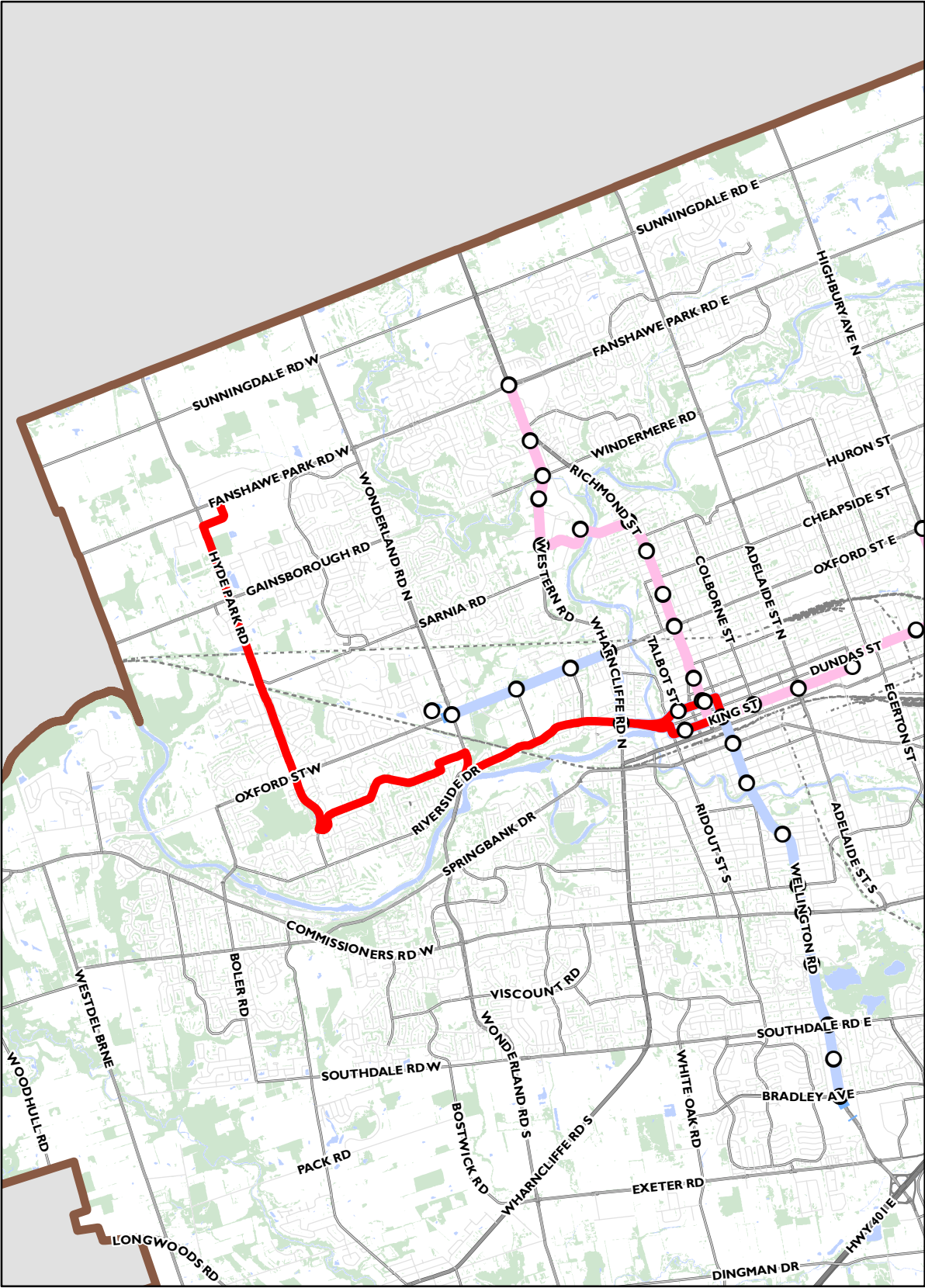


PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

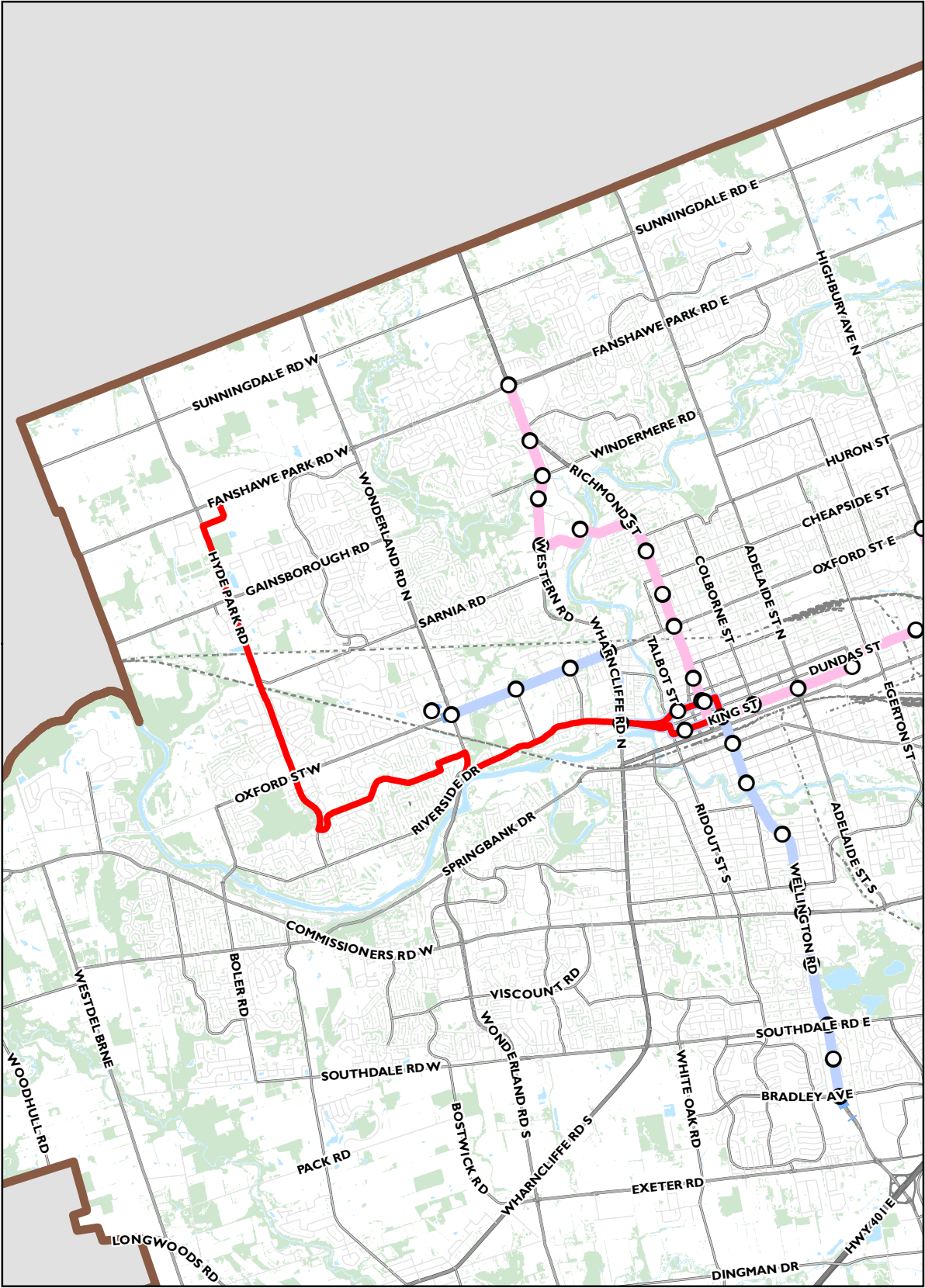
	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	20	20	20	20	30	30	30	30	30	30	35	30	40
PROPOSED 2035	30	20	20	20	20	30	30	30	30	30	30	35	30	40

Note: Dashed line represents a route pattern - anticipated to operated at half the headway as the main line

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 19

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

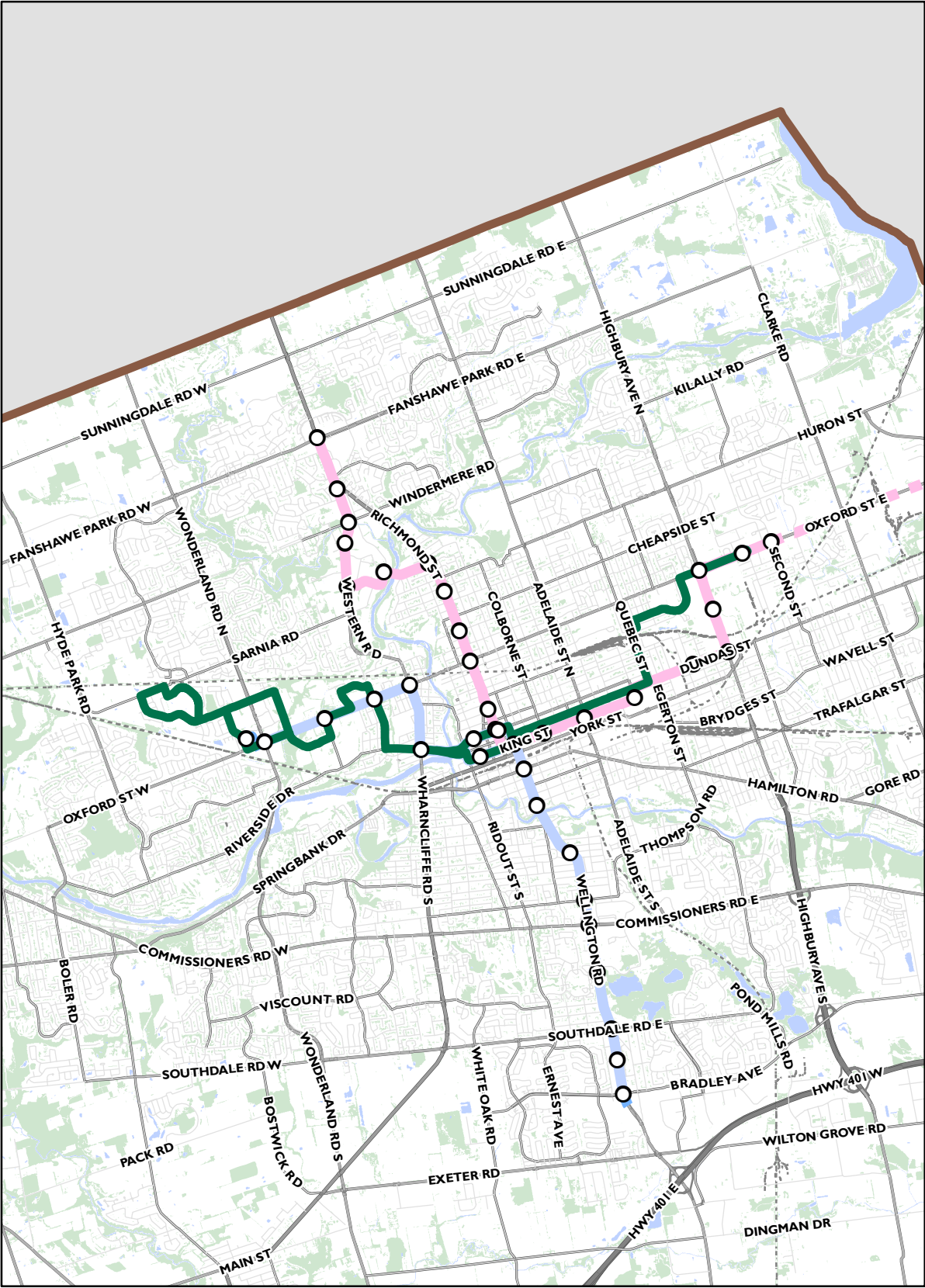
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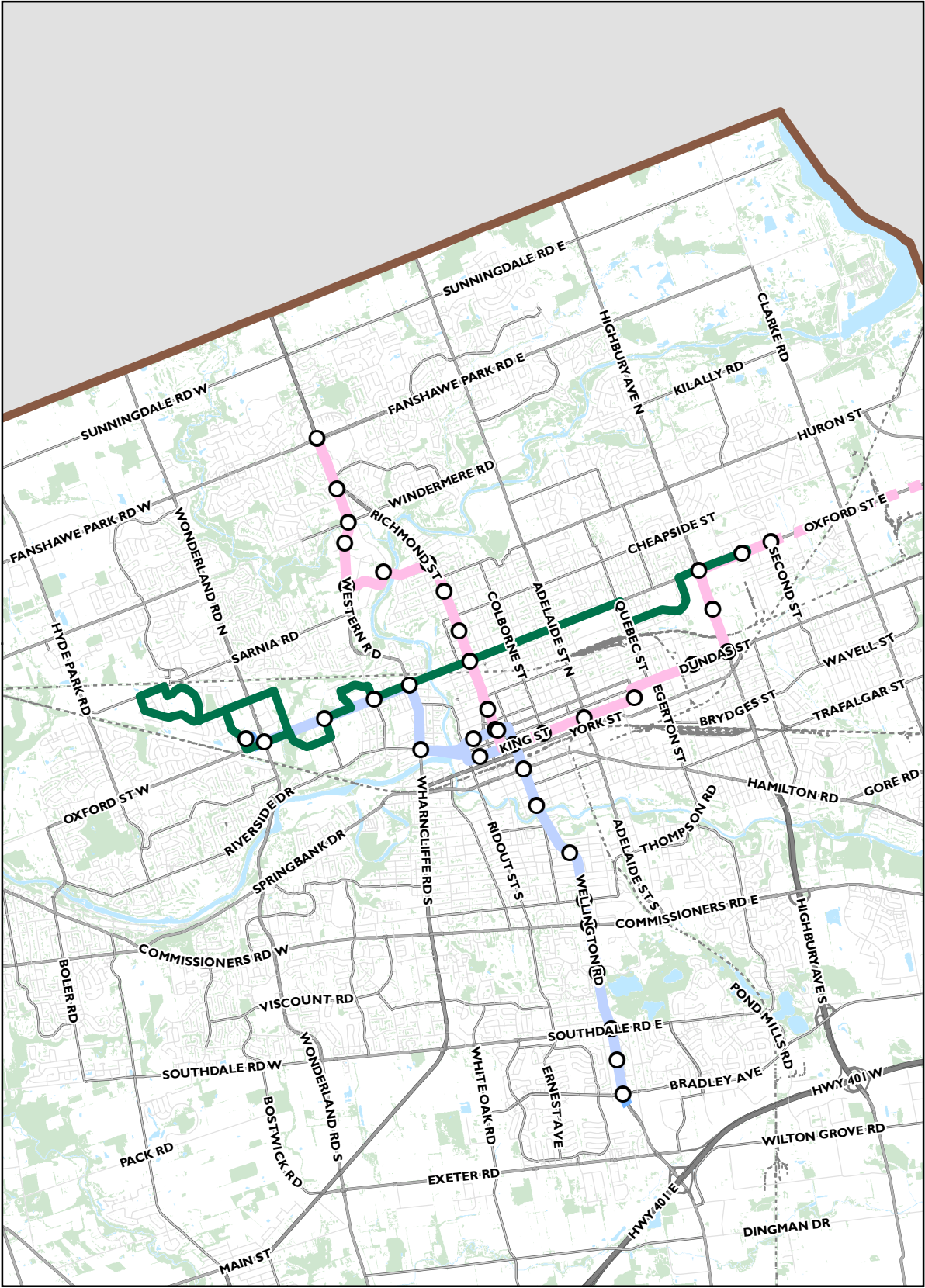
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-25

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30	60	0	45	30	30	60		-	60	0
PROPOSED 2035	30	15	20	15	30	30	45	30	30	30	60	-	30	60

