

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: June 2, 2010

SUBJECT: SHEPPARD EAST LRT – REQUEST FOR ADDITIONAL STOP AT
SETTLERS ROAD

ACTION ITEM:

RECOMMENDATION

It is recommended that the Commission endorse the staff position that, while it might be physically possible to construct an additional stop on the Sheppard East LRT line at Settlers Road, such an additional stop should not be built. The reasons for this are:

- as with all *Transit City* LRT lines, the stop-spacing on the new Sheppard East LRT line will be wider -- in this case, averaging 470 metres -- and this wider stop-spacing is designed to allow for higher travel speeds than other surface routes in Toronto, while still providing convenient local access for customers walking to and from the stops;
- an additional stop at Settlers Road would be only 270 metres east of the LRT stop at Consumers Road;
- Settlers Road is close to where the Sheppard East LRT will connect with the Sheppard Subway, so there will be more people on the vehicles here than anywhere else on the line, making this the worst location to create unnecessarily close stop spacing which would increase peoples' travel times;
- without a stop at Settlers Road, this area will have one of the longest distances between stops on the Sheppard East LRT -- 690 metres -- however, customers will still be within a reasonable walking distance of the LRT stops at Consumers Road and Victoria Park Avenue; and
- when the Sheppard East LRT line is open, the 169 HUNTINGWOOD and 167/167A PHARMACY NORTH bus routes will continue to operate to and from Don Mills Station on this section of Sheppard Avenue East during peak and midday periods, and they will continue to serve the existing stops at Settlers Road.

FUNDING

This report has no funding implications for either the TTC's operating or capital budgets.

BACKGROUND

At its meeting on May 28, 2009, the Commission considered a staff report entitled, *"Transit City Light Rail Program: Sheppard East LRT Connection at Don Mills Station"*. The Commission heard a deputation from Mr. John Long who, acting on behalf of the owner of the Atria Development Lands at 2250 Sheppard Avenue East, requested that the plans for the Sheppard East LRT be modified to add an LRT stop at the Settlers Road intersection.

In response, the Commission requested that staff, *"Look at the feasibility of creating a new stop at Settlers Road; and staff consult the community, including deputants, and report back to the Commission at the earliest opportunity."*

This report responds to that request.

DISCUSSION

Settlers Road forms a signalised "T" intersection with Sheppard Avenue East, roughly midway between Consumers Road and Victoria Park Avenue. Settlers Road is one of several roadways within the Consumers Business Park, which is to the south of Sheppard Avenue between Highway 404 and Victoria Park Avenue (refer to Exhibit 1). There are currently bus stops in both directions on Sheppard Avenue at Settlers Road, and a pedestrian walkway opposite Settlers Road provides access between these bus stops and the residential community to the north.

The issue of whether or not to include an LRT stop at Settlers Road was carefully considered during the Environmental Assessment (EA) for the Sheppard East LRT line. This review concluded that it would not be desirable to include an LRT stop at Settlers Road, because it would result in very short stop-spacing on a 'higher-order' transit line designed, in part, to provide customers with higher speed and reduced travel times.

This matter is explained below in further detail.

Stop-Spacing Decisions on the Sheppard East LRT Line

Stop-spacing decisions are primarily a matter of policy, combined with an assessment of the local conditions, land uses, and road patterns at potential stop locations. An attempt is made to strike the appropriate balance between two important competing objectives: good local access to and from a stop -- achieved by locating stops closer together -- and higher average travel speeds and reduced travel times for those already on the vehicle -- achieved by locating stops further apart. Stop-spacing guidelines vary, depending on the type of

transit service being considered. A local 'collector' bus service operating through a dense inner-city area may have stops as close as every 200 metres. Transit services with more of a 'line-haul' function have wider stop-spacings: on a suburban bus route operating on an arterial road, stop-spacings should typically average between 300 and 400 metres while, on a subway, or other rapid transit lines, distances between stops are often as great as 1,000 metres.

The *Transit City* LRT network is intended to provide, among other things, higher travel speeds than other TTC surface transit routes. There are two design elements that are essential to accomplish this faster service: i) reserved transit lanes, separated from other traffic, and ii) wider stop-spacings than would normally be provided on other surface transit routes. Ideally, stop spacing of not less than 500 metres would be preferred for the *Transit City* LRT lines. However, this stop-spacing is not possible everywhere on every line, including some sections of Sheppard Avenue East where the major intersections are about 800 metres apart. In these areas, it was decided that stops should be provided at the major intersections, plus one location midway between them, which results in an average stop-spacing closer to 400 metres. The resulting average stop-spacing, over the whole Sheppard East LRT line, is approximately 470 metres.

