

COMMITTEE OF THE WHOLE – JUNE 21, 2004

CLARENCE STREET BETWEEN MEETING HOUSE ROAD AND RUTHERFORD ROAD TRAFFIC SAFETY REVIEW

Recommendation

The Commissioner of Engineering and Public Works recommends:

1. That an asphalt speed hump be installed on Clarence Street approximately 60 metres north of pathway #4/#5 of the Board of Trade Golf Course;
2. That an asphalt speed hump be installed on Clarence Street approximately 60 metres north of Mounsey Street;
3. That funds in the amount of \$6,000 for the implementation of the proposed speed humps be set aside from the 2004 Capital Budget (Project No. 1204.0) to implement the proposed works; and
4. That this report on staff's findings regarding traffic safety review on Clarence Street be received.

Purpose

To report on the results of a traffic safety review for Clarence Street between Meeting House Road and Rutherford Road.

Background

At its meeting on March 8, 2004, Council directed staff to:

- “1. Investigate and report on the extent to which traffic safety is an issue on Clarence Street between Meeting House Road and Rutherford Road; and**
- 2. If such concerns are warranted, recommend steps, which the City may take to improve traffic safety in this portion of Clarence Street.”**

Clarence Street is classified in OPA 600 as a minor arterial road. The existing speed limit on Clarence Street is 40 km/h from Woodbridge Avenue to approximately 540 metres north of Mounsey Street and the speed limit is 50 km/h from that point to Rutherford Road. Existing all-way stop controls are on Clarence Street at the intersections of Meeting House Road, Modesto Gardens, Wycliffe Avenue, Thomson Creek Boulevard/Woburn Drive, and Avdell Avenue/Crofters Road.

There is an existing speed hump on Clarence Street between Meeting House Road and Rutherford Road located approximately 100 metres south of Mounsey Street. The speed hump was installed as part of the Woodbridge Core Traffic Committee.

Speed and Volume Data

Staff collected speed and volume data from March 29, 2004 to April 2, 2004. The data covered a 24-hour time period and is summarized below.

DATE	LOCATION	DIRECTION	AVERAGE SPEED	HIGHEST 24 HOUR VOLUME
March 29 - April 2, 2004	North of Mounsey St.	Northbound	59 km/h	2,563
March 29 - April 2, 2004	North of Mounsey St.	Southbound	60 km/h	2,778
March 29 - April 2, 2004	Between Modesto Gdns. And Wycliffe Ave.	Northbound	53 km/h	2,552
March 29 - April 2, 2004	Between Modesto Gdns. And Wycliffe Ave.	Southbound	53 km/h	2,777
March 29 - April 2, 2004	Between Wycliffe Ave. and Thomson Creek Blvd./Woburn Dr.	Northbound	55 km/h	2,795
March 29 - April 2, 2004	Between Wycliffe Ave. and Thomson Creek Blvd./Woburn Dr.	Southbound	61 km/h	2,930
March 29 - April 2, 2004	Between Thomson Creek Blvd./Woburn Dr. and Avdell Ave./Crofters Rd.	Northbound	56 km/h	2,704
March 29 - April 2, 2004	Between Thomson Creek Blvd./Woburn Dr. and Avdell Ave./Crofters Rd.	Southbound	59 km/h	2,965

Clarence Street functions as a minor arterial roadway with a limited number of residential frontages. The roadway represents the main north-south link for the residential developments between Woodbridge Avenue and Rutherford Road. The Board of Trade Golf Course is located on the east side of the roadway, north of Mounsey Street. The residential frontages on Clarence Street are located north of Modesto Gardens.

The average speeds on Clarence Street range from 53 km/h to 61 km/h indicating a low level of compliance with the posted speeds. In particular, a low level of compliance to the posted speed limit occurs from Mounsey Street to 540 metres northerly where the posted speed limit is 40 km/h. The collected speed data north of Mounsey Street indicate that the average speed exceeds the speed limit by approximately 10 km/h. Based on the above information, a warrant for the installation of speed humps on this section of Clarence Street is met. Based on Council's Neighbourhood Traffic Committee Policy and Procedure, traffic calming is warranted as the average speeds exceed the posted speed limit by 10 km/h or more, where the speed limit is 40 km/h.

The average speed collected between Modesto Gardens and Wycliffe Avenue is 53 km/h in the northbound and southbound direction, indicating the highest level of compliance with the posted speed of 50 km/h. This is due to the number of residential driveways located in this area on both sides of Clarence Street as well as a reverse curve located south of Modesto Gardens.

The highest volumes collected on Clarence Street over a 24-hour period from March 29, 2004 to April 2, 2004 range from 5,300 to 5,700 vehicles for both the northbound and southbound directions. The volumes are well within the designed capacity for a residential minor arterial road of 8,000 vehicles per day.

