

## **COMMITTEE OF THE WHOLE - NOVEMBER 5, 2007**

### **THORNHILL WOODS PUBLIC SCHOOL PEDESTRIAN TRAFFIC REVIEW**

#### **Recommendation**

The Commissioner of Engineering and Public Works recommends:

1. That a new school crossing guard be located on the south side of Autumn Hill Boulevard and Bathurst Glen Drive;
2. That funds, in the amount of \$9,420 be referred to the 2008 Operating Budget deliberations for the additional crossing guard on the south side of Autumn Hill Boulevard and Bathurst Glen Drive;
3. That a new school crossing guard be located on Autumn Hill Boulevard at the walkway entrance to Thornhill Woods Public School;
4. That funds, in the amount of \$9,420 be referred to the 2008 Operating Budget deliberations for the additional crossing guard on Autumn Hill Boulevard at the walkway entrance to Thornhill Woods Public School;
5. That the pedestrian signal approved in the 2007 Capital Budget at an estimated cost of \$52,000 for Thornhill Woods Drive south of Coltrane Drive be relocated to Autumn Hill Boulevard at the Thornhill Woods Public School walkway;
6. That the existing school crossing guard on Thornhill Woods Drive south of Coltrane Drive in front of the park be relocated to the north side of the intersection of Thornhill Woods Drive and Coltrane Drive;
7. That an additional school crossing guard not be located at the north side of the intersection of Autumn Hill Boulevard and Thornhill Woods Drive; and
8. That the existing school crossing guard on the east side of the intersection of Autumn Hill Boulevard and Thornhill Woods Drive be retained.

#### **Economic Impact**

The cost to install the Pedestrian Signal and pavement markings has previously been approved for a location on Thornhill Woods Drive and is proposed for relocation to Autumn Hill Boulevard. The cost to maintain the signal and pavement markings would have an impact to future Operating Budgets.

The cost to implement two new guards will have an impact to the 2008 Operating Budget. The annual cost of the guard will be an increase of \$18,840 commencing with the 2008 Operating Budget.

#### **Communications Plan**

Staff will advise the school and the school board of the approved locations for the crossing guards.

Staff received a request from the Principal of Thornhill Woods Public School and the Parent Teacher Council for both a new school crossing guard and intersection pedestrian signal on Autumn Hill Boulevard at the walkway to the school. Staff will communicate the location of the proposed pedestrian signal to Thornhill Woods Public School once approved in the budget.

If the new pedestrian signal location is approved by Council, notice of this proposed pedestrian signal installation will be circulated to the residents within 100m of the subject crossing and posted on the City Web page for a period of two weeks prior to implementation.

### Purpose

To review various pedestrian traffic-related concerns as requested by the Principal of Thornhill Woods Public School and the Parent Teacher Council.

### Background - Analysis and Options

Autumn Hill Boulevard and Thornhill Woods Drive are primary feeder roadways with a right-of-way width of 23.0 metres. The existing speed limit on Autumn Hill Boulevard is a statutory 50 km/h, and Thornhill Woods Drive is a posted 40 km/h. Thornhill Woods Public School is located in the southeast quadrant of Thornhill Woods Drive and Autumn Hill Boulevard. The area is shown on Attachment No. 1.

Traffic-related concerns were raised for Autumn Hill Boulevard and Thornhill Woods Drive for the safety of students crossing the street to and from Thornhill Woods Public School. Students crossing the street were reviewed at several locations during school start and end time periods.

#### Autumn Hill Boulevard and Thornhill Woods Drive

A review of students crossing at the intersection of Autumn Hill Boulevard and Thornhill Woods Drive was conducted from 3:25 - 4:00 pm on October 29, 2007 and from 8:25 - 9:05 am on October 30, 2007. There is an existing school crossing guard location on the east side of this intersection.

