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February 15, 2005

Councillor Michael Walker
City of Toronto, Ward 22 – St. Paul's
100 Queen St. W., Suite B26
Toronto, Ontario
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Dear Councillor Walker:

Re: Chaplin Crescent, between Eglinton Avenue West and Yonge Street – Various traffic operation concerns

Further to an October 27, 2004 report from the residents of Chaplin Crescent to Mayor David Miller, we have reviewed the requests for additional information on the above-noted section of roadway. The requests were further to our earlier study that was summarized in a March 5, 2003 letter to you, which has been attached for your information. The following discussion summarizes the details of our study.

Traffic Volumes on Chaplin Crescent:

The residents disputed our previous statement that traffic volumes on Chaplin Crescent have remained relatively consistent since the 1970's and requested copies of all background data used to establish the basis of our statement. Our previous statement was based on our review of all available historical traffic data on Chaplin Crescent, between Eglinton Avenue West and Yonge Street. Traffic data is generally collected in two formats:

- turning movement counts, which are collected manually at intersections during the busiest eight-hour period of a typical weekday; and
- automatic traffic counts, which are collected by vehicle detectors at mid-block locations for an entire day, typically for several consecutive weekdays.

All of the historical data we used were in the form of manual eight-hour turning movement counts. There are no historical 24-hour automatic counts on Chaplin Crescent that pre-date 1999. As a result, the historical 24-hour traffic volumes that we provided in our letter were derived by multiplying the eight-hour turning movement count volumes by an adjustment factor. Generally, in the City of Toronto, 24-hour weekday traffic volumes are between 2.0 and 2.2 times higher than the weekday eight-hour traffic volumes. Our calculations multiplied all eight-hour counts by these factors, to derive a range of "low" and "high" 24-hour volumes, as well as an average range of volumes for each decade. All historical traffic counts as well as the summary that was used to derive the ranges of traffic volumes are provided in Appendix A.

I would note that the majority of the traffic counts over 20 years old do not have a specific date, besides the year that the count was undertaken, nor do they provide a complete hour-by-hour summary, as traffic count data was summarized differently at that time. Additionally, I would note that due to the alignment of Chaplin Crescent, it may be considered to be the north-south road (at Eglinton Avenue West) or it may be considered to be the east-west road

(at Avenue Road). Due to this variability, an error was made in our March 5, 2003 count summary. In the historical 24-hour volumes provided for the last five locations (beginning between Duncannon Drive and Elmsthorpe Avenue), the eastbound and westbound volume ranges have been reversed. The eastbound range of volumes should be the westbound range of volumes, and vice versa. We apologize for any inconvenience this may have caused, but this error does not change the total two-way traffic volumes on Chaplin Crescent. Based on this information, we maintain our previous position that traffic volumes have remained relatively consistent since the 1970's. The revised table, taking into account the above-noted change, is as follows:

Chaplin Crescent	Direction	24-hour Volume (Nov. 2002)	Historical 24-Hour Volumes
Between Eglinton Avenue West and Russell Hill Road	Eastbound	3,630	1970's range – 4,370 to 4,800 1980's range – 3,320 to 3,650 1990's range – 3,250 to 3,570
	Westbound	4,980	1970's range – 4,310 to 4,740 1980's range – 3,940 to 4,330 1990's range – 4,110 to 4,520
Between Duncannon Drive and Elmsthorpe Avenue	Eastbound	3,400	1970's range – no data available 1980's range – 3,400 to 3,710 1990's range – no data available
	Westbound	3,140	1970's range – no data available 1980's range – 3,710 to 4,080 1990's range – no data available
Between Braemar Avenue and Avenue Road	Eastbound	5,280	1970's range – 5,430 to 5,970 1980's range – 3,930 to 4,320 1990's range – 4,990 to 5,490
	Westbound	4,880	1970's range – 5,060 to 5,570 1980's range – 4,450 to 4,900 1990's range – 4,990 to 5,480
Between Highbourne Road and Oriole Parkway	Eastbound	6,290	1970's range – 5,550 to 6,110 1980's range – 5,110 to 5,620 1990's range – 5,270 to 5,800
	Westbound	5,260	1970's range – 5,100 to 5,610 1980's range – 5,040 to 5,540 1990's range – 5,410 to 5,950
Between Oriole Parkway and Lascelles Boulevard	Eastbound	8,740	1970's range – 8,500 to 9,350 1980's range – 8,390 to 9,230 1990's range – 7,940 to 8,730
	Westbound	9,010	1970's range – 8,100 to 8,910 1980's range – 8,570 to 9,430 1990's range – 8,530 to 9,380
Between Duplex Avenue and Yonge Street	Eastbound	7,470	1970's range – 7,420 to 8,160 1980's range – 7,200 to 7,920 1990's range – 7,170 to 7,890
	Westbound	7,600	1970's range – 7,380 to 8,120 1980's range – 7,620 to 8,390 1990's range – 6,710 to 7,380