Physical Feasibility of an LRT Stop at Settlers Road

In response to the Commission's request, preliminary design options were developed for an LRT stop at Settlers Road. The design is more complicated than at other intersections because of the large curve in Sheppard Avenue at this location. Platforms at an LRT stop must be straight, so that there are no gaps between the platform and the entrances of a stopped light rail vehicle. The tracks must remain straight for some distance on either side of the platform to ensure that the edge of the light rail vehicle does not overlap the platform area when approaching, or leaving, the stop. With these constraints, the only feasible design for a stop at Settlers Road would be to construct a single, centre platform between the LRT tracks that would serve both eastbound and westbound vehicles. This concept is shown in Exhibit 2. It is uncertain, at this time, whether some slight curvature could be introduced into the platform. If the platform could have some curvature, without creating unacceptable gaps between the doors and the edge of the platform, it may be possible to design a standard configuration with separate platforms, each at the far side of the intersection. This would require a far more-detailed level of design.

A centre-median design is necessary at the adjacent stops to the west, at Consumers Road. The platforms must both be on the east side of that intersection because the LRT goes into a tunnel just west of that location. As a result, if an additional stop were included at Settlers Road, the resulting stop-spacing to the west would be only 270 metres, which would be far less than the desired stop-spacing for *Transit City* light-rail lines, and would represent the closest stop-spacing on the entire Sheppard East LRT line.

There could be further property impacts associated with the construction of an LRT stop at Settlers Road, beyond those identified in the EA study for this project. If a decision were made to further consider a stop at this location, that matter would be included in further detailed design of the stop.

Reasons for the Request to add an LRT stop at Settlers

In his presentation on May 28, 2009, Mr. John Long, representing the owners of the Atria development near Settlers Road, explained his client's reasons for requesting a stop at Settlers Road, including the following:

- at present, in the morning peak period, the bus stops at Settlers Road are the 8th busiest stops on Sheppard Avenue East;
- of the 746 customers who board eastbound buses on the 85 SHEPPARD EAST and 190 SCARBOROUGH CENTRE ROCKET routes at Don Mills Station in the morning peak hour, 117, or 16 per cent, alight at the Settlers Road stop;
- the Consumers Road Employment Area, on the south side of Sheppard Avenue between Consumers Road and Victoria Park Avenue, is the largest concentration of existing employment in the Sheppard East LRT corridor and has many large parcels of land that are either undeveloped, or underdeveloped; this, coupled with the fact that this area falls within the 'Avenue' designation in the Official Plan, is expected to result in intensification of mixed land uses, which should lead to increased demand at the transit stops on Sheppard Avenue;
- to not provide an LRT stop at Settlers Road would be counter-productive to achieving the increases in transit ridership projected for the Sheppard East LRT;
- while the bus stops at Settlers Road are to be retained for the buses that will continue to serve this section of Sheppard Avenue East with the Sheppard East LRT in place, that is a poor alternative to an LRT stop; and
- there are four other locations on the Sheppard East LRT with LRT stop-spacings that are below the average for the line, and each of these four has much lower ridership potential than Settlers Road.

Rationale for Not Establishing an LRT Stop at Settlers Road

The distance between Consumers Road and Victoria Park Avenue is about 690 metres. The exclusion of an LRT stop at Settlers Road would result in a greater-than-average LRT stop-spacing on this section of the Sheppard East LRT line, but this is consistent with the *Transit City* objective of improved travel speeds and times.

The adjacent LRT stops at Consumers Road and at Victoria Park Avenue will provide reasonable local access for customers in this area: they will be within a five-minute walk of the faster, more-reliable Sheppard East LRT service; comparable to transit walk distances throughout the City; and closer than what people often walk to rapid transit stations. Exhibit 3 illustrates the area within a five-minute walking distance of the adjacent two LRT stops, as well as the relatively-minor additional coverage that would be provided if an additional stop were to be constructed at Settlers Road.

This section of the Sheppard East LRT, on the approach to the Sheppard Subway, will be the busiest point on the line. Vehicles will be carrying the greatest volume of customers anywhere on the whole route, and these large volumes of customers would be inconvenienced by the delay of an additional stop at Settlers Road and by the negative perception of a 'higher-order' transit service having stop-spacings comparable to an inner-city bus route.

Three existing bus routes will continue to serve this area after the Sheppard East LRT opens, and this will ensure that those people who do not wish to walk to either of the adjacent LRT stops continue to have access to local service. The 169 HUNTINGWOOD and 167 PHARMACY NORTH routes provide service on Sheppard Avenue between Victoria Park Avenue and Don Mills Station, during the peak periods (the latter also during middays) from Monday to Friday. The 24A VICTORIA PARK route will continue to operate between Victoria Park Avenue, through the Consumers Business Park to Sheppard Avenue via Consumers Road, and then on Sheppard Avenue between Consumers Road and Don Mills Station, providing a direct connection between the Consumers Road area and Don Mills Station.

In light of the foregoing, the lack of an LRT stop at Settlers Road should not have a significant effect on the extent, or timing, of new development in this area, nor on the total number of customers attracted to travel by transit in this area.

Public Consultation

TTC staff have met with Mr. Long to discuss the contents of this report. As stop-spacing had been an integral part of the public consultation during the EA study, no further meetings were seen as necessary on this particular issue. Since the Commission meeting, on May 28, 2009, there have been numerous letters received from the tenants of the buildings near Settlers Road, all in favour of a new stop at that location. This is the response that would be expected from any potential customer on any transit line, if asked: to favour a shorter walk to transit.

