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2006 YORK REGION CORDON COUNT PROGRAM - TRAVEL CROSSING REGIONAL BOUNDARIES

The Planning and Economic Development Committee recommends the adoption of the recommendation contained in the following report dated June 4, 2007, from the Commissioner of Planning and Development Services:

1. RECOMMENDATION

It is recommended that the Regional Clerk forward copies of this report to the Ministry of Transportation, the City of Toronto, GO Transit, the Toronto Transit Commission, the Regional Municipalities of Peel and Durham and the nine Local Municipalities of York Region.

2. PURPOSE

The purpose of this 2006 cordon count program is to report time-series information on changes in the number of persons and vehicles crossing given screenlines in York Region. Screenlines are imaginary lines such as municipal boundaries, major roads, highways or rivers that provide some meaning to travel interchanges between the areas that they bound. The surveys are conducted by measuring the total traffic volume on an average weekday, classified by type of vehicle and occupancy. The classifications are as follows:

- Passenger cars, cabs and light trucks, with 1, 2, 3, 4 and more occupants.
- Medium, and heavy trucks.
- York Region Transit (YRT), VIVA, Brampton Transit, TTC, GO Transit, school buses, and other.

All day 12-hour counts (7:00 a.m.-7:00 p.m.) were conducted on weekdays (excluding Fridays) during the months of April and May. This provides a strategic snapshot of travel behaviour and changes in travel patterns across the north/central part of the Greater Toronto Area, and is done in conjunction with the Regions of Durham and Peel and the City of Toronto who conduct similar surveys at the same time. Assistance in counting some local roads was also provided by the local municipalities.

Some of the major findings are:

- All the screenlines experienced growth in vehicle trips, some more than others. This growth ranged between 8% along Georgina-East Gwillimbury screenline to 30% across the York-Durham screenline.
- Transit market share generally increased at all major screenlines, reversing a 10-year declining trend.
- Average car occupancy has dropped in most areas, prolonging a worrisome trend.

3. BACKGROUND

Cordons and screenlines are synonymous; cordons can also be a set of screenlines that delineates an area of interest, such as a central business district. Cordon counts are conducted every five years and timed to coincide with other programs such as the Transportation Tomorrow Survey (TTS) and the Federal Statistics Canada Census. The last full cordon count was conducted in 2001. The data collected in 2006 was compared to the 2001 counts along York Region's screenlines, which are defined by municipal boundaries and highways. Collecting consistent and accurate traffic information is a very important component of the planning process for all the regions of the GTA.

The cordon count program and the TTS are part of York Region's total transportation system monitoring program. The TTS was last conducted in the fall of 2006 and its results will be reported in the fall of 2007.

4. ANALYSIS AND OPTIONS

A cordon count program is undertaken on a regular basis once every five years along the same screenlines. It is considered very important to monitor internal changes in travel patterns within the Region and interregional behaviour at the boundaries. The report sheds light on the impact of economic activities on travel patterns and assists in monitoring the planning policies of the Region's Growth Management Strategy.

There has been strong growth in York Region and this growth is planned to continue. However, since there are limited opportunities to expand the road capacity beyond the built-out level that is scheduled, there are aggressive attempts to increase transit usage and auto occupancy through improved transportation services and transportation demand management measures.

4.1 Format of the Report

The York Region '2006 Cordon Count Bulletin' will be distributed at the Committee meeting. Information in this report shows the change in traffic that has taken place between the years 2001 and 2006. A summary of results for the all day period (between 7:00 a.m.-7:00 p.m.), the morning peak period (between 6:30 a.m.-9:30 a.m.), and the afternoon peak period (between 3:30 p.m.-6:30 p.m.) are shown.

A detailed schematic map showing the location of each of the screenlines referred to in this report is shown in the summary bulletin (*Council Attachment 1*).

4.2 Highlights

- Since the last full cordon count program in 2001, York Region has continued to experience rapid growth. The Region's population has grown from 759,320 to 929,950 (23%), and employment has risen from 380,800 to 454,900 (20%). This continuous growth requires additional transportation services and infrastructure. The rapid population growth has been partially due to York Region's strategic location directly north of the City of Toronto. Although most of this growth has been concentrated in the southern area municipalities, new development in municipalities to the north – Newmarket, Aurora, Keswick, and the external areas in Barrie and Simcoe County have also had a considerable effect on total traffic increases. This bulletin provides a strategic one day snapshot of traffic into, out of and within the Region.
- Transit ridership across the Toronto screenline has grown considerably. Over 13,000 new morning rush period transit riders are using the various VIVA, GO and Regional buses. This translates into a transit growth rate of over 50% and an increase in transit market share (or modal split) of 3%. This significant change in transit usage is most noticeable across the Toronto boundary where the transit share is up by 38% in the morning peak and 50% in the afternoon peak (see Table 1). This reverses a declining trend of ten years ago and sets transit forward on a positive note. This increase in the transit usage rate is attributed to the considerable number of local service improvements and new routes since the amalgamation into YRT of all the municipal transit services in 2001, and to the more recent VIVA rapid transit initiatives. The sharp increase in fuel costs from the 2001 price level, and the gridlock congestion conditions on most of the major roads may also be factors.

