

TRAFFIC SAFETY COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

**SUBJECT: GRAVELEY STREET BETWEEN CARLETON AVENUE AND
WILLINGDON AVENUE**

RECOMMENDATIONS:

1. THAT Council approve the installation of “Right Turn Only Weekdays 3-6 p.m.” regulation for eastbound vehicles on Graveley Street at Willingdon Avenue and the reconstruction of an existing speed hump on Graveley Street between Whitsell Avenue and Willingdon Avenue.
2. THAT a copy of this report be sent to Ms. Cherie Moses, 4432 Graveley Street, Burnaby, BC, V5C 3T8, other petitioners and residents along Graveley and Brentlawn for information.

REPORT

The Traffic Safety Committee, at its meeting held on 2014 May 06, received and adopted the attached report to review and respond to traffic safety and parking concerns along Graveley Street.

Respectfully submitted,

Councillor S. Dhaliwal
Chair

Councillor A. Kang
Vice Chair

Councillor P. Calendino
Member

Copied to:	City Manager Director Engineering Director Planning and Building OIC, C/Supt. RCMP – Burnaby Detachment
------------	------------------------------------------------------------------------------------------------------------------

TO: CHAIR AND MEMBERS
TRAFFIC SAFETY COMMITTEE

DATE: 2014 April 07

FROM: DIRECTOR ENGINEERING

FILE: 38000-20
*Ref: Graveley St between
Carleton Ave and
Willingdon Ave*

SUBJECT: GRAVELEY ST BETWEEN CARLETON AVE AND WILLINGDON AVE

PURPOSE: To review and respond to traffic safety and parking concerns along Graveley Street.

RECOMMENDATIONS:

1. **THAT** the Committee recommend to Council the installation of “Right Turn Only Weekdays 3-6 pm” regulation for eastbound vehicles on Graveley St at Willingdon Ave and the reconstruction of an existing speed hump on Graveley St between Whitsell Ave and Willingdon Ave.
2. **THAT** a copy of this report be sent to Ms. Cherie Moses, 4432 Graveley St, Burnaby, BC, V5C 3T8, other petitioners and residents along Graveley and Brentlawn for information.

REPORT

BACKGROUND

On 2013 November 05, Ms. Cherie Moses appeared as a delegation to the Traffic Safety Committee and expressed concerns regarding traffic safety and parking on Graveley St between Carleton Ave and Willingdon Ave. She submitted a petition and other documents to support her request for a pedestrian safety plan, a traffic calming plan, and a parking plan. Of particular concern was the volume and speed of traffic, especially with new developments in Brentwood Town Centre and the proposed realignment of Douglas Rd with 1st Ave. Also of concern was the lack of motorist’s observance of stop signs on Graveley St at Willingdon Ave, and non-residents parking on Graveley St. The Committee referred her concerns to staff for review and report back.

To: Traffic Safety Committee
From: Director Engineering
Re: Graveley St between Carleton Ave and Willingdon Ave
2014 April 07..... Page 2

EXISTING CONDITIONS

Graveley St between Carleton Ave and Willingdon Ave is located at the southern edge of the Willingdon Heights neighbourhood, immediately north of the Brentwood Town Centre Area. It is classified as a local residential street in a neighbourhood consisting of single or two family dwellings. The road is about 8.5 meters wide and is finished to a final standard with concrete curb and gutter. Concrete sidewalks were constructed on both sides of the street in 2012 along its entire length, and three speed humps were installed in 2009 between Dent Ave and Willingdon Ave. All intersections along the street are stop sign controlled as shown in Figure 1, and a pedestrian/bus signal exists at the intersection of Graveley St and Willingdon Ave.

TRAFFIC VOLUMES AND SPEEDS

Traffic volume counts were conducted in August 2013 on the 4200 block of Graveley St. Average two-way weekday traffic volumes were found to be about 1,330 vehicles per day. This is higher than counts completed in 1999 where the volumes were about 1,110 vehicles per day. Both counts are well below the maximum threshold of 3,000 vehicles per day for a local residential street. Traffic volumes were highest during the afternoon peak period (3-6 pm). 30% of all daily traffic occurs during this time period and average hourly two-way traffic volumes peak at about 150 vehicles per hour. Further comparisons with 1999 data show that the daily volume of westbound traffic has remained about the same, and the increases in 2013 were largely from eastbound traffic. This is corroborated by comparing past and current manual traffic counts at the intersection of Graveley St and Willingdon Ave which also show an increase in eastbound vehicles approaching from the west leg during the afternoon peak period. No origin-destination survey was conducted so it is not possible to determine where the eastbound traffic was destined to, but almost 50% (200 vehicles) continued east across Willingdon Ave during the afternoon peak period.

Speed counts were conducted in March 2014 on the 4400 block of Graveley St. A review of the speed data collected showed that the average weekday 85th percentile speed (the speed at which 85% of all vehicles travel at or below) was 41 km/h for eastbound traffic and 42 km/h for westbound traffic. In other words, the majority of vehicles were travelling below the speed limit and speeding does not appear to be a problem.

