

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: November 14, 2007

SUBJECT: WATERFRONT WEST STREETCAR – EXPANSION OF PARK
LAWN BUS LOOP TO ACCOMMODATE STREETCARS

RECOMMENDATION

It is recommended that the Commission:

- 1) Approve the revised design concept for the Park Lawn streetcar loop noting that:
 - a) The loop will allow provision of increased service west of Humber Loop to the Humber Bay Shores area, which is undergoing significant redevelopment and intensification;
 - b) The loop is larger than the original concept approved in 2003 due to the need to accommodate two streetcar tracks and an operators' washroom building in addition to the existing bus service;
 - c) Public consultation has occurred through two public information meetings held in November, 2006 and September, 2007;
 - d) The concerns expressed by the local community refer primarily to the impacts of streetcars on traffic congestion at the Park Lawn/Lake Shore intersection, the existing poor quality of streetcar service in south Etobicoke, visual and noise impacts of the loop, and the loss of parkland to a larger loop footprint, all of which have been addressed through the design and consultation process;
 - e) Extensive consultation has occurred with City Transportation, Planning and Parks staff, and with the local Councillor, all of whom support the loop; and
 - f) Staff from City Parks and Recreation Division, City Transportation and Planning, and the Toronto and Region Conservation Authority (TRCA) have provided input to the revised design concept, and have reviewed and accepted the design at the 30% level;
- 2) Forward this report to the Planning and Growth Management Committee and to City Council and to the TRCA for approval of the proposed design concept.

FUNDING

The capital cost of \$11.6 million for the new loop as part of the Transit City and Move Ontario Plans is included below the line in the 2008-2012 capital budget subject to Provincial funding.

Interim funds for special track supply are included in the recommendations for Project Approval – Transit City LRT (First Priorities) Commission Report submitted under separate cover at this meeting.

BACKGROUND

The 1993 Waterfront West Environmental Assessment (WWLRT) study, which was approved by then Metro Council and the Ministry of the Environment, recommended the creation of a reserved right-of-way for streetcars on Lake Shore Boulevard West, from Humber Loop to Legion Road terminating at a new streetcar loop on the east side of Legion Road, north of Lake Shore Boulevard. This line and its extension to Long Branch are now part of the overall Transit City Plan LRT network. The full Waterfront West LRT, parts of which are currently under Environmental Assessment review, is illustrated on Exhibit 1.

When the Legion Road location was originally selected for the future streetcar loop, the adjacent land use had been commercial/light industrial and, as such, community impacts were considered minimal. Since then, land uses in the Legion Road area have changed to medium density residential and two concerns arose with respect to the originally-proposed streetcar loop on Legion Road. In 2002, the City of Toronto expressed concern with construction of a streetcar loop at that location because it would be immediately adjacent to the residential units and likely result in noise and other complaints. At about that same time, the Toronto and Region Conservation Authority (TRCA) expressed concern that a streetcar loop at the Legion Road location could negatively affect the Bonar Wetland project which had been approved for the area immediately to the north. As a result, the TTC agreed to undertake a review of potential alternate looping locations in the area.

The review of alternate locations resulted in a recommendation to expand the current bus loop at the south west corner of the Lake Shore Boulevard/Park Lawn Road intersection to accommodate streetcar operation. The expansion of the bus loop that was proposed at that time was supported by the then local Councillor, the City's Departments of Transportation, Planning and Parks and Recreation. The TRCA also approved the relocation of the loop to Park Lawn subject to a number of specific conditions including approval of the final design prior to construction, and completion of an archaeological review, if deemed necessary. At the meeting of March 19, 2003, the Commission approved the Park Lawn proposal, and forwarded the report to the City of Toronto. Council at its meeting of May 21-23, 2003, approved in principle the future expansion of the bus loop. Council also released its interest in protecting for a future streetcar loop on land on the east side of Legion Road.

DISCUSSION

The area west of the Humber Loop to Legion Road area has been undergoing and continues to undergo significant residential redevelopment and intensification. The extension of the 501 Queen short-turn branch through to Park Lawn Road will double the level of service past the Humber Bay Shores condominiums and bring increased service within a 5 minute walk of the Marina Del Rey and Legion Road developments. The current level of service provided west of this point is sufficient to meet current and forecast demand.

Discussions with the Ministry of Environment resulted in the relocation project being confirmed as a minor modification of the original approved EA. The process to deal with such modifications is as follows:

- Modifications will be subject to liaison with the local municipalities and public agencies;
- Affected agencies will be consulted and advised.