The residents also requested a comparison of other residential roadways that are similar to Chaplin Crescent in terms of traffic volumes, residential nature and having no traffic calming or management. Information on road classifications and functions can be found on the City of Toronto website at www.city.toronto.on.ca/transportation/road_class.htm. Roadways having similar characteristics as Chaplin Crescent are provided in a table as follows:

Roadway	Section	Classification	Daily two-way traffic volume	Speed limit	Heavy Truck prohibition	Traffic Calming?	Traffic Management?	Area	Other comments
Blythwood Road	Yonge Street to Bayview Avenue	Collector	6,000 to 11,000	40 km/h	Yes	No	Minimal	Mainly residential, two schools and a park in the immediate vicinity	Identified by Emergency Services as a major route for ambulances travelling to/from Sunnybrook Hospital
Broadway Avenue	Yonge Street to Bayview Avenue	Collector	7,000 to 11,000	40 km/h	Yes	Minimal	No	Mainly residential, several schools in the vicinity	None
Belmont Street	Davenport Road to Yonge Street	Collector	12,000 to 15,000	50 km/h	Yes	No	No	Mainly residential	None
Moore Avenue	Mount Pleasant Road to Bayview Avenue	Minor Arterial	11,000 to 20,000	40 km/h	Yes	No	No	Mainly residential, parks and cemetery in the immediate vicinity	TTC route
Spadina Road	Eglinton Avenue West to St. Clair Avenue West	Minor Arterial	15,000 to 23,000	40 km/h	Yes	No	No	Mainly residential, several schools in the vicinity	TTC route
Mortimer Avenue	Broadview Avenue to Woodbine Avenue	Minor Arterial	12,000 to 16,000	40 km/h	Yes	No	No	Mainly residential, several schools parks in the immediate vicinity	TTC route
Bedford Road	Davenport Road to Bloor Street West	Minor Arterial	8,000 to 10,000	40 km/h	Yes	No	No	Mainly residential, a park in the immediate vicinity	TTC route, bike lanes in the northbound direction

Traffic Speeds on Chaplin Crescent:

The residents disputed our statement that the operating speeds on Chaplin Crescent were satisfactory, and noted that the overall results were biased by the peak periods, when the traffic volumes are much higher, resulting in congestion and lower operating speeds. The residents felt that vehicle speeds were higher during the weekday off-peak periods and weekends, but that these periods were not reflected in the summarized results, which covered the entire day. In this regard, please find attached an hourly breakdown of our previous speed and volumes studies that were undertaken on November 5-7, 2002 in Appendix B.

The residents also questioned the methodology that we used to gather the speed and volume data. The City of Toronto uses automatic traffic counters, which gather data through tubes that are attached to the road surface, that record when a vehicle passes over. The use of automatic counters to obtain speed data was questioned, noting that radar is more accurate and is used by the Toronto Police Service. The use of automatic traffic counters are a standard engineering tool and are used by most municipalities across Ontario, Canada and internationally to obtain traffic count data. Staff have in the past installed these machines and conducted radar studies at the same time to determine the accuracy of these counters and found that they accurately report speeds and volumes.

"Stop" Sign Disobeyance on Chaplin Crescent:

Our previous study measured "Stop" sign compliance and stopping activity at several intersections on Chaplin Crescent. Our study results indicated that 95 percent of the recorded vehicles on Chaplin Crescent did not stop in accordance with the Highway Traffic Act. The residents state that we recommended "no action required". However, we did request Police enforcement.

