



STAFF REPORT ACTION REQUIRED

Left Turn Prohibition After Study – Davenport Road at Belmont Street

Date:	April 18, 2011
To:	Toronto and East York Community Council
From:	Acting Director, Transportation Services Toronto and East York District
Wards:	Toronto Centre-Rosedale, Ward 27
Reference Number:	Ts2011107te.top.doc

SUMMARY

Transportation Services is seeking authority from City Council to rescind the prohibition of southbound left turns from Davenport Road to Belmont Street at all times.

Transportation Services has completed studies assessing the impact of this prohibition which was implemented in October of 2010. It was found that the volume of traffic on Belmont Street, between Davenport Road and Yonge Street, has been reduced significantly. However, motorists have chosen to use local streets within the community as alternate routes rather than diverting to the arterial road network of Davenport Road, Yonge Street and Church Street. The result has been safety and operational problems on McAlpine Street, McMurrich Street and New Street.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council rescind the southbound left-turn prohibition at all times from Davenport Road to Belmont Street.

Financial Impact

The estimated cost of removing the signs, associated signal modifications and pavement marking adjustments on Davenport Road at Belmont Street is estimated to be \$12,450.00. These funds are contained in Transportation Services 2011 Capital Budget.

DECISION HISTORY

At its meeting of July 6, 7 and 8, 2010 City Council considered Item TE35.75 from Toronto and East York Community Council entitled "Left Turn prohibition – Davenport Road at Belmont Street". In doing so, City Council adopted the following:

1. City Council prohibit southbound left turns at all times from Davenport Road to Belmont Street.
2. City Council prohibit 'U'-turns for southbound/eastbound traffic on Davenport Road, between Belmont Street and Yonge Street.
3. City Council request the General Manager, Transportation Services to review the left-turn prohibition – Davenport Road at Belmont Street, and report to Toronto and East York Community Council in the Spring of 2011 on any adjustments required, including a review and recommendations with respect to the intersection of Rosedale Valley Road and Park Road.

BACKGROUND

Prior to October 2010, left turns were allowed at all times from Davenport Road to Belmont Street. An exclusive left-turn storage lane was provided on Davenport Road and the signal operation consisted of an advanced left-turn phase for this turning movement. On October 6, 2010, signs prohibiting this movement were installed, and the left-turn lane and left-turn signal were removed.

This left-turn prohibition was requested as a measure to reduce the traffic volumes on Belmont Street. Prior to its implementation, Transportation Services had concerns that there would be significant impacts to local residents and businesses and to traffic operations on alternate routes.

To be able to assess the impacts of the turn prohibition, Transportation Services staff recorded traffic volumes at all intersections that access the community bounded by Davenport Road, Yonge Street and Belmont Street both before and after implementation of the turn prohibition. We also observed the behaviour of motorists and received many comments from members of the public.

COMMENTS

Study Results

Implementation of the prohibition of left turns from Davenport Road to Belmont Street has resulted in a fairly significant change to the traffic patterns in the community bounded by Davenport Road, Yonge Street and Belmont Street.

Table 1 compares the number of vehicles in the area bounded by Davenport Road, Yonge Street and Belmont Street for the morning peak hour, afternoon peak hour and the total 8-hour period:

Table 1

Directional Movement & Location	AM Peak Hour Volume		PM Peak Hour Volume		8-Hour Volume	
	Before	After	Before	After	Before	After
Southbound left turns: Davenport Road to Belmont Street	317	2	354	0	2640	25
Northbound right turns: Davenport Road to Belmont Street	30	38	88	118	496	483
Southbound left turns: Davenport Road to McAlpine Street	25	215	30	226	165	1,542
Eastbound left turns: Davenport Road to McMurrich Street	13	20	35	41	204	196
Eastbound left turns: Davenport Road to Yonge Street	65	76	97	130	605	686
Eastbound through at Yonge Street: Belmont Street to Aylmer Avenue	362	203	438	307	3,069	1,739
Westbound through at Yonge Street: Aylmer Avenue to Belmont Street	422	387	556	402	3,372	2,499
Southbound right turns: Davenport Road to New Street	9	17	6	38	78	179

Table 2 provides a comparison of the total two-way traffic volumes on Davenport Road, New Street, McAlpine Street, McMurrich Street, and Belmont Street.