Traffic Counts

Staff conducted turning movement counts at Clarence Street and Wycliffe Avenue on April 27, 2004, at Clarence Street and Thomson Boulevard/Woburn Drive on April 1, 2004, and at Clarence Street and Avdell Avenue/Crofters Road on April 22, 2004 during the highest eight-hour peak

travel periods. The times the counts were conducted were from 7:00 am to 9:00 am, from 11:00 am to 2:00 pm and from 3:00 pm to 6:00 pm. The results of the study are outlined below.

Clarence Street and Wycliffe Avenue

Warrant 1 Minimum Vehicular Volumes	Part A - All Approaches – 69% Part B – Minor Street Approaches – 62% Overall Percent Met – 62%
Warrant 2 Delay To Cross Traffic	Part A – Major Street Both Approaches – 55% Part B – Traffic Crossing Major Street – 63% Overall Percent Met – 55%
Warrant 3 Accident Experience	There were 0 vehicle collisions over a 3-year time period that would be susceptible to correction by the installation of a traffic signal. The fulfilled warrant percent is 0%.

Clarence Street and Thomson Creek Boulevard/Woburn Drive

Warrant 1 Minimum Vehicular Volumes	Part A - All Approaches – 71% Part B – Minor Street Approaches – 77% Overall Percent Met – 71%
Warrant 2 Delay To Cross Traffic	Part A – Major Street Both Approaches – 54% Part B – Traffic Crossing Major Street – 80% Overall Percent Met – 54%
Warrant 3 Accident Experience	There were 0 vehicle collisions over a 3-year time period that would be susceptible to correction by the installation of a traffic signal. The fulfilled warrant percent is 0%.

Clarence Street and Avdell Avenue/Crofters Road

Warrant 1 Minimum Vehicular Volumes	Part A - All Approaches – 84% Part B – Minor Street Approaches – 82% Overall Percent Met – 82%
Warrant 2 Delay To Cross Traffic	Part A – Major Street Both Approaches – 67% Part B – Traffic Crossing Major Street – 90% Overall Percent Met – 67%
Warrant 3 Accident Experience	There were 2 vehicle collisions over a 3-year time period that would be susceptible to correction by the installation of a traffic signal. The fulfilled warrant percent is 14%.

Based on the technical requirements of the Provincial Traffic Signal Warrant, the warrants for the installation of a traffic signal at the above noted intersections are not met. Two or more of the above Warrants 1, 2, and 3 are not satisfied at 80% or more and none of the individual warrants are satisfied at 100%.

There are no sight distance restrictions noted at the above intersections.

Accident History

Staff reviewed the collision history on Clarence Street from Meeting House Road to Rutherford Road. There have been eighteen reportable accidents from 1999 to 2003. There was one accident at the intersection of Clarence Street and Modesto Gardens and one at the intersection of Clarence Street and Mounsey Street. Three accidents occurred at the intersection of Clarence Street and Avdell Avenue/Crofters Road. The remaining thirteen accidents were not intersection related. A total of eight reported accidents were a result of poor weather conditions and ten accidents involved single vehicle collisions.

Sign Investigation

Staff conducted a sign inventory on Clarence Street between Meeting House Road and Rutherford Road and found that the proper signage has been installed on the roadway.

The existing speed limit on Clarence Street is 40 km/h from Woodbridge Avenue to approximately 540 metres north of Mounsey Street, and the speed limit is 50 km/h from that point to Rutherford Road. The required signage for a 40 km/h speed limit has been installed as well as 50 km/h speed limit signs.

Existing all-way stop controls on Clarence Street at the intersections of Meeting House Road, Modesto Gardens, Wycliffe Avenue, Thomson Creek Boulevard/Woburn Drive, and Avdell Avenue/Crofters Road have been properly signed and marked.

There is an existing supervised school crossing guard located at the Clarence Street and Thomson Creek Boulevard/Woburn Drive intersection and the location has been properly identified.

There is a reverse curve located through the middle section of Clarence Street that has been properly identified. A "Reverse Curve" sign for the northbound direction is located well in advance of the curve and there is a "Checkboard" (One Direction) sign for the southbound direction with an overhead flashing beacon.

A number of "Watch for Golfers" signs as well as road markings have been installed to inform motorists of golfers crossing Clarence Street near the Board of Trade Golf Course.

Relationship to Vaughan Vision 2007

This traffic study is consistent with Vaughan Vision 2007 as to ensure enhanced safety standards are incorporated in community designs (1.1.2).

This report is consistent with the priorities previously set by Council and the necessary resources have been allocated and approved.

Conclusion

This report details staff's findings of a traffic safety review for Clarence Street between Meeting House Road and Rutherford Road. Clarence Street accommodates a large volume of traffic and the operating speeds on the roadway are in excess of the posted speed. Specifically, there is a low level of compliance with the posted speed limit north of Mounsey Street, where the Board of Trade Golf Course is located.

Based on staff's review, it is recommended that two asphalt speed humps be installed on Clarence Street approximately 60 metres north of pathway #4/#5 of the Board of Trade Golf Course and approximately 60 metres north of Mounsey Street. These traffic calming measures

meet the approved Council Neighborhood Traffic Committee Policy and Procedure.