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 20

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

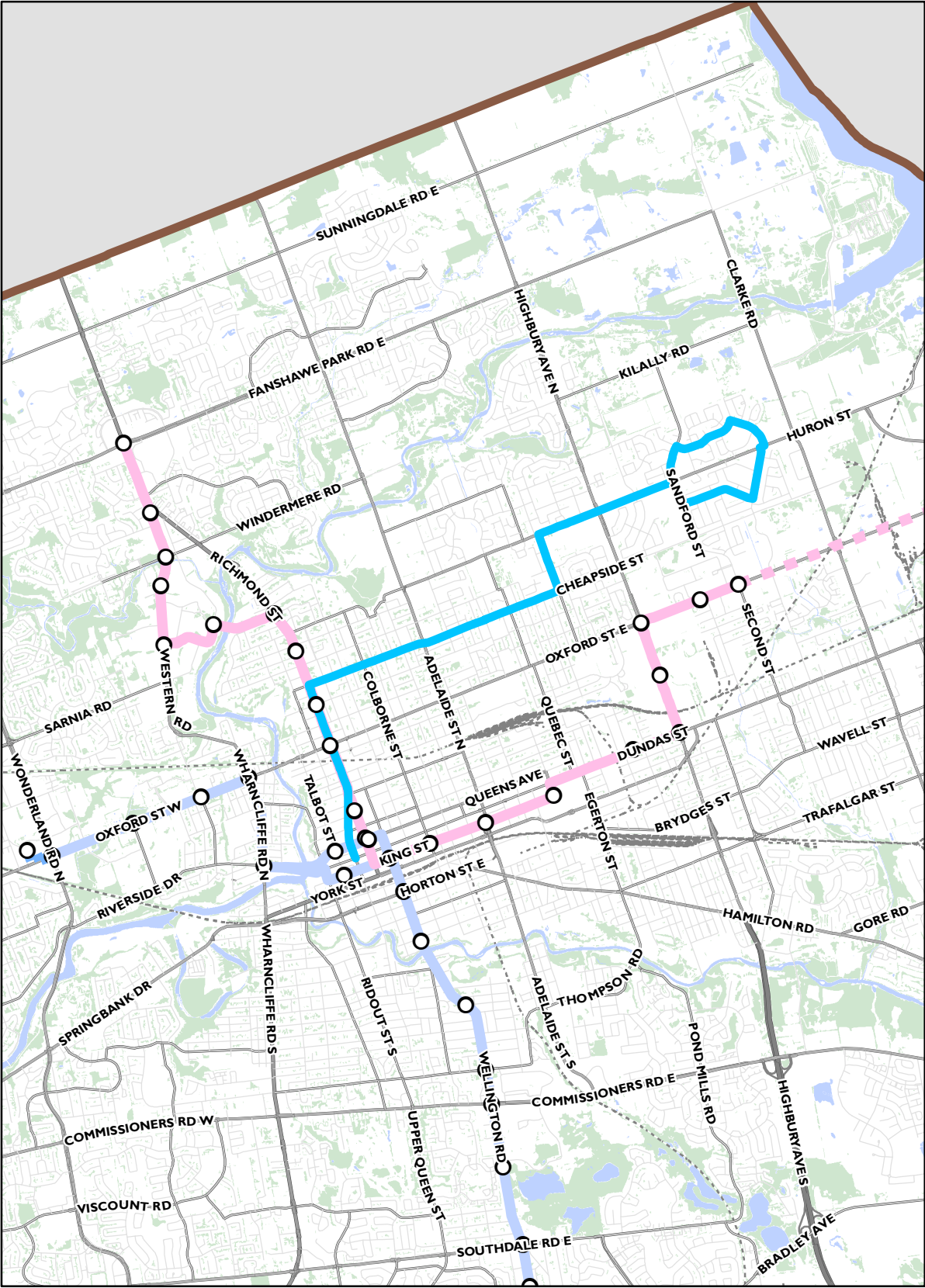
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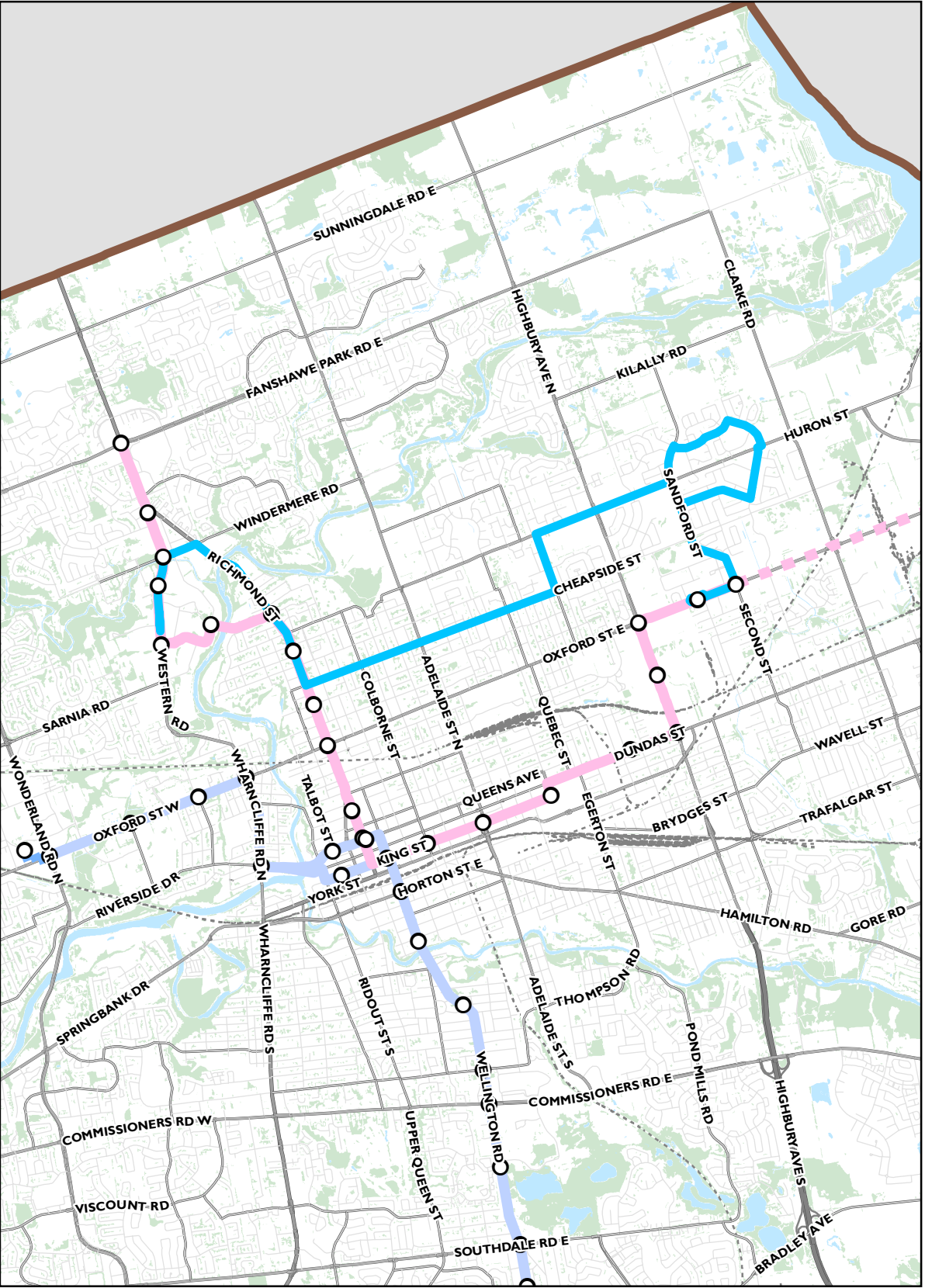
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	15	20	15	20	30	40	30	20	30	30	45	30	30
PROPOSED 2035	30	15	20	15	20	30	40	20	20	30	30	40	30	30

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 21

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- - Airport Extension
- South-West Route (Mixed Traffic)
- - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



PROJECT: 188035

STATUS: DRAFT

DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	15	15	15	15	30	30	30	30	15	15	30		30	30
PROPOSED 2035	15	10	15	10	30	30	30	30	15	15	30		30	30

The map displays the proposed rail alignment for the Ontario Line in the City of London, Ontario. The alignment is shown as a pink line with blue segments, indicating the route from the west towards the city center. Key streets and landmarks are labeled, including Sunningdale Rd, Fanshawe Park Rd, Oxford St, and the waterfront area. The map also shows the existing rail corridor and the proposed extension to the city center.

[illegible]

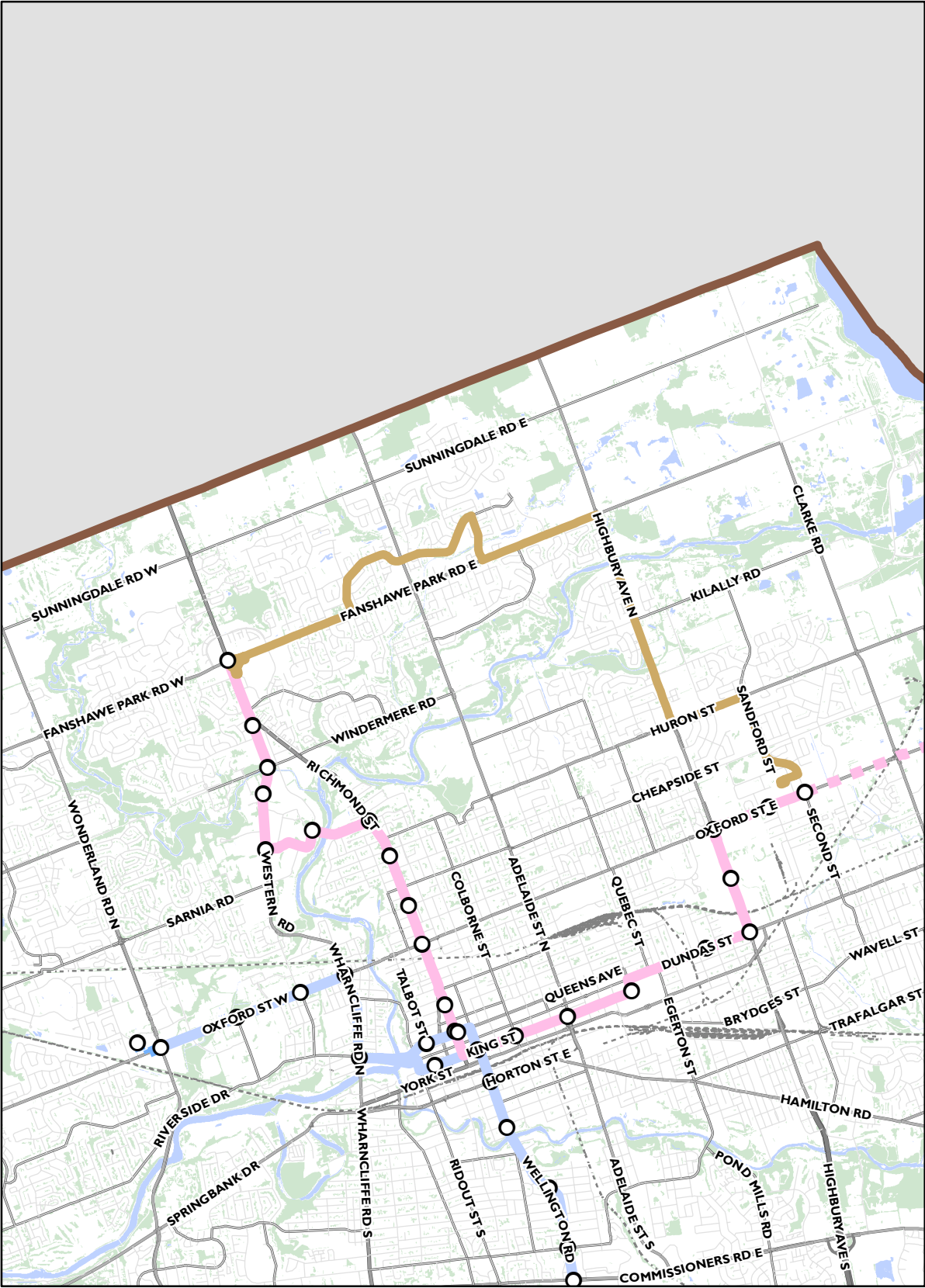
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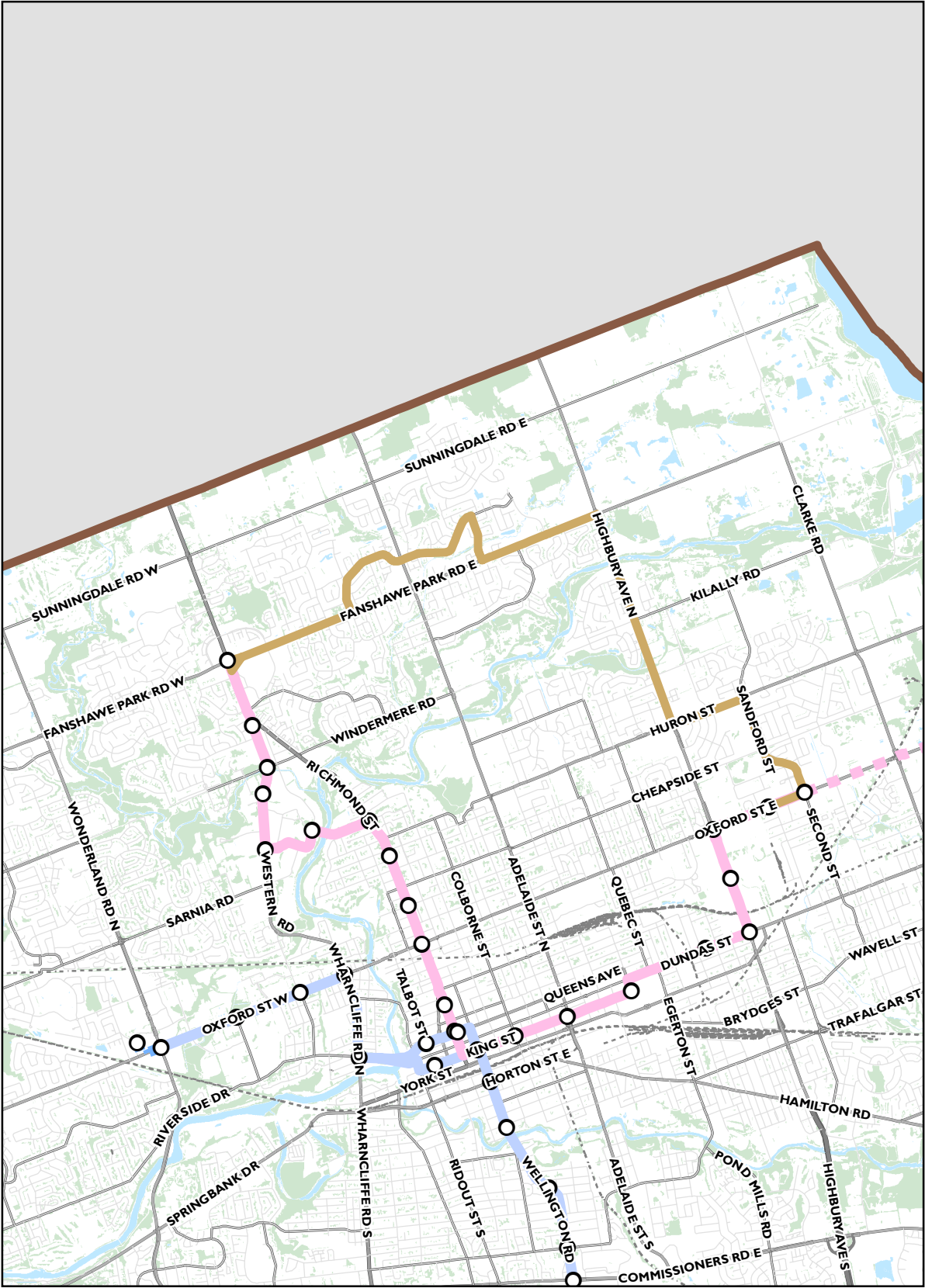
DATE: 2018-09-25

[illegible]

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 25

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

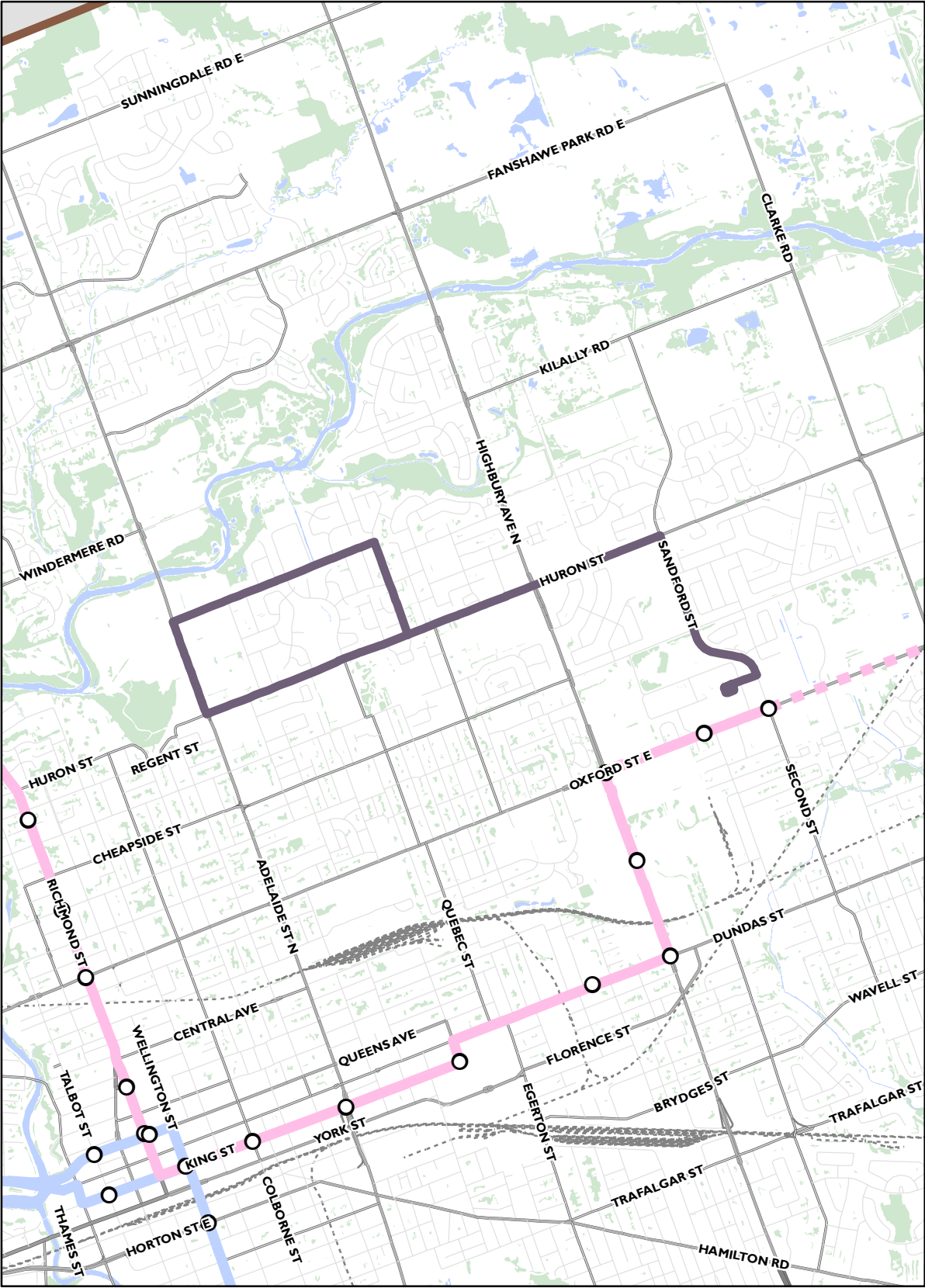
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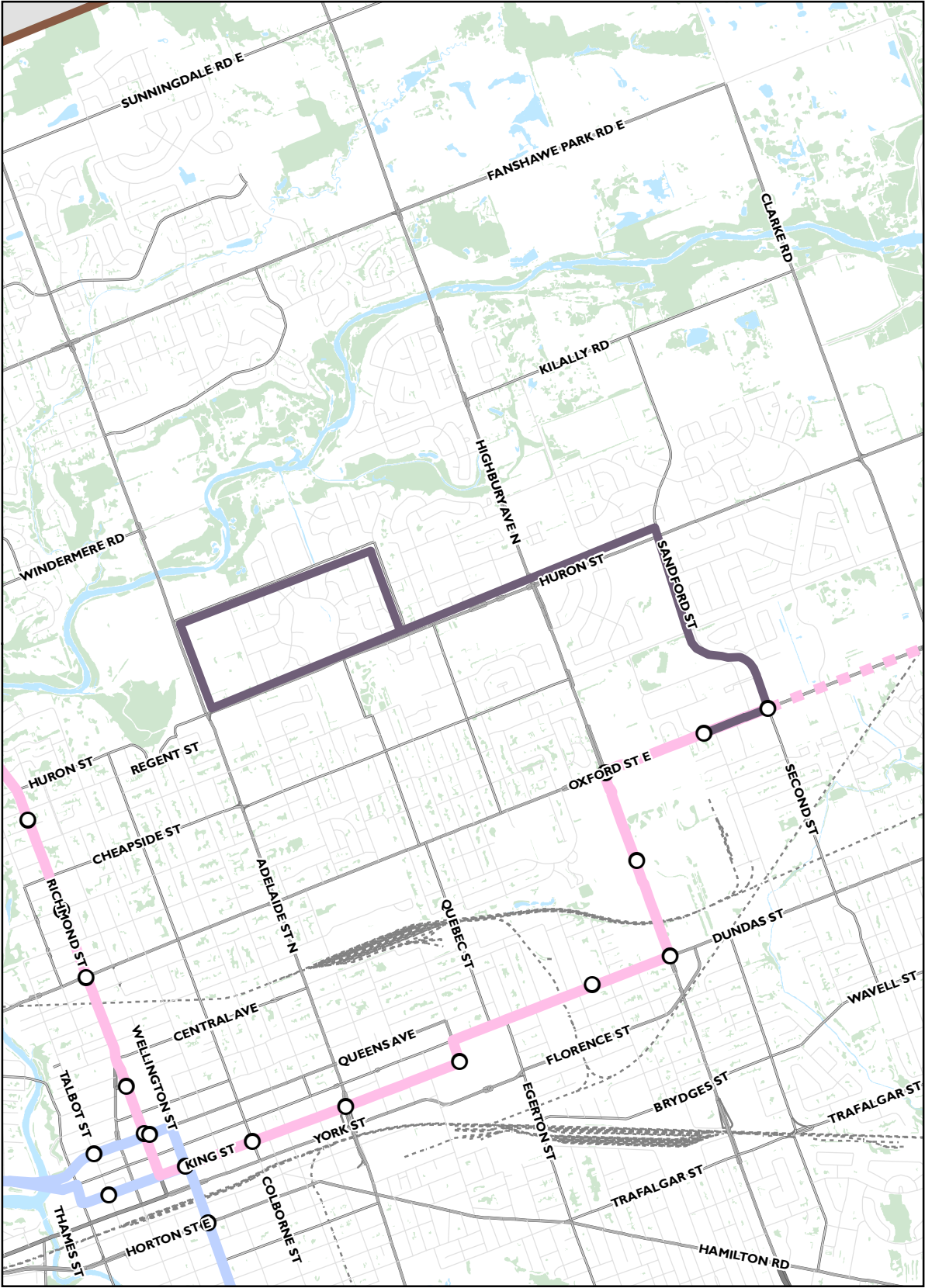
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY							SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE		EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30	60	60		60	30	30	30	60	60	60	
PROPOSED 2035	30	15	20	15	30	30		60	30	30	30	30	60	30	30

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 27

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



PROJECT: 188035

STATUS: DRAFT

DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018		15	15	15	20				40	40				
PROPOSED 2035		10	15	10	15				40	40				

The map displays the proposed rail alignment in blue, starting from the Wellington area and heading south towards Exeter. Key roads and landmarks include:

- Streets:** Wellington Rd, Commissioners Rd E, Exeter Rd, Wonderland Rd S, Southdale Rd W, Viscount Rd, Springbank Dr, Riverside Dr, Wharcliffe Rd S, Ridout St S, Adelaide St S, Thompson Rd, Upper Queen St, Southdale Rd E, Bradley Ave, White Oak Rd, Dingman Dr, Westminster Dr, Scotland Dr, Manning Dr, Glanworth Dr, Morrison Rd, Decker Dr, Cook Rd, Murray Rd, Longwoods Rd, Main St, Colonel Talbot Rd, Bostwick Rd, Pack Rd, and Viscount Rd.
- Highways:** Hwy 402 E, Hwy 402 W, Hwy 401 E, and Hwy 401 W.
- Stations:** Wellington and Exeter, marked with blue circles.
- Geography:** The map shows a mix of urban areas with buildings and parking lots, green spaces with trees, and water bodies like the Thames River and various ponds.

