

## **COMMITTEE OF THE WHOLE – MAY 5, 2003**

### **MAPLE SPRINGS PHASE 2 NEIGHBOURHOOD TRAFFIC COMMITTEE PLAN**

#### **Recommendation**

The Commissioner of Engineering and Public Works recommends:

1. That the Maple Springs Phase 2 Neighbourhood Traffic Committee plan proposal be approved, with the exception of the allway stop controls proposed at the intersections of:
  - Drummond Drive and Logwood Crescent/Monteith Crescent;
  - Drummond Drive and Solway Avenue/Blackthorne Drive; and
  - Isaac Murray Avenue and Royal Ridge Crescent/Holy Jubilee Catholic School (west access);
2. That funds in the amount of \$140,000 for the implementation of the plan proposal be drawn from the 2001 Capital Budget (Traffic Calming, Project No. 1203-2);
3. That the speed limit on Drummond Drive not be reduced from 50 km/h to 40 km/h;
4. That allway stop controls be implemented at the intersections of St. Joan of Arc Avenue and Fletcher Drive, and Brandon Gate and Ashton Drive/Heymer Drive;
5. That an allway stop control not be installed at the intersection of Ashton Drive and Craddock Street/Medley Court; and
6. That some design changes be made to the roundabout of the intersection of Cranston Park Drive and Drummond Drive/Melville Avenue, as described in this report, to improve traffic operations and safety.

#### **Purpose**

To report on the Maple Springs Phase 2 Neighbourhood Traffic Committee Plan proposal.

#### **Background - Analysis and Options**

The Maple Springs Phase 2 Neighbourhood Traffic Committee plan proposal was brought to the attention to the Committee of the Whole meeting of March 17, 2003, by Councillor Mario Ferri in an attempt to address concerns with vehicle speeds and stop sign compliance in the area. The traffic committee area is bounded by Keele Street to the east, McNaughton Road and the limit of Maple Springs Phase 1 to the south, Jane Street to the west and Teston Road to the north. Refer to Attachment No. 1.

#### **Public Participation**

The initial public meeting of the Maple Springs Phase 2 Neighbourhood Traffic Committee was held on April 16, 2002. Engineering Department staff outlined the concept of traffic calming and the types of traffic calming measures available, and explained the City's Neighbourhood Traffic Committee Policy and Procedure.

The final public meeting was held on February 18, 2003. The Traffic Committee, with the assistance of Engineering Department staff, introduced the traffic calming proposals for the neighbourhood to the residents in attendance. There were 27 in attendance, and 24 were in favour of the plan and 3 were against the plan. The residents were generally in favour of the

proposals, but some wanted amendments to the plan as outlined below. A review of these proposals is included later in the report.

- Reduce the existing speed limit from 50 km/h to 40 km/h on Drummond Drive (petition received).
- Remove the proposed curb extensions on the east side of St. Joan of Arc Avenue in front of St. Joan of Arc High School and install an allway stop control at the St. Joan of Arc Avenue/Fletcher Drive intersection (petition received).
- Install an allway stop control on Ashton Drive at Craddock Street/Medley Court (petition received).
- To install an allway stop control at the intersection of Brandon Gate and Ashton Drive/Haymer Drive.
- To raise the splitter islands (traffic diverters) at the roundabout at Cranston Park Drive and Drummond Drive/Melville Avenue. Those in attendance were in favour of replacing the mountable curb on the splitter islands with barrier curb to prevent motorists from crossing over them and traversing the roundabout in the wrong direction.

#### Traffic Calming Plan - General

There are seven existing allway stop controls at the following intersections within the Maple Springs Phase 2 Neighbourhood Traffic Committee area:

- Ashton Drive and Pine Hollow Crescent/Klamath Court;
- Melville Avenue and Sandway Crescent/Kettle Court;
- Cranston Park Drive and Ridgeway Court/Princeton Gate;
- Cranston Park Drive and Ashton Drive/Isaac Murray Avenue;
- Isaac Murray Avenue and St. Joan of Arc Avenue;
- Drummond Drive and St. Joan of Arc Avenue; and
- St. Joan of Arc Avenue and Cunningham Drive.

