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## 2015 CAPITAL BUDGET BRIEFING NOTE

### Long –Term Peak Headway Projections for Streetcar Routes

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#### Issue/Background:

- At its meeting on February 4, 2015, the City of Toronto Budget Committee requested that the TTC provide a note describing the headway implications of the 60 additional new streetcars. The request was to provide information on long-term peak headway projections for all streetcar routes under two scenarios:
  - a) the City provides funding for an additional 60 streetcars; and
  - b) the City does not provide funding for an additional 60 streetcars.

#### Key Points:

##### Relevant Information About the TTC's New Streetcars

- The TTC's new low-floor streetcars, currently being introduced and put into service, are providing a major change in the quality of service for transit customers in Toronto. In addition to bringing low-floor accessible service to the TTC's busiest surface routes, the new cars offer more seats, more space, better climate control, and present a smart new appearance. Customer and employee feedback has been very positive since the first new streetcars entered service in the late summer of 2014.
- The current order is for 204 of the new streetcars, which are to be delivered by 2019, and will replace the TTC's existing fleet of 247 older high-floor streetcars. The new cars are larger, at 30-metres long, and carry more people than the old 15-metre and 23-metre streetcars. A peak-period crowding standard of 130 passengers is being used for the new cars, compared to maximum standards of 74 and 108 for the older cars. Overall, the new fleet of 204 cars will provide approximately 30% more peak-period capacity than the old streetcars.
- Although the new fleet will provide more overall capacity, there will be fewer of the new cars. The scheduled wait time between streetcars -- also known as "headways" -- will be increased in the peak periods as the new streetcars replace the old ones. All TTC streetcar routes currently have frequent service, with peak-period headways typically between every two and six minutes. The increase in headways will be limited to, in most cases, no more than 30% or about two minutes. The slightly-less frequent service will still provide more capacity than the old service and, in cases where the present headways are very short, the slightly-longer time between streetcars will allow for better service reliability, as it is less likely that cars will bunch together.

There are no plans to increase the headways at off-peak times, except in a few anomalous instances.

#### Option for Additional 60 Streetcars

- As part of its contract for the new streetcars, the TTC has an option to purchase 60 additional streetcars, which would result in a total fleet of 264 new cars. In recent years, ridership demand on the streetcar network has been growing quickly, largely as a result of the increase in residential population near downtown on the streetcar network. Current demand is likely suppressed by the lack of available capacity at peak times on the streetcar network. Some streetcar route extensions, such as the West Don Lands and the Waterfront East, are either planned or ready to start service. TTC staff project that, shortly after the entire fleet of 204 new streetcars has been received, ridership demand will be high enough that additional streetcars will be required. For this reason, it is recommended that the option for 60 new streetcars be exercised.
- If the additional 60 streetcars were purchased, there would be no increase in headways in peak periods on the streetcar network, compared to the present headways. The total capacity of the streetcar network would be approximately 70% higher than today, which would ensure that continued population and economic growth in Toronto could be accommodated on the streetcar network.

#### Effects on Headways of the 60 New Streetcars

- The table on the next page provides the requested information, for the morning and afternoon peak periods from Monday to Friday (again noting that off-peak headways are not planned to be changed from current levels, regardless of the number of streetcars purchased). The table shows the present 2015 peak-period service levels in the “Now” column. The next two columns show the planned headways in 2019 once all the 204 streetcars in the current order are in service. Also shown is the percentage increase in hourly capacity, compared to today’s service. The final two columns show the projected headways if the additional 60 streetcars were purchased, so that the total fleet size would be 264 cars. As can be seen, the headways will increase slightly with the fleet of 204 cars, and passenger capacity would increase between twenty and fifty percent. The headways with the fleet of 264 would be essentially the same as today, and capacity would increase up to 80%.

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# Number of New Streetcars and Resulting Peak-Period Headways

**Peak-Period Service Level Changes**

**New Low-Floor Streetcars**

**Two Options:**

Fleet of 204 New streetcars; and Fleet of 264 New Streetcars

	Monday-Friday Morning Peak					Monday-Friday Afternoon Peak				
	Now	204 New Streetcars	Capacity Increase 204 Streetcars	264 New Streetcars	Capacity Increase 264 Streetcars	Now	New Streetcars	Capacity Increase 204 Streetcars	264 New Streetcars	Capacity Increase 264 Streetcars
	511 Bathurst	4 min 15 s	5 min 00 s	50%	4 min 10 s	80%	4 min 30 s	5 min 30 s	40%	4 min 35 s
506 Carlton	3 min 45 s	5 min 00 s	30%	3 min 45 s	80%	5 min 00 s	6 min 08 s	40%	5 min 00 s	80%
505 Dundas	5 min 15 s	6 min 45 s	40%	5 min 15 s	80%	5 min 20 s	6 min 40 s	40%	5 min 20 s	80%
502 Downtowner	12 min 00 s	14 min 30 s	50%	12 min 00 s	80%	12 min 00 s	15 min 00 s	40%	12 min 00 s	80%
503 Kingston Rd	12 min 00 s	14 min 30 s	50%	12 min 00 s	80%	12 min 00 s	15 min 00 s	40%	12 min 00 s	80%
502 Downtowner / 503 Kingston Rd - combined east of King St	6 min 00 s	7 min 15 s	50%	6 min 00 s	80%	6 min 00 s	7 min 30 s	40%	6 min 00 s	80%
509 Harbourfront	5 min 15 s	6 min 20 s	50%	5 min 15 s	80%	4 min 20 s	5 min 30 s	40%	4 min 20 s	80%
504 King / 508 Lake Shore (see note below)	1 min 51 s	2 min 10 s	50%	2 min 01 s	60%	2 min 44 s	3 min 23 s	40%	3 min 02 s	60%
501 Queen - combined east of Humber Loop	4 min 15 s	4 min 15 s	20%	3 min 53 s	30%	5 min 08 s	5 min 00 s	20%	4 min 15 s	50%
501 Queen - west of Humber Loop to Long Branch Loop	10 min 20 s	8 min 30 s	50%	7 min 45 s	60%	10 min 15 s	10 min 00 s	20%	8 min 30 s	50%
512 St Clair	2 min 50 s	4 min 10 s	20%	2 min 50 s	80%	3 min 10 s	4 min 30 s	20%	3 min 10 s	80%
510 Spadina	2 min 30 s	3 min 30 s	30%	2 min 30 s	80%	2 min 00 s	3 min 00 s	20%	2 min 08 s	70%
"Now" service levels on 504, 508 estimated; excludes temporary bus operation										