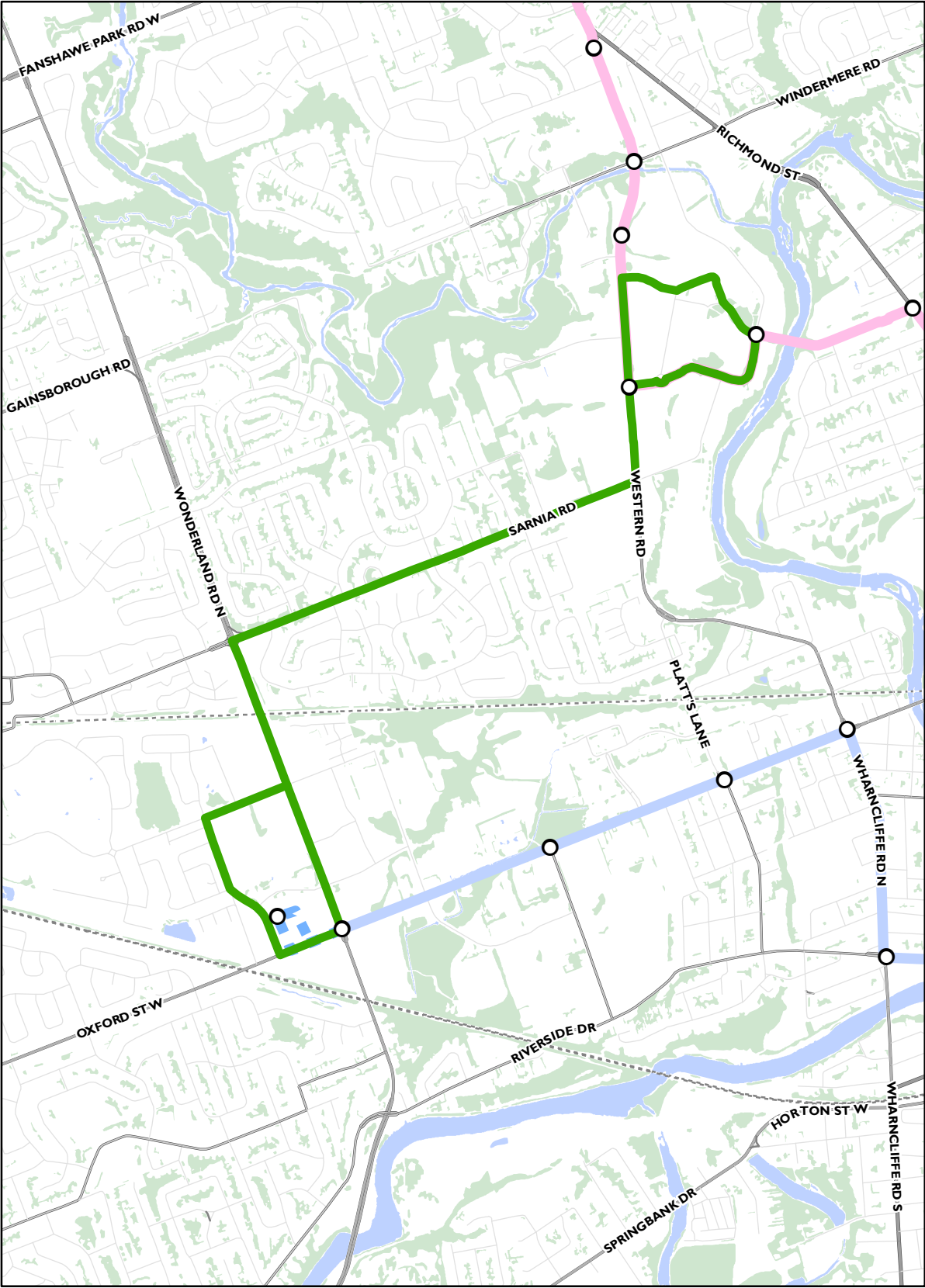
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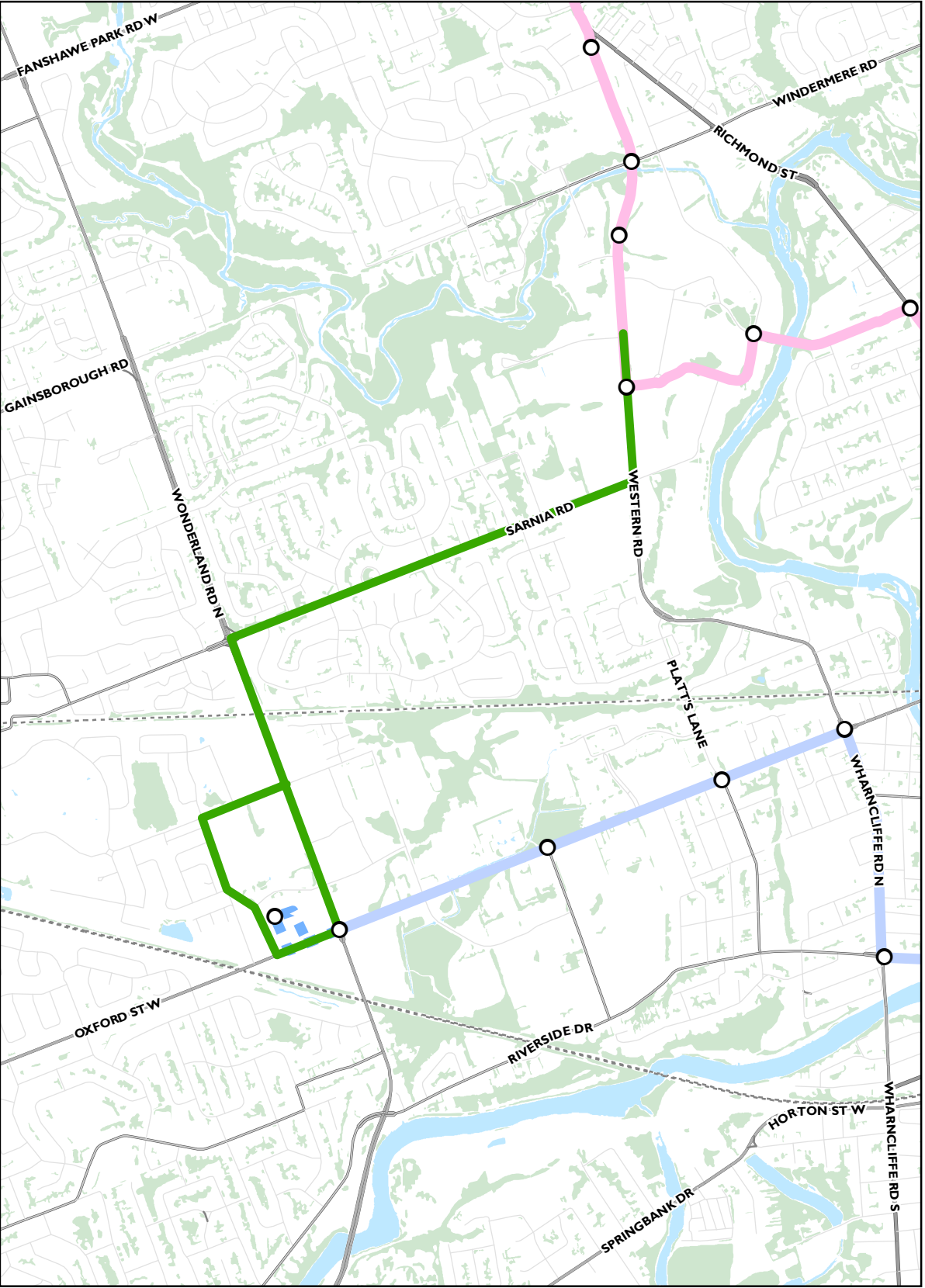
DATE: 2018-09-24

[illegible]

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 29

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

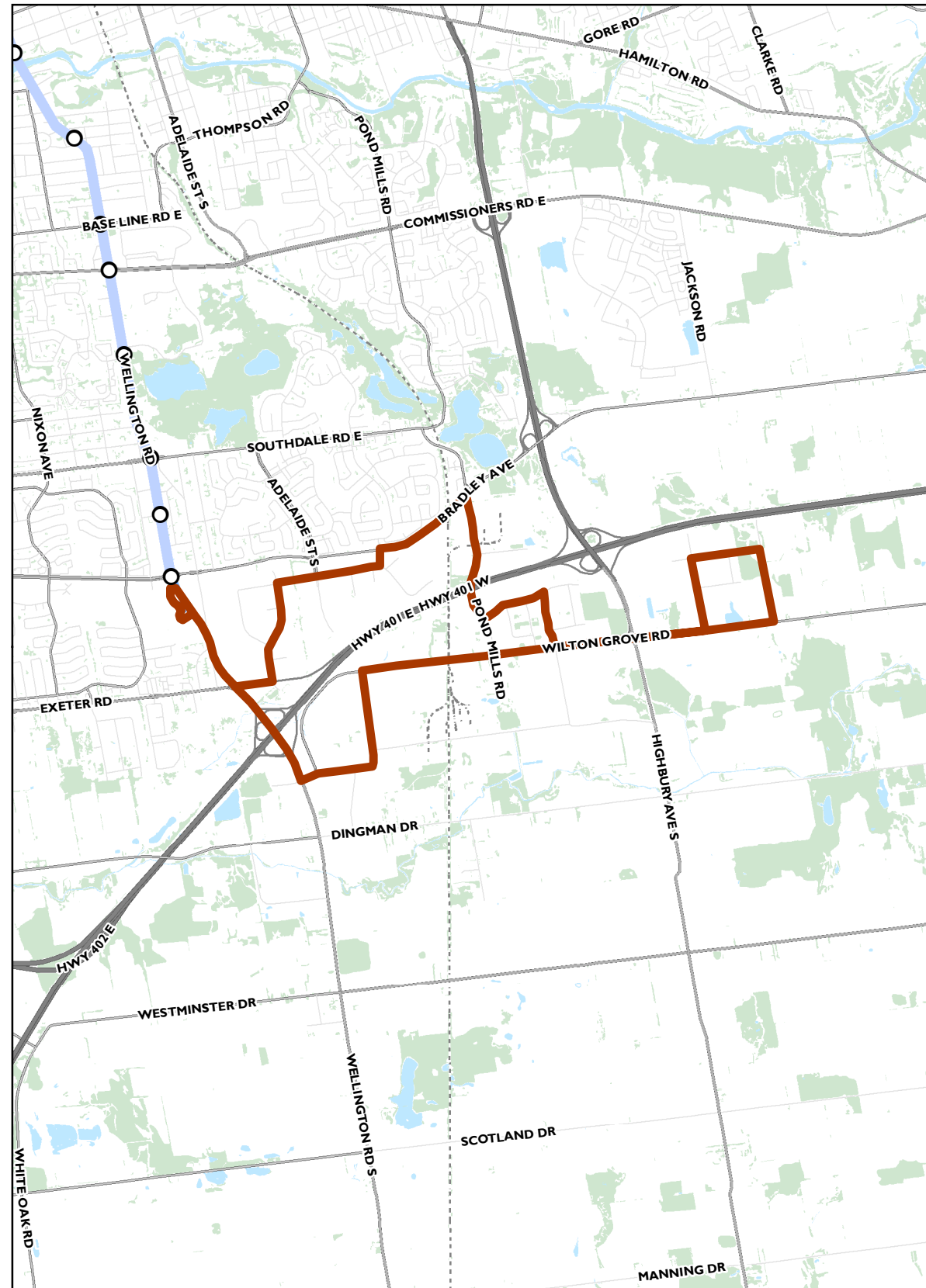
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






PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018		12	12	13	13			35	35				35	
PROPOSED 2035		12	12	13	13			35	35				35	

PROPOSED 2035 NETWORK



**LONDON TRANSIT NETWORK
ROUTE NUMBER:30**

- BRT Station
-  Municipal Boundary
-  Alternative Service Delivery Areas
-  North-East Route
-  South-West Route
-  Airport Extension
-  South-West Route (Mixed Traffic)
-  Railway
-  Waterbody
-  Vegetation
-  LTC Bus Route



MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N



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CONSULTING

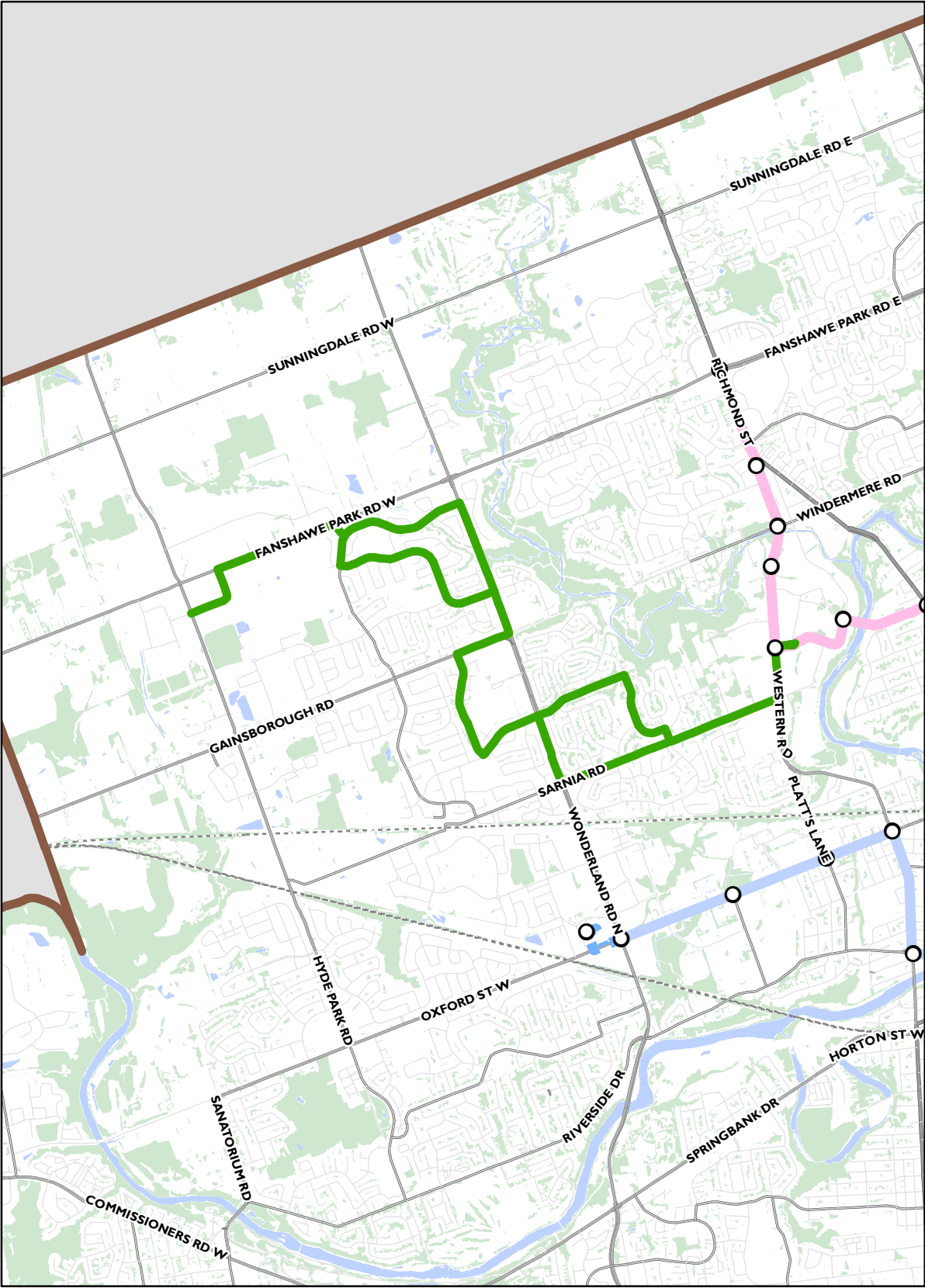
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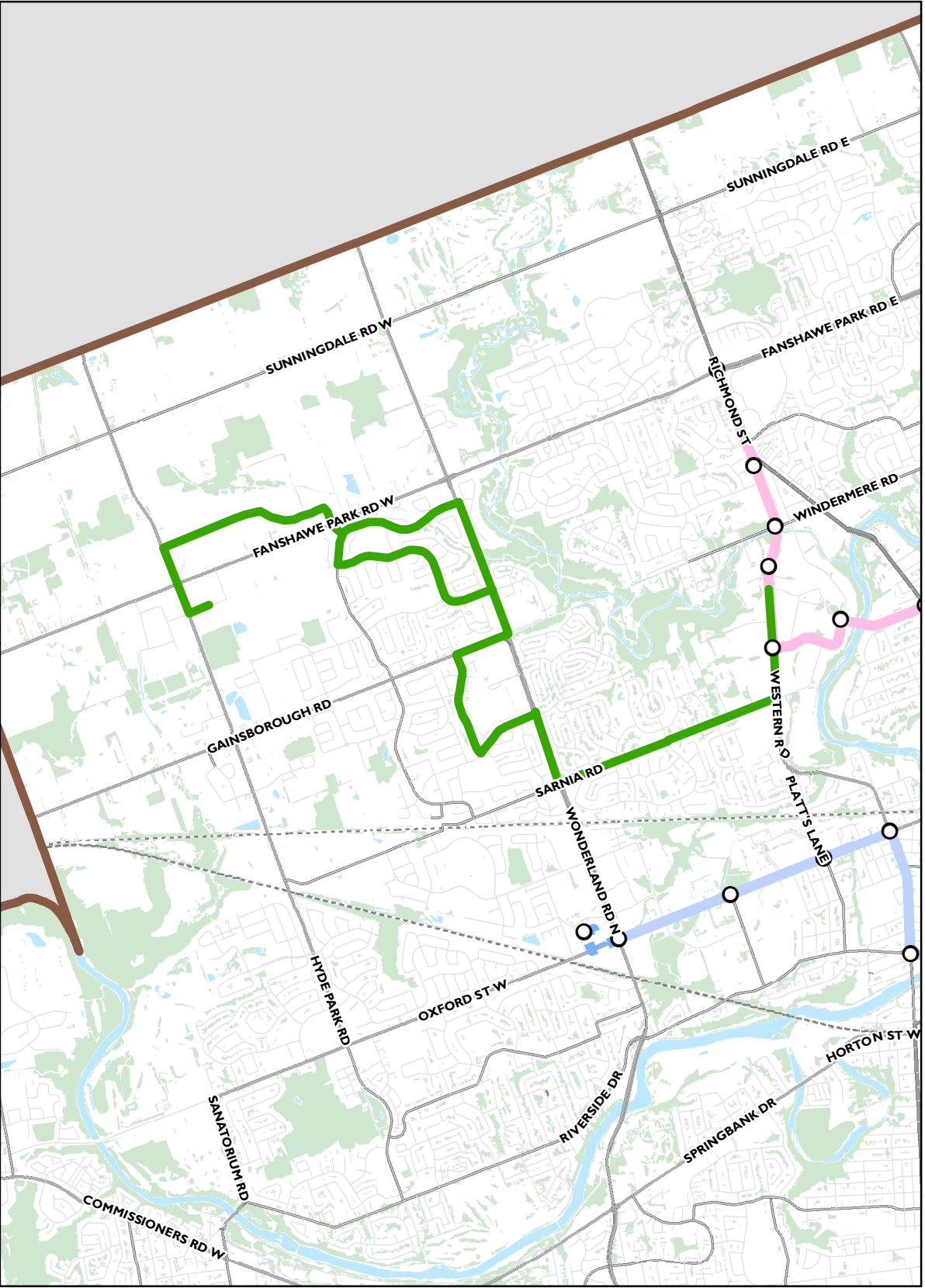
DATE: 2018-09-24