The existing posted speed limits are 50 km/h on all the roadways within the Maple Springs Phase 2 Neighbourhood except where it is a 40 km/h designated speed limit zone in front of McKenzie Glen Public School on Melville Avenue and in front of Holy Jubilee Catholic School on Isaac Murray Avenue and St. Joan of Arc Avenue.

There are traffic calming measures constructed at the time the area was built at the following locations within the Maple Springs Phase 2 Neighbourhood Traffic Committee area:

- Existing roundabout: Cranston Park Drive and Melville Avenue/Drummond Drive; and
- Existing raised intersections: Ashton Drive and Vespucci Drive, Drummond Drive and Monteith Crescent/Logwood Crescent, Drummond Drive and St. Joan of Arc Avenue, and St. Joan of Arc Avenue and Isaac Murray Avenue.

Staff undertook field reviews to determine locations that would be feasible for the additional traffic calming measures proposed.

Speed humps can be placed at the following locations:

- St. Joan of Arc Avenue, between #177/#181 and #176/#182;
- St. Joan of Arc Avenue, side yard of #1 Blackthorne Drive;
- Princeton Gate, side yard of #124 Princeton Gate; and
- Drummond Drive, #171 and #172.

Raised crosswalks can be placed at the following locations:

- Melville Avenue, on the east side of Maple Meadows Lane at the existing school crossing guard location;
- Ashton Drive, between Cooper Creek Court and Willow Tree Street at the walkway to the conservation area; and
- St. Joan of Arc Avenue, at the walkway to Princeton Gate Park.

It has been assumed that the four speed humps will be constructed completely of asphalt and the three raised crosswalks will have coloured impressed concrete tops. If the four speed humps are constructed with coloured impressed concrete tops as well, then the estimated cost of this plan would increase by \$12,000. However, it is recommended that the speed humps be asphalt to distinguish them from raised crosswalks.

Curb extensions are proposed at the accesses to McKenzie Glen Public School on the south side of Melville Avenue, and four curb extensions are proposed between Regal Pine Court and Tayside Avenue.

There are two raised centre medians proposed on Drummond Drive, one to be located between Regal Pine Court and Tayside Avenue and the second to be located between Keele Street and Solway Avenue.

Painted road markings are proposed on Melville Avenue, Drummond Drive, St. Joan of Arc Avenue and Cranston Park Avenue that will complete the main through roads within the Maple Springs Neighbourhood subdivision.

Allway stop controls are proposed at the following intersections:

- Drummond Drive and Logwood Crescent/Monteith Crescent;
- Drummond Drive and Solway Avenue/Blackthorne Drive; and
- Isaac Murray Avenue and Royal Ridge Crescent/Holy Jubilee Catholic School (west access)

These allway stop controls are not technically warranted in terms of traffic volumes, and staff cannot recommend their installation. However, should Council wish, they may be installed without adversely impacting traffic operations.

#### Drummond Drive – Speed Reduction

The petition indicated that the residents would like the speed limit reduced from 50 km/h to 40 km/h on Drummond Drive between Keele Street and Cranston Park Drive. Drummond Drive is a four lane roadway with an existing speed limit of 50 km/h. Those in attendance voted on this matter and the majority were in favour of the speed reduction.

Staff conducted radar speed studies on Drummond Drive on February 28, 2003, east of St. Joan of Arc Avenue and on March 3, 2003, west of St. Joan of Arc Avenue during the time periods of 7:30 am to 9:00 am and 3:00 pm to 5:00 pm. The results of the studies are indicated below.