Table 2

Street	AM Peak Hour Volume		PM Peak Hour Volume		8-Hour Volume	
	Before	After	Before	After	Before	After
Davenport Road (Belmont Street to Yonge Street)	1,841	1,879	1,907	2,054	13,385	13,635
New Street (Davenport Road to its west end)	33	41	38	85	324	452
McAlpine Street (Davenport Road to McMurrich Street)	141	285	117	314	841	2,075
McMurrich Street (Davenport Road to McAlpine Street)	83	79	99	108	831	703
Belmont Street (Davenport Road to McMurrich Street)	917	491	952	583	6,746	3,544
Belmont Street (McMurrich Street to Yonge Street)	931	691	1,250	861	7,950	5,109

Impact of Left-Turn Prohibition

Previously, many motorists used Belmont Street to travel through the community to access Yonge Street and ultimately Rosedale Valley Road. It was hoped that this prohibition would divert these motorists to the alternate arterial routes of Davenport Road/Yonge Street/Aylmer Avenue or Davenport Road/Church Street/Park Road. While some motorists appear to have made those choices, the predominant alternate route has become the southbound left turn to McAlpine Street, a left turn at the all-way stop control at McMurrich Street, and a right turn to Belmont Street. Other actions to circumvent the prohibition have also been observed. The impacts on each of the community streets is discussed below.

Belmont Street

As can be seen in Tables 1 and 2, traffic volumes have decreased on Belmont Street between Davenport Road and Yonge Street since the introduction of the southbound left-turn prohibition at Davenport Road and Belmont Street. In the morning peak period, for example, traffic volumes have gone from 917 vehicles to 491 vehicles west of McMurrich Street and 583 vehicles east of McMurrich Street. Approximately 300 to 350 motorists were making the southbound left-turn to Belmont Street during the a.m. and p.m. peak hours respectively prior to the turn prohibition, and in excess of 2,600 motorists made this turn daily. We recorded only 25 vehicles making this illegal turn in eight hours.

It should be noted that the reduction in traffic volume on Belmont Street was more significant west of McMurrich Street as motorists are finding other ways to enter the community and access the eastern section of Belmont Street via McMurrich Street.

Belmont House (a retirement/long-term facility), is located on the south side of Belmont Street and its property occupies the area bounded by Belmont Street, McMurrich Street, McAlpine Street and Davenport Road. This facility is home to approximately 230 seniors and employs approximately 200 staff. The main entrance and visitor parking is off of Belmont Street. As a result of the turn prohibition to Belmont Street, motorists destined to this facility from Davenport Road are now forced to use McAlpine Street, negatively impacting the day-to-day operation at this facility.

New Street

New Street is a short dead-end street that forms the west leg of the Davenport/Belmont intersection. Traffic volumes on this street have increased since the introduction of the turn prohibition on Davenport Road. As Table 2 indicates, traffic volumes have gone from 324 vehicles in an 8-hour period to 452 vehicles a day on this street. The majority of this volume is generated from motorists making a southbound right turn from Davenport Road, making a "U" turn, then traveling eastbound from New Street through to Belmont Street. This has resulted in an increase in operational safety concerns for all road users, particularly Toronto Emergency Medical Services Ambulance Station 45. Motorists are using the Station driveway for the "U" turn movements.

McAlpine Street and McMurrich Street

McAlpine Street is the first street providing a left-turn option south of Belmont Street, and this intersection is not signalized nor is a left-turn lane provided on Davenport Road. After the implementation of the turn prohibition at Belmont Street, this street has become the option of choice for motorists destined within the neighbourhood from Davenport Road, resulting in operational safety concerns for all road users. As noted in Table 2, traffic volumes on this street have almost tripled from 841 vehicles during an 8-hour period to 2,075 vehicles creating traffic delays and queuing on Davenport Road and McAlpine Street, particularly during the morning peak period. The traffic volume increase on this street has also resulted in operational safety concerns at the intersection of McAlpine Street and McMurrich Street, which is currently controlled by an all-way

stop. Transportation Services has received concerns from area residents regarding an increase in right-of-way confusion, delays, and aggressive driving at this intersection.

Traffic volumes on McMurich Street, south of McAlpine Street, have remained stable, showing a slight decrease since the introduction of the turn prohibition. Traffic volumes recorded over eight hours have decreased on this street section from 831 vehicles to 703 vehicles.

