

COMMITTEE OF THE WHOLE – MAY 20, 2008

KING HIGH DRIVE REVIEW – INTERIM REPORT

Recommendation

The Commissioner of Engineering and Public Works recommends:

1. That this interim report on the trial closure of King High Drive at Dufferin Street be received for information;
2. That Engineering Services staff be requested to continue the review of the traffic impact and provide a final report to a Committee of the Whole meeting after the 1 year trial period in the Fall 2008; and
3. That the Region of York be informed of the status of this matter.

Economic Impact

There is no economic impact in relation to this interim report.

Communication Plan

There have been a number of previous public meetings and surveys regarding possible alternatives including partial closures, full closures and turn prohibitions for the King High Drive area. In addition to the latest survey, comments were also requested from both school boards. Staff have been in regular contact with an area resident and will inform the community of the timing of the final report on the trial closure.

Purpose

To report on the results of the before and after traffic studies (6 months) with the implementation of the temporary closure of King High Drive.

Background - Analysis and Options

King High Drive is a local road between Dufferin Street and Vaughan Boulevard. The intersection of King High Drive and Dufferin Street is under the jurisdiction of the Region of York. The area is shown on Attachment No. 1.

At its meeting of November 26, 2007, Council approved a temporary closure of King High Drive near east property limit of the commercial development for a trial period (one year) and requested an interim report to the Committee of the Whole in six months on the impacts of the closure. The temporary road closure was implemented in August 2007. Break-away bollards were installed across King High Drive east of Dufferin Street near the commercial development. Notices were mailed out the residents of King High Drive and Belfield Court notifying them of the approved temporary closure.

Before Studies

Utilizing the use of Automated Traffic Recorders (ATR's), Engineering Services staff collected the traffic volumes prior to temporary closure of King High Drive. The results of the studies are summarized in the following chart.

Location	Date	Volume	Volume	Total Volume
Beverly Glen Blvd west of Fairfax Ct	Oct. 2007	Eastbound 3063	Westbound 2355	5418
Concord Rd near #20	Oct. 2007	Northbound 1015	Southbound 2010	3025
King High Dr west of Belfield Ct	Oct. 2007	Eastbound 1358	Westbound 560	1918
Vaughan Blvd north of Centre St	June 2007	Northbound 1077	Southbound 1143	2220

Beverly Glen Boulevard is designed as a feeder type roadway, 23.0 metre right-of-way and 11.5 metres of pavement width. Typical, a feeder type roadway can accommodate traffic volumes not exceeding 8,000 vehicles per day.

Concord Road and King High Drive are local type roadways, 20.0 metre right-of-way and 8.5 metres of pavement width. Typically, a local type roadway would be expected to convey traffic volumes not exceeding 1,000 vehicles per day.

Source: Transportation Association of Canada – Geometric Design Guide for Canadian Roads.

Engineering Services staff monitored the traffic operation and patterns within the Subdivision approximately six months after the temporary closure was implemented.

After Studies

Utilizing the use of Automated Traffic Recorders (ATR's), Engineering Services staff collected the traffic volumes after the installation of the temporary closure of King High Drive. The results of the studies are summarized in the following chart.

Location	Date	Volume	Volume	Total Volume
Beverly Glen Blvd west of Fairfax Ct	Apr. 2008	Eastbound 4090	Westbound 2686	6776
Concord Rd near #20	Mar. 2008	Northbound 1773	Southbound 2121	3894
King High Dr east of Concord Rd	Mar. 2008	Eastbound 350	Westbound 429	779
Vaughan Blvd north of Centre St	Mar. 2008	Northbound 885	Southbound 786	1671

Staff also conducted an infiltration study to determine the number of motorists travelling from Dufferin Street/Beverly Glen Boulevard to Centre Street at either Concord Road or Vaughan Boulevard. The study was conducted on April 9, 2008 and on this day the weather was sunny.