In this regard, TTC staff worked with the City and TRCA staff to define the requirements for expanding the bus loop at Park Lawn. Impacts of the proposed design were evaluated and mitigating measures defined. The original loop concept involved a smaller loop footprint than is currently proposed. As a replacement for short-turn facilities at Humber Loop, it was necessary to add a bypass streetcar track to be shared with buses, a second passenger platform, and an operators' washroom building. The revised loop concept is shown in Exhibits 2-6, attached.

In addition, meetings with the local community were held in the area as follows:

- 1) TTC staff met with the Transportation Committee of the Humber Bay Shores Condominium Association to present the proposal on September 28, 2007.
- 2) A public open house meeting was held on November 22, 2006, to allow the public to review the preliminary design, the environmental impact evaluation results and to comment on the proposal.
- 3) A second public meeting was held on September 24, 2007 to provide a formal staff presentation followed by a question and answer period. The meeting had been requested by the local Councillor to outline the objective of the expanded loop in the context of the larger transit system and to directly address the public's concerns. Councillor Grimes and Chair Giambone were in attendance.

The public concerns registered at the meetings fell into four categories:

- The potential impact of additional streetcars and streetcar turns on already congested traffic conditions at the Lake Shore/Park Lawn intersection;
- The general lack of reliability in the streetcar service on Lake Shore Boulevard and the desire for better service west of Park Lawn to Kipling or Long Branch;

- Potential visual and noise impacts associated with the loop; and,
- The use of park land for the expansion.

Explanations/responses to the concerns were provided at the meetings and are available on the Waterfront West website and attached as Exhibit 7 to this report:

http://www.toronto.ca/involved/projects/park_lawn_streetcar/index.htm

Traffic

Traffic flow in the area of Lake Shore Boulevard and Park Lawn Road is heavy at times and is exacerbated when the Gardiner Expressway is congested. This will be an issue regardless of the introduction of increased streetcar service to Park Lawn. Analysis indicates that streetcars turning left from Lake Shore Boulevard to the Park Lawn Loop would have a marginal impact on the performance of the intersection. In addition, proposed improvements to the road network in association with proposed new developments will assist to alleviate peak hour congestion. However, the introduction of improved streetcar service will also provide a travel option for passengers destined for downtown Toronto from southern Etobicoke.

Service

The current and forecast level of demand does not justify extending more frequent service west of the Park Lawn location. The area between Humber Loop and Park Lawn has undergone significant intensification and redevelopment at a scale that is not expected to occur to the same extent further west in the Lake Shore corridor. The upcoming EA for the WWLRT exclusive right-of-way from Park Lawn to Long Branch will address the long-term service reliability issue in this corridor. In the meantime, TTC staff are pursuing other means of improving the reliability of service on the existing streetcar routes in the area.

Visual and Noise Impacts

The design of the expanded Park Lawn Loop will include passenger amenities, improved lighting, and enhanced landscaping in keeping with the entrance to a major park. Proven methods for noise attenuation will be used to minimize wheel squeal. Experience with new lubrication systems indicates that wheel squeal has been substantially reduced at similar streetcar loops in the system. A noise analysis indicates that even with a worst case scenario the increase in noise levels would be well within the MOE guidelines.

Use of Parkland

While the loop will be expanded into existing park land to the south, it will be designed to fit into the environment of the park and any trees removed will be replaced at a 3 to 1 ratio. The existing pedestrian/bicycle pathways will be redesigned to fit around the new loop and the screening will be replaced within the adjacent landscaped areas. TTC staff are working with City Parks and TRCA to minimize impacts on the natural environment and to enhance

the landscaping features around this loop.

Implementation

The current plans for expanding the loop involve completion of the design in early 2008 and construction in 2009. Monies have been allocated below the line in the 2008-2012 budget as a part of Transit City Program, so implementation will be subject to capital budget approval. In order to accommodate the lead time for supply of special trackwork, interim funds have been included for this purpose in the Project Approval – Transit City LRT (First Priorities) Commission Report submitted to this meeting under separate cover.

JUSTIFICATION

There has been and continues to be significant intensification of development on Lake Shore Boulevard west of Humber Loop to Parklawn. Park Lawn Loop is required to improve service in this area and as part of the longer term vision of a Waterfront West LRT.

