

COMMITTEE OF THE WHOLE – JUNE 14, 2011

DEPUTATION – MR. EDDY ACETI WITH RESPECT TO TRAFFIC CONTROL ON MELVILLE AVENUE BETWEEN RUTHERFORD ROAD AND MAJOR MACKENZIE DRIVE WARD 1

Recommendation

The Commissioner of Engineering and Public Works recommends:

1. That a "Heavy Truck" prohibition not be implemented on Melville Avenue between Rutherford Road and Major Mackenzie Drive;
2. That the existing speed limit not be reduced from 50 km/h to 40 km/h on Melville Avenue between Rutherford Road and Major Mackenzie Drive; and
3. That a Community Safety Zone not be implemented on Melville Avenue from the north limit of West Maple Creek Park to Springside Drive.

Contribution to Sustainability

Not Applicable.

Economic Impact

None.

Communications Plan

There have been discussions and a meeting with the resident to discuss the expressed concerns and to provide a review of the traffic data. Engineering Services staff will advise the resident on the decision of Council regarding this matter.

Purpose

The purpose of this report is to provide background information on the traffic studies undertaken on Melville Avenue, between Rutherford Road and Major Mackenzie Drive.

Background - Analysis and Options

At its meeting on March 8, 2011 Council directed:

"That the Commissioner of Engineering and Public Works address creating a Community Safety Zone with York Regional Police for the length of Melville Avenue from west of Maple Creek Park and Springside Drive and report back to a future Committee of the Whole meeting."

Melville Avenue is a four-lane collector roadway connecting Major Mackenzie Drive to Rutherford Road and has a 13.5 metres pavement width.

Melville Avenue serves as the north and south collector roadway within this part of the City. The intended function of a collector roadway, such as Melville Avenue, is to equally provide land access and service traffic. The area is shown in Attachment No. 1.

Community Safety Zones (CSZ)

The Province of Ontario amended the Highway Traffic Act (HTA) to provide municipalities and police services with an additional traffic management tool. Specifically, Bill 26 – An Act to Promote Public Safety Through the Creation of Community Safety Zones, was passed by the Ontario Legislature on June 26, 1998. Section 214.1 of the HTA reads:

"The council of a municipality may by by-law designate a part of a highway under its jurisdiction as a community safety zone if, in the council's opinion, public safety is of special concern on that part of the highway."

Guidelines for Community Safety Zones – Approved by Council on January 31, 2000

1. Community Safety Zones should only be implemented for community based facilities such as schools, community centres, children's parks, retirement areas, or roadway sections with continual high collision rates;
2. Each by-law establishing a Community Safety Zone must indicate that the designation is in effect for 24 hours a day to assist the Police with enforcement;
3. The Regional/Municipal technical working group and the Regional Police should have direct input into the recommendation(s) for adopting any new Community Safety Zone; and
4. Community Safety Zones must always be used in conjunction with other traffic safety and police enforcement measures.

At its meeting of April 12, 2000, Council approved the designation of ten community safety zones in the city. The ten community safety zones are listed below.

Ward 1

- Islington Avenue – Kleinburg Public School, Rushworth Crescent to Stegman's Mill Road
- Melville Avenue – Divine Mercy Separate Catholic School, Roseheath Drive to Cunningham Drive

Ward 2

- Kipling Avenue – Woodbridge Avenue Public School, Highway 7 to Woodbridge Avenue
- Martin Grove Road – Holy Cross Catholic High School, 200 metres north of Roysun Road to 200 metres south of Roysun Road

Ward 3

- Aberdeen Avenue – Immaculate Conception Catholic School, Governor Crescent (north intersection) to Governor Crescent/Clover Leaf Street
- Fiori Drive – St. Gabriel the Archangel Catholic School, Beatrice Way to Father Ermanno Crescent/Olive Green Road

Ward 4 (Both locations are now part of the new realigned Ward 5)

- Beverly Glen Boulevard – Wilshire Elementary School, Worth Boulevard to Ventura Way/Redford Place
- Brownridge Drive – Brownridge Public School, Carl Tennon Drive to Zahavy Drive

Ward 5

- Atkinson Avenue – Leo Baeck Day School/Netivot Hatorah Day School, Campbell Avenue/Manor Gate to Rodeo Drive
- Hilda Avenue – York Hill Public School, 100 metres north of Jonathan Gate to 200 metres south of Jonathan Gate

Staff prepared a report as a follow up on the effectiveness of the ten existing community safety zones which was adopted without amendment at the Council meeting on June 25, 2001.