[illegible]

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 31

- BRT Station
- ▭ Municipal Boundary
- ▭ ASD Area
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- ▭ Waterbody
- ▭ Vegetation
- LTC Bus Route

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

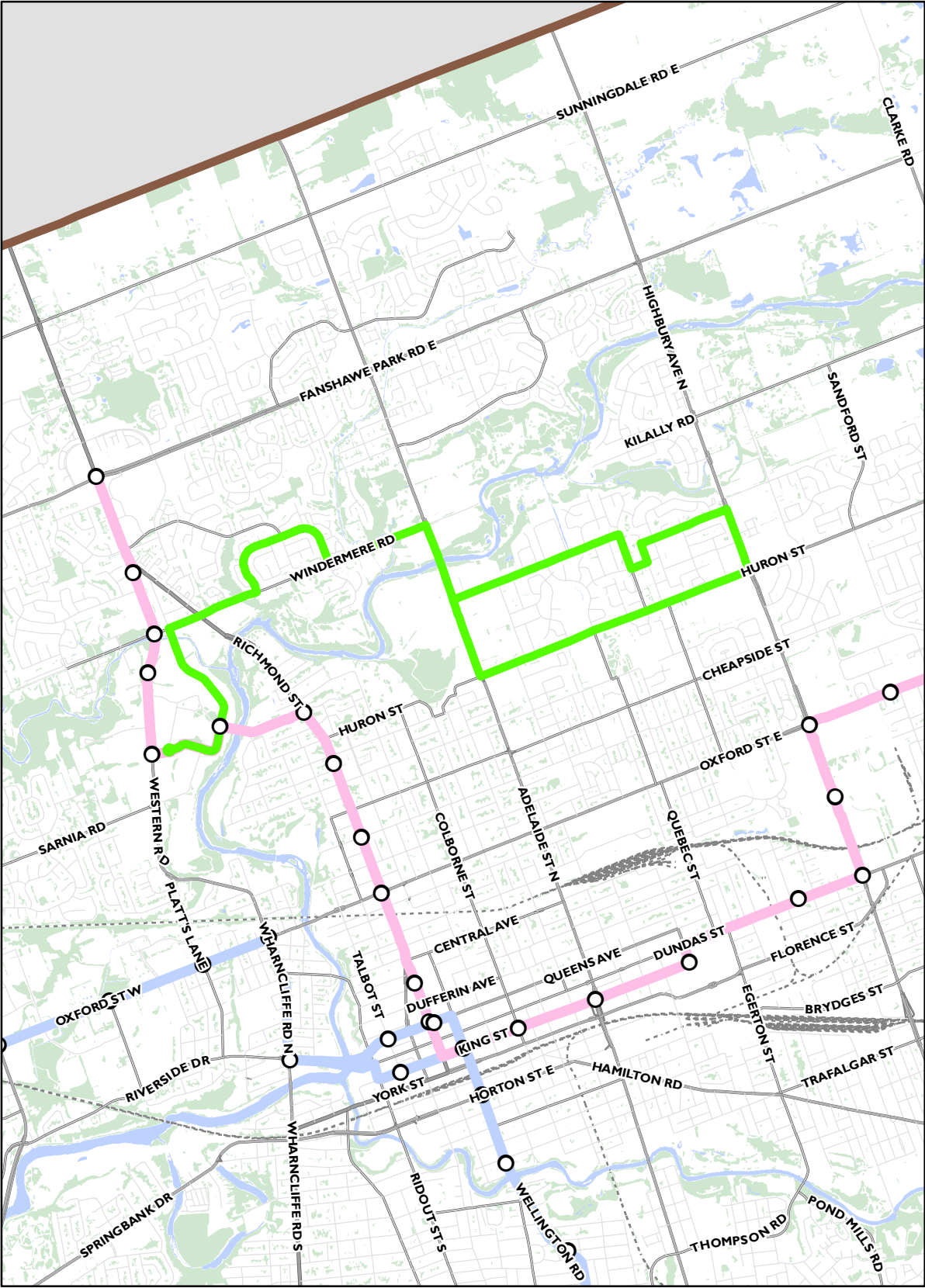
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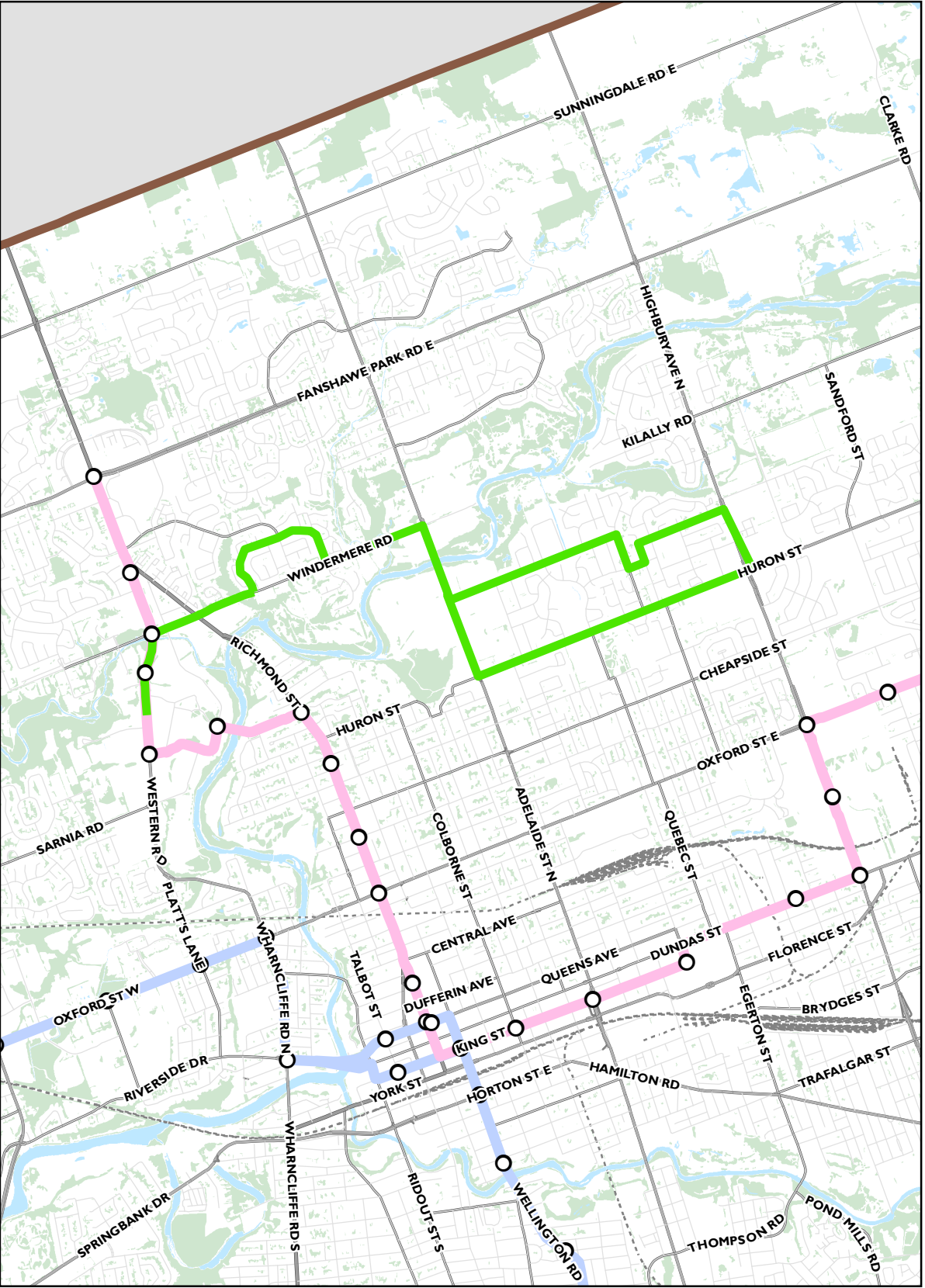
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30	60	0	45	30	30	60		-	60	
PROPOSED 2035	30	15	20	15	30	30	45	30	30	30	60	-	30	60

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 32

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

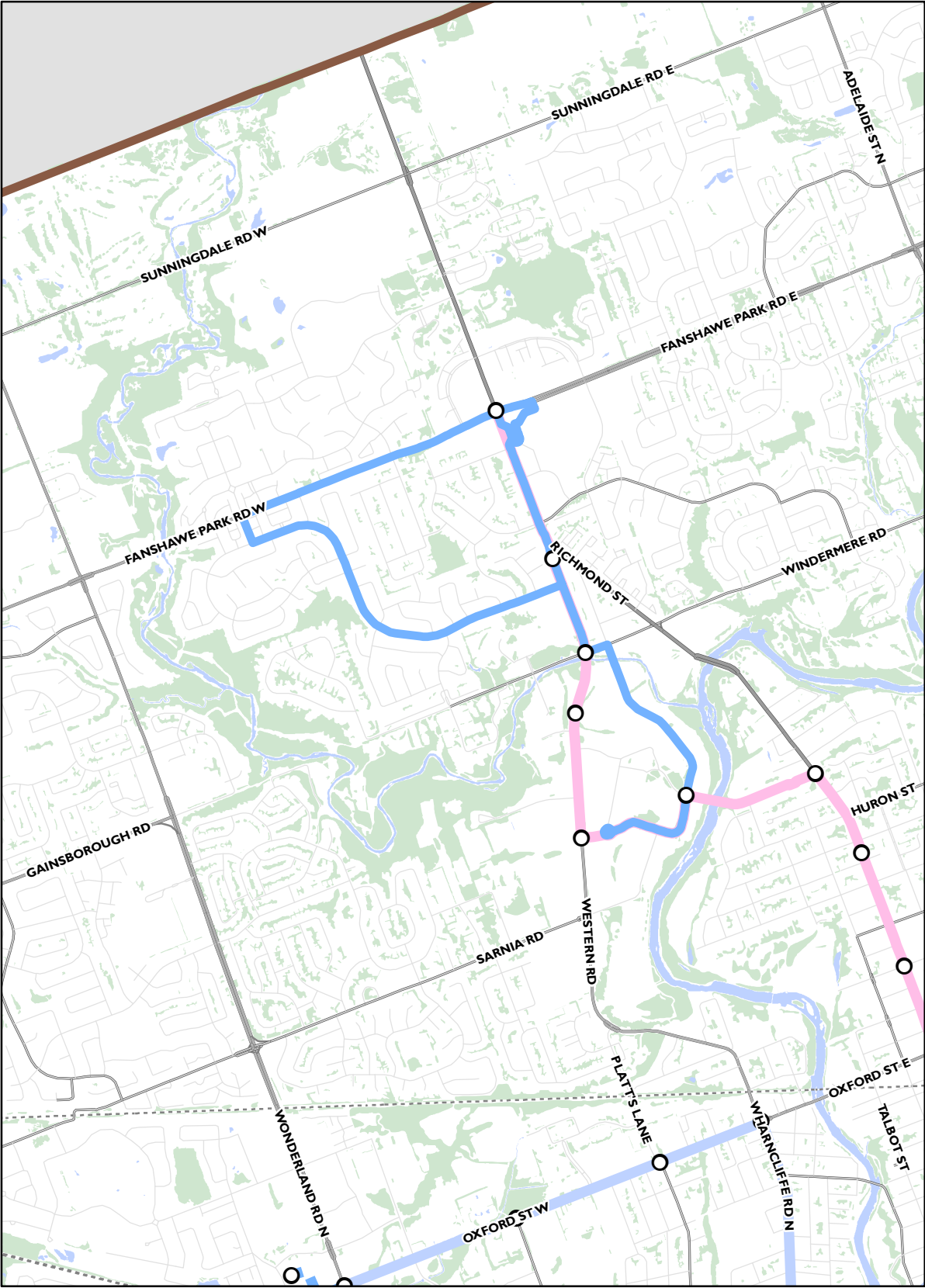
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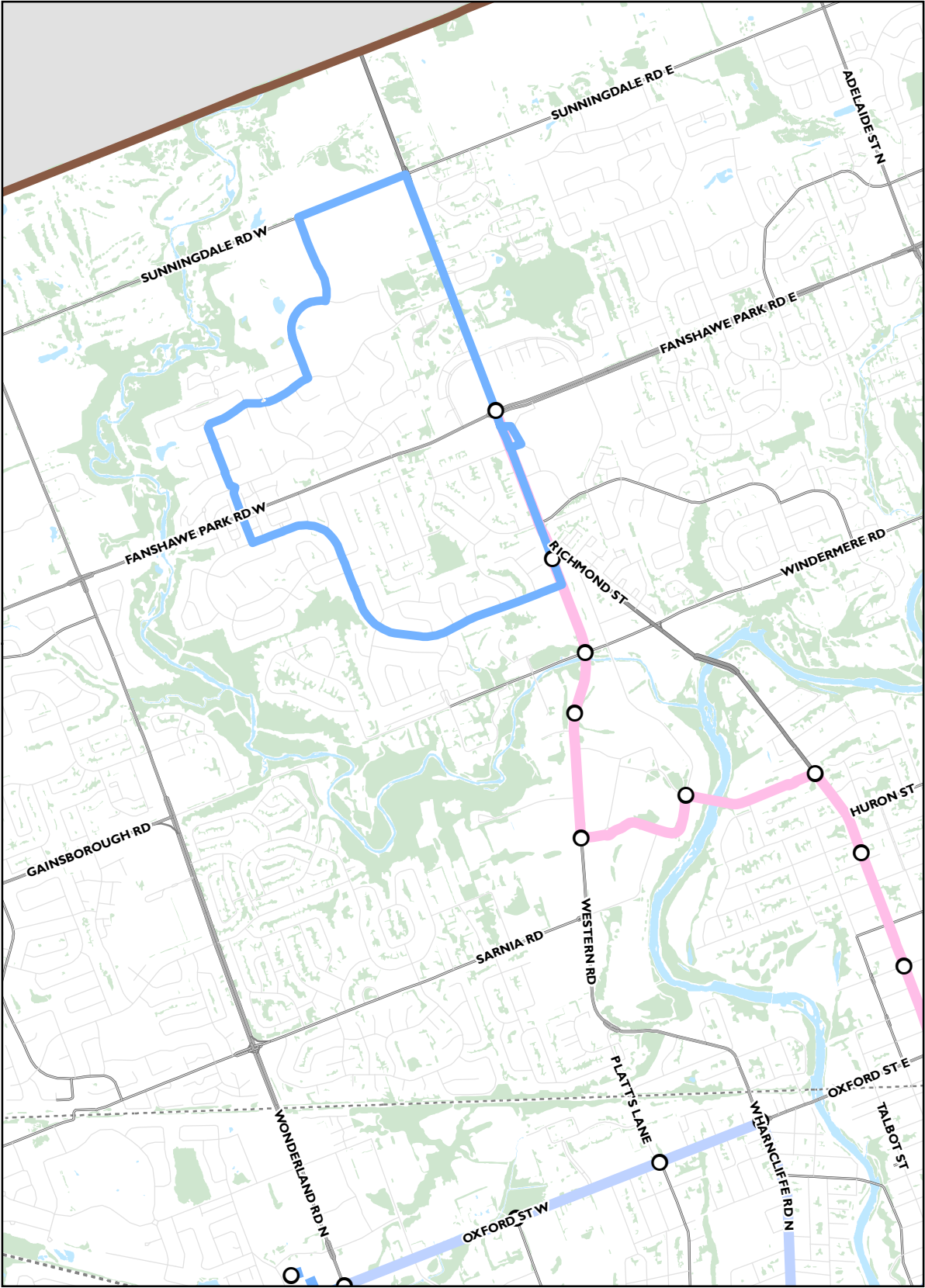
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30	60	0	45		30	60		-	60	
PROPOSED 2035	30	15	20	15	30	30	45		30	30	60	-	30	60