Time	North Side	South Side	East side	West side
8:25 am – 9:05 am	<b>1</b> (1)	<b>7</b> (4)	<b>11</b> (4)	<b>1</b> (2)
3:25 pm – 4:00 pm	<b>0</b> (10)	<b>11</b> (5)	<b>17</b> (16)	<b>1</b> (0)
Total	<b>1</b> (11)	<b>18</b> (9)	<b>28</b> (20)	<b>2</b> (2)

*Please note that the bold number is number of students crossing unassisted and the number in brackets is number of students crossing with assistance from an adult.*

The Thornhill Woods Public School Principal requested an additional school crossing guard for this intersection. Development in the area north of Autumn Hill Boulevard and west of Thornhill Woods Drive has increased and apparently so has the number of students to the school. Based on the review, staff recommends that the existing school crossing guard on the east side of the intersection remains as-is, and an additional school crossing guard is not required at this time as the minimum warrant value (50 children) is not met on the west or north sides of the intersection.

#### Autumn Hill Boulevard and Bathurst Glen Drive

A review of students crossing at the intersection of Autumn Hill Boulevard and Bathurst Glen Drive was conducted from 8:25 - 9:05 am and from 3:25 - 4:00 pm on June 13, 2007.

Time	North Side	South Side	East side	West side
8:25 am – 9:05 am	<b>6</b> (1)	<b>29</b> (7)	<b>11</b> (0)	<b>4</b> (1)
3:25 pm – 4:00 pm	<b>4</b> (0)	<b>38</b> (11)	<b>16</b> (3)	<b>2</b> (0)
Total	<b>10</b> (1)	<b>67</b> (18)	<b>27</b> (3)	<b>6</b> (1)

*Please note that the bold number is number of students crossing unassisted and the number in brackets is number of students crossing with assistance from an adult.*

The Thornhill Woods Public School Principal requested an additional school crossing guard for this intersection. Based on the review, staff recommends that a new school crossing guard be located on the south side of the intersection as the minimum warrant value (50 children) is met. This crossing guard would service students arriving from the area south of Autumn Hill Boulevard.

Autumn Hill Boulevard at the Thornhill Woods Public School walkway

The existing walkway is west of Chopin Boulevard at the east property line of Thornhill Woods Public School and is a logical location for students to arrive to and depart from Thornhill Woods Public School.

A school crossing guard and pedestrian signal would service students arriving from the area north of Autumn Hill Boulevard and east of Bathurst Glen Drive.

A pedestrian signal was approved for a location on Thornhill Woods Drive south of Coltrane Drive; however, a pedestrian signal is no longer required for this location as the students crossing Thornhill Woods Drive can be accommodated by the relocation of the existing crossing guard to the intersection of Thornhill Woods Drive and Coltrane Drive.

As the walkway location is an uncontrolled crossing of a primary feeder roadway, the relocation of the approved pedestrian signal from Thornhill Woods Drive to this location would be beneficial.

Thornhill Woods Drive Pedestrian Review

A review of students crossing Thornhill Woods Drive between Summeridge Drive and Autumn Hill Boulevard was conducted from 8:25 - 9:05 am and from 3:25 - 4:00 pm on June 20, 2007. There is an existing school crossing guard location on Thornhill Woods Drive south of Coltrane Drive.

Crossing Location	Time	# of students crossing Thornhill Woods Drive
Between Summeridge Drive and Coltrane Drive	8:25 am - 9:05 am	<b>7</b> (5)
	3:25 pm - 4:00 pm	<b>3</b> (5)
At Coltrane Drive to Autumn Hill Boulevard	8:25 am - 9:05 am	<b>31</b> (45)
	3:25 pm - 4:00 pm	<b>26</b> (38)
Total	8:25 am - 9:05 am	<b>38</b> (50)
	3:25 pm - 4:00 pm	<b>29</b> (43)

*Please note that the bold number is number of students crossing unassisted and the number in brackets is number of students crossing with assistance from an adult.*

The majority of student crossing activity is at the intersection of Thornhill Woods Drive and Coltrane Drive. Based on the review, staff recommends that the existing school crossing guard at the crosswalk south of Coltrane Drive be relocated to the north side of the intersection of Thornhill Woods Drive and Coltrane Drive.

