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SPEED LIMIT REVISION
14TH AVENUE
TOWN OF MARKHAM

(Regional Council at its meeting on March 23, 2006, referred the following Clause to the Town of Markham for comment and a report back to the Transportation and Works Committee meeting on May 10, 2006.)

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, February 16, 2006, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. The existing speed limit of 60-km per hour on 14th Avenue (Y.R. 71) from a point 500 metres west of the west limit of Markham Road (Y.R. 68) to the west limit of the Ninth Line (Y.R. 69) in the Town of Markham be reduced to 50-km per hour.
2. The Regional Solicitor prepare the necessary by-law.
3. The Regional Clerk forward this report to the Clerk of the Town of Markham and to the Chief of York Regional Police, with a request to enforce this new regulation, as their resources permit.

2. PURPOSE

The purpose of this report is to obtain Council authorization to change existing speed limit regulations for a section of 14th Avenue in the Town of Markham. In accordance with the *Highway Traffic Act*, a Regional by-law is required in addition to the posting of appropriate speed limit signs before any of the proposed changes can be enforced. A copy of the location plan is provided as *Attachment 1*.

3. BACKGROUND

Regional staff received a request from a local resident, through a Regional Councillor's office, to lower the speed limit on 14th Avenue, between the 9th Line and Markham Road, from 60-km per hour to 50-km per hour.

The resident is primarily concerned about the risk of vehicles running off the road in slippery conditions and hitting pedestrians on the sidewalk.

4. ANALYSIS AND OPTIONS

4.1 Roadway Characteristics

14th Avenue is an arterial road that carries approximately 18,000 vehicles per day.

Between the west limit of the study section and Chatelaine Drive/Havelock Gate, 14th Avenue has 4-lane cross section. Between Chatelaine Drive/Havelock Gate and the Ninth Line, 14th Avenue has a two-lane cross section.

On the section between Markham Road and the Ninth Line there is no direct property access onto 14th Avenue.

The horizontal alignment of 14th Avenue between a point approximately 500 m west of Markham Road and the 9th Line is very curvilinear.

There are pedestrian sidewalks on both sides of 14th Avenue from Markham Road to the Ninth Line. The distance of the pedestrian sidewalk from the roadway edge varies along the whole section. At the bridge across the Rouge River there is no separation between the pedestrian walkway and the edge of the road.

4.2 Speed

A speed study was conducted on December 21, 2005. The recorded 85th percentile speed was 66-km per hour and 58% of all drivers exceeded the 60-km per hour speed limit.

Regional Council approved a 'Speed Limit Policy' on September 23, 2004. The Policy stipulates that the speed limit should be close to the 85th percentile speed, but allows the speed limit to be lower than the 85th percentile speed on roadways with high pedestrian volumes and high driveway densities.

Considering the fact that there are no direct accesses onto 14th Avenue and the 85th percentile speed exceeds the existing speed limit a reduction in the speed limit is not warranted in terms of the Region's Speed Limit Policy.

4.3 Horizontal Alignment

On 14th Avenue within the study section there are several horizontal curves. Several curves are short and have small deflection angles thereby creating kinks in the roadway that could be a challenge to negotiate at high speeds, especially in adverse weather conditions.

Approximately 280 m west of the Ninth Line on 14th Avenue, there is a bridge over the Rouge River. This bridge is situated on a horizontal curve and both approaches to the

bridge are on a decline. On the outside of the curve (i.e. of the south side of 14th Avenue), over the bridge, the pedestrian walkway is directly adjacent to the roadway and is not protected with a barrier. The combination of horizontal and vertical alignment in this area increases the risk that vehicles, driving at excessive speeds, could run off the road onto the pedestrian walkway.

4.4 Collisions

A review of the collision history between 2000 and 2004 along the study section revealed that approximately 20 collisions occurred that were related to the horizontal curvature of the roadway and the majority of these collisions occurred in wet weather conditions as a result of drivers driving too fast for the conditions.

A reduction in travel speeds on the study section of 14th Avenue will decrease the risk of run-off the road and head-on collisions as well as the risk of these vehicles colliding with pedestrians using the pedestrian walkway.

5. FINANCIAL IMPLICATIONS

The costs associated with the manufacture and installation of the new speed limit signs are included within the 2006 Roads Transportation Budget.

6. LOCAL MUNICIPAL IMPACT

The recommended change to the speed limit relates to the Regional road system with no direct impact to the local municipality.

7. CONCLUSION

Although a reduction in the speed limit is not strictly warranted in terms of the Region's Speed Limit Policy, a reduction in the speed limit on 14th Avenue between a point 500 metres west of Markham Road and the Ninth Line is recommended to improve the overall safety in this area and to reduce the risk of vehicle and pedestrian collisions.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause was included in the agenda for the March 1, 2006 Committee meeting.)