Operation of Pedestrian Crossovers (PXOs):

Our previous study included a detailed review of the PXOs on Chaplin Crescent at Russell Hill Road and at Lascelles Boulevard, during the busiest eight-hour period of typical weekdays. These study hours are routinely used in the City of Toronto and other municipalities across Ontario and are intended to capture the peak hours of pedestrian and vehicular activity.

The residents were not satisfied with our recommendation of no further action, however no alternative solutions are proposed. We note for your information that the PXO at Chaplin Crescent and Lascelles Boulevard was replaced with all-way "Stop" sign control on December 21, 2004. The second PXO, at Chaplin Crescent and Russell Hill Road, has low volumes of pedestrians crossing, with 72 pedestrians recorded crossing over eight hours. For a new PXO installation to be justified, the warrants as established by the Ontario Ministry of Transportation require the following:

- a minimum of 200 pedestrians crossing over the busiest eight-hour period of a typical day; and
- a minimum of 75 of these pedestrians crossing that are delayed for ten seconds or more.

We have been requested to review this intersection to determine if this PXO should be removed and replaced with all-way "Stop" sign control. This review is currently underway.

Heavy Truck Volumes:

Our previous study noted that heavy trucks were prohibited on Chaplin Crescent at all times. However, this prohibition does not include passenger vehicles nor heavy trucks that have a specific destination on the street. The traffic studies determined that between 50 and 100 heavy vehicles used Chaplin Crescent in both directions during the busiest eight-hour period of a typical weekday. Based on these results, we recommended no further action. The residents were not satisfied with our recommendation, however no alternative solutions are proposed.

The residents have noted that there are numerous inter-city buses that use Chaplin Crescent as a short-cut. As we noted in our March 5, 2003 letter, the wording of the heavy truck prohibition by-law specifically excludes passenger vehicles. Until changes are made to the language of the by-law to include inter-city buses, we can not legally prevent

then from travelling on Chaplin Crescent. Residents should be made aware that such a change would have City-wide implications, not just on Chaplin Crescent. Many tour operators rely upon these types of buses, and this type of legislative change would need to consider all stakeholders involved. We note that the residents have copied us on letters they have sent to the inter-city bus companies requesting these companies request their drivers not to use Chaplin Crescent. At this writing, at least one bus company has responded, noting that a directive will be issued to drivers not to use Chaplin Crescent. The preferred route is via Oxton Avenue, which is designated as a major arterial roadway.

Request to Install "No Passing" Signs:

Our previous study noted there is either a solid or broken painted yellow centre line for most of Chaplin Crescent, between Eglinton Avenue West and Yonge Street. Broken lines are provided on sections where parking is permitted, where it may be necessary for an eastbound motorist on Chaplin Crescent to encroach into the westbound lane to pass a parked vehicle. In order to install a solid painted yellow centre line, it would be necessary to prohibit parking.

The residents disagreed with our study findings and stated that a broken painted yellow line occurs over the entire length of Chaplin Crescent. This is incorrect – solid lines are used at PXOs and traffic control signals to designate that passing is not permitted or that there are exclusive turn lanes. Additionally, the residents noted that many collisions involved parked vehicles, but were not necessarily reported. Unfortunately, we can only base our technical analysis on the official data received from the Toronto Police Service. The residents were not satisfied with our recommendation of no further action, however no alternative solutions are proposed.

Turn Prohibitions on Chaplin Crescent at Eglinton Avenue West and at Avenue Road:

Our previous study reviewed the feasibility of implementing turn prohibitions at the intersections of Chaplin Crescent and Eglinton Avenue West and Chaplin Crescent and Oriole Parkway during the peak periods to discourage cut-through traffic. Based on our review, we advised against this proposal as it would redirect traffic to other local roadways and would inconvenience local residents.

There appears to be misunderstanding on the part of the residents as to when we can implement turn prohibitions. We have never stated that we could not implement turn prohibitions, only that based on the anticipated negative impacts, their implementation would not be advisable. Turn prohibitions can generally be implemented at any intersection, regardless of the road classification, for certain time periods or at all times. They may be implemented to improve the road operation, to address safety concerns or to reduce undesirable neighbourhood traffic infiltration.