Location	Direction	Time Period	Average Speed	Compliance to 50 km/h
East of St. Joan of Arc Avenue	Westbound	AM	51 km/h	45%
	Eastbound	AM	54 km/h	28%

Westbound	PM	53 km/h	34%
Eastbound	PM	53 km/h	42%

West of St. Joan of Arc Avenue

Westbound	AM	54 km/h	37%
Eastbound	AM	55 km/h	25%

Westbound	PM	56 km/h	25%
Eastbound	PM	55 km/h	28%

The recorded vehicle speeds are comparable to similar roadways elsewhere in the city. There is an existing designated 40 km/h school zone speed limit in front of McKenzie Glen Public School. The implementation of a 40 km/h speed limit throughout Drummond Drive will reduce the effectiveness of the school zone speed limit. Therefore, it is recommended that the speed limit on Drummond Drive not be reduced from 50 km/h to 40 km/h.

Removal of Proposed Curb Extensions on St. Joan of Arc Avenue/Allway Stop Control

Several residents in the area of St. Joan of Arc High School signed a petition to remove the proposed curb extensions on the east side of the roadway in front of the high school and install an allway stop control at the intersection of St. Joan of Arc Avenue and Fletcher Drive. The traffic committee proposed the curb extensions on either side of the school's accesses to delineate the drop off/pick up activity at the school. Those in attendance voted on the matter of removing the curb extensions and the majority were in favour and to request staff to look into the feasibility of an allway stop control at the St. Joan of Arc Avenue/Fletcher Drive/school's north access intersection.

Staff conducted a traffic study on February 27, 2003 at the intersection during the time periods of 7:30 am to 9:00 am and 3:00 pm to 5:30 pm. The results of the study indicate that the Provincial Allway Stop Warrant is met based on the high vehicle volumes during the peak periods. Observations revealed that during the school's peak time periods motorists were confused on right-of-way movement at the intersection. The installation of an allway stop control will be beneficial to assist with the right-of-way movements at the intersection. Therefore, it is recommended that an allway stop control be installed at the intersection of Street Joan of Arc Avenue and Fletcher Drive and the proposed curb extensions be removed from the plan.

Ashton Drive and Craddock Street/Medley Court – Allway Stop Control

A petition was received from the area residents who expressed a concern regarding the excessive vehicle speeds on Ashton Drive. Ashton Drive is temporarily closed west of Cooper Creek Court. The majority of the vehicle volume is residential traffic. There is a proposed raised crosswalk to be installed between Cooper Creek Court and Willow Tree Street. Those in attendance voted in favour for an allway stop control at the intersection.

Staff conducted a traffic study on February 26, 2003, at the intersection during the time periods of 7:30 am to 9:00 and 3:30 pm to 5:30 pm. The results of the traffic study indicate that the Provincial Allway stop Warrant is not met due to the low vehicle volumes at the intersection and in the area. Once the roadway of Ashton Drive is opened, motorists will have the opportunity to travel westbound to access Jane Street via Brandon Gate, which should further reduce vehicle volumes near this intersection. Therefore, it is recommended that an allway stop control not be installed at the intersection of Ashton Drive and Craddock Street/Medley Court.

Brandon Gate and Ashton Drive/Haymer Drive – Allway Stop Control

Several area residents expressed a concern that there is a need for an allway stop control at the intersection. Brandon Gate functions as a gate type roadway into the subdivision.

Staff conducted a traffic study on February 12, 2003 at the intersection during the time periods of 7:00 am to 9:00 am and 3:00 pm to 6:00 pm. The results of the study indicate that the Provincial Allway Stop Warrant is met based on the vehicle volumes at the intersection. Therefore, it is recommended that an allway stop control be installed at the intersection of Brandon Gate and Ashton Drive/Haymer Drive.

#### Design Changes to the Roundabout

The roundabout at the intersection of Cranston Park Avenue and Drummond Drive/Melville Avenue was constructed at the time the Maple Springs subdivision was built. The design is safe and functional, but it does not fully conform to current City standards.

Residents in attendance at the final public meeting have requested that the splitter islands on the roundabout, which are mainly constructed with mountable curb, be replaced with barrier curb to discourage motorists from crossing over the islands and traversing the roundabout in the wrong direction. Staff concur with the request.