Two traffic studies (before and after) were completed: one in the Summer of 2000 and the second in the Spring of 2001. The studies revealed that the vehicle speeds were relatively unchanged. It was concluded that without police presence motorists will tend to travel at a speed at which they feel comfortable, regardless of the presence of a community safety zone.

Proposed Community Safety Zone

Melville Avenue from the north limit of West Maple Creek Park and Springside Drive.

- There is an existing pedestrian signal at the walkway to West Maple Creek Park.
- There is an existing crossing guard at the pedestrian signal.
- In 2008, the number of children crossing at this location during the school peak periods was 143.
- There are no reported vehicle collisions on Melville Avenue between Springside Drive and the north limit of West Maple Creek Park.
- Maple High Secondary School is located on the northwest corner of Melville Avenue and Springside Drive.

Although the section of Melville Avenue has a park and the high school is adjacent to Melville Avenue, there is no demonstrated collision concern within this section of roadway. The existing pedestrian signal provides a safe crossing for children with the crossing guard and other pedestrians wishing to go to the Park after the weekday peak travel periods and on weekends.

Staff have discussed the matter of community safety zones with York Regional Police. York Regional Police do frequent enforcement (speed, stop signs and other HTA offences) through their Cross Smart Program. Should Council enact a by-law to implement a Community Safety Zone on Melville Avenue, York Regional Police would attempt to enforce it as resources permit.

Engineering Services staff have compiled the following traffic data information which was provided to the Deputant as per his request.

Total Vehicles and Trucks Volume Data

Utilizing Automatic Traffic Recorders (ATR's) staff conducted traffic volume and classification studies on Melville Avenue in the vicinity of Hawker Road from November 2, 2009 to November 5, 2009. The data covered a 24-hour time period and was compared to data from September 22, 2008, to September 26, 2008, to determine the amount of heavy vehicle traffic on Melville Avenue. The results for the 3 days (**November 2009**) and the 4 days (September 2008) of data collection have been summarized below.

Automatic Traffic Recorders (ATR's)

Direction	Year	Total Vehicles	Total number of Trucks	Total Truck Percentage	Trucks Between 7:00 am to 7:00 pm	Trucks Between 7:00 pm to 7:00 am
Northbound	2008	21,480	282	1.3%	260	22
	2009	(19,082)	(177)	(0.93%)	(156)	(21)
Southbound	2008	20,106	285	1.4%	245	40
	2009	(16,439)	(266)	(1.6%)	(226)	(40)

The heaviest recorded truck hours from the September 2008 and November 2009 traffic studies occurred:

Direction		Time Periods		
		7:00 am – 9:00 am	11:00 am – 2:00 pm	4:00 pm – 7:00 pm
Northbound	2008	39 trucks	40 trucks	156 trucks
	2009	(16 trucks)	(37 trucks)	(80 trucks)
Southbound	2008	113 trucks	43 trucks	66 trucks
	2009	(129 trucks)	(80 trucks)	(33 trucks)

Note: the first number indicates previous study results from September 22, 2008, to September 26, 2008 and the bold number in brackets represents study results from November 2, 2009, to November 5, 2009.

September 2008 Data

In total, 567(282+285) heavy vehicles were recorded utilizing Melville Avenue throughout the four days the studies were conducted, resulting in an average of 1.4% of the overall traffic. Of those 567 heavy vehicles there were 495 recorded in the classifications between class 6 and class 8, 51 recorded in classes 9 and 10 and the remaining 21 vehicles were recorded between classes 11 and 13.

November 2009 Data

In total, 443(177+266) heavy vehicles were recorded utilizing Melville Avenue throughout the three days the studies were conducted, resulting in an average of 1.3% of the overall traffic. Of those 443 heavy vehicles there were 398 recorded in the classifications between class 6 and class 8, 33 recorded in classes 9 and 10 and the remaining 12 vehicles were recorded between classes 11 and 13.

Vehicle Classification

The traffic counters class a vehicle by axle and not by numbers as was done in the past. The classification of heavy trucks are indicated by 3 single axles to 6 axles or more. (Please refer to Attachment No. 3 - The Federal Highway Administration Vehicle Classification Figures for a graphical representation of the different vehicle classes).