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Attachments: Exhibit 1 –Waterfront West Streetcar Route
Exhibits 2-6 – Park Lawn Loop Landscape and Architectural Design Details
Exhibit 7 – Response to Open House Questions

EXHIBIT 7

Park Lawn Road Streetcar Loop Response to Open House Questions

1. Why extend streetcar service from Humber Loop to Park Lawn?

An environmental assessment (EA) study of upgraded transit service between southern Etobicoke and downtown Toronto was undertaken in 1992-3. As part of that EA study, it was recommended, and approved, that provision be made to develop a reserved streetcar right-of-way on Lake Shore Boulevard beyond Humber Loop with a turn-back loop at Legion Road. This improvement was intended to take place over time as redevelopment of the motel strip occurred, and would allow the extension of more frequent streetcar service west of Humber Loop as area population increases warranted. At the time of the original EA, limited redevelopment had taken place along the motel strip. Since that time, significant new residential development has occurred, particularly east of Park Lawn Road, more has been approved and additional proposals are expected in view of the recent Ontario Municipal Board ruling for development on Park Lawn. Residents have been requesting an improvement in transit service for some time. The loop at Park Lawn will allow the existing streetcar short-turn at Humber to occur further west, thereby doubling the frequency of service to the Park Lawn area.

In 2002, due to changing land use on Legion Road and identification of environmentally sensitive lands adjacent to Legion Road, the City and Toronto and Region Conservation Authority (TRCA) expressed concern regarding the potential impacts of streetcar operation on the area. Following an analysis and evaluation of options, including consultation with the local area Councillor at the time, expansion of the existing bus loop on the southwest corner of Park Lawn and Lake Shore was selected as the preferred alternative. In 2003, City Council and the Toronto and Region Conservation Authority approved in principle the expansion of the existing bus loop to accommodate streetcars subject to review of the detailed design.

Increased traffic demands are evident in the Park Lawn/Lake Shore area, not only due to local development, but also due to development in areas beyond the Toronto borders. As local development occurs, traffic demands will increase and, accordingly, the City has plans to improve road facilities in the area. However, road improvements alone cannot fully serve all of the transportation demand expected from both local and non-local sources. The provision of improved transit service is a basic premise of the Toronto Official Plan, which seeks to promote long-term sustainable growth. By providing improved transit service throughout the City, residents and commuters will have alternatives to the use of the private automobile whose continued unlimited growth is not sustainable.

The Park Lawn loop is only one part of improved transit service between downtown and south Etobicoke. An Environmental Assessment is currently underway to extend the 509 Harbourfront streetcar service west from its existing terminus at Exhibition Race to the existing reserved right-of-way track at R on cesva lies/The Queen sway. Also, additional right-of-way property on Lake Shore Boulevard to Park Lawn Road is being acquired as development plans are submitted and reserved streetcar operation will be implemented once all of the required property has been acquired. Once these facilities are completed, service between south Etobicoke and downtown will be provided in a fully reserved-right-of-way, thereby minimizing the impact of traffic delays on service. In the meantime, installation of the western terminus of this future reserved right-of-way will allow the more frequent streetcar service to be extended, to meet demand from existing and imminent development in the Park Lawn area, in advance of implementation of the new service to downtown in a fully reserved right-of-way.

2. Why not extend service to the existing loop at Kipling?

The TTC continually monitors service demands and adjusts service as necessary. At this time, passenger demand west of the Humber Bay Shores area does not warrant additional service. Extending the existing short-turn service beyond Park Lawn to Kipling is estimated to cost approximately \$3.3 million a year in on-going operating costs, and would require the dedication of three additional streetcars. Use of the TTC's restricted available resources to provide such a service can only be justified if warranted by demand and, at this time, it is not projected that sufficient demand will exist west of Humber Bay Shores to justify this additional cost in the foreseeable future (i.e. for 10 years minimum and most likely more than 20 years). However, the existing, committed, and proposed developments in the Humber Bay Shores area are expected to generate increased ridership and will warrant an improvement in service as far as Park Lawn Road in the short- to medium-term, and this improvement can be made at a much lower operating cost.

Kipling Loop is used for emergency turnbacks only and has not been used by streetcar service on a regular scheduled basis for decades. Single family residential development is located immediately adjacent to the loop. There are no known plans for redevelopment of this area, especially at the scale occurring in the Park Lawn area.

3. Why not implement an express bus service between south Etobicoke and downtown now?

The TTC analysed peak period express bus service between south Etobicoke and downtown in 1999, 2003, 2004 and 2005. In all cases, the analysis indicated that the financial performance of the service would not meet the TTC's minimum financial standard and so, the express bus service was not approved by the Commission. It is intended to update this analysis using newer population and travel information as part of the normal review of service requests for 2007.

However, it should be noted that provision of a peak period, premium fare, limited service express bus is not a replacement for more frequent streetcar service that could be provided to the Park Lawn area. This service can be provided for longer periods of time at lower cost than a special express bus and will serve a greater number of potential transit customers since it is not limited to a single destination or a specific time of day.