The total cost of implementing these measures is estimated to be approximately \$6,000 and may be funded from the 2004 Traffic Calming budget (Project No. 1204.0).

Attachments

1. Location Map

Report prepared by

Selma Hubjer, Transportation Analyst, ext. 8674

Mike Dokman, Acting Transportation Supervisor, ext. 8031

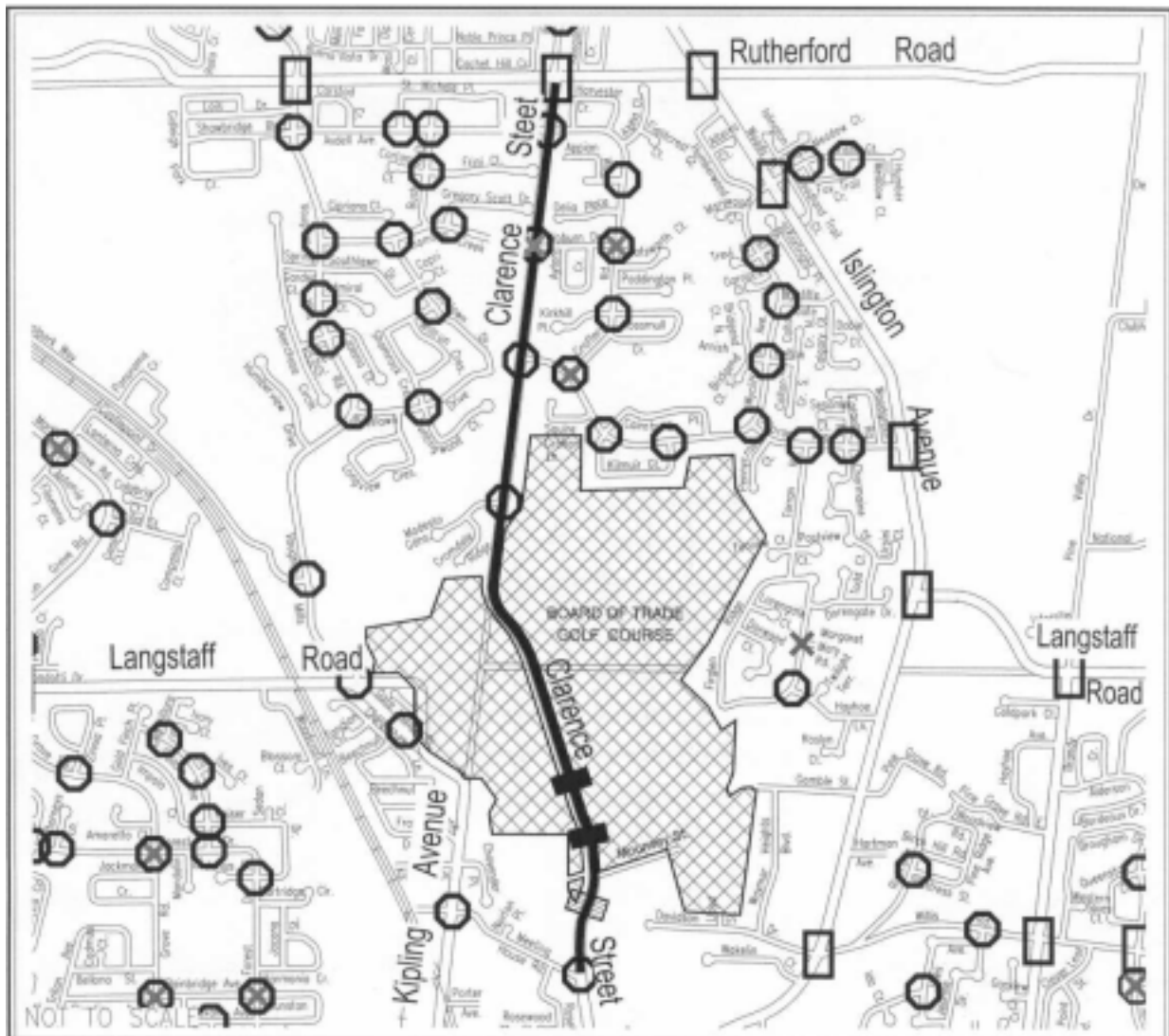
Respectfully submitted,

Bill Robinson, P. Eng.,
Commissioner of Engineering and Public Works







Michael Won, P. Eng.,
Director of Development/ Transportation
Engineering

SH/fc

ATTACHMENT No. 1



**CLARENCE STREET
ROADWAY UNDER REVIEW**
(BETWEEN MEETING HOUSE ROAD & RUTHERFORD ROAD)

LEGEND	
	ROADWAY UNDER REVIEW
	PROPOSED SPEED HUMP
	EXISTING SPEED HUMP
	EXISTING TRAFFIC SIGNALS
	EXISTING ALLWAY STOP CONTROL
	EXISTING SUP. SCHOOLCROSSING

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