The following is a summary of the benefits and disadvantages of implementing turn prohibitions at the intersections of Chaplin Crescent and Eglinton Avenue West and Chaplin Crescent and Oriole Parkway during the peak periods.

Benefits:

- Reduced traffic on Chaplin Crescent, less delay and less congestion for east-west traffic;
- Improved environment for pedestrians crossing at intersections on Chaplin Crescent; and
- Reduced potential for collisions involving east-west motorists and parked vehicles.

Disadvantages:

- Residents on Chaplin Crescent as well as other local streets taking access from Chaplin Crescent would be inconvenienced, as under the provisions of the Highway Traffic Act of Ontario, they cannot be exempted from the turn prohibitions; and
- This proposal would add traffic to other local roadways in the area as motorists seek alternative routes.

Our previous letter stated that if turn prohibitions were implemented to restrict vehicular access to Chaplin Crescent, residents would not be exempted. Furthermore, this proposal does not consider the impacts on the surrounding neighbourhood, which would see an increase in traffic volumes as motorists are diverted. We are currently, in

cooperation with Councillor Walker, working with the Oriole Park Association on an area traffic management proposal. We believe that Chaplin Crescent should be included in any comprehensive solution recommended for the entire area.

"Watch for Children" signs:

"Watch for Children" signs were installed on eastbound Chaplin Crescent, east of Eglinton Avenue West and on westbound Chaplin Crescent, west of Avenue Road on March 11, 2003. The residents were not satisfied with our action item, however no alternative solutions are proposed.

Police Enforcement:

As a result of our previous study, the Toronto Police Service have been requested to take whatever action was deemed necessary with respect to the issue of "Stop" sign compliance. The Police have advised us that staff resources are limited and therefore, enforcement activity can only take place sporadically. The residents were not satisfied with our recommendation, however no alternative solutions are proposed.

Traffic Calming Measures:

Our previous study advised that traffic calming on Chaplin Crescent would not be possible due to the existing TTC service and the low speed profiles. The residents were in agreement that no physical impediments should be installed on Chaplin Crescent, but they still felt some form of mitigation was needed. Pavement markings, street design features and modified traffic signalization were suggested, although no specifics were proposed. We will gladly review any detailed proposals that the residents may wish to forward to us. However, the evidence the residents give respecting the incidence of side-swipe collisions would indicate that there is little room to narrow the roadway (one alternative to speed humps) for traffic calming purposes.

Request to Install a Pedestrian Crossover, west of Avenue Road:

Our previous study noted that all intersections on Chaplin Crescent, between Eglinton Avenue West and Avenue Road were controlled by either all-way "Stop" sign control or a pedestrian crossover. Due to the short block lengths, additional pedestrian crossing protection on Chaplin Crescent was not necessary. The residents were not satisfied with our recommendation of no further action, however no alternative solutions are proposed.

Neighbourhood signage:

The residents were previously advised that City Council was in the process of developing a policy for the installation of neighbourhood signage. The policy has now been finalized and the document can be found at www.toronto.ca/legdocs/2003/agendas/council/cc030414/wks3rpt/cl016.pdf. However, we cannot support any proposals to install the traffic calming ahead or turtle icon signs, as these signs are only used in where physical traffic calming features are present.

Other Issues:

We reviewed the requests to remove the left-turn phases on Chaplin Crescent to reduce traffic levels. There is a northbound left-turn feature at the intersection of Yonge Street and Chaplin Crescent/Davisville Avenue and a northbound left-turn feature at the intersection of Eglinton Avenue West and Chaplin Crescent. These features were installed in 1976 and 1967, respectively. The northbound left-turn volumes at both intersections during the busiest hours of a typical weekday, the corresponding cycle length and the average left-turn volume per cycle have been summarized in the following table.