4. Won't the added streetcars turning at Park Lawn worsen the already bad traffic congestion?

Traffic analysis undertaken by consultants, assuming the existing intersection configuration, indicates that the added 6 streetcars per hour turning left at Lake Shore Blvd and Park Lawn Ave. would have minimal impact on the intersection performance assuming development in place up to 2007. An average peak hour increase in delay of 1-3 seconds per vehicle was estimated to occur, with the largest increases being 6 sec for southbound left turning vehicles in the a.m. peak hour and 10 sec, for westbound vehicles in the p.m. peak hour. Improvements will be made to the intersection, including a widening of the southbound approach, when development plans are finalized for the northwest corner of the intersection. In addition, Lake Shore Blvd will be widened east of Park Lawn Road to provide a reserved right-of-way for streetcars in the future. The widening will maintain two through lanes for traffic and appropriate turn lanes in each direction.

During times when the Gardiner Expressway is blocked due to accidents, the traffic congestion in the surrounding area, including Park Lawn and Lake Shore, will worsen as it does today. This type of situation is common anywhere in the city when traffic flow is unexpectedly interrupted. The presence or absence of streetcars at Park Lawn and Lake Shore will make little difference to these exceptional situations.

In fact, the aim of improving transit service to the Park Lawn/Lake Shore area, including to the waterfront park, is to increase the number of people using transit instead of using their cars. Thus, the streetcars should be seen as part of the solution to area traffic problems rather than being identified as contributing to the problem.

5. How will the loop fit into the existing environment of the park?

The current bus loop was built by the former City of Etobicoke to high standards including landscaping to integrate the loop into the park environment. The expanded loop will be built to the same standards and will be enhanced with increased landscaping and lighting, and an improved entrance to the park as requested by City Parks staff. The degree to which the loop encroaches onto parkland will be minimised, and its location where there is already a transit loop and no adjacent built use further minimises impacts. TTC staff are working closely with the City's Parks staff to develop an acceptable design including a suggested improvement to the park entrance.

In addition, noise studies indicate that predicted noise level increases will be within MOE standards, improved rail lubrication and trackbed isolation methods will be incorporated in the loop design to minimise any noise impacts.

6. Will the new loop provide a safer environment than the existing Number Loop?

Yes, in that the loop at Park Lawn will be in a more visible area with more people around. The new loop will be designed with upgraded pedestrian-scale lighting. The design will also be reviewed by TTC security staff to ensure that all appropriate safety and security measures are included.

7. Why not improve the 66 Prince Edward bus service?

As part of the ongoing network review process, consideration will be given to improving the 66 Prince Edward bus route's operating hours and routing in conjunction with the implementation of the Park Lawn streetcar loop. With the proposed increased development in this area, improved service on the bus route will likely be warranted and TTC will continue to monitor changes to development and potential transit demand to determine when such service improvements should be implemented. However, any improvements to bus service would be in addition to the improvements to streetcar service that would occur with the construction of the Park Lawn streetcar loop. The bus and streetcar routes are not entirely interchangeable, even though both can be used to get to and from downtown. The 501 Queen streetcar offers a greater variety of direct destinations, more frequent service, and longer periods of operation than can be justified on the 66 Prince Edward bus and it, therefore, remains an important and necessary element of transit service to the Park Lawn area.

8. What action is being taken to improve reliability on the 501 Queen and 508 Lake Shore services to Long Branch?

The TTC is well aware of the problems in the Queen Street corridor and has been evaluating the situation across the line. Potential solutions, including revised schedules and splitting the route into shorter, more manageable pieces are now being reviewed for implementation. Any changes implemented will be monitored over time to evaluate their effectiveness in improving service reliability.

9. Why were more options not presented at the November open house?

As indicated, a full environmental assessment (EA) study of upgraded transit service between southern Etobicoke and downtown Toronto was undertaken in 1993. Commonly referred to as the Waterfront West LRT (VWVLRT), this EA study recommended that provision be made to develop a reserved streetcar right-of-way on Lake Shore Boulevard beyond Number Loop with a turn-back loop at Legion Road. A full public consultation program was undertaken as required by the EA legislation, including two meetings with the Marina del Rey and Grand Harbour residents. The original EA report, which was approved by City Council and the Ministry of the Environment (MOE) in 1995, included a process for dealing with change from the original approved alignment.

A number of alternative loop locations were considered as part of the EA study including the Park Lawn location. The Legion Road loop was selected based on a potential connection to a relocated GO Station which was being considered at the time. GO Transit now has no plans to complete this relocation.