The guard could be relocated in 2007 as soon as arrangements can be made for the necessary pavement markings and signage.

Traffic Signal Requests

In addition to the requests above, requests for traffic signals were made at two intersections; Thornhill Woods Drive and Summeridge Drive, and Autumn Hill Boulevard and Thornhill Woods Drive. Turning movement counts were conducted on Tuesday, June 19, 2007 at Thornhill Woods

Drive and Summeridge Drive and on Tuesday, June 26, 2007 at Autumn Hill Boulevard and Thornhill Woods Drive. The traffic counts were conducted from 7:00 am to 9:00 am, 11:00 am to 2:00 pm and 3:00 pm to 6:00 pm. On the days of the traffic studies the weather was clear and the roads were dry. The collected traffic volumes compared to the Provincial Warrant for Traffic Signal Installation are as shown below.

Thornhill Woods Drive and Summeridge Drive

- Warrant 1 – Minimum Vehicular Volumes Warranted 80%
- Warrant 2 – Delay to Cross Traffic Warranted 49%
- Warrant 3 – Accident Experience Warranted 0%

Autumn Hill Boulevard and Thornhill Woods Drive

- Warrant 1 – Minimum Vehicular Volumes Warranted 68%
- Warrant 2 – Delay to Cross Traffic Warranted 36%
- Warrant 3 – Accident Experience Warranted 40%

For a traffic signal control to be warranted, one or more of the 3 warrants must be satisfied 100% or more. The results of the turning movement counts do not meet the requirements of the Provincial Warrant for Traffic Signal Installation. The above results reflect the highest eight peak traffic hours at the intersections.

There is also Warrant 4 – Combination Warrant which may be used if no individual warrants are satisfied 100%, in which two warrants satisfying 80% or more could warrant the installation of a traffic signal. At both intersections, Warrant 4 does not meet requirements.

Both intersections are identified on the Block Plan for future traffic signal installations. Staff will continue to monitor these intersections for traffic signal installation.

**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**

Not Applicable.

**Conclusion**

Based on staff's review, it is recommended that:

1. That a new school crossing guard be located on the south side of Autumn Hill Boulevard and Bathurst Glen Drive;
2. That a new school crossing guard be located on Autumn Hill Boulevard at the walkway entrance to Thornhill Woods Public School;
3. That the approved pedestrian signal for Thornhill Woods Drive south of Coltrane Drive be relocated on Autumn Hill Boulevard at the Thornhill Woods Public School walkway. Funding for this project has been allocated in the 2007 Capital Budget in the amount of \$52,000;

4. That the existing school crossing guard on Thornhill Woods Drive south of Coltrane Drive in front of the park be relocated to the north side of the intersection of Thornhill Woods Drive and Coltrane Drive; and
5. That an additional school crossing guard not be located at the intersection of Autumn Hill Boulevard and Thornhill Woods Drive, however, the existing school crossing guard at the intersection should be retained.

**Attachments**

1. Location Map

**Report prepared by:**

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Mike Dokman, Supervisor, Traffic Engineering, ext. 3118