COLLISION HISTORY

Crash data from ICBC was reviewed along Graveley St between Carleton Ave and Willingdon Ave for the past five years from 2008 – 2012. At the intersection of Carleton Ave, Madison Ave, Dent Ave, Rosser Ave and Whitsell Ave, there has been no more than 1 reported collision at each intersection within the past five years. At the intersection of Willingdon Ave, there have been 46 reported collisions within the same time period. Midblock crashes were also reviewed and 8 hit and run collisions were identified along the entire length of Graveley St within the past 5 years. The number of midblock crashes appears to be a little higher than typical, but otherwise the crash history along Graveley St did not reveal any patterns or frequency of concern.

To: Traffic Safety Committee
From: Director Engineering
Re: Graveley St between Carleton Ave and Willingdon Ave
2014 April 07..... Page 3

The higher number of collisions at Graveley St and Willingdon Ave is not unusual for a signalized intersection along a major arterial street.

REVIEW OF CONCERNS/REQUESTS

Traffic Calming

Additional traffic calming measures along Graveley St has been requested to make it less appealing to shortcutting traffic. One particular concern raised by residents is the future roadway realignment of Douglas Rd as shown in Figure 2. The proposed realignment will provide a more direct connection between 1st Ave to the west with Halifax St to the east, via a realigned Douglas Rd. The existing intersection of 1st Ave and Gilmore Ave will be fully signalized to improve safety. The stop controlled T-intersection of Carleton Ave with Douglas Rd will be shifted south, but the traffic controls and function will remain largely unchanged. General east-west traffic flow between 1st Ave and Halifax St is further facilitated with the removal of the existing 4-way stop signs at Halifax St and Douglas Rd, to be replaced by a pair of T-intersections that give priority to the east-west through movement. In doing so, there is a possibility that shortcutting traffic along Graveley St may in fact reduce.

The traffic data collected show some shortcutting traffic along Graveley St between Carleton Ave and Willingdon Ave. There has been a noticeable increase in eastbound traffic during the weekday afternoon peak period, with much of the traffic continuing straight across Willingdon Ave onto Brentlawn Dr. To help mitigate this trend, a “Right Turn Only Weekdays 3-6 pm” regulation for eastbound vehicles on Graveley St at Willingdon Ave is recommended. In addition to benefiting Graveley St residents, this new regulation should help to address some of the traffic concerns along Brentlawn Dr east of Willingdon Ave, as brought forward to the Committee by Mr. Matthew Senf on 2013, November 05. The elimination of eastbound through and left turns at the intersection should also improve traffic safety by reducing the number of conflicting movements during the busiest part of the day. The new regulation can be enforced by the RCMP as priorities and resources allow. Engineering staff will also continue to monitor traffic conditions in the area to assess the results.

Current traffic conditions along Graveley St do not necessitate additional, more restrictive traffic control measures that would also impact the accessibility of the neighbourhood by local residents. Any future changes in traffic patterns can be reviewed and adjusted at that time if required. In the meantime, staff will continue to review nearby development plans and their respective traffic impact assessments to maintain a viable transportation network and protect the livability of local neighbourhoods.

To: Traffic Safety Committee
From: Director Engineering
Re: Graveley St between Carleton Ave and Willingdon Ave

2014 April 07..... Page 4

Speeding

A request to lower the existing 50 km/h speed limit is not recommended as the current traffic speeds along Graveley St are not excessive as measured by recent speed counts at the eastern portion of the street. The 85th percentile speeds are already below 50km/h due to the presence of speed humps.

Due to concerns raised about the effectiveness of the existing speed humps, a field survey of the speed humps was made to verify that they have been constructed as designed. The survey revealed that the eastern most speed hump located between Whitsell Ave and Willingdon Ave has a lower than desirable profile near the centreline of the street making it less effective. To remedy this, it is recommended that the speed hump be reconstructed at no additional cost to residents who contributed to the original cost through the Local Area Services Program.

Traffic and Pedestrian Safety

A review of the crash data along Graveley St did not reveal any unusual patterns that would require a change to the existing traffic control devices along the street. Most of the T-intersections are stop controlled with one stop sign that assigns the right-of-way to the straight through movement. The exception is at Graveley St and Madison Ave where a multi-way stop is in place to reduce the apparent continuity of Graveley St between Carleton Ave and Willingdon Ave. The installation of additional multi-way stop controlled intersections was considered, but none were found to be warranted based on national standards (e.g. high crash rates). The installation of unwarranted stop signs can lead to non-compliance or rolling stops, and higher crash rates. For this reason, no changes to existing stop controls are recommended.