However, consideration must also be given to those customers who would already be on the vehicles and who would, therefore, be inconvenienced by serving this additional stop and by the resulting slower travel speeds. Public meetings during the EA study process provided a forum for obtaining comments from all customers. Some people thought the stop-spacings recommended in the EA were too close, others too far apart, but just as many supported the current stop plans as an appropriate balance between providing a reasonable walking distance to transit, and achieving higher overall travel speed.

SUMMARY

Wider stop-spacings are necessary to achieve a higher overall travel speed on the *Transit City* light rail network than on other surface transit routes in Toronto.

The distance between the surface stops planned at Victoria Park Avenue and Consumers Road is greater than would normally be recommended, but an additional stop at Settlers Road would result in a stop spacing of 270 metres on this higher-order transit facility, well below the route average of 470 metres. Settlers Road is roughly where the Sheppard East LRT would be carrying the greatest number of customers, and these customers would be inconvenienced by an additional close stop. As a result, an additional LRT stop should not be located at Settlers Road.

January 27, 2010
11-31-42

Attachments: Exhibits 1, 2, and 3

Exhibit 1 Transit Services Between Consumers Business Park and Don Mills Stn



Exhibit 2 Preliminary Design of Requested LRT Stop at Settlers Road

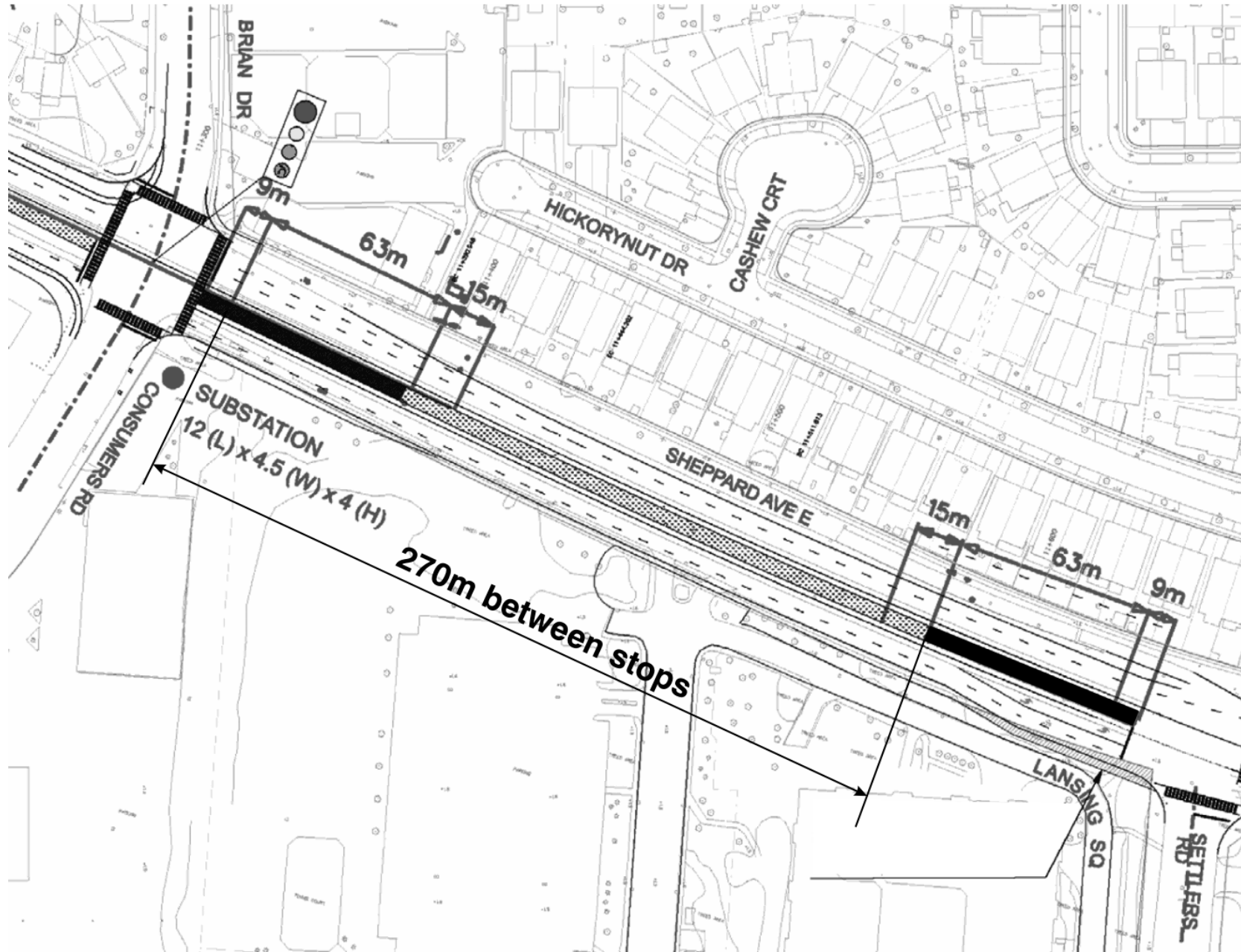


Exhibit 3 Five Minute Walk to Planned and Requested Stops