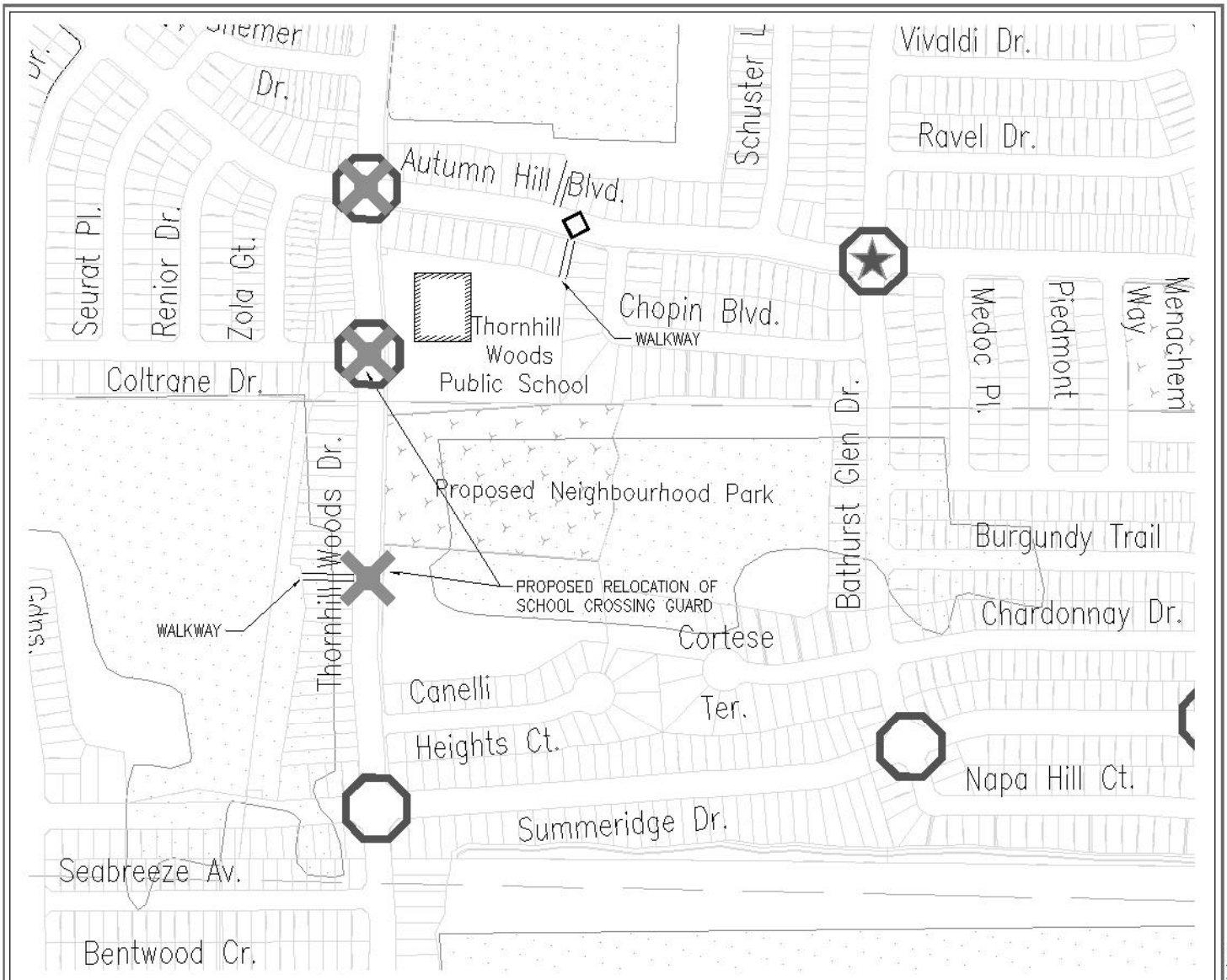
Respectfully submitted,

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

Gary P. Carroll, P. Eng.  
Director of Engineering Services






MR:mc

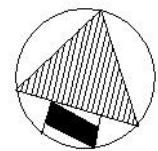
# ATTACHMENT No. 1



## THORNHILL WOODS PUBLIC SCHOOL TRAFFIC REVIEW

### LEGEND

-  EXISTING TRAFFIC SIGNALS
-  EXISTING ALL-WAY STOP CONTROL
-  EXISTING SCHOOL CROSSING GUARD LOCATION
-  PROPOSED SCHOOL CROSSING GUARD LOCATION
-  PROPOSED SCHOOL CROSSING GUARD LOCATION AND PEDESTRIAN SIGNAL



NOT TO SCALE