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 34

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

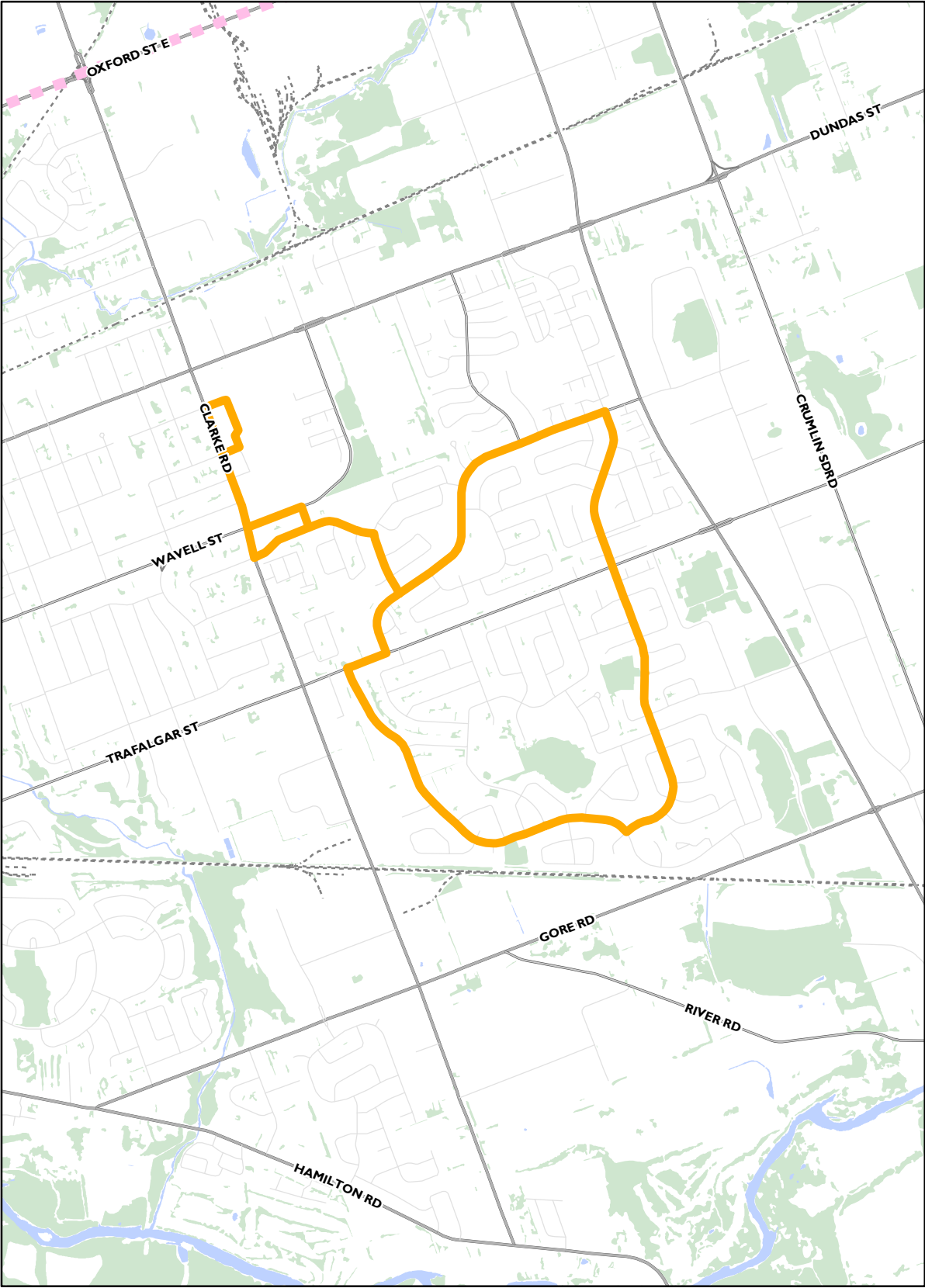
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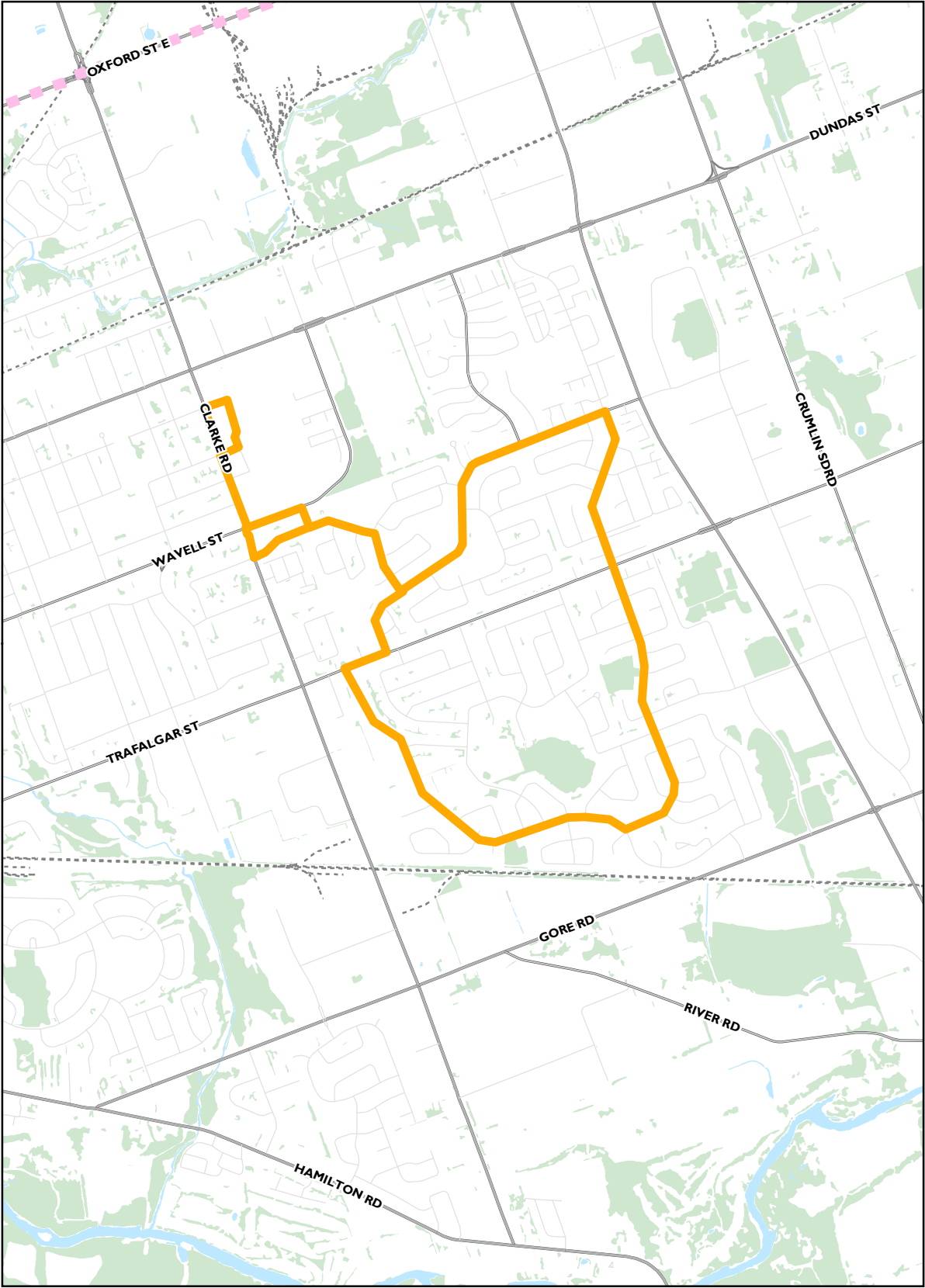
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	-	30	30	30	60	60		30	30	60	60	-	60	60
PROPOSED 2035	-	15	30	15	30	60		30	30	60	60	-	60	60

2018 NETWORK



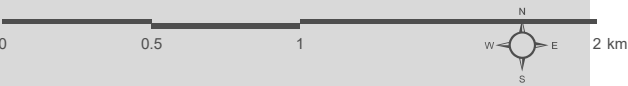
PROPOSED 2035 NETWORK (NO CHANGE)



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 35

- LTC Bus Route
- BRT Station
- Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



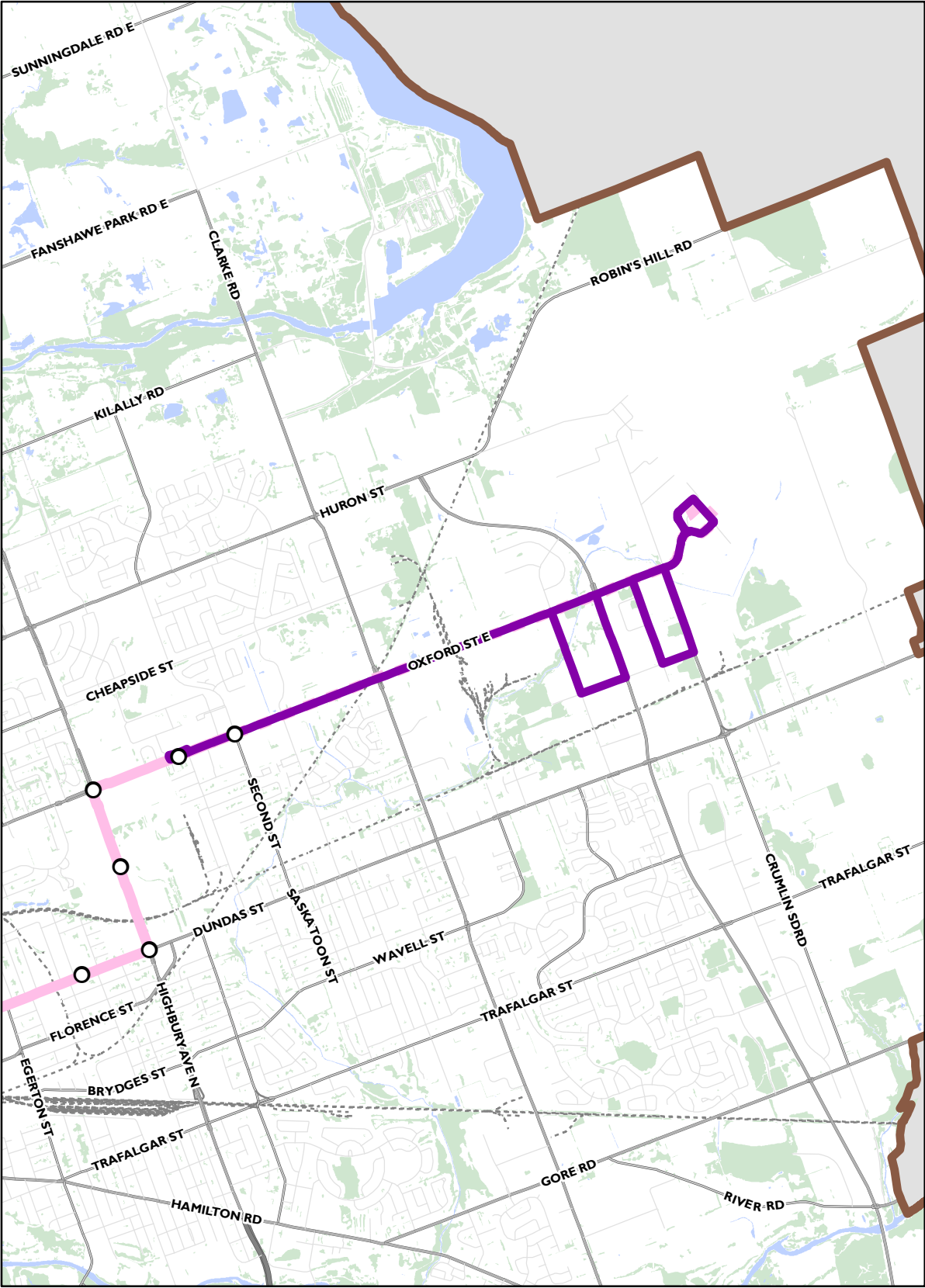
PROJECT: 188035

STATUS: DRAFT

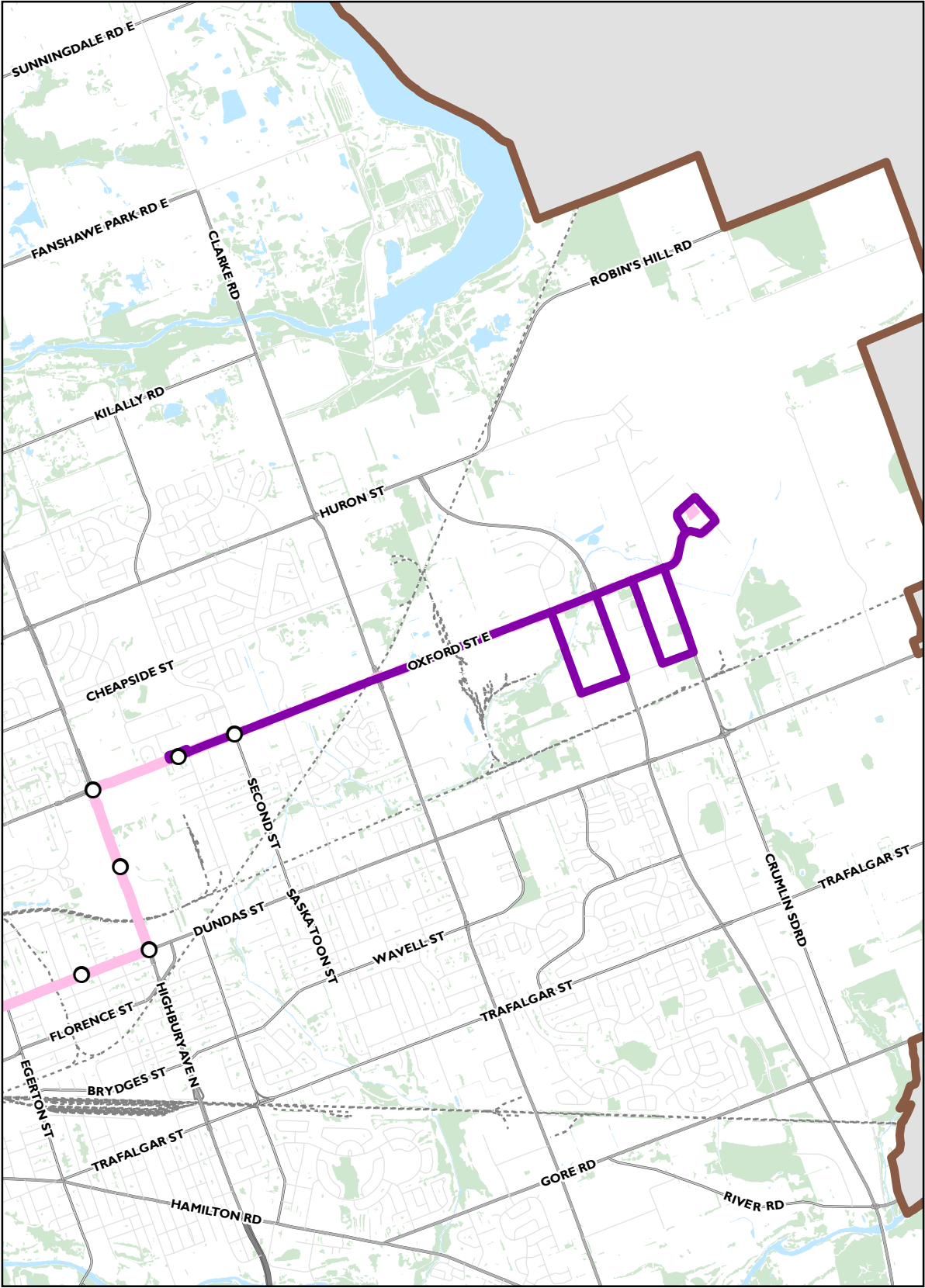
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30	30		30	30	30	30		30	30	
PROPOSED 2035	30	30	30	30	30		30	30	30	30		30	30	

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 36

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- ◻ Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