Staff also recommend that the opportunity be taken to have additional retrofitting done to the roundabout. The Drummond Drive and Melville Avenue approaches to the roundabout are two lanes; however, the circulatory road around the central island of the roundabout is only one lane. There is insufficient advance warning for this, and should two motorists approach the roundabout from the same direction at the same time, one would suddenly have to yield to the other once reaching the circulatory road. This creates the potential for conflicts at the four approaches, especially as traffic volumes increase on the approach roads.

Accordingly, it is recommended that curb extensions be installed to narrow each approach to one lane in advance of the roundabout, as shown conceptually on Attachment No. 1. Warning signs and pavement markings would also be provided so that motorists in the curb lanes would have sufficient warning to change lanes before reaching the roundabout.

The specifics of this work will be determined at the detailed design stage should Council approve Maple Springs Phase 2 Neighbourhood Traffic Committee plan proposal. Minor changes to the signage at the roundabout, and to other traffic calming measures in the City as required, will be also be carried out in 2003.

#### Neighbourhood Traffic Committee Summary

As its meeting of December 18, 2001, Council approved a moratorium on the implementation of traffic calming measures, with the exception of those in existing traffic committees. As the original Maple Springs Traffic Committee was formed in 2000, it is exempt from the moratorium.

The Year 2001 Capital Budget has \$1,700,000 remaining for the implementation of traffic calming projects. To date, the following Traffic Management Plans and projects that will be funded from the \$1,700,000 have been approved and total approximately \$810,000:

- Maple Sherwood Ratepayers Traffic Committee, estimated cost of \$105,000;
- Flamingo Road Traffic Committee, estimated cost of \$54,000;
- Airdrie Drive Traffic Committee, estimated cost of \$46,000;
- Chancellor Community Centre speed humps, estimated cost of \$30,000;
- Hilda/Pinewood intersection modifications, estimated cost of \$85,000;
- Vaughanwood South Neighbourhood, estimated cost of \$50,000;
- Weston Downs North, estimated cost of \$120,000;
- Belview Avenue speed hump, estimated cost of \$12,000;
- Maple Landings Neighbourhood, estimated cost of \$140,000;
- Rosedale Heights, estimated cost of \$42,000;

- Alberta Drive speed hump, estimated cost of \$10,000;
- Weston Downs Phase 1B (Velmar Drive), estimated cost of \$70,000; and
- Arnold Avenue, actual cost of \$46,000.

#### Environmental Assessment Act Requirements

As now required under the Environmental Assessment Act, a Notice of Completion will be filed with the Ontario Ministry of the Environment and published on the City Page in two separate editions of the Vaughan Citizen. The Notice is the means by which individuals or agencies are informed they have 30 days to request a Part II Order in objection to the project.

#### Conclusion

The Engineering Department recommends for approval the Maple Springs Phase 2 Neighbourhood Traffic Committee plan proposal, with the exception of the three allway stop controls. The estimated cost of \$140,000 includes taxes, contingency allowance and associated traffic signs and pavement markings.

