



Corporate *NO: R001*

Report *COUNCIL DATE: January 6, 2003*

REGULAR COUNCIL			
TO:	Mayor & Council	DATE:	January 3, 2003
FROM:	General Manager, Engineering	FILE:	5460-00
SUBJECT:	Installation of All-Way Stop Control – Engineering Practice		

RECOMMENDATION

Receive for information.

INTENT

To outline to Council the background to, and process followed for, evaluating all-way stop signs. Numerous requests are received each year for the installation of all-way stop control at intersections; to date, the Engineering Department has been following internationally recognized guidelines/criteria for a number of years to evaluate these requests. This process has now been formalized into the attached Engineering Department Practice.

BACKGROUND

Each year the Engineering Department receives numerous requests from the public to install all-way stops. There is a commonly held belief that all-way stop control can reduce travel speeds, improve pedestrian safety and reduce collision frequency and severity; hence the requests. Historically, the Engineering Department, upon receipt of such a request, would undertake the necessary data collection efforts to determine if an all-way stop is justified. In the majority of instances, the all-way stop could not be justified and this is communicated to the person(s) making the request.

There have been occasions where the requestor has not accepted the findings of the Engineering Department and has, consequently, submitted a petition or has contacted members of Council in an effort to have the Engineering Department reconsider its position.

DISCUSSION

At the present time, the Engineering Department uses the following criteria for assessing an intersection for potential all-way stop control:

- Traffic volume
- Collision history
- Visibility

In many cases, all-way STOP controls are also considered to be an interim measure, under certain conditions, prior to the installation of a traffic signal.

The criteria listed above are consistent with those recommended for use by:

- Transportation Association of Canada in the 1998 Edition of the Manual of Uniform Traffic Control Devices for Canada (MUTCD – Canada);
- U.S. Federal Highway Administration in the U.S. version of the MUTCD; and,
- Ontario Traffic Manual, Book 5 Regulatory Signs.

Both the TAC and the Ontario documents clearly state that “STOP signs are not intended to be used as speed control devices. Their usage should be limited to the control of right-of-way conflicts”. These documents also state that “STOP sign control results in delay to drivers and may increase fuel consumption, vehicle emissions, and frequency of collisions. Therefore, STOP signs should not be used indiscriminately.”

In some jurisdictions, unwarranted stop signs have been installed to control traffic. Unfortunately, there are many problems caused by the installation of unwarranted stop signs including concerns such as liability issues, traffic noise, automobile pollution, traffic enforcement and driver behavior. In an effort to address the problem of the installation of unwarranted STOP signs, a paper was recently published to summarise over 70 research efforts into unwarranted STOP signs. Some of the key findings are summarised below:

- Safety of pedestrians, especially small children, is decreased at unwarranted multi-way stops;
- Multi-way stops do not control speeds (i.e., do not maintain speeds to posted limit);
- Stop compliance is poor at unwarranted multi-way stop signs;
- Before-After studies show multi-way stop signs do not reduce speeds on residential streets (i.e., no traffic calming effects); and,
- Unwarranted multi-way stops increased speed some distance from intersections.

It is theorised that the above noted problems associated with the installation of all-way STOPs are a direct result of driver frustration and driver familiarity. If an unwarranted all-way STOP is installed, drivers on the main street are quick to learn that there is little if any side street traffic and, over time, will begin to roll through the STOP sign and eventually ignore it all together. This has the potential to result in serious collisions with other vehicles or pedestrians. Extensive police enforcement of STOP signs is cost prohibitive. Even if drivers do adhere to the STOP sign, the frustration at having to stop unnecessarily results in many drivers accelerating heavily or speeding between intersections in an effort to “make up” time.

It is necessary to undertake engineering studies to ascertain if a specific location warrants the installation of an all-way stop. Installing an all-way STOP without the benefit of the studies and/or to address a perceived problem within the community could produce results that are contrary to the goals of public safety and transportation efficiency.

CONCLUSION

The Engineering Department has established a departmental practice which sets out criteria for the installation of all-way stops. This practice will not, in any way, limit what other measures the City takes to help neighbourhoods deal with traffic issues. The City already has an approved policy on the implementation of traffic calming measures, which is being used to install traffic calming devices in various neighbourhoods.

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PH/GV/KZ/brb

Attachment

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