Class	Vehicle Classes	Definitions
6	Three-Axle Single-Unit Trucks	<i>All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with three axles.</i>
7	Four or More Axle Single-Unit Trucks	<i>All trucks on a single frame with four or more axles.</i>
8	Four or Fewer Axle Single-Trailer Trucks	<i>All vehicles with four or fewer axles consisting of two units, one of which is a tractor or straight truck power unit.</i>
9	Five-Axle Single-Trailer Trucks	<i>All five-axles vehicles consisting of two units, one of which is a tractor or straight truck power unit</i>
10	Five or fewer Axle Multi-Trailer Trucks	<i>All vehicles with five or fewer axles consisting of three or more units, one of which is a tractor or straight truck power unit.</i>
11	Six or More Axle Single-Trailer Trucks	<i>All vehicles with six or more axles consisting of two units, one of which is a tractor or straight truck power unit.</i>
12	Six-Axle Multi-Trailer Trucks	<i>All six-axles vehicles consisting of three or more units, one of which is a tractor or straight truck power unit.</i>
13	Seven or More Axle Multi-Trailer Trucks	<i>All vehicles with seven or more axles consisting of three or more units, one of which is a straight truck power unit.</i>

The Deputant identified to staff that the traffic volume on Melville Avenue is the same as the traffic volume of Jane Street (between Rutherford Road and Major Mackenzie Drive). Engineering Services staff have received the latest traffic volume data from the Region of York for Jane Street, which is summarized below along with the data for Melville Avenue.

Street	Total 24Hr Volume
Jane Street	25,074 vehicles
Melville Avenue	12,373 vehicles

Request for the Speed Limit Reduction to 40km/h

Staff have reviewed and analyzed the traffic data collected over a 3 day period in November 2009 on Melville Ave and have reported:

That 85th percentile speeds (average speeds) are 59 km/h (51km/h) and 67 km/h (60 km/h) in the northbound and southbound directions respectively;
The traffic volume over the same 3 day period was 19,082 and 16,439 vehicles in the northbound and southbound directions respectively.

NOTE: The 85th percentile speed is the speed at which 85 percent of the motorists are travelling at or below.

Based on the design criteria for a road of this classification:

- Melville Avenue would have been designed to 70km/h (given that there are no homes fronting, nor any institutions).
- the traffic volumes recorded and the 85th percentile speeds are in keeping with industry standards.

- there was only 1 reported vehicle accident at the intersection of Melville Ave and Norwood Ave that has been received from York Regional Police in 2009.
- there are no schools immediately fronting on to this area.
- both the average and 85th percentile speeds are appropriate for a four-lane collector type roadway.
- there are no residential homes with frontage onto the roadway.

In addition, there are traffic signals on Melville Avenue at Springside Road as well as Avro Road. There is a pedestrian signal located at West Maple Creek Park (south of Norwood Avenue), and an all-way stop control at Hawker Road.

The lowering of the speed limit from 50 km/h to 40 km/h on Melville Avenue between Rutherford Road and Major Mackenzie Drive will likely create a speed enforcement issue for York Regional Police.

In view of the above, traffic on Melville Avenue is operating in a safe and efficient manner, which does not require the implementation of a truck prohibition or a reduction in the speed limits.

Engineering Services staff received comments from the Public Works Department that due to their operations, snow ploughs, salters, sweepers, vacuum trucks and other large trucks need daily access to/from the east access of the Joint Operations Centre to Melville Avenue. Also during the winter months, these operations have to respond quickly in the Maple and north east areas of the City, which would be affected with any such prohibition.

Engineering Services staff also received comments from the store owner of the Fortino's Supermarket located on the southwest corner of Major Mackenzie Drive and Melville Avenue. The owner indicated that all the supplier trucks are required to access the site from Melville Avenue to the back of the receiving area located at the rear of the building. If a 'Heavy Truck' prohibition was to be implemented on Melville Avenue, it would affect their deliveries.

Relationship to Vaughan Vision 2020/Strategic Plan

In consideration of the strategic priorities related to Vaughan Vision 2020, the recommendations of this report will assist in:

- Pursue Excellence in Service Delivery;
- Enhance and Ensure Community Safety, Health & Wellness; and
- Lead and Promote Environmental Sustainability

This report is consistent with the priorities previously set by Council.

Regional Implications

Not Applicable.

Conclusion

Based on Engineering Services staff review, it is recommended that a "Heavy Truck" prohibition not be implemented on Melville Avenue between Rutherford Road and Major Mackenzie Drive; that the existing speed limit not be reduced from 50 km/h to 40 km/h on Melville Avenue between Rutherford Road and Major Mackenzie Drive and that a Community Safety Zone not be implemented from the north limit of West Maple Creek Park to Springside Drive.