Pedestrians are well accommodated along Graveley St with the recent installation of sidewalks with curb letdowns and the existence of street lighting on both sides of the street. Field observations have confirmed the reported running of stop signs at the intersection of Graveley St and Willingdon Ave. The intersection is controlled by a pedestrian actuated signal. When traffic along Willingdon Ave is stopped by the pedestrian signal, some eastbound and westbound vehicles approaching the intersection incorrectly assume they have a "green light" when the pedestrian indicators allow pedestrians to cross Willingdon Ave. In fact, all eastbound and westbound motorists approaching the intersection are faced with a stop sign where they must come to a complete stop before proceeding. Late arriving motorists trying to cross Willingdon Ave while taking advantage of the pedestrian signal control are most prone to this false assumption. Stop sign enforcement is the most effective solution and the RCMP has been advised regarding this situation. The proposed new right turn only restriction for eastbound traffic and the reconstructed speed hump just west of the intersection will also indirectly help to reduce the frequency of this occurrence.

To: Traffic Safety Committee
From: Director Engineering
Re: Graveley St between Carleton Ave and Willingdon Ave

2014 April 07..... Page 5

On-Street Parking

Concerns regarding commercial and commuter parking along Graveley St were reviewed. Some non-resident parking was observed along Graveley St, and the extent of such parking appeared to be limited to the first one or two blocks west of Willingdon Ave. In response, staff have contacted the Facility Manager of the Health Shared Services BC office located nearby at 1795 Willingdon Ave regarding the parking concerns. It was determined the parking for the office is well utilized and largely full during the weekday. The Facility Manager has indicated that they have instituted measures to reduce parking demand at their site with a carpool and transit pass program. In addition, the Facility Manager has cooperated by sending an email to all their employees reminding them not to park along Graveley St and other residential streets due to resident complaints and potential parking tickets.

Earlier this year, a new information sign has been installed on Graveley St to remind non-resident parkers that a three hour limit would apply to anyone parking in front of a residence. Parking enforcement staff has and will continue to respond to request for enforcement of the three hour time limit upon request by abutting residents. In 2013, request for such enforcement was received from two residents. Of the 19 requests received, 3 bylaw tickets were successfully issued. The remaining requests were responded to, but the vehicles were not found to be over the three hour time limit. All residents are encouraged to contact Parking Enforcement regarding any parking concerns. These requests and the outcomes will be tracked to gauge the severity of the parking problems. Existing parking enforcement practices appear to be sufficient for the current circumstances. Active enforcement of the three hour time limit is not recommended without a complaint because it may result in residents or legitimate visitors receiving a ticket.

CONCLUSION

Traffic safety and parking concerns have been reviewed in some detail along Graveley St between Carleton Ave and Willingdon Ave. While the traffic volumes along Graveley St were not found to be excessive, there was some increase in eastbound traffic volumes in the afternoon peak period. To mitigate this without significantly impacting the accessibility of the neighbourhood, the installation of a “Right Turn Only Weekdays 3-6 pm” regulation for eastbound vehicles on Graveley St at Willingdon Ave is recommended. This new regulation will also help address some of the traffic concerns along Brentlawn Dr east of Willingdon Ave. The proposed realignment of Douglas Rd with 1st Ave is not anticipated to increase traffic volumes along Graveley St, therefore no other traffic calming measures are deemed necessary at this time.

Speed data collected did not show any speeding problems. However, one of the speed humps constructed along Graveley St has been found to be less effective because of its lower than desirable profile. The reconstruction of this speed hump is recommended.

A review of crash data along Graveley St did not reveal any unusual trends or patterns. All traffic control devices were found to be appropriate for the conditions.

To: Traffic Safety Committee
From: Director Engineering
Re: Graveley St between Carleton Ave and Willingdon Ave

2014 April 07..... Page 6

Some eastbound motorists on Graveley St at Willingdon Ave have been observed running the existing stop sign while taking advantage of the pedestrian signal to cross Willingdon Ave. Enforcement is the most effective solution to this problem and the RCMP has been advised accordingly.

In response to concerns about non-residents parking along Graveley St, the Facility Manager of the nearby Health Shared Services BC office has cooperated in trying to minimize the impact from their employees. In addition, a new information sign has been installed on Graveley St to advise non-resident parkers that a three hour limit would apply to anyone parking in front of a residence. Parking Enforcement staff will also continue with the current practice of responding to all parking complaints received.

All the recommendations within this report can be completed within existing operating budgets. It is recommended that a copy of this report be sent to Ms. Cherie Moses, 4432 Graveley St, Burnaby, BC, V5C 3T8, other petitioners and residents along Graveley St and Brentlawn Dr for information.



Leon A. Gous, P.Eng., MBA
DIRECTOR ENGINEERING

DL/ac
Attachments

Copied to: City Manager
Director Planning and Building
Burnaby RCMP – OIC Chief Supt. Dave Critchley

Figure 1 - Graveley St. Between Carleton and Willingdon Ave

February 24, 2014

1:3,236



The information has been gathered and assembled on the City of Burnaby's computer systems. Data provided herein is derived from a number of sources with varying levels of accuracy. The City of Burnaby disclaims all responsibility for the accuracy or completeness of information contained herein.

| Stop Signs

≡ Speed Humps





Figure 2 - Proposed Realignment of 1st Avenue and Douglas Road