

Clause embodied in Report No. 12 of the Works Committee, which was before the Council of the City of Toronto at its meeting held on July 24, 25 and 26, 2001.

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**510 Spadina Streetcar: Closure of Unsafe
Unsignalized Opening at Baldwin Street**

(City Council on July 24, 25 and 26, 2001, deferred consideration of this Clause to the next regular meeting of City Council scheduled to be held on October 2, 2001.)

The Works Committee recommends that the following communication (June 22, 2001) from the General Secretary, Toronto Transit Commission, be received:

At its meeting on Wednesday, June 20, 2001, the Commission considered the attached report, entitled "510 Spadina Streetcar: Closure of the Unsafe Unsignalized Opening at Baldwin Street."

The Commission also received a deputation concerning this matter.

After hearing the deputation, the Commission approved the Recommendation contained in the report, as listed below:

"It is recommended that the Commission:

- (1) request Toronto City Council to:
 - (a) approve the immediate installation of an interim barrier at Baldwin Street, and the construction of a permanent barrier at this location, as has been done at every other unsignalised intersection on Spadina Avenue, as quickly as possible;
 - (b) direct Transportation Services staff to immediately prepare the necessary by-laws to give effect to these changes, noting that:
 - there have been 30 automobile-streetcar collisions at the unsignalised intersection of Spadina Avenue and Baldwin Street in the 22 months since all other unsignalised crossings of the streetcar right-of-way were closed, and this is, by far, the highest automobile-transit collision rate of any intersection in Toronto;
 - the Commissioner of Works and Emergency Services recommended, in his November 15, 1999 report, that a barrier be installed adjacent to the streetcar right-of-way on Spadina Avenue at Baldwin Street, to physically prevent motorists from turning across the tracks and to, thereby, eliminate the ongoing automobile-streetcar collisions which were occurring at that location;

- the professional traffic engineering staff at Transportation Services and at the TTC have jointly concluded that there are no traffic control measures available - modified pavement markings, different signage, flashing beacons - which would be effective in eliminating this safety concern, and that the only solution to this ongoing safety problem is to physically prevent vehicles from entering onto or crossing the streetcar tracks at Baldwin Street;
 - the installation of traffic control signals at this location, originally requested by the Commission at its January 12, 2000 meeting, has been determined by Toronto Transportation Services to be not feasible; and
 - the current Toronto City Council and its committees have the authority to install barriers at the Spadina/Baldwin intersection because this Council is not bound by the procedural technicality which prevented the previous Council from addressing this matter;
- (2) approve the expenditure of up to \$50,000 in unbudgeted funds for this initiative; and
- (3) forward this report to the City of Toronto, Toronto Transportation Services, Toronto Planning and Councillor Olivia Chow.”

The Commission also approved the following:

- (1) that City Transportation staff be requested to report back to the City Works Committee after a period of six months on the traffic and business implications that have resulted from this change; and
- (2) that the Toronto Parking Authority be requested to report back to the City Works Committee when this matter comes back in six months on what impact this change has had on their parking operation on Baldwin Street.

The foregoing is forwarded to Toronto City Council through the City Works Committee for consideration of the Commission's requests embodied in Recommendation (1)(a) and (b), as well as the first ancillary motion noted above.

(Toronto Transit Commission Report No. 32,
dated June 20, 2001, entitled
“510 Spadina Streetcar: Closure of the Unsafe
Unsignalized Opening at Baldwin Street”)

Recommendations:

It is recommended that the Commission:

(1) request Toronto City Council to:

- (a) approve the immediate installation of an interim barrier at Baldwin Street, and the construction of a permanent barrier at this location, as has been done at every other unsignalised intersection on Spadina Avenue, as quickly as possible;
- (b) direct Transportation Services staff to immediately prepare the necessary by-laws to give effect to these changes, noting that:
 - there have been 30 automobile-streetcar collisions at the unsignalised intersection of Spadina Avenue and Baldwin Street in the 22 months since all other unsignalised crossings of the streetcar right-of-way were closed, and this is, by far, the highest automobile-transit collision rate of any intersection in Toronto;
 - the Commissioner of Works and Emergency Services recommended, in his November 15, 1999 report, that a barrier be installed adjacent to the streetcar right-of-way on Spadina Avenue at Baldwin Street, to physically prevent motorists from turning across the tracks and to, thereby, eliminate the ongoing automobile-streetcar collisions which were occurring at that location;
 - the professional traffic engineering staff at Transportation Services and at the TTC have jointly concluded that there are no traffic control measures available – modified pavement markings, different signage, flashing beacons – which would be effective in eliminating this safety concern, and that the only solution to this ongoing safety problem is to physically prevent vehicles from entering onto or crossing the streetcar tracks at Baldwin Street;
 - the installation of traffic control signals at this location, originally requested by the Commission at its January 12, 2000 meeting, has been determined by Toronto Transportation Services to be not feasible; and
 - the current Toronto City Council and its committees have the authority to install barriers at the Spadina/Baldwin intersection because this Council is not bound by the procedural technicality which prevented the previous Council from addressing this matter;

- (2) approve the expenditure of up to \$50,000 in unbudgeted funds for this initiative; and
- (3) forward this report to the City of Toronto, Toronto Transportation Services, Toronto Planning and Councillor Olivia Chow.

Funding:

The City of Toronto would install, at its expense, an interim barrier at Baldwin Street. The installation of a permanent barrier on this short section of Spadina Avenue would be funded by the TTC. The cost for this construction has not yet been determined but, based on previous median and curb installations on Spadina Avenue, is expected to cost no more than \$50,000. No funds were included in the 2001-2005 capital program for this initiative. Staff will attempt to find the funds for this project by identifying an under-expenditure elsewhere in the capital program, notably in Project No. 3.3, Yards and Roads.

Background:

There has been an ongoing problem with automobile-streetcar collisions at unsignalised intersections on Spadina Avenue, including Baldwin Street, since the 510 Spadina streetcar line began operating in July 1997.

When the line opened, there were no barriers to prevent motorists from driving on, or across, the streetcar lanes. Motorists were prohibited, through by-law only, from driving on the streetcar tracks, and from making left turns across the streetcar right-of-way at unsignalised locations, in peak periods. Left turns were permitted, however, during off-peak periods, and motorists were permitted to go onto the tracks a short distance in advance of the point at which they were making their left turns.

This operational design was flawed, and resulted in an extraordinarily high number of collisions between left-turning vehicles and streetcars at unsignalised intersections. In virtually every instance, the collision involved a left-turning motorist, initially travelling in the same direction as the streetcar, failing to check whether there was a streetcar approaching from behind, in the streetcar lane, before making their turn.

As a result of this ongoing safety problem, Toronto City Council, at its meeting on July 8, 1998, approved the Toronto Community Council recommendation that temporary barriers be installed between signalised intersections, but with openings left at nine unsignalised intersections. This option was intended as a trial to determine if the collisions could be significantly reduced on Spadina Avenue, overall, by limiting the number of unsignalised intersections where left turns and U-turns could be made during off-peak periods.

This trial failed. The collision rate between automobiles and streetcars remained extraordinarily high at the nine remaining openings in the streetcar right-of-way. As a result, at its meeting on February 10, 1999, the Commission approved requesting the City of Toronto Council to immediately close the openings that had been left at the unsignalised intersections on Spadina Avenue, except for the Baldwin Street intersection, which was referred back to staff for further analysis.

At its meeting of January 12, 2000, the Commission considered a staff report entitled “501 Spadina: Closure of the Remaining Unsignalized Opening at Baldwin Street” in which staff advised that there had been ten automobile-streetcar collisions at that intersection in the previous six months alone, and recommended that the Commission request Toronto City Council to immediately close the unsafe unsignalized opening on Spadina Avenue at Baldwin Street. The Commission approved the following motion:

“That the Commission recommend to the Works Committee and City Council the installation of a traffic signal, as a high priority, at the intersection of Baldwin Avenue and Spadina Avenue, and that staff work with the local Councillors in establishing a road pattern that both accommodates the needs of the local community and the safety requirements of the TTC.”