Yonge Street and Davenport Road

In 2009 the intersection of Yonge Street and Davenport Road/Church Street was redesigned to improve the crossing environment for pedestrians and to provide motorists an alternate route to Yonge Street from Davenport Road by allowing the eastbound left-turn movement to take place via an exclusive left-turn lane. This movement was previously prohibited at all times. Our traffic studies indicate that the eastbound left-turn volumes at Davenport Road and Yonge Street have increased marginally during all periods of the day.

Alternatives

During the time since left turns have been prohibited from Davenport Road to Belmont Street, Transportation Services have considered a number of suggestions to address the resultant impacts within the community. Some of them are discussed below:

- (a) Introduce a southbound left-turn prohibition during the morning peak period from Davenport Road to McAlpine Street.

Implementing a turn prohibition to McAlpine Street, while maintaining the prohibition of southbound left turns at Belmont Street, would essentially prevent anyone from accessing this community from the northwest. These regulations would apply to all motorists, including local residents, their visitors, business proprietors and their clients. No exception is permitted under the provisions of the Highway Traffic Act and the potential inconvenience to locally generated traffic is obvious. In addition, Davenport Road traffic destined for Belmont Street would most likely turn further south onto McMurich Street as an alternate route, negatively impacting this street as well.

- (b) Introduce a southbound right-turn prohibition from Davenport Road to New Street but allow local residents only.

As mentioned above, implementing a turn prohibition at New Street while maintaining the southbound left turn prohibition at Belmont Street, would essentially prevent anyone from accessing this street from the north part of the City. These regulations would apply to all motorists, including local residents, their visitors, business proprietors and their clients. No exception for local residents is permitted under the provisions of the Highway Traffic Act.

- (c) Prohibit the southbound left-turn movement at Belmont Street in the morning and afternoon peak periods of the day only, allowing this movement to take place during the off-peak periods of the day.

Allowing the southbound left-turn movement at Davenport Road and Belmont Street during the off-peak hours of the day will have a minimal effect on traffic volumes on McAlpine Street and New Street as the majority of the traffic on these streets is currently occurring during the morning and afternoon peak periods of the day. In addition, allowing this movement onto Belmont Street without an exclusive left-turn lane will result in significant delays and congestion on Davenport Road for all road users as southbound motorists will be blocked by the left-turning vehicles. The exclusive left-turn lane could be re-instated in conjunction with the morning and afternoon peak period turn prohibition; however this would give motorists a conflicting message when turns are prohibited.

- (d) Do Nothing

One of the options Transportation Services considered is to leave the current southbound left-turn prohibition in place at the intersection of Davenport Road and Belmont Street. Our studies do indicate that this prohibition has lowered the traffic volumes on Belmont Street by as much as 47 percent. However, our studies also indicate that this turn prohibition has resulted in a diversion of traffic to surrounding streets, mainly McAlpine Street and New Street which is causing safety and operational problems. In addition, the turn prohibition has inconvenienced local residents, their visitors, business proprietors and their clients.

- (e) Rescind the southbound left-turn prohibition from Davenport Road to Belmont Street

Removing the turn prohibition and reinstating the exclusive left turn lane and left turn signal phase from southbound Davenport Road to Belmont Street would re-establish Belmont Street as the primary route into and through this community. The safety and operational problems that have resulted on McAlpine Street and McMurrich Street, and on New Street, should be reduced significantly.

Rosedale Valley Road and Park Road

As discussed earlier in this report, the majority of motorists diverted from making the southbound left turn from Davenport Road to Belmont Street have chosen alternate routes within the community. Motorists end up approaching the intersection of Rosedale Valley Road and Park Road from the same direction as previously (i.e. via Aylmer Avenue or Church Street). Therefore, there has been no impact at this intersection and no changes are recommended.

Conclusions

Prohibiting the southbound left-turn movement at all times on Davenport Road at Belmont Street has had a positive result by reducing traffic volumes on Belmont Street.

However, the negative impacts on adjacent streets, local residents and businesses, and the operational concerns on the alternate routes available to motorists, have been significant. As a result, Transportation Services recommends removing the current turn prohibition on Davenport Road at Belmont Street and reinstating the exclusive southbound left turn lane.

CONTACT

Joe Gallippi, Transportation Technologist
Traffic Operations, Toronto and East York District
Phone: 416-338-5404
Fax: 416-392-1920
e-mail: jgallipp@toronto.ca

SIGNATURE

Angie Antoniou
Acting Director, Transportation Services
Toronto and East York District

LIST OF ATTACHMENTS

(1) Drawing No. 421G-0321, dated April 2011

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