#### Attachments

1. Location Map
2. Drummond Drive - Petition
3. St. Joan of Arc Avenue - Petition
4. Ashton Drive - Petition

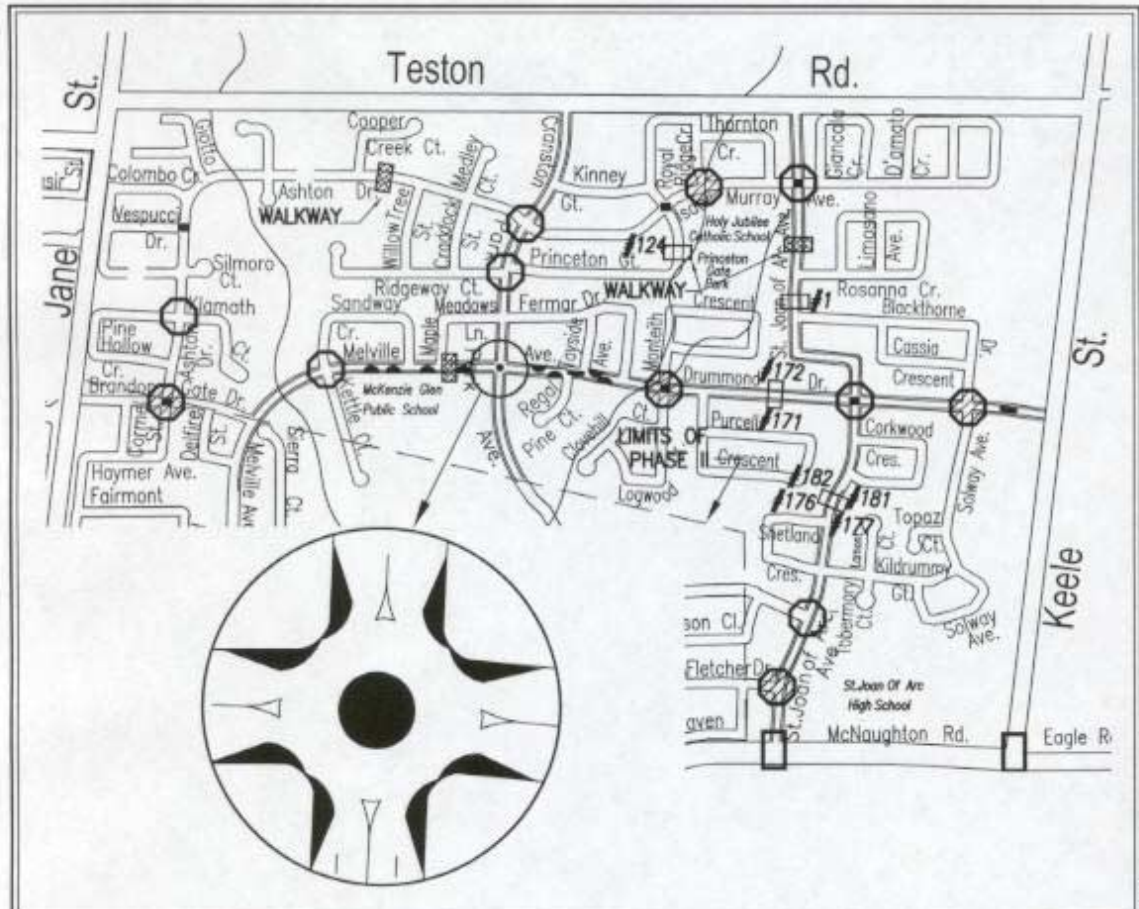
#### Report prepared by

Mike Dokman, Senior Transportation Technologist, ext. 8031  
Phil Weber, Transportation Engineer, ext. 8264

Respectfully submitted,











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

# ATTACHMENT No. 1



## MAPLE SPRINGS PHASE II TRAFFIC COMMITTEE PROPOSED TRAFFIC CALMING MEASURES

### LEGEND

- |   |  |
|---|--|
|  EXISTING ALLWAY STOP          |  PROPOSED ALLWAY STOP            |
|  EXISTING TRAFFIC CIRCLE       |  PROPOSED SPEED HUMPS            |
|  EXISTING RAISED INTERSECTIONS |  PROPOSED PAINTED ROAD NARROWING |
|  PROPOSED RAISED CROSSWALK     |                                 |
|  PROPOSED CENTRE MEDIAN        |  |
|  PROPOSED CURB EXTENSIONS      |  |

NOT TO SCALE



**NOTICE OF PETITION**

**A petition has been submitted with respect to the following matter and a copy is on file in the office of the City Clerk:**

**Agenda Item No.:** 10 \_\_\_\_\_

**Item Name:** MAPLE SPRINGS PHASE 2  
NEIGHBOURHOOD TRAFFIC COMMITTEE PLAN

**Particulars of the Petition:**

**Dated:** --- \_\_\_\_\_

**No. of Signatures:** 99 \_\_\_\_\_

**Submitted by:** Residents of Drummond Drive, St. Joan of Arc  
Avenue and Ashton Drive

**For a copy of the petition contact:**

**City of Vaughan, Clerk's Department, 2141 Major Mackenzie Drive, Vaughan, L6A 1T1  
Tel: (905) 832-8504 Fax: (905) 832-8535**