Intersection	Time Period	Left-turn Volume	Cycle Length	Average Left-turn Volume per Cycle
Yonge Street and Chaplin Crescent/Davisville Avenue (northbound)	Morning Peak Hour	117	90 seconds	2.9
	Daytime Off-peak Average Hour	131	70 seconds	2.5
	Afternoon peak Hour	274	80 seconds	6.1
Eglinton Avenue West and Chaplin Crescent (northbound)	Morning Peak Hour	226	90 seconds	5.7
	Daytime Off-peak Average Hour	164	80 seconds	3.6
	Afternoon peak Hour	283	80 seconds	6.3

The primary criteria used for the installation of a left-turn phase in the City of Toronto is based on provincially established standards, which are as follows:

- Volume of left-turning motorists: There must be at least an average of two left-turns per signal cycle;
- Delay to left-turning motorists: There must be at least ten percent of left-turning motorists delayed for a signal cycle or more; and
- Collisions involving left-turning motorists: There must be a clear pattern of collisions involving left-turning motorists.

The removal of the left-turn phases on Chaplin Crescent would result in safety concerns for motorists, increased delays at the signalized intersections, it would negatively impact left-turn and through traffic and it would divert traffic to adjacent local roadways. Therefore, we cannot support any proposal to remove these existing phases.

We have also reviewed the requests to install westbound left-turn phases on Yonge Street at the intersections with Eglinton Avenue West and St. Clair Avenue West. Westbound left-turns are prohibited at all times at the intersection of Eglinton Avenue West and Yonge Street. At the intersection of St. Clair Avenue West and Yonge Street, westbound left-turns are prohibited between the hours of 6:00 a.m. and 11:00 p.m. These left-turn prohibitions were introduced to improve the flow of east-west traffic. There are no east-west left-turn lanes at either of these intersections and there are very busy east-west traffic flows. Consequently, an eastbound or westbound left-turning motorist could cause significant delays to east-west through traffic. A left-turn green arrow feature would not be advisable for the following reasons:

- As there are no exclusive left-turn lanes, a left-turn green arrow phase would not be fully utilized by left-turning traffic, unless they were among the first vehicles in the queue; and
- The introduction of a left-turn green arrow phase would require the re-allocation of a minimum of ten seconds of green time from another intersection movement. Presently, these intersections are operating at or near capacity during the peak periods.

Therefore, we cannot support either of these requests due to the negative impacts on the overall intersection operations.

Additionally, we reviewed the feasibility of installing westbound left-turn phases on Davisville Avenue at the intersections with Mount Pleasant Road and Yonge Street. Westbound left-turns are permitted at all times at both of these intersections. As noted above, there must be at least two left-turns per cycle before we consider the installation of a left-turn phase. Recent traffic counts undertaken during the busiest eight-hour period of a typical weekday noted 50-60 westbound left-turns per hour (1.3-1.5 left-turns per cycle) during the peak hours at Davisville Avenue and Mount Pleasant Road and 40-50 westbound left-turns per hour (1.0 left-turn per cycle) during the peak hours at Davisville Avenue and Yonge Street. Based on the left-turn volumes, left-turn phases would not be warranted at these intersections. Therefore, no further action is necessary.

We acknowledge the January 14, 2005 e-mail request from Chris Sellors of your office, requesting that we review the feasibility of replacing the PXO at Chaplin Crescent and Russell Hill Road with all-way "Stop" sign control, as noted above. Please be advised that due to inclement weather we have not been able to undertake the required traffic counts for our review. However, we will arrange to complete these as soon as possible and respond to you directly upon completion of our study.

Councillor Walker

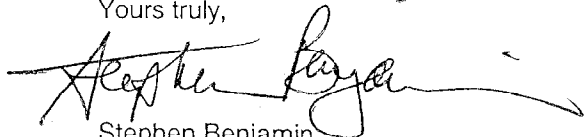
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Finally, on January 27, 2005 we received additional information and proposals for Chaplin Crescent resulting from a resident's survey. Please be advised that these issues will be dealt with as part of the Oriole Park Association study.

In light of the above, we would suggest a meeting be held with yourself and residents to further review these issues. If you have any questions regarding this investigation, please contact Dan Clement, Transportation Technologist, at (416) 338-5454.

Yours truly,

A handwritten signature in black ink, appearing to read "Stephen Benjamin". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Stephen Benjamin
Manager, Traffic Operations
South District, West Area

DC/dc
04-2755
File 222

Attach.

cc: Mayor David Miller