The Works Committee, at its March 22, 2000 meeting, referred the Commission’s recommendation to the Commissioner of Works and Emergency Services for a report. Transportation Services staff had already addressed the feasibility of traffic signals at the Spadina Avenue and Baldwin Street intersection, in a November 15, 1999 report to the Works Committee. In that report (attached), staff advised that traffic control signals are not feasible at this location because of the very short distance to the adjacent signals at St. Andrews Street and at Nassau Street, and because of the complicated, offset design of the east and west legs of this intersection. Since traffic signals were not feasible at this location, and because Transportation Services had also concluded that this unsignalized opening constitutes an unsafe situation, Transportation Services recommended closing the opening in the streetcar right-of-way at Baldwin Street to eliminate ongoing collisions at that intersection. The Chair of the Works Committee, at its December 1, 1999 meeting, ruled consideration of that report out of order on the technicality that Council had, at a meeting earlier that year, already dealt with this matter and, in so doing, had stated that the opening at Baldwin Street should remain.

That technicality, which prohibited the Works Committee from considering the Transportation Services report, resulted in that report not being resubmitted for the balance of the term of the last Council. However, since the decisions of a previous Council are not binding on subsequent Councils, the current (2001-2003) Council and its committees are able to finally deal with this ongoing safety problem at Spadina Avenue/Baldwin Street.

Discussion:

The operation of this intersection continues to be unsafe. As shown in Exhibit 1, it is the only intersection on Spadina Avenue where left turns are permitted across the streetcar tracks without the aid of a traffic signal. Since the end of July 1999, when bollards and, subsequently, curbs and medians were installed at all the other unsignalized crossings of the 510 Spadina right-of-way to physically prevent cars from turning across the streetcar tracks, 30 automobile-streetcar collisions have occurred at the unsignalized opening at Baldwin Street.

This is, by far, the highest automobile-transit collision rate of any intersection in the entire TTC system. In every collision, the motorist, not the streetcar operator, has been at fault. This collision pattern is consistent with previous collision experience at unsignalized intersections on Spadina Avenue. It is incumbent on the TTC and, ultimately, the City of Toronto, to improve

the safety of this intersection by closing the opening in the streetcar right-of-way at Baldwin Street.

The local merchants' concern, to date, about closing this intersection is that northbound vehicles on Spadina Avenue will not be able to turn left at Baldwin Street to access Kensington Market. However, as illustrated in Exhibit 2, there is a convenient alternative for northbound motorists wishing to access Baldwin Street, west of Spadina Avenue; they can travel a very short distance north of the intersection and make a legal and protected U-turn at Nassau Street, using the existing special lane and traffic signals which were originally provided for this purpose.

As indicated earlier, Transportation Services staff had previously submitted a report to the Works Committee, advising that traffic signals were not feasible at Baldwin Street. Professional traffic engineering staff at Transportation Services and at the TTC have, since the line opened, considered every means of eliminating the safety problems at unsignalised intersections without using barriers to physically prevent left turns. However, they have jointly concluded that there are no traffic control measures available – modified pavement markings, different signage, flashing beacons – which would be effective in eliminating this safety concern. Both Transportation Services and TTC staff agree that the only solution to this ongoing safety problem is to physically prevent vehicles from entering onto or crossing the streetcar tracks at Baldwin Street. For this reason, TTC and City staff jointly recommend that the single, remaining opening at the Spadina-Baldwin intersection be closed.

Justification:

There is an unsafe operating condition at the unsignalized intersection of Spadina Avenue and Baldwin Street, as evidenced by the unprecedented rate of collisions between cars and streetcars at that location. Transportation Services staff have concluded that it is not feasible to install traffic signals at this location. City and TTC staff have concluded that there are no incremental or intermediate measures that would be effective in solving the collision problem at this location. This being the case, City and TTC staff recommend that the opening adjacent to the streetcar right-of-way at this intersection be closed, to physically prevent motorists from crossing the streetcar tracks, as the only effective means of solving this safety problem.

(Attachments to the foregoing report were forwarded to all Members of Council with the Supplementary Agenda for the Works Committee meeting of July 4, 2001, and copies thereof are on file in the office of the City Clerk, City Hall.)