Attachments

1. Location Map
2. The Federal Highway Administration Vehicle Classification Figures

Report prepared by:

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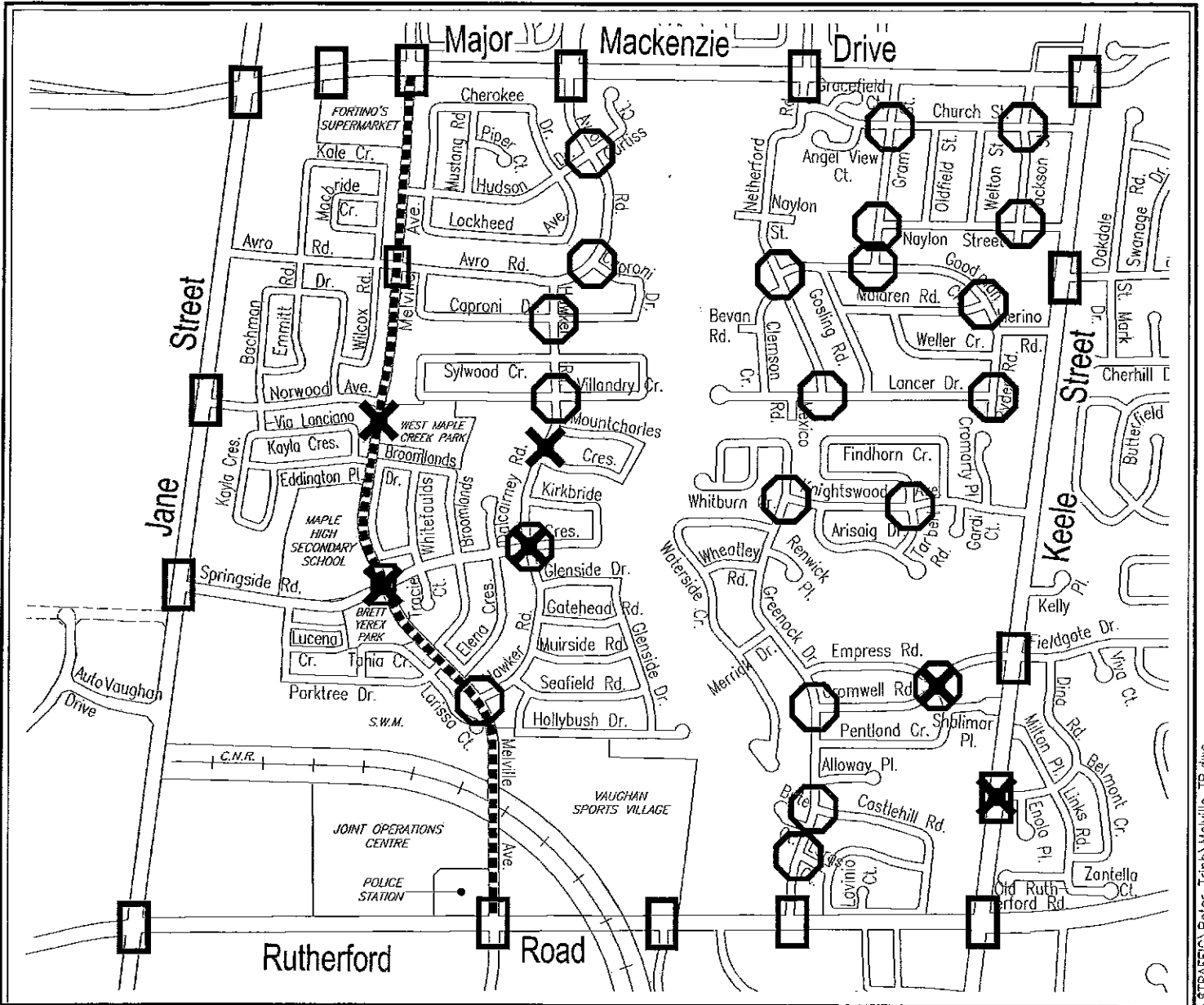
Respectfully submitted,