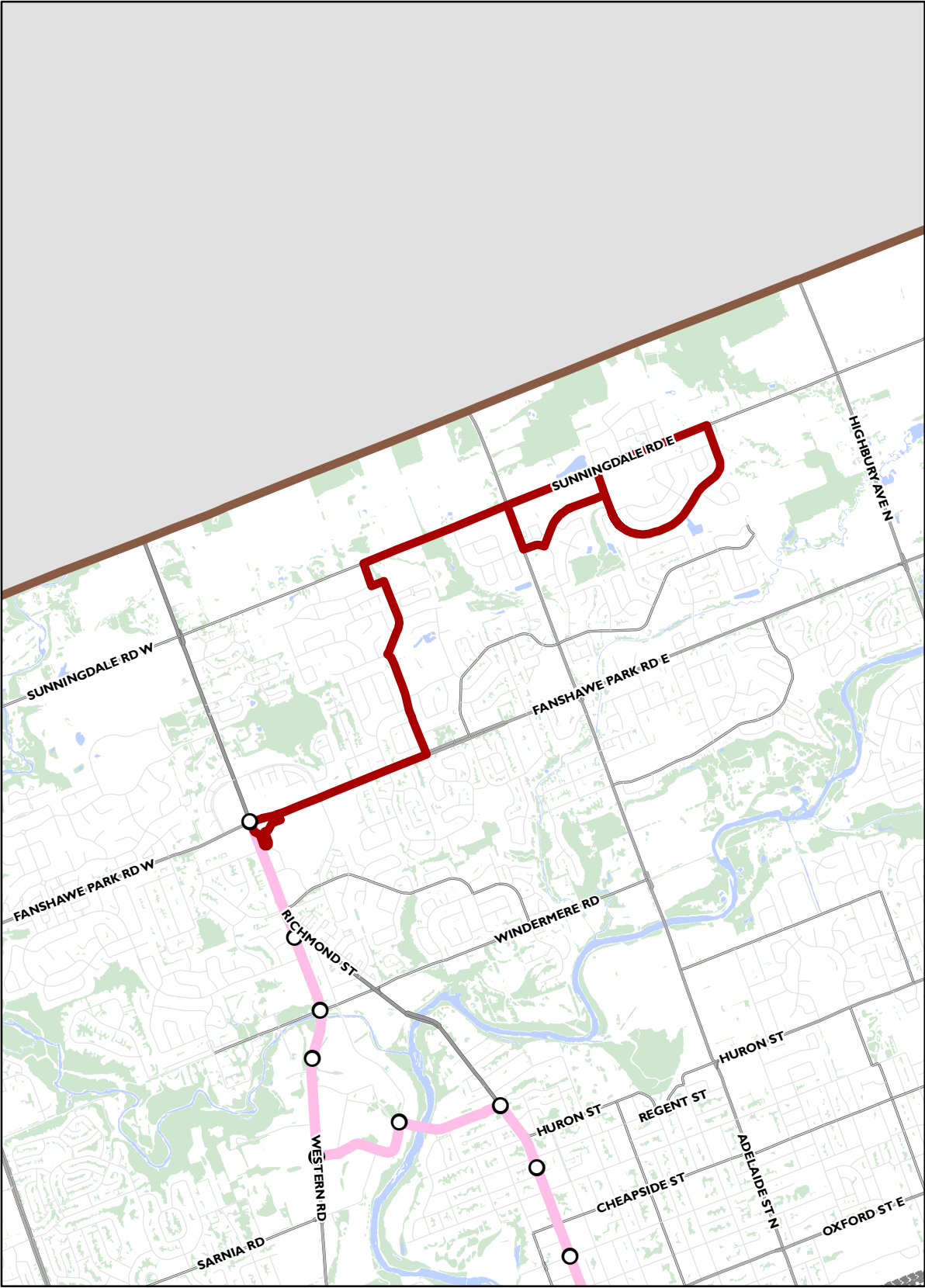
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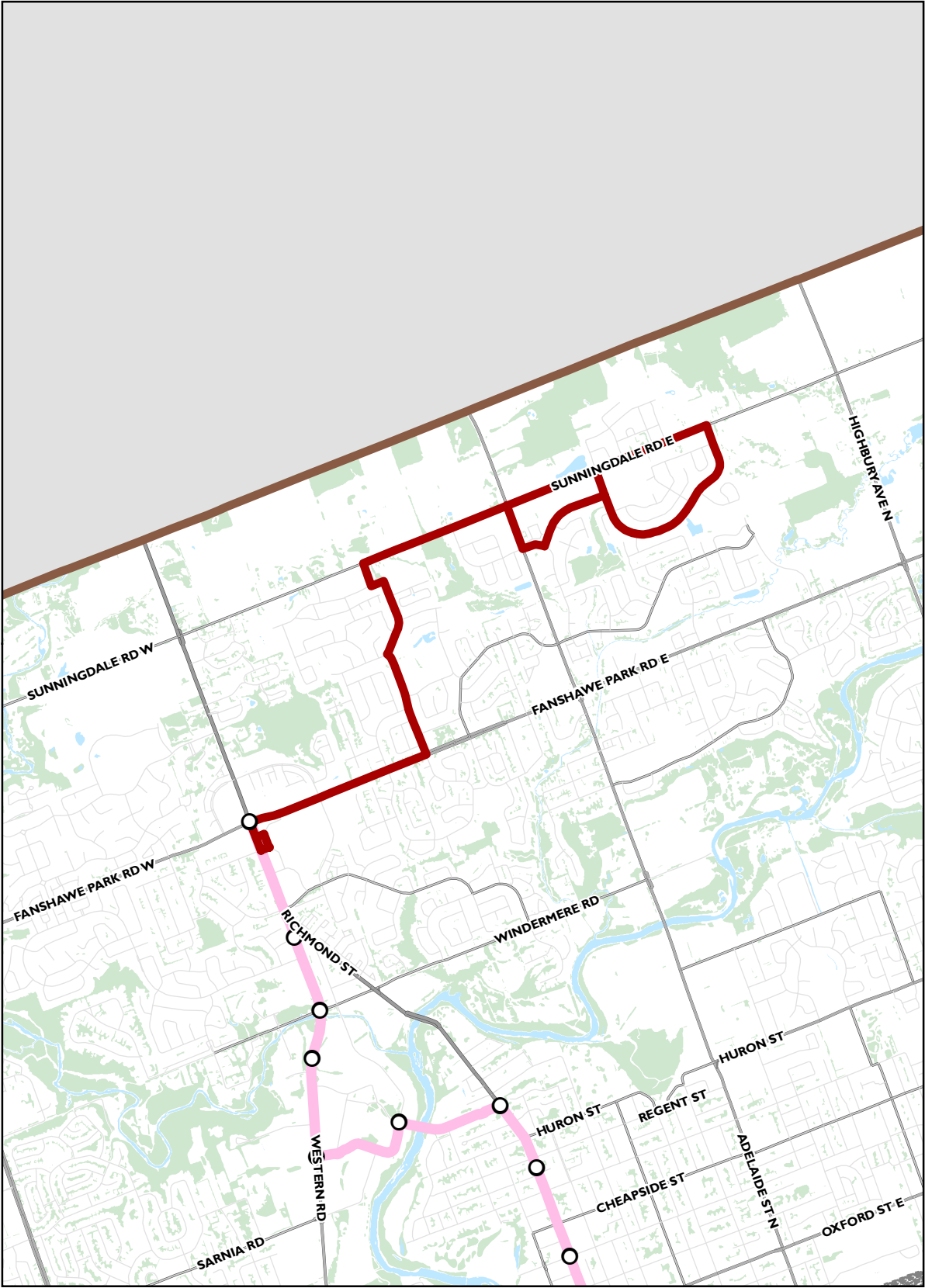
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30		30								
PROPOSED 2035	30	15	30	15	30	30								

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 38

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- - - Airport Extension
- ▭ South-West Route (Mixed Traffic)
- - - Railway
- ▭ Waterbody
- ▭ Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



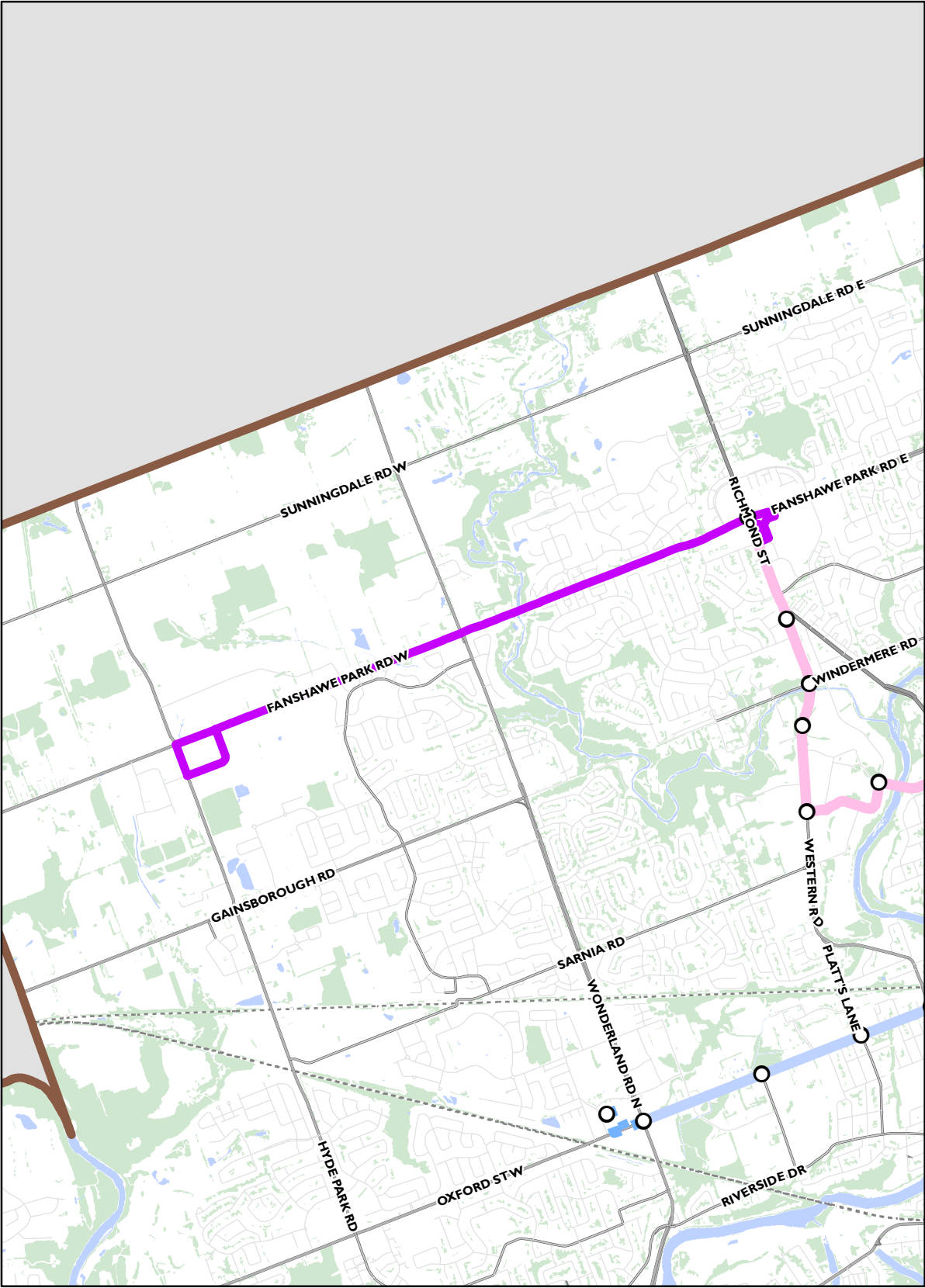
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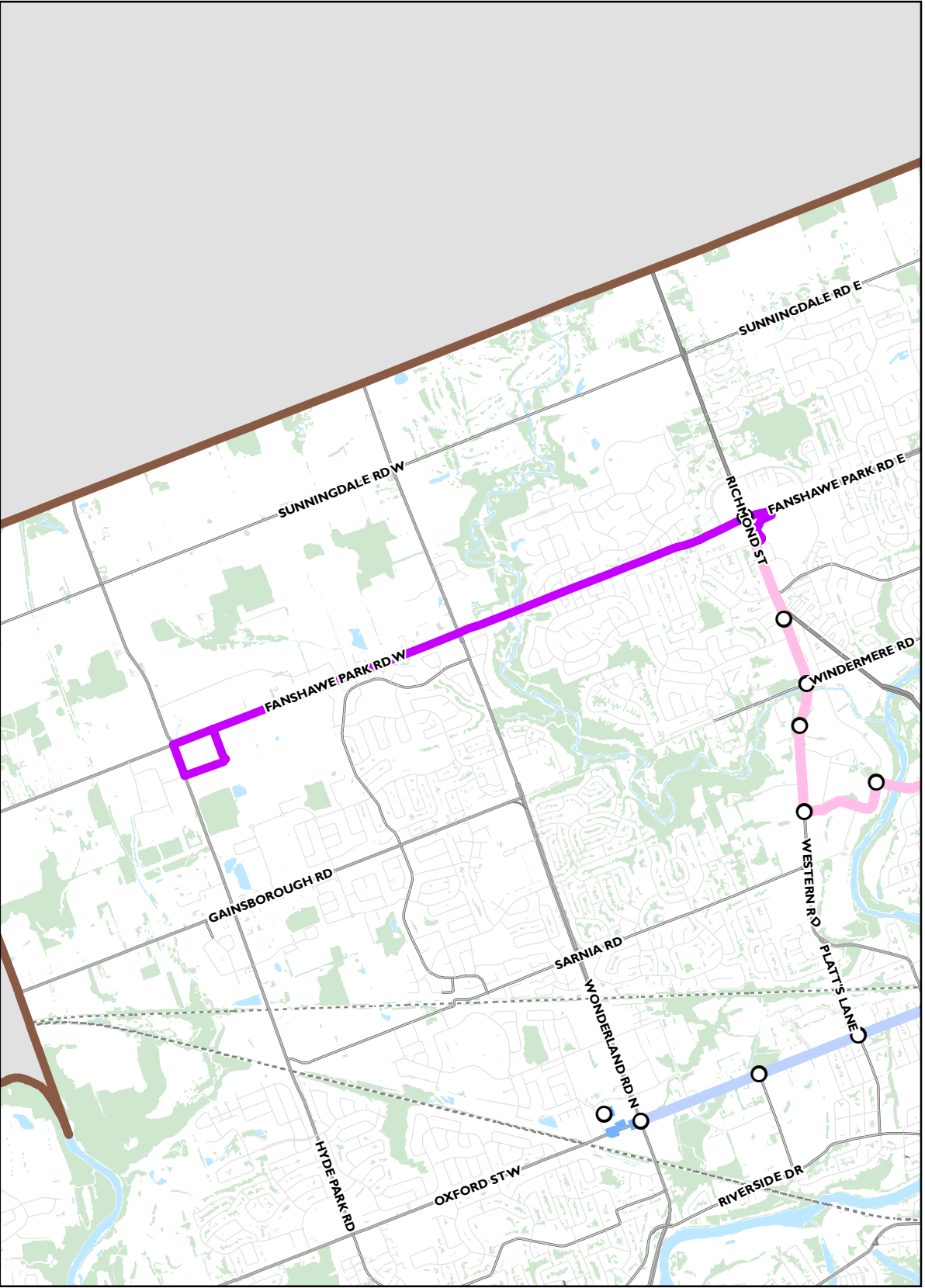
DATE: 2018-09-24

	WEEKDAY							SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE		EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30	30	30			30	30	60			60	
PROPOSED 2035	30	15	30	15	30	30			30	30	60		30	30	

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 39

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: H:\GIS\163037



PROJECT: 188035

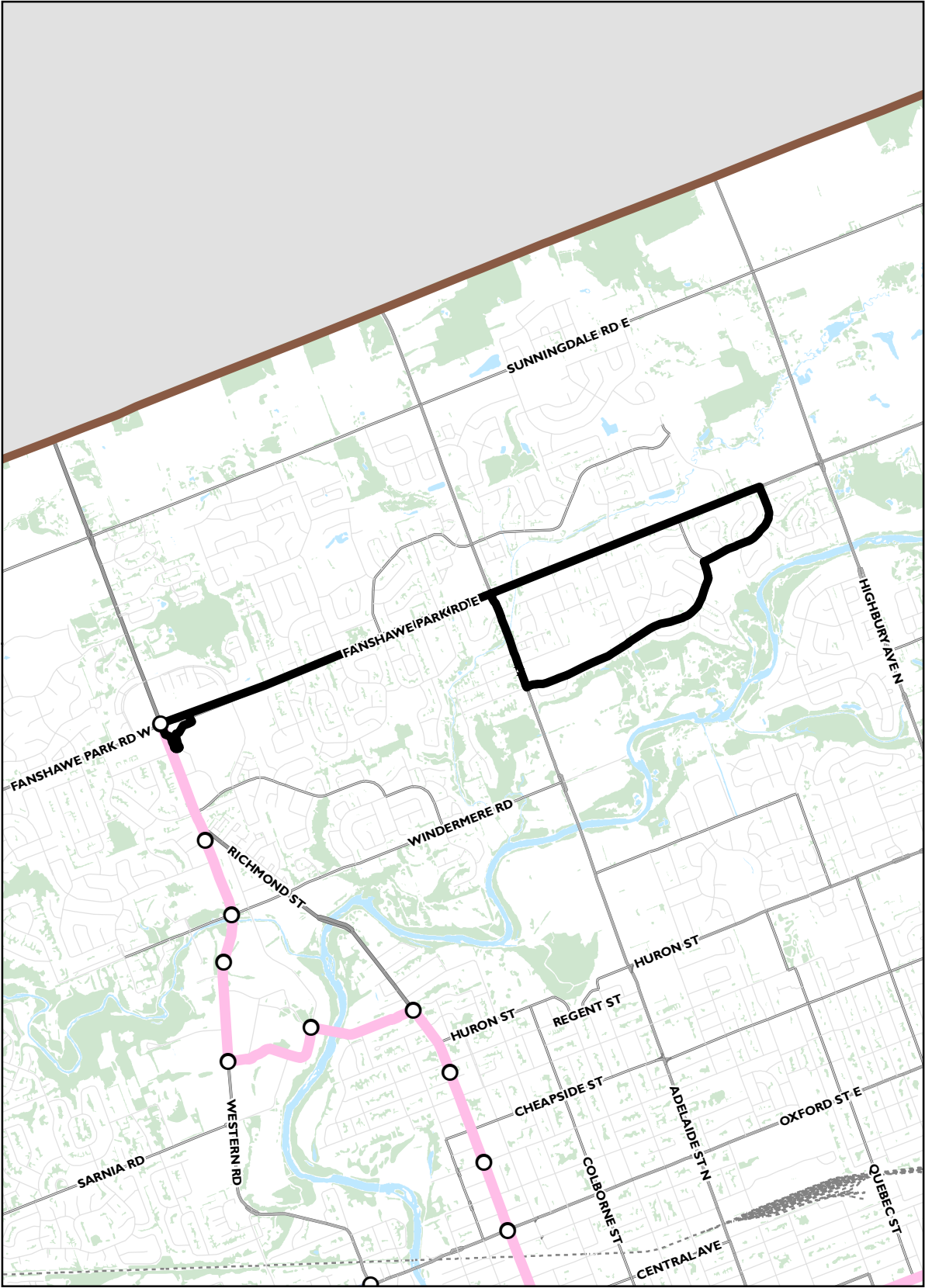
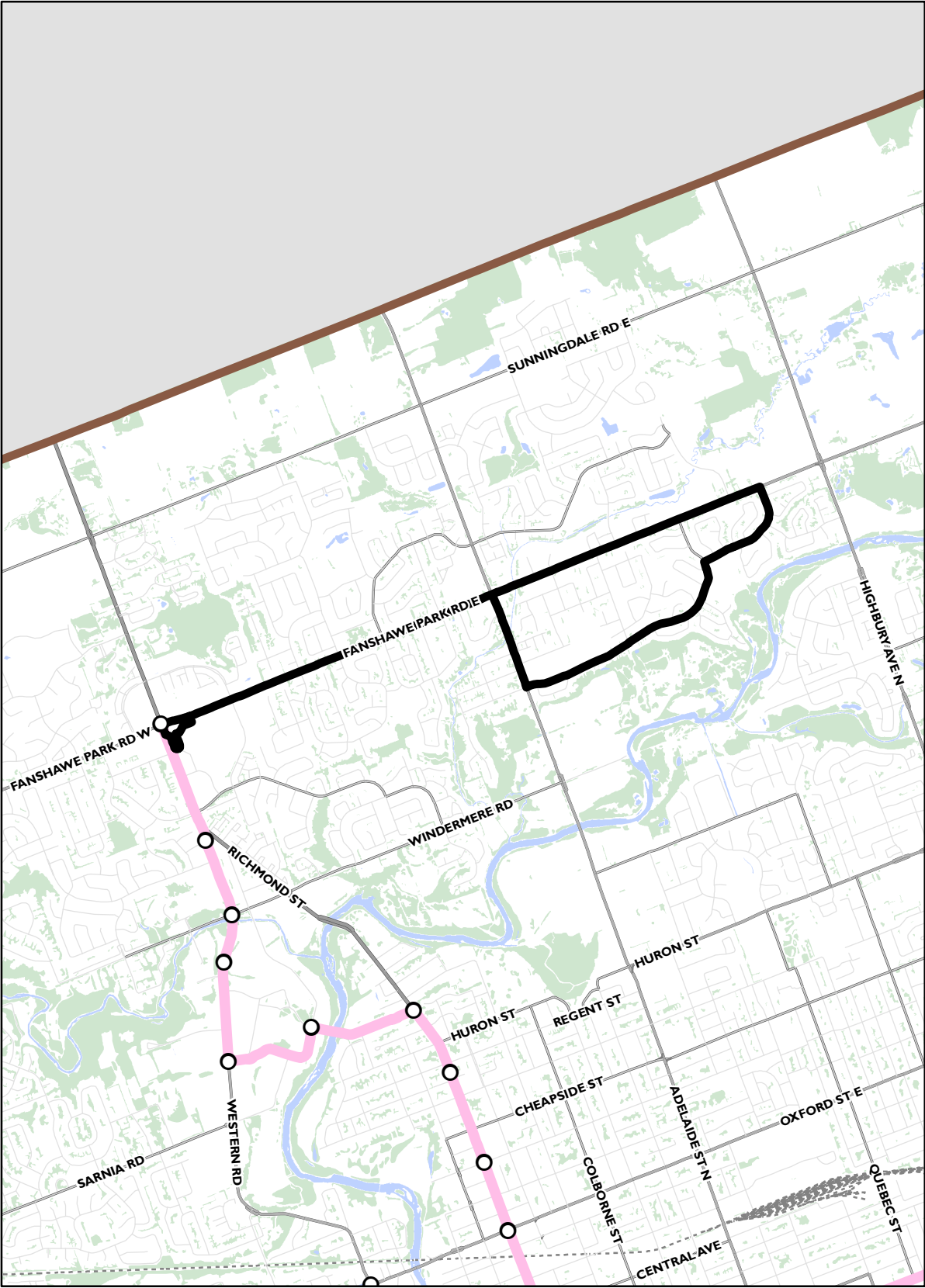
STATUS: DRAFT