AM Period – 7:00am to 9:00am

From	To	Total Inbound Volume	Total Infiltrating Volume	Infiltration Percent
Dufferin St/Beverly Glen Blvd	Centre St/Concord Rd	171	30	18%
Dufferin St/Beverly Glen Blvd	Centre St/Vaughan Blvd	171	13	8%

PM Period – 4:00pm to 6:00pm

From	To	Total Inbound Volume	Total Infiltrating Volume	Infiltration Percent
Centre St/Concord Rd	Dufferin St/Beverly Glen Blvd	141	8	6%
Centre St/Vaughan Blvd	Dufferin St/Beverly Glen Blvd	141	12	7%

The earlier infiltration studies in 2002, 2003 and 2004 indicate that the amount of 'cut-through' traffic was low, at less than 50 vehicles. The studies at these times were between Dufferin Street/King High Drive and Centre Street/Concord Road.

An intersection turning movement count was conducted at the intersection of Beverly Glen Boulevard and Concord Road on April 17, 2008. The study time periods were 7:00am to 9:00am and 3:00pm to 6:00pm. The weather on the day of the study was clear and sunny. The study was completed to determine if a possible eastbound right turn prohibition was required.

The results of the study is summarized in following chart.

Time Period	Total Eastbound Volume	# of Right Turns	Percent of Turns
7:00am to 9:00am	439	193	44%
AM Peak 8:00am to 9:00am	316	141	45%
3:00pm to 6:00pm	1013	334	33%
PM Peak 5:00pm to 6:00pm	457	153	33%
5 Hour Total	1206	527	44%

Summary

- Beverly Glen Blvd – the traffic volume has increased by 1358 vehicles (25%) after the closure was put in place.
- Concord Rd – the traffic volume has increased by 869 vehicles (29%) after the closure was put in place.
- Vaughan Blvd – the traffic volume has decreased by 549 vehicles (29%) after the closure was put in place.
- The infiltration volume through the neighbourhood is very low and appears to have decreased slightly after the closure was put in place.
- Although the percent of right turns are relatively high at the intersection of Beverly Glen Blvd and Concord Rd and the infiltrating volume is very low, the majority of vehicles turning are travelling within the neighbourhood, to Forest Lane Dr, King High Dr, Vaughan Blvd, Lawrie Rd, Loudon Cres, Belfield Ct and Concord Rd.
- A turn prohibition will impact all the residents in the neighbourhood.

Engineering Services staff will collect further traffic volumes in the Fall 2008 to compare with the data collected after six months. A final report will be prepared and presented to Committee of the Whole at that time.

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.

Regional Implications

The Region of York has been part of the process on the various alternatives which have been documented in this report and others. The various alternatives affect traffic movements at the intersection of King High Drive and Dufferin Street.

At their meeting on September 22, 2005, the Council of the Regional Municipality of York implemented a southbound left turn prohibition at the intersection of Dufferin Street and King High Drive between the hours of 7:00 a.m. to 9:00 a.m., Monday to Friday. The initial recommendation in the report, to close King High Drive at Dufferin Street, was supported by Regional Council.

Following implementation of the turning prohibition, left turns at the intersection continued to occur. During the first 6 months of the trial closure, the Region of York has not reported any adverse impact on their roads resulting from the closure.

The MTO has advised that in order to implement a southbound dual left turn at the Dufferin/Centre Street intersection, improvements would be required to Centre Street on the east side of the intersection. Staff will discuss this further with Regional staff.

Conclusion

The trial closure for one year would be an effective way to determine the impact on the community. This interim report indicates what traffic impacts have occurred within the community.

Engineering Services staff will continue to monitor the area and schedule further traffic volume counts in the Fall 2008. A report summarizing all results will be brought to Committee of the Whole at that time.

The collected traffic volumes after a six month review does indicate that the volume has increased on both Beverly Glen Boulevard and Concord Road. The traffic infiltration study shows that there are minimal 'cut-through' movements within the community.

Attachments

1. Location Map

Report prepared by:

Mike Dokman, Supervisor, Traffic Engineering, ext. 3118

Respectfully submitted,

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

Mike Dokman, C.E.T.
Supervisor, Traffic Engineering

MD:mc

ATTACHMENT No. 1



