



Building Markham's Future Together
Journey to Excellence

Truck Side Guards and Other Safety Measures for Cyclists

Presentation to General Committee
June 16, 2014

AGENDA

1. Background
2. Pedestrian and Cycling Safety Measures
3. Side Guards Implementation
 - Purpose of Side Guards
 - Transport Canada Policy
 - Recommendations of other GTA Cities and Advocates
 - City Fleet Inventory
 - Eligible Fleet for Side Guard Implementation
 - Alternative Options to Enhance Safety
4. Municipal Comparison and Collision Statistics
5. Conclusions

Background

Council at its meeting held on Feb 28, 2012 directed that staff research and report on recommendations to improve the safety of cyclists in Markham.

The research and recommendations were to consider amongst other safety measures the implementation of side guards for Markham owned trucks and review policies for possibility of engaging City vendors to implement truck side guards where appropriate.

Council further requested staff to report on:

- Position of Transport Canada regarding side guards on large trucks
- Response by other municipalities in the GTA to the 1998 Toronto Regional Coroner's recommendations
- Collision information involving cyclists within the City of Markham since 2007
- Results of the Transportation Association of Canada (TAC) study on 'Safe Accommodation of Vulnerable Road Users and Large Commercial Vehicles'
- Information on how other jurisdictions within the GTA have addressed the issue of large trucks and pedestrian and cyclist safety

Cycling Safety Measures

Cycling safety initiatives are identified by the Cycling and Pedestrian Advisory Committee (CPAC) through active engagement in:

- the City's infrastructure development by providing input into the City's Official Plan, Community Concept Plans, Secondary Plans, etc.
- reviewing the City's annual sidewalk construction program, environmental assessment/capital programs
- and conducts education and outreach programs

The Committee's 2014 business plan includes providing input to the master planning of the City's Future Urban Area and other Community Secondary Plans.

Cycling Safety Measures - Contd

- Cycling safety enhancements incorporated into the design and construction of City and Regional infrastructure including Traffic Signal Management Initiatives to enhance cycling and pedestrian safety
- Implementation of the Markham Cycling and Pathway Master Plan
- Promote CPAC's Education and Outreach Programs through the City's portal

Collision Statistics - Markham

Year	Total Pedestrian/ Cyclist Injuries	Truck Involved Pedestrian/ Cyclist Injuries	Total Pedestrian/ Cyclist Fatalities	Truck involved Pedestrian/ Cyclist Fatalities
2008	51	0	0	0
2009	31	2	0	0
2010	42	0	1	0
2011	62	0	0	0
2012	48	0	0	0
2013	8	0	1	0
Total	242	2	2	0

Collision Statistics - Toronto

Year	Total Pedestrian Injuries	Truck Involved Pedestrian Injuries	Total Pedestrian Fatalities	Truck Involved Pedestrian Fatalities
2001	2,455	22	32	1
2002	2,397	16	50	1
2003	2,326	16	43	1
2004	2,102	23	28	0
2005	2,113	37	29	2
Annual Avg.	2,279	22.8	36.4	1

Side Guards Implementation

European



North American



Side Guards Implementation - Purpose

- Installed on light and heavy duty commercial vehicles
- Intended to reduce the severity of injury to pedestrians and cyclists
- Intended to prevent pedestrians and cyclist from falling under the side of a vehicle and being caught by the wheels
- Required/legislated on some heavy duty commercial vehicles in the United Kingdom (U.K.) since the 1980s and recently in Japan
- Approx. 20% of the heavy duty vehicles in the UK are exempt from the use of side guards e.g. snow removal trucks, military vehicles, specialized road cleaning trucks and garbage trucks

Side Guards Implementation – Transport Canada Policy

The Transportation Canada's position on Truck Side Guards is as follows:

- The March 2010 study conducted by Transport Canada with the National Research Council (NRC) that included a review of studies conducted in the United Kingdom (UK) has shown that there is no sufficient evidence to link cycling and pedestrian safety with the installation of side guards.
- Subsequently Transport Canada as of date does not mandate the installation of side guards on trucks.

Recommendations of Other GTA Cities and Advocates

Private Members Bill C-344

Bill C-344 was introduced in the House of Commons in the fall of 2011 by Olivia Chow, MP, Trinity-Spadina, to amend the Motor Vehicle Safety Act. The bill would make sideguards mandatory on heavy trucks. The Bill has passed first reading which means that it has been introduced in the House of Commons and has been printed and distributed.

To date there has been no further action in the House of Commons with respect to Bill C-344. All bills must pass three readings in the House Of Commons and again in the Senate before receiving Royal Assent from the Governor General and becoming law.

Recommendations of Other GTA Cities and Advocates - Cont'd

Response By Other GTA Municipalities

- To date, no other municipalities in the GTA or Province of Ontario have adopted truck side guards into their respective fleet vehicles.

Side Guards Implementation – City Fleet Inventory

The City has an inventory of 250 licensed and 650 non licensed vehicles in its inventory

- Licensed Vehicle - Requires the driver/operator to hold a valid license issued by the Ministry of Transportation appropriate for the category the vehicle belongs to (i.e. trucks, cars, plows etc)
- Non Licensed Vehicle - Does not require the driver/operator to hold a valid license (i.e. tractors, loaders, mowers, etc.)

Side Guards Implementation – Eligible Fleet

Out of the 250 licensed vehicles in the City's Fleet, 9 vehicles conform to the criteria established in the United Kingdom for installation of side guards

- Seasonal installations:

Out of the 9 vehicles eligible, 7 of these units are utilized for winter maintenance operations, therefore only seasonal installations would be practical

- Permanent installations:

The remaining 2 vehicles would be candidates for permanent side guard retrofits

Alternative Options to Enhance Cyclist Safety

- Staff recommend vehicle specifications be reviewed for those eligible licensed units (9 units) to incorporate modifications that will enhance cyclists safety to include:
 - ☐ Additional mirrors
 - ☐ Mid ship signal lights
 - ☐ Audible Warning Devices interlocked with turn signal systems
- The estimated cost per unit for these modifications would be in the range of \$800 to \$1000 per unit for retrofitting existing units and \$500 to \$600 for new vehicle purchases.
- In house driver training/safety programs are being updated to reflect raised awareness for cyclists and pedestrian safety

Conclusions

- In an effort to enhance pedestrian/cyclist safety, Operations staff recommend the following:
 - ❑ Installation of safety devices for existing eligible fleet be included in the 2015 Capital budget and implemented in 2015. (Estimated cost \$7,200 to \$9,000)
 - ❑ Fleet specifications for new purchases of eligible units be modified to include additional mirrors, mid ship signals, audible warning devices etc.
 - ❑ Update fleet life cycle replacement program to reflect these changes to vehicle specifications
- Staff continue to monitor the research and studies by the National Research Council and Transport Canada on enhancements to improve safety for cyclists and pedestrians.

Conclusions – Cont'd

- Until there is legislative framework in place for truck side guards, Operations does not recommend these be mandated for contracted vehicles used on City construction projects and maintenance contracts, but could encourage their use.
- Clerks Department convey Council's support and request the Federation of Canadian Municipalities to support Bill C-344 calling for mandatory side guards on large trucks.