DATE: 2018-09-25

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	-	30	30	30	30	30		30	30	60		-	60	
PROPOSED 2035	-	15	30	15	30	30		30	30	60		30	30	

2018 NETWORK

PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 40

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- - - Airport Extension
- - - South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



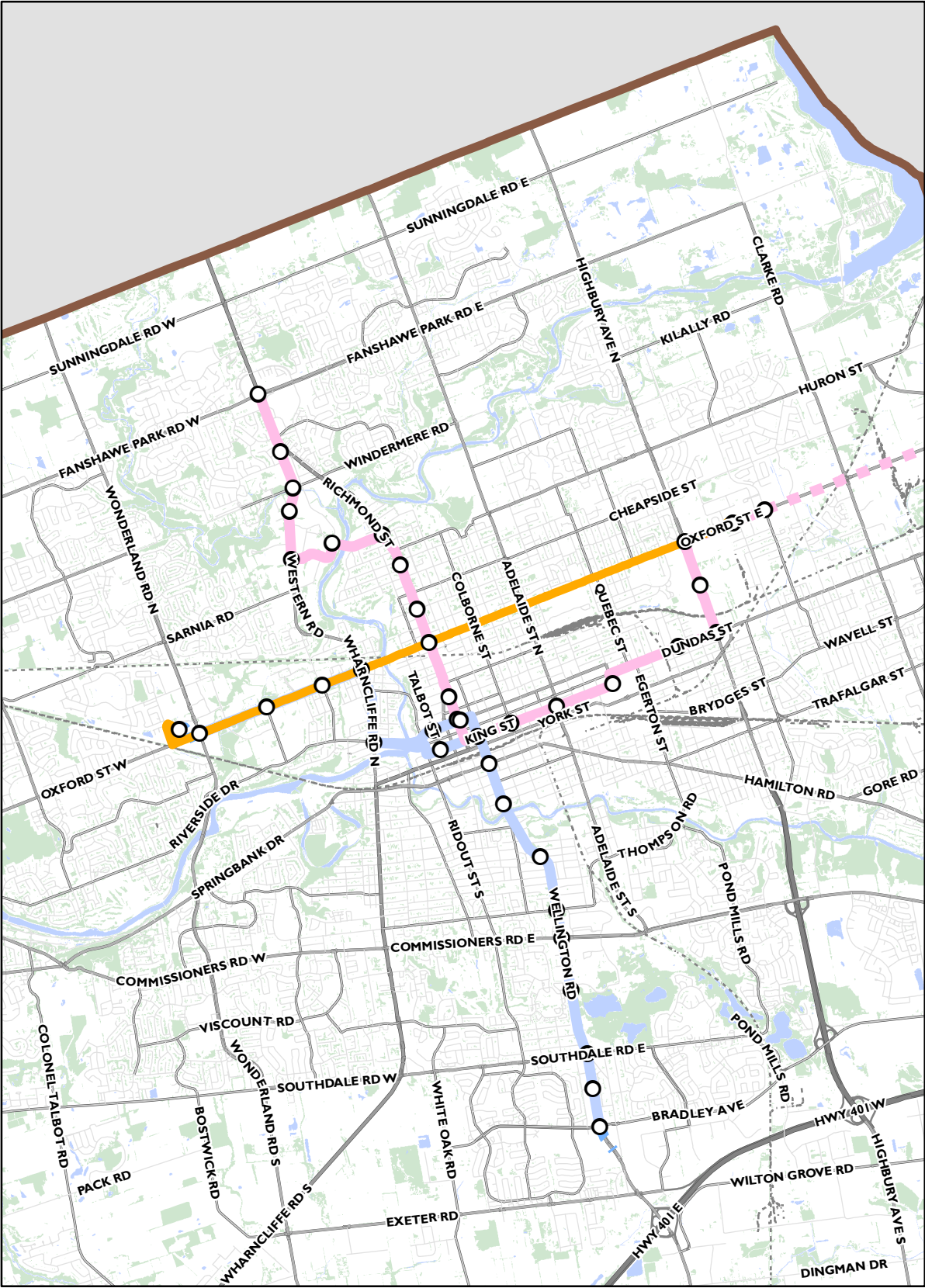
PROJECT: 188035

STATUS: DRAFT

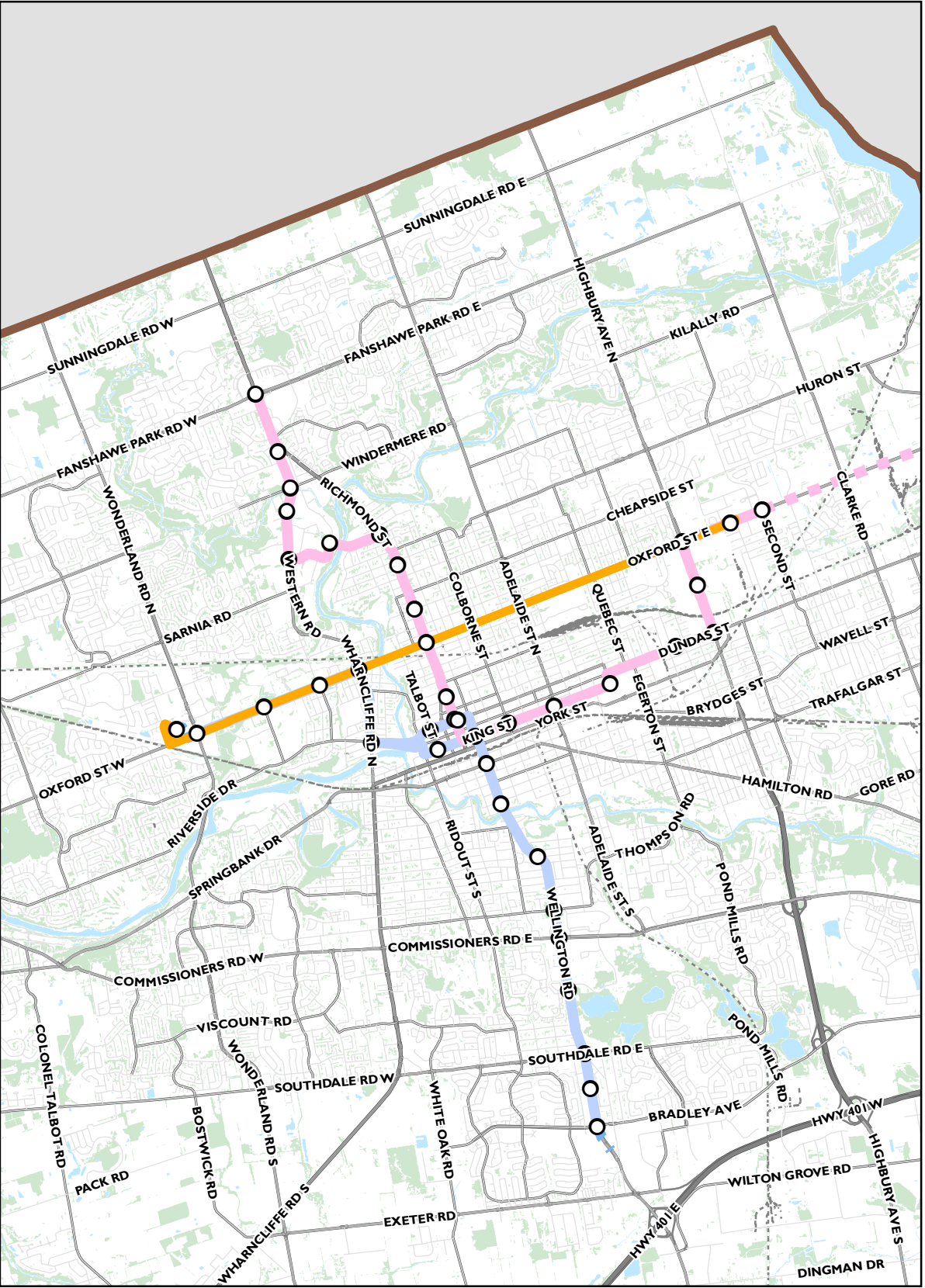
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30	60	60		30	30	60	60	60	60	60
PROPOSED 2035	30	15	30	15	60	60		30	30	60	60	60	60	60

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 91

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- - - Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

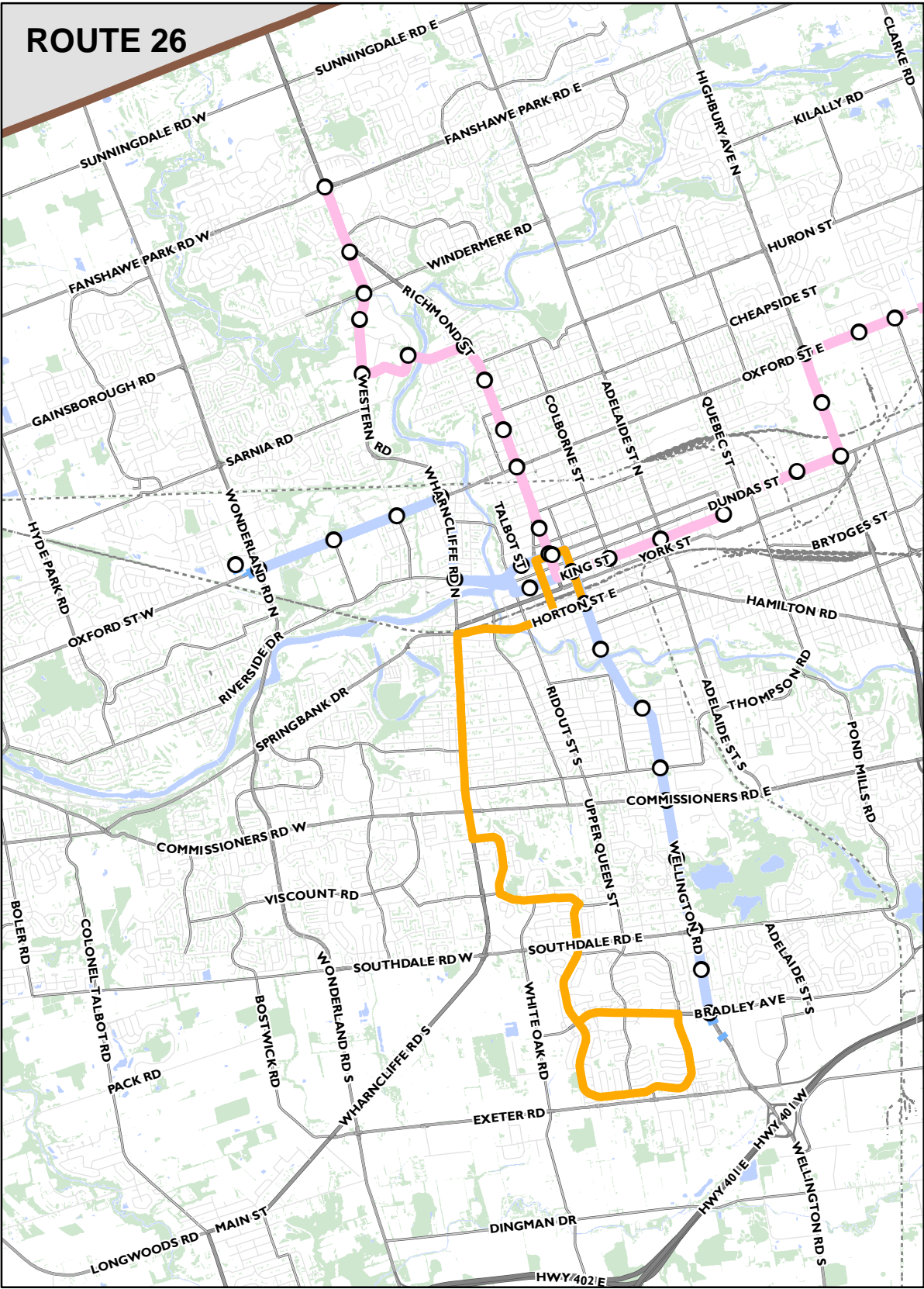
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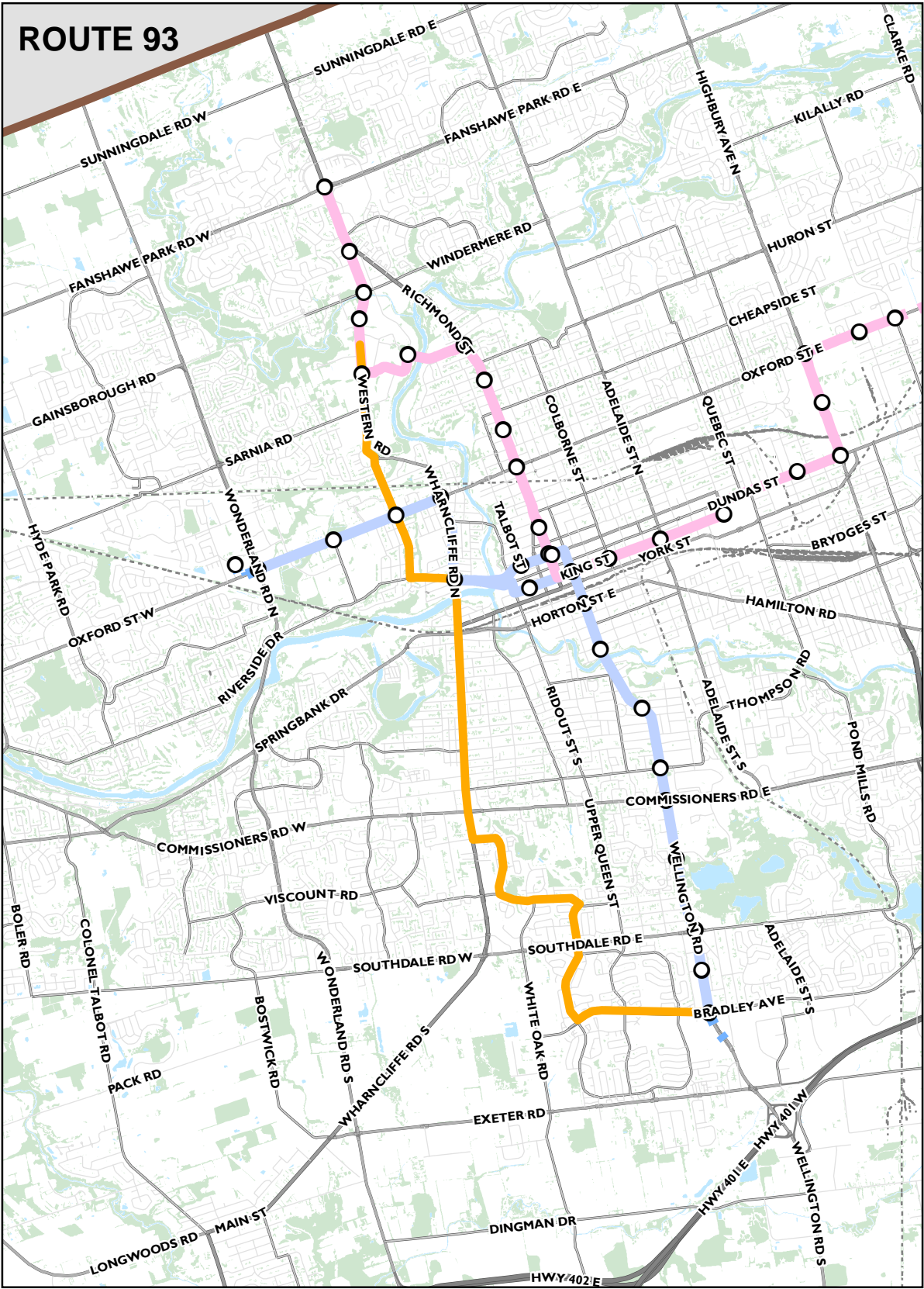
PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	15	20	15					25	25			25	
PROPOSED 2035	30	15	20	15	30				25	25			25	

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 93 (26)