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

Jack Graziosi, P. Eng., M. Eng.
Director of Engineering Services

MD:mc

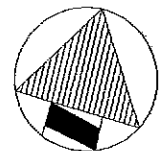
ATTACHMENT No. 1



MELVILLE AVENUE TRAFFIC CONTROL REVIEW

LEGEND

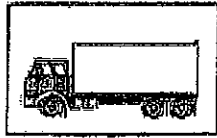
- ROADWAY UNDER REVIEW
- EXISTING TRAFFIC SIGNALS
- EXISTING ALL-WAY STOP CONTROL
- ✕ EXISTING SCHOOL CROSSING GUARD



NOT TO SCALE

ATTACHMENT NO. 2

FHWA Vehicle Classification Figures



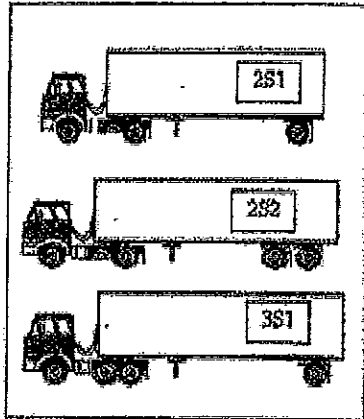
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Figure 1-19. FHWA Class 6 --- 3 Axles, Single Unit



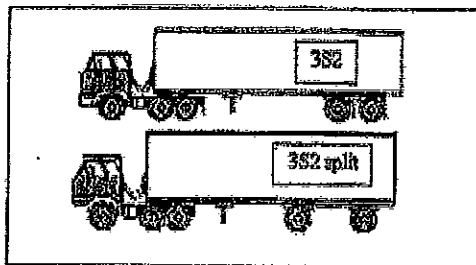
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Figure 1-20. FHWA Class 7 --- 4 or More Axles, Single Unit



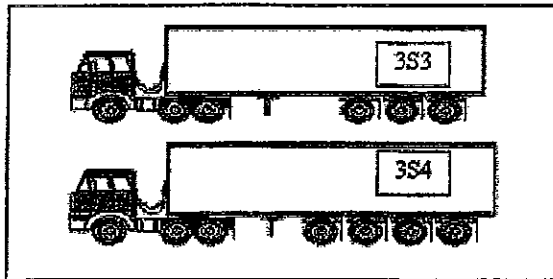
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Figure 1-21. FHWA Class 8 --- 3 to 4 Axles, Single Trailer



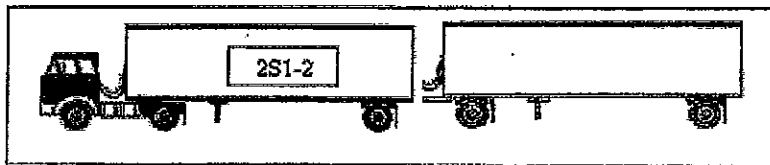
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Figure 1-22. FHWA Class 9 --- 5 Axles, Single Trailer



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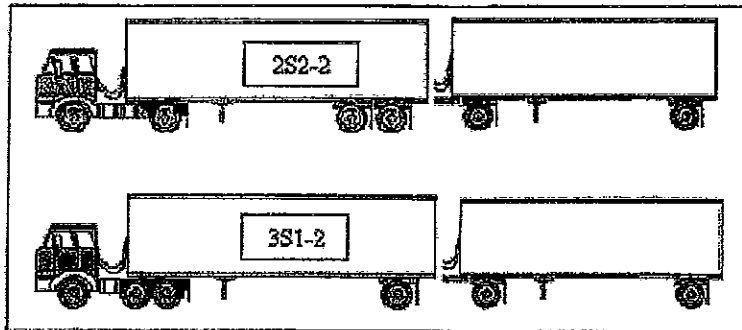
Figure 1-23. FHWA Class 10 --- 6 or More Axles, Single Trailer



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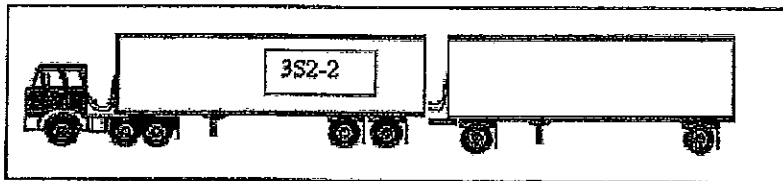
Figure 1-24. FHWA Class 11 --- 5 or Less Axles, Multi-Trailers



Anchor:

#1061931

Figure 1-25. FHWA Class 12 --- 6 Axles, Multi-Trailers



Anchor: #1061933

Figure 1-26. FHWA Class 13 --- 7 or More Axles, Multi-Trailers