Table 1
Toronto Cordon (Steeles Avenue)

York - Toronto	2001	2006	%Change 2001-2006
Total Vehicle trips (12 hour) 2 way	910,990	1,012,240	+11.1%
A.M. Peak 3-hour - NB	105,180	113,500	+7.9%
A.M. Peak 3-hour - SB	147,090	155,531	+5.7%
% Truck Usage (12 hour) 2 way	6%	5%	-1%
Total Person trips (12 hour) 2 way	1,099,770	1,252,640	+13.9%
A.M. Peak 3-hour - NB	123,830	137,430	+11.0%
A.M. Peak 3-hour - SB	177,440	195,830	+10.4%
Average Car Occupancy 2 way	People	per vehicle	
A.M. Peak 3-hour	1.12	1.12	No change
P.M. Peak 3-hour	1.18	1.17	-0.01
12 hour	1.16	1.16	No Change
Transit Usage 2 way			
A.M. Peak 3-hour	8%	11%	+3%
P.M. Peak 3-hour	6%	9%	+3%
12 hour	5%	7%	+2%

- Change in traffic volumes has occurred across all the screenlines. Peak period traffic continues to increase despite high congestion levels at the York-Toronto boundary.
- There have been 13,600 new person trips crossing the Toronto boundary in the reverse flow direction during the morning rush period compared to an increase of a total 18,400 southbound morning peak period trips since 2001. The reverse flow across the Toronto screenline has increased at a faster rate than peak direction traffic and is a result of all the new employment that has been created in York Region.
- All the screenlines experienced growth in vehicle trips, some more than others. This growth ranged between 8% along Georgina-East Gwillimbury screenline to 30% across the York - Durham screenline.

Table 2
Change in Vehicular Traffic across Screenlines in York Region

Cordon	Number of Vehicles 12-Hour Period		Change	Number of Vehicles AM Peak Period		Change
	2001	2006		2001	2006	
York-Toronto	910,990	1,012,240	+ 11.1%	252,270	269,030	+ 6.6%
York-Peel	169,510	192,990	+13.9%	50,970	58,970	+15.7%
York-Durham	61,790	80,210	+29.8%	18,560	25,470	+37.2%
York-Simcoe	86,200	107,000	+24.1%	24,070	28,180	+17.1%
South York	225,540	277,210	+22.9%	70,410	82,820	+17.6%
Highway 400	260,190	320,310	+23.1%	73,960	91,790	+24.1%
Highway 404	278,700	321,450	+15.3%	77,050	91,860	+19.2%
Georgina-East Gwillimbury	61,650	66,450	+ 7.8%	16,710	18,750	+12.2%
Ravenshoe	32,280	36,310	+12.5%	9,660	10,950	+13.4%

- In 2006 the Provincial 400 series highways carry approximately 38% of all traffic into and out of the Region, as was the case in 2001.
- Average car occupancy rates have dropped in most areas as shown in Table 3. This could be due in part to an increase in transit usage. Counts indicate there has been a significant upward trend in transit usage across almost all screenlines except the South York screenline and Durham and Peel boundaries. There have also been number of active attempts to encourage growth in car occupancy rates such as the introduction of carpool initiatives, along with other Smart Commute programs throughout the GTA, but to date they have not yet had an overall noticeable affect

Table 3
Average Auto Occupancy by Screenline

Cordon	Average 12-hour Auto Occupancy		Difference	Average AM 3-hour Auto Occupancy		Difference
	2001	2006		2001	2006	
York-Toronto	1.16	1.16	0	1.12	1.12	0
York-Peel	1.11	1.12	0.01	1.10	1.08	-0.02
York-Durham	1.15	1.16	0.01	1.10	1.09	-0.01
York-Simcoe	1.19	1.16	-0.03	1.11	1.10	-0.01
South York	1.13	1.14	0.01	1.11	1.10	-0.01
Highway 400	1.15	1.13	-0.02	1.11	1.10	-0.01
Highway 404	1.15	1.13	-0.02	1.13	1.10	-0.03
Georgina-East Gwillimbury	1.21	1.17	-0.04	1.20	1.12	-0.08
Ravenshoe	1.21	1.20	-0.01	1.16	1.14	-0.02

- All day person trips across all screenlines continued to grow between 2001 and 2006. This growth ranged between 5% at Georgina-East Gwillimbury cordon and 31% at the Durham boundary. Highway 407 accounted for 44% of the traffic crossing York-Peel Boundary and 26% of the traffic crossing the York-Durham Boundary.

4.3 Relationship to Vision 2026

The Vision 2026 goal statement indicates that “In 2026, York Region will have an effective, efficient and environmentally sensitive transportation system”. The aim is for less dependence on the automobile and full coordination of all types of public transit. The Cordon Count Program monitors the progress of the Region’s ambitious twenty-five year strategic Growth Management plan towards sustainability in environmental, social and economic benefits in response to the needs of our residents.

5. FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

6. LOCAL MUNICIPAL IMPACT

The Cordon Count Technical Bulletin and the detailed traffic database will be made available to all area municipalities free of cost.

7. CONCLUSION

A regular monitoring program is an essential component in road operations and an important tool for planning purposes. It is conducted every five years to coincide with Transportation Tomorrow Survey (TTS) and the Federal Census counts. York Region conducts counts in intermittent years to update the data in support of the Region’s planning and transportation initiatives.

VIVA and other new transit service initiatives have had a positive impact on traffic levels. There has been an increase in transit usage at most of the screenlines. These initiatives have diverted an estimated 41,000 daily additional vehicles off our roads at the surveyed sites. This is equivalent to a four lane Regional road. In addition, the Region is coordinating efforts throughout the GTA to develop car pooling initiatives in order to reduce the rapid growth in vehicular traffic.

The transportation data from this and earlier studies is available in more detailed form for historical and site specific traffic analysis. This information is used extensively for research and planning studies by each of the regions in the GTA, GO Transit, the Province, local municipalities, universities and planning and engineering firms.

For more information on this report please contact Omeed El-Zabet, Transportation Engineer – Modelling, Infrastructure Planning Branch at (905) 895-1200 ext. 5028 or omeed.el-zabet@york.ca.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)