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



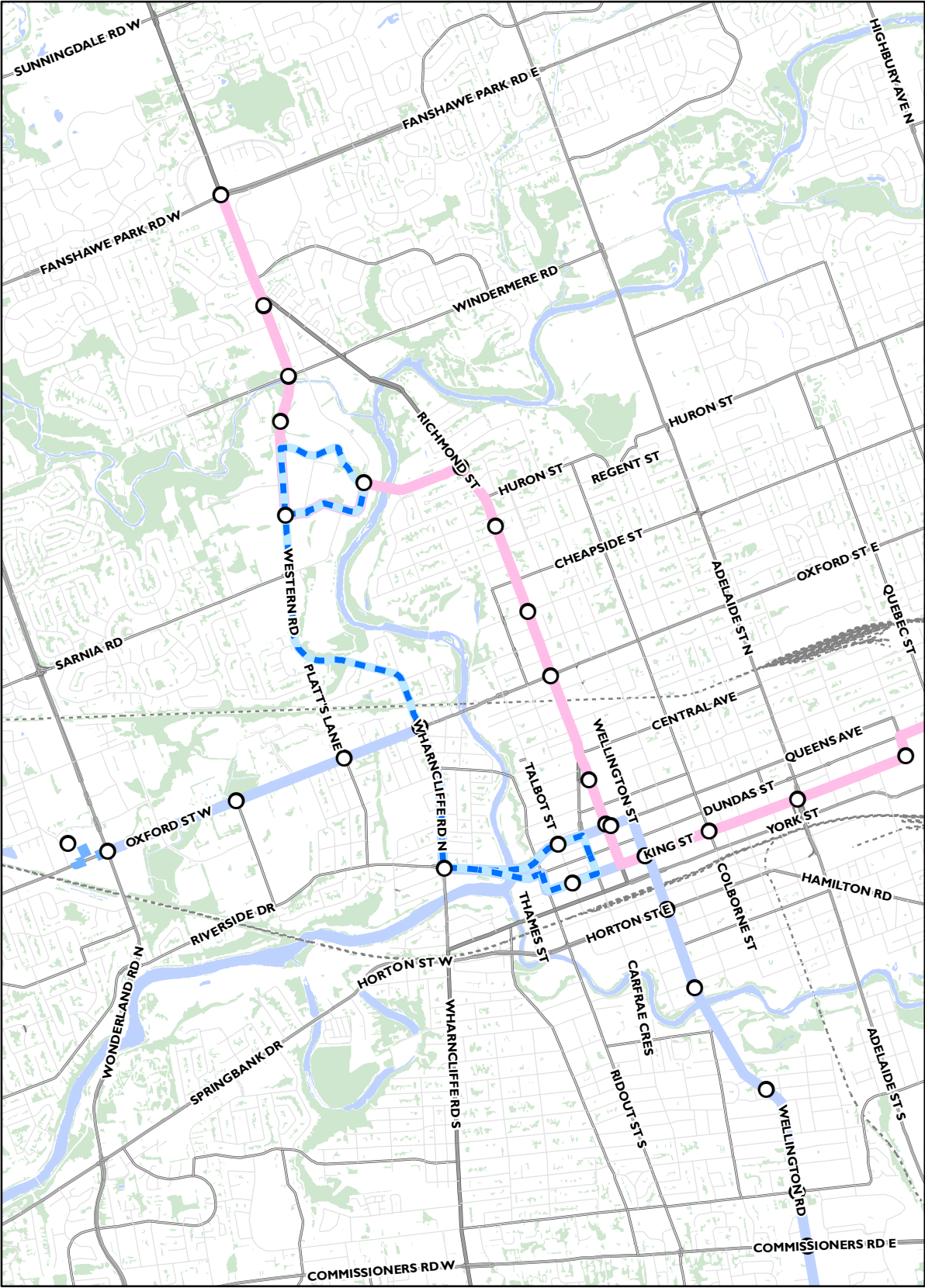
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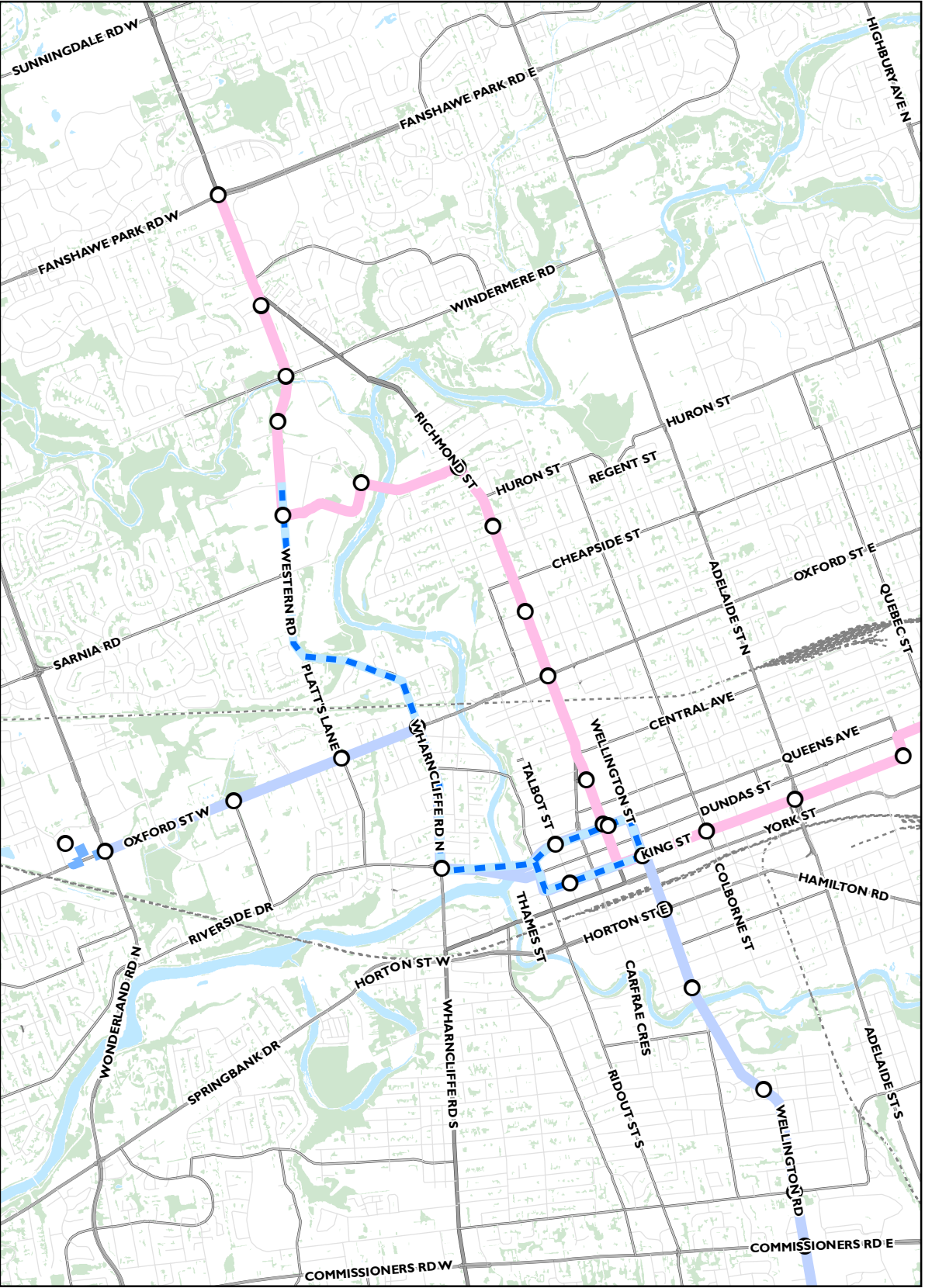
DATE: 2018-09-24

	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	30	30	30	30	30	60	30	30	30	60	60	60	60	60
PROPOSED 2035	20	15	20	15	30	30	40	20	20	40	40	40	20	40

2018 NETWORK



PROPOSED 2035 NETWORK



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
ROUTE NUMBER: 102

- LTC Bus Route
- BRT Station
- ▭ Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 2 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

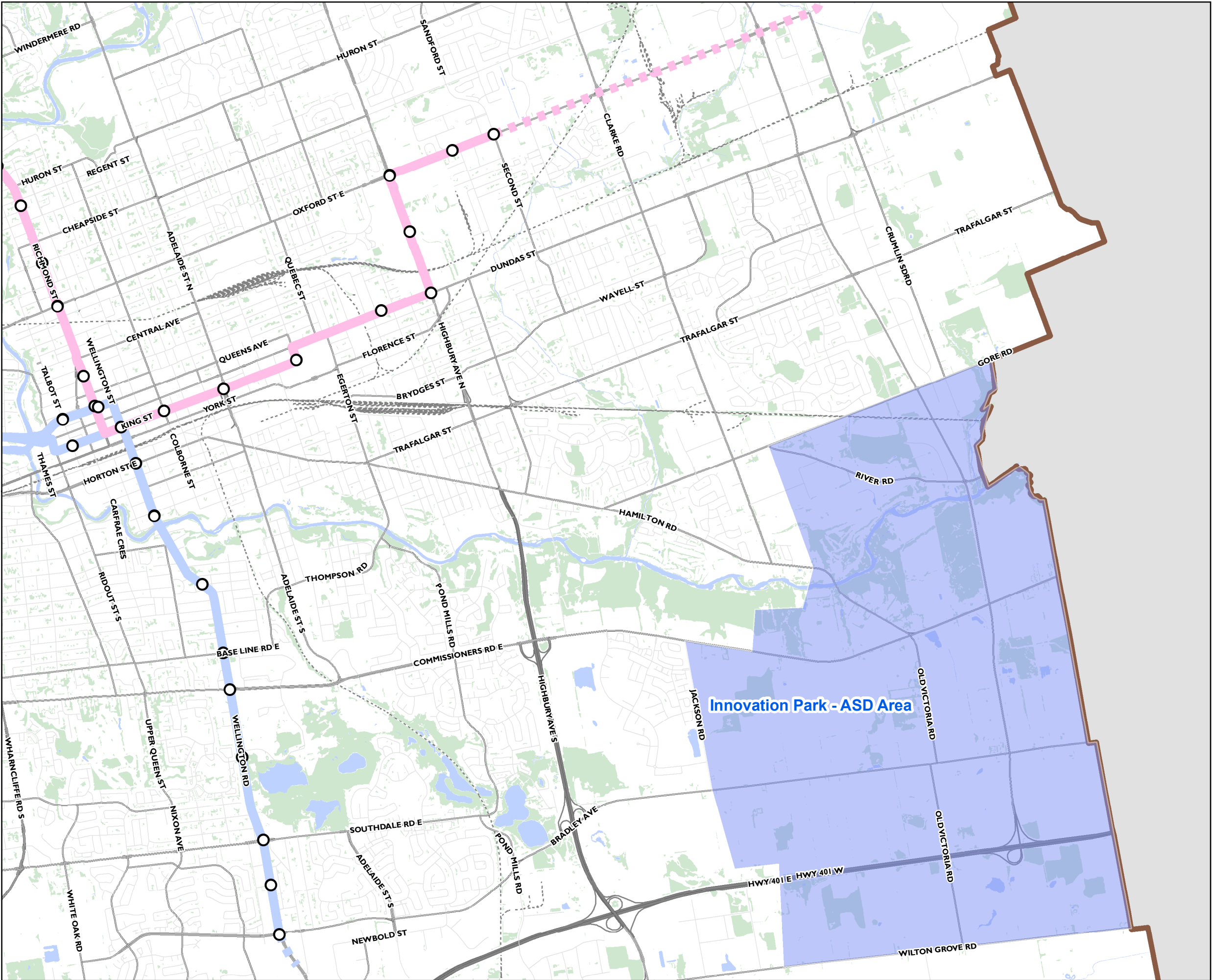
MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



PROJECT: 188035
STATUS: DRAFT
DATE: 2018-09-24

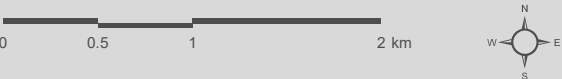
	WEEKDAY						SATURDAY					SUNDAY		
	EARLY AM	AM PEAK	BASE	PM PEAK	EARLY EVE	LATE EVE	EARLY AM	BASE	PEAK	EARLY EVE	LATE EVE	EARLY AM	DAY	EVENING
EXISTING 2018	-	10	12	12	20	35		40	40	40	40	40	40	40
PROPOSED 2035	-	5	6	5	20	35		40	20	20	40	40	40	40



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK
Alternative Service Delivery Area
Innovation Park

- LTC Bus Route
- BRT Station
- Alternative Service Delivery Areas
- Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation



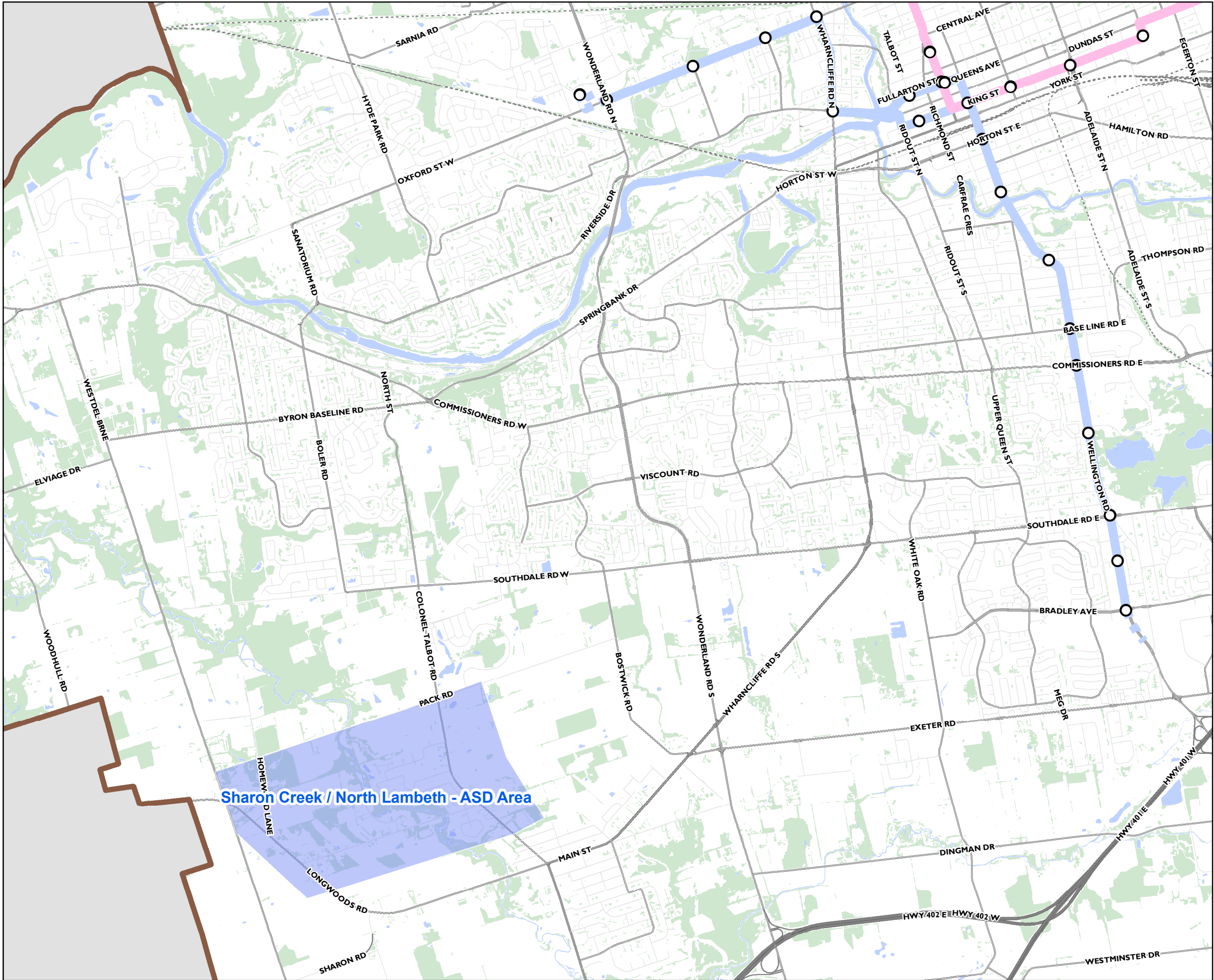
MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



PROJECT: 188035
STATUS: FINAL
DATE: 2018-09-24

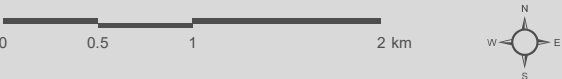


Sharon Creek / North Lambeth - ASD Area

RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK Alternative Service Delivery Area Sharon Creek / North Lambeth

- LTC Bus Route
- BRT Station
- Alternative Service Delivery Areas
- Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation



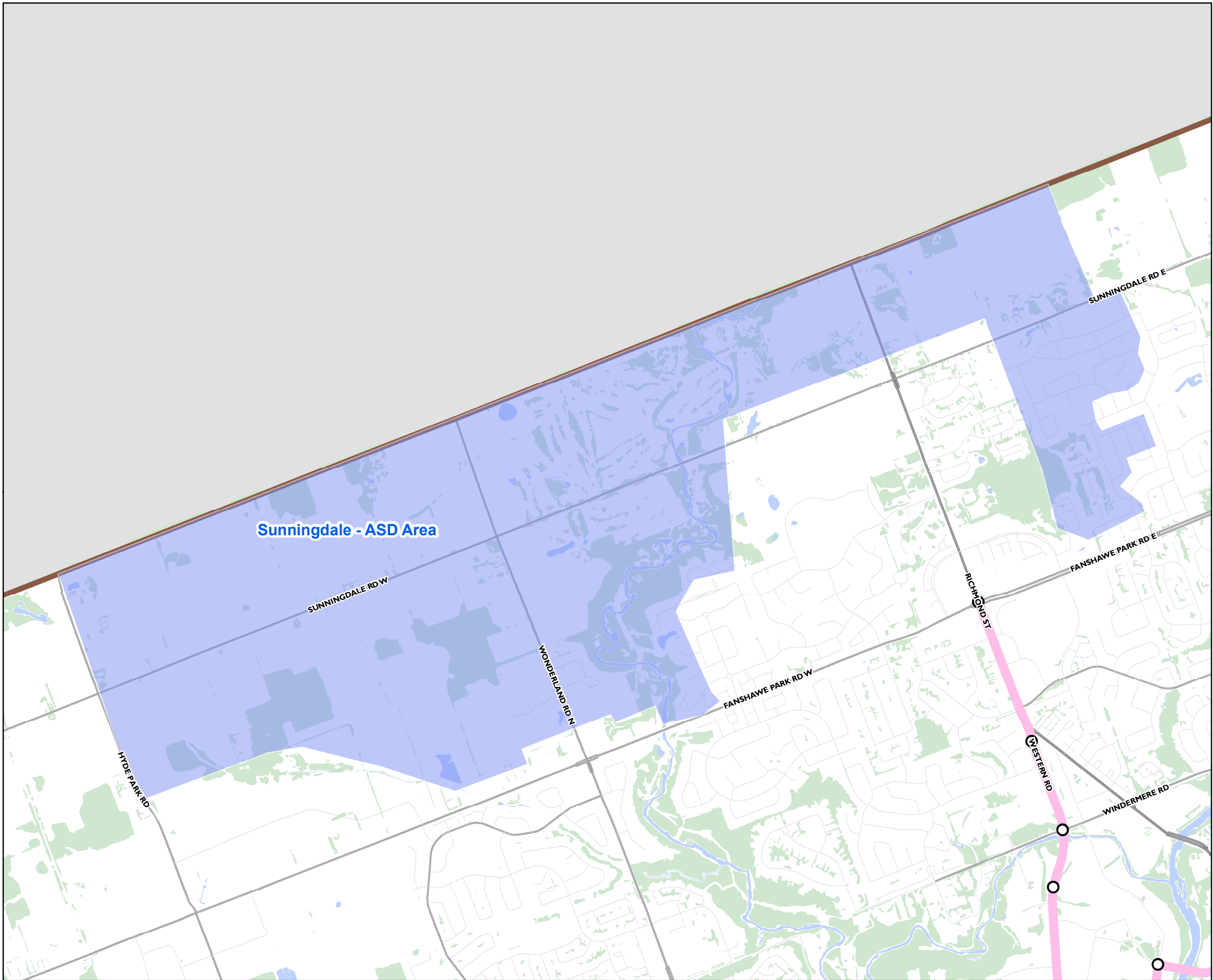
MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



PROJECT: 188035
STATUS: FINAL
DATE: 2018-09-24



RAPID TRANSIT INTEGRATION REVIEW

LONDON TRANSIT NETWORK Alternative Service Delivery Area Sunningdale

- LTC Bus Route
- BRT Station
- Alternative Service Delivery Areas
- Municipal Boundary
- North-East Route
- South-West Route
- Airport Extension
- South-West Route (Mixed Traffic)
- Railway
- Waterbody
- Vegetation

0 0.5 1 km



MAP DRAWING INFORMATION:
DATA PROVIDED BY LTC

MAP CREATED BY: KS
MAP CHECKED BY: DAK
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION: I:\GIS\163037



PROJECT: 188035

STATUS: FINAL

DATE: 2018-09-25