In 2002, due to the changing land use on Legion Road, the City requested the TTC to find an alternate location for the Legion Road loop. In addition, the Toronto and Region Conservation Authority (TRCA) expressed concern that the loop could negatively affect their proposed Bonar Wetlands project which had been approved immediately north of the loop site. In accordance with the approved EA amendment process, an analysis was undertaken considering three options:

- The original location on Legion Road;
- The west edge of Number Bay park on the south side of Lake Shore Blvd, just east of Legion Road; and
- The existing bus loop on the southwest corner of Lake Shore/Park Lawn expanded to accommodate the streetcar operation.

The options were evaluated based on benefits to transit customers, operational feasibility, capital costs and community impacts. It was concluded that the best alternative was to modify the existing bus loop in that it was found to be an equal or, in light of the changed land use on Legion Road, a better alternative than the original proposed location. The full TTC report is available at <http://www.ttc.ca/postings/gso-comrpt/documents/report/f1733/conv.htm>.

Discussions on the alternative loop location were held with the City Transportation Planning and Parks staff, TRCA, and with the then local Councillor (Irene Jones), all of whom supported the conclusion.

MOE has confirmed that the relocation of the loop from Legion Road to Park Lawn falls within the definition of a minor modification to the original EA undertaking. The process for addressing such a modification is outlined in Chapter 11 of the original WWLRT EA report. The appropriate excerpts as contained in Section 11.2 are noted below:

"During the design and construction of the undertaking, modification to some of the project concepts may occur. This could be due to:

- *Site specific problems which may occur during the design of the project;*
- *Improvements in the design to provide more benefits and/or less adverse impacts;*
- *Circumstances which develop at the time of construction.*

These are modifications which may result in changes to the program presented in the Environmental Assessment report. However, they would not alter the conclusion that rapid transit in the corridor is required to meet project objectives.

Minor modifications to the project will be addressed without requesting formal approval from MOE. Modifications to station concepts and other surface facilities will be subject to liaison with the local municipalities and public agencies. Likewise modifications associated with construction techniques, minor alignment adjustments within existing right-of-way, new Building Code requirements and other adjustments will be governed by specific legislation of the affected agencies. Affected public or agencies will be consulted and advised through the existing approval process. "

In accordance with this process, affected agencies have been consulted, information has been posted to the City's website, and an Open House was held on November 22, 2006 to consult and advise the local community of the change. A report will be going forward to the Commission in 2007.

10. What is the process from this point forward?

Funding for the design and construction of the Park Lawn loop expansion is recommended for inclusion in the proposed 2007-2011 TTC budget. If you wish to provide additional comment on this project and/or other TTC issues you may contact your City Councillor and/or the Commission.

Commission meeting agendas and schedules are available at:
<http://www.ttc.ca/postings/qso-comrpt>. The next Commission meeting is scheduled for Wednesday, January 31st.

Meetings commence at 1:00 p.m. and are held in Committee Room 2, 2nd Floor, Toronto City Hall, 100 Queen Street West, Toronto.

To confirm meeting agendas, you may contact the Office of the General Secretary: 416-393-3698.

11. When is construction of the loop scheduled?

Construction of the loop is scheduled for summer of 2008.

12. With a new Park Lawn Loop, what will the increase in streetcar service be during non-peak hours?

Service will double between Number Loop and Park Lawn. The same frequency of service that is now scheduled as far west as Number Loop, will be extended further west to Park Lawn.

TTC will add an average of 6 streetcars per hour most of the day to the existing service west of Number Loop to Park Lawn Loop. The existing 501 Queen service west of Number Loop is 5-6 streetcars per hour in the peaks and midday periods, Monday to Friday, for an average frequency of a streetcar every 10 minutes. The new service will add the same number of streetcars per hour for a total of 10-12 streetcars per hour, or an average frequency of a streetcar every 5 minutes during the peaks and midday periods.

During the weekday evenings, the existing frequency of a streetcar every 16 or 20 minutes (3-4 streetcars per hour) will change to every 8 or 10 minutes (6-8 streetcars per hour). Weekend service will also double and frequencies vary depending on the time of day.

13. Can TTC build the streetcar loop at Superior Avenue south of Lake Shore Boulevard instead of Park Lawn?

Based on currently-known development scenarios, ridership projections indicate that there will not be sufficient demand to build a loop and provide service west of the Number Bay Shores (Park Lawn) area in the foreseeable future (i.e. for 10 years minimum and most likely more than 20 years).

